

HaRakevet

A Quarterly Journal on the Railways of Israel and the Middle East
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Possibly soon to become an historic image, if rumours of closure of this line and replacement by a conveyor belt become true!
Aqaba Hejaz Railway. ARC GE C24 MMI 2400 hp CO-CO (remanufactured 2007) no. 704 & GE U20C 2,150 hp CO-CO (1980) no. 301 coupled together and an empty phosphate train waiting to enter the El Shidiye phosphate mine branch. (Photo Harel Even).

119:01

119:01a



: A railway station and transport interchange is to be built at Shefayim north of Herzliyya. Computer image courtesy of the architects Farkhi-Zafirir.

EDITORIAL

Another busy quarter lies behind us and with this issue we close 2017. In Israel there have been many developments in connection with the modernisation, expansion and electrification projects – see below. In our rubric on 'Other Middle East Railways' we include this time historic notes on Lebanon, Yemen and even 'Palestine', countries where there are currently no functioning railways – whereas in other places there are surprising revivals (Syria) or steady expansion (Iran). One major item of news from our own perspective is that Jeremy has completed placing all back numbers onto the online archive – a massive piece of work! It needs repeating that the pace of change is such that anyone who has not visited Israel for, say, ten years will simply not recognise the railways as they are now, and the same will apply in another decade too, so it is important that we simply note 'for the record' what is happening and when.

Enjoy! The Editor.

119:04.

Subscription renewals are due 1st January. Forms will be included where necessary.

NEWS FROM THE LINE.

(i). CHANGES TO JERUSALEM LINE SERVICES.

Just as we went to press, on 12th. September, Sybil wrote: "Quite by chance, when looking at the IR website, I saw this notice. Trains from Herzliya terminate at Beit Shemesh, and passengers for Jerusalem need to change trains. Some of the changes involve an inordinately long wait, but there are more trains to Jerusalem. It apparently started today because the timetable for today is the new split one.

Trains between Beit Shemesh and Tel Aviv (in both directions) continue as normal, no change to the timetable.

Sunday-Thursday:

Beit Shemesh to Jerusalem at 06:16, 07:16, 08:16, 09:16, 10:58, 11:58, 12:58, 14:41, 15:41, 16:41, 17:41, 18:41, 19:41, 20:29, 20:41, 21:41.

Jerusalem to Beit Shemesh at 06:06, 07:06, 08:06, 09:06, 10:47, 11:47, 12:47, 14:30, 15:30, 16:30, 17:30, 18:30, 19:30, 20:31, 21:31.

Fridays: Beit Shemesh to Jerusalem 07:59 and hourly to 14:59

Jerusalem to Beit Shemesh 07:46 and hourly to 14:46

Saturdays:

Beit Shemesh to Jerusalem 22:59

119.03. An image of how Lod station and associate transport interchange will soon look....



Jerusalem to Beit Shemesh 21:45

I popped into Beit Shemesh station on my way home from work today. Neither Yossi nor Moshe was there, but the woman in the ticket office – who knows me well! – told me it started unofficially today, officially tomorrow (whatever that is supposed to mean....) It's bizarre to do this midweek, and presumably when the new timetables including Karmiel (starting next Wednesday) have already been printed.

I thought the trains from Herzliya to Beit Shemesh would be double-deckers, but so far they are not – at least according to the eyewitness reports that I've received."

Friday:

Beit Shemesh to Jerusalem 07:59 and hourly to 14:59

Jerusalem to Beit Shemesh 07:46 and hourly to 14:46

Saturday:

Beit Shemesh to Jerusalem 22:59

Jerusalem to Beit Shemesh 21:45

(ii). NEW TIMETABLE OF AUTUMN 2017.

From a press release of 12.09.2017 by Israel Railways Ltd.:

"The railways are proceeding with implementation of the vision for 2022, and are about to publish the new timetable for the autumn of 2017, in which 516 trains will operate daily compared with current 468 trains daily; an increase of 10%.

The new timetable is to be introduced at the eve of the Jewish New Year – 20.09.2017 - except for the changes on the old line to Jerusalem which start today and are to be reported further on. It includes for the first time the Galilee line between Carmiel, Ahihud, Haifa, Tel-Aviv and Beer-Sheva.

The new timetable includes also additional trains as well as additional halts on many lines, like Hadera West and the new station of Haifa Hamifratz Central (the station being built over Lev Hamifratz as an interchange between trains on the Valley Line and the Carmiel - Haifa and Nahariya – Haifa lines which run below, to be opened at the beginning of 2018.

The railways will care for maximal co-ordination regarding connectivity at changing trains; there will be also improvement of services between trains and buses on the Beer-Sheva North/University-Dimona line.

An additional passenger railway station to be opened at the end of 2017 is Kiryat-Malakhi-Yoav, on the line to Beer-Sheva north of Kiryat-Gat and south of Mazkeret Batya (under construction); the former name was Kfar-Menahem, but the Kiryat-Malakhi municipality insisted on calling it after this town, even though it is 14 km away from the station.

Regarding the line to Carmiel, the following data is revealed:

*Between Carmiel and Haifa Hof HaCarmel there will be 36 trains/day.

*Between Carmiel and Beer-Sheva Central (through Haifa and Tel-Aviv) - 15 trains/day; 7 trains in the morning; 8 at the afternoon.

*First train will depart Carmiel at 05:30 and arrive Haifa Hof HaCarmel 06:24.

*First train will depart Haifa Hof HaCarmel at 05:57 and arrive Carmiel 06:54.

*Latest train will depart Carmiel at 22:30 and arrive Haifa Hof HaCarmel 23:24.

*Latest train will depart Haifa Hof HaCarmel at 22:57 and arrive Carmiel 23:54.

Additional changes in the North:

Additional morning/afternoon/evening trains from Kiryat-Motzkín and Haifa Lev-HaMifratz to Tel-Aviv and Beer-Sheva and in the opposite direction; the public will enjoy these improvements thanks to the opening of the line to Carmiel.

When the Haifa Hamifratz Central station opens at the beginning of 2018, all the trains running between Atlit, Haifa and the Valley Line will call there.

Due to demand an additional fast train will be introduced between Hadera West and Beer-Sheva in each direction; it will leave Hadera West at 09:09; in the evening the fast train will leave Tel-Aviv Savidor/Central at 19:53; the result: instead of a single train between Hadera West and Tel-Aviv Savidor/Central between 19:30 and 20:30 there will be two trains, one of them fast.

In addition to the regular trains on the Nahariya - Modi'in Central and Nahariya – Beer-Sheva routes, local trains will operate at rush hours between Akko (Acre) and Haifa Hof HaCarmel in both directions; they will call at all intermediate stations.

Additional changes in the South:

During morning and afternoon rush hours a fast train is added on the Beer-Sheva - Hod HaSharon-Sokolov line; this train will leave Beer-Sheva Central station at 05:27, will not call at the stations of Bat-Yam and Holon, and will arrive at Tel-Aviv Savidor/Central at 07:14.

In the afternoon the fast train will leave Hod HaSharon-Sokolov station at 15:38, will call at Tel-Aviv Savidor/Central at 16:13 and terminate at Beer-Sheva Central at 18:01.

An early morning train has been added on the Beer-Sheva - Hod HaSharon-Sokolov line; the train will leave Beer-Sheva Central at 04:49.

The Ashkelon - Beer-Sheva line (the Negev line) enjoys additional trains, one of which will leave Ashkelon at 06:07 and will call at Sderot, Netivot and Ofakim; these additional trains are at the request of the area's population, many of whom are medical teams working at Beer-Sheva Soroka medical centre.

In the new timetable the connection between Beer-Sheva North/University and Tel-Aviv, as well as between Beer-Sheva North/University and the Negev line, has been improved in favour of passengers to/from Dimona.

There are additional late evening trains on the Hod HaSharon-Sokolov - Beer-Sheva line, as well as on the Negev line; these will call at all intermediate stations on the Negev line.

Additional changes in the Centre:

In order to improve the service between Herzliya and Jerusalem Malkha and regarding passenger demand, the long-awaited change of splitting the service at Beit-Shemesh has been introduced from 13.09.2017 (unlike other changes to be introduced on 20.09.2017).

The reason is simple: between Sunday and Thursday the main demand is between Beit-Shemesh and Tel-Aviv/Herzliya, currently operated by Bombardier IC3 Flexliners dmu's which have insufficient capacity; in the morning rush hours, passengers from Jerusalem will change at Beit-Shemesh and continue to Tel-Aviv/Herzliya on a Bombardier double-deck push/pull train with much higher capacity.

In the afternoon rush hours, passengers to Jerusalem will change at Beit-Shemesh within minutes to board an IC3 Flexliner dmu.

On Friday and Saturday nights, during which traffic is low, through services between Jerusalem and Tel-Aviv/Herzliya will be provided by direct IC3 Flexliners dmu's.

Finally, there will be more calls at Kfar-Habad station (between Lod and Tel Aviv); in the morning, 2 trains/hour to Tel-Aviv will call there, while in the afternoon 2 trains/hour from Tel Aviv will call at Kfar-Habad.

(iii). OPENING OF KARMIEL LINE.

This is how the story appeared in 'Railway Gazette Intl.' on 20.09.2017: Note different spellings!

"Regular passenger trains began running to the Galilean city of Karmi'el on September 20, with the start of revenue operation on ISR's 23 km 'Akko – Karmi'el branch. The double-track branch diverges from the Haifa – Nahariyya line between 'Akko and Kiryat Motzkin.

Built by Israel Roads Ltd at a cost of US\$785 M, the line had been officially inaugurated by Prime Minister Benjamin Netanyahu, Transport Minister Israel Katz and ISR General Manager Shahar Ayalon on September 5.

Described by IRL General Manager Nissim Peretz as a complex engineering project, the branch required the boring of a 4.7 km twin-bore tunnel under Mount Gilon. This is designed to accommodate 25kV 50Hz overhead wires in future as part of the national electrification programme. There is one intermediate station at Ahihud, which has parking for 230 cars; a further 700 spaces are provided at Karmi'el.

ISR's initial timetable provides 26 trains in each direction per day on the branch, running from 05.30 to 00.00. Of these, 18 trains each way run to or from Haifa Hof-haCarmel offering a journey time of 34 min for the 46 km between Karmi'el and Haifa Central at an average speed of 81 km/h. Additional trains operate at peak times to give 2 trains/h on the branch. These run through to or from Tel Aviv



Karmi'el station, 19.10.2017. Including view westwards towards Akko with the Lower Galilee mountains in the background. (By Aharon Gazit)



and Be'er-Sheva, covering the 137 km from Karmi'el to Tel Aviv Savidor in 90 min. There are seven through trains in the morning and eight in the afternoon.....

Announcing its results for the first half of 2017, ISR reported total ridership of 31.5 Million passengers, a 7% increase on the same period in 2016. Freight traffic also increased slightly to 4.5 Million tonnes."

(iv). AND A BIT OF POLITICAL SPIN.

New Karmiel-Tel Aviv train line to open, with access for Israeli Arab towns

From 'Times of Israel' online 17.09.2017:

"Pressure from equal rights group ensures that bus lines link Galilee Arab communities to stations for trains to the coastal hub". By Sue Surkess. September 17, 2017.

"Hundreds of thousands of Israeli Arabs from the Galilee in northern Israel will join their Jewish neighbours in enjoying a new fast train link to Tel Aviv, where jobs are in greater supply, after a campaign by a civic equality group sought to ensure equal access for all.

The 90-minute Karmiel-Tel Aviv line will open next week, along with two new stations, at Karmiel in the northern Galilee and Ahihud in the western Galilee.

The area around these towns is heavily populated by Israeli Arabs, among whom unemployment is relatively high.

Last year, state comptroller Yosef Shapira slammed the government for what he called a "grim and alarming picture of the employment situation among Israel's Arab population," saying recent government efforts to integrate Arabs into the workforce were "broken, ineffective and deficient" and that "the goals set by the government to promote employment equality and promote integration of the Arab sector are not being met."

Furthermore, the report found, the Arab community "suffers from ongoing discrimination."

Following intervention by Sikkuy – the Association for the Advancement of Civic Equality, together with lawmaker Dov Khenin, a member of the Joint (Arab) List party and chairman of the Knesset's subcommittee on public transportation, the Transportation Ministry announced the addition of bus lines and changes in the routes of existing lines to enable Arab citizens to reach the two new stations easily.

The ministry also pledged that all passengers boarding the train at Karmiel station and residents of 15 Arab villages boarding at Ahihud would get free train tickets for three months and a 50 percent discount on tickets for two years.

The 15 villages are Tamra, Aramshe, Shaab, Abu Snan, Jadida Makar, Arab El Naim, Kfar Yassif, Sheikh Danon, Yarka, Damida, Jules, Yirat, Majed al-Krum, Kaukab Abu al-Hija and Kabul.

"After decades in which Arab citizens were discriminated against in transportation services, the time has come for Israel Railways to be a means of transportation for all of us," Sikkuy said in a statement."

By 27.09 Aharon was able to report:

"The line to Karmiel seems to be a real success; particularly for early trains to Tel-Aviv and Beer-Sheva, but also for people from the centre who can now reach Karmiel within 90 to 100 minutes; less than half the time it takes by car or bus."

(v). 2017 FIRST HALF RESULTS.

We regularly receive very positive statistical reports. Here one of the latest sets: (see below for the Third Quarter ones which came in just before press date).

From a press release of 30.08.2017 by Israel Railways Ltd.:

"On Wednesday, 30.08.2017 the railways reported their achievements for the first half of 2017 (H1), including financial reports, according to which H1 is the seventh in a row to show a constant profitability; passenger traffic keeps rising, while also maintaining punctuality of more than 94%.

*The first half of 2017 (H1) shows a net profit of \$12.6M (NIS 45M); during this period the railways have signed new work agreements with the labour unions.

*The company enjoys a positive cash flow of \$5.3M (NIS 19M).

The railways continue their progress into the coming generations and are promoting programme developments such as completion of the AI, electrifying the network, purchase of new rolling stock and motive power, as well as investing \$9.2M (NIS 33M) in upgrading 10 railway passenger stations and adding 3,200 new parking places at 14 parking areas towards the rise in passenger traffic.

Passenger sector:

*During the first half of 2017 (H1) the railways carried about 31.5M passengers compared with 29.4M over the same period of 2016; a rise of 7%.

*The revenues - including operation fees - were \$280M (NIS 1Bn), compared with \$252M (NIS 0.9 Bn.); a rise of 9%.

*Daily average number of passenger carried was 239,000, compared with 213,000 over the same period of 2016; a rise of 12%.

*The record of daily passenger traffic has been achieved in May 2017: 299,000.

The lines with distinctive rise of demand were:

*Tel-Aviv – Jerusalem: 26%! This is really amazing particularly when referring to a sharply-curved line which is also longer than highway No. 1.

*Ashkelon – Beer-Sheva: 20%.

*Tel-Aviv – Hod-HaSharon: 8%.

Punctuality:

The average punctuality during H1 was 94.11%; between Akko (Acre) and Haifa Hof-HaCarmel it was 98.2%; between Beit-She'an (Valley Line) and Atlit (south of Haifa) 97.5%; Hod-HaSharon - Beer-Sheva : 95.9%.

It should be mentioned, however, that the railways had a good reason to mention these lines only; on other lines, particularly the coast line to Haifa where infrastructure works are constantly being carried out, punctuality is often down to 86% and even less!

Cargo sector:

*During 2017 H1, the railways carried 4.6M tons, 0.5% more than in the same period of 2016; it should be mentioned that cargo traffic is affected directly by line section closures for infrastructure works as in March 2017.

*The revenues from cargo were \$50.7M (NIS 181M); down from \$51.4M (NIS 183.6M) caused by 6% reduction in operating fees according to the operating contract.

Source: the Railways' Spokesman Office."

(vi). 125 YEARS ANNIVERSARY.

26.09.2017 was an historic date; The 125th anniversary of the first train in Palestine and Israel, which departed from Jaffa and arrived at Jerusalem on 26.09.1892!

Israel Railways Ltd. decided however to celebrate this between 08.10.2017 and 10.10.2017 at the railway museum located at Haifa East historical station.

The reason was simple: these three days are in the middle of Sukkot, the Jewish festival also known as Tabernacles, a vacation in which most of the population are travelling and taking excursions; the museum provided special activities and events, a lot of which were for children who would be able to operate systems etc.

Entrance to the museum was free for the public; what's more unique: for the first time after many years of passenger trains not calling at Haifa East station, special trains from Haifa Central brought passengers to the museum and back after early registration.

[Ed. What a pity IR will not be operating an Intercity-City 125' unit for the occasion! The area was decorated with balloons in the shape of '125'.]

(vii). SIEMENS WINS TENDER FOR I.R. ELECTRIC MULTIPLE UNITS (EMU'S).

"Israel Railways Ltd. announced on 26.09.2017 to the Tel-Aviv Stock Market and to the Israeli Stock Authority that Siemens Transportation had won the double-deck emu's tender (the procedure lasted 12 months).

This refers to the following three companies of Siemens Transportation:

1. Siemens AG.
2. Siemens Austria.
3. Siemens Israel Ltd.

Siemens will supply 60 double-deck emu's totalling 330 cars, providing about 33,000 seats. Siemens will build a special depot for the emu's; the railways will also receive maintenance services from Siemens. The payments by the railways will be as follows:

1. \$0.91Bn (NIS 3.2 Bn) for the 60 emu's.
2. \$65.3M (NIS 230 M) for the maintenance service.
3. \$113.6M (NIS 400 M) for maintenance service for the first 24 emu's, to be paid through the whole time of the emus' useage; maintenance of the other 36 emu's is to be performed - as per the railways' decision - either by Siemens as priced in the contract, or by another service provider.

There is an option to purchase additional emu's for 10 years from the contract signing and as priced in. The arrival of the first emu's is forecast for 2020, the remainder to be supplied during the following five years.

The contract regulates the distribution of works between the three Siemens companies; the contract signing will be with all the three together.

The contract has still to be approved by the Authority of Industrial Cooperation in the Economy Ministry."

[Ironically on the day this was announced, it was also announced that the Rail section of Siemens was to merge with Alstom.]

Here is how 'R.G.I.' reported it on 28.09.2017:

"Israel Railways has named Siemens as the winner of a contract to supply a fleet of double-deck electric multiple-units to support its 25 kV 50 Hz electrification programme.

Subject to the Ministry of Economy granting final approval for the contract, Siemens is to supply 60 four-car and six-car EMUs totalling 330 cars for US\$910M. Deliveries are scheduled to run from 2020 to 2025. There is a priced option for the purchase of additional EMUs within 10 years of the contract signing.

The manufacturer would be responsible for maintenance of the first 24 EMUs under a US\$114m contract, using a depot to be built in Ashkelon. ISR has an option for the maintenance of the other 36 units to be performed either by Siemens or by another provider.

Alstom, Bombardier Transportation, Hitachi Rail Italy, Siemens, Škoda Transportation and Stadler had submitted best and final offers for the EMU contract in September 2017; it is understood that Alstom and Siemens made it to the final shortlist."

(viii). NEW LOD HEADQUARTERS INAUGURATED.

On 03.10.2017 the new and modern building of Israel Railways Ltd. General Management at the station of Lod was officially inaugurated, although it had already been in use for several weeks.

The ceremony was with the participation of Transport Minister Mr. Israel Katz, the mayor of Lod Mr. Haim Revivo, and was hosted by Israel Railways Ltd. General Manager Mr. Shahar Ayalon.

All these agreed in their greetings that this is not just a new building for the railways' management but also a renaissance of the city itself and for the station a comeback to its historical role as a junction, and now as one of the railways' biggest depot and logistic and operational centres. A surprise attendee at the ceremony was Mrs. Gila Edrei, once the leader of the railways' workers union; she had been forced to step down in the time of the former General Manager Mr. Zafrir, remained working as a senior purchaser (in which she is a specialist), and now, with the current general manager returned to the leadership.

(ix). DESTINATION ISRAEL.

In 'Lok Magazin' 10/2017 pp.54f. is an illustrated article by Jürgen Hörsel on the production and delivery of the IR 'Traxx 3' locos.

"At the end of July the first TRAXX 3 for Israel Railways, together with six double-deck coaches, was loaded into the MS 'Normed Antwerpen' at the Neustädter Hafen in Bremen. Following calls at British ports and also in the Mediterranean, the sea journey took around 14 days before the ship docked at Haifa.

At this point a further prototype was on its way for test runs on the Czech test ring near Velim, and the third loco had just returned from there. Bombardier's TRAXX Platform concept can now therefore be seen as gaining interest outside Europe, where some 1,800 locomotives are already in operation.

The contract for the delivery of 62 locomotives for Israel Railways was signed on 20th. September 2015, according to the list price with a total volume of some 230M Euros and including also an option for a further 32 locos.

Israel State Railways have enjoyed for many years a steep growth in demand; the network is being extensively modernised and also expanded through construction of new lines. An important part of this is the electrification of, initially, ca. 420 route kilometres with 25kV/50Hz. The new electric locos should step by step replace the existing diesels and will be used mainly with the 369 double-deck carriages built by Bombardier which are already in use in Israel – these were ordered by IR from 1999. By 2019 a further 93 carriages will have been added.

With a top speed of 160km/h the locos are initially intended for passenger traffic; their first use is planned for the new line Tel Aviv – Jerusalem. However a later use in freight traffic with trains of up to 3,600 tons in triple traction is possible and is being considered.

In contrast to the normal TRAXX AC3 (as for example used as Deutsche Bahn classes 147 and 187) the IR locos have some additional ventilators for the machine room. Further, due to the higher temperatures in Israel, they have an additional air-conditioning unit on the roof above the driving cabs – similarly to the Spanish TRAXX-DC variant of class S 253.

Due to the not-always possible regenerative power on falling gradients there are additional brake resistances which should prevent an overload of the catenary during electrical braking. In the cabs the driving desk is fitted to the left side in accordance with the left-track operation. For energy supply to trains DC at 400V is used; with 6.4 Megawatt the acceleration power is 300 Kilonewton.

For the safety systems a slightly modified Indusi and ECTS Level 2 are fitted. In contrast to sister

locos used in Europe no Flex Panel is planned, so that on the side walls the vertical strengtheners are very conspicuous.

In Spring 2017 Bombardier built the first three prototypes 3001 to 3003. Whilst 3003 was shipped to Israel at the end of July; the other two will be brought to Israel in late autumn 2017 following testing at Velim: A small mini-series will be built at the beginning of 2018; the next batch at the end of 2018-beginning of 2019; The actual series production will begin in Kassel probably in August 2019 – this is dependent on their being called from Israel, which will itself depend on the progress of electrification."

A report in 'Eisenbahn International' notes that 3001 and 3002 were in use together at Velim with two IR double-deck coaches, one of them a driving trailer – these were not new ones awaiting delivery but had been shipped from Israel via Bremen to Velim for the tests!

(x). LEBANON WAR AWARDS.

On 15.10.2017 awards were presented by the Israeli President Mr. Reuven Rivlin to relatives of the eight railwaymen killed by a rocket that hit the Haifa depot during the second Lebanon War in 2006. The ceremony was held at the President's residence and with the participation of Transport Minister Israel Katz and General Manager Shahar Ayalon, as well as other officials from the Ministry and IR and of course the families of the victims.

The station of Haifa Central was renamed "Haifa Central – The Eight" some time ago to commemorate the victims.

(xi). TRACKWORKS ON DIMONA LINE.

Israel Railways Ltd. announced on their website that due to track infrastructure works the line between Beer-Sheva North/University and Dimona would be closed to traffic between 07:00 on 19.10.2017 and 05:00 on 22.10.2017. The railways in cooperation with the Transport Ministry would provide bus shuttle services between the two stations during this time.

(xii). TRAIN/CAR COLLISION AT LOD.

On the evening of 17.10.2017 a Ford Transit minibus broke through the level crossing at Lod station and was hit by an oncoming double-deck passenger train. It happened at a fully-protected level crossing when barriers were down, with red flashing lights and bell working.

Three of the passengers were injured, one severely.

The reason for the behaviour is criminal - but not against the railways, who were simply a victim of

circumstances. An Arab citizen of Lod was shot dead during a conflict; his family members, who heard about the case, rushed to the area (they live on the other side of the tracks) and ignored everything! Traffic was immediately brought to halt; it resumed only at 08:00 the next morning, while scheduled services were restored some hours later.

(xiii). MORE TRACKWORKS AND DISRUPTIONS.

Israel Railways Ltd. announced on their website that due to works increasing track infrastructures, as well as re-routing the coast line due to widening Highway 20 (Ayalon North), in the median of which the line runs, the line section between Tel-Aviv University and Binyamina stations would be closed for traffic between Tuesday 31.10.2017 at 00:01 and Sunday 05.11.2017 at 05:00.

As a result, trains to/from north would start/terminate at Haifa Hof-HaCarmel and/or Binyamina; with one train/hour between Nahariya and Binyamina.

Trains from/to south to start/terminate at Tel-Aviv Savidor/Central station.

Trains from Karmiel to Haifa and Beer-Sheva to start/terminate at Haifa Hof-HaCarmel.

Trains on the line between Jerusalem Malkha, Beit-Shemesh and Herzliyya to start/terminate at Tel-Aviv HaHagana station.

The Valley Line to operate regularly. The Hod-HaSharon - Beer-Sheva line would operate regularly; however, passengers wishing to reach Tel-Aviv University station would have to change trains at Tel-Aviv stations.

Night trains from the north to Nahariya to Ben-Gurion airport would terminate at Binyamina; with no services from Ben-Gurion airport to the north.

First train from Nahariya to Ben-Gurion airport would depart at 03:13 and from Ben-Gurion airport to Nahariya at 03:38.

On 06.11.2017 Aharon could report: "Yesterday traffic between Tel-Aviv University and Binyamina station on the Tel-Aviv - Haifa line resumed at 05:00 after completion of intensive infrastructure works; punctuality also resumed and kept well above 90%."

(xiv). VIDEO OF NEW JERUSALEM LINE.

Clicking on the following brings one to a 4.23min. Video from YouTube, clearly taken by a drone and already historic inasmuch as it shows sections of line not then under catenary, though they have been wired up in the meantime!

<http://www.israelheute.com/Nachrichten/Artikel/tabid/179/nid/32493/Default.aspx>

On Thursday 24.11.2017 Sybil Ehrlich wrote that one could now see lorries with stacks of concrete sleepers on the viaduct outside Jerusalem!

(xv). ARRIVAL OF MORE DOUBLE-DECK COACHES.

From a press release of 22.10.2017 by Israel Railways Ltd.:

"The railways keep increasing their passenger rolling stock fleet, towards opening new lines and stations, and consequent growth in passenger traffic.

This morning an additional 8 new double-deck cars from Bombardier were unloaded at the port of Haifa; 6 such cars which arrived recently will enter service on 23.10.2017.

So far, 32 cars out of 90 ordered have arrived.

After a short check and inspection by the rolling stock engineers the 8 cars will be transferred to the new Beer-Sheva depot to be prepared for service.

The cars arrive at Israel relatively "naked"; At the depot chairs, tables and other components are to be installed and assembled.

On 31.10.2017 Aharon Gazit visited the mentioned depot, and here are also pictures of the final assembly department managed and inspected by a representative of Bombardier; it should be emphasized that Bombardier is strictly fulfilling its commitment to buy-back (offset) for years, so that all the assembled components and sub-assemblies are purely Israel-made; thus Bombardier is not only helping the local industry, but in many cases creates market for export.

(xvi). CRITICAL COMPTROLLER'S REPORT.

From 'Times of Israel' 26.10.2017; it is noted "Melanie Lidman contributed to this report." This is an interesting report as it covers a lot of the history but is a little confused in places about "conversion from diesel to electric" operation.

"A State Comptroller's report released Wednesday found the high-speed rail line between Jerusalem and Tel Aviv, slated to begin operating in April 2018, will not be ready for another year to two years.

The highly critical report found the conversion of the trains and railway lines from diesel to electric — a project which began 20 years ago — will not be finished until December 2018, or possibly

December 2019, according to an Israel Railways internal audit report cited by the comptroller.

The train line has to be converted to run on electricity, primarily because operating diesel in the long tunnels would be dangerous. This requires at least four sub-stations, some 80 kilometres (50 miles) of electric cabling, and converting the engines from diesel to electric.

The State Comptroller criticized the Railways Authority, saying it had not stuck to the timetable it set for itself, yet kept insisting it would begin operating the line on schedule. The comptroller warned that cutting corners to finish the project by April could lessen the quality of the work, compromise safety and lead to an overall increase in the costs of the project.

In addition the report found that the plan to electrify all of Israel's railway lines, which was to have been completed by 2019, will not be done until at least 2021.

The state watchdog's report also said the Acre - Carmiel railway, which was to have been completed in 2016 and would have been the first electrified route in the country, is now unlikely to be finished before December 2021.

Netivei Israel, the National Transport Infrastructure Company, responded to the report by saying that most of the issues had already been dealt with.

"The vast majority of the issues in the State Comptroller's Report were dealt with and fixed, because they refer to [issues in] the years 2014 to 2016."

The Tel Aviv-Jerusalem rail project, which is projected to cost an estimated NIS 7 Billion (\$1.8 Billion) and has been in the works since 2001, will cut travel time down significantly from the 78-minute ride on the old line built during the days of the Ottoman Empire. The trains will reach speeds of up to 160 kilometres per hour (100 mph). When fully operational they will depart every 15 minutes in each direction, carrying up to 1,000 passengers each.

The massive public works project has faced many hurdles since planning started 15 years ago. Originally slated to be completed in 2008, environmental activists stalled the plans after raising a number of concerns about potential damage to the protected hills and valleys surrounding the capital. Environmental groups tried to force the planners to build a tunnel under the Yitlah Stream instead of passing over it with a bridge. The Interior Ministry's Planning Commission decided the tunnel would hold up the project for at least two years, and ruled in favour of Israel Railways.

The high-speed rail line also crosses the Green Line twice, once near Latrun and once near Mevasseret Zion, inviting criticism from the Israeli left and pro-Palestinian groups. A German company advising the project withdrew in the face of pressure from activists.

The longest tunnel in the Fast Line project is 11.6km (7.2 miles) long, making it the longest tunnel in Israel. A massive German tunnel boring machine drilled each of the tunnels, specially customized to drill in one motion at the size of the tunnel. The machine used 24 motors to drill directly into the hard Jerusalem stone, advancing at a rate of 16 to 20 metres (50 to 65 feet) per day.

In Mevasseret Zion the train tracks are 200 metres (650 feet) below ground, as the suburb is perched on hilltops higher than the capital. In Jerusalem, the train station, built near the Central Bus Station, is 80 metres (260 feet) below ground and doubles as a public bomb shelter."

(xvii). FREE SHUTTLE BUS SERVICES.

Israel Railways Ltd. have announced on their website the following service improvements:

New free-of-charge bus shuttle services started on 01.11.2017 from the new quarters of the rapidly developing city of Rosh-HaAyin (east of Petakh-Tikva) to Rosh-HaAyin North railway station and back in both directions.

From 12.11.2017 such a service will be introduced from Binyamina railway station to Zikhron Ya'akov (north of Binyamina) and back in both directions. The aim is to encourage the public to prefer public transport over private cars.

(xviii). LEVEL CROSSING INCIDENT AT KFAR CHABAD.

On 13.11.2017 Aharon wrote: "Israel Railways Ltd. reported just few minutes ago that a pedestrian who crossed the Tel-Aviv - Lod line at the level crossing at Kfar-Habad, while ignoring red flashing lights, has been hit by a passing train; emergency teams from the railways, the police and Magen David Adom (the Israeli counterpart of the Red Cross) arrived at the site. The incident has caused temporary traffic disruptions: trains between Netanya and Rishon LeZion Harishonim will start/terminate at Tel-Aviv Hahagana station; trains between Herzliyya and Jerusalem will start/terminate at Lod; trains from Beer-Sheva through Lod will be diverted through Ben-Gurion airport, thus by-passing the Kfar-Habad station. Alternative bus shuttle services are being provided.

This event comes just one day after disruption caused by a leaking freight car carrying sulphur

yesterday. But so far it did not affect the punctuality which is now at 98%."

(xix). WINTER STARTS.

The winter started on 20.11.2017 with heavy rains after several long dry months; the railways announced that all preparations had been completed and precautions taken.

The activities include: Pruning trees to prevent them falling on track; installing heating elements at turnouts to protect them from frost; cleaning of ditches at stations and other railway sites; rebuilding service roads alongside tracks; checking and preparing drainage pumps at stations and other railway sites; planting of vegetation on slopes to prevent mudslides; preparing engineering mechanical equipment for winter, etc.

The railways are also preparing for snow on the Beit-Shemesh - Jerusalem line, which may become the only link between Jerusalem and Tel-Aviv in case of heavy snow; ovens for heating, salt for snow melting, shovels and other tools, frost suits, beds and bedrolls are already stored at Jerusalem Malkha station.

(xx). MORE SHABBAT BLUES

From 'Times of Israel' 26.11.2017: "Prime Minister Benjamin Netanyahu on Sunday said a compromise agreement was "within reach" on the controversial railway maintenance work carried out on Shabbat that had prompted an ultra-Orthodox minister to resign from the cabinet earlier in the day.

Netanyahu, speaking at the weekly cabinet meeting at the Prime Minister's Office in Jerusalem, offered conciliatory words and praise of MK Yaakov Litzman, who tendered his resignation from the Health Ministry hours earlier. *"Shabbat is important to us, as are the needs of all of Israel's citizens, including of course, the need for safe and continuous transportation," Netanyahu said. "I believe we will find an intelligent solution... We will act so that together we can continue to serve Israel's citizens."*

The prime minister said he "regrets" Litzman's decision, but maintained that the resignation did not imperil his governing coalition. "He is an excellent health minister and did much for the health of Israel's citizens. The national government under Likud is the best government for Israel. I think all of the members of the coalition want it to continue. I don't think; I know," said Netanyahu. Litzman, a leader of the coalition's ultra-Orthodox United Torah Judaism party, officially stepped down earlier on Sunday in protest over the infrastructure work

on rail lines on the Jewish day of rest. Though leaving his position, the six-MK UTJ party will remain in the coalition. Litzman's resignation was to come into effect after 48 hours.

According to a report Saturday night on Hadashot news (formerly Channel 2), Netanyahu is planning to hold on to the cabinet position, rather than appoint a new minister, as he hopes Litzman may quickly return to the post. After an ongoing dispute related to the installation of a new signalling system on a track in the Negev, Litzman notified Netanyahu on Friday that if the maintenance work was conducted on Saturday, he would resign on Sunday. The work was carried out Saturday, with Transportation Minister Yisrael Katz and Welfare Minister Haim Katz — who also serves as the state's top labour regulator — insisting that delaying the maintenance work would have left the railway tracks less safe in the interim, and carrying it out during the work week would snarl traffic for days."

In a video statement, Litzman explained that he could not countenance the "state-sanctioned public desecration of Shabbat."

"Citizens of Israel, throughout the generations the Jewish people knew it must safeguard the Sabbath as a supreme value, and even to sacrifice one's life for it. The holy Sabbath is the national day of rest, and we were raised to protect against desecrating the Sabbath. Unfortunately, in light of the great pain caused by the government's work [on the Sabbath] carried out openly by Israel Railways for some time now, I've decided to resign my position as health minister. I cannot continue to bear ministerial responsibility as a minister of Israel while there is state-sanctioned public desecration of Shabbat, in contravention of the sacred values of the Jewish people, the status quo and the coalition agreement," Litzman said.

Litzman's resignation won't weaken Prime Minister Benjamin Netanyahu's parliamentary coalition, as his six-MK United Torah Judaism party plans to remain in the coalition, according to a statement from Netanyahu's office on Friday.

"The heads of the factions have clarified that they do not intend to leave the coalition," the statement said, noting that the government would work to find the "best solution" it can to the crisis "to both respect the Sabbath and ensure safe, consistent public transport."

In a bid to entice Litzman back to the cabinet, Netanyahu will take over the Health Ministry and will not be appointing a replacement, he informed fellow cabinet ministers on Saturday. The move

leaves the portfolio open should UTJ retract its decision and agree that Litzman rejoin the cabinet. Netanyahu also plans to leave Litzman's appointed senior officials at the ministry in place, according to Hebrew media reports."

(xxi). TRACK WORKS BUT NOT ON THE SABBATH!

VERY interesting is then a press release from IR of 29.11.2017 on their website:

"Due to infrastructure works of upgrading tracks, the section between Tel-Aviv Savidor/Central and Lod is to be closed between Thursday 07.12.2017 at 22:00 and Friday 08.12.2017 at 16:00 (commencement of Sabbath) and between Saturday night 08.12.2017 at 18:00 and Sunday morning at 05:00; traffic will then resume.

As a result, the following changes will take place:

Trains from/to the north, will start/terminate at Tel-Aviv Savidor/Central station; alternative bus shuttle services will be provided between Tel-Aviv Savidor/Central station and Modi'in, Beer-Sheva, Beit-Shemesh, Lod, Ashdod, Ashkelon and Rehovot.

Trains from/to the south will start/terminate at Lod; alternative bus shuttle services will be provided between Lod and Tel-Aviv Savidor/Central station.

Trains between Beer-Sheva Central and Hod HaSharon will operate regularly; there will be enforcement services on Friday 08.12.2017 between Tel-Aviv Savidor/Central and Beer-Sheva Central stations, and on Saturday night 09.12.2017 between Beer-Sheva Central and Hod HaSharon stations.

Trains between Jerusalem, Beit-Shemesh, and Herzliyya will start/terminate at Lod.

There will be no services to/from Modi'in stations between Friday 08.12.2017 and Sunday morning at 05:00.

Trains between Nahariya and Ben-Gurion airport will start/terminate at Tel-Aviv Savidor station; alternative bus shuttle services will be provided between Lod and Tel-Aviv Savidor station.

The first train from Nahariya will depart at 03:13 and from Lod at 05:08 on Sunday morning 10.12.2017."

To which Aharon adds: "It should be mentioned that this is the first in the time in the last five years that works are suspended during Saturday according to an agreement between the Jewish religious parties and the government." And the Editor adds: Further proof of the effectiveness of religious party pressure on the PM!

(xxii). DISABLED ACCESS.

From a press release of 26.11.2017 by Israel Railways Ltd.:

"The Chairman of the Knesset Committee for Accessibility for Handicapped People Mr. Ilan Gilon (himself handicapped) visited the railways today before the International Accessibility Day which will be held in the Knesset on 05.12.2017.

Here are his impressions: "The railways are on the right track; there is no doubt that we can see progress on this subject; the management shows a lot of understanding to the needs of handicapped people; according to the data shown to me there is an impressive rise in the number of such passengers from 27,863 in 2015 to 32,650 in 2016 and to 33,500 by the beginning of November 2017.

However, there is still much to improve; my ambition is to see a continuous and efficient system which provides a smooth passage from the station entrance up to the train, unlike the present situation in which there is a need to coordinate the journey date and hour and arrange physical assistance of a team member all the way along.

An additional problem is the conflict between the bicycle riders and the passengers (not only handicapped) who block the passages; the railway management is aware of this and has promised to find a solution".

(xxiii). THIRD QUARTER TRAFFIC STATISTICS.

From a press release of 28.11.2017 by Israel Railways Ltd.:

"Israel Railways Ltd. published today their financial reports for the 3rd. Quarter (Q3) of 2017 which show a continues growth.

The total income was \$ 174 Million (NIS 609 M) compared with \$ 170 M (NIS 595 M) - up by 1.02%.

The operational profit during the 3 Quarters of 2017 was \$7.23 M (NIS 23.5 M); however, in Q3 the company was in the red with loss of \$6.57 M (NIS 23 M) compared with a profit of \$6.29 M (NIS 22 M) during Q3 of 2016.

The loss is considered a result of one-time costs including: Provisions for Actuary, rising Salaries, and Recruitment of new employees needed to operate new lines and maintenance facilities as a result of the growing network.

Passenger Section:

*During Q3 of 2017 the railways carried 16 M passengers compared with 15.3 M during Q3 of 2017; up by 5.2%; the traffic forecast for the end of 2017 is for more than 64 M.

*Revenues from passenger services during Q3 of 2017 were \$144.6 M (NIS 506 M) compared with \$138.85 M (NIS 486 M) during Q3 of 2016; up by 4.1%.

*Daily average passenger traffic during Q3 of 2017 was 243,000, and on peak days (Sundays and Thursdays) reached 250,000.

*The continued rise in traffic is a result of opening the line to Carmiel, the traffic on which is to reach 1 M passengers towards the end of 2017, but also due to improved frequencies on existing lines and the tendency to prefer rail as transport mode due to more congested roads despite heavy investments in roads too.

*The following lines have shown significant traffic growth:

- Beer-Sheva - Tel-Aviv : 19% over Q3 of 2016.
- Modi'in – Tel-Aviv : 14% over Q3 of 2016.
- Hod-HaSharon – Tel-Aviv : 10% over Q3 of 2016.

Punctuality:

*The average punctuality during Q3 of 2017 was 92.7%, while during Q2 & Q3 of 2017 it was above 94%; the average from the beginning of 2017 was 93.7%.

The following lines achieved the highest punctuality:

- The Galilee line (Haifa – Carmiel) : 98.55%.
- The Valley line (Beit-She'an – Atlit) : 97.49%.
- The Haifa - Acre line : 96.86%.

It should be mentioned that the overall punctuality can be considered good due to the fact, that particularly between Tel-Aviv University and Beit-Yehushua, there are temporary speed restrictions due to track quadrupling, linking the '531 Line' with the coast line, preparing works for electrification, and new signalling and communication works.

Freight traffic:

The railways carried over Q3 of 2017 2.3 M tons; similar to that of Q3 of 2016.

Other Investment.

The railways continued advancing on big infrastructure projects including: the AI line to Jerusalem; Electrification; Assimilation of ETCS LEVEL 2 and GSM-R; Purchasing new rolling stock. The railways also published several important tenders including: Constructing a depot for the electric fleet at Ashkelon, and the cellular equipment which is the platform for the ETCS LEVEL 2.

Finally, the railways are investing \$11.43 M (NIS 40 M) in upgrading 10 passenger stations and adding 3,200 parking places at 14 parking areas.

(xxiv). SERVICE SUSPENSIONS TO SDEROT DUE TO MORTAR ATTACKS.

At 14.49 on the afternoon of Thursday 30.11.2017 the 'Times of Israel' reported:

"15 mortar shells fired from Gaza at IDF soldiers along border

At least 15 mortar rounds are fired from the Gaza Strip at an IDF soldiers guarding construction work along the Gaza border fence. No one is hurt in the attack. Hadashot news reports officials stopped the train line from Ashkelon to Sderot in response."

"...An army official says the mortar barrage from Gaza a short time ago appears to be in retaliation for the IDF's destruction of an attack tunnel under construction by the Palestinian Islamic Jihad terror group last month in which 14 operatives were killed.... "

"At 16.57 came: Train service to Sderot, halted by mortar fire, resumes

Train service to Sderot resumes after being briefly halted on Thursday due to mortar fire from the Gaza Strip. For a couple hours, northbound trains

were stopped at the town of Netivot and southbound ones in Ashkelon."

(xxv). CHANUKAH SERVICES.

From an announcement of 02.12.2017 by Israel Railways Ltd. on their website:

During Hanukkah (The Festival of Lights) between Monday 13.12.2017 and Wednesday 20.12.2017 inclusive the railways will operate additional trains as follows:

Trains from Beer-Sheva Central to Haifa Central will depart at: 08:57, 09:57, 10:57 and 11:57.

Trains from Haifa Central to Beer-Sheva Central, will depart at: 11:06, 12:06, 13:06 and 14:06.

Trains from Jerusalem Malkha to Beit-Shemesh will depart at: 08:05 and 09:05.

Trains from Beit-Shemesh to Jerusalem Malkha will depart at: 14:41, 15:41 and 16:41. All the trains between Beit-Shemesh and Jerusalem Malkha will call at the Jerusalem Biblical Zoo station.



: Collision between a train and a Ford Transit at a level crossing at Lod station, 17.10.2017. (Photos from Israel Tal)

TENDERS.

A.

(i). Israel Railways Ltd. Tender No. 11722: Providing services for Senior Management Assignments and 'Head-Hunting': The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 01.11.2017.

(ii). Request for Information ("RFI") : Purchase of Second Hand/ Refurbished Euro 4000 Locomotives for ISR traffic:

Israel Railways Ltd. ("ISR") hereby requests information regarding Second Hand/ Refurbished Euro 4000 Locomotives for ISR traffic (the "Locomotives") from Railway Rolling Stock Manufacturers, Railway Companies, Maintenance Companies working for Railway Companies, all as generally defined in Appendix A attached hereto (the "Technical Attachment") and as further described below.

2. Objective of RFI

The objective of this RFI is to enable ISR to explore the option of purchasing 4 Locomotives.

This RFI is not to be considered as a request for proposals or as a tender and the provisions of neither the Israeli Mandatory Tenders Law 5752-1992 nor the Government Procurement Agreement shall apply hereto. Notwithstanding the aforesaid, ISR may, as a result of this RFI, at its sole and absolute consideration, approach one or more of the Respondents to this RFI and/or any other party, in order to obtain additional information.

Notwithstanding the aforesaid, ISR may, as a result of this RFI, at its sole and absolute consideration, conduct an additional procedure, including, inter alia, tender procedure, and may use, at its sole consideration, any of the information provided in this RFI.

This RFI shall not, under any circumstances, constitute any commitment on ISR's part to negotiate with any or all interested parties, nor to enter into any agreement with regard to the Locomotives.

(iii). Tender No. 41743. For Supply of Four Self-propelled Pick-Up Road Rail Vehicles (PRRV) – intended for transportation and inspection of IR tracks; and Four Self-Propelled TRRV intended for maintenance works in railway tunnels. Bidders should have provided at least six such since 2012.

(iv). Israel Railways Ltd. tender No. 11737: Providing services of transportation and shipment of goods to/from railway sites all over the network: The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 20.11.2017.

(v). R.F.I. – Sale of 'T44' Loco. "Sale of a Shunting Locomotive. Israel Railways Ltd. is requesting information regarding a sale of a shunting locomotive number 131.

Guiding Lines:

1. This RFI shall not be considered as a tender.
2. ISR is free to take whatever action it may consider upon receiving addresses from prospects following this RFI and will not be obliged to negotiate and/or sell and/or publish a tender regarding 131.
3. ISR may use any information received following this RFI in any way it might find useful.
4. ISE may address one or more prospects that will submit information regarding 131 following the RFI.
5. This RFI shall not be considered as a declaration of any kind as to the technical condition of 131.

Details about 131

1. 131 is a G-12 shunting locomotive.
2. Model no. T-44/622CW.
3. 131 was manufactured by KALMAT VERKSTAD.
4. 131 is stationed at The Kishon rails yards in Israel.
5. 131 can be examined at its current location by appointment to be set up with the undersigned.
6. Year of production – 1989.
7. 131 has an EMD engine – 1650 horsepower.
8. Kilometres travelled from 1999 – 22,434 km.
9. 131 is operative and may be considered for future examination in its current condition – AS IS

Prospects who are interested in 131 may address the undersigned via e-mail – aviads@rail.co.il until 21/10/2017. Aviad Shafir, Head of Commerce Unit Israel Railways

(vi). Request for Information ("RFI")

RFI for the Retrofitting of EMD 12-710E3B Diesel Engines (reduction of exhaust emissions)

1. Introduction

Israel Railways Ltd. ("ISR") hereby requests information regarding the retrofitting of

existing forty-eight (48) EMD 12-710E3B (Tier 0) two-cycle diesel engines, in order to reduce their exhaust emissions (minimum Tier 2, preferably Tier 3).

ISR seeks such information from Manufacturers and Suppliers of retrofitting solutions, including information regarding the operation capabilities of the Solutions, all

as further described below.

2. Objective of RFI

The objective of this RFI is to enable ISR to explore the option of purchasing the Solutions,

as well as to review and estimate the costs involved.

This RFI is not to be considered as a request for proposals or as a tender and the provisions

of neither the Israeli Mandatory Tenders Law 5752-1992 nor the Government Procurement

Agreement shall apply hereto.

3. Solutions

3.1. The bidder shall propose one or both of the options below as the Solutions:

3.1.1. To receive a non-retrofitted Engine from ISR (Tier 0), which Respondent will

renovate in order to obtain at least a Tier 2 emission level

3.1.2. To provide ISR with a complete refurbishment kit with which the Respondent

commits to obtain at least a Tier 2 emission level after implement of such kit..."

(vii). International tender No. 41733: For the Supply of Point Condition Monitoring PCM.

General Terms and Conditions

Israel Railways Ltd. in accordance with its obligations under the Israeli Mandatory Tender Laws, its implementing regulations and the International Agreement on Government Procurement, wishes to obtain bids for:

The supply of Point Condition Monitoring Systems ("PCM"), all in accordance with and subject to the terms specified in these General Terms and Conditions and the accompanying Tender Documents.

1. Prerequisites for Participation in the Tender (the "Prerequisites"):

1.1. Bidder must be the supplier and installer of the proposed PCM; and

1.2. Since 2014 and until the Final Submission Date, the Bidder has supplied and installed PCM in at least Five (5) interlocking rooms with at least thirty (30) point machines to be monitored in total.

3. Technical Requirements

3.1. The proposed PCM must fully comply with all of the requirements and terms included in the technical specification attached hereto as Appendix A (the "Technical Specification").

4. Governing Agreement

4.1. The supply and installation of the PCM, including but not limited to, the price, terms of payment, scope of liability, responsibility and all other general and legal terms for the engagement with the Supplier, shall be governed by the terms and conditions of the agreement attached hereto as Appendix C (the "Agreement"). The Agreement and the appendices attached thereto constitute an inseparable part of this Tender. Each Bidder agrees to be bound by the Agreement in the event that it is chosen as the Supplier. Once the Supplier is chosen and the Agreement executed, the provisions of the Agreement shall take precedence over the provisions of this Tender in the event of a contradiction between the Agreement and this Tender.

The Final Submission Date referred to in Section 16.3 of the General Terms is hereby postponed to November 30th. 2017, at 13:00 (Israel time).

(viii). Tender No. 170901: Installing and operating automatic machines for Sale of Food and Drinks at railway stations: The contract is for 60 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 23.11.2017.

(ix). Israel Railways Ltd. Tender No. 21714: Rebuilding and maintaining of Track Substructure: Work contains: rebuilding of ditches, drainage, slopes and substructure at level crossings. The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 06.12.2017.

(x). Israel Railways Ltd. Tender No. 11701: Security services and Checks for the whole network:

The contract is for 24 months with optional extensions of up to additional 48 months.

Latest date for submission of proposals: 18.12.2017.

(xi). Request for Information 41756: Israel Railways Ltd. wishes to obtain bids for:

Professional consulting services, assistance and support in ISR's various railways fields including:

Rolling Stock - development and maintenance -

Infrastructure - development and maintenance

Telecommunication - development and maintenance -

Railway Operations - development and maintenance -

Computerization - development and maintenance -

Safety, Security and Environment - development and maintenance -

Planning and Development - development and maintenance -

(xii). Israel Railways Ltd. Tender No. 21724: Performing Development and Maintenance works at Level Crossings and on Roads which 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: 02.01.2018.

(xiii). Israel Railways Ltd. tender No. 171201: Operating Taxi services to/from Kiryat-Gat railway station: The contract is for 36 months. Latest date for submission of proposals: 14.12.2017.

B. TENDERS EXTENDED.

RFP 41610: ETCS Level 2 On Board Project; Latest date for submission of proposals: extended to 04.12.2017

C. TENDERS ALLOCATED.

(i). Israel Railways Ltd. have announced on their website that HYT Engineering Co. Pvt. Ltd. won the €900,600 Tender No. 41405 for Manufacture & Supply of an Underfloor Wheel Lathe.

(ii). Tender No. 11730: providing catering services at the railways' management complex of Lod is: M.M. Moshe Moshe Catering services Ltd. \$3.46 Million (NIS 12.2 M)

(iii). The winners of the international Euro 4.77M Tender No. 41604 For the Supply of Monitoring Systems for Railway Safety are: Menora Izu Aharon Ltd. and Progressive Rail Inspection Systems GmbH.

(iv). The winner of the Tender No. 31701: Supply of electrical equipment and components is: Erco Company Ltd. at \$62M (NIS 2.2M) annually.

(v). The winners of Tender No. 11685: Providing Inspection, Follow-up, and Mechanical Engineering Services are: B.R.M.D. Consulting Engineers Ltd., Koren Text Ltd., and Ziv-Av Technologies Ltd.

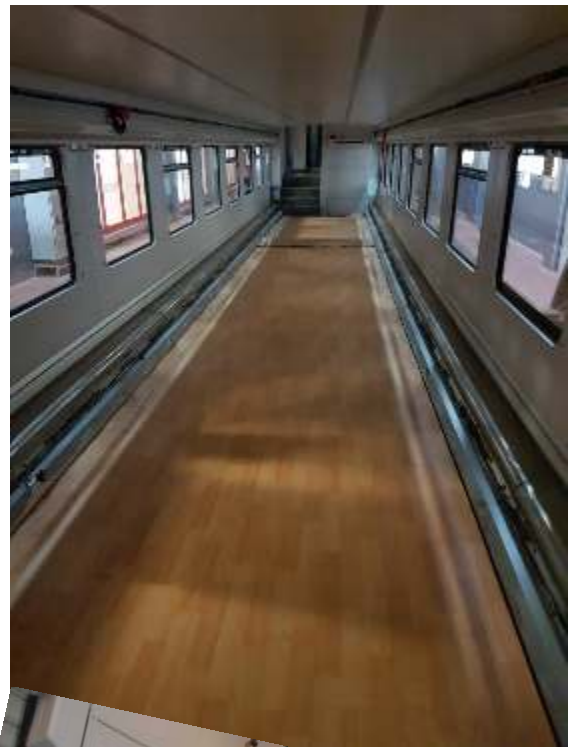
(vi). The winner of the Tender No. 1173: Providing Consulting, Preservation, and Follow-up services for the railways' quality control system is: M.A.N.-Ofek Institute for Management Ltd.

Delivery of Bombardier double-deck coaches at Haifa on 22.10.2017. They will be taken to Beer Sheva for fitting out. (Photo: Israel Tal, IR Press Office.





The interiors of recently arrived **Bombardier** double-deck cars at the Beer-Sheva depot, awaiting installation of tables, chairs etc. (Photo Israel Tal, IR Press Office.)



OTHER MIDDLE EAST RAILWAYS.

A. TURKEY.

(i) IZMIR EXTENSION.

From 'Metro Report Intl.' September 8.

"The extension cost TL300m, of which 70% was covered by the national budget, and makes use of a railway alignment originally opened in the 1860s. There is one intermediate station at Sağlık.

Services are operated by Izban, which is owned 50:50 by national rail operator TCDD Taşımacılık and Izmir Metropolitan Municipality.

Meanwhile, on August 28 test running began with a Marmaray trainset that has been transferred to Izmir. The majority of the 440 Hyundai Rotem-built Marmaray cars will not be required in Istanbul until work to upgrade suburban lines either side of the Bosphorus is completed, which is now expected at the end of 2018. If testing with the initial trainset is successful, six Marmaray trainsets would be transferred to Izmir to enable headways on the overcrowded suburban services to be reduced from 10 min to 6 min."

And on 30.10.2017: (From 'Metro Report Intl.') DOUBLE-DECK STOCK TO BE ORDERED.

"Izmir suburban rail operator Izban is planning to purchase the first double-deck rolling stock in Turkey, it announced on October 28.

Izban intends to purchase 25 three-car electric multiple-units, of which nine would have a double-deck centre car. The EMUs are expected to be delivered in two years, and would increase the network's capacity by 40%, helping to meet growing ridership following the opening of the 17 km southern extension to Selçuk.

The operator, a 50:50 joint venture between national railway operator TCDD Taşımacılık and Izmir Metropolitan Municipality, currently has a fleet of 73 three-car EMUs, 33 of which were supplied by CAF and 40 by Hyundai Rotem."

(ii). APPROVAL FOR NEXT ANTALYA LINE.

From 'Metro Report Intl.' 22.09.2017: "TURKEY: The next phase of Antalya's Antray light rail network has been approved by Prime Minister Binali Yıldırım.

The 12km route would run from Varsak Sakarya Bulvarı in the north of the city to Eğitim Araştırma Hastanesi in the south via the university. Interchange with the existing east-west line would be provided at Otogar. Completion is planned for 2019.

Longer-term plans would connect the new route with the city's existing heritage tram line. This is to be rebuilt to light rail standards and double tracked, with a western extension to Eğitim Araştırma Hastanesi that would allow through running. The newly combined line would be 23km in length.

The most recent Antray extension opened in July 2016, taking the line from Meydan to Expo 2016 in the east, with a branch to the airport."

(iii). TURKISH SECTION OF KARS – TBILISI RAILWAY.

From 'R.G.I.' 24.07.2017: A ceremonial first train ran on the Turkish section of the Baku – Tbilisi – Kars railway corridor on July 19, carrying Minister of Transport, Maritime & Communication Ahmet Arslan as well as Georgia's Minister of Economy and the CEOs of the national railways of Georgia, Azerbaijan and Kazakhstan. The officials also inspected the tunnel across the Turkey – Georgia border as part of their visit.

'We hope that this line, together with the Marmaray tunnel in Istanbul, will significantly increase the importance of the railway in this region, between Asia and Europe,' said Arslan. 'This railway will increase co-operation in this region and expand trade.'

The 849 km BTK programme of route modernisation and new construction is designed to create a rail corridor from the Caspian Sea to Europe. This will replace the former route through Armenia which has been out of use since the Turkey – Armenia border crossing was closed in 1993.

The BTK project includes the construction of 110 km of new standard gauge line from Kars via the border at Kartsakhi to Akhalkalaki in Georgia, where there will be facilities for gauge changing and transshipment between the 1435 mm and 1520 mm networks. Özgün Yapı & Çelikler has built the 76 km

section within Turkey under a YTL12.2bn contract. From Akhalkalaki 153 km of unused 1,520 mm gauge line to the junction at Marabda is being rehabilitated.

Completion of the corridor is expected later this year. The BTK route is expected to carry up to 500 000 TEU/year, and an agreement has now been reached for the construction of a freight terminal in Kars. Although the route is primarily intended to carry freight, Stadler is supplying Azerbaijan's national railway ADY with a fleet of gauge-changing sleeping cars for a planned Baku – Istanbul passenger service.

On 30.10.2017 appeared in 'R.G.I.':

"INTERNATIONAL: The presidents of Turkey and Azerbaijan and the prime ministers of Georgia, Kazakhstan and Uzbekistan attended a ceremony at the Port of Baku on October 30 to dispatch an inaugural freight train on the Baku – Tbilisi – Kars corridor. The heads of state and government then travelled to Alat station by train.

The 849 km BTK programme is central to plans to create a rail corridor from the Caspian Sea to Europe via Turkey. It involved upgrading infrastructure in Azerbaijan and Georgia, rehabilitating 153km of unused 1,520 mm gauge line from Marabda to a break-of-gauge facility at Akhalkalaki, and building 110km of 1,435 mm gauge line to Kars via a 4.4km tunnel under the Georgia-Turkey border at Kartsakhi.

This completes the missing link between Georgia and Turkey, replacing a route through Armenia which has been out of use since the crossing between Turkey and Armenia was closed in 1993.

Speaking at the inauguration, Turkey's President Recep Tayyip Erdoğan said the BTK railway had become a reality because of the friendship of Azerbaijan, Turkey and Georgia. He said shipments from China would be able to reach Europe in 15 days using the BTK route, and the initial capacity of 6.5 million tonnes of freight and 1 million passengers per year was expected to increase to 17 million tonnes and 3 million passengers per year in 2034."

(iv). NEW PRIVATE FREIGHT OPERATOR IN TURKEY.

From 'R.G.I.' 23.10.2017: "Omsan Logistics is set to become the country's first private train operator under the 2016 legislation liberalising the rail market. It is a subsidiary of investment group Oyak, the pension fund of the Turkish armed forces, and will be hauling traffic for other group companies.

The company announced on October 15 that it had signed an agreement with infrastructure manager TCDD at a ceremony attended by Minister of Transport, Maritime Affairs & Communications Ahmet Arslan. Omsan Logistics has been awarded a Certificate of Authority for Train Operations & Safety Management which will allow it to operate freight trains from November. Omsan will take over responsibility for hauling around 2 million tonnes of iron ore per year produced by Oyak-owned mining company Erdemir Madencilik at Demirdağ near Sivas

to the group's Isdemir steel plant at Payas in Hatay province. Operating over a 550 km electrified route, the service is highly automated, with rapid loading and discharge facilities at the two terminals. It currently accounts for around 8% of all rail traffic in Turkey.

Omsan Logistics has agreed to lease 15 electric locomotives, reportedly from the 45-strong fleet of Toshiba E43000 locos used to haul heavy freight trains, and 350 Fal/Fas type ore wagons from state-owned operator TCDD Taımacılık. The company says its rail operations will require around 70 staff.

According to Omsan Logistics General Manager, Hakan Keskin, 'completion of the process of railway liberalisation, as one of the most important items on the logistics agenda, is a significant development for our sector. Rail transport is cost competitive and environmentally friendly, as well as contributing to intermodal transport. We expect to see the benefits of this development in both the logistics sector and the national economy.'

Oyak's General Manager Süleyman Savaş Erdem said the investment by Osman would 'set an example for the sector', and 'pave the way for the rapid development of our railways, bringing positive benefits for the country's economy and industry'."

(v). 51% LOCAL CONTENT IN ROLLING STOCK.

"Prime Minister Binali Yıldırım published a notice on November 7 stipulating that all urban rail vehicles for Turkey must have at least 51% local content. This requirement covers metro trains, trams, light rail vehicles, funiculars and monorails, as well as cable cars.

Last year the Ministry of Transport, Maritime Affairs & Communication published guidelines stating that urban rail vehicle tenders need to 'support local production', but no firm targets were set.

Four rolling stock manufacturers currently have assembly plants in the country. Durmazlar's Bursa plant and Bozankaya's Ankara factory can produce vehicles with 100% local content, as was the case with the 12 Panorama trams that Durmazlar supplied to Izmit and the 30 trams that Bozankaya supplied to Kayseri.

The Eurotem joint venture of Hyundai Rotem and Tüvasaş has a plant in Adapazarı that can produce rolling stock that meets the new requirements. Its 38 trams for Izmir have been built using 85% Turkish components.

The CRRC MNG subsidiary of the Chinese rolling stock manufacturer has a factory in Sincan near Ankara. The first 75 of the 342 metro cars that it is supplying to Ankara had 30% local content, and the remainder will have 51%."

(vi). DRIVERLESS TRAINS FOR ISTANBUL.

From 'Metro Report Intl.' 17.11.2017: "Work has started on the second phase of Istanbul metro Line M7. The western section of the driverless line will run from Mahmutbey to Esenyurt, serving 10 stations. A consortium of Akyol, Astur and IC İçtaş was awarded the construction contract for the

18.5 km route on July 11. The project cost is TL3.5bn.

The 2.45 km first section of Line M7, between Mahmutbey and Kabataş, has been under construction since February 2014 and is due to open next year. Bombardier is supplying Cityflo 650 signalling, which would give the line a design capacity of 70 000 passengers/h per direction.

The M7 project is part of Istanbul's aim to reach a target of 489 km of metro and tram lines by 2019. Besides M7 and the Marmaray upgrade, work is currently underway on six metro lines totalling 89 km."

(vii). OTOGAR: CLARIFICATION.

Reinhard Dietrich observes: "In the last Harakevet the name 'Otogar' was used at least twice as a place name. In fact the word means simply 'Bus Station' in Turkish. It comes from the period when French words were often adopted as very 'modern' – so this is 'Auto Gare' phonetically modified – albeit, when Turkey moved from Arabic to Latin letters it is clear that German vowel sounds were often deliberately employed."

B. PALESTINE.

TUNNEL VISION. Found in: AL-MONITOR, Palestine Pulse, 15th. August 2017. by Ibrahim Abdelhadi. "TULKARM AIMS TO RENOVATE CENTURY-OLD OTTOMAN TRAIN TUNNEL.

[We have retained original orthography and the remarkably anti-Israel polemical perspectives – just for the record! History is often 'flexible' in this region and also technical terms can get used in interesting ways. Ed.]

"TULKARM, West Bank — Under a slope near the Palestinian village of Balaa, in the hills 9 kilometers (5.6 miles) east of Tulkarm, lies a 19th century train tunnel, a remnant of Ottoman Sultan Abdulhamid II's ambitions to tie the empire's capital, Constantinople, to the holy shrines of Islam.

Today, only the arched walls and internal chambers where passengers waited for trains remain, as the rails have been looted several times over by thieves. Yet the tunnel, called Al-Kharq (The Breach), continues to attract visitors.

"The Ottoman train tunnel was built in the time of Sultan Abdulhamid II on the ruins of a Roman and Byzantine village, between 1876 and 1908," Mofeed Salah, the head of the Tulkarm Tourism and Archaeology Office, told Al-Monitor. "It is an Ottoman archaeological treasure and an important historical monument, 240 metres long, 6 metres wide and 12 metres tall [787 by 19½ by 39 feet]. It went out of use during World War I after the collapse of the Ottoman Empire."

Salah said, "But after that, the railway resumed its operation during the British Mandate over Palestine in 1923, and was used to move troops and equipment. After the British withdrew from Palestine, it was last used in 1948 by Israeli gangs to expel and force Palestinians out of their lands." *[sic!!!! Ed.]*

During the earlier days, the railway was used to transport pilgrims to Medina and Mecca. "The station was used by passengers from three governorates — Jenin, Nablus and Tulkarm," Salah said. Abdulhamid, who ruled the declining empire with an iron fist, thought the Hejaz Railway would establish a connection between Constantinople (Istanbul) and the holy cities of Mecca and Medina, the destination of the annual hajj pilgrimage. He also wanted to cement the economic and political integration of the distant Arabian provinces into the Ottoman state, as an antidote to rising Arab nationalism. Finally, he envisaged sending his military forces to the region using the railway, if push came to shove, against either the Arabs or the imperial powers that had an eye on the Middle East.

The tunnel was dug by "sukhra," soldiers forcibly conscripted under the Ottoman Empire, using basic tools. Salah told Al-Monitor that before the tunnel was dug, Ottoman officials thought it would be impossible to cut through the mountain. "That prompted them to hire a group of German and Turkish engineers, given the strong relationship between the two empires at the time," he said. "The result was a tunnel that is a model of the geographical, political and economic connections between Palestine and the world."

"The tunnel is [today] a tourist destination for families from Tulkarm and nearby areas who enjoy the beauty of the construction, the nature in the hills around it and the plants that cover the slopes such as thyme and anemones," he said. "They relax and enjoy the beautiful surroundings and the views of nature. The tunnel now attracts thousands of both domestic and foreign tourists throughout the year, namely from Turkey. Tourists head to the tunnel especially during the spring and summer seasons given the beauty of nature surrounding it."

Salah said the Ministry of Tourism and Antiquities considered the tunnel's renovation a top priority in order to preserve its historical and archaeological status, since the tunnel was added to the archaeological and touristic map of Tulkarm. Volunteers from youth groups have helped restore some of the cracked walls and helped level the ground to make it easier for visitors to walk. Information panels were also put up in the centre of the village of Balaa, pointing toward the tunnel and explaining its history.

Salah added, "The tunnel was looted on several occasions by antiquities thieves who conducted illegal excavation works inside the tunnel. These thieves were employed by Israeli gangs — including both Arabs and Jews — as they believed Ottomans had buried golden treasures underneath the tunnel before they left Palestine following the empire's collapse. These actions were revealed by the Palestinian police investigations. The police had questioned several thieves who were arrested. Most of them were unemployed and would get paid no more than \$15 [a night] to loot the tunnel."

"This kind of theft has been stopped through coordination with the tourism and archaeology police to track those thieves. There is a phone line where people can call to report on the thieves," said Saleh.

He added that the police force has worked in the area despite Israeli restrictions that often prevent Palestinian police officers from doing their jobs, as

the tunnel lies in Area C, which is under full Israeli control. Area C constitutes about 60% of the West Bank territories that are almost under complete Israeli control. Israel is responsible for the security and civil affairs related to the ownership of lands in Area C, including land allocation, planning, construction and infrastructure. The Palestinian Authority is in charge of education and health.

Salah said that Israel had taken control of 70% of the Ottoman train line, leaving 240 sections of track under Palestinian control. "The tourism and archaeology office has stored them to prevent their being stolen or damaged, as they tell the story of over 100 years of Ottoman rule in Palestine," he said.

Writer and historian Khaled Maali said the railway was a key way for the Ottoman state to transport its soldiers during World War I. "It was a quick, safe method of transport. The railway also played an important role moving German soldiers to the front lines during World War I," he told Al-Monitor.

He added, "When the railway was built, the Ottomans deliberately put the stations close to each other to make them easier to protect from attacks and theft. They could run more or fewer trains depending on the number of passengers and the amount of cargo they needed to transport."

In 1923, during the British Mandate, the British used the trains to transport soldiers and weapons to put down the Palestinian revolt.

"That meant Palestinian rebels had to attack and sabotage the railway on several occasions," Maali said. "The Zionist movement also used the railway to speed up its settlement projects and to transport equipment and food to Jewish communities."

Yusef Suleiman, 83, remembers when the train was in use. He said that during the mandate era, the station was restored and the tracks were modernized.

"The trains ran on coal and were made up of four carriages that were used to transport pilgrims, passengers and cargo. A single ticket only cost between 7 and 10 qirsh," Suleiman told Al-Monitor. The qirsh was a coin used during the Ottoman era that has also been used in various Middle Eastern countries, performing a role similar to that of a penny.

"I traveled with my father through the Ottoman tunnel to Medina. It was the easiest and quickest way of traveling from one town or city to another. It meant there were fewer ambushes by highwaymen, who used to attack people traveling by camel on the roads to make the hajj pilgrimage, or traders transporting goods and livestock," he added.

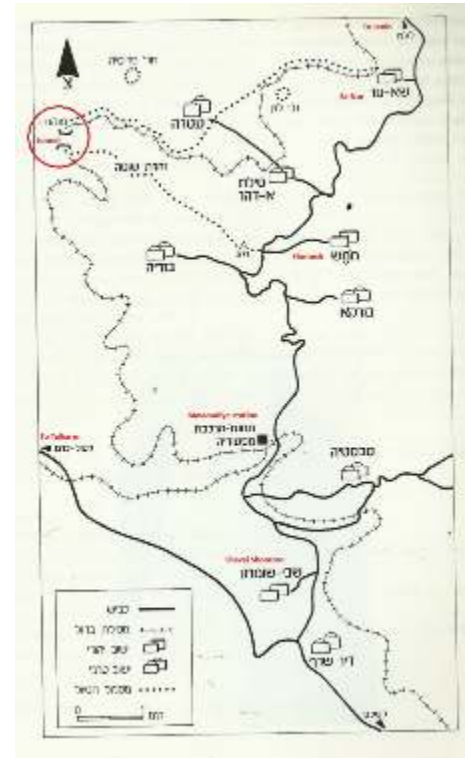
"I remember the train blowing its whistle to announce its arrival, and getting on board with my father. The tunnel was pretty dark, but there were chambers inside it where people would wait and board the train. There were other chambers where passengers could take refuge to avoid being run over as the train went through," Suleiman said.

The Palestinian Central Bureau of Statistics says 53% of Palestine's historic sites are in Area C, controlled by Israel, which prevents any research or restoration work on them."

"By Ibrahim Abdelhadi, an independent Palestinian journalist from Gaza City who covers humanitarian and social issues. He holds a BA in journalism and media from Al-Aqsa University.

Read more: <http://www.al-monitor.com/pulse/originals/2017/08/ottoman-tunnel-to-be-renovated.html#ixzz4sZOVJfP3> "

(The tunnel was on the extension of the Afula-Jenin line to Tulkarm. In later Mandatory days, part including this tunnel was dual-gauged with the standard gauge part connecting the main line at Tulkarm to a quarry. Passenger traffic stopped after 1943 but there were freight trains up to 1947. After 1948, the line was not used as it was not connected to the Jordanian network.)



C. LEBANON.

A VIEW OF THE SITUATION.

"Lebanon's train stations have not seen a train depart since the 1990s, and Beirut's central station was turned into an open-air nightclub in 2014, with a DJ booth added to an old locomotive.

"When I was young, my family used to tell me stories about the trains in Beirut, so I decided to rent the station and give it a new life," Alain Hasbani, the co-owner of "Trainstation Mar Mikhael", told Al-Monitor. Hasbani simply added a bar counter, chairs and tables to the space. The mood gets festive at night, but few partygoers realize the importance of this historic location that was the hub of the railways in the Middle East in the 19th century.

"Those old railroad cars look really nice — it gives an industrial touch to the bar but surely this is only decoration, right?" asked Lara Khoury, a young Lebanese woman who enjoys coming here for drinks. Like Lara, most other patrons at Trainstation Mar Mikhael think the railroad cars and tracks are the decor of the bar. In general, the Lebanese know very little about their country's former railway system.

As the Ottoman Empire was weakening, foreign experts were given economic concessions to modernize the country's infrastructure. This is how Edmond de Perthuis, a French aristocrat and former navy officer, came to build and run a railway line connecting Damascus to Beirut with the first train departing in 1895. The journey took just under 9 hours to travel the 147 kilometers (91 miles) that separate the two cities. It was also the first train journey in the region.

"This railway has had a stiff climb over the main range of the Lebanon Mountains coming from Beirut [...] it continues over to the Anti-Lebanon range to Damascus, and the rack and pinion devices are needed still, for that city is some 2,000 feet above sea level," journalist Roswell Rand wrote in a 1916 New York Times article.

Other testimonies and pictures describe a beautiful ride through fields of olive trees and fruit orchards; merchants would wait for the passengers at each station hoping to sell their local produce.

Two other lines were built: one in 1902 that connected Beirut to Homs in Syria, and the other in 1911 that linked Tripoli to Homs. By 1930, the Lebanese railway was also connected to the famous Orient Express network; the luxurious sleeper cars arrived from cities in Europe to Istanbul, and three times a week set off toward Damascus and Beirut. [sic! Beirut was not reached by standard gauge until 1942. Ed.]

The expansion of the Lebanese railway took a significant turn with the start of World War II. The Allies, who needed to move their troops in the region as fast as possible, built a new line along the seaside that linked the Lebanese coastal cities and traveled to Haifa in Palestine and up to Egypt.

The railway project, however, was short-lived. The creation of the state of Israel in 1948 caused a shutdown of the southern Lebanese border. The Israelis bombed the bridge and a train tunnel near Naqoura for fear of an Arab invasion using the tracks from the north. Up until today, this zone, now under the control of the United Nations, contains the remains of the former bridge that still hangs in the air above the sea.

With private vehicles becoming more common in the 1960s, trains become less popular. Travelers realized that a car ride was often up to four times faster than the train, especially for mountain destinations.

The Lebanese civil war (1975-1990) was the final blow to the Lebanese railway system. In 1976, virtually all the trains came to a halt. The train tracks were severely damaged by the fighting, and many of the stations were turned into military bases.

Elias Maalouf, who grew up in Ecuador, lives in the village of Rayak, in the central Bekaa Valley. The history of Lebanon or its trains mattered little to him. It was only as he was filming a documentary about the retreat of the Syrian army in 2005 — which had occupied Lebanon since 1976 — that he learned about the history of the Lebanese railway system.

"I was filming Syrian soldiers leaving a military base, located in the old train station of Rayak. I saw one of them burn documents in an old wagon, so I ran to get closer. I saw he was destroying military archives. There was shooting around me so I had to leave, and of course when I came back it was too late. To this day, I feel guilty and I promised myself that I would protect the history of the Lebanese trains," he told Al-Monitor.

In 2010, he founded a nongovernmental organization called Train/Train, which advocates the rehabilitation of some parts of the Lebanese rail network and the creation of a train museum in Rayak.

The end of the war in neighboring Syria would one day mean that the Lebanese economy would get a boost. According to World Bank estimations, the reconstruction efforts will cost at least \$170 billion, and Lebanon is anticipating an increase in trade.

The northern city of Tripoli is already gearing itself up to become the main point of entry toward Syria. The city's port is undergoing a massive extension and a Special Economic Zone is expected to be launched in the near future. Old roads are giving way to brand-new highways, and there is serious talk of rehabilitating the rail network toward Homs.

Since 2014, the project has been in the hands of the Council for Development and Reconstruction, which has dealt with all of Lebanon's infrastructure projects since the end of the civil war. "It is a question of months. We are talking about it every day," said Toufic Dabbousi, the president of Tripoli's Chamber of Commerce, in an interview to the local press. According to him, negotiations are underway with potential Chinese investors.

Regardless of when the Syrian conflict actually ends, Ziad Nasr, the head of the National Railway and Public Transportation Authority, claims that rehabilitating the train line to Homs has become a priority. "The project has been given a high priority," he told the local press. "We believe it is very important for this line to be implemented, done and ready."

See: <http://www.al-monitor.com/pulse/originals/2017/08/hope-of-revival-for-lebanese-trains.html#ixzz4sZPpcLcg>

"(Chloe Domat is an award-winning multimedia journalist currently based in Beirut. She reports for various international media outlets including France 24, Ouest France, Global Finance and Middle East Eye. Domat has worked with LCI (TF1 Group Paris). She has a master's degree in political science from the American University of Beirut and studied journalism and international relations at Sciences Po Paris. She speaks English, French and Arabic.)"

Thomas Kautzor commented in October:

"My Swiss friend just got back from 10 days in Beirut. He was once again unable to see the three Polish diesels (his main interest) due to the refusal of the CEL director. He did meet with the General commanding the Ministry of Interior base now occupying the grounds, who had no objection, but who did not have the key to the building.

Incidentally on his first day in Lebanon he came across three German enthusiasts who had climbed over the fence of the base to gain access to the shed. The same evening he found out they were staying at the same hotel as himself, so tried to stay clear of them as much as possible in case things went bad for them and someone might think they are part of the same group.

The guy with his "Peace Train to Jerusalem" created a lot of trouble last year and was still being talked about. Apparently his project even got to the ears of the Hezbollah.

There has been no further progress on the rebuilding efforts. The EU refused to finance the

rebuilding of Beirut-Tripoli because the 100 M. Euros contract would have gone to China and did not include rolling stock. All of the major political parties in the north, which are mostly family-controlled, are against it because the Chinese would not share with them and they see the emergence of the port of Tripoli as a bad thing as most of them also have interests in the port of Beirut.

Now that the war in Syria is fiddling out, the next project would have been reconstruction of the line from Tripoli to Syria, but neither the Russians nor the Iranians will allow that.

Regarding Lebanon, visits to Beyrouth-St. Michel and Rayak were not much of a problem as both are in the hands of CEL. The diesels are however stored in a shed at Beyrouth NBT, much of which is now the operating base of the Ministry of Interior's Rapid Reaction Force. When we visited in 2016 we were able easily to talk our way inside to photograph the locos (see

www.internationalsteam.co.uk/trains/lebanon05.htm); however an earlier visit by Polish enthusiasts as well as my report and an article by Torsten in the LOK-Report appear to have prompted a flow of visits by German diesel enthusiasts to Lebanon to try to see the three Polish diesels. For most people these locos are apparently something special, much more so than all the Swiss rack steam locos.

This was already my friend's second failed attempt at getting into the shed after his visit in 2016. He had already been to Beyrouth in the 1990s to see them, but was unable because he was on the wrong side of town when fighting flared up and he couldn't cross the front line.

The situation became even more fragile and got the Hezbollah involved because someone (a German with a Swiss passport) has been promoting a "Peace Train to Jerusalem" from Switzerland via Iran, Syria and Lebanon. He was in Beyrouth at the same time as Stephan last year and also attempted to get into NBT at the time. As a result the CEL Director is very cautious and will not give any authorization (the officers S. talked to had no problems with him seeing the locos, but told him it was CEL who has the key to the shed - we squeezed in through a gap in the doors)."

D. EGYPT

(i). KHORSHID TRAIN CRASH - MORE DETAILS.

More on the major accident – from 'Al-Monitor' online news.

"In Egypt's deadliest rail accident in years, 42 people were killed and 123 were injured when two trains collided near the Khorshid train station east of Alexandria, according to a statement by the Ministry of Health on Aug. 11.

The initial reports suggested that the crash occurred because of a signal fault, causing the train travelling from Cairo to crash into the back of another that stopped suddenly, resulting in several train cars being crushed. However, the Egyptian Railway Authority (ERA) blamed both trains' conductors for the crash.

The authorities started an inquiry into the crash and arrested the conductors of both trains and their assistants for 15 days. The Public Prosecution ordered urine samples for drug testing from the train

conductor who crashed into the other one. Public Prosecutor Nabil Sadiq ordered that the black boxes of the trains be recovered and for an investigative committee to look into the accident.

The ministry of transportation announced Aug. 13 the resignation of Maj. Gen. Medhat Shousha as head of the ERA. The post was handed over to Sayed Salem, who used to serve as deputy chairman for the ERA's Safety and Quality Department.

On the same day of the accident, Deputy Minister of Finance Mohamed Meit said in a press statement that the ERA needs massive resources for reform, noting that developing the railways exceeds the state's budget.

Millions of Egyptians use the railway network every year, which is considered the main link between the various parts of the country. The railway is seen as safer and cheaper than other means of transportation in Egypt, especially since car accidents on desert roads and highways occur almost every day.

The creaking passenger train network has been plagued by poor maintenance and neglect for a long time, which has been the main reason for deadly train crashes. In 2012, 52 students were killed and 13 others injured when a train crashed into a school bus in Asyut.

According to official statistics by the ERA and the Central Agency for Public Mobilization and Statistics, the years between 2006 and 2016 witnessed 12,236 train accidents.

Many Egyptians who have lost loved ones in train accidents blame the state for failing to deal with the chronic railway problem and lack of maintenance. Suleiman Hassan, who lost several of his cousins in the recent train crash, told Al-Monitor, "The government's negligence is what caused the accident."

"Both my uncles lost their families in the crash. The first lost his wife and three children and the second his two kids," Hassan told Al-Monitor.

However, Amr Abdel Salam, assistant to the minister of transportation, told Al-Monitor that the government has already launched some plans to start improving railway infrastructure. The development project, scheduled to be implemented between 2017 and 2020, is estimated to cost 45 Billion pounds (\$2.53Bn).

"The development projects include renewing railways, developing and converting the manual signals into electric ones, procurement of new train cars, spare parts and the development of some stations. Foreign companies will also handle the maintenance and the workshops of the ERA," Abdel Salam said.

Imad Nabil, an expert and consultant on railways in Egypt, told Al-Monitor that the train network has not undergone any radical development operations since the 1980s.

"All the previous attempts to develop the railways were short-term palliatives, without any significant efforts for comprehensive maintenance works. This is due to the poor state management and difficulties in obtain funding. The railway sector is one of the most expensive sectors in the country. It could cost

\$1 million to develop one single line in the train network, which is a lot for a country plagued with economic crises," Nabil told Al-Monitor.

He added, "Egypt could cooperate with foreign companies from countries such as Germany, France and the US for the development of railways. We need unconventional ideas to stop relying on the state's budget. The government could enter into a development contract with foreign companies, as was the case with the French company that was awarded the subway project in Egypt in the 1980s. With this solution, such companies could operate and benefit from the railways for the duration of the contract, lasting from five to 15 years, and then the government takes over.

"Borrowing is not the best option now for these development projects. The government could make use of the large state-owned areas to establish investment projects or can lease out the train stations. All of these could be a solution instead of raising the price of the train ticket."

In July 2015, the government increased the cost of train tickets by 20 pounds (\$1.12) for first class and 10 pounds (\$0.56) for second class. Egyptians fear another rise in ticket prices after an increase in petroleum and fuel prices in June.

Ibrahim Mabrouk, a professor of transport engineering at Al-Azhar University in Cairo, seconded Nabil's proposals.

"Egypt's railway network stretches over 9,200 kilometres [5,716 miles]. Why is the ERA not benefitting from these areas to start investment projects, such as malls? The revenue could be used for development and maintenance," Mabrouk told Al-Monitor.

He added that "the railways' system should be automated, with less reliance on the human factor, which could help reduce the frequency of train accidents."

Minister of Transportation Hisham Arafat said in televised statements Aug. 13 that it is of paramount importance to strengthen the role of the private sector to improve the railway network. Arafat said that the state's budget is not enough for completing these projects but the contribution of the private sector does not mean privatizing the state-owned sector.

Mabrouk said, "In Japan, 12 railway stations are run by the private sector. Egypt could do the same to enhance the railway sector and to establish new lines."

Egypt's railways are one of the oldest in the world. The first line was established in 1851, connecting Cairo to Alexandria. British engineer Robert Stephenson oversaw the project back then.

In an attempt to bolster development, the Egyptian government signed a 15-year agreement June 17 with the American giant, General Electric, for \$575 million. The deal includes the supply of new car trains and maintenance.

Egyptians hope these measures and deals will reduce the recurring incidents that often leave hundreds of victims every time they occur.

Read more: <http://www.al-monitor.com/pulse/originals/2017/08/egypt-railway-accidents-foreign-contracts-victims-alexandria.html#ixzz4sZRJkKhX>

(Fatma Lotfi is an Egyptian journalist and translator based in Cairo. With an interest in political, economic and humanitarian issues, she writes and translates for local media outlets such as Zahma.com and is a part of the Egypt Media Development Program.)

(ii). FORMER CHIEF MECHANICAL ENGINEERS.

A thread on the Continental Railway Circle led to the following (excerpted) list of CME's on the ESR:

Trevithick, Frederick Harvey 1883 to 1913. (Grandson of Richard, son of Francis of the LNWR.)

Peckitt, Reginald Godfrey 1913? to 1925ish.

Langton, John Montague Ellis 1925ish to 1930

Blyth, Charles Edward 1930 to 1933

Knight, Walter Dingle 1933 to 1934

Spurgeon, Christopher Edward 1934 to 1937

Bonar, Robert 1945 to 1948

(iii). CAIRO RAILWAY MUSEUM REOPENS AFTER RENOVATION:

By Nevine El-Aref. From 'AhramOnline' 23.10.2017.

"The renovated Egyptian Railway Museum was inaugurated on Tuesday after the completion of a modernisation project at the cost of EGP 10 million.

The event was attended by a number of ministers and government officials, including Minister of Transportation Saeed Al-Geyoushi, Cairo Governor Galal Al-Saeed, and Minister of Tourism Hisham Zaazou.

The Railway Museum, which is located in the Ramsis Square Railway station in downtown Cairo, was founded in 1933 to celebrate the International Railway Conference held in Cairo that year. It was the first of its kind in the Middle East and the second national railway museum after the British Railway Museum. The Egyptian railway system, which started in 1854, is one of the oldest in the world.

The museum is a two-storey building displaying more than 700 kinds of train models in addition to a collection of statistical documents and maps that demonstrate the development of transportation in Egypt over the decades.

During the official opening, Al-Geyoushi announced that all museum visitors could enter free for seven days, and that discounts would be offered to students and researchers all year long. The museum consists of five sections covering the history of railways.

The first section is transportation before steam engines, including means of transport in ancient Egypt. The section features Model boats and horse-drawn chariots and wagons that pharaohs used in everyday life and in wars. The second section is

dedicated to the development of rail wagons to modern trains.

A bridges section contains models of all railway bridges in Egypt, and features paintings and pictures depicting the bridges and their design. The airplane section gives a brief history of the development of airplanes from the Wright brothers till today."

(iv). SIGNALLING CONTRACT:

From 'R.G.I. 19.11.2017: "Egyptian National Railways has awarded Thales a three-year contract to modernise signalling and telecoms on the 180km Asyut – Nagaa Hammadi section of the Cairo – Aswan corridor.

Announcing the contract on November 16, Thales said its integrated signalling and communications technology would be designed to work with ENR's existing automatic train protection system and with ETCS in the future. It would also be protected against cyber attack. The upgrading project is being funded by the World Bank, with the aim of improving safety, increasing line speeds from 120 to 160km/h and facilitating an expected doubling in passenger and freight traffic.

Thales said this was its second signalling contract in Egypt, following a 2013 deal covering the Alexandria – Cairo route."

E. SAUDI ARABIA.

(i) NORTH SOUTH RAILWAY MAINTENANCE DEAL.

From 'R.G.I.' 06.10.2017: "Saudi Railway Co has awarded Thales a two-year contract to maintain signalling, telecoms and electromechanical systems on the 2 400 km North–South Railway network. This follows from similar one-year contract which was awarded in 2016, building on the relationship formed during the installation and commissioning of the equipment. Maintenance work is to be undertaken by engineers and technicians located at eight maintenance bases.

The contract includes a knowledge transfer programme to train SAR's local staff to gradually take over maintenance activities, as well as support for the Saudi Railway Polytechnic in Buraydah as part of the government's Saudi Arabia Vision 2030."

(ii). HIGH SPEED DEMONSTRATION SERVICE PLANNED FROM MAKKAH TO MEDINAH: From 'R.G.I.' 23.11.2017:

"A demonstration service on the 450 km Haramain High Speed Rail line between Makkah, Jeddah and Madinah is planned by the end of the year. There would be two trips in each direction for invited guests on Fridays and Saturdays.

With the planned opening date of March 15 2018 now less than four months away, the testing programme has been stepped up. After an initial trial over the 75 km section between Jeddah and Makkah on October 17, a further test trip was made on November 20. On board for the October run were SRO President Dr Rumaih Al-Rumaih and CEO Dr Bashar Al Malik, along with senior executives from

the Al Shoula consortium which has the €6.7bn contract for railway systems and equipment.

Sufficient progress had been made by November 20 for the Governor of Makkah province Khaled Al-Faisal and Minister of Transport Nabeel Al-Amoudi, who was appointed in early October, to participate in the run.

Testing over the section between Jeddah and Makkah followed earlier trials between Jeddah and Madinah, where one of the Talgo trainsets had attained a speed of 300 km/h on July 25. The train commenced its 370 km run at Jeddah and halted at King Abdullah Economic City to allow guests, who included Spanish Minister of Development Inigo de la Serna, to visit the line's main control centre.

Talgo is delivering 35 trainsets based on the Talgo 350 design for commercial services. A 36th trainset, a 10-car VIP formation intended for use by the royal family, is due to be delivered by the end of the year."

F. SYRIA.

STEAM TRAINS RUNNING AGAIN!

This is a mysterious business because it is unclear who knows what and contradictory reports have been received. However, even assuming that the camera can lie, on YouTube can be seen videos showing steam trains running again – presumably for recreational and not commercial purposes – on the former Zebadani line.

Here is one such 'doctored' report received indirectly: "On Tuesday, S. met with E. who was in Syria a few weeks back to photograph the steam train which has restarted between the outskirts of Damascus and a station below Serghaya. They were using one of the SLM locos and there was heavy security.

In fact 805 has been operational at least since 12/2016. The station in the footage does look like Ain-Fijeh, however as I have never been to Zebadani I wouldn't know. Looking at recent maps all of the areas NW of Damascus are under control of the Syrian Army and have been so for some time. I seem to remember that they were swapped with the FSA in a deal brokered by the ICRC sometime last year. I talked to E. a couple of days ago and he denies having been to Syria for the steam train or that there were even such trains running, despite the coverage on YouTube (there have even been reports on Russia Today's arabic channel). He claims he went to Damascus only to take some pictures of the plinthed loco at Kanawat station. Elias has however confirmed that there have been trains, as has Bernd Seiler, who was in contact with a Syrian journalist until a few months ago. The remarkable thing is that the line was reopened all the way from Cadem through the streets of Damascus. In one report you can see the locos and stock stored at El Hame."

Nick Lera wrote:

"The claim of the You-Tube video film to show a run to Zebadani seems incorrect. The line certainly goes to Zebadani on the Lebanon border, but the terminus of this special train looks to me like Ain-Ei-Fijeh, just outside the Damascus suburbs and

well short of the spectacular Barada Gorge section. If you look at the online maps of the Syrian war zones you can see the Gorge is uneasily positioned between Government and rebel factions. That might explain the strict security. The officials looked very unhappy, despite the brave show of singing and folk dancing. Notice the colour poster of the upper Yarmuk viaduct behind the 'Prominenz!'"

Hopefully more information will be available soon.

G. IRAN.

(i) LOCOS FOR AZERBAIJAN THROUGH LINK.

Not directly Iran but part of the neighbouring and linked systems (see also above under 'Turkey' item (iii)): From 'R.G.I.' 9.10.2017:

"AZERBAIJAN: The first of 10 Prima M4 electric passenger locomotives for national railway ADY was unveiled at Alstom's Belfort factory in France on October 9. Speaking at the unveiling, ADY Deputy Chairman Hijran Valehov said important steps were being taken to modernise the operator's locomotive fleet.

Alstom is building the 10 Type AZ4A passenger locomotives under a contract awarded by ADY on May 12 2014. The AZ4A is part of the manufacturer's Prima M4 family, adapted to meet ADY's specifications and the 1,520mm gauge region's GOST standards. The locomotives are intended to operate at a maximum speed of 160 km/h under 3 kV DC on the north–south corridor and 25 kV 50 Hz electrification on the east–west corridor. The AZ4A is designed to offer longer intervals between servicing than older ADY locomotives, with lower power consumption and maintenance costs.

'We are very pleased to deliver our first multipurpose Prima locomotive to Azerbaijan and become a part of ambitious projects to increase transit links between the Black and Caspian seas and between Russia and Iran', said Bernard Peille, Alstom Managing Director for Western & Central Asia Cluster.

The opening ceremony for the Baku – Tbilisi – Kars railway is scheduled for October 28."

(ii). DEPOT FOR LOCOS ON KAZAKHSTAN LINK.

And associated with the above item: from 'R.G.I.' 25.10.2017: TURKMENISTAN: "A locomotive depot has been opened at Bereket where the north–south corridor between Kazakhstan and Iran meets the east–west Ashgabat – Bereket – Turkmenbashi route. Government officials, staff representatives, elders and young people attended the inauguration celebrations, which included a message from President Gurbanguly Berdimuhamedov as well as musical and dancing performances.

The depot has been designed to increase locomotive availability on the corridor, and to provide safer and more comfortable working conditions for more than 600 staff. It has the capacity to undertake the routine maintenance of 210 diesel locomotives per year, using modern

diagnostic, measuring and inspection tools, a wheel lathe, lifting equipment, a train washing plant and facilities for the cleaning of locomotive components. There is also a two-storey administration building and staff recreation facilities including a sports ground."

(iii). TEHRAN-MASHHAD ELECTRIFICATION LOAN.

(From 'R.G.I.' 25.07.2017):

"A US\$1.5Bn loan agreement to finance electrification of the 926 km Tehran – Mashhad main line was signed by China EximBank on July 25. Iran's Bank of Industry & Mine will act as the Iranian government's guarantor.

The 25 kV 50 Hz electrification project forms part of a programme to upgrade the route to raise the maximum speed from 160km/h to 200km/h, reduce journey times from 12hr to 6hr and increase capacity to 33 million passengers and 10 million tonnes of freight per year by 2032.

Planning for the electrification has been underway since 2012. In June 2014 a contract to install and maintain overhead equipment and procure 70 locomotives was awarded to a consortium of Chinese companies China National Machinery Import & Export Corp, SU Power and local industrial group MAPNA. A year later Iran and China reached an agreement for the project to be financed through Chinese loans. Work was ceremonially launched by President Hassan Rouhani in February 2016.

The overall cost is now put at US\$2.56bn, of which two-thirds is to be financed by the Chinese government at a low-interest rates and one-third would be covered by China Export & Credit Insurance Corp."

H. DUBAI.

METRO EXTENSION WORK STARTS.

From 'Metro Report Intl.' 25.10.2017: "UAE: Ruler of Dubai Sheikh Mohammed bin Rashid Al Maktoum officially launched tunnelling on the Route 2020 metro extension on October 24.

Twin tunnels 8.8m in diameter are being bored by 103m long tunnel boring machine Al Wugeisha Expo 2020. The 3.2km section from Discovery Gardens to The Green Community will be up to 36m underground. A groundbreaking ceremony for the 15km branch of the Red Line from Nakheel Harbour & Tower to the Expo 2020 site took place in September 2016. Piling works began in November and construction of the elevated section started in August.

The elevated section is due to be completed in November 2018 and tunnel boring the following month. Railway works are due to finish in July 2019, ahead of the start of test running in February 2020. Passenger services are scheduled to begin on May 20 2020, five months ahead of the opening of the Expo.

A 50:50 joint venture of Parsons and Systra is acting as project engineer, with construction work being carried out by the Expolink consortium of Alstom, Acciona and Gülermak. Thales will provide railway systems. Alstom is supplying 50 trainsets, of which 15 are needed for the new line and 35 to increase capacity on existing routes. The first is due to arrive in July 2018."

I. YEMEN.

An historical snippet on a country currently ravaged by war. From 'Continental Railway Journal' issue 80. (1989?) By Philip J. Ashforth; Entitled 'A Gem in the Sand', courtesy of Iain Logie.

".....On a visit to the Yemen Arab Republic (North Yemen) in October 1985 a chance remark to an expatriate... led me to an exciting discovery - a former railway in the Yemen and not only that, the remains of a train still to be seen today. So on Friday 1st. November 1985, the Islamic weekend, I set out by taxi from Sana'a, the inland capital, over the mountains for the 220km journey to the Red Sea port city of Hodeidah in search of this line.

The railway was promoted by the Ottoman Government in 1911, with a loan to cover the cost of constructing a metre-gauge line from Ra's Káthib and Hodeidah across the tropical Tihama plain and into the western mountain slopes to Hodjile, near the city of Manakha, 2,200 metres above sea level at the centre of the Haraz mountains. This city was of strategic importance as a road station for the Ottoman Turks who needed to transport their supplies from Hodeidah to Sana'a, and even today the strong fortifications and old Turkish road are still to be seen on the slopes near Manakha. The proposed railway as surveyed was, however, much more ambitious than that financed. Surveying started in January 1911 for a line to link Hodeidah, Bait al Faqih and Zabid with the fortress city of Ta'iz in the south (altitude 1,400 metres). From there the railway was to turn northwards to Ibb, capital of the 'green province' (Ibb receives the highest rainfall in the country and thus the area is green for most of the year) and on through Yarim, Dhamar, Ma'bar and finally into the capital city of Sana'a. Those familiar with the topography of North Yemen will know that this route northwards traverses the extensive elongated basins of Ibb, Yarim and Dhamar before finally entering the Sana'a basin, but between them formidable mountains have to be crossed including the Sumara pass at an altitude of 2,700 metres. Despite the rugged terrain, it was

decided that no gradients would be steeper than 2½% and no curve would be less than 100 metres radius. The survey was completed by four teams in four months, and from it a 1:2000 scale plan was prepared, covering a total route of some 900km.

At that time, Yemen still had areas which were hostile to outsiders and to the Turks in particular. So it is said that the survey teams were accompanied by a battalion of 850 men and half a company of cavalry. It was such hostility that led to the abandonment of a slightly earlier project, which again was to run from the deep water harbour at Ra's Kathib to Hodeidah, then inland to Bajil at the foot of the mountain routes to Sa'dah and Hajjah. This survey began in February 1909 under the direction of the French engineer Beneyton. The Ottoman Government, however, only approved the route as far as Obal and requested that an extension be built from there to Hodjile which was the nearest rail could reach Manakha. It will be recalled that this city also featured prominently in the second project. The section through Wadi Siham and Fersh was rejected because the Turks could not guarantee the safety of the construction teams. At the same time the section between Sanba'a and Amran was shelved.

This original proposal resulted from the Ottoman Government's plans, made in 1906, for the construction of a deep water harbour at Ra's Kathib, approximately 17km north of Hodeidah and effectively an island, but joined to the mainland by a long sand spit. The new harbour was to be connected to the mainland by railway and a contract, said to have been worth in the region of 2 Million Pounds Sterling for the port and the railway, was given to a French syndicate headed by the Banque Francaise pour le Commerce et de l'Industrie. The railway was given the grandiose title of the 'Ottoman Hodeidah-Sana'a and Branch Line Railway Company'.

As a result of a second survey through the more settled areas of the Yemen, work finally commenced in 1911 from the Ra's Kathib end of the line, and 7km of track had been completed across the sand spit by February 1912 when work was interrupted by a bombardment of Hodeidah by the Italians. Construction never resumed. Total abandonment of the project because of the bombardment appears to be a surprising decision by the Ottoman Government, but events in the capital Sana'a provide a clue to the reasons. Since 1904, when Imam Yahya assumed power, Yemeni nationalism had been asserting itself with a call for national revolt against the Turks. Although the Turks fought off one siege of Sana'a, a second siege in 1911 forced them to sign the Treaty of Da'an. This conceded control of the highlands to the Imam as far south as Ta'iz, but allowed the Turks to administer the Tihama. Indeed, the Imam encouraged the Turks to stay on in the area, which they did until their official withdrawal after the First World War in 1919. Thus the raison d'être for the railway would have been removed, for it can be safely assumed that the line was proposed mainly for military purposes.

So what remains today? In short not very much, nearly 80 years after the abandonment of the project. At or near the point to which the line had been constructed along the sand spit, on the east side of the present road, lie the remains of a six-coupled

steam locomotive, the frame and wheels half-buried in the sand. A few metres beyond is the boiler shell on its side. Several sets of small wheels also lie scattered around in the sand and a March 1978 report in 'The Ring Road Rag', published in Sana'a by expatriates, refers to carriages in addition to the locomotive. The track has now disappeared entirely under the shifting sand.

Naturally the humid salt-laden atmosphere and the coarse sand have taken their toll on the locomotive. It is severely corroded and small pieces of rusty metal which have flaked away lie all around the remains. Some parts have clearly been removed, for the cylinder piston rods have been cut through. Identification from the remains is thus impossible. It is not even certain if the remains are those of a tender or tank locomotive, but as previously mentioned it is six-coupled and the long overhang at the back indicates that the locomotive might have had trailing wheels. It is also possible that it had leading wheels although this is doubtful. The locomotive has outside cylinders and the remains suggest it is of German manufacture. If it was delivered new the chances of identification naturally become all the greater.

Whether any other locomotives were delivered to the railway is not known. Unfortunately, the course of that part of the line which was actually built is in a military area and non-Yemeni citizens are not allowed into Ra's Kathib. Who knows, perhaps rolling stock lies abandoned there as well.. Further observations on this addition to railways in the Middle East will be most welcome."

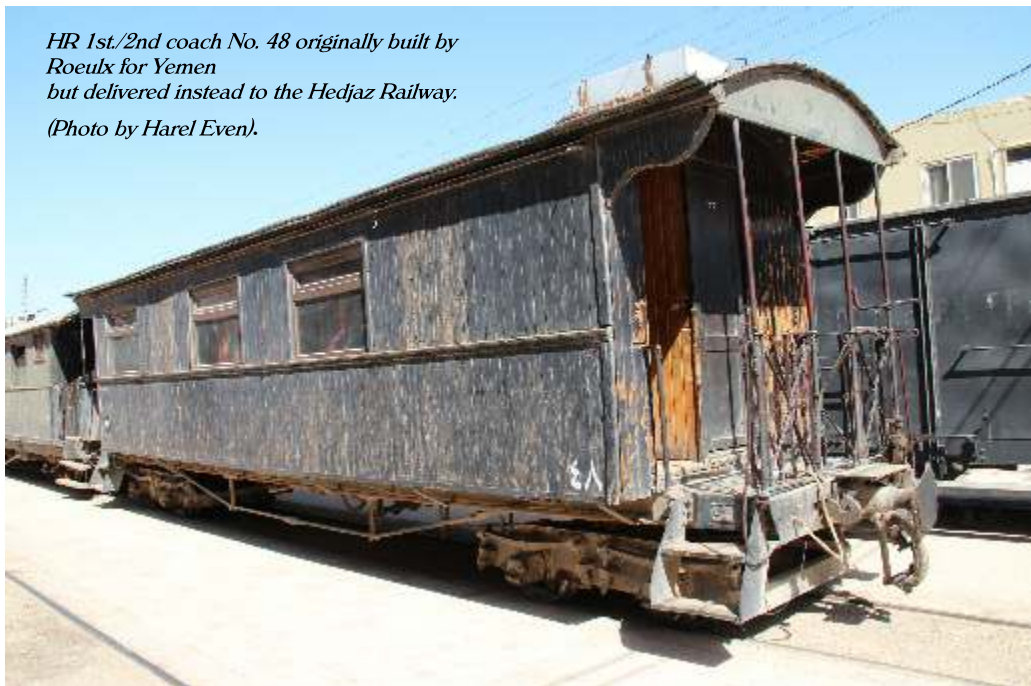
Iain then noted that in Harakevet issue 33 (p13) mention is made of 0-6-0T's Borsig 8060 or 8061 supplied in July 1911 and confirmed from a German Borsig works-list, although oddly that list gave the gauge of the locos as 1050 mm. However, this would have been standard with the Hedjaz line, should there ever have been any chance to join the two, and in that issue Andy Wilson mentioned that the date fits the diversion of certain carriages and wagons noted as built by Roelux "for Yemen" to the Hedjaz lines.

J. IRAQ.

Also not 'News' but of interest. The Dutch 'Op de Rails' website has a reproduction of an advertisement in French "Sur le route des caravanes" - "Along the Caravan Route" for 80 Francorail Type CSE 26-21 Diesel locomotives constructed under this consortium name. They were fitted with the ALCO (US-built) 16-25 IF motors of 3600hp (2650kW). Despite what stands in the text, Iraq purchased 72 such locomotives, eleven for passenger services (numbered DEM 4001-4011) and 61 for freight (Nos. 4101-4161). Twelve of the same type were delivered at this period to North Korea and six to Saudi Arabia.

The advert states that "To renew its motive power fleet Iraq has chosen a powerful locomotive of 3,600hp, a version is also available with 2,400hp. Without modification to infrastructure these are capable of economic and regular operation in torrid deserts with temperatures from up to +50° and down to minus 40°C. Other countries in the world have displayed interest in this type and Korea has

HR 1st/2nd coach No. 48 originally built by Roelux for Yemen but delivered instead to the Hedjaz Railway. (Photo by Harel Even).



bought seven [sic] and Arabia six. Those who created this locomotive also are those who also created the TGV, the fastest train in the world. Francorail finds the most effective solutions for each railway system."

The ad. must date from 1982 when the Iraqi locos were built; North Korea bought seven in 1981 and five more in 1985; Saudi Arabia got its six in 1983, numbering them 3603-3608. Francorail was a consortium – body and assembly were dealt with by Carel Fouché, bogies by Creusot and motor and traction equipment by MTE.

K. MIDDLE EAST RAIL CONFERENCE AND TRADE FAIR.

Dubai, 12-13th. March 2018. Go to: <https://www.terrapinn.com/template/Live/PDF/Middle-East-Rail-2018-Brochure/> for details, which change constantly as new speakers and exhibitors are signed up.

There are others including a conference focussing on East Africa. Another is Caspian and Central Asia Rail Conference - One of the messages one receives is quite remarkable and deserves closer reading: This is from 8.11.2017:

"Dear Walter, This week the first train to mark its first official run across Azerbaijan and Georgia to the east of Turkey on the completed Baku-Tbilisi-Kars (BTK) rail line has ceremoniously gone into service. The 826-kilometer BTK railway from Baku in Azerbaijan to the Georgian capital, Tbilisi, and the Turkish city of Kars is a significant rail link in the region which will cut freight transport times between Asia and Europe from 12 days to 15. [sic.!!]

In partnership with Azerbaijan Railways, the Caspian & Central Asia Rail conference brings together transport ministries and operators, rail developers, contractors and suppliers to talk strategy, technology and innovation for developing these new networks.

At the Caspian & Central Asia Rail conference you can hear more about the Baku-Tbilisi-Kars (BTK) rail line, the International North South Transport Corridor and other projects part of the Belt & Road Initiative from speakers such as:

Javid Gurbanov, Chairman, Azerbaijan Railways

Mohammad Yamma Shams, CEO & DG, Afghanistan Railway Authority

David Sadradze, Project Coordinator, Georgian Railway

Hakan Gunel, Technical Project Manager, Turkish State Railways (TCDD)"

And: "The Middle East is going through some incredible changes. If you haven't heard about the GCC economic initiatives and reforms that have been all over the news for the past year, then you have most certainly not been on the right track.

(Continued on page 21)

LIGHT RAIL.

A. TEL AVIV

(i). CHINESE FESTIVITIES.

The 12.09.2017 was an historic day and a milestone for the Red Line project: NTA & CRRC Changchun Railway Vehicles Co. Ltd. of China had a double celebration; the opening ceremony of their office in Israel and the ceremony of signing the LRV maintenance agreement for 16 years with CRRC.

This took place at their new office located on the 13th. floor of the Ayalon Insurance building in Ramat-Gan, very near to the Abba-Hillel station which is at a progressive construction phase, and not very far from the Diamond Exchange, LRV Arlosoroff station (also at a progressive construction phase) and the Tel-Aviv Savidor/Central station of Israel Railways Ltd. and Ayalon highway 20.

In the ceremonies NTA CEO Mr. Yehuda Bar-On and CRRC Changchun Railway Vehicles Co. Ltd. of China Vice-President Mr. Zhou Chuanhe mentioned the good cooperation between both sides, adding that hopefully CRRC will win more tenders and projects in Israel; they see in winning the project a psychological breakthrough in Israeli awareness of Chinese technological capabilities.

(ii). MOCK-UP OF CHINESE VEHICLES.

From a press release of 13.09.2017 by NTA:

"NTA unveiled today the mock-up of CRRC for the Red Line at Rothschild Blvd. of Tel-Aviv in a ceremony with participation of Transport Minister Mr. Israel Katz, NTA CEO Mr. Yehuda Bar-On, and the mayor of Tel-Aviv Mr. Ron Khuldai.

The mock-up has been brought to Israel as an integral part of checks and gaining lessons towards production at CRRC Changchun Railway Vehicles Co., Ltd.; it is also important to receive feedbacks from the public visiting it.

NTA CEO Mr. Yehuda Bar-On said: "As the host, I'd like to thank Mr. Katz and Mr. Khuldai for their involvement in promoting the project; We're on the first third of the way; we're progressing towards start of operation in 2021. Parallel to the works clearly seen (and felt) at worksites, we're promoting the LRV production; I'd like to thank CRRC and their management for the product quality and for bringing their mock-up to Tel-Aviv".

Transport Minister Mr. Israel Katz: "When we touch the mock-up, we can feel how the vision becomes a reality; the huge project is running on schedule and even ahead of it; We've succeeded in overcoming the obstacles and disagreement which we've faced; The municipality of Tel-Aviv and the citizens accept the temporary inconvenience with understanding (Note - this depends who is being asked...!), because they know that this is the right way to build a transportation infrastructure, and this is what the city of Tel-Aviv and its citizens need; \$8.4 Billion (NIS 30 Bn) have been already allocated for the Purple Line and the Green Line and we're promoting them towards implementation".

The mayor of Tel-Aviv Mr. Ron Khuldai said: "After a long time of difficulties, we expect at last to open the line in 2021; we'll cut the ribbon only after the first train's run; for such a big project the trains must run 7 days a week (including Saturday); I know that this collides with the Jewish religion, but I'm sure that a proper solution will be found."

The Vice President of CRRC Changchun Railway Vehicles Co. Ltd. Mr. Zhou Chuanhe said: "We see the co-operation between our company and NTA as a contribution to the urban transport development; We are proud of our mission and determination to supply advanced, high quality and safe equipment to create an comfortable and green journey experience for the citizens of the Greater Tel-Aviv Area".

The mock-up is on display for the public from 13.09.2017 between 15:00 and 22:00 Sunday to Thursday, between 10:00 and 16:00 on Friday, and during Sukkot Holidays between 10:00 and 22:00; it will remain open until about 15.10.2017."

Aharon wrote on 13.09.2017: "Today another important event took place: unveiling a full scale mock-up of the CRRC LRV to run on the Red Line; Transport Minister Mr. Israel Katz will participate.

This ceremony, unlike the one yesterday, is limited to 10 people only; the mockup will, however, be open for the public from 15:00 today; due to its location at the beginning of Rothschild Blvd. facing the national theater "Habima" and the Culture Hall it will undoubtedly attract a lot of people.

Amongst those involved on 12.09 at the CRRC office were: NTA Deputy General Manager Mr. Shay Yiftakh; NTA CEO Mr. Yehuda Bar-On; CRRC Changchun Railway Vehicles Co., Ltd. Vice President Mr. Zhou Chuanhe; CRRC Deputy General Manager International Business Division Mr. Gang Liu; CRRC representative in Israel (also for Utong buses) - On Shore Manager Israel Red Line Project Mr. Itzak Koifman."

(Continued from page 20)

GET BACK ON TRACK WITH MIDDLE EAST RAIL 2018

Saudi Arabia: From the mighty Landbridge, to the visionary Riyadh Metro, to the speedy Haramain, hear from the CEO of Saudi Railway Company and the VP of Arriyadh Development Authority on what's next to be delivered in 2018.

UAE: Full steam ahead and its not just a cliché. Dubai Expo 2020 metro line extensions and an eagerly anticipated update on the giant GCC connectivity network... there is only one place to hear from the CEO of Etihad Rail, the Roads & Transport Authority of Dubai and the Department of Transport for Abu Dhabi.

Oman: It's all about logistics, ports and freight connectivity as we hear the latest update from the GM of Oman Rail & Oman Global Logistics.

Kuwait: PPP regulations finalised, commencing tendering for the Kuwait Metro! In 2018 we'll be hearing of this reentry to the project landscape from the Board Member of Kuwait's Public Authority for Roads & Transportation.

Bahrain: Feasibility studies for the first phase of the Bahrain Light Rail Transit project have been completed – the start of more to come from their Public Transport Masterplan 2030; 184 km comprising six lines. Hear more from the Undersecretary from Bahrain's Ministry of Transportation & Telecommunications."

Emma Taylor

Conference Manager

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The tram mock-up on Rothschild Boulevard;
Photo Dalia Grossman.



(iii). TEL AVIV LIGHT RAIL DIMENSIONS.

From a leaflet produced by CRRC:

"Changchun Railway Vehicles Co Ltd, was founded in 1954 as one of the national key construction projects of China during the 'First 5-Year Plan' period. CRRC Changchung Railway Vehicles Co. Ltd. was transformed to a joint-stock company in 2002, has more than 14,000 staff and factory area of 4.95 million sq.m.

CRRC... is mainly engaged in development, production and maintenance of high-speed EME, mainline passenger vehicle, urban mass transit vehicle and other products. Now the annual production capacity of CRRC has come to 1,000 high-speed EMUs, 1,200 urban mass transit vehicles, 500 mainline passenger vehicles and 6,000 bogies. Due to the world class production scale, equipment level and development capability, CRRC has become the development, manufacturing and maintenance base of railway vehicles.

China Changchun Factory: No. 435 QuingYin Road, Changchung City, China.

Israel Office: 13F Beit Ayalon, Bituch Aba Hillel Blv., 12 Ramat Gan."

And the Specifications of the 100% Low Floor Light Rail Vehicle:

Dimensions and Weight

Vehicle Length: 34800 mm – 70360 mm.

Number of Modules: 5

Vehicle Height: 3650 mm

Vehicle Width_ 2650 mm

Door Width: 1300 mm

Door Height: 1950 mm

Minimum Saloon Height: 2100 mm

Track Gauge: 1435 mm

Wheel Diameter: 580 mm (new) / 500 mm (worn)

Interior Arrangement

Seated Passengers: 76

Passenger Capacity (AW4): 286

Wheelchair locations: 4

Technical Characteristics:

Design Life: 30 years

Material of carbody: stainless steel.

Maximum speed: 80 km/h

Minimum Radius: 82ft (20 m) [sic]

Maximum axle load: 12.5t

Low floor 100% (mp inter steps)

Supply voltage: 1500V D

Maximum Acceleration: 1.05 m/s² (0-40 km/h) – 0.81 m/s² (0-80 km/h)

Maximum Deceleration: 1.19 m/s² (0-80 km/h)

Tunnel section: Automatic train operation mode

At-Grade section: Line-of-sight driving mode.

(iv). BORING NEWS.

From a press release of 13.09.2017 by the Transport & Roads' Safety Ministry:

"Transport Minister Mr. Israel Katz unveiled today the fifth TBM for the Tel-Aviv LRV/METRO Red Line; it started boring at a depth of 30m under the Galei-Gil shaft at Ramat-Gan near the diamond exchange.

Minister Katz has decided to call the fifth TBM - out of five such boring the Red Line tunnels - after a beloved singer Mrs. Ahuva Ozeri who died recently; she created a breakthrough in oriental songs. Also participating at the ceremony was her relative Mrs. Karmela Ozeri who was close to her during her last years of life.

The name for the TBM has been given in the spirit of miners who use to call such machines after leading women; the previous four are named after: Golda Meir, Margaret Thatcher, Rosa Parks and Wonder Woman!" (Why do miners think women are boring? Ed.)

...see photo next page.....

(v). MAINTENANCE CONTRACT SIGNED.

From 'Metro Report Intl.' 13.09.2017: "A 16-year contract for CRRC Changchun Railway Vehicles to maintain the fleet of vehicles that it is supplying for the Tel Aviv light metro Red Line was signed on September 12 by NTA Chief Executive Officer Yehuda Bar-On and CRRC Changchun Vice President Zhou Chuanhe.

The signing took place at the manufacturer's regional office in Tel Aviv which was formally opened on the same day. Located in the city's Ramat-Gan district, the new office is close to the metro stations at Abba-Hillel and Arlosoroff as well as Israel Railways' principal station at Tel-Aviv Savidor.

The following day saw the unveiling by Transport Minister Israel Katz of a full-scale mock-up of a new light metro car, which is being displayed for public consultation close to the city's Culture Hall.

CRRC Changchun had been selected in November 2015 as preferred bidder to supply 90 articulated light metro cars to operate the 23 km Red Line, with an option for 30 more. A long-term maintenance agreement was envisaged as part of this contract, subject to government approval and the finalising of an industrial co-operation agreement."

(vi). NTA TENDER No. 091/2017: Providing digital and offset printing services for NTA: The contract is for 24 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 28.09.2017.

(vii). RED LINE SIGNALLING CONTRACT.

From a press release of 01.10.2017 by NTA:

"NTA Tenders' Committee announced today that Alstom has been selected as the winning bidder for the \$110M (NIS 390M) international tender No.2017/55 for the Red Line signalling which include command and control systems, inspection, and automatic running in tunnels.

Another bidder - Ansaldo STS - did not reach the best and final stage.



Drilling for diamonds? NTA Red Line drilling shaft at Galey Gil, near the Diamond Stock Exchange.

The tender for the Red Line systems is currently at a progressive stage and the winner is to be announced soon. NTA has announced that they are arranging to prepare Alstom to work with CRRC. NTA General Manager Mr. Yehuda Baron said: "I'm proud of the professional NTA Tenders' Committee, which has secured keeping to the budget framework without compromising on the quality of the systems; I congratulate Alstom on their joining the project; it is a significant milestone on the way to start operating the Red Line within four years."

(Metro Report Intl. 02.10.2017 reported thus: "Alstom has been selected as preferred bidder for a US\$110M contract to supply signalling, control and automation systems for the 23 km Tel Aviv light metro Red Line, project promoter NTA announced on October 1. Ansaldo STS had also expressed interest but did not reach the final stage of the bidding process. 'I congratulate Alstom on joining the project; it is a significant milestone on the way to start operation of the Red Line within four years,' commented NTA General Manager Yehuda Bar-On.")

(viii). NTA TENDER 078/2017. RED LINE SYSTEMS.

"NTA – Metropolitan Mass Transit Systems Ltd. ("NTA") hereby invites companies worldwide, with the required experience and ability to participate in an international tender for the Design, Development, Manufacture, Procurement, Supply, Installation, Testing, Commissioning, Warranty and Maintenance of the Systems of the Red Line Project all as detailed in the Bidding Documents ("the Project").

In accordance with the provisions of Regulation 7(a)(1) of the Mandatory Tender Regulations 5753-1993 the Tender Committee has decided to conduct the tender process as a limited public tender as such term is defined in Regulation 1 of the Regulations, all as stipulated herein below.....".

"NTA is a government-owned company tasked with promoting the construction and implementation of the Red Line as the first light rail line to be operated in the Tel Aviv metropolitan area.

1.3.2. The lines of the light rail transit (LRT) system have been included in the National Outline Plan (NOP) No 23/A/4, referred to locally as TAMA 23/A/4. This plan outlines an integrated mass transit system comprised of seven lines.

1.3.3. The Red Line route from Bat Yam to Petach Tikva via Tel Aviv – Jaffa, Ramat Gan and B'nei Brak is one of the most heavily used traffic corridors in the Tel Aviv metropolitan area. In addition, the population density along the corridor is one of the highest in the Tel Aviv metropolitan area.

1.3.4. The Red Line is the first LRT line in the public transport network to be procured. This 22.5 revenue-kilometre-long LRT line will pass through five municipalities (Bat Yam, Tel Aviv-Jaffa, Ramat Gan, B'nei Brak and Petach Tikva) and includes an approximately 11 kilometer-long tunnel

section to be built under the cities of Tel Aviv, Ramat Gan and Bnei Brak. 1.3.5. The At Grade South segment extends northward from the Bat Yam Terminus to Elifelet Stop for a distance of approximately 8 kilometres. It includes 16 Stops.

1.3.6. The Underground segment of the Red Line consists of approximately 11 kilometres of twin tunnels extending from Elifelet Portal to Shenkar Portal and to the Depot Portal and it includes 10 Stations.

1.3.7. The At Grade East segment of the project is composed of approximately 4 kilometres of running track extending from Shenkar Portal to the Petach Tikvah Central Bus Station. It includes 7 Stops. In addition there is an at-grade

branch line running for about 800 metres from the Depot Portal to a Stop at Kiryat Aryeh.

1.3.8. The Depot is located in the Kiryat Aryeh industrial area near the Petach Tikvah stadium and adjacent to an active Israel Railways line. There will be a connection between the Kiryat Aryeh Stop and a nearby Israel Railways station.

1.4. The Works

The Works with respect to which the Bidders are invited to submit their Proposals consist, *inter alia*, of the design, development, manufacturing, procurement, supply, installation, testing and commissioning, warranty and maintenance of the Works for the following systems (and their subsystems as further detailed in the Agreement Documents)." etc.- the document is 90 pages long! Bids by 30.11.2017.

(ix). NTA TENDER No. 122/2017: Providing services for Management, Operation, Maintenance, Cleaning, Security & Patrol for the NTA management building at Holon; The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 23.11.2017.

(x). NTA TENDER No. 2017138: Designing, Building, Operating and Dismantling (if needed) of Deep Water Treatment Facility to supply it for further use of Greater Tel-Aviv Area population: The facility is to be located near Tel-Aviv Savidor/Central railway station. The contract is for 12 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 12.12.2017.

(xi). NTA Tender No. 136/2017: RFI for providing Editing Services of NTA engineering catalogue: Latest date for submission of proposals: 15.01.2018.





"Computer-generated image of the NTA Green Line in what looks indeed a very green landscape."

See page 18



ÖBB (Austrian Federal Railways) provided stabling room in their wagon workshops at Wien Jedlersdorf for Metro trains, built by Siemens for Riyadh, before they were to be shipped in batches to Saudi Arabia. Siemens is building in Vienna 74 trains for two different lines. Two-car trains in red colour, Four-car trains in blue. Total Worth is €1.5 Billion. A blue train was exhibited at Innotrans 2016.

The trains have 3 classes: Men and „qualified“ women. Family class. Women are allowed, when accompanied by a man. Single Worker class. For unqualified men. There's no question as to whether women are allowed to drive the trains, since they run driverless! Photo taken on June 7 2017 by Klaus Matzka.

MODELLING THE RAILWAYS OF PALESTINE AND ISRAEL.

By Chen Melling.

Though my practical experience in railway modelling is still rather limited, my love for the railway world and hobby is deeply rooted in the scale-modelling hobby. As a big fan of my "home team", i.e. the railways of Israel and its neighbours, my aspirations for creating appropriate models go back my childhood days.

The following is an attempt to share the knowledge gained so far in my quest to realize that long-held dream.

Difficult Decisions – an Introduction

Anyone contemplating modelling the local railway scene would probably face most of the difficult choices confronting the average newcomer to the hobby. Whereas the issues of cost and available space are beyond the scope of this article, the following issues are very much part of it:

Choice of a scale/gauge combination

Selection of prototype subject, location and period

Availability of commercial models of the desired trains and installations

The railways of Palestine and Israel present the potential modeller with a difficult prospect in that for most of their existence there was a mixture of British, European and American practices and equipment. The modelling problem stems from the use of close-but-different scales in different parts of the world, and this is most apparent in the two most popular scale/gauge combinations – HO and OO – more commonly known by English-speakers as HO and OO, respectively. Without going into the reasons for the difference, I'll just note that HO uses 1:87 scale and 16.5mm gauge to represent the standard gauge, whereas OO, used today almost exclusively in the UK and Ireland, uses the same gauge but 1:76 scale, in effect making OO track out-of-scale as it is too narrow.

While it is easy enough to run HO and OO models on the same track, they would look awkward when viewed together, as a British locomotive model in OO is about the same size as a similar American locomotive model in HO, although the British one is much smaller in real life, due to the restricted UK loading gauge. A similar problem exists in the other popular scales.

This is normally not much of a problem, as British trains usually didn't 'mix' with their counterparts from mainland Europe and North America. However, many occasions of such mixing did occur outside of these areas, including the Middle East, where the standard gauge railways in particular carried trains of mixed origins.

The average railway modeller will likely prefer ready-to-run (RTR) rolling-stock models over kits, and kits over scratch-building. While some modification and 'kit-bashing' as well as repainting of commercial models might be acceptable, only a very few would dare trying to establish a whole operable collection of items completely scratch-

built. Even scratch-building is made much easier when some difficult components, such as wheels and castings, are available commercially.



1:76 scale parachute water tank from the Bachmann Scalerscene range, also produced for British N gauge, i.e. 1:148 scale.

As many of the locomotive and rolling stock types used in this region are unique to it, the availability of any commercial models and components is crucial. This is where the discrepancy of scales mentioned above can get extremely frustrating, as some of the available items are to the British OO scale whereas others are to the more common HO scale.

Many of the readers are probably aware that the railways of Palestine and Israel included several networks of differing gauges. Considering the most popular scale/gauge combinations, the following are probably the most-recommended choices in this aspect:

Jaffa & Jerusalem Metre gauge and Hijaz Railway 1050mm gauge – HOm (1:87 scale using 12mm gauge track commercially available)

Standard Gauge – OO or HO, depending on commercial availability of appropriate models

60cm gauge – OO9 (1:76 scale using 9mm-gauge track available commercially)

2'6" gauge (as well as 60cm) as used during WWI can be modelled in 1:43.5 scale, using 16.5mm gauge track, commonly referred to as O16.5, though much would have to be scratch-built.

If modelling points of interchange between the gauges, some difficulties may arise if one gauge is better catered for commercially in a certain scale, while the other has models available for it in another scale.

What's Available?

It would be difficult to describe in detail all commercially available items that are relevant to the subject, either as completed models or as parts or bases for conversions and scratch-building. However, a summary of the main ones would hopefully be of use to the readers, and the writer would be happy to answer any further questions.

The one point easiest to summarize is that of structure models. Most railway buildings in this region, while inspired by European designs and trends, had unique features which makes adaptation of foreign models and components practically impossible. However, this should not be considered as great a handicap as the lack of train models, since scratch-building simple structures, as commonly found here, is usually considered simpler than constructing or modifying rolling-stock models.

A few exceptions exist in the form of water towers and water cranes, as well as other auxiliary equipment. Palestine Railways had at least two parachute water tanks, similar to British types available in model form, while the Jaffa and Jerusalem water towers were similar to types used in French secondary railways.

Jaffa & Jerusalem and Hijaz Railways

These two systems are considered together as they had similar gauges (practically the same when scaled down by a ratio of 1:87) and most rolling stock from the former was also used on the latter during or after WWI.

Unfortunately for modellers, none of the locomotive types used on both systems in Palestine appears to have been commercially modelled, and as most types are unique to them, there seems little chance of this happening in the foreseeable future.

However, since most of these locomotives came from the major American, German, Swiss and Belgian makers, some components may be available as parts of models of other locomotive types, and a careful browse through the Web-sites of such model-manufacturers such as Bemo, Weinert and others might yield several useful items such as chimneys, buffers, wheels and even complete cabs. Several models of 19th century Baldwin locomotives are available in various scales and gauges, and although none is entirely like J&J 2-6-0 Nos. 1-5, a great many parts can be used from them in building authentic representations of the first locomotives that ran here, as Baldwins was a very standardized firm. A good example is the Bachmann On30 scale model of a generic narrow-gauge Baldwin 2-6-0.

The situation on the carriage & wagon front is generally similar – unique types, similar to the then-current European designs. Again, no commercial model is available for any of them, but many parts can be used in scratch-building projects. A major exception which should be noted is the group of HOm model kits of French passenger coaches made by Trains d'Antan, which resemble the J&J bogie coaches, used for almost 60 years all-over the Palestine narrow-gauge network. The same model company's 4-wheel open wagon can also be used as a basis for the DHP open wagons, used in Palestine by the HR during WWI. Again, the products of companies such as Bemo may include several useful components for use in scratch-building projects, e.g. their HOm Baden-Württemberg KB4i narrow-gauge passenger carriage.

Standard Gauge – Steam Engines

Egyptian State Railways types used by the British Army on the line from Kantara East during WWI, as well as the 2-6-0 engines captured by Israel in 1956, were unique to that country. In contrast, foreign-sourced motive power brought by the WD is fairly well represented in model form.

Etched-metal kits of the LNWR Webb 17" 'Coal Engine' 0-6-0s are available in 1:76 and 1:43.5 scales (from London Road Models and Mercian Models, respectively) while DJH used to supply similar kits (item number K2) for the LSWR Adams 'O395' 0-6-0s in 1:76 scale, which is also produced in the same scale by Golden Arrow Productions. The latter offer a body kit to fit over a RTR 0-6-0 chassis. An O gauge version is produced as a kit by Laurie Griffin Miniatures. The LSWR engines are particularly useful, as they were used by PR for many years after the war, the last few being withdrawn only in 1936, with some still lingering around the system as improvised buffer-stops until the 1940s.

The other important main-line type originating in WWI is the Baldwin 4-6-0, later known by PR as their H-Class. These fifty engines formed the backbone of PR's motive

power throughout its existence, some being converted to tank engines for use on the Jerusalem line. This useful type is represented in 1:87 scale by the model formerly produced by Jocadis of the very similar locomotives sent to Belgium during the war. It should be noted, however, that the model represents the locomotives as modified by Belgian Railways (their Type 40), and that the PR locos were mostly modified as well, to various extents, from quite early-on. This means some modification work would be required in any case. For the more adventurous modellers, the Bachmann HO model of a Baldwin 4-6-0 can form a base for conversion, but do note that it comes in several varieties, and apparently the correct tender is matched to the wrong size (for us) driving wheels.

One of the many variations of the Baldwin 4-6-0 model produced by Bachmann in HO

Of the shunters brought by the military, the two Manning-Wardle L-Class 0-6-OSTs, Nos. 30 and 99, can be represented in 1:76 by the Agenoria Models etched-metal kit of the type. The Agenoria Models range has now been sold to new owners, so advice should be sought on-line as to availability. The larger Manning-Wardles, IW&D Nos. 26-29 (later PR M-Class with the same numbers) are of a special type, so no easy solution exists for them.

The 4 types of standard-gauge steam locomotives purchased new by Palestine Railways between the wars were all unique to the system, though the Sentinel 0-4-0VBT shunter was an enlarged version of the type sold to UK railways - such as the LNER Y3 class - and the available OO models of the Y3 might form a basis for a relatively simple conversion project.

Another type of standard-gauge steam locomotive which arrived in this country during the same period is the Hunslet 0-6-OST, used in the major harbour construction projects, six of them also serving later with the WD. These were actually of two distinct types - inside- and outside-cylindrical, though both had 14in cylinders. An OO kit of the slightly bulkier i/c 15" type is available from Judith Edge Kits, and may form the basis for an acceptable-looking conversion.

Most of the locomotive types brought over by the British War Department during WW2 were of common types and are available in model form. In 1:76 scale, RTR models can be had of the ROD and Stanier (8F) 2-8-0 types, by Bachmann and Hornby, respectively. An OO RTR model is also available from Model Rail for the USATC 0-6-OTs, with OO kits available for the Andrew Barclay 0-4-OST from DJH Model Loco and formerly also from Mercian Models, who used to make both O and OO models of the 16 inch type.

In HO the USATC 0-6-0 tanks are available as RTR models from the Hornby International group, under the Rivarossi and Jouef brands, while an (expensive) brass HO kit is available for the Baldwin 0-4-OST from pb Messing Modelbouw, as the type served in Belgium as the SNCB Type 50.

Standard Gauge – Diesel and Electric Locomotives



Piko produce models of the Bombardier Traxx 3 type in most scales it is active in - this is the HO version.

The first standard-gauge internal-combustion locomotives used in the area were the three WW1 4-wheeled Manning Wardle armoured locomotives. While no model exists of them, their flat-sided external exteriors might make them good candidates for a beginner's scratch-building project.

World War 2 brought the first standard-gauge Diesel locomotives to this country. Of the three types captured from the German army in the Western Desert, two are widely available as models in the various popular European scales, from various manufacturers - the WR200B14 (better known as DB/DR Baureihe V20) and the WR360C14 (Baureihe V36).

The Fleischmann HO model of the German V36 type, here in the Italian FS livery. Other makers of this type in HO include Roco, Lenz, Märklin-Trix, Weinert, Merker + Fischer and formerly also Lima.

Some of the Whitcomb Bo'Bo's which operated the HBT for a while later went to Italy and after the war entered national railway FS's stock as Gruppo Ne 120, later rebuilt as Gruppo D.143. The Italian firm of A.C.M.E offers an HO RTR model of the type, and others are/were available in kit form for HO and N scale, though note that the D.143 class was more heavily modified compared to the type as it worked in Palestine.

The ACME HO model the Italian Ne 120 class, a local conversion of the Whitcomb 65 ton type.

The first Israel Railways Diesel locomotives, built by AFB in Belgium to an EMD design, were of a bespoke type

which was not repeated elsewhere. However, their bogies ('trucks' in American parlance) were of the standard EMD type 'Blomberg-B' which is produced with all models of early (pre Dash-2) EMD main-line Bo'Bo' Diesels, i.e. series FT/F/GP. Prospective scratch-builders should also note that the locomotives' long hood was copied from EMD's early switchers (SW 7/8/9 types) and many of the other fittings, such as headlights and marker lights were also of standard EMD types widely available in the main modelling scales used in America.

IR was very happy with its new Diesels, and wanted more from the same source, but financial conditions dictated buying direct from EMD, who offered their new export model, the G12. This type later became a great export success for the makers, and was used - with many variations - in many countries across the globe. Several commercial scale models have thus been made, the first of which was by Brazilian company Frateschi. However, their models are not only to a non-standard scale - c. 1:80 - but they are also very inaccurate in their body shape, which might be a result of the fact they were first produced as long ago as 1975.

A more recent offering from Brazil is the much more accurate HO scale model made by Hobbytec. Good quality models of G12/G8 locomotives are also made in Australia for various scales - HO, TT, N - but these represent the locally-produced T-Class variant, which utilised longer underframes. They also have the older, fabricated type of bogie, which was less common in Israel, having been replaced on all IR locos by the cast type.

Contents of the Hobbytec kit for the G12 model in HO scale. Note that this specific version has the wrong type of dynamic brakes for Israel, but the correct type is also available.

OO modellers might scratch-build a G12 or G8 by using the bogies and many other components of the Irish CIE 141 Class (actually an EMD JLS) produced in model form for Murphy Models by Bachmann. The planned future model of the CIE 121 Class (EMD GL8) from the same source should be an even closer match to the G12s. Both Irish types have also been produced in model form as metal kits.



Contents of the Hobbytec kit for the G12 model in HO scale. Note that this specific version has the wrong type of dynamic brakes for Israel, but the correct type is also available.

Having failed to rehabilitate the remaining WW2 German shunters in the early 1950s, IR turned to procuring new ones, now known to us as the Esslingen shunters. These were closely based on the pre-series prototypes of the Deutsche Bundesbahn (DB) series V60. The DB type has been produced in model form by many manufacturers in most of the major European modelling scales, but these models are without exception of the series-production version, which had so many changes made to its body that it makes the scale-models' bodysells practically useless for producing an accurate representation of the Israeli type. The underframes and running gear are correct, however, and can form the basis for a partial scratch-building project.

The other German shunters - whether purchased new (Deutz) or captured (Jung) - are not represented in model form, despite the facts that Deutz supplied many similar locomotives to German customers and that the Jung design was based on the V36 mentioned earlier.

The next step-change in IR's motive-power development came following the 1967 'Six-Day war'. Of the captured Diesel locomotives, IR was already acquainted with the EMD G12 type, and the EMD G8 had a similar appearance with a smaller prime-mover inside. The EMD G16, while based conceptually on its small brethren, was a different beast altogether and offered superior performance on the heavy freight services in the south of the country.

Similar locomotives were supplied to the Spanish national railway, Renfe, later known as the first batch of Renfe's 319 series, and HO models were produced by Alejandro Modelismo Ferroviario. HO models of the Yugoslavian G16 type (known there initially as 661 Series) were also produced by several Balkan suppliers, including the now-defunct Balkan Models and Slavko Jovanovic. These were actually a much closer match to the Israeli G16s, but it is not how clear if and one can get hold of these.

Satisfaction with the performance of the Egyptian Co'Co's led to IR ordering EMD's follow-up type, the G26. Eventually numbering 15, these came in many small batches, each being somewhat different, the biggest change coming between No. 609 and No. 610, the latter being the first of the updated Dash-2 series, which also had different overall dimensions.

No commercial models are known for these types, but in HO the underframes and bogies Roco models of Renfe's 319.2/319.3/319.4 series (locally produced J26 types) can be used for a scratch-building project, at least for some of the batches. OO modellers might use the models of the Irish 071/111 classes (EMD JT22CW), produced for Murphy Models by Bachmann, similarly.

In 1989 IR purchased a single locomotive of EMD's GT26CW-2 type, No. 701. While similar in appearance and equipment to the G26s, it is larger and has different style bogies, more akin to those used under the contemporary SD types built by EMD, thus available under HO models made by American makers. The defunct Italian company Lima used to produce an HO version of the GT26, in its South African version, but this is now long out of production and was not to true scale as well as being quite coarse in details. The Brazilian company of Hobbytec has recently introduced a kit of the similar GT26MC type in HO.

In OO gauge the bogies and some underframe equipment for 701 can be had from models of the British Class 59 as made by several firms.

The 6 similar locomotives of type NGT26 purchased from Croatia by IR in 2015 - numbered 710T-715T - actually have the older type of bogies, as under the G16 and G26 locomotives. A potential basis for scratch-building these in OO might again be the model of the Irish 071/111 classes, as these even have a similar engine hood shape.

Concurrently with the big 701, IR also purchased a single Swedish-built T44 locomotive (EMD designation G22) as a potential replacement for the venerable G12s. This was

wisely not pursued further, and No. 131 remained a one-off in this country, though it still operates today. [NB It is currently for sale].

The T44 has been produced in HO scale by the Swedish firm of Jeco, as well as a by the Märklin/Trix group, the latter being much cheaper. Kits of this type are also available from the Swedish company Modellproduktion for both N and HO scale.

The Trix HO model of the T44 is externally identical to the AC version offered under the Märklin brand.

Almost a decade passed before IR's next motive power purchase, in the form of the Bo'Bo' and Co'Co' locomotives from Spain, the former type eventually multiplying to 48 units in service, the largest series of Diesel locomotives used by IR.

The Co'Co' version is very similar in appearance to Renfe's 333.3 series, which has been produced in model form for both HO (Mehano, Microtrain) and N scales (MFTrain, Trenmilitaria).

The Spanish firm Mabar currently markets the Mehano HO models of the Renfe 333.3/333.4 class under its own brand.

The Bo'Bo's are closely related to the British Class 67, models of which are available in OO by the defunct Lima and later by Hornby, though note that the external differences are extensive, and would make an authentic conversion difficult.

Concurrently with the new Spanish main-line locomotives, IR also ordered three new shunters from the same suppliers, known as type GA900 or colloquially as "YoYos". These are nearly identical to the type supplied to Swiss national railway SBB as their type Am841. Models of the Am841 in HO scale were produced by Lima and are now marketed under the Electrotren brand, though these are slightly modified to reflect changes on the real Swiss locos.

The old Lima version of the Am841 in HO scale had the correct front hand rails for Israel, though the cab doors still need the window opening to be added.

In the early 2010s the same Spanish factory, by now under new ownership, won the tender for new main-line Bo'Bo's, with a new type known as Euro 3200. However, the urgency under which these were needed by IR led to part of the order being replaced by the same company's established Euro 4000 type, which eventually proved to be superior to the newer Euro 3200. No other Euro 3200 were produced and no model is available, but the Euro 4000 became quite a success story and both HO and N scale models are marketed by the Portuguese company of Sud Express, who even agreed to produce a short run of both in Israel Railways livery, as No. 1401. These are the only commercially produced models of an Israeli locomotive so far.

The first commercially produced model of an Israeli locomotive is the Euro4000, made by Sud Express in both HO (as here) and N scales.

The first electric locomotive type ordered by IR is Bombardier's Traxx 3 type. These should arrive in Israel in late 2017, and models of their European counterparts are available in HO from both the German firm of Piko and the Italian ACME.

Standard Gauge – Industrial Locomotives

Many different types of Diesel-powered industrial locomotives, shunting tractors etc. have operated on Israeli tracks over the years, and the following

will only review those for which a model or a base for conversion is available.

The first standard-gauge Diesel industrial shunter in this country was probably the Ruston & Hornsby type 88DS 0-4-0 chain-drive loco used by the Shimshon cement factory near Hartuv, and which is now preserved in Eretz Israel Museum in Tel Aviv. This type is/was available for O and OO gauge modellers in kit form from Impetus Kits, later marketed by Karlgaring models, and by Judith Edge Kits.

The Ashdod Port construction works, by Solel Boneh, also offer scope for modelling. Three types of Diesel locomotives were used in the construction site and in the Tirat Yehuda quarry, of which the General Electric 45 Tonner type is available in HO from Bachmann, though with the wrong bonnet and cab shape. A good approximation of these can perhaps be had by modifying the relevant parts from Bachmann's GE 44 Tonner model. In G scale (narrow gauge, but convertible to standard) Bachmann offer the 45 Tonner with the correct cab and bonnets for Ashdod. At least one of these locomotives later went on to serve for many years in the Negev industrial installations, as their No. 06.

An HO model kit of the Decauville TE90/900/901 locomotives used in the same project is available from the French company of Debelem.

The exact identity of the third type of locomotive used in the project is not known, though it is thought to be either of Decauville's TE150 or TE200 series, no commercial models of which are known to have been produced.

A Breuer shunting tractor was used by the Nesher cement factory in Ramleh. Models of this common type are available in various scales O (Brawa) through HO (Rivarossi, DK-Model) to TT and N (DK-Models).

The 1978-built EMD G18W, ordered by Negev Phosphates, has many external similarities to the G12 and more closely to its EMD replacement type, the G22. Thus, much of what was said above about models of the G12 apply here as well, though a better starting point for a conversion effort in this case might be models of the Bo'Bo' versions of the G22, as produced in HO by Frateschi (note wrong scale issue) and, in kit form, by Hobbytec of Brazil, which also produce an HO kit for the GL8, another similar EMD type, having an almost identical cab to the G18.

In 1994, Rotem Amfert received from Canadian Allied Diesel its No. 007, a refurbished American shunting locomotive, designated 'SW1000' which is correct with regards to its EMD prime mover. However, it is externally quite different to EMD's standard SW1000 type and was apparently rebuilt from an SW1200RS, utilising A1A bogies, possibly from a GMD1 type locomotive, both these types being Canadian derivatives of EMD types. HO models of the SW1200RS have been produced by Point 1 Models (as a conversion kit for ready-to-run models of older EMD switchers) and True Line Trains. The A1A-bogied GMD1 was produced as an HO model in a limited run by Rapido Trains who may stock some spares.





*: End of the line at Karniel station.
Looking eastwards. (Photo
19.10.2017 by Aharon Gazit)*