

HaRakevet

A Quarterly Journal on the Railways of Israel
and the Middle East
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הרכבת



Computer image of the planned new Jerusalem Central Station on the new extension from Navon Station (opposite the Central Bus Station) to the old 1892 station. The image shows also in the background the house where Josef Navon lived, a Jewish entrepreneur who succeeded after much effort in getting a 'Firman' or Concession from the Ottoman Government in Constantinople for construction of a railway from Jaffa to Jerusalem. On failing to raise the necessary capital he was compelled to sell this to a consortium of French Catholic pietists whose aim was to expand French and Catholic influence in the Middle East! See 145:04 (xviii).

EDITORIAL

Another quarter has passed. From April 2024, as the world media were filled with news of a temporary lull in the fighting in Gaza, the families of the remaining hostages were getting increasingly desperate and Israel's enemies were taking even Germany to the International Court of Justice to accuse it of "aiding Genocide", while university students chanted "From the River to Sea" without apparently knowing which river and which sea were meant nor where they were.

Within Israel plans were announced for quadrupling the railway lines within the motorway central strip near Tel Aviv and extending the main line through (under) Jerusalem and continuing work on the Eastern Line and even building a new line to link the north-south spine with the Jezreel Valley line and expanding the Metro system in the Dan region. These are signs of a normal and relatively healthy economy and administration. It just needs saying. There is more to life than politics and war.

One important reason for continuing "Harakevet" despite the costs (we lose money on each issue despite working for nothing!) is that it is important that another perspective be offered on this region than the one which most citizens in Europe get.

We also have in this issue lengthy reports on railway construction in Egypt which, to cope with a rise in population, is investing heavily in new cities and transport infrastructure – just as Saudi Arabia is, and now the Gulf States and Iraq want to build a new line to Turkey (which also serves to avoid the pinch points of the Red Sea and the Suez Canal). Intriguingly, just as China is building its New Silk Road from East to West, so this new equivalent of the old "Bagdadbahn" concept is also being built from East to West and the route through Kazakhstan and Georgia is also to be upgraded.

In contrast Hamas and Hizbollah seem to be using much effort (and funding) to build tunnels purely for aggressive military purposes, not for improving transport possibilities for the long-suffering populations. A contrast worth noting. The only railway news from Lebanon, welcome though it is, concerns archaeology to uncover a stretch of a dead line.

Also worth noting is how lengthy convoys of several hundred large and heavy (and polluting) road lorries are being used to transport foreign aid to the Gaza Strip, whereas theoretically so much could have gone by rail were there to have been still a rail link! Even a short container shuttle from, say, Ashdod Port to the northern border crossing or from Egypt to Rafah with transshipment there would remove so many lorry movements. But right now there are other priorities.....

The Editor

145:03 • , G12 no 113 at Jerusalem in November 1959. Brian Roberts



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News from the Line

(i). 2023 COMMERCIAL RESULTS

>From a press release of 21.03.2024 by Israel Railways Ltd.:

"On Thursday 21.03.2024 the railways published the results for 2023 with the highest profit ever:

Passenger Sector:

During 2023 the railways carried 62.5M passengers compared with 54.7M in 2022; up by 14.26 %, but lower than the forecast of 70M; directly affected by the so-called "Iron Swords War" in the Gaza Strip.

The railways carried in 2023 an average of 242,000 passengers daily compared with 219,000 in 2022; up by 10.50 %.

Income for 2023 was \$77.75M (NIS 283M) compared with \$81.32M (NIS 296M) in 2022; down by almost 4 %.

Average Punctuality for 2023 was 94.2 % compared with 95.6 % in 2022; slightly lower by 1.46 %.

Cargo Sector:

During 2023 the railways carried 6M tons compared with 6.6M in 2022; down by 11%; income in 2023 was \$40.95M (NIS 149M) compared with \$43.96M (NIS 160M) in 2022; down by 7%; mainly due to the war, but also because of line closures for infrastructure works.

On the other hand, the railways reduced their loss from \$22.53M (NIS 82M) in 2022 to only \$1.37M (NIS 5M) in 2023; down by about 94%; This was achieved by increased managerial efficiency."

(ii). PURIM FESTIVAL

>From a press release of 24.03.2024 by Israel Railways Ltd.:

"During the Purim Holidays (mask festival) today and tomorrow, the Transport Ministry and Israel Railways Ltd. are saluting the IDF and the Security Forces by partially masking the locomotives and power cars with military berets and unit badges of all the IDF and security forces units." *See photos next page...*

(iii). TRACKWORKS

(a). From a press release of 28.04.2024 by Israel Railways Ltd.:

"As an integral part of the annual maintenance programme, infrastructures works of maintenance, upgrading and replacement of track components will be performed at the Nizanim area (north of Ashkelon). As a result, the following changes to train traffic will take place between Friday 05.04.2024 and Saturday night 06.04.2024 including:

Trains on the Ashkelon - Tel-Aviv Savidor/Central route will run between Ashdod and Tel-Aviv Savidor/Central only and will not operate between Ashkelon and Ashdod; Trains on the Ashkelon - Binyamina service will run between Ashdod and Binyamina only and will not operate between Ashkelon and Ashdod. Traffic will resume on Sunday 07.04.2024 at 05:00."



- Photos showing masked rolling stock and motive power.
- Photos courtesy of Mr. Matan Berkovich.; credit for pictures: Shabtai Tal.

(b). From a press release of 18.04.2024 by Israel Railways Ltd.:

"Works of upgrading and replacing track components will be carried from Thursday, 02.05.2024 at about 23:00 and Friday, 03.05.2024 on the Ashdod - Yavne section. As a result, the stations of Ashdod and Ashkelon will be closed and the following changes to train traffic will take place:

- Trains between Ashkelon and Tel-Aviv Savidor/Central will run between Tel-Aviv Savidor/Central and Yavne West and will not call at Ashdod and Ashkelon.

- Trains between Ashkelon and Binyamina will run between Rehovot and Binyamina and will not call at Ashdod and Ashkelon.

The railways will provide bus shuttle services free of charge between the closed stations. Traffic will resume on Saturday night 04.05.2024 at about 21:00."

(c). From a press release of 30.04.2024 by Israel Railways Ltd.:

"As an integral part of the annual maintenance programme, works of track infrastructure maintenance between Akko (Acre) and Kiryat-Motzkin will take place from Thursday 09.05.2024 at about 23:30 and through Friday, 10.05.2024. As a result the stations of Nahariya, Akko (Acre), Carmiel and Ahi'hud will be closed for service and the following changes to train traffic will take place:

Trains on the Modi'in Central - Ben-Gurion Airport - Nahariya line, including night trains to be operated in the night between Thursday and Friday, will start/terminate at Kiryat-Motzkin and will not call at Akko (Acre) and Nahariya.

Trains on the Be'er-Sheva - Nahariya line will start/terminate at Kiryat-Motzkin and will not call at Akko and Nahariya.

Trains on the Haifa Hof-HaCarmel - Carmiel line will start/terminate at Kiryat-Motzkin and will not call at Carmiel and Ahi'hud.

The railways will operate an alternative bus shuttle service free of charge between the closed stations. Traffic will resume on Saturday night at about 21:00."

(d). "As an integral part of the annual infrastructures programme, replacement of track elements at Beit-Yehoshua station, the following traffic changes will take place between Herzliya, Beit-Yehoshua and Netanya between Thursday 30.05.2024 at 23:00 and through Friday 31.05.2024.

As a result, the stations of Beit-Yehoshua and Netanya Sapir will be closed.

Trains on the Modi'in - Ben-Gurion Airport - Nahariya service (including night trains operating during the night between Thursday and Friday) will operate in sections; between Nahariya and Netanya and between Herzliya, Ben-Gurion Airport and Modi'in.

Trains on the Be'er-Sheva Central and Nahariya will also operate in split format; Between Be'er-Sheva Central and Herzliya and between Nahariya and Netanya.

Trains on the Ashkelon - Binyamina line will operate between Ashkelon and Herzliya only and will not call at Beit-Yehoshua, Netanya stations, Hadera West, Caesarea/Pardes-Hannah and Binyamina.

Trains on the Beit-Shemesh - Netanya line will operate between Beit-Shemesh and Herzliya only and will not call at Beit-Yehoshua or Netanya stations.

The railways will provide alternative bus services free of charge between the closed stations.

Traffic will resume on Saturday night 01.06.2024 at about 21:00."

(e). From a press release of 20.05.2024 by Israel Railways Ltd.:

"Due to maintenance works on Highway 20 (Ayalon roads), in the median of which the Tel-Aviv Western Negev Line runs, the stations of Holon Junction, Holon Wolfson, Bat-Yam Yoseftal, Bat-Yam Komemiyut and Rishon-LeZion Moshe Dayan will be closed between Thursday 30.05.2024 at 20:30 and through Friday 31.05.2024.

Trains on the Ashkelon - Herzliya service will operate between Ashkelon and Yavne West and between Herzliya and Tel-Aviv Savidor/Central only and will not call at Tel-Aviv stations, Holon Junction, Holon Wolfson, Bat-Yam Yoseftal, Bat-Yam Komemiyut and Rishon-LeZion Moshe Dayan. Traffic will resume on Saturday night 01.06.2024 at about 21:00."

(iv) FURTHER NOTES ON NEW EASTERN LINE

Sybil wrote on 03.04.2024:

"I was wrong when I wrote on October 20 that Kafr Jinnis station (near Ben-Gurion Airport) had been demolished. I went to have a look at the area today, mainly to satisfy my curiosity as to whether the station there on the new inland line (to be named Te'ufa or maybe Shoham – I have seen both names on different maps) is on the same site as Kafr Jinnis.

Well, it isn't. Not only that, the alignment for the double-track new line is slightly to the east of the old line.

I don't know whether the new section will link up with the old single-track line around there.

Here is a brilliant map, revamped in the last few weeks (slightly different graphic style, which I prefer), showing functioning railway lines in black, and lines under construction in grey – something new!

<https://amudanan.co.il/> To get rid of all those blue circles (which are points of interest, some of interest to nobody except the person who added them - "where we drank coffee on Joe's birthday" sort of thing), click on ????? (Shechavot) on the right-hand side, and then un-tick ????? (Atarim) You can see that there are two short disconnected sections (north and south of the road) of new track.

I also attach a photo (from my phone pointed at computer screen) of the relevant part of the map, annotated to help you.

After I had a bit of a look around (I couldn't enter the site itself and could take photos only from a distance) I got on a bus heading north and almost immediately over to the right, through the trees, I saw what looked like Kafr Jinnis station. Sure enough, another look at the video I linked in October shows that I was looking for Kafr Jinnis in the wrong place. Nothing like looking in the wrong place if you want to find something. It's still there, at 07:36. In case you no longer have the link:

https://www.youtube.com/watch?v=Gb85cSA2nc&ab_channel=RailfanRailway "



- [see photos this and following page...](#)





• Aerial pictures of the new road alignment on the left. (Pictures: Israel Roads.)



This will be an underground tunnel with at least one extra station at the King George / Jaffa Road stop. A train traveller in the future (about 5-8 years) could travel from Herzliya, through Tel Aviv, Ben-Gurion Airport, then the Anava stop, then the Jerusalem Navon stop and on to the Khan near the Old City. The new Khan underground station will be around 50 metres from the end of the 1892 J&J line. When completed, 13 trains from the new stations Jerusalem Navon station will run hourly to/from Jerusalem and other parts of the network.

It is also been considered that this same train will continue onto the Gush Etzion area, with two more stations in the Gush.

In the meantime, a new refurbished Plaza has been opened adjacent to the Jerusalem Navon station."

• Picture Courtesy of Jerusalem Online and by their permission.

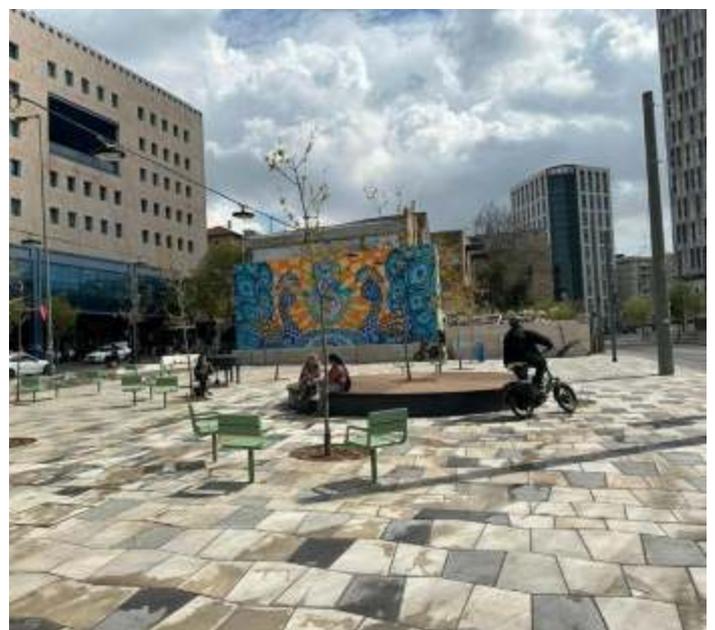
(v). QUADRUPLING WORKS PLANNED

From a press release of 04.04.2024 by the Transport Ministry: "Following instructions from Transport Minister Mrs. Miri Regev, this morning traffic diversion works on Highway No. 1 (Tel-Aviv - Jerusalem Ganot and Kibutz-Galuyot) were completed to give space for a double-track, thus increasing the number of tracks on the Ayalon railway line from 2 to 4 and track capacity from 17 to 34 trains/hour when completed; These works are to start soon."

(vi). A1 JERUSALEM LINE EXTENSION

>From a press release of 08.04.2024 by the Transport Ministry:

"The National Committee for Design & Construction of Infrastructures, approved today the construction of the extension of the A1 line from the Jerusalem Navon Station to the Khan - near the old city.



www.railnews adds: "The extended line will serve two new underground stations: a new central station beneath Jaffa Road, providing interchange with the Red and Blue light rail lines; and a second close to Liberty Bell Park in the German Colony, which will connect with the future Old City cable car."

The objective of the project is to better distribute passengers in Jerusalem, especially in light of plans to increase frequencies on the A1 Link to 13 trains per hour in each direction between Tel Aviv and Jerusalem by 2040. The 57km A1 Link from Tel Aviv Hahagana station to Navon in the north of Jerusalem opened in 2018. A project to electrify the line was successfully completed in 2020. The line offers a journey time of 54 minutes between Jerusalem Navon and Herzliya with 41 trains operating on this route every day."

Later: THE NEW JERUSALEM CENTRAL STATION

"Both the Transport Ministry and Israel Railways Ltd. are promoting the extension of the A1 line from Jerusalem Yitzhak Navon station to Central Jerusalem station and Jerusalem Khan (the historical 1892 station currently used as recreation and entertainment activities centre).

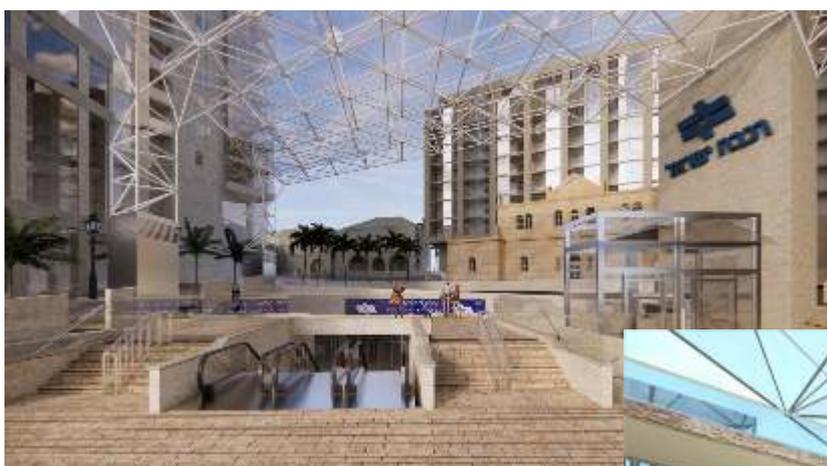
The new line will be underground along its whole length and the first stage will bring passengers to the corner of King George the V and Jaffa Streets in the heart of Jerusalem.

The station will be called also Joseph Navon; not to be confused with Jerusalem Yitzhak Navon station; Joseph Navon was the concessionaire of the line between Jaffa and Jerusalem opened in 26.09.1892 (parts of it are still in use); He was the uncle of Yitzhak Navon, Israel 5th President, who died in 07.11.2015.

The station will include a main passenger hall, two underground platforms 400m long each, to serve four electrified tracks, to be accessible by 14 elevators (8 in the main passenger hall and 6 at the secondary passenger hall) plus 4 escalators to be located at each of the station entrances to enable flexible operation according to demands.

The new line will enable operating 13 trains/hour each direction to and from Tel-Aviv compared with the present service of 6 trains/hour; the capacity will be 20,000 passenger/hour each direction.

Works will start on November 2014.



The railways published Tender No. 224129 which was called The Navon House Station; This caused some confusion.

(vii). FORMER I.R. LOCOS IN SERBIA

In "Today's Railways Europe" 338 is a note by Tomas Bacic: "In 2018 National Railroad Equipment Company

purchased two G26W EMD diesels from Israel Railways. 601 and 603 were built in 1971 and 1974 respectively by the GM Electro-Motive Division. Both were shipped from Israel to the Croatian port of Rijeka, where they were stored for some time before being moved to the TZV Gredelj works in Zagreb for overhaul. IR 6012 and 603 have been renumbered 2062 301 and 2062 302 respectively. Testing began in 2023 but 2062 301 was not outshopped until the end of February 2024. Both locos carry a red livery with NRE logos and are registered in Croatia but have been sold to Serbian operator OBL Logistic d.o.o. Beograd-Novi Beograd."

(viii). THE "PESACH PUTZ"

For those readers who do not know, the Jewish festival of Pessach (Passover) celebrated in springtime is marked amongst other things by a total ban on fermented products for a week (some would say for eight days). Bread, cakes, biscuits, cereals, beer, whisky and many other things which contain flour or yeast have to be consumed before the festival starts and any remaining has to be removed (or removed from your ownership) and most Jewish households undergo a traumatic period of cleaning, sweeping, wiping, vacuuming and even the replacement of the normal cutlery and crockery by a set kept specially for this festival which has therefore not been "contaminated" by contact with "Chametz" during the year.

Israel Railways is clearly no exception and so:

"From a press release of 16.04.2024 by Israel Railways Ltd.:

Shortly before Passover - 22.04.2024 to 30.04.2024 - which is characterized by special cleaning activities all over Israel, the railways inaugurated recently the new cleaning facility at the depot of Ashkelon, which cuts cleaning times to a few minutes per train.

The railways have a cleaning team of 650 people using 3,800 litres of detergents to clean all the sites in addition to trains."

See photos next page

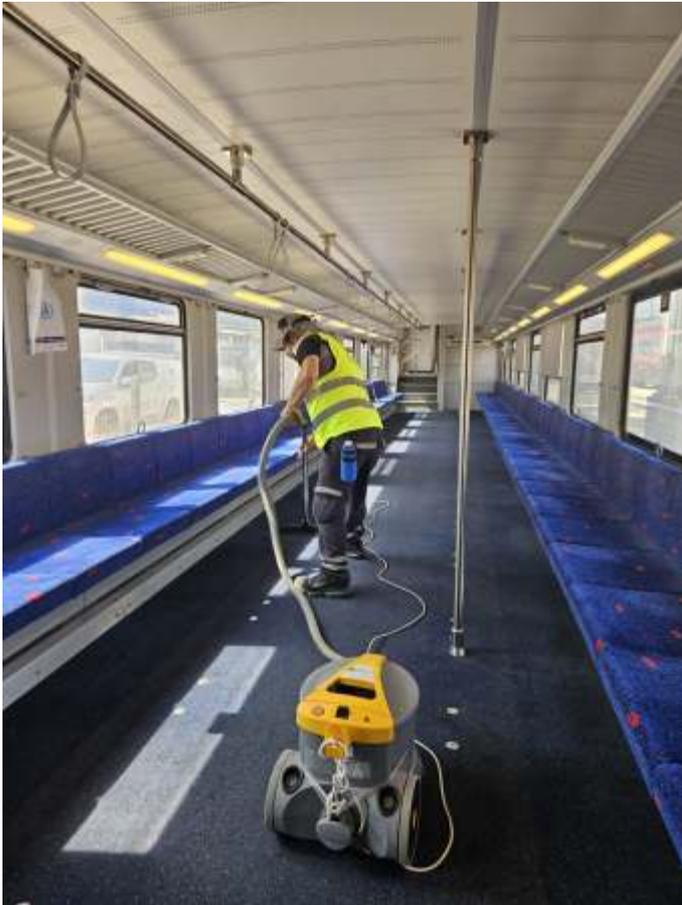
(ix) MORE ON THE MOTORWAY OVERBRIDGE

>From Steve Sattler who provides some context: "Here is an update:

The A1 electrified railway line from Herzliya, through Tel Aviv and then climbing up to Jerusalem (Navon) is now a well-established fact. It is well used, busy and efficient. 4 trains run on this line every hour. From Jerusalem Navon there are now also trains to Modi'in, twice every hour.

The next big project is a quick and efficient line to the Rishon-LeZion region. This region has the highest concentration of residents, high-rise apartments and young working families in the country. This region is some 3.4 kms wide and 10 kms North to South and includes Rishon-LeZion, Nes Tzonia, Rehovot and the newer West Rishon-LeZion with together some 4 million residents.





- , Cleaning inside a coach
- Multiple Unit in washing machine



This 30 km line will run from the Anava Junction (6.5 kms West of Modi'in) and allow train travellers from Modi'in, Jerusalem and the RL-Z region to have a quick 'connect'. This new line will bypass the need to ride into Tel Aviv to get to Modi'in or Jerusalem.

The 431 highway [finished about 8 years ago] runs from Highway No. 1 at the Anava interchange more or less NW and then joins up seamlessly with the North/South Highway No. 2 that brings traffic into Tel Aviv.

A very large part of the new 431 train line is already built and this includes 6 kms of bridges and the elevated double train-line on pillars. There are three tunnels, making up just over 1 km of tunnels 40 metres underground.

Two new stations have been built along the new line. One is Ma'ayan Sorek (many will call this station "the IKEA station") and one is Ramle South. The Ramle South Station will include a 300-car underground parking complex with shops. This RS station will be the interchange for the future North/South train line that runs-up Israel just West of the famous Kvish (Highway) 6.

Part of this 431 train line crosses the very busy Highway 1 and so an enormous concrete bridge is in the process of being built over the highway.

This rail project has so far cost 4 Billion shekels.

The two main problems at this time, to complete the project are the cost over-run (of at least 1 billion shekels) and the long concrete bridge over Highway 1.

Most of the workers on the project are Jewish engineers and some 230 Moldavian workers, many of whom now speak Hebrew or English. Most of these Moldavian workers have been on the project for over 5 years. Some 150 Indian workers are also being imported.

A date in May 2024 has been planned to close down Highway 1 for 2-3 days to allow the enormous concrete bridge to be completed over the highway. The side pillars and supports are in place and some 20 metres of the bridge are ready, at each end. The central section of 150 metres will be wheeled into place, on the rails, 40 metres up in the air, when the police close down Highway 1. (Closing-down Highway 1 is a major transport headache, as the other alternatives, 443, 44 and 444, are not very good.)

By 2025, electrification, drainage and safety issues will be completed. The plan is to have the trains running on this new line [at 160 kms/h] by mid- 2027.

The next big train project is the new North/South line just West of Kvish 6."

But then on 07.06.24 in "Times of Israel" came this:

A construction company has accused the Israel Railways of endangering the public by rescheduling a bridge project over a key highway to be carried out during the week instead of over the weekend to satisfy the demands of ultra-Orthodox political parties. The accusation came amid a heated dispute between the Solel Boneh building company and the railway over work to install a bridge spanning Route 1, the main highway connecting Jerusalem with Tel Aviv and the Gush Dan region in the center of the country.

Solel Boneh says that carrying out the work piecemeal during weekdays requires leaving dangerous construction in place during the day while drivers pass underneath, whereas completing it in one fell swoop over a weekend would avoid such a hazard. Over the past two days, Solel Boneh said it could not move ahead with the project because a vital engineer had been called up for army reserve duty, and the railway company threatened to cash in some NIS 40 million in guarantees if the work is not carried out as soon as possible.

After the row was reported in Hebrew media, a rights group urged an investigation into whether the railway company was being improperly influenced by political elements. The plan to install a railway bridge over the Anava Interchange has been delayed for months after initial plans to do the work over the course of one weekend last August were dropped due to pressure from ultra-Orthodox parties who oppose public works being carried out on Saturday, which is Shabbat, the Jewish day of rest.

Instead, the work was divvied up over seven nights on weekdays, five this week, and two scheduled for a later date. But now, according to the "Calcalist" outlet, Soleh Boneh apparently wants to be paid more for the work because it will take longer due to the reserve call-up of its engineer. Israel Railways Vice President Ilya Volkov, in a letter to Solel Boneh CEO Assaf Inbar, fumed that the construction company has "dozens if not hundreds of engineers and therefore your message is unacceptable and constitutes a fundamental violation of the agreement," Hebrew media reported. Amid the dispute, Inbar noted that by changing the project from a one-off session over a weekend to seven smaller nighttime works, "a part of the construction remains that is not dismantled and the traffic continues on the road below. The change made the dismantling much more complex and dangerous, and inevitably created a risk for the public travelling on Route 1."

As the spat gained steam, Transportation Ministry Director-General Moshe Ben-Zaken summoned representatives from Israel Railways and Soleh Boneh for clarifications, "Calcalist" reported.

Meanwhile, the "Hofshei B'Artzenu" [Free In Our Country] activism group appealed to the attorney general, the chief of police, and the state comptroller to open an investigation into Israel Railways and political elements involved in the Anava saga.

"There is a serious concern that critical professional decisions of the railway were subjected to improper pressures. This is a serious harm to the safety of citizens and the rule of law," the group told "Calcalist".

The developments came after last week the country's busiest road, the Ayalon Highway, was closed along a section near Tel Aviv on a Thursday night and Friday to enable work on another bridge to be carried out on weekdays rather than Shabbat.

The Transportation Ministry was widely understood to have scheduled the project for a weekday due to pressure from Haredi parties, with the Haaretz daily reporting that United Torah Judaism (UTJ) MK Moshe Gafni, the head of the Knesset Finance Committee, had spearheaded that effort. According to the report, a previous plan to do the work over a weekend in March was halted, apparently due to ultra-Orthodox pressure.



There have been previous instances in which ultra-Orthodox parties have applied pressure to prevent infrastructure work from being carried

out on Shabbat, including in 2018 when work was halted on another bridge over the Ayalon Highway."

[Ed. adds: The obvious thing to do would be to arrange another blockage of the road by anti-government protesters, and then get on with the bridge while traffic is halted anyway...]

(x). HUMAN RESOURCES MANAGER

>From a press release of 16.04.2024 by Israel Railways Ltd.:

"After a strictly professional sorting procedure, Mrs. Gitit Rosen Elitzur has been appointed Deputy Director General for Human Resources, after being approved by the railways' General Manager and the Tracing Committee headed by the Head of Directorate.

She has fulfilled the job of Deputy Director General for Human Resources at various public organizations, the last of which at the National Broadcasting "Here".

(xi). PASSOVER TIMETABLE

From a press release of 17.04.2024 by Israel Railways Ltd.:

"The railways are operating during Passover according to a special timetable:

On the eve of first Passover holiday - 22.04.2024 - and on the eve of the second Passover holiday-28.04.2024 - between 06:00 and 17:00 trains operated on the basis of regular Fridays, but with a service frequency of 2 trains/hour instead of 1 between Haifa and Tel-Aviv; services between Be'er-Sheva and Dimona were also operated.

At the end of first Passover holiday - 23.04.2024 - and at the end of the second Passover holiday -29.04.2024 - trains were operating as on regular Saturday nights with the addition of service between Be'er-Sheva and Dimona.

On 24.04.2024 and 25.04.2024 as well as on 30.04.2024 the following changes took place:

Train 30 departing from Be'er-Sheva Central at 09:41 terminated at Haifa Central the 8 at 12:25 instead of Tel-Aviv Savidor/Central, calling at Tel-Aviv University, Herzliya and all Haifa stations.

Train 37 departing from Haifa Central the 8 at 14:02 (instead of Tel-Aviv Savidor/Central) terminated at Be'er-Sheva Central at 16:49 calling additionally at all stations in Haifa, Herzliya and Tel-Aviv University.

Night trains on 24.04.2024 and 25.04.2024 between Herzliya and Ben-Gurion Airport terminated instead at Jerusalem Navon."

(xii). SHARON LOOP LINE REOPENED

From Monday 06.05.2024 traffic over the Sharon Circle line will resume thanks to completion of various vital track works to link the Eastern Line at Rosh-HaAyin with the national network, lengthening of platforms at stations to receive longer trains, raising tracks at stations to reduce the gap, replacing of track sections and turnouts, dismantling of electric systems and signalling and re-assembling them on new alignments, building the overhead pedestrian bridge over B'nei-Brak station for a new neighborhood under construction, etc.; The works were completed ahead of the time planned.

(Pictures of the works. Courtesy of Mr. Daniel Fogel from the railways' spokesman office; credit: Israel Railways Spokesman Office;)



As on every year, on Tuesday 14.05.2024, the Independence Day, trains will operate at a service frequency of 1 train/hour; During the night between Tuesday and Wednesday trains between Jerusalem, Ben-Gurion Airport, Tel-Aviv and Herzliya will operate through the whole night."

(xv). OVERVIEW OF PLANNED DEVELOPMENTS

Frank Adam sent an "overview" article from the Jerusalem Post Magazine of 10 May (pages 4-59) "In the circumstances it is nice to see some optimism.

Noting the current passenger total journeys is 70 million p.a. IR are forecasting an extra 100 million per decade: 200 by 2030 and 300 by 2040.

This will involve four major building schemes:

- 1) Electrification - now 70% of the network.
- 2) Eastern Railway 65 kms along Route 6, stations at Hadera East, Tira-Kochav, Taybeh, Elad and Shoham; i.e. rebuilding the original 1915 Turkish [inland] line south from Tulkarm which then in 1918 was paralleled by the British main N-S line and was relegated to freight in the 70's and eventually closed.
- 3) 431 line - 30 kms double track along Route 431 to connect the Modi'in and Rishon-leZion areas without having to enter Tel-Aviv, thus making it easier to travel between Jerusalem and the South with new stations at Meuyan Sorek and Ramla S. and refurbishing Rishon-leZion and lengthening platforms, with 3 tunnels under Route 20.
- 4) Fourth Ayalon track. Covering (!!!) the Ayalon stream and building 4.5kms extra track between Haganah and Savidor to increase capacity for traffic to 26 trains per hour in each direction.

Meanwhile freight is 9,000,000 tonnes a year on 60 freight trains a day which keeps 3,500 trucks off the road or nearly 60 x 10 ton trucks per goods train. This also is probably 36,000 tons per day or 3,000+ TEU containers which are 12.8 GRT each."

(xvi) POLITICS

Oh dear. As if there were not already more than enough issues, stresses and conflicts: "In Times of Israel" 25.05.24 we find a very revealing report on a rising scandal that is relevant to Transportation in Israel:

"Attorney-General Gali Baharav-Miara is expected to launch an investigation into the conduct of Transportation Minister Miri Regev, Hebrew media reported Friday, after allegations emerged that her office was rife with politicization, systematically giving preferential treatment to local officials who are also Likud power players.

The allegations were made in a Channel 13 report aired Thursday, based on official memoranda and internal group chats supplied by Yonatan Yehosef, formerly the chief of the Transportation Ministry's professional staff.

Regev denied the allegations as false and claimed Yehosef had stolen documents and was seeking to defame her. Neither Regev nor Yehosef specified when he stopped working for her as a senior aide. Yehosef said that Regev ignored the professional aspects of the ministry and focused on a parallel political staff, which once concocted a story about Shin Bet insurrectionism to counteract embarrassing news in which the minister was involved.

Yehosef said he decided to come forward as a mea culpa for his involvement in the type of politicking which, he said, was



(xiii). HAIFA BY-PASS LINK

The Transport Ministry announced on 07.05.2024 that the National Council for Design and Construction had approved the third alternative to the planned Menashe railway line to leave the Eastern Line south of Hadera East and link with the Valley Line between Migdal Ha'Emek/Kfar-Baruch and Yokne'am - Kfar-Yehoshua, thus creating a vital route for passengers and freight; it will also obviate the need for passing through Haifa, which is entirely inadequate.

(xiv). YOM HAZIKARON AND YOM HA'ATZMA'UT

>From a press release of 09.05.2024 by Israel Railways Ltd.:

"On Monday, 13.05.2024, the National Memorial Day for war and hostile activities victims, trains will operate as per a dedicated timetable, according to which, train 8032 will depart from Be'er-Sheva Central at 10:41 and will terminate at Haifa Central the 8 instead of at Tel-Aviv Savidor/Central; the train will call at all Tel-Aviv stations, Herzliya, and all Haifa stations.

In the opposite direction, train 8033 will depart from Haifa Central the 8 instead of at Tel-Aviv Savidor/Central at 12:03 and will terminate at Be'er-Sheva Central; the train will call at all Haifa stations, Herzliya and all Tel-Aviv stations.

typical of state failures leading up to October 7, when thousands of Hamas-led terrorists stormed southern Israel to kill nearly 1,200 people and take over 250 hostages.

Police said in a statement that it was looking into the report's allegations. A senior law enforcement official was quoted by Channel 13 as saying that Regev's alleged conduct "exudes a stench of rot and corruption" and was possibly criminal.

Among the documents produced by Yehosef was a spreadsheet wherein towns and cities were sorted by colour code. "Green" cities were to be "fought for" at all costs; "yellow" cities could be handled charitably where possible, but "if not – it's not the end of the world"; and "white" cities meant: "send letters, we'll talk," said Yehosef.

Still worse were "red" cities, which were to be actively ignored. For example, Nisan Ben Hamo, mayor of "red" Arad, told Channel 13 that Regev's ministry had never responded to his requests to repair the notoriously dangerous Route 31, which connects the southern city with the Dead Sea.

Yehosef explained that each locality's colour code was determined by the number of votes, if any, that its mayor had secured for Regev in the Likud party's primaries. Another document ranked Likud activists on the same basis, with the highest ranking, "diamond," earning its holder preferential treatment, as well as a call from Regev on the event of his or her birthday, about which the minister was said to have been especially meticulous.

A special Whatsapp group, called "Priority 1," was set up for specific requests from "diamonds" for the minister to handle, Yehosef said. In one such case, Regev had personally intervened to prevent the removal of a sidewalk outside the home of an activist's mother, in the Shafir regional council – where the entire walkway was ultimately torn up, except for that segment.

In making such decisions, Yehosef said and the TV report indicated, Regev often overrode her professional staff's recommendations, but in official documents, she made a habit of inserting – often in her own handwriting – a line indicating that the minister's decision had been made "in coordination with professional elements."

The politicking had tangible effects on the allotment of her ministry's budget, the TV report indicated. Beit Shemesh, for example, was denied NIS 1 Billion (\$270 Million) promised to it – at the recommendation of the ministry's professional staff – that was divvied up among projects elsewhere, apparently at Regev's insistence.

In a statement, Regev called the report "a collection of lies, false claims, half-truths and distortion of reality," slamming Yehosef as someone "who stole documents from the Ministry of Transportation" to defame her. The "Israel Hayom" daily reported that following the report, Regev has retained the services of Amit Haddad, an attorney also serving as counsel for Prime Minister Benjamin Netanyahu in his ongoing corruption trials.

Yehosef said that the minister – a former Israeli Defense Forces spokeswoman – often takes a caustic approach in her dealings with the press at the behest of her close political advisers, collectively known as "the kitchenette." The coterie, Yehosef said, extended well beyond the political staff allotted to each minister by law, coming at the expense of professional staff.

"One time she said to me: Yonatan, listen, the 'professional' doesn't interest me at all. That's what I have the executive director for. I'm here only to do politics," Yehosef told Channel 13, estimating that Regev spent just 5 percent of her time on purely professional discussions. Even that, he said, was gradually eroded before evaporating entirely before the campaign for municipal elections, which, before the war in Gaza, had been set to take place in October.

Yehosef described to Channel 13 how, a month before, he had become especially distraught by the political staff's conduct. In September, Regev was seen in an altercation with Shin Bet agents,

which the security agency blamed on the minister, saying her vehicle had rammed into the detail, injuring one – whom Regev accused of acting "violently." Footage later emerged of the minister in the car, angrily ordering her driver to continue even as he demurred, warning he would ram into the Shin Bet agents. In the video, Regev does not appear to be in danger.

By Yehosef's account, Regev's spokesman had leaked the latter footage by accident, rather than a different recording in which the minister could not be heard. Text messages, which Channel 13 said came from Regev's inner circle's Whatsapp group, showed the minister irate at the mix-up, and the 'kitchenette' desperate to find a way out of the public relations disaster.

"There is a threat here which is a rare opportunity!!! The protest movement has seeped into the Shin Bet," an adviser of Regev's was quoted as writing, referring to mass demonstrations against the government's planned judicial overhaul. "A minister felt threatened. We won't allow a coup d'etat," continued the message. That evening, Yehosef said, Regev pushed the message on Channel 14, a rightwing news outlet.

In an effort to iron out the differences between them, Netanyahu held a joint session with Regev and Shin Bet chief Ronen Bar, which Yehosef said he attended. During the fraught session, Regev repeated her aide's anti-"insurrection" messaging. Yehosef recalled – much to his chagrin – that Netanyahu took Regev's side on the matter.

Yehosef said Regev was enthralled by the trappings of power, once castigating him for not being fast enough to open a door for her. Her nearest advisers would regularly pander to her, with one calling her people skills "supernatural," text messages from the kitchenette's Whatsapp group showed.

Yehosef also shared with Channel 13 other messages from the group chat, in which the minister and her associates used various insulting terms to describe perceived political opponents. These included the "son of a whore" Energy Minister Eli Cohen – who beat Regev in the Likud primaries – as well as the "hideous" Labour party lady Merav Michaeli and "zealous midget" Finance Minister Bezalel Smotrich, two of Regev's predecessors in the Ministry of Transportation.

Raviv Drucker, the veteran political correspondent who produced the report, said that in 30 years of reporting he had never seen a minister so meticulous in politicking. A follow-up report on Regev's conduct throughout the war sparked by the October 7 onslaught is set to air next week, Drucker said.

(xvii). FIRST QUARTER 2024 RESULTS

>From a press release of 29.05.2024 by Israel Railways Ltd.:

Results of the first Quarter (Q1) of 2024:

The railways ended the Q1 with an overall profit of \$15.6M (NIS 58M) compared with an overall profit of \$0.78M (NIS 2.9M) over the same period of 2023.

The total income over Q1 were \$222.8M (NIS 828.9M) compared with \$210M (NIS 781.5M) over the same period of 2023; up by 6%.

The EBITDA over Q1 was \$17.7M (NIS 65.9M) compared with \$2.9M (NIS 10.7M) over the same period of 2023.

Passenger Traffic:

The railways carried 232,000 passengers/day during Q1 compared with 266,000 passengers/day over the same period of 2023; down by 13%.

Income from passengers was \$14.6M (NIS 54.3M) during Q1 compared with \$2M (NIS 7.6M); down by 31%.



(i). Tender No.124250: Providing Management Services and Operating Funds, and services regarding Tickets Sales and Additional Services: The contract is for 24 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 19.05.2024.

(ii). Tender No. 122203: Providing Frontal Monitoring Services of Undercover Client, Undercover Client Monitoring Services, Undercover Client Monitoring Services for Call Centre, and performing Satisfaction Survey: The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 09.05.2024. [Ed. adds: I have NO idea what this all means!]

(iii). Israel Railways Ltd. Tender: 123240: Providing offers for Services of Traditional and Digital Technical Writing: The railways intend to select three winning bidders. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 16.05.2024.

On 12.05.2024:

(iv).Tender No. 123220: Providing services of Overhaul and Repair of Engine Assemblies and Compressors of Locomotives and Power Cars and Rolling Stock: The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 16.05.2024.

(v). Tender No. 5236: Providing Catering Services for railway employees in the North at Haifa East Diesel Depot and in the South at Be'er-Sheva University Depot: The railways intend to select up to two winning bidders, one for each site. The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 20.05.2024.

(Continued from page 10) Punctuality during Q1 was 96.64%; slightly higher than 94.77 % over the same period of 2023.

Freight Traffic:

Over Q1 the railways carried 1.45M tons compared with 1.57M tons over the same period of 2023; down by 8%. The income from freight during Q1 was \$10.35M (NIS 38.5M) compared with \$10.1M (NIS 37.7M) over the same period of 2023; 2% higher. The loss from freight haulage was \$5.3M (NIS 19.8M) compared with \$6.M (NIS 24.6M) over the same period of 2023; 20% lower.

The results reflect the fact that Israel is at war, yet, it still shows financial stability.

(xviii) BETH SHEMESH IMPROVEMENTS

From a press release of 03.06.24: "The Transport Minister visited Beit Shemesh today and announced that public transport facilities at the city will be significantly improved and upgraded. The rapidly-growing city – currently ca. 170,000 inhabitants – is located in the centre of Israel, about 27km from Jerusalem and 60km from Tel Aviv. It had a rail service to Jerusalem until 2020 and the Covid 19 outbreak. There is currently an hourly service from Beit Shemesh to Netanya through Tel Aviv. The Ministry intends to upgrade the station and parking area as part of the city's public transport system."

Aharon notes – "I have suggested to the municipality that they demand double-tracking of the line as far as the junction at Na'an and electrification. This is now being discussed."

Historical note – This station was formerly called Artuf from 1892 and then Har Tuv from 1948.

(vi). Tender No. 123242: Providing Painting and/or Rehabilitation of Rolling Stock services: Works are to be performed at Haifa Kishon Works. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 09.06.2024.

(vii). Tender No. 124256: Providing services of Checking Pay Slips, Wage Conditions and Contract Employees: The contract is for 12 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 23.05.2024.

(viii). Tender No. 124250: Providing services of Management and Operation of Funds and Ticket Sales, as well as additional services: The contract is for 24 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 19.05.2024.

(ix). Tender No. 122188: Providing services of Promotion, Experiential Marketing and Events Management:

(x). Tender No. 223165: Providing Consulting Services regarding Acoustic Planning Control: The railways intend to select up to two winning bidders. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 06.06.2024.

(xi). Tender No. 42219: Purchasing, Storage and Supply of Bearings for Rolling Stock and Motive Power Maintenance: The contract is for 24 months with optional extensions of up to additional 48 months. Latest date for submission of proposals: 23.06.2024.

(x). Israel Railways Ltd. Tender No. 224169: Performing works of Excavation, Revetment, Supporting and Moving Infrastructures at Jerusalem Navon Station as part of works: Latest date of submission of proposals: 08.07.2024.

145:06

LIGHT RAIL



A. TEL AVIV

(i). Process number 039/2024: Request for Information (RFI) for Solutions in the field of Digital Twin Applications

"NTA - Metropolitan Mass Transit System Ltd. (hereinafter: "NTA") hereby invites the public to provide it with relevant information for the purpose of examining the acquisition of Digital Twin technologies to support the planning, design, construction, operation and maintenance of the Metro systems. The Digital Twin which shall be developed will be a single, holistic and comprehensive model integrating the entire systems of NTA, the Light Rail Lines and the Metro, as specified in the Request for Information (hereinafter: the "RFI").

2. Anyone considering themselves suitable for providing information as aforesaid is invited to respond to this RFI according to the instructions set forth in the RFI documents, which may be downloaded from NTA's website at: www.nta.co.il.

3. The respondents may request from NTA clarifications regarding the Request by January 29, 2024, at 13:00. Clarifications as aforesaid shall be provided in writing, by email to Tender1@nta.co.il by the foregoing date.

4. The response to the Request shall be submitted by February 26, 2024 at 13:00. The response shall be submitted in a WORD file by electronic mail to Tender1@nta.co.il by the foregoing date..."

(ii). "RFI number 219/2024: Request for Information (RFI) to receive relevant information about Technological and Design Innovative Solutions for CBTC-based Signalling System.

1. NTA - Metropolitan Mass System Ltd. hereby invites the public to provide relevant information about technological innovative solutions, from suppliers which have proven experience with CBTC based signalling system for Metro network and/or are developing innovative solutions for the next generation of metro rail signalling systems.

2. Responses to this RFI are welcome from Suppliers/Consortia/Start-ups (the "Participants") which have proven experience with CBTC system in similar projects, and/or are developing innovative solutions for the next generation of metro rail signaling systems which satisfies the criteria as specified in the Request for Information.

3. Anyone considering themselves suitable for providing information as aforesaid is invited to respond to this RFI according to the instructions set forth in the RFI documents, which may be downloaded from NTA's website at: www.nta.co.il.

4. The respondents may request from NTA clarifications regarding the RFI by May 15, 2024, at 13:00. Clarifications as aforesaid shall be provided in writing, by email to Tender1@nta.co.il by the foregoing date.

5. The response to the Request shall be submitted by June 17, 2024, at 13:00. The response shall be submitted in a WORD file by electronic mail to Tender1@nta.co.il by the foregoing date."

(iii). GOVERNMENT APPROVES M2 GUSH DAN METRO

From "Jerusalem Post" 03.05.2024 By Ofer Petersburg: "Petah Tikva and Holon: The government finally approved the M2 Metro line, the fourth plan among the plans for Metro lines in the Gush Dan metropolis.

The only Metro line that the government has not yet approved is the section of the M1 line that is supposed to pass in the northern part of the metropolis, through the cities of Kfar Saba, Ra'anana, and Hod Hasharon. The delay is due to opposition from the residents, which was received by the planning administration. Not deciding on another alternative is expected to lead to a significant delay in the implementation of the plan and even its cancellation.

In the past there was also opposition to the M2 line, because work on the B'nei Brak station must continue and be carried out even on Shabbat – which, according to the municipality, harms the character of the city. In the end, last September, the plan was approved in principle after the B'nei Brak municipality actually agreed to work on Shabbat within the city limits in the Metro project, as long as they were carried out underground without public visibility and after they were defined as "mind control."

The decision as to which works will be defined in this way will be up to the Metropolitan Mass Transit System (NTA) company and will also apply to the operation of the underground mining machines, the cessation of which upon completion of the work could lead to the collapse of the tunnels.

This is the largest infrastructure project ever undertaken in Israel, costing approximately NIS 150 Billion. According to the plan, lines of the Metro in Israel will connect the entire Tel Aviv metropolis, from Lod, Ramla and Rehovot in the south to Ra'anana and Kfar Saba in the north and Petah Tikva in the east. It will be an additional and main answer to easing congestion on the roads, increasing investment in public transportation and shortening travel distances to employment centres in the metropolis.

Which cities will it pass through?

The length of the line is approximately 25 km. and it is an east-west axis that will connect the center of the metropolis with its eastern part. The route begins at the Yoseftal interchange in northern Holon and passes through southern and central Tel Aviv, continuing through the

cities of Givatayim, Ramat Gan, B'nei Brak, Givat Shmuel, and Petah Tikva and ending near the employment area of Petah Tikva.

The line will serve areas designated for urban renewal along with providing service to important metropolitan centres such as the Wolfson Hospital, the main business area of Tel Aviv, and Bar Ilan University. The line will be at the interface with other public transportation system lines: Metro-HaShalom (1M) and Kfar Ganim (3M); stations of the Israel-HaShalom train, Segulah Petah Tikva; Light Rail line stations: the Red Line – the Hasmoneans; the Green line – Habima Square; and the Purple Line – Allenby, Bar Ilan and Kfar Ganim.

Rabbi Natan Alnatan, chairman of the National Planning Headquarters and of the National Council for Planning and Construction, said: "I welcome the approval of the M2 Metro line. The metro project is an essential project for the State of Israel in general and the Gush Dan in particular and will significantly shorten the traffic jams."

Planning Administration Director-General Rafi Elmaliah said: "This is a historic day. The Planning Administration has made the promotion of the metro project a priority and we have approved four plans in a record time of only two years. There is no future for Gush Dan without the Metro."

NTA CEO Haim Glick said his company is: "proud of the government's decision to approve the M2 Metro line and sees the decision as an expression of confidence in NTA's professionalism and its unique professional experience in mass transportation above and below ground. These days, the international management companies chosen to promote the major infrastructure project in Israel have started their work."

(iv). **Tender No. 231/2024: Purchasing Electricity at Reduced Tariff** for the Red Line and its systems: NTA intends to select one winning bidder only. The contract is for 36 months with optional extensions of up to additional 60 months. Latest date for submission of proposals: 23.05.2024.

(v). **Tender No. 018/2024:** Providing services of Graphic Design: NTA intends to select up to two winning bidders. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 27.05.2024.

(v). **RFI 300/2024: Traffic Management.** NTA hereby invites the public to provide it with relevant information on technological and innovative solutions to support the "traffic management", as specified in the Request for Information.

2. Anyone considering themselves suitable for providing information as aforesaid is invited to respond to this RFI according to the instructions set forth in the RFI documents, which may be downloaded from NTA's website at: www.nta.co.il.

3. The respondents may request from NTA clarifications regarding the Request by 30.5.2024. Clarifications as aforesaid shall be provided in writing, by email to Tender1@nta.co.il by the foregoing date.

4. The response to the Request shall be submitted by 8.7.2024. The response shall be submitted in a WORD file by electronic mail to Tender1@nta.co.il.

5. It is clarified that this process is neither a tender nor a request for proposals or an offer and it does not constitute a representation, warranty, promise or undertaking on behalf of NTA or on behalf of the state of Israel towards its respondents.

(vi). TENDER 112/2023. GREEN AND PURPLE LINES.

NTA is an Israeli government owned company tasked with the development of the mass transit system in the Tel Aviv metropolitan area, which includes, inter alia, an LRT network, comprised of three (3) LRT lines (the Red Line, the Green Line and the Purple Line).

2. As part of the Tel Aviv Metropolitan LRT Green Line and Purple Line, NTA has signed PPP agreements with two concessionaires (one for each

line) which will be responsible to design, build, finance and maintain each of the Green and Purple Lines.

3. NTA intends that the Operation of the Tel Aviv Metropolitan LRT Green Line and Purple Line will be performed by a single Operator in accordance with the provisions of the Tender Documents, including but not limited to the Invitation to Bid and the Operation Agreement.

4. Given the characteristics of the LRT network described above, as part of the Tender Documents and included within the provisions of the Operation Agreement, NTA has reserved the right, at its sole discretion, to expand the Services and to include the operation of the Red Line at any point

following the Service Commencement Date of the first Line.

5. NTA, in accordance with its obligations under the Israeli Mandatory Tenders Law, 5752-1992, the Mandatory Tenders Regulations, 5753-1993 and further implementing regulations promulgated thereunder, hereby invites entities and consortia from the private sector in Israel and abroad, to participate in a Tender process for nominating an Operator for the Tel Aviv Metropolitan LRT Green Line and Purple Line.

6. The purpose of the Tender Process is to invite eligible participants to participate in this Tender process for the selection and appointment of an Operator for the Tel Aviv Metropolitan LRT Green Line and Purple Line.

7. Threshold Requirements – The participants shall be required to demonstrate compliance with the Threshold requirements and other requirements, all as detailed in the Invitation to Bid...

(vii). Tender No. 185/2024: Providing services of Strategic Advice and Editing a Master Plan for Information Systems and DATA: NTA intends to select one winning bidder only. The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 17.07.2024.

(viii). Tender No. 084/2024: Providing consulting services regarding teleprocessing: Required services: Consulting services for communication and control systems, assisting preparations of tenders, etc. NTA intends to select one winning bidder only. The contract is for 48 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 14.07.2024.

(ix). Tender No. 139/2024: Supply, Haulage and Installation of Fences, Gates and Barrier Posts: NTA intends to select up to 3 winning bidders. The contract is for 36 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 10.07.2024.

B. JERUSALEM

(i). CABLE CAR GRUMBLES CONTINUE

"Franciscans petition High Court over Jerusalem Old City cable car project

Custodians of Catholic sites in the Holy Land argue that city officials broke their promise not to allow the controversial project to pass over cemetery on Mount Zion.

From "Times of Israel" 18.04.2024: (By Sue Surkes). "A Franciscan Order that acts as custodian of Catholic sites in the Holy Land has petitioned the High Court against the construction of a cable car planned to run from Jerusalem's First Station to the Old City, the latest challenge to the controversial project.

Lawyers representing Custodia Terra Sancta claim that city authorities have broken a promise not to run the cable car over the Franciscan cemetery on Mount Zion. Those buried there include British soldiers and the German industrialist Oskar Schindler, who saved some 1,200 Jews from the Nazis by employing them in his factories. The petition is due to be heard on September 16.

The Custodia charges that a 2017 protocol of a meeting with a Jerusalem Development Authority official not only proves that the promise was given, but also prevented the Custodia from utilizing its right to oppose the project. (The Jerusalem Development Authority is a joint agency of the government and the Jerusalem Municipality).

Earlier this year, the Custodia discovered that a planning notice had been posted near the cemetery announcing that three dunams (0.75 acres) were to be confiscated for the erection of three cable car pylons. Eliana Touma, legal adviser to the Custodia, told "The Times of Israel" that it was discriminatory to confiscate land from the Franciscan cemetery while properties owned by the State that are used for public purposes would be exempt from confiscation.

While owned privately, the Franciscan cemetery was used to bury Catholics and was therefore performing a public purpose, she said.

A string of legal cases

The case is just the latest in a string of petitions brought against the cable car, all of which the project's backers have won so far. One of the cases was brought by the tiny Karaite Community, whose roughly four-dunam (one-acre) ancient cemetery is located on the slope beneath the neighborhood of Abu Tor, opposite Mount Zion. The community went to court to stop the cable car from passing over the cemetery. According to Karaite religious law, it is forbidden to place anything between a corpse about to be buried and the sky. A cable car passing over would be like a roof.

A High Court judgment following the dismissal of objections to the project by the Karaite community mentioned that the Jerusalem authorities had nixed the possibility of having the cable car pass over the Catholic (Franciscan) cemetery.

Linking East and West Jerusalem

The project, approved by the cabinet in 2017, calls for a 1.4-kilometre (nearly a mile) track running from the First Station shopping and entertainment area in West Jerusalem over a valley mainly populated by Palestinian East Jerusalemites to the Old City's Dung Gate, near the Western Wall and the City of David archaeological site. There will be a station along the way at Mount Zion. The cable cars will be strung over some 15 pylons, from nine to 26 metres (30 to 85 feet) high and visible from key points overlooking the Hinnom Valley.

The authorities say the cable car will ferry up to 3,000 people per hour in up to 72 10-person cabins. The project's advocates at the Tourism Ministry and Jerusalem Municipality argue that the cable car will attract tourists and relieve congestion around the Old City walls, and is the greenest, least disruptive, and most financially feasible way to transport people from West Jerusalem to the Western Wall, the most venerated site where Jews may pray."

(ii). RED LINE EXTENSION DELAYED

On 24.04.24 it was announced: "The Red Line had been planned to open in July 2023. It is however delayed. It will not open in 2024, as planned. According to the financial report of Shapir Engineering and Industries Ltd., part of the J-Net consortium which builds, maintains and operates the Red Line together with Spanish company CAF, the 8km. extension will now open at the beginning of 2025. It seems that the war had taken engineers and workers away from the project and thus staffing and then processing of the final building permits are the main problem.

In Jan 2023 Minister of Transport and Jerusalem Mayor Lion went on a train-run along the new extension to Neve Ya'akov. They announced that the extension would begin public operations in July 2023. Subsequently the government announced that an extension has been granted. This 4 month 'extra' for the project was based on the incomplete wiring of the electronics and communication consols, that were not ready on time. The start of the war caused further problems with CAF's workforce leaving the country, making Nov. 2023 not viable.

and now the opening of the project has been put back until the first months of 2025.

The current 14 kms of the Red Line between Pisgat Ze'ev and Mount Herzl began operating in 2011. The line is now being extended by a further 8 kms with eight new stations to Hadassah Medical Centre in the southeast and four new stations to Neve Ya'akov in the north."

C. HAIFA – NAZARETH

"From a press release of 16.05.2024 by the Transport Ministry:

"The Transport Ministry, Trans Israel and the winning concessionaire signed today the agreement to build, operate and maintain the LRV line called "Nofit" (Scenery) between Haifa, Nazareth and Nofei Hagalil. The cost is estimated - as for today - at \$2.05 Billion (NIS 7.6 Billion).

The participants were: Transport Minister Mrs. Miri Regev, Transport Ministry's General Manager Mr. Moshe Ben-Zaken, Trans Israel Chairman Mr. Roni Milo, Trans Israel General Manager Mr. Dan Schoenbach, Electra Group General Manager Mr. Itamar Deutscher, Alstom Israel General Manager Mr. Eran Cohen, Minrav Concession and Minrav Deputy General Manager Mr. Ronen Shefer, LRV Deputy General Manager Mr. Itzik Oron, Transport Ministry's Infrastructures Administration Eng. Avner Fluer, representatives of the Ministry, consultants, etc.



The project is performed in the PPP system. The Concessionaire will be responsible for design, building, supply and installation of the whole rail systems, including signalling, communications, electrification, ticketing, passengers' information, track laying, stations, depot, and control centre.

Additionally, the concessionaire will be responsible for purchasing the rolling stock and equipment, as well as for operation and maintenance of the line for 25 years.

Preparatory works on infrastructures are already underway, while main works will start during 2025 and should last about four years."

OTHER MIDDLE EAST RAILWAYS

145:07

A. TURKEY

(i). EXPANSION PLANS

From "Rail Gazette International" 18.03.2024. "Plans to develop inter-city and suburban rail lines have been announced by the government ahead of municipal elections on March 31.

Speaking in the Black Sea port of Samsun on February 28, Minister of Transport & Infrastructure Abdulkadir Uraloglu said the government would push ahead with a planned Kirikkale – Corum – Amasya – Samsun high-speed line which would reduce the Ankara - Samsun journey time from 7 h by road to 2 h 45 min by rail.

Plans to build the 292km line in three stages were completed in 2020 and an environmental impact assessment approved. The first 100 km between Kirikkale Delice and Corum has been included in Turkey's investment budget since 2022.

According to the current 2024 budget the project would cost TL46-48Bn, of which TL38-41Bn is expected to be met by foreign credit. No engineering design or construction tenders have been called so far and the project has a nominal TL1,000/year allocated as a way of keeping it active on the books pending the availability of funding. Uraloglu did not say when he expected funding to be disbursed and construction to start, nor when he expected the Corum – Amasya section to be included in the investment budget.

The 101km Amasya – Samsun conventional line has already been modernised as part of the rebuilding of the Sivas – Samsun line. This route began carrying freight trains in May 2020 and passenger traffic in April 2023, but it would need to be upgraded further to carry high-speed passenger services.

Uraloglu also said that this year would see work start on the preparation of a project for the development of a 509km coastal railway linking Samsun with the east Black Sea cities of Ordu, Trabzon and Rize and the Sarp border crossing with Georgia, 20 km from the terminus of Georgia's main east-west rail corridor at Batumi.

On March 1 Uraloglu announced that national operator TCDD Tasimcilik is to start offering sleeping and dining cars on services to Tatvan and Diyarbakir, aimed at encouraging tourist traffic.

Logistics Centres

Visiting Izmir's under-construction Kemalpaşa Intermodal Logistics Centre on February 29, Uraloglu said that the facility has an operational area of 1.3sq.km. which can be expanded to 3sq.km. as local demand increases from an anticipated 2-3M TEU in 2025 to 5M TEU by the 2040s.

Construction work on three more 'logistics villages' at Sivas, Bogazköprü-Kayseri and Iyidere-Rize is continuing, he said, with planning and survey work for seven more under way.

Konya suburban line

Speaking in Konya on February 27, Uraloglu announced that his ministry would expand the scope of the Konyaray suburban rail scheme from the 26km corridor currently planned to 46km.

Work on the first 17-4km connecting the airport to the main high-speed rail station began last July and is expected to be completed in 2025. Stage Two will see the line extended by 8-6km to the Organized Industrial Zone and Yaylapinar. Uraloglu said the additional 20km would be added via a third phase, but did not give further details."

[Note: The Opposition "CHP" Party made major gains against Erdogan's "AKP" Party. Very high inflation and economic issues probably played a major part.]

(ii). FOLLOW UP: ELECTIONS LEAD TO SEVERAL OPENINGS

In "I.R.J." 10.04.2024 is an item which seems to indicate that, even though Mr. Erdogan appears at all opening ceremonies, the projects are actually the result of initiatives by his opponents:

"Four extensions to existing Metro lines have been opened in Istanbul to coincide with the municipal elections which took place at the end of March.

On March 11, President Recep Tayyip Erdogan inaugurated a seven-station southern extension of line M3 from Kirazli to Bakirköy Sahil on the Sea of Marmara coast. The 8.4km extension provides interchange with metro lines M1a and M1b, as well as tramway T1 and the orbital Metrobus bus rapid transit. At Bakirköy Sahil the line serves the existing sea bus terminal offering connections to the Asian side of Istanbul.

A tender for construction, supply and installation of electromechanical systems and commissioning for the latest segment was won in 2014 by Aga Enerji with a bid worth €242M. The opening comes approximately a year after the inauguration of the four-station northern section from Basaksehir Metrokent to a planned interchange with line M11 at Kayasehir Merkez. M3 now serves 20 stations in total.

Airport Line

Line M11 serving Istanbul's main airport was extended by a further 10km on March 19 with the opening of a section between Kargo Terminali and Arnautköy by Minister of Transport & Infrastructure Abdulkadir Uraloglu. M11 is intended to form an inverted U shape curving around the north of the European side of the conurbation; and the latest extension forms the northernmost part of the western leg. Completion of the remaining section between Arnautköy and Halkali will take the route to a total length of 69km.

At the opening ceremony Uraloglu said the government-backed metro would soon become the longest in Turkey and one of the longest fully underground metro lines in the world.

The western leg between Halkali and Kargo Terminali is being built under contracts worth TL4.2Bn which were awarded to the Kolin-Özgün-Yapı consortium in 2018. These cover civil works, electromechanical systems and commissioning. Consultancy services are being provided by Apco Teknik/Altinok.

The north-eastern section of M11 between Istanbul Airport and Kagithane was opened in January 2023, with the section between Kagithane and Gayrettepe following in January this year. The route is run by national operator TCDD, with driverless trains operating every 20 min at up to 120km/h; The current maximum capacity of M11 is put at 12,800 passengers a day.

Both the M3 and M11 extensions were developed by the national Ministry for Transport & Infrastructure, which took over responsibility for developing those lines following the 2019 municipal elections which saw control of Istanbul pass to the country's main Opposition party.

The third opening came on March 18 when city mayor Ekrem İmamoğlu presided over the inauguration of a 13.4km extension of Line M9 between Bahriye and Ataköy. Running through the west of the city on the European side, this section has 12 stations and joins the previously-isolated Bahriye – İkitelli – Olimpiyat stub with the coast. Interchange with Line M1 is provided at Yenibosna and to the Marmaray suburban line at Ataköy.

Contracts for the full M9 route, which now links Ataköy with Olimpiyat, were let in September 2015 to Aga Enerji with a bid of €338M. Construction started in February 2016 before being halted during the economic crisis of 2018; Work restarted only after the opposition won the 2019 elections.

Expansion on the Asian side

The Metro network on the Asian side of the Bosphorus grew on March 16 when İmamoğlu opened a 6.5km, four-station extension of Line M5 between Cekmeköy and Samandıra Merkez; this will be followed in the coming months by a further section to Sultanbeyli.

The route has been built by Dogüs İnsaat under a 2017 tender worth TL2.3Bn. Development of the extension was halted in 2018 before being revived in 2019 after the municipality secured a €110M loan followed in 2020 by the issuing of a €60M Eurobond.

More lines planned

A slew of Metro schemes is still being taken forward by the city government. On March 14, testing began on the first section of the 13km Line M12 between Göztepe and Kazım Karabekir, which is expected to open next year. The work is being co-funded through an €98M loan from EBRD. On March 11 İmamoğlu presided over a ground-breaking ceremony for Line M13, which will serve 15 stations over a 25km corridor between Söğütötesme on the Marmaray suburban line and Yenidogan.

A consortium of Dogua İnnaat, Özalın and Yapı Merkezi won a 2017 tender for construction of the easternmost section between Yenidogan and Emek, interchanging with the latest extension of Line M5 at Sarıgazi. Following the 2019 elections plans were announced to extend the line to Söğütötesme, but as yet no tenders have been called for the civil works on this western extension."

(iii). INTERNATIONAL JOINT VENTURE

"An equally-owned binational joint venture is to be set up to manage the Azeri and Georgian sections of the Baku – Tbilisi – Kars railway once current upgrading works are completed.

Azerbaijan's and Georgia's state railways currently hold sole responsibility for the sections of line within each country. Separately, Turkish infrastructure manager TCDD is responsible for the 76km section within Turkey.

Rovshan Rustamov, CEO of Azerbaijan's ADY which would own a 50% stake in the joint venture, made the announcement after inspecting rebuilding work on the Georgian section of the line along with his Georgian Railways counterpart David Peradze and TCDD's Veysi Kurt.

Rustamov said that the rebuilding work on the 183km long section through Georgia's mountainous eastern region, most of which is over 2,400m above sea level, was 95% complete. The work is being undertaken in five sections, of which one, two and four are now complete. It includes rebuilding stations, installing new electrical and signalling equipment and snow protection measures.

Rustamov explained that the work aims to help increase the volume of transit freight along the Middle Corridor between the Far East, Central Asia and Europe and vice versa.

"Our goal is to increase the volume of cargo transportation over the line to 5M tonnes per year, to make the line one of the most attractive parts of the Middle Corridor", he said." [See below §(x) for news and Item K(ii) for more on the Middle Corridor scheme.]

(iv). IZMIT TRAM EXTENSION AND METRO PLANS

From "Metro Report Intl." 26.03.2024:

"Plans to build a 26.8km Metro line in Kocaeli were announced by Turkey's Minister of Transport & Infrastructure Abdulkadir Uraloglu on March 20, ahead of local elections scheduled for March 31.

Speaking at the inauguration of a 3.1km tram line in İzmit, the centre of the Kocaeli municipality, Uraloglu said the ministry would be funding the planned Körfezray metro, for which a tender would be called later this year. The line is intended to link Körfez in the west to Kartepe in the east.

Trams to the Hospital

The new tram branch with five stops links İzmit's main hospital at Şehir Hastanesi to a junction with the existing Akaray tramway in Mustafa Kemal Bulevar. A triangular junction east of Mehmet Ali Paşa

stop allows trams from the branch to continue in both directions, towards Kurucesme or Otogar.

Six companies had participated in the tender for civil works and the supply, installation and commissioning of electromechanical systems, which was held by Turkey's General Directorate of Infrastructure Investments AYGM in 2022. The TL525M winning bid was submitted by Eze Insaat, which had also won, either directly or through a partner, two previous tenders that were cancelled following legal action by a rival bidder.

To work the expanded network, Kocaeli municipality ordered a further 10 trams from Bozankaya, signing a TL697M contract in April 2023. The first two vehicles were unveiled on March 19, with Mayor Tahir Büyükkakin explaining that the city planned to introduce coupled tram operation from the end of this year. This will require the platforms at the stops to be lengthened.

Alikahya Stadium Next

During the opening celebrations for the hospital branch, the municipality confirmed that work had already started on another 3.8km extension of the Akcaray tram line. This will run from the main bus station at Otogar to the Alikahya stadium, which is home to Turkish First League club Kocaelispor.

Büyükkakin said the extension would be built in two phases, with three stops in each; the whole line is expected to be complete by July 2025."



(v). TURKISH TRAMWAY ATLAS

Recommended in the NVBS magazine "Op de Rails" 5/2024:

"Tram Atlas Türkiye" by Bernhard Kuzsmagk and Robert Schwandl. 80pp. 17x24cm; pub. Schwandl Verlag; €16,50. Network maps and ca. 120 colour photos (also of Metros and Rapid-Transit lines).

(vi). FOUR-WAY U.A.E., QATAR, IRAQ TO TURKEY LINE PLANNED: MEMORANDUM OF UNDERSTANDING

From "I.R.J." 26.04.2024.

"A quadrilateral Memorandum of Understanding (MoU) on the planned 1,200km Development Road new rail link was signed on April 22. Iraq, Turkey, the United Arab Emirates (UAE) and Qatar agreed to cooperate on the \$US 17Bn project to create a new passenger and double-track freight railway between the Grand Port (a container port) at Al Faw (Basra) in Iraq and the Turkish border.

Turkish president Mr Recep Tayyip Erdogan and Iraqi prime minister Mr Mohammed Al Sudani witnessed the MoU signing, along with Qatari

and Emirati ministers, at a ceremony in Baghdad, the first time a Turkish leader has visited the city since 2011.

"The outlines for the framework of implementing the Development Road project aim to stimulate economic growth and enhance regional and international cooperation through economic integration," the office of Sudani said in a statement. "It seeks to create a sustainable economy bridging East and West, increase international trade, facilitate movement and commerce, establish a new competitive transport route, and bolster regional economic prosperity."

(vii). BRITISH RAILS

From "R.G.I." 16.05.24: "British Steel has won a contract of 'multi-million-pound' value to supply 'tens of thousands of tonnes' of rail for the project to modernise and electrify the 286km Mersin - Adana - Gaziantep line for 200km/h operation."

(viii). MORE ELECTRIC LOCOS ORDERED

From "R.G.I." 19.03.2024: "An agreement for state-owned locomotive and rolling stock manufacturer Türasas to supply national operator TCDD Tasimacilik with 95 E5000 electric locomotives was signed on March 15.

The prototype E5000 designed by Tübitak and manufactured by Türasas was unveiled last year. The 5MW four-axle TSI-compliant locomotive has a maximum speed of 140 km/h, with AC-AC transmission and domestically developed 1.28MW traction motors. 'We developed a new generation of main line electric locomotive', said Minister of Transport & Infrastructure Abdulkadir Uraloglu when the order was signed. 'I am proud to say that we are now one of the few countries with our own technology in the locomotive industry.'

He added that share of locally produced components is approximately 65%, 'but we plan to increase this to 80%.'

(ix). LOCAL WAGONS

From "R.G.I." 27.05.2024: "State-owned locomotive and rolling stock manufacturer Türasas has supplied national operator TCDD Tasimacilik with 27 container wagons of its own design.

The Sgggrs articulated two-platform wagon with three bogies and six axles is suitable for use with 20ft, 30ft and 40ft containers, and can carry two 40ft containers with a combined payload of 108 tonnes. Türasas said that all the wagons it has supplied to the national operator were manufactured in accordance with TSI standards, allowing them to be used on international routes. However, TCDD is expected to use them mostly within Turkey, the company added. It plans to increase production of wagons to 200 units in 2025 and 480 in 2026. Türasas produces a range of 19 standard freight wagon types, plus related components such as bogies and brake blocks."

(x). LINE FROM KARS TO BAKU REOPENED FOR FREIGHT

From "R.G.I." 06.06.2024: "The Baku - Tbilisi - Kars railway has re-opened for freight traffic following a year-long maintenance and rebuilding programme on the Georgian section of the line. Work on the 170 km section between Marabda and Akhalkalaki began in May last year and was completed on May 20.

The first service to use the upgraded line carried soda ash from Turkey to Azerbaijan on May 23, followed by a train carrying raw plastic from Azerbaijan to Turkey's Mediterranean port of Yenice on May 24.

Commenting on the reopening, Turkey's Transport Minister Abdulkadir Uraloglu said the 757km Baku-Tbilisi-Kars railway had carried 1.47 Million tonnes of freight since it opened in October 2017. Uraloglu said the Turkish government hopes to increase the number of block trains using BTK to 200 per year in the mid-term and 1,500 per year in the longer term, and to reduce the journey time between China and Turkey from 12 to 10 days."

B. SAUDI ARABIA

(i). TRAVEL REPORT

(In 'Lok Magazin' 04/2024 pp.88-95 is an article by Johannes Glöckner about recent travels to Saudi Arabia. Although a railtour was held there last year this is the first fairly comprehensive report about recent changes to the country and its railway and so extensive sections are translated here. Ed.)

"The Kingdom which was until a few years ago rather isolated is now opening itself up. From 2019 tourists have been able to visit Saudi Arabia, although thanks to Corona the new possibilities were soon restricted once again. Today however there is no trace of these limitations. Whoever wishes to may visit the old and new railways and also the cities of Mecca and Medina without problems. Whether seeking relics of the old Hedjaz Railway in the desert sands or the highly modern new lines, the Arabian Peninsula has much to offer.

With German Technology Through the Desert

Heinrich August Meissner (1862-1940) who came from Saxony was entrusted with the construction of the HR. During his study of Railway Engineering he had learned Turkish and so he was a clear choice for the role thanks to the close connections at the time between the German and the Ottoman Empires. The task was to build a line from Damascus to Mecca, a distance of over 1,770km, with 1,512 bridges and 96 stations or operational crossing sites, through empty desert with a shortage of water, great heat and sandstorms. Since the railway was, due to the First World War, only completed to Medina [sic. There were other reasons. Ed.] nevertheless 1,332 kilometres were completed. Meissner brought in his own countrymen to the Near East as engineers and the German railway industry received many contracts – including the firms of Borsig in Berlin, Hanomag in Hannover, Hohenzollern in Düsseldorf, Jung in Kirchen, Krauss in München and Richard Hartmann in Chemnitz. This last firm delivered a total of 41 locomotives to the HR and its successors in Jordan and Syria. 72% of the costs of the construction were met by the Ottoman Empire, the rest was donated by Moslems from all over the world. The railway was also to fulfil a strategic purpose, enabling the Arabian areas to be better controlled and to be protected against British interests.

An Early End 100 Years Ago

In 1924, after only 16 years, through operations from Damascus (now in Syria) via Amman (now in Jordan) to Medina in the current Saudi Arabia were suspended. During the so-called Arab Revolt in the First World War the line had been constantly destroyed by rebellious Beduin and the regular Arab troops under Prince Feisal – many people will in this connection have images from the film 'Lawrence of Arabia' in their minds. In 1918 the Ottoman Empire was reduced to merely Anatolia. England and France secured Mandated Territories and in the South several Arab groups fought against each other. At the end of 1925 once more large sections of the line had been rendered unusable.

Oil Brings the Change

When the Kingdom of Saudi Arabia was founded in 1932 there was no longer any railway there. In Syria and Jordan some sections of the route could be retained and used even until today, but traffic is very limited. The 760 kilometres of line in Saudi Arabia was however now totally unimportant. Only when substantial oil reserves were discovered in the Persian Gulf at the end of the 1930's was attention given once more, in 1948, to the possibilities of transport by rail. With this there began a new Railway Era in the Arabian Peninsula. In the meantime within the past few years the old Hedjaz Railway has begun to be recognised as a national treasure and memories are revived of the manner in which the religious pilgrimage trains were run to make access to Medina and Mecca easier. The Saudi Royal Family has therefore ordered that all remaining relics of this railway should be safeguarded, restored and displayed in museums. The remains of historic stations are now being fenced to secure them against further plundering. The buildings and station layout at Tabuk (Kilometre 692.0), Mada'in Saleh

(Kilometre 958.0) and Medina (Kilometre 1,320.5) have already been excellently restored. Also sections of the old alignment and bridges are present and are often used as tracks. It is also very picturesque that one can still find old wrecks in the desert.



The Hadj.

For pious Moslems it is a religious duty to make the 'Great Pilgrimage' at least once in their lives. The period for this is set each year, in this year it will start on 8 June 2024. The 'Smaller Haj' is possible throughout the year. Several holy sites are visited in Mecca – these are linked by an aerial railway with five stations, that only operates at the period when millions of Moslems come to the city for the Great Haj. Medina is the second most holy city in Islam and here is the Mosque of the Prophet with Mohammed's grave.

For non-Moslems the Al-Haram Mosque with the Kaaba in Mecca and the Mosque of the Prophet in Medina are taboo. However one can move without problems up to the entrances of these shrines. Until recently entire sections of these cities were banned for Non-Moslems.

Surviving Hedjaz Railway Locos in Saudi Arabia

No.	Wheels	Builder	Notes
6 (ex 20)	0-6-0T	Tubize, Belgium 877/1895	Tabuk Museum
17 (ex 229)	0-6-0T	Krauss München 5283/1904	Hedia. Scrap.
60 (ex 31)	2-6-0	Jung 964/1906	Mada'in Saeh, Museum
52 (ex 36)	2-6-0	Hartmann 3038/1906	Al Ula
54 (ex 49)	2-6-0	Hartmann 3094/1907	Medina Museum
101 (ex 76)	2-6-0	Hartmann 3461/1910	Al Buwair
105 (ex 80)	2-6-0	Hartmann 3465/1910	Medina Museum
110 (ex 85)	2-6-0	Hartmann 3545/1911	Dar al Hamra. Scrap.
111 (ex 86)	2-6-0	Hartmann 3465/1911	Medina Museum.
151 (ex 88)	2-8-0	SLM 2286/1912	Medina Museum. Loco has been sectioned for display.
157 (ex 94)	2-8-0	SLM 2292/1912	Al Mudara. Scrap.
158 (ex 95)	2-8-0	SLM 2295/1912.	Medina Museum.

The Modern Pilgrim Trains.

The most recent railway line in the Kingdom links in a way with the historic Hedjaz line, for the modern high-speed line of today is in many ways the completion of the old Pilgrim Railway. However the Believers nowadays come by air to near Jedda, and there board at the Airport Station at King Abdullah International Airport the fast Talgo trains to Mecca and Medina.

The (isolated) 450km Haramain High Speed Rail was opened in Autumn 2018. The standard-gauge line is double track throughout and electrified at 25kV/50Hz AC. It was operated and maintained for twelve

years by the Spanish railway administration Renfe and then taken over by the Saudi Arabia Railway (SAR). Speeds of up to 300km/h are possible but whether they can actually be reached for long regular periods depends on the very difficult conditions. Sandstorms frequently bring dunes onto the tracks, the sand in the air and on the rails also accelerates wear on the vehicles and occasional heavy rainfall also affects the alignment.

There are 15 "Talgo 350" train sets, each of two power cars and thirteen intermediate carriages. The trains with 417 seats in the 1st and 2nd class are especially sealed against the fine sand and fitted with very powerful air-conditioning units. They were delivered by ship from Spain already between 2014 and 2015. A further train set with special furnishings is maintained as a Royal Train.

It is not only these trains which symbolise modern times; Women were especially recruited as drivers! There were 28,000 applicants for the posts on offer – this in a country where until 2018 women were not even permitted to drive a car!

The rapidly-expanding oil industry in the Persian Gulf was the main factor in 1948 for the beginning of construction of a 550km line from Dammam to the capital of Riyadh. This opened on 20 October 1951. American influence here was significant, as with the opening of new oil fields; Saudi Arabia was classed as underdeveloped and very much dependent on American capital and technology. The search for further oilfields to exploit had remained without success for a long time and was indeed about to be suspended, until on 4th March 1938 large quantities of oil suddenly spurted from an unexpected depth from the bore "Dammam No. 7"; From this there developed the concern "Saudi Aramco", since nationalised and today the largest oil concern in the world. In 2022 alone a record profit of 161M US dollars was made – income with which also infrastructure projects such as the railways are financed.

The first new railway after the destroyed Hedjaz line was built by the Saudi oil firm Aramco; this line from Dammam to Riyadh was later absorbed into "Saudi Railway Organisation" (SRO). Later the "Saudi Railway Company" (SRC) built the North-South line. The link Mecca – Medina was run by a further administration and operated by Renfe. In order to unify this complex situation into one administration, the "Saudi Arabia Railways" (SAR) was formed from 1 April 2021. At this point the network with its various extension projects amounted to some 5,000 kilometres.

Double-Stack Container Trains.

At present work is underway on the new high-speed line between Dammam and Riyadh, where speeds of up to 200km/h are possible. Electrification and rebuilding to allow 300km/h are planned. The diesel multiple-unit sets built by the Spanish firm CAF will then be replaced by the Talgo 350. The old link Dammam – Riyadh will then be kept solely for freight traffic. The lengthy, mostly double-stacked container trains have to travel 561km over this route, the passenger trains on the new line in contrast only 310km.

The North-South Line runs from both Riyadh in the south and the industrial area around Ras Al-Khair on the Persian Gulf northwards towards Jordan. It is largely completed and since 2015 some 2,500 kilometres of new alignment have been brought into operation. Passenger traffic here is also provided by the CAF diesel units and electrification is not yet foreseen. All the modern lines radiating from Riyadh are fitted with the modern digital train control system ETCS Level 2, this includes also the Haramain High-Speed line from Mecca to Medina.

Motive Power in Saudi Arabia

Operations on the Aramco line began in 1951 naturally with US Diesel locomotives which the Arabian-American Oil Company had brought for the construction work. The five locos of ALCO Type RS-1 were later numbered 1000-1005. Two further line locos of Type FP7A and FP9A by EMD received the numbers 1500 and 1501. There followed seven

second-hand B'-B' locos from the Netherlands State Railways which became numbers 101-107.

From 1971 the fleet was expanded and modernised with a variety of EMD locos which were numbered from 2000. Today the following can be found still at work: SDL38 (2030-2035), the SDL50 (3500-3530), the SD70ACS (4000-4060) and the GT46ACS (4301-4316). In some cases the locos are still in the older blue-yellow livery of the SRO.

As regards the CAF diesel railcar sets the six-car sets are numbered 5000-5010. From 2013 CAF delivered a further ten sets with nine and thirteen cars, these have two power cars whereas the shorter sets have one power car and a driving trailer.

The 16 electric Talgo 350 sets which are in use between Mecca and Medina have the class number 12 which is part of a computerised system with a control digit.

In early 2024 the SAR signed a contract with Stadler for delivery of ten diesel-electric multiple unit trains with the option for a further ten.

The Royal Vision for 2030.

The Saudi Crown Prince Mohammed bin Salman, who has also been Prime Minister from 2022, wishes to liberalise the country and lead it into a visionary future. The best-known part of his 'Vision 2030' is the gigantic desert city of NEOM in the north of the country. The vast construction, some 170km (!) long and known as "The Line" should be 500m high and in terms of water, food and energy be fully independent. It is planned that nine million people are to live here – and without cars. In terms of Mobility modern People-Movers are planned, of the type we know from Airports. Ground works for the NEOM have already begun; however the Kingdom of Saudi Arabia is here acting in a manner which cannot be defined as 'liberal', for some 20,000 Beduin have to be forcibly removed from the area for the new Megacity. Here, south of Aqaba, is the traditional tribal area of the Howeitat (also known from the film 'Lawrence of Arabia', in which Anthony Quinn played the Sheikh Auda Abu Taiji.)

This 'Vision 2030' includes an integrated railway network for passenger and freight traffic which should reach an extent of over 8,000km. One project has priority, the so-called Land Bridge which will link ports on the Persian Gulf with those on the Red Sea. In Jeddah a link with the Mecca – Medina line will also be possible. The investment of several Billions has already been put out to tender. Even a new line from Medina further northwards along the former Hedjaz line is possible for the Saudi visionary.

Rail links to neighbouring countries are also on the agenda. With the Gulf Railway the six countries of the Gulf Cooperation Council (Bahrain, Qatar, Kuwait, Oman, Saudi-Arabia and the United Arab Emirates) will be linked with each other. The UAE is especially interesting for they have also built a new railway network. This vision has however hit some obstacles and will perhaps only become reality when the Kingdom of Saudi Arabia finally becomes an important country for railways and a centre for logistics."

Notes for Travellers:

"A visum is necessary for Saudi Arabia: this can be applied for from home as an eVisa but can also be obtained on arrival at the airport. Cost is ca. €120. Prices for daily living are comparable to those in the Western Europe, but fuel for cars is very cheap and so a hire car can be recommended, especially for destinations on the old Hedjaz Railway line. The land is marked by a strong form of Islam; the Foreign Ministry can advise on what is forbidden on religious grounds and this advice should be observed. In spite of the liberalisation which has begun, there are still problems, for example with press freedom or the maintenance of human rights. Photography is allowed at publicly-accessible sites but stations are not classified as such. Access to platforms is only possible with a ticket."

(ii) MEDINA RELICS

The Indian Railway Enthusiasts Society had some interesting photos on their website and have given permission for these to be used. They were taken by an Indian (Moslem) engine driver Mr. Abdul Wajeed who went to Medina to carry out repairs and restoration on some of the locomotives there. See <https://www.irfca.org/gallery/Foreign/Hejaz/>

"There is no other information available about the project apart from the one present at: <https://www.irfca.org/gallery/Foreign/Hejaz/>.



- Restored HR 0-6-0T at Tebuk (Photo Iain Scotchman)

(iii). JEDDAH AIRPORT PEOPLEMOVER

From "Metro Report Intl." 01.05.2024: "Alstom has been awarded a contract to increase the capacity of the Innovia Automated Peoplemover at Terminal 1 of Jeddah's King Abdulaziz International Airport. This will include supplying four additional cars to augment the existing ten, upgrading the signalling and communications, installation of platform screen doors, cybersecurity enhancements and a new control room."

(iv). ONE MILLION PASSENGERS ON HARAMAIN SERVICES DURING RAMADAN

From "Gulf News" 10.04.24: "Cairo: The high-speed rail service connecting the Saudi cities of Mecca and Medina achieved record-breaking numbers of passengers and journeys during the recently concluded Ramadan, according to the operator.

Mecca and Medina, home to Islam's two holiest sites, attract millions of worshippers and visitors from both within and outside Saudi Arabia. The Haramain train service saw over 1 million passengers transported during Ramadan, marking a significant 22 percent increase compared to the same month last year, as reported by Saudi Arabia Railways (SAR). This surge in passengers was facilitated by 2,845 train journeys, representing a 12 percent rise from the previous year.

SAR attributed the increased capacity to a key element of its operational plan for Ramadan, which focused on expanding the number of journeys and available seats. These efforts aimed to enhance the travel experience for the "Guests of God."

Special Ramadan schedules were implemented to accommodate prayer timings at the Grand Mosque in Mecca and the Prophet's Mosque in Medina, ensuring the safety and comfort of visitors during their journeys. Covering a distance of 450 kilometres, the journey between the two holy cities takes approximately two hours aboard the train.



- Other Medina relics



Ramadan traditionally marks the peak season for Umrah, the minor pilgrimage, at the Grand Mosque. Following Umrah rituals, many pilgrims travel to Medina to offer prayers at the Prophet's Mosque and explore other significant landmarks in the city.

Inaugurated in 2018, the Haramain rail service seamlessly connects Mecca and Medina via the bustling port city of Jeddah. With an ambitious goal of transporting around 60 million passengers annually, the service continues to play a vital role in facilitating pilgrimage and travel between the holy cities."



(v). MORE WOMEN TRAIN DRIVERS TO BE RECRUITED

From "I.R.J." 13.06.2024; by Robert Preston: "The second round of recruitment aiming to attract more women to become drivers on the Haramain High-Speed Railway has seen 38,000 candidates apply for the 35 places that are now on offer at the Saudi Railway Polytechnic (SRP). SRP is the local training partner to Spanish national operator Renfe, whose Saudi Arabian subsidiary Renfe KSA is the lead partner in the consortium operating the 453km Haramain high-speed line between Mecca and Medina.

The first round of recruitment in 2022 saw 28,000 women apply, with 14,000 selected to sit an examination in person at SRP in Qassim. A total of 34 were selected for the driver training programme, becoming the first female train drivers in Saudi Arabia and the Middle East. Applicants must be Saudi nationals aged between 22 and 30, and the necessary academic qualifications include a knowledge of English to the required standard.

Driver training will start next month and combines 485 hours of technical instruction with 674 hours of practical training. Successful candidates are issued with a train driving licence upon completion of the course.

Renfe KSA has also trained over 800 Saudi nationals for customer service roles at stations and onboard trains, and for positions in ticket sales and operations. Renfe says that over a third of its staff in Saudi Arabia are now women, making it a pioneer for gender equality.

"SRP's work with Renfe has been of great value, contributing directly to meeting the objectives of Vision 2030 and training young Saudi citizens to contribute to the management, operation and maintenance of the Saudi railway industry," says a testimonial presented to Renfe by the minister of transport."

C. EGYPT

(i). RAILS FOR NEW INTER-SEA LINE

From "R.G.I." 04.04.2024: "British Steel has won a multi-million-pound contract to supply 9,500 tonnes of rail from its Scunthorpe plant in the

UK for use on the 250 km/h Green Line railway. This corridor will link Mersa Matruh on the Mediterranean coast with Alexandria, the New Administrative Capital and the port of Ain Sokhna on the Red Sea.

Construction of the 660km mixed traffic route electrified at 25 kV 50 Hz is being undertaken by a joint venture of Orascom Construction and The Arab Contractors on behalf of the National Authority for Tunnels.

The 60E1 grade R260 rail in 18m lengths will be transported to the port of Alexandria in two shipments during April and June.

Announcing the order on April 2, British Steel said it had supplied rail extensively across Africa, including to Algeria, Morocco, Libya, Senegal, Cameroon, South Africa, Mauritania, Guinea and Liberia."

(ii). MEGA PROJECTS

From "I.R.J." 01.04.2024 by Kevin Smith:

"Egypt is a country under construction. More than 40 megaprojects worth \$US 1Bn or more are underway from the Red Sea to the Mediterranean under a bold government modernisation agenda to better serve a rapidly-growing population.

The centrepiece is the New Administrative Capital (NAC). Already thousands of civil servants have relocated from Cairo, 45km to the west, to work in the city's central district. Many will soon occupy various residential areas on the edge of the new capital, which will eventually be home to 6.5 million people.

Construction of a staggering 45 new cities is planned across Egypt. Many of these are already connected by new roads as the country grapples with chronic congestion in and around Cairo. However, Egypt is not relying entirely on the private car to improve connectivity. Encouragingly, expanding public transport is central to the government's strategy, including a bold rail construction programme with no less than 20 projects which, outside China, is currently unparalleled anywhere in the world.

We feature many of these in this issue of "IRJ", including the most high-profile, a 1985km, three-line high-speed network. I was invited to visit a construction site close the NAC high-speed station during my visit to Egypt at the end of February where I could see first-hand the impressive progress on this landmark project.

Along with high-speed, work is advancing on the next phase of a suburban rail network for the NAC as well as extensions to metro and light rail networks in Cairo and Alexandria. There is also the world's longest monorail project, which is set to carry its first passengers by the end of this year.

Delivery of these megaprojects is central to the strategy of Egypt's president, Mr Abdel Fattah El-Sisi, to create jobs while profoundly reorienting the country's society.

While admirable in its ambition, questions have been raised about the self-indulgent nature of some projects and their social implications. Egypt's economic fragility is also a concern.

A perfect storm of the Covid-19 pandemic hitting tourism and the oil and gas sector, followed by further impact from the war in Ukraine - notably on the price of wheat, a commodity on which Egypt is heavily reliant - has resulted in an economic crisis. The subsequent devaluation of the Egyptian Pound, higher US interest rates and high domestic inflation of more than 30%, made it problematic for Egyptian buyers to meet their financial obligations, increasing the difficulty of importing goods and commodities. This has exposed the megaproject agenda, which is highly dependent on imports for swift delivery.

In addition, unlike its neighbours that have largely funded infrastructure programmes with their own cash, Egypt is harnessing private finance, predominately from western banks. Public debt has consequently soared to 100% of GDP. Further fuel has been added to

the fire by the ongoing shipping crisis in the Red Sea, which has hit traffic through the Suez Canal, an important source of revenue for the Egyptian government.

Something had to give and news in recent weeks of a \$US 35Bn foreign direct investment from the United Arab Emirates (UAE) and a \$US 5Bn extension of an International Monetary Fund (IMF) loan has eased immediate concerns. Economists at the Chatham House research institute in London have noted Egypt's "luck" based on its geographic location and the desire of western governments to prevent default. They now urge the government to follow through with promised monetary reform.

This is unlikely to change the construction agenda, however. Sisi has vowed to stay the course, saying that he will not desert the 5-6 million people employed on its projects, and imploring citizens to bear short-term pain for long-term benefit. The National Authority for Tunnels (NAT), which is overseeing the rail construction programme, similarly says it will continue at pace.

Encouragingly for Egypt, private-sector companies active in the country remain steadfast in their conviction that it remains a strong long-term bet.

Hill International, which has an impressive portfolio of Egyptian projects, is one such company. Mr Waleed Abdel-Fattah, president of the Middle East and North Africa (Mena) region at Hill, says Egypt has come through past crises, notably in 2011 and 2020. He is especially encouraged by the improved stability that the UAE support will provide. "From a business point of view, we are looking forward to new investment coming into the country," he told me in Cairo. Equally, Mr Léon Soulier, CEO of turnkey at Siemens Mobility, which is delivering the high-speed programme, is reassured by the firm support from western governments for Egypt's infrastructure projects.

The commitment of these well-established companies to Egypt is set to serve the country well in the long-term. They are helping to drive up standards of project delivery and workforce safety. They are also offering valuable lessons in project management through their close work with NAT, which is proving a demanding but engaged client.

Skills are inevitably a major challenge for such a major construction programme. Nevertheless, Egypt is blessed with a proficient education system, which is producing a significant number of capable engineers. Many are now rubbing shoulders with experienced professionals who have been lured to Egypt by the challenge of working on some of the world's largest rail infrastructure programmes. Many are keen to pass on their expertise. Senior staff at Siemens, for example, are actively engaging with universities and young people to promote careers in the rail industry. It is therefore conceivable that many of these Egyptian engineers will take the lead on future infrastructure projects, including later phases of the high-speed programme and potential links to neighbours in the region, an ambition of NAT.

The promised creation of a domestic railway supply industry could then flip Egypt from relying on imports to becoming an exporter in the region. Speedy delivery of the current project bonanza appears to be just the first step rather than the complete modernisation story. Egypt is therefore poised to remain a rail hotspot for many years to come."

(iii). RAPID PROGRESS ON NEW HIGH-SPEED LINE

From "IRJ." 12.04.2024; by Kevin Smith:

"One of the world's most high-profile high-speed railway projects is beginning to take shape in the Egyptian desert. Kevin Smith was granted exclusive access to a key construction site, close to Egypt's New Administrative Capital.

"It's a Wednesday morning and the project office for the Siemens Mobility, Orascom, and Arab Contractors (SOAC) consortium delivering Egypt's new high-speed railway is busy. Weekly meetings are underway in adjoining temporary buildings between various SOAC teams working on the project, which is showing encouraging signs of progress.

This is apparent to anyone arriving at the National Administrative Capital (NAC) station office by road. A four-car Desiro HC EMU stationed on a temporary track above the office site comes sweeping into view. The train was delivered in November and is one of three types of rolling stock that Siemens Mobility is supplying to operate on the new 1985km, 250km/h mixed passenger and freight network. The first Velaro high-speed train is expected in Egypt by the end of the year, while Vectron electric locomotives are under construction in Munich.

Adjacent to the train is a helipad, ready to receive the next high-level dignitary keen to keep tabs on one of Egypt's flagship mega projects. As well as inspecting the train, a visit will likely include tours of a nearby light maintenance depot that will eventually accommodate up to 10 Desiro EMUs and where fitting-out is underway, and the construction site for the future NAC high-speed station. Here the main building, four platforms that will serve six tracks, and bridge structures are all taking shape.

Right now, the station is geographically isolated. All around is sparse desert with jagged rocks hinting at some of the wider project's biggest challenges. Yet the area is awash with new construction, which promises to transform it into a hive of activity in the coming years.

Around 100m from the main station building are the few first piers of a future extension of elevated Capital Train suburban line, dubbed LRT, that will provide a direct 20.4km connection to the centre of the NAC, the fringes of which are visible in the distance to the north. It is possible to make out some of the new but as yet unoccupied residential buildings that will house some of the future 6.5 million residents of Egypt's new capital. They are flanked by the new eight-lane Ain Sokhna Road, which connects Cairo with the Red Sea coast, while a recently completed 4.8GW natural gas power station, one of the largest of its kind in the world, is also prominent on the horizon.

The new network is the largest single high-speed construction project underway anywhere in the world.

The station itself is expected to become a destination in its own right. A new hospital, school and shopping mall are planned for the 120ha site, which is being built by domestic contractor SIAC Construction. With a vast car park, it is also likely to serve as a drop-off point for visitors to the adjacent International Olympic City, which will be served by the LRT line. A brand-new 93,000-seater stadium is the centrepiece of the complex, which also houses other arenas, and is nearing completion as Egypt gears up to bid for the 2036 Olympic and Paralympic Games. On the other side of the highway from the stadium is the 470ha Octagon, the future home of the Egyptian Ministry of Defence, which will be the largest such facility in the world, surpassing the Pentagon, when it opens.

The extent of the progress made on the high-speed railway becomes especially striking during a visit to a construction site east of the station. By March, 55% of groundworks for the 660km Green Line have been completed by local contractors working alongside the National Authority for Tunnels (NAT), a division of Egypt's Ministry of Transport. The civil engineering work is impressive. Extensive culverts and adjacent ditches run alongside the entire formation which heads off into the distance towards the Red Sea. It might not rain very often in the Egyptian desert, but when it does, flooding is common, and these risks must be averted.

Progress with the initial stages of tracklaying is similarly apparent at a busy welding plant, the network's first, where stacks of 18m-long rails supplied by British Steel and JSW, Italy, are welded into 306m-long sections of 17 rails, all of which are individually tagged. Around 3km of track has already been laid on the initial 90km stretch of the line that will run from Ain Sokhna via the new NAC station to Mohamed Naguib and the depot at October Gardens. A tracklaying machine supplied by Plasser & Theurer, one of seven machines it is providing for the project, is stabled adjacent to the welding plant during "IRJ"'s visit. It is poised to continue the next stage of construction, completing up to 15km of double track per month.

Installation is also virtually complete of the first transformer and substation that will provide power to the initial 90km section of the 25kV ac electrified railway, Egypt's first electrified main line. Thousands of catenary masts have already been delivered and piling work has begun. This installation work is being conducted using specialist machines supplied by Italy's Tesmec. TSO, a subsidiary of NGE, France is responsible for tracklaying, including more than 100 turnouts, on the 330km Ain Sokhna - Cairo - October 6 City - Borg El Arab section of the Green Line. Orascom and Arab Contractors also awarded Salcef, Italy, a €300M contract to undertake tracklaying on the remaining 330km northern section, which connects Borg El Arab with El-Alamein and Alexandria on the Mediterranean Sea, and includes the 200km Phase 2 West from El-Alamein to Marsa Matrouh. The line will have a total of 21 stations.

The second route, the Blue Line, will run for around 1,100km from Greater Cairo, south via Luxor to Abu Simbel, close to the Sudan border. NAT reports that 15% of this line is already complete. A third route, the 225km Red Line, is planned to connect archaeological sites in Luxor, running from Qena to Hurghada and Safaga, both ports on the Red Sea, which will improve connectivity for freight services. There will be around 70 stations in total across the network, with the precise number and location of some yet to be decided. Studies are underway for a fourth phase that would extend the network east for 250km and 14 stations along the coast from Abu Qir in Alexandria to Port Said and the Suez Canal.

Intriguingly, the new network is the largest single high-speed construction project underway anywhere in the world and completion will propel Egypt into sixth position on the list of the world's largest national high-speed networks, comparable with Japan and Germany. The network will be accessible to 90% of the Egyptian population in 60 cities when completed. Passenger numbers are estimated at 500 million per year, which promises to change the dynamics of travel within the country.

For example, a journey by train from Cairo to Aswan takes around 13 hours today, but will take only 6 hours by high-speed rail. The network will make it possible for tourists and locals to make day trips from Cairo and other cities to Luxor as well as other historical and archaeological sites in the south. Commuter services will similarly improve access to employment and education, while new freight services that will predominately operate at night will provide an alternative to moving goods through the Suez Canal as well as improving domestic freight transport.

Ambition

Egypt's plans for a high-speed railway date back to 2015 when Ineco was contracted to conduct a feasibility study for an initial 600km line from Cairo to Luxor. Tendering for the project took place. However, while a Chinese-led consortium was reported as making a proposal to build and equip the line in 2020, the project was apparently aborted.

As Mr Léon Soulier, CEO of turnkey at Siemens Mobility, reveals to "IRJ", at this point Siemens, together with Orascom and Arab Contractors, made an alternative proposal directly to the Egyptian government. Rather than a "super turnkey" model where all civils work are executed by international contractors, they proposed splitting the project into two: Package 1, comprising the formation, would be the responsibility of NAT, which would employ local civils contractors and pay for work from its budget; and Package 2, the superstructure - anything from the track bed up - would be delivered by SOAC and mainly financed commercial banks with export credit agency coverage (see panel below).

An initial memorandum of understanding (MoU) was signed by SOAC and NAT in January 2021, followed by a €2.7Bn preliminary contract in September 2021 for the initial 660km route and the full contract for the 1,985km network in May 2022. The agreement is worth €81.1bn to Siemens and is described as the largest single contract in the 175-year history of the company. The turnkey agreement includes the design, construction, and 15 years maintenance of the network. Siemens Mobility is supplying 41 eight-car Velaro high-speed trains, 94 four-car Desiro EMUs and 41 Vectron freight locomotives. Siemens will also

install ETCS Level 2, the traction power supply system and its digital Railigent system for asset and maintenance management.

International Finance to the Fore

The National Authority for Tunnels (NAT) is contributing 15% of the total cost of the Green Line project with the remaining 85% coming from commercial banks through Export Credit Agency (ECA) finance.

Specifically, Euler Hermes, a subsidiary of Allianz, is guaranteeing €1.99Bn of financing for the 660km first phase of the Green Line for the system and rolling stock component of the agreement. The lead arrangers are Deutsche Bank, Credit Agricole Corporate and Investment Bank, Banco Santander and Bayerische Landesbank.

In addition, the Islamic Development Bank approved \$US 344.5M for NAT to finance the civil works part of the project in April 2023.

NAT is working with several international financial institutions to secure substantial ECA-backed loans for the second phase of the project. The consortium will maintain the fleet and the infrastructure for 15 years. Rolling stock will be maintained at three facilities on the Green Line at the NAC site, Borg El Arab and Marsa Matrouh, as well as at the main depot on the Giza plateau at October Gardens, close to Hadayek October station, construction of which Siemens says is a priority. The depot will have capacity for 26 Desiros, 11 Velaros and 12 Vectron locomotives.

Soulier explains that Siemens has a long history with its consortium partners Orascom and Arab Contractors, whom he says have decades of experience with railways. They also partnered with Siemens to deliver recent power and healthcare projects in Egypt, while Siemens has worked in the Egyptian transport market for over 40 years.

German interest in the project extends to operations. A joint venture of German Rail (DB) subsidiary DB International Operations (DB IO) and Egyptian firm Elsewedy Electric were awarded an initial 15-year, "single-digit-Billion euro" contract to operate the future service and manage infrastructure and rolling stock for high-speed, regional and freight operations by the Egyptian government in 2022.

European Standards

Egypt's experience with railways dates to the network built by the British in the 19th century. Soulier says this project will propel the country into the 21st century. This is apparent in the adoption of European standards for construction. "There are no shortcuts," Soulier says, adding that the contract it has is "very thin" when it comes to technical specifications.

"Our Egyptian customer basically said 'we want exactly what you have in Europe and you're the company with the knowledge to deploy that and you need to show us how to roll that out,'" Soulier says. "We have independent safety assessors and I think that's why they brought Siemens in because they wanted to have German technology and European standards. I also think this expedited approach is how Egypt can deliver a project such as this."

Building a railway to such high standards presented a challenge in the rocky desert environment. Preliminary construction involved a variety of techniques to clear the path for the new line, from using pneumatic drills to blasting. Inevitably, there were challenges with this work, notably a 60m-deep cutting, close to Ain Sokhna station, where the alignment rises from the coastal plain in parallel with the Ain Sokhna Road.

NAT says the final alignment was determined after lengthy studies were completed in partnership with Systra on the topography and geology of the area through which the line runs. This has helped to ensure project safety and enabled construction to proceed relatively smoothly.

Other challenges are posed by the remoteness of the worksites - project staff say the only way to reach some areas is to drive on the

service road built alongside the alignment. The intense desert heat - temperatures can exceed 50°C in the summer - means work schedules are often changed.

There are also the cultural challenges of an established European supplier working in a developing market. Mr Peter Papert, the consortium project director for the high-speed project at Siemens Mobility, says that project teams are consistently reinforcing the need for achieving the level of precision in construction that a 250km/h railway demands. He says exposing local partners working on the project to these expectations and requirements is helping them to become more informed and ultimately more skilled.

A similar approach is taken with worksite safety. Practices more commonly associated with European projects and worksites are in place and closely adhered to by anyone coming into contact with the project - during "IRJ"'s visit several third-party workers at one site were swiftly reprimanded for not wearing appropriate personal protective equipment (PPE). "Personal and system safety is very important to us, and we have brought all our experience to this project," Papert says.

Several changes to the alignment have been made, specifically in the Valley of the Kings on the Red Line, where two additional crossings will be built over the Nile to avoid potentially sensitive areas. The Green Line will also be elevated in 6th of October City to prevent the railway from becoming a physical barrier between communities. In total 32.5km of the line will be elevated, including a 9.2km bridge that has a 2.5km section over the Nile, one of the most eye-catching structures on the Green Line.

Egypt has experienced supply chain challenges in the last few years. As Soulier explains, such difficulties are expected with any project of this size and scope. And while inflation issues are more pronounced in Egypt at present, he is heartened by the international community's financial and political support for the project, as well as the Egyptian government's sheer will to get it done. "We see no relinquishing of focus, or strength, or attention on this project whatsoever," he says.

What's Next?

Upcoming milestones include delivery of more trains, which will ultimately peak at five per month, and completing access to the October Gardens depot. Soulier says the start of dynamic testing on the initial 90km section will begin with the first train by the end of this year or in early 2025, depending on the completion of the Nile bridge. Tracklaying teams will also continue to expand their work as more sections of the alignment are handed over to SOAC under its "sequential" approach to delivering the project. Work on the Red Line is likewise set to step up relatively soon.

"From the moment we get access to a certain site, our obligation is to finalise the work within two or three years," Soulier says. "As long as the sites keep coming in, completion will continue in stages until we reach final completion."

The operation of the first electric mainline trains running in Egypt will be a key milestone for the project. No firm deadline for a grand opening has been set, or at least made public. However, Soulier hints that the opening of the first section from Cairo to Ain Soukna should happen "not too long from now."

In an era where other high-speed projects have run into cost and delivery challenges, Egypt appears to be bucking the trend. The environment is different certainly, but the sheer will to complete what is a flagship infrastructure project for the government, and a transformational project for wider society, is driving what Soulier describes as an "astonishing" level of progress.

"In any other part of the world, this is a project that would take decades," he says. "There is more progress here on a monthly basis than you would see in years elsewhere."

A Desiro Built for the Desert

The first 160km/h Desiro EMU was delivered to Egypt in October and proudly displayed at the TransMEA trade fair held in Cairo in November.

The train was subsequently transferred to the NAC station site where commissioning is taking place. During this phase, power is provided from an external source every Wednesday to make sure that all onboard systems are working correctly, including the powerful air-conditioning. Once a month, on a Thursday, the train is moved by a battery-powered shunting locomotive back and forth four times on a short 50m-long section of track.

The four-car Desiro EMU consists of two single-deck end cars and two double-deck intermediate vehicles. It is based on the high-capacity Desiro delivered for the "Rhine-Ruhr Express" network in Germany, but with major modifications made for "sandification," drawing on Siemens' experience of supplying similar trains to other countries in the region.

The importance of keeping sand out is reflected in the plugging of all holes and the use of specialist filters for the air-conditioning system. Bespoke spoilers are deployed between the cars to reduce exposure to the sun in desert sections and simultaneously minimise potential sand ingress. Sand-resistant paint has also been used for the livery, which incorporates the Egyptian flag."



(iv). NEW DESIRO E.M.U.

From "R.G.I." 10.05 2024: "Siemens Mobility presented one of the 94 Desiro HC electric multiple-units that it is supplying for Egypt to the international press at its Wegberg-Wildenrath Test & Validation Centre on May 8.

A consortium of Siemens, Orascom Construction and The Arab Contractors was awarded a turnkey contract in May 2022 to develop a 'Suez Canal on tracks' network. This covers design, construction, commissioning and 15 years of maintenance of three electrified lines totalling 2 000 km. Designed for 250km/h operation, these routes are also intended to carry regional passenger trains and freight traffic.....

Five of the Desiro HC EMUs have already been completed, and the first was delivered to the port of Alexandria last September.

The first Velaro high-speed trainset is planned to be delivered at the end of this year."

Cairo – Alexandria Priority

Talking to "Railway Gazette International" at the launch event, Peter Papert, Consortium Director of the High Speed Rail Project at Siemens Mobility Egypt, said that two of the high-speed rail lines are currently under construction, totalling 1,760 km.

The 660 km Green Line is being built between Mersa Matruh on the Libyan border and Ain Sokhna on the Red Sea via Alexandria and Cairo, while the 1,100 km Blue Line is being built between Cairo and Abu Simbel near the border with Sudan, closely following the River Nile.

A third line is planned to run 225 km to connect Luxor with Hurghada and Safaga on the Red Sea.

Works are underway in the Cairo area, going towards the Red Sea and the Mediterranean Sea, and along the Nile. The priority is to complete the sections around Cairo with special regards to the line to Alexandria, with which we can cover a population of 26 million alone', Papert said.

Civil works on the Green Line are 'well advanced', while on the Blue Line, construction is underway on around 40% to 50% of the future alignment according to Papert.

'One of the most challenging parts of the works is to build three bridges on the River Nile, two on the Blue Line and one on the Green Line', Papert said. The largest hub will be the New Administrative Capital station which will offer interchange between the future high speed rail network and various light rail, metro and monorail routes.

Siemens' share of the contract is €8.1Bn. Apart from the supply of rolling stock, it also covers railway system works including the delivery of the electrification systems, ETCS Level 2 and the manufacturer's Railigent asset management tool. Siemens is also responsible for overall project management, consortium leadership, and the delivery of an automatic fare collection platform.

Independently-Operated Network

The new network is to be operated independently from Egyptian National Railways' existing main lines. The operator of the new routes would be responsible for provision of high-speed and conventional stopping passenger services, which would run in the day, as well as freight services, which would operate largely at night.

Papert said that while the operating contracts for the whole network had yet to be finalised, it was 'most likely' that the remaining sections would be run by Deutsche Bahn International Operations and a local partner. In November 2022, DB IO and Elsewedy Electric were awarded a 15-year contract to operate and maintain the Green Line."

(v). ICE SET ON TEST IN GERMANY

From "R.G.I." 21.5.24: "The first of the Velaro EGY high speed trainsets which Siemens Mobility is to supply to Egypt is undergoing dynamic testing at the Wegberg-Wildenrath circuit in Germany ahead of delivery later this year.

Siemens said the start of testing marked 'a big step forward' for the project."

(vi). CAIRO METRO LINE 3 EXTENSION

From "LRJ." 13.05.2024: "The next 7.1km section of Cairo Metro's Line 3 will open on May 15. Line 3C runs between Giza Mohandessin and Cairo University, serving five stations, including three underground at Al Tawfikia, Wadi El Nile, and Gamat Al Dowal. The station at Boulak El

Dakrouf is at grade, while Cairo University is elevated. Line 3, which has received substantial funding from the European Union (EU), is operated by RATP Dev. The entire line extends to 41.2km serving 34 stations, connecting Cairo University and Rod El Farag with the Adly Mansour central interchange via Kitkat in Giza.

The Metro line is an important link between the eastern and western parts of the city and also provides interchange with the city's developing monorail, Light Rapid Transit (LRT) suburban and Bus Rapid Transit (BRT) networks. A further 6.65km underground extension is proposed, which would run from the recently expanded Heliopolis station to Cairo International Airport."

(vii). ALSTOM COMPLETES SIGNALLING PROJECT

From "R.G.I." 02.06.2024: "Alstom has completed a programme to resignal the 240 km line running up the Nile south of Cairo from Beni Suef to Asyut. This has increased capacity and raised the line speed to 160 km/h.

The signalling renewals included replacement of the previous electro-mechanical equipment, and the work has been undertaken under a €100M contract awarded by Egyptian National Railways in 2015. Alstom has supplied SmartLock 400 electronic interlockings, Iconis SCADA, centralised traffic control, a 11 kV power supply substation and what it termed a 'robust' support system. Nexans supplied 1,700km of cables developed to an ENR and Alstom specification for use on the project.

'Our aim is to enhance the safety and efficiency of line operations while improving the passengers' travel experience', Alstom Egypt Managing Director Ramy Salah said on May 30."

D. IRAQ

(i). From "LRJ." 25.03.2024. By Robert Preston.

"The government of Iraq is pressing ahead with the Route of Development, an ambitious \$US 17Bn project that includes building 1,200km of double-track railway to move passengers and freight between the Grand Port at Al Faw in Basra province and the Turkish border. The project also includes construction of new motorways, logistics centres and industrial complexes. The government estimates that the project will generate \$US 4Bn a year and create at least 100,000 jobs.

The new railway from Al Faw to Ovaköy in Turkey is planned to have approximately fifteen stations, and the government of Iraq envisions high-speed trains moving passengers at speeds of up to 300km/h. Stations would be strategically located in major cities such as Basra, Baghdad and Mosul, facilitating the seamless movement of passengers throughout the region.

The Route of Development's railway component would have initial capacity to carry 22 million tonnes of bulk freight and 3.5 million containers a year, which would be increased under a phased programme to reach 33M tonnes and 7.5M containers annually. Initial capacity would also be sufficient to carry up to 13.8M passengers a year.

The Italian consultancy Progetti Europa & Global (PEG), which has an Iraqi branch in Baghdad, has completed and submitted a pre-feasibility study for the project to the Iraqi government. As well as an initial alignment and proposals for related facilities, the study includes estimates of the capital expenditure required, and financing options.

The project was unveiled at a one-day conference in Baghdad on May 27 2023. The event brought together transport ministers and other officials from Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Syria, Turkey and the United Arab Emirates (UAE), as well as the Gulf Cooperation Council (GCC). "The Route of Development project is an ambitious and well-studied plan towards a strong and successful economy," Iraq's prime minister, Mr Mohammed Shia Al Sudani, told the conference. "We see it as a cornerstone for a sustainable non-oil

economy, serving Iraq's neighbours and the region and contributing to efforts for economic integration."

Al Sudani added that the Route of Development "will take all the peoples of the region to an unprecedented stage of communication and integration and that means more stability and capability to face challenges." Cooperating on the project is expected to boost the security and stability of the region and preserve its economy. A number of proposals were discussed at the conference on how the Route of Development might be financed, ranging from government investment to the creation of a sovereign fund combining government money with investor contributions and loans. Joint legal, technical, financial and management committees were subsequently formed to progress financing and implementation.

By connecting Iraq with Europe by rail via Turkey, the project offers an alternative to traditional sea routes, with the potential to lower transport costs and reduce transit times. It will not only benefit those countries participating in the project but also the broader global trade network. Through the Route of Development and the Grand Port now under construction at Al Faw on the Persian Gulf, Iraq is keen to join China's Belt and Road Initiative (BRI), the global strategy involving infrastructure development projects and investment in 70 countries in Asia, Africa and Europe.

Despite its oil wealth, with about 145 billion barrels of proven reserves, Iraq lags behind neighbouring economies due to decades of war since the 1980s, economic sanctions imposed by the United Nations (UN) following Iraq's invasion of Kuwait in the 1990s, and the unstable political and security environment in the wake of the US-led invasion of Iraq in 2003.

Speaking at the conference on May 27, the World Bank's country manager and special representative in Iraq, Mr Richard Abdulnour, said that building new infrastructure was essential for "unleashing the geographical potential of Iraq," expressing the bank's readiness to support the Road of Development project.

The existing railway between Iraq and Turkey was reopened in the late 1990s after Iraq restored relations with Syria and Turkey. Demand was high from passengers, mainly pilgrims travelling to and from Syria, as well as from freight shippers. But this revival was short-lived, as Turkey asked Iraq to withdraw services only days before the US invasion started on March 19 2003.

The poor security situation in much of northern Iraq after the invasion hindered plans to reactivate the line. Then came the 2014 ISIS onslaught in large areas of the north and west of Iraq, and military operations to drive the militants out. This left stations and other railway infrastructure heavily damaged, with plans for repairs hindered by a lack of funding. In the south of Iraq, at present only two passenger trains operate a day, connecting Baghdad with Basra and serving intermediate stations at Hillah, Diwaniyah, Samawah and Nasiriyah.

Iraq's strategic geographical location gives it a unique advantage and the potential to become a major transport hub for the movement of people and goods between the Gulf region, Turkey and Europe. The Route of Development project aims to tap this potential, including by increasing capacity at Al Faw to enable efficient intermodal transfer of freight between maritime and land transport. Al Faw and its associated terminal facilities will cover over 100ha, with 2km of container berths and capacity to handle 99 million tonnes of freight a year.

However, some experts question the feasibility of this element of the project, highlighting the preference for direct shipping routes that do not require intermediate loading and unloading. Consideration should be given to evolving global transport dynamics and customer preferences, they say.

Iraq needs to invest more than \$US 21Bn in the coming five years on transport, Abdulnour told the conference, noting that the transport

sector has contributed 9% of Iraq's GDP and has grown by 7.4% a year over the last 10 years. Dilapidated infrastructure is one of the major challenges facing Iraq's transport sector, where efficient connectivity is impeded by the poor state of the country's roads and inadequate maintenance. The Route of Development presents an opportunity to address these issues comprehensively by investing in the reconstruction and upgrading of Iraq's transport network.

Having approved the pre-feasibility study prepared by PEG, the Iraqi government conducted a series of meetings and workshops to share its findings with the project partners in Baghdad on June 13-15 2023. Discussions were also held to identify the next steps for the project, considering the financial model and implementation schedule. Preliminary design of the new railway is now 66% complete, with geotechnical surveys of the route also well advanced, having been undertaken on 1,000km of the alignment.

Work continues to develop the funding structure and the tendering strategy. While delivering the Route of Development will require extensive collaboration and further discussion, the estimated timescale for delivering this major endeavour is between just three and five years. The project aims to encourage participating countries to contribute to its development, allowing them to engage in specific sections as suits their interest and capabilities."

(ii). NEW PASSENGER STOCK

From "LRJ." 05.04.2024: "Iraq's Ministry of Transport revealed to local media in late March that the government has approved the purchase of 50 new passenger trains. Likely to be sourced from an international manufacturer, the new trains will run on the double-track, 1,200km Route of Development currently at the planning stage.

According to an Iraqi official, design studies for this \$US 17Bn freight and passenger project are now two-thirds complete. The line will run from south to north through Iraq, linking the Grand Port at Al Faw in Basra province to Ovaköy on the Turkish border.

No detailed specifications for the new passenger trains have yet been released. They will run between around 15 stations, including those in major centres such as Baghdad, Basra and Mosul. The Iraqi government has previously said it envisions high-speed services running at up to 300km/h, but has given no timeframe for when this might be achieved.

The Route of Development is initially designed to carry 13.8 Million passengers each year, in addition to 22 Million tonnes of bulk freight and 3.5 Million containers."



E. QATAR

From "LRJ." 09.04.2024: "Qatar Railways Company (Qatar Rail) launched full operation on the new Pink Line and the remaining stations on the Orange Line of the Lusail Tram network on April 8.

The new Pink Line shares infrastructure and six stations with the underground Orange Line from its southerly terminus at Legtaifya to Tarfat, from where the Pink Line continues on its own alignment north to Seef Lusail-North, adding another four stations. All stations are currently operational, except Al Sa'ad Plaza, an interchange with the network's future east-west Purple Line.

The extended Orange Line runs from the previous terminus at Al Wessil to Naifa, from where the line continues north into an anticlockwise, uni-directional single-track loop that it will share with the future Turquoise Line, serving nine stations in Lusail city centre. This includes Downtown Lusail, where the line interchanges with the future east-west Purple Line. The most northerly station is Rawdat Lusail from where the line returns south via Lusail Stadium and Al Yasmeen.

The Lusail City stations are the first at-grade stations to open on the network. Public awareness campaigns have commenced to alert pedestrians and road users of the potential risks of light rail operation.

The initial 7km underground section of the Orange Line opened in January 2022. The service operates the same hours as the Doha Metro, from 05:30 to 0.00 Saturday - Wednesday, 05.30-01.00 on Thursdays, and 14.00-01.00 on Fridays.

The network is operated with a fleet of 28 five-section Alstom Citadis LRVs. The at-grade sections are entirely catenary-free, drawing power from Alstom's track-mounted APS system.

RKH Qitarat, a joint venture of RATP Dev, Keolis and Hamad Group, operates and maintains the Lusail Tram network as well as the Doha Metro under a contract signed with Qatar Rail in 2017.

"The expansion of Lusail Tram services reflects our commitment to achieving our vision of supporting Qatar's efforts in providing an integrated and sustainable transportation system," says Eng Jassim Al Ansari, chief of programme delivery at Qatar Rail. "We are proud of the efforts made by the teams working on this important project, and we look forward to continuing to enhance tram services, expanding their scope, and opening the remaining lines to serve residents and visitors to Lusail City."



• Map of Qatar tramways) and Lusail tram)



From "I.R.J." 24.04.2024: "Oman-Etihad Railway Company (OERC) has awarded the civil works and railway systems contracts for the project to build a 303km railway from Sohar in Oman to Abu Dhabi in the United Arab Emirates (UAE).

F. OMAN – ETIHAD RAILWAY

Civil works will be undertaken by an alliance of companies from Oman and the UAE, led by Trojan Construction Group and Galfar Engineering and Contracting.

Siemens, in consortium with Hassan Allam Construction of Egypt, has been awarded a design-build contract for railway systems and integration, including ETCS Level 2 signalling, telecommunications and power supply systems.

"The signalling solutions are state-of-the art and desert-proof," the consortium partners say.

Expected to cost \$US 3Bn to build, the Oman-Etihad Railway has now been renamed as Hafeet Rail, after the Jabal Hafeet mountain on the border between Oman and the UAE. The new name is intended to highlight the strategic location of the new railway and its historic significance to both countries.

"We are deeply honoured and proud to have been entrusted by Oman-Etihad Rail with this strategic project that will not only contribute to the social and economic development of both countries, but which I believe will be a groundbreaking project for the entire region," says Mr Ayman Ashour, CEO of Siemens Mobility in the UAE.

"Hassan Allam Construction and Siemens have a long-standing record of successful collaboration in Egypt, and we are honoured to extend this partnership in other important regional countries like the UAE and Oman," says Mr Hassan Allam, chairman of Hassan Allam Construction."

From "I.R.J." 13.05.2024: "Construction has officially begun on the new 303km railway from Sohar in Oman to Abu Dhabi in the United Arab Emirates (UAE) after a shareholder agreement was signed by three groups implementing the project, Etihad Rail of the UAE, Oman Rail and Mubadala Investment Company.

The signing follows the award of construction and systems contracts for the project last month. Civil works will be undertaken by an alliance of companies from Oman and the UAE, led by Trojan Construction Group and Galfar Engineering and Contracting, and also including Tristar Engineering & Construction (TE&C) and National Infrastructure Construction Company (NICC).

Siemens, in consortium with Hassan Allam Construction of Egypt, has been awarded a design-build contract for railway systems and integration, including ETCS Level 2 signalling, telecommunications and power supply systems. The start of work follows the completion of preliminary engineering on the project by the company jointly founded by Etihad Rail and Oman Rail.

... Diesel-powered passenger trains are expected to operate at up to 200km/h on the new line, offering a journey time of 1h 40min between Sohar and Abu Dhabi, significantly less than the current 3h 25min journey by road. Passengers will be able to reach Al Ain from Sohar in 47 minutes.

The railway will also carry freight, targeting customers from the mining, iron and steel, agricultural and food, retail, e-commerce, and petrochemical industries. A Memorandum of Understanding (MOU) was signed in August 2023 to move raw materials to Jindal's steel plant in Sohar. A similar MOU was signed with Vale for the transport of iron ore and derivatives from the Port of Sohar."

G. IRAN

(i). TEHRAN METRO TESTS

From "Metro Report Intl." 08.05.24: "The Iranian Chamber of Commerce, Industry, Mines & Agriculture has announced that testing is underway

with a Metro trainset which has been developed by a consortium of five domestic companies in accordance with national and European standards. Trials are to be undertaken in Tehran and it is envisaged that the design could meet up to 90% of the country's demand for metro



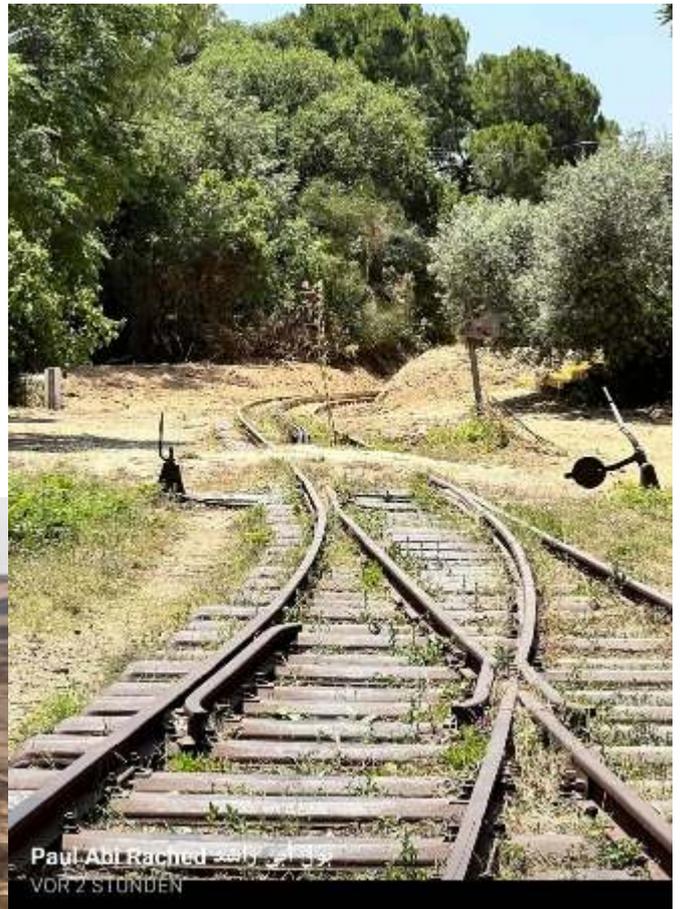
trains."

(ii). DOMESTICALLY-PRODUCED DIESEL LOCOMOTIVE

From "R.G.I." 23.5.24: "The Mapna Group has unveiled a MAP30 freight locomotive with a MP610 diesel engine."

H. TRANSJORDAN





- Baabda Station - see Lebanon next page

WADI RUM TOURIST TRAINS

From Facebook: "Dates now released for our @IstoriaTravel Jordan trips for Feb 2025. Book now via the website for the trip of a lifetime tracking Lawrence of Arabia, exploring bits of the Hejaz Railway where no other tour group goes, & learning all about the Arab Revolt 1916-18. We'll even chuck in Petra! (Glamping and Camping options available)"

I. AFGHANISTAN

From "R.G.I." 23.05.2024: "The Afghanistan Railway Authority has announced that surveys have been completed, are underway or will be commissioned for a series of railway extension projects.

On May 6 AfRA said an initial survey had been completed for a long-proposed 96 km railway from the city of Kandahar to the border at Spin Boldak, close to the Pakistan Railways railhead at Chaman.

Surveys are to be begin soon for a proposed extension to Herat of the 1,520mm gauge line from Turkmenistan to the Towraghondi freight terminal. Expressions of interest have been invited for a detailed survey and design of a 55km extension for the Turkmenistan – Andkhoy line to Sheberghan.

Meanwhile, construction equipment has been delivered ready for the start of work to extend the 1,435mm gauge Iran – Rozanak line onwards to a multimodal hub near Herat airport.

In April and early May two batches of minerals were exported from Afghanistan to Turkey via the existing line.





• Cleared track Baabda Station and clearing in progress



"We are connected to the world and will remain connected, we want the world to be connected, we are against isolation and are committed to multimodal goods transport throughout the world", said AfRA Chairman Bakht-u-Rehman Sharafat."

J. LEBANON

Shortly before going to press we received from Lorenz in Switzerland several photos taken from Facebook of work on uncovering railway tracks in the Lebanon near Baabda. It does not seem that the intention is to run any trains – as if there were any in operable condition – but to create a memorial walk with historic artefacts. It is a pleasure to be able to report something from here that does not involve internecine hatred and Hizbollah.....The accompanying text reads:

"The Lebanon Land Association ("TERRE Liban") with the aid of people interested in railways and the PAR consultants has completed work of cleaning, exposing the tracks and removal of rubbish and obstacles

along the railway property from the Antony Institute to the Jamhour station at Baabda Station." Photographs show small earth-moving equipment, the station building at Baabda showing signs of conflict, and sections of cleared rail including the beginning of the former rack section here, and sections of both 'adhesion' and 'rack' track now visible. There could of course be concern that, this being Lebanon, someone may come and steal the whole lot for scrap! That would be a pity.

K. INTERNATIONAL

This heading is an attempt to find a way to include into 'Harakevet' developments which are mostly taking place outside our specific area of interest and yet have an impact upon the railways of Iran, Syria and Turkey because they are the modern echo of the ancient desire to build trade links and railways from West to East or – nowadays – more from East to West. There is more to the 'Middle East' than just the Mediterranean littoral and this vast Central Asian hinterland, various countries of which the average Westerner knows little, are also developing and are being caught in the developing conflict between Chinese and Russian interests as expressed in the gauge chosen for railway links between countries. (This new "Gauge War" is also relevant to the Baltic states and the Ukraine). Due to the vagaries of history China had adopted for its major lines the same standard gauge of 4' 8" (1435mm) as most of Europe outside the Iberian peninsula (whereas Japan has 3' 6" (1067mm), India 5' 6" (1676mm), Russia and the former USSR 5' (1520mm)) and it is now expanding this system westwards – initially to Tibet and Afghanistan and perhaps beyond. Turkey, Syria, Iran and Iraq also employ the 'standard gauge' and the section between these two areas is increasingly torn between the options of standard-gauge extensions, gauge-changing facilities, container transshipment terminals or other solutions.

These developments also mirror other efforts upon which we report, whereby standard-gauge rail links between the Persian Gulf and the Mediterranean would obviate much of the need for use of the Red Sea and the Suez Canal. Politics are complex and far-ranging; a restored link from the Gulf of Aqaba across Sinai to the standard-gauge Egyptian system would also theoretically in due course link on to Libya (when this country gets its act together); China has been involved in creating standard-gauge lines in Africa where in a previous century narrow-gauge lines (whether Italian 950mm or British 'Cape Gauge' 3' 6" or European metre gauges) had been built. Jordan is also contemplating standard-gauge alternatives to the historic Hedjaz line. The coming decades could be interesting!

(i) In "I.R.J." May 2024 p.11: "CHINA – KYRGYZSTAN - UZBEKISTAN WORK SET TO BEGIN. The President of Kyrgyzstan, Mr. Sadyr Japarov, has announced that the new 523km railway connecting China, Kyrgyzstan and Uzbekistan will be built at an estimated cost of \$US8Bn by a joint venture formed by the three countries.

The joint venture is expected to deliver the project on a Build-Operate-Transfer basis, undertaking design, construction and operation before transferring ownership to China, Kyrgyzstan and Uzbekistan.

Construction is expected to start later this year. The new railway will shorten the route between China and Europe by 900km and will avoid Russia. Transit times for China – Europe freight are expected to be cut by eight days." [Note: this would form an East-West route running south of and largely parallel to the 'Middle Corridor' explained next in this section.]

And: In "I.R.J." 10.06.2024: "The governments of China, Kyrgyzstan and Uzbekistan have signed an agreement to build a 523km new railway connecting the three countries, estimated to cost \$US 8bn and forming part of China's Belt and Road initiative.

The agreement signed in Beijing on June 6 sets out the principles and mechanisms for cooperation between the three countries in relation to the financing, construction, operation and maintenance of the new railway. A full feasibility study for the project was completed in mid-2023.

China, Kyrgyzstan and Uzbekistan subsequently agreed to deliver the project by means of a joint venture of their three respective state railways.

In addition to building the new line running from Kashgar in China via Torugart, Makmal and Jalalabad in Kyrgyzstan to Andijan in Uzbekistan, the project will involve the creation of modern logistics infrastructure along the route, including freight terminals and warehousing. Once completed, the new railway is expected to carry 15 million tonnes of freight a year and cut end-to-end transit times by seven days.

According to the president of Kyrgyzstan, Mr Sadyr Japarov, the new railway will open up new routes to Europe and the Persian Gulf. "Undoubtedly, it will have a comprehensive positive impact on trade and economic cooperation between our countries," he says.

"This railway will become the shortest land link connecting China with our region," says the president of Uzbekistan, Mr Shavkat Mirziyoyev. "In the future, it will allow access through the promising Trans-Afghan corridor to the capacious markets of the countries of south Asia and the Middle East."

(ii). THE 'MIDDLE CORRIDOR'

In "I.R.J." May 2024 pp.28ff. is an article by Robert Preston on the development of this international east-west rail route from China through Kazakhstan, Azerbaijan and Georgia.

"Due to its many border crossings, the need to transfer containers from rail to ship and road and between track of different gauges, as well as other operating inefficiencies, the Middle Corridor has traditionally enjoyed less favour for moving long-distance freight between China and Europe.

Also known as the 'Trans-Caspian International Transport Route', the 'Middle Corridor' is defined by the World Bank as running from the border crossings between China and Kazakhstan at Dostyk and Khorgos and then across Kazakhstan by rail to the port of Aktau on the Caspian Sea. Consignments then move by sea to Baku, and by rail again through Azerbaijan and Georgia, and then either continue to Europe by rail via Turkey or across the Black Sea.

Due to what the World Bank describes as "inefficiencies and infrastructure gaps in Turkey" the Black Sea route is currently preferred.

Despite being the shortest route between the Pacific coast of China and Europe, transit times on the Middle Corridor are three times longer than the northern route via Russia, according to a World Bank report published in November 2023, and are comparable with the maritime route via Singapore and the Suez Canal. However, the attractiveness of both of these routes has declined following Russia's invasion of Ukraine and, more recently, due to the security crisis in the Red Sea that has seen shipping diverted via the Cape of Good Hope. The Middle Corridor remains the least vulnerable route between China and Europe in terms of external shocks.

Following the Russian invasion of Ukraine container traffic on the Middle Corridor increased by 33% in 2022 when compared with 2021. But as shippers moved unprecedented volumes of traffic to the corridor in the immediate aftermath of the invasion, its limits quickly became apparent. While technical operational capacity was not reached, difficulties at border crossings and with transshipment and coordination led to very lengthy delays. Traffic moved back to alternative corridors with the result that container traffic fell by 37% in the first eight months of 2023 when compared with 2022.

The World Bank believes that the Middle Corridor will remain a minor player in handling intercontinental traffic between China and Europe due to the availability of other options, especially deep-sea shipping.... The study says that in 2022 it took an average of 50-55 days to move freight from Dostyk or Khorgos via the Middle Corridor to the Black Sea port of Constanta in Romania...

Rail operations "suffer from localised constraints at the port-rail interfaces where a lack of equipment, poor connections and inefficient operational practices cause delays and increase costs."

.... Examining the rail component in more detail, the report notes that Kazakhstan Railways (KTZ), Azerbaijan Railways (ADY) and Georgian Railways (GR) are highly interoperable, sharing a common track gauge of 1520mm as well as operational and cultural characteristics inherited from the Soviet era that allow the movement of rolling stock between the different networks. Although the positive impact of this interoperability is reduced by the need to transship freight at the Caspian Sea ports, some wagons travel across the Caspian Sea by train ferry. Containers move on flat wagons that are interoperable across the different railways, offering opportunities for the acquisition of common fleets that can be shared.

To meet its full potential, the rail components of the Middle Corridor requires modernisation and investment to relieve localised capacity constraints caused by equipment, infrastructure and operating practices. These cause bottlenecks that cancel out efficient movement over the rest of the corridor.... KTZ, ADY and GR still need to fully adopt equipment and operating procedures for the efficient movement of containers.... This is being prevented by shortages of specialised wagons, cranes and other equipment, such as those needed to handle 20ft containers rather than the 40ft boxes that are the norm in the corridor. The report says that 20ft containers sit idle at most interchange points due to the lack of specialised equipment.... Without improvement, current railway infrastructure could be an impediment to further development of the Middle Corridor. Capacity varies widely; the north-south lines tend to have substantially more capacity than the east-west ones, a legacy of the Soviet era. Priority projects that must be studied further in Kazakhstan include: increasing capacity on the Dostyk – Mojtjnty section, building the Almaty bypass and rebuilding the Arys – Saksaulskaya, Beineu –Mangistau and Seyfullin – Saksaulskaya – Shalkarand sections. In Azerbaijan work should be undertaken to finalise the implementation of rebuilding the section from Baku to the Georgian border, including replacing signalling and telecommunication systems, raising the maximum speed and changing the overhead electrification system from dc to ac. Finalising the reconstruction of the Tbilisi – Akhalkalaki section should be a priority in Georgia along with starting work to rebuild the line from Akhalkalaki to Kars in Turkey."

A Table gives some indications of the problems. Key Capacity constraints are:

Kazakhstan:

- Dostyk – Mojtjnty: Estimated capacity of train pairs per day: 18. Current capacity: 80%. Capacity limits exceeded. Line is part of the northern route via Russia and Belarus and also a major artery for exporting commodities from Kazakhstan to China.

- Seyfullin – Saksaulskaya: Estimate: 10 train pairs daily. Current usage 70%. Single-track non-electrified line with over 50% of trains carrying ore and metals. Potential to accommodate an additional one or two at a speed just over 10km/h.

- Khorgos – Arys: 17-77 train pairs capacity. Non-electrified single track Zhetigen – Almaty section operating at full capacity of 12 train pairs. Double-track electrified line west from Almaty is a key constraint as all freight trains pass through the city centre and locomotives must be changed from diesel to electric. Usage exceeds 70% on the Shu – Arys section due to 35 pairs of passenger trains and Kazakhstan – Uzbekistan freight.

- Shalkarand – Aktau: Capacity 8-80. Current usage 8-60%. Section carries low traffic and not considered a bottleneck but key issues are low train speeds, locomotive shortages and steep gradients in Beineu – Mangistau section. Trains must be split in two when moving east, causing wagons to build up at Mangistau and the port of Aktau.

Azerbaijan:

- Alat – Georgian border: Capacity 25 train pairs, current 80%. High wear on the catenary and poor track conditions on this double-track line limit capacity. ADY plans to install new overhead electrification equipment in 2024 and increase capacity to 53 trains a day. Gardabani border crossing congested due to a lack of locomotives and average crossing time is three days.

Georgia:

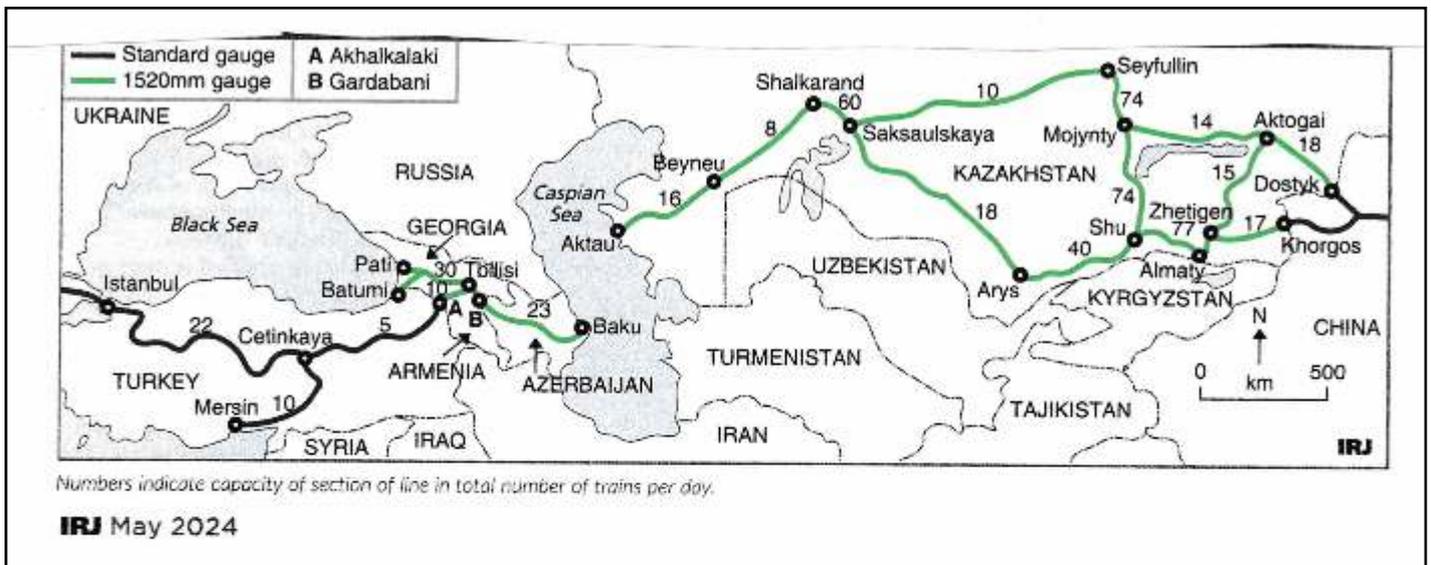
Azerbaijan border – Poti/Batumi: Estimated 30 train pairs, 70% usage. Capacity to the Black Sea port of Poti is limited by a lack of locomotives. The branch to Batumi can only accommodate seven trains a day and over 85% of containers arrive at the port by road.

The border crossing at Dostyk has a throughput capacity of 18 pairs of trains a day. As this barely meets current demand, the report says that expansion will be required... The key issue is the waiting time at the border, which can be as long as 60 hours, due in part to an insufficient number of sorting tracks and the lack of an automated and unified system for providing preliminary notification of train arrival times. There is also inefficient management of shunting locomotives and the

distribution of wagons across the sorting tracks and transshipment areas.

Similar problems have been identified at Khorgos. Although infrastructure is more developed on the Kazakhstan side of the border, there are only two tracks in the transshipment area on the Chinese side, which prevents trains from passing each other. Throughput capacity is 17-18 trains a day and the transit time is roughly the same as at Dostyk. There is no marshalling yard and an insufficient number of reception and dispatch tracks, as well as those for storing empty wagons. Rolling stock flow management is inefficient and there is a lack of electronic data exchange. The construction of a marshalling yard or a container terminal should be studied further as a priority....

The busiest border crossing along the Corridor is that between B y k Kasik in Azerbaijan and Gardabani in Georgia, but infrastructure here is weaker than at Khorgos or Dostyk and it forms a major bottleneck. The average crossing time is three days, with capacity limitations and a shortage of locomotives exacerbated by the lack of electronic data exchange for completing customs formalities. Neither B y k Kasik nor Gardabani were designed as border stations and lack facilities for sorting or reforming trains, while their location in populated areas limits the scope for future development. There are more tracks at B y k Kasik than at Gardabani, with the result that trains may take longer to cross the border if they are required to undergo customs inspection in Georgia.



Monorail under construction near Heliopolis, see 145:07

Notes and Comments

Station". Nahariya was originally a long and narrow planned agricultural settlement, hence the distances involved."

(i). THE STATIONS AT NAHARIYYA

From a mail exchange between Sybil and Chen:

"The 1940s British map shows a station with a passing loop at what is now the eastern end of Kaplan Street, not the site of today's Nahariya station. It's just south of km 29, which fits the 1946 PR kilometrage chart – Nahariya station at km.28.888. <https://palopenmaps.org/en/maps/acre?basemap=9&overlay=pal2020&toggles=places> and scroll up a bit to reach Nahariya. This is a brilliant website – obviously one needs to ignore the Palestinian propaganda. You can superimpose a present-day map by clicking on the three horizontal lines in the top left-hand corner, then Overlays, Show overlays, Vector overlay 2020s.

According to Wikipedia Nahariya station opened on July 1, 1945. It closed during the War of Independence and reopened in June 1950, closed after two years and reopened again in 1958. Nothing in Wikipedia or anything else that I have found suggests that the 1945 station was on a different site.

I found an article in "Lamerhav" newspaper dated 11.6.1958, a long complaint about the inefficiency of rail transport compared to bus transport, saying that Nahariya station is situated about half a kilometre from the "moshava". How big was Nahariya in 1958? What would be half a kilometre away?

So my question is: when did the current Nahariya station (approximately km 29.700) open?"

Chen's informative reply:

"The original Nahariya station was a block station established as part of the HBT. The 01.07.1945 station was rather a halt added nearer the Ga'aton Avenue. This location was known as "Nahariya Halt" after 1948, with the original sidings remaining Nahariya Station.



At some point this was reversed - the sidings were moved to the Ga'aton, to save the lengthy pushing of stock back and forth for turning around. At the time the names were exchanged, and thus today's station got its name. The halt (originally station) was later abandoned, except for the staff quarters. The buildings were demolished when the line was doubled about a decade ago, and stabling sidings laid at the site of the original station, thus operationally unifying both locations, which are treated today together as "Nahariya".

(ii) THE VIADUCT AT NAHAL TAVOR

Photos by Zev Rotkoff courtesy of Steve Sattler who writes: "This is the old (1904) stone bridge over Nahal Tavor, for the El-Afula arm of the Ottoman railway. It is 1.5 kms SE of Kibbutz Gesher and 685 metres EAST of Kvish 90. The bridge was strengthened over 2009 by re-building some parts of it. It is now a tourist site and cars can drive almost up to it. There are bits of other old stone 'bridges' nearby but they are mostly destroyed. After the heavy rains of the last winter,



Die Strecke Haifa – Acre besitzt eine Länge von etwa 20km. Sie wird recht stark befahren: zwischen den beiden Orten verkehren täglich ungefähr 10 Züge.

Die bedeutendste Schmalspurlinie Palästinas ist die von Haifa über Besan nach Samakh und weiter nach Dera in Syrien. Sie benutzt die Jesreelebene und darauf das Jordantal. Etwa 10km südlich Samakh, in der Nähe des Rutenberg-Kraftwerkes, wird der Jordan auf einer Brücke überschritten. Die maximale Steigung beträgt 1 : 50.

Von Nablus in Samaria fährt eine Bahnlinie nach Tulkarm an der Strecke Haifa – Rafah und eine andere nach Afula an der Strecke Haifa – Samakh. Die Strecke von Nablus nach Afula ist außer Betrieb, doch sind die Schienen noch nicht beseitigt. Von Nablus nach Tulkarm fahren nur noch gelegentlich Züge. Die Steigung dieser Strecke ist mit 2.2 : 100 recht beträchtlich.

Die einzige Bahnlinie in Transjordanien ist die von Nasib nach Maan. Es ist ein Teil der eigentlichen Hejazbahn Aleppo – Medina. Diese Strecke wird heute jedoch nur bis Maan befahren. Südlich Maan ist die Strecke außer Betrieb, da die Zerstörungen aus dem Weltkrieg nicht wieder ausgebessert worden sind. Die Strecke Nasib – Maan besitzt eine Gesamtlänge von 323 km mit einer maximalen Steigung von 2.2 : 100. Der Zugverkehr von Amman nach Maan ist in diesen dünn besiedelten Gebieten schwach. 1 Zug je Woche.

An rollendem Material standen im Jahre 1938 zur Verfügung:

Normalspur:

Dampflokomotiven: 78

Personenwagen : 81

Güterwagen : 2038

Länge der betriebenen Strecke: 329km

Schmalspur:

Dampflokomotiven: 51

Personenwagen : 72

Güterwagen : 361

Länge der betriebenen Strecke: 467km.

Entsprechend den unterschiedlichen allgemeinen wirtschaftlichen Verhältnissen in den beiden Ländern sind auch die Betriebsergebnisse recht verschieden. In Palästina haben Gebiete mit starker jüdischer Siedlung lebhaften Personenverkehr. Ein bedeutender Güterverkehr ist besonders zu den Häfen Haifa und Jaffa vorhanden. In der Orangensaison, der Zeit des stärksten Verkehrs, haben die Lokomotiven und Wagen nicht immer ausgereicht, so daß der Abwicklung des Güterverkehrs dann nur mit Schwierigkeiten vor sich ging. Neben dem nicht voll ausreichenden Bestand an rollendem Material ist es aber auch der Wechsel in der Spurweite, der immer wieder stark hinderlich wirkt. Es ist daher nicht verwunderlich, wenn der Kraftwagenverkehr der Eisenbahn dieser Länder starke Konkurrenz macht.

Palästina- und Hedjazbahn stehen unter englischer Verwaltung.

p.31 g) Militärische Beurteilung

Das Rückgrat des Verkehrswesen bilden in Palästina die gut ausgebauten Straßen. Die Längerverbindungen in nordsüdlicher Richtung sind durch die Geländegestaltung begünstigt, während die Querverbindungen erhebliche Geländeschwierigkeiten zu überwinden haben. Transjordanien hat nur eine stets fahrbare Längerverbindung im gut besiedelten Westteil. In der Wüste unterliegt der Verkehr den engen Bindungen an Jahreszeit und Wasserstellen.

Die Eisenbahnen unterliegen der gleichen Bedingung, dazu kommen die Nachteile des Spurwechsels, wodurch das Küstengebiet vom Innern getrennt wird, Ihre Leistungsfähigkeit ist gering.

Die großen Seehäfen an der Küste Palästinas bilden Haupteinfallsstore von Mittelmeer aus. Transjordanien ist vom Golf von Akaba zugänglich.

Im Luftverkehr ist Palästina Durchgangsland. Die Zahl der Flugplätze ist in Palästina und Transjordanien recht groß, allerdings sind nur wenige davon ausgebaut.

Der Nachrichten- und Funkverkehr ist in Palästina gut eingerichtet, in Transjordanien nur im NW des Landes und längs der Ölleitung."

Militärgeographische Angaben über Syrien. Textheft. Abgeschlossen am 15. Oktober 1941.

Generalstab des Heeres. Abteilung für Kriegskarten und Vermessungswesen (V. Mil. Geog.) Berlin 1941.

IV. Verkehrswesen.

a). Eisenbahnen

Die syrische Bahnen bilden kein einheitliches Netz, sondern zerfallen durch verschiedene Spurweite in einen nördlichen und südlichen Stamm mit Abzweigungen nach O und W. Treffpunkt beider Stämme ist Rayak in der Bekaaenke ostwärts Beirut.

Gesamtlänge: 1149km.

Davon Normalspur (1436m) [sic] 680km

- | | |
|----------------------------|-------|
| 1. Aleppo – Homs – Rayak | 331km |
| 2. Homs – Tripoli | 102km |
| 3. Aleppo – Meidane Ekbes | 126km |
| 4. Mouslimie – Coban Bey | 51km |
| 5. Nusaybin – Tell Kotchek | 70km |

davon Schmalspur: 408km

- | | |
|--|-------|
| 1. Hejazbahn Damascus – Deraa – Nassib mit Abzweigungen Deraa – El Hamah and Deraa – Bosra | 249km |
| 2. Beirut – Damascus | 140km |
| 3. Beirut – Maamelteine (Straßenbahn) | 19km |

davon Schmalspur (0.60m) 45km

Ezraa – Soueida	45km.
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Sämtliche Bahnstrecken sind eingleisig. Die Leistungsfähigkeit der Bahnen ist also gering. Eine nicht zu unterschätzende Behinderung des durchgehenden Bahnverkehrs ist die Notwendigkeit, beim Wechsel der Spurweite (Rayak) umladen zu müssen. So gibt es in Syrien keinen durchgehenden Nord-Südverkehr. Die Eisenbahnen unterstehen einer privaten Gesellschaft, der Société du Chemin de Fer de Damas – Hama et Prolongement.

Das rollende Material der syrischen Bahnen betrug 1936:

	Lok	Personenwagen	Güterwagen
Normalspur:	41	70	860
Schmalspur:	49	122	643

Die Strecke Beirut – Damascus ist eine Gebirgsbahn, die den Libanon in 1487m Höhe in einem Tunnel unter dem Paß von Dahr el Baidar und den Anti-Libanon in 1405m Höhe zwischen Sergaya und Zebdani überwindet. Der Aufstieg über den Westabfall des Libanon ist außerordentlich steil (bis zu 7%) und muß unter Zuhilfenahme von 59km Zahnstangen überwunden werden. Die kleinsten Kurvenradien sind 100m. Zwei Spitzkehren bei Chouité und Aley erfordern das Umsetzen der Lokomotiven. Schneegalerien und andere Kunstbauten müssen die Strecke von Witterungseinflüssen schützen.

Die anderen Strecken haben keine größere Geländeschwierigkeiten.

Der Betrieb erfolgt auf allen syrischen Strecken mittels Schweröl, ausgenommen die Strecke Beirut – Rayak, deren Lokomotiven (mit Zahnradmechanismus) noch mit Holzkohle gefeuert werden.

b). Straßenwesen und Treibstoffversorgung

Von einem modernen Straßennetz in Syrien kann erst seit dem Ende des Weltkrieges gesprochen werden. Die türkische Regierung legte nur wenige Fahrstraßen an. z.B. die Straße Beirut – Damascus, die älteste Kunststraße Syriens. Seit der Besetzung durch die Engländer befindet sich das ganze Straßennetz in intensivem Ausbau.

Es entstanden Längsverbindungen

- an der Küste:

Latakia – Tripoli – Beirut – Saida – (Haifa)

- in der Grabenzone:

Aleppo – Hama – Homs – Baalbeck – Merdjayoun – (Safed)

- am östlichen Gebirgsrand:

Homs – Damascus – Qouneitra – (Safed)

und Querverbindungen:

- Latakia – Aleppo – Meskene – Deir es Zor – Abou Kemal – (Baghdad)

- Tripoli – Homs – Palmyra – Deir es Zor – (Mosul)

- Beirut – Damascus – (Rutba – Baghdad)

- Saida – Merdjayoun – Qouneitra.

Ein Teil dieser Straßen ist voll ausgebaut, andere unvollständig; die durch die Steppe und Wüste führenden Straßen sind meist Naturwege

(Pisten), die bei trockenem Wetter unbeschränkt fahrbar sind, bei Regen jedoch unpassierbar werden.

Die Klassifizierung der befestigten Straßen geschieht nach zwei Klassen, solche 1. Ordnung, meist 5–6m breit, und solche 2. Ordnung, unter 5m breit und nur in einer Richtung befahrbar. In flachem Gelände kann leicht seitwärts ausgewichen werden, im Gebirge sind hierzu Ausweichstellen vorgesehen. Die Straßendecke ist meist Schotter oder Makadam (mit Teer gebundener feiner Schotter). ...

f). Militärische Beurteilung.

Die syrische Eisenbahnen sind in der Streckenlänge nicht ausreichend, ihre Leistungsfähigkeit durch Eingleisigkeit und Spurwechsel gering.

Das Straßennetz ist im gut besiedelten Westen dicht, im Osten lückenhaft. Die Hauptverkehrsstraßen sind sehr gut ausgebaut, mit Brücken und im Gebirge mit zahlreichen anderen Kunstbauten versehen. Im ganzen Steppen- und Wüstengebiet spielt sich der Verkehr auf Naturwegen (Pisten) ab. Diese sind in der Regenzeit nicht befahrbar...."

Flußschiffahrt könnte höchstens auf dem Euphrat flußabwärts in Frage kommen.

Seeschiffahrt spielt für den syrischen Außenverkehr eine wichtige Rolle.

Das Land verfügt über ein Netz von zahlreichen Flugplätzen. Außenlandungen sind außerhalb der Gebirge meist leicht möglich.

Das Drahtnachrichtennetz Syriens ist, da ausschliesslich oberirdisch, leicht zu stören. Eine wertvolle Ergänzung sind daher die Funkstationen.

Verkehrsknotenpunkte sind: Aleppo, Homs, Rayak, Damascus, Dera, Deir es Zor.

Die wichtigen Tanklager Beirut-Jdeide und Tripoli liegen an der Küste und sind Zugriffen von See ausgesetzt.

Die Bedeutung der Ölleitung Kirkuk – Tripoli ist so lange wesentlich beeinträchtigt, als sie sich nicht in ihrer ganzen Länge im gleichen Machtbereich befindet."

TRANSLATION:

"Military Geographical Information on Palestine and Transjordan; Text Booklet, completed on 15 Oct. 1941. (Only for Official Use!)

a), Railways: The railway network of Palestine and Transjordan is quite extensive but it falls into different sections of different gauges:

Palestine Railway – 1435mm gauge, total 329km

Hedjaz Rly. - 1050mm gauge, total 467km.

The main route of the PR is the coastal railway Haifa – Lydda – Rafah (226km) with the branch Lydda – Jerusalem (87km). To this are added other short branches, e.g. Lydda – Jaffa and Ras el-Ein – Petah Tikva. This route is linked to the Egyptian standard-gauge network by the Sinai Railway Rafa – El Qantara – Ismailia. There is however no link to the Syrian standard-gauge line Aleppo – Rayak; this can only be reached by lengthy detours over the narrow gauge. The coastal railway has a maximum gradient of 1:100, limestone ballast and wooden sleepers. Lydda is the main junction, Haifa the northernmost point with a large transshipment station and a modern locomotive works. Only the

branch Lydda - Jerusalem has, as well as many curves, a maximum gradient of 1:50.

To the Hedjaz system there are following lines: (see Table)

The line Haifa - Acre is ca. 20km and is very busy; around 10 train pairs work each day between the two places. The most important narrow-gauge line in Palestine is that from Haifa via Besan to Samakh and further to Dera in Syria. This uses the Jezreel Plain and then the Jordan Valley. Some 10km south of Samakh, near the Rutenberg Power Station, the Jordan is crossed by a bridge. Maximum gradient is 1:50.

From Nablus in Samaria a railway runs to Tulkarm on the Haifa - Rafah line and another to Afula on the Haifa - Samakh line. The line from Nablus to Afula is out of use but the rails have not been removed. From Nablus to Tulkarm trains run only occasionally. The gradient on this line at 2.2 : 100 is quite significant.

The only railway line in Transjordan is that from Nasib to Maan. It is actually a part of the Hejaz Railway Aleppo - Medina. This line is however currently used only as far as Maan and south of here is out of use, since the destructions caused during the First World War have not been repaired. The line Nasib - Maan has a total length of 323km with a maximum gradient of 2.2:100. Traffic from Amman to Maan in this thinly-populated area is low - 1 train per week.

Standard-Gauge Stock: 78 steam locos, 81 carriages, 2038 wagons, total length 329km.

Narrow-Gauge Stock : 51 steam locos, 72 carriages, 361 wagons, total length 467km.

The operating results of the two sections reflect the different economic state of the two countries. In Palestine areas with large Jewish settlement have a lively passenger traffic and there is also significant freight traffic to the ports of Haifa and Jaffa. In the Oranges season, the period of greatest traffic, there have not always been an adequate number of engines and wagons and so it proved difficult to cope with the traffic on offer. As well as the not fully adequate stock of motive power it is however also the need to change gauge that causes difficulties for freight transport. It is therefore no great surprise when road transport in these countries forms major competition.

Both the Palestine and the Hejaz Railways are under British administration.

p.31 g). Military Assessment

The main basis for transport in Palestine is formed by the well-engineered roads. The North-South trunk route is aided by the geography whereas the East-West transversal routes have to cope with major issues in the landscape. Transjordan has only one constantly-useable trunk route in the more settled western section; in the desert transport is dependent on the season and the water sources.

The railways are similarly affected and to this is added the disadvantages of the break of gauge whereby the coastal area is cut off from the interior. Its capacity is low. The major ports on Palestine's coast form the main entry gates from the Mediterranean. Transjordan is also accessible through the Gulf of Akaba. In terms of air transport Palestine is a transit country, the number of airfields in Palestine and Transjordan is quite high though only a few are properly constructed. Telecommunications and radio traffic is well established in Palestine, in Transjordan only in the north-west of the country and along the pipeline.

Militärgeographische Angaben über Syrien. Textheft. Abgeschlossen am 15. Oktober 1941.

Generalstab des Heeres. Abteilung für Kriegskarten und Vermessungswesen (V. Mil. Geog.) Berlin 1941.

IV. Transport Facilities.

a). Railways

The Syrian railways do not form a complete network but are divided with differing gauges into a northern and southern main line with branches to East and West. Both of these trunk routes meet at Rayak in the Bekaa Valley, east of Beirut.

Total length: 1149km.

Of which Standard Gauge: 680km (and Table) and Narrow Gauge: (Tables)

- 1. Aleppo - Homs - Rayak 331km
- 2. Homs - Tripoli 102km
- 3. Aleppo - Meidane Ekbes 126km
- 4. Mouslimie - Coban Bey 51km
- 5. Nusaybin - Tell Kotchek 70km

In 1936 rolling stock comprised:

	Locos	Passenger Carriages	Goods Wagons
Standard:	41	70	860
Narrow:	49	122	643

The line Beirut - Damascus is a mountain railway which crosses the Libanon at 1487m altitude in a Tunnel under the Pass of Dahr el Baidar and the Anti-Libanon at 1405m between Sergaya and Zebdani. The climb up the western slopes of the Libanon is very steep (up to 7%) and requires the aid of 39km of rack rail. Smallest radii are 100m. Two reversals at Chouité and Aley require the loco to run round. Snow galleries and other constructions protect the line from effects of the winter weather.

The other lines have no especial geographical problems.

Operation on all Syrian lines is with oil firing, apart from the line Beirut - Rayak whose locomotives (fitted with rack mechanism) are fired with charcoal.

b). Roads and Fuel Supplies

One can only speak of a modern road network in Syria since the end of the World War. The Turkish government had built only very few roads, for example from Beirut to Damascus, the oldest road in Syria. Since the English occupied it the entire road network is undergoing extensive expansion. (Table)

Some of these roads have been completed, others are still incomplete. The roads through the Steppe and desert are mostly unsurfaced, they are clear for use in dry weather but become unpassable when it rains. The surfaced roads come into two categories: Type 1 of mostly 5-6m width and those of Type 2 less than 5m wide and only useable in one direction. In flat country one can easily divert to the side and in the mountains passing places are provided. The roads are mostly surfaced with gravel or macadam...

f). Military Assessment.

The Syrian railways are not sufficient in length and their capacity is further limited by their being single track and of different gauges.

The road network is good in the well-populated regions in the West but sketchy in the East. The main roads are well constructed with bridges and, in the mountains, numerous other culverts etc. In the entire Steppe and desert regions traffic relies on unsurfaced roads which are impassable in wet weather.

River navigation is only feasible downstream on the Euphrates.

Sea navigation plays an important role for foreign trade.

The country has a network of numerous airfields; It is also easily possible to make landings outside the mountains.

Cable communications are easy to disrupt, being above ground. The radio stations form a useful addition. Main traffic centres are : Aleppo, Homs, Rayak, Damascus, Dera, Deir es Zor.

The important fuel tank installations Beirut-Jdeide and Tripoli lie on the coast and are therefore vulnerable to attack from the sea.

The importance of the oil pipeline Kirkuk – Tripoli is affected by the fact that it does not run for its entire length in one country."

(v). BOOK REVIEW.

(By Chen Melling. This appeared in 'British Overseas Railways Journal' Spring 2024, p. 219)

LOCOMOTIVES AND RAILCARS OF THE EGYPTIAN STATE RAILWAYS 1852-2002

Atkin B & Clothier A. Hard cover. 21 x 29cms. 382 pages. 12 maps and diagrams and an extensive set of B&W illustrations. ISBN 978-190-1613-05-6. Price GBP 45.00.

"It is a shame that both authors of this new book are now long departed, as both had first-hand knowledge of Egyptian railway happenings. They were also more than willing to share it. I had the pleasure and good fortune of corresponding with Mr. Clothier on matters Egyptian in his later years, adding to my own research and restoration work at the Israel Railway Museum. In fact, quite a few of the types covered in this mammoth of a volume operated on my 'home' network during and following some of the wars.

The history of Egyptian locomotives from 1852 is a fascinating and varied tale. Within the first two decades of the national network some 240 locomotives of some 55 (!) wonderfully varied types were ordered. Later came a period of consolidation and elegant standardisation, led by CME F. H. Trevithick (grandson of the inventor of the steam locomotive). Having stabilized matters, he went on an early 20th century experimentation spree, unsuccessfully attempting to achieve a viable improvement of steam economics through a bizarre range of exhaust contraptions.

The interwar period saw a shift from the old standards to modern ones. However, WW2 brought back variety, courtesy of the WD, and opened the Egyptian State Railway's eyes to larger locomotive types. There followed ever grander designs, with little to no standardisation, while the all-capable diesel made its first steps of conquest. Steam was out by the early 1960s, thanks mostly to EMD-powered main line locomotives of differing types and origins. Shunting duties went to a multiplicity of smallish types from various makers and countries.

A concise yet helpful summary of Egyptian railway history with some simple but clear maps, is followed by an overview of the careers and influence of each of the CMEs, while such a position still existed. Afterwards begins the main part of the book wherein each type of locomotive, railcar and multiple-units used by the national network (and its immediate subsidiaries) is described.

The authors wisely chose to present the types by order of the class-leader number. They even manage to elegantly by-pass the thorny issue of the several wholesale renumberings. Most entries include a photo or two of the type described, though I found it a bit

disappointing that a few of the modern types were not illustrated even though I know of suitable photos available.

The authors spared no details in the description of each class, with historical, technical and operational notes, where available. The latter can mostly be found for the period bounded by the two authors' respective stays in Egypt. I only spotted 2 or 3 obvious factual errors, and they were mostly of little consequence for the greater picture.

The book is concluded with a short summary and review, a section of further photographs, selected official diagrams and some tabulated data, dealing mostly with renumberings. There is also an extensive bibliography but no index.

I found the book enjoyable and educational and I certainly did not mind the fact that it is a little out of date, concluding around the millennium. However, it is not without some obvious faults, the main one for me was the book's layout design and typesetting, which does not follow common publishing conventions. This makes the book harder to read and wasteful in unused white space which could have been used for more photos or for more consistent tabulation of repetitive technical data.

Another major letdown is the type and quality of paper and print used. The pages are of thin matt stock, which results in poor reproduction of the photographs, some of which I know to be quite magnificent. There is also no colour (except for a single image on the front cover), which obviously means more for the modern-traction part of the book but is also relevant to some of the earliest (!) types discussed.

In summary, this book is probably a "must" addition to the libraries for most of this magazine's readership. However, I consider it to be a bit of a missed-opportunity to expand interest in this fascinating subject."

(vi). MESOPOTAMIA IN WWI

In the 'British Overseas Railways Journal' No. 48 Spring 2024 p.210 is a brief biography of Nicholas Kingswell Prettejohn (1872-1935), later a major railway engineer in South Africa. It includes:"After the German South-West Africa campaign, he served in German East Africa in 1916. From September 1916 until January 1917 he was Resident Engineer in Charge of the Muizenberg-Somerset Strand Survey moving to the Touws River to Ladysmith Survey until March 1918. He then served with the British Army in France and Mesopotamia, arriving in Mesopotamia on 30th September 1918. On leaving the Royal Engineers in 1919 he was an Honorary Major. He had returned to South Africa by August 1919...."

A footnote lists as source for this: "Lubbock G., Brig.-Gen. C.M.G., D.S.O., Ed. 'A History of the Mesopotamian Railway During the War', Bombay: The Government of India, 1921. This may be found in the India and African Reading Rooms of the British Library at 8235/W/8."

(vii) MEDINA RAILWAY RESTORATION

This link : <https://www.irfca.org/gallery/Foreign/Hejaz/>

leads to a 2008 posting about the work of, presumably Moslem Indian railway engineers to restore a former HR steam loco to working order in Medina, another tank loco has been carefully sectioned for pedagogic reasons. We have put these photos under 'Saudi Arabia' in the rubric 'Other Middle East Railways'.

It is noted: "The Hejaz Railway was built in the early 1900s between Damascus and Medina in the then Ottoman Empire. In modern times, only small portions of the railway survive. Many locomotives are derelict. In 2003, a team of retired Indian Railway staff from SBC (Bangalore) and UBL (Hubli) went to Medina in Saudi Arabia and worked on restoring one of the locomotives, using parts from the others. These pictures were

sent by Mr A. Abdul Wajeed, retired locomotive driver of SBC. Pictures were forwarded to IRFCA by Kunal Doddanavar of Bangalore, in Dec. 2008."

One can also look at James Nicholson's website:
<https://www.thehejazrailway.com/>

(viii) PANAMA OR NOT?

For years there has been an assumption that the first Baldwin 2-6-0 metre-gauge steam locos acquired by the Jaffa – Jerusalem Railway in 1891 had come from the French company building the Panama Canal, which had gone bankrupt. At one point Chen Melling cast some doubt on this on the basis of some Baldwin painting instructions at the time. Now I have discovered the excellent website : [railwaysofthefarsouth.co.uk/Resources/Panamianian steam locolist.pdf](http://railwaysofthefarsouth.co.uk/Resources/Panamianian%20steam%20loclist.pdf) by Martin Coombes of 2024 (Part 15 deals with Panamian locos) and from this :

"1852-1879: Background : Initial construction was on standard gauge. Operations were initially on 5' 6" gauge but later regauged to 5' 0". This was in an era when the gauges of mainline railroads in the USA varied considerably rather than all being 4' 8 ". "The most strenuous efforts were now made, and on January 27, 1855, 'at midnight and in rain', the last rail was laid at the Summit, now Culebra, thirty-seven miles from Aspinwall, and ten miles from Panama."

The French takeover: In late 1879 the Panama Railroad was taken over by de Lesseps' Panama Canal Co. The canal project would run parallel to the railroad, and would clearly involve very close cooperation with it, so ownership made a lot of sense.

15.1.2 The Panama Railroad under French ownership 1879-1904 (The owners being La Compagnie Universelle du Canal Inter-oceanique (CUCI) 1881-1889 and the replacement Compagnie Nouvelle du Canal de Panama 1894-1904) Background : Gauge 1524 mm. The French, in the form of Ferdinand de Lesseps' Panama Canal Company, had purchased the railroad company in late 1879. However it was not until 1881 that the canal construction project began under La Compagnie Universelle du Canal Inter-oceanique (CUCI) . Incidentally, though now under French ownership, the railroad company continued for legal reasons to be managed from New York and in English, and therefore the locos purchased for use on the railway (as opposed to those for the canal construction) were all by US builders. One contemporary report does make a distinction between the air-brake-fitted Baldwin engines that had been purchased directly by the railway company, and the non-air-braked other engines bought by the canal company.

15.1.3 La Compagnie Universelle du Canal Inter-oceanique (CUCI) 1881-1889, under administration 1889-1894 and the replacement Compagnie Nouvelle du Canal de Panama 1894-1904.

Background : Gauge 1515mm, not exactly the same as the PRR, which ran on 5' 0" or 1524mm. Whilst the PRR was owned by the CUCI its management and operations remained separate from that of the canal construction proper, which was led by CUCI but partly contracted out to the contractor Couvreux et Hersent. As the work moved on – hindered hugely by climate, disease, corruption and a certain inability to recognise that the original plan for a sea level canal was impracticable with the funds available – so progress slowed. The CUCI was effectively bankrupt by 1889 and in 1894 a new company known in English as the New Panama Canal Co. took over. However, the task was still too great, and by the end of the 1890s the work sites were more or less silent...."

From these excerpts from an extensive and exhaustive research into all available sources it would seem that the French construction

companies did not in fact use metre gauge! The website has numerous photos showing 0-6-0T, 0-6-0ST, 4-4-0 and other locos, many built by Baldwin, but nothing looking like the J&J locos. We must therefore assume that this "accepted history" needs to be corrected.

(ix). THERESIENSTADT

In 'Lok Report' 6/2024 pp.54f. is an article in a regular series by Martin Kubiks "Neulich fuhr ich von Prag" describing the author's railway excursions from his home city.

In this one (No. 74) he travelled on Saturday 6 April from Prague via Vsetaty to Litomerice Mesto (Leitmeritz Stadt). "We arrived here at 10.45 with R 1302 and then took the ferry across the Elbe (Labe) and the Eger (Ohre) which here flows together, upstream to the fortress town of Terezin (Theresienstadt). Construction of the fortress was ordered by Kaiser Joseph II in 1780 and it was completed within ten years. Within the fortress a garrison town was established with barracks. Under the German occupation (the 'Protectorate') from 1941 the garrison became a ghetto and concentration camp for deported Jews, whilst the 'Smaller Fortress' across the Eger became a Gestapo prison. Following the liberation at the end of the war it became an Internment Camp for Germans from Czechoslovakia. Only from 1946 could the Czech inhabitants finally return – today there are some 3,000 inhabitants. My grandfather Dr. Karel Novak (1898-1973) was imprisoned in the Small Fortress from March to May 1945 and I have two letters from him, written to his wife Marie Novakova (1908-2000), the first from his Gestapo custody in Prag-Pankratz, the second from Theresienstadt.

We looked around the town, visited some memorials and came across the remains of the some 2 kilometre connecting line from 1942 from the station at Bohusovice nad Ohri to the Large Fortress. At the Bohusovice station there is still a buffet with warm meals. We travelled further with train 6915....." A photo shows remains of tracks heading to the 'Lange Gasse' (Dlouha).

(x) THE SYRIA OTTOMAN RAILWAY COMPANY

I am indebted to Stephen Sutton at the Palestine Exploration Fund for a copy of some pages of the "Official Report of the Inauguration of the SYRIA OTTOMAN RAILWAY COMPANY Limited (ACRE – HAIFA – THE HAURAN – DAMASCUS) dated 12th December 1892. It is also printed with "Private and Confidential. For the Sole Use and Consideration of the Board."

"This Company has been formed for the purpose of

1). Acquiring the Railway in Central Syria from Akka (Acre, St. Jean d'Acre, Ptolemais) and Haifa (Caiffa, Khaiffa, Hepha), to the Hauran and Damascus, with optional branch lines to Hasbeiyah and Bosrah;

2). The construction of suitable harbour accommodation, with quays, &c. at the ports of Akko and Haifa; and

3). The establishment of a Navigation Service on the sea of Galilee.

A map of Syria is enclosed, showing in red lines the proposed route of the Railway.

This Railway, which will in the first instance be constructed as a single line, will start from the fine bay of Akka and Haifa at the foot of Mount Carmel, and pass over the river Kishon, traversing the plains of Akka, Esdraelon and Beisan to the river Jordan; passing in the immediate neighbourhood of the towns of Nazareth, Nain, Jezreel and Beisan (Bethshean); and crossing the Jordan the line will follow the eastern shores of the Sea of Galilee to the plains of the Haurân (Bashan), through which it will run by the towns of Khistin and Nawâ; and thence across the plain of Damascus, skirting the eastern base of Mount Hermon, the Railway arrives at its terminus by the entrance to the southern gate of the city of Damascus.

The country to be thus served by the Railway is of an extremely fertile and productive character, being specially adapted for the growth on an extensive scale of grain, cotton, wool, silk, fruits, olives, and tropical and temperate products of all kinds. It possesses some of the finest, healthiest and most diversified climates in the world, being well supplied with water and other natural resources. Valuable mines of bitumen, petroleum, stone &c. also exist in various parts of the surrounding country.

The Official Returns for 1890 give the following figures for the district which the Railway will serve, namely:-

	Acres	Number of Towns & Villages
The Sandjak or Department of Akka	2,779,875	138
The Sandjak or Department of the Haurân	2,471,000	150
The Sandjak or Department of Damascu	6,068,776	357

- Total Number of Acres: 11,319,651

- Total number of Towns and Villages. 645."

A detailed topographical map showing the proposed routes is included which shows the 'Principal Lines' as running separately from both Acre and Haifa, meeting roughly where the later HR junction was, then along the Jezreel and turning northwards up the Jordan Valley to Tzemach and then heading north-west (albeit not through the Yarmuk Gorge) but with a branch from Nawâ, about halfway along this section, in a straight line to Bosrah. From Tzemach another 'principal line' would head roughly northwards along the west side of the Sea of Galilee as far as Safed with a 'Branch' continuation to 'Selma' roughly where Kiryat Shemona is now.

It also bears the following information:

"The journey from London to Haifa by rail and sea via Brindisi, Alexandria and Port Said takes nine days.

The journey from the Salford Docks of the Manchester Ship Canal to Haifa by sea direct will be 3,300 miles."

A fascinating document, clearly 'talked up' and indicating the hope of arousing the interest of investors. The perspectives of the Templers and others living here at the time and helping in the survey were markedly different! The intention being to construct it to standard gauge, there would have been no interest in a physical connection with the 105cm gauge line and its rack system being planned and constructed from Beirut to Damascus.

See rear cover for the map accompanying the report

(xi). ISRAEL VISAS

New information for UK and EU citizens :

<https://israel-entry.piba.gov.il/>

From August 2024 UK and EU (incl. Switzerland) citizens visiting for tourism can stay up to 3 months per visit, The ETA electronic visum – which is best applied for online before travel - costs NIS 25 (about €6) and is valid for two years.



: In 1948, two snapshots of a derailment involving a former USATC S100 class 0-6-0T of the War Department and a WD (SR type) goods brake van. Further details unknown.



THE SYRIA OTTOMAN RAILWAY COMPANY,
LIMITED.

MAP OF PALESTINE,

showing the route of the railway from
Akkon (Acre) to Damascus.

Scale of English Miles

Principal lines shown in
dashed lines

NOTES. The journey from Jerusalem to Haifa by rail would save
one day, but the road would cost four times as much.
The journey from the Suez Canal to Haifa by the Mediterranean
Sea Canal to Haifa by sea would cost £3,000,000.

