

# HaRakevet

הרכבת

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and the Middle East  
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**Fridays two train sets are stabled at Beit Shemesh, so when the service train arrives there are, unusually, three in the station at the same time. (Photo by Sybil Ehrlich, 3.12.2021.)**

# EDITORIAL



This issue comes a little late due to personal circumstances over the 'busy season' of December – and also because Steve our indefatigable layout-man, printer and more had a family celebration in America; We are fortunate that, even though some guests later tested 'positive' for the virus, he was able to return home without further illness or quarantine problems. The slight delay means that even more information has poured in, making it hard to find space for historical material. Barely a day goes by without further news of construction or planning arriving from somewhere in the region. In consequence it has been decided to place some more interesting material from 'Die Warte' and from Armin T. Wegner's travels in the 1920's on the website, although it remains the hope also to publish some of this in the magazine in due course.

The past quarter (or third?) has seen much progress on the Tel Aviv light rail system and much expansion in Turkey, Iran and the Gulf States, further electrification and further stock deliveries in Israel and everyone doing their best to continue and to plan ahead despite the Pandemic.

The new year means also a new annual subscription. Covid is not the only plague affecting our world. Brexit hardly helps – the Editor subscribes to several British magazines which do find their way to Berlin, albeit not always in the correct order! But he knows of several railway bookshops in Berlin and Vienna which have – for now - simply stopped ordering books from the UK as it is too complex and expensive and of at least one publisher in the UK who has ceased despatching books to Europe for the same reason. So sad and so unnecessary....

Energy prices have risen sharply and the price of paper has risen VERY sharply, also postage. Accordingly the new subscription level (especially for the printed version) has had to be raised slightly. And now our bank is starting to charge us a fee for taking in your subscriptions! We still do not cover all costs – the rest comes out of the Editor's pocket or is represented by the sweat of volunteer labour – but we hope you still find the magazine worth the outlay and the information within it relevant and interesting.

*Enjoy! The Editor.*

135:03 (Photo) (Modiin Outskirts station)

135.03. Modiin Outskirts station looking east, the two new tracks for the curve to Jerusalem on right. (Photo Aharon Gazit. 29.11.2021)



135:04. .

## (i). NEW OVERBRIDGE.

On 13.09.21 (just as we went to press with issue 134) IR announced the completion of a further grade-separation scheme at Ronit Ranch, an overpass East of Ga'ash in the Sharon [20 kms North of Tel Aviv, 7.7 km NW of Kfar Saba] to avoid any encounters between local traffic and future high-speed trains. IR noted that this had cost NIS 38M and included the construction of a steel bridge with spans of 40m and 15m as well as some 1.5km of new road construction. In addition much other infrastructure including fuel and gas lines, communication cables etc. had to be moved.

"Over the past decade more than 60 road/rail crossings have been closed as part of the strategic plan to eliminate all level crossings, led by the Ministry of Transport and Israel Railways. As part of this, in the past two years many such have been eliminated in Nitzanim, Karmiel, Kfar Yehoshua, Zichron Yaacov, Kiryat Motzkin and more. In the next two years additional grade separations

are planned on the coastline tracks, including: Shefayim, Ma'ayan Zvi and Dor Nachshulim, and additional bridges at Lod, Kfar Chabad etc.. Their closure will allow acceleration of train speeds and improve train security." [See below]



*\*Aerial Views of the new overbridge. (Courtesy of Matan Berkovitch, IR).*

## (ii). SUKKOT FESTIVAL TIMETABLE.

Israel Railways Ltd. announced on their website the special timetable during Sukkot holidays:

- On Sunday 19.09.2021 trains to operate in the morning according to Sunday timetable and in the evening according to the Thursday timetable.

- On Monday 20.09.2021, the eve of Sukkot holidays, trains to operate in strengthened formation based on the Friday timetable with the addition of services between Nahariyya, Haifa, Tel-Aviv and Ben-Gurion Airport as follows:

The line between Nahariyya and Ben-Gurion Airport will operate on 20.09.2021; trains will call at Akko (Acre), Kiryat-Motzkin, Kiryat-Hayim, Hutzot-HaMifratz, Merkazit HaMifratz, Haifa Central the 8, Haifa Bat-Galim, Haifa Hof-HaCarmel, Atlit, Binyamina, Caesarea-Pardes-Hanna, Hadera West, Netanya, Netanya-Sapir, Beit-Yehoshua, Herzliyya and all Tel-Aviv stations.

The train of 05:39 will start at Haifa Central the 8 instead of Nahariyya and terminate at Ben-Gurion Airport; The train of 12:54 from Ben-Gurion Airport will terminate at Haifa Central the 8 instead of Nahariyya.

- Service on the following lines will be strengthened: Beit-Shemesh - Herzliyya, Beit-She'an - Haifa Hof-HaCarmel, Carmiel - Haifa Hof-HaCarmel, Dimona - Beer-Sheva North/University.

- On Tuesday night 21.09.2021 services will operate as on Saturday night on the following lines only: Jerusalem Navon - Herzliyya, Beit-Shemesh - Tel-Aviv Savidor/Central, Beit-She'an - Haifa Hof-HaCarmel, Carmiel - Haifa Hof-HaCarmel, Nahariyya - Haifa Hof-HaCarmel; for people with limited abilities, special taxi services will be provided. There will be also strengthened bus services between Tel-Aviv Savidor/Central and Haifa Hof-HaCarmel in both directions between 21:00 and 23:30 at 30 minutes intervals.

- Between 22.09.2021 and 26.09.2021 trains will operate as per regular timetable; on Wednesday 22.09.2021 trains will operate as per Sunday timetable; On Sunday 26.09.2021 in the morning according to Sunday's timetable and in the evening according to the Thursday timetable.

- On Monday 27.09.2021, the eve of the last day of Sukkot holidays, trains will operate as on Friday on the following lines only: Beit-Shemesh - Tel-Aviv Savidor/Central; Beit-She'an - Haifa Hof-HaCarmel; Carmiel - Haifa Hof-HaCarmel; Nahariyya - Haifa Hof-HaCarmel; Dimona - Beer-Sheva North/University. For people with limited abilities special taxi services will be provided. There will also be strengthened bus services between Tel-Aviv Savidor/Central and Haifa Hof-HaCarmel in both directions between 08:00 and 14:00 at 30 minute intervals.

- On Tuesday night 28.09.2021 services will operate as on Saturday night on the following lines only: Jerusalem Navon - Herzliyya, Beer-Sheva - Herzliyya, Beit-Shemesh - Tel Aviv Savidor/Central, Beit-She'an - Haifa Hof-HaCarmel, Carmiel - Haifa Hof-HaCarmel, Nahariyya - Haifa Hof-HaCarmel; for people with limited abilities special taxi services will be provided. There will be also strengthened bus services between Tel-Aviv Savidor/Central and Haifa Hof-HaCarmel in both directions between 21:00 and 23:30 at 30 minutes intervals.

- On Wednesday 28.09.2021 trains will operate according to the regular Sunday timetable.

### **(iii). GREEN LINE WORKS MEAN TWO WEEKS OF CLOSURE FOR SUBURBAN SERVICES.**

From a press release of 14.09.2021 by Israel Railways Ltd.: "Due to the progress on the Tel-Aviv LRV works, the following changes to train traffic in south and central Israel will take place between 03.10.2021 and 19.10.2021 including:

There will be no services between Tel-Aviv University and Ra'anana stations; trains on the Beer-Sheva - Rishon-LeZion Moshe Dayan line will operate between Beer-Sheva and Tel-Aviv Savidor/Central only; also temporarily, there will be no services to/from the stations of Hod HaSharon Sokolov, Kfar-Sava Nordau, Rosh-HaAyin North, Petakh-Tikva and B'nei-Brak.

As part of works on the Tel-Aviv LRV Green Line NTA will start at the end of September 2021 a huge operation, excavating an underpass under the tracks between B'nei-Brak and Tel-Aviv University stations; this requires the dismantling of tracks and later restoring them with fitting-out activities by Israel Railways Ltd.

The National Authority for Public Transport, Israel Railways Ltd. and NTA have between them checked and found this to be the best and least disruptive alternative. Israel Railways Ltd. will use the "opportunity" of line closures to perform track maintenance and upgrading works on these line sections, which

would in any case need to be done, thus saving another disruptions. There will be strengthened bus services between the closed sections."

### **(iv). INFRASTRUCTURE RENEWALS AND MAINTENANCE.**

Every issue we have several such announcements – I have decided this time to try to place some of them together rather than list them just in chronological order amongst other news items.

a) - IR announced that due to infrastructure upgrading works including replacement of track components at Haifa Central the 8 railway station and nearby on Friday 22.10.2021, as part of the annual maintenance programme there would be changes to train traffic at Haifa and the north as follows: The train of 23:36 on Thursday 21.10.2021 from Beit-She'an to Haifa Hof-HaCarmel will not operate. The lines Haifa Hof-HaCarmel - Carmiel, Haifa Hof-HaCarmel - Beit-She'an (Valley Line), Haifa Hof-HaCarmel – Nahariyya with all the stations on the line to Carmiel, the Valley Line, all Haifa stations, Nahariyya, Akko, Kiryat-Motzkin, Kiryat-Hayim, Hutzot Hamifratz and Merkazit Hamifratz will be closed. Traffic will resume on Saturday night 23.10.2021.

b) - From a public announcement of 11.10.2021 by Israel Railways Ltd.:

As part of electrification works the railways will on Friday 15.10.2021 and on Saturday night 16.10.2021 construct a substation and link it with the network near Tel-Aviv HaHagana railway station; the following changes to train traffic are to take place:

Trains on the Beer-Sheva - Herzliyya line will operate between Beer-Sheva and Lod only and not continue onward. Trains on the Jerusalem Navon - Herzliyya line (regularly operating on Saturday nights) will operate between Jerusalem and Ben-Gurion Airport only, and not continue to Tel-Aviv stations and Herzliyya. All the railway stations of Tel-Aviv as well as Herzliyya will be closed on these dates. The railways will provide bus shuttle services between the closed stations. Traffic will resume on Sunday 17.10.2021 at about 05:00.

c) - Works at Lod:

From an IR press release of 14.11.2021: "Upgrading works will take place at Lod station and the following temporary changes to traffic will take place on Friday 26.11.2021 only:

There will no services between Be'er-Sheva and Herzliyya.

Trains on the line Beit-Shemesh - Tel-Aviv Savidor/Central will operate between Beit-Shemesh and Lod only.

There will no services between Mazkeret-Batya, Lod and Tel-Aviv Savidor/Central in both directions.

The following stations will be closed to traffic: Be'er-Sheva, Lehavim/Rahat, Kiryat-Gat, Kiryat-Malachi/Yoav, Mazkeret-Batya, Tel-Aviv and Herzliyya.

The railways will provide alternative bus services free of charge between Lehavim/Rahat, Kiryat-Gat and Tel-Aviv Savidor/Central, while bus services to/from Be'er-Sheva will be strengthened. Traffic will resume on Saturday night, 27.11.2021 at about 17:30.



#### **d) - RAISING TRACKS AT HERZLIYYA.**

From an IR press release of 28.11.2021: "Due to infrastructure works at Herzliyya station in order to raise the track at some points and thus reduce the gap between train and platform, the stations of Herzliyya and Tel-Aviv Savidor/Central will be closed on Friday 03.12.2021 only. Trains from/to Beer-Sheva will start/terminate at Tel-Aviv Savidor/Central. Traffic will resume on Saturday night at about 17:30."

#### **e) - TEL AVIV SUBURBAN ELECTRIFICATION.**

Israel Railways Ltd. announced on their website on 26.10.2021:

"As part of completion of electrification of the Sharon circle line and the start of electric train services within a few weeks, the overhead catenary at the stations (B'nei-Brak, two stations of Petakh-Tikva, Rosh-HaAyin North, Kfar-Sava Nordau, Hod-HaSharon Sokolov, the two stations of Ra'anana, Herzliyya and Tel-Aviv University), Tel-Aviv Savidor/Central and Tel-Aviv HaShalom, there will be changes to traffic between Wednesday 27.10.2021 and Saturday night 06.11.2021 every night (including Saturday night) between 21:00 and midnight only between Herzliyya and Jerusalem Navon. Trains on this line will start/terminate at Tel-Aviv HaHagana station.

The railways will provide alternative bus services between the stations of Herzliyya, Tel-Aviv University, Tel-Aviv Savidor/Central and Tel-Aviv HaHagana in both directions.

Traffic will resume on Sunday 07.11.2021 at about 05:00."

#### **(v). FIRE!!**

On 07.10.21 the 'Times of Israel' reported: "Trains to Jerusalem and Modiin have been halted as a fire blazes in an area near Modiin. The Tel Aviv - Jerusalem train will stop at the airport and not continue toward the capital, says Israel Rail. And trains to Modiin from Nahariya and Tel Aviv will also stop at the airport and not reach Modiin. Four firefighting teams are battling the flames at the scene, where there is not currently believed to be any danger to residential areas."

#### **(vi). APOLOGY.**

Information comes of a new free App for rail users with i-phones:

"Description:

If you are a frequent rider on Israel Railways, this is one of the most important applications you can choose to install on your smartphone. If you are not a frequent rider yet, ride and discover how convenient Israel Railways is with this app in the palm of your hand. Find your way and enjoy the comfortable and cost-effective ride that Israel Railways offers, at any place and any time.

We have developed a mobile app, the first and only one of its kind in Israel that will serve both as a trip planner and a way to turn your commute into a fun experience. You will be able to find route information quickly and easily at any time and from everywhere. Listen to Music on your way, or even take a comfortable nap, without worry of missing your stop. The application will remind you when you are arriving at your destination and you can set an alarm to wake you from your nap. You can also find recommendations for a variety of sites and activities near your train station.

The application includes:

- An easy-to-use schedule
- A trip-fare calculator
- A Smart Alarm Clock, programmed to wake you up by destination
- Israel Railways news
- Fare & schedule changes

Upgrade your Israel Railways experience with the official Israel Railways App.

Please share your feedback with us so that we can keep improving your Israel Railways experience.

Israel Railways wishes you a safe and enjoyable ride.

Please note:

- The Alarm clock feature is using the device GPS. While the alarm is on and running in the background, it can dramatically decrease battery life. - Continued use of GPS running in the background can dramatically decrease battery life. & more.

- **What's New : Version History : 9 Oct 2021 : Version 2.88**

We've launched a new App for you that allows you to plan your journey quickly, efficiently and conveniently, including search history and viewing nearby stations.

Additional services will make your travel experience more convenient and efficient:

- Reminders for getting off the train
- Add the train ride to the calendar
- Ride sharing
- View station information

In addition, the App coordinates references to the following services:

- Contact customer service
- Coordinating accessible travel
- Request for compensation
- Lost and found
- Appealing for a payment requirement
- Payment of debt, and more

Ratings and Reviews: 3.3 out of 5"

#### **(vii). PROTEST BLOCKS RAIL LINES.**

From 'Times of Israel' 6.11.21: "Protesters with disabilities blocked railway lines and roads Wednesday November 3rd. as they resumed their campaign for an increase in the stipends that they receive from the state.

Demonstrators crowded a railway crossing close to Atlit station in the north and blocked a crossing near Zichron Yaakov, disrupting services between Haifa and Binyamina. Police arrived to remove the protesters. There were no reports of arrests and rail services returned to normal. The campaigners want their disability benefits to match the minimum wage. Organizations leading the protests said in a statement the aim was "to commit the government to uphold the original agreement," a reference to a 2018 deal. The statement threatened further demonstrations in the coming days, including outside the Knesset and the homes of ministers and lawmakers, the airport, and major highways.

The disabled community is divided over the current situation, after many representative organizations reached an understanding with the government earlier this year. The Disabled, Not Half a Human Being organization condemned the protests, calling those who took part "a group of extremists that decided to return to disrupting the daily life of Israeli citizens for no reason," the Ynet news site reported.

Last month the Knesset Welfare committee approve raising disability allowance to NIS 3,700 (\$1,180) a month, and raising the threshold of income a disabled person can have before they lose their rights to an allowance to NIS 5,300 (\$1,690) a month. The new rules are included in the state budget the Knesset is set to vote on this week.

Similar protests were held frequently in 2018, with activists threatening ongoing disruptions. The government reached a deal to increase the benefits and end months of near-daily demonstrations on highways and intersections, which brought traffic to a standstill and led to commuting nightmares throughout the country. However, the implementation of the move was delayed due to two years of political deadlock, resulting in further protests in May 2020 when a government was sworn in."

#### **(viii). JERUSALEM NAVON STATION EXPANSION.**

From a press release of 07.11.2021 by Israel Railways Ltd.:

"Three years after the opening and over 7 million passengers since, the railways are now preparing extensions and upgrading the Jerusalem Navon railway station including a new entrance/exit at its eastern edge.

The new \$6.4M (NIS 20M) entrance/exit will serve passengers arriving at the station's eastern side from Shazar Boulevard and the parking facilities being built under this, avoiding the need to use the current entrance/exit at the station's southern side and will be integrated in the transportation infrastructure revolution of the city's "City Entry" in which the main traffic routes around the station are being upgraded in addition to many parking facilities being built including the large parking facilities at Shazar.

The entrance/exit hall building will have three levels; the deepest one will be at the passenger service floor thus being an additional entrance with a security check point; the second level at the entrance floor will create an additional exit eastwards with carousels accessible also for wheelchairs and strollers; the third level will be at street level and include a glazed building with a stairway and four elevators which will provide accessibility and link the station with the street and the large underground Shazar parking facilities.

The new entrance/exit will also improve significantly the passenger flow which may grow to 13 million passengers/year thanks to the AI which is to be linked with two new lines currently under construction: the Modi'in curve to provide a direct link between Modi'in and 'Line 431' (running for most of its length in the median of a highway with same number) to link Jerusalem with Ramla, Rishon-LeZion and additional places on the Mediterranean south coast.



• Computer simulations of the new entrance/exit provided by courtesy of Mr. Matan Berkovich of IR; credit for simulations: Barchana Architects and City Builders Ltd.



### (ix). NEW ISRAELI BUDGET

After several years of problematic stagnation due to government instability a State budget was finally passed on 4.11.2021. According to 'Times of Israel' this includes:

"Overhauling public transportation by removing restrictions to enable private entities, especially employers and municipalities, to set up private transportation systems, easing the use of ride-sharing solutions as an alternative to car ownership, and providing citizens with an annual report on public transportation based on indices set up by the Transportation Ministry.

The ministry will also work to set up joint public and private sector partnerships for the development of parking spaces outside urban areas, and implement a congestion charge for drivers entering the Tel Aviv area during

rush hour starting in 2024. The plan also supports a NIS 150 Billion (\$46 Bn) metro project in the Dan region that will lead to NIS 26-NIS 34 Bn in annual savings and will create 125,000 new jobs, the ministry said. Plans are also in the works to introduce newer, faster bus lines, pave new paths for cyclists and improve conditions for pedestrians in city centres to encourage more walking. The ministry also plans to recruit and train thousands of public transportation drivers and purchase 3,500 buses over the next five years, of which 2,500 are to be electric."

### (x). NEW PLINTHED LOCO.

In early November the municipality of Petakh-Tikva announced in the local media that they had "loaned" from Israel Railways Ltd. one of the three Bo-Bo shunting locomotives purchased in 1998 from the then-Alstom in Spain.

They were numbered 261 to 263, were type GA-DE900 AS and they were not a success. One was especially problematic from the beginning and was phased out very soon. Of the two remaining, one is now at the Haifa East National Railway Museum and the other is plinthed at a crossroads in Petakh-Tikva as a statue; it was repainted as new; its number is 261 but this is not yet on the locomotive.



• Plinthed diesel loco 261 T Petach Tikva (Photo Aharon Gazit)

### (xi). TRAINING FOR HOMEGROWN RAILWAY TALENT.

From 'I.R.J.' Nov 22, 2021 (Written by David Burroughs):

"The Israel Institute of Technology (Technion) is launching a training programme on Rail System Engineering following the success of a course on rail infrastructure. David Burroughs talks to the head of Technion's Institute for Transport Research, Tomer Toledo, about how the courses will help to combat a looming skills shortage in the country.

As main line, metro and light rail networks are developed and expanded, Israel is facing a looming shortage of experienced railway engineers. Rather than relying on outside experts and consultants to fill knowledge gaps the country is also looking to nurture home-grown talent to both build and oversee these networks when they enter operation.

Central to these plans are two new continued education programmes offered by Israel Institute of Technology's (Technion) Institute for Transport Research.

"There are huge plans and some investment to develop rail systems, but the know-how is limited," says Mr Tomer Toledo, head of the Israel Institute of Technology's (Technion) Institute for Transport Research and the Unit for Foreign and Continuing Education, and member of the Civil and Environmental faculty. "There are people who have done it in the past, but there are not very many of them left."

Israel's steady improvement and expansion of its railway network in the early 1990s created demand for rail engineers in the country. This coincided with a wave of immigration following the collapse of the Soviet Union, with many

people bringing their skills and knowledge to the country's rail sector. But as these employees now reach retirement age, Technion is seeking to fill the gap. Companies involved in projects to construct light rail lines in Tel Aviv and Jerusalem are likely beneficiaries.

"The people that they are hiring are perhaps not fully trained for the job so they're getting consultants to help them and hoping people learn on the job," Toledo says. "It's not a good position to be in, to depend on your suppliers and on external expertise because their interests may not align with yours, and because you want to be independent. You cannot go to them for everything all the time."

The new programme is the result of discussions between Israel Railway's (IR) training department and Technion's Continued Education Unit. The curriculum has been developed at Technion's Transportation Research Institute in collaboration with professionals in IR, the Ministry of Transport and the other government agencies, with support from Professor Allan Zaremski at the University of Delaware and Professor Felix Schmid at Birmingham University.

"There are huge plans and some investment to develop rail systems, but the know-how is limited. There are people who have done it in the past, but there are not very many of them left." (Tomer Toledo)

The first programme focuses on rail engineering and covers the physical and geometric design of railways, including track engineering and design, track laying, maintenance and inspection, safety and derailment prevention, and geotechnical engineering. Two year-long classes have been completed, a third is currently underway and registration is open for a fourth. Based on the success of this programme, Technion will this month launch a second programme on rail systems, covering rolling stock, propulsion and electrification, signalling and control, and maintenance.

The intake on each course is limited to 30 students to maximise the benefits to each student, with training generally held once a week on a Thursday, the last day of the working week in Israel. There have been some exceptions to this, with Zaremski travelling to Israel before the Covid-19 pandemic to teach concentrated courses over two or three weeks, although this changed to an online course during the pandemic.

The course is taught by academics, practitioners and professionals, and each programme requires 200-250 contact hours. These are mostly in-person with some remote class meetings, and also include independent and team projects and several field visits.

The programmes are expected to expand and hone the expertise gained from working in other sectors and are only open to applicants with prior engineering experience, such as civil or mechanical for the rail engineering course and mechanical, electrical, industrial or civil engineers for the rail systems programme.

Toledo is a transport professor and civil engineer by profession and oversees the programme to ensure it is delivered to an academic level.

"I see my role as kind of a watchdog to see that the level is what you would expect in an academic programme versus a pure professional training programme," he says. "We hope to not only train the students for a specific project now, but also so they can adjust and work on future systems where things are changing. Especially these days when there's a lot of innovation and there's a lot of new technologies, we're really trying to get them to understand the principles and not just 'when A and B happens, you do C and D'."

Discussions are underway to open up the course to other people already working in the rail industry but who have not qualified as engineers. This could fill skills gaps and provide these employees with an improved understanding that goes beyond their existing training.

"[Previous courses] don't talk so much about the scientific principles behind why it works this way, what the mechanics and physics of it are," Toledo says. "It's much more down to earth and practical with limitations. These engineers can talk technically, they can operate software, but they're sometimes not fully versed in the logic behind it, or why it works this way." "

## **(xii). BETTER FACILITIES FOR THOSE WITH SIGHT PROBLEMS.**

From a press release of 21.11.2021 by Israel Railways Ltd.:

"Israel Railways Ltd., the intercity public transport leading in accessibility, are upgrading the service for passengers with restricted vision.

The railways carry each year about 70,000 passengers with restricted capabilities including thousands with restricted vision, whose requests for assistance are coordinated so they may be escorted by accessibility stewardesses along the whole journey, including alighting.

Due to the rise in the number of passengers with restricted capabilities, and in order to improve accessibility and the journey experience with emphasis on passengers' maximum independence, the railways continue their efforts and are investing in resources in searching for new accessible innovative technologies to improve passengers' experience.

As an integral part of this, the railways have started a pilot project which includes technological means installed in the stations and the cellular phone, which comes into action when the passenger approaches the station, escorts him while staying there and guides him whenever needed to the toilets, information office, or to the drink and food sale point.

Additionally, if the passenger needs more information, to ask a question or needs a team member, he can contact directly the Customer Service centre through the supporting application.

In recent weeks hundreds of passengers with restricted vision have taken part in the pilot and have also participated in surveys to improve services; the intention is to publish a tender through which the stations will be networked with the selected means of guidance; the pilot started at Tel-Aviv HaHagana station.

The railways operate 70 fully accessible stations, as well as 600 passenger trains each containing one specially-adapted car; the railways continue to upgrade the means of accessibility in the stations with accessibility maps, accessible boards and signs, passenger escorts, employee training and a telephone service which coordinates and escorts the passengers."

## **(xiii). CHANUKAH SERVICE CHANGES-**

From a press release of 23.11.2021 by Israel Railways Ltd.:

"During the Chanukah holidays (the Jewish festival of lights and candles) and the many shows particularly for children, the railways will strengthen services (between Sunday and Thursday only) all over the network as well as at stations including the Tel-Aviv University station which is adjacent to the exhibition centre, where a huge security check tent will regulate passengers flow.

As part of the strengthening and in coordination with show producers, police and other factors involved, special trains will operate, while regular trains will call at additional stations.

Here are the details of the additional services:

\*On Sunday 28.11.2021 & Monday 29.11.2021 as well as on Tuesday 07.12.2021, Wednesday 08.12.2021, Thursday 09.12.2021 and Sunday 12.12.2021 the following special trains will operate:

\*Train 8100 will depart Tel-Aviv University at 22:23, terminate at 23:44 at Haifa Central the 8, calling at: Herzliyya, Beit-Yehoshua, Netanya, Hadera West, Caesarea-Pardes-Hanna, Binyamina, Haifa Hof-HaCarmel, Haifa Bat-Galim.

\*Train 8102 will depart Tel-Aviv University at 22:38, terminate at 23:59 at Haifa Central the 8, calling at: Herzliyya, Beit-Yehoshua, Netanya, Caesarea-Pardes-Hanna, Hadera West, Binyamina, Haifa Hof-HaCarmel, Haifa Bat-Galim.

\*Train 8201 will depart Tel-Aviv University at 22:21, terminate at 23:31 at Ashkelon, calling at: Tel-Aviv Savidor/Central, Tel-Aviv HaShalom, Tel-Aviv HaHagana, Lod Ganei-Aviv, Lod, Be'er-Ya'akov, Rehovot, Yavne East, Ashdod.

\*Train 8203 will depart Tel-Aviv University at 22:37, terminate at 23:59 at Ashkelon, calling at: Tel-Aviv Savidor/Central, Tel-Aviv HaShalom, Tel-Aviv HaHagana, Holon Junction, Holon Wolfson, Bat-Yam Yoseftal, Bat-Yam Komemiyut, Rishon-LeZion Moshe Dayan, Yavne West, Ashdod.

\*Between Tuesday 30.11.2021 and Monday 06.12.2021 (excluding Friday and Saturday nights) the following special trains will run:

\*Train 8104 will depart Tel-Aviv University at 21:38, terminate at 22:59 at Haifa Central the 8, calling at: Herzliyya, Beit-Yehoshua, Netanya, Hadera West, Caesarea-Pardes-Hanna, Binyamina, Haifa Hof-HaCarmel, Haifa Bat-Galim.

\*Train 8106 will depart Tel-Aviv University at 22:08, terminate at 23:30 at Haifa Central the 8, calling at: Herzliyya, Beit-Yehoshua, Netanya, Hadera West, Caesarea-Pardes-Hanna, Binyamina, Haifa Hof-HaCarmel, Haifa Bat-Galim.

\*Train 8205 will depart Tel-Aviv University at 21:41, terminate at 23:31 at Ashkelon, calling at: Tel-Aviv Savidor/Central, Tel-Aviv HaShalom, Tel-Aviv HaHagana, Lod Ganei-Aviv, Lod, Be'er-Ya'akov, Rehovot, Yavne East, Ashdod.

\*Train 8207 will depart Tel-Aviv University at 21:47, terminate at 23:10 at Ashkelon, calling at: Tel-Aviv Savidor/Central, Tel-Aviv HaShalom, Tel-Aviv HaHagana, Holon Junction, Holon Wolfson, Bat-Yam Yoseftal, Bat-Yam Komemiyut, Rishon-LeZion Moshe Dayan, Yavne West, Ashdod.

\*On Sunday 05.12.2021 Only a special additional train will operate to regulate morning peak hour traffic; it will depart from Binyamina at 07:37 and terminate at Tel-Aviv University at 08:27, calling at the following intermediate stations: Hadera West, Netanya, Beit-Yehoshua, Herzliyya."

#### (xiv). COVID RESTRICTIONS

From an IR Website on 29.11.21: "In accordance with government regulations, starting from Monday November 29, 2021, all passengers arriving from abroad are not allowed to travel by train. Ben-Gurion Airport station will be only for setting down passengers." (There is no indication as to whether airport staff may still use the services. Apparently the same rule was to apply to buses.)

Later:- On 10.01.2022 Israel announced that those who are vaccinated will after all be allowed to enter the country and trains began stopping at the Airport station again to embark and disembark passengers. (Siemens emus are now being used.) Then the following day it was announced on the TV news that the number of IR drivers needing to be quarantined due to the omicron-variant Covid virus meant that services would have to be drastically cut, though it was hoped to maintain at least some service on all lines. To this:

##### OMICRON VARIANT STRIKES....

On 16.01.2022 Aharon sent the following information: "Due to the high-speed spreading of the Omicron Covid virus, with many teams verified as infected, traffic is being further reduced:

Trains to/from the stations of Carmiel and Ahi'ud (Lower Galilee line) will operate at rush hours-06:00 to 09:00 and 15:00 to 18:00 only.

The Valley Line Haifa – Afula - Beit She'an will be closed.

The Beer-Sheva University - Dimona line will be closed.

Alternative bus services will be provided at times of stations closures and over closed sections."

#### (xv). NEW ROAD OVERPASS AT KFAR HABAD COMPLETE.

Photos show the new road system and overbridge crossing the Tel Aviv - Lod line at Kfar Chabad, thus eliminating yet another level crossing over this very busy line.

"This Wednesday morning, 01.12.2021, the railways opened a new grade separation at Kfar-Habad (on the Tel-Aviv - Lod line) north-west of Lod, which separates entirely the track from the road crossing it, thus bringing an end to road traffic disruptions both within Kfar-Habad and around, as well as disruptions to train traffic due to car drivers and pedestrians breaking through onto the track. The works performed by Israel Railways Ltd. at \$19M (NIS 60M), included a 150m overhead road bridge, development and rebuilding of roads, and creating 160 new parking places for the station passengers."



• Photos: By Clouview Air Photography, courtesy of IR.)



#### (xvi). SECURITY EXERCISE.

From a press release of 05.12.2021 by Israel Railways Ltd.:

"Due to a security exercise to take place with the security forces in the tunnels of the A1 fast rail link to Jerusalem on Tuesday 14.12.2021, train traffic between Jerusalem Navon and Herzliyya stations will end at 21:00 instead of 24:00.

Passengers whose destinations are the Tel-Aviv stations and/or Herzliyya stations will be able to use bus services to Jerusalem Central Bus Station (adjacent to Jerusalem Navon station), and the Bus Terminal 2000 adjacent to Tel-Aviv Savidor/Central railway station. Traffic will resume on early morning of Wednesday 15.12.2021."

#### (xvii). TRACKWORKS AT BEIT SHEMESH.

From a press release of 06.12.2021 by Israel Railways Ltd.: "As an integral part of the annual track maintenance and service improvement, works of track upgrading will be performed at the Beit-Shemesh area. As a result, the following changes will take place between Monday 20.12.2021 and Wednesday 22.12.2021:

\*Trains on the line Beit-Shemesh - Tel-Aviv Savidor/Central - Netanya will operate between Tel-Aviv Savidor/Central and Netanya stations only and will not call at Ramla.

\*Service frequency at Ramla station will be reduced from 2 trains/hour to 1 train/hour each direction.

\* Beit-Shemesh station will be closed for service.

\*Regular bus services at the area will be strengthened.

\*Traffic will resume on Thursday 23.12.2021 at about 05:00."

## **(xviii). PASSENGER NUMBERS RISE.**

From a press release of 07.12.2021 by Israel Railways Ltd.:

"For the first time since the outbreak of the Covid19 two years ago, the daily number of passengers crossed the 230,000 mark; on last Thursday 02.12.2021 it reached 228,000 passengers, while on Sunday 05.12.2021 it was 234,000.

These last figures are not very far from those of the pre-Covid19 in 2019 when it was 260,000/day.

IR management explains the new records as mainly due to the Chanukah holidays and the many shows which took place during this time, thus bringing between 20,000 and 25,000 extra daily passengers.

The railways had prepared themselves for the rise in passenger traffic and strengthened the services to the stations of Tel-Aviv (in particular the University station adjacent to HaYarkon Park where most of the shows for children took place) with an additional eight special trains/day, as well as strengthening the University station teams with dozens of managers, security teams and stewardesses who assisted the many families who used the station.

With the gradual relief from the Covid19 crisis the number of passengers climbs consistently and it is anticipated that the numbers will return to those of the pre-Covid19 period; tracks are being upgraded, new tracks are being added, electrification is accelerated. This will enable train configuration to be extended from 7 to 8 cars; also platforms are made longer and the so-called 'urban cars' underwent an engineering change in internal layout making better use of the space and enabling shorter boarding/alighting times."

The consistent rise in passenger traffic during the Covid19 starts with the period between March and June 2020 when lines were closed; By the fourth quarter of 2020 there were 71,000 passengers; then the average of 220,000, the third quarter of 2021 with 15,000 passengers, and finally the record of 234,000 during Chanukah holidays.

## **(xix). ELECTRIFICATION TO ASHKELON & TEL AVIV SUBURBAN SERVICES.**

From a press release of 12.12.2021 by Israel Railways Ltd.: [But see below...]

"From Saturday night 25.12.2021 a new electric train service will be provided between Ashkelon, Ashdod, Rishon-LeZion Moshe Dayan, Tel-Aviv and Herzliyya (the Sharon area circle line) and no diesel passenger trains will operate on this line.

Service frequency will grow, activity hours will be extended, there will be services on Fridays and Saturday nights; also between Sundays and Thursdays at rush hours a fast train will operate between Ashdod Ad-Halom, Rishon-LeZion Moshe Dayan, Tel-Aviv and Herzliyya (the Sharon area circle line), operating in both directions and not calling at Holon and Bat-Yam stations.

The stations of Sderot, Netivot and Ofakim on the Western Negev line which will also be electrified in future will continue to enjoy a seamless journey to/from Tel-Aviv and destinations north of Tel-Aviv between 06:00 and 20:00; operating hours will be extended and trains will operate on Fridays and Saturday nights.

For services at Ashdod Ad-Halom, Rishon-LeZion Moshe Dayan, Tel-Aviv, B'nei-Brak, Petach-Tikva Kiryat-Arie, Petach-Tikva Sgula, Rosh-HaAyin North, Kfar-Sava Nordau, Hod-HaSharon Sokolov, Ra'anana South and Ra'anana West, operating hours will be extended to between 06:00 and midnight.

On Fridays the stations will be active between 06:00 and 13:00 and on Saturday nights between 21:00 and midnight.

At peak hours the stations will enjoy service of 4 trains/hour in each direction and at other times 2 trains/hour each direction (at Ashdod Ad-Halom there will be 3 trains/hour each direction off-peak; one of the peak-hour trains will not call at Holon and Bat-Yam stations, thus cutting journey times.

On Fridays and Saturday nights service frequency will be 2 trains/hour in each direction at Holon and Bat-Yam.

Service improvements at the stations of Ashkelon and Yavne West stations:

\*Activity hours will be extended to between 06:00 and midnight.

On Fridays the stations will be active between 06:00 and 13:00 and on Saturday nights between 21:00 and midnight.

\*At peak hours the stations will enjoy service of 3 trains/hour in each direction, and at other parts of the day 2 trains/hour in each direction.

\*On Fridays at Holon and Bat-Yam stations the service frequency will be 2 trains/hour in each direction, while at Ashkelon and Yavne-West it will be 1 train/hour each direction; on Saturday nights it will be 1 train/hour in each direction.

Service improvements at the stations of Beer-Sheva, Netivot and Ofakim:

\*Activity hours will be extended to 06:00 and midnight.

On Fridays the stations will be active between 06:00 and 13:00 and on Saturday nights between 21:00 and midnight.

\*At peak hours the stations will enjoy a service of 2 trains/hour in each direction, and at other parts of the day 1 train/hour in each direction; the people of Beer-Sheva will enjoy regular service to/from Tel-Aviv through Kiryat-Gat, Lehavim/Rahat, Lod, etc.

\*Between 06:00 and 20:00 there will be a special train to the centre of Israel and north of Tel-Aviv without the need to change trains, in addition to another train at peak hour which will start/terminate at Ashkelon and its passengers will be able to change trains there and continue to other destinations.

\*On Fridays and Saturday nights service frequency will be 1 train/hour in each direction; this train will start/terminate at Ashkelon and its passengers will be able to change trains there and continue to other destinations.

\*At the stations of Beer-Sheva there will be on Fridays and Saturday nights an additional train between Beer-Sheva, Tel-Aviv and Herzliyya not calling at intermediate stations, which will bring the service frequency to 2 trains/hour each direction.

## **(xx). NEW TIMETABLE. (NB: Pre-Covid restrictions!]**

Cutting journey times from the stations of Northern Israel (Haifa, Kiryat-Hayim, Kiryat-Motzkin, Acre-Akko, Carmiel and the Valley line) to Herzliya:

Due to high demand for journeys between stations in Northern Israel and the growing high-tech, business, and employment centres located at Herzliyya, the new timetable of 25.12.2021 is improved with more trains due to call there; the result being cutting journey times from stations in Northern Israel to Herzliyya and reduction of the need to change trains according to the destinations required.

Changes to train traffic at the stations of Rishon LeZion HaRishonim, Rehovot, Be'er-Ya'akov, Beit-Shemesh, Kiryat-Gat, Lehavim/Rahat, Kiryat-Malachi/Yoav and Mazkeret-Batya:

Due to progress on electrification and acceleration of electrification in the Lod area and on the Lod - Rehovot line, changes will take place to the following line and stations from 25.12.2021 until completion of works:

\*The Lod - Rishon-LeZion HaRishonim line section will be closed for traffic and alternative bus shuttle services will operate between the two stations.

\*Activity hours on the lines: Tel-Aviv Savidor/Central - Beer-Sheva through Lod, Kiryat-Gat etc., and Tel-Aviv Savidor/Central - Beit-Shemesh will be shorter; they will end each evening at 21:00.; there will be no trains on Fridays and the evening train of 21:07 from Tel-Aviv Savidor/Central to Beer-Sheva will depart instead at 21:28 and run through the Western Negev line, not passing through Lod, Ramla, Mazkeret-Batya, Kiryat-Malachi-Yoav, Kiryat-Gat, and Lehavim/Rahat.

\*Service frequency at Rehovot station will be reduced temporarily from 3 trains/hour to 2 trains/hour at peak hours; at off-peak hours frequency will be down from 2 trains/hour to 1 train/hour.

\*Service frequency at Beer-Ya'akov station will be down from 2 trains/hour at peak hours to 1 train/hour at off-peak hours.



- *Showing lines during daytime Sundays to Thursdays from 25.12.2021 until further notice.*

## (xxi). HAIFA ACCELERATION AND REALIGNMENT PLANS

From 'Times of Israel' 14.12.2021: "The National Infrastructure Planning Council announced Monday it had approved a project for a rail connection between Haifa and Tel Aviv that is expected to cut travel time between the two cities to just 30 minutes.

As part of the project, two underground lines will be added to the existing surface level routes in Haifa and will stop at four suburban stations, Lev-HaMifrats, Kiryat HaMemshala, Bat-Galim and Hof-Carmel. The current lines that stop at those stations will instead be dedicated to a fast train service running from Nahariyya in the north to Tel Aviv, passing through Haifa.

The project is expected to cost NIS 12 Billion (\$3.9Bn) Travel times are estimated to be 54 minutes from Nahariyya to Tel Aviv instead of the hour and 40 minutes of today's journey. Haifa to Tel Aviv, with one stop in Hadera, will be just half an hour.

Shlomi Heisler, chair of the planning council, said the project "will propel the entire Haifa metropolitan area forward, a fast and efficient electric train connection from the heart of the metropolis to the high-speed train network. Today, the railway tracks are a buffer between Haifa and the sea, and the plan will allow the city of Haifa to be connected to its main asset — the sea," he said. Haifa Mayor Einat Kalisch-Rotem said the new lines will be "a real revolution for a city that is desperate to connect with its beach."

The lines will use the next generation of electric trains planned for the country, which have not yet been put into use. The trains will be able to reach speeds of 250 kilometres per hour.

The current train route will continue to serve suburbs by stopping at existing stations.

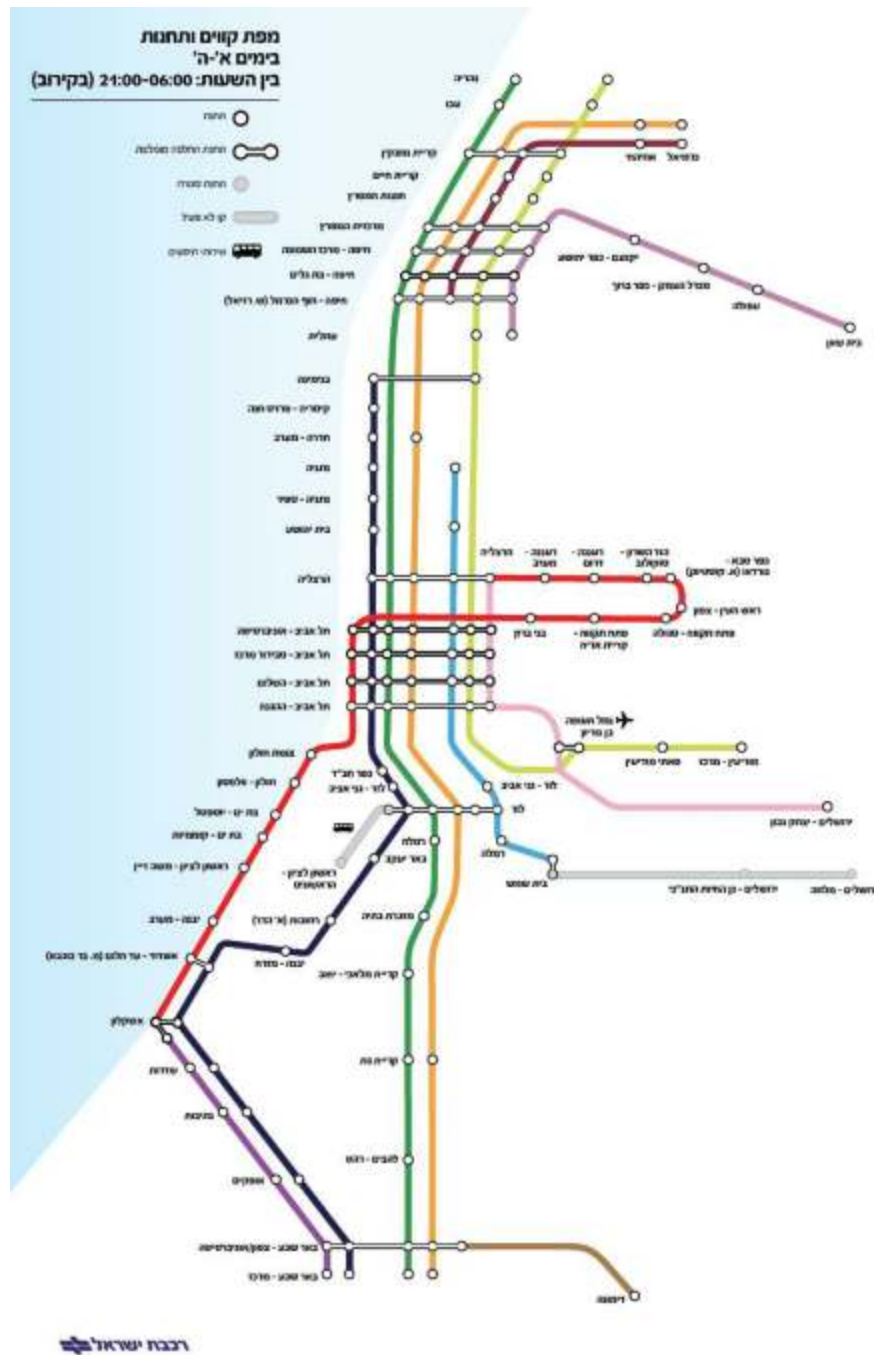
The planning council said it preferred the underground routes rather than surface alternatives in part to prevent damaging open spaces in Haifa and impacting access to the seacoast and in order to free up land for residential building projects. The Haifa municipality intends to raise some of the funding for the train line from the sale of residential real estate, the Walla news site reported.

The project aligns with the Israel Railways' strategic plan to provide efficient rail networks between the country's metropolises. The rail company predicts that by 2040 there will be 350 million travellers a year on the country's trains."

In 'Globes' 14.12.2021: by (Guy Lieberman) is this report (Thanks to Frank Adam) :

"The first, NIS 15 Billion stage of a 250 km/h rail network is due to be operational by 2030 - but there's no budget for rolling stock. A plan known as National Infrastructure Plan 65a was recently deposited for public objections. It concerns Israel Railways' most extensive infrastructure project for the coming years, in which it will start Stage A of the introduction of high-speed trains, capable of speeds of 250 kilometres per hour, into service in Israel. This stage covers the northern stretch of railway on which these trains will run, between Haifa and Herzliyya. So why is the project hardly known, what does it consist of, and how much will it cost us? "Globes" explains.

Connecting two metropolises first First and foremost, this is an ambitious plan to double the coastal line between the two metropolises. Currently there are just two tracks, one northbound and one southbound. The new plan calls for two tracks in each direction. One will accommodate trains at speeds of up



to 250km/h (the current maximum speed is 160km/h) that will make intermediate stops only at Hadera. The second will operate in the current format of suburban trains stopping at ten stations. National Infrastructure Plan 65a relates to a 68 kilometre stretch between the Hof HaCarmel station in Haifa and a proposed station at Shefayim, where there is no railway station at present.

One of the reasons for proposing the construction of a station at Shefayim is a link-up to a huge project being promoted by Netivei Ayalon involving the construction of a park-and ride parking lot with 7,000 parking spots from which shuttle buses will run on fast lanes to business centres in Tel Aviv and Ramat Gan. This project is budgeted and underway.

Finance assured: In the recently-passed state budget, a NIS 46 Billion five-year plan was set out for Israel Railways. The main item in the plan is this project. A sum of NIS 15 Bn is allocated for its planning and construction, but there is no budget provision for the cost of new rolling stock suitable for high-speed trains, which is estimated at several billion shekels. Although it's a five-year plan, the budget is for the whole project, which is due to be up and running in 2030. The preamble to the plan states that it will "facilitate growth of passenger traffic to 30,000 passengers an hour at peak hours on the Haifa - Tel Aviv segment in each direction on all lines."

Binyamina to lose station : The person responsible for the project at Israel Railways is Cice President for Development Ilya Volkov. Talking to "Globes", he

explained some of the complexity of the huge project, "The project requires the construction of power infrastructure and various systems, among them modern control systems suitable for 250km/h trains, which are more advanced and quieter, the new generation of equipment that doesn't yet exist in Israel Railways." Apart from that, he says that the project includes diverting the existing line at many points. "The main change in the line is removing the station at Binyamina and constructing a new station in eastern Or Akiva." The plan also proposes the construction of several other new stations, at Zichron Yaakov, in the Netanya area and, as mentioned, at Shefayim. In addition ten existing stations will be upgraded, among other things by lengthening the platforms to 400 metres, to adapt them to the future trains.

Who needs to know about the project? : Adv. Zvi Shoob, an expert on planning, construction and real estate law, explains that the current stage of the plan, the Objections stage, is critical for anyone who owns property along the route. "This is a major plan that will have a large effect on many landowners along the route. Large areas of land will be expropriated. Because of a distortion in the law, neither at this stage nor at the stage of approval of the plan is there any obligation to inform owners of land expropriations personally. A property owner may have land marked for expropriation without being aware of it.

"The obligation to inform a property owner personally comes only at the actual expropriation stage, when the land is physically seized, but that's already too late, when the value of the land will be low, because it is zoned for a highway, and so the compensation will be minimal. Therefore, people with property along the route should already be checking what's in store for their land, and file early objections, in order to protect themselves and their assets."

The future: High-speed trains from Haifa to Jerusalem: The plan to double the coastal railway line is, as mentioned, only the first stage of an extensive project in which 250km/h trains will be introduced. Under plans for the future (ambitious both from an engineering and a budgetary point of view) the project will be extended southwards, with tracks 5 and 6 running via Ben-Gurion Airport to Jerusalem. This project is meant to be completed by 2040, but at present it is not budgeted.

Another planned extension is northwards from Haifa (National Infrastructure Plan 6b). Because this will require substantial changes on the Haifa seafront, and because of opposition to the project voiced by the Haifa Municipality, it was split off from the project to double the coastal line. Concerning plan 65a the Haifa Municipality told "Globes", "The Haifa Municipality welcomes the promotion of the plan to double the coastal line and put it in tunnels in the Haifa area. The municipality will insist that the landscaping and car parking planning take maximum account of and serve the users of the beaches and the Hof-HaCarmel station, both while the work is carried out and after it is completed."

It is also intended in the future to connect Beersheva with a high-speed railway, so that all four of Israel's metropolitan areas will be connected by 250km/h trains."

*(Published by Globes, Israel business news on December 14, 2021)*

## **(xxii). NEW SIEMENS UNITS ENTER COMMERCIAL SERVICE.**

From a press release of 13.12.2021 by Israel Railways Ltd.:

"Today, Monday 13.12.2021 is an historic date for Israel Railways Ltd.; the first commercial runs of the Siemens DDEMU-Double-Deck Electrical Multiple Unit with passengers took place on the A1 line between Tel-Aviv stations and Jerusalem Navon, currently at off-peak hours, accompanied by service teams, technicians, trainers and stewardesses.

The commercial runs are being performed after several months of test runs without passengers, this being a further and significant stage in replacing the diesel-powered fleet by modern and environmentally-friendly trains.

The trains have 4-car or 6-car configurations with a variety of combinations; output is up to 8,046 HP (6 MW) and they contain progressive technological systems providing the passengers with smart information linked with the central control and GPS showing the route graphically.

Transport & Roads' Safety Minister Mrs. Merav Michaeli said: "Any progress on public transport is exciting; from today the service and travel experience will be significantly improved".

## **(xxiii). MORE ON THE SIEMENS DESIRO HC UNITS FOR ISRAEL.**

From 'Siemens.com/mobility': "ISR and Siemens Mobility have signed a contract for the delivery of 60 Desiro HC regional trainsets over the next ten years. Upon signing the contract, Siemens Mobility received the first call for 24 trains – six in a four-car and 18 on a six-car configuration. The order includes the maintenance of the first 24 trains over a period of 15 years, the construction of a maintenance workshop in Ashkelon and further options for maintenance.

..... Axle arrangement: Bo'Bo' + 2'2' + 2'2' + Bo'Bo' (4-car unit)

Bo'Bo' + 2'2' + 2'2' + 2'2' + 2'2' + Bo'Bo' (6-car unit)

Max speed 160km/h; Maximum power at wheel rim: 4,800kW;

Starting acceleration: Up to 1.1m/sec.

Catenary voltage input: 25kV/50Hz.

Seats: 405 or 655. Floor height: 800mm end car / 730mm middle car.

Car body width 2,820mm ; height 4,640mm.

Car body length: 26,226mm end car, 25,200 middle car.

Vehicle weight: 260t / 388t under normal payload.

"The fewer steps, the better the passenger flow. The train design is outstanding in this respect; Passengers have excellent access, even with bulky baggage, bikes or strollers thanks to the same-level entrance and the flat lower deck in the intermediate car – and 50% of the passenger space in the end cars has absolutely no steps or ramps. Passengers with restricted mobility benefit in particular from the absence of barriers in the train. The systematic relocation of engine compartments and switchgear cabinets also adds space. The arrangement of all this equipment underfloor or on the roof of the end cars makes the passenger compartments more spacious and airy. .... Only one travel class configuration; comfortable seats with folding tables and reading lights. One power socket underneath each double seat. Various standard and one universal toilet per train. State-of-the-art CCTV and PIS in operation. Multiple traction in different configurations possible, including combinations of four-car and six-car trains. Utilization of local suppliers for major components in the trains including seats, windows, electrical cabinets, safety equipment, exterior parts.....

Workshop: Total surface area 7,900 sq.m. Track length 820m. 3 tracks. 28 employees initially. The maintenance depot has three elevated tracks ready for preventive and corrective maintenance works. All aspects of light, medium and heavy maintenance are considered. An underfloor wheel lathe reprofiles our wheels and track bridges are integrated for fast wheelset change. All tracks are equipped with movable roof working platforms and continuous catenary system. A pre-cleaning pit in front of the hall enables us to clean the vehicles before they enter the hall. A multifunctional service area at the south end of the main hall is covered with several cranes up to load capacity of 12.5 tons. The contractual agreement was for over 96.5% availability of the 24 Desiro HC trains. To ensure this, the trains are provided with a number of sensors that continuously transmit condition data to the depot via the Railigent application. This makes it possible to plan measures in advance, including spare parts procurement and the provision of technicians, so that any faults can be corrected quickly and seamlessly as soon as the train arrives at the Depot Workshop in Ashkelon....."

## **(xxiv). DOR LE-DOR: ANOTHER GRADE SEPARATION OPENS.**

From a press release of 19.12.21: "The railways continue with their strategic plan to replace level crossings by grade separations, thus increasing safety for all road users and improving rail service.

A few days ago a new grade separation was opened on the Tel-Aviv - Haifa main line (the coast line) near Dor on the coast south of Atlit.

This puts an end to many violations, both by pedestrians who were hit by trains and also impatient car drivers who violated safety regulations, particularly on this busy line.

The works performed by the railways at a cost of \$22.5M (NIS 70M) included: An under-track road passage and new road traffic arrangements

including a bypass road, sidewalks, roundabouts and drainage and lighting systems."

• Photos: Mr. Shabtai Tal from Cloudview. Courtesy of IR.)



The relevant terms and conditions detailed in this Tender, including its Appendices, shall apply, mutatis mutandis, to the Optional Machine.

• (v). Request for Information (RFI)

#### Introduction

1.1. Israel Railways Ltd. ("ISR") requests technical information and characterization of AC & DC locomotive traction motors test equipment, all as generally defined in the "Technical Attachment" and as further described below.

#### 2. Objective of RFI

The objective of this RFI is to enable ISR to explore the option of acquiring the proposed test equipment. This RFI is not to be considered as a request for proposals, nor as a tender and the provisions of neither the Israeli Mandatory Tenders Law 5752-1992, nor the Government Procurement Agreement shall apply hereto.

Notwithstanding the aforesaid, ISR may, as a result of this RFI, at its sole and absolute consideration, approach one or more of the

Respondents to this RFI and/or to any other party, in order to obtain additional information.

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

This RFI shall not, under any circumstance, constitute any commitment on ISR's part to negotiate with any or all interested parties, nor to enter into any agreement for the assistance and/or design of the Stations.

#### 3. Response

The Respondent is invited to submit ISR data and any technical and commercial information regarding the project.

(vi). Tender No. 210701: Running a 69 sq.m. Store for selling Ice Cream and/or juices at the new Lod railway station: The tender consists of: An adjustment period of up to 6 months; A permission period of 60 months; An optional additional permission period of up to 60 months; Latest date for submission of proposals: 08.11.2021.

(vii). Tender No. 210901: Running a 53.5 sq.m. Pizzeria at the new Lod railway station:

The tender consists of: An adjustment period of up to 6 months; A permission period of 60 months; An optional additional permission period of up to 60 months; Latest date for submission of proposals: 11.11.2021.

(viii). Tender No. 11725: Providing Lobbying and Consulting Services of strategic design and thinking regarding work with Government Offices, design and construction committees, municipalities, local authorities, public bodies, etc.: The contract is for 12 months up to 01.11.2022 with optional extensions by up to additional 48 months. Latest date for submission of proposals: 15.11.2021.

### (xxv). BEDUIN PROTESTS.

An item in 'Times of Israel' 15.01.22 referred to a Shin Bet report on disturbances the previous week in the Negev where Beduin protested against plans to plant trees in the region. "It said three cases were being probed as potential "terror incidents" with a nationalistic motive: an attack on a security guard in Tel Sheva on Thursday night, the burning of a journalist's car in Segev Shalom on Tuesday, and the placing of rocks on train tracks leading to Beersheba that same day, forcing a passenger train to make an emergency braking."

135:05.

(i). Israel Railways Ltd. Procurement & Contracting Division Tender No. 42017 for the

Manufacture and Supply of Heat-Treated Rails: Rails with profiles of 60E2 which following a heat treating process having the steel grade of R350HT. Prerequisites include: "The Manufacturing Plant manufactured and supplied from 2017 until the Final Submission Date at least 8,000 tons of 60E R350HT type of Rails and/or 54E R350HT type of Rails. The Manufacturing Plant must be certified for a Quality Control system in accordance with ISO 9001."

To be delivered to: "ISR's flat wagons designated for the unloading of the R350HT Rails to be found at Haifa/Ashdod Port, Israel..." 2,000 tons are to be ordered initially.

(ii). Israel Railways Ltd. Tender No. 22126: Performing Subcontracting works regarding Construction, Infrastructures and Upgrading, up to a financial scope of \$15.6 Million (NIS 50M): Latest date for submission of proposals: 18.10.2021.

(iii). International Tender 42013. Mobile Sand Filling System for locomotive sand boxes & requirements for a big-bag discharging station. "The vendor shall provide a fully-functional mobile system with all components, which are necessary for the proper operation of the SFS (sand filling system), clean, spill-free and dust-free+ requirements for a big-bag discharging station. The installed equipment will meet the requirements of national and international standards, with an emphasis on safety and dust emissions." Minimum 200l and to be filled within 10 minutes. Tenders by 30.11.2021.

(iv). Tender No. 42016. The Manufacture and Supply of EMD Diesel Engine Manipulator.

ISR intends to issue a Purchase Order for one Machine within one month from the Effective Date of the Agreement subject to the terms and conditions set forth in the Agreement.

Additionally, during the Agreement Period and/or the Additional Period, ISR, at its sole discretion, shall have the option to purchase from the Supplier anywhere between one and any other possible amount of additional Machines.

## TENDERS

(ix). Tender No. 22158: Providing services of Consulting and Schedule Control on the railways' Development Programme, regarding survey, control, and follow up on infrastructures, construction, and interaction with roads:

The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 30.11.2021.

(x). Israel Railways Ltd. Tender No.121104: - RFI regarding Shortening Credit Days of vendors' engagement with the railways: Latest date for submission of proposals: 30.11.2021.

Israel Railways Ltd. Tender No. 2067: Providing Consulting Services regarding Safety and Hygiene at Work, Fire Safety, and Environment Quality at railway sites: The contract is for 24 months with optional extension of up to additional 36 months. Latest date for submission of proposals: 08.12.2021.

(xi). Tender No.1207: Providing Maintenance and Supply services for Diesel Generators at all the network sites: The contract is for 24 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 04.01.2022.

(xii). Tender No.22162: Performing Ground Foundation Works along the Tel-Aviv Ayalon seasonal (winter stream) channel towards building the fourth track on the Ayalon railway line: Latest date for submission of proposals: 04.01.2022.

(xiii). Tender No. 211101: Permission to hire a 14.6 acre area at the Port of Ashdod railway classification yard for use of freight only: The intention is to select one winning bidder only. The contract is for 36 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 10.02.2022.

(xiv). Challenging Tender No. 21105: Proposals for Protection of the locomotives, power cars, DMUs, DDEMU-Double-Deck Electrical Multiple Units front airbrake pipes from damage at a collision with 0.5 ton animals at 160 km/h and similar cases: Latest date for submission of proposals: 02.02.2022.

(xv). RFI for information concerning a solution for Emergency Detrainment of Passengers from ISR passenger coaches and multiple units from companies which specialize in transportation solutions.

(xvi). Israel Railways Tender No.22161: Performing Civil Engineering works along tracks and building the railway station of the city of El'Ad at section "C" of the Eastern Line: Latest date for submission of proposals: 28.02.2022.

## B. TENDERS AWARDED.

(i). Israel Railways Ltd., Israel Roads, and the Transport Ministry have recently announced that the winners of the tender of Israel Roads to Design and Build a Drainage Complex near the Ayalon railway corridor as part of a Fourth Track, are: Oron Group owned by the brothers Gili and Joel Azarya and Olizky Infrastructures.

Israel Roads are responsible for building the drainage complex which includes an artificial lake and a dam to receive the winter rain water of the Ayalon seasonal stream which will also run in a closed channel, over which the part of 22km fourth track will run; the lake and the dam will regulate the flow. Also included in the project are 10M cu.m. of earthworks.

It should be mentioned that the drainage project is highly important due to the fact that the Ayalon seasonal stream causes floods almost every rainy winter.

In order to make it efficient, Israel Roads are paying the two winners about \$156M (NIS 500M).

According to Oron the design and building time is estimated at 44 months so it will not be completed before June 2025.

The fourth track on the Ayalon corridor is vital to ease the bottleneck particularly due to significant increase in traffic in the coming years and due to the fact 75% of rail traffic runs through the corridor with its current three tracks.

The total cost of the project - drainage and fourth track is estimated at \$1.56 Bn. (NIS 5 Bn.) and opening of the fourth track will be in 2028/2029.

- *Tel Aviv Drainage and Infrastructure works. (Courtesy of Israel Roads, via Aharon Gazit).*

First stage coloured Green: Ariel Sharon Park and Mikve-Israel area-drainage solution; it was planned to start works already in 2019 but this was delayed until now due to Covid19 and disagreements between Israel Railways and Israel Roads which have only recently been resolved.

Second stage coloured orange/brown: between Tel-Aviv Moshe Dayan station and south east (the A1): relocation of the highway No. 1 (Tel-Aviv - Jerusalem) northern lane further north (upper side), adding public transport lane on the highway southern (lower) lane, and building two additional tracks (currently there only two on this section).

Third stage coloured blue: adding the fourth track between Tel-Aviv Savidor/Central, Tel-Aviv Hashalom, Tel-Aviv HaHagana stations (located in this order from up to down) over the covered drainage channel.

### • (ii). ENVIRONMENTAL COFFEE STANDS.

Announcement on 17.11.21 by the spokespersons of the Israel Railways:

\* Israel Railways: Preserve the environment Reduce the use of disposable utensils and bring a reusable cup from home - and receive an automatic discount on the purchase of hot drinks at the train stations. (This agreement and discount to come into force in the coming weeks)

As part of IR's attempt to encourage environmentally-friendly consumption and reduce the use of disposable utensils, starting in a few weeks every customer who comes to the stalls manned with a reusable cup will automatically receive a discount of one shekel on the hot drink purchased.

This is part of a tender conducted by Israel Railways, in which Strauss Coffee B won the national franchise to operate about 50 stalls selling hot and cold drinks and food items at train stations throughout the country. The concession period is for six years and IR will have the option to extend it for another four years.

As part of the agreement, stalls that have been closed in recent months will be reopened, and their operating hours will be extended - at Modi'in, Raanana South and Ahihud. The agreement also includes that the price of a basic cup of coffee will be ten shekels and the price of a bottle of mineral water will be seven shekels. \*

(iii). Israel Railways Ltd. have announced on their website that the winner of tender No.22012 for building the Sorek Rhombus station on section 7 between km 4+695 and km 4+963 (southeast of Rishon-LeZion Moshe Dayan station) on the 431 line between Modi'in and Rishon-LeZion Moshe Dayan, is: Shikun-Ubinui-Solel Bone Infrastructures Ltd. at a value of \$195.5M (NIS 626.51M).

(iv). The winner of Tender No. 2205: Double-Tracking the Rehovot - Pleshet Junction section between km 120+000 and km 126 + 762: VANUNU DANY LTD. at \$37.928M (NIS 119.5M).

(v). The winner of Tender No. 22010: Performing Civil Engineering works along the track and building works at Rosh-HaAyin North station at section C of the Eastern Line: A.M.Z. Shemesh (1990) Ltd. at \$45.674M (NIS 143.84M).

(vi). The winner of Tender No. 12037: Renovation of ZF transmissions: Djuk Hydraulics Ltd.

(vii). The winner of Tender No. 12036: Manufacturing, Supply and Maintenance services for EURO 3200 locomotives fuel tanks: M.T.R. Ltd.

(viii). The winner of Tender No.12028: Supply and Maintenance of Fire Detection and Extinguishing equipment: Paragon Barnea Group Ltd.



**A. TEL AVIV**

- *(i). NTA Tender No. 160/2021:*

Providing Support & Maintenance services for the existing OlikView Perpetual Model System: There is an option for purchasing additional products of the Netherland BV Oliktech Subscription model. NTA intends to select one winning bidder only. The contract is for 36 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 08.11.2021.

- *(ii). TEL AVIV TEST RUNS.*

From 'Jerusalem Post' 21.10, slightly edited. "After more than six years of work, the new light rail in the centre of the country completed its first test-run along the Red Line on Wednesday night. The two trains, operated by the NTA - Metropolitan Mass Transit System, left the depot complex in Petah Tikva at 00:30, stopped on Jerusalem Boulevard and arrived at Bat Yam Stadium at 03:00 on a 24-kilometre route.

The night operation was accompanied by a ring of police security whose job was to prevent residents from approaching the train dangerously close. But even the late hour of the night did not stop many residents from pulling out their cellphones and sharing the historic moment. As part of the test drive a number of components of the entirety of the train were tested, including communications, signalling, electricity, the track, cameras, the carriages themselves and propulsion and safety mechanisms.

"We made history today, we practically travelled from Petah Tikva to Bat Yam. For the first time, we opened the line from end to end with a perfect system

# Light Rail



( NTA train on night-time test run.)



• *Station entrance under construction.*

in terms of electricity, cars and tracks," said NTA CEO Haim Glick, adding that "we still have a lot of systems coordination work ahead, but this is an historic day."

In the next phase, in the coming days, the light rail will begin a series of test-runs in Bat Yam and in about two weeks on the streets of Jaffa. With its full operation in about a year this trip will become routine, with a train passing every 3.5 minutes at 24 ground-level stations and ten underground stations, including the Allenby station which is dug to a depth of about 35 metres. Each train will be able to carry 500 passengers.

About three months ago NTA started running light rail test run trips for the first time. At the time the section between Orlov and Shenkar Streets in the city was chosen for the initial run, which was received with applause from the residents who stood around excited. "Until now all the excavations and this mess were just problems," shared one of the business owners located in the first section of the train. "Now, I'm starting to see the solution." "



- *(iii). NTA Tender No. 470/2021:*

Providing services of Accounting Advice to the Financial Department: NTA intends to select one winning bidder only. The contract is for 36 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 15.12.2021.

(iv). NTA Tender No. 304/2021: Providing services for Advertising, Creative and Media Purchasing: 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: 14.12.2021.

- *(v). NTA Tender No. 413/2021:*

Providing Consultation Services regarding communication with the public, the community and Public Relations: NTA intends to select one winning bidder only. The contract is for 12 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 23.12.2021.

• *(vi). Metro Management Contract Awarded: From 'I.R.J.' 2.12.2021:*

"METAV, a consortium led by Egis in partnership with Gadish Group, has been awarded the Tel Aviv Metro network management contract by Metropolitan Mass Transit Systems (NTA).

The 150km underground metro will have three lines, 109 stations (all underground), four depots and it's expected that €40Bn will be invested in the project.

During the first 18 months Metav will assist NTA in the development and formalisation of the project's overall strategy related to planning, scope of work and procurement. Once that is complete, the consortium will be in charge of the management and implementation of the project until its commercial operation."

'Metro Report Intl.' 8.12.21 adds: "Tel Aviv Metro project promoter NTA Metropolitan Mass Transit Systems has awarded its network management contract to the METAV consortium of Egis and local partner Gadish Group.

METAV will act as chief consultant to NTA during the development of the proposed €40Bn three-line network totalling 150 km and 109 stations, which is intended to complement the Red, Green and Purple light rail lines that are currently under construction.

During the first 18 months the consortium will assist NTA in the development and formalisation of the overall Metro programme strategy and phasing, the scope of work, and procurement. It will then be in charge of project management and implementation at the network level, until the start of commercial operations. HDR will provide complementary international services to the consortium.

'Egis has been a trusted partner to the transit sector in Israel for more than 20 years,' said Egis CEO Olivier Bouvart on December 1. The latest contract 'is a natural step in our ongoing commitment to creating safe, sustainable and attractive travel solutions for the thriving and growing population.'

Gadish Group CEO Moshe Benjo said 'in a competitive landscape we have gained the ongoing trust of governmental entities for quality, reliability and passion for completing projects on time and on budget. We are proud to join forces with an experienced partner like Egis."

Nevertheless 'I.R.J.' 20.12.2021 carried a link to a 62-page Tender document (478/2021 and dated August 2021) for a Pre-Qualification to design and manage individual Metro lines. From this: "1.4.1 The purpose of this Pre-Qualification Process is to identify Eligible Participants, who will be invited to participate in the Tender Process for the selection and appointment of a Line Manager for each of the Metro Line Projects.

1.4.2 During the Pre-Qualification Process, Participants will be required to submit Pre-Qualification Submissions, in accordance with the provisions of this Invitation, in order to demonstrate their compliance with all Pre-Qualification Requirements and all other applicable requirements and provisions of this Invitation.

1.4.3 Pre-Qualification Submissions submitted by the Participants will be evaluated by the Tender Committee in accordance with the provisions of this Invitation. Without derogating from the provisions of Section 9 (Review and Evaluation of Pre-Qualification Submissions), following its evaluation the Tender Committee will announce the Eligible Participants. Only those Participants which demonstrated compliance with all Pre-Qualification Requirements and all other applicable requirements and provisions of this Invitation, and were not otherwise disqualified thereby, will be announced as Eligible Participants.

1.4.4 The Participants are informed that due to the complexity and the unique nature of the Metro Line Projects the Pre-Qualification Process and the Tender Process, the Pre-Qualification Requirements and other requirements included herein, have been designated in order to qualify competent and adequate candidates..... " and much more with an end date of 21.01.2022.

• *(vii). NTA Tender No. 556/2021:*

Providing Legal Advice sRvices regarding Impairment Claims according to paragraph 197 in the Law of Design & Construction: NTA intends to select

up to five winning bidders. The contract is for 36 months with optional extensions of up to additional 36 months. Latest date for submission of proposals: 11.01.2022.

• *(viii). NTA Tender No. 375/2021:*

Providing services of Brand Explanatory Publications on signage facilities: NTA intends to select up to two winning bidders. The contract is for 36 months with optional extensions of up to additional 24 months. Latest date for submission of proposals: 04.01.2022.

• *(ix). CYBER SECURITY.*

From 'Metro Report Intl.' 15.12.2021: "Alstom has deployed the CylusOne rail-specific cybersecurity platform from local company Cylus to protect the Urbalis 400 CBTC on Tel Aviv's Red Line. CylusOne monitors data within the signalling, control and communications networks to detect abnormalities or attack patterns. 'We now provide our clients solutions to problems that did not even exist when the Red Line was planned and approved', said Eran Cohen, Managing Director of Alstom Israel."

• *(x). MODERN SLAVERY: WORKERS' RIGHTS CONTROVERSY.*

On 03.01.2022 there was a sad and revealing report on the evening TV news bulletin. Steve writes: "Tonight on the evening TV news (in Hebrew ) there was a report about the Chinese companies that are building the TLV Metro. There are several [maybe 11 companies] and they employ about a thousand Chinese citizens - who have been imported into Israel to work on the project(s).

The problem is that these Chinese workers are complaining - that they were told (in China) they would work 4-5 hours a day - but they work 12 hours a day, 7 days a week and when/if they get injured they cannot see a doctor - the Chinese manager just sends them to their 'living quarters' to recover. Their living conditions are bad - some sleep at the work site, underground, and some in rented apartments. One such rented apartment has 46 Chinese residents! Their salaries are often delayed. Some worker arrive (fly in) to work and they are sent home, almost immediately - as the management says they are not needed.

NTA is the Government organization that runs this mega-project, but the Chinese companies have autonomy to hire/ fire their own workers.

The Police have opened an investigation into the 'workers' conditions'. But meanwhile - the Govt. Ministry of Justice: 'legal prosecutors' - after following the police investigation say (unofficially) that the national demand to finish this Metro project for Gush Dan is so important that they may 'lean over backwards' to keep the lid on this "Chinese problem" - to avoid any delays on the project.

\*Those of us who follow the Qatar - Mondial football project know that in Qatar a similar problem existed with their Bangladeshi and Nepali workers - and FIFA was considering to cancel this 'football extravaganza ' but in the end - the football, the money involved and the bribes - forced FIFA to look the other way - and just ignore the 'human-suffering ' involved...."

• *(xi). SAFETY WARNINGS.*

On 08.01 2022 Steve Sattler wrote: "NTA - the company that is running the mega-project for the greater TLV Metro, now has a set of good-quality ads on the evening TV news - about SAFETY with the rails and the new trams on the Tel Aviv Metro.

A young lady on a scooter demonstrates how to relate to the trams that will become normal on many streets in the greater Tel Aviv region. (Only the central section is underground – about 60% is at street level). How not to stop on the tracks, how to look both ways to cross the tracks, how never to dart in front of a tram and how to avoid the common mistake of forgetting that trams [in pairs] can come at you from two directions. It is a quality ad and this is the first time I have ever seen here a real ad about safety on public transport."

• *(xii). TRACKLESS TRAMS....*

From Aharon Gazit: "Ayalon Roads - the company responsible in the Greater Tel-Aviv Metropolitan Area, presented on 10.01.2022 the new concept of a 'tram on roads'; a double-articulated battery-powered bus intended to provide

services in traffic volumes between an LRV and a bus, where traffic demands do not justify the heavy investments in infrastructures needed for LRV.

The vehicle has been supplied by CRRC, has a capacity of more than 200 passengers and a range of 80 km. According to the manufacturer it can be charged within minutes. The vehicle has started testing on all sorts of roads, streets, etc. and regular service will start after conclusions taken from tests. It is currently partially ready for autonomous drive and runs on a virtual track; this will change in future in favour a fully-autonomous bus."

## B. JERUSALEM

### CABLE CAR CONTROVERSY CONTINUES.

From 'Times of Israel' Sat. 27.11.21, by TOI staff: "With court to debate controversial Jerusalem cable car, ministry voices opposition. Transportation Ministry says harm from controversial project will outweigh any benefits.

The High Court of Justice will convene on Sunday to consider petitions against the controversial construction of a cable car in Jerusalem that would ferry passengers into the Old City.

Ahead of the session, the Transportation Ministry said it opposed the plan. In a statement Friday, the ministry led by Labor's Merav Michaeli said: "Our position is that the cable car has no significant transportation role, and the harm [it causes] will exceed the benefits." It noted the "great sensitivity to the harm the project will cause to the landscape." Building the cable car will require the construction of huge pylons along the route, with critics warning it will irreversibly alter the city's unique, historically significant skyline. The Jerusalem Municipality backs the project, asserting it will alleviate road blockages in the area and will be a draw for tourists. The project was greenlit by a previous Likud-led government in 2018. Preliminary excavation works began in April of this year, despite the court still considering the petitions.

The cable car, for which the government has already budgeted NIS 200 Million (\$55.2M), is planned to stretch from the First Station cultural complex in the south of the city to the Old City's Dung Gate, which is the closest entrance to the Western Wall, Judaism's most venerated prayer site. Mount Zion will host the only station along the way. A maintenance depot is to be built in the neighborhood of Abu Tor.

The project's backers insist that this will be a tourist attraction and will help relieve traffic gridlock caused mainly by tour buses.

But the plan's critics say the cable car will turn Jerusalem's most precious historic vistas into a theme park. An analysis of traffic data released in July of last year appears to undermine the other major claim made for the cable car —

135:07.

## OTHER MIDDLE EAST RAILWAYS.

### A. THE 2021 MIDDLE EAST RAIL CONFERENCE

was held at Dubai 12-13th. October in partnership with Etihad Rail; Details can be found also under : Agenda | Middle East Rail (terrapinn.com)

Speakers included Dr Nirit Ofir, Director General, Chamber of Commerce Israel-GCC and Mrs. Maha Raslan, Deputy Minister for Railway Affairs, Ministry of Transport in Syria – these two being mentioned here simply to show that the world is indeed changing....

### B. IRAN – IRAQ LINK. (see also 134:07).

(i). From 'I.R.J.' 13.09.2021 (by Richard Clinnick): "The new line linking the countries will help boost trade and economic possibilities.

Leaders of Iran and Iraq have stressed the need to complete the cross-border rail line from Shalamcheh in Iran to Basra in Iraq, that will connect the two countries. The 32km line will also enable freight to run from China to southern Europe via both countries. Preparations for the construction of the line were completed last month in Iran.

that it will relieve traffic congestion along the Old City walls. The analysis suggests that an increase in shuttles would be a better, faster, and cheaper way of ferrying tourists from southern Jerusalem to the Dung Gate.

In a last-ditch attempt to stop the project, opponents petitioned the High Court. The court responded by ordering the government and all the other bodies involved to detail the "factual basis" on which the cable car meets the wording of the planning law — whether it really will "serve as a tourist attraction" and "make a real contribution to tourism in the area."

## C. BEER-SHEVA.

A new-ish entry but clearly there will be much to report here in the future. On 07. October the following was reported in a press release by the Transport & Roads' Safety Ministry:

"On Wednesday 06.10.2021 the National Infrastructure Council of the Transport Ministry held the first meeting regarding the construction of the first LRV line in the city of Beer-Sheva. The project is to be performed by Israel Roads who have already started planning and are expected to complete the design of the first line by the end of 2021; it will be 25km long and its construction is foreseen for completion at the end of the decade.

According to the plan the LRV will form a link between the city's main centres of activity: the two railway stations, University and Central, Ben-Gurion University, Soroka Medical Centre, the City Hall, the Government office complex, the Old City, and the IDF (Israel Defense Army) Teleprocessing Corps complex. The alignment will include a 10km-long urban section alongside Road 60 from the city to the IDF Intelligence Corps complex at Kiryat Modin.

As an integral part of the plan the University station will become a transportation centre complex to include the railway station, LRV station, a bus terminal, car parking, bike lanes, as well as park-and-ride facilities along the LRV alignment, and an LRV depot. The LRV alignments will be integrated with other city transportation projects both existing and for the future.

The final alignments will be determined according to the city's strategic transportation plan being currently crystallized by Ayalon Roads. This will be a significant upgrading of the whole Israeli southern public transport systems, which will develop the whole metropolitan area, reduce gaps and provide equal opportunities to the periphery population.

The plan joins three huge projects currently being promoted by the Transport Ministry: a high speed (?) railway line to link with the high speed (?) railway networks; improving the southern railway lines for passenger and freight services; and the city's strategic transportation plan mentioned here."

"Cooperation capacities between the two countries have been identified and agreed and now is the time to implement agreements and broad economic interaction in the interests of the two nations and regional development," Ayatollah Seyyed Ibrahim Ra'isi said following his meeting with Iraqi prime minister, Mr Mustafa Al-Kadhimi. Al-Kadhimi stated it was Iraq's intention to expand cooperation in various fields, especially economics and trade."

Then on 05.01.2022: Agreement signed for Iran – Iraq rail link. (Written by Richard Clinnick) "An agreement has been signed to build a 32km rail link from Shalamcheh in Iran to Basra in Iraq. The estimated cost of the project is \$US 100-120M with construction expected to take two years.

Mr Rostam Ghasemi, Iranian Minister for roads and urban development, says the line is important for passenger transport and the relationship between the two countries. He says a connection to the Mediterranean Sea is another motivation for building the line, pointing out that the line between Iraq and Syria requires reconstruction having been damaged during the conflict.

Ghasemi also confirmed that no dates have yet been agreed for the start of construction although the project manager has been identified.

Each country will have a 50% share in the investment. Ghasemi says the private sector in Iran has already confirmed interest in investing in the project.

The first part of the line to be constructed will be a bridge in Iraq and the land has already been handed over ready for construction. Before construction of the line itself can begin investigations into the land must be undertaken including the removal of landmines. Once that is complete, the Iraqi side of the line will be constructed by Iranian engineers."

## C. IRAN.

### • (i). UNESCO WORLD HERITAGE.

In July 2021 UNESCO added the Trans-Iranian Railway to their list of World Heritage Sites, Ref. 1585. The location is given as: "N35 39 29.9 E51 23 54" and from the UNESCO website: "The Trans-Iranian Railway connects the Caspian Sea in the northeast with the Persian Gulf in the southwest crossing two mountain ranges as well as rivers, highlands, forests and plains, and four different climatic areas. Started in 1927 and completed in 1938, the 1,394-kilometre-long railway was designed and executed in a successful collaboration between the Iranian government and 43 construction contractors from many countries. The railway is notable for its scale and the engineering works it required to overcome steep routes and other difficulties. Its construction involved extensive mountain cutting in some areas, while the rugged terrain in others dictated the construction of 174 large bridges, 186 small bridges and 224 tunnels, including 11 spiral tunnels. Unlike most early railway projects, construction of the Trans-Iranian Railway was funded by national taxes to avoid foreign investment and control."

The 'Teheran Times' reported it in following manner: "The Trans-Iranian Railway that reaches a length of 1400 km has been declared a UNESCO World Heritage site. The UN body accepted Trans-Iranian Railway during the 44th session of the World Heritage Committee, which will be running through July 31 in China's Fuzhou.

The railway can be regarded as a turning point for comprehensive developments in Iran. These developments include a wide spectrum of various economical, commercial, social, cultural, and even political aspects in a sensitive and important period of contemporary world history. Under the Pahlavi regime the process of moving towards modernism gained momentum and the railway became the main pedestal of development in Iran.

Consequently the 1,394 kilometers long Trans-Iranian Railway was built with a width of 1435mm and 90 working stations along its route. It starts at a point north of Turkoman port located southeast of the Caspian Sea. After going through Sari and Qaem-Shahr cities, the railway enters the mountainous region of Alborz through the high Firooz-kooch Pass which is linked with Tehran and the Varamin Plain by numerous bridges and tunnels.

Further on, after crossing the flatlands of Qom and Arak, the Trans-Iranian Railway penetrates Zagros highlands in Lorestan Province and passing through a large number of tunnels and bridges reaches Andimeshk situated in the low Kuzestan Plain.

Finally extending to the vicinity of Dezfoul, Ahwaz and its grand bridge on Karoon, the Trans-Iranian Railway is divided into two branches ending separately at Khoram-Shahr and Imam-Khomeini ports on the Persian Gulf."

The "International Committee for the Conservation of the Industrial Heritage" Bulletin No. 94, 4th. Quarter 2021 p.23ff. has an item on this: by Mohammad Hassan Talebian, Associate Professor, University of Teheran: "In the second half of the 19th. century, in the Qajar era, the concept of constructing a Trans-Iranian Railway was initiated with the development and transformation of cultural and political relations between Iran and Europe. Considered a strategic decision for the region, the concept of the construction of the TIR connecting two seas, crossing the country and through the mountainous, forest, desert and coastal regions, was an incredible dream. Iran has almost 7 millennia of history and unique geographical diversity due to the Alborz and Zagros mountain ranges, and cultural diversity among different ethnic groups in various climatic regions. Many of these were not accessible before the Trans-Iranian Railways were built. In spite of all the problems of crossing the various geographical regions, the Trans-Iranian Railway construction was initiated in 1927 and finished in 1938 after 11 years. Three years after its establishment

it played a vital role in the Allies' victory and ending World War II. The TIR, like other major railways, has thus not only affected the social, economic and cultural development of railways and its associated regions, but also, due to its ancient historical background coupled with important roads such as the Silk Road and Spice Road, has boosted the ancient roads and relations between Iran with neighbouring countries.

In addition, at the time it opened the TIR drew global acclaim for the exemplary project management achieved by the successful working relationship between the Iranian Government, the project managers and the 43 construction contractors from many countries, particularly Denmark, Norway, Sweden, Germany, Switzerland, Austria, Italy, Greece, the US and Turkey. Due to the mountainous landscape with many rivers, much extra work was necessary in construction of bridges and tunnels so that the outcome can be considered as a work of considerable magnitude. It proved an outstanding way of solving unexpected problems through the breadth of international experience during construction, enabling the TIR project to stay on time and on budget. It led to new technological developments which were later on used by international experts in other parts of the world. This clearly proves the exchange of technical knowledge and cultural interaction at a global level. ....

The property was nominated under criteria (ii) and (iv). According to the first of these criteria, the Trans-Iranian Railway serves as a living manifestation of multi-faceted interchange of human values, modern and innovative mountain railway skills and experience for its construction, emergence of a mixture of Iranian-western architectural styles as well as new structures, boosting the economy and trade by speeding up transportation which led to a revival of cultural-historical routes such as the Silk Road and the Spice Route at a specific period in central and western Asia during the early 20th. Century and later on with the European countries.



• Bridge in Iran. The Veresk viaduct as it looks today.



According to criteria (iv) the Trans-Iranian railway is a fine example of a technological and architectural ensemble representing major stages of long-term development of human, technical and economic activities in western Asia. It resulted in the formation of varied landscapes in relation to the assimilation and interaction of railway with natural landscapes and in overcoming obstacles. It caused a huge increase in trade, cultural and economic relation between Iran and other countries of the region, thus marked a significant and decisive stage in its historical development. ... The intricacies of its construction due to the harsh climate and rugged terrain of parts of Iran led to the improvements of the technical knowledge in building bridges, tunnels aqueducts, retaining walls, roads as well as carriage of equipment, surveying and mapping in other parts of the world. On the whole, the Trans-Iranian railway is not only a unique museum of human creativity and endeavour but also a technological masterpiece resulting from human ingenuity and boasting unique values."

- *(ii). TEHRAN METRO PROBLEMS.*

From 'I.R.J.' 4.11.2021: (by David Briginshaw): "Tehran Metro trains out of service due to maintenance backlog. A shortage of funds and a lack of spare parts supplied by foreign manufacturers has led to a serious maintenance backlog on the Tehran Metro train fleet."

"The CEO of Tehran Urban and Suburban Railway Operating Company, Mr Ali Abdollahpour, says the backlog in overhauling Metro trains and double-deck push-pull trains operating on Line 5 has reached a critical situation which is affecting the operation of the network."

"After more than 23 years of operating Tehran Metro, a very large volume of the active fleets on the seven Metro lines are facing an emergency situation by exceeding the allowable limit for overhaul," Abdollahpour says. "By the end of October this year 35% of metro trains and more than 75% of the Line 5 fleet had passed the permitted limit for overhaul. At present 161 trains are active on the seven Metro lines, some of which have accumulated more than 900,000km of operation and must be overhauled, but due to the lack of replacements we are continuing to use these trains."

Tehran Metro estimates it needs Rials 7 Trillion (\$US 166.5M) up to 2024 to catch up with the maintenance backlog. But Abdollahpour points out that Tehran Metro is unique in that the Iranian government only covered 1% of operating costs in 2020, with the Municipality of Tehran covering 85%, and passenger fares the remaining 14%. Abdollahpour fears this situation is unlikely to change as there is a lack of funds in the national budget, while Tehran Municipality is unable to increase its payments and passenger traffic has been adversely affected by the coronavirus pandemic.

"This lack of liquidity due to the instability of currency prices and high costs of overhauling the Metro fleet, which needs to source some of its parts from abroad, has faced the massive fleet with an emergency in the last two years," Abdollahpour says.

Abdollahpour says out that the overhaul of six Metro trains and three coaches for Line 5 is currently underway, while 33 double-deck coaches and 12 locomotives have been taken out of service due to a lack of parts."

- *(iii). RAIL FREIGHT SERVICE EAST – WEST.*

From 'R.G.I.' 11.01.22: "A rail freight service linking Islamabad, Tehran and Istanbul has been relaunched, a decade after the last attempt to develop services on the 6 500 km route."

The ISI train was despatched with a ceremony in Islamabad on December 21, and reached Ankara on January 3 before continuing to Istanbul. The Economic Cooperation Organization co-ordinated the operation of a westbound demonstration train in August 2009 and an eastbound train in 2010, but the project was suspended in 2011 after eight westbound and six eastbound services had run.

ECO's Director for Transport & Communication, Akbar Khodaei, said the revived ITI service would provide export opportunities for Pakistan, while Iran could become an important transshipment and transit hub and Turkey could further develop its role as a bridge between Asia and Europe. Freight forwarders Maxtel Logistics and Haroon Brothers are using the service, with

the first train carrying goods including Himalayan salt and the second train which departed on December 28 carrying soapstone. The train is initially being operated using conventional wagons, but intermodal operations are planned; there is a break of gauge between Pakistan's 1,676 mm gauge and Iran's 1,435 mm gauge networks at Zahedan in Iran, and a study by ECO has found that multi-modal transport could provide opportunities to transport goods to and from places without rail connections.

It is envisaged that a journey time of around 10 days could be achieved, compared to around 35 days by sea. Iran's Ambassador to Turkey Mohammad Farazmand said a passenger service is also planned for the near future."

- *(iv). KAZAKHSTAN LINK.*

From 'R.G.I.' 11.01.22: "The first meeting of the Permanent Working Group for the Kazakhstan – Turkmenistan – Iran Railway Corridor was held virtually on December 27. The PWG was formed following the signing of an MoU at the 15th Economic Cooperation Organization summit during November, and will develop a roadmap to promote and commercialise the KTI corridor and develop economic hubs near the border crossings." [Ed. Notes: Just before major political turbulence broke out in Kazakhstan...]

## D. TURKEY.

- *(i). SIRKECI STATION TO BE REOPENED.*

From 'R.G.I.' 23.09.2021: "The Ministry for Transport is to call tenders for the reopening of the 8 km section of railway into Istanbul's historic European terminus at Sirkeci."

The double-track main line was cut back in 2013 to allow construction of the cross-Bosphorus Marmaray commuter link, which diverges from the traditional alignment in the suburbs at Kazilçe?me and runs underground to deep-level platforms below Sirkeci before continuing to the Asian side of the city. Inter-city trains now terminate at the Marmaray interchange at Halkal? to the west of the city.

The surface line between Kazilcesme and Sirkeci was initially used for stabling Marmaray EMUs pending completion of the cross-Bosphorus link, but is currently out of use. A previous tender for reopening was held in 2018, but was subsequently cancelled due to the omission of maintenance facilities from the project specifications.

The ministry anticipates that one track should be reopened, with the other removed to provide space for a cycle path and running track. Six of the seven historic stations would be reopened, while that at Kocamustafapasa would be replaced by a new stop closer to a nearby teaching hospital.

As the line runs parallel to Istanbul's 1,500 year old Byzantine sea walls and passes through them at two points, the ministry envisages that a revived service could appeal to tourists as well as local commuters. A half-hourly service would be operated using vintage rolling stock.

Efforts by Istanbul Municipality to take over the route and incorporate the line into the city's metro and tram networks have been repeatedly rebuffed. The reopening project could potentially be engulfed in the ongoing 'turf war' between the ministry and the opposition-controlled Municipality ahead of the presidential and parliamentary elections scheduled for 2023."

- *(ii). SHIP CANAL POSES CHALLENGE TO ISTANBUL METRO EXTENSION.*

From 'Metro Report Intl.' 10th. Sept. 2021: "Excavation work is underway on a long-planned 18km underground extension of Istanbul's M7 Metro line, with the €220M cost to be financed from a Eurobond issued by Istanbul Municipality late last year."

The extension is to be built in two stages: The first will connect the existing Mahmutbey station on M7 and M3 to Hastane, running via Mehemt Akif on the future Line M9, Toplu Konut and Tema Park on the future Airport – Halkal? extension of M11. This is scheduled to be completed in 2024.

The second stage will extend the route from Hastane to Esenyurt with five intermediate stations. The municipality has given no timescale for completion

of the second stage, and has not set out how the line would cross the route of the proposed ship canal between the Black Sea and the Sea of Marmara. President Tayyip Erdogan is a strong supporter of the Kanal Istanbul project, but it is opposed by the Municipality which is controlled by the main opposition party. The rapid development of Istanbul's public transport network has been the subject of several disagreements between the Municipality and the central government in Ankara, with the transport ministry seizing control of several projects.

Originally tendered in 2017 by Istanbul's previous government-controlled city administration, work on the M7 extension never started. This was ostensibly due to financial and siting problems, but also likely to be due to questions over how the line would cross the ship canal.

Once complete, and following the completion of work to extend the other end of the line from Mecidiyeköy to the Bosphorus ferry terminal at Kabatas, M7 would cover 42.6 km and serve 28 stations. It is expected to carry up to 1.4 Million passengers a day, with journey times of 67 min between Kabatas and Esenyurt, and 28 min between Mahmutbey and Esenyurt. The completed line would interconnect with the F1 funicular, the T1 tramway at Kabatas, the M2 line at Mecidiyeköy, the T5 tramway at Alibeyköy, the T4 light rail line at Karadeniz Mahallesi and the M3 Metro line at Mahmutbey.

A further extension has been mooted which would see M7 run to a new station at Esenyurt Belediye, where it would connect with the as yet un-numbered Sefaköy – ?ncirli line. Plans for both projects are still under development."

• (iii). **MERSIN METRO CONSTRUCTION PLANS.**

From 'Metro Report Intl.' 5. 10.2021: "Mersin municipality has announced that construction of the 13.4 km Mezitli – 3 Ocak underground metro line will start on January 3rd. 2022, the 100th anniversary of the French evacuation of the city, and is scheduled to take 48 months.

The TL3.379Bn electrical and mechanical systems contract for the line was awarded in August to a consortium of US company Dillingham Construction International and Turkey's K?ska Kom ?n?aat. Speaking at the contract signing ceremony on October 4, Mayor Vahap Secer said that the line is expected to initially carry up to 350 000 passengers/year, rising to 380,000 a year in 2030 and 500,000 a year by 2048.

He said the whole line would have twin tracks in a single bore tunnel, the first time this method has been used in Turkey, with 7 km of the route in bored tunnel and 6.4 km constructed using cut-and-cover.

Secer added that the Municipality plans to expand its urban rail system to a total of 34.4 km in two further stages.

One will involve the construction of an 8.4 km light rail ring linking the university, hospital and international trade fair venue. The following stage would be a 12.6 km Metro line connecting the hospital to the new bus station. Secer gave no details about when tenders will be called."



• Mersin Metro

**E EGYPT.**

• (i). **BERLIN TRAMS IN ALEXANDRIA; (OR NOT).**

The Berliner Verkehrsbetrieb (BVG) issues a roughly monthly little free magazine for passengers 'BVG Plus' and in the August 2021 edition was an article concerning the sale of used vehicles to various other tramway and bus systems – mainly in Ukraine, Russia and Kazakhstan. Intriguing though was a reference to the sale of 70 Tatra trams to Alexandria. However a quick look at 'Urban Transport Magazine' online revealed the following: "2015 beschaffte ein Zwischenhändler zahlreiche gebrauchte Tatra KT4Dm und T6A2m aus Berlin und Potsdam, die auch nach Ägypten verschifft wurden. Zum Einsatz kamen die Fahrzeuge aber nie." i.e. In 2015 a dealer acquired numerous Tatra trams from Berlin and Potsdam which were shipped to Egypt but which never entered service." There must be more to this story....

• (ii). **DRY PORT.**

From 'R.G.I.' 23.09.2021: "The European Bank for Reconstruction & Development has granted a €25M loan under its Green Cities programme to support the construction of the first inland dry port in Egypt, at 6th October City, west of Cairo. The rail-served facility is being developed by the October Dry Port Co, a special purpose vehicle established by a consortium of El Sewedy Electric, Schenker Egypt and SLP Logistics."

• (iii). **CAIRO MONORAIL.**

From 'Metro Report Intl.' 09. Sept. 2021: "First Cairo monorail trainsets delivered. The vehicles are being manufactured at Alstom's Derby plant in the UK, with work on the Mitrac traction systems led by the company's site at Trapaga at Spain.

Two monorail lines are being developed in Cairo under a €2.7Bn contract which the National Authority for Tunnels awarded in August 2019 to a consortium of Bombardier Transportation (now Alstom), Orascom Construction and Arab Contractors.

A 54km line will link the New Administrative City with eastern Cairo and a 42km line will connect 6th of October City with Giza. Both routes are expected to open in 2023, with the consortium providing 30 years of operation and maintenance services.

'The monorail will be a game changer for residents, decreasing commute times, congestion, pollution and carbon emissions,' said Andrew DeLeone, President of Alstom Africa, Middle East & Central Asia, on September 8. 'It is an important part of the government's ongoing efforts to redefine Egypt's urban future.'"



• Monorail cars being unloaded

• (iv). **WABTEC TO BUILD 100 NEW DIESEL LOCOMOTIVES.**

From 'I.R.J.' 10.11.2021: "Egyptian National Railways (ENR) has awarded Wabtec a contract to supply 100 ES30ACi Evolution Series locomotives, along with a multi-year service agreement. The contract is funded by the European Bank for Reconstruction and Development.

The 140km/h, 135-tonne six-axle locomotives will be delivered to ENR in 2023 and will be fitted with a 12-cylinder 2.4MW Evolution Series engine, ac traction technology, individual axle control and dynamic brakes. ENR has ordered the locomotives to support the continued modernisation of Egypt's railway network.

"This order underscores the commitment by the Ministry of Transportation and ENR to provide a world-class passenger service," says Mr Gökhan Bayhan, Wabtec senior vice president for Russia/CIS, Europe, Middle East and North Africa. Following the completion of the order there will be more than 300 Wabtec-built units in the ENR fleet."

'R.G.I.' on 9.11.21 reported thus: "Egyptian National Railways has awarded Wabtec a contract for the supply and multi-year maintenance of 100 ES30ACi Evolution Series diesel locomotives.

The contract signed in a ceremony on November 8 is part of ENR's ongoing modernisation programme, and is being funded by the European Bank for Reconstruction & Development....

The latest order means ENR will have more than 300 locomotives supplied by Wabtec or its predecessor GE Transportation."

• (v). **ZAGAZIG DOUBLING.**

From 'R.G.I.': "NR and Alstom have signed a framework agreement for modernisation and double-tracking of the 65km Tanta – Zifta – Zagazig line. The scope includes the design, supply, installation and testing of signalling, power and telecoms systems and trackside equipment for migration to ETCS Level 1."

• (vi). **CAIRO METRO MODERNISATION.**

From 'Metro Report Intl.' 10.11.21: "The National Authority for Tunnels has reached an agreement for Alstom to supply and maintain 55 Metropolis trainsets for Cairo Metro Line 1 and has awarded CAF and Mitsubishi a contract to refurbish 23 existing trains. The agreements announced on November 8 form part of the modernisation of the city's first Metro line, which opened in 1987 and now carries 2.5M passengers per day on the 44km route between El Marg in the north and Helwan in the south.

Alstom's €876M contract is expected to come into force in Q4 2021-22; it will be financed by the French government under an agreement signed by Egypt's Minister of Transport Kamel El-Wazir and France's Minister of the Economy, Finance & Recovery Bruno Le Maire in June.

Alstom said the nine-car Metropolis trainsets would be tailored to the specific requirements of Line 1, with a unique design intended 'to reflect the history and culture of Cairo'.

The interiors will have wide gangways to maximise capacity, accessibility and passenger flow, with each train able accommodate up to 2,580 passengers. There will be dedicated areas for women, as well as real-time passenger information, dynamic route maps, video displays and CCTV.

The deal includes eight years of maintenance, and the fleet is to be equipped with Alstom's HealthHub predictive maintenance platform which the manufacturer says can save up to 20% in labour and 15% in materials consumption.

The vehicles will be designed and manufactured at Alstom's Petite-Forêt plant in Valenciennes, with Le Creusot supplying the bogies and traction motors, Villeurbanne the passenger information systems and Toulouse responsible for electrical engineering.

A training and development plan for local workers is to be rolled out in partnership with the operator, Egyptian Company for Metros.

Meanwhile, CAF and original supplier Mitsubishi have been appointed to refurbish 23 existing trainsets used on Line 1 and maintain them for two years.

This will include upgrading the traction system and onboard equipment, and installing air-conditioning. The €180M contract is being financed by Spain's Enterprise Internationalisation Fund. The refurbishment work is to be undertaken at the line's new Kozzika depot, which CAF will fit out as part of the project.

CAF and Mitsubishi have also signed a memorandum of understanding with NAT for the future refurbishment of the Japanese-built trains on Line 2."

• (vii). **MORE CAIRO METRO LINE 4 ORDERS**

From 'Metro Report Intl.' 11.11.21: "The National Authority for Tunnels has awarded Mitsubishi Corp and Kinki Sharyo a 40Bn Yen contract to supply 184 metro cars incorporating 'advanced railway technologies developed in Japan' for use on Phase 1 of Cairo Line 4.

Announcing the contract on November 9, Mitsubishi Corp said it would be the prime contractor and oversee the project, while Kinki Sharyo will produce the cars, mainly with Japanese components, for delivery in 2025-28. Phase 1 of Line 4 will run 18.8 km west from El-Malek El-Saleh in central Cairo to Hadaek El-Ashgar in Giza, with 16 stations. It is scheduled to open in 2028, helping to ease traffic congestion by taking tourists to the pyramids and the future Grand Egyptian Museum.



The line is being financed through official development assistance loans from Japan International Co-operation Agency. In November 2020 NAT awarded a consortium of Mitsubishi Corp and Orascom Construction a US\$800M contract to supply

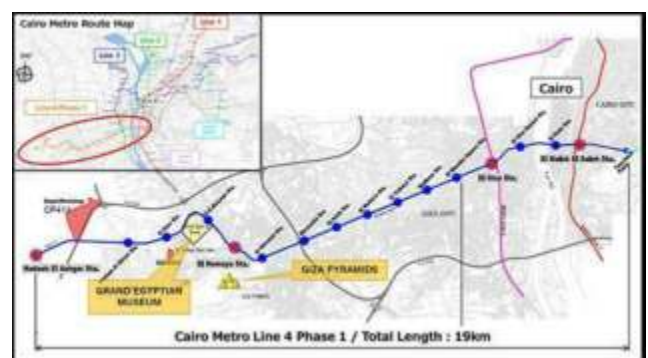
railway systems, track and depot equipment.

A planned Phase 2 would extend Line 4



• Cairo Metro cars)

(viii).



ALSTOM APPOINTMENT.

From 'R.G.I.' 03.12.2021: "Alstom has appointed Ramy Salah Eideen Mohamed as Managing Director for Egypt. 'This is an exciting time in Egypt as our customers look to drive innovation and growth in their public transportation offering, and we are ideally positioned to help them by offering the largest portfolio of green and smart solutions available in the market', he said. He succeeds Mohamed Khalil who is to lead Alstom in Saudi Arabia."

• (ix). **VIDEO ON NEW 'SUEZ CANAL ON RAILS' PROJECT.**

<https://www.youtube.com/watch?v=9jI4OPec4Lc>

Recommended.

## F. U.A.E. : DUBAI.

### (i).(a). DUBAI METRO

From 'Metro Report International' 15. Sept. 2021: "UAE: 'This is an exciting day for us,' Keolis Group's International CEO Bernard Tabary told 'Metro Report International' when a Keolis-MHI joint venture took over the operation and maintenance of Dubai's driverless metro and tram networks on September 8.

The contract, awarded by the Emirate's Roads & Transport Authority on January 31, provides for an initial nine years of operation with three optional two-year extensions. Keolis-MHI replaces Serco, which has run the Metro since the first section opened in September 2009.

Keolis holds a 70% stake in the joint venture, alongside Mitsubishi Heavy Industries Engineering (25%) and Mitsubishi Corp (5%), who have been involved with the development of the driverless Red and Green lines since 2005.

The handover was marked by a ceremony at Al Rashidya depot where Tabary was joined by RTA Chairman & Director-General Mattar Al Tayer, Mitsubishi Heavy Industries' Chief Regional Officer for Europe, Middle East & Africa Kentaro Hosomi and Wallace Weatherill, Managing Director of Keolis-MHI.

Following the opening of the Route 2020 branch serving the Expo 2020 venue, the Dubai Metro network now totals 90 route-km including 15.8km in tunnel and serves 53 stations. Equipped for Grade of Automation 4 using Thales CBTC, it is operated by a fleet of 79 Kinki Sharyo trainsets delivered by Mitsubishi in 2005-09 and 50 Metropolis trains supplied by Alstom.

The 10.6km tram line with 11 stops opened in 2014; it is worked by 11 Alstom Citadis trams and uses an APS ground-level power supply for catenary-free operation.

#### Great expectations

Keolis-MHI will be responsible for the operation and maintenance of all metro and tram network assets, from trains and control centres to stations and associated infrastructure, as well as the fare collection systems. The gross-cost contract means that RTA retains the revenue risk, but Tabary said the agency had strong expectations around 'customer happiness, which is more than passenger satisfaction, and goes well beyond just cleanliness and punctuality.' The contract includes 'a multitude of KPI's relating to security and safety 'above everything else' as well as demanding performance and availability targets. According to Tabary, punctuality currently stands at 99.7%.

Keolis-MHI has 1,850 employees, around 95% of whom have transferred from the incumbent operator in line with RTA stipulations, and Tabary said Serco had been 'extremely professional' about ensuring a smooth handover during the seven-month transition process. The total workforce includes around 1,000 operations and customer service staff for the Metro, 700 maintenance staff and 150 for the tram network, he explained.

Tabary said the joint venture would be looking to combine the knowledge of automatic metro operations built up in Dubai over the past 12 years with experience around the world, drawing staff from Keolis operations in the UK, France, Australia and North America, as well as the automated metros in Hyderabad and Shanghai.

Looking forward to the opening of the six-month World Fair on October 1, Tabary said Dubai was expecting 'millions of visitors' to use the brand-new Expo 2020 station, which had been 'very well designed, like a brand-new airport'. He believed the Metro would play a major role in ensuring the success of the event. Beyond that, he said, the Emirate had set ambitious objectives for 2030 and 2040 and RTA was looking for Keolis-MHI 'to help the metro grow to new levels'.

Noting that Keolis-MHI must also manage the ageing of infrastructure and rolling stock in a very challenging climate, Tabary emphasised the importance of a good maintenance regime. 'We are delighted to be working with Mitsubishi Heavy Industries, who delivered the original fleet from 2005,' he commented, noting that the joint venture would be able to bring blend of Japanese, French and international cultures to the contract, in the same way that Keolis works in partnership on other contracts 'where it adds value'.

#### Backbone of Transportation

Pointing out that the Metro 'currently constitutes the backbone of transportation in Dubai', Al Tayer said 'the huge successes of the Dubai Metro

have gone far and wide beyond the scope of the Emirate. The Metro has embellished the global profile of Dubai as a superior business hub and a key destination for an exceptional quality of life.'

'We are very excited to begin operating Dubai's world-class metro and tram networks in collaboration with MHI and MC', said Keolis Group CEO Marie-Ange Debon. 'Our shared goals bring us together: meeting the highest safety standards, delivering the very best passenger experience to Dubai's residents and visitors and moving towards a smart and sustainable future. We share RTA's Smart City Vision, which sees smart mobility as the answer to a more efficient transport system and a more vibrant city. And we look forward to accompanying RTA on this exciting journey to make the city safer, cleaner and more attractive.'

### • (b). DUBAI METRO NEW MANAGEMENT.

"A new start for Dubai's Metro and Light Rail network"

From 'I.R.J.' Oct 21, 2021, (Written by Kevin Smith)

"A Keolis-Mitsubishi Heavy Industries joint venture commenced an initial nine-year contract to operate Dubai's metro and light rail networks on September 8. Keolis CEO, Marie-Ange Debon, explains what the operator plans to bring to the Middle East's flagship public transport network.

Dubai's public transport network embarked on a new era on September 8. Serco, which had operated and maintained the driverless metro since it opened in 2009, overseeing steady expansion, along with the 10.6km light rail network, which opened in 2014, stepped aside in favour of a new operating joint venture of Keolis, Mitsubishi Heavy Industries (MHI) and Mitsubishi Corporation.

The new nine-year agreement awarded by Dubai's Roads & Transport Authority (RTA) includes two options for three-year extensions. Its commencement follows a seven-month transition period that ensued after the award of the contract on January 31.

Keolis-MHI is now responsible for operating and maintaining the Dubai Metro Red (52.1km) and Green (22.5km) lines, which together have 53 stations, and is the largest entirely driverless metro network in the world. The light rail network deploys Alstom's APS ground power supply system and is also the world's first entirely catenary-free network. The 11 Alstom Citadis LRVs serve 11 stations, interchanging with two Metro stations at Dubai Marina and Jumeirah Lake Towers. Together the networks carried 20 million passengers per year before the Covid-19 pandemic.

Keolis-MHI will operate and maintain all metro and tram network assets, from trains and control centres to stations and associated infrastructure. The contract also covers the operation of the fare collection systems, including sale and recharging of Nol smartcards, and full coordination and integration of Dubai's metro, tram and other means of transport. The service must meet the highest standards of security and safety for passengers, while demanding performance indicators have been set for operation and punctuality.

Keolis has a 70% share in the joint venture and both Mitsubishi companies the remaining 30%. Ms Marie-Ange Debon, Keolis CEO, who was speaking exclusively to IRJ ahead of the start of the contract, says the joint venture overcame four other rival consortia to win the contract, which she says is testament to both the price and the quality of the offer.

"It is probably one of the most emblematic contracts in the world because of the importance of the network," Debon says. "It is also a key reference to reinforce our position as a leader in automatic metros and light rail.

"RTA has the highest standards in the industry and a strong reputation for innovation, excellence and efficiency. We will work in close partnership with them to ensure we meet their expectations, enhance passenger experience and move towards smarter, more sustainable transport."

Work on building up the necessary expertise in Dubai began shortly after the contract was awarded. Debon says the team consists of a mix of Keolis and MHI employees as well as around 1,850 people it has recruited in Dubai, mostly from the previous Serco-led team, who have transferred to the new operator. The director of Keolis' industrial division, Mr Pierre Gosset, and Mr Thierry Guinard, director for safety, security and well-being, supported the evolution of the bid team to the transition team along with experts in HR and

communications. The joint venture also consulted closely with RTA on the best direction to take.

Crucially, Debon says a multi-cultural team has emerged in Dubai. As well as France, Keolis leans on people working across its public transport activities from around the world, including some who Debon describes as the company's "best experts" from Britain, the United States, and India who have implemented best practice from their respective operations.

Debon says Dubai is the perfect environment to take this global approach because it is a truly international city. While in Germany, the Netherlands or China it is essential to use the local language, this is not necessary in the UAE.

"In Dubai we have assembled a truly global team," Debon says. "English is the working language, which helps us unite people with very different origins, experiences and backgrounds. This diversity is reflective of our passengers and strengthens our work in Dubai and more generally in the Emirates."

One area where the Keolis-MHI offers a break from the Serco era is that unlike the British company, Keolis is a specialist public transport company. Debon says this offers the joint venture an advantage in that it has good knowledge of user experience and what makes a successful operation, which will be essential for the company to meet its performance-related targets. "We look through the passengers' eyes in terms of the information and digital services we provide, in order to offer the most seamless journey possible," she says.

Debon adds that Keolis also has extensive experience with many of the technologies in use in Dubai: it helped launch the first automatic metro network in Lille in the 1980s, and has experience of Alstom's APS system from Bordeaux, the pioneer of the technology, as well as Alstom's Citadis LRVs and 50 five-car Metropolis metro trains. These were delivered between November 2018 and the second quarter of 2020, to supplement the launch fleet of 79 five-car trains supplied by Kinki Sharyo. MHI, as a system integrator, supported construction of the metro project meaning that it has an excellent grasp of the technologies in play, according to Debon. "We know everything about public transport, it's our job," she says. "This is one of the unique aspects of the sector. Our people are really passionate and committed to serve the common good."

The Keolis-MHI contract is worth approximately €125M per year. However, with quite strict performance-related targets on punctuality and reliability, and availability of assets, and with RTA set to regularly audit its performance, Debon admits that the operator will have to work hard to deliver.

A major element of this is making sure everything is working – platform screen doors at stations are all active, escalators are working as they should. Debon favours "proximity management," whereby strong managers located close to the action can act decisively when things go wrong in order to rectify any problem as quickly as possible.

In addition, Debon says Keolis-MHI will implement ISO certification to enhance the quality of service, particularly maintenance. Work is underway to secure ISO 55001 certification to facilitate a smart asset maintenance strategy, similar to what Keolis has already done in Australia, including the adoption of a predictive rather than reactive maintenance regime.

The internet of things (IoT) and Artificial Intelligence (AI) are mentioned by Debon as potentially facilitating such a transition. RTA says an asset monitoring system harnessing IoT and AI is already in place on the Red Line and is part of the plan to shift to predictive maintenance. However, Debon says the operator will wait to see what the optimal strategy is once it has settled into operating the contract.

"They already have some IT tools and we will complement these tools with others that we have developed and used in other countries," Debon says.

The joint venture's contract does not include exposure to risk based on ridership. Indeed, the network is still recovering from the effects of the Covid-19 pandemic. While demand remains high during peak periods, it is noticeably down off peak. However, this situation could change this month with the opening of the delayed Expo 2020, which will run until March 31 2022.

A new 15km extension to the Red Line provides a direct connection to the Expo site. The initial 4.4km section of the line from Jabal Ali to Al Furjan was

inaugurated in July 2020 and began regular operation on January 1 using 15 of the Alstom trains. A 9km extension from Al Furjan to the Expo 2020 site opened on June 1.

Other planned extensions include the 3.4km Metro Route 2020 extension of the Red Line from Expo 2020 to Al Maktoum International Airport. Already 830m of this route has been built as part of the Expo 2020 project and it is earmarked to continue once construction gets underway on the new western terminal at the airport. The \$US 39Bn megaproject will transform the existing airport which is served by a handful of passenger and freight carriers into the world's largest, serving an estimated 160 million passengers and 12 million tonnes of freight per year. It is part of the larger 140 sq. km multiphase development of six clustered zones. However, construction is currently on hold with a provisional completion date of 2030.

The project is part of RTA's Integrated Rail Masterplan for Dubai, which is intended to serve the expected increase in population up to 2040. Other projects included are the 21km extension of the Green Line from Creek via Al Knor to Dubai Academic City and an 8km extension of the Red Line from Centrepoint to International City.

Additional schemes that were delayed in the mid-2010s due to the oil crisis and are now set to come to fruition after 2030 include the 47km Blue Line, which will connect Dubai International Airport with Al Maktoum via Mohamed Bin Zayed Road; and the 49km Purple Line, between Muhaisnah and Al



135 07 10 Deubai Metro Station Maktoum. The Gold Line from Dubai Marina



to Arabian Ranches and Deira, and the east-west Pink Line from City of Arabia to Al Sufouh have also been pushed back to this new date.

Expansion of the light rail network is also foreseen. RTA says it is currently evaluating the potential for such a project and possible technologies with the masterplan outlining a proposed 8km extension to serve developments in the Al Sufouh area, Madinat Jumeirah, Burj Al Arab and Mall of the Emirates.

More immediate plans include reducing headways to boost capacity on the metro network. This is favoured over infrastructure improvements and running longer trains. Certainly, the steady increase in patronage since the network

opened in 2009 has emphasised the importance of the network to the Emirate. Keolis-MHI are now primed to maintain and improve its level of performance over the coming years."

- **(ii). METRO MAINTENANCE.**

From 'Metro Report Intl.' 21.10.21. "Dubai metro operating contractor Keolis-MHI JV has appointed Thales to provide corrective maintenance, on-demand enhancements, repairs and spare parts for the signalling and communication systems.

Thales' management system is intended to optimise energy consumption and improve the overall connectivity, efficiency and performance of the metro to ensure a smooth passenger journey.

Thales has previously supplied a range of equipment for the network, including SelTrac signalling and supervision, telecoms, security and automated fare collection systems."

- **(iii). ETIHAD RAIL.**

From 'I.R.J.' 29.9.21, by David Burroughs: "Construction of Etihad Rail Phase 2A completed: The line takes the UAE network to the border with Saudi Arabia."

"Etihad Rail has completed construction of the 139km Stage 2 Package A of the National Rail Network, which runs west from Ruwais to Ghuweifat, connecting the existing 264km south-north Habshan – Ruwais Stage 1 with the border of Saudi Arabia.

The milestone was announced during a virtual meeting of the board of directors chaired by Sheikh Theyab bin Mohamed bin Zayed Al Nahyan, chairman of the Abu Dhabi Crown Prince's Court and chairman of Etihad Rail. Phase 2 of the Etihad Rail project will extend the network west to Ghuweifat on the border with Saudi Arabia and east to the city of Fujairah on the Gulf of Oman, taking the network to 1,200km.

Construction was carried out by a joint venture between China State Construction Engineering Corporation Middle East and South Korea's SK Engineering & Construction, under a Dirhams 1.5Bn (\$US 408.4M) contract awarded in March 2019.

Sheikh Theyab said that at a time where many sectors are experiencing a slowdown due to the challenges presented by the Covid-19 pandemic, Etihad Rail has continued to complete the project according to its clearly defined goals and comprehensive work plan

Etihad Rail has successfully secured contracts for 40% of the network's capacity, which is expected to be 60M tonnes annually following the completion of Stage 2, after securing several commercial agreements including with Stevin Rock, one of the biggest quarrying companies in the world, Western Bainoon Group, and Al Ghurair Iron and Steel (AGIS).

During the meeting the board also reviewed the company's financial performance for the third quarter of 2021, approved the capital budget for 2021 and approved the charter of the Audit Committee, which includes a number of policies and procedures related to governance such as transparency, integrity, and institutional work."

- **(iv). ETIHAD RAIL: GSM-R COMMUNICATIONS SYSTEMS.**

Actually taken from an 'advertorial' in 'I.R.J.' 21.11.2021:

"The 264km line from the sulphur fields of Shah to Habshan and the port at Ruwais is the United Arab Emirates' first mainline railway. The Line (Phase 1) was first opened for service in 2015, and the project has proven a major success for the country. It's just the beginning for Etihad Rail in major rail transportation, the country's national railway.

Etihad Rail is currently overseeing construction of Phase 2 of the 1,200km, \$US 11Bn national railway project. This new 605km railway when completed, will connect the railway to Khalifa Port in Abu Dhabi, Jebel Ali Port in Dubai, and to the Saudi and Omani borders, connecting with lines in Saudi Arabia and Oman as part of the wider Gulf Railway. The network will provide valuable

connectivity for freight shippers of products ranging from construction materials, aggregates, granulated sulphur, and steel products, greatly increasing the UAE's transport capacity and capability to export minerals and energy products. Already Etihad Rail has secured contracts of 40% of the railway's annual capacity of 60M tonnes of freight.

Construction on Phase 2 commenced in 2020 is now well underway, with tracklaying on Phase 2A – the 139km section from Ghuweifat to Ruwais, which connects with the line to Shah – completed at the end of September. Progress is on track to complete the subsequent phases over the next few months and years.

The planned Phase 3 will extend the line by 279km from Fujairah to the other northern emirates of Ras Al Khaimah and Sharjah, providing a safe and sustainable transport option between each of the seven emirates for the first time.

The railway is built to a combination of Association of American Railroad (AAR) and UIC standards. A key element of any railway project is the communications system. Etihad Rail entrusted Huawei to deliver GSM-R wireless train-to-ground communication, transmission, datacom, and other solutions to ensure safe and efficient railway operations for Phase 1 project. The contract was awarded in 2012, and successfully delivered as scheduled in 2015. Huawei UAE continued maintenance support services for Etihad Railway, which has laid a solid foundation for the Phase 2 cooperation. Following a strong track record of maintenance, Huawei was again selected by Etihad Rail as its trusted partner to supply and install GSM-R and the ICT network for Phase 2, alongside Hitachi Rail STS, which is equipping the line with European Train Control System (ETCS) Level 2, perfectly integrating with the existing GSM-R infrastructure deployed for Phase 1. With this strategy, a smooth transition of rolling stock between Phase 1 and Phase 2 regions is possible while maintaining highest flexibility for multi-vendor systems.

Huawei's GSM-R solution comprises a nationwide network architecture with back-up mechanism for all network elements, as well as redundancy features which provide robust, secure and reliable bearer services for ERTMS. GSM-R is a sub system of ERTMS and is used for operational critical communication between trains and operation control/despatch centre. The innovative features implemented for this project comprise hot back-up for core network devices, geographical disaster recovery for base station controllers, and dual radio network coverage for single cells. The network meets European Rail Traffic Management System's (ERTMS) requirements of reliability and security for carrying ETCS Level 2 signalling communication. Huawei's GSM-R solution is third-party certified and EIRENE compliant, having passed Interoperability Testing (IOT) with devices from other major signalling system providers and communications system providers.

Crucially Huawei's GSM-R equipment is proven to have met the requirement and performed reliably in the demanding and harsh operating conditions found in the UAE, providing stable communications for users onboard trains as well as controllers in dispatch centres and along the track.

Huawei has an extensive track record of GSM-R network deployments across the world. Although initial GSM-R rollout started in China, Huawei's GSM-R network technology has been identified by the rail sector as safe, reliable and state of the art technology that today is deployed on projects in Australia, Germany, Morocco, South Africa and many more.

The company's technology is proven to offer seamless interconnectivity with the equipment provided by major signalling and communications system providers, and can offer high levels of reliability, security and availability. This work is set to continue on the Etihad Rail network as the second phase comes online."

- **(v). ETIHAD RAIL: TUNNELLING COMPLETED.**

From 'R.G.I.' 26.11.2021: All of the tunnels required for Stage 2 of the national rail network have now been holed through, project promoter Etihad Rail announced on November 21.

The nine tunnels totalling 6.9 km are all located in the northern emirates of Fujairah and Ras Al Khaimah, and form part of Package D. The rock tunnels have been excavated using conventional blasting techniques, but Etihad Rail implemented various precautionary measures to limit noise and vibration,

deploying 'innovative machinery and equipment' to minimise any impact on nearby communities.

135 07 Map 01 UAE proposed railways

Involving more than 600 tunnelling specialists and project supervisors, the excavation of the nine tunnels totalled 1 million working hours, according to the promoter. Work was completed two months ahead of schedule.

Accompanied by Crown Prince Mohammed bin Hamad Al Sharqi, the Ruler of Fujairah Sheikh Hamad bin Mohammed Al Sharqi visited the worksite at Sakamkam to mark the completion of tunnelling. He lauded the efforts of Etihad Rail to carry out the work without impacting nearby communities, while 'upholding the highest measures of safety, security, sustainability, and environmental protection'.

Thanking the governments of Fujairah and Ras Al Khaimah for their 'unlimited support' for one of the biggest project infrastructure projects in the UAE, Etihad Rail Chairman Sheikh Theyab bin Mohamed bin Zayed Al Nahyan said the emerging rail network would play a vital role in sustaining the position of the UAE as a global and regional transport, shipping and logistics hub. As a key element of the global supply chain, it would support the development of the emirates' transport and logistics system, and 'enhance the UAE's journey for the next 50 years', he believed."



Work on stage two started in 2018 and Etihad Rail says 27,000 people are working in more than 3,000 construction sites across the UAE and 70% of the project was achieved in less than 24 months despite the challenges presented by the Covid-19 pandemic. The UAE rail network will eventually form a key part of the Gulf Railway."

• (vi). \$13.6 BILLION ETIHAD RAIL EXPANSION SCHEME.

From 'I.R.J.' 06.12.2021: "A ceremony was held at Dubai's Expo 2020 on December 5 to launch the United Arab Emirates' (UAE) Dirhams 50Bn (\$US 13.6Bn) UAE Railways Programme which will extend the existing rail network via Dubai to the port of Fujairah on the Gulf of Oman coast. The project is one the UAE's Projects of the 50 aimed at accelerating development.

"Etihad Rail is the largest project to consolidate the strength of the union for the next 50 years," Sheikh Mohammed bin Rashid Al Maktoum, UAE vice-president, prime minister and ruler of Dubai, said at the ceremony.

The programme comprises three elements. The first is to develop rail freight including Etihad Rail's existing freight services. The second element will establish main line passenger rail services in the UAE for the first time. Trains will connect 11 cities within the UAE from Al-Sila on the Saudi border to Fujairah running at a maximum speed of 200km/h. Passengers will be able travel from Abu Dhabi to Dubai in 50 minutes and from Abu Dhabi to Fujairah in 1h 40min. By 2030, the number of passengers is expected to reach more than 36.5 million annually.

The third element is the development of an integrated transport service, whereby an innovation centre will be set up to integrate smart transport solutions. Light rail lines will be connected to the main line passenger network to facilitate transport inside UAE cities. Smart applications and solutions will be developed to allow journeys to be planned and booked, the integration of logistics operations, port and customs services, and provide integrated logistics solutions.

The UAE government says the railway programme is expected to create 9,000 jobs up to 2030. Construction of the rail network is expected to reduce carbon emissions by 70-80% and road maintenance costs by Dirhams 8Bn. Tourism benefits are estimated at Dirhams 23Bn during the next 50 years, while the public benefits to the UAE economy will reach Dirhams 23Bn.

The first phase of the rail network, a 264km line from Shah and Habshan to the port of Ruwais, was completed in January 2016 and has carried 30 million tonnes of granulated sulphur to date. Stage two will add another 605km by extending the coastal section of the existing line to Ghuweifat on the border with Saudi Arabia and east to Fujairah.

• (vii). A PERSONAL VIEW.

Steve Sattler was recently a visitor and wrote the following report which raised the Editor's eyebrows at his No. 10: "The UAE is a new country, dating from 1971 that united seven poor and undeveloped Bedouin areas [The Trucial States] into a real country. Oil (and some gas) from 1956 became the main force that attracted US and UK companies to discover this area as a potential place of business. The UAE is a major exporter of oil, and thus the Bedouin locals (only) have a high income.

The two main cities are Abu Dhabi [ as the capital ] and Dubai as the main business, commercial, port and tourist city. 16 M tourists visited Dubai over 2019. Tourism is a major industry - run by Indian and Pakistani merchants.

2... Transport in Dubai :- The main inner city transport system is the Metro. The RED line is the longest with 31 stations. The GREEN line has 20 and a BLUE line is been planned. This Metro is modern, clean, shiny and automated. The trains have no drivers. The Red and Green lines interchange at two points. It is very efficient. The RED line metro - runs parallel to the main highway and is elevated. A train will arrive at approx every 3 mins, the signage is excellent, escalators and elevators are everywhere and where the entrance to the train stations has to cross the main 18 lane highway then moving walkways are the norm.

3... The standard ticket is a plastic card - called the NOL - in 4 flavours = Silver (for the tourists), Silver with a photo ID, Gold and Gold with a photo ID.

Gold-class tickets have their own Gold carriage - frequently used by local Emirati women for their privacy (by Islamic law).

4.... The Dubai Marina (a major residential, tourist and luxury boat area) is served by a tram service - very modern, automatic and shiny/clean. 14 + 2 stations. NOL cards are used.

5.... The Dubai Monorail is fairly new and has four stations - but will have six when they finish the next two. It runs about 20 metres above the ground and sea level [it crosses two sets of sea] and the last station is closest to Iran at 156kms. The monorail is 5.36kms long. Obviously clean, shiny and very modern. Automated.

6... A touristy electric train runs around the artificial (and lit up at night) Dubai lake - next to the Dubai Mall. The route is about 6kms.

7... A big kiddy electric train runs on the second floor of the Dubai mall - the route is about 3kms.

8... A freight train service runs across the UAE. There are plans to make this main-line train service into a massive system that will serve this whole East end of Arabia with links to KSA, Jordan {and Israel} and eventually into Egypt. At present it is a freight and bulk 'stuff' system. It is not automated.

9... At the airport DXB an automated train joins the two terminals together, with the usual shiny/clean and glass structures. A six min. ride. Escalators and elevators everywhere.

10.... The train link to India. A Hyperloop is planned [at speed 580 k/h] to Mumbai in India [1,862 kms] - in a glass/ plastic sleeve under water. This train for passenger and freight (and cars) will bring India closer to the ME.

- At this time - the main road between Abu Dhabi and Dubai is just a good, wide and quality highway with tens of luxury buses that do the run every day. It is 145 kms and takes 2hrs 15 min. A train service is planned."

## G. QATAR.

### • (i). 'YELLOW LINE' OPENS.

From 'Metro Report Intl.' 17.11.2021: "Services have started running on the Yellow Line of the Education City light rail network, providing connections between Education City Stadium and the Qatar Metro Green Line at Al Shaqab.

The catenary-free tram network is being delivered by the Capital Projects Directorate of the Qatari Foundation, which is developing the campus housing two universities, museums and the national library. When completed, the three-line network will serve a total of 24 stops.

The first short section was inaugurated in December 2019, when services began running on the Blue Line, also known as the Academic Loop. According to QF, Blue Line services are currently suspended for 'security reasons', but are expected to resume running after the Arab Cup football competition being organised by FIFA. This is scheduled to take place in Qatar between November 30 and December 18 as a prelude to the 2022 World Cup.

QF announced on November 4 that the Yellow Line was ready to open, along with a new park-and-ride facility at Oxygen Park. The minibus shuttle serving the route was withdrawn with effect from November 11. Yellow Line services are now operating from 06.00 to 22.00 each day, except Fridays and Saturdays when they finish at 16.00.

No date has yet been announced for the start of operations on the Green Line, which will serve the North Campus. This will run from an interchange with the Blue and Yellow lines at Stadium North to the national convention centre and Sidra, with a branch serving the Community Housing zone.

The Education City tram network is operated by a fleet of 19 Avenio low-floor LRVs from Siemens Mobility, which have batteries for onboard energy storage and small pantographs for recharging from an overhead conductor rail at the stops. Each air-conditioned tram has 64 seats, including dedicated spaces for passengers with disabilities."

### • (ii). FIRST SECTION OF LUSAIL TRAM NETWORK OPENS.

(a). (From 'I.R.J.' Jan 10, 2022; by David Burroughs)

"The line interchanges with Doha Metro. The first 5.5km section of light railway opened on January 1 in Lusail, a new city located north of Doha. The section runs underground from Legtaifiya, where it interchanges with the Doha Metro, to Energy City South, with stops at Marina, Marina Energy City South, Yacht Club and Esplanade.

The full 34km network will eventually serve 25 at-grade and seven underground stations along four lines with a connection with the Doha Metro, and will be catenary-free above ground.

Qatar Railways Company awarded the LRTC Consortium a €2Bn contract in 2014 to supply the turnkey light rail system. The consortium comprises Alstom (40%) and QDVC (60%), a Qatari shareholding company in charge of civil works which is held 51% by Qatari Diar Real Estate Investment Company and 49% by Vinci Construction Grands Projets.

Services are provided by 28 five-section low-floor Citadis X05 new generation LRVs with capacity for 209 passengers. Passenger information and security systems are provided both on the vehicles and at the stations.

Alstom supplied the LRVs and was responsible for track works including hardscaping, power supply equipment including the bulk and TPS substations, catenary and catenary-free technology (APS), and also installed the Urbalis 400 CBTC signalling and platform screen doors. The APS system uses 11m segments set into the track bed to supply current to vehicles, which automatically switch on and off depending on whether an LRV is passing over them."

(b). "R.G.I." adds: QATAR: The first section of the four-line Lusail tram network was opened for trial public services on January 1. The first phase of the Orange Line starts at the Legtaifiya interchange with the Doha Metro and runs underground for 5.5km to Energy City South, serving four intermediate stops at Marina, Marina Promenade, Yacht Club and Esplanade. Trams will run seven days a week at 5-min intervals, and ticketing is integrated with the metro.

When completed, the tram network will have four lines totalling 28 km. There will be 25 stops including two interchanges with the metro.

Minister of Transport Jassim Saif Ahmed Al Sulaiti said the tramway supported the ministry's plans for sustainable, multimodal, eco-friendly public transport using the world's latest technology to provide safe, reliable, and high-quality services for all.

In 2014 Qatar Rail awarded the contract to build the four-line network to a consortium of railway systems partner Alstom and the QDVC joint venture of Qatari Diar (51%) and Vinci Construction Grands Projets (49%). A joint venture of Hill International, Italferr and ASTAD Project Management was appointed to provide project management services.

The operating contract was awarded to the RKH Qitarat joint venture between a consortium of RATP Dev and Keolis (49%) and local construction, property and trading business Hamad Group (51%).

QDVC awarded Thales a subcontract to supply and maintain the supervision, telecoms, security and automatic fare collection systems.

As part of the railway systems contract Alstom has supplied 28 five-section Citadis X05 trams equipped with the APS ground-level power supply system. The 100% low-floor trams are 33m long with capacity for 207 passengers in standard and family classes. Branded 'Al Mehmel', the vehicles feature styling inspired by a traditional pearl fishing dhow."

## H. AFGHANISTAN.

This is another country that has experienced political turmoil in 2021. From 'R.G.I.': "Abdul Manan Omari has been named Acting Minister of Public Works in Afghanistan's new government. The Afghanistan Railway Authority has been merged back into the Ministry."

In 'Fahrplancenter News' No. 63 (Nov. 2021) p.16 is noted: In 21.08.2021 the new Taliban government appointed also a Minister for Public Works. This was relatively unexpected, for 20 years ago when they had earlier ruled the country such a post had not been envisaged. The Afghanistan Railway Authority is placed under this Ministry with its entire personnel. The government also guarantees the provision of funds for the further payment of operating costs and salaries.



AfRA was able to present the Minister with proposals for a further expansion of the railway and its maintenance on the basis that this is generally for the benefit of the country. The Foreign Minister also gave assurances that he was in contact with the neighbouring countries so that exchange of goods could continue. At the end of August the situation was as follows:

Traffic with Turkmenistan over the two cross-border lines in Towraghondi and Aquina was working as normal and had not been interrupted for a single day.

Traffic over the 'Friendship Bridge' between Uzbekistan and Afghanistan with the railway line Termez (Uzbekistan) – Hairotan – Mazar-i-Sharif continues to be interrupted, since the Uzbek government fears a flood of refugees with any freight trains. On the Afghan section south of Hairotan the AfRA runs a locomotive regularly in order to discover any damage to the line.

The line from the Iranian border to Rozanak in the Herat Province is operable but regular traffic had not yet been resumed and the Iranian government was first waiting to observe further developments within Afghanistan before freight traffic would re-start. At present there is a modest freight traffic by road.

There is as yet no railway line to Pakistan but here is where the most extensive trade takes place, albeit wholly by road, especially through the Pakistani border town of Chaman.

In contrast to the Islamic State (IS) in Iraq and in Syria, the Taliban government does not seem to consider the Railway to be 'the Work of the Devil' and actively attack it." (Translation WLR)

## I IRAQ.

From 'R.G.I.' 08.10.2021: "AD Ports Group has signed a memorandum of understanding for co-operation with the General Company for Ports of Iraq, including the exchange of expertise and best practices and studies for the development of rail and road infrastructure connecting Al Faw Port in Iraq with destinations in Jordan and Turkey."

## J. PALESTINE.

[Ed. writes: I was for a while unsure whether to add this to the 'Light Rail' rubric but shall place it here for now. Steve Sattler initially wrote of plans to extend the Jerusalem light rail northwards to the site of the former Atarot airport to link with a tram from Ramallah:

"The Jerusalem city planners say that eventually the nine (!) Jerusalem trams across Jerusalem will link up with the Ramallah and Beit-Lechem trams. At the same time the PA in Ramallah has enough NGOs and money from the EU to plan and build a Tram system in the Ramallah complex. The PA, run by the secular Fatah branch of the Palestinian Arabs, needs to show their own people that they do something - otherwise the Hamas will win the support of the young Arabs. Building a few tram lines in Ramallah is a simple solution to their local politics. Even if we ignore the (unruly) politics of the Arabs / Jews - eventually Ramallah, Jerusalem, the Jerusalem Corridor, Beit Lechem and Gush Etzion will become one livable complex of a mega-city ( like NYC )."

- and when I asked for more details of this 'messianic vision' he sent this from 'Medialine' from 2019:]

"3 Nov 2019 "Plans are afoot for a rail line in the northern West Bank, extending eventually to the south. The Palestinian Ministry of Transport is working to establish a rail line to connect Ramallah with the city of Nablus, and later, a link between Ramallah and the southern part of the West Bank.

The ministry is looking for a donor country to finance a feasibility study of what could turn into the largest project since the establishment of the Palestinian Authority – the "Holistic Plan for Transport and Communications in Palestine."

In 2007, then-Palestinian prime minister Salam Fayyad approved a \$2.25M master plan for the project that was financed in 2014 by the European Investment Fund.

In 2015, Samih Tbeileh, at the time minister of transport and communications, announced that foreign firms had started to develop a comprehensive initiative to include the construction of a rail line linking Nablus and Ramallah, with initial costs running at about \$175M.

Mohammed Hamdan, spokesperson for the Ministry of Transport, told The Media Line that the first phase of the project would connect Ramallah with cities in the northern part of the West Bank.

"We are looking to reduce traffic congestion and car accidents," he said. Hamdan pointed out that there was a great importance in reducing travel time. "In the second phase of the project," he said, "we will be connecting the southern cities [of the West Bank] with Ramallah and the north."

When asked about Israeli approval – he had confirmed that the proposed railway lines would be established on some lands under full Israeli security and administrative control – he stated that the "occupation" was an obstacle to any project having to do with the Palestinians, though it was too early in the process to worry about it. "We are first talking about Palestinian cities," Hamdan elaborated. "At a later stage, we would worry about Israel." "

*[We shall follow any developments with great interest. Ed.]*

## K. OVERVIEW: "MURDER OF THE ORIENT EXPRESS".

This is the title of an anonymous three-page article (40-42) in 'The Economist' (18. December 2020) 'Christmas Specials' supplement that tries to cover very briefly the growth and destruction of a railway system in the Middle East. It starts by describing Agatha Christie's personal experience at Aleppo that led her to write the novel 'Murder on the Orient Express' (published January 1934) – "It was five o'clock on a winter's morning in Syria. Alongside the platform at Aleppo stood the train grandly designated in railway guides as the 'Taurus Express'. It consisted of a kitchen and dining car, a sleeping-car and two local coaches..." There follow some journalistic inaccuracies – "Maps of the time show a region criss-crossed with tracks" and indicate that it was the Ottomans who initiated (rather than hindered) much railway construction but towards the end are two sections worth repeating, the former concerning the destructions and the latter current plans – however realistic they may or may not be.

"The last train left Tripoli for Beirut at the start of Lebanon's civil war in 1975. Syria's invading forces converted Rayak, the big junction and repair centre near its border, into a military base and turned an adjacent hotel into torture chambers. Israel's offensive in 1982 finished off what remained of the line in Beirut..... For years the 'Express' was the stubborn survivor. The leg to Baghdad folded in the 1980s but the night train from Aleppo to Turkey limped on. Then came Syria's civil war in 2011. The platform still stands in Aleppo where Christie's Murder began, but her route east to Iraq was damaged in the bombardment of Islamic State. Mosul station was destroyed. The Arab Union of Railways dissolved in 2016. After a spate of mortar attacks, Christie's writing retreat, the Baron Hotel (at Aleppo), shut its doors in 2014....."

"... The region's rulers each had a motive. The colonial powers carved up the Middle East. The generals who succeeded them prioritised their parcels of territory over the common market and culture developed across millennia. Tinpot dictators saw cosmopolitanism and connectivity as threats to new national identities. Religion lost its universality and shrank into cults tied to plots of land. Syria expelled its French inspectors. Iraq's railway administration sacked its Jewish managers. Bereft of expertise, many lines fell into disrepair..... The new love was the motor car. In 2019 Egypt paved over its Victorian tramway between downtown Cairo and the suburb of Heliopolis. To cover their tracks, the pulpits gentrified the ruins. In 2014 hipsters turned Beirut's Mar Mikhael station into a bar. Israel converted the old terminals in Jaffa and Jerusalem into night clubs and swanky restaurants. With a nostalgic nod, each makeover sends the message that the original use had reached the end of the line....."

But "as the oil age draws to a close, there are signs the region is rediscovering the value of its old connections.... ..Railway branches are reaching outwards again.... A century after the Saudis smashed the Hijaz line, trains with cars built in Spain race between the holy cities at 300km/h. A line to Jordan's border should open in March, seemingly preparing for the day of peace when via Israel passengers can reach the Mediterranean. Harbours similar hopes, Israel is building four lines, stretching tantalisingly eastward. If the Chinese company operating the Haifa container terminal has its way, at least one line will extend China's belt-and-road via Jordan. Competing for influence, Iran says it has agreed with Iraq to fill the 32km gap in its railway to southern Iraq, also with Chinese help. In October Iraq reopened the line to Mosul and announced plans to push on to Turkey. There are plans for lines linking the Arab states along the Gulf. Egypt is pursuing a massive expansion, which includes the world's largest monorail and new lines to Libya, Sudan and Saudi Arabia. ...."

Turkey continued from page 18

- (iv). **TCDD MANAGER.**

Abdülkerim Murat Atik was appointed as Chairman and CEO of Turkey's national infrastructure manager TCDD on September 3rd.

- (v). **TUNNEL BREAKTHROUGH ON HIGH SPEED LINE:**

From 'R.G.I.' 21.10.2021: "Excavation of the first major tunnel for the Ankara – Izmir high speed line was completed on October 16, with a holing-through ceremony presided over by Transport Minister Adil Karaismailoglu.

Speaking at the event, Karaismailoglu said the 3,005m tunnel T1 on the Esme - Salihli section of the route had been completed in a 'record' 206 days. With an internal diameter of 12.75m, T1 is the largest tunnel in the country to have been excavated using a tunnel boring machine. The bore is intended to accommodate two levels, with the upper deck carrying the double-track railway and the lower a service road for emergency access.

According to Karaismailoglu the 74 km Esme – Salihli section requires construction of 21 viaducts and 25 tunnels in total. He reported that work was 42% complete, but did not provide an update on the expected timescale for completion.

Previous government announcements had suggested the first section from the junction with the existing Ankara – Konya corridor at Polatl? as far as Afyonkarahisar would open by the end of 2022, followed by Afyonkarahisar – Menemen by the end of 2023. Menemen is just north of Izmir, where the high speed services would rejoin the existing network to reach the city centre via the recently upgraded Izban corridor.

Some other sections of the existing line are initially expected to remain in use, so that trains will be able to link the two cities by the end of 2023, the symbolically-important deadline marking 100 years of the modern Turkish republic.

The 86 km Banaz – Esme and 26 km Manisa – Menemen sections are being built by AGA Energy while the 177.5 km Sahlili – Manisa section has been subcontracted to a consortium of NAS and Budakyol."

- (vi). **ANTALYA LIGHT RAIL EXTENSION OPENED.**

From 'Metro Report Intl.' 26.10.21: "Antalya Metropolitan Municipality opened the third stage of AntiRay light rail route T3 on October 25, offering a week of free travel before the start of revenue operations at the end of the month.

The 24 km line links Varsak in the north of the city with Antalya's internationally-renowned Archaeology Museum via 27 intermediate stops. The first 13km from Varsak to Kepez was completed in March 2019, along with the depot near the Varsak terminus. A short extension to Ataturk followed in August 2019.

The 11km third phase runs from Atatürk to Muze, adding nine stops. Interchange is provided at the main bus station with route T1a-T1b, providing connections to the airport east of the city, two main hospitals and the university. At its Muze terminus T3 connects with heritage tram route T2 which runs for nine stops parallel with the coastal road above the city's main tourist beach. This is due to be upgraded to full light rail standards.

The line has been constructed by Makyol Insaat which submitted the lowest bid of TL697 Million in a tender held in 2018. The work included one underground station where the route passes beneath T1 at Otogar, together with both bored and cut-and-cover tunnel sections. There are also a main road underpass and several pedestrian bridges. Survey, consultancy and project supervision services were provided by Bogazici Proje AS, which also oversaw the rolling stock procurement. Test running on the third phase began in July."

- (vii). **WAGON WHEELS EXPORTS.**

From 'R.G.I.' 30.10.2021: "Steel producer Kardemir is to begin exporting wagon wheels to EU customers, having obtained TSI certification. The company announced on October 20 that it was about to begin exporting 30,000 freight wagon wheels to unnamed customers across the EU.

The steel plant at Karabuk is located on the Kirikkale – Zonguldak line in north central Turkey. It has an annual production capacity of 200,000 wheels, which are produced from ER7 and ER8 steel meeting the EN 13262+A2 standard. Kardemir also produces rail for domestic and export customers. Earlier this year the company exported its first rails to Afghanistan."



Requiring a total of 503.2 km of new construction, the direct line will reduce the overall distance by rail between the capital and Izmir from 824km to 620km. End-to-end journey times is expected to be cut from 14 hr to around 3 hr 30 min. The high speed line will serve five intermediate stations at Afyonkarahisar, Usak, Salihli, Turgutlu and Manisa.

Work on the project started in 2013 but has been subject to significant delay. Tendering of the civil works contracts for around 300km of the alignment has still to be completed. Construction of the route between Esme and Salihli is being undertaken by a consortium of Bayburt Grup and Kolin.

- (viii). **ISTANBUL LINE M1 I METRO TRIALS START.**

From 'Metro Report Intl.' 10.11.21: "Testing running has begun on the first phase of Istanbul's express Metro line M1 I. This is being built to serve the city's new main airport, which opened in 2019.

Announcing the start of dynamic testing at the Gayrettepe terminus on November 8, Minister of Transport & Infrastructure Adil Karaismailoglu said

M11 was expected to open in the first quarter of next year, but did not give an exact date.

The 37.5 km first phase of the line will connect Gayrettepe on Line M2 and Kagthane on M7 with Hardal, Kemerburgaz, Göktürk, İhsaniye and the airport's Terminals 2, 1 and 3 (Cargo).

CRRC Zhuzhou has supplied a fleet of trainsets equipped for unattended automated operation to GoA4. Services will operate at up to 120km/h, giving a journey time between Gayrettepe and the airport of 33 min.

Karaismailoglu described Gayrettepe as the deepest station in Turkey, with the platforms 72m below ground. M11 is the first Metro line to be constructed using three TBMs simultaneously and the first to be equipped with a Turkish-made signalling system, he added.

The signalling has been developed by Istanbul Metro and Aselsan, a company controlled by the Turkish military. It has been installed by a consortium of Aselsan and construction companies Kalyon, Kolin and Cengiz.

Work is continuing on the second phase of the line, which will link the airport and Istanbul's main European rail hub at Halkali, which is also the terminus of the Marmaray suburban service and metro Line M1a. This extension will add stations at Arnavutköy 1, Arnavutköy 2, Fenertepe, Kayaşehir Merkez, Olimpiyat and Tema Park. However, Karaismailoglu did not give an expected completion date.

M11 is one of seven lines in Istanbul which are being funded and developed by the national Ministry of Transport but once completed will be operated under the authority of the Municipality."

- *(ix). EBRD LOAN FOR KAPIKULE ROUTE MODERNISATION.*

From 'R.G.I.' 21.11.2021: "The European Bank for Reconstruction & Development is to provide Turkey with a €150M loan for reconstruction of the 67km-long İspartakule – Cerkezköy section of the 233km main line linking Halkali on the western edge of Istanbul with Kapikule on the border with Bulgaria.

Reporting that the Asian Investment Bank is considering offering a parallel loan that would partially offset more of the anticipated €640M cost, EBRD added that the İspartakule – Cerkezköy section would be tendered and built in line with its procurement rules and environmental and social standards.

EBRD explained that the government in Ankara had committed to 'timely' completion of the reconstruction of the whole corridor, which forms part of the EU's TEN-T network. This involves substantial amounts of tunnelling and a partly new double-track electrified alignment to enable 200km/h operation for passenger trains and a four-fold increase in freight traffic.

Reconstruction of the Kapikule – Cerkezköy section is already underway, supported by a €275M EU pre-accession assistance grant. The work is being carried out by Kolin and Webuild under a €530M contract awarded in 2018; observers from the European Commission reported in July that 38% of the civil works on this section had been completed.

As a condition of the grant the transport ministry has undertaken to start work by 2029 on a planned avoiding line around Istanbul, serving the city's new airport and crossing the Bosphorus on the existing Yavuz Selim rail and motorway bridge. This would link the country's European and Asian rail networks without requiring trains to pass through the busy Marmaray suburban rail corridor.

Both the EU and EBRD grants call for completion of the full route modernisation to the Bulgarian border by 2027. However, this target is now in doubt because of the planned construction of the Kanal Istanbul to the north of the city, which would bisect the railway alignment between Halkali and İspartakule, necessitating a partial rerouting of the line, estimated at up to 10 km, including a tunnel beneath the canal.

Local media reports claim that earlier this year 'a secret tender' was held for the tunnel works involving five invited consortia, with the resulting contract worth TL3.1Bn reportedly being awarded to a joint venture of Gülermak-

Yap?/Yap?-Ta?yap?. But there has been no formal notification of this contract through official channels.

It remains unclear whether the plan is to excavate the rail tunnel before, during or after the construction of the canal, or whether the completion of the railway works is tied to the ability of the government to successfully tender and complete the canal.

Currently the only work underway on the canal project is the rebuilding of a main road bridge. The launch of tenders for construction of the canal itself have long been delayed due to questions over how the project will be funded and the tenders structured. An ongoing currency crisis, which has seen the Turkish Lira fall in value by 24% against the Euro since the start of September, and upcoming parliamentary and presidential elections scheduled for 2023 are further complicating the outlook for major infrastructure schemes in the country."

To this can be added: ASIAN BANK LOAN FOR LINE IN EUROPEAN TURKEY.

From 'I.R.J.' 17.12.2021: "The Asian Infrastructure Investment Bank (AIIB) has provided a €300M loan to the Turkish government to support the construction of the €640M 67km İspartakule – Cerkezköy section of the Halkali – Kapikule line from Istanbul to the Bulgarian border.

This follows a similar €150M loan by the European Bank for Reconstruction and Development (EBRD) that was made last month.

Construction of the Halkali – Kapikule line is co-financed by the European Union (EU) through a €275M grant from the Instrument for Pre-accession Assistance (IPA) funds, and forms part of the EU Trans-European Transport Network (TEN-T).

The Halkali – Kapikule line is also part of the transport corridor for the Europe – Caucasus – Asia (TRACECA) which aims to strengthen economic relations, trade and transport in the Black Sea basin, South Caucasus and Central Asia regions. Both passenger and freight trains will operate on the line.

"AIIB's investment is considered 100% climate mitigation financing and falls under the bank's transport sector strategy," says Ms Supee Teravaninthorn, AIIB director general, infrastructure investment department (region 2)."

[We should note here that in late-2021 the Turkish Lira was in free-fall and inflation had risen enormously, due to the policies imposed by the Turkish premier, often against the wishes of his (several) Finance Ministers or Bank Governors. Ed.] [And see below (xvii).]

- *(x). ISTANBUL METRO LINE M5 CONTRACT.*

From 'Metro Report Intl.' 6.11.21: "Alstom is to supply, test and commission communications-based train control systems for the 11 km Cekmeköy-Sancaktepe – Sultanbeyli eastern extension of the driverless metro Line M5 on the Asian side of Istanbul.

The contract announced on November 25 has been awarded by the joint venture of Dogus, Özalpin and Yapı Merkezi which is building the extension on behalf of Istanbul Metropolitan Municipality. It covers the supply of trackside CBTC systems for eight stations and onboard equipment for four new trainsets. This will support driverless operation with 90 sec headways, providing a capacity of 120,000 passengers/h."

- *(xi). ALSTOM GAINS SIGNALLING CONTRACT.*

From 'R.G.I.' 03.12.21: "Contractor Kalyon has awarded Alstom a contract to supply electromechanical systems for the Bandırma – Bursa – Yenişehir – Osmaniye High Standard Railway Project.

The 201km line in north-western Turkey is being built to link the cities to the Istanbul – Ankara high speed corridor. Alstom is to supply Interflo 250 and 450 ETCS Level 1 and 2 equipment, including interlockings, a traffic control centre and a smart object controller designed to eliminate obsolescence risks and provide the capability for the signalling systems to use GSM-R and fibre networks."

• *(xii). TCDD OPENS LOGISTICS CENTRE AT KARS.*

From 'R.G.I.' 1.12.2021: "Infrastructure manager TCDD has formally opened its Kars logistics centre, created to serve the Baku – Tbilisi - Kars railway linking Turkey, Georgia and Azerbaijan, which opened in October 2017.

Fed by 19 tracks, the rail-served logistics hub covers 400,000 sq.m with capacity to handle 412,000 tonnes of cargo. Speaking at the opening ceremony on November 20, Turkish transport minister Adil Karaismailoglu said the Kars Logistics Centre had been established to 'revive the historical Silk Road' and provide an important centre for the transport of freight to and from Russia and Central Asia.

Noting that the centre would serve the BTK line, Karaismailoglu claimed that trains from as far afield as London and Beijing could serve the complex thanks to recent investment in new infrastructure linking Europe and Asia. Kars would become a regional logistics hub, he believed.

'We are targeting having 30% of the freight capacity of the middle corridor passing through our country' he added, reporting that the BTK railway had to date carried 1,262 trains, 26,214 containers and 1742 M tonnes of freight by volume.

TCDD plans to develop 25 rail logistics hubs across Turkey of which 12 are already operational. A further two — at the port of Izmir and at Sivas — are under construction, and five more, including one at Cerkezköy on the main line from Istanbul to the Bulgarian border, have received planning approval and are awaiting tendering. The remaining six are still at the planning stage."

• *(xiii). VOSSLOH WINS RAIL CONTRACT.*

From 'R.G.I.' 8.12.2021: "Vossloh has announced an 'economically significant' order to supply infrastructure contractor Kalyon Group with 147 turnouts of various geometries, along with spare parts and additional track materials, for the Bandirma – Bursa – Yenisehir – Osmaniye High Standard Railway Project.

Deliveries are scheduled to run for four years from 2022. The 201 km line suitable for 250km/h operation is being built to link the cities to the Istanbul – Ankara high speed corridor.

'The order once again impressively underlines our international competitiveness and strong position, in particular in the important Turkish market', said Vossloh CEO Oliver Schuster on December 1."

• *(xiv). TURKISH STEELWORKS ORDERS SHUNTERS.*

From 'R.G.I.' 7.12.2021: "Steelmaker Erdemir has placed an order for four CZ Loko EffiShunter 600 shunting locomotives to be delivered to its Ereğli plant in Q1 2023, with an option for two more.

Intended to replace obsolete Soviet and Chinese-designed locos at the plant, they will have 709kW CAT C27 diesel engines and will accommodate non-standard loading gauges, tight curves, a dusty environment and harsh weather.

CZ Loko has previously supplied six EffiShunter 600 locomotives to the Isdemir steelworks, two Class 744 locomotives to Erdemir, and two Class 741.7 locos which are used by TCDD as rescue locos for the Bosphorus tunnel.

'Although we entered Turkey six years ago, it is still a new market for us and therefore a very challenging one,' said Sales Director Jan Kutalek when the latest order was announced on November 26. 'But the contract at the steelworks, which is among the largest iron and steel producers in the world, confirms that we are moving in the right direction. Modern design, crew safety, ecological operation and high reliability allow our locomotives to withstand the demanding conditions of continuous operation at a steelworks.'"

• *(xv). ELECTRIFICATION TO KAYSERI.*

From 'R.G.I.' 23.12.2021: "Electric services have been launched over the entire 352km length of the Ankara – Kayseri main line, after infrastructure

manager TCDD completed wiring work between Nenek and Sefaatlı, Closing the final gap enables electric trains to run directly from Turkey's three main cities of Istanbul, Izmir and Ankara to both Adana and Malatya via Kayseri.

The Nenek – Sefaatlı electrification was undertaken for TCDD by a consortium of Ultra Teknoloji and Emreray Insaat Enerji under a TL69M contract signed in 2019. The work included the installation of 372km of overhead catenary and 118km of power cables, plus the construction of six substations.

The project covered both the main line and a branch to the Tupras oil refinery at Kirikkale. Ready for energisation of the branch, Tupras logistics subsidiary Körfez Ulaştırma took delivery of two Stadler EuroDual electro-diesel locomotives in September; delivery of a further five is expected to be completed this month.

Speaking at the opening ceremony on December 10, Minister for Transport & Communications Adil Karaismailoglu said 45% of the country's 12,803 route-km rail network had now been electrified and the proportion of existing conventional lines would reach 50% by the end of 2023.

The minister added that TCDD planned to electrify 294km of connecting lines and sidings serving 38 ports, logistics centres and industrial zones, and to connect 34 factory sites to its main network. Signalling will be expanded to cover 90% of the network, up from 65% currently.

Electrification of the existing main line between Ankara and Yerköy has been completed separately from the Ankara – Sivas high speed rail project which parallels part of the route, before branching off east on a newly constructed alignment. Karaismailoglu did not give an anticipated completion date for the long-delayed high-speed line, commenting only that 95% of infrastructure work had been completed and that testing had started on the Balıkesir – Yerköy – Sivas section.

Turning to other ongoing projects, he reported that work on the Konya – Karaman – Uluköy route modernisation programme was close to completion; once completed this would reduce journey times from 6h to 2h 20min.

Karaismailoglu revealed that plans had been prepared for extension of the Ankara – Yerköy high speed line south to Kayseri, and for development of a high speed line linking Aksaray, Uluköy, Mersin and Yenice. However, he did not say when either project would be implemented."

• *(xvii). ASSYSTEM WINS TURKISH MAINLINE PROJECT CONTRACT.*

From 'I.R.J.' Dec 28, 2021; (by Richard Clinnick)

"The contract involves overseeing the 67km Ispartakule – Cerkezköy section of the Halkali – Kapikule line. Assystem will oversee the development of the line.

ASSYSTEM has been appointed by General Directorate of Infrastructure Investments (AYGM) of the Ministry of Transport and Infrastructure of Turkey to oversee development of the €640M 67km Ispartakule – Cerkezköy section of the Halkali – Kapikule line from Istanbul to the Bulgarian border.

As part of the 51-month contract, Assystem will monitor the project and provide a range of technical support activities for AYGM's Project Implementation Unit (PIU). This will include environmental and social implementation support and compliance management, training of AYGM's PIU, procurement and contract implementation support, technical railway engineering support, design and technical specifications, review, financial documentation compliance management and reporting, and project monitoring and evaluation.

The double-track electrified line, has received a €300M loan from the Asian Infrastructure Investment Bank (AIIB) towards construction costs, and this followed a similar €150M loan from the European Bank for Reconstruction and Development (EBRD) in November.

The line forms part of the European Union Trans-European Transport Network (TEN-T) and is also part of the Europe – Caucasus – Asia (TRACECA) transport corridor which aims to strengthen economic relations, trade and transport in the Black Sea basin, South Caucasus and Central Asia regions."

# NOTES AND COMMENTS.

## (i). CORRECTIONS.

Brief corrections from Aharon Gazit: 'In Harakevet issue 134: The picture of the Siemens train on page 2 was sent by me but is by courtesy of Mr. Matan Berkovich, Israel Railways; The picture of the CRRC LRV of the Tel-Aviv Red Line was taken at Orlov Street in Petakh-Tikva during one of the numerous test runs.'

## (ii). A BRIDGE TO JEWISH AUTONOMY.....

From 'R.G.I.' Oct. 2021 p.6. "Work has been completed on a 2.2 Km bridge across the River Amur connecting Tongjiang in China's Heilongjiang province with Nizhneleninskoe in Russia's Jewish Autonomous Oblast. It carries a single-track railway with gauntletted 1,520 and 1,435mm gauge tracks, and has a design capacity of up to 21 million tonnes/year."

## (iii). TEL AVIV CENTRAL BUS STATION TO BE CLOSED.

In 'Times of Israel' 06.10.21: But: "In the near future we will see alternative sites, more electric buses, better service and less of the Tel Aviv central bus station and its pollution," Michaeli said in a statement. She did not specify whether the building will be levelled or whether a new building would go up in its place there or elsewhere in the city.

Architects have warned that the station's massive concrete shell would be virtually impossible to knock down, and in its wake would leave a coating of dust so thick it could choke all of Tel Aviv for weeks."

## (iv). ANOTHER JEWISH THEMED TRAM: IN MÜNCHEN.

Since the beginning of October a tram with Jewish motives has been working on the Münchner Verkehrsgesellschaft routes (MVG), as part of the general project celebrating '1700 Years of Jewish life in Germany'. It shows a slogan 'Schalom München' and comic images from the Dutch-Jewish cartoonist Ben Gershon whose strip 'Jewey Louis' is carried by several papers. The project was initiated by Jehudit de Toledo-Gruber..

## (v). MORE ON THESSALONIKI MEMORIAL.

To add to the item in 126:09, some notes by Tony Travis in 2019: The Editor was able to visit the deportation train memorial on 20.10.21. The large black mural was not seen. The former passenger now goods station is on the left of the main Stathmou road – actually about ten minutes' walk from the current modern passenger terminus. (Outside the end of this terminus on a high concrete wall another mural of a Jewish ghetto with signs was glimpsed from a taxi.) Outside the small former station building are two information Stele – one in English, one in Greek but with identical pictures – and the marble plaque is on the station building. Beyond there are the remains of just two platforms and left - i.e. Towards the city – is the spur with four four-wheel steel-sided vans built by Niesky in the DDR, DR type, and a bogie van which has an entrance door and steps fitted and seems to be used for an exhibition. Outside are a couple of benches and a tap for those who wish to sit and meditate or pray. Numbers are:

21 RIV 73 CH OSE 1569 396-0 Gbgs

21 73 154 4 006-5

21 73 1544 142-8 Gs

21 73 154 4 179-0

31 RIV OSE CH 199 0 040-1

Further out is a massive dump of decaying goods and passenger rolling stock but near a siding used for containers is a row of locos often hiding in trees and shrubbery – that is, as often as it is cut down it grows back again – three S160 2-8-0's and an Ansaldo-Breda 2-10-2 – and a little further on a curved siding – see Tony's description – is a wide area upon which a new Holocaust Museum is to be built and here stand an S160: Theta Gamma 532, and four wooden goods vans – which look authentic but which I was told were built, two in Poland, two in Romania, in 1965-67. Numbers are faded and peeled but I could make out:

21 73 131 1 152

20 73 115 128-8

131 0 335-0

21 73 OZE CH 131 0 235 Gs-V.

So this would only symbolically represent a deportation train as it comprises post-war stock and is not wholly historically authentic.

The newly-enlarged Jewish Museum is on Mina Street and this now consists of cobbles with some original metre gauge tram track laid in it! It seems this was rediscovered under the later road surface and was carefully then dug out and restored. And inside the museum is a tombstone of a former Jewish tram, driver, with an image of a tram carved into it!



## • (vi). JAFFA CLOCK TOWER.

Jeremy has sent a newspaper cutting from the Jerusalem Post, poss. 17. October, about the well-known clock tower in Jaffa which has apparently broken and needs a Danish expert to repair it.

"In 1901 about 100 clock towers were built across the Ottoman Empire.... The legend says that the actual cost of the clock was covered not by the authorities but by a private individual, Yossef Moial, who owned a business in the square and wanted to avoid people stopping by his store to ask for the time on the way to the nearby train station, built in 1892."

### (vii). PRAYER FOR TRAVELLERS

Rabb Yoel Kahn posted on a rabbinic chatline a section from 'Siddur Beit Rachel v'Likutei Tzvi', a "kol-bo" siddur published in Vilna in 1875, which has a special prayer for those who "Travel on Steam Trains (Eiysenbahn) or Sail in Ships." In addition to invoking every biblical verse which mentions storms, floods or fires, it asks: "Tishmereinu mi-bilbul itim v'machaluf z'manim" - which Sybil translates as "Preserve us from the confusion of time zones and changing hours". Rabbi Mickey Boyden notes: ("keep us from confusing the time and changes in the time").

"This prayer has relevance on two counts. Firstly, a ship, like an aeroplane, travels through different time zones and one could easily lose track of the time at a specific location, or even the day when crossing the International Date Line. Obviously this had relevance for Shabbat and festival observance. However, even more importantly, prior to the age of GPS and other electronic navigational aids, ships were entirely dependent upon an accurate chronometer to determine their position by celestial navigation."

### (viii). THE MESILA PARK AT JAFFA.

Sybil Ehrlich reports on a visit on 11.11: "I started with a walk along "Park Hamesila" – the Railway Park – on a short length of what was originally the railway line from Jaffa to Tel Aviv. It is very short. The first section, I didn't measure it but probably no more than about 20 yards/metres, has "rails" in the path, with a gauge of 100 cm, highly inauthentic. It gets worse. This section ends where a small road crosses the Railway Park. The "rails" resume with a gauge of 94 cm, and somewhere further along it's 97 cm. (Never travel without a tape measure!) Of course Tel Aviv has a tradition of this – the "railway track" on Razi'el Street, supposedly in memory of the 60-cm gauge line that ran along there until the 1920s, is actually 95 cm. The whole thing is around 600 metres.

Yes, it's a pleasant enough park, and there were plenty of people walking, with or without dogs, cycling, and just sitting. But as an item of historic railway interest, Jerusalem's wonderful Park Hamesila has nothing to worry about.

Then I decided to have another search for the old railway turntable. It is in a rather bad state, but at least it is still there, in what was the IDF Museum (which closed a few years ago) and is now a derelict site. I took a few photos before being thrown out.

Then I went to see what's doing at Ehrlich Station on the future light rail line in Jaffa. The platform looks complete and there is a small structure on the platform for the ticket machines. I was overjoyed to see that the temporary signs on the fencing have the name spelt correctly, which is more than can be said for most maps. This station is named after the adjacent Ehrlich Street, which honours Dr. Paul Ehrlich (1854-1915), a distant relative of mine. (Truly.)"





**(xii). TRAIN THEATRE AT JERUSALEM.**

From 'Times of Israel' 12.2021: When Jerusalem's Train Theatre opened in 1981, the puppet playhouse was held in a repurposed railroad carriage stationed in Liberty Bell Park, a nine-acre park named for its replica of the Philadelphia bell.

That same train car, slightly shorter now and freshly painted, has a new home inside the park: the Karon Theatre complex was formally opened in August, and fully completed just before Hanukkah. Karon is the Hebrew word for a train carriage, which harkens back to the roots of this creative and imaginative children's theater. The new complex, situated next to the park's skate area, basketball courts and playgrounds and funded by the British Davidson family, looks like children's building blocks tossed on the ground. Once inside, theatregoers can head to one of several theatres, including a grassy outdoors amphitheatre, a simple black box theatre that seats about 50, and the largest theater, which is located downstairs, with rows of fold-up seating that can be closed and closeted with the push of a button.

Backstage are simple dressing and storage rooms for the theater's actors, with each small-scale tale folded into small trunks and suitcases placed neatly on the metal shelves.

The main building also houses a new exhibit created by the Karon Theatre puppeteers and creators, with clever mobiles and dioramas equipped with moving parts and pieces that engage younger theatergoers, reminding them of the performances they've seen or could see in the future. While this new space is a far more expansive and permanent space than the previous incarnation of the Karon Theatre, it still retains its spirit of creativity and wonder.

For new CEO Kobi Frig, this new complex is just the start of his grand plans for the Karon. He wants to foster greater connections between the theatre and its surrounding park, as well as bridges — both virtual and real — between Karon and the nearby Khan and Jerusalem theaters, the Hansen House cultural centre, and the wide open spaces of the nearby Bloomfield Gardens and the First Station, all within easy walking distance of Liberty Bell Park. "This is a theatre that has grown with Jerusalem," said Frig, a cultural entrepreneur who has worked on Jerusalem events and productions for over a decade. "It makes sense that we'd create something larger here."

Back in 1981, the original wheel-less theatre train car cost a whopping NIS 3,000 — not a small sum of money at the time, said Hadass Ophrat, one of the original founders, in a video made in 2011 for the theatre's 30th anniversary.

The theatre was established as a collaboration of four independent puppeteers: Michael Schuster, Alina Ashbel, Ophrat and Mario Kotliar. It was the American-born Schuster who discovered the train carriage by chance and proposed using it for performances, doing most of the renovation work with his fellow puppeteers.

The theatre became a source of innovative puppetry in Israel with plays that were created for children but with dialogue and concepts that were directed to the adults in the audience. By 1983, it was hosting the International Festival of Puppet Theatre each summer, inviting global artists to perform on the homegrown stage. The Jerusalem Foundation eventually helped fund the construction of a permanent 70-seat theatre in the park."

The Train Theatre expanded to create the International Festival of Puppet Theatre, The School of Visual Theatre and HaZira Performance Art, all local institutions that are still dedicated to interdisciplinary experimental work. "It was the start of a great outdoor community centre for the city," said Ophrat. "There was a freedom that wasn't about marketing or money." Frig shares that same kind of energy and desire to spread the magic that the Train Theater has always offered. He wants young theatregoers to attend performances and participate in workshops at the new site, and wants to appeal to teens and older kids as well. He hopes to have performances in Arabic, to add more weekly activities in clowning and puppeteering, and to expand the stage's reach. This is really just the start," said Frig. "There's a lot of options now that we're here."'

See photo next page.....

**(ix). BLACK EIGHT.**

This is the magazine of the Stanier 8F Locomotive Society and when your Editor received issue No. 148 of Autumn 2021 he was excited to see on the cover notice of an article '8F Locomotives in Palestine'. On turning to p22-29 he found it was one he had himself written and submitted a while ago.... using extracts from the PR Monthly officers' Meetings.

**(x). HERITAGE OPERATIONS TO JERUSALEM?**

In mid-November 2021 Steve Sattler circulated information received, that IR was no longer interested in re-opening the passenger services on the 'old line' to (now) Jerusalem Malcha, which had been suspended when the Covid restrictions first hit.

A meeting was held on 23rd. Nov. and various ideas are being pursued..... We shall report further.

**(xi). IRANIAN ARCHAEOLOGY**

In 'The Narrow Gauge' was a photo submitted by Mark Enderby of the remains of 60cm gauge tipper wagons that had presumably been used during archaeological excavations at Parsagadae – which, according to the 'Britannica', is: "first dynastic capital of the Persian Achaemenian dynasty, situated on a plain northeast of Persepolis in southwestern Iran. According to tradition, Cyrus II (the Great; reigned 559–c. 529 BCE) chose the site because it lay near the scene of his victory over Astyages the Mede (550). The name of the city may have been derived from that of the chief Persian tribe, the Pasargadae, although it is possible that the original form of the name was Parsagadeh ("Throne of Pars"). In 2004 the ruins were designated a UNESCO World Heritage site". Mark has kindly made the photo available; he took it in October 2001:





**(xiii). NOTES ON CONGESTION.**

From 'Times of Israel' 12.12.2021:

".... There are more cars than ever before on Israeli roads, hitting 3.7 million in 2020 — up from 3.6M in 2019 — and expected to increase by a further 100,000 net new cars each year, according to data from the Central Bureau of Statistics.

Israel's motorization rate has also sharply increased over the past years, to nearly 400 cars per 1,000 residents — a leap from around 300 five years ago — meaning car density in the population is also increasing. Combined, the data underlines Israelis' growing preference for owning cars.....

And, as Israel's population growth outpaces the OECD's by a factor of four — 1.7% to 0.4%, according to the World Bank — car growth will likely continue, barring a radical change in behaviour.....

Pre-pandemic, the Tel Aviv metropolis saw around 1.5M daily bus trips and 80,000 passengers passing through Israel Railways' four Tel Aviv stations. "While public transportation usage has started to return, we still haven't gotten to full pre-COVID levels," noted Shakhman.

After decades of prioritizing private vehicles, Minister Merav Michaeli decided to turn the pyramid upside down and invest about 80% of the ministry's budget in public transportation and sustainable transportation projects, and 20% in private vehicle infrastructure, with an emphasis on road safety and risk centers," confirmed a Transportation Ministry spokesman.

Current Transportation Ministry plans for the next five years include building traffic management centers to intelligently control interurban traffic lights, investing NIS 2 Bn nationwide in bike lanes, and investing NIS 300M to connect light rails to next-step options, like scooters and electric bikes.

Raviv also advocated for introducing more buses into the system, alongside creating dedicated lanes for public transportation. This is significant because buses can move four times as many people over the same area as cars.

Creating a BRT system like Haifa's could also be a timely stopgap measure, "built in one to two years, not several decades." A BRT system could be a tenth of the cost of a light rail system, estimated by Raviv as NIS 50 million and NIS 500 million a kilometer, respectively, and accomplished in 20% of the time..... Raviv also warned that Israel cannot find its way out of this congestion quagmire by relying on expanded road options. "We're nearing the end of possibility geographically, especially in central Israel," warned Raviv. "It's dense. There's not enough land to build more infrastructure."

According to the Central Bureau of Statistics, Israel's population of 9.3M is expected to explode into 15M by the country's 2048 centennial. World Bank data shows Israel is already near the top of the OECD in population density, occupying the third spot behind South Korea and the Netherlands..."



## **From 'DIE WARTE'.**

(Part 2).

Once more, excerpts from the 'Süddeutsche Warte', here from 1868 onwards and concentrating mainly but not exclusively on items to do with transport but including some insights into life and administration at the time.

18.6.1868. The 'Neue Evangelische Kirchenzeitung' reports: "From Jerusalem, in April. The Turkish government, as is known keen to imitate European institutions, has ordered that the European colony here should be represented by three men in the newly-organised Municipal Council. The 18 electors appointed by the Consulates have chosen three "respected and competent" men: The Jewish banker J. Valero, the Jewish private businessman S. Amsalek and the representative of F. F. Spittler, Wilh. Wackernagel. These three have now also been for fourteen days members of the City Council, whose tasks include to keep the city clean and orderly, the supervision of construction, to supervise the creamers and the handworkers, concern for the poor, matters of official security and health matters together with power over taxes and punishments and command over the police corps etc. - at least one can say that it will be plenty of work for those who have been selected...."

10.12.1868. From the East. Letter from Herr Hoffmann: "Haifa, in Syria, 8th. November 1868. We travelled here on 30th. October from Beirut, since the season urges one to make haste... Since we received in Beirut the news that Haifa would be better suited and better situated for a stay than Nazareth and that the Brothers there are healthy once more and no longer require care, we decided upon Haifa as an initial place to stay. For the first days we found friendly accommodation and good and cheap food at the Russian Hospice here...."

1869.

28.1.1869. Haifa. (in Syria). "We had originally planned to settle at Nazareth... However in the meantime the attempt to settle at Samunieh near Nazareth had failed due to the overwhelming amount of sickness and death which meant that all settlers have had to leave apart from two families and locals advised us to stay near the sea. We have followed this advice and took up our temporary accommodation in Haifa. We have now been here for seven weeks.... and find many advantages for our purposes due to its location and the climate is indeed the best for us, a combination we should not have found elsewhere, and so we do not have to regret our choice.

....I should like to give a brief description of this little town and its surroundings, so far as I have learned so far, for the readers of the Süddeutsche Warte.

"Haifa is actually the gateway to Palestine, which in no other place reaches out from the interior into the sea as it does here. Under other circumstances this would long ago have led to a large city being developed here and a road into the interior and a harbour where ships could dock – if only the activities of men were to match those opportunities which God has prepared for us and to provide for the necessities of communication. However, the chaotic situation of the Orient means that this does not happen. The way overland in wintertime, when the plain becomes swampy, after each heavy rain when the streams swell is impassable. Even the three-hour totally flat coastal way to Akka leads over the mouths of the Kishon and an equally-strong stream, the Nahr Noman, and since no bridges have been built, one has to wade through which, following heavy rain or in stormy weather, when the waves through their heavy pressure force the stream backwards, is often dangerous or wholly impossible. Likewise nothing has been done towards the sea side to make landing any easier and since the bay is shallow larger ships have to anchor a quarter-hour away from the coast and the boats cannot come straight to the edge of the sea but one has to wade the last few steps through the waters or allow oneself to be carried...."

"Haifa itself lies on the small rise of some 100 to 200 feet over the sea, a foothill of the Carmel; it is walled with only two gates on the land side, one on the east side, one on the west. Inside the walls the houses are pressed up close to each other with narrow alleys whose former stone surfacing is in very poor condition, so that the excrement which, in accordance with oriental custom, simply flows through the alleys, forms puddles of filth at almost every step. If the state of health is nevertheless better than that in, for example, Akka then the reason for this can only lie in the vicinity of the sea, in the slightly elevated and sloping situation which makes it easier for the sewage to drain away and other natural advantages. There is no shortage of wells and the water is, in

spite of its rather salty flavour, not unhealthy although, as in most parts of Palestine, rainwater is to be preferred. There are however no good cisterns here or at least not many and indeed the construction of the houses here appears slipshod and intended only for the short term in comparison with those in other older and larger cities. The walls are of stone, the roofs flat of thin wooden beams with a covering of chalk which provides only limited resistance to the rainfall of winter. Glass windows are rare.

"It could be healthier and more pleasant outside the city in the suburbs which spread west of the gate towards the sea and between gardens and open fields. Apart from a Catholic church and school which have been built close to the gate and two or three other large buildings, this area is formed of small and poor hovels of which in any case many look only half-finished, so that this area makes a sad impression as of a flower which dies before it has blossomed.... Locals explain this in that following the Crimean War there was a desire for more shipping here and this increased greatly for the export of wheat and cotton and for a few years there was good business which led to the erection of buildings, but that the trade was not carried out properly and after a while there was so much swindling and betrayal that the foreigners returned to trade through Akka and the expansion of Haifa which had begun came to a standstill.... "

"The population of Haifa is given as some 4,000 souls which are of roughly equal proportions Roman Catholic, Greek-Catholic Christians, Mohammedans and Jews, although the Greeks seem to dominate. The Roman Catholics are in turn divided into Uniate Greeks who have retained their traditional rite and the Latins who belong to the Western Catholicism. These latter are under the spiritual leadership of the Carmelite Monastery... Protestants have only been here a short while, under a native teacher who is attached to the English Mission in Nazareth. For some ten years there has been a Russian hospice here to receive pilgrims, which is well equipped and also takes in other travellers. We ourselves spent our first days after arrival here and recall with gratitude the comfortable conditions and very cheap prices.

The European traffic of the city and the sea links with other parts of the country is formed by steamships of the Austrian Lloyd Line which call here every 14 days, whilst the French, Russian and other steamships have chosen Akka as their port of call.

"There are consuls and consular agents of the main European Powers here and in consequence Haifa has also a few European families. The language is, as in all of Syria, Arabic, but there are relatively many Arabs here who understand French. The market is small but one finds here the necessities for life; the poor state of the Turkish coinage makes trade difficult and encourages trickery, as all over in Turkey."

Haifa, 24. September 1869. To the Committee of the Tempelgesellschaft. "Dear Brothers! The foundation of the first planned model house was laid yesterday at 6pm with appropriate religious ceremony, in the presence of the Tempel members, some friendly Arabs, a dozen Arab workers and Herr Consul Ziphos.... An architect/builder from Beirut, Herr Koxyved, a Dane, kindly gave us copies of plans at nil cost and travelled here at his own expense to inspect the ground, which he found good and healthy, and left us various pieces of good advice and offered his further services in the future.... With Fraternal Greetings, G. D. Hardegg. (Head of the Haifa Colony.)"

Jaffa, 22. September 1869. "The Pasha of Jerusalem has been dismissed, officially because the Government is dissatisfied (and rightly so) with the state of the newly-built road from here to Jerusalem... An American warship has lain at anchor here for some eight days in order, as I hear, to reinforce the demands for compensation of a local American who was beaten and badly injured by Arabs. It would be desirable to have the same reaction for those under Prussia's protection in the Orient, but until now one has not seen any Prussian warship."

Jaffa, 6. November 1869. "We have had a busy week since the impending opening of the Suez Canal has brought many visitors to the Orient, of whom several also visit Jerusalem. One of these guests is of especial significance for

us, namely the Crown Prince of Prussia, who arrived here on the morning of 3. November with several warships and landed.... He rode, together with the Marine soldiers who had landed with him, as well as the Pasha of Jerusalem and Turkish military, to Ramleh, where a camp had been set up. On the next day he would have reached Jerusalem from there and at the beginning of next week will embark here again in order to travel via Beirut to Alexandria."

Jaffa, 13. November. "That the Sultan would come also seems to have been one of those empty rumours which circulate so widely in the Orient. The Emperor of Austria arrived on 8. November with a numerous party and was received by the Turkish government with great pomp. The Wali (Vice-King) of Damascus had come in order to greet him. A tent had been set up for the Kaiser in front of the city, where he spent a short time and then set off for Jerusalem. On setting off he encountered the Crown Prince of Prussia who was just returning from Jerusalem. Their meeting was short but very friendly. The Crown Prince paused at the entrance of the city for a brief conversation with us and we learned that he had used to the full his brief time in Jerusalem. ... He was only some two hours here and then travelled on to Beirut from where he should get to Port Said around the 15th."

1870.

6.1.1870. News from Palestine. "Another item of news of general interest is the colonisation project of Jews in Palestine, concerning which Herr Hofmann has already mentioned in his letter of 27. November: An agent of the 'Alliance Israélite' in Paris, Dr. Karl Netter, has acquired here a large piece of land on the road to Jerusalem, some ½ – 1 hour from Jaffa, where an agricultural school is to be erected...."

5.5.1887. Reform Struggles in Turkey. "In the publication 'Das Ausland' Dr. C. Sandreczki from Jerusalem describes recent legal cases in Palestine. :How the Inhabitants of Nablus understand Equality Before the Law.

"Two years ago a horse was stolen from a Christian of Nablus (a Latin). On 7. January 1869 a Fella came to Nablus with a horse, which the Christian recognised as being his own, and he demanded it back from the Fella, This man refused to do so and so the matter came before the Kadi, the Muslim judge, who whilst ignoring the Order of the Sultan of 1856 (Hatti Hümayun) which permits the recognition of Christians as witnesses, would permit only Moslem witnesses. Since however all the witnesses who could have testified as to the Christian's ownership of the horse in question were themselves Christians, the plaintiff withdrew his claim from the Kadi and brought it instead before the Medschli ed daawi, the Council for Matters of Conflict, except that the Kadi also acted as the President of this body and would not permit any Christians as witnesses, and so the plaintiff had no option left but to let the Fella go with the horse. A clerk of the Pasha of Nablus (or the 'Mutessarif', that is a Pasha who is subordinate to the Pasha or Wali of Damascus), a Latin Christian and the Latin Priest, who is a member of this Council, declared at this that Christians should also be allowed as witnesses, since the Ferman of 1856 contradicts the former law which denies this, with the exception of certain specific situations, such as marital issues of Muhammedans and so forth. This led to the great rage of the Kadi who shouted "Audh billah min esch Scheitan er redschem" ("I take my refuge before God from the Satan of the Stoned One"), "in Stamboul they may accept Christian witnesses, but here in Nablus only the Law of Islam applies." There came to an exchange of words in which the Kadi and his opponents exchanged terms which were not of the most complimentary. The Muhammedan members of the Council remained neutral and finally managed to calm the matter by ensuring that the decision on this question should await the return of the Pasha who was currently in Damascus.

The Council meeting ended before sunset... Some one and a half hours later they gathered in the mosque for prayers. Before the prayers however began the Kadi shouted out, and he threw his tarbush into the air, "It is not the time to pray now, Islam is being suppressed, the ..... dogs are governing over us." At this everyone was aroused and went and gathered in various houses to consider what to do, to end the superiority of the Christians over them. A Sheikh, Muhammed et Tuffahe, went from place to place and aroused the people, encouraging them to attack the Christians and soon one heard the most alarming cries in the streets. At this the Latin priest and the Christian clerk mentioned above decided to telegraph immediately to the Pasha in Damascus. Without this cable, which has existed only for some years, and the immediate use of same the situation would certainly have turned, as it did eight years ago,

into rebellion and bloodshed, especially as it is especially easy to inflame the fires of fanaticism during Ramadan. However an order was quickly sent that the military should form regular patrols and arrest all whom they found on the streets. 20 to 30 people were indeed then held in custody overnight but the Sheikh mentioned above was taken to Damascus. This energetic intervention of the Pasha of Damascus brought the Muhammedans back to their senses ...."

Pashas such as that of Damascus are a very rare breed and where the alert attendance of Consuls is not present to limit the arbitrariness of the authorities the Christian remains the persecuted and the one who is trampled upon. This applies especially in the Interior of the Empire, where the Christian is usually without also any of the influence which might accrue through acquisition of some prosperity, since all forms of trade and any activity that brings a profit are essentially dead here...."

9.6.1870. Excerpts from a letter from Herr Hoffmann, Jaffa, 13. May 1870: "Dr. Netter has finally returned here without having gone to Germany since he had to spend the entire winter in Constantinople in order to arrange the purchase of a property and, as one hears, had himself to become a Rajah, i.e. A Turkish subject in order to do so...."

"The pasha has leased the road to Jerusalem for 21 years to a local Arab for 300 Turkish Lira (à 11 fl.). Some of our worries are therefore removed, which I consider a good thing..."

15.12.1870. Jaffa and its Surroundings. Travel Report from Christoph Paulus. "...Jaffa is fortified with a ditch and double walls. The gates and the corners of the wall are also reinforced with buttresses that reach outwards and these are equipped with cannon. Although the walls are well maintained, they would naturally not hold out against newer siege weapons; nevertheless the Commandant of Jaffa was recently able to prevent the building of a gate in the southwest corner of the town, which would meet a great need, with the serious argument that he would then be unable to defend the city against any enemies.

The town has only three gates, one on the sea side towards the harbour, and two on the land side towards the east, whereby the northern one leads to the Jerusalem road and the road towards Nablus, the southern one leads to the road to Gaza. Both are closed in the evenings, when the muezzin calls to prayer, and Friday afternoons during the prayer times of the Mohammedans. The town has a small garrison which has to guard the gates. The fortifications as well as the houses are built of light stone and rising up on terraces, amongst which the monastery sticks out due to its size, giving the town a dignified appearance, especially from the sea.

However, one gains a totally different impression as soon as one enters the interior of the city. Its streets are small, twisted and uneven, as are all streets of the East, actually just alleyways, the widest may be 20 feet wide; many however are so narrow that two riders cannot pass each other. To this must be added the dreadful air, which must of necessity be created when the street here, as ever, serves also as the dumping ground for all filth. The lack of cleanliness in whichever direction one looks makes a very bad impression upon any European.

"The population of Jaffa is given as some 15,000 souls, and amongst these the Mohammedans are the majority, approximately two-thirds of the total number, the remainder are mainly Christians, some of the Roman, some of the Greek, some of the Armenian Churches. There are relatively few Jews. Jaffa provides for the imports and the exports of the entire country whereby it has become a major trading centre. On the streets before the Jerusalem Gate and at the harbour there is always a lot of activity. Fellahin (farmers) and Beduin come daily in substantial numbers to dispose of their produce and to purchase what they require. When one comes to land from a ship the main street first follows the sea, between the town wall and the nearest warehouses. Here is the fruit market; large amounts of grain are piled up, partly on the street next to the wall, partly in warehouses, and are then sent on by camel.

"From this street one reaches the actual bazaar where the shops of the merchants are to be found. This is the busiest street, some 20ft. wide. Along the whole street there are shops on both sides and other sellers sit in addition on the street itself. The shops are very small; the largest perhaps ten feet square, many only three, when for example the merchant is selling only one kind of article, so that the seller and his wares just fill the available space. Mostly the merchant sits in the middle of his wares set out on display, the purchaser does

not actually enter the shop through a door, this is open towards the street and one makes one's purchases from the street itself.

"The bazaar leads almost up to the Jerusalem Gate...In front of the gate the road divides, towards the north to Nablus, towards the east to Jerusalem. In the free open area in front of the gate large groups of people mix the whole day through, and here is mainly the fruit market; grapes, melons, dates, cactus fruit and similar are to be found here. Nearby the Beduin and the fellahin stable their camels and set up their tents. Along both roads there are numerous cafés, although they look really more like a German wagon shed than real coffee houses. The roof comprises straw mats, low stools with woven straw form the seating, or some old dirty benches with backs. The whole day through, but especially in the evenings, numerous people sit here with their coffee and water pipes.

"In the monasteries there are mission schools in which education is given free of charge and which are therefore well attended. Also here is a school of the Alliance Israélite; the former Metzler Schule is continued now by an English lady. How the education is organised here I cannot say but at least one can learn good French here; one can find many Arabs who speak this language fluently; many also speak English but so far French seems to be the main foreign language learned."

1871.

26.1.1871. "Jaffa itself is a commercial centre with important exports and imports, where daily several sailing ships and almost each day a steamship comes or goes. I recently counted ten ships which stood at anchor at the landing place. The traffic in the town provides a customer base for many craftsmen and this guarantees at least an existence.... The Arabs are reasonably open for European goods, they will buy what they want just as well from a European as from a native. The different form of European products is even an attraction for them in its way: clocks, oil lamps, straw seats, porcelain ware etc. are sold, beer and cigars are frequently purchased. They have like many peoples a rather low level of culture and want to possess everything that they desire. The city of Jaffa therefore offers for craftsmen and tradesmen a useful initial centre and it is to be hoped that more such would choose to make their way here. The German-French War has indeed had a laming influence on major traffic flows in the Orient, but the smaller enterprises are not seriously affected by it, because they serve the daily needs of their customers...."

"In order to purchase land one must wait until something is offered, because an enquiry of an Arab owner will bring him immediately into a fit, for he will not know how much he may demand for it. The Arab has no measure for the value of his land and the sale of it always seems to him to be a form of robbery where, irrespective of the actual value of the piece, he will always try to use the opportunity to get as much as possible for it. One must in consequence simply wait calmly until the owner comes and offers his property, or one must, through an activity elsewhere, indicate that really one has no interest in or need for the relevant piece of land..."

p.135. 9.3.1871. Travel Report from Ch. Paulus. (cont.) for Report from Haifa and the construction work on the German Colony there and how the Turks survey land!

"I write this report from Haifa, where I arrived on 15. January with the Austrian Lloyd steamer after a pleasant sea journey from Jaffa.... Until now the Colony consists of one street, which runs from north to south, i.e. from the sea coast to the foot of the Carmel and which has, apart from three building sites which have not yet been constructed, fourteen completed houses at a decent distance from each other to show. A second street, which will run parallel to the first and on which the institutional building and house of Herr Hardegg, the supervisor, stands has been begun and the construction sites at the upper end have already been allocated. These two streets are linked by several cross-streets. Most of the houses are single storey, four of them two-storey, all massively built from stone in an attractive style, spacious and friendly. The road between the houses is to a large extent now complete, the spaces between and behind them have been turned into gardens which each has surrounded with a stone wall some four shoes high.... "The entire side of the Carmel is covered with thorns, thistles and undergrowth; nothing is cultivated here, but one finds the foundations of former boundary walls and from the healthy weeds which grow everywhere one can gain a good impression of the fertility of the

soil here which awaits only the work of a human hand to reveal itself and demonstrate the reason for the name of the mountain.

...At present this is being measured by Turkish surveyors, that is, the part of this that is to be transferred to our Tempel Society. With this survey the preparatory works should be completed which need to be ready before the Firman or Deed of Gift can be drawn up. The survey work itself, which was spread over two days, yesterday and today, the 31. January and 1.. February, is so typical of the Turkish character that I cannot refrain from describing it. Two Arab are responsible for sorting out the business... The tools which the Turkish technicians use are very simple. There is no thought of a theodolite, a measuring table or even of a cross disc, they need absolutely no instrument to measure the direction, not even a compass. Their sole tool is a cord of some 20 Turkish Ells' length. The survey cannot therefore be concerned with the calculation of the surface area of the piece of land, indeed they measure neither the length nor the breadth of the property, but only its extent. Herr Schumacher showed them the plan which he had drawn to show the boundaries of the land in question. The lines of these boundaries were now measured exactly by our Turkish mathematicians with their measuring cord, dead straight apart from the corners and the zig-zag which ensue and their elevation. No distance, even if it went steeply like a roof downwards and then rose up again equally steeply, was reduced to a horizontal line but only noted according to the measurement of the measuring cord. It is therefore purely a matter of the length of the boundary of the property that we wish; and since with the measurement of this length no estimate of the area can be calculated, so the measurement can have only the significance that the boundary itself is accepted. The surveying has more of a symbolic than a mathematical significance.

Incidentally the actual area of the surface is of very little concern to the Turkish government since the majority of the country is for square mile after square mile uncultivated and uninhabited and brings in nothing..." In order to measure how many Morgen of land they wished to give us was therefore a question of little worth, the Commission which was sent here by the Wali of Damascus in order to ascertain and resolve this issue and which comprises officers from his chancery even asked whether we would like the boundaries to be extended outwards a little further, it could be easily managed...

16.3.1871. Travel Report from Chr. Paulus. "... My stay in Haifa has come at a convenient time, inasmuch as it coincided with the stay of the Turkish officials and the negotiations with them. The German Consular Agent Ziphos.. had come back to Haifa in order to devote his efforts to our matter. In addition two officials from the Chancery of the Wali had come here in order to establish the demands of the inhabitants of Haifa and the Carmelite Monks regarding the area of land which is to be ceded to us..... We must use this opportunity to emphasise also the considerate and understanding attitude of these senior Turkish officials and of the Wali of Damascus. We can do no more than to confirm that the fame which he bears throughout the land is indeed well and truly based and we can only express the wish that Turkey should find more men like him and then the difficult mission of the development and renewal of the Orient will not fail... Whoever knows how difficult and drawn-out all negotiations with the Turkish government are, which is deeply mistrustful of all European projects in its territories, and which generally manages to help itself through endless delays, whoever knows how here almost nothing is achieved without Bakshish, such a man must consider it a miracle that we have been listened to with such respect without the outlay of any money and that the Wali, only a few days after Herr Hardegg had explained to him in Beirut what our intentions and plans were, had instructed his First Secretary, or whatever the Turkish title is, his Political Director Herr Dalenda to Haifa to see the Colony and the desired area of the Carmel for themselves, and that now with such expedition and with true haste the preparations are being made .....

• *To be continued*



135:10  
New Siemen's 6-car double-deck e.m.u. Approaching Jerusalem (Photo I R)