

# HARAKEVET

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הרכבת

*A Quarterly Journal on the Railways of the Middle East*

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57:1.

Cover photo. Syrian 0-6-2T No. 031-805 departing Damascus Kanawat for Cadem on 4/10/2000. (Photo: Matthias Koch).

**EDITORIAL.**

The news from (especially) Israel has been very bad over the past quarter - and yet, there are always signs of hope. It is precisely when the European and other Press is full of anti-Israel news - hypercritical and hypocritical - that it is so important to be able to present both signs of development and construction - and at the same time provide some items of historical context and comparison. The Editor has been interviewed several times by journalists from respected radio and TV channels and newspapers, who clearly had not an idea as to the facts, the history, the relative strengths or any such matters. Yesterday they cover a flower show, today they write about the Middle East - tomorrow about a Trades Union dispute. Ignorance seems to be a major qualification for today's media personalities, closely followed by Fashionable Prejudice. This means that keeping and presenting the historical record in an accessible form is ever more vital as propaganda wars and downright lies take hold. It is also important, when so much news is of destruction, to incorporate more news of construction and progress.

On another depressing note - it is clear that many subscribers did not receive their copies of issues 54 and 55 - this only became apparent with a stream of e-mails and letters as issue 56 was received. On analysis, it appears that the issues which failed to arrive were mainly those addressed to Israel or to institutions in Britain that were clearly "Jewish". This is a very worrying matter - even though 'Tampering With Her Majesty's Mails' is still, I believe, a hanging offence, one can only assume that someone, somewhere in some postal sorting facility resorted to sabotage. Steve Waldenberg has sent out duplicates/replacements on request, at no extra charge of course, and if anyone else is still missing these numbers, please contact him direct - one can only hope we have enough spare copies.

In spite of the above - there is lots of good news in this issue. Enjoy!

**The Editor.**

57:3.

The new line towards Kfar Sava taking shape in January 2002; the view shows the restored line looking south towards Rosh HaAyin, and on the right a new curve towards Tel Aviv that will form a triangle here.

(Photo: Aharon Gazit).

**NEWS FROM  
THE LINE.****(a). A NEW FIVE-YEAR PLAN!**

From a Press Release of 12/03/2002 by the Transportation Ministry: Prime Minister Sharon has approved in principle the plan of Transportation Minister Sneh to invest \$4 Billion in the railways between 2002 and 2006.

Sneh describes the plan as a "New Deal"; although it looks revolutionary, it essentially entails accelerating the implementation of the railways' master plan by obtaining finance through bank loans, as well as by enabling the private sector to join in infrastructure projects. This would be in addition to the current budget from the Government. For example, \$2 Billion would be funded by a bank credit for seven years, and from this sum \$400M would be allocated during 2002, in addition to the current budget of \$215M.

Sneh added that the aim of this plan is to create a cheap and reliable rail mass transit system which will improve people's mobility, putting both north and south of Israel in much closer contact with the centre, thus enabling people to work or live in Beer Sheba or Carmiel and commute in Greater Tel Aviv, or vice versa.

In addition these many projects will create thousands of new jobs, thus reducing the growing unemployment.

The main components of the plan comprise:

- Upgrading the line to Jerusalem:	\$ 46M.
- Rolling stock for the line to Jerusalem:	\$ 92M.
- Upgrading the line Beer Sheba - Dimona:	\$ 17M.
- Double-tracking the line Naan - Beer Sheba:	\$ 150M.
- A new line between Ashkelon and Beer Sheba through Netivot and Ofakim:	\$ 86M.
- Grade separation (eliminating level crossings):	\$ 5M.
- Rolling stock for new lines to be built within the 5 year plan:	\$129M.
- Depots for new rolling stock. (Shoval).	\$ 11M.
- Total additional investments:	\$536M.

Acceleration of Investment:

- Upgrading the line Rosh HaAyin - Lod.	\$ 11M.
- Double-tracking Tel Aviv - Kfar Sava.	\$123M.
- Upgrading and doubling Ashdod - Ashkelon:	\$ 39M.
- New line Ben Gurion Airport - Modi'in.	\$157M.
Total of accelerated investments:	\$330M.

Total cost of projects of the 'New Deal': \$2,790M.  
Of which 5-Year Plan projects cost: \$1395M. (Additional budget needed.)

Total cost of Rolling Stock for the projects including depots: \$1,073M.  
Of which 5-Year Plan projects cost \$386M.  
Additional budget needed: \$687M.

Total cost of 'New Deal': \$3,863M.



Of which needed for the 5-year plan. \$1,781.  
 Total budget needed for updating the plan: \$2,082M.

Aharon Gazit has tabulated the figures as follows:

	"New Deal"	Existing 5-year Program.	Accelerated Plan.	Difference.
Infrastructure:	2790M.	1395M	1695M	300M.
Rolling Stock.	1073M	386M	622M	236M
Total:	3863M	1781M	2317M	536M

Therefore the Plan sees additional investments at \$536M and accelerating of investments by 340M. It is planned to spend \$270M on infrastructure in 2002 and \$30M in 2003; rolling stock is all allocated (\$236M) to 2002.

The Editor confesses to being blinded by all these sums - experience shows that not everything will work out as planned, and that is not even taking political events into consideration. nevertheless it seems also clear that some work is to be brought forward and expedited as quickly as possible.

In connection with the same subject: The General Manager of the Transport Ministry, Engineer Ben-Zion Salman, and the Transport Minister Dr. Ephraim Sneh have recently appointed an inter-ministerial team in order to promote and accelerate the building of the fast rail link between Tel Aviv (actually, Ben Gurion Airport) to Jerusalem, and remove all the obstacles in the way.

As already reported the line will pass near Modi'in, but the interesting point is that the section between Modi'in and Jerusalem will be built as a PFI (Private Finance Initiative) system, costing \$537M and including 9 tunnels (see below). The overall length of this new line Tel Aviv - Jerusalem will be 56km., enabling travelling time to be reduced to 28 minutes; there will be four trains in each direction, departing from Tel Aviv (Savidor) station and calling at Hashalom, HaHaganah, Ben Gurion Airport, Modi'in and Jerusalem - with an annual passenger forecast of 6 Million ! Dr. Sneh has also announced that he has instructed IR to push ahead with the planning of the two stations in Modi'in, with a view to services to the city starting in November 2005.

The Finance Ministry and IR have agreed to prepare a list of all lands belonging to the railways, which could be developed through the private sector - these total ca. 30 million sq. metres.

See also below.

A later report indicated that a serious argument has broken out between the Ministries of Finance and Transportation, regarding how the money for the 'New Deal' will be raised. The Finance Ministry wants to allocate it from their own resources thus deploying the payments over a longer period, while the Transportation Ministry is against this, claiming that if the money is in the hands of the Finance Ministry long delays could be caused. The two ministries are also arguing about how the line to Kfar Sava will be operated - the Finance Ministry wants it to be privately operated, whereas both Transport Minister Sneh and IR GM Yossi Snir oppose this, claiming the need to coordinate traffic otherwise between two operators may cause safety problems, in addition to the 70% subsidy for the operator and the burden of payments to the railways for use of their depot facilities - all additional complications.

### **(b). NEW MASTER PLAN FOR FREIGHT TRAFFIC.**

From a Press Release of 13/05/2002, with comments by Aharon:

"The General Manager of IR, Mr. Snir, has told the press that the railways are preparing a new plan for increasing freight haulage by rail. The masterplan is a part of the so-called "New Deal" for promoting rail projects.

The plan for developing freight services will include improvements on existing lines, as well as adding new lines, at Nahal Tzin - Beer Sheva, Lod - Rosh HaAyin (now being upgraded), Hadera East (revival of the historical Eastern or Inland line between there and Kfar Sava), Heletz Line (Kiryat Gat - Ashkelon) etc.

The plan will also include building of big freight terminals at Qishon Port at Haifa, at the port of Ashdod, and an additional terminal at the centre of Israel, probably at Shefayim - (between Netanya and Herzliyya on the main line Tel Aviv - Haifa.) or at Netanya. It is interesting to see how some of the stations which, until 40 years ago, used to have packing facilities for citrus - which were then dismantled due to loss of this traffic following pressure from road haulage) will now enjoy a revival as distribution centres, to and from which the goods will be hauled by lorry.

Several intermodal systems are being examined, among which are 'Translift' (to be manufactured by RAMTA at Beer Sheba), 'Road-Railer' and 'Rolling Highway'

(suggested by Aharon Gazit - as used in Europe under the name 'RoLa' whereby entire lorries travel on low-floor wagons) and others.

Investment may reach more than \$1 Billion, and one of the possibilities being considered for raising the money is by external investment in infrastructures under an operating concession for several years - some kind of freight equivalent of B.O.T. According to Mr. Snir, development of rail services will save the national economy annual damage of about \$1.4 Billion caused by lorries, in terms of direct damage to roads due to overloading, as well as congestion, accidents etc.

Mr. Snir also unveiled the slogan: "One Train hauling 4000 tons removes 100 heavy Lorries from the Roads."

### **(c). PASSENGER TRAFFIC STATISTICS.**

From a press release of 06/05/2002 by IR:

The railways have carried 5.3M passengers from the beginning of 2002 - 16% more compared with the same period in 2001 [presumably Jan.-April.], and it is anticipated that in 2002 the total passenger traffic will reach 18M.

As has already become a pattern in recent years, the greatest rise was on the line to Beer Sheva - an increase of 59% to 694,000 ! Tel Aviv - Rosh HaAyin saw 42% rise to 230,000 and Tel Aviv - Ashdod 34% rise to 913,000.

### **(d). NEW STATION NORTH OF LOD.**

The corner stone for a new station called "Ganei Aviv" - Spring Gardens - was laid on 08/05/2002, with the participation of the Transportation Minister Ephraim Sneh, General Manager of the Ministry Ben-Zion Salman, Chairman of the Ports & Railways Authority Gad Yaakoby, General Manager of Ports & Railways Authority Amos Ron, and G.M. of Israel Railways Yossi Snir. The station, which will be the second one in Lod, is located on the North-West outskirts of the city, on the line to Tel Aviv, and is intended to serve more than 15,000 inhabitants of the neighbourhood areas, for whom the main station is hardly accessible; it will enable them to reach all the rail destinations in Israel, and will include waiting shelters, public transport links and Park-and-Ride facilities.

The initial anticipated passenger traffic is 2100 daily, to be doubled at a later stage after the completion of a nearby industrial zone.

[A personal note from the Editor: My par-

ents were married in the old 'Spring Gardens Synagogue' in Bradford !)

### (e). RISHON LE-ZION.

On 25th. March 2002 IR General Manager Yossi Snir, together with the Transport Minister Dr. Ephraim Sneh, Finance Minister Silvan Shalom, Chairman of the Ports & Railways Authority Gad Yaacoby, Transport Ministry General Manager Ben-Zion Salman, and the Mayor of Rishon -le-Zion, Mr. Nitzan, jointly laid the corner stone for the new planned Rishonim (Roses Garden) station at Rishon-le-Zion and the rail link between here and Beer Yaakov, this will create a rail link for the first time in the history of this rapidly developing city; Rishon may indeed become the third-biggest city in Israel. Prime Minister Sharon was also due to participate but had to cancel at the last moment.

The station, which is located near a road junction of the same name, will be elevated, as it will cross the junction above the road. The new link will deviate from the Lod - Rehovot line at Beer Yaakov, and will run north-west for 3 km. to the station, in the median of a planned highway. Work has already started on both the station area and on the line. The station will have an overall area of 700 sq. m., including two side platforms each 200m long and 5m. wide, automatic gates, manned ticket-selling positions as well as automatic ticket vending machines, rooms for Station Master, staff and computers, toilets, two elevators and escalators, etc. Mr. Sneh said that the cost of the whole project is \$40M, and that the station, which is planned to open in September 2003, will be served by 52 trains daily, twice-hourly in each direction at rush-hours - one service will run two and from Tel Aviv, the other to and from Kfar Sava. This implies that the line between Rosh HaAvin and Kfar Sava, and that Lod - Rosh HaAvin, will also be upgraded by this date, thus enabling a seamless link between Dimona, Beer Sheva and Ashkelon in the South of the country and Kfar Sava in the centre.

Journey times will be 25 minutes to Tel Aviv Hashalom as compared to the current 90 minutes by bus or car ! A Park-and-Ride area will be built near the station at a cost of \$0.426M, fully financed by the Municipality of Rishon-le-Zion, as well as a bus station

### (f). THE JERUSALEM LINE(S). (i). Jerusalem Station & Malha Station.

Sybil received on 21/03 a press release from the Ministry of Transport

about what it calls the "Khan Jerusalem Station" (referring presumably to the Khan, now a theatre, opposite the old station.) See of course the cover of issue 56, and 'Tenders' below.

"The Ottoman station, built about 100 (sic!) years ago, will be restored and preserved. The renovation will include a new platform the length of the station, special lifts for the disabled, and a "park and ride" parking lot.

There will be an additional station next to the Malha Shopping Mall incorporated in a large transport area including a Light Rail station, bus terminal and "Park & Ride".

The same release appeared in the electronic "Israel Line" e-mail information bulletin on 22/03/02 thus:

#### **JERUSALEM-TEL AVIV RAIL LINE TO REOPEN BY 2004**

Minister of Transportation Ephraim Sneh said this week that train service between Jerusalem and Tel Aviv should resume by the middle of 2004 upon completion of work on the century-old rail line, THE JERUSALEM POST reported. The commute on the new line will take under one hour. Initially, 30 trains will commute between the cities daily. This week, Israel Railways issued a tender for the renewal and restoration of Jerusalem's train station, located in the Baka neighborhood. Six other tenders have been issued in the last few months for work on upgrading the Jerusalem-Tel Aviv line, after Prime Minister Ariel Sharon reached an agreement with Sneh and Minister of Finance Silvan Shalom in August to renovate the line at a cost of NIS 400 million (approximately \$100 million). The agreement also included a plan to construct an express line between Jerusalem and Tel Aviv that would run through the Ben Gurion Airport and Modi'in. The express line, which will cost \$750 million, will cut travel time between the two cities to 28 minutes, and is expected to be completed within 10 years.

There has not been train service between Tel Aviv and Jerusalem since July 1998, when the four daily trains were halted due to poor track conditions and repeated derailments."

However: Hardly had the last issue appeared, with the cover showing the plans for Jerusalem station, when political manoeuvrings began. On 13th. May Sybil wrote: "Ehud Olmert has cancelled the plans for the refurbishment and reopening of the old Jerusalem station! Below is the story I wrote for today's paper (it appeared in a shortened version). No doubt he will change his mind about the tunnel... the line will end in

Malha, and it will close through lack of demand.....

*"The Forum for Public Transport and environmental organizations in Jerusalem have asked Transportation Minister Ephraim Sneh not to end the railway line from Tel Aviv at the Malha mall but to continue it, as planned, to the historic station opposite the Khan.*

*The original station, built in 1892 and largely unchanged, is a short distance from the city center: Israel Railways plans call for the historic building to be incorporated into a new station. If trains terminate at Malha, on the southwestern edge of the city, the line will not be of any practical use for either passenger or freight trains. The Forum says that a railway station in the city center will increase the value of land and encourage residents to return to the central area. A station on the original site will encourage visits by tourists and pilgrims to Jerusalem, and will contribute to the economic development of the city. According to Rachel Horam of the Forum, Jerusalem Mayor Ehud Olmert wants to terminate the line at Malha so that he can develop the Khan area as a commercial project with hotels and residential buildings. Horam says that the planned light railway will have four routes passing the Khan, making it much more accessible than Malha, where only two routes are planned.*

*The old railway station is a historic site and should be preserved, said Horam. The most appropriate use for it is the original one, as a railway station linking Israel's capital not only with the rest of the country, but with its splendid and interesting past, she added. In response, Olmert said he and Sneh had agreed the terminus at Malha is to be only temporary, and eventually trains will run in a tunnel along the shortest possible route to Independence Park and the city center. He added that the old station building is to be preserved."*

*Aharon Gazit notes that no reason has been given for this sudden decision - that the plan is now to build a station adjacent to the Malha Mall with an adjacent bus terminal; it is known that the Jerusalem LRV project wanted very much to use the remaining right of way between here and what is now apparently called the "Khan Station" (i.e. the original 1892 station site), the future of which - after this latest turnaround - is again unclear. The right-of-way would therefore be secured even if the existing line were to be dismantled.*

**BEIT SHEMESH** is due to (re-)open in November 2003, and tractors and machines are constantly on site in March 2002.

A later report noted: "The ceremony at the Beit Shemesh station due to take place on 03/03/02 was cancelled due to two tragic terror attacks on the same day, but work is continuing on the line. On 11/03/02 Sneh told the press that the rail link between Na'an and Beit Shemesh should reopen in September 2003, with 27 trains daily between Beit Shemesh and Tel Aviv Savidor, travelling time of 35 minutes, and the traffic forecast is for 500,000 passengers annu-



ally. The rail link onward to Jerusalem would open a year later in September 2004, and there will then be 30 trains daily in each direction, travelling time approx. one hour."

But the Inauguration DID take place three months later: "The formal inauguration of the works on the new station here took place on 03/06/2002, this time with the participation of Prime Minister Ariel Sharon and the Mayor of Beth Shemesh, Mr. Wakin in addition to "the usual VIP's" (one wonders how some of these people find time to work, they are always opening new stations ! Ed.) No corner stone has been laid since construction works are well under way. The important message from the speeches was that services between Tel Aviv and Beit Shemesh will re-start in September 2003, a year before revival of services over the rest of the line to Jerusalem; Journey time between Beit Shemesh and Tel Aviv is again quoted as 35 minutes as compared to current rush-hour road transit times of 90 minutes or more."

#### (ii). PROGRESS ON THE WORKS.

By 24/03/02 the track had been removed between Na'an and four kilometres beyond Nahal Soreq. (via Amir Pnini.)

The End of Beth Shemesh: Sybil has sent further Reports of her observations:

Friday April 5: "Work on the station is progressing rapidly. There are three long trenches, which are for the platform foundations. The bad news is that the old stone building is not to be preserved after all. The works manager told me that when restoration work started, it was found that the building is in poor condition and he wasn't prepared to take the responsibility of preserving it as there is no knowing how long it will last. (There are indeed large cracks in the stonework.) It will be demolished and a replica built in its place.

On what will be the new platform, adjacent to the stone building, work is progressing on a state-of-the-art signal cabin.

The trolley shed (built of corrugated iron salvaged from its predecessor) will be demolished and a new one built, slightly northeast of the present one on a new alignment. It will have two tracks going into it, and a maintenance pit on the southern track (already partly excavated). There will be an office building next to the trolley shed.

The works manager told me he expects the track to be removed as far as Beit Shemesh (from Na'an direction)

within two months, which is much longer than I thought. Last I heard, it's been removed as far as 4 km. from Nahal Sorek going towards Beit Shemesh. Last Friday Amir Pnini and I saw considerable progress at Sejed, with new concrete bridges."

Sunday, April 28, 2002. "This morning the old stone building at Beit Shemesh station was demolished. Thanks to an unexpected chain of coincidences, I found out on Friday that this was going to happen at 7 a.m. Sunday, so I was there with my camera. The demolition squad — one man in a tractor — moved in at 7:40, and within 20 minutes the building was half gone. I didn't wait any longer because I had to go to work!

This building was constructed some time in the 1920s, definitely before 1928 and probably when the British upgraded the line at the end of the First World War. The walls and windows were original, but the roof was a more recent addition, being made of concrete with real lengths of rail as internal supports (not the usual "railsin" made of steel girders), not visible during the building's lifetime. Obviously there was no problem finding rails at this location!

Apparently one window will be preserved and incorporated into the new building, which will be a replica of the old one.

Meanwhile, the three trenches referred to in my previous report have become one huge pit.

When I returned from my daytime job, at 5:30, the entire building was no more than a heap of rubble. I saw a tractor crossing the road, obviously packing up from a day's work dismantling the track. When I went down there, the workmen had gone for the day. The track had been removed up to a point (coming from Lod) about 200 meters from the road crossing. The outer home signal (ESR 1916) was lying dead at the side of the track. I didn't find any other lineside furniture."

#### (iii). TZRIFIN/SARAFAND BRANCH LIFTED.

"I noticed a couple of weeks ago when I passed on the bus that the line to Tzrifin (Sarafand) has been lifted, as far as one can see on both sides of the road, so it's presumably the entire branch. Also, the level crossing just before Ramle (coming from Na'an) is out of action, road traffic being diverted along the Ramle bypass. At least that was the case on Friday 20/04/02. I have no idea whether it is a long-term arrangement.

There was no construction work of any kind at the site, but things like that change very rapidly here!"

#### (iv). THE MODI'IN LINE.

Sybil wrote in the 'Jerusalem Post' of 18/03/2002: "Transport Minister Ephraim Sneh yesterday instructed Israel Railways to start immediately building two stations in Modi'in, one in the city centre and the other on the edge of the town, close to the Jerusalem - Tel Aviv highway.....

The route will include nine tunnels with a total length of 14 km. The cost of the new line from Modi'in to Jerusalem is estimated at NIS 2.5 billion, and it is expected that six million passengers a year will use it. Journey time from Jerusalem to Tel Aviv will be 28 minutes, with four trains per hour in each direction.

The line is to be built in three stages; the first, currently under construction, is from Tel Aviv to Ben Gurion airport, with a tunnel under the Shapirim road interchange to the new terminal at the airport. The second stage will be from the airport to Modi'in, and is expected to be in service by November 2005."

#### (v). LEVEL CROSSING ACCIDENT.

Further proof of the need to replace level crossings quickly was provided by a recent accident near Lod station, when a truck was hit by a double-deck train from Rehovot, which threw it onto the adjacent track where it was hit again by a train in the opposite direction. The lorry was cut into two and two people were killed; the second train was derailed.

It is clear that this could have been a major disaster.....

#### (h). NATURAL GAS ?

Further to earlier reports concerning the intention to shift more freight traffic from road to rail, Yossi Snir has suggested the return of natural gas traffic, to reduce the danger of terrorist attack - (during a recent such attack a road tanker exploded at the Gelilot tank complex, but fortunately there was no chain-effect reaction.) However, it is quite clear that a train could just as easily provide a terrorist target or create safety problems. Snir has suggested the construction of a gas terminal in the Heletz area south of the freight line between Ashkelon and Kiryat Gat, to replace the existing (and no longer rail-connected) Gelilot terminal north of Tel Aviv.

### (i). RAMLA'S NEW STATION.

On 9/05/2002 the corner stone for the new station at Ramla was laid, with participation by Dr. Efraim Sneh and Finance Minister Silvan Shalom, Chairman of Ports Railways Authority Gad Yaakoby, GM of the Transportation Ministry Engineer Ben-Zion Salman and IR GM Yossi Snir. The station is to be located adjacent to the Central Bus Station and the District Government offices; it will have one platform 200m. long, a waiting room, parking area and access for the disabled, at a cost of \$2M. It will be served by the 32 trains daily running between Tel Aviv and Beer Sheva; from Sept. 2004 when the Jerusalem line upgrading is completed, passengers will also enjoy services to and from Jerusalem. Journey time to Tel Aviv will be 15 minutes. (Rush hour travellers by road can take up to 60 mins.)

### (j). SHEFAYIM.

IR will promote the construction of a new station at Shefayim, on the main Tel Aviv - Haifa line between Herzliyya and Beit Yehoshua. This will serve the nearby and rapidly-growing city of Raanana, thus shortening the travelling time to Tel Aviv from an hour by car or bus at present to just 15 minutes. The plan is strongly supported by the Mayor of Ra'anana, Mr. Ze'ev Bielsky, who promised during his meeting with Yossi Snir that the municipality will finance building of access roads.

It should be noted that a station had already existed at Shefayim, and prior to the doubling of the line was used for crossing trains; however, it lacks any passenger facilities. The station is now included in the 2002 budget for revival.

### (k). AKKO STATION REINAUGURATED.

From a press release of 21/05/2002: Today Transport Minister Sneh and GM Snir inaugurated the completely rebuilt station at Akko, which cost \$2.4M. The station area is 500 sq. m., and includes two platforms each 400m long, a pedestrian subway, elevators including for the disabled, escalators, parking area for 200 cars, as well as a public transport terminal for buses and taxis. Sneh said that the station's new layout will enable increased frequency on the Haifa - Nahariyya line, from two to three trains an hour in each direction, as well as shortening journey times.

### (l). CARMIEL LINE.

On the same occasion as above, Sneh announced that as from the end of 2002 the railways will start planning a new double-track line between Akko and Carmiel. It will be 22km. long and will run parallel to Road No. 85 located at the geographical border between Upper and Lower Galilee. It should cost around \$130M. Approval at higher committee level is foreseen at the end of 2002, and building is estimated to take 2 years.

### (m). AIRCRAFT MAINTENANCE AND A NEW STATION ?

IR are seriously negotiating with IAI (Israel Aircraft Industries) for a maintenance agreement by IAI under which this will maintain the railways' rolling stock and motive power. As already reported, the IAI 'RAMTA' plant at Beer Sheba are assembling IC3 trains, and have access through their own siding connection. In addition, a short siding is planned from the Rosh HaAyin - Lod line - currently being upgraded - to the IAI facilities which are adjacent to the line here, and near which a new station named 'Airport City' is to be built; it should be mentioned that IAI's Division for rebuilding and converting aircraft - to which Ramta also belongs - is very experienced in treating both engines and hydraulic systems, so they should be able to contribute a great deal. The agreement, when signed, will include also the depots at Lod and Haifa; the manager of the Division, Mr. David Artzi, has confirmed that "there are contacts regarding this matter with Mr. Yossi Snir".

### (n). JERUSALEM LIGHT RAIL.

The winning concessionaire will be committed to produce LRV trains protected against stones and incendiary bombs; this is a new requirement of the Ministry of Transport, in order to provide maximum safety for LRV passengers. [Note, Egged is now introducing armoured buses.] In the meantime, it has been announced that the group of Bombardier and SNC has withdrawn from the tender, claiming that this is a result of being threatened by Palestinians against laying the first line in Eastern Jerusalem. This leaves the arena for the two following:

1. The group headed by Africa Israel, Siemens, Canadian company Chic, and the Israeli company Feuchtwanger;
2. The group headed by Polar, Alstom, Elco and Ashtrom (Israel), and

the European operator Vivendi.

The project then postponed the latest date for presenting the final bids by a month, from 05/05/02 to 04/06/02 at the request of the bidders, who explained that the project's complexity and the need to fit their designs to the changes recently made to the concession contract required further preparation time.

Meanwhile, preparatory works for the infrastructure are progressing.

**JUNE REPORT:** From a press release of 04/06/2002, issued jointly by the Ministries of Transportation and Finance, and the Municipality of Jerusalem:

Two detailed proposals for B.O.T. (Build-Operate-Transfer) of Jerusalem's first LRV line were presented today to the inter-ministerial committee; two competing groups, "City Pass" and "Pass Jerusalem" presented their proposals, each containing thousands of data sheets and hundreds of drawings. The Chairman of the Committee, Mr David Gershonowitz, who is also the Deputy General Accountant of the Finance Ministry, who received the proposals, has thanked the representatives of the consortia for their great efforts in the preparation. It is now hoped to start the checking and evaluation procedure, which will take about three months, at the end of which the preferred bidder will be announced.

During discussions with the bidders, the committee had changed the tender to accord with the wishes of those bidding, particularly regarding the sensitive issue of the security situation. For example, a "security network" has been created, in order to provide the B.O.T. winner with 62% compensation should the annual revenues be less than the committee's forecast.

The chairman told the press that the proposals have been handed over to a team of specialists and consultants for the detailed evaluation.

The rating of the proposals will consist of the following:-

65% for the construction 'reward' requested by the group, 20% for the technical quality of the proposal, including the proposed level of service; 10% for the quality of the financial proposal, and 5% for the general impression.

It is estimated that negotiations with the preferred bidder, and financial closing, will take about 9 months, meaning that the concession contract should be signed around mid-2003, enabling commercial operation in 2006. It is estimated that each of the consortia has spent between \$2M and \$3M in preparing their proposal. (As a reminder - "City Pass"

consists of Alstom, Elco, Ashtram, Poalim Investments and the international operator CGEA; "Jerusalem Pass" (formerly "Passim") comprises Siemens Transportation, Africa-Israel Company, Feuchtwanger, CHIC Co. and the operator UESTRA.)

Parallel to the tender procedures, substantial progress has been achieved also in preparatory works; up to \$40M has been invested so far. The overall budget for preparatory works is \$100M, out of the overall cost of \$340M for this first line. The committee will finish hearing all the public appeals regarding the alignment of the first line by the end of this month (i.e. June). Last week, the final permission for building a road tunnel near the Nablus Gate was given - when completed this will permit grade separation between LRV and road traffic, avoiding interruption of each other.

Members of the Jerusalem Master Plan design team, who have been concentrating on design and implementation works for the first line, are now also preparing themselves for the design of the second stage of this LRV project, and for this purpose another international tender has been published - three companies are currently bidding, Semaly of France, Parsons of USA and IBI of Canada. It is estimated that section of the winner of Stage 2 will also be completed by mid-2003.

Latest updated information on the first line:

Overall length 13.8km., from Pisgat Ze'ev in the north, through Jaffa Road in the city centre, up to Mount Herzl in the south. There will be 23 stations along the line, including four with Park + Ride facilities, service intervals will be between 3 and 5 minutes in rush hours, average speed 23 km/h. and overall travelling time (including halts) 28 minutes. The depot will be built at Pisgat Ze'ev at the northern end of the line; in order to avoid disruption to the traffic flow in the city, a suspension bridge will be built between Jaffa Road and Rehov Herzl, at the western entrance to the city, for the LRV's.

In addition to preparatory infrastructure works for the first line, the project also encompasses creation of a bus lane, to be used by advanced buses, which will link the Talpiot neighbourhood at the city's south-eastern side with the industrial zone of Har Horzvim at the north-west, near the Ramot neighbourhood.

## **(h). I.R. TENDERS:**

(i). HN/RS/02/02. For the Manufacture and Supply of Various Types of

Timbers. Crossings and Bridges. For three years, optional extension for a further three years. Bids by 29/04/2002.

(ii). HN/KB/14/02. Construction of a parking area to the southwest of Binyamina station. Work to include: Dismantling, earthwork and subgrades, concrete works, sanitary installations, electricity and lighting, asphalt works, painting and landscape treatment, to include gardening irrigation, installing decorative rocks.

Time for implementation: 4 months, Bids by 22/04/02.

(iii). HN/KB/15/02. Framework agreement for ballast renewal by special equipment. The contract is for one year, with optional extension up to four years. Bids by 21/05/2002.

(iv). HN/KB/21/02. Construction of a pedestrian bridge at Tel Aviv Hahaganah station. Works include: earthworks, cast concrete, sealing, steel frames, electricity, aluminium works, locksmith works, installing signs, etc. Time for implementation: 4 months. Bids by 09/04/02.

(v). BN/KB/10/02. Construction (Rebuilding) of Jerusalem Station.

Works include: Pedestrian subway, control building, preserving and rebuilding the original historic building, new platforms including canopies, elevators and escalators, air conditioning system, electricity and communications, water, sewage and drainage systems, signs, a new parking area, and various landscape developments.

Time for Implementation: 14 months. Last date for bids: 22/04/2002.

(vi). HN/KB/33/02. Building a Pedestrian Bridge at Tel Aviv HaHaganah station. Works include: earthworks, concrete, sealings, steel frames, electricity, aluminium, stones, locksmith works, boarding etc.

Time for implementation: 4 months. Last date for bids: 13/05/02.

(vii). TK/KB/04/02. Laying communication and level crossings cables on the line between Lod and Rosh HaAvin - currently being upgraded.

Works include: Preparations, marking, digging cable channels, opening and closing existing concrete/pvc cable channels, laying cables, closing etc. Time for implementation is in coordination with the line upgrading. Bids by 13/05/02.

(Actually, Aharon Gazit noted. upgrading works started 13/05/02, with

the line closed to traffic and all level crossing equipment being dismantled.)

(viii). HN/KB/24/02. Re-inforcing an existing bridge over Ada River (north of Binyamina station) and adding a viaduct over the same river.

Works include: dismantling, earthworks and beddings, concrete, asphalt, removal of waste materials and treatment for communication cables. Time for implementation: 2.5 months. Bids by 30/05/02.

(ix). HN/KB/25/02. Upgrading the line Haifa - Kiryat Motzkin on the section between Paz Bridge and Lev-HaMifratz station, km., 2.623 and 4.360. Works include: earthworks, ballast removal, laying trackbed, new ballast, digging communication channels, supply and laying signalling and communication cables. Time for implementation: 3 months. Bids by: 28/05/02.

*[This stretch has had a speed restriction due to poor drainage and soil conditions for some time. Ed.]*

(x). MS/RK/3/2002. Permission to install, operate and maintain two photograph machines for passport pictures at two railway stations (one at each). the contract is for one year, with optional extensions for additional two years. Bids by 09/06/02.

(xi). MS/RK/RS/03/02. For supply of diesel-powered forklift with loading capability of 3 tons; option for additional forklifts during a period of three years after the first order has been fulfilled. Bids by 19.06/02.

(xii). HB/SR/09/02. Providing maintenance services for the railways' mechanical engineering equipment (Track Engineering Dept.) The work includes: various rail cranes, tampers and ballast regulators, various trolleys, crane trolleys, screw driving machines, generators for lighting, engines and components, mechanical systems, electrical systems, maintenance sites will be at the railways' depots in Haifa and Lod, as well as along the tracks, using materials and spare parts supplied by the railways. The contract is for 2 years, with optional extension for additional 4 years. Last date for bids: 30/07/2002.

## ROLLING STOCK NOTES.

### a). CURRENT ORDERS.

The new lines and services will of course require more stock. What is the current situation?

Back in June 2000, two years ago, AdTranz in Randers received an order for six new IC3 sets to be delivered in early 2002; at that time (according to the Danish newspaper 'Borsen' on 23/06/00) a further order for 14 more sets was expected in 2001, and maybe 30 more later, "as Israel needs 50 trains in the coming eight years". 30% of the work was due to be carried out in Israel, nevertheless 100 new jobs were to be created in in Denmark, and the order was reported as worth 720 Million Danish Kroner.

On a visit to the Bombardier works at Hennigsdorf (near Berlin) in April the Editor was informed that Bombardier have "purchased back" from DB the VT611 2-car tilting dmu sets that were so unsuccessful in DB service, and are seeking to sell them on to other European or other railways. One of these sets was of course trialled in Israel a while ago. (See 40:1).

### b). MORE DOUBLE DECKERS ?

IR is to decide soon as to whether to 'realize' the option to purchase an additional 16 double-deck train sets from Bombardier of Görlitz, which would bring the total number of such sets up to 30.

Chen Melling notes - re. 52:4(r) - the new IR coaches are equipped with sliding plug doors and not swing doors.

Their colour scheme is that currently used on the DB in Germany (Deutsche Bahn) for their similar (albeit not identical!) coaches used for 'Nahverkehr' - i.e. local services. The colours (classified by the German colour classification RAL) are:

- Roofs, chassis, and the areas surrounding the driving cab window are painted in 'basalt grey' (RAL 7012.)

- Main body colour is 'Traffic Red' (Verkehrsröt) (RAL 3020).

- The doors and lower body and mid-body horizontal stripes are 'light grey' (RAL 7035) as are the IR logos applied to the bodysides (which are, by the way, of the wrong shape).

The IR logos on the fronts of the driving coaches are applied as a sticker with a dark blue logo on white back-

ground. Unfortunately, these logos are of the same wrong shape as their body-side counterparts.

### (c). LONGER TRAIN FORMATION TRIALS.

IR have recently tested an 8-car formation double-deck train (7 trailers and one power car, as against the usual formation of 3 trailers and power car) hauled by one Alstom 'Mega' diesel-electric loco, both as an Inter-City service between Nahariya and Tel Aviv and as a suburban service between Binyamina and Rehovot - the result was good performance in Inter-City mode but very disappointing on the suburban service, which took 20% longer than scheduled - this is due to the loco's heavy weight and low rate of acceleration. It has not yet been decided if there will be any concrete applications of these results, but it is known that the railways discussed recently with the train manufacturer Bombardier-Görlitz the possibility of operating trains of five-car formations.

(Formations of five and six cars are now common on DB, but of course there are differences with the air-conditioning and other supplies. Ed.)

Re. 53:4(a) - So far, all the Bombardier Double-Deck (DD) coaches arrived in Israel as part of their sets - i.e. in one or two groups of four per ship (each basic set composed of four coaches). The only exception to this rule so far has been driving Generator Coach No. 415, which, being a spare, came with sets 13 & 14. Therefore, the first arrival in Ashdod Port included two SETS and not two coaches as stated in that item.

### d). NEW "SHUNTING LOCO"!

Paul advises that Qishon Workshops has a new shunting loco - "well, actually a shiny bright red converted tractor. The builder's plate is stamped 'SAME DEUTZ-FAHR GROUP Sp.A, Treviglio, Italy". On the bonnet is the legend 'SAME SILVER 90', presumably denoting the model. The tractor retains its tyred driving wheels. The front wheels are now steel flanged, and a rear axle with flanged wheels has been added. It may, therefore, be described as a 2-2-2! No precise date of arrival is known, but it is

said to have arrived towards the end of 2001.

It is thought that this new shunter replaced a previous tractor which is rumoured to have gone to the Haifa airport nearby. If this is correct then the tractor disposed of would presumably have been reconverted to all-tyred wheels for use at the airport."

### e). IR CRANES.

Chen Melling notes: re. 52:8(a): The steam cranes in the Israel Railway Museum were indeed painted shortly after their arrival with high quality paint, but unfortunately they were painted in bogus flamboyant colours. One of the reasons for this is that we have not yet discovered the actual colours these cranes wore during their service lives (any information from 'Harakevet' readers?). Another is that the Museum's Manager (not a railway historian himself) loves bright and colourful items. Anyway, the paint will help preserve the cranes in their current physical condition until it may be possible to conduct a more thorough restoration.

Some more historical information on the cranes themselves:

C&S 3855 of 1918 was numbered by Palestine Railways as their No. 1, PR No. 2 being the identical C&S 3856 (scrapped in 1991). This numbering was used for most of these cranes' working lives. Early pictures of these cranes show them to have had much smaller boilers than the one carried today by No. 1 This is explained by a drawing found in the archives, dating to the 1950's, which shows a new boiler manufactured in Israel for No. 1 (at least).

No. C-30-1 was apparently painted green when captured from Egypt, but almost certainly not of the shade now carried, and without the red roof applied by the Museum.

Regarding the item 56:13 - Paul mentions the assumed identity of the Cowans Sheldon steam crane involved in clearing the Beit Yehoshua accident of 1963, but fails to mention that of the big Diesel crane. This was built by Krupp in Germany and was known for a time on IR by the running number C-63-1 (meaning 63-ton Crane No. 1.) It is rumoured that it was captured from the Egyptians in the Sinai peninsula (presumably in 1956), but I have seen no document regarding this, and a Hebrew safety plaque on the bodyside states that it was built in 1959 (i.e. after the Sinai Campaign). The same crane seems to make an appearance in the second picture Paul sent, of the derailment on the Jerusalem line.



(f). Re: 55:12 & 56:8(f).  
MORE ON GM EXPORT  
LOCOMOTIVES.

Chen writes: "The comments at the end of the GM-EMD article are a bit misleading. IR locomotives 101-103 were built by SAFB (under licence from EMD) before the standard designs for export locomotives had been created by the American company. This would explain the major design differences with the G123 type. It should be noted that the design of these three pioneers of the EMD export business had many common features with that of the shunters produced shortly afterwards by the same firm for the Luxemburg State Railways - CFL - which also had EMD engines. Both types also shared some design features with the standard EMD shunters ("Switchers") of the time, like the nose (front hood shape) and headlights, as well as standard American bogies of the time.

Regarding the GM-EMD locomotive types' designation system - there are, in fact, two such systems. One is for domestic models (such as GP35, SW1000 and SD90), the other for 'export' models such as the G12, GT26CW-2 and JT42CW models.

Except for the domestic switchers (shunters) and a few of the early mainline models, none of the designations give any sort of indication as to the engine power of the locomotives. I will not go into much detail here, but to give an impression, here are some of the 'rules' regarding the export models' designation:

- the number indicates the number of cylinders and the series of the engine - thus 12 = 12-567C/E; 26 = 16-645E; 42 = 12-710G etc.

- the letter G indicates a road-switcher body, i.e. full-width cab with narrow 'hoods' on both ends.

- The letter J indicates a 'European' style body, with a cab at each end of the locomotive (the earlier version of this designation was AA, which was translated in Germany to KK, including some locomotives delivered to Egypt.) Further details of this system and the domestic one as well can be found on Larry Russel's EMD Export Locomotives Web page at <<http://emdexport.railfan.net/>>

The following address - <[http://www.nohab-gm.com/en/en05\\_1.html](http://www.nohab-gm.com/en/en05_1.html)> - contains a very informative summary of the development of the GM-EMD export locomotives of the 'Bulldog Nose' variety, such as the Saudi FP7/9 and the Egyptian KK16, AA16 and AA12, amongst others. It should also be noted that a Scandinavian demonstrator loco got as far as Turkey. The text is also avail-

able in German - the site belongs to a Hungarian preservation group.

One reason for the above article's emphasis on the G16 rather than G12 type was that most of the mainline Diesel locomotives built in Europe under GM licence at the time were of the 16-cylinder variety. Most of them did not carry the G16 designation because they did not fit the basic designation 'rules' described above.

By the way, the Swedish T41 and T43 models are also designated G12's by EMD, and the GM prototype (7707) was later used in Sweden and designated T42."

(g). MORE ON SAFB 101-103.

Further to the above - "Aharon Gazit states that he believes at least one of this trio delivered in 1952 arrived in plain grey livery, the red stripes and black lining being added in Israel.

The IRM Archive's photo collection includes three large maker's photographs of No. 101, taken when it was new at La Croyère, the trio's birthplace. These pictures clearly show that at least No. 101 left the factory fully painted, lined and marked. The markings include the words 'RAKEVET ISRAEL' in Hebrew and 'ISRAEL RAILWAYS' in English on the cab sides instead of the familiar roundel, plus painted versions of the IR logo on the sides of both ends of the body, near the red and white 'smile'. I cannot be certain regarding the state in which the other two locomotives were delivered, but it seems reasonable to assume it was the same. Plate 90 in Paul Cotterell's book shows No. 103 in Haifa when almost new, and it appears the same as 101 in the maker's photo, except for the following changes:

- The Israel Railways lettering on the cab was replaced by a small IR roundel, which appears to be a painted one.

- the locomotive's number and a date were painted on the buffer beams, just like the markings on the steam locomotives of the time.

It might be that Aharon's recollections of a plain-liveried SAFB Diesel comes from the time in the late 1960's/early 1970's, when several IR Diesels ran around wearing nothing but light grey, including at least SAFB No. 101 and Esslingens 216 and 223 (see Cotterell's Plate 92).

Re. 55:5(i): The SAFB Diesels do not have the same engine type as the Israeli G12's. The former have model 12-567B prime-movers, while the latter had 12-567C, 12-567D or 12-567E (all these types are 12-cylinder vee-shaped 2-stage Diesel engines.) The three designations might appear similar, but in fact the difference between the models is big enough

to make the C-series ones 175hp. stronger than the B-series (1425hp. against 1250hp.) Most of IR's G12 locomotives had their engines replaced with newer variants during their careers, but as far as I know, Nos. 101-103 still carry their original engines in retirement.

It should be noted that the G12 'Demonstrator' (prototype) No. 7707 was built with the 12-567B engine like the Israeli Belgian locos, but this was replaced by the new 12-567C before it was sent from Canada to Europe for demonstration.

A nice summary of the different EMD engine models can be found at <<http://trnng.dk/gm-emd/english/gm-emdengines.htm>> (Note that this page is part of a web site whose address is <<http://www.trnng.dk/gm-cmd/english/index.htm>>)."

(h). NOTES ON NOMENCLATURE.

The Editor receives reports from several correspondents (thanks to all!) and tends to rely on what is delivered. Chen however makes some interesting points about official as opposed to 'enthusiast' nomenclature. He writes:

"Reference is made in 53:4 to an 'Alstom MEGA' locomotive. It should be noted that the brand-name MEGA was used for a short time only, and is definitely not used by most railway employees and enthusiasts today. In fact it existed officially only in the period when Alstom still traded as 'GEC-Alstom'. The official brochure published by the company upon the locomotives' delivery referred to both freight and passenger versions as "GA-3000" type. Drivers' manuals issued at the time referred to them by their American (GM-EMD) designations - JT42BW for the passenger (Bo-Bo) version, and JT42CW for the freight (Co-Co) one. They are known locally, by both IR employees and official documents and by enthusiasts, as "BoBos" and "CoCos" respectively. Today, Alstom regards them publicly as part of their 'Prima' family of locomotives, with the designations DE32B and DE32C, this according to their website.

The maximum speed allowed for the first batch of ten BoBos is 140km/h., while the second batch can go 145 km/h.

In the same item, as well as in other places in Harakevet recently, reference is made to the IC3 brand name as 'Flexliner'. This is erroneous, as the correct name is 'Flexliner'. This name was apparently invented when ABB-Scandia tried to market the type in the North American market, that is some time AFTER Israel Railways made its first commitment to the type. This spelling can be seen on the official model presented to IR by the then ABB-Scandia (later ADtranz, today Bombardier) on view in the IR Museum.

# OTHER MIDDLE EAST RAILWAYS.

## INTERNATIONAL.

### **SYRIA: INTERNATIONAL CONFERENCE FOR RAILROAD MANAGEMENT IN THE MIDDLE EAST**

"Al-Ba'ath" newspaper provided details from the debates of the Fifteenth International Conference for Railroad Management in the Middle East, held in Aleppo in mid-March 2002. "Taking part in the conference were the Syrian Transportation Minister, Eng. Makram Ubayd; the General Manager of the Syrian Railroad Authority, Eng. Iyyad Ghazal; the President of the International Association of Railroad Managements; the General Secretary of the Arab States Association of Railroad Managements, Eng. Marhaf a-Saboni; General Managers of Railroad Managements from countries taking part in the conference; and representatives of regional and international organizations. On the conference agenda were discussions of strategy in connecting with European, Asian, and Middle Eastern railways; as well as discussion by the heads of delegations from Iran, Turkey, Iraq, Saudi Arabia, Jordan, Lebanon, and Syria regarding the possibility of cooperation among them in regard to the Jordanian and Syrian Hijazi train tracks."

(Thanks to David Stiffelman for this.)

### **TURKEY.**

#### **(i). A TURKISH 'TOURIST RAILWAY' PROJECT ??**

From Rick Turret I have received a transcription and translation of a Turkish newspaper article, (from "Cumhuriyet" of 21/7/2000 p.20.) handwritten by one of his acquaintances, which I have edited slightly and reproduce here. Alas, the Turkish place-names are hard to reproduce totally accurately, but hopefully anyone interested will be able to make sense of them. It refers to a Decauville of World War I vintage, which has now aroused some local interest.

"The Scarecrow of the Lost Railway."

"A group of people, including some university professors and others interested, recently met to mark the centenary of the railway which used to run for 62 km. linking Istanbul's Golden Horn and the Black Sea. There was no mention of the line in the Municipal Archives in Kagithane, a district at the north end of the Golden Horn and the terminus of the line.

The line started from Silahdaraga, the highest point of the Golden Horn, and ran through the Belgrad Forest to the Black Sea. It was known as the "Black Sea Wilderness Line". A man named Mert Saudalci has put in a lot of hard work interviewing elderly people in the villages of Agacli and Ciftalan. It became clear that the Kemberburgaz - Ciftalan and Kememburgaz - Agacli sections had not been used since the '20's.

Before the end of the twenties our Dekovil (Decauville ?) was no longer working in the direction of Agacli and Ciftalan and at that time the Kemenbergaz - Kazithane section was working for the Turkish Armed Forces." As for the locomotives and wagons, they went for scrap at the beginning of the fifties. The rails and sleepers went for scrap and the wooden bridges were used as firewood by the forestry workers. By the middle of the fifties no trace could be seen of the Kagithane - Kemberburgaz line, but traces of the Kememburgaz-Ciftalan line could still be seen in Belgrad forest. A spokesman for the State Railways said that the line had been constructed for a special purpose, and no mention could be found in their own archives.

#### **It May Work Again.**

Local minister Arif Calban wants the forest line to be rebuilt to reach the Black Sea and picnic sites. He draws attention to the foreword by Husayn Izmack of Kagithane Municipal Press in a book called "The Kagerthane - Kememburgaz - Agacli - Ciftalan Railway 1914-1916." "We believe that there would be great interest in this old railway if the excursion area of Sadabad could be levelled and made as it used to be, reached by boats and steamers from the Golden Horn. We believe that if the line could be extended to reach the villages on the track it will create an impression of freedom from the trouble of city traffic."

#### **Nostalgia Town. Those involved in Tourism are Interested.**

With the outbreak of the World War the Ottoman State was faced with a huge shortage of coal. Ships which had been used for importing coal had been sunk by the Russian Fleet. The British had a blockade on the Dardanelles. And so the idea arose of making use of the poor-quality coal from Agacli and Ciftalan. The line was started in 1914 and the first section was completed in 1916. Construction was started by Enver Pasha, chief of Military Command. However, when the Armistice was signed and the need for coal fires reduced, the line lost much of its importance. Fest Turizm, a firm in Istanbul running day trips, has now started a tour to the railway, entitled "On the track of the Lost Railway".

The article is accompanied by some fine pictures, which will be hard to reproduce here but which show two halves of a double-loco being unloaded, a double-loco plus bogie auxiliary tender on an impressive wooden trestle, a half-loco running cab first on a train of bogie opens, some construction work under way - and a map, grey on grey, which is illustrated by, of all things, a British LNER B1-class 4-6-0 !!

Some place names:

Karadeniz = Black Sea,  
Marmara Deniz = Sea of Marmora,  
Halic = Golden Horn and  
Canakkale = Dardanelles.

#### **(ii). TOURIST SCHEME ABANDONED.**

From 'C.R.J.' 129 (Spring 2002) p. 369. But this must be a different scheme to that mentioned above!

Didim District Council - references to CJ 109 p. 583 and 119 p. 516 - "the Council, near Bodrum, is not now going to build the proposed 60cm. gauge tourist railway. After having had 0-4-0T K2201 overhauled by Tulumas in Eskisehir and having obtained four Baghdad-type bogie coaches, the Council discovered that the gradients at the intended site were too steep and the project has been abandoned. The loco is in store somewhere in Eskisehir and the carriages are stored in the open at the

Council yard. It is to be hoped that some practical use can be found for them.”

### (iii). **TURKISH RAILWAY MUSEUMS.**

(a). Further to the item on Camlik Museum in 53:7:E:(iv)., I have received from Uwe Pietruck a page from a Turkish tourist newspaper/guide in English. It reads, in florid and wonderful tones: “Turkish Steam Train Travel and Open-Air Steam Engines Museums”.

“Despite the proposals to run high-speed trains between Ankara and Istanbul, with corresponding improvements in electrification and signalling, for many people the steam locomotive is one of the major pleasures of railway travel.

Until 20 years ago, steam locomotives were running with their huge black bodies, and sharp whistles sounding like a spoilt child. Their demise reminded many people of the end of a thoroughbred race horse, which provided people with many years of excitement, as well as being a magnificent specimen in itself.

Some of these veteran locomotives had witnessed the creation of constitutional government, mobilizations, wars and the Republic, and had transported many State officials, as well as millions of passengers and goods. They are now on show in the open-air museums located in Ankara and in Izmir, Camlik; others are waiting to show tourists the matchless beauties of our country.

The steam train tours resemble festivals in themselves, with the passengers and the people coming to wave goodbye, or to take photographs.

From then on, nothing can spoil the happiness of our heroic train. The shovelled coal increases its joy more and more. Taking a short rest in the small station complete with its white painted old building, and surrounding fruit trees, the steam loco drinks water abundantly from its old pal the water crane. It hosts visitors in the driver's cabin, where tea cooked in the red-hot boiler is being offered and songs in German, English or Japanese mix with the rattling sounds of the train. The steam loco and its guests enjoy re-living the past and recalling old memories.

But all events like this have to come to an end. The steam loco enters the main station and gives a last scream while the passengers leave the train.

The Open Air Steam Locomotive Museums opened to the public by the TCDD constitutes one of the most important bridges between past and future.

The museum in Ankara founded on an area of 12,600 sq. meters contains 10 steam locomotives and an “Exhibition Wagon” in which some information relating to the railways is displayed. The museum in Izmir incorporates the old Camlik station, which was formerly known as Aziziye until Mustafa Kemal Atatürk renamed it in 1937. The station was built in 1885 and still has its original repair shop, hydraulic press, and rails.”

The paper is illustrated with three colour shots of a “Skyliner” 2-10-2 and one of a bunch of enthusiasts taking photographs of an unidentifiable loco ! It then gives a list of the following “TCDD Museums”:

#### (b). Ankara:

Atatürk's Residence During the National War of Independence and Railways Museum.

Phone (+90 312) 309 05 15 / 4084.

TCDD Museum and Art Gallery.

Phone (+90 312) 309 05 15 / 4094 - 388 56 03.

Outdoor Museum of Steam Trains.

Phone (+90 312) 309 05 15 / 4744.

#### (c). Izmir:

Outdoor Museum of TCDD Steam Trains, Camlik.

Phone: (+90 232) 894 81 16.

TCDD Museum and Art Gallery.

Phone (+90 232) 433 58 97 / 4520.

Internet Address of TCDD Museums. Web Addresses: [www.tcdd.gov.tr](http://www.tcdd.gov.tr)  
[www.tcdd2bolge.gov.tr](http://www.tcdd2bolge.gov.tr)  
[www.tcdd3bolge.gov.tr](http://www.tcdd3bolge.gov.tr)

E-Mail Addresses:

<tcdd.b.y.h.i.m@ttnet.tr>  
<tcdd3bim@superonline.com>

For Steam Train Travel contact:

Phone: (+90 312) 311 93 81; 311 06 20.

Fax: (+90 312) 324 40 61.

### (v). THE TURKISH EX-DB 'V100' DIESELS.

It is well known that the TCDD acquired several former Deutsche Bundesbahn Class 211 Bo-Bo diesels - they took over the Izmir steam suburban workings and others besides. Here are a few snippets concerning these locos:

a). In “Schiienenverkehr Aktuell” 12/82 (December 1982) p. 35 are two photos of the remarkable “loco train” by which fifteen of these engines were trans-

ported on their own wheels across Austria and thence over the Tauern to Yugoslavia - brought to Salzburg as Train 48987 on 30th. October 1982 by DB 111.013, thence as Train 43935 (945 tons, 60 axles) by ÖBB 1044.04 (with 1042.602 assisting over the Tauern Nordrampe); the caption stated that they had been ‘hired’, not sold, by DB to TCDD, and five Turkish drivers accompanied the transport. 211.364-5 brought up the rear of the convoy.

b). In “Rückkehr aus dem Morgenland” by Uwe Breitmeier, p. 140, he recounts how he encountered several locos at Eskisehir:

“There were also several locos of the former DB class 211 hauling trains - their blue livery looked better on them than the DB Turquoise/Beige. On the other hand, there seemed to be major technical problems to deal with. A large number of the locos stood in the depot area in half-dismantled condition, and traces of fire on the engines showed where the cause lay. The tendency of TCDD footplate personnel, when a short circuit occurs, not to look for the cause but instead simply to bridge over the gap, clearly indicates that the DE24 diesels have a much more robust electrical system than these 211's, inasmuch as they cope better with such treatment and fires are less frequent.”

c). In “Lok Magazin” 7/2001 p. 79 it is stated that “14 locos were sold to TCDD - Nos. 211-067, 071, 078, 086, 095, 337, 340, 342, 348, 351, 352, 353, 354, 364, which became TCDD DH 11501-11514 - though they have since been withdrawn.”

### (vi). SNIPPETS OF TRAMWAY HISTORY.

As noted elsewhere, Chen Melling has been looking through past issues of “Modern Tramway” magazine (published LRTL).

(a). No. 373 of March 1969, p. 32 - “Turkey, Istanbul - At least 40 trams from the Istanbul system which closed in 1966 now form a colony of beach dwellings in a holiday settlement on the Sea of Marmara.”

(b). No. 546 of June 1983, p. 99 - “Urban Rail in Turkey - It is reported that plans are under examination for a 14 km metro in Istanbul and a light rail network in Ankara.” (Railway Gazette International)

(c). No. 551 of November 1983, p.

*Continued on page 14*

(iv). LIST OF LOCOMOTIVES AT CAMLIK STEAM LOCOMOTIVE MUSEUM.  
Uwe Pietruck

The following locomotives and vehicles were present (numbers refer to the map of the site):

no. on map	TCDD- number	manufac- ture. builder's number/ year	type	technical data/historical notes
15	TCDD 4	Hen 11344/1912	RSP	17.8 m 5 km/h 80 t ex: CFOA working: Cankiri (factory plate: Hen 11944/1912)
32	TCDD 138	Hen 21700/1930.	(data from Henschel list)	17.8 m 5 km/h 80 t working: Konya
25	TCDD 140	Hen 16062/1918	0-4-0WT/B n2t 600mm.	4.8 m 20 km/h 14 t ex: P. Holzmann for Bagdad line construction; served on lines: Dernice; Zonguldak-Samsun; 10/78 at Dernice
12	TCDD 3355	Maffei 3170/1911	0-6-0T/C-n2t	9.4 m 45 km/h 39 t ex: SCP 35 served on lines: Izmir-Oedemis. Museum, Alsancak, Izmir
13	TCDD 3362	RS 2726/1891	0-6-0ST/C`n2t	8m 28 km/h 30.5 t ex: ORC 33 served on lines: Istanbul. preserved at Basmane station
10	TCDD 3304	Hen 15639/1918	0-6-0T/C`h2t	9.5 m 50 km/h 44 t ordered by Turkish Army. WWI served on lines: Zonguldak, Catalagzi. (10.1985) Museum, Alsancak, Izmir
11	TCDD 3558	Ma 3343/1912	2-6-2WT/1`C1-h2t	13 m 70 km/h 77.2 t ex: CO 338 served on lines: Izmir-Oedemis. Museum, Alsancak, Izmir
22	TCDD 3405	Borsig 5894/1906	2-6-0T/1`C-h2t	10 m 75 km/h 54.9 t ex: CFOA 20 served on lines: Edime. Museum, Alsancak, Izmir
14	TCDD 3705	Hen 20554/1925	4-6-4T/2`C2`h2t	14.2 m 90 km/h 105.7 t ex: CFOA - del. as TCDD 3705 in service, Hayderpassa-Adapazari served on lines : Izmir-Manisa. Museum, Alsancak, Izmir
30	TCDD 5701	Hen 25225/1951	2-10-2T/1`E1`h3t	16.5 m 70 km/h 136 t (in service. Tavsanlı)
16	TCDD 34068	(Krupp 1398/1934	2-6-0/1`C)	wrong plates: should be: 34057/34058 Nohab 1844/1845/1930 2-6-0/1`C Museum, Alsancak, Izmir
17	TCDD 44041	Germany /1912	0-8-0/D	17.9 m 55 km/h 57.3 t ex: KPEV (class G8); CFOA. tender Bagdad Museum, Alsancak, Izmir boiler factory plate: Schwartzkopf 10395/1935 (Schwartzkopf 10395/1936 was actually 1`E1`h2 1435 new TCDD 57 017)
19	TCDD 45002	Nohab 1782/1927	2-8-tank 0/1`D-h2	17.7 m 65 km/h 84.8 t served on lines: Elazig-Samsun. Museum, Alsancak, Izmir
20	TCDD 45132	Humbolt 809/1912	2-8-0/1`D	17.1 m 65 km/h 61.9 t ex: SCP 112 served on lines: Izmir-Balikesir. Museum, Alsancak, Izmir
23	TCDD 45161	NBL 24670/1941	2-8-0/1`D-h2	19.2 m 65 km/h 74.4 t ex: WD 522 (class 8F); TCDD. served on lines: Irmak-Cankiri
21	TCDD 45172	Lima 8341/1943	2-8-0/1`D-h2	18.5 m 70 km/h 73.7t

	ex: USATC 2524 (class S.160); 1943-45 TCDD served on lines: Kayseri.	Museum, Alsancak, Izmir	
8	TCDD 45501 Creu 4412/1927 2-8-2/1'D-h2 ex: CO 241 mid 1970's, Mersin served on lines : Cerkezkoey	Museum, Alsancak, Izmir	17.8 m 65 km/h 65 t
18	TCDD 46025 Hen 22740/1935 4-8-0/2'D tender Factory plate: Hen 22081/1932		
9	TCDD 46103 RS 3995/1929 2-8-2/1'D1'h2 ex: ORC 132 served on line: Izmir-Oedemis.	Museum, Alsancak, Izmir	18.4 m 60 km/h 69.6 t
7	TCDD 46244 ALCO 70111/1942 2-8-2/1'D1-h2 ex: USATC 1178 (class S.200) 02.1943 MEF/WD MEF 9178; 1944 WD 71178; TCDD 04.1982 in service, Tuerkali Served on Lines : Balikesiri.	Museum, Alsancak, Izmir	20.8 m 70 km/h 89.2 t
5	TCDD 55037 BMAG 8341/1924 0-10-0/E-h2 ex: CFOA 487 (KPEV G10) 1922 TCDD served on lines: Usak-Afyon-Kars.	Museum, Alsancak, Izmir	18.9 m 60 km/h 76.8 t
4	TCDD 56116 BP 6960/1948 2-10-0/1'E-h2 served on lines: Konya-Sivas-Malatya		22.3 m 70 km/h 106.5 t
27	TCDD 56130 CKD 2513/1949 2-10-0/1'E-h2 served on lines: Konya		22.8 m 70 km/h 106.9 t
3	TCDD 56337 VIW 4852/1948 2-10-0/1'E-h2 type: Skyliners served on lines: Kayseri-Cankiri.	Museum, Alsancak, Izmir	21.8 m 70 km/h 110.6 t
6	TCDD 56523 MBA 13926/1943 2-10-0/1'E-h2 ex: DRG 52 4862 served on lines: Usak.		22.9 m 80 km/h 84.7 t
29	TCDD 56712 Bati 747/1945 2-10-0/1'E-h3 ex: SNCF 150X82 (DRG 44 1832)		22.6 m 80 km/h 110.1 t
2	TCDD 56914 CL 1708/1926 2-10-0/1'E-h2 ex: SCP 84; TCDD 56014; m served on lines: Balikesir.		18.1 m 55 km/h 76.5 t
1	TCDD 57001 Krupp 1265/1933 2-10-2/1'E1-h2 served on lines: Afyon-Konya.		22.2 m 65 km/h 49.5 t
26	TCDD 57018 BMAG 10396/1936 2-10-2/1'E1-h2 served on lines: Izmir.		22.2 m 65 km/h 89.5 t
24	TCDD 57023 Krupp 1597/1936 2-10-2/1'E1-h2 served on lines: Afyon.		22.2 m 65 km/h 89.5 t
31	TCDD 57026 Krupp 1735/1937 2-10-2/1'E1-h2 served on lines: Afyon.		22.2 m 65 km/h 89.5 t
C1 TCDD	Henry J Coles London	/1899 3-axles steam crane, ORC 1899	
C2 TCDD		/1890 3-axles hand powered crane, ex ORC & support wagon	
C3 TCDD	Ransomes and Rapier, London	/ 2-axles 6 tones hand powered crane	
C4 TCDD		/ 2-bogies steam crane	
P1 TCDD	Dietrich	/ 1909 wagon	10 m - 12.7 t
G1 TCDD no 80 180		/ 2-axles wagon	
G2 TCDD no 110 280		/ 2-axles flat wagon, 13t	
G3 TCDD no 20 75 700 0 009-2		/ tank wagon 2 axles, 19m3	
G4		a narrow gauge wagon	
G5		small tamping machine	
T1 TCDD		/ tender DR (type K2'2'T32 Wannan; BR52 Kriegslök)	
D1		2 hand trolleys	



386 - "Ankara, Turkey - A light rail system has been selected as the most cost-effective means of providing high capacity transport in corridors not served by TCDD suburban railways, and tenders are being invited for a 6-km north-south line along Atatürk Boulevard." (Railway Gazette International)

(d). From No. 611 of November 1988, p. 398 - "Ankara, Turkey - UTDC [of Canada] is to build and operate the 14.5-km metro linking the city centre with Batikente; 106 Toronto-type rapid transit cars will be required for the opening in 1992." (Railway Gazette International + 'Globe & Mail').

## C. SYRIA.

### (i). MONEY !

Also from 'CRJ'. The rear of the current Central Bank of Syria 100 Pound note carries a picture of the exterior of the Kanawat Station in Damascus and a diesel-hauled passenger train. BUT - "this is no Syrian train! The loco is Canadian National Railways 9414, one of a batch of Montreal Locomotive Works FA-2 units built in 1951-3 and retired from service in 1963-69, three decades before the 1998 note issue date!" A still-surviving 1894-built Swiss 2-6-0T might have been more appropriate."

### (ii). DAMASCUS METRO PROJECT?

Not "new news", but I have been sent by e-mail a reference from a 1997 Arabic News Service journal:

Damascus metro project under discussion: Syria, Business, 9/4/1997.

"The construction of the Damascus metro was the main topic discussed on September 3 by a Syrian transport delegation led by Dr. Mussa al Sha'ar and the Iranian civil railways and Tehran Metro delegation led by Mr. Manqi. The meeting reviewed the development of Damascus city and transport system as well as the preliminary studies conducted until now on Damascus metro.

The Iranian delegation, which includes seven experts from the Tehran metro commission, talked about its experience with Tehran metro and presented a workplace for the preliminary designs of Damascus metro project."

Previous Stories were: "Syrian and Iranian cooperation" (9/3/1997) & "Damascus metro under discussion to alleviate traffic jams". (9/1/1997)

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### (iii). ALSTOM LOCOS. Some Snippets.

In 'Lok Magazin' 5/2002 p.33 is a photo of the new Alstom diesel loco for CFS. The text informs that Alstom are now delivering the thirty Co-Co locomotives of Type AD33C the first engines were ready in 1999. They are equipped with a Ruston engine of Type RK 215 A, providing ca. 3200hp. The six asynchronous traction motors provide power through a IGBT Umformer/gate the loco weighs 120 tons and has a top speed of 140 kph. The engines are classified LDE 3200, and are intended to replace the Soviet-built LDE 2800 engines. A photo shows no. 623 in red/yellow livery.

According to the Syrian newspaper "Al Ba'ath" (Internet edition) the third shipment arrived in Syria on 17/3/2001 on board a Croatian ship. This brought the total number delivered to 16 of the 30 ordered.

According to 'Railway Gazette' Dec. 1999 the 30 locos are being built in Alstom's Belfort plant in France and their official designation is AD33C. The article shows a picture of the first one produced. According to this (and other pictures which can be found on the Web), the locos are painted in mid-grey (chassis), red (lower body) and cream or pale yellow (upper body) and light grey (roof). They are designated by the CFS as LDE3200 and are numbered from 601 upwards, presumably in sequential order. The locos carry the handsome CFS logo on their fronts, below the driving cab windows, in red on the cream background, and possibly also on the sides.

## D). HEDJAZ.

### (i). HEDIAZ TOUR.

From 'CRJ' 129 p. 368. "The following notes are based on a visit by Steam Loco Safari Tours in September 2001. Charter steam specials were run on 25th. to 28th. of that month, over various routes and using a variety of locos. Numerous run-pasts were included, particularly in the spectacular Yarmuk Gorge on the Dera'a - Zezoun branch, which is the surviving section of the former line through to Haifa. Virtually all the working steam locos carry the wrong works plate in relation to their running number. Whether the running number or the works plate is correct is only a matter of conjecture, and it could be that in some cases both are wrong ! [This might excuse some of my comments on the videos in the last issue. Ed.]

Steam locos in working order, or potentially so, were:

- one of the pair of Hartmann Mallet 0-4-4-Ts 961/2, inside the erecting shop at Cadem Works.

- SLM 0-6-2T 805, which worked the regular Friday Damascus - Serghaya train on 28th. September. Departure of this was rescheduled from 08.00 to 09.00, but it actually left at 09.35 after additional coaches had been added.

- SLM 2-6-0T's 755 used on an SLST special and 754 servicable at Cadem (painted in a non-authentic bright red livery.)

- Hartmann 2-8-2's 260, carrying 262's works plate, used on two SLST specials, and a sister loco at Cadem with no running number but works plate from 260!

- Hartmann 2-8-0's 90 used on an SLST special and 91 in good condition at Cadem.

- Borsig 2-8-0 160, carrying 162's works plate, which was used on two SLST specials.

- Jung 2-6-0T+T, which performed at Dera'a for the party.

Amongst the derelicts at Cadem are two locos in excellent condition, Hohenzollern 0-6-0T 35 and Jung 2-6-0T 61, which would make good candidates for restoration to working order, as neither type is currently represented in the operational fleet. Whilst 61 is basically the same as 66 at Dera'a, the latter has no side tanks and is equipped with a tender. A recent restoration at Cadem has been the De Dion railcar and trailer.... [see Hughes p.81] and this moved under its own power at Cadem on 29th. September."

## (ii). JORDAN NOTES.

From the same tour in Sept. 2001 - There has been little change from previous reports. "Several charter trains were run northwards and southwards from Amman on 22nd.-24th. and 29th. September, using Jung 2-8-2 51 (black livery with red wheels); HStP 2-6-2T 61 (dark red, blue and gold) used only in Amman itself; HStP 2-8-2 71 (black with red wheels - repainted since the report in CRJ 125) and Nippon Sharyo Pacific 82 (dark red). Other locos in the shed area at Amman were RSH 2-8-2's 22 and 23 both up on blocks with all wheels removed; Jung 2-8-2 53 stored outside the shed, and Nippon Sharyo 4-6-2's 81 and 85, stored respectively inside and outside the shed. Derelict at the south end of Amman station were RSH 2-8-2 21 and HStP 2-6-2T 62, both repainted black with red wheels for the film "Mummy 2"; and HStP 2-8-2 72 unrepainted."

### (iii). YET MORE TOURS.

The Editor has learned of two more tours of the Hedjaz, which seem to be running at the same time.....

One will be run Oct. 6 - 15th. 2002, by Intra Express of Burgherrenstr. 2, D-12101 Germany, e-mail <intraex@t-online.de> Price Euro 2,385 from Frankfurt.

One is advertised by "Globrailer Bahnreisen", run by Guido Schulte, Zu den Werkstätten 1, D-59821 Arnsberg. 02931-939344, <info@globrailer.de> Here the price is given as □1661, plus □325 single room supplement and □118 for Syrian and Jordanian visa.

Since the dates overlap, here is the planned itinerary (omitting hotel etc. details):

Sat. 05.10.2002: München Hbf. dep. 09.25 EC25 to Budapest arr. 17.13, 19.10 dep Budapest with D353 for Bucharest.

Sun. 06.10. Bukarest Nord arr. 10.43, dep. 14.05 in D461 to Istanbul.

Mon. 07.10. Istanbul Sirkeci arr. 08.27.

Tues. 08.10. Ferry to Haydarpaşa. 08.55 Train 11304 'Toros Express' in

sleeper to Gaziantep.

Wed. 09.10. arr. Gaziantep 11.35.

Thurs. 10.10. Dep. 07.00, Train 62952 Gaziantep - Nusaybin. Arr. Nusaybin ca. 17.00.

Fri. 11.10. ca. 10.00 border crossing to Al Qamishli, Syria. 17.40 dep. Train 84

(sleeper) to Aleppo.

Sat. 12.10. Arr. Aleppo 01.15, hotel.

Sun. 13.10. dep. 07.00 Train 242 to coast at Latakia, arr. 09.59.

Mon. 14.10. Early - sleeper train 30 Aleppo, dep. 00.30 to Damascus. arr. Cadem 06.36.

Two days for sightseeing and trips.

Thurs. 17.10. Train 14 08.00 Kanawat, to Amman arr. 17.00. Several days for

tours to Petra, Jerash etc.

Mon. 21.10. Train 13 dep. Amman 08.00, arr. Damascus Kanawat 16.55.

Tues. 22.20. Train 65 dep. 05.13 Damascus Cadem via Aleppo - Adana - Eskischir to Istanbul.

Wed. 23.10. arr. Istanbul Haydarpaşa 17.55. Ferry to Sirkeci.

Thur. 24.10. sep. 23.00 Train 498, sleeper to Bucuresti Nord.

Fri. 25.10. Arr. Bucharest 17.27, dep. 19.05 in EN 370 to Budapest Keleti pu.

Sat. 26.10. Arr. Budapest 07.38,

dep. EC24 09.20, 17.32 arr. Nürnberg Hbf.

(iv). A film on the Bagdadbahn, made by NDR in 2001 and shown on German TV very late at night (and totally unexpectedly) on 11/06/2002 showed a woman manager of Cadem Works explaining her enthusiasm for her job!

## E. EGYPT.

### (i). CATASTROPHE UPDATE.

Following from news of the catastrophe in 56: later reports indicate that 373 died in that train fire, now understood to have been caused by a short-circuit, not a cooking pot - Mubarak has sacked the head of the ENR and demoted and exiled several Transport Police because of the lack of fire extinguishers in the coaches.

### (ii). DATA ON RAILROAD OPERATIONS, JULY 2001 TO JANUARY 2002

"Al-Gomhuria" newspaper quoted data on railroad operations during the first six months of the 2001/2002 fiscal year, as published in a report of the Information Center of the Office of the Prime Minister in early March 2002. The income of the railroad during this period was EP 323 million, up from EP 305 million during the parallel period in 2000/2001. Income from hauling cargo in the 2001/2002 period was EP 123 million, up from EP 102 million of the parallel period of 2000/2001. The number of passengers in the 2001/2002 period was 269 million, down from 292 million of the parallel period of 2000/2001; the total cargo transported in the 2001/2002 period was 2.58 billion metric tons, up slightly from 2.56 billion metric tons of the parallel period of 2000/2001.

## E. SAUDI ARABIA.

### (i). SAUDI ARABIA: DEBATE ON PLAN TO DEVELOP TRAIN TRACK SYSTEM

The "KSA Today" [Kingdom of Saudi Arabia? Ed.] newspaper reported on the debates held in the Advisory Council (Shura) in early March 2002 on

the development of the national railroad train track network. The paper noted that members of the Shura also discussed the organizational structure of the Railways Authority and the development plans of the Authority for the next few years. The paper quoted the Secretary General of the Shura, Dr. Hamud Abdul Aziz al-Badiri, who said that the debates were held in the framework of the authorization of the annual budget for 2001-2002 of the Railway Authority.

(Thanks to David Stiffelman.)

### (ii). SAUDI ARABIA EXPANSION PLANS.

From 'Railway Gazette' 4/2002; there is a plan to construct a line from Riyadh to Jedda, mostly for container traffic; 945 km. long, plus another from Dammam to Al Jubail on the Gulf, 115km., and probably to be extended along the coastal oilfields westwards to Al-Zubairah. There are schemes also for a Riyadh - Turaif line via Hail and Buraidah for phosphates at Al Salamid and Al-Zubairah - 1408 km.; for a 'Holy Line' Medina - Jeddah - Mecca, and as Turaif is on the southern border of the Jordan pan-handle, there will probably be an eventual spur line Hail - Tabuk. This could lead to an eventual route kilometrage of around 3000km.

## G. IRAQ.

Just a bit of old "Modern Tramway" history:

From No. 538 of October 1982, p. 406 - "Baghdad, Iraq - Civil engineering work for the 32-km metro network was due to start in August with opening of the first section planned for late 1987. Standard-gauge six-car trains will operate on a 1500-volt dc overhead system."

## H. LEBANON.

### (a). MASTER PLAN?

In "Rail Engineering International Edition" 2000 No. 2, p.3f., is an article entitled "Rehabilitation of railways in Lebanon: status quo". Since the status quo has remained static for quite some time now, it is worth looking at this in full:-

"The rusting tracks of Lebanon's derelict railway network lay silent and overgrown. The trains which used to run along them have not been operated since the Civil War (1975-1990). This situation may now change, for Mr. Najib Mikati - the dynamic new Minister of Transport in the current government of

President Emile Lahoud - would like them to run again. Since he assumed his responsibilities in late 1998, the Ministry of Transport has been studying routes for possible re-opening. This article, after first addressing the former railway network layout, looks at the routes considered.

1, Former railway network of Lebanon. before the Civil War of 1975-1990, the railway network of Lebanon featured the following lines:

- A 147 km. narrow gauge (1,050mm) line linking Beirut, via Rayak, with Damascus in Syria (opened in 1895).
- a standard-gauge (1,435mm) line linking Rayak with the Syrian towns Koussair, Homs, Hama and Aleppo (opened in 1902).
- a 102 km. line linking Tripoli with Akkari and Homs in Syria (opened in 1911).
- a line linking Tripoli with Beirut, Nakoura and Haifa - later called the NBT (Nakoura-Neirut-Tripoli) line (opened during World War II).

With the end of World War II, the construction of new railway lines in Lebanon, which gained its independence on November 22, 1943, also came to an end.

In 1947, the Lebanese government bought the NBT railway line. On June 6, 1956, the government assumed control over the other railway lines passing through its territory and combined them with the NBT railway line under the name 'Lebanese Railways'.

The railways system of Lebanon mainly served:

- the transport, on a daily basis, of fuel from the oil refinery in Zahrani to the power plant south of Beirut.
- the transport, on a daily basis, of cement from Chekka (north of Beirut) to Beirut.
- the transport of goods on the very profitable route Beirut Port - Damascus - Baghdad.

The railway system was profitable until 1970 when the rising popularity of private cars and planes started to take its toll. Most of the network was destroyed during the first two years of the 1975-1990 Civil War. However, compared with the ruined network in most of the country, the lines in the north remained relatively intact.

A study drafted by the Lebanese Railways and Public Transportation Authority and the French company Sofrerail - alluded to in a previous issue of Rail Engineering International - called, in an effort to rehabilitate the coastal railway line Tyre - Beirut - Tripoli, for the construction of a 170km. electrified double-track line from Tyre in the south (north of the Lebanese-Israel border) to Tripoli in the north (south of the Lebanese-Syrian border), using the present horizontal profile of the derelict coastal railway line. However, due to various factors, this study has not seen implementation.

### **Routes Considered for possible re-opening.**

Currently, the Ministry of Transport is concentrating on the following two routes:

- Tripoli Port / Qleiaat Airport (under proposal) - Homs (in Syria). This route, aimed at re-establishing Lebanon's role as a regional hub for the onward transit of goods, would link the revamped Port in Tripoli and a proposed airport at Qleiaat to Homs in Syria. This line could eventually be extended to link up with a possible rail link between Jounieh (north of Beirut) and Jiyeh (south of Beirut) which is described below.

- Jounieh - Beirut. In an attempt to re-introduce mass transport in Lebanon, a feasibility study with respect to the route Jounieh - Beirut - Jiyeh will be carried out. The study is expected to start on May 1 2000. Based on its outcome, the government will decide if/when it will execute the reconstruction of the route and how it is to be financed.

The importance of this study is alluded to in the 'Proposal for Beirut Suburban Mass Transit Feasibility Study', which states that the study is important for Beirut, because it focuses on reducing traffic congestion in the smog-choked capital. A 1994-1995 Greater Beirut Area (GBA) study, which is alluded to in the 'Proposal' indicated that the GBA had a population of 1,165,000 in 1994, with 400,000 residents being within the municipal boundaries of the city of Beirut (an area of close to 20 sq. km.)

While the level of motorisation in GBA is relatively high (close to 250 vehicles per 1,000 population) the number of daily motorised trips per person is low (0.75%), indicating a potential for an increase in trip-making if/when traffic congestion is

relieved and the economic situation improves.

Studies indicate that daily 1.5 million motorised trips are executed in the GBA, and that close to 55% of these trips are for work purposes. Public bus services carry only 3.5% of the daily number of motorised trips, while private cars, service (shared) taxis, and privately-owned buses carry 69%, 15% and 12.5% respectively.

Traffic problems are evident at the entrances to the city of Beirut, where bottlenecks develop and long delays are experienced. The coastal highway leading from the north carries a daily volume, in both directions, of close to 180,000 vehicles, while the southern coastal highway has a volume of around 50,000.

Speed-delay studies have indicated that average speeds during the day, along the major axes on the GBA, range between 15 and 30 km/h. During peak hours, they drop to 10 km/h and less in the commercial districts of the city.

The transport sector in Lebanon includes a fleet of around 1.2 million registered vehicles that can be characterised as being relatively old and poorly maintained. Car ownership in Lebanon, with a ratio of around three persons for every car, is one of the highest in the world. This fleet is causing serious air pollution problems, especially in major cities and regions of recurring traffic congestion.

According to the Ministry of Transport, the line Jounieh - Beirut - Jiyeh:

- could be used for mixed traffic operation (light freight and passenger);
- could be strategic in alleviating traffic congestion, and in reducing air pollution levels, in the areas served by the line.

In addition, another benefit could be had in that the line could pass via the Lebanese University in Shoueifat, which is currently under construction, as it could this provide easy access for students attending the university from around the country.

### **Conclusions.**

If/when the railway network of Lebanon is back on track, it is bound to play an effective role in the transportation of both passengers and freight due to many factors..... last but not least, railways could contribute to improving the economic situation in Lebanon, and to re-establishing the country's role as a regional hub for the onward transit of goods."

[References are to E. M. Choueiri "Lebanese Railways, past and current developments" in Rail Engineering In-

ternational 1995/3, pp. 3-5; and the Lebanese paper "The Daily Star" for May and October 1999.]

### **(b). TRAMWAY HISTORY SNIPPETS.**

More from "Modern Tramway" - see item on Egyptian Tramway History in this issue.

No. 377 of May 1969, p. 174 - "Beirut, Lebanon - The Soviet organisation Technoexport has completed a feasibility study for a \$250 million rapid transit system for the city consisting of four routes totalling 37 km in length." The source is the Railway Gazette.

No. 382 of October 1969, p. 358 - "Beyrouth (Beirut), Lebanon - Although the tramways closed in September 1965 about half the total tramcar fleet is still to be seen in various railway goods yards. Two cars and two trailers are now located on the Corniche road, south of the town and about halfway towards the airport, serving as a cafe." The source for this item is Mr. J Wiseman

57:7

## NOTES AND COMMENTS.

### **(a). SOME CORRECTIONS.**

(by Paul Cotterell).

56:3. The photo of Beersheba station was taken 20th September 2000.

56:13. "The featured derailment near Bar Giyyora is obviously not that of 11/5/75. If it were I would have said so. But since they're heading in different directions, how could it possibly be so?!"

In fact, another photo of the same incident has been located at the State of Israel National Photo Archive, Print 048284; here the caption dates the incident to 27/10/1966, and states that the train was derailed by an electrical explosive charge detonated by Fatah saboteurs."

56:15. "The LSWR 0-6-0 is not hauling ESR 6-wheel coaches. One of these ESR coaches can be seen at right of picture, coloured a sulphurous yellow. The LSWR 0-6-0 is coupled to a single PR coach with light grey roof and what appears to be a deep red (presumably meant to be chocolate) body colour."

Chen Melling adds: "I recall discussing the tinted postcard of Haifa Station in the 1920's with Paul a short while after he received it. We both agreed that the passenger coach being hauled by the L&SWR steam locomotive is a bogie example, and not an ESR 6-wheeled one. In fact, the picture does include an Egyptian 6-wheeler painted mustard yellow/brown and partially hidden by the large telegraph mast. However, we could not reach an agreement on whether the bogie coach is one of the ex-ambulance ones left over from WW1 (as Paul thought) or a new standard coach from the series built for Palestine Railways in the early 1920's by Birmingham RC&W and Metropolitan RC&W."

### **(b). VIDEO NOTES - FILM OF 1913.**

From Sybil Ehrlich:

A one-hour videocassette called "Life of the Jews in Palestine 1913" mentions something truly extraordinary. The blurb (in English, it's also in Hebrew) on the box says: "Life of the Jews in Palestine 1913 presents a rare look at the pioneers of the first and second aliyah: Bilu members celebrating in Gadera, Meir Dizengoff and the

first days of Tel Aviv, Yosef Trumpeldor ploughing the fields of Migdal with one arm, the first Gymnasia graduates including Moshe Sharett, Boris Shatz and the Bezalel students, David Yellin and the Ezra students on the eve of the "language war", and amazing quality recordings of a multitude of personalities and scenes of the Old Yishuv. The film was initiated by Noah Sokolovsky and the Mizrah Co., Odessa prior to the 11th Zionist Conference [sic], and includes footage of the communities of Judea, the Carmel and the Galilee, the Old Yishuv, the new communal settlements at Kinneret and Migdal, and Jewish urban life in Tel Aviv, Jerusalem, Hebron, Tiberias and Haifa during the spring of 1913.

The film was successfully presented in Europe on the eve of the First World War, but disappeared without a trace after the war. For years attempts were made to recover a copy of the lost film, and in 1997 the original nitrate negative was discovered in the Film Archive of the Centre National de la Cinematographie in Bois D'Arcy, France. Original production: Noah Sokolovsky - Mizrah Co., Odessa Camera: Meiron Ossip Grossman. The restoration and preservation of this film were made possible by a joint effort of Ministère de la Culture, France, Les Archives du film du Centre national de la Cinematographie, Israel Film Archive-Jerusalem Cinematheque and the Cinematheque Francaise."

The video is available with narration in Hebrew or English. I have the Hebrew version.

There is a view of the J&J track in the mountain section (location unidentifiable), a scene showing VIPs arriving by train at Ramle station for a visit to Rehovot, and, wait for it... with a background of a rowing boat on the River Jordan the narrator says (my translation): "The French railway company acquired the concession to lay a track to take pilgrims from Jerusalem to Jericho. The electron train [rakevet electron] would be powered by electricity generated from the River Jordan." This must rank among the nuttiest suggestions of all time. Obviously whoever thought that one up had never seen either the terrain or the river!"

### **(c). WD & SR WAGONS.**

From: "Tony Adams" of the World War Two Railway Study Group. <anthony.adams@btinternet.com>

Tony writes: "Chen Melling of Haifa museum sent me copies of the Harakevet article about your correspondence with Alan Blackburn regarding SR wagons in the Middle East and your reference to match truck 1504 at Lod depot. Chen sent me photos of 1504 and the identical Shin 15005, together with their plates. In case no one else has come forward, here is the information I sent to Chen regarding these vehicles, which are WD ramp wagons and no connection with the SR 13 ton opens.

#### 1504 (Departmental)

Built by Southern Railway, Ashford Works, and released on 29th January 1941. Registered as no. 927. Army no. was WD-FVR-41, and allocated to Warflat train 10T30, at Helmdon, LNER. In January 1944, all Warflat trains consisted of 2 ramp wagons, 10 Warflat wagons and a stores van. In the 1956 vehicle renumbering, it was allocated the number 42041.

#### Shin 1505

Built by Southern Railway, Ashford Works, and released on 29th July 1940. Registered as no. 895. Army no. was WD-FVR-19, and allocated to Warflat train 10T46, at Weaverthorpe, LNER. In January 1944, all Warflat trains consisted of 2 ramp wagons, 10 Warflat wagons and a stores van. In the 1956 vehicle renumbering, it was allocated the number 42019.

The Army renumbering list of 1956 shows both wagons as "MELF disposals" (Middle East Land Forces). The interesting question is why they were sent to the Middle East and when?

The triangular hinged ramps fitted to the wagons were not original but were fitted to these and some others at a later date. The 11 ton loading is the original WD limit, which was raised to 45 tons when the corner jacks were supporting the wagon.

Here is part of Chen's original e-mail on the subject:

"I have to note that this is all a little strange to me, since I saw in the archives of the Israel Railway Museum drawings made by IR (not the former British Mandate's Palestine Railways) regarding CONVERSIONS of ramp wagons. Maybe I just misinterpreted those, and the drawings are about small modifications of such wagons."

Regarding the SR brake vans, which I am still chasing on an intermittent basis, I have evidence that they were in the Suez Canal Zone. On page 51 of "Middle East Movers" there is a photo of the aftermath of the Kantara attack in January 1952. This appears to show a severely damaged SR brake van, off the track with holes in the bodywork and roof. The 8F locomotive was scrapped but the fate of the wagons is not recorded. I have also had a conversation with someone who says he saw one at an RAF base in the Canal Zone about 1956. However, he did not have any photos or number details.

Now I am retired, I hope to go to the PRO at Kew to investigate further on the brake vans. It is just a matter of identifying the right files for the Kantara incident and sales of WD stock to IR in about 1956."

#### (d). AN INDIVIDUAL DESTINY.

In June 2002 the Editor had to officiate at the funeral of a lady - Rachel Spira Müller - in Weissensee cemetery, Berlin. Talking to the family afterwards, it transpired that she and her first husband had left Germany (actually Breslau, Silesia) in 1934 because of rising antisemitism, and her husband - Alphons (Avraham) Jacobovitz - had obtained a job at Qishon Workshops, Haifa, from 1934-1936 - all the son could tell me was that "this was very unusual as most of the workers there were Arabs".

#### (e). On 55:4(n). OLD HR BRIDGE.

Chen Melling notes: "The restoration of the HR bridge near Jalameh Junction was apparently done by the local council as part of their plan to turn the old railway alignment in the vicinity into a walking trail. The plan was announced as long ago as the inauguration of the 'restored' El-Roi Halt, which is also situated on the proposed trail. Whether these people have got permission for using this Israel Railways-owned right-of-way, I do not know."

#### (f). TRANSLITERATIONS.

From Walter Zanger, who often has the same problems with HIS newsletter "From Jerusalem" (recommended) come the following comments. The Editor can only plead guilty.....

"One needs to be consistent. If Hahaganah then not HaAyin - with a capital A - for example. If Bet Shemesh then not Beit Shemesh, nor Beit Yehoshua.

The rules we used when I worked for six years on the 'Encyclopaedia Judaica' were relatively simple:

a). If the place appears in the King James Bible, use it as spelled there. Thus Beersheba, not Beer Sheva and Beth Shemesh.

b). If it doesn't, then use Bet.

c). Separate the article from the word by a dash, with capital letter next. Rosh Ha-Ayin, Rishon Le-Zion. Ad Halom does not take a dash, as Ad is not a prefix of Halom.

d). If one puts an apostrophe in Zikhron Ya'akov and Na'an, should one not do the same for Beer Ya'akov ?

e). Does one need a letter Hey at the end of Binyamina, Herzliyya ? Technically yes, although it also looks O.K. without."

Hmmm. Orthography was never my strong point. In fairness, I should also add, when transcribing another piece - an article or book - I prefer to keep the spelling the original author used, and that also adds to the multiplicity of variations. In the end, one can only hope that the reader knows what one is talking about !

57:8.

## THE BALDWIN 4-6-0's.

Chen Melling has been digging around the IRM archives and came across the record card for Baldwin No. 891; this contains information additional to that given by Paul Cotterell in his book, and will be given here in full:

Locomotive Number: 891.

Type: Passenger & Freight 4-6-0 Tender.

Gauge: 4' 8 1/2"

Makers: The Baldwin Locomotive Works, Philadelphia PA.

USA.

Date Received: Built 1918 WD. [i.e. War Department.]

Put into Service: 11.05.1920. (Note: These locos were shipped in kit form and erected in Kantara.)

Indent No.: War Dept. D.R.T. 5872 of 27/10/1917.

Price in USA in 1918: \$42,400.

Price in Palestine: 2835 Palestine Pounds (acc. to the 0/10/1920 Valuation.)

Contract No.: US 405M.M. 40. [M.M. = Ministry of Munitions.]

Class: 10-32-D 1243-1293. (It would appear that 2343-293 are the Baldwin works serial numbers for these fifty locos.)

W.D. No: 50357.

Diameter of Coupled Wheels: 5' 2".

Diameter of Bogie Wheels. : 2' 9"

Cylinders: Diameter: 19"

Stroke: 26"

Tubes:

Number of Large Tubes: 22.

Overall Diameter Large Tubes: 5 3/8th."

Length of Large Tubes: 14' 1 1/4".

Number of Small Tubes: 22.

Overall Diameter Small Tubes: 5 3/8th."

Length of Small Tubes: 14 1 1/4".

Tender:

Diameter of Bogie Wheels: 2' 9"

Fuel Capacity: 9 Tons.

Water Capacity: 4800 Gallons.

Wheelbase:

Engine: 24' 9"

Tender: 19' 2".

Total: 54' 4 7/16th".

Weights:

Engine, Empty: 57.35 Tons.

Engine, Working Order: 64.75 Tons.

Tender, Empty: 21.55 Tons.

Tender, Working Order: 52.0 Tons.

Tractive Effort at 85% Pressure: 24449 lbs.

Working Pressure per Square Inch: 190 lbs.

Length over Buffers (Engine & Tender): 63' 1 7/16th."

Included in the card is a table captioned 'Boiler Changes' which contains only one entry:

Date: 08.11.1935.

Particulars of Boilers fitted:

Makers Number: 4749/1-6512.

From Engine: New, Indent 5501.

Date New: 21/10/1935.

Maker: Vulcan Foundry Ltd.



Also found in the archives was a letter sent from Mr. R.P.C. Sanderson, who appears to be an agent for Baldwin in London, to the Chief Mechanical Engineer of the Palestine Railways. The letter is printed on official letterhead of the Baldwin Locomotive Works, Philadelphia, and is dated 19/11/1923:

The letter's content is reproduced verbatim:

4-6-0 Locomotives Running Nos. W.D. 871-920 ref. 522/2

*We have your letter of September 30th, addressed to our Principals in Philadelphia on the above subject.*

*In answer to that enquiry, we would first state that these engines are known to us under the Baldwin Classification as Class 10-32 D 1243-1292.*

*The valve gear on the above locomotives was designed with the following proportions.*

Cylinders 19" x 26"  
Valve travel 5-1/2"  
Lap 7/8"  
Lead 1/4"  
Exhaust Clearance -  
Exhaust lap -  
Eccentric throw 14-9/16"  
Piston valves 9-1/2" diam.  
Steam ports 1-1/4" x 21"

*The above gives in full gear a maximum cut-off of 86.9% or 22.6". Actual valve setting as obtained at the time of their erection is as follows:*

FORWARD MOTION.

CUTOFF RELEASE

F. end B. end F. end B. end

Full Gear R.S. 22-1/8 22-1/2 24 24-1/8

L.S. 22-1/8 22-5/8 24-1/2 24-3/8

50% R.S. 13-7/8 14-3/4 18-7/8 19-7/8

L.S. 13-7/8 14-5/8 19-1/8 19-7/8

BACKWARD MOTION.

CUTOFF RELEASE

F. end B. end F. end B. end

Full Gear R.S. 22-1/8 22-3/8 24-1/2 24-5/8

L.S. 22 22-7/16 24-1/2 24-5/8

50% R.S. 12-1/2 12-3/4 19-1/2 19-7/8

L.S. 12-1/8 12-3/4 19-3/8 19-7/8

*This is the distribution which our valve motion diagram prepared during the design of these engines was intended to produce, and which was aimed at. Of course, you realise that the actual distribution would not correspond accurately, but should approximate the figures given above, when the exact alignment of the main driving axle from the centre of the cylinders has been maintained in service, or after the axle has been replaced to this exact dimension.*

*We refer in that last paragraph to the question of lining up the driving boxes and the motion parts, due to wear:*

*We hope this information will be of service, and if there is any other information you want at any time concerning our engines, or about machine tools, or cranes, or railway appliances of any sort, Please write us here, and we shall be only too pleased to obtain for you any information that you need,*

Yours very truly,

(Signature)

57:8.

## CARMEL STATION.

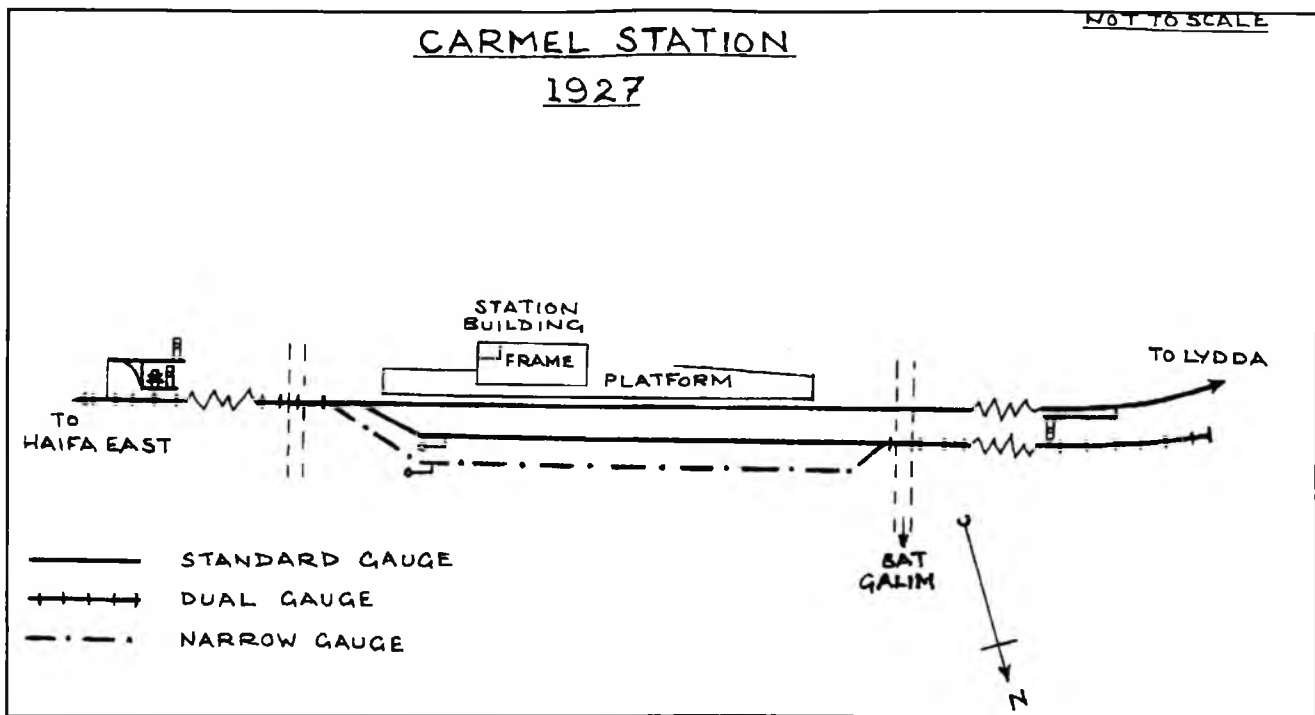
By Paul Cotterell.

One of those peculiarly elusive stations is Carmel (not to be confused with the new Hof HaCarmel seven kilometres further down the line). Carmel station dated from some time after WW1, and was situated at approximately km. 2.7 from Haifa East (the distance is recorded with slight variations over the years in the very few remaining documents pertaining to it.) Apparently it closed for public use with the opening of Haifa Central in 1937, though it is believed to have seen continued use for workmen's trains until about the end of the British Mandate, and has disappeared completely during the intervening years. Unless you know where to look, over the rear wall of the Templerfriedhof cemetery on Jaffa Road, it is almost impossible to identify the site today.

The accompanying sketch is based on a PR Telegraph & Signal Dept. diagram (file no. T/1/73 of the Carmel station layout dated 20th. June 1927, and is the only plan of the place known to me. It has me scratching my head over a couple of points.

It will be noted that what appears at first glance to be a run-round loop opposite the platform is described on the original diagram as B.G. (i.e. Broad or Standard Gauge) Siding and N.G. (narrow gauge) siding. They combine at the western end of the station to form a long dual-gauge head shunt, recorded as a Dead End on the drawing, which ended in what is now Bat Galim station. If the PR diagram is correct in this particular then it would mean that any freight train, whether it be standard or narrow gauge, would have to be propelled for a distance of nearly 3 kilometres along what was then a seawall (now Derekh Ha'atzma'ut) with pedestrian and possibly vehicular traffic close by on the landward side, and with folk crossing the tracks to get to the seashore. Even back in the 1920's, when such things were much more lax and with no handbag-wielding groups of safety fanatics bent on taking the fun out of life, I find it difficult to believe that such a very dangerous way of working traffic in a built-up area would be allowed.

The signalling arrangements, or their nomenclature at least, also presents a slight problem. Two home signals can be seen for both Up and Down directions. These are described as Outer Homes, which implies the presence of



Inner Homes too. But no Inner Homes are shown on the original diagram; indeed there is no need for them with such a simple layout. Note that the Down Home is a bracket signal. The left-hand semaphore is for the main line. The top arm on the right hand bracket is for the standard gauge siding. The shorter lower arm on this bracket has a large letter N on it, indicating entrance to the narrow gauge siding. No Starter signals are provided for the main line in either direction, but both sidings have dwarf disc signals for exit in the Up direction towards Haifa East. The signals and points at Carmel were operated from an 8-lever frame situated in the station building. (I have not shown all the point details here, but can confirm that the original diagram shows the need for eight levers.)

The head shunt/dead end would have been cut back (possibly even eliminated entirely) about 1929 when work began on building Haifa Port and a line was laid from the PR main line to provide access to the harbour works. The point for this new line into the port area was laid in just beyond the Bat Galim approach road, cutting off most if not all of the head shunt.

The roadway just to the east of Carmel station passes by what is now the Abu Yussef restaurant on its way to the neighbourhood of Haifa Atika. (Old Haifa). The roadway immediately west of the station, just a dirt track back in 1927, leads to present-day Bat Galim. It has been much widened and upgraded since then, and a short tunnel under the tracks was built in the centre of the road in the early 1990's to alleviate increasingly unbearable traffic congestion at the level crossing barriers."

57:9.

## THE DIFFICULT WAY TO THE BOSPHORUS.

In the Austrian magazine "Schienenverkehr Aktuell" No. 8/81 of August 1981, p.2 is an article with the above title - "Der Beschwerliche Weg zum Bosphorus". Although technically more to do with European than Asiatic Turkey, there is sufficient relevance to this magazine to include this historical item here, since many travellers to the Middle East over the years had to take this route.

"The Far Beyond, in Distant Turkey" was a saying in Goethe's time, and even today, despite all the construction that has taken place, the rail links from Central Europe remain much more extended than one would understand simply from the length in kilometres. From as early as 1889, following the closure of the last gap in the through route, in Bulgaria (at that time under Turkish rule), the "Orient Express" travelled from Paris to Constantinople (Istanbul). Until the Second World War it went via Kehl - Vienna - Wien - Pressburg (Poszony, today Bratislava) - Budapest - Beograd - Sofia - Edirne, a total of 3093 km.

In 1919 the Entente, the group of Victorious Powers, to which Yugoslavia also attached itself, created the "Simplon-Orient Express", which linked Paris with South-East Europe whilst avoiding German and Austrian territory. It travelled via Lausanne - Triest to Ljubljana and then as far as Beograd, where it merged with the route mentioned above to Sofia and on to Istanbul, a series of largely unimpor-

tant single-track tangential lines along the southern part of the former Hungarian part of the Empire, that were only slowly rebuilt to form the main Magistrale of the new Yugoslavia. Via this route the total distance amounted to 3113 km.

Around 1950 Yugoslavia, reaching from the Karawanken Tunnel almost to the Aegean Sea, attained a more important bridging function following the various inconvenient border changes in Eastern Europe. Whereas the "Orient Express" had taken the shorter route via Hegyeshalom between Wien and Budapest, and is now concentrated totally on traffic to Bucuresti, the rising traffic between Central and South-Eastern Europe now travels from its main originating point of München over the Tauern and Karawanken lines to Ljubljana, where it joins the already-mentioned Simplon route. It is true that it must reach a summit of 1226m on the Tauern, but nevertheless the line from München to Istanbul is shortened to 2050km. (as opposed to the 2175 km. for the old Orient Express route via Budapest.)

The 272 km. stretch from München to the Yugoslavia border station of Jesenice was electrified in stages between 1927 and 1957 with 15 kV/16 2/3 Hz. The valley section München - Salzburg - Schwarzach St. Veit (km. 220) and Spittal-Millstättersee (km. 301) - Villach Hauptbahnhof (km. 337) are double-track. Of the Tauern

## DYNAMITING NEGEV DESERT RAILWAYS.

By Paul Cotterell.

Railway in between only the 12km. long summit section Bockstein - Mallnitz with the Tauern Tunnel have two tracks; in recent years a further total of 20km. have been expanded. The second track on the section Rosenbach - Jesenice, on which the summit is in the Karawankentunnel at only 638m altitude and which had been removed in 1945, was replaced in 1979.

From Jesenice to Beograd the line follows the Save river. Gradients provide no problems, but instead speeds are severely restricted in the curvaceous route following the river, which is often in a deep gorge. At Ljubljana the single-track route joins the double-track former Austrian main line from Vienna to Trieste, which it follows until Zidani Most (km. 501). The "Simplon" Route also joins here from the direction of Trieste, and the electrification at 3000V DC, which was taken over from the regions occupied by Italy in the inter-war years and which by 1976 had been extended over all the main lines of Slovenia. Since the extension eastwards is using the French system of 25kV, 50 Hz, a loco changing station had of necessity to be created where the two systems joined. This was not feasible in the cramped station of Zidani Most nor desirable in the extensive layout of the Croatian capital of Zagreb, and so the intermediate station of Dobova was chosen instead.

The electrification with 50Hz reached Beograd in 1970, and on this flat section the fast trains often reach a speed between halts of 90 to 100km/h. With the exception of the section Dugo Selo (km. 599) - Novska (km. 684), where a parallel line on the right bank of the Save taking 11km. longer but also serving traffic via Bosanski Novi to Split and Bosnia can be used, the Magistrale Ljubljana - Beograd has been made double-track throughout. It joins at Indija (km. 950) in a triangle with the formerly more important line from Budapest, and at km. 994 reaches the main station of the capital, Beograd.

This station, a terminus dating from the last century and lying parallel to the Save on the right bank, can even now not cope with the rapidly-rising traffic levels, and also provides no room for expansion. In consequence since 1974 work has been going on to construct a new through station with ten platform tracks, that will be approximately one kilometre further south in the Prokop district. It will be connected by tunnels in all directions; from the west over the already-completed four-track Save bridge, from the south through the Dedinje tunnel, and to the north-east there will be an approximately 4km. long tunnel and line over the Danube bridge of 1935 linking with the line via Pancevo to the Banat, the trains of which currently end at the Dunav Station in the North of the city. On this stretch a regular local service similar to the S-Bahn concept should be introduced.

The route onward splits at at the southern suburban station of Topcider into two single-track lines. The older one crosses the hills of Sumadia via Mladenovac and reaches the broad plain of the Morava at Velika Plana (km. 1085). The long-distance trains in the other direction travel mainly downstream of the Morava till Mala Krsna and then along the northern spur, built in 1922, to Topcider - an additional 13 km. The following section as far as Stalac (km. 1171) was rebuilt as double track around 1970, and the alignment was improved in places.

At Nis (km. 1238) the line to Greece, electrified as far as Skope in 1974, heads off east and reaches - with diesel traction - after passing through the gorge of the Nisava the Bulgarian border at the 726m high Dragoman Pass and soon afterwards the capital of Sofia (km. 1399), whose main station was thoroughly modernised in 1975.

The following section over the 825m. high Vakarel Pass to Plovdiv (km. 1555) is again electrified at 25kV, 50Hz and is also being doubled in stages. Beyond the border station of Svilengrad (km. 1698) the border changes of 1923 created a curious situation, which is only being rectified in modern times. The line on the right bank of the Marica traversed Greek territory, then served the station of the town of Erdine in a Turkish bridgehead, and only after Pythion, where a line to Western Thrace to Thessaloniki branches off (km. 176) returned fully to Turkish territory.

In 1971 the Turks built a new line on the left bank of the river, which avoided Greek territory, and the Greeks built an 8km. line avoiding Erdine, so that both states now have separate access to Bulgaria. In Pehlivan köy the old and new lines join up again, and after traversing the following heavily-curved and hilly section reach their destination of Istanbul (km. 2050). The last 28km. from Halkali are double-track and electrified at 25kV 50Hz, though this has virtually no significance for the long-distance traffic.

Whereas in 1914 the "Orient Express", operating only three times a week, formed the absolute peak of luxury travel from Munich to Istanbul in 47 1/2 hours, and a more democratic express needed 56 hours, today the "Istanbul Express" traverses the line in 41 hours - but it is the ONLY international train to cross the Bulgarian border. Since 1979 the traffic has fallen back once again to the levels experienced during the Cold War, even though legions of Turkish Gastarbeiter (Guest Workers) are working in Central Europe.

The situation with freight traffic doesn't look much better, even though it should be taking account of the growing economic significance of the Near East regions. A few years ago the Turkish government built a road bridge across the Bosphorus, with international involvement, whereas the rail traffic is still dependent on the slow and low-capacity ferry service. Such an encouragement of the dangerous and energy-hungry road traffic at the expense of a rail route which is already 70% electrified, is, from a modern perspective, a short-sighted and irresponsible attitude."

Ziv Hasid of Tzur Hadassah, near Jerusalem, paid a visit to the Haifa East museum early in 2002. He came bearing gifts, which always helps, and, it being a quiet day, we were able to sit and talk at length. He is researching the World War 1 Turkish line between Beersheba and Kusseima, and has come up with some intriguing finds on a previously obscure stretch of railway. Among his discoveries is the "Military Handbook on Palestine, Third Provisional Edition, June 30 1917" (stamped SECRET), which contains much food for thought. The following are pertinent extracts:

### PART III - RAILWAYS AND ROUTES.

**Rolling Stock** - Interchangeable with that of Hejaz Railway. Trains have been seen comprising up to twenty-five trucks. Probable maximum load ten to fifteen tons per truck. Passenger coaches hold about fifty normally.

**Fuel** - Coal dumps have been seen at Bir Saba.

**Water** - Towers and reservoirs at most of the principal stations. R.E.C. [Royal Flying Corps] report (November 1916) on Auja - Bir Saba section, "all along the railway there is what appears to be a pipe line."

**General** - All rails removed south of Auja, except for first 3/4 mile, and are being utilized on Tine-Mejdel-Gaza line. A few sleepers still left. Auja now evacuated by enemy. Auja-Aweigila [Aweigila = Magdaba. P.C.] Decauville rails removed, Auja and Birein buildings and water towers damaged by explosion on evacuation by Turks. Telegraph line on wooden poles follows railway.

#### Place and Notes.

**El Auja Station.** Triangular loop to edge of wadi; length of straight at apex of loop, 75 yards. Seven lines in station, from 200-600 yards long. Two stone station buildings dismantled. Commandant's house still standing. Water tower (blown up) and large concrete reservoir.

**1 mile north of Auja.** Eight arch bridge, 250 (?) feet length, blown up by our troops May 8 1917. Line removed by enemy for one and a half miles to north. Raid on May 23 1917 destroyed twenty-four arches of bridge and tore up ten miles of track between Auja and Asluj.

**Wadi el-Abiad.** 6 1/2 miles north of Auja. 10 arch bridge, 115 feet length, 39 feet high.

**Thamilat el-Rashid.** 19 1/2 miles north of Auja. 7 arch bridge.

**Asluj Station.** 22 miles north of Auja. Branch line, with siding, probably to quarry. Three lines of rail in station, length 500 yards. Four large stone buildings. Well.

**Wadi Rakhama.** 22 1/2 miles north of Auja.

**Small station** 28 miles north of Auja.

**Small station.** 30 miles north of Auja. 5 arch bridge, 65 feet length, 46 feet high. Bir Ibn Turkia (1040 feet) two miles away to north-west.

**Bir Saba Station.** 40 miles north of Auja. 993 feet. Triangular loop. Double-line siding towards town, eight sheds alongside, length 450 yards. Engine house. Six other station buildings. Two concrete water towers at eastern end of railyard.

**Note a:** Only approximate position of Auja-Wadi el-Surar line is known; distances here must be taken as rough approximations only.

b). Bridge details approximate only; based on information supplied by a prisoner of war, and R.E.C. [i.e. aerial] photos and reports.

### **My notes on the above: Paul Cotterell:**

1. I have rearranged the layout from that used in the original Handbook, in an attempt to make the information clearer and more manageable. (I just hope I've not introduced cock-ups of my own by so doing.)

2. There is a whole series of shots in the Australian War Memorial photograph database showing demolition work being carried out on bridges on the Beersheba - Auja section. Search under 'demolition; asluj'.

3. At least two coloured drawings, with appended details, showing bridges on this section of line can be found in the Public Record Office at Kew, London (see file: PRO WO 95/4471). One is titled 'Detail drawing of Railway Bridge over Wadi Theigat el Amirin on Beersheba - Auja Railway destroyed 23 May 1917 by Imperial Field Squadron R.E.'. The other is titled 'Details of Railway Bridge over Wadi Abu el Heiman near Asluj - Palestine, destroyed by 1st. Field Squadron, Australian Engineers, 23rd. May 1917'.

In addition to the above information, Ziv also came up with a report from 'The Times' newspaper of Friday June 1 1917, which graphically shows that not only Lawrence of Arabia was adept at blowing up Middle East railways. The text is as follows:

#### **"SMASHING A TURKISH RAILWAY. GREAT RAID ON PALESTINE. WORK OF MOUNTED TROOPS.**

(from W. T. Massey).  
Before Gaza. May 24.

Once again the Turks have been made to feel the full force of a British cavalry stroke.

The Commander-in-Chief decided upon the destruction of the greater part of the railway line south-west of Beersheba and mounted troops of a desert column under Major-General Chauvel, by another of those dashing raids which have characterized all the operations of the column since the occupation of El Arish at Christmas, attacked more

than 20 miles of line simultaneously and destroyed it absolutely beyond repair, except by complete reconstruction. The operation was even more important than the wrecking of the line suggests, for the Turks are short of railway material and they had begun to take up and carry away the part of the line nearest to KMossaima to build a line towards Gaza [i.e. that from Et Tine to Bet Hanun and El Huj. P.C.] They looked to this section of line to furnish some badly needed material, but they will not find a sound rail or sleeper there.

The night before last two columns moved out on their destroying mission. A camel corps went off on a 32-mile march to El Audja, a police post on the Turco-Egyptian frontier. They had previously destroyed the bridge there, and they spent yesterday in smashing the whole railway westwards to Wadi El Abiad, including many culverts over Wadis. Being well to the west of Beersheba, they had more time than the cavalry, whose operations were timed to cease at 10 o'clock, and the explosions of the camel men were heard like a heavy artillery battle until late in the afternoon.

The task of smashing the railway between Asluj, 15 miles due south of Beersheba, and Hadaj was entrusted to Field Engineers and Anzac [Australian and New Zealand] and Imperial mounted troops, who have been specially trained in the methods of rapidly destroying railway line. They were covered by the remainder of the troops. These splendid soldiers moved south and east from dusk on Tuesday until dawn yesterday for more than 30 miles. They were delayed somewhat by the extreme darkness of the night, and a dust storm made it difficult to see the tracks. Some of the country is very difficult. One column had to march in the blackness of the night over a long stretch of limestone ridges with sharp, jagged edges. One demolition party arrived at Asluj at 6 o'clock, and the other at Hadaj at 7, working towards each other.

By 10 o'clock they had destroyed ten miles of line, including three bridges of 24 arches [i.e. in total P.C.], with substantial stone and concrete pillars. So complete was the destruction of this section of the strategic military line that not one length of rail remained whole. Every bolt had its head knocked off.

It was not part of the scheme that the cavalry and camelry should join hands and the short section between their spheres of operations remained untouched, but the undestroyed portion is isolated and useless.

While the engineers were blowing up the cavalry made a strong demonstration against Beersheba. They got within five miles of the town, heavily shelled and destroyed the railway bridge to the north, and drove off two Turkish cavalry brigades which appeared to the south of Beersheba during the afternoon. Our troops returned to their bivouacs in the afternoon. The Turks made a poor reply to this heavy blow.

This morning an aeroplane with three men and explosives came down at Salmena, a few miles from Bir-e-Abd, to attempt to cut our railway [from Kantara. P.C.] and pipe line. The men alighted and were about to place dynamite in position when our patrol opened

a heavy fire. The enemy airmen ran, leaving the machine and all their explosives and implements. Blood trails showed that one man was hit, but not the slightest damage was done to us.

\*\* A Constantinople communique, dated May 23, stated that two Turkish airmen landed near Salmena and 'destroyed the telegraph lines and the British Army's water-supply pipes'."

The 'Military Handbook' includes some interesting background on Palestine in 1917, of which I only have a copy of the following extract:

"The local horses require a great deal of feeding to be kept in good condition. An average day's feed for a draught horse is a petrol tin of barley (about four gallons.)

Agricultural machinery of a modern type is only to be found in the Jewish settlements. The Arab *fellah* is still contented to follow the methods of the Bible. Up to and including Jaffa there are about 300 to 350 petrol engines of from 3 to 7 h.p.. These are mainly used for pumping for irrigation purposes. There are also about 30 or 40 of from 15 to 40 h.p. used for milling. About seventy per cent of these machines are of English make, and come from Tangye (Birmingham) or Hornsby. As petroleum is unobtainable in Syria, they are now practically all transformed into gas engines with charcoal fuel. This sent the local price of charcoal up from P.T. 3/4 to P.T. 4 per rotl (5 lbs.) Owing to the war, none of these engines, or, indeed, any machinery, has had any spare parts or replacements for nearly three years. In addition, the milling stones which were imported from France (Société Meuliere, Ferté sur Joarre) are probably now worn out.

A few modern ploughs exist, barely sufficient to cultivate the Jewish properties. There are about a hundred [mechanical] reapers in existence, which the Jews hire out to the fellahin. They are all of American make, mainly from the firms of McCormick and Deering."

Additional recent sources - P.C.

1. Information given here concerning the attacks on the Turkish line south of Beersheba may be compared (among other sources) with Harakevet 37:14 where a parallel account of these actions from the 'Official History of Australia in the War of 1914-1918, Vol. VII, Sinai and Palestine' was presented.

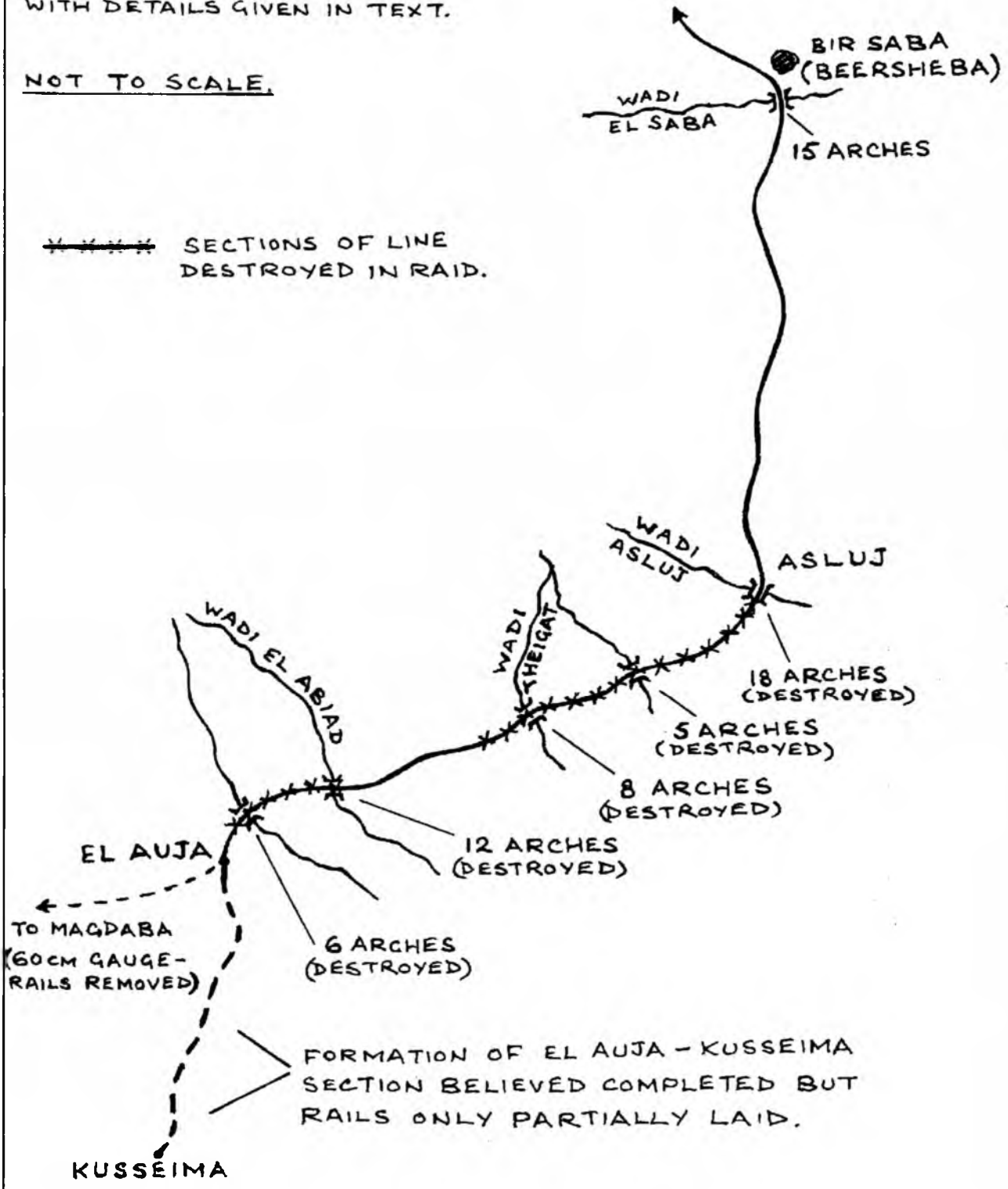
2. Hebrew speakers wishing to follow up further on this Negev raid should consult the academic publication 'Cathedra', issue 87 of April 1998, which contains a scholarly illustrated article by Yigal Sheffy entitled 'The Origins of the Operational Shift in the Palestine Campaign: The ANZAC Raid on the Ottoman Railway', 1917.' This interesting article provides further details (some used here) and argues that the successful raid on the line to Auja contributed to the British decision to take Beersheba following the failed first two attacks on Gaza.

BASED ON BRITISH ARMY SKETCH MAP DATED  
26 MAY 1917 (SEE PRO FILE WO 95/4471)

NOTE CERTAIN DISCREPANCIES  
WITH DETAILS GIVEN IN TEXT.

NOT TO SCALE.

\*\*\*\*\* SECTIONS OF LINE  
DESTROYED IN RAID.





# RAILWAYS IN LIBYA - AN HISTORICAL OVERVIEW.

In a recent issue (55:7(G)) mention was made of a new book in Dutch on Maghreb railways, by Marcel Vleugels; I have received from Marc Stegeman a copy of a part - the chapter on p.127f. on Libya: (Translation from the Dutch is mine; Ed.)

"Libya does not belong, strictly speaking, to the Maghreb. Nevertheless, since its history is a very similar one, of colonial and post-colonial developments, a few words on this country are relevant. Especially in that many of the factors are in fact different from those in Morocco, Algeria and Tunisia. It is worth noting that the routes which have been sketched out in the latest plans for laying new railway lines in the large desert country follow almost exactly the earlier lines. It is not to be ruled out that, after years of doubt and debate, they may not now at last become a reality.

Libya was a part of the Ottoman Empire until Turkey and Italy fought a war in 1911 and 1912. Once the fighting had ended Libya had become a part of the Italian sphere of influence. In effect though it was mainly the coastal region which came under Italian rule. In the hinterland the Senussi continued an effective resistance against the new colonisers. Only in 1939 did the country become truly a 'Colony' of Rome, and Italians began to settle the place permanently - as they then believed. During the Second World War the Italian forces had to fight, shoulder to shoulder with the German Afrika Korps, in bitter battles and with diminishing success against the Allies. After their defeat they had lost the country, and the colonisers returned home. Rule over Libya came first under English and then French control. In 1951 Independence was declared under King Idris I, a Senussi.

## TRIPOLITANIA.

But now back to the beginnings of the Italian period. The colonisers laid the Libyan railways because they were desperately needed to provide communications links in this unfriendly territory. The Italian FS helped from the beginning with the planning, construction and provision of rolling-stock. This was formally established in 1911 by Royal Decree. Libya was perceived as a Province of Italy, analogous to the relationship between France and Algeria. The first train ran on 17th. March 1912 between Tripoli Smistamento (or "Yard") and Ain Zara, 11.4 kilometres further. In the first place this pioneer railway served military purposes, as in the Maghreb. The railway workers were in consequence frequently attacked by Libyan resistance fighters. In April 1913 the coastal stretch of Tripolitania - as the Italians named the area in a wide sweep around the capital - was completed. From now on the railways were operated as an integral part of FS Italy, until in 1922 they were handed over to the

Department for the Colonies. There were three lines spreading from Tripoli and two more from Benghazi, totalling 250 and 404 km. respectively, and built to the Sicilian gauge of 95cm.

## WATER SHORTAGES.

The network in Tripolitania was worked by a dozen 0-8-0 tank locos classed as R401 from Schwartzkopff, plus five 0-4-0T machines from Hanomag. The R401 had been built for use in Sicily when the tracks there were not in fact ready. Following a short stay there they were therefore transferred to North Africa in 1912/13. Four were moved further from Tripoli to Benghazi. Two R202's also came from Italy, where they had been used on the construction of the Val Setta and Val Bisenzio tunnels in the Appennines. They had been built in 1913 by Hanomag.

There were also five brand-new R301's, 2-6-0T's, plus another five which went straight to Benghazi.

Between 1912 and 1914 the Italian firms Costruzione Meccaniche Saronno and Officine Meccaniche SpA (OM Napoli) delivered eight 2-6-0T's with a total weight of 37.5 tons, of the FS Type R302, two of which went to Benghazi. Between 1922 and 1927 both firms - with Saronno as the main contractor - built another six examples of a slightly more powerful version. At the beginning of the Second World War four extra R302's were brought over from Sicily. ('R' stands for 'Ridotto' or "narrow gauge"). Also interesting are two small 60 cm. gauge 0-6-0T's which Henschel built in 1917 for the Austrian military. For a while they were used on the link between the army base near Tripoli and the town itself.

The introduction of diesel traction in Libya, as in other Maghreb countries, came relatively early. The main reason was the lack of useable water, especially inland. Modernisation began properly when both Libyan networks ordered between them eight diesel-mechanical railcar sets from Italy. They were of the Fiat F1 type, with the wheel arrangement (1A) (A1), powered by two 115 hp. motors of the standard Fiat 356 type. They weighed 32.5 tons, were 22 metres long and contained 12 1st. class seats, 23 2nd. class and 20 3rd. class. They were employed for example on the Tripoli - Garian service, where with their 90 km/h top speed they were able to cover the hundred kilometres in 3.45 hours, instead of the 4.5 hours of the steam trains. Also in Cyrenaica they were used on the 'fast' trains between Benghazi and Barce; later they were used, without motors, as coaches and so ended their days.

## CYRENAICA.

In Benghazi, like Tripoli situated on the coast in a relatively cool location, there was at first only a 75 cm. gauge military line to El

Benia, and which was opened for public traffic in 1914. Three R201 0-4-0T locos from Hanomag, built in 1912, provided the initial tracs were regauged and sent off to Tripoli.

From 1923 new lines were laid once again. These reached Barce in the north in 1927. This is 110 kilometres from Benghazi and the height difference means 1:100. This railway was to play a significant role in the colonisation of the area around Barce in the 1930s. There were plans to extend onwards to Derna, but work only began as the Second World War broke out - at which point some 40 km. of the route had been prepared.

In 1926 a line was laid from Benghazi to Soluch, 56 km. southwestwards; a harbour branch was also opened in Benghazi in this period.

When the Italians and Germans had left and the English held Libya, the railways were run by the British Military Administration. Most railwaymen were now Libyans. Soluch - Benghazi - Soluch was closed in September 1946 and on 1st. April 1949 reopened under the auspices of the Cyrenaica Government Railway; the military command had now left and the British Foreign Ministry was now in charge of the administration in Cyrenaica, to be followed by the Libyan Government.

## MALLETS AND GARRATTS.

To cope with the planned extension Barce - Derna two further Sicilian R302 2-6-0T's were delivered. These well-proportioned machines, plus four Mallets, 0-4-4-0T's, which had been prepared in Italy in 1933 for use in Cyrenaica, were captured by the British and set to work by the Allied occupiers. The Mallets often rode with an extra water wagon behind the loco. They were given the numbers WD 70637 - 70640 by the British War Department, numbers which they retained to the end of their service. Three of the six 2-8-2+2-8-2 Garratts, built by Ansaldo in Genoa, were sent to Libya; they had been intended for the 'Chemin de Fer Franco Ethiopien' in the Italian colony of Ethiopia. These were the only Garratts ever built in Italy. The other three ended up in Djibouti where the Free French Forces captured them. Two of the Libyan examples were badly damaged in bombardments and the third was apparently on a ship that sank somewhere. Since they were metre gauge, they could not be used in Libya and were simply stored. By 1945 they had vanished, probably simply scrapped.

There had been other locos in Libya. Between 1911 and 1939 Maffei had built three Mallets and Ansaldo thirty-three, for use in Eritrea, the original Italian colony in Africa. The Italians had begun laying a line here in 1887, from Massawa on the Red Sea to Asmara. The line climbs from sea level to

2343 metres above, over a distance of 118 kilometres. The line climbs at 35% and has curves with a radius of 72 metres. In 1922 the link was extended to Agordat and in 1930 to Biscia. In 1969 14 of these engines were still in use.

As well as the Fiat railcars one could also see modern Bo-Bo diesel locomotives in Libya in 1940. These had also been originally intended for Eritrea. They were built by Fiat and Tecnomasio Italiano Brown Boveri. The Fiat motor was of the 2012V type which at 900 revs. per minute delivered 550 hp. This allowed a maximum speed of 90 km/h. The machines were developed from a prototype that Fiat had developed in 1925 for the Ferrovie Calabro-Lucane. Later the FS main line diesels D341 and D443 would in turn develop from these colonial machines. The type is significant inasmuch as it meant a breakthrough for Italian diesel loco construction. This had taken some time in coming - Ansaldo had begun studies and tests in 1919 in order to find a useable diesel. However, at the time one saw little potential in hydraulic, pneumatic or electric transmission; therefore the Ansaldo engineers chose direct drive through coupling rods as with steam locomotives. That meant some imposing but problematical collossi were created. Fiat in contrast had struggled with teething problems but had managed to iron out most to produce a workable diesel-electric system. The 12-metre long machines weighed 46 tons and had two cabs. They worked well in North Africa. One example was destroyed through war in 1942; the other three were captured and renumbered WD 70634-36. They worked mainly on the line to Barce. The war had indeed brought dramatic changes to the Libyan railways.

### **TRAILS IN THE SAND.**

In September 1940 the Italians were defeated by the British troops operating out of Egypt. Despite their larger numbers the Italian units were driven back and the English enjoyed notable successes. In February 1941 therefore the Germans joined in; the English had by this time penetrated deep into Libya, and had a great deal of Cyrenaica under their control. In this respect they profited from the line from Alexandria to Mersa Matruh (294 km.) that had been built in 1936-38, the 'Western Desert Railway'. With the success of the British forces the line expanded westwards, first to the strongpoint of Mohalafa and then between November 1941 and June 1942 a further 300 kilometres to Tobruk. For the time that was an amazing achievement. This was thanks to three factors: firstly, there were a lot of men set to work on the line - some 30,000; then, they worked with the most modern machines and equipment; the third factor was the sheer simplicity of the line. Anything complex was avoided; With the exception of a solitary bridge all building work in this hilly landscape was evaded by simply building a curve instead. The stations, 15 to 22 km. apart, were very spartan and simply laid out. So the English managed to achieve three kilometres per day construction. Later the German and Italian crews who tried to extend the line and

build short branches were never able to manage more than a third of a kilometre per day.

At first the line was entrusted to the New Zealand Railway Operating Company, but when the extension from Mersa Matruh was complete, the 6th. Railway Operating Group was drafted in, formed of the 193 (English) and 115 (Indian) Railway Operating Companies for the Alexandria - Mersa Matruh section, whereas the New Zealanders were concentrated west of Mersa Matruh. Six to eight trains of 450 tons were handled per day.

In 1941 the German Afrika Korps began their famous advance eastwards, but were halted by El Alamein, partly due to inadequate supplies. Nevertheless the whole strategic line Tobruk - Mersa Matruh and further on to El Dabaa completely in German hands. (In addition the Germans began the extension of the narrow gauge line from Benghazi to Barce further towards Tobruk, but they never got further than preparing the trackbed and never laid any rails.) The English had succeeded in withdrawing all means of traction, with one exception. In contrast to the English the Germans decided not to use steam traction but the Wehrmacht diesel types; the English had been using 42 of the LMS Stanier 8F type 2-8-0, and had laid a water pipeline alongside a good deal of the line.

To support Rommel's army units five WR200B14's (later DB type V20), three WR360C14's (later DB type V36) and two WR550D14's (a military 0-8-0D) plus several lorries which could run on rails. Italian rolling stock was also delivered. In addition there were 200 British wagons, built in and captured in Egypt, at their disposal. Although of standard types, the German locos were of different prototypes and series. Motors and fittings differed, which made maintenance and provision of spares difficult. At the beginning of this adventure they were at least fitted with effective sand filters. They were manned by German soldiers, a dangerous occupation as the British fighter-bombers sought out the locos. The first men in the driving cabs died fairly soon.... Later, operation took place only at night and was safer. There were far too few locos for the long desert line, and more were requested. When the African campaign was essentially over, it turned out there were in Germany forty diesel locos, of V20 and V36 types, still under construction and intended for Libya.

The Wehrmacht was active on this railway between 8th August and 2nd. November 1942, and then their hasty withdrawal began. On 6th. November German soldiers blew up anything of military significance east of Mersa Matruh. On 13th. November the British captured Tobruk, and took as booty seventeen German and Italian diesel locos - including six WR 200's, two WR36's and two WR 550's, of which three WR200s and one WR550 were too badly damaged to be repaired. The others were kept in service; In 1944 four were transferred to the War Department, and three were used in Beirut and one at the American base at Darb el Hag. Of the seven Badoni-Fiat two-axle machines captured, three were absorbed as WD 250-252. Later they went to Fanara. One (FS M1) was rebuilt for use as provisional shunting loco

for the workshops at Benghazi; that was achieved by mounting a Spa V8 engine taken from an Italian tank.

The railway operated for the rest of the war with the 650 hp. Whitcomb diesels that had by now been delivered - they went later to Italy. East of Capuzzo steam traction returned once the Germans had left. The line to Tobruk remained in operation until December 1946; at this point the section beyond the border a Sollum was closed and the section that lay on Libyan territory was lifted. In the 1960's the Egyptian section to Similla was lifted. Between Alexandria and Mersa Matruh a daily passenger train is operated by the Egyptian Railways. This was the only standard gauge line that ever existed in Libya.

### **CAPACITY.**

When the Allies advanced in 1943, they found the infrastructure severely damaged by the effects of the war. The English took over the systems and repaired them, for they too badly needed the logistic help of the railways. The main need was in Tripolitania where the trains were used to transport the masses of military materiel brought to the land. Pretty soon they hit the problem of shortage of rolling stock of 95 cm. gauge - hence they brought swiftly two locos and several wagons from Cyrenaica to strengthen the rather scanty traction available in Tripolitania. Nevertheless the capacity was insufficient. The British War Department therefore altered most of the Tripoli - Zuara line to metre gauge, as there was more stock of this gauge available. One can soon understand what this meant. South of El Azizia the tracks were lifted in order to use the rails for the westward extension of the metre-gauge line from Zuara. This was in order to support the military advance westwards to Tunisia and in order to connect with the Tunisian metre-gauge system at Gabes. In June 1944, by which time the actual conflict had been moved to Italy itself, this and the other lines in Tripolitania was opened to civilian traffic. By this time the lines had been regauged back to 95cm. and operation was with restored and repaired original stock. From 1st. June 1944 the 'Libyan Military Railway' was opened. In September 1946 military control over the Libyan railways ended, and in Cyrenaica all traffic was stopped. In March 1948 the lines were reopened for passenger and freight traffic under British control, later handed over to the Libyan authorities. In 1948 four trains per week traversed each of the Libyan lines.

### **TRAIN VERSUS CAMEL.**

In Tripolitania and Cyrenaica the FS Italia standard central buffers with screw couplings were employed. Material from both systems could be exchanged. This also occurred with the Sicilian narrow gauge network. The Libyan four-wheel wagons and bogie coaches were also essentially identical with those used in Sicily. The coaches for North Africa did actually have an additional sun shade over the frames. They were set up for 1st. 3rd. and 4th Class. This last was intended for native nomads and for native Italian soldiers. Noteworthy is that the costs of

travelling by train in Libya was less than by camel. According to Italian calculations of the time transport of one ton of goods by camel over 100 kilometres cost 75 lire against 60 lire by the fastest category by rail. Should one choose the cheapest and slowest category, that was only 10 lire. Travel time by train, one day; by camel, three days.

Modernisation was continued. We know that in 1950 a diesel shunting engine was delivered. About a year later the last steam was raised in Libya. In 1953 a diesel railcar was acquired in order to improve passenger services; this came from Walker Brothers (Wigan) Ltd, in England. These had a great deal in common with the diesel-mechanical railcars that Walker Bros. had delivered to the County Donegal and West Clare railways in Ireland, of 3 foot gauge. The motor was a 107 hp. Gardner. The Libyan version had two classes and at the rear end a small cab to allow backwards running.

In 1951 the independent Kingdom of Libya was established. The United Nations looked carefully at the economic situation. This occurred at a time when the loss-making Tripolitanian railways were carrying 22,000 passengers, 200 tons of baggage and 4,000 tons of freight per month, and employing 370 men. The freight traffic in Libya consisted, in contrast to that of the other Maghreb lands, not of bulk raw materials and agricultural produce, but of varied smaller items; the basis of traffic was therefore smaller. The Libyan railways were losing around 10,000 Dutch Guilders per month. The UN report was devastating for the railways of Tripolitania - the laying of railways in thinly-populated developing countries by colonisers was described as a false move, as an example of pushing development too quickly; it would be better to invest more in improving the roads and to close the railway.

As far as Cyrenaica was concerned, the recommendation was essentially similar. The line to Barce could be disposed of first inasmuch as a good road ran parallel; the line to Soluch could remain so long as it did not make too great a loss; nevertheless, so said the UN report, should traffic actually increase substantially; then it would make more sense to convey this also by road.

The report was acted upon. The western line in Tripolitania closed in 1960; Tripoli - Tagiura and the branches to Ain Zara and the El Melbaha airbase - that later became the massive Wheeler Air Base of the Western air forces - remained in use until February 1962. In Cyrenaica at this point trains were still running, but the line to Soluch closed first, followed in 1965 by the line to Barce. The discovery of massive oil reserves and the explosive development of population and economy that this meant for the land and its people came too late to save the railways.

## ADIEU ?

Nevertheless there have been repeated proposals since then to lay railways in Libya. In 1983 an agreement was signed with China; this envisaged the laying of a 170km. line from Tripoli to the Tunisian border. From here the SNCFT would continue it to Sfax. According to reports an actual symbolic beginning was made with construction after the usual festivities and speeches, but nothing has yet come of this project. This line was to be the first phase of an ambitious network of 1,300 kilometres formed of standard gauge, single tracks. The second phase, according to the Libyan plan, was to be a 180km. line from El Sollum at the Egyptian border to Tobruk. The Presidents of both North-African states signed in 1990 a Letter of Intention and in 1991 agreed to pay 500 Million dollars towards the project. In 1994 tenders were called for, but since then it has also grown still and quiet around these plans. The third phase was to be a line from Tarabulus and Misratah to Sebna in the deep south of the country for the conveyance of minerals. With this the network should read a length of 2,178 kilometres or even a final total of 3,073 km. A maximum speed of 160 km/h was envisaged for the coastal line and 120 km/h for the lines heading inland. The total costs were estimated at \$US 4 Billion. The Hungarian engineering consultants Tesco-Uvaterly prepared the plans for the newest Sahara route; it was also reckoned that the system would require 21 diesel locomotives, 423 passenger coaches and 703 goods wagons. Tripoli considered the French firm Sofrerail as a possible provider of the rolling stock and also to assist in establishing the management structures. According to some reports a thousand Libyans were to be sent to Europe to be trained in railway operations. This has not occurred and it must be assumed the plans have been dropped. The country has found itself for many years in a near-total economic, political and infrastructural isolation, the result of a United Nations resolution in

1992, strengthened by a later resolution on 1st. December 1993 due to the international condemnation of presumed Libyan responsibility for the notorious Lockerbie air terrorist attack; this resolution imposed a strict boycott of almost all trade contacts. When in April 1999 the two Libyan suspects were finally set free by a Scottish judge in the Netherlands, the United Nations largely lifted the boycott. Therefore the way is free at the time of this book going to press for the realisation of some of the plans and for a new chapter in the history of railways in Libya. A railway journey from Morocco to Egypt should then in theory be possible.

## TRAMS AND METROS.

In Benghazi there must have been two horse tramway lines; one ran from the centre along the salt sea Ain-es-Selmani to the north-east and was three kilometres long; The other ran for five kilometres southwards.

The city of Tripoli played for some time with the idea of an urban railway with a total length of 70 km., of which 20km. would be underground in the form of a Metro. Further progress was blocked by the UN resolution."

## A TOURIST VISIT:

Eric Stuart has written: "I paid a visit to Libya in 1966. It was a day stop on a cruise ship (the "Chusan"); this was in the pre-Gaddafi days, when King Idris I was the King. (Strange to be called "I" and, it seems there has not been a King Idris II !) It was a long time ago, and while some memories are clear, others are not.

P&O kindly provided a small map of Tripoli, our port of call. It showed railway lines in the port area, so, after a walking tour of the city in the morning (with police guard - presumably to fend off beggars, as all seemed very peaceful), I had a quick lunch and then, like all good enthusiasts, tried to find out more. Mad dogs and Englishmen, it was the heat of the day - but there would be no other chance !

I found the rails at the place where they were shown on the map. They appeared unused and my recollection is that they petered out somewhere. I headed in the general direction of where I thought they would go and asked in a police station for the railway station. As I had no Arabic at the time, and as Libya had been occupied by Italy, I tried bits of French and Italian. "Chemin de Fer", "gare" and "stazione" got me nowhere. I tried drawing railway tracks and a steam engine as on a level-crossing sign - all to no avail. The police continued to count out their bullets for their hand-guns !

Eventually I found my way to a warehouse/industrial area. I saw an old chap whom I thought was old enough to remember the war. He was sitting in the doorway of a warehouse - presumably as a sort of watchman. "Stazione" worked and I soon found it.

Tripoli station was a large white building-shell. The entire station yard appeared full of rolling stock, presumably gathered for scrap. From its condition, it had been there for possibly ten years. Most were wooden wagons. There were no steam locos, no diesel locos, but there were the shells of a couple of Fiat-looking railcars. One was probably a bogie car and the other, smaller, might have been 4-wheel. I deduced they were Fiats because they looked like their products, of which I had seen pictures, dating from the 1930's/40's. I cannot now recall whether I took a photo."

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# PHOTOS OF RAILWAY CONSTRUCTION.

Aharon Gazit has sent several photos of earthworks and buildings under construction - part of the massive expansion of the Israeli railway network. Several are here presented - in the nature of things, of course, mainly comprising landscapes or earth-moving machinery, but nevertheless a valuable record.



The line to Ben-Gurion airport is taking shape. Seen here is a large bridge over the Ayalon river not far from the airport.



Na'an junction, looking south. The track on the left, the old line to Jerusalem, is being dismantled; the upgraded line on the right is that to Beer Sheba. April 2002.



Earthworks at a road crossing near Na'an on the Jerusalem line. April 2002.



Kfar Sava (Nordau) station under construction, looking towards the new Sokolow station.



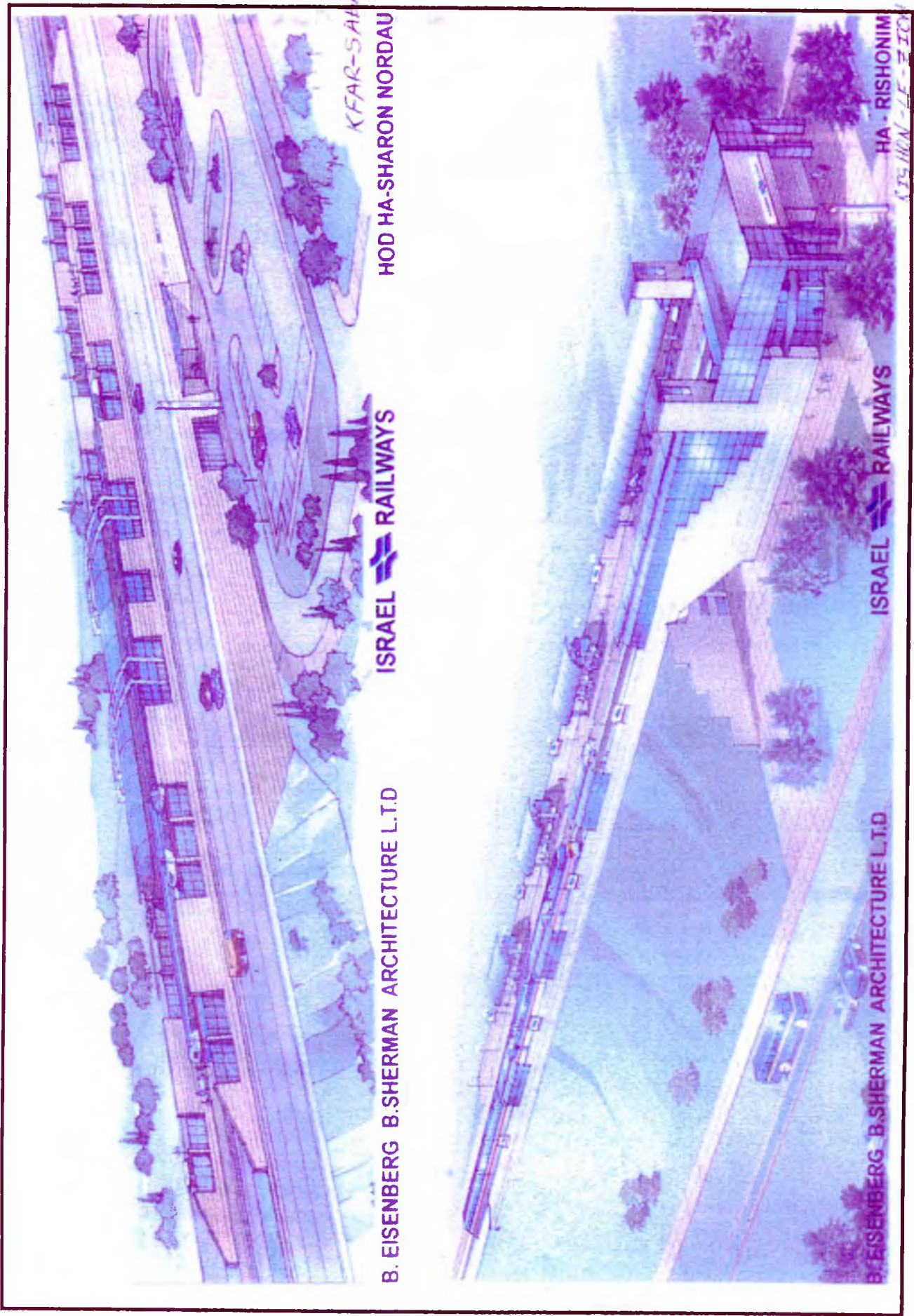
The site for the junction for the new line to Ben Gurion airport (and eventually Modi'in and Jerusalem) - the two existing tracks in the median strip of the motorway have been slewed to make space for the new junction. View towards Tel Aviv. Jan. 2002.



The line towards Kfar Sava under construction. Jan. 2002.

**Rear Cover: - the architect's plans for the new stations at Hod HaSharon (Kfar Sava) Nordau and Rishon leTzion HaRishonim stations.**





Kfar-Sava

HOD HA-SHARON NORDAU

ISRAEL RAILWAYS

B. EISENBERG B. SHERMAN ARCHITECTURE L.T.D

Ha-Rishonim

ISRAEL RAILWAYS

B. EISENBERG B. SHERMAN ARCHITECTURE L.T.D