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Brand new Danish built 3 car IC3 d.m.u. running into Kiryat Motzkin north of Haifa, on a suburban service in February 1996. (Photo: Steve Tish)

This issue has been slightly delayed by work pressures, but the delay has served to increase yet more the amount of "current" as opposed to "historical" material that has flowed in - especially with regard to Israel Railways, now totally transformed from the system I first got to know in 1981, and the Hedjaz Railway, now about to undergo its own total transformation - this must be the last chance to see the "old" system with the TEFS trip mentioned inside ! So - this is a bumper 48-page issue.

An Index for issues 1-20 was published some time ago, in compatible A5 format - and many copies are still left over. I don't intend to produce another like that - at least for a while - but I have been keeping a "running Index" on A4, for issues 21-32, and will make copies for those who request, at £4 a time.

Also with this issue Series 8 comes to a close, and Subscription Renewal Forms for Series 9 (issues 33-36) should be enclosed. After all the insecurities of the past year, I am still here, so progress as normal is assumed ! "Harakevet" continues - Enjoy !



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a). Preservation: De Profundis. Good news for Preservationists ! At the beginning of Dec. 1995 eight freight wagons of the former HR, which had been standing derelict for almost forty years at the lowest railway station in the world (Jisr-e-Mejamie, -246m.) were transported to Qishon workshops.

The intention is to restore some, but not all of the wagons for display, both at the Haifa Railway Museum and Kibbutz Gesher.

All are bogie wagons, built in the first decade of the 20th century, but unfortunately all individual markings and records have disappeared. They include: 3 vans of 15T capacity of the most common HR type, built by Baume & Merpent of Belgium; 3 low-sided wagons, one with a brakesman's shelter: and 2 flat wagons of 15 or 20T capacity.

The restoration work will be carried out under the supervision of the railway museum, by volunteer labour, and it is hoped to complete the project in about a year.

b). More Preservation. On Friday 2nd. Feb. 1996 several old wagons were hauled from central Israel to Haifa East in Extra 8314. They are intended for inclusion in the Railway Museum. Individual numbers have mostly faded away completely. The following list gives known details of each wagon type. The Fig. numbers in brackets refer to pertinent outline diagrams of these wagons in 'The Railways of Palestine and Israel':

1. 120-ton bogie well wagon built by Familleureux (Fig. 102). This is reputed to be the first piece of rolling stock purchased by IR and was used for carrying heavy transformers belonging to the Israel Electric Corporation.
2. 6-wheel tank wagon (possibly Fig. 114). The frames at least are ex-ESR.
3. PR 4-wheel flat wagon built by Birmingham RC&W in 1934.
4. Three 2-ton 'Continental' vans. (Fig. 92).
5. 25-ton van. (Fig. 145).
6. Hedjaz Railway bogie box van (body only) from Ashdod Port. It was loaded on roller-bearing ex-ESR coach reduced to flat wagon.

This welcome news implies great dynamism on the part of those guiding the Railway Museum's affairs ! Ilan Falkov is now working hard on schemes - it is not yet clear what future plans may hold.

c). The Road to Bethlehem. The new "bypass road" to Bethlehem crosses the railway a short distance east of the new Jerusalem Zoo station. So far (2/96) there is no barrier at the level crossing. Our correspondent Sybil

Ehrlich took one of the Efrat and Gush Etzion buses along this new road, and reports that it parallels the railway for some distance and then climbs steeply, affording a superb view looking down over Bittir station.

d). Basel Trams. The last mention of Basel trams in Jewish context must have been when Theodor Herzl used them on the way to the Zionist Congresses..... However a group of Israeli journalists were afforded the chance to sample the public transport system of Basel and surroundings (including a brief trip to Mulhouse Transport Museum) Reports appeared in the "Israelitische Wochenblatt" for 8/12/95 and the "Jüdische Rundschau" for 14/12/95 - the trip included tours of the B.V.B. workshops and depots, rides on modern as well as older trams, and explanations as to how a "Tarifverbund" works - the system whereby a passenger has to buy only one ticket to use various forms of transport within a specified region. Hopefully the Israeli press will now be a little better informed !

e). Privatisation and Investment. Two stories from the "Jerusalem Post" - on 4/1/96 Transport Minister Yisrael Kessar was reported as announcing NIS 500 million for the development of railway infrastructure and purchase of new passenger coaches and equipment this year; in 1996 the government will, for the first time, allow the railways the same subsidies - NIS 110 M - as it gives to the Egged and Dan bus co-operatives.

1995 purchases included 40 coaches and 150 wagons; Hashalom Station is due to open in mid-February, and construction of five new stations in the Haifa area is scheduled to begin soon.

On 11/1/96 the Trade and Industry Minister Micah Harish announced that he was in favour of privatising the entire Israel Railways, or at least tenders for private firms to build and operate specific new lines - especially in the Negev.

On 19/12/95 a Ports & Railways Authority spokesman, Avi Hafetz, announced the NIS 150M project to rebuild a line from Ashdod through the Gaza Strip to Rafiah, "which will bypass heavily populated areas in Gaza" and "will ultimately be linked to Egyptian train lines".

New automatic ticket barriers have been introduced at Tel Aviv Merkaz.

In "Yediot Aharonot" 20/11/95 is a photo showing an IC3 unit passing a lorry and JCB working on the doubling of the 15 km. of track between Tel Aviv and Lod. Since much of this route now lies in the narrow median strip of what has become a very busy motorway, it will be interesting to learn more as to how this section is being doubled.

f). Speed Freaks. An (undated) press release from IR announced that one of the new IC3 units reached a record speed (for Israel) of 160 km/h between Netanya and Hadera. (See 31:4:1)

g). Beer Sheva system ? See 31:4:12. "Globes" for 14/12/95 announced that the Dutch consortium has announced proposals for a suburban or LRT system around Beer-Sheva, costed at 40-50 million dollars.

h). Tel Aviv Plans. It appears from diverse press reports that the Transport Ministry is getting cold feet at the thought of a full underground system ("Rakevet tachtit") in Tel Aviv; however, in comparison the schemes for Light Rapid Transit are becoming more concrete. In Nov. '95 pre-qualification bids were being invited for a "light metro", with international consortia being offered a concession of 30 years to design and build a 20-km. route costed at US\$ 1 Billion. The "TAMAR" steering group hopes to make its shortlist in March and pick the winner in June; by the end of 1996 the municipal master-plan should be completed, enabling work to begin by mid-1997; Dan Darin, the Deputy Mayor, envisages services commencing in the year 2000.

Current scheme involves a surface line from Petah Tikva to Tel Aviv Merkaz, with an interchange; then one arm would branch in tunnel west to Municipality Square (now Rabin Sq. ?), head north to the university, then loop south via Carmel Market and Shalom Tower to Beit Hadar. A second arm heads south in tunnel from Merkaz to Beit Hadar, where a branch would go off to the new Central Bus Station, then continue south to Shabazi at which point the line will emerge from tunnel and continue on the surface to Yafo, Bat Yam and Rishon LeZion.

Ronnie Milo, the Mayor, has said the project will go on either with or without the Transport Ministry's support.

i). Fire ! During the night of 15-16th. February fire broke out in a coach parked at Haifa East station and quickly spread to adjoining coaches. Vehicles affected are: 604, 605, 614, 615, 616, 621, 625 (all Yugoslav-built) and 111 (refurbished Esslingen railcar). Arson is suspected. The fire evidently started aboard 614 which was completely gutted and collapsed on itself. Also totally burnt out were 604 and 605, and these three coaches are believed to have been written-off already. 615 and 616 were severely damaged but may be salvageable. The other coaches should all be returned to service after repairs.

Hasty rearrangements to the consists of trains had to be made to cover for the lost coaches. It had been intended to withdraw the ex-BR Mk.2C's

from regular daily service (Sundays excepted) as they had become generally very run-down and, indeed, they had just been gathered together for partial storage at Haifa East. The fire ensured an immediate return of the Mk.2C's to traffic on a daily basis. Apart from reduced passenger comfort and overcrowding on certain trains, the knock-on effect seems to be minimal, with rearranged diagrams helping to cover for the missing vehicles. A few more details in the "Rolling Stock News".

j). Peace at Last ? The new "Hashalom" ("Peace") Station, about one kilometre south of Tel Aviv Central, opened for public service a week later than originally planned with the new timetable on 24th. February 1996 (Saturday evening). (It takes its name from the road on which it is situated.) The station is most impressive, in particular with the sweeping overall roof which is both light and airy. Situated in the middle of the Netivei Ayalon highways on either side, this is also a very noisy station.

The official opening ceremony with the Prime Minister etc. was scheduled for 6th. March but was postponed due to the horrific terror events of the period.

k). More Doubling. The difficult 3km. section between Tel Aviv Merkaz and Tel Baruch, involving new bridges over the Yarkon, was doubled with effect from 14/2/96. This means the 57 km. from Tel Aviv Darom to Binyamina are now all double track - work continues on Tel Aviv - Lod and Binyamina - Haifa.

l). Viva Espana ! According to "Globes" 20/2/96 another 17 coaches have been ordered from GEC-Alsthom in Spain, bringing the order to NIS 55M. By 7/3/96 seven of the initial batch had arrived at Ha'argaz for assembly and fitting-out. Each coach can hold 200 seated and standing passengers.

m). Jerusalem Line News. A newspaper advert indicates that the Tel Aviv-Jerusalem line will be closed to traffic from 8/3-23/3/96 due to rebuilding works.

n). New Timetable The 1996 timetable is a small glossy booklet with a very clever cover - two IC3 units traversing the Ayalon line with a background of backed-up road traffic. It is marked "Effective February 1996 until further notice", and apparently became operative from 14/2 rather than the originally-planned 17/2. The centrefold incorporates a diagrammatic system map showing passenger lines in red and freight lines

in blue. The Netanya-T.A. shuttle and Haifa - Tel Aviv services now continue to Hashalom.

Haifa-Nahariyya has 10 return trips, with six additional shuttles to Motzkin; 21 return trips serve the T.A. - Haifa axis, with differing stopping patterns and a further 9 between T.A. and Netanya ; T.A. - Rehovot now sees 11 trains, and still only one daily return service on the Jerusalem line.

32:5 IR Coaches 605/614/604 at Haifa East on 16th. February 1996, the morning following the fire. All the damaged vehicles were worked to Qishon shops that afternoon. (Photo: Paul Cotterell).



ROLLING STOCK NEWS.

Steve Tish has sent such a lot of information this time that it seems worth making a separate heading for this topic. As new vehicles arrive over coming months there should be a lot to report.

The information is already a little dated, most being current to 31/12/95 with a brief update to 7/3/96:

a). Locos repainted into IC3 livery included:

104 (r/p 11/95); 111; 112; 114 (r/p 12/95); 116; 117; 121; 122; 126.

In addition 120 & 125 were at Qishon undergoing repainting at the end of 1995, and emerged in 1/96.

607 - the first "Jumbo" to receive IC3 livery - was repainted 2/96, returned from Qishon 22/2/96 and re-entered service next day.

A correction to last month's report: the two surviving Esslingen shunters 217 and 222 are dumped at Haifa sheds, not at Qishon.

b). "Kronoim" - Hebrew for "Railcars" or, in English, Diesel Multiple Units - d.m.u.'s. Three sets of the second series - we shall call them "Mk.2's", but hope to avoid any confusion with the former BR Mk. 2 coaches - had arrived by end/95, the first two via Ashdod to the "Ramta" factory of Israel Aircraft Industries, near Beersheva. The third arrived at Haifa Port on the vessel "Thebeland" on 30/11/95, and was quickly put into test service. It is in fact the first new unit according to the numbering, which is a continuation of the previous numbering series:

7011 (works body plate no. 31815).

7411 (-do- 31829).

7211 (-do- 31822).

Externally, the old and new units seem identical, although the seating pattern is different resulting in a capacity of 177 instead of the previous 167. The only other difference noted from the information plaque in the coach is that they are of 1200 hp. instead of the 1600 hp. of the original batch.

The first commissioned set (7011/7411/7211) entered official passenger service with the commencement of the new timetable from Sat. evening 24/2/96 (postponed from the previous Sat. 17th. due to foreshadowing work at Hashalom Station not being completed on time); it works the Haifa suburban shuttle from Bat Galim/Kiryat Motzkin in the peak hours.

The second Mk.2 IC3 set (7012 etc.) arrived at Haifa sheds in the last week of February from Ramta, and will also enter service on the Haifa/Motzkin shuttle.

c). Coaching Stock. The following coaches were at Ha'argaz works at Sarafand, at 31/12/95, waiting refurbishment and repainting in the new livery:

71; 73; 602; 606; 607; 608; 638; 642. 73 returned to service 1/96, and 71 on 9/2/96. 95 and 606 returned 12/2/96. The rest were still at Ha'argaz at 7/3/96.

In addition 641 was at Ardan Industries being converted to a Power Coach, and returned 2/96; 632 was converted to a Power Coach by Ardan and was returned to service in mid-Dec. '95. 633 was sent there for similar conversion on 15/2/96. 637 was at Qishon on 6/3 for ultimate conversion at Ardan.

The following were refurbished and repainted by Ha'argaz:

56. Entered Service 17/12/95. Paint date 12/95.

74. -do- 8/11/95. No paint date.

75. -do- 3/12/95. No paint date.

76. -do- during 11/95. No paint date.

77. -do- 22/12/95. Paint date 12/95.

79. -do- 22/12/95. Paint date 12/95.

81. Returned 1/12. e/s 8/12/95. Paint date 12/95.

601. Entered Service 8/11/95. No paint date.

603. Returned during 11/95. No paint date.

639 & 643 went to Ha'argaz on 13/2, but were returned two weeks later to service following the fire at Haifa East, to cover the shortage of coaching stock.

The following were repainted only, i.e. not refurbished, at Qishon:

82 & 83: 10/95; 618: 11/95. None bear paint dates.

The fire at Haifa East has led to 604, 605 and 614 being treated as a total loss. 615, 616, 621, 625 and 111Bet may be refurbished, at great expense and probably subject to a suitable insurance settlement; a number of coaches were very slightly "scorched" externally but remained in service.

Incidentally - 111 Bet had lost its "Bet" suffix in late 1994; 112 Bet likewise returned from repainting minus its suffix in 10/95; 113 Bet was repainted 9/95.

a). On 31:17 - Paul Cotterell considers that the mystery tender might well be a Jaffa-Jerusalem relic, but he notes certain differences between these pictures and earlier photographic evidence, so is unwilling to be certain.

b). On 31:6(g) - the Jordanian 4-6-4T's; from Hugh Hughes:
 "Six metre gauge engines, NBL 24661-66, were built as Federated Malay States Railway 34-39 under Order 934 of June 1940; the plates were dated 1941. Taken over by Ministry of Supply 18th. March 1942 for Middle East under Order METN/UK/91. Numbered WD 2600-05. First two arrived Suez ex UK on ship BOSKOOP 4th. Oct. 1942 and went to Safaga later that month for service on Qena-Safaga line (opened 1st. July 1942); the other four arrived at Safaga via Suez on 3rd. May 1943 (note War Diary reference to No. 2603, 24th. March 1943; the engines were renumbered 140-45 on the QSR).

The QSR was closed 11th. Feb. 1944 and the engines duly returned to Suez, being overhauled by 169 Railway Workshop Company during June-October 1945 and then stored on bogie flats at nearby 400 Transportation Stores pending sale to Malaya (for £90,000). However Malaya decided against the purchase.

During the quarter April-June 1949 a start was made in converting one engine to 1050 mm gauge at 169 Rly. Wksp. Coy, and a 1/4 mile of track was laid there for trial purposes. When converted, the engines were to travel on s.g. war flats to the port of Ataka (West of Suez) and then go on adapted Z-craft to Port Said. The locos were to be stripped down to come within the maximum crane lift at Beirut. The final destination was Jordan.

Actual travel dates are not known but the transfer is believed to have been completed by the end of 1951."

c). On 28:24, Mr. Ingerslev's recollections of the rebuilding plans for the southern section of the Hedjaz Railway: Dr. John Dayton comments:

"Haidar Shukri was the Chairman of the Cairo-Amman Bank, and a great supporter of the scheme. All the earthworks and the 2,000-odd bridges were built by the time of the "Six-Day War", and all the sleepers (Jarra) and new rails were at Ma'an, and 30km. of track had been laid. All the machinery required was present and working. The war was simply an excuse to stop the work - the Saudis didn't want the railway, and the Syrians had no money. So the Jordanians continued the contract as far as Batna el Ghul and down the escarpment, and then along Wadi Rumm to Aqaba. They wanted

the line so as to ship phosphates via Aqaba.

The 3-Nation Committee ruined the contract with their arguments and delays, and lack of trust. Mr. Ingerslev was the Consulting Engineer to the partnership of Martin Cowley and Alderton Construction, and I was Managing Director of the latter, but also on site for much of the time. Martin Cowley went into bankruptcy during the contract and we carried on with Haidar Shukri's help."

John Dayton is currently writing a History of Arabia, which will include a fuller treatment on the Hedjaz Railway.

d). On 31:22, Tel Aviv South Station: Paul Cotterell adds:

"Ilan Falkov has said that the arrival platform on the far side of the Petah Tiqva road was, in fact, the original station. This was my vague understanding too, though I don't know why it should have been omitted from certain PR layout diagrams which only confused things. The main part of the station on the other side of the road apparently sort of sprouted up around the Customs depot, a process which complicates any attempt to put a particular date on its opening. The platform here was so severely curved that it was considered too dangerous to allow passengers to get off their train, hence the later custom of stopping trains at the arrival platform for the customers to descend. This seems an entirely reasonable precaution to take, and I have a faint memory of being surprised at the gap between platform edge and coach when I first dropped into the place. People were allowed to board the trains at the main platform since there would be no crush of bodies such as would happen with the arrival of a train when everyone tries to get off all at once."

e). New Book: Just come to my attention - hopefully I can get a copy and provide a fuller review in a future issue - is "Die Hedschas-Bahn" by Dieter Noll, Benno Bickel and Ahmad v. Denffer, published by D.G.E.G., 1995, ISBN 3-921-700-68X. From a brief flick through a friend's copy it appears exceedingly complete, with access (understandably) to a lot of German sources - and, because one of the co-authors is a Moslem, access also to the situation in modern Medina ! No price stated, but anyone interested in the Hedjaz ought to get a copy.

Incidentally, Rick Tourret's excellent book "Hedjaz Railway" is still available from him at £16.95 GB, £17.85 overseas, and Paul Cotterell's book "The Railways of Palestine and Israel" at £15.90 GB, £16.95 overseas - orders, with sterling cheques made out to Mr. R. Tourret (or US dollars or DM in cash) to R. Tourret, 5, Byron Close, Abingdon, OX14 5PA, G.B.

At Camlik in south-eastern Turkey, not far from Selcuk (Ephesus), is a large open-air museum of numerous steam locomotives. Among the locos is a "Middle East" 2-8-2 TCDD No. 46244, shown in Benny Haspel's photo taken on 24 September 1995. 46244 was once WD 71178 and worked in Palestine. Benny tells me that the Camlik museum curator was quite prepared to come to some agreement whereby 46244 could be returned to Israel but, for obvious reasons,, Benny was unable to open serious negotiations at the time. But perhaps Ilan Falkov as curator of the Israel Railways Museum could be asked to comment further.

Also at the Camlik museum was LMS 2-8-0 TCDD No. 45161, not one of those which had worked in Palestine but surely a suitable example of the type in local service. Elsewhere in Turkey are other preserved "Middle East" 2-8-2's and LMS 2-8-0's. I have not made a thorough check of their numbers but would not be surprised if more than one of the 2-8-2's had also been in Palestine during World War 2. I'm not the only person to have lamented the lack of a preserved standard gauge steam loco in Israel. Could something be done to acquire a representative type from Turkey? After all, if you don't try then you don't achieve. It seems to me that Turkey would be the best bet - perhaps the only one. Is there anybody out there prepared to organise a concerted effort to bring a steam loco to Israel?

[Ed. notes: Several years ago I attempted to start a "Project ELIEMMESS" to purchase one of the Turkish 2-8-0's - one was eventually bought by a group from England who are in the middle of totally rebuilding the loco to bring it to something like British standards of safety. I understand that Benny was at one point attempting to pursue a USA-type 0-6-0T from one of the Balkan states. Ideas and offers will be gratefully received.]



Andy Wilson has been on his travels again. On Sunday 11th. February he rode the Amman train from Damascus as far as Deraa. Accompanying photos are his. He writes:

"At Kanawat Station, 2-6-0T No. 62 has been put on display in front of the building.

Inside the station, a set of wooden coaches labelled "Hijaz Bar" was being fitted out for tourist activities. Large bogie cars ABhf 2 and ABhf 3, with long tables along the interiors and chairs facing inward, and 4-wheel coach with a single end platform, un-numbered, which had been stripped internally and appeared to be in course of conversion for food and drink preparation purposes. It was not clear how the train was intended to be used; the interior layout did not look very suitable for serving food on the move and there were fancy canopies over the car entrances which would have to be folded back or removed to clear the loading gauge.

The Amman train comprised three steel coaches (Ganz railcar trailers) and loco 401.

Departure from Kanawat was 07.20 and I think I was the only fare-paying passenger. The booking office would not sell me a ticket and advised me to pay the ticket collector on the train, which I did, price 31 Syrian Pounds (about 50p.)

The coaches were dirty, doors would not close properly, windows were either immovably shut or refused to stay closed. There were non-functional heating controls. Sorry to harp on the discomforts, but Syria is a bleak place in February; potential Hedjaz riders need to be warmly dressed.

At Cadem, there were two standard gauge passenger sets in the station and an Engineer's Department train which included some HR vans taken off their bogies and placed on standard-gauge low-sided wagons. The only s.g. motive power was CEM Bo-Bo DE 104, which was ticking over on one of the passenger sets. Some new standard-gauge sidings are being built east of the narrow gauge tracks, leaving Cadem Works effectively enclosed in a V of standard-gauge tracks.

The HIR train departed very hesitantly for 200 or 300 metres, stopped and returned, after which there was considerable crew discussion, feeling of running gear, and hisses of brake air. Eventually the 401 was uncoupled and departed into the works and the 301 came on instead. All this took 2 hours, during which nothing moved on the standard gauge although one of the narrow-gauge Schöme diesels was seen shunting about.

Once under way, it was noticed that the junction of the Qatana branch has been taken out; the turnout and the diamond crossing over the standard

gauge were discarded at the lineside, but the branch track remained in place, curving away.

Several stops were made on the way to Deraa, apparently for the benefit of railway employees, but there were no obvious genuine passengers. All lops and sidings were rusty. There were water tank wagons in some of them but no other rolling stock. Track was quite noisy and rough, like BR when a length has just been relaid with temporary service rails before being changed for CWR [Continuous Welded. Ed.].

At Deraa, Jordan Railways 40212 was waiting attached to their Customs Van and a match wagon.

I have never seen any comment on the problem of incompatible coupling and brake systems on the HR in Syria and Jordan. The traditional HR equipment has a plain centre buffer, screw couplings outside the buffer, and vacuum brake. The Syrian diesel motive power and steel coaches has American pattern couplers and air brake. In Jordan the Aqaba Railway uses American couplers and air brake for its hopper wagons, and the large locomotives hauling them, but everywhere else in Jordan the traditional couplings rule. Some of the Syrian diesels (400 class ?) have extra hooks and vacuum pipes to attach to the older rolling stock, but the Jordanian adaptation to couple to Syrian steel coaches appears to be a recent development; their General Electric U-10 locomotive probably always had air brakes but the Customs Van had a shiny new-looking through air pipe, and the match wagon was also through air piped, with an American coupler at one end instead of the original buffer. The Syrian diesel shunters at Cadem work with similar match wagons as do the Jordanian U-10's on the Aqaba Railway shunting around the Ma'an workshops. I guess that these locos retain their traditional buffers and couplings to work engineering trains of old rolling stock on the Aqaba line."



Deraa Station: Jordan 40212 with Customs Van and match wagon waiting for Amman train.



Deraa Station, Syria: Amman train with Jordan 40212 coupling on.



Damascus Kanawat: "Hijaz Bar" train alongside the Amman train.

NOTES ON JORDAN RAILWAY SCHEMES.

Thanks to Ian Cliff at the D.T.I. in London I have received a copy of a proposal document entitled "*Jordan Transportation: 3. Aqaba - Wadi Il Railway & El-Shidiya Link*", published with the assistance of the Canadian International Development Agency, 1995. The preamble explains the difference between the HJR (Hedjaz Jordan Railway) and ARC (Aqaba Railway Corporation). The former is "owned by the Jordanian government but controlled under the rules of Waqf properties; it is primarily a holding company which manages significant properties in the north. It cannot be sold, but its charter allows other enterprises to operate it for a fee". The latter is a separate corporation. This distinction becomes significant when the document goes on to suggest future methods of operation by concessionaires. Essentially the investment opportunity being offered to potential investors involves the ARC, with operating rights over the HJR.

Also from this document:

"Jordan's railways have not been developed to their potential, but rather have been supplanted by an extensive highway network. Currently, the rail system is used primarily to move phosphate rock from mines in southern Jordan to an export terminal in the Port of Aqaba. The Jordanian government sees expansion of the rail system as a more economical means than highway expansion to facilitate increased regional trade opportunities by capitalizing upon the country's central geographic position in the Middle east. The government believes that the rail system should be included in a regional system as follows:

- Aqaba to Amman to Damascus, with a branch to Saudi Arabia;
- Haifa to Irbid to Mafraq to Baghdad; and
- the Dead Sea to Aqaba.

The ARC carries phosphate rock from Jordan Phosphate Mines Company (JPMC) mines at El Abiad and El Hassa to the export facility at the main port in Aqaba. The ARC has operated at a loss for many years, primarily because of over-employment and under-utilized capacity.

All of the region's railways are built to standard gauge (1435 mm) and any new construction is expected to follow standard gauge specifications. Although Jordan's existing HJR and ARC lines are narrow gauge (1050 mm), they will also eventually be converted to standard gauge.

The HJR was built by the Turks between 1902-1905 to connect Syria and Saudi Arabia. It was constructed with very light rail (about 21 kg/m) and an axle load of only 10.5 tonnes. Many of the original steel sleepers and subgrade have deteriorated in some areas.

The ARC was formed in 1972 to haul phosphate rock.... and constructed

a new line from a connection with the HJR near Batn El Ghul to Aqaba. The ARC also manages and operates over a section of the HJR to reach the phosphate mines, and pays HJR an annual fee of US\$ 270,000. ARC began operations with an allowable axle load of 16 tonnes, a limit which subsequently forced it to strengthen its track to correct rail breaks and prevent derailments. This upgrade means that the Ma'an-Aqaba section now has concrete sleepers with 49 kg/m rail. The track is in good condition, except for some areas between Ma'an and the phosphate mines where 30 kg/m. rail is still installed. The ARC operates over terrain which has a ruling grade of about 1.6 % in the loaded direction. Beyond Aqaba Hejaz, the line drops towards Aqaba and the last 30 km. into the city has a downgrade of 2.7 % downhill. The line is 28% tangent and 72% curved. The tightest curves have a radius of 125 m. but most are in excess of 300 m.

Growth: The ARC is unable to handle traffic from the newest mine at El-Shidiya. As production is shifted from the existing mines to El-Shidiya over the medium- to long-term, the ARC's ability to maintain its traffic will decrease until its shipment activities conclude. As a result, the corporation is faced with expanding into El Shidiya or eventually going out of business.

Compounding this situation is the expected increase in traffic to the Aqaba Industrial Area (AIA) south of the city, an increase that the ARC is also unable to accommodate. Even if the company expands into El-Shidiya, it will be limited to exporting phosphate rock. It will also be unable to handle the significant volumes of rock and phosphoric acid moving to the fertilizer plant and terminal in Aqaba, or the sulphur traffic to be backhauled to El-Shidiya, unless it extends its line into the AIA.

.....The first phase of the project involves the privatization of the ARC and its extension to the mine at El-Shidiya and the AIA. This concession will also include the rights to extend the current service into Amman. The second phase is the conversion to standard gauge.

The two existing phosphate mines owned by the JPMC are located near the HJR. El Hassa has a capacity of 3.5 million tonnes and El Abiad has a capacity of 2.5 million. Their production is transported primarily by rail to the export terminal in the Port of Aqaba, and exclusively by truck to the fertilizer factory in the AIA, located beyond the rail terminus. JPMC's newest mine opened in 1988, at El-Shidiya. It is not connected by rail and its production is shipped by truck to both the export terminal and the AIA. because the stripping ratios and quality of the phosphates at El-Shidiya are better, JPMC will expand production here at the expense of the other mines. That expansion will require an increase from the present level of about 1.5 million tonnes per year to about 3.5 M tonnes by the end of 1995. A second expansion project - not currently financed - will increase capacity to 6.5

million tonnes p.a. by late 1998. A third expansion is also planned that will bring capacity to about 9 M tones as early as 2002. With the backing of Indian investors, JPMC is also constructing a phosphoric acid plant at El-Shidiya which will begin producing 225,000 tones of phosphoric acid by mid-1998. This will be produced from 750,000 tonnes of phosphate rock and 610,000 tonnes of sulphuric acid. The sulphuric acid will be produced at El-Shidiya from 200,000 tonnes of raw sulphur imported primarily through the AIA and transported by truck if the rail connections are not built. Construction of a second phosphoric acid plant is under negotiation with the Pakistani investors. It will either be the same size as the Indo-Jordan plant or twice as large and on-stream early in the new century.

ARC Financial Performance: The ARC has not has a history of aggressive commercial management, since it has been operated more as an instrument of social policy than as an efficient carrier. It has an inflated staff of over 1,200 - an increase from close to 630 in 1984 when it handled more traffic. A private operation would likely operate the company with as few as 400 employees. The unsustainability of its large asset base, due to insufficient traffic, is the key issue facing the railway, Although the ARC has enough equipment to substantially increase its traffic, this will be impossible until the connections to the new mine and industrial area are built. The only logical company to assume control of the ARC - the JPMC - is currently involved in its own aggressive expansion plans and remains uninterested in railway operations.

Therefore, the Government of Jordan has concluded that only the private sector is capable of financing the expansions into El-Shidiya and the AIA. the government also realises that this will be impossible without the privatization of the ARC. This privatization will result in a significant loss of employment, especially among non-management employees. The downsizing will be felt strongest in Ma'an where employment opportunities are few. As a result, the government prefers to offer the rail company as a concession to private investors under which terms the new group will operate the assets in exchange for an annual rental or lease. The investment group will be able to hire any current ARC staff whom it feels are required for the new operations. The existing government-owned ARC will be responsible for employing or relocating the remaining employees at no cost to the new venture.

Revenues are projected to increase to over US\$ 28M by 1998. Over this period, operating expenses are expected to rise to about US\$ 10M, leaving gross profits of about US\$ 18M, which are expected to stabilize through the year 2007.....

Project Components. The connection to El-Shidiya is immediately needed

and is expected to be built in 1996. It is a straightforward construction project through the desert. here are no steep grades, and only one or two wadis to cross, although the connection to the ARC line at Batn El Ghul may require some cuts. The line will be about 40 km. long with approx. 3 km. of loop tracks and passing sidings.

The connection to the Aqaba Industrial Area will require detailed engineering and negotiations at high levels within the Jordanian government. Delays are likely until the competing requirements of the rail alignment and the tourist development are resolved. Therefore it is assumed that the construction of this connection will not occur until 1997. The AIA extension crosses rugged territory to bypass the proposed tourist development area south of the Aqaba container terminal. It must be located inland at a higher elevation where construction. to a maximum 1% grade, will be difficult. The 100 metre-wide road and rail corridor, preferred by the AIA, is at the 100-metre contour. This will require extensive earthworks and major bridges, and perhaps, some tunnels. It will also involve crossing existing highways near the container terminal and the AIA. The line will be about 24 km. long with an additional 3 km. of passing sidings.

Over the medium- to long-term, key issues for investors to consider include:

- examining the need to re-equip the existing locomotive and wagon fleet. Industry standards view the life of locomotives to be between 25 and 30 years, and that of wagons to be 30 years, and
- replacing or re-equipping the engines of the U-17C locomotives due to inherent vibration problem.

The decision to replace old locomotives and wagons will require examination of the trade-offs involved in converting to standard gauge. The Jordanian government expects that the new connections will be constructed to standard gauge specifications, with the rails laid in the present narrow gauge configuration. In the future, the new lines can be converted to standard gauge, but the timing and financing of this conversion will be determined by the investor's proposal.

In the medium-term, the Government... assumes that investors will widen the subgrade and strengthen the bridges between Aqaba and the line junction to El-Shidiya, as well as start a sleeper and rail renewal programme. This will allow the conversion to dual gauge of the line from the El-Shidiya connection to the AIA to be completed within 10 years.

Both extensions...are being designed by Sofrerail of France, who are preparing bankable construction packages..... This information will be available in early 1996.

There follows a detailed outline of world phosphate production and various technical matters to do with specifications and financing - of less direct relevance to "Harakevet" readers. However, amongst the Tables is this "In Service Fleet" as at Dec. 1994:

General Electric Locos: U-20C U-18C U-17C U-10B.

12 Cyl. 8 Cyl. 8 Cyl. 12 Cyl.

Year Manufactured: 1980 1977 1974 1976

No. in service: 11 3 7 1

Phosphate Rock Wagons:

Manufacturer: BREL (GB) Gregg (Belg.) F-Girel (Fr.) Samsung (Korea)

Year Manufactured: 1976 1979 1983 1982

No. in Service: 41 68 28 57

32:11

ANOTHER HEDJAZ TOUR !!

Great news for enthusiasts, and unfortunately received after Issue 31 had been despatched: TEFS, under the aegis of Bill Alborough, are planning yet a further (and probably final) tour of the former Hedjaz Railway, in Jordan and Syria, plus a one-day foray into Lebanon to inspect surviving relics of the line to Beirut. Dates are Sunday June 2nd. to Friday June 14th. 1996.

TEFS have run some very good tours in the past. The intended programme (one must always make some allowance for last-minute changes) is:

2/6: Travel out from London; 3/6: runpasts in Amman area over the viaduct and through the tunnel, employing HSP 2-6-2T No. 63 and HSP 2-8-2 No. 71 on passenger and freight consists.

4/6: 71 on runpasts and semi-express Amman-Mafraq and return. 5/6: Jung 2-8-2 No. 51 on steam special to Qatrana, thence to Petra for sightseeing.

7/6: Coach to Ma'an for visit to old HR installations and modern ARC diesel depot and workshops.

8/6: Hopefully Nippon 4-6-2 on International Train Amman-Dera'a; thence Hartmann 2-8-2 260 or 263 to Damascus, including runpasts.

9/6: Damascus - Zabadani (& possibly border at Serghaya) - SLM 2-6-0T 754 or 755. 10/6: Visit to Cadem Works. 11/6: Coach to Beirut and back;

12/6: Hartmann 2-8-2 or Borsig 2-8-0 Damascus - Dera'a - Bosra. 13/6: Bosra - Dera'a - Muzeirib (on Haifa branch), then coach via Jerash to Amman. 14/6: Flight back to London.

For all details and bookings, contact TEFS as soon as possible after this has been published: 77, Frederick Street, Loughborough, LE11 3TL, U.K., tel. 01509-262745, Fax 01509-263636.

This is a good place to remind readers that Bill Alborough of TEFS at one point worked closely with your Editor on plans for a railway enthusiasts' tour of Israel - alas, we did not get the required number of bookings - but Bill is a fascinating and charming chap, and his tours are always regarded as successful, good value, and a chance to get to places most otherwise-sane people would never get to.

A Postscript to the TEFS tour plans: The latest TEFS Newsletter dated 4/2/96 states:

SLM 2-6-0T No. 755 (known apparently as "Linda" ! - this may be an "in-joke") has been returned to its green-and-black livery, which should "weather" into a normal appearance by June; access is being (hopefully) negotiated with the Syrian military authorities, who control Lebanon, into the works at Rayak where several steam locos are dumped in what is now a military barrack area. The tour incorporates (at least) eight steam charter trains. It is clear from other items here that the narrow-gauge Hedjaz line will soon be a thing of the past.....

Places are still available - contact TEFS direct QUICK for more information, Fax: (+44+1509)-263636, phone 262745.

32:12 ODD NOTES ON EGYPT. From Alan Clothier. (In conversation).

In 1977 the General Manager of Egyptian Railways needed World Bank or O.D.A. [Overseas Development Agency] approval for investment, and therefore needed the assistance of independent outside consultants. They retained Transmark, which did a 5-month in-depth study - with a 15-man team headed by Alan. They were then retained to implement some of their own recommendations over the 1978-83 period, but when the money ran out the O.D.A. changed policy.

A 365-km. line into the Libyan Desert to El Wahat (meaning "The Desert") was built by the Russians in the late 1950's/early 1960's. The Russians brought their own locos - 2,600hp. diesels built by Voroshilovgrad. Theoretically the journey time over this line was 12 hours, but trains could take a week ! Other locos - of East German build, or by Ganz or Jung - also suffered from low availability.

32:13 MODEL RAILWAY CLUB NEWS.

Uri Ben-Rehav advises that the Israel Model Railway Club have reached the stage of detailed landscaping on their layout at Netzer Sereni. Also, the Ports & Railways Authority asked for the club's co-operation in producing an N-scale layout for an international exhibition which opened in Jerusalem on 17/11/95. The theme was the planned suburban railway between Kfar Saba and Tel Aviv, and all the intermediate stations. For this purpose they prepared an aerial photo of the area, 1.2 x 1.5 metres. On this picture the N-scale rails were superimposed on the actual route the line will eventually take, including buildings of existing stations, and - Bingo ! At last there is a suburban railway in Israel, albeit only in model form. The model aroused much interest and appreciation.

IRAN RAILWAY PLANS.

An article in "The Economist" (2/12/95) describes plans to revive the "Economic Co-operation Organisation" (ECO) linking Turkey, Iran, Pakistan and now Afghanistan and the six Moslem republics of the FSU. A key need of the new organisation will be improved transport links; Turkey is considering a line around the southern shore of Lake Van to replace the current train ferry that serves the route to Iran, and Iran itself is completing the link from Mashhad to Sarakhs, on the border with Turkmenistan, where a large Free Trade area is being established. This link should be open in March.

The new line from the Gulf port of Bandar Abbas to the national network at Bafq is now ready; plans envisage a direct link onwards between Bafq and Mashhad, as well as extensions - already mentioned in 'Harakevet', see 31:13 - from Kerman to the Pakistan link at Zahedan and another to the port of Chah Bahar.

The map is taken from "The Economist":

INTERNATIONAL

To judge from existing photographs, horses and mules were used quite sparingly as motive power on temporary portable light railways in Palestine. So far I have seen just three such examples. The earliest of these was at the Palestine Salt Company's works at Atlit, though this certainly could not be described as a temporary line by any means. Quadruped power here probably dated from the 1920's, with the mule being put out to grass when Ruston & Hornsby 175415 arrived about 1936. The second example was around Haifa Bay in the 1930's, where 60cm. gauge portable track was used in a drainage scheme near the Qishon River between the Mount Carmel range and what is now the oil refineries. A couple of photos show mules hauling the usual tip wagons. The third example is shown here, again around Haifa Bay but further north than the drainage scheme railway. Two weary mules are pulling four tip wagons loaded with sand. prominent in the background is the Mount Carmel range. From this it is obvious that our present photo was taken in the same general area as two of those in 29:12, and evidently shows the levelling of sand dunes in what is now the Krayot (Kiryat Haim / Kiryat Motzkin etc.). It is tempting to link up the line seen here with those portrayed in 29:12 but, although they were close enough to each other, there is nothing definite to suggest a connection between them. Nor is there any evidence to rule one out.

The photo comes courtesy of the Central Zionist Archives and is dated September 1936.



FEASIBILITY STUDIES.

I am indebted to David Stiffelman for a lengthy translation of papers presented to the Israeli Bureau of Engineers, Architects and Technology Graduates, at the Ninth National Convention on Civil Engineering, which was actually held two years ago, Nov. 15-17th., 1993. It's not therefore "news" in the accepted sense, but I have extracted elements which may be of longer-term interest.

High-Speed Train Development between Tel Aviv and Jerusalem. By Pinhas Ben-Shaul, Ports & Railways Authority.

1. Introduction: The Jaffa-Jerusalem railway line was laid over a century ago....Although it was opened before the development of motor transport, it failed to compete with road transport for two main reasons:

a). Lengthy route (83 km.) with train running speed limitations (166 curves having radii of between 150 and 350 m.) giving a journey time of 95 min.

b). Single track with outdated signalling system, preventing improved service frequency.

As opposed to the existing railway, Highway No 1 provides for a journey time of 45 min. between Tel Aviv and Jerusalem over a route length of 60 km., at an average speed of 80 kph. Buses cover the distance in 50 min. from station to station.

To examine the possibility of establishing a high-speed frequent rail link between the two major metropolises in the country, such as could compete with road transportation and provide an alternative to the ever-increasing congestion at the approaches to both cities, the Ports & Railways Authority conducted a feasibility study on the development of a modern rail service between T.A. and Jerusalem.

2. Feasibility Study. The feasibility study was undertaken by the British firm Transmark, which is [was. Ed.] a planning subsidiary of BR, with the assistance of a local engineering planning company (Hasson Yerushalmi & M.D. Engineers.)

The study covered the various elements involved, including:

- setting out all of the possible routes (8 alternatives), amongst them the existing line and the Bet Horon route;
- setting out all the possible locations for the Jerusalem station (7 alternative sites.);
- drawing up a rail travel demand forecast....
- examination of rolling stock alternatives (locomotives and coaches,

- multiple units, tilting train technology.)
- examination of power alternatives (diesel, electrification.)
- economical and financial analysis.

3. Alternatives. The second phase of the study consisted of a more detailed analysis, the number of route alternatives being reduced to 4 with the Jerusalem stationing alternatives. For the sake of comparison at this stage of the study, identical line geometry planning criteria were assumed to provide for running speeds of 160 kph., the main ones of which were:-

- minimum horizontal radius at 1200 m., apart from very limited sections.
- no gradients in excess of 3.5%.

4. Preferred Alternative. Analysis of the results yielded a preferred alternative whose main features are:

- route alternative 'A', which in most part along the motorway corridor (National Highway No. 1);
- Jerusalem railway station located at the site of the Main Bus Station at the western entrance to the city, at a level of 113 metres below the surface;
- normal double track layout;
- electric traction using 25 KV AC, 50 Hz overhead supply.
- standard emu rolling stock.

4.1. Engineering Data.

- Route length from Tel Aviv Central to Jerusalem Station - 65.3 km., 20 km. of which from Tel Aviv to Lod;
- This route would contain 5 curves having a radius between 500 and 1000 m., and 3 curves with a radius between 1000 and 1500 m.;
- Maximum gradient limited to 2.7%, total length of gradients over 2% - 17.0 km.
- Route to contain 17 bridges - 8 over wadis and 9 over roads. Also planned are 4 viaducts between 250 and 1000 m in length;
- Two tunnels are included in this route:
 - under the Kastel ridge, 1800 m. long.
 - leading into Jerusalem Main Station, 1250 m. long.

4.2. Operational Data.

- Peak hour service of a 2-emu (6-car) train every 15 min. in each direction, and off-peak service of a single emu (3-car) train every 20 min.

- Each emu (3cars) has a capacity of 225 seated passengers.
- Maximum running speed of 160 kph, enabling the distance of 65 km. between Tel Aviv Central (Arlozoroff St.) 26 min. non-stop. Stops at stations planned in the Ayalon corridor would lengthen the journey time to 35 min.
 - The passenger forecast for the service offered indicates up to 26,000 journeys per day (in both directions) or approx 7.5 million passengers per year.
 - The Jerusalem Main Station would incorporate a array of 6 high-speed passenger lifts, each with a capacity of 40 persons, connecting the passenger concourse to platform level in 26 secs.

4.3. Economic Data. Total investment is estimated at \$474 M., comprising:

	\$ Million
- Infrastructure	312
- Signalling & Communications	35
- Electrification	23
- Rolling stock	63
- Maintenance plant and miscellaneous	41

- Annual operating and maintenance costs estimated at \$ 6.3 milion.
- Economic analysis of the project shows an internal yield rate of 5% (for national economy).

5. Additional Alternative. In view of the high cost of Alternative 'A' and its problematic yield rate, an additional alternative was selected for examination, this requiring lower investment but nevertheless remaining attractive to pasengers.

The main features of the additional alternative under consideration are as follows:

- improvement of existing Nahal Sorek line.
- improvement of the present station in Jerusalem near the Khan.
- development of a railway station integrated with a new main bus station to be built near Manahat (Malha) stadium.
- journey time of 45 min. with no intermediate stops at Ayalon stations.
- double track and electric traction.

When browsing through material regarding the development of railways in the Holy Land one inevitably comes across the name of Laurence Oliphant. An early map shows a Jewish colony named "The Land of Gilead", together with proposals for a railway network in the Near East, supporting the colony and transporting passengers and goods to and from Ismailia (455 miles, next to the Suez Canal), connecting the ports of Aqaba and Haifa (265 miles), to Damascus (75 miles) and finally, via Jericho, reaching Jerusalem (20 miles).

So who was this man, scion of an old, aristocratic Christian family in Scotland, and why did he indulge with such fervour in what today would be called Zionist ideas ?

Laurence Oliphant (1829-1888) was, not necessarily in this order, an author, journalist, traveller and explorer, Member of Parliament, secret agent for the british Foreign Office and diplomat, serving his country in the U.S.A., Canada, China and Japan.

At first his interest in the Jewish problem was prompted by a strong religious belief and the wish to strengthen the British influence in this part of the world. Already in the year 1856 he was busy in planning a railway line from Jaffa to Jerusalem.

Slowly but surely his interest in the settlement of Jews in Palestine grew. Making use of his connections in the highest political circles in London he conferred with the Prime Minister, Lord Beaconsfield (Benjamin Disraeli) and the Foreign Minister in regard to obtaining a concession to develop Palestine. His final goal was to found a colony for Jews from Russia and Rumania. This colony was to be based upon a Charter which closely resembled that proposed by Theodor Herzl - or was it vice versa ? He received the Concession and, after also getting the green light from the French ambassador, he decided to present the plan to the Ottoman authorities, that is to say, to the Sultan personally.

However, before doing this, he went in the Spring of 1879 to Palestine in order to find a site best-suited for the colony. After an extensive survey he decided that the most suited site was in the parts east of the River Jordan. He based his reasoning on two main factors - the fertility of the soil, and the sparse number of Arab natives, so eliminating future problems !!! The borders would have been the River Jabok to the north, the River Arnon to the south, on the west the old pilgrim route to Mecca (nearly exactly the same route of the later Hedjaz Railway) and to the east the Dead Sea, using the rich mineral deposits there for a future industry for the colony.

Returning from the survey, Oliphant went to Kushta (Constantinople),

and very quickly found out what it meant to receive an audience with the Sultan in a state ruled by decadence and corruption. He had to wait for 11 months for the audience, but the result of the meeting was a big disappointment for him. At about this time the British made a big show of strength in the Dardanelles, making the Sultan extremely wary of everything British. Another reason for the failure was that in 1882 Egypt was conquered by the British, and in founding bases there they lost interest in the "Land of Gilead" project.

Oliphant went anew to Kushta, not giving up, but not only was he refused an audience with the Sultan, he was declared "persona non grata", and had hastily to leave the town and country.

Oliphant and his beloved wife Alice were childless, and between them developed an evergrowing affection for the Jewish people - but, in the same way, they did not like those Jews who went to the U.S.A. or who lived in Palestine on handouts (Chaluka.) They loved and admired those who made their living from the soil and generally through labour. He even suggested, on observing their limited knowledge of agriculture, that they should make a collective effort and found collective settlements!

In his last years Oliphant built his home in Haifa, with a summer residence in Dalia-el-Carmel. By way of coincidence, his Private Secretary was none other than Zvi Naftali Imber, the author of the National Hymn of Israel *Hatikvah*. Today, throughout Israel, there are streets named in honour of this non-Jewish Zionist and visionary, who amongst other things planned a railway in the Holy Land.

Bibliography: Taylor, Anne: "Laurence Oliphant". O.U.P. London 1982.
 Henderson, Philip: "The Life of Laurence Oliphant". Robert Hale, London, 1980.



An accident on PR involving two coaches, possibly of Indian origin, telescoped. Ca. 1946/7. Location unknown. (Photo: Robin Davies.)

32:19 NOTES FROM AN INTERVIEW WITH AUBREY AND YETTA MILSTEIN.

(Interview carried out at their home in Brighton on 21/7/95.)
 [This interview includes a great deal of personal information, which has been included because (it is hoped) no embarrassment will be caused, and because it assists in illustrating the social context of one of the people involved in the transition period between the end of "Palestine Railways" and the origins of "Israel Railways" - the sort of information rarely found in published sources. My thanks go to Aubrey and Yetta for their hospitality and openness. Ed.]

Early Life and Personal.

Aubrey was born in October 1921, in London. He was *Bar-mitzvah* at the Hampstead Synagogue, and still has vivid memories of the Rev. A.A. Green, who was very progressive, had a mixed choir etc. He went to Cheder on Sundays and four nights a week, and Green was a big influence on him. (His *chuppah* [wedding] was held at the Hampstead Synagogue as well.)

He attended Marylebone Grammar School, and the Debating Society (also attended by Aubrey [later Abba] Eban). Debates were held in a tiered Chapel, and Mr. Payne, the Headmaster, would sit at the back and listen. This is where he first learned the arts of public speaking.

He first went out to Palestine in 1937. He had first met Yetta, his wife, at Habonim; around 1929/30 his brother-in-law, Hillel Finn, was at a farm in Harrietsham, Kent, with three other *Chalutzim* ("Pioneers"); the formation of Hechalutz in the UK took place at the Milstein house at Hillfield Road, West Hampstead, and early meetings of Habonim, (a Zionist Youth Movement), which was formed in 1929, were held at Hillfield Road. (In the early 1930's the Habonim uniform was still white shirts and blue shorts.) They camped at Herne Bay in 1935 and another year, at Reculver, and once somewhere in Dorset. His eldest sister Esther (who died some ten years ago) was the first '*Rosh Gedud*' (Group Leader) of Yetta - so they met.

He went out to Palestine in November 1937, aged 17; officially he was on his way to studies at the Hebrew University, but he was immediately conscripted/recruited by Yosef Galili (though his actual contact was Yigal Allon) to go around as a Weapons Instructor. Within three weeks he was going around kibbutzim, showing them how to use rifles. He had been in the O.T.C. (Officer Training Corps) whilst at Marylebone Grammar School; one year he had gone to Bisley (the shooting range in Surrey) and, despite shooting on Shabbat (!) came 3rd. or 4th. By the time he got to Israel those

waiting knew about this. He went virtually from the boat to Kibbutz Mishmar HaEmek, which was the training ground of the Haganah people. He was told "The Hebrew University place is being kept for you - but we need you." By this time, 1937, the Haganah was getting pretty seriously organised.

He went around for 18 months in a 1934 open Austin 7 - with a prop-shaft running down the centre. It was a very simple car - you could decoke it by the side of the road ! Two rifles fitted along the prop shaft. Whenever he was stopped, he would show his British passport, put on a cockney accent, and so would get through checkpoints with no trouble ! The soldiers were only too keen to have someone English to chat to. Both Jews and Arabs were fiercely 'native' at this time - the former very Socialist, going around in blue shirts and bloomers; here was a guy with a white shirt and khaki trousers - so he got through !

This is illustrative of the whole social structure of the time. Many of the British administrators were considered to be pretty third-grade; the feeling at the time was that the 1st.-grade people went into the Church, the 2nd. grade into the Army, and the 3rd-grade became District Commissioners in the Colonial Service, or officers in the Palestine Police. If you could put on the right accent, you could go virtually anywhere ! Aubrey recalls a murder case in 1939, at which the defendant was given the option of a life sentence in prison or joining the Palestine Police !

There was no meat or butter for personal consumption, for the Kibbutzim could sell this produce for funds instead. They were living in tents on stony hillsides.

(In 1946 there was still a lot of food coming in from Arab countries, mainly Lebanon; this was why there was no major food shortage at this period. That supply dried up when the British left.)

Wartime:

When war broke out Aubrey joined the British Army; he served in the Ordnance Corps, especially in Munitions. He finished up at Mersa Matruh; as there was no officer there, he became the Railhead Ordnance Officer, controlling this railhead for the Western Desert. As he was the Railhead Officer, and there were no Railway Operating people there at the time, he had to do a lot of the Operating work as well, and suddenly developed a love for railways - something that was to be a lifetime affair !

Whilst in the Western Desert he had an arrangement with Moshe Paicovitch; all the abandoned Italian war materiel would be loaded up into

wagons which were officially described as "empty" and shipped as empties back towards Palestine; there they would be diverted into "Pardessim" (the citrus warehouses and sidings - "Pardess" itself means "Orchard") at Rehovot, Petah Tikva and so forth and unloaded. (People often still wonder how Israel managed to get so many anti-tank weapons in 1948 ! All this came from the Western Desert, in spite of all the British Army searches.) Aubrey would send a list to Railway HQ in Jerusalem, with copies for Cairo and Haifa, listing the wagon numbers of returning "empties"; Paicovitch would receive the Haifa copy and ensure that the last ten wagons on every list were diverted, since he, as Traffic Controller, was solely responsible for the distribution of empty railway wagons.....

Then he served in the Lebanon and became Railhead Ordnance Officer in Beirut.

The Seaborne raid on Lebanon in 1941 had been a disaster - the French still had warships in the area. Aubrey led the coastal invasion force, whilst Moshe Dayan led the inland one, up the Litani. Later Aubrey was Town Major of Beirut for a while. This was a great time; there was lots of food. He set up the railhead supplying the Australian troops through Syria and Iraq. There was plenty of butter, eggs and fresh fruit. He employed 120 girls (he didn't trust me in the railhead depot); they all came in from surrounding villages such as Ablah and Zahle - beautiful villages - and they brought fresh agricultural produce in with them.

His Assistant was the daughter of the former French Vice-Mayor of Beirut; he was 21 at this time, she 19.... but her father only complained that he'd left the Mercedes dirty after he'd used it !

Halfway through the war Aubrey was drafted back to England; preparations were already being made (now in 1943) for the end of the war, and the need to occupy Germany. So - he was seconded to the Control Commission that was being set up for Germany, mainly because he had had an education and had matriculated. He became a lecturer at the Central Commission Training Establishment in Leicester. Here he learned to play snooker, to pass the time. His duties were to deliver the same one-hour lecture twice a day, at 8.30am and 4.30pm., for nine months ! It got pretty boring. He lectured on preparations for controlling Germany; the other staff were on similar schedules - the same lectures, again and again, to different groups of servicemen. It was "a cushy number", with lots of time for snooker.

He went to Germany in 1945; the first Concentration Camp he saw was at Rendsburg. The man in charge had been a naval commander, and Aubrey

took his flat over. Yetta at this time was in the V.A.D. (Volunteer Aid Detachment); they wore navy blue uniforms, and Aubrey suddenly had access to yards and yards of blue material - she got three suits out of it!

After the surrender thousands and thousands of rifles and machine guns were being collected and just broken up - but he had no way of getting these to Palestine.

Memories of the 1946-1948 period:

Aubrey and Yetta married in February 1946, (at Hampstead), and went out to Palestine together in July. The British were compelled by the rules to convey him "and all goods and chattels" back to the place where he had originally enlisted - and this had been Palestine! They went by boat from London to Alexandria, and train to Ismailia. There was a group of ATS girls on the boat, who spent the journey busily screwing the Arabs who were being returned to Egypt - but when they actually got to Egypt and saw the conditions there, they felt pretty sick...

In July 1946 he recalls that they were driving across Sinai in the heat, and stopped at a Church Army canteen for lunch - where they were served Irish Stew and mashed potatoes and boiled pudding and custard! That's what kept the Empire going.....

The heat was terrible, murderous; after two weeks in Ismailia they were put on an overnight train to Haifa. Aubrey, from experience, closed all the windows, but Yetta opened them again when she awoke, and a cloud of floury dust came in - the sort that filters absolutely everywhere....

On arrival in Haifa they set up house in Bat Galim, after initially going door to door to find a room. They got a place there, then later moved up to the Carmel. At this time the Casino in Bat Galim was very much in its prime. [Note: It was finally razed in June 1995.]

In Bat Galim their first experience was of a cow on the stairs! They lived on the 3rd. floor, and he was working upstairs on a report when Yetta suddenly said "There's a cow on the stairs". "Don't be silly", he said - but there was! The problem is that cows can't go backwards, and they cannot turn if there is no room. Eventually he manoeuvred it onto a landing and managed to turn it round.

He got a job on the railways largely through some Proteksia [i.e. use of personal influence] via Moshe Paicovitch. He recalls others - Reuben Lehrer (an Australian) who also worked on the railways, and was about the same age - 25 or 26; he later married and went back to Australia. Dror and Aubrey joined PR in 1946, and Nissenbaum (Nissan) in 1947. Efrati was

head of the Motive Power section, and later Chief Mechanical Engineer of IR. The Sabach family are possibly still in Haifa. IR later employed some Yemenites who didn't even know at first what wheels were! They had to be trained up as railway workers.

They were in Haifa on Independence Day 1948, on the roof of the Town Hall.

Socially they were in a funny position, being both British and yet also Zionist. They kept well in with the British Army, and became very useful to the Zionist cause in consequence. This was especially so in the early days of the Haganah, when someone was needed to tap telephone lines who could understand the various dialects and slang terms used by the different troops. Yetta would go down the cable manholes, and spend the whole day down there, and tap into wires and listen in; so, she could learn when the British planned to evacuate certain posts. She also tapped into the British Embassy, the French Embassy, and all Army units. Girls who knew various languages would sit there, underground, making notes, and pass the information on to the Haganah HQ. They were actually situated right under the British Army HQ, and no-one ever found out that they were there! There was a system of runners - all young kids - who could pass to and fro without any trouble at all.

Yetta worked for "Steel Brothers", which was the cover for a lot of Colonial Office transport, and had close links with Cyprus; it was a means of shifting goods illicitly into places like Iran and places east. (Over the Government track from Haifa to Baghdad, along the pipeline, was the way they got the Iraqi Jews out in 1941, along the pipeline with a load of lorries.) In 1941, if you knew the ropes with the British Army, and could produce a Form B108 receipt, you could pick up five lorries with no trouble at all. There were piles of B108's everywhere; you didn't defy authority, you used authority, and as long as you signed on a B108, that was enough., and you got what you wanted!

In "Steel Brothers", the management was all British (and non-Jews); it was a cover for the Foreign Office to pass money and goods around the Middle East. Yetta managed to get jobs for four Jewish boys with the organisation, as accountants; Berel Herman, David Freeman, Izzy Bellman and a fourth.

"Spinneys" was also used all over the Middle East for sending money and goods around. There were two branches in Haifa, one at the German Colony, one on Merkaz HaCarmel.

Aubrey formed a good relationship with the Intelligence Branch of the Police. No-one realised the politics of what was going on. However, even before the war, a number of non-Jewish Government Officers had been accepting payment for passing information on to the *Sochnut* [The Jewish Agency.]

He was working on the railway during the day, and fighting at night. After taking Haifa, they still had to take the surrounding villages.

The girls did *Shemirah* (Guard duty) along the wadi; he, armed with a ½" Hotchkiss machine gun - was positioned so he could fire down onto the Tel Aviv - Haifa road. When the gun actually fired, all the girls fell over backwards off the balcony ! They lived in a block of flats on top of Carmel, looking down towards Atlit.

He used to enter Khoury House, for work, under an armed guard; the staff took sandwiches for lunch, as the streets were too dangerous for them to come out until the end of the day. One day in March 1948, around 10am., he got a phone call to say "Your wife is here"; she'd just come along through the sniper fire, and had walked down to Khoury House, along streets where people had been shot at 7.30am. - she hadn't realised it was so dangerous.

Khoury House [the Palestine Railways HQ] only got burned down because an Arab sniper set himself up in the roof; he surrounded himself with old files going back 60 or 70 years ! Reams of papers, all tied with string, made an excellent defence against bullets. So - the only way to get him out was by using incendiary bullets. In consequence, that night the Haganah used incendiaries; they arrived in the morning to find the place still burning. As the building was on the 'border' between Jewish and Arab areas, the Fire Brigade wouldn't come; eventually the Army Fire Brigade came, but didn't salvage much. The side containing Kirby's office, looking over the bay, was not so badly damaged, but the side facing Carmel was badly burned - and all because the armed guard had been removed, thus letting the sniper take up his position. This sniper had been holding up the advance of Jewish troops to the lower part of town; he was effectively burned out and killed - the whole thing took place overnight.

Aubrey recalls Sudanese waiters in the Dining Car on HBT trains. He and Dror Allon were taken on by Kirby as Trainee Traffic Inspectors. Since nothing had been prepared for them to do or learn, their first job was to check the canvas tarpaulins in Haifa East station. (These were very

expensive, costing around £20 each.) They had to check the serial numbers on the sheets against records.

In 1947 both Aubrey and Yetta were involved in the Haganah, he working on the railways every day and she at Steel Bros. in Kingsway [now "Independence Way"]. They recall their worst evening - when they were going out one day; at this time they lived at Rehov Rachel on Carmel, and he had command of a small Section, and was therefore entitled to be armed. He had a small automatic with him, as there had been firing earlier that evening.

Between Carmel and Hadar Carmel they suddenly came across a British Police Checkpoint; he had his gun, which he didn't want found, so he passed it down the bus to Yetta, who tucked it in her bra. Only then did he remember that the safety catch was still off - so he sent a message down the bus, by 'Chinese whispers', to "Be careful !" - she sat rigid with fear until the bus had moved on...

Two girls were also involved in helping the smuggling - Hannah Begleiter (a pretty, slim little girl - married to Max) and Nomi Joseph, later a telephone operator with Israel Railways. There was a Haganah contact in Tel Aviv - Zvi Weinstein - who could always be found leaning against a pillar in the Tel Aviv bus station. In 1947 they worked as much as possible to put a future railway together.

Regarding the 'salting away' of rolling stock in Jewish areas as far as possible : He and Paicovitch had to arrange this. They'd take a train down the line, and where there were sidings (especially at Pardessim, such as Rehovot and Petah Tikva) they would shunt some wagons into the Pardessim where they wouldn't be seen, behind the sheds. The engine-drivers were Arabs, but they had respect for authority; if you were a "Mefatesh", they'd do what you said ! They didn't realise that Aubrey was, technically, only an Apprentice.

They didn't worry too much about passenger rolling stock; they envisaged the railways as being much more important for freight after Independence, and so didn't take so much care about securing carriages; they mainly wanted to save flatbed wagons and covered vans.

He used to travel in one of the Saloons, No. 98 [now preserved]. It had a kitchen and shower, bedroom and dining room. (He used this saloon later to take Weizmann to Jerusalem when he was inaugurated as President, and had it smartened up specially.) As soon as this saloon was attached to a train at Haifa, they all knew an Inspection was due, so the message would

be sent down the line - "The Mefatesh is on his way !" The Station Masters then had to fiddle quickly, so as to prevent the "Mefatesh" from inspecting their books. These were always fiddled, as they'd sell tickets to long-distance destinations but record them as short-distance and pocket the difference.

So - when one arrived, one was immediately taken to the Station Master's house, and local Sheikhs would come from surrounding villages; one would be invited to a "Fantasia", a ceremonial lunch; the S.M. would then bring out a bottle of Red Label whisky and pour out generous measures neat, so that one wouldn't be in a state to inspect. They'd roast the lamb, and serve it on a bed of rice, and keep you busy eating as long as possible. It would then be almost discourteous to leave before it was time for the northbound train.

In consequence, he and Dror developed the system of getting off the saloon and doing the inspection first ! By the end of the Mandate about 20 Arabs were under suspension for fiddling their books.

Re. Traffic - Athlit was a main ammunition depot, and the line to it was blown up several times. Eventually the Haganah reached an agreement with the British Army whereby they could take a trainload of ammunition out for every trainload handed over to the Haganah.

Hartuv Cement Works was one of the main reasons why the Jerusalem line had to be kept open, since the works would be needed for making the cement pipes for taking the water along the coast to Ashdod etc.

There had been attacks on trains evacuating an ammunition depot near Athlit, built into the side of Carmel. [Neuhardhoff ? More probably the old IIIWD quarries. Ed.]. The British Army were taking out their stuff, but had flogged off as much as they could to both Arabs and Jews - and the Jews were buying off them as much as they could. Any soldier who got drunk and wanted to sell a rifle - got paid, and so sold his rifle ! Every Quartermaster was also selling what he could, at a great rate. By the end the Army was short of approximately £14 million's worth of stuff !

Aubrey got a message one day in the period March 15th.-20th. 1948 from Nelkind (the co-ordinator between the Railways and the Haganah) that the Jewish air force had no benzene. A trainload of fuel was being taken out by a Jewish driver and Guard, from the petrol depot near Athlit, and being taken out in 4-gallon square cans, known as "pachim". The Haganah wanted to divert this train out to the crossing between Haifa and the Krayot [suburbs], near the Shemen oil factory. There would be a whole lot of "Tnuvah" (dairy co-operative) lorries waiting there on either side, waiting

to take the petrol, and the plan was to get as much as possible out before the Army arrived.

Aubrey sent the train through Haifa East station, where it should have reversed to the port, and out onto the main line to the Krayot, and told all signalmen to reverse their points, so that any following engine would go in the wrong direction. Within a few minutes of the train's passing, an officer of the Green Howards and a group of soldiers came in to his office at Haifa East station. (Being an afternoon, he was the only man on duty.) They accused him of pinching their train. Aubrey stalled - "What train ?" The response was "You Jewish bastard - come on this loco !" He was beaten a bit with rifle butts and put on an engine - but at every signal box it was diverted onto the wrong path ! By the time they reached the train, all the petrol had been cleared and the last lorry had just left the scene. So the troops arrested Aubrey, the driver, guard, fireman and the shunter at the last signal box, who had obviously turned the points. They were taken off for questioning; Aubrey told the driver etc. to say nothing, as he'd do all the talking; they were to say they knew nothing, and had only been carrying out orders.

At the questioning he gave nothing away and claimed ignorance; so they banged them all up in the Police compound, to be charged with "stealing a trainload of petrol." Under Emergency Regulations this was a capital offence. They had in fact been flogging it off, left, right, and centre, and the Jews had been buying it with forged notes "printed in Israel". Now, however, they had caught a British Jew with a British passport who had obviously bought or stolen a whole load of stuff. They still had a destroyer in Haifa harbour and could take him back to the UK, as a British passport holder, to be tried.

Yetta didn't know anything of this, as he was officially still at the Haganah camp as far as she was concerned. Nomi, the telephone operator, told he had been arrested, and told her to get in touch with Moshe Paicovitch. Moshe said "not to worry". He got in touch with the Haganah's defence lawyer Horowitz (who later became a judge); he started things moving, to get Aubrey out, though at that point it was not clear how this could be achieved. They were 'banged up' in a wire enclosure in Bat Galim, used as a temporary prison, and the Green Howards officer kept threatening him on the lines of "You know you're going to hang, you Jewish bastard ?"

After three or four days they all appeared in court and were remanded; on returning to the camp, he got a message from one of the British Police Sergeants, who was acting as contact between the Army and the prisoners, who said, "I have a message from a guy called Allon, and he says, 'Yihyeh B'Seder'". (i.e. "It will be O.K.") He held faith, and accepted that it would

be O.K. Eventually he was taken to be charged; the judge was a Brigadier, a British Police Sergeant was Prosecutor, and Horowitz his Defence. The indictment was read out; the driver, fireman and guard were each fined £50 on the grounds that they weren't involved in the conspiracy. The Brigadier kept writing as the indictment was read out, and then said, "Case dismissed for lack of evidence." Everyone had been "paid off" - the clerk, the judge, the prosecutor ! Horowitz later told him "You're the most expensive bit of equipment we've got now !" This prosecutor later bought a house in Haywards Heath - it must have been good money !

Regarding the bribery situation - Hannah Begleiter had a lovely figure, lovely eyes, a honey-brown skin... A group of British and South African Jews would dress up in uniforms and get in to Sergeants' Messes, taking the girls in with them. They would go in and chat up the Quartermasters, take lots of forged money in with them and get what they could. Once Hannah came out and said "Have we got £25,000 ? We can get an armoured car !" Almost all these things were bought with forged notes, mostly sterling white £5 notes, that were folded and crumpled so as to make them look used - very good forgeries. Many soldiers came back to the UK with bags of forged money in consequence....

Once the Arabs had left Haifa, the British Royal Engineers needed the Jews - as signalmen etc. - and their goodwill. In consequence the servicemen had kept well away when the Green Howards came round.

Post-May 1948.

Aubrey became a Chief Traffic Inspector ('Menahel HaTachbura HaRashi') on the new Israel Railways.

Eliav Paicovitch, Moshe's brother, was also Station Master at Haifa East. Other staff they recall include: Benny Sabach, who was a controller at Haifa (from a Sephardi/Iraqi family; his father was also a Station Master; they think it was Benny's photo which appeared on p.30 of Issue 28 of Harakevet.) Gordon was Station Master at Afula, and Berkovitch the Station Master at Tel Aviv.

They operated the narrow-gauge line as well. They had the line running as far as Samakh - but the bridge beyond, at El Hamme, had been blown, so they ran the railway only as far as there. After November 1947, after the UN resolution, Fawzi Kaukaji (an Iraqi leader) cut the line about 6 or 7 km. beyond Afule, so in PR days they only ran as far as there. AM took a train

as far as Samakh in late 1951 or early 1952, after his US trip; they had a driver and fireman, with Aubrey in charge, collecting up old wagons and another engine from the engine shed at Tzemach/Samakh. In 1952 they were still running narrow-gauge trains to Afule. (Dates recalled relative to birth of children.) They brought the loco back to Haifa, where it was still standing when Aubrey left Israel in 1954, so it must have been scrapped later.

In 1950 Aubrey, Dror, Hemda (Dror's wife), Isaac Nissan, and Max Feuerstein were sent to America for nine months under the "Point Four U.S. Programme for Underdeveloped Countries", to learn about railways. Alf Perlman was the President of the Denver & Rio Grande Railroad (he later became President of Amtrak), so they worked there - in the snow, in temperatures down to minus 60 degrees, learning about the diesels and modern signalling techniques. They did the trip from New York to Salt Lake City on the Southern Pacific, the line to California. (During this period Yetta came to the U.K. for a while, with the one baby.) They were particularly impressed by the "cow-and-calf" working in the USA, pulling trains of 600 wagons, so long that you couldn't see the end of the train.

The new line to Tel Aviv North was partly the result of this help, and also the purchase of the first diesels. (In Nos. 101-103 the short hoods, now empty, were for the vacuum braking equipment.) These locos were paid for by the JIA or UJA, [Joint Israel Appeal and United Jewish Appeal - fundraising organisations. Ed.] as at this period Israel possessed only sufficient currency for the deposit, not for the whole cost. (This may be worth checking in 'Maariv's archives; there is a picture of the official handing-over of these locos, with an official of the UJA or 'Israel Bonds' present.)

During their time in America the group members also spent time addressing small groups all over the country - e.g. in Texas - for Israel Bonds. Aubrey recalls an enormous steak breakfast in Texas, also speaking at Teaneck, N.J. and at Madison Square Gardens, New York - his first time addressing a big audience.

Each member of the group did a report on various aspects of the railways in which they were involved; all were adamant that the steam locos required so much labour and water supplies that they needed replacement.

Regarding State policy - Aubrey considers that Nissan's version of events as described in issue 28 was basically correct; the railways were consistently ignored by the Government. The State's priorities simply didn't

include railways, and it wouldn't have missed them if they hadn't been there.

The group wanted to acquire some long-wheelbase 'gondolas', [low-floor wagons] to transport tanks. Loading tanks onto railway wagons was normally a pretty impossible job, because of the ½" overlap on either side. In the Middle East during the war Aubrey had had to do most of the loading, driving every tank of every convoy onto the wagons. You had to load them dead straight. The slightest bit askew, and you couldn't get them off again. A lot were lost that way - they fell off on their sides and got stuck, so you couldn't move either the train or the tank.

Once you knew how, however, it was easy to get them on; you picked a point and aimed at it; that way you could load 20 or 30 onto one train, aiming at the same direction point every time. The main worry was when an officer would insist on using his own men to load ! Then, after the third one had gone askew and gone over on its side, they'd let him take over at last.....

Dror left the Railways soon after his father was ousted; Moshe Paicovitch's downfall was political; the railways had been his life, and without him there would have been no railways in Israel. Moshe already had a Customs Clearance business going by then, and Dror and Hemda built it up to an Import/Export business.

Aubrey recalls walking the whole of the Jerusalem line to inspect it, and also going with the saloon to the border near Rafiah, beyond Yad Mordechai. He took the Hebrew name of Avner Even for a while. Sella went to the USA after their return from the USA, after the group had recommended the purchase of diesel locomotives. His earlier trip to the US in 1949-50 had been with the Army, not the Railways, and presumably in connection with Army purchasing.

Later Yetta became ill and needed an operation, which could only be done in the UK, so they came back. Aubrey got a job. At this period things were very hard in Israel, economically and socially. They were all working very hard, and there was a psychological element whereby one felt responsible for everything that happened, and for what would be passed on to the children. Everyone pulled together, and it was a wonderful time, but a very hard one. Her family were worried for her - by this time she had two children, a daughter Ronit in 1950, a son Gidon in 1954. So they came back to England in 1954, where their third child Alan (Allon) was born in 1957, and settled.

1954 was a good year - at least for your Editor, who was born then. The Israel Office of Information, based at 11, East 70th. St., New York, published an annual handbook, and "Israel 1954" contains the following entry on pp. 132f.:

"Railways. Only a few sections of the Mandatory railway system remained within the area of Israel when the State was established. Their total length was less than a quarter that of the Palestine Railways, and there was no rail communication between Jerusalem, Haifa and Tel Aviv. Even the small amount of track left within Israel was in a bad state of repair, with many culverts and bridges destroyed or damaged in the fighting, and many lines unusable without extensive repairs.

The railway rolling stock left behind was mostly life-expired and had not been properly cared for.

Of some 7,000 railway employees during the Mandate regime, only 6 per cent were Jews, and these continued to work with the Israel Railways. Most were fitters and clerical employees; there were almost no employees trained in specific railway trades, such as engine drivers, platelayers, shunters, etc.

Repair work and new construction began immediately and traffic was resumed on certain sections within a few months.

In August 1949, the first train reached Jerusalem from Tel Aviv, and that year the Haifa-Tel Aviv and Haifa-Jerusalem lines reopened for regular freight haulage, while the Haifa-Tel Aviv line reopened for passenger services. The latter line was shortened by the laying of new sections, including one skirting a salient on the Jordan frontier, by-passing a section which previously passed through enemy-held territory.

In Haifa port extension lines were laid in the new cargo jetty, while new sidings were laid in Sarafand. Extensive railway workshops were reopened for the construction and maintenance of passenger and goods waggons and for the overhaul, repair and rebuilding of locomotives, coaches and freight cars. Three new diesel locomotives and track construction and maintenance machinery were put into service. 215 waggons, 100 box cars and 100 open waggons, each 25 tons, and 15 flat waggons of 50 tons were purchased abroad during 1953 and assembled in the Kishon Railway Workshops.

Over 500 transportation employees, 1,000 skilled workers and 144 engine crews were trained. A railway training school, fitted with modern equipment and appliances, opened at Haifa and 57 young are now being trained and qualified in essential railway skills.

Since 1948, the length of track has increased from about 200 kilometers to 506 kilometers, of which 336 kilometers are main line and 170 branch and extension lines. The number of passengers and freight handled by the Railways rose consistently during this period:

Year	Passengers Travelled	Freight Carried
1948-49	281,615	167,983 tons.
1949 [sic]	829,000	390,000 tons.
1953	2,414,000	970,000 tons.

New Lines. The new coastal line from Hadera to Tel Aviv North was brought into operation in 1953 for both passenger and freight traffic. By the end of 1954 this line will extend to a new Tel Aviv terminal - the Arlosoroff Station. When this line is completed, the traveling time between Tel Aviv and Haifa will be only 75 to 80 minutes. The existing Tel Aviv North station will be converted into a modern goods station.

Plans are now underway for a line by-passing Tel Aviv entirely, to connect the Haifa-Tel Aviv coastal line with Jerusalem.

Negev Railway. The Negev Railway from Na'an Junction to Beersheba is now under construction. About 60 per cent of the earthwork, bridges and culverts have been completed and the first 7 kilometres of line laid. It is hoped that the line will be finished by the end of 1954.

Plans are now being prepared for the continuation of this line to Mamshit (Kurnub) since cheap rail transport is essential for the heavy loads of phosphates, glass and, kaolin and potash which must be transferred from mining areas to processing factories and ports."



LOCOS AT TABA. By Uwe Pietruck.

32:21

Uwe spent a recent holiday (Nov. 1995) at Taba, and recalling the notes in 1:3 made an effort to search out the two industrial shunters on display there. Taba was handed back to Egypt in March 1989 after prolonged arbitration. At the Rafi Nelson Holiday Village the two locos illustrated are mounted on a heap of earth - they are believed to have come from the Timna Copper Mines north of Eilat, and rumour has it a third locomotive remains underground in the closed mines.

The locos bear plates with the following data:
 "Deutz No. 57633. Klöckner-Humboldt Deutz AG Köln, Bauart GZ 30 B, Lokleistung 30 PS (i.e. 30hp.), Bj (Baujahr) 1962, Dienstgewicht (weight in working order) 6.3 t., Geschwindigkeiten (Speeds): 4.4 7 10 14 km.
 12 19 28 39"

The other loco's plate is damaged, but reads:
 "Deutz No. 56346. Bauart A2M 517/54. Geschwindigkeiten 44 70 10 14
 12 19 28 39."

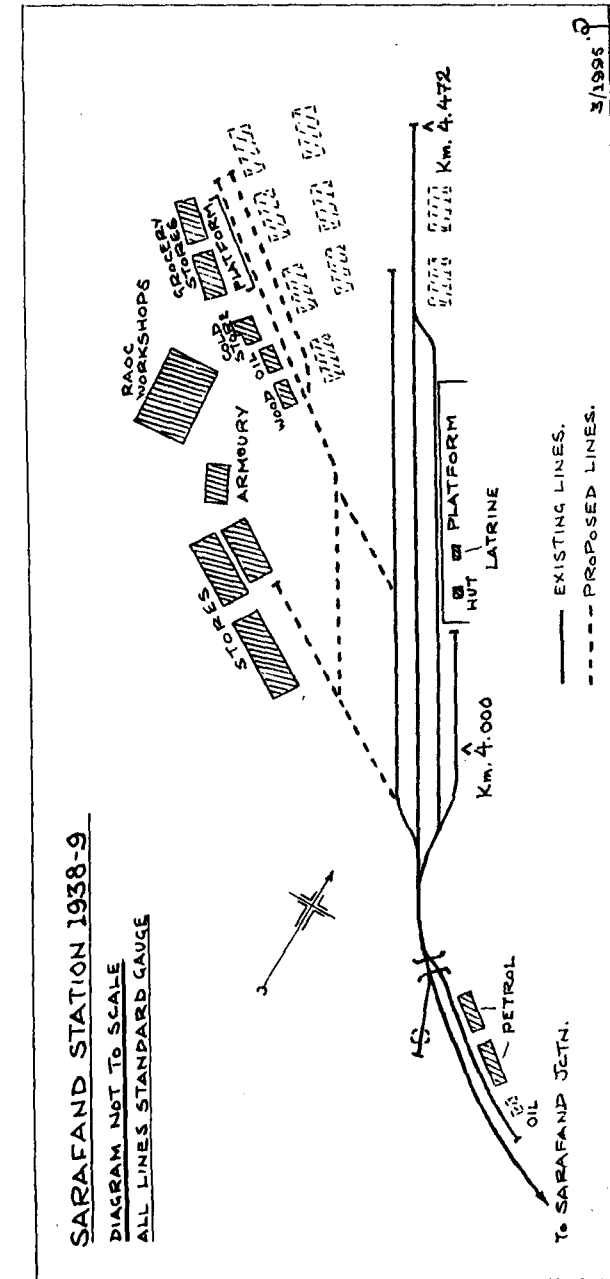


SARAFAND STATION. By Paul Cotterell.

Situated among sand dunes at the end of a short branch off the Lod-Jaffa line, Sarafand (now Tzrifin) station was of much more importance to the military than the general public. I have never visited the place (it remains in military use) and am vastly ignorant of the traffic which has been worked along the branch over the years. Nor have I ever seen a photograph which can be stated with certainty to have been taken at Sarafand. A couple of snapshots of armoured trolleys which might have originated there show practically nothing of the surroundings. I have visited the works of Ha'argaz which are alongside the branch line and just short of Tzrifin, but this, of course, gave me no insight into the terminus itself.

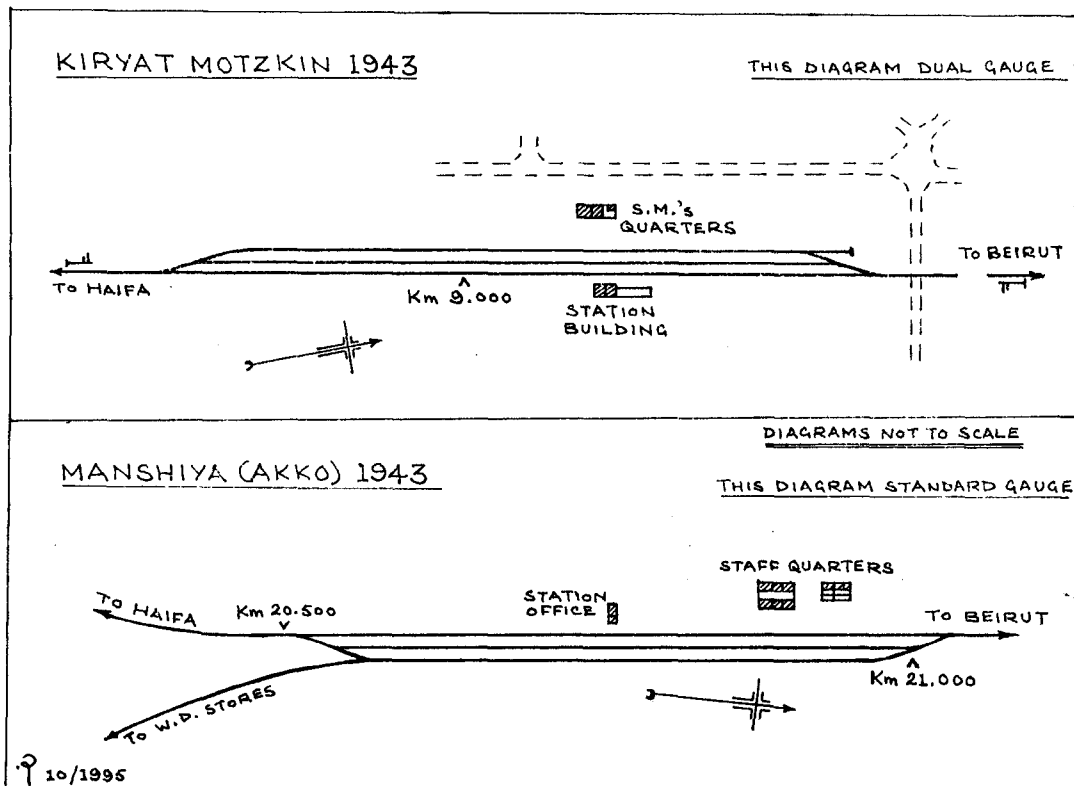
The PR Ways & Works Dept. diagram shows the layout just before war broke out in 1939, and also initial proposed extensions to the sidings dictated by the outbreak of WW2. I am unable to say whether or not those proposed extensions were laid precisely as indicated in the drawing, but from what I've heard the layout at Sarafand eventually became more extensive than that shown here. The same applies to the extra buildings shown by dotted line. It will be noted that a turntable was proposed for the headshunt siding near the station neck. To judge from the original diagram this turntable appears too small to have accommodated a PR or WD steam loco which makes me wonder whether it was intended for turning those aforementioned armoured trolleys. As was noted in 22:9 the Marmon-Herrington railcars normally operated back-to-back in pairs because they were unable to travel at speed in reverse gear. If they ever operated singly then the turntable would have been essential. Then again, it might have been preferred practice whenever possible to turn other types of armoured cars as well, even if they were capable of working in reverse.

[Ed. notes: In 1991 I managed to walk along most of this track, from the main road level crossing near the Ha'argaz works (where coaches are now being refurbished) to the main line; the track was useable, but slightly overgrown in places and with some rotten sleepers. South of the main road, towards the camp the track was disused and terminated at a metal fence across the lines. Further exploration through the thistles and undergrowth revealed a few other spurs, long-disused.]



The layout at Kiryat Motzkin remained basically the same as shown here until doubling of the line from Haifa in the early 1990's. In 1943 standard gauge had not long been added to the 1.05 metre gauge northwards from here as part of the WW2 extension to Beirut and Tripoli in Lebanon. The station at Motzkin (as it is often simply called) was erected between the World Wars to serve new Jewish settlement, but I do not have a precise date for its construction. Like other stations along the line north of Haifa it was built of wood, in contrast to most stations elsewhere around the country where stone was used. Stone was the favoured building material during the early years of the Mandate, but wood replaced it thereafter for station construction, no doubt as an economy measure.

The station at Akko dates from the laying of the HBT line. It was originally known as Manshiya, after the locality alongside which it is situated, to differentiate it from the entirely more splendid Turkish-built station below the walls of the old city. Noticeable in the diagram is the long siding leading off to the WD stores in the vicinity of Ein Hamifrats and Kfar Masaryk (see 16:21). Passenger facilities are somewhat more commodious nowadays at Akko/Manshiya and, like Kiryat Motzkin, a proper platform has been provided.



Further to Paul's earlier article these additional notes have been received:

"Further material on exceptionally obscure industrial light railways in Palestine and Israel is gradually surfacing; there seems to be something of a snowball effect at work. The following references are fleeting in the extreme. Can anyone add substance to them ?

a). Two people have quite independently told me of a light railway which operated at Rishon LeZion. The accounts differ slightly but do not contradict one another. Apparently the line (presumably 60cm. gauge) was used to bring sand from coastal dunes to the outskirts of town, possibly to a builder's yard or to a building site of some description. Length of line may have been two or three kilometres, judging from maps of the locality (though the line does not feature on any map that I know of). The track is said to have crossed over the main road as it approached Rishon (by a bridge or on the level ?). No approximate date is known for the line, but I have the impression it was in use after 1948.

b). Someone else told me of a light railway which is supposed to have connected the town of Rehovot with its station, over a distance of about ½ kilometre. It might have operated in the Mandate period.
[Ed. - Only 500 metres ? This may have had something to do with transporting building materials from the station to the town, though.]

c). A photograph in the Central Zionist Archives in Jerusalem shows a narrow-gauge line at "the new slaughter house" in Tel Aviv, sometime during the 1930's or '40's I think. Not much of the line is to be seen in the photo, just a tantalising glimpse of a curve. There is no sign of any rolling stock.

d). A narrow gauge line appears in another photo from the Central Zionist Archives showing the "Zinoroth" metal pipe factory near Ramle in October 1952. Gauge appears to be of 60cm. A hand-propelled 4-wheel flat wagon is to be seen in the photo.

e). The "Tamar" co-operative factory in Jerusalem, makers of concrete products, also had a narrow-gauge line on the premises. This is shown in a photograph dated April 1951, from the Central Zionist Archives collection.

The C.Z.A. is proving to be a treasure house for views of these small and obscure industrial light railways, most of which I had never come across before in any other collection. It is my intention to feature what has been discovered in future issues of 'Harakevet'. In the meantime, the more prominent industrial railways - mainly those using locomotives for motive power - are receiving attention in a series of articles in the "Industrial Railway Record", the magazine of the Industrial Railway Society in England."

LEN REDSHAW'S MEMORIES.

32:25

Len tells me his visit to 169 Railway Workshops Coy. at Suez was on 9th. January 1945; that same week he visited Luxor at visited the Sugar Factory at Armant, where there were half-a-dozen vintage steam locos; one of these was an 0-6-0ST, Manning wardle Works. No. 1997, built 1920, named "Shellal".



32:26

Two of the HR vans from Jisr-el-Majamie on standard-gauge flat cars at Qishon Workshops. (Photo: Paul Melling, via Ilan Falkov.) (See 32:4(a)).