

# HaRakevet

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# הרכבת

**A Quarterly Journal on the Railways of the Middle East**  
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**70:01.** To Paradise, the Iranian way. One of the new 'Paradiso' four-car diesel multiple units being built at Maribor for the Iranian State Railways on a test run. (Photo: E. Naehrer, courtesy of Thomas Meyer-Eppler). See 70:09 for more details on these units.



70:02.

## EDITORIAL.

Our first main news has to be a reference to the major level crossing disaster at Revidim with fatalities which occurred to a Beersheva-bound train on 21st. June - thus ending IR's proud record of having never, until now, lost a passenger. This occurred just as 'Harakevet' 69 was being distributed, too late for inclusion. The Editor has himself stood behind the driver in the cab of an IC3 on this route.... The driver of the train would have had no chance, in such a collision - even though technically one can jump up and run back through the door into the passenger compartment. From the railway operating point of view, a major still-only-single-track route was also out of commission for a while, and the rolling-stock situation can hardly have been helped by the removal from service, permanently or temporarily, of several IC3 units.

But - Shortly afterwards came news of further similar accidents, including one at Ahuzam. In each case a driver of a modern high-speed sophisticated mode of transport on well-defined tracks found himself confronted with a road vehicle (or pedestrian) on a farm track or road which got in his way. Building expensive under- and over-passes might solve some of the problems, but not all. And as a newspaper editorial cited later shows, around 500 persons are killed each year on Israel's roads..... but this rarely makes the headlines. Since this magazine is only Quarterly we have taken the opportunity to present various reports in the sequence they came. (Our press date was 1st. September.)

A further major upheaval this quarter has been the management squabbles at Israel Railways, leading to the forced resignation of Yossi Mor. These have been turbulent times indeed. An Editorial decision was needed and in consequence we have more 'current news' and less 'historical material' in this issue. But there is a lot on file awaiting future publication, and the news is not all bad.

Enjoy!

### The Editor.

70:03. from Sybil Ehrlich, On the Jerusalem Line. 31st. July 2005.



70:04.

## NEWS FROM THE LINE.

**(a). COLLISION DISASTER AT REVIDIM.** By the time this appears several months will have gone by - but nevertheless we must devote some space to this major tragedy. So long as there are level crossings, even such 'informal' ones as this one at a building site, there remains the potential for catastrophe. Here are various press reports, in the order they were received - there is some duplication and some contradiction of information, and some different spellings:-

**(1). "Haaretz - Israel News" - 21st. June. "At least seven dead in train crash in northern Negev, 189 injured"**

At least seven people were killed on Tuesday and 189 injured, 17 of them critically and 47 moderately, when a passenger train hit a large vehicle near Kiryat Gat in the northern Negev region. Two train cars derailed and were completely crushed. Many pas-

sengers were buried under the cars. A man who had been a passenger on the train described the atmosphere within the train as "a scene from hell." A senior Israel Railways official called the accident the worst railroad disaster in Israel's history. According to reports from the scene of the accident, a truck loaded with coal ashes crossed the train tracks from a dirt road and crashed into the rear [sic!] cars of the train. The truck was smashed completely, the train was derailed and two of its cars overturned.

Rescue forces had difficulty arriving at the scene of the accident as it occurred at an intersection between the rail line and a dirt road. Israel Air Force helicopters participated in the evacuation of casualties. Five fire fighting teams and Magen David Adom ambulance crews were also aiding in rescue efforts.

Initial reports suggested that the truck might have hit the train intentionally in a terrorist attack. But Transportation Minister Meir Sheerit told Army Radio that the truck driver, who was killed in the accident, was Jewish and that authorities had ruled out the possibility of terrorism. At least five hospitals, including one in Jerusalem, received the injured. Cranes and heavy equipment assisted in the rescue of passengers buried under the train.

A Magen David Adom paramedic who was at the scene told Israel Radio "there were dozens of dead and injured, it's a very difficult sight." According to reports from the scene the train was packed with passengers and some of them were standing in the aisles."

Emergency telephone hotlines were set up at Sheba Hospital, Tel Hashomer, Hadassah University Hospital, Ein Karem, Jerusalem; Soroka Medical Center, Be'er Sheva; Barzilai Medical Center, Ashkelon; Kaplan Hospital, Rehovot.

"In the wake of the crash, the Immigrant Absorption Ministry [was] operating an emergency telephone hotline to provide information to new immigrants in all languages. In November 2003 Sarhan Razi, a 23-year-old truck driver from Lod was killed in a crash with a train at the same location. The train conductor sustained critical injuries."

**(2).** The 23.00 'Radio Kultur' news in Berlin on 21.06.05 referred to the lorry as having been filled with chickens!

**(3).** On the same evening **Aharon Gazit** added:

"On 21.06.2005, at 17.45, an IC3 train en route from Haifa to Beer-Sheva collided with a fully-loaded heavy truck just north of Kiryat-Gat. The place is a work site; infrastructure works for both double-tracking the line, as well as building the toll Highway No. 6 (the Trans-Israel Road) adjacent to the track, are being intensively carried out, and the truck belonged to an earth-work subcontractor; The traffic police believe that either the driver was tired and did not notice the approaching train, or that he tried his luck to cross the track despite the approaching train. The level crossing is not a protected one - it is an agricultural track, but is clearly equipped with warning signs.

The results, which the media defines as the greatest railway disaster in Israel (though not the Railways' fault!) are tragic: As of now, 7 people were killed including the truck and IC3 driver, and more than 200 wounded, of which 13 are defined as severely wounded, so unfortunately the number of casualties may rise.

As a result of the collision, the front car was thrown aside and burnt, the second car was compressed (telescoped), and the third badly damaged; there is also damage to the track. The absence of proper access roads forced the rescue teams to use the airforce helicopters for evacuation of 50% of the wounded, while others arrived at hospitals by ambulances. The Transport Minister Mr. Shitrit, created a special committee to investigate the disaster."

#### **(4). From 'Ha'aretz' Wed., June 22, 2005 Sivan 15, 5765**

'The screaming was terrible'

By Roni Singer and Tamara Traubman

"The scene in the fields of Kibbutz Revadim, on the coastal plain, looked like something out of a Hollywood war movie as groups of soldiers ran with medical equipment and helicopters were landing and taking off with more stretchers. Ambulances and police cars raced over the patches of land, their lights flashing ominously. And on the ground lay the injured - bleeding, dusty and groaning.

An hour and a half after the accident, paramedic Shmulik Hartman of Ashkelon was still busy tending dozens of wounded. In the distance, the cranes were lifting the wrecked carriages under which the dead lay. The IDF's Home Command rescue force was there with sniffer dogs, looking for possible survivors.

The shock was evident on the faces of all present. "It was a pointless crash. There was no reason for it to happen," said Michael Reif, deputy director of Israel Railways. "If the truck driver had only obeyed the traffic signs, it would not have happened. What a shame so many people died."

One of the men working on Route 6, close to the site of the accident, said: "A driver who crosses at that point can't see the tracks. The train comes out of the tunnel and the driver doesn't see it."

Gali Erez of Kiryat Gat says the train driver hooted several times, "hysterically," until they heard the crash. "The driver slammed on the brakes," said Erez who was sitting in the first carriage, the one worst hit. "A second later, our coach flew onto its side. People fell all over the place and the screaming was terrible." She sat sipping water from one of the bottles brought to the injured by a railway worker. "I slid under a table and when everything stopped moving again, I climbed out, but there was still that awful screaming. The coach was filled with smoke. I saw someone leaning next to the window, dead."

The truck that hit the train was shattered into three parts that landed in different directions, dozens of metres apart. The first coach was thrown across a furrow where dozens of abandoned cellular phones now lay alongside soldiers' kitbags and piles of bandages.

"Someone took the initiative and a few seconds after the accident began collecting bandages from the soldiers," said Dori Glickman of Be'er Sheva. "But no one wanted them; everyone was just calling out for water." Elad Peretz, 22, of Meitar, said he had been sitting on the floor of the second coach because the air-conditioning was not working at the back of the train. "People moved forward because it was terribly hot and this caused a crush," he said.

"The train began rocking from side to side, then overturned," recalled Asher Nuriani, 21, of Kiryat Malakhi who was returning home from work. "It was pitch dark but suddenly there was a ray of light and I grabbed a pole and rolled over with the carriage. That way I stayed inside and didn't fall underneath the carriage."

Pensioner Yitzhak Matana was returning to Be'er Sheva after spending a day in Tel Aviv's Carmel market. "The train suddenly started whistling," he recalled, "and then it was all dust and I collapsed. Something fell on me and all I saw was black."

Health Minister Dan Naveh, who visited injured in Kaplan Hospital in Rehovot yesterday evening, said: "There are at least 180 injured, many more than we thought. The number of dead may rise also because there are 20 people in critical condition in the hospitals."

#### **(5). From 'Ha'aretz'. "Ministry launches inquiry into crash. By Anat Georgi and Sharon Kedmi**

Transportation Minister Meir Sheerit yesterday set up an inquiry commission to probe the train accident. "It was a horrendous accident and a dreadful disaster. It is not yet clear why the truck driver crossed the tracks as the train was approaching," he said.

Sheerit appointed senior Transportation Ministry official Yeshayahu Ronen, Commander Moshe Ben Zikri of the police traffic department and Israel Railways head of operations divisions Harel Even as members of the commission. The commission is to present its conclusions to the minister within a week.

Until now the train was considered a relatively safe way to travel in Israel, due to the small number of railway accidents compared to motor accidents. This assumption was also based on the fact that most of the people injured or killed in railway accidents were not train passengers but outside the train.

"Everyone remembers the terrible accident at Habonim junction 19 years ago, that caused the death of 23 people, 19 of them children, but they were in the bus, not the train," explained a transportation expert yesterday, referring to a 1982 accident in which a train hit a bus full of children. "In fact, since the establishment of the state until yesterday the number of train passengers who died in accidents was eight."

However, traffic experts were not surprised by the large number of passengers hurt yesterday. "When a moving train crashes into an object, the impact depends on its speed," said Moshe Becker, a traffic and road safety expert.

"An engine traveling at high speed that crashes into something loses its equilibrium, flies off the tracks and stops with a strong impact. The remaining carriages continue moving by inertia and crash into the engine. They also fly off the rail."

"The impact in a crash of a train travelling at 160 kilometres an hour is twice as strong as one travelling at 120 kilometres per hour, so the speed is very significant. In 1997 a passenger train crashed into a truck close to Be'er Yaakov. But it was going at a low speed so few people were injured," he said.

A traffic expert said the railway company upgraded the tracks and increased the trains' speed to 140 to 160 kilometres per hour, but the IC3 carriages, which were involved in the accident, are made of very thin, hollow aluminum and are less safe. The old steel carriages provided better protection for the passengers in the case of a crash, he said.

Becker says the problem lies in the train company's safety regulations: "The problem in Israel is that they failed to improve and implement safety measures when they upgraded the railway system. In Europe, for example, all the fast train routes are fenced so that vehicles cannot cross the lines." He added that in Europe the fast railway tracks and roads are built on different levels, while in Israel there are close to 200 points where the tracks meet roads.

Israel Train sources rejected these statements.

"The impact of the accident would have caused heavy damage regardless of the carriage type. Any carriage would have been crushed with such an impact. These are good, safe carriages according to all the required standards," one official said. Railway experts said the newest trains today were made of aluminum. A train's safety is measured by its balance on the tracks and its ability to stay on the tracks. The IC3, for example, has four sets of brakes, they said.

One expert said fencing the tracks is irrelevant in this case because the crash occurred at an agricultural crossing point that cannot be fenced. "In general we want to fence the fast railway lines, but the green bodies object, demanding that we leave open passage for animals," he said."

#### **(6.) Update - 09:20 22.06.2005**

Eight dead and 195 injured as passenger train hits truck

**By Yuval Azoulay and Ran Reznick, 'Ha'aretz' Correspondents, and Ha'aretz Service**

"As the casualty toll of a Tuesday truck-train collision rose to eight dead and 195 injured, investigators sought to determine Wednesday whether the driver of the truck may have been asleep at the wheel when he struck the train bound from Tel Aviv to Be'er Sheva.

The collision occurred beside a sunflower field near Kibbutz Revadim in the northern Negev during the heavily-travelled evening commute. The lack of roads in the area hampered evacuation of the wounded, many of whom were air-lifted by IAF helicopters.



The names of three of the victims have been released for publication: the engineer of the train, Leonid Turk, 49, of Ramle, and passengers Rabbi Yoseph Derner, 56, and Nir Sarusi, 33. Fourteen of the injured were still in serious condition Wednesday morning. Seventy others had substantial but not life-threatening injuries.

Investigators have cleared Turk of responsibility for the accident, saying that he took proper safety measures and sounded the train's horn dozens of metres before reaching the crossing where the crash occurred.

Investigators suspect that the driver had been working several hours past the maximum specified by safety regulations, and may have been asleep at the wheel as he approached the train, failing to hear the train driver's repeated warning horn. The drivers of both the train and the truck were killed in the crash.

An initial police investigation indicates that the truck driver did not obey a stop sign or a subsequent warning sign and drove onto the railroad tracks from a temporary dirt road. The train had nine full cars and was travelling at a high speed.

The truck, which was filled with coal dust, was split into three by the force of the collision, and the first car of the train was crushed and overturned in a nearby ditch.

Army Radio reported Wednesday that the truck driver worked for the Elyahu Brothers trucking firm, the focus of a recent police investigation into suspicions that drivers were employed for shifts longer than those permitted by regulations.

Asked why there were no crossing barriers at the crash site, senior Israel Railways official Avi Hefetz said Wednesday that "There is no place in the world where there are crossing blocks on 100 percent of the railroad crossings. Here we are speaking of a dirt road with a very small number of vehicles crossing. There is a very clear warning sign reading "Caution, railroad [crossing]."

Train passengers said the first car was full because at the beginning of the journey the air conditioning was not working in the rear of the train. "Even after the air conditioning began working, many people decided to stay in that car," said Einat, a passenger who was treated for shock after surviving the crash.

"People flew into the [first] car, began bleeding; pieces of glass from the windows flew on them, there was a lot of chaos," said another passenger, who was lightly hurt in the crash.

Transportation Minister Meir Sheerit said that an investigative committee was being established to examine the circumstances of the collision. The investigation will focus on the truck driver, who drove onto the railroad tracks as the train was approaching.

Coroners at the Abu Kabir institute were working to identify five other bodies.

Sheerit called the collision a "frightening accident and a serious disaster." He said the committee would submit its findings within a week.

"As soon as we heard a strong blow,

the train began to toss right and left," said Efraim Yanku, a paramedic for the Magen David Adom rescue service who was on the train during the crash. "When it overturned, everything filled with smoke and dust. People flew into the [first] car, were frightened, screamed. I screamed at everyone to lower their heads. I went through the car to certify the level of injuries and contacted Magen David Adom to tell them about the incident."

Police Commissioner Moshe Karadi ordered his own investigation into the accident, which he called a "serious disaster," and said he expects findings within the next few days. In the coming days, the police will try to answer several basic questions, including whether the dirt track used by the truck driver was an official road.

Sixty ambulances and first-aid vehicles treated victims at the scene, and many of the casualties were airlifted in Israel Defense Forces helicopters to 10 hospitals in the south and centre of the country, and in Jerusalem. The IDF Home Command sent its search-and-rescue team, aided by dogs, to look for casualties amid the rubble of the first car of the train, where most of the fatalities were located. Silence crept through the chaos for a few moments as rescue workers listened for sounds of life.

Those hurt in the crash were rushed to ten hospitals in the south, center and Jerusalem areas, including: Kaplan Hospital in Rehovot, Sheba Medical Center at Tel Hashomer, Hadassah University Hospital in Ein Karem, Jerusalem, Hadassah University Hospital at Mt. Scopus, Jerusalem, Shaare Zedek Medical Center in Jerusalem, Wolfson Medical Center in Holon, Beilinson Hospital in Petah Tikvah, Assaf Harofeh Hospital at the Tzrifin army base, Soroka Medical Center in Be'er Sheva and Barzilai Medical Center in Ashkelon.

Emergency telephone hotlines:

Sheba Hospital, Tel Hashomer - 12255131

Hadassah University Hospital, Ein Karem, Jerusalem - 1255122

Soroka Medical Center, Be'er Sheva 1255177

Barzilai Medical Center, Ashkelon - 1255171

Kaplan Hospital, Rehovot - 1255181

In the wake of the crash, the Immigrant Absorption Ministry is operating an emergency telephone hotline to provide information to new immigrants in all languages. The number is 1255081010.

#### **(7). From the 'Jerusalem Post' 22.06.05.**

(ironically, Sybil Ehrlich was on holiday in Italy when this major railway 'story' broke!) -

"Eight people were killed and some 200 injured in the fatal train wreck east of Ashdod.

In the aftermath of Tuesday's rail disaster near Kibbutz Revadim, a major inquiry is being conducted by the Transit Authority into the exact conditions of the accident which claimed the lives of eight people and wounded 215 others.

According to Yossi Mor, CEO of Is-

rael Railways, every train in the country's fleet, including the one involved in the accident, is equipped with a recording device, similar to a black box on airplanes. After the recorded data is analyzed, more information as to the conditions of the accident may reveal more information on what caused the train-truck collision.

What is known is that the crash occurred at an unmarked intersection. The truck driver did not stop at the intersection despite warning signs, Mor told Israel Radio. The train conductor followed protocol by blowing his horn 650 meters before the unmarked crossing and applying the brakes 160 meters before impact, he said. The truck driver not only ignored the stop sign but also the extra large caution signs, that were placed on the roads at the request of train conductors.

However, some believe that the responsibility for Tuesday's accident does not lie solely with the truck driver. Gadi Weissman, an engineer, told Israel Radio that given the high speeds at which the latest Israeli trains travel, it was impossible for the truck to avoid impact. He pointed out that at 40 meters a second, the truck driver had only four seconds to process the fact of the oncoming train and act to stop the crash. This is too much responsibility to put on one driver, said Weissman.

He suggested that informal crossings be made safer with both a traffic light and an audible signal that a train is passing. This will alert the drivers and take the guesswork out of intersection crossing. The fact that Israel Railways has placed large caution signs in the crossways proves they know how dangerous the situation is, said Weissman.

However, Mor of Israel Railways still put the blame squarely on the shoulders of Israel's truck drivers. "We have done and will do much more but the problem is the education of the truck drivers and their driving, not only with regard to informal intersections but throughout the country's roads," he said.

Meanwhile, the death toll in Tuesday's crash rose to eight after a 19-year-old IDF soldier, Sergeant Adi Amano from Beersheba, who was critically injured in the accident, died of her wounds at the Kaplan Hospital in Rehovot overnight. A non-commissioned military officer, 28, from Beersheba, who had been listed as missing, was located on Wednesday morning at Jerusalem's Hadassah Ein-Karem Hospital. She was reported to be in moderate-to-serious condition.

Other names that have been released for publication:

# Truck driver Leonid Galinski, 51, from Dimona

# Train conductor Leonid Turk, 46, from Ramle

# First Sergeant Nir Sarusi, 33

# Rabbi Yossef Dremer, 58, from Kiryat Gat

# Olga Akmayov, 20, from Kiryat Gat; Olga's nine-month-old baby is hospitalized in serious condition at Tel Hashomer Hospital near Tel Aviv.

Of the 215 who had been injured in the accident, 113 were still hospitalized

on Wednesday morning: 14 of them were listed in serious condition. Eight of the wounded have yet to be identified, five of which are hospitalized in Hadassah Ein Karem and three of which are being treated in Tel Hashomer."

**(8). By Thursday a brief, calm report from Paul stated:-**

"The crash happened at 17:43 near Kibbutz Revadim. A loaded semi-trailer was crossing the track on a dirt road. There was only a warning sign at the crossing (no flashing lights, bells or barrier). Train 121 (17:08 Tel Aviv - Beersheba) was well filled. The 'black box' shows the train travelling at approx. 140 km/h., that the driver sounded horn in advance of the crossing as required and applied brakes when he saw the danger. Emergency diversions over the 'Heletz' line were set up. An empty double-deck set was sent to the crash site to pick up anybody still needing transport away. Death toll is now 8, including both drivers. Other collisions had happened at the same place during the last few years. An internal investigation was set up immediately, results by end of next week(?)."

Later: "The IC3 sets in the crash were 21, 22, and 31. Set 31 was leading and is believed totally destroyed. The line was reopened to traffic on Thursday 23.06."

**(9). The Investigation Starts.**

From Paul: "On Friday 24.06 the accident was re-enacted in the presence of a whole lot of different, um, experts. With a train of IC3's of course. From this field enquiry it now seems that IR isn't going to get off scot-free either. The finger was pointed at IR because the crossing was not properly protected and, possibly, the field of vision for train drivers was impeded by the curve and bridge when at top speed. (Is the Crossing to be moved and/or a speed restriction applied on the approach to the crash site?). Also a pile of sleepers had been left adjacent to the crossing which, while not impeding the truck driver's view of an oncoming train from the north, it is thought might have distracted/impeded his view when looking the other way. (The family of the truck driver is already threatening IR with millions in damages, and there was the usual slanging match between parties at the re-enactment scene!). Very uplifting."

**(10a). The Investigation Results.**

On 01.07.2005 he added: "The results of the official enquiry into the crash were issued on Thursday 31.06.05. I don't have all the details but the major portion of blame was placed on the truck driver who was found to have disregarded all the warnings. (That should take the wind out of the sails of family members threatening to take IR to court for millions in compensation. Then again, maybe not!). His firm was also mentioned dishonourably in despatches, as he'd been working over the prescribed 12 hour limit, and there was evidence the tachometer (which records kilometres run etc.) in his cab had been tampered with. Nor was IR totally exonerated (for reasons outlined

previously) but no blame was attached to the train driver."

**(10b). The 'Jerusalem Post' on the same day reported of course on similar lines -**

"Probe: Truck driver caused train crash. By Sheera Claire Frenkel. The truck-train crash in the northern Negev that killed eight people and injured 195 last week was caused by a miscalculation on the truck driver's part, the committee established to investigate the collision stated in a report Thursday. The report concluded that the truck driver significantly contributed to the crash by failing to obey a stop sign and driving for more than 12 hours on the day of the accident.

Established by Transportation Minister Meir Sheerit, the committee found nothing remiss in the train driver's behaviour and that he could not have prevented the crash. It added that a crossing-barrier at the intersection would have significantly reduced the likelihood of collisions there."

**(10c). From a press release of 30.06.2005 by the Transport Ministry:**

"The special committee appointed by Transport Minister Mr. Meir Shitrit, to investigate the train / lorry accident on the Tel-Aviv - Beer-Sheva line near Revadim on 23.06.2005, the members of which were Ing. Yeshayahu Ronen of the Ministry as chairman, Mr. Harel Even from Israel Railways Ltd., and Superintendent Ben-Zikri of the Traffic Police, has come to the conclusion that the main cause for the disaster was the lorry driver, who did not pay attention to the approaching train and to the horn applied by the train driver; his tachometer was false and changed daily in order to hide the real mileage and the fact that he used to work many hours over those permitted by the law; The committee also blamed the company constructing the adjacent toll Highway No. 6 for not fulfilling its part by paying for a fully-protected level crossing, although they were requested to do so by the Railways 18 months ago!

The committee found that the train driver behaved exactly as he had to; he tried to slow down and applied the horn more than 3 times, but due to the short distance left and the relatively high speed could not avoid the accident.

The committee has however concluded that the safety procedures regarding level crossings have not been changed since 1987, whilst the number of trains passing and their speed have increased significantly. Therefore, the committee recommends that these be updated, as well as the acceleration of construction of grade separations.

Some updates regarding the accident: 7 people died, including the lorry and the train drivers; 180 were injured, at least 15 of them severely.

Unlike as previously reported, the air-conditioning failure was in the first unit which collided; the driver announced more than once to the passengers that they should pass to the other two coupled dmus, which means that many saved their lives or avoided injuries!

Unit 7031 is a total loss; Unit 7021

is being inspected, and if repairable, is to be sent to Bombardier at Randers in Denmark; Unit 7022 is the least damaged one, and will probably be locally repaired; the overall damage estimation for the railways has not yet been revealed.

A survey made in the internet about passenger habits regarding rail usage, made shortly after the event, shows that about 70% of the passengers said they will continue to use rail, 8% will try to reduce travelling, 8% will never go by rail, while 14% said they never use rail.

This tendency did not last for long, and during a telephone conversation I had on 04.07.05 with the Israel Railways spokesman Mr. Benni Naor, he said that according to the railways' survey, traffic had already returned to a normal rate and was even rising!

However, the last word has not yet been said as the traffic police continues its own investigation; we'll have to wait and see."

11. In mid-August it now appeared that IC3 set No.31, believed totalled in the first Beersheba line accident, was judged repairable after all and was to be sent to Denmark for refurbishment.

**(b). A SECOND CRASH, NEAR AHUZAM.**

(1). From "Ynet" (thanks to Aharon Gazit); 08.07.2005. "Train, truck collide in south". By Tova Dadon and Shlomi Donner "MOSHAV AHUZAM - Thirty five people were wounded on Friday when a Beer Sheva - Tel Aviv train slammed into a truck near the southern city of Kiryat Gat.

At least one person – the train conductor – was evacuated by Magen David Adom crews to Soroka Hospital in Beer Sheva, where he was listed in critical condition. Yehuda Sasson, assistant director of Magen David Adom's Lachish unit, told Ynet most other injuries were minor, but said several people have been taken to Soroka and Barzilai Hospitals with moderate wounds.

Lachish region police commander Amnon Levi said the truck driver notified his employer the vehicle was stuck on the track, and both claim they reported the information to police. Police say they received notification of a truck stuck on the train track, but say they couldn't stop the train in time.

**Home for Shabbat**

Most passengers on the train were soldiers on their ways home for Shabbat. Following the crash, many left the scene on foot to search for alternate ways to get home for the weekend."

**(2). From 'Haaretz Online' on 10.07.05 :-**

"Police call for action after second train crash in 3 weeks. By Yuval Azoulay

The Southern District Police commander called on Israel Railways and the Transportation Ministry to take immediate action to prevent further railroad accidents after another train-truck collision this Friday, the second in three weeks. Major General Uri Bar-Lev placed direct responsibility on

the ministry and the rail authorities for resolving the problems where train tracks intersect with agricultural roads, saying that, were he authorized to do so, he would stop rail transport until the implementation of appropriate solutions.

In circumstances resembling those of the deadly train wreck three weeks ago, 35 people were injured Friday morning when a passenger train collided into a truck near Moshav Ahuzam, south of Kiryat Gat. A truck belonging to the Grar Peretz company carrying a hydraulic excavator on its flatbed got stuck on the train track while attempting to cross it. The 27-year-old truck driver, Nissim Paizalov of Kiryat Gat, testified that he immediately called his employer to warn him of a possible collision. The employer called the police, who called Israel Railways, only to learn that a train travelling north from Be'er Sheva had already collided with the truck.

The police say the accident was unavoidable and took place between two and three minutes after the call was received.

Paizalov said that he had tried to prevent the accident by running along the tracks and gesturing to the train conductor to pull on the brakes. Despite the train's braking, the collision was inevitable, as the point of collision followed a sharp bend. Only after the center of the bend, some 200 meters from the truck, could the conductor see it.

The collision was forceful: The heavy hydraulic excavator flew off the flatbed and broke into several pieces. The flatbed itself was crushed by the train's engine, and several train cars then ran over it. Three of the train's eight cars slid off the tracks but did not overturn. The train came to a complete stop only several dozen metres after the point of collision.

Passengers on the train and an eyewitness from Moshav Ahuzam reported the accident to Magen David Adom in Lachish, and a multi-casualty incident was announced. Dozens of ambulances and hundreds of rescue personnel arrived at the spot. A helicopter evacuated the train's conductor, who was severely injured, to Soroka Medical Center in Be'er Sheva. The other casualties were taken by ambulance to Soroka, Barzilai Medical Center in Ashkelon and Kaplan Hospital in Rehovot. Large forces of firefighters arrived from the Ashkelon area and evacuated passengers from the train.

The meeting of the agricultural dirt road and the tracks is similar to the intersection near Kibbutz Revadim, where a train-truck collision claimed eight lives and injured 194 three weeks ago. Senior police officers who came to the site of Friday's accident pointed out that it shared many characteristics with the previous accident. This latest incident will be investigated by the same police team.

Traffic officers said that Friday's accident could have resulted in heavier losses if it weren't for the size and strength of the train's 70-ton engine. The engine involved in the Revadim accident weighed only 30 tons. The engine's strength prevented it from being crushed by the heavy hydraulic

excavator, which would have caused the destruction of several of the cars. "We might have seen sights more horrible than what we saw at Revadim," said a senior police officer.

Last week a similar accident was prevented between a truck and train south of Kiryat Gat. In that incident, police managed to stop rail transport for half an hour to prevent a collision. Commander Shahaar Ayalon, head of the police's traffic division said that the recurrence of three similar incidents over the past weeks has led him to propose creating two levels wherever rail tracks cross agricultural roads. "In the meantime," said Ayalon, "a police unit using advanced technology should be formed to prevent such accidents."

Israel Railways said that the agricultural road at the site of Friday's accident complies with all applicable standards, and was inspected recently. No barrier was erected, but there are stop signs on both sides of the tracks. Israel Railways CEO Yossi Mor is appointing a committee to investigate the accidents.

Transportation Minister Meir Shitrit said that he will convene an emergency meeting next week and instruct Israel Railways to look into the option of closing all the agricultural passes without barriers. Israel Railways said in response that it welcomes the minister's proposal.

#### **Truck got stuck on tracks**

Benny Naor, spokesman for Israel Railways, told Ynet, "the 10:30 Beer Sheva-Tel Aviv train collided with a truck, or some other vehicle, somewhere between Kiryat Gat and Moshav Ahuzam. We have no specific information about the intensity of the crash." Naor also said train service out of Beer Sheva has been suspended, but said trains continued to serve Kiryat Gat and points north. An IDF helicopter is also on the scene to assist with rescue efforts."

*[The Editor adds: The orthography has been altered slightly but the terminology retained - many Israeli journalists use 'Conductor' for 'Driver', 'Car' for 'carriage' or 'coach'. In this case the implication is that a locomotive has more protective mass than a lightweight multiple unit. Without wishing to minimise the pain and suffering in these rail/road accidents, one cannot help wondering when action will be taken to eliminate all crossroads and all pedestrian 'Zebra' crossings in Israel as well, since it is quite clear that red traffic lights are not in themselves sufficient protection and that accidents continue to happen.]*

#### **3. The 'Jerusalem Post' on the same day reported:-**

"Transport Ministry to discuss train crossings. By Etgar Lefkovits & JPost Staff.

"The Transport Ministry will hold a meeting Sunday to address the problem of train wrecks that occur at unmanned agricultural crossings after another truck stalled on the tracks Friday, causing an accident that injured dozens. Israel's Southern District police commander has urged the suspension of all train services in southern Israel

until overdue safety procedures are implemented, following a collision between a train and a truck near Kiryat Gat Friday – the second such incident in the region in less than a month.

Three dozen people were injured in the late-morning crash near Moshav Ahuzam, just south of Kiryat Gat, including the engineer, who remained in critical condition Saturday.

In a harshly-worded letter to Israel Railways, Southern District police chief Uri Bar-Lev wrote that if it were up to him he would shut down all rail traffic in the south of the country until train safety was increased, and demanded that Israel Railways take urgent steps to prevent further accidents, including placing look-outs at certain spots along the tracks.

"I hold Israel Railways responsible for solving the serious situation of train accidents, and I demand the immediate involvement of the management in finding a solution," Bar-Lev wrote, referring to the state of the region's rail lines as "a ticking bomb." The police do not have the jurisdiction to shut down train lines.

The accident occurred when a passenger train, which left Beersheba at about 11 a.m., crashed into a truck that was stuck on the tracks at a crossing point used by farming vehicles. Passengers in the first car of the train, which had departed 20 minutes late and was packed with soldiers going home for Shabbat, were able to see the accident coming as the truck came into view.

"It was a slow-motion train wreck," recalled eyewitness Gary Pickholz, 47, of Beersheba, who was riding in the front car of the train and was moderately injured.

Pickholz, who was on his way to Tel Aviv for a noon meeting, said that some soldiers on the train initially thought the truck driver on the tracks was a Palestinian suicide bomber. "People started shouting 'terrorist, terrorist,'" he said in a telephone interview from his hospital bed, bemoaning that there were no seat belts on the train to protect passengers from the metal tables in front of them.

Air Force helicopters evacuated several of the most seriously injured people to three nearby hospitals.

Israel Railways claimed that the truck driver, who has been released on bail, was to blame for the accident. He has four past traffic violations, three for not driving with a seat belt and one for hauling too much weight. On Sunday police will question the owners of his trucking company.

On June 21, a crowded passenger train rammed into a huge coal truck, killing seven and injuring nearly 200 in one of Israel's worst-ever train accidents."

#### **4. An Editorial in the same paper included the following relevant thoughts:-**

"The terrible drama of Tuesday's Revadim truck-train crash – a 123-kph collision that left seven people dead and more than 200 injured – ensured splash headlines for one day and follow-up stories for a few more on the progress of the police investigation and the condition of the injured.

But those new fatalities constitute

mere bloody drips in the vast ocean of our annual catalogue of relentless road carnage, another seven to pile into the morgue along with the rest of the year's virtually guaranteed 500 or so fellow victims.

Anybody naive enough, unfamiliar enough with the national mind-set, to suppose that the grisly pictures from the crime scene would prompt a remaking of habits, or even a short-term pause for thought, need only hear the experience of a senior police commander on Wednesday. Stationing himself at another notorious, barrier-deficient railway crossing point, he found himself pulling over no fewer than 11 drivers who – less than 24 hours after the Revadim collision, remember – blithely ran the crossing's red light and diced with death to speed across the tracks."

Typically, the same issue had a headline "11 injured at Sarel Junction crash" - a bus and a truck collided; a policeman had been killed at the same place the previous day!

Loco 739 was the one involved, with a push-pull train of Alstom coaches. The front and maybe more has been severely damaged.

**5.** Article by Gal Nissim published by 'Globes' [online], Israel business news - on August 4, 2005) "Experts: Overpasses are the most effective solution in terms of safety, but more expensive."

Israel Railways has published a NIS 100 million tender for building 11 railway crossings as part of the project to double the Tel Aviv - Beersheva line. The crossings are due to be completed by the end of 2007. The crossings will either be overpasses or underpasses. Last week, Israel Railways published a tender for four railway crossings on the stretch between Naan and Kiryat Gat, and today it published a tender for seven crossings for the stretch between Kiryat Gat and Beersheva.

The need for complete separation between roads and the tracks became obvious in the wake of two fatal rail accidents in June. Experts believe that separation is the most effective solution in terms of safety, but it is more expensive and complex than placing lights and barriers at the crossing points." [Wow! So that's what you need to know to be an Expert! Ed.]

#### **(c). ANOTHER LEVEL CROSSING ACCIDENT.**

From Haretz Online Fri. 08.07.2005:-

Boy on bike killed by train on crossing near Binyamina. By David Ratner

"A youth of 15 died after being hit by a train at the Binyamina railway crossing last night. Police had not identified him but thought he was a resident of the moshava. Eyewitnesses said the rail crossing barrier had come down, one train went by and the boy on a bicycle decided it was safe to cross the tracks. A train coming from the opposite direction crushed him under its wheels.

Last week Israel Railways decided to change its internal regulations regarding the schedules of lowering the barrier and

the speed of the trains at crossings, following the fatal accident in Revadim three weeks ago. Both Israel Railways and the police say that drivers and pedestrians do not obey barriers at railway crossings and try to cross the tracks, risking their lives.

However, traffic experts say that as long as the tracks and the roads are not on separate levels, the trains must slow down drastically at crossings. This recommendation appears in the report on the fatal train accident near Moshav Habonim in 1985.

The Binyamina railway crossing is considered dangerous. Only three months ago a cyclist was killed crossing the tracks there. The crossing is earmarked by Israel Railways for level separation, but a budget shortfall, together with objections in Binyamina, are holding up the crossing's reconstruction.

'A train passes here every seven minutes. They must separate the levels,' said Binyamina council head Arye Zeitouni."

[Another note in the same issue said the boy was 12. Ed.]

#### **(d). MORE LEVEL CROSSING PROBLEMS.**

Aharon Gazit wrote on 04.08.05:- "During this week the Traffic Police caught many car drivers who did not obey level crossing regulations even during the period the barriers were protecting the track, and who tried to cross the rails between barriers. The most interesting case was that of a 20 year-old girl who lives in Afula (in the centre of the Jezreel valley), and who explained that since there is no train at Afula (which is true - the Hadjaz Railway indeed stopped running in 1952!), she was not aware of such a phenomenon as a Train! This did not convince the police officers, who - in addition to suspending her license and summoning her to trial - explained that not knowing the law does not mean being free of penalty. They gave her a history lesson, explaining also that within two years trains will call again at Afula, due to the revival of the Hedjaz line (at least they know something about railways!), and so she has to be prepared to meet the new reality (though there will probably be no level crossings).

#### **(e). AND YET MORE!!!**

On 16.08.05 Paul wrote:- "Three people were killed by trains within a 14 hour period on 15-16.08.05! There were trespassers on the track at Gan Yavne and Bnei Berak. In the third accident at Bet Yehoshua, a car reportedly turned off the road level crossing and tried to drive along the track!!!! A woman leapt out but was killed by a train, a man in the car survived. (Aharon Gazit adds a little further information: "A couple aged 60-plus planned to cross the fully-protected level crossing near Beit-Yehoshua (just south of Netanya), when for an entirely unclear reason they found themselves between the tracks with barriers down! They noticed a train approaching from Tel-Aviv, managed to escape from their car, and decided to run each in a separate direction. The husband ran and remained alive and unhurt, while his wife chose the wrong direction, and while the oncoming train hit their car, a train com-

ing in the opposite direction (which she had not noticed!) hit the car again and also killed the woman! I was asked afterwards if my scenario for a fuel tanker lorry being stuck on a level crossing and hit by trains from opposite direction might be realized soon - let's hope not!"

#### **(f). HAIFA EAST.**

Paul writes: "On 31.5.05 the canopy supports at Haifa East station were given a new coat of paint, though it is not known if this is coincidental or deliberately timed for the, um, centennial of the station and official opening of the Hedjaz Railway in Palestine (see 68:6:a for queries on this subject). From old photos it appears that the supports, cast by Gebrueder Wagner of Jaffa as shown on their base, are original. They are now painted a deep firebrick red, rather like that of the old Furness Railway in England, but a bit darker perhaps."

#### **(g). 'JERUSALEM DAY' AND THE FIRST FRUITS.**

Jerusalem was reunited (or occupied, depending on your view!) on 07.06.1967; this date is celebrated every year, as "Yom Yerushalayim", and this year, the railways provided tickets at half price to and from Jerusalem on that date as a way of identifying with the capital city; On the following week, on Monday, 13.06.2005, Shavuot, the Feast of Weeks, also known as Feast of First Fruits took place (Pentecost), and the Railways, together with the Ministry of Agriculture, made an initiative whereby fruits and vegetables were loaded onto a flat railway car at Beit-Shemesh station on 01.06.2005, coupled to an EMD G12 No. 117, and brought to Jerusalem Malkha station, where in a symbolic ceremony - in which the Agriculture Minister Mr. Katz participated - they were unloaded. A small quantity was given to the few guests, and most of it was loaded on a truck and distributed among poor people!

This is basically a revival of the custom of bringing the first fruits to the Temple in ancient times. The main message was mainly social, but also political, in identifying with Jerusalem. It is the first time ever that such a train has arrived in Jerusalem! (Aharon Gazit).

#### **(h). NEW MANAGEMENT APPOINTMENTS.**

From a press release of 05.06.2005 by Israel Railways Ltd.:

"The Railways Directorate has approved the recommendation of the General Manager Mr. Yossi Mor for the following three appointments:

- Mr. Yoram Cohen, who has formerly worked in business development at Motorola and Bezeq (Israeli telecom), has been appointed as Deputy General Manager of the Commercial and Real Estate Department, a new creation; the annual income potential is estimated at \$22.5 million.

- Mr. Ilya Wolkov, who has been in senior jobs for ten years, the last one as Deputy General Manager of Infrastructures Department, has been appointed Deputy



General Manager for Planning and Development.

- Mr. Harel Even, until now Traffic Manager, (and one of the most promising persons on IR; A.G.) has been appointed as Deputy General Manager for Infrastructures operation and maintenance.

The Railways' Administration says that the organizational change will bring more organizational and management focussing onto the railways main activities - the "New Deal" 5-Year plan and the railway operations.

Both the Chairman of the Railways' Directorate Mr. Moshe Leon, and the Railways' General Manager Mr. Yossi Mor, explained that the appointments of the three senior persons, each a professional in his area, are a meaningful change in the railways' management which will have to face challenges never seen so far."

### **(i). TURMOIL AT THE TOP: THE RESIGNATION OF YOSSİ MOR & ASSOCIATED SCANDALS.**

Yossi Mor resigned as IR General Manager on 19.07.05, citing "personal reasons" for his departure which came shortly after two major railway accidents on the Beersheba line, a continuing police enquiry into their causes, and a sharp deterioration in train services following the accidents.

But: the following are Headlines from 'Yediot Ahronot' ('Kalkalah' - i.e. Economics section):

01.08.05: "RAILWAY GM REFUTES RESIGNATION: 'THEY PRESSURED ME INTO LEAVING, I WANT TO CONTINUE'. Lawyer for Yossi Mor: 'He had a breakdown and his resignation announcement was forced. We'll expose information which will cause the railway director, Moshe Leon, to resign'. The railway has no intention of answering the former GM's request".

02.08.05: ISRAEL RAILWAYS MANAGEMENT FORBIDS RESIGNED GENERAL MANAGER YOSSİ MOR TO SET FOOT IN OFFICES. Resigned IR General Manager informed that there is no intention of returning him to post and that he will leave job on 19 October.

03.08.05: OUTGOING RAILWAY GM ASKS TRANSPORT MINISTER TO FIRE CHAIRMAN. Yossi Mor of opinion that Moshe Leon over-reached and took upon himself management authority rightfully the GM's."

Aaron Gazit wrote on 04.08.2005: "If anybody believed that the last word has been said, regarding the resignation of Mr. Mor, then his announcement this week - through a lawyer - that he regrets the resignation, which had been done under pressure, proves that the case is not yet finished; His lawyer added, that he (Mor) was away from work for a week because he did not feel well and is now back.

Mr. Mor himself said that he intends to unveil corruption on the part of Mr. Moshe Leon; The latter did not respond, but senior officers at his office as well as at the railway management clarified that 19.10.05 is the date when Mr. Mor will finish his work at

the railways. They added that if there was any sign of corruption by anybody in the railways, he should have unveiled it immediately without leaving it for revenge."

In fact, Aharon has written what amounts to an analytical essay on the situation as it appeared in early August:-

"The railways are currently facing hard times and are having to absorb a lot of criticism, most of it unjustified! Here is a summary of the events so far:

On 08.07.05, an Alstom push/pull train on the Na'an - Kiryat-Gat section of the Tel-Aviv - Beer-Sheva line collided with a semi-trailer lorry; As a result, 35 passengers were lightly injured while the loco-driver was seriously injured, and is recovering slowly.

Unlike the previous collision on the same line (in which 8 died and more than 180 were injured), this time the lorry driver was working for the Railways, bringing construction materials for the double-tracking of the line; It seemed now that works are not co-ordinated and something went wrong on the railways!

Alstom Prima loco No. 739 and three push/pull cars were damaged, though repairable; Once again the line was closed and the financial damage has grown.

This event caused a response by the Traffic Police, who said that the line must be closed until all the necessary precautions had been taken; the Transport Minister Mr. Shitrit said in a counter response, that "as long as roads are not being closed even after severe accidents, so it will not happen with any railway line!"

On 10.07.05, Minister Shitrit briefed the press with the following:

"There are 17 level crossings along the line to Beer-Sheva, which are used as agricultural rights of way, and therefore he had instructed Mr. Mor, "to close all those passages which are not approved statutorily; to call a meeting of the "Level Crossings Committee" (yes, there is one!), in order to minimize the number of the other crossings which are not necessary; to put security men at all these crossings in order to block them from vehicles passing as well as to warn about problems that may occur while traffic goes on, and, most importantly, he promised that soon tenders will be published for grade separations on this line".

The railways did immediately block all the aforementioned crossings, and did put security men on duty, equipped not only with mobile phones, but also with flags, which reminded many of us of the Bobby of the early railway years (though the flagmen here do not have to run in front of trains!), or of the conductors who used to give the final signal for departures!

In addition, the Traffic Police started to show a greater presence at protected level crossings, for the simple reason that the typical Israeli driver is not very obedient and always tries to cross the rails even when barriers are down, either by breaking them (no matter how high the damage to his own car can be) or just by passing between them; the police presence already produced re-

sults, particularly in the quantity of penalties that are paid daily!

The government has given the railways a special budget of \$32 million for replacing the grade-crossings with bridges.

The troubles did not end here, however, as angry farmers put their tractors, combines, and other heavy vehicles on the roads and started demonstratively moving them - thus causing big bottlenecks and traffic jams, and causing car drivers to make dangerous overtaking moves. In addition the farmers appealed to court against what they called "a wild closure of crossings without any announcement, which causes them big losses".

The trains slow down temporarily at the crossings, causing delays and angering passengers who have also now created a lobby to get the ticket price refunded for delays greater than 30 minutes - which just worsens the situation!

### ***But even this is not all!***

On Sunday, 17.07.05, a trunk communication and signalization cable was cut, causing severe delays (of up to 90 minutes) and passengers were further angered due to the fact that the platform managers tried to load the trains with 3 times more capacity than normal, explaining that this was the only way to reach the destinations! It took the railway teams 24 hours to return traffic to normal!

Another delay happened last week on the Akko - Nahariya section when trains coming from Haifa had been stopped at Akko because of a suspect object at Nahariya station; again angry passengers had to find other means of transport, claiming that the railways did not care for them!

But, while delays and failures do occur on most railways, the authorities must try to explain them to the users of their services, namely the passengers in our case.

It can definitely be stated that here Israel Railways has totally failed, and this includes Mr. Mor the General Manager; Mr. Avi Hefez, the Marketing Manager, and to some degree the spokesman Mr. Benny Naor, who did his best but was not convincing; All this refers to all the mentioned events - the accidents and other failures, where the passengers or the media did not receive the right answers. These were only given by Chairman of Directorate Mr. Moshe Leon and Transport Minister Mr. Shitrit. Many were then asking themselves who was really the Manager!

On 19.07.05, Mr. Mor resigned, explaining that his conscience does not allow him to continue in his job in the present circumstances; Mr. Shitrit and Mr. Leon expressed their sorrow for his step, and tried to stop him but he insisted on finishing, so they accepted it.

His temporary successor is Mr. Yizhak Sairy, Human Resources Manager; the new General Manager will be an external person.

The Finance Ministry's Accountant-General Mr. Yaro Zalikhla later explained in a press conference that the main reason for Mr. Mor's resignation were the big de-



viations from the budget, particularly on the rebuilt line to Jerusalem. He added that Mr. Mor used systematically to ignore his warnings and he had decided to put an end to it - the last accidents being just a catalyst!

The following case will really clarify what has been going on:

On 25.07.05, the Railways instructed the Lynom company, who had won the tender for boring two short tunnels (100 m each) on the line to Modi'in, to stop works and remove all its equipment from the construction site due to the company's announcement that it can complete the work only in 16 months instead of 12 months as committed in the contract, and this only with an additional \$5.5 million (the total original cost is \$14.8 million); The railways said that this is a violation of the original contract.

Mr. Zalikha explained that according to the way of working so far, the railways had preferred to ignore this blackmail and complete the work on time at any price (and even without mentioning names, everybody knows whom he meant), but no more! (Some cynics even said: "No more Yossi Mor"!).

There are several candidates for the job, including two retired Generals, two former managers of the Ayalon Roads, and one ex-Deputy General Manager of the railways.

However, the reality is richer than any imagination could provide, and on 31.07.05, Mr. Mor announced that he withdrew his resignation, claiming that it was made under pressure; his lawyer added that "they intend to unveil details which will cause the Chairman of Directorate Mr. Moshe Leon to resign, adding that he was the person who put pressure on Mr. Mor to resign".

There is no doubt that the railways are in a real turbulence and need a strong but humane Manager as soon as possible; the decision is to be taken soon!

Some kind of symptom of the situation in which the railways are in regards to the shortage in rolling stock, as well as the solutions being offered, can be seen from the service on 31.07.05, when a train consisting of only a loco, one regular push/pull car, and a driving trailer was sent to Rishonim station, just to keep the service running.

There was of course insufficient capacity, and once again angry passengers, who in the big heat waves of the summer often become nervous and brutal, and even vandalised equipment.

#### **(j). NEW MANAGER?**

On 16.08.05 Paul wrote:- IR has a new candidate for General Manager as of 14.08.05: Ofer Lanchavski (spelling?), aged 37 or 38, with a background in the Finance Ministry and the Egged bus company. He was due to take up his new position on 01.09.05.

#### **(k). NEW BRIDGES AT LATRUN.**

The Israeli engineering company

Minrav has been awarded a contract by the railways for building the two longest bridges in Israel, with a total length of 1200 m. and a width of 7.4 m, which will pass 30 m above ground near the Latrun Monastery as part of the A1 fast rail link to Jerusalem; The cost is \$30 million.

The manager of Minrav Projects Group said that the bridges will be built to a new system not implemented so far in Israel, which enables casting a section of 50 m between two pillars in a very short time.

Meanwhile, most of the bridges on A1 near the airport are complete and others will be soon; therefore the railways must quickly find a solution to the boring of the two above-mentioned short tunnels to Modi'in - this section is shared by the two lines, to Modi'in and to Jerusalem, and any delay will affect both!

#### **(l). FURTHER INFRASTRUCTURE CONTRACTS.**

On 20.08.05 it was announced: Two Israeli infrastructure building companies have recently won tenders of the railways at a total cost of \$40 million. Minrav Engineering, who had already won the tenders for big bridges on the A1 Fast link to Jerusalem, will carry out infrastructures works on the line Rishon-Le-Zion West - Ashdod, a section of Yavne interchange, and building the Yavne West station. This will take 22 months for the various infrastructure works and 14 months for building Yavne West station. These projects will together cost \$29 Million.

The other company, Ortam Sahar, will built the Yosephal station on the line Tel-Aviv - Rishon-Le-Zion West between Holon and Bat-Yam, at a cost of \$11 Million. This should take 20 months and is intended for completion in February 2007.

#### **(m). SYSTEM SAFETY CHECK.**

From a press release of 27.07.05 by Israel Railways Ltd.:

"The Railways Directorate has decided to check thoroughly the whole safety system, as part of its new structure (5 Year Plan), and due to the recent accidents.

Mr. Moshe Leon explained that with the huge network expansion in the coming years, hand in hand with the planned rise in traffic and train speed, the railways have to use the latest safety systems and standards, and has therefore hired the services of TouchstoneRenard Management Consultants from Woking, Surrey, UK, who will carry out the work by its consultants regarding traffic, infrastructures, passengers, freight, etc."

#### **(n). FURTHER CONFIRMATION OF JERUSALEM FAST LINE PROJECT.**

Further to my last report, the government had a special meeting on 06.06.05 at Jerusalem's Ammunition Hill - a site of heavy battles during the 6 Days War (05.06.67 to 10.06.67 in which Jerusalem was reunited) - to commemorate the date; at the same time it approved several decisions to strengthen and develop the city, including the \$900 million A1 fast rail link.

Since this project had already been

approved, this publicity on Jerusalem Day is not incidental but is both political and symbolic.

#### **(o). BEERSHEBA UNIVERSITY.**

Paul writes: "By August the new station at Beersheva University was well advanced. The main and island platforms were having flagstones laid, and the main station building was recognisable in skeletal form."

#### **(p).MAY 2005 TRAFFIC STATISTICS.**

From a press release of 07.06.2005 by Israel Railways Ltd.:

"A new monthly record in passenger traffic during May 2005: 2.5 million were carried - the highest number ever! - and 31.5% more than in May 2004; from the beginning of 2005, 11 million were carried, 24.2% more than in the same period of 2004.

The following numbers show the rise in passenger traffic as per lines, as well as the share of each line in the total traffic during May 2005:

Tel-Aviv - Ben-Gurion Airport line: 93,000 - no data about rise in traffic - share: 3.5%.  
Tel-Aviv - Beit-Shemesh - Jerusalem line: 118,000 = +191%! - share: 3.9%.  
Tel-Aviv - Ashkelon line: 391,000: +34% = share: 15%.  
Tel-Aviv - Netanya line: 246,000: +33% = share: 10%.  
Tel-Aviv - Rosh-Ha-Ayin - Kfar-Sava line: 191,000 = +38% share: 8%.  
Tel-Aviv - Rishon-Le-Zion - (Harishonim) line: 69,000 = +46% = share: 2.9%.  
Tel-Aviv - Haifa line: 506,000: +21% = share: 21%.  
Tel-Aviv - Nahariya line: 271,000: +14% =share:12%.  
Tel-Aviv - Beer-Sheva line: 270,000 = share:11%.  
Haifa - Nahariya line: 194,000: +24% = share: 8%.

#### **(q). JULY 2005 STATISTICS.** (From Jeremaia Goldberg via Aharon Gazit.)

From a press release of 09.08.2005 by the Railways:

2.3 million passengers were carried by the railways during July 2005, 21.4% more than in July 2004. From the beginning of 2005, 15.6 million passengers have been carried, 22.3% more than in the same period of 2004.

The rise in passenger traffic as per lines was as following:

Tel-Aviv - Jerusalem line: 100,000 = +123%!  
Tel-Aviv - Ashkelon line: 363,000 = +27%!  
Tel-Aviv - Netanya line: 215,000 = +20%.  
Tel-Aviv - Rosh-Ha-Ayin line: 165000 = +22%.  
Tel-Aviv - Rishonim line: 64000 = 22%.  
Ashkelon - Haifa line: 130,000 = +14%.

Haifa - Nahariya line: 176,000 = +14%.  
Tel-Aviv - Haifa line: 464,000 = +7%.  
Tel-Aviv - Beer-Sheva line: 239,000 = - 4%

The Railways Administration said that they are very satisfied with the statistics, which prove that, despite all the recent tragic events, the public still trusts the railways, and the railways may even exceed the traffic forecast of 26 million passenger in 2005.

Note: the sharp rise of passenger traffic on the first two lines may be easily explained by the fact that both these lines had been only partially operated until now, to Beit-Shemesh and Ashdod respectively, while operation on the full routes to Jerusalem-Malkha and Ashkelon started operating only on 10.04.2005.

The slight decline on the line to Beer-Sheva is due to temporary speed restrictions as a result of the two accidents with lorries, but the line will soon return to normal traffic, and the picture will probably change.

#### **(r). RAKEVET HAEMEK REVIVAL & CELEBRATION.**

From a press release of 08.06.2005 by Israel Railways Ltd.:

"The people of the valley of Jezreel (not Israel!) will salute the "Valley Railway" (the Hebrew name for the Emek section of the Hedjaz Railway) on 14.06.05 to commemorate 100 years since the opening of the line by the Ottoman Sultan, as well as the anticipated return of the service; works already began in April 2005, and are due for completion in 2008; the 60 km line will cost \$225 million, and will enable Beit-Shean to be reached from Haifa in 46 minutes.

The line, and particularly the trains, acquired a lot of myths - mainly stories about the slow speed of 30 km/h - which, according to the stories, enabled the passengers to get off the train, pick flowers from the fields and still manage to board again! However, the Jewish agricultural settlements along the line, as well as the towns of Afula and Beit-Shean used the trains a lot until 1948.

The salute to the line will take the form of an audio-visual display including films, pyrotechnics, plays, dancers, and singers accompanied by an orchestra; The name of the show is: "The train comes back to the Valley - 100 years for the Valley Train!"

Works on the construction of the revived line from Haifa to Beit Shean began in April 2005. The new line will mostly follow the route of the old narrow-gauge Hedjaz line, but in the Haifa area, due to previous building works, there will be a deviation. The line should be ready by 2007 for both passenger and goods traffic. Cost is estimated at 229M US\$

#### **(s). JERUSALEM LINE TRAFFIC.**

Further to the overcrowding on the Jerusalem line at Pesach, Alon Siton noted (in Fahrplancenter News' No. 38 p. 15) that on 27th. April approximately six times as many tickets were sold as there were places on the hourly trains! "Even in their wildest dreams, no-one had predicted that the train to Jerusalem would be so popular, although it is cheaper, more comfortable and quicker than the bus!"

#### **(t). HEDJAZ CONFERENCE IN HAIFA.**

From December 6th. to 7th. a conference marking the centenary of the Hedjaz Railway will be held in Haifa. More details are available from Aryeh Kofsky at the Dept. of Land of Israel Studies, University of Haifa, or < kofsky@research.haifa.ac.il >

#### **(u). HAGANAH STATION.**

Sybil Ehrlich has returned to Israel from her holiday in Italy and Slovenia - on the basis that the worse rail crashes in 57 years occurred during the weeks she was away, let us hope this is a sign there will be no further such calamities.

She has noted that the new island platform under construction at HaHaganah station will be numbered 3 and 4 - but that signs indicate that each of them has both identities! Oh dear.

#### **(v). HAIFA MUSEUM ACQUISITION.**

Recently acquired by the museum at Haifa East is a mechanical signal frame with 14 levers, built by Tyer & Co of London & Carlisle, that was rescued from the long-redundant Qishon signalbox just before its demolition in spring 2005.

#### **(w). DRILLING FOR OIL.**

From Paul. "More odium for IR!! On 10.08.2005 Channel 2 News had an ecological piece on IR spilling/dumping vast amounts of diesel oil waste at the Haifa East depot. Apparently this has been going on steadily for last couple of decades. Reckoned that some 1,250,000 litres of the stuff has now formed a sort of subterranean lake beneath the depot, floating bang on top of the natural water table. 13 dunams are said to be polluted, but "there is no immediate danger to Haifa's water supply" (well, we don't get our water from there of course). An IR spokesman (not Benny) was wheeled out. He sounded contrite. A Politician or two breathed fire and dire threats."

70:05.

## **ROLLING STOCK NOTES.**

### **(a). ROLLING STOCK CONSTRUCTION SCHEME. (from Aharon Gazit).**

Co-operation Agreement between IAI/Ramta Division and Bombardier Transportation in Joint Production of Single-Deck Trains for the Israel Railways

"On May 24, 2005 Mr. Andre Navarri, president of Bombardier Transportation, will sign a cooperation agreement with Israel Aircraft Industries, Ltd. Ramta Division for the joint production of single-deck trains for the Israel Railways.

Bombardier Transportation is competing for the supply of 86 single-deck coaches for the Israel Railways. If the team is successful in winning this competition, the potential work package for IAI / Ramta, located in the southern Israel city of Beer Sheva, will reach at least \$US 50 million. Within the framework of the cooperation agreement, IAI / Ramta will manufacture and assemble the major systems of the single-deck train coaches, including the train interiors, final assembly of the trains and delivery to the Israel Railways. The production and assembly work will be carried out by IAI / Ramta at its dedicated Beer Sheva-based train production and assembly facility built in 1994 and now undergoing an extensive expansion from 3,000 square metres to over 8,000 sq. m. to accommodate the Israel Railways Double-Decker train programme the company was awarded last year, and other train programmes slated for the future.

The IAI Ramta Division entered the train business in 1993. Since then and until the present the company has signed both subcontract and cooperative agreements covering the production of trains and major subsystems, with ABB initially and now with Bombardier Transportation. The investment in support infrastructure for the production of trains, including: the dedicated 3,000 sq.m. facility (now being expanded), tracks, production and assembly tooling, jigs, and equipment, specific workforce training and certifications, has so far reached \$US10 Million. This effort has created a significant number of jobs in IAI/Ramta and its subcontractor base, most of which is located in the southern geographic area of Israel, which has traditionally been afflicted with higher unemployment rates. IAI/Ramta's sub-contractor base includes 11 Israeli companies.

IAI/Ramta has continuously proven itself as a partner of choice in train production due to its uncompromising attention to quality, delivering trains on time according to schedule, and doing so while remaining competitively-priced versus competing firms in both Western and Eastern Europe. This was demonstrated during IAI/Ramta's production of 87 IC3 trains for the Israel Rail-

ways, and work carried out on 92 double-decker trains supplied to the Israel Railways between 1994-2004.

Last year, a new order for the production and assembly of major sub-assemblies for another 54 double-decker coaches was received, and production work under this contract will begin in the newly expanded 8,000 sq.m. facility in August 2005, with the last coach to be supplied to the customer one year later.

The total value of contracts and orders received by IAI/Ramta from Bombardier Transportation reaches approximately \$US 53 million.

The latest proposal submitted by Bombardier Transportation and IAI/Ramta for the production and supply of 86 single-decker coaches for the Israel Railways, and options for another 500 coaches, will create a significantly large number of new jobs in Beer Sheva and southern Israel. Additionally, the single-decker programme will include the transfer of new train technologies to Israel that have not been here in the past."

(It should be mentioned that a high-powered delegation from IR came to the Bombardier works at Hennigsdorf, north of Berlin, in June 2005 to inspect the innovative new coaches being built there for "Nord-Ost Bahn" for the Hamburg - Westerland line. These are however low-floor, whereas Israeli stations have high platforms. DB has quite a lot of fairly modern rolling stock for disposal, but IR appears uninterested in purchasing any second-hand stock apart from the IC3's from Sweden.)

#### (b). IC3 ARRIVALS.

IC3 sets 46 & 47 arrived 17.07.2005 and 07.08.2005 respectively.

#### (c). SCRAPPING.

On 29.06.05 Paul wrote:- The Scrapping Committee decided on 27.06.05 to "recommend" that G12 No. 111 be scrapped. (This means further stages to come in the scrapping process).

#### (d). SALE OF OLD LOCOS.

IR has sold six long withdrawn and dumped diesel locos to NRE (whoever they might be) of Houston, Texas. The locos concerned are 104, 109, 127, 128, 129 and 251. On the night of 16-17.08.05 they were all hauled dead by 116 from Qishon Works to Ashdod Port for loading aboard the 'Tracer' for shipment to the USA. (See rear cover.)

70:06.

## TENDERS.

(Note: The Tenders are listed by initials and of course by a sequence within a calendar year. HN stands for 'Handassah' - 'Engineering' - meaning here Civil Engineering and trackwork; NK is 'Nechonot' or 'Machinery', referring mainly to rolling-stock; BN is 'Binyan' - 'Construction'; KN or KB is 'Kabblanim' - meaning 'Sub-Contractors'. MS is 'Miss-har' - 'Commercial'; SH is 'Sherutim' - Services. etc.)

(i). BN/SR-15/05: Providing services, of Announcement of Projects on announcement boards all over the country. The contract is for 12 months with an optional extension for another 24 months. Latest bidding date: 23.06.2005.

(ii). BN/KB/05/09. Building an additional floor for the Shift Manager at Haifa East depots.

Works include: earthworks, cast concrete, sealing, carpentry and frameworks, sanitary, firefighting, electricity, painting, air-conditioning system, and very low voltage systems.

Latest bidding date: 09.06.2005.  
Time of implementation: 10 months.

Latest bidding date: 20.06.2005.

(iii). BN/KB/06/05. Constructing of offices and a dining hall at Haifa Efrayim (Kishon) Works. Works include: concrete, frameworks, water drainage and sanitary installations, pre-cast structures, electricity, pavement and covering, painting, etc.

Time of implementation: 6 months.  
Latest bidding date: 29.06.2005.

(iv). HN/KB/05/05. Construction of the Akko - Carmiel line (22 km at the Lower Galilee) - Gilon tunnels at km 13.900 to km 19.500; invitation for prequalification.

The project includes:

- 1.1: Two single-track parallel tunnels 4.7 km each between km 14.213 and km 18.867.
- 1.2: Connecting tunnels between the 2 tunnels.
- 1.3: Portals at each end of the tunnels.

Works include: digging and/or excavating of the portals areas, providing access ways to the portals and labour camps, boring the tunnels, connecting tunnels, initial support works, final sealing and wall works, preparatory for systems' infrastructures, concrete works for various structures in the tunnels, portals, electricity, communication, and smoke cleaning systems, etc.

The tender consists of 2 main stages:

Stage A- Prequalification.

Stage B- Proposals and winning bidder selection.

Time of implementation: 30 months. Latest bidding date: 02.08.2005.

(v). HN/KB/16/05: Building the Rishon-Le-Zion - Ashdod line - Yavne Interchange section; Infra structure and concrete works for tracks and building of Yavne-West station.

The following structures are included:

- Structure 01 : Tracks infrastructure works.
  - Structure 02 : Yavne interchange bridge.
  - Structure 03 : Acoustic support walls, culverts, and drainage channels.
  - Structure 04 : Station building.
  - Structure 05 : Platforms.
  - Structure 06 : Control building.
  - Structure 07 : Development works.
  - Structure 08 : Yavne interchange.
- Time of implementation: 12 months. Latest bidding date: 28.06.2005.

(vi). TK/SR/20/05: A frame agreement for Supply, Installation, Maintenance, and Repair services for Diesel Generator systems at various sites on the railways. The contract is for 12 months with an optional extension for another 48 months. Latest bidding date: 03.07.2005.

(vii). HN/RC/03/05. Manufacture and Supply of Kits for Glued Insulated Rail Joints. For U-50 and UIC-54 / UIC-60 rails, over a period of 3 years, with option for an additional 3 years. Bids by 25.07.2005.

(viii). HN/KB/25/05. Grade separations on the Kiryat-Gat - Beer-Sheva section.

Works include: earthworks; roadbeds and infrastructures; concrete; bridges; frames, etc.  
Implementation time: 12 months (end of all works). Latest bidding date: 05.09.2005.

(ix). HN/KB/06/05: Infrastructure works for building the railway line between Beer-Sheva and Netivot; section B.

Works include the following structures:

- Structure 01 : Track infrastructure works.
  - Structure 02 : Road No. 40.
  - Structure 03 : Construction works for culverts and support walls.
  - Structure 04 : A railway bridge A0 over Karkur river.
  - Structure 05 : A road bridge A1 at road 40 over the track.
  - Structure 06 : A railway bridge A2-1 over Tifrahk river.
  - Structure 07 : A railway bridge A2-2.
  - Structure 08 : A railway bridge A3 over Patish river.
  - Structure 09 : A railway bridge A4 over road 241.
  - Structure 10 : A railway bridge A5 over Hazerim river.
  - Structure 11 : An overhead agricultural passage A1-1.
  - Structure 12 : An overhead agricultural passage OAG-5.
  - Structure 13 : A railway bridge A4-1.
  - Structure 14 : Goral junction : a control building.
  - Structure 15 : 5 security rooms adjacent to railway bridges.
  - Structure 16 : Option laying B70 Mono-bloc type concrete sleepers and rails along the lines.
- Implementation time: 22 months. Latest bidding date: 07.09.2005. (Note: This is part of the new line Ashkelon - Beer-Sheva, and as can be seen from the tender, it is to be fully grade-separated!)

(x). BN/MT/06/05: Providing survey systems (Inspection and Q/A) on the section Rishon-Le-Zion West - Bnei-Darom (Ashdod). The contract is



for 5 years; the railways reserve the right to extend it according to needs. Latest bidding date: 09.08.2005.

(xi). HN/KB/21/05: Upgrading tracks at Haifa East site - stage B.

Works include: earthworks and infrastructures; concrete, water drainage and sewage; electricity; construction of transformer stations, etc. Implementation time: 12 months. Latest bidding date: 18.08.2005.

(xii). BN/KB/11/05: Building of Lod-Ganei-Aviv station.

Works include: the station building; sealing; carpentry and locksmith work; sanitary installation; sewage and drainage; electricity and communication; painting; aluminum, covering of fronts; air conditioning systems; elevators and escalators; steel constructions; very low voltage; water systems, signs, parking area, and various developing works.

Structure 01: station building.

Structure 02: access road.

Implementation time: 12 months. Latest bidding date: 16.08.2005.

(xiii). HN/KB/24/05: Grade separations on the Naan - Kiryat-Gat section of the line to Beer-Sheva. Works include: earthworks; roadbeds and infrastructures; concrete; bridges; frames, etc. Implementation time: 12 months (end of all works). Latest bidding date: 22.08.2005.

(xiv). HN/KB/26/05. Boring 2 Tunnels on km 166.00 to 175.75 on the line between Ben-Gurion Airport and Modi'in. Works include: preparation and dismantling, tunnels Nos. 23 & 24, earthworks and pavements, supporting walls and earthing. Implementation time: 14 months. Latest bidding date: 13.09.2005

Note: this tender replaces the former one with the Linom company which has been cancelled due to the winner's demand to add \$6 million to the original cost; now there could be a delay to the completion of the line to Modi'in (and Jerusalem), though other works are running to schedule.

(xv). HN/KB/28/05: Grade separations on the Kiryat-Motzkin - Akko section at Rafael (Armament Development Authority) level crossing.

Works include: building an underground passage both for vehicles and pedestrians using the C & C system, 2 stair wells, a generator room, pumping stations, demolishing buildings and shelters, metal mini-bridges for passing communication and high voltage cables, earthworks and infrastructures, and re-locating communication cables. Implementation time: 22 months. Latest bidding date: 20.09.2005.

[There is a Story to add to this bare announcement; Aharon Gazit called with the following personal memoir. In the 1950's the 'Hayil Mada' - Scientific Corps - was formed, at a time when the Nahariyya line was relatively little used - hence man-

agers had little awareness of trains and the dangers of level crossings. The employees probably also assumed the line would be closed as old-fashioned soon. All this means that level crossing safety at the works site adjacent to the railway line was neglected.

Aharon worked there from 1970-1977. In around 1972 the line to Akko was being refurbished, two rails being welded together to make 72m. lengths. By the 'Rafael' research and munitions works continuous welded rail had been laid. (In 1966-69 work had begun on rebuilding and relaying the Tel Aviv - Haifa line.) Aharon had become friendly with Avraham Golan, chief of track engineering, whom he had first met in 1962 on a train to Jerusalem with his parents. In 1957 and 1959 in "Hamaslul" - the early IR magazine - (only two issues of which were published), he had read an article on concrete sleepers made in Kiryat Gat, and Golan had been very impressed to find a young man who was interested in railways, had read this and understood it! He also got to know Leonfried Heimann - the Deputy Technical Manager and formerly Regional Engineer - and also later became the chief P-Way Engineer. he was from Riga, both of these men had been educated in Harbin in Manchuria.

In 1972-4 the line to Nahariya was cleared for 100 km/h, and he got an excited call from the two engineers, who asked him whether the highest armament development people in Israel didn't care about human life, since they hadn't responded to six letters - the Level Crossing here was not protected at all, and yet within two weeks line speed was to be raised from 60 to 100 km/h., and they were very concerned. In the Motzkin direction, the line runs straight for 3km., but in the Akko direction there was a curve - with walls on both sides, and eucalyptus trees, thereby providing poor visibility and a warning time of only 10 seconds. Internal buses were carrying up to 60 people, and lorries laden with explosives were also crossing the line. One didn't need much imagination to think what might happen if there was an accident. So he called the 'Rafael' Safety Officer - Ezer Schnitzer - who called him in for a meeting, and then asked to be connected to IR to confirm the matter. On this being confirmed, he then went together to the Financial Manager, and told him what could happen if there were no budget for level crossing protection - no lights or barriers. The Finance Manager responded "It's expensive" - so Schnitzer demanded that they send another letter - indeed, such being the urgency, they sent him with a driver - and added "From this moment on, it is your responsibility, not mine."

From this point on a Border Police man was stationed at the crossing. But things went further. Two days later there was a small accident - an Esslingen shunter with a train from Isasbest - but with no heavy damage. One morning the driver of the internal bus took his full vehicle, with at least 50 passengers, across the track - the Border Police man later swore he heard no horn, the loco driver swore he blew the horn - but a

train driver passed just 10 seconds after the bus had crossed the line. Aryeh Kirschner, the Transport Manager at Rafael, told him they had been saved by a miracle and who phoned Schnitzer, who informed him about the letters and his efforts to get a crossing installed. Both were summoned to a meeting, he then went to the Financial Officer and told him in no uncertain terms that until there was a budget for a LC crossing, he also was taking no responsibility for events at the rail crossing. The Financial Manager therefore caved in at last and had to take action. However, he decided not to use standard barriers but instead make a hi-tech arm. The railways were amazed, but let them do it - however, it transpired that this didn't work in the rain, so a few months later they had to install standard barriers after all.

Now that tracks on this route are being doubled, they probably consider an underpass for cars and pedestrians vital - though this could have been done 30 years ago. On one side there is a computer building, on the other a dining canteen - if a truck with explosives were to be hit on the crossing there, one could imagine what would happen!]

(xvi). NO/RC/07/05. An annual frame agreement for supply of mobile amenities for the Disabled at stations. The contract is for 12 months with an optional extension for additional 48 months. Latest bidding date: 07.09.2005.

70:07.

## LIGHT RAIL PROJECTS.

### a). JERUSALEM.

(i). Financial Agreements.

On 17.07.2005, at Prime Minister's Sharon office, and with the participation of Transport Minister Mr. Shitrit, Finance Minister Mr. Netanyahu (until 07.08.2005 - when he resigned!), the representatives from abroad of the concessionaire City-Pass, the General Managers of the three government offices, the Mayor of Jerusalem Rabbi Uri Lupolyansky, the Finance Ministry's Accountant General Mr. Yaron Zalikhia and Deputy Accountant General Mr. Tzvi Khamish (both also since resigned!), the General Manager of Jerusalem Municipality Mr. Eithan Meir, the Transport Ministry's Deputy General Manager Mr. Alex Langer, Projects Manager Mr. Samuel Tzabari, City-Pass Manager Mr. Jacob Edry, City-Pass Chairman Mr. Yair Hamburger, and the representatives of Hapoalim and Leumi banks - the financial agreements enabling City-Pass to raise the \$446 million needed for building the 1st LRV line (Red Line) have been finally signed.

This will enable the firm to start laying tracks already in December 2005, while at the same time the concessionaire will work simultaneously at four different sites along the line, including on the electrical supply

system, the passenger stations, the ticketing and information system, as well as a control centre and depot at French Hill (Northern Jerusalem); Alstom will immediately start building the 46 Citadis 2-car trains, the first of which will arrive at the depot in the summer of 2007 for general tests. From this time onwards, the trains will arrive at a rate of 3 per month; If everything goes well, the first train will run in service towards the end of 2008.

There was a moving model of an Alstom Citadis tram present at the meeting.

(ii). Building bridges.

Very soon the work on building the LRV suspension bridge at the city's Western entrance will start. When finished it will have a central pillar 118 m high, and when lighted at night it will become one of the city's biggest attractions.

The Spanish designer Kalterava said that although he has designed many bridges all over the world, this is the one of which he is most proud, because it is in Jerusalem, the holy city for three religions, and its structure symbolizes the connection between humans and God.

(iii). Bus/Tram Dual Usage.

Another interesting fact is the plan to operate not only LRV trains, but also high-capacity buses; The first to be tested is the Dutch 'Phileas' which will arrive in September 2005, to be followed later by the French 'Civis' and 'Translohr' and the German 'Tramauto'.

However, the project management has clarified that no sort of bus is to compete with the LRV; on the contrary, it will enforce the LRV line, and if traffic demands should exceed the buses' capabilities, new LRV lines will be laid on the bus lanes, already built for such a futuristic scenario!

**(b). The Greater TEL-AVIV Area LRV/Metro project:**

(i). Tunnel Conflict. Aharon Gazit wrote on 10.06.2005:- 'An interesting fight has been taking place for more than two weeks regarding the 2nd line (the Green line) of this project.

According to the original design, the line was to start at Rishon-Le-Zion, continue to Holon, and reach Tel-Aviv at Carlebach Street, and then run northwards to Herzliyya all the way at street level- The Greens and the Municipality of Tel-Aviv were opposed to this, and demanded that the plan be changed to an underground line, and on 24.05.05 the District Council for Design and Building approved this demand; the Municipality's architect Mr. Dan Kaiser even called it "An historic day".

However, this did not last for long, and on the following day, the Ministries of Finance and Transport announced that they are against this change, which would cause the 10 km underground section to become \$300 million more expensive, so the plan is in a "deep freeze" for the time being.

Since then, both sides have been fighting through the media; we'll have to wait and see the developments."

(ii). More Delays.

On 08.08.2005 he wrote:- "The latest date for introducing offers by the bidders has been delayed again, this time to 30.12.2005; This has been explained by the need of the participants to be more deeply prepared and in order to re-check the objections of the residents along the planned lines."

(iii). Conflict and Compromise on the Green Line.

From a press release of 14.08.2005 by NTA (the project's management):

NTA's Directorate approved on Wednesday, 10.08.2005, an alternative plan to that one presented to the district committee regarding the southern part of the Green Line - the second LRV/METRO line of the Greater Tel-Aviv Area, according to which it will run from Rishon-Le-Zion and Holon up to Carlebach station in Tel-Aviv - where an interchange between the Green and the Red lines will be created, and this will include an underground section between Lewinsky and Carlebach stations.

NTA's Chairman of Directorate, Mr. Benny Waknin, said that he intends to act in order to get the support of the Finance and Transport Ministries, and to recommend to the district committee to change the former decision and approve the new one.

NTA's General Manager Mr. Yishai Dotan, mentioned that such a decision will quickly promote the Green Line as an additional element of the metropolitan network.

A short explanation regarding the change of plan:



In the original plan presented to the district committee, the southern part of the Green Line was supposed to run entirely on the surface; in a discussion which took place at the district committee, it has been decided that the line was now to be promoted in three stages: the southern part from Rishon-Le-Zion to Carlebach on the surface, the northern part from Carlebach to Hayarkon street underground, and as an additional stage an extension to the Tel-Aviv University, to be discussed later. This however brought strong objections from the two ministries, which brought to a complete halt of the activities on the line.

The Transport Ministry's General Manager Mr. Ben-Zion Salman, came up with a compromise initiative according to which the first section to be promoted will be the southern, and will be partially underground, while the northern part will be discussed later.

Mr. Waknin added that in the meeting of the directorate, all the persons involved in the project participated, and that the only objection came from Tel-Aviv's architect Mr. Danny Kaiser.

The line will be 14 km long, with 25 stations 400m to 500m apart on the surface sections; the annual passenger traffic forecast is 50 million.

However, everything now depends on who will be the successor of Mr. Ben-Zion Salman who announced to-day (21.08.2005) on his resignation after 6 years in the job as the Ministry's General Manager; he will leave his post on 19.11.2005."

(Photos: Two views of preliminary works in Tel Aviv, by Uri Ben-Rehav).



## NOTES AND COMMENTS.

### (a). YARMUK REVISITED - PART 2.

First - apologies, as John Alexander's name was omitted from the article and photos in 69: .

Secondly: From Rick Tourret I have received the following:

"John Alexander has done a good job of correcting the map in Hugh Hughes 1981 book 'Middle East Railways' and reconciling it with the official data given in table 4 of my book 'Hedjaz Railway' published in 1989, as well as identifying locations mentioned by Ron Garraway.

John refers to the sensitivity of borders in this region. So far as I can determine, referring to John's map on p. 22 of Harakevet 69, reading from west to east, the Palestine/Israel and Jordan border follows the River Jordan northwards, and then turns north-east to follow the River Yarmuk roughly to Wadi Klalid, the last part of which is the border between the occupied Golan Heights and Jordan. The border between Syria and Jordan then follows the River Yarmuk east as far as somewhere around Tunnel 6, where it leaves the river and goes south.

This, the railway flits from one side of the border to the other as it crosses the Yarmuk. So far as I can see, up to Bridge J is in Palestine/Israel, Bridge J to Bridge 1 is in Jordan, Bridge 1 to Bridge 2 is in Palestine/Israel, Bridge 2 to 3 is in Jordan, Bridge 3 to 4 is in the Golan Heights, Bridge 4 to 5 is in Jordan, Bridge 5 to 6 is in the Golan Heights, Bridge 6 to 7 is in Jordan, Bridge 7 to 9 is in Syria, Bridge 9 to 10 is in Jordan, and Bridge 10 onwards is in Syria!

So, when we went to Esh Shejara in 1979, we actually crossed the river into Jordan at one stage. Perhaps this is one reason why later trips did not go past Zeizoun?! It is a lovely line and it would be so good to be able to go as far as Bridge J with a tourist stop off to see Lake Tiberias, but unfortunately I cannot see this happening in the foreseeable future."

### (b). THE SHELLAL BRIDGE REVISITED. (From Paul Cotterell.)

"The WW1 timber trestle bridge(s) at Shellal on the Rafa-Beersheba line has featured quite a lot recently (see particularly 65:11 and 66:12). Erez Shalev of Kibbutz Be'eri visited there again in June 2005 and has posted some interesting photos on a Hebrew language chat-room site devoted to transport in Israel. These photos show that an old wooden standard gauge freight van has been exhibited on a short piece of track, laid on the railway formation on the east bank of Nahal Bessor/Wadi Gaza in the Eshkol Park. On the opposite bank of the wadi there is now an even shorter length of track which nicely indicates the continuation of the route towards Rafiah. There is also an English/Hebrew sign that gives an historical outline of events, and includes a photo (previously unknown to me) of what appears to be the first bridge here, judging by the absence of any concrete foundation piers. The photo appears to date from summer 1917 and was taken looking west. This, therefore, would be the first trestle that was soon in danger of collapse following the very wet winter of 1918, and was replaced by the second bridge just to the south.

It is heartening to see so much interest and effort/expense suddenly being put into this important remnant of modern history. It would be nice if something similar could be done for the surviving iron bridge over Wadi Hanafish, illustrated in 22:20 and 65:11. I am told, though, that the locals are keeping a watchful eye on it for now to ensure that no unscrupulous persons come along at dead of night to cut it up into little pieces."

### (c). ON 65:11 & 66:12. THE WADI HANAFISH BRIDGE.

From Paul:- "As a postscript to the articles in 65:11 and 66:12 on the WW1 Rafa-Beersheba line, it is of interest that Israel Railways had a very brief discussion about the iron bridge left standing over Wadi Hanafish when the track was lifted in 1927. Four memos in File Peh/90/14 at the IRM Archives make reference. In February 1952 the IR General Manager, A. Efrati, was advised that, because of rusting of the girders, the weight of iron in the bridge could now be estimated as no more than 70% of the original weight. In addition the bridge was almost becoming a hazard and there was no supervision to guard against thefts of material. The GM was asked what steps he intended to take "to transfer" these materials to the "Negev Rail Works" or otherwise get rid of them. Efrati thought that it would cost too much to dismantle the bridge and "since the 'Negev Works' did not need the bridge, it would be best to sell it in situ. The Chief Engineer thought likewise in the last memo on the subject dated March 1953. We know, of course, that no further steps were taken.

Also of interest, and potential confusion, is that in these memos the bridge is referred to as spanning the Wadi Maluya (spelling?). The "Negev Rail Works" is undoubtedly a reference to the building of the new IR line to Beersheba rather than a factory/workshops of some description."

### (d). TOWER OF DAVID MUSEUM EXHIBITION.

Reference has already been made to this. I have received a copy of a very nice 73pp. book or brochure to accompany the exhibition - entitled "Train Tracks to Jerusalem" - edited by Renée Sivan (Chief Curator) and Liat Margalit (Assistant Curator) - incorporating reproductions of many old and not-so-old photographs of the line to Jerusalem, with

quotations from former travellers, and acknowledging the help of quite a few people whose names we recognise. Indeed, the curators write in the Introduction:- "During our work on the exhibition we uncovered an 'underground' of train-lovers, people who research, collect, play with, dream about - in short, breathe - trains. When we came to them with our requests, they rallied to the cause with enthusiasm and love, and for this we thank them."

### (e). ARMOURD TRAINS IN THE 1930's.

On 29.06.05 John Alexander wrote:- "You might be interested in the following extract from an obituary of Lt. Cdr. Dick (R P) Raikes, 21.1.1912 - 5.5.2005 which appeared in yesterday's 'Daily Telegraph'.

"He was a member of the crew of the 1935-built River-class "Clyde", which was sent to Palestine during the Arab general strike in that year. "... Raikes spent several weeks fighting fires, evacuating a maternity home by a burning timber yard, and building an armoured train which, after two hours' shunting practice at Haifa station, he took over the railway system north of Palestine.

On several nights Raikes took this train to Samakh, near the sea of Galilee, to keep open the line despite ambushes and derailments - "an enjoyable game of Cowboys and Indians", he recalled. One night Raikes joined up with the Trans-Jordan Frontier Force and enjoyed riding on horseback at full gallop across boulder-strewn country by the light of a burning oil pipeline. ..."

It looks as this could have been a / the forerunner of the 1936 armoured locos and railcars referred to on pages 64 and 65 of Paul's book."

### (f). HAIFA HISTORICAL NOTES.

Paul Cotterell replies to the editorial query in 69:14:

"The Military Siding at Haifa Central was almost certainly the site now occupied by the Dagon silo. This is on reclaimed land, originally part of the blockyard used in building the modern Haifa Harbour in the early 1930s (for a detailed article on this see 'Industrial Railway Record' 130). The British army later had a depot there which was connected to the main line by a siding, more or less where the Dagon sidings are now.

In addition (and mentioned in the article):

1) 'Bonded' Harbour St. is no doubt the siding on the south side of the main line between East and Central stations. This left the main line near the present customs house at approximately km. 0.700. Sections of the rails can still be seen embedded in the road which runs adjacent to the main line at the back of warehouses.

2) The Rice Mills had a short siding on the west side, and about halfway along, the 'Shemen' branch (originally dual gauge) at Haifa East. The rice mill is still standing (June 2005) but disused. The picturesque 'Shemen' branch closed in 1988 and has since been lifted.

3) Grand Moulins [de Palestine] are the Pal-



estine Flour Mills, still in existence, at Haifa East. It was served by a dual gauge zig-zag siding over the main road which left the main line at Hiram crossing (see 'Locomotives International' 46 for photo and article).

4) Goods shed: this is a problem. I'm not certain what is meant by this, though it may be the original and now vanished large exhibits building of the IRM on the south side of the tracks in Haifa East station. This had been served by a narrow gauge siding on its north side and a standard gauge siding along the south side of the shed."

#### (g). THE 'FLYING ZEPPELIN' WAGON IDENTIFIED. By Paul Cotterell.

"Chen Melling burst into the IRM Archives one day in a high state of excitement, having taken a metaphorical magnifying glass to the well known photo of Katinke's WW1 airplane-engined wagon that has appeared in *Hedjaz Railway* and *Harakevet*. Chen compared the photo with an original old Turkish blueprint: CFH drawing T.9084 which is dated "Cadem, le 11 Août [August] 1931" (ie. circa 1915). The blueprint is a listing of rolling stock and is titled "Matériel roulant (Locomotives, Voitures Fourgons & Wagons à marchandise) du C.F.H., du D.H.P., de J.J. et Tramways Libanais réunis". This shows that the airplane wagon was, in fact, former Jaffa-Jerusalem Railway number M8, there being no other suitably numbered vehicle among those of the other railways listed in the blueprint. The number M8 can be clearly seen in the photo, though why it should be displayed prominently on the end planks rather than on the wagon side is beyond me (at least one other print of J&J rolling stock also shows this feature). Further confirmation of the wagon's identity is provided by the much smaller lettering on its side. Mind you, we still know nothing about who built the thing."

**(h). Re 69:9:(g) - 1933 CLOSURES.** "The vexed question of numerous halts suddenly appearing and disappearing on PR (and IR also for that matter) has been broached before, but the subject is much too complicated and speculative for facile answers. However, I have consulted Meir Shapira about some of those halts which appeared in that list in issue 69.

Meir is a tour guide who has a special interest in the old Valley Railway and, unlike other tour guides of my acquaintance, has actually carried out a serious study of his subject. In addition to consulting books, archive material and photos, he has taken the time and trouble to interview people along the way. He is not a railway fan per se - (I'm still trying to teach him the basic difference between a station and a halt) but he undoubtedly has the best understanding of these often ephemeral and highly elusive HR halts in the Jezreel and Jordan Valleys. He gives the following information for some of the halts in 69:9:(g):

**Jenin Road:** This is Tzomet (Junction) Jelameh/Tzomet HaEmekim at approximately Km 13 (see 63:13 for an early photo of the still surviving bridge there).

**Umm ez Zinat:** At Km 17.005, about 60 metres beyond the still surviving Kiryat Haroshet station. Umm ez Zinat was an Arab village across the valley, beyond the Qishon River, on the slopes of Mt Carmel, and Meir tells me that a few ruins of the village can still be made out today. This fits in with what is known of Kiryat Haroshet, a tiny station (with a dummy steam loco now on display) which opened in 1937 or '38 (I forget the precise date) and the terminus for a couple of years for a morning and afternoon suburban service from Haifa worked by the Sentinel steam railcars. No doubt the inhabitants of Umm ez Zinat made use of Kiryat Haroshet station once it opened some four or five years after their halt had closed.

**El Mujeidal Road:** This is now Migdal HaEmek and Meir found a small derelict culvert/bridge there. (Migdal = Mujeidal = tower).

**Merhavaya:** Alongside the WW1 German airfield just east of Afula, and probably the point where the pilots took off for their trips to Haifa aboard the "Flying Zeppelin" cobbled together by Baruch Katinke from a J&J wagon, and NOT via a special siding or branch line into the airbase as Katinke reminisced (there was no such siding). It seems that Merhavaya halt was used after WW1 by folk from the nearby Jewish settlement of the same name.

**Zirin:** At approximately Km 44, close to Kibbutz Yisrael. The Kibbutz was only established after WW2 though.

**Menahemiya:** In the Jordan Valley, apparently served Kibbutz Ashdot Ya'akov until (perhaps) replaced by Delhamia halt close by. In addition to Meir's findings along the HR line, I can add very broad outlines to the following halts also:

**Kafr Samir** = Hof Carmel (slightly to north of present station).

**Neuhardof:** Slightly to south of present day Hof Carmel station. British army camp there which later (WW2) had special service for workers from Haifa via long siding into the base (now occupied by the 'Silicon Wadi' hi-tech neighbourhood). Presumed, though, that pre-1933 halt was on the main line opposite the base.

**Et Tira:** South of Neuhardhof, presumably opposite the settlement of that name on the slopes of Mt Carmel.

**Tantura** = Dor.

**Barbara:** North of Gaza city. Had British army base (possibly later).

**Jabalya:** Just north of Gaza city. Now Palestinian refugee camp and occasionally in the news headlines.

**Mikve Israel:** Now on south-east outskirts of Tel Aviv on line to Lod. Place where first sod was turned in March 1890 for building of Jaffa-Jerusalem Railway.

**Yazur:** Just east of Mikve Israel on Lod line.

**Beit Dajan:** Just east of Yazur on Lod line.

**Sabina:** Believed on Akko (Acre) line in vicinity of present day Qiryat Bialik (Sabina?).

Some of the other names in the list in 69:9:(g) have appeared in past issues of *Harakevet* so you'll be able to look them up for yourselves. Others are quite well known anyway. I am unable to identify Kafr Lam, Khirbat el Jamala, Km 75.945, Bralley, Hamama or Beit Jirja. One thing's for sure:

If trains stopped at all these wayside halts (plus others not listed in the 1933 closures) then journeys must have been tedious in the extreme."

#### (i). THE WAGONS-LITS COACHES.

Aharon Gazit has called to say that he saw these coaches standing at Kishon Works in 1961/2. The Manager of the Technical Office was Avraham ben Rafael, formerly Rudolph Kaufmann (and called 'Rudi') - a German Jew from Frankfurt/Main, a well-educated man, for many years a bachelor with a very economical life-style. He married late in life.

Someone called Treichtmann (?) was detailed to show Aharon round the works, and showed him the two WL coaches at the north-east section, the dump yard; they were very derelict, and still showing evidence of damage from the sabotage. They were built of wood, and the wood was already grey from the sun. Logo "CIWL" logo was on the sides. By this stage they were basically junk. Ilan Falkov was upset to hear later that they had been eventually scrapped - in around 1962/63.

**(j). BASHATWA.** It was Uri Ben Rehav, and not Uri Yinon, who found the elusive location on the map. Apologies to both gentlemen!

#### (k). ANCIENT ARTICLES.

Uri Ben Rehav has written to suggest that it might be worthwhile reprinting some articles from very early issues of *Harakevet* (when distribution was smaller). What do readers think? Please let the Editor know. On the one hand there is still plenty of material to publish, in the files - on the other, it is a bit strange to recommend readers to consult an article in an early issue when these are no longer easily accessible. (Several major libraries and archives do have full sets, though.) Of course, the early issues were hand-typed and photocopied, so there is nothing on hard disc. Another solution might be for the Pasim group to continue the project, once begun, of putting back-numbers onto the Web, either by scanning or by re-typing.....

#### (l). AHARON GAZIT MEMOIR.

The Krauss HR loco now at Haifa was for some years in Museon Ha'aretz, and was saved only incidentally, because they needed an exhibit to show "70 Years of Railways in Palestine and Israel" - and this in 1962 was the only steam engine left that hadn't been already scrapped! Without this anniversary, even this would in all likelihood have been destroyed. There was at the time no budget for preserving anything, every Lira was vital as the railways were in such dire straits. Menachem Savidor (later Speaker of the Knesset) told him this and took all the responsibility upon himself for this wholesale scrapping - not even one standard-gauge locomotive was preserved. The steam locos were good steel, so Kiryat haPlada paid well for them.

Savidor spoke 7 languages and had a doctorate from the University of Liège. His main problem was that he was too good

for his job, was against his fellows in the Labour Party, and was better than some of the engineers around him, who were political appointees. He told the truth, even admitting that the IR had failed to maintain the Esslingen diesel railcars properly - it is very rare that anyone in such a position takes responsibility for any mistakes. The Beit Yehoshua accident was then used by the Government as an excuse to fire him. At the time of the accident (and he was actually riding in one of the trains involved) he told a correspondent that the Railways, with 17 daily train pairs between Tel Aviv and Haifa, had a two-thirds share of the traffic. In fact there were few casualties in this accident, the loco driver (Moshe Cohen) suffered from a heavy blow to the head, a woman was caught in the toilet of one of the Esslingen trailers and had to be cut free, but the image of a loco with its back broken riding over another coach made it look much worse than it was. (cf. the fate of Tzvi Safiriri after the Habonim disaster, and now the fate of Yossi Mor after the Kiryat Gat smashes.)

**(m). Re:66:16:(e). THE COACH AT BEIT AHARON.**

Paul Cotterell writes: "It seems that PR Saloon Coach No.95 might have had an even richer biography than previously recorded. File Peh/39/7 in the IRM Archives contains just a single copy of a letter dated 22/1/1952 from Acting General Manager Efrati of IR to the Transport Ministry in Jerusalem suggesting the use of a pay coach to distribute wages to railwaymen as "was done in Mandate days". This was as a result of "a growth in the number of workers during the last year and a rise in wages". In a footnote to the Traffic Manager of IR Efrati enquired: "It is my intention to make available to the Chief Accountant for the above purpose coach No.95, until the pay coach is repaired as necessary. What is your opinion?"

Of course, we know not the Chief Accountant's opinion on the matter, and the lack of further correspondence perhaps suggests that no further steps were taken. One wonders, also, about the identity of that Pay Coach in need of repairs. I assume it have been the ex-LSWR ambulance, PR No.77, which was converted from an Instruction Coach to a Pay Coach at an unknown date sometime before 1947 (see fig.52 in 'The Railways of Palestine and Israel'.) No.77 was still around in a derelict state at Haifa East until 1979 at least (see article and photo in 'Railway World Annual 1981'), but had disappeared by the end of 1986 when I returned to Israel from Canada. When I enquired about old 77 at the time I was told it had been banged about in a shunting accident and subsequently scrapped."

**(n). THE S.S. THISTLEGORM.**

We have mentioned several times in the past this ship, whose sunken cargo included several 8F 2-8-0 locomotives and War Department wagons. In the 'Sunday Times' of July 31st. 2005, Travel Section p.7, is an article about Diving holidays. It includes the following notes:-

"When the armed freighter SS Thistlegorm was attacked and sunk by German bombers in October 1941, an underwater time capsule was created in the northern Red Sea. The Thistlegorm was part of a convoy carrying army supplies when it was bombed north of Hurghada. The wreck is 425ft. long, so you need to do at least two dives to even begin to appreciate it. Start at the stern, where the huge propeller is still in place, then swim forward and you will find a pulsating school of glassfish, which often hang around the hole in the structure where the blast ripped open the Thistlegorm.

On your second dive, concentrate on the bow section, in particular the holds, which serve as a museum of 1940's military paraphernalia. Venture inside and you will find Bedford trucks, motorbikes, armoured cars and countless munitions.

Although it lies in an isolated area, the Thistlegorm can be reached on day boats from Sharm el Sheikh.

Skill level: 30 dives; experience in overhead environments desirable. Book it: Regaldiv has a week at the Hilton Waterfalls, 10 minutes outside the main resort area of Na'ama Bay - which was attacked by terrorists on July 23..... including flights from Gatwick and transfers. A 5-day dive package costs GBP 135, and an excursion to visit the Thistlegorm costs GBP 45."

**(o). JAKOV WAHRMAN z.I.**

From Paul and then from his son Dror I have heard that Jakov Wahrman has died in early June, after a long illness. I was privileged to meet with Prof. Wahrman and correspond with him, and he showed great interest in Harakevet and sent several items and pictures. He had a vast private library on the History of the Land of Israel - guide books, books on history, geography, archaeology and more - his flat in Jerusalem seemed filled floor to ceiling with this remarkable library. And he knew what he had! May his memory be a blessing. The Editor.

[Dror later added:- "My father and I spent much of the past year on various railway-related projects, and planned a full-length book - together with Ron Shafir - on the Jaffa-Jerusalem railway. I hope this book will come to be, even though my father's immense knowledge and wise advice is no longer with us. In fact we wrote one long article this year on the Sejed station, with much new information - it will be coming out in 'Cathedra' soon. And in 'Etmol' is another article I wrote immediately after my father died, on another aspect of the railway.". So the work goes on.]

**(p). "RAILSIM".**

Last reference to these steel girders made from old rails was in 14:10. From Jacob Landau I have received a cutting from the Jerusalem Post "Metro Israel" section for 29.07.2005, p. 12, on the German 'Templar' colonies in Palestine and a small private museum of artefacts run by the Fleischman family at the former 'Wagner House'. It includes: "Ceiling supports in the entrance are actually iron girders from the Ottomans' Hejaz railway. Painted over white, one section has been left unpainted, and

the one can see '1907' and some words in Turkish clearly engraved in the rusty iron". Visits can be arranged by calling 04-953-2901.

**(q). P.R. STEAM ROLLERS.**

Paul has sent a two-part article by Roger West on the steam rollers employed, begged, borrowed and hired by Palestine Railways for maintaining the roads on railway property in the 1920's and 1930's. It appeared in the magazine "Steaming", the magazine of the National Traction Engine Trust, Vol., 48 Nos. 2 and 3 (Spring and Summer 2005).

70:09.

## LAST OF THE RAFA-BEERSHEBA LINE.

By Paul Cotterell.

The article in 66:12 on the closure of this line ended rather abruptly when file correspondence suddenly ceased. Now a second file on the subject has turned up in the IRM Archives which allows a comprehensive view of the final months, and beyond, of salvaging track and other material. This is file number 134.1/1(1).

I propose to do no more here than give a general outline of actual lifting operations and some of their consequences. Indeed, much of the file is taken up with letters of complaint between the contractor and PR, accounting matters, and similar rather dry subjects. I shall concentrate on the process of track removal. For full comprehension and continuity, reference needs to be made to the previous article in 66:12 and also to that in 65:11.

**21/9/27:** A wagon "loaded with part of the dismantled loco shed at Rafa [has] been consigned to Lydda, contrary to instructions..." Rafa loco shed parts were to have been unloaded at Gaza, so they had to be sent back there from Lydda. The fate of this engine shed is not at all clear. Later letters in the file speak of it being "re-erected" but do not say where, though presumably Gaza is meant. Note that this reference updates the details on Rafa station given in 66:14.

**23/9/27:** Noted that track had been lifted back to Km 50.300.

**27/9/27:** Track lifted to Km 47.640 and all "permanent way material at Beersheba has been salvaged".

**9/10/27:** Track lifted to Km 41.500.

**13/10/27:** The District Engineer noted that "After the Shellal Bridge has been salvaged there is no reason why a Baldwin Engine should not work the salvage train. Contractor wishes to save one Kilo[metre] per day, when bigger engine is available."

**17/10/27:** Track lifted to Km 36.500.

**19/10/27:** District Engineer reported "Contractor expects to be clear of Shellal Bridge by 1<sup>st</sup> November." The bridge itself was evidently dismantled by the end of the first week of November. Its timbers were taken to Lydda for storage.

**3/11/27:** Railhead at Km 27.300.

**8/11/27:** Railhead at Km 26.500.

**14/11/27:** Railhead at Km 22.400.

**25/11/27:** Railhead at Km 17.700.

**28/11/27:** From the Running Superintendent F.A. Sargent (mentioned briefly in 65:8:h):- "Sudden cancellation of the Works Train on 30.10.27 resulted in engine for the train being unnecessarily lighted up and costs of same is 680 mils. Will you please arrange to debit contractor with same". The loco involved was ex-LSWR 0-6-0 503 from Gaza. Nor was this the only occasion the works train was cancelled at short notice, though loco details were not recorded in other cases.

**29/11/27:** Railhead at Km 13.400.

**7/12/27:** Railhead at Km 10.200.

**17/12/27:** District Engineer noted that "From the 17<sup>th</sup> instant inclusive the special engine will not be required for this [track lifting] train. The contractor has salvaged up to the home signal [at Rafa] and it will be sufficient if the trains are placed in Rafa Station for loading". Though not directly stated, it appears that all track lifting was completed two days later on 19/12/27. This means the contractor finished the job within the time limit.

**23/12/27:** From the Running Superintendent:- "Although the transfer of a Baldwin Engine from Lydda to Gaza did not seriously affect the engine situation at Lydda, it is considered that the Contractor should be taken up with for ordering a larger engine when the small [ie. LSWR 0-6-0] could have, under such conditions, been conveniently used."

**29/12/27:** Noted that "derailment at Shellal Bridge on 23.8.27, and at Rafa on 7.12.27" led to cancellation of works train and cost the contractor two days work.

File correspondence continued intermittently until August 1929, dealing mainly with outstanding accountancy matters and complaints. Also included is a complete listing of all track materials recovered from the Beersheba line, and of buildings left standing at Beersheba station with proposals from interested parties as to what use should be made of them.

## SOME MOUCHLY SNAPSHOTS.

Readers of Harakevet may recall the name of Jacob Mouchly, who was an engineer in Palestine / Israel with various interests in a lot of projects. His son Joshua Mouchly recently got in touch with Paul Cotterell, and here are a few of the snapshots from the family album (with all that means in terms of technical quality, but of major historical interest). Joshua is trying to get the locations etc. identified.





1. Apparently taken at Damascus workshops, Jacob Mouchly is seated centre in the front row. (Presumably the man in the light-coloured socks.) The loco behind is one of the 1914 La Meuse 0-10-OT's Nos. 2432,2435, 2436 captured by the British and originally destined for Turkey. (A glance at Plates 120 & 126/127 in Tourret's 'Hedjaz Railway' will show that the 2-6-2Ts had straight running plates, the 0-10-OT's the characteristic curve and access opening.) On the right can just be made out the jib of a crane.

2. A little boy (probably Joshua Mouchly!) stands by a PR 3rd. Class coach which has been shunted right against a rail-built buffer stop and the brakes left on. The van visible behind is rather unusual.

3. A family group - or friends - stand in such a way as to obscure a PEC narrow-gauge side-tank loco, presumably a Hunslet 4-6-OT.

4. What has happened? A goods brake van (GCR type?) attached to at least four passenger coaches - in itself unusual is the object of attention. A gauging bar lies across the rails. Is simply a rail chair loose, has there been sabotage, or are they looking for bits of corpse? Is this the outskirts of Haifa (the old line before the 1930's rebuilding) or of Tel Aviv?

5. A family gathering at the workplace? Is this the narrow-gauge section of Kishon Works? - it would be hard to find another building so large in the region.

Any more comments and information on all these photos would be welcomed by the Editor and also by the family.



70:11.

## SABOTAGE ON THE BEERSHEBA LINE

By Paul Cotterell.

This is the heading on a memo of 6/11/1956 from the IR Southern District Engineer to the Chief Engineer at Haifa, listing acts of sabotage carried out along the Beersheba line on 1/11/1956 as follows:

<u>Km.</u>	<u>Material.</u>	<u>Km.</u>	<u>Material.</u>
62.720	1 rail	58.055	1 rail
62.780	2 rails	58.755	1 rail
59.878	1 rail	46.709	2 rails
59.660	1 rail	45.820	1 rail
59.490	1 rail	45.800	2 rails
59.265	1 rail	39.800	2 rails
59.005	1 rail	Total.....	17 rails
		Total cost.....	1,263 Lirot

The memo was discovered loose, and not as part of a complete file on the subject. These attacks took place a couple of days after the war known as the Sinai Campaign had begun, during which Israel occupied the Sinai Peninsula until forced to withdraw under diplomatic pressure four months later. The period leading up to that war was characterized by increas-

ing fedayeen sabotage and terrorist attacks inside southern Israel from the Gaza Strip and Egypt. The Israeli-built line to Beersheba had only been open since the end of March 1956. The damage listed here, though widespread, was slight and easily and quickly repaired.

On a purely personal note: it is strange how major events are sometimes recalled in one's memory. At the time of the Sinai Campaign I was a twelve year-old in the second form at King's Norton Grammar School. Petrol rationing was an almost immediate result of the war (in which, of course, Britain along with France was also involved). Our headmaster, the unloved Mr Sheen (not Jewish, by the way, despite the name), was forced to temporarily relinquish driving his car and had to resort to a humble bicycle. This caused much sniggering among us evil-minded schoolboys. Like I said, a curious way to remember a war.



70:12

*One of the big bridges on the line between Ben-Gurion airport and Modi'in/Jerusalem (this section of the A1 fast link is shared by both lines up to Modi'in outskirts) near completion, as it runs over road #40 just east of Lod - the traffic lights are at the city's northern entrance. Noticed at the left edge of the bridge a prepared exit for a connection to the existing Lod-Rosh-Ha-Ayin line (the white strip in the near distance just under the far traffic light, as well as the long viaduct in the far distance (which runs over highway #1 between Tel-Aviv and Jerusalem) to which it will soon be connected; the view is north-west towards the airport. (Photo: Aharon Gazit).*

70:13

## **SOME SLIGHT EVIDENCE REGARDING THE LAST DAYS OF THE HR BRANCH TO AKKO (ACRE).**

By Paul Cotterell.

Closure and lifting of the short section of this narrow gauge line between Na'aman Junction and the Turkish station at Akko remains a mystery. Nothing has been discovered in the IRM Archives or elsewhere to throw light on the subject. I assume that the last HR train ran in May 1948, perhaps somewhat earlier, but can offer no firm evidence. However, File Kaf/58/16 at the Archives provides one or two inferences concerning the post-closure period.

In June 1950 the IR General Manager, Moshe Paikovitch, was approached by the Engineer of Akko Municipality who wished to construct two road crossings over the redundant track at Kms 0.370 and 0.710 from Na'amin Junction. The sites are marked on the accompanying extract from an undated map of the locality, which has been annotated by the IR Chief Engineer "I have no objection". Neither had Paikovitch, subject to the provisos that all the work should be at the expense of the Municipality, that the detailed work plan should be agreed with IR beforehand, and that "you will return the site to its previous state at 7 days notice if the Railway Management decides it necessary to operate trains". This would have meant replacing rails taken up at the crossing places. Paikovitch further stipulated that the Municipality would pay 5 Liro per year as license fee [for each crossing] and also "should it be necessary for us to supervise removal of the rails you will pay 10 Liro supervision charges. You must collect all removed Railway material (rails, sleepers, accessories and suchlike) and transport them by rail to Haifa or another place near Akko station, as decided by the [IR] Chief Engineer".

This all appears to have been satisfactory to Akko Municipality which continued to pay the license fees until 30/6/1954 when the agreement was cancelled. There is nothing in the file to indicate the reason for this cancellation. We learn very little, therefore, from the above other than the fact that the HR rails were still in place in June 1950. I have always been quite amazed by the paucity of information on the Turkish line to Akko, and photos of the splendid old station here (later the Israeli Navy officer training school and since demolished) appear to be almost non-existent. Fairly cursory first-hand enquiries around town back in the late 1980s yielded nothing. Perhaps someone else might like to try his luck?

70:14.

## **COAL PROBLEMS.**

Paul has found two items in PR File 160, labelled "Coal - Generally".

The first is a letter from the Portland Cement Co. 'Nesher' Ltd., to the Superintendent of the Line, dated Haifa, 23. March 1943.

"We are herewith bringing to your notice the following:-

For local coal transports we have laid a narrow gauge (60cm) line crossing the old cement line at Kilo. 7.2000 and the narrow gauge line at Kilo 7.130. We are transporting coal daily from 6.30 a.m. to 5.00 p.m. when the rail crossing pieces are being removed and the line made clear for traffic. But we will also remove the rail crossing pieces whenever necessary for an incoming train. Of course, during working hours the line is marked by red flags.

For your information, we expect to finish this transporting job in about 6 weeks or so."

Paul notes that from other correspondence, which is confusing in nature, it appears that this arrangement was informal but of some standing. The lines involved seem to have been the sidings at Nesher. It was later decided to make these crossings permanent, but it is not known if this work was ever done.

The second item is both a plea and a response to a plea for help in difficult times:- From the Chief Mechanical Engineer's Office at Qishon, to the District Engineer, of 10th. February 1947.

"With reference to your letter R6/1 dated 7th. February 1947, the position is that we have practically no coal available and this has been the position for some two weeks past. I have had to withdraw the one narrow gauge coal burning locomotive from service owing to the shortage.

A supply is in transit and the vessel was expected to arrive in Haifa on 31st. January, but so far I have not been informed that it is yet in port. It is expected at any time now. As soon as this supply is available your requirements will be met."

## **SYRIA - OTTOMAN RAILWAY.**

### **EARLY CONSTRUCTION ATTEMPTS IN THE 1890'S.**

Paul Cotterell has come up with a faded copy of a fascinating ancient (and incomplete) document, an 1899 Report on the construction of the (ill-fated) Syria-Ottoman Railway Co. Comments in square brackets are from Paul. It reads:-

"Section 1. HAIFA TO THE JORDAN. Length: 75 + 500 Kilo. (approx. 46 miles). Gauge, 4' 8 1/2 in.. Contractors: Messrs. The Thames Ironworks & Shipbuilding Company Limited, Blackwall.

REPORT on the PROGRESS OF WORKS from Dec. 1st. 1898 to end of June 1899.

Note: The Kilometrage is taken from Haifa; therefore to agree with Authorised plans add 12 + 500 K. [Why? Paul speculates this might be a reference to a proposed Akko section.]

To the CHAIRMAN & DIRECTORS.

Dear Sirs,

In accordance with your instructions, I proceeded to Haifa in November of last year, in company with your Agent and Engineer, Mr. H. T. Foord, and remained there until 16th. June ult. when in accordance with instructions I left Haifa and reached London on the 30th. ult. by way of Beyrout and Constantinople. Your European staff, Messrs. Foord, de Pelsenaire, and Box, were all well when I left, Mr Box seeming to stand the heat of the Jordan Valley, and having been quite free from fever.

Work was proceeding slowly; some 300 workmen, Italians and Egyptians for the most part, being employed on the earthworks and some small culverts. The first 8 kilometres, which were left in a partially completed state by Messrs. Pauling & Elliott in 1893 are now practically finished and in fair order, the small bridges and culverts being in excellent condition. A few sleepers, fishplates and spikes are missing, and the formation width of Embankments and the top ballast are deficient in some places, this being caused by waste due to the constant trampling of cattle over the works during the 5 years they were lying idle. Strong hedges of prickly pear have now been planted to protect the slopes, especially where the railway runs parallel to the Haifa - Nazareth main road.

The 8 kilometres of permanent way laid are in fair condition. Some sleepers will have to be replaced before heavy traffic commences, but, on the whole the Baltic Memel creosoted timber has stood the climate well. I should recommend a heavier fishplate, as the present one seems hardly up to the work required.

Subsection No. 1. Kilometre 8 + 00 to K 28 + 00. Herr Bety, Sectional Engineer.

The earthworks and culverts (with the exception of steelwork), level crossings etc. are completed, and bottom ballast laid, from Kil. 8 + 00 to K. 23 + 00. No work has been done between K. 25 + 00 and K. 28 + 00. The Tell-el-Kasis [Kiryat Horoshet] cutting at 17 + 500 has turned out most satisfactorily of a hardish white limestone, suitable for bottom ballasting, and standing well with 1 to 1 slopes. Italians have carried out this work in a business-like manner, aided by a light railway and hand wagons purchased from the Beyrout Tramway Co. The embankment from the bridge over the Kishon river at K. 13 + 00 to the springs of Am-el-Ghaft [near El Roy] has been very carefully tipped with dry material, as the marshy nature of the ground prevented the usual method of forming the embankment from side ditches being adopted. This difficult and tedious piece of work, carried out entirely by hand, is standing well, and it is hoped that, when the marsh dries in the autumn, it may be possible to cut two large side ditches, and so satisfactorily drain the marsh for all time.

Large iron pipes floated on concrete have been adopted under this embankment, instead of the usual masonry type, to allow for settlement. [i.e. culverts.]

#### **STATIONS.**

The sites for these have been carefully reconsidered and settled.

Haifa. (Terminus). 1st. Class. K. 0 + 00. Nothing has been done towards forming the ground for this Station, pending the final settlement of the general landing and harbour arrangements.

Bellad-esh-Chekh. K. 2 + 00. (Halt and Junction for Akka Branch.)

Work here is in abeyance pending settlement of abandonment of the Akka Branch. Hartiyeh. (Halt). K. 14 + 00. [Just short of El Roy] The land is formed ready for this station.

Tell-ech-Chamâm. (Halt). K. 21 + 500. [Kfar Yehoshua]. The land is being prepared for this station.

Jabata Road (for Nazareth). 2nd. Class. K. 26 + 300.

Fuleh 1st. Class. K. 36 + 100.

Châtta Halt. K. 51 + 200.

Besân 1st. Class. K. 59 + 500.

Jishr-el-Mejamia (Jordan). Halt. K. 65 + 00.

Nothing has been done at these stations at present. An alternative site for Besân station has been chosen, and approved by His Excellency the Mudir of Besân, acting as the Agent to H.I.M. the Sultan, upon whose estate it is. The original site was always objected to, owing

to its inaccessibility to the town of Besân, the gorge of the Jalâd river separating the two.

This alteration of the Site necessitates a deviation of some 15 kilometres, and a lengthening of the line by about 4 kilometres, but, against the increased length, must be put the improvement of the gradient from 2% (1 in 5) to 1 1/2% (1 in 66), which at once does away with the necessity of a special banking engine on the West side of the Jordan."

Here the available document ends - presumably there was further information and of course the name of the author. We learn however of the progress made, the changes to the original plans once the first contractors had gone bankrupt, and that there was indeed quite a lot of work already done for Meissner to take over when building what became instead the narrow gauge line through the Jezreel valley to Haifa (and to Akko).

70:16.

## **KIRBY'S LAST VIEW.**

On 28th. August 1948 Arthur Kirby wrote to Mr. Cooke of the 'Railway Gazette' with an article as promised. At the time he was staying - effectively as a homeless exile - at the Byron Hall Hotel, Worthing, Sussex. Unfortunately, although he retained a carbon copy of the article he had typed out (on what appears to have been a rather battered typewriter), we do not have any copies of the photographs and maps he mentions.

His covering letter is worthy of citation!

"Here is the promised article, together with a sketch map and a photograph or two of the burnt-out HQ offices which may serve your purposes. There are some nice pictures in the last 1946/47 Annual Report and you should be able to put your hands on some of those pictures which we previously sent to you and the Crown Colonist. [sic. - maybe he means Crown Agents.] If you have room in the Overseas number, it might be interesting to include that train diagram which I sent you some time ago.

I'm afraid that the article may be longer than your 2000 words, but as a last effort of the Palestine Railways I could not cut much of it out. As it is, the account is sketchy. Please remember that, unlike most of your other overseas railway contributors, I have no staff of typists and secretaries and I have had to grind out all this stuff with my own raw

**Back cover: Israel Railways General Motors G12 Bo-Bos being loaded at Ashdod Port for Houston, Texas. August 2005. Photo Evyatar Reiter.**





70:17  
The first fruits for the Shavuot festival, approaching Jerusalem. Photo: AharonGazit

Also, right, another photo of an IC3 on the Jerusalem line.



hands! Hence the standard of the typing and composition - and I really cannot face doing it all over again to patch it up.

I have not yet heard anything definite about the East African appointment, though it appears to be almost certain.

I hope you have a good holiday and do not put on too much weight in Ireland. [Britain, of course, was still under severe rationing at this time! Ed.]

"A few weeks ago there appeared in the Railway Gazette the notice of what was destined to be the last Annual Report on the working of the Palestine Railways as constituted under the British Mandatory Government of Palestine; for no matter what form the railway system in Palestine may take in the future, the framework will be much smaller than that within which the Palestine Railways Administration operated the several railways which came within its scope, namely:-

Govt.-owned Standard Gauge Railway in Palestine.	392.2km.	
Petah Tiqvah Railway in Palestine.	6.6 km.	
Kantara - Rafa Railway in Sinai (Egypt).	204.9km.	
Total Standard Gauge:	540.7.	
Hejaz Railway, 105cm. gauge in Palestine.	178.1 km.	
Hejaz Railway, 105 cm. gauge., in Trans-Jordan.	366.2 km.	
Total 105cm gauge:	544.3 km.	
Dual Gauge, Standard and 105cm., in Palestine, partly owned by the British Govt. and Palestine Govt. and partly Hejaz Rly:	26.0km.	

Total all railways: 1211.0 kms.

These railways traverse what were probably the most ancient highways of the world. The 'Tentdwellers Road' of the Bible started

from Damascus, ran southwards to what is now Aqaba and continued along the East shore of the Red Sea to the Yemen. The Romans used almost the same route for a road from Bosra (in Syria) to Philadelphia (now Amman in Trans-Jordan) and the Turks followed much later with the Hejaz Railway from Damascus to Medina. Equally historic is the route of the Kantara - Rafa which is the same as that taken by Abraham and Jacob and was the escape road of Joseph and Mary from Egypt. Napoleon led his army the same way northwards and back again after his defeat at Acre. And a century later Allenby led his victorious army across the same Sinai route in his successful campaign against the Turks.

The only section of the Palestine Railways which was built with direct commercial intention was the original Jaffa - Jerusalem Railway, from which the promoters hoped to derive profit from the pilgrim traffic to Jerusalem. It was opened in 1892 for a distance of 87

kms., was metre gauge and was operated by the Societe de Chemin de Fer Ottoman de Jaffa a Jerusalem et Prolongements under a 71 years concession from the Ottoman Government, The track was made with material which had been taken to Panama by Liuseppes [sic. - actually de Lesseps] for use in his unsuccessful venture for the construction of a Panama Canal and the building of the railway seems to have been very much a speculative venture. The pilgrim traffic was hardly profitable, now were there any 'prolongements', but the concessionaires seem to have done well in having been awarded no less than LP 565,000 when the British acquired the rights after the First World War. During that war the Turks had converted the track to 105cm. gauge - in conformity with the Hejaz Railway - and it was later converted to 4' 8 1/2" gauge by the British. The Lydda - Jaffa end of the line was taken up by the Turks during the war and, before finally being restored as 4' 8 1/2" gauge by the British, was used as a 60cm. gauge railway for some time. This must be unique in the history of railway gauge changes. The railway negotiates difficult mountainous country, with a ruling gradient of 2 per cent., and engineers have had constant trouble in maintaining accuracy of gauge in 4' 8 1/2" track on curves designed for metre because of the prohibitive cost of widening the formation and easing the curves. High speeds are impossible and now that excellent roads are available they take most of the passenger traffic from the coast to Jerusalem. Goods traffic over this line is confined to imported goods and bulk oils, with an outward traffic of potash from the Dead Sea for export. If, as is not improbable, an alternative route is found for the evacuation of potash, there would be no economic justification for the retention of the Jerusalem Railway. It has already been closed for several months because of the impossibility of securing it against sabotage.

The Hejaz Railway was constructed by the Ottoman Govt., ostensibly for religious purposes to facilitate the pilgrimage to Mecca, but the main purpose seemed to have been to link up the remote provinces for the more effective suppression of those rebellious tribes which so ably assisted Lawrence in the destruction of the railway during the First World War. The Turks used military labour working under German engineers in the construction and opened the first section in Palestine in about 1908. (A British firm had a concession to build a railway from Haifa to Damascus but failed and sold out to the Hejaz Railway). The lines to Nablus and on to Tulkarm and the south were not finished until after 1914 when the Turks extended the 105cm. gauge system to Beer Sheba and into Sinai for the campaign against the British. It is ironical that much of the material used in these extensions came from a French owned railway which had been built under an Ottoman Govt. concession southwards from Damascus and which had no sooner been completed than the Government laid the Hejaz Railway along a closely parallel route. All the sections south of Tulkarm, where the 105cm. gauge had a junction with the 4' 8 1/2" gauge, were taken up soon after the end of the First World War, and the section south of Ma'an and into Saudi Arabia has not been re-opened since its destruction by Lawrence's forces. Several conferences have been held with the object of clarifying the ownership of the Hejaz Railway and of re-opening the section to Medina, but the prospects of the latter are unpromising. As regards ownership, under the Treaty of Lausanne the various sections of the Hejaz Railway fall to be acquired, without payment, by the States in favour of which territory was, or is detached from the Ottoman Empire. The sections in Syria and Trans-Jordan are, therefore, now owned by those respective Governments, but the ownership of the sections in Palestine must remain obscure until the final outcome of the present conflict for possession. Except for some short sections in Palestine, the Hejaz Railway traverses arid country and taps no industrial areas. It has never been commercially self-supporting and under the Ottoman regime its revenues were augmented by a special Stamp Duty levied

throughout the Empire. Passenger traffic is negligible and, except for some imported traffic from Haifa to Damascus, goods are confined to the grain harvest which is not enough to provide profits on the yearly working. During the Second World War the section from Haifa to Damascus was intensively used in the Syrian campaign in 19341 and later the section in Trans-Jordan was improved and extended to Naqb Ashtar to serve Aqaba as a strategic alternative to the Suez Canal.

The main standard gauge line from Kantara to Haifa was the direct outcome of the First World War and was constructed by military engineers, mostly with second-hand material from India and Egypt. The bridge at El Arish in Sinai was the original wrought iron one brought by the Stephensons to cross the Nile for the first railway from Alexandria. At the close of the First World War there was a double track from Kantara to Rafa and a water pipeline from Kantara to Mazar in Sinai, but the second track and the pipeline were removed soon afterwards. The ownership of the Kantara-Rafa section of railway remained with the British Govt. and it was operated by Palestine Railways until it was handed over to the Egyptian State Railways for operation at the end of March 1948. This section traverses desert for the whole of its route and has little normal commercial traffic. During the Second World War it again became of military importance and its capacity was increased to 17 trains per day each way over the single line, but by using Lend-Lease Mikadoes, with 1000 ton loads, the peak requirements of the Army were met with not more than 10 to 12 trains each way at the most. This line played a vital part in maintaining Palestine as a war base and wartime industrial area, by securing the route from Suez to Palestine, by canal and rail, under British control. Except for the efficient exploitation of this route the campaign in the Middle East could not have been successful.

The short branch railway from Ras el Ain to Petah Tiqva, which was built in 1933, is partially owned by the Jewish Colonisation and the Palestine Govt. (as distinct from the British) and is the origin of a large part of the citrus traffic. And the latest addition to the Palestine Railways system, was the extension northwards which forms part of the military railway to Beirut and Tripoli which was completed in 1942 to give through connection to Turkey, Europe and Iraq. This railway was never used for its full military possibilities, but it was valuable in maintaining British forces etc. in Syria and in providing a land route from the Mediterranean to Iraq. It is now owned by the Lebanon, but the southern section from Beirut to Palestine is not being operated, because of the troubles in Palestine.

In April 1943 the management and control of the ports of Palestine were placed under the railway administration following a report of a commission of the working under the Customs Dept.

Except for rolling stock acquired from Lend-Lease, and also the Hejaz stock, the rolling stock of the Palestine Railways follows British 4' 8 1/2" gauge pattern. All the locomotives are oil burning, as also are all other steam raising installations. The conversion from coal was undertaken during the very critical period in 1942/3 and the consequent overworking of locomotives and troubles from poor design almost brought disaster. By 1948, however, a high standard of oil burning had been achieved with economic consumption.

The principal traffics within Palestine were general imports, consisting mainly of foodstuffs and building materials, bulk oils from the refineries at Haifa, potash for export and, most important, the country's staple crop of citrus. Traffic during the Second World War exceeded by far all previous records, an average of no fewer than 12 trains each way, with peaks of 15, being required day in and day out - an operating achievement which was only possible with telephonic train control. The volume of traffic dealt with during the war was:-

<u>Year</u>	<u>Net Ton/Km.</u>	<u>Revenue LP</u>
1936/37	166,638,000	1,000,513.

(The peak pre-war year).

1942/43	388,173,000	2,485,379.
1943/44	501,243,000	3,115,470.
1944/45	397,277,000	2,658,122.
1945/46	373,754,000	2,863,305.

The greatest factor in the increase in expenditure was the fantastic increase in the labour costs. During the year 1946/47 the Government-imposed cost of living allowances and wages increases accounted for LP1,161,826 in a total expenditure of LP2,712,486, and in relation to a total basic wages bill of only LP 938,174. Most of these allowances were awarded with retroactive effect and could not be recovered in current charges. Incidentally, all military traffic was conveyed at cost and so the margin of profit was limited to civil traffic, which was curtailed during the war.

The Palestine Railways were not collectively profitable, which is not surprising considering their origins and conditions of operation. The Hejaz Railway was inevitably a losing concern and was kept open mainly for political reasons, with possible military purposes. There was an accumulated deficit of LP 690,711 on the Palestine and Trans-Jordan sections at the 31st. March 1947. On the other hand, the Kantara - Rafa Railway which was normally a deficit concern earned startling profits during the recent war, mainly because of the closure of the Eastern Mediterranean sea route. For the six years 1941/42 to 1946/47 the surplus revenue, after having allowed for depreciation payments, was no less than LP 1,191,798, of which LP 1,100,947 accrued to the direct benefit of the British taxpayer. Last year there was a deficit of LP 119,800 because of the troubles in Palestine and the Arab boycott of Palestine trade. The only section of the railway capable of commercial development was the Government-owned section in Palestine, which serves areas which were being developed intensively both agriculturally and industrially. A re-statement of accounts as at the 31st. March 1946 showed an accumulated profit of LP 653,768, after having spent LP 391,186 on capital improvements and LP 262,929 upon renewals. There was, however, a recorded liability of LP 502,052 for renewals. The years following were so catastrophic in sabotage that all accumulated profits were wiped out by deficits of LP 326,674 in 1946/47 and LP 354,985 in 1947/48 (the accounts for the last year are taken only until February 1948 because all essential records were destroyed when the Railway HQ offices were gutted by fire during the battle of Haifa in April last.)

The conditions in which the Palestine Railways were operated were unique in several respects - especially for an Administration of such relatively small dimensions. Topographically the engineers had to cope with conditions ranging from the rocky, mountainous regions to the arid uplands of Transjordan, from the shifting sands of Sinai to the untrustworthy black cotton soil of the coastal plain of Palestine and, though not difficult, sections below sea level. Climatically, conditions ranged from occasional snowdrifts in the higher altitudes to the extreme heat of the Arabian desert, and from sudden unpredictable spates of flood water to unmanageable sand storms. In 1943 supplies were dropped by parachute to stranded trains held up by sand storms in Sinai.

Politically, also, the problems were unusual. Although the Palestine Railways were a department of the Palestine Mandatory Government, the ramifications of its activities went far outside Palestine. Apart from its international connections with other railways throughout the Middle East and Europe, it operated in Egypt (for the Kantara-Rafa Rly.) and in Trans-Jordan (for the Hejaz Rly.) In the one case under King Farouk and in the other under King Abdullah, though in both cases acting as the Agent of the British Government. Another extraneous commitment was the running right through Syria over the Hejaz Rly. The Palestine Railways was the sponsor of the Middle East Railways Conference Association.

Throughout its history the Palestine Railways suffered severely from political disturbances and wars. Lawrence's efforts in the sabotage of the Hejaz Railway are well known to all who have read the Seven Pillars of Wisdom. In Palestine the most severe periods of sabotage were during the Arab troubles in 1935/36, and more recently from Jewish dissident forces and finally from both Jews and Arabs. Nevertheless the railways were kept operating almost continuously, thanks to the incredible loyalty of the staff in facing the dangers inherent in the performance of their duties. It is largely due to their efforts and the uninterrupted operation of Haifa Port, another railway commitment, that the evacuation from Palestine was accomplished successfully.

With the end of the British Mandate the Palestine Railways Administration comes to an end and its railway system disintegrated. The Hejaz Railway in Trans-Jordan naturally affiliates with the Syrian Railway and the Kantara-Rafa with the Egyptian State Railways. It is not improbable that the Jerusalem line and the Hejaz Railway in Palestine will remain closed. The Standard Gauge Railway within Palestine was virtually owned by the country and its future must be dependent upon the outcome of the present conflict there. Except for the HQ offices, which were only temporary in replacement of the offices bombed out during the last war, all the railway and port assets remained essentially intact at the end of the Mandate and the railway could be brought into full operation within a short time. During the final weeks of the Mandate the main line was blocked by a train wreck just north of Lydda, thus effectively separating the Arab from the Jewish sectors at a time when the conditions in the country precluded the possibility of restoring the line. The Egyptians took over operation of the southern portion and the northern section was operated by Palestine Railways Jewish staff. Only one large depot, Lydda, remained in Arab hands immediately prior to the withdrawal of the British and, following the flight of all the Arab population, from whom 90 per cent of the railway staff was drawn, the main workshops, stores and other HQ installations were handed over to the Jewish authorities at the end of the Mandate. As at the 31st. March 1947, the rolling stock of the Palestine Railways was:-

<u>Gauge.</u>	<u>Total.</u>	<u>4' 8 1/2" Gauge.</u>	<u>1.05 c.m.</u>
Locomotives, Main Line.	111.	85	36
Locomotives, Shunting.	22. (i.e. total 133).	18	4
Coaching Stock.	142.	103	39
Goods Stock.	3077.	2697	380

The final months of operation were exceptionally hazardous. Sniping across and into offices and yards was prevalent; train robberies by armed bands and looting were frequent and the destruction of bridges and installations by mines and bombs was the order of the day. It was due to the excellent relations between the management and the labour unions, both Arab and Jewish, that the loyalty of the staff was not strained to breaking point when, during the last critical stages, men were required to work without even a semblance of protection from the armed forces. Some assistance was given by military personnel in train operation, but it was upon the Palestine Railways civil staff that vital operation depended. It is pleasing to be able to record that the railways and ports were thus kept intact as working organisations while the rest of the country had become anarchic, chaotic and highly dangerous to move about it. Thus ended a short, but unique chapter in British Colonial railway history.

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