

IRISH RAILWAY NEWS

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Editorial

As usual the editorial opens with an apology, firstly for the delay in the appearance of the magazine and secondly for the delay in replying to recent letters on the subject. Unfortunately other pressures and responsibilities have made it difficult to produce Irish Railway News at the frequency intended, a situation which I will try to rectify for 1998. Be assured that, in any event, the publication will continue unless and until you receive notification to the contrary. This issue has unintentionally turned into a review of 1997 and while some of the contents are almost historical I hope that you will nonetheless find the magazine an interesting read. From the subscription point of view this publication is being counted as two issues and I trust, given its size and content, that this will be generally acceptable.

1997 was a year of great contrasts for the two main Irish operators. The continuing growth in passenger numbers on both mainline and suburban services in the Republic severely taxed resources. The combination of inadequate levels of investment in previous years, insufficient operating resources and various technical problems combined to produce worrying levels of public dissatisfaction. A series of derailments towards the end of the year has raised concerns about the safety of elderly jointed track and resulted in further speed restrictions on the Waterford, Galway, Westport, Sligo and Rosslare lines. Indeed but for the renewal programmes currently in hand, and largely financed by the EU, much of the system would probably be facing closure as the infrastructure becomes less and less capable of sustaining a competitive and reliable service. Despite the current investment programmes it will be years before the decades of neglect and false economies can be put right. While politicians are quick to complain of inefficiencies and overcrowding they are extremely slow to provide the resources required to operate services to the standards they and their constituents demand. While improved services and higher speeds are likely on the Galway, Waterford and Tralee lines over the next few years the outlook for the Dublin/Rosslare, Mullingar/Sligo and Athlone/Westport lines is fairly bleak given the absence of any programme of investment and the inevitable deterioration in the infrastructure. Freight operations have taken a pounding in 1997 with the loss of both Asahi and Bell lines and the reduction in the number of depots handling cement and other traffics.

The people of Dublin continue to suffer from a wholly inadequate and underfunded public transport system with endless debate continuing about Luas and other proposals. The latest delay to the Luas project centres around an investigation into the possibility of running the system underground in the city centre, a proposal which would use up massive resources with little or no benefit, even for the motoring lobbies. If funding is available for tunnelling it should be used to link existing lines in such a way as to create a new DART route from Maynooth and/or Heuston to Carrickmines via the city centre.

Perhaps the most encouraging event of the year was the introduction of the new cross-border services which, although subject to reliability problems in recent weeks, have been very well received by the public. While no official figures are available it is clear that cross-border traffic has massively increased over 1996, perhaps by as much as 50%. The potential for further improvement remains, given that existing end to end journey times could be reduced by at least twenty minutes by diverting services to Great Victoria Street, completing the Belfast/Lisburn upgrade and increasing the speed limit to 100 mph on sections of track where geometry permits.

Like Irish Rail, NIR remains seriously under-resourced and, apart from the urgency of proceeding with the Bleach Green/Antrim upgrade, faces the necessity for major rolling stock and track renewals over the next few years if the system is to have any chance of competing with the motor car and realising its full potential. There are opportunities to arrest the disastrous decline in public transport usage which stemmed from the ignorant and ill-advised rundown of the railway system in Northern Ireland during the 1950s and 1960s. An enlightened policy could see the restoration of services to Newry (Edward Street), Armagh and Comber thus maximising the value of investments which have already taken place. The re-establishment of fast, good quality services on the Belfast/Londonderry line is an issue that

needs to be tackled urgently and is one which will be a pointer to the commitment of Translink to the development of the railway system in Northern Ireland.

Finally I would like to wish readers a prosperous and peaceful 1998 and to thank you for your continuing support.

A. Gray - 6/1/1998

Irish Rail

(Iarnród Éireann, including CIÉ and DTI)

Dublin Airport

Feasibility studies involving Irish Rail, Aer Rianta (the Irish Airports Authority) and the Department of Transport, Energy & Communications have been undertaken recently into the provision of a rail link to Dublin Airport. There is now widespread acceptance that the absence of a fast, reliable, public transport link is impeding the development of the airport with roads in the vicinity becoming increasingly congested at peak periods. In addition parking at the airport is now quite expensive, time consuming and somewhat intimidating, especially for the uninitiated. While the M50 motorway has improved access from peripheral areas of Dublin as well as from provincial cities and towns it has actually increased congestion in the immediate vicinity of the airport and by so doing has increased journey times to and from the city centre. Proposals under consideration include the construction of a link from the terminal buildings to join the Dublin/Belfast a little north of Howth Junction. This would be about seven kilometres long and would allow DART trains to run to the airport from the city centre in under twenty minutes, serving intermediate stations as at present. Alternatively an express service should be capable of completing the trip in under twelve minutes. Given that the number of trains travelling to Malahide or beyond is likely to increase significantly over the next few years as a result of the already authorised DART extension to Malahide, increased cross-border frequencies and the rapid growth in outer suburban demand it will clearly be essential to grade separate the city-bound airport line and the mainline at the proposed junction in order to avoid unnecessary conflict.

A further suggestion under investigation is the possibility of constructing a new high speed line from Balbriggan to Dublin Airport which would allow the diversion of cross-border services via the airport. Such a link would facilitate a DART service to Swords and in addition could service large “Park and Ride” facilities in the vicinity of the M50 motorway. Such a scheme seems unlikely to materialise in the short term.

Construction of a rail link to the airport from a point a little north of Howth Junction could start in 1999 and would take about two years to construct at a cost of at least £50m. Incidentally Dublin is one of an ever decreasing number of large European airports which are not rail served.

LUAS

This project has become seriously bogged down in the continuing debate over the desirability and cost of running the system in a tunnel through the centre of Dublin. The project is now so far behind schedule that it is highly unlikely that it can be completed to a timescale acceptable to the European Commission and as such seems likely to lose funding from this source. (Indeed the allocated funding may be lost to Ireland entirely as there may not be time for alternative projects to be evaluated and implemented within the timeline required to qualify for assistance.) The main developments during the year were as follows:

January 1997

CIÉ announce an alternative routing for LUAS, bypassing the Mount Brown/Kilmainham area, following a concerted campaign by local business groups. The new routing will take the line through the grounds of St. James's Hospital and onto Davitt Road rejoining the original routing at the junction

of the latter and Tyrconnell Road. Local politicians take the credit for CIÉ's change of mind only to find that many residents appear to favour the original route. A campaign starts to reverse the decision.

February 1997

Dispute between CIÉ and the National Roads Authority made public. This concerned the means by which LUAS would cross the M50 at the Red Cow Inn; the solution eventually agreed will see the tracks carried over the motorway on a dedicated bridge with trams crossing the motorway access ramps at grade and without priority.

May 1997

CIÉ formally apply for a light railway order in respect of the Tallaght/Dundrum line. Minister Dukes commits £100m of Exchequer funding to the building of this line, the balance to come from EU structural funds. Minister Dukes announces that the Sandyford extension is to proceed subject to normal approval procedures with planning work to start immediately. This £14m extension will see the line extended from Balally to Lakelands and will include a stop at Kilmacud. It is envisaged that this extension would be built at the same time as the remainder of the Tallaght/Dundrum line. The Government also announces funding of £10m for the planning and design of the Ballymun line and instructs the CIÉ project team to consider the possibility of running this line to Dublin Airport. The application for a light rail order included a multi-volume Environmental Impact Study dealing with the effect of LUAS on People, Traffic, Air Quality, Cultural Heritage, Property, Water, Landscape, Public Utilities, Noise, Flora and Fauna. This document also contained details of the proposed bridge at Taney Road, Dundrum, which will consist of three spans. The longest of these will consist of a 90m cable stayed concrete deck located at the northern end of the structure and supplemented by further spans of 30m and 15m. The cable arrangements will require a 40m high pylon which along with the cables will give the bridge a distinctive appearance. Other features of the proposed system confirmed by the EIS document include the following items:

Track gauge will be 1,435mm, the European standard. The reasons quoted for adopting this gauge include reduced vehicle construction costs and slightly easier engineering of curvature at a number of critical locations. Track construction methods will vary and apart from conventional ballasted track, rails and sleepers will be mounted on mass concrete foundations with floating slab-track being used in sensitive areas in order to reduce vibration. The latter will incorporate a resilient layer between the track and the foundations. The proposed LRT is double track throughout its entire 22km length.

Up to eighteen substations of 1 MVA capacity, many of them located underground, will be required to supply the overhead system which will be energised at 750V (DC). The conductor will be strung at least 6m above ground in areas where trams share their alignment with road traffic. Overhead structures and cabling on the city streets will be simplified by running the main power supply in underground ducts parallel to the track with feeds to the overhead conductor at intervals, as required.

Signalling will be extremely simple with trams operating on a line of sight basis in most instances although signals will be provided at locations where conflicting LRT movements are possible. Generally trams will be required to obey conventional road traffic lights although it is proposed to interface these with the LRT control systems in such a way as to prioritise tram movements as much as possible. Frequently used points will be motorised and signalled although most of the emergency crossovers will be manually operated as required. There will be two trailing crossovers at Tallaght, a trailing and facing crossover giving access to and from the Red Cow depot, a facing crossover and lie-by siding at Heuston, trailing crossovers near the Jervis Centre and at Dawson Street, Harcourt Street and Balally. In addition there will be a turnback siding located between the running lines immediately south of Beechwood station, the latter located on the Milltown side of the old Ranelagh halt.

The new GEC Alsthom TGA 301 Citadis tramcar has been selected for LUAS although until the

uncertainties surrounding the project have been resolved no order has been placed. The TGA 301 is one of a series of vehicles which offer modular design and can be customised in terms of width, shape, layout, colour and window size. A particular feature of the Citadis range is the possibility of adding additional modules at a later stage in order to increase carrying capacity. The vehicle selected by CIÉ consists of two outer portions each approximately 12m long and articulated about a 4m central section. Total assembled length is approximately 29m and the vehicle is supported on three bogies, one per section, with the outer two powered using asynchronous technology. The selected vehicle is 2,400mm wide (DART is 2,916mm) and will seat 60 passengers with standing room for a further 123, according to the manufacturer's literature, and up to 210 according to the EIS document. There are to be 29 vehicles in total, maximum speed 70km/h, initial acceleration of 1.2m/s², normal braking rate 1.0m/s² with emergency braking of 3m/s². The EIS document indicates that the trams will be able to withstand a compressive force of 200kN and will be fitted with resistant glazed windows and doors as well as resilient bumpers. An emergency handle is provided by which means a departing tram can be prevented leaving a station. If activated between stops the driver is alerted but is able to continue to next station.

There will be 33 stations (excluding the Sandyford extension) and most will have separate platforms for each direction although a small number will have a single island platform. Platforms will be 40m long, 300mm high and 3m wide (4m in the case of island platforms). Each station will typically contain shelters on either platform, seating, ticket vending machines, ticket validation machines and passenger information system displays. "Park and Ride" facilities each capable of accommodating 550 cars are proposed at Tallaght, Red Cow and Balally. The Red Cow station will also have bus interchange facilities.

Two new bridges are proposed, the first over the M50 at Red Cow and the second over the Grand Canal at Suir Road. The Sean Heuston bridge adjacent to Heuston Station will be strengthened by replacing the four central cast iron trusses with mild steel trusses which in turn will carry the concrete deck that will be subject to LRT loading. On the Harcourt Street line the bridges at Charlemont Place, Dartmouth Road, Ranelagh Road, Cullenswood Road and Taney Road will be rebuilt. The existing abutments will be raised and either strengthened or replaced depending on circumstances. There will be stations incorporated into the Charlemont Place and Ranelagh Road structures. Rather than replace the bridge at Dunville Avenue it is proposed to remove the existing masonry abutments and lower the embankment so as to create a new level crossing.

The LRT depot, administration, system control and maintenance facilities will be located on a site adjacent to the M50 at Red Cow. As the proposed site is not on level ground considerable earthworks will be required to make it suitable for its intended purpose and as a consequence the workshops and stabling area will be sunk into the landscape. Access to the depot will be by means of a triangular junction on the Tallaght side of the Red Cow station with crossovers arranged in such a way as to allow trains to enter or leave the depot in either direction. The depot site is located to the north of the LRT running lines.

It is proposed to run trams every 5 minutes at peak periods and every 10/15 minutes at other times. While the proposed number of vehicles is just sufficient to maintain a five minute headway between Tallaght and Dundrum it is likely that additional services will be provided on the inner portions with short workings to/from Heuston Station, Beechwood Avenue and Red Cow. The EIS claims a theoretical system capacity per direction of 10,950 passengers per hour based on 40m vehicles running at 2 minute headways with 85% occupancy and six standing passengers per square metre. (These figures are based on a nominal vehicle capacity of 80 seated and 285 standing passengers and represent a passenger density higher than that encountered on the most overcrowded DART services.) Anticipated peak hourly loadings per direction are not expected to exceed 2,800 and would only be

achieved between Ranelagh and Stephen's Green.

July 1997

The Minister for Public Enterprise announced on 8th July her intention to commission an independent study to access the option of putting the Dublin light rail system (LUAS) underground in the city centre. A Public Inquiry, with His Honour Judge Sean O'Leary acting as inspector, opened at Dublin Castle on 21st July to inquire into the application made by CIÉ for a light rail order in respect of the Tallaght/Dundrum line. Judge O'Leary adjourns the inquiry to 29th September due to the uncertainty created by the Minister's announcement of 8th July.

September 1997

Judge O'Leary again adjourns the Public Inquiry into CIÉ's application for a light rail order for Tallaght/Dundrum, concluding that the scope and depth of the independent study announced by the Minister on 8th July will greatly impact on the deliberations of the Public Inquiry and that he could not safely proceed until the study into the underground option had concluded. Amid mounting concern that the LUAS project might have to be abandoned Minister O'Rourke announces that the Exchequer will meet the cost of the scheme if European Funding is withdrawn.

November 1997

W.S. Atkins, the consultants appointed to investigate the underground option, invite written submissions from the public, the closing date for which is the end of the month.

Dublin/Belfast Project

Signalling, Layouts and Level Crossings

The layout of track and signalling in the Drogheda area was gradually altered during the first three months of 1997 culminating in the commissioning of a new SSI interlocking on Monday 17th March. The installation of new connections was generally undertaken during the course of overnight possessions which commenced after the last service on Saturday nights and finished in time to pass the 10:15 Dublin/Belfast on Sunday morning. The changes made may be summarised as under:

18th/19th January

The trailing crossover (No.81) at the south end of the station was renewed and relocated 132m nearer Dublin. The associated disc signal (No.43) which had routes either to the Down main (No.44 disc) or in the wrong direction along the Up main to No.45 disc was similarly relocated. The new crossover is an exception to modern practice being located on the gentle curve on the Dublin side of Newtown overbridge. (*This crossover became 217 under the SSI numbering scheme.*)

A new set of trap points was installed at the Platin end of the Navan branch loop. These are worked in conjunction with the loop turnout, No.89, which in effect now operates as a crossover. This alteration allows the stabling of vehicles on the branch loop which under the new signalling scheme was renamed "West Loop" to distinguish it from its easterly continuation - the former through goods siding which was later to become fully track circuited and is now designated "East Loop". The corresponding sections of the Navan branch were later designated "East Branch" and "West Branch", the dividing point in the case of both loop and branch track being No.87 crossover.

20th January

The connection from the locomotive yard onto the Up line which together with its associated traps constituted No.85 points were taken out of use on 20th January as was the siding running parallel to the Up platform. The latter siding actually served a short bay platform which was used primarily by Navan branch trains although the occasional local train also started from here even after the 1978 layout

revisions. The practice had ceased by the early 1980s as there was only a disc controlling such movements. These alterations enabled work to commence on lengthening the Up platform at the Dublin end and on the construction of a new 180m long bay at the back of the existing Up platform.

Access to the shed was maintained by linking the middle of the three Buckey's sidings into a 40m headshunt which in turn was connected to the rest of the locomotive yard via the turntable and a further 50m headshunt formed by the stub of the disconnected line leading towards the Up road. Thus a locomotive from the shed to the station would run into the 50m headshunt, reverse over the turntable into the 40m headshunt, reverse again and proceed via Buckey's to the ground frame controlled points leading onto the Up road on the Dublin side of the Newtown overbridge. A final reversal along the Up road would bring the locomotive into the station.

1st/2nd February

The new trailing connection from the Up yard (211) to the Up main was partially installed with just a short section containing the switch blades being omitted for the present.

Signal DA61 the Up home, was moved 30m nearer Dundalk in order to provide an increased overlap on the approach to the Boyne viaduct.

8th/9th February

Signal DA42, the Down home, was relocated 50m nearer Dundalk in order to facilitate alterations to the track circuiting preparatory to the installation of the new facing crossover which took place on 8th/9th March.

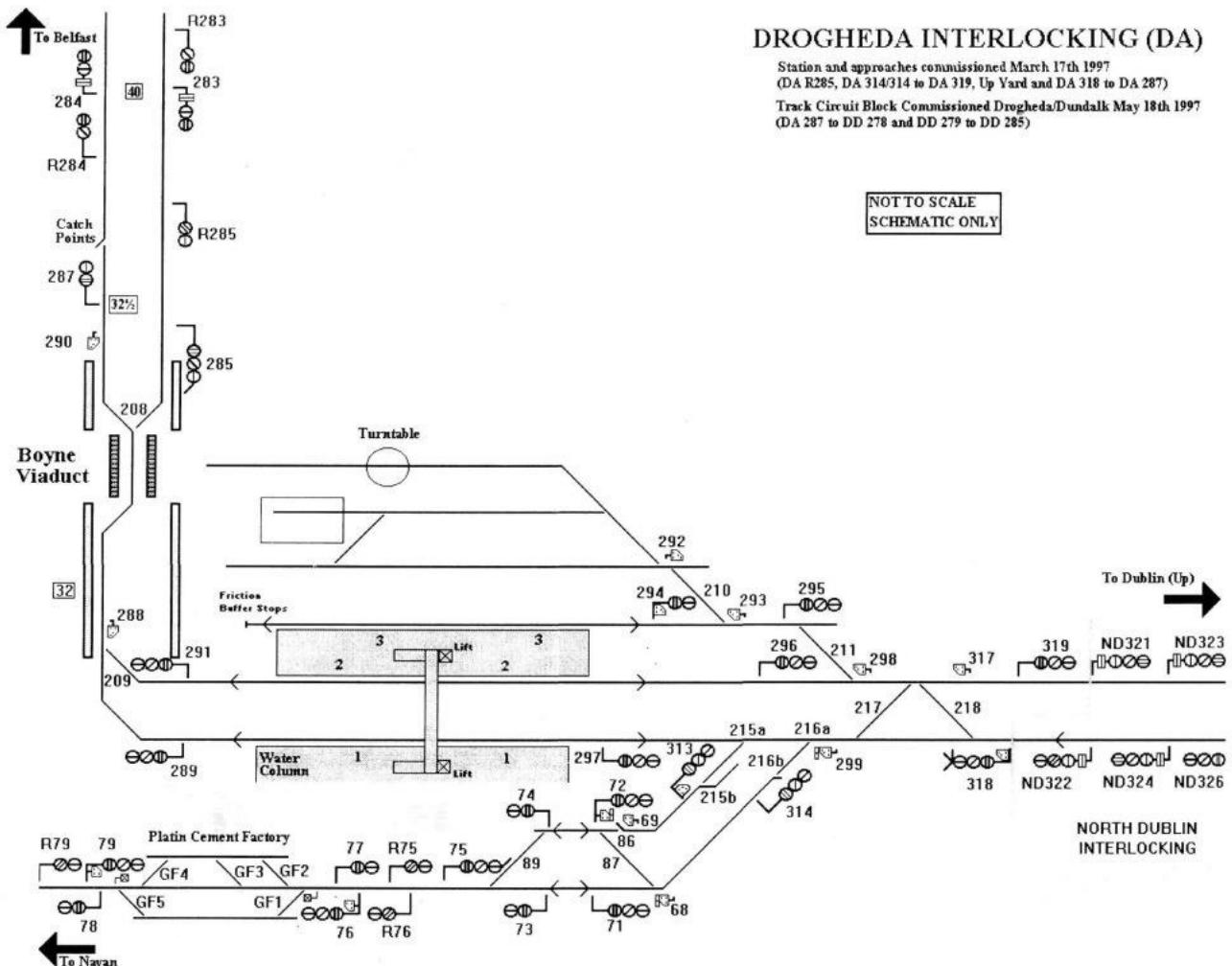
28th February/1st March

The connections at either end of the "middle road", No.88 trailing onto the Down line at the south end of the station and No.84 trailing onto the Up line at the north end of the station, were taken out of use together with the associated traps and ground mounted disc signals. Also taken one of use was the connection from the "Gullet" sidings which trailed onto the Down line between the station and the viaduct. This turnout together with the associated trap points constituted No.90 points.

With effect from the morning of 1st March all existing track circuits on the Up line from the distant signal (DAR65) to, and including, the berth circuit for the Up advance starter (DA41) were decommissioned. Similarly in the Down direction all existing track circuits beyond the overlap circuit for the Down home (DA42) and up to and including the berth track circuit for the Down advance starter (DA62) were taken out of use. The fouling track circuits on the Navan branch, in advance of 66 and 67 discs, i.e. in the vicinity of the turnouts from the Down main, were also rendered inoperative. Signal 51 which was located at the north end of the Up platform and protected the trailing connection from the "Gullet" sidings was also taken out of use on this date as was signal 61, the Up home protecting the Boyne viaduct. Other alterations saw signal 56 on the Down line, which protected the interlaced track on the Boyne viaduct, moved towards Drogheda by 150m. Shunt signal 57 which applied to wrong direction movements through the interlaced track along the Up road was also moved back 150m and converted from a ground mounted disc to a 3-aspect running signal. The Up outer home (DA65) was redesignated as the Up home and this signal now took on the role of protecting the viaduct.

Pending commissioning of the new SSI interlocking on 17th March trains were required to pass signals DA42 (Down home), DA56 (Down starter), DA65 (Up home), DA48 (Up starter), DA46 (Up starter off Down platform), DA72 (Up loop starter, Navan branch) and DA71 (Up starter, Navan branch) at danger and proceed cautiously through the station area. Most ground disc signals on the Up and Down Belfast lines had been removed by this stage except 44 and 59, both of which were located on the approach side of facing points, 82/83 on the Down line and 91 on the Up line. All disc signals on the Navan branch remained in place at this time although 66, 67 and 72 were fixed at danger. Consequent

on the above mentioned signals being fixed at danger DAR65 and DAR75 were fixed at caution while DA75 and ND322 had their green aspects disabled.



1st/2nd March

The facing crossover on the Boyne viaduct (No.91) was taken out of use together with the ground disc signal (59) which controlled shunting movements across it from the Up to the Down line. During the course of the overnight possession new turnouts were installed at either end of the Boyne viaduct, that on the north side facing Down trains and located at the point where the interlaced Up and Down roads had previously separated while that at the south side was positioned close to the station end of the viaduct facing Up trains. The section of line between the turnouts, about 440 yards, was thus converted to a single track along the alignment of the former Down line. The location of the turnout at the south end of the viaduct seems to have been chosen so as to present Up trains with slightly reduced curvature in much the same way as a car might round a bend on the wrong side of the road in order to maximise speed. The turnouts were initially paired together and designated as 91 points, the normal position of which saw both ends aligned for the Up road, the reverse position aligning both ends for the Down line. The method of installation was interesting in that the turnouts were walked sideways, in sections, from their assembly site to the running line using a set of miniature gantries. Each time these reached the limit of horizontal travel the trackwork would be placed on the ground so as to allow the vertical jacks supporting the gantries to be repositioned. This exercise was repeated as many times as required to place the new trackwork on waiting bogies which were then wheeled to the point of installation. Short

sections of service rail are required at the installation site and these would be removed after the new trackwork had been jacked off the bogies prior to being lowered into position. This method of installation is useful where there is restricted overhead clearance or where cranes cannot easily reach the site. It was used to renew East Wall Junction in November 1996 as reported in the May/December 1996 issue.

8th/9th March

The new facing crossover, 218, which is located just south of Newtown overbridge was installed overnight but was not brought into use until 17th March. Installation of the trailing turnout (211) from the Up yard to the Up main was completed. (See 1st/2nd February above.)

At this stage the remodelling of the Up yard was in full swing following the earlier disconnection of the turntable and shed roads and the removal of the temporary link to "Buckey's" which was commissioned on 20th January.

10th March

The Down line catch points which were located immediately north of the viaduct, near MP 32½, were moved 822 yards towards Dundalk to a new position beyond the Down advance starter (DA62).

15th/16th/17th March

The new signalling system and altered layout was commissioned during a possession of both lines between Dundalk and Balbriggan which commenced after the passage the 20:15 from Dublin and 20:06 ex Dundalk. The following changes took place over the weekend:

Buckey's sidings and ground frame were taken out of use at 21:30 on 15th March thus finally severing the connection into the area which once contained the terminus of the Dublin & Drogheda Railway.

Existing Up distant (DAR65) replaced by a new signal capable of displaying either a yellow or green aspect but located about 100 yards nearer Drogheda. This signal is numbered DAR285 and is located some two miles from the home signal (DA285). The outer home, formerly DA65, has been removed as its prime purpose was to protect the trailing junction from the Boyne Road sidings. (*The latter connection was removed on 13th October 1996.*) The home signal was originally numbered DA61 and was placed in its present position on 2nd February.

New Disc signal (290) reading from the Down road along the single track on the viaduct to Disc 288 which protects 209 points and in turn reads to either platform.

New Up platform starter (DA296) commissioned to replace DA48. This signal is located some distance on the Dublin side of its predecessor and protects 211 turnout. There is sufficient space behind this signal to accommodate a train of 427 yards without fouling 209 points. DA296 reads to the Up advance starter, DA319.

New Up direction starter (DA297) off the Down platform. This signal replaces DA46 and reads to DA319. A train of up to 327 yards can be accommodated behind this signal without fouling 209 points.

New Up direction starting signals off the Navan branch, DA313 and DA314 replace ground mounted disc signals DA66 and DA67 respectively. DA313 has a co-sited ground disc signal reading into the neck siding. The running aspects of signals DA71 and DA72, both of which previously read to the Up advance starter, now read instead to signals 313 and 314 respectively. The former goods siding is now fully track circuited and becomes a running line with the designation "East Loop". (See changes of 18th/19th January for fuller detail.)

A new Up starting signal from Platform 3, DA294, was commissioned, being sited in such a way as to protect the exit from the Up yard sidings onto the short headshunt leading to 295 signal. This latter reads to the Up advance starter (DA319) and protects the exit onto the Up line through the trap points

and trailing turnout which together constitute crossover 211. Signal 294 is capable of displaying a red or green aspect only and cannot be cleared unless signal 295 is displaying a proceed aspect. Ground mounted disc DA292 controls movements from the sidings towards 295 signal.

The existing Up advance starter was moved about 50m towards Dublin and is now numbered DA319.

The Down home signal which was relocated on 9th February is renumbered DA318 with main aspects reading to each of the three platforms as well as the section signal for Platin (DA73). A co-sited ground mounted disc reads to DA299 at 216 points or DA298 at 211 points. DA299 in turn reads to DA68 or DA69 at the Navan end of the “East Branch” and “East Loop” respectively. DA298 reads to either the Up platform or DA293 which is positioned at 210 points. DA293 reads into the Up sidings, the exact destination being determined by the operation of hand points.

The northbound starting signals, DA56 and DA57, which became partially operative on 1st March, were fully commissioned and renumbered DA289 and DA291 respectively. These signals now read to the Down advance starter, now numbered DA287 and sited almost identically to DA62 which it replaces.

The main features of the new layout, as can be seen from the accompanying diagram, are:

The removal of the interlaced track through the steel spans of the Boyne viaduct and the singling of the line over most of the rest of the viaduct, i.e. between 208 and 209 turnouts. These turnouts provide the same functionality as a facing and trailing crossover and in combination with the crossovers at the south end of the station allow reversible working on both the Up and Down main lines.

The provision of a full length bay platform on the Up side facing Dublin and fully signalled for both arrivals and departures.

The disconnection of the “Middle Road”, “Buckey’s” and the “Gullet” sidings. To compensate for the loss of stabling facilities the Up yard has been greatly enlarged and in addition to the line serving the bay platform contains three lengthy sidings, one of which serves the turntable and another the former locomotive shed. Run round facilities are provided within the yard although locomotive-hauled trains terminating on Platform 3 must propel back towards the Up road before pulling forward into the yard under the control of DA293. The procedure is reversed in order to regain the platform. (*Prior to the remodelling there was a siding behind the Up platform serving a short bay in addition to the turntable siding and two other roads serving the shed. While the more easterly of the three “Buckey’s” sidings had once been connected to the Up yard via the turntable this had been removed some years previously only to be temporarily restored in a different way on 20th January.*)

Despite the extension of the Up yard and the installation of additional trap points on the Navan branch, there is only just sufficient room to accommodate the three additional suburban sets which have been stabled in Drogheda since the commencement of the new timetable on 1st September. Previously the station generally hosted a six-piece push/pull off the 17:43 ex Pearse, two Tara Mines trains, a laden cement train, the Platin pilot and the pair of bo-bos used on the Kingscourt branch. The additional suburban sets consist of a second six-piece push/pull, a rake of Cravens and a four-car Arrow.

The Down platform road has been realigned to produce a smoother and better aligned curve through the station. The platform itself has been extended slightly and is somewhat widened at the northern end where the track has been moved a little to the east.

The Up platform road has been realigned for most of its length and like the Down road follows a smoother and better aligned curve through the station. The platform has been considerably extended at the Dublin end and is generally wider throughout due to the westerly relocation of the track - a feature particularly noticeable towards the northern end of the platform.

All running signals controlled by the Drogheda interlocking are three-aspect colour lights except the

section starting signals for Dundalk and Platin, the section starting signals at Platin for Navan and Drogheda, the Platform 3 starter (effectively a repeater for DA295) and the isolated distant signals approaching Drogheda from Dundalk and Platin and approaching Platin from Drogheda and Navan. (The automatic signals which were commissioned later near Dunleer are also two-aspect, yellow/green for the distants and green/red for the stop signals.) Ground discs are a mixture of the four-light American style directional position light signals first introduced on Irish Rail in 1982 and the earlier British style three-light type dating from the 1978 resignalling. All points are operated by Westinghouse type 63 machines which were re-adopted as the Irish standard a few years ago.

All mainline points and signals are interlocked using SSI technology although the earlier relay interlocking has been partially retained to control the Navan branch, hence the retention of old style disc signals on this part of the layout. The entire layout is operated from a mouse driven PC although commands intended for processing by the relay interlocking have to be routed through a special interface known as a "Programmable Logic Controller". Signal post telephones are accessed via a separate PC.

Absolute block working, controlled by single wire Harpers instruments, remained in force between Drogheda and Dundalk until 18th May when track circuit block working was introduced. The single line section between Platin and Navan is still controlled by ETS instruments which are interlocked with the section starting signal to Navan (DA78).

A "white light" crossing has been provided at the north end of the platforms and in accordance with standard signalling practice may only be used when the white lights are illuminated.

Temporary Timetable Changes Associated With The Drogheda Resignalling

3rd March to 15th March inclusive (Weekdays)

Because of the extent of the trackwork alterations and the absence of normal signalling protection all movements in the Drogheda area were restricted to 5 mph between MP 31½ and MP 32¼. As a consequence the 07:10 (MS) Newry/Dundalk was advanced to 07:00 while the 06:04 (MF), 06:40 (MF), 07:02 (SO), 07:35 (MS) and 08:07 (MS) trains ex Dundalk were advanced to depart ten minutes earlier from Dundalk and three minutes earlier from Drogheda. The Monday to Friday 07:28 and 07:43 ex Drogheda also departed three minutes earlier. All services observed their normal paths from Laytown forward with the result that trains lingered at the latter location even longer than normal. Due to the difficulty of running round in Drogheda the weekday 06:57 ex Arklow ran empty to Dundalk returning behind the 09:30 ex Belfast to form the 11:50 ex Drogheda, an arrangement which required Dunleer to be "switched in". The push/pull set on the 08:53 ex Bray (MF) or 09:25 ex Pearse (SO) formed the 10:57 rather than the 11:50 ex Drogheda during this period. Another problem train was the 16:26 ex Pearse and 18:16 ex Drogheda which were normally locomotive hauled. In this instance a two-piece Arrow was substituted, an arrangement which led to severe overcrowding.

3rd March to 24th June (Weekdays)

The 17:28 Pearse/Mosney which normally continues as the 18:50 Mosney/Drogheda and forms the 19:35 Drogheda/Connolly was altered to terminate at Mosney and return empty to Connolly to form the 21:00 to Dundalk. The 17:43 ex Pearse formed the 19:35 ex Drogheda and stabled overnight in Connolly before running empty to Drogheda the next morning at 06:15 to form the 07:43¶ ex Drogheda. During the period from 3rd to 14th March the 06:15 empty carriages were generally held at the Down home signal (DA42) until the 07:25 ex Drogheda had departed. (¶ departed at 07:40 from 3/3/1997 to 14/3/1997 inclusive - see above.) On Fridays and Saturdays arrangements varied slightly as the 17:28 ex Pearse operates on Mondays to Thursdays only and the 21:00 to Dundalk operates on Mondays to Fridays only.

15th March

The 19:10 Connolly/Dundalk terminated at Drogheda on this date and returned immediately to Dublin thus expediting the movement of empty stock ahead of the planned possessions. Passengers travelling to Dundalk were still awaiting onward transport from Drogheda at 20:37, at which stage the train would normally have arrived in Dundalk.

16th and 17th March

Services were suspended between Dundalk and Balbriggan all day 16th March and up to 15:00 on 17th March. The first trains to be signalled under the new arrangements were the 15:00 from Dublin and the 14:30 relief from Belfast which were formed by 216 + EGV + 7 Mk2s and 99+4+68 respectively. Up to 28 buses were employed on substitute services at one point due to heavier than normal traffic which included day trippers to the St Patrick's Day parade and GAA supporters heading for Croke Park. The Down platform was taken out of use at 15:45 on 17th March in order to facilitate the realignment of the Down line through the station as described elsewhere. All subsequent through traffic was routed via the Up platform until 20:00 on Friday 25th April. The first fully signalled "wrong way" movement through the Up platform was the 17:55 relief to Belfast, 68+4+99, which passed at 18:31 with somewhat over 400 passengers on board.

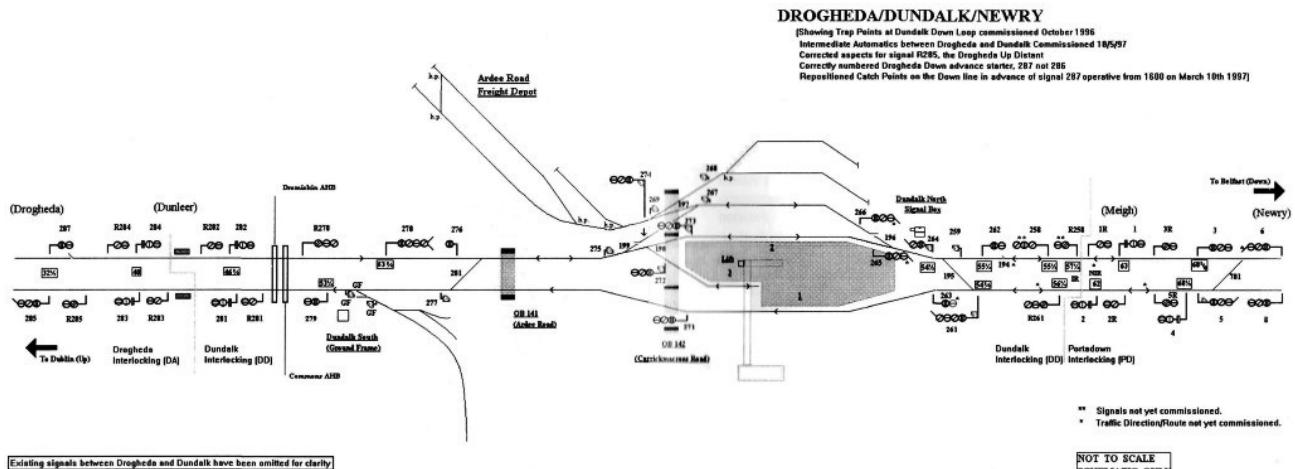
The signal box at Dunleer, which contained a fourteen-lever Dutton frame, was formally closed on Sunday 18th May after almost 105 years service. It controlled the last mechanically operated signals on the former GNR mainline and at the time of closure had only six working levers which operated distant, home and starting signals in each direction. The last use of Dunleer for traffic purposes occurred on the previous day when the cabin was switched in to pass an 18:50 special ex Belfast, 233 + 5 Mk3s + EGV, and the 20:06 ex Dundalk, (6103) 6 p/p + 234. The special passed Dundalk at 20:01 and was followed 13 minutes later by the delayed local service. The last train to be signalled on any part of the Dublin/Belfast line using absolute block instruments left Drogheda at about 00:40 on 18th May formed by 89+4+96+2+97 which was working a 23:55 Dublin/Belfast concert special. Track circuit block working was commissioned between Drogheda and Dundalk around 10:00 the same day. The line between Drogheda and Dundalk is now split in three sections for signalling purposes each of which is about seven miles in length. Two-aspect intermediate stop signals are provided on both roads at MP 40 and MP 46 $\frac{3}{4}$ and these in turn are protected by two-aspect distant signals about 1 $\frac{1}{4}$ miles in the rear. The intermediates near Dunleer are part of the Drogheda interlocking while those at Castlebellingham are part of the Dundalk interlocking. The first trains to operate under the new arrangements were the 10:15 ex Dublin and the 09:30 relief ex Belfast which consisted of 213 + EGV + 7 Mk2s and 111 + 7 Cr + GSV respectively. The regular 10:00 ex Belfast was formed by 201 + 8 Mk2s(NIR) which in turn was followed by a 12:00 concert special consisting of 68+4+99+2+82. (*The only sections of double line in Ireland still protected by absolute block instruments are Cork to Cobh and Waterford West to Waterford Central. The Cobh branch is generally worked as two sections - Cork/Littleisland and Littleisland/Cobh although the latter is occasionally split by "switching in" the cabin at Glounthaune. The latter box, previously known as Cobh Junction, controls the junction with the disused Youghal branch as well as a trailing crossover sometimes used for single line working.*) The signalling between Drogheda and Dundalk is included on the diagram reproduced below.

At the end of July the continuous automatic warning system (CAWS) was extended from the boundary of the North Dublin interlocking, just south of Drogheda, to MP 57 $\frac{1}{2}$ (just north of the yet to be commissioned wrong direction Up distant for Dundalk, DD R258). CAWS applies on the Up road from MP 58 $\frac{1}{4}$, and on the Navan branch from DA313 and DA314. Trains running onto the Navan branch lose CAWS indications as they pass Drogheda signal box, just after leaving the main line.

The automatic half barrier crossing at Commons, between Dundalk and Castlebellingham, is to close as soon as alterations to the road network in the vicinity are completed. The nearby Dromiskin crossing is,

however, expected to remain in use.

Consequent on the resignalling of the Drogheda/Dundalk section signals R101 and 101 which were located on the Down line on the approach to Dromiskin have been removed. Control of these signals was transferred from Dundalk Central to Dundalk North on the demise of the former in May 1995. Their purpose was to enable the supervising signalman to authorise unusual road traffic movements without detaining an approaching Down train at Drogheda (or Dunleer if the latter was switched in). This facility became necessary after the de-manning of Dunleer as otherwise the signalman had no way of protecting the crossing once a train had passed the Down advance starter at Drogheda, almost seventeen miles away. These signals were not interlocked with the barriers and simply provided a means of stopping trains short of the crossings as and when required. As Dundalk is relatively close to the crossings the protection afforded by the Up advance starter was considered adequate.



Bridges

The footbridge at Howth Junction, OB 17A, has been raised in order to improve overhead clearances.

The steel barge which had been wedged against the viaduct at Malahide for some years was removed towards the end of March.

The brick and masonry arch overbridge at Malahide station, OB 27, was finally raised and rebuilt over the weekend of 26th/27th April. The structure now consists of a flat deck resting on sections of reinforced concrete bedrock which in turn rest on the base of the original abutments. A temporary footbridge was erected to cater for the normal flow of pedestrians during the consequent closure of the public road. This latter was closed from midday on Saturday until about 07:00 on the following Tuesday.

As a follow-up to the renewal of the centre span of the Delvin viaduct (UB 65) in 1996, a team of contractors has been painting the entire structure over the last few months so as to minimise the effects of corrosion, a particular problem at this location due to the proximity of the sea.

UB 144, the small underbridge located adjacent to Dundalk North signal box, has been widened to facilitate the slewing of the Up and Down lines at the north end of the station.

Permanent Way

Almost 1½ miles of track have been renewed with CWR since mid-December 1996 bringing the percentage of welded track on the Irish Rail portion of the Belfast line to almost 98.5%.

Dunleer/Drogheda	MP 32½ to MP 32 ¹ / ₈	Up Line
Boyne viaduct and Drogheda station	MP 31 ⁷ / ₈ to MP 31 ³ / ₈	Up Line
Malahide station	MP 9 ¹ / ₈ to MP 8 ⁷ / ₈	Up Line
Drogheda station and Boyne viaduct ¶	MP 31 ³ / ₈ to MP 32 ¹ / ₈	Down Line
Dundalk station	MP 54 to MP 54½	Down Line

¶ A short section of the Down line between the south crossovers and the turnouts for the Navan branch has not been welded although the track has been renewed.

Track renewal across the Boyne viaduct took place over about seven weekends between mid-March and the end of May. This work, which did not result in any interruption to services, saw the gradual replacement of the interlaced track by continuously welded flat-bottom rail resting on wooden sleepers. The opportunity was also taken to install waterproofing beneath the trackbed on the steel sections of the viaduct. (The single line section between No 208 and 209 turnouts, a distance of about a quarter of a mile, has been fitted with both guard rail and check rail.)

As mentioned elsewhere both the Up and Down mainlines through Drogheda have been realigned. The removal of all pointwork on the curve through the station has enabled the track cant to be altered significantly and as a consequence the speed limit through the station area has been raised to 30 mph, the same restriction as now applies across the Boyne viaduct. (*The speed limit on the Boyne viaduct was reduced from 25 mph to 15 mph some years ago following the discovery of some deterioration in the condition of the riveted steel beams spanning the central section of the arch nearest the main structure on the southern side. These were replaced by pre-stressed concrete beams in September 1993.*) The track through the platforms is continuously welded and consists of flat-bottom rail on wooden sleepers. Check rail is in place on both lines from the south end of the viaduct to a point close to the turnouts from the Navan branch. Continuing towards Dublin, under Newtown bridge, and as far as 217 crossover both lines are formed of welded flat-bottom rail (¶) on wooden sleepers. The track under the bridge was excavated in conjunction with the layout alterations already described.

Replacement long-welded rail strings were still awaiting installation in early December on the Up line north of Dundalk (MP 55½/54¾), between Drogheda and Laytown (MP 29/27½), at Mosney (MP 26/25¾) and on Rush bank (MP 15⁵/₈/15). A short section of older sub-standard CWR was replaced earlier in the year between MP 16 and MP 15⁵/₈.

The widening of UB 144 at the north end of Dundalk station was followed by a further realignment of both lines in the vicinity of the North Cabin. This work was completed in time to permit an easing of the temporary speed restriction through the station to 70 mph in advance of the commencement of the new timetable on 1st September. The goods shed, located on the Up side just south of Dundalk station, had its west facing wall moved inwards in early June so as to increase lateral clearances along the Up road at this point. A trial train consisting of 087 + EGV + 3 Mk3s, the executive set, ran to Dundalk on 30th August immediately behind the 18:20 Connolly/Belfast and was subsequently used for speed trials through the station.

An extensive programme of hedge cutting was undertaken between Howth Junction and Gormanston during the summer and should eliminate many of the problems caused by excessive vegetation encroaching on the line.

Stations

Although many of the station improvements described below are being financed separately from the cross-border project the work is described here for the sake of completeness as some of the alterations in any event related to the cross-border project.

Refurbishment of the overall roof of the “train shed” at Connolly was virtually complete by late June. The work included the repainting of the beams, girders and cross-ties together with the replacement of grime encrusted translucent corrugated plastic sections with clear polycarbonate panels. The removal of layers of accumulated paint from the walls along platforms 2 and 4 has revealed the original red arched brickwork together with much of the finer detail which had been hidden for many years. Platforms 2, 3 and 4 have been resurfaced using terracotta and cream tiles which both match and complement the brickwork. Taken together these modest improvements have dramatically enhanced the ambience within the train shed. The contrast with the main concourse and the loop line platforms and subways is quite remarkable and it can only be hoped that the refurbished train shed will set a new standard for the entire station.

The edge of Platforms 2 and 3 at Connolly have been cut back slightly at the northern extremity so as to provide the requisite clearance for De-Dietrich stock. At the time of writing in late October trains formed of De-Dietrich coaches were only permitted to arrive at, or depart from, Platforms 1, 2 or 3 at Connolly although Platform 4 can be used to stable empty stock should the need arise. The friction buffer stops on Platforms 3 and 4 were temporarily relocated 29m and 27m further away from the concourse towards the end of August thus shortening the platforms by the same amount. The space thus created is to be used for various temporary facilities while the concourse is being reconstructed. Work on the latter had not yet commenced by early December although financing and lease agreements are understood to be substantially in place. (*The last issue contains details of the proposed redevelopment of the concourse area and its integration with the nearby financial services centre.*) The covered station footbridge which was located just NORTH of the train shed and which linked Platforms 2 and 4 has been removed following years of disuse. Although the structure was unsightly and in need of repair its removal means that passengers wishing to interchange with DART and other services must continue to do so via the main concourse which is fine for revenue protection but hardly ideal from the point of view of passenger convenience. On the positive side the removal of the structure has improved the natural lighting in the station and contributed to a cleaner and tidier appearance.

The new station at Clontarf Road was nearing completion in early August, somewhat behind schedule but nonetheless in good time for the commencement of the new timetable on 1st September. The delay in constructing the station would appear to have been caused by the limitations of the elevated site and the necessity for extensive pile driving to secure foundations for the Up platform and the main station buildings, the latter being located at street level on reclaimed land. The new station will be served by 153 trains on Mondays to Fridays, 137 trains on Saturdays and 82 trains on Sundays. The opening of this station and that at Barrow Street was anticipated in the 1996/7 timetable and hopefully its appearance will reduce the irritating early running which has characterised off-peak DART services since May 1996. Driver changes, pickups, and set-downs, which presently take place at a short purpose built steel platform at MP 1, are expected to be transferred a few hundred yards further north to the new station. To facilitate this a short walkway has been constructed from Fairview shed to the south end of Clontarf Road station. A “white light” crossing, similar to that installed at Drogheda, is provided at the Dublin end of the station to enable staff to cross safely from this pathway to the Up platform.

The coping stones on the Up platform at Raheny have been renewed and the platform surface raised and resurfaced with red cobble block.

The somewhat spartan station buildings which were located on the Up side at Kilbarrack were demolished in early August preparatory to the construction of improved passenger facilities which were opened in early December.

Reconstruction of the Up platform at Portmarnock was completed in early January using prefabricated concrete retaining walls. The Down platform is less radically altered being slightly raised and like the Up platform is resurfaced using standard red cobble block. The stepped exit from the Down platform

has been replaced by a ramp constructed in accordance with the standards required for disabled access. Ramped access is also available on the Up side.

The portion of the Up and Down platforms at Malahide between the footbridge and the former signal box had been resurfaced with standard cobble block by mid-August and the height of both platforms noticeably reduced as evidenced by the shallow ramps constructed at all the entrances and doorways on the Up side, at the waiting room on the Down side and at the base of the footbridge on both sides. The Down platform has been extended northwards by some 65m using sections of prefabricated concrete retaining wall back-filled with debris from the demolished arch of OB 27. The extension remained out of use for some weeks, however, pending the westward relocation of the former signal box and the completion of the cobble block surface. The southern portion of the platform was subsequently shortened by 35m and no longer extends under OB 27, an alteration dictated by limited lateral clearance. At the time of writing in early December the Up platform had also been extended at the Drogheda end but this latter portion was not in use pending completion of alterations to the relay room (to improve lateral clearance) and the closing of a temporary access point which presently separates the old and new sections.

A substantial car park has been constructed on the Up side at Donabate and has greatly increased the very limited car parking heretofore available at this location. Both Up and Down platforms have been extended at the Drogheda end and, as at Malahide, Skerries and Balbriggan, are now of sufficient length to accommodate the eight-car railcar sets which are due to enter service in the first half of 1998. This work took place during the first two weeks of October and as elsewhere involved the laying of a shallow foundation onto which were placed prefabricated platform retaining walls. The new extensions were not yet in use as of early December as they have yet to be fenced and surfaced.

The main station buildings on the Up side at Rush and Lusk have been refurbished and internally modernised over the last few months and should be ready for occupation shortly. The remainder of the station has been redecorated although the absence of staff for much of the day means that much of this work can be readily undone by vandals. The car park on the Up side at this station has been further enlarged. Work commenced in January 1998 on the extension of both the Up and Down platforms at the Dublin end.

The car park at Skerries station has been resurfaced and further enlarged. Extensions have been constructed at both ends of the Up and Down platforms and when surfaced and fenced the station will be able to accommodate eight-coach railcar sets.

The Up and Down platforms at Balbriggan were lengthened at the Drogheda end during November in order to accommodate eight-coach railcar sets.

The platform serving the loop at Mosney has been slightly raised, has had new coping stones installed and is resurfaced using red cobble block. Pedestrian access to the station has also been improved. Work at the station was completed in time for the start of the 1997 season in May. The summer timetable, valid to 31st August shows 19 services on Mondays to Thursdays, 17 on Fridays, 15 on Saturdays and 6 on Sundays. The number of trains calling has been reduced somewhat in recent years although traffic is still fairly heavy. For instance up to 200 passengers might be expected to board the 17:55 ex Drogheda at Mosney each evening during the height of the holiday season.

The condition of the station at Laytown continues to deteriorate and unless something is done urgently the classic wooden station building on the Down side will probably be burnt by vandals. As at Rush the station is unstaffed for much of the day and is thus particularly vulnerable. Although commuter traffic to Dublin is busier than ever, casual business has dropped away due to the absence of staff and information and the decidedly threatening atmosphere engendered by the derelict appearance of the station.

Both the Up and Down platforms at Drogheda have been rebuilt to match the new track alignment through the station. As mentioned elsewhere a new bay platform is provided on the Up side in order to facilitate services to/from Dublin starting from or terminating at Drogheda. The new platforms are noticeably lower than those they replace, this being particularly apparent on the Down side which has two levels separated by cast iron railings recovered from Colp bridge. Ramps have had to be constructed from the platforms to the base of the footbridge, to the lift entrances and to the main concourse. The classic GNR(I) shelter on the Up platform had to be supported on wood packing due to the lowering of the platform level and in addition had its back removed to facilitate access to the bay platform, it has since been refurbished and a new section added facing onto the bay platform and constructed in the same style as the original.

It is anticipated that with the loading banks associated with the “gullet” sidings now redundant that this space will be filled in and used as a storage area for road freight vehicles. The area between the existing car park and the Navan branch will be thus available for much needed additional car parking.



Dundalk Central Cabin takes to the rails, 17th March 1997.

The upper portion of the former Dundalk Central cabin was moved from temporary storage in the goods yard to a new permanent position towards the north end of the main island platform at around 07:30 on 17th March. This operation involved lifting the structure over the Carrickmacross Road bridge before placing it on a bogie wagon which was then hauled along the Down loop to a point opposite the proposed new location. The cabin was then craned onto temporary supports positioned on a specially prepared concrete apron. The brick chimney breast has since been rebuilt and the cabin, now resting on a shallow red brick base, has been externally refurbished and repainted. Most of the original levers have been restored although there is too little space below the operating floor to make them operational. Nonetheless this preservation effort is very welcome and further enhances the appearance

of this historic and tastefully refurbished station. In another gesture to history the original cast iron GNR(I) crests which were recovered from the now reconstructed OB 142 have been erected on either side of the new structure and are visible from trains passing beneath.

A friction buffer stop was installed at the end of Platform 3 at Dundalk by mid-June and this has reduced the maximum train size which can be accommodated by twelve metres. It is thus no longer possible to stable a six-piece push/pull set.

Rolling Stock

The remaining De-Dietrich stock was unloaded at the North Wall and transferred by rail to Inchicore as follows:

Driving trailers	9003 and 9004 on 9/12/1996
Full Firsts	9103 on 9/12/1996 and 9104 on 3/3/1997
Standards	9215 on 3/2/1997 and 9216 on 9/12/1996
Dining Cars	9401 and 9402 on 3/2/1997, 9403 and 9404 on 3/3/1997

The late delivery of the dining cars is understood to have been at least partly due to problems with sub-contracted catering equipment. Given the delayed delivery there was little time wasted in including one of the dining cars in the Irish Rail trial train formation which consisted of 9001, 9101, 9402, 9201, 9203, 9205, 9207, 9209, 9211 and 225 on 6th February. (*Even numbered vehicles belong to NIR and odd numbered vehicles to Irish Rail.*)

Trial running of De-Dietrich stock continued on both the Cork and Belfast lines during January and early February. Appearances on the Cork line then became less frequent with at least two return trips scheduled each week from Connolly to Belfast. These trains were due to depart at 09:45 on Tuesdays and Thursdays, returning from Central at 13:20. As far as is known trials on the Cork line did not proceed beyond Limerick Junction at any stage although sets were turned on the triangle there on a number of occasions. An unusual trial was observed on 15th January when 225 + 9207/9209/9211 ran from Inchicore to Belfast and back leaving Dublin behind the 19:10 to Dundalk and returning through Drogheda at 01:16 the next morning. The same set closely followed the 18:27 ex Pearse on 16th January but this time was shunted onto the Navan branch as there was no path available beyond Drogheda, probably due to a block failure. The latter trial eventually terminated at Dundalk, instead of Belfast, and passed Drogheda in the return direction at 23:43.

The trial train of 13th March was the occasion for the first public appearance of a complete set in the grey/green cross-border livery which had just been applied to 206 as described elsewhere.

A three-coach formation arrived in Drogheda at 00:39 on 7th May and busied itself comprehensively gauge testing the station area - this being required to check clearances with the upper steps attached.

Several of the trial trains towards the end of May carried Irish Rail office staff whose function was to play the role of travelling gourmets in order to test out the onboard catering facilities. One such trip operated on 29th May being formed by (9001) 7 p/p + 206 and carrying some 30 passengers.

Incidentally all carriages in this set had been fitted with the external step located just at each door opening just below the vestibule level. These steps had been removed during much of the earlier trial running due to clearance problems which have now been resolved in so far as the Dublin/Belfast route is concerned.

In what was described as an “in-service” trial 206 + 9205, 9203, 9201, 9215, 9401, 9101, 9001 formed the 15:00 Dublin/Belfast and 18:00 Belfast/Dublin on Wednesday 11th June. This was the first use of De-Dietrich stock on a publicly scheduled service. There was some difficulties with the head-end power supply on the outbound trip, the departure from Dublin being marked by a trail of diesel exhaust which viewed from a distance would have suggested steam rather than diesel haulage. The run to Belfast was

otherwise uneventful with short bursts of 90 mph running being recorded between Skerries and Balbriggan and between Dunleer and Castlebellingham. Perhaps not surprisingly, given the pedestrian nature of the applicable schedule, it was necessary to "wait for time" at several locations, notably Newry and Portadown. A slightly late running local service and a 15 mph slack between Botanic and Belfast Central resulted in an arrival at 17:25, one minute behind schedule. The return trip was more interesting, departing Belfast at 18:01 with 206 pushing the seven-coach set. The poor condition of the Belfast/Lisburn section, currently restricted to a maximum of 40 mph, together with slacks at Drumbane AHB, Lurgan station and a cautious negotiation of Portadown, Poyntzpass and Newry meant that only one minute was gained on the existing 65 minute allowance for the 59 mile non-stop run from Belfast to Dundalk. The remaining 54½ miles from Dundalk were covered in exactly 47 minutes despite slacks at Drogheda, Laytown, Malahide and Clontarf the estimated net time for this section was 41'-37", the existing schedule being a leisurely 58 minutes. Total journey time was 113'-36" including the Dundalk stop. Analysis of the run suggests that a train of this formation could run from Portadown to Dublin in about 68 minutes, a performance which would yield a non-stop journey time from Belfast (Great Victoria Street) to Dublin of 89 to 90 minutes. It should therefore be possible to achieve the promised 95 minute journey time when the permanent way between Belfast and Lisburn is eventually brought up to the required standard. Other issues yet to be addressed by NIR include the installation of AWS between Lurgan and Belfast, lengthening of the platforms at Great Victoria Street and the operation of the level crossings at Lurgan in such a manner as to allow the protecting signals to be cleared in sufficient time to avoid otherwise unnecessary delays. (The latter issue appears to have been addressed in the context of the new timetable and as a result it is now fairly common for trains to transit the Lurgan area at line speed, i.e. 90 mph.)

There was little evidence on the service trial of poor riding and it appears that the problem has been substantially addressed through a combination of bogie adjustment and wheel reprofiling. Noise insulation is superb - certainly better than any other vehicle presently operating in Ireland.

New Timetable

The new Dublin/Belfast timetable, featuring increased frequencies and accelerated schedules, which was originally due for introduction in November 1996 and subsequently deferred to 1st June 1997, was put back yet again, this time to 1st September. The primary reason for the additional delay appears to centre around a combination of rolling stock problems and industrial relations issues, the latter mainly relating to work practice changes at Irish Rail. Trains leave Belfast on weekdays at 06:45, 08:00, 10:30, 12:30, 14:00, 16:10, 18:10 and 20:10, arriving in Dublin at 09:00, 09:59, 12:40, 14:40, 16:10, 18:20, 20:05 and 22:20 respectively. Apart from the 08:00 which stops at Portadown only and the 18:10 which runs non-stop, all other trains call at Portadown, Newry, Dundalk and Drogheda only. Services from Dublin depart at 07:40, 09:40, 11:00, 13:20, 15:20, 16:50, 19:00 and 20:30, arriving in Belfast at 09:50, 11:50, 13:10, 15:30, 17:30, 18:50, 21:10 and 22:46 respectively. Apart from the 16:50 all Down trains serve Drogheda, Dundalk, Newry and Portadown only. The 16:50 runs non-stop to Newry and then serves Portadown and Belfast. All weekday services mentioned above are formed by De-Dietrich stock with formations generally consisting of eight-piece push/pull sets powered by 206, 207, 208, 209, 218, 219, 225, 226, 233 or 234. Due to the excessive noise levels resulting from the use of HEP equipment a number of these locomotives have been turned so that the north facing cab is the furthest removed from the cooling fans. (The De-Dietrich coaches are so well sound insulated that the overbearing racket so evident externally when the trains are stationary is not noticeable to passengers. This problem should be relieved at Connolly as soon as the "shore" supply is fully commissioned.)

All weekday and most Sunday services offer first class accommodation which is being marketed under the "First Plus" brand with patrons receiving complementary newspapers, tea, coffee or orange juice. "First Plus" passengers ordering meals are served at their seats and are able to access music and radio

stations using the complimentary headphones provided. Full meals are not available to "Enterprise" class passengers (standard class) although a range of snacks and takeaways are provided. Credit Card operated phones are located in both the dining Car and "First Plus" accommodation.

Comparing the old and new weekday timetable is of interest. Both required three sets and both had two sets based in Belfast. NIR crews operated four of the six services in the old timetable and currently crew the 06:45, 08:00, 12:30, 14:00 and 18:10 ex Belfast as well as the 09:40, 11:00, 15:20, 19:00 and 20:30 ex Dublin. Each of the three sets accumulates the same mileage over a three day cycle which normally follows the pattern below:

Link A: 06:45 ex Belfast, 09:40 ex Dublin, 12:30 ex Belfast, 15:20 ex Dublin, 18:10 ex Belfast, 20:30 ex Dublin. (Forms link B on day 2.)

Link B: 08:00 ex Belfast, 11:00 ex Dublin, 14:00 ex Belfast, 16:50 ex Dublin, 20:10 ex Belfast. (Forms Link C on day 2.)

Link C: 07:40 ex Dublin, 10:30 ex Belfast, 13:20 ex Dublin, 16:10 ex Belfast, 19:00 ex Dublin. (Forms Link A on day 2.)

Link D: 18:50 Dublin/Dundalk (FO).

The general allowance for turn-around at Dublin or Belfast is 40 minutes. This allowance is exceeded between some trips, due to irregularities in the timetable, but is only reduced on one occasion, when 25 minutes is allowed between the arrival of the 18:10 ex Belfast and the departure of the 20:30 to Belfast. In reality the incoming 18:10 ex Belfast is usually early as being non-stop it is not held to timetable at Portadown and pending the commencement of single line working is, like the rest of the service, normally early at the latter location.

The new service relates to that which it replaces as under:

From Dublin (Weekdays)

07:40 - Formerly 07:55, slightly accelerated with altered intermediate timings.

09:40 - New service.

11:00 - Slightly accelerated with altered intermediate timings.

13:20 - Formerly 13:00, slightly accelerated with altered intermediate timings.

15:20 - Formerly 15:00, slightly accelerated with altered intermediate timings.

16:50 - New service.

19:00 - Formerly 18:20, additional stops, slightly decelerated.

20:30 - Formerly 20:15, no longer serves Skerries or Balbriggan, arrives Belfast five earlier.

From Belfast (Weekdays)

06:45 - New service.

08:00 - Altered intermediate times, slightly accelerated.

09:30 - Cancelled.

10:30 - Former 11:00, advanced and slightly accelerated.

12:30 - New service.

14:00 - Former 15:00, advanced and slightly accelerated.

16:10 - Former 17:00, advanced and slightly accelerated.

18:10 - Former 18:00, deferred and slightly accelerated, no longer serves Dundalk.

20:10 - New service.

On Sundays NIR crew the 10:00 and 15:00 ex Belfast and the 17:30 and 18:30 from Dublin. Irish Rail cover the 10:00, 14:15 and 15:00 ex Dublin and the 14:00, 17:30 and 18:15 return. The sets are rostered as follows:

Link A: 10:00 ex Belfast, 15:00 ex Dublin, 18:15 ex Belfast. (Forms link C on Mondays.)

Link B: 15:00 ex Belfast, 18:30 ex Dublin. (Forms Link B on Mondays.)

Link C: 10:00 ex Dublin, 14:00 ex Belfast, 17:30 ex Dublin. (Forms Link A on Mondays.)

Link D: 14:15 ex Dublin, 17:30 ex Belfast. (From Heuston, usually Mk2s, but more recently Mk3s, e.g. 16th November.)

A Combination of conservative sectional running, delay in tackling the upgrading of the Belfast/Lisburn section and anticipated single line working in connection with the latter have combined to produce end to end journey times which are little different to those which applied before the project commenced. Indeed it appears that the non-stop journey time envisaged after the Belfast/Lisburn upgrading is completed in 1998 is 105 minutes, a mere ten minutes faster than that which applied prior to the upgrading and 10-15 minutes slower than that scheduled for implementation by 1996. (See *Operational Programme For Transport 1994/1999, Page 34, Table 4.*) The longer than anticipated end to end journey times have in turn necessitated a reduction in the promised weekday frequencies from nine to eight journeys in either direction. The fastest schedules in the new timetable apply to the weekday 16:50 and the Sunday 17:30 services from Dublin which cover the 69½ miles to Newry in exactly 60 minutes, although even this schedule contains five to seven minutes slack.

An additional 14:45 Dublin (Connolly)/Dundalk runs on Fridays to avoid overcrowding on the 15:20 ex Dublin. This set, an otherwise idle Mk3 suburban push/pull, returns at 16:15 in the path of the former 15:00 ex Belfast and runs to Pearse to form the 17:47 to Drogheda. On Fridays commencing on 24th October an 18:50 relief has been operating from Connolly to Dundalk serving Drogheda only and due in Dundalk at 19:45. This train is generally formed by two or three of the Connolly based De-Dietrich "spares" which normally consist of one standard, one full first, one driving trailer first and one dining car. The relief has so far always operated in push/pull mode and on occasions may consist of first class vehicles only. This new service reflects both the popularity of the 19:00 to Belfast and the absence of alternative services to Dundalk between the 17:13 ex Pearse and the 19:00 ex Connolly.

Relief trains have also been found necessary on Saturdays to avoid overcrowding on the 08:00 and 10:30 ex Belfast and the 19:00 ex Dublin. Such trains have been running as required since 8th November and are formed by either NIR Mk2s or 80 class railcar sets.

Sunday services depart from Belfast at 10:00, 14:00, 15:00, 17:30 and 18:15, arriving in Dublin at 12:25, 15:59, 17:10, 20:00 and 20:25. The 10:00 ex Belfast serves Botanic, Lisburn, Lurgan, Portadown, Newry, Dundalk, Drogheda and Mosney, the latter call applying during the summer season only. The 14:00 ex Belfast stops at Portadown only departing from there at 14:41. All other trains serve Portadown, Newry, Dundalk and Drogheda and in addition the 17:30 ex Belfast calls at Mosney during the summer season. Departures from Dublin are at 10:00, 14:15, 15:00, 17:30 and 18:30, arriving in Belfast at 12:15, 16:40, 17:10, 19:40 and 20:45 respectively. Apart from the 17:30 ex Dublin, which runs non-stop to Newry, all trains in the Down direction call at Drogheda, Dundalk, Newry and Portadown. The 17:30 ex Dublin subsequently serves Portadown, Lurgan and Lisburn. The 10:00 and 18:30 from Dublin also serve both Lurgan and Lisburn with the latter in addition making a seasonal call at Mosney. All Sunday services are formed by De-Dietrich stock except the 14:15 ex Dublin and its return working at 17:30 from Belfast. These trains are generally formed by Irish Rail Mk2 stock although as mentioned elsewhere Mk3 stock has been used on a number of occasions. Apart from the afternoon relief trains the new Sunday service is thus little altered and only marginally accelerated. It is particularly disappointing that no attempt has been made to provide later trains on Sunday evenings given the obvious potential for additional business which such services would generate.

Daily commuters travelling from Dundalk to Dublin gain little in terms of convenience from the new service as although there is an express service at 08:04, due in Connolly at 09:00, most passengers wish

to travel to Tara Street or Pearse stations and are thus faced with the prospect of a long trek from Platform 2 to join an overcrowded DART connection due to leave at 09:11. Passengers from Dundalk who must be at their city centre workplace at or before 09:00 must leave Dundalk at 06:40 - significantly earlier than commuters from Mullingar and Arklow who can achieve the same result by utilising the 06:57 departures from these locations. In the evening any passengers unable to avail of the 17:13 ex Pearse have to wait around aimlessly until the 19:00 to Belfast as the 18:27 ex Pearse now runs to Drogheda only, departing at 18:16. These problems could be eased somewhat by extending the 17:47 ex Pearse to Dundalk and starting the 07:43 ex Drogheda from Dundalk at 07:20. The interchange to DART off the 06:45 ex Belfast in the morning could be greatly improved by terminating the Belfast train on platform 4 at Connolly and providing a southbound DART from platform 5. (Ironically the 08:20 ex Bray terminates on Platform 5 at 08:59 and proceeds out of service to Fairview.)

With effect from 1st September the following trains were cancelled between Drogheda and Dundalk: 18:27 ex Pearse (MS), 19:10 ex Connolly (MS) and 21:00 ex Connolly (MF). Local services leave Dundalk for Dublin (Pearse) at 06:04 (MF), 06:40 (MF), 07:02 (SO), 08:12 (SO) and 10:30 (MS). The latter is a new service to fill the gap between the 06:45 and 10:30 departures from Belfast and will be formed by the set of the 06:57 Arklow/Drogheda service which is to be extended to Dundalk. (A *fuller description of the new Dublin suburban timetable appears elsewhere.*)

Enterprise Launch

The new Enterprise service was officially inaugurated on Tuesday 21st October at a ceremony in Dundalk attended by the Minister for Public Enterprise, Mary O'Rourke TD, and the Northern Ireland Environment Minister, Lord Dubs. A large number of guests which included Ebsen Poulsen representing the European Commission, officials of Translink and Irish Rail, local politicians, trades union officials, project staff and other guests, attended the ceremony which was followed by lunch in a large marquee erected on open space adjacent to the Up platform. The latter was closed after the departure of the 06:45 ex Belfast and all trains were routed via the Down running lines until about 17:00. Guests were entertained at the station by musical, choral and dance presentations given by children from Castletown Girls School, Dundalk and New Bridge Integrated School, Loughbrickland, the repertoire including a rendition of the song "Let There Be Peace". Commemorative plaques were unveiled at Dublin, Drogheda, Portadown and Belfast by the Mayor of each town, except Portadown where the ceremony was performed by the deputy Mayor of Craigavon. Guests from Northern Ireland travelled on the 10:30 "Enterprise" ex Belfast while those from the Republic travelled on the 11:00 "Enterprise" ex Dublin. Both trains called at the Down side of the island platform arriving at 11:48 and 11:56 respectively. The Down train being blocked outside awaiting the departure of the 10:30 ex Belfast.

Salient points from speeches and media briefings included the following:

The total project cost was £123m (Stg) of which no less than £58m went to Northern Ireland from the European Regional Development Fund while the Republic received £43.5m of European funding, some from the ERDF and some from the Cohesion fund. The balance came from the Irish and British Governments and the respective transport undertakings.

The anticipated non-stop journey time from Belfast to Dublin is now 1 hour 45 minutes, this to be achieved after the upgrading of the Belfast/Lisburn section. (This represents an acceleration of ten minutes over schedules applicable before the upgrade began and is only marginally faster than that routinely recorded on non-stop schedules in the late 1980s.)

Some 830,000 passengers used the cross-border service in 1995, an increase of 31% on 1994 and 130% on 1990. (The return of terrorist violence in 1996 and the mayhem associated with the Drumcree

parades in Portadown suppressed traffic somewhat in the latter half of 1996 and through much of the summer of 1997. Nonetheless, passenger carryings on the new service are currently exceeding all expectations with growth rates and usage levels which, if sustained, will require additional rolling stock and services in the not too distant future.)

Permanent Way and Bridges

Athlone/Galway (Single track)

A little over thirteen miles of CWR on concrete sleepers was installed on this line between December 1996 and mid-December 1997 at which stage 46.9% of the total mileage was continuously welded. Much of the work was concentrated between Athlone and Ballinasloe and as a result there is now an uninterrupted stretch of CWR from Athlone West Junction to MP 89.

The following mileages have been renewed:

Athlone West/Ballinasloe	MP 78 ³ / ₈ to MP 81 ¹ / ₂	Single track
Athlone West/Ballinasloe	MP 82 ¹ / ₄ to MP 85 ³ / ₄	Single track
Athlone West/Ballinasloe	MP 86 ³ / ₄ to MP 89	Single track
Athlone/Galway	MP 114 ³ / ₄ to MP 119	Single track

Work in the Athlone/Ballinasloe section caused considerable disruption to services and typically involved the bus substitution, between Ballinasloe and Clara of the 10:50 Galway to Heuston and 11:00 Heuston to Galway on various midweek dates and Saturdays between January and June.

With effect from 1st September the semi-permanent 50 mph speed limits which have applied for some time between MP 85¹/₄ and MP 85³/₄, MP 86³/₄ and MP 87¹/₄, MP 88 and MP 89, and from MP 107 to MP 107¹/₂ have been removed. The existing overall line limit of 70 mph now applies to these sections. Despite these changes some 16% of the Athlone/Galway line is still restricted to 50 mph or less compared to 4% in 1972. (A number of temporary 50 mph restrictions, totalling about three miles, were in force at the end of December 1997 and are not included in the percentages quoted. Most of these were imposed in the aftermath of the Knockcroghery derailment and will probably remain until the sections concerned have been renewed.)

Preparatory work for relaying in the Carrowduff area, between MP 82¹/₄ and MP 85³/₄, saw the deep excavation of the trackbed on the approach to, and beneath, OB 116 and OB 118. In addition UB 118C, a small structure located just west of Carrowduff station, was lowered by about one metre. This work resulted in the closure of the Athlone/Ballinasloe section after the passage of the 07:20 Heuston/Galway on Saturday 12th April with services due to resume the following morning with the 08:35 Galway/Heuston. Bus substitution applied between Clara and Ballinasloe in respect of most trains although the 14:25 ex Heuston ran to Athlone and returned to Dublin as the continuation of the 15:25 ex Galway.

Work has been in progress since September on the repainting of UB 106 which carries the railway over the River Shannon at Athlone. The wooden walkways are also being renewed.

Athlone/Westport (Single track)

No track renewals of any significance have taken place on this line since the end of 1996.

A number of speed restrictions were eased with effect from 1st September, the sections of line concerned being those from MP 103¹/₈ to 106¹/₂ and from MP 139³/₄ to MP 140. In both instances the general line limit of 70 mph replaces the semi-permanent 50 mph which had applied for some time previously due to the condition of the track. Some 34% of this line is currently restricted to 50 mph or

less compared to 8.5% in 1972. (A large number of temporary 50 mph restrictions, totalling almost nineteen miles, were in force at the end of December 1997 and are not included in the percentages quoted. Most of these were imposed in the aftermath of the Knockcroghery derailment and most are likely to remain for the indefinite future. The combined effect of both "temporary" and "permanent" restrictions means that for all intents and purposes the line beyond Castlerea is restricted to 50 mph as the short stretches still cleared for 70 mph are of no significance from an operating point of view.)

Cherryville Junction/Waterford West (Single track)

An additional total of almost six miles was renewed in CWR and concrete sleepers over the last twelve months, the sections of line concerned being on either side of Athy, between Lavistown and Kilkenny and between Mullinavat and Dunkitt. These latest renewals, which bring the mileage of CWR on the Cherryville Junction/Waterford line to 49.2%, are detailed below:

Cherryville Junction/Athy	MP 40 $\frac{3}{4}$ to MP 44	Single track
Athy/Carlow	MP 45 $\frac{1}{8}$ to MP 46	Single track
Lavistown West Junction/Kilkenny	MP 28 $\frac{5}{8}$ to MP 30 $\frac{5}{8}$	Single track
Thomastown/Waterford West	MP 55 $\frac{3}{4}$ to MP 56 $\frac{1}{2}$	Single track

Relying between Lavistown and Kilkenny took place between 3rd and 8th March inclusive. This work was facilitated by the diversion of the 10:55 Waterford to Heuston and the 11:40 Heuston to Waterford over the direct curve between Lavistown North Junction and Lavistown South Junction. This arrangement gave an uninterrupted possession of over five hours each day and meant that renewal of the section concerned could be substantially completed within a week. These diversions caused minimal delay to services as the avoiding curve reduces the Thomastown/Muine Bheag transit time by nearly 20 minutes. For instance the 10:55 ex Waterford on 5th March departed at 10:57, spent five minutes in Thomastown and almost seventeen minutes in Muine Bheag but still arrived in Dublin only two minutes late at 13:29, the latter largely due to signal checks between Inchicore and Heuston.

The speed limit from MP 51 $\frac{1}{2}$ to MP 57 $\frac{1}{4}$, between Mullinavat and Dunkitt, was raised to 70 mph with effect from 1st September. This section of track has been recently renewed except for the final portion from MP 56 $\frac{1}{2}$ to MP 57 $\frac{1}{4}$, where work is presently in progress. Following these changes the proportion of the Cherryville Junction to Waterford branch restricted to 50 mph or less has been reduced to 4% of track mileage compared to less than 1.5% in 1972. This masks a considerable overall improvement, however, as some 73% of the line is now authorised for 70 mph compared to only 53% in 1972. (Some thirteen miles of temporary restrictions, some to 40 mph and others to 50 mph, were in force at the end of December 1997 and are not included in the percentages quoted. Most of these were imposed in the aftermath of the Carlow derailment and will probably remain until the sections concerned have been renewed.)

Dublin/Rosslare Strand (Double track to Bray, single thereafter)

About 5 $\frac{1}{2}$ miles of track has been renewed with CWR on concrete sleepers over the past year, all of it between Dalkey and Greystones and much of it connected with the extension of the DART service to the latter town. The pace of work between Bray and Greystones was somewhat slow during the earlier part of 1997 with less than a half a mile of track being renewed up to the end of June, principally the short section from MP 16 $\frac{5}{8}$ to the north end of Greystones station. In contrast the latter part of the year saw a concerted effort to tackle the difficult 2 $\frac{3}{4}$ mile section from MP 13 $\frac{1}{4}$ through Nos. 1, 2, 3 and 4 tunnels to Ennis Lane accommodation crossing at MP 16. Most of the renewals took place during weekend possessions; however No.4 tunnel which was built as part of a track diversion scheme in 1917 and is 1,084 yards long has a narrower bore than the others and in order to maximise overhead

clearances had to be excavated prior to relaying. This work was undertaken during two possessions each commencing late Friday evening and extending until the early hours of the following Tuesday morning. The dates concerned were from 14/11/1997 to 18/11/1997 and again from 28/11/1997 to 2/12/1997. During most of the above possessions passengers travelling on Dublin/Rosslare services were conveyed by special DART between Connolly and Bray, by bus between Bray and Greystones and by train between Greystones and Rosslare. Arrangements on Sundays were often different especially when engineering work was in progress between Dalkey and Bray. On the latter occasions and on some other dates passengers were transferred by bus between Connolly and Greystones. On 17/10/1997 and 2/12/1997, being ordinary working days, DART sets were not available and conventional stock was thus rostered. As a consequence the 08:00 Maynooth/Rosslare ran to Bray and returned as the Bray/Connolly portion of the 07:25 ex Rosslare. Passengers intending to travel on the 06:57 Arklow/Dundalk, the only commuter services presently operating south of Bray, were conveyed by bus from Arklow, Rathdrum, Wicklow, Kilcoole and Greystones before finishing their journey by train from Bray. Similar arrangements applied in the evening in respect of the 17:26 Connolly/Arklow service. Relaying between Bray and Greystones was completed on 7th December when the remaining section between the southern portion of No.4 tunnel and Ennis Lane was renewed.

- *It is understood that due to the limited clearances in No.4 tunnel the overhead conductor will be directly attached to the tunnel roof rather than being supported by conventional catenary.*

The other stretch where CWR on concrete sleepers have been installed is the portion of double track from the south end of Dalkey station to Whiterock, a distance of slightly over a mile which includes the 160 yard Dalkey tunnel. This work took place over ten weekends in June (3), July (1), October (3) and November (3) starting around 21:00 on the Saturday night and due to finish at various times between 09:00 and 12:00 the following day. The June and July possessions affected the Dalkey/Bray section while those in October and November affected services south of Dun Laoghaire. On the Saturdays concerned a skeleton service of approximately hourly frequency was maintained until close of business using an Arrow railcar and this was supplemented by a similar frequency bus service. Arrangements on the Sunday varied with a skeleton Arrow service on some dates and complete bus substitution on other dates. This was a particularly difficult section to renew due to the severely deteriorated formation and poor drainage between Dalkey station and the tunnel mouth and in consequence much of the possessions were to facilitate preparatory work.

The concrete sleepers used for much of the Bray Head renewals and also in the vicinity of Dalkey tunnel are non-standard in that they are designed to accommodate guard rail although this had not been installed up to mid-November.

Mileages renewed with CWR since December 1996 are as follows:

Dalkey/Bray	MP 8 ¹ / ₈ to MP 9 ¹ / ₄	Down line
Bray/Dalkey	MP 9 ¹ / ₄ to MP 8 ¹ / ₈	Up line
Bray/Greystones	MP 13 ¹ / ₈ to MP 16 ⁷ / ₈	Single track

OB 151, an arched footbridge about a quarter of a mile north of Greystones station, was raised at the beginning of March in order to provide clearance for overhead line equipment and to facilitate an increase in the depth of ballast associated with CWR.

OB 159, known locally as the Breaches Bridge and located at MP 21¹/₄ between Greystones and Wicklow, has had a ballasted deck installed preparatory to the installation of CWR. This structure which was renewed in 1962 has also been repainted although pending track renewal a temporary speed restriction of 40 mph remains in place from MP 21 to MP 21¹/₂.

The line between MP 34¾ and MP 35¾, between Genially and Rathdrum, has been relaid with bullhead rail and concrete sleepers recovered from the Up Belfast line in 1996.

Dublin/Sligo (Double track to Clonsilla, single thereafter)

A further twelve and a quarter miles of CWR on concrete sleepers has been installed on this line, although all of it is in the Dublin area between North Strand Junction and Maynooth as detailed below:

North Strand Junction/Glasnevin Junction	MP 4¼ to MP 2¾	Down Line ¶
Glasnevin Junction/Liffey Junction	MP 0¾ to MP 0	Down Line §
Liffey Junction/Clonsilla	MP 1¾ to MP 1¾	Down Line ¥
Liffey Junction/Clonsilla	MP 3¾ to MP 5¾	Down Line ¥
Clonsilla/Maynooth	MP 9¼ to MP 11	Single track ¥
Clonsilla/Liffey Junction	MP 6¾ to MP 3¾	Up line ¥
Clonsilla/Liffey Junction	MP 2½ to MP 1¾	Up line ¥
Glasnevin Junction/North Strand Junction	MP 2¾ to MP 4¼	Up line ¶

¥ Zero Broadstone.

§ This section is part of the MGWR Liffey Junction to North Wall branch and is mileposted from Liffey Junction.

¶ This line is part of the GS&WR Islandbridge Junction/North Wall branch and is mileposted from Islandbridge Junction.

Renewal of the line between North Strand Junction and Glasnevin Junction took place primarily during daytime possessions with Maynooth and Sligo services operating via Newcomen Junction as required. Work between Liffey Junction and Clonsilla was carried out mainly at night or on Sundays although there were also some daytime weekday possessions which resulted in the cancellation of the 10:40 Connolly/Enfield and 11:45 return as well as the 12:04 Connolly/Maynooth and 13:05 return. These renewals resulted in a pronounced lowering of the track formation beneath OB 10 (Navan Road) and to a lesser extent beneath OB 11 at Castleknock station.

Speed restrictions were eased at no less than ten locations with effect from 1st September. The former 20 mph limit through Glasnevin Junction and Liffey Junction is raised to 30 mph, following the renewal of the former and the realignment of the track through the remains of the latter. The 50 mph restriction applicable on both roads through, and immediately west of Ashtown station, from MP 3 to 3¾, is raised from 50 mph to 60 mph while the 50 mph restrictions at the following mileages are raised/restored to 70 mph: 57¼/57½, 90¾/91¼, 97¼/97½, 107¾/108¾, 123¼/123½, 127½/127¾ and 129½/130½. Despite these changes some 32% of the Sligo line is restricted to 50 mph or less compared to 13% in 1972. (Some ten miles of temporary restrictions, some to 40 mph and others to 50 mph, were in force at the end of December 1997 and are not included in the percentages quoted. Most of these were imposed in the aftermath of the Knockcroghery derailment and will probably remain in place for the immediate future.)

The proportion of CWR on the Dublin/Sligo line is now over 34% although, as noted, no renewals have taken place west of Maynooth since 1996. There appears to be some confusion about the availability of funding for renewal between Mullingar and Sligo with recent references to upgrading talking of “90 mph running from Dublin to Mullingar”. The Dáil debates which took place in the aftermath of the Knockcroghery derailment also suggested that the Mullingar/Sligo, Athlone/Westport and Dublin/Rosslare lines share the same status in that the Government has not sought European funding for these routes. (In theory upgrading of these lines is supposed to be financed from CIÉ resources, although these are unlikely to be available in sufficient measure to make any worthwhile impression in the near future.)

As mentioned above the track through the former Liffey Junction station has been substantially realigned in order to ease the sharp curve at the point where trains make the transition between the former mainline and the “Liffey Branch” to/from Glasnevin Junction and Connolly. Despite the closure of the Broadstone terminus to passengers in 1937 the extensive layout at Liffey Junction remained recognisably intact until 1986 when many of the connections were removed. By the time the cabin closed on 15th June 1991 all that remained were the two running lines between Glasnevin Junction and Clonsilla. The new alignment resulted in both tracks being shifted southwards thus taking maximum advantage of the space available in the derelict yard to create a longer gentler curve from the “Liffey Branch”, which now joins the original mainline some distance west of the former junction and close to Broombridge station. Preparation of the new alignment resulted in the demolition of the disused Down platform along with a sizeable swathe of the former cattle bank. The Up island platform remains although there is now no track on either side of it. Palisade fencing has been erected on the Down side parallel to the new alignment between Liffey Junction and Broombridge and this has reduced somewhat the incidence of vandalism in the area.



Renewal of the Down road in progress at Liffey Junction, 20th April 1997. (15:45 Connolly/Longford passes on the wrong road.)

The existing metal footbridge at Claude Road is to be replaced by a precast concrete structure consisting of a double “T” unit supported by precast concrete columns. This will result in an increase in clearance above the railway to 5,100mm.

The Newcomen Junction to Glasnevin Junction line was temporarily closed to passenger trains in mid-November, apparently as a result of a general review of track conditions on all lines following the Knockcroghery derailment. The Down line is closed completely although freight traffic is still permitted on the Up line.

Dublin/Cork (Double track throughout)

The main activity on this line has centred around the rail replacement programme notably between Portlaoise and Ballybroy on both roads, between Monasterevin and Portarlington on the Down line and between Kildare and the Curragh on the Up line. Ballast cleaning continues to be a feature at various locations as is the replacement of deteriorating concrete sleepers particularly notable in the Hazelhatch/Sallins/Newbridge area, and on stretches of the Down line between MP 88½ and 88¾ and again between MP 98 and MP 98½.

Pending long deferred renewal and possible remodelling the 60 mph speed restriction applicable through Portarlington station has been reduced to 50 mph with effect from the timetable change on 1st September.

Accommodation crossings XC114 and XC115, located near MP 90½, were replaced by underpasses in mid-December 1996 as part of the continuing programme aimed at minimising the risk to trains posed by this type of crossing. In order to allow settlement of the new works normal line speed was not fully restored on both roads until early October.

Limerick/Rosslare Europort (Single, except as noted below)

(Double track to Killonan Junction and from Waterford West to Waterford Central)

The line from MP 19 to MP 21³/₈ has been renewed in CWR on concrete sleepers, thus completing the upgrade of the Limerick/Limerick Junction section, except for a short stretch of double road from Limerick station to Ennis Junction. With effect from 1st September the 60 mph restriction from MP 19 in MP 21½ was raised to 70 mph.

A temporary deviation of the line at MP 50¼, between Clonmel and Carrick on Suir, was brought into use at the end of September/early October in order to facilitate the construction of a new underbridge, 129A, to carry the Clonmel bypass road.

Mallow/Killarney Junction/Tralee (Single line throughout)

A further five miles of this line were renewed with CWR and concrete sleepers during 1997 bringing the total proportion of CWR on the branch to just over 19%. The mileages concerned are shown in the table below:

Banteer/Millstreet	MP 17 to MP 18¾	Single track
Rathmore/Killarney	MP 33¾ to MP 36	Single track
Farranfore/Tralee	MP 56¾ to MP 57¾	Single track

Preparatory work associated with track upgrade between MP 56¾ and MP 57¾ saw the demolition of stone arch overbridge No.132 and its replacement with a standard concrete structure resting on the original abutments.

Portarlington/Athlone (Single Track)

This line has received considerable attention in 1997 with almost six miles of track renewed in CWR and concrete sleepers during the course of the year as detailed in the table below. Most of this work was concentrated between Clara and Athlone and was undertaken during the night without disruption to passenger services. Consequent on the latest renewals, which are detailed below, the entire section between Clara and Athlone is now CWR.

Clara/Clonnydonnin (including the main line at the latter)	MP 70¾ to MP 73½
Clonnydonnin/Athlone	MP 75 to MP 77
Clonnydonnin/Athlone	MP 78½ to MP 79 ⁵ / ₈

Apart from relaying the above work also entailed reinforcement of embankments, upgrading of accommodation crossings, drainage improvements and bridge repairs.

While nearly 75% of the branch is now welded some 2½ miles of this, from MP 59 to MP 61¼, is subject to a temporary speed restriction of 50 mph pending the replacement of sleepers damaged in the January 1996 derailment of an empty Asahi train.

Consequent on the renewals above and those which had taken place in 1996 there were a number of alterations to the speed limits on the branch with effect from 1st September. These were generally increases to 80 mph although where the formation passes over bog (notably around Clonnydonnin) the new maximum speed is 70 mph, a major improvement on the former 50 mph limit. Details of the changes are listed below.

Sections increased to 80 mph:	49½/50⅛ (from 70 mph), 75/77 (from 70 mph), 77/77½ (from 50 mph), 77½/80 (from 70 mph)
Sections increased to 70 mph:	70¾/71¾ (from 50 mph)
Sections decreased to 50 mph:	50⅛/50¼ (from 70 mph)

(In the aftermath of the Knockcroghery derailment a little over three miles of jointed track previously cleared for 80 mph has been reduced to 60 mph pending renewal, the sections concerned being those from MP 42½ to MP 43¾ and from MP 55½ to MP 57½.)

Manulla Junction/Ballina (Single track)

Following the reconstruction of the Moy River bridge in 1996 the speed limit of 10 mph, which previously applied over the structure, was removed with effect from 1st September and trains may now cross the bridge at 60 mph.

Cork/Cobh (Double track)

The viaduct at Belvelly, just south of Fota, has been partially re-decked although the track is still rigidly secured to the structure and unballasted. The exposed embankment, which crosses tidal mudflats and forms the remainder of the link from Fota Island to Great Island, has had its sea defences strengthened by the dumping of large boulders on either side to act as wave breaks. Resleepering of the branch continues with work being progressed on both roads between Fota and Marino Point.

Miscellaneous

Irish Rail invited tenders in February for the supply of 20,000 softwood timbers per annum, the supplier to deliver same bored, grooved and creosoted. This number of sleepers would be sufficient to renew about ten miles of track.

Most of the Irish Rail system was traversed by the weed-spray train in May and June. Apart from the Claremorris/Collooney line, the abandoned Barrack Street branch in Dundalk, the disconnected Boyne Road branch in Drogheda and the New Ross, Fenit and Youghal lines, all extant trackage received attention. The Claremorris/Athenry section was sprayed on 27th May, although departure from Claremorris was delayed until 15:00 awaiting the arrival of an inspection car which had been dispatched from Athenry with the manual staff and had failed at Milltown. On 4th June 159 worked the spray train from Limerick to Mullingar via Gort, Athenry and Moate.

DART Extensions

Tenders for the provision of overhead wires and electrical supplies in respect of the Malahide and

Greystones extensions were due back by 26th May. This aspect of the work is valued at £12m and was due to commence in October 1997 with an anticipated completion date in late 1999. There will be five services per hour at peak periods and two to three per hour off-peak. The anticipated journey time to the city centre will be about 44 minutes.

Traction substations are expected to be constructed at Ennis Lane (Greystones), near Bray and on a site in Malahide Quarry.

Signalling and Layout Alterations/Renewals (See also Dublin/Belfast Project)

The Down distant signal for Cratloe station level crossing was moved 36m towards Limerick on 22nd November 1996 following the reconstruction of UB 33 which is described elsewhere. (Down is towards Ennis for the purposes of this description.)

A friction buffer stop was installed on Platform 1 at Heuston in mid-December 1996 reducing the useful length of the platform to 140 yards. This platform is used mainly by local services to Kildare and it is now the normal practice for arriving trains to be stopped at No.20 signal before being admitted to the platform.

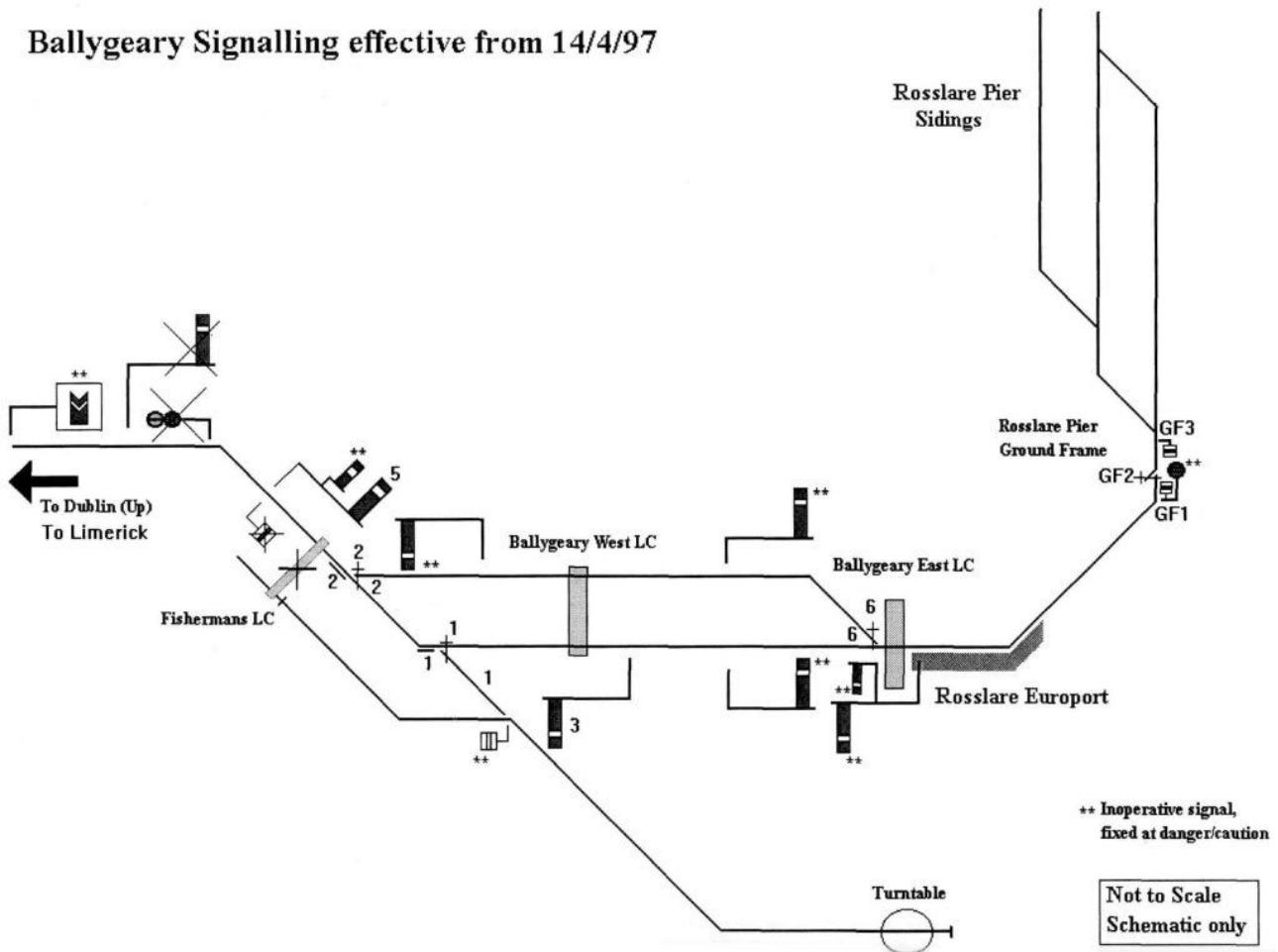
The signal box at Ballygeary was destroyed by fire during the night of 22nd/23rd December. This box contained a fifteen-lever frame which controlled the loop at Ballygeary itself as well as the crossover connecting the Up main line with the former goods yard and locomotive facilities. The latter have been greatly rationalised over the years to the point that only a single siding serving the turntable remains. This siding is used to stable locomotives overnight and also serves a fuelling point. With single 121 haulage now almost unknown the turntable only sees use when some defect requires a diesel to be turned or on the occasion of a steam-hauled RPSI excursion, several of which operate each year. As trains rarely cross at Ballygeary the loop is not much used although it is required when train formations exceed the 246 yard limit which can be handled at the old Rosslare Harbour station. Access to and from the latter is controlled by a four-lever ground frame which was released by Lever 13 in Ballygeary cabin. ETS working applied between Rosslare Strand and Ballygeary, the short section through Rosslare Europort, between the Down starting signals at Ballygeary and the fixed colour light stop signal protecting the old station, being track circuited. Apart from the fixed colour light signal protecting the pier ground frame all signals at Ballygeary were mechanically operated semaphores except the Up advance starter which was a two-aspect colour light interlocked with the ETS instrument. The three level crossings in the Ballygeary area, Fisherman's, Ballygeary East and Ballygeary West, were all afforded signal protection, each having a corresponding lever in the frame which locked the appropriate signals while the gates were open to the public. There were no spare levers in the frame at the time of its destruction.

Following the fire all signalling equipment was rendered inoperative and it was therefore necessary to institute pilot working between Rosslare Strand and Ballygeary with hand-signalmen positioned as necessary and all points scotched and clipped. The remains of the cabin were demolished on Christmas Eve. ETS working was restored as soon as a replacement instrument could be obtained. A 10 foot container was in use as a temporary signal box by early February and this was located adjacent to Ballygeary West level crossing, near the site of the original box. The Down outer home and Up advance starter were formally decommissioned on 14th January as was No.11 disc reading from the main line into the turntable siding. Also on this date the Up main starter (No.11a) was relocated on the Europort side of Ballygeary West crossing so as to simplify hand signalling arrangements. (The pressure on space in the lever frame was such that No.11 lever operated three signals through a combination of push/pull operation and selection, the latter depending on the position of Lever 7 which controlled the crossover between the mainline and the turntable siding. Signal 11b read out of the turntable siding onto the mainline and this rather than 11a would clear if the crossover were reversed.)

With effect from 14th April a six-lever ground frame was commissioned on the Down side of the line adjacent to Fisherman's level crossing. The frame controls the points at each end of the loop as well as the crossover leading into the turntable siding. In addition the Up main starter and Down main home were restored to working order, both signals being interlocked with Ballygeary West level crossing. Trains continue to be flagged through Ballygeary East level crossing and in addition the points at that end of the loop must be scotched and clipped for all movements over them. (There is presently no facing point locking bar on the approach to these points.) The Rosslare Pier ground frame is again released by the Ballygeary signalman who is presently housed in the temporary cabin now located at the six-lever ground frame. The dormant Fisherman's level crossing has been formally taken out of use and the turntable road headshunt shortened so as not to cross over it.

The next step in the restoration of normal working could well see the closure of Ballygeary cabin with the Ballygeary/Rosslare Europort area coming under the control of the signalman at Rosslare Strand. In such circumstances the three-mile single track section between Rosslare Strand and Ballygeary would either be track circuited throughout or protected by a combination of entry/exit track circuits and axle-counters.

Ballygeary Signalling effective from 14/4/97



The ground frame presently in use at Ballygeary was "temporarily" removed from its normal location on the Rosslare side of Waterford (Abbey Junction) on 19th January. It had been used to control the east facing connection onto the former Up line which in turn led to the Frank Cassin Wharf, the former base for Bell lines prior to the opening of Belview. The connection concerned is now inoperative and the ground frame controlled shunt signals reading over it have been fixed at danger.

The east crossover at Kildare was renewed overnight on Saturday/Sunday 1st/2nd March.

The facing turnout, No.21, from the Up read to the “third road” at Inchicore was renewed on the night of 24th/25th May. There was some disruption to arrivals at Heuston on the Sunday morning as the line was not handed back for traffic until 11:40 by which stage the Up morning service from Galway had been standing at Inchicore for twenty minutes.

Preliminary work had commenced by early July on the resignalling of Greystones station and the single track section between there and Wicklow. It is understood that the latter will be protected by a combination of track circuits and axle counters with intermediate signals being provided near Newcastle to split the section. At the time of writing in late November a number of signal and equipment bases had been completed in the station area while more were under construction at various locations between Greystones and Wicklow. This work is being undertaken in the context of the extension of DART services from Bray to Greystones.

Work is expected to commence soon on the “Mini-CTC” project which will see the resignalling of the single track Maynooth to Sligo, Ballinasloe to Galway, Banteer to Tralee, Athy to Bagenalstown (Muine Bheag) and Thomastown to Waterford sections. This work will bring the lines from Dublin to Galway, Waterford and Tralee entirely under the control of the “mainline” CTC console at Connolly. The Maynooth/Sligo line will come under the control of the “suburban” CTC console at Connolly which will by that stage also supervise the Dublin/Belfast line as far as the interface with NIR, the Howth branch, the Navan branch (to Platin), the Sligo line (to Clonsilla), the Rosslare Europort line (to Wicklow), the Newcomen Junction to Glasnevin Junction line and the Southern link line as far as the interface with Heuston. The section of the Sligo line between, and including, Clonsilla and Maynooth is likely to be resignalled in the context of the upgrading of commuter services to Maynooth. The Clonsilla/Maynooth section was singled as long ago as 1929 but is expected to be at least partially restored to double track in order to allow increased frequencies and greater operational flexibility. It is therefore excluded from the “Mini-CTC” scheme and is included as part of a separate submission to Brussels.

The “Mini-CTC” project will see the closure of some 21 block posts whose layouts are predominantly mechanically signalled, operated and interlocked. The locations concerned are Enfield, Killucan, Mullingar, Edgeworthstown, Longford, Dromod, Boyle, Sligo, Ballinasloe, Athenry, Galway, Athy, Carlow, Bagenalstown, Thomastown, Banteer, Millstreet, Rathmore, Killarney, Farranfore and Tralee. In addition control of the Kilkenny area including the track circuit block sections to Bagenalstown and Thomastown will pass to mainline CTC. It is believed that the opportunity will be taken to undo some of the strategically ill-advised closures of the late 1980s. For instance a new loop is to be provided at Woodlawn to split the 21¾ mile Ballinasloe/Athenry section while intermediate signals at Ballymote will split the 27¾ miles between Boyle and Sligo. Running lines at and in the vicinity of crossing places are expected to be fully track circuited with the principal running signals and points being operated remotely from Connolly. Layouts will generally be of a simplified nature with as few as four stop signals at many locations. Typical signalling will consist of Up and Down distant and home signals with the latter acting as both section starting signals and main home to loop signals. Starting signals would be provided at either end of the loop, but not on the main line.

The pole mounted block circuits from Cork to Cobh and Millstreet to Killarney have been replaced by underground cable so as to reduce maintenance costs and improve reliability. The cable train was employed on this work on various dates in March and April.

The Up fixed distant for Athenry, from the Galway direction, was moved 630 yards further out with effect from 6th June. The signal remains on the right hand side of the line but now consists of a board with a painted distant rather than a fixed semaphore arm. The new location is adjacent to the former siding which served the nearby Athenry Agricultural College.

The emergency control panel was moved from Charleville signal box to the associated relay room on 5th October, preparatory to the demolition of all the buildings on the Down platform.

The Up fixed distant for Clonmel, a standard rectangular board with a painted semaphore, was moved to the left hand side of the temporary embankment at MP 50½ on 21st October.

The tall and distinctive Up starting signal at Carrick on Suir station was replaced by a standard height steel pole on 22nd October.

Semaphore signals have been modified at many locations throughout the system to conform to the new appearance described in the January/April 1996 edition. This entails the use of a combination of reflective and fluorescent material with the distant signals consisting of a fluorescent, flame red arm with a white chevron and reflective Saturn yellow fish-tail. Stop signals consist of a reflective, fluorescent, red arm with a vertical white stripe and a square, reflective, deep red end. Examples include Blakestown and Barberstown level crossings in the Clonsilla/Maynooth section as well as at Clonsilla, Greystones, Wicklow, Rathdrum and Arklow stations.

ESAT

CIÉ and ESAT Telecom are understood to have reached agreement on proposals for the development of an alternative national telecommunications network, the cornerstone of which would be a fibre optic network laid along railway rights of way. In order to provide a degree of redundancy in the system it is proposed to triangulate as much of this network as possible and consequently fibre may be laid along dormant routes such as that between Claremorris and Collooney. Media speculation suggests that the deal is worth some £20m to CIÉ over a ten year period. In addition fibre-based communication channels will be made available to Irish Rail for train signalling purposes and will be a significant element in the “Mini-CTC” scheme currently underway.

Train Radio

There has been a significant extension of train radio coverage over the last year into areas not presently controlled by CTC. Operational characteristics are somewhat different to the established system in that trains operating in the extended coverage areas use mode C on channels 18, 23 or 28 rather than the more standard mode A or B. Mode C provides open channel communication as distinct from the discrete, train-id based, single conversation allowed in mode A or B. (For operational purposes there are in fact two discrete train radio systems corresponding to the two Connolly CTC signalling centres, mainline and suburban, with each of these systems hosting no more than one conversation at any time.)

Initial trials of mode C, channel 18 commenced on the Sligo line in May 1996, between Maynooth and Mullingar, with equipment being installed at the cabins concerned and at intermediate points where sufficient range could not be obtained from the cabin alone. Mode C, channel 18, coverage has since been extended to cover trains in the immediate vicinity of Waterford station and between there and MP 94, just east of Wellingtonbridge. Coverage is also available on the entire Cork/Cobh line, the commencement boards being located at signals 776, 774 and 772 in Cork. The mode A, channel 75, termination board which was previously located at MP 170, just east of Littleisland, has been moved back to signals 776/774/772 at the east end of Cork station so as to avoid the necessity of a channel change between Cork and Cobh.

The exchange of certain messages such as the conveyance of authority to pass signals at danger is not permitted under Mode C operation as such a message could be overheard by another train. Driver only trains are not permitted to operate in Mode C coverage areas unless both train and signal box radio equipment is functioning normally. Driver only trains are permitted to operate in areas without radio coverage as heretofore. (In some areas it has been and remains the practice for drivers to carry cell

phones in situations where the train is operating through territory not covered by train radio. This practice became common after some celebrated locomotive failures which saw train crews seeking the assistance of passengers carrying mobile phones.)

Mode C coverage was extended to the remainder of the Sligo line at the beginning of November when equipment installed in the cabins at Edgeworthstown, Longford, Dromod, Boyle and Sligo became operational although the system is not yet fully commissioned due to coverage problems. Further extensions servicing the lines from Limerick to Claremorris, Athlone to Westport and Athlone to Galway are due to become operational in early January 1998. (These three lines were and remain partially covered by the mainline CTC radio masts in Limerick and Athlone although such coverage only extends a few miles in each instance.)

Radio equipment is presently in the process of installation on other routes notably between Cherryville Junction and Waterford and between Mallow and Tralee. These lines will shortly be covered under Mode C arrangements and, as elsewhere, when the equipment is commissioned it will no longer be necessary for train crews to carry mobile phones.

New Station At Drumcondra

The reconstruction of Drumcondra station commenced in May following the earlier renewal of the roof over the (original) subway at the city end of the site. The platforms will be about 131m long and will thus extend over St Joseph's Road at the west end of the station. Access to the concourse will be off Drumcondra Road as formerly and thence via steps to the Up platform or a combination of steps and subway to the Down platform. There will also be lift access from the concourse to both the Up platform and footbridge. The latter will also be accessed by lift on the Down side thus creating a route for disabled passengers similar to that at Clontarf. The roofing over the concourse area and subway steps will be glazed while the concourse itself will contain a ticket office, rest room, lift room, store and retail unit. The original station at Drumcondra opened on 1st April 1901 when the GS&WR established its own route from Glasnevin Junction into the North Wall. The opening of the connecting lines from North Strand Junction to Amiens Street on 1st December 1906, saw the introduction of local services from Amiens Street to Kingsbridge with eight departures from the former and seven from the latter each weekday. This service was short lived and gradually declined until withdrawn entirely on 31st December 1907. The station lingered on for a few years before final closure in either 1909 or 1910. The new station will be served by 23 trains on Mondays to Fridays, 17 trains on Saturdays and none on Sundays.

Work on the construction of this station was well advanced by the first weekend in December at which stage the footbridge was substantially complete as were both platforms including the sections over St Joseph's Road.

(For the purposes of the above description the Down platform is the one serving the line from the Connolly/North Wall direction while the Up platform serves the citybound track.)

New Station For Barrow Street

Irish Rail applied for planning permission on 4th July to construct a new station at Barrow Street, between Pearse Station and Lansdowne Road. The station will be on an elevated section of line and will have three platforms, that on the Up side being an island. Passenger access will be on Down side via flights of steps from Barrow Street supplemented by a lift for the mobility impaired. The station buildings will be on the Down side and will contain a ticket office, staff facilities, a bicycle park and a retail unit. The Up and Down platforms will be about 195m long and will be linked by a footbridge. Lifts from platform level will enable disabled passengers to use the footbridge. Construction of the new

station will require the demolition of the former Canal Street locomotive shed which is currently used as a base for track maintenance machines. The existing Down running loop will be extended southwards over the Grand Canal basin on a disused alignment previously used to gain access to the shed from the Pearse end and will eventually ease onto the existing Down line at or near the site of the present turnout from the shed yard. The existing Up line will be realigned so as to pass through the new station on the alignment of the present Down main. The new Up platform will be built on the alignment new occupied by the Up main and will extend from a point just north of Barrow Street to Grand Canal Quay. The Down platform will extend from a point immediately south of the Grand Canal Dock through the site of Canal Street shed to a point just south of Barrow Street underbridge. The loop side of the island platform will be served by what is now yard trackage and will be accessed, as now, by a facing turnout off the Up road, just south of the new station.

While the new station at Barrow Street will serve a rapidly developing area the associated signalling and layout alterations are immensely more significant than the station itself as these will greatly improve facilities for terminating outer suburban services in a manner which should both reduce disruption to through trains and increase overall track capacity. In particular southbound trains terminating at Barrow Street will be able to clear Platform 4 at Pearse without obstructing northbound traffic. Signalling alterations are thought to include the provision of intermediate signals between Tara Street and Pearse, a move which would increase capacity on the loop line by splitting the 600m section between the two stations thus allowing a southbound train to leave Tara Street while Platform 4 at Pearse was still occupied. Planning permission for the new station was granted by Dublin Corporation in early November.

Station Improvements (See also Dublin/Belfast Project)

Additional car parking has been provided at Bray station utilising some of the vacant space on the Up side of the line adjacent to the level crossing. This area was formerly occupied by a loading bank and although the associated sidings were connected until relatively recently they had lain virtually unused since the resignalling of Bray station in 1983.

The long awaited upgrading of facilities at Dun Laoghaire began in May with the opening of excavations in connection with the construction of foundations for the overhead concourse. In order to create a working area on the Up side the steps leading from the station footbridge onto the Up platform have been demolished and a temporary entrance created a little on the Dublin side of the original. The overhead concourse is built on a bridge spanning the main running lines and features glazed parapets and a stretched fabric roof which is designed in such a way as to give the impression of overlapping sails. The unusual layout means that much of the concourse area will be open to the elements and thus vulnerable to the vagaries of the Irish climate. The seaward of the two bay platforms is being extended at the buffer stop end in order to accommodate suburban push/pull sets. Pending completion of this work the 07:43 Drogheda/Dun Laoghaire service runs empty to the middle road in Bray before returning to Dublin.

Renovation and reorganisation of the passenger concourse at Blackrock was completed recently. The work included the relocation of the ticket office and retail unit. Amongst the items on display in the enlarged concourse is a gate-wheel believed to have been recovered from Sydney Parade signal box. New toilets are provided and these include facilities for disabled travellers.

A further phase in the renovation of the overall roof at Pearse Station has been completed with translucent twin wall polycarbonate sheeting replacing the traditional glass panels in the section of roof immediately above Platform 3. The facade of the building and the bridge carrying the loop line over Westland Row have been repainted in wine and gold.

The station at Bayside, on the Howth branch, has been somewhat revamped in an attempt to improve both the appearance of the place and the security of passengers. Much of the brickwork which previously enclosed the access stairway linking the platform to the subterranean booking office has been replaced by translucent tiles thus providing a brighter and less intimidating environment. The alterations to the station buildings required the installation of steel supports as some of the materials removed formed an integral part of the structure. Improvements have also been made to the subway approaches, lighting and drainage.

New centrally controlled public address facilities are in the process of installation at stations in the Dublin suburban area, an essential facility given that many stations are unstaffed for much of the day and where staff are employed they are not generally in a position to monitor the status of the service. Such facilities are now in operation at stations between Portmarnock and Laytown and include automatic announcements warning passengers to stand clear of approaching trains. Public address facilities have also been provided at Ashtown.

New real-time customer information displays are now provided at Bray, Dun Laoghaire, Lansdowne Road, Pearse, Tara Street, Connolly, Clontarf Road, Killester and Raheny. The displays are interfaced with the signalling computers via local PCs. The latter contain a copy of the timetable for the station concerned and are able to calculate estimated arrival times from the signalling information. The displays show current and estimated time remaining to the departure of each indicated service and in the case of services other than DART individual stations are scrolled on the display. The cost of installing the new equipment has been partially borne by the Dublin Transportation Initiative. Associated with this project is the provision of automatic public address annunciation notably at Pearse, Tara Street and Connolly. This latter is generally activated for outer suburban services only as these are less readily identifiable than DART and often have non-standard stopping patterns.

Additional car parking facilities have been provided at Sutton and are presently proposed for Raheny, Killester and Shankill.

New station lighting and upgraded signage has been installed at most DART stations and some are now also covered by security cameras.

In an effort to improve access for disabled passengers remote controlled gates are to be installed at various stations, particularly in situations where platforms could be more easily accessed by a route other than through the station buildings. (Many DART platforms are normally accessed by convoluted routes which in several instances require passengers to cross the line twice either via footbridges or subways. This situation reflects the economical provision of station buildings, staffing and the almost complete absence of automated ticket purchasing facilities.)

Work commenced in May on the alterations to the main station buildings at Heuston, which are necessary to accommodate the new entrance arrangements and enlarged concourse, details of which appeared in the last issue. At the time of writing in early December the area between the original train shed and the HQ buildings had been roofed, although only a small portion has been opened to the public pending the completion of the flooring. Platforms 2,3,4 and 5 have been shortened at the buffer stop ends and the space thus released has been temporarily bridged to provide additional circulation room on the concourse. This arrangement compensates somewhat for the encroachment of contractors hoardings. Consequent on the shortening of the platforms all trains entering the station are presently being brought to a halt at the home signals. There was much unwelcome publicity on 14th September when, due to delays in dispatching outgoing services, the concourse became congested to such a degree that the Gardaí felt it necessary to intervene. (This was the date of the All Ireland Hurling finals and as a result the volume of passengers was much increased, while the nature of the occasion resulted in a degree of pushing and jostling which made crowd control difficult, if not impossible.)

The station buildings on the Up platform at Tullamore had been reopened to the public by the end of January 1997 following extensive refurbishment. Improvements to passenger facilities throughout the country continue as evidenced by work completed at a wide range of locations including Portarlington, Portlaoise, Templemore, Thurles, Limerick Junction, Mallow, Cobh, Rathmore and Boyle.

A new booking office, parcels office, left luggage facility, shop and staff accommodation have been provided within the walls of the former goods store at Kilkenny. The work has been carried out in such a way as to retain the most attractive features of the original structure including many of the arched windows and doorways. The new roof and associated supports are integrated into the general decor and help create a bright and spacious looking concourse.

All of the buildings on both the Up and Down platforms at Charleville have been demolished preparatory to a comprehensive reconstruction of the station which is presently in hand. This work includes the upgrading of the Down running loop for use by passenger trains and the construction of standard height platforms to serve both it and the main lines. As of the end of December the new Down island platform was substantially complete and it is anticipated that it will be used for Up and Down trains, as required, during reconstruction of the main Up platform.

Work is due to commence on the new station at Kilcock in February. This is to be located at Shaw's bridge, close to the centre of the town and will consist of one platform, one shelter, fencing and car parking facilities. Total expenditure will be in the region of £250,000.

Disputes

A protest by CIÉ workers on Budget day severely disrupted rail services throughout the country on 22nd January 1997. At that time the CIÉ companies were seeking to implement sweeping changes in work practices, which threatened to drastically reduce take home pay. As far as the railway was concerned the worst disruption occurred in Cork where operations ceased completely. A number of provincial depots were also affected including Galway, Westport, Ballina, Athlone, Tralee and Waterford.

Services on the Sligo, Rosslare and Belfast lines were less affected while some services operated on the Cork line but terminated at intermediate points including Thurles, Limerick Junction and Mallow. The DART service was badly disrupted with only about one third of trains operating in the morning. At one point around midday, only two sets were in service although matters improved considerably in the evening. Outer suburban trains to and from Dundalk, Drogheda, Maynooth and Kildare were largely unaffected. This issue remained just below the surface for the first half of the year but was substantially defused when the new Minister for Public Enterprise in effect ordered Bus Éireann to back away from an impending confrontation in Waterford on 22nd July. The dispute concerned an element of the viability plan which had become a "line in the sand" for both unions and management and threatened, at one stage, to affect all the CIÉ companies.

A local unofficial dispute in Cork on the 6th December severely disrupted services into and out of that station and on the Kerry road. Only two trains operated from Cork to Dublin, one of which, the 14:45 ex Cork, was delayed due to intimidation of the driver. Departure from Cork in the latter instance was around 17:30. Trains ex Dublin to Cork and Tralee generally terminated at normal crew change points such as Portlaoise, Limerick Junction and Mallow. Although the company and the union representing the individual at the centre of the dispute reached agreement on the handling of the issue at an early stage, there was some difficulty in organising a return to work and as a consequence normal services were not restored until the following day.

Limerick/Claremorris

Consequent on road improvements in the Cratloe area it became necessary to widen UB 33, a stone

arch underbridge near MP 9½. This work entailed the demolition of the original arch and the removal and reconstruction of one of the abutments. The new structure consists of a single pre-stressed concrete span weighing 150 tonnes resting, at one side, on one of the original abutments and on the other side on a new pre-fabricated concrete abutment which weighs some 120 tonnes. The new concrete sections were placed in position by a road crane of 300 tonne capacity, the centre span being the heaviest single lift handled by the crane up to that date. The line was closed from Tuesday 26/11/1996 to Thursday 28/11/1996 to facilitate this renewal which was managed by Irish Rail on behalf of Clare County Council.

The Down platform at Ennis has been resurfaced and new lighting installed, a recognition of the continued success of the passenger service. It can only be hoped that regional development funding might eventually be made available to upgrade the Limerick/Athenry line to a standard which would allow light weight diesel railcars to service the busy Limerick/Galway corridor. It would indeed be tragic if any short sighted signalling economies at Athenry ruled out this option for the future.

The Fine Gael party hired the Executive train to spearhead a pre-election tour by the party leader. The campaign train which carried the Taoiseach, Mr John Bruton TD, made a trip from Dublin to Cork and Cobh on 19th May and set out again on 24th May from Dublin to Tullamore, Roscommon, Castlerea, Westport, Castlebar and thence empty to Galway (via Athlone). On the 25th the campaign group used the train to travel from Galway to Ballinasloe, thence to Ennis and Limerick where they again left the train overnight this time rejoining to travel from Charleville to Millstreet and Killarney. (*The Millstreet lie-over saw the train scheduled to run empty to Rathmore to run round, thence back to Banteer to run round again and finally empty to Millstreet to pick up the campaign group for Killarney.*) The final day with the train was on 27th May when the group travelled from Killarney to Dublin with stopovers at Mallow and Thurles. Apart from being the first passenger train of the year the trip between Ennis and Athenry was unusual in that the train was hauled by an 071 class locomotive, the train consisting of 082 + EGV + 4 Mk3.

An Irish Railway Record Society organised special on 31st May also saw the Executive set traverse the Athenry/Ennis section, this time consisting of 133/182 + 7 Mk3 + EGV and calling at Gort for photographic purposes before continuing to Ennis and Limerick. Return to Dublin was via Nenagh, a routing which produced the rare sight of two trains at Roscrea. The second train, the 18:55 ex Ballybroy, consisted of 162 + GSV + 2 Cr + GSV and had about sixty passengers on board. Incidentally 077 worked the IRRS special from Limerick to Dublin.

Track repairs south of Craughwell were evident at the end of May as evidenced by new sleepers awaiting installation at the side of the track.

The station at Gort was officially closed to traffic with effect from 8th June, the last cement having arrived about three weeks previously and the last fertiliser in 1996.

The main station buildings at Tuam have been sold and as of mid-November work was in progress converting the premises for use as a youth hostel.

Palisade fencing has been erected for some distance on either side of the line in the vicinity of Longpavement in an attempt to reduce the vandalism and stone throwing which have plagued operations in the vicinity for many years. Progress through the Limerick suburbs is rather hampered by the necessary to negotiate the section from Ennis Junction to MP 4 with great caution as the Down distant signals for both Singland and Park level crossings are presently fixed at caution as a precaution against malicious interference with the wire operated semaphores. The level of vandalism at Longpavement is such that the crossing is unsignalled and is operated by staff sent from Limerick station for the purpose. (The Up distant for Park level crossing is operational while Singland is within the protection of the Limerick Check Up fixed distant.)

While timber trains operate regularly from Ennis via Limerick, traffic from Galway, Athenry, Westport and Ballina continues to be routed through Athlone apparently due to concerns about the suitability of the track, availability of crews and other operational matters. In any event signalling arrangements between Athenry and Claremorris would severely hamper the movement of traffic over that section as mentioned in previous issues.

A special passenger train organised by the Irish Traction Group operated from Bray to Westport via Tuam on 8th November and consisted of 173/141 + 7 Cr + DV. It had been intended that the locomotives would split at Claremorris with one of the pair running light to Galway in order to return the manual staff to Athenry but in the event the entire train returned via Tuam as the intended route via Roscommon was blocked by the derailment of the 08:25 Heuston/Westport near Knockcroghery.

The closure of the Asahi plant at Killala in mid-December 1997 has resulted in the demise of the weekly “coal and oil” train from Foynes to Ballina and as a consequence there is now no regular traffic traversing the Athenry/Claremorris section. The last train is understood to have run in the latter half of November although at the time of writing in December 1997 there were strong indications of new coal traffic from Foynes to Ballina the scale of which would require up to three trains per week.

Irish Distillers

The Irish Distillers Group ran two special trains to convey guests to its Midleton distillery on 6th February. While such traffic is by no means rare it is unusual to have two trains on the same day and as a consequence arrangements for handling the return workings were a little unusual. The outbound specials from Dublin were due away at 07:50 and 08:15 and ran through to Cobh, dropping their passengers at Glounthaune (Cobh Junction) from whence they completed their journey by road. The empty carriages returned to Cork for stabling. The return trains started from Glounthaune but as the latter has only one crossover it was necessary to send out a light engine from Cork in advance of the first empty and this hauled the first special which consisted of 078 + EGV + 6 Mk2 and left Cork at 16:54 well ahead of the regular 17:10 to Limerick. The latter departed at 17:11 formed by (6104) 3 p/p + 122. The empty train for the second special left Cork at 16:38 behind the 16:25 to Cobh (2612/11) and followed by an empty Ammonia train, 205 + b/w + 5 bogies + b/w, which departed at 16:49. The second departure from Glounthaune, 074 + 8 Mk3 + EGV, followed the 16:55 ex Cobh and paused briefly in Cork before departing at 17:38 ahead of the 17:30 regular which left at 17:48 and consisted of 210 + 8 Mk3 + EGV.

Freight Traffic

In a reversal of the normal traffic flow two consignments of imported timber were railed from Dublin (North Wall) to Sligo Quay, the first on 19th December 1996, the second on 4th January 1997. The traffic was conveyed in bogie timber wagons and was destined for a builders providers adjacent to the goods yard in Sligo.

Bulk cement traffic is currently booming with Drogheda presently supplying trains for Cork, Belfast, Tullamore and Cabra, with up to two trains per day to the latter two locations. Weekend work is common particularly on Saturdays and to a lesser extent on Sundays. The daily Drogheda/Cork train is formed of air-braked bogie wagons and occasionally loads to its maximum authorised size of twelve bogies, a gross laden weight of 900 tonnes. These wagons have almost exclusively been used to serve Cork since their introduction in 1979 but were unusually observed at Tullamore on 31st May due to disruption to wagon links arising from a locomotive failure the previous day.

Irish Rail suffered a series of serious setbacks on the freight front during the course of the year, the most damaging being the collapse of Bell lines with the last trains operating on or around 30th June,

almost twenty-eight years to day since the connection of the original Bell sidings at Abbey Junction in 1969. Although new shipping services have been established from Belview to Britain, France, Belgium and Holland, movements by rail have been drastically reduced. Some fifty Irish Rail staff in the Waterford area were primarily engaged in servicing Bell operations and as a result of the closure many of these now have little work. Consequent on the reduction in traffic the Cherryville Junction to Waterford line has been reduced to two-shift operation and the same fate may await the Limerick Junction to Waterford line at the conclusion of the Beet season, although such a move would hamper the handling of timber traffic. The demise of Bell has resulted in a dramatic fall in container movements at Adelaide yard in Belfast and traffic here now largely consists of cement, fertiliser and Guinness products.

Apart from the cancellation of dedicated Bell trains from Waterford to Dublin, Cork and Limerick there have been a number of other alterations to liner trains including the cancellation of the lightly loaded Longford liners and, more positively, the reintroduction of a direct service to and from Galway with effect from 27th October. The Up train is scheduled to depart at 20:40, and having served Athlone only, arrives in Heuston at 00:45 where a crew change is scheduled with the 00:30 from North Wall to Galway. The Up Longford liner train was unusual in that it was combined with the empty oil train from Sligo and as such was usually headed by an 071 class locomotive and a bo-bo. A typical train was that of 2nd April which consisted of 079/182 + 4 bogies + 3 tar wagons + b/w + 19 oil + b/w - all but the leading four bogies having originated in Sligo behind 079. The second engine, as usual, was that of the 17:15 Connolly/Longford passenger train whose crew worked the liner to Dublin. To balance this movement the engine and crew off the Down liner would work the following day's 06:15 Longford to Connolly. Consequent on the cancellation of these liner trains it is now apparently the practice to stable the passenger stock in Mullingar with empty workings to and from Longford. Given that the Dublin/Mullingar line is now closed for much of the night and that the crews working the Longford passenger service are still Dublin based, taxis are presently used to ferry the evening crew back to Dublin and to bring the morning crew to Mullingar. (Echoes of the West Highland sleeper train in Scotland!)

A new traffic to emerge during the year sees the conveyance of steel rodging from Dundalk to Cork in both single and bi-level wagons which are attached to the regular liner trains as required.

The closure of the Asahi factories at Killala, at the beginning of December 1997, was preceded by the cessation of the dedicated chemical train which ran five days a week from North Wall to Ballina and which was such a feature of the Mayo line since September 1977. Consequent on the cessation of the dedicated Asahi trains, the 21:00 North Wall to Ballina liner train has been advanced to depart at 19:00 while the corresponding Up train, which formerly left at 22:10, now departs at 02:50. Both trains now operate in a path similar to that previously utilised by the Asahi liners. As mentioned elsewhere the weekly "coal and oil" train from Foynes to Ballina ceased to operate around the middle of November. A typical Dublin/Ballina Asahi train was that of 25th May which consisted of 124/128 + 18 bogies and apart from seven 20' demountable Acrylonitrile tanks also included 12 wagons loaded with 40' containers.

It is expected that the frequency of the "Esso" oil trains from North Wall to Sligo will be reduced from the present three trains per week to about one per week, consequent on changes in safety regulations relating to the handling of volatile materials. It is understood that petrol products currently distributed from the Sligo railhead will now be brought to the North West by lorry from Galway, having arrived there by sea. Diesel fuel will continue to be railed to Sligo for the present.

Irish Rail are presently in the process of withdrawing from the conveyance of palletised cement at a number of locations, apparently due to high overheads and ageing equipment. These include Millstreet, Gort, Nenagh, Roscrea and Mullingar which either have, or are about to be, closed to this traffic. As

Millstreet and Rathmore share the same forklift, the latter will consequently cease to handle fertiliser traffic. It is understood that Arklow, Gorey, Enniscorthy and Wexford are still receiving palletised cement, although this is now being delivered by road as rail operations are apparently deemed less efficient due primarily to pathing difficulties, south of Arklow, consequent on the rationalisation of signalling and track capacity which has occurred over the last few years.

The four bulk cement silos at Sligo Quay goods yard were dismantled in mid-January 1997 and removed from the site. The facility had fallen into disuse, due to the ready availability of cheap imported cement which is produced just across the border in County Fermanagh.

Annual Report

The CIÉ and Irish Rail annual reports for 1996 reveal a worsening in the financial position of the railway company by almost £22m during the course of the year, thus turning the 1995 deficit of £8.4m into a deficit of £28.3m. A significant fall in operational costs and modest revenue growth were more than offset by a decrease in state subvention, increased interest charges and a provision of no less than £37.1m for restructuring costs, the latter figure slightly offset by miscellaneous credits to produce a net exceptional charge of £34.1m compared to £10.5m in 1995. Revenue from most sectors of the company increased in 1996 as shown in the table below:

	1996 (IR£000)	1995 (IR£000)	1994 (IR£000)	% Change 1995-96	% Change 1994-95
Mainline Passenger	56,223	53,603	49,494	+4.89%	+8.30%
DART Passenger	13,775	12,649	11,780	+8.90%	+7.38%
Rail Freight	16,735	17,398	18,412	-3.81%	-5.51%
Road Freight	21,697	20,673	18,580	+4.95%	+11.26%
Rail Catering	9,046	8,858	7,677	+2.12%	+15.38%
Rosslare Harbour	6,177	6,009	5,510	+2.80%	+9.06%
Miscellaneous	2,759	2,722	2,699	+1.03%	+0.85%
Total Revenue (A)	126,403	121,912	114,152	+3.68%	+6.79%
State Grants (B)	92,405	97,000	93,180	-4.74%	+4.09%
Profit on Asset Disposal (C)	(228)	60	77	-480.00%	-22.07%
Total Operating Costs (D)	233,365	214,165	193,877	+8.97%	+10.46%
Interest (E)	13,660	13,211	11,495	+3.40%	+14.92%
Surplus/Deficit (A+B+C-D-E)	(28,345)	(8,404)	2,037		

The most disturbing trend is the continued decline in revenue from freight trains which fell despite an (unspecified) increase in tonnage carried. Although observations suggest that fertiliser, Guinness, bulk cement, timber, ore, gypsum, grain and beet traffic are continuing at previous or increased levels, freight revenue seems set to decline significantly in 1997/8 when the collapse of Bell lines, the closure of the Asahi plant at Killala and further depot closures are reflected in receipts. There was strong growth in revenue from DART services although the report does not indicate the number of passengers carried on these services. Total passengers carryings by Irish Rail increased from 27.1m in 1995 to 27.9m in 1996 - a growth of almost 3% over the previous year but less of an increase than achieved in 1995 when the growth rate exceeded the 5% mark.

Gross capital expenditure of IR£14.4m was invested in the renewal of rolling stock and equipment while a further IR£26.1m was spent on the renewal of track and other infrastructure. Some £20.1m of

this investment came from the EU structural and cohesion funds. As of the end of December 1996 further capital expenditure of IR£88.1m had been either contracted or authorised by the directors of Irish Rail.

The average number of staff employed by Irish rail in 1996 was 5,168 compared to 5,313 in 1995 and 5,412 in 1994. The deployment of staff across the various activities of the railway company was as follows:

Railway Operations	4,536
Road Freight	267
Rosslare Harbour	66
Catering	299
Total	5,168

Fares

Concession tickets including Day saver, Monthly saver, Contract and Season tickets were revised upwards with effect from 29th January. As these tickets are sold at rates below the base rates it is not necessary to seek Government approval for such adjustments.

National Freight Distribution Centre

Proposals were published in March for the development of a National Freight Distribution Park on a 186 acre parcel of land located on the Down side of the line immediately west of Clondalkin station. The site is close to the M50 motorway and is bounded by the Dublin/Cork railway and the Grand Canal. A request for planning permission has been submitted to South Dublin County Council together with a detailed environmental impact study. Rail facilities would include seven sidings parallel to the main line serviced by two high capacity gantries and accessed via turnouts from the Down line. In addition there would be a requirement for at least two crossovers on the main line, a facing crossover west of the site to allow Up trains to access the yard and a trailing crossover east of the site to allow trains proceeding towards Dublin to gain the Up line.

The project which is priced at £100m envisages the creation of 1.94m square feet of warehouse space. 538,000 square feet of office accommodation and 26,900 square feet for light industrial use. The development is aimed primarily at lift-on lift-off traffic transiting Dublin port which would be linked to the site by hourly freight shuttles running via Islandbridge Junction, Glasnevin Junction, North Strand Junction, Church Road Junction and onto the Alexandra Road. This route would be upgraded with CWR being installed where not already in place. Signalling improvements would most likely be incorporated into the Heuston area resignalling project which will result in resignalling between Hazelhatch and Heuston and between Islandbridge Junction and the existing suburban CTC boundary at Cabra. It is anticipated that a degree of bi-directional working would apply in the Heuston/Inchicore area and that the line as far as Hazelhatch would be equipped with continuous multiple aspect signalling. (The 7½ miles between the Inchicore Down advance starter and the Down home signal at Hazelhatch is on a rising grade throughout, has two intermediate stations but yet contains only one set of intermediate signals located at MP 6¼. This section thus already constitutes a major bottleneck. Although the line between Heuston and Hazelhatch and Islandbridge Junction and Cabra is track circuited throughout the signalling between the mainline CTC boundary west of Inchicore and the suburban CTC boundary at Cabra is controlled from two mechanically locked frames, one at Inchicore and the other at Heuston. The cabin at Heuston station contains 76 miniature levers controlling electrically operated points and signals. The cabin at Inchicore contains a 26-lever frame and although

the main running signals are colour lights some of the points are mechanically operated and detected while most of the subsidiary discs are still semaphores.)

This proposed development is being promoted by the Canadian based Scottish business tycoon, Mr Harry Dobson in association with CIÉ, and if the project eventually comes to fruition CIÉ/Irish Rail are expected to sell same 40 acres of land in the North Wall area, primarily that occupied by the "Midland" and "Holyhead" Yards. It is envisaged that general freight activities would be relocated at the Clondalkin facility.

While the land released at the North Wall is likely to be incorporated into the general redevelopment of the docklands area and could be worth up to £1.5m per acre, a recent draft master plan (see below) recognises the potential role which could be played by existing rail connections in providing passenger access to the area from the national and suburban rail network.

- CIÉ Property have offered a short term lease on the former "Raillink" terminal at North Wall Quay which became redundant when Irish Rail discontinued its sundries business in December 1996. The building concerned contains some 60,000 square feet of warehouse space.

Alexandra Road Extension

Work was well advanced at the end of October on the extension of the Alexandra Road Tramway into the Coastal Containers terminal which is located in a relatively new area of the port not previously connected to the rail system. This project which also includes improvements to the terminal facilities is expected to cost about £1.7m and is being partially funded by the EU. The railway works involve the construction of 600m of single track largely on a ballasted formation, although the initial portion which crosses from the south to the north side of Alexandra Road and traverses the junction with Terminal Road is being constructed as a tramway. A run-round loop some 250m long is also being provided. The extension is expected to open in late 1997 or early 1998 and will obviate the necessity to shuttle containers to and from the North Wall terminals.

Dublin Docklands

The recently published Draft Master Plan commissioned by the Dublin Docklands Development Authority contains various proposals which may in time and in combination with the National Freight Distribution Centre radically alter the format and function of the still extensive railway infrastructure within the North Wall area. (*The remit of the Docklands authority covers an area of the inner city on both sides of the Liffey whose western boundary closely approximates to the DART line from Bath Avenue to East Wall Junction.*)

The report highlights the inadequacy of the existing public transport infrastructure within the development area and makes a number of proposals to address the problem as development proceeds. It also contains various proposal which will impact to a greater or lesser degree on railways within the area:

Under Phase 1 (1997-2002) Mayor Street Upper and Guild Street would be reconnected across land currently occupied by the "Midland" and "Holyhead" yards thus restoring a link severed by railway and canal construction. An extension of light rail into the area is considered desirable during this phase but unlikely to be achieved. A dedicated "environmentally friendly" bus service linking the development area with Connolly, Tara Street and Pearse stations is envisaged, this service to be known as DABS (Dockland Area Bus Service).

Under Phase 2 (2002-2007) LRT extensions into the docklands area are thought possible depending on the progress that has been made with the development of the LUAS system generally. Failing this

DABS would be further enhanced.

Under Phase 3 (2007-2012) it is envisaged that activity and employment within the docklands area will provide the scope and demand for further LRT extensions on both the north and south sides of the river. By this stage LUAS would extend to the Point Depot on the north side and as far into the southern port area as necessary. The latter extension would require the construction of a new bridge over the "Dodder Cut". The report proposes the identification of land and alignments for LRT at the earliest possible stage in the redevelopment process so that these corridors may be reserved and protected for fixture use.

In dealing with existing rail links the report makes the following observation: "Because there is an existing link between the North Quays CIÉ freight terminal and all of the mainline rail system, it would be inappropriate to exclude new and vital uses of existing or readily improved rail connections and rights of way." For this reason, provision is being made, in terms of long term future planning, for a new rail interchange at Abercorn Street and Upper Sheriff Street. The new facility is seen as a possible terminal for western suburban services and airport trains. (The report does not consider the possibility of extending this line under the river to Pearse station which would facilitate diversion of DART services via the Docklands area, without losing access to the existing city centre business district. A new route such as this would free up paths on the severely congested loop line between Connolly and Pearse and in turn facilitate increased frequencies on the Maynooth line and the extension of Kildare services either to Pearse or Barrow Street.)

The report notes that consideration should be given to the need for increased clearances beneath the rail bridges on the main roads entering the docklands area. (Suburban rail passengers are very aware of this problem as a result of the frequent bridge strikes particularly at East Wall Road.) Conversely the report suggests retaining existing clearances at various locations in order to discourage HGV traffic.

Locomotives

082 was named "The Institution of Engineers of Ireland" at a ceremony in Inchicore works on 10th February and was rostered to work the 13:20 to Cork the following day. The Irish version of the name appears on the nameplate above the IEI logo while the English version appears below the logo.

Irish Rail continues to have difficulty maintaining sufficient locomotives in service to cover its day to day requirements and has resorted to borrowing NIR equipment on numerous occasions throughout the year. Indeed at one stage serious consideration was being given to the use of A39 and A3r on the DART extension project although this is not now likely to happen. While reliability of the 201 class fleet has improved considerably these locomotives continued to be the subject of both general modifications and crank shaft replacement, the latter requiring the dispatch of the 710 engine to Turner Rail in Scotland for reconditioning. Locomotives which were taken out of service for engine replacement during the course of the past year are understood to include 206, 208 (NIR), 211, 213, 219, 221, 227, 228 and possibly also 205, 207, 226 and 230.

206 and 207 appeared in De-Dietrich livery in mid-March and mid-April respectively, preparatory to the introduction of the new cross-border services. These engines and their NIR counterparts found their way onto services throughout the country at various times during the year and particularly during July when De-Dietrich trial running was largely suspended due to civil disturbances in Northern Ireland.

Twelve of the 201 class had been commissioned for push/pull operation as of the beginning of December, these being 206¹, 207¹, 218¹, 219¹, 224, 225¹, 226¹, 228, 229, 230, 233¹ and 234¹. (1 - indicates HEP also commissioned.)

086 returned to traffic in October following a major mechanical overhaul and extensive body repairs. As mentioned elsewhere 085 was damaged in a derailment in October and is presently out of traffic.

142 returned to traffic in November after a major overhaul. The locomotive has been fitted with a reconditioned 567 engine. Similarly 165, damaged in a buffer stop collision at Cobh in May 1995, returned to traffic in August with a reconditioned 567 engine at which stage 156, another long absentee, was still at Inchicore. 130 returned to traffic around the end of May and is presently in use as the Inchicore Works pilot. While the 121, 141 and 181 class fleets now rarely see duty on front line passenger services they remain regular performers, often in pairs, on freight trains, departmental trains and secondary passenger services from Cork to Tralee, Limerick to Ennis, Rosslare, and Ballybroyphy, Manulla Junction to Ballina and on locomotive hauled services in the Dublin outer suburban area.



206 resplendent in De-Dietrich livery, 13th March 1997.

DART Stock

Eight pairs of seats which backed onto the partitions adjacent to the door openings in 8307 were removed experimentally in March in order to increase standing room around the four entrances. The partitions have also been removed and the heating units formerly located beneath the seats are also gone with the result that the vehicle is presently unheated. It is understood that consideration is being given to the possibility of completely reorganising the seating in a number of DART sets so that most or all seats would have their back to the windows, a configuration which probably halve the number of seats but greatly increase standing room and crush load capacity. It will be interesting to see if the public will continue to be attracted to a service where there is an even greater prospect of having to stand for some or all of the journey. A second trailer, 8305, was similarly modified around the beginning of December.

Driving trailers 8324 and 8311 were the victims of a mindless graffiti attack, the first incident occurring in mid-July and the second, apparently at Bray on 22nd November. Fortunately the matter was quickly rectified, although given the enormous amount of graffiti appearing on Tara, fertiliser and

cement wagons in recent months this may be just the beginning of an extremely unwelcome development. A serious incident occurred on the evening of 26th November when a number of youths reportedly smashed windows on a DART train approaching Clontarf Road and having disembarked there attacked a number of carriages in the adjacent sidings. Some twenty-four windows were smashed in total. There was some reduction in set sizes the following morning as the damage could not be fully repaired overnight.

Timetable Matters

The existing mainline and suburban timetables which commenced on 20th May 1996 were extended until 31st August subject to a number of minor amendments mainly in respect of operating dates for seasonal services which were scheduled as under:

- 09:20 Tralee/Cork diverted to Heuston on Saturdays in July and August, connection provided at Mallow for Cork. (This arrangement applies on Fridays all year round.)
- 13:40 Heuston/Tralee ran on Saturdays during July and August as a relief to the 13:20 to Cork. This service ran in the path of the 15:15 ex Cork between Mallow and Tralee. (This arrangement applies on Fridays all year round.)
- 11:30 Heuston/Galway ran on Saturdays during July and August in the same path as summer 1996.
- 16:25 Galway/Heuston ran on Saturdays during July and August. This train was scheduled to serve Ballinasloe, Athlone and Tullamore and arrive in Heuston at 19:01 and replaced the 14:50 ex Galway which ran on similar dates in 1996.
- 12:54 and 16:25 Connolly/Gorey ran on 2nd June and 4th, 9th and 16th August. Additional services were provided ex Gorey at 15:20 and 18:40 on the same dates.
- 06:57 Arklow/Drogheda extended to Dundalk on weekdays from 1/7/1997 to 9/8/1997 inclusive, returning at 10:30 to take up the running of the 10:55 Drogheda/Pearse. The Up train was provided both as a relief to the 09:30 ex Belfast and as a service for day-trippers from Dundalk to Mosney. (This arrangement may have applied beyond 9th August due to limited accommodation on the 09:30 ex Belfast.)
- 07:15 Rosslare/Waterford extended to Limerick Junction from on weekdays from 3/6/1997 until 30/8/1997. The set then forms the 10:52 Limerick Junction/Limerick although passengers have the option of travelling on the 10:08 to Limerick which is formed by a push/pull set. (*The carriages of the 07:15 ex Rosslare stable unproductively in Waterford from 08:30 to 17:00 during the winter months.*)
- 10:10 Limerick/Limerick Junction was extended to Waterford on weekdays from 3/6/1997 to 30/8/1997. (In 1996 this train continued to Rosslare Harbour and formed a service at 15:15 from Rosslare Harbour to Waterford.)

A new service from Heuston to Limerick at 19:05 on Fridays only serving Portlaoise and Thurles is shown formally in the public timetable leaflet effective from 1st June. This train, which arrives in Limerick at 21:15, had been running on an occasional basis in previous weeks and is formed by the incoming 15:25 ex Galway. While the new train is a response to healthy traffic levels it is also a rolling stock conservation measure as the following Cork train need not now be strengthened to the degree previously required. (The latter is deferred from 19:05 to 19:15 on Fridays.)

The 19:10 from Connolly to Dundalk, an Arrow service, was altered to run in an accelerated schedule from 2nd June, the journey time being reduced from 90 to 78 minutes for the 54½ mile trip which in this instance includes ten stops. (*Incidentally a six-piece push/pull, working the 18:27 ex Pearse, recently completed the same trip in 70'-04" inclusive of eleven stops.*)

The 09:20 ex Tralee was advanced to leave Killarney 11 minutes earlier at 10:01 with effect from 3rd June and now arrives in Mallow at 11:05 instead of 11:15. When this train operates through to Dublin, on Fridays and certain summer Saturdays, arrival in Heuston is scheduled for 13:43 instead of 13:52. The 09:10 Cork/Tralee now leaves Rathmore at 10:26 and arrives in Tralee at 11:24 instead of 11:34. (*The revised timings from 3rd June in respect of these two trains are the same as those which applied between 20/5/1996 and 13/7/1996 and which had to be temporarily altered to accommodate a well-established bus connection at Killarney - a rare instance of the preservation of bus/rail interchange. Prior to the May 1996 change the 09:20 ex Tralee had departed at 10:00.*)

Heavy loading of the 08:55 Heuston/Tralee on Saturdays necessitated running an additional train at 08:45 commencing in mid-July. This train which was still running on 30th August ran variously to Cork, Ennis or Killarney depending on anticipated traffic. The set normally formed a return special typically at 12:00 ex Cork with passengers for concerts or GAA events.

The 1997/8 timetables became effective on 1st September and excepting the Dublin to Belfast line are in effect a continuation of the extended 1996/7 timetable, the most noticeable feature being a series of unwarranted decelerations, particularly on the Cork line. The new Belfast services are described elsewhere, the remainder of the more important changes being detailed below.

Mainline Services (Weekdays)

- 07:30 Heuston/Cork decelerated by five minutes to arrive in Cork at 10:15.
- 10:35 Heuston/Cork (FO) now departs at 10:25 and runs ten minutes earlier throughout.
- 11:25 Heuston/Cork decelerated by three minutes to arrive Cork at 14:05.
- 15:25 Heuston/Cork now serves Thurles and arrives in Cork five minutes later at 17:55.
- 17:20 Heuston/Cork decelerated by five minutes to arrive in Cork at 19:50.
- 07:30 Cork/Heuston now departs at 07:30 arriving in Heuston at 10:00, five minutes slower.
- 14:00 Cork/Heuston (FO) arrives at 16:37, three minutes faster. (Platform available earlier.)
- 15:10 Limerick to Cork now runs to Limerick Junction only and returns as a new service at 16:28 taking a connection off the 14:45 ex Cork and 14:10 ex Tralee.
- 14:35 Heuston/Limerick no longer serves Limerick Junction and thus arrives eight minutes earlier at 17:05. (*Previously provided the connection to Limerick off the 14:10 ex Tralee.*)
- 16:30 (FO) Heuston/Limerick arrives in by connecting service at 19:03 instead of 18:52. (*Connection was previously provided by the 17:10 Cork/Tralee, now provided by the new 18:35 ex Limerick Junction.*)
- 17:40 (FX) Heuston/Limerick departs at 17:37, but still arrives in Limerick at 20:33.
- 07:55 Limerick/Ballybroyohy advanced to depart at 07:52 in order to avoid blocking the following 08:00 Limerick/Limerick Junction. The latter previously departed at 08:03 but was advertised to the public at 08:00.
- 14:20 Limerick, Friday connection to Dublin arrives at 16:37, three minutes earlier.
- 18:00 Limerick to Limerick Junction, additional service connecting with the 17:30 ex Cork and 17:20 ex Dublin.
- 09:10 Cork/Tralee, which connects with the 07:30 ex Heuston, runs until 27th September and again from 27th April thus losing its year round status.
- 17:10 Cork/Limerick now runs to Tralee leaving Mallow at 18:00 and taking a connection off the 15:25 ex Heuston. The long wait in Mallow from 17:36 to 18:00 is due to pathing difficulties on

the branch and is an alternative to a lengthy delay at Rathmore. Passengers from Cork can depart at 17:30 and change at Mallow although this connection is not shown in the relevant table. (*The 15:25 ex Heuston arrives in Mallow at 17:29 and the new connection to Tralee, while welcome, is thus not ideally timed.*)

18:10 (FO) Cork/Tralee is cancelled.

17:40 (FO) Heuston/Tralee departs at 17:37 and arrives in Tralee at 21:40 as at present.

11:45 Tralee/Cork runs until 27th September and again from 27th April.

17:45 Tralee/Cork now arrives in Cork at 20:00 due to the deceleration of the preceding 17:20 ex Heuston.

16:50 (FO) Heuston/Waterford now departs at 16:45 but arrives five minutes later at 19:20.

19:55 (FO) Waterford/Heuston is decelerated by 14 minutes and now arrives at 22:40. (*This retiming and that of the 16:50 ex Heuston arises because the two trains are now rostered for locomotive haulage rather than an Arrow and thus time is allowed for running round in Kilkenny.*)

16:40 (FO) Heuston/Ballina departs at 16:38 but arrives in Ballina at 20:35 as previously.

07:25 Westport/Heuston decelerated for the second year in a row and now arrives at 11:05.

11:30 (SO) Galway/Heuston cancelled - set returns empty to Dublin on Friday night.

16:50 (SO) Heuston/Athlone, additional train serving all stations Hazelhatch to Athlone.

Mainline Services (Sunday)

11:30 Heuston/Cork cancelled.

12:15 Heuston/Cork now serves Portlaoise, Thurles and Mallow. (*Replaces 11:30 stops.*)

16:45 Limerick/Cork cancelled.

16:10 Heuston/Limerick, new service calling at Newbridge, Kildare, Portlaoise and Thurles. (*This train replaces the 11:30 ex Heuston which also worked to 16:45 Cork/Limerick.*)

21:00 Heuston/Cork accelerated to arrive in Cork at 00:15 (Monday), 15 minutes earlier. Limerick connection arrives at 23:37 instead of 23:52.

16:45 Cork/Limerick is cancelled.

17:20 Tralee/Heuston previously due at 21:00 now arrives at 21:05.

19:30 Ex Limerick no longer serves Limerick Junction and thus arrives in Heuston at 22:05.

A novel feature of the mainline public timetable is the appearance of symbols warning potential passengers that a particular service is either “busy every day” or “busy on Fridays”. Trains so marked, and there are quite a number, generally have insufficient accommodation for those who wish to travel. For instance departures from Heuston on Fridays which are designated as “busy” include the 13:20, 16:30 and 17:20 to Cork, 16:38 Ballina, 17:00 Galway, 17:30 Ennis and 18:10 Westport.

The 05:20 (MO) Waterford to Heuston is now formed by the Mk3 set off the Sunday only 18:20 ex Heuston. The 07:30 ex Waterford on Mondays is now formed by an 04:00 empty from Heuston which operates via Kilkenny in order to avoid turning the Mk3 set. This arrangement means that the intermediate cabins between Cherryville Junction and Waterford are not required as early as would be the case if the 05:20 were formed by empty carriages ex Heuston as formerly. The 06:45 ex Carlow is no longer rostered for Arrow operation but is instead a hauled set worked empty from Heuston on Tuesdays to Fridays. The 05:20 (MO) ex Waterford covers this service on Mondays.

Dublin Suburban Services (Weekdays)

The main feature of this timetable is the opening of Clontarf, already allowed for in DART schedules since May 1996, and the alterations consequent on the introduction of the higher frequency cross-border service described elsewhere. DART services are virtually unaltered although there are a few additional services. The Howth/Bray service pattern remains erratic with wildly varying service intervals within the overall off-peak frequency of four trains per hour. Northern outer suburban services compare poorly with the Heuston/Kildare service in terms of frequency at off-peak periods and in particular on Saturdays. For instance there are services to Sallins at 19:35, 20:40, 21:40 and 22:45 on weekdays while Skerries must make do with departures at 19:10, 20:40 and 22:05, the first mentioned from Connolly, the remaining two from Pearse. The 22:05 ex Pearse does not run on Saturday while the 20:40 ex Pearse is shown in the timetable as running on Mondays to Fridays only for reasons explained elsewhere. This imbalance persists despite the far heavier patronage on the Northern line, the availability of suitable equipment and the unmanned status of stations on both routes at the times mentioned. The main changes are as follows:

- 06:05 (MF) Connolly/Drogheda cancelled.
- 06:18 (MF) Additional service Connolly to Mosney serving stations Malahide to Balbriggan inclusive.
(The first local service to Drogheda is now the 08:08 Ex Pearse!)
- 07:16 (MF) Howth Junction/Howth connects with the 06:04 ex Dundalk at Howth Junction.
- 07:55 Connolly/Belfast advanced to 07:40 and no longer takes a Monday only, school term, call at Skerries.
- 06:57 Ex Arklow extended to Dundalk, arrives 10:11.
- 08:10 Ex Bray extended to Howth Junction on Mondays to Fridays.
- 08:53 (MF) Bray/Drogheda push/pull, cancelled at Connolly.
- 09:20 (MF) Bray/Connolly, push/pull, extended to Drogheda, arrives 10:52.
- 09:25 (SO) Pearse/Drogheda deferred to 09:52, arrives 10:52.
- 12:25 Pearse/Drogheda advanced to depart at 12:12 and runs 13 minutes earlier throughout.
- 13:43 Pearse/Drogheda advanced to depart at 13:15 and arrives in Drogheda at 14:14. *(This train continues to serve Raheny on Wednesdays only.)*
- 14:45 (FO) Connolly/Dundalk additional service serving Drogheda only.
- 15:04 (MF) Pearse/Mosney departs at 14:50 and operates over the Up line from Skerries to Balbriggan to allow the 15:20 ex Connolly to overtake it. An additional three minutes running time is allowed for traversing the crossovers at Skerries and Balbriggan.
- 15:04 (SO) Pearse/Drogheda altered as above.
- 16:26 Pearse/Drogheda advanced to 16:18 and runs over the Up road from Skerries to Balbriggan to allow the 16:50 Connolly/Belfast to overtake. Journey time is extended by one minute.
- 16:52 Pearse/Drogheda advanced to 16:45, no longer serves Gormanston and arrives in Drogheda at 17:42, eight minutes earlier than previously.
- 17:13 Pearse/Newry now runs to Dundalk only and is non-stop from Malahide to Skerries on Mondays to Fridays, but serves Donabate and Rush on Saturdays. Previously this Saturday path also applied on Friday.
- 17:28 (Friday and Saturday excepted) Pearse/Mosney is extended to Drogheda and has been reinstated on Fridays after an absence of some years. However, on Fridays, the train does not stop at

Howth Junction, Portmarnock or Malahide and will have to wait at Donabate for up to ten minutes to resume its timetabled path.

- 17:43 Pearse/Drogheda deferred to 17:47 and operates four minutes later throughout.
- 18:27 Pearse/Dundalk advanced to 18:16 and terminates at Drogheda.
- 18:05 (MF) Bray/Connolly extended to Howth, arrives 19:09, and runs on Saturdays also.
- 18:15 Bray/Howth terminates at Connolly and runs on Mondays to Fridays only. (*Would have obstructed the 19:00 Connolly/Belfast.*)
- 18:25 (MF) Bray/Connolly now departs at 18:22, is extended to Howth and runs on Saturdays.
- 19:10 Connolly/Dundalk terminates at Drogheda. (This is last local service on Saturdays!)
- 20:15 Connolly/Belfast deferred to 20:30 and no longer serves Skerries or Balbriggan.
- 20:40 (SO) Pearse/Balbriggan, new service calling at Tara Street, Connolly, Malahide, Donabate, Rush and Skerries.
- 21:00 (MF) Connolly/Dundalk now operates from Pearse departing at 20:40 and terminates in Drogheda at 21:35.
- 22:10 (MF) Connolly/Dundalk now operates from Pearse at 22:05.
- 06:55 (MF) Connolly/Maynooth advanced to 06:48.
- 07:08 (MF) Maynooth /Connolly advanced to 07:00.
- 06:30 (MF) Howth/Bray departs at 06:22 with effect from 9th September, this change being to facilitate passengers connecting into the retimed 06:55 to Maynooth.
- 06:46 Connolly/Bray departs at 06:52 on Mondays rd Fridays, unaltered on Saturdays.
- 06:04 (MF) Dundalk/Pearse accelerated by two minutes to arrive at Pearse at 07:25.
- 07:28 (MF) Drogheda/Bray advanced to 07:26 but now takes thirteen minutes to cover the Howth Junction/Connolly section thus arriving at 08:25 as formerly.
- 07:43 (MF) Drogheda/Pearse extended to Dun Laoghaire for both operational and traffic reasons. (*The 06:40 ex Dundalk and 07:28 ex Drogheda were extended from Pearse to Bray as part of the 1996 timetable changes.*)
- 07:10 Newry/Dundalk cancelled.
- 07:35 Dundalk/Pearse cancelled between Dundalk and Drogheda.
- 08:07 (MF) Dundalk/Pearse cancelled between Dundalk and Drogheda. Train now leaves the latter at 08:38 instead of 08:32 but arrives in Pearse at 09:36, one minute later.
- 08:07 (SO) Dundalk/Pearse departs at 08:12 arriving in Pearse at 09:36 as above.
- 09:32 Howth/Pearse extended to Bray.
- 10:57 Ex Drogheda runs from Dundalk departing at 10:30.
- 11:50 Drogheda/Connolly advanced to 11:30 and extended to Pearse, arrives 12:38.
- 12:25 Howth/Bray deferred to 12:30 so as to follow the 10:30 ex Belfast.
- 12:52 Drogheda/Connolly advanced to 12:32 but still terminates at Connolly.
- 13:52 Drogheda/Pearse deferred to 14:32 and runs 40 minutes later throughout. (*Follows the 12:30 ex Belfast which leaves Drogheda at 14:07.*)
- 15:55 Howth/Bray deferred to 16:00 so as to follow the 14:00 ex Belfast.

16:25 (MF) Connolly/Dun Laoghaire deferred to 16:30 to follow 16:00 ex Howth.

16:15 (FO) Dundalk/Pearse, additional train calling at Drogheda, Connolly and Tara Street and running in the path of the former 15:00 ex Belfast.

17:57 Drogheda/Connolly deferred to 18:02 and accelerated by two minutes to arrive at 18:51.

19:35 Drogheda/Connolly advanced to 18:55 and extended to Pearse, arrives 19:59. (*This is the last local service to Dublin.*)

20:06 Dundalk/Connolly cancelled. (*There is now no service from Dundalk to Dublin between 17:27 and 21:27!*)

Sundays

19:35 Howth/Bray advanced to 19:30 to provide a path for the 17:30 ex Belfast.

20:10 Howth/Bray deferred to 20:15 to follow the 18:15 ex Belfast.

09:35 Connolly/Howth advanced to 09:30.

09:00 Bray/Howth, additional service, arrives Howth at 10:02.

09:50 Connolly/Mosney additional seasonal service commencing on 24th May 1998. (*The only other service to Mosney will be provided by the 18:30 Connolly/Belfast. Up services are provided by the 10:00 and 17:30 ex Belfast.*)

17:45 Bray/Howth advanced to 17:40 to provide a path for the 18:30 to Belfast.

20:15 Connolly/Dundalk, nominally a six-piece Arrow, is decelerated by six minutes to allow time for splitting. (*Alternatively Dundalk passengers are open required to change trains in Drogheda, this arrangement applying when the 20:15 is being worked by a four-car Arrow and there is already a two-car set in Drogheda off the previous day's 19:10 ex Connolly.*)

Journey times for local trains on the Maynooth line have been extended, generally by one minute, to allow for the additional stop at Drumcondra. This station will be open on weekdays only and will be served by the 06:48, 08:02, 09:06, 10:40, 12:04, 14:00, 17:15, 17:52, 20:54 (MF) and 22:09 (MF) ex Connolly and the 16:10 ex Pearse. Citybound services will depart at 07:31 (MF), 08:22 (MF), 08:37, 09:46, 10:44, 12:35, 13:44, 15:35, 17:35, 19:40, 22:00 (MF) and 23:16 (MF). Of these the 08:37 runs through to Rosslare while the 15:35 runs through to Pearse with the remainder terminating at Connolly.

The disappearance of the 20:15 express service from Connolly to Skerries and Balbriggan was not well received in the latter two towns especially when it was realised that the change meant that the last train from Dublin on Saturdays would be at 19:10. Following pressure Irish Rail reluctantly conceded an additional service in the path of the Monday to Friday 20:40 Pearse/Drogheda but running to Balbriggan only. As it happened this arrangement left at least one passenger stranded in Balbriggan on 6th September and after some deliberation the train continued non-stop to Drogheda returning empty on arrival. The 20:40 ex Pearse is normally formed by an Arrow which returns empty to Connolly at about 21:25, this despite the previous and last train to the city being at 19:11. (The 1996/7 timetable had departures at 19:52 and 20:42, the first mentioned is advanced to 19:11, the second cancelled.)

Rolling Stock

The first of the railcars being built by GEC-Alsthom in Barcelona are not now expected to be delivered until March 1998, several months behind the original contract date. Ironically this delay will probably result in the order being completed earlier than planned as there is now little advantage to either party in staggering deliveries into 1999. A total of 27 vehicles is on order, two of which will have cabs at either end and may thus operate as single units. These latter vehicles are to be allocated to

Limerick/Ballybroy and Manulla Junction to Ballina services and in the case of the latter will replace a two-coach Craven set. The single car unit should be adequate on the Limerick/Ballybroy line as the run down in services over the years has greatly reduced carryings. (The railcar of course could facilitate the operation of additional services, perhaps short workings between Ballybroy and Nenagh or Limerick and Nenagh although there is as yet no evidence that anything other than the present skeletal service is envisaged.)

The remaining vehicles are expected to be allocated to the Dublin area with two eight-piece units expected to feature on Northern outer suburban services, a six-piece unit on the Arklow service and a four-piece unit on the Longford service. This allocation actually requires twenty-six vehicles, the additional unit being the unpaired Mitsui built Arrow, 2609, which has not run since June 1994 having been heavily cannibalised for spare parts.

Set 2603/4 which suffered underfloor damage as a result of a collision with a maliciously placed obstruction near Sallins on 16th August 1996 had returned to traffic by early February 1997. This set formed part of the 19:55 ex Waterford on this date.

The long pending order for ten additional DART vehicles was issued in mid-November with delivery expected in 1999. While the order is extremely welcome it will do little to solve the severe and highly disruptive overcrowding which currently handicaps an otherwise highly regarded service. (*Peak hour schedules have already been extended in order to take account of increased dwell times at stations as passengers struggle to board hopelessly overfull services.*)

A number of Cravens coaches have been refurbished in recent months including 1508, 1517, 1518, 1522, 1531, 1536, 1547 and 1548.

The Railway Preservation Society of Ireland have acquired 1549 which although out of service since the 1993 Belview derailment is not too seriously damaged. The society hopes to convert 1549 for use as a catering vehicle which could be marshalled either with its own or hired Irish Rail stock. (This is an important acquisition for the RPSI as 1549 will not be subject to the route restrictions which apply to the remainder of their fleet, most of which is wooden bodied and prohibited from carrying passengers on the more important lines in the Republic or on NIR between Lisburn and the border.)

1519 and 1525 damaged at Ballyseedy in November 1993 have been formally withdrawn as has 1509, damaged at Belview in July 1993.

The Cravens fleet, currently totalling 44 vehicles, continues to be used throughout the system with about 20 dedicated to the Dublin suburban area between midnight Sunday and mid-morning Friday. Typical allocations are as follows: Arklow (6), Drogheda (6), Longford (4), Connolly (4), Cork (7), Limerick (3), Rosslare (2) and Ballina (2). Peak fleet usage occurs on Fridays with Cravens forming several of the Friday only services including the 13:40 Heuston/Tralee, 17:05 Connolly/Sligo and either the 16:30 Heuston/Cork or the 16:38 Heuston/Ballina. Friday suburban formations are altered so as to reduce the number of cravens allocated to as few as seven carriages should alternative stock be available to form the 16:18 Pearse/Drogheda and 17:15 Connolly/Longford. The former is typically formed by a two-piece railcar set while the latter is usually formed by push/pull spares. (Most unusually the 16:18 Pearse/Drogheda was formed by De-Dietrich stock on 30th and 31st October, much to the delight of the many ill disciplined school children who use this service. The train started from Connolly on both dates and was formed by 219 + standard + full first + driving trailer first.)

Mk3 standard 7111 was destroyed by arsonists at around 03:00 on 25th February. The coach was parked in sidings at the Cork end of the works near the running lines at a point where such incidents have occurred previously. Although the body shell was a complete write-off the running gear has been salvaged for reuse. A generator van, 7602, was slightly scorched in the same incident.

The tenth Mk3 International coach, 99529, arrived in Inchicore from Derby on 13th May and when refurbished is expected to be numbered 6208 in the Irish Rail fleet. At the time of writing little progress had been made in converting 99520 into a driving trailer and it would appear that this latter project has been somewhat long-fingered to say the least.

Modification of Mk3 composites has been taking place over recent months whereby the rather small and often wholly inadequate 16 seat super standard sections are being enlarged to occupy half the coach. This improvement will be particularly welcome on the Cork line where much revenue has been lost over more than a decade due to inadequate provision for business travellers on many services and in particular on the 09:00, 14:45 and 19:00 ex Cork and the 11:25, 15:20 and 19:05 ex Dublin. The most notable conversions to date have been 7165 and 7169 which in addition to being internally rearranged and revamped now sport a grey roof and standard UIC first class markings, similar to those carried by the De-Dietrich and Mk3 international sets. Seating in these vehicles is now split evenly with accommodation being provided for 32 standard and 32 “super standard” passengers.

Mk3 diner 7411, slightly damaged in the Knockcroghery derailment has returned to traffic as mentioned elsewhere.

A series of trials towards the end of August saw 216 traverse most of the system including lines not previously visited by these locomotives. The trials included the Limerick/Ennis, Limerick Junction/Rosslare, Killonan Junction/Ballybroy and Glasnevin Junction/Sligo lines as well as the DSER south of Shelton Abbey. The 201 class used for these trials was inoperative at the time and was hauled throughout by a 141/181 class locomotive.

Ammonia Traffic

These trains briefly reverted to nine-bogie formations in September with two return trips on weekdays between from Marino Point to Shelton Abbey. However adhesion problems, caused by autumn leaves and exacerbated by the lack of sanding, resulted in trains stalling on a number of occasions and precipitated a reduction to six or seven car formations and the reversion to three return services daily.

New Ross Branch

Irish Rail have indicated that this line is now closed and that fertiliser formerly loaded at New Ross is being transferred by road to Waterford and thence by rail to its final destination. The company has stated that it is not financially viable to restore the line as the small number of laden trains, 10 to 15 per annum, would not justify the expenditure. The route is not being abandoned, however, as the company is keen to preserve the link in anticipation of “future business opportunities”.

Derailments Mishaps and Weather

Southside DART services were severely disrupted due to a serious mechanical fault which affected one of the axles on the leading barrier wagon of the 09:15 Cork (Marino Point) to Arklow (Shelton Abbey) Ammonia train on 3rd February. Services were suspended for several hours between Dalkey and Bray due to the necessity for the crippled train to proceed at reduced speed. Shortly after the resumption of traffic between Dalkey and Bray a broken rail was reported on the Up line at Dalkey station and services were again suspended while the latter was attended to.

The 14:55 Rosslare/Connolly was severely delayed consequent on a block failure which affected the Enniscorthy/Arklow section on 24th February. The train which was formed by 073 + 5 Mk2 + EGV arrived in Connolly at 18:25 and departed again at 18:37 working the return 18:30 Connolly/Rosslare.

The 18:20 Connolly/Sligo demolished the level crossing gates at Barberstown on 3rd July and as a

consequence the train, formed by 082 + EGV + 8 Mk2s did not depart Maynooth until 19:44, about an hour late. The 19:10 ex Maynooth, 2604/03 was also delayed and did not depart until 19:54. Incidentally the 17:15 Connolly/Longford was formed by an Arrow set on this date although the service was cancelled at Maynooth apparently because these sets are not cleared to operate to Mullingar and Longford. (Oddly enough an Arrow reaches Enfield each weekday while working the 10:40 Connolly/Enfield and 11:30 Enfield/Connolly.)

079 was partially derailed on No.211 points at Drogheda on 16th June, while running round the 16:26 ex Pearse. With one set of carriages trapped in the yard, as a result of the mishap, the 17:55 from Drogheda to Connolly was cancelled and its train used to form the 18:16 ex Drogheda.

A buckled rail on recently relaid and unballasted track on the Up line near Liffey Junction resulted in single line working between Glasnevin Junction and Clonsilla on 19th July. The disruption commenced around mid-day and affected services for the remainder of the day. The 17:15 to Longford, 17:55 to Maynooth and 18:20 to Sligo were particularly badly affected with the last two trains still standing at Glasnevin Junction at 18:40, the Maynooth train on the "Liffey Branch" at CW55 and the Sligo train at CW27 on the "Southern Link Line". In the event the Sligo train ran ahead of the local which as a consequence did not arrive in Maynooth until around 19:30.



Aftermath of the Belview collision, 1st October 1997.

Locomotive 084 was completely derailed on No.210 points at Drogheda during the night of 28th/29th August thus trapping a push/pull set and a bogie bulk cement train. As a consequence the 07:43 ex Drogheda was formed by 183 + 3 Cr + GSV resulting in somewhat severe overcrowding.

The trailing water tank wagon and the following two empty Ammonia tank cars forming part of the 15:07 Marino Point to Arklow Anhydrous Ammonia train were derailed near the "long arches"

between Cabra and Glasnevin Junction at around 21:15 on 18th September. The derailed vehicles fouled the opposite line and were struck by the 20:35 North Wall to Cork liner train although the latter sustained little damage and was able to continue to Cork after some hours. The loaded portion of the Ammonia train escaped unscathed and was also able to continue to its destination. Almost half a mile of track was damaged to a greater or lesser degree including part of Glasnevin Junction together with a small section of new concrete sleepers and CWR. Single line working was established over the Down line between Connolly and Heuston at 13:00 the following day. The first movement was an empty carriage transfer from Connolly after which a succession of liner trains made their way on the wrong line into the North Wall. Normal working resumed at 17:00 on Saturday 20th September. (*The Down line for the purposes of the above discussion is that from the Connolly/North Wall direction.*) The derailed water tank wagon, 30279, was badly damaged although the other vehicles involved, including ammonia tank car 32002, were less seriously affected.

Locomotive 085, travelling light engine from Waterford to Wellingtonbridge on Wednesday 1st October, was completely derailed after striking an excavator which was fouling the line at MP 80½, near Belview. The light engine was pathed between the 17:00 ex Waterford and the 15:55 ex Limerick. Apart from the inevitable bogie damage the locomotive is understood to have had its engine block scored by the bucket of the excavator.

A shunting mishap occurred at Drogheda on 5th November involving the set of the 15:50 Drogheda/Pearse whereby 078 collided with its train resulting in five Cravens being temporarily withdrawn from traffic pending repairs. This incident combined with the Knockcroghery derailment and a pre-existing maintenance backlog resulted in a severe shortage of carriages with consequent extreme overcrowding on some services. As usual the brunt of the disruption was borne by the Dublin outer suburban services and was most evident on Fridays as illustrated below:

Set	Service	Mon-Thu Formation	Friday Formation	Fridays 7/11/1997 to 5/12/1997
7	12:12 Pearse/Drogheda	6 (CR)	3 (CR)	Formed by Mk2s on both 7/11/1997 and 14/11/1997 - added to 18:20 to Sligo on both dates. On 14/11/1997, 15:50 ex Drogheda ran in the path of the 16:12 ex Mosney as the 14:50 ex Pearse returned empty to Dublin.
8	13:15 Pearse/Drogheda	6 (P/P)	6 (P/P)	
1	14:50 Pearse/Mosney	6 (CR)	4 (CR)	Reduced to 2 (CR) on 7/11/1997, set returned as 16:12 ex Mosney and formed 17:28 ex Pearse on this date.
2	15:40 Pearse/Drogheda	6 (P/P)	6 (P/P)	
4	16:18 Pearse/Drogheda	4 (CR)	2 (CR)	
5	16:45 Pearse/Drogheda	4 (Arrow)	4 (Arrow)	Reduced to 2 (Arrow) 7/11/1997, 28/11/1997 and 5/12/1997 - see 17:28 ex Pearse.
6	17:13 Pearse/Dundalk	6 (P/P)	6 (P/P)	

7	17:28 Pearse/Drogheda	6 (CR)	3 (CR)	2 (CR) 7/11/97, cancelled 14/11/1997 and 21/11/1997, formed by 2 (Arrow) 28/11/1997 and 5/11/1997. Arrow set is normally part of the 16:45 ex Pearse.
8	17:47 Pearse/Drogheda	6 (P/P)	6 (P/P)	
2	18:16 Pearse/Drogheda	6 (P/P)	6 (P/P)	
5	19:10 Connolly/Drogheda	4 (Arrow)	2 (Arrow)	
8	20:40 Pearse/Drogheda	6 (P/P)	6 (P/P)	
3A	22:05 Pearse/Dundalk	2 (Arrow)	2 (Arrow)	
10	17:15 Connolly/Longford	4 (CR)	2 (CR)	Cancelled on 7/11/1997 and 14/11/1997, Maynooth passengers per deferred 17:05 to Sligo, Broombridge passengers by taxi, buses to Ashtown, Castleknock, Coolmine also to Leixlip (Confey) and Leixlip (Louisa Bridge), formed by 15:50 ex Drogheda on 28/11/1997 and 5/12/1997.
3	16:10 Pearse/Maynooth	4 (Arrow)	2 (Arrow)	
3	17:52 Connolly/Maynooth	4 (Arrow)	2 (Arrow)	
3B	20:54 Connolly/Maynooth	2 (Arrow)	2 (Arrow)	
3B	22:09 Connolly/Maynooth	2 (Arrow)	2 (Arrow)	
1	17:26 Connolly/Arklow	6 (CR)	4 (Arrow)	Cancelled 7/11/1997, 14/11/1997 and 21/11/1997. Special DART to Bray, thence buses to Greystones, Kilcoole, Wicklow, Rathdrum and Arklow.
	Total Stock Allocation	46 vehicles	34 vehicles	26 vehicles on some dates including 14/11/1997.

The most recent rolling stock shortage also led to a number of unusual mainline formations. On Friday 5th December the 16:38 Heuston/Ballina was formed by 084 + 4 Mk3s + EGV, a formation which included two dining cars. This set was strengthened the next day by the addition of a third dining car and worked the 14:35 Heuston/Limerick. On 7th December the 14:15 Connolly/Belfast was formed by 226 + EGV + 6 Mk3s, a formation which included 7133 and 7162, the former the spare Citygold coach, the latter part of the Executive train.

A serious and as yet unexplained derailment occurred on Saturday 8th November when the 08:25 Houston/Westport left the rails shortly after the train had passed over Curry level crossing, some two miles north of Knockcroghery block post. The train consisted of 211 + 7602 + 7411 + 7158 + 7151 + 7129 + 7131 + 7115 and apart from the locomotive and generator van all vehicles were completely derailed with the train coming to rest in two portions separated by a distance of about a quarter of a mile. The trailing portion of the train, which consisted of the rear four coaches, suffered serious underfloor damage and came to rest towards the right of the formation and inclined at an angle of

around 35°. There were around 180 passengers on the train at the time although only a handful required hospital treatment with one serious injury being reported. While lack of adequate investment has resulted in much of the Westport line being restricted to 50 mph in recent years, the derailment occurred on one of the few stretches where 70 mph is allowed. The train was running some twenty minutes late due to disruption caused by a Tullamore bound bulk cement train, 078 + 20 four-wheel wagons, which stalled between Islandbridge Junction and Inchicore and thus delayed the 07:05 Bray/Westport special. This latter in turn delayed the 07:50 ex Galway and 07:25 ex Westport both of which normally cross the 08:25 ex Heuston between Portarlington and Athlone. Passengers on the derailed train were brought forward by bus while the Ballina branch train, 086 + 1 Cr + GSV, worked the 13:20 Westport/Dublin as far as Roscommon. (The branch train had been reduced from two Cravens to one the previous day due to an ongoing crisis in rolling stock availability arising from a maintenance backlog at Inchicore.) Perhaps the most spectacular feature of the derailment was the rapid deceleration of the rear portion of the train which seems to have embedded itself in the formation very shortly after being derailed with the result that the train split as already described.



Rear view of the leading portion of the 08:25 Heuston/Westport, 8th November 1997.

Subsequent to the derailment the Minister responsible came under considerable pressure to institute a safety review of Irish Rail and this was conceded in the aftermath of another derailment a few days later. Much media attention in subsequent days focused on the condition of Irish Rail's permanent way with some reports claiming that hundreds of miles of track contained sub-standard rail and that it was only a matter of time before further incidents of this nature occurred. A second theme pursued by the media, passengers and public representatives alike was the issue of overcrowding which is such a bone of contention for travellers on many of the busier services and which was presented as a factor likely to cause increased risk of injury or death in the event of a serious mishap. The line was reopened on Monday 10th November in time to pass the 18:10 from Heuston to Westport and the 18:30 from

Westport to Heuston, the latter being formed by empty carriages sent from Dublin. Pending the availability of sufficient Mk3 stock to assemble a replacement set, all Westport services reverted to vacuum braked Mk2 formations, an arrangement which continued until just before Christmas. The undamaged Mk3 set worked the 07:40 and 15:05 Heuston/Waterford and the 10:55 and 18:25 Waterford/Heuston services on weekdays. On Sundays, commencing on 15th November, this set generally worked the 14:15 Connolly/Belfast and 17:30 Belfast/Connolly - the first use of mainline Mk3 stock on scheduled Belfast services since the introduction of these vehicles in 1984. On Sunday 14th December the Mk3 set worked the 13:33 Connolly/Rosslare, this being the first use of Mk3 stock on a scheduled service on this line. The set of the 09:15 Rosslare/Connolly in turn formed the 14:15 to Belfast, which consisted of 162/159 + EGV + 5 Mk2s on this date. (*The reason for the complete reversion to Mk2s on the Westport line arises from the practice of holding vehicles off the 07:25 ex Westport in order to strengthen the weekday Down evening 18:10 to Westport. As two different sets are involved they must both consist of compatible equipment.*)

The locomotive hauling the 07:30 Tralee/Heuston was partially derailed near MP 44 after the train struck a landslide in the cutting between Ballyhar and Killeen level crossings, some five miles on the Farranfore side of Killarney. There were 80 people on the train at the time although only two were injured. The locomotive, 212, was not seriously damaged although the protective steel inlet was badly bent by the impact. While this mishap was in effect an "Act of God" it again stirred media interest about safety and overcrowding, the latter by this stage a major issue due to the large number of carriages out of service as a result of a combination of mishaps, wheel flats and budgetary cutbacks at Inchicore.

All the vehicles of an empty rail train, which consisted of 076 and six air-braked bogie flats, were derailed on jointed bullhead track at MP 54 $\frac{1}{4}$, a short distance north of Carlow station on 7th December, at around 20:20. Recovery work and the replacement of over a quarter of a mile of track disrupted services on the following two days and necessitated the use of bus transfers to bypass the derailment site. Normal services had resumed by Wednesday morning 10th December.

082, the locomotive off the 18:20 ex Connolly, was partially derailed at Sligo during shunting operations on 23rd December. As a consequence the following day's 07:50 ex Sligo started from Collooney being powered by the locomotive off the Down liner which was terminated at Longford. Due to track damage at the Sligo terminus the 08:43 ex Connolly terminated at Boyle and the 13:25 ex Sligo commenced there. Normal working resumed with the Down 13:25 ex Dublin, although later services were affected by a fallen tree in the Multyfarnham area which badly delayed the 17:15 Connolly/Longford as well as the Up and Down evening Sligo trains.

A severe storm accompanied by high winds caused havoc in the south of the country on 24th December with the result that a number of trains had still to reach their destination in the early hours of Christmas morning. As the storm intensified during the afternoon a blanket 50 mph speed restriction was imposed by Irish Rail so as to guard against the possibility of trains hitting undetected obstructions at speed. The worst affected services were those to and from Cork although there were also lengthy delays on Tralee, Waterford, Rosslare and Sligo services. The DART was also badly disrupted between 18:30 and 20:00 due to overhead line problems at Sandymount. The 14:45 ex Cork was probably the worst affected being delayed by poor adhesion on the steep gradients leaving Cork, by power related signalling failures at Mallow and Ballybroy, by various obstructions on the line, particularly in the Thurles area and by the necessity to make additional stops due to the 14:10 ex Tralee running in advance from Mallow. The latter train eventually arrived in Dublin around 22:30 followed by the 14:45, 17:30 and 19:00 ex Cork which arrived at 23:00, 23:20 and 23:40 respectively. The 15:25 Heuston/Cork ran to Mallow only in order to expedite the working of the return 19:00 ex Cork which started from Mallow. Connections were provided to/from Cork in both instances. Also delayed were the 14:55 ex Waterford,

which arrived in Heuston at 20:00, and the 14:55 ex Rosslare, which did not reach Connolly until a little after 20:00. The 18:30 Connolly/Rosslare was delayed awaiting the incoming set, and subsequently crossed the Up 18:00 ex Rosslare at Greystones before eventually arriving at its destination shortly after midnight. Meanwhile the 19:05 Heuston/Cork did not get away from Portarlington until 22:05 but only lost another thirty minutes in running as the storm had abated significantly by this time.

The generator van of the 07:25 ex Rosslare was partially derailed near Clogh bridge, a little south of Gorey on 2nd January 1998. It is understood that about a mile of track was damaged and the line is expected to be closed for a number of days. In the meantime services are running to and from Gorey with bus transfers to/from Enniscorthy, Wexford, Rosslare Strand and Rosslare Europort. Delays are generally minimal as the substitute buses have little difficulty matching the pedestrian rail schedules presently in operation. None of the eighty or so passengers on the train were injured and few were aware of the derailment until after the train had stopped.

Operations on 27th December were plagued by adhesion problems which notably affected the 07:20 Heuston/Galway and the 05:20 and 07:35 Cork/Heuston. The 05:20 arrived in Dublin about 45 minutes late while the other two trains were both over an hour behind schedule. The 07:40 Heuston/Waterford departed at 08:08 and the 08:25 to Westport at 08:44 although improved conditions in the “gullet” meant that the 08:55 to Tralee was not delayed by the preceding Westport train and was able to depart without undue bother at 08:57. The 08:20 ex Limerick was diverted to run via Limerick Junction to pick up passengers awaiting the 07:35 ex Cork and was delayed about 20 minutes as a result. The most severely delayed train was the 07:30 ex Tralee which was noted near Hazelhatch at 13:15, over two hours late. The problem in this instance appears to have been a combination of wheel slip and crewing difficulties. As is now traditional after the two day Christmas closure light engines operated on most routes, in advance of the first trains of the day, to check for obstructions and other hazards.

Safety Review

The Minister for Public Enterprise, Mary O’Rourke TD, announced a strategic review of rail safety on 9th December. The study will be carried out by independent consultants and will centre on the adequacy of Irish Rail’s safety policy, systems, rules and procedures. The study will look at the safety of railway infrastructure and facilities including track, signalling systems, rolling stock and level crossings. The Minister indicated that she wants the consultants to identify categories of risk as urgent, medium term and long term. The consultants are to also report on the additional safety implications which might arise from higher speeds and greater train frequencies. The study is expected to take six months and will be made public.

Radio, Opera and Pilgrimage Trains

Three specials operated again this year in connection with the Wexford opera festival and as always were booked up months in advance. The “Radio Train” programme was rather curtailed this year with excursions operating from Heuston to Killarney on 8th July, 22nd July and 12th August, to Galway on 31st July and to Ballina on 23rd August. The latter consisted of 210 + 5 Mk3 + EGV and carried about 90 passengers. Pilgrimage traffic for Knock was similar to 1996 with barely a handful of special trains being run.

Despite the reduced Radio Train program the Executive set had a very busy year with several outings each week and on occasion more than one outing on the same day. One of the more unusual trips occurred on 15th August when the train was used to take guests from Malahide to Muine Bheag for a wedding reception. The train which consisted of 204 + EGV + 6 Mk3 returned to Dublin in the early hours of the following morning. Some of the other more unusual trips are mentioned elsewhere.

General Traffic and Operations

The 18:00 ex Rosslare failed near Ferns on 18th January 1997, due to a traction motor fire on the 071 class locomotive hauling the train. Because of the isolated nature of the failure location the driver had to hike across fields in order to raise the alarm and was subsequently conveyed some 34 miles by taxi to Rosslare, in order to obtain a relief engine with which to rescue his own train. The failed train was then hauled back to Enniscorthy at which point the passengers were transferred to buses. Eventual arrival in Dublin was at 01:45 the following day, almost five hours behind schedule.

The 10:57 Drogheda/Pearse, a six-piece push/pull powered by 207, failed at Gormanston on 4th March and having disembarked its passengers was hauled back to Mosney clearing the line around 12:45. The already delayed 09:30 ex Belfast, 68+4+69, arrived in Dublin at 13:22 followed by the 11:50 from Drogheda which arrived at 13:35.

The 17:13 Pearse/Newry, 229 + 6 p/p (6101), terminated on arrival in Dundalk at 20:00 on 11th March, having been instructed to travel at 15 mph through the Drogheda/Dundalk block section in accordance with Irish Rail's block failure procedures.

The 07:50 ex Sligo, hauled by 084 failed near Ballysodare on 20th March, possibly due to traction motor problems. The train was able to proceed at around 10 mph to Boyle where relief engines were attached to work back to Sligo in order to provide a set for the 13:25 to Dublin. Meanwhile passengers at Edgeworthstown and Mullingar were brought to Dublin by road while those on the disabled train were taken off and bussed to Longford from whence they were taken by train to Dublin arriving at 12:30. Passengers travelling to Sligo on the 08:43 ex Dublin were taken by bus from Longford.

The failure of the 13:00 North Wall/Cork liner train near Buttevant on 2nd April severely delayed the 15:25 Heuston/Cork and resulted in the latter being terminated at Mallow a little before 19:30. The problem was caused by a damaged or disconnected air brake connector on 226.

A power failure at Dundalk on 4th April, which disabled the signalling system, resulted in the cancellation of both the 06:04 ex Dundalk and 08:08 ex Pearse.

There was severe overcrowding and much annoyance as a result of inadequate mid-morning DART services on Monday 17th March. Many intending passengers heading for the revamped St Patrick's Day parade were physically unable to board the few trains that were running, especially at stations closer to the city centre. The 11:00 ex Howth was reportedly so full at Sutton that few, if any, passengers were able to board at subsequent stations. Similar difficulties were reported with the 11:30 and 12:00 ex Bray. The half-hourly interval Sunday and Bank Holiday morning schedule was slightly augmented by relief trains from Bray at 10:15 and 10:45, from Dun Laoghaire at 12:30 and from Howth at 11:45 and 12:15. Unfortunately St Patrick's Day has acquired a reputation for such overcrowding as similar problems have occurred on the same date several times previously.

Services between Dublin and Rosslare Europort were severely disrupted by flooding at Wexford on Monday, Tuesday and Wednesday 4th/6th August. Trains generally ran to and from Enniscorthy although the 08:02 ex Maynooth terminated at Arklow on 4th August. Normal services were resumed on the afternoon of the 6th. The set off the 18:30 ex Connolly of Sunday 3rd August returned to Dublin via Wellingtonbridge and Waterford.

Two slightly unusual trains ran on the DSER on 5th July, the first an RPSI Strawberry Fair excursion to Enniscorthy and Rosslare, the second an "all in" Executive train outing from Cork to Kilcoole in connection with a golfing event. These trains were formed by ex GNR 4-4-0 No.171 and 8 RPSI coaches and 204 + EGV + 5 Mk3s respectively. The Executive train haulage was unusual in that 201 class locomotives are not normally allowed to haul passenger trains south of Bray.

The summer of 1997 produced heavy traffic to GAA events and stretched Irish Rail resources to the

limit on several occasions. Amongst the more interesting encounters were those involving Wexford supporters as given the very limited track capacity available on the Rosslare line trains had to be as large as possible and spaced to accord with the limited signalling available. For instance on 13th July return services were provided from Connolly to Rosslare Europort at 17:50, 18:10 and 18:30, the first train being scheduled non-stop to Enniscorthy and the second non-stop to Arklow. These trains carried some 2,000 passengers between them and were formed by 087 + GSV + 10 Cr, 074 + 10 Cr + GSV and 076 + 9 Mk2 + EGV respectively. A fourth train, also from Connolly and consisting of 081 + DV + 10 Cr + GSV, ran to Wellingtonbridge via Kilkenny. The next visit by Wexford supporters on 17th August produced an additional special with return departures for Rosslare Europort at 17:50, 18:10, 18:30 and 19:05. These trains consisted of 088 + 9 Mk2 + EGV, 083 + GSV + 9 Cr, 080 + 10 Cr + GSV and 084 + 8 Mk2s + EGV respectively, and departed at 17:28, 17:47, 18:32 and 19:05 respectively. South Wexford supporters on this date travelled on the regular Up morning and Down evening Waterford trains which were extended from/to Wellingtonbridge. A feature of both these days was the large number of Wexford supporters using the DART service between Bray and Connolly. A special to Bray consisting of 8137/24/03 left Connolly at 17:34 preceding the regular 17:10 Howth/Bray, 8117/10, which departed at 17:39. These trains had about 1,200 passengers between them, most of whom were clearly heading for Wexford destinations.

Following the introduction of De-Dietrich stock on Irish Rail cross-border services it became necessary to run a relief train to Dundalk at 15:01 on Fridays 8th and 15th August as the 15:00 to Belfast only consisted of a seven-coach formation on these dates. The relief train was formed by Mk2s on both dates.

Consequent on the general increase in both local and outer suburban traffic and the limited choice of evening services to Dundalk there has been a dramatic increase in loadings on the 17:13 ex Pearse to the extent that passengers are now regularly left behind at Connolly. For instance on 8th December as many as 150 passengers were unable to board this train at Connolly and as a consequence the 17:28 Pearse/Drogheda was extended to Dundalk. On Fridays 12th and 19th December an additional service ran non-stop from Connolly to Drogheda at 16:45 and this was also formed by the De-Dietrich spares. Not surprisingly these latter trains were lightly loaded being too early to attract significant numbers off the 17:13 and in any event not serving Dundalk. There is definitely a market for a service to Dundalk at this time and this could still be formed by the spare De-Dietrich stock although this would be more practical if the 18:50 (FO) Connolly/Dundalk relief were to be deferred to 19:05. A more permanent solution might involve running the 17:13 ex Pearse non-stop to Balbriggan, followed immediately by a second train running non-stop to Malahide and serving Donabate, Skerries and Balbriggan.

Incidentally, apart from Saturdays, the 17:13 is normally overcrowded leaving Pearse and would often have over 900 passengers on board between Connolly and Malahide.

A bomb scare between Boyle and Ballymote on 23rd August disrupted services on the Sligo line for several hours. A liner/empty oil, 177/164 + 6 bogies + 22 four-wheel wagons, was in the section at the time and this train was stopped at Ballymote from which point 177 worked cautiously to Boyle checking the line as it progressed. The liner/empty oil train continued its journey in due course and arrived in Boyle around 16:00 at which stage the 13:25 ex Sligo finally departed. The already delayed 13:25 ex Connolly, 084 + 8 Mk2s, was detained in Boyle from 16:35 to 16:54 in order to cross the Up train which eventually left there 163 minutes late.

Due to problems with the rostered De-Dietrich set on 28th August, the 15:00 from Connolly to Belfast was formed by a four-piece Arrow set which departed at 15:50. NIR, however, had an eight-piece De-Dietrich set on hand and this was used for the 18:00 ex Belfast although the latter was delayed by about 30 minutes.

The 20:10 Belfast/Dublin, (9002) 8 p/p + 209, failed between Newry and Dundalk due to a broken fuel

line on 30th September. The failed train was eventually rescued by a pair of 121s and passengers transferred to a push/pull at Dundalk, eventually arriving in Dublin around 01:00 almost three hours late.

As a result of increasing traffic on Sunday evenings two additional relief trains commenced operation on 12th October, one from Cork and the other from Sligo. The Cork train departs at 18:25 and serves Limerick Junction only, arriving in Heuston at 21:00, just ahead of the 17:20 ex Tralee which is due at 21:05. The additional Sligo train is in fact an extension of the 18:50 ex Longford which now leaves Sligo at 17:20 and arrives in Dublin at 20:40 as heretofore. This train is formed by the previous day's 17:15 Connolly to Longford and serves all stations to Maynooth except Enfield. The 17:15 to Longford now consists of a hauled push/pull set on Saturdays and either works empty from Longford to Sligo or, if required, is extended to Sligo as a relief to the regular 18:20 ex Connolly. As a consequence the 17:13 ex Pearse to Dundalk on Saturdays is now formed by Cravens as is the Sunday only 15:45 Connolly/Longford. This latter currently works empty to Sligo to form the Monday only 04:50 departure to Connolly. The full Sunday afternoon/evening service from Cork to Dublin now consists of six trains departing at 14:15, 14:30, 16:30, 17:30, 18:25 and 18:45 while the Sligo/Dublin service departs at 14:35, 17:20 and 18:00.

The 18:10 Belfast/Connolly was taken out of service on arrival in Dublin on 4th November as a number of the vehicles had developed severe wheel flats. The 20:30 to Belfast was over an hour late on this date being formed by the set of the 18:00 ex Rosslare, 072 + EGV + 5 Mk2s. This latter set returned empty to Dublin around 00:05 on 5th November. Meanwhile 9103 and 9003 were removed from the failed 18:10 set and substituted by 9101 and 9001. The re-marshalled De-Dietrich set subsequently worked empty to Belfast in time to form the 08:00 to Dublin on 5th November.

In order to cater for the Christmas shopping rush additional trains were provided from provincial centres to Dublin on Saturdays commencing on 29th November and running until either 13th or 20th December. These trains departed Waterford at 08:20, Boyle at 07:55, Cork at 07:20 and Athlone at 09:00. These trains were generally formed by the sets off the Friday only 16:30 to Cork, 17:05 to Sligo, 17:37 to Tralee and 16:38 to Ballina respectively. Additional services in the Down direction departed from Heuston at 16:45, 17:10 and 19:05 to Cork, Waterford and Limerick respectively. In addition to these specials the 16:50 to Athlone was extended to Galway, the 17:15 to Longford ran to Sligo and the 17:37 to Limerick Junction was altered to run from Thurles to Limerick via the direct curve. In the Dublin area an additional service was provided at 10:05 from Skerries to Pearse on weekdays in order to relieve the 09:50 ex Drogheda which is formed by a two-piece Arrow on Mondays to Fridays. On December Saturdays, prior to Christmas, DART trains were increased to six-car formations from 10:00 to 12:00 and again from 16:00 to 18:00 in order to cater for additional shopping traffic. On Sundays from 30th November to 21st December DART frequencies were doubled with trains running every ten minutes from 12:00 to 14:00 and again from 16:30 to 18:30.

The 07:40 Dublin/Belfast, 207 + 8 p/p (9001), failed at Rush station on 18th December apparently due to electrical problems on the locomotive caused by water ingress. As there was no replacement locomotive with commissioned HEP equipment readily available, the 07:26 ex Drogheda was terminated at Pearse and its engine, 233, was sent to the assist. The failed train was hauled back to Malahide where passengers were transferred to the following 09:40 ex Dublin. Passengers for Drogheda and Dundalk on the 06:57 ex Arklow were also detrained at Malahide and similarly joined the 09:40 to Belfast. The Arklow train, which incidentally started from Pearse due to mechanical and storm related incidents on the DSER, was held outside Malahide until about 10:15 and was later looped in Skerries to allow the 09:40 Enterprise to precede it. The 06:57 ex Arklow was eventually terminated at Drogheda and as a consequence the return 10:30 ex Dundalk started from Drogheda, with Dundalk passengers being transferred by bus. The 08:08 Pearse to Drogheda terminated at Malahide while the

10:06 Skerries/Pearse had to be cancelled, as the empty carriages were unable to reach Skerries. Another casualty was the 09:50 ex Drogheda which was cancelled between Drogheda and Malahide. NIR provided a Mk2 set for the 10:30 ex Belfast and apart from the lack of facilities this service was otherwise unaffected. The combined 07:40 and 09:40 ex Dublin arrived in Belfast around 12:20 and this would have resulted in some delay to the departure of the 12:30 to Dublin. The following day 209 was observed with a suburban push/pull set while 207 worked relief trains to Drogheda and Dundalk leaving Connolly at 16:45 and 18:50 respectively. Meanwhile 206, 208 and 233 were allocated to the regular Enterprise service.

Saturday 20th December saw the failure of the 06:45 ex Belfast, (9004) 8 p/p + 206, at Newry with passengers being transferred to the 08:00 ex Belfast which ran via the Down platform and called additionally at Dundalk and Drogheda to set down. Passengers from the latter two stations travelled on the 08:12 Dundalk/Pearse resulting in severe overcrowding after Balbriggan. An Irish Rail push/pull worked the 09:40 ex Dublin and 12:30 return while an NIR Mk2 set worked the 15:20 and 20:30 ex Dublin and the 18:10 ex Belfast. The failed train was hauled to Dublin (via Belfast) and returned to traffic on the following day powered by 207.

Tuesday 30th December saw the failure of the 16:10 ex Belfast, (9004) 8 p/p + 207, at Newry. Passengers were taken to Dublin on an Irish Rail push/pull set, (6105) 6 p/p + 218, which had worked the 17:13 Pearse/Dundalk service. Arrival in Dublin was around 20:00 just ahead of the 18:10 ex Belfast which was not affected by the failure. Meanwhile the 19:00 ex Dublin ran in two portions, the first to Dundalk formed by the De-Dietrich spares and the second which departed around 20:00 formed by the set of the 18:16 ex Drogheda. The latter ran to Belfast hauled by an 071 class locomotive and consisted of five well filled Cravens and a van, the set returning to Dublin that evening. Meanwhile the failed 16:10 worked empty to Dublin under its own power but in complete darkness. As there was thus only one set in Belfast the following morning's 06:45 to Dublin was worked by 113 + 9 Mk2s, this train returning empty to Belfast ahead of the 09:40 ex Connolly. This failure therefore resulted in no less than five empty stock movements before normal rosters were restored with 234 replacing 207.

The 08:00 ex Belfast, (9001) 8 p/p + 208, failed near Portadown on 2nd January and as a result passengers were transferred to a relief train at Portadown. This latter, 112 + 7 Mk2s, had earlier worked the 08:15 ex Bangor and returned from Dublin as the 11:00 Enterprise service. The De-Dietrich set resumed duty as the 14:00 ex Belfast but subsequently failed at Moira while working the 20:10 to Dublin. The latter failure was eventually hauled back to Lisburn where passengers were transferred to another De-Dietrich set which had earlier worked the 19:00 Down Enterprise. Arrival in Dublin was around 00:40 the next morning, almost 2½ hours late.

Navan Specials

Details of two special passenger trains on this line were omitted from the last issue and are included here for the record. The first train ran on 15th September 1996 in connection with the Meath v Mayo All Ireland GAA Football Final. It left Navan at 10:35 and was formed by (6104) 6 p/p + 228 and carried about 300 passengers. There was a notable display of enthusiasm at various points along the line and although the special did not stop at either Beauparc or Duleek a large number of spectators gathered at these long disused stations. The same set worked the 18:10 return from Connolly. Incidentally 201 class locomotives are not normally seen beyond Platin although there is believed to have been at least one previous working on an ore train to/from Tara mines. Although the general speed limit between Drogheda and Navan is 40 mph this special train was in fact restricted to 25 mph in deference to the 201 class axle loading.

The next passenger working was on 19th October when an Irish Traction Group Special from Bray visited Navan before running to Rosslare, Wellingtonbridge and Waterford. The special then returned

to Bray via Carlow, traversing the Lavistown curve en route. The train consisted of 084 + 7 Cr + GSV on arrival in Navan, but on return to Connolly 084 was replaced by 112 for the remainder of the trip.

Miscellaneous

Network Catering has lost the franchise to run the catering outlets at Heuston Station which will now be operated by Wrights of Howth. It is understood that the Footplate Brasserie is not included in new arrangements.

Northern Ireland Railways

Translink

NIR, Ulsterbus and Citybus are now collectively known as Translink and although the new logo has appeared on uniforms and in publicity material it has not yet appeared on railway rolling stock. Indeed it appears the intention is to largely retain existing liveries and branding. The railway operation is now known as “NI RAILWAYS - A Translink Subsidiary” although the railway operation is still generally referred to as NIR.

European Funding

The mid-term review of the current EU structural funds programme, announced at the end of July, has resulted in an additional £7m being allocated to Translink for improvements to the railway system. This money together with a further £10.4m of EU funding, the latter diverted from road schemes, will be used to provide 75% of the cost of restoring and upgrading the Belfast/Lisburn and Bleach Green Junction/Antrim lines. Work on the latter project in particular has been much delayed largely due to the apparent unwillingness of the Northern Ireland Office to allocate matching national funding of between £2.5m and £3m. It is understood that contracts were finally signed for the Central Junction/Lisburn upgrade towards the end of October 1997 and that work may finally commence in March 1998. Final economic appraisal of the Bleach Green Junction to Antrim project was almost complete at the end of October and, assuming a favourable outcome, a start on this much delayed and much reviewed scheme is expected sometime in the 1998/9 financial year. Once underway this simple but highly important project will take about a year to complete.

The refurbishment of the former NCC mainline, little used for almost twenty years, is understood to include the re-opening of intermediate stations at Mossley and Templepatrick as well as the development of park and ride facilities at Antrim. The project also involves the reinstatement of the former Up line between Antrim and Monkstown (13 miles) and the provision of an intermediate loop near MP 16, on the Belfast side of the proposed station at Templepatrick. The short section of double track between Bleach Green Junction and Monkstown is expected to remain, although it too will require complete renewal. (Trains between Monkstown and Antrim presently use the former Down line which is to be removed.) The gated level crossings at Kingsmoss Nos. 1 and 2, Kingsbog Junction and Ballymartin will be convened to automatic half barriers while the existing AHB at Kilmakee will be modernised. The section between Bleach Green Junction and Antrim is presently worked by electric tablet with instruments being located at Belfast (Central) and Antrim. This method of working will be replaced by track circuit block which already applies between Belfast and Monkstown and between Antrim and Coleraine.

A further £1.5m of EU structural funds, also originally allocated to road schemes, will be used to develop an integrated bus and rail intermodal facility at Bangor.

Dublin/Belfast Project

Signalling and Layouts

The level crossing at Meigh, which had been closed since 1974 due to a series of terrorist incidents, was re-opened as an AHB on 10th April and is monitored from Portadown.

The full barrier crossing at Poyntzpass which was commissioned on the 17th November last had finally come under CCTV supervision from Portadown by early April.

AWS magnets have been installed on the Dublin/Belfast line between MP 62 and MP 91^{3/4} and are located at the approach to most running signals controlling movements in the normal direction, the only exceptions being signals 49, 50 and 57 at Portadown. A few “wrong” direction signals are similarly protected including 44, 48 and 53 at Portadown. At the time of writing in late July no AWS equipment had been fitted on either road east of signals 67 and 68 which are located a short distance on the Portadown side of Lurgan. (*Standards generally applied in the UK suggest the installation of AWS where line speed is 75 mph or more and/or there is a significant volume of express passenger trains. Other criteria including train frequency could also result in the installation of AWS even on lines where the maximum permitted speed was significantly less than 75 mph.*)

Telephones are currently being installed at accommodation crossings between Lisburn and Newry. In order to allow users to contact the supervising signalman prior to crossing the line.

Permanent Way

Although little track has been relaid over the last twelve months there has been a fair amount of activity between the border and Lisburn in addition to some essential formation repair work at City Hospital, Botanic and near the Ormeau Road overbridge. During 1997 approximately three miles of additional CWR have been put in place, most of it on sections of track which already consisted of flat-bottom rail on concrete sleepers. Details are shown in the following table:

Newry/Poyntzpass	MP 75 ^{1/8} to MP 76 ^{7/8}	Down Line (CWR only)
Lurgan Station and William Street LC	MP 92 ^{1/2} to MP 92 ^{3/4}	Down Line (CWR only)¶
Lurgan station and William Street LC	MP 93 to MP 92 ^{1/2}	Up Line (CWR only) ¶
Poyntzpass/Newry	MP 76 ^{7/8} to MP 76 ^{1/2}	Up Line

¶ William Street Level crossing excavated and relaid 10th/11th May 1997.

The Up and Down lines across the Bann bridge at Portadown were renewed with flat-bottom rail on wooden sleepers to April/May, both lines being fitted with check rail.

Relaying was in progress in mid-October along the curved section of the Down line between MP 87 and Portadown station, with wooden sleepers and jointed flat-bottom rail being used in this instance. As of mid-December 1997 both lines through Portadown station, between MP 87 and MP 87^{1/2}, were still restricted to 15 mph although 40 mph is to be allowed on the southern approach to the station while 60 mph will be permitted at the northern end, between the old station and the site of the former junction with the Londonderry and Cavan lines.

The level crossing at William Street was excavated and the track and formation renewed over the weekend of 10th and 11th May 1997. While this work was in progress all services were suspended between Portadown and Lurgan with bus transfers between these two points. Cross-border trains ran between Dublin and Portadown although passengers to/from Belfast were taken by bus in either direction between Belfast and Newry. Normal services were scheduled to resume around 19:00 on the

Sunday, in time to pass the 17:55 ex Dublin. The Down road through Lurgan station was still restricted to 70 mph as of early December although 90 mph is now apparently permitted on the Up line.

The level crossing at Drumbane, together with the track in the immediate vicinity, was excavated and renewed during possessions of the Up and Down lines respectively from late Saturday to mid-afternoon Sunday on the weekends of 21st/22nd and 28th/29th June. Single line working was in operation as required during the possessions, mainly between Portadown and Lisburn but also for a short period on the 28th/29th between Portadown and Moira.

The most obvious activity during 1997 has been the laying of additional ballast on much of the line between the border and Poyntzpass. Track levels have been raised at a number of locations with particular attention being paid to older sections of CWR and to locations where bridges were rebuilt after the track had been renewed. Work in recent months has been concentrated in the Moira/Lisburn section with formation renewal taking place at, and on either side of, underbridges and accommodation crossings. Pending completion of this work the entire Moira/Lisburn section is restricted to 70 mph.

Work on the renewal of the Central Junction to Lisburn line is expected to commence in January 1998 and will be undertaken by Mowlems. The contractor is understood to have approached a number of preservation groups seeking to hire motive power and other rolling stock as the gauge difference between Britain and Ireland means that much of the equipment normally available to the contractor can not be readily used. This project involves the renewal of some 14 track miles between MP 104 $\frac{3}{4}$ and MP 111 $\frac{3}{4}$ and the contractor will be supplied with all materials except ballast. The project is expected to cost about £12m and to take a maximum of 40 weeks to complete, during which period single line working will be introduced as required. Existing crossovers are located at Lisburn, Dunmurry and Balmoral and would result in single line sections of between 1 $\frac{1}{2}$ and 3 miles approximately. When the new trackwork has been completed the current general 40 mph limit will be raised to 90 mph. It is understood that work will commence at the Belfast end and that movements over the single line will be fully signalled so as to avoid the delays and inflexibilities associated with pilot working.

New mileposts have been erected between the border and Lisburn, the first being at MP 59 $\frac{3}{4}$ and the last at MP 105. Text and symbols are in black on a yellow background and are mounted in such a way as to be visible from either direction. Most GNR(I) mileposts on the Belfast side of Poyntzpass had disappeared over the years due to a combination of track realignment, encroaching roadworks, neglect and vandalism.

Following the introduction of the new timetable on 1st September the general speed limit on the Northern Ireland portion of the Dublin/Belfast line was increased to 90 mph, although the latter speed is in fact only permitted on about 41% of the route, i.e. from the border, at MP 59 $\frac{5}{8}$, to 64 $\frac{3}{4}$ and again from MP 87 $\frac{3}{4}$ to 104 $\frac{3}{4}$. A further 5 miles of track is cleared for 85 mph (MP 79 $\frac{3}{4}$ /84 $\frac{3}{4}$) and 6 $\frac{1}{4}$ miles for 75 mph (MP 65 $\frac{3}{4}$ /70 $\frac{1}{4}$ and 73/74 $\frac{3}{4}$). The existing 70 mph limit is retained on 8 $\frac{1}{4}$ miles of track while new or extended restrictions have been imposed from MP 64 $\frac{3}{4}$ to 65 $\frac{3}{4}$ (60 mph) and from MP 70 $\frac{1}{4}$ to 70 $\frac{3}{4}$ (65 mph). Indeed apart from the short stretch of 75 mph already mentioned most of the Newry/Scarva section, MP 70 $\frac{1}{4}$ to 79 $\frac{3}{4}$, is restricted to 70 mph or less. The curve approaching Poyntzpass and the station itself (MP 76 $\frac{1}{2}$ /77) are now limited to 45 mph instead of 40 mph while the curves through Scarva (MP 79 $\frac{1}{4}$ /79 $\frac{3}{4}$) are restricted to 50 mph as heretofore. The two miles of track from MP 84 $\frac{3}{4}$ to 86 $\frac{3}{4}$, which take the line across boggy ground on the approach to Portadown, remain at 70 mph while the final half mile into Portadown station (MP 87 $\frac{1}{4}$) is now restricted to 40 mph. (Previously 70 mph to MP 87 and 15 mph from MP 87 to 87 $\frac{1}{4}$.) The limit through Portadown station itself and across the Bann bridge to the former Woodhouse Street station at MP 87 $\frac{3}{4}$ is now 60 mph. (Previously 15 mph to MP 87 $\frac{1}{2}$ and 70 mph thereafter.)

The line between Lisburn and Belfast Central is still restricted to 40 mph or less and this has been extended by an extra half mile from the end of CWR at MP 104 $\frac{3}{4}$ through Lisburn station. The section

of the Central line from City Hospital to Central Station continues to be restricted to 20 mph pending reconstruction of the formation and the provision of improved drainage. (This work will result in the closure of the line from City Junction to Belfast Central for about three months and will necessitate the diversion of Dublin trains into Great Victoria Street, although as yet it is not clear when this project will proceed.)

Bridges

Development on the site occupied by the former Belfast gasworks has resulted in the provision of a new, temporary, underbridge (313A) in the Central/Botanic section, close to the existing Blackstaff river bridge at MP 113. In connection with this work the line was closed after the last trains on 15th March and was to be restored in time to pass the first trains the following day. As a precaution, in case the possession overran, the sets for the morning Dublin and Londonderry services were stored at Great Victoria Street and consisted of 208 + 10 Mk2s and 81+4+92 respectively.

New Timetable

The timetable which had been effective from 3rd June 1996 was extended until the last day of August primarily due to the further postponement in the introduction of the new cross-border services which commenced on 1st September as detailed elsewhere. In so far as services within Northern Ireland are concerned the timetable is a mixed bag with the few improvements offset by a significant retrenchment in off-peak services. Peak hour services are generally unaltered although the loss of two railcar sets at Lurgan during the summer marching season necessitated some cancellations, alterations and decelerations, the latter due to additional stops on “semi-fast” services, notably between Lisburn and Belfast.

The number of links required to operate the timetable is unchanged for the morning peak but is reduced by one for the evening period as shown below:

Monday to Friday NIR Set Requirements

Peak Periods 1996/7 and 1997/8 Timetables

	No of Links (B+C+E+F)	Single Railcar Links (B)	Double Railcar Links (C)	Total Sets (B+2C)	Loco Hauled Sets (*) (E)	De-Dietrich Sets (*) (F)
1996/7 (Morning)	22	18	2	22 (23 ¶)	2	0
1997/8 (Morning)	22	16	3	22	1	2
1996/7 (Evening)	23	20	1	22	2	0
1997/8 (Evening)	22	18	1	20	1	2

¶ See text below for explanation.

* Excludes Dublin based set, i.e. Irish Rail Mk2s in 1996/7, De-Dietrich in 1997/8.

The number of railcar sets rostered during the morning peak is still 22 although in the previous timetable increasing traffic on the Larne line meant that a double railcar routinely operated the 07:27 from Larne Harbour to Great Victoria Street thus giving an effective total requirement of 23. (On Fridays, particularly during University terms, strengthening of sets on the Londonderry line generally resulted in “double” railcars on the 10:53, 13:30, 15:53 and 17:19 departures from Belfast Central, the first and last mentioned departures being formed by the same set. This resulted in a requirement for 24

railcars on Friday evenings, three doubles on the Londonderry line with the Bangor “Express” being reduced to a 3-car set.) In the new timetable the double railcar on the 08:15 ex Bangor is replaced by a locomotive hauled set thus releasing two units, one of which strengthens the 07:30 ex Newry and the other the 07:26 ex Larne Harbour. The 07:50 ex Bangor continues to be worked by a double railcar as heretofore. The 08:15 ex Bangor is scheduled to stable at Great Victoria Street until the evening and having run-round forms the 17:05 “Express” calling at City Hospital, Botanic, Belfast Central, Bangor West and Bangor. Incidentally there are four other express services to Bangor leaving Great Victoria Street at 15:44, 16:07, 16:35 and 17:39, all of which have the same stopping pattern apart from the 16:07 which additionally serves Bridge End. The set which used to work the 08:15 ex Bangor also worked the 07:09 from Lisburn to Bangor and this later service is now cancelled. As a result the 06:53 Portadown/Bangor departs at 06:45 and serves all stations from Lisburn to Great Victoria Street before resuming its previous path. A further alteration arises from the earlier departure of the first Belfast/Dublin service which means that the second Dublin set is unavailable to form the 08:07 ex Portadown and as a consequence this service no longer operates. The 07:30 ex Newry (Portadown 08:00) is now a double railcar and additionally serves Dunmurry and Finaghy and arrives three minutes later into Great Victoria Street at 08:44. Changes in the evening are more complicated arising both from the reduction in the number of links from 23 to 22 and the limited use to which the locomotive hauled stock forming the 17:05 Great Victoria Street to Bangor can be put. Evening peak period changes are summarised below:

- 15:15 Larne Harbour/Lisburn terminates at Great Victoria Street, hence the 16:24 GVS to Lisburn is cancelled and the 15:35 Bangor/Portadown is altered in serve all stations GVS to Lisburn with a consequent deceleration of 9 minutes.
- 17:06 GVS to Portadown is now formed by the 16:17 ex Whitehead and is extended to serve Scarva, Poyntzpass and Newry, the latter change being necessary as a result of the 17:00 Belfast/Dublin being advanced to 16:10. (The 17:00 served Botanic, Lisburn, Lurgan, Portadown and Newry but did not call at Great Victoria Street.) The Whitehead train formerly continued as the 17:09 GVS to Lisburn and this latter is now cancelled, the stops being made by the 16:38 Bangor/Newry which now departs at 16:33 (GVS 17:15) and runs to Portadown only. This train is thus accelerated by only 5 minutes as it already served Finaghy, Dunmurry and Derriaghy.
- 17:36 Lisburn/Bangor cancelled, previously formed by the 17:09 from GVS.
- 17:05 Portadown/Larne Town deferred to 17:15, serves all stations Lisburn-GVS and then runs to Bangor as a replacement for the 17:36 ex Lisburn.
- 17:00 Whitehead/Lisburn advanced to 16:58, terminates at GVS and then forms the 17:50 GVS to Larne Town.
- 17:00 Bangor/Portadown now runs to Newry serving Scarva and Poyntzpass. (This train replaces the former 17:02 Larne Town/Dundalk and as a consequence of this change there is now no service from Belfast to points beyond Newry, except Dublin, between 16:10 and 20:10.)
- 17:09 Bangor/Whitehead now runs to Lisburn (GVS 17:46) serving Bangor West, Holywood and all stations Belfast Central to Lisburn.
- 16:25 Portadown/Larne Harbour now leaves GVS six minutes inter at 17:19, Belfast Central at 17:30. This alteration partly compensates for the diversion of the 17:09 ex Bangor which was due to leave Belfast Central for Whitehead at 17:36. The 16:25 ex Portadown is now rostered as a double railcar.
- 17:02 Larne Harbour/Dundalk is advanced to depart at 17:00 (GVS 17:58). This train serves Glynn, Magheramorne, Whitehead, Carrickfergus, Yorkgate, Belfast Central, Botanic, GVS, Lisburn,

Knockmore, Moira, Lurgan and Portadown where it now terminates.

On Fridays the 15:56 Belfast Central to Londonderry is locomotive hauled and as a result does not serve Great Victoria Street. This arrangement together with the reduction in the number of links should allow Londonderry line departures from Belfast Central at 10:50, 13:30 and 17:15 to be made up as double railcar units in accordance with previous practice.

The pattern of off-peak and weekend services is considerably altered, the general tendency being to reduce frequency and increase journey time. The changes in this regard are better summarised on a route basis as the effects of the alterations vary somewhat.

Belfast/Londonderry

There are no changes in frequency on this route and although a few trains have been slightly accelerated the trend is in the opposite direction with some trips lengthened by up to twelve minutes as in the case of the weekday 14:35 ex Londonderry. Given the present tortuous journey to Antrim, which can take as much as 68 minutes from Belfast Central, the long deferred upgrading of the route via Monkstown can not come soon enough as this would reduce the Belfast (Central)/Antrim leg of the journey to 23 minutes or less, a figure which would allow a reasonably competitive end to end journey time of 110 minutes. Track repairs and CWR installation between Ballymena and Londonderry together with new or upgraded rolling stock could further reduce this figure to well under 100 minutes if there was a will to do so.

The 20:30 Belfast Central/Londonderry is advanced to 20:05 and is five minutes slower, thus arriving in Londonderry at 22:38. Had this service been left at its existing time and a stop inserted on the new 19:00 ex Dublin at Lisburn an end to end journey time of 3'-58" could have been obtained between Dublin and Londonderry. The last service from Dublin to the latter city is now 16:50 instead of 18:20 and the journey time has risen from 4'-38" to 5'-48". Connections from Londonderry to Dublin are somewhat improved with departures available on Mondays to Fridays at 08:05, 09:50, 11:35, 14:35 and 17:10 arriving in Dublin at 12:40, 14:40, 16:10, 20:05 and 22:20 respectively, an average journey time of 4'-56". There were only four connections available in the previous timetable with an average Journey time at 5'-21". On Saturdays there are still only four connections available with the average journey time reduced from 5'-30" to 5'-07. The single connection on Sundays, leaving Londonderry at 11:10, connects into the 14:00 ex Central and arrives in Dublin at 15:59 instead of 16:46. Connections from Dublin are similar to those of the previous timetable although average journey time is 5'-24", 5'-25" and 5'-32" on Mondays to Fridays, Saturdays and Sundays, a disimprovement of 10, 9 and 3 minutes respectively. (*This largely arises due to earlier departures at the Dublin end and the rather poor arrangements which now apply in respect of the 16:50 and 19:00 ex Dublin as already discussed.*)

Portrush Branch

There are no changes in frequency on the branch with 18, 15 and 10 services from Portrush on Mondays to Fridays, Saturdays and Sundays respectively. There are slight alterations to departure times with some trains running a few minutes earlier or later either to correspond with altered mainline connections or to compensate for the increased sectional running which is now fifteen minutes instead of the previous thirteen. The last train from Coleraine on Mondays to Saturdays is now 22:03 instead of 22:25 due to the earlier departure of last Belfast/Londonderry service.

Larne Line

Through services from Great Victoria Street, City Hospital and Botanic to stations on the Larne line stations have been virtually eliminated except during the morning and evening peak period on Mondays to Fridays. This has led to a general recasting of services in such a way as to provide convenient

connections in both directions at Belfast Central. For instance on Mondays to Fridays services leave Belfast Central every half hour for the Bangor and Larne lines from 09:58 to 14:58, those at 58 minutes past the hour running to Bangor and Larne Harbour while those at 28 minutes past the hour run to Bangor and Carrickfergus. Similarly between 11:08 and 15:08 there are arrivals from the Larne line at 08 and 38 and from the Bangor line at 10 and 40. The Bangor trains continue to Great Victoria Street while the Larne line services terminate at Belfast Central.

The general frequency of services on the Larne line on Mondays to Fridays is reduced with three fewer trains in each direction to Carrickfergus and six fewer in each direction to Whitehead. (i.e. 36 and 27 trains each way respectively in the new timetable.)

Frequencies on Saturdays on the Larne line are more drastically reduced with seven trains less each way to Carrickfergus and Whitehead. The service is now essentially hourly from 08:03 to 22:03 with additional services at 06:30 and 17:40. All trains run to Larne Harbour except the 17:40 which terminates at Whitehead. Services on Sundays are actually slightly improved with an additional service each way between Belfast and Whitehead. As on weekdays the service is somewhat recast to connect into and out of Bangor line services at Great Victoria Street.

One of the casualties of the new timetable was the 23:07 (MF) and 23:02 (SO) from GVS to Carrickfergus. However, as a result of public pressure, the service was restored from 29th September and now leaves GVS at 23:09 daily except Sundays.

Bangor Line

Off-peak services on the Bangor line are not greatly altered on Mondays to Fridays although there is a marginal reduction in the number of through services from GVS and a slight recasting of some Up trains to dovetail with altered services on the Larne line. There is also a new service at 21:20 from Central to Bangor which is explicitly advertised to connect with the 19:00 Enterprise from Dublin. This train numerically balances the cancellation of the 07:10 Lisburn/Bangor and thus the overall number of Down trains is still 38. The number of Up trains is reduced to 38 from 39 due to the cancellation of the 17:42 ex Bangor, an alteration which arises from the use of locomotive hauled stock on the 17:05 ex GVS.

There is a slightly improved level of service on Saturdays particularly between 10:00 and 17:00 during which period there are three additional services in either direction to and from Bangor. Later in the evening the service is somewhat recast, as a result of which there is one less train in each direction between 19:30 and the last service at 23:11 from Belfast Central. The 21:20 Central/Bangor mentioned above also runs on Saturdays.

On Sundays services are considerably altered with only 9 trains now provided in each direction compared to 11 Down and 10 Up in the previous timetable.

The halt at Crawfordsburn, between Helen's Bay and Carnalea, was closed to traffic with effect from the commencement of the new timetable on 1st September. The final service consisted of three Down trains and one Up train on Mondays to Fridays with no service on Saturdays or Sundays. The halt was opened by the UTA on 13th September 1965.

Lisburn/Lurgan/Portadown Line

Although there are more direct trains in either direction between Belfast Central and Portadown, as a result of the new Enterprise service on the Dublin line, the general trend on Mondays to Fridays is towards reduced frequency and longer journey times. The former hourly off-peak service to/from Portadown, which ran non-stop in either direction between Great Victoria Street and Lisburn and also served Moira and Lurgan, has been cancelled. The half-hourly all stations service to Lisburn remains although some of these trains are extended to/from Portadown. As a consequence of these changes

there is no service from Great Victoria Street to Portadown between 09:52 and 11:53 or between 11:53 and 13:23. In the Up direction no service leaves Portadown between 11:25 and 12:55 or from 11:55 to 14:25. There are twelve fewer Down services from Lisburn to Belfast and fourteen fewer Up trains, as a result of the combination of peak and off-peak curtailments in the local service and the standardisation of the stopping patterns for cross-border services. Out of the total of 44 Down trains from Lisburn to Belfast only twelve now run non-stop compared to 56 services in the last timetable, of which 22 were non-stop either to Botanic or Great Victoria Street. In the Up direction only 15 of the 45 services from Belfast run non-stop compared to 24 out of the 59 services in the previous timetable which ran non-stop from either Great Victoria Street or Botanic.

On Saturdays and Sundays the frequency of local trains is basically unchanged although services to/from Lisburn are reduced in number while direct non-stop services in either direction between Central and Portadown are increased in line with the improved Dublin service. Changes in the Lisburn service also arise as a result of alterations on the Dublin line, particularly the elimination of intermediate stops between Belfast and Portadown. A high proportion of trains on both Saturdays and Sundays have been retimed as a result of changes in Bangor, Larne and Dublin services. On Saturdays, against the general trend, there is one additional mid-morning train in either direction between Great Victoria Street and Portadown.

Signalling Layouts and Level Crossings

Although the sidings at Fortwilliam, near MP 1 on the Larne line, were commissioned some time ago no update has been given since Volume 4, No 1. The present configuration consists of six parallel roads diverging from a long headshunt which is connected to the Up line by means of a trailing crossover. Movements out of the sidings are controlled by a new ground disc signal (554) which reads to 220 (Up main), 218 (Down Main) or ground disc 548, the latter located within York Road yard. Movements into the siding are controlled by new subsidiary indications on signals 221 (Down main) and 551 (Depot exit, Larne end).

The destruction of a signalling equipment room at Lake Street level crossing, near Lurgan, on 6th July necessitated the introduction of emergency arrangements as in addition to the signalling in the Lurgan vicinity being rendered inoperative, supervisory and control circuits linking Portadown and Lisburn were severed. Consequently the panel at Lisburn was brought back into use to supervise the line from the boundary with Belfast Central, near Derriaghy, to the boundary with Portadown, near Moira.

Absolute block working has been introduced between the Lisburn and Portadown panels with intermediate block posts at Moira and Lurgan. Although the barrier crossing and associated equipment at Bells Row survived the attention of the mobs the crossing was rendered inoperative and both it and Lake Street were cordoned by rope to allow the passage of trains. This procedure required the presence of two members of staff at each location so that both sides of the road were closed simultaneously. Trains approaching these crossings were required to await a hand signal from the operator before proceeding.

Although some repairs had been carried out by the end of July, signal 87 on the Down line, which protects Lake Street and Bell's Row, was still extinguished while signals 65, 66, 67, 68, 82, 84 and 88 were inoperative. Signals 67 (Down) and 88 (Up) protect William Street crossing while signal 84 on the Up road protects both Bell's Row and Lake Street. All trains passing beyond signals 55/57 at Portadown in the Down direction and signal 78 at Moira in the Up direction were required to pass these signals at danger and were thence worked under absolute block regulations until cleared back to Lurgan by Lisburn or Portadown respectively. (*Normal working was restored between Portadown and Lurgan during August, following the completion of repairs at Lake Street - the former relay room being replaced by a series of location cabinets.*)

Bangor Line

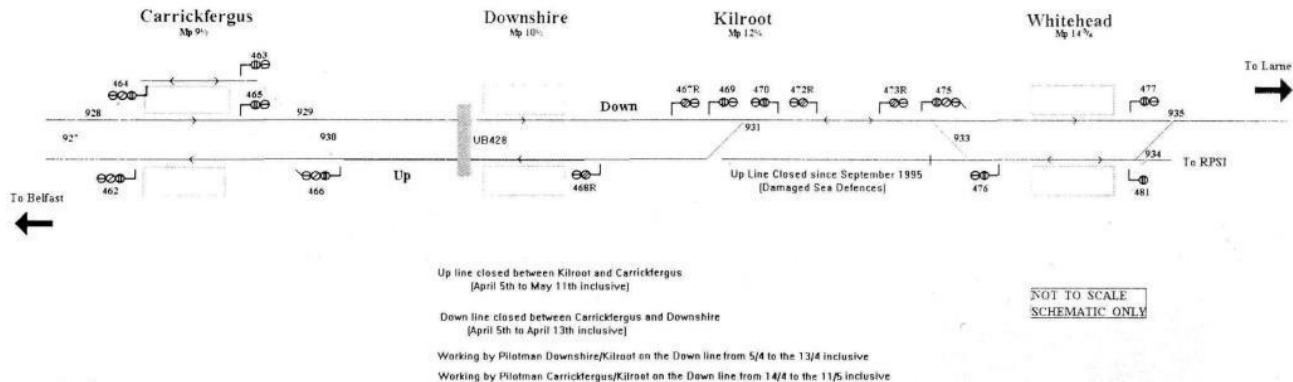
OB 322 carrying the Sydenham bypass road was partially demolished over the weekend of 1st/2nd February, during the course of a possession between Lagan Junction and Sydenham. Services from Bangor were advanced twenty minutes on both dates in order to maintain connections beyond Belfast. Trains between Sydenham and Bangor were subject to delays of up to twenty minutes. Preparatory work for the construction of a 70m tunnel, similar in profile to the Newry bypass road and consisting of precast concrete segments, began almost immediately. With the tunnel partially completed and available for road traffic the remainder of the old structure was then demolished in another possession which lasted from late Friday 3rd October until the early hours of Monday 6th October. Both lines were closed between Lagan Junction and Sydenham during this period with single line working being established over the Up line between the emergency crossover at Rockport and Sydenham. Traffic arrangements were similar to those applying on 1st/2nd February.

UB 356, a small underbridge near Helen's Bay station was renewed during the course of a possession from late Friday 27th June until the early hours of Monday 30th June. During this period both lines were closed from Seahill to Helen's Bay with a substitute bus service bridging the 1½ mile gap between the stations. Single line working was established over the Down line between the emergency crossover at Rockport and Seahill and also between Bangor and Helen's Bay.

Larne Line

The single track section between Magheramorne Loop and Larne Harbour was closed around 18:00 on 24th February after workmen from contractors McLaughlin & Harvey reported the collapse of "an 80m section of the sea wall" near MP 20½. The line is fairly busy around this time of day with trains due past the site at 17:28, 17:48, 17:51 and 18:05, the latter train, the 18:00 ex Larne Town, was stopped a short distance from the scene of the incident and sent back to Larne from whence the passengers were taken forward by bus. It was initially expected that the line would be closed for about ten days but repairs actually dragged on until 1st April on which date the empty train trapped at Larne (91+2) returned to Belfast (arriving 17:00). A number of test trains operated the following day with normal traffic resuming on 3rd April subject to a 5 mph speed restriction in the vicinity of the collapse. Ironically work on strengthening the sea defences at this point had actually been in progress for some weeks prior to the incident with large boulders being placed on the seaside of the causeway carrying the railway between MP 20½ and MP 20¾. Similar strengthening work was carried out in 1996 nearer Larne Harbour, between MP 21¾ and MP 22½.

Renewal of OB428 at Downshire



The Carrickfergus to Downshire section was closed to all traffic between and including Saturday 5th April and Sunday 13th April in order to simplify the demolition of OB 428, a reinforced concrete structure, currently being replaced by a much larger bridge. This work is being carried out by the DOE as part of a scheme to improve the A2 between Carrickfergus and Whitehead. Both lines under the bridge were lifted as soon as the possession was granted, the Up line from a point immediately on the Larne side of the station, the Down line from a point immediately on the Carrickfergus side (see diagram). Train services operated to an altered schedule between the dates mentioned with bus connections being provided between Carrickfergus and Downshire. Three 3-car sets were stabled on the Larne side of the break, these being powered by 67, 451 and 459, two of which were required to operate the somewhat reduced services between Downshire and Larne. The section between Downshire and Whitehead was worked by pilotman during this period with all trains using the Down road between Downshire and Kilroot.

A further revised timetable was introduced to cover the period from 14th April to 12th May inclusive, during which time single line working was in operation between Carrickfergus and Kilroot although in practice the pilotman travelled to and from Whitehead to avoid the necessity for trains to stop at Kilroot. (*The line between Kilroot and Whitehead is presently single track, the Up road having been taken out of service in September 1995 due to weakened sea defences which have not yet been repaired.*) Services between Carrickfergus and Larne were again somewhat reduced in frequency although the disruption was not as severe as during the initial complete closure.

During the possessions associated with the renewal of OB 428 the opportunity was taken to relay the Up line from a point just on the Larne side of Downshire as far as the facing crossover on the Larne side of Carrickfergus station. The 30 mph restriction which had applied on the Up road between Kilroot and Whitehead since September 1996 has thus been shortened by three-quarters of a mile. The new track consists of flat-bottom rail on concrete sleepers but is not welded.

The substantial platforms at Mount (MP 8^{3/4}) and the rather diminutive ones at Barn (MP 10) have been demolished all but eliminating any trace of these halts. Mount, which served Courtaulds, closed in May 1972 while Barn survived until May 1977.

Selective sleeper replacement was in progress on the Up road between Greenisland and Jordanstown at the time writing in late July. The track in this area still consists of bullhead rail on wooden sleepers.

In order to facilitate repairs to Whitehead tunnel (OB 436) and underbridge 437A as well as the reconstruction of OB 437 the Down line has been temporarily slewed so as to pass over the mothballed Up line between MP 13^{3/4} and MP 14^{3/4}. This arrangement became effective on 30th November and is expected to remain in place until the end of January 1998. There were no signalling alterations associated with this change as, due to damaged sea defences, the line between Kilroot and Whitehead is presently operated as a single track railway in any event.

Traffic and General Operations

A special train consisting of 113 + 5 Mk2s was chartered by the Modern Railway Society of Ireland on 28th December 1996 to operate "The Three Loughs" railtour. The special ran from Yorkgate to Lisburn, via Belfast Central, before reversing for the next leg to Larne Harbour via Great Victoria Street (run round). On returning from Larne Harbour the special crossed onto the Down road adjacent to York Road depot where the locomotive ran round via the depot yard. The next stage was to Ballymena via Templepatrick with a photographic stop at Mossley and operational stops at Kingsmoss No.1 and No.2, Kingsbog Junction, Ballymartin and Kilmakee level crossings. The final leg was from Ballymena to Yorkgate via Lisburn and Great Victoria Street. This tour is believed to have resulted in the first haulage of a passenger train to Larne Harbour by an 071/111 class locomotive.

A series of special trains operated in connection with international Rugby fixtures in Dublin on 18/1 (Ireland v France), 15/2 (Ireland v England) and 15/11 (Ireland v New Zealand). The morning services from the Belfast direction on each of these dates are shown below:

Date	Service	Formation	Location	Time	Load
18/1	07:40 ex Belfast	91+4+92+2+81	Drogheda	pass 09:20	570/600
18/1	03:00 ex Belfast	208+12Mk2	Drogheda	pass 09:39	400
18/1	09:50 ex Drogheda	(6103) 6p/p+226	Drogheda	dep 09:50	40
18/1	08:30 ex Belfast	67+2+95+4+94	Drogheda	pass 10:31	530/550
18/1	10:00 ex Dundalk	2605/06	Drogheda	dep 10:47	130
18/1	09:00 ex Belfast	93+4+97	Drogheda	pass 11:03	200
18/1	10:57 ex Drogheda	081+DV+4Cr	Drogheda	dep 11:06	30
13/1	09:30 ex Belfast	111+9Mk2	Drogheda	dep 11:34	380/400
18/1	11:50 ex Drogheda	(6105) 6p/p+206	Drogheda	dep 11:52	30/35
18/1	11:00 ex Belfast	216+7Mk2+EGV	Drogheda	dep 12:45	270
15/2	07:40 ex Belfast	92+4+99+2+98	Dunleer	pass 09:12	550/600
15/2	08:00 ex Belfast	208+12Mk2	Dunleer	pass 09:29	500/530
15/2	08:30 ex Belfast	86+2+95+4+81	Dunleer	pass 10:05	550/580
15/2	10:00 ex Dundalk	2616/15	Dunleer	pass 10:19	130/140
15/2	09:00 ex Belfast	83+4+94	Dunleer	pass 10:37	360/400
15/2	09:30 ex Belfast	112+9Mk2	Dunleer	pass 11:14	350/380
15/2	11:00 ex Belfast	213+7Mk2+EGV	Drogheda	dep 12:42	250/270
15/11	06:45 ex Belfast	(9002) 8p/p+234	Drogheda	dep 03:27	270
15/11	03:12 ex Dundalk	2613/10/05/06	Drogheda	03:40/03:47	20/25
15/11	07:42 ex Belfast	85+3+86+96+3+99	Drogheda	pass 09:15	500
15/11	03:00 ex Belfast	(9001) 8p/p+209	Drogheda	pass 09:30	330/400
15/11	09:50 ex Drogheda	(6102) 6p/p+219	Drogheda	dep 09:51	25/35
15/11	08:30 ex Belfast	113+11Mk2	Drogheda	pass 10:14	430/450
15/11	10:00 ex Dundalk	082+GSV+4Cr	Drogheda	dep 10:29	120
15/11	09:00 ex Belfast	81+4+67	Drogheda	pass 10:41	130/170
15/11	10:30 ex Dundalk	129/183+3Cr+GSV	Drogheda	dep 10:57	120/130
15/11	11:30 ex Drogheda	(6105) 6p/p+224	Drogheda	dep 11:32	20/25
15/11	10:30 ex Belfast	(9004) 8p/p+233	Drogheda	dep 12:12	360/380
15/11	10:40 ex Belfast	94+4+89	Drogheda	dep 12:27	10/12
15/11	12:30 ex Drogheda	(6102) 6p/p+219	Drogheda	dep 12:34	3/5

The New Zealand match would normally be the quietest of the three occasions but is included here as this was the first such event since the commencement of the new timetable.

A reduced fare cross-border travel offer jointly by the Daily Mirror and Belfast Newsletter made it necessary to run additional trains at 07:40 ex Belfast and 17:45 ex Dublin on 8th, 15th and 22nd March formed by 93+4+97, 86+4+89 and 85+2+99+4+68 respectively. The 08:00 ex Belfast was hauled by 208 on these dates and consisted successively of 10, 11 and 12 Mk2s. Response from the Dublin end was less enthusiastic with traffic being easily accommodated on the 07:55 ex Dublin although the latter

was strengthened on 8th March when this service was formed by 226 + EGV + 9 Mk2s.

A shortage of stock on 17th March resulted in the 16:07 Great Victoria Street to Bangor, the 16:55 Bangor to Portrush and the 19:37 Portrush to Central being worked by 89+1+67, the intermediate vehicle being a driving trailer.



08:30 Belfast/Connolly relief passing Dunleer Down distant signal, 15th February 1997.

There was heavy Easter holiday traffic into Portrush on 30th and 31st March. On the Sunday the regular 09:55 ex Central to Londonderry, 85+3+89, was diverted to Portrush and in addition a relief ran from Lisburn to Portrush, formed by a three-car set, with 83. On the Monday through trains left Central at 08:15, 09:25, 10:20 and 11:15 returning at 16:45, 17:40, 18:30 and 19:30. Formations varied between five and nine cars and were all eighty class sets except for the 10:20 ex Central and 17:40 ex Portrush which were formed by 457+4+454. The police had to be called to deal with a hooligan element on the 19:30 ex Portrush which took nearly two hours to get to Coleraine and did not reach Belfast until about 23:25. Connecting trains were provided to Bangor and Whitehead departing Central around 23:50.

An Irish Traction Group special, from Bray to Portrush and Bangor on 12th April, visited Great Victoria Street on two occasions during the course of the day offering an opportunity for a locomotive change on each visit. The train left Bray at 06:57 and consisted of 082 + 6 Cr + GSV as far as Great Victoria Street where 177+155 took over for the return trip to Portrush, outward via Lisburn and back via Bleach Green Junction. The next portion of the tour, from Great Victoria Street to Bangor and back to Belfast Central, was hauled by 111 which was in turn exchanged for 113 at Belfast Central. The latter worked the tour train to Dublin and returned from there with the regular 20:15 to Belfast. A Limerick to Balmoral special, 112 + EGV + 6 Mk2s, also operated on this date - the NIR locomotive taking over in Dublin. The various specials and locomotive changes produced a slightly unusual line up of departures from Belfast on this date as tabulated below and observed at Balmoral.

Service	Formation	Balmoral	Load
17:00 Balmoral/Limerick	082+6Mk2+EGV	dep 17:14	230
17:00 Central/Dublin	155/177+9Mk2(NIR)	pass 17:18	130
17:06 GVS/Portadown	92+2	pass 17:21	60
Light engine	111	pass 17:24	
17:22 Central/Bray	113+6Cr+GSV	pass 17:36	300
17:23 GVS/Portrush	87+2	pass 17:39	60

The following day, 14th April, some 700 passengers travelled from Portadown to Portlaoise to attend a GAA fixture. The special train consisted of 82+4+84+2+69.

The North West 200 motor cycle race resulted in heavy traffic to Portrush on 17th May. A relief train ran at 09:00 from Belfast Central on this date, being formed by 111 + 7 Cr + GSV, and was preceded by an 08:50 special from Ballymena. In addition a shuttle service operated on the branch between Portrush and Dhu Varren to supplement an already augmented Coleraine/Portrush service. All this activity resulted in Portrush signal cabin being “switched in” for most of the day so as to facilitate successive arrivals or departures which could not be accommodated under the normal manual token arrangement. Unfortunately there was an outbreak of hooliganism in the evening as a result of which some damage was caused to the Irish Rail set. Following similar difficulties the following weekend NIR announced that the 19:30 ex Portrush, on Saturdays, would neither operate to Belfast or connect into the 19:00 ex Londonderry. This arrangement continued through the summer and was carried forward into the current timetable. Traffic on the Dublin line was also heavy with specials for the Garth Brooks concerts on both the 16th and 17th at 12:00 ex Belfast and 23:55 ex Dublin. The special on the Saturday was formed by 97+2+96+4+89 and carried an organised party of between 550 and 600 passengers. Due to heavy loading on the 11:00 ex Belfast on 16th May a relief formed by Castle Class set 452 was provided although the latter was terminated at Drogheda with a hot engine. On Sunday 18th May there were departures for Dublin at 09:30 and 10:00 formed respectively by 111 + 7 Cr + GSV and 201 + 8 Mk2(NIR).

On 29th June, in connection with the Irish Derby, NIR ran a special train from Belfast to the Curragh. This train, which was due to leave at 09:15, reached its destination at 12:42 and was formed by 088 + 12 Mk2(NIR), the locomotive having been replaced at Connolly to facilitate an expedited reversal. Due to the commitment of Mk2 stock to this working the 17:55 and 18:20 from Dublin to Belfast were formed by 96+4+68 and 112 + 8 Mk2s respectively. Meanwhile another eighty-class set, 95+4+90, was taking part in the filming of “The Boxer” at Balbriggan, the latter location pretending to be Bangor for the day.

Due to the shortage of railcars, most evident on Fridays and Mondays, the 06:55 Belfast to Londonderry was formed by locomotive hauled stock on 1st September. In order to avoid delay a locomotive was placed at both ends between Central and Great Victoria Street, the train consisting of 112 + 4 Mk2s + 113 for this portion of the journey. Meanwhile on the Bangor line 111 + 6 Mk2s formed the 08:15 “Express” to Great Victoria Street.

The Ballymoney/Coleraine section was closed to traffic on the morning of 12th December due to the destabilisation of an embankment a little south of Damhead level crossing, reportedly due to the collapse of a culvert. The line is still closed at the time of writing in early January and is expected to remain so for a number of weeks pending repairs. Trains are present running between Belfast and Ballymoney and between Portrush and Londonderry. There are two three-ear eighty class sets trapped on the Coleraine side of the closure, powered by motor coaches 68 and 98.

Portadown/Armagh

The reopening of this line which was closed in October 1957 was put very much on the long finger by Mr Ted Hesketh, Managing Director of Translink/NIR, when he addressed local councillors in Armagh recently. Mr Hesketh stated that there was no money available for such a project but suggested that the route, which is largely unobstructed, should be given planning protection. (*The reopening of this line and that from Goraghwood to Newry, which is also substantially unobstructed, would provide sources of additional traffic and leverage maximum advantage from the monies already invested or committed to the mainline between Belfast and the border. Modern high performance railcars would be capable of running limited stop services from Great Victoria Street to either Newry or Armagh in about 40-45 minutes.*)

Civil Disturbances and Related Problems

In a reversion to a favoured terrorist tactic there were bomb scares throughout the Belfast area on Friday 10th January 1997. The railway was affected by alerts at, or in the vicinity of, Great Victoria Street, Lisburn and Central stations. As a consequence the 13:00 and 15:00 from Dublin terminated at Portadown and returned respectively as the southern portion of the 15:00 and 17:00 ex Belfast. The latter ran to schedule with Belfast passengers travelling on the 18:00 Up which started from Portadown at 19:20 and was formed by a 3-car 80 Class set. The 20:15 ex Dublin was formed by an Irish Rail push/pull set which departed around 20:45 and ran through to Portadown where passengers joined the delayed 22:15 local service to Belfast and Bangor. The 18:20 ex Dublin on this date was delayed by at least 45 minutes but ran through to Belfast. The railcar set which worked the continuation of the 18:00 ex Belfast formed a slightly delayed 21:00 to Dundalk and thence empty in Portadown.

A suspicious car at Lurgan railway station meant that there were no trains to, or through, the town on the morning of 6th February. As a result the 07:55 and 11:00 ex Dublin terminated at Portadown while the 08:00, 09:30 and 11:00 ex Belfast started from there. The first two Up trains were formed by 458+4+455 and 86+2 respectively and arrived in Connolly at 10:40 and 12:35, just over half an hour late in each instance. The 11:00 to Belfast was formed by the incoming 450 class railcars, which up to this time had only worked passenger services south of Dundalk on two or three previous occasions. Despite a cooling water “top up” in Dublin the rear power car overheated shortly after leaving Dundalk and as a result speed fell to 22 mph at Mountpleasant. Nonetheless Portadown was reached only seven minutes late, the train having lost five minutes on the sedate schedule then in force.

A bomb scare between Portadown and the border delayed the 11:00 services from both Dublin and Belfast on 4th March and as a consequence the Up train did not reach Connolly until 14:20.

Tensions associated with the “marching season” resulted in widespread civil disorder in Northern Ireland for the second successive year, which although generally on a lesser scale than in 1996, saw much wanton destruction and hooliganism. The railway suffered more than its share of damage and disruption as mobs reacted to events in Portadown on 6th July.

The first significant incident occurred the same day as the 12:32 Belfast (Central) to Portadown approached Lake Street level crossing where the train was halted by the activation of the emergency brake. A number of masked men ordered passengers off the train and assisted by accomplices who had been waiting in the vicinity set light to the six-coach railcar set. Although the fire brigade attended the scene and extinguished the fire the damaged train was afforded no protection by the security forces and was later set alight again by masked youths who posed at the scene for TV cameras. The unchecked orgy of destruction continued with the destruction of the crossing gates at Lake Street together with the associated signalling equipment cubicle. At least one car was driven onto the line and abandoned in front of the wrecked train. Following this attack most, if not all, rail services in Northern Ireland were

suspended for the remainder of day. NIR issued a statement to the media indicating that the damaged train represented a loss to the company of £5.7m - presumably the present day replacement cost.

Ironically the 12:32 ex Central was made up to a six-piece unit on this date in order to work the 17:00 Dundalk to Portadown, 18:10 Portadown to Dublin and 20:15 Dublin to Dundalk. This arrangement, common enough on busy summer Sundays in the Republic, was intended to release a Dundalk based Irish Rail set for use in connection with a Tipperary v Clare GAA fixture in Cork. The return 13:55 from Portadown to Bangor would have been worked by a 3-car set.

Monday 7th July saw Dublin/Belfast services running to and from Portadown only, the line thence to Lisburn remaining blocked. Elsewhere the Ballymena/Ballymoney section was reported clear by 07:30 following a security alert. Some unusual workings were observed on this date with a six-car Castle class set (power cars 451 and 459) working several services between Portadown and Dublin, including the 18:20 ex Connolly. 112 + 7 Mk2s worked the 07:55, 13:00 and 20:15 ex Dublin as well as the delayed 10:12 and 15:35 ex Portadown. The 18:00 ex Belfast started from Portadown and was formed by 203 + EGV + 4 Mk2s.

The damaged railcar set, 82/772/737/751/778/93, which had been blocking the line at Lurgan since Sunday, was removed to York Road during the early hours of Tuesday 8th July; this action apparently prompted the hijacking of further road vehicles in the town. The intermediate vehicle body shells were subsequently sold for scrap although it may be possible to rebuild the power cars. Replacement intermediates might be obtained from the fleet of locomotive hauled Mk2 stock, some of which has been on loan to Irish Rail since early September. Incidentally the power packs and bogies were relatively undamaged and these would be available for use with second-hand stock secured elsewhere in the UK.

On Tuesday 8th July a second attack took place, this time at Newry. Thugs, some armed and more wielding baseball bats, ordered passengers off the 15:00 ex Dublin shortly after it arrived in the station. An orgy of destruction followed with nearly all carriage windows on the platform side being smashed. As some of the gang busied themselves smashing windows others hurled petrol bombs into the train. In order to impede recovery of the train a package was left on board the locomotive and a number of items were attached to the generator van. Fortunately the fires did not take hold, in part due to the presence of fire retardant seating and upholstery. As at Lurgan there was little, if any, assistance from the security forces and with a state of anarchy reigning in the vicinity the train remained in grave danger of further attack. The train was hauled back to Dundalk later that evening by an NIR locomotive and crew, the carriages leaving Dundalk for Dublin around midnight. The damaged train consisted of 203, 3188, 1513, 1518, 1508, 1554 and 1545. Four of the damaged Cravens had been returned to traffic by 11th July with the fifth following a few days later. The locomotive also escaped serious damage and was quickly returned to traffic. All rail services between Dundalk and Portadown were suspended in the aftermath of this incident and did not resume until the 18:00 ex Belfast and 18:20 ex Dublin on 15th July, which were formed by the sets of the 10:15 ex Dublin and 10:00 ex Belfast of 6th July.

During the period from 9th to 15th July cross-border services operated between Dublin and Dundalk only with most trains being formed by NIR equipment stabled south of the border. This included 112 and 113, seven Mk2s and two Castle Class sets, 451 and 459. For a short period there was no service of any sort beyond Dundalk although Translink did subsequently run connecting buses to and from Belfast via Armagh, this route being chosen to avoid the Newry area. On Sunday 13th July services between Dundalk and Dublin were being operated by 2611/12 and 459+2 with both sets being used on the same service in some instances. For example the 15:00 ex Dublin operated in two portions about nine minutes apart, the first section formed by the Castle class set, the second by the Arrow. The order was important as the Arrow railcar must be protected under absolute block regulations between controlled signals and if it had preceded the Castle class, the latter would have had to wait in Drogheada

as the intermediate signals between there and Dundalk are automatics. (These restrictions apply throughout the Irish Rail network except between Heuston and Kildare where adjustments have been made to the track circuiting.)

A bomb scare between Dundalk and Newry closed the line for a little over two hours on 12th September. As a consequence the 14:00 ex Belfast and 13:20 ex Dublin terminated at Newry and Dundalk respectively with passengers on both trains being transferred by bus. Passengers on the Up train continued their journey on the 13:20 set which returned to Dublin at 16:09, just ahead of the 16:15 ex Dundalk which followed at 16:17. In order to avoid undue delay to the 16:10 ex Belfast, the latter was formed by a locomotive-hauled Mk2 set which was due to form the 15:56 Central to Londonderry service. The De-Dietrich set which had formed the continuation of the 13:20 ex Dublin, from Newry, followed empty leaving Belfast around 17:10. This set in turn formed the 19:00 ex Dublin which departed at 19:08. Both the 15:20 and 16:50 ex Dublin were also affected, both being delayed by about thirty minutes.

A bomb scare between Drogheda and the border disrupted services on 17th November and resulted in the closure of the Drogheda/Dundalk section from 18:30 to 21:20, with the section north of there staying closed for the remainder of the day. As a consequence the 18:10 and 20:10 ex Belfast terminated at Newry with passengers being transferred by bus to Drogheda in the case of the first train and Dundalk in the case of the second with passengers arriving in Dublin at 22:00 and 23:45 approximately. (There were also bomb scares on the Dublin to Belfast road at various points south of the border and the buses had to divert accordingly.) The 19:00 to Belfast was held in Drogheda until 21:22 and took connection off the 20:30 from Dublin which was formed by 2608/07 and terminated in Drogheda at 21:04. The Arrow set returned to Dublin at 21:28, with passengers off the 18:10 from Belfast, and ran initially to Platform 2 at Connolly, before continuing to Pearse to form the 22:05 to Dundalk.

18th November saw extensive rioting in the Lurgan area with at least one hijacked vehicle being abandoned and burnt on the level crossing at Lake Street. As a consequence the 16:50, 19:00 and 20:30 ex Dublin terminated at Portadown. Similarly the 18:10 and 20:10 ex Belfast started from Portadown although delays were less than the previous day with the 20:10 being only 14 minutes behind schedule leaving Drogheda. (*Services from Belfast are currently allowed 41 minutes from leaving Central to leaving Portadown this allowance being designed to absorb delays associated with anticipated single line working associated with track renewal between Belfast and Lisburn. The additional time, normally wasted in an extended station stop at Portadown proved valuable in this instance, partially absorbing the delay associated with bus transfers.*) The line remained closed at Lurgan for much of the following morning with consequent disruption to the 06:45, 08:00 and 10:30 ex Belfast and the 07:40 and 09:40. The line was reopened in time to pass the 12:30 ex Belfast and possibly also the 09:40 from Dublin. Interestingly the 06:45 ex Belfast ran in two portions, one from Dundalk and one from Portadown, formed by 082 + DV + 4 Cr and 92+2. Arrival in Dublin was at 09:05 and 09:37 respectively with both workings being delayed by preceding local traffic. The railcar set was refuelled at Connolly before returning as the delayed 09:40 to Belfast.

Locomotives and Rolling Stock

Translink is planning to replace its 80 class DEMUs under the Private Finance Initiative, an arrangement whereby the private sector finances investment in public utilities. Rolling stock acquired in this manner would be leased to Translink/NIR under arrangements which would ensure a satisfactory return on capital to the private sector. The cost of replacing the existing fleet is believed to be in the region of £100m and as such would constitute a very significant order in the UK context. While the 80 class have given excellent service for the past twenty-three years they are becoming increasingly

unreliable and in any event have insufficient power to deliver the performance required for competitive scheduling.

104, 105, 106 and 108 spent a number of months awaiting disposal. All except 106 were removed by road to Belfast Docks for scrapping in mid-September. The latter, which under the guise of C227, was working on the Valentia Harbour branch on the last day of operation on 30th January 1960, is to be preserved as a static exhibit at Cahirciveen. (The power packs were recovered for use by Irish Rail while various other items were purchased by the Irish Traction Group who are in the process of restoring 226 at their Carrick on Suir base.)

208 is understood to have suffered a serious mechanical failure at Connolly shortly after the arrival of the 16:10 ex Belfast on 9th September. As a consequence the locomotive had to have its prime mover replaced and thus did not reappear on cross-border services until 26th November. Incidentally 208 was returned to traffic in "De-Dietrich" livery on 9th June sporting "River Lagan" nameplates which had been presented to NIR sometime previously by the Irish Traction Group. At the time of writing in mid-December its NIR partner on the new Enterprise service, 209, had yet to receive its "River Foyle" plates.

NIR have begun experiments with sanding equipment on their eighty class railcar fleet as evidenced by sand boxes, air delivery equipment and refurbished bogies on power car 99 as of mid-November. Sanding is understood to be under the control of the driver who can apply same by means of a push button in the cab. Pending evaluation of the results and a decision on a more general installation of equipment sanding is only available when the train is being driven from the power car end.

Following the introduction of the De-Dietrich stock on the cross-border services 904, 911, 921, 925, 930, 934 and 935 were loaned to Irish Rail while another set was made up for use on the Bangor and Londonderry lines as described elsewhere. 548, 916 and 931 have been stored out of use in Bangor for some time while 922 and 928, which were never converted from compartment to open seating, have been out of use for several years. Incidentally the 08:30 special ex Belfast on 15th November was made up to eleven Mk2s including 547, 901, 903, 912, 915, 923, 924, 926, 927, 932 and 933. The coaches loaned to Irish Rail worked the 17:28 Pearse/Drogheda on Friday 6th September, hauled by 172, but have not been used since. They are presently stored in the yard at Heuston and now appear unlikely to be used by Irish Rail unless a long-term lease is agreed.

At the time of writing in mid-December 111 is on loan to Irish Rail and is presently based in Drogheda, having had a brief spell in the Cork and Mallow areas principally hauling beet between Mallow and the sugar factory. 112 is presently the normal motive power for the 08:15 Bangor/Great Victoria Street and 17:05 return. This locomotive also tends to feature on weekend cross-border relief trains, notably the Saturday 08:10 Belfast/Dublin and 18:35 return and the less regular 18:20 Dublin/Belfast relief on Sundays. The Saturday reliefs have been running since 15th November while the Sunday train ran on 30th November and 7th December. 113 is presently the Portadown pilot and operates ballast trains as required from Poyntzpass. 102 continues to provide pilot cover at Adelaide.

Portrush Branch

The speed limit on the Portrush branch was temporarily reduced to 30 mph with effect from 30th November 1996.

Miscellaneous

Translink fares, including NIR, were raised by about 4% on 31st March. A second increase took effect in August.

Smoking has been entirely prohibited on all NIR services with effect from 7th April 1997. The ban also applied to NIR operated cross-border services and has since been extended to virtually all cross-border trains, as smoking is completely prohibited on services operated by the new De-Dietrich stock.

NIR's Pauline Gardiner drove the 08:00 Belfast/Dublin on 24th April and in so doing made a little piece of railway history in that this was her first trip to Dublin as a fully qualified driver and as such she became the first female train driver to work in the Irish Republic, having earlier achieved this distinction in Northern Ireland.

The Irish Rail weed control train sprayed both lines between the border and Lisburn on 11th June. Unlike previous years the IR train was not used over the rest of the system, a change which reflected NIR's decision to invite tenders for this work in early May.

The Northern Ireland Transport Holding company sought tenders in May from competent consultants to:

- 1) Determine the current and future needs for transportation investment in the Belfast to Newtownards corridor by formulating and accessing a range of proposals that are to be examined in the context of the implications for the remainder of the local transportation networks.
- 2) Define the nature and characteristics of an optimum solution having regard to estimates of demand, evaluation of capital and operating costs, potential revenue and long-term viability.

The possible use of former rail routes as public transport corridors is believed to be one of the options which is to be considered by the consultants. Newtownards was originally served by the single track Donaghadee branch which left the Belfast to Newcastle mainline at Comber. Both the mainline, which was double track to Comber, and the branch were closed by the UTA in 1950. Although operated by steam traction until closure and handicapped by the somewhat indirect route through Comber the railway was still able to offer a journey time of 23 minutes from Newtownards in 1949 - a timing which would no doubt prove attractive to today's road based commuters. The route to Comber although altered and obstructed in a number of places is still substantially intact and could be re- opened if there was a will to do so. It is believed that current thinking in Translink envisages nothing more exciting than a busway although future conversion to LRT might be a possibility at a later stage.

In a Translink booklet entitled "Moving Forward on Public Transport" the company commits itself to "work closely with port authorities to re-examine the potential to move freight from the roads onto the railway". The booklet refers to the fact that "railway lines run tantalisingly close, but not into the major ports". Elsewhere in the booklet Translink states that it envisages the development of Portadown as a key transport node with connecting bus services to Dungannon, Armagh, Tandragee and Gilford. Feeder bus services into Moira station are also under consideration. The company is presently developing a three to five year strategy for the development of park and ride facilities at suitable rail and bus stations. The booklet was produced in connection with a major transportation conference held in the Europa Hotel on 6th February and while the suggestions contained within the booklet in respect of the railway are positive they are limited in scope with most of the discussion being centred on busways, bus lanes and bus priority measures.

The station at Adelaide was repainted during the summer and now sports a green and cream colour scheme which has also been applied to signs and other fittings on the platforms at Belfast Central.

The Monkstown/Antrim section has been closed since 20th September to facilitate hedge cutting and the removal of dumped material preparatory to the commencement of renewal work. It is not expected that the line will be reopened for traffic prior to renewal other than in the event of an emergency. (See EU funding above.)

TBI PLC, the owners of Belfast International Airport, are proposing to construct a station on the Lisburn/Antrim branch as part of a major development initiative at Aldergrove which amongst other things will include improved passenger facilities and a large scale business park.

Private Railways and Museums

Railway Preservation Society of Ireland

Operations in Northern Ireland were suspended for most of 1997 pending the outcome of an investigation by consultants Halcrow Transmark who were commissioned to report on the operation of RPSI equipment on NIR. This report has led to an easing of restrictions on steam operations on NIR although maximum speed is now limited to 50 mph and wooden bodied rolling stock is no longer allowed to carry passengers between Lisburn and the border. (This prohibition will also apply between Belfast and Lisburn when that line is upgraded for high speed running.) For the "Christmas Shopper" excursion from Belfast to Coleraine on 29th November, which featured No.85, the timetable was so constructed as to ensure that the steam train was stationary when crossing opposing traffic on double line sections.



RPSI's Slieve Mish Railtour between Millstreet and Rathmore, 10th May 1997.

The main enthusiast event of the year, the Slieve Mish Railtour, took place from 10th to 13th May with steam haulage throughout from Dublin to Tralee and back. No.171 "Slieve Gullion" worked the special in either direction between Heuston and Mallow on the Saturday, between Mallow and Connolly on the Sunday and between Connolly and Dundalk on the Monday. No.461 worked the train from Mallow to

Tralee on the Saturday and Tralee to Mallow on the Sunday. The tour train was formed by Irish Rail Cravens with six carriages and a GSV provided on the Saturday and Sunday, and four carriages and a GSV being used on the Monday. Tour participants continuing north of Dundalk were conveyed by a DEMU between there and Whitehead as RPSI steam operations were at that stage still suspended on NIR.

A joint venture between the RPSI and the Irish Traction Group saw A39R and 3 RPSI coaches being provided for filming purposes, principally at Castlerea on 16th and 17th October. The locomotive was hauled to Westport by 158 on 15th October. During the course of a trial run later that day it failed in the Westport/Manulla Junction section resulting in a thirty the minute delay to the 13:05 ex Heuston. Following repairs to the load regulator A39R was permitted to haul the RPSI coaches on the section of line in the immediate vicinity of Castlerea station as opportunity permitted over the following two days.

West Clare Railway

Substantial progress has been made on this project which ultimately aims to restore the former 3' gauge line from Kilrush to Kilkee. Track laying commenced at Moyasta Junction on 22nd March with some 600m of track being laid in the first instance. Some three miles of formation has been cleared and fenced, the section concerned extending for about 1½ miles on either side of Moyasta Junction. Services commenced on 1st August using C47, a former Bord Na Mona railcar on loan from the Cavan & Leitrim Railway. The Moyasta Junction station house has been acquired by the group and substantial renovations have already taken place. No work has yet been undertaken on the restoration of No.5, Slieve Callan, a project which would cost somewhere in the region of £300,000.

- A review in video format of the vibrant Irish Narrow Gauge scene is available from the Cavan & Leitrim Railway, Dromod, Co Leitrim and costs £14.99 including postage to destinations in the UK and Ireland. Apart from the developing preservation scene the video also includes Bord Na Mona operations, the Curragh Military Railway and several less well known industrial gems in Northern Ireland.