

In the July 2007 issue of Railway Digest, the 'Away From City Lights' feature combined a number of article-snippets from the 2000–2007 period in serial form, to highlight the astonishing rate of change that has gripped rural NSW in the last decade. In the afterglow of the Australian Rail Track Corporation's efforts to resignal the remaining, mechanically controlled sections of the Main South that had previously escaped the march of progress, it was thought that Fergie Moffat's re-telling of his experiences in bringing a National Rail superfreighter north from Junee, on one spring evening in 2001, should be retold in full, as a snapshot of a moment in time now gone. The journey starts here...

'n mid-September 2001, while the world was still reeling from the shocking aero-terrorism Lin the USA, I was in the mid-south of New South Wales on a balmy night and concentrating on other things. Still relatively new to what was then the recently established National Rail Corporation drivers' depot in Parkes—and only employed on a permanent part-time basis — my route learning in this district until now had been limited to Cootamundra – Broken Hill. Although sitting squarely in the central-west of the state (and, demographically, in the centre of the continent) Parkes forms part of the NRC operating region administered from Junee and I had been assigned to this latter, historic location for an eight-day stint to cover some annual leave. This would provide me with the opportunity over four return trips to gain valuable road knowledge to and from Sydney via this route (Parkes drivers run into Sydney on both the Main South via 'Coota' and Goulburn and the main west through Orange, Bathurst, Lithgow and over the Blue Mountains. And learning the Up and the Down directions can be two separate tasks!).

I had long been aware of Junee as a strategic railway location on the South West Slopes of NSW and it was very interesting finally to be here. Nowadays home to around 6000 people, Junee was once a major rail division point and boasted a much larger population. Beginning its life as a pastoral lease known as the 'Jewnee Run' it benefited from gold-rush activity during the 1860s and continued to prosper when the railway came through in 1881. During the heyday of steam operation on the Main South, it boasted a major locomotive depot, including a substantial roundhouse that remains in use today as a private, commercial rolling stock engineering facility.

Operations Control in Adelaide rang me at 1.15 am for my rostered 1.30 am start. I gently pulled my motel door shut and set off for the short walk across the Junee rail yard to the NRC office adjacent to the station. The town was silent at this early hour, and in the distance I could hear a familiar EMD chant as a grain train originating from the branch from Griffith and Narrandera notched out through Junee North Junction for the northbound climb out of town. The Crossing Motel is the lodgings of first choice for 'foreign' loco crews due to its proximity to the yard and the flexible and obliging approach of its owners to accommodating our needs. In addition to the rooms, which include mini kitchens, the owners have provided a room exclusively for the use of train crews that boasts full kitchen facilities stocked with all breakfast requirements, a TV/VCR, lounge seating and a pool table. This night, our industry was well represented in town, with Freight Australia, ATN Access, and Chicago Freight Car Leasing Australia units tied up in the yard.

Arriving early, I unlocked the office and let myself in. I was particularly interested in checking for bulletins and notices relevant to our trip this early morning, and in unfamiliar surroundings I had to search for these. Anticipating my co-driver's requirements, I called the Senior Operations Controllers' office in Adelaide. Reflecting the name of the office, we refer to them as SOCS, although the duty operations controller on the eastern board will not be the 'senior' member at this time of night. There were no special instructions, and I was informed that our train, 3MB4 (Melbourne–Brisbane Superfreighter out of South Dynon Yard on Tuesday evening) was expected into Junee slightly ahead of time.

Above: Colour-light signals now gaze down upon the passing trains, and the locomotives carry 'Pacific National' on their sides, rather than 'National Rail', (and are a bit dirtier than they were in September 2001), but 3MB4 itself remains a regular visitor to Junee most mornings. A crew change is effected during the early hours of Wednesday 10 October 2007, as train-units NR113, DL45 and a second NR rumble away in anticipation of the climb out of town. Just over six years separates this 3MB4 and the one in which the author travelled back in 2001, and already the checklist of the checklist of changes has grown quite long.

Chris Walters

Below (and along subsequent pages): A gradient diagram (from 1932) highlights the literal highs and lows faced by 21st century trains and crews along the Main South between the Sydney Metropolitan area and Junee.

ARHS/nsw Rail Resource Centre My co-driver, Steve, arrived and we introduced ourselves. With a few polite questions Steve ascertained that I was not new to train driving; I was not new to NRC, having spent a year in Kalgoorlie; yes, he could detect the remnants of a Kiwi accent; and, although I'd made a couple of 'third man' trips out of Sydney to Parkes via Cootamundra, I didn't yet 'know' the road. To his credit, Steve did not roll his eyes, but I could have forgiven him had he been wondering 'why me?' Because this run was scheduled for a smidgen over nine hours and I held the necessary safeworking qualifications for the route, Steve was able to take me under the two-person 'buddy system' whereby one acquires route competency while on the job.

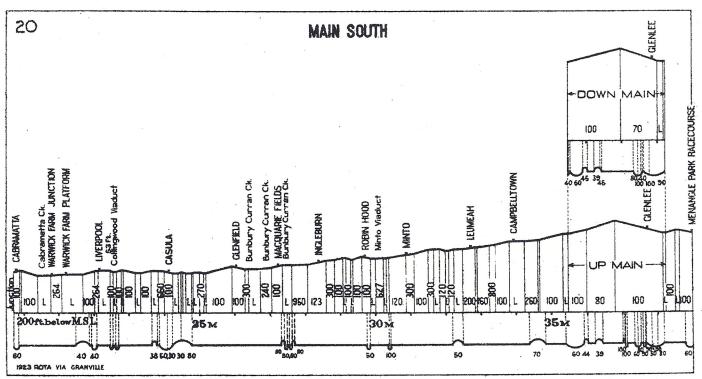
With our documentation safely in hand, we slung our bags over our shoulders and headed to the station. Junee Train Control—responsible for that portion of our route extending between Albury on the Victoria/NSW border and Joppa Junction (just north of Goulburn, where the line to Canberra joins)—is located within the station precinct and its reincarnation as the Southern Rail Management Centre was still in the future. There was, however, no time to visit as MB4 was already approaching. Being 485 km from Sydney Central, Junee is roughly halfway from Melbourne and is the beginning of the double track to Sydney that, in our case, would take us all the way to Chullora Yard. We changed over with the in-bound crew on the Up platform and had a brief conversation with them. We had two NR units and 32 wagons for a total of 2426 tonnes and 1114 metres, modest for a superfreighter in the context of east-west operations, but fairly normal for this eastern seaboard service. I boarded, stowed my gear, switched on the kettle and settled into the co-driver's seat to review the pre-departure checklist (provided ex-Melbourne), the locomotive logbook and the dangerous goods documentation. Steve joined me and was getting himself organised as the Sydney-bound overnight XPT running slightly late pulled in beside us.

A few bleary-eyed passengers made an effort to see what it was rumbling beside them and disturbing their sleep, others pulled curtains pointedly across their windows in an attempt to shut us out. After a driver change, the XPT moved out and we anticipated a short delay before being allowed to follow.

Our first inkling of trouble came as Steve and I noticed that the passenger train had receded only about a kilometre—as far as Junee North Junction—and his tail lights didn't seem to be getting any smaller. We settled back in our seats with our coffee and awaited developments. After some time, the headlight on the rear power car was switched on, and it soon became obvious that the XPT was returning from whence it departed. At about this time the train controller strolled out onto the platform and hailed us.

"That grain train is dropping canola and it's all over the track, and I'm pulling him out at Coota," he said. "Number 2 [the XPT] can't make it up the hill [XPT power cars do not have sanding equipment]. Would you guys depart ahead and sand the hill for him? He says he'll be okay once he gets going."

Steve agreed, but it would mean a slow run for us between here and the top of the grade at the 481 km stick, since the manual sanding on these computer-controlled GEs is only available when the locomotive is travelling less than 11 km/h. Our safeworking system at this time was track block under Junee's magnificent and obsolescent semaphore system—which has now, sadly, disappeared. North Junction and its colour-light signal was only 900 metres ahead. From there through to Wallendbeen (with the exception of Cootamundra Yard, which, like Junee was also still track block working and controlled by North and South signal boxes) was double-line automatic signalling with colour lights.



With some lexicographic sleight-of-hand, automatic signalling in NSW had recently been reinvented as the 'rail vehicle detection' system, a rather ponderous and arguably redundant moniker considering that rail-vehicle detection circuitry has always been fundamental to automatic signalling. (Does the addition of an axle-counting function require the entire system to be renamed?)

We moved out and proceeded up the hill mostly on a 1 in 66 grade—to Junee's town water tower, rolling along at a very sedate 10 km/h; Steve with his left foot planted firmly on the sand button. The best NSW canola oil, surely an anti-adhesion lubricant without peer, was yet no match for GE's Micro-CHEC and Micro-SENTRY excitation and wheelslip control systems, and we soon crested the grade and began to accelerate. The familiar 'singing' sound of the traction motors at speed became evident around 70 km/h as we continued to pick up the pace, heading toward our authorised speed of 115 km/h. On a fast alignment we covered the 20-odd kilometres to Bethungra in around 15 minutes, bearing down upon the 90 km/h curve leading to a 65 km/h speed-board and then hit the climb up the Bethungra Spiral.

At this point my thoughts inevitably turned to comparisons between this and the other major railway 'coil' with which I am so familiar: the Raurimu Spiral in New Zealand's central North Island. Distances are similar, but history, scenery, curvature and gradient differ. I'd also ridden several times over another notable spiral much further north in the state, so cannot help but make comparisons.

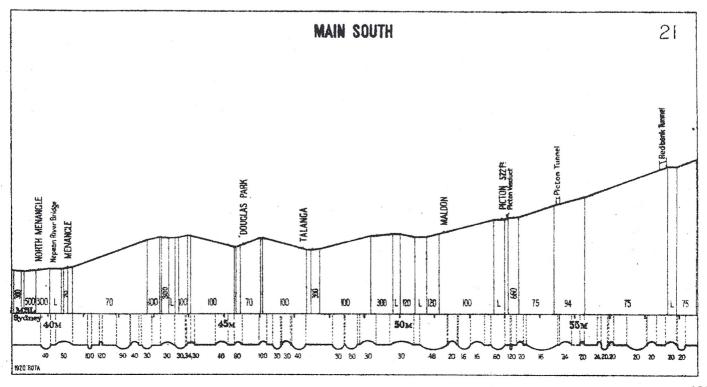
We blasted up the curving, 1-in-66 grade of the Up track at 65–75 km/h (the Down track—sans spiral—descends the grade at 1 in 40–45), crossed over ourselves atop a short tunnel, and after topping the hill, dropped down the grade to Frampton. This spiral was opened in 1946 and

resulted from the main line duplication into Junee; the original, single track having mostly followed the current Down line.

With a favourable indication on the South Box Accept signal, we dropped down into Cootamundra and Steve held us at 90 km/h for the run through town and the array of gantry-mounted semaphore signals we needed to observe. The offending canola train was sidelined in the yard, its crew having a brew and probably unperturbed by the drama caused by their passage. We waved to the signallers in South and North Boxes, then passed the triangular junction for the vital cross-country line to Stockinbingal and Parkes. Here the 'Coota' West box still supervises what must be one of the last set of highway crossing gates in Australia. On a railway system abounding in anachronisms, this was an unquestionably conspicuous example.

Steve now pushed us into notch 8 for the fast run alongside the Olympic Way and up Morrison's Hill, with only one, pesky, 60 km/h curve speed to keep us honest. The next 170-odd kilometres to the summit of the Cullerin Range are characterised by a consistent saw-tooth profile with a lot of 1 in 40, although the ruling grade, in the direction we were travelling, is 1 in 75. Running over this landscape, one short, sharp grade looks just like the next (and the previous), so a driver learning the route and running at night is in danger of getting 'lost'. For this reason, I had my desk light on and was scrutinising a curve and gradient chart as we rushed through the night, doing my best to correlate kilometre pegs with gradient changes and permanent curve speeds (of which there are many!), and all the while hoping to note and remember signal and station locations.

Some people at National Rail have done a truly remarkable job in collating vital route information and producing route knowledge packages to assist us foreigners with our learning, and in fact many NRC drivers themselves have autonomously



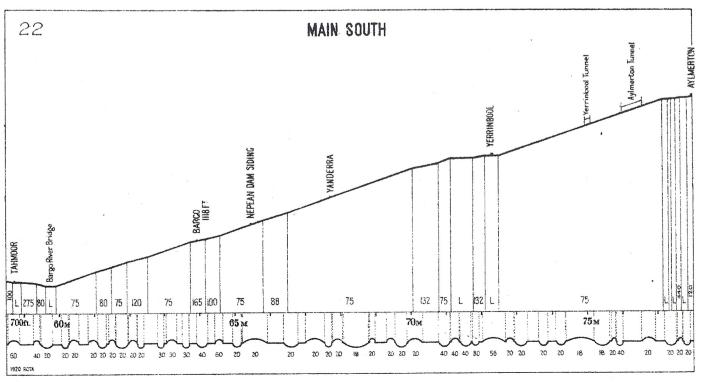
produced informative and invaluable route-learning aids of one sort or another—some of the ex-Sydney drivers at the Parkes Driver's Depot being no exception. I made full use of these and silently thanked them.

Rushing through the rustic little station of Wallendbeen, we left the double-line automatics behind and sailed seamlessly into block telegraph signalling. Across the dark and hilly terrain we travelled and were soon pounding through Demondrille [Duh-MON-drill], junction for the cross-country line to Cowra and Blayney and deserted hilltop site of a once-busy elevated coal stage and main-line servicing point. A short but intense 1-in-40 descent brought us through Murrumburrah on the outskirts of Harden. Here, at the bottom of the hill, lives a signaller who works one of the Harden boxes and who with his family has residency of the old stationmaster's house and whom I consider to be a man with veritable nerves of steel. Every train that runs through Harden on the Down must brake for a 65 km/h curve at the base of the grade leading up to Demondrille, and it always occurs to me, as we round that curve heading uphill, that our pounding locomotives—should the unthinkable happen—are at full song and perfectly poised to demolish his house.

I shoved aside these irrational thoughts as there were more pressing requirements. Calling Harden South box on the radio, I advised of our approach. Rattling through Harden and a brief section of double-line track block working at the regulation 65 km/h, we passed North Box and were back into double-line automatic territory; and herein lies a trap for some foreigners. We were now running through sections that were divided by automatic, upper-quadrant, semaphore signals ('automatic' because they are driven by electric motors under the influence of track circuits operated by the

passage of trains). The 'clear/normal speed' indication is with the upper semaphore blade raised to the vertical with the attendant green lights displayed; in other words, 'green-over-green' or 'two greens', denoting a clear section ahead. The call across the cab is simply 'two'—perhaps with a couple of fingers raised to underline the point. This is fine, but most of these automatic signals are preceded by distant signals, usually by around 700 metres. If the distant signal is at caution (the blade is at 45 degrees and the lights show green-over-red), and the call across the cab is 'one', the home signal is at 'stop' and pulling up a 2000-tonne train in 700 metres is not easy. Since the first decade of my railway experience was accumulated in New Zealand where, under both colour-light automatics and CTC speed-signalling, the green-over-red indication denotes 'clear, proceed at normal speed' (the lower red light doesn't count, it only functions as a marker light that must be illuminated for the signal indication to be considered normal), I had now entered dangerous territory.

Now I found myself gazing casually at greenover-red semaphore indications wherever we encountered them and subconsciously registering them as authorising continued normal speed when, in fact, they were warning that the next signal was at 'danger'! Disconcertingly, a couple of instances would occur in subsequent trips where my nondriving workmate would have cause to slide rather anxiously forward to the edge of his seat; a hint of desperation in his warning as I got belatedly busy with throttle and brake and echo him with a hint of desperation in my own actions. All's well that ends well of course, but in the context of the current-day mobility of rail operations personnel within and across the region, if ever there was an example of the need for rail operations safeworking protocols to be standardised, I hereby submit this!



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Up the grade to Cunningar we proceeded and promptly wasted all that effort by descending again, then repeated the process up through Galong [GAY-long]. Steve pointed out that as a rule of thumb the top of a grade is usually signified by a cutting and one of the ubiquitous NSW brickbuilt overhead road bridges, while the bottom of each grade can typically be identified by a bridge over a river or stream. This insight is about to come in handy, for as we clear historic Binalong [BYNA-long], Steve rose from his seat with a laconic,

"Your turn. Take us to Goulburn."

He obviously felt confident enough that I could run the train with his input and he also knew that a driver needs to actually handle a train over a new route to really learn it.

"Top of the hill is the three-fifty-two, then straight into full dynamics," he said.

"Righto," I replied.

We were running a little off our path tonight, and we needed to make time wherever it can be done. MB4 was to be shunted at Chullora and if we could expedite our arrival it might yet be possible for it to depart there on time. I'd been observing Steve working the train over this jagged profile, and it was obvious that his strategy was 'uphill at the best speed you can make and downhill at the limit'.

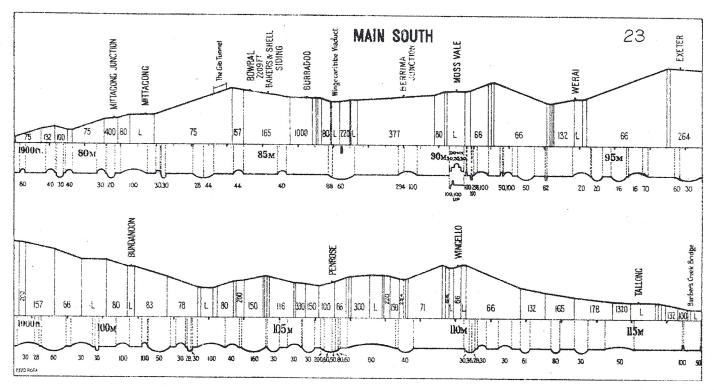
We did not have the luxury of throttling off before the crests and ambling over them at a speed reduced such that dynamic braking alone will hold us on the downgrade. Thus, our driving practice involved powering over the crests then getting into full dynamic braking as quickly as good train-handling decorum would allow, setting a minimum air brake reduction simultaneously if necessary. Then it was down the hill, increasing the air-brake application slightly, controlling speed as required for permanent curve restrictions by using the

dynamic brakes, identifying the bottom of the grade, releasing the air, then getting out of dynamics ASAP and into power for the next climb—all the while factoring in the need to control slack action in the couplers (fortunately, these intermodal trains tend to have less coupler slack) and staying ahead of that characteristic and infuriating lethargy exhibited by GE locomotives when loading up under throttle advance. Easy, really!

We descended and crossed Illalong Creek. Steve had extinguished the desk light and was munching on a sandwich.

"Gedditinto eight," he mumbled through his food, and of course I hastened to comply. We climbed a long, 1 in 75 grade with various permanent curve speeds posted—80, 110, 70, 80 and over the crest at 90 if we could. Down, up, down, up through Bowning, down, up and down again as we approached Yass Junction. Cresting a grade, we ran under the Hume Highway and in a cutting past a highway service area. The lay-by includes service stations and the usual fast-food outlets. Steve informed me that many drivers carry the McDonald's phone number in their mobile phones and that with appropriate notice the staff will deliver their golden goodies trackside and accept payment courtesy of a quick stop-go. This is obviously extremely useful intelligence, as one needs to be aware of all options should an emergency arise! But now the Yass Accept signal, controlled from Goulburn, was warning of a check. The Home stick confirmed it, and I eased MB4 down for the stop. The time was 4.50 am and we'd been running for just over three hours since departing Junee.

"XPT's got us", said Steve, and sure enough, the passenger train we sanded the hill for out of Junee had finally run us down and was set to overtake us via the 50 km/h crossovers behind and ahead of us.



Right: Icons of the Main South now for many years, NR Class locomotives and XPTs are becoming just as much a part of the historical landscape as the C38s and 44s that preceded them. Here the southbound daylight Melbourne XPT passes three NRs on an Up steel at the 'top bridge' in the Cullerins, south of Goulburn, on a hot Sunday 4 March 2007. What will be doing the job in 10, 20, even 50 years time?

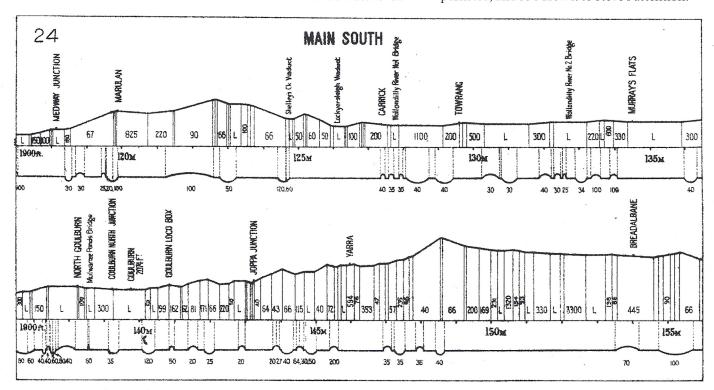
Jacob Macklin



Some 25 minutes later we were again on the move, heading straight into another long, 1-in-75 climb up the famous (and sometimes infamous) 'Rifle Hill'—so-named because the crest of the grade is squarely at the 303 km peg. A 1-in-40 descent to Gunning followed, with the most restrictive curve speed being 75 km/h, and we passed an 81 Class on a Down freighter, absolutely on its knees as it blasted its way up to the crest we'd just conquered. Steve radioed to inform them that they were complete and looked okay, as we enjoyed some easy, undulating running before the final 1-in-75 climb through Fish River and Razorback and to the summit of the Great Divide at Cullerin, altitude 2369 feet or 730 metres above sea level.

This is rather bleak-looking country and apparently it can snow up here, but there was little chance of us seeing any this night. From here, it's a short, mostly downhill run onto the Breadalbane [Bruh-DALL-bin] Plain and about 14 kilometres of flat-out running. Here we might have had the chance to make some time on the semi-trailers briefly visible on the Hume Highway in the distance. We didn't see too much of them, as the highway hardly comes close to this rail route.

However, our chance for an uninterrupted sprint was not to be. As we were descending the Cullerin Range, I noticed an irregular and intermittent brake-pipe flow indication. It persisted, and so I drew it to Steve's attention.



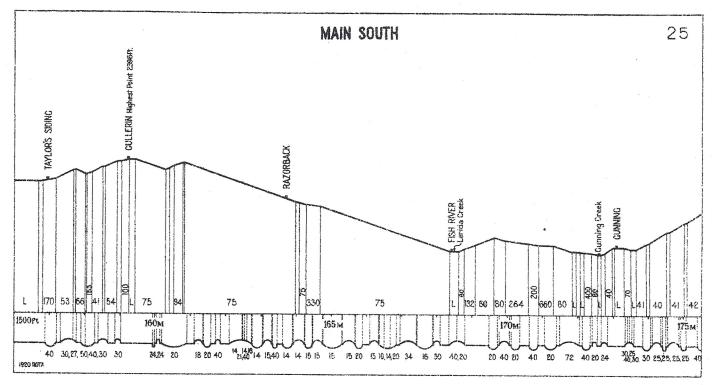
Right: On the first evening of its closure, the light is on at Harden North Signal Box, but no one is home. Such would not have been the case for the author's passage in September 2001, and 3BM4 no longer operates under guidance of a safeworking system controlled by mechanical signals and semaphore indicators. This scene was captured on a dark Thursday 3 May 2007. **Adrian Compton**

Below: Similarly superfluous is the signal box at Moss Vale, as seen here Saturday 10 February 2007, during which time the section south to Wingello was being resignalled. The 'clang and clatter' for passing trains will no longer echo from these windows.

Dominik Giemza







"Pull her up and I'll check it out," he said.

The 115 km/h speed board mocked us as we slid past it and pulled to a stop at the 249 km location in the early dawn.

I called Junee, "MB4 come to a stand 0630 at the two-forty-eight-point-eight to investigate an air leak."

Steve grabbed the portable, a spanner and a spare brake pipe hose and got ready to dismount.

"At least you won't need the torch," I said.

"I wish I had a .45," he answered.

"Why?"

"Bloody snakes around here!"

town, but Steve advised,

"Oh, well, if you feel a stab, give me a quick call and keep it elevated," I answer facetiously. "I'll get the troops in as quickly as I can."

"Yeah, right!" he snorted, and disappeared. He was soon on the radio advising that he'd located and adjusted a leaking angle cock, and within 15 minutes he was back, spanner stowed along with the unneeded hose-bag, and we were on the roll again. We passed Joppa Junction and bore down on Goulburn. It's 80 km/h through

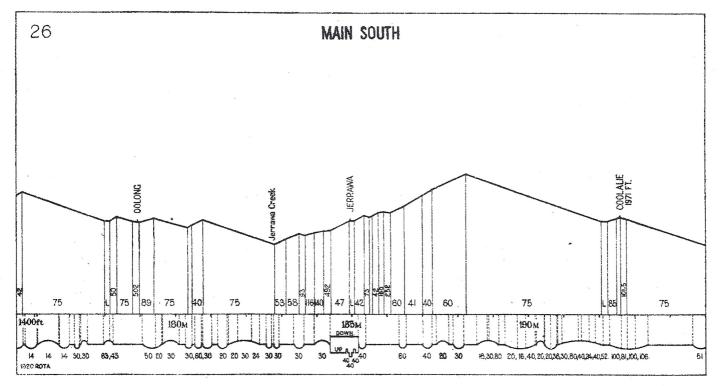
"Keep it to 70; the box is attended, and they don't like us coming through too hard. They'll hold the starter against us if we do."

We rattled past the old workshops, still in use, and along the Up Main through platform 1. I kept the pace sedate and we were rewarded with a friendly wave from the platform and 'green all the way' as we greeted this historic Southern Highlands city at its several road crossings. If I were to stretch a point I could say I was now on familiar territory, as I have pleasant memories of a holiday in Australia in 1980 and visited friends in Goulburn. Catching the *Intercapital Daylight* back to Sydney, I introduced myself to the engine crew waiting to take charge of the train and received an invitation to accompany them in the cab, which I delightedly did—at least as far as Strathfield where they were relieved and I

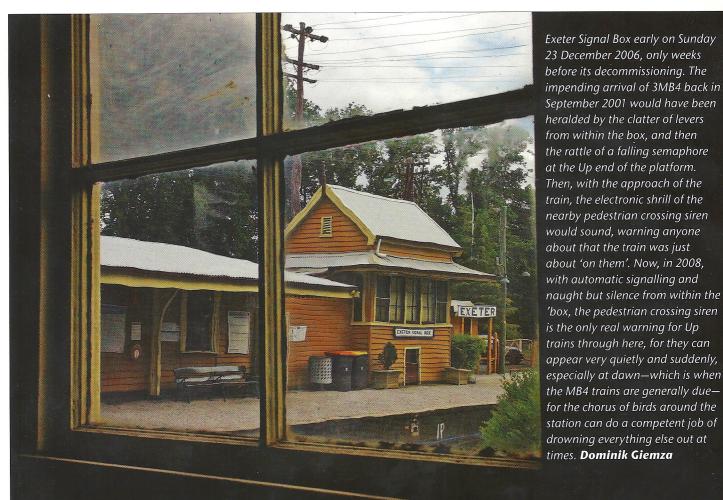
rejoined my long-suffering wife. My recollection is of a fast trip in a Clyde-EMD 422 Class with the daylight long gone, and in the Sydney metro area a rapid passage through a confusing tangle of triangular junctions. I could not imagine that a couple of decades hence I would find myself running freight trains through some of these junctions as well as renewing my acquaintanceship with the venerable 422—now mostly ARG and GWA-owned as the 22 Class. I wonder if those guys have still got the NZ Locomotive Engineers' Association lapel pins with which I thanked them?

Goulburn, no longer the major passenger destination and loco depot it once was, is nonetheless the southern extremity of the CityRail network, so we were now a freight interloper intruding on passenger territory. I handed the hot seat back to Steve as we cleared town and he settled in, notching out to take us across the Murray's Flats speedway. With only a couple of modest curve restrictions to hamper our headlong rush, we raced through Marulan, Medway Junction, (back onto blocktelegraph safeworking), Tallong, Wingello (uniquely, with colour light instead of semaphore signals), up the grade to Penrose and Bundanoon and on to the bucolic little Exeter Station with its rural English presentation and unique, low-level elevated signal box. I advised of our approach to each signaller in turn, "Exeter Box, good morning. MB4 on approach."

Rail Infrastructure Corporation (RIC) regulations, borne of signalling incidents and legal challenges, forbid the signaller from formally advising the position of his signals—the responsibility for such ascertainment remained on the broad shoulders of the locomotive crew. For this reason, despite a cheery 'MB4, set through' (meaning, 'I've pulled the levers but I can't tell you what the signals say'), Steve was required to reduce speed approaching several of these locations due to restricted signal sighting and inadequate stopping distances.



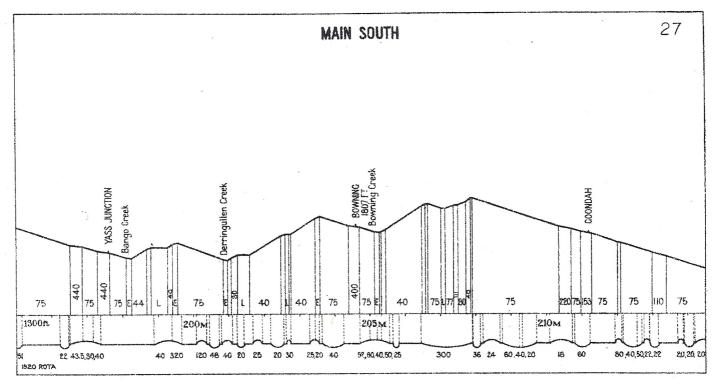
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We returned to double-line automatics and pondered where else in the modern world might such a bizarre fusion of signalling systems be foisted on the hapless railroader? In fact, movement of a train off one system onto another is generally accomplished quite seamlessly, however due to the proliferation of rules and regulations, obtaining a safeworking qualification on the route is a rather tedious instructional

process and operations are potentially quite involved since the emergency requirements of multiple systems must be retained in an already overburdened memory.

Some 80 km/h curves and a 65 km/h descent down the 1-in-66 from Exeter kept us in check, so that reducing to 70 km/h on the approach to 'Moss Vegas' was easily accomplished. We were now well off our path and were trespassing



on the morning CityRail rush hour, so were ignominiously sidetracked at Moss Vale while various Endeavour railcar services came and went. As we cooled our heels, I reflected on our motive power, the mighty NR Class, and our good fortune to be running them. Their acquisition was clearly—for a 'government' railway—a project of considerable scale and, confirming their worth across Australia as much as in the Americas, 'these locomotives are undoubtedly immensely successful in their role of powering NRC trains across both state borders and the nation. And, except for some kin in the aforementioned iron ore country, they have the best-designed driver's cab in Australia.

While being 'designed by a committee' is often used as an imputation of reproach, the driver representatives involved with the NR Class cab layout deserve acknowledgement for having produced an outstanding working environment. Now, if only it weren't for the excessively high cabside window line (which places the side window armrest nearer shoulder- rather than waist height) and those otherwise-comfortable Bremshey tractor seats, (with their flimsy, badly-positioned armrests and cantilever suspension incorporating a rather pointless ability to vary ride softness that masquerades as height adjustment—ergonomic design shortcomings that continue to afflict all recent Australian-built locomotives), the cab would be close to perfect!

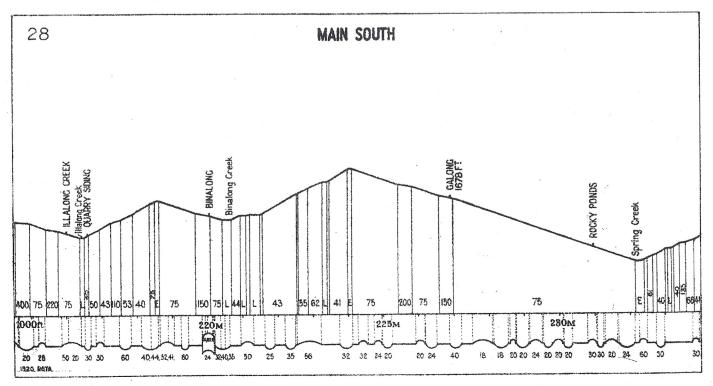
Underway 50 minutes later at 9.05 am, we plunged back onto double-line automatics again, and made rapid progress to Bowral, famous as the residence of 'The Don' (Sir Donald Bradman). Train drivers have enough (and sometimes more than enough) numbers to remember in their daily working, but I cannot run through here without thinking about his 452-not-out in Sydney against Queensland in 1930!

Hereafter, we encountered the first of the tunnels—the 'Gib'—that facilitate our mostly 1-in-75 descent of the sandstone coastal range escarpment towards Picton. We 'dynamic' through Mittagong and Steve again rose from the driver's seat.

"Into the deep end," he said, picking up his coffee cup and 'sunnies'. This is the southern junction of the original route to Picton, now unused except for a short connection from here to the Bradken Rail engineering facility at Braemar and the northern portion connecting Picton with the NSW Rail Transport Museum at Thirlmere. Down, down, down we went. Yerrinbool, Bargo and Tahmoor slipped past on curve and crest. Through tunnels and turns, crossing lights flashing and passengers waiting and waving. The cool night was gone and we were no longer anonymous. With dynamic brake fans whining we swung around the horseshoe curve and through Picton, and past more waiting passengers, though waiting not for us. Still down we travelled: Maldon, Douglas Park, Menangle. And now, coming off a 1-in-70 downgrade and through a 115 km/h curve, we approach the 95 km/h speedboard over the ancient iron Nepean River Bridge. The 'great structural panic' about the integrity of the bridge is still in the future as we thundered across and powered up through Glenlee Junction, to our first encounter with the 1500 volt DC overhead of the Sydney urban and interurban region. Nowadays no coal trains originate here, and this extremity of the wire is on borrowed time.

At the 59 km peg we rushed over a rise and caught our first glimpse of Sydney. Well, outer suburban Campbelltown, actually. It's downhill into 'Cambo' and we could see green, then yellow.

"Bugger!" said Steve. "Get into it..." and I did—dynamics and air. We stopped at the home stick at 10.44 am and chafed impatiently as a Tangara set approached on the Down then crossed in front of us toward its platform. We were away again five minutes

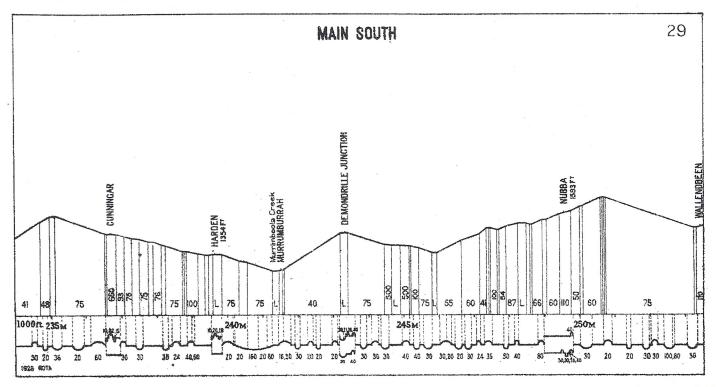




later and my previous metro experience, including running electric locomotives and EMUs around Wellington (NZ) and the *Indian Pacific* out of Perth, counted for nothing. We were flying downhill on grades as steep as 1 in 100, with signals coming past like telephone poles. The distant view ahead through the catenary stanchions was tunnel-like, and it seemed there was a signal hiding behind every second one! Through Minto, Ingleburn, Macquarie Fields,

Above: It's difficult to believe, but the NR Class are now over a decade old, and photos of their early movements are quite historical. These locomotives began to appear on the Main South during late 1996, albeit as trailing units in between crew training and staff-familiarisation assignments. Here G522 and 8173—representing the 'old guard' of National Rail's Main South services—haul NR1 between Frampton and Cootamundra, as part of an Up empty steel service on Saturday 9 November 1996.

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and Glenfield we raced. Passengers stood stolidly on platforms—some immersed in newspapers, while others gazed at us, seemingly unperturbed by our breakneck progress toward them; our hearts raced as well—will they or won't they? The more cautious among them retired to the station wall and took a seat. As we swept past them at 115 km/h, I glanced in the mirror. Dust, chocolate wrappers, empty cigarette packets flew like crazy, stringless kites in our wake.

The lengthy Glenfield loop (or relief line) commences just south of Ingleburn and runs through to Glenfield, with 80 km/h turnouts. Depending on your point of view, this is either a convenient, relieving bypass or a stifling prison cell for troublesome freighters on remand for having the impertinence to attempt to negotiate Sydney's urban network during the peak. It will eventually to become part of a dedicated freight line through Sydney and is signalled as single-line track control.

Green, green, and green—the signals appeared and flew away behind us, the engine swaying and bouncing—this is what it's about! Braced between seat back and desktop, Steve pointed out the hard-to-see signals and where to look to catch sight of the next.

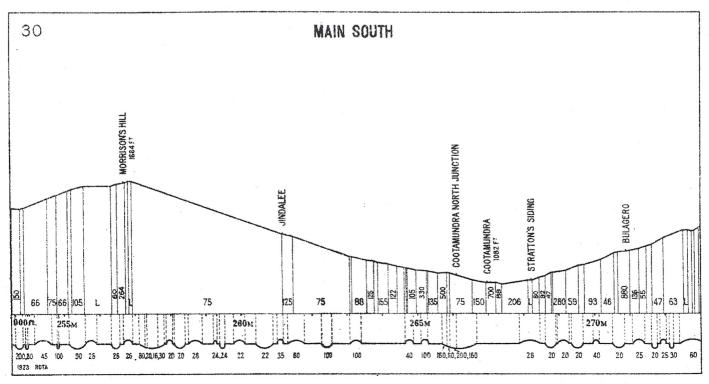
"A signaller will sometimes mistake you for a 'spark'," he warned. "Be careful of your signals. It's our responsibility not to accept a 'wrong-route'. If you end up taking a Trailer Rail through to Strathfield, you'll have to keep going over the 'bridge' to Hornsby! That's tiger country—you'll probably never be seen again. In fact it'd probably be best if you weren't!

"The second signal past Glenfield platform is your turnout indication for the East Hills Line", he continued. This suburban connection is an alternative route into Chullora, running via the Wolli Creek, Meeks Road, Marrickville and Wardell Road Junctions—parallel to the Bankstown Line—then around Enfield Yard and into Chullora from the east. Little did I know that on my next trip up from Junee, I will be sent this way—courtesy of track

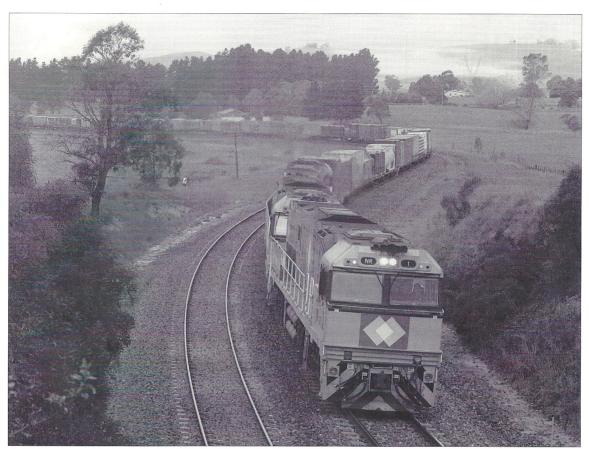
work around Cabramatta—and with the services of a Chullora driver that I collected at Glenfield as pilot! My Junee co-driver will desert me at Glenfield to drive his vehicle back to Chullora.

This day there was no turnout indication, so we pressed on through Casula towards Liverpool and into 80 km/h territory. Across the Warwick Farm flats and up into Cabramatta Junction we went. The 'feather' atop the Up Accept signal indicated that we were routed as expected for Sefton. The Home/Starting displayed green with an 'M' on the route indicator. This signifies the 'main' via Sefton Junction and Regents Park. A 'B' plus a proceed indication would take us straight ahead to Granville (the 'branch') from where, if necessary, we could still get to Chullora via Lidcombe and the many-faceted Flemington Goods Junction. Under New Zealand's US-style speed signalling, this home signal would be red-over-green, signifying 'clear, medium speed' for a turnout, but in this NSW context it's enough to know where we're being routed (so that we may judge whether or not it's correct!) since the turnout speed is the same as the permitted track speed hereabouts: 80 km/h.

We swung through the junction with about 10 kilometres remaining on our journey, and I notched out to take us uphill through Villawood, Leightonfield, past Leightonfield Yard (with a decrepit old 44 Class and a brace of rebuilt PLs engaged in shunting—the former providing the characteristic Alco imitation of a steamer) then we zipped through Chester Hill at 80 'klicks'. With a running, instructional commentary, Steve guided me through Sefton Station and I reduced speed to 35 km/h for the triangular junction. The first signal past the station provided our turnout indication and the second beckoned us via Sefton East Junction onto the metropolitan goods line towards National Rail's Sydney Operations Yard at Chullora (nowadays referred to as the Sydney Freight Terminal). A callingon indication just prior to the Rookwood Road



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Left: A very early run of the then-new NR Class locomotives on the Main South, and a sight only now recognised as unrepeatable history. Class leader NR1 leads NRs 4 and 79 through the 'S' curve at Werai with No. 7SP5 on Saturday 29 March 1997. Although a Sydney to Perth service. 7SP5 would not have appeared too dissimilar to the Melbourne to Brisbane train that author stepped into the cab of four-and-a-half years later.

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overbridge and a dwarf shunt signal with an 'FT' indicator diverted us into SOY via the newly built western entry. At 11.45 am we eased to a stand on the through road, where we were met by the local crew who would shunt the train and prepare it for its onward journey to Brisbane.

"Well, I reckon we done well," I said to Steve, and thanked him for his forbearance. "Neither Casey Jones nor the Queen's own engine driver could have done better than this!" I proffered hopefully, the tip of my tongue just touching my cheek.

"Yair, well..." was his diplomatic response. I decided not to pursue it.

We drove back to the depot, had a chat with the boss, signed off at 12.45, and drove over to the Rydges Hotel on the Hume Highway in Bankstown. Our rostered shift of 9 hours and 11 minutes had blown out to 11½ hours, however, since we had a 14-hour layover, there was still ample time for us to eat and obtain our required rest (and a few more Frequent Flyer points) before a 12.25 am start on 4BM2. We would be back in Junee the following morning in time for breakfast, and I'd have about 34 hours off before repeating the process—this time 6MB2 for BM4 south. Such was life on the Long South in 2001...

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