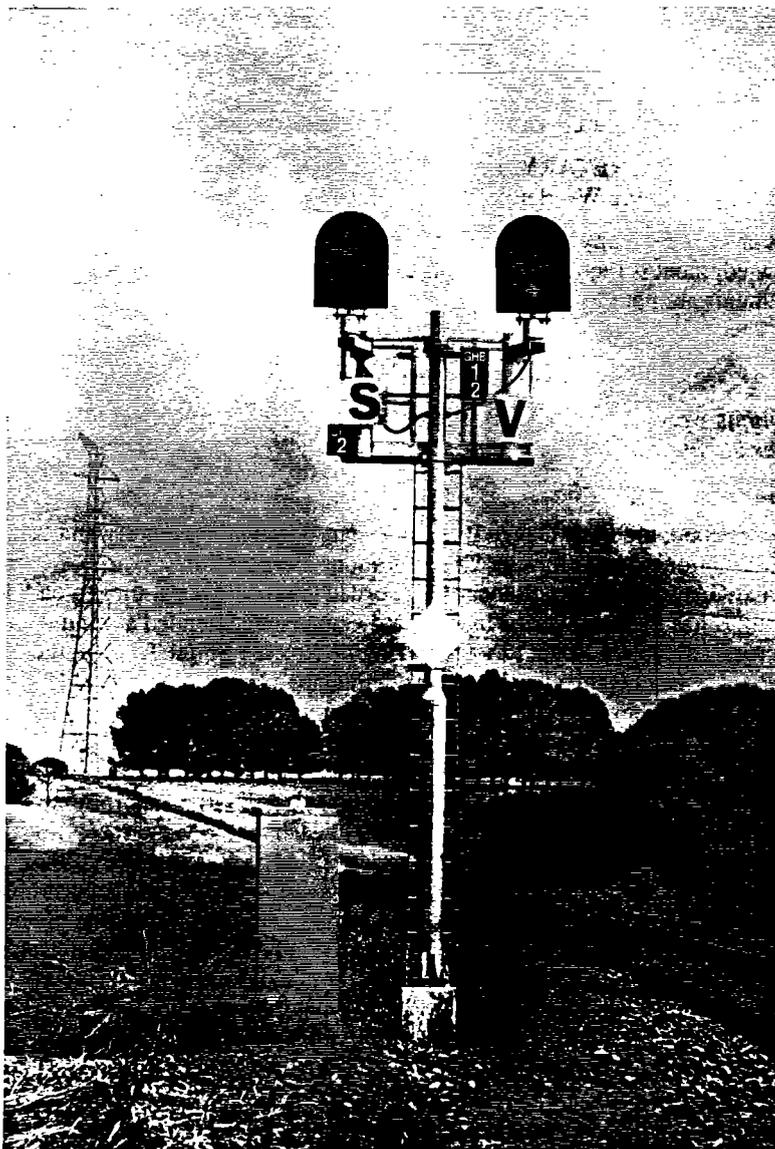


# SOMERSAULT

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SIGNALLING RECORD SOCIETY OF VICTORIA INC



*On 20.12.1995, the Down Distant at Gheringhap was replaced by this post with two light distant signals. The left-hand distant applies to standard gauge trains and is automatically controlled by the home signal at the entrance to the standard gauge loop at Gheringhap. The distant will clear if the standard gauge move is signalled into No 1 Road of the loop. The right-hand distant applies to broad gauge trains and is currently fixed at caution. The 'V' and 'S' plates are provided to remind the Drivers of which gauge each distant applies to. It could be argued that this post is a splitting distant; it certainly gives advance warning of the route the approaching train will take at Gheringhap. On the other hand, the post is not situated in the rear of a junction home signal. The post is situated just to the west of the Moorabool viaduct*

*Photo: Andrew Waugh*

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## SIGNALLING ALTERATIONS

*The following alterations were published in WN 13/96 to WN 25/96. The alterations have been edited to conserve space. Dates in parenthesis are the dates of the Weekly Notice.*

### 23.03.1996 Maryborough - Dunolly

On Saturday, 23.3.96, the Dual Gauge line from Maryborough to Dunolly and the Standard Gauge track at Dunolly was commissioned for use. The alterations are as follows:

- 1) The Dual Gauge splits into Standard and Broad Gauge tracks at the Up end of the yard inside Post 1. Siding B has been converted to Standard Gauge and extended around the back of the platform, and across Thompson Road, to form an Engine Release Shunt Track at the Down end. A portion of No 1 Road is Dual Gauge to form a Standard Gauge Loop. A Standard Gauge Transfer is situated at the Up end of the platform and Standard Gauge trains are limited to 15 km/h through the transfer.
- 2) The Standard Gauge points at the Up end of Siding B leading to the Dual Gauge line (Points D) and the Standard Gauge points at the Up end leading to No 1 Road (Points J) are secured with Master Key locks. A Master Key is attached to each Large Master Key for the Mildura corridor. The normal position for Points D is to the Dead End Siding; for Points J it is along Siding B. Points D and J are fitted with Point Banners. When the points are set and locked normal the Point Banner will show two reflective yellow discs facing approaching trains. When the points are unlocked and set reverse a reflective yellow fishtailed arrow pointing in the direction of the lie is shown. The Home signals on Posts 1, 3, and 4 detect Points D and J normal.
- 3) The points in the Standard Gauge crossover at the Down end of the yard leading from No 1 Track to the Engine Release Track (Points H) are rodded together and secured with an F pattern Annett Lock. The Annett Key is secured in the circuit controller located on the platform. A point indicator is fitted to the Down end of Crossover H.
- 4) A hand operated derail is provided in Siding B at the fouling point of Crossover H.
- 5) Notice Boards lettered "Engines not to enter crossing until Flashing Lights have been operating for 20 seconds" are provided in advance of the Derail in Siding B and in the Engine Release Track. Approach Section Indicator Boards are provided on both boards.
- 6) The Broad Gauge Trailable Points at the Up end of Nos 1 and 2 Roads were relocated 120 m in the Down direction.
- 7) The Broad Gauge Annett Locked Crossover connecting No 1 Road to Siding B was abolished.
- 8) The Up end of No 4 Road has been connected to the Grain Discharge Pit Road.

The Annett Key Exchanger on the platform remains unchanged. When the ST21 Master Key is inserted in the switch lock, the local E and F pattern Annett Keys can be removed. Removal of either or both local keys restores the Homes on Posts 1 and 3 to Stop. F Pattern Annett Locks are fitted to all Points leading to the sidings on the West side of the station and to one of the Trailable points. The other Trailable point is fitted with the E Pattern Annett Lock.

Dunolly will continue to be attended by a Signaller for all Broad and Standard Gauge Shunting movements. The Signaller will retain possession of a Corridor Master Key to allow Points D and J to be operated as required.

(SW 176/96, WN 13/96)

25.03.1996 **Woodend**

From 27.3.96 the block hours will be:

Monday to Friday ..... 0625 hours till Train 8026 clears  
 Saturday ..... 0800 hours till Train 8026 clears  
 Sunday ..... Closed

Amend page 68, MTP General Instructions

(SW 189/96, WN 16/98)

27.03.1996 **Somerton**

From Wednesday, 27.3.96, the block hours will be:

Monday to Friday ..... 0345 to 1945 hours  
 Saturday and Sunday ..... Closed

Amend page 68, MTP General Instructions and page A10a Metro WTT

(SW 198/96, WN 16/98)

30.03.1996 **Gheringhap - Maroona**

On Saturday, 30.3.96, flashing light signals were provided at Camperdown Road (167.934 km) on the Down side of Berrybank and at Woolsthorpe Road (204.221 km) and Streatham Road (219.287 km) on the Up side of Tatyoon.

(SW 204/96, WN 14/96)

30.03.1996 **Warracknabeal**

On Saturday, 30.3.96, the following alterations were carried out:

- 1) Flashing lights were provided at Kelsall Street (349.130 km). Noticeboards are erected on the Up and Down approaches indicating that trains are not to exceed 50 km/h when passing over the crossing. Noticeboards are erected on each side of the crossing lettered 'Do not enter Crossing unless Flashing Lights are Operating'. The flashing lights operate automatically for all through trains. The operation of the flashing lights during shunting movements is described below.
- 2) A Master Key/Annett Key Exchange Apparatus has been provided adjacent to the Up end points at Warrackside. The B Pattern Annett lock on these points has been replaced with an E Pattern Miniature Annett lock and the Annett lock on the Down end points replaced with a Large Master Key lock. Miniature ST21 Master Keys have been permanently attached to the Murtoa - Hopetoun Master Keys Nos 73 and 74. When the Miniature Master Key is exchanged for the Miniature Annett Key, the flashing lights at Kelsall Street will be disabled and Home H will be restored to stop. If it is necessary to shunt over Kelsall Street, the flashing light equipment must be operated manually by the 5P key switch at the crossing. The Driver is permitted to pass Home H at Stop for the purpose of shunting if the crew is in possession of the Annett Key.
- 3) Up Home H was relocated to a new position 167 metres on the Down side of Kelsall Street on the Down side of the line.
- 4) The point locking at Warracknabeal itself is unchanged. Removal of the B pattern Annett Key from the lever on the platform quadrant will secure Homes A and H at Stop and the flashing lights at Halsall Street will be disabled. If it is necessary to shunt over Kelsall Street, the flashing light equipment must be operated manually by the 5P key switch at the crossing.
- 5) Warrackside (?) has become an Intermediate Siding in the Warracknabeal - Hopetoun Single Line Section.

Amend MTP General Instructions Page 39.

(SW 186/96, WN 16/96)

31.03.1996 **Ormond**

On Sunday, 31.3.96, new boom barrier masts were provided at North Road.

(SW 193/96, WN 14/96)

(02.04.1996) **Infrastructure Works (Rule 27, Section 30, Book of Rules)**

Insert the following as a new Rule 27 in Section 30 of the Book of Rules.

**27. RAIL FLAW DETECTOR CAR & ROAD/RAIL VEHICLE IN CONVOY****(a) General**

The operation of the Rail Flaw Detector car and a road/rail vehicle in convoy will be notified by Circular. A competent employee qualified and in possession of a current "On Track Machine Competent Employee Certificate" must accompany the Rail Flaw Detector car.

**(b) Actions of Competent Employee**

The competent employee must 1) be on the Rail Flaw Detector car; 2) ensure that the relevant Signaller understands the number, types and order of vehicles in the convoy; 3) ensure that the person-in-charge of a road/rail vehicle which has left the convoy understands that he, the person-in-charge, is totally responsible for the protection of the road/rail vehicle and any works being undertaken; 4) upon arrival of the Rail Flaw Detector car at the end of the Block Section, advise the Signaller whether the vehicles are still operating in convoy; 5) ensure that both vehicles, if still operating in convoy, move into the next Block Section at the same time; and 6) advise the relevant Signaller when a road/rail vehicle, which had been off-tracked, rejoins the convoy.

**(c) Actions of Person-in-Charge of a Road/Rail Vehicle**

The person in charge of a Road/Rail vehicle must 1) ensure that the competent employee understands when the road/rail vehicle is stopping for repairs while remaining within the convoy and when the

road/rail vehicle is leaving the convoy; and 2) protect the road/rail vehicle and any works being undertaken once the road/rail vehicle leaves the convoy.

(d) Duties of the Signaller at the entrance to the Section

The Signaller controlling the entrance to a section where the Rail Flaw Detector Car and Road/Rail vehicle are to operate must comply with Rule 15, Section 30. (SW 181/96, WN 13/96)

02.04.1996

**Inverleigh**

On Tuesday, 2.4.96, Flashing Light signals were provided at Winchelsea Road (99.667 km).

(SW 225/96, WN 16/96)

(09.04.1996)

**Brooklyn**

Commencing forthwith no *train* is to be routed from the Sunshine line to the West line or vice versa.

Trains to or from Sunshine must be routed via the East line. Broad Gauge trains to or from Tottenham may be routed via the East or West lines. (SW 210/96, WN 14/96)

(09.04.1996)

**Carrum**

Circuit alterations have been carried out to F.1184 at Carrum so that when Home 18 is at Stop, F.1184 will also be held at Stop. (SW 203/96, WN 14/96)

(09.04.1996)

**Restricted Clearance Markings**

A statewide survey of structure clearances is being undertaken. Infringing structures are being removed or relocated where possible and trees are being trimmed.

Reflective hazard markers are being fitted to structures which do not comply with the 1963 Minimum Structure Gauge (i.e. less than 2.135 m (7 feet) clearance from centre line of track) and cannot be modified. The markers are plates 150mm by 1200mm with black diagonal strips on a white background. The plates are mounted 2 m above the top of the rail. A sign is also fitted to these structures warning the track force not to adjust the existing track geometry.

The locations of marked structures will be listed in the MTP Appendix. (WN 14/96)

17.04.1996

**Watsonia - Hurstbridge**

On 17.4.96, Diagram 3/96 replaced 23/94. The main alterations were the addition of the loop platform at Diamond Creek and the provision of a Co-acting signal for Post 14, Greensborough.

(SW 145/96, WN 17/96)

17.04.1996

**East Richmond - East Camberwell**

On 17.4.96, Diagram 1/96 replaced 7/89. The main alteration is the provision of a Co-acting signal for BLY.375, Burnley. (SW 146/96, WN 17/96)

17.04.1996

**Aspendale - Frankston**

On 17.4.96, Diagram 5/96 replaced 1/94. The alterations on the diagram are:

- 1) Alteration to the normal aspect of F.1184 at Carrum
- 2) A correction to the descriptions of the discs on Post 12, Frankston

(SW 233/96, WN 17/96)

17.04.1996

**Maryborough**

On 17.4.96, Diagram 8/96 replaced 10/88. The new diagram shows the changes due to the new standard gauge facilities. (SW 144/96, WN 17/96)

17.04.1996

**Dunolly**

On 17.4.96, Diagram 30/96 replaced 12/91. The new diagram shows the changes due to the new standard gauge facilities. (SW 235/96, WN 17/96)

17.04.1996

**Bealiba - Cope Cope**

On 17.4.96, Diagram 32/96 replaced 12/91. The main alterations are the abolition of No 3 Road, Bealiba, and the provision of the turntable at St. Arnaud. (SW 236/96, WN 17/96)

17.04.1996

**Sydenham - Gisborne**

On 17.4.96, Diagram 28/96 replaced 30/90. The alterations on the diagram are:

- 1) The abolition of the Up end crossover, Limit of Shunt board, and Posts 4 and 7 at Sydenham
- 2) The removal of the Down end crossover, Limit of Shunt board and Posts 5, 6, and 8 at Diggers Rest
- 3) The abolition of the Signalbox and all signals at Riddells Creek
- 4) The provision of Boom Barriers, relocation of Post 3, abolition of Siding A and the Up end Crossover, and provision of a Notice board at the Up end of the Refuge Siding at Gisborne.

(SW 231/96, WN 17/96)

17.04.1996

**Nagambie to Toolamba**

On 17.4.96, Diagram 16/96 replaced 24/90. The new diagram shows the alterations at Nagambie.

(SW 234/96, WN 17/96)

- 21.04.1996 **Ardeer**  
 On Sunday, 21.4.96, pedestrian gates and traffic light co-ordination was commissioned at Fitzgerald road. (SW 215/96, WN 25/95)
- (23.04.1996) **Track Custody**  
 Trials of a new means for allowing Infrastructure Division staff to work safely on or near the track in the Metropolitan area will begin shortly. The new system will be known as 'Track Custody'.  
 A volume of Track Custody plans will be issued to all affected staff. These plans detail the exact sections of track which can be taken under Track Custody, the required setting and sleeving of signal and point levers, the means of protection, the location of protective devices, the duties of the person taking Track Custody, and the duties of the Signaller. Protection will be provided by the use of point locking bars (to lock points away from the Track Custody zone), track jumper cables (to hold signals at stop at the entrance to a Track Custody zone) and Track Closed Signs (secured in the middle of the track to define the boundary of the Track Custody and to provide a final warning that the track is closed).  
 An Infrastructure Supervisor attending to a Track Custody will be required to contact the Signaller, quote a Track Custody plan number, and ask for the relevant train information. The Supervisor then decides whether to take custody or not, based on the train information and duration of the task. The Track Custody must reflect exactly the Track Custody plan; the Supervisor cannot modify the plan. A Track Custody plan cannot be modified without formal approvals and a new plan cannot be used until it has been formally issued.  
 No notice period is required to take Track Custody since it can be taken with up-to-the-minute train information and since all actions must accord with the approved Track Custody plan.  
 The first trials are expected to begin on the Sandringham line in the near future. (WN 16/96)
- 29.04.1996 **Brooklyn**  
 From Monday, 29.4.96, trains may be routed from the Sunshine Line to the West Line or vice versa. The speed over the points must not exceed 15 km/h. SW 210/96 is cancelled. (SW 261/96, WN 18/96)
- 29.04.1996 **Mitcham**  
 From Wednesday, 29.4.96, the block hours will be:  
 Monday to Friday ..... 0505 to 1715 hours  
 Saturday and Sunday ..... Closed  
 Amend page A10a Metro WTT (SW 239/96, WN 17/98)
- (30.04.1996) **Observance of Fixed Signals by Track Vehicles**  
 The operators of all Track Vehicles (Infrastructure Maintenance Track machines and Hi-Rails) must obey all Fixed Signals.  
 The Signaller must confer with the operator of any track vehicle and arrive at a clear understanding of the proposed movement. Fixed signals must be operated for all movements. If the signal should fail, or is approach operated and the track vehicle does not operate the track circuit, the Signaller must issue the proper authority, verbal or written, for the vehicle to pass the signal at Stop.  
 Unless working under cover of an Absolute Occupation, track vehicles travelling on a Double Line must travel in the same direction as trains. Wrong line movements are not permitted.  
 Except for the Ballast Cleaner, Mobile Flash Butt Welder, and SRA Track Recording vehicles RVX 3 and 4, track vehicles are not to be relied upon to operate track circuits. The Signaller must ensure all Track Machines are clear before operating any points. (SW 240/96, WN 17/96)
- (30.04.1996) **Ouyen**  
 To facilitate the passage of certain trains through Ouyen and to reduce the number of Train Orders issued to these trains, authority is granted for Through Train Orders to be issued through Ouyen to Trains 9141 (Tuesday to Saturdays) and 9142 (Sundays to Thursdays).  
 When a Through Train Order has been issued, the Train Controller must advise the Signaller at Ouyen who will make an appropriate entry in the Train Register Book. The Signaller must then ensure that the Fixed Signals are cleared prior to ceasing duty. A note must be made in the Train Register that the relevant signals have been cleared and the Train Controller informed.  
 A Through Train Order cannot be issued if an opposing Train Order has been issued or the trains in the MTP altered.  
 Add as page 34-36A in the Book of Rules. (WN 17/96)
- 05.05.1996 **Nunawading**  
 On Sunday, 5.5.96, pedestrian gates were commissioned at Springvale Road. Amend Diagram 11/92. (SW 252/96, WN 19/96)
- (07.05.1996) **Operation of Fixed Signals for Track Vehicles**  
 The operators of all Track Vehicles (Infrastructure Maintenance Track machines and Road/Rail vehicles) must obey all Fixed Signals.

The Signaller must confer with the operator of any track vehicle and arrive at a clear understanding of the proposed movement. Fixed signals must be operated for all movements. Distant signals, however, are not to be operated for Road/Rail vehicles. If the signal should fail, the Signaller must issue the proper authority, verbal or written, for the vehicle to pass the signal at Stop. If the signal is approach operated and the track vehicle does not operate the track circuits, the Signaller must give verbal instructions to the operator to pass the signal at the Stop position.

Unless working under cover of an Absolute Occupation, track vehicles travelling on a Double Line must travel in the same direction as trains. Wrong line movements are not permitted.

Except for the Ballast Cleaner, Mobile Flash Butt Welder, and SRA Track Recording vehicles RVX 3 and 4, track vehicles are not to be relied upon to operate track circuits. The Signaller must ensure all Track Machines are clear before operating any points. At remotely controlled locations, the Operator must inform the Signaller when the track vehicle has passed the Home signal and cleared the points.

#### *Metrol Controlled Area*

When a route is set for a track vehicle, the Signaller must sleeve all point levers in the route whilst the vehicle is occupying the section. The signal governing the entrance to the section must be cleared. Once the Operator has confirmed that the vehicle has passed the signal, it must be restored to stop and a blocking command applied. The blocking command must not be removed until the Operator has advised that the vehicle has cleared the section and is within the protection of the next Home signal (or has been removed from the track at a take-off point if a Road/Rail vehicle).

#### *Automatic Block Signalling Areas*

All controlled signals must be operated for the passage of the track vehicle and must be returned to Stop and the lever sleeved once the Operator has confirmed the vehicle has passed the Signal.

Where it is necessary for a track vehicle to enter the section whilst a train is travelling towards the station in advance, the Signaller must advise the Operator that the section is occupied and issue a verbal authority to pass the Home Departure signal at Stop. The Signaller must ensure that any points protected by the signal are sleeved in the correct position for the passage of the vehicle.

The signal lever must remain sleeved until the track vehicle has cleared the section (or removed from the track at a take-off point in the case of a Road/Rail vehicle).

#### *Centralised Traffic Control System*

For both the North East and Western CTC systems, the Home signals will not be operated. Instead, the Train Controller must first Block the section then grant the allotted time. The Train Controller may then authorise the Operator to pass the Departure signal at Stop *specifying the Post number*.

If permission is granted to proceed to the next Crossing Loop, the authorisation must include "Proceed to Home Arrival Signal No ... and speak in." If the section contains an Intermediate Home signal at a Grade Crossing (e.g. Kilmore East), the Operator must speak into Train Control and obtain permission before passing the signal at Stop. The Train Controller must ensure that no Broad Gauge movement is taking place before granting permission.

The Operator must speak into Train Control at the Home Arrival signals for a Crossing Loop, specifying which track is required. The Train Controller (and Signaller, where applicable) must ensure that all points protected by the signal are sleeved in the correct position for the movement. Verbal authority may then be given to the Operator to pass the Arrival signal at Stop. The Operator must inform the Train Controller when the track vehicle is in clear.

The blocking command must not be removed until the Operator has advised that the track vehicle has cleared the section (or removed from the track at a take-off point in the case of a Road/Rail vehicle).

#### *Automatic and Track Control System*

The Home Departure and Home Arrival signals must be operated for the passage of the track vehicle and must be returned to Stop and the lever sleeved once the Operator has confirmed the vehicle has passed the signal. The lever sleeve must not be removed until the Operator has advised that the track vehicle has cleared the section (or removed from the track at a take-off point in the case of a Road/Rail vehicle).

Where the section is occupied by a train, the Train Controller must inform the Operator and Signaller at the controlling location. At an Attended Crossing Station, the Signaller must confer with the Train Controller in the normal manner prior to granting permission for a Road/Rail vehicle to follow a train. The Signaller must ensure that any points protected by the Home Departure signal are sleeved in the correct position for the movement and sleeve the lever working the Departure signal normal. Verbal authority may then be given for the Departure signal to be passed at Stop. At Unattended Crossing Stations, the Train Controller will be responsible (for giving verbal authority to pass the Departure signal?) after conferring with the controlling Signaller. The Train Controller is also responsible for ensuring that the Signaller sleeves the lever working the Home Departure signal normal after the track vehicle has passed the signal.

#### *Section Authority, Electric Staff or Train Staff and Ticket Systems*

The necessary signals must be operated for the passage of the track vehicle whether or not the section in advance is clear or is occupied by a train travelling towards the station in advance. The signal must be restored to Stop and the lever sleeved, or otherwise secured, once the Operator has confirmed that the vehicle has passed the signal. The Signaller must ensure that any points ahead of the signals are set in the correct position.

The lever must remain sleeved or secured until the track vehicle has cleared the section (or removed from the track at a take-off point in the case of a Road/Rail vehicle).

#### *Train Order System*

At attended locations in Train Order Territory where the signals are normally at Stop, the signals must be placed to proceed for the passage of the track vehicle.

If the location (other than a Train Order Terminal Station or an Intermediate Train Order Terminal Station) is unattended, the Train Controller must so inform the Operator and issue a verbal authority for the signals to be passed at Stop. The Operator must ensure that any points protected by the signals are in the correct position prior to passing over them. At a location where the signals may only be cleared in one direction only and the signals are set in the contrary direction, the Operator must confer with the Train Controller and obtain permission to pass the relevant signals. The operator must ensure any points protected by the Signals are in the correct position prior to passing over them.

Where it is necessary for a track vehicle to enter the section whilst a train is travelling towards the Station, Loop, or Block Point in advance, the necessary signals must be cleared to allow the vehicle to depart. The signals must be restore to Stop and the levers sleeved (or otherwise secured) once the Operator has confirmed that the vehicle has passed the signal.

#### *Double Line Block or Track Block Systems*

Where the section in advance is unoccupied, the Starting signal must be operated for the passage of the track vehicle. The signal must be restored to Stop and the lever sleeved once the Operator has confirmed that the vehicle has passed the signal. Where it is necessary for a track vehicle to enter a section whilst a train is travelling towards the station in advance, the Starting signal must not be operated. Instead the Signaller must inform the Operator that the section is occupied and issue verbal authority to pass the Starting signal at Stop.

The lever sleeve on the Starting signal lever must not be removed until the track vehicle has cleared the section (or removed from the track at a take-off point in the case of a Road/Rail vehicle).

#### *Movements within Station Limits*

All track vehicle movements within station limits must be signalled. The signal must be immediately restored to Stop and the lever sleeved or otherwise secured once the Operator has confirmed the vehicle has passed the signal. The lever must remain sleeved or secured until the vehicle has cleared the portion of the line protected by the signal.

#### *Section Authority System Power Loops, Manor to Tatyoon*

When a track vehicle is entering a Crossing Loop, the Signaller must place the Dual Control points into the 'Hand' operating position for the passage of the vehicle. The Operator is then to be given verbal instructions to pass the Home signal. The provisions of Section 4, Signaller's Manual (Route Selection Procedures for Non Track Circuited Vehicles) must be observed. Where a Signaller is not in attendance, the Operator must confer with the Train Controller and obtain authority to place the Dual Control points into the 'Hand' operating position. The Train Controller must be informed when this is done and the Train Controller may then issue a verbal authority to pass the Home signal at Stop. When the track vehicle is clear of the Fouling Point, the Operator must return the points to the 'Motor' position and inform the Train Controller.

When a track vehicle is leaving the Loop, the Signaller must place the Dual Control points into the 'Hand' operating position for the passage of the vehicle and exhibit a green hand signal to the Operator. Where a Signaller is not in attendance the Operator must operate the points in the same manner as described previously for arriving at a Crossing Loop.

This instruction cancels SW 240/96. It is to be inserted after Rule 26, Section 30.

(WN 18/96)

#### 13.05.1996 **Newport**

On Monday, 13.5.96, Post 58 (applying to moves from the Dual Gauge line towards Brooklyn) was replaced by a bracket post. The left-hand doll applies to moves to the West Line, whilst the right-hand doll applies to the East Line.

A Repeating Signal (Post GGG.456) for the Standard Gauge will be provided on the signalbridge on the Down side of Maddox Road. This signalbridge already supports Automatic signals G.456 and GG.456.

Amend Diagram 3/95.

(SW 298/96, WN 20/96)

#### 15.05.1996 **Manor**

On Wednesday, 15.5.96, a 25 cm diameter yellow disc was placed on the reverse side of the location board at Maroona to indicated the clearance point for ETAS operation.

(SW 320/96, WN 21/96)

19.05.1996 **Sunshine**

On Sunday, 19.5.96, Diagram 13/96 replaced 11/96. The principle alteration was the replacement of the existing mechanical frame with a SSI apparatus operated from a panel situated in the existing signalbox. All semaphore signals and two position light signals were replaced by three position signals and Nos 4 and 5 Sidings and Siding A were abolished. Signals and posts were renumbered. The existing Sunshine-Deer Park West Junction panel will remain in service. SW 546/95 (Somersault Vol 19 No 1 Page 8) was replaced with a new circular listing the new post numbers. (SW 297/96, WN 20/96)

(21.05.1996) **Reversing of Signals**

Insert the following as a new clause (a) in Rule 4, Section 5, Book of Rules and relabel the existing clauses.

**4. REVERSING OF SIGNALS**

## (a) Signals at "Proceed" not to be placed to Stop

When the Fixed Signals have been placed to proceed for a train to pass, the Fixed Signals must not be placed to Stop until the train has passed, except in cases of accident, danger, or obstruction.

(SW 296/96, WN 20/96)

24.05.1996 **Essendon**

On Friday, 24.5.96, Siding B was taken out of service. Points 29U will be spiked reverse and Signal 34 will be removed. The point motors on Points 29U and 33 will be removed. (SW 328/96, WN 21/96)

(28.05.1996) **Audible Track Warning Signals**

ATWS are only required to be kept at the following stations and signalboxes in the V/Line Freight area. All other locations holding ATWS should return them to Spotswood.

Lara	Maroona	Kyneton	Wodonga
Corio	Pyrenees Loop	Castlemaine	Wodonga A
North Geelong A	Murtoa	Bendigo	Wodonga Coal Sidings
North Geelong B	Horsham	Echuca	Murchison East
North Geelong C	Dimboola	Kerang	Shepparton
Geelong	Ballarat	Swan Hill	Numurkah
Geelong A	Maryborough	Donnybrook	Diggers Rest
South Geelong	Donald	Wallan	Nar Nar Goon
Winchelsea	Dunolly	Kilmore East	Warragul
Camperdown	Ouyen	Broadford	Trafalgar
Warrnambool	Mildura	Seymour	Morwell
Gheringhap	Diggers Rest	Violet Town	Traralgon
Wingeel	Sunbury	Benalla	Sale
Berrybank	Clarkefield	Benalla A	
Vite Vite	Gisborne	Benalla B	
Tatyoan	Woodend	Wangaratta	

Each outer box of ATWS weighs 5 kg and contains 24 packets, each of 15 ATWS. Locations should not hold more than 2 boxes (10 kg). Locations which hold more than 2 boxes must be licensed with the Health and Safety Organisation. Stock records must be kept at each location ATWS are stored. ATWS must never be removed from the supplier's packaging to store or transport them. Loose or unpacked ATWS are a mass explosion risk. All damaged, wet, or out-of-date ATWS must be returned to Spotswood; any ATWS affected by oils, solvents or other dangerous goods must be treated with care.

(WN 21/96)

(28.05.1996) **West Tower**

The use of the Local Train Radio system has been authorised to advise the Signaller, West Tower, of both Driver Only and Two Person Broad Gauge locomotives entering service from South Dynon Locomotive Depot. Channel 9 is to be used for this purpose.

An approach track circuit has been provided between the notice board located on the approach to Dwarf 188 and the Dwarf signal. The leading cab of the locomotive must have passed the notice board before the Driver contacts the Signaller, West Tower. The Driver must inform the Signaller the locomotive number(s), the train description the service the locomotive(s) are required for, and where the locomotives are to proceed to. (SW 323/96, WN 21/96)

(28.05.1996) **Meredith - Lal Lal**

Diagram 2/96 replaced 52/90. The main alteration was the addition of TAILS at Lethbridge and Lal Lal.

02.06.1996 **West Footscray**

On Sunday, 2.6.96, the connection from No 1 Track to the Down Independent Through Track and East Yard was abolished. Compound Points 20 was replaced by a set of points. Compound 18 was abolished. Points 19 were spiked normal. Amend diagram 17/95. (SW 346/96, WN 22/96)

02.06.1996 **Dandenong**

On Sunday, 2.6.96, the following alterations took place:

- i) the connection from Track 8 to Tracks 6 & 7 and the trackwork on the Down side of the hand derails in Tracks 6 & 7 was removed. Baulks have been provided in Tracks 6 & 7.
- ii) Dwarf DNG 756 was relocated to the Down side of Derail 656 in the lead to Tracks 8 & 9.

(SW 347/96, WN 22/96)

**(04.06.1996) West Tower**

Prior to allowing an NRC train or locomotive to enter the Operations or Steel Terminals, the Signaller West Tower must obtain the permission of the NRC Shunt Locomotive crew. When giving permission, the Shunt Locomotive crew must instruct the Signaller as to which yard entrance is to be used. The crew of the incoming train must contact the Shunt Locomotive crew via the mobile telephone to allow the proposed yard movements to be established.

All main line train movements, including trains or locomotives arriving or departing from the NRC Operations or Steel Terminals must communicate on Channel 1. Shunting commands within the Operations and Steel Terminals must be conducted on Channel 73. Permission to use this channel must be obtained from the Shunt Locomotive Crew.

These instructions should be read in conjunction with SW 163/94, 205/95, & 233/95.

Insert as a new instruction in Section 34 of the Book of Rules.

(SW 324/96, WN 22/96)

**(04.06.1996) Murtoa**

The instructions contained in O.152/94 (see Somersault Vol 17 No 3) are to be added to section 34 of the Book of Rules.

(SW 340/96, WN 22/96)

**(04.06.1996) Ballarat - Redan Line**

Until the level crossings are altered, the Driver of every train operating over the Redan line must stop on the approach to the Macarthur Street, Creswick Street, Burnbank Street, Forrest Street, and Gillies Street level crossings. After stopping, the competent employee assisting the shunting operation must operate the level crossing equipment by means of the test switch. When the boom barriers have lowered, the competent employee must display the "all right" hand signal to the Driver and the train may cross the level crossing. After the train has cleared the crossing, the test switch must be returned to the normal position.

(SW 341/96, WN 22/96)

**(04.06.1996) Korong Vale, Granites, and Mysia**

The instructions contained in SW 422/95 (see Somersault Vol 18 No 5 page 106) are to be added to Section 34 of the Book of Rules.

(SW 342/96, WN 22/96)

**04.06.1996 Sulky Loop**

On Tuesday, 4.6.96, a Repeating Signal was provided to repeat the indications of the Down end Trailable Points. When the points are correctly set and locked, the Repeating Signal will display a Proceed aspect, otherwise it will display a Warning aspect. The signal is located 524 metres outside the trailable points. Diagram 36/96 replaced 18/90.

(SW 358/96, WN 24/96)

**05.06.1996 Manor Loop - Maroona**

Upon completion of Integrity Testing on Wednesday, 5.6.96, the Section Authority System will replace the Staff and Ticket System between Manor Loop and North Geelong C and between Gheringhap and Maroona for trials. Circular SW 97/96 is cancelled (but only new or altered instructions are noted here).

The Section Authority System will be in force between Manor - Elders Block Point (61 km) - North Geelong Block Point (72 km) - Gheringhap - Hesse Block Point (98 km) - Wingeel - Werneth Block Point (136 km) - Berrybank - Tooli Block Point (173 km) - Vite Vite - Fiery Creek Block Point (209 km) - Tatyoon - Maroona.

**Mobile Phones**

The Driver of each train operating over Section Authority Territory will be issued with a Mobile Telephone. Where possible, the telephone is to be used for all 'non urgent' voice communications.

**ETAS**

Each train operating over the Standard Gauge Line under the Section Authority System must carry an ETAS unit on the last vehicle (see SW 376/95). Should the Driver fail to obtain a satisfactory Brake Pipe Fluctuating Consistency upon passing the advance side of a Location Board at a Block Point Location, the Train Controller must be immediately informed. The Controller must immediately apply a Section Foul Command. The Driver must then be instructed to relinquish the Section Authority after which the Departure Button must then be pressed. The Section Foul Command must not be removed until a positive end of train sighting is obtained or it is necessary for a relief locomotive to enter the section (Rule 6, Section 19). If the ETAS equipment fails upon a train arriving in clear at a Crossing Loop, the Section Authority may be relinquished provided a positive end of train sighting is obtained.

**Relinquishment of Section Authorities**

The Driver may relinquish the rear Section Authority at a Crossing Loop when either:

- 1) a 'Fouling Point Clear' message is received AND after obtaining a satisfactory 'Brake Pipe Fluctuating Consistency';

- 2) advice is received from the Signaller that the train has arrived complete and in clear; or
- 3) after a Roll By inspection has been conducted during a cross.

At a Block Point Location, the Section Authority may be relinquished after receiving a satisfactory 'Brake Pipe Fluctuating Consistency' when passing the advance side location board. Should the Driver fail to obtain a satisfactory 'Brake Pipe Fluctuating Consistency', the Train Controller must be immediately informed. The Train Controller must then immediately apply a Section Foul command to the section. The Driver must then be instructed to relinquish the Section Authority and then to press the Departure button. The Section Foul command must not be removed until either a positive 'End of Train' sighting is obtained at the Station, Loop, or Block Point in advance, or it is necessary for a relief locomotive to enter the section to render assistance.

*Operation of Crossing Loops under the Section Authority System*

Signallers will remain in charge of each crossing loop.

The Section Authority will instruct the Driver which road the train is to arrive into at a crossing loop. The Driver will be responsible for advising the Signaller of this information when approaching the crossing Loop.

When it is necessary to cross trains, the Signaller must ensure that the first train to arrive is stopped clear of the Fouling Point at the opposite end of the loop.

The Signaller must obtain permission from the Train Controller before allowing a train to depart. The Driver will be responsible for ensuring possession of the relevant Section Authority prior to departure. After ensuring that the points are set for the departing train by observing the point banner, the Signaller must display a green hand signal to the Driver as authority to depart. The Signaller must advise the Signaller at the next crossing loop in advance of the departure of each train.

*Operation of Track Machines and Vehicles*

Whenever permission is requested for a Road/Rail Vehicle to 'on track' within a Crossing Loop, the Train Controller must ensure that no train approaching that Loop has authority to enter the Road on which the vehicle is to 'on track'. The Signaller will be responsible for informing the Train Controller of the Road on which the vehicle is to 'on track'.

SW 248/96 will apply where permission has been granted for a Road/Rail vehicle to enter a Crossing Loop. In addition, the Signaller must confer with the Train Controller as to the Road on which the vehicle is to arrive. The Road/Rail vehicle must 'off track' if a cross between two trains is to take place at the Crossing Loop.

When an On Track Maintenance Machine (or convoy of Machines) is approaching a Crossing Loop, the Signaller must confer with the Train Controller as to the road on which the machines are to arrive. Crosses between two trains must not be performed whilst the Loop is occupied by a Track Machine or convoy of Track Machines.

*Pilot Movements to IXL Siding*

Prior to the Pilot departing North Geelong Yard, the Train Controller must grant permission for the Pilot to occupy the North Geelong C Block Point - Elders Block Point single line section. The Train Controller will dictate the permission to the Driver of the Pilot who must take it down on a Manual Authority Form. The details must be repeated back to the Controller.

When the Pilot arrives complete and in clear at Elders Siding and the main line points restored to the normal position, the Driver must return the permission to the Train Controller. The Controller must then release the section for normal through train operations.

When the Pilot is ready to depart from Elders Siding, the Driver must obtain permission to occupy the single line section as described above. The permission must be returned when the train has cleared the main line points and the points have been restored to normal.

The time permission is returned on each occasion must be endorsed on the Manual Authority Form.

An ASW Project Officer will accompany each Pilot movement to and from Elders Siding.

(SW 361/96, WN 23/96)

09.06.1996

**Sunshine**

From Sunday, 9.6.96, the block hours will be from 0730 hours Sunday until 0400 hours the following Sunday. Amend page A10a Metro WTT

(SW 385/96, WN 25/96)

09.06.1996

**Glenhuntingly**

From Sunday, 9.6.96, the block hours will be:

- Monday to Friday ..... 0245 hours to 0045 hours the following day
- Saturday ..... 0200 hours to 0045 hours the following day
- Sunday ..... 0720 hours to midnight

Amend page A9 Metro WTT

(SW 384/96, WN 25/96)

Sunday ..... 0700 hours to 0015 hours the following day

Amend page A9 Metro WTT

(SW 384/96, WN 25/96)

(11.06.1996) **South Dynon - Fruit and Vegetable Siding**

Hand operated Hayes derails, hand locking bars, warning lights, and sirens have been provided to protect and warn people working on or near the tracks within the Fruit and Vegetable Market Siding. The warning and protection equipment must be operated for all train operations within the siding.

A hand operated Hayes derail is provided to protect the access track to the siding. The derail is normally locked 'on' with a 5P padlock. A hand locking bar is provided to secure the WSA leading to the Fruit and Vegetable Siding for access track. The hand locking bar is secured with a 5P padlock. The warning lights and sirens are operated by a 5P key switch.

The Signaller, West Tower, and the Driver must confer and agree as to what rail activities are to take place at the Fruit and Vegetable Market Siding. Trains or vehicles must not be left standing on the access track for an extended period of time. A train may be required to clear the access track by moving the locomotive to a point on the shed side of the derail block. In this case, the derail block must be locked on and the hand locking bar secured normal. After being requested to clear the access track, the Driver must obtain permission of the Signaller West Tower prior to departing the Fruit and Vegetable Siding towards the access track.

(SW 364/96, WN 23/96)

12.06.1996 **Redan**

On Wednesday, 12.6.96, the Down Home signal applying to the Abattoir Sidings was abolished.

(SW 379/96, WN 25/96)

14.06.1996 **Webb Dock Line**

In conjunction with the suspension of services on this line, the Train Staff and Train Staff Ticket Box were withdrawn and forwarded to the Office of the Superintendent Safeworking. Trains are not permitted to operate over this line unless the authority of the Superintendent Safeworking and the Group Manager Infrastructure has been obtained.

(SW 387/96, WN 25/96)

14.06.1996 **Ballan**

Between Friday, 14.6.96, and Sunday, 16.6.96, the signalling and interlocking at Ballan was abolished. The Automatic and Track Control single line section became Bank Box Loop - Bungaree Loop. Diagram 40/96 replaced 22/95.

Home signals 2,3, 6, 7, and 8 were abolished. Posts 1, 7, and 21 were converted to automatic signals and renumbered A.787, A.790, and A.803 (respectively). Automatic signals A.2387, A.2503, A.2386 and A.2504 were renumbered A.713, A.747, A.714, and A.748 respectively. SW 177/96 is cancelled.

Delete Ballan from pages 145 and 146 of the Book of Signals.

(SW 390/96, WN 25/96)

16.06.1996 **Spotswood**

On Sunday, 16.6.96, switch out facilities were provided at Spotswood. The alterations were:

- 1) Lever 11 became a closing lever and a 'Signalbox Closed' sign was provided.
- 2) Homes 6 & 20 were provided with an illuminated letter "A"
- 3) Home 7 was converted to a non-controlled automatic signal and renumbered W.353.
- 4) Home 21 was converted to a controlled automatic signal and renumbered W.356

Continued on Page 66

## BLOCK RULES 4 AND 6 IN VICTORIA

Andrew Waugh

Drivers should stop their trains at signals showing stop. But Drivers make mistakes and safeworking practices make allowance for this where possible.

In traditional block working, the most likely signal for a Driver to pass at stop is the first home signal at a block post; if the Signaller is following the Rules this is the only signal approached at high speed. By the turn of the century, the standard British block working had adopted the principle of a 'neutral zone' in advance of the first home signal. A train could not be accepted unless this neutral zone was clear and once a train had been accepted, the neutral zone could not be obstructed or occupied by another train. The neutral zone provided a safety overrun or overlap in the event of an approaching train passing the home signal at stop. Acceptance under this condition is referred to as 'Rule 4' in this article after its number between 1907 and 1994. The neutral zone was also known as an 'overlap' and the point at which the neutral zone ended the 'clearance point'.

The use of the overlap was often a considerable operational inconvenience, and a variety of methods were defined in the rules to allow trains to approach a block post while the overlap was occupied. These exceptions included the use of the 'Section Clear But Station or Junction Blocked' signal (referred to as Rule 6 in this article), Terminal Station Working, and specific special instructions for particular locations.

The Block working used in Victoria was derived from British practice and all these methods were used in Victoria. The purpose of this article is to trace the development of the concept of the overlap in Victoria and how the use of exceptions developed in Victoria

### Double Lines

The first recorded Victorian block rules are those published in the Government Gazette of 30 November 1883 (see Somersault Vol 15 No 5, page 86), which had probably been in use since block working was introduced and enforced on 15 October 1883. Like most first attempts, these rules lack clarity and it is not clear whether an overlap was used.

It appears that no overlap was provided and a train could be accepted if the line was clear to the home signal:

3. Unless special instructions are given to the contrary, the line must be considered clear, and the signal "line clear" be given immediately the last vehicle has passed the home signal post.  
*Note - This Rule is to be read with Rule 12.*

Rule 12 qualified this by requiring the Signaller to be sure that the train had arrived complete:

12. Before giving the "clear" signal, the Signaller must satisfy himself that the whole of the train has passed his cabin and that no portion has become detached on the road.

This seems straightforward, but the rules also imply the use of an overlap. The block system allowed a Signaller to explicitly refuse an offered train if the

line was not clear, implying that a train standing or shunting on the main line at a station was considered an obstruction. Rule 6 was explicit about blocking the line during shunting, but not about how this was achieved:

6. No shunting or obstruction of any sort on the main line must be allowed to take place at a station until the signaller has taken the proper steps to prevent any train from leaving the next block cabin, in either direction or both directions, as circumstances may require.

Rule 11 stated that no obstruction of the line was allowed after Line Clear had been given:

11. The "Clear" signal is not to be given unless the line is actually clear, and no obstruction of the line must be permitted after the "clear" signal has been given.

The 1885 Regulations combined rules 3, 11, and 12 into a single rule. The new rule made it clear that, under normal circumstances, no overlap was used in Victoria. The new rule stated:

Unless special instructions be given to the contrary, the line must be considered clear, and the signal "line clear" be given immediately the last vehicle (with tail lamp attached) has passed the home signal post except during foggy weather or snow storms, when the signal "Line clear" must not be sent to the signal box in the rear until the train or engine that has stopped at the signal box has passed the home signal and is proceeding on its journey or has been shunted into a siding clear of the main line.

Apart from improving clarity, the major change was the provision of a special acceptance condition for foggy weather or snowstorms: the preceding train had to be shunted clear of the main line or proceeding on its journey. The expression 'proceeding on its journey' is delightfully indeterminate. Is the condition fulfilled if the engine has passed the home signal, or must the whole train have passed the signal? Irrespective of the answer, the term implies motion of the train and the expectation that the main line would be clear for a considerable distance past the home signal by the time the following train arrived. The Victorian Railways liked the term, and it occurs often in the special acceptance conditions in various places.

The 1898 Rules and Regulations marked a significant change in the fundamental principles of accepting a train. Different acceptance conditions were listed for single and double lines (the single line conditions will be considered later in the paper). For the first time an explicit overlap was defined for double line conditions:

Unless special instructions be given to the contrary [...]

*Double Line Working.*- The Line must not be considered clear, nor the "Line Clear" Signal given until the last vehicle with White Disc or

Red Tail Light attached has passed the Home Signal Post, and is proceeding on its journey past the Starting and Advanced Starting Signals (where such are provided) or has been shunted clear of the Main Line.

In theory, this marked a significant tightening of the conditions under which trains could be accepted. In fact, the new rule was more restrictive under normal conditions than the old rule had been during foggy weather or snowstorms, and the special conditions were accordingly deleted. In practice, the provision of an overlap in the 1898 rules was balanced by a series of rules and exceptions to circumvent the use of the overlap when it was convenient. The rules included provisions for the Warning arrangement and for Block Terminal Working (to be considered later in the paper).

In 1907 the Rulebook was completely rewritten. The new rulebook was based on the proposed Australian Standard rulebook which was, in turn, based on the British 1904 Railway Clearinghouse Rulebook. So closely did the new 1907 Victorian Rulebook follow the 1904 British Rulebook that much of the text is identical.

The rules for accepting a train (now known as Block Rule 4) stated:

Unless special instructions are given to the contrary, the Line must not be considered clear, nor must a train be allowed to approach from the Signal-box in the rear, in accordance with Rule 3, until the preceding train has passed at least a quarter of a mile beyond the Home Signal, nor until all the Points over which the approaching train has to pass have been placed in their proper position, and the Line is clear for at least a quarter of a mile ahead of the Home Signal *or until the Train Arrival signal for the previous train has been received, if the next Signal-box ahead be within that distance.*

(The text in italics was not present in the 1907 rulebook, but had been added by the 1919 book.)

Changing the clearance point from a marker (the Starting or Advanced Starting signal) to a fixed distance (440 yards) allowed line capacity to be easily improved; an outer home could be provided 440 yards outside a fouling point, or a train could be sent forward to wait line at an Advanced Starting signal while a second train was accepted from the rear. On the other hand, at many stations the Starting or Advanced Starting signal was less than 440 yards from the Home

signal and the new rule was, once again, more restrictive than the rule it replaced.

Rule 4 remained essentially unchanged until the issuing of the 1994 Book of Rules and Operating Procedures. With metrication in 1974, the distance was reduced slightly to 400 metres (439 yards). The final clause (in italics above) had been deleted by the 1987 Rulebook; presumably there was felt to be no chance of a block section shorter than 400 metres.

The current version (now Rule 6a, Section 20) for accepting a train has been rewritten in 'clear English', but largely retains the meaning of the 1907 rule:

Unless otherwise instructed, the line must not be considered clear or a train allowed to approach unless:

- (1) the preceding train has passed at least 400 metres beyond the home signal, and
- (2) all the points relevant to the safety of the train have been placed in the correct position.

Having traced the development of the normal conditions (Rule 4), we will now turn to how the Rules varied Rule 4 to provide less restrictive acceptance conditions (or, more rarely, more restrictive acceptance conditions). Initially, the main method was by the use of the 'Section Clear but Station or Junction Blocked' signal (Rule 6). However, Rule 6 fell out of favour after the Sunshine accident in 1908 and its use was prohibited at most locations in 1909. Over the following years the number of exceptions to the normal acceptance under Rule 4 increased.

Table 1 lists every Victorian double line block post in 1936 and the conditions under which trains could be accepted from the block post in the rear during clear weather. Of the 173 sections where the clearance point is known, nearly half (85 sections, 49%) had an overlap shorter than the standard 440 yards. Most (71 sections, 41%) were block terminals, but 14 sections (8%) had an explicit clearance point. Block terminals were common on up hill sections in the country, on the Down Bendigo line, for example, all block points between Sydenham and Redesdale Junction were block terminals (except Wildwoods). On the Up line, all stations between Chewton and Woodend (except Elphinstone) were block terminals.

Three sections (2%) which had a longer overlap than 440 yards. One was the Up line at Pascoe Vale (670 yards), at the foot of Oliver's bank. The second was the Down line at Kilmore East, and the third was the Up line at Oakleigh B.

Table 1 Clear Weather Acceptance Conditions at Victorian Double Line Block Posts, 1936		
Block Post	Clearance Point	
	Down	Up
Newport A		Block Terminal
North Williamstown	Up end of Down platform	At Home at Up end of platform
Williamstown Beach	179 yards past starting signal	247 yards past starting signal
Williamstown	Post 77 on No 1 or 2 Roads (260 yards)	
Newport South	Opposing Home signals (Post 44) - 333 yards	
North Geelong A		Post 8 (0 yards)
North Geelong B	2 yards before home signal (Main line); 56 yards past starting signal (Branch line)	133 yards past starting signal, 594 yards short of advanced starting signal on Main line
North Geelong C		198 yards past opposing home signal. Trains from Moorabool and North Geelong B cannot be accepted at the same time; an Up train must have passed clear of the junction before a Down train can be accepted from B box
Geelong A	Block Terminal	
Warrenheip		Block Terminal
Ballarat East	153 yards past starting signal	
Ballarat B		220 yards past start of platforms
Ballarat C	192 yards past starting signal; 287 yards short of advanced starting signal on Western line	Block Terminal
Ballarat D	Post 15 (201 yards). Rule 6 authorised for Goods trains shunting at White's Siding	
St Albans		Block Terminal
Sydenham	Block Terminal	92 yards past starting signal; 240 yards short of advanced starting signal
Diggers Rest	Block Terminal	5 yards past the starting signal
Sunbury	Block Terminal	Block Terminal
Wildwood	?	?
Clarkefield	Block Terminal	11 yards past the end of the platform; 340 yards short of starting signal
Riddell	Block Terminal	
Gisborne	Block Terminal	?
Macedon	Block Terminal	?
Woodend	Block Terminal	Block Terminal
Carlsruhe	Block Terminal	Block Terminal
Kyneton	Block Terminal	Block Terminal
Redesdale Junction	Block Terminal	Block Terminal
Malmsbury	18 yards short of starting signal	Block Terminal
Taradale	?	Block Terminal
Elphinstone	Block Terminal	205 yards past the end of the platform; 145 yards short of advanced starting signal
Chewton	Previous train proceeding on its journey past the starting signal	Block Terminal
Castlemaine A	1 yard past starting signal	59 yards past starting signal; 211 yards short of advanced starting signal
Castlemaine B	102 yards past starting signal	Post 24B (262 yards)
Harcourt	Block Terminal	Previous train proceeding on its journey past the starting signal
Ravenswood	?	?
Kangaroo Flat	Previous train proceeding on its journey past the starting signal	Block Terminal
Golden Square	?	?
Bendigo A	Block Terminal	Block Terminal
Bendigo B	Block Terminal	

Table 1 Clear Weather Acceptance Conditions at Victorian Double Line Block Posts, 1936 (Continued)		
Block Post	Clearance Point	
	Down	Up
Bendigo C		Block Terminal
Bendigo D	15 yards beyond opposing home (Swan Hill Line) and 17 yards beyond opposing home (Echuca and Heathcote lines)	
Essendon		5 yards beyond box (32 yards beyond end of platform)
Pascoe Vale	213 yards past starting signal	Previous train proceeding on its journey past the starting signal (670 yards)
Glenroy	Block Terminal	68 yards past starting signal
Broadmeadows	Block Terminal	Block Terminal
Craigieburn	Block Terminal	170 yards beyond starting signal; 252 yards short of advanced starting signal
Beveridge	Block Terminal	Block Terminal
Donnybrook	Block Terminal	132 yards beyond starting signal
Wallan	1 yard beyond home signal	Block Terminal
Heathcote Junction	Block Terminal	Block Terminal
Wandong	178 yards beyond home signal	Block Terminal
Kilmore East	Previous train proceeding on its journey past the starting signal (470 yards)	Block Terminal
Broadford	Block Terminal	Block Terminal
Tallarook	Block Terminal. Rule 6 authorised for Down Goods trains shunting at McDougall	
Seymour B		Block Terminal
Mangalore	Post 6 (Main Line) (290 yards) or Post 10 (Branch) (303 yards), but train must be brought to a stand at the Home signal before being admitted to station if an Up train has been accepted	
Macaulay		183 yards past starting signal
Flemington Bridge	Block Terminal	27 yards past starting signal
Royal Park	Block Terminal	Previous train proceeding on its journey past the starting signal (329 yards)
South Brunswick	Block Terminal	142 yards past starting signal
Brunswick	130 yards past starting signal	218 yards past starting signal
Moreland	Block Terminal	215 yards past starting signal
Coburg	Post 45 on either No 1 or 2 Roads (363 yards)	
North Carlton	Post 26C (205 yards), but a movement made be made from the Up platform through the crossover provided Post 26 has not been placed at proceed	Post 28B (365 yards)
North Fitzroy	189 yards past departure home signal; 49 yards short of opposing arrival home signals	
Northcote Loop Junction		?
Merri	Down side of signalbox (285 yards); provided the previous train is proceeding on its journey	Post 45 (385 yards), provided previous train is proceeding on its journey
Northcote	Block Terminal	152 yards past starting signal
Thornbury	Block Terminal	140 yards past starting signal
Bell	101 yards short of advanced starting signal	Post 11
Regent	Block Terminal	37 yards past starting signal
Reservoir	Block Terminal	
Westgarth		57 yards past departure home signal; 118 yards short of opposing arrival home signal
Fairfield	105 yards past platform; 446 yards short of advanced starting signal	111 yards short of end of platform; 400 yards short of advanced starting signal

Table 1 Clear Weather Acceptance Conditions at Victorian Double Line Block Posts, 1936 (Continued)		
Block Post	Clearance Point	
	Down	Up
Alphington	8 yards short of departure home signal	
Box Hill		Block Terminal
Blackburn	52 yards past starting signal	121 yards past starting signal
Tunstall	Block Terminal	145 yards past starting signal
Mitcham	Block Terminal	Block Terminal
Ringwood	Block Terminal	
Carnegie		163 yards beyond end of platform
Murrumbeena	9 yards short of starting signal	16 yards past starting signal
Oakleigh A	57 yards beyond platform (No 1 Road), 41 yards beyond platform (No 2 & 3 Roads); in both cases before fouling points.	
Oakleigh B		Post 7 (No 4 Road) (516 yards) or Post 6 (Nos 2 and 3 Roads) (519 yards)
Clayton	146 yards short of starting signal	Block Terminal
Spring vale	2 yards past starting signal; 267 yards short of advanced starting signal	Block Terminal
Sandown Park	approx 190 yards past start of platform; 564 yards short of starting signal	Block Terminal
Noble Park	269 yards short of starting signal	53 yards beyond starter
Dandenong	Block Terminal, otherwise 36 yards short of platform (on Nos 1, 2, and 3 Roads)	
Glen Huntly		Point clear of Up end of crossover at Down end of station (approx 326 yards)
Ormond	46 yards past starting signal	Block Terminal
McKinnon	86 yards past starting signal	56 yards past starting signal
Bentleigh	220 yards past starting signal	At starting signal
Moorabbin	Post 12 (312 yards)	Block Terminal
Highbett	97 yards past starting signal	34 yards past starting signal
Cheltenham	15 yards past start of platform	Block Terminal
Mentone	124 yards past starting signal; 91 yards short of advanced starting signal	Post 4 (390 yards)
Parkdale	60 yards past starting signal	72 yards short of starting signal
Mordialloc	Posts 5 (No 3 Road), 6 (No 2 Road), or 7 (No 1 Road) - all 388 yards	Block Terminal
Aspendale	Block Terminal	247 yards short of advanced starting signal
Edithvale	118 yards past starting signal	440 yards in advance of home signal (no starting signal provided)
Chelsea	244 yards past starting signal	219 yards past starting signal
Carrum	Post 12 (303 yards)	69 yards short of starting signal
Seaford	176 yards short of starting signal	30 yards past starting signal
Frankston	Block Terminal	
Inglis Street		47 yards short of end of platform
Graham	131 yards short of starting signal for Port Melbourne B	63 yards short of starting signal
Port Melbourne B	118 yards beyond beginning of pier	?

## LETTERS TO THE EDITOR

*Don Harrison writes:*

I often feel disappointed at not being able to attend the meetings, however, I do look forward to the correspondence and articles regarding operation and diagrams of past history.

I have a few small items that I'm sure your and your members could explain to me as I cannot work them out for myself.

I did not work for the Victorian Railways, or any other Railway for that matter, so hence these following questions.

1. How does or where does the Friday No 82 Up Mansfield Goods originate (May 1966 NE WTT)?
2. Is there a signalling layout available for Yea in the same era or for Easter 1941 (to coincide with C6/41)?
3. Where exactly was Wright station located on its opening and in particular, its relation to the current "Wright Road" crossing?
4. What was the purpose of Traralgon issuing the divided staff to No 7 Goods in the first place and where does No 30 Motor originate (Page 114, Vol 14, No 6)?
5. Could you enlighten me as to correct working of the overcarried staff Great Western - Stawell to

Armstrong (Vol 17, No 5, page 89)?

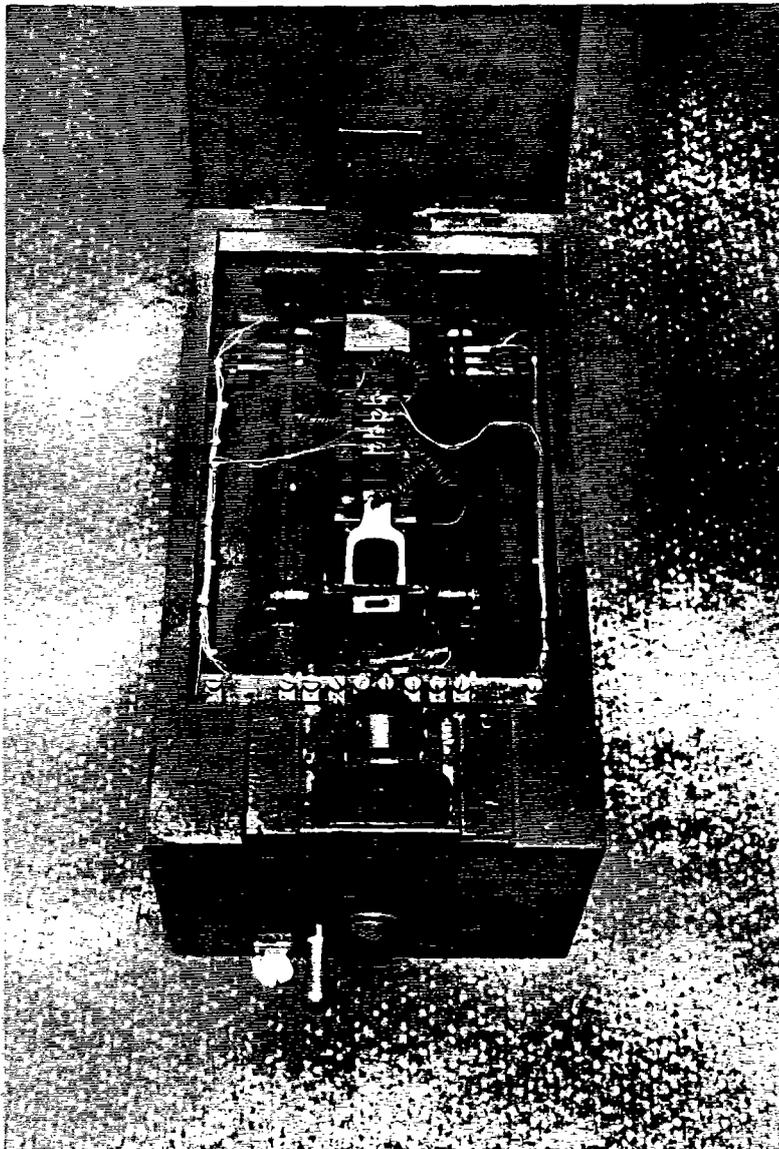
6. Lastly, the large electric staff sections Newstead - Maryborough and Maryborough - Carisbrook. Could you explain the operation of Carisbrook in this section and the approx time this working was in force.

I suspect that showing No.82 Up Goods running on Friday was an error in the WTT. In the 1965 (and previous) WTTs the Friday Up Goods had originated at Yea on Thursday morning. By the 1966 WTT it appears that the Friday train had been retimed to run on Thursday afternoon, but the Friday afternoon departure. Anyone know for sure?

A 1972 diagram of Yea appeared in Somersault Vol 17 No 3 page 53. A diagram dated 7.9.1957 is contained in the NE volume of Weston Langford's diagrams (published by the ARHS). This shows the same track layout. Two diagrams appear in the AFULE Safeworking Scrapbook (held at the University of Melbourne Archives); one circa 1950 shows the same layout as 1972; the signalling is also identical except that the Alurrundini Road gates (at the down end) are not shown and the gates at Lyons Street do not have a control on the Down home. The second diagram is dated August 1927 and shows a similar layout; the RM loop is missing (it was added as a spur siding in 1947 and converted to a loop in 1949), there is only one siding in the loco area, and only a single compound is shown in the shed road. This diagram may not be completely accurate.

Weekly Notice 44/04 notified that Wright stopping place had been opened for passenger traffic on 24 October. It was situated 12 ¼ miles from Upper Fern Tree Gully. An early PCR book shows Wright at exactly 35 miles (0 chains, 0 links) from Melbourne. It appears that the stopping place came before the level crossing; the crossing is not listed in the PCR book, nor is it shown in the 1917 Grades Book.

Prior to November 1955, the electric staff sections on the Castlemaine - Maryborough line were normally: Castlemaine A - Newstead (Miniature) and Newstead - Carisbrook - Maryborough B (Large). Moolort was equipped with switching instruments and, when required, the long section Newstead - Carisbrook could be divided into two shorter staff sections Newstead - Moolort and Moolort - Carisbrook. A switchout instrument at Moolort ensured that the staffs could not be out of both the long and short section instruments at one time. On 6 November 1955 Moolort was closed as a staff station, and the switchout instrument was transferred to Carisbrook. The long section then became Newstead - Maryborough A, and the short sections Newstead - Carisbrook - Maryborough A. Carisbrook remained a switchout staff station until Train Staff and Ticket working was introduced on 27 May 1987 with the sections Castlemaine - Maryborough.



Don also includes a sketch and asks for identification. The sketch is of a Large Electric Switch Out Box (without train); a photo of a such a box is reproduced below. The switchout box at Carisbrook was of this type. The operation of the box was described in the section of the General Appendix titled "Opening and Closing of Interlocked and Non-Interlocked Electric Staff Stations, without a train, where Switching Instruments are provided" (for example, see pages 202-3 of the 1979 edition). This box was situated at the switch out staff station and was used to interlock the long and short section staff instruments.

To explain the operation of the box, assume that long section working is in force from Newstead to Maryborough A. Two short section staffs (Newstead to Carisbrook and Carisbrook to Maryborough A) are secured in the openings in the box. The brass handle and the key switch are both set to "out".

To switch Carisbrook in, the signaller first operated the key switch to "in". This cut the long section (Newstead - Maryborough) line wire into two and connected each section to a coil of an electric staff lock magnet. The signaller then operated the brass handle from the "out" position. As the handle moves, it lifted the lock magnet. If the signaller Newstead and Maryborough A were sending current down the long section wire, and both long section instruments were in phase (i.e. no staff out), the lock magnet would attract its armature and lift it as the brass handle was operated. Lifting the armature released the lock on the brass handle and permitted it to be turned all the way to the "in" position. (The operation of the lock magnet is identical to the lock magnet in an intermediate electric staff instrument.)

Movement of the brass handle to "in" mechanically released the two short section staffs. These could now be extracted by twisting them 90 degrees. The staffs were then placed in the short section instruments, putting them in phase and allowing short section working. Removing the staffs backlocked the brass handle in the "in" position.

To switch the station out, a short section staff was obtained from each instrument (this proved there was no train in either short section and put the instruments out of phase so no further staffs could be withdrawn). The staffs were inserted in the switch out box and given a quarter turn to release the brass handle. This was then restored to the "out" position which secured the short section staffs in the switchout box. The key switch was then returned to the "out" position, connecting up the long section line wires and allowing the long section instruments to be worked.

I have ignored a couple of contacts in the instrument in this description which prevented irregular operation.

No electric staff switching instruments (of any type) remain in service in Victoria; the example of this type of box was probably Lang Lang.

### John Sinnatt

The society regrets to announce the death of John Farley Sinnatt. John was a dedicated railway enthusiast with a particular interest in signalling. He was the author of the ARHS booklet 'Clear Normal Speed' and a number of notable articles in Somersault. The society wishes to express its condolences to his family and friends.

## SIGNALLING ALTERATIONS

Continued from Page 59

- 5) The control (lever 22) was removed from automatic signal W.364
- 6) Express/Stopper selection was provided on Home 60, Newport.

Amend diagram 21/95.

Commencing Sunday, 16.6.96, Spotswood will be switched in as required by the Train Controller, Metrol.

(SW 375/95 & 401/96, WN 25/96 & 26/96)

### (18.06.1996) Sunshine - Albion

Authority is granted for the issuing of Caution Orders by the use of post telephones at Sunshine and Albion. The instructions remain unaltered (see SW 345/96).

All posts at Sunshine require Form 2377 except for posts SUN 743 and 753 (which require Form 2367) and posts SUN 707, 727, 734, 736, 762, 763 and 767 which may be passed under verbal instructions from Signaller.

Post 88, 92, and 98 at Albion require the issuing of Form 2377.

(SW 345/96, WN 24/96)

### (18.06.1996) Ballarat - Redan Line

The instructions in SW 341/96 will also apply at Cuthberts Road and Western Highway level crossings.

(SW 373/96, WN 24/96)