

#21

CANADIAN RAILROAD HISTORICAL ASSOCIATION, Inc.

AUGUST 1951

The Canadian National Railways have ordered from General Motors Diesel Ltd. at London, Ont., three 1200 H.P. road diesels to be built to 3' 6" gauge for use on the Newfoundland Railway.

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One 1000 H.P. diesel switcher locomotive has been ordered by the Central Vermont Railway from the American Locomotive Works.

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The following Quebec North Shore & Labrador baggage and passenger cars which were stored in the Canadian Pacific Railway's Outremont Yard have been leased to the Canadian Pacific Rly. for a time as boarding cars:-

- 301, 302, 303, 304, 308, 309, 312, 313, 318, 319, 426, 437

The Quebec, North Shore & Labrador Rly. have also received delivery of two 1600 H.P. road switcher type diesel locomotives from the Montreal Locomotive Works. These locomotives were recently observed in a C.N.R. way-freight for Sorel, Que.

- - - - -

The New York Central Railroad has dieselized its daily Montreal - Utica, N.Y. passenger train using Alco road switcher type locomotives. Montreal - Malone local trains are still assigned steam power, but it is expected that with delivery of new locomotives all service on this line will be dieselized.

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Recently the Canadian Locomotive Company at Kingston completed re-tooling for construction of diesel locomotives. To mark the event a large ceremony was held with the unvieling of a new two unit streamlined diesel locomotive of Fairbanks-Morse design. C.N.R.'s historcial 4-4-0, No. 40 and early Canadian built diesel switcher No. 77 were on hand at the colorful event. Special trains were run from Montreal and Toronto for the many guests attending. Mr. S.S. Worthen, our President represented this Association at the ceremony.

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With this month's issue of the bulletin, we are including a special supplement, the first of three, showing Canadian Railway signal indications presently in effect. These indications are published for purpose of record, as they will be superseded in certain instances by new indications which have been adopted by Canadian Railways. The new indications form part of the Uniform Code of Operating Rules which will take effect on August 26th. Supplement No. 2, to

be published in the Fall, will show diagrams of these new indications. The third supplement, which will be included in a winter issue, will detail contemporary signal indications on certain large United States railways. The compilation of this interesting feature has been the work of our member, Mr. E. L. Modler.

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The Canadian National Railways recently placed an order for 4,305 new freight cars, the order being distributed as follows:

Canadian Car & Foundry	1500 50-ton box cars
Eastern Car Company	260 50-ton box cars
	750 70-ton gondola cars
	30 50-ton dump cars.
	5 70-ton triple hoppers cars.
	10 30-ton stock cars.
National Steel Car Co.	500 50-ton flat cars.
	750 70-ton triple hopper cars.
	500 50-ton refrigerator cars.

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Canadian Pacific Railway D-10 class 4-6-0 steam locomotives numbered in the 700 to 1111 series, are a common sight along C.P. lines. However, No. 962 is quite different from its sister locomotives. It has maroon paneling on the cab and tender sides, outline in gold stripping, similar to 2800 Royal Hudson class. No. 962, handles the daily except Sunday mixed train between Sicamous and Kelowna, B.C. This mixed train also carries a parlor car besides the regular coach. An Open end observation car of the "Mount" class is usually used.

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Although the Pacific Great Eastern Railway is almost completely dieselized there are still a few steam locomotives still at work. The oldest and probably the most interesting is No. 5 a 2-6-2 "Prairie" type, built by the Baldwin Locomotive Works in 1908. It was originally built for the Ocean Shore Rly. of California and came to the P.G.E. in 1910. It is presently working as switch engine at the railway's Southern terminal of Squamish, B.C.

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Editor:- Allan Toohy,
2368 Beaconsfield Ave.,
Montreal 28, Que.

NATIONAL RAILWAY HISTORICAL SOCIETY INCORPORATED

1951 ANNUAL CONVENTION

ITINERARY AND TARIFF

SATURDAY, SEPTEMBER 1ST, 1951

Registration, all day, Queen's Hotel, St. James & Windsor Streets.
Identification badges issued upon registration.

- 1:45 PM Tour No.1 Sightseeing trip using Montreal Transportation Commission No.200, a Birney Safety Car. Trip will include a tour of scenic and historic interest with a stop at MTC's St. Denis carhouse, and return by way of Cote des Neiges Road, including a round trip on Remembrance Road to the Mountain Loop. Tour leaves from and arrives at the Hotel. Fare \$1.50
- 1:55 PM Tour No.2 Sightseeing trip using Montreal Transportation Commission interurban car, formerly belonging to the Montreal Park & Island Railway. Trip will include a visit to St. Denis carhouse, and a round trip to Montreal Nord on Riviere des Prairies. Tour leaves from and arrives at the Hotel. Fare \$1.50
- 2:10 PM Tour No.3 For those interested in steam railroading. A conducted visit to CPR Glen Yard and CNR Turcot Yard and their engine terminals and facilities. Tour leaves from and arrives at the Hotel. Fare \$1.50

These tours are simultaneous, and opportunity is afforded to participate in but one.

- 7:00 PM Annual Banquet. Spanish Room, Queens Hotel. Speaker will be Mr. R.M. Binns of the Montreal Transportation Commission. Moving pictures will be shown. Price, including gratuity \$3.75

SUNDAY, SEPTEMBER 2ND, 1951

- 9:25 AM Special train leaving Windsor Station for Ottawa, going via Montebello, returning via Vankleek Hill. Train will include historic open-end coaches and restaurant car will provide eating facilities. In Ottawa, a tour of the city and district by trolley car, or a visit to CPR Ottawa West roundhouse, plus a conducted tour of the Parliament Buildings.
Fare: \$6.00

MONDAY, SEPTEMBER 3RD, 1951

- 9:00 AM Special train leaves McGill Street for round trip to Granby via Montreal & Southern Counties Railway. Trip will return to Montreal about 3:00 PM.
Fare: \$3.00

NOTE: FOR \$10.00 A SPECIAL BOOK OF TICKETS CAN BE OBTAINED COVERING ALL ACTIVITIES

Times are Daylight Saving.

N.R.H.S. CONVENTION COMMITTEE

3 Prospect Street, Westmount, PQ

NATIONAL RAILWAY HISTORICAL SOCIETY
MIDWEST CHAPTER

1951 CONVENTION - MONTREAL, SEP. 1, 2, 3.

In charge:

Mr. Geo. Thomson
Mr. R.R. Brown
Mr. Douglas Brown

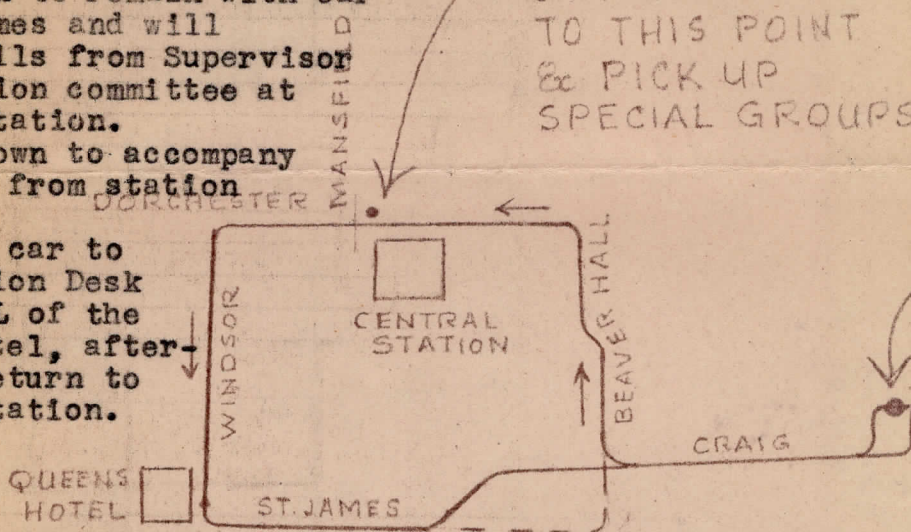


Mr. Thomson to remain with car at all times and will accept calls from Supervisor of reception committee at Central Station.

Messrs. Brown to accompany delegates from station to car

and from car to Registration Desk in Salon L of the Queens Hotel, afterward to return to Central Station.

WHEN CALLED,
CAR WILL RUN
TO THIS POINT
& PICK UP
SPECIAL GROUPS



CAR TO BE
ON CALL
AT COTE ST
YARD
7.30 TO 10.30
A.M.

O.S.A. Lavallee
Chairman Convention Committee, NRHS

GROUPS
WILL ALIGHT
AT THIS POINT

RETURN TO
COTE YARD
UNLESS
ANOTHER TRIP
REQUIRED
IMMEDIATELY

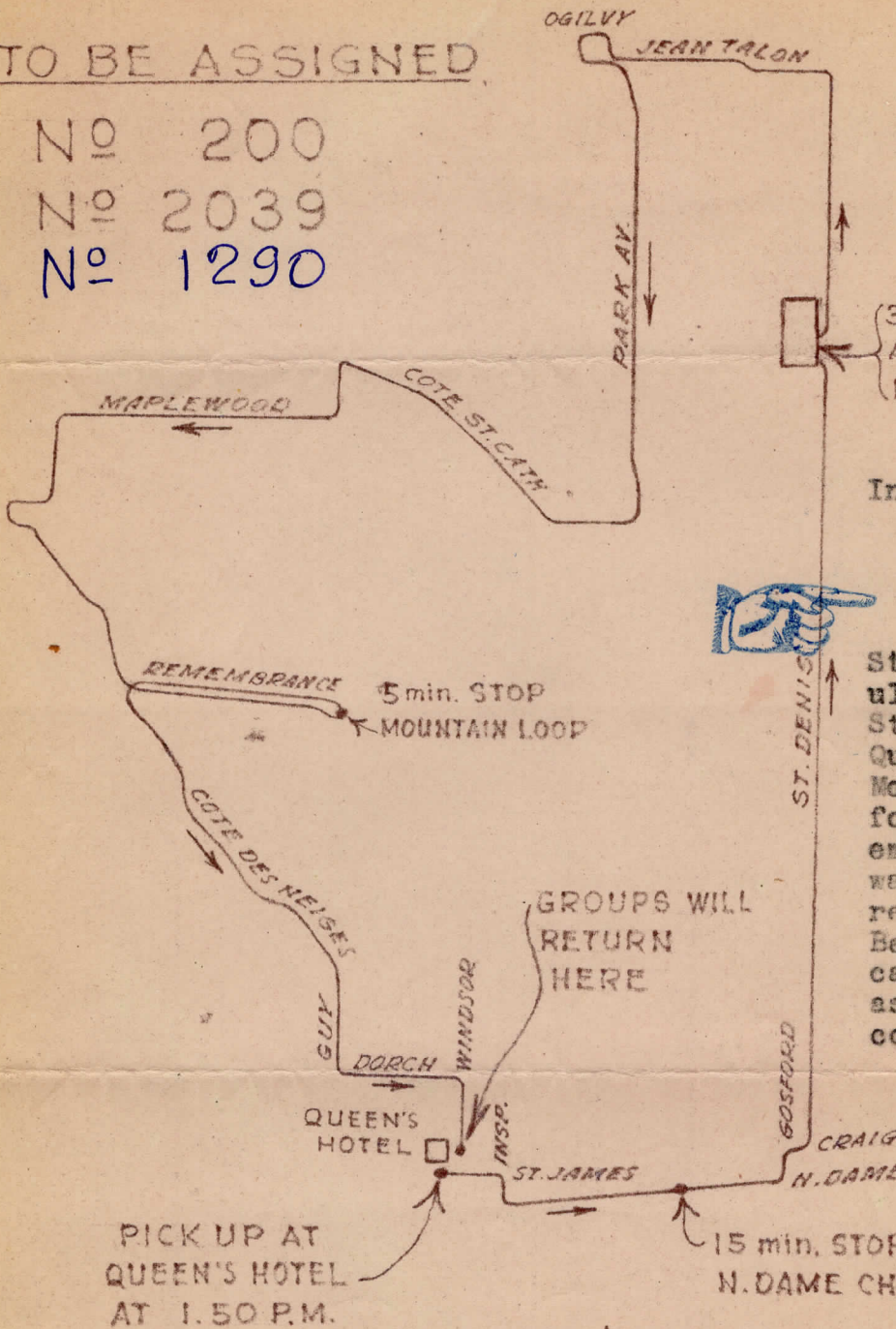
SPECIAL SERVICE - SATURDAY A.M.
SEPT. 1.

CAR NO 1951 TO BE ASSIGNED

NATIONAL RAILWAY HISTORICAL SOCIETY
 MIDWEST CHAPTER
 1951 CONVENTION - MONTREAL, SEPT. 1,2,3.

CARS TO BE ASSIGNED

No 200
 No 2039
 No 1290



(30 min. STOP
 AT ST. DENIS
 DIVISION)

In charge:

- Mr. A. Toohy (#200)
- Mr. R. S. Ritchie (#203)
- Mr. R. R. Brown (#1290)

Stops to delay schedule permitted only at St. Denis Division, Querbes Ave. tailtrack, Mountain Loop. To follow regular Remembrance #93 car and wait at Loop until regular car returns. Be alert and ensure car follows this route as crewmen do not have copies of this diagram.

O. S. A. Lavallee
 Chairman, Convention
 Committee NRHS

PICK UP AT
 QUEEN'S HOTEL
 AT 1.50 P.M.

15 min. STOP OVER
 N. DAME CHURCH

SPECIAL SERVICE - SATURDAY AFTERNOON

SEPT. 1ST

The Commission operates the largest urban transit system in Canada.

It serves the City of Montreal and 18 adjoining municipalities.

Area served: 84.4 sq.mi. Rev. passengers (1950):- 370,118,950

Miles of track (single track equivalent) :- 260.88

Miles of trolley bus route (one way) :- 23.57

Miles of bus route (one way) :- 279.14

Rolling Stock:

Two-man street cars	:	610
One-man street cars	:	279
Trailers (M-U 2 motors)	:	50
Trolley Buses	:	82
Buses	:	<u>522</u>
Total pass. equipment	:	1543

Cars are stationed at 6 car houses.

Buses are stationed at 7 garages.

All passenger cars are double-track. All but 12 are single-end.

Motor H.P. - 42-50 (except 50 cars obtained from U.S. second-hand during war, which have 35 H.P. motors)

Two colour schemes are used for passenger cars to differentiate between 2-man and 1-man cars.

Track:-

Standard gauge (4' - 8 1/2')
In paved streets:- Grooved girder rail (115 lbs.)
In open track :- T rail (80 - 85 lbs.)

Maximum grade:- 13% No. of automatic track switches:- 84

Power:- 550 volts D.C. - 15 substations.
Annual consumption for traction purposes:- 150,000,000 KWH

Fares:- Uniform Fare Area :- 59.7 sq.mi.
Basic adult fare :- 10¢ cash or 8 1/3¢ ticket
Free transfer between routes.

Various local fares in effect outside the Uniform Fare Area.
With one or two exceptions, all services are operated on the "pay-as-you-enter" principle.

General:- Number of M.T.Comm. employees:- 5,740

	(street cars :- 9.25 MPH
Ave. schedule speed	(trolley buses:- 9.07 MPH
	(buses :- 10.83 MPH

Open observation cars (4 owned) are operated during summer on two circular routes, each about 10 miles. Fare 25¢

With the exception of Leningrad, Russia, no other city in the world of over one million population has as great an annual snowfall with which to contend as Montreal. Average: 115 inches.

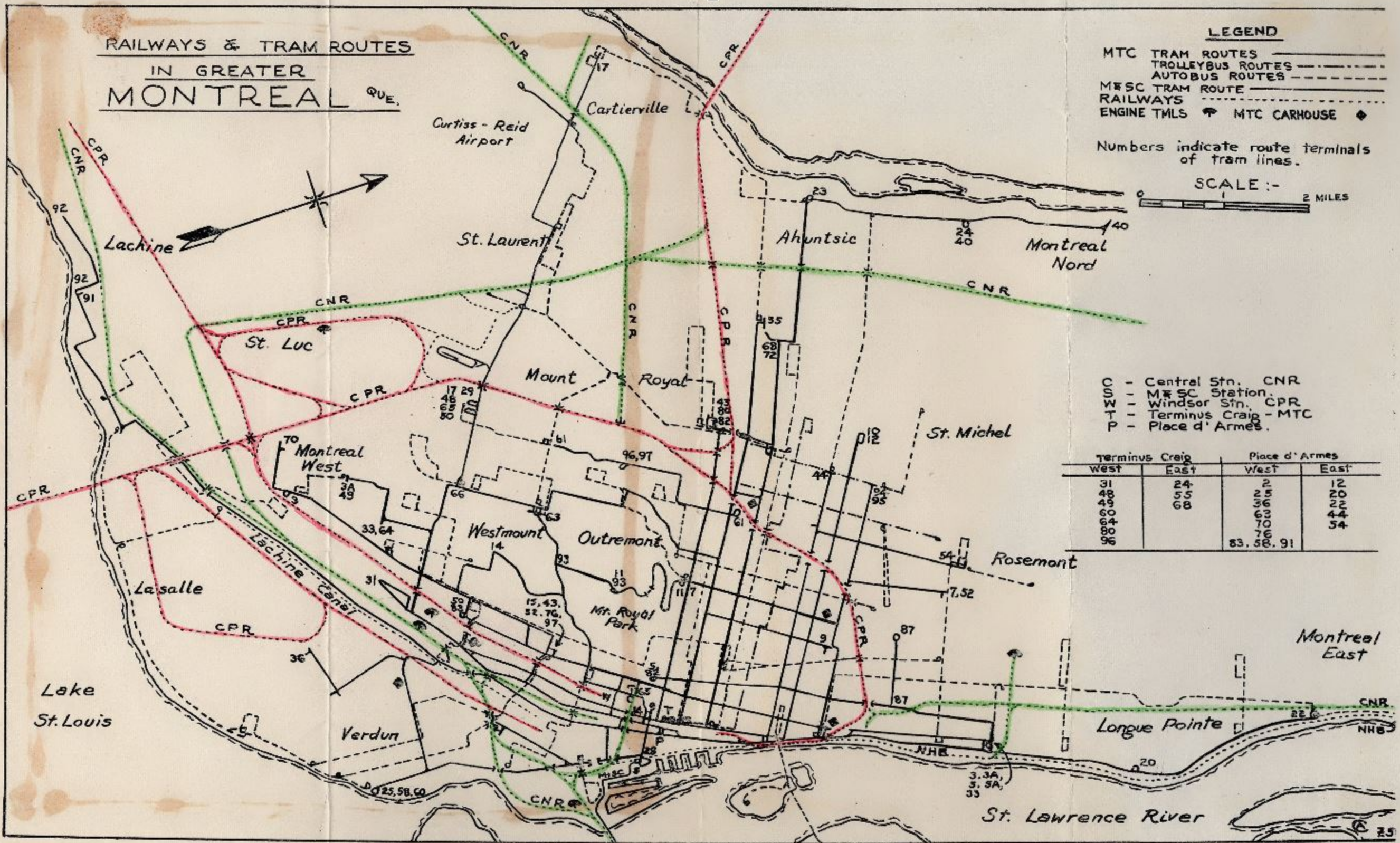
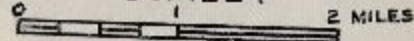
RAILWAYS & TRAM ROUTES IN GREATER MONTREAL QUE.

LEGEND

- MTC TRAM ROUTES ————
- TROLLEYBUS ROUTES - - - -
- AUTOBUS ROUTES - - - -
- MESC TRAM ROUTE ————
- RAILWAYS - - - - -
- ENGINE TMS ⚡ MTC CARHOUSE ◆

Numbers indicate route terminals of tram lines.

SCALE :-



- C - Central Stn. CNR
- SW - MESC Station.
- W - Windsor Stn. CPR
- T - Terminus Craig - MTC
- P - Place d'Armes.

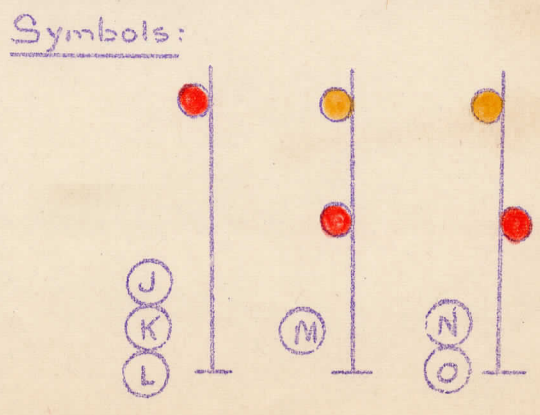
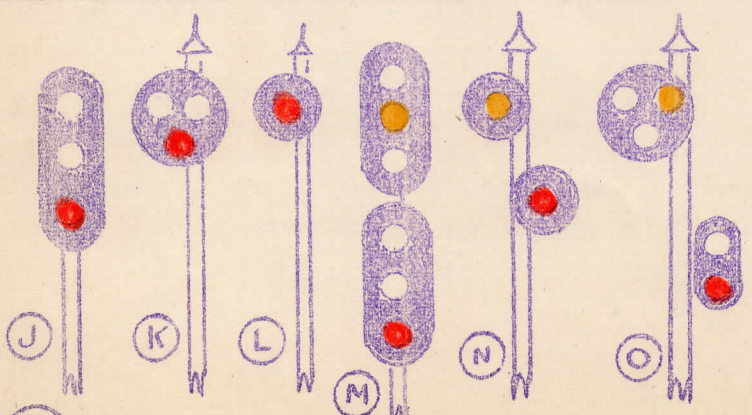
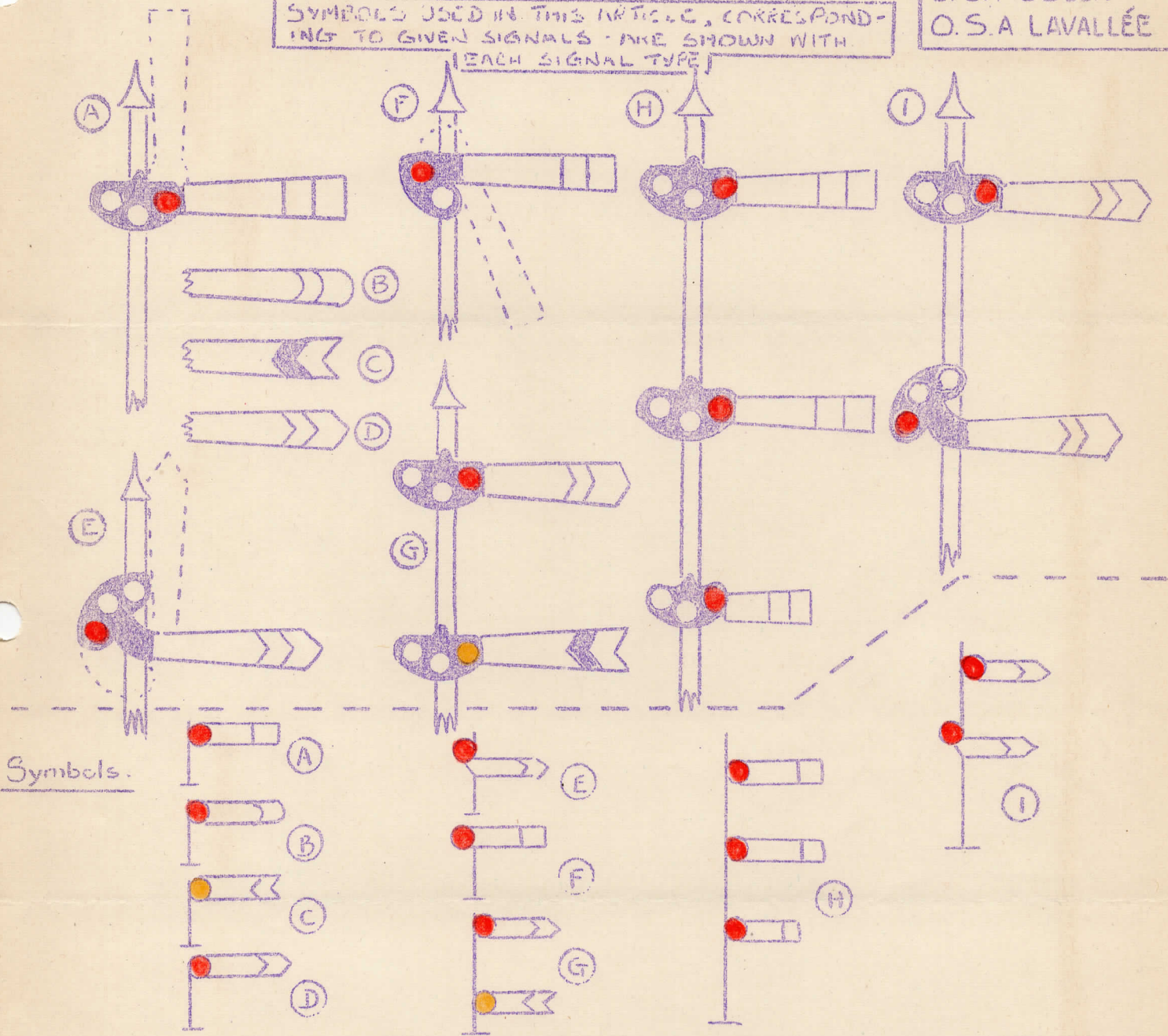
Terminus Craig		Place d'Armes	
West	East	West	East
31	24	2	12
48	55	25	20
49	68	36	22
60		63	44
64		70	54
80		76	
96		83, 58, 91	

STANDARD RAILWAY SIGNAL INDICATIONS

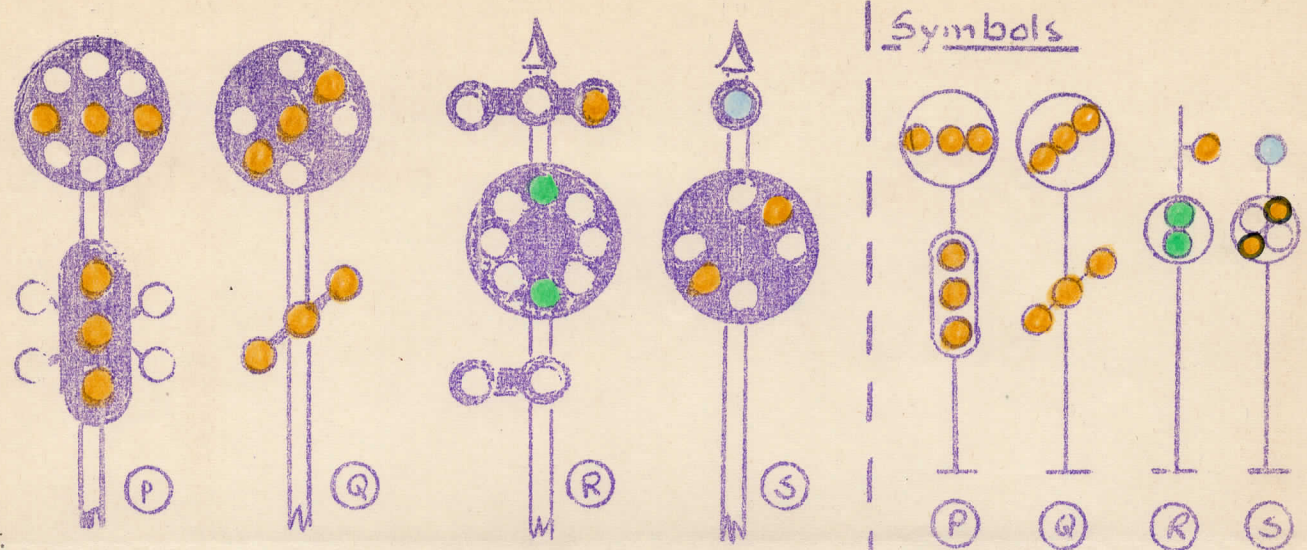
TYPES OF SIGNAL - ① SEMAPHORES

SYMBOLS USED IN THIS ARTICLE, CORRESPONDING TO GIVEN SIGNALS ARE SHOWN WITH EACH SIGNAL TYPE

E. L. MODLER
O. S. A. LAVALLÉE



② COLOUR LIGHT & SEARCHLIGHT SIGNALS



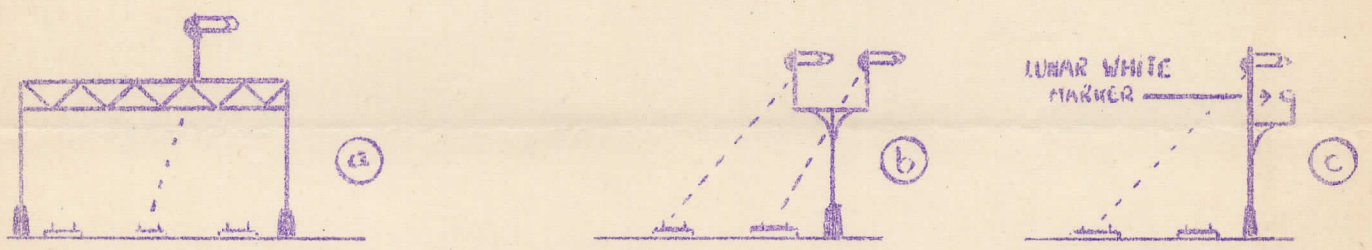
3 POSITION LIGHT & COLOUR POSITION LIGHT SIGNALS

4 SIGNAL COLOURS

(I) RED	=	Stop.	(IV) GREEN & WHITE	-	Flag Stop
(II) YELLOW	-	Caution.	(V) BLUE	-	Protecting workmen under or about cars.
(III) GREEN	-	Proceed	(VI) PURPLE	-	Stop

METHOD OF MOUNTING:

Signals are normally mounted to the right of the track which they govern. If one track intervenes between signal and track governed, a lunar white marker (some U.S. lines use blue) is used to show this.



DESCRIPTION:

(1) AUTOMATIC SIGNALS are signals worked automatically by the passage of trains, and notify trains entering a block of the condition of the block or blocks ahead.

A HOME BLOCK SIGNAL is located at the entrance to a block and controls trains entering and using the block. The most restrictive indication is "Stop" or "Stop-and-Proceed".

A DISTANT BLOCK SIGNAL controls the approach to a Home Block Signal. Its most restrictive indication is "Proceed with Caution, prepared to stop at the next Signal".

DISTANT semaphore blades are painted yellow with a black stripe, and have a forked end. HOME semaphore blades are painted red with

a white stripe and have pointed or square ends. Usually Home and Distant signals are combined on one mast by (a) mounting the Home Signal for the block above the Distant Signal for the next block, or (b) more commonly by using a single pointed or square-end semaphore or colour light displaying three aspects, or two pointed or square-end semaphores or colour lights displaying four aspects.

An ABSOLUTE SIGNAL is one whose most restrictive indication is "Stop". It is distinguished by a square-end semaphore blade, and a lunar white marker light placed vertically below the signal light, or the letter "A" on the signal mast.

A PERMISSIVE SIGNAL's most restrictive indication is "Stop-and-Proceed". It has a single light or two (rarely three) staggered lights, and the semaphore blades have pointed ends. A "Stop-and-Proceed" indication authorizes a train to stop, then proceed at restricted speed, prepared to stop short of train ahead, or to find a switch open, a broken rail, or other obstruction in the block. Where a Permissive Signal has the letter "G" on the signal mast, a freight train with 75% or more of its prescribed tonnage may pass the "Stop-and-Proceed" indication at restricted speed, without coming to a stop.

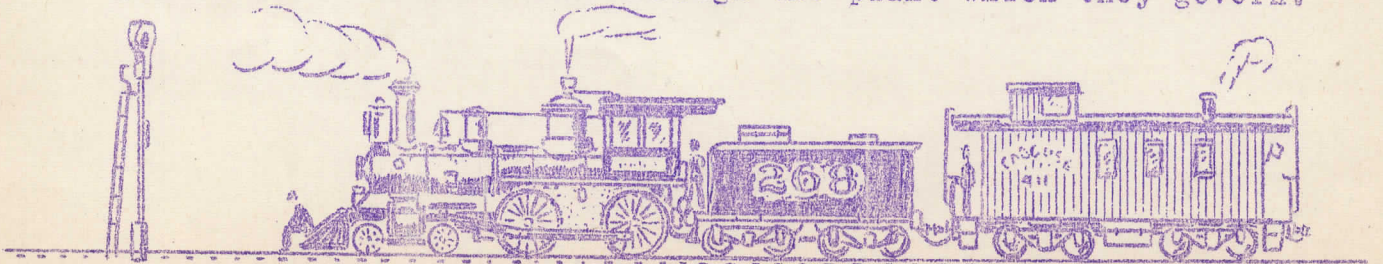
An INDICATOR is a device, usually located at a switch, which shows whether there is a train in the block or not. Its chief use is to let a crew know whether it is safe for their train to come off a siding or side track onto the main lines.

(2) MANUAL BLOCK SIGNALS are worked manually, and govern the entrance of trains into a block. Where a special signal is used for this purpose, it is usually a round-end semaphore blade, painted red with a white stripe. However, Train Order Signals usually govern the entrance to a manually-controlled block.

(3) TRAIN ORDER SIGNALS show whether there are train orders awaiting delivery. They are also used to enforce a Manual Block System. They are of a number of different types (see diagrams).

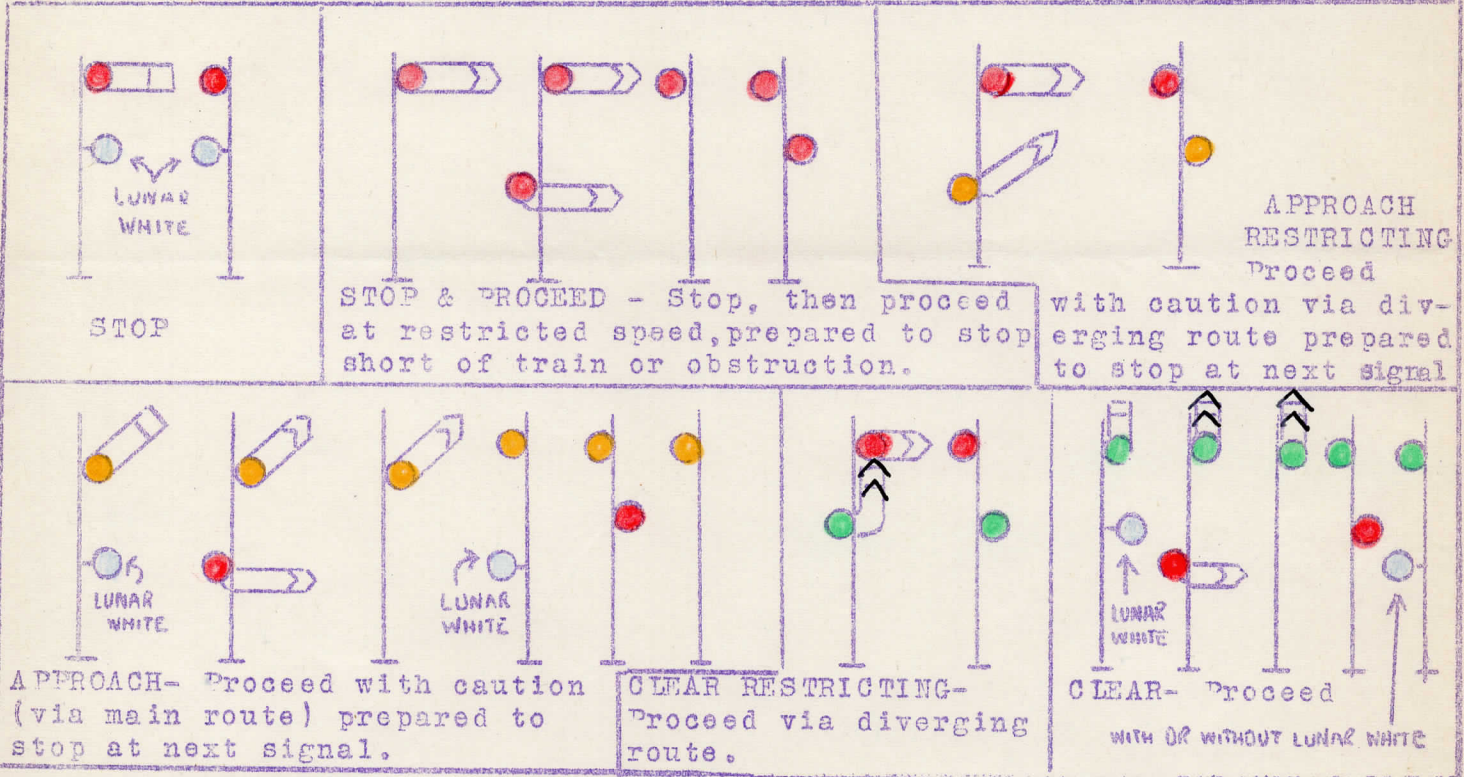
(4) STATION PROTECTION SIGNALS are used to protect trains occupying the main track at stations or yards. They may be either absolute or permissive.

(5) INTERLOCKING SIGNALS govern movements through an interlocking plant. They are always Absolute Signals. An interlocking plant is a system of switches and signals so interconnected that conflicting routes cannot be set up. They may be distinguished by having two or more square-end semaphores so mounted that their lights are in a vertical line, or by having two or more colour light signals similarly mounted in a vertical line. Dwarf signals may be distinguished by their location on the ground close to the route through the plant which they govern.



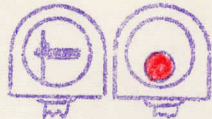
NOTE: INDICATIONS WILL BE SUPERSEDED ON AUGUST 26TH BY THOSE OF THE NEW UNIFORM CODE OF RAILWAY OPERATING RULES

AUTOMATIC BLOCK SIGNALS

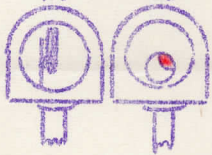


INDICATORS

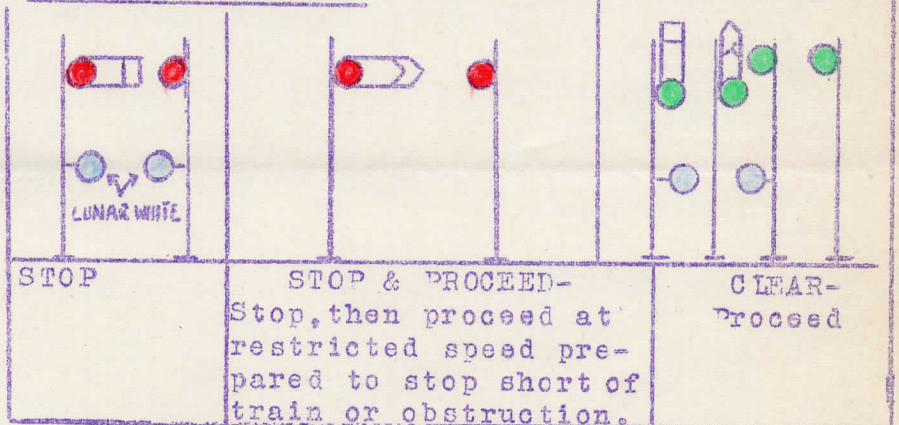
Block occupied



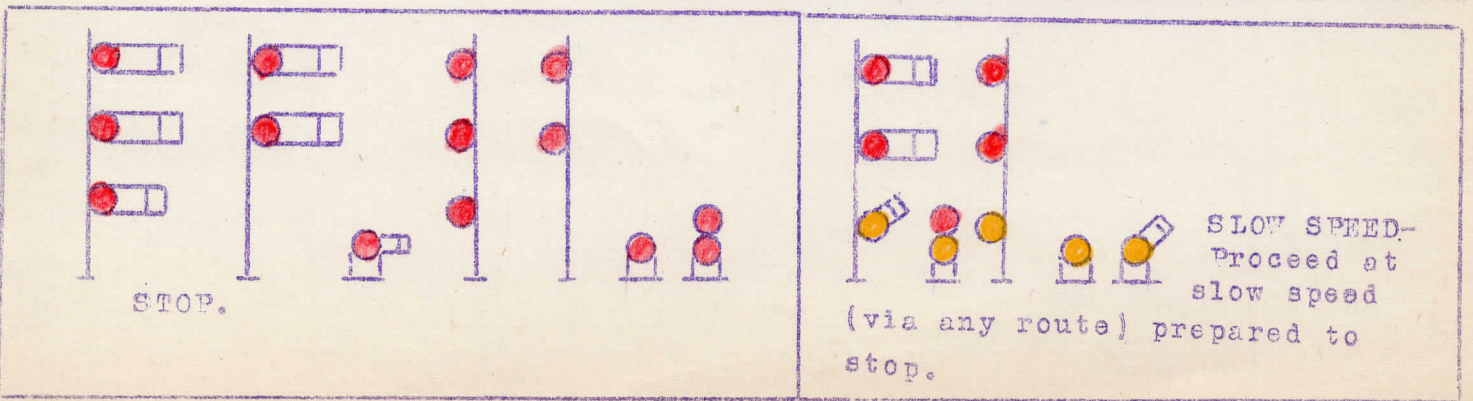
Block clear.

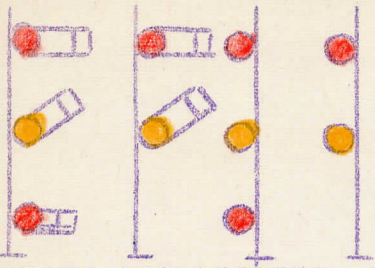


STATION SIGNALS

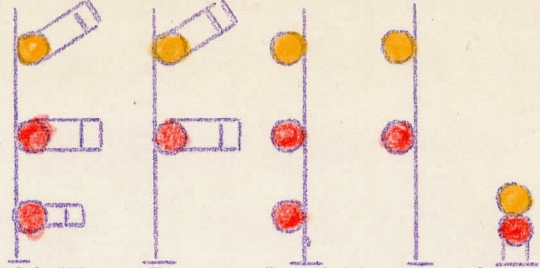


INTERLOCKING SIGNALS

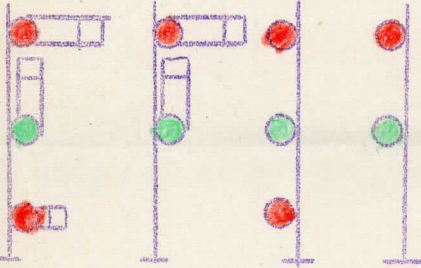




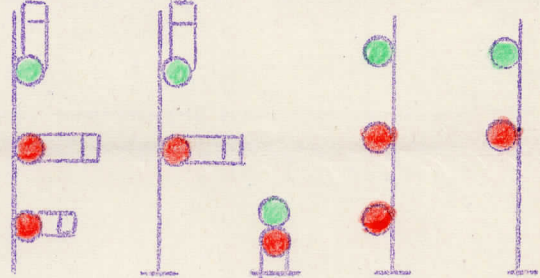
APPROACH RESTRICTING- Proceed with caution via diverging route prepared to stop at next signal.



APPROACH- Proceed with caution via main route prepared to stop at next signal.



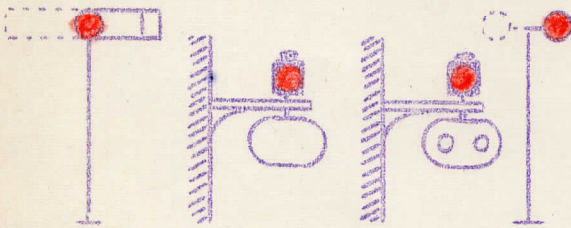
CLEAR RESTRICTING- Proceed via diverging route.



CLEAR- Proceed.

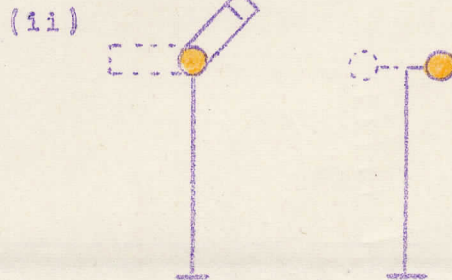
TRAIN ORDER SIGNALS

SEMAPHORES HAVE EITHER SQUARE- OR ROUND-END BLADE.



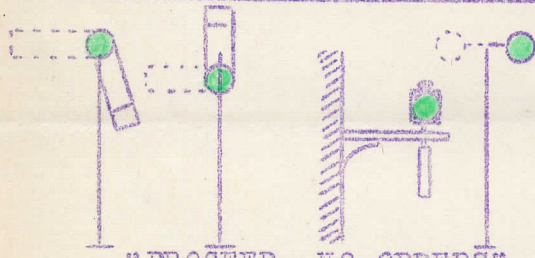
"STOP FOR ORDERS"

(i) "Stop for orders" indication PLUS a yellow flag or yellow lantern, or



(ii)

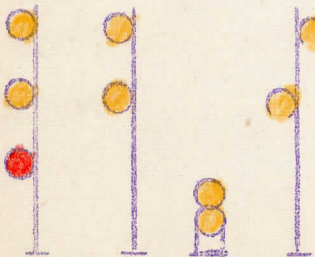
"CAUTION FOR '19' ORDERS"



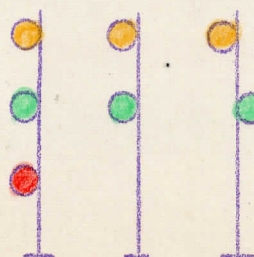
"PROCEED- NO ORDERS"

Dotted lines show that part of the signal applying to trains in the opposite direction.

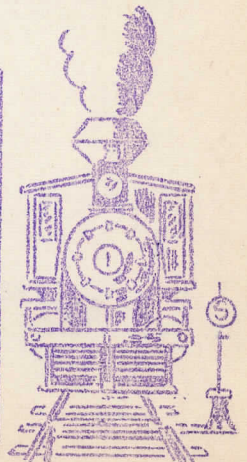
SPECIAL INDICATIONS



"Prepare to stop at second signal".
(CNR)



"Prepare to take diverging route at next signal".
(CFR)



STANDARD RAILWAY SIGNAL INDICATIONS
PART ONE - CANADIAN SIGNALS (CONTINUED)

by ERNEST L. MODLER

"UNIFORM CODE OF OPERATING RULES"

(In effect on all Canadian railways, from August 26th, 1951)

SPEED DEFINITIONS

MEDIUM SPEED- A speed not exceeding 30 miles per hour.

SLOW SPEED- A speed not exceeding 15 miles per hour.

RESTRICTED SPEED- Proceed prepared to stop short of train, obstruction or switch not properly lined, and to look out for broken rail.

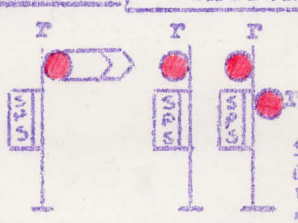
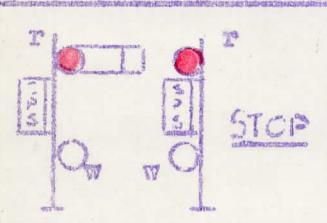
YARD SPEED- A speed that will permit stopping within one-half the range of vision.

STATION PROTECTION SIGNALS

STOP AND PROCEED

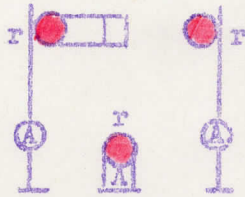
STOP, THEN PROCEED AT YARD SPEED, EXPECTING TO FIND TRACK OCCUPIED, SWITCH NOT PROPERLY LINED, BROKEN RAIL OR OTHER OBSTRUCTION AND PRECEDED BY FLAG-MAN IF NECESSARY.

Other indications are the same as for AUTOMATIC BLOCK SIGNALS

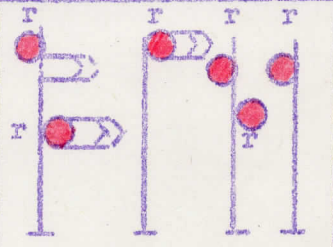


AUTOMATIC BLOCK SIGNALS

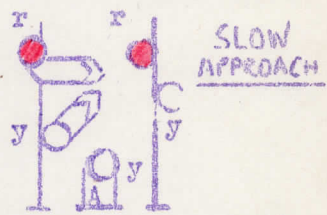
INDICATORS ARE UNCHANGED - SEE SHEET 4



STOP



STOP AND PROCEED STOP-THEN PROCEED AT RESTRICTED SPEED



SLOW APPROACH

PROCEED PREPARING TO STOP AT NEXT SIGNAL, SLOW SPEED THRO' TURNOUTS.

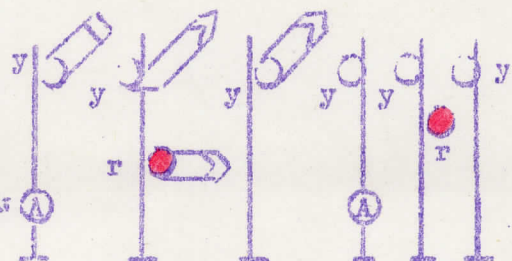
GRADE SIGNAL UNCHANGED - SEE SHEET 3

SLOW CLEAR

PROCEED - SLOW SPEED THROUGH TURNOUTS.

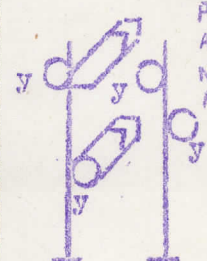


APPROACH PROCEED PREPARING TO STOP AT NEXT SIGNAL



APPROACH SLOW

PROCEED APPROACHING NEXT SIGNAL AT SLOW SPEED

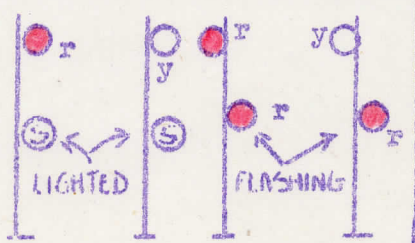
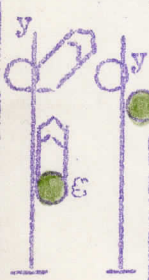


APPROACH MEDIUM

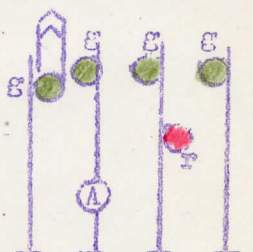
PROCEED - APPROACHING NEXT SIGNAL AT MEDIUM SPEED

TAKE SIDING

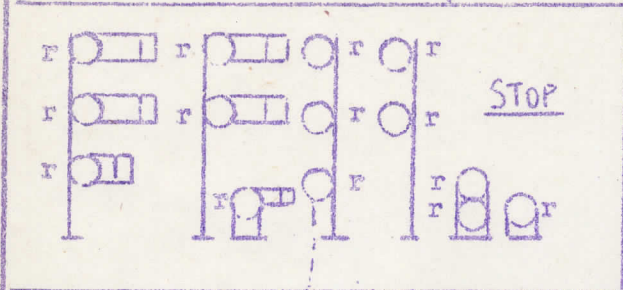
OBSERVE INDICATION DISPLAYED BY UPPER LIGHT. TAKE SIDING WHEN LOWER LIGHT FLASHING OR "S" LIGHTED.



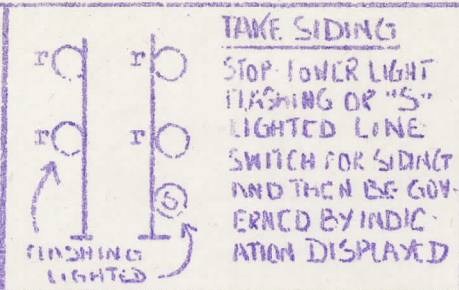
CLEAR PROCEED



INTERLOCKING SIGNALS

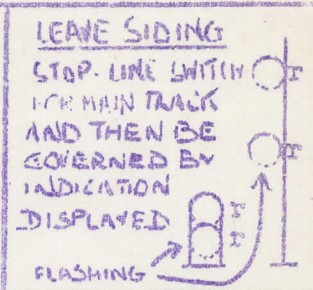


STOP



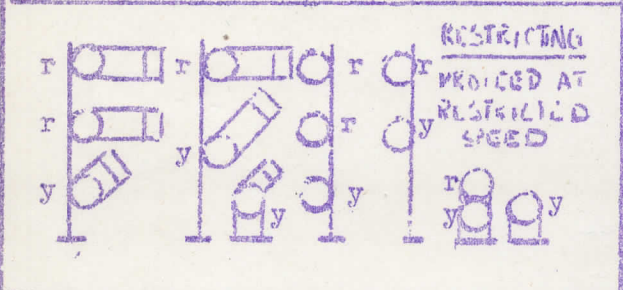
TAKE SIDING

STOP LOWER LIGHT FLASHING OR "S" LIGHTED LINE SWITCH FOR SIDING AND THEN BE GOVERNED BY INDICATION DISPLAYED

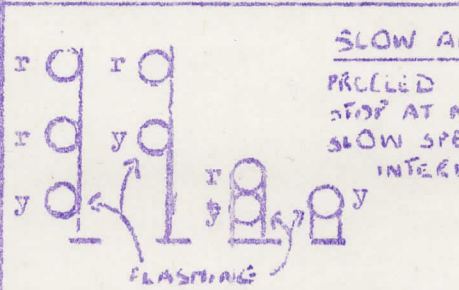


LEAVE SIDING

STOP LINE SWITCH FOR MAIN TRACK AND THEN BE GOVERNED BY INDICATION DISPLAYED

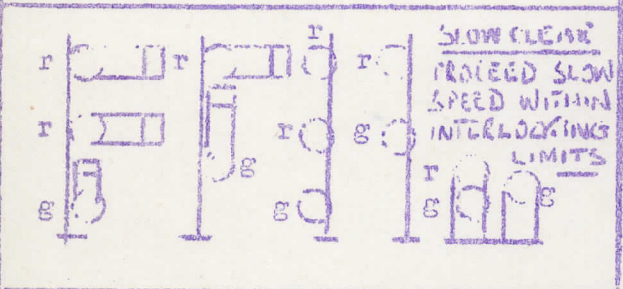


RESTRICTING
PROCEED AT RESTRICTED SPEED

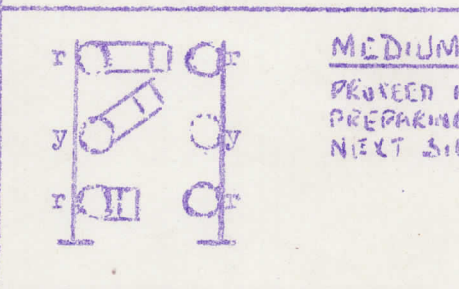


SLOW APPROACH

PROCEED PREPARING TO STOP AT NEXT SIGNAL - SLOW SPEED THROUGH INTERLOCKING LIMITS.

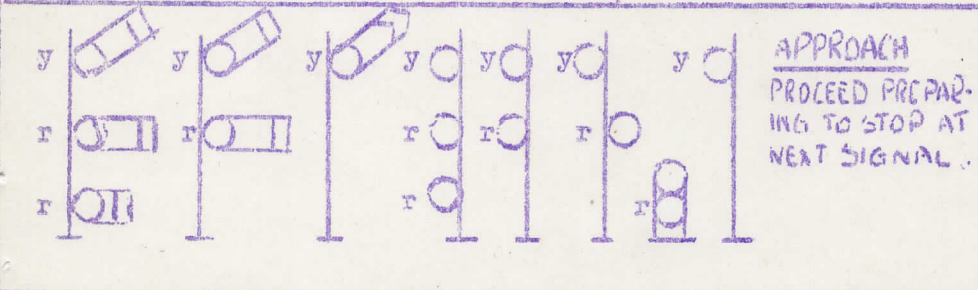


SLOW CLEAR
PROCEED SLOW SPEED WITHIN INTERLOCKING LIMITS

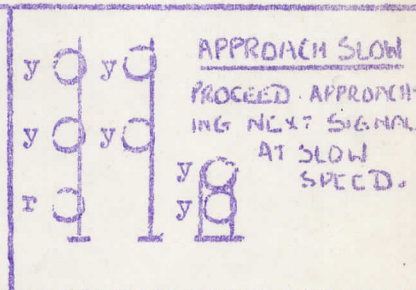


MEDIUM APPROACH

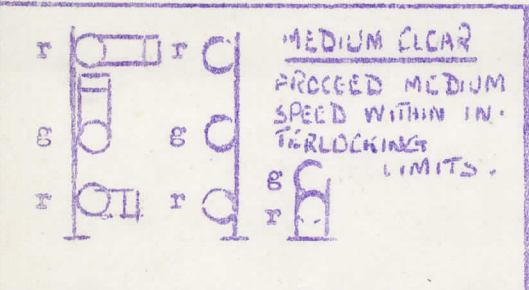
PROCEED AT MEDIUM SPEED PREPARING TO STOP AT NEXT SIGNAL.



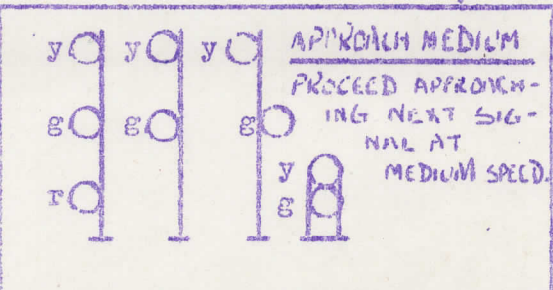
APPROACH
PROCEED PREPARING TO STOP AT NEXT SIGNAL.



APPROACH SLOW
PROCEED APPROACHING NEXT SIGNAL AT SLOW SPEED.

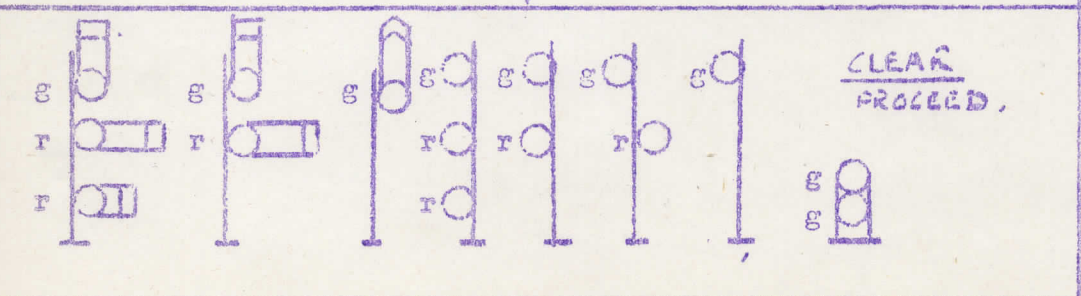


MEDIUM CLEAR
PROCEED MEDIUM SPEED WITHIN INTERLOCKING LIMITS.



APPROACH MEDIUM
PROCEED APPROACHING NEXT SIGNAL AT MEDIUM SPEED.

R - RED
Y - YELLOW
G - GREEN
W - LUNAR WHITE



CLEAR
PROCEED

