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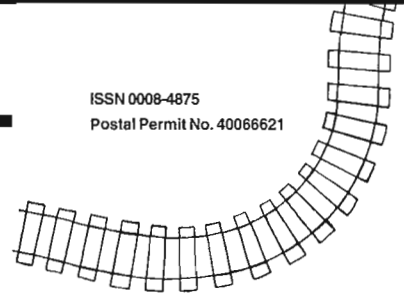


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FRONT COVER: CNR locomotive 9154 leads VIA's "Hudson Bay" running from Churchill, Manitoba to Winnipeg. This photo was taken at Thompson on May 15 1983, and, although mid-May, winter still held the line in its icy grip. Photo by Fred Angus

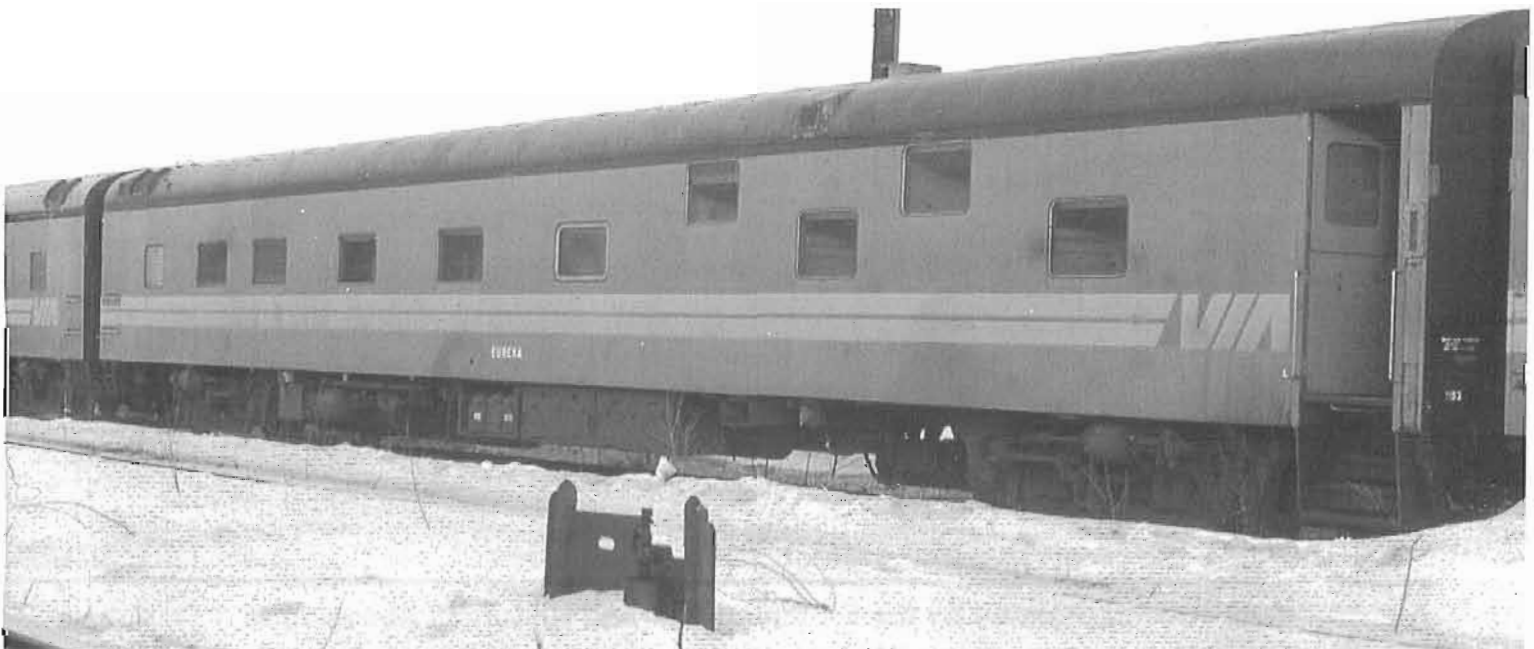
BELOW: An important piece in the collection of the Canadian Railway Museum is ex-CN sleeper "Eureka" (1153). This view shows it at the former midway at AMF on March 20th, 1994 while being prepared for delivery to the museum. Photo by John Godfrey

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Railways : A Canadian Obsession

Le chemin de fer : une obsession canadienne

by / par Ken Heard

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La voix de la communauté muséale canadienne



Maritime Railway No. 5, built by Pittsburgh Locomotive Works in 1896, crossing River Hebert Nova Scotia on May 28, 1949. No. 5 is now at the Canadian Railway Museum at Delson / St. Constant, Que. CRHA Archives, Toohey collection No. 49-312.

For most of the 19th century and half of the 20th, railways were the dominant instrument of worldwide economic development. In Canada, they became even more. As Northrop Frye observed in *Divisions on a Ground: Essays on Canadian Culture* (Anansi, 1982), railways were a “national obsession”. One result of this obsession was that, in true Canadian fashion, they were the major source of government patronage.

Canada is the only country in the world whose constitution provided for the construction of a railway, the *Intercolonial*, which connected the Maritimes with Quebec and Ontario. In 1873, Prince Edward Island joined Canada solely to relieve itself of its railway debt. British Columbia threatened to join the U.S. if it was not linked by rail to the rest of the country. Newfoundland joined Confederation partly because it would be able to unload its railway onto the federal government. Railways were the glue that bound the country together.

This obsession still resonates today: taking the train across the Rockies still tops the list when Canadians talk about their dream holidays. So, several questions may rightly be asked: why are railways not an obsession of Canadian museums? What was it about this particular mode of

Pendant la plus grande partie du XIX^e siècle et la moitié du XX^e siècle, le chemin de fer a été le principal promoteur du développement économique mondial. Au Canada, il a même signifié plus encore. Comme le souligne justement Northrop Frye dans *Divisions on a Ground: Essays on Canadian Culture* (Anansi, 1982), le rail a été « une obsession nationale » et donc (bon sang canadien ne saurait mentir) le haut lieu du népotisme gouvernemental.

Le Canada est le seul pays du monde qui a inscrit dans sa constitution la construction d'une voie ferrée : l'*Intercolonial*, reliant les Maritimes au Québec et à l'Ontario. En 1873, l'Île-du-Prince-Édouard se joint au Canada à seule fin d'éponger sa dette ferroviaire. La Colombie-Britannique menace de rallier les É.-U. si elle n'est pas reliée par voie ferrée au reste du pays. Terre-Neuve adhère à la Confédération en partie pour renvoyer son fardeau ferroviaire sur les épaules du gouvernement fédéral. Le chemin de fer aura été le ciment de l'édification du pays.

Une obsession toujours vivante : les Canadiens qui rêvent de vacances évoquent encore en premier lieu un voyage en train à travers les Rocheuses. Alors pourquoi les musées canadiens ne sont-ils pas obsédés par le chemin de fer?

transportation that gave it such importance? Are railways still relevant, for example by contributing to environmental sustainability through conservation of scarce resources?

Between 1950 and 1960, there was a worldwide evolution in transport technology. While automobile and aircraft development started at the turn of the 20th century, the railway reigned supreme until 1950. During the Industrial Age, nearly all products of agriculture, forestry, mining and industry going any distance on land went by rail. The advent of this cheap form of transportation drove the expansion of these economic activities. Likewise, people who wished to travel further than about 30 km almost always travelled by train. Urban railways and streetcars made it possible for people to live further than walking distance from their workplaces.

However, by 1950, transport patterns began to change. Automobile and aircraft development, along with massive public investment in roads and airports, caused the railway to lose its dominance. This decade also coincided with the transition from steam to diesel motive power and the gradual disappearance of streetcars across North America, except in a few cities like Toronto and San Francisco.

Volunteers to the rescue

At the beginning of the 1950's, most of Canada's museums showed no interest in preserving artefacts related to transportation. (It is arguable that they were indifferent to technology generally.) It consequently fell to interested and concerned amateurs to do what they could—with limited resources—to collect artefacts of what they knew would soon be a bygone era. At that time, the emphasis was on collecting steam locomotives, rolling stock from the steam era and electric streetcars while they were still available. Even today, of the major Canadian museums—those with substantial federal or provincial funding—only at the National Museum of Science and Technology do railways have a place in the permanent displays.

Dedicated volunteers took matters into their own hands, providing the context for the Canadian obsession with railways. *The Guide to Canada's Railway Heritage* lists 60 museums specifically oriented to railways or streetcars, ranging in size from small ones with a regional focus, some of which nevertheless have artefacts of national importance, to two of the largest, which have a national focus or vocation. In addition, the guide mentions 23 other museums having a significant railway or streetcar component. Finally, it lists 23 tourist railways that, while not specifically museological in focus or intent, offer visitors a railway experience.

The 60 museums in the first group, and most of the others mentioned in the guide, are volunteer-managed. Almost all of them are not-for-profit societies with working boards. Society members, including those sitting on the board, undertake to varying degrees the standard museological activities: curatorial functions, conservation, education, etc. To the extent that any of these museums have paid staff, the latter for the most part supplement the work of the volunteers, rather than the reverse.

Entre 1950 et 1960, les techniques de transport évoluent à l'échelle mondiale. Les progrès réalisés dans les domaines de l'automobile et de l'aviation commencent au début du XX^e siècle, mais le train règne en maître jusqu'en 1950. Pendant l'ère industrielle, les trains transportent presque tous les produits agricoles, forestiers, miniers et industriels qui voyagent par voie terrestre. L'avènement de ce mode de transport stimule l'activité économique. Par ailleurs, les gens qui voyageaient plus de 30 km choisissaient presque toujours le train. En ville, le réseau ferré et les tramways ont permis aux travailleurs d'habiter plus loin qu'à distance de marche de leur travail.

Les schémas de transports se transforment néanmoins à partir de 1950. La voiture et l'avion sont de plus en plus perfectionnés et les autorités investissent d'énormes sommes dans les routes et les aéroports, détrônant ainsi le train. La décennie marque aussi le passage de la vapeur au diesel et la disparition graduelle des tramways dans les villes d'Amérique du Nord, exception faite de Toronto et de San Francisco.

Les bénévoles entrent en jeu

Au début des années 1950, la majorité des musées du Canada ne se montrent guère intéressés à préserver des artefacts liés au domaine du transport. (Dans l'ensemble, les nouvelles technologies les laissent plutôt indifférents.) Par conséquent, il incombe aux amateurs éclairés et intéressés de collectionner, dans la limite de leurs moyens, des artefacts d'un âge qui allait, comme ils le savaient, bientôt être révolu. Les objets les plus recherchés sont les locomotives à vapeur, le matériel roulant datant de l'époque de la vapeur et les tramways électriques encore disponibles. Aujourd'hui encore, le Musée national des sciences et de la technologie est le seul de tous les grands musées canadiens (ceux qui sont largement subventionnés par les gouvernements fédéral ou provinciaux) à accorder au chemin de fer une place dans ses expositions permanentes.

Des bénévoles passionnés ont relevé le défi et mis en contexte cette obsession canadienne du rail. *The Guide to Canada's Railway Heritage* cite 60 musées consacrés au chemin de fer ou aux tramways, énumérant aussi bien des petits établissements aux préoccupations régionales (dont certains abritent pourtant des artefacts ayant une valeur nationale) que deux institutions à orientation ou vocation nationale. L'ouvrage mentionne aussi 23 autres musées offrant une section intéressante sur les tramways ou le chemin de fer, ainsi que 23 lignes ferroviaires touristiques qui, même si elles n'ont aucune orientation ou intention nettement muséologique, proposent une expérience du train.

Les 60 musées du premier groupe et la plupart des autres établissements cités dans le guide sont administrés par des bénévoles. Presque tous sont des sociétés sans but lucratif dirigées par des conseils d'administration actifs. Les membres de ces sociétés, y compris ceux qui siègent au conseil d'administration, effectuent à divers degrés des tâches muséologiques traditionnelles et assument des fonctions de conservation, de restauration, d'éducation, etc. Le personnel rémunéré de ces établissements, pour ceux qui en ont, complète le travail des bénévoles plutôt que l'inverse.



Northern Alberta Railways consolidation No. 73 at Edmonton in August 1960. This locomotive, the only one remaining from the NAR, is now preserved by the Alberta Pioneer Railway Association. Provincial Archives of Alberta, photo No. 68-292/9b

This management model is the legacy of how these collections originated. These collections—and the museums holding them—were established wherever there was a critical mass of volunteers with the interest and determination to do so. One consequence is a large number of small railway museums, rather than the reverse. Almost all of them are located in smaller centres, or on the fringes of large cities. More than half are located west of the Ontario-Manitoba border.

By 1992, most railway museums felt the need for more cooperation and coordination. The result was the foundation that year of the Canadian Council for Railway Heritage. Participation in the Council's semi-annual meetings helped individual museums hone their mission statements and collections policies. As a result, duplication has been minimized, both as to the acquisition of new artefacts (particularly motive power and rolling stock) and in the exchange of artefacts among the various members. The Council was also instrumental in formalizing and improving relations between the railways and the railway museum community and in developing innovative partnerships.

Cultural purpose vs. economic mandate

What is extraordinary about the creation and growth of railway and streetcar museums in Canada—or, for that matter, in the entire English-speaking world and in some cases beyond it—is how much was accomplished over 50 years with so few resources. I estimate that the aggregate capital investment in railway and streetcar museums does not exceed \$30 million. When compared to the investment in Canadian museums generally, this number pales to insignificance. (The fact that this figure can only be an estimate reveals the dearth of financial and visitor statistics relating to museums in this country.)

Ce modèle de gestion est le fruit de l'histoire des collections. En effet celles-ci, de même que les musées qui les abritent, sont nées et ont été enrichies partout où il y avait une masse critique de bénévoles déterminés à voir l'aboutissement de leurs efforts. Voilà pourquoi il existe aujourd'hui beaucoup de petits musées ferroviaires, et non l'inverse. Presque tous se trouvent dans des petites municipalités ou en bordure de grandes villes, et plus de la moitié sont à l'ouest de la frontière Ontario-Manitoba.

En 1992, la plupart des musées ferroviaires éprouvent le besoin de se coordonner et de s'entraider, provoquant ainsi la fondation, cette même année, du Conseil national des musées ferroviaires. Les établissements qui participent aux réunions semestrielles du Conseil parviennent plus facilement à affûter leurs énoncés de mission et leurs stratégies de collection et réduisent le chevauchement non seulement des efforts d'acquisition des nouveaux artefacts (force motrice, matériel roulant), mais aussi d'échanges d'artefacts entre les différents membres. Le Conseil joue également un rôle dans l'établissement de partenariats novateurs et dans l'officialisation et l'amélioration des relations entre le chemin de fer et le milieu des musées ferroviaires.

Mandat culturel vs mandat économique

Au Canada — ou, plus précisément, dans le monde anglophone, parfois même à l'extérieur du Canada —, la création et l'essor des musées consacrés aux tramways et au rail sont remarquables quand on pense à tout ce qui s'est fait en l'espace de 50 ans avec si peu de ressources. Selon moi, le total des dépenses d'investissement de ces musées est inférieur à 30 millions \$. Comparé aux sommes investies dans l'ensemble des musées canadiens, le chiffre est dérisoire. (Le fait que nous ne puissions fournir qu'une

Very little of this capital investment came from the federal government. On the few occasions when the federal government has made capital funds available to railway museums, almost all of it came from funds not specifically earmarked for museum capital development. In order to have their grant applications approved, museums had to meet the policy objectives of the specific program under which they were applying—even if doing so was not necessarily in their best interests.

For example, 64% of federal capital and collections development funds to the Canadian Museum of Rail Travel in Cranbrook, B.C. were from Human Resources and Development Canada (HRDC) job creation programs. Only jobless and sometimes unskilled people could be employed under these programs, and only for short periods of time—a year or less. At the end of their training period, these employees no longer qualified for continued employment under the program. Consequently, to continue to receive HRDC job creation funds, the museum had to employ a new group of people and train them. This has happened many times over since 1977 because the museum did not have sufficient operating funds to retain the people it had trained.

In another example, of the public sector funds given for capital development to the Canadian Railway Museum south of Montreal (now Exporail) only Quebec's contribution came from cultural development funds. The federal contribution came from economic development funds.

This raises the question of whether the interest of the federal government in museum development is really driven by economic rather than cultural imperatives. Federal economic development funding, including job creation funds, is for the most part restricted to supposedly economically depressed areas. If the Canadian Museum of Rail Travel or Exporail had been located in the Greater Toronto Area or in Alberta, would either have received the same level of federal public sector capital investment, commensurate with the importance of railways in Canadian cultural, political, social and economic development? This situation is disturbing, as it implicitly denies the validity of a cultural justification for museums and substitutes an economic justification, such as creating employment or encouraging tourism.

Tracking toward a brighter future

While railway museums in Canada have done much on their own, there really is much more to accomplish. To date, the emphasis has been on collection and conservation. More and better interpretation is needed, both on and off the museum sites. In this day and age, having a presence means going virtual. When it comes to using the web, railway museums have barely scratched the surface.

For example, hundreds of photographers documented the 1950-1960 transport revolution referred to above, chronicling the end of the steam locomotive and electric streetcars. More than simply a different motive power, the profound changes in the way goods and people were transported transformed the way people thought of transport. Although they didn't realize it at the time, what these photographers were really documenting was a major

estimation en dit long sur la pénurie de statistiques sur les musées du Canada.)

La contribution du gouvernement fédéral est minime. Les rares fois où celui-ci investit dans les musées ferroviaires, les montants proviennent presque toujours d'enveloppes non réservées au développement des immobilisations des musées. Les musées qui espèrent que leurs demandes de subvention seront acceptées doivent se conformer aux objectifs stratégiques des programmes précis en vertu desquels ils font leur demande, même si cela ne sert pas au mieux leurs intérêts.

Ainsi, 64% des fonds d'équipement et de collections du Canadian Museum of Rail Travel de Cranbrook (C.-B.) émanant du fédéral viennent des programmes de création d'emplois de Développement des ressources humaines Canada. Dans ces cas, seuls les chômeurs, et parfois les travailleurs non qualifiés, peuvent être embauchés — et seulement pour de courtes périodes de temps (un an ou moins). En vertu de ces programmes, les personnes ne sont plus admissibles à un emploi une fois leur formation terminée. Par conséquent le musée doit, pour continuer à recevoir des fonds au titre de la création d'emplois, embaucher et former un nouveau groupe de personnes. Ce procédé s'est répété plusieurs fois depuis 1977 parce que l'établissement n'avait pas les fonds d'exploitation qui lui auraient permis de garder les personnes formées.

Dans le cas des fonds publics alloués au développement des immobilisations du Musée ferroviaire canadien (devenu Exporail), situé au sud de Montréal, seule la contribution du Québec venait d'un fonds de développement culturel. La part du fédéral venait d'un fonds de développement économique.

Il y a donc lieu de se demander si l'intérêt du gouvernement fédéral pour le rayonnement des musées n'est pas guidé par des impératifs économiques plutôt que culturels. Les montants fédéraux consacrés au développement économique, y compris à la création d'emplois, sont majoritairement limités aux régions théoriquement défavorisées. Peut-on penser qu'Exporail aurait bénéficié du même investissement fédéral de capital, correspondant à l'importance du rail dans l'essor culturel, politique, social et économique du Canada, s'il avait été situé dans la région de Toronto ou en Alberta? Une question troublante dans la mesure où elle rejette implicitement la validité d'une justification culturelle pour y substituer, dans le cas des musées, une justification économique, par exemple la création d'emplois ou la promotion du tourisme.

La voie vers un meilleur avenir

Les musées ferroviaires ont réalisé bien des choses par eux-mêmes, mais force est de constater qu'il reste beaucoup à faire. Aujourd'hui, la priorité va aux collections et à la conservation. Le travail d'interprétation doit être approfondi et amélioré, tant dans les musées qu'à l'extérieur des musées. À notre époque, avoir une présence signifie franchir l'étape du virtuel. Or, parlant du Web, les musées ferroviaires sont loin d'y être accrochés.

À titre d'exemple, des centaines de photographes ont documenté la révolution du transport de 1950-1960



Passenger cars "River Rouge", "Curzon" and "British Columbia"; three trains creating the illusion of being poised for departure at the Canadian Museum of Rail Travel in Cranbrook B.C. Since this photo was taken, the museum has moved to its very impressive new building. Photo by Mike Westren

cultural shift. These images should be put into digital format so that they can be made available to anybody over the web. A pilot project could scan and catalogue at least a percentage of these photographs and put them in some sort of context.

However, besides documenting the past, railway museums need to look to the future. By 2030, there will be no more cheap oil—recent soaring gas prices show that trend to be already established. The technology to make better use of energy and to reduce the gridlock paralyzing our cities already exists. Railway museums can perform a useful educational role by demonstrating those technologies and illustrating how they can contribute to alleviating the transport problems of today. Some railway museums outside Canada, such as Britain's National Railway Museum in York, are already doing so. Effectively showing how the experience of the past can lead to a saner future could be—and perhaps should be—a measure of their success as museums. M

Toronto-based Ken Heard is a museum researcher specialized in transport museums. He was one of four people involved in the creation of the National Museum Policy, announced by the Honorable Gérard Pelletier in June 1972. He has worked for the Canadian Conservation Institute and the National Museums of Canada Planning Secretariat. He retired from the Public Service in 1994, and now enjoys visiting and writing about museums all over the world.

évoquée plus haut et témoigné au jour le jour de la fin d'une l'époque — celle de la locomotive à vapeur et des tramways. Au delà d'un simple changement de force motrice, les profonds changements du transport des gens et des marchandises ont transformé la vision populaire des déplacements. Les photographes ne s'en sont peut-être pas rendus compte alors, mais ils sont les témoins d'un réel virage culturel. Toutes ces images devraient être numérisées et mises à la disposition des internautes. Un projet pilote permettrait de balayer et de cataloguer un pourcentage de ces documents et de les placer dans un certain contexte.

En plus de documenter le passé, les musées ferroviaires doivent envisager l'avenir. En 2030, l'essence sera chère — les récentes flambées des prix attestent la réalité de cette tendance. Les procédés devant permettre de mieux utiliser l'énergie et de réduire les bouchons qui paralysent nos villes existent déjà. Les musées ferroviaires peuvent jouer un rôle pédagogique en expliquant ces moyens technologiques et en montrant comment ceux-ci contribuent à diminuer les problèmes actuels de transport — ce que font déjà certains musées ferroviaires situés à l'extérieur du Canada, par exemple le Musée national ferroviaire à York (G.-B.) L'une des mesures du succès des musées ferroviaires pourrait être l'efficacité de leur présentation historique — au sens où les leçons du passé pourraient être les garants d'un avenir moins pollué.



Edmonton car No. 80 was rescued from the Peace River district of northern Alberta and transported to Fort Edmonton where it has been fully restored to operating condition. This photo was taken on May 21, 1951 (only 3 1/2 months before the end of street car service) when No. 80 derailed on the approach to the High Level Bridge. Provincial Archives of Alberta, photo.

Sidebar 1

In 1979, a group of volunteers restored Edmonton's first streetcar. Thus began the **Edmonton Radial Railway Society**. Today, the Society's streetcars provide transport for visitors to Fort Edmonton Park. Many of the restored cars had been used as cottages or chicken coops after the streetcar lines they operated on were abandoned. Society volunteers manufactured the missing mechanical parts not only for their own cars, but also for other North American streetcar museums. The Society also operates a streetcar route around central Edmonton from the May long weekend to Thanksgiving.

www.edmonton-radial-railway.ab.ca

Sidebar 2

In 1977, the **Canadian Museum of Rail Travel** in Cranbrook, B.C. started to collect entire passenger train sets, each representing a different travel era. Between 1977 and 1999, \$3 million was spent on assembling and restoring the train displays. There are four train sets, including the 1929 Trans Canada Limited, an all first-class sleeping car train built by Canadian Pacific. Also on display are several individual interpretative cars, some of which are used for their original purpose. Dinners and teas are served in the dining car, and bed and breakfast accommodation is occasionally available in some of the sleeping cars. In 1999, construction began on a new building complex; the new museum held its grand opening on September 4, 2004. It features the original centrepiece of the "Grand Cafe" from the Canadian Pacific Royal Alexandra Hotel in Winnipeg,

Chercheur spécialisé dans les musées voués au transport, Ken Heard vit à Toronto. Il est l'une des quatre personnes à avoir participé à la création de la politique nationale sur les musées annoncée par Gérard Pelletier en juin 1972. Il a travaillé pour l'Institut canadien de conservation et pour le Secrétariat de la planification des Musées nationaux du Canada. Aujourd'hui retraité de la fonction publique, il aime visiter des musées et écrire sur les musées du monde entier.

Encadré 1

L'**Edmonton Radial Railway Society** (ERRS) est née à la suite de la restauration du premier tramway d'Edmonton par des bénévoles en 1979. Aujourd'hui, les tramways de la ERRS transportent les visiteurs jusqu'au parc de Fort Edmonton. Beaucoup de ces véhicules restaurés ont été utilisés comme chalets ou cages à poules après la disparition des lignes de tramways. Quant aux bénévoles de la ERRS, ils ont fabriqué et remplacé des pièces mécaniques non seulement de leurs propres tramways, mais aussi des tramways d'autres musées d'Amérique du Nord. La ERRS exploite depuis la fin de semaine prolongée de mai

jusqu'au jour de l'Action de grâce un itinéraire de tramways qui fait le tour du centre-ville d'Edmonton.

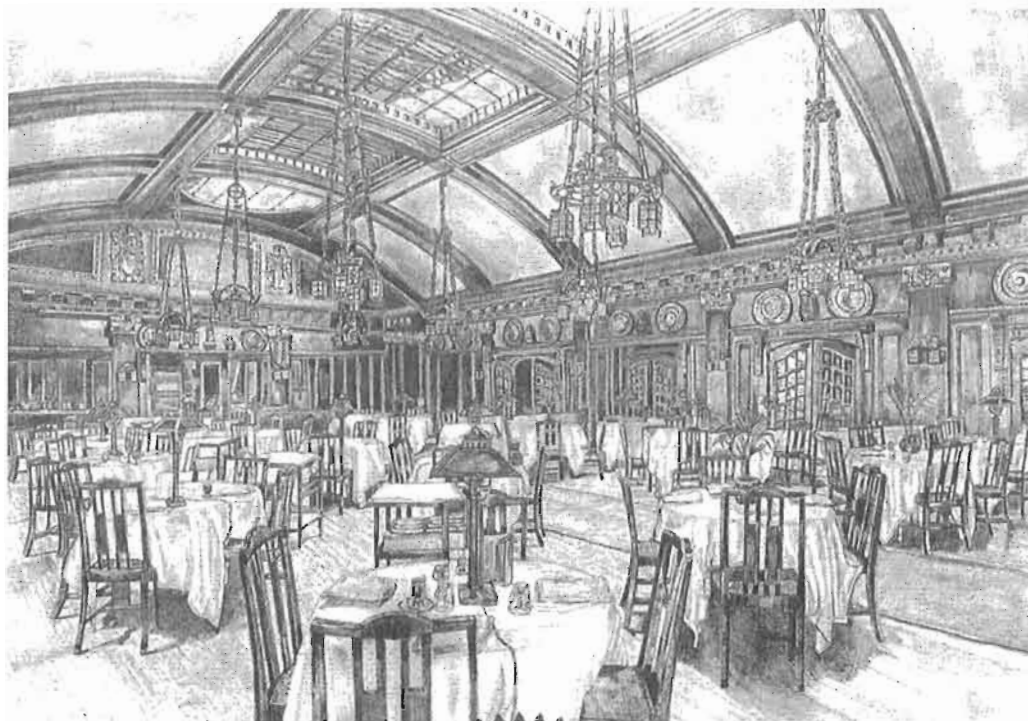
www.edmonton-radial-railway.ab.ca/

Encadré 2

Le **Canadian Museum of Rail Travel** de Cranbrook (C.-B.) a commencé à collectionner des trains complets de passagers représentant chacun une époque différente à partir de 1977. De 1977 à 1999, il a consacré 3 millions \$ à l'assemblage et à la restauration de trains. Il possède quatre trains — dont le Trans Canada Limited de 1929, un train de voitures-lits de première classe construit par le Canadien Pacifique — et utilise plusieurs voitures individuelles à des fins d'interprétation. Certaines d'entre elles remplissent cependant encore leur fonction d'origine : des dîners et des thés sont servis dans les voitures-restaurants, et il est possible de dormir à bord des voitures-lits. La construction d'un nouveau pavillon du musée a débuté en 1999; le bâtiment a ouvert ses portes le 4 septembre 2004. L'une des vedettes des nouveaux locaux est le surtout de table du Grand Café de l'hôtel du Canadien Pacifique Royal Alexandra de Winnipeg, démoli en 1971. La construction de ce complexe a coûté environ 6 millions \$. Les gouvernements fédéral, provincial et municipal ont respectivement participé à ce projet à hauteur de 1,1 million \$,

500 000 \$ et 166 000 \$. Quant au secteur privé, il a offert 4,2 millions \$. Le musée ne reçoit aucune subvention fédérale d'exploitation.

www.trainsdeluxe.com



The "Grand Café" of the Canadian Pacific Railway's Royal Alexandra Hotel in Winnipeg has been fully restored at the Canadian Museum of Rail Travel in Cranbrook B.C., and now appears as it did when the hotel first opened in 1906.

demolished in 1971. The total cost of the new complex was about \$6 million, with \$1.1 million coming from the federal government, \$500,000 from the province, \$166,000 from the City of Cranbrook, and \$4.2 million from the private sector. The museum receives no operating grants from the federal government.

www.trainsdeluxe.com

Sidebar 3

The first not-for-profit society with the specific mandate to preserve Canada's railway heritage was created in Montreal in 1932. In 1951, the **Canadian Railroad Historical Association** acquired its first piece of rolling stock, an 1892 Montreal Street Railway car, in the fond hope of some day being able to include it in a proper railway museum. Now called **Exporail**, the museum has approximately 140 items of rail motive power and rolling stock, innumerable small artefacts and library and archive material. The nucleus of the museum site was leased in 1960. All the artefacts



The Exporail building of the Canadian Railway Museum, erected between 2000 and 2004.

Encadré 3

La première société sans but lucratif créée pour préserver le patrimoine ferroviaire du Canada a vu le jour à Montréal, en 1932. En 1951, l'**Association canadienne d'histoire ferroviaire** achetait son premier véhicule (un tramway de 1892 de la Montréal Street Railway) avec le fervent espoir d'exposer un jour cette pièce dans un vrai musée ferroviaire. Aujourd'hui, **Exporail** abrite environ 140 véhicules ferroviaires, d'innombrables artefacts de petite taille et du matériel de bibliothèque et d'archives. Les principaux éléments du site ont été loués en 1960. Tous les artefacts collectionnés entre 1951 et 1960 et conservés un peu partout dans la région de Montréal

— le plus souvent dans des conditions loin d'être idéales — ont été réunis sur le nouveau site. Les deux grands pavillons (à environnement non contrôlé) qui ont été construits ne suffisaient pas à abriter l'ensemble de la collection, et une partie du matériel roulant devait rester à l'extérieur. Le musée n'était ouvert au public que pendant les mois d'été. La métamorphose a commencé en 1992, quand le musée a envisagé de construire un grand édifice qui protégerait adéquatement les artefacts et pourrait être exploité

collected between 1951 and 1960 and stored in various locations all over the Montreal area—mostly under less-than-ideal circumstances—were moved to the new site. Two major buildings were constructed, but they could not house the entire collection and some of the rolling stock had to be stored outdoors. The two buildings were without any environmental control; the museum was open to the public only in the warmer months. In 1992, the museum started to reinvent itself by

planning for a major building that would offer the proper environment for the artefacts and allow year-round operation. This plan served as the basis for a major fundraising campaign for phased construction. The more than \$9 million collected for the first phase permitted the construction of the shell of the environmentally controlled new building. This comprised the Great Hall for locomotives and rolling stock, as well as a ground floor entrance area and mezzanine for other smaller exhibits and visitor amenities. Phase I was completed in May 2003. The second phase was launched early in 2004. The archives and library were completed, and the museum added a major multi-function area overlooking the Great Hall. Phase II was finished in June 2004 at a cost of \$2.4 million, half of which was funded by the federal and provincial governments. The third phase will comprise rehabilitation of the original two buildings and completion and execution of the interpretation plan for the Museum. Fundraising for Phase III, expected to cost \$1.6 million, will commence shortly.

www.exporail.org

Other resources:

TrainsCan is the online information resource for the Canadian railway community. It lists railway museums and provides links to historical information about railways in Canada, classified geographically and by name of railway: www.trainscan.com.

The archives of the **Canadian Pacific Railway** contain photographs, graphic artwork, documents, publications, and artefacts. While the railway is the main focus, other activities reflected in the collection include hotels, tourism, ships, fine and folk art, immigration and colonization. Visit the archives online at www.cprheritage.com.

Wanna fix your caboosé? CN sells, leases and repairs rolling stock and railway equipment. CN also offers corporate sponsorship and support to not-for-profit, community-based organizations, including museums, and recently donated its photo archive to the Canada Science and Technology Museum. Visit <http://imagescn.technomuses.ca>.

For more information on the **Canadian Railway Heritage Guide** by Daryl Adair, visit North Kildonan Publications, www.cdnrwymod.com/kildonia.htm. Other railway heritage titles are available from this small Canadian press.



Inside the new Exporail building. The locomotive in the foreground, Canadian Pacific No. 144, built in 1886, is the oldest Canadian-built locomotive that has survived.

toute l'année. L'idée a été le point de départ d'une vaste campagne de financement. Plus de 9 millions \$ ont été recueillis pour une première étape prévoyant la construction de l'enveloppe d'un nouveau pavillon à environnement contrôlé. La Grande Galerie de ce pavillon devait accueillir les locomotives et le matériel roulant, ainsi que l'entrée du rez-de-chaussée et une mezzanine pour d'autres petites expositions et aménagements pour les visiteurs. Achevée en mai 2003, cette étape a été suivie d'une deuxième, lancée au début de 2004.

Le centre des archives et la bibliothèque ont été terminés, et le musée a ajouté un espace polyvalent surplombant la Grande Galerie. Achevée en juin 2004, cette deuxième étape a coûté 2,4 millions \$ payés pour moitié par les gouvernements fédéral et provincial. La troisième étape prévoit la revalorisation des deux bâtiments d'origine ainsi que l'achèvement et l'exécution du plan d'interprétation du musée. La campagne de financement de cette étape finale, évaluée à 1,6 million \$, débutera sous peu.

www.exporail.org

Autres ressources

TrainsCan, www.trainscan.com, est le site ressource du milieu canadien du rail. On y trouve une liste des musées ainsi que des liens vers des renseignements historiques classés par région et par nom de chemin de fer.

Les archives **Canadien Pacifique**, www.cphheritage.com proposent des photographies, du matériel graphique, des documents, des publications et des artefacts. Bien que les collections soient centrées sur le chemin de fer, les archives s'intéressent aussi aux hôtels, aux activités touristiques, aux bateaux, aux beaux-arts et à l'artisanat, à l'immigration et à la colonisation.

Votre wagon de queue doit être réparé? Le CN, vend, loue et répare le matériel roulant et les équipements ferroviaires. Il propose aussi des commandites d'entreprise et une aide aux organismes communautaires sans but lucratif, y compris aux musées. Le CN a récemment fait don de ses archives photographiques au Musée des sciences et de la technologie du Canada à Ottawa. <http://imagescn.technomuses.ca>

Pour de plus amples renseignements sur le **Canadian Railway Heritage Guide** de Daryl Adair, visitez le site des éditions North Kildonan, www.cdnrwymod.com/kildonia.htm. Cette petite maison canadienne publie également d'autres titres sur les chemins de fer patrimoniaux.

The Fiftieth Anniversary of Canadian National Railways Lightweight Steel Passenger Fleet

The feature, in our last issue, on the CPR Budd-built stainless steel passenger cars was very well received by the members. One comment frequently made was "how about doing something on the CNR cars built at the same time?". That seems like an excellent idea, so here goes!

Fifty years ago the railway enthusiasts in Canada were looking forward to the inauguration of two brand new modern transcontinental trains, "The Canadian" by the CPR and the "Super Continental" by the CNR. The actual inauguration day for both trains was Sunday, April 24, 1955. Both trains were diesel hauled, and offered the latest in modern accommodation on a run that took three days from Montreal to Vancouver, a great reduction from the previous schedules. Both also had Toronto sections which met the main line train at Sudbury (for CP) or Capreol (for CN). Running time from Toronto to Vancouver was a few hours less than from Montreal.

The inauguration of these new trains was made possible by the acquisition by the railways of no less than 532 new passenger cars in the preceding two years. 173 of these were the stainless steel Budd-built cars for the Canadian Pacific Railway which we discussed in our last issue. The other 359 cars were acquired new by Canadian National Railways, the largest lot of passenger equipment ever ordered by a Canadian railway. 218 coaches, numbered from 5437 to 5652 inclusive, were built by Canadian Car & Foundry (CanCar) of Montreal, and 141 sleepers, diners, dinette cars and parlour cars were constructed by Pullman Standard of Chicago. The first of the new equipment arrived, from both builders, in January 1954, and they were placed in service across the C.N. system as soon as they arrived.

It is a most unfortunate fact that the new CNR cars have always lived "in the shadow", as it were, of the CPR stainless steel equipment. When one talks of the "Super Continental" and its equipment, one often hears comments like "but it didn't have domes", or "it wasn't stainless steel". This is indeed a pity, for CN's cars had a great deal to offer and served Canada well for almost half a century. As we shall see, many are in service, in a bewildering array of configurations and conversions, all across North America.

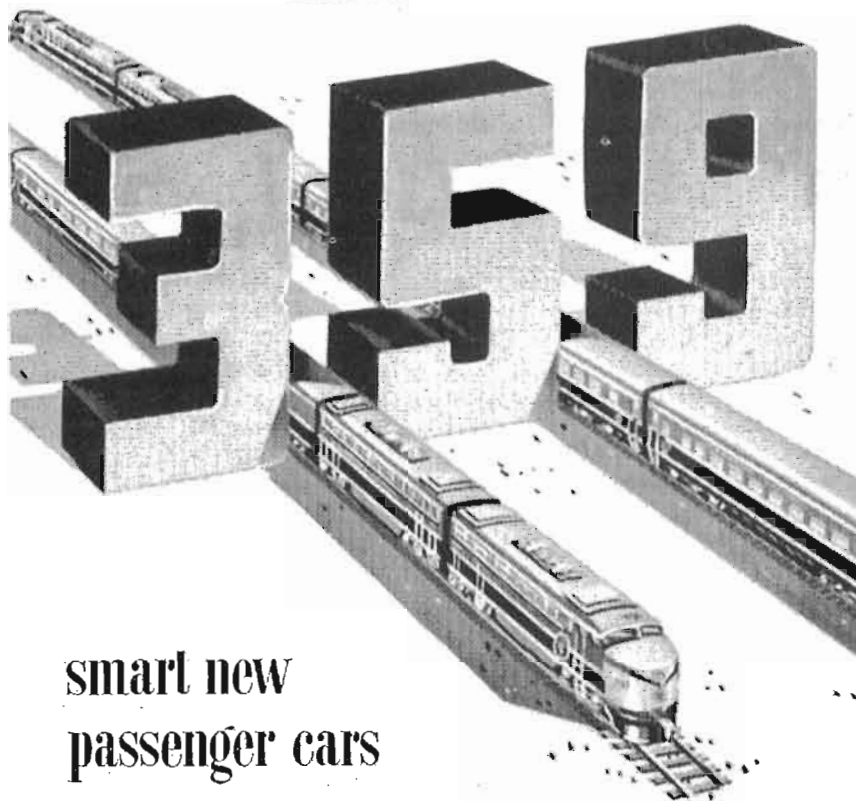
After the great modernization and car building programs carried out by Canada's railways in the 1920s, the entire industry fell into very hard times. This was the 1930s, the years of the Great Depression. Although some lightweight passenger equipment was built during the latter part of that decade, it was not nearly enough to keep pace with the "aging process" of cars which were decades old. Then came World War II, and the demands on the railways, for both passengers and freight, reached levels never seen before or since. Some new passenger cars were built, but in general the railways had to make do with whatever would roll. After the war it was realized that much of the obsolete equipment had to be replaced, but there were other priorities, including a major war in Korea (1950-1953), before much could be done. By 1950 major railways began seriously to consider modernizing, and started drawing up plans. In that year both systems, and most of the smaller railways as well, were still

operating large fleets of wooden passenger cars, a few of which dated back to the 1800s. Most trains were still hauled by steam, and schedules were little better than they had been thirty years earlier. The time for modernization had come.

Both Canadian National and Canadian Pacific planned for their new service, and here there was somewhat of a divergence in the ultimate aim. CP opted for the Budd stainless steel cars, including domes, and aimed to show off their more scenic line in the best possible way. This tradition dated back to the earliest days, and always relied heavily on tourists coming from other countries. CN, on the other hand, opted to provide a first class service, primarily for Canadians, but encouraging tourists as well. Since their line was not as scenic as CP's, they did not believe that the extra expense for domes was warranted. As for stainless steel, no one riding the train would notice any difference from the inside, and if a bright new attractive paint scheme was devised, CN's cars could easily match up to its rival. Perhaps CP's cars would last a few years longer, being non-corrosive, but both sets of cars would be good for twenty to twenty-five years, and no one expected that they would be called on to serve longer than that. Donald Gorden, the President of the CNR, summed it up when he said "*We chose to be practical - to obtain as much new modern equipment as we could get for our money and to spread it throughout the Canadian National Railway System for the benefit of as many travelers as possible.... and we have been guided accordingly in our planning*". That this philosophy was successful has been proved by the events of the last half century, events that could not have been dreamed of in 1954.

To enhance the "new look" appearance of the new equipment, all 359 new cars appeared in a new paint scheme. Gone was the solid green paint with yellow-gold lettering which had been used by C.N., and its predecessor the Grand Trunk, since about 1896. In the new paint job, the sides below the windows were painted a shiny black with yellow trim, the sides above the belt rail remaining green. The roof was painted a very dark grey, and, to enhance the appearance, a large CNR insignia, complete with maple leaf, was placed at each end of the car below the windows. After almost sixty years, the wafer, bearing the name "Canadian National Railways" was straight, and no longer tilted at a nine degree angle, as it had been since 1896. It now made a general appearance on passenger cars for the first time. On the letterboard above the windows the name "Canadian National" appeared as it had in the old livery. In your editor's opinion this was the nicest paint scheme ever used on passenger cars in Canada, at least in the twentieth century. It was also announced that this paint scheme would also be applied to older equipment as it came into the shops to be painted. As it turned out, this attractive scheme was only applied for little more than seven years before being superseded by a different livery.

Canadian National adds



smart new
passenger cars

for service all across Canada

There's new travel comfort when you make your trip by Canadian National. Every day . . . *all across Canada* . . . modern passenger cars are being added to CNR trains. Bright coaches, relaxing lounges, spacious drawing rooms, restful bedrooms, compartments, popular-priced roomettes, duplex-roomettes and berths—359 of these new cars are going into service, providing new levels of style and comfort and the widest choice of day-and-night accommodations for *every* budget.

It costs less than you might think to travel on the C.N.R.

For example look at these low coach fares between Montreal and Vancouver: One way \$78.71; Round trip \$128.30. Proportionately low fares apply for tourist and other types of sleeping car travel.

Ask about substantial savings offered by New Family Fares to Western Canada and to Mid-West and Western U.S.A.

*For reservations and information,
see, write or phone your local
Canadian National Passenger Agent.*





Sleeper "Green Hill" (No. 1172) as built. From a Pullman-Standard advertisement of 1954. At that time Pullman had the franchise for sleeper operation on certain of the CNR's lines. 31 of the new cars, of which "Green Hill" was one, were leased to Pullman for this service. This is why the Pullman name appears at the ends of the car.

The first railway enthusiasts' excursion held on the new cars was on a trip run as part of the convention of the Northeastern Region of the National Model Railroader's Association on May 15, 1954. A tour of the Montreal terminals was made using cars 5557, 5558 and 5559, one of which was making its first trip in revenue service.

By early 1955 most of the new equipment was in service, and on April 24th of that year the all-new "Super Continental" was inaugurated, on the same day as the CPR's "The Canadian". The entire train was in the new paint scheme, and made a fine sight as it headed west for the first time on its long run to Vancouver. All the new cars were now in service and many would continue to run for half a century or more.

In 1961 came a new paint scheme. As part of a visual modernization scheme CN adopted a livery of black and white, with the new C.N. symbol (still in use) in red at the ends of the cars. However it was years before all the cars got painted the new way, and mixed consists were the rule for many years. In the era of steam excursions in the 1960s and 1970s, some groups made specific efforts to have the whole train in the "green and gold of yesteryear"; this became increasingly more difficult as more and more cars were repainted.

The coming of Red White and Blue fares, followed by Canada's centennial in 1967, caused a huge increase in passenger traffic on CN. The 1954-55 cars were the mainstay, but everything that would roll was placed in service, including many passenger cars leased from lines in the United States. Some "dormette" cars in use dated as far back as 1919.

With changing travel patterns many of the cars were converted to other configurations. We will not attempt to follow all these conversions, but coaches became "dayneters", others had dinette sections added and the arrangement of some sleepers was also altered. In later times some were rebuilt as combine cars for remote mixed-train service. In many cases this rebuilding involved renumbering, as the classification of the equipment changed. However those that remained as straight coaches kept their original numbers in the 5437 - 5654 series, although there were now many gaps. (Those who want more detailed information on the history and renumberings of these cars, up to 1992, are referred to the book "Canadian National Railways Passenger Equipment, 1867-1992" by Gay Lepkey and Brian West, published by the Bytown Railway Society).

With the creation of VIA Rail in the 1970s, most of CN's passenger fleet joined the VIA roster. A new paint scheme was adopted - blue with yellow trim, which was a standard until quite recently. Now known as the "blue fleet" the ex-CN cars were operated over the entire network, including on trains that ran on CP lines.

By the 1990s the cars of 1954-55 were well beyond their originally planned life span and were beginning to show their age. One major drawback was that they were steam-heated, whereas the modern trend was to Head End Power (HEP). When VIA embarked on its HEP program, it was decided to convert the former CP stainless steel fleet and buy additional stainless-steel cars second hand from the United States. The former CN cars remained steam heated. The reasoning was that the stainless-steel equipment would have a longer expected life span, which would justify the great expense of the rebuilding to HEP. This was the beginning of the end for the "blue fleet".

As the HEP equipment went into service, many of the blue cars were retired. A considerable number were scrapped, but others were sold to various operators, including the Ontario Northland and the Algoma Central. A few were actually used in commuter service in Montreal, replacing much older equipment, until the new multiple-unit cars went into service in 1995. As more and more HEP equipment went into service, the steam-heated cars became ever scarcer. Their last major area of operation with VIA was in the far north, on runs to Churchill, Senneterre and other remote places. Finally these runs were also converted to HEP, and the blue cars were retired from VIA, except for very limited service on mixed trains in the North.

Some of the stored cars were scrapped at various locations (your editor recalls seeing a 1954 sleeper being unceremoniously demolished by a front-end loader near trackside in Montreal), but a great many were sold, frequently to the United States, and some have been re-sold more than once. Today, many tourist trains, both in Canada and the U.S.A. operate these cars. Ironically, those used on the excursion trains of the Algoma Central are once again owned by CN, following its takeover of Wisconsin Central that had previously taken over the ACR. Whether in Canada or the U.S.A., a rail enthusiast, boarding one of these trains, can soon recognize these old friends; the give-away is usually the initials "C.N.R." on the end doors. Many still display bilingual VIA signs, and, surprisingly, some still bear their original number. Some of the 359 cars are in museums, and others still ride the rails as private cars. Sleeping car "Eureka" (No. 1153) one of the group of 52 sleepers of its type, was acquired by a benevolent individual and donated to the Canadian Railway Museum, where it is a fine example of this group of passenger cars that made history fifty years ago.

On the next pages we reproduce three articles from "Canadian Transportation" of 1954 when the cars were new. Also some 1950s advertisements, and a selection of photos of this equipment in various service over the years up to the present time.

C.N.R. Receiving New First Class Cars

Canadian Transportation, February 1954



Left to Right: Mr. and Mrs. Gordon, Mr. and Mrs. Cosford and Mayor Houde of Montreal

On January 7 [1954], with appropriate ceremony, the first of 218 first-class passenger cars being built for Canadian National Rys. by Canadian Car and Foundry Co., Ltd., was handed over to the C.N.R. Chairman and President, Donald Gordon, by the Canadian Car and Foundry Co., Ltd., President and Managing Director, E.J. Cosford, the ceremony having been conducted at the Canadian Car and Foundry Co. Turcot plant.

Among the passenger equipment ordered by Canadian National Rys. during the last year or so are 218 first class passenger cars ordered from Canadian Car and Foundry Co., Ltd. These were ordered in two lots, the first order placed being for 161 of these cars, and the second one, placed quite recently, having been for an additional 57. The first of the 218 cars on order was completed recently, and figured in presentation ceremonies at the Canadian Car and Foundry Co., Ltd., Turcot plant, near Montreal, on January 7. A special train for guests was operated from the C.N.R. Central

Station in Montreal, leaving there at 4 p.m. Following arrival of the train at the Turcot plant, the guests made a tour of the plant, concluding with a visit through C.N.R. museum cars there. At the conclusion of the inspection tour, Edwin J. Cosford, the Canadian Car and Foundry Co., Ltd., President and Managing Director, welcomed the guests, following which the new car broke through a paper backdrop and drew up before the assembled guests. Following a presentation address by Mr. Cosford, Donald Gordon, C.M.G., the C.N.R. Chairman and President, accepted the car on behalf of the C.N.R., and, at the conclusion of an address by Mr. Gordon, the new car was coupled to the special train. Mrs. Gordon then cut a ribbon allowing opening of the flower bedecked door of the new car. Following presentation to Mrs. Gordon by Mr. Cosford of a silver teapot to commemorate the occasion, the presidential party and other guests

entered the new car, and the special train, with the car attached, left Turcot for Montreal Central Station, arriving there about 6 p.m. A reception at the Air Lines Restaurant in the International Aviation Building followed.

In the presidential party, in addition to Mr. and Mrs. Gordon and Mr. and Mrs. Cosford, were Col. R. Roch, a member of the Quebec Legislative Assembly; Mayor Houde of Montreal; Mayor Kirkland of Ville St. Pierre, and Mrs. Kirkland; M.A. Metcalf, Vice President and Executive Assistant, C.N.R., and Mrs. Metcalf; S.F. Dingle, Vice President, Operation, C.N.R., and Mrs. Dingle; E.A. Bromley, Vice President, Purchases and Stores, C.N.R., and Mrs. Bromley; John Pullen, Vice President, Traffic, C.N.R.; C.H. Drury, Vice President, Purchasing, Canadian Car and Foundry Co., Ltd., and Mrs. Drury.

Remarks by Mr. Cosford

Just before the new car was unveiled by breaking through the paper backdrop, Mr. Cosford, addressing the assembled guests, said:-



Donald Gordon, CMG, Chairman and President of the CNR

"I am very glad so many of you could be here this afternoon, and I wish to extend to you all a very cordial welcome.

"This afternoon we are going to turn over to Mr. Donald Gordon, Chairman and President of the Canadian National Railways, the first coach of the largest order for modern railway equipment ever placed in Canada. The occasion is a significant one. It is one which, I believe, will prove to be memorable. It marks the achievement of a number of noteworthy conditions I am going to call 'First's'.

"The railways of Canada are in the course of the largest passenger equipment programme in the history of our country. We, as car builders, who have this project actively in hand, consider this the greatest challenge ever made to our productive capacities, and this new Canadian National Railways coach which you are about to see is one in which Canadian Car and Foundry takes special pride.

"And now, ladies and gentlemen, it is with considerable pleasure and satisfaction that I present you with the first unit off the line - examined, tested and prepared for its trial run!"

At that point in Mr. Cosford's address, the car, on signal from him, broke through the paper backdrop and came to rest before the guests. He continued:-

"The car which stands before you now for inspection is the pilot model of the largest single order for passenger equipment ever awarded in this country.

"While we are referring to these immensities, this order which Canadian Car and Foundry Company is currently executing for the Canadian National Railways, is, I believe, the largest single order ever awarded to one manufacturer on this continent.

"Not only is this order the largest by virtue of the number of units involved, but also in terms of values. Capital investment in this type of equipment has been undertaken on an unprecedented scale; all for the purpose of furnishing passenger service in vehicles comprising the latest development and which have never been equalled for speed, safety, comfort and convenience.

"In industry, and especially among the great public services, comparisons are naturally and frequently made. How do our carriers measure up to those of our neighbours?



Mrs. Gordon cutting the ribbon to permit opening the door of the new car.

Recognizing this tendency I wish to draw your attention to the values embodied in this car you are about to examine.

"No better car is produced anywhere. From a design standpoint this car represents the ultimate which contemporary engineering skills can provide. Its trucks are of the famous Commonwealth design known and used by the railways throughout the continent. These trucks, together with the accessories and all the related components of the underframe, are unsurpassed in providing the finest technical features assuring maximum safety and rideability. The body, streamlined, stabilized, insulated, metal clad, embodies all that experience, and technical research has produced. The mechanical air conditioning system, the heating and sanitary conveniences, are the best and latest in controlled comfort. The colour schemes - the modern decor - have received a great deal of thought and attention; I am confident you will find them pleasing. While different appliances and arrangements may be found in other types of coaches, I am certain that none are superior to those of the car you are now inspecting. In saying this I recognize our indebtedness to the Canadian National Railways in writing a specification designed to provide such an outstanding facility to the Canadian public.

"This car, indeed, marks transportation progress and production effort. It presents, it provides for, the annihilation of distance with all the comforts of home; yes, even all the refinements of graceful living.

"Last, but by no means least, it represents operating efficiency from a transportation standpoint.

**Facts re C.N.R. Order for 218 First Class Cars, and
Features of Cars**

Value of Order:	\$29,000,000
Number of Units:	218
Length of Car:	84 feet, 10½ inches over the couplers
Weight of Car:	130,000 pounds
Exterior Finish:	Black, gold and green motif with red maple leaf monogram.
Interior Finish:	Four upholstering colors: rust, brown, blue and green frieze. Harmonizing linoleum floors and melotone plastic used throughout. No paint used inside the cars.
Seating Capacity:	80 passengers, including 28 in the smoking compartment.
Seats:	Foam rubber; rotating type with adjustable, reclining backs.
Lighting:	Shadowless overhead lighting above each seat.
Heating:	Fully automatic and thermostatically controlled.
Air-Conditioning:	Electro-mechanical, and first time used on Canadian National Railway's coaches.
Mechanical First:	First time four wheel trucks with coil spring suspension has been used on Canadian National passenger equipment. Trucks are roller-bearing equipped.

"Naturally it is of interest to the public to know the extent to which Canadian labor has contributed to the rolling stock offered for their use. Over 87% of the value of this car is represented by labor and material of Canadian origin. It is both good and right that domestic resources should be utilized to provide this equipment, and it gives me a great deal of pleasure to announce that this extent of Canadian content has never before been achieved in the manufacture of passenger equipment in Canada. It is also a tribute, in a very definite way, to the Canadian National Railways for its contribution to the economic welfare of our country. The variety and multiplicity of parts and skills which enter into this car are legion, and the demands penetrate to every segment of our national economy.

"To sum up, then, I think it will be of interest to you if I again refer to those conditions I called "Firsts", which we recognize today in witnessing this, the first unit off the production line:-

"It is the largest passenger equipment programme ever undertaken by the railways in our history. It is the largest production programme ever undertaken by the car building industry. It is the largest individual passenger car contract ever awarded in Canada. It is the largest production job of its character ever undertaken by one manufacturer on this continent. It is the greatest capital investment ever undertaken in this type of equipment. It is the best and greatest value in the provision of passenger car comfort and facilities. It is the greatest contribution of Canadian labour and materials to railway

passenger equipment. And finally, I trust this little ceremony today will be the first of many more to come.

"And now, Mr. Gordon, in asking you to accept this car, I venture the hope that it fully meets your recognized high standards."

Remarks by Mr. Gordon

In accepting the new car from Mr. Cosford, Mr. Gordon said:-

"This is an occasion I have been looking forward to with a great deal of pleasure. It isn't every day that we in the railway industry have a chance to hold a fashion show, because of course train styles do not change as often as the length of women's dresses. In view of the expense involved, it is a good thing they don't, although my friend, Mr. Cosford, may not entirely agree.

"In any case, this fashion show is a very happy and significant event. We are here today for a preview of the latest model in railway coaches, bright in its new colors, completely modern in its design and destined, I hope, to prove as fashionable in its own field as the latest gown from Paris - and a lot more permanent in its popularity.

"This first coach will go into service immediately. Others like it will be rolling out of this plant and onto our tracks every day. By the middle of the summer we will have modernized all our main-line passenger trains in every part of the country.

"This is something that has been needed for a long time. Our inventory of passenger equipment has been inadequate and to some extent obsolete for a number of years, and for a variety of reasons. First, there were the lean years of the Thirties when the railways couldn't find enough passengers to use the cars they had. Then came the Second World War, during which every available unit was pressed into active service, and practically no new equipment could be obtained. By the end of the war, our cars were showing the effects of the strenuous wear and tear they had undergone, and we would have liked to replace them. Mr. Cosford and his staff were equally anxious to assist us in this direction but unfortunately steel shortages in the early postwar period, and later the impact of defence requirements, made it difficult for them to produce passenger equipment in the quantity required

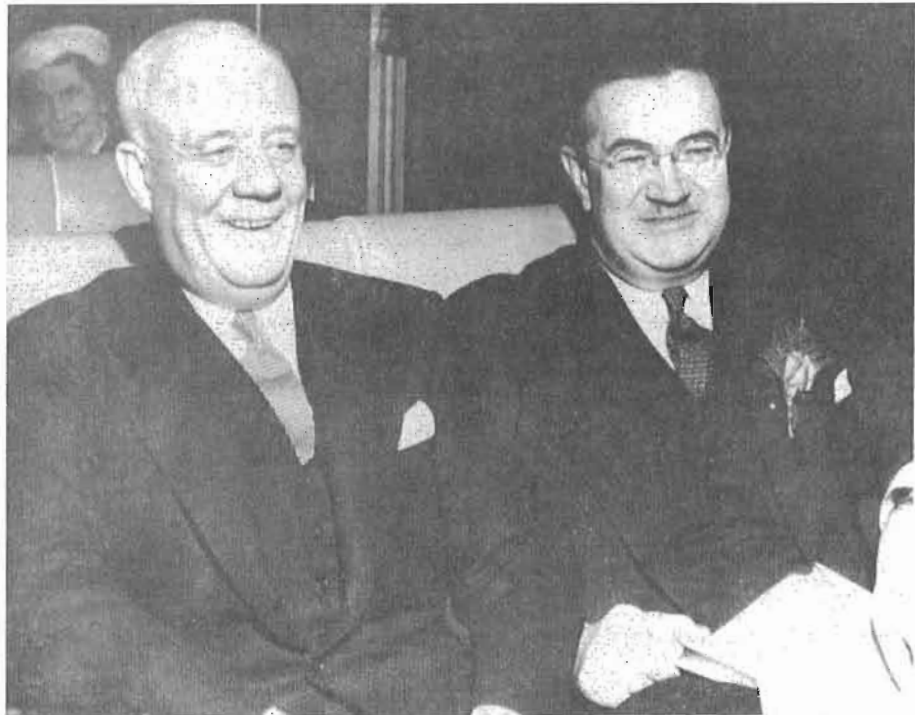
and to guarantee delivery within a time limit. It was not until about a year ago that we were able to order the replacements we so badly needed, and which we are so glad to begin receiving today.

"I should perhaps remind you that this order for coaches was placed with the Canadian Car and Foundry Company against competitive bids from the United States. Thus we were able to make an objective comparison of the products of several manufacturers and, at the same time, to ensure a realistic appraisal of the important element of cost. The fact that this company was the successful bidder is a tribute to the efficiency of its operations, and I am glad to say that the samples we have inspected so far amply justify the belief that the Canadian product is the equal of its competition in every respect.

"Another manufacturer [Pullman Standard] is currently producing a large order of sleeping, dining and parlor cars for us, and when they are delivered there will of course be a still sterner comparison to be made.

"You will find this new equipment is built primarily for comfort and not for show. It offers quite a few new features, but we have not adopted what is new just for the sake of newness. In designing these cars we had the choice of being fancy or practical - of providing a comfortable, up-to-date service on all our principal trains, or of concentrating on frills and glamour for a few of our most important runs. We chose to be practical - to obtain as much new, modern equipment as we could get for our money and to spread it throughout the Canadian National Railway System for the benefit of as many travellers as possible. We have good reason to believe that what travellers in Canada want today is smart, modern, comfortable transportation priced within the reach of the average pocketbook, and we have been guided accordingly in our planning.

"This new 80-passenger, all-steel coach is as smooth-riding and attractive as any traveller could ask. Roller bearings, special springing and seats of the most modern design offer a high level of comfort unexcelled on any railway. The wheels are mounted on trucks of new design which feature a large central bearing, all-coil springs and shock absorbers. Inside, the coach is



Mr. Cosford and Mr. Gordon seated in the new car.

mechanically air-conditioned. The walls and ceilings are completely finished in plastic; there is no paint at all, which makes for easier maintenance. Along with its attractive new exterior dress, the coach has new color schemes inside as well.

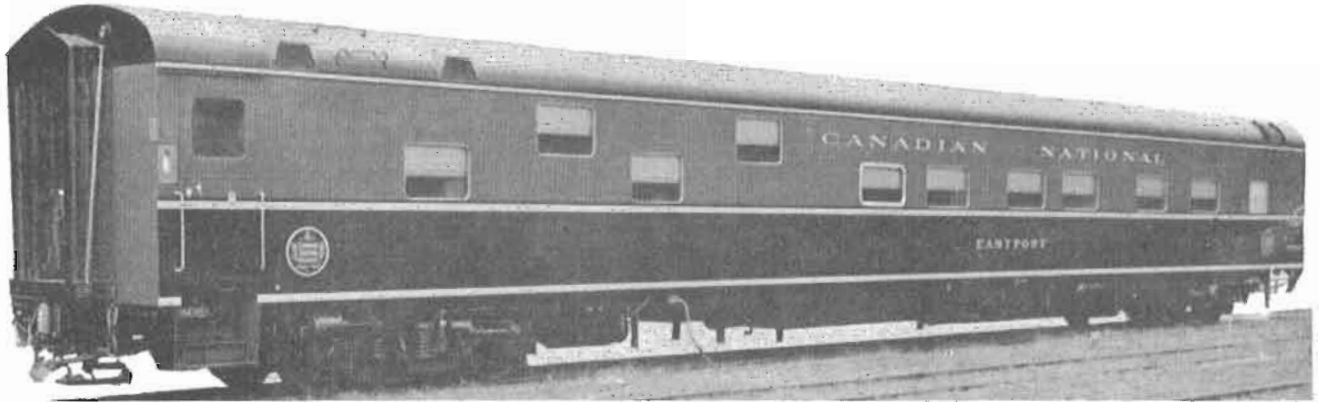
"The green, gold and black exterior design has a certain novelty about it now, but it will soon be a familiar sight all over our System - and I am not speaking of just a few cars but of whole trains. To help bring this about as quickly as possible, the Canadian Car and Foundry Company has geared its production facilities to the highest rate of output in its history. Its present objective is to turn out two coaches a day.

"This is a measure of the enthusiasm with which the job is being tackled, and it also reflects the high degree of co-operation which has always existed between our two companies. Both the workers and management of Canadian Car have been right on their toes in carrying out this order and we are particularly gratified with the efforts that are being made to meet delivery dates. We have worked together very closely on this project from the beginning and out of the experience and skills developed on this particular job we all expect the Canadian product to more than hold its own against all forms of competition.

"However, in a few minutes you will be able to judge this for yourselves when you inspect this new coach. I know that Mr. Cosford and his colleagues will be perfectly happy to be judged in accordance with the Biblical admonition 'By their fruits ye shall know them'."

C.N.R. Receives First Passenger Cars of \$59 million Order

Canadian Transportation, April 1954



The first of the new C.N.R. sleeping cars, with four open sections, four bedrooms and eight duplex roomettes.

The Canadian National Rys. programme for the acquisition of new passenger train equipment involves the purchase of 359 new passenger train cars. Of these, 218 are first class cars, being supplied by Canadian Car and Foundry Co., Ltd., while the remaining 141 cars are sleeping and dining cars of various types being supplied by the Pullman-Standard Car Manufacturing Co., Chicago.

Of the 141 cars being supplied by Pullman-Standard, 104 are sleeping cars of eight different arrangements, while six are straight parlor cars, each with 34 parlor car chairs; nine are buffet-parlor cars, each containing 20 parlor car chairs, 16 dining room chairs and a kitchen; two are buffet-parlor cars, each containing 22 parlor car chairs, buffet, and eight dining room chairs; six are dinette cars, each with 26 lunch counter seats, and 14 are dining cars, each with 40 dining room chairs.

The eight sleeping car interior arrangements, and the number of cars with each arrangement, are as follows:-

52 cars, each with four open sections, four double bedrooms, and eight duplex roomettes.

20 cars, each with six open sections, four double bedrooms, and six roomettes.

Six cars, each with five double bedrooms and 10 roomettes.

Six cars, each with five compartments and three drawing rooms.

Four cars, each with eight sections, one double bedroom, kitchen, and 16 dining room chairs.

Eight cars, each with two compartments, two double bedrooms and buffet lounge.

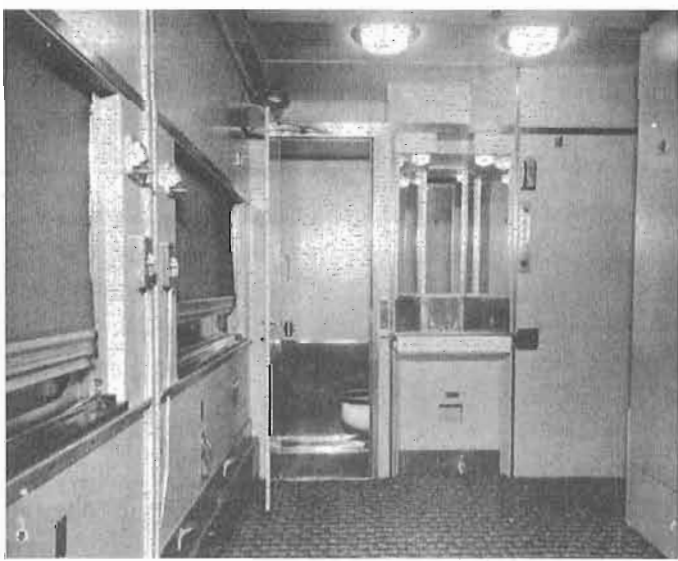
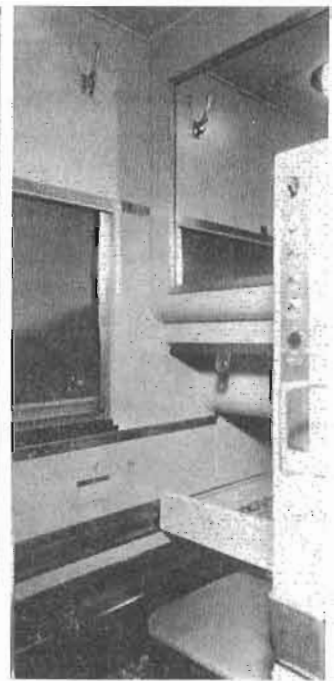
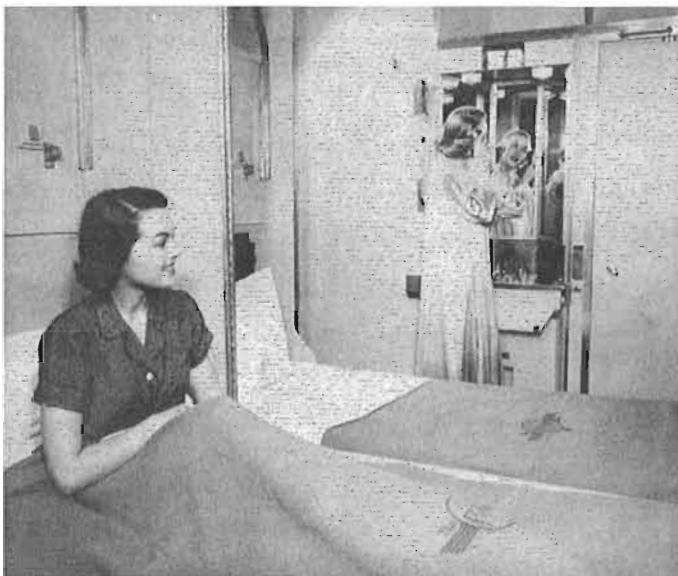
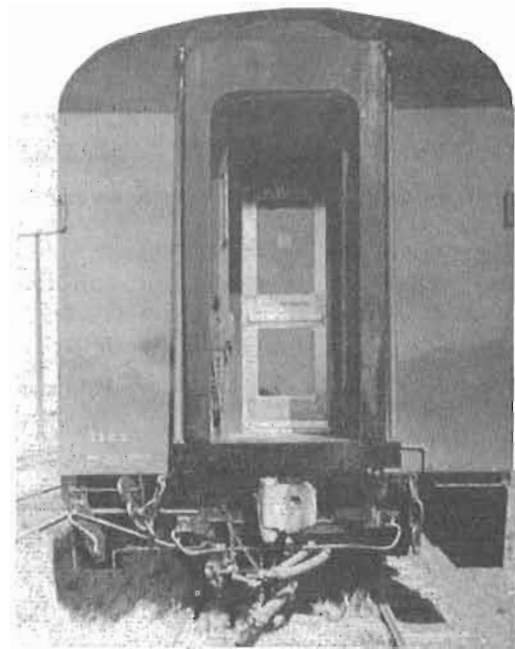
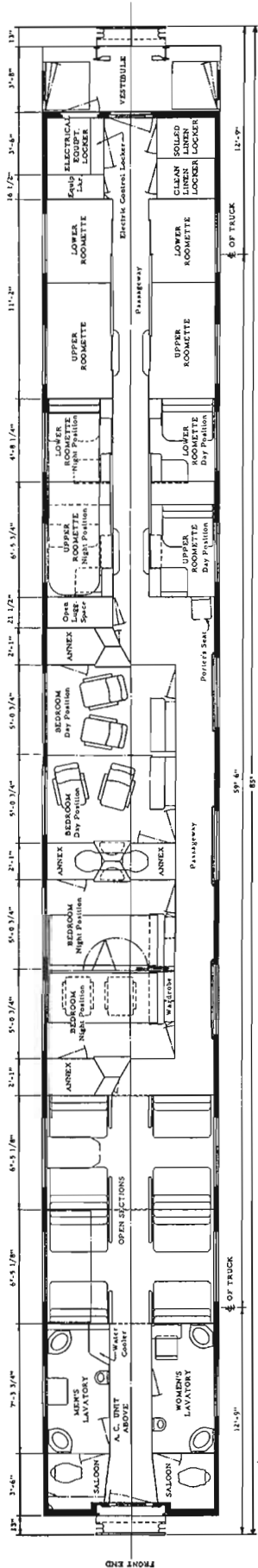
Six cars, each with 10 sections and one double bedroom (buffet).

Two cars, each with seven compartments and kitchen observation room.

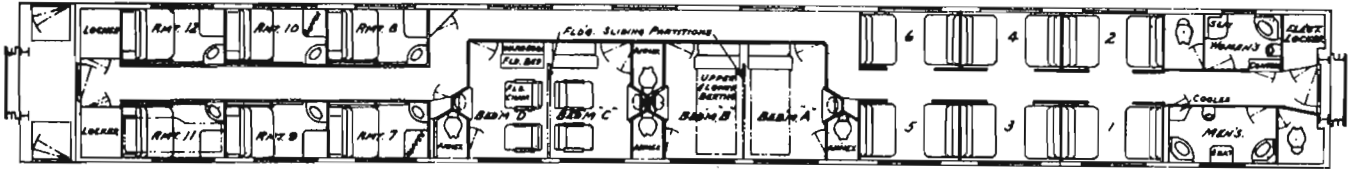
Numbering and Naming of Cars

The 52 sleeping cars, each with four open sections, four double bedrooms and eight duplex roomettes, are being numbered and named as follows:-

Eastport 1110,	Eastview 1111,
Edenwold 1112,	Edgeley 1113,
Edmonton 1114,	Edmundston 1115,
Edson 1116,	Edwardsville 1117,
Egerton 1118,	Ekhart 1119,
Elcott 1120,	Elderbank 1121,
Excelsior 1122,	Elgin 1123,
Elizabeth 1124,	Ellerslie 1125,
Elliston 1126,	Elmira 1127,
Elmsdale 1128,	Elnora 1129,
Elrose 1130,	Emerald 1131,
Emerson 1132,	Emperor 1133,
Endako 1134,	Endcliffe 1135,
Endeavour 1136,	Enfield 1137,
Englee 1138,	Ennishore 1139,
Enterprise 1140,	Entrance 1141,
Entwistle 1142,	Equity 1143,
Erickson 1144,	Erinview 1145,
Ernestown 1146,	Erwood 1147,
Escuminac 1148,	Essex 1149,
Estcourt 1150,	Ethelbert 1151,
Euclid 1152,	Eureka 1153,
Evandale 1154,	Evangeline 1155,
Evanston 1156,	Evelyn 1157,
Everett 1158,	Eldorado 1159,
Exeter 1160,	Extew 1161.



*EXTREME LEFT: Plan view of an "E" class car.
 TOP LEFT: End view of car 1122, "Excelsior".
 TOP RIGHT: An open section in day use.
 ABOVE LEFT: Two adjoining bedrooms made up en suite.
 ABOVE: Lower roomette set up for day occupancy.
 LEFT: A bedroom as it appears in day use.*



C.N.R. 79 ft. 2 in. Sleeping Car, Six Open Sections, Four Double Bedrooms and Six Duplex Roomettes

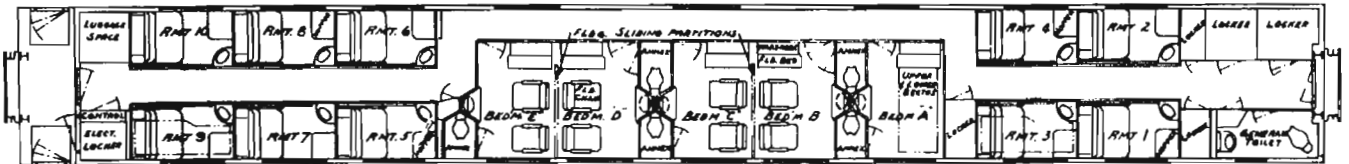
The 20 sleeping cars, each with six open sections, four double bedrooms and six duplex roomettes, are being numbered and named as follows:-

Green Point 1162, Greenmount 1163,
Green Brook 1164, Green Court 1165,
Greening 1166, Green Cabin 1167,
Greenshields 1168, Green Bush 1169,
Greenfield 1170, Green Harbour 1171,
Green Hill 1172, Green Lane 1173,
Greenview 1174, Greenvale 1175,
Greenway 1176, Green Bank 1177,
Greenbrier 1178, Green River 1179,
Greenwood 1180, Greenwich 1181.

The four sleeping cars, each with eight sections, one double bedroom, kitchen, and 16 dining room chairs, are being numbered and named as follows:

White Rock 1010
White Rapids 1011
White Oak 1012
White Sands 1013

The eight sleeping cars, each with two compartments, two double bedrooms and buffet lounge, are being numbered and named as follows:

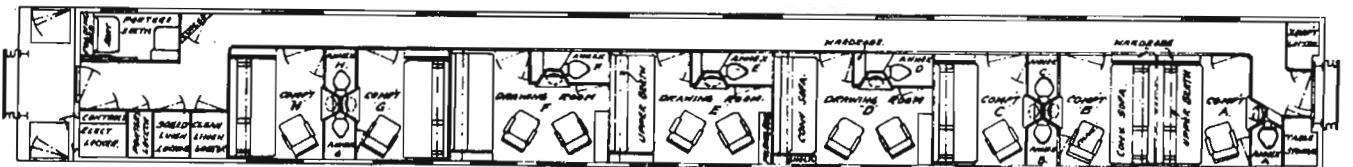


C.N.R. 79 ft. 2 in. Sleeping Car, each with Five Double Bedrooms and 10 Roomettes

The six sleeping cars, each with five double bedrooms and 10 roomettes, are being numbered and named as follows:-

Buckley Bay 2022
Hudson Bay 2023
Chaleur Bay 2024
Glace Bay 2025
Thunder Bay 2026
Fortune Bay 2027

Cape Rosier 1082
Cape Brule 1083
Cape Porcupine 1084
Cape Race 1085
Cape Canso 1086
Cape Breton 1087
Cape Chignecto 1088
Cape Tormentine 1089



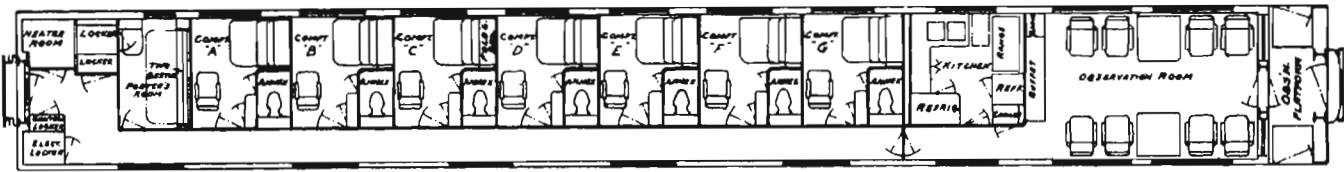
C.N.R. 79 ft. 2 in. Sleeping Car, each with Five Compartments and Three Drawing Rooms

The six sleeping cars, each with five compartments and three drawing rooms, are being numbered and named as follows:-

Mount Edith Cavell 1100
Mount Robson 1101
Mount Albreda 1102
Mount Fitzwilliam 1103
Mount Resplendent 1104
Mount Tekarra 1105

The six sleeping cars, each with 10 sections and one double bedroom (buffet) are being numbered and named as follows:

Valleyfield 1014
Valley Mills 1015
Valley Park 1016
Valley River 1017
Valley Road 1018
Valleyview 1019



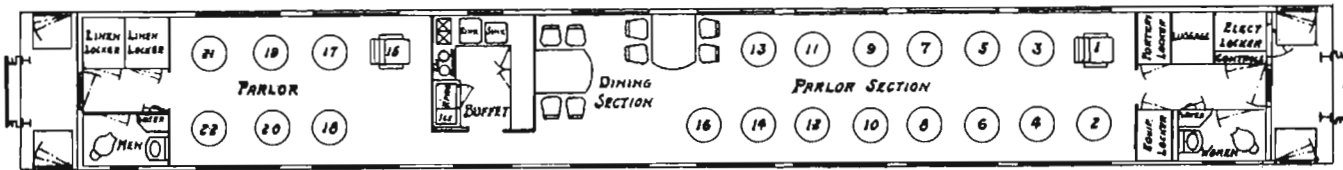
C.N.R. 79 ft. 2 in. Special Compartment Car, each with Seven Compartments, Observation Room and Buffet

The two sleeping cars, each with seven compartments and kitchen observation room, are:

- Burrard 1098
- Bedford 1099

The two buffet-parlor cars, each containing 22 parlor car chairs, buffet and eight dining room chairs, are:

- Diamond Lake 898
- Silver Lake 899



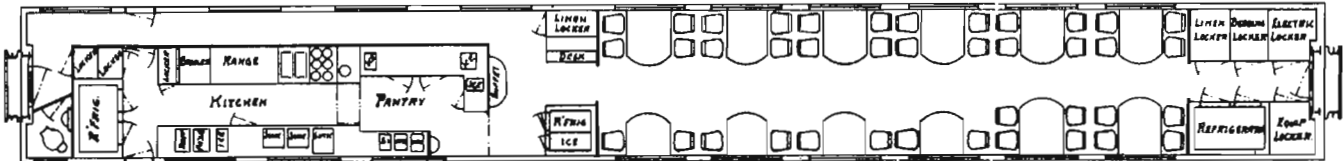
C.N.R. 75 ft. 6 in. Buffet-Parlor Car, each with 22 Parlor Car Chairs, Buffet and Eight Dining Room Chairs

The six straight parlor cars, each with 34 parlor car chairs, are:

- Lake Lenore 581, Lake O'Brien 582,
- Lake Chapleau 583, Lake St. Joseph 584,
- Lake Kathlyn 585, Lake Verd 586.

The six dinette cars, each with 26 lunch counter seats, are being numbered 425-430, inclusive; no names have been assigned.

The fourteen dining cars, each with 12 tables and 40 dining room chairs, are being



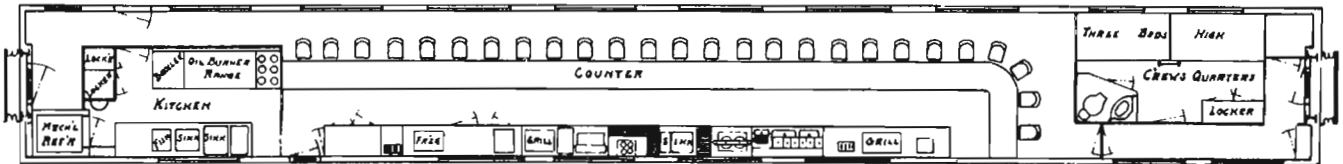
C.N.R. 82 ft. 10 in. Dining Car with 40 Dining Room Chairs

The nine buffet-parlor cars, each with 20 parlor car chairs, kitchen and 16 dining room chairs, are:

- Francois Lake 900
- Babine Lake 901
- Beaverhill Lake 902
- Moose Lake 903

numbered 1337-1350, inclusive; no names have been assigned.

The 104 sleeping cars, with the differing interior arrangements as listed in the foregoing, are of special design throughout, and the details are the result of much study and research, including close examination of some 2,500



C.N.R. 82 ft. 10 in. Dinette Car, each with 26 Lunch Counter Seats

- Seyern Lake 904
- Radiant Lake 905
- Grand Lake 906
- Bras D'Or Lakes 907
- Luster Lake 908

suggestions and criticisms on the part of passengers.

The first car of the total of 141 ordered was delivered on schedule on January 11 [1954], and the expectation is that all of the cars in the order will be in service by midsummer.

Sleeping Cars with Four Open Sections, Four Double Bedrooms and Eight Duplex Roomettes.

As the sleeping cars with four open sections, four double bedrooms and eight duplex roomettes were the first delivered to the C.N.R., they will be the first described in these columns. The first car, the *Eastport*, went into service January 23 between Montreal and Chicoutimi, and as additional cars were received they were assigned to various runs throughout Canada.

A feature of the sleeping car Interior finish and decoration is that interchangeable color crafting has made possible an entirely different color scheme for each type of accommodation, while using only nine paint colors and seven fabrics.

Smartly dressed in the C.N.R. new exterior colors of green, black and gold, with maple leaf monograms fore and aft on the sides, the car provides an original arrangement of sleeping accommodation to offer the traveller a wide choice in the one unit. Two bedrooms may be converted into one large room by folding the partitions and making adjoining rooms en suite. The berths disappear completely during daytime travel - the lower into the wall and the upper into a recess in the ceiling. Arm chairs may be moved to any position in the rooms.

The eight duplex roomettes, with soft sofa seats and full size beds, are in alternating aisle and upper levels at one end of the car. At the opposite end, the "new look" has been carried into the familiar open section space. Each upper has an individual ladder which remains in a fixed position at night, so that it is no longer necessary to ring for the porter when a ladder is required. These are removed during the day when the upper berths are closed.

Sofas, chairs and mattresses are all of foam rubber and the color schemes are of various combinations of blue, rose, cream and beige, producing a bright and cheerful atmosphere.

High strength alloy steel has been used in the construction of the cars, and these are equipped with the latest devices in braking for safety. New type trucks with coil spring suspension, roller bearings and special anti-sway stabilizers have been employed, to ensure smooth riding qualities.

An electro-mechanical air-conditioning system, with automatic thermostatic control, eliminates the need for the use of natural ice for air-conditioning or the cooling of drinking water. Every room has its individual control for heating, air-conditioning and lights.

Chief Dimensions-Clearances. - The cars are 85 ft. long between pulling faces of couplers, with distance of 59 ft. 6 in. between truck centers. Width over side posts is 10 ft., and width between side posts, 9 ft. 6 in. Height, rail to top of roof

carlines, is 13 ft. 6 in., and rail to top of platform floor plate, 4 ft. 2 1/2 in. Height, rail to top of floor in passenger space, is 4 ft. 3 in.

The cars are designed to negotiate a 23 degree curve when coupled, and to meet the C.N.R. clearance requirements, as well as those of the electrical zone of the New York Central, the New York, New Haven and Hartford, and the Pennsylvania.

Framing. - The car structure is of welded girder type construction, of Pullman-Standard design with plain painted sides and roof. The roof has A.A.R. standard contour. The frame conforms with the latest strength requirements of the U.S. Post Office Department specifications and the latest A.A.R. strength requirements.

Underframe. - The underframe is of high strength, low alloy steel, with all members welded to form an integral unit from end to end of car. The center sill between bolsters consists of two A.A.R Z-26 sections, 31.3 lb. per foot, with the top flanges arc welded together continuously to form a hat section, and is butt welded behind each bolster to a separately constructed built-up draft sill weldment. The draft sills and center end sills are of built-up arc welded construction, extending between end of center sill inside the bolster to the end of the car, and flared at the end to provide for the swing of the coupler. The inside side sills are 10 1/2 in. deep x 3 in. x 0.180 in. thick Yoder angle section, continuous in one piece for the full length of the car, with all cross members and side posts attached thereto. The bolsters are built-up, arc welded box section type, with two web plates and top and bottom cover plates, and with the bolster side sill connection made by welding. The bolster center filler is of arc welded construction, to take 4 in. diameter (bottom inserted type) center plate pin. The body side bearings are of built-up arc welded construction. The crossbearers, 0.250 in. thick pressed channel type, are welded to the center and side sills, there being five per car, applied between the bolsters, with two-piece center separators between the center sill webs at each cross bearer. The floor crossbeams are pressed and rolled Z sections. The end sills are of built-up arc welded construction, and buffer wings of built-up arc welded construction are provided at the vestibule ends of the cars. The sub-floor sheets, chiefly 0.050 in. galvanized steel, applied on top of the underframe members, are riveted in place, except at the ends of the car, where they are screwed in place. The floor stringers are 1/8 in. thick Yoder Z section, 1 5/8 in. x 3 in. x 1 5/8 in., 2.391 lb. per foot, running lengthwise of the car over the top of the cross members and riveted thereto. The body central bearing, 24 in. in diameter, is of annealed cast steel, riveted to the bottom cover plate of the draft sill and arranged with shear lug at center extending into the bolster center filler.

Side Framing. - The side framing members are of high strength, low alloy steel, with the vertical and horizontal members arc-welded together at the joints to form an inner frame the full length of the car, with the exterior side sheets applied against this inner frame and attached by spot welding. The outside side sill angles are 2 1/2 x 2 1/2 x 3/16 in. rolled angle section. The belt rail and window header are made in sections butt welded together to form a continuous section the full length of the car, being arc welded to the side posts and riveted to the lower leg of the inside side sill of the underframe. The side posts, of Yoder section, are in three pieces, with the ends fitted between and arc welded to the horizontal members. The side plates are rolled Z section, 4.3 lb. per foot, with sections butt welded together to form a continuous section the full length of the car, and arc-welded to the side posts. The eave mouldings are of 3/16 in. cold rolled steel section, applied at the side plate with countersunk head rivets. The side sheets, 0.075 in. thick, extend between side plate and side sill, and are reinforced with corrugated stiffeners spot welded to the inside surfaces between the posts. The sheets are spot welded to the framing members, and the sheet joints are butt welded together. At both the vestibule and dummy ends of the car, there are two main end posts, 8 in., 20 lb. H beam section, extending from underframe to roof; pressed channel body corner posts, 0.120 in. thick, extending in one piece from side sill to side plate, with ends fitted and welded thereto; body end door and intermediate body end posts of pressed Z section, 4 in. deep and 0.120 in. thick; body end sheets 0.075 in. thick, spot welded to intermediate posts and riveted at top and bottom edges and sides; end carline angle, 2 1/2 x 2 1/2 x 3/16 in., rolled angle section formed to the contour of the roof; body end door casing and header 0.075 in. thick, arranged to provide a door jamb for an inward swinging door 2 ft. 4 in. wide, and a 1/8 in. thick foot plate of mild carbon steel, with anti-slip tread.

The roof, of turtle back type to A.A.R. contour, is continuous from end to end of car, and of all-welded construction, with all members of high strength, low alloy steel. The carlines are 0.075 in. thick pressed hat section applied crosswise of the car at 3 ft. centers, with the ends flared to meet the inside flange of the side plate. Six purlines of 0.075 in. thick pressed Z section are provided at 18 in. centers

lengthwise of the car in the upper part of the roof; the bottom flanges are arc welded to the bottom flange of the carlines, and a pressed strap connection 0.075 in. thick is arc welded in place to the underside of the carline flanges at each purline location. The roof sheets are 0.075 in. thick and applied crosswise of the car with a butt joint at each carline, and spot welded to the purlines. The seams are seal welded full width of car to the carlines.

Draft Gear, Etc. - Miner A-4-XB draft gear is used, with the draft gear lugs arc welded to the underframe draft sills. The coupler yokes are of American Steel Foundries make. The coupler carriers meet A.A.R. 100,000 lb. loading. The coupler operating mechanism, to suit type E head coupler, operates from left side of car as seen when standing on the ground facing the end of the car. The International Equipment Co. centering device is fitted. The Miner friction buffing device, class B-18-X, is used, with combination Fabreka and steel bushings around the buffer center stem.

Diaphragms. - Inner type diaphragms only are provided, being applied at both ends of car, with the diaphragm canvas fastened to the car body and the face plate by bolts. A canvas hood is applied at the top of the diaphragm.

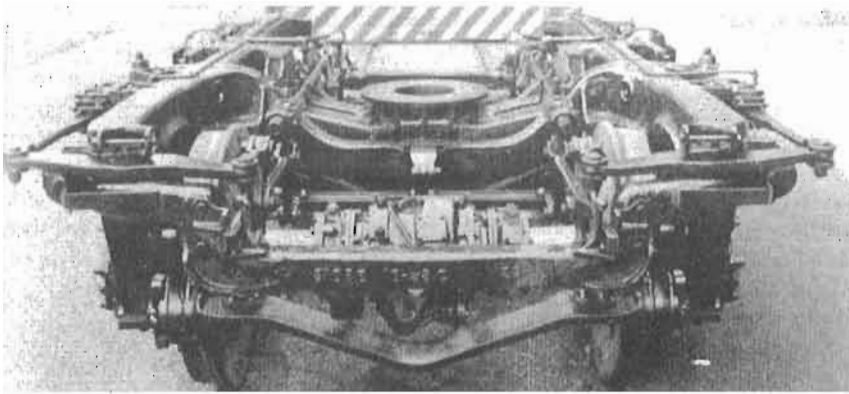
Two vestibule platform steps are provided at the vestibule end of the car, one at each side, these being of stationary 4 tread design, made of copper-bearing steel.

The cars are thoroughly insulated throughout, with Owens-Corning Aerocor mineral base insulating material.

Brakes. - These cars are fitted with the Canadian Westinghouse "HSC" brake equipment, with D-22-AR control valve, and with the cylinders and slack adjusters mounted on the truck side frame and the balance of the underneath equipment on the underframe. The slack adjusters are the Westinghouse C-26-D type. Braking is 75% at 50 P.S.I. (service) and 150% at 100 P.S.I. (emergency). The brake rigging is designed to carry forces resulting from 110 lb. brake cylinder pressure without exceeding A.A.R. stress limits, viz., 23,000 lb. per sq. in. for levers, 15,000 lb. for rods, 10,000 lb. for jaws, 10,000 lb. for pins and 23,000 lb. for pin bearings. The lever ratio is about 8:1 with nominal 5 in. piston movement. At each end of the car, a National Brake Co. "Peacock"



Electrical controls for C.N.R. sleeping car.



The type of truck employed in the new C.N.R. sleeping cars.

lever handle type hand brake is fitted. The air brake train line is extra heavy wrought iron pipe, with extra heavy malleable screw fittings, and the piping on the trucks is extra heavy I.P.S. galvanized steel pipe with A.A.R. galvanized malleable iron fittings. Equipment includes air signal valve at each end of car, conductor's valve with handle type control at each end of car, and retaining valve.

Trucks. - The car bodies are carried on General Steel Castings Co. grade A cast steel, 4-wheel, outside swing hanger, all coil spring, single equalizer trucks, arranged for vertical shock absorbers, and designed for a central bearing load of 70,000 lb. for 6 x 11 in. axles to take care of 150% braking power based on 100 lb. cylinder pressure. The equalizers are forged single bar type, double normalized and tempered steel to A.A.R. specification. The swing hangers and swing hanger bar are of the same material. Edgewater Steel Co. 36 in. diameter, multiple wear, heat treated rolled steel wheels are fitted, with mounting pressure to A.A.R. standard practice. The equalizer and bolster springs are of the helical coil type, of chrome alloy steel. Vertical movement is controlled by Houdaille (Chrysler) friction type shock absorbers. The pedestals are cast integral with the truck frame. The pedestal liners are 1/4 in. hardend spring steel. Hyatt 6 x 11 in. roller bearings are employed, with Timken heat indicators. The brakes are the American Steel Foundries Simplex unit type clasp design. The brake rigging has induction hardened pins and case hardened bushings, the brake heads take A.A.R. No. 1 shoes, and each truck has an extended cylinder lever for hand brake operation.

Air-conditioning and Ventilation. - The cars are provided with Frigidaire 7-ton capacity, freon, electro-mechanical air-conditioning system, with the compressor and condenser units located under the car and with the refrigerant lines leading to the evaporator and blower units, located in the ceiling area. Steam lines are connected to the heat coil at the evaporator unit to provide heat in the air circulation system in cold weather. The design of the circulation

system, including outside and recirculating air intake, exhaust, ducts and duct outlets, is such as to provide a controlled movement of air to all parts of the car. The fresh air intake is about 600 c.f.m., and the quantity of forced exhaust is less, so as to maintain a positive pressure within the car. The system is controlled in conjunction with the heating system, from a single control panel. The compressor and condenser are controlled from a relay panel located in the main electric locker.

Heating. - The heating system, trench type in the rooms and conventional type in the passageways, provides panel heat at the windows in the open sections, bedrooms and roomettes, using low pressure steam as per the Vapor Co. design and arrangement, with thermostatic controls and fin type radiation. As above noted, the heating (overhead and floor) operates in conjunction with the air-conditioning system. The main steam trainline is of 2 7/8 in. o.d. seamless soft annealed steel tubing, with 0.120 in. wall, and with welded joints. Vapor 2 in. end valves are provided, the valve at each end of the car operating from both the platform and the ground. Each end of the car is fitted with Vapor 2 in. insulated metallic conduit connector, with 2 in. steam coupler. The branch lines, carrying trainline pressure steam to the regulators, are of extra strong steel pipe, with extra heavy malleable iron fittings. The low pressure steam and return lines are copper tubing, with sweated type fittings, and the tubing is bent, to exclude use of fittings, wherever practicable. All piping beneath the car is heavily insulated. The fin type radiators are of copper tubing and aluminum fin construction, and the radiator steam control valves are of the manually operated type, with remote control operating device in the sleeping rooms. The regulation of the steam supply to the radiator steam control valves is controlled by mercury column type thermostat in the car and electrically operated safe control valve under the car.

Floor. - The flooring is of 1 in. untreated Douglas fir resin-sealed, 9-ply plywood applied to the top of poplar furrings and secured to the floor stringers with self-tapping screws. Flintkote paper is applied wherever the plywood floor is supported by steel or furring members. All floor joints are butted and sealed with Press-Tite glass sealer, with all joints sanded or disced to make a level floor. The floor terminates about 11 in. from the inside post line, with a 0.090 in. steel closing plate applied flush with the top of the floor. Openings cut through the floor for the passage of piping, electric conduit, drains, etc., have brass tubing

seal sleeves, with gaskets, mounted to the sub-floor sheets, and at the floor surface openings are sealed with caulking compound, to ensure maximum sound deadening and to prevent entrance of air and dust.

Floor Covering. - Where rubber flooring is employed in the car, it is laid on 30 lb. saturated felt paper and applied with cement; it is 1/8 in. thick synthetic rubber flooring, in various patterns and colors. It is used at the extreme ends of the passageway, in the men's lavatory and saloons, in the annexes, in the women's lavatory and saloon, and on the vestibule platforms and trap doors. Carpet of various patterns and colors is used in the bedrooms, open sections and roomettes, except that linoleum is used in some locations in the latter. The carpet is laid with 1/4 in. sponge rubber padding, and fastened with grommet knobs and plates. The floor is painted in the linen lockers, equipment lockers and wardrobes, and the tops of the annexes, used for luggage storage, are painted also.

Electrical System-Lighting. - These cars have a very complete electrical system, with power supplied from the generator and storage batteries. The axle-driven Safety C.H. and L. Co. generator is driven by a Holden Co. Spicer model 6.1 gear type drive mechanism, with automatic clutch and hollow shaft, gear ratio being 3.09:1. The batteries are 57-cell Exide Powerclad type, with each set assembled in 19 3-cell hard rubber moulded containers. A battery charging receptacle is installed at each side of the car, as is also a pyle-National stand-by receptacle. Wire sizes throughout were developed to meet voltage drop allowance as prescribed by the National Electric Code. Conduit beneath the car is of galvanized steel, while that throughout the car is thin wall steel electrical metallic tubing. Lighting fixtures are of Luminator Co. make. Six-watt night light bulbs are provided at the fixtures for the sleeping room ceiling lights and open Section upper berth lights. Electrical appliances and receptacles include Chase Supply Co. electro-mechanical water coolers with circulating pump, two vacuum cleaner receptacles, razor convertor, shaving receptacles (in each sleeping room, with two in men's lavatory), two trainline receptacles per car, intercar connector for porter's call trainline, Luminator aisle lights, illuminated car number signs, call buzzers in all sleeping rooms and in women's lavatory with push buttons outside the doors in passageway partition, and 20-call annunciator operating from 6-volt battery, of illuminated type, with two chimes, with two push buttons for the annunciator system in each bedroom, one in each roomette, one in each sleeping room annex, one in each upper and two in each lower berth in the open sections, one in

Suppliers of Materials and Equipment

Material or Equipment	Supplier
Air Brake Equipment	-Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Air Conditioning Equipment,	-Frigidaire Division, General Motors Corp., Dayton, Ohio.
Mechanical Refrigeration	-The Trane Company, Chicago.
Air Conditioning Equipment	-American Steel Foundries, Chicago.
Couplers & Yokes	
Generator Equipment, Motor Alternators, Exhaust Fans	-Safety Car Heating & Lighting Co., Chicago.
Diesel Enginotor	-Waukesha Motor Co., Railway Division, Waukesha, Wis.
Generator Drives	-Holden Co., c/o Spicer Mfg., Toledo, Ohio.
Heating Equipment	-Vapor Heating Corp., Chicago.
Water Tanks	-Scaife Co., Chicago.
Draft Gears and Buffing Device	-W. H. Miner, Inc., Chicago.
Vestibule Curtains, Misc. Hardware, Curtain Fixtures & Rollers, Luggage Racks	-Adams & Westlake Co., Elkhart, Ind.
Brake Shoes	-American Brake Shoe Co., Chicago.
Hoppers	-Crane Sales Co., Chicago.
Rubber Seat Cushions & Back Carpet	-Duner Co., Chicago.
Insulation	-Beck & Blatchford, Inc., Sales Agent, Good-year Airfoam Products, Chicago.
Hand Brakes	-Mohawk Mills Co., Chicago.
Multi-Vent Ceiling, Relief Dampers, Standby Receptacles, Battery	-Owens-Corning Fiberglas Corp., Chicago.
Train Line Receptacles	-National Brake Co., c/o Otto Bussenius, Agent, Chicago.
Exhaust Blower Fans, Circulating Fans, Circuit Breakers	-Pyle-National Co., Chicago.
Lighting Fixtures	-Westinghouse Electric Corp., Chicago.
Car Numbering Signs	-Luminator, Inc., Chicago.
Water Coolers	-Equipment Research Corp., Chicago.
Water Coolers	-Chase Supply Co., Chicago.
Truck Frames & Parts, Body Central Bearings, Shock Absorbers	-General Steel Castings Corp., Granite City, Ill.
Wheels, Multiple Wear	-Edgewater Steel Co., Chicago.
	-U.S. Steel Corp., Chicago.
	-Baldwin-Lima-Hamilton Corp., Standard Steel Works Div., Chicago.
Range Equipment, Glass Washers, Dishwashers, Hot Plates, Toasters, Coffe Urns	-Stearnes Co., Chicago.
Soda Fountain Equipment	-Angelo Colonna Co., Philadelphia, Pa.
Everpure Water Filters	-Tested Appliance Co., Chicago.
Interior Paint	-Acme Quality Paints, Inc., Detroit, Mich.
Exterior Paint	-E. I. du Pont de Nemours & Co., Chicago.
Exterior Paint	-Pittsburgh Plate Glass Co., Chicago.
Truck Springs	-American Locomotive Co., Railway Steel Spring Div., Chicago.

Materials Furnished by Railway

Clasp Brakes	-International Equipment Co., Ltd., Montreal.
Hyatt Roller Bearings & Boxes	-Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
Upper Buffers	-Gourock Bridport Ltd., Montreal.
Diaphragms	-Exide Batteries of Canada, Ltd., Toronto.
Batteries	
Sash Units, Body End Doors, Washstands, Dental Lavatories	-Robert Mitchell Co., Ltd., Montreal.
Lounge Chairs (Heywood-Wakefield)	-Railway & Power Engineering Corp., Montreal.

each lavatory, one in each saloon and one outside of each end door.

Interior Decoration. - The interior of each car is tastefully decorated throughout. A typical open section has light cream ceiling, medium beige walls, blue fabric seat covering, brown plastic window capping, window shades with blue facing, and floor covering in brown tones. A typical bedroom has the ceiling in light cream and the walls in light blue, rust fabric seat covering, brown plastic window capping, window shades with rust facing, floor covering in three blue tones, and annex with walls in light blue, wainscot in stainless steel, and rubber floor covering in mahogany shade. A roomette presents a handsome appearance with ceiling in light cream, walls in light grey, seat covering in red fabric, brown plastic window capping, window shades with rust facing, and floor covering in three tones of blue.

Materials and Equipment. - Many well-known firms supplying railway materials and equipment contributed their products to the construction of these thoroughly modern cars; such products and their suppliers are listed in the table at the top of this page.



**"NEW STANDARDS OF COMFORT
NEW PLATEAUS OF PLEASURE"**

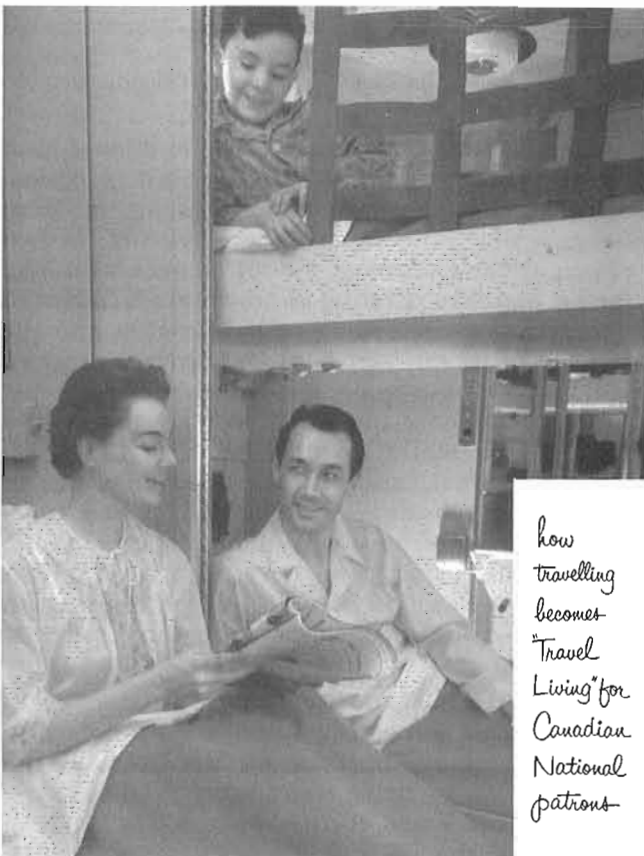
The C.N.R. is changing "travelling" into "travel living"—all over the system, including the Grand Trunk Western. The new, smooth riding, beautifully outfitted, spacious, comfortable cars will be in operation by the time the vacation traffic reaches its peak. Every principal train on the system will have been provided with its share of new equipment.

The vanguard of the 141 new Canadian National passenger cars, built by PULLMAN-STANDARD, reached the Montreal yards in January, on schedule. All of the new cars are being delivered, on schedule, at the rate of five per week.

The dining cars are made up of various combinations of Pullman-Standard "S" type accommodations. Of the total, 52 cars have four sections, eight duplex roomettes, and four double bedrooms; 20 cars have six roomettes, four double bedrooms, six sections; 6 cars have ten roomettes and five double bedrooms; 6 cars have five compartments and three drawing rooms.

A new departure in meal service is provided by 6 dinette cars, offering customer service for twenty-six persons at a sitting. Other dining and lounge accommodations are provided by:

- 4 deeper-grill cars (eight sections, one double bedroom and a sixteen chair dining room), 6 buffet-sleepers (ten sections, one double bedroom), 8 buffet-lounge cars (two double bedrooms, two compartments), 2 buffet-lounge cars (seven compartments), 9 parlor-grill cars, 2 buffet-parlor cars, 6 parlor cars and 14 diners.



how
travelling
becomes
"Travel
Living" for
Canadian
National
patrons



Each compartment has a comfortable sofa, upper berth, folding chair, enclosed toilet facilities.



The beautiful drawing rooms provide spaciousness for the most comfortable night.

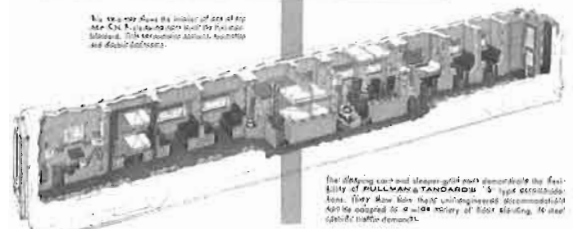


Attractive dinettes provide comfortable seating for twenty-six people along a gleaming buffet.



Beautifully appointed buffets with full combination dining combine seating comfort, dining facilities.

As you may have noticed, all cars of the new C.N.R. Pullman Standard type are built by Pullman-Standard. This manufacturer attracts, maintains and develops the best.



The dining car and deeper-grill car demonstrate the flexibility of Pullman-Standard's type accommodations. Every new Pullman Standard accommodation is designed to a wide variety of floor planing, to meet specific traffic demands.

PULLMAN-STANDARD

CAR MANUFACTURING COMPANY
 1001 NORTH LA SALLE AVENUE
 737 EAST ADAMS STREET, CHICAGO 3, ILLINOIS
 BRANCHES: PORTLAND, OREGON; LOS ANGELES, CALIFORNIA

C.N.R. New First Class Passenger Coaches

Canadian Transportation, May 1954



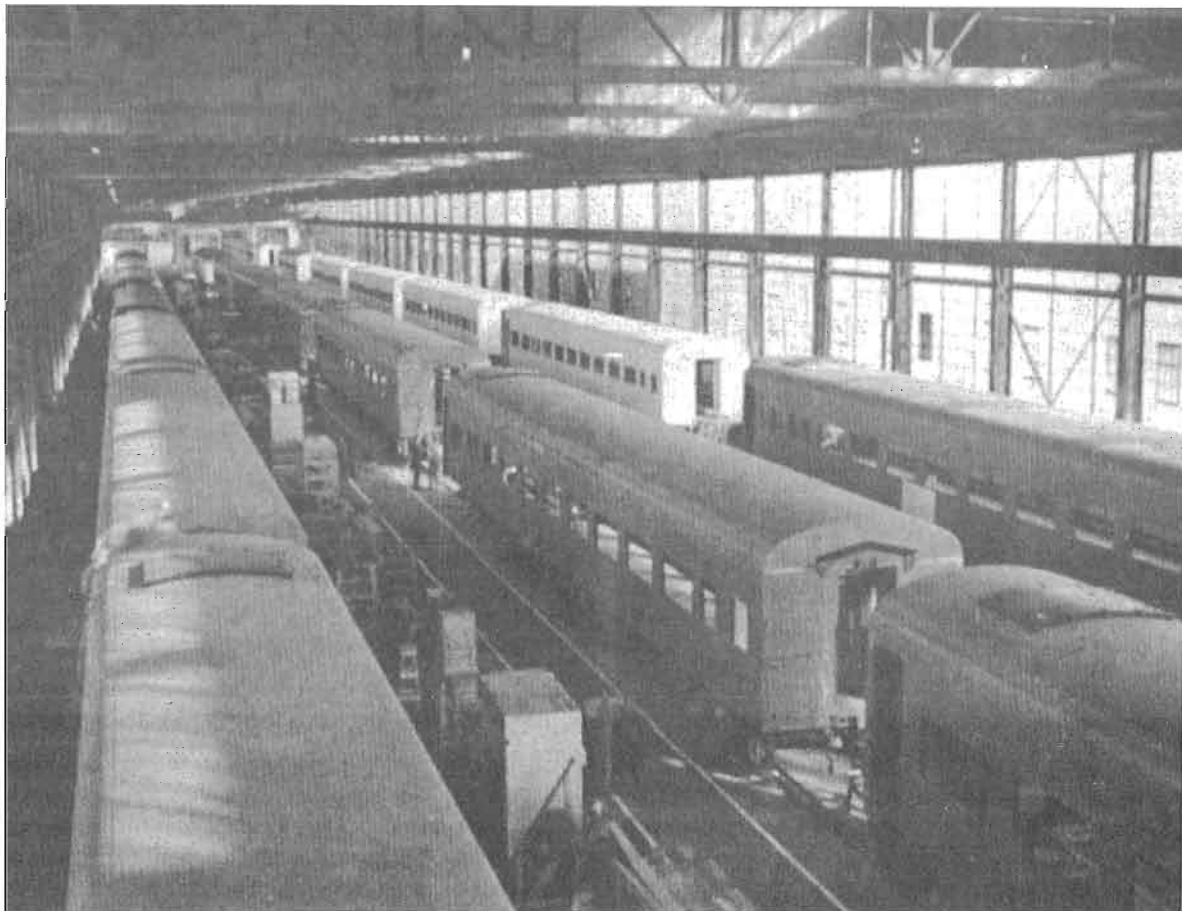
*Fresh out of the plant of Canadian Car and Foundry near Montreal, and resplendent in its new paint scheme, C.N.R. coach 5451, the fifteenth of the lot, poses for the photographer before entering service early in 1954.
CN photo*

The leading article in our February issue described the formalities surrounding the delivery, on January 7, of the first of 218 first class passenger cars ordered by Canadian National Rys. from Canadian Car and Foundry Co., Ltd., it having been recorded that the car was handed over on behalf of Canadian Car and Foundry Co. by its President and Managing Director, Edwin J. Cosford, and received on behalf of the C.N.R. by its Chairman and President, Donald Gordon. In turning over the car to Mr. Gordon, Mr. Cosford pointed out that over 87% of the value of the car, and of all the cars in the order, is represented by labor and material of Canadian origin. He stated that the order represented the largest individual passenger car contract ever awarded in Canada, and that the building of the cars represented the largest production job of this character ever undertaken by one manufacturer in North America. The 218 cars represent the greatest contribution to date of Canadian labor and materials to railway passenger equipment. This group of cars represents an investment of approximately \$29,000,000. The car exteriors are finished in green, gold and black, and in accepting the first car Mr. Gordon pointed out that while this design will have a certain novelty about it at first, it will soon be a familiar sight over the entire C.N.R. system; he added that he was speaking not only of a few cars, but of whole trains. He pointed out that the new passenger cars for the C.N.R., including many sleeping and other cars being built by Pullman-Standard Car

Manufacturing Co., are being built primarily for comfort and not for show; while quite a few new features are offered, the management has not adopted what is new just for the sake of newness. He said:- "In designing these cars we had the choice of being fancy or practical - of providing a comfortable, up-to-date service on all our principal trains, or, of concentrating on frills and glamour for a few of our most important runs. We chose to be practical - to obtain as much new, modern equipment as we could get for our money and to spread it throughout the Canadian National Railway System for the benefit of as many travellers as possible. We have good reason to believe that what travellers in Canada want today is smart, modern, comfortable transportation priced within the reach of the average pocketbook, and we have been guided accordingly in our planning."

As was pointed out in our February issue article, the 218 first class cars were ordered from Canadian Car and Foundry Co. Ltd., in two lots. The first order placed was for 161 of the cars, and the second order, placed more recently, was for an additional 57.

These first class cars are 85 ft. 4 1/2 in. long over buffers, with extreme width of 9 ft. 11 1/4 in. over side sheathing and with maximum height from rail of 13 ft. 6 1/16 in. Seating capacity is 80, and light weight is approximately 131,000 lb. The car has one vestibule end and one blind end.



The new cars under construction at the Can Car plant. The car body shell is finished and accessories installed here, the air-conditioning equipment being installed through the roof hatches.

Underframe and Body Construction. -

The underframe is of welded and riveted construction, using high-tensile, low-alloy steel. The center sills consist of two A.A.R. sections each weighing 31.3 lb. per foot, with top flanges continuously welded, and are riveted to a Commonwealth cast steel platform and center sill casting. This unit embodies the buffer beam and draft gear and buffer pockets. The side sills are 5 in. x 3 3/16 in. x 1/4 in. rolled zees, and side sill chords 2 1/2 in. x 2 in. x 3/16 in. rolled angles. The bolsters are double-web type weldments; crossbearers are single-web pressings and floor beams 4 in. x 5.4 lb. per ft. rolled channels, riveted to the side sills. The end sills are steel pressings.

The floor stringers are zee pressings, the sub-floor sheets 16 gauge steel and the flooring 1 in. thick waterproof plywood covered with 3/16 in. thick Marboleum.

The side frames are all-welded of high-tensile, low-alloy steel. The side plates consist of two 3 in. x 2 in. x 3/16 in. rolled angles and the side posts are 3 in. zee pressings. The side sheets, spot-welded to the frame, are 12 gauge.

The roof is turtle-back construction of high-tensile, low-alloy steel with 3 in. zee pressings for car lines and purlines. Roof sheets are 13 gauge at sides and No.16 gauge at center.

Insulation is fiberglass 2 1/2 in. thick on sides, ends and floor and 3 in. thick on roof.

Inside Finish. - All coaches have a smoking section seating 28, separated from the 52-passenger main section by a partition, the bottom portion of plastic decorative panels and the top portion of armourplate glass. The large side windows provide visibility for passengers in two seats. The aluminum sash is glazed with sealed units consisting of 1/4 in. thick heat-absorbing, glare-resisting plate glass on exterior, and 1/4 in. thick shatter-proof plate glass on interior, set in extruded rubber. Window curtains are installed at each window. The continuous baggage racks are of aluminum.

All seats except at the bulkheads are reclining and rotating type with foot rests; the arms of smoking section seats are fitted with recessed ash trays. Seat cushions, arm rests and backs are of foam rubber and upholstered in

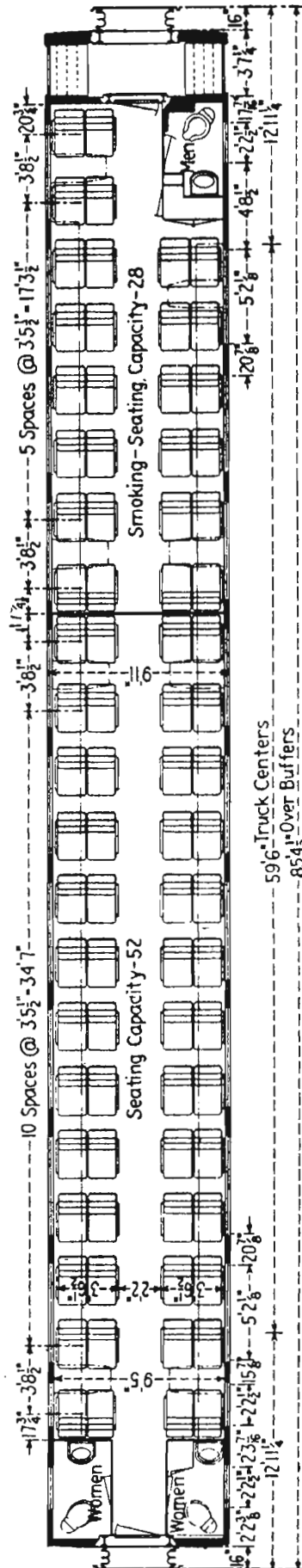
textured wool frieze. Ceilings, piers, wainscoting and window sill capping are plastic decorative panels.

The interior walls of the coaches are entirely without paint. Arborite Panelyte or Dur-olam panels are applied to the ceiling, ends and sides. It is readily cleaned with soap and water and does not require repainting.

The predominating colors are blue, rose, green and rust. In the blue scheme the prevailing color, a dark blue, is used on the wainscoting of the sides and partition, on the bulkheads and on the center ceiling. The upholstery and floor covering under the seats are also blue. In the rose cars wainscoting and bulkheads, the center ceiling panels and upholstery are rose and under seat floor is brown. In the rust cars, the wainscoting and bulkheads are brown. The ceiling is yellow and the upholstery rust, the under seat floor is green. In the green cars the wainscoting, bulkheads, ceiling, upholstery and underseat floor are green. In all cars the side ceilings, upper side walls and pier panels are grey. All curtains are tan. Aisle strips are grey, relieved with transverse bars of the underseat color.

Two women's toilets are located at one end of the coach and a men's toilet at the opposite end.

Heating and Air-Conditioning. - The cars are heated by floor-level fin tube radiation and overhead heat from coils built into the air-conditioning evaporator. Controls are divided between two types, one utilizing a highly sensitive electronic thermostat. The radiation is from an antifreeze solution circulated through the fin tubes by motor-driven pumps and heated by steam passing through a pipe in the center of the radiator. The other control system is for modified Unizone heat - utilizing two regulators, radior cycling thermostats, and Unit-fin radiation.



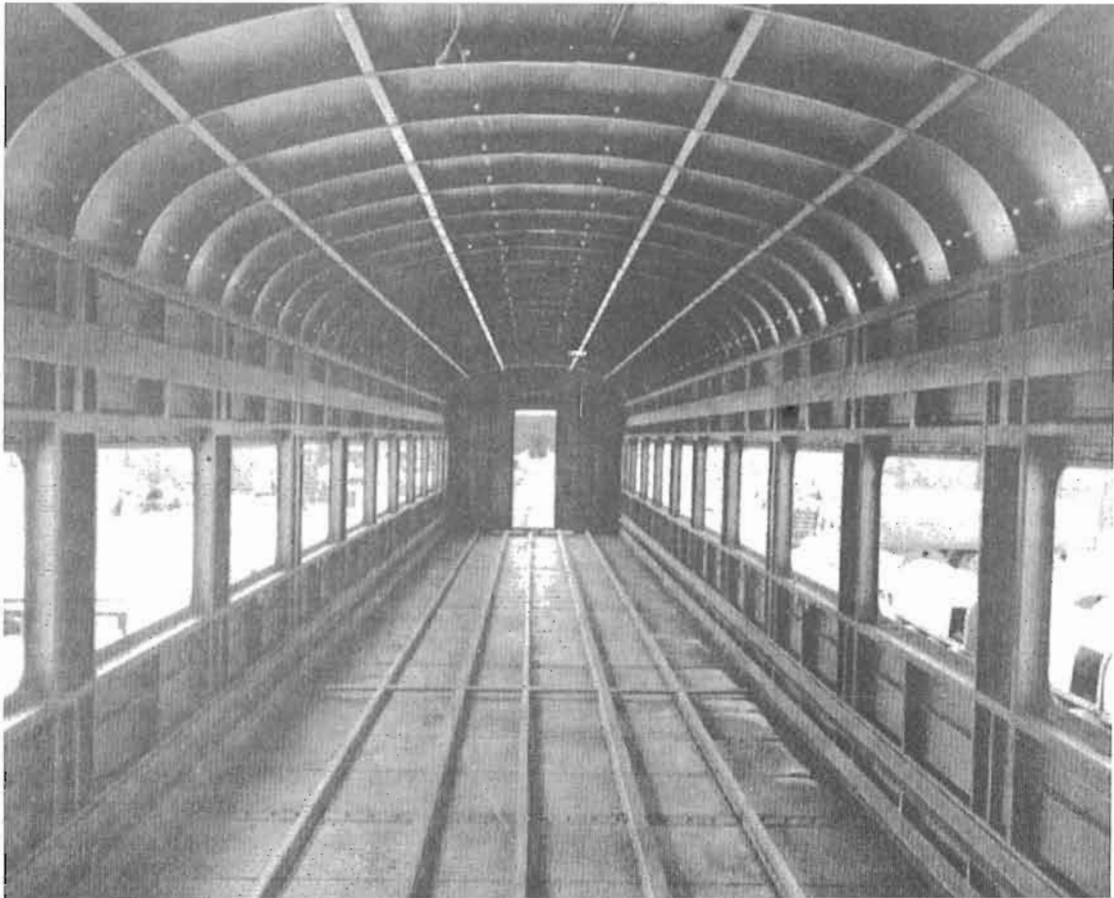
Layout of C.N.R. First Class Car
Seating accommodation for 80 passengers is provided, 52 in the main room and 28 in the smoking section.

It is adjusted to supply approximately 30% fresh air. The capacity is seven tons. Air-conditioning is electro-mechanical. The cool-air duct is located above the center ceiling, the panels of which are the Multi-vent perforated type. In the smoking section the entire ceiling is perforated. The side panels covering ducts through which about 12 1/2% is exhausted from the toilets and the electric locker. The recirculated air passes through a grill in the car ceiling at the smoking section end of the car where it mixes with the fresh air and is filtered. This arrangement prevents the smoke-laden air in the smoking section from feeding back into the main passenger section through the open partition between the two sections. The equipment is divided between the Frigidaire and Trane Systems.

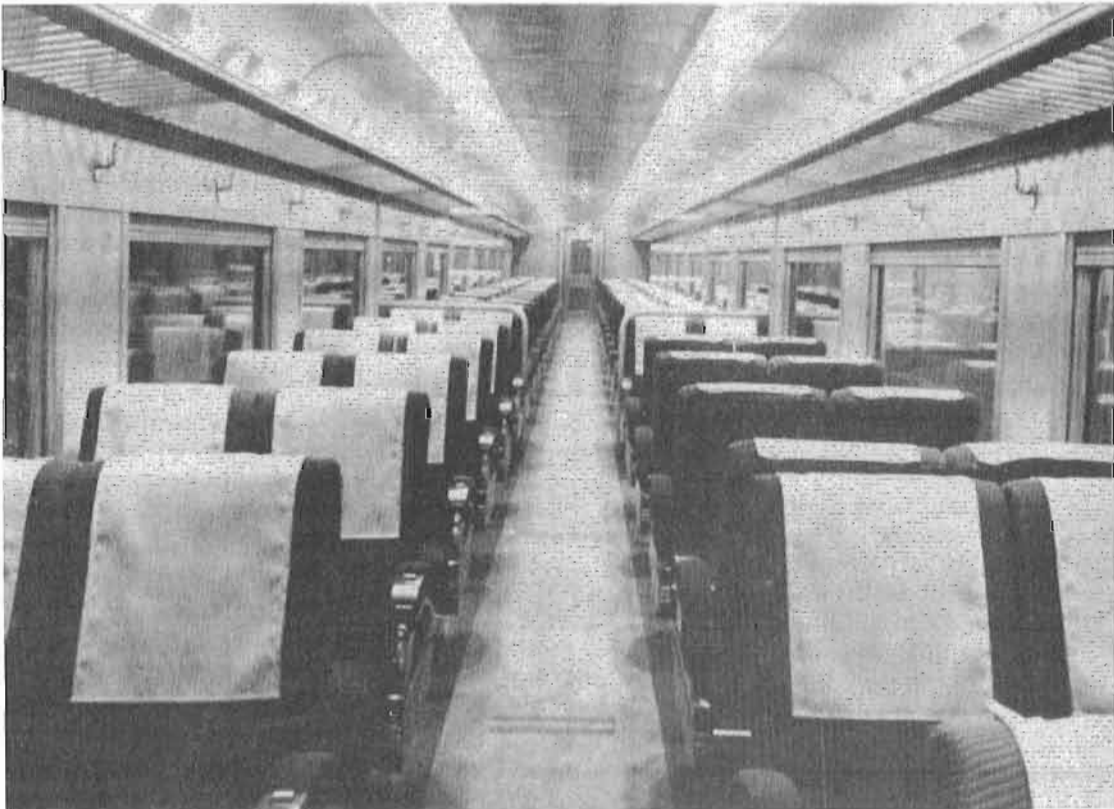
Electric Power Supply. -

Electric power for air-conditioning, lighting and auxiliary services is supplied by a body-mounted motor-generator, driven from a car axle by a gear and clutch drive. The set consists of a 24-30 kw., 140 volt D.C. generator, directly connected to a 220 volt, 32 h.p., 4-pole, 3-phase, 60-cycle induction motor at 1750 r.p.m. The motor is used to drive the generator when the car is connected to standby power. The motor generator set is equipped with an exciter directly connected to the main shaft, which eliminates the reverser switch which was used on previous models. There are two 100 amp. standby receptacles for receiving standby power, and two 100 amp. battery charging receptacles on each car.

The battery is a 114 volt, 57 cell, lead acid type rated 600 A.H. at the 8 hour discharge rate for car lighting and air-conditioning. Each battery is made up of nineteen 3-cell hard rubber moulded containers.



Completed shell of new first-class coach showing modern lightweight all-steel construction.



The interior of one of the new first-class coaches ready to be placed in service by the C.N.R.



Seats in new C.N.R. first-class coach. The seats, except at the bulkheads, are reclining and rotating, with foot rests. The view at the right shows the seating arrangement at the bulkheads, with removable lightweight table in position.

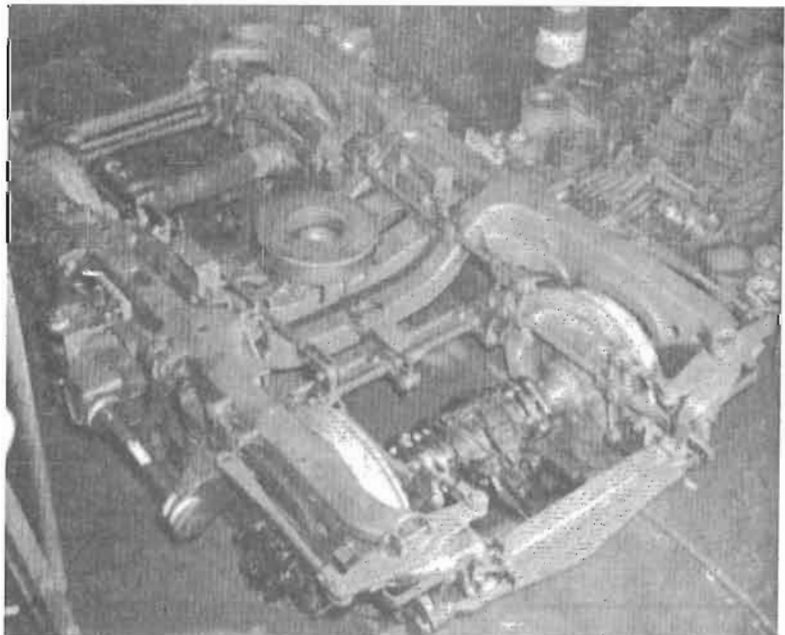
The electric locker includes the following panels: The generator regulator control panel (which includes the reverse current relay assembly), a compressor control panel, air-conditioning and floor heat control panel, lamp regulator, lighting switch panel and a vibrator converter for razor outlets. An A.C. motor control panel is mounted on the underframe for overload protection.

Lighting. - General illumination in the body of the coaches is supplied by two rows of incandescent lamp fixtures with 40 watt, 115-120 volt D.C. lamps, located on the car ceiling. The lamps are supplied directly from the regulated D.C. power source. Forty watt, 115-120 volt incandescent lamps are used in the vestibule; and 25 watt, 115-120 volt lamps are used in the electric lockers and the A.C. chamber, blind end and water cooler alcove, as well as in the women's and men's annexes. A 25 watt, 220 volt generator pilot light is located in the electric locker.

Trucks and Brake Equipment. - The trucks are Commonwealth outside swing hanger type, of latest design. The weight of the car is supported directly on coil springs suspended from the outside of the truck rather than from the inside as in conventional type trucks; this provides a greater lateral stability of the car body in operating at high speeds and around curves. The large new type central bearing eliminates truck shimmy and side bearing problems. A 1 in. thick Thermoid friction pad is fitted between body bolster and truck bolster. The steel castings for the trucks were furnished by Canadian Car and Foundry Co., Foundry Division.

The trucks are equipped with standard type clasp brake rigging, and the four 10 in. x 12 in. brake cylinders are the unit type which are attached to the truck frame. Grease-lubricated roller bearings are used on all axles. The air brake is the most modern Westinghouse D-22-P, HSC control equipment.

Exterior Paint. - The coaches are painted on the outside with the new Canadian National color motif. The roofs are black, the upper sides, green and the lower sides black, with gold stripes running lengthwise. The words "Canadian National" are lettered above the windows and the Canadian National's red and gold monogram is at each corner.



Commonwealth outside swing hanger truck with all coil springs.

OUTSIDE-INSIDE

new cars are modern and practical
for country-wide service

The all-steel bodies of these 80-passenger coaches are streamlined, stabilized and insulated. The green, gold and black exteriors—with red Maple Leaf monogram—suggest the comforts provided in the cars' interior.

The coaches are mechanically air-conditioned—controlled for comfort in every detail. Mounted on roller bearings on "Commonwealth" trucks, with all-coil springs and shock absorbers, the cars are remarkably smooth riding. The deep roomy seats have foam rubber cushioning while the lighting system is both restful and pleasing. Walls and ceilings have a permanent finish. There is no paint or varnish whatever—an important point in the matter of maintenance cost. From coach end to coach end everything has been designed to assure a level of passenger comfort unexcelled on any railway.

Can-Car is proud to be part of this railway modernization picture—the biggest production job of its kind ever undertaken by one manufacturer on this continent. Can-Car is meeting delivery schedules, and will reach a production peak of two of these ultra-modern Canadian National coaches every day.



CAN-CAR

CANADIAN CAR & FOUNDRY CO. LIMITED
Canada's Largest Manufacturers of Railway Rolling Stock and Equipment
Head Office: Montreal, Canada

Equipment and Materials. - Specialties incorporated in these cars, and their suppliers, are listed in the accompanying two-column panel (see next page).

Careful Studies Determined Travellers' Desires. - Before the C.N.R. management placed orders for the 218 first class passenger cars and the 141 sleeping, parlor and dining cars making up its present passenger train car acquisition programme, it made careful enquiries as to what the public desires in the way of travel accommodation, and we are in receipt of the following statement on behalf of the management as to the investigations made in this regard:-

The new equipment order of the Canadian National Railways, totalling 218 coaches and 141 sleeping and parlor cars, is just what the public wanted.

This assertion is made on the basis of a "Gallup Poll" survey conducted by a team of experts for the passenger department of the company, whose well timed and placed questions revealed much about the habits of Canada's travelling public.

The survey included thousands of people from all parts of Canada and represented all walks of life. It drew a series of answers from the persons interviewed, first on their general travel habits (whether they went by train, plane, automobile or bus and their preferences), and, then questioned more specifically about actual train transportation.

A big majority of those interviewed stated that they would rather have a functional, standard type service than pay higher rates. Two-thirds of the public would prefer simplified meal services rather than higher meal checks, and general approval was given all money saving schemes, such as mid-week fares, family rates and conducted tours to points of interest.

The survey pointed out several interesting facts. One was that cost and comfort overshadow all other motives in the selection of travel methods, and another showed that about 13% of the Canadian population, 18 years old and over, had never travelled on a train.

**Functional
Modern
Comfortable**

CAN-CAR IS DELIVERING **218** FIRST CLASS COACHES
TO THE CNR MODERNIZATION PROGRAMME

THE largest passenger equipment order ever placed by the Canadian railways is now on its way to the Canadian National Railways system. Aimed at providing the utmost in practical, comfortable travel service, the new cars embody technical advances and refinements that make for maximum safety and rideability.

Mr. Donald Gordon, Chairman and President Canadian National Railways, delivering address to directors, officers and Can-Car guests on the occasion of the acceptance of the first car on January 7th, 1954.

CANADIAN CAR & FOUNDRY COMPANY LIMITED - MONTREAL

In view of this survey and from long experience with passenger travel in Canada, C.N.R. officials had a sound understanding of the needs they had to fill when ordering \$59,000,000 worth of new passenger equipment.

The C.N.R. decided, for instance, to purchase six dinette cars to be introduced in Canada for the first time, because, by long odds, cost was the big reason advanced by most people interviewed who did not habitually use the dining car. A secondary factor was time, and both of these reasons will be answered through the use of the new cars which will operate on a full-day basis, serving luncheons, snacks and hot and cold beverages.

The new cars have a variety of sleeping accommodation to satisfy the wishes of all travellers. In the poll, about one-third of the night travellers preferred a lower berth; another third said they sat up in the day coach, and the remaining third used other forms of accommodation, such as duplex roomettes, roomettes, bedrooms, compartments and drawing rooms. By giving a variety of sleeping accommodation on each unit, the wishes of all might be more easily satisfied.

The survey for the Canadian National did not merely ask what the people would like to have but what they would be willing to pay for. Those interviewed weren't asked if they thought dining car prices were too high because in all likelihood they would say "yes" if it were anything above zero. Instead, the questions asked were about such things as inflation and meal prices elsewhere.

Other statistics in the report indicated that about one out of every five day-time passengers use a parlor car; most people feel that train fares and sleeping car rates have risen "about the same" as other costs, and employee courtesy on C.N.R. trains was rated by 75% of all travellers as "good."

While the Canadian National has not yet drawn final conclusions about the mileage categories, population levels and other specifications of a profitable passenger service, its findings so far point to a service for Canada as a whole which puts price before frills, and the many before the few.

Equipment on C.N.R. New First Class Passenger Cars

Equipment	Supplier
Axles	—Dominion Steel & Coal Corp. Ltd.
Bearings, Roller—"Hyatt"	—International Equipment Co. Ltd.
Bearings, Roller—"S.K.F."	—Canadian S.K.F. Co. Ltd.
Brakes, Air	—Canadian Westinghouse Co., Ltd.
Brakes, Clasp "A.S.F."	—International Equipment Co. Ltd.
Brakes, Hand, "Peacock"	—Lyman Tube & Bearings Ltd.
Couplers, Type "E"	—Canadian Car & Foundry Co.
Draft Gear	—W. H. Miner Inc.
Draft Gear "Waughmat"	—Canadian Waugh Equipment Co. Ltd.
Shock Absorbers "Houdaille"	—General Steel Castings Corporation
Shock Absorbers "Monroe"	—Railway Car Supply Co.
Trucks, General Steel Castings "Commonwealth"	—Canadian Car & Foundry Co.
Signal Equipment, Air	—Canadian Westinghouse Co. Ltd.
Wheels, "Taylor Bros."	—The Holden Company
Wheels, "Steel Peech & Tozer"	—H. M. Long Co., Ltd.
Wheels, "John Baker & Bessemer"	—Peacock Brothers Ltd.
Batteries	—Exide Batteries of Canada, Ltd.
Battery Charging Receptacles "Anderson"	—Gould-National Batteries of Canada Ltd.
Receptacles, A.C., Standby	—Powerlite Devices Limited
Generator Drive "Spicer"	—The Holden Company Ltd.
Motor Generator Equipment	—The Holden Company Ltd.
Switch Panels	—Canadian General Electric Co.
Heating Equipment	—Stone Franklin of Canada Limited
Air Conditioning "Frigidaire"	—The Safety Car Heating & Lighting Co.
Air Conditioning "Trane"	—Devoe Electric Switch Co., Ltd.
Air Distributors "Multi-Vent"	—Minneapolis-Honeywell Regulator Co.
Fans, Exhaust	—Vapor Car Heating Co. of Canada Ltd.
Filters, "Far-Air"	—International Equipment Co., Ltd.
Platform & Center Sill Casting, General Steel Castings "Commonwealth"	—Trane Company of Canada
Registers & Grilles	—The Holden Company
Insulation, Car "Fiberlite"	—Sheldons Engineering Limited
Insulation, Sound Deadener	—Control Equipment Co., Ltd.
Plastic Decorative Panels "Arborite"	—Canadian Car & Foundry Co. Ltd.
Plastic Decorative Panels "Panelyte"	—Barber Coleman Company
Sill Capping "Dur-O-Lam"	—Railway & Power Engineering Corp'n
Paint Materials:	—Flintkote Co. of Canada
Seats, Passenger "Heywood-Wakefield"	—The Arborite Company Ltd.
Seats, Passenger "Econoliner"	—St. Regis Paper Co. (Canada), Ltd.
Upholstery	—Brigadier Engineering Products
Parcel Racks	—Canadian Pittsburgh Industries Ltd.
Window Sash "Adlake"	—(Murphy Paint Division)
Curtain Fixtures "Adlake"	—Sherwin-Williams Co. of Canada Ltd.
Curtain Material:	—Railway & Power Engineering Corp'n
Silk Faced Fabrikoid	—Mount Royal Transportation Equipment Ltd.
Aluminum Color Backing	—Collins & Aikman Co. of Canada Ltd.
Lighting Fixtures "Luminator"	—The Robert Mitchell Co. Ltd.
Covering, Floor "Marboleum"	—The Robert Mitchell Co. Ltd.
Covering, Platforms & Steps "Rub-Bub"	—The Holden Company Ltd.
Diaphragm, Vestibule "Morton"	—Consolidated Equipment Co. Ltd.
Doors, Trap "National"	—The Robert Mitchell Co. Ltd.
Washbasins, Dental Bowl & Hoppers	—International Equipment Co., Ltd.
Water Cooler—"Chase"	—Sunroc Company
"Sunroc"	—Mount Royal Transportation Equipment Ltd.
"Lundy"	—Light Industries Company
Water Purifiers "Everpure"	

Some 1954 Advertisements Heralding Canadian National's New Passenger cars



opens a new era of train travel in Canada

You wrote your own ticket! Here's the exciting, up-to-the-minute way of travel that you, the passengers, helped us plan with your ideas and suggestions. Canadian National's record purchase of modern-as-tomorrow passenger cars now brings you the things you've wanted in train facilities and accommodations — turns travelling into "Travel Living"!

Once aboard, you'll know for sure that here's a really *new* kind of train travel for Canada — offering you new standards of comfort and convenience no matter what your travel budget . . . and a wider range of accommodations than you've ever had before.



Every day these smart modern cars are joining



Canadian National's fleet of famous "name" trains travelling the length and breadth of Canada; by mid-summer all of them will be in service across the country.

Here is travel with a flair — a revelation in coziness and comfort for coach and first-class travellers alike. Colorful upholsteries and carpets and strikingly modern decorative patterns provide pleasant, restful surroundings to match the comfort of the roomy sleeping accommodations, "living room" lounges, attractive dining facilities and picture-window coaches.

Here's "Travel Living" with all the comforts of home — and more — within the reach of every budget. You'll find costs are moderate.



Congratulations...

to Canadian National Railways on their new passenger cars.



The Holden Co. Limited is proud to have supplied equipment for the latest Canadian National Railways' cars, and will be available to assist in servicing them from our offices across Canada.

THE HOLDEN CO. LIMITED

WINNIPEG VANCOUVER MONTREAL TORONTO MONCTON

“Comfort by day or night...”



CANADIAN NATIONAL RAILWAYS

have equipped baggage cars, business cars, duplex roomette cars and 57 1st class coaches with...

WAUGHMAT

DOUBLE-ACTING

Twin Cushions

CANADIAN WAUGH EQUIPMENT COMPANY, MONTREAL



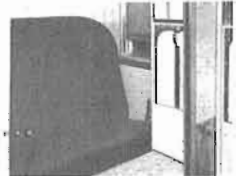
CNR's
NEW STREAMLINED COACHES
HAVE
Airfoam

More and more, luxurious CNR coaches are being equipped with Airfoam in seats and mattresses. Here's why: Airfoam not only enhances the appearance of seating and sleeping areas, but it provides relaxed comfort for passengers.

In addition, Airfoam has an unequalled ability to hold its shape through the years.

Airfoam! Not just "foam rubber"—but AIRFOAM, made only by Goodyear adds much to present and future comfort and eye-appeal.

THE SWING IS TO AIRFOAM! Leading transportation equipment designers and builders are swinging to Airfoam not as a substitute—but as a designing and structural aid that's right for style and comfort. Airfoam can be made to conform to any specifications or design. Contact your nearest Goodyear branch or Special Products Division, New Toronto, Ontario.



Airfoam **MADE ONLY BY GOODYEAR**

THE WORLD'S FINEST CUSHIONING

AIRFOAM IS USED IN CUSHIONS, MATTRESSES, PILLOWS, FURNITURE AND AUTOMOBILES



ELECTRICAL POWER
FOR AN
ULTRA MODERN
"SLEEPER"

110-volt, 500 ampere-hour Exide Batteries provide uniform voltages at proper values throughout the run. Steady lights and comfortable cars—even during long stops.

Illustrated above is the first of the new Pullman sleeping cars recently put into service by Canadian railways. They are completely different in design, providing the widest possible choice of accommodation and unequalled travelling comfort... made possible to a large extent by electricity!

For example, there's extensive 110-volt lighting throughout, electrical outlets for every conceivable requirement and electro-mechanical air conditioning and heating for all-weather comfort.

To handle the heavy power demands created by this electrical equipment, Exide de-

signed a special 110-volt, 500 ampere-hour battery that would provide:

Ample power for entire car lighting, heating and air conditioning loads... uniform voltages at proper values throughout the run.

Steady lights and comfortable cars—even during long stops.

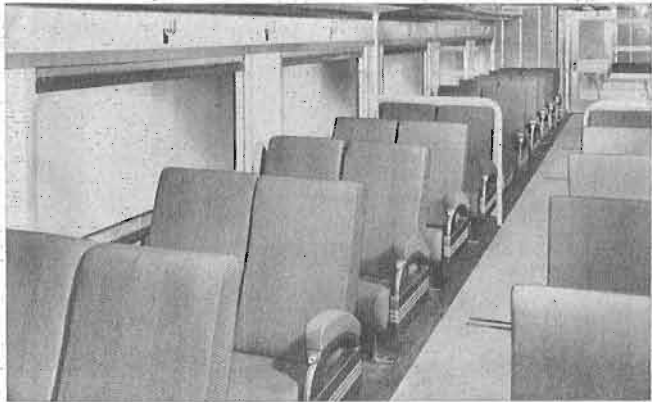
Uninterrupted service—trouble-free performance, construction to withstand vibration, shock, service variations and temperature differences.

This is a typical example of the engineering skill that goes into all Exide batteries used throughout the transportation industry.

EXIDE BATTERIES OF CANADA LIMITED
Montreal TORONTO Vancouver



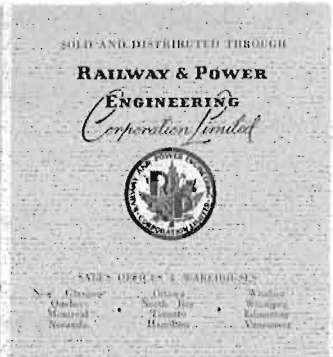
FIRST IN POWER FOR INDUSTRY



Shown above—in interior of one of the 80-passenger all-steel first class coaches constructed by Canadian Car & Foundry Co. for Canadian National Railways. Heywood's Reclining Chairs are upholstered to match the striking green, gold and black color scheme of these coaches.



Do you know Heywood owns the world's smallest 100% developed railroad? Upon request on your company's letterhead, we'll send a free copy of *Grosse Pointe R. R. Annual Report*, a highly amusing account of a year's operation of this mighty railga.



61 NEW C.N.R. "TRAVEL-LIVING" COACHES are equipped with **SKF** JOURNAL BOXES



These SKF Journal Boxes will ensure smoother starting and greater passenger comfort. Utmost reliability at very high speeds is a special safety feature. Inspections are needed only at long intervals, and the saving in maintenance is substantial.



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Edgewater Steel Company
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Makers of Rolled Steel Wheels for Freight Cars, Passenger Cars, and Diesel Locomotives

Canadian National's New Passenger Cars

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Truck frame for Canadian National cars

Made in Canada by **Can-Car**

Commonwealth four-wheel truck for Canadian National cars.

They'll be better riding cars because of Commonwealth—the one-piece cast steel trucks that are made in Canada with the smoother, rolling comfort assured by outside wing longer suspension and the new central bearings.

Cast in Can-Car's Dungen Pointe Shops at Montreal, Commonwealth trucks offer many outstanding advantages. The greater accessibility of parts simplifies inspection and maintenance. The central bearings, eliminate truck shimmy, side bearing problems and fabrication, thus reducing upkeep cost and materially increasing wheel mileage between fittings. The Canadian National and other leading railways appreciate the travel comfort and the low maintenance expense provided by Commonwealth trucks.

CANADIAN CAR & FOUNDRY COMPANY LIMITED
FOUNDRY DIVISION MONTREAL, QUEBEC

*Moving ahead...
with the right power to stop*

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RAILWAYS**

*For safe, sure stopping power,
brakes on all the new Canadian National
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What competition means to railway buying

100 new C.N.R. deluxe coaches get Honeywell Electronically controlled heating and airconditioning system.

Honeywell research and engineering has revolutionized railway car heating to bring new comfort for passengers at lower initial and operating cost to railroads.

Electronic Temperature Control, push-button inspection, reduced amount of equipment, and simplified undercar piping, all introduced since Honeywell's entry into the car heating field, have brought equipment and installation costs down.

At the same time, reduced steam consumption and simplified inspection and maintenance procedures will cut operation cost importantly, as proven over the last several years on other railroads using the Honeywell system.

COMPETITION has always been the heart of Canadian enterprise. To encourage it is to strengthen the Canadian system. To profit from it is normal business practice.

The advantages of competition to the buyer of automatic controls have always been apparent to Honeywell, in every market we serve. But nowhere have the blessings to our customers been more pronounced than in our recent work with the railway industry.

During the last three years these developments have transpired:

- the cost of passenger car heating under competitive bidding has been substantially reduced.
- passenger car heating systems have been greatly simplified with a marked reduction in maintenance parts.
- steam piping has likewise been simplified with a significant reduction in steam consumption for car heating.

It has been most gratifying for us to observe that our engineering and research activities have shared in the responsibility for this progress. Likewise aggressive Honeywell bidding has stimulated competitive reaction, to the benefit of the railroads.

Honeywell looks forward to an era of increasingly significant service to the industry.



Honeywell
First in Controls

The 1954 - 1955 CNR Cars in Later Years

RIGHT: Some of the 1954 coaches, still in their original configuration and paint scheme, on a special steam excursion on July 8, 1961.

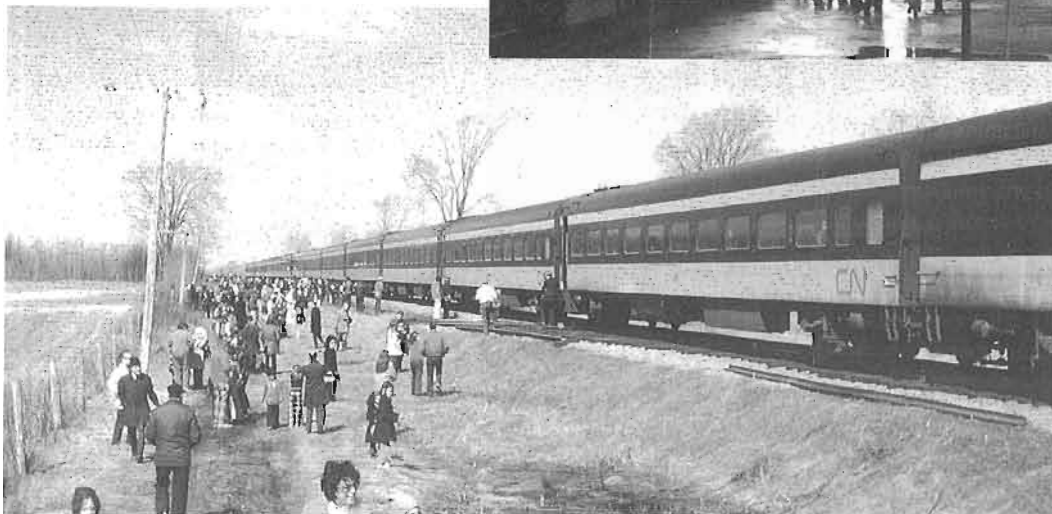


BELOW: A late example of passenger cars in the 1954 paint scheme is seen here with old heavyweight cars on a steam excursion from Montreal to Sherbrooke on February 21, 1970. By this time most of the passenger cars were painted in the black and white livery, but the operators of steam trips tried to use the old paint job wherever possible.

Photos in this section by Fred Angus unless otherwise indicated.



RIGHT: A stop at Sioux Lookout westbound on a rainy September 16, 1972. The entire train is in the black and white paint job.



LEFT: The longest train ever run on a CRHA excursion was this one to St. Albans Vermont on April 7, 1973. Coaches of the 5437-5654 series were in the majority on that train.

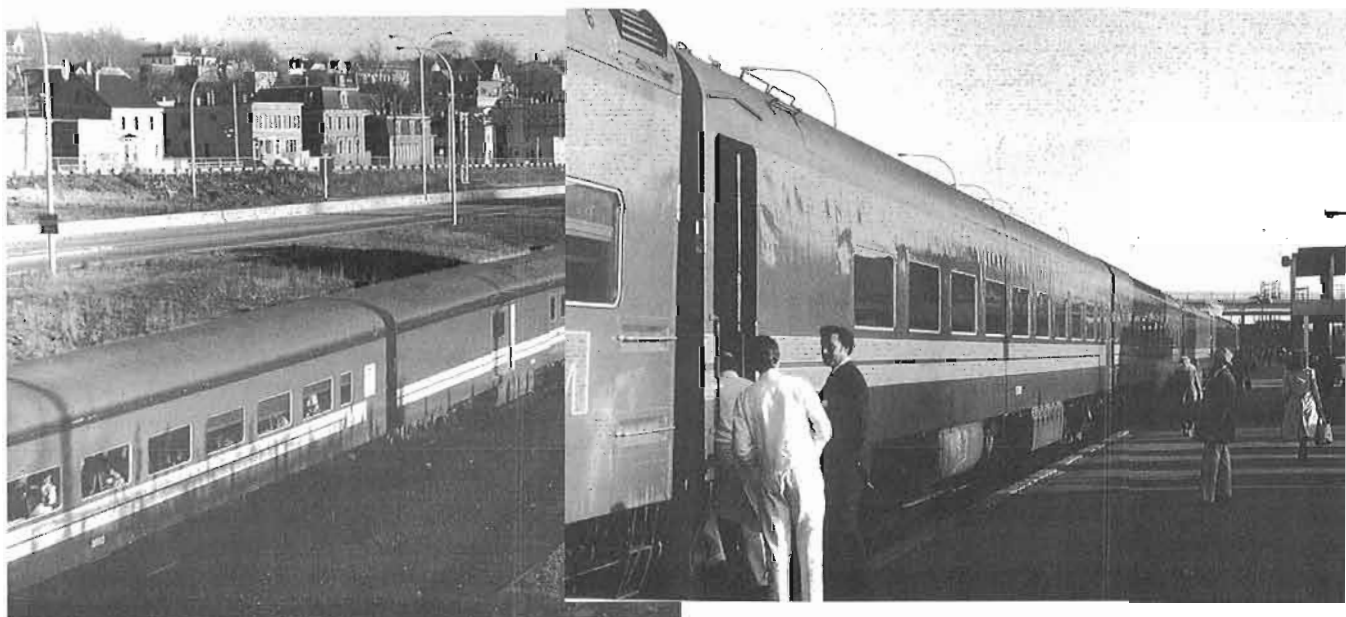


LEFT: Rolling through the New Brunswick countryside on November 1 1981, VIA's "Atlantic" heads towards Saint John from Moncton. Note that the baggage car and sleeper "Cape Brule" are still in CN colours.

MIDDLE LEFT: Coach 5593 is first behind the baggage car on the "Atlantic" heading east from Saint John on November 14, 1981.

MIDDLE RIGHT: "Dayniter" coach 5712 was originally coach 5438, the second car of the series. It is seen here at Saint John on November 14, 1981 the day before the train was discontinued for the first time.

BOTTOM: Sleeper "Greenshields" on the eastbound "Atlantic" on November 14, 1981. The car ahead is "Greenock" bought from the Bangor & Aroostook.





Some VIA coaches were used in commuter service in 1994-95. This photo was taken at Val Royal on June 2, 1995.



LEFT: One of the last steam heated trains seen at Taschereau Que. on March 7, 1996.

BELOW: On the Okanagan Valley Wine train (now defunct) in British Columbia on July 4, 1999.





In the twenty-first century a number of the former CN 1954 coaches continue to run.

ABOVE: Seen here at Cañon City, on August 15 2004, car "Theodore Roosevelt" of the Royal Gorge line in Colorado still bears its original number 5581.

RIGHT: Running through the Royal Gorge on August 15 2004, the train is made up largely of ex CN / VIA cars. Note the coach cut down to make an open car. Truss rods have been added for strength.



On October 1, 2004 a special excursion was run from McAdam to St. Stephen New Brunswick. The coaches used were 5471, 5448, 5537.

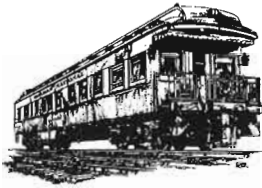
LEFT: The special train at McAdam prior to its departure for St. Stephen.

BELOW: Deadheading back to Saint John, the special passes Harvey Lake.

These two photos by David Morris



The Business Car



EIGHT NEW JERSEY TRANSIT PCC TROLLEY CARS HEADED TO THE CITY OF BAYONNE, N.J.

On February 22, 2005, Joseph V. Doria, Mayor, City of Bayonne, and George D. Warrington, Executive Director, New Jersey Transit ("NJ TRANSIT"), visited the Hudson Bergen Light Rail Line Communipaw Facility in Jersey City to inspect one of eight Presidents Conference Committee ("PCC") Trolley Cars given to the City of Bayonne by NJ TRANSIT. These vehicles were put into service on NJ TRANSIT's Newark City Subway line in January 1954 and retired in August 2001. The eight car fleet will be completely rehabilitated and placed into operation along a proposed 2.5 mile loop to serve the City of Bayonne's "Peninsula at Bayonne Harbor" - a 299-acre mixed-use site formally known as the Military Ocean Terminal of Bayonne ("MOTBY"). The PCC Trolley line will be connected to the 34th Street Station of the Hudson Bergen Light Rail Transit System ("HBLRT") via a pedestrian walkway. Since 1941, MOTBY had been a major supply depot for the transshipment of goods by the military and continued to serve that function through Operation Desert Storm. In September 2001 and December 2002, ownership of MOTBY was transferred from the Army to the BLRA. The PCC trolley, developed between 1930 and 1935, became the workhorse of street railway systems. Between 1936, when the first PCC cars rolled into service, and the 1950s when production ended in North America, approximately 5,000 PCC cars were built. The PCC cars were developed by an engineering team contracted by the presidents of several of the nation's street railway systems. The PCC is named after the Electric Railway Presidents Conference Committee that undertook its development. (Bayonne Local Redevelopment Authority - posted 3/02)

CPR BUYS HYBRID LOCOMOTIVES

CALGARY - Canadian Pacific Railway will buy 35 hybrid locomotives from RailPower Technologies Corp. over a four-year period for an undisclosed amount, the railway said on March 14. Under the agreement, seven of CPR's yard locomotives will be converted this year to low-emission, quiet Green Goat Series locomotives using hybrid technology for use at its Calgary operations. Another 28 locomotives would be converted into Green Goats over the following three years if the first of Calgary-based RailPower's hybrids meet performance guarantees.

Source: Montreal Gazette, March 15, 2005.

BACK COVER TOP: For a short time after the abandonment of the line to Cochrane, the trains from Montreal terminated at Taschereau, Que. Soon afterwards, all passenger service was cut back to Senneterre. On March 7, 1996, near the end of the era of steam-heated cars, the train waits at Taschereau before returning to Senneterre and Montreal.

BACK COVER BOTTOM: A train of the Calgary light rail system on May 17, 1983. Both photos by Fred Angus

CORRECTION

The article on the Kettle Valley Railway in our September-October issue contained a mathematical error. Due to a misplaced decimal point, in Appendix "E" on page 185, the weights of rail reclaimed are shown as ten times what they should be. The total per mile should be 149.6 tons, and NOT 1496 as shown. Similarly the figures shown on lines 6 and 10 of column 2 of page 184 are also ten times too large and should be 9500 and 18,500 respectively. Total rail (scrap and usable) recovered from the 190 miles was about 28,424 tons. Our thanks to Mark Gustafson for pointing out this error.

HISTORIC TRAIN MEMORABILIA FOR SALE

A large collection of documents, images and artefacts pertaining to the historic Grand Trunk and Canadian National railroads has been put up for sale. Auberge Melbourne Vallé in the Eastern Townships has set a reserve price of \$8,000 for its collection of South Durham train station archives and \$15,000 for its collection of railroad artefacts. The collection includes historic promotional materials, various tools and equipment, photographs, timetables, tickets and calendars. Bids will be accepted until July 1, 2005.

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8, Melbourne Vallé

Melbourne, Quebec J0B 2T0

TEL: (819) 826-3822

NEW OPERATOR FOR QNS&L PASSENGER TRAINS

According to the January 30th issue of Le Nord-Est newspaper, a new operator will take over passenger service on the QNSL between Ross Bay Jct, Labrador and Schefferville, Qc as of April 1st, 2005. Established by the Uashat and Matimekossh-Lac John Innu band councils and the Kawawachikamak Naskapi band council, the company will be known as Transport ferroviaire Thsiuetin, Inc.

NEW CARS FOR COMMUTERS ON MONTREAL'S LAKESHORE RUN

On February 20 2005 the first public run was made of the new commuter cars on Montreal's Lakeshore (CPR) line. These double-decker cars, numbered in the 2000 series, resemble those used by GO Transit and many other systems throughout North America. This will mean the end of the venerable 800-series coaches which have served this line so well for 52 years. The first of the 800s went into service in June 1953 (the month of the Coronation), and all forty were in use by August, allowing the previous wooden gas-lit coaches to be retired. Car 827 has been donated to the Canadian Railway Museum. More about this will be in the next issue.

Canadian Rail

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