

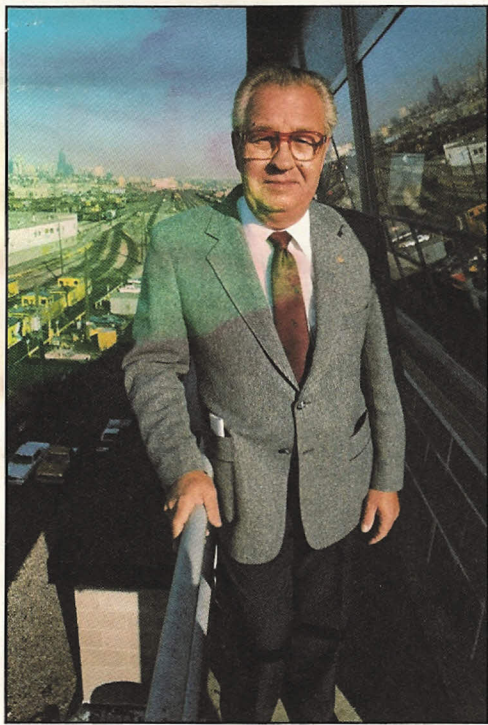
CP Rail 

2/2

4/33/80

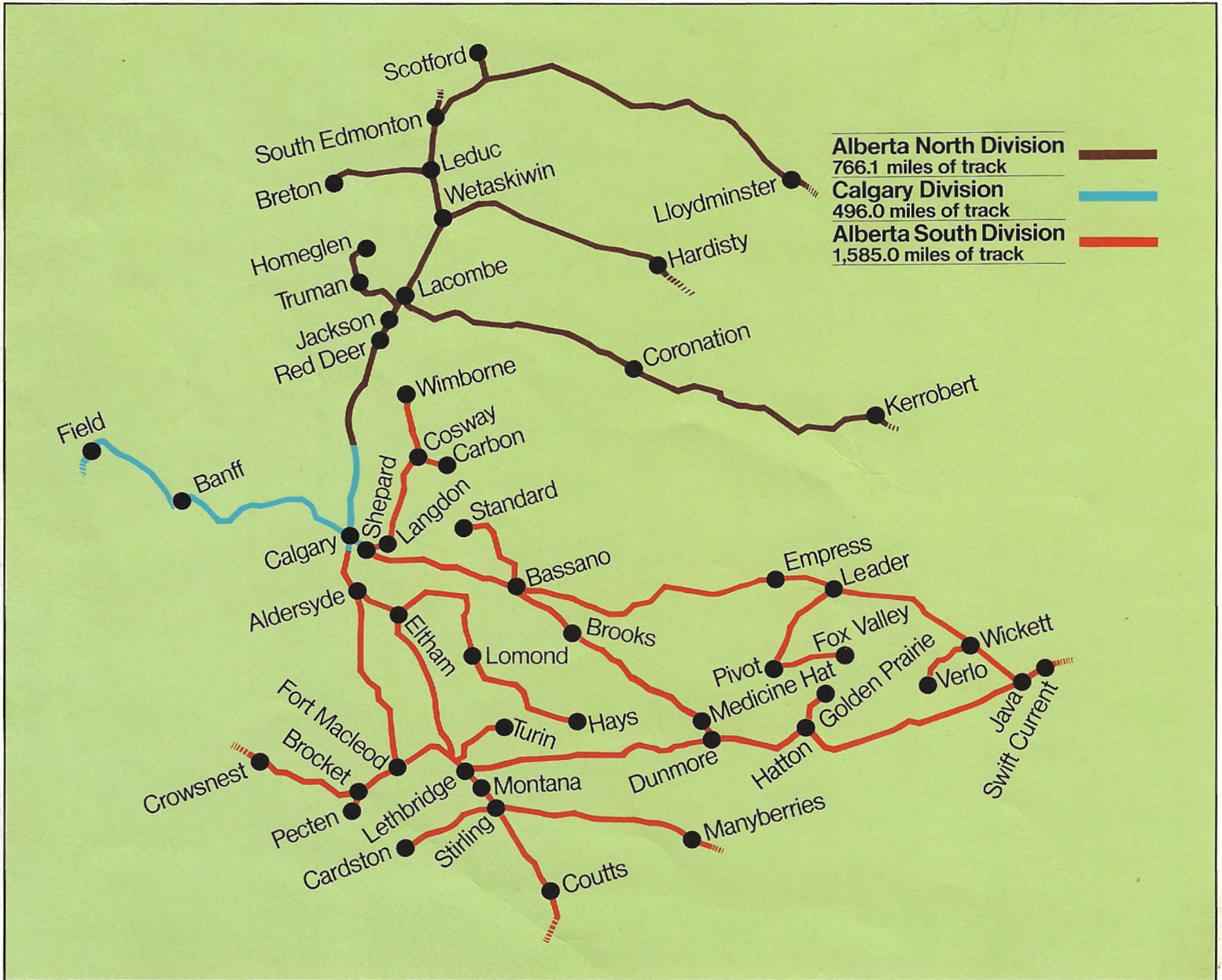
Alyth Yard Calgary, Alberta





**Alyth Yard—
pivotal point for Alberta**

Mr. M.M. (Mike) Stroick, Superintendent of CP Rail's Calgary Division, is in charge of Alyth Yard. The yard has a pivotal function for the railway's Alberta operations, and is the major marshalling centre for westbound bulk trains carrying commodities such as grain, sulphur and potash.



Computers streamline sorting of freight cars

Transporting freight by railway is a complex and demanding job.

A million and a half carloads move by CP Rail in one year. More than 3,000 different commodities, and about as many destinations. Thirty thousand customers who need transportation for 78 million metric tons of freight...

Keeping all that traffic sorted out is an important part of the task performed at CP Rail train yards across the country.

CP Rail's largest and most modern hump yard in Western Canada is at Alyth in southeast Calgary. It covers 170 acres (69 ha). About 75 miles (120 km) of track lie within its limits, and it has a nominal standing capacity of more than 3,700 railway cars.

But keeping freight on the move is what Alyth Yard was designed to do, and today, after a \$5.7-million modernization program, it does that job better than ever.

The fully computerized freight car classification system at the yard has a maximum throughput capacity of 3,000 cars per day. That's equivalent to almost 30 main-line trains, each hauling freight from dozens of different origins, bound for dozens of different destinations, all over North America.

Yet the principle on which the classification system is based is one of the oldest and simplest known to man—gravity.



Freight cars are pushed by locomotives to the crest of a small hill called a hump. There they are uncoupled to roll down the other side through switches and into any one of 48 classification tracks at the bottom of the hill. As they come gently to a stop, they couple with other cars and eventually form part of a new train.

In a hump yard such as the one at Alyth, gravity is still the dominant force in the sorting of freight cars.

But CP Rail has added a host of computerized refinements to assist nature's ancient law.

Though there has been a CP Rail yard at Alyth since 1914, a \$14-million reconstruction and computerization program in 1968-70 ushered in a new era of operations using the latest in computer technology adapted for railway use. In the 15 years that followed, both the computer and railway industries have come a long way.

Today, smaller, more powerful computers based on micro-chips are used to manage many aspects

of the railway business. When the recent updating program at Alyth Yard began, the challenge was to make several computer-based systems work with each other, without destroying the simplicity of any one system.

After five years of design, integration and testing, Alyth Yard has been virtually re-born, with a fully computerized process control system, a computerized inventory of cars, and a communications system that is the envy of the railway industry.



The Alyth process control system automatically weighs and humps more than 1500 cars per day to 48 different classification tracks.



Finding freight cars quickly

YARDS is one of those little computer-age words that mean a lot. On paper, it stands for Yard Activity Reporting and Decision System. In the workaday world of railway transportation, it stands for progress.

YARDS is a computerized, on-line car inventory and management system that cuts down on paperwork and gives railway employees what they need most—fast information. Computerized tracing means cars can be quickly located anywhere in Alyth Yard, or anywhere in the Calgary division for that matter. Contents, car type, mechanical condition and final destination of loads can

be determined easily and uniformly through any computer terminal linked to YARDS.

Faster is better

Faster turnaround is a transportation industry phrase which has special meaning for CP Rail employees at Alyth Yard. To put it as simply as possible, faster turnaround is what the railway gets by reducing the amount of time it must spend on the handling of freight cars when they are not travelling somewhere on the main line.

The faster turnaround achieved through the modernization program at Alyth Yard means freight

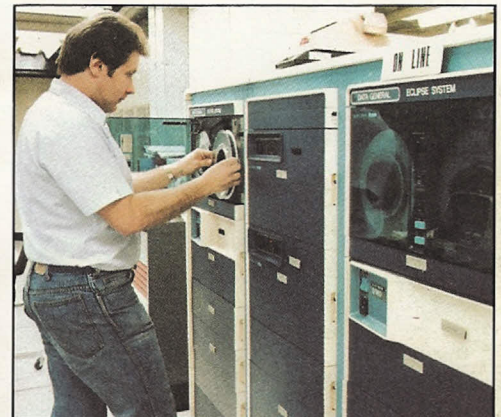
cars spend more time transporting things and less time being sorted and classified. Looking at it from the point of view of the total railway system, faster turnaround is a way of achieving higher capacity in the railway fleet without adding to the number of freight cars.

To the Canadian public, it all adds up to more dependable railway service, as time saved at Alyth Yard works its way through to greater car availability at customer and railway-owned loading facilities, and earlier delivery at final destinations.

Process control systems analysts and technicians monitor the computerized humping process and provide on-site software and hardware maintenance.



Above: From the Alyth control tower the train yard coordinator controls and monitors the entire humping operations and internal yard movements. Below: The retarder operator adds an extra measure of safety by being able to override potentially undesirable humping conditions.



**Diesel shop
vital to train operations**

Strategically located near the west end of Alyth Yard, the Alyth diesel shop plays a vital role in keeping trains moving. Some 330 pieces of motive power equipment, including more than 300 diesel locomotives are based at Alyth, which has a staff of more than 350. On average, 525 to 550 locomotives a week are serviced and supplied to move trains out of Calgary. This includes fueling and sanding as well as lubrication oil and cooling system analysis, datal inspections, trip inspections and communications system checks.

Alyth diesel shop



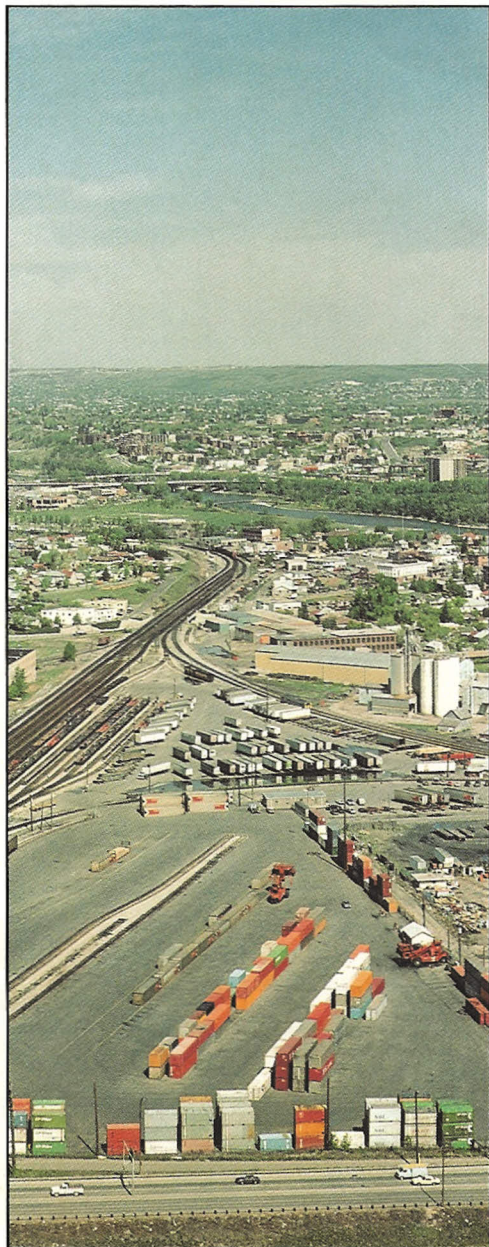
Fueling and sanding operations



A fully-modern terminal

CP Rail's Intermodal Services Terminal in Calgary is located just west of Alyth Yard. Situated on about 18 acres of land, the recently expanded facility is a total top-lift operation with storage capacity of 800 TEU for containers, plus 150 trailers. It has seven working tracks with capacity for 80 67-foot rail cars.

Intermodal Services Terminal



A total top-lift operation



277 3306

Bulk train facility

Keith Yard, located on Calgary's northwestern outskirts and on CP Rail's main line, is used as a holding yard for bulk commodities. Future plans include construction of a bulk terminal facility at Keith to handle the operation of west-bound bulk trains as well as trains of returning empty cars.

