Metric Conversion — The Overall Picture

(Based on Excerpts From a Speech February 1975 by S. M. Gossage, Then Chairman of the Metric Commission)

Why are we considering metric conversion? The short answer is because it is inevitable. The world is rapidly becoming a metric world. Canada's future lies in world-wide trade. That trade must be conducted in metric units.

Measurement goes back to the earliest formalized records of Man. Once Man could count, he needed a standard for comparing quantities. Measurement was devised to create this standard.

Early measurement standards were generally taken from common physical objects. Many systems of measurement were based on parts of Man himself.

A present-day standard which is a curious survival of these ancient measurements is the standard gauge of railways, 4 feet 81/2 inches. This is the old Roman marching passus or double pace. The Roman chariot wheels are set this distance apart, as is shown by ruts preserved under the lava in the streets of Pompeii. The standard persisted through the centuries to reappear in the Stockton and Darlington railway of George Stephenson and other coal haulage ways of northern England.

The metric system has had its ups and downs, and has been modified over the years. First instituted in France in 1795, it was not finally adopted on a mandatory basis until 1840.

Earlier metric systems have now been superceded by the internationally approved Systeme International d'Unites or "SI" units. It is this system, as adopted by the General Conference of Weights and Measures in 1960, that Canada proposes to make her standard of measurement.

SI is a decimal system, which means it is based on 10's for most of the relationships between quantities, instead of numbers such as 12, 3, 2, and 4, which we now use.

Some of the practical advantages for changing to the metric system include:

1. The metric system (SI) has only a few easily defined units.
2. All multiples and submultiples are in simple powers of 10.
3. There is a direct relationship between the units of length, volume, and weight.
4. The multiples and submultiples generally accord with our accepted counting system.

This movement to adopt a standard metric system of measurement is world-wide. Apart from the English-speaking world, the use of metric measures is universal.

Great Britain in May 1965 declared for a gradual adoption of metric units. A bill was to be introduced this year designed to make Britain metric by 1980. However, debate has been postponed to allow time for further consultations.

Australia passed the Metric Conversion Act in June 1970. A target date for completion was set for the end of 1979.

New Zealand established a Metric Advisory Board in 1969, and in April 1970 the Government announced approval in principle of converting to the metric system of measurement over a seven-year period, giving a target date for substantially complete conversion by the end of 1976.

South Africa commenced its program of metric conversion in 1966 and it is now substantially completed.

The United States Congress in 1968 passed the Metric Study Act.

In August 1972 the Senate passed a bill designed to implement the recommendations of the report. Last December President Ford signed a bill making increased use of the metric system a national policy and creating a Metric Board to oversee voluntary conversion.

Meanwhile, in the industrial section of the United States, a number of major firms have announced policies of adopting metric measures, and many are actively implementing these policies.

In Canada, the Government issued a white paper in January 1970 setting out the broad principles of its policy in regard to the metric system of measurement, as follows:

The eventual adoption in Canadian usage of a single coherent measurement system based on metric units should be acknowledged as inevitable and in the national interest.

This single system should come to be used for all measurement purposes required under legislation, and generally be accepted for all measurement purposes.

Planning and preparation in the public and private sectors should be encouraged in such a manner as to achieve the maximum benefit at minimum costs to the public, to industry, and to government at all levels.

Subsequently, in June 1971, the Federal Government by order in council established the Metric Commission.

Metric conversion is going to affect the individual citizen in his daily life. He must be enabled to understand what it is all about, why it is happening, and what are the changes that he is going to have to meet.

Children now entering primary schools will graduate in 12 years' time to a metric working world in which they will not need to make any use of imperial units. Children now moving to the secondary level will have to have competence in handling both measurement systems.

Implementation is already under way in Canada. More and more products are appearing packaged in metric units. Hospitals have been completely converted for several years. On April 1, 1975, public weather forecasts began reporting temperatures in degrees Celsius instead of Fahrenheit. Reporting rainfall in millimetres and snowfall in centimetres followed a few months later. Reporting of wind speeds and visibility in kilometres began April 1, 1976. Conversion of speed limits and distance signs will take place in September 1977. Conversion is expected to be substantially complete sometime in the 1980's.

In our own Department, metric conversion is being coordinated by the Department of Highways Metric Conversion Committee under the Chairmanship of E. E. Readshaw, Director of Design and Surveys. All branches of the Department are represented on the committee.

SOURCES OF INFORMATION
Art Rowbotham, Department of Highways Metric Engineer; telephone 387-5677.
Provincial Metric Commission, Gene Gosh, Director; Peter Wall, Public Information Officer; telephone 387-3601, 387-5684.
Metric Commission, Box 4000, Ottawa, Ontario K1S 5G8.
Minister's Message

The term "public relations" is used a lot these days both by its advocates and its detractors. But, stripped of all its media jargon and technical analysis, what it really means is common courtesy and human understanding. We know there are people in the Department who understand this and practice it. We don't give them a medal because it's part of their job, but we appreciate it.

We also know there are members of the public who are hard to please, whose complaints are unfair and criticisms unfounded. But we can give only the best we have and perhaps a little more. If we do this with courtesy and understanding, few people will expect more. That's good public relations.

ALEX. V. FRASER
Minister of Highways and Public Works

Cover Photo—The highway was narrow and dusty, but you had it all to yourself in those innocent days. This 1929 photo was taken in the Kicking Horse Canyon east of Golden on what is now Highway 1. Note railway tunnel far below. What’s the car, a Graham Paige?
10-7 CLUB

PETER SINCLAIR, Design and Surveys Technician, has retired after 31 years with the Department of Highways. Peter started with the Esquimalt District as an axeman in 1945. He moved to Kamloops as a Chairman the following year and then to the Comox District, where he became an Instrument man. From Comox he went to the Cowichan-Newcastle District and then to the Location Branch in Victoria, where he advanced to the position of Technical Assistant 4 over the years. In 1967 Peter was accepted as a member of the Society of Architectural and Engineering Technologists. His fellow Design and Survey Branch workers in Victoria recently presented him with a farewell gift and best wishes.

JEAN CORLISS, Clerk-Steno 3, office of the Senior Maintenance Engineer in Victoria, retired in May after 15 years' service with the Department. Jean started in 1961 in the Prince George District office, moved to the Regional office in 1962, and then transferred to Victoria in 1965 to the Senior Maintenance Engineer.

PETER FUOCO, Office Manager, Penticton District, retired March 31, 1976, after more than 30 years' service. Mr. Fuoco joined the Department after serving in the RCAF. He started in January 1946 with the Location and Construction Branch at Commination Creek. He served in Fernie and Victoria, and in 1949 went to the Penticton office where he stayed until his recent retirement. In 1940, while stationed in a tent construction camp at Mile 80, Big Bend Highway, with the Federal Government, he carved the "Wooden Head" out of a large cedar stump close to his camp during his spare time after work. Story about this was carried in the June 1964 edition of the Road Runner, and it now is displayed in Revelstoke. Peter was born and educated in Revelstoke. He has three sisters and six brothers. His father and mother came from southern Italy and settled in Revelstoke in 1904. His father recently passed away at the age of 91. Peter, a widower, says he will continue to live in Penticton. His hobbies are carpentry, gardening, photography, and wine making.

BILL RICHARDSON, a Mechanic at Duncan in Nanaimo District, recently retired. Bill began work for the Department as Mechanic in Gibsons in 1962, transferring to Vernon in 1964, where he remained until moving to Duncan in 1971. Bill will continue to live in Brentwood Bay.

Ann Kermode was the successful applicant for the Clerk-Steno 2 position in Vanderhoof District office. Ann has worked for several Government departments in the past 11 years in Victoria and Vanderhoof. Ann is enrolled in a Psychology course at the College of New Caledonia in Prince George, necessitating a round trip of 120 miles once a week. In her spare time she likes to read and sew and help her teacher-husband, Bill.

Other recent promotions include B. D. Steadman, Machine Operator 6, Cloverdale, to Foreman (Centreline), Cloverdale; R. Scott, Machine Operator 3, Prince George, to Centreline Machine Operator, Cloverdale; R. W. Stratton, Engineering Aide 3, Princeton, to Engineering Assistant, Prince Rupert; D. R. Nordstrom, Engineering Aide 3, Dease Lake, to Engineering Assistant, Dease Lake; S. J. Holen, Engineering Aide 2, Quesnel, to Engineering Aide 3, Nanaimo; K. F. Ross, Machine Operator 7, Stewart, to Foreman 1 (Road), Latauga Lake; A. F. Hembrow, Bridgeman 3, Prince George, to Foreman 1 (Bridge), Prince George; D. A. Boon, Engineering Aide 3, Saanich, to Engineering Assistant, Saanich; G. Runnalls, Foreman 2 (Road), New Westminster, to Foreman 4 (Road), New Westminster; R. E. Moberg, Engineering Aide 2, Lillooet, to Engineering Aide 3, Lillooet; N. C. Lodermeier, Mechanic 2, Kamloops, to Mechanic 3, Kamloops; D. N. Maclean, Bridge man 2, Tete Jaune, to Bridge man 3, McBride; K. Bosch, Bridge man 3, Gibbons, to Foreman 1 (Bridge), Nanaimo.

George Slack, Machine Operator 3, centre, with the Kamloops District road crew, retired March 24 this year. George is flanked on the left by Willare Kreitz, Senior Road Foreman; and on the right by Henry Danko, Road Foreman 2. George's co-workers presented him with a fishing outfit.

A gathering was held on February 17, 1975, at the Pattullo Bridge Maintenance Yard in New Westminster District, to honour the dual retirement of two land­scapers of the Department who have worked in the gardens at the north approach to Pattullo Bridge. Charles Nemrava, Gardener 3, retired after 25 years of service. He lives at 13628 Howey Road in Surrey, William Wynn re­ired after 19 years of service, all of which was spent at the Pattullo Bridge. He will continue to live at 5863 Kitchener Street, Burnaby. Their fellow workers gave each of the men engraved silver trays.

Pat Dickson has won through competition the Clerk 3 position in Penticton. Pat started with the Department just two years ago as Clerk-Typist 2.

ANN KERMODE

A. F. HEMBROW, Bridge 3, Prince George, to Foreman 1 (Bridge), Prince George; D. A. BOON, Engineer­ing Aide 3, Saanich, to Engineering Assistant, Saanich; G. RUNNALLS, Foreman 2 (Road), New Westminster, to Foreman 4 (Road), New Westminster; R. E. MOBERG, Engineering Aide 2, Lillooet, to Engineering Aide 3, Lillooet; N. C. LODERMEIER, Mechanic 2, Kamloops, to Mechanic 3, Kamloops; D. N. MACLEAN, Bridge 2, Tete Jaune, to Bridge 3, McBride; K. BOSCH, Bridge 3, Gibbons, to Foreman 1 (Bridge), Nanaimo.
ABOUT PEOPLE . . .

BRIAN DAVIES joined the Department as a Property Negotiator in Region 1 in April 1974. Previously, he had served with the Federal Government in the income tax department, and with the Provincial Government in the Land Registry Office.

Capt. W. "RUSS" WIGGS, Marine Superintendent, Department of Highways Ferries, Services Branch, Headquarters, Russ joined the Department in April 1969 as Captain on the Texada Queen, and in February 1976 won through competition the position of Marine Superintendent in the office of S. E. Blanchard, Superintendent of Ferries. Before joining the Department, he was employed with the Department of National Defence for 14 years on ocean research vessels, two years with offshore oil drilling on the west coast of Vancouver Island and Queen Charlotte Islands, and for about a year and a half on the same operation off the coast of New Zealand. Captain Wiggs takes a keen interest in all sports, including golf, and coached softball teams on Texada Island, where he resided with his wife, Barbara, and their two sons, aged 17 and 18.

Mrs. Ada Harding, transferred recently to the Department's Headquarters Accounts from Human Resources after two and one-half years service with their Pharmacare and Accounts Branches. Prior to that she was with a bank and a public accountant firm. Because of her grandfather's work in Egypt, Ada has an interesting collection of artifacts and scarabs from the tombs of Amenhotep and Ramses the Second. Widowed with a family of six boys ranging from 15 to 24, Ada, needless to say, has little time for extracurricular activities. She does, however, enjoy swimming and needlework whenever the opportunity arises.

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Jack Darnbrough, Road Foreman 2 at Sayward in the Courtenay District, first began with the Department in 1952. He recommenced with Highways in 1957 and has been involved in the various phases of district maintenance work. Before becoming Road Foreman, Jack worked in Gibsons for a short period.

TOM MOSSEY, Yardman in the Courtenay District, began with the Department in Courtenay in 1966 as Labourer. Tom is married and lives in Comox. His hobbies are fishing, gardening and playing crib.

Ed Brenner, Engineering Assistant with Vanderhoof Highway District, recently moved into the new log home he built with the help of his friends and co-workers. It is constructed of sawn threesided pine logs which are spliced and staggered for strength. Dimensions are 28 feet wide by 36 feet long. Ed and his wife, Marge, have many months of work ahead of them finishing off the interior.

FRANK ENGLISH, Stockman 4, Merritt District, suffered a heart attack in late January. The Merritt crew wish him a quick recovery and hope to see him back at the end of April.

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J. E. (ED) JENNINGS, Road Foreman, Campbell River, Courtenay District, started with the Department in Parksville in 1948 and worked in various areas of the district prior to becoming Road Foreman 3 in Campbell River in 1963. Married, Ed and his wife live in Campbell River and have two married sons.

The competition for the Clerk-Steno 3 position in the office of the Senior Paving Engineer has been won by Shirley Hurtak, who retired from the same position three years ago to become a full-time housewife when her work schedule was not compatible with that of her husband. They now work similar hours.

After completing a BSc in physics at the University of Victoria, Stephen Geddes joined the Geological and Materials Testing Branch. A bagpiper, Steve finds most of his spare time taken with the City of Victoria Pipe Band, which won the 1975 Canadian Championships.

CONVALESCENTS

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GEORGE WINDLE, Concrete Finisher, Cassidy crew, Nanaimo District, is still on the sick list. George's fellow workers wish him a speedy recovery.

Oscar Broen has returned to his job as Machine Operator 3 with Vanderhoof District road crew after an operation which kept him off the job for two months.

About People . . .

Brian Davis joined the Department as a Property Negotiator in Region 1 in April 1974. Previously, he had served with the Federal Government in the income tax department, and with the Provincial Government in the Land Registry Office. At one time Brian operated a small candle factory but his interests now are in outdoor activities like camping and gardening. He is taking several courses in real property appraisal as he works toward his qualification as an appraiser.

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Progress on Pattullo Bridge in mid-thirties is clearly illustrated in these old photographs. Top picture shows the beginnings of the main arch, middle picture shows half-completed arch and approach span, and bottom photo with freighter passing under shows arch just prior to final closing of the two sides. Other bridge is the railway span, which was also used by motor-vehicles. Pattullo Bridge was officially opened in November 1937. Photographs kindly supplied by Jack McColl, New Westminster District employee featured on page 3.
From the Victoria Times, June 27, 1915: This morning E. E. GREENSHAW was a defendant, charged with driving his car at over 15 miles an hour on Quadra Street Saturday evening. Mounted Constable Palmer put the speed of the car at the time it crossed Hillside Avenue at 25 miles per hour, and before it got to Topaz it was going beyond that, he said. As a defence, Mr. Greenshaw said that, while his vehicle has no speedometer, it was running on only three cylinders. But the magistrate remarked: "We know what some of these rejuvenated Ford cars can do." Greenshaw was fined $10.

Photograph taken in the early 1920's of a section of the TransCanada Highway about 4 miles east of Golden. Note car at passing turn-out.

Lone workman does a little hand raking in this 1927 shot of what is captioned "Hardy Bay Road" on northern Vancouver Island. Accompanying report from R. Bice, Foreman, says "he ran a car through to Coal Harbour . . . for the first time." Travel portion was about 8 feet wide. Mr. Bice added that "it will be quite possible to get through at any time if it is absolutely necessary, yet it is quite a temporary arrangement." Department has spent over $20 million in major highway work on northern Vancouver Island in the past few years.

Proud Cat operator is 18-year-old C. A. (Dolphie) MacKenzie in this 1928 photo with the first tractor to be used by the Provincial Government in the Mission area.
TRAINING AND SAFETY

TRAINING

Region I conducted a Training Seminar for all of the District Chairmen, Secretaries, and three Shop Stewards at the Villa Motel, Burnaby, on March 23 and 24. The purpose and objective for the seminar was to establish guidelines on safety policies and procedures, assist the District Committees in their respective duties, and hold a workshop on problem areas in accident prevention, ending with a closer insight into the problems of the District Highway Manager with relation to accident prevention. Input and support from all personnel attending was most commendable. The Training Seminar material and instruction was correlated and programmed by Regional Safety Officer Hal Dennies. A group picture with the Minister's Safety Trophy was taken in recognition of the efforts of all District Safety Committees on behalf of district employees.

Vernon Wins
Region 2
Safety Award

The annual Region 2 safety awards banquet was held in Vernon on March 30 when the Roy McLeod Award, the Regional Safety Award, was presented to the Vernon District. The Vernon District also received the General Motors Award for the district with the best vehicle accident frequency record. The Salmon Arm District received the Finning Award for the lowest workers' accident frequency. The G. H. Wood Award, the Good Housekeeping Award, went to the Merritt District, and the Branch Award went to the Paving Branch.

Region I training seminar: Back row, left to right, Fred Liden, Electrician, Burnaby Electrical Crew; Bill Grieves, Bridgeman, Chilliwack; William Upton, Machine Operator, Chilliwack; Jim Gunn, Machine Operator, North Vancouver; Jim Watson, Engineering Assistant, New Westminster; Larry Hemmerling, Machine Operator, Port Alberni; Rick Rutledge, Machine Operator, Courtenay; Wayne Stewart, Machine Operator, Nanaimo; Don McCavin, Labourer, Nanaimo; Gordon McArthur, Machine Operator, New Westminster; Les Johnson, Labourer, Saanich; Keith Rhodes, Machine Operator, Gibsons; Peter Ireland, Engineering Assistant, Saanich; left side trophy, Bev Svenson, Engineering Assistant, North Vancouver; kneeling, Don Bryant, Machine Operator, Port Alberni; Mel Thompson, Mechanic, Courtenay; Ken Eide, Mechanic, Gibsons; Larry Anderson, Labourer, Courtenay.

Saanich District Wins Region 1 Safety Award

The Regional Safety Award, Most Improved District Award (second runner-up), Good Housekeeping Award, Service Branch Award, and the B.C. Safety Council Award of Distinction were all presented at a banquet and dance in Victoria March 5.

Guests included Minister of Highways, Alex V. Fraser; Associate Deputy Minister R. G. Harvey; Senior Training and Safety Officer A. F. Park; Safety Officer, Public Service Commission, Pat Harkness; Chairman of Headquarters Safety Committee Russ Dean; and Regional officials.

In addition to the above mentioned awards it was a special night for Region 1 in winning the Minister’s Safety Award for 1975.
Best time to look at shots of icy rivers and lakes is in May and June. Above pictures are views of François Lake in January, showing open water lane through ice between ferry terminals. Above, left, picture is taken from the ferry bridge by Robert Davis, a Captain on the Jacob Henkel. The other picture shows the south bank terminal. Below, left, getting that sinking feeling were Foreman John Bergen and Grader Operator Howard Wade trying to cope with one of Burns Lake District's normal winter problems. Below, right, a picture of the old Hedley Road between Princeton and Stirling Creek Bridge adjacent to the Similkameen River.

Bob Wallace, Foreman, Chetwynd area, Dawson Creek Highway District, shown on a section of the Hart Highway at Pine Pass. Bob has constructed a gravel windrow to act as a guardrail during winter months. There is much freezing rain in this section and when traffic slows it tends to slide on the super-elevation of curves. About 1,700 linear feet were constructed in the most hazardous area.

Left, W. Kortegaard, Shop Foreman, Nelson, and J. Miles, Machine Operator, Cranbrook. In background is S-3433, a new lowbed tractor that was capably fitted up for operation by the Cranbrook District garage crew.
ON THE JOB . . .

Bridge at Paul Creek on the Similkameen River west of Keremeos being dismantled by Penticton District crews to save the timber, which is in perfect condition. The bridge was removed because of flood damage sustained in the 1972 and 1974 floods. It will not be replaced as there is access to the other side of the river. Originally the bridge was part of the railway right-of-way which ran from Nighthawk at the border to Princeton.

Left, paving with a Layton Spreader box west of Keremeos, Penticton District. Left to right, Stewart Pakka, Truck Driver; Allan Chapman, Grader Operator; Art Liddicoat, Paver Operator; Brick Andrist, Rollerman, Paving Foreman; Jim Hellyer, Raker-It; Brick Andrist, Rollerman, Paving Foreman; Jack Marsh, Plant Superintendent, white hat; and Les Duncan, Distributor Operator. Right, Chapman, Liddicoat, and Pakka in action on spreader.

The Nanaimo District bridge crew after completing extensive repairs on the bridge over Davis Lagoon, south of Ladysmith. Left to right, Gordon Downing, Foreman; Don Laberge, Rick Mayes, Renso Tognela, and Clifford Popp.

William H. Green, Captain on the Clayoquot ferry, taking a break after launching the ferry February 24. This is the earliest that the Department has attempted to operate the service. However, regular operation did not resume until March 22 as temperatures down to -45°C created ice problems. Bill is an old hand at operating the vessel, with service extending back to 1938. He lives at the south landing of the ferry and raises cattle as a hobby.

Albert Evans, Road Foreman at Cassidy, Nanaimo District, surveys part of a 6-foot stump removed from the centre of the right-of-way at Saltair.

TRANSFER

BRIAN DANIELS, with the Construction Branch in Valemount, transferred to the Quesnel District July 7, 1975, as Engineering Assistant. Brian is married with two children. At the present time he is busy with subdivisions.

OBITUARY

RONALD A. KENNETT, Bridgeeman 2, Merritt Bridge Crew, died suddenly February 15. He is survived by his wife, Beth, one daughter and one son. Rusty had been employed by the Highways since 1973.
ON THE JOB . . .

Construction in progress at the new ferry landing at Southbank on Francois Lake. The new terminals are required to accommodate the new 34-car ferry. Design and project supervision is by the Dock Design Branch. The fill areas were constructed by the Burns Lake District crews and the marine structures were built by a contractor.

Gabion installation on Greenlake Road to prevent continual problem of rolling rock, Penticton District. Barrier consists of wire cage filled with rock.

New ferry for Francois Lake service was assembled on north shore after having been built originally in North Vancouver shipyard, cut into sections, and hauled by trailer to the northern site. Named Omineca Princess, new 34-car vessel went into service in June.

Interesting aerial shot of newly completed Berths No. 3 and 4 at Tsawwassen Ferry Terminal, with provision for a future fifth berth at the left end of the sheet pile retaining wall. Design and construction were supervised by the Dock Design Branch in Region I.

Machine snow blowing, Rossland Highway District, left, R. Tweed, Flagman, centre, T. Williams, Snow Blower Operator, and right, R. Broughton, Shop Foreman, Rossland.

LITHOGRAPHED IN CANADA BY K. M. MCDONALD, QUEEN'S PRINTER, VICTORIA, BRITISH COLUMBIA