Vol. 40, No. 2, April, 1956

A Look At 1980... page 2
The president of Imperial Oil takes a 25-year look at the prospects of the Canadian oil industry—by J. R. White

The Polydextrous Dr. Stratford... page 6
As a student in France, Dr. R. K. Stratford of Sarnia refinery discovered "the well-rounded man"—one who is creative in many fields. To be such a man, he has been active in agriculture, horticulture and the theatre as well as his prime interest, science—by Hill Trimm

They'll Fly Anything Anywhere... page 10
By living up to this maxim for 14 years, Cliff Burke has built Maritime Central Airways or Prince Edward Island into one of Canada's four major air carriers—by John MacLean

Memories With No Tears... page 14
Mrs. Eliza Fulton's bridal home 67 years ago was a bush-backed log cabin. Today it is the site of Imperial's Edmonton refinery

Tinted Towers... page 16
Edmonton refiners have dipped into their paint pots to give Imperial's new lub oil plant the latest look in industrial fashions—by Michael Jacot

Changes On Imperial's Board... page 21
The Swedes Taught Me A Lot... page 22
Will Barrie of Gulf Ott. went to Sweden last fall as manager of the 1954 Canadian glowering team. He came back an admirer of Swedish ways—by W. C. Barrie

It's A Crazy Business... page 26
A cubicle will tell you his is the most frustrating, profitless and exasperating business of all, but he loves it—by Mark Andrew

Call Ol' The Cobequids... page 30
Like his father and grandfather before him, George Gilroy, the Imperial dealer in Mapleton, N.S., can't resist the lure of the maple wood each spring—by Douglas How

Photo Credits: Gaby (P. 2, 21); London Free Press (P. 7); Walter Clunin (P. 13, 29); Laddie Puntch (P. 14, 31); Herb Nott (P. 21); Imperial Oil (P. 22-25); Basil Zarow (P. 26, 28); Harry Rowell (P. 29); Staff (Inside front cover, 6-13, 12-20, 22, 27, 29, 30-33).

In 30-odd years as a painter, Albert Cloutier of Montreal has visited almost every remote part of Eastern Canada to find subjects for his brushes. Twice winner of the Jessie Dow prize (once in water colors, once in oils) his paintings hang in the National Gallery and many private collections in Canada and abroad. His inspiration for this issue's covers came from a visit to St. Fabien, PQ.

Another Day, Another Million

Last year the Canadian oil industry spent an estimated $487 million in the search for, and the production of, crude oil in eight of our provinces. Each day of the year some $1.33 million was spent. Or to put it another way, Canadian oil producers laid out $30.5 last year for every one of the nearly 16 million men, women and children who make Canada their home.

This year there is every indication that substantially more than half a billion dollars will be spent on oil exploration and production.

These vast expenditures have been felt not only in the oil areas, but in every province in Canada. The tools used by the oil seekers and producers have been made by thousands of Canadians remote from the area of oil search and production. Some of the Canadian industries supplying these tools and equipment are new to the country; others are well-established firms tackling new products. Steel companies have expanded to provide new tankage; new firms have entered the pipe line equipment field; others have begun to make valves and pumps. New and delicate measuring instruments have come into being and provided more work for instrument makers.

As the supply of western oil has grown, so has Canadian refining capacity. The expansion of refineries has also brought greater demands on industry.

Gas and oil discoveries have led to new projects in many centres—a lubricating oil plant in Edmonton, a gas processing plant at Redwater, a sulphur plant at Pincher Creek.

Every dollar spent to keep a drilling bit turning, equip a seismic crew or provide a complex electronic computer for a producing research lab has its influence on industry in another part of the country. The search for oil is making Canada stronger in oil supplies, strengthening the national economy and helping to provide a higher standard of living for all Canadians.
A Look at 1980

Twenty-five years from now Canada may have found 30 billion barrels of oil

Canadians—25 million of them—may be using 2½ gallons of oil a day

Oil may provide 62 percent of all energy used in this country

To find this oil, refine and sell it, the oil industry will have to spend $20 billion

by J. R. White

Frequently in the Canadian oil industry we step back for a moment from our more immediate problems and take a look into the future. We do this, not from any love of crystal-gazing, but from sheer necessity, for only by looking far ahead and trying to predict the most likely course of events can we hope to foresee the problems of the future and cope with them as they arise.

For this reason we have projected ourselves as far ahead as 1980. It would be idle to pretend that anyone knows for certain what will be happening to our industry in 25 years; however, it is not merely helpful but essential for us to decide on the most likely course of events and to plan accordingly.

If some of the figures in this forecast seem staggering to my more skeptical readers, I would remind them that today's industrial picture would have seemed just as incredible 25 years ago. I might add that in arriving at these estimates, wherever there was a choice between two figures, the smaller figure was always preferred. As a result, I believe that to whatever extent this forecast may err, its errors are on the conservative side, and the Canadian oil industry's future could prove even greater than the predictions here indicate.

In any description of the broad course which the Canadian oil industry might be expected to follow between now and 1980, it should be emphasized that the specific numbers used are less significant than the general size of the anticipated increases.

In other words, the trends are more important than the statistics that indicate them. There are six principal factors which must be considered: the future demand for petroleum; the anticipated growth in domestic and external markets for Canadian crude; the reserves of oil which may be found; the amounts of crude which could be produced; the money needed to achieve these results, along with the possible sources of these funds; and finally the results of some aspects of Canadian income tax law on the development of our petroleum resources.

To estimate how much petroleum will be used in the future, it was first necessary to arrive at an estimate of how much energy from all sources the country would be likely to use. This was done by examining all the ways in which we use energy and estimating the future requirements of each use. The total was then divided among the primary fuels—coal, oil, gas, hydro and wood.

Petroleum Demand To Triple

Indications are that the over-all demand for energy in Canada in the next 25 years will double while the demand for petroleum will triple. Meanwhile, the oil industry's share of the total energy market is expected to rise from 48 percent in 1955 to 62 percent in 1980. (These estimates are based on predictions—quite reasonable predictions, I think—that Canada's population will be about 25 million by then.) This would result in a large increase in our use of petroleum: from some 620,000 barrels of crude oil a day in 1955 to approximately 1,750,000 barrels a day in 1980. (A barrel equals 35 Imperial gallons.) In other words, every man, woman and child in Canada would be using an average of some 2½ gallons of petroleum products a day, compared to 1½ gallons in 1955. Perhaps a simple way to illustrate the amounts involved is to say that 1,750,000 barrels—the estimated daily consumption in 1980—would be enough to fill 8,750 railway tank cars and this number of cars would make up a single train 64 miles long.

At the present time crude from Canadian wells is supplying the petroleum needs of British Columbia, the prairie provinces and a large proportion of Ontario refinery...
markets. These internal markets took 304,000 barrels a day in 1955 and represented 57 percent of Canada’s total crude oil requirements. Canadian crude is also being used in the Puget Sound and Lakehead-Minneapolis areas of the United States. During 1955 these exports together averaged 55,000 barrels a day but by the end of the year they had reached almost double that volume.

It is expected that the domestic market for Canadian crude will increase to some 430,000 barrels a day by 1960 and could reach 1,400,000 barrels a day by 1980. This estimate assumes that Canadian crude will be able to reach the Quebec market—presently supplied by South America—economically by 1960. If the market develops to this extent, Canada will be supplying about 90 percent of its own requirements for crude oil by the end of the 25-year period.

Indications are that the export markets now being supplied by Canadian crude may reach 175,000 barrels a day by 1960 and could conceivably grow to at least 600,000 barrels a day by 1980. If then North America is suffering the oil deficiencies forecast in 1952 by the U.S. President’s Material Policy Commission, Canada might reasonably expect exports of one million barrels a day over and above the 600,000 barrel-a-day figure.

We cannot expect to get markets in the U.S. until there is a real need for our oil there. In other words, the Canadian producer will get into those markets only when he can supply crude economically to areas which cannot get U.S. crude economically. As long as the policies of governments do not upset the principle of market development based on economic need, I believe Canada will be able to export her crude oil in a stable and logical manner based on sound economics.

As currently interpreted, the U.S. policy on oil imports has had no ill effect on the development of the Canadian industry. However, U.S. government actions which indicate uncertainties or restrictions in the free importation of Canadian crude could be expected to have a discouraging effect on the Canadian industry.

When all these factors are taken into account, the future total demand for Canadian crude appears likely to increase between two and three million barrels a day—six to eight times the amount produced in 1955.

Future Oil Reserves Much Larger

Estimates of how Canada’s crude oil supplies might be developed during the next 25 years have been made by taking two main factors into account—the physical prospects and the incentive for development.

Developments in the last eight or nine years have left little doubt that western Canada is a potentially large oil producing area. Even a conservative forecast would indicate that future discoveries will give Canada several times the volume of oil reserves already proven.

The question of incentive for development—how hard the industry will press the search for oil—depends on such questions as what economic markets will be accessible, what rate of return can be earned on risk capital, and the security of investment in Canada.

In trying to market his crude, the western Canadian producer is at a serious disadvantage since he must compete with oil producers in the United States who are much closer to markets. The extra cost of transportation means, at present, that the western Canadian producer gets about 15 percent less for his oil at the wellhead than his U.S. counterpart. On top of that, Canadian income tax laws contain provisions which discourage Canadian taxpayers looking for oil.

Finally, the security of the investment in the Canadian oil industry results from a tradition of stable government and the strategic importance of this country’s oil reserves to the military security of the North American continent.

By the end of 1955 Canada had an estimated three billion barrels in proven oil reserves. When these factors I have just mentioned are taken into account, it is estimated that the industry may find between 23 and 30 billion barrels by 1980. If in the meantime production increases according to our expectations, then by 1980 the remaining reserves will amount to between 13 and 17 billion barrels. These estimates seem quite reasonable in the light of oil exploration history in the U.S. and other regions.

Bigger Markets Mean More Production

The Canadian oil industry is presently producing only about half as much as it could produce. Actual production is expected to remain far below potential production through the 1960s and possibly until some time in the 1970s.

The growth of the over-all market will depend more and more on the growth of exports, and any slowdown in the expansion of export markets might delay development of Canadian crude resources. If this happens, it is possible that the substantial excess capacity expected in the 1960s and 1970s might not materialize. It might also mean that Canada would not have enough wells drilled to meet the three million barrels a day which I indicated as the higher figure for demand in 1980.

Bearing all these variables in mind, I think we can look forward to Canada’s potential oil production reaching a level of about one million to 1,380,000 barrels a day by 1960 and 2,400,000 to 3,800,000 barrels daily by 1980.

Capital Needs Will Soar

The oil industry will need vast amounts of capital—many times the $3 billion already invested—to finance the anticipated growth over the next 25 years. We believe that between $14 and $18 billion will be needed for exploration and development and possibly $3 to $4 billion for other phases of oil activity, including manufacturing, marketing and transportation.

Since 1946, one-quarter of the industry’s capital requirements has come from funds generated by Canadian oil operations. The balance has been provided from sources outside the industry, such as Canadians, U.S. and foreign investors, and U.S. and foreign oil companies. Canadian oil companies should be able to provide an increasingly greater proportion of their own capital requirements, as the gap between earnings and capital requirements narrows. But the industry will, nevertheless, have to count on investors to provide a large portion of the approximately $20 billion it will need during the next 25 years. Just to put this total into its proper perspective, it might be useful to note that $20 billion is well over four times the amount of last year’s federal budget.

I mentioned earlier that certain provisions of our income tax law deter Canadian taxpayers from exploring for oil. I had in mind chiefly the depletion allowance, which makes Canadian operators less competitive in world markets. Canadian companies have to deduct exploratory expenditures from profits before calculating the depletion allowance. Companies operating in the U.S., on the other hand, do not have to deduct exploratory expenditures when calculating depletion.

This makes it possible for a U.S. oil operator to carry on business in Canada and, during early or loss stages of development which could last for some considerable time, obtain a definite tax advantage over his Canadian competitors, by a combination of U.S. and Canadian tax laws as presently framed. The result is that these U.S. companies have more dollars available for further investment than do Canadian companies. This competitive advantage tends to decrease the proportion of Canadian investment in the Canadian oil producing industry.

This tax situation and the resulting disadvantages would be largely eliminated if the Canadian operator were allowed to calculate depletion allowances on his producing profits before deducting drilling and exploration expenses not directly related to productive wells. As a Canadian oil operator, Imperial does not feel that the present system of depletion allowances encourages exploration and development in the way that it was intended.

While there can be no question that Canada has large reserves of oil, time alone can measure the validity of this series of assumptions about their development and use. However, the views expressed here are well supported by past performance, by available data and by discernible trends.
The Polydextrous Dr. Stratford

by HAL TENNANT

When Imperial's Sarnia, Ont., refinery added Reginald Kilmaster Stratford to its staff one August day in 1924, nobody was impressed. In fact, some felt that 26-year-old Stratford, who had no industrial experience and only an academic background, was not suited to industry.

However, by 1931, when lean, white-haired Dr. Stratford, then research director, became the company's scientific advisor, he had expanded his one-man research chemists' job into an 83-member technical and research department, patented some 30 petroleum products and processes and supervised development of countless others, including 40 patented by senior members of his staff. Fourteen processes devised in his lab have been rated major industrial achievements. One of them, conceived in the 1920s, revolutionized the manufacture of lubricating oils.

And changes his lab brought about did something that pleased everybody: they cut costs while improving quality.

Of course, as Dr. Stratford has pointed out, these accomplishments would have been impossible without encouragement from management and cooperation from engineers and refiners. Nor would they have been possible without the highly capable and even dedicated group of people on the research staff. Like Dr. Stratford, they have outstanding and widely recognized accomplishments to boast of in their own right.

But it is also fair to say that much of the success of Dr. Stratford's research group was due to his outstanding trait. His admirers call it perseverance; some others call it "downright bullheadedness."

Whichever it is, he learned it early, the hard way and for reasons of sheer self-preservation. Born at Brantford, Ont., the 10th child in a family of nine boys and three girls, he was stricken as a boy with a disease in the bone of one leg. It kept him an invalid for two years; doctors said he could not live.

Stratford refused to accept this verdict or their prediction that he would not walk again. He fought back the pain, pulled himself out of bed and learned to hobble around on crutches. Later he graduated to using a cane (which he has carried ever since) and went in for boxing, golf, dancing, ice boating, sailing, chicken raising and flower gardening. While he was still laid up he read volumes after volumes of chemical literature in his family's well-stocked library. An older sister and a patient cousin meanwhile tutored him in high school subjects.

After he was up and about, he earned a bachelor's degree in scientific agriculture at Ontario Agricultural College, Guelph, and a master of science degree at Amherst Agricultural College, Massachusetts. He loved farming and would have been a farmer if he had been physically stronger. He also put in four years of agricultural work for the Ontario government and spent a year at post-graduate study in chemistry at Guelph, where he later lectured for a year in the same subject.

Hired at 25 to replace a chemistry professor who was on leave of absence, he found the class included several World War I veterans who were older than he. His class objected to the syllabus set up for that particular course, but he carried on. The showdown came one day near the end of the school year. He had spent the previous evening setting up an elaborate dis-

"To be truly creative," says Dr. R. K. Stratford, "a man must explore many fields."

Agriculturist and chemist by training and Imperial's scientific advisor, he's been a theatrical director, music lover, horticulturist, teacher and educationist.

Imperial Oil Review, April 1956
When he returned, everything was back.

A year later he was studying at the University of Lyons, France, for his doctorate of science in chemistry on a scholar-
ship. When he had worked on a thesis for seven months, he dis-
covered the university library contained a thesis almost identical with the one he planned to submit. Each thesis is sup-
pended to be a new and original work. This one had been
missed; otherwise he would have found it months before in
plenty of time to pick another topic.

His chemistry professor sympathetically suggested he go ahead with his plans anyway. Stratford refused to take the easy
way out. He threw aside seven months’ hard work and started from scratch. While his fellow students enjoyed the summer
vacation he buried himself in research, although the university
was closed and he couldn’t use the lab. In spite of all these
capricies, he finished the term and won his degree.

The thesis incident seemed like bad luck, but a fatalist might call it destiny, for the topic of his finished thesis was the cataly-
cracking of pure hydrocarbons—now an important process in
petroleum refining.

Nevertheless Stratford returned to Canada with no particular
desire to continue research into petroleum. Chemistry was his
big interest, and he wanted to teach, but it was not easy to find
a desirable university post. He needed a job that would support
himself and his wife, the former Phyllis Coate of Chatham, Ont.,
whom he married before going to France. He decided to try for
an industrial job. Partly because of his success with his thesis,
he chose an oil company.

His colleagues at Imperial realized in later years that Dr.
Stratford learned much more in France than the fundamentals
of cat cracking. He learned to admire the stimulating discus-
sions that took place between Lyons students of various na-
tionalities (too much so, in fact, that he later made it his policy
to recruit researchers from all over the world). And his exacting
professors taught him the meaning of a liberal education. A
good chemist, he learned, does not think and talk only of chem-
istry; he has a profound understanding of the world around
him, including such unchemical subjects as art, literature and
music. Dr. Stratford had discovered the well-rounded man and
determined to become one himself.

He carried this desire with him to Sarnia, where he made his
job just one of a dozen orders for his creative energy. After
the research operations were organized formally into a depart-
ment, he insisted his colleagues with his own attitude toward
creative research. His belief was—and still is—that a scientist
can develop his creative faculties to their fullest only if he exer-
cises them in as many worth-while fields as time will allow.

To some, his beliefs about creative research seem almost
mystical. "Contrary to popular belief," he once wrote, "the scientist
is often not systematic... and is not confined to the
limitations of reason in making discoveries. . . . When a scientist
deals with the unknown, discovery becomes a matter of imagi-
nation and intuition rather than a slow, patient build-up . . . of
recognized facts." Many a valuable new discovery, he says, has
come out of a mind that thorough research has not touched, but
only "inadequate facts and vague ideas."

The more the mind engages in creative thinking—both on
the job and after hours—the more likely it is to be capable of
what some psychologists call "insight"—that sudden flash of
inspiration that means the solution of a problem that seemed
insoluble. Such flashes often come after a creative man has
"thought long and hard on the subject," or periods of mental
relaxation. Dr. Stratford has often had new ideas flash into his
mind while working in his garden or listening to music from his
large collection of classical records.

The ability to create new ideas, he believes, is something that
an individual either possesses, or doesn’t possess, from birth.
And although one man can create new ideas based partly on
facts discovered by others, it is seldom possible for two or more
people to collaborate in the creative process.

Convinced of every researcher’s need for creative activity
outside working hours, Dr. Stratford made sure all his staff
had plenty of opportunity for it. A case in point was their
participation in the Sarnia Drama League. Dr. Stratford was
president of the league for five years and was active in its
director and producer for 15 years. The way in which he drafted
new actors and stage hands from among his staff was a standing
joke around the lab. Many became genuinely stage-struck, but
none put more into the work than Dr. Stratford himself. And
staff members who had known him only in the lab were sur-
prised to see him work quietly and patiently for hours at a time
to bring out the best performances in even the tiniest children in
a Christmas play.

And his staff members might even have been more surprised
day they saw him drawing out a chance acquaintance on a train.
A good conversationalist, he is also a good listener and has the
faculty of making other people talk too. After a session with
Dr. Stratford more than one person has found himself pleas-
antly surprised by his own conversational powers. At heart a
warm personality, Stratford is always happy to meet people
and doesn’t hesitate to show it. One acquaintance puts it this
way: "You just feel bathed in the glow of his greeting."

He combined his ability and enthusiasm in work with such
diverse groups as the Canadian Club of Sarnia, the Sarnia wel-
sale commission (a relief organization set up during the depres-
sions), the Sarnia Town Planning Committee, the Sarnia and
St. Clair River horticultural societies, the Moore Township
Planning Board, and the Corunna Public School Board. With
the exception of the Moore Township Planning Board, he was at
one time or another, president or chairman of every one of
these groups, in some cases for as long as five years at a stretch.

His activity in a host of scientific societies was just as intense.
He was among the founders of the Chemical Institute of Canada
out of three groups that all liked to think of themselves as the organization of Canadian chemists. Later he became board chairman of the CIC, and at various periods headed such professional groups as the Canadian sec-
tion of the Society of Chemical Industry, the Research Council of
Ontario, and the petroleum committee of the National Re-
search Council. During the war he served as liaison man in
Washington for the Canadian Department of Munitions and
Supply. Other affiliations have included membership on the
chimnery committee of the Canadian Chamber of Commerce,
the Canadian Cancer Treatment and Research Foundation and
the advisory board of Ontario Agricultural College. Currently
he is Canadian representative on the permanent council of the
World Petroleum Congress, and as such he went to Rome last
June as a guest of the meeting.

The capabilities he showed in such “outside” work undoubt-
edly influenced the decisions of both the University of Western
Ontario, which conferred an honorary doctorate of science on
him in 1949, and Queen’s University, which made him an hon-
orary doctor of laws in 1953. Queen’s called him “a scientist,
lettered and humane,” but Western Ontario’s citation included
a phrase which he probably treasured even more, Dr. Stratford,
it said, is “a truly educated man.”

Canadian chemists recognized his contributions to their
profession with two medals in 1954. One was the award of the
Chemical Institute of Canada, and the other that of the Cana-
dian section of the Society of Chemical Industry; both awards
are made every two years.

Among flower lovers and horticulturists, he has long been
renowned for the way he raises flowers all year round on the

Earning a Ph.D. in chemistry meant many long hours in the lab

Dr. Stratford’s theories developed the suspended cracking process which supplied feedback to Canada’s wartime synthetic rubber plant
In the summer of 1948 Carl Burke, founder of Maritime Central Airways, was taking the kind of holiday he likes. Accompanied by R. N. Redmayne and A. M. Clark, his secretary-treasurer, good friend and fellow-resident of Charlottetown, P.E.I., he was floating around the Atlantic coast in a Stinson aircraft, enjoying the scenery, the seafood and the angling but keeping an eye out for business.

One day he dropped his light aircraft down and landed in the harbor of the French-owned island of St. Pierre. The islanders were eager to be linked with the mainland by air and had enthusiastically started to build themselves an airstrip. When the project was almost completed, an engineer from Paris had condemned it and left the islanders sadly surveying the results of their work. So when Redmayne (now general manager of Air Industries Transport Assoc.) Burke and Clark put down, the administrator of the colony greeted them with lavish hospitality and a wishful hope.

Wasn't it possible, he asked pleadingly, that the engineer had been wrong? Burke, a shy, soft-spoken, medium-sized man with a boyish face and thinning hair, agreed that this was a possibility. Then he paced back and forth over the field where he had found it difficult even to land his little Stinson. After studying the terrain he made a typical snap decision.

"If you let me have a few trucks and all the men you can muster first thing tomorrow morning," he told the administrator, "I'll have a DC-3 in here tomorrow noon to start a service."

M.C.A's DEW-line carriers may be fitted with pontoons or skis.

In the morning the men and trucks, directed by Burke, removed the boulders from the field and leveled the surface by scraping gravel hillocks into the depressions. Miraculously, a reasonably good landing place was brought forth from under the rocks. At noon the DC-3 promised by Burke glided in safely and easily, to leave before evening for Sydney, N.S. with a full load of jubilant passengers.

Maritime Central has been operating flights between St. Pierre and Sydney ever since.

The way the St. Pierre service was born helps explain why Burke, at the age of 43, is a living legend in Canadian aviation, and why Maritime Central has become one of the four largest air carriers in Canada.

When he launched Maritime Central on December 7, 1941, the day of the Pearl Harbor raid, with $5,000 he'd earned and $45,000 invested by two backers, Burke's basic idea was that the enterprise couldn't fail if he demonstrated that it could "fly anything, anywhere."

He's been demonstrating this for 14 years: flying mail order catalogues in midwinter to the remote-iced-in Magdalen Islands in the Gulf of St. Lawrence; flying injured Gaspé lumberjacks to hospital in Montreal; flying New Brunswick firefighters and their equipment to forest fires; flying live Nova Scotia lobsters and Prince Edward Island strawberries to Boston; flying potatoes to potato-loving Newfoundlanders during a railway strike; flying live beavers from Newfoundland to Labrador for re-stocking purposes; flying Newfoundland sealers over the ice floes to spot seal herds; flying sailors from Halifax to Toronto on their Christmas leave and flying ornithologists over the Maritimes to take a census of the duck population.

Some of the flights have been downright funny, like the one enlisted by a frisky brace of baby seals a tourist sent from the Magdalen to his mainland girlfriend, who didn't know what to do with them when they were delivered.

Some of the flights have been sheer heroism, like the four trips Burke made in 1943 to rescue four RCAF fliers whose Anson aircraft had been forced down on a drifting ice patch in the Gulf of St. Lawrence. Their radio was still working. They signalled for aid and were located. However, the ice patch was so small, so rough, that the RCAF had no plane that could reach them and take off again. And the weather was bad. Burke, at Charlottetown, was called in. He knew there was a tiny ski-equipped plane at Moncton, N.B., which, with luck and in skilful hands, might be able to do the job. He flew to Moncton on this aircraft, a two-seater, and with it he landed four times on the treacherous ice, taking one airmen ashore each time. This dangerous and difficult mission won him an OBE.

If some of the flights were funny and some were heroic, all were in keeping with his basic idea of flying anything anywhere.

Maritime Central's original shoestring has grown into capital assets of more than four and one-half million dollars and an original staff of 16 has grown to nearly 400. Maritime Central planes, which flew 216,000 miles in the company's first year, flew 1,468,000 miles in 1954—and the mileage figures are a very inadequate reflection of the actual expansion for Maritime Central's present planes are much heavier than those of 1941 and, of course, carry more cargo and more passengers per mile. In its first year Maritime Central reckoned its income in terms of thousands of dollars. In the first six months of 1955 its gross revenue was more than $3 million.

The airline that started so modestly in tidy pleasant Charlottetown, the small capital of Canada's smallest province, is now a giant in Arctic air transport. It reached into the Arctic circle by degrees, gradually gaining experience. It dropped an occasional prospector into Ungava and Labrador. When the prospectors discovered iron ore, Maritime Central packed some of the labor force and some of the freight to Seven Islands, on the north shore of the St. Lawrence, the end of the rail line from the mines.

There was freight, too, for the air bases in the sub-Arctic. There were spectacular chores like lifting a five-ton electric generator to a Labrador defense base and mining machinery to Yellowknife, NWT. Burke plowed the profits back into buying different types of aircraft—aircraft to fly anything anywhere. Meanwhile Maritime Central was acquiring the reputation of being able to do just that.
When Pine Tree, the southernmost radar line, was still a blueprint, Maritime Central was invited to tender a bid for a transport contract. It did, successfully. Then came the Mid-
Canada radar line, north of Pine Tree, and again Maritime Central was one of the main contestants. After that came DEW-line——Distant Early Warning line——in the Arctic itself where com-
passes go crazy and navigation requires the skill of long-
experienced pilots.

Maritime Central was appointed prime contractor for the eastern section of DEW-line and recently Carl Burke, in one of his bushy and infrequent speeches, given at Moncton, was able to say: “During the past six months Maritime Central has acted as a prime contractor on the Distant Early Warning line. This contract during this period involved the largest amount of flying on any job undertaken by commercial aviation on the North American continent. Over 8,000 tons were moved by commer-
cial aircraft and, of the Canadian portion, over 50 percent was carried by Maritime Central Airways.”

He could have added, but didn’t, that Maritime Central, hauling more personnel and cargo to DEW than other airlines, has had fewer accidents than most. He could have told of the hazards of flying into the figural shadow of the North Pole, where gales seldom cease, and where the magnetic pole is so changeable that nobody can follow the mad gyrations of a compass.

He could have announced that at Mont Joli on Quebec’s Gaspe Peninsula, southern supply base for eastern DEW, where he now has to spend so much of his time, he’s the popular boss man of as capable and colorful an army of pilots as were ever assembled in a quiet Canadian town. All of the pilots respect Burke because he’s as good at flying a plane as they are—and maybe better.

Before he had his first pair of long trousers—boys wore short pants in those days—Burke’s goal was to be what he is now, a fly fish. This wasn’t so simple then. Flying lessons cost what, by the depression standards of the 1930s, was a lot of money and Charlottetown had no flying school. For an hour of instruc-
tion Burke had to save $10 plus enough to travel nearly 200 miles from Charlottetown to Saint John, N.B., where the nearest flying school was located.

When he was through high school he managed this by much pinching and scraping on a $12-a-week salary he earned as a junior radio salesman for a Charlottetown hardware store with a radio agency. When he’d paid for his flying lessons he con-
tinued to pinch and scrape, and he and a friend, Ralph Yeso, pooled their resources to buy a $400 second-hand de Havilland Moth. Yeso soon lost his interest in flying but Burke discovered it was profitable. Commercial travelers if they missed the train-
ferries (then the one regular way of getting to the Canadian main-
land) were often anxious to pay young Burke $50 to fly them over. This saved them a day’s time and, if they’d been partying, saved their reputations and their scalps.

They would phone Burke in the morning and he would meet them at noon, when he had an hour for lunch. With a sandwich in his pocket, he’d wing over Northumberland Strait to Sydney, N.S. By one o’clock the $12-a-week junior radio salesman would be back in the store, fed, selling radios, and with $50 in his pocket.

This convinced him that owning an airline would be a happy business but he hadn’t any capital. When Burke was asked to fly for Canadian Airways, an outfit with several regional air services, he accepted promptly, and had dreams.

Then the war broke out and he became a trans-Atlantic ferry

pilot. A friend of his from Charlottetown, Joe Anderson, was also in the ferry service. Wherever they got together, on either the eastern or western side of the Atlantic, they talked about having an airline of their own. They talked about the lonely islands like the Maglakes, St. Pierre and Miquelon, where the planes could bring within an hour or two of the mainland. They talked about the way airplanes could help these islands—and their own Prince Edward Island—by speeding perishable goods like lobsters and strawberries and claims to the hungry markets of the United States.

Ferry pilots were well-paid and Burke and Anderson deter-
minedly saved their money. In 1941 they learned that Trans-Canada Airways, which meanwhile had bought out most of the Canadian Airways operations wanted to rid itself of the Saint John-Charlottetown run because it was unprofitable for their type of aircraft.

The hopes of Burke and Anderson soared. If they could secure the Saint John-Charlottetown franchise it would be their bread and butter and from it they could stretch out in all directions. They applied for and were granted the franchise. Being civilian fliers, they notified ferry command that they were resigning but each decided to cross the Atlantic once more to add to their meagre capital. On his final trip Anderson crashed and was killed.

Burke resolved to carry on with their plan. He had $5,000 and the Saint John-Charlottetown franchise. With these assets he approached L. R. Champion of Montreal and F. T. Briggs of Toronto for backing. Champion and Briggs were impressed with young Burke to risk $45,000. With his limited capital Burke shopped shrewdly for used aircraft. He bought a Barkley-Grow low-winged all-metal eight-passenger monoplane and a high-winged four-passenger Fairchild 24. He rented a low-
winged 10-passenger Boeing 247-D. With these Maritime Cen-
tral made its inauspicious debut.

Today MCA owns 20 planes: nine DC-3s, three Lockheed 10s, one Bristol Freighter, one Beaver, five Canso, one Avro Anson, four Avro Yorks, four Curtis 46s, and two DC-4s.

On December 16 it was granted a trans-Atlantic charter and expects to be the first Canadian airline to operate an exclusive freight service to Europe. TCA, the only Canadian line flying the Atlantic, mixes mail, cargo and passengers.

In the face of all this growth Maritime Central has remained a singularly intimate and personal institution. Carl Burke is, in a sense, still the kid who peddled radios. Everybody in Charlottetown still calls him Carl and, winter or summer, with the relish of a child with an all-day sucker, he totes curling, hockey, golf and shooting teams around the country.

He’s “an old married man” now—he was married the same year he struck out on his great adventure, Maritime Central. But, as he was in his teens, he’s still enchanted by the glamour of flight. He’s still awe-struck by what speed can do. And when a lot of his neighbors, who grew strawberries, found that the local market was glutted, and that prices were falling disastrously, he had them pick all day and load his planes. At midnight the planes took off for Boston. They reached the early morning market two weeks after the New England berries had passed their prime, so the PEI berries brought premium prices.

Burke is almost proud of salvaging the fortunes of his strawberry-growing neighbors than of his epic rescue of the four RCAP fliers facing death on the Gulf of St. Lawrence ice. For, in doing so, he proved what air service could mean to the econ-
omy of his native island and Burke is, first and foremost, a Prince Edward Islander §

The five boys and Dad make up the Burke hockey team. Mother referees

Carl Burke’s $415 million airline is only 14 years old

On the friendly island of St. Pierre, MCA planes are accustomed to sharing the landing strip. Burke started an air service there in 1938

Imperial Oil Review, April 1956
When Eliza Fulton looks at the rainbow-colored towers of Edmonton refinery, she sees again the bushland with a log cabin that was her bridal home 67 years ago.

NINETY-THREE-YEAR-OLD ELIZA Fulton looks on the city of Edmonton and what has happened to the land, just east of the city, which she and her husband broke in 1889, as something of a miracle.

The day she first saw Edmonton, 71 years ago, it was a collection of log cabins, the “Bay Store” and the fort. There were only three or four white women in town. The land she was about to farm was a tangled mass of bush sweeping to the North Saskatchewan river.

Today, Eliza Fulton, perky and straight-backed, sees the city of Edmonton as a thriving centre of industry and agriculture, and the farm land she still lives as the site of Imperial Oil’s Edmonton refinery, the largest in western Canada.

Almost a lifetime of memories lies in between. Eliza Fulton’s life has been one of pioneer adventure and disappointment, heartbreak and reward. She has seen the barest poverty and has worked hard. Yet, a soft smile lights her face when she talks of her poorest days. “The times when we had no money at all and things seemed blackest often turned out to be our happiest,” she says.

Mrs. Fulton came to Canada from the Orkney Islands, off the coast of Scotland, in 1884. She traveled with her brother in a Hudson’s Bay Co. ship and by train across the then empty prairies to Calgary. “Calgary was no more than a town. Not even a proper platform at the railway station. It was a great shock to a young girl.” But she was in for even ruder shocks.

She was met at Calgary by another brother who was farming near Edmonton. He came with horses and wagon and the trio started north. The journey took two weeks. They camped at night, sleeping in the wagon or on the open prairie.

The day before they were due to arrive, she commanded her brother to stop the wagon. “You must give me time to tidy up before we get there,” she said. With her brother’s reply, her heart sank, “No need. There’s nobody there to see you, except some Indians!”

Mrs. Fulton recalls that she wanted desperately to make her brother turn round and head back for “civilized” Calgary. But she stuck with it.

Her brother’s wife was dead and for four years she took care of his children at his home in Edmonton. Then she met Daniel Fulton, a dashing young farmer who had been working with his father just east of the town. They met at one of the regular dances in the Hudson’s Bay store. They were married in January, 1889.

“My husband had a nice log cabin, across the road from his father’s and the land he wanted to farm was at the back of it. It was bush all the way to the river. We went straight there after the wedding. I remember there was little snow on the ground and the road was very dusty.”

It takes time to do anything worthwhile, and Daniel Fulton’s farm didn’t flourish at first. He had the land to clear, to break, and to sow. His first crop didn’t bring enough for the next year’s seed. And Eliza Fulton hadn’t even a market for her eggs and butter. The winter was bitterly cold. In time the farm started to pay and the first child was born. Mrs. Fulton had six children, five girls and one boy. All of them were born in the log cabin. “Sometimes a neighbor came over to help. Most times they were born into the world alone,” she recalls.

The land proved to be rich. By 1904, the family had saved enough to build a big brick house. Within 12 years it had a full cellar, hot and cold water and a sewage system—something of a novelty for a farmhouse in those days.

World War I came and wheat was needed to feed troops in Europe. Edmonton became a busy agricultural centre. The Thiries arrived and with them drought, depression and poverty again. By the time of World War II one of Mrs. Fulton’s grandchildren, Danny Hollands, was helping her husband on the farm, and things were flourishing. Dan Fulton died in 1943 and young Danny took over the farm.

In February, 1947, Imperial Oil brought in Leduc No. 1 and the west’s present oil development began. It was the biggest thing that had happened to Alberta since the Turner Valley oil finds, Edmonton mushroomed. By 1948 it was plain to Imperial a refinery would be needed at Edmonton to process the Alberta oil and to satisfy the growing appetite of Alberta’s farm and industrial machines. Parts of a U.S. army wartime refinery were transported from Whitehorse, Y.T., to be rebuilt, remodelled and re-assembled.

Where to put it? The most suitable site was Mrs. Fulton’s land. Mrs. Fulton had found it difficult to get help on the farm and, though reluctant to part with the land that had meant so much to her, she sold it to Imperial and moved to an easier life in the city. She still lives there. From her windows she sees the great expanding city. Her grandson, Danny, took another farm near Cloverbar—five miles east of the original farm, and soon presented Mrs. Fulton with two great grandchildren, a boy and a girl. She now has 16 grandchildren and 24 great grandchildren. Danny still goes to the old homestead. He cuts hay every year on the refinery property.

The family connection with the refinery goes even deeper now. His uncle, Jimmy Hollands (Danny’s mother is Mrs. Fulton’s daughter, Reto) is a district manager in Imperial’s Alberta marketing division, where he is known as “Mr. Northland” for his pioneer work in the far north. Another uncle, John Hollands, works as Imperial’s marketing manager near the refinery.

Recently Mrs. Fulton paid another visit to her farmlands. A new and colorful sight met her eyes. In place of the wheat fields of her memories there now stood beside the refinery another new large plant—a lubricating oil plant—the first in western Canada, whose bright towers, pipes and gauges are painted all colors of the rainbow.

H. H. Moore, then superintendent of the refinery and now manager of Imperial’s Halifax refinery, took Mrs. Fulton around in his car. Some of the questions prompted by her pioneer spirit would have stunned a lesser guide. She wanted to know exactly what went on in each unit. She was told the new plant would supply Alberta farmers with lubricating oils made in their own province from crude found beneath their own fields.

Her comment was, “It’s wonderful. A miracle.” And if there was a tear in her eye, no one noticed. Mrs. Fulton, at 93, a great Alberta pioneer, and a grand old lady of Edmonton, hasn’t much time for such weaknesses—M.J.
Tinted Towers
by MICHAEL JACOT

Industrial fashions are getting a New Look — drab colors are out. At Edmonton's new lube oil plant, which is the first in the west, eye-appealing hues give it the air of a cheerful living room.

When Mama's skirts touched the floor and Papa's moustache was wider than his ears, the factory (let's face it) could be a pretty miserable place, often only one step better than the local jail.

But as Mama's skirts grew shorter (Papa's moustache too) things changed. The modern plant is becoming more and more like a busy and cheerful living room. Already it is safer than the home and accounts for fewer accidents (statistics prove this),

Edmonton's new plant makes western Canada almost self-sufficient in lube oils.

Even tops of the towers feel the paint brush.

First refining treatment for the oil is in the phenol extraction unit.
The stately catalytic reformer is new.

Color makes hideous—go seek a better game.

The catalytic reformer.

Performance of the processing units is checked in control room.

It was decided to seek expert advice from Andy Russell, a well-known amateur portrait painter whose work has been hung at the Nova Scotia Society of Artists and the Professional Engineers Exhibit at the Canadian National Exhibition. A sandy-haired Scot and an expert with colors, Andy is also an assistant manager of Imperial's engineering division at Sarnia where the company's refineries are planned and designed. He combined his artistic skill with his engineering know-how and came up with color schemes that pleased everyone. They've been pleasing people ever since.

Andy says, "Each color was chosen for the job it could do. Tall towers were painted pastel so they would not offend the eye at a distance. As the colors neared the ground we made them more definite. Medium height units were made fairly dark, and units and pipes at man's height, the darkest. These are the parts of the plant which take a beating and dark colors are more serviceable. However, the dark colors fit in with the general scheme."

Ever since the colored process units appeared on the Edmonton skyline there have been flocks of curious visitors. An artist came to paint them, a French movie company taking pictures in Alberta arrived to film them. The Convention of the Canadian Federation of Mayors and Municipalities—550 strong—drew out specially to give the plant their worshipful attention.

The use of color has gained the approval of many industrial authorities. Tests show that artistically colored plants are more efficient; promote safety. Distinctive colored refinery pipes, for instance, now tell what is flowing through them so employees are safe because they know what they are handling. Bright colors warn of the presence of stairways and danger spots; re-
Changes on Imperial’s Board

J. A. "Jerry" Cogan formerly assistant general manager of Imperial’s manufacturing department, has been named a director to fill the vacancy left on the board by the retirement of Chairman George L. Stewart.

Behind his new appointment lies 23 years’ experience in the oil industry, mainly in the refining and long-range economic planning fields. Born and educated in the United States, Mr. Cogan holds a master of science degree in chemical engineering from the Massachusetts Institute of Technology and a bachelor of science degree in chemistry from Colorado College.

He joined the Standard Oil Co. of Louisiana in 1932 and worked as a process engineer in the Baton Rouge, La. refinery.

Two years later he moved to New York City to work in the co-ordination manufacturing group of Standard Oil Co. (N.J.) During the war he served in the U.S. government’s Petroleum Administration for War, then returned to Standard Oil, eventually heading a department responsible for economic planning on a world-scale wide. Joining Imperial Oil as an assistant general manager in the manufacturing department, he became responsible for long-term planning of manufacturing operations, including refinery expansion projects and the development and installation activities across Canada.

Last year he spent three months on an Imperial executive orientation course, which included a first-hand study of operations in Imperial’s major manufacturing, marketing and producing activities across Canada.

He has been succeeded by R. W. Dunlop, former manager of the engineering division of the manufacturing department.

W. O. Twaits to Executive Vice-President

W. O. "Bill" Twaits, an Imperial director since 1950 and a vice-president since 1952, has been named executive vice-president of the company. His appointment followed the retirement of Imperial’s board chairman, George L. Stewart, at the end of last year.

Though born in Galt, Mr. Twaits lived most of his early life in the refining centre of Sarnia. But it wasn’t until he was about to graduate in commerce from the University of Toronto that he seriously considered entering the oil business. Shortly after receiving his bachelor of commerce degree, in 1933, he accepted an offer to take part in Imperial’s first training program at Sarnia refinery.

He began by filling oil drums in the packaging department, but in the next six years moved from one job to another around the refinery, gaining an all-round knowledge of the whole operation. He concluded with three years in the technical and research laboratories.

In 1939, he was transferred to the staff of the manufacturing technical committee and spent the next five years on production control and co-ordination of refinery operations. This assignment also involved close contact with the synthetic rubber development at the newly-started Polymer Corp.

Early in 1945, he moved to Toronto as assistant manager of the newly-formed supply department. With the discovery of crude oil in western Canada, the company established another new department, with the title of co-ordination and economics, which he headed.

In 1949 he went to Calgary as management assistant in the producing department’s western division and for six years, either in an active management capacity or board advisory role, was identified with the producing phase of Imperial operations. He became general manager of the producing department at the same time he was elected to the board in September, 1950.

J. A. Cogan Elected A Director

This red fire hydrant is easy to spot

One thing is certain, color is here to stay

Effective colors help otherwise drab areas. Night workers are finding color schemes especially useful.

Production is up too. Manufacturers in many branches of industry report increases up to 15 percent when they switch to bright colors.

Operations experts like the colored units because they promote better housekeeping. A streak of oil down the side of a black pipe may go unnoticed; against a colored pipe it shows up immediately and the leak can be repaired. A rust stain from a faulty steam unit leaves a particularly unpleasant mark on a colored surface. Also there is more incentive to clean bright, shiny colors.

Officials at Imperial have been so impressed by the effect of color that refineries and plants at Winnipeg, Halifax and other centres are now consulting color charts. Regina refinery has a few colored units which pre-date those at the Edmonton lube plant and Sarnia is in the midst of its decorating program.

Color has also had a great effect on people outside industry. Encouraged by food stores, service stations, and the packaging industry, the public has gained an appreciation of good clean colors. People are used to getting products from nice looking places. Dirty refinery units make people think of slovenly workmanship.

This fact offsets the extra expense involved in paint units. Industry has not used colors previously chiefly because paints they could afford were not suitable. Today, oil-based paints which are used mainly for exteriors are so good they are not only rust-resistant and weather-resistant, but they stay bright much longer.

One thing is certain, colored equipment is here to stay. Engineers, workers, designers, paint manufacturers all agree on this. “Color is a natural sign of progress,” says Andy Russell. “Ten years ago most cars were black. Today we have two-tones, and I myself drive a three-tone. This trend is going to spread to industry.”

Experts say that in future there should be more color inside machine shops and plant buildings. Lathes, pipes, electric motors and pumps may harmonize. Picture windows with colored glass would guard against eye strain.

“Our homes are bright, airy and gay,” says one expert. “Why shouldn’t we work in the same cheerful atmosphere?”

And why not? #

20

Imperial Oil Review, April 1956

31

Imperial Oil Review, April 1956
When Will Barrie of Galt, Ont. went to Sweden as manager of the 1955 Canadian plowing team, he took a good look around. What he saw impressed him. Here’s his report on their farms, forests, diets, way of life, and their beautiful women. Says he—

The Swedes taught me a lot

by W. C. BARRIE

I SUPPORT every nation believes—or likes to believe—that its women are the most beautiful on earth.

Had anybody asked me a year ago, I would have said, quite honestly, that I thought Canada had the best-looking women. But I’m going right out on a limb and say that the most attractive women I’ve ever seen, as a national group, are not Canadians, but Swedish girls. It’s a conclusion I came to after spending two weeks in Sweden last fall.

Any friends reading this will probably be wondering, “What’s this guy got to do with the price of wheat?” They know I’m a farmer, not a playboy, and that I went to Sweden last October, not as a movie talent scout, but as manager of the 1955 Canadian plowing team. (Our boys, by the way, did very well in the competition for the Esso Golden Plow, at the World Plowing Match. Ivan McLaughlin of Stouffville, Ont., came second and Joe Tran of Clarenville, Ont., was fourth, out of 24 plowmen from 12 countries.) And our friends on the Canadian Council of Plowing Associations, which sent us overseas, and at Imperial Oil, which provided our passage, understood that the tour we made of Sweden after the match was to enlighten us about Swedish farming methods—not about Swedish beauties.

Well, we did concentrate on farming—believe me!—and the only reason I bring up this question of feminine loveliness is that it helps me explain my most vivid impression of Swedish farming. This impression became firm in my mind after a conversation with some local residents when we visiting plowmen and managers stopped not far from the home of a girl named Hillev Rombin. Her name may not mean much to you, but perhaps it will when I add that she is Miss Universe of 1955. We didn’t see her ourselves, for she was in the United States at the time; but we did meet some people who knew her well.

One of them remarked that Miss Rombin was a charming and wholesome girl from a very fine family. Then he said something that I thought was far more remarkable. “She’s very pretty,” he said, “but we never considered her any better-looking than the rest of the girls around here.”

Miss Universe—a typical Swedish girl!

The ability to achieve near-perfection is evident everywhere. You can see it in the forests which cover well over a third of most farms. Here in Canada we have talked for years about tree conservation but are just getting around to converting our woods into actions. In Sweden, forest conservation practices, such as selective cutting and methodical replanting, were started at least a century ago and are now standard procedure in every forest, whether owned by a farmer, a lumber company, or the government. No Swedish farmer, I was told, would dream of cutting a tree without consulting a government forester beforehand. The result is that the Swedes are decades ahead of us in reforestation. Both Canada and Sweden cut a lot of timber every year, but our forests are dwindling while theirs are increasing in size. Furthermore, the Swedish farmer usually gets far more rain than he wants, so he does not have the incentive we do to plant trees for water conservation.

To be perfectly fair, I must mention that their forest floors are covered with a natural moss that undoubtedly helps to prevent fires, so they don’t suffer the timber looses we do each summer. But that’s all the more reason why we should be doing more to conserve what we can.

I was even more amazed when I saw what happens when the same philosophy is applied to crop farming. Here in Ontario, a man who gets 60 bushels of wheat to the acre is a really good farmer. The average wheat yield in my own Waterloo county, according to the last figures I saw, was 33.1 bushels to the acre. In Sweden I met farmers who produce as much as 70 bushels of wheat to the acre, and the last published figures show that Sweden’s wheat production, per acre, is about 60 percent higher than Canada’s. (With yields like this, the only reason their total productivity is not as high as ours is that the country is so small; for every acre they have been able to cultivate, we have 38 acres of farm land or potential farm land.)

What’s the secret? I knew there must be one, because nobody gets crops like that year after year, just by luck or accident. I found the Swedish farmer uses tremendous quantities of fertilizer. For a grain crop on which we would use perhaps 200 or 300 pounds of fertilizer per acre, the Swedish farmer will use up to 2,000 pounds—in the fall and another 500 in the spring. I need hardly add that the extra yield more than covers the cost of the extra fertilizer.

I don’t know of a farm in Canada with land that could utilize anything near 2,000 pounds of fertilizer per acre. Does that mean that the Swedish farmer happens to be lucky? Not at all. The reason he can use such quantities of fertilizer is that he and his forefathers have been conditioning their lands to it for generations.

There’s nothing we Canadian farmers could do that would enable us to get our lands into this condition this year, next year or even five years from now. But unless we make sure now

Break-time on a Swedish farm. The author found that city dwellers, as well as farmers, lead healthful outdoor lives all year round.
that we are planting the right things in the right soil, are rotat-
ing our crops properly and are doing everything we can to
improve our soil conditions, even our great-grandchildren
won’t be able to do as well as Swedish farmers are doing now.
Another secret of the agricultural success in Sweden is their
system of crop rotation. Each year the crops are rotated so
produce are analyzed. I doubt if there’s a farmer anywhere in Canada
who has to be sold on the advantages of scientific testing, but here
again the results are dramatic. Our testing stations are just as good as theirs but they have a lot
more of them—about 200 in a country half the size of Ont-
tario. Thus the farmers find it easy to get scientific guidance in every phase of their work. My own farm
happens to be within easy driving distance of the Ontario Agricultural College at Guelph, Ont., and I use the testing ser-
tices quite often. But I know there are some farmers in Canada
who haven’t a testing station within 200 miles, and no doubt
their farming suffers as a result.
You could argue that there’s little point in increasing our
yields in some crops, such as wheat, if we can’t sell what we’re
already producing. But do projects take a long time—sometimes a lifetime or longer—before they begin to pay off. I
can’t see any justification for robbing our descendants of good
foods just because we have marketing problems.

The Swedish farmer is in the happy position of being able
to sell, quite readily, almost everything he can produce. Part
of this is due to luck, but planning has something to do with it
too. The luck lies in the fact that the population of Sweden is
just about right in proportion to the amount of food that can
be produced on the land, and since the country is physically
small compared to Canada, the Swedes haven’t costly trans-
portation problems. The planning that helps him take the
form of co-operatives. I’m certainly not sold on all forms of
co-ops. In fact, I’m convinced that co-op stores, as we saw
them in Britain, are not in the best interests of the general pub-
lic, for what everybody’s business soon becomes nobody’s business, and everybody suffers, especially the customer.

The Swedish co-ops were not stores, but co-ops run by pro-
ducers and it was an eye-opener to see how the Swedish farmer
used them to market his goods and maintain fair prices.
Co-ops also came into the picture quite often at the processing
stage, too, with the farmer using co-operatively-owned plants
that would be too expensive for him to own alone. That’s the
case sometimes, for example, with the big drying plants where
they must reduce the moisture content of their grains before
they can be stored safely.
I wish I could say at this point that our post-war trend to
ward mechanization has put us far ahead of the Swedish farm-
ers in this respect. Granted, we have fewer pieces of equipment per farm, but their farms are small, even
by Ontario standards, with an average of 80 acres, and 50 of those is common. Farmer they were just as well
mechanized as ours. However, several Swedes told me they
thought Canada produced the best combines in the world, and
I noticed them using many of the makes of tractors that are
so familiar to us.

When some of us noticed that the tour itinerary seemed
to include only the big, expensively-operated farms and other
special agricultural showplaces, we asked if we could also visit
some typical farm that was neither the best nor the worst in the
country. So our obliging hosts took us to the farm of Bengt
Stalgar, an important member of the Swedish plowing team at
the first annual world match at Cobourg, Ont., in 1933. We
found that he had 40 of his 80 acres under cultivation and that
his major pieces of machinery were a tractor and a combine,
which were about all he would need. His house had modern
plumbing and such appliances as an electric refrigerator,
washing machine and electric stove. Mrs. Barrie and I both got
the impression that they didn’t have the small appliances such
as electric mixers, vacuum cleaners and shavers, but it was a
comfortable-looking home.

Even though we have more material comforts than our coun-
trypeers in Sweden, they seem to be at least as happy as most of
us, and they certainly have more work than we do in keeping
their young people home on the farm. They are needed there,
too, even though the farms are small, for the average
farmer gets a sizeable part of his income from logging during
the winter, and this calls for more manpower than would be
needed merely for mechanized farming.) I’ve heard it said that
more young Canadians would take up farming if they could have
city comforts. People who think so ought to visit Sweden.
The Swedes have a less superficial idea of what induces a young
man to go in for farming.

No doubt their ability to produce plenty and to sell what
they produce has a lot to do with the number of farmers’ sons
who follow in their fathers’ footsteps. But part of the answer can
also be found in their agricultural colleges, which are schools
of practical learning, as different from academic colleges as a
farm job is from an office job. Everything done at the colleges

They eat a lot of timber each year, yet forests are increasing

is calculated to stir the student’s interest in farm life. We visited
one agricultural college during the middle of a term. There was
hardly a soul around the classrooms; they were all in the fields
or the barns, getting practical experience in the sort of real-life
work and problems they would later be encountering as farm-
ners. I’m not saying that a farmer doesn’t need a great deal of
the theoretical knowledge that is taught in our own agricultural
colleges; but it certainly wouldn’t hurt us to take stock of
our own colleges and consider including more practical work.
I’ve referred more than once to the Swedish farmer’s fortunate
position in his country’s economy, and I mentioned some of
the reasons for it. However, there is one factor that really
puzzles me. What I’m referring to is the Swedes’ inclination
to eat large quantities of his own country’s food products. I under-

stand that the Swedish government restricts the import of
certain expensive foodstuffs, but that doesn’t explain why the
Swedes eat as much as they do of their own foods. Take butter,
for instance. A Swede would be dismayed if anyone offered
him one of the pathetic little pats of butter that we are accus-
toming to seeing when butter is rare. And they serve butter in
a portion the size and shape of a peeled banana. We sat
down to dinner with Swedes who thought nothing of spreading
one of these butter-pat-size portions on a single slice of bread
and then going back for more!

At this point our city friends especially will be objecting
that they can’t afford to eat as much. But that’s only because
that if Canadians would eat even half as much butter per capita
as the Swedes do, we farmers would have the incentive to pro-
duce far more than we do, our butter market problems would
be solved, and the price would be bound to come down.

I’m sure my women readers are thinking that they would
never eat such quantities of butter even if it were free. They’d
be too afraid of what such a diet would do to their figures.

What shear and utter nonsense! You can go on counting
your calories if you want to, but the Swedes I saw were obvious-
ly not counting theirs, and I can’t recall seeing even one fat person—male or female—all the time I was there. I’m not
trying to say that fattening foods won’t make you fat. But I am
saying that the Swedes are living proof that people can eat large
portions of the basic, wholesome foods, including some of
the so-called fattening ones—without growing fat, providing
the meals are well-balanced and the people get plenty of exer-
cise, preferably outdoors.

I know plenty of Canadian women who talk a good diet; but
they’d eat a better and less fattening one if they forgot about
calories and ate as the Swedish women do. The Swedes go in
far less for the artificially-sweet foods, such as candies, and
concentrate on the more natural foods like fruit, vegetables,
fowl and fish (they eat very little beef, incidentally). What’s
more, they get plenty of outdoor exercise. In Sweden, almost
everybody gets around by bicycle. There were probably 10
times as many bikes at the plowing match as there were cars.
On most city streets there were probably as many bikes as there
are cars in Toronto or Montreal. These are not all teens’agers’
bikes, mind you. I saw women who must have been 70 or 80,
pedaling along with their grandchildren snug in carriers on
front or back.

Maybe this is a dangerous stand for me to take in an oil
company magazine? But I honestly believe that we all need
more outdoor exercise than we can get by walking out to our
patios or by joining the weekly line-up of Sunday drivers on
the highways. As an exercise, it’s no great demand on
spending. Sports are activities that ordinary people take part
in, not just things you buy tickets to see. We toured only a frac-
tion of the country, but I’d say almost all the towns had a
run or runs as there are in all of Canada, and I was told that these
and many other types of sports fields get plenty of use.

I’m sure the Swedish government has statistics to show the
beneficial effects of this sort of living, but no matter how favor-
able they are, they never would have convinced me as thorough-
ly as what I saw with my own eyes.

We farmers, especially, could benefit a great deal by copying
the methods—or, more accurately—adopting the day-by-
day philosophy of these people. But the Swedes could teach some valuable things to a lot of Canadians things to eat, the
I think they could even show our women how to be prettier! 6

Imperial Oil Review, April 1956

Imperial Oil Review, April 1956
Scratch a cabbie and you’ll find a philosopher. He’ll tell you cab driving is the most frustrating, profitless, exasperating, yet the most fascinating of all jobs. In fact, Mister husband, who came out to see what was going on. It turned out that she was going to a house only two doors away. “It makes her feel important to go by taxi,” the husband explained.

Even shorter rides are on record in the northern Ontario town of Geraldton, which some weary prospectors chose early last year as a resting place after weeks of wading through deep snow. They adopted the rule, “Don’t walk if you can ride,” and hired cabs for the shortest runs imaginable, including 10-foot jaunts between adjacent stores. During this local boom, one taxi driver reported: “Often I just back up my cab because it’s not worthwhile turning it around.”

But the payoff that every Canadian cabby is waiting for is the day when someone will climb into his taxi and say, “Miami, please.” And it has happened. A Toronto driver found to his delight that a trip to Florida wasn’t even going to cost him wear and tear on his car. Two women, who arranged the deal several hours in advance, provided their own auto for him to drive. Later he flew home at their expense, bringing back the full fare (reckoned on a daily basis), plus a $300 tip, two dresses as gifts for his wife, and a business success story that few other cabbies in town would ever be able to match.

Drivers who are typical of Canada’s 20,000 odd cabbies say their business “is getting crazier every day” because they are serving an ever-wider variety of people. Years ago the man in the street would dig down for the price of a cab only to catch a train or get his daughter off to her wedding, but taxis are now a popular form of public transit and delivery. Many a man who drives to work from a distant suburb has discovered that instead of buying a second car, it’s cheaper to let his wife use cabs. Small taxi companies are prospering in towns and villages where a taxi, 20 years ago, would have seemed as out of place as a row of night clubs. Big cities, too, have seen the industry grow, though most have civic regulations which control the number of cabs.

The post-war popularization of the taxi has helped keep fare rates from climbing as rapidly as the costs of many other services. A three-mile ride in a Toronto cab cost 75 cents in 1938; the same ride today costs $1.10—a less than 50 per cent increase.

Just how much money is tied up in the industry, nobody knows; there is not a comprehensive study or survey of the industry available. Toronto’s cab industry, including cabs, goodwill and licences is estimated to be worth more than $5 million. Reliable figures on the industry’s growth are extremely hard to come by, but some clue is provided by the census. In the 20-year period ending in 1951, the number of taxi companies in Canada—which range from one-man operations to 300-car fleets—more than tripled—from 1,211 to 3,664. The industry’s reported annual gross receipts climbed from $8 million in 1931 to $47 million in 1951, a jump far greater than those shown by other public services. There’s no doubt that more and more of the cabby’s earnings have been coming from the lower income groups. The taxi industry is no longer simply a carriage-trade service.

Dog lovers who have their pet poohs taxied to the canine beauty parlour are not all wealthy citizens. Nor are those who phone for cab delivery of a quart of milk, a pack of cigarettes or a bottle of ginger ale.

A Calgary driver once played chauffeur to two phone-ordered cups of coffee which he had to carry up three flights of stairs before collecting his fare. A Hamilton hackie, instructed to deliver a daily newspaper to an undistinguished address, had qualms about collecting his money. The fare for the five-cent paper came to 60 cents. Without batting an eye, the customer, a
Cabbies drive safely, obey the laws and are friendly with police who from one drugstore to another, ostensibly in search of a rare medicine needed for her husband. Finally she came out to say she had found the medicine but the store couldn’t change her $30 bill. She persuaded the cab to lend her $10. After she had been gone an unusually long time the cabbie found she had slipped out with her money and his.

Regardless of who is in the back seat, the driver is also under pressure of heavy traffic, the police, the dispatcher, company regulations, civic taxi regulations, business competition, and the never-ending necessity of “makin’ or payin’.”

Contrary to an apparently widespread belief, cabbies are safer drivers than most private car owners, according to police.

Traffic Inspector Robert Kerr of Toronto city police says his division for the past two years has been using interviews and practical and written tests that have weeded out most careless cabbies. Vancouver taxi drivers also have to meet strict driving standards because of a system operated by cab owners.

Unmarked private cars patrol the streets, watching for infractions by taxi drivers and reporting them for disciplinary action by a tribunal of owners.

The need to clock as many revenue miles as possible is an urgent one whether the driver owns his own cab or works for a driver-owner or fleet-owner company. The man behind the wheel loses money every minute the back seat is empty.

Opinions within the industry vary on the wisdom of the cabbie owning the car he drives. Economically, drivers fall into two general classes, with each convinced that the other is a pack of financial fools. Owner-drivers sneer at those who work for somebody else. They declare their own independence more than as a prospect and for the extra risk and responsibility.

Those who are non-owners by choice believe a man is foolish to buy a car and then “drive it into the ground” in 15 months for a doubtful return on an investment of doubtful security. Both groups, on the other hand, know that there is much more to taxi overhead than the cost of a car and a tankful of gasoline. Gasoline and oil account for less than 25 percent of overhead.

A typical owner-driver will clock close to 1,000 miles a week—seven times the distance covered in a week by the average private auto—while working 12 hours a day, six days a week. If he’s fairly lucky he will bring in fees and extras totaling $180. Out of this he must pay for gasoline and oil, $25; depreciation and repairs (reckoned at two cents a mile), $20; insurance (assuming a fairly accident-free record), $5; car payments, $20; dispatching and other office services, $16; and cab meals and other extras, $20. This total of $106 leaves him with only $74 as wages and return on his investment.

Non-owners, on the other hand, say their average weekly take is close to $75, and the hustlers among them make up to $125 a week.

It should also be noted that the list of expenses for the owner-driver assumes that he has already scraped up enough capital to make the down payment on the car, buy the two-way radio ($500) and pay for a cab license. If the cab is taking over a going business, the goodwill in cities like Toronto can cost him as much as $1,500.

Why does anyone invest $4,000 to $6,000 in a business that will keep him working 72 hours a week for $74 or less?

Drivers give many reasons for being in the business but their answers all boil down to the same idea: cab driving may be a crazy occupation, but it’s fascinating.

The length to which a cabbie will go to stay in the industry—

Big and small fleets use radio dispatch for speedy service.

Suburbs: wires are thin; they’re cheaper than a second auto even when he is losing his shirt—was illustrated not long ago by an awkwardly pencilled sign that appeared on the notice board of a Toronto cab office:

**WHO WANTS A PIECE OF ME FOR 90 DAYS?**

**HALF SHARES WELCOME.**

**MAYBE YOU’LL FIND YOURSELF IN THE SAME BOAT AS ME SOME DAY.**

**CHEQUES ACCEPTED IF THEY’RE OKAY.**

The author of this frank proposition quickly signed up some two dozen shareholders who thus “owned” him, body and soul, for three months. But at least he was back in business—the business which the confirmed cabbie will tell you is the most frustrating, the most profitless, the most exhausting, yet the most rewarding of all.
Call of the Cobequids

For three generations the Gilroy men of Mapleton, N.S. have succumbed each April to a mystic lure. George Gilroy, a master of many crafts, is no exception. Each spring the scent of the maple gets in his nostrils and maple sugaring takes over.

by DOUGLAS HOW

THE SPRING no young man’s fancy ever follows more predictable pursuits than the after-upper conversation in George Gilroy’s caucen.

Through the year the menfolk from the Nova Scotian farming-logging district around the hamlet of Mapleton, 25 miles from the New Brunswick border, tend to gather there of an evening, anywhere from three to half a dozen of them. George built the little store—tobacco, candy, car accessories and the like—to complement the two Imperial Oil gasoline pumps that stand just outside, but these nightly gatherings have led to it being known locally as Cracker Barrel Centre.

Within its frame walls, men in jeans, Mackinnons or their Sunday best, feel free to sit around the stove and talk of many things. They argue about cars, tractors, world events, and politics. Come spring, though, and they talk of just one thing: maple sugaring.

Somebody, perhaps Verne Brown, will plug the abilities of one type of evaporator in boiling the maple sap into syrup and somebody, perhaps George Gilroy himself, a solid, quiet man of 54, will challenge him on behalf of another and they’re away. It will shake down eventually to certain root controversies which the Cracker Barrel Centre—or CBC—never hopes to settle: who can boil the most syrup in one day; who can produce the lightest-colored sugar, or who can gather the most sap.

Gilroy can more than hold his own in such a cracker barrel session, for George Gilroy is one of the best and proudest sugar makers of them all.

George Gilroy is, in fact, a man of an extraordinary range of homeless talents.

Historian A. R. M. Lower has written that the Bluenose farmer of the golden seafaring era of a century ago was widely recognized as probably the hardest man in the world; there were so many things he could do. George Gilroy is a throwback to that era: “You grow up here doing nearly everything for yourself,” he says. “There are things to do and your father did them and you do them. It never occurs to you that it could be any other way.”

As he heads into his sugar woods on the slopes of the low grey-green Cobequid Hills, he drives a horse he himself shod, crosses a bridge he built, on a sled he partly made. When he comes to the rough, wooden sugaring shack, he is in a building he and his father threw up 40 years ago. When he lights the fire beneath the evaporator, he throws on wood he cut. When he goes out to gather sap, he will probably strap on snowshoes he made, from the hide of a deer he shot and skinned, and from wood he cut and shaped. When the time comes to eat, he cooks the meal and you couldn’t ask for better. He has all these and other talents, this father of four, this quiet, rural Canadian, and neither he nor his Nova Scotian neighbors consider them extraordinary at all.

But come spring, and sugaring time and the talent of which he is proudest comes to its moment. For three weeks a special touch comes into his life, something quite apart from all the rest of the year, something sovereign. Up and down the hill country around Mapleton there is this sense of rendezvous.

The nights of late March and early April are nippingly freezing in the Cobequids. The days are warm and boyish with sun; the temperatures range between 20 and 40 above zero. On the ridges, the rock or sugar maples are like crusty old aristocrats ready for the ritual of spring.

George and his helper, Curtis Gallagher, are typical in their ritual. They first spend two days “tapping up”: boring dime-sized holes an inch or so deep into 1,300 trees, some of them tapped so often over the past 60 years that it’s hard to find a place to tap again. Into the holes they stick metal spouts and beneath these they hang two-gallon pails. Soon the sap begins to flow, sluggishly at first but faster as the sun warms.

When the pails are nearly full, the two men hitch up their
two horses and drive along the pathways through the snow. They empty the pits into four-gallon bottles and these in turn into 100-gallon tanks borne on their sleigh or cart. At a word, knowing their roles perfectly, the horses pold on to another tree. When the tanks are full, they are driven back to the camp and the colorless sap is emptied into a huge vat. Then the two men head hack for more.

At length the time comes to "make." A great fire is lighted beneath the evaporator—a long series of pure 15 feet in length—and is kept raging with hardwood from a huge pile stacked in an adjoining shed.

"You can't have too big a fire," says George. "Have it too small and you could ruin everything."

It's care and skill in this and other parts of the process which make a man's reputation or break it. Skill in such things as the evaporation which turns 40 gallons of sap—feeding down in regulated flow from the vat outside—into one less gallon of syrup and this, in turn, if one wishes, into 10 pounds of cream or sugar. To George it is an endless challenge and a recreation.

"Sometimes we get visitors here in packs," says George. "They like to watch and they like to eat. They get laughing and playing jokes and the kids romp in the snow till it's time for syrup or candy. Sometimes they get to sticking their fingers in the foam and then in black ashes and rubbing them on the girls' faces. The girls go away all blacked up but they don't seem to mind."

Sometimes such is the mood that even a reserved man like George gets carried away. Like the time when he and Mason Welch decided to show some visitors how fast they could boil. They threw several rubber tires on the fire and they only just saved the but from the raging flames by pouring all their sap down and around the smokestack outside. They never tried that again.

All these things partly explain Mapleton's feeling for its sugar woods. But only partly. Because there's something else that's almost mystical; something beyond explaining except in the way that George describes it: "I've seen men wade through snow so far their feet deep in every direction, just to make sugar. It almost seemed that they just had to do it."

For Mapleton has a belief about its hills and trees that is entrenched to the point of dogma. When Verne Brown, for instance, was down in Vermont he got into an argument with a "Yankee" sugar-maker who vociferated the incredible statement that Vermont makes the best maple products in the world.

Now Verne Brown knows as well as anyone that Vermont, Quebec and other places produce far more of these products than Nova Scotia. But he also knows, with the certainty of life itself, that the best maple products in the world come from the 18 or so camps that send their steam up over the trees in a 10-mile stretch around Mapleton. Why, the very name of the place is a monument to this fact. Everybody in it knows, they just know, that some special chemical talent in the soil of their hills gives their products a fine grain, a lighter color and a flavor that just can't be matched, no matter what they say in Vermont or anywhere else.

On this point if not on others, Cracker Barrel Centre stands foursquare. Its members have compared their product with others. They have received many compliments such as that of Herbert Gray Hills, wealthy vice-president of a California coffee company, who got some of George's syrup through a friend once and now orders a gallon or two each year. "Yours," he wrote and underlined, "is the finest of them all."

The belief, in short, is impregnable. The fact is, though, that it has never been officially corroborated. And Mapleton is by no means the only sugaring community which cherishes such thoughts of pre-eminence. The fact is, too, that Ottawa officials actually dismiss the claim to special soil as local legend, but say there are no finer makers anywhere. Ottawa, in other words, says it is human skills, not any magic in the mountains, that make Mapleton's maple products what they are.

Notwithstanding the official view, it is because men like George Gilroy feel that their hills hold a magic of their own that they are such skilled craftsmen. They try to match the hills' magic with their skills.

Sugaring time is the one time of year when George Gilroy leaves his Imperial service station and his canoe to the care of his wife, Alice. In an economic sense maple sugaring is not really a major factor in his livelihood: he puts up roughly 1,700 pounds of sugar (a good part of it in syrup), tells most of it locally and makes a few hundred dollars clear.

George's livelihood is like his skills, a thing of many parts, more closely related to the old self-contained life of Canada's earlier days than to the interdependent structure of modern society. Its core is not in the hills nearby but in his service station. From the time in 1917 when his father built a Model T Ford, Imperial gasoline has been sold by the Gilroys.

As George recalls it, "Father traded that car like a sacred cow. You couldn't take it out in storms. Every night it had to be jacked up in the barn to save the tires and it had to be covered with a canvas. But it got us into the gasoline business. Two of the neighbors got cars, too, so father decided to sell gasoline."

By next year the Gilroy-Imperial connection will be 40 years old. The trade from tourists and local people has taken enough gasoline and oil down the years that George has fashioned his Bluenose life around it and augmented it with his skills.

It's typical of him, for example, that when he built his 11-room frame house a few years back, he did a lot of the work himself. It was paid for when the Gilroys moved in and George designed it so he could look out of the dining room window to see if anyone was waiting for gas 20 yards away. His whole life is integrated that way. The gas pumps, the canteen and the home stand close together on his 100 acres of hillside farmland. On the land he grows his own vegetables, grows the hay and grain to feed the four cows that provide milk for the family and for the market. He keeps three dozen hens to provide eggs for the family and market. He's starting to raise blueberries in an area where they are a prosperous crop. From another 100 acres of forest, he gets his own wood and each winter hires two men to bring out 20,000 or more feet of lumber which he sells locally. When things go wrong, he can usually fix them himself. When the time came to put a rest room by the service station, he put it in himself, plumbing and all.

George is the boy who stayed home to run the family farm. A graying, sober man, he's a pillar in Mapleton's little community. So is his wife Alice, a college graduate, and an excellent pianist. They're active in school and church work; both hold offices. Their neighbors like and respect them. "They are," said one neighbor, "the sort of people you build a community around. They lead a tranquil, simple life; a fur cry from the speedball standards of modern urban society. Their days pivot around the family and things without spectacle such as Cracker Barrel Centre, "church for sure on Sunday" and the coming of spring and maple sugaring."

The Gilroys have sold Imperial gasoline in Mapleton since 1917

Mapleton's Newfoundland folk chew the fat regularly in the Gilroy eastern