An antidote for those cost-of-living blues

People who sadly contemplate today's living costs—and that must include almost everybody—may get some comfort from the fact that gasoline is a better bargain in this day of inflated prices than it was 29 years ago.

(Our regular readers may recall that this fact was demonstrated in our October issue, in an article which showed that today's gasoline is capable of 50 percent more work than a gallon of 1930 gasoline, at virtually no increased cost to the motorist.)

There's no denying that gasoline costs more per gallon today; but its worth has increased much more than its price, even though highway taxes have trebled.

The greater effectiveness of today's gasoline is not readily apparent because today's motorists are not using its improved qualities for greater mileage per gallon. Instead, today's motor fuel is being used to move heavier cars and, in many instances, to operate power accessories. Power accessories alone have been found to drain as much as one-third of the potential power away from the drive shaft.

But the greater worth is there in the gas tank, nonetheless, and motorists are getting the benefit of it in riding comfort and ease of handling.

Any commodity which can boast today that its improve ment in quality has outpaced its increase in price, over nearly three decades, is remarkable enough. But the bargain to be had at the gasoline pump today is especially remarkable in the light of rising costs.

Quality improvement can't be brought about by the twisting of a few dials in refineries. Almost every new improvement in quality has called for costly new equipment. In 1937, for instance, Imperial spent $20 million for equipment to improve gasoline quality. The company's investment in just this one phase of refining has amounted to some $77 million since 1946.

Since they are also fixed, like all other manufacturers, with a general increase in operating costs, it is evident that by delivering today's gasoline at a bargain price, oil refiners throughout Canada are doing more than their share to help hold the line against inflation.
THE DAY THEY FLEW THE SILVER DART

Just 50 years ago this month at Baddeck, N.S., John McCurdy climbed into a bamboo frame airplane and took off under the power of a modified motorcycle engine. Here's the story of that flight—the first powered flight in Canada—and of the patient and courageous men who made it possible by Ross Willmot

On February 23 the first powered flight in Canada will be re-enacted with considerable ceremony over the ice at Baddeck on Cape Breton Island. The "Silver Dart" aircraft, wrecked soon after its famous flight 50 years ago, has been faithfully reproduced to fly for the occasion. Its pilot, John A. D. McCurdy, 71 years old but as young in spirit as ever, will be there.

"Somebody is almost sure to put me in the cockpit to get my picture," grinned McCurdy recently, at his Montreal home, "and I just might get the wild idea to take off again."

Such is the spirit of a man unique in aviation: the dean of pioneer pilots; the man who flew before any other person now living. (McCurdy's 1909 flight, although the first in Canada, was not his first.)

McCurdy has been associated with a remarkable number of flying firsts. He was a co-designer of the first practical aileron, the stabilizing device built into aircraft wings, essential to practical flight. He flew the first flying boat, made the first flight to Mexico, and set records for duration and length of flight over open sea, and for speedy flight between cities.

There is no comprehensive record of the times to show who the world's earliest fliers were, but McCurdy is generally recognized to have been the ninth man to achieve flight in a powered craft. This year McCurdy will acquire new distinction, as one of the few men within his lifetime to be honored on a postage stamp for scientific achievement. The commemorative stamp, created for the "Silver Dart" anniversary, will remind the world of that February day in 1909.

John McCurdy needs no such reminder of the crisp sunny afternoon when 100 citizens—about half the population of Baddeck, N.S.—turned out in mufflers and fur hats to watch him make history.

Dr. Alexander Graham Bell, McCurdy's mentor, an imposing figure with flowing white hair and beard, supervised the take-off atop a red sleigh. Most of the guests wore skates so they could follow the flight down the sheltered bay, one of many that ring the Bras d'Or Lakes.

It was six years after the famous first flight of the Wright brothers. In those six years, aviation had made great strides.
The Wright aircraft had taken off with the aid of a catapult, McCurdy, who by 1909 had some 200 flights to his credit, was going to take off with motor power.

His “Silver Dart” was an improvement on any aircraft previously flown. It embodied much new and important features as a three-wheel undercarriage, tapered wings and a reasonable degree of ailerons or balancing control. It was powered by a new water-cooled engine and had a top speed of 40 mph. The crowd stood in awe at the frail craft which, with its bamboo frame covered in silver-gray rubber-impregnated silk, precariously bled a giant albatross.

McCurdy, a slight but athletic figure warmly dressed in jacket, toque and overshoe, gazed up at the plane with fuel normally used for motorboats. He twisted the propeller. The modified motorcycle engine sputtered, then hummed. McCurdy climbed in and gave the motor. The “Silver Dart” lumbered down the ice on its bicycle-wheel undercarriage. Suddenly two small girls (school had been cancelled for the occasion) ran in front of the “Dart.” The spectators gasped. But McCurdy dodged the children and took to the air.

The crowd cheered as the plane skimmed about 30 feet above the ground for a half mile, then landed neatly. McCurdy wanted to go up again, but Dr. Bell persuaded him to rest on his laurels for that day. Everyone trooped to Bell’s laboratory for a celebration feast (which he confidently prepared beforehand) of sandwiches, tea, coffee, and homemade raspberry vinegar. All who had witnessed the flight were asked to sign their names in a book. Some of those who came with McCurdy attended the anniversary celebration.

The location of this successful flight was, in a sense, determined 24 years earlier, when Dr. Bell visited Cape Breton in search of a summer place. He chose Baddeck because of its resemblance to his native Scotland. He got to know McCurdy’s father, editor of the local Cape Breton Reporter, by helping him repair his telephone.

Over the years, as Baddeck gradually became Dr. Bell’s real home, young McCurdy spent much time in the Bell household and developed the older man’s interest in the flight of birds and mechanical flight.

McCurdy studied engineering at the University of Toronto and, upon graduation, brought his classmate and fraternity brother, F. W. “Cesey” Baldwin, home to Baddeck to help Dr. Bell. They were joined by Lieutenant Thomas A. Selfridge, of the United States Army, who took part in the experiments with the blessing of authorities in Washington. Bell also invited into the group Glenn Curtiss, who at that time was building motorcycle engines in a small factory at Hammondsport, N.Y.

As these five sat around the Bell fireplace on the windy night of October 1, 1907, Mrs. Bell proposed they form an association “for the purpose of getting a man into the air.” She put up $35,000 although Dr. Bell had considerable money of his own. They drew up a constitution and formed the Aerial Experiment Association. Dr. Bell became chairman; Curtiss, director of experiments; Baldwin, chief engineer; McCurdy, treasurer; and Selfridge, secretary. McCurdy is the sole survivor.

During the previous summer Dr. Bell had designed and built the “Cygnet,” a large tetrahedral kite. On December 4, the Association members hauled it by steam tug down a nearby lake. It rose 170 feet with Selfridge at the controls—the first recorded passenger-carrying flight of a heavier-than-air craft in Canada. In the excitement of the achievement someone on the ground forgot to sever the tow line in time to let the “Cygnet” land safely. It was wrecked during the landing, but Selfridge escaped unhurt, and all five members of the Association were eager to build better craft. Their next project was a small box-kite biplane glider of bamboo and cloth. A section was left open in the middle of the bottom plane to allow the “pilot” to lean out and attempt a balance.

“We were all so much we took the glider to one of the nearby peaks,” McCurdy recalls. “One of us would place
In 1909, McCurdy made his first powered flight. He became the first pilot of the group. Flights in the air were still very difficult, but McCurdy demonstrated his ability and the Aerodrome's rudimentary machine by completing the first figure-eight in the air. He did this with Cartwright's "Tent Peg," the field machine built by the Aerodrome.

The "Tent Peg" was so named because the group assembled it in the convention held by Scientific American magazine for the first hare-brained attempt to fly a kite. On July 4, 1908, Cartwright made many attempts. This was the first attempt at an airplane in North America.

When Dave中华 on heavily to the "Tent Peg's" (based on a body that wouldn't stand up), the Aerodrome gave it the world another avant-garde. They developed the first "Jade," a water-cooled engine with water-cooled cylinders. That he installed in the "Silver Dart," the fourth and last machine built by the Aerodrome to overcome a mistake in the "Tent Peg"—the engine used steam heat. Built and tested at Hammondsport, the "Silver Dart" was commissioned at the Bell Laboratory in Woodstock and by November, 1908, was easily & effectively on the air.

In March, 1909, a month after the first flight of the "Silver Dart" at Woodstock, the Aerodrome Association was dissolved. It had taken from 12 months to reach their goal. Instead, in the meantime, had been killed in a flight with the Wrights—the first until flying. McCurdy and Baldwin, with Dr. Bell's backing, broad at Baldock the Canadian Aerodrome (the early work for aircraft company, the first such venture in Canada. One of this partnership came two aircraft, including a modified "Silver Dart."

The Canadian Department of National Defence became interested in the flying activity at Baldock, and in August, 1909, asked for official demonstrations of the "Dart" and its companion at Petawawa. Unfortunately for the landing strips were too short for the frail craft and after surviving several trials, both aircraft continued up. McCurdy broke his nose—his only lifetime injury.

Although McCurdy and Baldwin had successfully flown their aircraft on 30 occasions, the Department decided the planes were unsuitable for military work.

As a result, the Canadian Aerodrome Co. went out of business but McCurdy kept on. He joined Glen Curtiss in the United States in the Curtiss Exhibition Co. in order to advance the design and manufacture of more aircraft. Together they transformed every city east of the Mississippi.

There were wild days. Some of the landing fields they used were so short that two men holding a sheet rope stood at the end of the runway to stop the aircraft from piling onto the forest. The same men held the machine while it moved up, extending it suddenly for a short take-off.

During this period McCurdy was first to pilot a flying boat, taking off from Long Island Sound. He dropped oranges on a target to prove the practicability of bombing from an aircraft. He flew the first airplane to Mexico. He also sent the first wireless from a plane-in-flight when he tapped out a message for the New York World, his hand wrapped in a towel to drown out engine noise. In 1911 he flew a plane which sent and received the first wireless message, and established probably the first "Cygnet" (left) was towed by a boat during this 1907 test at Baldock. The kite was sent aloft with no one aboard.

Wreck of the "Red Wing" (upper right) occurred at Hammondsport five days after its maiden flight. Louis Baldwin crashed in the ice (lower right) but was unharmed.
first inter-city speed record when he flew between Hamilton and Toronto in 32 minutes.

In February of that year McCurdy also set up two other records—the longest time spent in the air and the longest flight over open sea. It was a 90-mile flight, from Key West to Havana—a crazy stunt at that time. But a $10,000 prize was the bait.

For this event, McCurdy designed a plane with torpedoshaped cans under the wings—possibly the world's first aircraft for other than land use. "I had no instruments except an ingersoll dollar watch and a 15-cash compass," he remembers. "The American Navy, however, allocated 10 ships at 10-mile intervals across the Gulf Stream so I could be picked up quickly in case of a nasty descent."

McCurdy took off from Key West for a trial flight, but when crowds milling on the field prevented a landing, he simply kept going towards Cuba.

"Suddenly I heard a wild screeching noise behind me," says McCurdy. "Looking back, I saw one connecting rod had pierced a cylinder wall and was by degree shattering the motor. One cylinder after another went until I had no engine."

or. One cylinder after another went until I had no engine."

McCurdy skillfully landed in the sea without even wetting his feet, about a mile and a half off Haulover harbor. The destroyer fleet rescued him in 45 minutes but the enthusiastic sailors almost demolished the aircraft in hauling it aboard.

At a gathering of more than 7,000 dignitaries, the president of Cuba presented McCurdy with an official-looking envelope. Later he found it contained not a cheque for $10,000 but a piece of torn newspaper. The U.S. state department, afraid that any complaint might lead to international complications, dissuaded McCurdy from trying to collect his prize.

In 1928 McCurdy organized the Reid Aircraft Co. with a factory in Montreal. A year later the company became Curtiss-Reid Aircraft Limited with McCurdy as president. It was succeeded by Curtiss-Reid Flying Service Ltd. Its present president is William J. Oliver, one of the original company's first employees.

In World War II McCurdy served with distinction, first as director of purchases in the aircraft production branch, department of munitions and supply; later as special assistant to the financial advisor of the department. From 1947 to 1953 he was lieutenant-governor of Nova Scotia.

Aviation did not make McCurdy rich. Today he lives comfortably but quietly with his wife in Montreal, and a summer cottage at Baddeck.

His interest in aviation is as intense as ever.

"The development of air transport has been great," he remarked recently, "but the future holds even greater promise: Travel between continents will be commonplace and people of different nationalities will be exchanging ideas and information and gaining understanding through personal contact on a large scale. I feel confident that the airplane will serve as it has in war."

J. K. JAMEISON NAMED
PRESIDENT OF INTERNATIONAL PETROLEUM

J. K. Jameson, a vice-president of Imperial Oil Ltd., has resigned to become president of International Petroleum Company, Ltd. He took over his new post on January 1 at the company's offices in Coral Gables, Fla.

International Petroleum was formerly an Imperial subsidiary and operates in Venezuela, Colombia, Ecuador and Peru. Imperial sold its International holdings in 1948 to raise additional funds for western Canadian oil developments.

A native of Medicine Hat, Alta., Mr. Jameson attended the University of Alberta and graduated from the Massachusetts Institute of Technology with the degree of Bachelor of Science in 1931. Jobs were few and far between in those days and despite his academic qualifications Mr. Jameson began his career in the oil business as a common labourer with the Northwest Steerancce Co. of Coutts, Alta. He moved up to pipe fitter and rose rapidly through various other technical and administrative tasks in the industry.

During World War II Mr. Jameson served in the oil controller's department of the federal government. He joined Imperial in 1948 as associate manager of the co-ordination and economics department in Toronto. A year later he went to Sarlia to head the engineering and development division. He was appointed assistant general manager of the manufacturing department in 1950. Early in 1953 he was loaned to the department of defense production. In April 1952 he was elected a director of Imperial and, a year later, became a vice-president. Mr. Jameson's wife is also from Alberta. They have a son, 18, and a daughter, 15.
Hundreds of chemicals derived from oil are being used to make medicines, plastics and textiles that are revolutionizing medical practice.

Stephen King describes . . .

the doctor's versatile allies

After a look at some of the recent advances in the field of medicine, humorist James Thurber suggested, with tongue in cheek, that the man of the future would be composed largely of synthetic textiles and fabrics.

While this fanciful prediction is not likely to come about, there is no end in sight yet for the uses likely to be made of the oil-derived chemicals that prompted Thurber's observations. With the aid of these chemicals, scientists and manufacturers have produced anesthetics, vitamins, tranquilizers, "wonder drugs," artificial bones, limbs and arteries, a substitute for blood plasma, and a host of other medicines, plastics and textiles that are revolutionizing medical practice.

Oil-based chemicals have also replaced many older-established chemicals to permit cheaper and more efficient production of medications that have been medical standbys for years. Probably the best example of this is the acetaminophen pills which Canadians consume by the millions as mild pain killers. (They are sold in Canada under various trade names, including "Aspirin.")

These little tablets were originally produced from coal tar, but today they are usually made from naphtha, an oil derivative. From the naphtha comes benzol, which is later converted into phenol. This combined with carbon dioxide emerges as salicylic acid. Joined together with acetic acid—another derivative of oil—it becomes the familiar pill which you reach for when you feel a cold or a headache coming on.

One of the most exciting medical frontiers today is cancer chemotherapy—the forging of new chemical weapons against the most dreaded of all diseases. In this campaign, oil is to be found everywhere. Until fairly recently, most children with acute leukemia (cancer of the blood) usually died within a few months; today, in such advanced centers as Montreal General Hospital and the New York Memorial Hospital, almost 60 percent of leukemia victims are surviving for a year or more. Some of the drugs responsible for this new lease on life—like improved synthetic hormones—are obtained, in part, from oil.

Three years ago, a Quebec mental hospital pioneered the use of a new tranquilizing drug, promazine, which has not only changed mental patients but has also changed the physical appearance of mental hospitals and opened up new avenues of treatment for the mentally ill.

At the time the drug was introduced, patients in the disturbed wards of mental hospitals were obliged to live in drab, bare surroundings. Had good furnishings been provided, the agitated patients would soon have smashed them beyond repair and possibly harmed themselves. Today the disturbed wards in many mental hospitals throughout Canada are completely transformed. The walls are decorated in gay, pastel colors. Curtains adorn the windows, and there are mirrors on the walls and vases of flowers on the tables. Given regular doses of the oil-based tranquilizer, the patients lose their destructive urges and become anxious to co-operate in keeping their quarters attractive. The drug is credited with having made great gains in rehabilitating patients previously believed hopeless.

Most of the widely acclaimed "wonder drugs" of recent years owe their existence, in part, to oil. These include the anti-histamines for allergies as well as such antibiotics as penicillin and terramycin. Until the advent of the first "wonder drugs," pneumonia was a deadly killer. Then the sulpha family, derived from petroleum, was put into use in the mid-1930s. Today pneumonia is a routine illness except for the very young and the very old.

Many products on the shelves of your corner drug store had their origin in crude oil. These include a host of germicides used to halt infection, as well as a variety of laxatives, stimulants and sedatives. At least two of the more recent vitamins should be included in this list. One is vitamin K-3, which is used to coagulate blood to prevent hemorrhaging. Until a few decades ago, pernicious anemia was regarded as a serious illness which led to fatigue, loss of weight and often death. Today, synthetic vitamin B-12 often restores health and vigor to the sufferer.

One of the outstanding chemical triumphs of the past few years has been the synthetic production of a drug known as atropine, from oil. Atropine is used as an anti-quinine in treating stomach disorders, while eye specialists have long employed it in the form of "drops" for eye examinations. The synthesis of atropine strengthens our national security. Given in small doses (1/150th of a grain), it neutralizes the paralyzing effects of "nerve gas" which might be used by an enemy in a future war. Until a few years ago, the one important source of the drug was a species of plant which grew only in certain Iron Curtain countries. Within a few months after the successful
"Plastic 'spare parts' are also being used in many kinds of bone surgery"

Synthesis of atropine, enough of the drug was stockpiled to treat 400 million people.

Another oil-dependent synthetic chem-
ical which might be of crucial significance in a time of national emergency is a syn-
thetic blood plasma called PVP. Its full,
tongue-twisting name is polyvinylpyrro-
lidone. Dr. R.T. Woodham, a Univer-
sity of Western Ontario graduate who worked with a group of American scien-
tists to produce an improved form of it, explains that "while PVP is not a com-
plete substitute for real blood plasma, it's an excellent temporary measure. It relieves shock, it restores the circulation of the blood and it maintains the pa-
tient's blood pressure." PVP has numer-
umous advantages over real blood plasma. It can be obtained at about half the cost, you don't need blood donors, refrigera-
tion is unnecessary, it can be used by people of all blood groups and, finally, it can be stockpiled for long periods with-
out deterioration. Chemists expect PVP will also be useful in cosmetics, as an antiseptic for poisoning and as a disinfect-
ant in surgery.

If PVP ever does achieve popularity as a surgical aid, it will be in the company of hundreds of other materials and drugs, derived from oil, which are already at work in the operating rooms of hospitals throughout the world. One of the newest anesthetics, for instance, is cyclopropane, a gas which is regarded by many as one of the most use-
ful medical discoveries to be made in Canada. Developed just before World War II by three Toronto scientists, cyclo-
propane is a pleasant inhalation anes-
thetic which is used extensively in child-
birth as well as in surgery. It has few un-
derirable side-effects. "The patient does-
't wake up suffering more from the anes-
thetic than from the operation," ex-
plains one anesthetist.

It is probably in the field of surgery that oil has made some of its most dramatic advances. With the aid of new synthetic textiles and plastic materials, extraordinary operations are now being performed on blood vessels, bones, the heart and the brain. In this new type of surgery, veins and arteries are being patched with nylon, Orlon and Dacron—fibers made from petrochemicals. For
years, surgeons have agreed that many lives could be saved if damaged arteries and blood vessels could be replaced by man-made substitutes.

They laid down a list of desirable qual-
ties that such synthetic arteries should
have. They must be chemically inert once inside the body; that is, they must not excite the body's built-in mechanism to refuse any substance which does not grow there naturally. They wanted a material which would not irritate the tis-
ues of the body and perhaps cause cancerous tumors. The doctors also in-
sisted that the artificial arteries be
strong, light and inexpensive material capable of being sterilized without changing its properties.

Now, with dozens of successful opera-
tions behind them, many surgeons be-
lieve that arteries fashioned from petro-
leum-derived synthetic fabrics are the answer to their long quest.

Not all doctors are willing to use arti-

cial parts inside the human body. Some
believe that this practice warrants a great deal more investigation and study before it can be pronounced completely safe.

But regardless of some doctors' views, there are cases already on record which, to the layman at least, seem dramatic and convincing. In Chicago, for example, a railway worker named Andrew Duffield complained of extreme pain when he walked. An examination revealed that a 15-inch section of artery in his right leg was so blocked and hardened that the blood was prevented from circulating in the foot. GANGRENE THREAT. In a de-
cade four-hour operation, surgeons re-
placed the damaged artery with one made of Dacron. After several weeks, Duffy could walk comfortably.

To remedy a similar condition, sur-
gery in another large American hospital used an ingenious "no-kink" artery made of stuff but flexible nylon. Woven to-
gether by a machine ordinarily used to
bead shoe laces, the no-kink artery was constructed so that it wouldn't unravel close to the ends where it was attached to the natural body vessel. This custom-
made artery was the invention of Dr. James S. Tapp, a Canadian doctor formerly associated with the Polymer Cor-
poration in Sarnia and now a resident of the United States.

Much of the surgery involving the use of synthetic fabrics takes place in the vic-
inity of the heart. St. Michael's Hospital in Toronto is specializing in curing aneurysms. An aneurysm is the balloon-
ing of a blood vessel, usually because of a weaken-
ing part of its wall. This may lead to a "bleed" which can result in death. At St. Michael's, surgeons cut out the diseased section and replaced it with nylon. With a few days the blood coursing through the synthetic section deposits substances on it which make the nylon wall indistin-
guishable from the natural artery. In other operations, plastic valves are pinch-hitting for the original damaged aorta valve and doing the job very well.

A Plastic "spare parts" are also being used in many kinds of bone surgery. For the past 10 years plastic hip bones have been helping people all over the world to walk effortlessly. In the elbow, there's a little rotating bone essential to the opera-
tion of the arm. When it breaks, doctors diagnose the condition as "a Humpty Dumpty fracture" because they don't know how to put it together again. To-

day, some don't even try. Instead, they replace the whole part with a plastic part which can be cemented in place.

Wrist bones can also be replaced with plastic. In Denmark, surgeons have been using synthetic bones which look like ash trays. Sometimes whole new plastic bone is inserted in the human body. This can be done in one operation.

"Five years ago I had a case where it was a question of amputating the leg or re-
placing it with a plastic sub-
stitute," says the orthopedic surgeon. "He's been getting around quite well ever since.

(Incidentally, many students of ortho-
pedic surgery learn the mysteries of hu-
mans leg bones from plastic skel-
tons which are cheaper, lighter and more durable than the real thing.)

Olf-derived materials and appliances are popular because they need not be removed from the patient's body. A new wound dressing adopted by many Canadian hospitals is made of plastic and cellulose fibers. The side facing the wound is covered with a thin, porous plastic skin. The outside is spongy and absorbent. Result: the doctor can change dressings quickly, painlessly and without damaging the healing tissue by replacing only the spongy part of the dressing.

The new plastic-cellulose dressing is only one of scores of oil-based medical supplies and equipment in everyday use in our hospitals. Nurses' uniforms and surgeons' gowns are made from oil-
derived synthetic fibers. Test tubes and holders, basins and glasses are made of unbreakable plastics. Tongue depressors made of Lucite, which bends light rays, allowing a clearer view of the throat, have supplanted the old-fashioned wood-
em ones. The surgeon's rubber gloves have given way to thinner and lighter syn-
thetic benzene-based gloves which allow a more sensitive touch. The gas mask, used to deliver the anesthetic, is made of butyl rubber. Surgical wounds are sewn with nylon sutures, which are almost as strong as stainless steel.

If a blood transfusion is needed, it will probably come in a bag made of polyethylene. It's superior to the old glass bottle because it's unbreakable. Also, certain types of blood cells would adhere to glass, making the transfusion less effective, but don't stick to poly-
ethylene. Even more important, when the patient needs more blood in an emer-
gency, the doctor can squeeze the flexible plastic bag with his hands, using it as an efficient pump. If oxygen is needed, an oxygen tent made of polyvinyl alcohol can be erected over the patient's bed. It's light in weight and transparent, thus keeping the patient visible at all times.

These were undoubtedly some of the things that impressed Thorner and prompted him to suggest that oil's con-
tribution to the advance of medical science was part of Nature's design.

"Nature realizes," said Thorner, "that we have to be turned into something as durable as the toughest dry goods if we are to endure the wear and tear caused by the frightening tempo of our times."

Whether it is by Nature's design or not, certain gains in the next decade, the doctor, medical scientist and oil chemist will continue their fruitful part-
nership to help us all live longer and healthier lives.
Some Canadian communities are doing everything possible to transport school children safely, but there are still many areas where much remains to be done.

During this school year, an estimated 400,000 Canadian elementary and secondary school pupils will be driven an estimated 70 million miles to and from their classrooms.

Their safety will mainly depend on three things: the skill and judgment of the school bus driver; the mechanical condition of his vehicle; and the conduct of the children themselves getting on and off the bus and during the actual travel.

Yet it's a shocking fact that, in the words of Fred Ellis, general manager, Ontario Safety League, "Many communities are apathetic to these elementary safety factors."

Fortunately, to date there have been very few school bus tragedies in Canada. But as highway travel conditions become more hazardous our luck may not hold out. The number of accidents in recent years involving school vehicles should serve as a stern warning. During the last six months of 1956 in Ontario, for example, there were 31 accidents. British Columbia had 27 accidents in 1957—or an average of nearly three per month over the 10-month school year. No statistics are available for all Canada.

The irony of the situation is that safety experts know what precautions must be taken to prevent large vehicles from becoming involved in accidents. The trucking industry follows their advice eagerly with the result that commercial truck drivers have an impressive safety record. On the other hand, many school administrators fail to follow the truckers' example. One can only conclude that many communities attach more importance to delivering a carload of furniture or a tankful of milk than they do to transporting their children safely. Some recent accidents emphasize this point. Near Orono, Ont., a bus carrying 14 high school students stalled while going up a hill and started rolling backwards. The brakes failed and the bus rolled over an embankment. Four of the children were injured. There would likely have been many more injuries had the vehicle gone over a much deeper drop nearby. There's a good chance that the inefficient engine and the defective brakes might have been detected before the accident, had the bus been undergoing routine mechanical checks.

The school bus inspection system in Ontario has been improved since then, but in some provinces many school buses still go several years without a thorough mechanical check.

In the Munsare district in Alberta a seven-year-old girl alighted from a school bus and walked in front of it to cross to the other side of the highway. As she was doing so, she stepped over to pick up a book she had dropped. At that instant the driver—who couldn't see her—pulled ahead and crushed her.

How Safe is Your Child in a School Bus?

Many marvelled that no one was killed in this Orono, Ont. accident in which brakes failed and the bus rolled backwards downhill.
to death. Safety officials have long ad-
vocated the necessity of escorting chil-
dren on and off buses and helping them
across the road.

On a school bus near London, Ont.,
student passengers were shot. There
were no paper pellets at one another with rubber
bands. One of the pellets hit a 16-year-
old girl in the eye. She may permanently
lose the sight of the eye. The difficulty of
t Each young child at all times
is known to every parent. But on a
moving vehicle such control is essential.
Every authoritative article or booklet dealing
with safe school transportation emphasizes
this point. One section of the 56-page Safety
Parade Handbook published by the American
Automobile Association shows how order and
discipline can be maintained by school bus
personnel.

In Saskatchewan, a school bus driver
was fired after a formal road test showed
that he was incapable of handling the
bus. He was not a rare case. Contrary
to the advice of safety experts, a man
can become a school bus driver in any
one of several provinces without a strict
medical examination and without know-
ing about the road and its conditions.

In investigating the safety of our
school transportation in Canada, I
questioned police, safety officials,
provincial education and highway offi-
cials. I posed these questions: Are we
doing all we can to protect the
children? Are we ignoring hazards that
could be removed? What are the greatest dan-
ger points in our present school transpor-
tation systems?

Their answers give cause for both opti-
 mism and pessimism. The cheerful news
is that many school authorities are fully aware
of the school bus safety problem and are meet ing
with vigor and imagination, generously backed by dollars;
others are becoming aware of the haz-
ards and are organizing to meet them.
On the gloomier side, I found that in
many parts of Canada the full nature of the
problem is not yet realized and that
very little is being done. In some local-
ities, considerations other than safety—
such as local politics or the desire to
save a few dollars—are being given
priority.

The most important figure in safe
school transportation is the man
who drives the bus. The National Safety
Council insists he be "a ship's captain
or an air line pilot because previous
human (you) depend on his experience,
skill and judgment." Yet the sad fact
is that too often the employment of the
school bus driver is made on a casual
basis. It's often a part-time job taken
on by a person who works in a garage, in
a store, on a farm or on shift work. The
health of the driver is an important
factor, yet only a few provinces, such as
Alberta and Nova Scotia, insist on an
annual medical certificates. A mature
age is also important; that's why the
National Safety Council sets 21 as the
minimum age for a bus driver—advice that's
followed by at least 18 American states.
In most Canadian provinces, a youth of
18 can get the job. A candidate's tempera-
tment and his attitude toward children
are also important considerations. In the
opinion of W. Arch Bryce, secretary of the
Canadian Highway Safety Confer-
nce, "Dangerous bussinessmen on many
buses is the direct result of a careless
attitude by boards of education.
When a wrong choice is made, there's
trouble ahead."

In practically every part of Canada,
school bus drivers lack adequate train-
ing in the operation of a heavy vehicle.
A typical new driver holds only a chauff-
eur's license and has experience only
with passenger cars. But is this quali-
cation enough? Most trucking compan-
ies think not. They require all their new
drivers—even if they've held a chauff-
eur's license for 20 years—to take a
long, intensive course in handling heavy vehicles before taking regular runs on
the highway. For the same reason,
Wallace N. Hyde, director of motor
vehicles, North Carolina, says, "The
person with a good record driving an
ordinary car will not necessarily make a
safe and efficient school bus driver."

For one thing, there's quite a differ-
ence between carrying two or three
young passengers in a family car and
carrying several dozen lively—if not
rowdy—youngsters who are temporarily
free of any parental or teacher discipline.
There is also a whole of a physical
difference between a massive 55-passen-
ger conveyance and the ordinary family
car. For example, at 25 mph a passenger
car will stop in 25 feet; a bus needs 40
feet. You need more space to take a
turn with a bus and you have to take it
more slowly. A driver needs many hours
behind the wheel of a big vehicle to get
the hang of the transmission. Recently
one Canadian bus driver, after a com-
plaint from a driver that the clutch was
always wearing out, the dealer went for
a ride with the driver and was amazed
to find that he was thoroughly unfamiliar
with the transmission. He knew little or
nothing about how to use the in-speed
and neutral shift while driving to get
greater control going up or down hills
and in slippery weather.

The high cost of many school buses
often adds to the inefficiency of its
bus drivers. A Saskatchewan safety
official says, "Many school bus drivers find
that nobody is interested in what they're
doing, so they become careless." Fred
Ellis of the Ontario Safety League adds,
"There's no incentive for the good school
bus driver." In contrast, in many parts of
the country commercial truck
drivers with good records are given
cash bonuses, hired at bonus hours and sent
away on courses to improve their status.

What can be done to ensure that
our children are not transported to unqualified
drivers? First and foremost, we should
be much stricter in the qualifications
required for school bus drivers. The state
of Pennsylvania has laid down a list of
criteria now widely approved by safety
authorities in Canada and the United
States. It says that the driver should be
at least 21 years of age and is excellent
health. Each year, he should be tested
for vision, hearing, muscular steadiness
and strength, fast reaction time and
freedom from physical conditions which
might make him faint, such as heart
disease, high blood pressure and epilep-
ty. Psychological tests should establish
that he's a stable, self-disciplined
and patient person. A number of highly
regarded local citizens who know him
should attest to the fact that he's a per-
son of good habits.

As for the actual training, the North
Carolina motor vehicle branch, which
has chalked up an impressive record for
safe school transportation, suggests
a program including both classroom work
and actual bus driving. If necessary, the
program should go on as long as 12
weeks. These authorities strongly advo-
cate that the training program should be
undertaken on a state-wide (or provin-
cial-wide) basis. "Training programs
left in the hands of local or regional
school boards usually don't work," they
say. "They usually don't realize the
need for training, they haven't got
even enough money for proper training
and finally, they don't have qualified
instructors." North Carolina, with 15
full-time instructors who do nothing but
train and supervise school bus operators,
has demonstrated that its program actu-
ally works.

But no matter how competent and
well-trained the driver, he can't provide
safe transportation if his vehicle is in
poor mechanical condition. Unfortun-
ately, many school buses are of sub-
standard quality; many local school
authorities have a regular and systematic program
of maintenance and inspection. In Nova
Scotia, which is better than most prov-
inces, every bus is carefully examined
every six weeks. In Ontario, under a law
that went into effect last summer, every
school bus must be inspected by a licensed
mechanic at the beginning of each school
year. In Alberta, however, the re-
spective six months; in British
Columbia, every four years. A Saska-
tchan safety educator told me, "Only six of our 56
local school units have a regular pro-
ger of maintenance and inspection.

Mechanical defects have already been
responsible for many accidents. In
Saskatchewan, a damaged exhaust sys-
tem in one vehicle allowed deadly car-
bon monoxide fumes to escape, dic-
kening several young passengers. The acci-
dent might have claimed several lives.
A school bus careered off Highway 2,
near Hamilton and jammed into a tree,
injuring one child; the steering mechani-
ism had jammed. When I asked safety
authorities across Canada to list defects
found in school conveyances, they cited
badly worn tires, deteriorated brake lin-
ings, worn head lights, broken wind-
dield wipers, rusted emergency doors.

South Pole (Ant.) school board is typical of boards with good school bus safety
record. Here members discuss operating problems with bus owners and drivers

PC Steve Yakhlchuk, Toronto Township, works full time to maintain good safety record

Footnote: Frank Beale, Spectator, Guelph, Ontario reporter
Where does the gasoline go?

How much gasoline do you use up while you're sitting in a traffic jam with your car engine idling?

Not as much as you probably think, if recent surveys in Los Angeles are any indication.

Researchers there measured the percentage of time which cars spend idling, cruising, accelerating and decelerating and the relative amounts of gasoline used in each operation.

Results show that although drivers spend 6.5 percent of their time with engines idling in traffic, this unpopular pastime accounts for only 4.5 percent of their gasoline consumption. Almost half (49 percent) occurs during acceleration, which nonetheless takes only 27.5 percent of travel time.

They spend 25 percent of their time slowing down and 13 percent of their gas doing it.

The only even-stevens relationship between operating time and gasoline consumption shows up during cruising, which involves 31 percent of their time and 33.5 percent of their gasoline consumption.

The researchers were careful to point out that the Los Angeles results are not necessarily applicable to other cities. Nevertheless, these figures may offer some comfort to the traffic-haunted driver who wonders how much it's costing in gasoline while he and his engine sit idling and fuming in a traffic jam.

by Jim Moore

In the spring of 1848, the citizens of Halifax stopped in the streets many times to view the vigorous, striding figure of an aging giant wearing a British admiral's uniform. He was, they soon learned, the new commander of the British North American and West Indian fleet: Lord Thomas Cochrane, 10th Earl of Dundonald.

A big Scot with grey hair, he was one of Britain's most controversial figures. And though he was now 73, he was yet to embark on one of his most significant accomplishments: for during the succeeding three years he spent in Halifax, he became the co-developer of North America's first petroleum refining operations and thus the co-developer of commercial, oil-based kerosene.

Even without such industrial achievements, Cochrane had done enough to earn a place in history. He was a naval hero at 26, was elected to the British Parliament at 31, and at 34 brought his commanding officer to court martial. Soon after that he got innocently involved in a stock swindle, was jailed for a year and expelled from Parliament and the navy. Then, as a "freelance admiral," he helped liberate three nations, often winning sea battles against overwhelming odds. By the time he got back into the navy and went to Halifax, he was both one of the most hated and one of the most admired men in the Empire.

Lord Cochrane's interest in two seemingly unrelated activities — sailing and kerosene extraction — was aroused early in his boyhood at Lanarkshire, Scotland, where he was born in 1775. There he often watched his father experiment in extracting tar and varnish from coal, for use in naval vessels. Growing up with a love of the sea, he joined the navy and soon found that in their battles with the Spanish and French fleets, the British were badly in need of a brighter convoy light than the whale oil lamps then in use. Thus began his search for a better lamp and a better fuel for it. Part of
search was to remain unrewarded until his remaining years, and even then it did not end in personal triumph.

Within a year after taking command of his first vessel at 23, Cochrane won acclaim as a public hero. With his little brig, Speedwell, he captured the Spanish frigate, El Dávino, then followed up with other spectacular victories. By 1806 the people of Britain considered him one of their greatest sailors.

However, he engaged in other exploits that furrowed the brows of the British Admiralty. In the navy he found much evidence of corruption and inefficiency, and he attacked these abuses with the same fierce vigor with which he attacked the French or Spanish fleets. When he found that his rank of commander wasn't enough to help him effect naval reforms, he ran for Parliament and was elected.

In the House of Commons, over the objections of dozens of ministers of the crown, he continued hammering away for his reforms. Lord St. Vincent, First Lord of the Admiralty, tried to silence him by using introduction of a bill barring any officer under the rank of rear admiral from sitting in Parliament. The bill was never introduced, but by 1809 the stubborn young commander had become such a thorn in the flesh of the ministry and the government that he was sent back to sea.

Between engagements with enemy ships, however, he continued his running battle with his superiors. One such fight arose out of the British victory over the French fleet at the Battle in the Ais Roads, off the coast of France, in 1809. The British victory resulted largely from Cochrane's courage and masterful strategy, but Cochrane himself was not satisfied. He claimed that many more French ships could have been sunk or captured if Lord Gambier, commander of the channel fleet, had attacked sooner.

Cochrane filed charges against Gambier, his commanding officer, and a court martial was ordered. The result was disastrous for Cochrane. The court cleared Gambier and sternly reprimanded Cochrane. Cochrane later complained that all his judges were his political enemies; and most modern historians agree that Gambier was at fault in not pressing his advantage at Ais.

But whatever the truth, Cochrane's objections were overlooked, and the navy retaliated with a move calculated to embarrass him. On the eve of a debate on one of Cochrane's naval reform bills, the admiralty ordered him to report to Southampton within 24 hours. At first it seemed like an impossible dilemma. If he did not have the order he would face a court martial. And if he were absent from the House during a debate on his own bill, he would have to resign his seat. But Cochrane found a way out. Since he was determined to continue his fight for naval reform, he chose to remain an M.P. and resign his naval command (commanding whale oil or coal-based kerosene). The admiralty had already rejected several of his earlier designs, but now, he was in jail the navy finally accepted one he submitted under a friend's name.

He had spent 13 years breaking the monotonous prison life: he escaped. He hid for two weeks, then astounded Parliament by appearing in the lobby of the House of Commons. He was hustled back to jail and fined an additional £50. For many years Cochrane chocked over this escape, for he had broken prison the day word reached London of Napoleon's escape from Elba.

After his release, Cochrane lived in a social wilderness, his prospects as a British sailor dim, his social status degraded. But his restless nature demanded action. The challenge of the Chilian navy in the war of liberation against Spain. Under Cochrane the navy was modernized and within five years Chile had defeated Spain.

Then Brazilian patriots hired him to lead the country's fleet. He accepted the gumeas, again. He triumphed. In one encounter at the South Atlantic his flagship sunk alone with 47 Portuguese fighting ships.

But the Brazilians refused to pay him. Then he grew so more disillusioned when the new government began indulging in many of the same political practices as the old as to return to Portugal. Fed up with Brazil, Cochrane sold the estate he had established there and went to Brazil.

By now he was middle-aged, but he had mellowed little and was itching for a new war. When the Ottoman Turks, in the invitation of the Greeks, they took command of their navy in the war of liberation against Turkey. But again the pattern was repeated: victory, followed by disillusionment. He considered the Greeks pretty tailcoated fellows, and called the Greek commanders "double-dealing knaves."

Cochrane continued his work the next 20 years in England trying to regain his lost honors. And, although he never returned to Parliament, he was appointed by the Order of the Bath in 1847. He lived for the admiralty, under a new regime, restored to his name the navy rolls, and in 1846, appointed him to the Halifax command.

Halifax of 1848 was a combination of bustling port and sail ding, river town. In this setting the croaky old naval cruiser became the close friend of an eccentric but brilliant physicist-scientist, Dr. Abraham Gesner.

Gesner himself had had a varied career. Raised in the Annaeus Valley, he spent some time at sea, studied medicine in England, charted mineral deposits in New Brunswick and Nova Scotia, established the country's first museum and found a way of refining kerosene from natural asphalt.

Since Cochrane was always interested in improving convey lamps, he was attracted to the man already famous as the inventor of the kerosene lamp. How ever, Gesner had never managed to de vite a commercial process for making kerosene, and soon the two men were working on the project together.

For raw material Cochrane was able to get asphalt from Trinidad, having visited there and bought up the shore surrounding the island's now-famous asphalt lake, which he called a "pitch lake." They also used asphalt from a similar deposit which Gesner had discovered in Alberta County, N.J.

Gesner and Cochrane soon discovered that as well as being a better fuel (it burned fuel than whale oil which was becoming scarce), natural asphalt could be used for paving, as a rubber solvent and for insulating telegraph cables. Just when their process was showing definite signs of success, Cochrane's tour of duty ended and he was ordered back to England. There he applied for patents on processes for making several asphalt products, but not for the kerosene process. Apparently with Cochrane's approval, that patent was sought by Gesner and granted to him in 1854.

On the strength of this success, and with encouragement from Cochrane, Gesner got backing from wealthy Americans to build an asphalt processing plant—the first refinery of its kind in North America. Back in England, 79-year-old Cochrane got into a new fight. This time he was demanding a naval command in the Crimean War. His age disqualified him, but some historians believe the war would have been won sooner if Cochrane had been commanding the Baltic fleet.

He spent the last five years of his life writing his memoirs. On October 31, 1860, he died at the age of 85. All the rancor of a hundred years before was apparent no longer, and he was buried in Westminster Abbey.

Even after death, the tempestuous old sea captain's spirit persisted, in spirit, at one of the most shocking events of the 19th century. On April 14, 1865, a shot rang out over Foreign Cause, based on Cochrane's life, was performed at Ford's Theatre in Washington. While the performance was going on, Abraham Lincoln was shot.
Gander: where they expect the unexpected

As the most popular North American haven for transatlantic airliners, this Newfoundland airport caters each year to thousands of planes that aren’t scheduled to land there. Result: a fast-growing community of people who find it an exciting place to live.

Shortly before dawn one day last fall, a Super Constellation flying east across the Atlantic suddenly made a 180-degree turn and headed for the northeast corner of Newfoundland. It had developed an oil leak in one engine and its pilot had decided to seek repairs at Gander international airport.

As the plane plowed through a rainstorm, it radioed Gander to be ready for its arrival. Instantly the airport sprang to life. Waitresses at the terminal stopped gossiping and began preparing to serve breakfast. Behind the airport’s bar, the bartender began polishing glasses. An Imperial Oil crew moved out to man the refueling hydrants. Mechanics, roosed from their beds by telephone calls, hustled into overalls, jumped into their cars and headed for the airport. A cab driver, rubbing sleep out of his eyes, watched the airliner’s wingtip lights as it approached the landing runway. "One thing about this place," he said to another driver, "you never know what’s going to happen next."

For most Ganderites, it is the unexpectedness of Gander that gives it its character. Nobody at the airport knows what tomorrow will bring, or what’s ahead for next week, next month, or next year. A Dutch pilot, making his first landing at Gander, was astounded to see a moose lope across the runway hotly pursued by an airport jeep. Dr. Jim Paton, one of the town’s physicians, is no longer surprised when he is hurriedly called to the airport to deliver a passenger’s baby. It has already happened more than 20 times.

Many of the surprises that characterize Gander arise out of the airport’s paradoxical situation: although it is a scheduled passenger stop for few flights, 12,600 planes landed there last year. Some 12,000 of them were international airliners. Gander’s big appeal to overseas pilots is its handy location. For eastbound flights it’s the last big airport before Shannon, Eire; for westbound, it’s the first haven they come to on this side of the Atlantic. Most aircraft that put down at Gander are either seeking repairs, topping up their tanks ready for the big Atlantic headwinds or taking on extra fuel to get to Montreal or New York after a storey overseas trip.

An even more surprising thing about Gander is the way it is growing. Five years ago the airport consisted of some crumbling military buildings used as residences and a former air force hangar converted into a passenger terminal. Today it is well on the way to becoming a Newfoundland showpiece. A $4 million terminal, glittering with stainless steel,
marble and multi-hued paints, will be finished this year as a replacement for the old hangar. The other military buildings are also coming down and a new town is rising nearby on the shore of peat-brown Gander Lake.

It was the stepped-up activity at the airport that got the new town started; but now the town is actually growing faster than the airport. At one time, 99 percent of all Gander people were airport personnel. Today, fewer than 80 percent work there, since stores, hotels, restaurants, service stations and other businesses are being set up to provide the needs of the town's rapidly growing number of residents.

Dozens of new houses are already occupied and children are attending classes in two enormous new school buildings. New roads are being bulldozed through the bush. A golf course, hotels and vacation cabins are planned, and land in the center of town has been set aside for a hotel. The present population is 5,000—twice what it was five years ago. Residents believe their town will some day be Newfoundland's second largest city, with a population of perhaps 20,000.

The boom has attracted construction firms and suppliers from St. John's, Halifax and even Montreal. Job seekers have been streaming into town from the outports and from St. John's. Some firms have 100 applicants on their waiting lists; many have quit recording names.

Robert Walsh, a plumbing and heating contractor who is also chairman of the board of trustees and therefore the equivalent of a mayor, began the move from the airport about six years ago. He built a house about two miles away in thick bush near the Trans-Canada highway. "People thought I was mad," he says.

And at that time there seemed to be good reason to consider Walsh an unrealistic optimist. Since World War II Gander had been the main intermediate stopover point for transatlantic airliners. But these airliners were increasing their range every year and many experts began predicting that Gander would become a ghost airport under the vapor trail of the high-flying aircraft that made it obsolete.

Then, three years ago, the Department of Transport made it clear that it did not agree with these predictions. It announced that the old military buildings which housed airport employees would be torn down and a new town built nearby. Though it seemed to assure a future for Gander, the decision caused dismay among the 1,000-old DOT and airline employees. Would everybody have to build his own house? Wouldn't housing be expensive in such a remote place?

Then their fears vanished when word got around that Central Mortgage and Housing Corporation would plan, build and finance most of the houses and would put up several apartment buildings too.

Some Ganderites still had doubts, however. "New buildings will look out of place in this lovely spot," one of them said to Walsh. "Wait till you see the new airport buildings," Walsh told him. "They'll be a real surprise."

They have been. The $4 million terminal, which will have an enormous central lounge, luxurious offices, restaurant, cafe, observation decks and Newfoundland's first escalator, is now regarded as an exciting symbol of Gander's future. Even the huge mural overlooking the main lobby is no longer a piece to Ganderites, who delight in explaining it to strangers even before the rest of the building is finished.

"See that man juggling apples?" a Gander businessman asked a visitor recently. "That represents air traffic problems. See those birds with wheels? They represent crowds of planes flocking around the airport." The mural was designed and painted by Kenneth Lochhead, director of the School of Art at Regina College.

Even the airport's most functional new installations are sources of intense pride around Gander. Imperial's especially designed refueling system is a semi-automatic operation capable of handling up to 60 big aircraft a day. Built for speed and efficiency, it eliminates the need for tank trucks on the tarmac. Fuel pipes embedded in the tarmac terminate at hydrants recessed below ground level.

Between each hydrant and the plane will stand a small truck equipped with filters designed to remove any impurities which might have gotten into the fuel on its journey from the underground storage tanks 500 yards away. The truck will also have pumps to augment the pressure from those in the storage station. With this system, a plane will be able to take on as much as 1,200 gallons a minute.

"You've got to have big pumping capacity," says Corwin Staples, Imperial's air station supervisor at Gander. "Some of the new planes take tremendous quantities of fuel." One of the new Boeing 707 jettliners holds more than 17,000 gallons and even some of the big piston-driven planes take nearly 6,500. All told, Staples' crew supply a million gallons a month.

Fuel for Gander is brought in by rail tank car from Lewisporte, 40 miles north of Gander, to a siding about a mile from the airport terminal, where it is filtered and pumped into storage tanks. When the new installations are finished it will be piped to underground tanks of the Imperial "satellite station," which will feed the fuel at specified pressures to any one of the 60 hydrants.

The efficiency of the fueling system is typical of the way Gander airport is geared to expertly handle the unexpected. Traditionally, Gander has been a center of minor crises, whenever several planes had to come down at the same time for repairs, fuel or have to brave a storm. On one typical occasion 500 passengers all wanted some place to sleep at the same time. Some stayed on their planes; others snoozed in lounge areas. The overflow crowd stretched out and slept on boardwalks and patches of grass around the old terminal.

Inevitably, whenever several big airliners are in at the same time, passengers all but overruns the place, demanding to know where they can buy diapers, bubble gum and English newspapers, and ordering staggering quantities of food and drink. John Dean, who has managed the cafe and bar for the past five years, can remember when his staff served 1,100 meals in less than 24 hours. In one busy month 80,000 passengers stopped at Gander and most of them had snacks or meals.

Accustomed as they are to onslaughts of 2,000 or more visitors a day, airport people have long since ceased to be surprised at the things some passengers do. Johnny Weissmuller once stepped off a plane with his fishing rod, hauled a cab and went fishing. The fish were too big and numerous that he missed his plane.
Gander’s frequent and unpredictable periods of hurly-burly mean that the airport’s main facilities have to remain open, ready for action, around the clock. For this reason, visitors sometimes get the impression that nobody at Gander ever does anything at a normal hour. During a three-hour stopover a former Ganderite on his way to England from Scotland tried to get in touch with some of his old friends. It was midday on a Wednesday. The first two men he phoned were sound asleep; they’d worked the night shift. The third was out fishing; his working “day” didn’t start until eight p.m. The fourth and fifth were away on a “week-end” trip they’d begun on Tuesday.

There are those who say that Gander has already passed its peak year, at least as a haven for transatlantic passengers, and they cite an unmistakable decline since 1956, when 650,000 passengers passed through. But airport manager Rex Tilley believes the decline is only temporary. Even jet aircraft designed for super long-range service may find it more economic to add fuel at Gander than to start out with the large quantities of the extra fuel needed to guard against emergencies, Tilley says.

In any case, he adds, the recent decline in passenger traffic has been offset by a remarkable increase in air freight business. Gander’s air freight crew have been busy handling mink, live chickens, race horses, Indian monkeys needed by experimental and pharmaceutical laboratories, mining tools, aircraft engines and cut flowers.

“In the future,” says one DOT official, “we expect fresh fruit, vegetables—anything perishable. There’s no limit to the future of air freight.”

Although air freight is more important today than ever before, it is nothing new at Gander. During World War II, planes carrying plums, drugs, scarce industrial equipment, ammunition and explosives passed through Gander on the way to Europe. Flying Fortresses, Liberators and many other war planes were ferried across the Atlantic through Gander. It was a time of uncounted tragedies, when pilots—some of them with only a meager amount of training—crashed down through the fog or failed in attempted take-offs in snow or ice.

Gander’s ties with the RAF were close from the beginning. When the Newfoundland government began building the airport at remote Mile Post 213 on the Newfoundland railway line in June 1936, much of the financial and technical help came from the British Air Ministry. The hangar that was later to serve as a passenger terminal was originally built for the RAF.

Life at Gander was bleak in those days and for a long time after the war as well. But today it’s filled with people who swear they wouldn’t live anywhere else. One of them is Mrs. Corwin Steeles, a former Montrealer who is the wife of Imperial’s air station supervisor. “It’s much warmer here than in Montreal,” she says. “I wouldn’t want to move for anything.”

Ron Hounsell, a barman at the Big Dipper, feels the same way, but for a different reason. He belongs to a generation of Newfoundlanders who see the Gander boom as an opportunity their fathers never had.

“My father worked as a fisherman for 40 years and he died with nothing. But at Gander you can save money,” Hounsell remarked recently.

“Besides,” he added, summing up the reason why Gander fascinates natives and newcomers alike, “there’s always something exciting happening here.”

**Management Changes**

Herbert H. Moor, manager of Imperial’s Halifax refinery, has been transferred to the executive offices in Toronto as deputy manager, development counselor. He is a Torontonian with an M.A.Sc. in chemical engineering from the University of Toronto. He joined the company in 1923 and was a charter member of the research department. In 1953 he was loaned to an oil company in France to help set up a new lubricating oil plant. He returned to Imperial and later became technical assistant in charge of production control at Sarnia refinery. After serving as an assistant superintendent there, he was appointed as the first superintendent of Edmonton refinery. In 1955 he went to Halifax as refinery manager.

His successor at Halifax is Murdo MacLeod, formerly plant superintendent. Mr. MacLeod was born in Scotland and graduated in chemical engineering from the University of Alberta. In 1928 he joined Imperial at Calgary refinery. In 1937 he became chief chemist and production controller at Regina refinery. Six years later he was made technical supervisor for Imperial’s western refineries. In January 1948 he was transferred to Halifax.

The new plant superintendent at Hali-