



Bulletin

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BEST MOON PICTURES EVER THANKS TO CANADIAN

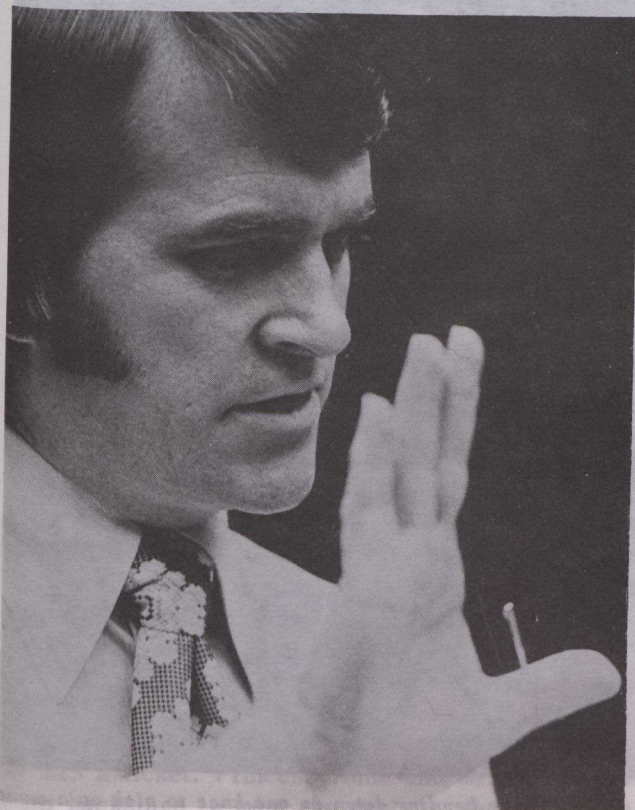
Millions of television viewers were surprised and delighted recently by the improved quality of the pictures sent back to earth by the *Apollo 16* moon mission. And it was a Canadian who developed the process that produced the sharpest and clearest images of the moon's surface ever seen on earth.

The 39-year-old inventor of the Image Transform process, John David Lowry of Toronto, says that the striking improvement in the quality of the reception was made "by taking the electronic signal apart and then reconstructing it while removing physical de-

fects and scratches and ensuring a steady image, low granularity, high definition, colour dependability, tonal accuracy and sharp edge effects". Mr. Lowry is director of Image Transform of Canada Limited, Toronto, and vice-president of Image Transform Inc., of North Hollywood, California, which is controlled by Canadian interests.

The invention will revolutionize filming techniques by enabling movie producers to use the much less expensive video-tape process and have the finished tapes processed into normal film electronically. Another application would be to process many movies now in archives, but not permitted public showing because of fire hazard. In the process, technical defects and scratches would be filtered out.

The National Aeronautics and Space Administration (NASA) was introduced to the unique Image Transform process by Lowry early in February by a



John David Lowry

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film made from a brief *Apollo 15* video tape showing detail from the tapes never seen before.

A member of the *Apollo 16* orbital science photo-team, Dr. Harold Masurky, stated, in an interview from the Houston Manned Spacecraft Center, that looking at the pictures was "like looking at a bird with a good pair of field-glasses rather than the naked eye".

The signal-processing technology used for "live" lunar transmissions is identical to a portion of that used by Image Transform for its video tape of film conversions. Image Transform Inc. is also making certain feasibility studies for NASA for its upcoming *Skylab* project.

As vice-president of Image Transform Inc., Lowry heads a team of highly-skilled engineers and technicians. Prominent in this group are the chief engineer, Kenneth Holland, whose background includes Video Devices Company and the Hollywood Video Centre, and James Shepherd, who served as project engineer on all *Apollo 16* activity. Jack Sinclair, formerly technical operations supervisor at CFTO, Canada's largest television-production centre, and

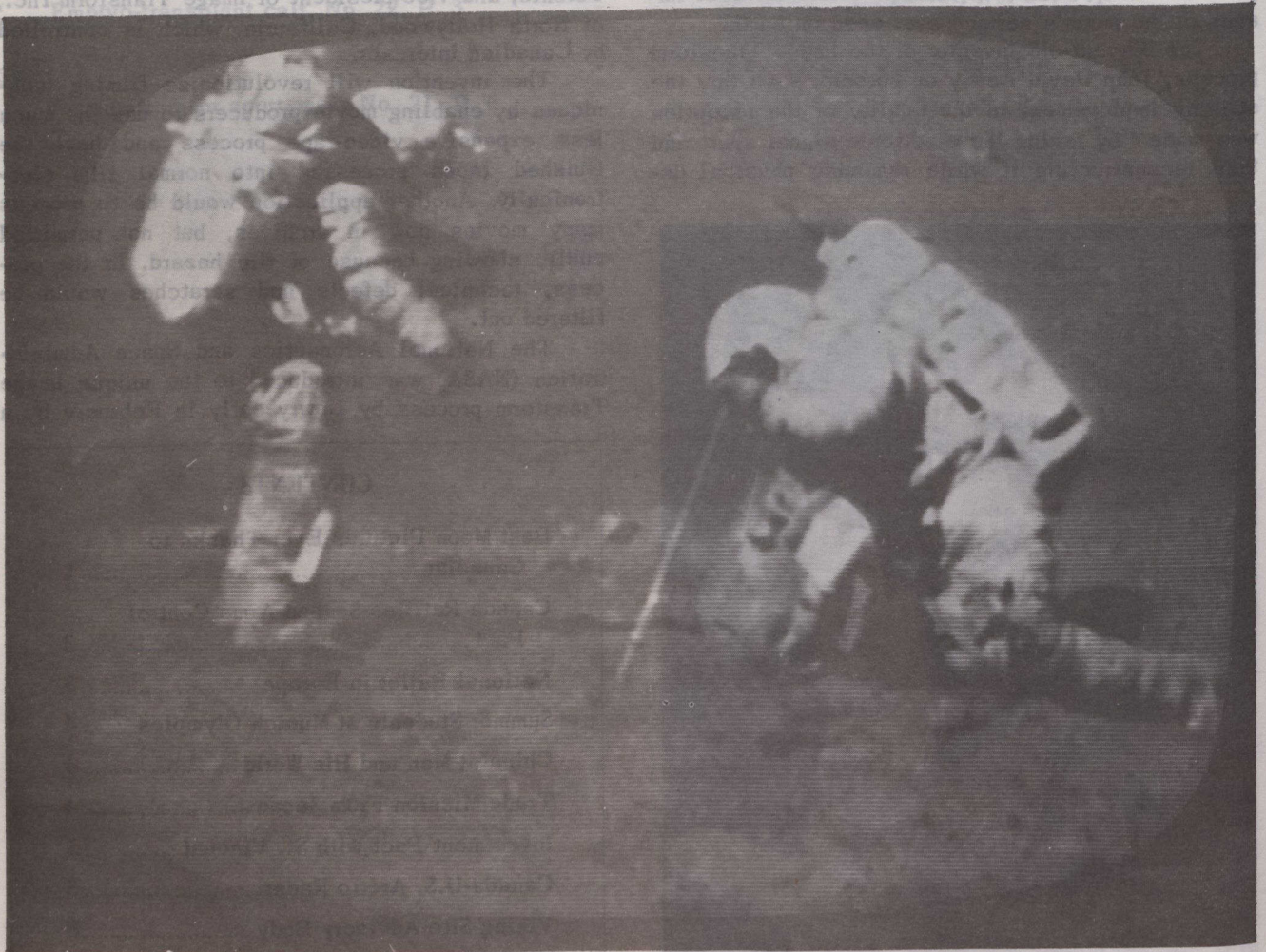
Lowry himself were in Houston to co-ordinate with Shepherd all live transmissions of the transearth and lunar signals.

BEGINNINGS WITH CBC

Lowry has won numerous international awards for producing and directing in both video and film. He began his career in 1952 with the Canadian Broadcasting Corporation in Toronto. In 1962 with Advertel productions, he was actively involved in the original development of electronic editing and, together with Canadian Westinghouse, developed the Wesscam camera stabilizer for helicopter photography.

Ronald Gunning, born in London, Ontario, serves as president of Image Transform Inc. Gunning, a corporate lawyer, runs the company with the additional expertise of 18 years as an independent businessman.

Douglas McCutcheon, president of Image Transform, Toronto, and Mr. Lowry, were members of a sales mission that left Canada on May 26 for France, Belgium and Holland to seek European markets for Mr. Lowry's invention.



John Lowry's invention is responsible for improved television pictures like this one, which shows astronaut

Charles Duke bending down on one knee to pick up a moon rock with a pair of tongs. John Young looks on at left.

CANADA RATIFIES SEABED ARMS CONTROL PACT

Canada ratified the Seabed Arms Control Treaty on May 17, when instruments of ratification were deposited by Canada's representatives in London, Washington and Moscow.

The Seabed Arms Control Treaty, or the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Weapons of Mass Destruction on the Seabed and Ocean Floor and the Subsoil Thereof, its full title, was negotiated in the Conference of the Committee on Disarmament and approved by the United Nations General Assembly in the autumn of 1970. In announcing Canada's ratification, the Secretary of State for External Affairs, Mr. Mitchell Sharp, described it as an important step towards the exclusion of the seabed from the arms race.

The treaty prohibits the emplacement of nuclear weapons and other weapons of mass destruction (chemical and biological) on the seabed and ocean-floor beyond a 12-mile coastal zone. It also prohibits the emplacement of structures, launching facilities, or installations designed for storing, testing or using such weapons. It does not prohibit the emplacement of conventional weapons that are not part of systems for mass destruction or any other underwater weapons systems, such as nuclear submarines that are not actually placed on the ocean floor.

CANADA'S ROLE IN NEGOTIATIONS

The Canadian delegation to the Geneva Conference of the Committee on Disarmament played an active part in the negotiations leading up to the treaty. Canada was among the first states to urge that the widest possible range of arms-control measures should be extended to the widest possible area of the seabed and ocean floor. A number of Canadian proposals, particularly those relating to verification procedures,

were incorporated into the final text.

Canada's ratification is accompanied by an interpretative declaration intended to make clear Canada's position on a number of issues. The declaration enunciates Canada's view that:

(a) the treaty cannot be interpreted as allowing states to place non-prohibited (conventional) weapons on the seabed and ocean floor beyond the continental shelf, or to use this area for anything but peaceful purposes;

(b) the treaty cannot be interpreted as allowing any state other than the coastal state to place non-prohibited weapons on its continental shelf; and

(c) the treaty cannot be interpreted as in any way restricting the right of the coastal state to carry out inspection and removal of any foreign weapons or components or weapons systems on its continental shelf.

The Secretary of State for External Affairs explained that the treaty neither affirms nor prejudices the position of any state party on any of these issues but that it was considered desirable to put Canada's own views on record at the time of ratification.

The treaty now enters into force, having been ratified by 22 governments including the depository governments (Britain, the U.S.A. and the Soviet Union). The Secretary of State for External Affairs welcomed this development as a major step forward in the long and difficult process of achieving a comprehensive system of arms control and disarmament. He emphasized the determination of the parties to the Seabed Arms Control Treaty, as expressed in the preamble to the treaty, to continue negotiations concerning further measures leading to this end in respect of that 75 per cent of the earth's surface lying under the seas and oceans of the world.

NATIONAL BALLET IN EUROPE

On May 17, the National Ballet of Canada began a two-month European tour at the Coliseum Theatre in London with a gala charity performance of *The Mirror Walkers*, *Légende* and *La Sylphide*.

A full house gave the Canadians a warm reception on the occasion of their début in Europe. In the audience were Princess Anne and Prime Minister Edward Heath, who had been escorted to the royal box by Canadian High Commissioner J.H. Warren.

Celia Franca, artistic director of the company, expressed delight at the welcome from the first-nighters - some 2,300 patrons who had paid as much as \$25 a ticket. Princess Anne and Mr. Heath later went backstage to meet the dancers; the Prime Minister stayed on for the reception that followed.

From London, where they closed on May 27, the company of 85 members went to Stuttgart for a performance on May 30, and they perform in Paris from June 5 to 13. The ballet will be in Brussels from June 15 to 17, in Glasgow from June 20 to 24, in Lausanne from June 27 to 28, and they will end their tour in Monte Carlo, performing from July 1 to 3.

Ten ballets, traditional and modern, make up the repertoire for the European tour; in addition to *La Sylphide*, *The Mirror Walkers* and *Légende*, the company is dancing *Intermezzo*, *Fandango*, *The Judgment of Paris*, *Kraanerg*, *Swan Lake*, *Evocation* and *Session*.

In August, the National Ballet will begin rehearsals for its production of *The Sleeping Beauty*. Rudolf Nureyev will rehearse the company for the première performance in Ottawa on September 1.

SUMMER STUDENTS AT MUNICH OLYMPICS

Not only will Mike Kassner, a 21-year old commerce student, be working in Europe this summer under the International Student Summer Employment Exchange Program but he will be able to earn his keep and at the same time see something of the Munich Olympics in August as one of the Canadians who have been accepted to work in the Olympic Village.



Mike Kassner

Under the Program, some 3,000 European job opportunities are available to Canadian post-secondary students. Countries participating are Austria, Belgium, Britain, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden and Switzerland. Each country offers a different kind of job – some in agriculture, and others in services, construction and manufacturing (see *Canadian Weekly Bulletin*, April 5, 1972, Page 4).

Mike, who is entering his fourth year at Queen's University Kingston, where he first saw the Olympics job advertised, is at present employed as a summer student at Central Mortgage and Housing Corporation, Ottawa, where he also worked last year. He knew he would have no difficulty meeting the requirement that applicants know German, since both his parents were originally from Austria, and he speaks German fluently.

Over 250 applications were referred to the German authorities in charge of employment at the Olympic Village, who are working in co-operation with the German Central Labour Office. Employment opportunities were held open exclusively for Canadians for three weeks.

Students, who will live in the Village, will perform a variety of tasks all related to restaurant work (exclusive of waiting on tables). Room and board will be issued and students will be issued with a uniform. Although Mike doesn't know the duties of a transport worker (his classification) – “possibly loading trucks” – he knows that his salary will be about 650 German marks a month with a bonus of 250 extra a month if he fulfils his contract for the whole term from July 1 to September 15. Out of his earnings at CMHC, Mike estimates that he will save enough by the time he leaves Canada on June 30 to pay his own travel expenses to Germany and back – one of the conditions of the job. He hopes, too, to be able to see something of the Games – specially diving, one of his favourite sports.

CHINA AT MAN AND HIS WORLD

The People's Republic of China will be represented for the first time at Man and His World, Montreal's continuing cultural and entertainment exhibition, to be held this year from June 15 to September 4.

Of the 21 participating countries this year, five are returning for the first time since Expo 67: France and Switzerland, which will use the same pavilions they occupied during Expo; Yugoslavia, which will be represented in the former United Nations pavilion; Haiti, which will occupy the Guyana and Barbados pavilion; and Poland, which will exhibit in the building originally used for aid to visitors in 1967.

The Austrian Tyrol exhibit replaces one known last year as Vienna Gloriosa; the United States has moved its presentation to the pavilion used previously by the Netherlands. Other important changes at Man and His World 1972 include the Biosphere, the “Buckminster Bubble” on St. Helen's Island, which will contain gardens and one of the most impressive aviaries in the world – the Ethnic Mosaic, in the former Music Pavilion on Ile Notre Dame – Optic Form, presented by the Maison de la Sauvegarde in the former Air Canada pavilion, and the fondly-remembered film, *Canada 67*, which returns to Cinema 360, courtesy of Walt Disney Productions and Bell Canada on the occasion of the fifth anniversary of Man and His World.

National presentations in art, culture, entertainment and education will come from Belgium, Bulgaria, Burma, Ceylon, India, Iran, the U.S.S.R., Czechoslovakia, Morocco, Mexico, Egypt, Mauritius, Jamaica and Pakistan.

This fifth edition of Man and His World will also provide visitors the opportunity to see arms collections, stamp collections, vintage cars, collectors' items, semi-precious stones. Other pavilions will afford leisure hours to the young and old in a variety of ways. The Federal and provincial governments have also contributed. Inforama is the Canadian Government's pavilion; the Quebec pavilion has been renovated and will be decorated with hundreds of brightly-coloured banners, the result of a province-wide competition sponsored by the Centrale d'Artisanat.

TRADE MISSION FROM JAPAN

A 17-man delegation representing the Marubeni Corporation of Japan has just spent 19 days in Canada visiting major cities looking for manufactured goods for sale in Japan and other markets in South-east Asia. The feasibility of entering into joint industrial ventures with Canadian firms was also considered. A broad range of Canadian goods, including foodstuffs, machinery, chemicals, metals, pulp and

paper, wood products and a variety of consumer products attracted most interest.

The Marubeni Corporation is one of the largest Japanese trading companies. Its mission to Canada is in response to the economic mission to Japan last January by 31 Canadian businessmen led by Mr. Jean-Luc Pepin, Minister of Industry, Trade and Commerce.

The trade group, led by Tomejiro Tanaka, director, executive officer and special assistant to the chairman of Marubeni Corporation, met with Mr. Pepin and senior members of his Department in Ottawa on May 3 and again on May 17.

INVESTMENT PACT WITH ST. VINCENT

The Secretary of State for External Affairs, Mr. Mitchell Sharp, recently announced that Canada had concluded with the Government of Saint Vincent an agreement concerning the eventual issuance by Canada, in respect of new Canadian investments in Saint Vincent, of investment insurance against possible loss resulting from certain non-commercial risks.

It is hoped that this agreement will contribute to the development of economic relations between the two countries. The Canadian Government hopes to conclude similar agreements with other countries. Such agreements have already been concluded with Barbados, Jamaica, Israel, Malaysia, Singapore and St. Lucia.

These agreements will facilitate the operation of the Government's Foreign Investment Insurance Program, established with the enactment of the Export Development Act in 1969. The purpose of this program, which is administered by the Export Development Corporation, is to promote investments in other countries by Canadian nationals, whether individuals or corporations.

CANADA-U.S. ARCTIC RADAR

A joint Canada-U.S. evaluation of the Over-the-Horizon (OTH) radar in the Canadian Arctic's auroral belt will start this summer at Hall Beach on Melville Peninsula. The project, called "Polar Cap III", will be conducted by the Defence Research Board in collaboration with the United States Air Force.

Installation of both the USAF radar and its associate receiver at Hall Beach begins this month. At the same time, DRB will establish a second radar receiver system at Cambridge Bay, on Victoria Island, about 550 miles to the west. Experiments, which will begin in October, are scheduled to end in August 1973.

OTH radar detects airborne objects beyond the horizon by bouncing radar waves off the ionosphere 60 to 160 miles above the earth's surface. However, the fluctuating nature of the ionosphere sometimes

reduces the radar's effectiveness. Additional data is, therefore, needed to evaluate the effectiveness of the radar, and consequently, additional data is needed to evaluate the operational and cost-effectiveness of OTH radar in polar latitudes.

The radar just south of Baffin Island will be in an ideal location for detecting trans-polar flights. Information received from such "targets" will be at a maximum when measured with an OTH located in the Canadian Arctic.

The radar at Hall Beach will "illuminate" a large sector of the Arctic and the receiver will accept radiation scattered back from any "targets". A second Canadian receiver at Cambridge Bay will improve target-detection by providing data from two directions instead of one.

Remote-control radio beacons built by the U.S. and emplaced by Canada, may be established at several sites in the high Arctic to simulate targets for testing the radar.

The work will be contracted out by the Defence Research Board to the Communication Research Centre of the Department of Communications, with the assistance of the Canadian Armed Forces. Five U.S. agencies and contracting personnel will collaborate on the \$8-million project with the USAF at Hall Beach. The cost to Canada, from the planning phase to final data processing, is estimated at less than \$1 million.

VIKING SITE ADVISORY BODY

The formation of an international committee to advise on the development of the site of a Viking settlement at L'Anse aux Meadows in northern Newfoundland was announced recently by Mr. Jean Chrétien, Minister of Indian Affairs and Northern Development.

The site, some 25 miles north of St. Anthony on the south shore of the Strait of Belle Isle, was discovered by Dr. and Mrs. Helge Ingstad of Oslo in 1960. Field work under their direction started in 1961 and has been carried on almost continuously ever since. Although the site is at present owned by the Newfoundland government, an agreement in principle to transfer it to the Department of Indian Affairs and Northern Development was signed with the provincial government late in 1970, and negotiations regarding park boundaries are well advanced.

Mr. Chrétien said the L'Anse aux Meadows International Research Advisory Committee had been established to enlist the best possible research advice on the development of the site from experts in Scandinavia and Iceland. The Department will also be seeking the co-operation of national museums in Denmark, Iceland, Norway and Sweden in arranging for the loan or copying of appropriate Viking artifacts to be displayed at the site.

The advisory committee will probably meet once a year until L'Anse aux Meadows is officially opened. Development of the site, which is expected to take several years, will involve substantial expenditure.

The chairman of the committee is Peter H. Bennett, Assistant Director (Historic Sites) of the National and Historic Parks Branch of the Department, and its other members are: Dr. and Mrs. Helge Ingstad, and Professor Sverre Marstrand, Director of the State Historical Museum, Oslo, Norway; Dr. Ole Crumlin-Pedersen, Director, the Viking Ship Museum, Roskilde, Denmark; Dr. Thor Magnusson, Director, National Museum of Iceland, Reykjavik, Iceland; Dr. Bengt Schonback, Keeper, Iron Age Department, Royal Academy of History and Antiquities, Stockholm, Sweden; Dr. Leslie Harris, Dean of the Faculty of Arts and Science, Memorial University of Newfoundland, St. John's; Dr. W.E. Taylor Jr., Director of the National Museum of Man, Ottawa; and John H. Rick, Chief of the Research Division of the National Historic Sites Service, Ottawa.

COMMUTER GETS A HORSE LAUGH

The frantic pace of city living – it's amazing whose lives it can affect.

Take Sandy, for instance. He's in the midst of middle age. Until last winter he had spent all his life working on the farm and had never ventured more than ten miles from the quiet little village of Ashton, 25 miles east of Ottawa. Summers had been spent working in the fields. During winter he took it easy, mostly just hanging around the barn watching the snow fall outside the window.

All that changed last winter when he and a friend, John McNeely, took a job in the city. Sandy became a commuter. Instead of taking it easy after eating his vegetarian breakfast (he was doing it even before it became a fad), he climbed into John's three-quarter ton pick-up truck and joined those other wretched souls who rose before dawn, bolted their food and crept for miles along the dark snow-covered

country roads so they could be on time for the traffic snarls in the city.

And after all that, what kind of city job do you think he got? He worked in a forest that's plunked right in the middle of miles of housing developments, suburban streets and shopping centres.

Eight hours later he got back into the truck and joined the lemming-like movement out of the city back to the country. Yet you didn't hear Sandy complain about how the frantic city way of doing things changed his life. He's got the constitution of a horse. He should, because he is a horse – a chocolate-coloured farm horse – perhaps the only Clydesdale in Canada who commuted to work.

Tipping the scales at 1,375 pounds, he was probably the heaviest commuter Ottawa had ever seen, and certainly the biggest member of a works crew employed by the Ontario Ministry of Natural Resources in the National Capital Commission Greenbelt Forest.

The horse, owned by Mr. McNeely, was the central figure in a thinning and pruning operation in Pinhey Forest, near the intersection of Merivale and Slack Roads on the outskirts of Ottawa.

He was trucked to Ottawa because of the highly selective nature of the operation and because he was the closest horse available. The timber was skidded out of the forest to a central location without damaging the young shrubs and trees along the route, the way a mechanical skidder would. The younger trees will be the Pinhey Forest of the future when the other trees have matured and been harvested.

Mel Taylor, one of the foremen on the project who has worked for years in the forest says: "Sandy is the best horse, bar none, I've ever seen in the woods, even though he's a farm animal."

Despite the praise, Sandy probably welcomes the return to normal, sensible farm life. His crazy winter way of living didn't escape the eye of Rowdy, the horse in the next stall. All winter long, after Sandy came into the barn from a hard day in the city, Rowdy looked at him, shook his head and gave a low snicker – a horse laugh, no doubt.

