

the **new link**

bulletin

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Special Issue

April / August 1991

ANNIVERSARY 50 ANNIVERSAIRE



**ASSOCIATION OF POLISH ENGINEERS IN CANADA
STOWARZYSZENIE TECHNIKÓW POLSKICH W KANADZIE
ASSOCIATION DES INGÉNIEURS POLONAIS AU CANADA**

OTTAWA, MAY/MAI 18-20, 1991

Ottawa Branch, APEC, P.O. Box 3325, Ottawa, Ontario K1P 6H8

**ASSOCIATION OF
POLISH ENGINEERS
IN CANADA**



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Incorporated in 1944

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**Proceedings of the
50th Anniversary Celebration
of the Association of Polish
Engineers in Canada**

Ottawa, 18-20 May, 1991

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FOREWORD

The present, special issue of the "New Link" contains reports on the celebration of the Fiftieth Anniversary of the Association of Polish Engineers in Canada. This celebration, which took place in Ottawa on the 18-19 of May, 1991, was organized by the Ottawa Branch of the Association. With the exception of the Workshops, which occurred prior to the celebration in Ottawa, Toronto and Montreal, the main event took place in Ottawa.

The program of the celebration consisted of three, distinct parts:

- 1 General Assembly with the Commemorative Symposium, to which the public at large was invited.
- 2 Exhibit, open to the public, under the title "These Magnificent Poles and their Flying Machines".
- 3 Social program including a banquet and sightseeing of Ottawa.

The texts describing various events are published as submitted by the authors. The Editorial Committee made minor editorial changes without altering the intentions of the authors.

The Editorial Committee

DO YOU KNOW THESE PEOPLE?

by Szczepan T. Morawski, P.Eng.

Do you know these people?
Who came here, being chased
From their homes by doctrinal beasts.
They begun from nothing, it was a life's test,
Working hard among us and growing fast like Yeast.

Do you know these people?
Who went alone for many decades,
Through twilights zone of rejection,
By both motherlands' common policy shades.
They stood firm and tall, having no protection.

Do you know these people
Who measured this land, crossing rivers?
Who dreamed and built planes to cut the sky,
With Beavers and Avro Arrow while your skin shivers.
To challenge our destiny, they were not afraid, only little shy.

Do you know these people
Who used their hands to get things done?
Shared their skills and luck in the workplace,
Those who built the knowledge, where there was none.
To challenge the open Sea, vast Land and mysterious Space.

Do you know these people
Who ploughed this land to get their food?
Turned their dreams into success with reality,
Built bridges, machines and solid future for good,
Using their hands and minds to gain respect and stability.

Do you wonder how one can,
Seeing the successes of these men,
Hold back tears of pride and emotion?
They left their milestone marks, now and then,
On the land from South to North and Ocean to Ocean.

If you wonder how you can
Share their joy, pride and emotion?
You may celebrate their success, now and then,
With noble thoughts about these people and their devotion,
These remarkable Poles, engineers, scientists women and men.

We can praise these people,
And show them our respect and admiration,
For building a strong and united Canada of today,
Thanking them, for their contribution and consideration,
And being part of this simple festivity every spring, in May.

Ottawa, 21 May 1991

This poem is dedicated to all Canadian members (deceased or alive) of the Association of Polish Engineers in Canada, who made contributions to Canadian life in the area of the social, scientific educational, architectural, industrial and engineering achievements here or abroad. Some of their achievements were shown at the Fiftieth Anniversary Exhibition held at the Ottawa National Library from May 8 to 22, 1991.

HONORARY COMMITTEE

Hon. Stanley Haidasz, M.D. , Senator.
Jesse Flis, Member of Parliament.
G. Hamilton Southam, Honorary Member of A.P.E.C.
Stanislaw T. Orlovski, F.R.A.I.C., F.R.I.B.A., Chairman, World Polonia Council.
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A.J.W. Bate P.Eng., President, Association of Professional Engineers of Ontario.
Silvio E. Gallizzi ing., Président, L'Ordre des ingénieurs du Québec.

50 ANNIVERSARY ORGANIZING COMMITTEE



Grazyna Taracha
- Secretary



Wojciech Remisz
- Chairperson,
Ottawa Branch



Jaroslaw
Szymanowski -
Finances



Wieslaw Kuran -
Finances



Jan Zielinski -
Finances



Szczepan
Morawski -
Workshops and
Symposium
Moderator



Marie Zielinska
Chairperson



Dr Andrzej
Garlicki -
Honorary
Committee and
Protocol



Bronislaw
Szpakowski -
Postal Stamp



Wanda
Samolewicz -
Social
Programme



Barbara
Grabowska -
Reception



Stanislaw
Zaborowski -
Exhibit



Dr Teodor
Blachut -
Symposium

PROGRAMME

Saturday, May 18, 1991

- 13:00 - 14:30 Registration and viewing of the exhibition.
- 14:30 - 15:00 Opening Ceremony:
Greetings by Marie Zielinska, Chairperson,
Organizing Committee.
Word of welcome by Dr Marianne Scott, National Librarian.
Introductory remarks by Barbara Tymowski, P.Eng.,
President, Association of Polish Engineers in Canada.
- 15:00 - 15:20 Opening of the Symposium, Moderator Szczepan Morawski.
Musical Interlude by the I.Paderewski Choir.
- 15:00 - 15:20 "ASSOCIATION OF POLISH ENGINEERS IN CANADA
50 YEARS AGO AND TODAY"
by Stanislaw T. Orłowski F.R.A.I.C., F.R.I.B.A.,
Chairman of the World Polonia Council.
- 15:20 - 16:00 "EAST-WEST RELATIONS FROM THE PERSPECTIVE OF A POLISH SCIENTIST"
by Prof. Dr Roman Ciesielski,
Senator and Member of the Executive Board of the Polish Academy of Sciences.
- 16:00 - 16:00 Refreshments.
- 16:30 - 17:15 "SCIENCE - ENGINEERING - DESIGN"
by Prof. Dr James M. Ham,
Past President of the University of Toronto,
President of the Canadian Academy of Engineering.
- 17:15 Closing Remarks and Thanking the Speakers,
by Dr Teodor J. Blachut, F.R.S.C., F.P.A.N.
- 19:30 - 22:30 Reception at the Skyline Hotel.

Sunday, May 19

- 8:45 - 9:30 Mass at the St. Hyacinth Church in the intention
of all past and present APEC members.
- 10:00 - 12:15 Tour of Ottawa.
- 12:15 - 13:15 Visit to the Tulip Festival.
- 13:30 - 15:00 Lunch at the Polish Combatants House.
- 15:00 - 17:00 Tour of the Parliament Buildings.
- 17:45 - 19:15 Boat Cruise on the Ottawa River.

REPORT OF THE ORGANIZING COMMITTEE

by Marie F. Zielinska

*Preparation for the Golden Anniversary of the Association of
Polish Engineers in Canada (APEC) began in May 1989.*

The National Council of the Association decided that the Fiftieth Anniversary celebrations should be held in Ottawa, the birthplace of the Association. Marie Zielinska submitted a resolution at the Ottawa Branch's annual meeting that the Anniversary Committee be established and suggested the following colleagues as Committee members: Dr Teodor Blachut, Dr Andrzej Garlicki, Barbara Grabowska, Antoni Swiderski, Bronislaw Szpakowski and Wanda Samolewicz (as representative of the Ladies Auxiliary). The resolution was adopted unanimously with the proviso that Marie Zielinska joins the Committee. Also, the chairperson of the Ottawa Branch was elected as an Ex-Officio member of the Committee.

The first meeting of the Committee took place on June 26, 1989. At the second meeting, Marie Zielinska was elected chairperson and a general plan of festivities was formulated. In early fall, the nomination of Marie Zielinska as chairperson and the program outline were approved by the National Council.

The original Committee was enlarged so there would be one member responsible for each of the planned activities, as well as a secretary and a financial subcommittee composed of three persons.

In addition to the core group, various colleagues undertook special tasks whenever needed, providing most valuable assistance for the Committee. It is impossible to mention everyone but I would like to single out a few of them: Lech Zielinski and Eleonora Lewicki who took care of the publicity; Jan Zielinski who besides his financial duties, also looked after the poster and APEC pins; Dr Stefan Grochowalski, who acted as a liaison officer to the Royal Society of Canada and helped to implement the program for Prof. R. Ciesielski, the Senator from Poland; Dr Anna Dukszo who organized refreshments during the Symposium; Michal Kepka who acted as official photographer and assisted with the exhibit and Janina Szpakowska who organized the Sunday lunch.

The Committee held eighteen meetings over the two-year period, working closely with the Headquarters and Branches the whole time.

The biggest problem was to secure sufficient financial resources to implement as much of the suggested program as possible. Thanks to the energy and resourcefulness of the financial subcommittee this goal was achieved. We received a grant from the Department of Multiculturalism and Citizenship and another from the City of Ottawa. Each Branch and the National Executive also offered financial assistance. In addition, members of the Ottawa Branch made personal donations and a number of engineering firms contributed to the fund. A complete list of donors is given separately. Once again sincere thanks to all who helped make the Golden Jubilee of the APEC a success.

In July 1990 the Committee experienced a great loss. After a long illness, A. Swiderski died. He was one of our most energetic and enthusiastic members, who was preparing a history of the Association for the anniversary. Although a basic draft was completed, further refinements were necessary. Unfortunately, it was impossible to have the manuscript completed in time for the festivities. To pay tribute to our departed member, a history of the Ottawa Branch was prepared by W. Remisz, chairman of the Ottawa Branch, based on the manuscript of Antoni Swiderski. A handsomely published volume was officially launched during the celebrations.

B. Szpakowski put a lot of work in preparing a submission for the publication of a commemorative stamp. It was a great disappointment when Canada Post rejected our proposal.

Despite difficulties, the Committee succeeded in preparing a rich and varied program, including workshops which involved all Branches of the Association.

This general report of the history and activities of the Organizing Committee is followed by brief reports from the individual sub-committees and by reports of the various programme activities.

I would like once more to express my sincere thanks to all who helped make the Golden Jubilee of the APEC a success.

WORKSHOPS

by Jaroslaw Szymanowski

At the time of application for government financial assistance to help us celebrate the Fiftieth Anniversary of the Association, we undertook to re-examine our organization in a thorough and comprehensive manner.

It was agreed to organize three workshops in Ottawa during the Anniversary celebrations in May. The themes selected for these workshops were: "The Future of Our Organization," "Membership and Recruitment" and "Training and Education."

A large number of individual topics were to be tabled for discussion. The topics concerned such issues as members aims and aspirations, review of bylaws, relationship with other Polish-Canadian organizations, contacts with Canadian engineering bodies, accreditation of Polish academic qualifications, membership drives, expansion of professional and social programs and many others.

We were very fortunate that activities described above happened to be nearly concurrent with another initiative, which originated within the Association, and was aimed at the far reaching reform of the Association. The proponents of major changes found an eloquent spokesman in Stan Zaborowski, who prepared several papers on the need for reform and had canvassed the members at large on this subject.

It was felt that the association was somewhat stagnant and in need of fresh blood. There was an apparent requirement for a restructured organization encompassing all professional and business people of Polish descent. Such an organization would be much larger in membership and broader in scope and would exert significant political influence. A permanent office and club facility would be an achievable objective under such conditions.

In the early spring of this year a decision was made to hold workshops in Toronto, Montreal and Ottawa i.e. by each Branch separately and before the Anniversary celebrations in order to involve as many members in the discussions as possible. All the three workshops were held during the month of April, 1991. Based on these discussions, a number of observations can be made as follows:

- 1 The majority of members are basically for status quo. A qualified reform, if put to a vote, would carry the day. But it must be done carefully without affecting the name of the Association and its basic current raison d'être.
- 2 Co-opting other professions would be a contentious issue.
- 3 Good housekeeping recommendations would get majority support. These would be: better liaison with Canadian provincial engineering associations, intensification of public relations activities, increased help to Poland (specifically to Polish industry and educational institutions,) and setting up of computer science courses (the most popular membership benefit in Montreal.)

So where do we stand now? The Fiftieth Anniversary Organizing Committee will forward minutes of all three workshops to the Association's National Executive in Toronto. The latter body will, no doubt, evolve a reform program based partly on what transpired at the workshops and partly on their own recommendations for the future growth and prosperity of our organization. This is where leadership ability and competence comes in.

We should take this opportunity to again thank the Department of Multiculturalism and Citizenship for their invaluable financial assistance which enabled us, among other things, to have a close look at ourselves and to chart our future.

EXHIBITION:

"THESE MAGNIFICENT POLES AND THEIR FLYING MACHINES".

by Stanislaw Zaborowski

A major element of the 1991 celebrations of the Fiftieth Anniversary of the Association of Polish Engineers in Canada has been the exhibition between the 8 and 21 of May at the National Library of Canada, 395 Wellington Street, Ottawa.

The exhibition intended to show the contribution made by engineers and, among them, by the members of the Association of Polish Engineers in Canada, to the Canadian civilization, culture and general development.

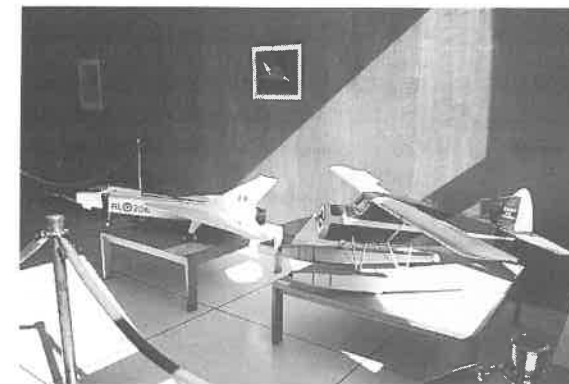
Since the beginning of the Association goes back to the war years and the post-war period, and because of the impact that Polish engineers have had on the Canadian war effort, particularly in the aviation and the aircraft industry, the exhibition emphasized this area and was entitled "These Magnificent Poles and their Flying Machines." From the mass production and refinements of the war planes such as the famous Mosquito, through the design of the Chipmunk and the Beaver (the latter, conceived and designed by Polish engineers at DeHavilland, being the most commercially successful aviation product in the history of the Canadian aircraft industry), to the development of the world's most advanced supersonic interceptor of the late fifties known as the Avro Arrow, Polish engineers participated in, innovated and often lead in the design, manufacturing, research and teaching.

Such names as W. Jakimiuk, Chief Engineer at DeHavilland and the designer of the Chipmunk and Beaver, W. Czerwinski, the "hero of the CF-100" and a pioneer of gliding in Canada, J. Zurakowski, the legendary test pilot of the Avro Arrow, J. Norton-Spychalski, the founder of Computing Devices, and many others have been permanently engraved in the history of Canadian aviation.

The exhibition paid tribute to their heritage and reminded us of these men, little known outside of the circles of specialists, who helped to push Canada to the pinnacle of world aviation. The exhibition also devoted some space to the more recent but often equally spectacular achievements of Polish scientists and engineers in other fields such as photogrammetry, advanced civil engineering, electronics, etc..



Setting up the exhibits



The Arrow and the Beaver

SYMPOSIUM

by Marie F. Zielinska

The organization of the Symposium, which constituted the core of the Fiftieth Anniversary celebrations, was in the hands of Dr Teodor Blachut. Through his personal contacts he brought together very prominent speakers to fill the programme of the symposium.

As a guest speaker from Poland, we had Prof. Dr Roman Ciesielski from the Polish Academy of Sciences and elected member of the Polish Senate. He came to Canada on the invitation of the Royal Society of Canada. In matters connected with the presence of Prof. Dr Roman Ciesielski at the Symposium, Dr Blachut was assisted by Dr Stefan Grochowalski. Hopefully, this will be the beginning of regular exchanges between the two Academies.

The sessions were moderated by Szczepan Morawski, and a musical interlude was provided by the Ignacy Paderewski choir.

The symposium was opened to the public and well over 300 people participated.

At the end of the opening ceremony the APEC President, Barbara Tymowski, presented Jesse Flis, M.P., with an honorary membership in the Association.

RECEPTION

by Marie F. Zielinska

The Saturday programme ended with a reception at the Skyline Hotel where the guests were greeted by Barbara Tymowski, APEC President, Wojciech Remisz, President of the Ottawa Branch and Marie Zielinska, Chairperson of the Organizing Committee.

Six tables were reserved for the official guests and their escorts. Otherwise, people chose their seats as they pleased. The dinner was an excellent buffet of hot and cold dishes. Background piano music during dinner was provided by Mr Robert Palmal.

After dinner Dr Andrzej Pawlowicz introduced the official guests. The APEC President presented the Honorary memberships to Senator Stanley Haidasz and posthumously to Antoni Swiderski for his many years of service to the Association. A special certificate and a bouquet of flowers was presented to the oldest member of the Association, 92-year old, Mr Piotr Jaskiewicz who has been an APEC member for 50 years.

Separate recognition was given to members of 45 years or more, members of each Branch and members of the Organizing Committee.

All deceased members of APEC were honoured by a minute of silence. Roman Jagla presented the Association with a diploma on behalf of Jesse Flis, M.P., who could not attend the reception in person. Senator Stanley Haidasz delivered the banquet address.

The reception was organized by Barbara Grabowski, but since she could not attend that evening, Mr Wieslaw Kuran looked after the arrangements during the event.



Marie Zielinska opens the Symposium



Registration desk. From left: Maria Remisz, Eleonora Lewicki and Jan Zielinski

SOCIAL PROGRAMME ON SUNDAY, MAY 19, 1991

by Wanda Samolewicz

Since its foundation, the Ladies Auxiliary has always taken an active part in the programmes of the Ottawa Branch of the APEC. Thus, with great enthusiasm, the Ladies Auxiliary accepted the invitation of the Fiftieth Anniversary Organizing Committee to prepare a social programme, especially for out-of-town guests.

While the rapidly increasing number of participants came as a pleasant surprise, it did force many last minute changes to be made to plans that had been finalized in early March. With a mix of supreme effort and lots of luck, we modified our plans and were then able to accommodate everyone interested in visiting Ottawa. A perfect, sunny spring day with tulips and lilacs in full bloom, added special charm to the programme. The day's activities started at 8:30 with a mass at the St. Hyacinth's Polish Church for all members of the APEC and finished at 19:30 with a boat cruise on the Ottawa River.

After mass, participants were given a bus tour of the most interesting and scenic parts of Ottawa, including embassy row, beautiful parks and the new Museum of Civilization.

The tour ended at the Polish Combatants House where lunch was awaiting the hungry tourists. Our members, under the direction of Janina Szpakowska, prepared an excellent meal complete with homemade pastries and cakes.

The second part of the excursion included a private tour of the beautiful, historical Parliament Buildings, the seat of the Federal Government. Subsequently, on the dock below the Parliament Buildings, a special excursion boat awaited the group, which took them for a cruise on the Ottawa River. The boat cruise provided an opportunity to see the Parliament complex from another perspective, to see the Prime Minister's residence, the embassies of France and Great Britain and Rockcliffe Park (the most beautiful residential area of Ottawa).

The Sunday programme was attended by 115 participants. Thank you for coming! We sincerely hope that our guests will have pleasant memories of their participation in the Anniversary festivities and their visit to Ottawa.

PUBLICITY

by Marie F. Zielinska

Several people were responsible for publicity. Jan Zielinski undertook the preparation of a poster and a pin. The poster was sent to all other Associations of Polish Engineers around the world, to selected technical universities in Poland and Canada, and to all Branches of our Association for display at major engineering firms.

The pins were divided between the Branches for sale to members. The English language publicity was carried out by Lech Zielinski and Eleonora Lewicki. Two press releases were written: one of a general nature in early 1991, the other focusing on the exhibition and symposium immediately before the events. The press releases were sent to a total of 38 newspapers, magazines, radio and television stations, 13 in Ottawa, 19 in Toronto, 5 in Montreal and 1 in Quebec city. Articles appeared in "The Financial Post," "The Toronto Star," the APEO "Dimensions Magazine" and the APEO Ottawa Chapter "Newsletter." Publicity material in Polish was sent for publication in the Polish professional press.

Mr George Bonavia undertook the publicity in ethnic media. Press releases were sent to the ethnic press radio and television stations. His contribution was greatly appreciated by the Committee. All working forms, letters and invitations were prepared by Marie and Jan Zielinski in consultation with the Committee.



The two oldest APEC members, Piotr Jaskiewicz and Stanislaw Petruszewicz with Mrs Wanda Samolewicz

WORDS OF WELCOME



by Dr Marianne Scott,
National Librarian

Your Excellency, Ladies and Gentlemen:

It is a great pleasure indeed to welcome you to the National Library for the celebration of the Golden Anniversary of the Association of Polish Engineers in Canada.

Several 19th-century Polish engineers left a lasting mark on Canadian history. To mention but a few, Sir Casimir Gzowski, builder of many roads, harbours and bridges, constructed the Canadian portion of the St. Lawrence and Atlantic Railroad; he also built the Grand Trunk Railway Line from Toronto to Sarnia and the international bridge between Fort Erie and Buffalo.

Another renowned figure was Edward Kierzkowski, who became the first member of the House of Commons of Polish origin in 1867. However, by far the greatest contribution of Polish engineers in Canada is connected with the war effort, particularly in areas of air defence and transportation.

Dr Marianne Scott

The fascination of Polish engineers with space technology is so well expressed in the title of your exhibit: "These Magnificent Poles and their Flying Machines."

Présentement, les contributions des ingénieurs d'origine polonaise sont très évidentes et admirées dans tous les domaines du génie - architecture, génie civil, électronique - sans oublier l'enseignement et la formation des futurs spécialistes.

Bienvenue a notre belle capitale pendant son festival des tulipes.

I know that your Twenty-Fifth Anniversary was also celebrated in Ottawa; it seems to be a tradition for your Association to gather in our beautiful city in 25-year intervals. I welcome you and hope that everyone has an interesting and a pleasurable weekend.

Finalement, n'oubliez pas de choisir Ottawa comme site du 75e anniversaire de votre Association!



Mr Steve Morawski, Moderator

INTRODUCTORY REMARKS



by Barbara Tymowski,
President, Association of Polish Engineers in Canada (APEC).

First of all, I would like express my thanks to the Organizing Committee under the chairmanship of Mrs Marie Zielinska for preparing the two-day festivities commemorating the Fiftieth Anniversary of the Association of Polish Engineers in Canada. It took a lot of effort to organize the symposium, as well as the excellent exhibition which you can view in the foyer, this evening's reception, and the sightseeing tour of Ottawa which is scheduled for tomorrow.

Recently in going over the by-laws of the Association of Polish Engineers, I discovered that the first meeting took place in Ottawa fifty years ago, on June 15, 1941. It was attended by 29 members.

Today, half a century later, over 200 APEC members representing all three Branches have gathered in Ottawa again. The number of participants proves that the Association is growing steadily.

Barbara Tymowski

The recently assigned membership number is 2036. Looking back, it is easy to see that the Association's activities are dictated to a large degree by outside factors. For example, at the beginning of the eighties, a considerable number of Polish engineers emigrated to Canada, several of whom, together with their families, were sponsored by APEC. To help them integrate speedily and successfully into Canadian life, the Association organized a number of courses such as language and computer courses, and other specialized courses for particular groups of engineers.

In recent years, the number of immigrants dropped significantly, but the Toronto Branch still organizes monthly information sessions for newcomers and the Montreal Branch continues to give its much appreciated computer courses. We also continue to help people find jobs and establish necessary professional contacts. We participate in various governmental task forces, surveys and inquiries whenever appropriate, and co-operate with various Polish organizations. Aside from these professional activities, we also organize social activities and lectures and publish a quarterly bulletin called "NEW LINK." In 1990, a Committee of Technical and Technological Co-operation with Poland was organized to offer courses in management techniques for Polish engineers working in managerial positions.



Musical Interlude by I. Paderewski choir.

After all these years of existence, it seemed worthwhile, on the occasion of the Fiftieth anniversary, to review the character and activities of the Association by holding workshops in each of the Branches. During the workshops, the previous achievements and activities of the Association were discussed as well as future options, such as merging with other professional groups or creating a new organization of professionals of Polish origin.

Today we celebrate the Fiftieth Anniversary of APEC and whatever our future direction may be, let us keep our organization intact for the next 50 years.

SPEECHES

ASSOCIATION OF POLISH ENGINEERS IN CANADA 50 YEARS AGO AND TODAY

by Stanislaw T. Orlowski

Stanislaw T. Orlowski, Dipl. Arch., F.R.A.I.C., F.R.I.B.A.. During the war, served with Polish Armed Forces in the Middle East and Italy. M.Sc. degree from the Leicester School of Architecture. In Canada since 1952. After initial years with architectural firms in Toronto, joined the Dept. of Education of Ontario, where he eventually became Chief Architect. Responsible for the development of Ontario's unique system of Community Colleges (106 campuses!) and of the related research. Member of several professional organizations. Known for his vivid publication and lecturing activities in Canada and abroad. Very distinguished in the Scout Movement (Vice-president of Polish Scouting International) and in the Polish community organizations. Past president of the Polish Engineers Association in Canada, past president of the Canadian-Polish Congress and the Chairman of the World Polonia Council.



We are celebrating today the golden jubilee of the Association of Polish Engineers in Canada. It is a very rare and precious occasion; therefore, I am not going to bore you with statistics regarding the Association. Instead, I plan to tell you about the amazing people of this great organization. The human aspect is the most important and comes to the fore at this anniversary. It is a story about the people who had strength, stamina and vision. They had a dream and that dream came true.

Before I give you the account of Polish engineers in Canada during World War II and after, I would like to mention that there were other Polish engineers who came to this country many years ago. Unfortunately, we do not know the exact number of Poles engaged in technical professions 200 years ago. History tells us only about the most famous among them.

Charles Blaskowicz came to Canada in 1759 and worked as a surveyor. Next we have records about some Poles engaged in military service. They made a considerable contribution to the defence of Canada. The record shows that they came to Canadian shores in 1776 and they were: August F. Globenski, Balthazar B. Lucki and Ludvic C. Mazell. In 1842, after the November Insurrection in Poland, L.Col. Alexander Edouard Kieszkowski, who obtained his engineering diploma in Paris, arrived in Canada. He worked as a civil engineer with the Department of Public Works and later introduced some financial innovations to streamline the credit procedure in agriculture. He was director of the Agricultural Society of Lower Canada. Appointed mayor of the district of Richelieu and promoted to the rank of Lieutenant-Colonel in 1862 he became the commanding officer of the Second Battalion of Militia of St. Hyacinthe. On September 10, 1867, he was elected to the House of Commons representing the county of St. Hyacinthe, Québec, and remained a member of Parliament until his death in 1870.

No doubt the most famous Pole in Canada in the last century was Sir Casimir Stanislaus Gzowski, a co-founder of Canadian Society of Civil Engineers (1880) who also came to Canada after the November Insurrection. He made his way through Austria and the U.S.A. and entered Canada in 1842. At first, he worked with the Department of Public Works as a superintendent for Western Ontario. Very soon, Gzowski became famous as Canada's leading engineer. He is well known as the builder and designer of many bridges, roads and railway lines. He was also responsible for many initiatives in education. He served for a number of years as a member of the Senate of the University of Toronto and was a co-founder of Wycliffe College. Active in social life and sports, he founded the Ontario Jockey Club, was a co-founder of the Toronto Club, the Toronto Stock Exchange and the Dominion Rifle Association. He was knighted by Queen Victoria in July 1880 and received the distinguished Order of St. Michael and St. George (KCMG).

There is not a lot of information regarding Polish engineers until the outbreak of the Second World War. I was not here 50 years ago, but I have read the stories and listened to the endless recollections about those early days of the Association. At the time when the Polish engineers of this period were coming to Canada, I was still

in the far north, above the Polar Circle, in Workuta, engaged in forced road building and hoping to survive another day. That was a long time ago.

Let's start from the beginning. When the war broke out in September of 1939, many Polish engineers and technicians left Poland trying to make it to France. After crossing many European borders, they found themselves on French soil. They made use of their knowledge of the war industry and their experience in the army but with the collapse of France, they faced danger again. Some were evacuated with the army but others were stranded. It took a great effort on the part of a few dedicated people to help the Polish engineers escape from the Vichy France to Spain and Portugal and then to make their way to England or Canada. At that time, Canada was in the process of developing a war industry and there was a need for specialists in various branches of that industry.

Polish engineers received special permits to enter Canada and to work, mostly in aeronautics. Planes were needed and Poles were experienced and willing to help.

The journey to Canada was not easy. First, there was the lonely trek through the Pyrenees Mountains with the enemy almost at their heels. Then, there were many obstacles to overcome in connection with securing the proper documentation and, finally, the crossing of the ocean.

The first group consisted of seasoned men who had graduated mostly from Polish universities before the war. They also had experience in their profession. In Canada, they had to go through a period of adjustment and to learn to work in English. For later groups, to help with the process of adaptation, special courses were organized in 1941-42 and were continued in subsequent years.

In 1941, there were, according to our records, twenty-two Polish engineers from Great Britain and fifty from France. **In May of 1941, four Polish engineers met in Ottawa and decided to establish an Association of Polish Engineers in Canada.** The first concept was to form a branch of an existing Association in Britain. This idea was abandoned. The first General Meeting of the Association was held in June of 1941 and at that time the total membership was twenty-nine engineers. That was the beginning of the Association and this is the reason that we are celebrating our Golden Jubilee today.

The summer of 1941 was full of events. The war between Germany and Soviet Russia broke out and Russia asked the Allies for help to fight Germany. They were told that they would get assistance once they settled with the Poles. As a result of the agreement, signed between Majski and Sikorski, amnesty was proclaimed for Polish prisoners of war, political prisoners and people who were deported from Poland to Soviet Russia at the beginning of the war.

Thus, another group of future members of the Association set off on the journey of hope, down south of Russia to join the forming Polish Army. Ragged and emaciated after their experience at the hands of the Soviets, they joined the ranks of the Polish soldiers and soon they fought at different fronts on land, in the air and at sea.

Another group was still in Poland, many in the Home Army, fighting the Germans. Many were imprisoned. Many were lost. Others, veterans of September 1939, spent the war years in prisoner of war camps.

All these people had to adjust to the new conditions after the war, and most of all, regain their health. But they had strong wills. Some finished their studies interrupted by the war, while other younger people commenced their university courses. They studied in Germany, France, Belgium and Switzerland but the majority of them studied in Great Britain.

Studying after the hard experiences of the war years, was not easy, but they were determined and managed well. Most had great achievements in the profession afterwards. Today, when I think about it, it is clear that these soldiers, concentration camp survivors and POW's, were most amazing people who can serve as an example to all people who complain about the difficulties in establishing themselves in a new environment.

In the early fifties, a very large new group of Polish engineers joined the ranks of the first newcomers to Canada. They came mostly as ex-combatants. At the same time, the Association began a campaign to secure entry visas for other engineers from all over Europe and other countries. All together, between 1941-1945, 500 visas were granted to Polish engineers for "the duration of the war." In 1947, twenty visas were secured. In the next few years, another one hundred twenty-five visas were obtained. Later on, in view of the situation in Europe, all the people who had temporary visas were granted permanent stay in Canada.

Thirty years ago, there must have been 2,000 Polish engineers in Canada. At present, there are almost 3,000 registered Polish professional engineers and architects. Unfortunately, only a small percentage has joined the Association.

I have described to you the two groups of members of the Association. I should have mentioned that soon after the war, some engineers came to Canada directly from Poland; but that was stopped because Canadian officials objected, in view of the danger of infiltrations by unacceptable people from the communist world.

The last large group of members of the Association came to Canada from Poland, but the times were different. Canada accepted Solidarity members, and people who opposed communism and were seeking refugee status in this country. They too went through an adjustment period.

Besides the main groups described above, there is a growing number of engineers of Polish origin who are educated in Canada and have decided to join the Association.

Let's concentrate now on the Association itself. In May 1941, Polish engineers Jerzy Gosiewski, Ryszard Herget, Mieczyslaw Kurman and Jerzy Meier, at a meeting in Ottawa, formally organized the Association under the name of "Stowarzyszenie Technikow Polskich w Kanadzie" (Association of Polish Technicians in Canada). The first General Meeting was held in Ottawa and the membership was 29 people. Next year there were 112 members and in the first ten years it grew to 270. In 1942 there were already three branches of the Association - in Montreal, Toronto and Ottawa.

At the second General Meeting in Ottawa, Ryszard Herget gave the account of the membership as follows: "There are 112 members, people who came to Canada from the following countries: 40 from Great Britain, 58 from France, 8 from Japan, 6 from Brazil. Among them, there are 83 qualified professional engineers and 29 technicians. According to specialization there are 81 mechanical engineers, 10 electrical engineers, 9 civil, 6 chemical, 1 architect, 1 pulp and paper specialist and 3 textile engineers. Fifty-one (51) of them work in Toronto, 37 in Montreal, 14 in Ottawa, 2 in Hamilton and 1 in Peterborough. Beside that, 60 qualified mechanics came to Canada and they found work in the aeronautics industry."

Ryszard Herget did not mention specialists in aeronautics besides the aircraft mechanics, but we know that in those early days, there were a number of aircraft engineers. Forty-two (42) of them came to Canada in 1940. First was W.J. Jakimiuk, a well known aeronautical engineer in Poland, appointed to the position of Chief Engineer at DeHavilland. A number of Polish engineers were assigned to DeHavilland and among them: W. Czerwinski, Dr A. Grzedzielski, K. Ksieski, Z. Jarmicki, K. Korsak, W.Z. Stepniewski and T. Tarczynski.

Towards the end of the war, DeHavilland started, gradually, to change to civil aviation production. Mr Jakimiuk was the leader of that project and together with W. Stepniewski and others designed and constructed two types of planes - the Chipmunk and the Beaver.

After 18 months of existence, the Association gained the respect of the authorities in Canada. Polish universities were officially recognized and graduates of those universities could apply for membership in the Associations of Professional Engineers and the Engineering Institute of Canada. In the case of lack of original diplomas, the verification issued by the Association was sufficient.

In June 1944, the Association received a Charter from the Federal government. At that time, members of the Association began preparations for their return to Poland after the war, gathering materials that could be used in the reconstruction of their country. Unfortunately, the appeasement policy towards Russia by the Allies, and later the Yalta conference, made it quite clear that plans would have to be changed. At the beginning of 1945, Poland was already under Russian occupation. Return to Poland would mean accepting the communistic rule and ideology. The General Meeting of the Association, held in 1945, passed a resolution condemning the Soviet occupation of Poland and declaring allegiance to the Polish Government in exile.

The Association concentrated now on various activities, including cooperation with the Canadian Polish Congress which was founded in 1944, mutual funds, publication of the Bulletin, immigration, junior membership, employment assistance and guidance, and social activities. The Programmes Committee was responsible for new initiatives within the Association. This Committee was also responsible for starting a funeral insurance fund.

Another difficulty faced the Polish engineers. The Polish Government in Exile resident in London, England, lost its recognition with most allied countries, when they accepted the new provisional government set up by the communists in Poland. Because of this withdrawal of recognition, Poles in Canada became political refugees

and had to apply for permission from the Canadian Government for permanent residence. On top of that, many members of the Association lost their jobs due to changes in the industry which was reverting to peace production.

It was proposed that the Association should change into a social club. This idea was defeated, but nevertheless membership decreased to 164. Some members moved to the United States and some returned to Poland in spite of the political situation there.

At the General Meeting in 1947, it was decided that the Association should help the engineers and students released from German concentration camps and studying at universities in Europe or applying for immigration. By March 1948, the Association secured 20 visas to Canada for Polish engineers from Europe. The Association also assisted some of the engineers who had immigrated to South America and managed to obtain entry visas to Canada for them.

A new branch of the Association was organized in Sarnia. There were attempts to open branches in Vancouver, Calgary and Niagara on the Lake, but these branches were short lived.

The Head Executive Office was at first in Ottawa, was then moved to Montreal and finally was established in Toronto where it is now.

As I mentioned already, there must be over 3,000 Polish engineers and architects in Canada. Most of them are registered with Canadian professional associations which gives them the right to practice in this country. Unfortunately, only about 10% of them have applied for membership with our Association.

The Association is still organizing refresher and orientation courses for engineers arriving in Canada and assists with finding employment or evaluating diplomas.

For many years, the Association organized monthly lectures and social events for its members. Programs of regular monthly meetings existed in Toronto, Ottawa and Montreal. They attracted sometimes up to 500 people.

The Association was very popular, especially for the social activities. The Toronto branch annual ball was considered to be equal to the famous Hungarian Ball. For some years, the Lieutenant Governor of the Province of Ontario patronized and actively participated in the "Engineer's Ball" in Toronto.

I should not omit to mention the Association's activities in commemoration of our great compatriots. During the centennial celebrations of Canada, the Association decided to construct a memorial to Sir Casimir Gzowski. The memorial, designed by the Polish architect Dzwonnik, was unveiled by Pierre E. Trudeau in 1967. It stands in an attractive setting along the Lakeshore in Toronto.

The Association participated, and in fact played a leading role in many cases, in the celebration of the 500 year anniversary of the birth of Nicolaus Copernicus. There were many special events in connection with this unique anniversary. One of them, on May 15th, 1974, was the presentation of an astronomical spectrograph which was developed in Canada to the Observatory in Torun, Poland.

There were many more great occasions and activities that could be mentioned. There is no time for this in my short address. Instead, I intend to share with you some data on just a few of the Association's members, with the intention of providing you with profiles that could be considered typical of many Polish engineers and scientists living in Canada:

1. *Zygmunt S. Cyma, aeronautical engineer.*

In Poland, prior to 1939 and the war, he was one of the founders of the aircraft industry. In France, he worked as a leader in the Devitine Aircraft factory. In Canada, since 1943, he was entrusted with the responsibility for the planning of many facilities for A.V. Roe and eventually promoted to the position of the Chief Plant Engineer. Under him was a group of Polish engineers including: B. Baranowski, E. Baranowski, Z.M. Fabierkiewicz, R. Sulatycki and E. Zobel.

2. *Waclaw Czerwinski, aeronautical engineer.*

He came to Canada in 1941 and was appointed a group leader and a project engineer with DeHavilland Aircraft of Canada. At this time, the famous Mosquito, a long range fighter-bomber built of wood, was redesigned. In 1943, he resigned from DeHavilland to become Chief Engineer and co-owner of the Canadian Wooden Aircraft Ltd.. After the war, Czerwinski joined the A.V. Roe Company to design the first Canadian fighter, the Arrow,

as one of the principal designers of the group. Later he joined the NRC, and in 1966, the Institute of Aerospace Studies of the University of Toronto. Brilliant engineer, lecturer, painter and stained glass designer.

3. *Wsiewolod J. Jakimiuk, aeronautical engineer.*

Brilliant aircraft designer in Poland, Canada and France. Arrived in Canada in 1940. He came to this country sponsored by the DeHavilland Co. W.J. Jakimiuk was a leader in the design and construction of Chipmunk and Beaver small planes, suitable for the difficult and harsh conditions of the Canadian North. He had foreseen the need for large aircraft.

4. *Dr Eryk Kosko, aeronautical engineer.*

Arrived in Canada in 1941, through Portugal and Brazil. At first, worked as Design Engineer with the Aircraft Division of Canadian Car Foundry Co., Montreal. Later, 1943-46, Assistant Professor of aircraft design at École Polytechnique de Montréal. Then for 13 years with A.V. Roe Ltd.; later, Avro Aircraft Ltd. as Assistant Chief Engineer. Dr Kosko was a member of the team which designed and built the Avro Arrow fighter-bomber. After cancelation of the project, moved to the National Research Council where he worked on analysis of structures in the field of aeronautical and civil engineering. Published many papers and was a guest lecturer at several universities.

5. *Jozef Norton-Spychalski, aeronautical engineer.*

Arrived in Canada in 1942, through France and Portugal. Worked in Canada as an assistant production manager with the Canadian Wooden Aircraft Company. Later opened in Ottawa, with two partners, the Computing Devices Ltd. to design and build a Navy Trainer consisting of a central computer and "individual ships." The company expanded and became a world famous designer and producer of aircraft instruments. Next, Norton-Spychalski opened a new electronics company, Norpak Ltd. at Pakenham, Ontario which, after his death, was moved to Kanata, Ontario.

6. *Wladyslaw A. Wyszowski, civil engineer.*

After participation in the French campaign in 1940 and in the Polish underground movement, he came to Canada in 1942. Employed by Toronto Transit Commission, where he was promoted to the rank of Chief Engineer. Responsible for phase one of Yonge Street Subway and other projects. Later, joined the internationally known firm Eubank Associates as a vice-president. Active in the Association of Polish Engineers and in the Association of Professional Engineers of Ontario. For his outstanding work, he was awarded the Sons of Martha Medal. Tadeusz Swiderski was his successor as a Chief Engineer at T.T.C.

7. *Leon Mederski, mechanical engineer.*

Assigned in 1940, as a Polish officer to the French Ministry of Defence and War Industry. Came to Canada in 1942, and since then, employed as a senior engineer with the Otis-Fenson Elevator Co. in Hamilton, Ont., specializing in the technical and organizational aspects of production. At all times, active in the Association. From 1980, devoted his time to compiling archives of our Association.

8. *C. Peter Brzozowicz, civil engineer.*

In 1940, joined the Polish Army in France. Arrived in Canada in 1942. Employed by the Canadian Brewers as an engineering consultant. Soon afterwards, opened his own consulting engineering firm in Toronto. Specialized in structural engineering. Many Polish engineers had their first job with his firm. Designed many institutional, commercial, educational projects and also hospitals. Continuously involved with the Association as a member of the auditing committee and chairman of the Toronto branch.

9. *Ludwik Alejski, structural engineer.*

Prisoner of German concentration camps. After the war, completed studies at London University in Great Britain and came to Canada. In Toronto, worked with Caruther and Wallis as a structural engineer and soon became vice-president of that firm. Well known as brilliant engineer. Worked as consultant on the most difficult architectural projects. Awarded Canadian Consulting Engineering prizes for his work on the Toronto Dominion Bank Pavillion, 1969, the G.B. Robarts Library, University of Toronto, 1974, and for the Roy Thomson Hall. Active in the Polish Engineers Association, chairman of Toronto Branch and member of the National Executive at one time.

10. *Dr Teodor J. Blachut, scientist.*

Graduated in geodetic engineering from the Technical University of Lwow. Member of the Polish Armed Forces in the French Campaign, 1940. Interned in Switzerland during the rest of the war period. Invited to Canada by the National Research Council, Ottawa, he organized and was in charge of the Photogrammetric Research Section for almost 30 years. Holds several patents. Author of well over 100 publications, also in book form translated into other languages, which became standard university texts in many countries around the world. Active in many learned societies - Canadian, foreign and international. Conducted large projects and studies in S. American, African and Asiatic countries. Recipient of many scientific awards and honours, such as: "Medallion of Honour" from the Techn. University of Milan, 1960; elected Fellow of the Royal Society in Canada, 1970; recipient of an Honorary doctorate from the University of Mining and Metalurgy in Cracow, Poland, in 1974; recently elected as a Foreign Fellow to the Polish Academy of Sciences. As a member of various non-scientific organizations, tried to generate projects of tangible, lasting effects for society.

11. *Dr Adam Jaworski, mechanical engineer with a Ph.D in law.*

Following a distinguished service as Wing Commander in the 303 Polish Fighter Squadron, arrived in Canada after the war. Worked for National Research Council, Ottawa, as an engine specialist. Later moved to the Economic Policy and Research Branch of the Department of Transport. He was responsible there for the fiscal policy of the Aviation Branch. Represented Canada at several international conferences concerned with aviation policy.

12. *Dr Juliusz Lukasiewicz, scientist.*

Sponsored to Canada by the Polish Engineers Association in 1948. Worked at the National Research Council as the head of High Speed Aerodynamics Laboratory. Was responsible for development of an Economic High Performance sub-, trans-, and super-sonic aircraft and missile projects. In 1968, was appointed professor of Aerospace engineering at Virginia Polytechnic Institute. Since 1971, joined Carleton University as a professor of mechanical and aerospace engineering. He is the author of 2 books and 50 papers.

13. *Dr Andrzej M. Garlicki, mechanical engineer.*

Spent two years in Siberia, next joined the Polish Army and as an artillery officer, survived the Italian campaign. Started engineering studies in Italy and completed them in London, England. Came to Canada in 1952. Worked in various firms before coming to Ottawa, where at first, worked for the Eastern Forest Product Laboratory as research officer. Obtained his doctorate in mechanical engineering at the University of Ottawa in 1976. Since 1979, worked as a research officer at the National Research Council. Recipient of Order of Canada. Published over 30 papers.

14. *Kazimierz Milej, mechanical engineer.*

Started studies at the Faculty of Mechanical Engineering, Technical University of Warsaw. During the war in POW camp in Germany. After the war, he continued his studies and received a M.Sc.Mech.Eng. degree at the Catholic University of Louvain, Belgium, where he began his professional career in the paper industry. After emigrating to Canada (Montreal), continued to work in the paper industry. Became the co-owner of a sizable company (160 employees), occupying for the next twenty years the position of Technical Director of Operations. In 1976, he opened a consulting office with activities covering also European, South American and Middle East countries. Co-author of significant patents used by the industry. Introduced mouldable fibreboards into automobile industry (Ford, GM). Sat on the boards of several companies and is a member of several professional associations - foreign, international and Canadian. Very active in various Polish-Canadian and Polish associations, such as the Association of Polish Engineers in Canada, Polish Combatants in Canada, the Polish Scouts Association.

15. *Dr Zdzislaw (Dick) Przygoda, consulting structural engineer.*

Graduated from the Technical University of Gdansk before the war. Took part as an officer in 1939 year campaign in Poland. Prisoner in German concentration camps. After the war, obtained his doctorate from University of Munich. Came to Canada and in a short time started his own consulting engineering firm. From 1968 to 1977 served on the Professional Interviewing Committee of the Association of Professional Engineers of Ontario (APEO) and for two years on the Consulting Practice Committee. Awarded Medal of Sons of Martha by the Association of Professional Engineers of Ontario. Among many projects designed by him, are schools,

urban plan of Haifa, Arctic construction. Published several scientific papers. He is an incredible worker in the field of engineering as well as in the Polish and Canadian society.

16. *Kazimierz Stankiewicz-Wisniewski, consulting engineer.*

Prisoner of Oswiecim and Buchenwald. Escaped from Buchenwald a few weeks before the end of the war. The first American whom he met on his road to freedom was General Patton. He was a witness at Nuremberg trial of war criminals. Graduated from Imperial College in London, England. Brilliant structural engineer. First skyscrapers in Toronto were designed by him. Partner of Dr Michluchin, as a consulting engineer.

17. *Stefan Szalwinski, structural engineer.*

Officer in the Home Army in Poland during the war. Took part in the Uprising of Warsaw. POW 1944-1945, then joined the Second Polish Corps in Italy. After completing his academic education in England, emigrated to Canada. Worked for the firm of Yolles Associates and Tobias Associates, Consulting Engineers in Toronto. Became the president of the Company. As structural engineer designed many government projects, academic and commercial buildings, hospitals in Canada and abroad. I met him when I was involved in the design of Queen Elizabeth Building at CNE, while with Page and Steele Architects and he was also involved with that project as the structure designer.

18. *Jan A. Zaremba, lawyer, electrical draftsman and designer, photographer.*

Jan Zaremba represents the most interesting case of adaptation. A pre-war lawyer, turned soldier, prisoner of war who after the war emigrated to Canada. Learned architectural drafting, employed by General Electric where he worked until his retirement. Later, as co-owner of "Heat Engineering" worked for a few more years. Most of the time photographer, proud of his achievements documented by many awards. A very remarkable man. Active in the Association and in the Polish community.

Among outstanding Polish engineers and architects, there are people highly decorated with military decorations and recipients of the Order of Canada and the Order of the Sons of Martha.

* * *

In conclusion, a few thoughts. We say that there are no indispensable people, but I often wonder what would happen if Polish engineers and architects had not come here. Would somebody else have designed the Chipmunk, Beaver and Arrow? And how about the Toronto skyscrapers or 22 Colleges of Applied Arts and Technology, the largest projects in the history of Canada? Poles were responsible for these projects.

Engineers and architects are the lucky dreamers, who can put their dreams into concrete forms. This is the heritage that we would like to leave for the younger generation, together with this advice: "Do not be afraid of difficulties. Every obstacle is just a new challenge to overcome."

EAST-WEST RELATIONS FROM THE PERSPECTIVE OF A POLISH SCIENTIST

by Roman Ciesielski

Prof. Roman Ciesielski, Ph.D., Prof. of Civil Engineering at the Technical University of Cracow, Council Member of the Polish Academy of Sciences (Polska Akademia Nauk – PAN), elected member of the Polish Senate. During the war, he was a soldier of the A.K. (underground Home Army) and was decorated for his bravery. He is an active member of "Solidarnosc." Vice-rector and Rector of the Technical University of Cracow, eventually dismissed from this position in 1982 by the communist regime. Internationally recognized authority in the field of theory of structures, author of nearly 400 publications, several of them in a book form. Member of numerous prestigious national and international committees. In Poland in 1982, he was elected to chair the very important Council for Science and University Education.



I recognize that Canada is a multilingual country with two official languages. Since this is a very special event, the Fiftieth Anniversary of the Association of Polish Engineers in Canada, I would like, with your permission, to say a few words in Polish, the mother language of the majority of the Society's members.

Bo jak powiedział Mikolaj Rej z Nagłowic:

".... A niechaj narodowie wzdy postronni znaja,

Ze Polacy nie gesi i swoj jezyk maja...."

Jest mi nadzwyczaj przyjemnie pozdrowic panstwo w imieniu wlasnym i Kraju, ktory w wielkim wysilku buduje zreby swego niezaleznego bytu.

Let's return now to the theme of my paper "East-West Relations from the Perspective of a Polish Scientist." The theme could be approached from many directions. I have chosen a subjective, personal approach reflecting my national, scientific and professional situation. East means first of all, Poland; West means West European countries, the European Common Market, and the countries of North America, i.e. United States and Canada, which are engaged in the problems of East Europe and Poland. To a great extent, these relations focus on technology and technical sciences as well as on economy, although political considerations have been and often are a dominating factor. Some sections of this address were written with the purpose and the occasion in mind, namely, for presentation at the forum of the Association of Polish Engineers in Canada from the position of a Polish engineer, a professor in technical sciences, and at present a member of the first free elected Senate of Poland in June 1989.

Some history and politics

Poland belongs to countries which, in the course of the history of Europe, have played an important role. In addition to its own economic and cultural significance, Poland must be remembered for its great influence on the countries east and north-east of Poland, including the introduction of the Christian, Roman-Catholic culture, and the defence of this culture throughout the centuries.

As an illustration, may I mention some events. In 1241 at Legnica, the Polish troops under Prince Henryk the Pious stopped the Tartars from invading Europe. At that time, Poland was the only political, Christian, and military power able to do it, and thus to protect West Europe from this barbarian invasion. In 1444, the Polish King Ladislaus lost his life in the battle at Warna (on the Black Sea) where he stood at the head of the Polish and Christian military forces and restrained the advances of the Turkish power. In 1683 during the great Vienna victory over the Ottoman forces, the Polish King Jan III Sobieski led Christian forces, which for the most part consisted of Polish troops including the famous hussars. No wonder that Poland became known as the bulwark of Christianity. It maintained this honourable name when, after 123 years of lost independence, in August 1920 in the battle on the River Vistula, the Polish forces under Jozef Pilsudski destroyed the Communist Red Army which was set to conquer Europe with the aim of imposing a communist regime. These Soviet activities, favoured by the Germans, were not opposed in a decisive manner by other West European

countries. The results of these activities had an effect on Poland's West, North and South frontiers which Poland had to accept after World War I.

In 1939, in a fight against Hitlerism and fascism, again Poland stood first, putting its independence on the balance of a struggle in which its neighbours - Nazi Germany and the U.S.S.R. - quickly came to a mutual understanding in the Ribbentrop-Molotov treaty, which would have erased Poland from the map of Europe. At that time, however, France and England, and later on the U.S.A., realized what a threat Nazi Germany was, and managed to overpower Germany in 1945.

In this war, which initially brought the Soviet Union a number of defeats, a powerful Soviet military force emerged. Its leaders, in agreement with the Marxist theory, did not give up the desire for domination of the whole world.

The agreement signed in Jalta, so disgraceful for Poland, subjected our country, against the will of the nation, to the bloody Soviet rule for many long years. President Franklin D. Roosevelt, ill and not acquainted with Eastern Europe, did not understand the situation. This was much better understood by Winston Churchill. However, he considered the Jalta agreement as a necessary political concession. Thus, the Stalin era which started in 1939 cost Poland the loss of life of many *millions of citizens and of huge eastern territories* with their unique historical heritage. Moreover, 1.8 million Poles were deported by the Soviet authorities to remote Russian regions, many of them imprisoned and exterminated. Three million Polish citizens, including more than one million Polish Jews, lost their lives as victims of Nazi repression. Another million were those who were killed in battles or did not survive the drastic living and health conditions. The total number of Poles who lost their lives as a consequence of World War II amounted to about 20% (or about six million) of the country's population. In *absolute figures* (not a percentage), only the Soviet Union and Yugoslavia possibly suffered higher or comparable losses. However, they were not subjected to such an intensity and brutality of exterminating measures of the enemy. It is also true that only Poland had two powerful enemies at the same time.

Under Soviet rule, Poland was cut off from the "western rotten capitalism." This brought numerous and significant consequences. Let us take the post-war economical restoration period. Poland was deprived of reparation by the Soviet Union which assumed the benefits in Poland's name. In compensation Poland got the Palace of Culture and Sciences in Warsaw! In comparison, due to the "Marshall Plan", Germany, which actually lost the war, was rebuilt within 10 years and became an economical and also a political power long before the Berlin Wall was knocked down and the two Germanies united.

These somewhat depressing facts represent an important part of the Polish situation. They must be kept in mind when discussing current East-West relations, when Poland, due to its own effort and against all odds, is able to take the reins of its fate in its own hands.

Contribution of Poland to world science as another factor in East-West relations

Has Poland's contribution to world culture and science been given its proper position among other countries and is it adequately recognized? I shall not deal here with the humanities and social science in which Polish contribution is well known and recognized, among others, by bestowing Nobel Prizes on Poles on various occasions. Instead, let us talk about science and engineering. It was Mikolaj Copernicus' discoveries which directed, against the strictly defended beliefs of those times, the whole astronomy and the then contemporary science onto new ways. Maria Sklodowska-Curie *was awarded* the Nobel Prize twice. Her achievements signified a transformation of modern chemistry and the beginning of a science concerned with radioactive elements. Two Polish physicists, Zygmunt Wroblewski and Karol Olszewski, are rarely mentioned, although the condensation of oxygen and nitrogen from air is their extraordinary achievement. Little is known as well about the great scholars in natural geographical and geological sciences such as B. Dybowski, J. Czerski, J. Czekanowski and others who built the basis of modern knowledge of such remote regions as Siberia.

The world of technical sciences is also not lacking prominent Polish names. Some of them found their place in the history of military engineering already in the Middle Ages. As an example, in 1410, Jan Besta from Zywiec with a team of highlanders, built a wooden bridge over the wide and deep river Wisla (Vistula) near Plock within 24 hours. This bridge permitted the Polish King Wladyslaw Jagiello and his army to cross the river and to force the surprised German Knights to accept a battle under unfavourable conditions. This famous victory at Grunwald decided Polish - German relations for two centuries.

Another example is General Tadeusz Kosciuszko. Not only a soldier and national Polish and American hero, he was also an outstanding *military engineer*, who in 1790, was offered *the first in Europe chair of military engineering at the Jagiellonian University in Cracow*.

Poles, who by the end of the 18th century and beginning of the 19th century were forced to leave their country, dispersed all over the world and were responsible for many leading, technically innovative projects in Europe and on other continents. Among them were men active in civil engineering such as Malinowski, Kluger, Folkierski, and Habich in South America.

Referring to Canada, one must mention the great engineer Kazimierz Gzowski (1813-1898) whose memory lives in the history of great engineering projects on this continent. Among internationally known Polish theoreticians was Feliks Jasinski who died very young at the age of 41. He is the author of the known stability formula applicable to plastic range bearing, listed in literature as the Tetmajer-Jasinski formula. Another prominent theoretician in the field of elasticity of materials is Maksymilian Tytus Huber, the author of the hypothesis of failure known in literature as the Huber-Mires-Heneky theory. Another example is the team of Polish engineers who built the majority of bridges on the big Russian rivers. The names that come to mind are: Ciszewski, Kierbedz, Jablonski. The excellent bridge builder Rafal Modrzejewski built numerous bridges in North America, including the Camden-Philadelphia bridge, one on the St. Lawrence River in Quebec and the Trans Bay Bridge in San Francisco. Most of these bridges constituted milestones in contemporary bridge building technology.

Polish engineers also built railway lines, water dams and roads. Five of the seven sectors of the trans-Siberian railroad Moscow-Wladywostok, seven thousand kilometres long, were supervised by Polish engineers, the majority of them deported earlier to Siberia.

In independent Poland after World War I, the technical universities enjoyed the highest scientific standards. The technical universities in Lwow and Warsaw and the Technical University of Mining and Metallurgy in Cracow were not only education centres, but also centres of scientific research, progress and engineering. In 1925, the Academy of Technical Sciences was created which grouped eminent Polish scientists in the field. The names of some Presidents of this Academy speak for themselves: Professors G. Narutowicz, M. Thullie, M.T. Huber, M.M. Matakiewicz, W. Wasutyński and famous member S. Bryla.

This outstanding tradition of Polish technical universities was continued immediately after the war in 1945, in spite of known difficulties with which the country had to cope. Following the general requirements and trends, a number of new technical universities, some of them highly specialized, have been established. At present there are fifteen of them in the country.

Dominance of politics in East-West relations

When at the end of the forties, two Blocks, the West and the Soviet Union Block were formed, anybody having contacts with the West was suspect. The Soviet Block firmly condemned the capitalistic countries of Europe and America and considered them ideologically, economically and militarily hostile. As a reaction, a wave of anticommunism swept the United States and every symptom of friendly attitude to any country of the Communist Block could evoke suspicion. At that time, Poles had to deny having any relatives in England, the U.S.A., or Canada, since it could bring an accusation of espionage and treason. All contacts with foreign countries were investigated by security organizations. Mail and telephone communications were thoroughly checked. For persons with western connections, there were barriers in obtaining work or advancement in the work place. Of course, people were aware that all this was not based on logic but was required by the political system in which fright and terror constituted the basic foundation of power.

I, myself, had an interesting experience. After the famous Polish October 1956, when the political authorities changed (Gomulka), a certain relaxation in the political climate followed. As a young research worker with rather bright prospects, I had a chance to get a foreign scholarship at the EMPA in Zurich. After overcoming many difficulties as a former A.K. (Home Army) soldier lacking party membership, and having passed all the required examinations including a German language test, I received permission to leave the country. But all in vain. The EMPA called off my scholarship. They then had a scholar from Yugoslavia (at that time, also a communist country) and could not risk having two communists at the same time, who could establish a so called "jaczekja" (a secret organization) and implant communism into Switzerland. They imagined that no one else but a communist could come from Poland! And it was just the reverse. And so for the first and the only time, I was called a communist and not given the chance to spread communist ideas in Switzerland. I went abroad to the West for the first time in 1972 for a scientific Conference on Tall Buildings in Lehigh, Pennsylvania. As a matter of fact, the organizers paid the expenses for my trip.

In spite of all the restrictions, Poles did visit the West. In the majority, these were people of "good opinion" with the Polish authorities. However, their loyalty to the regime often proved to be doubtful. Many of them decided not to return to their native country, applying for the so called "consular passport."

In order to further understand the present situation in Poland, one must note that in 1972-75, Western countries enthusiastically offered large credits to the communist rulers of Poland. Obviously, these sums of money were completely misused but the debt remains until present day. It is a real nightmare for Poland to cope with it. The accrued interest almost doubled the initially received loans. The servicing of the resulting debt of about \$50 billion consumes all the strenuous efforts of the weakened Polish economy. And yet the nation has no alternative but to pay for this Western "generosity."

At the same time, the technology in Poland became more and more outdated. With no economic competition, the state industries were not interested in any modernization. The absorptive U.S.S.R. market took the goods produced in Poland at very low prices (and in Polish Zloties) in exchange for raw material such as iron ore, petrol and gas. It was generally known that people sent abroad on business by the state were often also charged with the duty of collecting information, espionage and, of course, with disseminating omnipresent propaganda. In consequence, these functions were reserved only for the "politically" reliable and on a short notice available people, disregarding their qualifications.

Similarly, work in embassies or offices located in foreign countries was also treated as a reward or as places where people of "merit" to the regime could safely rest. Thus, a great harm resulted not only in the social but also in the economic domain. Fortunately, these painful and very damaging times are over, but the harmful results cannot be removed and corrected at once.

Adverse economic effects of the political situation

In the seventies the two Blocks, the European Common Market and the Communist Block stood in opposition. These two organizations had, of course, their own different criteria of activity and cooperation. For example, the technical standards, the Eurocode and the Comecom standards were different. The hardest economic problems as far as "socialistic" countries were concerned, were the financing of armament, the organization of communist activities in Third World countries - in Asia, Africa, South America and Cuba - and the huge expenses of the so called "maintenance of peace." Poland, the biggest country in this Block after the Soviet Union, paid the highest contribution amounting to about 20% of the total costs. Strange, that East Germany was free from these payments. Moreover, the manipulations with the so called "transfer ruble" calculated at 0.6 Rb = 1 \$US impoverished Poland enormously. Economic and political problems were utterly confused and there was no escape from the system. One must bear in mind that there existed several exchange rates for the dollar and hard currency, all of them being much lower than the "black market" exchange rate. This caused a paradoxical situation that a year's work of a Polish citizen at a meagre salary in a Western country, settled his financial problems for years in Poland. In this context the basic salary of a university professor was then \$50 to \$60 per month. At present it is about \$250. No wonder that people looked for these opportunities. On the other hand, western countries discouraged the employment of Poles as a competition to local workers.

Individual contacts with the West

This situation only spurred Poles to seek contacts with Western countries, in spite of all the difficulties. And indeed these contacts were more numerous than contacts of other countries of the so called Socialist Block. Moreover, in many cases, Poles managed to maintain these connections until the present times.

The communist authorities also did not succeed in getting universities under their control, especially the old ones with strong traditions such as the Jagiellonian University in Cracow, the Warsaw University, and the Technical University in Warsaw, even though the nominated rectors were often members of the Communist Party. Thus, the strenuous effort of the regime to impose political control and to indoctrinate the intellectuals of the country resulted in defeat. Therefore, it was a true surprise for me when in 1976 during my stay in England, at the University of Guilford, I met Polish emigrants and heard from them that all Polish professors must belong to the Party! It was hard to convince them that this was not true and that I was not and had never been a member of the Communist Party, and therefore I had difficulties in visiting foreign universities!

When mentioning this situation, one should also say a word about two waves of "exodus" from the Party. The first one took place in 1968 when quite a big group of Polish scientific workers, many of them of Jewish origin, left or were thrown out of the Communist Party. The majority of them left for abroad including the internationally known philosopher Leszek Kolakowski. The second wave occurred at the time of Solidarity in the years 1980-81 and 82 when horrible machinations of the ruling Communist Party became publicly known. As a result, Poland lost many thousands of highly specialised engineers and scientists which was a great loss for the country and the Polish nation. On the other hand, one would like to hope that their presence, primarily in Western countries, will facilitate the establishment of meaningful East-West relations.

Situation after the political-economic changes in 1989

As a result of a popular pressure, the Polish nation got rid of the Soviet controlled, communist regime in 1989. The new Prime Minister, Tadeusz Mazowiecki adopted the policy of a "thick line" which meant forgetting the past and starting the political-economic reconstruction without looking backwards to the misuses of power of the previous political party.

This approach, however, proved wrong since a large number of Party members, who often illegally amassed formidable fortunes, continued to lead a comfortable life disregarding the general misery of the country, and moreover, being protected by new democratic laws. It is no wonder that this policy caused a revolt of some political groups which originated from the Solidarity movement such as the "Centrum". One can say, that as the elections to the future Polish Parliament (Sejm and Senat) approach, resentment to the "thick line" policy escalates, which is only natural.

It would appear, however, that there is no simple way to avoid this situation since it is impossible to repair forty years of injustice, neglect and mismanagement, without opening painful wounds within the maltreated society.

As a result, the State faces claims lodged by people who really were, or only believe that they were, harmed by the regime. Among them are the combatants of World War II, the prisoners of Nazi concentration camps, the people deported to Germany for compulsory work, the great number of those arrested for no reason and deported to remote Russian regions in the years 1939 until June 1941 (about 1.8 million people), those persecuted in the post-war period (soldiers of the AK (Home Army)), the participants of anticommunist independence movements who were active until 1955, the members of various political groups persecuted during the Stalin period, during the years of protests in 1968 and 1970 and in the last decade, 1980-89. The most difficult problems to cope with are the present economic claims. People displaced from the eastern Polish territories given to the Soviet Union after World War II claim compensation for their once owned properties. These claims are lodged mostly, not by the original owners, but by their heirs, which complicates the matter enormously. Many persons and organizations were deprived of their property by the communist state. The decree on agrarian reform and nationalization of bigger enterprises is generally unquestionable, but almost all those affected want to get back either their property or a recompense for it. Solutions require vindication of the land, buildings and of the big farms occupied by the State. Finally, even properties that remained private such as dwellings, were badly managed by the State (the decree of a compulsory management without owners' consent or input). These are some of the problems of reprivatization. However, privatization of many state enterprises is foreseen, whatever the difficulties. It is extremely difficult to privatize obsolete, declining enterprises with an overgrown number of employees. Lack of qualified staff for creating a modern administration, low economic awareness, inefficient banks, and a fast growing number of bureaucrats aggravate these problems. Such are some of the problems we must struggle with.

Science, culture, and technology in new conditions

The current situation has an obvious effect on Polish culture, science and technology which in turn constitutes an important element in East-West relations. "Cultural" activities in Poland including literature, art, theatre, film, music, etc. are now quite free as far as ideology, direction, general philosophy and religion are concerned. The patronage and mentor role of the state has changed. A similar situation exists at the level of local territorial administration and budgets. Self-financing of art such as local theatres is difficult. Communities finding themselves in financial difficulties are not inclined to spend money on spectacles. Further, a general "simplification" of the culture's model by mass media led by television is taking place.

In the years 1982-89, science also suffered a serious crisis. This resulted not only from political interference, but also from severe budgetary restriction. The national budget limited expenditures on science which drastically affected research and development. An erroneous financial policy resulted in money being spent mostly on the so called "initiation projects" which meant introducing various products. This seems unreasonable since technological achievements should lead to self-financing of the manufacturing of successful products, and should not be supported and promoted by the State budget. Thus, a wrong policy removed from industry the need for self-reliance and competitiveness with the resulting degradation of R&D effort in general, including foreign contacts, particularly with the West. Lower salaries for scientific workers in research institutions and universities caused a systematic "brain drain." Many of the most talented young scientific workers left for foreign countries, particularly the United States and Canada. At present, efforts are made to introduce new regulations and laws, as well as to reorganize the research work being done at universities, the Polish Academy of Sciences and other research institutes. The State will supply only a part of the finances needed for this work.

The rest must be obtained from the so called "State Grants" or from the sale of research results. The financing of technological development is relegated to the departments concerned with the modernization and better quality of a large range of products. However, basic investigations in science, education, health, and environment protection, must be fully financed by the State. The budget for 1991 was elaborated in this direction. Unfortunately, at present it is being revised, not under the most favourable general economic conditions.

Required model of East-West relations in science

Poland expects healthy development of relations with other countries, particularly in the field of science, and counts on the goodwill of friendly, highly developed Western countries, including Canada. Will Poland be only a recipient? NO! By no means, no! Poland has many things to offer. These are: well educated people, good traditions in scientific work, and recognized achievements in various scientific and technological fields. There is no reason why a full partnership should not be possible. The first step should be the identification of possibilities and needs on a more general level. Then, a more direct and intimate cooperation between specific institutions, universities and possibly industries should follow, including the establishment of joint ventures. Some efforts along these lines are already in progress. I am very pleased to inform you that my main mission in Canada is to conduct, on behalf of the Polish Academy of Sciences, preliminary discussions on this subject with the Royal Society of Canada. In these discussions, one must constantly bear in mind that mutual interest is the basic premise of successful cooperation. This is how we are looking at this matter.

Conclusions

The theme of my address is very vast and complex. Instead of speculating on detailed questions and possibilities concerning East-West relations, I thought it would be more useful to convey to you the basic conditions and constraints that characterize the present situation in Poland. In the past, the Polish nation has displayed extraordinary resilience and zest, when the political situation permitted a peaceful coexistence and a constructive effort. We, in Poland, believe that such a period, still full of difficulties but also of exciting opportunities, is now approaching. The nation of nearly 40 million people is readying itself to again take its fate into its own hands. In spite of almost fifty years of wars, persecution and horrors, we did not lose a simple belief in the human race and in the obligation of a common effort towards a more harmonious and dignified future!

There are already solid signs that the Polish nation will soon overcome the understandable difficulties and will achieve normal living conditions. Stanislaw Staszic, one of our great men from the last century (1755-1826) said: "Bo upasc moze i narod wielki, zniszczec nie moze, jeno nikczemny," which means: "A great nation can fall, but only a mean one can perish."

I wish the Association of Polish Engineers in Canada, all the success with the traditional Polish words: *Szczesc Boze!*

Thank you for your attention.

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SCIENCE - ENGINEERING - DESIGN

by James M. Ham

Prof. James Milton Ham, Sc. D. (Massachusetts Inst. of Technology, 1952), Prof. of electrical Eng. and of Science, Technology and Public Policy, University of Toronto. President and President Emeritus since 1988, University of Toronto. Recipient of many very prestigious Honours and Awards, Officer of the Order of Canada. Numerous (over ten) Honorary doctorates from Canadian and foreign universities. Founding Fellow and current president of the Canadian Academy of Engineering. Inventor and author of many publications, some in a book form. Active on important, policy setting committees, mostly in the capacity of chairman, on education, science and research policy, health and safety problems and related matters. Throughout his career, particularly as an educator, he attaches a great importance to the role and mutual relationship between science and engineering as basic elements of creation.



As a complement to Stanley Orłowski's historical review of the place of the Polish Engineers Association in Canada, and Professor Ciesielski's examination of East-West relations, I have chosen to speak philosophically about the elements that I see as distinguishing the nature of engineering in our society. These elements link engineering to the quality of human existence everywhere on spaceship earth. In particular, I am interested in the distinction between science and engineering and in design as the essence of engineering. I will relate these considerations to circumstances in Canada.

Homo sapiens seek both to *contrive* and to *know*. I find it useful to associate the act of *contriving* with engineering and the act of seeking to *know* with science. Both in contriving and seeking to know, there is reasoning which has its quintessential expression in mathematics.

Beyond contriving, reasoning and knowing there is understanding, wisdom and compassion. The search for knowledge through science strives intentionally to be impersonal. The act of contriving through engineering can never be impersonal.

The record of what we contrive is a central thread of our history. There is the axe, the spinning whorl, the farm, the crop, the hut, the house, the skyscraper, the road, the bridge, the ship, the train, the airplane, the village, the town, the city, the wheel, the crank, the lever, the windmill, the waterwheel, the steam engine, the nuclear reactor, the factory, the company, the bank, the electric power system, the sewage system, the telephone, radio, television and satellite, the bronze, iron, concrete and steel, the plastics, the semiconductors, the computer, the software, the antibiotics, the guns, the missiles, the automobiles, the paper, the pencil, the violins, the cathedrals, theatres, schools, universities, academies, libraries and archives, such as we are gathered in. Engineering is the profession of those who contribute centrally to acts of contriving. The artifacts we contrive, we call our technology, which comprises both hardware and software. Leonardo da Vinci expressed the freedom of man and woman to contrive in these words:

"Where nature finishes producing its shapes, there man begins, with natural things and with the help of nature to create infinite varieties of shapes".

When we are born, we arrive in a world partly given and partly contrived. The oceans, the mountains, the plains, the rivers, the clouds, the stars, our parents are given, whether through the flux of time and chance since the Big Bang, or through the myth of Genesis. Our survival depends on both what is given and what is contrived. Concern for the environment is an expression of this interdependence. The contrived world is full of artifacts that are both tools and symbols, for in contriving, we seek not only economic well being, but also meaning and significance.

Contriving and hence engineering is always for a purpose. We do not seek to isolate the personal; we act to meet human desires, ambitions and needs. With meaning and significance we associate belief and culture. The word culture has two major meanings of which the second is deeply related to engineering.

Culture:

- 1 An abstract noun which describes the works and practices of intellectual and especially artistic activity. That is: culture as music, literature, painting, sculpture, theatre, film.
- 2 A noun connoting a whole way of life of a society; a social ecology within which its members interpret their experiences, shape their relationships with one another and with the environment, and find meaning in their existence.

I endorse the second meaning and consider it to include, but not be limited by, the first. The act of contriving, which is central to engineering, has always contained elements of art, craft, skill, dexterity, imagination, ingenuity, experience, judgement, interpretation and courage. The dichotomy between the first and second meanings of culture is reflected in the modern distinction between art, such as painting, and craft, such as weaving. Such a distinction was unknown to the Greeks, who understood all contriving to be a manifestation of a common capacity to express *tekne* or craftsmanship. Culture is inherently regional in its richness, so that a regional culture in a global economy poses interesting questions of survival. Is resurgent nationalism a reflection of this point?

Contriving, in its wide ranging relation to engineering, has as a central focus design. Design is a disciplined action entailing the exercise of skill, courage, imagination, ingenuity and judgement based on experience. The art and skill of engineering entails the mastery of materials, processes and operational principles.

An American architect, Charles Eames, said: "Design is a plan for arranging elements in such a way as to best accomplish a particular purpose." The arranging of elements is often accompanied by modelling and testing – physically, mathematically, computationally, rationally and artistically.

In designing, we create what has yet to come into existence, be it a pigsty or the Parthenon. The distinctiveness of the purpose, whose realization is sought in a design, rests in a situational context which involves the needs of people as conceived by clients, corporations, governments. It is inherent to the nature of design, that there is no single "solution" to the task. Students so often prefer problems with a solution!

Engineering is forever seeking to realize, in any artifact or system, particular sets of operational principles selected out of all the possibilities that our resources, skills, experience and knowledge render possible. Engineering too often, particularly in North America, is simply regarded as applied science. This view is a myth in the narrow sense. You will note that I have not yet mentioned my sense of the place of science in engineering. To reach this point, I need to discuss operational principles.

The notion of operational principles deserves much more examination as a distinctive aspect of design and engineering than it commonly receives. The most insightful examination of the centrality of operational principles to engineering that I have found, is in Michael Polanyi's book entitled "Personal Knowledge" (in Part II, The Logic Achievement).

Michael Polanyi was a distinguished chemist and philosopher whose son John, a professor at the University of Toronto, recently won the Nobel Prize in Chemistry. Polanyi notes that the three human faculties of contriving, observing and reasoning are associated with the three domains of engineering, natural sciences and mathematics. The following observations draw upon Polanyi's remarkably lucid exposition:

"Contrivances are classes of objects which embody a particular operational principle (or principles)..."

"A patent formulates the operational principles of a machine by specifying how its characteristic parts – its organs - fulfil their special function in combining to an overall operation which achieves the purpose of the machine."

The word "machine" as Polanyi uses it can be given wide meaning as device, process, structure, machine, system. Polanyi notes that "...the class of things defined by a common operational principle cannot be even approximately specified in terms of physics and chemistry" which, as pure sciences, pay no attention to operational principles embodied in objects (other than to use them as instruments in making observations).

Polanyi further notes that "...the operational principles of machines are ... *rules of rightness*... which account only for the successful working of machines; but leave their failures entirely unexplained.... A physical and chemical investigation cannot convey the understanding of a machine as expressed by its operational principles. In fact, it can say nothing at all about the way the machine works or ought to work." On the other hand, operational principles often lend themselves to formulation in mathematical terms. An example in mathematics is the topological rule that determines whether or not a given set of diagonal cross members will render rigid in a plane a configuration of members forming a rectangular array of contiguous squares.

Each of you is sitting on a chair, one hopes comfortably! But knowledge of physics and chemistry cannot identify a chair as such.

The question: "What purpose does a contrivance serve?", can only be answered by testing it practically. We understand a contrivance by understanding its operational principles, and hence by participating in its purposes. Engineering, through design, to realize operational principles for a purpose, is clearly a deeply human endeavour, profoundly different in its essence from science. A useful definition of an innovation is a novel or improved operational principle conceived and brought to practical realization on a timely basis. It is people who innovate. Let me cite an example which Professor Ciesielski and Mr Orlowski will understand far more deeply than I do as an electrical engineer.

In a recent issue of Scientific American (January, 1991), there is a fascinating article on *Building the Cathedral in Florence*. In this article, it is explained how, in the mid-fifteenth century, Filippo Brunelleschi designed and constructed for the cathedral of Santa Maria del Fiore, a unique double-walled dome capped by an orb and cross. The beautiful dome, is some 55 metres in diameter. The interlocked double-walled design enabled the dome to be self-supporting during erection, so that no internal scaffolding was required. To erect the dome, Brunelleschi invented and built, from first operational principles, a reversing hoist and a counter-balanced crane with three-dimensional motion.

This instance provides a superb example of imaginative and skilled use of operational principles supported by mathematical analysis and a practical mastery of available materials.

If engineering is not simply applied science, as it certainly is not, what then is the relation of science to engineering? Reflection on this relation is in my view important for the structure of engineering education and for public and corporate policy for research and development as related to the prosperity of industry and society in the global circumstances of our time. Before discussing science as viewed from engineering, let me note one further element of distinctiveness about engineering. It is the language we use.

We expect artifacts and systems created through engineering design to work when used and to be reliable, robust, safe, efficacious, economical. These words are socio-engineering words that link engineering to practical requirements. A chair should be both comfortable and properly supportive! But grace can also accompany utility as an element in engineering design as it does in the Roman aqueduct at Nîmes in France and the reinforced concrete bridges of the Swiss engineer Robert Maillart. Functional simplicity has its own elements of beauty particularly when the object is well adapted to its operating environment.

Now what about science? In the twentieth century, science has come to be an expression of our will to know the material and behavioural world. Science searches for what can be represented as being general, preferably universal, within a multitude of particular circumstances. All atoms and molecules are conceived to involve a relatively small number of more or less fundamental constituent entities governed by the law of quantum physics, which among other things accounts for classes of materials called insulators, conductors and semiconductors. On the macroscopic scale, Maxwells' equations govern the possible manifestations of electric and magnetic fields originating in electric charges and their motions. The laws of thermodynamics describe the possible states of the entropy and energy of systems. Under broad conditions, we believe that energy and momentum are conserved. The velocity of light is a constant and represents the upper boundary of velocity for anybody. Living things can be characterized by the sequence in their genetic structure of a small number of basic molecular substances. (As Polanyi notes, the administration of insulin is an operational principle for the treatment of the disease diabetes).

Clearly, the physical and life sciences establish the limits, within our current understanding, of what is materially possible. As such, the sciences establish bounds of potentiality for operational principles to be achieved in the design of artifacts and systems. It is essential to support basic research in the sciences, both for fundamental knowledge and for the insight such knowledge gives into the feasibility of operational principles. There is also a distinctive need to support engineering research, not least, because engineering is closely related to the creation of the wealth that enables the commitment of resources to scientific research.

The sciences, as Polanyi so clearly notes, leave operational principles, as such, unexplored. The formal equations of physics such as of mechanics and electromagnetism have classes of admissible boundary conditions, the explicit determination of which in the design of an artifact such as an antenna or a mechanism is a task for engineering insight. Indeed, the art of engineering design, viewed from the sciences, may be interpreted to consist in imposing specific boundary conditions in space and time upon the underlying potentialities of fundamental scientific theory. Such constrained boundary conditions constitute one aspect of the whole realm of constraints of material, shape, form, scale, process, and connection that are chosen in the act of engineering design to achieve intended operational principles. For example, miniaturization of the physical scale on which operational principles such as data storage can be realized with semiconductor materials, has had a radical effect on the use of electronic systems.

Engineers are peculiarly aware that practical configurations of materials and processes are so complex in detail that no formal scientific analysis, based on a microscopic approach, is feasible, even if relevant, which it rarely is. The whole realm of feasible operational principles, together with the art of realizing them, through choosing constraints in designs, constitutes a canon of evolving engineering understanding and innovation, which stands distinct from the sciences and is rooted in human ingenuity.

I have intentionally sharply drawn a basic distinction between engineering and science. What we in Canada call engineering science in our universities is an area where science and engineering interact in the traditions of the European technical universities. In engineering science, ramifications of the behaviour of materials, processes and devices that are of basic interest to engineering, are explored. Science, such as that of fluid mechanics, is applied to optimizing many aspects of the performance of individual devices, for example, turbine wheels. And physics and chemistry are used to elucidate the nature of defects that cause operational principles to fail. These kinds of studies constitute important facets of engineering research.

The tendency in North America to perceive engineering to be simply science applied, has led to overemphasis on scientific analysis as contrasted to design in undergraduate engineering education and has led to inadequate governmental policies related to research and development for the advancement of engineering capability in Canada. I shall conclude by exploring this point.

A gifted colleague of mine, Professor George Sinclair, developed an industry with a world-wide market, based on an innovation in operating principle. The operating principle is this. Is it possible to design a system based on a single antenna that can transmit and receive signals generated by several transmitters operating in different modes and frequencies? He developed a class of multi-couplers that do just that. They are, for example, key parts of cellular telephone systems.

Professor Sinclair has observed to me that innovation in products that meet needs so as to have markets come from people having a lively sense of potential operational principles and not from prior programs of research and development.

When a purpose and potentially feasible operational principles to realize it have been conceived, then a research and development program to study design constraints, including choice of materials and the development of key devices and configurations, is a natural part of the overall process of design and manufacture. His R&D program came after the operational concept of the multi-coupler had emerged out of years of engineering research on electromagnetic radiation.

Innovative operational principles often have the potential to enable a company to achieve world-scale in operations, if government policies are such as to give key structural support. While foreign-owned companies seeking to expand their scope of operations by entering Canada are often given such support as inducements, domestic firms of a smaller scale with an innovative base, are not so supported. A central problem in Canada is that government policies for R&D do not recognize the distinctive character of engineering research that is properly driven by innovative operational principles.

Northern Telecom is one of a relatively few large world-class Canadian-based corporations. It conducts a massive program of R&D which is driven by innovations in operational principles in products, systems and manufacturing.

Some years ago, engineers in the corporation conceived of building complete communications systems in which the signals representing data would be digitized. The management, led by engineers, had the courage to commit the corporation to develop such systems. This generic operational principle of digitization is transforming the potential for the design of communications systems. While digitization occurs in some aspects of the nervous system, it is not a principle obvious from the observation of nature.

In the open global economy, existing technologies are readily transmitted by people and acquired through licenses. What creates comparative advantage for products, services and systems is the insight and courage to find and adopt innovative operational principles, the timely and economical realization of which require the close integration of design, development, manufacture and research. But a large fraction of Canadian enterprises do not have the technical capacity to do R&D in a formal sense. Indeed, many enterprises have no professional engineers on their staffs.

We, in Canada, therefore have an immense need to stimulate widely incremental innovations in industry in all sectors and in enterprises of all scales.

The operational principles of organizations of all types – companies, hospitals, governments, banks etc. should be studied. The informing principle for such a national initiative should, in my view, be a re-emphasis on the talent of people as the source of innovation. Given human ingenuity, there appears to be endless opportunities for incremental operational improvements in existing systems. To enliven this effort, we need new forms of partnerships, networks and consortia of talent involving industry, government and universities supported by government policies that recognize the importance of innovative operational principles as core elements of engineering research which distinguish it from research in science.

It has been my privilege to be midwife to the formation of a unique entity called "the Canadian Institute for Advanced Research", which forms networks across Canada of our most gifted university-based researchers in such fields as intelligent systems. The networks involve both scientists and engineers. Realizing that university research in this field, when isolated from an industrial capacity, is nationally fruitless, the Institute has stimulated the formation of a consortium of some 37 corporations which represent both potential suppliers and users of intelligent systems.

A further distinctive feature of the national scene is now a large network of university-based engineering research, which is funded by governments, but managed by the industrial consortium. In this unique combination of efforts, the continuing weak link is the inability of regional governments to collaborate in giving clear recognition and strong support to engineering innovation.

Engineering and the process of design, which is its essence, is an art that discovers and invokes operational principles fundamental to the quality of living. It is an art related to survival and to celebration. At least in Canada, we need to stimulate this engineering art as never before. Perhaps it is also so in Poland.

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CLOSING REMARKS AND THANKING THE SPEAKERS

by Teodor J. Blachut

Dr Teodor J. Blachut, D.h.c., F.R.S.C., Foreign Fellow of the Polish Academy of Sciences (P.A.N.).

Monsieur le Président, Excellence l'Ambassadeur de Pologne, Mesdames et Messieurs:

Je suis sûr, que j'exprime vos sentiments quand je dis, que nous avons entendu trois discours remarquables, chacun en son genre, traitant un sujet distinct.

A conventional symposium usually concentrates on one theme. Today's occasion is, however, rather special and requires a different approach. An anniversary can be commemorated looking backwards, and also looking forward. I think that it is part of being an engineer to always look forward, while remembering the past and drawing conclusions from past experience.

From the introductory address by Mr Orłowski we had occasion to learn about Polish engineers during the last war and about their remarkable contributions towards the Canadian war effort. Mr Orłowski, a soldier in the Polish Armed Forces during the war, a prominent architect with the Ontario Ministry of Education, immediate past president of the Polish-Canadian Congress, and present Chairman of the World Polonia Council, is an example of a Polish engineer, always alert and active, not only professionally, but also in any situation which requires a steady and reliable hand. Sir, many thanks for your meaningful introductory address.

Extraordinary political events in rapid succession in all parts of the world keep us all gasping. However, probably none of these events will have more significant consequences than those occurring in Eastern and Central Europe. These are very vital countries, strong in spite of being very old civilizations with more than one thousand years of state tradition including occasionally very adverse and difficult times. One of them, Poland, only two weeks ago celebrated the bicentennial of its constitution which was the first in Europe based on democratic principles. I believe that, against this general background, the Royal Society of Canada decided to initiate discussions with the Polish Academy of Sciences for the purpose of establishing formal cooperation in scientific and cultural fields.

It is our good fortune that Professor Ciesielski was invited as the first official representative of Polska Akademia Nauk (Polish Academy of Sciences) and that he kindly consented, prepared and gave the address that we have just heard. Considering that this was in addition to a large number of scientific lectures scheduled at universities and research institutes in Montreal, Ottawa, Toronto and London, and in a language foreign to him, his presentation today was a major commitment.

A great scientist of international reputation, organizer and educator, vibrant patriot from the time of the underground in Germany-occupied Poland and later, during the time of Solidarnosc, as the result of the recent first free elections after the war, he became member of the Polish Senate, elected with about 82% of votes in the Krakow district. With your permission I would like to say a few words in my mother language to my countrymen present in the hall. Dla mnie profesor Ciesielski to przede wszystkim wielki Polak, który przez całe



swe pracowite zycie walczył i pracowal dla Polski i w dalszym ciagu to robi nie tracac kontekstu ogolnoludzkiego. Widze w nim jednego z tych Senatorow Rzeczypospolitej Polskiej, ktorymi kiedys bedzie sie szczycila nasza historia.

Professor Ciesielski thank you most warmly for your presence and for your contribution.

I think that we should also express our gratitude to the Royal Society of Canada for their kind cooperation and permission to "borrow" Professor Ciesielski for today's occasion.

The profound remarks by Professor Ham were, in my opinion, the most fitting completion of today's ceremony. In the complex fabric of modern society, scientists and engineers occupy a very responsible and critical place. If "competitiveness" should be the parol of the day, as our political leaders wish, then the considerations by Professor Ham constitute the very foundation and the "conditio sine qua non" of achieving some success in this regard. Knowledge alone is not sufficient to create! It must be complemented by imagination and also by the sensitivity for natural beauty and harmony, and for the often agonizing misery of our existence. Those were the driving forces of the great Copernicus. Thus for me, the remarks by Professor Ham have extremely broad meaning and applications touching on many aspects of engineering and scientific activities, and most of all, on the education and formation of present and future generations of engineers and scientists. Professor Ham has been deeply concerned with these problems throughout his busy and creative life as an engineer, educator and scholar. I met him very briefly some thirty years ago. When I approached him recently after so many years with an invitation to be a guest speaker at today's occasion, he responded with his typical, gracious and friendly readiness to help. Professor Ham, all of us owe you our profound thanks.

When thanking our distinguished speakers for their efforts and contributions, we should not forget the chairman of this meeting, Mr Szczepan Morawski, who put a lot of effort into assuring an orderly organization and conduct of the symposium. He carried out this responsibility splendidly and we offer him our appreciation.

* * *

BANQUET

BANQUET ADDRESS

by **The Honorable Senator Stanley Haidasz, M.D.**

Madame President, honoured Guests, Ladies and Gentlemen:

I am most grateful for your invitation to today's celebration of the Fiftieth Anniversary of the Association of Polish Engineers in Canada.

May I take this opportunity, first of all, to congratulate your executive and organizing committees, as well as your members and participating guests, on your fifty fruitful years of achievements in Canadian society, which we are celebrating here tonight. I am deeply touched and honoured to become an Honorary member of your association. Although I am a medical doctor involved in the art of bedside healing, scientific technology is swiftly bringing your profession and mine into ever closer cooperation. At the close of the 20th century, modern medicine relies heavily on technology and engineering. It is thanks to technology that a contemporary doctor can perform procedures which could not have been even considered not long ago. Thus, it could be said that I have joined you as one of your own.

Jestesmy wiec sobie blizsi bardziej niz moznaby sadzic. W sumie powiedziec mozna iz przyjeliscie do swego grona "Swojego" - jednego z was. This is how I feel in your friendly company in the warm atmosphere created by mutual understanding and common goals.

It is a privilege to be speaking at this Golden Jubilee of great significance not only to you, but also to Canada as a whole.



The Polish contributions to engineering in Canada date back to the 18th century. One of the first Polish engineers who landed on Canadian soil was Charles Blaskowitz who became in 1759 the deputy surveyor of His Majesty's Surveyor General of Lands.

The 19th century saw several prominent Polish engineers working in Canada. The most outstanding among them was Sir Casimir Gzowski who constructed the first railways in Ontario and founded in 1880 the first engineering society in Canada, the Canadian Association of Civil Engineers, and served as its president. He



Polish Ambassador A. Bartoszek, Prof. R. Ciesielski, Mrs B. Tymowski APEC President and other guests.

was also active in the political and military life of the country. Sir Casimir Gzowski probably knew his compatriot, Alexander Edward Kierzkowski, who served as a civil engineer with the department of Public Works, was a member of the legislature of Lower Canada (now Quebec), and in 1867 was elected as the first Polish Canadian member of the House of Commons for the constituency of St. Hyacinth. Also in this period, Edward Sylvester Rottermund worked as a chemist with the Quebec Geological Department and became well known for his critical publications on geological explorations in Canada.

The period of the Second World War marked the renewal of the engineering activity in Canada by Poles. Following the occupation of Poland by Germany and Soviet

Russia in September 1939, many Polish engineers reached Vichy France, Spain and Portugal. Under the agreement of 1941 signed by the Hon. C.D. Howe, Minister of Munitions and Supply in the Liberal government of Mackenzie King, with the Polish Government-in-Exile in London, England, several hundred Polish engineers and technicians, scattered throughout Europe, were admitted to Canada to work in the aviation and other war industries. There was a need for an organization which would provide liaison between Canadian authorities, industry and Polish engineers. To this end, in 1941 the Association of Polish Engineers in Canada was formed and soon grew to several hundred members.

The capital resources of the association in the words of Mr Laubitz, one of the founders and secretary-general of the association, amounted to zero dollars and a million good intentions.

More significantly, the Polish engineers and technicians brought with them a wealth of technical knowledge and practical experience which they were able to put to good use. Canada should be grateful to them for their extensive contributions to the war effort.

Over a period of 50 years the achievements of the members of your association represent an impressive list. Several made important contributions to the development of the aircraft industry - Janusz Zurakowski, who fought in the Battle of Britain became the legendary chief test pilot of the Avro Arrow Supersonic Fighter Aircraft; Eryk Kosko and W. Czerwinski were designers with the Avro Company; W.J. Jakimiuk was the internationally-known aircraft designer responsible for the famous de Havilland Beaver aircraft. In 1943 the faculty of Aeronautical Engineering was established at L'École Polytechnique in Montreal by five Polish engineers and academics: Eryk Kosko, Gustaw Mokrzycki, Jozef Pawlikowski, Boleslaw Szczeniowski, and Andrzej Grzedzielski. Juliusz Stachiewicz was the chairman of the Mechanical Engineering department at McGill University. At the National Research Council several Polish scientist and engineers pioneered new developments. Teodor Blachut established a group in photogrammetry and developed a new method of automatic mapping. Juliusz Lukasiewicz founded a High Speed Aerodynamic Laboratory which was later directed by K. Orlik-Ruckemann. Jerzy Drzewiecki, the designer of the well known RWD family of Polish aircraft, worked on the design of radar for the Dew Line. Andrzej Garlicki developed simulations for the study of railway car motion.

Polish architects, Jan Barbacki, Jan Nowak, and Stanislaw Orłowski were responsible for unique buildings from B.C. to Ontario. Jordan Rozwadowski was responsible for the construction of the C.N. Tower in Toronto, and more recently Terminal III at the Pearson International Airport. George Głinski and Jozef Norton-Spychalski pioneered an electronics industry in Canada.

I am delighted to note that many of you have occupied responsible positions in the federal and provincial public services, and in the faculties of universities. I should also point out that you have participated in social, cultural and public life of your new country.

Throughout the existence of the Association, Polish engineers have played an important role in assisting new colleagues during their first years in Canada, in spite of their own duties and preoccupations. Moreover, you have been conscious of your Polish roots and your responsibilities to your fatherland.

Your initiative in helping Poland to build a free market economy and in reconstructing Polish industry should be an example for other professional groups, as a response to the current needs of Poland. Perhaps the most urgent one concerns the construction of new housing of which there is a catastrophic shortage. Even more important and urgent is the need to clean up the air and water in Poland where pollution is among the highest in Europe. The lives of one-third of the Polish population are threatened by the poisoned environment.

Your Association is cooperating with Poland not only through your individual members but also through CESO (Canadian Executive Service Organization). Many of your members occupy important posts in Canadian industry, business and science. However, we do not have engineers involved in politics, and in the shaping of the country's future - a task which is particularly important today when we are witnessing a constitutional crisis in Canada.

The threat to national unity should be an incentive for you to participate in the current debate and to bring to it your experience of the past 50 years in the successful development of industry, business and education. Polish Senator, Professor Roman Ciesielski, who is with us today is a leading example of how an engineer and a scientist can combine public service with professional activity to the benefit of the country. I trust that in future your members will be counted among politicians who work for the benefit of Canada, Polonia and Poland.

Dear colleagues, may I offer you my best personal wishes for you and your families, for good health, prosperity and continued success in your professional activities.

To życzenia na jutro; na dzisiaj zas życze Wam aby to Wasze mile i przyjacielskie spotkanie zespolilo Was jeszcze bardziej. Abyscie odnalezli w nim sile i inspiracje do wielu dalszych wspanialych dzialan dla dobra Kanady, Polonii Kanadyjskiej i Najjasniejszej Rzeczypospolitej.



Prof. J. Ham in the company of Mrs W. Samolewicz, Mrs F. Blachut, Mrs M. Remisz, Dr T. Blachut and others.

TEXTS OF HONORARY MEMBERSHIP PLAQUES



Sen. Haidasz with Wojciech Remisz and Barbara Tymowski

- 1 The Association of Polish Engineers in Canada bestows on the occasion of its Fiftieth Anniversary an Honorary membership on The Honourable Stanley Haidasz P.C., M.D. in recognition of his continuing contribution to the Association as a politician and valued adviser.

Ottawa, 8 May, 1991

- 2 The Association of Polish Engineers in Canada bestows on the occasion of its Fiftieth Anniversary an Honorary membership on Jesse Flis, Esq., M.P. in recognition of his continuing support of the Association's endeavours as its distinguished friend and adviser.

Ottawa, 18 May, 1991



Jesse Flis, M.P., recipient of the honorary membership



Mr W. Remisz, Mrs B. Tymowski, Mrs M. Swiderska, Dr K. Swiderska-Prust and Dr A. Pawlowicz, Master of Ceremonies.

- 3 The Association of Polish Engineers in Canada bestows on the occasion of its Fiftieth Anniversary a posthumous Honorary membership on Antoni A. Swiderski, Dipl.-Ing., P.Eng. in recognition of his dedication and significant contribution to the Association as an organizer, active member and executive officer.

Toni's dedication to the Association from the time of its foundation to his untimely death will be a source of inspiration to all of us.

Ottawa, 18 May, 1991

EXHIBIT

"These Magnificent Poles and their Flying Machines"

"Ces Polonais magnifiques et leurs machines volantes"

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THE GOVERNOR GENERAL
LE GOUVERNEUR GÉNÉRAL

RIDEAU HALL
OTTAWA

It is a great honour to congratulate the members of the Association of Polish Engineers in Canada as you mark the fiftieth anniversary of your founding. I would particularly like to extend my warmest greetings to the delegates who have travelled to Ottawa from other regions of Canada to attend the reception and symposium on Parliament Hill.

Your Polish ancestors journeyed to Canada in search of a new life and new challenges. They, like people of many other cultural groups, have flourished and prospered within the Canadian borders, choosing not to cast aside their heritage but to embrace and foster it. Since its inception, the Association of Polish Engineers in Canada has provided vital support to Polish immigrants who wish to pursue their chosen vocation in their adopted nation as well as to maintain their cultural traditions and history.

The contributions of Polish-Canadians to this country have been as diverse as they are significant. From agriculture to politics to engineering, the achievements of Polish-Canadians are truly admirable. As you celebrate your anniversary, I would ask that you take a moment to reflect not only upon your organization's accomplishments, but also upon the courage and diligence of all Polish-Canadians.

As Governor General of Canada, I offer to all those attending this important event my very best wishes as you stand on the threshold of many more years of continuing success and service.

Ramon J. Hnatyshyn



THE GOVERNOR GENERAL
LE GOUVERNEUR GÉNÉRAL

RIDEAU HALL
OTTAWA

C'est pour moi un grand honneur de féliciter les membres de l'Association des ingénieurs polonais au Canada, qui célèbre cette année le cinquantième anniversaire de sa fondation.

Vos ancêtres polonais sont venus au Canada en quête d'une nouvelle vie et de nouveaux défis. A l'instar des membres de nombreux autres groupes culturels, ils y ont trouvé le bonheur et la prospérité. Loin de rejeter leur héritage, ils se sont efforcés de le protéger et d'en favoriser l'essor. Depuis sa fondation, l'Association des ingénieurs polonais au Canada fournit un appui essentiel aux immigrants polonais qui désirent continuer à exercer leur profession dans leur pays d'adoption et conserver leurs traditions culturelles et le souvenir de leur histoire.

Les Canadiens d'origine polonaise ont apporté à notre pays des contributions aussi précieuses que variées. Ils se sont distingués par leurs admirables réalisations dans de nombreux domaines, depuis l'agriculture jusqu'à la politique, en passant par le génie. Pendant que vous soulignerez l'anniversaire de votre association, je vous invite à réfléchir un moment non seulement à ses réalisations, mais également au courage et à la vaillance de tous les Canadiens d'origine polonaise.

En ma qualité de Gouverneur général du Canada, je souhaite à tous ceux qui sont réunis à l'occasion de cet important anniversaire d'oeuvrer encore avec succès pendant de très nombreuses années au sein de cette association.

Ramon J. Hnatyshyn



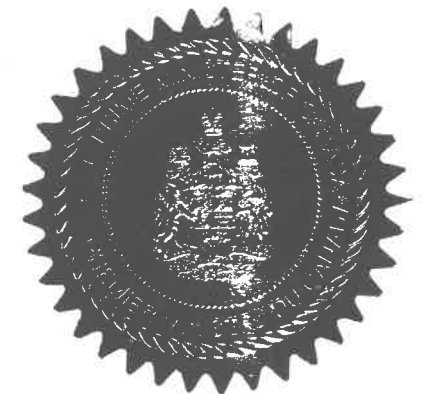
PRIME MINISTER · PREMIER MINISTRE

I am pleased to extend my warmest greetings and sincere best wishes to the Association of Polish Engineers as you mark 50 years of achievement.

Throughout the years, the Association has helped many immigrant engineers to function effectively in their profession in a new land and in a new language. The Association has also assisted countless newcomers in establishing themselves in their new homeland. Canada is a nation strengthened by the culture and traditions of many ethnocultural groups, each of which has played a significant role in fostering our identity and well-being as a nation. The Polish-Canadian community can take pride in its achievements and its many successes.

I would like to congratulate the Association of Polish Engineers for its professional, social and cultural contributions to Canadian society. May you have every success in meeting the challenges ahead.

OTTAWA
1991





CANADA

MESSAGE FROM THE LEADER OF THE OPPOSITION

MESSAGE DU CHEF DE L'OPPOSITION

I am pleased to send greetings to the members of the Association of Polish Engineers in Canada, (APEC), on the celebration of your 50th anniversary.

For fifty years, your Association has been fundamental to the successful integration of engineers of Polish origin in Canada - skilled engineers who have made lasting contributions to the research and development of our aviation and military industries. APEC's abilities to initiate activities that keep its membership informed and united within the mainstream of Canadian society is highly commendable. I am sure that the efforts of your membership involved in the rebuilding of Poland will ensure continued good will between Canada and Poland for decades to come.

My very best wishes for a most informative weekend of discussions, exhibits and workshops, and for continued prosperity in years ahead.

Jean Chrétien

O T T A W A

May 18-19, 1991



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA
KIA 0A6

MESSAGE FROM THE LEADER
NEW DEMOCRATIC PARTY

MESSAGE DU CHEF
NOUVEAU PARTI DEMOCRATIQUE

On behalf of the New Democratic Party, I would like to offer my personal congratulations to all Members of the Association of Polish Engineers in Canada as you gather to celebrate a half century of accomplishments.

Your contribution to both our economy and the quality of Canadian life are something you should all be very proud of.

Audrey McLaughlin

Audrey McLaughlin, MP

Ottawa, 1991.05.16

Pani Barbara Tymowski
Przewodnicząca Zarządu Głównego
Stowarzyszenia Techników
Polskich w Kanadzie

Pani Maria F. Zielińska
Przewodnicząca Komitetu Organizacyjnego
Obchodów Jubileuszowych
Stowarzyszenia Techników Polskich
w Kanadzie

Szanowne Pani,

Mam zaszczyt przekazać na ręce Szanownych Pań serdeczne życzenia i gratulacje z okazji 50-tej rocznicy powstania Stowarzyszenia Techników Polskich w Kanadzie.

Jubileusz Stowarzyszenia skłania rzecz jasna do chwili refleksji i zastanowienia się nad dorobkiem organizacji i indywidualnymi osiągnięciami jej członków.

Z olbrzymią satysfakcją stwierdzam, iż są one znaczące i mogą uchodzić za przedmiot uzasadnionej dumy społeczności polskiej w Kanadzie. Powstanie STP w najtrudniejszych chwilach jakie przyszło przyzywać Polsce i narodowi polskiemu świadczy dobitnie o tym jak patriotyczne motywacje mobilizują do działań i integrują naszych rodaków. Szczególna aktywność Stowarzyszenia w czasie wojny i w pierwszych latach powojennych stworzyła podstawę do rozszerzenia działalności. Istotnym elementem była patriotyczna postawa jej członków, która dominowała przez cały okres działalności Stowarzyszenia, czy to w formie umacniania pozycji inżynierów i techników pochodzenia polskiego w Kanadzie, czy też poprzez indywidualne kontakty i pomoc naukowcom i placówkom badawczym w kraju.

Stowarzyszenie Techników Polskich im. Kazimierza Gzowskiego stało się dla wielu Kanadyjczyków synonimem talentu, rzetelności i efektywnej pracy Polaków, przyczyniając się do wzrostu prestiżu Polonii Kanadyjskiej.

Pragnę życzyć wszystkim członkom Stowarzyszenia Techników Polskich aby nadchodzące lata zaowocowały dalszymi sukcesami zawodowymi oraz jeszcze intensywniejszymi kontaktami między Polską a Kanadą dla dobra obu narodów.

z wyrazami szacunku,

Ambasador Rzeczypospolitej Polskiej
w Kanadzie

A. Bartoszek
Alejzy Bartoszek



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

May 1991

It gives me great pleasure to express congratulations to the Association of Polish Engineers in Canada on this, your Fiftieth Anniversary. This anniversary is a poignant reminder of the commitment of the Association to the professional accreditation of Polish engineers in Canada and to continuing achievements toward social, economic and cultural activities in Canada.

I am sure that Canadians of all backgrounds join with those of Polish descent in extending best wishes on your Golden Jubilee.

Jesse Flis

Jesse Flis, M.P.
Parkdale - High Park





Canadian
Council of
Professional
Engineers

Conseil
Canadien des
Ingénieurs

Office
of the
President

Cabinet du
président

Suite 401, 116 Albert,
Ottawa, Ontario, K1P 5G3
Tel.: 613 232-2474
Cable: CANPROFENG
Fax: 613 230-5759

May 9, 1991

Marie Zielinska
601-330 Queen Elizabeth Driveway
Ottawa, Ontario
K1S 3M9

Dear Mme Zielinska:

I am writing on behalf of the Canadian Council of Professional Engineers and its twelve provincial and territorial constituent associations to extend our heartiest congratulations to the Association of Polish Engineers in Canada on its 50th Anniversary.

The contribution of your members towards Canada's growth continues to be of great service.

Again, congratulations and continued success.

Yours sincerely,

William H. Kerr, P.Eng.
President

WHK/ab



Association of Professional Engineers of Ontario

from the Office of the President

May 15th, 1991

Ms. B. Tymowski, P.Eng.,
National President,
The Association of Polish Engineers
in Canada,
c/o 330 Queen Elizabeth Driveway,
Suite 603,
Ottawa, Ontario. K1S 3M9

Dear Ms. Tymowski:

On behalf of the almost 60,000 members of the Association of Professional Engineers of Ontario, may I congratulate your Association upon reaching its 50th year.

Polish engineers have made an exceptional contribution to the quality of Canadian life. APEO is proud to acknowledge that contribution and to wish you every success as your Association moves into its second half-century.

Yours very truly,

Barry Hitchcock, P.Eng.
President

BH:ac



McMASTER UNIVERSITY

President and Vice-Chancellor

May 15, 1991

Mrs. Marie F. Zielinska
330 Driveway AP601
Ottawa, Ontario
K1S 3M9

Dear Mrs. Zielinska:

I was pleased to receive an invitation to attend the 50th Anniversary Celebrations of the Association of Polish Engineers in Canada on May 18, 1991 in Ottawa. Unfortunately, a previous commitment will prevent me from joining with you on this most happy occasion.

I would like to extend my hearty congratulations to the Association of which I am proud to be an Honorary Patron.

My new role as President and Vice-Chancellor of McMaster University has brought me into contact with the Polish community in another way. The University has extensive links with universities in Poland including the Universities of Warsaw, Wrocław, Poznan and Jagiellonian. Faculty and students alike are participating in exchange programmes in the fields of science, engineering, medicine, social sciences and the humanities. We are learning from each other!

Poland's leading role in the collapse of communism in Eastern Europe serves as an inspiration to all of us who cherish democracy and freedom. The important role of Polish emigres in keeping Polish traditions alive and in contributing to the multicultural mosaic in Canada cannot be underestimated. We are proud to be associated with a people who proclaim, "Głos wolny wolność ubezpieczający"!

Yours sincerely,

Geraldine A. Kenney-Wallace

1280 Main Street West, Gilmour Hall, Room 238, Hamilton, Ontario, L8S 4L8
FAX: (416) 522-3391; Telephone: (416) 525-9140, Ext. 4340



THE INSTITUTION OF POLISH ENGINEERS

IN GREAT BRITAIN.
ESTABLISHED AS ASSOCIATION OF POLISH ENGINEERS IN GREAT BRITAIN 1940
INCORPORATED 25TH JULY 1948

STOWARZYSZENIE TECHNIKÓW POLSKICH W WIELKIEJ BRYTANII

TEL.

238-246 KING STREET

LONDON W6 0RF

London dnia 22 kwietnia 1991

REF. NO

Stowarzyszenie Techników Polskich
w Kanadzie
P.O.Box 3325, Ottawa, Ontario K1P 6H8
Kanada.

Drodzy Koledzy,

Z okazji Złotego Jubileuszu STP w Kanadzie prosimy przyjąć nasze najlepsze życzenia dalszego rozwoju i pracy tak dla dobra Stowarzyszenia w Kanadzie, jak i dla Kraju, gdzie się otwarły ogromne możliwości i potrzeby pomocy w jego odbudowie.

O 50-leciu istnienia STP w Kanadzie zamieścimy przysłany artykuł w naszym wydawnictwie "Technika i Nauka", jak też wykorzystamy inne nadesłane nam materiały.

Łączymy koleżeńskie pozdrowienia

Za Zarząd STP w Wielkiej Brytanii

W. Grywin-Grzywiński-Sekretarz

Adam Ostrowski-Prezes



STOWARZYSZENIE INŻYNIERÓW I TECHNIKÓW POLSKICH WE FRANCJI
ASSOCIATION DES INGÉNIEURS ET TECHNICIENS POLONAI EN FRANCE
groupant des Polonais résidant en France et des Français d'origine polonaise
(Fondée en 1917 - Autorisation préfectorale n° 7950 131446)

20, rue Légendre 75017 PARIS

Paryż, dn. 12 kwietnia 1991

Stowarzyszenie Techników Polskich
w Kanadzie
P.O. BOX 3325
OTTAWA, ONTARIO K1P 6H8

Drodzy Koledzy i Kolezanki

Z przyjemnością otrzymaliśmy list, artykuł oraz afisze, związane z 50-cioleciem istnienia STP w Kanadzie.

Dziękujemy za propozycję przyjęcia naszego delegata na te utoczys-
tości. Zamieściliśmy tę wiadomość w naszym miesięczniku, Flash'u Infor-
macyjnym, którego załączamy egzemplarz. Widnieje w nim również skład
obecnego Zarządu, wybranego na Walnym Zebraniu z marca tego roku.

Artykuł zamieścimy w naszym Biuletynie, lecz wyjdzie on dopiero
w czerwcu, gdyż na razie jest to kwartalnik. Jednakże możemy go udostęp-
nić w każdej chwili zainteresowanej osobie. Biuletym prześlemy Kolegom
natychmiast po jego wydaniu.

Afisze umieściliśmy w naszym lokalu oraz w Domu Polskich Komba-
tantów i w Polskim Towarzystwie Historyczno-Literackim/Bibliotece
Polskiej. Te dwie instytucje są szczególnie uczęszczane przez Polaków,
a także i Francuzów.

Pragniemy poinformować Kolegów o przewidzianych obchodach 75-cio-
lecia istnienia naszego Stowarzyszenia, które będą miały miejsce w 1992
roku. Cieszylibyśmy się bardzo, gdyby delegat STP-Kanada zechciał
zaszczycić nasze uroczystości swoją obecnością. Na razie Komitet
Organizacyjny 75-ciolecia przygotowuje program, o którym nie omiesz-
kamy zawiadomić Kolegów w odpowiednim czasie.

Na razie życzymy owocnej pracy.

Z koleżeńskim pozdrowieniem

PREZES

L. SOBKOVIK

P.S. Przesyłamy w załączeniu
kalendarzyk SITPF

PREZES
Lucjan SOBKOVIK
tel: 60 46 39 28

SKARBNIK
Jerzy LIPOVICZ
tel: 60 15 45 64

SEKRETARZ GENERALNY
Helena KOLANOWSKA
tel: 46 28 38 12

POLISH TECHNICAL & PROFESSIONAL ASSOCIATION
STOWARZYSZENIE TECHNIKÓW POLSKICH

BOX 169/B, GPO MELBOURNE
VICTORIA 3001, AUSTRALIA

18 Kwietnia 1991

Pani Maria Zielińska
Przewodnicząca
Komitet Organizacyjny Obchodów 50-lecia Istnienia
Stowarzyszenia Techników Polskich w Kanadzie
PO Box 3325
OTTAWA, Ontario K1P 6H8

Droga Kolezanko!

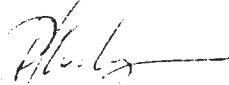
Dziękujemy bardzo za list i plakaty związane z 50-rocznicą STP w
Kanadzie.

Składamy serdeczne gratulacje z okazji tak doniosłej rocznicy, życząc
dalszych sukcesów w działalności.

Informacje o rocznicy i działalności STP w Kanadzie zamieścimy w naszym
następnym biuletynie, którego kopię oczywiście dostarczymy jak tylko będzie
gotowy.

Dziękujemy za zaproszenie na uroczystości 50-lecia, niestety odległość
geograficzna nie pozwala nam na wydelegowanie przedstawiciela na tę
specjalną okazję. Tym niemniej, gdyby ktoś z naszych członków, wśród których
mamy wielu prominentnych działaczy społecznych, przebywał w tym czasie w
Kanadzie z przyjemnością skorzysta z zaproszenia.

Z koleżeńskim pozdrowieniem


Piotr Słodowy
Sekretarz

Pani Maria Zielinska
Przewodnicząca
Komitetu Organizacyjnego Sympozjum
Stowarzyszenia Techników Polskich
w Kanadzie

Ottawa 18.05.91r.

Z okazji Złotego Jubileuszu Stowarzyszenia
Techników Polskich w Kanadzie, zarząd Szkoły Polskiej
im. Wiktora Podolskiego w Ottawie składam najserdeczniejsze
gratulacje wszystkim członkom Stowarzyszenia, życząc
owocnych obrad oraz dalszych lat pełnych sukcesów
w życiu zawodowym i osobistym. 100 lat!

Za zarząd
K. Anna Biukowska
dyr. szkoły Polskiej w Ottawie

PREZYDJUM OBCHODU JUBILEUSZOWEGO
STOWARZYSZENIA TECHNIKÓW POLSKICH
W KANADZIE
OTTAWA, ONT.

NIE MOŻEMY WZIĄŚĆ UDZIAŁU OSOBIŚCIE W OBCHODZIE JUBILEUSZOWYM
50-LECIA ZAŁOŻENIA STOWARZYSZENIA TECHNIKÓW POLSKICH W KANADZIE,
WIĘC TĄ DROGĄ SKŁADAMY SERDECZNE GRATULACJE I ŻYCZYMY STOWARZY-
SZENIU DALSZEGO KONTYNUOWANIA SWEJ DZIAŁALNOŚCI.
ZGROMADZONYM KOLEŻANKOM, KOLEGOM I MIŁYM GOŚCIOM, ŻYCZYMY PRZY-
JEMNYCH CHWIL SPĘDZONYCH RAZEM.
POZOSTAJEMY Z KOLEŻENSKIMI POZDROWIENIAMI,

Jasna + Kazimierz Milejowie
JANINA I KAZIMIERZ MILEJOWIE

VICTORIA, B.C., DNIA 18-go MAJA, 1991-go ROKU.

From the Association of Hungarian Engineers

ASSOCIATION OF POLISH ENGINEERS IN CANADA
C/O MRS MARIA ZIELINSKI
501 - 330 THE DRIVE WAY
OTTAWA ON
K1S 3M9

ON THE 50TH ANNIVERSARY OF YOUR ASSOCIATION ACCEPT MY BEST WISHES
FOR A SECOND HALF A CENTURY. YOURS TRULY
JOSEPH J. HAMURS, P.ENG

CONTRIBUTORS

1. Secretary of State - Multiculturalism and Citizenship \$ 9,700.00
2. City of Ottawa \$1,500.00
3. Canadian Polish Millennium Fund \$ 350.00
4. Firms:
 - ABB System \$ 500.00
 - Regent Development \$ 500.00
 - Lacompte Engineering Ltd. \$ 100.00
 - Louis Bray Construction \$ 100.00
 - McCormick Rankin \$ 100.00
 - J.L. Richards & Associates \$ 100.00
 - Morrison Hershfield \$ 100.00
 - Sutter Keller Inc. \$ 100.00
 - C.C. Parker Consultants Ltd. \$ 50.00
 - The Proctor & Redfern Group \$ 50.00
 - A.J. Robinson & Associates Ltd. \$ 25.00
 - Corel Systems Corp. donated a graphics software program on behalf of Dr Cowpland.
5. Association of Polish Engineers in Canada
 - National Executive \$ 1,000.00
 - Ottawa Branch \$ 600.00
 - Montreal Branch \$ 1,000.00
 - Toronto Branch \$ 1,000.00
6. Individual members (Ottawa Branch)
 - Dr Andrzej Garlicki \$ 100.00
 - Dr Edward Morofsky \$ 100.00
 - Jan and Maria Zielinski \$ 100.00
 - Czeslaw Piasta \$ 80.00
 - Stanislaw Bieniada \$ 50.00
 - Szczepan Morawski \$ 40.00
 - Norbert Paprocki \$ 40.00
 - Jozef Rudnicki \$ 40.00
 - Kazimierz Stys \$ 40.00
 - Jerzy Samolewicz \$ 35.00
 - Wladyslaw Korczynski \$ 30.00
 - Antoni Swiderski \$ 30.00
 - Franciszek Ramik \$ 30.00
 - Witold Rybczynski \$ 30.00
 - Ludwik Cyfracki \$ 25.00
 - Roman Gapski \$ 25.00
 - Antoni Miszkciel \$ 25.00
 - Stanislaw Zaborowski \$ 25.00
 - Tadeusz Cienski \$ 20.00
 - Bohdan Gawronski \$ 20.00
 - Marcin Gorzkowski \$ 20.00
 - Wojciech Prosinski \$ 20.00
 - Jacek and Grazyna Taracha \$ 20.00
 - Marek Zaremba \$ 20.00
 - Jan Gadowski \$ 10.00
 - Dr Teodor J. Blachut assumed personally expenses of about \$ 370.00 connected with the organization and the execution of thr symposium.
7. Photographs
 - Mrs Anna Lubicz-Luba: lower photograph on page 34.
 - Michal Kepka: remaining photographs.

The Association's Organizing Committee wishes to express thanks to all Contributors for their donations.
Particular thanks go to "Multiculturalism and Citizenship Canada / Multiculturalisme et citoyennete Canada" for their generous assistance in carrying out this event.

HISTORICAL DOCUMENTATION

Below are the names of the first 28 members, the names of election dates of the Presidents, the first Honorary members and the letter dated May 9, 1941 which invited potential members to join the planned Association of Polish Engineers and Technicians (a short summary in English is attached).

FOUNDING MEMBERS

- | | |
|-----------------------------|--------------------------|
| 1. Ascik, Antoni | 15. Ksieski, Kazimierz |
| 2. Brzozowski, Witold | 16. Kurman, Mieczyslaw |
| 3. Cyma, Zygmunt | 17. Lepszy, Boleslaw |
| 4. Czerwinski, Wacław | 18. Maliszewski, Tadeusz |
| 5. De Michelis, Bronislaw | 19. Meier, Jerzy |
| 6. Filip, Tadeusz | 20. Nycz, Stanislaw |
| 7. Herget, Ryszard | 21. Przasnyski, Boleslaw |
| 8. Jakimiuk, Wsiewolod | 22. Rodwin, Stefan |
| 9. Jarmicki, Zygmunt | 23. Stepniewski, Wieslaw |
| 10. Jasinski, Tadeusz | 24. Suchorab, Zygmunt |
| 11. Karczewski, Zbigniew | 25. Szwarz, Aleksander |
| 12. Korsak, Kazimierz | 26. Tworek, Zygmunt |
| 13. Korwin-Gosiewski, Jerzy | 27. Weinreb, Marcelli |
| 14. Krzyczkowski, Stanislaw | 28. Zubko, Jan |

ELECTED PRESIDENTS OF THE ASSOCIATION

NAME	TENURE			
Korwin-Gosiewski, Jerzy	15	Jun.	1941	- 04 Sept. 1941
Kurman, Mieczyslaw	04	Sept.	1941	- 31 May 1942
Korwin-Gosiewski, Jerzy	31	May	1942	- 28 Feb. 1943
Nowakowski, Antoni	28	Feb.	1943	- 16 Apr. 1944
Rosciszewski, Antoni	16	Apr.	1944	- 18 Feb. 1945
Korwin-Gosiewski, Jerzy	18	Feb.	1945	- 20 Jan. 1946
Grzedzielski, Aleksander	20	Jan.	1946	- 23 Feb. 1947
Pawlikowski, Jozef	23	Feb.	1947	- 22 Feb. 1948
Pawlikowski, Jozef	22	Feb.	1948	- 27 Feb. 1949
Pawlikowski, Jozef	27	Feb.	1949	- 27 Mar. 1950
Pawlikowski, Jozef	27	Mar.	1950	- 27 May 1951
Pawlikowski, Jozef	27	May	1951	- 08 June 1952
Pawlikowski, Jozef	08	June	1952	- 17 May 1953
Martynowicz, Antoni	17	May	1953	- 23 May 1954
Marcinkowski, Wladyslaw	23	May	1954	- 05 May 1955
Martynowicz, Antoni	05	May	1955	- 21 June 1956
Nyke, Jerzy	21	June	1956	- 01 June 1957
Mercik, Adam	01	June	1957	- 31 May 1958
Kruzynski, Mieczyslaw	31	May	1958	- 30 May 1959
Kruzynski, Mieczyslaw	30	May	1959	- 21 May 1960
Sliwinski, Jerzy	21	May	1960	- 20 May 1961
Marcinkowski, Wladyslaw	20	May	1961	- 19 May 1962
Marcinkowski, Wladyslaw	19	May	1962	- 19 May 1963
Dziembowski, Scibor	19	May	1963	- 17 May 1964
Dziembowski, Scibor	17	May	1964	- 25 May 1965
Chelminski, Leszek	25	May	1965	- 21 May 1966
Chelminski, Leszek	21	May	1966	- 12 Nov. 1967
Orlowski, Stanislaw	12	Nov.	1967	- 25 May 1968
Orlowski, Stanislaw	25	May	1968	- 31 May 1969
Orlowski, Stanislaw	31	May	1969	- 30 May 1970

NAME	TENURE						
Skonieczny, Leszek	31	May	1970	-	16	Oct.	1971
Przygoda, Zdzislaw	16	Oct.	1971	-	20	Oct.	1973
Strok, Wojciech	20	Oct.	1973	-	20	Oct.	1974
Morawski, Szczepan	20	Oct.	1974	-	18	Apr.	1976
Strok, Wojciech	18	Apr.	1976	-	15	Apr.	1978
Musiol, Michal	15	Apr.	1978	-	08	Oct.	1980
Musiol, Michal	08	Oct.	1980	-	23	Oct.	1982
Szalwinski, Stefan	23	Oct.	1982	-	27	Oct.	1984
Slubicki, Jerzy	27	Oct.	1984	-	23	Oct.	1986
Zaremba, Maciej	25	Oct.	1986	-	15	Oct.	1988
Tymowska, Barbara	15	Oct.	1988	-	20	Oct.	1990
Tymowska, Barbara	20	Oct.	1990	-			

HONORARY MEMBERS

NAME	OFFICE	DATE OF NOMINATION
1. Podoski, Wiktor	Honorary Consul General of Poland in Ottawa	15 May 1941
2. Thompson, Leslie R.	Special Liaison Officer, Department of Munition and Supply, Ottawa	28 Feb. 1943
3. Lea, H.W.	Director, Wartime Bureau of Technical Personnel, Ottawa	28 Feb. 1943
4. Hon. Clarence D. Howe	Minister of Munition and Supply, Ottawa	15 April 1944
5. Wright, L. Austin	Secretary General of the Engineering Institute of Canada, Montreal	April 1944
6. Young, Clarence R.	Dean of Faculty of Applied Science and Engineering at University of Toronto	15 April 1944
7. Hon. Humphrey Mitchell	Labour Minister, Ottawa	18 Feb. 1945
8. Herget, Ryszard	Secretary General of APEC and Officer at Wartime Bureau of Technical Personnel	8 April 1952
9. Piasecki, Frank N.	President of Piasecki Aircraft Corporation, Philadelphia, U.S.A	21 May 1960
10. Pawlikowski, Jozef	President of the Association of Polish Engineers in Canada	21 May 1966
11. Hon. C.M. Drury	Minister of Industry, Ottawa	21 May 1966
12. Rosciszewski, Antoni	President of the Association of Polish Engineers in Canada	21 May 1968
13. Jaworski, Zygmunt	President of the Canadian Polish Congress in Canada	31 May 1969
14. Bournival, Pierre L.	Président d'Ordre des Ingénieurs du Québec	24 Oct. 1981
15. Southam, Gordon H.	Ambassador of Canada in Poland in the years 1960-61, later Director of the National Arts Centre	24 Oct. 1981
16. Ungar, Irena	Judge of the Canadian Citizenship Court	24 Oct. 1981
17. Hon. Stanley Haidasz	Senator, First Minister of Multiculturalism	19 May 1991
18. Flis, Jesse	Member House of Commons	19 May 1991
19. Swiderski, Antoni	Secretary Treasurer and President of the Association of Polish Engineers in Canada - Ottawa Branch	19 May 1991

THE FIRST LETTER OF THE INITIATOR OF THE ASSOCIATION

Apel organizacyjny grupy inicjatorów, datowany 09-05-1941r.

Ottawa, dnia 9 maja 1941
J. Korwin Gosiewski
329 Waverley Street

Szanowny Kolego

Wobec tego że na terenie Kanady, w chwili obecnej, znajduje się 23 kolegów inżynierów, zaś nowe partie, czy to z Anglii, czy też z Portugalii są w drodze, niżej podpisani występują z inicjatywą zorganizowania Stowarzyszenia Inżynierów i Techników Polskich.

Zgodnie z protokołem podpisanym w Londynie przez niektórych kolegów w tamtejszym Stowarzyszeniu, proponujemy utworzenie Koła związanego ze Stowarzyszeniem Techników Polskich w Wielkiej Brytanii, jako jednostki autonomicznej.

Ze względu na to, iż Stowarzyszenie musi być zarejestrowane u władz kanadyjskich, po naradzie w tutejszym Konsulacie Generalnym R.P. proponujemy nazwę Stowarzyszenia jak następuje: Association of Polish Engineers in Canada, associated with Polish Engineers in Great Britain.

Stowarzyszenie nasze pozostawac będzie w ścisłym kontakcie nie tylko ze Stowarzyszeniem w Londynie, ale również ze Stowarzyszeniem w Nowym Yorku.

Utworzenie naszej Organizacji na terenie Kanady jest konieczne z wielu innych względów, z których najważniejsze są:

1. Reprezentacja ogółu techników polskich wobec władz kanadyjskich i placówek polskich.
2. Współpraca z Konsulatem Generalnym przy uzyskiwaniu wiz wjazdowych i wyszukiwaniu pracy dla przyjeżdżających kolegów.
3. Podejmowanie kroków, celem ratowania zagrożonych kolegów w Portugalii i Francji.
4. Współpraca w akcji pomocy kolegom z Konsulatem Generalnym R.P. oraz ze Stowarzyszeniem w Nowym Yorku.
5. Weryfikacja nowo-przywajających kolegów, jeszcze nie weryfikowanych przez pokrewne Stowarzyszenia.
6. Opiniowanie wobec władz kanadyjskich i placówek polskich.

Ponieważ stowarzyszenie powinno, naszym zdaniem, powstać jak najszybciej ze względu na cały szereg pilnych spraw (zagrożeni w Portugalii), przeto proponujemy następujący sposób realizacji:

1. Posiłkowanie się statutem Stowarzyszenia w Anglii, do czasu uchwalenia nowego statutu, dostosowanego do warunków miejscowych.
2. Jako siedzibę Stowarzyszenia proponujemy Ottawę, ze względu na centralne jej położenie oraz na obecność tutaj władz centralnych kanadyjskich i Konsulatu Generalnego R.P.
3. Utworzenie prowizorycznego Zarządu, składającego się z 3 kolegów, zamieszkałych na terenie Ottawy oraz 2 delegatów na Toronto i Montreal, a mianowicie:
 - kol.inz. Jerzego Korwin Gosiewskiego
 - " " Mieczysława Kurmana
 - " " Jerzego Meiera
 - " " Cymy, jako delegata na Toronto
 - " " Rodwina, jako delegata na Montreal.
4. Aby Stowarzyszenie mogło funkcjonować należycie, proponujemy zaangażowanie stałego, płatnego sekretarza, który by załatwiał sprawy bieżące, w ścisłym porozumieniu z Zarządem oraz Konsulatem Generalnym.

- 5 Mamy podstawy do twierdzenia iż Konsulat Generalny przyszedlby z pomoca materialna Stowarzyszeniu.
- 6 Proponujemy, aby koledzy pracujacy, ktorzy zgadzaja sie naprzystapienie do stowarzyszenia, oplacali skladke. Wysokosc skladki zostalaby ustalona na pierwszym walnym zgromadzeniu. Dla umozliwienia zorganizowania stowarzyszenia prosimy o podpisanie zalaczonej deklaracji i przekazanie \$5 (piec dolarow), pod adresem: kol. Mieczyslaw Kurman, 141 Carling Ave., Ottawa.
- 7 Prowizoryczny Zarzad funkcjonowalby do pierwszego walnego zgromadzenia, zwolanego na jedna z najblizszych niedziel do Ottawy, jako najbardziej centralnie polozonego miasta.

Proszac Sz. Kolege o odwrotna odpowiedz, piszemy sie z kolezenskim pozdrowieniem.

*J. Korwin Gosiewski
Mieczyslaw Kurman
Jerzy Meier*

ENGLISH SUMMARY

Messrs. J. Korwin-Gosiewski, M. Kurman and J. Meier informed their colleagues in the letter dated 9 May 1941, that there were already 23 Polish engineers in Canada and that many more were expected from Portugal and England. Therefore, there was an urgent need to organize an Association of Polish Engineers and to register it with Canadian authorities. The aims and functions of the Association would be to verify diplomas, to represent the interests of Polish engineers, to extend a helping hand to those in need and to assist those coming to Canada from Portugal or France.

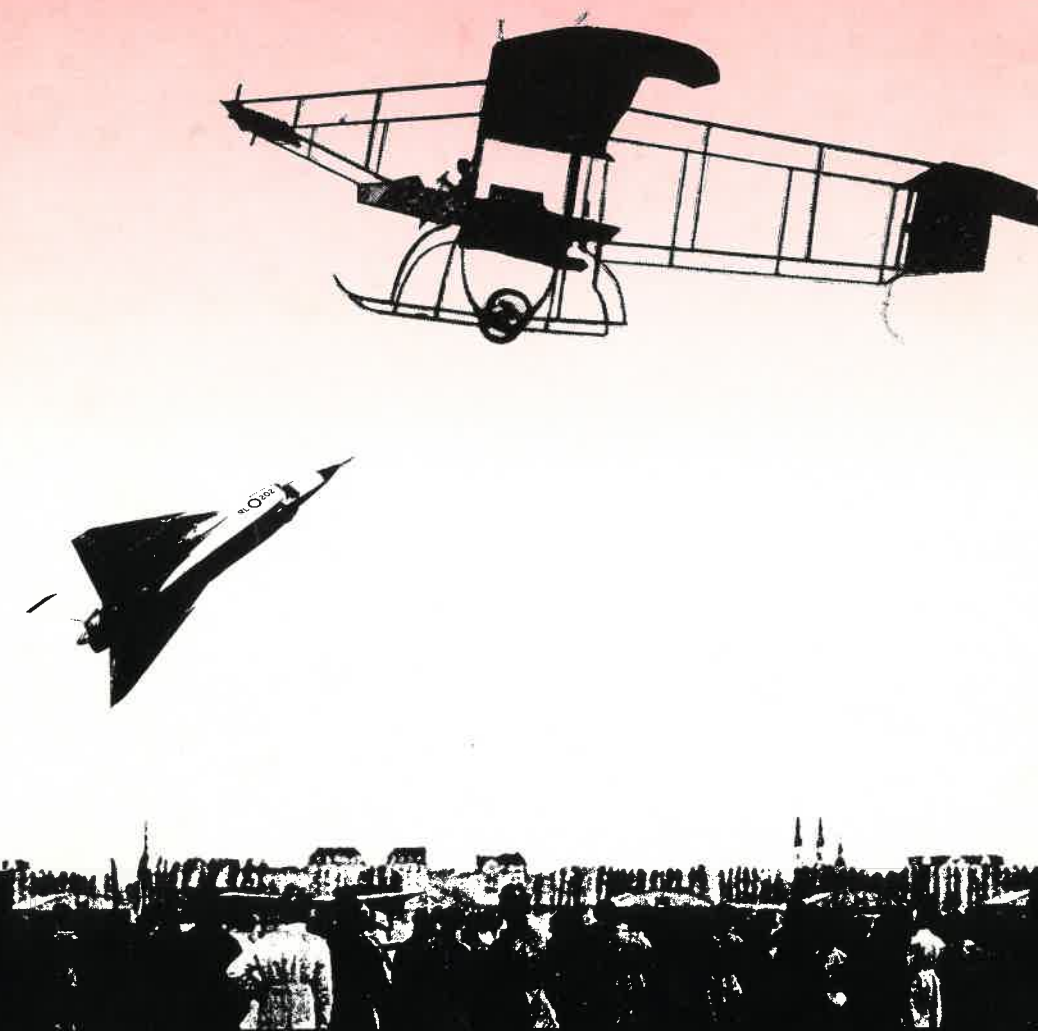
It was proposed that the Association use the bylaws which were then in use by the Polish Engineering Association of England, and to organize a provisional Board of Directors with a paid secretary. The Board was to be located in Ottawa, Ontario.

Messrs. Gosiewski, Kurman and Meier asked all employed Polish engineers to send a donation of \$5.00 to cover the initial expenses of the new organization.

The provisional Board of Directors would act until the time of the first general meeting which was to be called soon. A new Board of Directors would be then elected and membership dues would be established at the general meeting. The membership declaration was enclosed and a speedy reply was requested.

*These
Magnificent Poles
And Their Flying Machines*

*Ces Polonais Magnifiques
Et Leurs Machines
Volantes*



1941 - 1991

**ANNIVERSARY 50 ANNIVERSAIRE
Association Of Polish Engineers
in Canada
Association Des Ingénieurs Polonais
au Canada**