STATEMENTS AND SPEECHES

INFORMATION DIVISION

DEPARTMENT OF EXTERNAL AFFAIRS

OTTAWA - CANADA

No. 57/36. THE CHALLENGE OF SOVIET TECHNOLOGY

An address by Prime Minister John G. Diefenbaker at McGill University Convocation, October 7, 1957.

The honour conferred upon those associated with me today and upon me is one that is deeply appreciated by us. all.

McGill University, for so many years by its contribution to learning having made Canadians in every province its debtor, makes the honour all the greater and more significant.

The bonds between Saskatchewan, my Alma Mater, and McGill, have been close and fruitful. Many of our graduates have come here to do post-graduate work, and among those who have come from the staff have been President James Thomson and the late Dr. Ira Allan McKay.

Indeed, the exchange of students and professors among the universities has resulted in Canadian universities becoming essential instrumentalities in the promotion of Canadian unity.

On occasions such as this it is natural to look back on the past. How vast have been the material changes since the founding of McGill is revealed in "Its Story" published in 1921:

"In the days of James McGill, Montreal was a small town of from twelve to fifteen thousand inhabitants ... One-third of the houses were wooden huts ... In 1813, the year of James McGill's death, only nine vessels entered Montreal from the sea, and their total capacity was but 1,589 tons ... Slavery was not unknown, and a sale advertisement towards the end of the century included in the articles to be sold 'A stout, healthy negro man about 28 years of age - an excellent cook, and very fit for working on a farm'. A mail for England was dispatched about once a month. It went by way of New York and took from three to four weeks to reach that city".

My graduation in 1915 just witnessed the beginning of the First World War after several generations of world peace. The British Empire was unchallenged in world prestige and power. Communism was but a philosophy. Freedom under democracy was believed to have been established for all time. Would anyone in my year have dare to prophecy that conflicts, both active and passive, would have continued for the next 42 years?

Graduates, you enter a world described by Adlai Stevenson in words that do not exaggerate:

"The First and Second Planetary Wars have helped to make this half-century the most barbaric interlude of the Christian era, branded with the restoration of slavery and torture, by the destruction of whole cities and the extermination of tens of millions of our fellow-men, far more indeed than in the past 1000 years."

Science by discovery and research has made it possible for mankind to live as never before, or to die. Since the end of the Second World War scientific changes have taken place with kaleidescopic regularity, and have their latest manifestation and the beginnings of a new world in the launching of the "little moon". These graduation ceremonies take place at a time when everywhere in the world men are scanning the skies at the sunrise and the coming of the dusk to catch a glimpse of the first man-made moon circling the earth; or are twisting the dials of their radio sets to hear its sound.

The unrealities of space fiction have now become reality and it is not beyond the imagination that having succeeded in launching this earth satellite at the rate of 18,000 miles per hour the time may not be far distant when the "escape velocity" of 25,000 miles per hour will be attained, at which speed the chains of gravity which hold man to the earth will be broken.

The launching of an artificial earth satellite by the Soviets presents a challenge to you who are graduating today, and to the Free World. It is a particular challenge to the universities. For this achievement was won not by a lone scientist pouring over his books or working with a few associates in a laboratory - as your Lord Rutherford did when he made his great discoveries at this University. It is the result of the work of a vast combination of scientific institutes and factories, carrying out the ideas of an army of the most highly trained scientists, engineers and technicians.

It does the Free World no disservice to acknowledge this triumph of technology and pay tribute where it is due. The scientists of the Free World have won many other firsts. In this case the Russian scientists have won one race in the field of peaceful competition. We must gird ourselves for the future and not shrink from fair competition in scientific research.

The U.S.S.R. has mobilized science for the state and its purposes with the terrible objective of ultimate domination of all mankind. In the economic field it is engaged in an industrial revolution which aspires in six more years to equal the industrial production of the United States. Education is subordinated to the will of the state, and to that end the universities of the U.S.S.R. are directing their course to a maximum and mass production of graduates in engineering and applied science. We are told that the numbers graduated in the U.S.S.R. this year in these fields will exceed those in all the universities of the Free World.

Not only are the Soviets turning out the scientists but technicians as well who are so important and who must have played a large part in the launching of the artificial moon. According to an American authority who has made a close study of Russian education, there are 2000 "techikums" in the Soviet Union scientific vocational training colleges where two and a half and four-year courses are given to 2,500,000 students.

Can free men not achieve as much? What has been achieved by the U.S.S.R. has been brought about by a frightful subordination of scientific study to state purposes which only a totalitarian state would undertake. The Free World must not copy the Russian methods but must realize that what is taking place is a challenge to the Free World which dare not fall behind in the race for technological supremacy.

While the universities of the Western World should not make materialism their guiding principle, they must plan to make provision for the encouragement of a material increase in the numbers of undergraduates who, having the ability, will enter engineering and applied science courses. Survival demands planning to that end without delay.

I mentioned earlier that the achievement of the space satellite is a challenge to universities. It is far more than that. In the Soviet Union all the resources of the state, both human and material, are used by the state for the purpose of the state. The sky is the limit for expenditure on such objectives which the Kremlin determines on as of primary importance regardless of the effect on the living standards of the people. While the Free World dare not adopt these principles I believe that the leaders of the free nations must co-operate in making available to scientists larger financial resources so that scientists of the Free World will not be fettered by improvident considerations of false economy when weighed on the scales of survival.

An increase in the number of graduates in science and engineering should not be attained by the sacrifice in any way of the social studies which contribute to a full, meaningful, and responsible life.

I am of those who believe that freedom can survive in the future as it has in the past only when free men, while not ignoring the demands of science and technology, maintain undiminished their faith in ethical and spiritual values.

Moreover, if freedom's survival is to depend on the production of as great a number of graduate scientists as does the U.S.S.R., then freedom's future would be foreboding in its implications, if not hopeless.

The Soviet Union will exploit the achievement of the first satellite for propaganda purposes as establishing the superiority of Communism over the forces of freedom. They will ignore the contribution of scientists of all other nations from Newton and Kepler to Rutherford, Goddard and Oberth.

The Free World will get nowhere by resorting to fear nor will it meet the challenge by a spirit of apathy based on defeatism. The leaders of the Free World cannot and would not coerce its people. They can, and they must, inspire them to a new vision of citizenship.

Freemen, to remain free, must practice good citizenship. Those of little faith contend that individual effort means little in the world conflict for the minds and the souls of men.

We, who are older, have taken that which came to us from the past. We have done our best with our trust and not always well. You will want either to live in the world that we have made, or you will want to make your vision, your courage, even sometimes your rashness, bring about changes that you feel are necessary.

I am aware of course of this University's latest and most successful venture into the field of political comment in that marvellous extravaganza, "My Fur Lady". As a Canadian production it has proved there exists a lively interest - (some politicians might call it an irreverent interest), in the politicians who conduct the nation's business.

There is a tendency sometimes to refer to the practice of politics which is the science of government in terms that range from contumely to condescension.

I believe that a thorough grounding in the basic processes and procedure of politics is necessary in the development of a well-informed Canadian personality. It is necessary "To Think Canadian", (to use the words of one of the fine songs in the famed musicale), and, may I add, to take part in the public affairs of the constituency in which you live, to work for as well as to think of things Canadian.

I appeal for a wider devotion to public service and for the raising of standards by personal participation. Universities constitute a training ground for public service. Almost one-half of the Hembers of Parliament are university graduates. It has been estimated that there are some 10,000 in the civil service, more than 300 in the External Affairs Department.

Freedom cannot be preserved nationally unless young men and women are prepared to give a greater degree of public service than ever before. Leadership is necessary. Only recently a Canadian university leader has become Secretary of State for External Affairs.

Public life today offers boundless opportunities for service, for it is in this field that the concepts of social studies and the advances of science are translated into actuality for the benefit of the people.

Opportunities for service in public life have increased in proportion to the needs of the age in which we live. My hope is that young men and women with a passion for, and devotion to, the public welfare will in large measure make themselves available to the building of that future which Arnold Toynbee has summarized as a field in which men and women "will not accept the inevitability of the present but will as adventurers help to form it".

I look to that day when one or more Canadian university will give consideration to the establishment of a Chair of Politics (and while there are many political science courses there is none of the type that I have in mind), which will provide postgraduate courses in practical politics to men and women who desire to enter Parliament or the Legislatures, or the Civil Service.

In conclusion, may I say that I envy your entry into the affairs of the world now. I should like to be in your place. This may not be the most comfortable moment in history - in some ways, it is full of darkness and menace - yet it is a thrilling time. You are standing on the threshold of a new era, a new era of boundless scientific development in which man will rise to greater heights, or fall.

Each of you, I am sure, will do your best for yourselves and your country. I should not be surprised if one of you penetrates the outer spaces. This is truly a time for reaching for the moon, and the moon seems to be within grasp. "Per Ardua ad Astra" may be for every one of you.

Yet, in the grim struggle for material success both for yourselves and for the nation, spiritual concepts must be maintained.

Each of you, in your way, when you leave will be seeking the truth - and, in this connection, I can do no better than quote the words of McGibl's own great Sir William Osler who said:

"The truth is the best that you can get with your best endeavour; the best that the best men accept."

There can be no better way of expressing your ultimate objective than that. There can be no better objective for us all than truth - "the best that you can get with your best endeavour, the best that the best men accept".