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MEMORANDUM

NATIONAL SECURITY COUNCIL

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November 28, 1984

WS
Magistrale, Victor J.

MEMORANDUM FOR MICHAEL A. McMANUS, JR.

FROM: ROBERT M. KIMMITT Bob

SUBJECT: Request for Information on Technology Discussions at the 1983 Williamsburg Economic Summit

Attached, per your request, are papers which might be helpful in responding to Professor Victor Magistrale's request (letter at Tab C) for information regarding technology discussions at the 1983 Williamsburg Economic Summit.

At Tab A is a copy of a Working Group Report on Technology, Growth and Employment which was commissioned by the Versailles Summit communique and submitted to Heads of State at the Williamsburg Summit. Also attached (Tab B) is a copy of the Williamsburg Declaration which highlights technology discussions on page 3.

If Professor Magistrale wishes additional information, he should contact State Department Office of Public Affairs.

Attachments
TAB A Versailles Summit Working Group Report on Technology, Growth and Employment
TAB B Williamsburg Declaration
TAB C Incoming letter from Professor Magistrale

NSC ID 8408310

8310

MEMORANDUM

NATIONAL SECURITY COUNCIL

November 27, 1984

ACTION

MEMORANDUM FOR ROBERT M. KIMMITT

SIGNED

FROM: DOUGLAS W. McMINN

SUBJECT: Request for Information on Technology Discussions at the 1983 Williamsburg Economic Summit

In response to a public inquiry, Mike McManus has written requesting information regarding technology discussions at the 1983 Williamsburg Economic Summit (Tab C).

RECOMMENDATION

That you sign the memo to Mike McManus at Tab I, forwarding relevant information regarding technology discussions at the Williamsburg Summit.

Approve _____ Disapprove _____

Brenda Reger concurs.

Attachments

TAB I Memo to McManus

TAB A Versailles Summit Working Group Report on Technology, Growth and Employment

TAB B Williamsburg Declaration

TAB C Note from McManus and incoming letter from Professor Magistrale

8310

MEMORANDUM

NATIONAL SECURITY COUNCIL

MEMORANDUM FOR MICHAEL A. McMANUS, JR.

FROM: ROBERT M. KIMMITT

SUBJECT: Request for Information on Technology Discussions at the 1983 Williamsburg Economic Summit

Attached, per your request, are papers which might be helpful in responding to Professor Victor Magistrale's request (letter at Tab C) for information regarding technology discussions at the 1983 Williamsburg Economic Summit.

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If Professor Magistrale wishes additional information, he should contact ~~Normally, requests of this nature should be referred directly to~~ the State Department Office of Public Affairs.

Attachments

TAB A Versailles Summit Working Group Report on Technology, Growth and Employment

TAB B Williamsburg Declaration

TAB C Incoming letter from Professor Magistrale

8370

National Security Council
The White House

System # _____

84 NOV 8 P2:08 *Package #* _____

	SEQUENCE TO	HAS SEEN	DISPOSITION
Paul Thompson			
Bob Kimmitt	1	K	
John Poindexter			
Tom Shull			
Wilma Hall			
Bud McFarlane			
Bob Kimmitt			
NSC Secretariat	2		Staff
Situation Room			

I = Information	A = Action	R = Retain	D = Dispatch	N = No further Action

cc: VP Meese Baker Deaver Other _____

COMMENTS Should be seen by: _____
(Date/Time)

Action McMunn
Cmt Regan

Prepare memo Kimmitt → McManus
due 11/12.

THE WHITE HOUSE
WASHINGTON

Date: 11-5-84

TO: BOB KIMMITT

FROM: **Michael A. McManus, Jr.**
Assistant to the President
and Deputy to Deputy Chief of Staff

☐ **Information**

☐ **Action**

☐ **Let's Discuss**

Do you have any information
that could help regarding
the attached letter.

Working Group
on Technology, Growth and Employment
established by the Heads of State and Government
at the Versailles Summit,
June 4, 5 and 6, 1982

TECHNOLOGY
GROWTH
EMPLOYMENT

January 1983

EXECUTIVE SUMMARY

"Revitalization and growth of the world economy will depend not only on our own effort but also to a large extent upon cooperation among our countries and with other countries in the exploitation of scientific and technological development. We have to exploit the immense opportunities presented by the new technologies, particularly for creating new employment. We need to remove barriers to, and to promote, the development of and trade in new technologies both in the public sector and in the private sector. Our countries will need to train men and women in the new technologies, and to create the economic, social and cultural conditions which allow these technologies to develop and flourish. We have considered the report presented to us on these issues by the President of the French Republic. In this context we have decided to set up promptly a working group of representatives of our governments and of the European Community to develop, in close consultation with the appropriate international institutions, especially the OECD, proposals to give help to attain these objectives. This group will be asked to submit its report to us by 31 December 1982. The conclusion of the report and the resulting action will be considered at the next economic Summit to be held in 1983 in the United States of America."

Declaration of the Seven Heads of State and Government and Representative of the European Communities.
Château of Versailles, June 4, 5 and 6, 1982.

Consistent with this instruction, and at the initiative of the President of the French Republic, a Working Group of Representatives of Seven Heads of State and Government and the Representatives of the European Communities was set up to consider the opportunities, problems, and challenges presented by technology, with special regard to economic growth and employment. The Working Group met for the first time on August 20th, 1982.

Operating on the basis of consensus, the Working Group has produced a report which is essentially policy-oriented in nature and is addressed to Heads of State and Government*. The report is selective: it concentrates on our own countries except where we state otherwise. It also concentrates on problems where science and technology offer potential solutions, but it does not pretend that science and technology provide a panacea.

(*) In this report the word "government" is also taken to include the European Communities.

particularly for creating new employment, and therefore, shall seek to intensify our contacts bilaterally and in all relevant fora. In this regard, the Group takes note that discussions of these items will be pursued in the GATT Council.

•*Science and technology are a source of national and international strength and can provide immense opportunities for revitalisation and growth of the world economy. They should therefore be given due consideration in all policy decisions for national development and international cooperation.*

•*International cooperation in science and technology has demonstrated its value. Governements should continue to support cooperation, including the international scientific organisations.*

•*With current economic difficulties and with national budgets subject to greater constraint, it makes even more sense to cooperate internationally, in particular, in long-term, high-risk research and development projects.*

•*Already existing international cooperation in science and technology should be continued and, where appropriate, enlarged. An effective exchange of ideas and researchers must be strongly encouraged.*

•*The cooperation begun under the auspices of this Working Group forms a solid base for future action and should continue in the relevant fora.*

•*Finally, we recommend to our Heads of State and Government that, bearing in mind the role that science and technology can play in improving economic growth and employment, and in stimulating culture and education, they take science and technology into account in their policy decisions and continue to include the subject on their agenda at future Summit meetings.*

The Working Group has also reviewied a number of scientific and technological issues with a view towards determining where additional international collaboration could best contribute to increased understanding and improved social and economic conditions, not only for our own people, but for all the world.

In this process, we noted that a wide range of cooperation is already under way in important and wide spread areas such as:

—conquest of space;
—renewable sources of energy;
—research on safety of light water reactors;
—deep ocean drilling.

We appreciate this effort and encourage its development using existing multilateral and bilateral frameworks.

We also propose the following collaborative projects which are either new or incorporate significant re-focussing in order to achieve:

I. Stimulation of the conditions for growth by better management of energy resources by:

—photovoltaic solar energy;
—controlled thermonuclear fusion;
—photosynthesis;
—fast breeder reactors.

Report

1. IMPORTANCE OF SCIENCE AND TECHNOLOGY AS A BASIS FOR ECONOMIC REVITALISATION AND GROWTH

HISTORICAL ANALYSIS

Two hundred years ago, James Watt's invention of the steam engine, together with other inventions were to change the face of the world. In the following decades, our methods of work, our towns and countryside, our systems of transportation were all transformed. The introduction of the railway, the steamboat, and the telegraph stimulated our economies. Later, the internal combustion engine automobile, airplane, telephone, electricity, and the chemical industries began to change the quality and style of our lives.

This process of transformation and change stemmed from conviction that scientific inquiry and advance are central to progress. This confidence in science, which, since the Renaissance, was popular in intellectual circles, was to spread gradually to many disciplines, such as engineering and technology, and eventually, to industry itself. This was most evident by the end of World War II, when entire sectors of our economies existed as the result of the spin-off from scientific research. The progress which resulted was substantial in the agricultural, industrial, services and public health sectors.

While science and technology were modifying our method of work and our machines so profoundly, our organisations and institutions were also changing. Financial, trade, administrative, educational and legal systems all underwent far-reaching transformations in order to adapt to the new world that was emerging. Thus, in a thousand of different ways, science and technology has penetrated the very fabric of our societies and of our lives.

Research, which can start modestly in the form of a laboratory experiment or an equation written on a blackboard, can eventually lead to a vast and varied number of applications. This has been the case with fundamental research carried out on the structure of atomic nuclei, which led to the discovery of nuclear energy. Research on solid state physics has radically transformed or created an immense range of products and systems such as digital watches, television receivers, video-recorders, health care equipment and many other familiar products. Space research programmes have yielded many valuable benefits in fields such as telecommunications, remote sensing, new materials, and transport systems. The theoretical understanding of the part played by nucleic acids in the transfer of genetic information arose from the discovery of DNA but also promises a vast range of applications in the field of biotechnology, from health to food.

In the field of energy, fast breeder reactor technology will soon offer a major increase in the efficiency of electricity generation from uranium. In the longer term, thermonuclear fusion, one of the most challenging technologies ever conceived, may offer a virtually inexhaustible source of energy from ordinary seawater.

It is vital to remember that the technologies we are applying today are founded upon the scientific research and development of yesterday. Hence, the well-being of society in the next century will rest on the application of scientific research which is being carried out now.

The importance of fundamental scientific research in the birth of new industries cannot be over-emphasized. The role of government support of science to inspire the future economic and social development of our countries should be widely understood.

Finally, the historical tradition in science of international cooperation and free communication, which has been so important in the past, should be continued and expanded in the future for our mutual benefit and progress.

Fundamental scientific research is one source of technological progress in industry and should be given special support by governments.

2. THE EFFECT OF SCIENCE AND TECHNOLOGY ON THE LEVEL OF EMPLOYMENT, THE IMPROVEMENT OF LABOUR CONDITIONS, AND THE ADVANCEMENT OF CULTURAL AND EDUCATIONAL STANDARDS

THE LEVEL OF EMPLOYMENT.

The problem of unemployment and its costs in human and social terms is a major pre-occupation in our countries. For this reason, the positive role which science and technology can play in increasing employment should be closely examined.

The transformation of new technological knowledge into investment in innovation is essentially a micro-economic decision for individual firms and entrepreneurs. The process is conditioned by the individual decision-makers' perception of the predicted profitability and of the economic and social environment, including the probable behaviour of government.

Thus, individuals decisions increase employment in innovative firms while causing lay-offs in others. Overall, it is even possible that innovation could, at least in the initial stages, destroy more jobs than it creates.

However, through the whole period of industrial history, technological innovation has not only proved to be one of the major sources of social and economic progress, but it has also markedly increased the overall level of employment.

To outweigh the potential of job destruction from innovation with job creation, a growth conducive economic and social environment is essential. The existence of a stock of promising but unrealised innovation certainly favours the creation and maintenance of such an environment, as does a high degree of price flexibility and labour mobility and adaptability. However, this is insufficient if public and private demand is shrinking and confidence in future growth and stability is low.

Technological innovation can play an important role in the increase of the level of employment and the improvement of labour conditions. Special training programmes are necessary to promote flexibility, mobility and adaptability of labour.

In many of our countries, much of the more vocal opposition comes from groups that are not in the majority. Some of this opposition may be justified, some may be widely exaggerated. Some of the fears expressed may even go beyond the technical considerations into the broad area of political grievances about society's values or about democratic processes. Diagnosis of this complex subject requires an appreciation that there are many technologies, many publics, many institutions and many cultures. Although some work has been done in this area, there is little to suggest that we have any real understanding of the factors which shape public attitudes to a new technology. We need to improve this understanding if we are to derive the maximum benefit from the new technologies.

The fate of our scientific and technological innovations is largely a function of the willingness of the public to accept them. More attention to the problem of public acceptance of new technologies is needed.

IMPACT OF NEW TECHNOLOGIES ON MATURE INDUSTRIES

The impact of new technologies on "mature" industrial structures is most apparent in those industries which started the process of industrialisation and which, in former times, have constituted the most dynamic and dominant centres of economic progress. In the process of economic development, the old industrial centers were particularly vulnerable to technological change in other places. Efforts by governments to protect traditional industries against structural change, whether by subsidy or by other means, cannot be successful except in the short term.

On the other hand, there are clearly cases where adoption of new technologies can positively influence the development of mature industries by providing new opportunities for growth. It is industry which has the primary task of responding to the challenge of structural change: market forces will condition industry's response but social and other factors must also be taken into account. Governments, for their part, should pursue positive adjustment policies while bearing in mind future demand and supply structures and the opportunities for further technological development.

Further specific studies, such as those being carried out in the OECD, should be made to determine the extent and the methods by which science and technology can contribute to the easing of the widespread adjustment problems in some regions which are often posed by the decline of traditional industries.

Special attention should be paid to the rejuvenation of mature industries through the use of science and technology.

Important exchanges also occur in the private sector. An open trading system encourages this flow of information which strengthens the innovative process.

Nevertheless, care must be taken by governments to control the transfer of sensitive technologies of military significance to our countries.

The impact on the world economy of advanced technology industries can be enhanced by creating, through international cooperation, a climate which fosters advanced technology development, application, and exploitation. The following factors are conducive to such a climate:

—an open and competitive trading system to promote technological development by reducing trade barriers and other barriers and facilitating the cross-border flow of technology in the most appropriate ways;
—compatible and, where possible, harmonized regulatory and testing systems to facilitate free trade;
—interdependence amongst partners who nevertheless respect each other's autonomy.

Such conditions will contribute to a healthy world economy characterised by steady non-inflationary growth. This will provide the foundation for long-term social benefits.

An open and competitive trading system between automomous but collaborating partners should be strengthened by harmoninzing and making more compatible our regulatory and testing systems. Care must be taken by governments to control the transfer of sensitive technologies of military significance to our countries.

THE EFFECTIVE UTILISATION OF SCIENCE AND TECHNOLOGY BY THE DEVELOPING COUNTRIES

The contribution of scientific research to developing countries has been spectacular in a number of fields. In health, for example, years of international research has resulted in smallpox being practically eliminated. In agriculture, innovation has brought new varities of high-yielding wheat and rice which have markedly increased the world food supplies.

The world economy as a whole can benefit from healthy non-inflationary economic growth among the developing countries. But the model of industrialisation and economic development which our countries have followed is not necessarily the one which the developing countries should adopt. It is for the developing countries themselves to establish their priorities and their policies, since it has to be recognised that simplistic and mechanical transfers of new technologies to these countries can create, at least in the short term, serious social as well as economic imbalances.

4. THE ROLE OF GOVERNMENTS AND THE PUBLIC AND PRIVATE SECTORS IN SHAPING THE SOCIAL AND ECONOMIC CONDITIONS FOR OPTIMUM IMPACT OF INNOVATION ON GROWTH AND EMPLOYMENT

PRIMARY RESPONSIBILITIES OF GOVERNMENTS AND THE PUBLIC AND PRIVATE SECTORS*

The long-term health of our economies revolves round the ability of our governments to encourage innovation in the public sector, private industry and in our scientific research communities.

The public sector's responsibility for shaping the social and economic framework for innovation and growth is beyond dispute. Governments, or their agencies, can determine the regulatory, economic, and commercial environment within which the private sector can develop.

But governments should recognise the role of competition and of the private sector in the development of near-term commercial technologies. In general, this competition in the innovation process helps to bring the best products to the consumer at the lowest price. Remembering that innovation is inherently risky, governments should help to create an environment which on the one hand provides a predictable regulatory framework, low inflation and interest rates and a fiscal structure which rewards enterprise, and on the other hand facilitates the acceptance of new technologies in the work place and by the public more generally.

It is also important to recognize the respective contributions which the different sectors can make to the actual process of innovation. To the private sector falls the task of identifying opportunities for the productive uses of new technologies and matching applications of technology to market needs. Governments, for their part, have specific responsibilities which include the sponsorship of basic research, and research of far-reaching but uncertain applicability, whose social benefits may not be matched by immediate commercial returns.

The demarcation of the sectors' respective roles is not easy and depends on the individual situations in our countries; this is, in any case, less important than the establishment of workable mechanisms and a suitable climate which allows both sectors to function together in an optimal manner.

(*) For all countries the phrase "public sector" refers to governments, in some, it also extends to other activities under public ownership.

The market introduction of new technologies is primarily the task of the industrial and commercial sectors. A competitive atmosphere is essential for this type of innovation since it creates a continuous evolution of technological progress and, thereby, long-term economic growth. Governments should support fundamental science and long-term, high-risk research and development activities.

GOVERNMENTS' OVERALL ECONOMIC POLICIES

The overall stance of an economic policy is decisive in shaping the conditions for innovation to have a favourable impact on sustainable economic growth and the creation of jobs in competitive industries. Uncertain expectations regarding rates of inflation, exchange rates and the level of interest rates make it more difficult for investors to interpret the market signals represented by changes in relative prices while expectations of increasing labour costs are likely to favour expenditure designed to save labour.

The innovation process is helped by a stable, low-inflationary, environment with predictable government policies. Consistency and continuity of policy measures and confidence in the future encourage medium and long-term investment programmes. It is this kind of environment with mobile labour forces and capital, and with a flexible response to changes in demand, technology or prices which enables an economy to be kept more easily on a path of macro-economic equilibrium and orderly expansion.

Government policies should therefore be geared to increasing micro-economic flexibility rather than hampering it, and to promoting growth through balanced macro-economic policies thereby inducing confidence to all those involved in the process of innovation.

Under present economic conditions, technological collaboration in areas which are promising at the scientific research level can be hampered by increasingly defensive strategies aimed at protecting market shares. The implementation of a programme of international collaboration in the field of science and technology can contribute to, and benefit from, the restoration of expansionary non-inflationary conditions: both technical progress and employment could be favourably influenced.

Thus, while each of our governments must continue to have national responsibility for the choice of appropriate demand and supply policy mixes, greater collaboration on policies affecting innovation will hasten the return to growth.

Governments need to generate and support the framework conditions for workable competition and provide incentives for innovation through the encouragment of invention and investment in innovation.

some of the problems faced in this area. We reaffirm our commitment to removing barriers to an open multilateral trading system, to strengthing the rules in this connection, and to promoting the development of trade in new technologies, particularly for creating new employment, and therefore, shall seek to intensify our contacts bilateraly and in all relevant fora. In this regard, the Group takes note that discussions of these items will be pursued in the GATT Council.

NATIONAL POLICIES FOR THE PROMOTION OF SCIENCE AND TECHNOLOGY AND INTERNATIONAL CONSULTATIONS ON THESE

Science and technology are vital components of economic activity and of society; these in turn create the conditions in which science and the technology can either flourish or wither.

It is important for governments to consider policies for:

—the promotion of science and the pursuit of knowledge for its own sake;
—the application of science and the development of technology;
—the integration of science and technology into economic and social policies;
—and international cooperation in science and technology, their application and their role in economic and social policies.

The promotion of science includes support for the acquisition of fresh knowledge and of new scientific skills, for the education and training of young people and the retraining of older people in new skills, for the dissemination of scientific knowledge to the scientific community and the education of the general public in science. A healthy climate for basic research in all sciences is an essential element in any free, industrialised country: it is not possible to predict from which part of the spectrum of today's basic research tomorrow's technological wonders will emerge.

The application of science and the development of technology involves the generation of an economic and social climate which encourages the growth of new technologies and the regeneration of old industries through the application of new technics. Timing is crucial in both cases and it is important to recognize that assistance may be necessary to allow major change to take place smoothly and with due regard to the human problems caused by change.

The integration of science and technology into economic and social policies is essential if science and technology are to develop in a context which is acceptable to society and if science and technology are to be allowed to make their unique contribution to the solution of economic, social and cultural problems. Only in this way can the general public recognize and welcome the beneficial effects of science and technology and overcome their natural fear of technical change.

5. INTERNATIONAL COOPERATION IN SCIENCE AND TECHNOLOGY

PRESENT SITUATION

A large amount of cooperation in science and technology already exists between our countries: each country participates in bilateral and multilateral arrangements in a way which is too extensive to recount here in any detail, and a few examples must suffice.

The International Council of Scientific Unions (ICSU) has organised projects like the International Geophysical Year (IGY) and the International Biological Programme (IBP). Following the success of the IGY in 1958, 26 nations became parties to the Antarctic Treaty, which has amongst its objectives the encouragement of cooperation in scientific research. This has led to major advances in the sciences of climatology, oceanography, biology and geology. In the field of medecine, the World Health Organization has stimulated cooperation in many fields of research including infectious diseases and carcinogens.

In some cases, cooperation in fundamental science has led to unexpected technological developments which have proved of great economic and social value to mankind. For example, the high degree of safety enjoyed by the millions of people travelling the globe by air and sea owes much to fundamental research in climatology and meteorology. Research on very accurate measurements of terrestrial distances from satellites has begun to show promise for the early prediction of earthquakes. The International Phase of Ocean Drilling of the deep sea drilling project was designed to answer fundamental scientific questions on the structure of the earth's crust but has also provided information of real value to deep sea exploration. Work on high energy physics at CERN has led to such contrasting developments as improved theodolites for tunnel construction and a positron camera for medical tomography.

These examples demonstrate how international scientific cooperation is advancing science today and how mankind has benefitted from this in fields as diverse as medicine, travel, enginering, agriculture, energy and safety. Individual research workers, scientific societies, non-government institutions and government itself have all played key roles. The future environment for scientific collaboration will depend on a continuation of their complementary activities.

In the private sector of industry, cooperation naturally tends to be more technological than scientific ; collaborative agreements or joint ventures need to take into account the rules of domestic and international trade. Scientific

or technological information is often proprietary and companies cooperate through licensing and cross-licensing arrangements in order to advance their technological base.

Finally, mention should be made of cooperation between the private sector and universities, an historical link in some of our countries, but one which has new force today, and has played a major role in the development of fields such as biotechnology. This collaboration will be increasingly important in the future as a stimulant for industrial innovation.

International cooperation in science and technology has demonstrated its value. Governments should continue to support cooperation, including the international scientific organizations.

THE SPECIAL RELEVANCE OF INTERNATIONAL COLLABORATION TODAY

In the present difficult economic circumstances that we are all experiencing, institutions responsible for scientific and technological research could be tempted to give more attention to their own science and technology activities to the detriment of international collaboration.

This risk should by recognized: with the present worldwide economic and social problems, there is a special and growing significiance for international cooperation in the fields of science and technology, because only by such cooperation is it possible to:

—increase the effectiveness of national research work by rationalising it and reducing its cost;

—take into account the international character of certain research projects;

—create a climate which permits research to be tailored to the new situations in the international market-place;

—resolve jointly certain common problems and thus avoid useless duplication and promote a diversity of approach;

—cope with factors such as the expanding scale of technology, the increase in development costs, and the ever greater challenges of research and development;
and

—enhance growth and employment.

With current economic difficulties and with national budgets subject to greater constraints, it makes even more sense to cooperate internationally, in particular, in long term, high-risk and development projects.

In order to achieve these objectives, the Group agreed on four criteria to be used for the selection of collaborative projects. They should:

—benefit from international cooperation and involve several countries in the Working Group;
—be within the public sector or within the clear responsibility of governments;
—represent a potentially major step forward in science or technology if successful;
—involve possible interest by the developing world.

As a result of the examination, the Group has proposed to governments a number of cooperative research projects which are listed at the end of this report.

The cooperation begun under auspices of this Working Group forms a solid base for future action and should continue in the relevant fora.
Finally, we recommend to our Heads of State and Government that, bearing in mind the role that science and technology can play in improving economic growth and employment, and in stimulating culture and education, they take science and technology into account in their policy decisions and continue to include the subject on their agenda at future Summit meetings.

The identification of projects which meet all economic and social needs and are agreed upon by all participants would have required a much longer exercice than was possible for the Working Group. The choice of projects therefore does not reflect the priorities of all delegations to the Working Group, let alone the priorities of other countries. Nevertheless, the Working Group is unanimous in its belief that these projects constitute a solid base of cooperation.

The Working Group has reviewed a number of scientific and technological issues with a view towards determining where additional international collaboration could best contribute to increased understanding and improved social and economic conditions, not only for our own people, but for all the world.

In this process, we noted that a wide range of cooperation is already underway in the following important and wide-spread areas:

—conquest of space;
—renewable sources of energy;
—safety research on light water reactors;
—deep ocean drilling.

We appreciate this effort and encourage its development using existing multilateral and bilateral frameworks.

Taking these considerations into account, the Group agreed to propose to governments a number of cooperative research projects along the following lines.

construction of a joint facility. Because of the time scale involved, it is not too soon to begin discussions on this project and to promote collaboration based on existing activities.

Collaboration could be developed along the following lines:

—access of partners to facilities already existing or under construction, such as TFTR in the US, JET in Europe and JT-60 in Japan;
—sharing of development programmes, in particular the pursuit of alternative lines of development;
—development and joint use of costly equipment, such as the large coil facility, where duplication would be unnecessary;
—coordination of development programmes for a demonstration reactor and next generation machines.

PHOTOSYNTHESIS
(Japan)

Photosynthesis may be an increasingly important source of energy in the future because it is a natural process which converts abundant and everlasting sunlight into chemical and electrical energy. International cooperation can further basic research on photosynthesis and photoconversion, including the development of artificial photosynthetic systems.

This research program could contribute to the supply of energy in the 21st century and thereby have great effects on future economic activity. The participating countries wish to encourage cooperative activities among their scientific communities by using the existing framework for international cooperation.

The forms of cooperation will include the following:

—cooperative research through exchange of scientists;
—collaborative use of facilities and equipment;
—information exchange through international seminars and symposia.

FAST BREEDER REACTORS
(France/United States of America)

All our countries believe that nuclear power will play an essential role in meeting their prospective demands for electricity. The current generation of thermal reactors plays its part in meeting present demands. But in the long run, fast breeder reactors, which utilise an essentially inexhaustible energy source, offer great potential. At present, breeder costs are not competitive with coal or thermal reactors, but further progress in research and development could make the breeder economically attractive in the next few decades. From

BETTER MANAGEMENT OF FOOD RESOURCES BY

FOOD TECHNOLOGY
(France/United Kingdom)

There has been major progress in agricultural technology in the past two decades in our countries, but more attention should now be paid to food and food technology. While there is still scope for improving agricultural productivity and utilisation of agricultural raw materials in the developing countries, there is also a need to increase the efficiency and quality of food production in OECD countries. In addition, more attention is being paid to the safety of food additives and to novel foods; and present initiatives should be supported.

Three aspects of the topic are identified as worthy of collaboration: food processing, safety evaluation and developing countries aspects. For food processing, there is scope for collaboration on food research programmes and for the application of existing research knowledge. In safety evaluation, there are many international initiatives in food laboratory practice, harmonising testing guidelines for food additives and novel foods, which need continuing support. There is also scope for coordination of fundamental research programmes aimed at the validation of alternative testing systems and on developing and understanding mechanisms of toxicity. Developing countries aspects can best be satisfied by closer collaboration in research and training, increased processing yields, improved utilisation of raw materials, improved storage of agricultural produce and avoidance of food wastage. The initiatives should be pursued largely through existing mechanisms.

AQUACULTURE
(Canada)

The sciences basic to food production are being applied increasingly to the culture of aquatic organisms, with numerous aquaculture systems being on the threshold of significant expansion. Such development is encouraged by the special need for employment opportunities in rural areas, by the demand for new and appropriate technologies in fisheries, and by the evidence that natural fish resources are now being exploited to their limits. Expansion of aquaculture systems in both developed and developing countries seeking greater self-sufficiency in food supplies could also create indirect benefits such as an improved investment climate.

Objectives of this project are to develop and adapt to cool water environment technologies for intensifying the production of fish, shellfish (including crustaceans), and marine plants. It involves the use of existing institutions, and the establishment of a research and development planning group.

Based on these developments, the following proposals are made:

—enhance cooperation between those countries which work on and have an interest in the future development of high speed ground transport systems and encourage the exchange of scientific, technical, and economic data and other information on such systems;

—feasibility studies for high speed ground transport networks, (including their socio-economic aspects), focusing on Western Europe, and, if appropriate, North America and Japan. These studies may provide a basis for investment decisions having strong political and economic impacts.

HOUSING AND URBAN PLANNING FOR DEVELOPING COUNTRIES
(France)

This project relates to one of the major problems of the latter part of this century: the explosive growth of towns and cities in the developing countries.

At the beginning of the 21st century, the world population will have reached 6 billion, half of whom will be living in towns. Forty conglomerations of the developing world will each have over 5 million inhabitants. The construction of many millions of relatively inexpensive dwellings in developing countries is imperative if the living conditions of the urban and rural populations are to be improved.

The project is not aimed at creating a new aid organisation, but at improved efficiency of existing national and international organisations.

Three approaches have been proposed:

—exchange of information on programmes and projects;

—coordination of technical training programmes for the habitat in developing countries. The first steps would be to evaluate training programmes available in the industrialised countries, and to improve the links of such programmes with the research sector, and their application;

—a research programme and experiments on relatively inexpensive dwellings in the developing world.

ADVANCED ROBOTICS
(France/Japan)

The industrial sectors in our countries are increasingly developing and utilising robots. Our governments support more basic and long-term research in these areas. Among the areas particularly appropriate for governmental action and cooperation are advanced robot systems that avoid the need for people to work in difficult or dangerous conditions or environments.

BIOTECHNOLOGY
(France/United Kingdom)

Biotechnology will have significant economic and social impacts on both developed and developing nations. It is already currently the subject of some commercial activity. At this stage, the commercial benefits of some biotechnological processes are far from clear and probably unlikely to be realised in the short term. Many of our governments have national programs which concentrate on basic research in this field. It is therefore appropriate to consider international cooperation so that limited national resources are not wasted by unnecessary duplication. If managed carefully, such collaboration should accelerate the development of some aspects of biotechnology, thus increasing economic activity and employment. The commercialisation of biotechnology could also be of significant interest to developing countries in the upgrading of raw materials.

The aims of the project are to obtain essential information on enabling technology at a lower cost than through purely national programs; and at the same time, assist in the training of biotechnologists for the needs of developed and developing countries. A network is proposed to link existing training centres and any new centres which may be established by individual countries to serve the needs of developing and developed countries, it would be coordinated through a Committee.

The rate of commercialisation is affected by the regulatory processes in each country particularly for health and food products. Representatives of the participating governments should meet to develop common guidelines for codes of practice for safety evaluation of new products arising from biotechnological processes.

Another aspect of the proposal concerns "orphan drugs". An international network of advanced biotechnology units with a specific interest in basic research needed for the development of drugs for diseases hitherto not amenable to pharmacotherapeutic control would be established to allow a coordinated approach in our countries to development of drugs of this type.

This work should be implemented with the full knowledge and continuing cooperation of the International Federation of Pharmaceutical Manufacturers Associations, and in consultation with the World Health Organisation.

ADVANCED MATERIALS AND STANDARDS
(United Kingdom/united States of America)

We all recognize the critical importance of the materials used in mechanical, constructional and electronic engineering. The availability of suitable materials with advanced properties and performance will determine the rate of introduction of many new technologies and new industries.

If technologies are regarded as unacceptably risky or threatening to the environment or to jobs, they can be, and frequently are, resisted.

It is possible to distinguish between different publics and different dimensions of the public acceptance problem. For example, the same individual can respond enthusiastically to new technologies as a consumer but negatively in the workplace, where technologies are frequently seen as threatening to jobs, status and skills. The roots of opposition to new technologies may sometimes go beyond technical considerations, for example, they may be more concerned with political grievances about values or democratic processes.

A number of general lessons can be drawn from experience with the introduction of new technologies. In view of the importance and complexity of the subject, and the lack of understanding about it, a programme of studies should be undertaken encompassing the following themes:

—general background studies, which would draw lessons from the history of the introduction of new technologies and indicate the role which cultural differences play in determining public acceptance;

—studies to focus on the way organizational changes need to be made to accomodate new technologies and on ways of involving the public in decisions;

—assessments of the future impact of new technologies.

region will continue to be able to participate in experiments at these large facilities on the basis of the scientific merit of their proposals. Such international collaboration avoids unnecessary duplication of costly facilities.

In the mid-1990's further progress will probably require a new generation of very high energy accelerators costing huge sums of money. Such facilities are likely to exceed the financial capabilities of any single nation or region. An international cooperative program should therefore be considered. The decade of effort required for definition, design and construction indicates that these discussions should begin in the near future.

SOLAR SYSTEM EXPLORATION
(United States of America)

Scientific interest in the sun, planets, comets and asteroids lies in the expectation that their investigation will contribute greatly towards our understanding of the earth, the origin and evolution of the solar system and the origin of life in the solar system. In the last two decades, new and far more powerful scientific and engineering tools have revolutionised the exploration of the solar system. There is a long history of fruitful international cooperation in solar system research resulting from the realisation that by pooling capabilities and resources, the parties involved gain scientific, technical, and financial benefits.

Our countries endorse and encourage solar system exploration. We emphasize the need for a continuation and expansion of the various methods of cooperation and for planning to develop more cost-effective means of solar system exploration.

Follow-up to the Report of the Working Group on

Technology, Growth and Employment
October 26, 1983

The report of the working group proposed 18 cooperative projects. The U.S. has the lead or co-lead in 6 of these:

- solar system exploration -- (US lead)
- remote sensing from space -- (US lead)
- high energy physics -- (US lead)
- controlled thermonuclear fusion -- (US/EC lead)
- fast breeder reactor design -- (US/France lead)
- advanced materials and standards -- (US/UK lead)

In addition, the U.S. has agreed to participate in 6 other projects:

- advanced robotics -- (France/Japan lead)
- biological sciences -- (France/EC lead)
- impact of new technologies -- (France/Italy lead)
- public acceptance of new technologies -- (UK lead)
- photosynthesis -- (Japan lead)
- aquaculture-- (Canada lead)

The U.S. has moved ahead rapidly in all areas in which we have the lead. We have been represented at meetings of all other projects in which we have expressed an interest. More specifically, progress since the Williamsburg Summit is as follows:

1. Solar System Exploration -- NASA hosted a meeting with the European Space Agency and the Japanese in September to discuss and define a new solar terrestrial physics program. The program is now receiving consideration by potential participants.

2. Remote Sensing from Space -- Under NOAA's guidance, this project has evolved into 6 sub-projects which have been the subject of various meetings this year. Other meetings are scheduled through next year.

3. High Energy Physics -- DOE in conjunction with the EEC has held high level policy meetings to discuss the scope for cooperation. The group agreed that much research was needed before defining the next generation machine and stressed cooperation in accelerator and detector technology.

4. Controlled Thermonuclear Fusion -- DOE in conjunction with the EEC held high level meetings to discuss the scope of cooperation. The group agreed that existing

mechanisms for cooperation were effective and should continue, and that new forms of cooperation should be explored for the next stage when costs might exceed national capabilities.

5. Fast Breeder Reactor Design -- The U.S. and France have met to discuss the scope of the project and expect to convene a meeting of interested parties in December.

6. Advanced Materials and Standards -- A multilateral meeting was held in London to discuss the charter for the project. Planning groups were set up and areas for cooperative research were defined. Official contact points for participating countries have been designated and another meeting is planned for January.

7. Advanced Robotics -- Several meetings were held to discuss the scope of the project. A follow-up meeting is planned for January after participants have had the opportunity to discuss their possible national interests within the context of those defined in the planning meetings.

8. Biological Sciences -- We are aware of no action on this project since the Williamsburg Summit.

9. Impact of New Technologies on Mature Industries -- At a meeting sponsored by Italy, in October, both Italy and France described field studies underway in their countries that examine the introduction of new technologies to traditional settings. Interested summit countries agreed to identify any similar or related projects in their countries for the purpose of sharing findings. The next meeting of the group is planned for February.

10. Public Acceptance of New Technologies -- The UK hosted a meeting in June to discuss several specific proposals for projects in this area. Since that time, the UK has decided to fund these projects and is in the final stages of contracting for their implementation. The apparent role for the U.S. and other summit members is minimal.

11. Photosynthesis -- A Japanese-U.S. steering committee met in July to discuss the continuing U.S.-Japanese program in photosynthesis which is composed primarily of exchange of scientists, seminars and conferences in specialized areas. It was agreed that summit members would participate in future meetings and conferences.

12. Aquaculture -- Canada hosted a meeting of the Planning Group on Aquaculture in July. U.S. observers attended As a result of their recommendations, the U.S. will participate fully in the cooperative project on aquaculture. Annual meetings are planned.

We do not expect a meeting of the Working Group on Technology, Growth and Employment until one is called by the British shortly before the next summit meeting.

At the October 20-21 meeting of the OECD's Committee on Science and Technology Policy, country delegations gave reports on the projects they lead. Considerable interest was expressed by non-summit country delegations in exploring participation in these projects.

Separate from the 18 projects but in a related connection, following a request by Japanese Prime Minister Nakasone during the Williamsburg Summit Meeting, the U.S. and Japan agreed to initiate a cooperative program in cancer prevention and control. The next meeting to discuss this program is planned for the January/February time frame when the Japanese budget has been solidified.

1983 Summit of Industrialized Natio
Williamsburg, Virginia 23187
May 28-31, 1983

FOR IMMEDIATE RELEASE

MAY 30, 1983

WILLIAMSBURG DECLARATION ON ECONOMIC RECOVERY

Our nations are united in their dedication to democracy, individual freedom, creativity, moral purpose, human dignity, and personal and cultural development. It is to preserve, sustain, and extend these shared values that our prosperity is important.

The recession has put our societies through a severe test, but they have proved resilient. Significant success has been achieved in reducing inflation and interest rates; there have been improvements in productivity; and we now clearly see signs of recovery.

Nevertheless, the industrialized democracies continue to face the challenge of ensuring that the recovery materializes and endures, in order to reverse a decade of cumulative inflation and reduce unemployment. We must all focus on achieving and maintaining low inflation, and reducing interest rates from their present too-high levels. We renew our commitment to reduce structural budget deficits, in particular, by limiting the growth of expenditures.

We recognize that we must act together and that we must pursue a balanced set of policies that take into account and exploit relationships between growth, trade, and finance, in order that recovery may spread to all countries, developed and developing alike.

In pursuance of these objectives, we have agreed as follows:

(1) Our governments will pursue appropriate monetary and budgetary policies that will be conducive to low inflation, reduced interest rates, higher productive investment and greater employment opportunities, particularly for the young.

(2) The consultation process initiated at Versailles will be enhanced to promote convergence of economic performance in our economies and greater stability of exchange rates, on the lines indicated in an annex to this Declaration. We agree to pursue closer consultations on policies affecting exchange markets and on market conditions. While retaining our freedom to operate independently, we are willing to undertake coordinated intervention in exchange markets in instances where it is agreed that such intervention would be helpful.

(3) We commit ourselves to halt protectionism, and as recovery proceeds to reverse it by dismantling trade barriers. We intend to consult within appropriate existing fora on ways to implement and monitor this commitment. We shall give impetus to resolving current trade problems. We will actively pursue the current work programs in the General Agreement on Tariffs and Trade (GATT) and Organization for Economic Cooperation and Development, including trade in services and in high technology products. We should work to achieve further trade liberalization negotiations in the GATT, with particular emphasis on expanding trade with and among developing countries. We have agreed to continue consultations on proposals for a new negotiating round in the GATT.

(4) We view with concern the international financial situation, and especially the debt burdens of many developing nations. We agree to a strategy based on: effective adjustment and development policies by debtor nations; adequate private and official financing; more open markets; and worldwide economic recovery. We will seek early ratification of the increases in resources for the International Monetary Fund and the General Arrangements to Borrow. We encourage closer cooperation and timely sharing of information among countries and the international institutions, in particular between the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD), and the GATT.

(5) We have invited Ministers of Finance, in consultation with the Managing Director of the IMF, to define the conditions for improving the international monetary system and to consider the part which might, in due course, be played in this process by a high-level international monetary conference.

(6) The weight of the recession has fallen very heavily on developing countries and we are deeply concerned about their recovery. Restoring sound economic growth while keeping our markets open is crucial. Special attention will be given to the flow of resources, in particular official development assistance, to poorer countries, and for food and energy production, both bilaterally and through appropriate international institutions. We reaffirm our commitments to provide agreed funding levels for the International Development Association. We welcome the openness to dialogue which the developing countries evinced at the recent conferences of the Non-Aligned Movement in New Delhi and the Group of 77 in Buenos Aires, and we share their commitment to engage with understanding and cooperation in the forthcoming meeting of the United Nations Conference on Trade and Development in Belgrade.

(7) We are agreed upon the need to encourage both the development of advanced technology and the public acceptance of its role in promoting growth, employment and trade. We have noted with approval the report of the Working Group on Technology, Growth and Employment which was set up at Versailles last year, and commend the progress made in the 18 cooperative projects discussed in that report. We will follow the implementation and coordination of work on these projects, and look forward to receiving a further report at our next meeting.

(8) We all share the view that more predictability and less volatility in oil prices would be helpful to world economic prospects. We agree that the fall in oil prices in no way diminishes the importance and urgency of efforts to conserve energy, to develop economic alternative energy sources, to maintain and, where possible, improve contacts between oil-exporting and importing countries, and to encourage the growth of indigenous energy production in developing countries which at present lack it.

(9) East-West economic relations should be compatible with our security interests. We take note with approval of the work of the multilateral organizations which have in recent months analyzed and drawn conclusions regarding the key aspects of East-West economic relations. We encourage continuing work by these organizations, as appropriate.

(10) We have agreed to strengthen cooperation in protection of the environment, in better use of natural resources, and in health research.

Our discussions here at Williamsburg give us new confidence in the prospects for a recovery. We have strengthened our resolve to deal cooperatively with continuing problems so as to promote a sound and sustainable recovery, bringing new jobs and a better life for the people of our own countries and of the world.

We have agreed to meet again next year, and have accepted the British Prime Minister's invitation to meet in the United Kingdom.

Annex

STRENGTHENING ECONOMIC COOPERATION FOR GROWTH AND STABILITY

I. We have examined in the light of our experience the procedures outlined in the undertakings agreed at Versailles last year which seek to ensure greater monetary stability in the interest of balanced growth and progress of the world economy.

II. We reaffirm the objectives of achieving non-inflationary growth of income and employment, and promoting exchange market stability through policies designed to bring about greater convergence of economic performance in this direction.

III. We are reinforcing our multilateral cooperation with the International Monetary Fund in its surveillance activities, according to the procedures agreed at Versailles, through the following approach:

A. We are focusing on near-term policy actions leading to convergence of economic conditions in the medium term. The overall medium-term perspective remains essential, both to ensure that short-term policy innovations do not lead to divergence and to reassure business and financial markets.

B. In accordance with the agreement reached at Versailles, we are focusing our attention on issues in the monetary and financial fields including interaction with policies in other areas. We shall take fully into account the international implications of our own policy decisions. Policies and objectives that will be kept under review include:

(1) Monetary Policy. Disciplined non-inflationary growth of monetary aggregates, and appropriate interest rates, to avoid subsequent resurgence of inflation and rebound in interest rates, thus allowing room for sustainable growth.

(2) Fiscal Policy. We will aim, preferably through discipline over government expenditures, to reduce structural budget deficits and bear in mind the consequences of fiscal policy for interest rates and growth.

(3) Exchange Rate Policy. We will improve consultations, policy convergence and international cooperation to help stabilize exchange markets, bearing in mind our conclusions on the Exchange Market Intervention Study.

(4) Policies Toward Productivity and Employment. While relying on market signals as a guide to efficient economic decisions, we will take measures to improve training and mobility of our labor forces, with particular concern for the problems of youth unemployment, and promote continued structural adjustment, especially by:

-- Enhancing flexibility and openness of economies and financial markets.

-- Encouraging research and development as well as profitability and productive investment.

-- Continued efforts in each country, and improved international cooperation, where appropriate, on structural adjustment measures (e.g., regional, sectoral, energy policies).

IV. We shall continue to assess together regularly in this framework the progess we are making, consider any corrective action which may be necessary from time-to-time, and react promptly to significant changes.

Ro - oKeefe

UNIVERSITY OF SOUTHERN CALIFORNIA
Institute of Safety and Systems Management
Degree Programs Services

29 October 1984

Mr. Michael A. McManus
Office of the Deputy Chief of Staff
The White House
Washington, D.C. 20500

Dear Mr. McManus:

On 25 July 1983 I requested information on discussions of technology at the 1983 Economic Summit of Industrialed Nations held in Williamsburg, Virginia. On October 14, 1983 Jane Taylor of the United States Information Agency wrote that no official transcripts or reports from this Summit meeting were available and that I write you as the Coordinator of the Summit and request any documentation. This letter is a request for any documentation that emerged from the study. I have an academic interest in the effect of technology and would appreciate any information generated by this Conference.

Thank you for your attention to this matter.

Sincerely,

Victor J Magistrale

Victor J. Magistrale
Assistant Professor
Systems Management

VJM/sh

NSC/S PROFILE UNCLASSIFIED ID 8408310

RECEIVED 09 NOV 84 09

TO MCMANUS, MICHAEL FROM MAGISTRALE, VICTOR J DOCDATE 29 OCT 84

MCMANUS, M 05 NOV 84

KEYWORDS: ECONOMICS MP

SUBJECT: LTR TO MCMANUS FM UNIV SOUTHERN CALIF REQUESTING INFO RE WILLIAMSBURG ECONOMIC SUMMIT

ACTION: MEMO KIMMITT TO MCMANUS DUE: 12 NOV 84 STATUS S FILES WH

FOR ACTION FOR CONCURRENCE FOR INFO

MCMINN

COMMENTS LOGGED PER KIMMITT

REF# LOG NSCIFID (LB)

ACTION OFFICER (S)	ASSIGNED	ACTION REQUIRED	DUE	COPIES TO
C	11/28	Kimmitt Dft Mem		mc

DISPATCH W/ATTCH FILE (C)

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THE WHITE HOUSE
WASHINGTON

Date: 11-5-84

TO: BOB KIMMITT

FROM: **Michael A. McManus, Jr.**
Assistant to the President
and Deputy to Deputy Chief of Staff

☐ **Information**

☐ **Action**

☐ **Let's Discuss**

Do you have any information
that could help regarding
the attached letter.

Re - Kennet

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