

August 13, 1971

Peacesat

MEMORANDUM

To: Dean Burch

From: Tom Whitehead

Subject: PEACESAT Project

Recently, we have had the enclosed correspondence with Representative Spark M. Matsunaga and with Governor John A. Burns of Hawaii regarding the PEACESAT project.

I thought you would like to have copies of these exchanges and have forwarded them for your information.

HCHall:hh

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON, D.C. 20504

Peacesat
DIRECTOR

August 12, 1971

Honorable John A. Burns
Governor of Hawaii
Honolulu, Hawaii

Dear Governor Burns:

The President has asked me to follow up his letter to you of July 28, 1971, concerning Hawaii's initiative in seeking to improve communications among Pacific peoples through the use of modern technological capabilities.

The imaginative program set forth in your letter to the President of June 24, 1971, is indicative of the potential for cultural development among nations that can be enhanced through the use of communications satellite techniques. The PEACESAT (Pan Pacific Education and Communication Experiments Using Satellites) project and the experimentation on which it is to be based will be followed closely by my Office. In this connection, NASA and the Government of India are developing an experiment for the distribution of community-type information within that country via satellites. The results of both these experiments can be steps to make the objectives of PEACESAT a reality.

The reference in your letter to the possibility that the PEACESAT project might serve as a symbolic step in opening a dialogue with China is noted with interest and for its timeliness. This prospect will certainly not be overlooked as political actions develop.

The World Administrative Radio Conference for Space Telecommunications completed its work on July 17, 1971. International agreement was reached for many space applications and of particular significance is the allocation of the 2500-2690 MHz band. This band is intended to accommodate many of the services described in your letter.

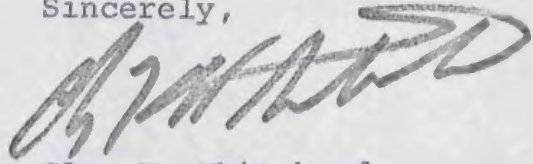
The Conference results require the advice and consent of the Senate prior to ratification by the United States. Upon ratification, the Federal Communications Commission is expected to take the necessary regulatory actions that

will make it possible for sponsors of non-Government space communications programs and projects to proceed. For this reason, I am forwarding a copy of our correspondence to the Chairman of the Federal Communications Commission so that he will be fully informed of your proposal.

Your suggestion for conferring with the Hawaii Congressional Delegation is appreciated. The Honorable Spark Matsunaga has already contacted me with regard to the PEACESAT project.

If I can be of further assistance to you on this or any other matter, please do not hesitate to ask.

Sincerely,

A handwritten signature in dark ink, appearing to read "Clay T. Whitehead", written in a cursive style.

Clay T. Whitehead

cc: Chauvin, FCC

Routing Slip
Office of Telecommunications Policy

Date: 8-2-71

From:

10:

✓	Whitehead, C. T.	
	Mansur, G. F.	
	Babcock, C.	
	Buss, L.	
	Carruthers, B.	
	Cooke, A.	
	Culpepper, C.	
	Dean, W.	
✓	Doyle, S.	
	Enslow, P.	
	Goldberg, H.	
	Hailey, L.	
	Hall, D.	
	Hinchman, W.	
	Jansky, D.	
	Johnston, B.	
	Joyce, C.	
	Lamb, B.	
	Lasher, S.	
	Lyons, W.	
	McCrudden, M.	
	McTee, R.	
	Owen, B.	
	Raish, L.	
	Robinson, K.	
	Scalia, A.	
✓	Smith, L.	
	Thornell, J.	
	Urbany, F.	
	Ward, D.	

Remarks:

Who has action on this?

Steve - could you draft an appropriate letter for Tom's signature? If any problem, we could, but should not, wait for Thornell's return.

July 28, 1971

Dear Governor Burns:

While this note is belated, I did want you to know how interested I was to learn of Hawaii's initiative in seeking to improve educational opportunities for the Pacific peoples through the use of modern communications techniques. You may be assured of my support for the broad goals and objectives for educational communication and East-West cooperation in the Pacific and Asia as set forth in your June 24 letter.

I have asked Clay Whitehead, who is Director of the Office of Telecommunications Policy, to respond in more detail to your proposal, and I am certain you will be hearing from him in the near future.

With my best wishes,

Sincerely,

RICHARD NIXON

Honorable John A. Burns
Governor of Hawaii
Honolulu, Hawaii

✓ cc: Clay T. Whitehead with copy of incoming



EXECUTIVE CHAMBERS

HONOLULU

JOHN A. BURNS
GOVERNOR

June 24, 1971

Dear Mr. President:

We in Hawaii watch with sympathetic concern the evolution of national policy in the Pacific and Asia. Poor communication has contributed to fundamental failures of understanding and three violent conflicts in as many decades. Physical location and cultural heritage give to Hawaii a unique position for contributing to the improvement of communications among Pacific peoples, and the reduction of tension and fear. Whatever the difficulties, it is essential for the people of the United States to continue to demonstrate very clearly their fundamental good will and their determination to share in the worldwide struggle to free mankind from the bondage of ignorance, disease, and hunger.

For this reason, I am writing you to enlist your personal support and leadership in an effort to bring East and West more closely together. It is respectfully suggested that strong national leadership be asserted in the development of an international educational telecommunication network for the Pacific Basin. With it, the education and health institutions will be linked together by communication satellite. Successful development of a system which could link remote regions will require a number of years, yet a dramatic beginning can be made immediately utilizing existing programs. May I direct your attention to what we are doing now in Hawaii. I think it has a much larger role to play.

The program, initiated by the University of Hawaii is labeled PEACESAT (Pan Pacific Education And Communication Experiments Using Satellites). The ATS-1 satellite operated by the National Aeronautics and Space Administration is being used currently to exchange library materials by facsimile, provide classroom instruction with teachers on one island and students on another, and permit seminars with widely divided participants working together. The PEACESAT system is especially designed to adapt to the needs and financial abilities of remote education and health institutions and to provide reliable, two-way exchange over great distances without extensive advance construction and preparation. The

system links islands within the State of Hawaii at present, but Federal approvals for extension into the Pacific Basin are being sought. It is planned to extend the system, someday linking all institutions of higher education in the Pacific Basin.

At present the project is an expression of potential. Many problems stand in the way of continuing operation and extension of service internationally. Some way of sustaining the space communication link must be found. The NASA Satellite now in use has a very limited life remaining. The radio spectrum assignment is a temporary one. International exchange of educational resources on such a large scale has not been envisioned before, and spectrum assignments have never been made for this international purpose. We are working to create the conditions which will make of this project a permanent force for peaceful relations between peoples. The possibilities for regular satellite communication service are being explored, and international agreements for the necessary radio spectrum assignments are being sought through the United States delegation to the World Administrative Radio Conference for Space Telecommunications, in session until July 17 at Geneva, Switzerland.

Despite our best efforts, however, this project cannot achieve its full purpose without a clear Federal mandate, one based on the recognition that important national priorities are served. The Federal government controls future development in many ways. It has broad administrative function in the Pacific, has authority for foreign relationships, regulates the airways, directs the development of space technology and assists educational and health services. Coordinated Federal initiatives are essential. #

The project in its present form is only a beginning. Certainly it is unrealistic to expect men of different backgrounds, divided over the centuries, to communicate suddenly because the opportunity becomes available. Use and the development of mutual interests will be slow. Nevertheless, the prospect remains that almost immediately the project could be made to symbolize a new emerging national policy in the Pacific and Asia.

Page 3
June 24, 1971

PEACESAT, a product of local initiative, expresses a great American ideal by facilitating open communication between peoples on a basis of equality. It applies a brilliant technological achievement to the task of peace, dialogue between nations and improvement in the human condition. In the long view this specialized communication service can strengthen the less industrialized nations, bolster technical training and health services and increase understanding between cultures. Even now, with proper preparations, the project might be used experimentally as a symbolic step in the process of opening dialogue with China.

Mr. President, I respectfully suggest your personal leadership and support be brought to bear on this matter in order that United States space technology and existing programs are applied for expansion of educational communication between our people and the people of the Pacific Basin and Asia. Should you see in expanding channels of communication between East and West a valuable national objective, the State of Hawaii is ready to participate in or initiate a program of joint planning with the Federal government. Hawaii can provide a unique contribution. We are recognized worldwide as a place where men of diverse cultures have learned to live together in a spirit of goodwill. Should you wish, we can assist in preparing for a conference of educational representatives from the Pacific and Asia to explore expansion of communication between educational institutions. Whatever is done, our hope is that the objective of open, day-to-day dialogue between education and health service institutions of the Pacific Basin, can become a national one and that it will warrant executive leadership and coordination of existing Federal programs essential to accomplishment.

You may wish to confer in Washington with Senator Hiram Fong for information and judgment. He and the other members of the Hawaii Congressional Delegation stand ready to assist you.

Warmest personal regards. May the Almighty be with you and yours always.

Sincerely,

John A. Russell

The President
The White House
Washington, D. C.

Enclosures

PEACESAT
(PanPacific Education and Communication
Experiments Using Satellites)

Project Description

It is impossible for many of the peoples of the Pacific Basin to sustain adequate levels of education, health care, and technically based services. Often populations are small in size and divided by great distances. Inadequate communications constitutes a principal barrier to community development.

The purpose of PEACESAT is to demonstrate the benefits of currently available telecommunication technology when applied specifically to the needs of sparsely populated, less industrialized areas. A specially designed communication system uses satellite relay and depends on a low cost ground station costing less than \$10,000.

In February, 1971, the University of Hawaii received National Aeronautics and Space Administration approval for use in educational experiments of the ATS-1 satellite, in orbit over the Pacific. Operating licenses were granted by the Federal Communications Commission. The ATS-1 coverage area includes most of the Pacific Basin.

Since April, 1971, as part of Phase I of the PEACESAT project, ground stations constructed by the University have been successfully test-operated, and utilized at the Manoa Campus on Oahu and at the Hilo College Campus on the island of Hawaii. The two way communication system transmits voice, teletype, and facsimile (but not television) via satellite relay. Portable units for other islands of the State are under consideration to connect elementary, high school, library and community college institutions. Additional projects being considered will test the linking to educational centers of ocean vessels engaged in education and research, and two way networking of non-commercial radio stations.

In Phase II extending from September, 1971 to June, 1972, international exchange between educational institutions is planned. Ground stations are projected, assuming approvals, with the University of the South Pacific at Suva, Fiji, the University of Papua and New Guinea, and others. The University of Guam and additional locations under U.S. authority also may join.

The project is under the Governor's Committee on PanPacific Educational Communications, appointed August, 1970 at the request of Governor John A. Burns. Chaired by President Harlan Cleveland of the University of Hawaii, the committee includes Dr. Shelley Mark, State Director of Economic Planning and Development; Dr. Fujio Matsuda, State Director of Transportation; Dr. Shiro Amioka, State Superintendent of Education; and Dr. Everett Kleinjans, Chancellor of the East-West Center. Initially supported under the President's Innovative Fund, the project is also under an act passed by the 1971 State legislature.

PEACESAT can provide an intercontinental laboratory. Its objectives are to increase the quality of education in the Pacific by facilitating sharing of scarce, costly resources; to improve professional services in sparsely populated areas through telecommunication support; and, generally, to assist in applying the potential of satellite technology for peaceful world development.

Project director is Dr. John Bystrom, Professor of Speech-Communication. Dr. Paul Yuen, Professor of Electrical Engineering, is technical director. The ground station was designed and its construction directed by Katashi Nose, Assistant Professor of Physics.

*State mfg.
to pac.
investigation*

The ATS-1 satellite of the National Aeronautics and Space Administration is being used for two way exchange by voice, facsimile, and teletype, using an uplink at 149.22 MHz and a downlink at 135.6 MHz. Ground stations have been constructed by University staff at a cost of less than \$7,000 each. It is intended to add stations at the University of the South Pacific (Suva, Fiji) and the University of Papua and New Guinea (Boroko, T.P.N.G) by September, 1971, provided necessary approvals are granted. The project is entitled Pan Pacific Education and Communication Experiments by Satellite (PEACESAT).

4. Two kinds of network requirements exist at present:

- (a) Much of the Pacific Basin is served by radio broadcasting. Television coverage is limited. Most radio broadcast stations operate on very limited budgets. A satellite system using low cost ground stations can permit interconnection of radio broadcast stations, allowing them to engage in two way exchange of weather information, health data, news, and local cultural programs. A conference of Pacific Broadcasters in May 1971 at the East-West Center (Honolulu, Hawaii) confirmed strong user approval of this proposal. Two way exchange protects local independence while permitting the advantages of regional programming.
- (b) The institutions of higher education in Australia, New Zealand, Papua and New Guinea, Fiji, and Guam have expressed interest in a Pacific Higher Education Satellite Network proposed first in April 1969. It is planned that the system will be used for specialist seminars, professional and teacher training, classroom instruction, personnel training in sub-professional areas, diagnostic and consulting services, and library exchange. The fields to be affected will be medicine and public health, education, technical development, economic planning and development, social development, agriculture and fisheries, administration and planning, and cultural exchange.

5. Present and future requirements for international exchange thru telecommunications cannot be met without international agreements on radio spectrum allocations. Therefore it is requested that the U.S. Delegation advocate international agreements:

(a) To permit the operation of an international educational telecommunication two-way distribution system using satellite relay to connect distant points, with low cost sending and receiving stations at each point.

(b) To permit international networking of non-commercial radio broadcast stations using satellite relay and low cost ground stations which would allow two-way exchange of programs between stations.

State of Hawaii
and
University of Hawaii
to
United States Delegation
World Administrative Radio Conference
for Space Telecommunications
June 7-July 17, 1971

Position Paper

International Allocations for Educational Communications

1. The world's less industrialized areas lack resources with which to develop education and health services equal to those available in the population centers of the major industrial nations. The use of long distance telecommunication links can be of great benefit to the educational institutions of the Pacific Basin permitting supplement and exchange of educational materials and sharing of services. Furthermore, telecommunications will be increasingly vital for maintaining high levels of health services; small field operations will be able to receive professional assistance from large centers. Telecommunication exchange systems should cover international regions to adapt best to the developing structure of education and health services.
2. The Pacific Basin is characterized by small clusters of people divided by great distances. In this respect it is not unlike much of the earth's surface. A very large proportion of the population lack any opportunity, without outside assistance, to develop good higher education or effective health services. Established telecommunications tend to perpetuate the inequalities of life and opportunity which exist between rural and urban populations.

A telecommunication system incorporating satellite relay and low cost, easily transportable ground units for sending and receiving messages allows small, widely dispersed education and health services to share information and maintain continuing relationships with sources of knowledge.

Appropriate radio spectrum allocations must be international in application because requests for and sources of knowledge are often divided by national boundaries.
3. Recognizing that poor education and health communications lowers the quality of life for the people, the University of Hawaii has developed a program to promote effective non-commercial, educational communications in the Pacific and Asia.

As part of this program the University of Hawaii currently is demonstrating a pilot telecommunication link on the island of Oahu and its Hilo College Campus on the island of Hawaii. The system is designed for reliability, mobility, ease of maintenance and operation and to provide for essential modes of communication at a low cost acceptable to small institutional budgets.

Monday 7/12/71

10:05 Called Mr. Timmons' office and talked with Eloise Frayer about the cy. of Mr. Timmon's interim reply dated 7/7/71 to Cong. Spark Matsunaga re educational satellite communications for the Pacific Basin, etc., which had been referred to Dr. Kissinger's office for draft or direct reply -- with a copy to Mr. Whitehead for consideration.

Told her that we had had a referral from John Campbell's office dated 6/30 of a letter to the President from Governor Burns of Hawaii on the same subject and that Mr. Thornell had hand delivered a draft reply to the White House on July 3. Mr. Whitehead had suggested we send Timmons a copy of our reply; Eloise Frayer has been in touch with with Campbell's office and they will coordinate.

Tuesday 7/13/71

4:30 I have talked with Jack Murphy, Director, Executive Secretariat of the National Security Council, and he is aware of the various letters. Apparently, after receiving our draft, John Campbell's office had sent it to various people to be staffed out by White House, one of whom is Kissinger's shop; however, Mr. Murphy hadn't seen our draft so requested a copy, which I have sent. 3723

July 13, 1971

To: Mr. Jack Murphy
Director
Executive Secretariat
National Security Council
Room 385
Executive Office Bldg.

From: Eva Daughtrey

Attached is a copy of the
draft letter to Governor Burns
which we discussed on the
phone.

Friday 7/9/71

5:50 Mr. Thornell:

Tom asked that a copy of the letter which was sent to Governor Burns of Hawaii be sent to Henry Kissinger - telling them that the letter to the President was referred to us and we sent out the attached reply.

However, Jack, you only prepared a draft reply and sent to John Campbell.

So, I have tried to call Timmons and Campbell's offices and there is no answer. Those two should get together. We can't send a copy to Kissinger unless the letter went out from the President. (We didn't send it out in any event)

I thought I would call on Monday (I hope I won't be in the office) and see what has happened. And go from there.

Routing Slip
Office of Telecommunications Policy

Date: 18 JUL 1971

From: _____

To:

<input checked="" type="checkbox"/>	Whitehead, C.T.	<i>[Signature]</i>
<input type="checkbox"/>	Mansur, G.F.	<i>[Signature]</i>
<input type="checkbox"/>		
<input type="checkbox"/>	Babcock, C.	
<input type="checkbox"/>	Buss, L.	
<input type="checkbox"/>	Cooke, A.	
<input type="checkbox"/>	Culpepper, C.	
<input type="checkbox"/>	Dean, W.	
<input type="checkbox"/>	Doyle, S.	
<input type="checkbox"/>	Ehrlich, M.	
<input type="checkbox"/>	Enslow, P.	
<input type="checkbox"/>	Hailey, L.	
<input type="checkbox"/>	Hall, D.	
<input checked="" type="checkbox"/>	Hinchman, W.	
<input type="checkbox"/>	Jansky, D.	
<input type="checkbox"/>	Joyce, C.	
<input type="checkbox"/>	Lamb, B.	
<input type="checkbox"/>	Lasher, S.	
<input type="checkbox"/>	Lyons, W.	
<input type="checkbox"/>	McCrudden, M.	
<input type="checkbox"/>	Olsson, W.	
<input type="checkbox"/>	Owen, B.	
<input type="checkbox"/>	Raish, L.	
<input type="checkbox"/>	Robinson, K.	
<input type="checkbox"/>	Scalia, A.	
<input type="checkbox"/>	Siling, P.	
<input type="checkbox"/>	Smith, L.	
<input type="checkbox"/>	Thornell, J.	
<input type="checkbox"/>	Urbany, F.	
<input type="checkbox"/>	Ward, D.	
<input type="checkbox"/>		
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REMARKS:

July 7, 1971

Dear Mr. Matsunaga:

I would like to acknowledge and thank you for your July 3 letter to the President regarding the proposed development of an educational satellite communications system in which the nations of the Pacific Basin and Asia would participate. I sense the time element involved in specific portions of your request for assistance and want to assure you your letter will be accorded prompt attention.

With cordial regards,

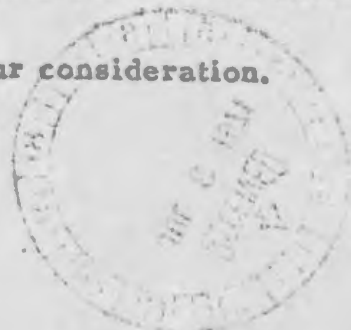
Sincerely,

William E. Timmons
Assistant to the President

Honorable Spark M. Matsunaga
House of Representatives
Washington, D.C. 20513

bcc: w/incoming to Dr. Kissinger for DRAFT OR DIRECT REPLY AS appropriate.

~~WET:VO:jn~~ w/incoming to Clay Whitehead for your consideration.
WET:VO:jn



SPARK M. MATSUNAGA
1ST DISTRICT, HAWAII

WASHINGTON OFFICE:
442 CANNON BUILDING
20515

HONOLULU OFFICE:
218 FEDERAL BUILDING
96813

Congress of the United States
House of Representatives
Washington, D.C. 20515

MEMBER:
COMMITTEE ON RULES
COMMITTEE ON AGRICULTURE

SECRETARY:
STEERING COMMITTEE

July 3, 1971

The President
The White House
Washington, D. C. 20500

Dear Mr. President:

The people of Hawaii, because of their unique cultural heritage and the geographic location of the Island State, have long had a deep interest in the development of strong friendly relations with the nations of Asia and the Pacific Basin. Knowing of your own abiding interest in the establishment of closer relations with Asia and the Pacific Basin nations, I believe that you will be interested to learn of a project now underway in Hawaii which could be expanded to improve communication between the people of the United States and the people of Asia.

The project, called PEACESAT, has been initiated on an experimental basis by the University of Hawaii in cooperation with the National Aeronautics and Space Administration. Currently, the University is using an ATS-1 satellite for communications between its main campus on the island of Oahu and its campus on the island of Hawaii. The satellite communications system has been utilized for exchanges of library material, classroom instruction, and seminars between widely separated participants. Specifically designed to link remote users with limited fiscal resources, PEACESAT, or a similar satellite communications system, could be expanded to include educational and health service institutions in the Pacific Basin almost immediately, using existing technology and equipment. Ultimately, the system could be expanded to link educational and health institutions throughout Asia and the Pacific. It could also be used to link noncommercial radio stations for exchanges of weather information, health data, news, and local cultural programs.

The proposed linking of health and educational institutions would be mutually beneficial to the institutions and would, no doubt, result in closer ties of friendship and cooperation between the people of the United States and the participating foreign nations.

The President
July 3, 1971
Page 2

Although existing technology is sufficiently advanced for the development of the proposed communications system, a number of obstacles stand in the way of its successful implementation. First and foremost among these is the need for a strong federal mandate for the development of such communications systems in an effort to bring East and West closer together. I therefore respectfully urge you to lend your personal support and leadership to the project initiated by the University of Hawaii.

Secondly, a matter of great urgency at the present time involves securing vital radio frequencies. Permanent international radio spectrum assignments are essential to the development of PEACESAT and other international educational communications systems.

It is my understanding that the matter of international radio spectrum assignments will be considered at the World Administrative Radio Conference for Space Telecommunications now underway in Geneva. I respectfully request that the United States delegation to the Conference be informed of Hawaii's activities in the field of satellite communication, and that a favorable allocation of radio spectrum assignments be sought to ensure the future development of the PEACESAT system.

In this connection, the following two actions are recommended. First, agreement should be advocated by the United States for international allocation of approximately 200 MHz at a point where present telecommunications technology allows for use of low-cost sending and receiving stations in a point-to-point distribution system using satellite relay for noncommercial education and community service.

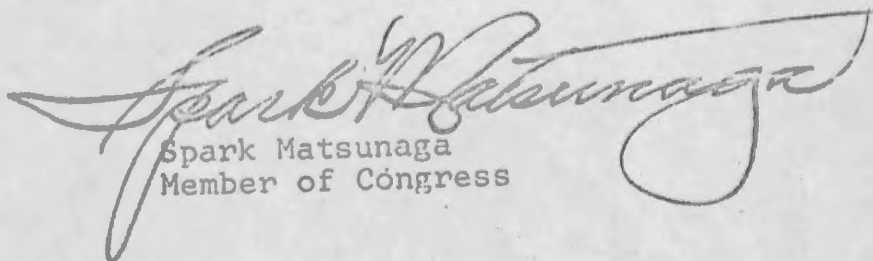
Second, a provision should be sought which would permit appropriate spectrum allocations for international interconnection by satellite relay of radio broadcast stations. The allocation should allow for low-cost ground stations and international two-way exchange networks.

The President
July 3, 1971
Page 2

Your assistance in communicating these concerns to our delegation at the Geneva Conference, and your strong support of the proposed educational communications system would be deeply appreciated.

Aloha and best wishes.

Sincerely,



Spark Matsunaga
Member of Congress

Hand carried - 10:30 Saturday July 3,

J. Ch...

See Draft for reg'd action

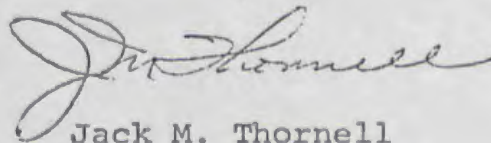
EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON, D.C. 20504

OFFICE OF THE DIRECTOR

July 3, 1971

John Campbell
Staff Assistant
The White House

Attached is a draft prepared in response to
the White House referral of June 30, 1971. This
draft has been reviewed and approved by the Director.


Jack M. Thornell

Honorable John A. Burns
Governor of Hawaii
Honolulu, Hawaii 96813

Dear Governor Burns,

It is heartening to learn of Hawaii's^a independent initiative in seeking general improvements in education for the Pacific basin through improved communications. You can be assured of my support of the broad goals and objectives for educational communication and East-West cooperation in the Pacific that you set forth in your letter of June 24.

X
X
X [I have asked Clay T. Whitehead, Director of the Office of Telecommunications Policy, to respond in more detail to your proposal. If I can be of any further assistance, I hope you will let me know.

With kindest regards.

THE WHITE HOUSE OFFICE

REFERRAL

To: Tom Whithead
Office of Telecommunications Policy

Date: June 30, 1971

ACTION REQUESTED

- ☒ Draft reply for:
☒ President's signature.
☐ Undersigned's signature.
☐ Memorandum for use as enclosure to reply.
☐ Direct reply.
☐ Furnish information copy.
☐ Suitable acknowledgment or other appropriate handling.
☐ Furnish copy of reply, if any.
☐ For your information.
☐ For comment.

NOTE

Prompt action is essential.

If more than 48 hours' delay is encountered, please telephone the undersigned immediately, Code 1450.

Basic correspondence should be returned when draft reply, memorandum, or comment is requested.

REMARKS:

Please send draft reply to John Campbell's office.

Description:

☒ Letter: ☐ Telegram: ☐ Other:

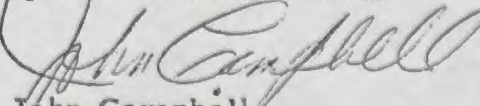
To: The President

From: Governor John A. Burns, Executive Chambers, Honolulu, Hawaii

Date: June 24, 1971

Subject: To enlist the President's personal support and leadership in an effort to bring East and West more closely together; that strong leadership be asserted in the development of an international educational telecommunication network for the Pacific Basin.

By direction of the President:



John Campbell
Staff Assistant

sm

(Department or Agency copy)

THE WHITE HOUSE OFFICE

REFERRAL

To: Tom Whitehead
Office of Telecommunications Policy

Date: June 30, 1971

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☒ President's signature.
☐ Undersigned's signature.
☐ Memorandum for use as enclosure to reply.
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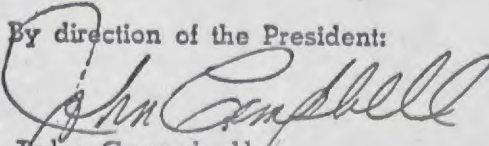
To: The President

From: Governor John A. Burns, Executive Chambers, Honolulu, Hawaii

Date: June 24, 1971

Subject: To enlist the President's personal support and leadership in an effort to bring East and West more closely together; that strong leadership be asserted in the development of an international educational telecommunication network for the Pacific Basin.

By direction of the President:


John Campbell
Staff Assistant

sm

(Copy to remain with correspondence)



EXECUTIVE CHAMBERS

HONOLULU

JOHN A. BURNS
GOVERNOR

June 24, 1971

Dear Mr. President:

We in Hawaii watch with sympathetic concern the evolution of national policy in the Pacific and Asia. Poor communication has contributed to fundamental failures of understanding and three violent conflicts in as many decades. Physical location and cultural heritage give to Hawaii a unique position for contributing to the improvement of communications among Pacific peoples, and the reduction of tension and fear. Whatever the difficulties, it is essential for the people of the United States to continue to demonstrate very clearly their fundamental good will and their determination to share in the worldwide struggle to free mankind from the bondage of ignorance, disease, and hunger.

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The program, initiated by the University of Hawaii is labeled PEACESAT (Pan Pacific Education And Communication Experiments Using Satellites). The ATS-1 satellite operated by the National Aeronautics and Space Administration is being used currently to exchange library materials by facsimile, provide classroom instruction with teachers on one island and students on another, and permit seminars with widely divided participants working together. The PEACESAT system is especially designed to adapt to the needs and financial abilities of remote education and health institutions and to provide reliable, two-way exchange over great distances without extensive advance construction and preparation. The

system links islands within the State of Hawaii at present, but Federal approvals for extension into the Pacific Basin are being sought. It is planned to extend the system, someday linking all institutions of higher education in the Pacific Basin.

At present the project is an expression of potential. Many problems stand in the way of continuing operation and extension of service internationally. Some way of sustaining the space communication link must be found. The NASA Satellite now in use has a very limited life remaining. The radio spectrum assignment is a temporary one. International exchange of educational resources on such a large scale has not been envisioned before, and spectrum assignments have never been made for this international purpose. We are working to create the conditions which will make of this project a permanent force for peaceful relations between peoples. The possibilities for regular satellite communication service are being explored, and international agreements for the necessary radio spectrum assignments are being sought through the United States delegation to the World Administrative Radio Conference for Space Telecommunications, in session until July 17 at Geneva, Switzerland.

Despite our best efforts, however, this project cannot achieve its full purpose without a clear Federal mandate, one based on the recognition that important national priorities are served. The Federal government controls future development in many ways. It has broad administrative function in the Pacific, has authority for foreign relationships, regulates the airways, directs the development of space technology and assists educational and health services. Coordinated Federal initiatives are essential. #

The project in its present form is only a beginning. Certainly it is unrealistic to expect men of different backgrounds, divided over the centuries, to communicate suddenly because the opportunity becomes available. Use and the development of mutual interests will be slow. Nevertheless, the prospect remains that almost immediately the project could be made to symbolize a new emerging national policy in the Pacific and Asia.

PEACESAT, a product of local initiative, expresses a great American ideal by facilitating open communication between peoples on a basis of equality. It applies a brilliant technological achievement to the task of peace, dialogue between nations and improvement in the human condition. In the long view this specialized communication service can strengthen the less industrialized nations, bolster technical training and health services and increase understanding between cultures. Even now, with proper preparations, the project might be used experimentally as a symbolic step in the process of opening dialogue with China.

Mr. President, I respectfully suggest your personal leadership and support be brought to bear on this matter in order that United States space technology and existing programs are applied for expansion of educational communication between our people and the people of the Pacific Basin and Asia. Should you see in expanding channels of communication between East and West a valuable national objective, the State of Hawaii is ready to participate in or initiate a program of joint planning with the Federal government. Hawaii can provide a unique contribution. We are recognized worldwide as a place where men of diverse cultures have learned to live together in a spirit of goodwill. Should you wish, we can assist in preparing for a conference of educational representatives from the Pacific and Asia to explore expansion of communication between educational institutions. Whatever is done, our hope is that the objective of open, day-to-day dialogue between education and health service institutions of the Pacific Basin, can become a national one and that it will warrant executive leadership and coordination of existing Federal programs essential to accomplishment.

You may wish to confer in Washington with Senator Hiram Fong for information and judgment. He and the other members of the Hawaii Congressional Delegation stand ready to assist you.

Warmest personal regards. May the Almighty be with you and yours always.

Sincerely,

John A. Russell

The President
The White House
Washington, D. C.

Enclosures

Project Description

It is impossible for many of the peoples of the Pacific Basin to sustain adequate levels of education, health care, and technically based services. Often populations are small in size and divided by great distances. Inadequate communications constitutes a principal barrier to community development.

The purpose of PEACESAT is to demonstrate the benefits of currently available telecommunication technology when applied specifically to the needs of sparsely populated, less industrialized areas. A specially designed communication system uses satellite relay and depends on a low cost ground station costing less than \$10,000.

In February, 1971, the University of Hawaii received National Aeronautics and Space Administration approval for use in educational experiments of the ATS-1 satellite, in orbit over the Pacific. Operating licenses were granted by the Federal Communications Commission. The ATS-1 coverage area includes most of the Pacific Basin.

Since April, 1971, as part of Phase I of the PEACESAT project, ground stations constructed by the University have been successfully test-operated, and utilized at the Manoa Campus on Oahu and at the Hilo College Campus on the island of Hawaii. The two way communication system transmits voice, teletype, and facsimile (but not television) via satellite relay. Portable units for other islands of the State are under consideration to connect elementary, high school, library and community college institutions. Additional projects being considered will test the linking to educational centers of ocean vessels engaged in education and research, and two way networking of non-commercial radio stations.

In Phase II extending from September, 1971 to June, 1972, international exchange between educational institutions is planned. Ground stations are projected, assuming approvals, with the University of the South Pacific at Suva, Fiji, the University of Papua and New Guinea, and others. The University of Guam and additional locations under U.S. authority also may join.

The project is under the Governor's Committee on Pan-Pacific Educational Communications, appointed August, 1970 at the request of Governor John A. Burns. Chaired by President Harlan Cleveland of the University of Hawaii, the committee includes Dr. Shelley Mark, State Director of Economic Planning and Development; Dr. Fujio Matsuda, State Director of Transportation; Dr. Shiro Amioka, State Superintendent of Education; and Dr. Everett Kleinjans, Chancellor of the East-West Center. Initially supported under the President's Innovative Fund, the project is now under an act passed by the 1971 State legislature.

PEACESAT can provide an intercontinental laboratory. Its objectives are to increase the quality of education in the Pacific by facilitating sharing of scarce, costly resources; to improve professional services in sparsely populated areas through telecommunication support; and, generally, to assist in applying the potential of satellite technology for peaceful world development.

Project director is Dr. John Bystrom, Professor of Speech-Communication. Dr. Paul Yuen, Professor of Electrical Engineering, is technical director. The ground station was designed and its construction directed by Katashi Nose, Assistant Professor of Physics.

*Shelley Mark
to post
investigating
indication*

State of Hawaii
and
University of Hawaii
to
United States Delegation
World Administrative Radio Conference
for Space Telecommunications
June 7-July 17, 1971

Position Paper

International Allocations for Educational Communications

1. The world's less industrialized areas lack resources with which to develop education and health services equal to those available in the population centers of the major industrial nations. The use of long distance telecommunication links can be of great benefit to the educational institutions of the Pacific Basin permitting supplement and exchange of educational materials and sharing of services. Furthermore, telecommunications will be increasingly vital for maintaining high levels of health services; small field operations will be able to receive professional assistance from large centers. Telecommunication exchange systems should cover international regions to adapt best to the developing structure of education and health services.

2. The Pacific Basin is characterized by small clusters of people divided by great distances. In this respect it is not unlike much of the earth's surface. A very large proportion of the population lack any opportunity, without outside assistance, to develop good higher education or effective health services. Established telecommunications tend to perpetuate the inequalities of life and opportunity which exist between rural and urban populations.

A telecommunication system incorporating satellite relay and low cost, easily transportable ground units for sending and receiving messages allows small, widely dispersed education and health services to share information and maintain continuing relationships with sources of knowledge.

Appropriate radio spectrum allocations must be international in application because requests for and sources of knowledge are often divided by national boundaries.

3. Recognizing that poor education and health communications lowers the quality of life for the people, the University of Hawaii has developed a program to promote effective non-commercial, educational communications in the Pacific and Asia.

As part of this program the University of Hawaii currently is demonstrating a pilot telecommunication link on the island of Oahu and its Hilo College Campus on the island of Hawaii. The system is designed for reliability, mobility, ease of maintenance and operation and to provide for essential modes of communication at a low cost acceptable to small institutional budgets.

The ATS-1 satellite of the National Aeronautics and Space Administration is being used for two way exchange by voice, facsimile, and teletype, using an uplink at 149.22 MHz and a downlink at 135.6 MHz. Ground stations have been constructed by University staff at a cost of less than \$7,000 each. It is intended to add stations at the University of the South Pacific (Suva, Fiji) and the University of Papua and New Guinea (Boroko, T.P.N.G) by September, 1971, provided necessary approvals are granted. The project is entitled Pan Pacific Education and Communication Experiments by Satellite (PEACESAT).

4. Two kinds of network requirements exist at present:

- (a) Much of the Pacific Basin is served by radio broadcasting. Television coverage is limited. Most radio broadcast stations operate on very limited budgets. A satellite system using low cost ground stations can permit interconnection of radio broadcast stations, allowing them to engage in two way exchange of weather information, health data, news, and local cultural programs. A conference of Pacific Broadcasters in May 1971 at the East-West Center (Honolulu, Hawaii) confirmed strong user approval of this proposal. Two way exchange protects local independence while permitting the advantages of regional programming.
- (b) The institutions of higher education in Australia, New Zealand, Papua and New Guinea, Fiji, and Guam have expressed interest in a Pacific Higher Education Satellite Network proposed first in April 1969. It is planned that the system will be used for specialist seminars, professional and teacher training, classroom instruction, personnel training in sub-professional areas, diagnostic and consulting services, and library exchange. The fields to be affected will be medicine and public health, education, technical development, economic planning and development, social development, agriculture and fisheries, administration and planning, and cultural exchange.

5. Present and future requirements for international exchange thru telecommunications cannot be met without international agreements on radio spectrum allocations. Therefore it is requested that the U.S. Delegation advocate international agreements:

(a) To permit the operation of an international educational telecommunication two-way distribution system using satellite relay to connect distant points, with low cost sending and receiving stations at each point.

(b) To permit international networking of non-commercial radio broadcast stations using satellite relay and low cost ground stations which would allow two-way exchange of programs between stations.