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CTWhitehead (2)
Dr. Mansur
Mr/ Smith
DO Records
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November 24, 1971

Not Sent

MEMORANDUM FOR

Mr. Henry A. Kissinger
Mr. Peter Flanigan

I have reviewed with OMB, State, and FAA the status of the FAA/ESRO Aerosat negotiations and our options. The Memorandum of Understanding has reached final draft form, and France, Germany, the UK, and Italy are prepared to sign.

Our options are:

1. Instruct FAA to sign.

2. Delay signature and renegotiate with a broader group of nations.

3. Do not sign and postpone the issue for a year or more.

For the reasons attached at TAB A, I cannot in good conscience recommend that we instruct FAA to sign the MOU in its present form. It is my judgment and strong feeling that the domestic economic and political issues, and the overwhelming precedent for international communications that will be established far outweigh the short-run unhappiness of the space and communications ministries of the half-dozen or so affected European governments. Furthermore, I believe the specific management arrangements will produce more contention than cooperation internationally and that the Administration will be seriously embarrassed in trying to defend this program against strong criticism in the Congress next year.

I believe the President should be apprised of these issues before a decision is reached to proceed. If you decide that is not feasible, and if you also decide that the short-run international aspects outweigh the issues and consequences I have brought out, I will go ahead and instruct the FAA to sign at the scheduled time.

Clay T. Whitehead

Atch.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

November 24, 1971

MEMORANDUM FOR PETE PETERSON
DICK ALLEN

SUBJECT: Aerosat

Per our earlier conversations on Aerosat and its potential impact on the future of U.S. private telecommunications business, enclosed are:

1. Whitehead to Flanigan memo of October 13, which is the best summary I can find;

2. Comsat to Flanigan memo of November 18;

3. Exchange of correspondence between PGP and Whitehead.

Tom Whitehead and I are trying to see Al Haig to discuss Henry Kissinger's position that we must sign the Memorandum of Understanding with ESRO, presumably because to do otherwise would overly-offend our allies and call U.S. negotiating credibility into question.

In addition to the problems cited in the enclosed memos, we have budget problems for FY73 with the latest FAA shift to a direct government purchase approach.

/s/ DBR

Donald B. Rice
Assistant Director

Enclosures (3)

cc: Cap Weinberger
Pete Flanigan
Tom Whitehead ✔

OCT 13 [illegible]

MEMORANDUM FOR MR. FLANIGAN

The issues which have arisen in connection with the Aeronautical Satellite Program are of a broad and fundamental nature, and the program itself is simply the current focal point. This Administration is committed to creation of an environment which will foster new business opportunities in the private sector, and I believe that space communications technology is sufficiently advanced so that a wide range of new communications services are now commercially viable. Several major communications carriers and aerospace firms have expressed strong interest in construction and leasing of facilities to provide for the needs of the aeronautical community, and the maritime and public telephone communities as well -- if the private enterprise institutional arrangements are reasonable.

The Europeans, and especially the French, also recognize the commercial potential of this technology and the leading role of the aeronautical satellite program in gaining a lead in the broader market. The Europeans have a twofold interest: first, their space industry hopes to acquire and develop technology from the United States and to obtain major concessions in the manufacture of space and avionics equipment; and second, they wish to exercise a disproportionately large control of not only the Atlantic portion of the system, but also the worldwide system. Accordingly, the institutional arrangements advanced by the Europeans and accepted in large measure by the FAA have been designed to achieve these objectives. These arrangements include European power of veto for all program management decisions, guarantees of an equal share in research, development, and manufacturing activities for the space segment, and 50% ownership of the resulting enterprise in conjunction with a U. S. contractor.

These proposed arrangements are universally opposed by U. S. communications carriers, aerospace industries, and air carriers. My Office has been informed by all of the possible contractors that the "bizarre" arrangements virtually prohibit investment of the risk capital necessary

for construction of the system. Even the FAA has recognized that the arrangements are not workable and is now proposing that the U. S. share of the system be Government owned, with government-to-government joint ownership and management.

These issues are symptomatic and typical of those which arise between the U. S. and European governments, especially France, in all discussions concerning electronics and communications programs. NATO is confronted with an identical set of issues, and we have been informed that the Europeans are closely watching events in the Aeronautical Satellite Program as a possible precedent for NATO and other programs.

The FAA and the Department of State will argue that the discussions are so far advanced that it is impossible to make alterations in the program. I do not believe this to be the case. Although there will certainly be strong negative reactions, in comparison to other new economic policies, the effect will be minimal.

There is great pressure from the Europeans and the State Department to extend the precedent of INTELSAT -- i.e., international communications to be handled as a joint venture among governments rather than as a commercial activity. The INTELSAT arrangements are bad enough as precedent, but they are nothing compared to this situation. It is my firm view that the precedent that would be established by the current FAA plan will foreclose any chance we have to see international communications develop as a private sector activity. I am also concerned that if on an issue so clear cut as this we are not willing to be firm with the Europeans and accept some tactical unhappiness on their part, then we will not be able to stand up to the President's objective of developing U. S. technology to the benefit of U. S. trade and economic strength. (I note one example in passing: We are now getting cables indicating that the Europeans would like to see this kind of arrangement to see the aeronautical satellite arrangements serve as the model for post-Apollo space cooperation broadly.)

In addition to the substantive issues above, I must make it clearly understood that the effectiveness of the Office of Telecommunications Policy as an Executive Office will be seriously compromised if the Aeronautical Satellite Program continues on its present course -- directly contrary to policy guidance we established with the unanimous agreement of all concerned Executive Office agencies.

151

Clay T. Whitehead

cc: Mr. Whitehead
Dr. Mansur

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH H. McCONNELL
Chairman of the Board

November 18, 1971

Mr. Peter Flanigan
Assistant to the President
The White House
Washington, D. C. 20500

2

Dear Peter:

I know that you have been closely aware of Comsat's interest in seeking to provide aeronautical communications services to meet the growing need and requirements for such services. Comsat's interest and investment in all aspects of an initial commercial aeronautical communications satellite system have now extended over a number of years. We are, therefore, greatly disturbed at the apparent conclusion of the FAA that it is now planning to proceed on the basis of a government ownership of the satellites and that it is seeking budgetary approvals for such a system.

As you know, Comsat, although a one hundred percent private stock company, is limited specifically by statute to the field of satellite communications. Since our establishment we have vigorously pursued the economic development of reliable commercial services including satellite communication services to aircraft in trans-oceanic flight. We have invested considerable resources over the last several years in the development of aeronautical services and have submitted four proposals to provide this service to the U. S. government and commercial airlines. These proposals were based on extensive prior discussion of requirements with officials of the government concerned with aeronautical communications. We have offered to provide the desired services on a commercial lease basis where we provide all investment and guarantee the service;

the customer(s) would pay only when the leased services are available, and for the time that they are available, for the duration of the lease period.

In making the corporate investment on which these prior proposals were based, we have been guided by the established government policy to utilize commercial communications services when available rather than investing in government owned and operated equipment. We were encouraged when the Office of Telecommunications Policy, after reviewing the aeronautical satellite question, restated on January 7, 1971 that it is the government policy to proceed with the program and lease services rather than buy and operate equipment. We have, therefore, continued to expend our resources since this reaffirmation of policy, and believe the reversal of such a decision now would not be in the public interest and would be grossly unfair to our stockholders.

I am aware that the terms and details of a proposed U.S.-European Agreement which is being constructed tends to cloud the essential issues, and I wish to emphasize several fundamental points for your consideration:

Comsat is willing to provide any aeronautical service(s) presently being contemplated for the proposed aeronautical satellite program, in any of the frequency ranges being considered, on a fixed-price leased-services contract(s), for a guaranteed service, without the necessity of government investment. The only limitation on the quantity or quality of service to be provided is the technical state-of-the-art, which is unrelated to a lease or buy decision. The only research and development involved lies in the way the communications links through the earth stations and satellites would be used and not in the satellite technology.

While the terms of the proposed U.S.-European Agreement obviously present serious impediments to a U.S. government lease of aeronautical services, it must be emphasized that

these impediments are the direct consequence of the particularly bizarre management arrangements provided by the proposed Agreement. They are not at all necessary consequences of a leased-services approach. We would be quite willing to invest in a partnership in which the partners have equal voice in the selection of subcontractors and vendors, the technical designs, adequacy of acceptance tests, etc., where the decision and direction is in equitable proportion to investment risk. Obviously we could not accept technical direction from a third party over these matters affecting our investment.

Regardless of the scope of the initial program, the total investment required and the realizable satellite lifetime clearly supports the expectation that additional customers could make use of these services, including some airlines. We can, therefore, see no conceivable reason why the initial program should not be based on a common carrier approach. In this manner, not only could additional customers easily be accommodated but the cost to the government minimized, since the depreciation of ground equipment would extend over more than the lifetime of the initial satellites.

In summary, we have invested our resources on the basis of published and reaffirmed U.S. government policy of leased services, rather than government investment and ownership. If the service is available commercially on a fixed-price, guaranteed basis, how can it be justified on a research and development basis, or on a government-ownership basis? Is consideration of leased-service to be dismissed on the basis of one particularly complex approach to a lease arrangement, without even considering letting the investment partners make the partnership arrangements on the basis of their investment? And finally, when it is obvious that a successful aeronautical satellite program can provide services to a number of users, including commercial airlines, within the reasonable lifetime of the first generation of aeronautical satellites, how can any approach except that of a common carrier be justified?

I have not wished to impose on your time at this stage by including in this letter a point-by-point analysis of the many and substantial respects in which we believe the arrangements proposed by FAA are impractical, and we believe contrary to the public interest. We would be glad to provide such an analysis in writing or orally, if you believe it would assist the decision-making process.

Finally, an important point should be emphasized. Our discussions with FAA and the airlines that have ensued over a number of years up to these recent proposals have required us to perform substantial planning and development work for the offering of aeronautical communications services. In the course of this work we have incurred system development costs in excess of one million dollars ($1,176,000 as of September 30, 1971), which now stand on our books. These costs must be written off in a single year, if the Government proceeds in the fashion proposed by the FAA. We think it is a discouraging commentary on the seriousness of purpose with which the Government views the mission of this Government-sponsored corporation, that, as a result of actions of the Government itself, we should be required to write off the costs of our efforts to develop an aeronautical communications system which would benefit private and Government users alike.

Sincerely,

Joseph H. McConnell

cc: Mr. C. T. Whitehead

THE WHITE HOUSE

WASHINGTON

October 14, 1971

Dear Tom:

I appreciated your recent memorandum bringing me up-to-date on the latest developments in the Aeronautical Satellite Program (AEROSAT).

As you know, I am extremely interested in situations in which the U.S. may be involved in transferring technology abroad without reaping the full commercial benefits that should flow to the U.S. from such transactions. Because my familiarity with the many complex technical and foreign policy issues at stake in the current AEROSAT negotiations is far from complete, I am not able to judge the merits of the specific recommendations that you have made in your memorandum.

I do agree, however, that the appropriate Executive Offices, perhaps headed by OMB, should review the situation within a 30-day period and examine the alternatives to the present course of action.

Best regards.

Sincerely,

Peter G. Peterson
Assistant to the President
for International Economic Affairs

The Honorable
Clay T. Whitehead
Director
Office of Telecommunications Policy
Washington, D. C. 20504

3

September 24, 1971

Arnest

MEMORANDUM FOR

Mr. Peter Peterson

Improved over-ocean aviation communications through the use of satellites has been discussed since 1966, but financial, institutional, and technical problems retarded progress. In October 1970, an Executive Office Working Group was formed to review policies under which the program should proceed, and the resulting Administration policy was set forth in a statement released on January 7, 1971. The policy and a subsequent interpretation by letter of July 12, 1971, included the following points:

- Projected increases in international air traffic will require improved communication services afforded by satellites in the Pacific and Atlantic Oceans in 1973 and 1975, respectively.

- Satellite communication services required by the FAA should be leased from the private sector and should be procured by international competitive bid.

- Any institutional arrangements for the procurement of services should not be inconsistent with evolution of a multiple user communication service (e.g., aeronautical and maritime), although significant program delay is not warranted to foster such service.

- International cooperation should be encouraged in the extent consistent with the above objectives.

This policy statement met with wide approval in the aerospace industry and with the communications carriers since it provided new opportunities for application of aerospace technology and evolution of new service opportunities for U. S. industry.

Discussions between the FAA and the European aviation and space communities, initiated in June, 1971, have departed substantially from the Administration policy. These tentative arrangements include:

1. Procurement plans and practices oriented first towards extensive research and development programs and only secondarily to providing commercial communication service, and which assure European industry a substantial share (approximately 50% in the production of system equipment.

2. Management policies requiring unanimous agreement for all program decisions and which are designed to assure production and technology sharing.

3. Ownership arrangements requiring joint and equal ownership of the enterprise by a European government entity (European Space Research Organization) and a U. S. commercial firm.

4. In exchange the Europeans have agreed to pay 50% of the cost of the program, estimated to be $125-140 million. The U. S. share of this limited program would be $60-70 million.

The reaction of the U. S. communications and aerospace industries to the FAA/ESRO discussions has been universally negative. Most have formally expressed an unwillingness to risk venture capital because of the "bizarre" management and ownership provisions. The air carriers, both U. S. and international, being unsympathetic to any satellite program because of current operating losses, are especially opposed to the proposed joint FAA/ESRO program because of its government ownership and anticipated higher costs. The proposed program does bring in European money, but is far more costly than the competitively bid program originally envisaged and is likely to result in higher U. S. Government outlays overall.

Nevertheless, the State Department and FAA support the tentative arrangements because of "our existing commitments and our foreign relations interest," and ESRO and the several European governments view the program as beneficial to European space technology and commerce.

As agreed, we have directed the FAA to suspend negotiations with the Europeans pending an Executive Office review. Because the lifetime of the proposed pre-operational satellites is such that any institutional agreements formulated now will continue through the next decade and establish important precedents, our proper direction at this time is crucial.

There are two central issues: (1) Is the U.S. Government willing to appease the European desire to bolster their electronic and aerospace industry at the price of severely limiting U.S. industry's opportunity to compete and to utilize U.S.-developed technology to the economic advantage of the U.S.? (2) Does the U.S. wish to encourage international communications to develop on the Intelsat model of a jointly-owned, jointly-managed international organization or to encourage a cooperative but private enterprise framework?

I believe the answer to both question is clearly no -- especially while this Administration is in office. I further believe we are faced with a clear challenge by the Europeans, the State Department, and FAA, to the President's determination in this area.

I propose to request the FAA to redirect the program to be consistent with the objectives expressed in the Administration's policy of January 7, 1971. This will require:

1. Alteration of the proposed management arrangements to a "joint" program restricted to coordination, and with space segment services provided by the private sector.

2. Reaffirmation of the principle of competitive bidding to assure optimum price, quality, and delivery for equipment and services.

3. Decisions regarding ownership of the space segment be reserved to private management choice and initiative, and without U.S. Government guarantees of ownership to the Europeans.

4. Careful distinction be drawn between prerogatives that may be afforded users of the system and the rights attributable to ownership or any part of the system to assure an environment favorable to private investment incentives.

Alteration of the tentative FAA/ESRO arrangements at this time will upset the European space community. Since ESRO is closely coupled to the European governments, we may anticipate an unfavorable reaction from the French and German governments, and to a lesser extent the U.K. The commercial international air carriers will, in general, support any move which reorients the program toward aviation rather than space research and development.

I believe that the United States can by adept negotiation minimize the effect on the European nations. If negotiations with the Europeans do not result in satisfactory arrangements in a reasonable time, we probably would elect to proceed unilaterally in the Pacific basin, for which the U.S. has air traffic control responsibility, and simply defer implementation of the Atlantic basin program. We would, of course, continue to seek technical coordination. And, of course, U.S. industry would have a significant leg-up in getting the Atlantic basin business if this occurred.

I would appreciate your views by Wednesday, 29 September.

George F. Mansur

/s/ Clay T. Whitehead

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

GFMansur/tw/24 Sep 71

DRAFT/GFMansur/dgm

November 23, 1971

TO: Tom

FROM: George/Brom

SUBJECT: Aerosat Meeting, November 22nd

The aerosat meeting was attended by:

Dr. Mansur
Mr. Bromley Smith
Gen. Lundquist (FAA)
Mr. Israel (FAA)
Mr. Don Rice (OMB)
Mr. Roger Adkins (OMB)
Mr. Bert Rein (DoS)
Mr. Tom Nelson (DoS)
Mr. John Walsh (NSC)

The meeting was focused on two issues:

1. Determination of where we stand with respect to:

   a. Status of the Draft Memorandum of Understanding (MOU).

   b. Understandings with Europeans concerning the U.S. Government's review process.

   c. Estimated program costs and budget requirements for FY 73 thru 75, and

   d. The specific provisions of the Draft MOU relating to program control, procurement, ownership, and use.

2. Discussion of the options now available to the U.S. Government with respect to negotiation of changes and evaluation of effects on foreign relations.

The following is the essence of the discussions:

1. Both State and FAA agree that the Europeans clearly understand that two levels of U.S. Government review, Executive and Legislative, are necessary, the former already underway.

2. The Draft MOU has been completed as a result of last week's discussion with the Europeans.

3. The proposed date of signature for the MOU is still publicly acknowledged as 1 December, and industry briefings for the program are still publicly scheduled in Europe on 3 December, and in the the U.S. on 6 December. However, there is private agreement between the U.S. and Europeans that these dates are unrealistic.

4. Program funding has been authorized by the European governments.

5. Australia, Canada, and Japan are expected to join the joint program at a cost of $4.0 M. each. They enter the program without ownership rights.

6. The Draft MOU provides for Government ownership by the U.S. as well as the Europeans.

7. There is agreement that the Draft MOU is inconsistent with the 7 January policy.

8. The estimated program cost is $125-140 M. This will require expenditure of $15-17 M. in FY 73 and obligation of $80 M. for the space segment and $30-45 M. for boosters in FY 73. The obligations of the U.S. are one-half of the total obligations stated above.

US $55M FY73 B.O.

9. The FAA has requested funding from general funds and does not believe it is possible to reallocate funds from current requests.

10. ESRO has veto authority for program decisions. It is not clear whether individual member states of ESRO can exercise the veto.

11. The contract terminates 1 January 1980.

12. The program includes procurement of test avionics, two earth stations, 6 spacecraft, and 6 boosters.

13. The draft MOU requires that hardware equivalent to one-half of the value of the contract be procured in Europe.

14. The Europeans and the U.S. will be co-owners of the enterprise.

15. The FAA channel requirements include not only requirements for ATC, but the FAA estimates of channel requirements for company airline communications. During the lifetime of this program, channel usage to the air carriers would be provided by the FAA at no cost to the carriers.

A discussion of options which are open to the U.S. at this time did not produce very useful information. The FAA, State, and John Walsh stated that the only option was to approve or disapprove the Draft MOU within the next few days, and that a move to alter any of the provisions of the DRAFT MOU or to delay the program while seeking alterations to the Draft MOU for 2-3 months would be unacceptable to the Europeans. In response to a question as to European reaction to postponement, Rein said that the Europeans

would read the postponement as an effort by the U.S. to dominate satellite communications. ESRO officials would take their case to higher governmental levels with the result that the European governments might oppose ratification of the draft INTELSAT Agreement; undertake contingency planning for a separate system of their own, and put other unspecified pressures on the U.S. Mr. Rein concluded that a deferment for two or three months would leave us no option but to say yes or no at the end of the period. It would create suspicion in Europe, which would be disadvantageous to us if we finally accepted the MOU as drafted. Both Messrs. Israel and Rein ruled out European acceptance of an ATS-G experimental program as a replacement for the Draft MOU, but said they would accept a cutback in scope of the program, i.e., two satellites in the Atlantic and one in the Pacific (reducing the program cost to $105 M.). Mr. Rein pointed out that FAA would not accept another possible option, ie., to cut the program back to the Atlantic Basin only.

Don Rice stated that the Draft MOU would create serious funding problems because OMB had been working on the assumption that the program would involve leasing rather than U.S. Government investment.

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

Tom:

Here is the Magruder memo. His compromise is on pp 3-4

THE WHITE HOUSE

WASHINGTON

November 22, 1971

MEMORANDUM FOR

PETER FLANIGAN
CLAY WHITEHEAD

FROM: W. M. MAGRUDER

SUBJECT: AERONAUTICAL SATELLITE

1. As a follow up to our phone conversation regarding the subject program, I have endeavored to definitize answers to the critical questions offered by the concerned agencies. You will recall these questions as:

a) Is it wise to offer joint program management of the program as opposed to a "coordinated" program providing some private sector incentives?

b) Will termination of the present FAA/ESRO tentative agreement seriously damage international relations in an area where the President has promised co-operation?

c) Will a change in the FAA/ESRO negotiations delay, to a hurtful degree, the ICAO approval of specifications?

d) Will a satellite navigation system, independent from the airplane, really offer an Air Traffic Control Advantage?

e) Is a technology transfer issue involved?

f) Will a U.S. alone program aid balance of trade?

g) Will the total program cost decrease if the U.S. goes alone?

h) Will the UHF system offer a needed communication advantage?

a) Joint FAA/ESRO Program

In varying degrees of concurrence, OST, NASA, FAA, State, ARINC, ATA, IATA and NASC support this joint program. OTP would prefer less of a commitment to partnership, i. e. 50% of subcontracting; 50% of program management and veto power.

b) Termination of FAA/ESRO Agreement Causing International Problems

Again, with varying degrees of emphasis, OST, NASA, FAA, State, ARINC, ATA, IATA and NASC feel that such action could cause damaged relations that might have an impact on later ICAO negotiations. OTP feels that this would be true, but not to a degree not offset by the potential gains to the United States.

c) ICAO Specifications Approval Hurt by a Change in FAA/ESRO Program?

All agencies appear to agree that there is some risk involved in this area. OTP feels that the gains are worth the risks.

d) Satellite Navigation Systems Offering an Air Traffic Control Advantage?

All agencies seem to feel that an experiment is worthwhile as long as the basic experiment is to examine the communications advantages. Most doubt that it can be proven that surveillance will do any more than the redundant inertial systems that will already be in service by the time the satellite is in place.

e) Is Technology Transfer Involved?

There seems to be some division here with OTP and NASC concluding that we may be giving some technology away while OST, NASA and FAA feel that the amount is slight, if any at all.

f) Will a U.S. alone Program Aid Balance of Trade?

There now seems to be fair agreement that balance of trade is not an issue.

g) Will Total Program Costs Decrease if U. S. Goes Alone?

Whereas, OST, FAA, NASA and State feel that the total cost to the U. S. will not be cheaper if the U. S. goes alone, ATA is concerned that whenever government agencies are involved, costs increase and they will have to absorb the increase. OTP and NASC feel that competitive bidding and a US alone program would provide lower costs in spite of the cost-share arrangement of the FAA/ESRO agreement. However, there is no detailed study available to substantiate this position at this time. Recent cost-share agreements with Canada, Australia and Japan indicate some eagerness to participate in the two-ocean program, thus lessening initial costs substantially.

h) Will a UHF System Offer a Needed Communications Advantage?

All agencies are now in agreement on this. The L-Band-UHF argument is behind us if we don't stir it up.

2. The disagreements now boil down to these points:

a) OTP feels we should not agree to 50% subcontracting of R&D and production in Europe. An open, competitive bid would bring more business to the U. S. since we are superior in this technology and it would assure higher quality.

b) OTP feels that an agreement to 50% joint ownership of the entire enterprise is too restrictive. ESRO ownership should be restricted to communication channels to meet ESRO service requirements.

c) OTP feels that program decisions based upon unanimous agreement in effect give ESRO a veto power. It may also foreclose offering broad additional service to maritime and telephone communities.

3. I have suggested a compromise solution:

a) The present FAA/ESRO project be approved on the basis of one satellite for communication over the Atlantic; a second satellite for redundancy.

b) Use the two satellites for R&D only in both communication and surveillance (Air Traffic Control).

c) If the cost-share aspects indicate a third satellite over the Pacific, this can be negotiated.

d) Let the final production and operating agreements become an output of the R&D experiment.

OTP has examined this compromise and feels that the specifics are not acceptable, but that something like it could be worked out.

FAA has examined the compromise and feels it could be negotiated with ESRO without any bad side effects.

ATA and IATA have examined the compromise and feel that they could live with it; however, they look upon the FAA as a natural "enemy" and prefer NASA as the controlling agency (a natural friend).

4. I recommend an early meeting with OTP, FAA and State Department to resolve the differences and go forward. A glance at the trade journal reports (attachment 7) shows we are rapidly heading for another Tacan-VOR-Decca public row which I believe can be avoided by a fast positive administration move forward with an acceptable compromise this week.

5. The only alternatives to my recommendations which I can see are:

a) To request FAA to renegotiate to the exact OTP position,

b) To select a new agency to negotiate to the exact OTP position.

Either of these alternatives will cause a major disruption in the negotiations, an ill feeling with the Europeans and an adverse reaction by the U. S. and international airlines.

ATTACHMENTS

Tab	
1.	OST Position
2.	OTP Correspondence
3.	FAA Correspondence and Position
4.	State Correspondence
5.	ATA Position
6.	IATA Position
7.	Aviation Week Aerosat Articles
8.	Summary of Positions

a. Is it wise to offer joint government management of the program as opposed to a "coordinated" program providing some private sector incentives?

YES. This question is difficult to answer with a simple yes or no. The real issue is here the choice of the best course of action for this nation given the circumstances which exist. The FAA/ESRO AEROSAT program is proposed to be managed by a jointly staffed program office that would be located in the country that is the home base of the prime contractor. Since the major teams that appear to be in a position to bid on the provision of this service are all led by prime U. S. contractors, the location of the joint program office would be in the U. S. European participation in the program would be on the basis of government-to-government agreement but this should not cause a management problem.

The opportunity for private sector incentives can be incorporated in the statement of the RFP for this service. My discussions with industry, however, reveal very limited interest in extending the capability of this satellite at the expense of the contractor to experiment with Marine services, the only area that has been identified as a potentially attractive opportunity for expanded services. The so-called "coordinated" program that is suggested as an alternative to the present proposed FAA/ESRO approach is poorly defined. As I understand the OTP position, this program would permit one or more contractors to bid on the provision of aeronautical services on a lease basis with the Europeans invited to lease circuits on non-discriminatory cost per circuit. I believe such a program is a fantasy because the Europeans have progressed too far to accept any such proposal. They have both the capability to design and build an aeronautical satellite entirely within Europe and assurances of launch services from the U. S. that would enable them to place such a satellite into orbit. Thus, I see the only two alternatives available at the present time as (1) a cooperative program similar to the one that has been defined thus far by the FAA and ESRO or (2) separate and independent programs with the U. S. in the Pacific and the Europeans in the Atlantic. Given the number of votes that the Europeans command in ICAO, it appears likely that international standards for satellite aeronautical service communication would be derived from the European efforts rather than those of the U. S. The provision of avionic equipment for installation in the aircraft is a significant market and could be supplied by U. S. manufacturers in either case, but it would be to our advantage to have a stronger role in the establishment of operating criteria for the system.

Thus my answer to this question is "yes", because of what I view as the realities of the situation rather than being based upon an abstract view of how the world ought to be in order to preserve maximum domination by the U. S. of this new service.

b. Will the termination of the present FAA/ESRO tentative agreement seriously damage international relations in an area where the President has promised cooperation?

YES. The European interests in cooperation have focused on post-Apollo, i. e. space shuttle activities, and certain other applications projects of which AEROSAT is now the principal contender. There have been several extensive studies of the AEROSAT system funded by the Europeans over the past 12-18 months involving three European teams. These teams of European contractors are now joining with U. S. prime contractors to prepare for a bid in response to the anticipated RFP. My discussion with two of the U. S. prime contractors leads me to believe that the Europeans can make a strong contribution to the space segment of this system and will easily have the technical expertise to share 50 per cent of the space segment work. Withdrawing from the proposed cooperative activities at this time will be viewed as having broader implications for other cooperative efforts, since the defined basis for cooperation and the European competence is so strong in the case of AEROSAT.

c. Will a change in the FAA/ESRO negotiations delay, to a hurtful degree, the ICAO approval of specifications?

YES and NO. It is not clear from this question what the extent of the "change" in the FAA/ESRO negotiations might be. Certainly if the change is such that a cooperative program can proceed but under somewhat different conditions, I believe there would be little impact upon ICAO approval of system specifications. If, however, the change is from a joint or cooperative program with the Europeans to separate and independent U. S. and European programs, there would be a prospect of delay in ICAO specifications. This delay is predicated upon the likelihood of conflicting design criteria between the U. S. and European systems and the additional time that would be needed to resolve this conflict.

d. Will a satellite navigation system, independent from the airplane really offer an Air Traffic Control Advantage?

YES. This question refers to "satellite navigation system", but I assume this really means independent surveillance vice navigation. The technique for supplying both services would be somewhat similar but would involve completely different instrumentation on the aircraft. Availability of the independent surveillance of oceanic aircraft would enhance the Air Traffic Control capability in much the same way it enhances the ATC capability over land. There should be little disagreement on this question, but the major issue is not whether it would offer an advantage; rather the issue is whether this advantage is needed and at what traffic densities it is needed. At the present time air carriers are rapidly converting to redundant inertial systems for navigation on international routes. The incidence of major dispersions in the predicted position of the aircraft has thus been reduced dramatically over previous navigation techniques. The airlines fear addition of a new requirement, e. g. surveillance, because they are concerned about the potential costs of avionics equipment necessary to provide this service. The PSAC ATC Panel suggested a technical approach that would permit surveillance with a relatively low cost (less than $1,000) black-box on each aircraft. Given the size of the investment in transoceanic air carrier aircraft the addition of this function will not be a significant cost burden. In the case of the proposed AEROSAT program, independent surveillance will only be conducted as an experimental program by the FAA and will not involve any costs to the airlines prior to 1980.

e. Is a technology transfer issue involved?

YES and NO. As I have pointed out in the earlier questions, the Europeans have three teams of contractors that are prepared to participate in a joint program. Each of these teams seems to possess the relevant background and expertise for successful completion of the program. Overall management would be in the hands of a qualified U. S. prime contractor and it is in the areas of management expertise that some transfer is likely to occur rather than for specific technical items. A major unstated issue in my view is the question of follow-on systems of an operational nature. Certainly, if European participants have been successfully integrated into a management structure for provision of the pre-operational system, there will be a strong thrust toward a similar arrangement for operational systems in the post-1980 period. I see no alternative to recognition of European interest and involvement in such systems and I believe cooperation at this stage may head off unpleasant direct confrontation with Europeans if we try to exclude them.

f. Will a U.S. alone program aid balance of trade?

NO. In the short term no significant export operations are involved and in the long term an independent European system could reduce U.S. market operations.

g. Will the total program cost decrease if the U.S. goes alone?

YES and NO. As written, the answer must be YES -- that is, there will be a decrease in total program cost if all done by the U.S. alone (or all by U.S. indsutry). However, if measured in terms of cost to the U.S., the joint program would be cheaper and the answer is NO.

h. Will the UHF system offer a needed communication advantage?

YES. There is universal acceptance that aeronautical communications for oceanic areas must be significantly upgraded by 1980 and that the satellite is the best way to achieve this. There is wide agreement (the notable exception being the airlines) that L band (UHF) is the appropriate frequency for the satellite to aircraft link.

2.

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

DEPUTY DIRECTOR

November 18, 1971

TO: Bill Magruder

FROM: George F. Mansur

My Aerosat file, as you may guess, is extensive, but I am attaching a few items of correspondence which you may want to scan.

The two memos to Rose and David may be useful in explaining our concerns. The four memos between OTP and Shaffer spanning the period July-September may simply be interesting reading.

6 Atchs

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

DEPUTY DIRECTOR

November 17, 1971

TO: Jon Rose

FROM: George F. Mansur

Attached are draft copies of memoranda which you discussed with Tom yesterday. Also attached is a talking paper which was distributed at the Flanigan meeting on Aerosat 3 weeks ago; it may be useful in providing a quick review of the program.

In view of our conversation yesterday, it is not clear that the memos should be dispatched to Kissinger and Flanigan until you and Tom have talked further. We would, however, appreciate your comments concerning the validity of the views expressed in the memo.

I believe there are three options which have been enunciated:

1. Approve the tentative Memorandum of Understanding on grounds that foreign relations requires this course of action.

2. As a first step, request the FAA (Shaffer) to consult with OTP to determine the feasibility of negotiating revisions to be more consistent with Administration objectives. From our viewpoint, this has the advantage of establishing an OTP overview but the substantive results would probably be minimal.

3. Recognize that the draft Memorandum of Understanding embodies provisions which should be corrected and, as a result, reorient the U. S. -European discussions to achieve a mutually acceptable agreement more consistent with U. S. objectives. This approach would require:

   a. A low key announcement that the draft Memorandum of Understanding was under review by the Administration.

b. Postponement of joint program approval until at least mid-January.

c. Changes in both the forum for negotiations as well as the substance. With respect to the former, we believe that low-profile bilateral discussions would be essential.

As noted in earlier memoranda, the draft Memorandum of Understanding contains three apparently independent provisions which we find objectionable:

a. Requirement for unanimous agreement in program decisions, which in effect provide veto power to ESRO.

b. Guarantees of equal sharing of R&D and production to ESRO.

c. Equal and joint ownership of the enterprise by the ESRO and a U.S. industrial firm.

In truth, these provisions are not independent but are interrelated such that any two of the three provide ESRO with control of this program and of any commercial activity that may evolve.

We believe that b. and c., should be amended as follows:

- Award contracts for services and hardware on a basis which will solicit European participation but which is not mandatory. Article X of the Intelsat Agreement is a suitable precedent and provides for contractor evaluation, first, on the basis of price, quality and delivery, and second, on the degree of international distribution of work.

- ESRO ownership (or indefeasible right of use) of communications channels to meet ESRO service requirements is acceptable; however ownership of the enterprise should be discouraged on several grounds, i.e., inconsistent with private sector investment, and forecloses offering broad additional services to the maritime and telephone communities. There are many precedents for this approach in the international communications industry.

If b. and c., can be structured properly, a., is probably acceptable to the U.S. and it may be tactful to yield on this point.

As a postscript, I believe that many of our existing problems in space cooperation are a direct result of our failure to structure a well planned Post-Apollo activity which meets both U. S. needs and legitimate desires of the Europeans for interaction with the U. S. space community. I want to emphasize that this can and should be done, and further it can be compatible with U. S. commercial exploitation of space technology. If we set our minds to the task, appropriate new Post-Apollo initiatives can be defined and presented to the Europeans in the near-term. This would tend to defuze current problems in NATO, aerosat, and space shuttle.

SEP 2 4 1971

Arnold

MEMORANDUM FOR

Dr. Edward E. David

Improved over-ocean aviation communications through the use of satellites has been discussed since 1966, but financial, institutional, and technical problems retarded progress. In October, 1970, an Executive Office Working Group was formed to review policies under which the program should proceed, and the resulting Administration policy was set forth in a statement released on January 7, 1971. The policy and a subsequent interpretation by letter of July 12, 1971, included the following points:

- Projected increases in international air traffic will require improved communication services afforded by satellites in the Pacific and Atlantic Oceans in 1973 and 1975, respectively.

- Satellite communication services required by the FAA should be leased from the private sector and should be procured by international competitive bid.

- Any institutional arrangements for the procurement of services should not be inconsistent with evolution of a multiple user communication service (e.g., aeronautical and maritime), although significant program delay is not warranted to foster such service.

- International cooperation should be encouraged to the extent consistent with the above objectives.

This policy statement met with wide approval in the aerospace industry and with the communications carriers since it provided new opportunities for application of aerospace technology and evolution of new service opportunities for U.S. industry.

Discussions between the FAA and the European aviation and space communities, initiated in June, 1971, have departed substantially from the Administration policy. These tentative arrangements include:

1. Procurement plans and practices oriented first towards extensive research and development programs and only secondarily to providing commercial communication service, and which assure European industry a substantial share (approximately 50%) in the production of system equipment.

2. Management policies requiring unanimous agreement for all program decisions and which are designed to assure production and technology sharing.

3. Ownership arrangements requiring joint and equal ownership of the enterprise by a European government entity (European Space Research Organization) and a U.S. commercial firm.

4. In exchange the Europeans have agreed to pay 50% of the cost of the program, estimated to be $125-140 million. The U.S. share of this limited program would be $60-70 million.

The reaction of the U.S. communications and aerospace industries to the FAA/ESRO discussions has been universally negative. Most have formally expressed an unwillingness to risk venture capital because of the "bizarre" management and ownership provisions. The air carriers, both U.S. and international, being unsympathetic to any satellite program because of current operating losses, are especially opposed to the proposed joint FAA/ESRO program because of its government ownership and anticipated higher costs. The proposed program does bring in European money, but is far more costly than the competitively bid program originally envisaged and is likely to result in higher U.S. Government outlays overall.

Nevertheless, the State Department and FAA support the tentative arrangements because of "our existing commitments and our foreign relations interest," and ESRO and the several European governments view the program as beneficial to European space technology and commerce.

As agreed, we have directed the FAA to suspend negotiations with the Europeans pending an Executive Office review. Because the lifetime of the proposed pre-operational satellites is such that any institutional agreements formulated now will continue through the next decade and establish important precedents, our proper direction at this time is crucial.

There are two central issues: (1) Is the U.S. Government willing to appease the European desire to bolster their electronic and aerospace industry at the price of severely limiting U.S. industry's opportunity to compete and to utilize U.S.-developed technology to the economic advantage of the U.S.? (2) Does the U.S. wish to encourage international communications to develop on the Intelsat model of a jointly-owned, jointly-managed international organization or to encourage a cooperative but private enterprise framework?

I believe the answer to both questions is clearly no -- especially while this Administration is in office. I further believe we are faced with a clear challenge by the Europeans, the State Department, and FAA, to the President's determination in this area.

I propose to request the FAA to redirect the program to be consistent with the objectives expressed in the Administration's policy of January 7, 1971. This will require:

1. Alteration of the proposed management arrangements to a "joint" program restricted to coordination, and with space segment services provided by the private sector.

2. Reaffirmation of the principle of competitive bidding to assure optimum price, quality, and delivery for equipment and services.

3. Decisions regarding ownership of the space segment be reserved to private management choice and initiative, and without U.S. Government guarantees of ownership to the Europeans.

4. Careful distinction be drawn between prerogatives that may be afforded users of the system and the rights attributable to ownership of any part of the system to assure an environment favorable to private investment incentives.

Alteration of the tentative FAA/ESRO arrangements at this time will upset the European space community. Since ESRO is closely coupled to the European governments, we may anticipate an unfavorable reaction from the French and German governments, and to a lesser extent the U.K. The commercial international air carriers will, in general, support any move which reorients the program toward aviation rather than space research and development.

I believe that the United States can by adept negotiation minimize the effect on the European nations. If negotiations with the Europeans do not result in satisfactory arrangements in a reasonable time, we probably would elect to proceed unilaterally in the Pacific basin, for which the U.S. has air traffic control responsibility, and simply defer implementation of the Atlantic basin program. We would, of course, continue to seek technical coordination. And, of course, U.S. industry would have a significant leg-up in getting the Atlantic basin business if this occurred.

I would appreciate your views by Wednesday, 29 September.

George F. Mansur

/S/ Clay T. Whitehead

GFMansur/tw/24Sep71

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

September 24, 1971

Mr. J. H. Shaffer
Administrator
Federal Aviation Administration
Washington, D.C. 20590

Dear Mr. Shaffer:

Mr. Whitehead's letter of 17 September, which suggested postponement of Aerosat discussions with ESRO, was prompted by concern that continuation of the discussions before agreement within the Government upon the essentials of the U.S. position would be detrimental. As you know, we have serious reservations concerning the management, procurement, and ownership arrangements which have been proposed. Similar reservations have been expressed by industry, both aerospace and carriers.

Your letter of 22 September, indicates that the discussions should proceed as planned, subject to additional internal review by the U.S. Government.

If the FAA elects to continue the discussions, we believe it is essential to make clear to ESRO that the proposed arrangements are tentative and that further review is necessary.

Sincerely,

George F. Mansur

George F. Mansur

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

GFMansur/tw/24Sep71

FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

22 September 1971

Mr. Clay T. Whitehead
Director, Office of
Telecommunications Policy
Executive Office of the President
Washington, D.C. 20504

Dear Mr. Whitehead:

After careful consideration of your letter of 17 September 1971, I have concluded that the Aerosat discussions with the Europeans (and others) scheduled for later this week and next should proceed as planned. As you know, we have been exploring the possibilities of a joint program with the Europeans as a result of OMB guidance of 11 June 1971. You will recall that at Madrid we explicitly conditioned our participation in the joint United States-European discussions upon additional internal review and final approval within the United States. Until this internal process is completed, further international discussions for essential detailed refinement will not commit the United States. On the other hand, cancellation of these discussions at this time will raise serious doubts concerning our credibility and motives.

In coordination with the Office of the Secretary of Transportation, we plan to respond to the OMB guidance within the next two weeks and describe what we believe is a basis for a successful joint program. We believe that this represents a suitable and proper occasion for a policy review.

Sincerely,

J. H. Shaffer
Administrator

cc: Hon. U. Alexis Johnson
Hon. James M. Beggs

SEP 17 1971

Aeronat

Mr. John Shaffer
Administrator
Federal Aviation Administration
Washington, D.C. 20553

Dear Mr. Shaffer:

Discussions with the Europeans concerning the Aeronautical Satellite program have progressed to a point where the principal features of the arrangements are known. In discussions with other elements of the Executive Office it has been concluded that the issues involved are of sufficient importance to warrant an in depth policy review prior to formalization of a joint program.

Accordingly, you should postpone further discussions with the Europeans until such time as the policy review is completed.

Sincerely,

Clay T. Whitehead

cc: Hon. U. Alexis Johnson
Hon. James M. Beggs

cc: Dr. Mansur
DO's Chron
DO's Records
Mr. Thornell's Files

J/Thornell/pm/17Sep71

Attached

JUL 12 1971

Honorable Jack H. Shaffer
Administrator
Federal Aviation Administration
Department of Transportation
Washington, D.C. 20553

Dear Mr. Shaffer:

To clarify existing telecommunications policy and to incorporate other factors of national interest which affect the program, the following policy guidance is provided for formulation of a U.S. negotiating position for the forthcoming European meetings:

1. All activity should proceed forthrightly toward a decision in early August to proceed with a joint international program or an independent program during or immediately after the Madrid meetings.

2. The U.S. feels there must be a multiple user satellite communications system to provide those aeronautical communications services required by the FAA in the operational system. Since the pre-operational aeronautical satellite program is the first step toward the establishment of such a system and could establish many precedents, the institutional, technical and financial arrangements of a joint pre-operational international aerosat program should be consistent with this longer term goal. The possibility of a multiple user system in the pre-operational system should not be precluded until such time as it would cause significant delay in the aerosat program.

3. The policy of the U.S. is ownership of communications systems in the private sector; accordingly, the ownership of the U.S. portion of both the pre-operational and operational systems must be in the private sector. Although our foreign counterparts typically provide communications with government-owned systems, we should encourage the Europeans to adopt a private ownership approach for the aeronautical satellite program.

4. All procurements within a joint international aeronautical satellite program shall be international competitive bid.

This office supports a joint international program established under existing U.S. policy. This program can establish U.S. policy precedents in international communications programs that are important to U.S. Government and industry. Although we recognize the primary purpose and need for this program is aeronautical communication for air safety, the negotiations and any resulting joint program should atune with the sensitivities of issues broader than aeronautical satellites alone.

Sincerely,

Clay T. Whitehead

Mr. Thornell's files
Mr. Whitehead (2)
Dr. Mansur

cc: Bert Rein

3.

FAA ANSWERS TO MAGRUDER'S QUESTIONS

a. Is it wise to offer joint government management of the program as opposed to a "coordinated" program providing some private sector incentives?

YES. The proposed FAA/ESRO joint program has two parts: a) an integrated portion with joint funding and management of the space segment, and b) a coordinated but separately-funded portion for the ground and avionic segments. In view of the long-term international civil aviation (ICAO) aspects, the current European interests and capabilities, and the significant cost-savings which it provides, we believe that the effort on the space segment should be on a (joint) integrated basis. Such a joint program must be predicated on an FAA-ESRO governmental-level agreement, yet this in no way inhibits private sector incentives in either the integrated or coordinated portions. The only alternative to the joint program will be duplicative unilateral programs by FAA and Europe, the very nature of which will inhibit any coordination or cooperation.

b. Will the termination of the present FAA/ESRO tentative agreement seriously damage international relations in an area where the President has promised cooperation?

YES. Rejection of the joint FAA/ESRO program by the U.S. can only be interpreted as U.S. rejection of the principle of cooperative efforts on international civil aviation projects and programs.

c. Will a change in the FAA/ESRO negotiations delay, to a hurtful degree, the ICAO approval of specifications?

YES & NO. No, in the sense that limited modifications to the joint program--as for example, in the area of schedules, contractual arrangements, JPO provisions, or technical requirements--would introduce immediate program delays but are unlikely to affect ICAO approval. However, major deviations from a cooperative (joint) program--as for example, to separate and unilateral programs--are likely to cause a significant delay in future ICAO agreement and could result in adoption of a European-developed system to the detriment of the U. S. government, industry, and air carriers.

d. Will a satellite navigation system, independent from the airplane, really offer an Air Traffic Control Advantage?

YES. Satellite surveillance capabilities need to be tested and evaluated since they offer significant potential benefits in future oceanic and CONUS traffic control systems.

e. Is a technology transfer issue involved?

YES & NO. No, in the sense that it is not an issue of the specific transfer of "secret" or competitively-valuable U. S. technical information. It is clear that the joint program will stimulate the European space industry and can have the effect of upgrading their technological standing; however, rejection of the joint program with a resulting unilateral European program will have the same effect. Hence, under the present conditions, there is likely to be technological transfers in the sense of an upgraded European capability and that fact is not dependent upon the existence of the joint program.

f. Will a U. S. alone program aid balance of trade?

NO. A unilateral U. S. preoperational program would offer no advantage in U. S. balance of trade over the joint program and might preclude a U. S. market in the future operational system.

g. Will the total program cost decrease if the U. S. goes alone?

YES & NO. As written, the answer must be YES--that is, there will be a decrease in total program cost if all done by the U. S. alone (or all by U. S. industry). However, if measured in terms of cost to the U. S., the joint program would be cheaper and the answer is NO.

h. Will the UHF system offer a needed communication advantage?

YES. There is universal acceptance that aeronautical communications for oceanic areas must be significantly upgraded by 1980 and that the satellite is the best way to achieve this. There is wide agreement (the notable exception being the airlines) that L band (UHF) is the appropriate frequency for the satellite to aircraft link.

4.

UNDER SECRETARY OF STATE
FOR POLITICAL AFFAIRS
WASHINGTON

Nov. 6 1971

MEMORANDUM FOR MR. HENRY A. KISSINGER
THE WHITE HOUSE

Subject: DOT/FAA Preoperational Aeronautical Satellite Program

The Department of State strongly supports the DOT/FAA program for implementing a preoperational aeronautical satellite system on a joint basis with ESRO, and involving participation by Australia, Canada and Japan. The Department believes that failure to go forward would have serious negative foreign relations consequences, and it favors approval of the project as now negotiated for the following reasons:

1. It represents a favorable opportunity to engage the Europeans successfully in a major joint enterprise of high industrial and political interest in Europe. We have already entered into serious and well-publicized negotiations with the Europeans, and to reverse ourselves would, in our view, have an unfavorable impact not only on future cooperation in post-Apollo and other space-related activities, but on overall US-European relations.

2. Cancellation would result in a clear diminution of United States influence and leadership in ICAO should the US change its negotiated position and decide to proceed unilaterally in the Pacific Ocean area. We believe that the Europeans would, in turn, decide to proceed unilaterally in the Atlantic. They clearly have the capability, motivation and desire to go it alone, and we have offered to launch this type of satellite for them. This would result in the Europeans proposing to ICAO their own system specifications as operational standards. These standards would probably be adopted over any competing US proposals.

3. A favorable balance of payments will result from the negotiated program, because, in paying one-half the cost of the program, the Europeans would pay the United States for half the launch costs.

4. Transoceanic civil aviation is, by its very nature, international. Any satellite system must be integrated into a common system of air traffic control. Air traffic control involves the safety of life and property and such a system must be standardized and accepted by all. International agreement is required to re-configure existing Flight Information Regions (FIR's) in order to take maximum advantage of the communications satellite mode and to economize on en route charges to civil aviation.

5. Given the state of the art in Europe, the benefits of a joint program can be obtained without the loss of United States technological advantage. Moreover, the draft Memorandum of Understanding includes a provision ensuring that Munitions Control regulations would apply.

While the United States could unilaterally establish a preoperational system in the face of a separate European effort, unilateral testing and use would not advance the interests of the US. In contrast, the negotiated program is clearly in the interests of the United States. Amplification of the foregoing points is contained in the Department's letter of October 20 to the Office of Management and Budget and is appended hereto.

The DOT/FAA concurs in this memorandum.

U. Alexis Johnson

Attachment:
Department's letter of October 20

DEPARTMENT OF STATE

Washington, D.C. 20520

OCT 20 1971

Mr. Donald B. Rice
Assistant Director
Office of Management and Budget
Executive Office of the President
Washington, D. C. 20503

Dear Mr. Rice:

On October 7, Under Secretary Beggs of the Department of Transportation informed you by letter of the status of the exploratory discussions with the Europeans and certain other countries in respect to a joint experimental preoperational aeronautical satellite program.

This Department fully supports the joint program which we believe is the best available means of moving toward required international agreement on operational standards for satellite-based air traffic control by the Administration's target date of 1980. We also believe that this cooperative international effort among the major aviation countries will create conditions necessary for reordering international air traffic control responsibilities in a manner which takes full advantage of the potential of improved communications for centralizing and automating air traffic control and hence effecting economies in en route charges which heavily affect U.S. carriers and passengers. These and other considerations are explored in more detail in the enclosed paper.

Major European countries have had a continuing interest in participating in the development and management of satellite communications for air traffic control. This interest was evident in the negotiations on definitive arrangements for INTELSAT (where European pressure resulted in placing such communications services in a special category requiring government approval for INTELSAT action), in continuing bilateral approaches to the United States, in the public statements of the European Space Conference, and in European initiatives within the International Civil Aviation Organization seeking to require that Organization's prior approval of any preoperational efforts. The European Space Research Organization has contracted for and received three system designs for a

European preoperational system. Thus, the Department believes that any U.S. preoperational efforts should take account of the interest and capabilities of our European allies and be consistent with the President's stated intention to pursue opportunities for international space cooperation in general and specifically with the Europeans.

The proposed program is of sufficient interest to the Europeans that they have made substantial concessions to our preferences. For example, they are willing to assume half the full program cost for a combined Atlantic/Pacific capability despite the fact that United States authorities will utilize about two-thirds of the system capability without user charges. While the Europeans are assured a "fair and reasonable" industrial opportunity, they have accepted the balance of payments outflow of half the launch costs (approximately 15% of total program cost), of half the administrative cost of a management facility almost certain to be located in the United States, and of necessary U.S. procurement to fulfill contractual obligations allocated to European subcontractors by an anticipated U.S. prime contractor. Most important, they are entering the joint program with the express understanding that these arrangements are applicable only to preoperational efforts to work toward ICAO standards and that the United States fully intends that operational traffic control communications be provided by a commercial entity and integrated into a multiple user system.*

We are concerned that European governments (and Canada) would be gravely disappointed by U.S. rejection of these agreements and would interpret it as a U.S. refusal to participate in any effort which we could not dominate. Such an attitude would be totally inconsistent with the President's posture toward our major allies.

Equally important, the likely European reaction to a U.S. decision to proceed unilaterally in the Pacific would be a parallel unilateral European effort in the Atlantic and a boycott of our Pacific system. While this effort might be slow to bear fruit, there is every likelihood that Europe

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*The January 7 OTP Policy Statement states that "it is possible that a single system combining the functions of communications and position fixing to support both maritime and aviation services would permit economic benefits in a worldwide operational system".

would produce a system (which we are committed to launch) and that the present political alignment of ICAO would result in acceptance of European specifications despite their technical or economic inferiority. Such a risk, combined with the adverse foreign policy consequences of program rejection, seems intolerable from our point of view.

Technological superiority is, of course, of commercial significance only when it results in producing saleable products. In air traffic control, governments are the principal customers and foreign governments control their air carriers which are the other principal source of system patronage. Thus, there must be a balance between the preservation of U.S. technological superiority and the need to preserve the potential market. Since this project will be a first crack at a mobile service communications satellite, what is likely to be most important in future technical terms is how a second generation, multi-purpose satellite can be improved on the basis of this experience. A U.S. lead contractor, responsible for overall systems design and coordination, should be in a far better position for future competition than any limited European participant.

At the same time, a cooperative program will enable us to have a determinative voice in ICAO specifications and preclude the development of a rival system. In an operational phase, the number of customers will extend far beyond those interested in manufacturing, thus creating pressure for broad procurement competition as in INTELSAT.

In sum, therefore, the Department of State believes that:

(1) Agreement on appropriate standards for an operational system by 1980 requires major European participation in the preoperational program;

(2) Reduction of overall cost of the preoperational program requires major European participation;

(3) Achievement of balance-of-payments advantages in the preoperational phase requires at least major European participation and hopefully broader participation;

(4) Major European participation is attainable only if Europe has a significant role in program management and European industry can participate on a reasonable basis;

(5) The proposed program provides for European participation on a reasonable basis consistent with U.S. objectives and our overall foreign policy posture toward Europe;

(6) European interest, cohesion and capability in this matter is sufficient to support a successful joint effort.

With respect to Under Secretary Beggs' request for authority to conduct the U.S. portion of such an experimental/preoperational program on an investment basis rather than a lease basis, we have more limited comments. We recognize the "unambiguous leadership" conferred upon DOT/FAA by the January 7 OTP Policy Statement and we have no reason to dispute the FAA's views that it must play a major management role in the joint project through the proposed Joint Program Office. With FAA exercising this responsibility, making a U.S. private contractor responsible under lease for system performance would result in duplication of management structure and threaten conflict between the leasor's management views and those of the FAA. A lease arrangement might also throw upon a private contractor the risk of launch failure (which is totally within Government control) and create a boom or bust contract depending on launch experience. Moreover, a lease arrangement combining hardware and services with international contractor selection raises serious precedential questions which might delay the program, when a very similar degree of private participation might be obtained by contracting separately for hardware and operation of control facilities and earth stations. Finally, Under Secretary Begg's comparison of private and Government financing charges seems most appropriate.

From the international point of view, an investment arrangement would simplify the arrangements and ensure a more cohesive U.S. position since separate FAA and contractor interests would not be involved in management decisions. From a policy point of view it would be acceptable for a preoperational (experimental) system while, at the same time, it would clearly separate the preoperational and operational phases

and thus optimize the prospects that development and ownership of the subsequent operational system will be attractive to a commercial entity.

Sincerely yours,

Philip H. Trezise
Assistant Secretary
for Economic Affairs

Enclosure:

As stated above.

Summary of International Aviation and Foreign Policy Issues in the Aeronautical Satellite Program

There are a number of interrelated international aviation and foreign policy issues involved in the proposed preoperational aeronautical satellite program. One that must be given full recognition and consideration is the United States commitment to the ICAO (International Civil Aviation Organization) whose membership includes 120 contracting States. ICAO is responsible for adopting telecommunications standards (among others) for international civil aviation to assure safe and efficient operations.

Various meetings of ICAO organs prepare Standards and Recommended Practices (SARPS). In turn, such recommendations are forwarded to all States for comment and approval. The ICAO Council then reviews the recomemndations and, taking into account the comments of States, adopts (or rejects) SARPS. Upon approval by the Council, States are obligated to adopt and put into operation the standards, practices and procedures to the maximum extent possible. ICAO SARPS require approval of a majority of the contracting States, and Council adoption requires a 2/3 majority of its 27 members. The development and approval of SARPS involves political as well as technical considerations since there are economic impacts on the users and also the industrial sectors of various member countries are desirous of and insistent on having opportunities to participate in the production of avionics and other equipment.

In 1968, ICAO established a panel to develop the recommended requirements and technical characteristics for an operational aeronautical satellite system. The members of the panel are the United States, Australia, Canada, France, Federal Republic of Germany, Japan and the United Kingdom; the ITU (International Telecommunication Union), IATA (International Air Transport Association) and WMO (World Meteorological Organization) also participate. Until the time of its last meeting (January 1971) the panel was sharply divided in respect to the order of radio frequencies to be used; the U.S. position on VHF was supported by the IATA but strongly opposed by the other members of the panel. By the time the frequency problem was resolved as a result of the OTP Policy Statement of January 7, 1971, which specified UHF, considerable fear of

U.S. intentions to proceed unilaterally had developed among the other members; as a result, the majority of the panel took the position over U.S. objection that ICAO must specify the characteristics and parameters for both preoperational and operational systems.

While the OTP Policy Statement resulted in an alignment between the U.S. and the Europeans in respect to radio frequencies, it gave the Europeans no encouragement in respect to a cooperative preoperational program; the European position being that they wanted their fair share of the voice in deciding the design of any aeronautical system and their share of the manufacturing. They also sponsored and paid for three study contracts leading toward pursuing the establishment of their own preoperational capability in the Atlantic area. This, of course, was also a warning to the United States that they were prepared to go it alone and with confidence that their design would eventually be acceptable to the majority of ICAO.

The first of the current series of exploratory meetings between the U.S., Europeans, Australia, Canada, Japan and the Philippines, took place on June 15-17, 1971 here in Washington. At that time the Europeans made unequivocally clear that they would not accept a preoperational program in which they would be merely subscribers to services provided by a system established unilaterally by the U.S.; the European community also emphasized that financial support for a cooperative program was available, and that if such a program were not attainable, they would proceed on their own.

While Europe does not now have an independent capability to launch an aeronautical communications satellite into geostationary orbit, the United States, in the context of the Johnson-Lefevre negotiations, has promised to provide launch services for such type operations. Also, while present European capability to construct the satellites without some U.S. assistance is doubtful, U.S. companies seem willing to sell the necessary technology; the only effective policy bar to U.S. assistance would relate to national security matters. If the Europeans decided to proceed without the U.S., they might not be able to establish a preoperational system within the same timeframe as envisaged in the current U.S./European draft program, but they could do so in a somewhat longer

timeframe. If the Europeans did go it alone, they certainly could and would be prepared to fight politically for approval of SARPS based on their preoperational capability standards and as noted above, they could probably win such a fight. In short, however, U.S.-European cooperation in an aeronautical program has reached the stage of discussions where U.S. positions must reflect a reasonable degree of consistency with stated U.S. policy in respect to cooperation with Europe in space programs generally and, in particular, in an aeronautical satellite program.

As stated above, a joint U.S.-European program will require U.S. assistance for the launches as well as in construction of the satellites. In respect to U.S. assistance with satellite technology and "know how", the Department believes it likely that the benefits to the U.S. would exceed the gain to Europe. Assuming a 50-50 basis cost sharing arrangement for the program, the actual U.S. investment would be appreciably less because of the need by Europe to purchase U.S. assistance in order to satisfy European responsibilities in the program. The net costing might be more like 40-60 or even possibly 30-70 percent in favor of the U.S.; thus, the major user of the preoperational system would enjoy a lower dollar investment while gaining in reverse gold flow.

Given the current discussions with the U.S. and the indications that an acceptable preoperational program is emerging, the Europeans have not continued to press for immediate further action on the part of the ICAO panel; it being obvious that the Europeans believe, as do the Department and the DOT (FAA), that a U.S.-European understanding will in fact set the preoperational standards.

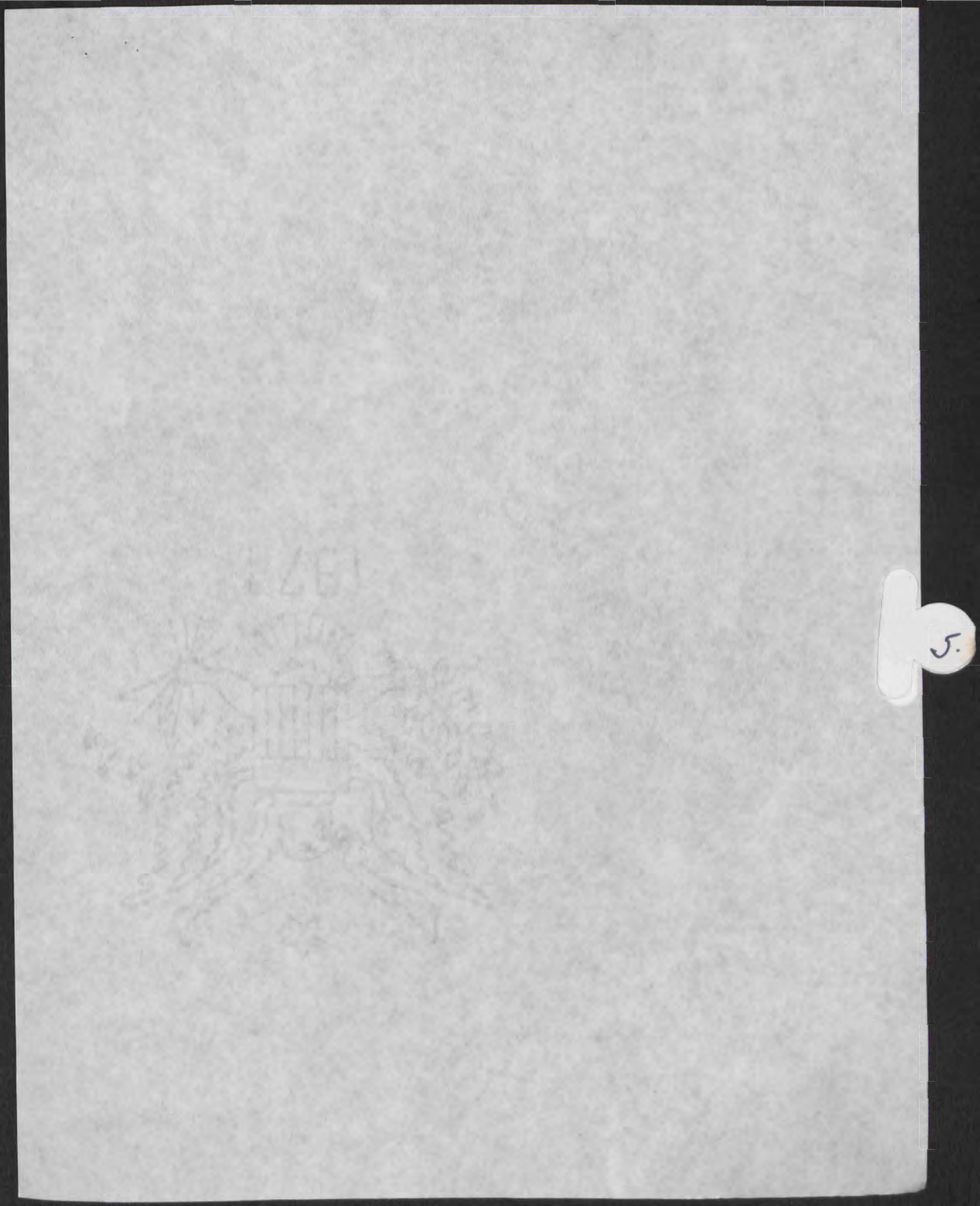
A major objective of the USG in its discussions with the Europeans on an aeronautical satellite program has been to establish the basis for an experimental/preoperational program with broad international participation so as to facilitate the emergence of operational standards by 1980 which will be readily accepted by ICAO. This would be consistent with U.S. policy and principles in respect to cooperation with the Europeans in space programs. Further, improved communications for air traffic control and air carrier operations in the Atlantic and Pacific basins, as well as the need for experimentation with surveillance systems,

has been documented by the FAA. Thus, one thrust of the U.S. in the joint discussions is to advance the likelihood that ICAO approval of characteristics for an operational system can be attained within an appropriate timeframe.

If a U.S.-European cooperative program is not attained, the Department is strongly of the opinion that the impact will be one of adverse effects on the United States, in respect to both foreign relations and the timely establishment of an operational aeronautical satellite system. In this regard, two salient facts should be recognized:

(1) While the U.S. could unilaterally establish a preoperational system in the face of a separate European effort, unilateral testing and use would not advance the interests of the U.S. internationally, and it would complicate and delay ICAO's adoption of operational standards; and

(2) The operational satellite system must be integrated into a common system of air traffic control; air traffic control involves the safety of life and property and such a system must be standardized and accepted by all; and international agreement is required to re-configure existing Flight Information Regions (FIR's) in order to take maximum advantage of the communications satellite mode and to economize on en route charges to civil aviation.



November 11, 1971

RE: Stu Tipton Telecon
Regarding Aero Satellite

Want to amend statement of ATA

a) State Department Review with Bert Rein.

b) Do not now recommend the U. S. go alone. Basis for this is fear the Europens will cause a flap regarding ICAO specifications.

c) Prefer NASA as leader and FAA working on air traffic control problems.

d) Joint effort for experiment only, not in final operating phase.

e) Second satellite for redundancy only, no need to worry about eclipses on experimental basis.

WMM

AIR TRANSPORT ASSOCIATION

OFFICE OF THE PRESIDENT
STUART G. TIPTON

1000 CONNECTICUT AVENUE, N.W.
WASHINGTON, D. C. 20036

November 9, 1971

Mr. William M. Magruder
Special Consultant to the President
The White House
Washington, D. C. 20500

Dear Bill:

Attached is our current position with regard to aeronautical satellites. We would be delighted to participate in any further discussions of this matter so that we can be sure that we are thoroughly familiar with the pros and cons of this important issue.

Cordially,

S. G. Tipton

Attachment

November 8, 1971

Tentative Conclusions of ATA/ARINC Regarding Aerosat Planning

We believe we are reasonably well informed and current on the technical, economic, political, and diplomatic matters relating to aeronautical satellites for civil use. As a result of recent discussions of these matters with many people in and out of government and after reviewing pertinent documents we have reached certain tentative conclusions. To aid in understanding these conclusions, we would first like to make the following observations:

1. We have been and are convinced that satellites can perform useful communications services for the airlines; our efforts are directed to finding sensible and practical answers to the question of how this utility can be introduced in a timely and cost effective manner.

2. The objective of aerosat planning should be to achieve reliable operational (but non-mandatory) capability for satellite communications for ATC and airline communications over the Atlantic and Pacific during the early 1980's.

3. To achieve this, program planning must begin at once.

4. The aerosat system design must carefully take into account technical interrelationships and trade-offs between satellites, aircraft stations and earth stations (for example aircraft avionics and antennas have a direct effect on satellite power requirements). More testing is needed before the system design can be specified with reasonable confidence.

5. In spite of unit price reductions resulting from quantity purchase, the initial program should be limited to two satellites - to insure one in orbit. Next purchase could then take advantage of information gained from flight test and latest technology.

6. Governments generally impose user charges to recover the costs of operational programs. The costs of pre-operational aerosat programs will determine the costs of operational aerosat programs. Some nations will try to recoup the developmental costs later on by considering them part of the costs of the operational system. If costs could be shared by providing satellite services to non-aeronautical interests without undue compromise to aeronautical service, this would help lower costs to aviation.

7. It is very important that the best possible administrative arrangements be made if the above objectives are to be effectively achieved economically, expeditiously, and in the public interest.

With these observations in mind we have come to the following tentative conclusions:

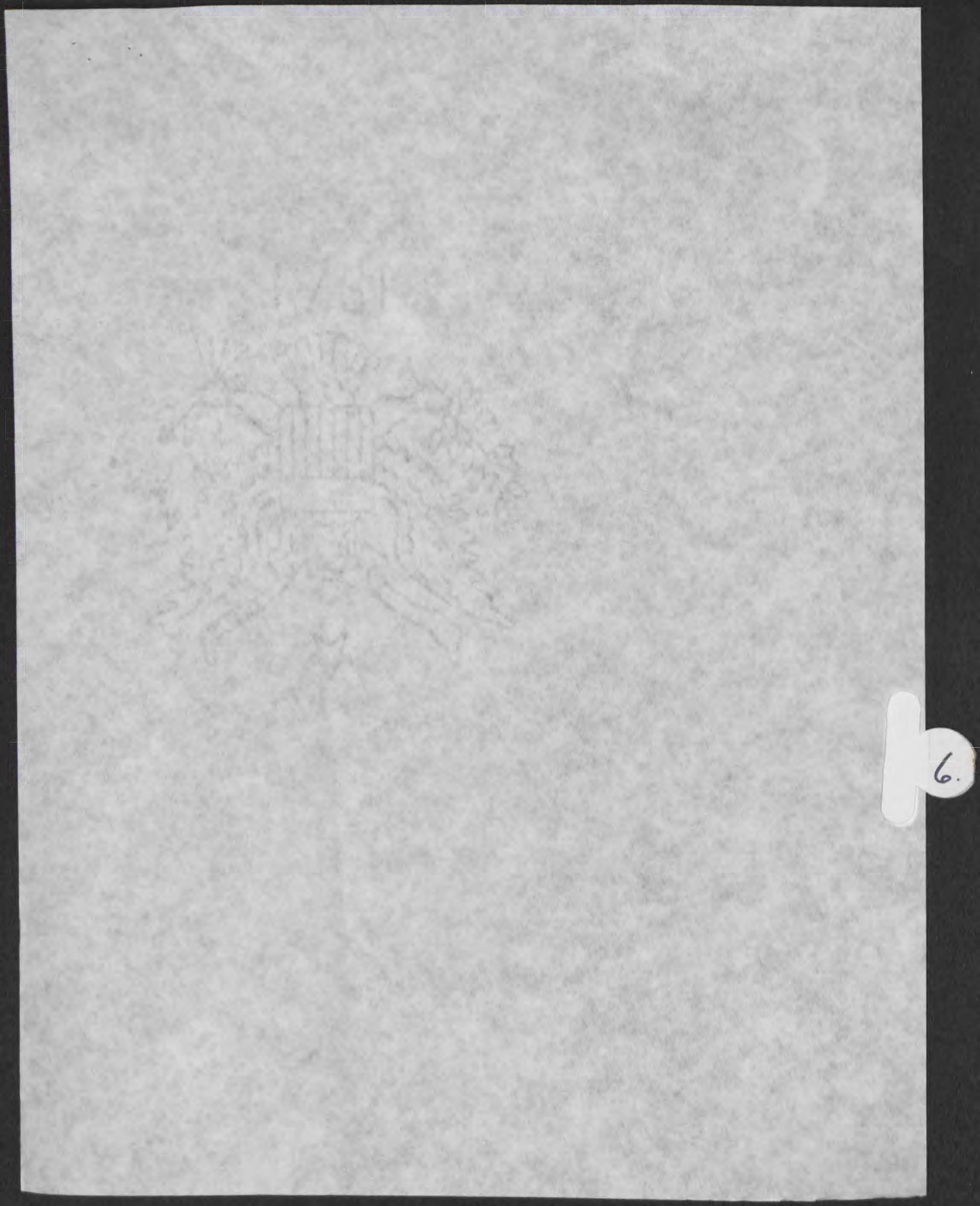
A. After weighing all known arguments in favor of a joint program with other countries, we have concluded that a separate U.S. program is preferable. It would produce results quicker, at less cost, simplify decision-making, minimize administrative problems, avoid undue European influence in the Pacific, and avoid unnecessary transfer of U.S. technology to foreign countries. For these reasons, we oppose the joint effort reflected in the FAA/ESRO program.

see Telecon 11/11/71

B. Since the initial effort would be more developmental than operational in that it would test the initial system design, we conclude that NASA, with full coordination of FAA and private industry, should develop, launch, and test an aviation communications satellite with all deliberate speed. We would expect NASA to also take

full advantage of its Applications Technology Program with regard to furthering aeronautical satellite L-Band technology. In both cases we would expect that there would be a free exchange of information with other countries and they would be invited to participate in the tests.

C. Based on the information obtained from the NASA tests, the U.S. would work with foreign governments to develop and implement a program leading to an operational program. It is likely that such a capability could be leased from an Intelsat-type organization and could achieve the goal of the early 1980's.


6.

6)

International Air Transport Association

1155 MANSFIELD STREET, MONTREAL 113, P.Q., CANADA (HEAD OFFICE)

TELEPHONE (514) 866-1011 • TELEX 05-267627 • CABLES: IATA MONTREAL

As from: Ilikai Hotel, Honolulu, Hawaii.

16th November 1971

IN REPLY QUOTE

Mr. William M. Magruder,
Special Assistant to the President,
White House,
Washington D.C. 20500,
U.S.A.

Dear Bill

I have been talking to Stuart Tipton here in Honolulu at our Annual General Meeting about the latest developments in Washington on aeronautical satellites and we agreed that you might care to have my comments.

As you know, IATA totally opposes the FAA/ESRO programme, I am sure you have seen our comments in detail and I will not weary you by repeating them. In brief, IATA believes that the programme is too much, too soon, and founded on a technology with much too many operational uncertainties to warrant such a large financial commitment at this stage.

As to "what do the airlines want" my belief is that the various IATA committees concerned with this question would fully support the limited, one satellite (plus one ground spare) experimental programme now being proposed by ATA/ARINC. Having gone over the details of the ATA/ARINC proposals with Tip, I believe IATA would support it in all respects except one. The exception would be that as an international organization we must prefer the experimental programme to be a joint US/European project rather than a purely US venture.

Apart from the point of principle I would add that my judgement is that if the U.S. goes it alone, there is a better than 50% probability that ESRO would also proceed with an independent programme. This, I believe, would be a disaster.

I hope these thoughts are of help to you in resolving this mess.

Kind personal regards,
Yours sincerely,

Dick Shaw

R. R. Shaw
Assistant Director General - Technical

cc: Mr. S. Tipton (ATA)
Mr. A. Aagaard (IATA)
Mr. S. Krejcik (IATA)

The Aerosat Controversy

(There is widespread agreement that satellites are badly needed over the Atlantic and Pacific to improve air traffic communications. But there is also widespread disagreement as to how this can be best accomplished. Philip J. Klass, senior avionics editor of AVIATION WEEK & SPACE TECHNOLOGY, *has reported on the aerosat development since its inception. We present his analysis of the current controversy—R.B.H.)*

There is universal agreement that aeronautical satellites can provide a vital and unique service for transoceanic aircraft operation, a service that will be sorely needed before this decade is over. The space and avionics technology required to build these aerosats is available or close at hand.

These oceanic aerosats will be the forerunners of a global spaceborne system that eventually will provide air-ground communications, air surveillance and navigation functions over both land and water, replacing more costly ground-based hardware.

But the aerosat's promising future is seriously jeopardized by picayunish controversy, much of it generated by those who have the most to gain from speedy trials and deployment of such a system—the air carriers.

Aerosat has been bogged down in controversy almost since it was first proposed. It was the Air Transport Assn. and several U.S. international carriers that first pushed for speedy deployment of an aerosat five years ago, following a pioneering feasibility demonstration by Pan American using Syncom 3.

Then it was the International Civil Aviation Organization that threw obstacles in the path of progress, because some of its European delegates preferred an aerosat that operated at L-band, instead of the U.S.-proposed VHF (very high frequencies) which could be quickly implemented. Whether the motivation for the ICAO foot-dragging was entirely altruistic is a moot point.

As recently as the summer of 1970, the Air Transport Assn. and the International Air Transport Assn. were still pressing for speedy deployment of a VHF satellite and forecasting dire consequences unless something was done to improve oceanic communications.

When the Federal Aviation Administration announced plans a year ago to proceed with a hybrid aerosat over the Pacific, on a unilateral basis, the ATA and IATA applauded the action.

A few months earlier, the ATA had sharply criticized plans for an experimental L-band aerosat, which NASA and the European Space Research Organization proposed to jointly develop, because the FAA and airlines, which would use the aerosat, were not participating in the program.

Just a year ago, the controversy was turned over to the White House's newly created Office of Telecommunications Policy (OTP) for resolution.

Early this year, OTP issued its pronouncement. The aerosat would operate at L-band, as the Europeans and NASA had urged, but the U.S. would proceed on a unilateral basis to build and deploy a "pre-operational" aerosat over the Pacific. To assure that aerosat users' requirements were adequately considered, the FAA was given system responsibility. The ATA gracefully accepted the L-band decision, but IATA issued a blistering attack several months later.

The OTP also specified that the aerosat should be owned and operated by a commercial enterprise and that the FAA should lease its channels from that company. This decision made good sense for the unilateral program then envisioned.

By this past spring, West Europeans were up in arms over the unilateral U.S. aerosat program and were threatening to proceed with their own aerosat over the Atlantic. As a compromise, the West Europeans proposed a two-ocean multilateral program, using a common aerosat design, with a saving to all parties. More important, it would avoid possible later conflict in ICAO over whether the U.S. or European aerosat design should become the international standard.

During this past summer, FAA and ESRO negotiators worked out the broad details for a joint two-ocean aerosat program. Under its terms, the U.S. and ESRO would each put up half the funds. European aerospace and avionics companies would be expected to share in approximately half the production of the four flight-model satellites plus two spares, while all of the launch vehicles would be built in the U.S.

Thus the joint two-ocean aerosat program would cost the U.S. less than the unilateral Pacific aerosat system originally planned, and U.S. industry would receive 60-70% of the total production.

The only hooker was that a joint program made the original OTP requirement for commercial ownership a legal nightmare. Faced with this, the FAA recently decided that the initial system ought to be jointly owned by the FAA and ESRO, without prejudice to a future possible commercial arrangement for the next-generation operational system.

At this point, the controversy hit the fan. Some OTP officials considered the action a direct affront to their authority and to the very existence of OTP itself. The State Dept., anxious to encourage international cooperative programs, backed the FAA's decision.

Communications Satellite Corp. and Aeronautical Radio, Inc., the airlines communications agency, each of which had aspired to own the aerosat system, were understandably unhappy. Comsat held its corporate tongue, but Arinc was less reserved.

Within recent weeks, Arinc and ATA jointly issued a harsh blast at the proposed joint aerosat program, charging it is "completely unjustified" and "wasteful." ATA officials concede that the drastic change in attitude stems from the economic recession in international air travel, and they admit their views could change suddenly if there were a rise in transoceanic traffic.

More recently, FAA officials have met privately with ATA officials in an effort to resolve differences, and there has been modest progress. Earlier the FAA had held discussions with IATA officials, to invite their participation in formulating the aerosat program. But IATA has so far declined.

It is ironic that the airlines, who have justifiably and frequently criticized the FAA for always being "behind the power curve" in bringing along needed technology, should now be lambasting the agency for attempting to cope with the coming transoceanic communications crisis about which both ATA and IATA warned.

If the airlines continue to decry the need for an oceanic aerosat service, with loose charges of "unjustified" and "wasteful," it will not take an economy-minded Congress and Office of Management and Budget long to kill the program completely. Then, a year or two from now, when the airline traffic turns upward, as it will, the carriers will find their urgent pleas for aerosat program funding falling on deaf ears.

U.S. Assures Europeans of Satcom Launch

By Katherine Johnsen

Washington–State Dept. last week announced a new policy to assure Europe that the U.S. will provide for launch of a commercial European satellite communications system competitive with the 80-nation Intelsat system in which the U.S. plays the guiding role.

The department said the policy is "intended to provide a positive basis of confidence in the availability of U.S. launch assistance and reflects a major effort to accommodate known European views and concerns."

It marks a reversal of U.S. opposition, up to two years ago, to any international system that might threaten or slow consolidation of Intelsat's position as the single global system for public telecommunications.

The dominating question now is whether the U.S. assurances will lead to the abandonment of the advanced Europa 3 vehicle whose key mission would be launch of an operational communications system.

The substantial funding that would be required for Europa 3 could be shifted to European participation with the U.S. in a space transportation system and other post-Apollo programs. In such joint efforts, the U.S. has already given assurance that Europe would be considered an equal partner with full access to all new technology. (AW&ST Sept. 28, 1970, p. 18).

State Dept. was also explicit last week that the new launch-availability policy stands independently. It is not contingent upon Europe's teaming with the U.S. on space projects.

This also marks a change in U.S. position. Negotiations over the past year on U.S. launch policy have been tied to Europe's significant collaboration in the space shuttle program.

Meanwhile, European apprehensions linger concerning the firmness of the new launch policy or whether it will shift with changes in U.S. political administrations and orientation.

First response to the new policy was the formation of a joint working group to establish specific areas for U.S.-Europe space cooperation, including the space transportation system. The European team is led by J. P. Causse of France, deputy secretary general of the European Launcher Development Organization (ELDO), and J. S. Dinkespiler, director of programing and planning for the European Space Research Organization (ESRO). The U.S. team will be headed by Charles W. Mathews, deputy associate administrator for manned space flight at National Aeronautics and Space Administration.

The new group is scheduled to hold its first formal sessions in mid-November.

U.S. policy has been and is to make launch vehicles and services generally available to friendly nations for peaceful purposes. This includes launches for commercial domestic communications systems, such as the Canadian system, which the U.S. is committed to launch.

But the situation with regard to operational satellite launches for international communications is complicated by the multi-national Intelsat agreement.

The permanent Intelsat agreement, completed last May 21 to replace 1964 interim arrangements, requires a vote by an assembly of the full membership of Intelsat on any plan by a member country to establish a system competitive with Intelsat.

The criterion for voting would be whether the proposed system would do "significant economic harm" to Intelsat. A two-thirds vote, on a one-nation, one-vote basis, would constitute approval of the establishment of the competitive system. A lesser vote would be considered rejection.

But the assembly's action would be only a recommendation. It would not be legally binding on any Intelsat member. In its announcement last week, the U.S. stated what its position on launch of a European system would be under three possible situations. These are:

- Two-thirds of the Intelsat assembly approves a proposed European system. Even though the U.S. opposed it, the U.S. would nevertheless provide for launch.
- The U.S. votes for establishment of a proposed European system, but the system fails to achieve the two-thirds necessary to constitute Intelsat approval. The U.S. would provide for launch, regardless of the unfavorable action of the assembly.
- The U.S. votes "no" to a proposed European system along with more than one-third of the assembly. Even in this situation, amounting to both U.S. and Intelsat rejection, the U.S. still might provide for launch if features of the proposed system are modified "in the light of the factors which were the basis for the lack of support within Intelsat."

Specifically, the State Dept. said that the U.S. could support one plan for a proposed system which would be operational in 1980 to serve the European Conference on Post and Telecommunications (CEPT) and the European Broadcasting Union.

It would involve two in-orbit satellites, one operational and one standby, serving North Africa as well as Europe. Initial capacity would be 3,000-5,000 voice circuits and two television channels.

State Dept. said that this proposed system "would appear to cause measurable, but not significant economic harm to Intelsat. Thus, if this specific proposal were submitted for our consideration, we would expect to support it in Intelsat."

European users would be charged for U.S. vehicles and launch services on the same basis as non-U.S. government domestic users, such as the operator of a U.S. domestic system. The launches could be from either U.S. or foreign sites.

The new U.S. launch policy was first outlined in a Sept. 1 letter from U. Alexis Johnson, undersecretary of state for political affairs, to Minister Theo Lefevre of Belgium, the chairman of the European Space Conference. Announcement was withheld until last week to permit numerous clarifications.

New Business

Northrop Corp. has received a $40.9-million supplement to an earlier Air Force contract for production of F-5E International Fighters.

Boeing Co. is receiving $47.5 million under two Air Force contracts for force modernization of the Minuteman weapon system.

General Dynamics is receiving $33.3 million under the existing Air Force F-111 contract to support the Mark 2 avionics system during production of the F-111F model. Company also is receiving $92.9 million in a supplemental agreement covering previously approved engineering changes for the F-111.

Grumman Aerospace Corp. is being issued a $17-million contract modification for long lead-time effort and materials to support Fiscal 1972 procurement of 19 EA-6B aircraft.

Sanders Associates, Inc. is receiving an $11.7-million contract modification for an additional quantity of airborne transceivers from the Naval Air Systems Command. Units are to be used on North American Rockwell RA-5Cs, Grumman A-6s, LTV A-7s, McDonnell Douglas F-4s and eventually other tactical Navy aircraft.

Airlines Oppose U.S./ESRO Aerosat

ATA Arinc reverse course to favor ATS-F, claiming four-satellite, pre-operational system too expensive, premature, unnecessary

By Philip J. Klass

Washington–The U.S. airlines have publicly opposed U.S. plans for a joint development with Europe of a pre-operational aeronautical satellite system, adding fuel to the controversy that may require a presidential decision to resolve.

The Air Transport Assn., supported by Aeronautical Radio Inc. (Arinc), last week urged a halt to efforts to develop a pre-operational aerosat for deployment during the mid-1970s.

The Federal Aviation Administration's plan for a joint effort with the European Space Research Organization (ESRO) has strong support from top officials of the State and Transportation Departments but is opposed by at least some in the Office of Telecommunications Policy (OTP).

The ATA charged that the "program is completely unjustified because it proposes to use four pre-operational satellites to obtain information that can be gathered for less than half the cost with one satellite under U.S. control."

Arinc, the airlines communications agency, in its concurrent statement said the joint program would "impose an unnecessary and wasteful drain on the U.S. economy."

The ATA was one of the earliest proponents of speedy deployment of an aerosat system to ease growing congestion in high-frequency radio channels and to provide more reliable trans-oceanic air-ground communications.

As recently as the summer of 1970, Arinc officials were citing the imminent overload condition in trans-oceanic communications and lack of additional radio spectrum to ease the situation. Additionally, Arinc officials stressed that an aerosat could provide new services, such as high-speed data link as well as surveillance functions "if and when needed."

The sharp about-face by ATA results from the current economic plight of U.S. international carriers such as Pan American and Trans World Airlines, which had been strong proponents of an aerosat since 1966. ATA officials say that the decline in growth of trans-oceanic traffic has eased the communications crisis for an indefinite period, eliminating the need for an early aerosat system.

The ATA decision to publicly criticize the current aerosat program at this time, some observers believe, was encouraged by Arinc and the International Air Transport Assn. Both organizations disagreed sharply with the OTP decision earlier this year to proceed with an aerosat operating at L-band, instead of very-high-frequency (VHF) which the airlines preferred.

The ATA accepted the decision gracefully, but IATA sharply criticized the choice this spring in a public statement (AW&ST May 3, p. 17). Arinc withheld public criticism on the choice of L-band, but privately its officials left no doubt of their views.

The same OTP pronouncement called for the aerosat system to be owned and operated by a commercial company, which made Arinc a potential contender.

This past spring, as the prospect of an international aerosat program began to emerge instead of the unilateral U.S. effort envisioned by OTP for the pre-operational system, neither the ATA nor Arinc openly criticized the move. Even when a tentative agreement was reached in Madrid in late summer, there was no outcry from either ATA or Arinc (AW&ST Aug. 23, p. 35).

However, within recent weeks it had become apparent that the original OTP policy calling for commercial ownership of aerosat would pose many complex legal issues now that ESRO would own the other half of the system (AW&ST Sept. 27, p. 16).

At the prospective bidders briefing conference here on Sept. 30, an FAA official disclosed that the agency was seeking Administration approval to permit the U.S. half of the aerosat system to be owned by the FAA instead of a commercial company. This foreclosed the possibility that Arinc could bid for ownership and operation of the U.S. portion of the system.

Less than three weeks later, ATA and Arinc publicly announced their opposition to the program. Arinc officials have made it clear that they are still unhappy over choice of L-band instead of VHF.

Walter A. Jensen, ATA vice president for operations, said that after discussions with IATA and Arinc, the ATA had concluded that the proposed international program "will cost more money than we think it ought to; it will do things that we think are premature. We think the program is too expansive. More important, we think there are other, less costly ways to do what needs to be done."

Jensen said the necessary research and development to resolve technical questions on L-band aerosat operation could be performed using the National Aeronautics & Space Administration's ATS-F satellite, scheduled for launch in May, 1973.

The Fairchild Industries-built ATS-F will carry an L-band transponder, but the satellite already is committed for use in a number of other experiments, including community telecasting over India (AW&ST Aug. 23, p. 70).

Jensen said that if it proved impractical to obtain sufficient test time on ATS-F, "then a single U.S. research satellite for the specific purpose of de-

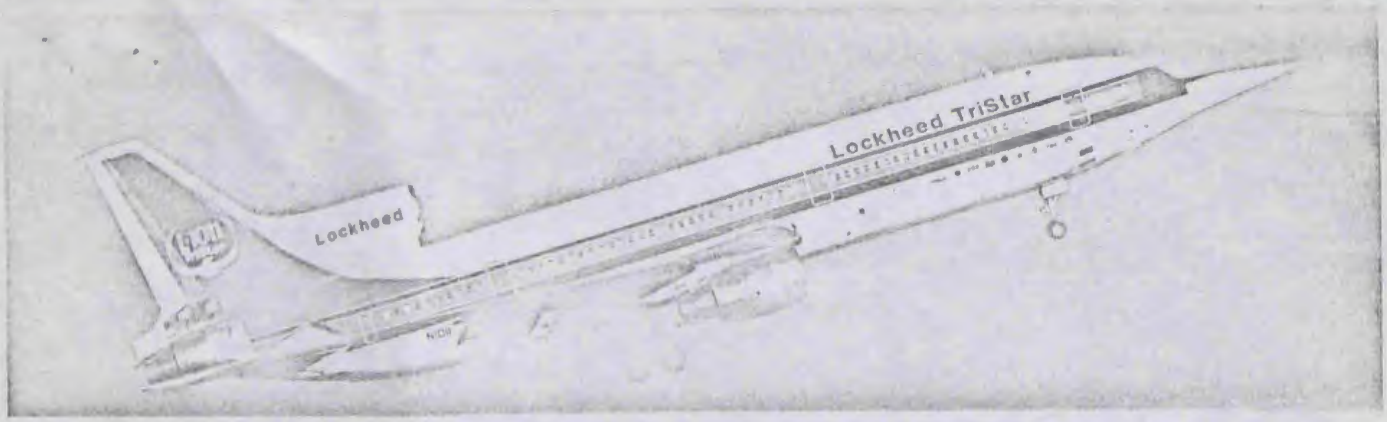
Aeroflot Discusses Australian Route

Preliminary talks on extending Aeroflot service to Australia were held in Moscow earlier this month, during a brief visit by Australian shipping and transportation officials. Boris Bugayev, Soviet civil aviation minister, was official host for the Australian visitors, who visited Moscow at his invitation.

Australia is one of the two remaining regions in which landing rights are required by Aeroflot in connection with its establishment of round-the-world service by a southern route. The other is South America. Soviets have already had preliminary talks with Colombian officials, with indications that serious negotiations will begin shortly.

In another Aeroflot expansion move, service between Yerevan, the capital of Soviet Armenia, and Iran and Arab nations has been increased. Yerevan-Beirut service has been increased from one to two flights weekly and the Soviets plan to initiate routes from Yerevan to Kuwait, Baghdad and Damascus.

Facilities at Yerevan are to be expanded in order to accommodate Sud Caravelle and Boeing aircraft operated by the reciprocal Kuwait, Iraqi and Syrian air lines. Some of the flights will continue to and from Moscow.



Boom Mounted on L-1011 for Turbulence Tests

Sensors on tip of cone-shaped boom mounted on Lockheed L-1011's nose are used in study of structural response of the transport to air turbulence. The sensors on the approximately 20-ft. long boom measure wind speed and direction.

veloping aeronautical communications capability could provide the needed information at a cost to the U.S. of about $25-30 million."

When ATA officials were asked whether the $25-30 million figure included construction of a back-up flight model, in event the first failed to achieve orbit, they were uncertain.

Under the proposed international program, which involves construction of six flight models, the total cost is estimated to be $125-140 million so that the U.S. share would be $62.5-70 million. However, this is expected to provide pre-operational service over both the Atlantic and Pacific.

Arinc Board Chairman John S. Anderson said that the air surveillance function expected to be provided by the FAA-ESRO aerosat was "clearly unneeded and unwanted."

This is at variance with the airline policy of fully supporting the FAA program to provide maximum radar air surveillance over the continental U.S.

The ATA's concern over an early pre-operational system is two-fold. One is that the economically depressed international airlines will be obliged to buy L-band equipment for at least some of their aircraft.

The other is that the carriers will eventually be required to foot the cost of the system through user charges, despite an FAA spokesman's statement that this would not be done until that time when an operational aerosat system is deployed.

Some observers believe that the FAA and ESRO should consider cutting back the proposed system to a single-ocean, North Atlantic deployment in view of the U.S. airlines current lack of interest in Pacific Ocean coverage.

If this were done, the initial procurement would involve fabrication of only three flight model satellites, instead of six, with an appreciable reduction in total cost.

American, TWA, Braniff Report Increased Third Quarter Profits

New York-Initial third quarter financial results reported last week by U.S. domestic trunklines showed marked increases in profits and signs that costs are responding to controls.

Both Trans World Airlines and Braniff International reported operating expenses were lower than those of the 1970 third quarter—down 4.38% to $320.2 million for TWA and down 3.43% to $77.5 million for Braniff.

American Airlines reported operating expenses rose 5% to $289 million. But its revenues climbed by the largest percentage of the three—13.6% to $352.5 million. TWA's rose 2.83% to $369.1 million and Braniff's 9.25% to $89.4 million.

Reductions in capacity by TWA and Braniff were reflected in the reduced costs. Braniff reduced available seat miles by 4%, and TWA by 1%, the latter in its seasonal transcontinental and North Atlantic peak period. TWA's traffic grew by 1.1%, Braniff's by 8%.

American, waging a strong competitive offense on its new Caribbean Routes (AW&ST Oct. 4, p. 23) increased its seat miles available by 9.7% and its traffic by 6.3%.

Profits the carriers reported:

- **American**—$24.946 million, an eight-fold increase over the $2.788 million reported for the third quarter of 1970. For the nine months, it earned $1.695 million on total revenues of $929.8 million, a 55.9% increase over the $1.087 reported for the 1970 period.
- **Braniff**—$5.047 million, compared with a $2.135-million net loss last year. Its nine-month profit was $6.310 million on revenues of $251.2 million, compared with $2.808-million 1970 net loss.
- **TWA**—$32.3 million compared with $18.0 million, both excluding its Hilton subsidiary. It cut its nine-month loss of $27.2 million last year to $2.5 million this year, on revenues of $936.5 million.

Non-operating expense for American and TWA showed stiff percentage increases. Only American broke out its interest expense as a line item, and it rose 121.1% to $6.9 million in the quarter and 66.4% to $20.7 million for the nine months. TWA's non-operating net expense, in which interest would bulk heavily, rose from $1.3 million in the quarter last year to $6.9 million, and from $9.8 million for the 1970 nine months to $19.4 million.

Supersonic transport refunds accounted for some of the third quarter cost and profit improvement. But unit cost trends looked better, even after adjusting for the refund.

Aerosat Memo

Washington–Memorandum of understanding for a joint aerosat program, originally scheduled to be executed Nov. 3 between Federal Aviation Administration and European Space Research Organization, has been delayed to early December.

The reason is that the White House's Office of Management and Budget, which is currently reviewing the proposed aerosat program, is not expected to complete its effort in time to make the original November date.

Also delayed by at least a month will be the final pre-bid briefings for prospective aerosat contractors. These originally were scheduled to be held in Darmstadt, Germany, on Nov. 5 and in Washington on Nov. 8.

SUMMARY OF POSITIONS

OF FAA/ESRO PROGRAM ISSUES

	OST	OTP	NASA	FAA	STATE	ARINC IA TA ATA	NASC
A.	Yes	No	Yes	Yes	Yes	Yes	Yes
B.	Yes	No	--	Yes	Yes	Yes	Yes
C.	Yes	--	Yes	Yes	Yes	Yes	Yes
D.	Yes	Yes	Yes	Yes	--	No	Yes
E.	No	Yes	No	No	--	?	Yes
F.	No	Yes	No	No	No	?'	No
G.	No	Yes	No	No	No	Yes	Yes to US
H.	Yes	Yes	Yes	Yes	Yes	Maybe	Yes?

Routing Slip
Office of Telecommunications Policy

Date: NOV 23 1971

From:

To:

2	Whitehead, C. T.	
3	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.	
	Nelson, R.	
	Owen, B.	
	Raish, L.	
	Robinson, K.	
	Scalia, A.	
1	~~Smith, L.~~	
4	Thornell, J.	
	Urbany, F.	
	Ward, D.	

Remarks:

[redacted]

FYI from Flanigan

THE WHITE HOUSE
WASHINGTON

Date _____

TO: Tom Whitehead

FROM: PETER M. FLANIGAN

X For your information

_____ For action


RECEIVED
NOV 23 1971

Comsat 731e
11/11/26

COMSAT

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH V. CHARYK
President

November 19, 1971

Dear Peter:

We have had a call this morning from Telecommunications Reports with reference to the letter that Joe McConnell sent you yesterday on the subject of the aeronautical satellite program. It appears that they have obtained at least the essential elements included in the letter and presumably will publish some sort of story this weekend. I wanted you to know, however, that our response to this has been to acknowledge the existence of such a letter but to refuse to give them a copy of same.

Sincerely,

Joseph V. Charyk

Mr. Peter Flanigan
Assistant to the President
The White House
Washington, D. C. 20500

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH H. McCONNELL
Chairman of the Board

November 18, 1971

Mr. Peter Flanigan
Assistant to the President
The White House
Washington, D. C. 20500

Dear Peter:

I know that you have been closely aware of Comsat's interest in seeking to provide aeronautical communications services to meet the growing need and requirements for such services. Comsat's interest and investment in all aspects of an initial commercial aeronautical communications satellite system have now extended over a number of years. We are, therefore, greatly disturbed at the apparent conclusion of the FAA that it is now planning to proceed on the basis of a government ownership of the satellites and that it is seeking budgetary approvals for such a system.

As you know, Comsat, although a one hundred percent private stock company, is limited specifically by statute to the field of satellite communications. Since our establishment we have vigorously pursued the economic development of reliable commercial services including satellite communication services to aircraft in trans-oceanic flight. We have invested considerable resources over the last several years in the development of aeronautical services and have submitted four proposals to provide this service to the U. S. government and commercial airlines. These proposals were based on extensive prior discussion of requirements with officials of the government concerned with aeronautical communications. We have offered to provide the desired services on a commercial lease basis where we provide all investment and guarantee the service;

the customer(s) would pay only when the leased services are available, and for the time that they are available, for the duration of the lease period.

In making the corporate investment on which these prior proposals were based, we have been guided by the established government policy to utilize commercial communications services when available rather than investing in government owned and operated equipment. We were encouraged when the Office of Telecommunications Policy, after reviewing the aeronautical satellite question, restated on January 7, 1971 that it is the government policy to proceed with the program and lease services rather than buy and operate equipment. We have, therefore, continued to expend our resources since this reaffirmation of policy, and believe the reversal of such a decision now would not be in the public interest and would be grossly unfair to our stockholders.

I am aware that the terms and details of a proposed U.S.-European Agreement which is being constructed tends to cloud the essential issues, and I wish to emphasize several fundamental points for your consideration:

Comsat is willing to provide any aeronautical service(s) presently being contemplated for the proposed aeronautical satellite program, in any of the frequency ranges being considered, on a fixed-price leased-services contract(s), for a guaranteed service, without the necessity of government investment. The only limitation on the quantity or quality of service to be provided is the technical state-of-the-art, which is unrelated to a lease or buy decision. The only research and development involved lies in the way the communications links through the earth stations and satellites would be used and not in the satellite technology.

While the terms of the proposed U.S.-European Agreement obviously present serious impediments to a U.S. government lease of aeronautical services, it must be emphasized that

these impediments are the direct consequence of the particularly bizarre management arrangements provided by the proposed Agreement. They are not at all necessary consequences of a leased-services approach. We would be quite willing to invest in a partnership in which the partners have equal voice in the selection of subcontractors and vendors, the technical designs, adequacy of acceptance tests, etc., where the decision and direction is in equitable proportion to investment risk. Obviously we could not accept technical direction from a third party over these matters affecting our investment.

Regardless of the scope of the initial program, the total investment required and the realizable satellite lifetime clearly supports the expectation that additional customers could make use of these services, including some airlines. We can, therefore, see no conceivable reason why the initial program should not be based on a common carrier approach. In this manner, not only could additional customers easily be accommodated but the cost to the government minimized, since the depreciation of ground equipment would extend over more than the lifetime of the initial satellites.

In summary, we have invested our resources on the basis of published and reaffirmed U.S. government policy of leased services, rather than government investment and ownership. If the service is available commercially on a fixed-price, guaranteed basis, how can it be justified on a research and development basis, or on a government-ownership basis? Is consideration of leased-service to be dismissed on the basis of one particularly complex approach to a lease arrangement, without even considering letting the investment partners make the partnership arrangements on the basis of their investment? And finally, when it is obvious that a successful aeronautical satellite program can provide services to a number of users, including commercial airlines, within the reasonable lifetime of the first generation of aeronautical satellites, how can any approach except that of a common carrier be justified?

I have not wished to impose on your time at this stage by including in this letter a point-by-point analysis of the many and substantial respects in which we believe the arrangements proposed by FAA are impractical, and we believe contrary to the public interest. We would be glad to provide such an analysis in writing or orally, if you believe it would assist the decision-making process.

Finally, an important point should be emphasized. Our discussions with FAA and the airlines that have ensued over a number of years up to these recent proposals have required us to perform substantial planning and development work for the offering of aeronautical communications services. In the course of this work we have incurred system development costs in excess of one million dollars ($1,176,000 as of September 30, 1971), which now stand on our books. These costs must be written off in a single year, if the Government proceeds in the fashion proposed by the FAA. We think it is a discouraging commentary on the seriousness of purpose with which the Government views the mission of this Government-sponsored corporation, that, as a result of actions of the Government itself, we should be required to write off the costs of our efforts to develop an aeronautical communications system which would benefit private and Government users alike.

Sincerely,

Joseph H. McConnell

cc: Mr. C. T. Whitehead

November 17, 1971

TO: Jon Rose

FROM: George F. Mansur

Attached are draft copies of memoranda which you discussed with Tom yesterday. Also attached is a talking paper which was distributed at the Flanigan meeting on Aerosat 3 weeks ago; it may be useful in providing a quick review of the program.

In view of our conversation yesterday, it is not clear that the memos should be dispatched to Kissinger and Flanigan until you and Tom have talked further. We would, however, appreciate your comments concerning the validity of the views expressed in the memo.

I believe there are three options which have been enunciated:

1. Approve the tentative Memorandum of Understanding on grounds that foreign relations requires this course of action.

2. As a first step, request the FAA (Shaffer) to consult with OTP to determine the feasibility of negotiating revisions to be more consistent with Administration objectives. From our viewpoint, this has the advantage of establishing an OTP overview but the substantive results would probably be minimal.

3. Recognize that the draft Memorandum of Understanding embodies provisions which should be corrected and, as a result, reorient the U. S. -European discussions to achieve a mutually acceptable agreement more consistent with U. S. objectives. This approach would require:

   a. A low key announcement that the draft Memorandum of Understanding was under review by the Administration.

b. Postponement of joint program approval until at least mid-January.

c. Changes in both the forum for negotiations as well as the substance. With respect to the former, we believe that low-profile bilateral discussions would be essential.

As noted in earlier memoranda, the draft Memorandum of Understanding contains three apparently independent provisions which we find objectionable:

a. Requirement for unanimous agreement in program decisions, which in effect provide veto power to ESRO.

b. Guarantees of equal sharing of R&D and production to ESRO.

c. Equal and joint ownership of the enterprise by the ESRO and a U.S. industrial firm.

In truth, these provisions are not independent but are interrelated such that any two of the three provide ESRO with control of this program and of any commercial activity that may evolve.

We believe that b. and c., should be amended as follows:

- Award contracts for services and hardware on a basis which will solicit European participation but which is not mandatory. Article X of the Intelsat Agreement is a suitable precedent and provides for contractor evaluation, first, on the basis of price, quality and delivery, and second, on the degree of international distribution of work.

- ESRO ownership (or indefeasible right of use) of communications channels to meet ESRO service requirements is acceptable; however ownership of the enterprise should be discouraged on several grounds, i.e., inconsistent with private sector investment, and forecloses offering broad additional services to the maritime and telephone communities. There are many precedents for this approach in the international communications industry.

If b. and c., can be structured properly, a., is probably acceptable to the U.S. and it may be tactful to yield on this point.

As a postscript, I believe that many of our existing problems in space cooperation are a direct result of our failure to structure a well planned Post-Apollo activity which meets both U.S. needs and legitimate desires of the Europeans for interaction with the U.S. space community. I want to emphasize that this can and should be done, and further it can be compatible with U.S. commercial exploitation of space technology. If we set our minds to the task, appropriate new Post-Apollo initiatives can be defined and presented to the Europeans in the near-term. This would tend to defuze current problems in NATO, aerosat, and space shuttle.

5
11/17

November 17, 1971

MEMORANDUM FOR

Mr. Henry Kissinger
Mr. Peter Flanigan

The issues which have arisen in connection with the aeronautical communications satellite are of a broad and fundamental nature, and the program itself is simply the current focal point. The President is committed to a lessening of the role of the Federal Government in activities which are more appropriately a part of the private sector. The Administration's Aeronautical Satellite Policy of 7 January 1971, is intended to further this objective and to establish precedents for other programs.

The principal features of this Policy are:

a. Placement of responsibility to implement the Policy in the FAA.

b. Requirement that the Government (FAA) lease its communications services from the private sector by competitive bid.

c. Requirement that institutional arrangements not foreclose establishment of a communication service which would serve a broad range of users, including the FAA.

d. Encouragement of international cooperation in ways consistent with other objectives.

In May the FAA, in conjunction with DoS, initiated exploratory discussions with the Europeans represented by ESRO to develop a cooperative program. The draft Memorandum of Understanding which has resulted is not consistent with the Administration's Policy of January, 1971. The tentative arrangements include:

a. ESRO veto power over all program decisions.

b. Guarantees of an equal share for the Europeans in R&D and manufacturing for the space segment.

c. Ownership of the resulting enterprise divided equally between ESRO and a private U.S. contractor.

The proposed arrangements contravene private sector incentives for investment of venture capital, and as a result the joint FAA/ESRO program is opposed by U.S. communications carriers and several aerospace firms. The international air carriers, both U.S. and foreign, are also inalterably opposed because of expected increased costs, implications of government ownership, and European control of the satellite communications serving our domestic routes between the U.S. Mainland and Hawaii.

The Department of State has expressed concern that unilateral U.S. alteration to the proposed Memorandum of Understanding would be harmful to our foreign relations and has suggested that ICAO would block approval of the operational system. It seems to us that these fears are not well founded for several reasons:

a. The FAA, including its Administrator, has continually made it clear that the discussions were exploratory and that a review of the tentative agreements by the respective governments, both U.S. and European, would be necessary.

b. No ICAO action is necessary or contemplated until the end of the decade, and it is difficult to believe that present differences will have discernible effects on a world body of 122 nations in 1980.

c. The French and German space communities have provided the principal motivation and guidance for the evolution of the European views. In assessing the impact of renegotiation we must understand that there is a clear distinction between the aviation ministries, the international air carriers, and the French and German space communities. The French and German aviation ministries, and to a lesser extent the British aviation ministry, tend to be influenced by the views of their respective space communities, but I do not think that most aviation ministries have strong fundamental views

concerning the specific arrangements embodied in the proposed Memorandum of Understanding.

The fundamental focus of current concern should not be the draft Memorandum of Understanding, but the central issue, which is: Can a cooperative program be structured which is consistent with Administration policy, and can such a program now be negotiated with acceptable effects on foreign relations.

The answer to this question can never be known unless further negotiation is at least attempted. There are reasons to believe it may succeed. While proposals to alter the program will definitely cause adverse reaction from the French and German space communities, we believe that the over-all reaction of governments can be minimized by firm and tactful negotiation with the interested aviation ministries. The Europeans are acutely aware of the strong opposition to the program by the international air carriers, and of the recent concern of several members of Congress. They know also that there are divergent views within the Executive Branch and that the Administration is reviewing the tentative arrangements. Accordingly, the Europeans are uncertain about the outcome and we propose therefore to use this uncertainty to negotiate arrangements consistent with broader United States objectives.

In our view, this program can, if properly structured with the Europeans, provide the seed for development of a new mobile communications industry. Since the satellites for this program are designed with 5-7 year lifetimes, we are now structuring the institutions for air traffic control communications, and more generally perhaps, a mobile communications industry for the next decade and beyond. This industry might gross as much as $1 billion over the next decade. It can provide work in excess of $150 million to our aerospace and electronic industries in the next five years. For this reason, the central thrust of our policy is to permit a fair and equal competition by U.S. and European industries without governmental guarantees which, in the tentative agreement, restrict competition by providing for an equal sharing of production independent of price.

The Congress is taking an active interest in the evolution of this program and in the Executive Branch decision process. We are concerned about our inability to respond to the several inquiries we have received from the Congress. Early resolution of these issues is essential.

I suggest that OTP be instructed to undertake, in conjunction with the FAA and DoS, a continuation of the discussions between the U.S. and the Europeans to restructure an agreement which is consistent with the Administration objectives.

Clay T. Whitehead

DO CHRON
DO RECORDS
Mr. Whitehead

GFMansur/tw

THE WHITE HOUSE

WASHINGTON

November 17, 1971

TO: Clay T. Whitehead

FROM: Peter Flanigan

Henry Kissinger and I have reviewed the policy implications of the proposed U.S.-European aeronautical satellite memorandum of understanding. We share your view that many of its provisions are not consistent with the Administration's policies and objectives.

As a result you should reorient the negotiations, in conjunction with the FAA and Department of State, to explore with the Europeans, ways to develop a cooperative program which is consistent with Administration policies. If this does not prove to be feasible, you should develop options for further consideration.

October 19, 1971

AEROSAT

PROGRAM:

1. The purpose is to provide improved communications and ultimately navigation for over ocean commercial air traffic control.

2. The program consists of two phases: pre-operational beginning in 1973 which will transition to operational (mandatory) by 1980.

3. Current plans are for two satellites over each of the Atlantic and Pacific Oceans, to be followed in the late 70's with additional satellites to provide world coverage.

4. Costs estimates for the program range from less than $75 M (Hughes) to $140 M (FAA/ESRO.)

5. Although the focus is currently on FAA ATC utilization, it is expected that a properly conceived system would provide major new services to the Maritime community as well.

ADMINISTRATION POLICY:

1. Plans for an aeronautical satellite have been discussed since 1966, but technical and institutional problems prohibited initiation of the program.

2. Between 1966 and 1970 two competing programs evolved: an FAA/COMSAT lease arrangement and a NASA/ESRO research and development program.

3. OTP undertook a policy review in October 1970 which lead to enunciation of the Administration Policy on 7 January 1971. Principal features of the policy are:

a. Delegated full responsibility to the FAA thereby killing the NASA/ESRO program.

b. Required the Government to lease services from the private sector by competitive bid.

c. Required institutional arrangements to be consistent with deployment of a multiple user system, and

d. Encouraged international cooperation where consistent with other objectives.

STATUS:

1. By letter of 11 June, OMB asked the FAA to explore international participation.

2. This lead to FAA/ESRO discussions starting in July and continuing to the present.

3. A tentative draft memorandum of understanding has been prepared by the FAA and ESRO which:

a. Provides for the Europeans to contribute 50% of the program cost which is estimated at $125-140 M.

b. Requires unanimity between the US and ESRO in all program decisions which, in effect, provides veto power to any member of ESRO.

c. Requires that production be shared with the Europeans on a 50-50 basis.

d. Requires 50% ownership of the enterprise by the Europeans.

4. The draft Memorandum of Understanding is scheduled to be signed by the FAA and ESRO on 3 November.

RESULTS:

1. US aerospace industry and common carriers received the Administration Policy of 7 January very favorably, and initial indications were that five firms planned to bid the program on a lease-service basis. These five were: COMSAT, RCA GLOBCOM, Hughes, Philco Ford, and GE.

2. As presently structured in the draft Memorandum of Understanding, the U.S. aerospace industry and common carriers have stated that they cannot provide leased services because of the absence of investment incentives and the "bizarre institutional arrangements.

3. Accordingly, the FAA is now requesting a Government owned system with 50% ownership by the FAA and 50% ownership by ESRO.

POSITIONS:

1. The FAA and State Department support the program.

2. OST, Pete Peterson, and NASC have major problems with the Memorandum of Understanding, but are uncertain as to what steps should be taken at this time.

3. NSC also has serious problems with the Memorandum of Understanding, but does not believe the issues are sufficiently important to be addressed by NSC.

4. The U.S. communications carriers strongly oppose the Memorandum of Understanding since it precludes a private sector offering of a major new communication service.

5. Most of the aerospace industry opposes the Memorandum of Understanding because of the awkward management and procurement provisions.

6. The international air carriers, both U.S. and foreign, are unalterably opposed to the FAA/ESRO program and have currently mounted a campaign in Congress to stop the program. Congressman McFall of the House Subcommittee on Transportation plans to hold hearings on the proposed FAA/ESRO program the week of 18 October.

RECOMMENDATIONS:

1. As presently structured, the program should be disapproved on the basis that it is inconsistent with Administration policy.

2. Alter the program to provide incentives for private sector development.

3. Try to establish an international "coordinated" program rather than a "joint" program.

4. If 3., is not possible, proceed with deployment in the Pacific where the U.S. has unilateral ATC responsibility and work towards extension of the system to the Atlantic in 1974-1975.

5. Accelerate the program to realize employment opportunities by summer of '72.

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

Tom - this was drafted and sent to Jon Rose on the 17th - unsigned - as a result of your conversation with him. While a little long it is a fairly good summary.

GM.

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

DIRECTOR

November 17, 1971

MEMORANDUM FOR

Mr. Henry Kissinger
Mr. Peter Flanigan

The issues which have arisen in connection with the aeronautical communications satellite are of a broad and fundamental nature, and the program itself is simply the current focal point. The President is committed to a lessening of the role of the Federal Government in activities which are more appropriately a part of the private sector. The Administration's Aeronautical Satellite Policy of 7 January 1971, is intended to further this objective and to establish precedents for other programs.

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c. Requirement that institutional arrangements not foreclose establishment of a communication service which would serve a broad range of users, including the FAA.

d. Encouragement of international cooperation in ways consistent with other objectives.

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a. ESRO veto power over all program decisions.

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The Department of State has expressed concern that unilateral U. S. alteration to the proposed Memorandum of Understanding would be harmful to our foreign relations and has suggested that ICAO would block approval of the operational system. It seems to us that these fears are not well founded for several reasons:

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In our view, this program can, if properly structured with the Europeans, provide the seed for development of a new mobile communications industry. Since the satellites for this program are designed with 5-7 year lifetimes, we are now structuring the institutions for air traffic control communications, and more generally perhaps, a mobile communications industry for the next decade and beyond. This industry might gross as much as $1 billion over the next decade. It can provide work in excess of $150 million to our aerospace and electronic industries in the next five years. For this reason, the central thrust of our policy is to permit a fair and equal competition by U.S. and European industries without governmental guarantees which, in the tentative agreement, restrict competition by providing for an equal sharing of production independent of price.

The Congress is taking an active interest in the evolution of this program and in the Executive Branch decision process. We are concerned about our inability to respond to the several inquiries we have received from the Congress. Early resolution of these issues is essential.

I suggest that OTP be instructed to undertake, in conjunction with the FAA and DoS, a continuation of the discussions between the U.S. and the Europeans to restructure an agreement which is consistent with the Administration objectives.

Clay T. Whitehead

Cancelled.

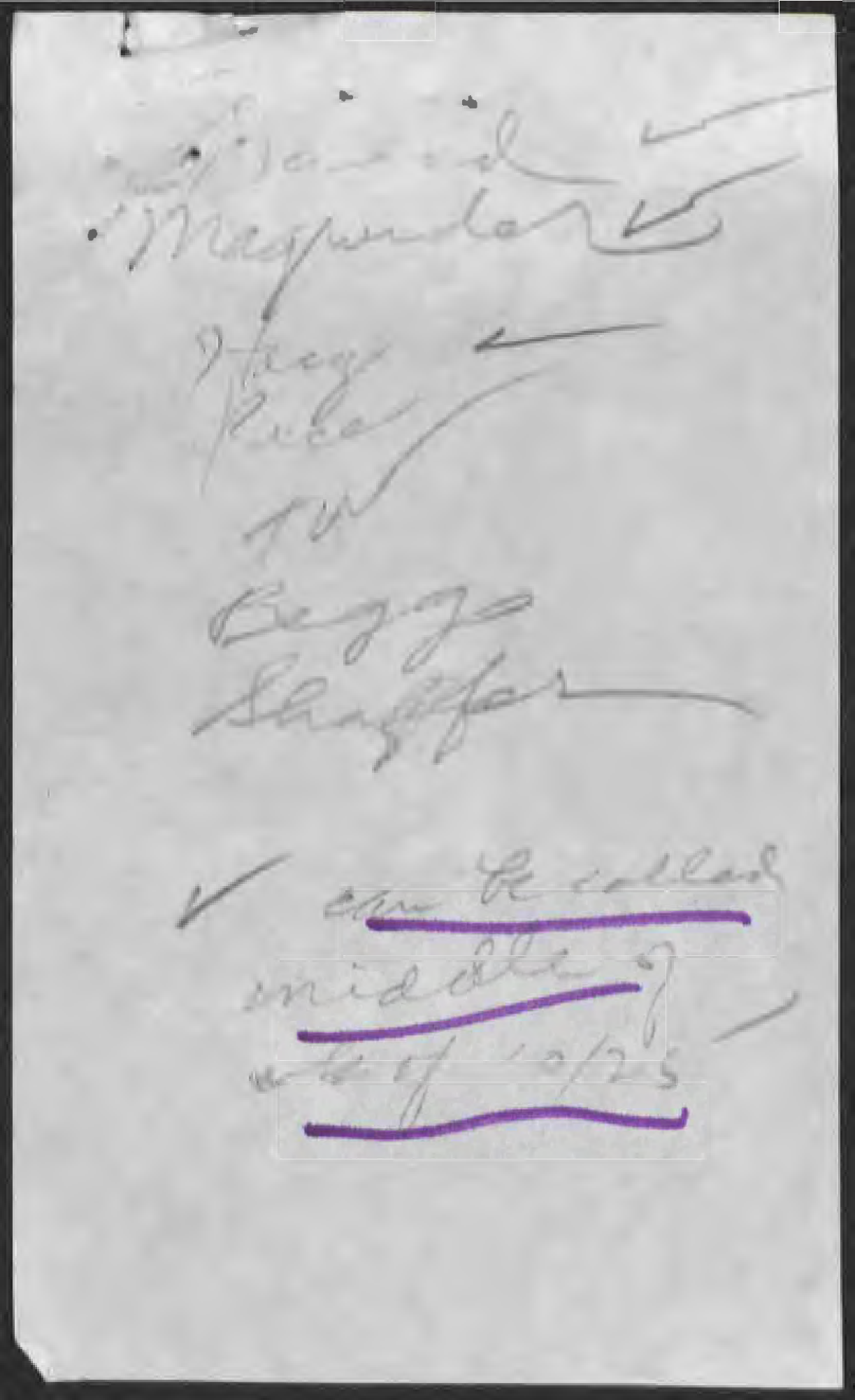
11:00 a.m. Wednesday November 10

Aerosat Meeting

Roosevelt Room, White House

Peter Flanigan
Don Rice
James Beggs
Gen. Haig

Jack Shaffer
Ed David
Jeb Magruder
Dr. Mansur



10/27 12 noon
Finish

aboard
11 am
11/10
Roosevelt

P&F
Rico
Beggs
Shaffer

Friday 10/22/71

MEETING
11/10/71
11 a.m.

3:00 Checked with Marge ; the Aerosat meeting is scheduled for 11 a.m. on Wednesday (11/10) in the Roosevelt Room. (the room has been reserved for no more than two hours).

We are calling Rice's office to get the meeting on his calendar for sure.

Dr. Mansur will let us know who else should be invited.

cc: Dr. Mansur

MEETING
11/9 or 10

Friday 10/22/71

11:40 Dr. Mansur has asked us to check with Marge and schedule a meeting for November 9 or 10 (1 to 1-1/2 hours) in the Roosevelt Room -- re Aerosat.

Essential people are Flanigan and Don Rice; others would be Mr. Whitehead, Dr. Mansur, Shaffer, et al.

Friday 10/22/71

MEETING
11/10/71
11 a.m.

3:00 Checked with Marge; the Aerosat meeting is scheduled for 11 a.m. on Wednesday (11/10) in the Roosevelt Room. (the room has been reserved for no more than two hours).

We are calling Rice's office to get the meeting on his calendar for sure.

Dr. Mansur will let us know who else should be invited.

cc: Dr. Mansur

Tuesday 11/9/71

CANCELLED MEETING
11/10/71
11:00

10:00 Per Dr. Mansur's instructions, we have cancelled the Aerosat meeting in the Roosevelt Room which was to have been held at 11:00 tomorrow morning (Wed. (11/10).

Tuesday 11/9/71

CANCELLED MEETING
11/10/71
11:00

10:00 Per Dr. Mansur's instructions, we have cancelled the Aerosat meeting in the Roosevelt Room which was to have been held at 11:00 tomorrow morning (Wed. (11/10).

Aerosat

November 4, 1971

George Mansur

Jack Thornell

Meeting with Dave Israel Today

Dave and I discussed all of the primary issues on Aerosat. The several points that were raised are summarized as follows:

1. Management/Institutional Structure. Dave thinks it is possible to change the institutional structure to an extent that ESRO would not be the primary European participant. In this regard, the aviation interests of the various countries could be signatories to the MOU. He does not think that the unanimity rule can be discarded and still maintain the partnership agreement.

2. I indicated to Dave that I considered that the channel requirements that have been displayed were artificially derived to make sure that there would not be multiple usage of the system. Dave, at least, is firmly convinced that the minimum requirements stated are real and that those are the ones he would be willing to defend. However, these minimum requirements include airline requirements and this is another point of our dissatisfaction in that the FAA/Europeans should not have the primary role of determining airlines' requirements or use of the system.

3. I told Dave that much of our disagreement with the MOU was with regard to the lack of competition and the production sharing arrangements. He understands our position but doesn't recognize OTP authority to make this Government policy. It is his position that if the U.S. Government in the form of Kissinger, or some other high level official, were to state that international competitive

bidding is the rule and that the U.S. will not enter into Government guarantees of production sharing arrangements, then the FRG would attempt to change the MOU.

4. Dave is convinced that a joint program is not achievable with the Europeans unless the production sharing arrangements are included. He is further convinced that the Europeans are capable and competent to build a system independent of the U.S. and will do so immediately if this MOU is not signed and the program proceeds. The State Department has advised Dave that Launch assurances have already been given to the Europeans for an experimental or prototype satellite. Dave is afraid that if we change the program and the Europeans pull out, the Europeans will, in fact, proceed and be far ahead of the U.S.

In summary, the substance of the FRA position has not changed and the only apparent consequence appear to be taking MBFR superficially out of the picture. This doesn't really change anything that we have our objections on.

Glen

cc: Tom Whitehead (2)
Dir's Chron
Dir's Records
Thornell's Chron
Thornell's File

UNDER SECRETARY OF STATE
FOR POLITICAL AFFAIRS
WASHINGTON

Nov. 1971

MEMORANDUM FOR MR. HENRY A. KISSINGER
THE WHITE HOUSE

Subject: DOT/FAA Preoperational Aeronautical Satellite Program

The Department of State strongly supports the DOT/FAA program for implementing a preoperational aeronautical satellite system on a joint basis with ESRO, and involving participation by Australia, Canada and Japan. The Department believes that failure to go forward would have serious negative foreign relations consequences, and it favors approval of the project as now negotiated for the following reasons:

1. It represents a favorable opportunity to engage the Europeans successfully in a major joint enterprise of high industrial and political interest in Europe. We have already entered into serious and well-publicized negotiations with the Europeans, and to reverse ourselves would, in our view, have an unfavorable impact not only on future cooperation in post-Apollo and other space-related activities, but on overall US-European relations.

2. Cancellation would result in a clear diminution of United States influence and leadership in ICAO should the US change its negotiated position and decide to proceed unilaterally in the Pacific Ocean area. We believe that the Europeans would, in turn, decide to proceed unilaterally in the Atlantic. They clearly have the capability, motivation and desire to go it alone, and we have offered to launch this type of satellite for them. This would result in the Europeans proposing to ICAO their own system specifications as operational standards. These standards would probably be adopted over any competing US proposals.

3. A favorable balance of payments will result from the negotiated program, because, in paying one-half the cost of the program, the Europeans would pay the United States for half the launch costs.

4. Transoceanic civil aviation is, by its very nature, international. Any satellite system must be integrated into a common system of air traffic control. Air traffic control involves the safety of life and property and such a system must be standardized and accepted by all. International agreement is required to re-configure existing Flight Information Regions (FIR's) in order to take maximum advantage of the communications satellite mode and to economize on en route charges to civil aviation.

5. Given the state of the art in Europe, the benefits of a joint program can be obtained without the loss of United States technological advantage. Moreover, the draft Memorandum of Understanding includes a provision ensuring that Munitions Control regulations would apply.

While the United States could unilaterally establish a preoperational system in the face of a separate European effort, unilateral testing and use would not advance the interests of the US. In contrast, the negotiated program is clearly in the interests of the United States. Amplification of the foregoing points is contained in the Department's letter of October 20 to the Office of Management and Budget and is appended hereto.

The DOT/FAA concurs in this memorandum.

U. Alexis Johnson

Attachment:
Department's letter of October 20

AEROSAT 9/1/70 — 12/31/71

CHRONO LIST TYPED ✓

COPIES XEROXED FOR
TELECOMMUNICATIONS ✓

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

Tom - Elliott of NASC called to say that the views attributed to NASC in the McGruder agency memo do not reflect the views of NASC.

McGruder has circulated his memo to Flanigan, Dent, Ruin and others.

I suggested to Elliott that we appreciated having his views but NASC should square the problem with McGruder and Flanigan.

GM

Routing Slip

Office of Telecommunications Policy

Date: OCT 29 1971

From:

To:

✓		
	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.	
	Nelson, R.	
	Owen, B.	
	Raish, L.	
	Robinson, K.	
	Scalia, A.	
	Smith, L.	
	Thornell, J.	
	Urbany, F.	
	Ward, D.	

Remarks:

THE WHITE HOUSE
WASHINGTON

October 29, 1971

TO: Tom Whitehead

FROM: Bill Magruder

Per your instructions on distribution, I am awaiting your suggestions on distribution.


RECEIVED
OCT 29 1971

aeronat

October 25, 1971

Independent
10/29/71

TO: File

SUBJECT: FAA/ESRO Aeronautical Satellite Program

1. A summary of key office positions is offered in the attachment. The major argument seems to be:

   a. Is it wise to offer joint government management of the program as opposed to a "coordinated" program providing some private sector incentives?

   b. Will the termination of the present FAA/ESRO tentative agreement seriously damage international relations in an area where the President has promised cooperation?

   c. Will a change in the FAA/ESRO negotiations delay, to a hurtful degree, the ICAO approval of specifications?

   d. Will a satellite navigation system, independent from the airplane, really offer an Air Traffic Control Advantage?

   e. Is a technology transfer issue involved?

   f. Will a U.S. alone program aid balance of trade?

   g. Will the total program cost decrease if the U.S. goes alone?

   h. Will the UHF system offer a needed communication advantage?

2. Recognizing that:

   a. There is no consumer demanding the system.

   b. There seem to be disputes about all the major elements; cost, trade balance, traffic control, management benefits and the best way to secure ICAO specification approval.

c. Some embarrassment will be caused by a complete turn off of the project.

3. It would appear wise to:

a. Review and get agreement upon basic elements of the program.

b. Delay the agreement 30 days until a better basis for agreement exists regarding the total program.

SUMMARY OF POSITIONS

OF FAA/ESRO PROGRAM ISSUES

	OST	OTP	NASA	FAA	STATE	AIRING IATA ATA	NASC
A.	No	No	Yes	Yes	Yes	No	Yes
B.	--	No	--	Yes	Yes	--	Yes
C.	--	--	Yes	Yes	Yes	--	Yes
D.	No	Yes	Yes	Yes	--	No	Yes
E.	No	Yes	No	No	--	--	Yes
F.	--	Yes	No	No	No	--	No
G.	--	Yes	No	No	No	Yes	Yes to U.S.
H.	Yes	Yes	Yes	Yes	Yes	Maybe	Yes?

United States Senate
COMMITTEE ON APPROPRIATIONS
WASHINGTON, D.C. 20510

October 29, 1971

Mr. Clay T. Whitehead, Director
Office of Telecommunications Policy
1800 "G" Street
Washington, D. C. 20504

Dear Mr. Whitehead:

Forwarded herewith is a copy of a letter I have received from Mr. Stuart G. Tipton, President, Air Transport Association.

You will note that in the last paragraph of his letter Mr. Tipton indicates that it is his understanding your office will be reviewing the Federal Aviation Administration proposed program for the use of satellites in civil aviation. The letter is very articulate and succinctly sets out strong arguments against such a program.

I would appreciate any information which you can provide to me at this time as well as a report on any findings which may be developed by your office.

Best regards.

Sincerely yours,

Gordon Allott

Gordon Allott
United States Senator

GA:jet

1 Enclosure a/s

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

October 28, 1971

To: Tom Whitehead

From: Jack Thornell

Subject: Aerosat

While your memo to Peter Flanigan of October 13 summarizes the basic issues on Aerosat, it is appropriate that several of the issues should be expanded. These are:

INTELSAT. The State Department is very much in favor of and totally supports the 1980 operational system being provided by INTELSAT. The Europeans, primarily the French and the British, were instrumental in having Article 1 k. of the INTELSAT Definitive Arrangements specifically exclude mobile services from the competence of INTELSAT unless that competence is self-imposed by a 2/3 vote in the Assembly of Parties. It is our opinion that this European position is a result of their desire to control mobile services and keep them from ever being provided by INTELSAT.

International Civil Aviation Organization (ICAO) To a certain extent, the Europeans are "blackmailing" the US in that ICAO provides the international standards for operational systems and the State Department is fearful that if we do not accede to European desires, they will block any unilateral US efforts in Aerosat communications.

Competition. While we strongly oppose the production sharing criterion as the primary qualification to be a bidder, the ramifications are even more serious in that, unless a US company is selected by a group of European companies to bid with them, they are automatically excluded from the competition.

Program Emphasis. Primary conclusions drawn from the Executive Office Working Group study in the Fall of 1970 was that the technology is available and private industry is competent and willing to provide aeronautical communication services. The European aerospace industry, not necessarily having this full competence, has influenced the Aerosat negotiations to emphasize the space technology aspects of this communications facility for the net benefit of European Aerospace industry.

In a letter to Donald B. Rice from Phil Trezise, the State Department summarizes their position on the program as follows:

(1) Agreement on appropriate standards for an operational system by 1980 requires major European participation in the preoperational program;

(2) Reduction of overall cost of the preoperational program requires major European participation;

(3) Achievement of balance-of-payments advantages in the preoperational phase requires at least major European participation and hopefully broader participation;

(4) Major European participation is attainable only if Europe has a significant role in program management and European industry can participate on a reasonable basis;

(5) The proposed program provides for European participation on a reasonable basis consistent with US objectives and our overall foreign policy posture toward Europe;

(6) European interest, cohesion and capability in this matter is sufficient to support a successful joint effort.

JMT

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

October 26, 1971

Mr. Clay T. Whitehead, Director
Office of Telecommunications Policy
1800 G Street
Washington, D. C. 20504

Dear Mr. Whitehead:

I am transmitting herewith a copy of a letter dated October 14 from Mr. Stuart G. Tipton, President of the Air Transport Association, and a copy of my letter to the Honorable John A. Volpe, Secretary of Transportation. The correspondence relates to a proposed agreement for a joint international program of preoperational trials of satellites for civil aviation.

It would be helpful for the Subcommittee to have your comments on the points raised by Mr. Tipton, with particular reference to the review of this matter within the Executive Branch. Your early response is requested.

With kind regards.

Sincerely,

Robert Byrd

Robert C. Byrd
Chairman
Subcommittee on the
Department of Transportation
and Related Agencies

RCB:Wk

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

DIRECTOR

October 22, 1971

Mr. J. H. Shaffer
Administrator
Federal Aviation Administration
Washington, D.C. 20590

Dear Jack:

The Executive Office and the White House have reviewed the Aeronautical Satellite Program as I indicated in my letter of 17 September. It was concluded that the management, production sharing, and ownership arrangements embodied in the draft FAA/ESRO Memorandum of Understanding are not at all consistent with Administration objectives and policies. Therefore, the Department of Transportation request for approval of the program as presently structured cannot be granted.

It was further agreed that a meeting should be held with DoT/FAA, Executive Office, and White House representatives to discuss actions which should be taken to reorient the program to assure early and efficient service. The meeting is tentatively scheduled at 11:00 on November 10 in the Roosevelt Room at the White House, and I would appreciate knowing if that is convenient for you. I would be pleased to discuss this with you in more detail at any time.

Sincerely,

Tom

Clay T. Whitehead

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

DIRECTOR

October 22, 1971

Honorable James Beggs
Under Secretary for Transportation
Department of Transportation
Washington, D.C. 20590

Dear Jim:

The Executive Office and the White House have reviewed the Aeronautical Satellite Program as I indicated in my letter to Jack Shaffer of 17 September. It was concluded that the management, production sharing, and ownership arrangements embodied in the draft FAA/ESRO Memorandum of Understanding are not at all consistent with Administration objectives and policies. Therefore, the Department of Transportation request for approval of the program as presently structured cannot be granted.

It was further agreed that a meeting should be held with DoT/FAA, Executive Office, and White House representatives to discuss actions which should be taken to reorient the program to assure early and efficient service. The meeting is tentatively scheduled at 11:00 on November 10 in the Roosevelt Room at the White House, and I would appreciate knowing if that is convenient for you. I would be pleased to discuss this with you in more detail at any time.

Sincerely,

Clay T. Whitehead

MEETING
10/21/71
12 noon

Monday 10/18/71

6:20 We have scheduled the meeting with Mr. Flanigan on disposition of the Aerosat matter for 12 noon on Thursday (10/21) in Mr. Flanigan's office and have invited the following: (They will let us know if they plan to attend)

Dr. David will attend – Rec a/2:30 appt.
Gen. Haig Walsh will attend
Pete Peterson unable to attend
Bill Magruder will attend
Don Rice will attend

Tuesday 10/12/71

5:55 At Mr. Whitehead's request, called Marge to say that a meeting should be set up this week -- preferably Thursday (10/14) -- to reach a decision on how to dispose of the Aerosat matter (approximately an hour). Should include:

Mr. Flanigan
Dr. David
Gen. Haig
Pete Peterson
Bill Magruder
Don Rice

(Mr. Whitehead plans to talk to Mr. Flanigan about it at staff meeting on Wednesday 10/13)

Suggested I call Rice and say we are going to focus on the political and international aspects of the problem because we don't think the budgetary considerations drive it. ?? If he opts not to be at the meeting--O. K. Rice and Tom can talk about it beforehand if he doesn't want to go.

We have the views of David and Peterson. If they think that's enough and they don't want to participate -- O. K.

Obviously it's up to Haig if he wants to come. Has any questions about whether he should be there, should give TW a call?

~~Meeting would be held in the Roosevelt Room.~~

DEPARTMENT OF STATE

Washington, D.C. 20520

OCT 20 1971

Mr. Donald B. Rice
Assistant Director
Office of Management and Budget
Executive Office of the President
Washington, D. C. 20503

Dear Mr. Rice:

On October 7, Under Secretary Beggs of the Department of Transportation informed you by letter of the status of the exploratory discussions with the Europeans and certain other countries in respect to a joint experimental preoperational aeronautical satellite program.

This Department fully supports the joint program which we believe is the best available means of moving toward required international agreement on operational standards for satellite-based air traffic control by the Administration's target date of 1980. We also believe that this cooperative international effort among the major aviation countries will create conditions necessary for reordering international air traffic control responsibilities in a manner which takes full advantage of the potential of improved communications for centralizing and automating air traffic control and hence effecting economies in en route charges which heavily affect U.S. carriers and passengers. These and other considerations are explored in more detail in the enclosed paper.

Major European countries have had a continuing interest in participating in the development and management of satellite communications for air traffic control. This interest was evident in the negotiations on definitive arrangements for INTELSAT (where European pressure resulted in placing such communications services in a special category requiring government approval for INTELSAT action), in continuing bilateral approaches to the United States, in the public statements of the European Space Conference, and in European initiatives within the International Civil Aviation Organization seeking to require that Organization's prior approval of any preoperational efforts. The European Space Research Organization has contracted for and received three system designs for a

European preoperational system. Thus, the Department believes that any U.S. preoperational efforts should take account of the interest and capabilities of our European allies and be consistent with the President's stated intention to pursue opportunities for international space cooperation in general and specifically with the Europeans.

The proposed program is of sufficient interest to the Europeans that they have made substantial concessions to our preferences. For example, they are willing to assume half the full program cost for a combined Atlantic/Pacific capability despite the fact that United States authorities will utilize about two-thirds of the system capability without user charges. While the Europeans are assured a "fair and reasonable" industrial opportunity, they have accepted the balance of payments outflow of half the launch costs (approximately 15% of total program cost), of half the administrative cost of a management facility almost certain to be located in the United States, and of necessary U.S. procurement to fulfill contractual obligations allocated to European subcontractors by an anticipated U.S. prime contractor. Most important, they are entering the joint program with the express understanding that these arrangements are applicable only to preoperational efforts to work toward ICAO standards and that the United States fully intends that operational traffic control communications be provided by a commercial entity and integrated into a multiple user system.*

We are concerned that European governments (and Canada) would be gravely disappointed by U.S. rejection of these agreements and would interpret it as a U.S. refusal to participate in any effort which we could not dominate. Such an attitude would be totally inconsistent with the President's posture toward our major allies.

Equally important, the likely European reaction to a U.S. decision to proceed unilaterally in the Pacific would be a parallel unilateral European effort in the Atlantic and a boycott of our Pacific system. While this effort might be slow to bear fruit, there is every likelihood that Europe

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*The January 7 OTP Policy Statement states that "it is possible that a single system combining the functions of communications and position fixing to support both maritime and aviation services would permit economic benefits in a worldwide operational system".

would produce a system (which we are committed to launch) and that the present political alignment of ICAO would result in acceptance of European specifications despite their technical or economic inferiority. Such a risk, combined with the adverse foreign policy consequences of program rejection, seems intolerable from our point of view.

Technological superiority is, of course, of commercial significance only when it results in producing saleable products. In air traffic control, governments are the principal customers and foreign governments control their air carriers which are the other principal source of system patronage. Thus, there must be a balance between the preservation of U.S. technological superiority and the need to preserve the potential market. Since this project will be a first crack at a mobile service communications satellite, what is likely to be most important in future technical terms is how a second generation, multi-purpose satellite can be improved on the basis of this experience. A U.S. lead contractor, responsible for overall systems design and coordination, should be in a far better position for future competition than any limited European participant.

At the same time, a cooperative program will enable us to have a determinative voice in ICAO specifications and preclude the development of a rival system. In an operational phase, the number of customers will extend far beyond those interested in manufacturing, thus creating pressure for broad procurement competition as in INTELSAT.

In sum, therefore, the Department of State believes that:

(1) Agreement on appropriate standards for an operational system by 1980 requires major European participation in the preoperational program;

(2) Reduction of overall cost of the preoperational program requires major European participation;

(3) Achievement of balance-of-payments advantages in the preoperational phase requires at least major European participation and hopefully broader participation;

(4) Major European participation is attainable only if Europe has a significant role in program management and European industry can participate on a reasonable basis;

(5) The proposed program provides for European participation on a reasonable basis consistent with U.S. objectives and our overall foreign policy posture toward Eurone;

(6) European interest, cohesion and capability in this matter is sufficient to support a successful joint effort.

With respect to Under Secretary Beggs' request for authority to conduct the U.S. portion of such an experimental/preoperational program on an investment basis rather than a lease basis, we have more limited comments. We recognize the "unambiguous leadership" conferred upon DOT/FAA by the January 7 OTP Policy Statement and we have no reason to dispute the FAA's views that it must play a major management role in the joint project through the proposed Joint Program Office. With FAA exercising this responsibility, making a U.S. private contractor responsible under lease for system performance would result in duplication of management structure and threaten conflict between the leasor's management views and those of the FAA. A lease arrangement might also throw upon a private contractor the risk of launch failure (which is totally within Government control) and create a boom or bust contract depending on launch experience. Moreover, a lease arrangement combining hardware and services with international contractor selection raises serious precedential questions which might delay the program, when a very similar degree of private participation might be obtained by contracting separately for hardware and operation of control facilities and earth stations. Finally, Under Secretary Begg's comparison of private and Government financing charges seems most appropriate.

From the international point of view, an investment arrangement would simplify the arrangements and ensure a more cohesive U.S. position since separate FAA and contractor interests would not be involved in management decisions. From a policy point of view it would be acceptable for a preoperational (experimental) system while, at the same time, it would clearly separate the preoperational and operational phases

and thus optimize the prospects that development and ownership of the subsequent operational system will be attractive to a commercial entity.

Sincerely yours,

Philip H. Trezise
Assistant Secretary
for Economic Affairs

Enclosure:

As stated above.

Summary of International Aviation and Foreign Policy Issues in the Aeronautical Satellite Program

There are a number of interrelated international aviation and foreign policy issues involved in the proposed preoperational aeronautical satellite program. One that must be given full recognition and consideration is the United States commitment to the ICAO (International Civil Aviation Organization) whose membership includes 120 contracting States. ICAO is responsible for adopting telecommunications standards (among others) for international civil aviation to assure safe and efficient operations.

Various meetings of ICAO organs prepare Standards and Recommended Practices (SARPS). In turn, such recommendations are forwarded to all States for comment and approval. The ICAO Council then reviews the recomemndations and, taking into account the comments of States, adopts (or rejects) SARPS. Upon approval by the Council, States are obligated to adopt and put into operation the standards, practices and procedures to the maximum extent possible. ICAO SARPS require approval of a majority of the contracting States, and Council adoption requires a 2/3 majority of its 27 members. The development and approval of SARPS involves political as well as technical considerations since there are economic impacts on the users and also the industrial sectors of various member countries are desirous of and insistent on having opportunities to participate in the production of avionics and other equipment.

In 1968, ICAO established a panel to develop the recommended requirements and technical characteristics for an operational aeronautical satellite system. The members of the panel are the United States, Australia, Canada, France, Federal Republic of Germany, Japan and the United Kingdom; the ITU (International Telecommunication Union), IATA (International Air Transport Association) and WMO (World Meteorological Organization) also participate. Until the time of its last meeting (January 1971) the panel was sharply divided in respect to the order of radio frequencies to be used; the U.S. position on VHF was supported by the IATA but strongly opposed by the other members of the panel. By the time the frequency problem was resolved as a result of the OTP Policy Statement of January 7, 1971, which specified UHF, considerable fear of

U.S. intentions to proceed unilaterally had developed among the other members; as a result, the majority of the panel took the position over U.S. objection that ICAO must specify the characteristics and parameters for both preoperational and operational systems.

While the OTP Policy Statement resulted in an alignment between the U.S. and the Europeans in respect to radio frequencies, it gave the Europeans no encouragement in respect to a cooperative preoperational program; the European position being that they wanted their fair share of the voice in deciding the design of any aeronautical system and their share of the manufacturing. They also sponsored and paid for three study contracts leading toward pursuing the establishment of their own preoperational capability in the Atlantic area. This, of course, was also a warning to the United States that they were prepared to go it alone and with confidence that their design would eventually be acceptable to the majority of ICAO.

The first of the current series of exploratory meetings between the U.S., Europeans, Australia, Canada, Japan and the Philippines, took place on June 15-17, 1971 here in Washington. At that time the Europeans made unequivocally clear that they would not accept a preoperational program in which they would be merely subscribers to services provided by a system established unilaterally by the U.S.; the European community also emphasized that financial support for a cooperative program was available, and that if such a program were not attainable, they would proceed on their own.

While Europe does not now have an independent capability to launch an aeronautical communications satellite into geostationary orbit, the United States, in the context of the Johnson-Lefevre negotiations, has promised to provide launch services for such type operations. Also, while present European capability to construct the satellites without some U.S. assistance is doubtful, U.S. companies seem willing to sell the necessary technology; the only effective policy bar to U.S. assistance would relate to national security matters. If the Europeans decided to proceed without the U.S., they might not be able to establish a preoperational system within the same timeframe as envisaged in the current U.S./European draft program, but they could do so in a somewhat longer

timeframe. If the Europeans did go it alone, they certainly could and would be prepared to fight politically for approval of SARPS based on their preoperational capability standards and as noted above, they could probably win such a fight. In short, however, U.S.-European cooperation in an aeronautical program has reached the stage of discussions where U.S. positions must reflect a reasonable degree of consistency with stated U.S. policy in respect to cooperation with Europe in space programs generally and, in particular, in an aeronautical satellite program.

As stated above, a joint U.S.-European program will require U.S. assistance for the launches as well as in construction of the satellites. In respect to U.S. assistance with satellite technology and "know how", the Department believes it likely that the benefits to the U.S. would exceed the gain to Europe. Assuming a 50-50 basis cost sharing arrangement for the program, the actual U.S. investment would be appreciably less because of the need by Europe to purchase U.S. assistance in order to satisfy European responsibilities in the program. The net costing might be more like 40-60 or even possibly 30-70 percent in favor of the U.S.; thus the major user of the preoperational system would enjoy a lower dollar investment while gaining in reverse gold flow.

Given the current discussions with the U.S. and the indications that an acceptable preoperational program is emerging, the Europeans have not continued to press for immediate further action on the part of the ICAO panel; it being obvious that the Europeans believe, as do the Department and the DOT (FAA), that a U.S.-European understanding will in fact set the preoperational standards.

A major objective of the USG in its discussions with the Europeans on an aeronautical satellite program has been to establish the basis for an experimental/preoperational program with broad international participation so as to facilitate the emergence of operational standards by 1980 which will be readily accepted by ICAO. This would be consistent with U.S. policy and principles in respect to cooperation with the Europeans in space programs. Further, improved communications for air traffic control and air carrier operations in the Atlantic and Pacific basins, as well as the need for experimentation with surveillance systems,

has been documented by the FAA. Thus, one thrust of the U.S. in the joint discussions is to advance the likelihood that ICAO approval of characteristics for an operational system can be attained within an appropriate timeframe.

If a U.S.-European cooperative program is not attained, the Department is strongly of the opinion that the impact will be one of adverse effects on the United States, in respect to both foreign relations and the timely establishment of an operational aeronautical satellite system. In this regard, two salient facts should be recognized:

(1) While the U.S. could unilaterally establish a preoperational system in the face of a separate European effort, unilateral testing and use would not advance the interests of the U.S. internationally, and it would complicate and delay ICAO's adoption of operational standards; and

(2) The operational satellite system must be integrated into a common system of air traffic control; air traffic control involves the safety of life and property and such a system must be standardized and accepted by all; and international agreement is required to re-configure existing Flight Information Regions (FIR's) in order to take maximum advantage of the communications satellite mode and to economize on en route charges to civil aviation.

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

October 19, 1971

To: George Mansur 10/19/71
Via: Will Dean
From: L. R. Raish

Subject: Maritime Satellite Communications

This follows up our discussion with Mr. Calleghan on maritime satellite communications of last August.

Mr. Callaghan now advises that he has found private backing in England willing to provide risk capital to undertake the establishment of a commercial maritime communication satellite system. The backers include a London bank and a British tanker company. Their concept is to proceed as soon as possible on an experimental basis using satellite resources now available and to proceed step by step thereafter toward a fully operational system. The concept also envisages an exclusive maritime system, in other words, not one tied to an aeronautical satellite system. Although they recognize that there are difficulties to overcome, reaction of labor unions is one of the more worrysome ones.

LRRaish

OCT 1 3 1971

MEMORANDUM FOR MR. FLANIGAN

The issues which have arisen in connection with the Aeronautical Satellite Program are of a broad and fundamental nature, and the program itself is simply the current focal point. This Administration is committed to creation of an environment which will foster new business opportunities in the private sector, and I believe that space communications technology is sufficiently advanced so that a wide range of new communications services are now commercially viable. Several major communications carriers and aerospace firms have expressed strong interest in construction and leasing of facilities to provide for the needs of the aeronautical community, and the maritime and public telephone communities as well -- if the private enterprise institutional arrangements are reasonable.

The Europeans, and especially the French, also recognize the commercial potential of this technology and the leading role of the aeronautical satellite program in gaining a lead in the broader market. The Europeans have a twofold interest: first, their space industry hopes to acquire and develop technology from the United States and to obtain major concessions in the manufacture of space and avionics equipment; and second, they wish to exercise a disproportionately large control of not only the Atlantic portion of the system, but also the worldwide system. Accordingly, the institutional arrangements advanced by the Europeans and accepted in large measure by the FAA have been designed to achieve these objectives. These arrangements include European power of veto for all program management decisions, guarantees of an equal share in research, development, and manufacturing activities for the space segment, and 50% ownership of the resulting enterprise in conjunction with a U. S. contractor.

These proposed arrangements are universally opposed by U. S. communications carriers, aerospace industries, and air carriers. My Office has been informed by all of the possible contractors that the "bizarre" arrangements virtually prohibit investment of the risk capital necessary

for construction of the system. Even the FAA has recognized that the arrangements are not workable and is now proposing that the U. S. share of the system be Government owned, with government-to-government joint ownership and management.

These issues are symptomatic and typical of those which arise between the U. S. and European governments, especially France, in all discussions concerning electronics and communications programs. NATO is confronted with an identical set of issues, and we have been informed that the Europeans are closely watching events in the Aeronautical Satellite Program as a possible precedent for NATO and other programs.

The FAA and the Department of State will argue that the discussions are so far advanced that it is impossible to make alterations in the program. I do not believe this to be the case. Although there will certainly be strong negative reactions, in comparison to other new economic policies, the effect will be minimal.

There is great pressure from the Europeans and the State Department to extend the precedent of INTELSAT -- i.e., international communications to be handled as a joint venture among governments rather than as a commercial activity. The INTELSAT arrangements are bad enough as precedent, but they are nothing compared to this situation. It is my firm view that the precedent that would be established by the current FAA plan will foreclose any chance we have to see international communications develop as a private sector activity. I am also concerned that if on an issue so clear cut as this we are not willing to be firm with the Europeans and accept some tactical unhappiness on their part, then we will not be able to stand up to the President's objective of developing U. S. technology to the benefit of U. S. trade and economic strength. (I note one example in passing: We are now getting cables indicating that the Europeans would like to see this kind of arrangement to see the aeronautical satellite arrangements serve as the model for post-Apollo space cooperation broadly.)

In addition to the substantive issues above, I must make it clearly understood that the effectiveness of the Office of Telecommunications Policy as an Executive Office will be seriously compromised if the Aeronautical Satellite Program continues on its present course -- directly contrary to policy guidance we established with the unanimous agreement of all concerned Executive Office agencies.

Clay T. Whitehead

cc: Mr. Whitehead
Dr. Mansur
Mr. Thornell

GFMansur:tw/jm

Mr. Whitehead
Aerosat

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

DEPUTY DIRECTOR

October 15, 1971

MEMORANDUM FOR FILE

Subject: Aerosat

Attached is a letter from the ATA which has been widely circulated on the hill.

Congressman McFall, Chairman of the Transportation Subcommittee, House Appropriations Committee, has requested the FAA to appear before his subcommittee Tuesday, October 19?, to report on the program status. This hearing was stimulated by a visit of the ATA to McFall, in which they expressed strong opposition to the program.

George F. Mansur

George

Atch

AIR TRANSPORT ASSOCIATION

OFFICE OF THE PRESIDENT
STUART G. TIPTON

1000 CONNECTICUT AVENUE, N.W.
WASHINGTON, D. C. 20036

October 14, 1971

Honorable Robert C. Byrd
Chairman
Subcommittee on Transportation
Committee on Appropriations
U. S. Senate
Washington, D. C. 20510

Dear Mr. Chairman:

The Federal Aviation Administration has been meeting with representatives of foreign governments primarily European to discuss a joint program of preoperational trials of satellites for civil aviation. Subject to the approval of the Office of Management and Budget, the present plan is to sign an agreement with these governments on November 3, 1971. If this agreement is signed, the plan is to set up an administrative organization which will issue a request for proposals for Atlantic and Pacific satellites which will cost initially in the neighborhood of $140 million. The U. S. share of this program would be approximately $70 million. If the preoperational trials are successful, they would lead to an operational program, the objective of which would be to provide aeronautical service which would become mandatory for civil aircraft, primarily airlines, in the Atlantic and Pacific areas. Further, the governments will expect the airlines, and other users, to pay the full expense of providing such operational satellite service. Thus the airlines are highly concerned that the government's proposed program is too extensive and unnecessarily complex and expensive.

The airlines to be served by such a program have repeatedly expressed strong opposition individually and through our Association and the International Air Transport Association. The airlines believe that a program of this magnitude and cost is completely unjustified at this time and therefore urge that there be no tentative approval for the funds which will be required. Although it is clear that

aeronautical satellites will be needed in the future for communicating with aircraft in the Atlantic and Pacific areas, more research is needed before preoperational trials should be undertaken. It is the recommendation of the airlines that this research and development be accomplished by utilizing already planned and funded NASA research satellites such as the so-called ATS-F. Our preliminary investigation of utilizing ATS-F indicates that this is a distinct possibility, but if further detailed exploration indicates that ATS-F can't fully provide the research capability required for civil aviation, there are strong indications that the alternative of programming a single U. S. research satellite for these specific purposes of developing aeronautical communications could be accomplished at a cost to the U. S. of approximately $25 - $30 million. In either case the U. S. would retain full control of the development at a substantially lower cost.

Without belaboring all of the technical and operational issues, which are numerous and substantive, to proceed with the FAA/European program is unquestionably to impose an unnecessary and wasteful threefold drain on the economy of the United States consisting of:

1. The initial outlay of some $70 million for the U. S. 50 percent portion of the space segment of the program; and this amounts to little more than a down-payment in a program that is already envisaged to range from $500 million to $1 billion.

2. A $30 - $50 million outlay for avionics to equip new and retrofit current aircraft; actually, the upper limit is indeterminable because the system design is embryonic at best.

3. The concomitant handing over of 50 percent of the space hardware job to non-U. S. electronic/space firms.

Perhaps most objectionable, or at least most uniquely objectionable, is that the program gratuitously extends to the European group a direct voice in the policies, operations, and cost recovery methods of the communications system that is to serve aircraft operating between the state of Hawaii and the other states of this nation.

It is our understanding that the Office of Telecommunications Policy will shortly conduct a review within the executive branch of this entire matter. We urge that any formal or informal approval of the FAA program be withheld until this matter receives further consideration.

Cordially,

S. G. Tipton

cc: All Members of Transportation Subcommittee
Honorable Milton R. Young
Honorable Clifford P. Case

10/21/71 - 12 noon

Aerosat meeting
(in Mr. Flanigan's office)

Dr. David
Mr. Walsh (for Gen. Haig)
Mr. Bill Magruder
Mr. Don Rice

Ltr to Magruder from FAA

AERONAUTICAL RADIO, INC.
2551 RIVA ROAD, ANNAPOLIS, MARYLAND 21401

October 15, 1971

Dr. Clay T. Whitehead
Director
Office of Telecommunications Policy
Executive Office of the President
Washington, D. C. 20504

Dear Dr. Whitehead:

Because of your known interest in the development of aeronautical satellite communications in the Atlantic and Pacific Ocean areas, and of your participation in the proposed United States-European joint effort to provide this service, we are pleased to forward a copy of our letter to the Office of Management and Budget.

Very truly yours,

AERONAUTICAL RADIO, INC.

J. Francis Taylor, Jr.
President

Enclosure

AERONAUTICAL RADIO, INC.
2551 RIVA ROAD • ANNAPOLIS, MARYLAND 21401 • 301-268-4000

October 12, 1971

Office of Management and Budget
Washington, D. C. 20503

ATTENTION: Mr. John D. Young, Chief
Economics, Science, and Technology Division

Gentlemen:

It is the purpose of this letter to urge that funds not be made available to the aeronautical satellite program currently being pursued by DOT-FAA. This letter briefly restates what was expressed in person on September 30.

The airlines that would ostensibly be served have repeatedly expressed strong opposition to the program individually and through both ATA and IATA. The airline opposition is not confined to that portion of the program which encompasses surveillance and navigation functions which are clearly unneeded and unwanted. Nor is the opposition based simply on the possible use of airport/airways trust funds or other user charge devices which as stated, "...they will resist by all possible legal means...". Even with those two issues disposed of, any expenditures in connection with this program will be widely regarded as an unnecessary waste of funds critically needed elsewhere. Under the circumstances, it seems incredible that FAA and the European ESRO group might wish to proceed or might gain access to funds with which to obliviously proceed.

Without belaboring all the technical and operational issues, which are numerous and substantive (and which the NASA experimental satellites can resolve at virtually no cost), to proceed with the FAA-ESRO program is unquestionably to impose an unnecessary and wasteful three-fold drain on the economy of the United States consisting of:

1. The initial outlay of some $70 million for the U. S. 50 percent portion of the space segment of the program; and this amounts to little more than a down-payment in a program that is already envisaged to range from $500 million to $1 billion.

2. A $30 - $50 million outlay for avionics to equip new and retrofit current aircraft; actually, the upper limit is indeterminable because the system design is embryonic at best.

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Perhaps most objectionable, or at least most uniquely objectionable, is that the program gratuitously extends to the European group a direct voice in the policies, operations, and cost recovery methods of the communications system that is to serve aircraft operating between the state of Hawaii and the other states of this nation.

Very truly yours,

AERONAUTICAL RADIO, INC.

J. S. Anderson
Chairman of the Board

Aeronat

THE WHITE HOUSE

WASHINGTON

October 14, 1971

Dear Tom:

I appreciated your recent memorandum bringing me up-to-date on the latest developments in the Aeronautical Satellite Program (AEROSAT).

As you know, I am extremely interested in situations in which the U.S. may be involved in transferring technology abroad without reaping the full commercial benefits that should flow to the U.S. from such transactions. Because my familiarity with the many complex technical and foreign policy issues at stake in the current AEROSAT negotiations is far from complete, I am not able to judge the merits of the specific recommendations that you have made in your memorandum.

I do agree, however, that the appropriate Executive Offices, perhaps headed by OMB, should review the situation within a 30-day period and examine the alternatives to the present course of action.

Best regards.

Sincerely,

Peter G. Peterson
Assistant to the President
for International Economic Affairs

The Honorable
Clay T. Whitehead
Director
Office of Telecommunications Policy
Washington, D. C. 20504

Aeronat

THE WHITE HOUSE

WASHINGTON

October 14, 1971

Dear Tom:

I appreciated your recent memorandum bringing me up-to-date on the latest developments in the Aeronautical Satellite Program (AEROSAT).

As you know, I am extremely interested in situations in which the U.S. may be involved in transferring technology abroad without reaping the full commercial benefits that should flow to the U.S. from such transactions. Because my familiarity with the many complex technical and foreign policy issues at stake in the current AEROSAT negotiations is far from complete, I am not able to judge the merits of the specific recommendations that you have made in your memorandum.

I do agree, however, that the appropriate Executive Offices, perhaps headed by OMB, should review the situation within a 30-day period and examine the alternatives to the present course of action.

Best regards.

Sincerely,

Peter G. Peterson
Assistant to the President
for International Economic Affairs

The Honorable
Clay T. Whitehead
Director
Office of Telecommunications Policy
Washington, D. C. 20504

Aerosat

Tuesday 10/12/71

5:55 At Mr. Whitehead's request, called Marge to say that a meeting should be set up this week -- preferably Thursday (10/14) -- to reach a decision on how to dispose of the Aerosat matter (approximately an hour). Should include:

Mr. Flanigan
Dr. David
Gen. Haig
Pete Peterson
Bill Magruder
Don Rice

(Mr. Whitehead plans to talk to Mr. Flanigan about it at staff meeting on Wednesday 10/13)

Suggested I call Rice and say we are going to focus on the political and international aspects of the problem because we don't think the budgetary considerations drive it. ?? If he opts not to be at the meeting--O.K. Rice and Tom can talk about it beforehand if he doesn't want to go.

We have the views of David and Peterson. If they think that's enough and they don't want to participate -- O.K.

Obviously it's up to Haig if he wants to come. Has any questions about whether he should be there, should give TW a call?

mtg held 10/21

COMMUNICATIONS SATELLITE CORPORATION

October 11, 1971

Mr. John D. Young
Chief, Economics, Science and
Technology Division
Office of Management and Budget
Executive Office Building
17th & Pennsylvania Avenue, N.W.
Washington, D. C. 20503

Dear Mr. Young:

In confirmation of our meeting on October 7, 1971, we wish to summarize our views relative to the current planning by the S. Government in the establishment of an Aeronautical Communi-ions Satellite Program.

Lease vs. Buy

As stated in recent FAA briefings to industry it is understood that consideration is being given to the initiation of a program for the procurement of communication satellite hardware (rather than services) to satisfy air traffic control requirements.

The Communications Satellite Corporation has stated a willingness to make the investment necessary to provide these services. In fact, a proposal was submitted to the FAA in January 1969. The proposal was based on the use of VHF frequencies and was amended in May 1970 to provide these services at VHF and L Band. The satellite technology required to satisfy the requirements of aeronautical services is sufficiently developed that they can be satisfied on a commercial basis. The only experimentation involved is in the efficient operational use of this capability to optimize its application to improved air traffic control and safety.

Policy

It is our understanding that it is not only the published policy but the practice of the Government to procure commercially available services when available. This policy has been stated in B.O.B. circular A-76 and the Executive Offices of the President in January 1971 restated this policy specifically with reference to Aeronautical Services. As a corporation we have invested a considerable amount of discretionary funds with the understanding that we would have the opportunity to compete for these services.

Cost

We believe the policy is in the best public interest and if implemented would result in the service being provided at a lower total cost to the Government. The procurement of communication services would also make it unnecessary for the government to make the large capital commitment associated with the procurement and operation of the system.

The leasing of the communication service would result in lower cost because a carrier could:

1. Establish a price for the service that would take into consideration his ability to provide the service to other customers.

   The present plan is to initiate a spacecraft hardware contract in early FY 1973, the launch date would be from two to three years of this date, and with an expected satellite lifetime of five to seven years the initial launches would provide a service until 1980 to 1983 and subsequent planned launches to approximately 1985. It is inconceivable to us that in this time period other potential markets and users would not develop. Specifically the maritime industry and ARINC are potential users of the service.

2. The Communications Satellite Corporation would, as is its current practice, amortize the cost of the associated earth terminals over an extended period rather than over the expected lifetime of the first generation satellites.

3. Many of the intangible but real cost of the Government providing its own system would be reduced or eliminated.

Requirements

There is reason to believe that the recently stated requirements for a minimum of 12 channels, with 26 desired over each ocean will provide a capability considerably in excess of that required for a pre-operational system. The earlier studies which formed the basis for the establishment of this program proposed a system of 4 channels per satellite.

In the event the planned capacity is:

(a) provided by the government and is in orbit until 1985 and

(b) the maritime and air carrier industry services market grows as expected the government will be required to:

1. let any excess communication capability go unused; or

2. delay the date in which a private company can offer such services to private users because the Government is either offering the service free or at a price established from sharing the cost of the Government system resulting in less cost to a potential user than that required to establish a new private system; or

3. the Government be directly involved in the communication services business and indefinitely preclude private interests from being able to make the investment required for the establishment of this service.

The thought that the present proposed system with its planned capacity is a pre-operational system and that the operational services would be commercially procured at a later date is completely unrealistic.

Flexibility

We are confident, based on our experience in developing competitive proposals in support of the Domestic Communications Satellite System, that the provisions of a leasing arrangement for aeronautical communication services can be negotiated which will economically provide the Government with complete freedom of action in the use of the system.

Management

It is understood from the industry briefings that decisions regarding the day to day management of a spacecraft contractor as well as the percentage of hardware manufactured in Europe and the United States is being determined as part of government to government agreements. We believe that this will require the cost of any resulting program if it is successful to necessarily be considerably in excess of what is required. This situation is further aggrevated if there is a dicodomy (dichotomy?) of objectives in the managing bodies; ie, ESRO (European spacecraft technology development) and FAA (establishment of a pre-operational service). If the services are to be successfully provided it will be necessary for those that have a financial interest in the establishment of the system to have control of decisions effecting its development.

This does not mean that European participation would not be significant. On the contrary, this would be a major factor in the selection of the aerospace contractor to build the spacecraft. AMSAT has had considerable experience in the development and use of non-U.S. aerospace technology in the development of INTELSAT III and IV. We would make a competitive award to a spacecraft contractor based on a balance of his non-U.S. participation, cost, delivery, management and technical proposal. A pre-established arbitrary percentage of European participation is incompatible with the desire to provide a pre-operational aeronautical service satellite for a reasonable cost with long life reliability and early delivery.

In summary, it is our conclusion that (a) there is no need for the Government to incur the investment associated with establishing its own satellite system; (b) doing this would preclude the possibility of private common carrier interests of providing this service indefinitely; (c) it is possible to satisfy the need for a pre-operational system and share the costs with other potential users as well as involve European industry in a managerial way; and (d) the present proposed management arrangements do not contain the essential ingredients necessary for the program to provide aeronautical communication services at either the earliest date or lowest cost.

We trust that your consideration will be given to these thoughts and we would appreciate being advised of any questions or comments.

Very truly yours,

John A. Keyes
Director, System Requirements

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

DEPUTY DIRECTOR

October 8, 1971

TO: Tom

FROM: George

Subject: Aerosat

If Aerosat is to be turned around and if OTP is to play the central role, now is the time to take action. Since you are meeting with Peter Flanigan this morning, I thought you may want to discuss the situation with him.

There is substantial agreement in all the Executive Offices relative to the undesirable features of the tentative agreements. However, there is uncertainty as to what should be done. The following summarizes the Executive Office views:

NASC -- Favors major changes to reorient the program in accord with the OTP policy, but Anders is necessarily reluctant to place his views in the record.

OST -- You have a letter from Ed David which indicates his views are sympathetic to OTP and requests a convening of a group to discuss what should be done.

Pete Peterson's Office -- Will respond by letter on Monday. They too will oppose the tentative agreements on broad grounds, but will also suggest that additional study is needed to determine what should be done.

NSC -- Apparently does not recognize the broader policy implications nor the precedents that may be established by Aerosat and, therefore, has insufficient interest to take a position in opposition to State.

OMB -- Has received a letter from DoT asking for program approval by 20 October, and requesting a supplemental appropriation from general operating funds for purchase of the U.S. portion of the system. In the absence of an OTP initiative, OMB will convene a group next week to review the program.

Attached is a draft memo for Peter Flanigan, in which I have taken a slightly broader approach than in my previous memos. Also attached are copies of recent letters from Paul Visher and Comsat.

Atchs

HUGHES AIRCRAFT COMPANY
SPACE AND COMMUNICATIONS GROUP
EL SEGUNDO, CALIFORNIA 90009

October 1, 1971

Dr. George Mansur, Deputy Director
Executive Office of the President
Office of Telecommunications Policy
1800 G Street
Washington, D. C. 20504

Dear George:

The events of the past several months have developed a conflict in the U.S. policy position with respect to the procurement of communication satellites for international application. This issue, I believe, warrants your attention for clarification and possible resolution because the ambiguity and the constantly shifting U.S. position causes us considerable embarrassment in dealing with various foreign suppliers. At the same time I believe it weakens our potential for international satellite sales.

Three separate and distinct U.S. positions now exist.

1. The Intelsat procurement policy, which the U.S. approved, calls for ICB slightly modified to reflect the desirability of international participation.

2. The proposed U.S. NATO III procurement policy is ICB.

3. The proposed U.S. FAA Aerosat procurement policy calls for a required 50% non-U.S. participation.

It might be well to summarize Hughes experience with non-U.S. participation while building various commercial communication satellites. Percentages have ranged from less than 1% in Intelsat II up to about 12% on a value added basis on Anik for Telesat when all of the flight hardware is being assembled and tested at the unit level in Canada.

On the Canadian program every effort was expended to generate a larger percentage of Canadian content and it was impossible to significantly increase this percentage without a major impact either on technical integrity or program cost. Even at 12%, the program prices increased by $5 million to obtain $3 million of "value added" content.

I would like to encourage your help to resolve this conflict in the U.S. position. Our own experience would indicate that the Intelsat procurement policy represents a reasonable compromise between the ICB position of DOD and the 50% position of the FAA. I find it hard to reconcile the desirability of maintaining three separate U.S. positions on the same basic subject.

Your assistance in this matter would be appreciated.

Very truly yours,

Paul S. Visher
Assistant Group Executive

PSV:je

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH V. CHARYK
President

September 29, 1971

Dear George:

In our discussion today I expressed our concern about the fact that planning towards the implementation of the AEROSAT program was now proceeding on the basis of government ownership of the facilities. We continue to believe strongly that government policy should be to lease services from commercial carriers when such private interests are ready, willing and able to assume the risks, provide the facilities and offer services at economically attractive rates. We have repeatedly indicated our interest and willingness to do so.

In our discussion you implied adherence to the policy of obtaining communications services from private industry. We have been given to understand, however, that the government is now proceeding in the direction of government ownership. This seems to be rather clearly spelled out in a letter that we have received from the Administrator of the FAA, copy attached, as a result of discussions and correspondence with him on the whole subject of aeronautical communications.

We continue to be hopeful that Comsat can make a useful contribution to these very important communications satellite services.

Sincerely,

Joseph V. Charyk

Dr. George F. Mansur
Deputy Director
Office of Telecommunications Policy
1800 G Street, N.W.
Washington, D.C. 20404

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

17 SEP 1971

Mr. Joseph V. Charyk, President
Communications Satellite Corporation
950 L'Enfant Plaza, S.W.
Washington, D.C. 20024

NOTED BY
DR. CHARYK

Dear Joe:

Thank you for the note of 1 September and its enclosures summarizing your concerns regarding the joint AEROSAT program.

I have, as you know, participated personally in the discussions with the Europeans as we transformed what was originally to be a unilateral U.S. program in the Pacific to a joint program in both oceans. I strongly believe that a cooperative international program is highly desirable, if not necessary. However, the melding of our original lease concept with the European insistence on pre-funding (investment) has admittedly led to a less than desirable set of institutional arrangements among the partners and the potential AEROSAT contractor. Recognizing this, the FAA now desires to change to a U.S. position of government ownership of the satellites. Actions to achieve such a change have been initiated. I am not sure how this will impact on COMSAT or on your interests in the program, but I believe it will clearly represent the best course of action for the U.S. Government.

I understand that Dave Israel of my staff met with John Martin last Friday to discuss at length his (Martin's) memorandum to you and our revised program plans. I hope this was a useful step and provided some clarification to the situation. We, of course, desire the widest participation of U.S. companies and capabilities in the program and I continue to solicit your advice and comments in this regard.

Sincerely,

J. H. Shaffer
Administrator

(4)

THE UNDER SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

OCT 7 1971

Mr. Donald R. Rice
Assistant Director
Office of Management and Budget
Executive Office Building
Washington, D. C. 20503

Dear Mr. Rice:

In your memorandum of June 11, 1971, prepared in response to my letter on this subject of June 1, 1971, it was requested that three aspects of the aeronautical satellite program be explored further, namely: development approach, international cooperation, and funding. As suggested, the first subject has been discussed with your staff and satisfactorily resolved. This letter addresses the international cooperation and funding considerations.

Background

In accordance with your suggestion, the FAA, together with representatives from the Office of the Secretary and the Department of State, with observers from OTP and in periodic coordination with other Executive Offices, conducted a series of meetings beginning in mid-June (and extending to the present) to consider a joint pre-operational aeronautical satellite program with representatives of countries directly concerned with civil aircraft operations in the North Atlantic and Pacific Oceans. The first meeting in Washington and a meeting in early August in Madrid were conducted at ministerial level, with the U.S. delegation at Madrid led by the Administrator of the FAA and the European delegation led by General Salvador, Spanish Minister of Aviation. The European group represented ten countries which are also members of the European Space Research Organization (ESRO). Representatives of Australia, Canada, Ireland, Japan, and the Philippines have attended these meetings.

Joint Program

The unanimous conclusion of the Madrid meeting was that a joint program to achieve a preoperational aeronautical satellite capability was necessary, attainable, and mutually desirable. The nature of the recommended program is described in the Madrid meeting report, a copy of which is enclosed.. Also enclosed is the latest draft of the proposed Memorandum of Understanding whose signing by designated participants (FAA for the U. S.; ESRO for Europe) would initiate the joint program.

In short, the joint program would provide a four-satellite pre-operational capability, with two each over the Atlantic and Pacific, by the mid-1970's based on the principle of equal sharing of costs and responsibilities of the space segment by the U. S. and the ESRO group. The efforts on the avionics and earth segments would not necessarily be jointly funded but would be carefully coordinated by the participants. Arrangements are also provided for participation by other countries. (At this time, Australia, Canada, and Japan appear to be the most promising candidates for other participants.)

International Cooperation

DOT believes that the arrangements outlined in the Madrid report are highly satisfactory and represent an outstanding example of international cooperation. We understand that this view is shared by the Department of State.

We believe that these "partnership" provisions, to include participation by other countries, represent a mutually satisfactory arrangement and one which is also in the best interests of the U. S. The program discussions have been exemplified by a spirit of international cooperation and a strong interest in the advancement of international civil aviation. We fully expect that this attitude and interest will continue and provide a very successful preoperational system which will lead to establishment of an ultimate operational capability under ICAO standards.

Economic Aspects

Beyond the aspects of international cooperation, the program is favorable to the U. S. in the economic sense. The Europeans are

sharing all costs of the space segment. The result is that the joint program meets all our requirements at a smaller cost to the U. S. than a unilateral program. There will also be a positive balance of payments of some $15-22.5M representing the European share of the launch costs.

Using the guidance of a leased service, as stated in OTP's policy statement of January 7, 1971, we have developed what we believe to be the most simple and direct institutional arrangements possible under current circumstances, to allow the U. S. to utilize a leasing arrangement in the AEROSAT program. Both the FAA and ESRO would have separate contracts with the successful AEROSAT contractor. The U. S. contract would be for the lease of one-half of the total capability, that half of the capability to be owned by the AEROSAT contractor. The ESRO contract would be for the purchase and ownership of the other half of the total capability. Thus, the contractor will sell one-half of the capability to ESRO and own the other half which it leases to the U. S. (FAA).

Lease Versus Investment

We have studied this lease/ownership arrangement and discussed it with U. S. industry. It is our conclusion that the arrangement can be made to work; however, we believe that it is neither a practical nor desirable arrangement due to combining of lease and investment provisions in an already complex joint international venture.

We believe that a U. S. investment position in this program will solve this problem and will also present a number of other advantages. A common investment position will materially simplify the institutional arrangements and will permit a single FAA/ESRO contract instead of two. U. S. investment, without the large capital requirements on a contractor, will provide for a much wider range of industry interest and competition. U. S. investment with government-furnished launches provides for a deferral and potential saving on launch costs. Also, U. S. government ownership of the ground stations will permit easier transition to an operational system.

We also believe that cost savings in at least two areas will accrue from a U. S. investment policy. First, there are potentially significant savings in the administrative, procurement, and legal

personnel (both government and industry) who would otherwise be required to establish and monitor two contracts and to set and negotiate lease rates on one of these contracts. Second, all discussions with industry indicate that the costs imposed by contractors to account for the program risks necessarily involved in a leasing arrangement will far exceed the 10 percent dollar discounting advantages normally associated with a lease contract.

With the U. S. participating on an investment basis, we would nevertheless retain the many beneficial aspects of a leased service contract by purchasing a communication system rather than pieces of equipment.

Accordingly, on institutional and financial grounds, we now conclude that the special nature of this preoperational system as a joint international venture (with a European partner who has no desire to lease his services) requires that we participate on an investment basis rather than on a lease basis. Hence, we strongly recommend that the U. S. proceed in a manner which will provide for joint satellite ownership, by the U. S. and Europe. We believe that the OTP policy was never intended to cover the present situation--a joint international program--and conclude that leasing in this situation does not meet the "feasibility" criteria enunciated in the OTP policy, from either the U. S. government or U. S. industry point of view.

We should point out that while this investment position is strongly indicated for the preoperational system, we believe that a leasing arrangement is the most desirable approach for the follow-on operational system.

Request for OMB Approval

Accordingly, we request OMB approval and support to proceed with the joint satellite program described in the Madrid report except as modified to account for U. S. investment in the space segment. The U. S. investment cost of the space segment is expected to be about $60 million spread from FY-72 through FY-75. We will reprogram to meet the limited FY-72 requirements and will include the FY-73 portion in an amended or supplemental budget submission to you. (Beyond the $60 million, our efforts in the avionics and ground segments and in evaluation and exercising activities are expected to total about $70 million through 1980, and are included in our FY-73 submission and ten-year planning documents previously submitted to you.)

In view of the current position of the potential users of the system (see below), and the lack of interest in the project by general aviation, we would propose that the program be handled under the General Fund.

With early approval, we plan to meet the following schedule:

1. U.S. Agreement on Memorandum of Understanding by October 20, 1971.

2. Signing of Memorandum of Understanding on November 3, 1971.

3. Release of RFP by mid-November 1971.

We would expect that FAA and ESRO could be on contract by very early in FY-73.

OTP

Our informal discussions with OTP indicate that they do not share our belief that a program based on the Madrid report is a useful or feasible one, with or without modifying the U.S. position to an investment basis. Nevertheless, we are convinced that a joint international program as described, with both parties participating on an investment basis, represents the only realistic and truly cooperative joint effort which can be obtained. Further, such a program would be an extremely favorable one for the U.S. The only alternative would be the unilateral U.S. program in the Pacific which we originally proposed to OMB; however, we now believe this is no longer an acceptable alternative and strongly recommend that such a program not be considered.

Air Carriers

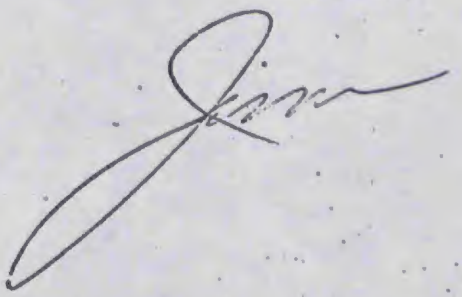
In closing, we must acknowledge that the U.S. international air carriers have expressed doubt about the desirability of the AEROSAT program. Their misgivings do not stem from the international aspects of the program but rather from their concern over its projected cost and their uncertainty of future cost impact. We have assured the carriers that neither we nor the Europeans plan any

user charge for the preoperational service and that the proposed program is the only feasible way to reach a 1980 goal of an operational system of whose need we are all in agreement.

We believe we must move ahead on this program now to provide the ATC oceanic service required in the late 1970's and that the foresight of the carriers is hindered at this time by their justifiable concern with the current economic situation. We believe we have made every effort to minimize the costs of the AEROSAT program and that it can and should go forward at this time without detracting from the large R&D efforts which we and they believe are necessary in other areas of air traffic control.

Recognizing the complexity of this entire matter, we are prepared to provide you with more detailed briefings and discussions of the points made in this letter.

Sincerely,



Enclosures

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

October 1, 1971

MEMORANDUM FOR: MR. CLAY T. WHITEHEAD

FROM: PETER G. PETERSON PGP

You ask in your memorandum of September 24 for my views by September 29 concerning alteration of the FAA/ESRO arrangements.

As you know even better than I, the matter is extremely complex and I am unable as of today to give you a substantive reaction. I have asked my staff to look into the question and I would hope to get views to you shortly.

Routing Slip
Office of Telecommunications Policy

Date: OCT 4 1971

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✓	Whitehead, C. T.	C
	Mansur, G. F.	Original
	Babcock, C.	
	Buss, L.	
	Carruthers, B.	
	Cooke, A.	
	Culpepper, C.	
	Dean, W.	
	Doyle, S.	
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	Johnston, B.	
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	Lamb, B.	
	Lasher, S.	
	Lyons, W.	
	McCrudden, M.	
	Nelson, R.	
	Owen, B.	
	Raish, L.	
	Robinson, K.	
	Scalia, A.	
	Smith, L.	
	Thornell, J.	C
	Urbany, F.	
	Ward, D.	

emarks:

Copy of 9/24 memo attached

THE WHITE HOUSE

WASHINGTON

Aerosat

September 30, 1971

Dear Tom:

I am sympathetic with many of the views expressed in your memorandum to me of September 24, 1971. However, I don't understand the implications of the courses of action open to us at this stage. A set of realistic options needs to be developed using both the policy documents and the product of the working level discussions with the Europeans before a decision can be made on our future course of action. In developing these options, we should be guided by the need to preserve essential U. S. interests while at the same time engaging the Europeans in a meaningful--and workable--cooperative endeavor.

I suggest that you organize, on an urgent basis, a group to develop these options and to review the current status of this program. I believe the points you have raised deserve careful consideration before we proceed to any definitive agreement with the Europeans on this program but a delay in resolving these issues would be likely to affect our relationships with the Europeans and prejudice our ability to gain international agreement in ICAO on aeronautical satellite services.

I expect Dr. Russell C. Drew of my staff to be available to participate in additional discussions of these questions and I, of course, would be pleased to discuss it with you personally at an appropriate future date.

Sincerely,

Ed

Edward E. David, Jr.
Science Adviser

Mr. Clay T. Whitehead
Director
Office of Telecommunications Policy
Room 770, 1800 G Street, N. W.
Washington, D. C. 20504

SEP 2 4 1971

MEMORANDUM FOR

Dr. Edward E. David

Improved over-ocean aviation communications through the use of satellites has been discussed since 1966, but financial, institutional, and technical problems retarded progress. In October, 1970, an Executive Office Working Group was formed to review policies under which the program should proceed, and the resulting Administration policy was set forth in a statement released on January 7, 1971. The policy and a subsequent interpretation by letter of July 12, 1971, included the following points:

- Projected increases in international air traffic will require improved communication services afforded by satellites in the Pacific and Atlantic Oceans in 1973 and 1975, respectively.

- Satellite communication services required by the FAA should be leased from the private sector and should be procured by international competitive bid.

- Any institutional arrangements for the procurement of services should not be inconsistent with evolution of a multiple user communication service (e.g., aeronautical and maritime), although significant program delay is not warranted to foster such service.

- International cooperation should be encouraged to the extent consistent with the above objectives.

This policy statement met with wide approval in the aerospace industry and with the communications carriers since it provided new opportunities for application of aerospace technology and evolution of new service opportunities for U.S. industry.

Discussions between the FAA and the European aviation and space communities, initiated in June, 1971, have departed substantially from the Administration policy. These tentative arrangements include:

1. Procurement plans and practices oriented first towards extensive research and development programs and only secondarily to providing commercial communication service, and which assure European industry a substantial share (approximately 50%) in the production of system equipment.

2. Management policies requiring unanimous agreement for all program decisions and which are designed to assure production and technology sharing.

3. Ownership arrangements requiring joint and equal ownership of the enterprise by a European government entity (European Space Research Organization) and a U.S. commercial firm.

4. In exchange the Europeans have agreed to pay 50% of the cost of the program, estimated to be $125-140 million. The U.S. share of this limited program would be $60-70 million.

The reaction of the U.S. communications and aerospace industries to the FAA/ESRO discussions has been universally negative. Most have formally expressed an unwillingness to risk venture capital because of the "bizarre" management and ownership provisions. The air carriers, both U.S. and international, being unsympathetic to any satellite program because of current operating losses, are especially opposed to the proposed joint FAA/ESRO program because of its government ownership and anticipated higher costs. The proposed program does bring in European money, but is far more costly than the competitively bid program originally envisaged and is likely to result in higher U.S. Government outlays overall.

Nevertheless, the State Department and FAA support the tentative arrangements because of "our existing commitments and our foreign relations interest," and ESRO and the several European governments view the program as beneficial to European space technology and commerce.

As agreed, we have directed the FAA to suspend negotiations with the Europeans pending an Executive Office review. Because the lifetime of the proposed pre-operational satellites is such that any institutional agreements formulated now will continue through the next decade and establish important precedents, our proper direction at this time is crucial.

There are two central issues: (1) Is the U.S. Government willing to appease the European desire to bolster their electronic and aerospace industry at the price of severely limiting U.S. industry's opportunity to compete and to utilize U.S.-developed technology to the economic advantage of the U.S.? (2) Does the U.S. wish to encourage international communications to develop on the Intelsat model of a jointly-owned, jointly-managed international organization or to encourage a cooperative but private enterprise framework?

I believe the answer to both questions is clearly no -- especially while this Administration is in office. I further believe we are faced with a clear challenge by the Europeans, the State Department, and FAA, to the President's determination in this area.

I propose to request the FAA to redirect the program to be consistent with the objectives expressed in the Administration's policy of January 7, 1971. This will require:

1. Alteration of the proposed management arrangements to a "joint" program restricted to coordination, and with space segment services provided by the private sector.

2. Reaffirmation of the principle of competitive bidding to assure optimum price, quality, and delivery for equipment and services.

3. Decisions regarding ownership of the space segment be reserved to private management choice and initiative, and without U.S. Government guarantees of ownership to the Europeans.

4. Careful distinction be drawn between prerogatives that may be afforded users of the system and the rights attributable to ownership of any part of the system to assure an environment favorable to private investment incentives.

Alteration of the tentative FAA/ESRO arrangements at this time will upset the European space community. Since ESRO is closely coupled to the European governments, we may anticipate an unfavorable reaction from the French and German governments, and to a lesser extent the U.K. The commercial international air carriers will, in general, support any move which reorients the program toward aviation rather than space research and development.

I believe that the United States can by adept negotiation minimize the effect on the European nations. If negotiations with the Europeans do not result in satisfactory arrangements in a reasonable time, we probably would elect to proceed unilaterally in the Pacific basin, for which the U.S. has air traffic control responsibility, and simply defer implementation of the Atlantic basin program. We would , of course, continue to seek technical coordination. And, of course, U.S. industry would have a significant leg-up in getting the Atlantic basin business if this occurred.

I would appreciate your views by Wednesday, 29 September.

George F. Mansur

Clay T. Whitehead

GFMansur/tw/24Sep71

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

Identical ltr funded to Mr. Pete Peterson

Aerosat

OFFICE OF TELECOMMUNICATIONS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20504
SEP 30 1971

To: Memorandum for Record

From: Jack M. Thornell

Subject: Aerosat

A pre-solicitation briefing for international industry was held at the FAA on September 30, 1971. This memo for record defines changes to previous understandings of the content and structure of the joint international aeronautical satellite program.

1. The FAA prefers and intends to be authorized to buy the system rather than lease services.

2. The time schedule of the program has been significantly altered such that the contract award is expected in early summer 1973.

3. It has been decided that the program will encompass aeronautical services only, with maritime services excluded, except in the case where there is mutual agreement between ESRO and the FAA to perform maritime experiments.

4. Launch vehicles and launch services will be Government furnished.

There were approximately 350 industry representatives in attendance at the meeting, and this meeting represents the final step before submitting the memorandum of understanding to representative governments for approval. At this juncture, it does not appear that OTP will have any review function or authority on either the memorandum of understanding or the RFP.

The schedule calls for final signature on the memorandum of understanding on November 3, 1971 in London.

Jack M. Thornell

cc: Dr. Mansur
Mr. Whitehead

Routing Slip
Office of Telecommunications Policy

Date: SEP 30 1971

From:

To:

✓	Whitehead, C. T.	Copy
	Mansur, G. F.	Original
	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.	
	Nelson, R.	
	Owen, B.	
	Raish, L.	
	Robinson, K.	
	Scalia, A.	
	Smith, L.	
	Thornell, J.	Copy
	Urbany, F.	
	Ward, D.	

Remarks:

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

aerosat

29 SEP 1971

Dr. George Mansur
Office of Telecommunications Policy
Executive Office of The President
Washington, D. C. 20504

Dear Dr. Mansur:

This is in response to your letter of 24 September and confirms that at the opening session of the present discussions on the AEROSAT program with the Europeans, Mr. Israel made it clear, as stated at Madrid, that the proposed arrangements are subject to further review within the U.S. Government.

I would like to take this opportunity to comment on several other matters. We acknowledge and fully appreciate the OTP's responsibilities with respect to the formulation of the Executive Branch's policies in the telecommunications field. I wish to make it clear that we have, to the best of our ability, been following the official policy statements produced by your Office over the past year. However, letters such as we received on 17 September from OTP concerning the delay of the meetings with the Europeans are somewhat unfortunate -- and especially the publicity thereto -- and could undermine our important relationships and dealings with the world's civil aviation community. We certainly appreciate your point that this preoperational AEROSAT program has implications well beyond FAA's unique aeronautical interests; however, it is also important to note that FAA interests, responsibilities, and commitments to international civil aviation go well beyond and are much deeper than the telecommunications aspects of the AEROSAT program. This duality must be recognized by both parties.

We also appreciate your concern regarding the institutional and related arrangements for the AEROSAT program. We share these and are mindful of the reservations expressed by industry. It is for these reasons that we now propose to answer OMB (which, as you know, asked us to consider an international program) with a proposal that the U.S. Government proceed on an investment basis and, further, that we and ESRO join on this basis in a single contract with a successful AEROSAT contractor. We believe that these two steps will further simplify the institutional arrangements and not in any way prejudice future arrangements for an operational system.

Sincerely,

J. H. Shaffer
Administrator

Aeronat

SEP 2 4 1971

MEMORANDUM FOR

Dr. Edward E. David

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There are two central issues: (1) Is the U.S. Government willing to appease the European desire to bolster their electronic and aerospace industry at the price of severely limiting U.S. industry's opportunity to compete and to utilize U.S.-developed technology to the economic advantage of the U.S.? (2) Does the U.S. wish to encourage international communications to develop on the Intelsat model of a jointly-owned, jointly-managed international organization or to encourage a cooperative but private enterprise framework?

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2. Reaffirmation of the principle of competitive bidding to assure optimum price, quality, and delivery for equipment and services.

3. Decisions regarding ownership of the space segment be reserved to private management choice and initiative, and without U.S. Government guarantees of ownership to the Europeans.

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I would appreciate your views by Wednesday, 29 September.

Clay T. Whitehead

GFMansur/tw/24Sep71

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

Identical ltrs funded to Mr. Pete Peterson.

(L)

September 24, 1971

Mr. J. H. Shaffer
Administrator
Federal Aviation Administration
Washington, D.C. 20590

Dear Mr. Shaffer:

Mr. Whitehead's letter of 17 September, which suggested postponement of Aerosat discussions with ESRO, was prompted by concern that continuation of the discussions before agreement within the Government upon the essentials of the U.S. position would be detrimental. As you know, we have serious reservations concerning the management, procurement, and ownership arrangements which have been proposed. Similar reservations have been expressed by industry, both aerospace and carriers.

Your letter of 22 September, indicates that the discussions should proceed as planned, subject to additional internal review by the U.S. Government.

If the FAA elects to continue the discussions, we believe it is essential to make clear to ESRO that the proposed arrangements are tentative and that further review is necessary.

Sincerely,

George F. Mansur

George F. Mansur

DD Chron
DD Records
Mr. Whitehead
Mr. Thornell

GFMansur/tw/24Sep71

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

(1C)

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

22 September 1971

Mr. Clay T. Whitehead
Director, Office of
Telecommunications Policy
Executive Office of the President
Washington, D.C. 20504

Dear Mr. Whitehead:

After careful consideration of your letter of 17 September 1971, I have concluded that the Aerosat discussions with the Europeans (and others) scheduled for later this week and next should proceed as planned. As you know, we have been exploring the possibilities of a joint program with the Europeans as a result of OMB guidance of 11 June 1971. You will recall that at Madrid we explicitly conditioned our participation in the joint United States-European discussions upon additional internal review and final approval within the United States. Until this internal process is completed, further international discussions for essential detailed refinement will not commit the United States. On the other hand, cancellation of these discussions at this time will raise serious doubts concerning our credibility and motives.

In coordination with the Office of the Secretary of Transportation, we plan to respond to the OMB guidance within the next two weeks and describe what we believe is a basis for a successful joint program. We believe that this represents a suitable and proper occasion for a policy review.

Sincerely,

J. H. Shaffer
Administrator

cc: Hon. U. Alexis Johnson
Hon. James M. Beggs

(J)

17Sep71

Mr. John Shaffer
Administrator
Federal Aviation Administration
Washington, D.C. 20553

Dear Mr. Shaffer:

Discussions with the Europeans concerning the Aeronautical Satellite program have progressed to a point where the principal features of the arrangements are known. In discussions with other elements of the Executive Office it has been concluded that the issues involved are of sufficient importance to warrant an in depth policy review prior to formalization of a joint program.

Accordingly, you should postpone further discussions with the Europeans until such time as the policy review is completed.

Sincerely,

/s/

Clay T. Whitehead

cc: Hon. U. Alexis Johnson
Hon. James M. Beggs

cc: Dr. Mansur
DO's Chron
DO's Records
Mr. Thornell's Files

J/Thornell/pm/17Sep71

European Cop

Monday 9/20/71

11:00 Will you want these memoranda in final yet?

Forget

8/31/71 Draft memo to President re Aerost

8/10/71 Memo for Kissinger

DRAFT
CTWhitehead:jm
8/10/71

MEMORANDUM FOR DR. KISSINGER

I am not completely worn down to a practitioner of "the art of the possible." I would like to explore a little further the question of how we play an offer of launch assurances. It seems to me that that was not very well aired at our meeting yesterday, but deserves to be. The central question, however, is probably one only you and the President can usefully meditate on, so I submit it for what it is worth.

It is certainly true that the simplest course of action in terms of our short-range objectives is to devise a formula to limit launch assurances that will placate the Europeans. However, I agree with Ed David that anything remotely smelling of U.S. veto will be a red flag for the Europeans and that only a major concession by us in some other area such as space shuttles cooperation would induce them to come off their opposition to such "assurances."

A much more exciting approach would be for the United States to announce unilaterally as a major initiative the provision of very sweeping launch assurance on a world-wide basis. It struck me that there will be a number of benefits in doing this. In spite of the fact that one is always wary of giving up flexibility and freedom of action, the major advantages seem to be:

(1) International relations benefits for the U.S.

(2) Pretty firm consolidation of the role of U.S. as principal provider of launch services.

(3) Elimination of most grounds for arguing that the U.S. has undue dominance in space, thereby making much more difficult a backlash against the U.S. in international forums and space agreements.

I

As indicated in the meeting, I am forced institutionally to speak out for the communications satellite interests, but it does seem that an initiative of this type and the benefits above would outweigh anything detriment I can foresee to our communications posture. The bureaucracy will supply many reasons why an initiative such as this would be undesirable. I think you and the President should know that Ed and I do not share most of those misgivings and feel that an initiative such as this is not only eminently practical but probably in our best interests. Knowing that, I would be interested in your reaction as to whether this is something that should pursued or dropped.

CTW

DRAFT/JThornell/GFMansur/tw

August 31, 1971

MEMORANDUM FOR THE PRESIDENT

Due to conflicting objectives of the FAA, the Department of State, and my Office, I find it necessary to seek your approval and support for actions I plan to implement immediately that will carry forward the Administration's policy of equal competitive opportunities in the international market place, will reaffirm a long standing policy for provision of communications services by the private sector, will offer investment incentives to the communications industry, and will have significant impact on employment in U.S. aerospace industry.

The details of the current situation on the aeronautical satellite communications program are contained in the enclosed "OTP White Paper", but the issues are much broader than the program. To summarize -- the basic alternatives are to:

a. Support tentative agreements between the FAA and Europe that benefit US-European space cooperation, but which establishe an ineffective and inefficient institutional structure with procurement rules that inhibit competition, requires technology sharing for the benefit of European aerospace industry, and offers little incentive for U.S.

industry investment; or

b. Redirect the FAA/European agreement to explicitly conform to U.S. policy and support U.S. industry at the risk of European rejection of a proposal to modify the agreement and the U.S. undertaking the program unilaterally. I have selected a course of action supporting alternate b., and it is my firm opinion that the interest of the United States will be best served with this approach.

The U.S. airlines, the communications industry, and the aerospace industry have stated strong opposition with most aspects of the current program, and I feel that these industries are looking to our actions in this matter as a test of the Administration's sincerity in promoting private sector initiatives.

This matter has been coordinated with Peter Flanigan and Henry Kissinger, both of whom concur in the approach. I, therefore, request your approval of the attached letters to the Secretaries of State and Transportation.

Clay T. Whitehead

Routing Slip
Office of Telecommunications Policy

Date: SEP 2 1971

From:
To:

✓	~~Whitehead, C. T.~~	~~Copy~~
	Mansur, G. F.	Copy
	Babcock, C.	
	Buss, L.	
	Carruthers, B.	
	Cooke, A.	
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	Goldberg, H.	
	Hailey, L.	
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	Lamb, B.	
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	Robinson, K.	
	Scalia, A.	
	Smith, L.	
	Thornell, J.	Original
	Urbany, F.	✓
	Ward, D.	

Remarks:

Aeronat

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH V. CHARYK
President

September 1, 1971

Dear Tom:

I am enclosing a copy of a memorandum to me from John Martin which I believe summarizes very well the basis for our serious concern regarding the viability of the course apparently being adopted in connection with U.S. participation in a joint United States-European aeronautical communications satellite program. I would certainly hope that the course of action could be reviewed before a final commitment is made.

Sincerely,

Joseph V. Charyk

Encl.

Honorable Clay T. Whitehead
Director
Office of Telecommunications Policy
1800 G Street, N.W.
Washington, D. C. 20504

COMSAT

INTER-OFFICE MEMORANDUM

Date: August 26, 1971

To: Dr. J. V. Charyk

From: J. L. Martin, Jr.

Subject: Outlook for Comsat Participation in Aeronautical Satellite Program

1. Negotiations are continuing between the U.S. government representatives and the Europeans to refine the details of the broad agreement reached in the Madrid meeting. All that we have been able to learn indicates that the general approach remains unchanged from that outlined in the 3 August FAA debriefing to U.S. industry.

2. Aside from considerations of a legal, financial and operational effectiveness nature, the approach which is currently being taken by the U.S. has very serious negative business incentives from Comsat's viewpoint, which are summarized below:

a. The proposed actions seem to reflect a strong interest in excluding communications carriers (without actually saying so) and limiting the participation of industry to hardware manufacturers. The time period for the pre-operational system of four satellites being considered extends over ten years into the future after the contracts have been signed, even if the program is not extended through use of the two spares (two and a half to three years to first launch, three years between the first and fourth launch, and five years satellite lifetime in orbit). It seems obvious that, regardless of the number of initial users of such satellites, if this program is initiated, other aviation administrations, and eventually, some airlines, will desire to obtain some service through these satellites before this pre-operational period is concluded. Obviously, this is a communications carrier function, yet all consideration of industry participation in the proposed program is exclusively centered on hardware manufacturing and manufacturing consortia.

b. The proposed "lease" by the U.S. clearly contemplates a lease of satellite hardware rather than a lease of communications links. This fact, coupled with several other aspects, apparently is intended to prevent aeronautical satellite service from being obtained in a communications carrier fashion, such as the provider of service to the U.S. also being able to provide service to other aviation administrations, and, in time, to airlines. The proposed "lease" is rather a purchase of satellite hardware on the easy payment plan, with no money down and payments extending over the full lifetime of the hardware, with 100% warranty throughout this period.

c. The proposed arrangement actually prevents provision of communications links to the U.S. rather than satellite hardware, since the "lease" of satellites is to be determined separately from the provision of the U.S. earth stations, and, in fact, these may not even be supplied from the same source. In any event, the bids concerning either satellites or U.S. earth stations cannot be based on the provision of communications service, but must be based on the separate provision of satellite and earth station hardware.

d. The point has been made formally in the negotiations between the U.S. and the Europeans, and subsequently emphasized in the debriefing to U.S. industry, that neither the institutional nor the procurement arrangements for the pre-operational system are intended to pre-judge corresponding arrangements for a follow-on operational capability to enter service about 1980. From a purely business viewpoint, this means that a bidder must ignore the realistic depreciation periods of various aspects of his proposed investment and consider this program as a one-time dead-end venture, with no reasonable basis for expecting any future recovery of any less-than-normal revenue obtained in the initial service period. He must ignore the fact that several of the initial program of six satellites may have several years of useful life left at the start of the follow-on operational program, and he must price his program to obtain the full return he expects in the initial pre-operational period. Aside from the obvious impact on the smoothness and operational effectiveness of the transition from pre-operational to operational service, the business incentive of this arrangement is certainly negative.

e. The proposed course of action also puts the U.S. industry in an extremely unfavorable position in several major respects. Although this industry is expected to finance the portion of the

satellites allocated to serving the U.S. needs, and to take the risk of this venture on the expectation that the satellites will perform satisfactorily throughout the specified pre-operational period, it is to have no voice in the determination of the system hardware specifications. It is to be a part owner of this hardware, and must in effect guarantee that it will perform satisfactorily for the entire planned lifetime, as that is the only basis for recovery of the investment and return on investment. Yet this industry is to be subject to detailed program technical direction and supervision in the manufacture, test and launch of these satellites, detailed supervision and direction of its investment, on which it takes the risk. In contrast, the other part-owners of these satellites not only are to have a full voice in the determination of the hardware specifications; they are to have a full voice in the selection of the U.S. industry which will be involved, and in the subsequent technical direction of the work of that industry.

3. On balance, the proposed arrangements, through unnecessary and unrealistic provisions, are setting the stage for the conclusion that aeronautical satellite services are not practically available on a commercial basis. Yet in reality this conclusion would be simply the direct consequence of the manner of seeking the service and the constraints imposed on the potential provider. The conclusion that the aeronautical communications services cannot be obtained on a commercial basis would be totally unwarranted, for they would not only have been precluded by the imposed conditions; they would not even have been the objective of the selection process.

4. We have continued to point out in our discussions that Comsat considers the provision of all communications services being contemplated for the aeronautical satellite program to be well within the present state-of-the-art and completely feasible to be provided on a commercial communications service basis, including voice, data, and surveillance communications, from the points of origin in aviation control centers and airline operational centers to the earth stations and through the satellites to the aircraft, and vice versa. We have brought up our repeated offer to provide such service, and pointed out that we remain interested in doing so under conditions which offer appropriate business incentives to invest the capital required and which permit appropriate company management over all aspects of its investment consistent with the risks of such investment. We have stated that we are quite willing to enter into a

joint ownership arrangement on an international basis, subject to these conditions, and indeed feel that this would be in the best interest of the U.S. as well as other initial and potential users of aeronautical services, providing a sound basis for growth on a fully international scope, and a smooth and orderly progression from pre-operational to follow-on operational services. However, we can see no indications that these views are having any effect on the approach being taken by the U.S. in the current discussions. All of the discussions are based on selection of hardware manufacturers rather than providers of communications services. We have repeatedly suggested a two-step selection process in which the U.S. entity to provide the U.S. services would be selected in the first step, by the U.S. Then this entity would proceed in a second step to select the hardware manufacturers in conjunction with its European partners in the ownership of the system, and on equal terms commensurate with the equal investment and equal risk involved. The hardware manufacturers would be selected on the basis of international competition. However, it is evident that this suggestion has not received any acceptance. The single-step selection of a manufacturing consortium continues to be the intended procedure. The provider of services to the U.S. will be determined by the outcome of this selection on the basis of a hardware bid.

5. Obviously, this is not a satisfactory outlook from Comsat's viewpoint. We can only hope that the current program discussions will result in changes to the announced plans and evolve into an approach under which it would make sense to consider submitting a bid.

John L. Martin, Jr.

COMMUNICATIONS SATELLITE CORPORATION

JOSEPH V. CHARYK
President

September 1, 1971

Dear Tom:

I am enclosing a copy of a memorandum to me from John Martin which I believe summarizes very well the basis for our serious concern regarding the viability of the course apparently being adopted in connection with U.S. participation in a joint United States-European aeronautical communications satellite program. I would certainly hope that the course of action could be reviewed before a final commitment is made.

Sincerely,

Joseph V. Charyk

Encl.

Honorable Clay T. Whitehead
Director
Office of Telecommunications Policy
1800 G Street, N.W.
Washington, D. C. 20504

COMSAT

INTER-OFFICE MEMORANDUM

Date: August 26, 1971

To: Dr. J. V. Charyk

From: J. L. Martin, Jr.

Subject: Outlook for Comsat Participation in Aeronautical Satellite Program

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2. Aside from considerations of a legal, financial and operational effectiveness nature, the approach which is currently being taken by the U.S. has very serious negative business incentives from Comsat's viewpoint, which are summarized below:

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John L. Martin, Jr.

Aerosat

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

August 31, 1971

To: Record

From: W. Dean, Jr.

Subject: Frequency Guidance on Aerosat

On August 30, 1971, the undersigned attended a meeting in Mr. Hawthorne's Office (FAA) of FAA, FCC, and OTP interests (attendance list attached) on subject matter. Results were as follows:

a. A team is leaving Friday, September 3 for a meeting with European interests commencing September 6 and guidance on the frequency aspects is needed.

b. FAA reiterated that they understood U.S. policy with respect to provision of service in this area called for leasing from a non-Government entity.

c. Three aspects are involved--technical, policy, and legal.

d. FCC mentioned that while the ratification of the WARC-ST was necessary there appeared to be little problem as regards the bands involved since they were basically aeronautical as a result of '63 decisions.

e. It was noted that the links from satellite to and from aircraft would be in the bands 1543.5-1558.5 and 1645-1660 MHz.

f. Discussion took place on the difficulties associated with accommodation of the earth to satellite links at 4 and 6 GHz, 7 and 8 GHz, and 4400 to 5000 GHz. Difficulties were outlined in each of these bands.

g. It was planned that FAA would contract but that service would be rendered to all desiring users. The undertaking was postulated as being experimental/developmental service which, with the stroke of a pen, could become operational. It was also brought out by FAA that maritime accommodation was not anticipated since the Europeans were adamant that the program should be aeronautically oriented only. It was envisaged that the service provided would be at least for the 1974-79 time frame.

h. The matter under discussion only involved the integrated portion of the program, i.e., satellite and TTT.

i. It was noted that six birds were involved, four orbital slots, two in the Atlantic, and two in the Pacific, with ESRO currently scheduled to pick up half the tab (a Memorandum of Understanding has been prepared and signature is pending in this regard.)

j. The Europeans prefer 5000 to 5250 MHz for the satellite, which raises the question where would the matching band be.

k. It was suggested that the upband be sought above 10 GHz and after discussion it was the consensus that the solution should be either for both links to be accommodated at 5000-5250 or, preferably, for the downlink to be at 5000 to 5250 MHz and the uplink to be at 15.4 to 15.7 GHz; the second generation possibly at 11.7 to 12.2 in the down direction and 15.4 to 15.7 GHz in the up direction.

l. It was noted that care would be necessary in engineering the aerosat into these bands as they are currently occupied by Navaids, but that sharing was feasible with separation of the order 20 miles between earth stations and airport navigational aids.

m. It was noted that if public correspondence were envisaged from aircraft the marine portion of the L-band would have to be embraced.

n. It was agreed to follow the Articles 9 and 9A procedures for this undertaking, even during the experimental phase.

o. The undersigned requested that a cautionary note be injected into the report to topside in FAA to the effect that policy issues are under consideration which could dictate revised thinking with respect to the concept of the aeronautical satellite both as regards accommodation of the maritime service and with respect to the nature of international participation. Any guidance should be considered only as sound as the assumptions upon which it is predicated.

/Tom Whitehead

W Dean, Jr.

cc: George Mansur
Jack Thornell

Attachment

30 August 1971

MEETING RE. AERONAUTICAL SATELLITE
FREQUENCY PLANNING

William B. Hawthorne	FAA, RD-500	426-3628
H. Nakamura	Aerospace	484-5506
Fred O. Budge	FCC, AV/MAR	632-7197
F. S. Carr	FAA, RD-100	426-3551
S. M. Myers	FCC, OCB	632-7060
R. T. Bergmann	FAA, RD-140	426-3551
C. A. Keys	FAA, RD-530	426-3600
W. Dean	OTP	395-5623
J. B. Woodford	Aerospace	484-5506
R. Gould	FCC	632-7500
R. Bock	FAA, RD-512	426-3996
C. D. Innes	FAA, RD-510	426-3996

AERONAUTICAL RADIO, INC.
2551 RIVA ROAD, ANNAPOLIS, MARYLAND 21401

August 27, 1971

File: 07-15-2

Mr. Jack Thornell
Program Manager
Office of Telecommunications Policy
Executive Office of the President
Washington, D. C. 20504

Dear Mr. Thornell:

Reference your telephone call of August 24 and confirming our conversation of this date, the following are reasons generally offered as to why the airline community is opposed to the present U. S.-ESRO satellite program.

1. The system is not required. The present program involves aircraft positioning as well as communications. The positioning function requires an extra satellite for each ocean and the airlines' firm position is that positioning service in oceanic traffic control is not needed. Position by inertial navigation with which all the international carriers are equipped gives excellent accuracy with even further refinements possible. A digital communications system to report INS derived position to the ground is needed and this is one compelling reason a satellite communications system is needed. A computer-driven traffic control display, using INS-derived position sent to the display via data link, is now in operation at the Oakland, California, Air Route Traffic Control Center. Controllers are said to be enthusiastic about it. As you well know, INS, besides providing aircraft position to the pilot, also furnishes the gyro platform that today's aircraft require. Thus, the added complexity to provide navigation service is reasonably priced. Air traffic control services at the moment do not require another method to determine position. What is needed is a means to use the sensing systems already available.

2. Expense: I can't get a real feel for the expense of the present U. S.-ESRO proposal. Nearly everyone I have talked to thinks the $140 million figure is about one-half of what it should be. The avionics cost is also unknown and will remain uncertain as long as this proposal lacks system definition and system design. The one thing agreed to is that the airlines cannot afford it, particularly in view of the recurring nature of the cost of the space segment.

3. The airlines have really not been a part of the present program. FAA has been conscientious, we feel, about reporting their progress to us but, aside from that, we have not been consulted and, of course, have not participated in it.

4. Technical Uncertainties: I have already touched on this, however, it seems that we are buying an awfully big system when it is considered the technical feasibility of what we are trying to do has yet to be established. We have recommended NASA's ATS-F and/or ATS-G be used to establish technical assurance. It would require some reprogramming of what is to be done on ATS-F and maybe even delay the final system if the experiments had to be carried on to ATS-G. The delay would not concern us.

5. Which brings me to the final point and that is that the urgency that apparently was here 18 months ago is no longer present; not only has the forecast growth in trans-Pacific and trans-Atlantic flights not materialized, but with the wider bodied jets now present we are actually flying fewer schedules than we did last year and the year before. There are still more wide bodied jets to come and, unless there is a business upturn, an increase in trans-oceanic traffic must be considered doubtful. Our new monetary policy may further limit foreign travel.

Obviously, I have had insufficient time to coordinate this reply with the airlines. It is, therefore, my personal summation of the thoughts most frequently expressed by the airlines, the Air Transport Association of America, and us.

Very truly yours,

AERONAUTICAL RADIO, INC.

J. Francis Taylor, Jr.
President

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

23 AUG 1971

Mr. Clay T. Whitehead, Director
Office of Telecommunications Policy
Executive Office of the President
Washington, D. C. 20504

Dear Tom:

This is in response to your letters of 12 August to Under Secretary Beggs and to me which note the recent meetings in Paris and Madrid concerning a joint European-U.S. program for aeronautical satellite communication services and requests our views concerning the specific arrangements to be incorporated into the material being drafted.

In general, the specific arrangements will conform to the policy positions expressed in the OTP statement of 7 January, with clarification provided in your letter of 12 July. I am aware of no departures from this policy, except the practical difficulty of meeting the 1973 date at this juncture.

The specific basis for the proposed Memorandum of Understanding and joint procurement specifications is contained in the report of the Madrid meeting and associated summary of discussions. I have enclosed copies for your use. The Ad Hoc Group, formed at the earlier Washington meeting and extended by action of the Madrid meeting, met in Madrid on 4 and 5 August to prepare initial drafts of these two documents. The Ad Hoc Group met in Washington on 19 and 20 August to proceed with the drafting of the Memorandum of Understanding and will convene at ESTEC in Holland on 6 September for drafting of the RFP. In both cases, the drafting will conform to the understandings reached in Madrid.

As at all previous sessions of the Ad Hoc Group, continued representation from your Office is invited and would serve as the best vehicle for providing you with a direct input concerning the details and specific wording of both documents. Arrangements for attendance can continue to be made through David Israel of my staff.

In the event that you desire a personal review of the progress, I would suggest a meeting at your convenience during the week of 23 August.

Sincerely,

J. H. Shaffer
Administrator

Enclosures

(H) ⑦

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

23 AUG 1971

Mr. Clay T. Whitehead, Director
Office of Telecommunications Policy
Executive Office of the President
Washington, D. C. 20504

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J. H. Shaffer
Administrator

Enclosures

DEPARTMENT OF STATE

Washington, D.C. 20520

20 AUG 1971

The Honorable
Clay T. Whitehead, Director
Office of Telecommunications Policy
Executive Office of the President
Washington, D. C. 20504

Dear Tom:

Under Secretary Johnson has asked me to reply to your letter of August 12, 1971 concerning the exploratory talks we have had with the Europeans and others on the establishment of an experimental pre-operational aeronautical satellite capability for international civil aviation purposes.

In accordance with the January 7 policy statement, this Department has sought to assist DOT/FAA in its efforts to develop an acceptable international framework for an experimental/pre-operational aeronautical satellite capability. We believe that DOT/FAA has made every effort to exercise its "unambiguous leadership" in accordance with the policy statement of January 7 and the Office of Management and Budget Memorandum of June 11, 1971. We think that the understandings reached in the meetings to date have had substantial foreign relations benefits for the United States and have paved the way toward rapid international action on specifications for an international system.

As you know, we are advising DOT/FAA on various foreign policy aspects of the draft Memorandum of Understanding which was discussed in Madrid. Representatives of your office are also participating in that process. We believe that these in depth, interagency discussions provide the best vehicle for determining how our policy goals can be realized in the context of our existing commitments and our foreign relations interest.

Sincerely yours,

Bert W. Rein

Bert W. Rein
Deputy Assistant Secretary
Bureau of Economic Affairs

Aerosat

OFFICE OF TELECOMMUNICATIONS POLICY
WASHINGTON

August 18, 1971

Tom-

As information, Bud Wheelon visited me this week to state that Hughes had taken a corporate look at Aerosat and had decided to no bid. They expect to maintain a public posture of interest in case the environment changes. The decision was predicated on two factors:

1. Possible shortage of capital if they should be successful in both DomSat and Aerosat, and

2. Unfavorable drift of Aerosat institutional arrangements.

He indicated if either factor changed, Hughes would reconsider.

George