The original documents are located in Box 18, folder "Helicopter Research (1)" of the John Marsh Files at the Gerald R. Ford Presidential Library.

DONNA - I
thought you might
want this file
downstairs in the
subject file --
it is crossed with:
John Dalton
Ann Kilgore
Herb Bateman
Mills Godwin
Tom Downing
Jim Fletcher
E. M. Hutton

cb

Russ S/M

THE WHITE HOUSE
WASHINGTON

Byrd
Hatch
Move

[July 1976?]

THE WHITE HOUSE
WASHINGTON

NOTE:

PLEASE RETURN FILE.

Thanks

See ... Guy M. Goodwin
+ Herb Bateman

THE WHITE HOUSE
WASHINGTON

Even though NASA draft ltr. to Bateman sounds sufficiently positive to me, Tiny unhappy - will send rebuttal - we can send to Fletcher or OMB for surrebuttal -

J

To Rusp

Date 1-26-76. Time 5:11

WHILE YOU WERE OUT

M Tony Dutton

of Cong. Downing

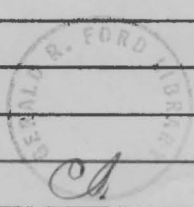
Phone 225-4261

Area Code Number Extension

TELEPHONED		PLEASE CALL	X
CALLED TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		URGENT	

RETURNED YOUR CALL

Message



Operator

Bateman - Republican

THE WHITE HOUSE
WASHINGTON

Tiny Hutton -

Herbert Bateman -

Newport News -
Inventor of
Helicopter mirror -

Tom ——— .

Ames
London committee - this
was not recommendation
of London committee -
Hold
Until we hear from
GAO —

Bateman

July 13, 1976

Dear Mr. Bateman:

Due to Jack Marsh's absence from the City, I wanted to further reply to our letter of June 18 in connection with the Langley Research Center.

We are convinced that Dr. Fletcher, in making his decision, gave due consideration to all the relevant factors involved. Also, in our estimation, NASA was very careful to avoid influencing any decision the Army might make regarding its research and development activity or any action that might appear to have an effect on the Army's decision. As you know, the Army has had its plans for an Aviation Development Center under study for some time, and on April 1, 1976, announced that its preferred course of action is to establish its Development Center Headquarters in St. Louis, Missouri, while maintaining the status quo for all elements outside the St. Louis area.

NASA initiated its study on April 2, 1976, with the first meeting of the Helicopter Management Review Group chaired by Dr. Bruce Lundin, Director, Lewis Research Center, Cleveland, Ohio. Dr. Fletcher received the Lundin Group's report on May 28 and announced his decision on June 9, 1976.

Dr. Fletcher has stated that his reasons for making the decisions he did are as follows:

1) It consolidates the work most appropriate to the unique facilities existing at Ames, such as, the moving base simulators, the 40 x 80-Foot Wind Tunnel, the Army's helicopter test facility at Hunter-Liggett, and the proximity to the flight test range at the Navy's Crow's Landing facility.

2) Ames currently has an integrated helicopter program in support of the Army characterized by excellent communications

between Ames management and the AMRDL headquarters located at Ames. Since one of the goals is to strengthen support of the Army and industry, this existing relationship can facilitate that goal.

3) The assignment of Ames is consistent with its Short Haul Mission, its existing Tilt Rotor Research Aircraft Project, and other vertical take-off and landing research activities.

4) The designation of Ames provides for an organized sequence of technology development from basic research and technology to full-scale systems.

5) Ames, supported in research and technology by the Lewis and Langley Centers, will provide overall direction to the helicopter program. As a significant part in the overall program, Langley retains its responsibility for research in helicopter structures and materials, aeroelasticity, acoustics, avionics, and two-dimensional airfoils. The Lewis Research Center will be responsible for helicopter propulsion systems including the transmission, shafting and engine. This delegation of responsibilities provides for optimal utilization of the total NASA capabilities and facilities as well as allowing greater flexibility to accomplish other high priority programs.

The Lundin group addressed the question of costs associated with the transfer of aircraft, equipment and up to 75 manyears of effort over a period of about three years with the conclusion that the costs will be recouped in a relatively short time from savings accruing in future years.

I am assured that Langley will continue to grow in importance having been assigned the Long Haul Aircraft Mission which includes research and technology for supersonic cruise aircraft, hypersonic aircraft and subsonic transports; areas which it is anticipated will expand in importance and effort. The Aircraft Energy Efficiency program in which Langley plays a major role is a NASA effort directed to fuel conservation through improved aircraft aerodynamics, lighter weight structures and improved propulsion efficiency. The Hypersonic Research Aircraft Program and the Large Cargo Aircraft Program, both currently under discussion as cooperative efforts with the Air

Force and the Supersonic Aircraft Research Program are examples of efforts which heavily involve Langley. The planned construction of the new National Transonic Facility at Langley will result in a major new facility of importance to future aeronautics research. I am assured that Langley is, and will continue to be, a key member of the NASA team.

I hope that the information I have provided will prove helpful to you.

With every good wish, I remain,

Sincerely,

Russell A. Rourke
Deputy to Presidential
Counsellor, John O. Marsh, Jr.

The Honorable Herbert H. Bateman
Senator of the State of Virginia
Newport News, Virginia 23607

RAR:NASA:cb

July 9

THE WHITE HOUSE
WASHINGTON

Mr. Marsh:

Attached is a proposed response for you to Mr. Bateman from Jim Fletcher.

The response is rather lengthy. Do you want to sign the letter or have someone else sign?

You ____ Other ✓

Donna

NASA
National Aeronautics and
Space Administration

Washington, D.C.
20546

Office of the Administrator

JUL 9 1976

JUL 6 1976

Mr. John O. Marsh, Jr.
Counsellor to the President
The White House
Washington, DC 20500

Dear Jack:

Enclosed is a proposed draft reply to Virginia State Senator Herbert H. Bateman that states the rationale for my decision to name the Ames Research Center as Lead Center for Helicopter Research.

I believe the enclosed draft reply states the case clearly, and I know of no corollary transfer of Army aviation development functions but any statements regarding the Army's plans should be obtained directly from the Army.

I am convinced my decision regarding NASA's helicopter work will provide a more effective program to the overall benefit of the U.S. helicopter industry and the Government. With regard to any impact on the Virginia Peninsula, the Langley Research Center with its responsibilities for NASA's Long Haul Aircraft Mission is anticipated to grow in importance in the future.

If I can be of further assistance, please call upon me.

Sincerely,

James C. Fletcher
Administrator

Enclosure

Honorable Herbert H. Bateman
Senator of the State of Virginia
Newport News, VA 23607

Dear Herb:

I have looked into the NASA decision regarding helicopter research as I promised in my note to you of June 18, 1976.

I am convinced that in making his decision, Dr. Fletcher gave due consideration to all the relevant factors involved. Also, in my estimation, NASA was very careful to avoid influencing any decision the Army might make regarding its research and development activity or any action that might appear to have an effect on the Army's decision. As you know, the Army has had its plans for an Aviation Development Center under study for some time and on April 1, 1976, announced that its preferred course of action is to establish its Development Center Headquarters in St. Louis, Missouri, while maintaining the status quo for all elements outside the St. Louis area.

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(2) Ames currently has an integrated helicopter program in support of the Army characterized by excellent communications between Ames management and the AMRDL headquarters located at Ames. Since one of the goals is to strengthen support of the Army and industry, this existing relationship can facilitate that goal.

(3) The assignment of Ames is consistent with its Short Haul Mission, its existing Tilt Rotor Research Aircraft Project, and other vertical take-off and landing research activities.

(4) The designation of Ames provides for an organized sequence of technology development from basic research and technology to full-scale systems.

(5) Ames, supported in research and technology by the Lewis and Langley Centers, will provide overall direction to the helicopter program. As a significant part in the overall program, Langley retains its responsibility

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I am assured that Langley will continue to grow in importance having been assigned the Long Haul Aircraft Mission which includes research and technology for supersonic cruise aircraft, hypersonic aircraft and subsonic transports; areas which it is anticipated will expand in importance and effort. The Aircraft Energy Efficiency program in which Langley plays a major role is a NASA effort directed to fuel conservation through improved aircraft aerodynamics, lighter weight structures and improved

propulsion efficiency. The Hypersonic Research Aircraft Program and the Large Cargo Aircraft Program, both currently under discussion as cooperative efforts with the Air Force and the Supersonic Aircraft Research Program are examples of efforts which heavily involve Langley. The planned construction of the new National Transonic Facility at Langley will result in a major new facility of importance to future aeronautics research. I am assured that Langley is and will continue to be a key member of the NASA team.

Sincerely,

John O. Marsh

THE WHITE HOUSE
WASHINGTON

Cathy -

Please hold
attached for
draft reply
from Fletcher -

Russ

THE WHITE HOUSE
WASHINGTON

R —

F/up

June 18, 1976

Dear Herb:

I have your letter of June 14 in which you express your deep concern over the recent NASA announcement affecting the Langley Research Center.

In response to your request, I am looking into this matter. I shall be in touch with you again in the near future.

With every good wish, I remain,

Sincerely,

John O. Marsh, Jr.
Counsellor to the President

The Honorable Herbert H. Bateman
Senator of the State of Virginia
Newport News, Virginia 23607
JOM:RAR:d cb
fo Jim Fletcher - ~~dire~~ draft reply

JUN 15 1976

COMMONWEALTH OF VIRGINIA

HERBERT H. BATEMAN
2ND SENATORIAL DISTRICT
CITY OF NEWPORT NEWS,
SOUTHEASTERN PART OF
P.O. BOX 78
NEWPORT NEWS, VIRGINIA 23607

SENATE

COMMITTEE ASSIGNMENTS:
AGRICULTURE, CONSERVATION AND NATURAL RESOURCES
COURTS OF JUSTICE
FINANCE
TRANSPORTATION

June 14, 1976

Honorable John O. Marsh
Counsel To The President
Executive Office Building
Washington, D.C. 20506

Dear Jack:

A few days ago Dr. Fletcher of the National Aeronautics and Space Administration (NASA), announced a decision to transfer major aspects of the helicopter mission of Langley Research Center, Hampton, Virginia, to Ames Research Center in California. In depth study of this action and the corollary transfer of Army aviation development functions by a select and able local committee indicate this decision is decidedly contrary to the national defense and will be a waste of large sums of taxpayers' money. Its economic impact on our Virginia and local economy is estimated to be $100 million a year. A "Fact Sheet" regarding this matter is enclosed for your information.

Dr. Fletcher's decision is one which makes the position of us who have supported the Ford administration and wish to see it continued much more difficult.

I sincerely hope you will interest yourself in this matter and will feel inclined to exercise your influence in favor of a re-evaluation and reversal of this unsound decision.

Sincerely,

Herbert H. Bateman

HHB/jge

Enclosure

cc: Honorable Mills E. Godwin, Jr.

Rec'd 6/15/76

FACT SHEET

NASA HELICOPTER CAPABILITIES

I - NASA PROPOSAL

Dr. Fletcher has announced his intention to transfer major Helicopter programs and a major segment of the Helicopter Technology Mission from Langley to Ames Research Center. Transfer of some Helicopter Flight Test programs from Wallops Station to the Ames facilities is also planned.

Best information available would realign assignments as follows;

AMES	-	Helicopter Mission Management
	-	Aeromechanics Technology
	-	Simulation Technology
	-	Large Scale Tunnel Testing
	-	RSRA Program and Flight Test
	-	VALT Program and Flight Test
	-	Acoustical Flight Testing
LANGLEY	-	Structures Technology
	-	Acoustics Technology
	-	Avionics Technology
	-	Materials Technology

Cost of personnel transfers and relocation of equipment and range facilities has been estimated by NASA Headquarters as some $10Million. No indication of schedule has been given for this proposed move, but approximately 80 slots would be transferred from Langley to AMES, according to the NASA announcement.

Justification for move has been the recently completed LONDON Study, which produced three options; one, favorable to AMES, one favorable to LANGLEY, and one proposing "Management" of all Helicopter work from NASA Headquarters. Dr. Fletcher chose the AMES Option on the alleged basis of "strengthening NASA's Helicopter capabilities".

II - BACKGROUND

A. Politics - for three years, the Office of Management and Budget (OMB) has questioned NASA on the economic viability of maintaining AMES at a full Center level because of its low work load, low facility utilization, and small complement of personnel. NASA has been actively studying ways of reassigning CENTER missions in order to justify the continued existence of AMES - in 1975 it was given primary role for "Short-haul aircraft" and "Simulation". The proposed transfer of Langleys Helicopter work is being made under the guise of "Short Haul" aircraft.

ARMY

Directly related to this NASA Plan is the ARMY's proposal to establish an AVIATION DEVELOPMENT CENTER through an interim Headquarters in St. Louis, and eventual consolidation of its 7 Research locations into one site. St. Louis has been designated the Armys interim "preferred alternative", with the ultimate consolidated site awaiting NASA's designation of its Helicopter management Center - this fact has been reiterated to Mr. Downing by Army Undersecretary AUGUSTINE on several occasions. This means loss of 325 Army technical from the Peninsula.

Extensive coordination meetings have taken place over the past two years between NASA Headquarters management (LOVELACE and GROO) and ARMY management (B/G Stevens/AVSCOM, L/G Vaughan/AMC, and Mr.Gale/DCS RDA). Strong evidence exists that the current NASA announcement has been "well greased" with the Army.

B. Technical

- Langley has had the Helicopter Technology mission in its Charter for the past 40 years.
- It has conducted rotary winged research since the early '30s.
- A "prime" team of 175 DIRECT researchers has been built up from a cadre of 30 since 1970 and a 70 man ARMY team works jointly with the NASA scientists. Key directors of these teams have from 15 to 30 years prac-

ticing experience in this unique profession.

- A supporting technology staff of over 1400 provides "as required" enhancement from discrete technologys to the "prime" team.
- Langley personnel have authored over 500 basic and advanced research publications on Helicopter research.
- Helicopter technology at Langley has made significant contributions to the solution of several fixed wing vehicle problems including one recently for the SPACE SHUTTLE flight training aircraft.
- Illustrations of key milestone contributions by Langley in helicopter research are:

1930's

- Basic rotor analysis

1940's

- Initial flight research started
- Original specs for flying qualities

1950's

- Standard rotor performance charts

1960's

- Design charts for vehicle handling qualities

1970's

- First automatic landing at preselected spot
- Computer prediction of structural designs (NASTRAN) applied to helicopters
- First helicopter noise prediction program

C. Facilities, Comparison

Langley has 20 major Helicopter research facilities currently in joint use with the ARMY team, they are unique and include, -

- VSTOL Tunnel
- 30 x 60 Full Scale Tunnel
- Acoustical Lab
- 7 x 10 Wing Tunnel
- Structures and Fatigue Lab
- Transonic Dynamics Facility
- Rotor Whirl Tower
- Crash Worthiness Test Facility
- 2 Dimensional Air Foil Facility
- "STAR" Computational Center
- (The $65M Cryogenic Tunnel will also be utilized when put into operation in 1979.)

The replacement value of these helicopter research facilities easily exceeds 1/2 Billion Dollars.

Ames has four helicopter facilities in joint use with its ARMY resident research team.

- 40 x 80 Full Scale Tunnel (only unique equipment)
- 7 x 10 Wind Tunnel (duplicates Langley tunnel)
- Simulation facility (built for SST Research)
- Illiac Computer (only 1/10 growth potential of Langley Star Center)

A "prime" team of only some 20 NASA researchers are directly involved in this AMES helo work - majority is done by ARMY team of 116 personnel, indicating that emphasis is primarily on MILITARY requirements vs civil helo applications.

D. Flight Test Facilities

Langley has fleet of twelve test helicopter vehicles (8 in joint use with ARMY), and an extensive flight test support shop and hangars.

Wallops Station, only 70 miles away, is the NASA flight test center with some 12 aircraft currently operating there. It has a fully instrumented range system, and is adjacent to the NAVAL AIR TEST CENTER at Patuxant River, Md. - both have extensive AIR SPACE RESERVATIONS for safe flight test operations.

Ames must currently rely on Edwards AFB flight test center some 400 miles distant, and is restricted from local experimental aircraft flights due to its proximity to high density populated areas. The proposed CROWS Landing utilization (some 45 miles distant)would require full instrumentation for use at a cost of some $15 million.

E. Industrial Support Base

- Over 80% of the vital helicopter airframe, propulsion, and accessory industry is located in the Northeast within 500 miles of Langley.
- Only sources on West Coast are HUGHES Helicopters in Cal., and GARRETT Corp. in Phoenix, Ariz.
- Management of NASA's helicopter programs at Ames would put it over 2500 miles from access to this indispensible source of corporate scientific resources.
- In 1976 - 40% of all aircraft produced in the U.S. will be helicopters.
- In 1977 - 46%.
- NASA Langleys proximity to support this growing high technology contribution of U.S. industrys to the gross National Product is essential.

F. Fundamental Technical Issue

Langley currently has the only National capability and experience of integrating all the highly sophisticated technical disciplines into harmonious vehicle systems. It has been proven over the last four decades that the wedding of Aerodynamics, STructures, Acoustics, Materials, and Control in Helicopter vehicle development is essential and has been the indispensible element in

making our Country's Helicopters pre-eminent throughout the World. To permit dismemberment of this capability would seriously set back the payoff to our Nations development of better rotary-winged aircraft by as much as 5 years. The concept of separating Aerodynamics from Stability and Control, or Acoustics disciplines is totally inconceivable - it cannot be effectively accomplished by some Management function 2500 miles distant.

III - SUMMARY

Fallacies of Administrations proposal are both economic and operational;

INTEGRATION OF TECHNICAL DISCIPLINES - While the Army seeks to consolidate all its technical disciplines "under one roof" (such as Industry has done for successful integration into vehicle designs) NASA now seeks to split its disciplines by having three at AMES and four at LRC over 2500 miles apart. THIS ERROR IS FUNDAMENTAL.

- MINIMUM PERSONNEL TURBULENCE - Transfer of some 80 slots, key personnel, and their expertise to AMES is totally illusionary. A large segment will not move due to their seniority and be lost through early retirement, transfer to other than helicopter assignments, or resign for positions with industry. The balance of some 100 cannot be as productive due to the cleavage of disciplines from Coast to Coast and will loose their effectiveness, bid other jobs, retire or resign. The same situation will result in a dissolution of the key technology support Staff. THIS ERROR IS IRREVERSIBLE.

- COST TO IMPLEMENT - Economically the buildup of facilities at Ames for helo research or flight test cannot be justified, nor can the transfer costs of personnel and projects. Funding for the instrumentation of CROWS landing range in California is estimated realistically at $15M to duplicate Wallops existing facilities not $4 million as claimed. SUCH ERRORS ARE GROSS DECEPTION.

- OFFSET MISSIONS - Claims of "giving" Langley NATIONAL TRANSONIC AND FUEL CONSERVATION are false - these assignments to Langley were made over a year ago by Headquarters. THIS ERROR IS PURE PACIFICATION.

IV - CONCLUSIONS

- It can only be concluded that the fundamental "motivation" of the NASA Administrators plan is to "save" AMES Center, which has been under OMB scrutiny for inefficiency for the past 3 years.

- If permitted to proceed a National loss of at least five years in Helicopter technology will occur at a time most critical to the burgeoning CIVIL and MILITARY applications of these unique vehicles.

- An audit in depth of NASA's plan by the General Accounting Office should be initiated at the request of the Committee on Science and Technology in its oversight capacity of the Executive branch. This audit must also include the inseparable factors, influences, and actions of the Army which bear upon its planning and working relationship with NASA in Helicopter development programs.

9 June 1976

THE WHITE HOUSE
WASHINGTON

June 10, 1976

JACK:

Braman advises that Downing really might not be concerned re immediate future of Air Mobility Command. It appears that DOD intends to adopt alternative #1, i.e., retain Air Mobility Command in present Langley location.

RUSS

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET

Congressional Relations

6/9

JUN 1 1978

Russ —

Per your two requests — hope they're of some use.

Alan —

JUN 1976

REQUEST/RECEIPT FOR TRANSMISSION

RECEIVED

DATE AND TIME TRANSMITTED	NMCC STATION SERIAL NR.	DATE AND TIME RECEIVED
1976 JUN -9 PM 5	SITE: D	'76 JUN 9 PM 5:36 RECEIVED BY:

TO BE FILLED IN BY REQUESTER

WHITE HOUSE SITUATION ROOM

FROM: LTC Marvin Braman OFFICE/DESK: OSD PHONE NR: 78388

SUBJECT: Memorandum for Correspondents

CLASSIFICATION Unclassified PAGES 2

TRANSMIT TO: Russ Rourke, Situation Room, White House (456-6690)

AGENCY	INDIVIDUAL'S NAME	OFFICE	PHONE NR.	ROOM

OXford 7-3189(Copi
OXford 7-5131(Info

MEMORANDUM FOR CORRESPONDENTS: April 1, 1976

The Department of the Army today announced that an Army study has resulted in the selection of a preferred alternative for organization of an aviation development center and an associated support command within the U.S. Army Materiel Development and Readiness Command (DARCOM). If ultimately approved and established, the new organizations will be designated the U.S. Army Aviation Research and Development Command, and a support organization, the U.S. Army Troop Support and Aviation Material Readiness Command.

The proposed aviation development center is to be comprised of the R&D elements of DARCOM's U.S. Army Aviation Systems Command (AVSCOM) and the Avionics Laboratory of the U.S. Army Electronics Command (ECOM). Four alternatives were addressed in the study leading to the selection of this alternative: (The Army's preferred alternative is alternative 1):

1. Establish the Development Center Headquarters in St. Louis, MO., at the Federal Center with other major subordinate functional elements remaining essentially unchanged in their present locations.

2. Consolidate the Development Center at Langley AFB, VA.

3. Consolidate the Development Center at Moffett Field, CA.

4. Establish the Development Center Headquarters in St. Louis, MO, at the Federal Center with restructuring and some relocation of elements of the Air Mobility and Research and Development Laboratory (AMRDL).

Each of the alternatives leading to consolidation has considerable merit in terms of potential cost savings and management economy.

The proposed U.S. Army Troop Support and Aviation Command is to be formed by merging the logistical elements of AVSCOM with the Troop Support Command (TROSCOM) at the Federal Center in St. Louis. Two alternatives are be considered:

1. Retain all current functions and missions performed by TROSCOM and the logistical elements of AVSCOM.

MORE

2. Transfer selected functions and personnel to other DARCOM commands. The Army's preferred alternative is to retain all functions and to establish the Troop Support and Aviation Command at the Federal Center in St. Louis.

This proposed realignment of AVSCOM and TROSCOM, if finally approved, is expected to result in significant recurring savings to the Army through management efficiencies achieved in the merger of similar functions.

The alternative concepts considered for this realignment have been submitted to interested Members of Congress and their comments have been solicited. Following an evaluation of the comments received, the Army will decide on final organizational alignments. This final decision is expected in June 1976.

E N D

OFFICE OF MANAGEMENT AND BUDGET

ROUTE SLIP

TO Mr. Lowen

Mr. Kranowitz

cc: Bob Howard

Take necessary action	☐
Approval or signature	☐
Comment	☐
Prepare reply	☐
Discuss with me	☐
For your information	☐
See remarks below	☐

FROM Ronald M. Konkel DATE 6/9/76

REMARKS

- This is in response to your request for more information on NASA's decision to consolidate its aeronautical research program on helicopters.

- The basic purpose is to promote efficiency in the program--Langley will retain only limited involvement in helicopter research.

- Dr. Fletcher has spoken with Congressman Downey about the potential impact at Langley Research Center--less than 100 positions are expected to be affected probably by the end of FY 1979.

- NASA believes that Army decisions on its helicopter program have not been pre-empted by the NASA decision.

OMB FORM 4
REV AUG 70

6/9/73

NASA News

National Aeronautics and
Space Administration

Washington, D.C. 20546
AC 202 755-8370

Ron Koerkel

Ken Atchison
Headquarters, Washington, D.C.
(Phone: 202/755-3147)

For Release:

RELEASE NO: 76-

AMES NAMED LEAD HELICOPTER RESEARCH CENTER

In a move to strengthen helicopter research and development and to provide a focal point for industry participation and program management, NASA Administrator Dr. James C. Fletcher has named Ames Research Center, Mountain View, Calif., as lead center for the program.

The announcement came following presentation to the Administrator May 28 of a review of research needs by an especially appointed NASA Helicopter Management Advisory group. Pointing to an industry projection of growth in the world helicopter market, NASA stressed the need for significant technical improvements in helicopters if the U.S. industry is to realize its fair share of the market for both civil and military vehicles.

-more-

Ames, supported by the Lewis and Langley centers, will provide overall direction to the program and conduct research in aeromechanics, which includes technology integration and large-scale testing and simulation. Langley Research Center, Hampton, Va., will perform research in structures and materials, avionics, and noise. Lewis Research Center, Cleveland, will conduct research into propulsion, which includes engines, gearing and helicopter transmissions, and shafting. A detailed plan to put this decision into operation will be worked out over the next few weeks.

These assignments of responsibility will best utilize the capabilities of NASA's centers. Fletcher noted that naming Ames as the lead center will also preserve the close working relationship and effective cooperation that exists between NASA and the Army's Air Mobility Research and Development Laboratory, which has its headquarters located at Moffett Field, Mountain View.

These moves place NASA in a strong position to support the Army and the anticipated increased helicopter R&D activities to meet the threat of foreign competition for both civil and military sales, and at the same time leave the Army free to select any options it may consider to strengthen its aviation program.

-end-

see also Bateman (Herb) + Godwin Mills   Cong. Downing

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

AUG 19 1976

August 18, 1976

NOTE TO: RUSS ROURKE

FROM: ALAN M. KRANOWITZ Alan

RE: Your Memo of August 12

Per your request, I have asked our folks to thoroughly review the NASA helicopter consolidation situation.

They have reported, as I suspected they would, that there is very little we can add to Jim Fletcher's letter to Tom Downing of July 21. In effect, Fletcher says it all in that epistle.

I hasten to point out, however, as it was pointed out to me, that OMB has been putting heavy pressure on NASA for several years to do better in managing its in-house resources. We never discussed Ames, Langley, or the helicopter program in particular, but we have told them that they better get their act together. They are now doing just that and, obviously, the helicopter program is part of their initial effort. As a result, there is very little that OMB can do -- or wants to do -- to interfere with Fletcher's efforts to get his house in order.

From Tom Downing's point of view, I would guess that all of the Congressman's eggs must now lie in the GAO basket waiting for their report.

August 12, 1976

Dear Tiny:

Thank you for your letter of August 3 and the follow-up information with regard to the transfer of certain NASA helicopter programs from Langley to Ames Research Center.

I have called your letter and its accompanying materials to the attention of the appropriate people here at the White House.

I am sure that you and Representative Downing will be contacted on this matter in the near future.

With all good wishes,

Sincerely,

Russell A. Rourke
Special Assistant
to the President

Mr. E. M. Hutton
Administrative Assistant
to the Honorable Thomas N. Downing
House of Representatives
Washington, D.C. 20515

RAR:rs

6

August 12, 1976

MEMORANDUM FOR: ALAN KRANOWITZ
(OMB CONGRESSIONAL LIAISON)

FROM: RUSS ROURKE

Alan, attached are self-explanatory materials forwarded to me by Tiny Hutton. Both Jack Marsh and I have spoken with Tom Downing and Hutton about this situation on several occasions.

Quite frankly, Alan, I am fresh out of ideas re possible approaches to this shiift. Would you have your people look the file over and then contact Downing or Hutton to chew things over.

Many thanks.

Attachments

RAR:rs

COUNTIES:
ACCOMACK
CHARLES CITY
ESSEX
GLOUCESTER
JAMES CITY
KING GEORGE
KING AND QUEEN
KING WILLIAM
LANCASTER
MATHEWS
MIDDLESEX
NEW KENT
NORTHAMPTON
NORTHUMBERLAND
RICHMOND
WESTMORELAND
YORK

CITIES:
HAMPTON
NEWPORT NEWS
POQUOSON
WILLIAMSBURG

E. M. TINY HUTTON
ADMINISTRATIVE ASSISTANT

THOMAS N. DOWNING
1ST DISTRICT, VIRGINIA

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

COMMITTEES:
MERCHANT MARINE AND FISHERIES
SCIENCE AND TECHNOLOGY

OFFICES:
1 COURT STREET
HAMPTON, VA. 23669
722-2886

2135 RAYBURN BUILDING
WASHINGTON, D.C. 20515
(202) 225-4261

AUG 4 1976

August 3, 1976

Mr. Russell A. Rourke
Deputy to Presidential
Counsellor John O. Marsh, Jr.
The White House
Washington, D.C.

Dear Russ:

Enclosed is the packet of information mentioned in our phone conversation last Tuesday. I apologize for the delay.

I believe that you will get a better understanding of the Virginia position on this and I would be more than happy to discuss it with you in greater detail at your convenience. We frequently are amazed at the time frame surrounding responses from downtown. You will note that Tom wrote Fletcher on June 14. Fletcher's reply is dated July 21 and did not address itself to Tom's request that implementation of the proposed move be withheld until the GAO study was completed. As the file will show, he wrote GAO June 15 and they replied on the 17th. We are also aware that Fletcher had been notified by GAO that they were underway in their study quite some time before he replied to the Congressman. Yet, his letter would indicate that he still thinks Tom might have some question about requesting the inquiry.

Sincerely,

E. M. Hutton
Administrative Assistant

EMH:bd
Enclosure

6

FACT SHEET

NASA HELICOPTER CAPABILITIES

I - NASA PROPOSAL

Dr. Fletcher has announced his intention to transfer major Helicopter programs and a major segment of the Helicopter Technology Mission from Langley to Ames Research Center. Transfer of some Helicopter Flight Test programs from Wallops Station to the Ames facilities is also planned.

Best information available would realign assignments as follows;

AMES	-	Helicopter Mission Management
	-	Aeromechanics Technology
	-	Simulation Technology
	-	Large Scale Tunnel Testing
	-	RSRA Program and Flight Test
	-	VALT Program and Flight Test
	-	Acoustical Flight Testing
LANGLEY	-	Structures Technology
	-	Acoustics Technology
	-	Avionics Technology
	-	Materials Technology

Cost of personnel transfers and relocation of equipment and range facilities has been estimated by NASA Headquarters as some $10Million. No indication of schedule has been given for this proposed move, but approximately 80 slots would be transferred from Langley to AMES, according to the NASA announcement.

Justification for move has been the recently completed LONDON Study, which produced three options; one, favorable to AMES, one favorable to LANGLEY, and one proposing "Management" of all Helicopter work from NASA Headquarters. Dr. Fletcher chose the AMES Option on the alleged basis of "strengthening NASA's Helicopter capabilities".

6

II - BACKGROUND

A. Politics - for three years, the Office of Management and Budget (OMB) has questioned NASA on the economic viability of maintaining AMES at a full Center level because of its low work load, low facility utilization, and small complement of personnel. NASA has been actively studying ways of reassigning CENTER missions in order to justify the continued existence of AMES - in 1975 it was given primary role for "Short-haul aircraft" and "Simulation". The proposed transfer of Langleys Helicopter work is being made under the guise of "Short Haul" aircraft.

ARMY

Directly related to this NASA Plan is the ARMY's proposal to establish an AVIATION DEVELOPMENT CENTER through an interim Headquarters in St. Louis, and eventual consolidation of its 7 Research locations into one site. St. Louis has been designated the Armys interim "preferred alternative", with the ultimate consolidated site awaiting NASA's designation of its Helicopter management Center - this fact has been reiterated to Mr. Downing by Army Undersecretary AUGUSTINE on several occasions. This means loss of 325 Army technical from the Peninsula.

Extensive coordination meetings have taken place over the past two years between NASA Headquarters management (LOVELACE and GROO) and ARMY management (B/G Stevens/AVSCOM, L/G Vaughan/AMC, and Mr.Gale/DCS RDA). Strong evidence exists that the current NASA announcement has been "well greased" with the Army.

B. Technical

- Langley has had the Helicopter Technology mission in its Charter for the past 40 years.
- It has conducted rotary winged research since the early '30s.
- A "prime" team of 175 DIRECT researchers has been built up from a cadre of 30 since 1970 and a 70 man ARMY team works jointly with the NASA scientists. Key directors of these teams have from 15 to 30 years prac-

ticing experience in this unique profession.

- A supporting technology staff of over 1400 provides "as required" enhancement from discrete technologys to the "prime" team.
- Langley personnel have authored over 500 basic and advanced research publications on Helicopter research.
- Helicopter technology at Langley has made significant contributions to the solution of several fixed wing vehicle problems including one recently for the SPACE SHUTTLE flight training aircraft.
- Illustrations of key milestone contributions by Langley in helicopter research are:

1930's

- Basic rotor analysis

1940's

- Initial flight research started
- Original specs for flying qualities

1950's

- Standard rotor performance charts

1960's

- Design charts for vehicle handling qualities

1970's

- First automatic landing at preselected spot
- Computer prediction of structural designs (NASTRAN) applied to helicopters
- First helicopter noise prediction program

C. Facilities, Comparison

Langley has 20 major Helicopter research facilities currently in joint use with the ARMY team, they are unique and include, -

- VSTOL Tunnel
- 30 x 60 Full Scale Tunnel
- Acoustical Lab
- 7 x 10 Wing Tunnel
- Structures and Fatigue Lab
- Transonic Dynamics Facility
- Rotor Whirl Tower
- Crash Worthiness Test Facility
- 2 Dimensional Air Foil Facility
- "STAR" Computational Center
- (The $65M Cryogenic Tunnel will also be utilized when put into operation in 1979.)

The replacement value of these helicopter research facilities easily exceeds 1/2 Billion Dollars.

Ames has four helicopter facilities in joint use with its ARMY resident research team.

- 40 x 80 Full Scale Tunnel (only unique equipment)
- 7 x 10 Wind Tunnel (duplicates Langley tunnel)
- Simulation facility (built for SST Research)
- Illiac Computer (only 1/10 growth potential of Langley Star Center)

A "prime" team of only some 20 NASA researchers are directly involved in this AMES helo work - majority is done by ARMY team of 116 personnel, indicating that emphasis is primarily on MILITARY requirements vs civil helo applications.

D. Flight Test Facilities

Langley has fleet of twelve test helicopter vehicles (8 in joint use with ARMY), and an extensive flight test support shop and hangars.

Wallops Station, only 70 miles away, is the NASA flight test center with some 12 aircraft currently operating there. It has a fully instrumented range system, and is adjacent to the NAVAL AIR TEST CENTER at Patuxant River, Md. - both have extensive AIR SPACE RESERVATIONS for safe flight test operations.

Ames must currently rely on Edwards AFB flight test center some 400 miles distant, and is restricted from local experimental aircraft flights due to its proximity to high density populated areas. The proposed CROWS Landing utilization (some 45 miles distant)would require full instrumentation for use at a cost of some $15 million.

E. Industrial Support Base

- Over 80% of the vital helicopter airframe, propulsion, and accessory industry is located in the Northeast within 500 miles of Langley.
- Only sources on West Coast are HUGHES Helicopters in Cal., and GARRETT Corp. in Phoenix, Ariz.
- Management of NASA's helicopter programs at Ames would put it over 2500 miles from access to this indispensible source of corporate scientific resources.
- In 1976 - 40% of all aircraft produced in the U.S. will be helicopters.
- In 1977 - 46%.
- NASA Langleys proximity to support this growing high technology contribution of U.S. industrys to the gross National Product is essential.

F. Fundamental Technical Issue

Langley currently has the only National capability and experience of integrating all the highly sophisticated technical disciplines into harmonious vehicle systems. It has been proven over the last four decades that the wedding of Aerodynamics, STructures, Acoustics, Materials, and Control in Helicopter vehicle development is essential and has been the indispensible element in

making our Country's Helicopters pre-eminent throughout the World. To permit dismemberment of this capability would seriously set back the payoff to our Nations development of better rotary-winged aircraft by as much as 5 years. The concept of separating Aerodynamics from Stability and Control, or Acoustics disciplines is totally inconceivable - it cannot be effectively accomplished by some Management function 2500 miles distant.

III - SUMMARY

Fallacies of Administrations proposal are both economic and operational;

INTEGRATION OF TECHNICAL DISCIPLINES - While the Army seeks to consolidate all its technical disciplines "under one roof" (such as Industry has done for successful integration into vehicle designs) NASA now seeks to split its disciplines by having three at AMES and four at LRC over 2500 miles apart. THIS ERROR IS FUNDAMENTAL.

- MINIMUM PERSONNEL TURBULENCE - Transfer of some 80 slots, key personnel, and their expertise to AMES is totally illusionary. A large segment will not move due to their seniority and be lost through early retirement, transfer to other than helicopter assignments, or resign for positions with industry. The balance of some 100 cannot be as productive due to the cleavage of disciplines from Coast to Coast and will loose their effectiveness, bid other jobs, retire or resign. The same situation will result in a dissolution of the key technology support Staff. THIS ERROR IS IRREVERSIBLE.

- COST TO IMPLEMENT - Economically the buildup of facilities at Ames for helo research or flight test cannot be justified, nor can the transfer costs of personnel and projects. Funding for the instrumentation of CROWS landing range in California is estimated realistically at $15M to duplicate Wallops existing facilities not $4 million as claimed. SUCH ERRORS ARE GROSS DECEPTION.

- OFFSET MISSIONS - Claims of "giving" Langley NATIONAL TRANSONIC AND FUEL CONSERVATION are false - these assignments to Langley were made over a year ago by Headquarters. THIS ERROR IS PURE PACIFICATION.

IV - CONCLUSIONS

- It can only be concluded that the fundamental "motivation" of the NASA Administrators plan is to "save" AMES Center, which has been under OMB scrutiny for inefficiency for the past 3 years.

- If permitted to proceed a National loss of at least five years in Helicopter technology will occur at a time most critical to the burgeoning CIVIL and MILITARY applications of these unique vehicles.

- An audit in depth of NASA's plan by the General Accounting Office should be initiated at the request of the Committee on Science and Technology in its over-sight capacity of the Executive branch. This audit must also include the inseparable factors, influences, and actions of the Army which bear upon its planning and working relationship with NASA in Helicopter development programs.

9 June 1976

June 14, 1976

Honorable James C. Fletcher
Administrator, National Aeronautics
and Space Administration
400 Maryland Avenue, S. W.
Washington, D. C. 20546

Dear Jim:

I appreciate your courtesy in coming by my office last Monday and informing me of your decision to transfer the major part of the helicopter program at Langley NASA to Ames, California.

I have no question about the sincerity of your decision but after much thought I find myself in complete disagreement with your decision. As you know, Langley NASA has been involved in helicopter work for the past 40 years and is uniquely qualified for designation as the NASA Headquarters for the helicopter program.

I am convinced that the proposed move to Ames, California, would require duplication of facilities presently existing at Langley NASA, would be the highest cost move to the taxpayer and would not promote the best interest of the NASA helicopter mission.

I have just learned that the Office of Management and Budget has been for the past several years critical of NASA's nonuse of the facilities at Ames. I would, therefore, suspect this may have been a factor in your decision. I respectfully suggest that the nonuse of the facilities at Ames might have been caused by a "non-need" of these facilities.

It makes no sense to me to locate the Helicopter Headquarters 2500 miles from 85 percent of the contractors

with whom it must do business. It would cause disruption of work at Langley NASA, relocation of personnel who have made their home on the Peninsula for many years, and would not be the most cost effective way to proceed with this important program.

Accordingly, I have decided to request the General Accounting Office to re-evaluate the merits of this decision and I shall also ask the Honorable Olin E. Teague, Chairman of the Science and Technology Committee, to have this matter brought up for consideration before the Oversight Subcommittee.

I hereby request that no steps toward implementation of your decision be taken until the actions of the GAO and the Committee on Science and Technology are completed.

Sincerely,

Thomas N. Downing

TND:mob

Enclosure

June 15, 1976

The Honorable Elmer B. Staats
Comptroller General of the United States
General Accounting Office Building
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Comptroller General:

As you may be aware, NASA Administrator Dr. James C. Fletcher has proposed the transfer of major segments of the NASA helicopter research and development program from the Langley Research Center, Hampton, Virginia, to the Ames Research Center, Mountain View, California.

While there is unquestionable merit in Dr. Fletcher's desire to consolidate these facilities, I have grave doubts about the cost-effectiveness and practicability of such a move. Dr. Fletcher's plan calls for the headquarters of the helicopter R&D facilities to be located at Ames while lesser supportive units will remain at Langley and at Cleveland, Ohio. If this plan were implemented, the headquarters would exist some 2,500 miles from eighty-five per cent of the contractors with whom it must do business.

I am convinced that the proposed move to Ames would require duplication of extensive research facilities now available only at Langley; would cost the taxpayers a staggering amount of money; and would not be in the best interests of the NASA helicopter mission.

Recently, I was informed that the Office of Management and Budget has been for the past several years critical of NASA's nonuse of the facilities at Ames. I suspect this was a factor in Dr. Fletcher's decision to transfer, and I suggest that nonuse of the Ames facilities might have been caused by "non-need" of them.

For the foregoing reasons, I believe that a close examination of Dr. Fletcher's proposal is warranted. I would respectfully request that your office undertake such an examination for the purpose of ascertaining the cost-effectiveness of the proposal.

I have requested the chairman of the House Committee on Science and Technology to schedule oversight hearings on this matter at the earliest possible convenience.

Dr. Fletcher has been informed of my actions and I have requested that he withhold implementation of his proposal until such time as further study may be made of it.

Thanking you in advance for your consideration in this matter, I am

Sincerely,

Thomas N. Downing

TND:ge
CC: The Honorable Olin E. Teague
Dr. James C. Fletcher

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

Copy to Bob Ware / and Carl E. Kenier

June 17, 1976

The Honorable Thomas N. Downing
House of Representatives

Dear Mr. Downing:

We have received your letter of June 15, 1976, concerning the proposed transfer of major segments of the NASA helicopter research and development program from the Langley Research Center, Hampton, Virginia, to the Ames Research Center, Mountain View, California.

As we discussed with you and your staff on June 15, 1976, GAO's Logistics and Communications Division will be looking into the proposed move and we will keep you advised as our work progresses. Your colleague, Senator Byrd, also sent in a letter, as you said he would, and we advised him of our agreement with you.

We will also keep his office current on our review efforts.

Sincerely yours,

Peter J. McGough

Peter J. McGough
Legislative Adviser
Office of Congressional
Relations

cc sent 6/21/76 as above.

Bell Helicopter TEXTRON

also copy

Bell Helicopter Textron
Division of Textron Inc.

Post Office Box 482
Fort Worth, Texas 76101
(817) 280-2011

6 July 1976

Mr. John Ward
National Aeronautics and
Space Administration
Washington, D. C. 20546

Dear John:

Enclosed is an addendum to my June report on the May helicopter panel meeting. This addendum addresses panel members' concerns about the implementation of a lead center approach for helicopter research within NASA. It has been reviewed and is endorsed by all industry and Navy members of the panel. Army members either believed it inappropriate for panel action or that they should not endorse it due to affiliation.

Because of the importance of this move, I believe that it is not only proper but desirable that the group that NASA assembled to review the planned expanded helicopter research program, submit their thoughts on this matter.

(1) Generally, although we applaud the forceful management action to increase coordination within NASA, recognize Ames Research Center's great capability and potential in this area, and are pleased with the increased research which we understand will occur, many have honest concerns. (2) A hasty implementation of the lead center approach, which might strip the rotorcraft research effort of the unique capabilities, both facilities and personnel, of the Langley Research Center, could not only reduce NASA's research in this area during the next few years, but do irreparable harm to our country's future rotorcraft research capability.

(3) With the present climate in this country, it is possible that NASA management might be forced to move too fast. We hope that doesn't happen.

Yours very truly,

Bob L.

Robert R. Lynn
Vice President - Research and Engineering

CHAIRMAN
HELICOPTER SUB-PANEL
NASA SST ADVISORY COUNCIL

G-1

ADDENDUM TO REPORT OF NASA RESEARCH AND TECHNOLOGY ADVISORY SUBPANEL ON HELICOPTER TECHNOLOGY - COMMENTS ON THE IMPLEMENTATION OF THE LEAD CENTER APPROACH

Since the meeting on May 24th, NASA headquarters has announced designation of the Ames Research Center as the lead center for rotorcraft development and indicated the intention of relocating significant portions of the rotorcraft program from Langley to Ames. Panel member comments on the implementation of this move, compiled by E. S. Carter of Sikorsky Aircraft, are given below. These have been reviewed and endorsed by industry and Navy members of the panel. Army members believed either that they should not endorse it due to affiliation, or that the subject is inappropriate for panel action.

Because a move of such major proportions must inevitably have far reaching implications for the rotorcraft program, this report is being submitted in the belief that it is both proper and desirable that the group which NASA assembled to review the planned expanded helicopter research program, submit their thoughts on this matter.

1. The establishment of a leadership role for helicopters can be of great benefit in coordinating the total program and assuring a high level of cooperation and communication between the various teams involved. The solution of helicopter problems almost always demands the coordinated support of aerodynamics, structures and acoustic experts and a designated point of leadership will be most helpful. We would hope, however, that centralization of management control does not suppress the development of parallel approaches to some of the more challenging problems facing helicopter development where a certain degree of carefully managed redundancy and competition can be very healthy. Similiarly, choice of Ames as the lead center will be beneficial in coordinating with the Army program, but we urge that care be taken to avoid too much inbreeding of technical approach. Currently NASA and the Army are the only government agencies in the U. S. doing significant amounts of helicopter research and development. Too close coordination could limit the diversity of the national helicopter program or lead to domination by Army requirements with consequent neglect of NASA responsibilities to the other services.

2. We urge that the scope of the projected relocation be very carefully studied; review of the Center Activity Reports to the RTAC suggests that this move will require relocation, or at least, off site management, of virtually all of the basic research and development on helicopters, all current flight test activities on helicopters and all configuration oriented development and demonstration work except the tilt rotor program and those activities currently utilizing the 40 x 80 wind tunnel. The detailed plan to put this decision into operation must be very carefully worked out and developed by the knowledgeable rotorcraft professionals within NASA. We hope this plan can be reviewed with the users of NASA's research output before implementation.

3. We hope such a study would give careful attention to preserving and enhancing the utilization of NASA's resources available for helicopter research. The Langley facilities, principally the transonic-dynamics tunnel, the V/STOL tunnel, the Wallops tracking, data link, and acoustic facilities, the 6 x 28 transonic airfoil test facility, and the psychoacoustic laboratory, as well as the professional staffs that man these facilities and the specialized rotor hardware developed for them, are all national resources with unique capabilities to support helicopter research for which no adequate substitute exists at Ames. While the full scale tunnel at Ames is an extremely important tool for later stages of development of new concepts, the sub scale facilities at Langley are equally important to the economical assessment of new concepts and basic research. Each of the above facilities have ongoing programs that must be protected from disruptive influences if NASA's contribution to rotorcraft is to be sustained or increased. In implementing a lead center concept at Ames, we feel it very important that: a) the rotorcraft-oriented professional staffs that man these Langley facilities be maintained intact, and even augmented as required to man any new initiatives in rotorcraft; b) these professionals be provided sufficient assurance that the Langley Center does have an ongoing and important responsibility for helicopters so that they can expect reasonable career development opportunities if they continue to devote their energies to rotorcraft; c) Langley management be provided with sufficient responsibility for rotorcraft research (coordinated as appropriate by the lead center) to assure that they can provide both the managerial discipline required for efficient conduct of basic research and a certain amount of freedom to their professionals to initiate new lines of investigation; d) a "critical mass" amount of rotorcraft flight research be maintained at Langley to provide these professionals with exposure to the real world of in-flight helicopter experience and to the interlocking demands of the various technologies that must be addressed in an integrated manner.

4. We would hope that any relocation of flight test programs would not be undertaken until it has been determined: a) that the necessary data acquisition systems and ground based tracking and acoustics ranges will be available; b) that the lack of proximity to supporting technology professional teams in the areas of acoustics, structures, aeroelasticity and airfoil technology will not reduce the effectiveness of the programs, particularly with regard to correlation of ground test results with flight test data; c) and that the necessary hangar and flight crew personnel and ground support facilities are available for efficient and high utilization flight testing. Each individual program should be evaluated individually to establish whether or at what point relocation can be accomplished without detriment to the programs' objectives.

6-3

5. We would also hope that any planned relocation would not demand expenditures for duplicate facilities which will divert NASA's limited ongoing helicopter research funds from the important programs underway, many of which are short of adequate funds to do the job already committed, nor divert NASA's capital funds from the planned upgrading of the 40 x 80 tunnel at Ames which we feel must be NASA's number one concern for rotorcraft facility improvement at this time.

6. We feel that one of the major challenges of this redistribution of responsibility will be the recruiting of a strong, experienced and sympathetic helicopter management team at Ames. Ames has a nationally recognized team of senior professionals who have been extremely competent and articulate proponents of both STOL and high disc loading VTOL solutions to short haul civilian and military requirements. But with the background of natural and generally healthy rivalry that has existed over the years between this school of thought and the helicopter, low disc loading advocates, this very competence could be the major hurdle in the development of a truly enthusiastic and sympathetic helicopter management team. Likewise, the objectivity on the part of Ames management to be sure that the Langley resources for helicopter research are fully exploited and that the vital structures, materials, avionics and acoustic research scheduled to remain at Langley are not deemphasized.

7. The usefulness of NASA's program to the helicopter industry has admittedly been a matter of some question in many quarters over the years. However, tremendous strides have been made and the increased output in the past two years, in particular, has been most heartening. The effort to define this year a new initiative for helicopters is also extremely encouraging. However, as users of NASA technology output, we urge that NASA proceed with great care in implementing the relocation to avoid jeopardizing the progress that has already been made and to assure a sound basis for expansion of the much needed contribution which NASA can make to helicopters.

6 July 1976

NASA—S+T ADVISORY COUNCIL

HELICOPTER ADVISORY SUBPANEL

ATTENDANCE LIST

Mr. Harold Andrews
Naval Air Systems Command

Mr. E. S. Carter, Jr. VP/R+D
Sikorsky Aircraft
RTAC-Aerodynamics and Configurations

Mr. Glen Gilbert
Aviation Consultant

Mr. Frank Harris VP/R+D
Boeing-Vertol Company

Mr. Fred H. Immen
Army Air Mobility R&D Laboratory Headquarters
RTAC-Materials and Structures

Mr. Robert Lynn ~~Acting Chairman~~ VP/R+Engrg
Bell Helicopter Textron
RTAC-Aerodynamics and Configurations

Mr. Robert Richardson, PRESIDENT
Helicopter Association of America

Mr. Donald Robinson V-P
Kaman Aerospace

Mr. Edwin M. Ryan
Naval Air Systems Command
RTAC-Materials and Structures

Lt.Col. James Satterwhite representing Mr. Ballard
U. S. Army Systems Division

Dr. Robert Wood VP/R+D
Hughes Helicopters

NASA

National Aeronautics and Space Administration

Washington, D.C.
20546

Office of the Administrator

JUL 21 1976

Honorable Thomas N. Downing
House of Representatives
Washington, D. C. 20515

Dear Mr. Downing:

I fully understand your concern, as expressed in your letter of June 14, 1976, with my decision to name Ames as the lead Center for helicopter research, and I am sorry that you disagree with that decision. However, I am convinced that the decision will result in a NASA helicopter program more responsive to the Nation's needs. Our motivation for creating the Helicopter Management Study Group under Dr. Bruce Lundin was to ensure the best use of NASA's facilities and resources in carrying out the Agency's responsibilities to preserve the role of the United States as a leader in aeronautical research and technology and to support the technology requirements for both civil and military aircraft.

The implementation of the decision does not require or lead to duplications of facilities. The Rotor Systems Research Aircraft (RSRA) will be transferred to Ames, where advanced rotor concepts can be investigated at full scale in the 40 X 80-Foot Wind Tunnel and in flight on the RSRA. As technology dictates, scale-model work will continue to be done at Langley in the V/STOL Wind Tunnel and in the Transonic Dynamics Tunnel in support of the overall helicopter program. The range of cost estimates was such that cost was not a major factor in the decision.

Langley continues to grow in importance, having been assigned the Long Haul Aircraft role which includes research and technology for subsonic transports, supersonic cruise aircraft, and hypersonic aircraft, areas which it is anticipated will expand in importance and effort. The Aircraft

7/23/76
F. Y. I. cc to Bud West & Ed Kilgore

Energy Efficiency program in which Langley plays a major role is an effort directed to fuel conservation through improved aircraft aerodynamics, lighter weight structures and improved propulsion efficiency. The Hypersonic Research Aircraft program and the Large Cargo Aircraft program, both currently under discussion as cooperative efforts with the Air Force, and the Supersonic Cruise Aircraft Research program are examples of efforts which heavily involve Langley. The planned construction of the new National Transonic Facility at Langley will result in a major new facility of importance to future aeronautics research.

Ames has previously been assigned the Short Haul Aircraft role, which includes Vertical and Short Take-Off and Landing (V/STOL) aircraft. The helicopter assignment fits logically with these assignments.

Your reference to "NASA's non-use of the facilities at Ames" I find difficult to understand. The 40 X 80-Foot Wind Tunnel has been operating on a two-shift schedule for the past year and projects are currently scheduled for the next year in advance on the basis of continued two-shift operation. The Ames simulation facilities are also heavily utilized.

Although, as you note, two of the four major helicopter manufacturers are located on the east coast, I consider geography to be less important than other factors just as it is with Long Haul Aircraft in which Langley successfully supports an industry where all three of the major manufacturers are on the west coast.

I plan for the transfer of work to be undertaken with minimum disruption and, sharing your concern for the personnel involved, I fully intend that their wishes be given every consideration possible.

If it is concluded that the merits of my decision should be reviewed by the General Accounting Office and by public hearings, NASA will cooperate fully. However, I cannot help but feel that the time and effort that will be involved in proceeding along those lines will prove to be far out of proportion with the benefits to be gained.

Sincerely,

James C. Fletcher
Administrator

July 26, 1976

Dr. James C. Fletcher
Administrator,
National Aeronautics and Space Administration
400 Maryland Avenue, S.W.
Washington, D.C. 20546

Dear Jim:

Thank you very much for your letter of July 21 regarding your decision to name Ames as the lead center for NASA's helicopter research facilities.

In my letter to you of June 14, I requested that you take no action toward implementation of your decision until such time as a General Accounting Office review had been completed. As you may know, GAO formally agreed to undertake a study of your proposal on June 17.

Your letter of July 21 indicates that "NASA will cooperate fully" with any review of your decision. I would hope that this means implementation of your decision will be held in abeyance. I would appreciate hearing from you in this regard at your earliest convenience.

With every good wish, I am

Sincerely,

Thomas N. Downing

TND:ge

THE WHITE HOUSE

WASHINGTON

June 9, 1976

MEMORANDUM TO: JACK MARSH

FROM: RUSS ROURKE

Jack, I have checked into the matter you discussed with me concerning the possible transfer of NASA/Helo program from Langley, Virginia to Ames, California. Mills Godwin and Rep. Tom Downing had indicated their concern that this move, if implemented, would soon be followed by subsequent transfer of the Air Mobility Command out of Virginia.

OMB advised me this morning that NASA announced today the proposed transfer from Langley to Ames of the Helo program. After discussing the Air Mobility Command situation with Don Ogilvie, I called Alan Woods (who is in Europe). Mark Braman, his Military Assistant, is checking the matter out for me.

Tom Downing advised me this morning that he intends to ask Tiger Teague to permit him to approach the Oversight Committee in an effort to argue the cost effectiveness of this proposed move.

At this point, Downing does not require our intercession. I advised Downing of our awareness of his concern that the Air Mobility Command might be the "second shoe to fall". If that point is reached, I informed him that we would be happy to arrange a meeting with appropriate DOD personnel officials.

Downing advised me to express his appreciation to you for your quick follow-up.

see Herb Bateman

June 6, 1975

MEMORANDUM FOR: JACK MARSH

FROM: RUSS ROURKE

Jack, I have checked into the matter you discussed with me concerning the possible transfer of NASA/Helo program from Langley, Virginia to Ames, California. Mills Godwin and Rep. Tom Downing had indicated their concern that this move, if implemented, would soon be followed by subsequent transfer of the Air Mobility Command out of Virginia.

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Downing advised me to express his appreciation to you for your quick follow-up.

RAR:cb

TO Mr. Lowrey
Mr. Kranowitz
cc: Bob Howard

Approval or Signature
Comment ☐
Prepare reply ☐
Discuss with me ☐
For your information ☐
See remarks below ☐

For Release:

FROM Ronald M. Konkel DATE 6/9/76

REMARKS

- This is in response to your request for more information on NASA's decision to consolidate its aeronautical research program on helicopters.
- The basic purpose is to promote efficiency in the program--Langley will retain only limited involvement in helicopter research.
- Dr. Fletcher has spoken with Congressman Downey about the potential impact at Langley Research Center--less than 100 positions are expected to be affected probably by the end of FY 1979.
- NASA believes that Army decisions on its helicopter program have not been pre-empted by the NASA decision.

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NASA Administrator

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for the program.

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the need for signifi-

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cant technical improvements in helicopters if the U.S. industry is to realize its fair share of the market for both civil and military vehicles.

-more-