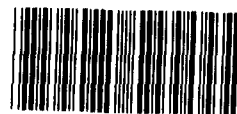


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National Air and Space Museum Extension  
Site Selection Process

Statement of  
L. Nye Stevens, Director  
Government Business Operations Issues  
General Government Division

Before the  
Subcommittee on Interior and Related Agencies  
Committee on Appropriations  
House of Representatives



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NATIONAL AIR AND SPACE MUSEUM  
SITE SELECTION PROCESS

SUMMARY OF STATEMENT BY  
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In the early 1980s, the Smithsonian Institution began looking for a site on which to build an extension to its National Air and Space Museum to house its growing collection of aircraft. As early as 1983, after considering several sites, the Smithsonian chose Dulles International Airport as its preferred site. In 1988, the site selection process was reopened after the newly elected Governor of Maryland expressed an interest in locating the facility at the Baltimore-Washington International Airport (BWI). In 1990, the City of Denver submitted an unsolicited proposal to locate the extension at Stapleton International Airport.

GAO reviewed the Smithsonian's site selection process to determine whether it followed a systematic, businesslike approach to identify the most cost-effective site that meets its needs under potentially competitive circumstances. As agreed with the Subcommittee, GAO did not verify the cost estimates prepared by the Smithsonian or the jurisdictions submitting site proposals or attempt to identify the most cost-effective site for the Smithsonian's needs.

The Smithsonian's site selection process has not been systematic, open, or cost-conscious enough to assure that the most cost-effective site has been selected. The Smithsonian has not ranked its requirements or distinguished between essential and desirable attributes. Since the Smithsonian has never publicly announced its needs, it has no assurance that the three current offers include all potentially competitive sites. For example, the Smithsonian might have received other offers with attractive incentives had the requirement that the Extension be within an hour's travel time from the Museum been considered on the basis of costs versus benefits.

Moreover, the Smithsonian's analysis of the three alternatives has been incomplete. For example, the Smithsonian has not compared the costs of financing the three proposals over their life cycles and it has not deducted anticipated concessions revenues from gross operating costs. The value of the land at Dulles has not been considered a cost even though it has alternative uses and considerable market value. The decision to select Dulles cannot yet be objectively defended as offering the best value of the three sites, though it may turn out to do so.

GAO believes the Smithsonian should reopen its selection decision and use a more systematic and competitive process to better assure that it and the government get the best value for their investment.

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to comment on the process followed by the Smithsonian Institution to select a site for an Extension to the National Air and Space Museum. The Smithsonian is not required to follow formal competitive procedures in site selection. Thus, as agreed with the Subcommittee last month, we focused our work on whether the Smithsonian's site selection process followed a systematic approach to identify the most cost-effective site. We concentrated our efforts on the Smithsonian's (1) development of its requirements for the museum extension, (2) identification of suitable locations for the Extension and efforts to communicate requirements to parties with a potential interest in fulfilling them, and (3) evaluation of site proposals and factors used to select the site. We did not attempt to (1) verify the cost estimates prepared by the Smithsonian or the jurisdictions submitting site proposals or (2) identify the most cost-effective site for the Smithsonian's needs.

Mr. Chairman, our review of these areas shows, in general, that the Smithsonian did not systematically follow the procedures or practices that are associated with a consistent and businesslike approach to siting and developing a facility under potentially competitive circumstances. As background, let me begin with a brief historical overview of the process followed by the Smithsonian.

## HISTORICAL OVERVIEW OF SMITHSONIAN'S PROCESS

In 1964 congressional hearings concerning legislation to authorize constructing the National Air and Space Museum, Smithsonian officials testified that the proposed location on the Mall would provide excellent flexibility and that there would be no need for future expansion. They said that aircraft not in the Museum would be kept in a storage depot that would serve as a reservoir from which special exhibits would be drawn from time to time. Since the mid 1950s, the Paul E. Garber Facility<sup>1</sup> in Suitland, Maryland, has served as the Smithsonian's primary storage depot. However, as the number and size of air and space vehicles in its collection grew, the Smithsonian began to search for a new storage site.

In the early 1980s, the Smithsonian began its search for a facility to store large aircraft that could not be transported to the Air and Space Museum or the Garber Facility. Between 1981 and 1985, Smithsonian representatives identified and evaluated nine sites, including Baltimore-Washington International Airport (BWI) and Dulles International Airport. The Smithsonian chose Dulles as its preferred site in 1983 and reaffirmed this choice in 1985. In 1986, the Smithsonian signed an option to lease land at Dulles

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<sup>1</sup>The principal roles of the Garber facility are the preservation, restoration, and storage of air and space artifacts. It has archival collections and provides exhibit production services. The buildings at the facility are generally overcrowded with substandard environmental conditions. The facility is not near an airport. Artifacts are transported between the National Air and Space Museum or Garber by truck.

owned by the Federal Aviation Administration.

In 1988, the Smithsonian reopened the selection process after the newly elected Governor of Maryland expressed interest in having the Extension located at BWI. In the following year, Denver also expressed interest in using Stapleton International Airport, scheduled to be replaced by a new airport in 1993, as a site for the Extension. In December 1989, both Maryland and Virginia submitted final proposals to the Smithsonian. In January 1990, Denver submitted a proposal. Later that month, the Smithsonian reaffirmed Dulles as the preferred site. The Smithsonian is currently reconsidering the Denver proposal in response to congressional concerns about the estimated cost of the Extension.

Since 1988, the Smithsonian has obtained limited competition in its site selection process and has received monetary incentives from the three current offerors. These incentives variously include a direct \$10 million contribution toward construction costs, a commitment to provide \$40 million of site improvements, and a commitment to secure \$65 million to retire bonds.

Mr. Chairman, let me now relate the process the Smithsonian followed to what we believe are defensible, businesslike principles that should characterize a site selection process involving federal funds for design and construction. My comments are consistent with

a report we recently issued on federal location policy.<sup>2</sup> I would like to reiterate that the Smithsonian is not required to follow formal competitive procedures in site selection.

#### DETERMINATION OF REQUIREMENTS

The required size and scope of the Extension, and consequently its expected cost, have progressively grown over the past decade. Throughout this period, the Smithsonian has not consistently delineated the relative importance of its various and growing needs. One of the Smithsonian's key requirements--the need for the Extension to be proximately located to other Smithsonian facilities--has been used in the past to reject remote sites from consideration. We believe that, to enhance competition, the proximity criterion should not be evaluated absolutely, but rather from a cost-benefit viewpoint, as is currently and belatedly being done for the Denver proposal.

According to early 1980s Smithsonian documents, the Museum needed an industrial-type storage facility on a local airfield. The facility was to be located next to an active airfield with sufficient runway length to accommodate the transportation of large aircraft. It was to be within 1 hour travel time from the Washington area so that staff from Air and Space Museum and Garber

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<sup>2</sup>Facilities Location Policy: GSA Should Propose a More Consistent and Businesslike Approach (GAO/GGD-90-109, Sept. 28, 1990).

could also work at the Extension. In 1983, facility plans to meet these requirements called for the construction of four hangar-type buildings at an estimated cost of \$12 million each. By the mid-1980s, the facility was to also house the operations at Garber. The Smithsonian anticipated providing a limited display capability for the artifacts.

Throughout the 1980s, the Smithsonian's requirements and estimated costs progressively grew. In 1985, the consulting firm of Dewberry and Davis prepared for the Smithsonian a concept study for an initial phase of a Dulles facility. Expanding on this study, the Smithsonian estimated the facility to cost \$99 million in 1986. In 1988, another consultant for the Smithsonian--Skidmore, Owings, and Merrill--further developed the concept for a facility. By 1989, the requirements grew to the current, detailed specifications contained in a third Smithsonian consultant's study--the Hellmuth, Obata, and Kassabaum (HOK) Report. This report estimated the cost to be about \$355 million, not including land.

Over this period, the size estimates for the needed facility grew from 300,000 square feet to 1.5 million square feet. These space requirements grew, in part, as the Smithsonian acquired artifacts such as the Space Shuttle and other large aircraft. But requirements also grew because plans for the Extension included, among other things, more exhibit and visitor support capabilities such as a theatre, restaurant, and museum shop; a more substantial

educational role to fulfill, by establishing what the Smithsonian refers to as a "Museum Extension with a Global View;"<sup>3</sup> and the provision of expansion space for other Smithsonian bureaus.

The Smithsonian's current requirements range from specifications that clearly address critical needs, such as the overcrowded storage facilities at Garber, to items that are not critical to the Extension, such as providing expansion space for other Smithsonian bureaus.

Over the course of the site selection process, the Smithsonian has provided only limited and sporadic delineation between essential or critical requirements and those that could be considered optional or desirable. Essential requirements and desirable attributes were specified under each of 11 criteria HOK used in comparing the Maryland and Virginia proposals in 1989.<sup>4</sup> However, there was no ranking or delineation as to which of the 11 criteria were more or less important. For example, cost was one of the 11 criteria, but its importance relative to the other criteria was not specified. As a result, it is uncertain whether less costly alternatives that

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<sup>3</sup>According to the Smithsonian, a "Museum Extension with a Global View" would, among other things, exhibit air and space technology used to study the earth; explain the principles of air and space flight and global environmental systems; and project the impact of humans on the environment.

<sup>4</sup>The 11 criteria were: location, site program, access, safety and security, compatibility with airport functions and master plans, ecosystems, utilities, aesthetics, cost estimates, flexibility, and plans for phasing of the facility's development.



met all basic requirements, but perhaps not all optional ones, were adequately considered.

Further, a key requirement could have been evaluated from a cost-benefit perspective but was not consistently done. Smithsonian officials have maintained that the Extension should be located within a 1 hour trip by automobile from the Air and Space Museum on the Mall. They cited several reasons for this requirement. For example, they said operational costs would be lower, since staff could travel between facilities, thereby avoiding the need to duplicate various support functions at a remote site. Another reason cited was the convenience to scholars using more than one of the Smithsonian's facilities. Officials also said the lower cost to move artifacts would be lower with a close location. In addition, they cited the continuing preference of the Smithsonian's Board of Regents to maintain museums at sites only in the Washington area.<sup>5</sup>

The Smithsonian has used the proximity requirement in the past as one of the reasons to reject sites. For example, Floyd Bennett Field in New York was rejected in 1985 as being too far away. However, remoteness from other Smithsonian facilities can be evaluated in terms of its cost implications. The Smithsonian

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<sup>5</sup>The Smithsonian operates 14 museums. The only permanent museum not in Washington is the Cooper-Hewitt Museum in New York City. Smithsonian officials said endowment provisions precluded them from moving this collection out of New York.

could require offers that do not meet the 1-hour proximity criterion to compensate for these additional costs in their proposals. Thus, assessing proximity on a cost-benefit basis could be used to enhance competition rather than simply as a reason for rejecting proposals from remote locations. Only the ongoing evaluation of Stapleton Airport has attempted to assess the value of proximity to the Air and Space Museum from a cost-benefit viewpoint.

Regarding the need to make facilities convenient to scholars, the Smithsonian does not maintain statistics on the number of air and space scholars who used more than one Smithsonian facility. They reported that 129 persons used the Garber archives last year. About 10 million people visit the Air and Space Museum per year, and 30,000 visit Garber per year.

#### IDENTIFICATION OF POTENTIAL SITES AND COMMUNICATION OF NEEDS

The Smithsonian has never formally, publicly announced or actively solicited proposals from other jurisdictions for consideration. In the absence of a public announcement, the Smithsonian cannot be sure that competitive sites have been identified.

Museum officials said they relied on their general knowledge and expressions of interest from localities to identify possible sites for the Extension during the early 1980s. During these years, the

Smithsonian carried out informal assessments of the following airfields to house the Extension: Andrews Air Force Base; Beltsville, Maryland; BWI; Dulles International; Floyd Bennett Field, New York; Glenn L. Martin, Middle River, Maryland; Shepherd Field, Martinsburg, West Virginia; Fairchild Plant, Hagerstown, Maryland; and Washington National Airport. Smithsonian officials said that Andrews Air Force Base was the only active military site considered.

With the exception of the Maryland and Denver proposals, the Smithsonian did not consider sites other than Dulles after 1985. Smithsonian officials said that they considered the Maryland and Denver sites because they were asked to do so by interested congressional parties. A limited competition evolved after Maryland and Denver became aware of the Smithsonian's needs and, through their elected representatives, asked the Smithsonian to consider proposals.

In our September 1990 report on the government's facilities location policy, we pointed out that existing federal requirements for site selections, which for the most part set forth objectives of providing economic development of rural areas and central business districts of cities, do not require that sites be selected competitively. We recommended in that report that the General Services Administration develop for congressional consideration a more cost-conscious site selection process reflecting a more

businesslike approach to selecting sites for governmental facilities. Such an approach would include maximizing competition, considering state and local concessions, using cost and benefit comparisons, and selecting sites that meet needs while offering the best overall value to the government.

#### EVALUATION OF OFFERS

Although the Smithsonian has done some cost analyses of different proposals, it has not thoroughly evaluated and compared the cost of offers received. Without such an analysis, the Smithsonian cannot determine which alternative is the least costly. Further, part of the rationale given for selecting the Dulles site goes beyond stated Smithsonian requirements.

The most systematic evaluation prepared to date by the Smithsonian has been the comparison of the Maryland and Virginia proposals using 11 criteria developed by HOK and the Smithsonian. However, the Smithsonian cost analyses provided to us of the Denver, Maryland, and Virginia proposals were not thorough. The Smithsonian's cost analyses were based on "should costs" as estimated by HOK, not firm price offers from the participants for which they could have been held accountable. For example, Maryland estimated the cost of the on-site improvements it agreed to make at \$25 million to \$30 million. The Smithsonian consultant estimated this cost to be \$32 million, which the Smithsonian used in its

analysis. Virginia estimated its on-site improvements to cost \$26 million, whereas the consultant estimated \$40 million. Again, the Smithsonian used its consultant's estimated figures, rather than the proposal figures, in its analysis.

Also, the Smithsonian has not compared the costs of financing the different proposals over their life cycles or estimated the concessions revenues expected to be received at each site and then deducted those revenues from gross operating costs. We believe that, when evaluating investment alternatives to determine which is the most economical, a cost comparison should be made. In order to compare alternatives on an equal economic basis, we recommend comparing costs of alternatives at current or "present" values. Such an approach would be useful in this case because of the different incentives offered, the timing of the government outlays, and the effects on life-cycle costs.

In addition, the land for the Virginia site, which the government already owns, has not been considered as a cost in the Smithsonian's analyses. The land has alternative uses and considerable market value; it should not be regarded as free.

Further, one reason Smithsonian officials gave for selecting Dulles over BWI in 1990--its symbol as the prime gateway to the nation's capital--was not one of the HOK/Smithsonian site evaluation criteria. Another reason--the larger size of the Dulles site--

was not an essential attribute of the flexibility criterion. In fact, Smithsonian officials said the BWI site, although smaller, still met their needs.

### CONCLUSIONS

The Smithsonian's site selection process has achieved some competition and has resulted in some promised incentives from different parties for the Extension. However, the Smithsonian has not followed a purposeful, systematic process to assure that the Dulles selection is the most cost-effective site. Even though the Smithsonian is not required to follow competitive procedures to select a site, in the current climate of fiscal austerity and restraint, a heightened awareness of opportunities for savings and consideration of lower-cost alternatives should be part of the site selection process.

Although our work shows problems with the Smithsonian's site selection process, our work was not designed to identify a preferred site for the Air and Space Museum Extension. Dulles might be the best site, but the Smithsonian's process to date cannot be relied upon to objectively defend the selection of Dulles.

A fair and reasonable way to assure it has selected the best site and maximized the incentives received from localities would be for

the Smithsonian to use a more formal, systematic, and cost-conscious process. Such a process would:

- define minimal, real requirements, and distinguish such requirements from optional "niceties";
- clearly announce and communicate these requirements to all possible offerors, perhaps on a nationwide basis; and
- systematically evaluate all responses that meet the Smithsonian's needs in terms of present value life-cycle costs to the government. The solicitation for offers also could ask offerors to respond to optional features and explain how they will be evaluated in relation to costs of meeting basic requirements.

While we realize that some of the Smithsonian's storage needs are acute and that following such a process would delay the acquisition of the Museum Extension, we believe that a reasonably competitive solicitation and evaluation of offers could be done in less than a year.

This concludes my prepared statement, Mr. Chairman. My colleagues and I would be pleased to respond to questions.