

Reply to Attn of.

123

December 18, 1987

MEMORANDUM FOR RECORD

FROM: 123/Real Estate Management Office

SUBJECT: Permanent Housing for Basic Aerodynamics Research Facility

The Deputy Director for Aeronautics (Lee Beach) asked the Facilities Program Development Office (FPDO), with some support from the Real Estate Management Office (REMO), to provide some options for housing (permanently) the Basic Aerodynamic Research Tunnel (BART), now temporarily housed in the old East Area Model Shop Building, Bldg. 720A. The REMO support involved reviewing existing buildings and facilities which might provide suitable housing. This survey was also done about 2 years ago, working with the Chief Engineer, TAD, for a planned facility they had envisioned.

As a general concept or approach, it must be recognized that no organizational entity (for example, the OSD-Electrical Support Branch in Building 1221C) can be displaced unless the Center C of F program can provide a new facility or addition to existing facility to house the displaced organization. There is no existing facility of sufficient size (approx. 4000 sq. ft. plus) to house an organization which might be displaced. In effect, the housing of BART is shifted to housing another organization which might be displaced by BART.

Sites meeting at least some of the Bart requirements have been surveyed as follows:

● Building 647 High Bay (proposed site of Basic Unsteady Aerodynamics Research Tunnel [BURT]):

Advantages:

- Large volume high bay, underutilized by LAD Configuration Aeroelasticity Branch (debatable).
- Probably adequate utilities in place or available.

Disadvantages:

- East area location not desirable to BART.
- Poor access, poor parking, no office space.
- Share with BURT (stacked, e.g.), may not be physically or operationally possible.

-Turf battle with Structures Directorate for adjacent space at floor level (involves requirements of rotor test apparatus).

● Building 1244D Northwest end:

Advantages:

- Already Aeronautics Dir. assigned space (LSAD).
- West Area.
- Utilities (power) may be adequate to area.

Disadvantages:

- Marginal size (approx. 36' X 80')
- No office space.
- Clean room has been installed in this area, but appears unused at this time (programmatic justification for it?)
- Encroaches on primary mission of facility--to support flight research programs and store ground handling and related equipment.
- May not be adequate space for decent control room.
- May be no other suitable site for clean room, if justified but displaced.

● Building 1220:

Advantages:

- High bay area.
- Close to home base (1192E).

Disadvantages:

- Simulator (Visual Landing Display System [VLDS]) linked to other simulators; takes half of required space; said to have at least 5-year life left.
- Facility assigned to combination of Flight Systems Directorate and Electronics Directorate.
- No office space; parking congested.
- Unacceptable size (approx. 20' X 80') with VLDS in place.
- No logical position for control room.

● Building 1221C:

Advantages:

- Large high bay area (approx. 65' X 100')
- With some modifications, could possibly house two facilities.
- Relatively close to 1192E.
- Utilities are probably adequate.

Disadvantages:

- Substantial impact on OSD, at least two sections of Electrical Support Branch.
- C of F program would have to provide new suitable space for OSD-ESB. But would not counteract loss of adjacency to other OSD organizations in area (MSUOB, Work Control Office, etc.)
- Shifts housing burden from BART to another organization.
- Timing (several years?) not good.

● Other medium/high bay buildings in West Area.

Other possibly suitable buildings with enclosed space in medium or high bays were reviewed. None of these are considered feasible for BART or similar facilities. Reasons include, but are not necessarily limited to, the following:

- Insufficient size.
- Large and expensive equipment installed vis-a-vis relocation.
- Long standing specific organizational relationships with facilities (tenure).
- Displacement impractical and costly.
- Time.

Some examples include: Gas dynamics laboratories (1247), 31-inch M10 area (1251), Structures and Materials laboratories (1148, 1205), structural dynamics and materials facilities (1293), among others.

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**MEMORANDUM FOR RECORD, Dec. 18, 1987, "Permanent Housing for Basic
Aerodynamics Research Facility**

CC:
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