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## NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

LANGLEY MEMORIAL AERONAUTICAL LABORATORY

LANGLEY FIELD, HAMPTON, VA.

February 12, 1940

TELEPHONE: HAMPTON 270

IN REPLY  
REFER TO NO.

Mr. Geo. J. Mead,  
P. O. Box 296,  
West Hartford, Conn.

Dear Mr. Mead:

Reference - Your letter to the Members  
of the Special Committee on New  
Engine Research Facilities dated  
February 6, 1940.

The ideal qualifications for the location of the new  
power plants laboratories have been considered and the fol-  
lowing list is submitted:

1. Ideal qualifications (standpoint of the Committee):
  - (1) Approximately 50 acres of land located adjacent to a military flying field. The land to be donated to the Government or assigned to the Committee by the military service.
  - (2) Ample power assured at all times and at low rates.
  - (3) A large supply of good water made available cheaply.
  - (4) Close proximity to a large industrial center.
  - (5) Good railroad facilities should be available.
  - (6) Station should have airline facilities available for travel.
  - (7) Laboratory should be located so that noise will not affect large numbers of people in the surrounding area.
  - (8) Location should be within an overnight journey from the principal engine manufacturers.

- (9) For ease in working up test data, station should be located near sea level.
  - (10) Location should have a mild climate.
  - (11) Land should be well drained and have good bearing.
  - (12) The highways to the station should be first-class highways.
2. Ideal qualifications (standpoint of the employee):
- (1) Good housing facilities and schools should be available locally.
  - (2) Education facilities should be available for continuing at night school the education of employees.
3. Objectionable qualifications:
- (1) Lack of power at low rates.
  - (2) Lack of water at low rates.
  - (3) Location within hurricane, tornado, earthquake, or flood areas.
  - (4) Marshy ground requiring filling and piling.
  - (5) Location having a large number of days during the year which make test flying impossible.
  - (6) None or poor railroad and highway facilities.

Yours very truly,

  
Carlton Kemper,  
Principal Mechanical Engineer.

COMPOSITE SET OF REQUIREMENTS  
FOR  
NEW POWER-PLANT LABORATORY

1. Reasonably accessible to good roads and rail and air facilities - 9 votes.
2. Adjacent to an airport or with sufficient area for an airport - 9 votes.
3. Convenient to the engine industry - 8 votes.  
But not too close to anyone of the individual companies - 1 vote
4. Ample power and water supply at reasonable rates - 9 votes  
Water free from harmful acids and preferably free from lime - 2 votes
5. Good climatic conditions for test flying - 8 votes  
Specific suggestion:- no extremes of temperature and humidity - 1  
not too hot in the summer time; cold weather  
in the winter should not be a deterrent - 1
6. Close to industrial area to assure supply of skilled mechanics, etc. - 8 votes
7. Low altitude - 5 votes  
Specific suggestions:- Not over 1000 feet - 1  
Near sea level if possible - 2  
Approximately 800 feet - 1  
Not over 2000 feet and preferably less.- 1
8. Because of noise, locate at some distance from residential sections - 5 votes.
9. Convenient to Navy and Air Corps - 3 votes  
Specific suggestions - But not immediately adjacent to either - 1  
Adjacent to Wright Field - 1  
Therefore not west of Chicago - 1
10. Convenient to Washington - 2 votes
11. Invulnerability - 4 votes
12. Good housing facilities - 3 votes
13. Educational facilities - 1 vote.
14. Cost of land and construction - 4 votes
15. Land well drained - 2 votes
16. Some distance from the sea coast - 2 votes  
Specific suggestion:- Not less than 100 miles - 1
17. Not over 10 miles from an existing engine laboratory, either Government  
or commercial - 2 votes

Specific suggestions:

Location on the main line of the Pennsylvania R. R. and air lines from Pittsburgh to Dayton, preferably at a main stop.  
Providence, New Haven, East Hartford, Buffalo, Dayton, Akron, Allentown - but preferably in the east.  
Adjacent to Wright Field.

March 6, 1940