

Address reply & ENVELOPE to:

CF ⊕

Commanding General
AAF Materiel Command
Engineering Division
Reference DLP:slk:50
Wright Field, Dayton, Ohio

ARMY AIR FORCES
HEADQUARTERS OF THE MATERIEL COMMAND

CONFIDENTIAL

WRIGHT FIELD, DAYTON, OHIO

17 February 1944

80.1

Subject: Status of XB-35 and B-35 Project

To: Commanding General,
Army Air Forces,
Washington 25, D.C.

Attention: AC/AS, M.M. & D.
Major General O. P. Echols

1. Reference is made to Materiel Command letter to your office dated 1 January 1944, subject "History and Progress of XB-35 and B-35 Airplanes" and memorandum to your office dated 10 January 1944, subject "Status of XB-35 and B-35 Project." The following additional data are submitted for your information.

2. The scheduled completion dates for engineering at Baltimore for the first and second XB-35 and the first YB-35 as given in reference correspondence were based on the best information available at that time. Since the above reports were written, a thorough study of the engineering schedules has been completed at Baltimore and revised dates have been given to the Materiel Command. The engineering completion dates as given in the above reports and the latest revised completion dates are as follows:

<u>Airplane</u>	<u>Date Given in Ref. Reports</u>	<u>Latest Est. Engr. Completion Date</u>
First XB-35	1 March 44	1 May 44 ✓
Second XB-35	1 Aug 44	1 Sept 44
First YB-35	1 Nov 44	1 Dec 44

Based on the above, the Materiel Command estimates that the first flight of No. 1 XB-35 will be made on 1 August 1945, instead of 30 May 1945 as given in reference reports.

3. A further delay has also occurred on the engine ground test stand. The last shipment of parts for this stand from Baltimore to Hawthorne, where the ground test stand is to be assembled and operated,

452.1 Borden

MX-140

CONFIDENTIAL

3)
C-2-1041
889
AFMC-301-WF-5-20-43-200M

AM # 21356

C.G., AAF, Att: AC/AS, MM & D,
Status of XB-35 and B-35 Project,
17 Feb 44

CONFIDENTIAL

was to have been made on 22 January 1944. This last shipment now will not be made until 29 February 1944. The construction of the ground test stand was inspected in Baltimore by Materiel Command representatives on 7 February 1944. The remaining construction was nearing completion and it is believed that the 29 February shipping date is accurate. However, this will result in the ground test stand being put in operation 25 May 1944 instead of 15 May 1944.

4. In an effort to further expedite the XB-35, B-35 project, the Materiel Command has given approval to the Glenn L. Martin Company to contract with the Otis Elevator Company for engineering services of a maximum of 350 engineering draftsmen located at the Otis office in New York City, starting in May or June, 1944. This group of engineers has done production engineering for Martin on the Navy Mars. This organization was also inspected by Materiel Command personnel on 8 February 1944 and it is believed that this company can materially assist in the B-35 program. Martin's plan is to have a total engineering force of 500 men, 350 to be located at the Otis Company and 100 Martin engineers and 50 Martin supervisory personnel to be located at Preston Street, Baltimore. It will be noted that this is a reduction of 200 engineers at the Preston Street office, who the Martin Company intends to return to their Middle River plant for Martin projects. It will thus be seen that there is an over-all gain of 150 engineers on the B-35 project.

5. Martin's present position is that a complete re-drawing for production of all drawings used to construct the XB and YB-35 airplanes and some additional production engineering will be necessary, requiring a total of 2,330,000 man hours, requiring approximately two years to complete. On this basis, the Martin Company estimates that the first B-35 airplane will not be available until the early part of 1947. The Materiel Command and the Northrop Aircraft Company do not agree with the Martin Company that the above extensive production engineering is required and the Production Division is of the opinion that the B-35 should be available in production in 1946, if the Martin Company were given a go-ahead on tooling and material purchases within the next 60 to 90 days.

7. 6. It appears that the present bottle neck so far as completion of the first XB-35 is concerned will be Northrop engineering. At present, the engineering staff consists of 599 persons, of whom 43.7% are now assigned to the P-61 project and 27.5% are assigned to the XB-35. In view of the importance of the XB-35 as compared to the P-61, it would appear that a redistribution of engineers should be made; however, it is believed that this is a decision for your office.

MX-140

CONFIDENTIAL

C.G., AAF, AC/AS, MM & D
Status of XB-35 and B-35 Project,
17 Feb 44

CONFIDENTIAL

7. The following additional information on the estimated cost to complete the XB-35 project, which has recently been received from the Northrop Company, is submitted herewith as perhaps having some bearing on the planning of the XB-35, B-35 project:

a. The original contract (CPFF) gave the estimated cost of the two XB-35 airplanes and engineering data as approximately \$4,465,000. It is obvious that this estimated cost, by comparison with projects of equal magnitude, is ridiculously low but was based on the best information available at the time estimates were made. A very short time after the XB-35 contract was approved, a contract with Consolidated Vultee Aircraft Corporation for the two XB-36 airplanes was approved at an estimated cost of approximately \$15,800,000.

b. Additional N-9M airplanes and change orders have increased the approved estimated cost to approximately \$5,200,000.

c. On 26 January 1944, letters were received from Northrop requesting approval of additional increased costs of approximately \$3,500,000 to cover increased cost due to participation of the Martin Company in the engineering on the first and second XB-35 airplanes and approximately \$1,613,000 to cover cost of ground test stand. In addition to the above, the Materiel Command has been advised by Northrop that they are submitting a request for approval of increased costs in the amount of approximately \$14,560,000 to complete the experimental program as covered by Contract W555 AC-21920. Thus, the total cost on this contract for the two XB-35 airplanes and four N-9M airplanes will be approximately \$24,875,000. This cost appears excessive to the Materiel Command but is based on Northrop's best estimate of costs and percentage of completion of the project to date.

For the Commanding General:

10. J. Putt
F. O. CARROLL,
Brig. General, U.S.A.,
Chief, Engineering Division

D. L. PUTT,
Colonel, Air Corps
Chief, Bombardment Branch
Aircraft Projects Section

Copies to:

Development Engr. Branch
Att: Colonel R. C. Wilson

MX-110

CONFIDENTIAL