

SECRET

29. (C) Ltr. 10 Sept. 1942

Fr: Col. O.R. Cook

Chief, Prod. Eng. Sect., WF

To: Douglas Aircraft Co., Inc.

Santa Monica, Cal.

(File: Contract Files)

Prod. Eng. Sect. (WF) furnished Douglas with additional information concerning design changes in A-26 and XA-26 airplanes. Douglas was informed that there was no production procurement planned for the XA-26A night fighter type airplane. Since the production airplane with a 75 mm. cannon nose and bomb bay installation was the production version of the XA-26B, the model designation of the production airplanes was to be changed from A-26 to A-26B.

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CONFIDENTIAL

Ref: 223/vb/70-2

AIRMAIL

September 10, 1942

Subject: Contracts AC-21393 and AC-17946
Model A-26 and AA-26 Airplanes
Design Changes

To: Douglas Aircraft Company, Inc.
Santa Monica, California

Through: AAF Resident Representative

Reference: a. Douglas letter PDS-3951 dated July 23, 1942.
b. PDS-204-430 dated July 17, 1942.
c. Material Center letter dated August 24, 1942.

21393

checked contract

1. In regard to the design changes discussed under paragraph 2 of reference a, following information is furnished:

- a. Bomb controls in the pilot's cockpit are required in view of the fact that the bomber's nose has been replaced by the 75 mm cannon nose. Since the production airplane will be different from the experimental AA-26B airplane in that the bomb bay installation will be provided, it is necessary that bombing control for the pilot be provided for low altitude bombing.
- b. The Contractor was directed by reference b to change to the 75 mm cannon nose version for all production airplanes and to cancel the bomber nose, since it is desired to convert the 500 airplanes on the subject contract to the combination ground attack destroyer and low altitude bomber version. The nose for the 75 mm cannon version is to be the non-metallic type similar to that designed for the AA-26B airplane but without provisions for the optical or electrical range finder installation. In this connection, however, it is understood that the Contractor will give consideration to the possible future installation of electrical range finder equipment in the nose so that this airplane may also be used for airplane destroyer missions.
- c. The Contractor's proposal for increased armor plate protection in conjunction with the conversion of this airplane to the ground attack version has recently been examined and the Contractor has been advised of the requirements for armor plate in a separate letter, reference c.

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- d. It is confirmed that the Contractor shall make provisions for the installation of SCR-535 and SCR-595 radio recognition equipment with alternate provisions for the SCR-515 radio equipment.
- e. The Contractor shall proceed with the installation of the flexible gunsight de-icing equipment developed by the General Electric Company.
- f. The Contractor shall provide a bullet sealing of 200 gallon capacity in the bomb bay as auxiliary part of the fuel system. This tank shall be installed in such manner as to be readily removable when desired.
- g. The Contractor shall provide a non-bullet proof ferrying tank of approximately 650 gallon capacity to be installed in the bomb bay. These ferry tanks should be installed in all airplanes at the factory in order that they will be equipped for ferrying as they leave the factory.

2. The following comments are applicable to the changes discussed in paragraph 3 of reference a:

- a. The Material Center has recently examined the Contractor's proposals for a four and a six .50 caliber gun nose and comments pertaining thereto were forwarded in a separate letter.
- b. It is desired that the Contractor proceed with the development for the two high velocity 37 mm guns mounted on a rack underneath the bomb bay. However, the Contractor will be advised within a few days whether development work on the four 37 mm gun nose project should be stopped in favor of the above belly gun installation, in the event that the Contractor is unable to continue work on both projects at the same time, due to lack of sufficient engineering personnel as indicated in recent discussions.
- c. In regard to the installation of an automatic boost control for the engines, the Contractor has been previously informed that complete information on the boost control unit on the engines is not available and the Contractor should therefore defer further investigation on this installation at this time.

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- d. The Contractor shall proceed with the proposal for carburetor air filter installation in accordance with the latest Army Air Forces specifications for such installations. It is understood that the Contractor has already made some investigation on this installation and that a proposal for an engine cowl incorporating air filters with controllable air intake will be submitted in the near future. The Contractor is requested to inform the Materiel Center whether a cowl incorporating the filter installation with alternate air intake can be furnished with the airplanes on the subject contract or whether these units will have to be furnished at a later date for a service installation.
- e. It is considered that the present protection afforded the elevator control cables against damage by gun fire will be satisfactory for the present airplanes on contract, but it is understood that the Contractor will study possible improvements in the control system with respect to decreasing the vulnerability of the control system from gun fire.
- f. It is understood that the Contractor is conducting further studies to determine practicable means of protecting vital electrical circuits from being knocked out of action by gun fire and that duplication of wires in such vital circuits will be considered in the most practicable manner.

3. The Contractor is informed that the order of importance of the changes listed in paragraph 3 of reference a is satisfactory with the exception that the installation of the automatic boost control for the engines should be placed at the bottom of the list with the succeeding items moved up accordingly.

4. The Contractor is advised that there is no production procurement planned for the XA-26A night fighter type airplane at this time. In regard to the XA-26B type it is considered that the present configuration of the 75 mm cannon nose with the bomb bay installation for the production airplane is the production version of the XA-26B. In this connection the model designation of the production article will be changed from A-26 to A-26B. This action will be taken in a separate letter in the near future.

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5. The Materiel Center desires to be kept informed of the Contractor's program on the engineering changes specified in the foregoing paragraphs and this Center will be pleased to receive proposals on these changes as soon as practicable.

6. The Contractor will be advised of the order of priority to be given in the design and development of the various alternate armament configurations proposed for the subject airplane as soon as determined by higher authority.

For the Chief of Production Division:

G. R. Cook
for
G. R. COOK,
Colonel, Air Corps,
Chief, Production
Engineering Section.

cc - AAF Representative
AAF West. Dist. Surv.
Contract Sec.
Aircraft Proj., E.E.S.

