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CASE HISTORY

OF

A-26 AIRPLANE

The A-26, built by Douglas Aircraft Company, Inc., was a light bombardment airplane of 26,700 pounds gross weight, having a high speed of 372 m.p.h. at 17,000 feet and was powered by two Pratt and Whitney R-2800-27 engines, rated at 1600 h.p. each. Alternate configurations consisted of a low level strafing version, a tank destroyer version, or a medium altitude bomber version.

Documents in this case history were obtained from the files of Air Technical Service Command, Wright Field, and Headquarters, Army Air Forces, Washington, D. C.

Classified documents are included herein, and therefore, compliance with pertinent sections of AR 380-5 is necessary.

Compiled by  
Historical Division  
Intelligence, T-2  
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Wright Field  
October 1945

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SUMMARY

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SUMMARY OF THE A-26 AIRPLANE

Believing that the A-20 series of light bombers would not meet the latest combat requirements in Europe, the Experimental Engineering Section, Wright Field, in November 1940, gave first priority to the Douglas Aircraft Company for designing and developing a new plane. It was desired that the new plane be faster, have greater defensive armament, have greater design strength, require shorter landing and take-off distances than the A-20, and provide for crew interchangeability. Eventually, it was hoped that this model would also replace the B-25 and B-26. Douglas proposed to manufacture two planes, one a night-fighter adaptation of the other, and to schedule such a thorough series of wind tunnel tests of the experimental models that mass production could follow almost immediately. Mock-up inspections were conducted during the latter part of April 1941.

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In March, a contract had been submitted to the Chief, Materiel Division, Washington, but had been returned because of what appeared to be unreasonable costs. At Douglas' request, the contract was rewritten on a cost-plus-fixed-fee basis. On 2 June 1941, Contract W535 ac-17946 was approved, covering the procurement of one XA-26 plane and one XA-26A (night fighter version) plane, at an estimated price of \$2,083,385.79 plus a fee of \$125,003.15. Almost immediately, a change order provided for an additional plane incorporating a 75 mm. cannon, which was designated the XA-26B.

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The first mass production contract, ac-21393, was approved 31 October 1941, and called for 500 A-26's at a total cost of \$75,264,093. Deliveries on this contract were postponed, however, because of delays in procuring components for the prototype planes. Meanwhile, the Production Engineering Section, Wright Field, was debating the various possibilities suggested by the apparent versatility of the new plane. The versions considered were:

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- (1) a medium altitude bomber with bombardier nose,
- (2) a tank destroyer and ground attack plane with a 75 mm. cannon,
- (3) a tank destroyer and ground attack plane with four 37 mm. cannon,
- (4) a ground attack plane with a six .50 cal. gun nose,
- (5) a night fighter version with radar equipment,
- (6) a photographic or reconnaissance version with long range fuel tanks.

Production Engineering Section thought it possible to provide three interchangeable noses, a bomber nose, a 75 mm. cannon nose, and a six

\* The numbers placed in parentheses in margin refer to the documents found in the Document File attached.

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- (22) .50 cal. gun nose, each of which could be installed in 24 hours. In the summer of 1942, it was decided that all 500 planes on Contract ac-21393 would have the 75 mm. cannon nose, and that 200 of the .50 cal. gun noses would be produced as alternates for field installation.
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- (31) The first flight of the A-26 was not made until 10 July 1942. The earliest production date of A-26's was estimated to be July 1943, even with the use of A-26 prototype tooling for the first six planes. The Production Division, Wright Field, believing that a reason for the delay was that an insufficient number of tooling engineers was assigned, directed Douglas to transfer at least two-thirds of the personnel listed on the C-74 project to the A-26. Also, all engineers whose efforts on the A-26 were not applicable to the production airplane were to be transferred to the A-26, and no engineers were to be utilized in improving crew comfort or arrangement in cargo planes unless specifically authorized by Wright Field. Studies of additional armament arrangements were ordered to be curtailed until a more advanced stage of production had been reached. Priorities for the various versions of the A-26 were established as follows:
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- (a) 75 mm. cannon nose,
- (b) bombardier-observer nose,
- (37) (c) machine gun nose.

- (39) Nevertheless, in January 1943, Douglas informed Wright Field that it would be impossible to meet the production schedule. Difficulties arising from design changes had been followed by difficulties in tooling. Initial deliveries were re-estimated for October.

- (46) Planes on Contract ac-21393 were to be delivered from the Douglas plant at Long Beach. The second production contract, W535 ac-34433, covered procurement of 500 A-26B's from Douglas-Tulsa. This contract was approved 17 March 1943 and involved a total cost of \$109,164,900. All of these planes were to be procured with 75 mm. cannon noses, although 167 bombardier-observer nose sections were to be procured in addition. The version of the plane which incorporated four 37 mm. cannon was canceled the following August.
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- (53, 54, 55) Although deliveries were begun in the fall of 1943, proposals for further modification of the A-26 continued, including installation for a co-pilot and further additions of armament. Shortage of machinery for making wing spars was delaying production the next spring to such an extent that the Commanding General of the AAF demanded "... A-26's for use in this war and not the next war. If something drastic is not done, we cannot hope to replace the B-25's, B-26's and A-20's with the A-26." Maj. Gen. O.P. Echols, Assistant Chief of Air Staff, Materiel, Maintenance, and Distribution, Washington, replied that Douglas "seemed to have little interest in or little desire to manufacture this airplane" and that the Materiel Command, Wright Field, had urged Douglas to place orders for tools
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(58) and find subcontractors. However, the District Supervisor of the Western Procurement District, Los Angeles, pointed out that the A-26 wing was entirely different from that of any other airplane; further, that delivery schedules had been set before all design and tooling problems had been solved. At one time there had been as many as 35 change orders a day on the A-26.

(60, 61) On 29 March 1944, 2700 additional A-26B's were covered by supplemental agreements to Contracts 21393 and 34433 at a total cost of \$308,454,619.13. But, in May, production flow was again complicated as a result of failure of the A-26B wing during static tests. Douglas was requested to redesign the wing and increase its strength by 10%.

(65, 66) Four A-26's assigned to the Fifth Air Force were given combat tests the following July. The report submitted to Wright Field stated that the planes were not satisfactory, chiefly because insufficient visibility made low-level attack formations impossible. This situation prompted Gen. Kenney, Commanding General of the Far Eastern Air Force, to announce, "We do not want the A-26 under any circumstances as a replacement for anything." Production Division, Wright Field, agreed that "the A-26 is not desired as a replacement for present types of light and medium bombardment airplanes." Nevertheless, it was the opinion of Gen. Vandenberg, of the Ninth Air Force, that, on the basis of inconclusive tests, it appeared that the A-26 was a satisfactory replacement for B-26's and A-20's in the European Theater.

(73) A new type of pilot's canopy, designed to improve visibility, was the subject of considerable discussion following the report from the Far Eastern Air Force. Douglas claimed that, because of late reception of tooling information at the Tulsa plant, the canopy could not be incorporated in an airplane delivered before January 1945. The Commanding General of the AAF stated that the job could be done more quickly if Douglas wished and that the manufacturer's efforts in connection with the A-26 had been "little short of reprehensible." Gen. Arnold believed that stronger liaison between the Douglas engineering personnel at Long Beach and the Tulsa plant was necessary. By February 1945 the following steps had been taken by Douglas to improve A-26 production: the number of stations in the production line had been increased, efforts were being made to secure additional engineering personnel, and the chief inspector had been replaced. Meanwhile, an all-purpose gun nose had been designed and faulty nose landing gear (80,92,97) had been redesigned.

(83) In November 1944, the Assistant Chief of Air Staff, Operations, Commitments and Requirements, Washington, informed the Chief of Air Staff that all European A-20 groups and all but three B-26 groups were to be converted to A-26 planes by the end of the following July. In spite of the dislike of the A-26 expressed by Gen. Kenney, conversion in other theaters would follow.

Two more contracts, W33-038 ac-5140 and W33-038 ac-5141, were approved

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(86, 87) 8 December 1944 for a total of 2400 planes at a cost of \$231,999,989.44, in-  
(100) cluding fixed fee. Contract ac-5140 was supplemented on 5 April 1945 to  
(101) cover procurement of 1250 A-26's at a total cost of \$106,211,313.13, and a  
(109) week later a supplement to Contract ac-5141 provided for 350 A-26D airplanes  
at a total cost of \$33,344,067.12. The A-26D was similar to the A-26B ex-  
cept for power plant improvements.

(110) Reports on the performance of the A-26 in combat theaters continued  
to mix praise and complaint in the early part of 1945. Maj. Gen. S.E.  
Anderson of the Ninth Bombardment Division stated that once pilots were  
familiar with the A-26, they considered it better than any other plane  
they had flown. A triumph for the A-26 was recorded when the Commanding  
General of the Far Eastern Air Forces reported that the version with the  
eight-gun nose and no bottom turret had proved to be highly satisfactory  
as a replacement for A-20's and B-25's. However, major deficiencies, such  
(89, 92) as canopy frosting, faulty brakes, and unreliable nose landing gear, hampered  
(103) combat operations. The last-named deficiency was particularly trouble-  
some.

(104,105) In May 1945, a re-examination of A-26 schedules in the light of theater  
(106) requirements resulted in a decision that instead of increasing production  
(107) to 400 a month, production should be cut to approximately 150 a month.  
(114,118, ac-5140 was terminated in its entirety on 31 May, and production  
119) at Douglas-Tulsa was stopped. In August, Contracts ac-21393, ac-34433, and  
ac-5141 were also terminated.

(111,112, Late modifications of the A-26 were a photo reconnaissance version  
113,115) (FA-26), a tow target version, a night intruder, and a jet experiment  
(120,123) (XA-26F). A post-war model, the A-26Z, was proposed by Douglas, which  
would incorporate a raised canopy, re-arrangement of the cockpit, an en-  
trance hatch through the nose wheel well, and wing-tip droppable fuel tanks;  
(124) but the Air Technical Service Command informed the manufacturer that, while  
the A-26Z represented a distinct improvement over the standard plane, there  
was no requirement for it in the Army Air Forces.

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Auth: C. B. ATSC.  
Initial: CMT  
Date: 5 MARCH 1946



AMERICAN SYSTEM NEWS  
STATE DEPARTMENT  
DOCUMENT BRIEF

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1. (U) Ltr. 5 Nov. 1940  
Fr: Maj. F.O. Carroll  
Chief, Exp. Eng. Sect., WF  
To: Douglas Aircraft Co., Inc.  
Santa Monica, Cal.  
(File: Bomb. Br., Eng. Div.)

Exp. Eng. Sect. (WF) indicated priorities for the preliminary design studies being made by Douglas Aircraft Company, Inc., (hereinafter referred to as Douglas) giving the new and improved model of a light bomber first priority. To aid Douglas in its conception of a new light bomber, Exp. Eng. Sect. outlined the following characteristics of the A-20 series which had failed to meet the latest combat requirements in the war in Europe: no interchangeability of crew, insufficient defensive armament, too small design strength, and too great landing and take-off distances. While the speed of the A-20 was considered excellent for the type and size, Exp. Eng. Sect. believed that greater speed would be required for airplanes to be produced in 1942-43.

2. (u) TT 11 Dec. 1940  
Fr: Exp. Eng. Sect., WF  
To: Chief, Exp. Eng. Sect.,  
Wash.  
(File: Bomb. Br., Eng. Div.)

Douglas was conducting design studies which Exp. Eng. Sect. (WF) believed would result in an experimental light bomber which would be the 1942 successor to the A-20 airplanes.

3. (U) Ltr. 28 Jan. 1941  
Fr: Douglas Aircraft Co., Inc.  
El Segundo, Cal.  
To: Contr. Officer  
Mat. Div., WF  
(File: Contract Files)

Douglas submitted a proposal for the manufacture of two airplanes. The first was to be a twin-engine light bombardment type airplane, and the second, basically identical to the first, was to be equipped as a night fighter. These experimental airplanes were to be designed with attention to mass production problems. Results of the extensive series of wind tunnel tests planned for the airplanes would ensure entering the type into production with the fewest possible changes over the experimental model, thereby minimizing delay and reducing the expense of the entire program.

4. (U) Memo 7 Feb. 1941  
Fr: E.W. Miller  
Head Mech. Engr., LMAL  
Langley Field, Va.  
To: Engineer-in-charge, LMAL  
Langley Field, Va.  
(File: Contract Files)

During a conference held at Langley Memorial Aeronautical Laboratory (hereinafter referred to as LMAL) it was concluded that it would not be practical either to change the fuselage shape of the A-26, or to shorten the nacelles, which were unusually long and extended far forward of the leading edge of the wing. The program planned by Douglas for the development of the XA-26 included: routine tests of a 1/8-scale model in the Caltech tunnel, a comprehensive test program in the NACA 19-foot tunnel, tests of a full-scale nacelle, and tests of large scale wings in the HACA low-turbulence tunnel.

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5. (C) IOW 13 Feb. 1941  
 Fr: Lt. Col. F.O. Carroll  
 Chief, Exp. Eng. Sect., WF  
 To: Chief, Contr. Sect., WF  
 (File: Contract Files)

Exp. Eng. Sect. (WF) compared the characteristics of the A-20B and the proposed XA-26 airplane and furnished data on the night fighter XA-26A. A comparison of prices indicated that the price per pound of the XA-26 was greater than that of any other experimental model listed. Exp. Eng. Sect. stated that repeated unsuccessful attempts had been made to obtain lower quotations from Douglas, but that the higher price per pound for the XA-26 and XA-26A airplanes was partially justified by the fact that the XA-26A was radically different from the XA-26, so that Douglas was, in effect, quoting on design and construction of two different airplanes.

6. (U) Ltr. 28 Feb. 1941  
 Fr: Douglas Aircraft Co., Inc.  
 Santa Monica, Cal.  
 To: Contr. Officer  
 Mat. Div., WF  
 (File: Contract Files)

Douglas submitted a bid for 500 A-26 airplanes plus 10% spares, a static tests model, wind tunnel model, and engineering data at a cost of \$66,470,850 plus 7% fee, amounting to a total price of \$71,123,809.50. The airplanes were to be manufactured at the Douglas plant at Santa Monica (hereinafter referred to as Douglas-Santa Monica) and deliveries were to begin twenty months after date of contract, reaching a total of 33 airplanes per month twenty-four months after contract date. Douglas submitted a complete breakdown of the estimated price.

7. (C) Rpt. 22 April 1941  
 By: Capt. Malcolm Green, Jr.  
 McChord Field  
 (File: Contract Files)

The mock-up of the XA-26 was inspected between 19 April 1941 and 22 April 1941. The pilot's cockpit, armament provisions, and bombardier-navigator compartment were found satisfactory except for the following comments and recommendations: (1) visibility to the right front was poor and it was recommended that a study be made to improve it, (2) since formation flying required the use of both hands, the Mock-up Committee suggested that the bomb and gun switches be incorporated on the left wheel grip, (3) it was also recommended that the standard crew of the XA-26 be composed of pilot, bombardier, navigator, radio operator, substitute gunner, and rear gunner.

8. (C) Memo Rpt. No. EXP-M-50/534  
 28 April 1941  
 (File: Contract Files)

The mock-up of the XA-26 was inspected between 11 April and 16 April 1941. The Mock-up Committee decided to make this the official mock-up inspection for the following reasons: (1) the mock-up was complete except for the power plant installation, (2) arrangements had been made for an officer representing GHQ Air Force to attend, personnel were available from the most interested Laboratories and Sections of Mat. Div., (3) the mock-up had been inspected by representatives of the RAF and their recommendations were available.

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and (4) it was necessary to give Douglas a "go ahead" as soon as possible because of the early delivery date of the airplane. The Mock-up Committee recommended that the mock-up be considered satisfactory with the exception of the power plant and chemical tank installations which would be mocked up later.

9. (C) IOM 26 May 1941  
Fr: Lt. Col. A.E. Jones  
Chief, Contr. Sect., WF  
To: Chief, Mat. Div.  
OCAC, Wash.  
(File: Contract Files)

Contract W535-ac-17946 was to cover procurement of one XA-26 airplane, one XA-26A airplane, models and data, at a total estimated price of \$2,208,388.94, including a fee of 6%. A contract covering this procurement had previously been submitted to Chief, Mat. Div., OCAC, (Wash.) on 10 March 1941, but had been returned on 18 March 1941, with instructions to conduct further negotiations with Douglas in an attempt to secure a more reasonable price. The first contract was based on a fixed price of \$2,519,792.86, but at Douglas' request the contract was rewritten on a cost-plus-fixed-fee basis. The estimated cost of the CPFF contract was \$311,403.92 less than the fixed price, the reduction being due to the removal of contingencies from the fixed price, establishment of a 6% fee on an estimated cost, and the removal of \$60,000 from each airplane for flight insurance. The resubmission of the contract was delayed because Douglas was unwilling to accept the contract without a special clause pertaining to labor shortage and disputes. A decision had been reached to include a substitute clause. Because of greater strength, higher performance, and better crew facilities of the A-26 as compared with the A-20B series, Contr. Sect. (WF) considered it more feasible to procure an XA-26A airplane than to obtain 13 night fighter conversions of the A-20B.

10. (C) Contract W535 ac-17946  
2 June 1941  
(File: Contract Files)

CPFF Contract W535 ac-17946, approved 2 June 1941 by Under Secy. War, covered the procurement of 1 XA-26 airplane, 1 XA-26A airplane, data, model, and tests at an estimated cost of \$2,083,385.79, plus a fee of \$125,003.15.

11. (U) Chg. Ord. 1 to Contr.  
W535 ac-17946 9 June 1941  
(File: Contract Files)

Chg. Ord. 1 to Contract W535-ac-17946 provided for the procurement of an additional XA-26, to include the installation of one 75 mm. cannon and be designated XA-26B. The estimated cost of \$511,106.65 plus a fee of 6% amounted to a total price of \$541,773.05.

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12. (C) Ltr. 1 July 1941  
Fr: Douglas Airc. Co., Inc.  
El Segundo, Cal.  
To: Asst. Chief, Mat. Div., WF  
Attn: Airc. Projects  
Exp. Eng. Sect.  
(File: Contract Files)

Douglas had given special attention to the design of the power plant installation in the XA-26 and the XA-26A in order to provide quick disconnect units at the firewalls. Douglas estimated that the power plant in operating condition with all cowling installed could be removed and replaced by another unit installed and in operation in one hour and thirty minutes, all work being performed by not more than four men. Douglas also designed the demountable power plant assembly to be interchangeable for right or left nacelles.

13. (U) Ltr. 30 July 1941  
Fr: Douglas Aircraft Co.,  
Inc., Santa Monica, Cal.  
To: Contracting Officer,  
Mat. Div., WF  
(File: Contract Files)

Douglas submitted a revised bid for 500 A-26 airplanes, models, and data for an estimated unit cost of \$134,037 and an estimated total cost of \$73,834,950 plus a 6% fee of \$4,430,097, making a total price of \$78,265,047. Douglas stated that the increase in unit price from \$132,823 as submitted on 7 July 1941 to \$134,037 was due to the incorporation of provisions for torpedo carrying and contractor furnished torpedo director. The airplanes were to be delivered at the flying field near Douglas-Santa Monica. Douglas submitted a complete breakdown of the estimated price of the airplane.

14. (U) Ltr. 31 Oct. 1941  
Fr: Brig. Gen. O.P. Echols  
Chief, Mat. Div., Wash.  
To: Under Secy War, Wash.  
(File: Contract Files)

Chief, Mat. Div. (Wash.) submitted for approval Contract W535 ac-21393 covering the procurement of 500 A-26 airplanes, spare parts and data, one skeleton airplane, and one model airplane at a total price of \$78,264,093, including 6% fee. The unit cost of the A-26 was contrasted with the unit costs of other airplanes of the type as follows: the approximate cost of the A-20B was \$96,000; of the B-26, \$131,000; of the B-17, \$245,000; while the approximate cost of the A-26 was \$134,037. Mat. Div. considered the cost of the A-26 fair and reasonable as compared with those of the A-20 and of the B-26.

15. (U) Contract W535 ac-21393  
31 Oct. 1941  
(File: Contract Files)

CPWF Contract W535 ac-21393 provided for the procurement of 500 A-26 airplanes, spare parts and data, one skeleton airplane and one free-spinning model airplane, to be furnished at an estimated cost of \$73,834,050 plus a fee of \$4,430,043, making a total price of \$78,264,093. The contract was approved by direction of the Under Secy. War on 31 Oct. 1941.

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16. (C) Ltr. 21 Apr. 1942  
Fr: Douglas Aircraft Co., Inc.  
El Segundo, Cal.  
To: CG, Mat. Center, WF  
Attn: Airc. Proj.,  
Exp. Eng. Sect.  
(File: Bomb. Br., Eng. Div.)

In accordance with Mat. Center (WF) requests, Douglas submitted a plan for the design and construction of a separate nose containing four 37 mm. cannon, to be installed in place of the 75 mm. cannon nose.

17. (C) Ltr. 8 May 1942  
Fr: Douglas Airc. Co., Inc.  
Santa Monica, Cal.  
To: CG, AAFMC, WF  
(File: Contract Files)

Douglas stated that it would not be possible to maintain A-26 deliveries on Contract ac-21393 as originally scheduled, because delays encountered on the prototype airplane would cause a corresponding delay in the delivery of production airplanes. Inability to obtain landing gear struts had necessitated revising the first flight date from 15 Jan. 1942 to 1 July 1942. Other delays in delivery of self-sealing tanks, turrets, and GFE items such as engines, propellers, spinners, and generators were adversely affecting the A-26 program. Complete engineering information on turrets to be installed was not completed until 2 May 1942, because of delay in receiving information from Mat. Center. Douglas stated that, because of these factors, there would be a minimum delay of five and one-half months in production A-26 airplanes.

18. (U) TT 9 May 1942  
Fr: Prod. Eng. Sect.  
Mat. Center, WF  
To: Tech. Exec., Mat.  
Com., Wash.  
(File: Contract Files)

Prod. Eng. Sect. (WF) believed that it would be possible to install the 75 mm. nose cannon in all or part of the 500 A-26 airplanes on Contract ac-21393 without delaying delivery. The 75 mm. cannon version would not necessarily incorporate the range finder sight, but would retain bomb bay installation and bomb release controls. Prod. Eng. Sect. was considering a .50 cal. gun nose, containing the maximum number of guns possible, as an alternate installation to the 75 mm. cannon nose. The delivery schedule of the experimental airplanes was: the bombardment XA-26 in June 1942, the night fighter XA-26A in Sept. 1942, and the destroyer XA-26B in October 1942. Prod. Eng. Sect. believed that the basic A-26 airplane was a highly versatile weapon because of its adaptability to various combat versions.

19. (C) IOM 16 May 1942  
Fr: Col. F.O. Carroll  
Chief, Exp. Eng. Sect.,  
WF  
To: Chief, Ind. Plan. Sect.,  
WF  
(File: Bomb. Br., Eng. Div.)

Douglas had informed Exp. Eng. Sect. (WF) that because of delay in delivery of landing gear struts until 1 June 1942, the first flight of the XA-26 would be delayed for an "unreasonable length of time."

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20. (C) IOM 16 May 1942  
Fr: Col. F.O. Carroll  
Chief, Exp. Eng. Sect., WF  
To: Chief, Prod. Eng. Sect., WF  
Attn: Attack Br.  
(File: Bomb. Br., Eng. Div.)

Exp. Eng. Sect. (WF) made a comparison of approximate gross weight, useful load, and range data of the XA-26, the XA-26B, and the modified XA-26B. The tank destroyer version, a modified XA-26B mounting one 75 mm. cannon but no range finder, was basically very similar to the XA-26 except for the removable nose and the cannon installation. Exp. Eng. Sect. believed that a relatively high percentage of the basic XA-26 attack bomber version airplanes should be maintained in production, but also stated that a few ground attack version airplanes, mounting sufficient forward fire power to be effective, might be desired.

21. (U) TT 8 June 1942  
Fr: Prod. Eng. Sect., WF  
To: Prod. Sect., Wash.  
(File: Contract Files)

Prod. Eng. Sect. (WF) stated that the firing tests of the mock-up 75 mm. nose were very successful, and that the tank destroyer (75 mm.) version would probably be required in as many of the 500 A-26 airplanes on Contract ac-21393 as possible without delaying delivery. Douglas had been requested to submit proposals for 75 mm. and .50 cal. noses to be supplied concurrently with bomber version airplanes. Prod. Eng. Sect. stated that, in order to keep the production line running at capacity, it would be advisable to contract for additional airplanes as soon as the XA-26 could be proved successful.

22. (C) Memo Rpt. PES-M-33  
9 June 1942  
(File: Central Files)

Prod. Eng. Sect. (WF) stated that the configuration of the basic XA-26 was such that several combat versions could be built in a production line with comparatively little difficulty in changing from one version to another. The different versions considered were: (1) medium altitude bomber with bombardier nose, (2) tank destroyer and ground attack version with 75 mm. cannon and either telescopic or radio range finder, (3) tank destroyer and ground attack version mounting four 37 mm. high velocity cannon, (4) ground attack version with a six .50 cal. gun nose and pilot-controlled bombing installation, (5) night fighter version with either AGL or AI equipment, and (6) photographic or reconnaissance version with long range fuel tanks. Prod. Eng. Sect. believed it possible to provide each airplane with three noses which could be interchanged in twenty-four hours. The alternate configurations would be the bomber nose, the 75 mm. cannon installation, and a six .50 cal. gun nose. Engineering on the A-26 airplane was being accomplished at the Douglas plant at El Segundo (hereinafter referred to as Douglas-El Segundo), but the airplane was to be built at Douglas-Santa Monica.

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23. (C) Ltr. 22 June 1942  
Fr: Col. O.R. Cook  
Chief, Prod. Eng. Sect., WF  
To: Douglas Aircraft Co., Inc.  
Santa Monica, Cal.  
(File: Contract Files)
- Mat. Center (WF) acknowledged that Douglas had experienced a delay in engineering and manufacturing schedules for the A-26 airplanes on Contract ac-21393, as a result of approximately six months delay in the completion of the prototype model XA-26, which in turn was due to delays in delivery of various major components of the airplane. But considering the urgent need for A-26 airplanes, Mat. Center requested that Douglas make every effort to absorb the delays and refused to grant a Douglas request for a change in Contract ac-21393 to specify a change in delivery schedule.
24. (U) TT 11 July 1942  
Fr: Exp. Eng. Sect., WF  
To: CG, AAF, Mat. Com., Wash.  
(File: Bomb. Br., Eng. Div.)
- The first flight of the XA-26 was made on 10 July 1942, and the airplane was reported entirely satisfactory.
25. (C) OTI-796  
18 July 1942  
(File: Contract Files)
- OTI-796, dated 18 July 1942, initiated action to provide the 75 mm. cannon nose installation for all 500 A-26 airplanes on Contract ac-21393.
26. (U) TT 24 Aug. 1942  
Fr: Col. O.R. Cook  
Chief, Prod. Eng. Sect., WF  
To: AAFBR, Douglas Aircraft Co., Inc.  
Santa Monica, Cal.  
(File: Bomb. Br., Proc. Div.)
- Douglas was informed that all bomber noses for A-26 airplanes were to be cancelled, but that 200 of the six .50 cal. gun noses would be required. The wooden nose (75 mm. cannon installation) was required on all 500 airplanes on Contract ac-21393 and the 200 six .50 cal. gun noses would be procured as alternates for field installation.
27. (C) Ltr. 3 Sept. 1942  
Fr: Col. O.R. Cook  
Chief, Prod. Eng. Sect., WF  
To: Douglas Aircraft Co., Inc.  
Santa Monica, Cal.  
(File: Contract Files)
- The 689 Inspection Board for the XA-26 airplane made recommendations for certain design changes to be incorporated in production A-26 airplanes. Changes were recommended in power plant, propeller, armament, electrical and miscellaneous installations, aircraft structure and radio, and photographic equipment.
28. (C) IOM 7 Sept. 1942  
Fr: Col. D.L. Dutt  
Chief, Bomb. Br.,  
Exp. Eng. Sect., WF  
To: Chief, Airc. Proj., WF  
(File: Central Files)
- Exp. Eng. Sect., (WF) stated that the installation of four 37 mm. guns in the XA-26B airplane was being made for the purpose of determining the relative effectiveness of this installation as compared with the 75 mm. cannon installation in the XA-26B. Exp. Eng. Sect. furnished a table showing relative effectiveness of the 37 mm. and 75 mm. guns, indicating that the 75 mm. cannon was more effective as an anti-tank weapon. However, Exp. Eng. Sect. believed that decision as to which type of gun should be installed should be based upon the type of target to be destroyed.

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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.

30. (U) TT 16 Sept. 1942

Fr: Prod. Eng. Sect., WF  
To: Exec., Mat. Com., Wash.  
(File: Central Files)

Prod. Eng. Sect. (WF) requested the establishment of priorities for the various armament installations being studied by Douglas, including a six .50 cal. gun nose, a four 37 mm. cannon nose, and a two 37 mm. cannon installation in an external rack under the bomb bay. Due to lack of engineering personnel it was possible for Douglas to work on only two of the three armament proposals at once. The A-26 had been basically changed from a medium bomber type to a ground attack and destroyer type by the change from the bomber nose to the 75 mm. cannon nose, in accordance with CFI-796.

31. (S) IOM 31 Oct. 1942

Fr: Col. O.R. Cook  
Chief, Prod. Eng. Sect.  
WF  
To: CG, Mat. Com., Wash.  
Attn: AC/AS (P)  
(File: Central Files)

Prod. Eng. Sect. (WF) stated that the earliest production date of A-26 airplanes would be July, 1943, but that every effort would be made to improve this date by at least two months. As a means of expediting the program, the first six airplanes would be built with XA-26 prototype tooling.

32. (C) Ltr. 4 Dec. 1942

Fr: Brig. Gen. K.B. Wolfe  
Chief, Prod. Div., WF  
To: Mr. Donald Douglas  
Douglas Aircraft Co., Inc.  
Santa Monica, Cal.  
(File: Bomb. Br., Eng. Div.)

Prod. Div. (WF) stated that the number of engineers, particularly tooling engineers, assigned to the A-26 was not acceptable in comparison to the number assigned to other projects such as the DC-3, C-74, and B-17F, and requested that production of the A-26 airplane be given first preference. Prod. Div. directed Douglas to transfer at least two-thirds of the personnel listed in each category on the C-74 project to the A-26 project and stated that the various development armament arrangements of the A-26 should be made secondary to the production airplane. All engineers whose efforts on the experimental A-26 airplanes were not applicable to the production airplane were to be transferred to the A-26 project, and no engineers were to be utilized in improving crew comfort or arrangement in cargo airplanes unless specifically authorized by Mat. Center.



33. (C) Ltr. 8 Dec. 1942  
 Fr: Brig. Gen. F.O. Carroll  
 Chief, Eng. Div., WF  
 To: Douglas Aircraft Co., Inc.  
 El Segundo, Cal.  
 (File: Contract Files)
- Douglas was informed that, except for the 75 mm. cannon installation for the production A-26B airplane, studies of armament arrangements should be curtailed until the airplane had reached a more advanced stage of production. When this stage was reached, the studies were to proceed in the following order of priority: normal bombardier nose, twin .50 cal. machine guns installed in external wing racks, a package installation of two 37 mm. cannon in a removable unit under the bomb bay, six .50 cal. machine gun nose, and four 37 mm. cannon nose.
34. (U) Ltr. 9 Dec. 1942  
 Fr: Brig. Gen. K.B. Wolfe  
 Chief, Prod. Div., WF  
 To: Douglas Aircraft Co., Inc.  
 Santa Monica, Cal.  
 Attn: E.H. Heinsman  
 (File: Central Files)
- Gen. Wolfe requested that Douglas transmit a message to all personnel employed on the A-26, emphasizing the importance of this airplane to the war effort, and urging them to do everything possible to expedite production.
35. (U) Ltr. 17 Dec. 1942  
 Fr: Douglas Aircraft Co., Inc.  
 Santa Monica, Cal.  
 To: CG, AAF, Mat. Center, WF  
 (File: Contract Files)
- On 17 Sept. 1942 Douglas submitted to Mat. Center (WF) an outline of the measures being taken to accelerate A-26 production. These measures included: (1) informing drafting personnel of the urgency of the project, (2) transferring to the A-26 as many engineers from the C-74 project as could be utilized on A-26 tool design work, and (3) maintaining close correlation of the engineering, shop, and piloting phases of the flight test activities of the A-26 airplanes. However, Douglas stated that, because of the advanced stage of A-26 engineering, two-thirds of the engineering personnel in each category could not be transferred from the C-74 to the A-26.
36. (U) Ltr. 22 Dec. 1942  
 Fr: Col. H.Z. Bogert  
 Chief, Tech. Staff,  
 Eng. Div., WF  
 To: Chief, Eng. Div., WF  
 (File: Bomb. Br., Eng. Div.)
- Eng. Div. (WF) furnished a report on the status of the various versions of the A-26 under contract and data on the projects in which an interest had been expressed to Douglas. Instructions had been issued to Douglas to expedite A-26B production as much as possible and to proceed with the study of several different armament arrangements.
37. (C) CTI-943 Addendum No. 1  
 30 Dec. 1942  
 Fr: Brig. Gen. B.W. Chidlaw  
 AC/S, (E), Wash.  
 To: Tech. Exec., Mat. Center  
 WF  
 (File: Contract Files)
- CTI-943, Addendum No. 1, dated 30 Dec. 1942, initiated action to establish order of priority for the various versions of the A-26 as follows: (1) 75 mm. cannon nose, with two fixed free-firing .50 cal. guns, if feasible, (2) bombardier-observer nose, and (3) a machine gun nose containing a minimum of six .50 cal. free-firing guns. All configurations of the airplane

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were to include provisions for pilot operation of the torpedo director and torpedo and bomb releases, installation of modified N-3A low altitude combination bomb and gun sight, two .50 cal. guns under each of four wing racks, and C-1 automatic pilot. The first 500 airplanes were to be 75 mm. cannon nose airplanes, and the following ratio was established for all subsequent airplanes:

- 1: cannon nose version
- 8: bombardier-observer nose version
- 8: machine gun nose version

38. (C) IOM 2 Jan. 1943  
Fr: Col. H.2. Bogert  
Chief, Tech. Staff,  
Eng. Div., WF  
To: Chief, Eng. Div., WF  
(File: Bomb. Br., Eng. Div.)

Chief, Tech. Staff, Eng. Div. (WF) outlined the status of the various experimental projects being conducted by Douglas. The XA-26 and XA-26A were being used to obtain flight test data of great importance to both experimental and production airplanes. The XA-26B was being expedited in order to provide a flying test for the 75 mm. cannon installation to be used in A-26B airplanes. The XA-26C project, involving a nose installation of four low velocity 37 mm. cannon to replace the 75 mm. cannon installation on the XA-26B, had been postponed until production should have reached a more advanced stage.

39. (U) Ltr. 11 Jan. 1943  
Fr: Douglas Airc. Co., Inc.  
Santa Monica, Cal.  
To: S.C., AAF Mat. Center, WF  
Attn: Prod. Eng. Sect.  
(File: Central Files)

Douglas informed Mat. Center (WF) that it would be impossible to meet the production schedule on A-26 airplanes. The limiting factor was not one of design engineering, which had been the controlling factor up to that time, but one of tooling and factory development. It had been planned to complete the first production airplane in July 1943, but because design changes in the airplane had delayed engineering release, Douglas estimated that initial deliveries of production airplanes on Contract ac-21393 would start at Douglas-Long Beach in October 1943, and on Contract ac-34433 at the Douglas plant at Tulsa, Okla. (hereinafter referred to as Douglas-Tulsa) in January 1944. (There was attached a comparative tabulation of 8-L delivery schedules requested by Douglas and estimated delivery possibilities.)

40. (C) Ltr. 14 Jan. 1943  
Fr: Brig. Gen. A.E. Jonas  
Chief, Proc. Div., WF  
To: Douglas Aircraft Co., Inc.  
El Segundo, Cal.  
(File: Bomb. Br., Proc. Div.)

Proc. Div. (WF) made detailed comments on the design changes required to convert A-26 bomber airplanes into A-26B attack airplanes, including the 75 mm. cannon installation, relocation of bombing controls in the pilot's compartment, and armament, radio, and camera installations. Mat. Center was expediting delivery

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of machine tools and materials in an effort to enable Douglas to meet A-26 schedules and had authorized Douglas to delay engineering schedules on other AAF projects in order to accelerate delivery of A-26 airplanes.

41. (U) E.O. Contr. W535  
ac-21393  
19 Jan. 1943  
(File: Contract Files)

Model designation of all 500 airplanes on Contract W535 ac-21393 was changed from A-26 to A-26B-1-DO, because of change in design from bomber version to attack version.

42. (C) IOM 22 Jan. 1943  
Fr: Brig. Gen. F.O. Carroll  
Chief, Eng. Div., WF  
To: C.G., Mat. Com.  
Hdq. AAF, Wash.  
Attn: AG/S (E)  
(File: Central Files)

Eng. Div., (WF) stated that Douglas was proceeding with the development of various armament arrangements of the A-26 airplane as directed in OTI-043, Addendum 1, dated 30 Dec. 1942. The all-purpose gun nose included provisions for each of the following arrangements: (1) six .50 cal. guns, (2) four .50 cal. guns and one 37 mm. T-20 cannon, (3) two 37 mm. T-20 cannon, or (4) two .50 cal. guns and one 75 mm. cannon. Any of these arrangements could be made in the field by installing the guns on brackets contained in the nose.

43. (C) Ltr. 22 Feb. 1943  
Fr: Brig. Gen. A.E. Jones  
Chief, Proc. Div., WF  
To: Douglas Airc. Co., Inc.  
El Segundo, Cal.  
(File: Bomb. Br., Proc. Div.)

The A-26B type airplane included both the all purpose gun nose version and the 75 mm. cannon nose version, and the bomber nose version was to be designated A-26C. Proc. Div. (WF) recommended certain changes to be incorporated in the bomber nose as originally designed by Douglas, including provisions for electrical bomb release and installation of a C-1 automatic pilot, a drift meter, and additional armor plate.

44. (C) Ltr. 22 Feb. 1943  
Fr: Col. H.Z. Bogert  
Chief, Tech. Staff,  
Eng. Div., WF  
To: Douglas Aircraft Co., Inc.  
El Segundo, Cal.  
(File: Contract Files)

Eng. Div. (WF) informed Douglas that no further study was to be made of the installation of the 37 mm. high velocity cannon under the bomb bay of the A-26. Firing tests of the installation of a 37 mm. cannon beneath the bomb bay of a B-25 airplane had produced serious damage to the nose wheel doors and skin structure.

45. (C) IOM 27 Feb. 1943  
Fr: Lt. Col. F.R. Cook  
Chief, Bomb. Br., WF  
To: Chief, Aero Equip. Br.  
Prod. Eng. Sect., WF  
(File: Bomb Br., Proc. Div.)

The C-1 automatic pilot was deleted from the requirements for the A-26B low altitude attack airplane but would be required for the A-26C bomber airplanes.

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46. (U) Ltr. 9 March 1943  
Fr: Maj. Gen. O.P. Echols  
CG, Mat. Com., Wash.  
To: The Under Secy. of War  
Attn: Col. Park Holland  
(File: Contract Files)

Contract W535 ac-34433 was to cover procurement of 500 A-26B airplanes, spare parts, and data at a unit cost of \$152,125 and a total estimated contract price of \$109,164,900, including a fee of 4%. The airplanes were to be manufactured at Douglas-Tulsa, and the delivery of airplanes was to begin in Jan. 1944. Previous procurement consisted of 500 A-26 airplanes on Contract W535 ac-21393 but no production airplanes were to be delivered until late in 1943. The increase of \$18,125 from the unit price of airplanes on Contract ac-21393 was attributed to engineering changes, necessity for additional subcontracting in order to expedite production, change in production location from Long Beach, Cal. to Tulsa, Okla., and increase in labor rates at Tulsa.

47. (S) Ltr. 15 March 1943  
Fr: Col. M.E. Gross  
Acting Dir. Mil. Req.  
M&S, Wash.  
To: CG, Mat. Com., WF  
(File: AC/AS-4)

In order to provide for the most expeditious engineering and accelerated production, Acting Dir. Mil. Req. (Wash.) established requirements for the A-26 airplane. The airplane was to be engineered so that certain listed variations of the basic type would be possible. The variations were to be accomplished by means of interchangeable gun combinations so that not more than two different types of noses would be required. The basic airplane was to include complete provisions for bomb and torpedo release by the pilot, provisions for four wing gun packages, each containing two .50 cal. machine guns, and provisions for carrying a minimum of eighty 23 lb. parachute fragmentation bombs. The bombardier-observer nose was to be required for 33 1/3 per cent of all airplanes, and the wing gun package installation was to be procured for all airplanes.

48. (U) Contract W535 ac-34433  
17 March 1943  
(File: Contract Files)

GPEP Contract W535 ac-34433, approved by direction of the Under Secretary of War on 17 March 1943, covered the procurement of 500 A-26B airplanes, spare parts and data at a total estimated price of \$109,164,900, including 4% fixed fee.

49. (G) TT 29 April 1943  
Fr: AC/AS, MM&D  
Mat. Div., Wash.  
To: C.G., Mat. Center, WF  
Attn: Prod. Div.  
(File: Bomb. Br., Proc. Div.)

All of the first 500 A-26 airplanes on Contract W535 ac-34433 were to be procured with gun noses. One-third, or approximately 167, bombardier-observer noses would also be procured. Of all additional A-26 airplanes procured, two-thirds were to be equipped with gun noses and one-third with bombardier-observer noses. Confidential teletype from Prod. Eng. Sect., WF, to Mat. Div., Wash., dated 5 May 1943, stated that the gun nose on the first 500 A-26 airplanes would contain the 75 mm. cannon only and would have no supporting .50 cal. guns.

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50. (S) IOM 10 May 1943  
Fr: Col. S.R. Brentnall  
Chief, Prod. Eng. Sect.,  
WF  
To: Chief, Administrative  
Office, Prod. Div., WF  
(File: Central Files)
- Prod. Eng. Sect. (WF) quoted secret teletype 6B-376 listing armament requirements for the gun noses for A-26 airplanes. The all-purpose gun nose would not be available for production airplanes until the 501st airplane. The bombardier-observer nose was desired for one-third of the first 500 airplanes and one-third of all subsequent airplanes were to have bombardier noses and two-thirds were to incorporate all-purpose gun noses.
51. (U) IOM, 23 Aug. 1943  
Fr: Col. S.R. Brentnall  
Chief, Prod. Eng. Sect.,  
WF  
To: Chief, Flight Research  
Liaison Br., Eng. Div., WF  
(File: Central Files)
- Prod. Eng. Sect., (WF) stated that supervisory personnel at Douglas Long Beach had done everything possible to expedite production of A-26 airplanes and it appeared that the first production airplane would be approximately thirty days ahead of schedule.
52. (R) IOM 28 Aug. 1943  
Fr: Col. H.Z. Bogert  
Chief, Tech. Staff, Eng.  
Div., WF  
To: Chief, Prod. Eng. Sect.,  
WF  
Attn: Spec. Br.  
(File: Bomb. Br., Eng. Div.)
- Chief, Tech. Staff, Eng. Div. (WF) requested that Spec. Br. (WF) remove model designation XA-260 from records since the project had been cancelled. [The XA-260 was to incorporate a nose installation of four 37 mm. cannon.]
53. (U) TI-1583  
18 Dec. 1943  
Fr: Col. T.A. Sims  
Dep. C/S, WF  
To: Eng. Div., WF  
(File: Central Files)
- Design studies were to be initiated to determine the possibility of providing a co-pilot in A-26B airplanes and of providing an all .50 cal. gun nose containing a minimum of eight and preferably ten fixed guns. Gen. Kenney, Chief, Mat. Com. (WF), contrary to his former opinions, had expressed his belief that the A-26 should have a co-pilot.
54. (U) IOM 24 Jan. 1944  
Fr: Brig. Gen. F.O. Carroll  
Chief, Eng. Div., WF  
To: CG, AAF, Wash.  
Attn: AG/AS, MM&D  
Devel. Eng. Br.  
(File: Central Files)
- Eng. Div. (WF) stated that space was available for a co-pilot installation in all versions of the A-26 airplane except that mounting a 75 mm. cannon. However, permanent installation of copilot controls was not considered feasible because such an installation would not allow the installation of the 75 mm. cannon, would block access to the bombardier's station, and would involve major redesign of the airplane. A kit consisting of the necessary co-pilot controls which could be dismantled in flight was under development. Eight .50 cal. wing package guns could be installed in any configuration of the A-26 airplane. When the bombardier

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nose was installed, available fire-power consisted of ten fixed forward-firing guns, in addition to two twin .50 cal. gun turrets, and a flexible nose gun. The all purpose gun nose version provided fourteen fixed forward-firing guns and two upper turret guns which could be fixed in the forward position, plus a two gun lower turret. The original design gross weight of the A-26 airplane was 26,700 pounds, but when the airplane was actually built it weighed 700 pounds less. A combination of loadings of all the bomb, gun, and armor plate arrangements of the A-26 airplane would produce a plane 10,000 pounds heavier than the design gross weight. Since all loadings would not be carried at one time, the normally considered combat weight of the A-26 airplane was 33,400 pounds.

55. (O) Ltr. 3 March 1944  
Fr: Capt. E.H. Wynn  
Asst. Tech. Exec., WF  
To: CG, AAF, Wash.  
Attn: AC/AS, MM&D  
Prod. Br., Mat. Div.  
(File: AC/AS-4)

CTI-1597, dated 16 Feb. 1944, initiated action to procure external wing gun packages for two-thirds of the total A-26 airplane production including spares. It was considered that a higher ratio of wing gun packages might be required if the airplanes were later allocated to foreign governments. Asst. Tech. Exec. (WF) recommended that wing gun packages be procured for all the first 1000 airplanes on contract and that the situation be reviewed for possible reduction before production of the 2700 airplanes on the "J" program was begun. Asst. Tech. Exec. stated that it was indicated that bombardier noses would not be available before September 1944, and that action would be taken to schedule bombardier nose production to reach a maximum of two-thirds of total A-26 airplane production.

56. (O) Ltr. 8 March 1944  
Fr: Col. G.E. Price  
Chief, Prod. Eng. Sect.,  
WF  
To: C.G., AEC, Patterson Field  
Attn: Tech. Rep. Unit  
Col. Dickerson  
(File: Bomb. Br., Proc. Div.)

Four A-26B airplanes were assigned to the 5th Air Force for tactical suitability evaluation tests. There had been no previous delivery of A-26B airplanes to the Southwest Pacific Theater.

57. (S) BAR-1, 13 March 1944  
Fr: Gen. H.H. Arnold  
CG, AAF, Wash.  
To: Maj. Gen. O.P. Echols  
AC/AS, M&S, Wash.  
(File: AC/AS-4)

Gen. Arnold stated that the modification situation in general was very bad. The A-26 airplanes were being delayed because of a shortage of wings, due in turn to lack of spars which could not be built because of difficult output of machinery. Gen. Arnold requested that Gen. Echols formulate a plan

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for producing the A-26 airplane and stated: "One thing is certain: I want the A-26's for use in this war and not the next war. If something drastic is not done, we cannot hope to replace the B-25's, B-26's and A-20's with the A-26."

58. (S) RAE-3, 16 March 1944  
Fr: Maj. Gen. O.P. Echols  
AC/AS, MM&D, Wash.  
To: Maj. Gen. B.M. Giles  
O/AS, MM&D, Wash.  
(File: AC/AS-4)

Both AC/AS (Wash.) and Mat. Com. (F) had endeavored to get Douglas to take a greater interest in manufacturing the A-26 airplane. Mat. Com. had spent some time locating and recommending subcontractors to Douglas and urging Douglas to place orders for tools and subcontracting. AC/AS stated that Douglas "seemed to have little interest in or little desire to manufacture this airplane." It was expected that Douglas-Long Beach would meet the W-9 schedule, but Douglas-Tulsa was behind schedule because of lack of wings. Steps were being taken to secure additional spar milling capacity to aid Douglas in the program.

59. (C) RAE-1, 22 March 1944  
Fr: AC/AS, MM&D, Mat. Div., Wash.  
To: AC/AS, CG&R, Reg. Div., Wash.  
(File: AC/AS-4)

Mat. Com. (F) had submitted to AC/AS, MM&D (Wash.) a preliminary study to determine the possibilities for additional tactical range in the A-26B airplane. The report listed the various items of armament for the A-26 airplane, and showed the amount of gasoline that could be carried and the approximate range which could be obtained with each of the various loadings.

60. (U) Supp. Agree. 13 to Contr. W535 ac-21393 29 March 1944  
(File: Contract Files)

Approved by direction of Under Secy. War on 29 March 1944, Supplemental Agreement No. 13 to Contract W535 ac-21393 covered the procurement of 1100 A-26B airplanes, spare parts, special hand tools, and data, at an estimated cost of \$117,419,829.10, plus a fee of \$4,776,793.16, making a total price of \$124,196,622.26.

61. (U) Supp. Agree. 3  
Contr. W535 ac-34433  
29 March 1944  
(File: Contract Files)

Supp. Agree. No. 3 to CPFF Contract W535 ac-34433 between the United States Government and Douglas covered the procurement of 1600 A-26B airplanes, spare parts, special tools and data at a total price of \$184,257,996.87, including fixed fee. The Supp. Agree. was approved 29 Mar. 1944 by direction of Under Secy. War.

62. (C) Ltr. 11 April 1944  
Fr: Brig. Gen. D.F. Stace  
Dist. Supvr., W. Proc. Dist., Los Angeles, Cal.  
To: CG, AAF, Wash.  
Attn: AC/S, MM&D  
(File: Central Files)

Through March 1944, wing spar case had been the governing factor in the production of A-26 airplanes. The construction of the A-26 wing was entirely different from that of any other airplane. It incorporates eight inboard and eight outboard spars. Each of the eight outboard spars was different from the others and required a special machine arrangement. Dist. Supvr.,

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W. Proc. Dist., listed the companies manufacturing wing spars and the difficulties they had encountered. Wing spar caps were no longer a critical item. The A-26 airplane was accepted by the Army and delivery schedules were established before all design and tooling problems were solved. "Generally speaking, each of these airplanes up to the present time [11 April 1944] has been a hand made article, as tooling has been unable to catch up with the numerous changes in fabrication." At one time there were as many as thirty-five change orders a day on the A-26. Dist. Supvr., W. Proc. Dist., listed some of the engineering difficulties encountered on the A-26.

63. (O) Ltr. 24 Apr. 1944  
Fr: Col. G.E. Price  
Chief, Prod. Eng. Sect.  
WF  
To: Chief, Tr. Aids Div.  
New York City  
Attn: Chief, Devel. Br.  
(File: Central Files)

Prod. Eng. Sect. (WF) advised Tr. Aids Div. that development of the A-26 airplane had reached the point where training aids could be developed without the risk of becoming obsolete through changes in design of airplane and equipment. Prod. Eng. Sect. listed principal tactical production changes to be made on the A-26 airplane and stated that it would be advisable to consider these changes and installations in the development of training aids.

64. (S) Memo 18 May 1944  
Fr: Maj. Gen. H.A. Craig  
AC/AS, OCS&R, Wash.  
To: Brig. Gen. P.W. Timberlake  
Dep. C/AS, Wash.  
(File: AC/AS-4)

AC/AS, MM&D (Wash.) had been requested to have eighteen A-26 airplanes, in the proportion of one-third bombardier noses to two-thirds gun noses, ready for departure 1 August 1944. The airplanes were scheduled for the Ninth Air Force in the ETO. AC/AS, Training (Wash.) had been requested to have eighteen trained crews ready by 1 August 1944. If possible, pilots were to be selected from instructor pilots who had some flying time in twin-engined airplanes. The date was set for 1 August 1944 because AC/AS, MM&D, could not guarantee delivery prior to that date of airplanes having reworked canopies, and an earlier date would result in an unsatisfactory degree of training for combat crews. Conversion of the eight B-26 groups in the United Kingdom was to be effected by four A-26 Mobile Training Units, and was expected to be completed by March 1945.

65. (U) IOM 18 May 1944  
Fr: Col. F.N. Moyers  
Actg. Chief, Airc. Lab.  
Eng. Div., WF  
To: Bomb. Br., Prod. Eng.  
Sect., WF  
(File: Bomb. Br., Proc. Div.)

The wing spar of the A-26B airplane failed at 80% ultimate load at a normal gross weight of 26,000 pounds in static test at Wright Field. As a result, all A-26B airplanes were to be restricted to a maximum flying weight of 26,000 pounds, a maximum load factor of 3.6 "g" and a maximum indicated air speed of 340 m.p.h.

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66. (U) IOM 13 June 1944  
Fr: Col. P.H. Kemmer  
Chief, Airc. Lab.  
Eng. Div., WF  
To: Chief, Prod. Eng. Sect.,  
WF  
(File: Bomb. Br., Proc. Div.)

Seven static tests had been conducted on the A-26B airplane wing. In the first four tests, the wings failed at between 80 and 90% ultimate load, although reinforcements were made. Additional reinforcements were made and on the fifth test the wings failed at 95% load. Two more tests were conducted, but both times the wing failed and Airc. Lab. (WF) concluded that redesign of the wing would be required in order to support 100% load and to secure additional bending strength. A wing of conventional design could easily be reinforced to give added bending strength but the A-26 wing was designed so that the wing spars must support the entire bending load. Airc. Lab. listed poor design features of the wing and recommended certain changes. Subsequent 1st Ind. by Prod. Eng. Sect., dated 10 June 1944, furnished information that wing reinforcements were being incorporated in production of all A-26B airplanes, effective 5 June 1944, and that Douglas had been requested to proceed with redesign of the wing to increase strength by approximately 10% and eliminate unsatisfactory design features.

67. (U) Rpt. 29 July 1944  
Fr: Capt. S.E. McFadden  
A-26 Liaison officer, WF  
To: CG, AAF Mat. Com., WF  
Attn: Dept. 70-2  
(File: Bomb. Br., Proc. Div.)

Four A-26 airplanes assigned to the Fifth Air Force for tactical suitability evaluation tests were assigned to the 3rd Attack Group for combat tests. Capt. McFadden, A-26 Liaison Officer, submitted a report based on the opinions of the crews which flew the A-26 airplanes in combat. Lack of visibility made the A-26 airplane unsatisfactory as an attack plane, since insufficient visibility to either side made it impossible to fly the formations required by low level tactics. Pilots were favorably impressed with forward fire power when the wing guns were installed. However, installation of the wing guns reduced speed by 25 mph and without them forward fire power was inadequate. Elevator forces required for low altitude pull-outs were considered too great, range was inadequate, the location of the life raft was unsatisfactory, and the bottom turret was thought to be unnecessary. The A-26 Liaison Officer made recommendations for changes to correct these deficiencies. Ground personnel found the A-26 airplanes satisfactory from the maintenance standpoint, except for certain difficulties encountered with the electrical system, air filters, and fuel selector valves.

68. (U) IOM 5 Aug. 1944  
Fr: Col. P.H. Kemmer  
Chief, Airc. Lab.  
Eng. Div., WF  
To: Chief, Prod. Eng. Sect.,  
WF, Attn: Bomb. Br.  
(File: Central Files)

Buffeting of the bomb bay doors, fuselage vibration, and directional oscillations of the airplane due to an unsteady flow condition in the bomb bay occurred when the bomb bay doors on the A-26 were opened. These difficulties were overcome by a spoiler system, consisting of three 4 inch by 16 inch vertical plates mounted under the fuselage forward of the bomb bay. The spoilers were fully retractable so that there was no reduction in speed when the bomb bay doors were closed.

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69. (U) Ltr. 16 Aug. 1944  
Fr: Bomb. Br., Prod. Sect.  
Proc. Div., WF  
To: CG, AAF, Wash.  
Attn: AC/AS, W&S, Mat. Div.  
(File: Central Files)

Douglas had submitted a proposal for an eight gun nose for the A-26 airplane, which would incorporate alternate provisions for any of the following configurations: (1) one 75 mm. cannon and four .50 cal. guns, (2) one 75 mm. cannon and one 37 mm. cannon, or (3) two 37 mm. cannon. A ten gun nose could not be developed because of space and structure restrictions.

70. (C) Ltr. 29 Aug. 1944  
Fr: Brig. Gen. F.O. Carroll  
Chief, Eng. Div., WF  
To: CG, AAF, Wash.  
Attn: AC/AS, W&S  
Develop. Eng. Br.  
(File: AC/AS-4)

Eng. Div. (WF) furnished a comparison of the performance of the A-26 airplane when powered by "B" series R-2800 engine and by the proposed "C" series R-2800 engine. Mat. Com. (WF) was in favor of changing to the "C" series engine at the earliest time when the engines should become available. Eng. Div. stated that if a prompt decision were made to make the change, all production engineering could be completed by December 1944, and "C" series engine could be started in the production line in March 1945.

71. (S) Memo 6 Sept. 1944  
Fr: Col. W.F. McKee  
Dep. AC/AS, OC&R, Wash.  
To: Maj. Gen. B.F. Giles  
C/AS, Wash.  
(File: AC/AS-4)

Deputy AC/AS, OC&R (Wash.) recommended that the A-26 airplanes should not be sent at that time to Gen. Kenney, CG, FEAF, because the changes and modifications proposed for the airplanes could not be completed before 1 Jan. 1945. Gen. Kenney was very much opposed to the A-26 airplane and would probably give an unfavorable report on the A-26 without the proposed changes.

72. (C) R&R 28 Sept. 1944  
Fr: Col. G.A. Hatcher  
Prod. Div., WF  
To: Chief, Prod. Sect.,  
Proc. Div., WF  
(File: Bomb. Br., Proc. Div.)

"1. The A-26 is not desired as a replacement for present types of light and medium bombardment airplanes. In discussions with Colonel J. O'Neil, A-3 of the 14th Air Force at Kunming, it was pointed out that since spares are so critical to this theater, it would be foolish to replace the B-25's which are operating successfully.

"2. General Kenney, Commanding General of the Far Eastern Air Force in Hollandia, was very outspoken on the subject. His exact words were, 'We do not want the A-26 under any circumstances as a replacement for anything'. These airplanes were thoroughly service tested by experienced crews and flown under actual combat conditions. They are unsuitable for formation work and cannot be flown close to the ground individually as a strafe airplane. The A-26's in that theater are all grounded at present or in permanent storage with the engine pickled."

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73. (U) ET 30 Sept. 1944  
Fr: Col. G.E. Price  
Prod. Sect., WF  
To: Prod. Br., Mat. Div.  
MAS, Wash.  
(File: Bomb. Br., Proc. Div.)

The new type pilot's canopy for the A-26 airplanes was to be incorporated in production at Douglas-Long Beach in the 251st airplane, scheduled for delivery during the last week in October, 1944. The effective point for the new type canopy in airplanes at Douglas-Tulsa was the 501st airplane, scheduled for delivery during the last week in January, 1945. Douglas offered the following reasons for the ninety-day delay in effective point at Douglas-Tulsa: basic engineering was done at Douglas-Long Beach, and production tooling was done during development, allowing the project to be moved directly from development into the production line: certain basic tooling information was not received at Douglas-Tulsa until 26 August 1944, so that fabrication tools would not be available until October 1944. In establishing the 501st Tulsa airplane as the effective point, Douglas had allowed a time margin to insure that delays in procurement of material or tooling would not cause production delays. Prod. Sect. (WF) recommended that the effective point be moved to the 401st airplane, scheduled for delivery about 10 Jan. 1945, so that Douglas would make greater efforts to meet this date without production delays.

74. (S) 1st Ind. 5 Oct. 1944  
By: Maj. Gen. H.S. Vandenberg  
CG, Ninth Air Force  
To: CG, U.S. Strategic Forces  
in Europe  
(File: AG/AS-4)

The missions flown in A-26 airplanes by the Ninth Air Force did not constitute a complete and conclusive test of combat suitability, but did establish the fact that the A-26 airplane was a suitable replacement for B-26 and A-20 airplanes in the Ninth Bombardment Division. The A-26 airplanes were received at an inopportune time for complete and conclusive suitability tests. The principal difficulty was lack of targets for testing the airplane at low altitudes and making maximum use of forward fire power.

75. (U) ET 9 Oct. 1944  
Fr: CG, AAF, Wash.  
To: Dir., ATSC, WF  
(File: Bomb. Br., Proc. Div.)

CG, AAF (Wash.) stated that it was believed that Douglas could have made the change in production of new pilot's canopy on A-26 airplanes at Douglas-Tulsa more quickly than it was done if Douglas had "so desired and exerted the effort of which he is capable." Douglas had an airplane which made several weekly trips among the various plants. C.G., AAF, stated that "correction of poor visibility in this airplane is a feature affecting the military utility which can be reckoned in terms of lives and in ability to use the airplane in combat units," and concluded that Douglas' efforts in connection with the A-26 airplane had been "far from satisfactory and little short of reprehensible."

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76. (U) TG 13 Oct. 1944  
Fr: Col. G.E. Price  
Prod. Sect., WF  
To: Prod. Br., Mat. Div.  
NAS, Wash.  
(File: Bomb. Br., Proc. Div.)

Douglas contended that certain engineering information did not reach Tulsa prior to 26 Aug. 1944 because of the length of time required to develop the redesigned canopy. Prod. Sect. (WF) stated that the veracity of statements by Douglas representatives in connection with this was being investigated. The effective point for the change at Douglas-Tulsa was revised to the 401st airplane and about 50 additional canopies would be available to modify as many airplanes as possible prior to the 401st airplane, without delay in deliveries.

77. (C) RAE 16 Oct. 1944  
Fr: Lt. Col. W.T. Rison  
Chief, Bomb. Br., WF  
To: Prod. Sect., WF  
(File: Bomb. Br., Proc. Div.)

As a result of combat suitability tests of A-26 airplanes made by the Fifth Air Force in the Southwest Pacific area, Gen. Kenney had stated that A-26 airplanes were not desired as replacements for A-20 or B-25 airplanes. Poor visibility was the main objection, but since that time, a redesigned pilot's canopy had been incorporated into production at Long Beach and was to be incorporated at Douglas-Tulsa in January, 1945. Favorable comments were received from all who had flown the A-26 with the prototype new canopy. Col. Hennebry, CO of the group which made the combat suitability tests of the A-26 airplanes, on whose recommendation Gen. Kenney had advised that A-26 airplanes were not desired as replacements, had flown the A-26 with the new type canopy. He was pleased with the canopy and indicated that the A-26 airplane should be suitable for operations in the Southwest Pacific Theater.

78. (S) Memo 19 Oct. 1944  
Fr: Maj. Gen. H.A. Craig  
AC/AS, CGAR, Wash.  
To: C/AS, Wash.  
(File: AC/AS-4)

Fifth Air Force had submitted a report on combat suitability of A-26 airplanes, based on eight combat missions carried out by a force of eighteen A-26 airplanes sent to the United Kingdom during the summer of 1944. Included in the report were preliminary flight test results, combat mission operating data, combat fuel consumption, combat radius of action, enemy opposition, armament equipment and defensive armor, flying characteristics, crew composition, maintenance, refueling, and bomb loading. It was concluded that the A-26 was a very effective medium bomber with a larger load than the A-20 airplane, greater range than either the A-20 or B-26 airplane, and with superior single engine performance. Its speed advantage, flying characteristics, maneuverability, and ease of maintaining formation permitted longer missions with less crew fatigue. On the missions flown gasoline consumption was lower and radius of action was greater than had been expected.

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79. (U) TT 21 Oct. 1944  
Fr: CG, AAF, Wash.  
To: Dir., ATSC, WF  
Attn: Gen. Wolfe  
(File: Central Files)
80. (U) Ltr. 26 Oct. 1944  
Fr: Brig. Gen. K.B. Wolfe  
O-1-f, of Eng. and Proc.  
ATSC, WF  
To: Maj. Gen. W.T. Larson  
CG, 3rd AF  
(File: Bomb. Br., Proc. Div.)
81. (U) TT 28 Oct. 1944  
Fr: Col. G.E. Price  
Prod. Sect., ATSC, WF  
To: Prod. Br., Mat. Div.,  
MSS, Wash.  
(File: Bomb. Br., Proc. Div.)
82. (U) TG 23 Nov. 1944  
Fr: Col. H.A. Shepard  
Proc. Div., WF  
To: AAFRE, Douglas Aircraft Co.,  
Inc., Santa Monica, Cal.  
(File: Bomb. Br., Proc. Div.)
83. (S) Memo 26 Nov. 1944  
Fr: Brig. Gen. D. Wilson  
AC/AS, OC&R, Wash.  
To: O/AS, Wash.  
(File: AC/AS-4)

It was the opinion of Headquarters, AAF (Wash.) that the managerial organization of Douglas-Tulsa and Douglas-Long Beach, with engineering concentrated at Douglas-Long Beach, would continually result in a three to six months delay in production changes at Douglas-Tulsa. It was not feasible to make Douglas-Tulsa the primary engineering source, so stronger liaison personnel and possibly stronger production tooling personnel for Douglas-Tulsa appeared to be the only alternative.

Difficulty was encountered with the nose gear down lock on A-26 airplanes during accelerated service and winterization tests. On 17 June 1944, ATSC requested Douglas to improve operation of the lock. This change was incorporated in airplanes delivered 27 June 1944 from Douglas-Long Beach and 17 July 1944 from Douglas-Tulsa. There were six cases of nose wheel failures on A-26 airplanes in the Third AF between 15 June 1944 and 13 Oct. 1944. In five of these failures the nose gear failed to lock in the down position. In each of the five failures the indicator showed the gear down and locked, although unsatisfactory toggle switch installations which had previously caused this condition had been replaced by micro-switch installations.

Revised pilot's canopy was to be installed in modification of 351st Douglas-Tulsa A-26 airplane, scheduled for delivery last of December 1944. Special hand-built canopies were to be installed in as many airplanes as possible between the 301st and 351st airplanes.

Proc. Div. (WF) indicated that it was desired to establish a coordinating or program office to insure more efficient production coordination among Douglas-Long Beach, Douglas-Tulsa, and sub-contractors' plants. Proc. Div. suggested that a formal organization was unnecessary and outlined a proposed organization. All questions concerning coordination of production of A-26 airplanes, except contractual or fiscal problems, were to be submitted to this office.

AC/AS, OC&R (Wash.) indicated a need for a firm basis upon which to formulate future production plans for A-26 and B-25 airplanes. All European A-20 groups and all but three B-26 groups were to be converted to A-26 airplanes by the end of July 1945, making a total

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of eleven A-26 groups. The FEAF had frequently reiterated their non-requirement for A-26 airplanes. AC/AS, OC&R, believed that the extreme prejudice of the FEAF against A-26 airplanes was not justified when it was considered that the four A-26B airplanes furnished them for operational tests were four of the first production airplanes and incorporated a number of undesirable features. AC/AS, OC&R, considered it most desirable that all B-25 groups in other theaters be converted as soon as A-26 airplanes were available, and recommended that the units be converted in the following order:

- |         |                   |
|---------|-------------------|
| (1) ETC | (4) AAFPOA        |
| (2) MTO | (5) FEAF          |
| (3) OBI | (6) North Pacific |

84. (U) Ltr. 30 Nov. 1944  
Fr: Col. W.F. Volandt  
Asst. Chief, Proc. Div.  
OAG/AS, M&S, Wash.  
To: Spec. Rep. of Under  
Secy. War  
(File: Contract Files)

Contract W33-038 ac-5140 was to cover the procurement of 2000 A-26 airplanes plus spare parts. Estimated unit cost was \$7,008, and fixed fee at 3.75% was \$6,814,440, making a total estimated price of \$188,532,840.

85. (U) Ltr. 30 Nov. 1944  
Fr: Col. W.F. Volandt  
Asst. Chief, Proc. Div.  
OAG/AS, M&S, Wash.  
To: Spec. Rep. Under Secy.  
War, Wash.  
(File: Contract Files)

Contract W33-038 ac-5141 was to cover the procurement of 400 A-26B airplanes, spare parts, special tools and data at an estimated unit cost of \$86,354, and a total estimated price of \$43,467,149.44, including a fixed fee of 4%. The airplanes were to be manufactured at Douglas-Long Beach.

86. (U) Contract W33-038 ac-5140  
8 Dec. 1944  
(File: Contract Files)

CPFF Contract W33-038 ac-5140, approved by direction of Under Secy. of War on 8 Dec. 1944, covered the procurement of 2000 A-26 airplanes and spare parts at a total estimated price of \$188,532,840, including fixed fee.

87. (U) Contract W33-038 ac-5141  
8 Dec. 1944  
(File: Bomb. Br., Proc. Div.)

CPFF Contract W33-038 ac-5141, approved by direction of Under Secy of War 8 Dec. 1944, covered the procurement of A-26B airplanes (400), spare parts, tools, and equipment at a total estimated price of \$43,467,149.44, including fixed fee.

88. (U) R&R 26 Dec. 1944  
Fr: Col. B.L. Boatner  
Actg. Chief, Proc. Div., WF  
To: Chief of Administration, WF  
Attn: Maj. E.H. Wynn  
(File: Bomb. Br., Proc. Div.)

Douglas-Long Beach was manufacturing A-26 airplanes with gun noses and Douglas-Tulsa was building airplanes with both gun and bombardier noses. By January, 1945, all Douglas-Tulsa production was to be changed to bombardier nose A-26 airplanes. The change to internal wing guns at Douglas-Long Beach was to be made about 6

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Mar. 1945. No definite point was set at Douglas-Tulsa for the change but preliminary information indicated that it would probably be in May 1945.

89. (S) Ltr. 4 Jan. 1945  
Fr: Maj. Gen. S.E. Anderson  
9th Bomb. Div. (M)  
A.P.O. 140, U.S. Army  
To: Gen. H.H. Arnold  
CG, AAF, Wash.  
(File: Central Files)

Gen. Anderson gave a summary of Ninth Bomb. Division's combat experience with the A-26 and gave a detailed account of a mission conducted on 1 Jan. 1945. Gen. Anderson stated that once pilots became familiar with the A-26 they considered it better than any other airplane they had ever flown. Single-engine performance of the A-26 was excellent and formation flying presented no great difficulties after pilots became accustomed to the limited visibility caused by the high nacelles. Gen. Anderson listed the major deficiencies that had been found to hamper combat operations of the A-26, including canopy frosting, failure of brakes, and the gunner's escape hatch.

90. (U) R&R 6 Jan. 1945  
Fr: Col. H.A. Shepard  
Actg. Chief, Prod. Sect.  
Proc. Div., WF  
To: Proc. Div., WF  
Attn: Col. Boatner  
(File: Bomb. Br., Proc. Div.)

Proc. Div. (WF) gave a summary of the A-26 program for 1944. During 1944 the first A-26 airplanes went into action, and the type was designated as the successor to the A-20, B-25, and B-26 airplanes. A-26 airplanes had been used successfully on medium altitude bombing missions by the Ninth Air Force. Of the 682 airplanes delivered during 1944 from Douglas-Long Beach and Douglas-Tulsa, 572 were A-26B gun nose version airplanes, and 110 were A-26C bombardier nose type airplanes. Proc. Div. listed some of the important changes incorporated into production in 1944, including the new pilot's canopy, bombardier nose version, strengthening of wings, all purpose gun nose, and improvements to nose gear.

91. (U) R&R 16 Jan. 1945  
Fr: Brig. Gen. O.R. Cook  
Chief, Proc. Div., WF  
To: Deputy Director,  
Proc. Div., WF  
Attn: Maj. E.H. Wynn  
(File: Bomb. Br., Proc. Div.)

Proc. Div. (WF) was advised on 9 Jan. 1945 that Douglas did not desire to deliver any more A-26 airplanes until several items of powerplant rework were completed. These changes reduced the possibilities of fires and prevented engine cut out during take-off. Approval was granted to stop deliveries. Deliveries at Douglas-Long Beach were resumed on 12 Jan. 1945 and at Douglas-Tulsa on 13 Jan. 1945.

92. (U) Ltr. 25 Jan. 1945  
Fr: Col. V.R. Haugen  
Asst. Chief, Bomb. Br.,  
Eng. Div., WF  
To: Dir., ATSC, WF  
Attn: Capt. R.F. Bache  
Airc. Proj., Eng. Div.  
(File: Central Files)

Col. Haugen, writing from Headquarters, A.S.C., U.S. Strategic Air Forces in Europe, stated that difficulty had been encountered with the nose gear installation on the A-26. During taxi and takeoff, mud was splashed on to the gear mechanism, and, after the airplane was airborne, the mud froze, locking the gear in the up position. A mud guard over the nose wheel had been tried but proved to be unsuccessful.

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93. (U) TT 7 Feb. 1945  
Fr: Brig. Gen. R.G. Harris  
ATSC, Mid-W. Proc. Dist.  
Wichita, Kansas  
To: Dir., ATSC, WF  
Attn: Gen. Cook  
(File: Bomb. Br., Proc. Div.)  
Mid-W. Proc. Dist. listed steps which had been taken at Douglas-Tulsa to improve acceptances of A-26 airplanes. The measures taken included: (1) the number of stations in the production line had been increased in order to reduce the work required at one station, (2) efforts were being made to secure additional engineering personnel, especially liaison engineers, (3) additional gages were being obtained to facilitate inspection, and (4) the chief inspector had been replaced.
94. (S) Ltr. 9 Feb. 1945  
Fr: Col. J.A. Gibbs  
Chief, Airc. Proj. Br.  
Mat. Div.  
OACAS, M&S, Wash.  
To: Dir., ATSC, WF  
Attn: Asst. for Tech. Matters  
(File: Central Files)  
Airc. Proj. Br., Mat. Div. (Wash.) commented on the various deficiencies in the A-26 as listed by Maj. Gen. S.E. Anderson, Ninth Bomb. Div., in a letter to CG, AAF, dated 4 Jan. 1945. Studies were being made in an effort to prevent canopy frosting, and action was already underway to correct brake failures, and to provide a new gunner's escape hatch.
95. (U) Ltr. 14 Feb. 1945  
Fr: Brig. Gen. R.G. Harris  
ATSC, Mid-W. Proc. Dist.  
Wichita, Kansas  
To: Maj. Gen. B.E. Meyers  
ATSC, WF  
(File: Bomb. Br., Proc. Div.)  
Gen. Harris stated that frequently airplane designs as presented to higher authority were incomplete, defective, and improperly designed. When production was ordered and tooling was begun many defects began to appear which had not been apparent before because the prototype was hand-made. In order to secure maximum range and bomb load, designers often incorporated weak parts elsewhere in the airplane. Gen. Harris cited the Lockheed C-40 airplane and the Douglas A-26 airplane as specific examples of this. He believed it might be well to criticize designers as well as production people.
96. (U) Tel. Conv. 14 Feb. 1945  
Brig. Gen. R.G. Harris  
CG, Mid-W. Proc. Dist.  
Col. H.A. Strause, AAFRB  
Douglas Airc. Co., Inc.  
Tulsa, Okla.  
W.G. Jerrens, Jr., Plant  
Mgr., Douglas Airc. Co.,  
Inc., Tulsa, Okla.  
(File: Bomb. Br., Proc. Div.)  
Gen. Harris requested that A-26 airplanes at Douglas-Tulsa be examined and exact lists made of the factors which prevented acceptance of each airplane. The schedule for February, 1945 called for 159 A-26 airplanes and Gen. Harris stated that 130 of them must be made, regardless of time or money involved. Gen. Harris had been urgently requested by Gen. Knudsen, Gen. Meyers, Gen. Wolfe, and Gen. Cook to secure information concerning the situation at Douglas-Tulsa.
97. (S) 1st Ind. 22 Feb. 1945  
Fr: Maj. H.F. Mullins  
Office, Chief of Admin. WF  
To: CG, AAF, Wash.  
Attn: AG/AS, M&S  
Prod. Br., Mat. Div., Wash.  
(File: Central Files)  
Information was submitted concerning service difficulties on the A-26 and the measures being taken to correct them. Douglas was making a study of complete redesign of the nose gear door interlocking mechanism in order to replace it with a mechanically operated sequence valve.

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98. (R) Ltr. 23 Feb. 1945  
 Fr: Lt. Col. G.A. Neuberg  
 Recorder, AAF Board,  
 Orlando, Fla.  
 To: Dir., ATSC, WF  
 Attn: AAF Board Liaison  
 Office  
 (File: Bomb. Br., Proc. Div.)
- AAF Board (Orlando, Fla.) requested information concerning modifications made to prevent nacelle fires in the A-26 airplanes. Subsequent let Ind., dated 4 Apr. 1945, by Col. H.A. Shepard, Actg. Chief, Prod. Sect., Proc. Div. (WF) gave a detailed summary of the changes.
99. (U) R&R 13 March 1945  
 Fr: Lt. Col. W.T. Rison  
 Chief, Bomb. Br., Proc.  
 Div., WF  
 To: Prod. Sect., WF  
 Attn: Capt. Fletcher  
 (File: Bomb. Br., Proc. Div.)
- Douglas had submitted a counter proposal to the plan for production coordination outlined by Bomb. Br., Proc. Div. (WF). The Douglas plan included establishment of a Change Control Panel within each plant, assignment of Douglas-Tulsa personnel to Douglas-Long Beach so that they might obtain detailed information more easily, and assignment of a Douglas-Long Beach engineer to Douglas-Tulsa to help them interpret data received. This organization had just begun functioning and Bomb. Br., Proc. Div. believed that it would be generally successful.
100. (U) Ltr. 5 Apr. 1945  
 Fr: Brig. Gen. A.E. Jones  
 Chief, Proc. Div.  
 OACAS, M&S, Wash.  
 To: Spec. Rep. of Under  
 Secy. War, Wash.  
 (File: Contract Files)
- Supplemental Agreement No. 7 to Contract W535 A0-5140 was to cover procurement of 1250 A-26 airplanes, spare parts, special tools, and data. Estimated unit cost was \$72,476 and estimated total price was \$106,211,313.13 including a 3.75% fixed fee. Douglas submitted its original quotation and price breakdown on 27 Jan. 1945. The original bid was unsatisfactory to the procuring agency and Douglas revised its bid four times, beginning with a unit cost of \$70,683, the second \$73,565, the third \$75,496, and the final accepted quotation was \$72,476. Proc. Div. (Wash.) made a comparison of previous procurements of A-26 airplanes under contract.
101. (U) Suppl. Agree. 6  
 Contract W33-038 ac-5141  
 13 April 1945  
 (File: Bomb. Br., Proc. Div.)
- Suppl. Agree. 6 to CPFF Contract W33-038 ac-5141 between Douglas and the United States Government covered the procurement of 350 A-26D airplanes, spares, tools, and data at a total estimated price of \$33,344,067.12, including a fixed fee. The Suppl. Agree. was approved by direction of the Under Secy. War on 13 Apr. 1945.
102. (C) Ltr. 17 April 1945  
 Fr: Col. H.G. Bunker  
 Chief, Airs. Proj. Br.,  
 Mat. Div.  
 OACAS, M&S, Wash.  
 To: Dir., ATSC, WF  
 Attn: Asst. for Tech.  
 Matters  
 (File: Central Files)
- Due to the reduced demand for bombardier nose A-26 airplanes for use in the ETO and to the expected employment of A-26 airplanes in Pacific Areas, A-26 airplanes were to be produced in a ratio of 66 2/3% gun noses to 33 1/3% bombardier noses.

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103. (U) Ltr. 17 Apr. 1945  
Fr: Brig. Gen. O.R. Cook  
Chief, Proc. Div., WF  
To: Douglas Airc. Co., Inc.  
Long Beach, Cal.  
and Tulsa, Okla.  
(File: Bomb. Br., Proc. Div.)

ATSC stated that the number and frequency of failures and malfunctions of the landing gear installations on A-26 airplanes had become a matter of great concern because they had resulted in abortive sorties in combat and training and in damage to equipment. ATSC had been severely criticized by both domestic and overseas operating activities and within ATSC. Two major design changes to the nose gear installation had been in development for several months and ATSC requested that engineering and development work on these changes be expedited. ATSC furnished a list of accidents involving landing gear failures or malfunctionings.

104. (S) Memo 9 May 1945  
Fr: R.A. Lovett  
Asst. Secy War (Air)  
Wash.  
To: Deputy Commander, AAF,  
Wash.  
(File: AG/AS-4)

Asst. Secy War (Air) suggested that the WX-9 schedule for A-26 airplanes, providing for an increase until 400 per month should be reached in August 1945, be re-examined in regard to strategic plans in the Pacific and combat uses of the relatively short range A-26 airplane.

105. (S) Memo 16 May 1945  
Fr: Maj. Gen. D. Wilson  
AC/AS, CG&R, Wash.  
To: Deputy Commander, AAF, Wash.  
(File: AG/AS-4)

Requirements for A-26 airplanes were based upon the following assumptions: seven A-26 groups, including one Pathfinder group, were to be redeployed in the Pacific; all medium and light groups deployed against Japan, except three FEAF B-25 groups, were to be re-equipped with A-26 airplanes; no A-26 airplanes were to be included in lend-lease; and flow of A-26 airplanes as attrition replacements for O.A.F. groups equipped with B-26 airplanes was to begin in June 1946 and was to sustain unit equipment and a 25% reserve. AC/AS, CG&R, furnished a comparison of A-26 production and requirements, and concluded that A-26 airplane production should be reduced immediately to approximately 150 per month.

106. (U) Ltr. 31 May 1945  
Fr: Lt. W.M. Howell  
Contracting Officer  
Term. Sect., WF  
To: Douglas Airc. Co., Inc.  
Tulsa, Okla.  
(File: Contract Files)

Contract W33-038 ac-5140 between Douglas Airc. Co., Inc. and the United States Government was terminated in its entirety on 31 May 1945.

107. (U) BAR 5 June 1945  
Fr: Lt. Col. W.A. Davis  
Actg. Chief, Bomb. Br.  
Proc. Div., WF  
To: Prod. Sect., WF  
Attn: Col. Shepard  
(File: Bomb. Br., Proc. Div.)

Production of A-26 airplanes at Douglas-Tulsa had been terminated at article 1753. All changes not scheduled to be incorporated into production before that time were to be cancelled. Engineering and Tooling Department personnel were to be moved out of Douglas-Tulsa, and the Assembly and Fabrication Groups were to complete the airplanes on contract. For this reason any late changes might have to be made at the Modification Center at Tulsa

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108. (U) TT 7 June 1945  
Fr: Col. H.A. Shepard  
Actg. Chief, Prod. Sect.  
Proc. Div., WF  
To: CG, AAF, Wash.  
Attn: AC/AS, M&S Mat. Div.  
(File: Bomb. Br., Proc. Div.)
- The effective point for installation of the R-2800-83 "C" engine in A-26D airplanes at Douglas-Long Beach was set back due to difficulties with exhaust stacks and induction system. The "C" engine change was not to be made at Douglas-Tulsa.
109. (U) R&R 30 June 1945  
Fr: Col. H.A. Shepard  
Chief, Prod. Sect.  
Proc. Div., WF  
To: BAC, WF  
(File: Bomb. Br., Proc. Div.)
- The A-26B and A-26C were similar except the A-26B was equipped with a gun nose and the A-26C incorporated a bombardier nose. Both had Pratt & Whitney R-2800 Series "B" engines. The A-26D was to be a gun-nosed airplane, similar to the A-26B except that it would have power plant improvements and the R-2800 Series "C" engines.
110. (S) Cablegram 15 July 1945  
Fr: CG, FEAF, Manila,  
Philippines  
To: War Dept., Wash.  
Attn: Gen. H.H. Arnold  
(File: AC/AS-4)
- CG, FEAF, stated that the A-26 airplane with the eight gun nose and without the bottom turret had proved to be highly satisfactory as a replacement for the A-20 airplane and later for the B-25 airplane, and requested a schedule of the arrival of A-26 airplanes in that theater as a basis for planning.
111. (C) TI-2026, Add. 84,  
24 July 1945  
Fr: Col. K.H. Bitting  
Chief of Admin., WF  
To: Proc. Div., WF  
(File: Central Files)
- TI-2026, Add. 84, dated 24 July 1945, initiated action to modify eight A-26C airplanes for use as photo reconnaissance PA-26 type airplanes. Among the required modifications were special night photographic equipment, an oxygen system, and glossy black night camouflage.
112. (U) TT 9 Aug. 1945  
Fr: Col. H.A. Shepard  
Chief, Prod. Sect.,  
Proc. Div., WF  
To: AAFPR, Douglas Airc. Co.,  
Inc., Tulsa, Okla.  
AAFPR, Douglas Airc. Co.,  
Inc., Santa Monica, Cal.  
(File: Contract Files)
- Tow target modifications were to be undertaken on eight A-26B airplanes returned from ETO. Required modifications included installation of tow-real equipment and a simplified oxygen system.
113. (U) TT 10 Aug. 1945  
Fr: Col. H.A. Shepard  
Chief, Prod. Sect.,  
Proc. Div., WF  
To: AAFPR, Douglas Airc. Co.,  
Inc., Long Beach, Cal.  
AAFPR, Douglas Airc. Co.,  
Inc. Santa Monica, Cal.  
Attn: W.S. Fryer  
(File: Contract Files)
- Night Intruder modifications were to be incorporated on 96 A-26B airplanes. Modification requirements included the following: (1) maximum fuel in self-sealing bomb-bay tank, (2) effective flame dampening equipment, (3) flash hiders for all guns, (4) adequate cockpit lighting to eliminate glare, (5) glossy black night camouflage, (6) installation of Loran, and (7) a simplified oxygen system.

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114. (U) TO 13 Aug. 1945  
Fr: Capt. W.M. Howell  
Contracting Officer  
Term. Sect., WF  
To: Resources Division  
CC/AS, WAB, Wash.  
(File: Contract Files)

Contract W535 ac-34433 between Douglas Airc. Co., Inc. and the United States Government was terminated in its entirety on 13 Aug. 1945 except for technical data requirements. Subsequent telegram, dated 28 Aug. 1945 from Capt. W.M. Howell, Contracting Officer, Term. Sect., WF, to Douglas-Santa Monica excluded one A-26B airplane from termination.

115. (U) IOM 13 Aug. 1945  
Fr: Col. M.F. Cooper  
Chief, Airc. Proj. Sect.  
Eng. Div., WF  
To: Airc. Radio and Radar  
Subdiv., WF  
Attn: Col. H.R. Yeager  
(File: Contract Files)

The YA-26F airplane was a standard A-26B airplane with the rear gunner's compartment, upper and lower turrets, and an I-16 power unit installed in the rear of the fuselage.

116. (G) Memo 17 Aug. 1945  
Fr: Capt. R.F. Bache  
Prod. Sect., WF  
To: Lt. Col. W.A. Davis  
Chief, Bomb. Br.,  
Proc. Div., WF  
(File: Bomb. Br., Proc. Div.)

Capt. Bache accompanied twenty-five A-26B airplanes assigned to the Third Bombardment Group in the Southwest Pacific Area for tactical and operational suitability tests. Five missions were flown against targets on Formosa and excellent results were obtained. All pilots were pleased with the destructive power of the fourteen forward firing .50 cal. guns. Capt. Bache gave other data concerning the missions flown by the A-26B airplanes and stated that the airplanes were accepted enthusiastically.

117. (R) Ltr. 18 Aug. 1945  
Fr: Maj. C.R. Hawks  
Chief, Eng. Sect., Prod.  
Div., W. Proc. Dist.  
Los Angeles, Cal.  
To: Chief, Eng. Div., AFSC, WF  
Attn: Serv. Eng. Sect.  
Airc. Projects  
(File: Bomb. Br., Proc. Div.)

A representative of Douglas reported that all work on Project X-32823, installation of I-16 power plant in an A-26, had been suspended because of the termination of Contract W535 ac-21393. At this time the remaining items before completion were installation of the I-16 engine and piping, and cleaning up the airplane for inspection and flight test.

118. (U) Ltr. 27 Aug. 1945  
Fr: Capt. W.M. Howell  
Contracting Officer  
Term. Sect., WF  
To: Douglas Airc. Co., Inc.  
Long Beach, Cal.  
(File: Rec. Unit, Proc. Div.)

Contract W33-038 ac-5141 between Douglas and the United States Government was terminated in its entirety on 27 Aug. 1945.

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119. (U) Ltr. 27 Aug. 1945  
Fr: Capt. W.M. Howell  
Contracting Officer  
Term. Sect., WF  
To: Douglas Airc. Co., Inc.  
Long Beach, Cal.  
(File: Contract Files)
- By Letter Termination Notice, Contract W535 ac-21393 between Douglas Airc. Co., Inc., and the United States Government was terminated in its entirety on 27 Aug. 1945 except for certain technical data requirements and work on Project X-32823.
120. (U) Memo 30 Aug. 1945  
Fr: Capt. R.E. Bache  
Prod. Sect., WF  
To: Maj. D.C. Waterbury  
Prod. Sect., WF  
(File: Bomb. Br., Proc. Div.)
- A conference was held at WF with Douglas personnel to discuss changes to be made in the post-war A-26, to be designated the A-26Z. The purpose of the discussion was to formulate tentative specifications for the post-war airplane, which was to retain the same external configuration.
121. (U) R&R 3 Sept. 1945  
Fr: Col. H.A. Shepard  
Chief, Prod. Sect.,  
Proc. Div., WF  
To: Eng. Div., WF  
(File: Bomb. Br., Proc. Div.)
- The prototype A-26Z was to be ready for inspection by 1 July 1946. The A-26Z would remain essentially an A-26 but was to incorporate certain changes to make it the best possible combat airplane of the A-26 configuration.
122. (R) Ltr. 3 Oct. 1945  
Fr: Maj. G.R. Hawks  
Eng. Div., Liaison Officer  
West. Proc. Dist.  
Los Angeles, Cal.  
To: Chief, Eng. Div.  
ATSG, WF  
Attn: Serv. Eng. Sect.  
Airc. Projects  
(File: Bomb. Br., Proc. Div.)
- A representative of Douglas stated that engine piping was being installed on the I-16 installation in an A-26D, on Project X-32823. A ground run of the I-16 unit would probably be made on 10 or 11 October 1945. Approximately one week after the ground run, the airplane was to be given a functional flight test with the I-16 unit inoperative.
123. (U) Ltr. 3 Oct. 1945  
Fr: Douglas Airc. Co., Inc.  
Santa Monica, Cal.  
To: CG, ATSG, WF  
Attn: Col. W.T. Rison  
Airc. Sect., Proc. Div.  
(File: Central Files)
- Douglas submitted a proposal for the A-26Z airplanes. The basic airplane was almost identical to the A-26, but incorporated certain changes, including the following: raised pilot's canopy allowing improved visibility, rearrangement of the cockpit to provide better access to installations, an entrance hatch through the nose wheel well, and wing tip droppable fuel tanks.
124. (U) Ltr. 31 Oct. 1945  
Fr: Col. G.A. Hatcher  
Chief, Airc. Sect., Proc.  
Div., WF  
To: Douglas Airc. Co., Inc.  
Long Beach, Cal.  
(File: Central Files)
- ATSG informed Douglas that, while the A-26Z airplane represented a distinct improvement over the current A-26 airplane, there was no requirement in the AAF for additional airplanes of that type.

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