

UNCLASSIFIED

AD NUMBER
ADB812162
NEW LIMITATION CHANGE
TO Approved for public release, distribution unlimited
FROM Distribution authorized to DoD only; Administrative/Operational Use; 17 Dec 1998. Other requests shall be referred through Defense Technical Information Center, DTIC-BRR, 8725 John J. Kingman Rd., Ft. Belvoir, VA 22060-6218.
AUTHORITY
19990305 - A/1 from E/4, Feb 24, 1999. Auth'ty: Mr J.A. Morrow, Hq AFMC/PAX, WPAFB, OH 45433

THIS PAGE IS UNCLASSIFIED

UNCLASSIFIED

AD NUMBER
ATI016603
CLASSIFICATION CHANGES
TO unclassified
FROM confidential
AUTHORITY
WADC Reclassification List no. 9 dtd 20 Dec 1956

THIS PAGE IS UNCLASSIFIED

CLASSIFICATION CHANGED TO UNCLASSIFIED

LIST NO. 117

The following National Advisory Committee for Aeronautics Reports have been "Declassified" per authority of WADC Reclassification List No. 9 dated 20 December 1956.

Date DATE: 11 JANUARY 1957

Signed Richard E. Reedy
OFFICE SECURITY ADVISOR

A. T. I

16603

Reproduced by

DOCUMENT SERVICE CENTER
ARMED SERVICES TECHNICAL INFORMATION AGENCY
KNOTT BUILDING, DAYTON, 2, OHIO

"NOTICE: When Government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the U.S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto."

UNCLASSIFIED

W/6603

4. The enclosed program, proposed by the Langley 19-foot pressure tunnel staff, differs from that of the contractor in the following respects:

(a) Inasmuch as the contractor now agrees (reference (b)) with the conclusions of reference (a), that direct control for this airplane is impractical, no tests of direct-control configurations will be made, except insofar as necessary to provide information for determining the method of correcting the upflapping tendency of the airfoil.

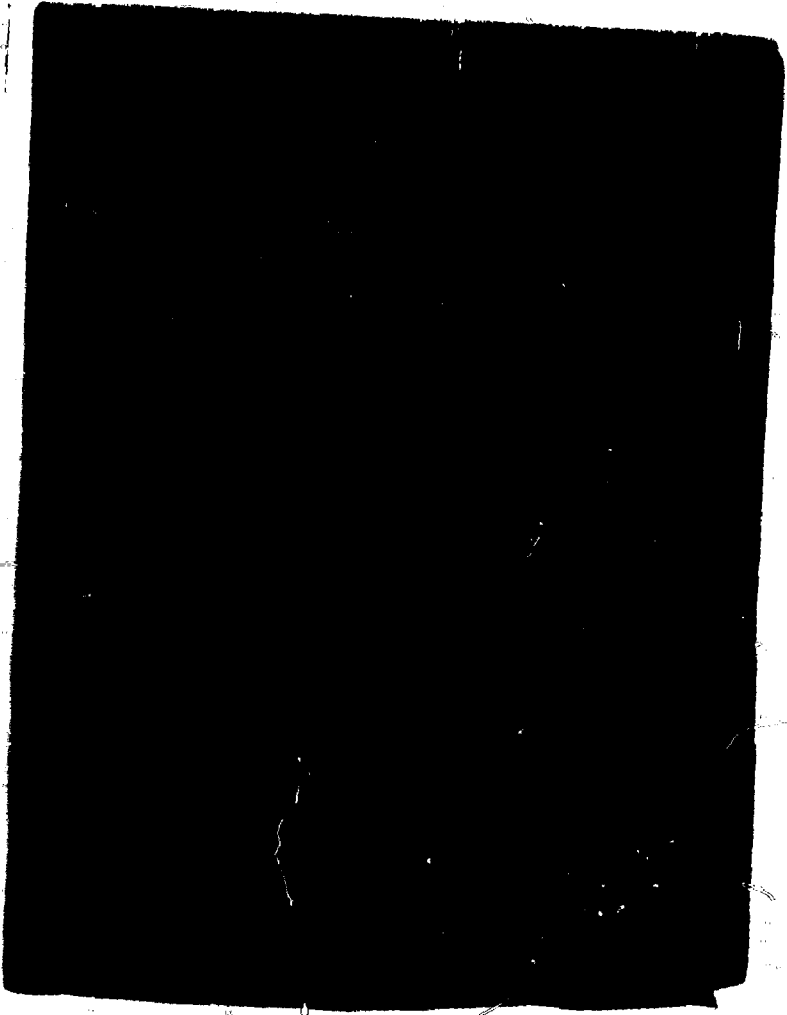
(b) Detailed tests of the correct-control system will be made only of the airfoil configuration to be employed on the airplane.

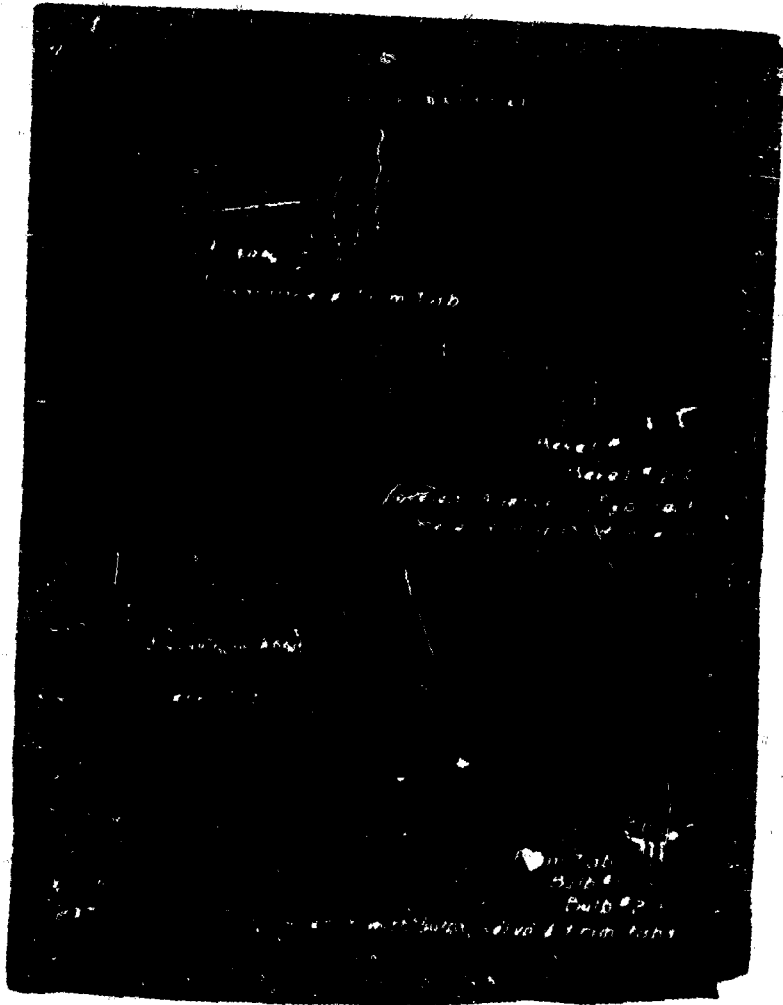
5. The spoiler-airfoil investigation, as presented (Part IV) in the attached program, is incomplete. Since each of the programs of the conventional airfoil preceding this investigation is contingent on the results of the tests as they proceed, it is not considered advisable to detail this investigation at the present time. In addition, it may be necessary to interrupt the spoiler-airfoil investigation to insure that the detailed program of the correct-control system will be completed in the allotted time.

Ann A. Sawyer, Jr.
Acting Engineer-in-Charge

Enc. Test Program
(7, tests)

1. Direct Control
2. Spoiler Airfoil
3. Correct Control System





CONFIDENTIAL

SECRET

U/S- [unclear] [unclear] [unclear]

Under the heading of test cases
 $\alpha = 100, 50, 25$

$\beta = 0^\circ, 25^\circ, 50^\circ, 75^\circ, 100^\circ, -25^\circ$

where α is chosen, class β°
1. Large bulb balance and trim tab $0^\circ, -75^\circ, -100^\circ$
 -25°

(Tab deflections other than 0° will be tested at β values of 25° but only if the tab is adequate in correcting the floating tendency.)

2. Small bulb balance and trim tab 0°
(This tab will be tested only if the large tab is more than adequate in correcting the floating tendency.)

3. Large under-surface level.

4. Small under-surface level.
(This level will be tested only if the large level is more than adequate in correcting the floating tendency.)

5. Trim tabs $100^\circ, 75^\circ, 50^\circ, 25^\circ, 0^\circ, -25^\circ, -50^\circ$.

6. Trim balance and trim tab $0^\circ, -75^\circ, -100^\circ$.
(This tab will be tested at β values of 25° but only if the large bulb balance and trim tab is tested at deflections other than 0° .)

* Where α is chosen, single-ported class β° , double-ported class 25° .

1. Large bulb balance and trim tab $0^\circ, -75^\circ, -100^\circ, -25^\circ$

(Tests of this tab will be made only if the tab is adequate in correcting the floating tendency; large neutral, tab deflections other than 0° will be tested at $\beta = 25^\circ$.)

2. Small balance tab 0° .

(Tests of this tab will be made only if the large tab is more than adequate in correcting the floating tendency.)

3. Large under-surface level.

(Tests will be made only if the large level is adequate in correcting the floating tendency; large neutral.)

4. Small under-surface level.

(Tests will be made if the large level is more than adequate in correcting the floating tendency.)

5. Trim tabs $100^\circ, 75^\circ, 50^\circ, 25^\circ, 0^\circ, -25^\circ, -50^\circ$.

6. Trim balance and trim tab $0^\circ, -75^\circ, -100^\circ$.
(This tab will be tested at β values of 25° but only if tests of the large bulb balance deflections are made. Class deflection.)

CONFIDENTIAL

CONFIDENTIAL

For $\theta_1 = 0^\circ, \theta_2 = 0^\circ, \theta_3 = 0^\circ, \theta_4 = 0^\circ, \theta_5 = 0^\circ, \theta_6 = 0^\circ, \theta_7 = 0^\circ, \theta_8 = 0^\circ, \theta_9 = 0^\circ, \theta_{10} = 0^\circ$
 For $\theta_1 = 0^\circ, \theta_2 = 0^\circ, \theta_3 = 0^\circ, \theta_4 = 0^\circ, \theta_5 = 0^\circ, \theta_6 = 0^\circ, \theta_7 = 0^\circ, \theta_8 = 0^\circ, \theta_9 = 0^\circ, \theta_{10} = 0^\circ$
 For $\theta_1 = 0^\circ, \theta_2 = 0^\circ, \theta_3 = 0^\circ, \theta_4 = 0^\circ, \theta_5 = 0^\circ, \theta_6 = 0^\circ, \theta_7 = 0^\circ, \theta_8 = 0^\circ, \theta_9 = 0^\circ, \theta_{10} = 0^\circ$

The above and the application to be tested here will be determined on the basis of tests in 1. as well as the results of the tests in 2. as well as the results of the tests in 3. and 4. are being conducted.

1. Standard slot punch, single-slotted flag 10° .
 a. serve tab $0^\circ, 25^\circ, 50^\circ, 75^\circ, 100^\circ$
2. Standard slot punch, single-slotted flag 10° .
 a. serve tab 0° .
 (Note: the application flag 10° will be tested only if a large change in the direction of the application serve tab 0° results from reflection of the flag).
3. Standard slot punch, single-slotted flag 10° , transition flag at head of page.
 a. serve tab 0° .
4. Standard slot punch, single-slotted flag 10° , serve tab sealed.
 a. serve tab $0^\circ, 25^\circ, 50^\circ$.
5. Standard slot punch, single-slotted flag 10° .
 a. serve tab $0^\circ, 25^\circ, 50^\circ, 75^\circ, 100^\circ$.
6. Standard slot punch, double-slotted flag 10° , single-slotted flag 10° and 10° .
 a. serve tab 0° .
 (Note: the application other than 0° will be tested only if a large change in the direction of the application serve tab 0° results from reflection of the flag).
7. Standard slot punch, single-slotted flag 10° , transition flag at head of page.
 a. serve tab 0° .
8. Standard slot punch, single-slotted flag 10° , serve tab sealed.
 a. serve tab $0^\circ, 25^\circ, 50^\circ$.
 (This condition will be tested only if a large change in the direction of the application serve tab results from reflection of the flag).

CONFIDENTIAL

CONFIDENTIAL

17. The effectiveness, scale (root, tail ratios,

tip effect towards and still ratios $\lambda = 100$,

scale effect $\lambda = 30, 60, 100$,

$\lambda = 10^0$ through various lifts.

Lower lip extension, extended, except as noted.

A. side effect and still studies.

1. closed side closed.

a. Flaps 50

b. double-slotted flaps 40°

c. double-slotted flaps 10°

2. closed side open.

a. Flaps 50

b. double-slotted flaps 40°, 10°

c. double-slotted flaps 30°, 20°, and 10°

3. side: configuration (same in accordance with

the final configuration)

a. Full-span double-slotted flaps 50°, 20°

and 10°

B. The effectiveness.

1. closed side open.

a. double-slotted flaps 40° and 10°.

2. double configuration (same in accordance

with the final configuration).

a. Full-span flaps 40°, 10°, and 50°.

3. closed side open lower lip extension not

extended.

a. double-slotted flaps 40°, 30°, 20°, 10°

and 50°.

18. Double: three curved configurations

$\lambda = 100, 100$

$\lambda = 30, 60, 100, 100, 100, 100, 100$

19. The full-span studies, no perforations, no vent,
no boundary layer slot.

1. Flaps 50

a. combinations of upper and side either

configurations to be detailed later.

2. The particular studies (but without segments
detached) as well as boundary layer slot.

1. Flaps 50

a. combinations of upper and side either

configurations to be detailed later.

If these data are sufficient to indicate the
feasibility of obtaining the desired segments ahead
of the airfoil, the position of the upper inverted
section will be selected with these segments detached.

CONFIDENTIAL

CONFIDENTIAL

- 4 -

If these tests are not conclusive, they will be repeated at 100% and the decision will then be made.

This includes all full-span splices, no vent, no overhang, no lead-in layer, etc.

In particular, splices with a percent vent, no overhang, no lead-in layer, etc. will be tested as detailed later.

In particular, splices with a percent vent, no overhang, no lead-in layer, etc. will be tested as detailed later.

In particular, splices with a percent vent, no overhang, no lead-in layer, etc. will be tested as detailed later.

In particular, splices with a percent vent, no overhang, no lead-in layer, etc. will be tested as detailed later.

In particular, splices with a percent vent, no overhang, no lead-in layer, etc. will be tested as detailed later.

When the tests of one percent vent show a definite improvement over the 1 percent vent, the first approved equipment with a percent vent will not be 100%.

CONFIDENTIAL

CONFIDENTIAL

TO THE DIRECTOR, FBI
FROM THE SAC, NEW YORK
SUBJECT: [Illegible]

[Illegible text block]

model but are being reported here inasmuch as two separate
tests are described and some changes in the model pattern
may result.

Part II was agreed to be satisfactory. It should
be pointed out that the configurations B and C would be
dependent on the results of tests now being conducted
on the Alameda low turbulence and two Alameda
weather control. It was further noted that the wing
tests were open in configurations A, B, and C while
configurations D, E and F were closed.

The proposed tests of the series A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

A. B. Booth raised the question of sealing the gap between the tab and the screen on the model. In this connection he pointed out the fact that the effect of the gap on the hinge moments would not be the same for the model and the airplane prototype and suggested the gap be sealed. The hinge moments on the tab are expected to be extremely small and it was feared that any form of seal would cause errors in the measurement of tab hinge moments. It was decided, however, to investigate the possibility of sealing the gap on the airframe hinge-moment tab using the same type of tape which is used to seal the...

...the specific tests. Part IV of the report is a table of the data listed in reference 11. The data table is given in appendix A of the same report. The results of the tests of the model with the hinge-moment tabs are given in appendix B. The hinge-moment data are given in terms of internally sealed and externally sealed tabs. The data for the internally sealed tabs are given in appendix B-1 and the data for the externally sealed tabs are given in appendix B-2. The data for the internally sealed tabs are given in terms of the hinge-moment coefficient and the hinge-moment coefficient is defined as the hinge-moment divided by the product of the dynamic pressure and the area of the tab. The data for the externally sealed tabs are given in terms of the hinge-moment coefficient and the hinge-moment coefficient is defined as the hinge-moment divided by the product of the dynamic pressure and the area of the tab. The data for the internally sealed tabs are given in terms of the hinge-moment coefficient and the hinge-moment coefficient is defined as the hinge-moment divided by the product of the dynamic pressure and the area of the tab. The data for the externally sealed tabs are given in terms of the hinge-moment coefficient and the hinge-moment coefficient is defined as the hinge-moment divided by the product of the dynamic pressure and the area of the tab.

where
the hinge-moment coefficient is defined as the hinge-moment divided by the product of the dynamic pressure and the area of the tab.

PREPARED BY
CHECKED BY
REVISED BY

Consolidated Vultee Aircraft Corporation
FORT WORTH DIVISION
FORT WORTH, TEXAS

REPORT NO.
MODEL
PAGE

TEST PROGRAM

ALL-SPAN DOUBLE SPAN XB-36 WING MODEL
WIND TUNNEL - LANGLEY FIELD

General Scope of Tests

1. Drag effect and stall studies (sketches and motion pictures)
2. Lift effectiveness
3. Aileron effectiveness and hinge moments
4. Tab effectiveness and hinge moments
5. Spoiler effectiveness and hinge moments

Detailed Test Program

I. Drag Effect and Stall Studies

A. All-Span

1. Single slotted flaps $0^\circ, 10^\circ, 20^\circ$
2. Double slotted flaps $0^\circ, 10^\circ, 20^\circ$

B. Single Slotted

1. Single slotted flaps $0^\circ, 20^\circ$
2. Double slotted flaps 20°

3. Full span double slotted flaps $0^\circ, 20^\circ, 40^\circ, 60^\circ, 80^\circ$
(see note 1B)

II. Lift Effectiveness

A. Single slotted flaps $0^\circ, 20^\circ, 40^\circ$

B. Double slotted flaps $20^\circ, 40^\circ, 60^\circ, 80^\circ$

C. Double slotted flaps less lower lip extension $20^\circ, 40^\circ$

D. Full span double slotted flaps $20^\circ, 40^\circ, 60^\circ, 80^\circ$

BY: _____
 BY: _____
 BY: _____

~~SECRET~~

A. I-Pro Tab Alignment, and
Edge Crisp

- 1. Slats closed
- (a) Flaps 0°
- 2. Slats open
- (a) Single slotted Flap 0°
- (b) Double slotted Flap 0°

0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12

B. Extension Tab Alignment, and

- 1. Normal Extension Tab
- (a) Slats closed
- (1) Single slotted Flap 0°
- (b) Slats open
- (1) Single slotted Flap 0°

0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12

2. Full Extension Extension Tab

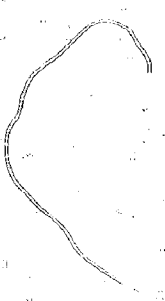
- (a) Slats closed
- (1) Single slotted Flap 0°
- (b) Slats open
- (1) Single slotted Flap 0°

0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12

3. Lower Full Extension Extension Tab

- (a) Slats closed
- (1) Single slotted Flap 0°
- (b) Slats open
- (1) Single slotted Flap 0°

0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12
 0.12 0.12 0.12 0.12



TEST PROGRAM (cont'd)

III. Aileron and Tab Mechanisms and Flaps (cont'd)

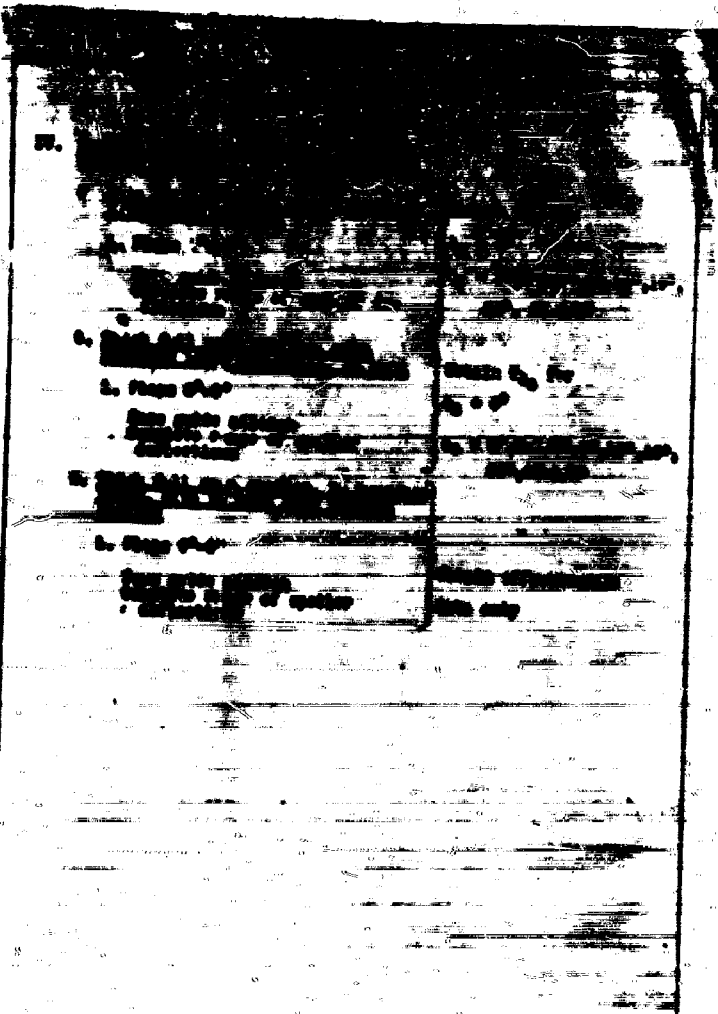
C. Swept trailing edge ailerons and tabs

- 1. Small trailing edge bevel
 - (a) Slots closed
 - (1) Single slotted flap 0°
 - (b) Slots open
 - (1) Single slotted flap 0°
- 2. Large trailing edge bevel
 - (a) Slots closed
 - (1) Single slotted flap 0°
 - (b) Slots open
 - (1) Single slotted flap 0°

IV. Section Two Center Line Wing Section Aileron Flaps

A. This section was section on center line wing section

- 1. Flaps $0^\circ-0^\circ$
Complete range of aileron and guide aileron deflections
- 2. Flaps $0^\circ-0^\circ$
Complete range of aileron and guide aileron deflections
- 3. Flaps $0^\circ-0^\circ$
Complete range of aileron and guide aileron deflections
- 4. Flaps $0^\circ-0^\circ$
Complete range of aileron and guide aileron deflections



27.

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

[Illegible text]

CLASSIFICATION CHANGED TO UNCLASSIFIED

LIST NO. 117

The following National Advisory Committee for Aeronautics Reports have been 'Declassified' per authority of WADC Reclassification List No. 9 dated 20 December 1956.

Date DATE: 11 JANUARY 1957

Signed Richard E. Reedy
OFFICE SECURITY ADVISOR

A.T.I

16603

Reproduced by

**DOCUMENT SERVICE CENTER
ARMED SERVICES TECHNICAL INFORMATION AGENCY
KNOTT BUILDING, DAYTON, 2, OHIO**

"NOTICE: When Government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the U.S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto."

UNCLASSIFIED

CONFIDENTIAL <i>over</i>						ATI- 16809
TITLE: Conference to Determine the Test Program for the 4/19-Scale Hemispan Model of the Consolidated Vultee XB-36 Airplane in the 19-Foot Pressure Tunnel						REVISION: (None)
AUTHOR(S): (Not known)						ORIG. AGENCY NO.: (None)
ORIG. AGENCY: Langley Aeronautical Laboratory, Langley Air Force Base, Va.						PUBLISHING AGENCY NO.: (None)
PUBLISHED BY: National Advisory Committee for Aeronautics, Washington, D.C.						
DATE	DOC. CLASS.	COUNTRY	LANGUAGE	PAGES	ILLUSTRATIONS	
Jan' 45	Conf'd 1	U.S.	English	14	drawgs	
ABSTRACT:						
<p>A discussion is presented on a test program for the XB-36 bomber including scale effect and stall studies, flap effectiveness and the servo tab method of aileron control. These parts of the program were agreed to be satisfactory. A possible revision of the balancing tab study was considered, but limited to a study of the effect of tab bulbs in eliminating the undesirable aileron floating tendency. In connection with spoiler tests the desirability of placing all spoiler segments on the same shaft was stressed.</p>						
DISTRIBUTION: SPECIAL. All requests for copies must be addressed to Publishing Agency.						
DIVISION: Wind Tunnels (17)			SUBJECT HEADINGS:			
SECTION: Testing (4)			Airplanes - Wind tunnel tests (08496.5)			
			XB-36 (99409)			
ATI SHEET NO.:			240400			
Central Air Documents Office Wright-Patterson Air Force Base, Dayton, Ohio			AIR TECHNICAL INDEX		26	
			CONFIDENTIAL			

U Auth: WADC Reclassification List No. 9 dd 20 Dec 56

10/101

(25) XB-36 aircraft
 * Bomber aircraft
 (23) * Wind tunnel tests