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C-105 CONFIDENTIAL/Aero Data/78

UNCLASSIFIED

N.A.E. LOW SPEED WIND TUNNEL TESTS

VARIATION OF LATERAL DERIVATIVES WITH C

UNCLASSIFIED

Classification cancelled/changed to .....

by authority of .....(date).....

Signature .....Rank .....

UNCLASSIFIED

A. V ROE CANADA LIMITED
MALTON · ONTARIO

TECHNICAL DEPARTMENT (Aircraft)

AIRCRAFT CF-105

REPORT NO P/Aero Data/78

FILE NO

NO OF SHEETS

TITLE

VARIATION OF LATERAL DERIVATIVES WITH α

PREPARED BY D. B. Garland DATE Sept. 1956

CHECKED BY DATE

SUPERVISED BY DATE

APPROVED BY DATE

ISSUE NO	REVISION NO	REVISED BY	APPROVED BY	DATE	REMARKS

FORM 1298-A

INDEX

VARIATION OF LATERAL DERIVATIVES WITH α

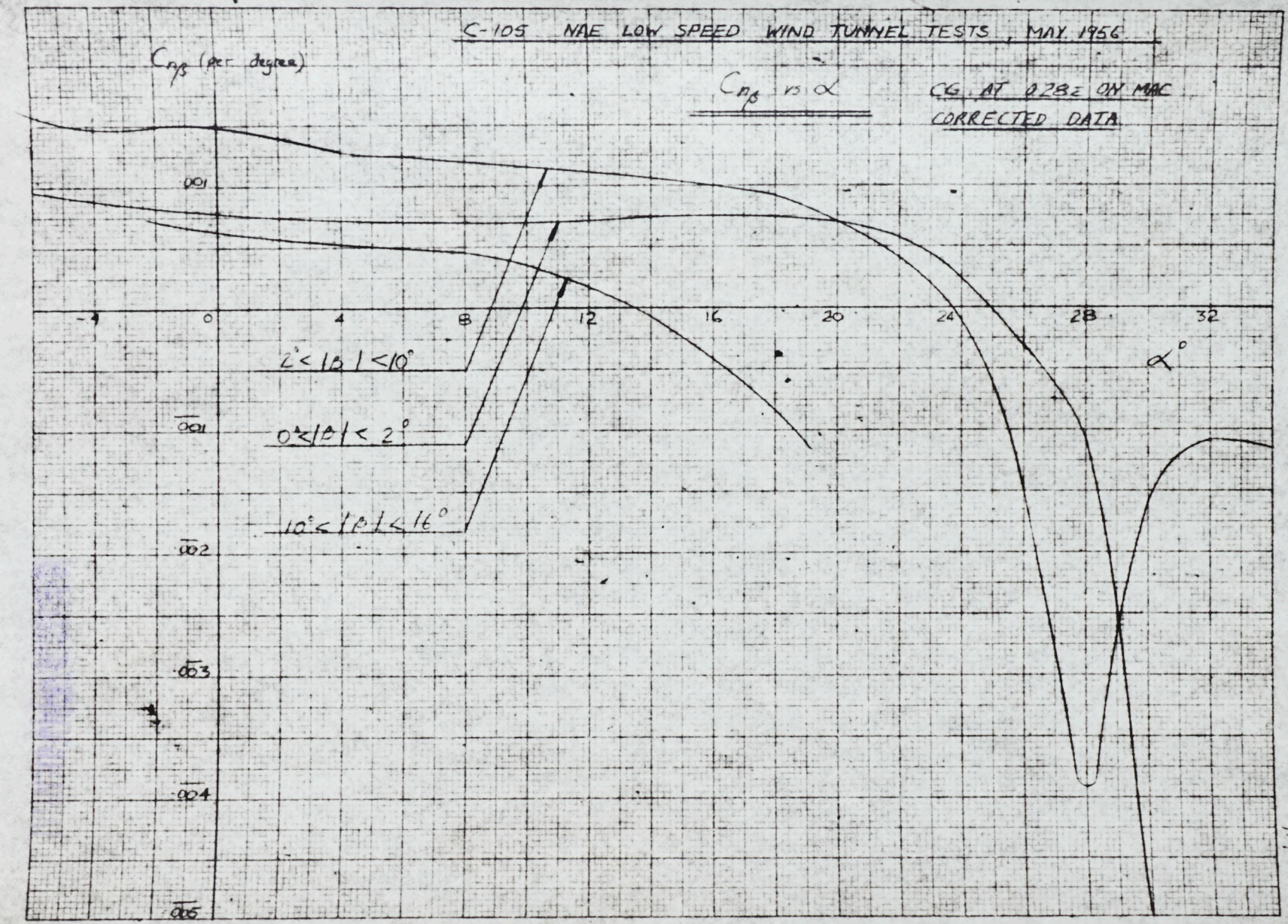
INDEX (Continued)

C-105 NAE LOW SPEED WIND TUNNEL TESTS, MAY 1956

C_{n_β} (per degree)

C_{n_β} vs α

CG AT 0.28c ON MAC
CORRECTED DATA



P/AERO DATA/78

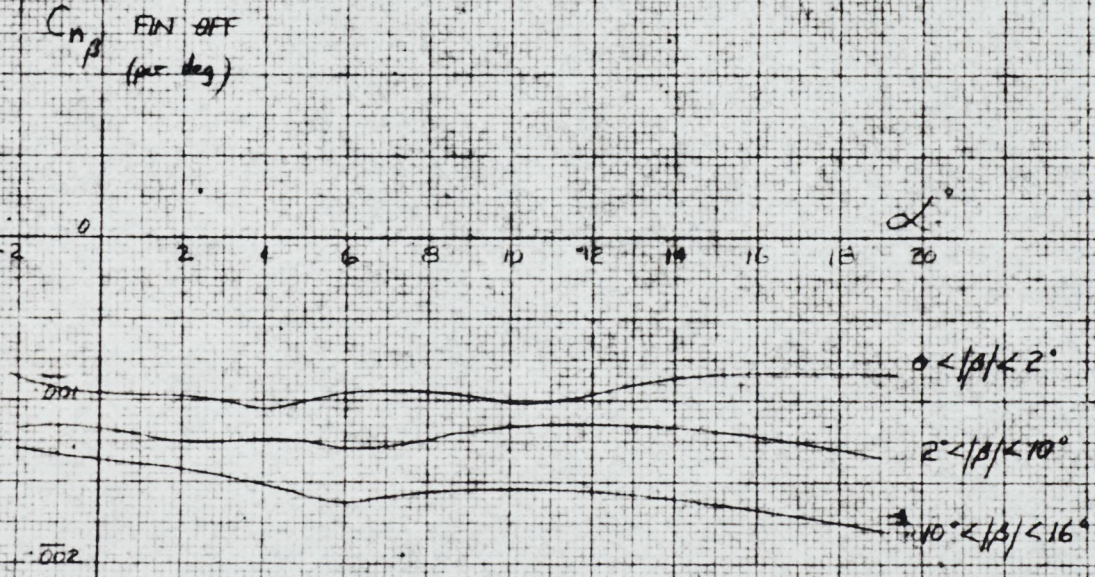
C-105 NAE LOW SPEED WIND TUNNEL TESTS, MAY 56.

C_{n_β} vs α

FIN OFF

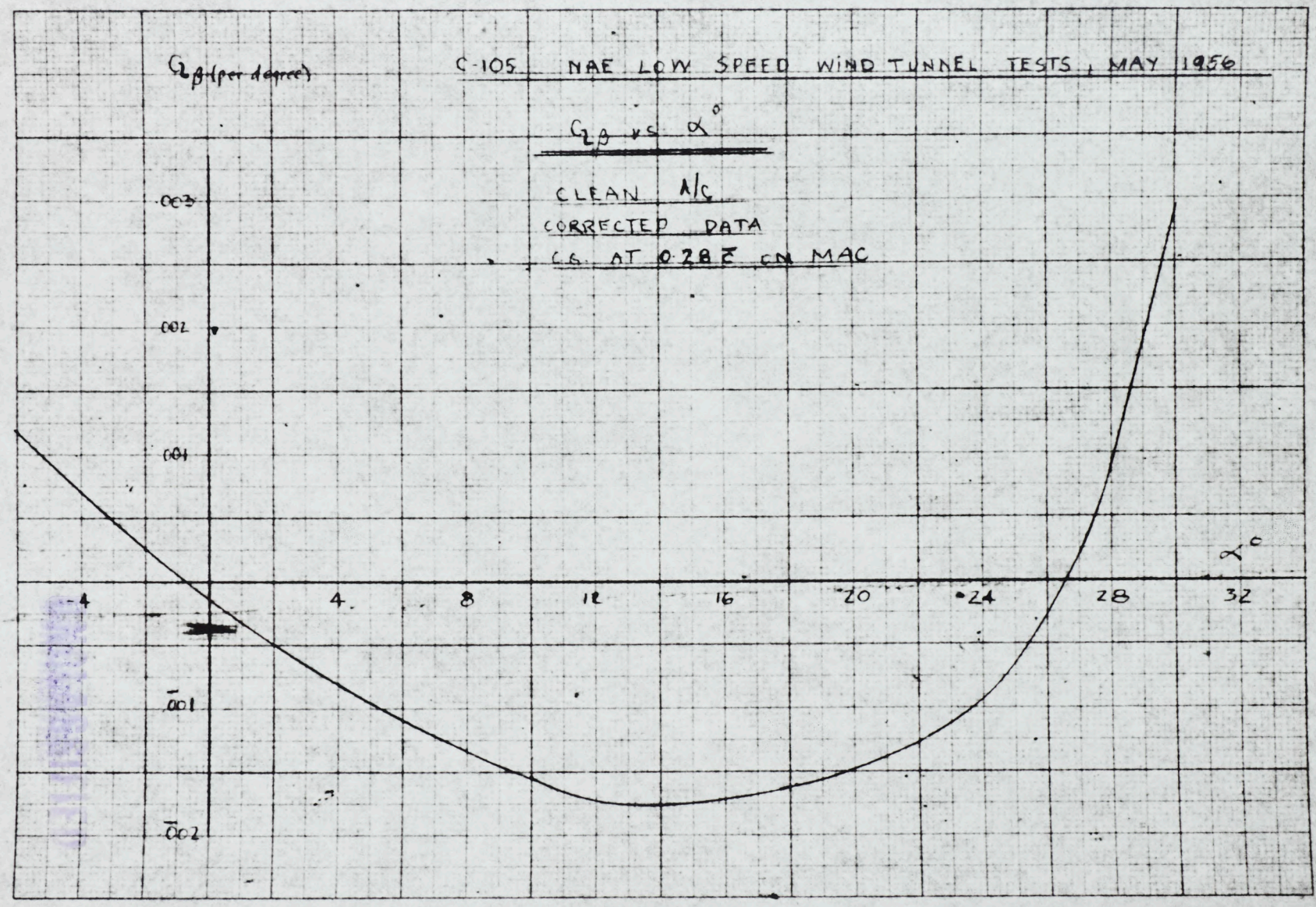
CG AT 0.28 $\bar{c}$ ON MAC

CORRECTED DATA



DBC SEPT 14 1956

1/AERO DATA/-78 1.1.1.

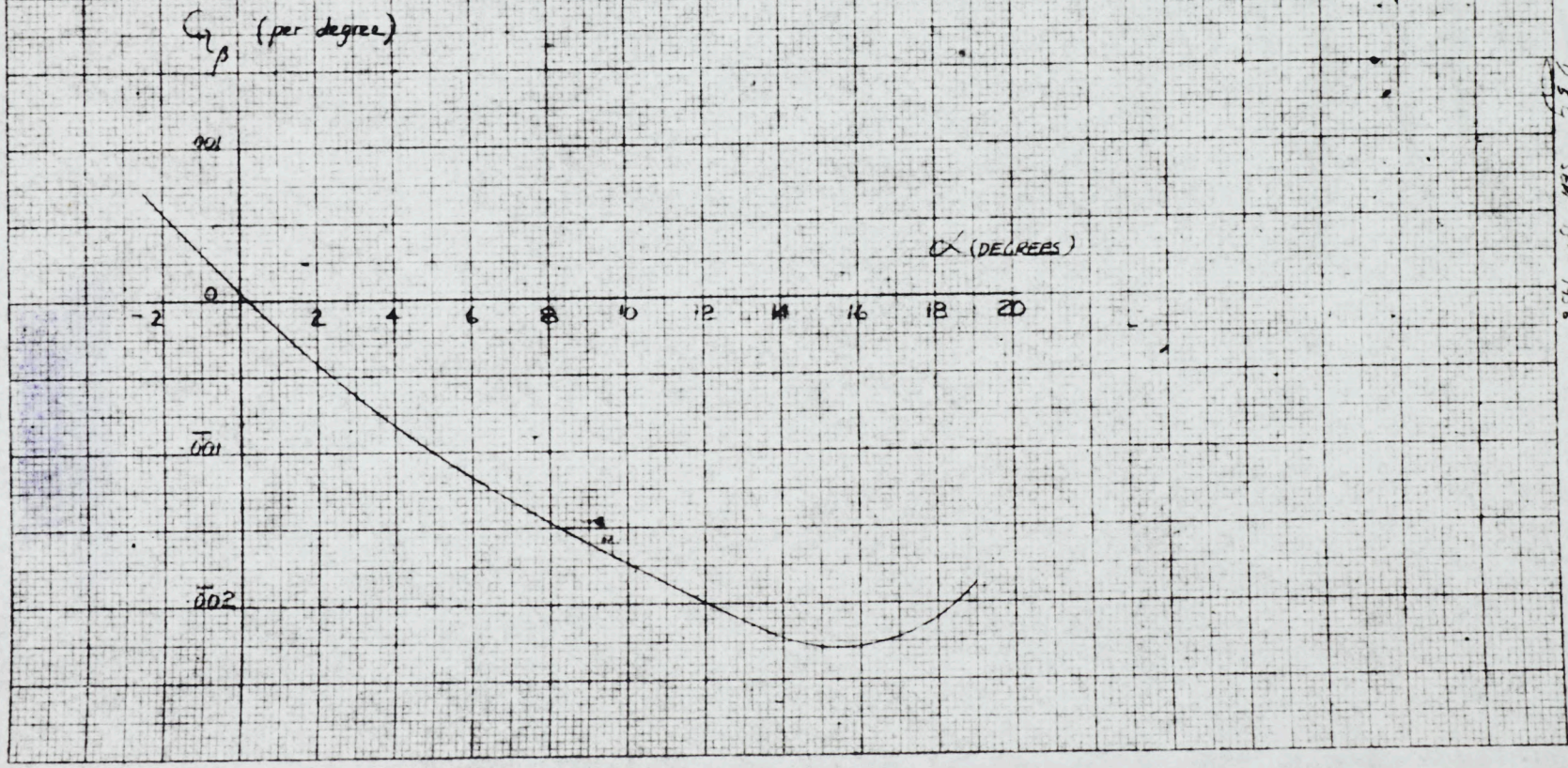


C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1956

C_{l_β} vs α (CORRECTED DATA)

FIN OFF

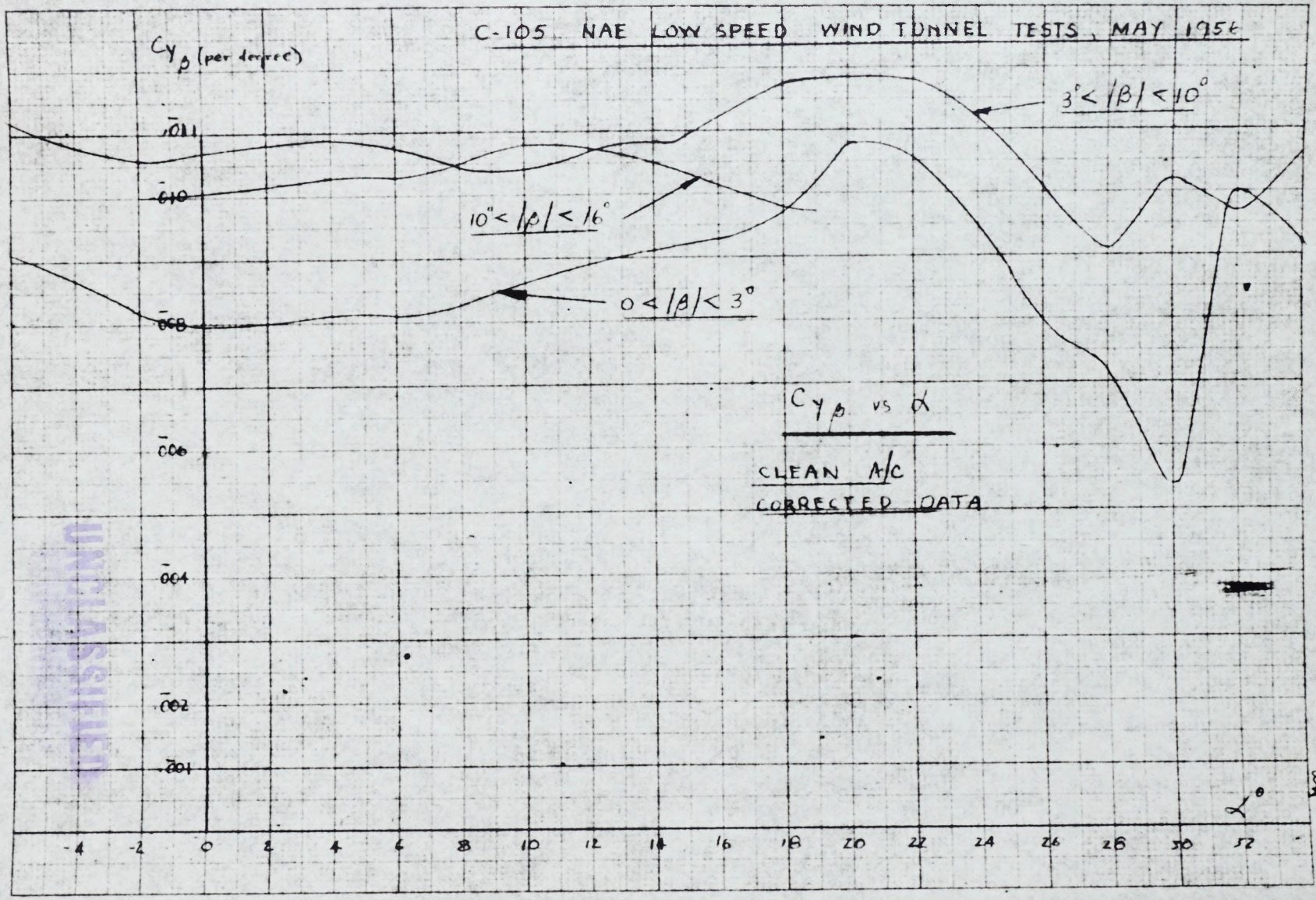
CG AT 0.28 c ON MAC



D.R.C. SEPT 1956

PLANES DATA 78

121



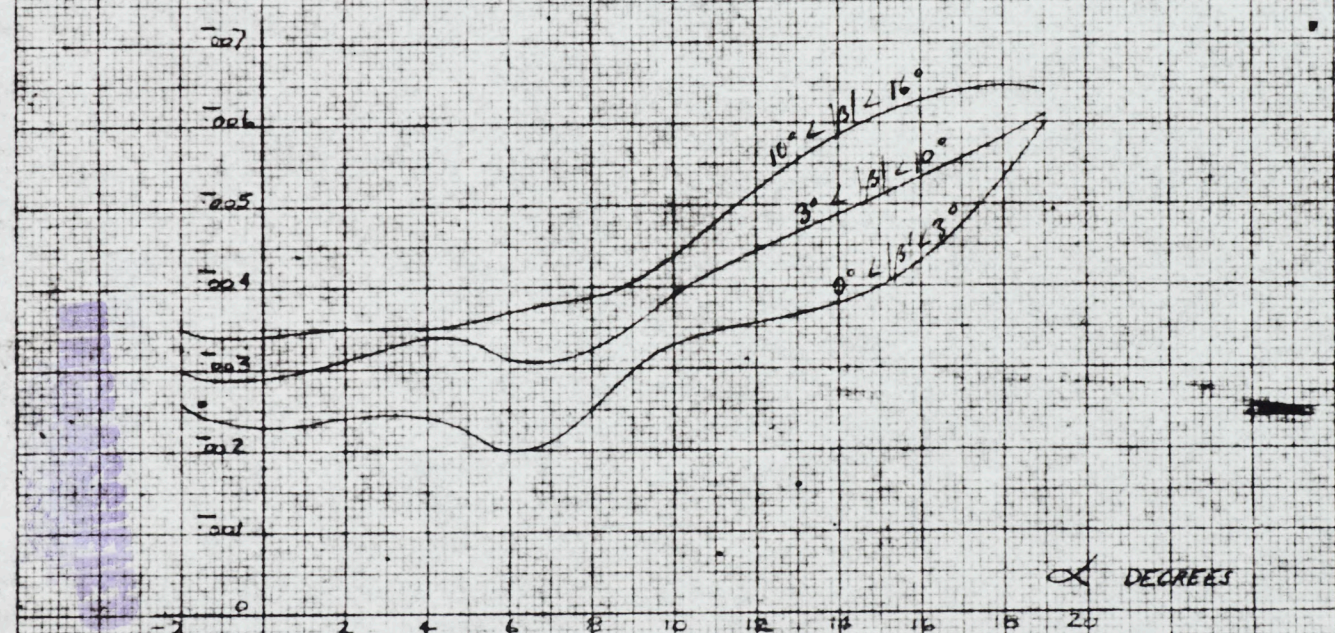
C-105 NAE LOW SPEED WIND TUNNEL TESTS, MAY 1956

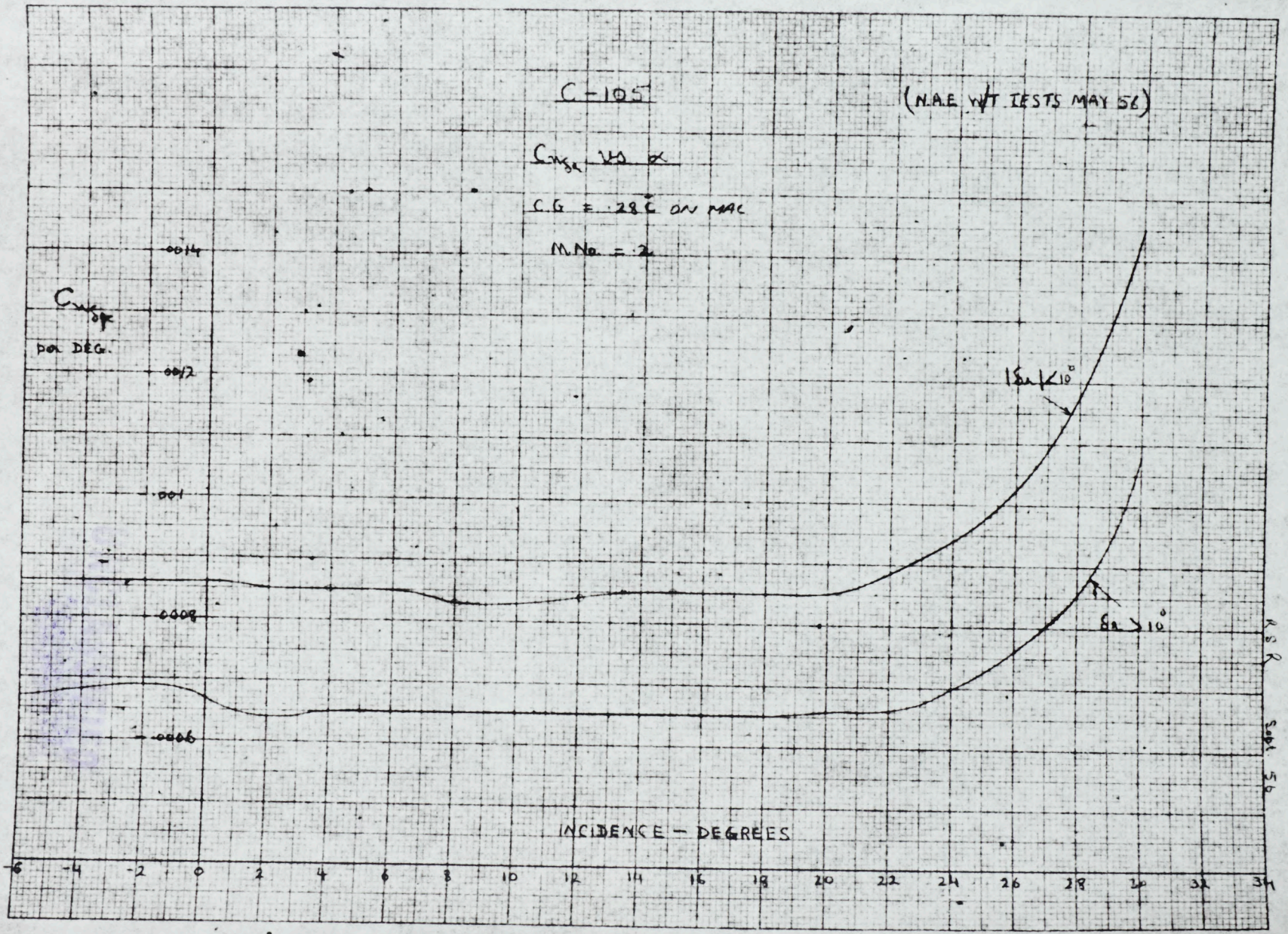
C_{y_β} vs α

FIN OFF

CORRECTED DATA

CG AT .0 2BC ON MAC





H/AERO OCT 78

2.1

(NAE WT TESTS JULY 56)

C-105

$C_{l_{\delta_a}}$ vs α

C.G = .28 $\bar{c}$

MINO = .2

$C_{l_{\delta_a}}$ PER DEG.

.0004

.0002

$|\delta_a| < 10°$

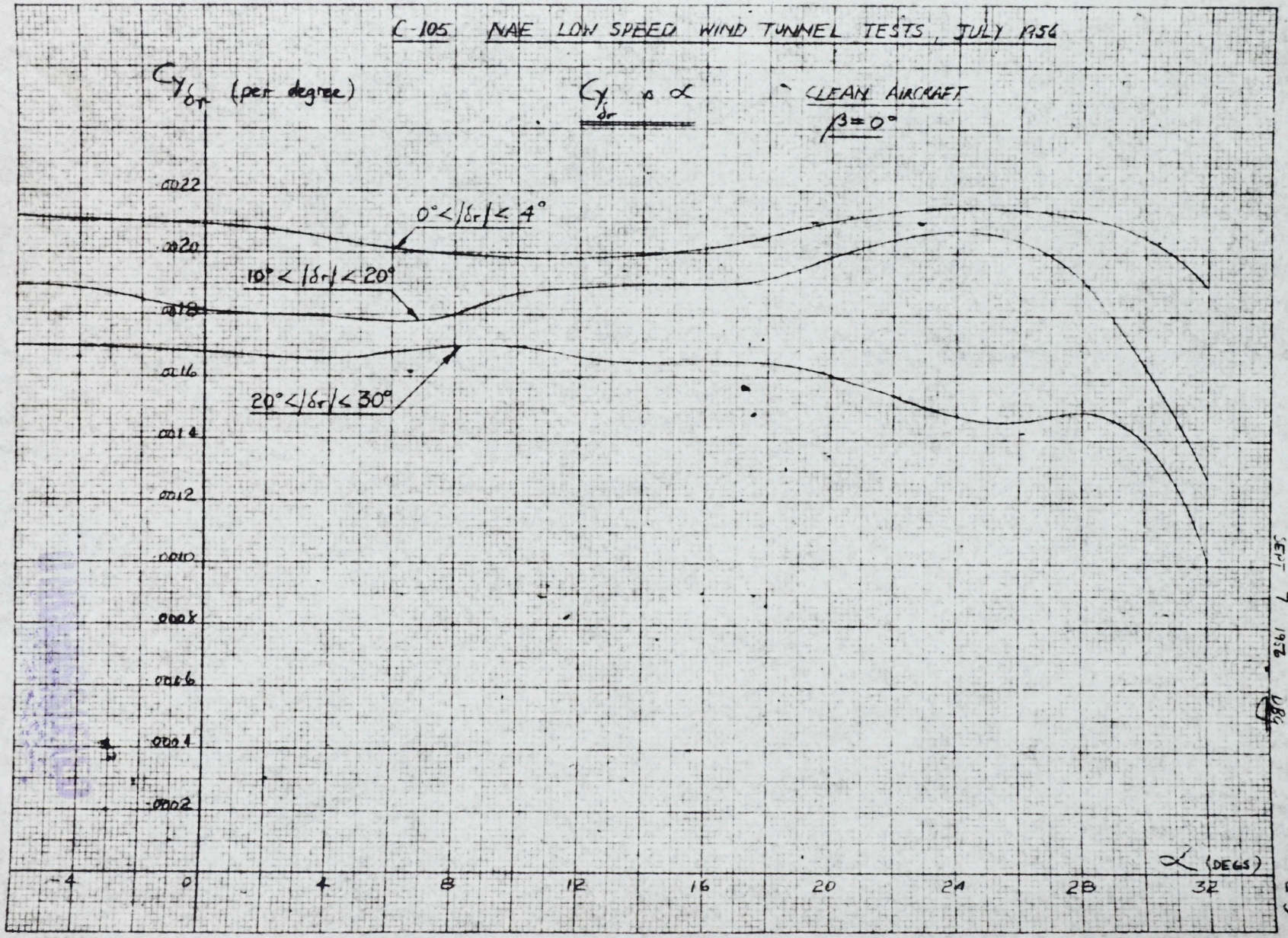
$\delta_a > 10°$

INCIDENCE - DEGS.

-6 -4 -2 0 4 8 12 16 20 24 28 32

R.S.R. Sept 56

P NAERO DATA 18 2.2



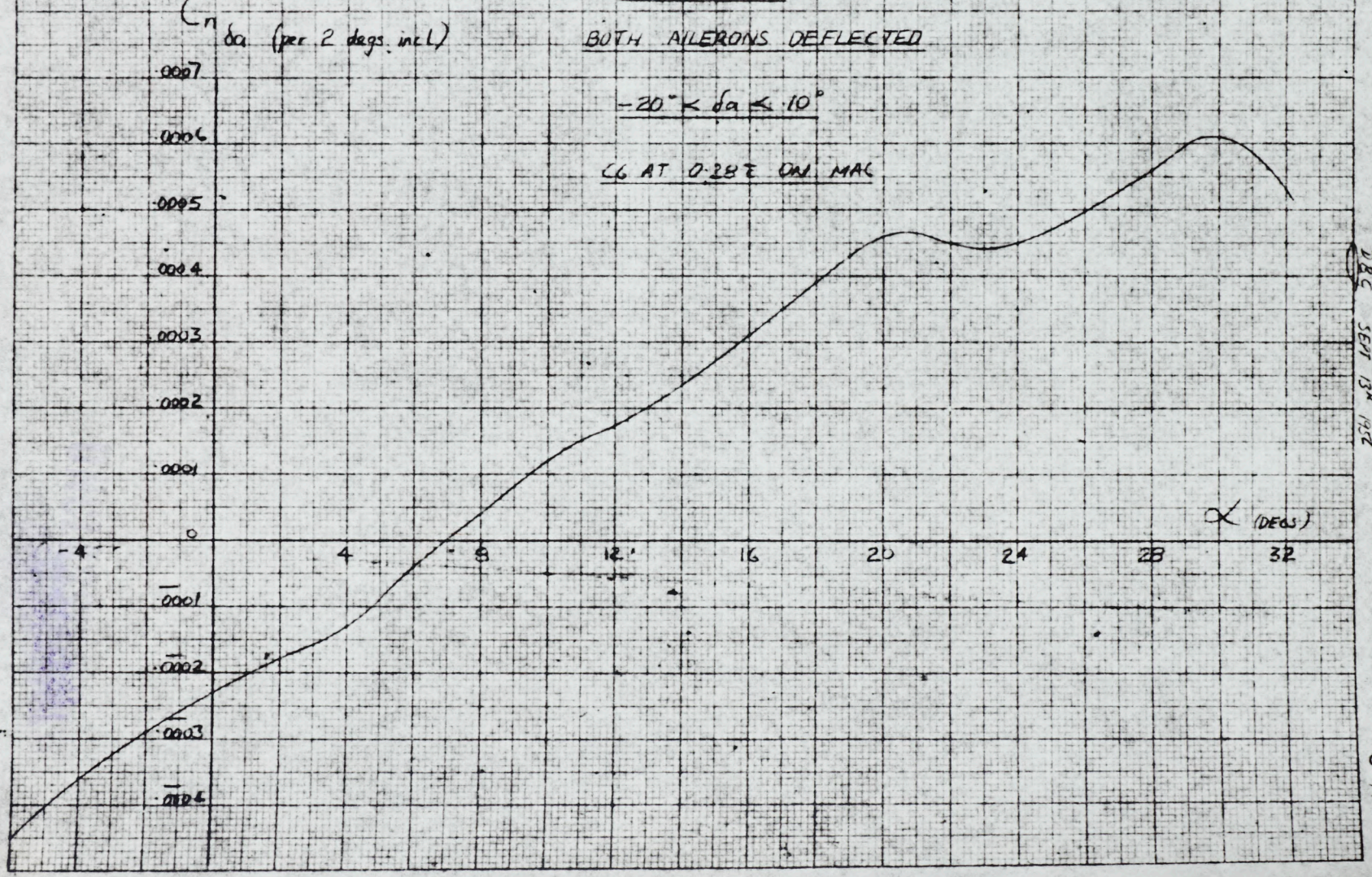
SEPT 7 1956 UBG

PAERO DATA/78

2.3

C-105 NAE LOW SPEED WIND TUNNEL TESTS JULY 1956

$C_{n_{\delta a}}$ vs α



28 SEPT 1956

V/AERO DATA/76

3.1

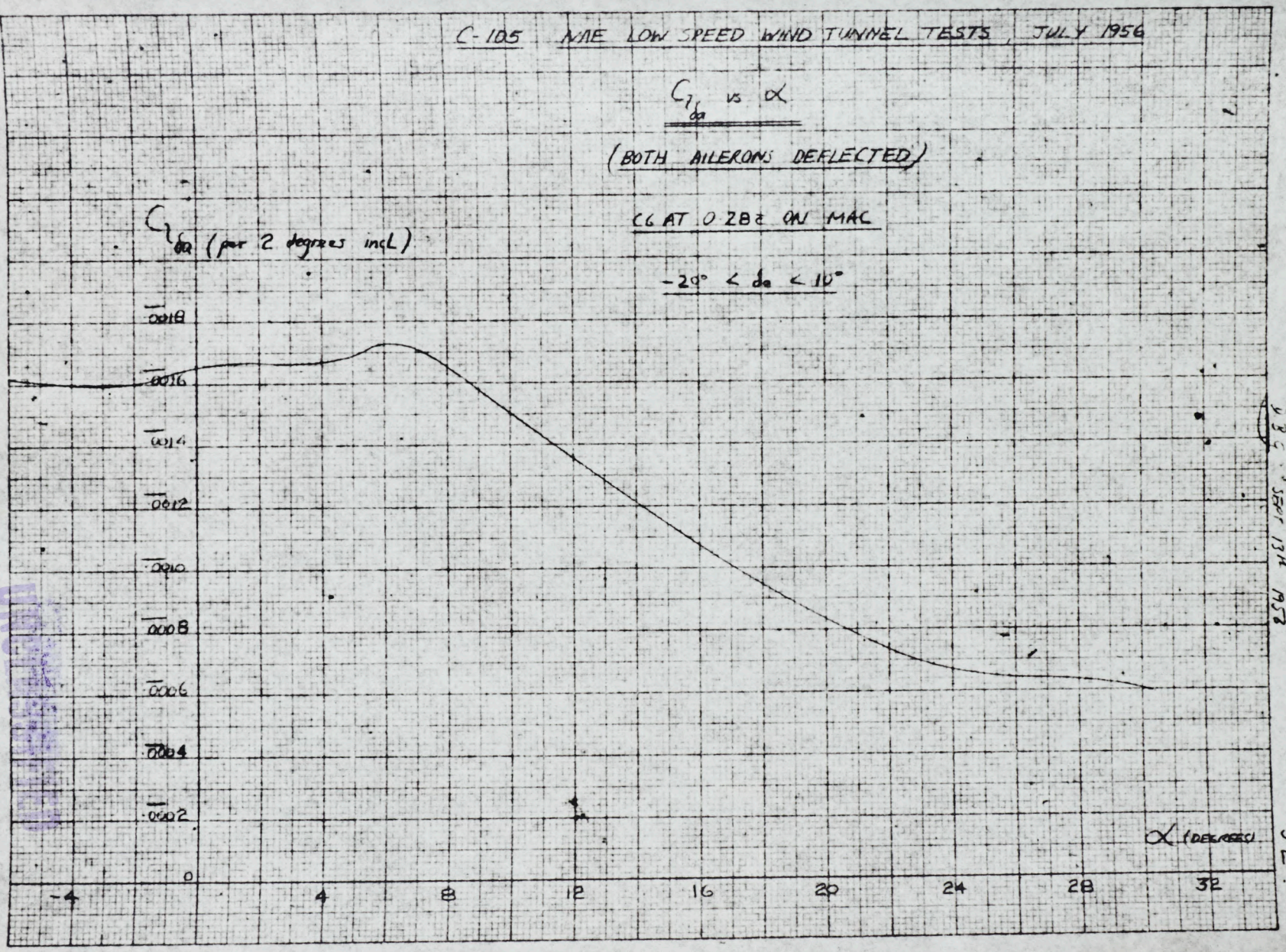
C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1956

$C_{l_{da}}$ vs α

(BOTH AILERONS DEFLECTED)

CG AT 0.28 c̄ ON MAC

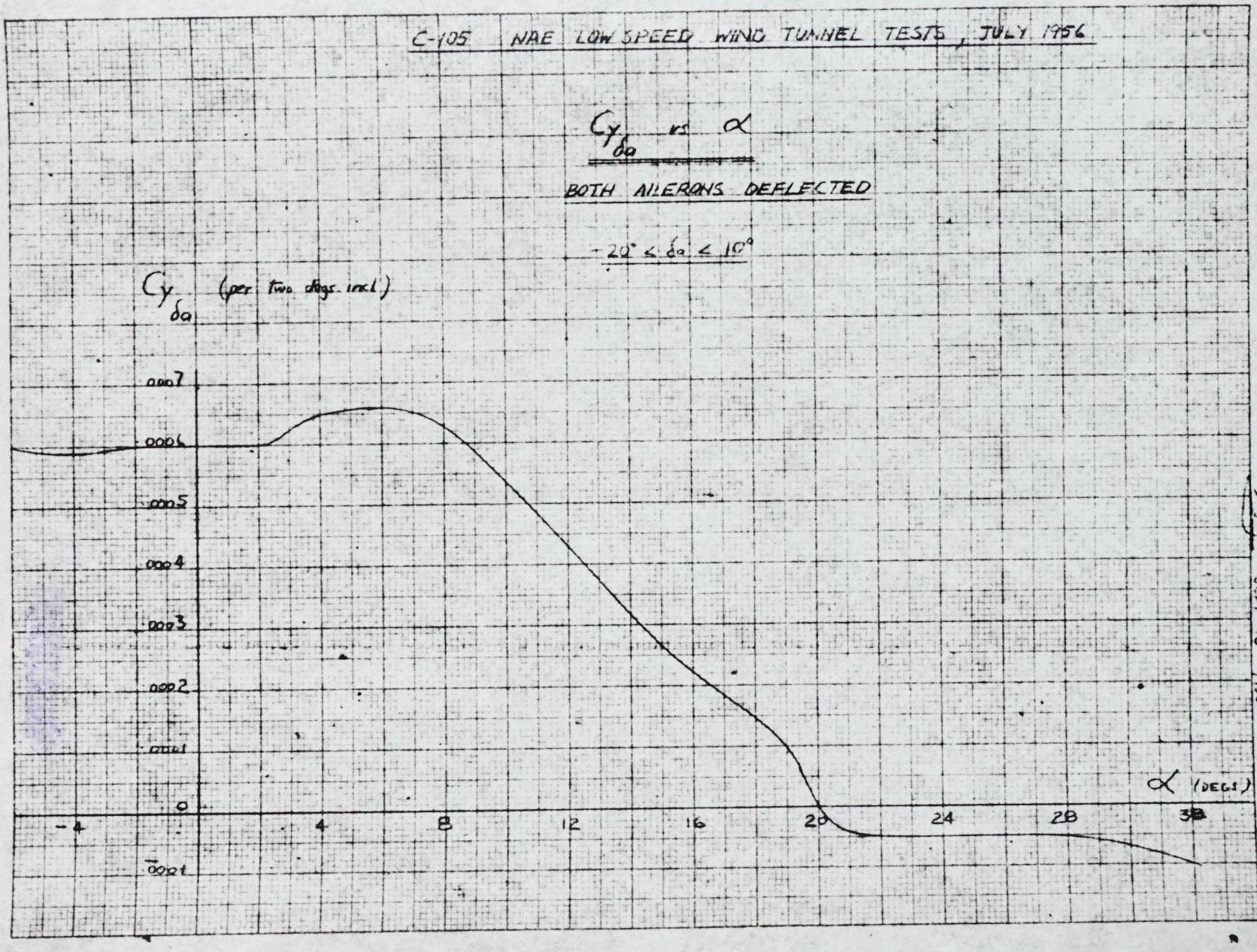
$-20° < d_a < 10°$



PLANFORM DETAIL 78

3.2.

C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1956



D.B.C. SEPT 13th 1973

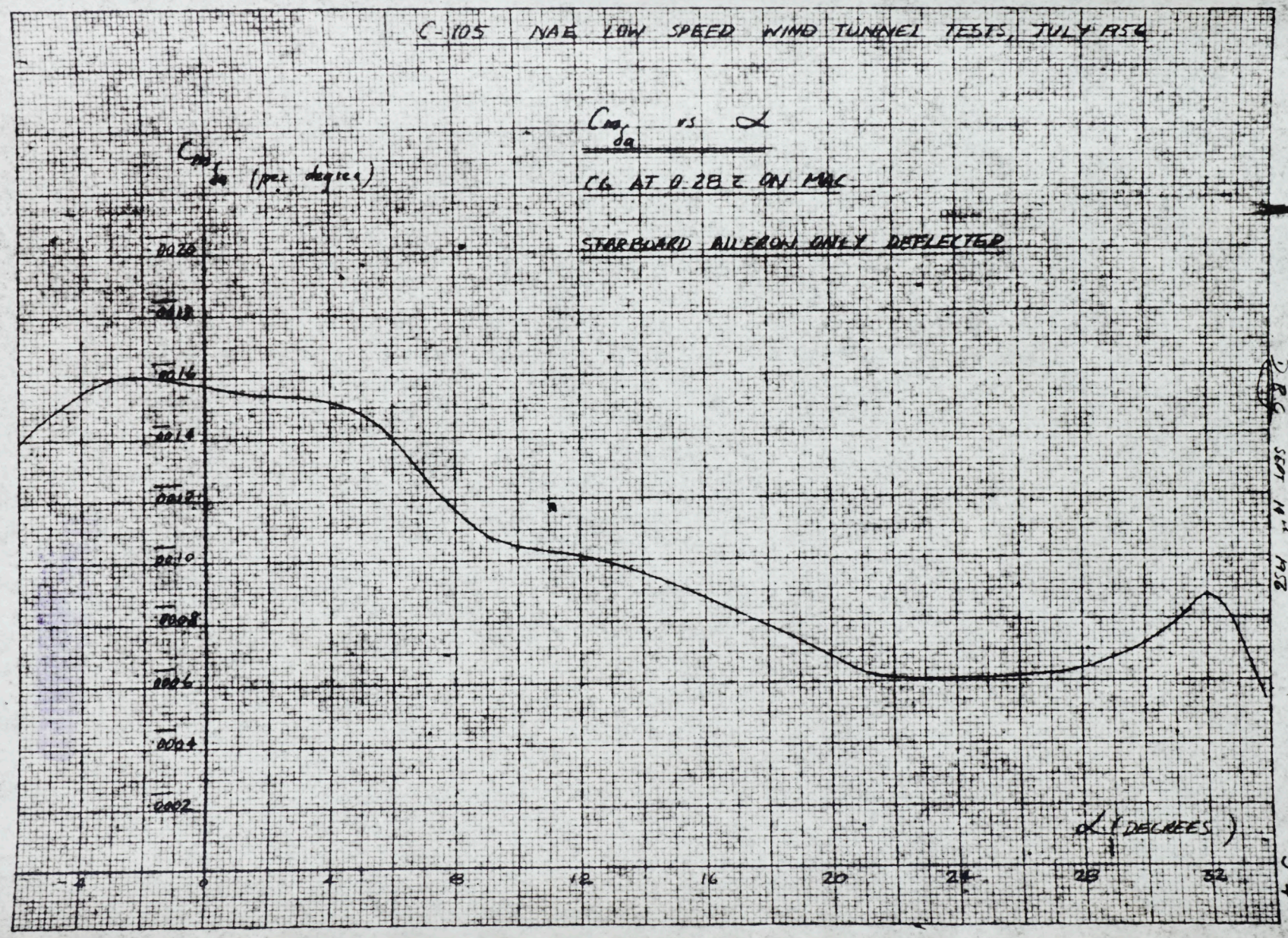
F/AERO DATA/78 3.3.

C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1956

$C_{n_{\delta_a}}$ vs α

C_L AT 0.28 c ON MAC

STARBOARD AILERON ONLY DEFLECTED



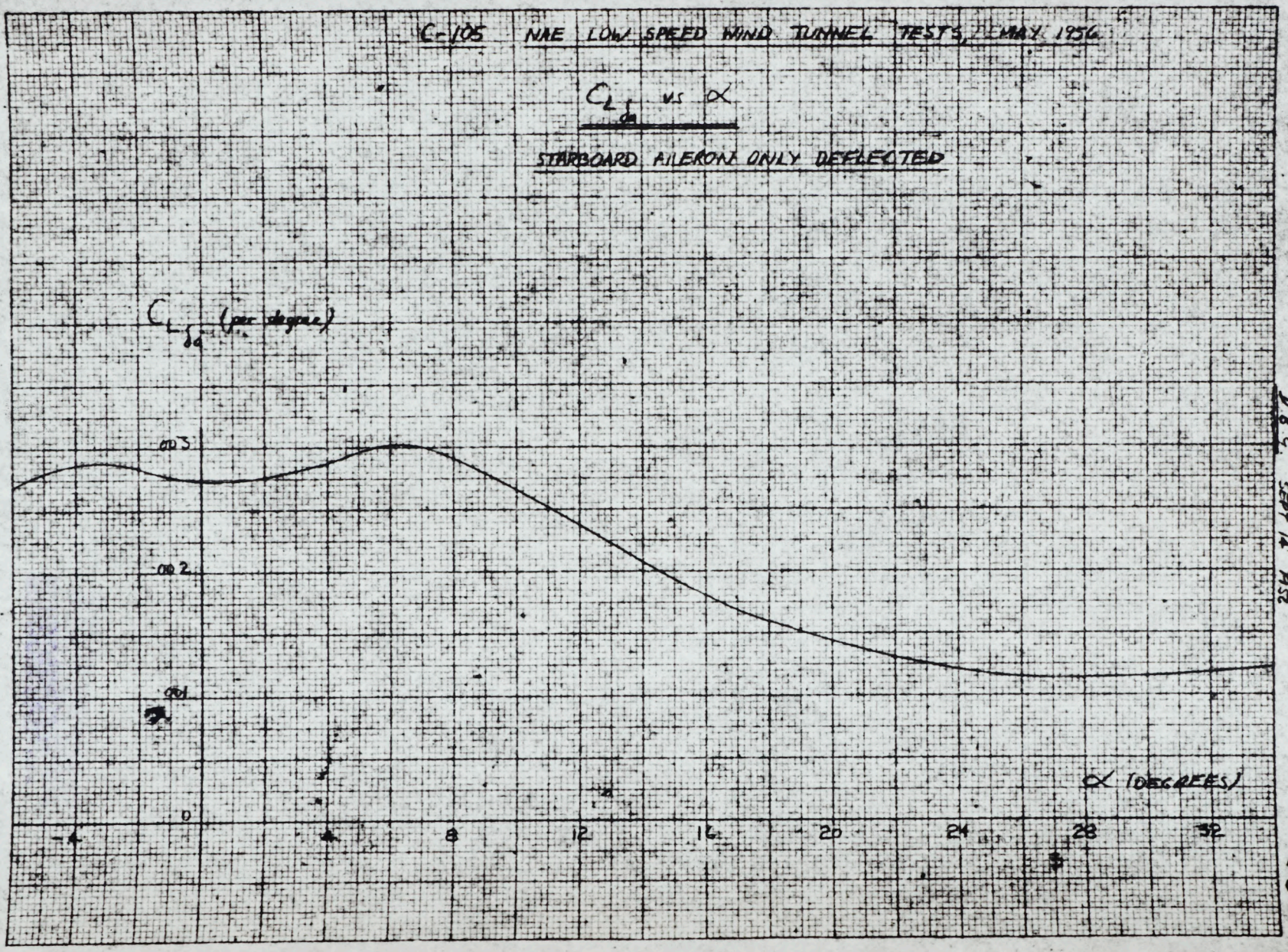
D.R.G. SEPT 10TH 1958

P-1456 DATA / 78 3.4

C-105 NAE LOW SPEED WIND TUNNEL TESTS, MAY 1956

$C_{l_{\delta a}}$ vs α

STARBOARD AILERON ONLY DEFLECTED



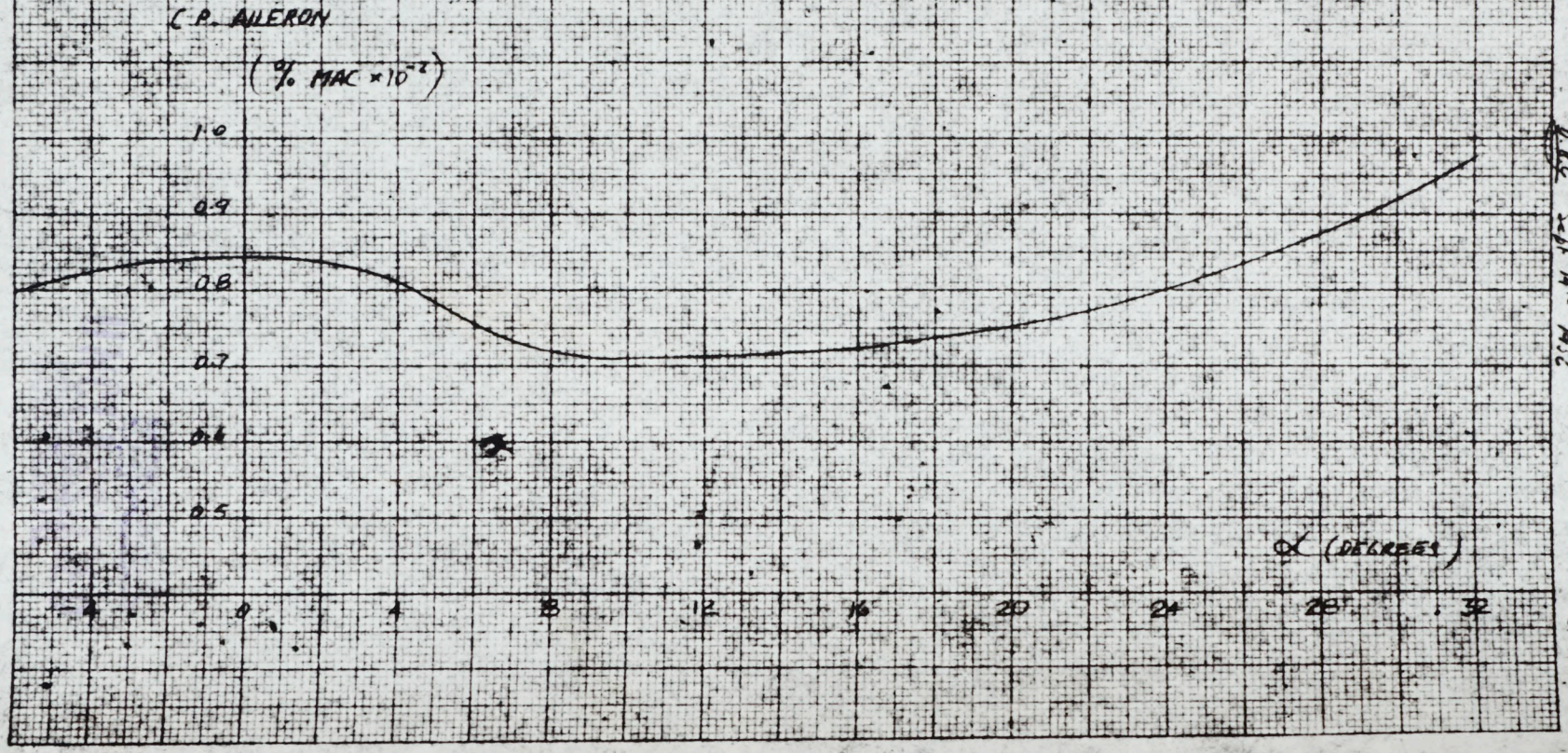
D.R.S. SEPT 14, 1956

P/AERO DATA/78 3.5

C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1956

AILERON C.P. vs α

$-20° \leq \delta_a \leq 10°$



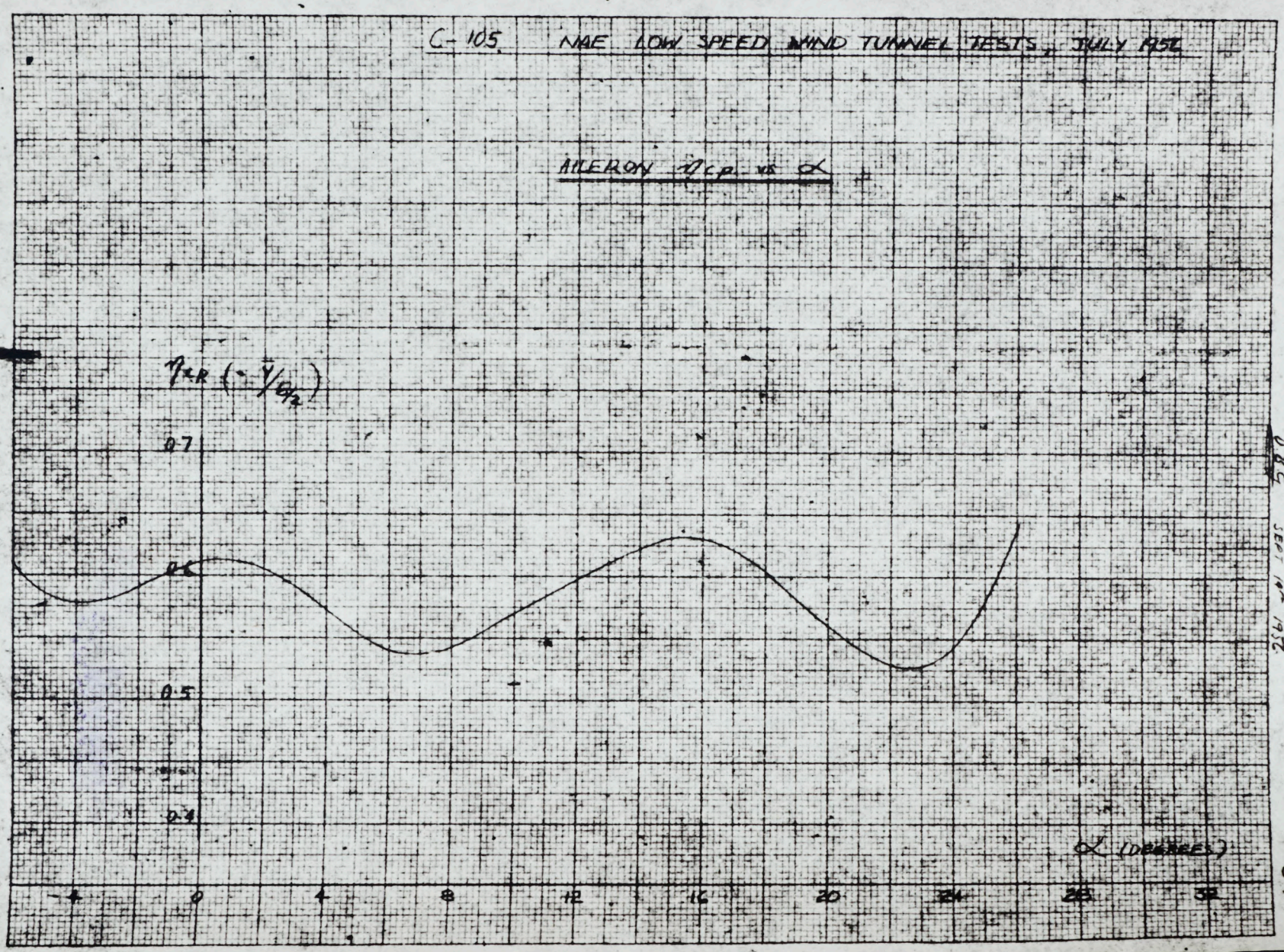
RAE Sept 14th 1956

D/AERO DATA/78

3.6

C-105 NAE LOW SPEED WIND TUNNEL TESTS, JULY 1951

AILERON C_{l_p} vs α



D.B.G. SEPT 10th 1952

NACA LANGLEY 10

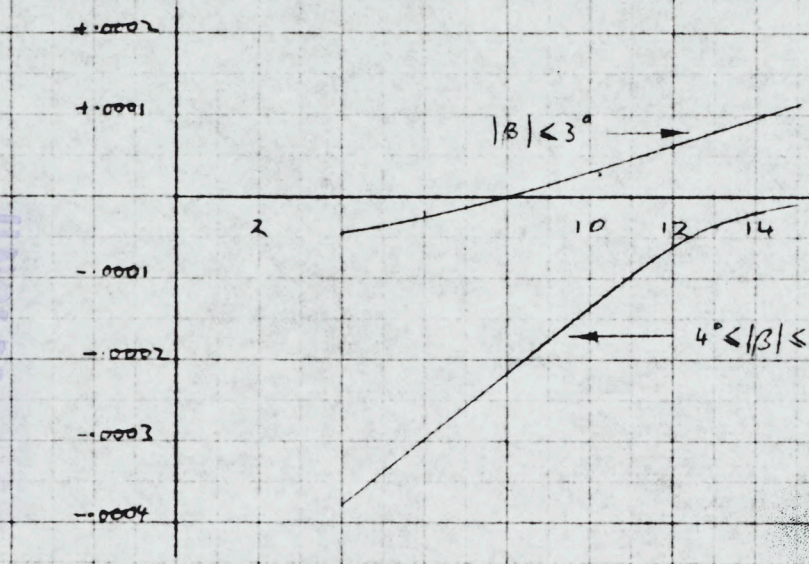
3.7

P/WT/129

C - 105

N.A.E. Low Speed W/T Tests (May 1956)

C_{n_β} due to U/C vs α



C.G @ .312 8" ABOVE F.D.

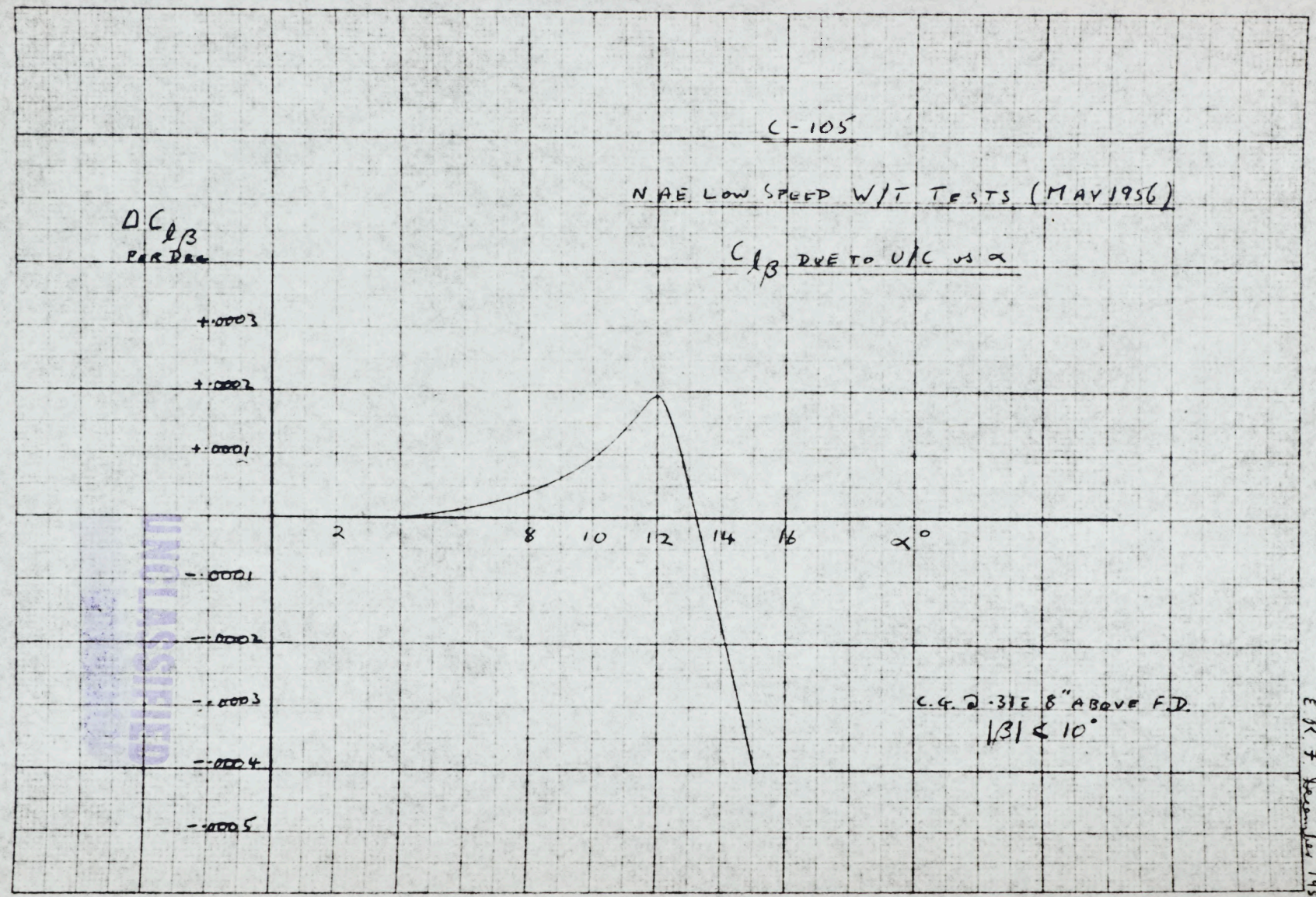
P/AD/78 4.1
R.A.E. December 1956

P/WT/129

C-105

N.A.E. LOW SPEED W/T TESTS (MAY 1956)

$C_{l\beta}$ DUE TO U/C VS α



C.G. @ .31 c 8" ABOVE F.D.
$|\beta| \leq 10^\circ$

P/AD/78 4.2
E.R. 7 December 1956

D/WT/129

C-105

N.A.E. LOW SPEED W/T TESTS (MAY 1956)

C_{y_β} DUE TO U/C VS α

ΔC_{y_β} PER DEG

+.001

−.001

$4° \leq |\beta| \leq 8°$

$|\beta| \leq 3°$

2 4 6 10 12 16 $\alpha°$

C.G @ .312 8" ABOVE F.D.

P/AD/78 4·3
ERF. December 1956