C-105

EXTRACT

from

STABILITY REPORTS

August 1954.

ANALYZED

A. V ROE CANADA LIMITED
MALTON : ONTARIO
TECHNICAL DEPARTMENT (Aircraft)

AIRCRAFT	REPORT No	
C-105	SHEET No	
	PREPARED BY	DATE
		August 1954.
	CHECKED BY	DATE

APPENDIX A

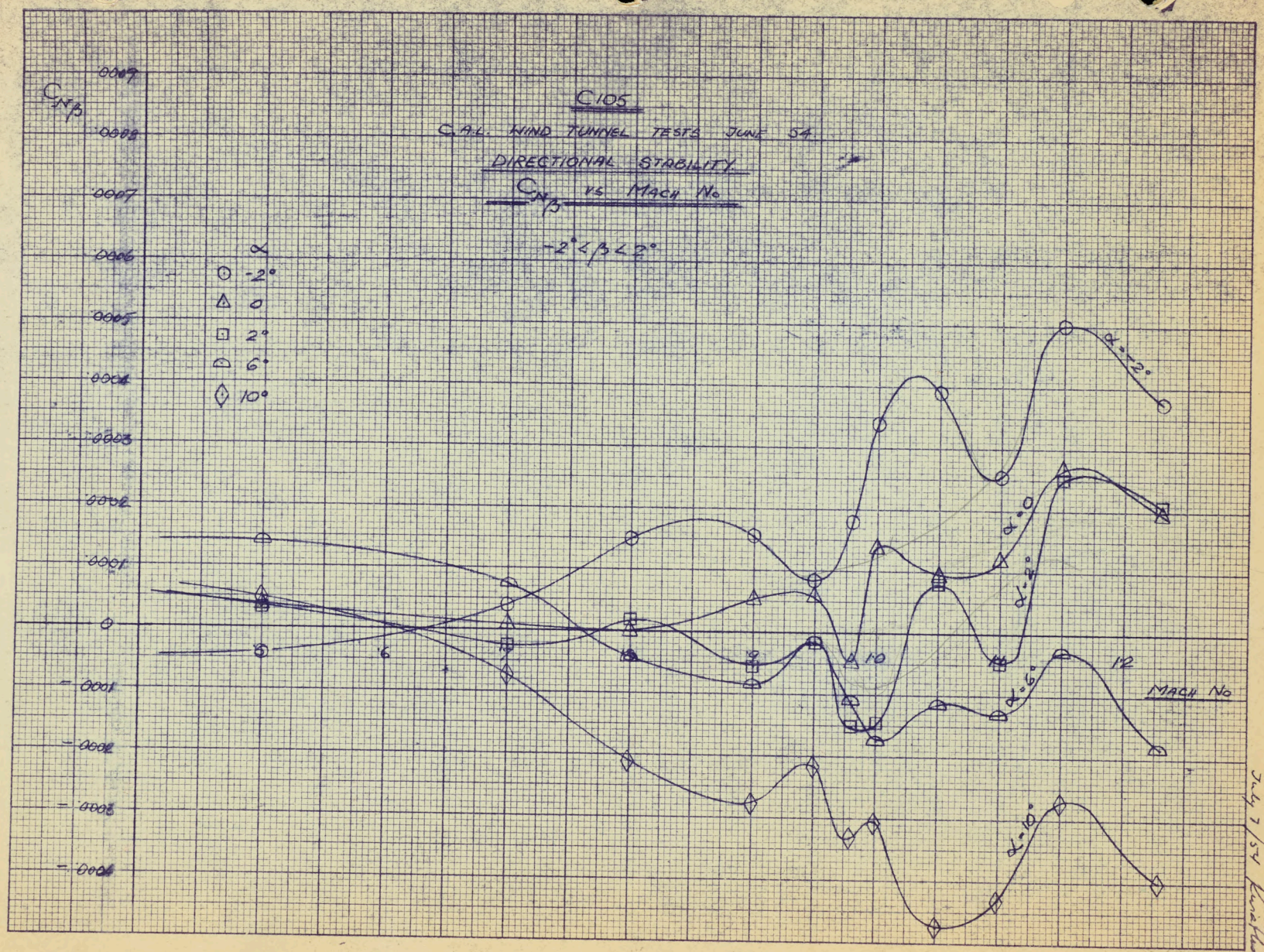
EXTRACT

from

A.V. ROE STABILITY REPORTS

1. Yawing Moment due to Sideslip
   - 1.1 C_{N_β} vs M — $-2^\circ < \beta < +2^\circ$
   - 1.2 C_{N_β} vs M — $2^\circ < \beta < 8^\circ$
   - 1.3 C_{N_β} vs α — M = .5
   - 1.4 C_N vs β — $\alpha = 2^\circ$
2. Rolling Moment due to Sideslip
   - 2.1 C_{ℓ_β} vs M — $\alpha = 0$
   - 2.2 C_{ℓ_β} vs M — $\alpha = 2^\circ$
   - 2.3 C_{ℓ_β} vs M — $\alpha = 6^\circ$
   - 2.4 C_{ℓ_β} vs α — M = .5
   - 2.5 C_ℓ vs β — $\alpha = 2^\circ$
3. Rudder Effectiveness
   - 3.1 $C_{N_{\delta_r}}$ vs α — M = .5
4. Aileron Effectiveness
   - 4.1 $C_{\ell_{\delta_a}}$ vs α — M = .5

FORM 1319A



3.1.1.1. PART 1/30
July 7/54 Kuethe
1-1

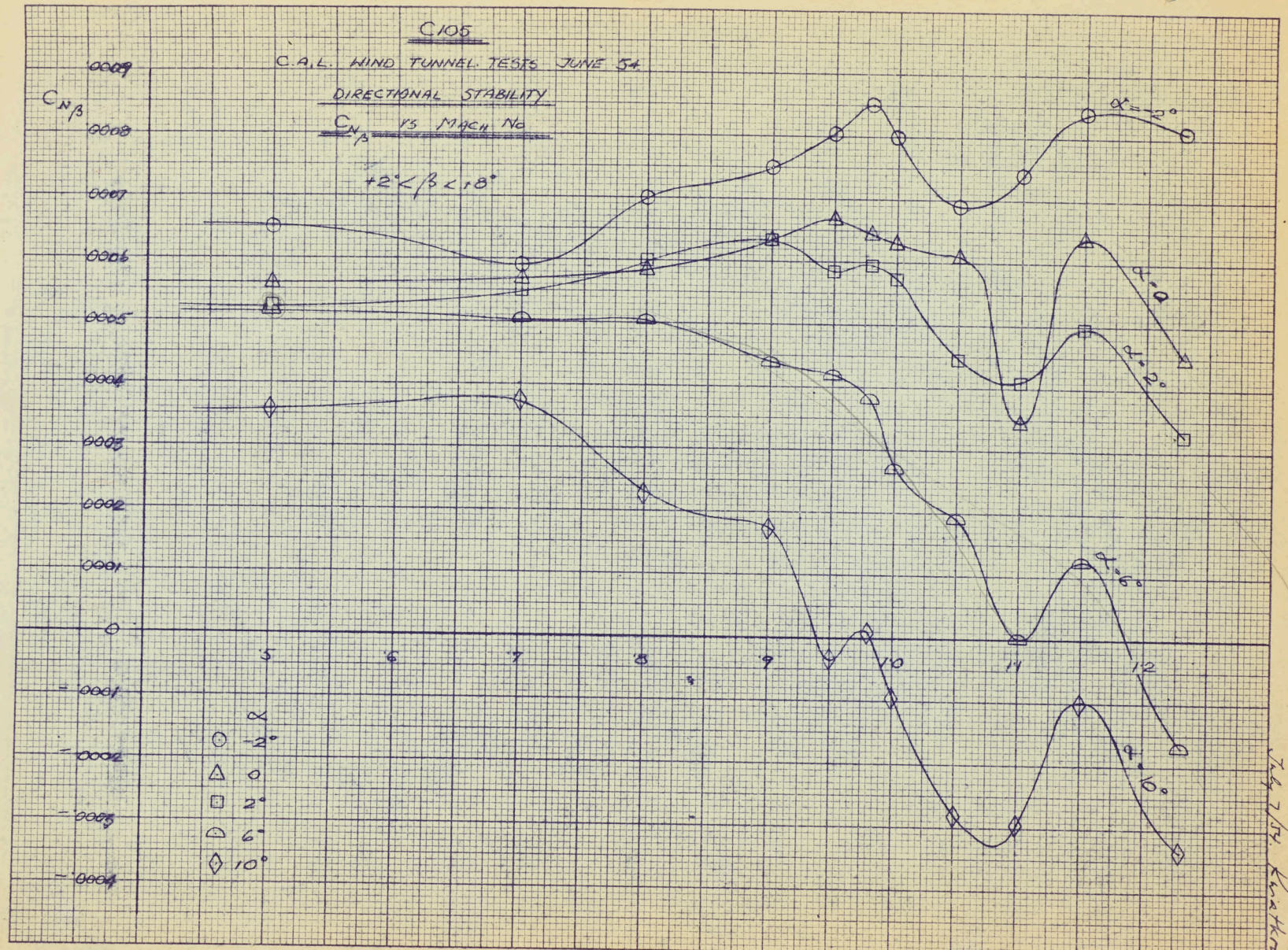
C105

C.A.L. WIND TUNNEL TESTS JUNE 54

DIRECTIONAL STABILITY

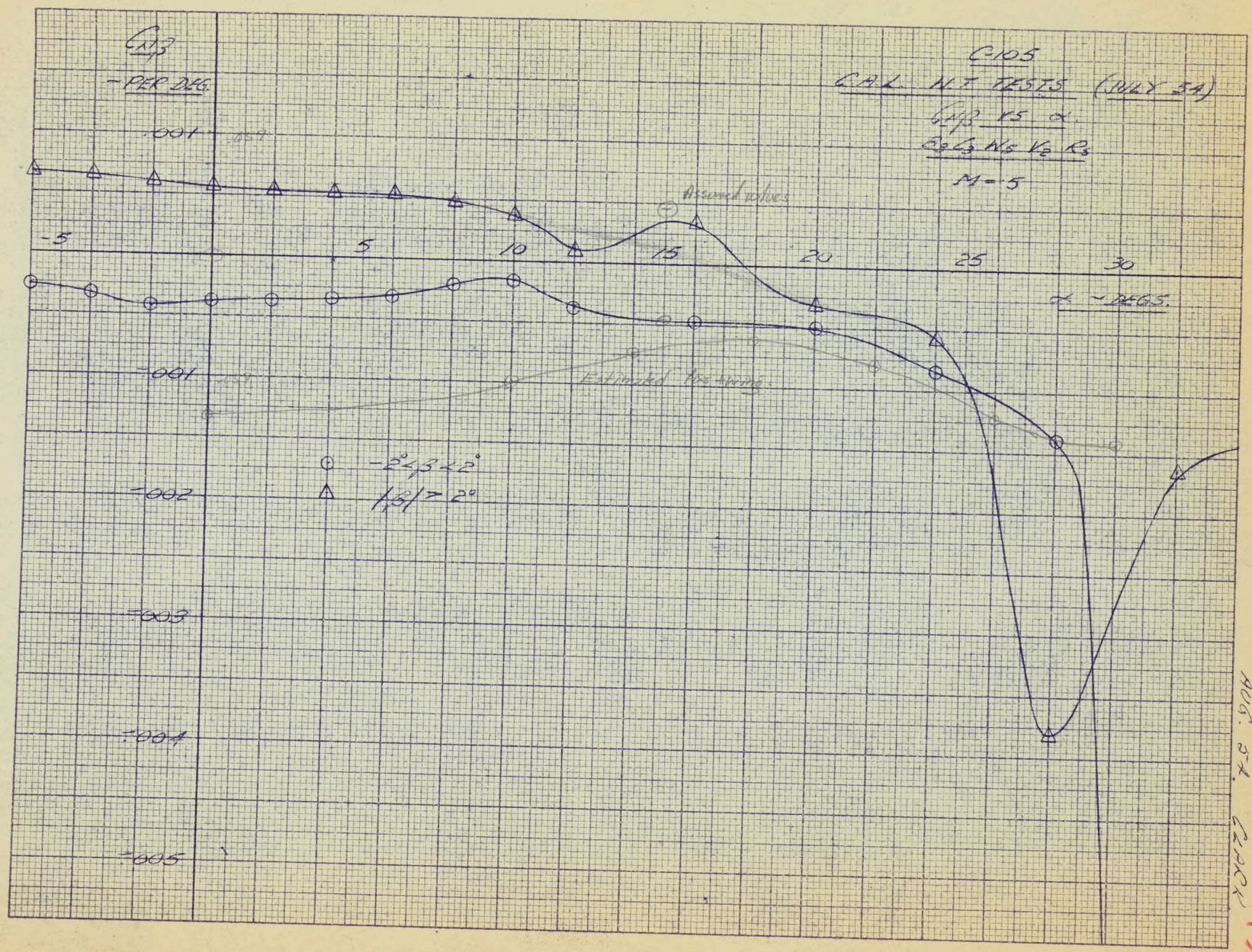
C_{N_β} VS MACH No

$+2° < \beta < +8°$



3.1.1.2. P/W.T. /30 1·2

July 7/54 Kwakkel



C-105
CAL. N.T. TESTS (M42 X 34)
C_{Mp} VS α
$\delta_3 \delta_4 N_5 V_2 R_3$
M = .5

AUG. 27. 1970

June 23/54. Kwiatkowski.

C105

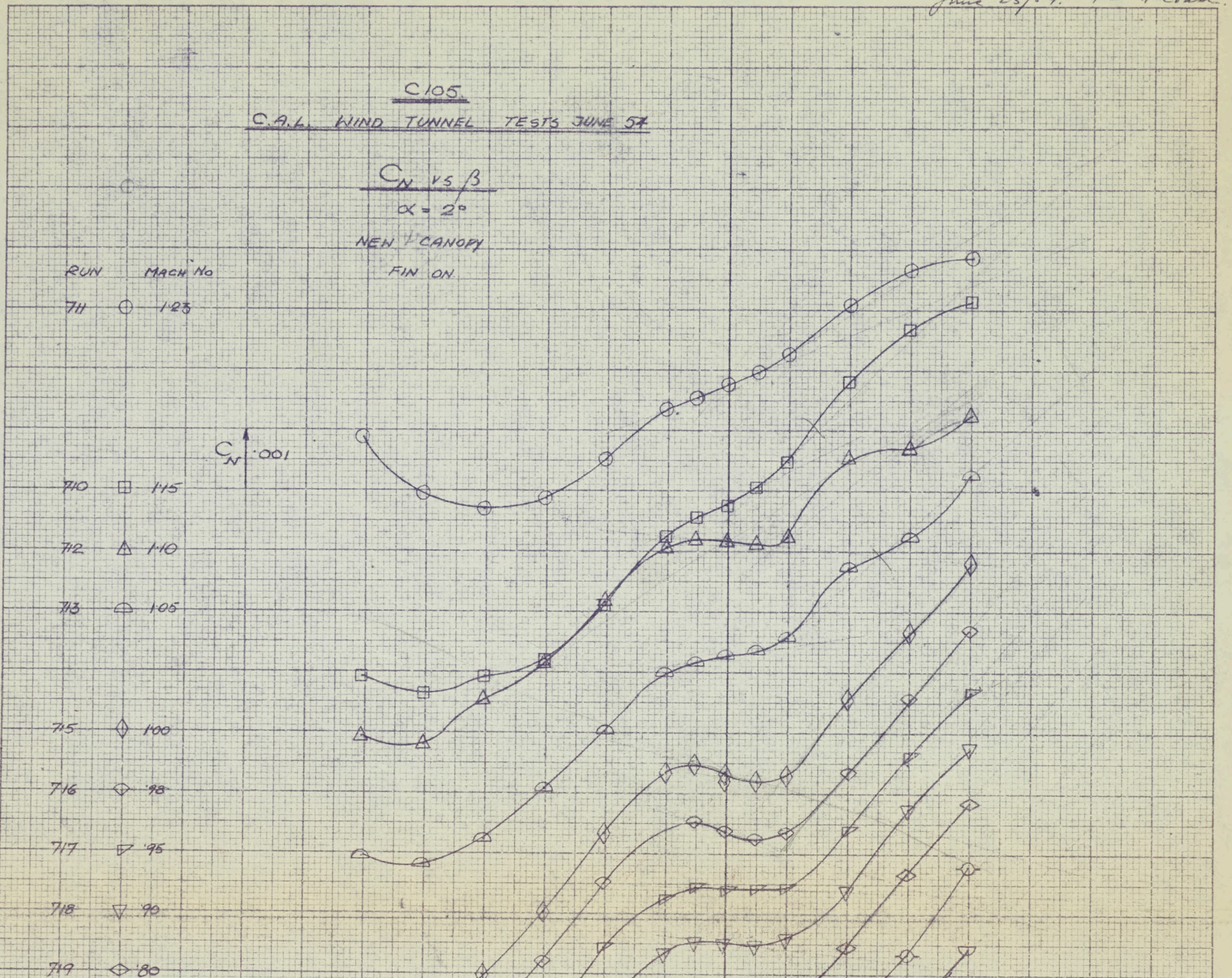
C.A.L. WIND TUNNEL TESTS JUNE 54

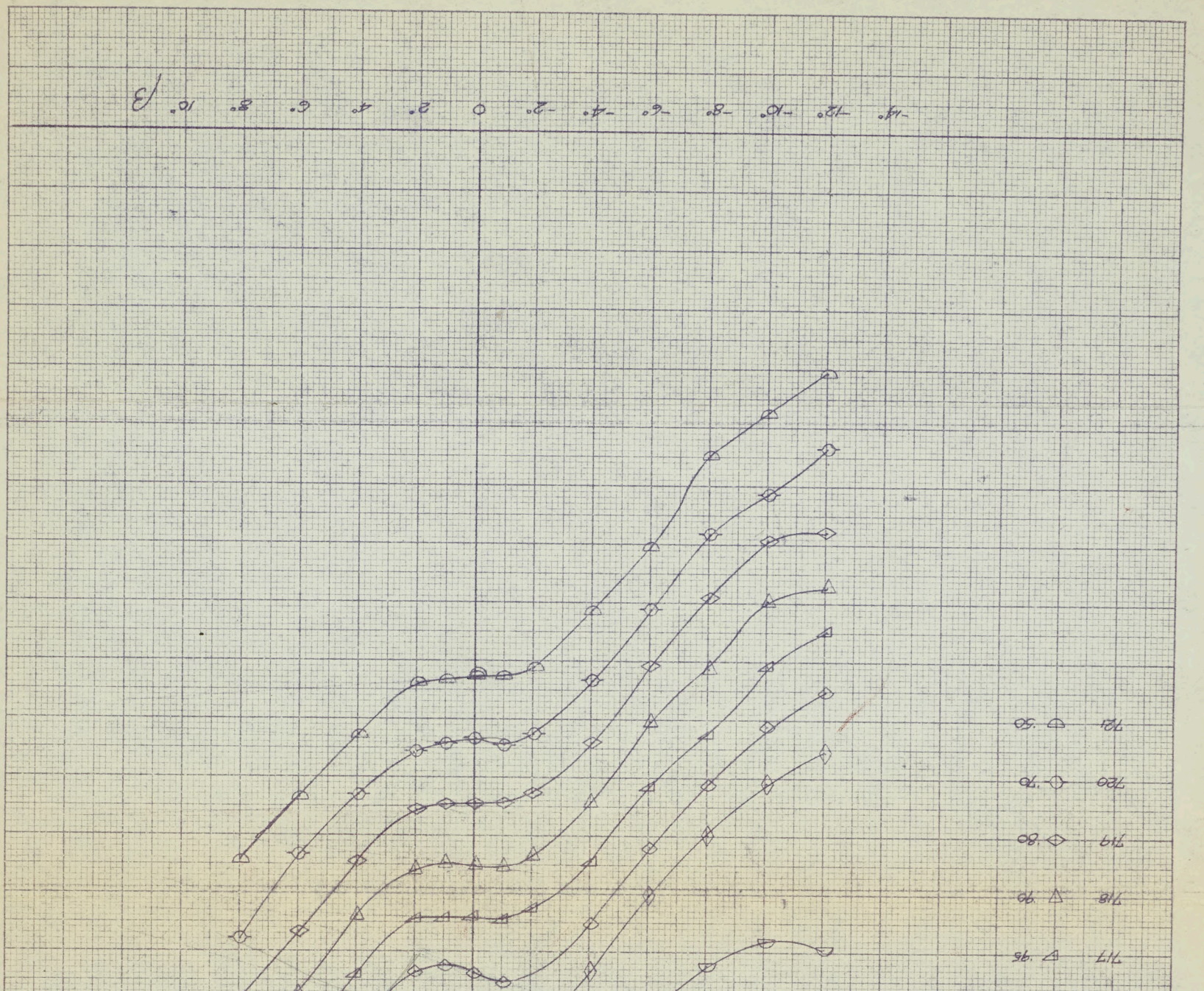
C_N vs β

$\alpha = 2°$

NEW CANOPY

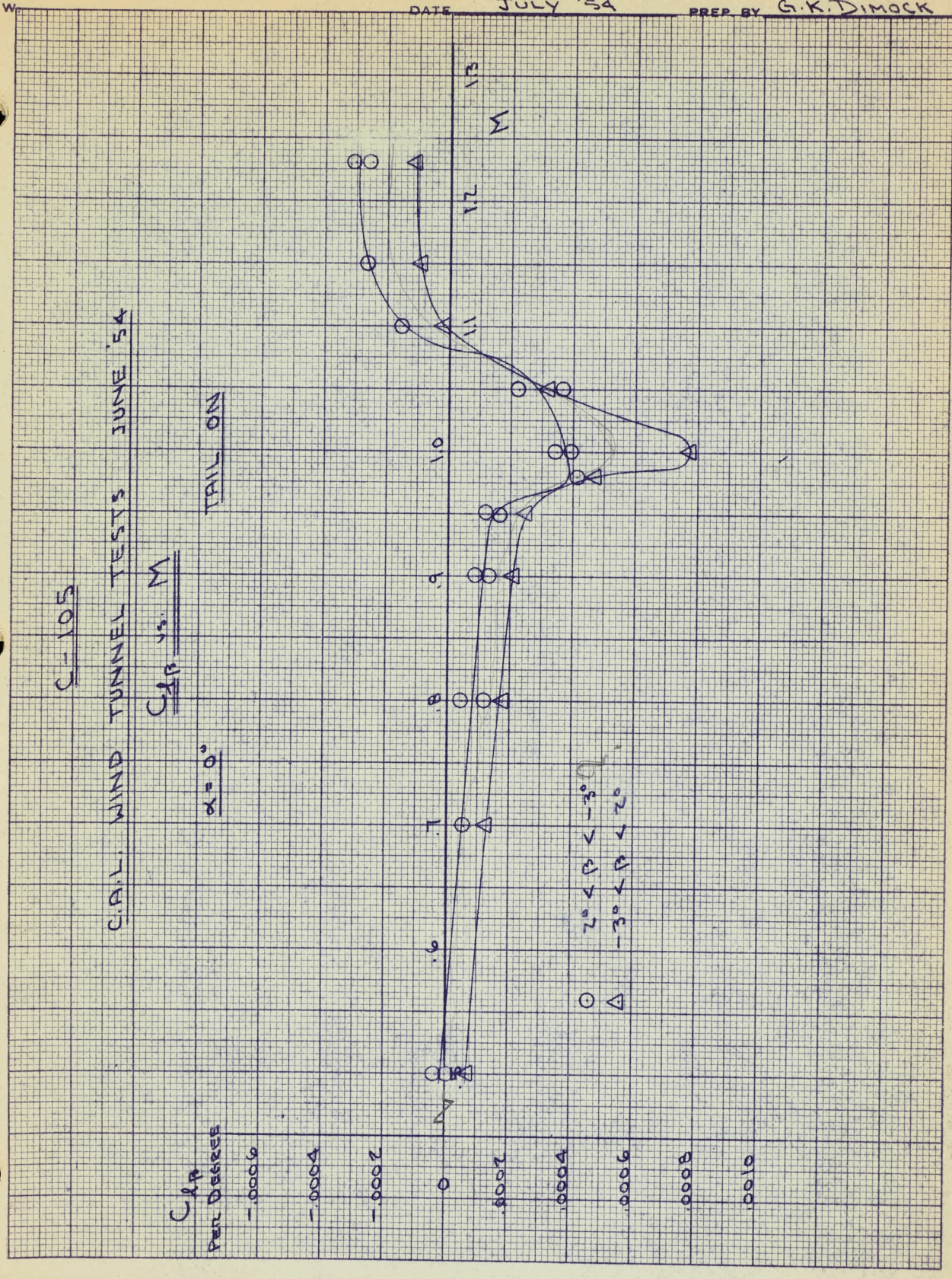
FIN ON




β
10° 8° 6° 4° 2° 0 -2° -4° -6° -8° -10° -12° -14°
.30
.90
.80
.95
.75

AIRCRAFT C105 COMPONENT SHEET No. 3.2.1.2 REPORT No. P/W.T./30

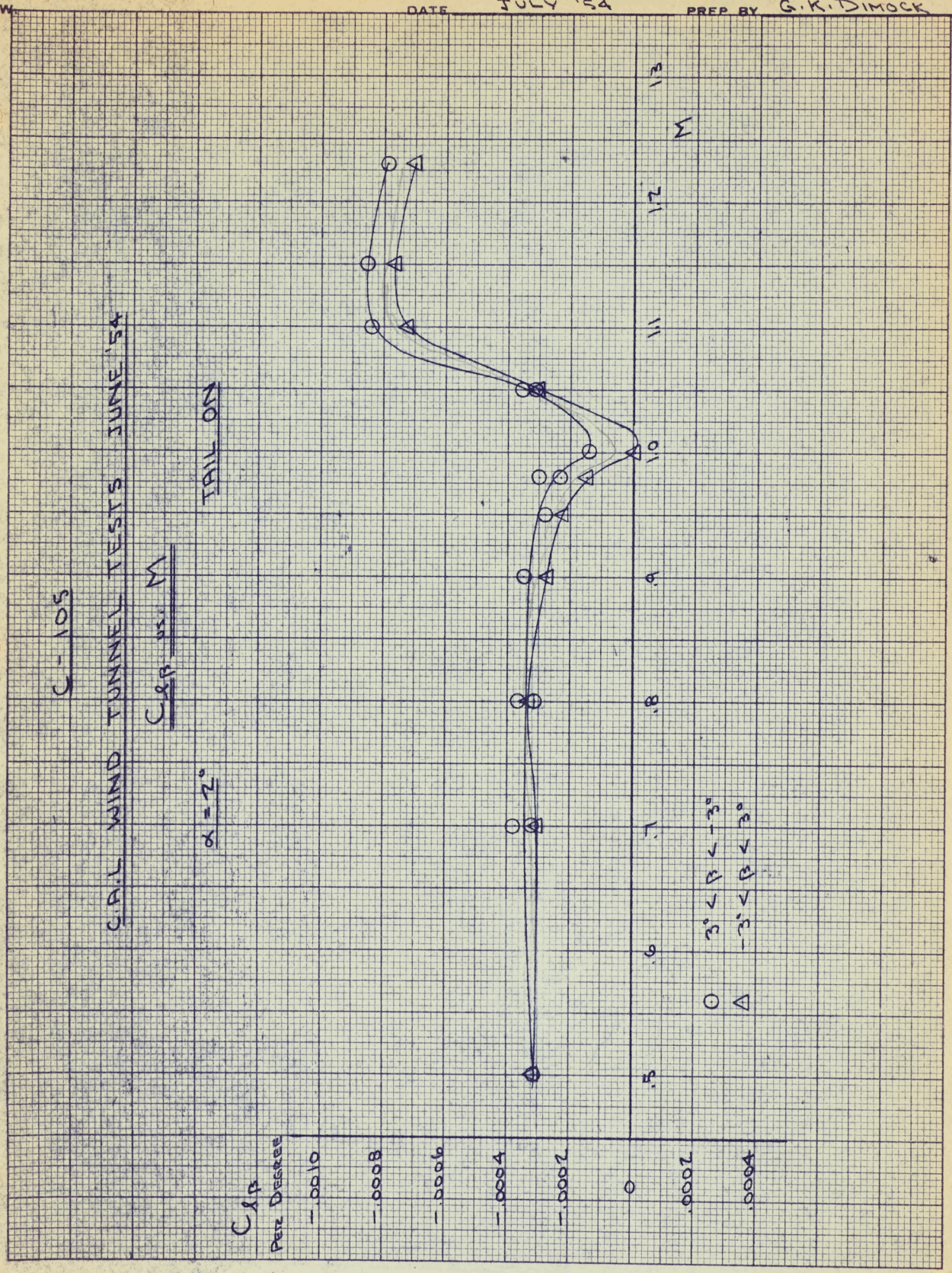
A.U.W. DATE JULY '54 PREP BY G.K.DIMOCK



FORM 1746

AIRCRAFT C-105 COMPONENT SHEET No. 32.1.3 REPORT No. P/W.T./130 2.2.12

A.U.W. DATE JULY '54 PREP BY G.K.DIMOCK

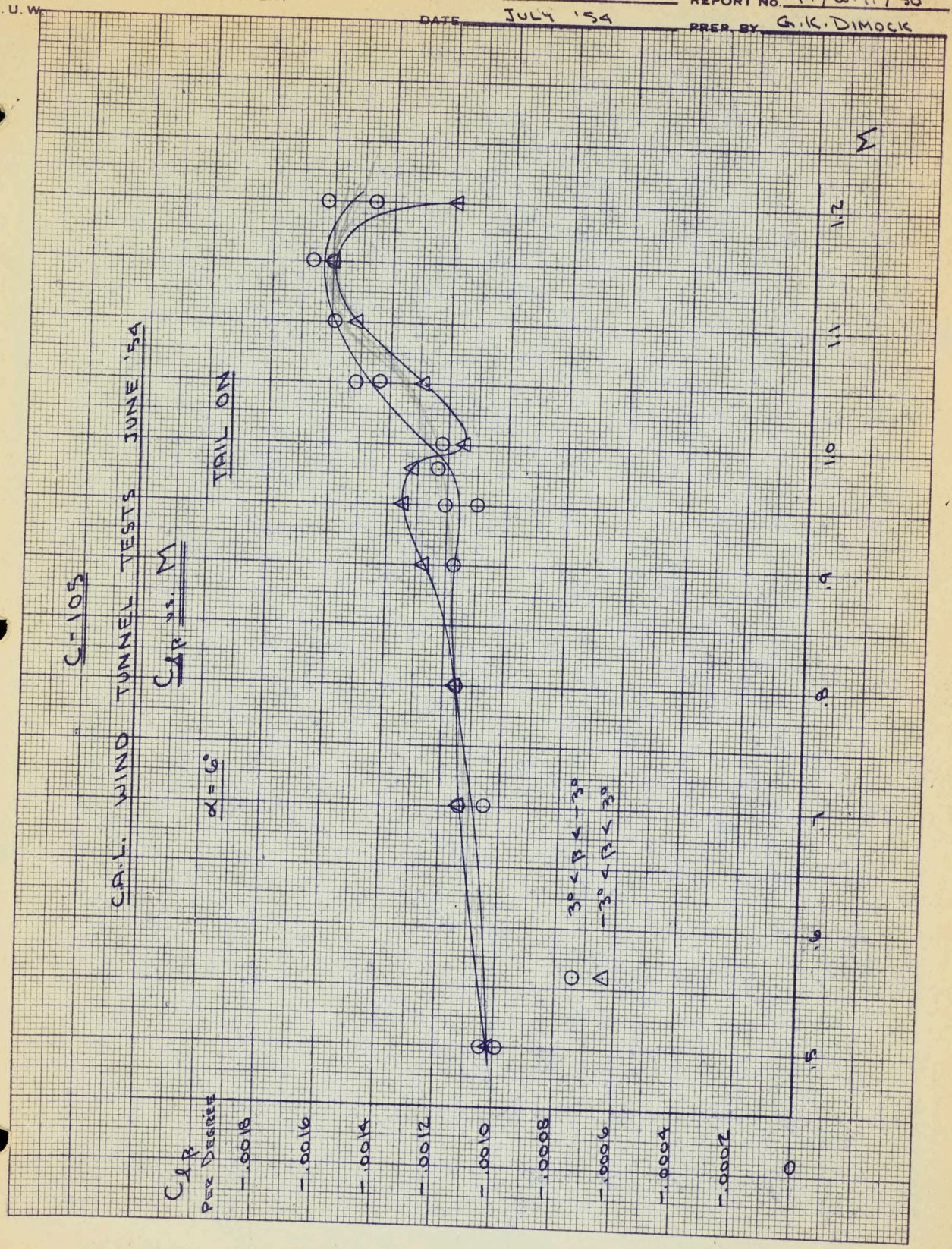


359-12 KEUFFEL & ESSER CO.
10 × 10 to the ½ inch, 5th lines accented.
MADE IN U.S.A.

FORM 1746

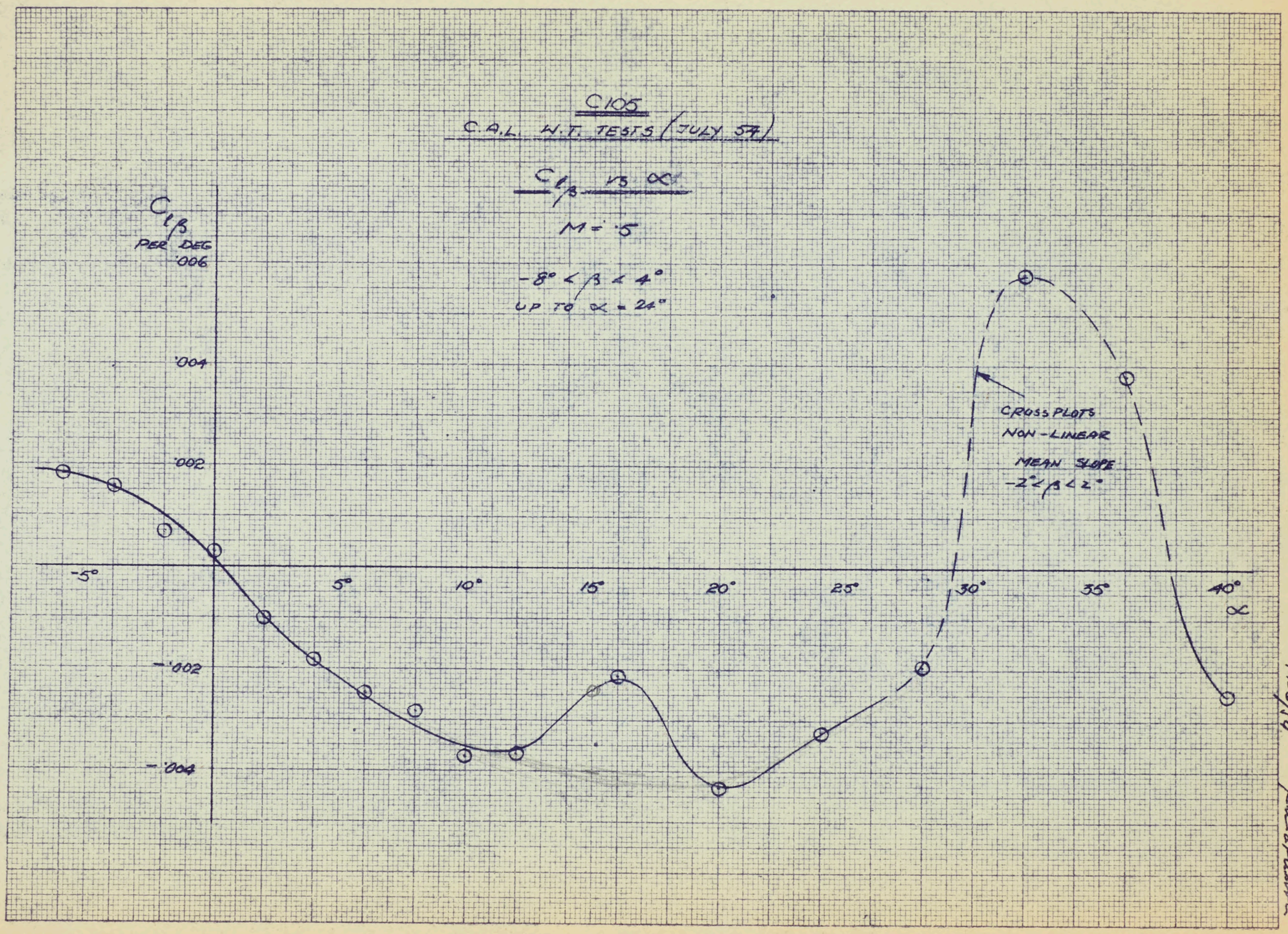
AIRCRAFT C-105 COMPONENT SHEET No. 3.2.1.4 REPORT No. P./W.T./30
A. U. W. DATE JULY '54 PREP. BY G.K. DIMOCK

2.2.3



359-12 KEUFFEL & ESSER CO.
10 × 10 to the ½ inch, 5th lines accented.
MADE IN U.S.A.

FORM 1746



Aug/54

P/W.T/40

2.4

C-105

C.A.L. WIND TUNNEL TESTS JUNE '54

C_l vs. β

$\alpha = 2°$ TAIL ON

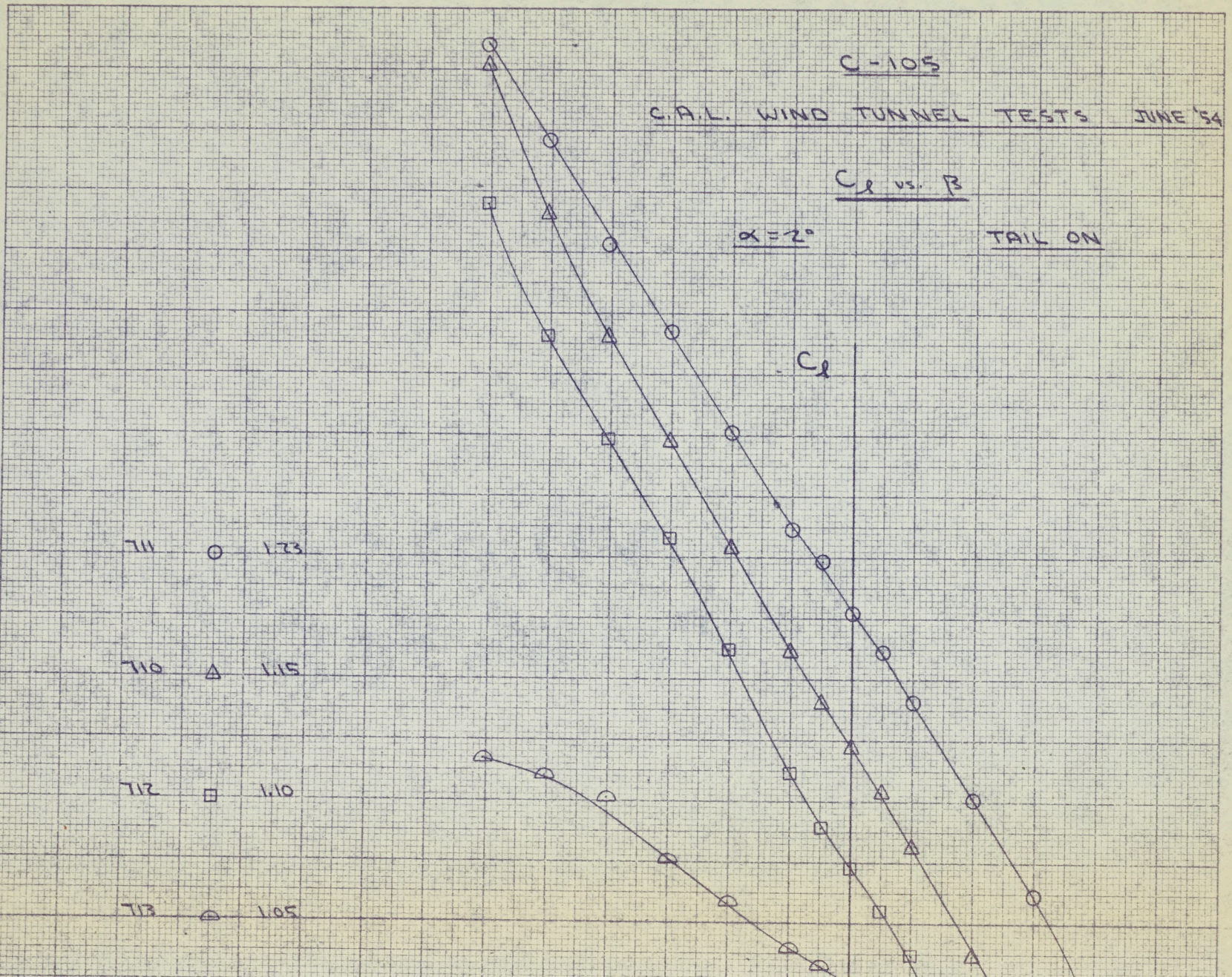
C_l

711 ○ 1.23

710 △ 1.15

712 □ 1.10

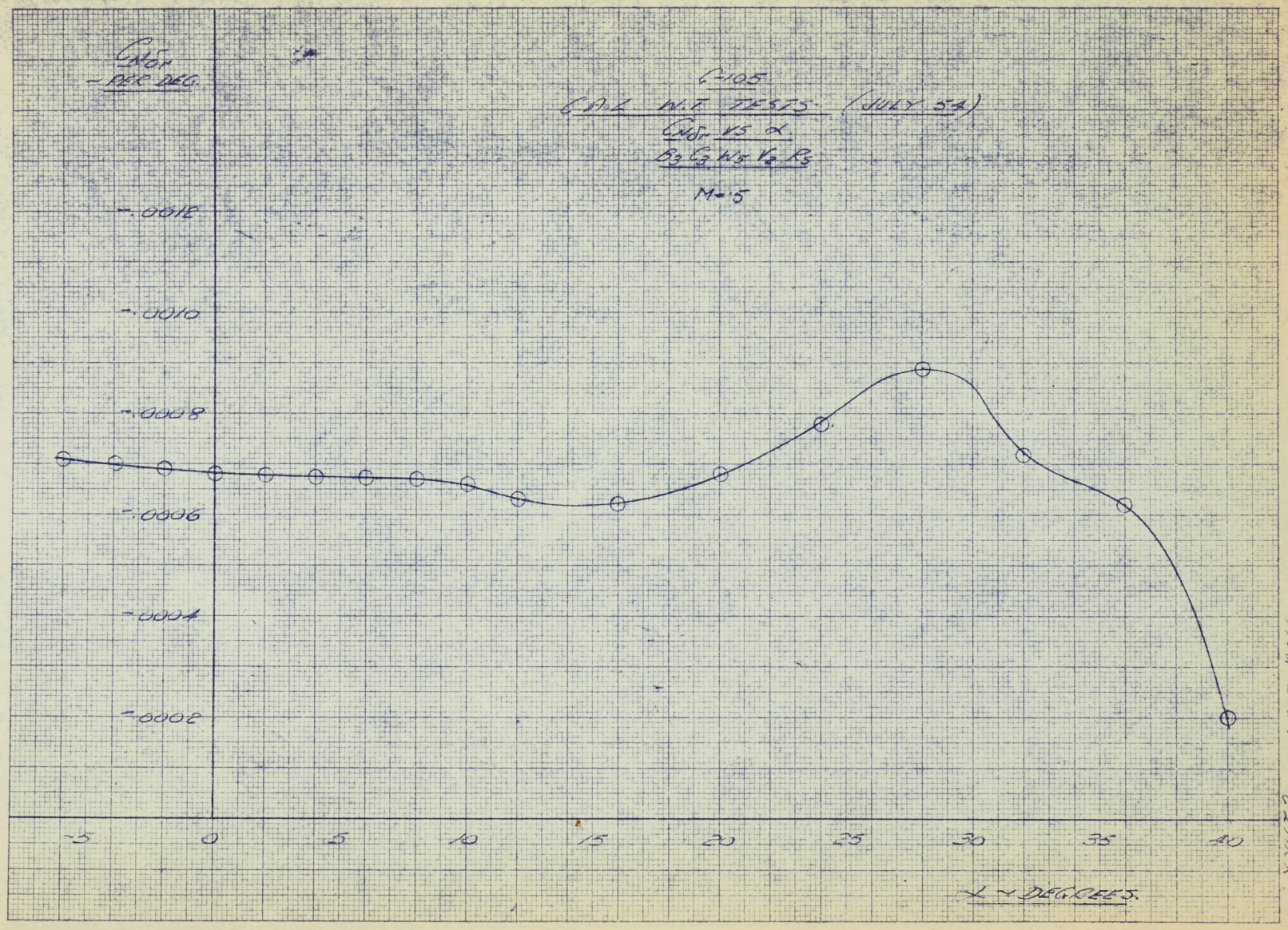
713 ⌀ 1.05



10.14 P/W.T. 129

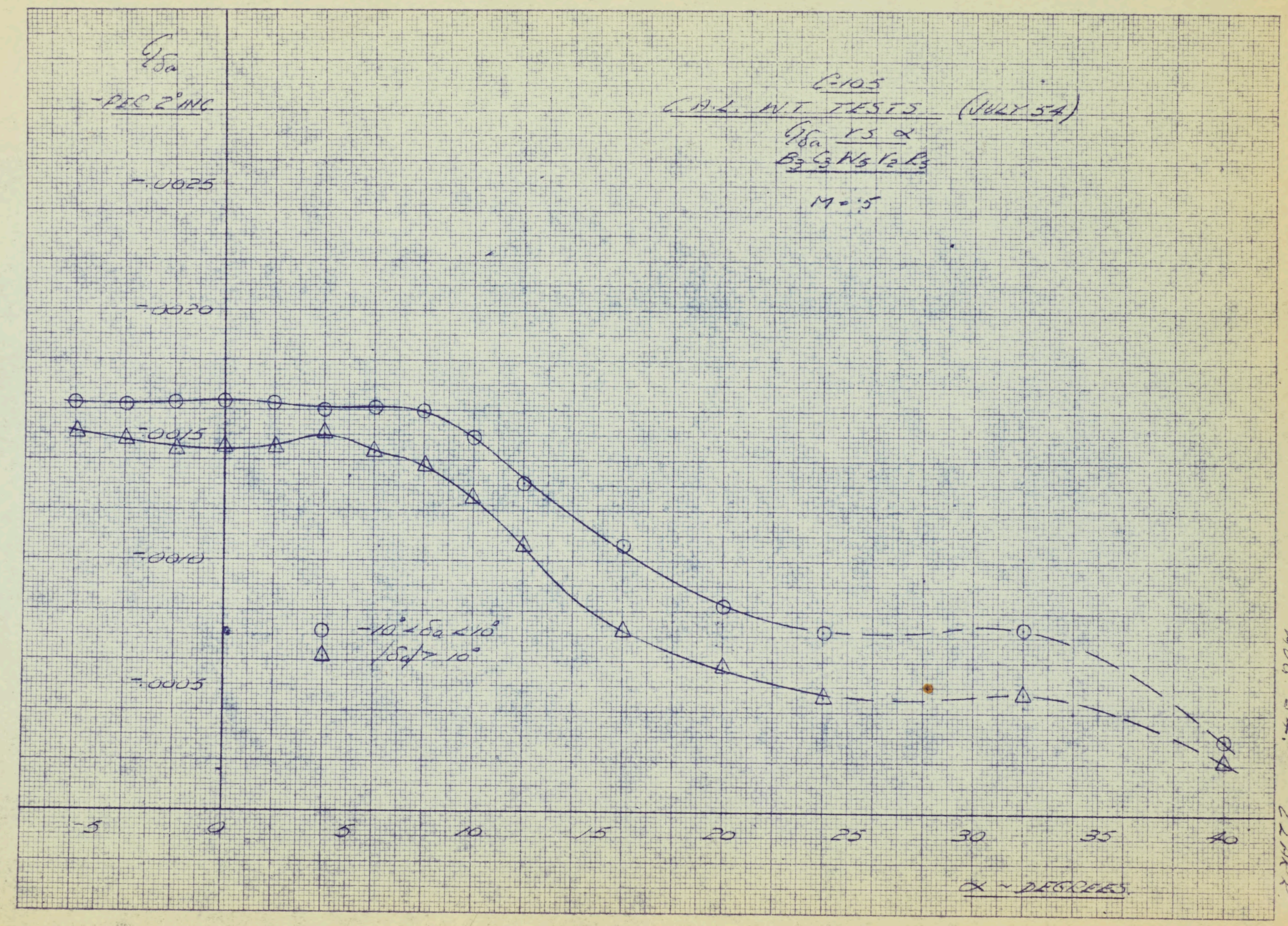
JULY '54 G.K. DIMOCK

2.5



C-105
CAL WIT TESTS (JULY 54)

359-14 KEUFFEL & ESSER CO.
Millimeters, 5 mm. lines accented, cm. lines heavy.
MADE IN U. S. A.



AUG. 54. CLARK

A/W.T./40 4.1