C-105 P/Aero Data/59

LONGITUDINAL STABILITY DERIVATIVES AND DRAG DATA 3.5% WING

Copy (5)

August '55

C-105

LONGITUDINAL STABILITY DERIVATIVES AND DRAG DATA

3.5% WING

★ Measured in C.A.L. Wind Tunnel up to M = 1.23.

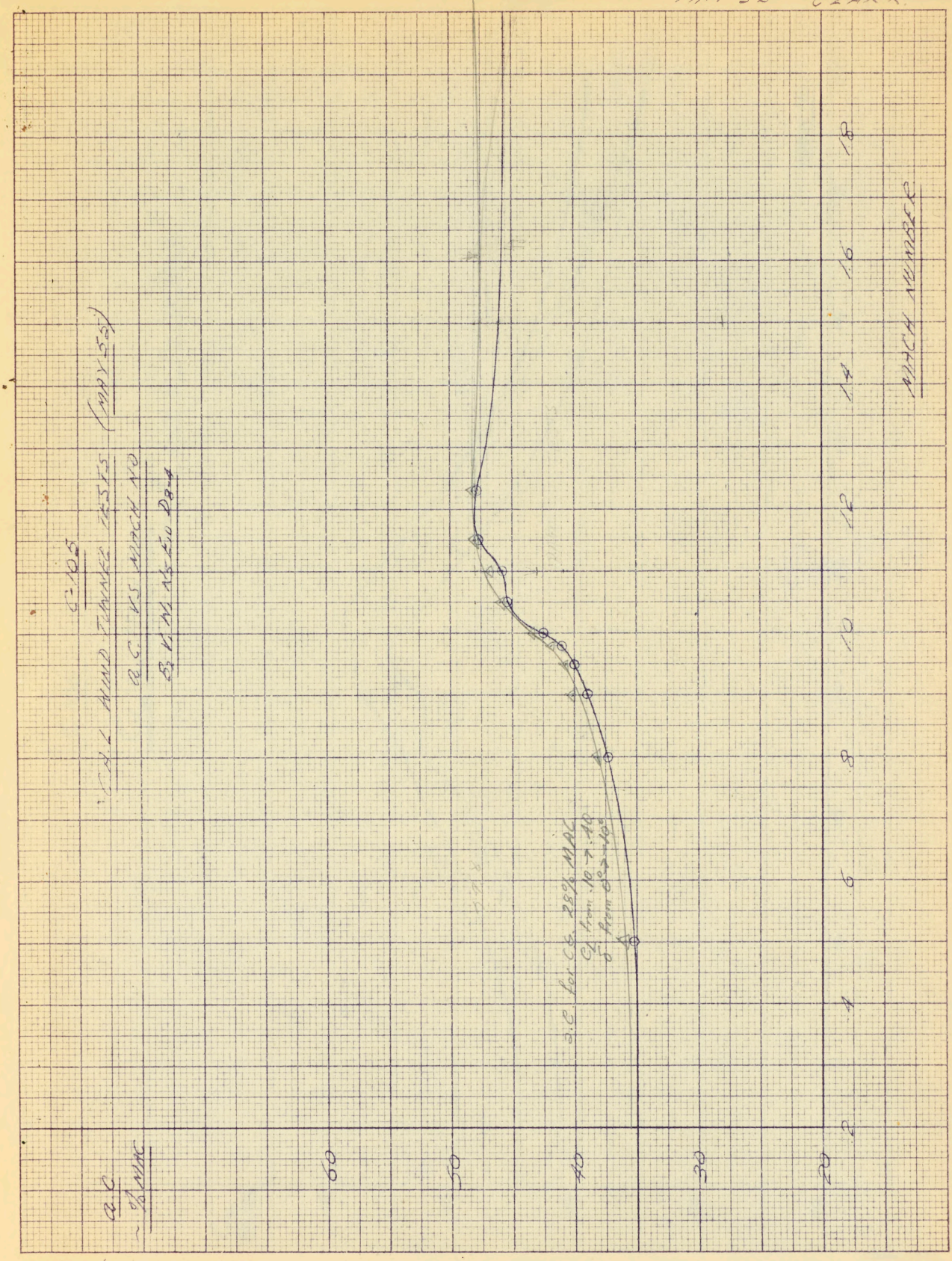
CONTENTS

FORM 1318A

II. Longitudinal Control

11. P/AERO DATA/59

MAY 55 CLARK



10 X 10 TO THE ½ INCH 359-12
KEUFFEL & ESSER CO. MADE IN U.S.A.

P/WT/80

AIRCRAFT
A. U. W.

COMPONENT

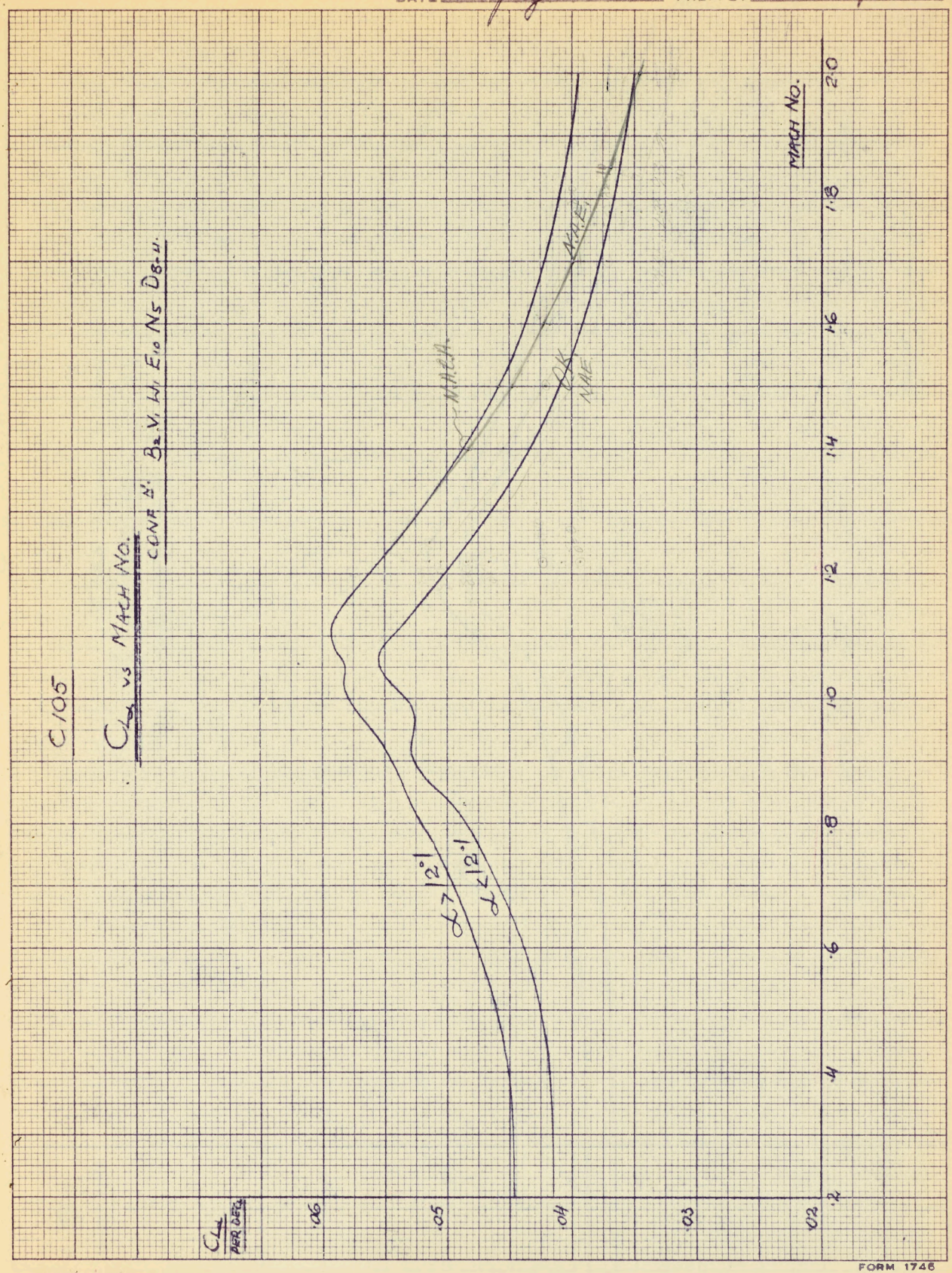
SHEET No. 1.2 REPORT No. P/AERO DATA/59

DATE July 1953 PREP. BY T. Papis

C105

C_{L_α} vs MACH NO.

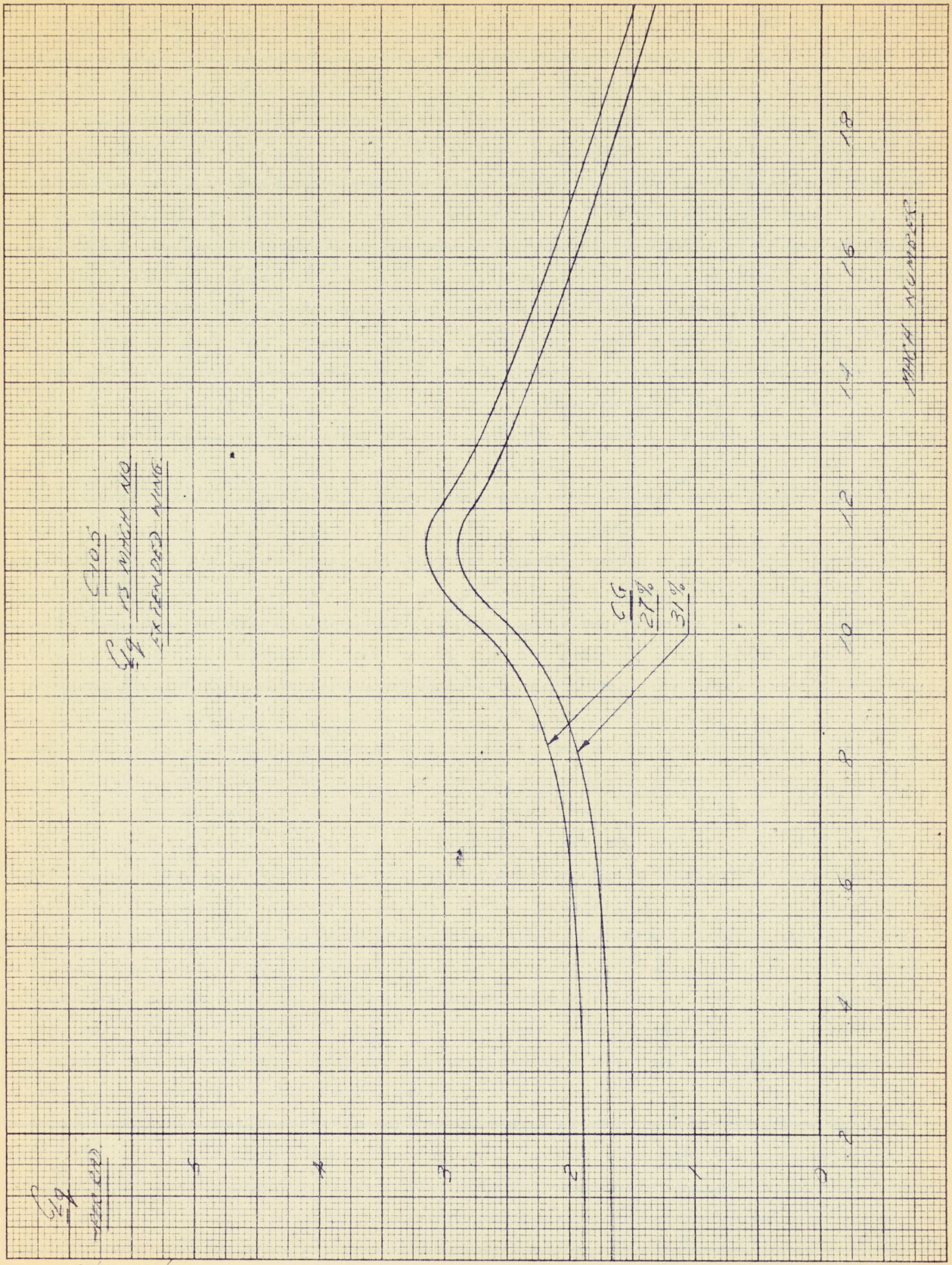
CONF 1' B2 W1 E10 N5 D8.U.

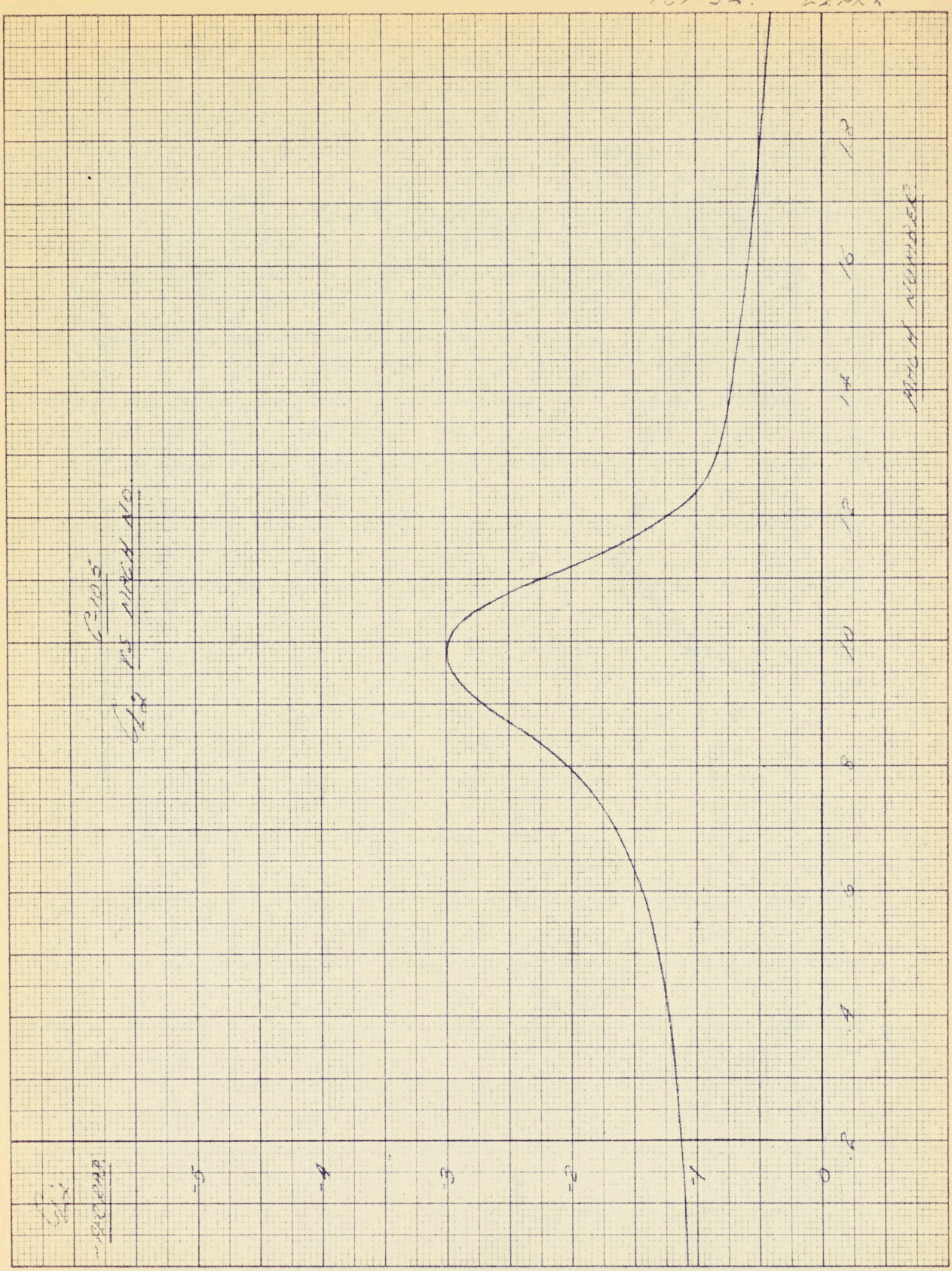


10 X 10 TO THE ½ INCH 359-12
KEUFFEL & ESSER CO. MADE IN U.S.A.

FORM 1746

P/WT/80





C-105

CAL WIND TUNNEL TESTS (MAY 55)

C_{m_0} VS MACH NO

δ_2 V, M, δ_{10} NE $D_{8.4}$

C_{m_0}

.04

.03

.02

.01

0

2 4 6 8 10 12 14 16 18

MACH NUMBER

P WT/80

MAY 55

15

CALCULATED 1/59

AIRCRAFT
A.U.W.

COMPONENT

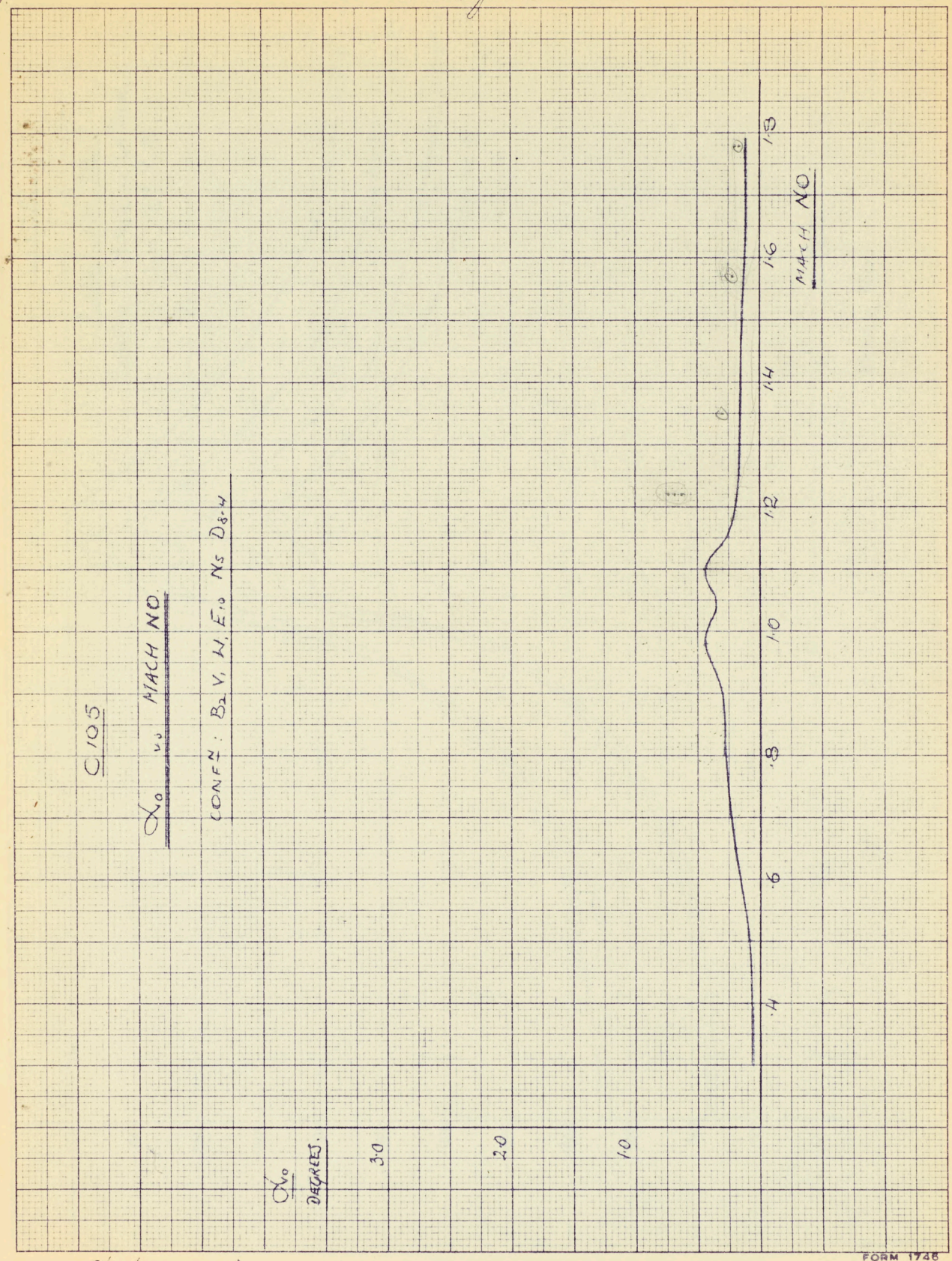
SHEET NO. 16 REPORT NO. R/AF C DATA 59

DATE June 1957 PREP. BY J Kapis.

C 105

α_o vs MACH NO.

CONFN: B, V, W, E, Ns Ds-w



P/WT/80

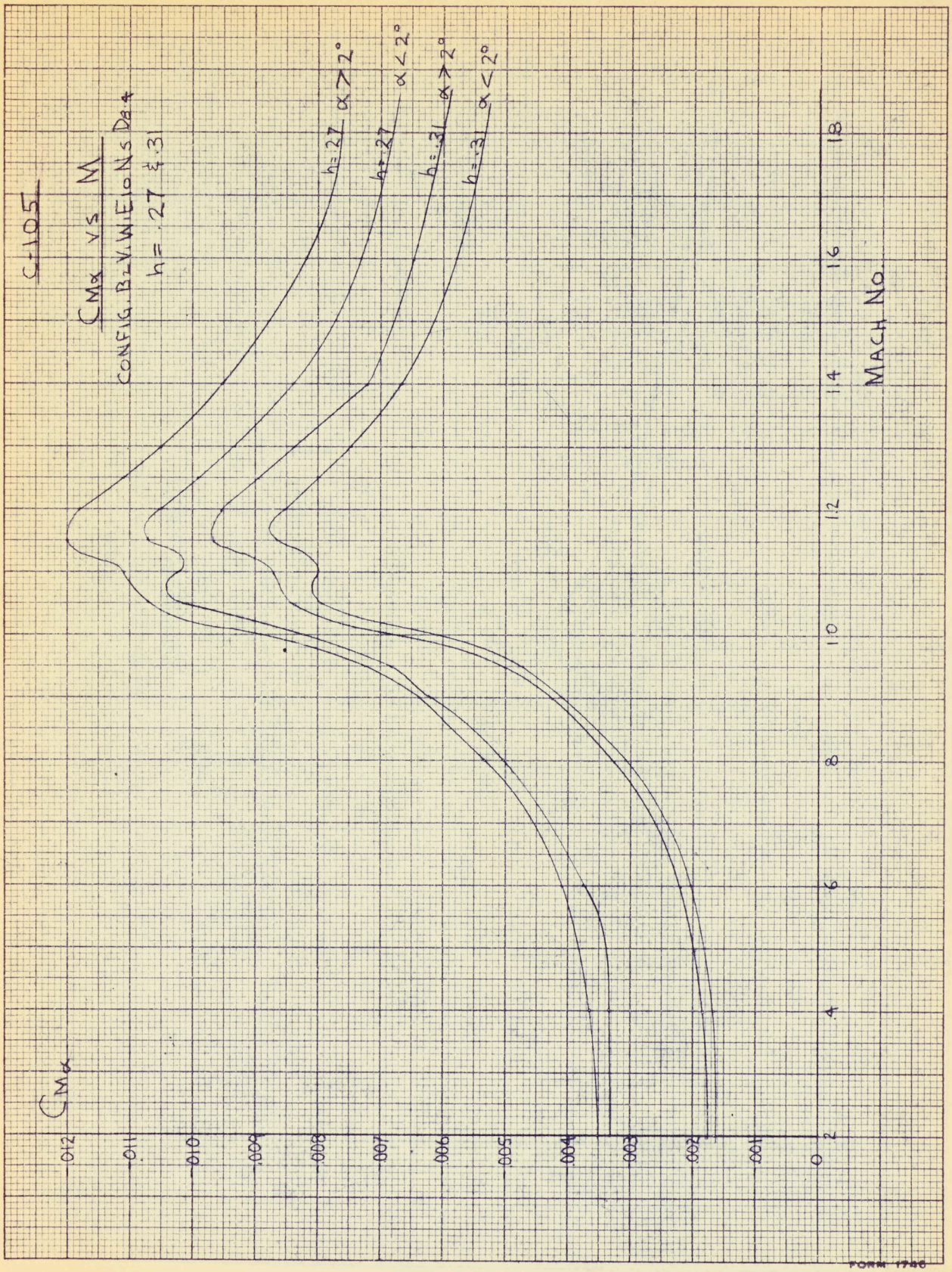
FORM 1748

AIRCRAFT
A.U.W.

COMPONENT

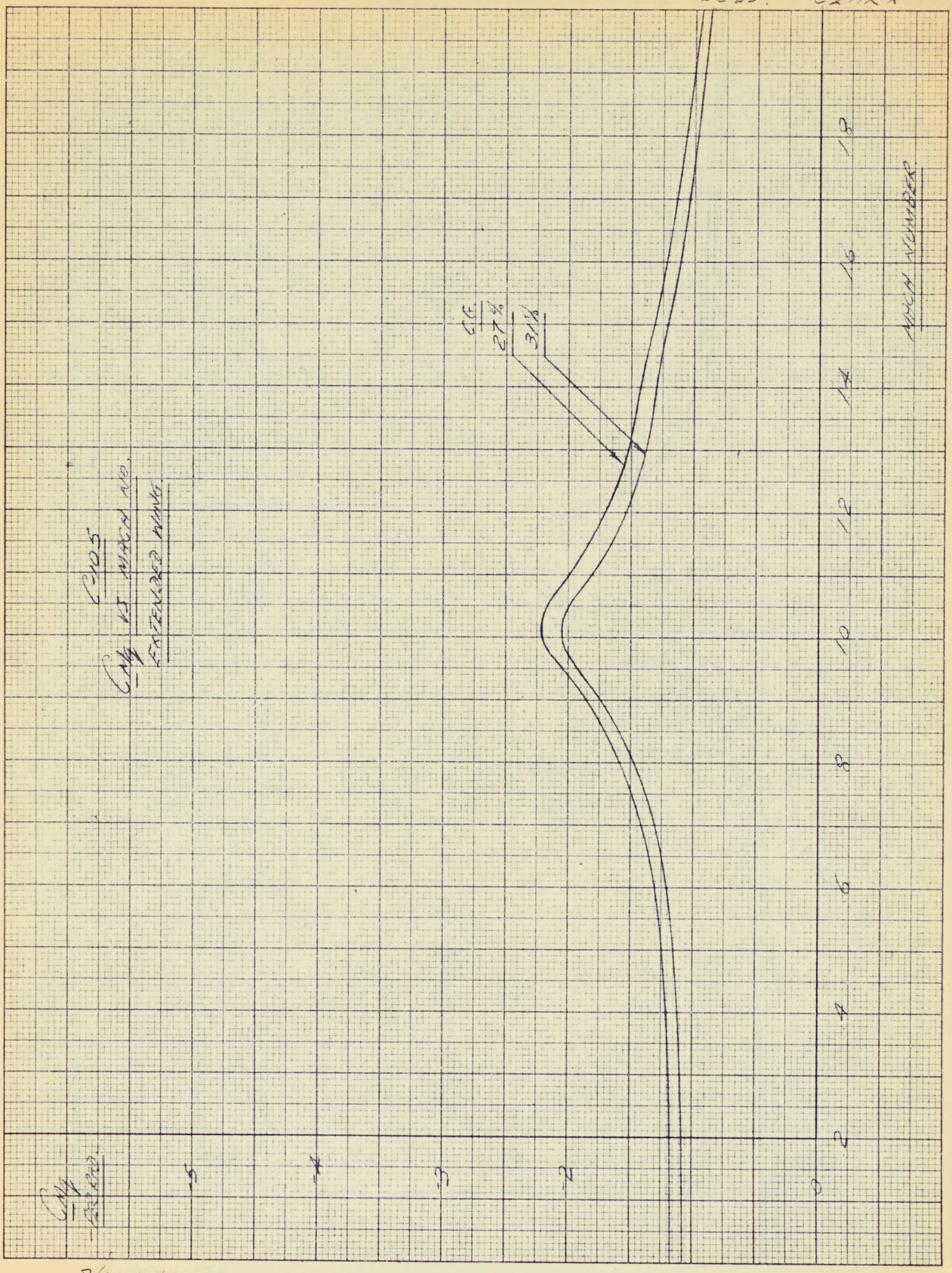
SHEET No. 171 REPORT No. P/AERO DATA/59

DATE VIII 55 PREP. BY PRIDMORE



10 X 10 TO THE ½ INCH / 359-12
KEUFFEL & ESSER CO. MADE IN U.S.A.

FORM 1746



AIRCRAFT
A.U.W.

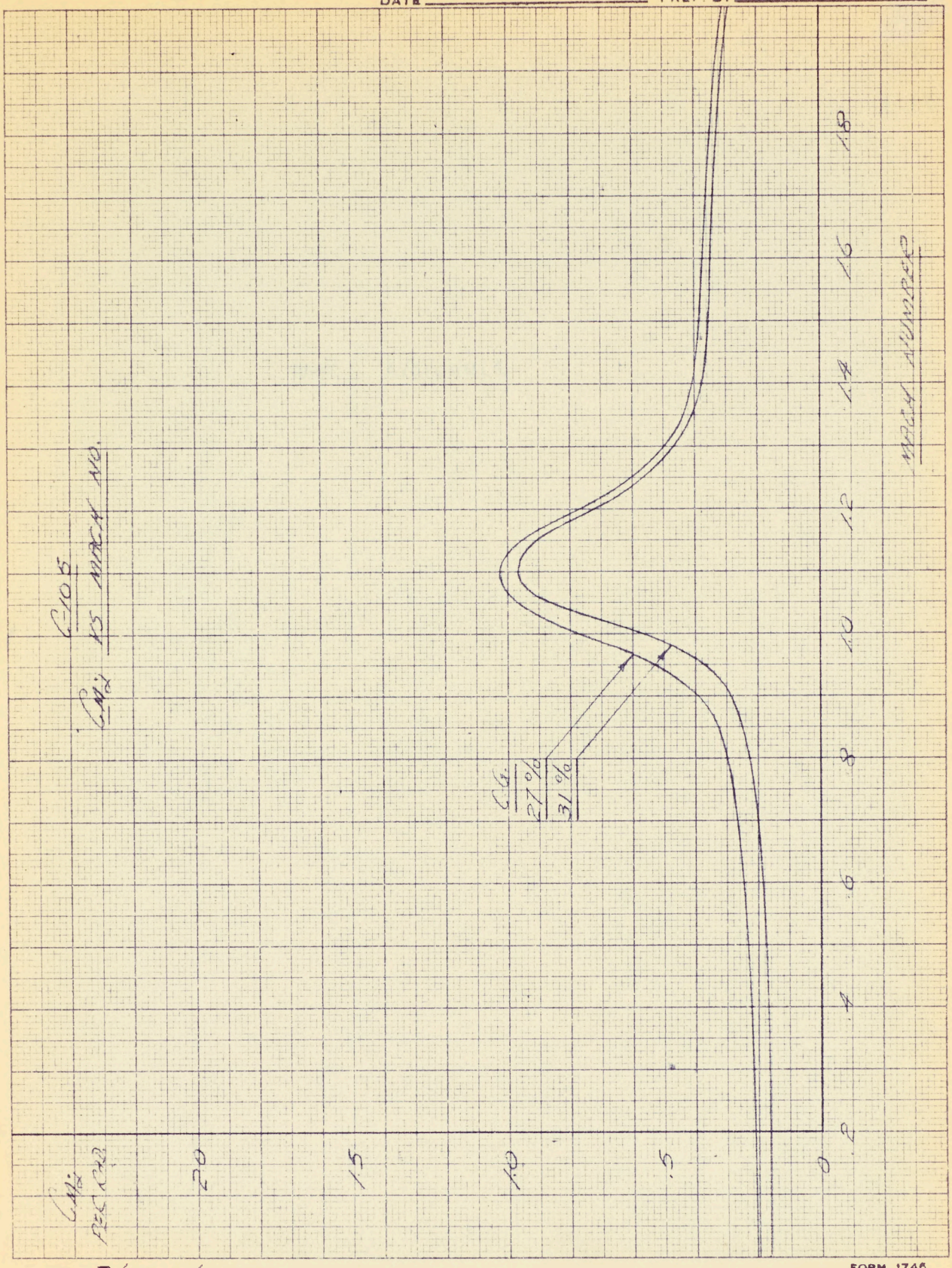
COMPONENT

SHEET No. 1.9

DATE Nov. 53.

REPORT No. P/AERO DATA/59

PREP. BY CLARK



P/STAB/33

FORM 1746

SHEETS. 1.10.

1.11.

1.12.

NOT AVAILABLE

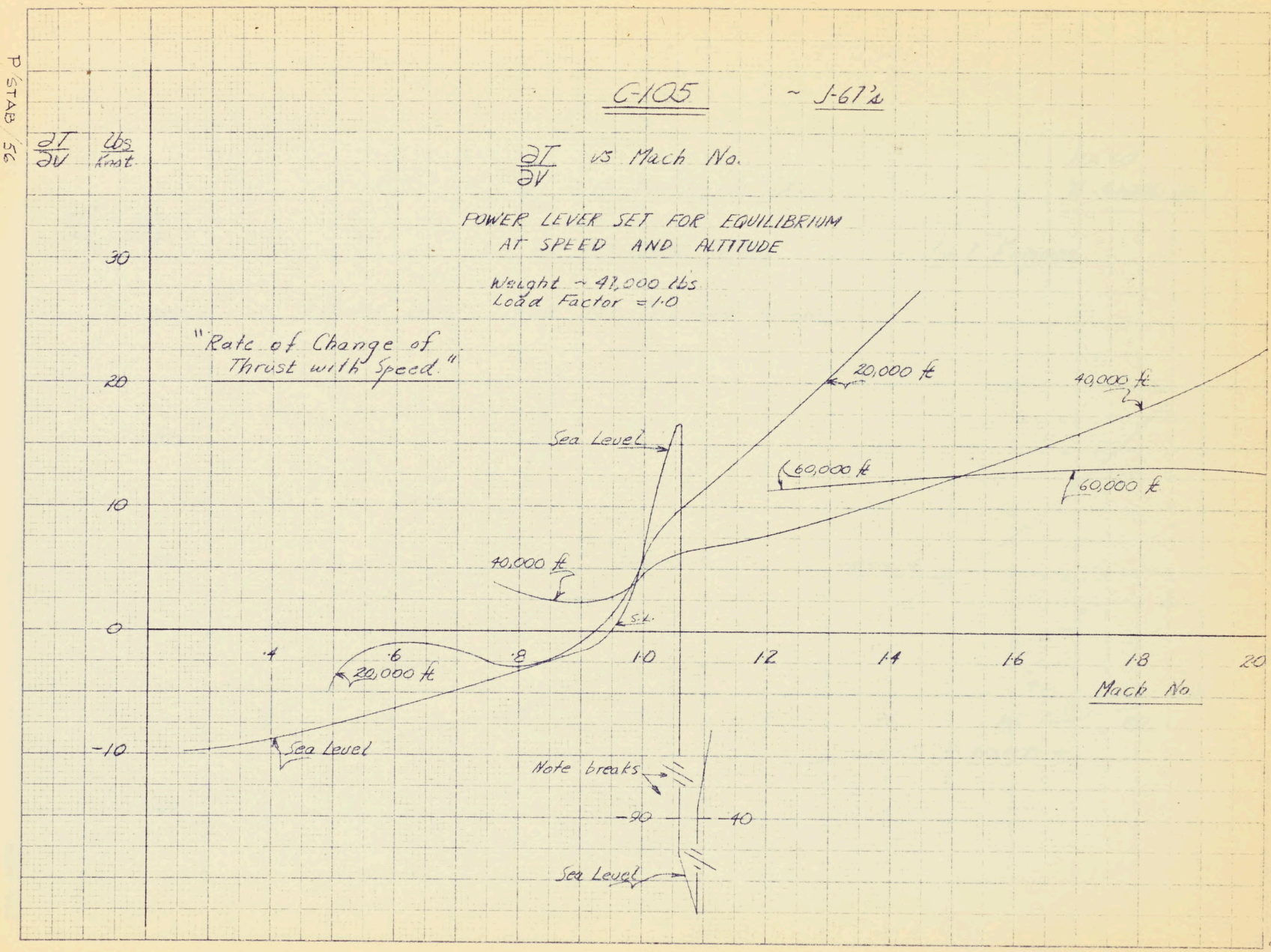
P STAB 56

C-105 ~ J-67's

$\frac{\partial T}{\partial V}$ vs Mach No.

POWER LEVER SET FOR EQUILIBRIUM AT SPEED AND ALTITUDE

Weight ~ 41,000 lbs
Load Factor = 1.0



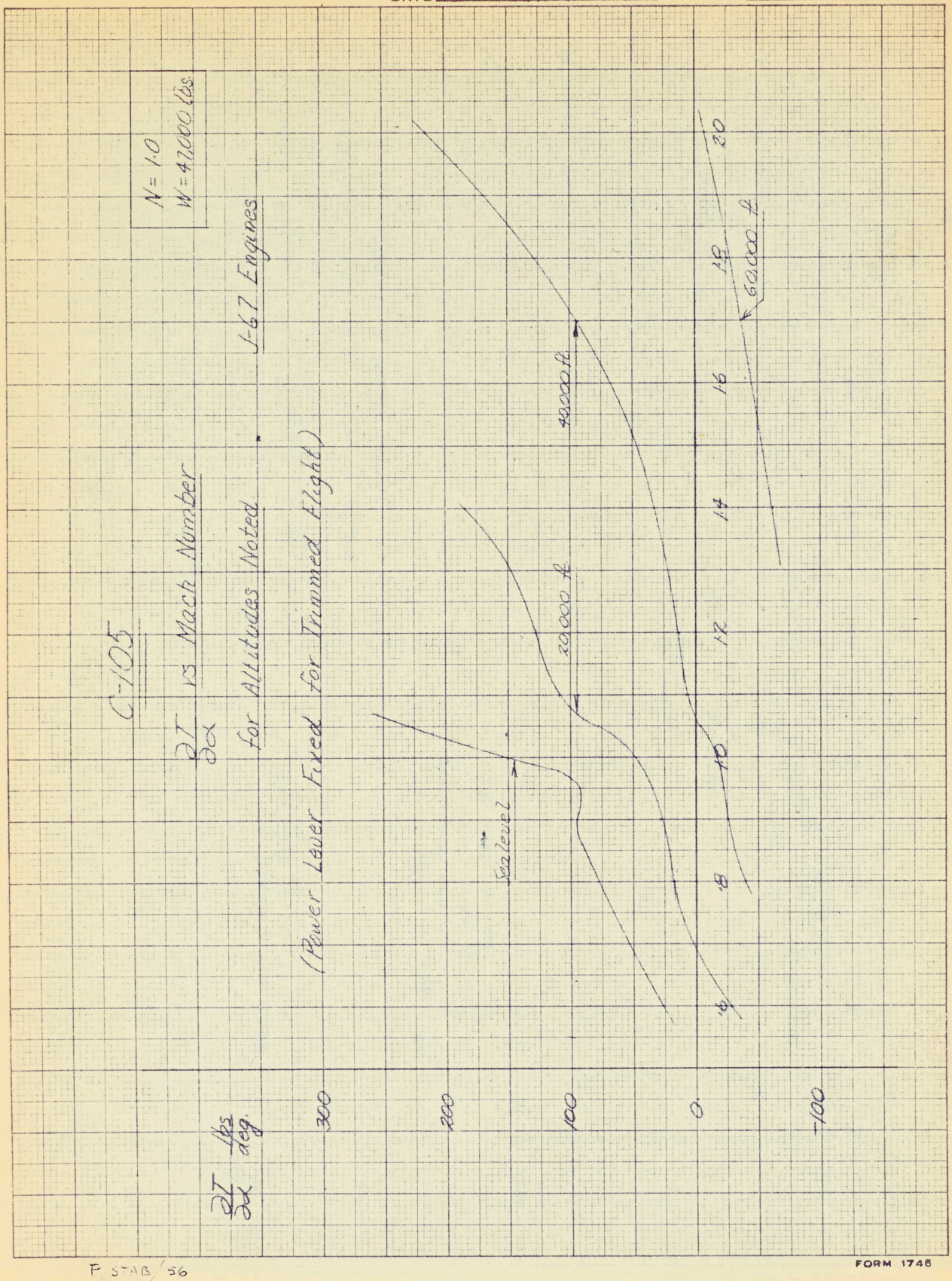
P. Aero Data 59 113 C.A. Reid Jan. 1955

AIRCRAFT C-105 COMPONENT

A.U.W.

SHEET NO. 1.14 REPORT NO P/Aero Data/52

DATE 2/9/54 PREP. BY C.A. Ford



F STAB/56

FORM 1746

P STAB '67

C-105 ~J-67's

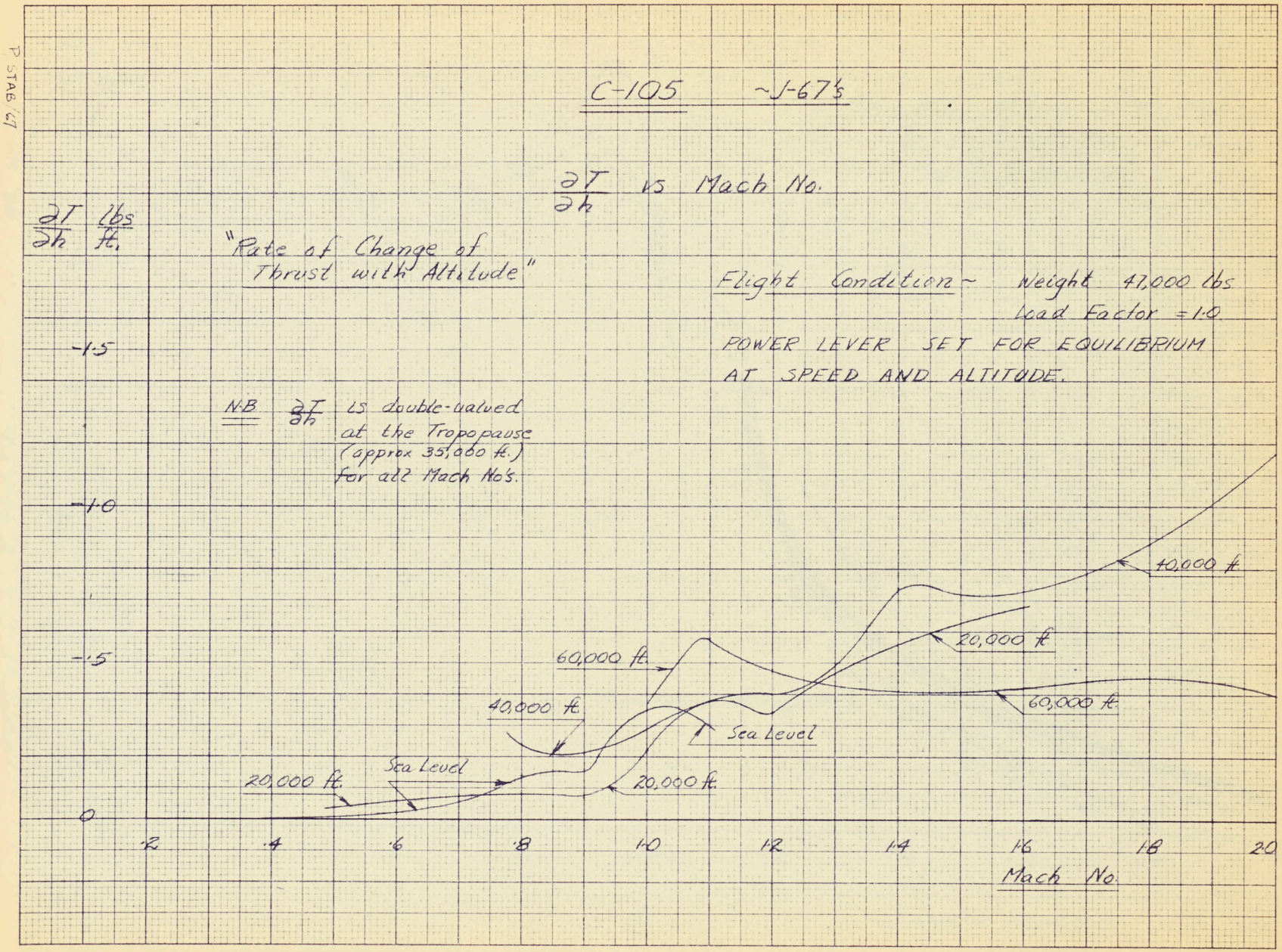
$\frac{\partial T}{\partial h}$ vs Mach No.

$\frac{\partial T}{\partial h}$ $\frac{lbs}{ft.}$

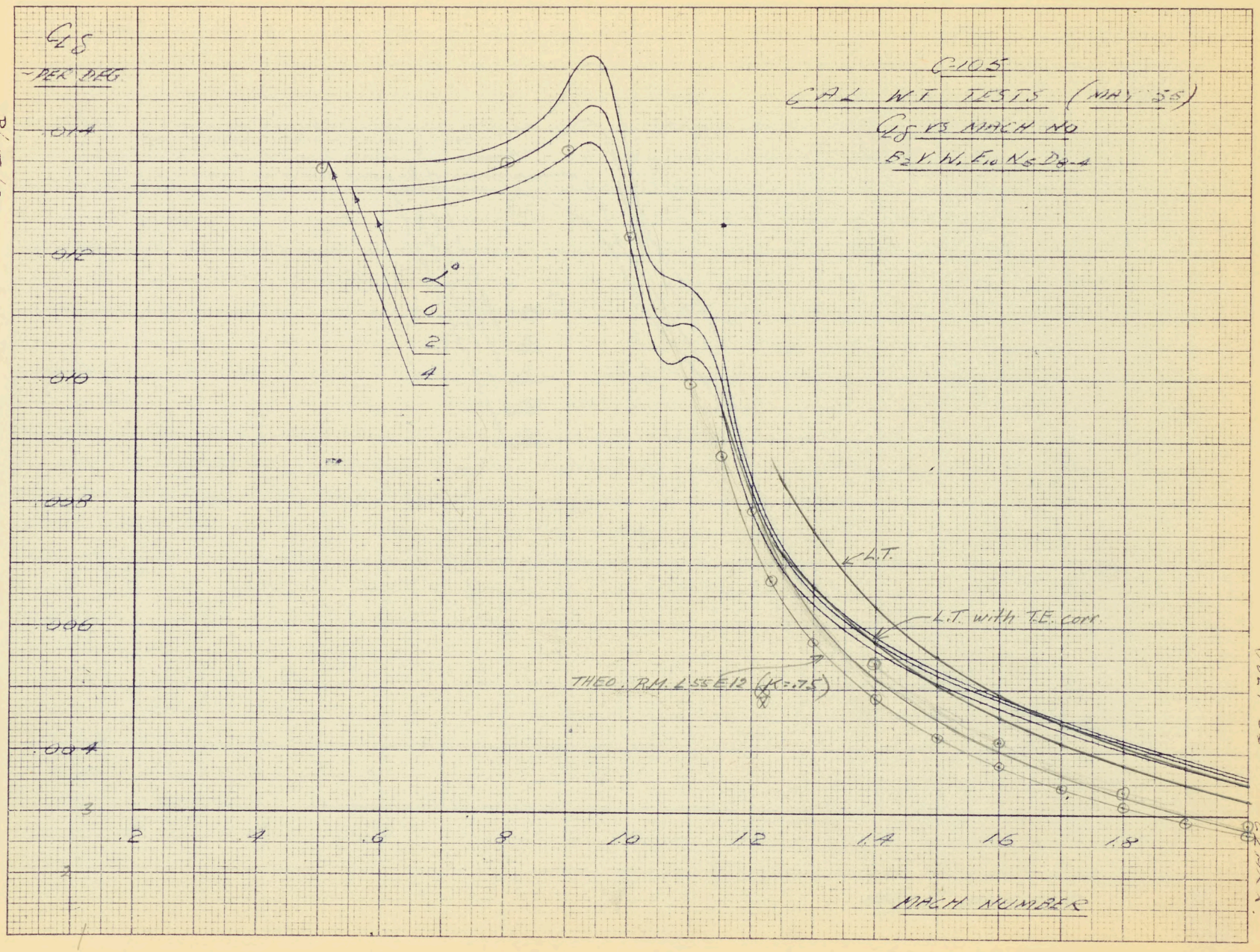
"Rate of Change of Thrust with Altitude"

Flight Condition ~ Weight 47,000 lbs
Load Factor = 1.0
POWER LEVER SET FOR EQUILIBRIUM AT SPEED AND ALTITUDE.

N.B. $\frac{\partial T}{\partial h}$ is double-valued at the Tropopause (approx 35,000 ft.) for all Mach No's.



F/AERO DATA/ES. 1.15
Jan. 1955
C.A. Ford



P/NT/80

2.1.1 P AERO DATA 59

NAA '55

C-105

FAL. WT TESTS (MAY 55)

C_D VS MACH NO

B_2 H, W, N5 E_D D8-4

C_D

PER DEG.

.014

.012

.010

.008

.006

.004

α°

2

6

8

10

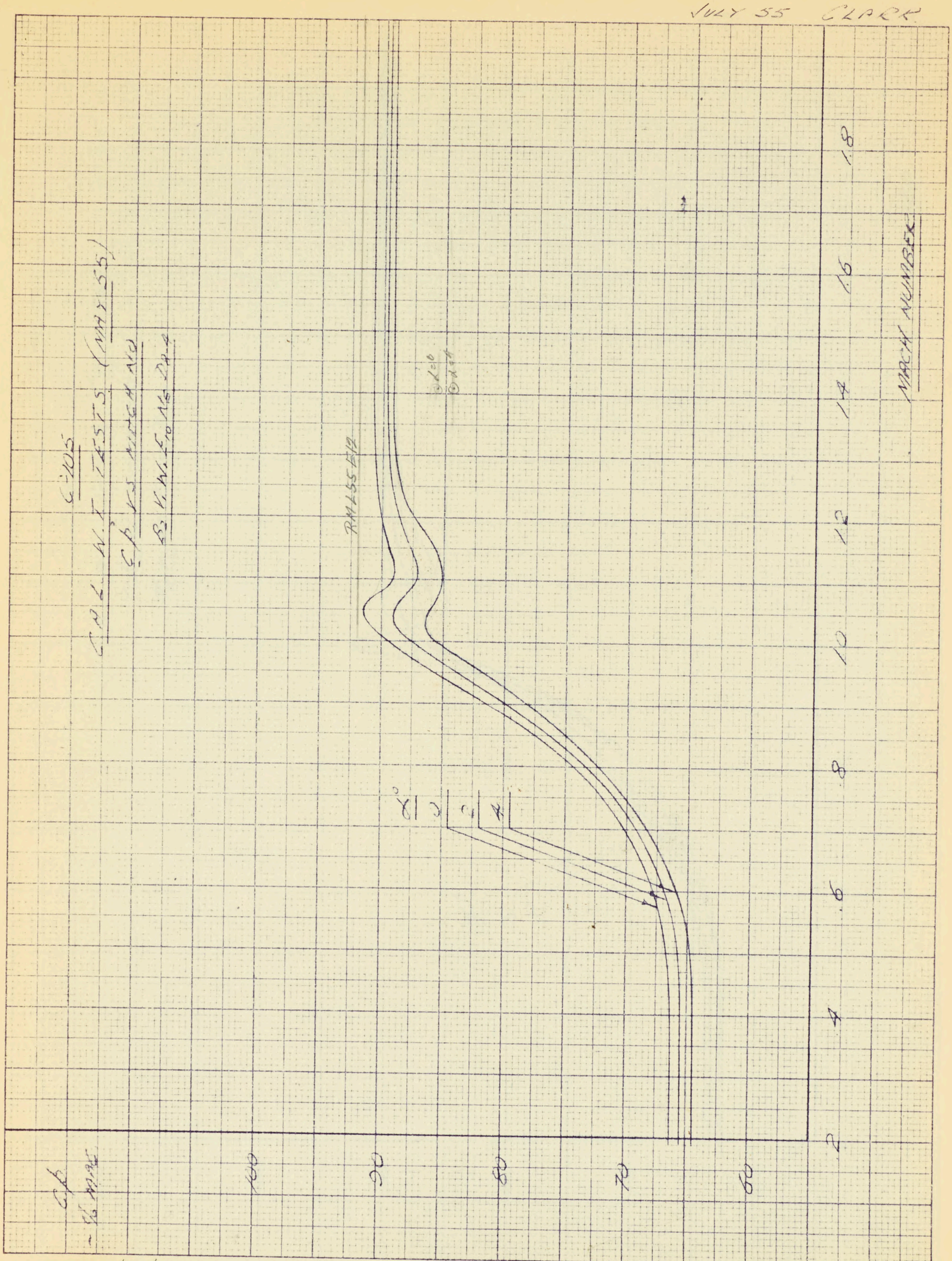
12

2 4 6 8 10 12 14 16 18

MACH NUMBER

P/WT/80

212 PAGE DATA/59



C-105

C.P. W.T. TESTS (MAX 55)

C.P. VS MACH NO

B2 W1 W2 E1 N3 P8-4

C.p. - B MAC.

P/NT/80

100

90

80

70

60

X°
6
8
10
12

2 4 6 8 10 12 14 16 18

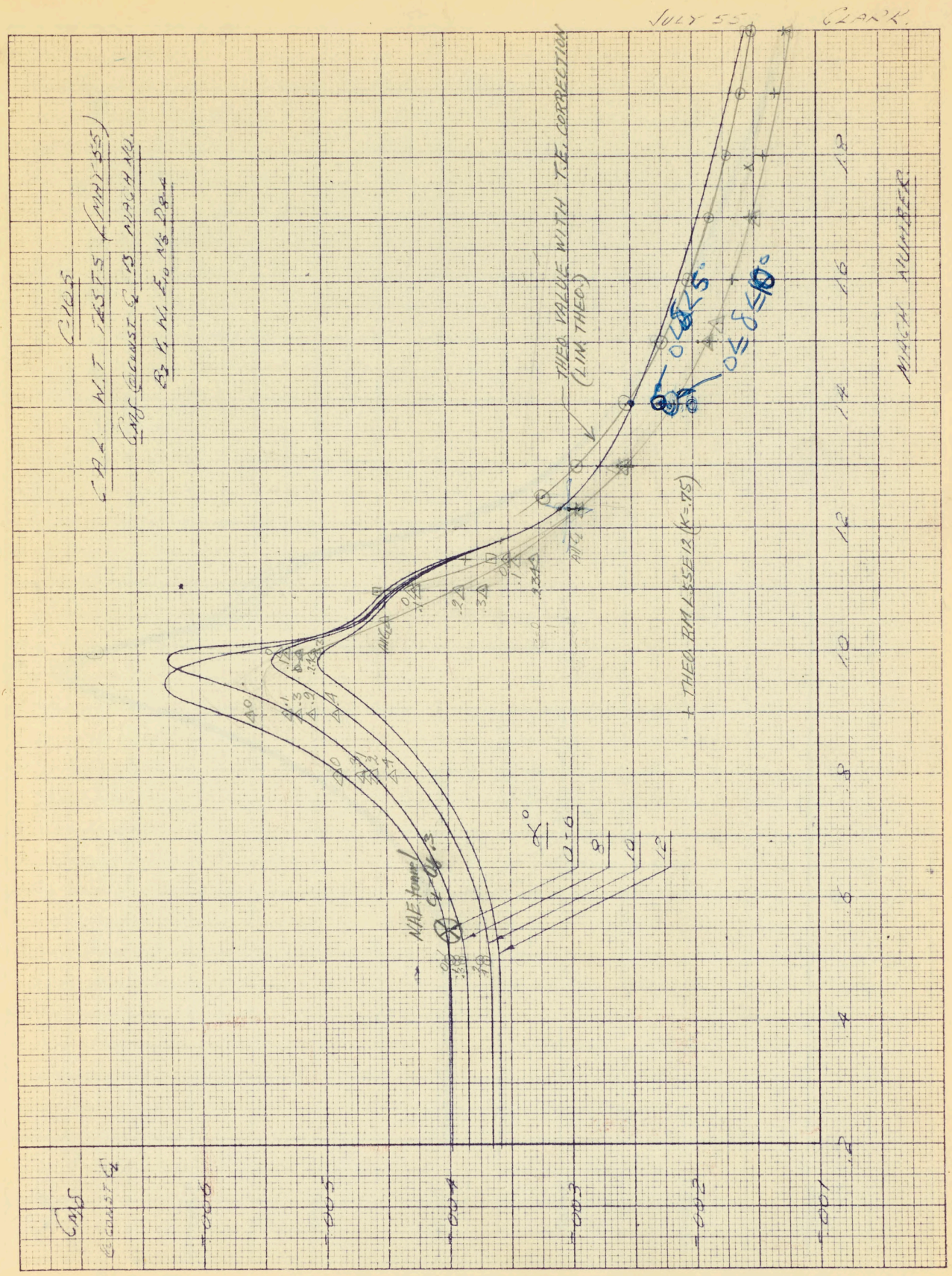
MACH NUMBER

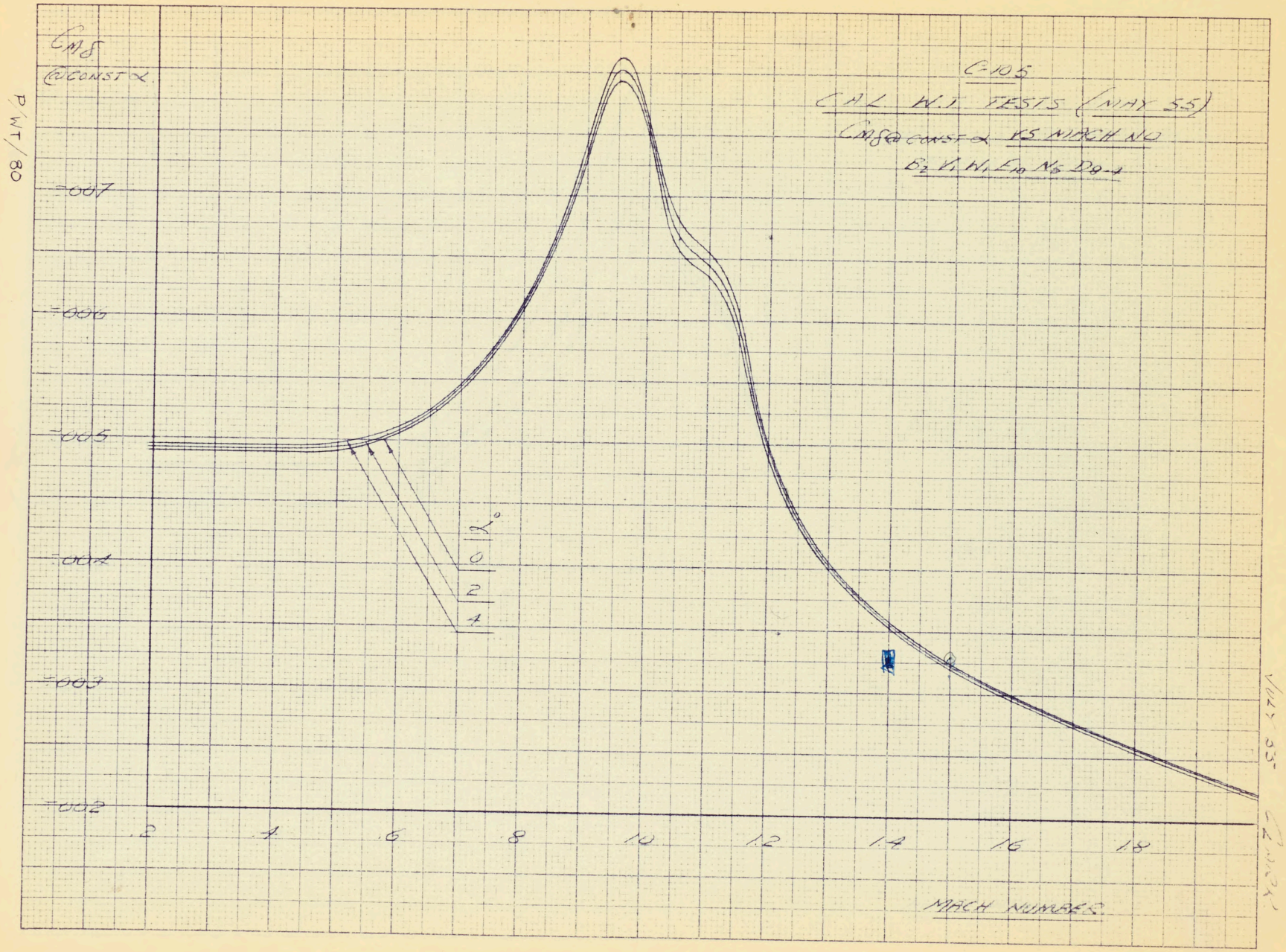
2222

V647-555

P/AERO DATA/59

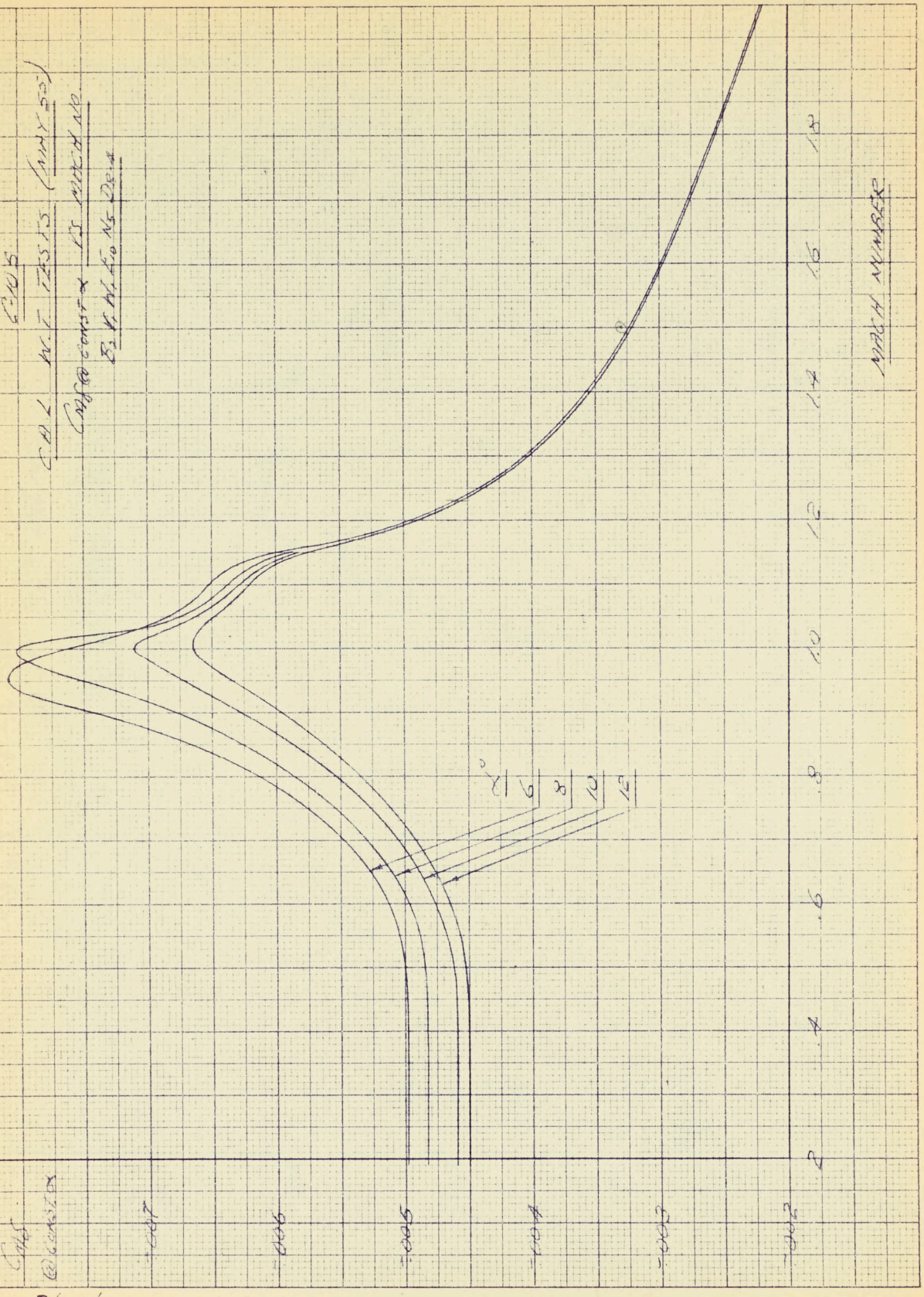
C-105





P/NT/80

2.41 T AERO DATA/59



10 X 10 TO THE ½ INCH 359-12
KEUFFEL & ESSER CO. MADE IN U.S.A.

AIRCRAFT
A.U.W.

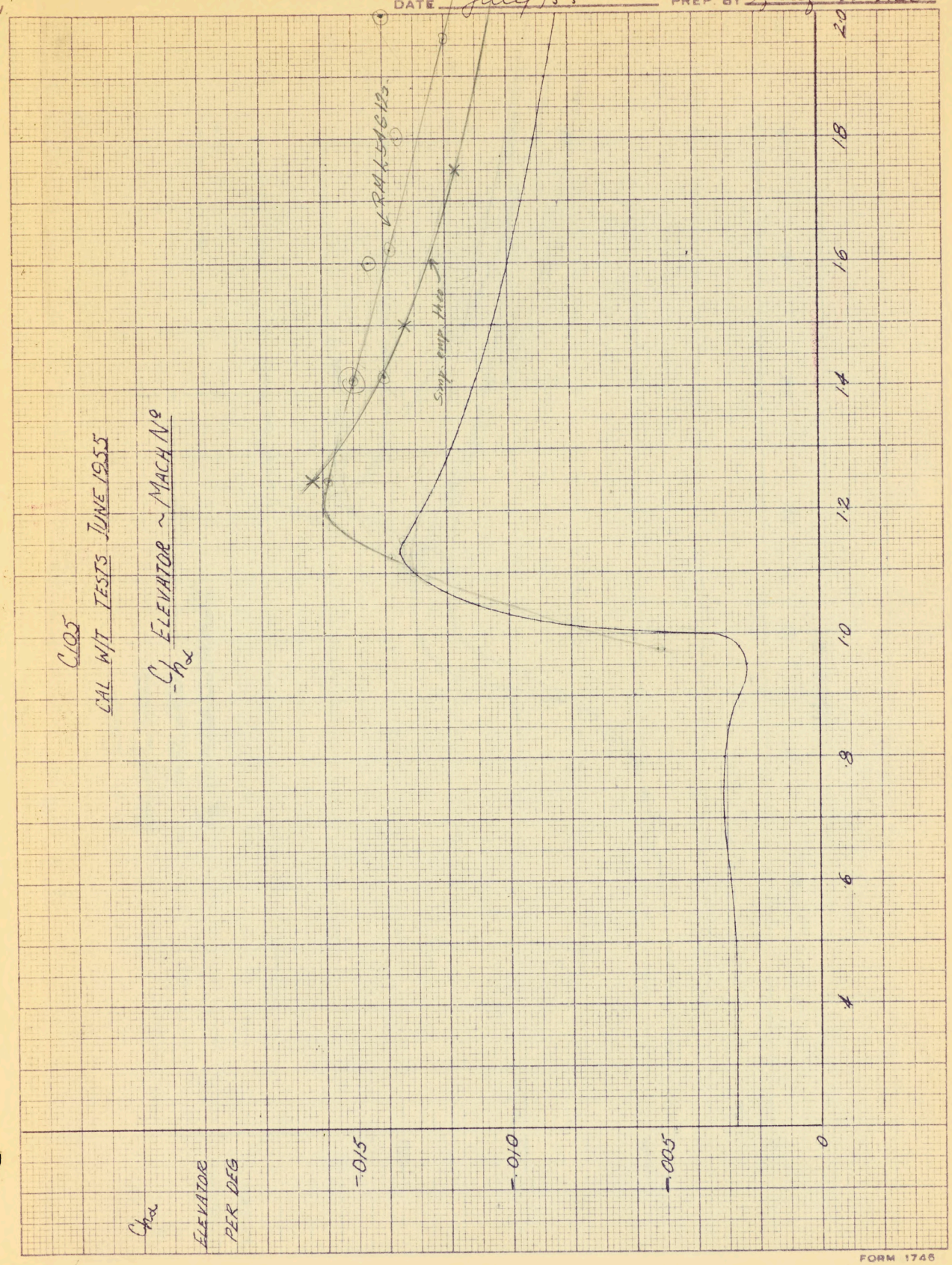
COMPONENT

SHEET No. 25 REPORT No. P/AERO/DATA/59

DATE July 1955 PREP. BY Sulczewska

C105
CAL W/T TESTS JUNE 1955

$-C_{l_{h_\alpha}}$ ELEVATOR ~ MACH No



10 X 10 TO THE ½ INCH 359-12
KEUFFEL & ESSER CO

FORM 1746

P/AERO - 60

AIRCRAFT
A.U.W.

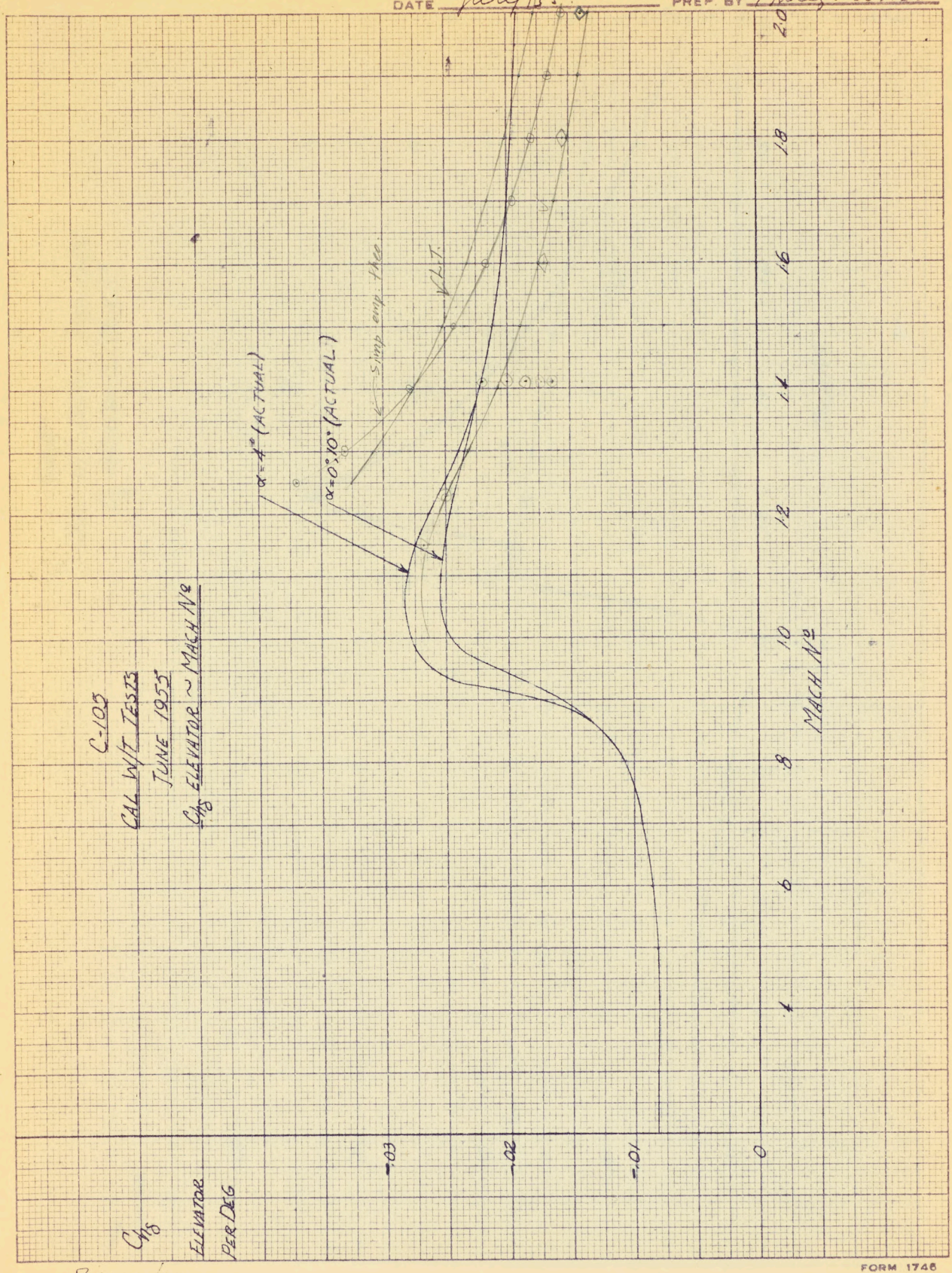
COMPONENT

SHEET NO. 26.

REPORT NO. P/AERO DATA/52

DATE July 15th.

PREP. BY Sulczewski

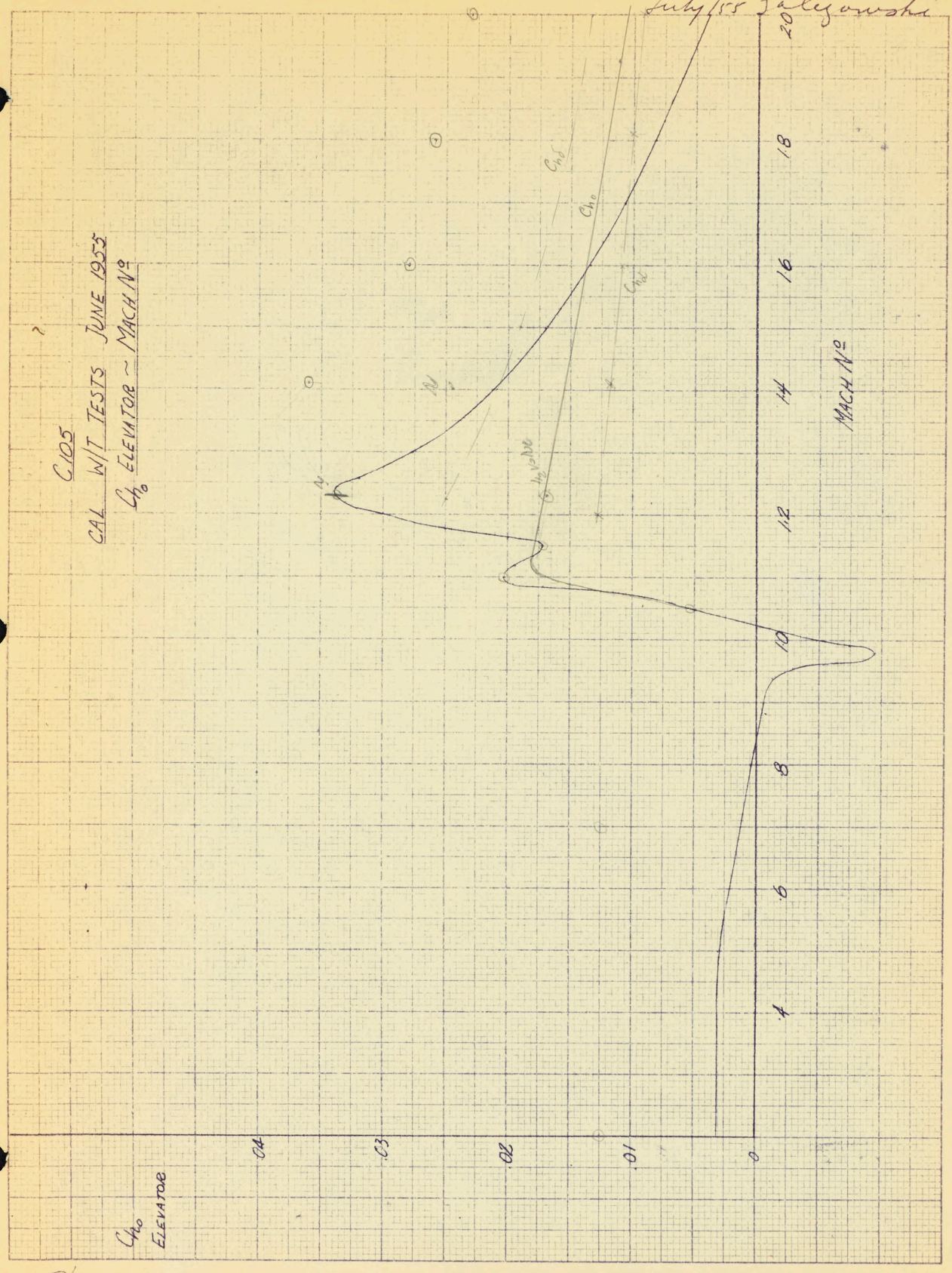


P AERO/60

FORM 1748

July/58 Sakyanushi

C105
CAL W/T TESTS JUNE 1955
C_{h_0} ELEVATOR ~ MACH Nº



SHEETS 2.8.

2.9.

Not

Available.