

QCX
Avro
CF105
P-WT-49

C-105

~~SECRET~~

P/WT/49

~~Classification cancelled / Changed to~~

UNCLAS

~~Avro~~ WIND TUNNEL TESTS ~~AVS~~

~~ANALYZED~~

~~CORRECTED PLOTS~~

25.06

OCT. 1954

~~Store~~
~~Rank / Appointment~~

AVSS

Copy 1



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AÉRO / M.E.
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AÉRO / G.M.
CNRC - ICIST



INDEX

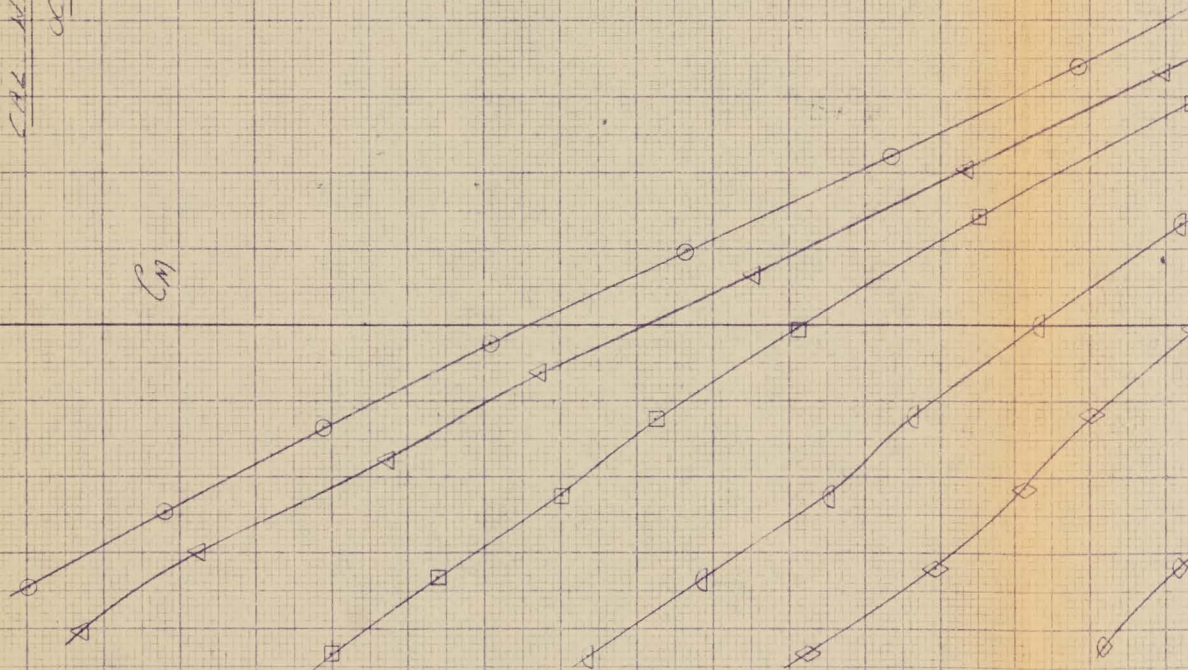
(October 1954 C.A.L. Tests)

N.B. Configuration Includes C₃ V₂ R₅ In All Cases

SHEET	1	2	3	4	5	6	7	8	9	10
RUNS	1066, 1077,- 1082,	1067, 1069- 1075	1065, 1084, 1086- 1091	1036, 1038- 1043	1064, 1053, 1046- 1051	1061, 1063, 1054- 1059	1024- 1030	1094, 1095, 1097- 1104	1107- 1116	1128, 1121,- 1126
8e	10	0	-5	-10	-20	-30	-10	0	0	0
8AR	0	0	0	0	0	0	0	0	0	0
α°	VAR							0	2	4
β°	0							-12 to +12		
Configuration	B ₄ W ₉ NA5						B ₄ W ₉	B ₄ W ₉ NA5		
Section	LONGITUDINAL STABILITY					DIRECTIONAL STABILITY				
1 C _M vs C _L	X	X	X	X	X	X				
2 C _D vs C _L	X	X	X	X	X	X				
3 C _D vs C _L ²	X	X	X	X	X	X				
4 C _L	X	X	X	X	X	X				
5 C _M	X	X	X	X	X	X				
6 C _D										
7 C _N								X	X	X
8 C _Y								X	X	X
9 C _L		X						X	X	X
10 C _{Nf}								X	X	X
11 C _{MfLE}										
12 C _{MfR}										
13 CHAL										
14 CHAR		X								
15 CHE	X	X	X	X	X	X				
16 CHR										
17 C _{MfR} vs C _{Nf}								X	X	X
18 C _{MfLE} vs C _{Nf}								X	X	X

C-105
CAL WIND TUNNEL TESTS
OCTOBER 1954
CM K3 G
 $\phi_c = -20^\circ$
B2 S3 N9 K2 K3 1/2

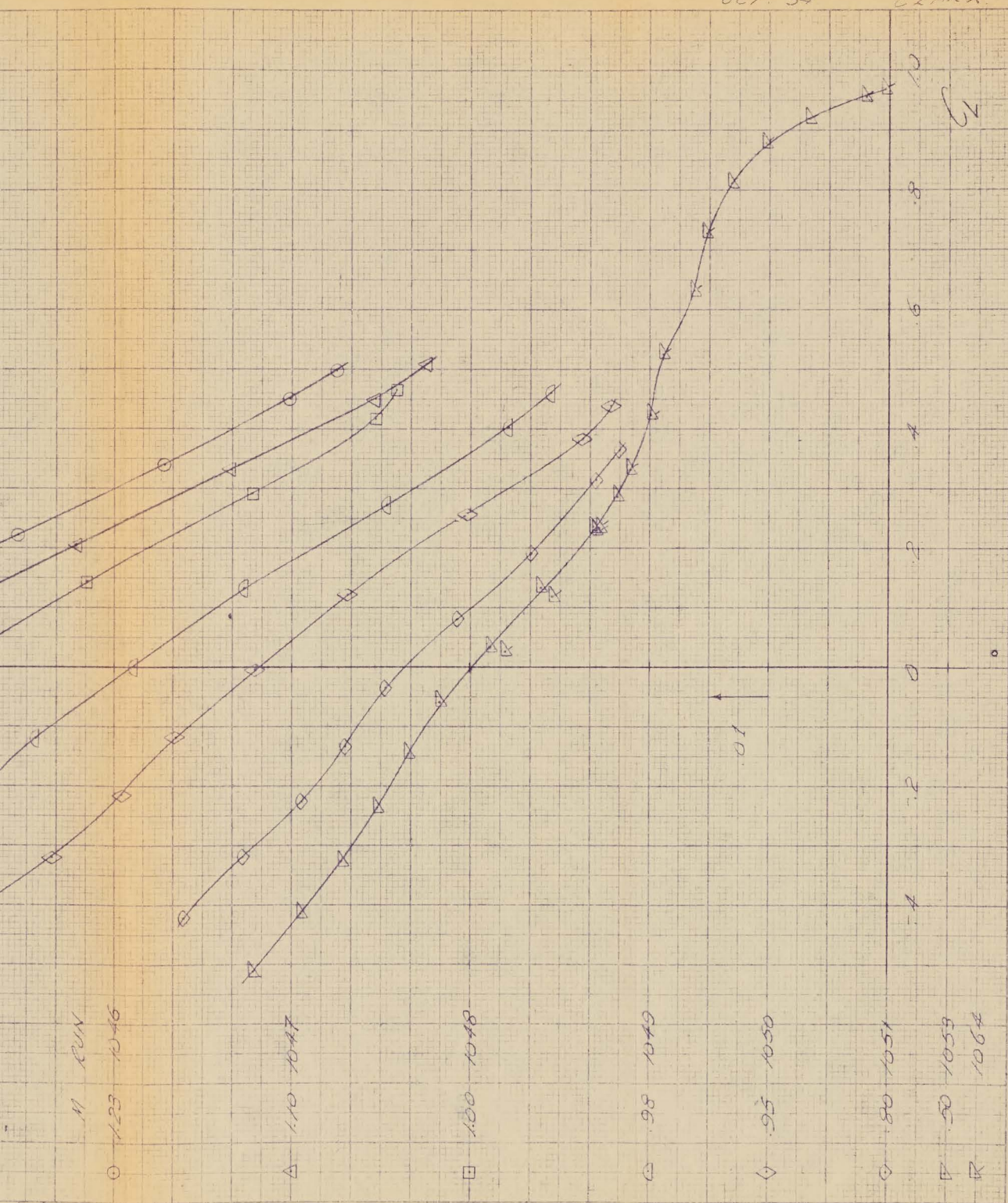
CM



11 RUN
O 123 1046

15.
OCT. 54

PWT 140
CLARK



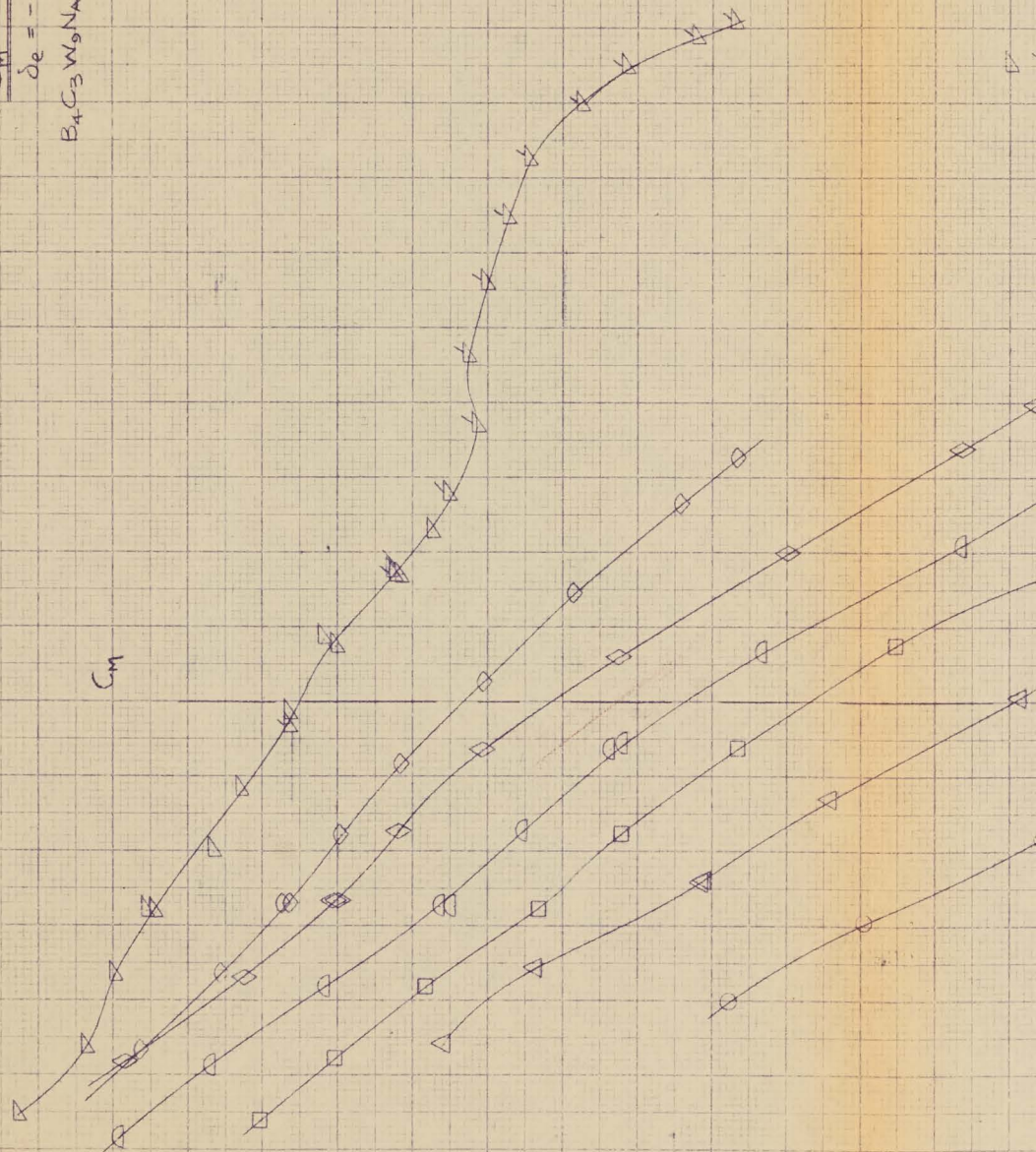
C-105
CAL WIND-TUNNEL TESTS

OCTOBER/54

$$C_M \sim C_L$$

$$\delta_e = -30^\circ$$

$B_4 C_3 W_9 N_{45} V_2 R_3$

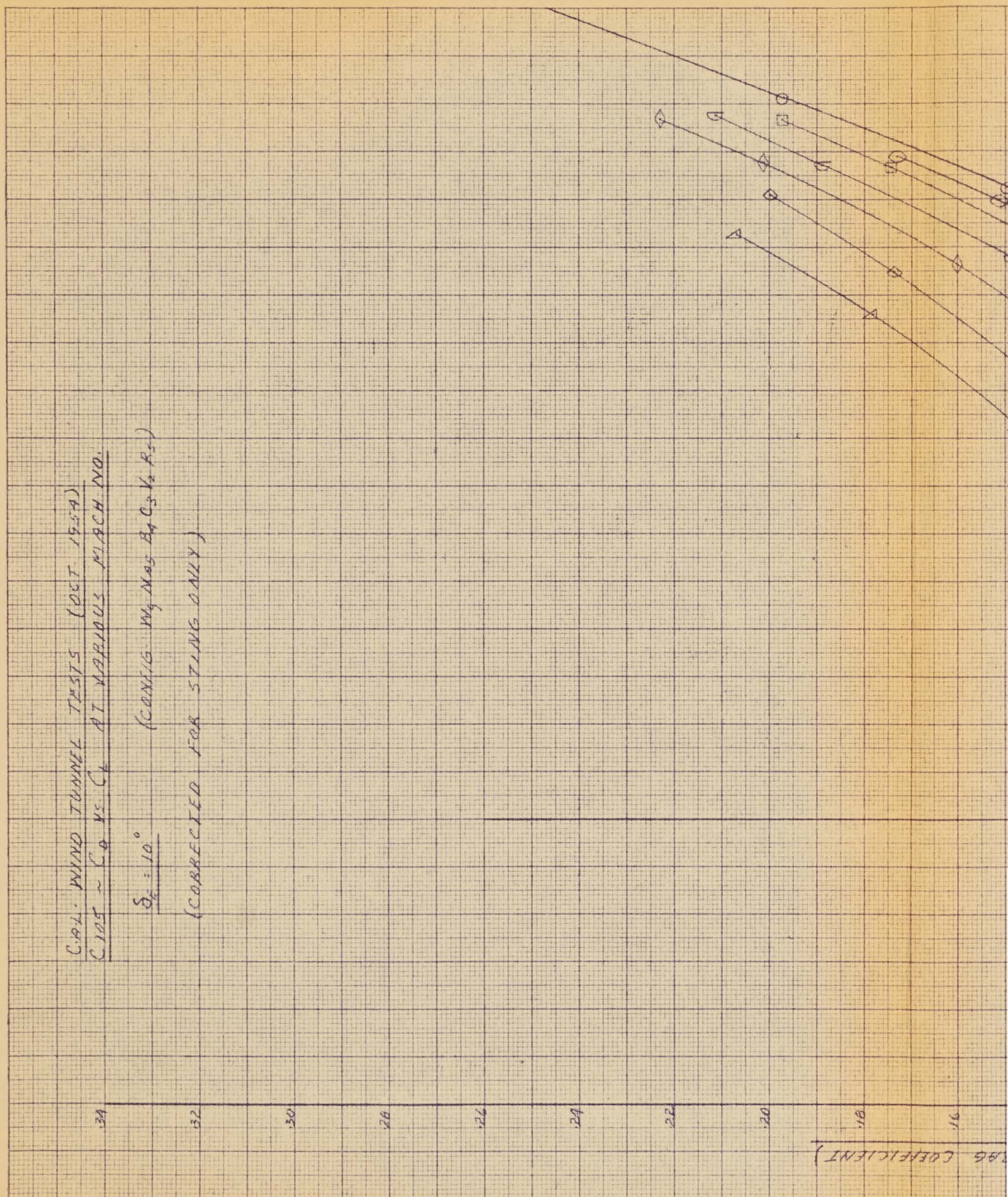


M RUN
50 1061

CAL. WIND TUNNEL TESTS (DET 195A)
 CLOS ~ C₀ VS C_L AT VARIOUS MACH NO.

$\delta_{\infty} = 10^\circ$ (CONFIG. W₄ NOS B₄ C₃ V₂ R₅)

(CORRECTED FOR STING ONLY)

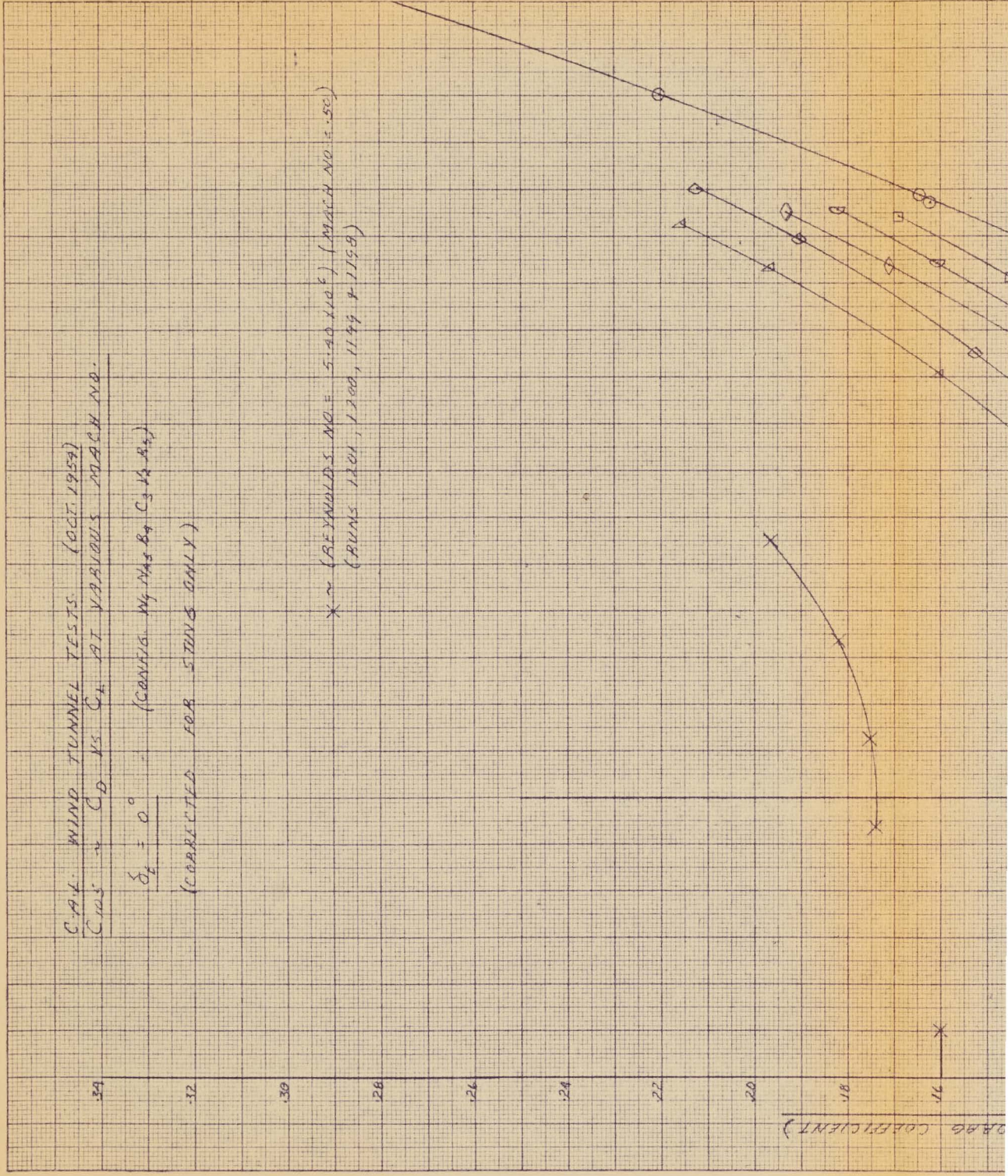


CAL. WIND TUNNEL TESTS (OCT. 1954)
 CLOS. vs C_D vs C_L AT VARIOUS MACH NO.

$\delta_L = 0^\circ$ (CONST. M_0 89 (3.42-4.5))

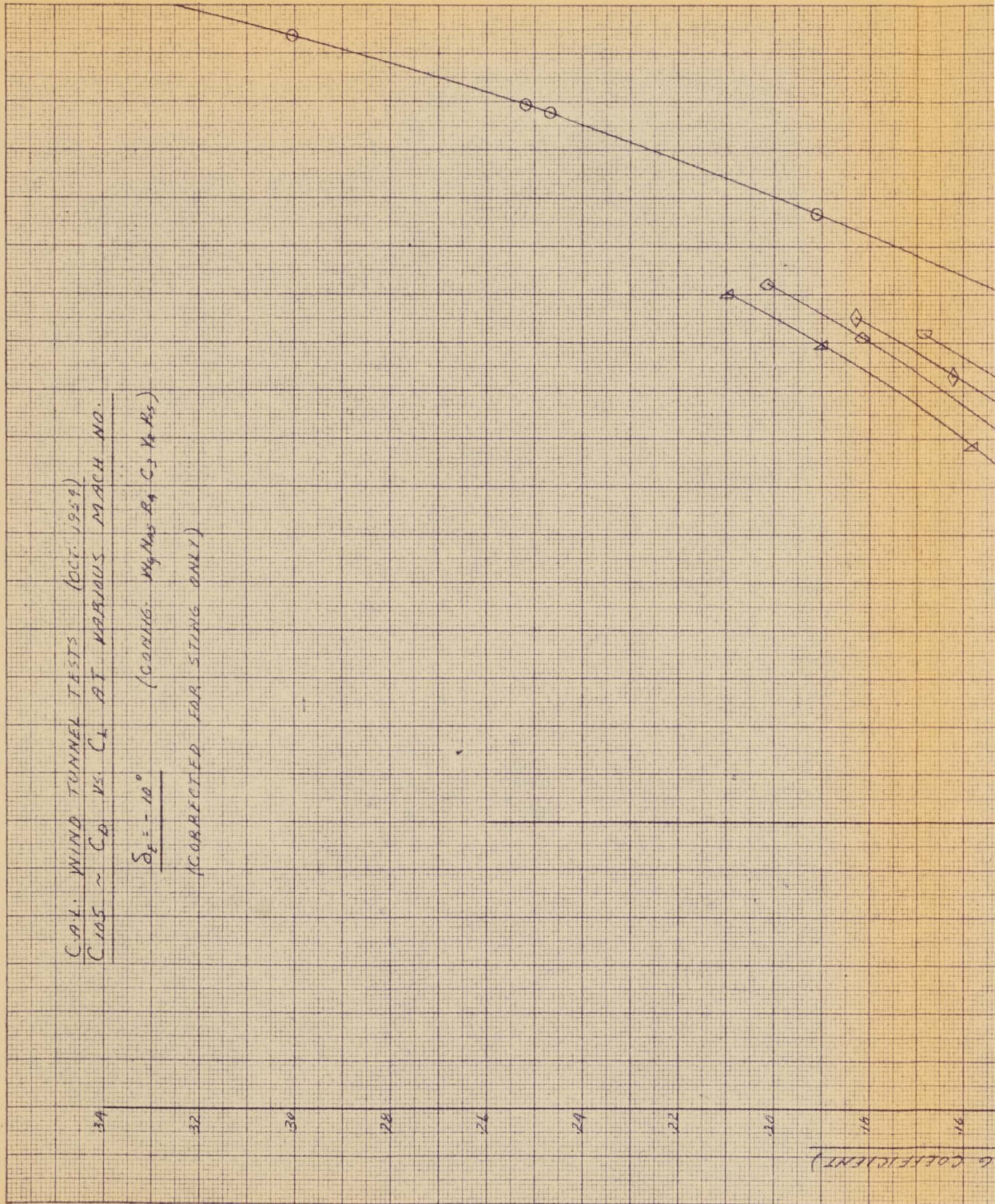
(CORRECTED FOR STING ONLY)

* $\approx$ (REYNOLDS NO. = 5.40×10^6) (MACH NO. = .50)
 (RUNS 1101, 1100, 1144 & 1158)



CAL. WIND TUNNEL TESTS (OCT. 1959)
 C₁₀₅ ~ C_D VS C_L AT VARIOUS MACH NO.

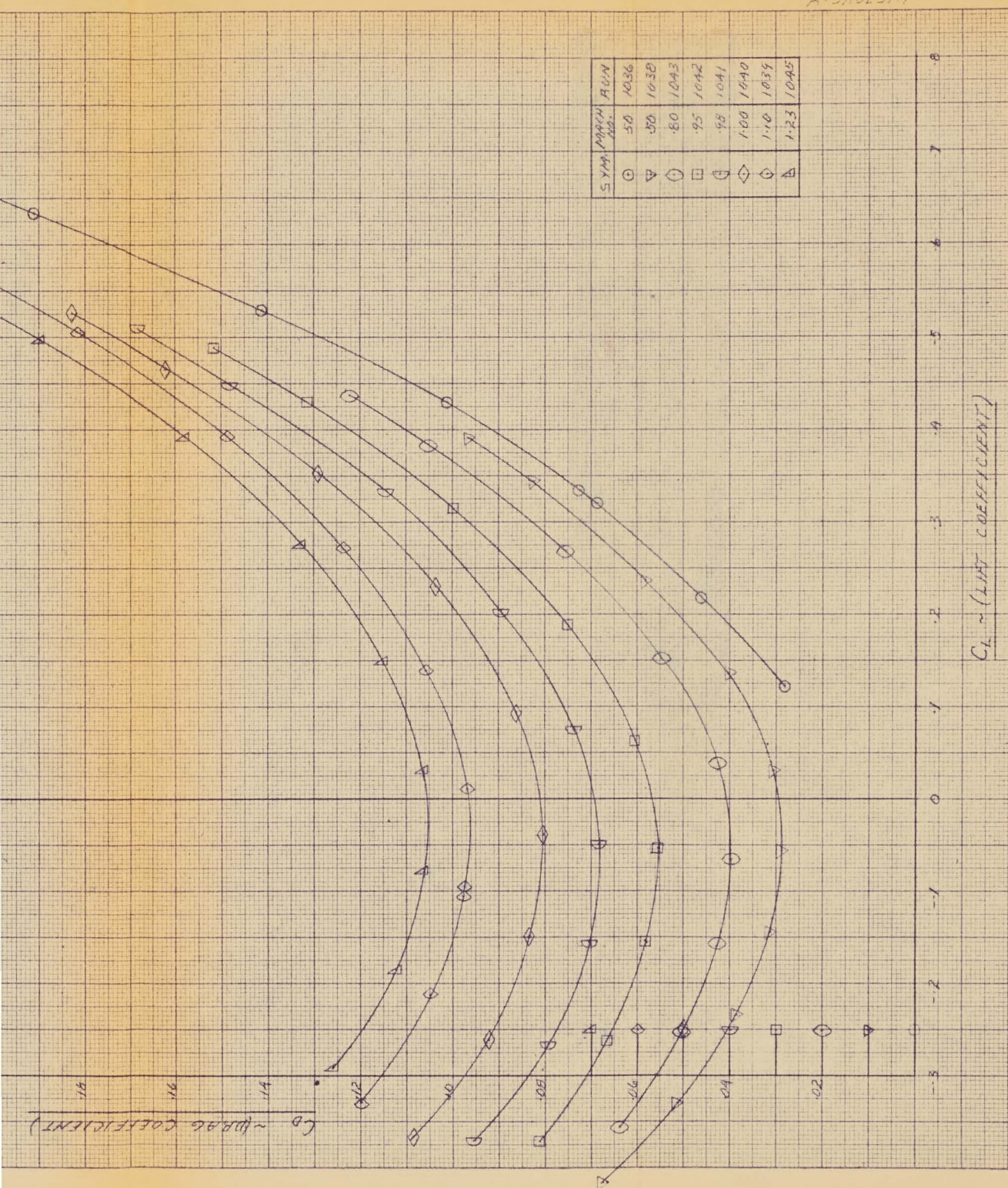
$\delta_p = -10^\circ$
 (CORRECTED FOR STING ONLY)
 (CORRECTING: $M_0, M_0, R_0, C_2, V_0, R_0$)



SHT. 2-4

P/W.T./49

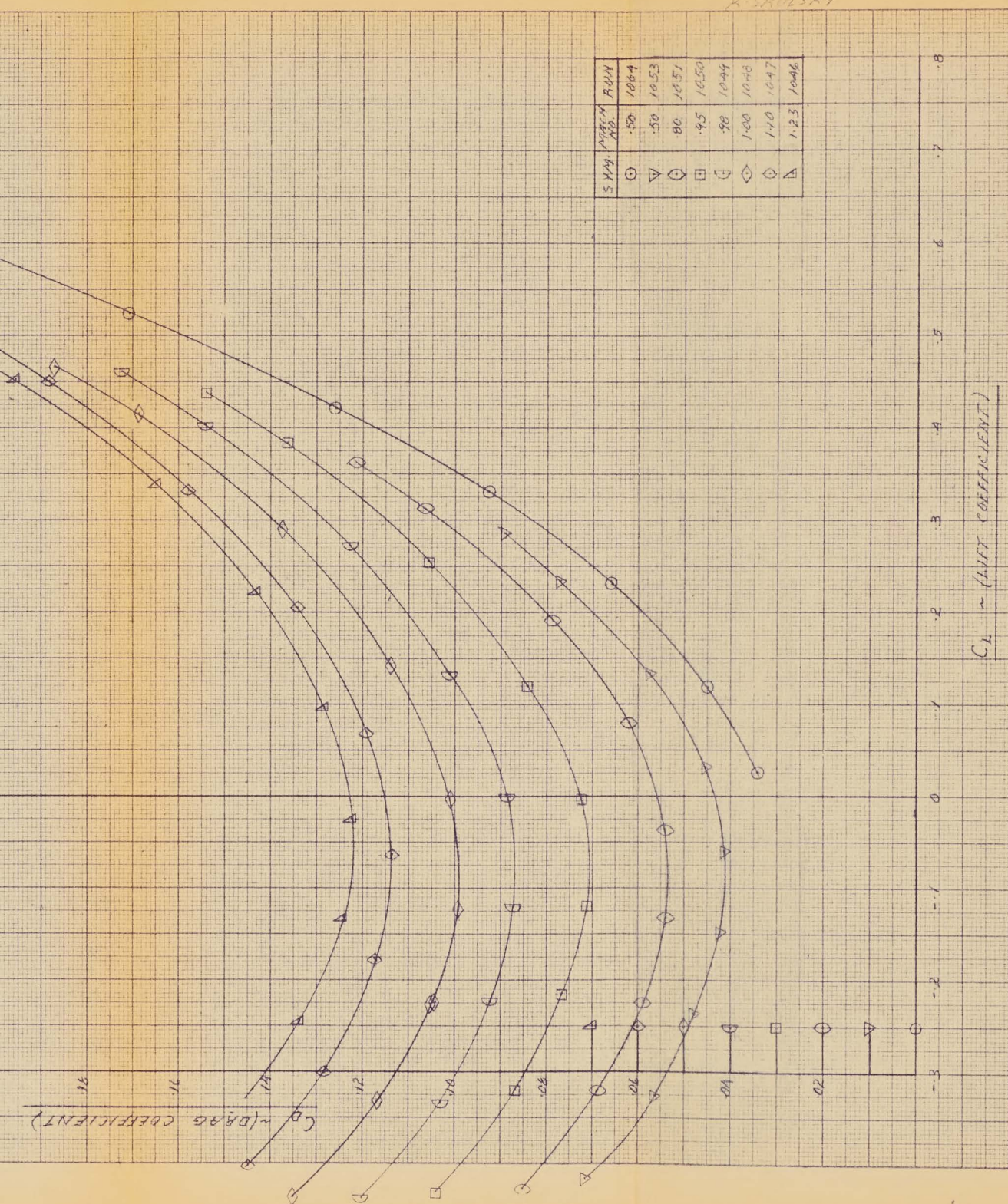
R. SHULSKY

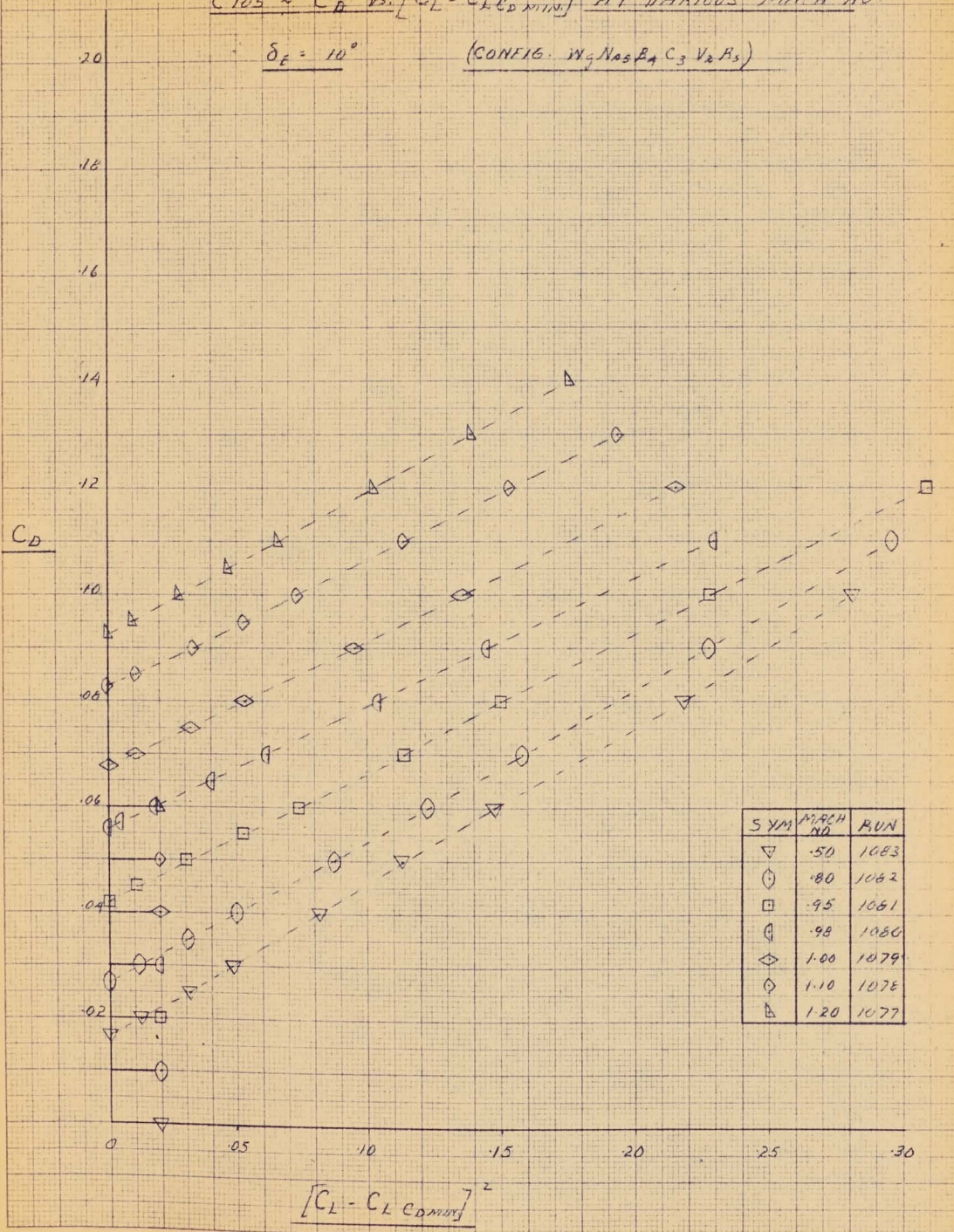


SHT. 2-6

P/W.T./49

R. SKULSKY



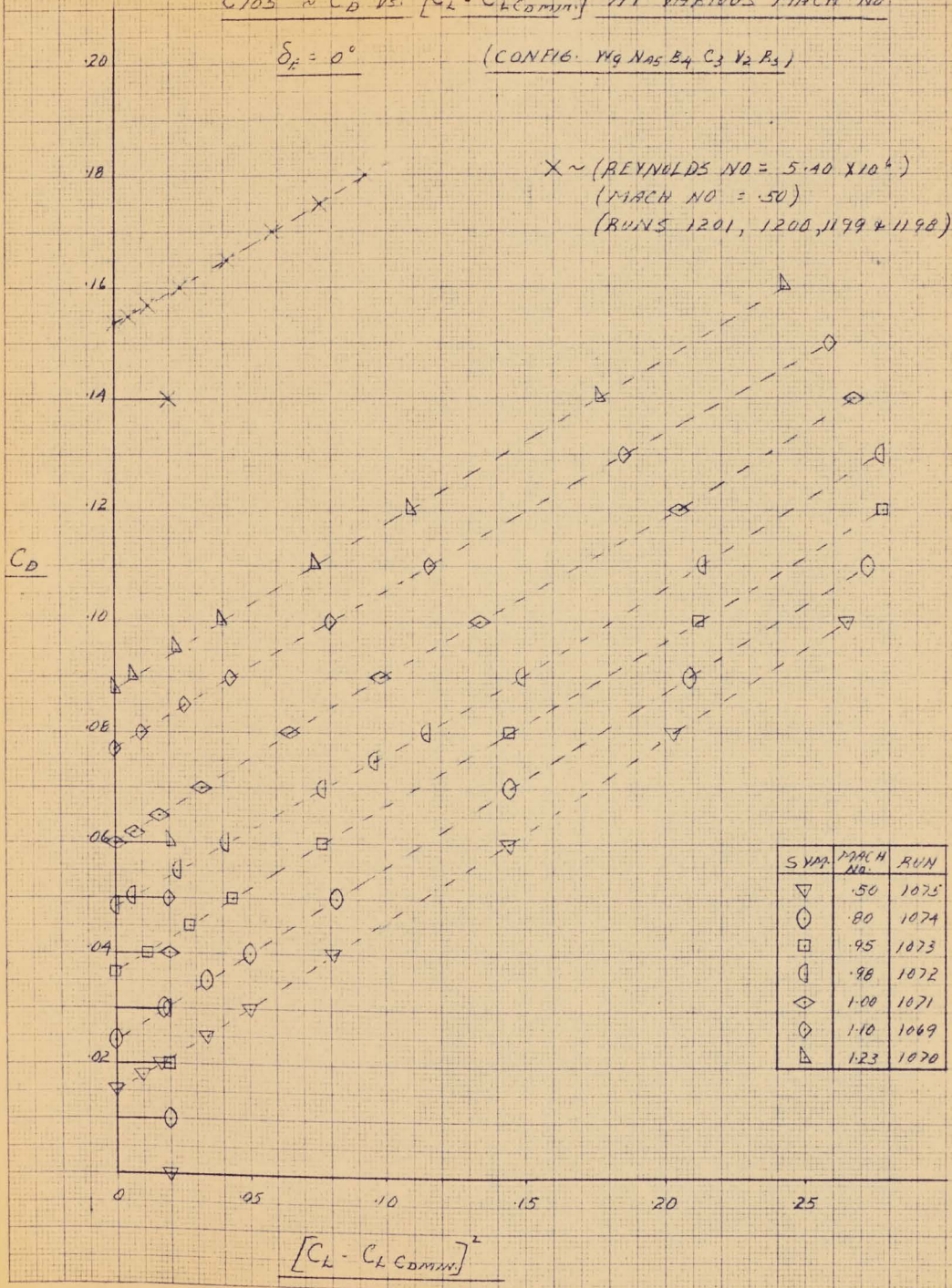
CAL WIND TUNNEL TESTS (OCT. 1954) $C_{105} = C_D$ vs. $[C_L - C_{L \text{ empty}}]^2$ AT VARIOUS MACH NO $\delta_F = 10^\circ$ (CONFIG. $W_2 N_{0.5} B_4 C_3 V_2 R_5$)

C.A.L. WIND TUNNEL TESTS (OCT. 1954)

$C_{105} \approx C_D$ VS. $[C_L - C_{L \text{ COMM.}}]^2$ AT VARIOUS MACH NO

$\delta_H = 0^\circ$

(CONFIG. Wg N.45 B.4 C.3 V.2 P.3)



SHT. 3-3

P/W.T./49

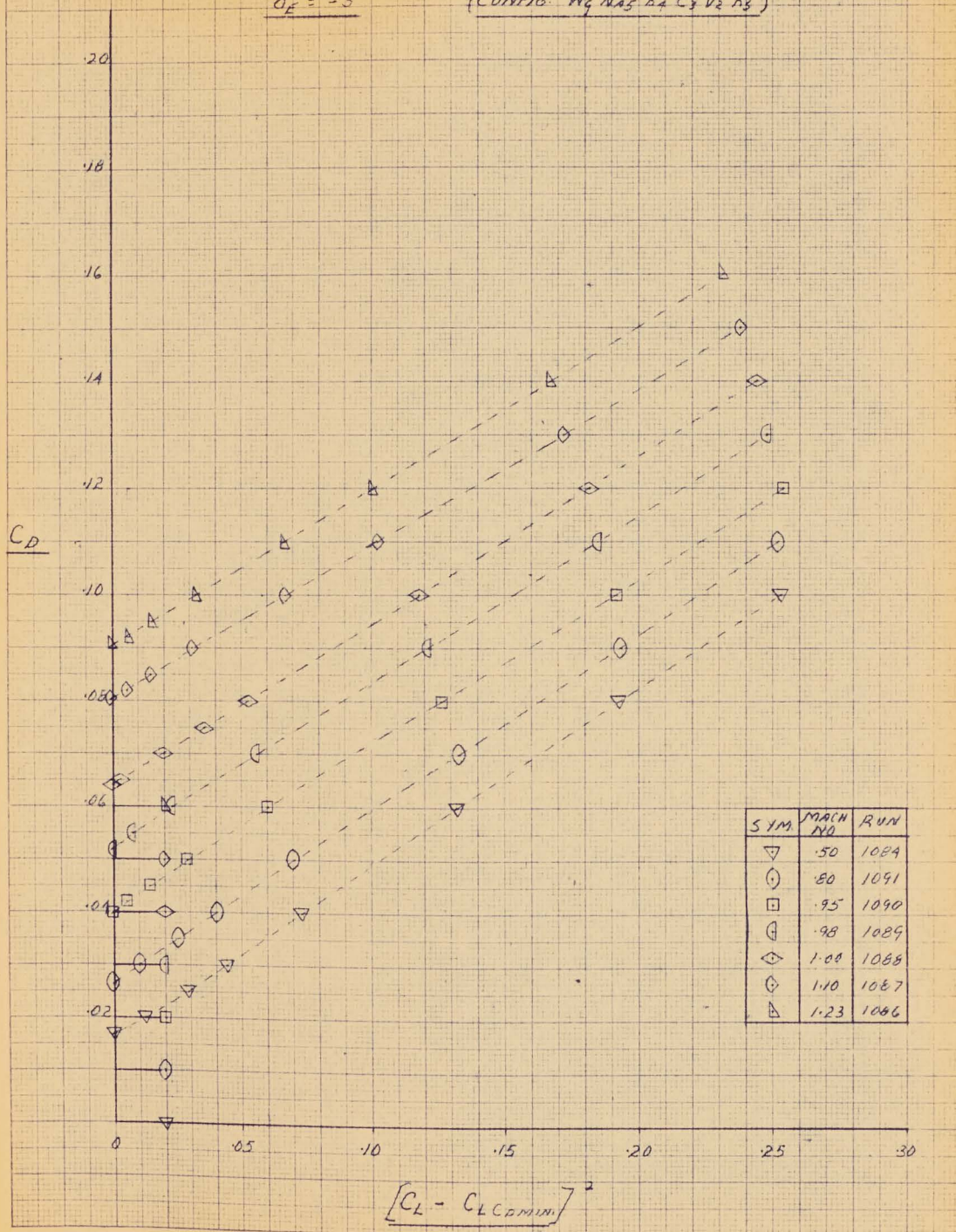
R. SAULSKI

CAL. WIND TUNNEL TESTS

(OCT 1959)

 $C_{105} \sim C_D$ VS. $[C_L - C_{L \text{ MIN.}}]^2$ AT VARIOUS MACH NO. $\delta_F = -5^\circ$

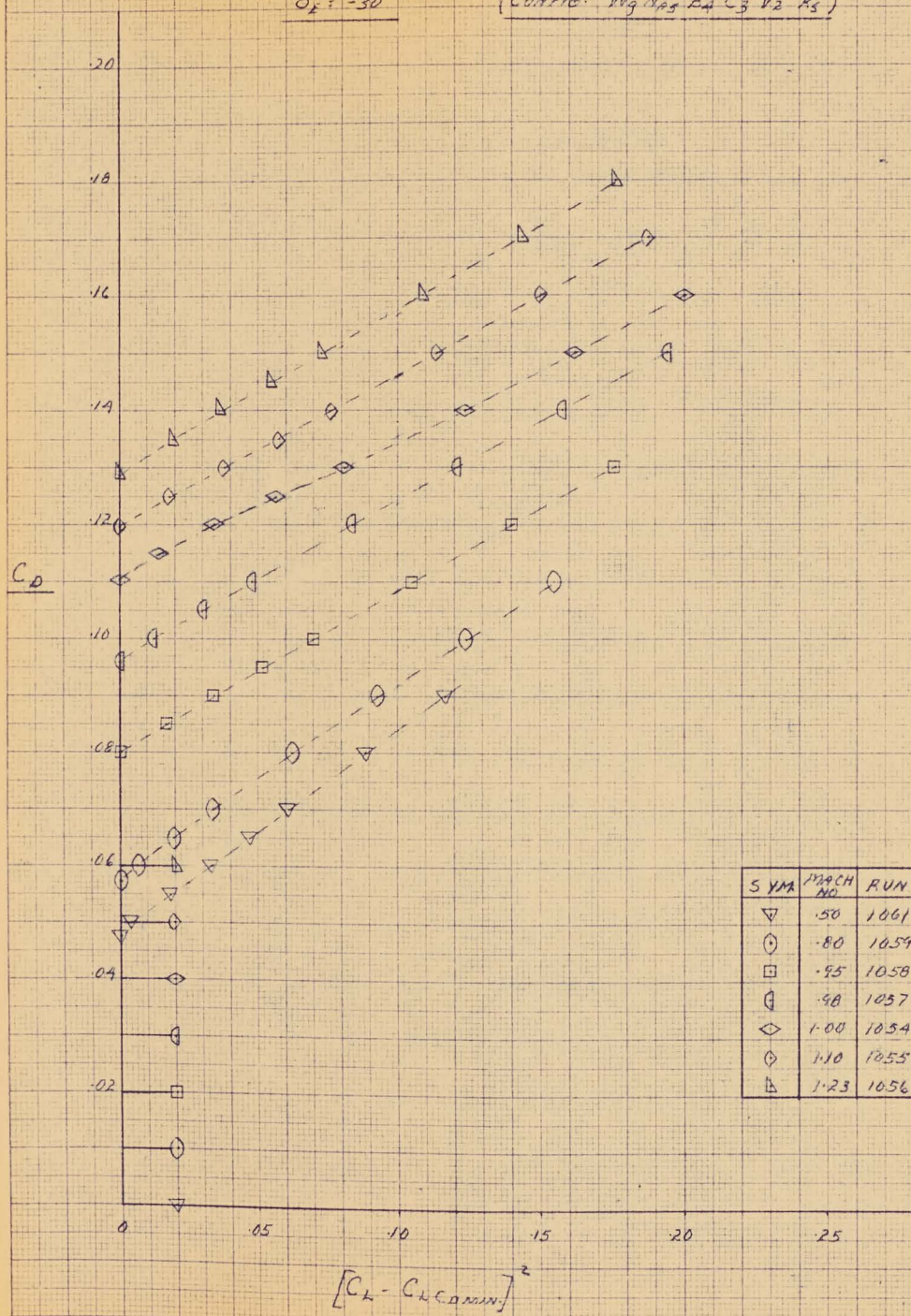
(CONFIG. Wg N45 B4 C7 V2 R8)



C.A.D. WIND TUNNEL TESTS ~ (OCT 1954)
 $C_{LOS} \sim C_D$ VS $[C_L - C_{L,0MIN}]$ AT VARIOUS MACH NO.

$\delta_F = -30^\circ$

(CONFIG. W_9 N_{45} R_4 C_3 V_2 R_5)



C_L

7

6

5

4

3

2

1

0

-1

-2

α
 1°

$\odot$	$\triangle$	$\square$	∇	$\diamond$	$\diamond$	∇
MACH No 95	96	97	98	100	110	123
RUN 1083	1082	1081	1080	1079	1078	1077

P/W.T./49

T. Papis

TESTS, OCT. 8 54.

$$\frac{2}{5N_{A5}}$$

086-1091.

$$\delta_{\text{H}} = -5^\circ$$

CONTINUED

$$\frac{\alpha}{10}$$

7	1086
0	123

October 1954

J. Papus.

105

W.T. TESTS, OCT. 1954.

vs. α $B_4, C_3, W_0, V_2, R_5, N_{45}$

1043, 1044.

 $\delta_e = -10^\circ$

CONTINUED

 $\frac{\alpha}{1^\circ}$

1039

110

1045

143

C_L

$$\alpha_{TRUE} = \alpha + 0.7$$

eg TO DETERMINE C_L AT $\alpha = 2.0$
READ AT $\alpha = 2.07$

4

3

2

1

0

-1

-2

-3

-4

-5

-6

α

	○	△	□	◐	◑	◇	▽
MACH No	.5	.8	.95	.98	1.00	1.10	1.23
RUN	1053	1051	1050	1049	1048	1047	1046

C_L
5
4
3
2
1
0
-1
-2
-3
-4
-5
-6

$\alpha_{TRUE} = \alpha + 0.7$
TO OBTAIN C_L AT $\alpha = 2.0$
READ AT $\alpha = 2.07$

1°
 α

	○	△	□	◇	◇	
MACH No	5	8	95	98	100	110
RUN	1061	1059	1058	1057	1057	1055

C-105

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

C_L vs α

$$S_{\alpha R} = -15^\circ \quad S_{\alpha L} = 0^\circ$$

CONFIG. $B_4 C_3 W_9 M_{A5} V_2 R_5$

C_L SCALE $\cdot 10$
(ORIGIN AT M)

RUN 1177

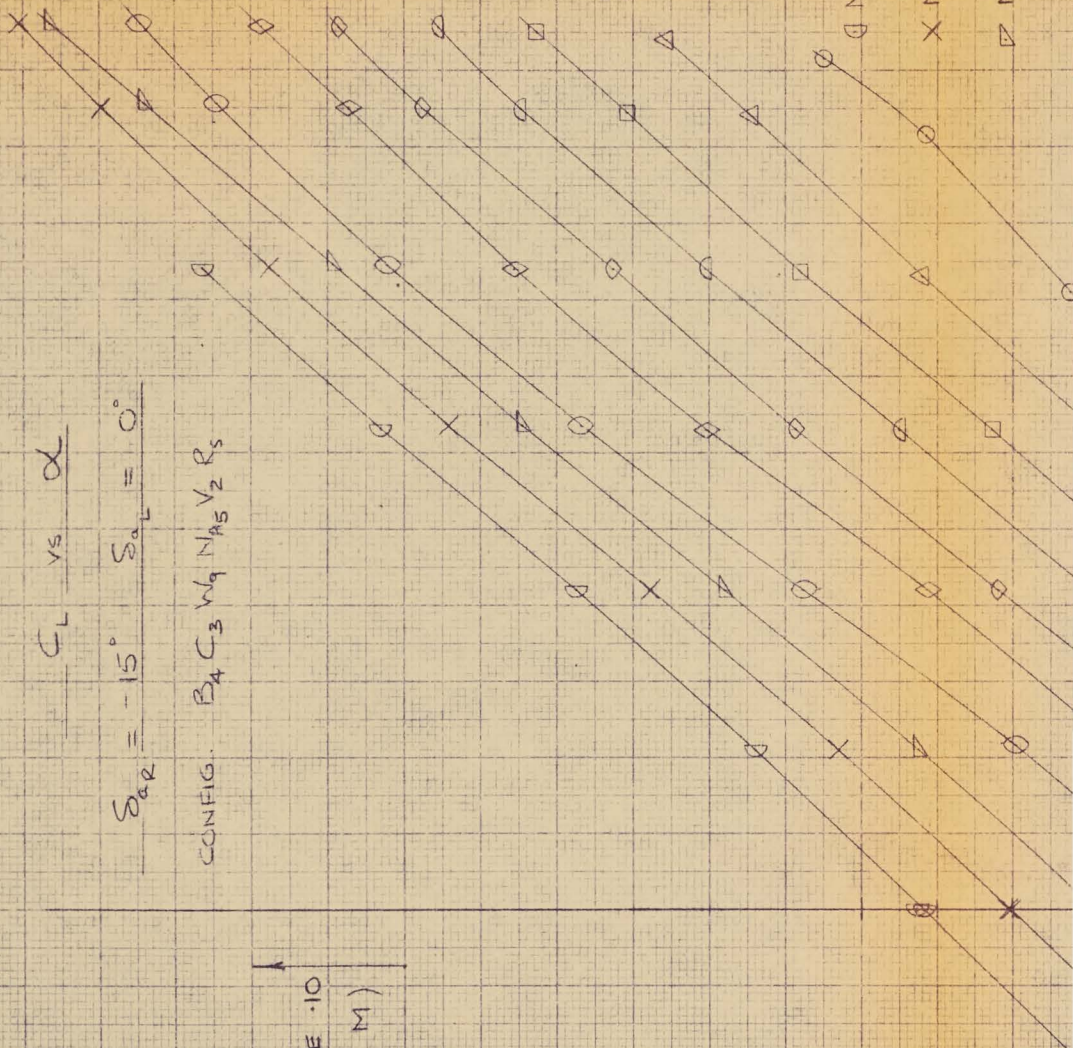
RUN 1178

RUN 1179

$\diamond M = 1.23$

$\times M = 1.15$

$\triangle M = 1.10$



C-105

C.A.L. Wind Tunnel Tests

Oct. 1954

C_M vs α

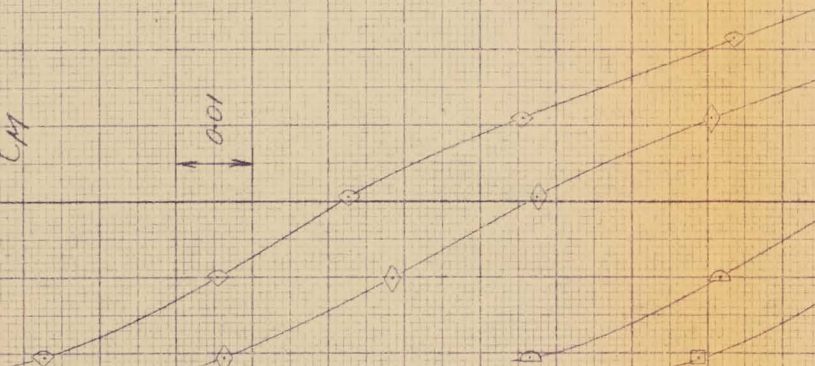
$\delta_c = 10^\circ$ $\delta_a = \delta_e = 0$

Configuration B4G444R3H4s

Runs 1077 to 1083 and 1086

C_M

0.01



Mach No.	Run No.
1.23	1077

Mach No.	Run No.
1.10	1078

Mach No.	Run No.
1.00	1079

Mach No.	Run No.
0.98	1080

Mach No.	Run No.
0.95	1081

Mach No.	Run No.
0.89	1082

C-105

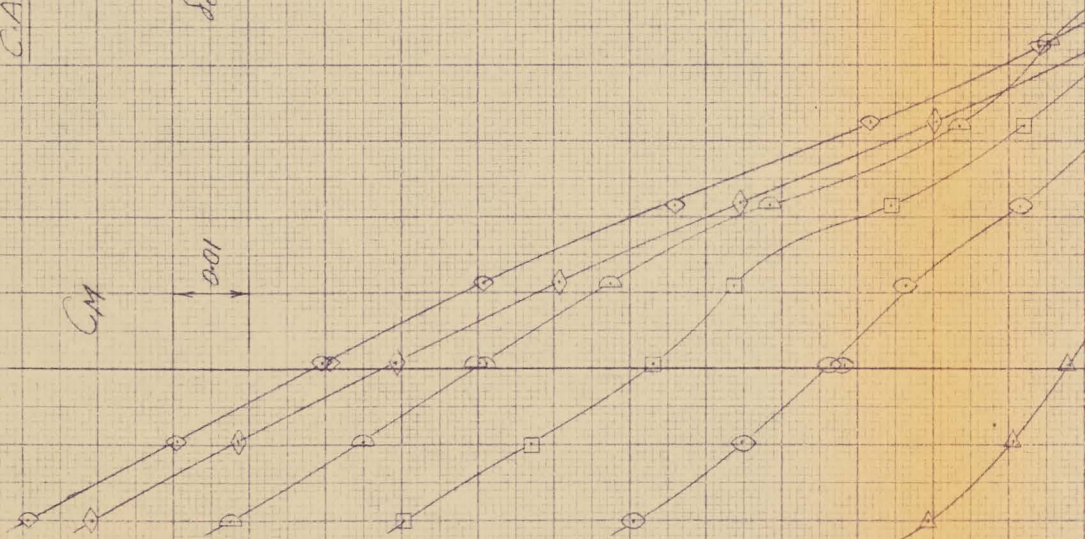
CAL. Wind Tunnel Tests

Oct. 1954

C_M vs α

$\delta_a = -5^\circ$ $\delta_r = 0$

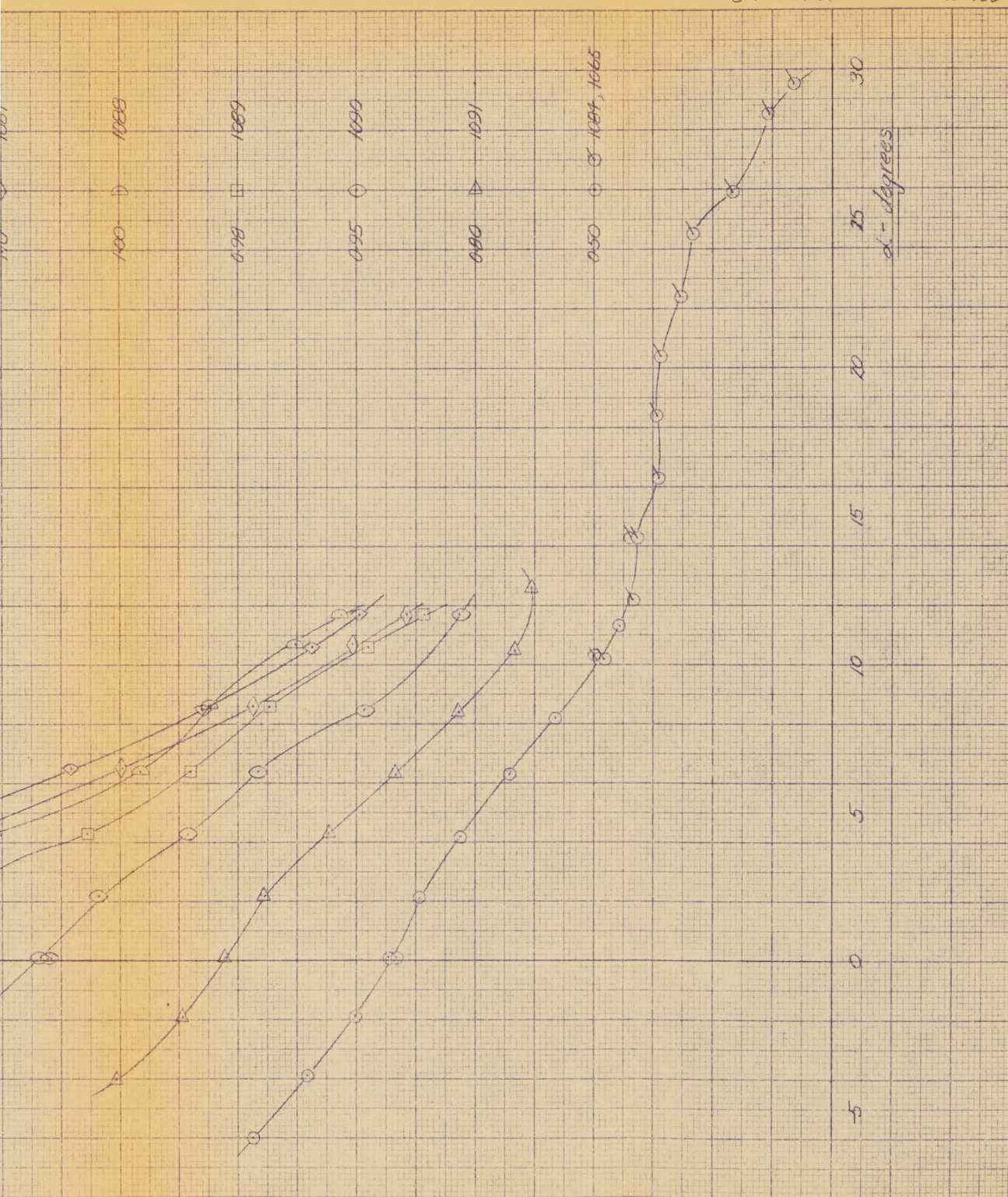
Configuration B₁C₂W₃V₄R₅M₆
Runs 1084 to 1091 and 1085
(1085 Void)



Run No.	Run No.
1083	1086
1084	1087
1085	1088
1086	1089
1087	1090
1088	1091
1089	1092
1090	1093
1091	1094
1092	1095
1093	1096
1094	1097
1095	1098
1096	1099
1097	1100
1098	1101
1099	1102
1100	1103
1101	1104
1102	1105
1103	1106
1104	1107
1105	1108
1106	1109
1107	1110
1108	1111
1109	1112
1110	1113
1111	1114
1112	1115
1113	1116
1114	1117
1115	1118
1116	1119
1117	1120
1118	1121
1119	1122
1120	1123
1121	1124
1122	1125
1123	1126
1124	1127
1125	1128
1126	1129
1127	1130
1128	1131
1129	1132
1130	1133
1131	1134
1132	1135
1133	1136
1134	1137
1135	1138
1136	1139
1137	1140
1138	1141
1139	1142
1140	1143
1141	1144
1142	1145
1143	1146
1144	1147
1145	1148
1146	1149
1147	1150
1148	1151
1149	1152
1150	1153
1151	1154
1152	1155
1153	1156
1154	1157
1155	1158
1156	1159
1157	1160
1158	1161
1159	1162
1160	1163
1161	1164
1162	1165
1163	1166
1164	1167
1165	1168
1166	1169
1167	1170
1168	1171
1169	1172
1170	1173
1171	1174
1172	1175
1173	1176
1174	1177
1175	1178
1176	1179
1177	1180
1178	1181
1179	1182
1180	1183
1181	1184
1182	1185
1183	1186
1184	1187
1185	1188
1186	1189
1187	1190
1188	1191
1189	1192
1190	1193
1191	1194
1192	1195
1193	1196
1194	1197
1195	1198
1196	1199
1197	1200
1198	1201
1199	1202
1200	1203
1201	1204
1202	1205
1203	1206
1204	1207
1205	1208
1206	1209
1207	1210
1208	1211
1209	1212
1210	1213
1211	1214
1212	1215
1213	1216
1214	1217
1215	1218
1216	1219
1217	1220
1218	1221
1219	1222
1220	1223
1221	1224
1222	1225
1223	1226
1224	1227
1225	1228
1226	1229
1227	1230
1228	1231
1229	1232
1230	1233
1231	1234
1232	1235
1233	1236
1234	1237
1235	1238
1236	1239
1237	1240
1238	1241
1239	1242
1240	1243
1241	1244
1242	1245
1243	1246
1244	1247
1245	1248
1246	1249
1247	1250
1248	1251
1249	1252
1250	1253
1251	1254
1252	1255
1253	1256
1254	1257
1255	1258
1256	1259
1257	1260
1258	1261
1259	1262
1260	1263
1261	1264
1262	1265
1263	1266
1264	1267
1265	1268
1266	1269
1267	1270
1268	1271
1269	1272
1270	1273
1271	1274
1272	1275
1273	1276
1274	1277
1275	1278
1276	1279
1277	1280
1278	1281
1279	1282
1280	1283
1281	1284
1282	1285
1283	1286
1284	1287
1285	1288
1286	1289
1287	1290
1288	1291
1289	1292
1290	1293
1291	1294
1292	1295
1293	1296
1294	1297
1295	1298
1296	1299
1297	1300

PJW/49
C.A. Ford

5.3
15 Nov. 1954



C-105

C.A.L. Wind Tunnel Tests Oct. 1954

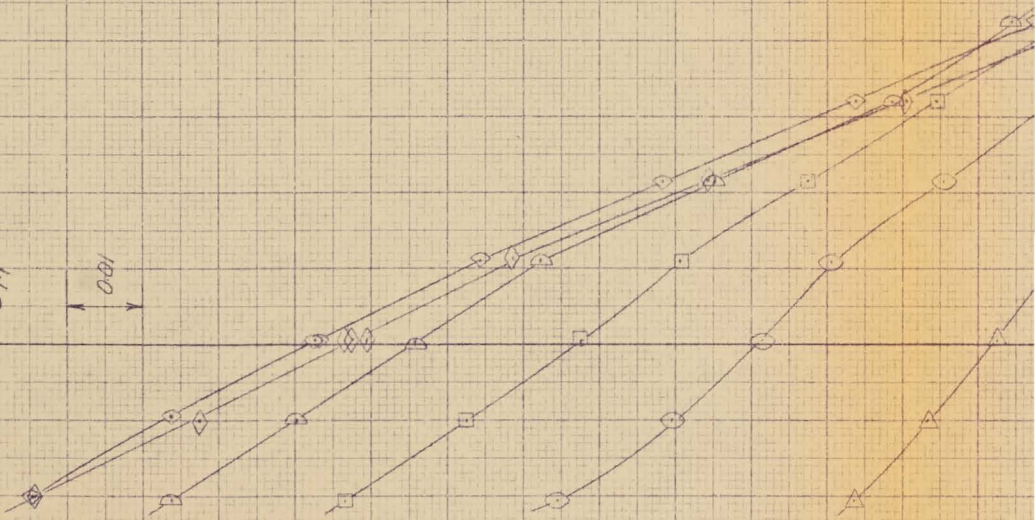
C_M vs α

$\delta_c = -10^\circ$ $\delta_a = \delta_r = 0$

Configuration B4 G M₂ V₂ R₂ N₂
 Runs 1036 to 1045
 (1037 & 1044 void)

C_M

0.01



Mach No.

Run No.

103 1045

109 1039

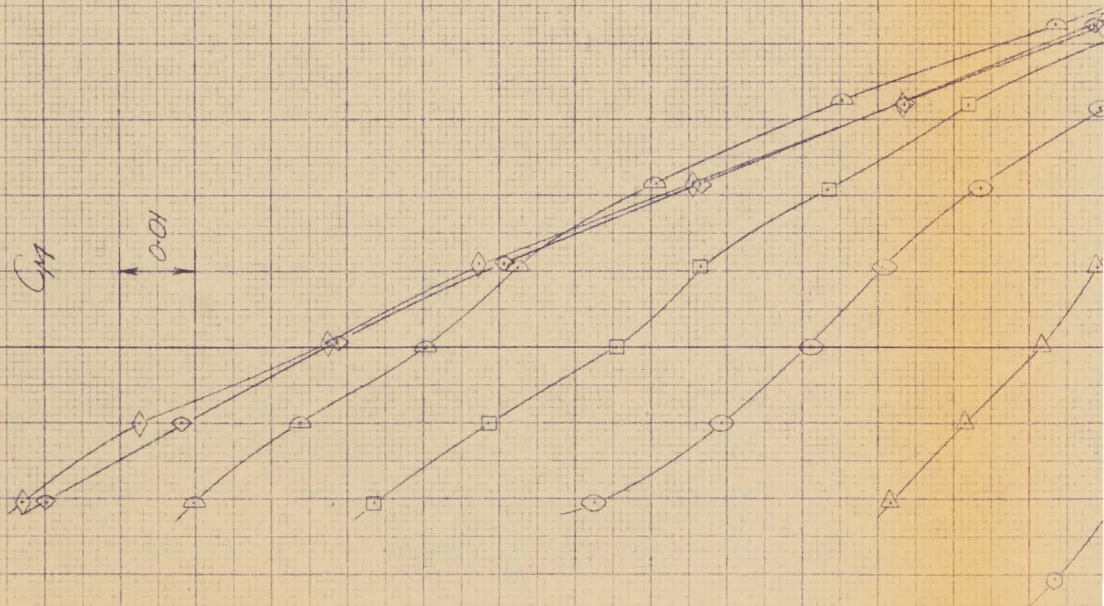
C-105

C.A.L. Wind Tunnel Tests ~ Oct. 1954

GM vs α

$\delta_R = -20^\circ$
 $\delta_R = \delta_T = 0$

Configuration B₄ W₄ V₄ R₄ Nos
 Runs 1046 to 1053 and 1064
 (1052 void)



Mach No.	Run No.
123	1046

C_M

001

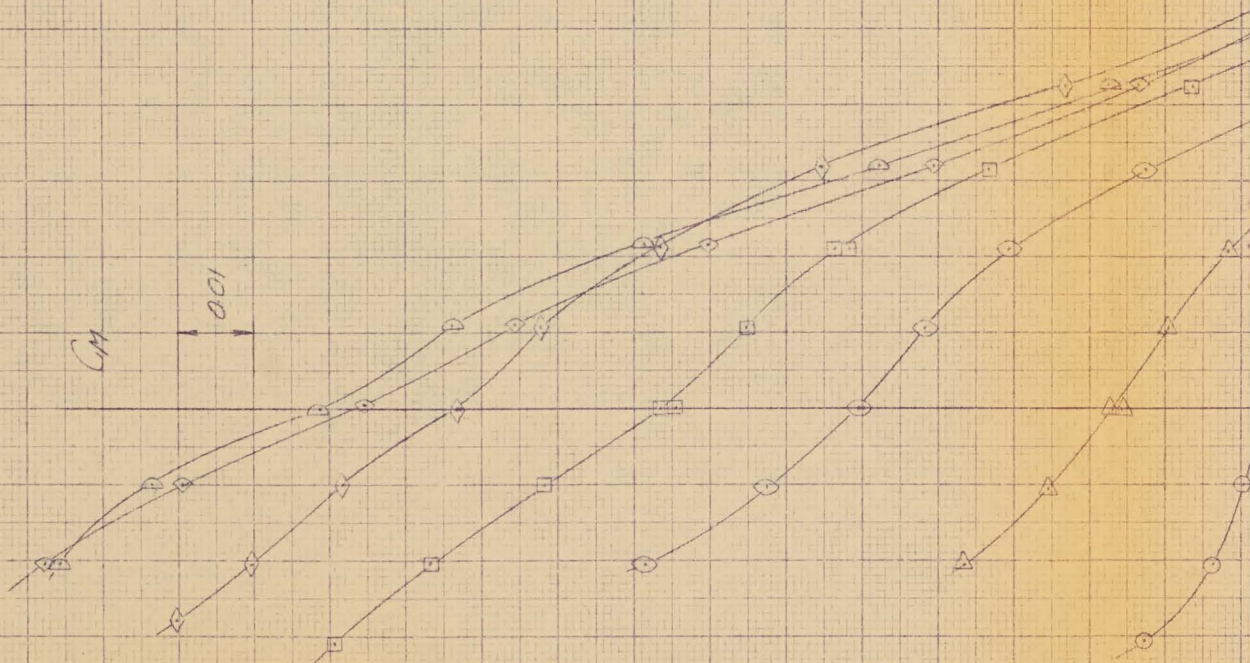
C-105

CAL Wind Tunnel Tests ~ Oct 1954

C_M vs α

$$\begin{aligned} \delta_C &= -30^\circ \\ \delta_a &= \delta_C = 0 \end{aligned}$$

Configuration $E_4 E_2 H_4 V_2 P_2 N_{as}$
Runs 1054 to 1063
(1060 and 1062 void)



Run No.

1054

1055

1056

1057

1058

1059

1060

1061

1062

1063

C105
 C.A.L. WIND TUNNEL TESTS OCT. 54

C_N vs β
 $\alpha = 2^\circ$

B4C3 H9 R3 V2 N45

RUN MACH NO.

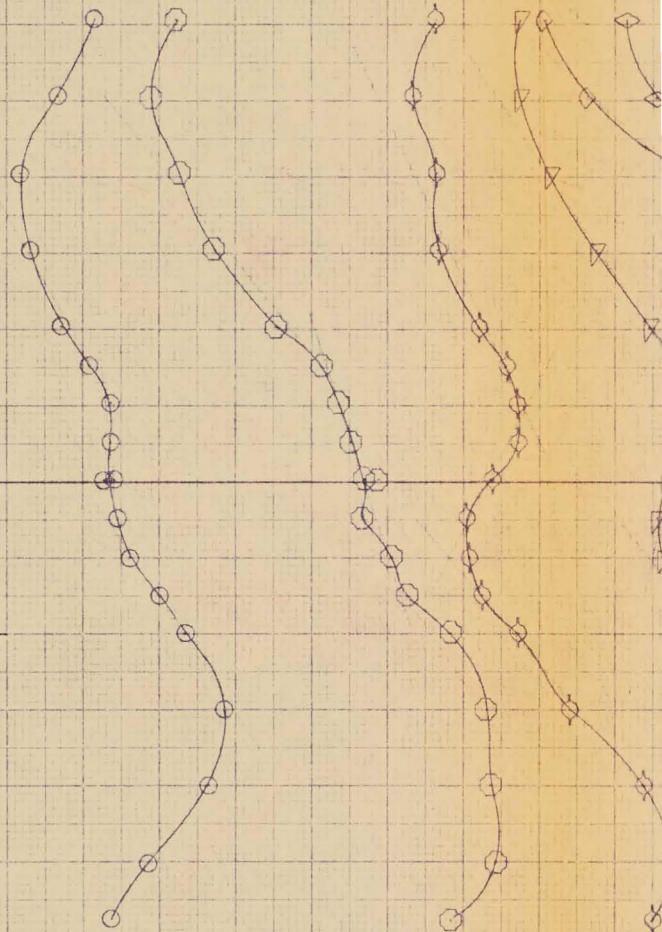
1108 $\odot$ 1123

1107 $\odot$ 1115

1109 $\odot$ 1110

1110 $\triangle$ 1105

C_N 1001

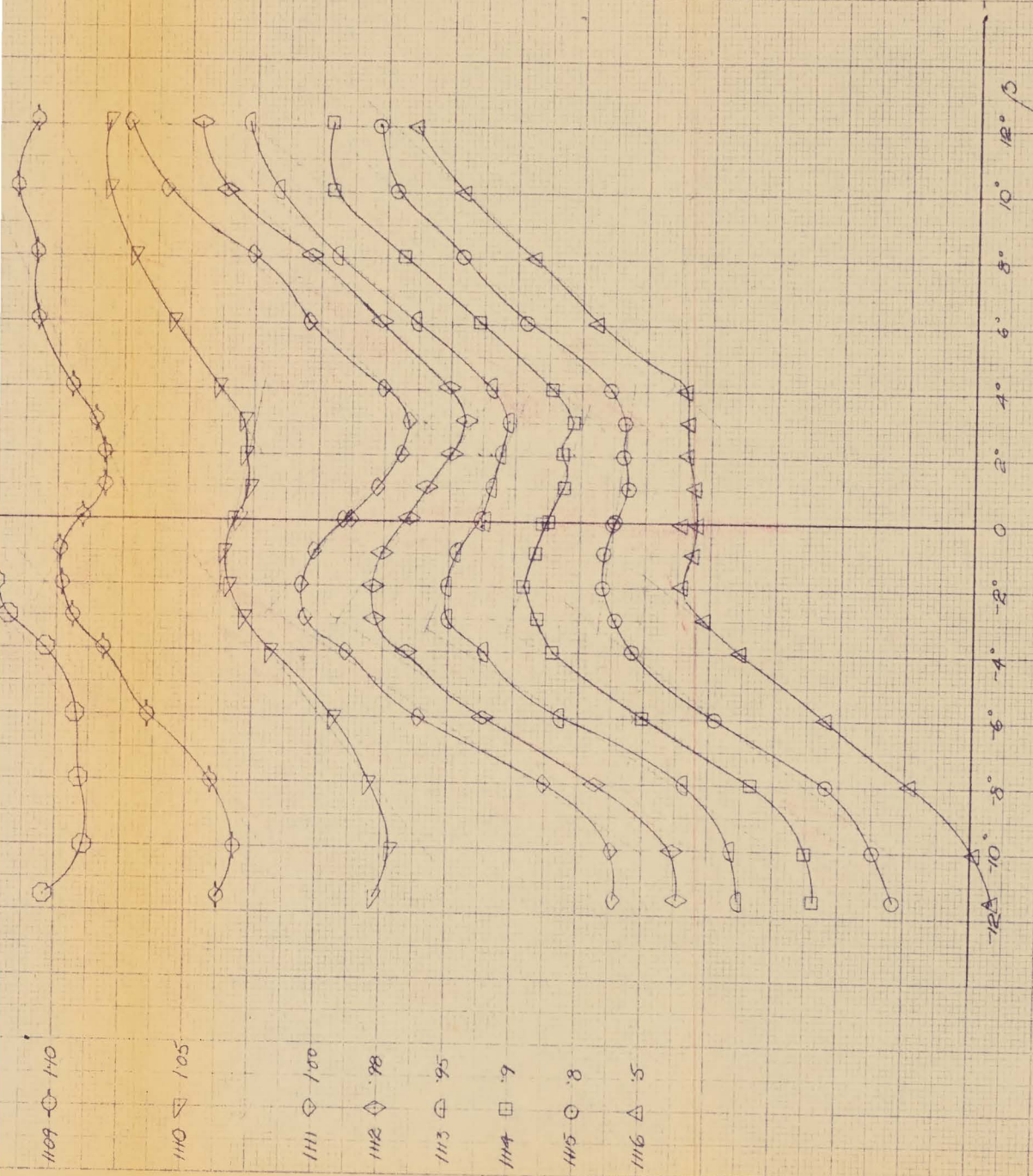


7.9.

P/W.T./49.

Oct /54.

S. Knaflschke.



C105
C.A.L. WIND TUNNEL TESTS OCT 54

C_N vs β
 $\alpha = 4^\circ$

$R_3 \frac{1}{2} R_2 N_{45}$

MACH
No
 C_N 1001

RUN

1119

1120

1121

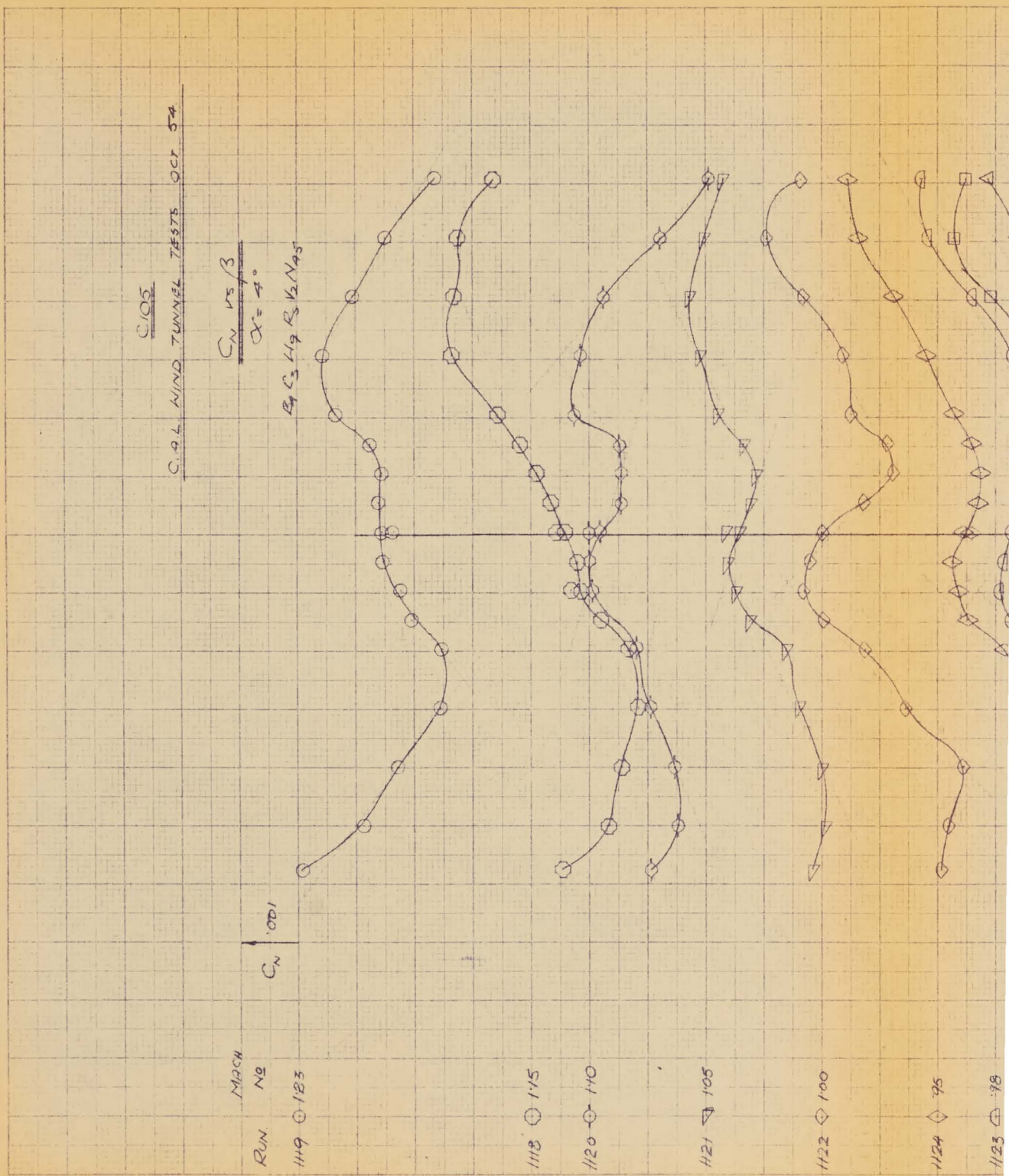
1122

1124

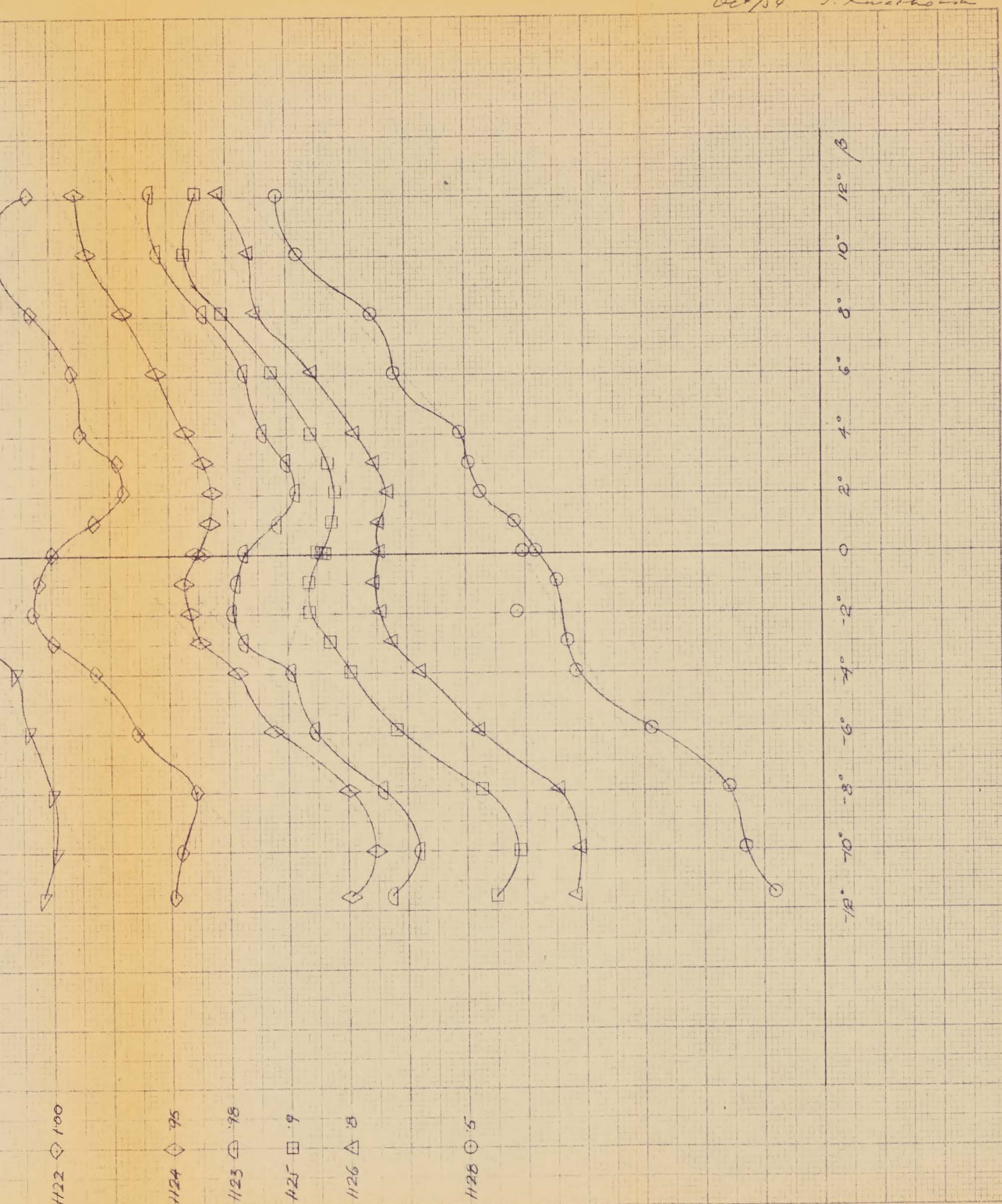
1123

1125

1126



7.10. P/WT/49
Oct/54 J. Knuthow



C105
C. 94. WIND TUNNEL TESTS OCT 54

C_N vs β
 $\alpha = 6^\circ$
 $B_0, C_3, H_9, R_0, V_2, N_{0.5}$

C_N .001

RUN Mach No
1132 @ 123

1131 @ 115

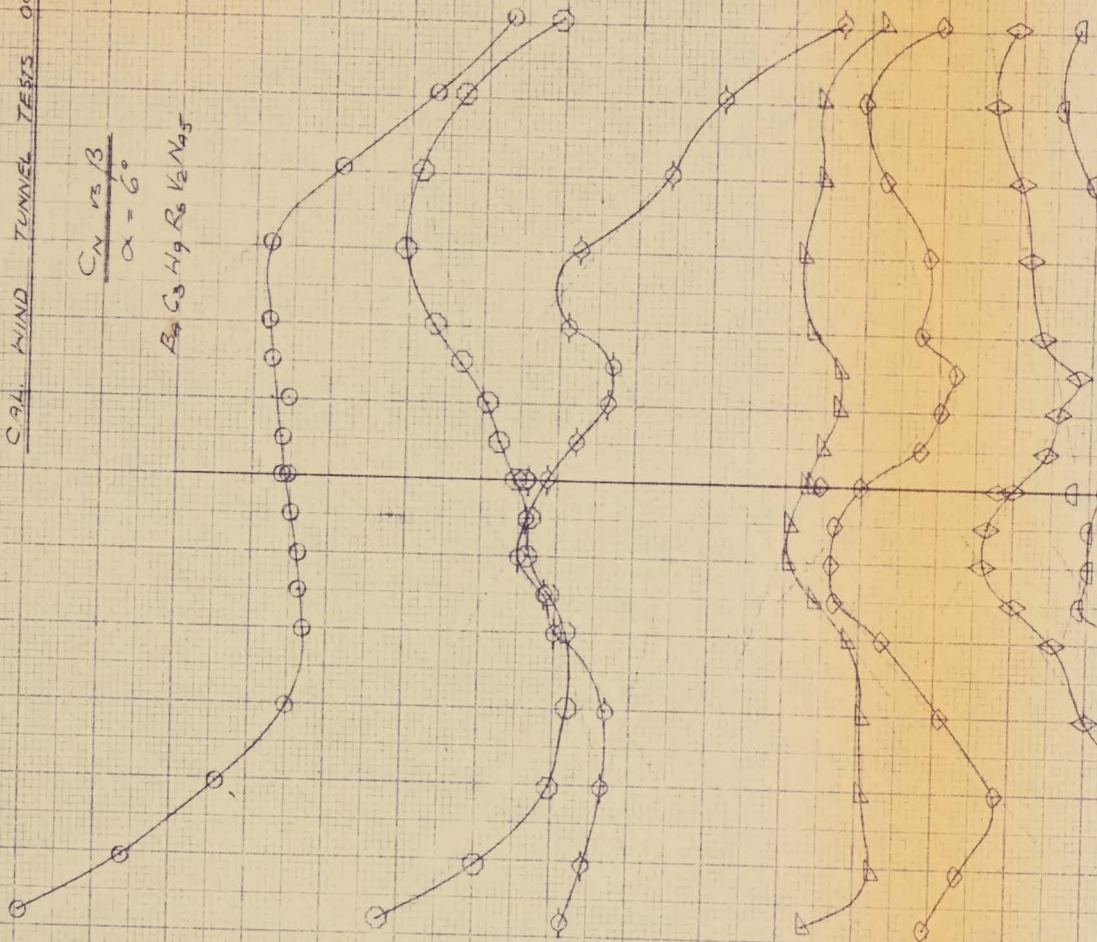
1133 @ 110

1134 @ 105

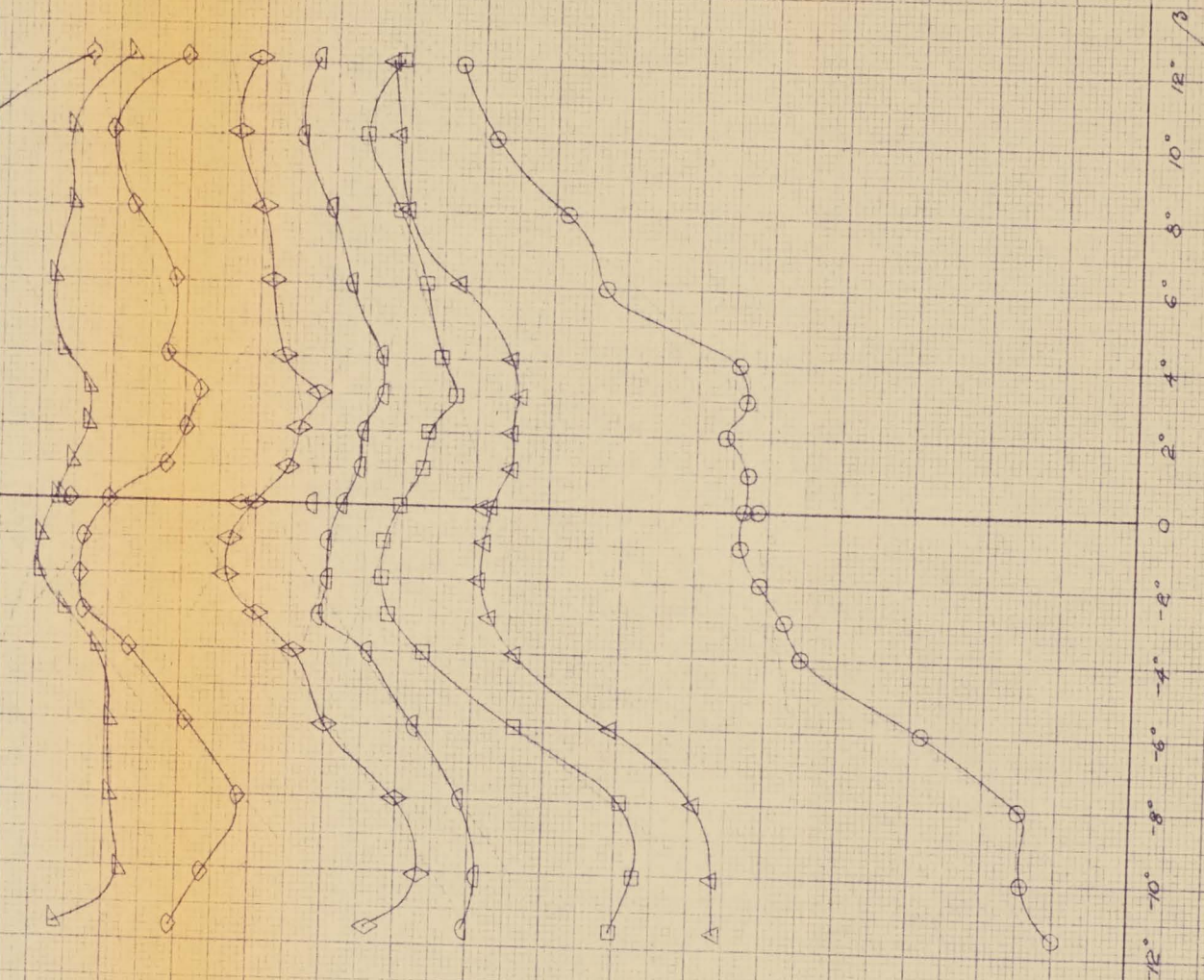
1135 @ 100

1136 @ 95

1137 @ 90



7.11. P/WT/49
Oct/54. J. K. Atkinson



1134 $\diamond$ 105

1135 $\diamond$ 100

1136 $\diamond$ 95

1137 $\square$ 90

1138 $\square$ 85

1139 $\triangle$ 80

1129 $\circ$ 75

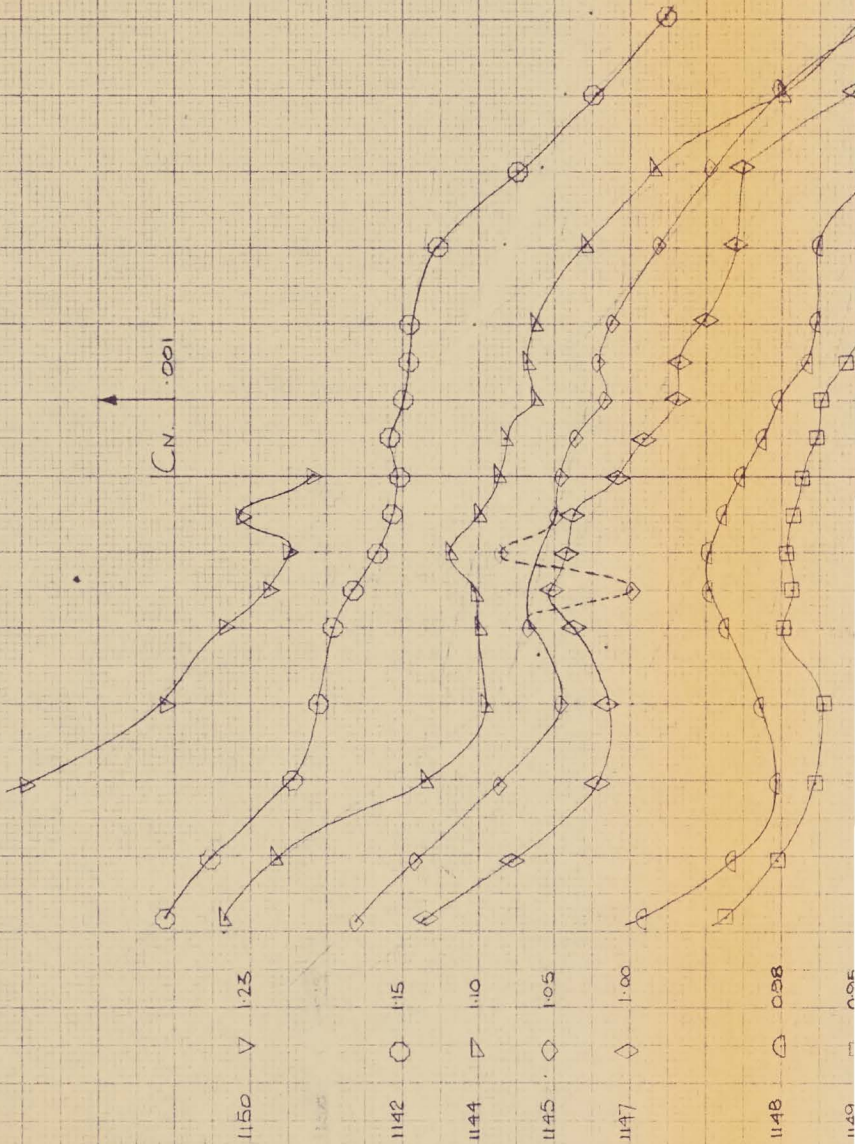
C. 105

C.A.L. WIND TUNNEL TESTS 8/1/1954

Cn vs β

Config. B₁ C₂ V₂ R₅ N_{500A}

$\alpha = 10^\circ$

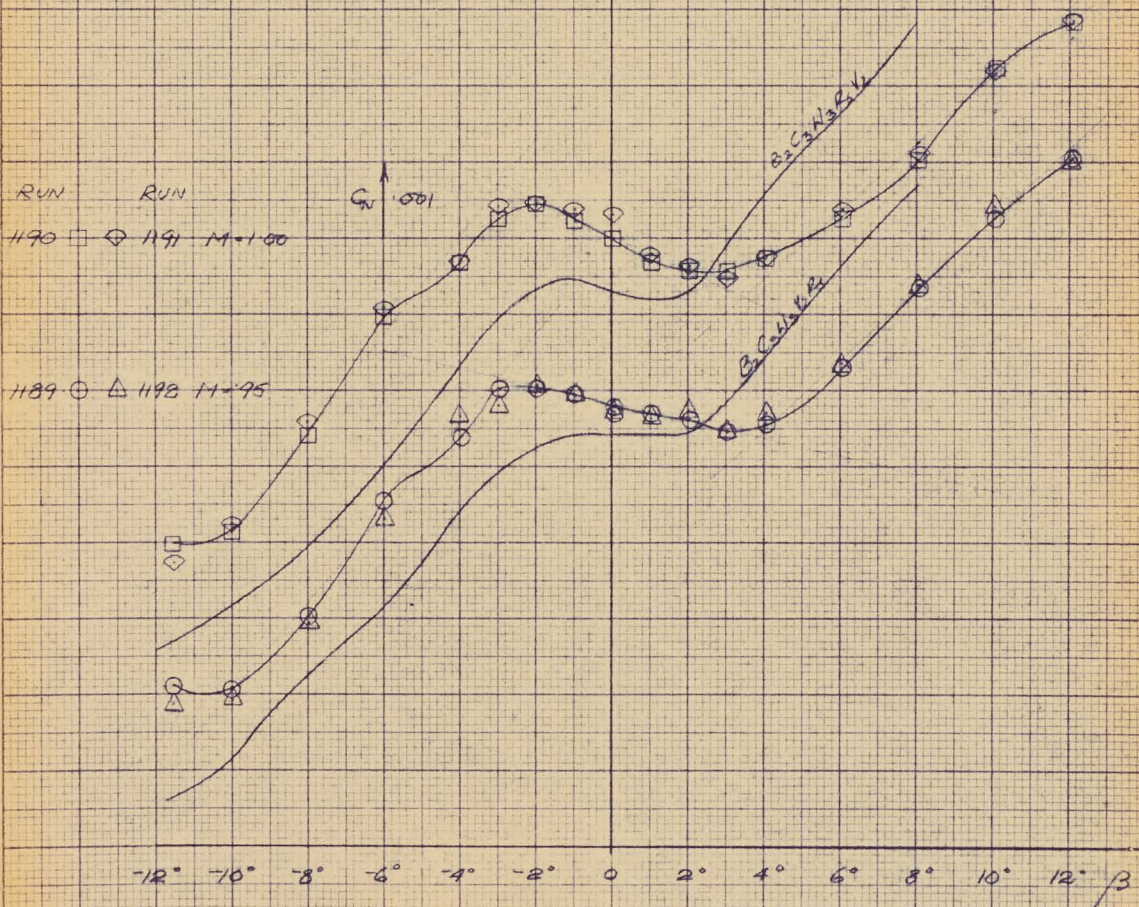


7.16 P/W/49.
7.17
Oct/54. S. K. K. K.

C105
CAL WIND TUNNEL TESTS OCT 54
 C_N vs β

EFFECT OF NOTCH
 $\alpha = 2^\circ$

$\square$ $B_2 C_3 H_9 R_3 V_2 N_{45}$
 $\triangle$ $B_2 C_3 H_9 R_3 K$



C-105

Cy C.A.L. Wind Tunnel Tests

Oct. 1934

Cy vs β

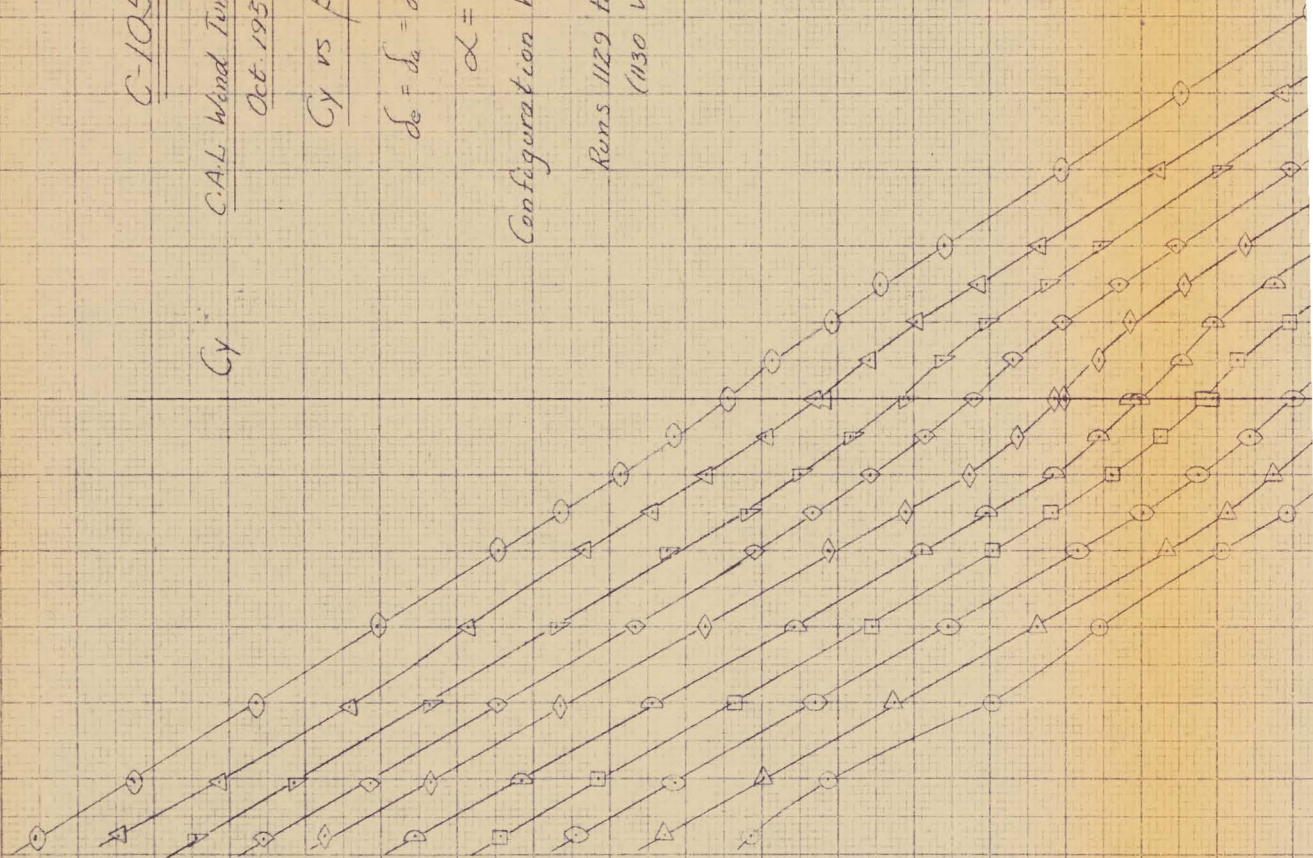
$$d_o = d_u = d_r = 0$$

$$\alpha = 6.3^\circ$$

Configuration W₉B₄B₃G₁N₄S

Runs 1129 to 1139
(1130 Void)

Mach No.	Run No.
1.23	1132
1.15	1131
1.10	1133
1.05	1134
1.00	1135
0.98	1156
0.95	1137
0.90	1138



1 Nov 1954
C.A. Ford

P/WT/49
8.16 /17

C-105

C_y

C.A.L. Wind Tunnel Tests
Oct. 1954

C_y vs β

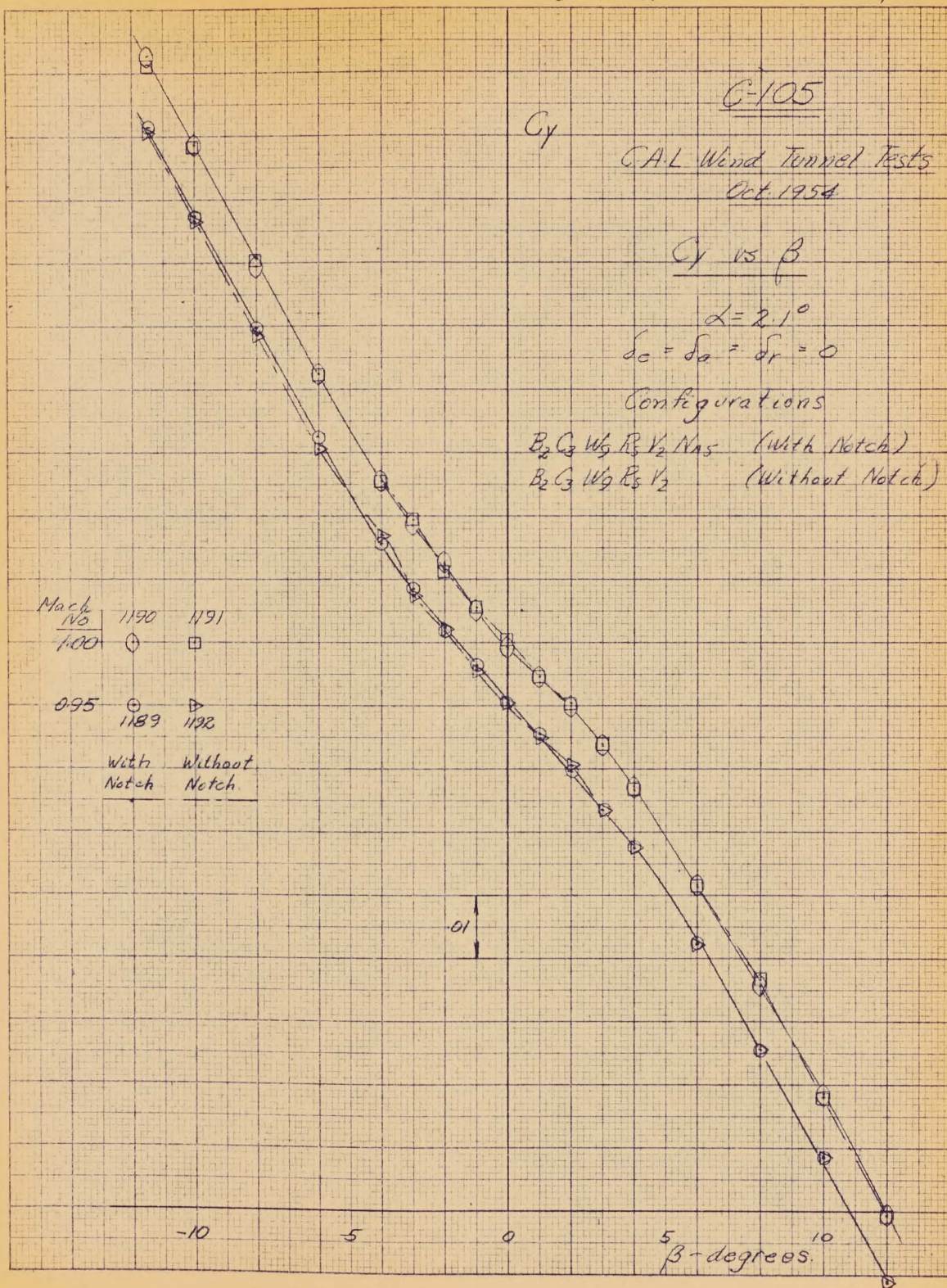
$\alpha = 2.1^\circ$
 $\delta_c = \delta_a = \delta_r = 0$

Configurations

$B_2 C_3 W_9 R_5 V_2 N_{45}$ (With Notch)

$B_2 C_3 W_9 R_5 V_2$ (Without Notch)

Mach	1190	1191
100	○	□
0.95	⊕	▷
	1189	1192
	With Notch	Without Notch



C = 105

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

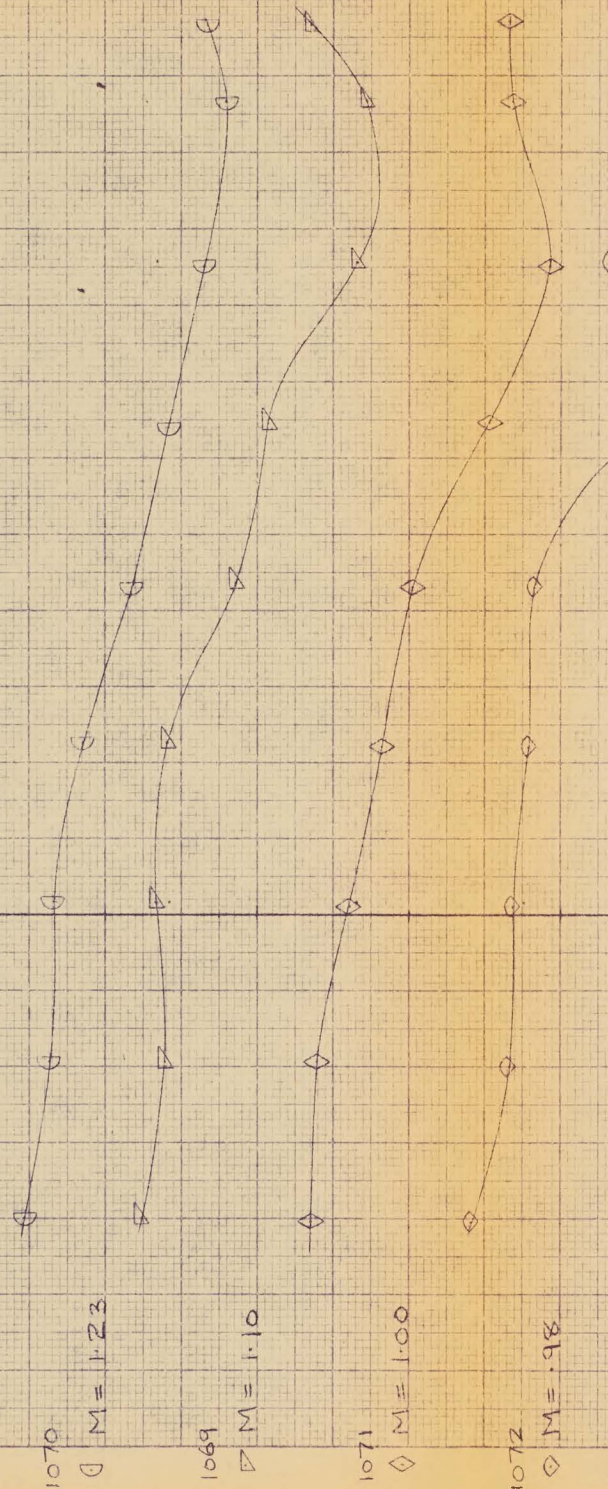
C_L vs α

$\delta_{AK} = 0^\circ$ $\delta_{AL} = 0^\circ$

CONFIG. B₄C₃W₉N₁₀S V₂R₅

C_L

C_L SCALE .001
(ORIGIN AT M)



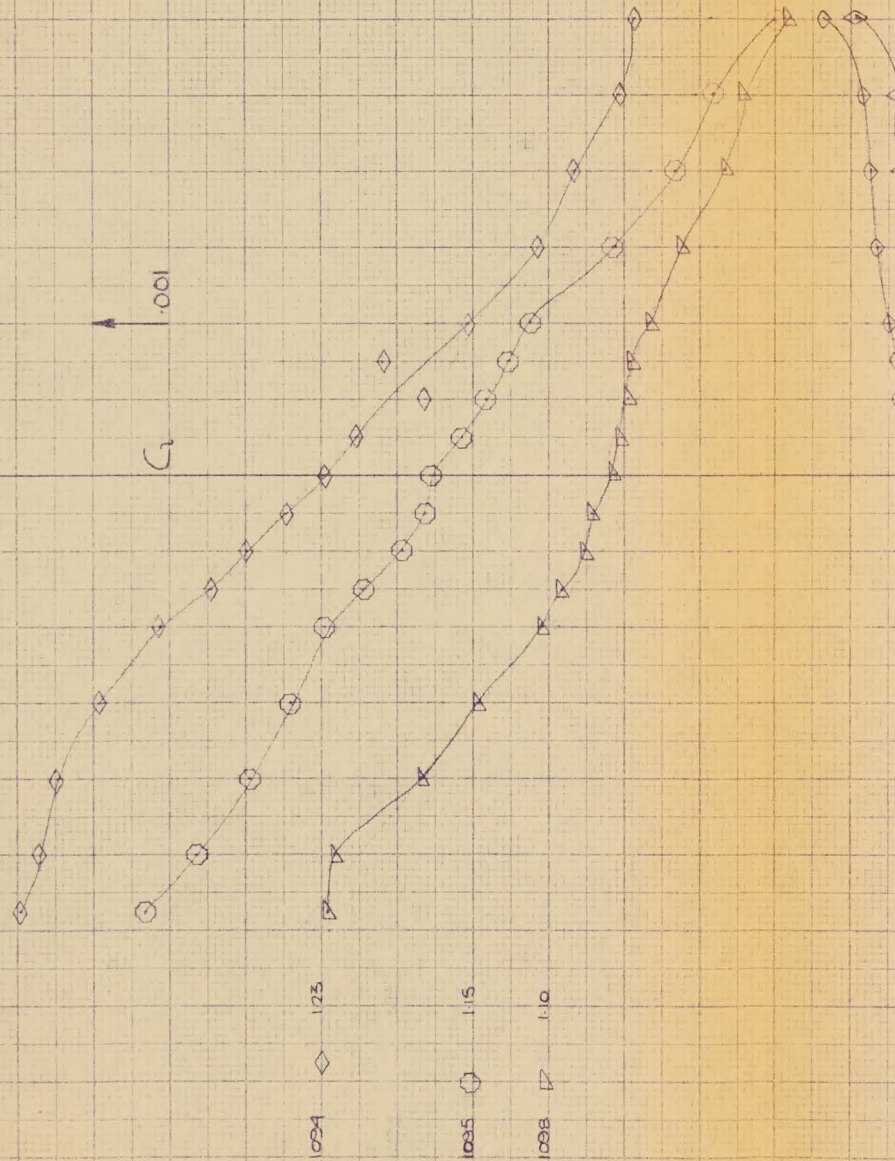
C-105

SAL W/T TESTS OCT 54

$C_k V_s \beta$

Config. $B_d C_3 V_s B_s N_{s_0}$

$\alpha = 0^\circ$

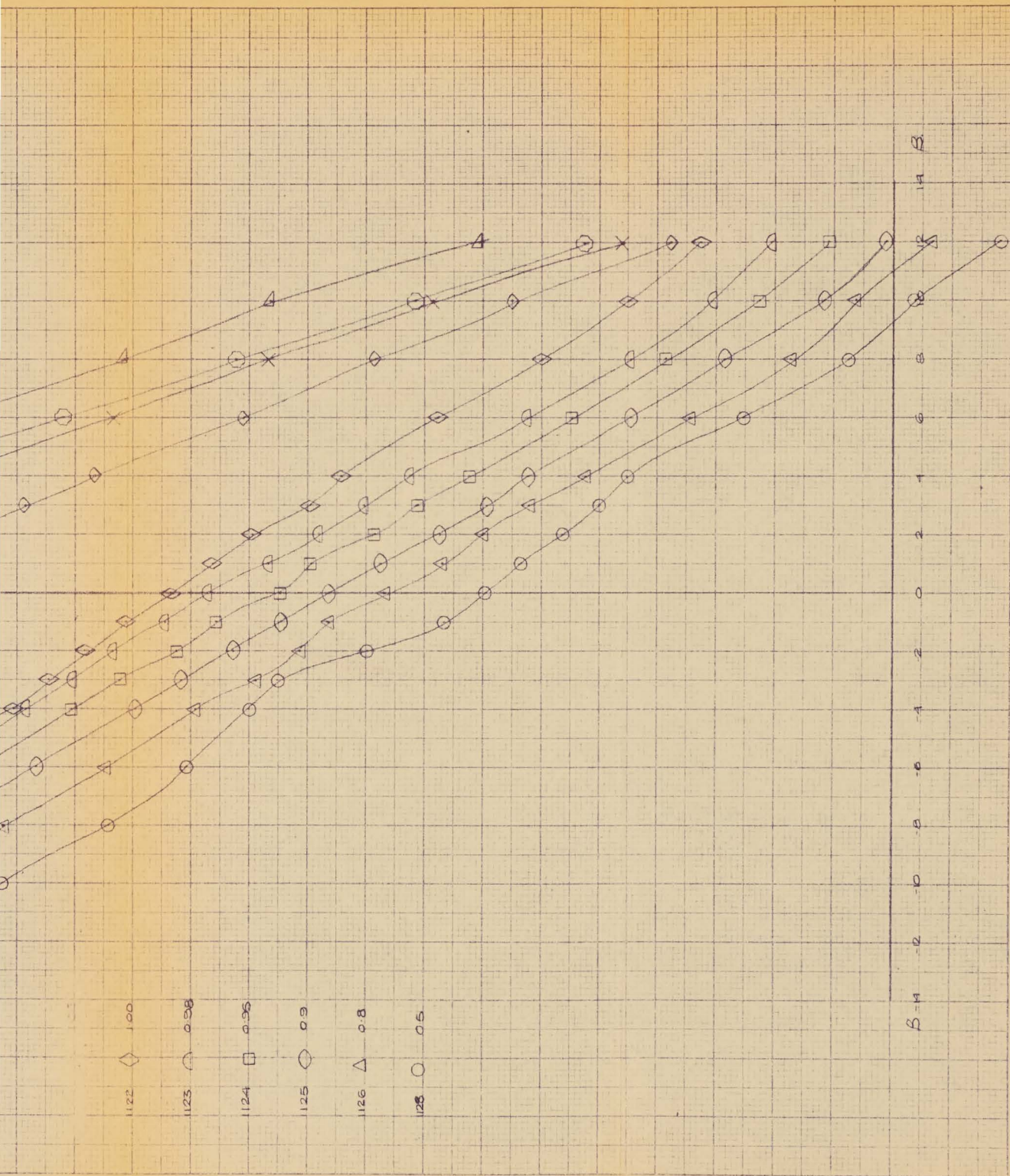


P/W T/41

9.10

Oct 54

G. Hayes.



5-10

CAL WIND TUNNEL TESTS OCT 54

 C_7 vs α

$\frac{1}{\omega} \quad \frac{1}{\omega}$

12
0
11
52

CONFIG. $B_4 C_3 W_9 N_{A5} V_2 R_5$

C, SCALE .001
(ORIGIN AT M)

(ORIGIN AT "M")

25.

1160 D

$$M = 1.23$$

X 8511

$$M = 1.15$$

1159 ▽

$$\sum = 1.10$$

1911

$$50.7 \div 2 = 25.35$$

11679

$$M = 1.00$$

C-105

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

C_L vs α

$\delta_{AR} = -10^\circ$ $\delta_{AL} = 0^\circ$

CONFIG. $B_4 C_3 W_1 N_{A5} V_2 R_5$

C_L

C_L SCALE .001
* $C_L = .010$ AT M

$M = 1.23$

$M = 1.15$

$M = 1.10$

$M = 1.05$

$M = 1.00$

$M = .98$

$M = .95$

RUN

1167

D

1168

X

1169

D

1170

D

1171

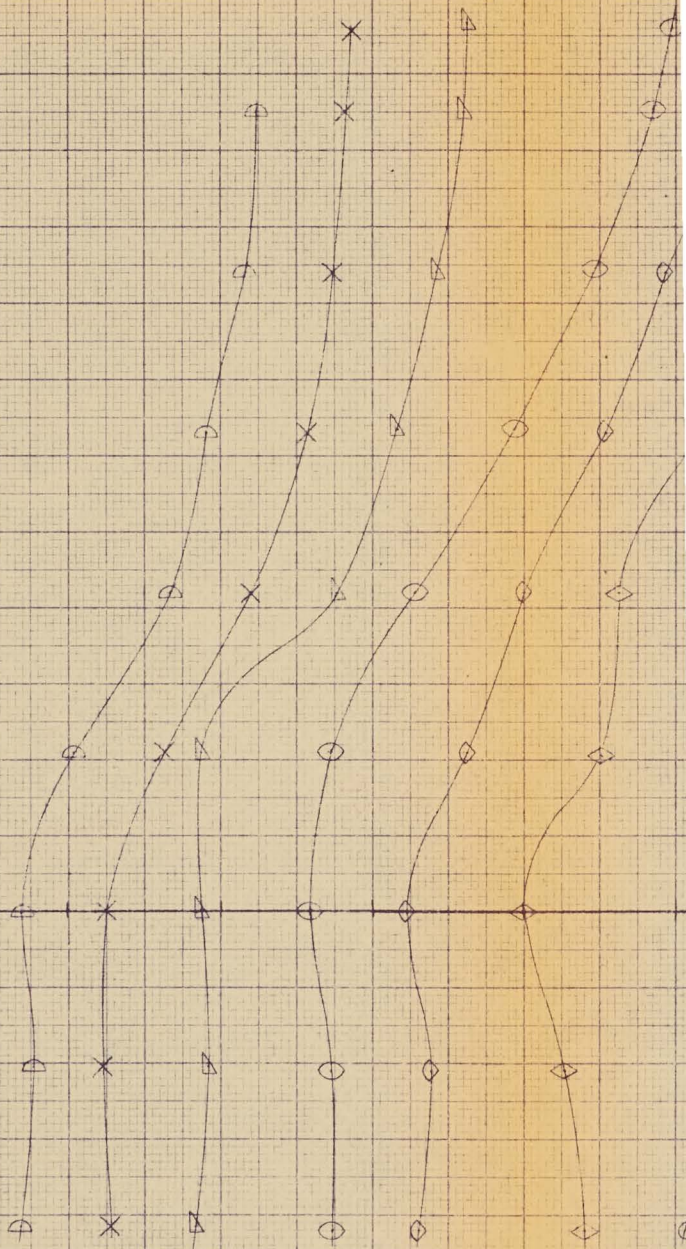
D

1172

D

1173

D



9.16 P/NT/49
9.17.

Oct/24 S. Knapkowski

C105

CAL WIND TUNNEL TESTS OCT. 57

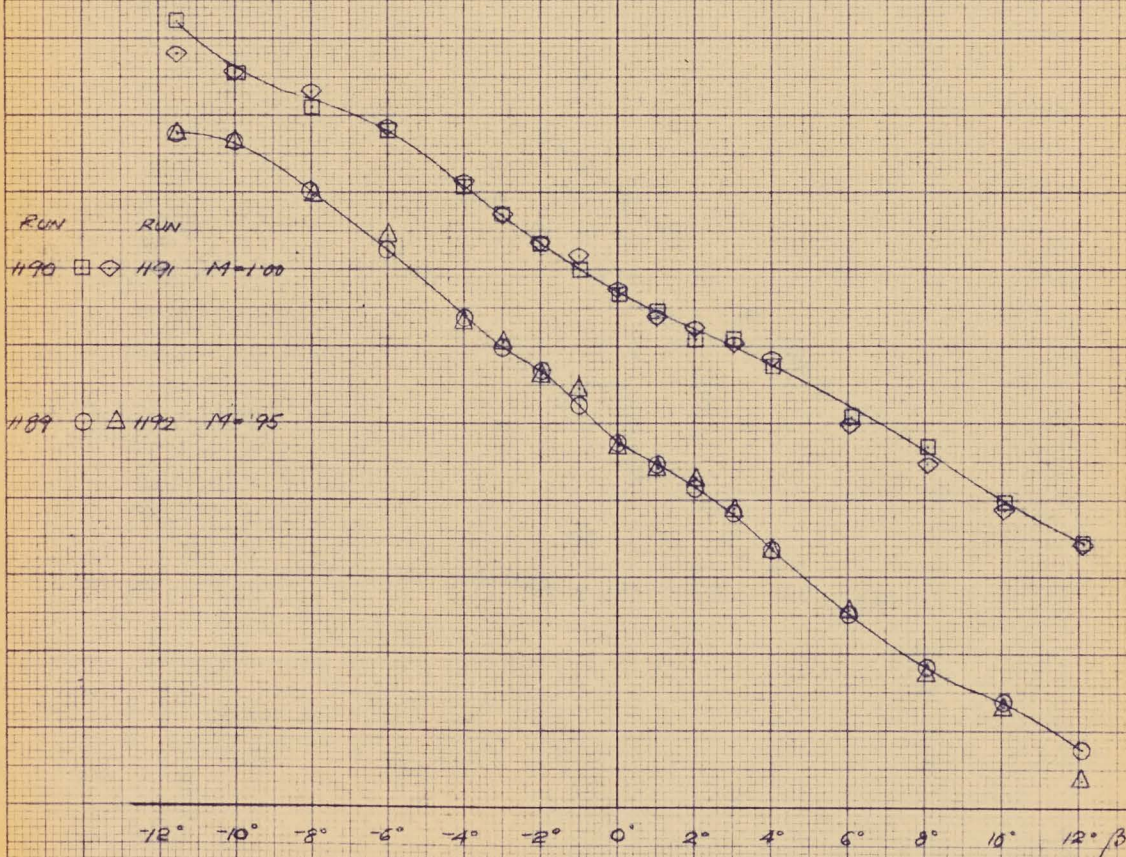
C_L vs β

EFFECT OF NOTCH

$\alpha = 2^\circ$

○ □ $B_2 C_3 H_9 R_3 V_2 N_{45}$

△ ◇ $B_2 C_3 H_9 R_3 V_2$



9.20 P/WT/49

Nov/54 Knapthorn

C105

C.A.L. WIND TUNNEL TESTS OCT 54

$C_3 B_3 H_3 K_3 R_3 N_3 T$

$C_L \text{ vs } \beta$

EFFECT OF HIGH REYNOLDS NO
AND THICK

$M=5$

RUN α

1197 $\odot$ 66°

1196 $\square$ 44°

1195 $\triangle$ 22°

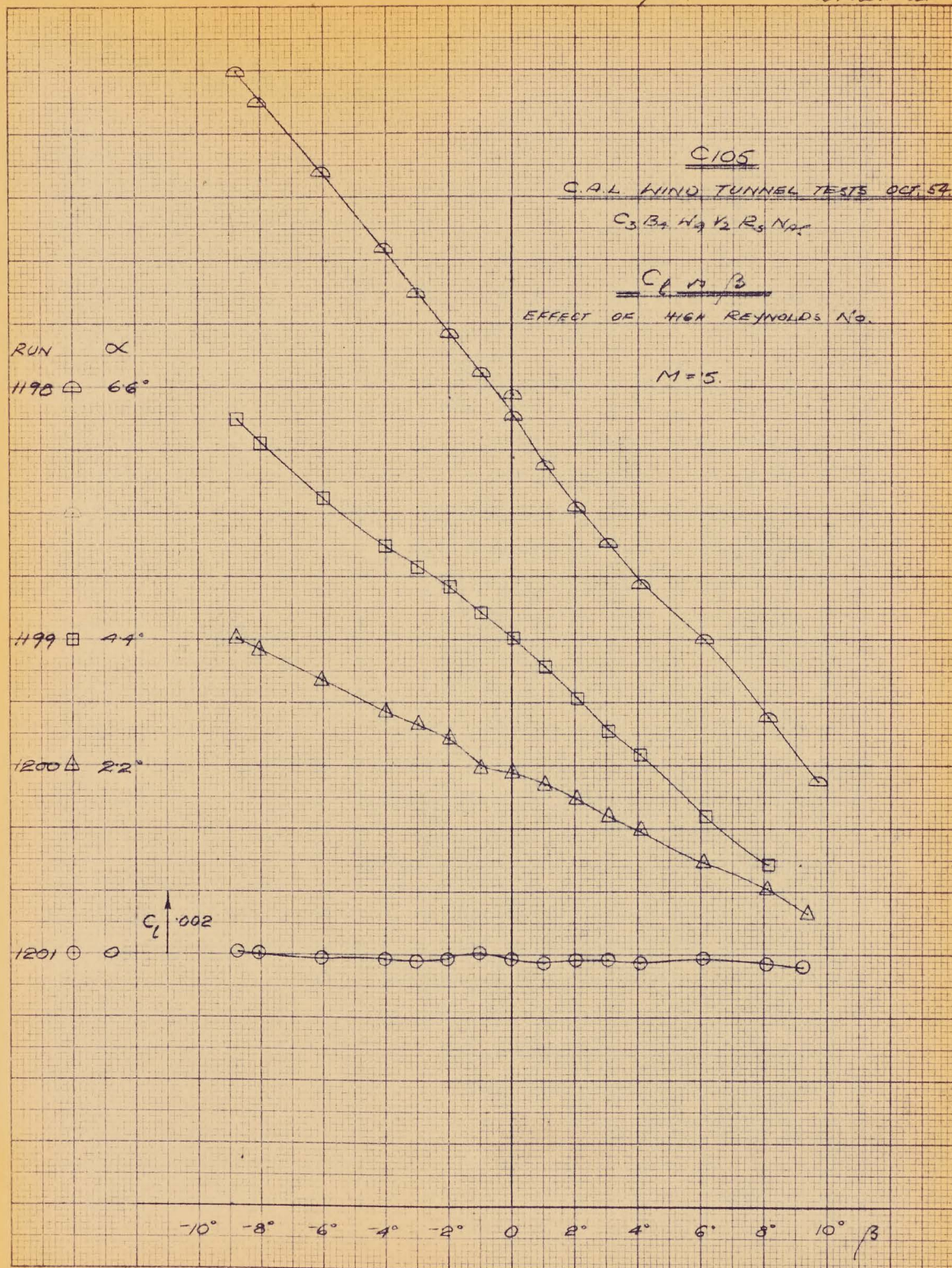
1194 $\ominus$ 0°

$C_L \uparrow \infty$

$-10^\circ -8^\circ -6^\circ -4^\circ -2^\circ 0 2^\circ 4^\circ 6^\circ 8^\circ 10^\circ \beta$

9.24. P/WT/49

Nov/54. K. A. Thorne



C-105

CAL Wind Tunnel Tests

Oct. 1954

Cmp vs β

Cmp

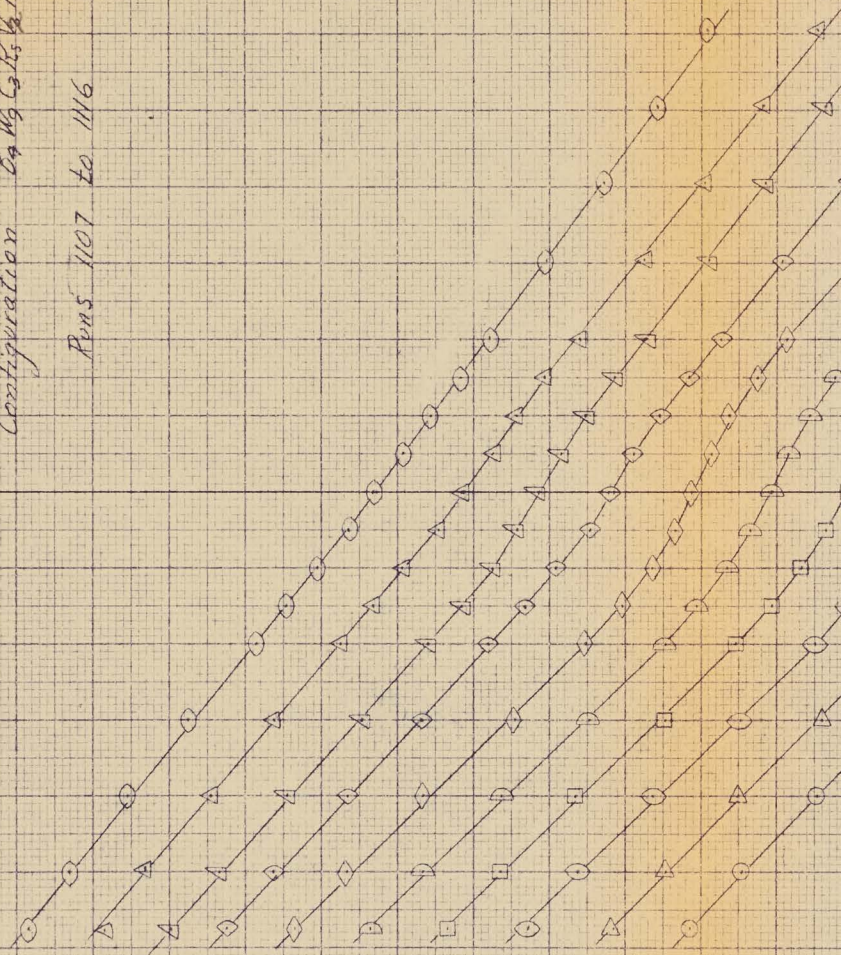
$$\alpha = 2.1^\circ$$

$$d_c = d_a = d_r = 0$$

Configuration $B_4 W_6 G R_3 \frac{1}{2} N_{45}$

Runs 1107 to 1116

Mach No.	Run No.
1.23	1108
1.15	1107
1.10	1109
1.05	1110
1.00	1111
0.98	1112

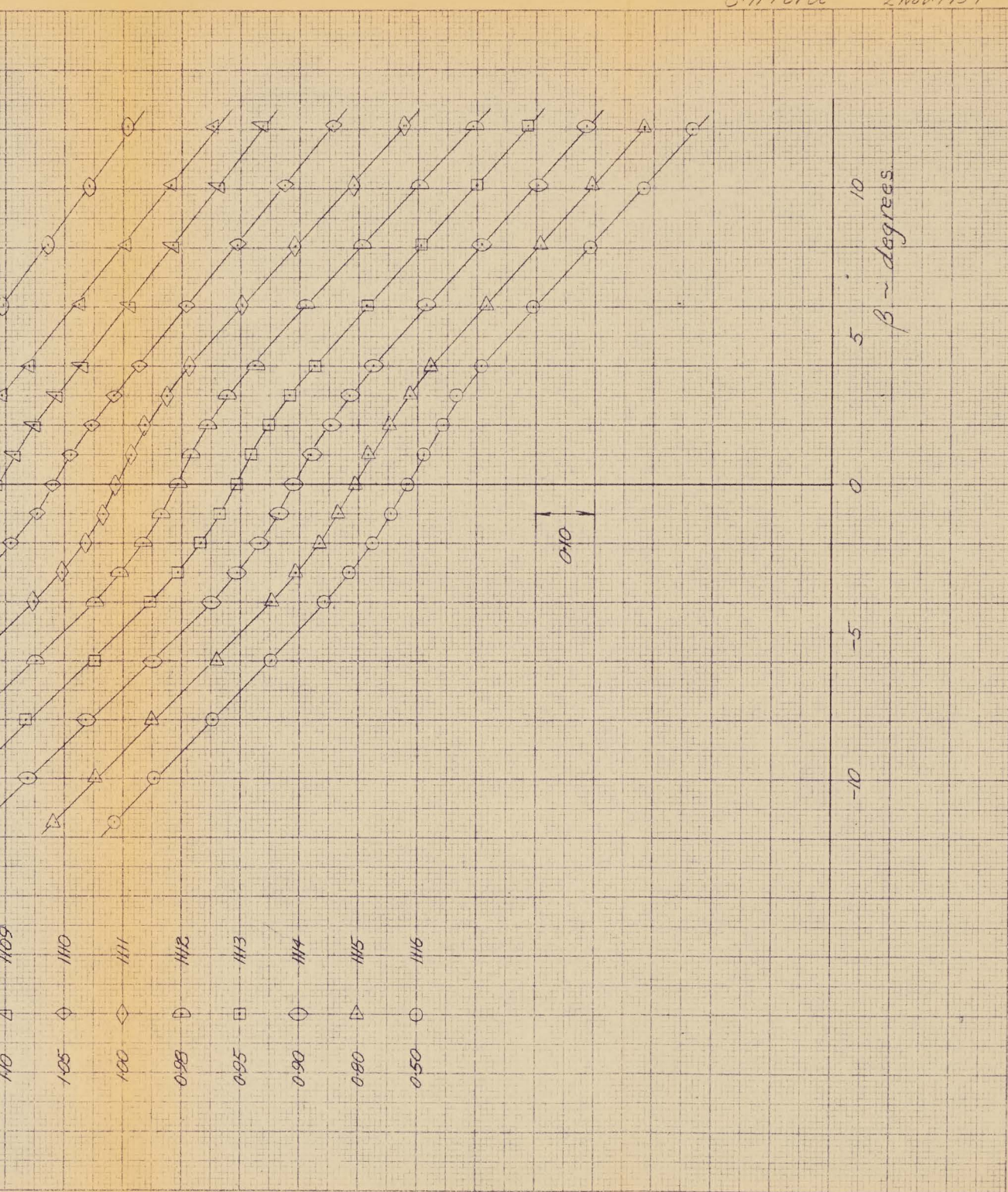


P/WT/49

10.9

C.A Ford

2 Nov 1954



C-105

C.A.L. Wind Tunnel Tests

Oct. 1954

CNF vs β

$$\alpha = 6.3^\circ$$

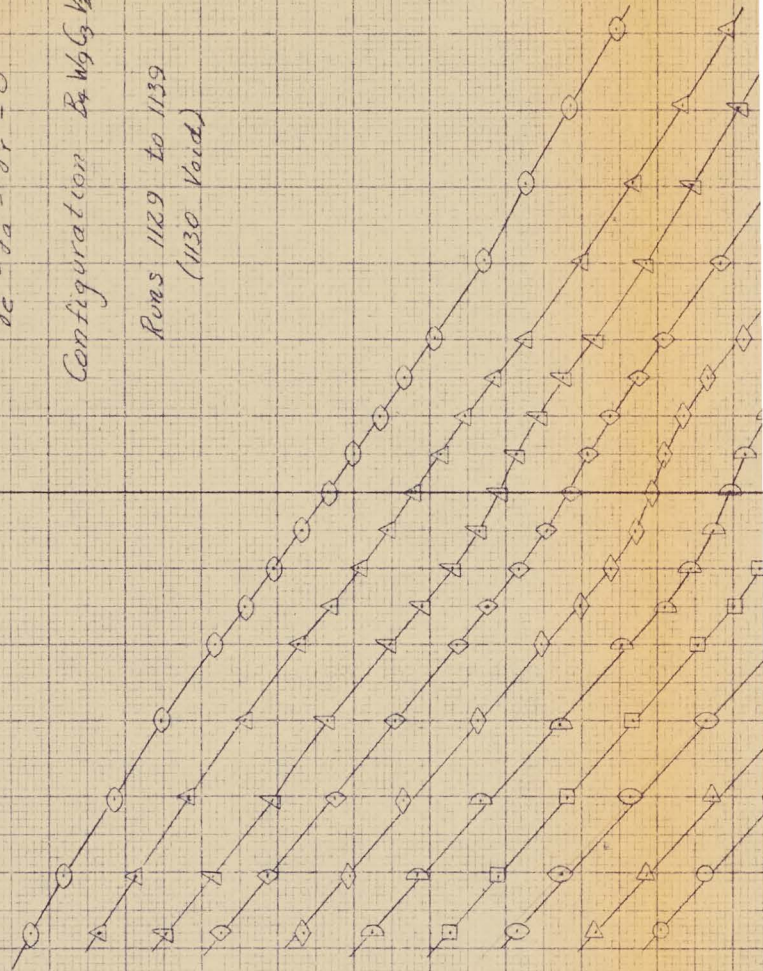
$$\delta_G = \delta_a = \delta_r = 0$$

Configuration $B_4 W_6 G_3 V_2 E_3 N_{45}$

Runs 1129 to 1139
(1130 Void)

CNF

Arch No.	Run No.
1423	1132
1445	1131
1410	1133
1405	1134
1400	1135
0983	1136



C=105

CAL Wind Tunnel Tests

Oct 1954

Cmp vs β

$$\alpha = 10.5^\circ$$

$$\delta_c = \delta_a = \delta_h = 0$$

Cmp

Configuration $E_3 W_3 G_3 V_3 P_3 R_3 M_3$

Runs 1140 to 1152
(1141 & 1146 Void)

Run No.

1143

1150

1142

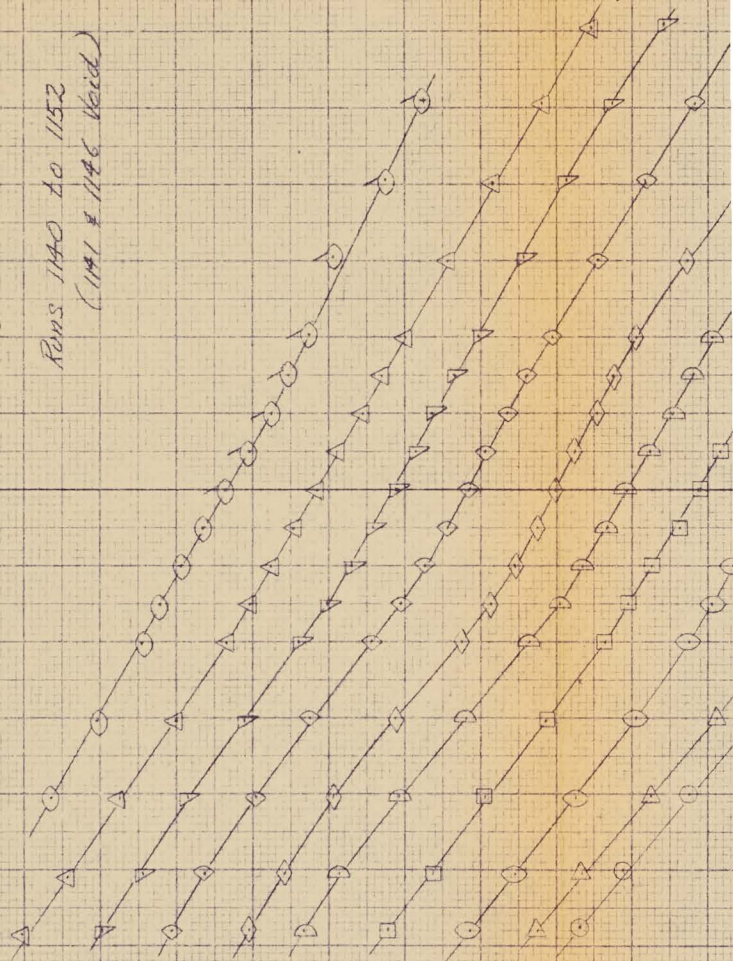
1144

1145

1147

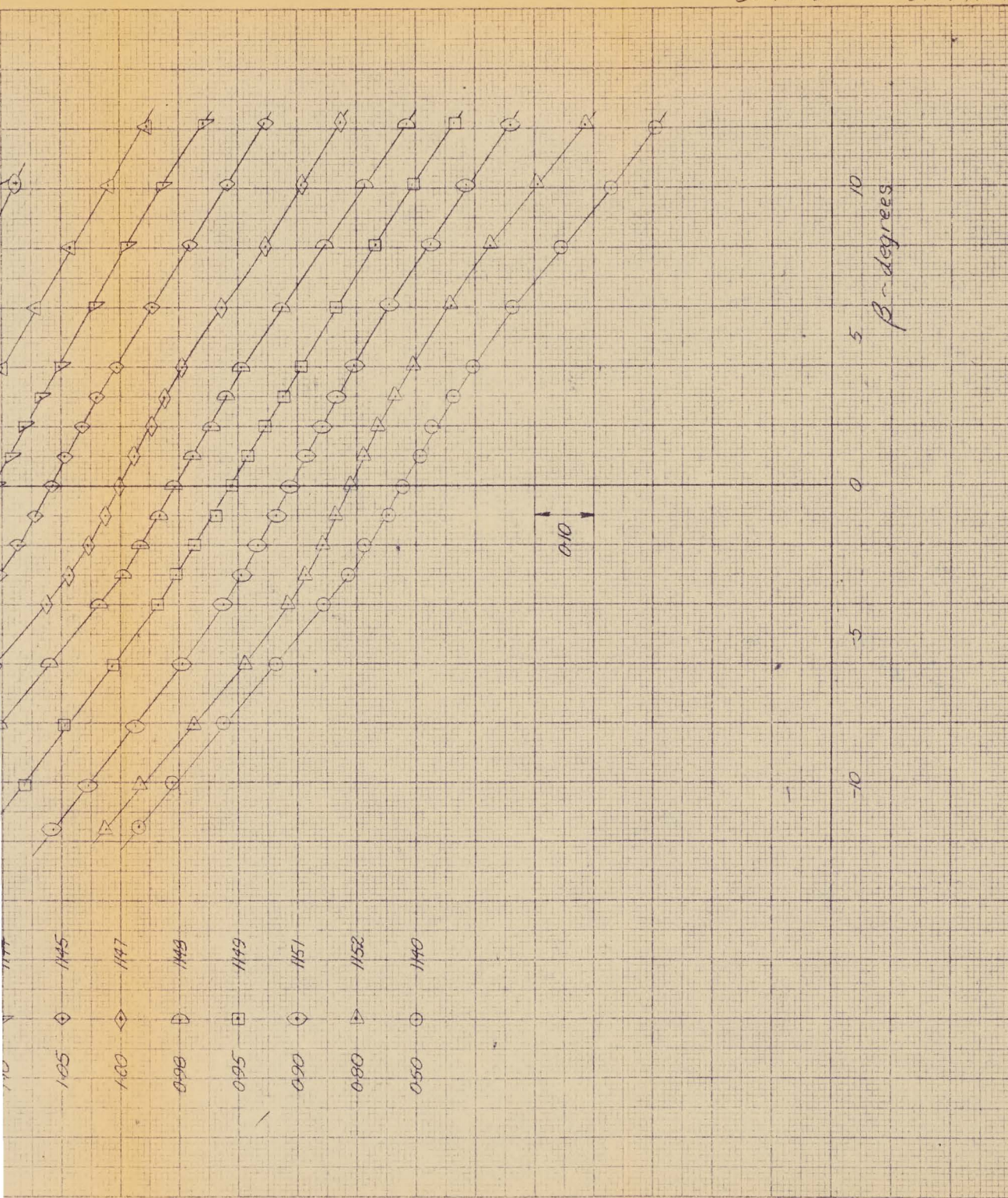
1149

1149



P/WT/49
CA Ford

10.12
3 Nov 1954



10.20. P/VT 149
 No. 54. K. L. Johnson

C105

C.P.L. WIND TUNNEL TESTS OCT 57

$C_3 B_4 N_4 K_2 R_3 N_5 T$

C_{N_4} vs β

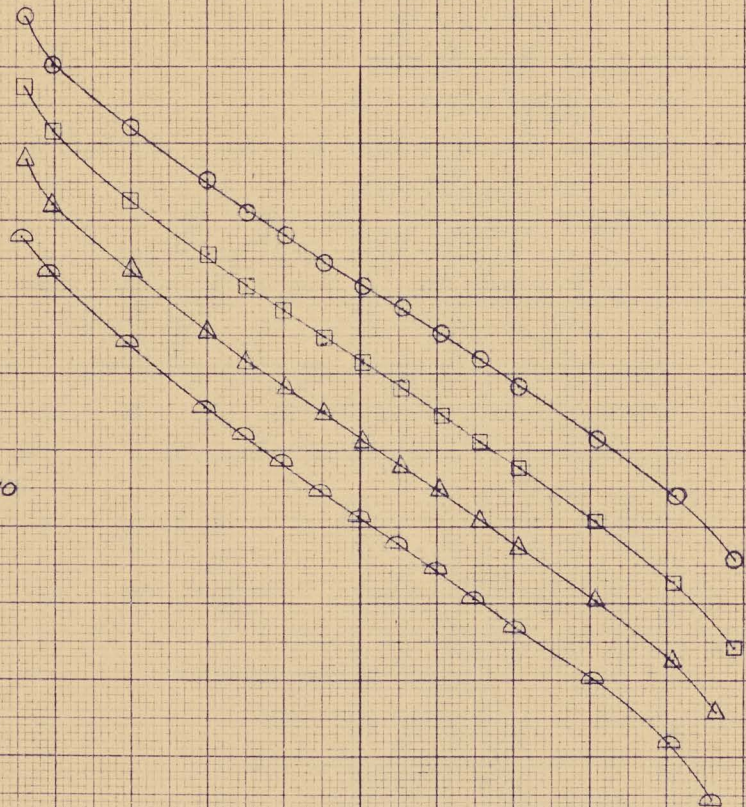
EFFECT OF HIGH REYNOLDS NO
 AND TANK.

$M = .5$

RUN α
 1197 $\circ$ 66°
 1196 $\square$ 44°
 1195 $\triangle$ 22°
 1194 $\circ$ 0°

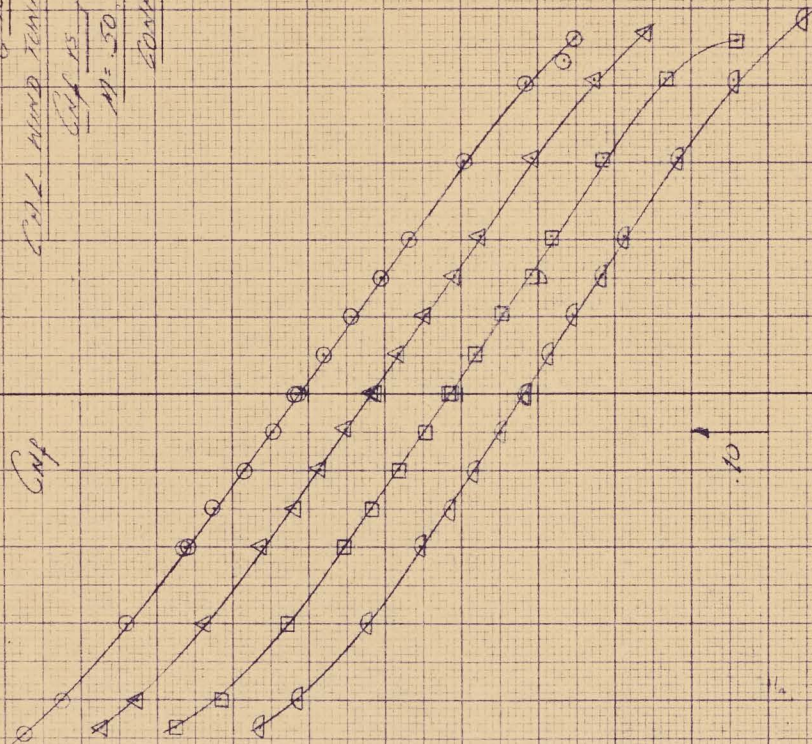
$C_{N_4} \uparrow 10$

-10° -5° 0 5° $10^\circ \beta$



10.24. P/W.T/49.
NOV 52. 2ARK.

G105
CUT AND TUNNEL TESTS (PT 54)
Cap 15
M = 50 HIGH R.N.
EQUIP. 224516 Nov 13 53



Cap
1201
1200
1199
1198

β-210000

C-105

C.A.L. Wind Tunnel Tests ~ Oct 1954

CHAR vs α

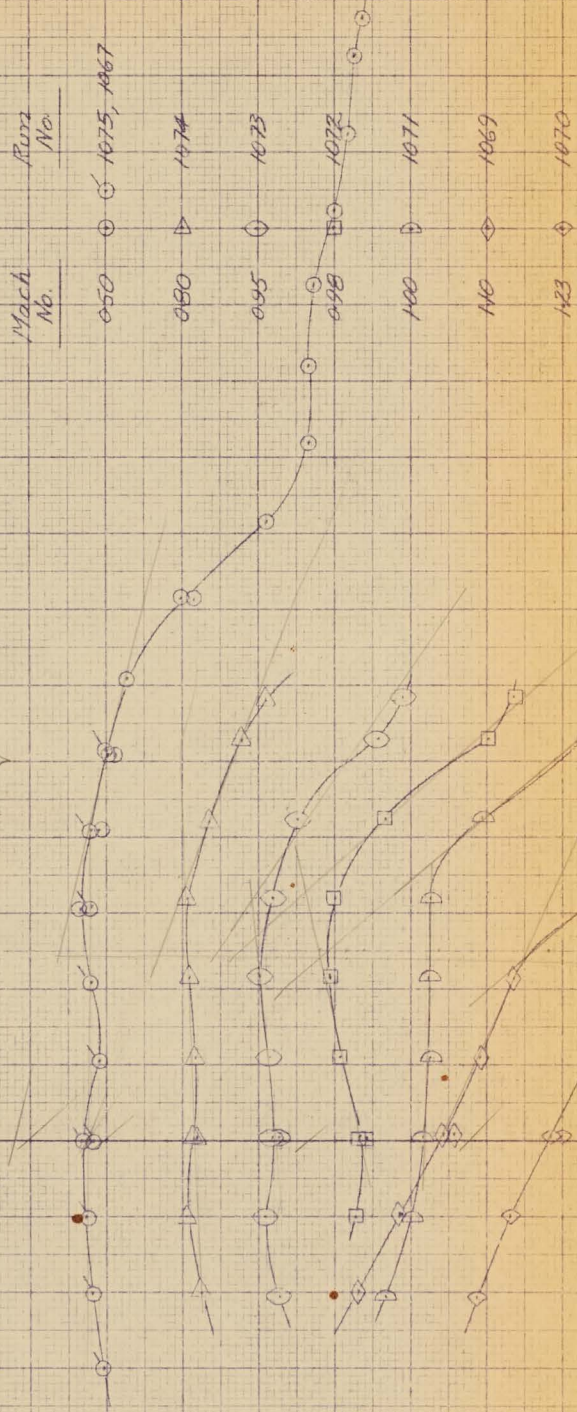
$$\int_{AR} = \int_{AR} = 0$$

$$\int_{ER} = \int_{ER} = 0$$

Configuration
B4 L3 W2 V2 R3 N4 S

Runs 1067 to 1075
(1068 Void)

CHAR



C-105

CAL Wind Tunnel Tests ~ Oct. 1954

Ch_{RE} vs α

Configuration
B4 G W6 1/2 R3 N45

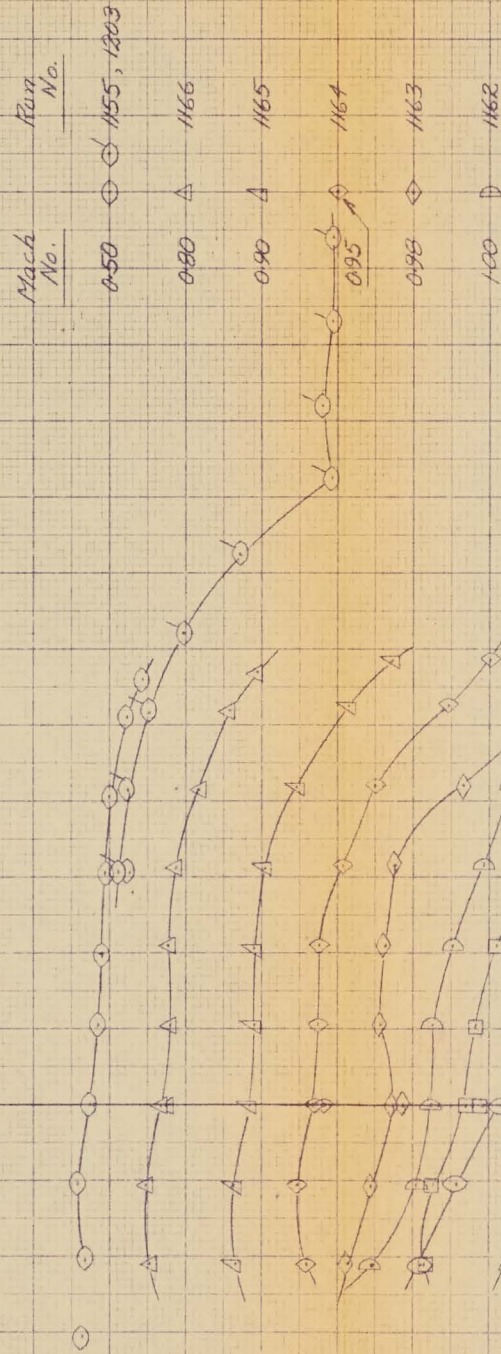
$$\delta_{RE} = -5^\circ \quad \delta_{OL} = 0$$

$$\delta_E = \delta_F = 0$$

Runs

1155, 1158 to 1166,
and 1203

Ch_{RE}



C-105

C.A.V. Wind Tunnel Tests ~ Oct 1954

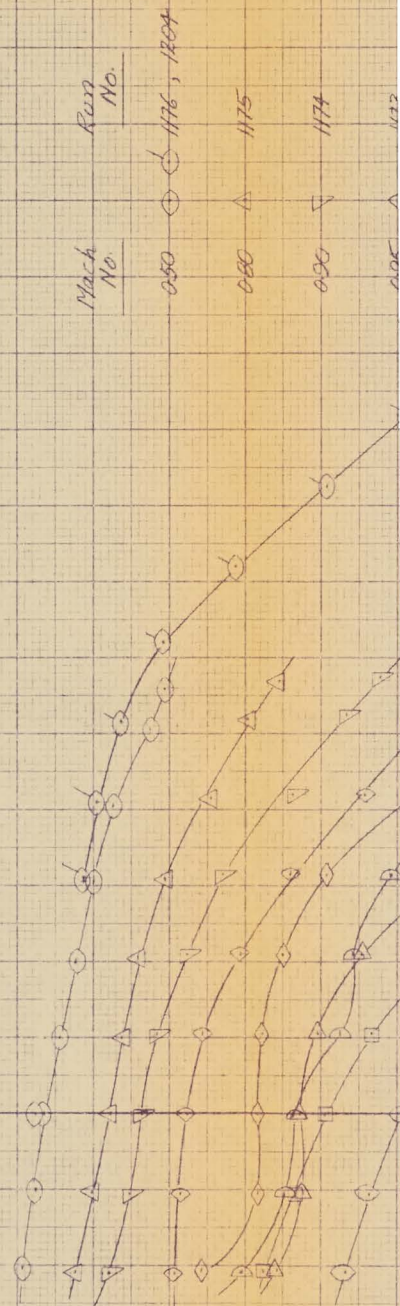
Choke vs α

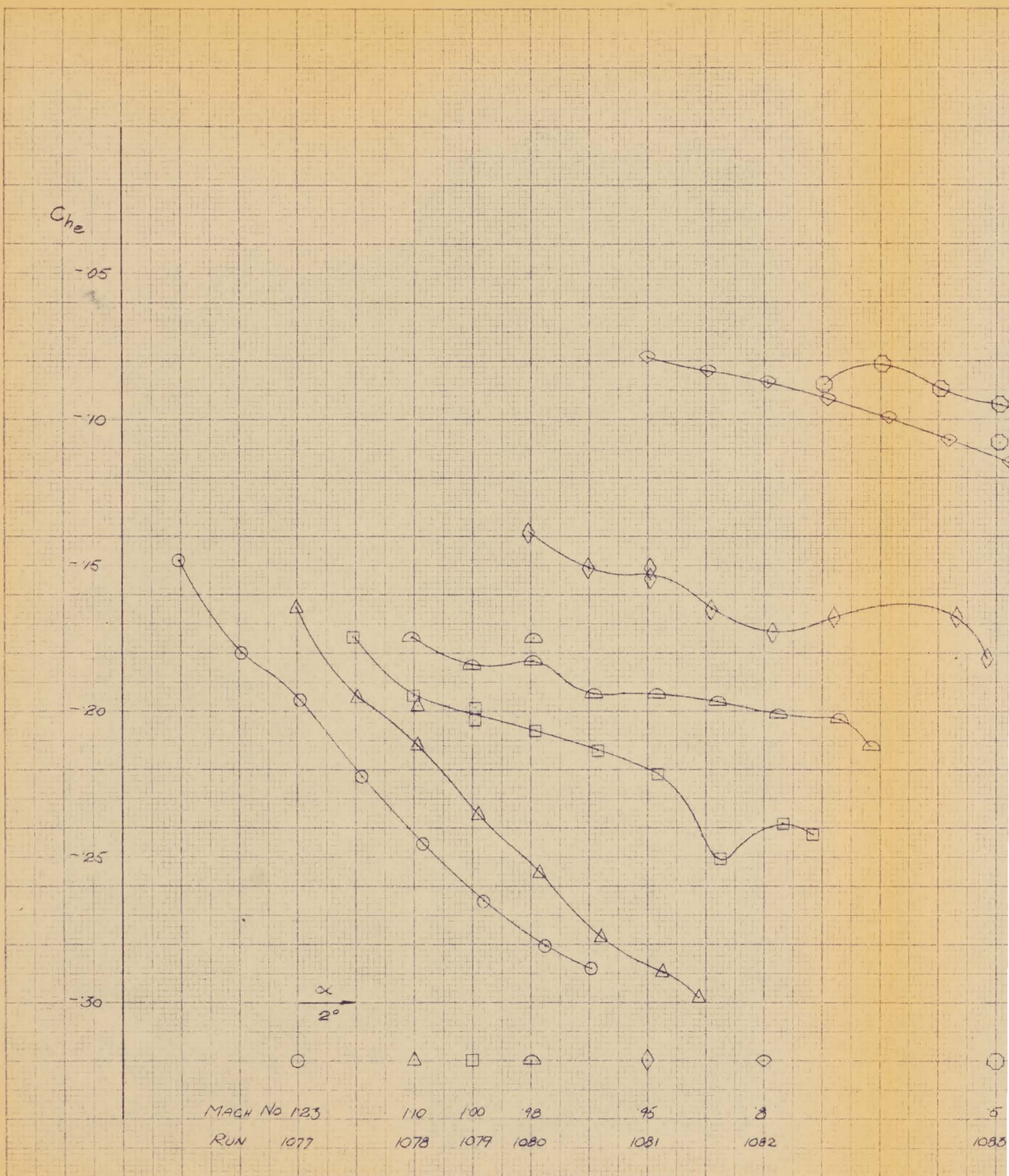
$$\begin{aligned} \alpha_{op} &= -10^\circ & \alpha_{cr} &= 0 \\ \alpha_{op} &= \alpha_{cr} & & \end{aligned}$$

Choke

Configuration
BAG 46 1/2 R3 N45

Runs 1167 to 1176
and 1204





C_{ne}

20

15

10

05

0

-02

α
 2°

○

△

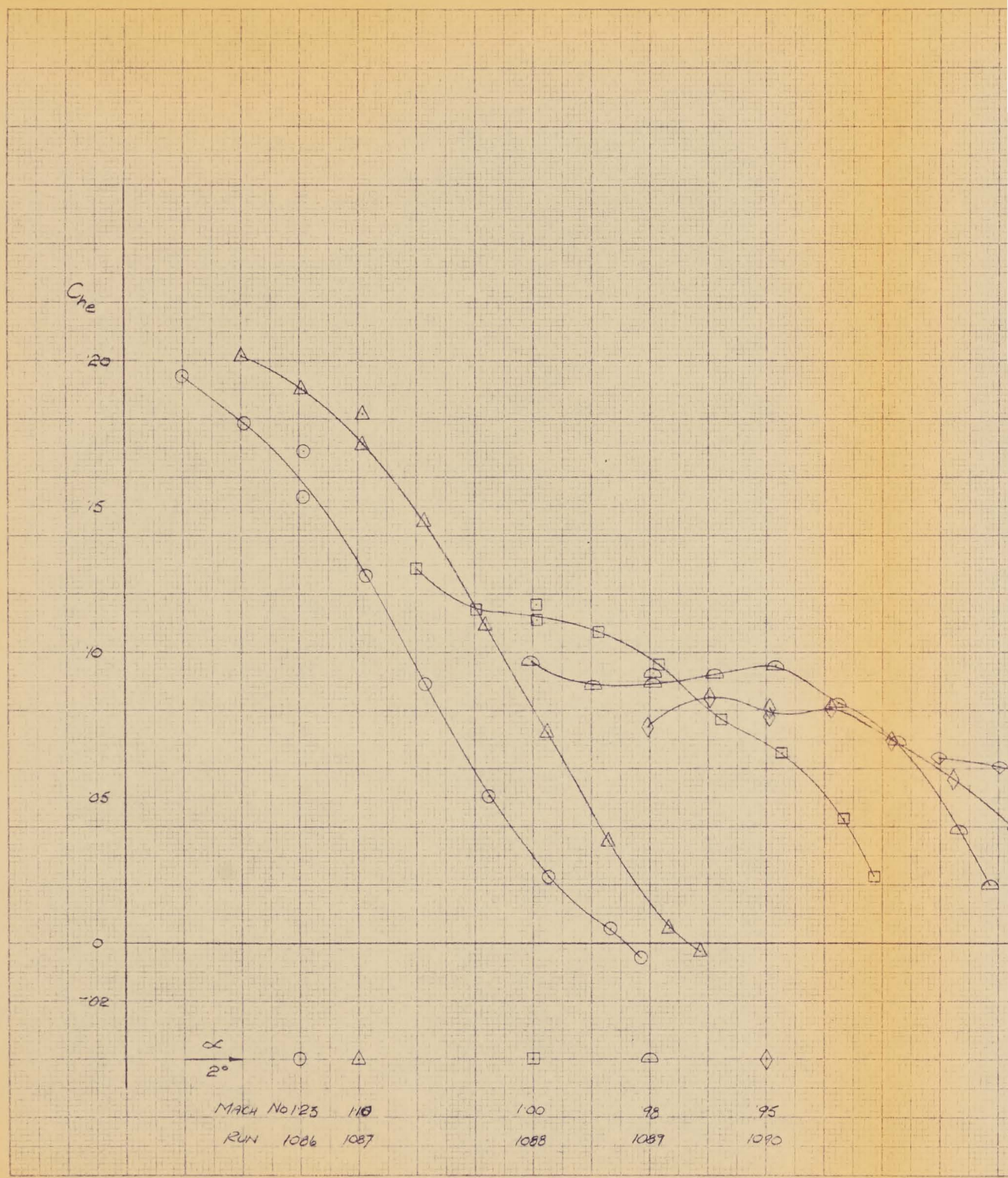
□

◐

◇

MACH No 125 110
 RUN 1086 1087

100 98 95
 1088 1089 1090



C-105

C.A.L. Wind Tunnel Tests

Oct 1954

C_{MFR} vs C_{Mx}

$$\alpha = 2.1^\circ$$

$$-12^\circ < \beta < 12^\circ$$

$$d_c = d_a = d_f = 0$$

Configuration

B₁ B₂ W₆ K₂ R₃ N₄ S

Rms 1107 to 1116

C_{MFR}

0.10



Mach No.

Run No.

1.23 1108

1.15 1107

1.10 1109

C-105

CAL Wind Tunnel Tests

Oct 1954

C_{MFR} vs C_{MF}

$$\alpha = 4.2^\circ$$

$$-12^\circ < \beta < 12^\circ$$

$$S_e = S_a = S_r = 0$$

Configuration
B + C Wg V.R. NAs

Runs 1118 to 1128
(427 runs)



C-105

CAE Wind Tunnel Tests

Oct. 1954

C_{MFR} vs C_{Mf}

$$\alpha = 6.3^\circ$$

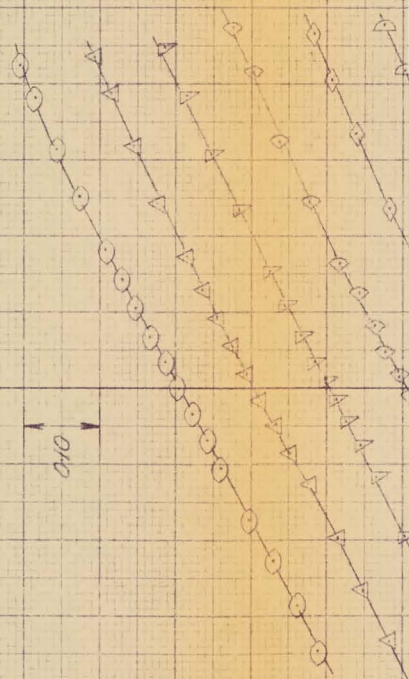
$$-12 \leq \beta \leq 12^\circ$$

$$\sum C = \sum a = \sum p = 0$$

Configuration
B₄ C₆ W₆ V₂ P₃ N₄ S

Runs 1129 to 1139
(1130 Void)

C_{MFR}



Mach No.	Run No.
1123	1132
1145	1131
1140	1133
1124	1124

C-105

C.A.L. Wind Tunnel Tests

Oct. 1954

C_{MFR} vs C_{NF}

$$\alpha = 10.5^\circ$$

$$-12^\circ \leq \beta \leq 12^\circ$$

$$d_c = d_o = d_r = 0$$

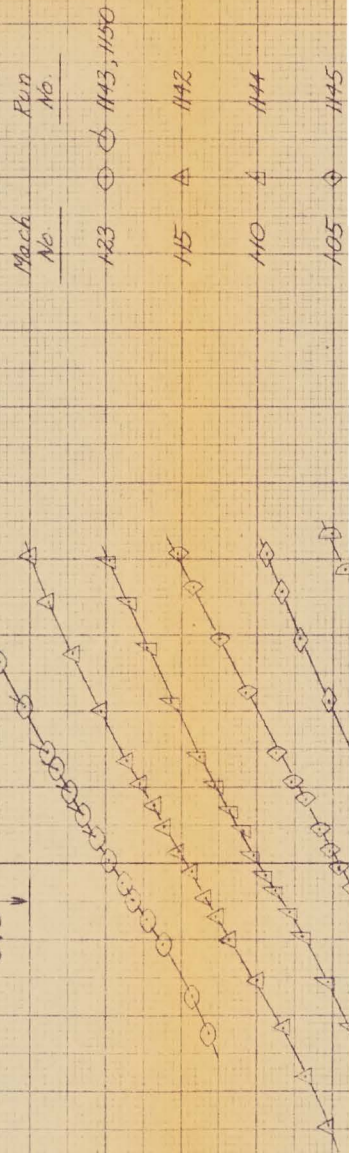
Configuration

B₄ C₃ W₉ V₂ R₃ N₄ S

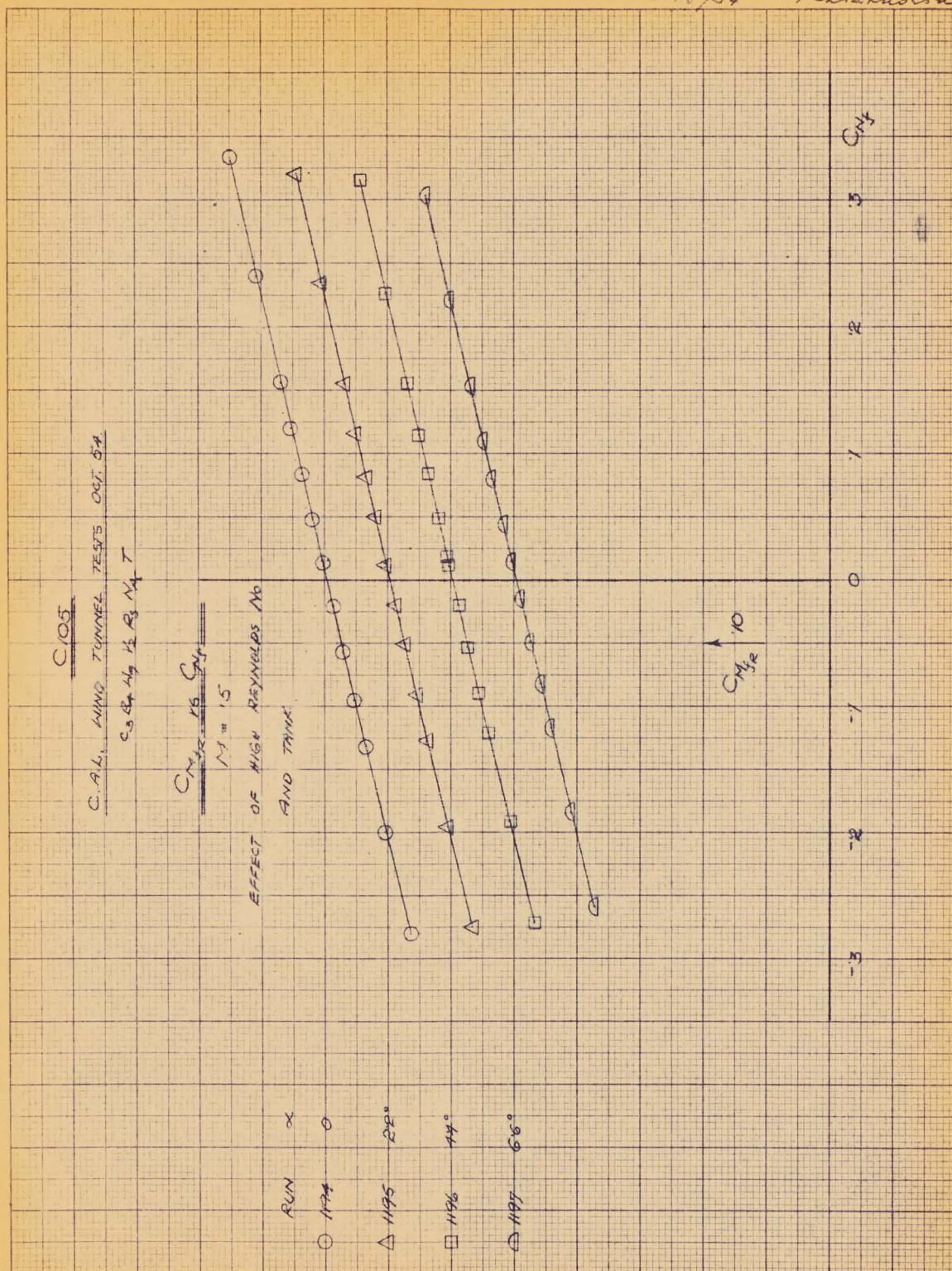
Rings 1140 to 1152
(1141 and 1148 bauld)

C_{MFR}

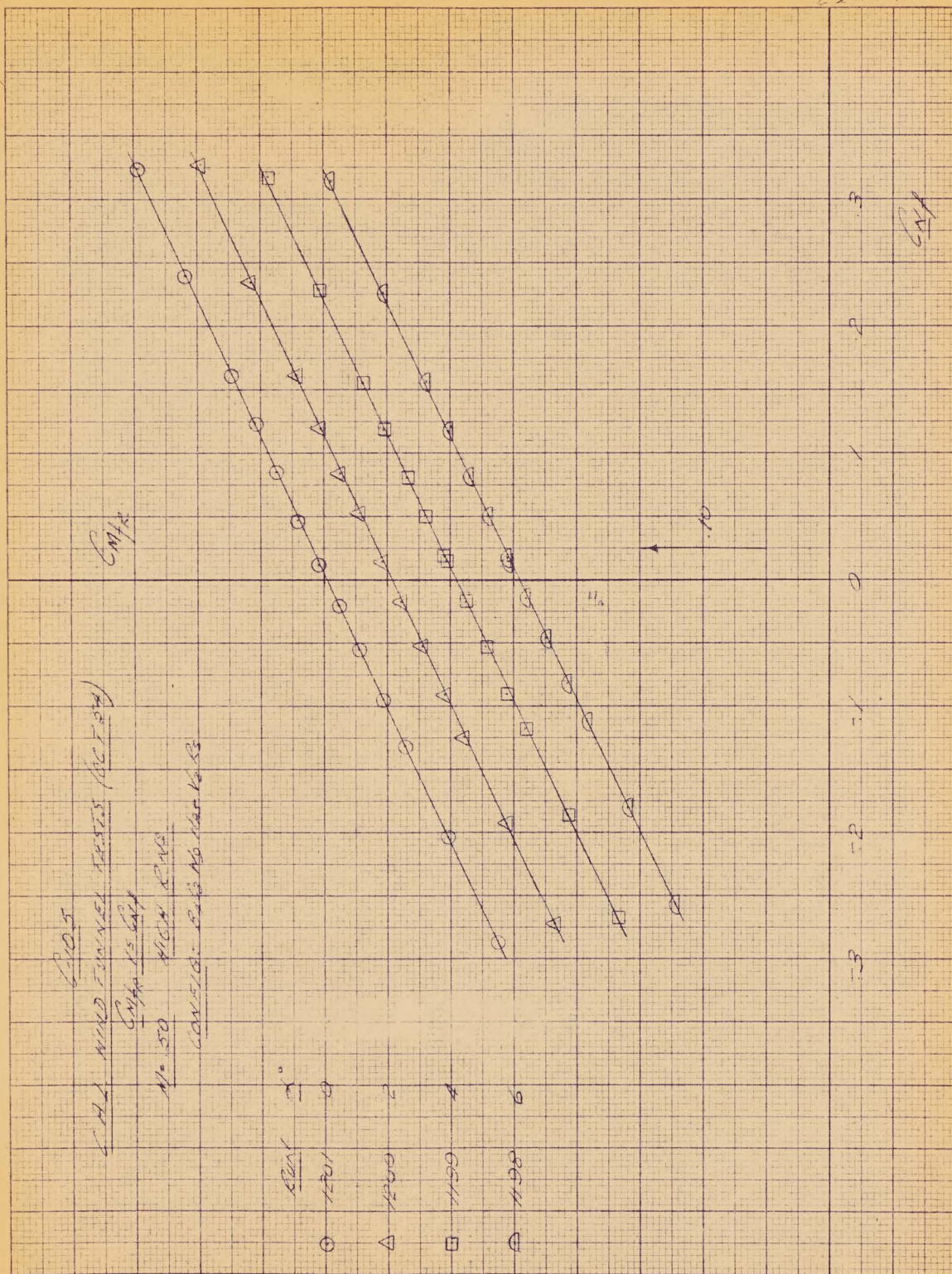
0.10

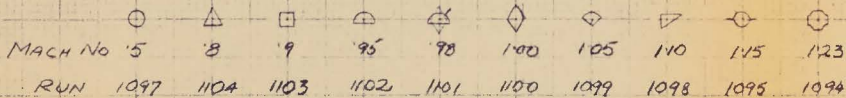


17.20. P/LT/49
Nov/54 Krasakowski



17.24. R/INT 140
NOV. 54. CLARK.





SHT 18.10.

J. Papiris.

P/WT/49

Nov. 1954

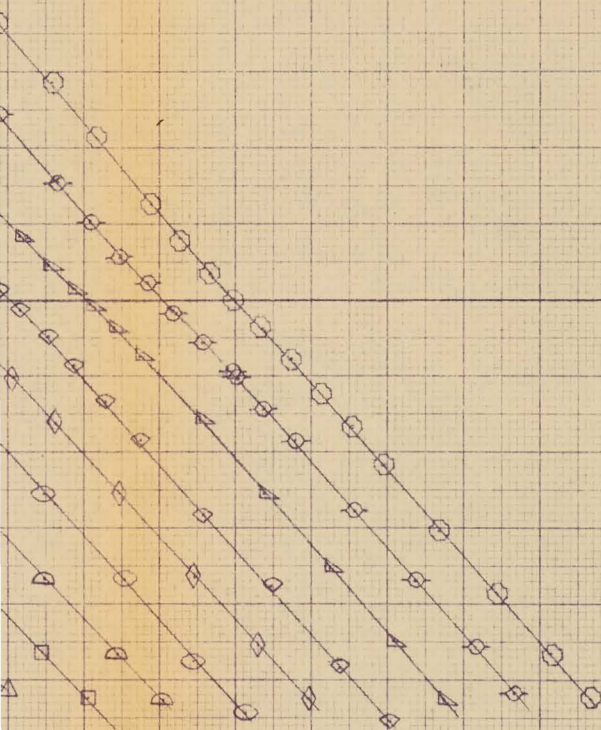
C 105

CAL WIND TUNNEL TESTS - OCTOBER '54

$C_{L,LE}$ vs. $C_{N,t}$

$B_H C_3 W_9 V_2 R_5 N_{AS}$

$\alpha = 4^\circ$



105	111	115	123
□	△	○	◇
121	1120	118	119

$C_{M_{LE}}$

6

4

2

0

-2

-4

-6

$C_{N_{LE}}$
1

MACH No	5	8	9	95	98	100	105	110	115
RUN	1129	1139	1138	1137	1136	1135	1134	1133	1131

18.20. P/WT /49
Nov/54. Knechtow. L.

C105
C.P.H. WIND TUNNEL TESTS OCT. 54
C₃B₄ W₉ K₂R₅N₈T

$C_{M_{1/2}} \text{ VS } C_{N_z}$
 $M = 1.5$

EFFECT OF HIGH REYNOLDS NO
AND TANK

