

QC
Avro
CF105
P-Control
97

12

C-105 P/Control/97

CONTROL SURFACE LIMITATIONS DUE
TO MAX. AVAILABLE HINGE MOMENTS,
AND SIDESLIP LIMITATION DUE TO
MAX. PERMISSIBLE FIN LOAD

Copy 5

NRC - CISTI
J. H. PARKIN
BRANCH

JUN 8 1995

ANNEXE
J. H. PARKIN
CNRC - ICIST



A V ROE CANADA LIMITED
MALTON, ONTARIO

TECHNICAL DEPARTMENT (Aircraft)

AIRCRAFT C-105

REPORT NO. P/Control/97

FILE NO.

NO. OF SHEETS

TITLE

CONTROL SURFACE LIMITATIONS DUE TO
MAXIMUM AVAILABLE HINGE MOMENTS, AND
SIDESLIP LIMITATION DUE TO MAXIMUM PERMISSIBLE FIN LOAD.

PREPARED BY D. J. Foster DATE Dec. 1956
 D. Garland
CHECKED BY D. Ewart DATE

SUPERVISED BY DATE

APPROVED BY DATE

ISSUE NO.	REVISION NO.	REVISED BY	APPROVED BY	DATE	REMARKS

Dec. 1956

C-105

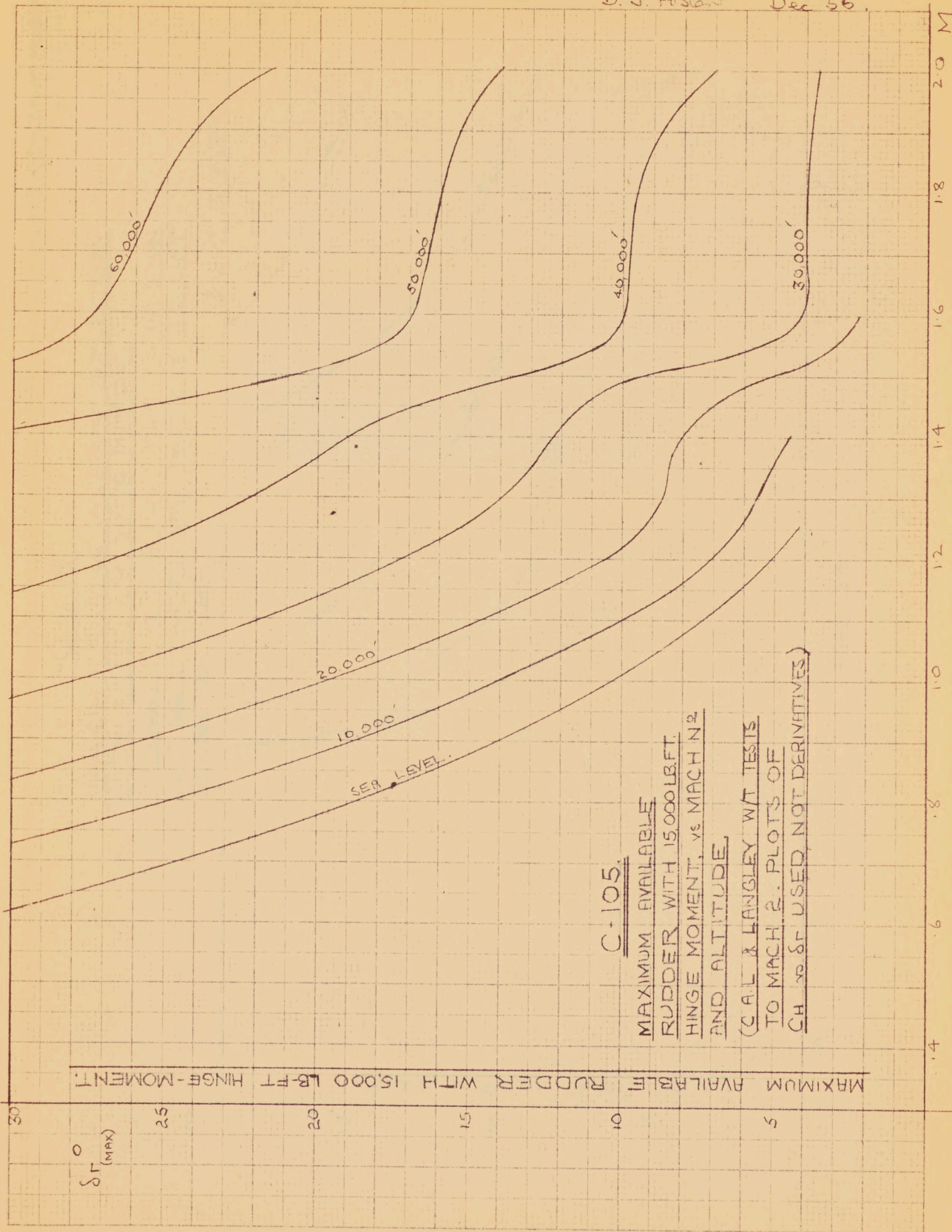
INDEX.

Maximum available rudder with 15,000 lb. ft. Hinge Moment

Maximum available aileron with 25,000 lb. ft. Hinge Moment

Maximum available elevator with Hinge Moment

Maximum permissible sideslip for 36,500 lb Fin Load



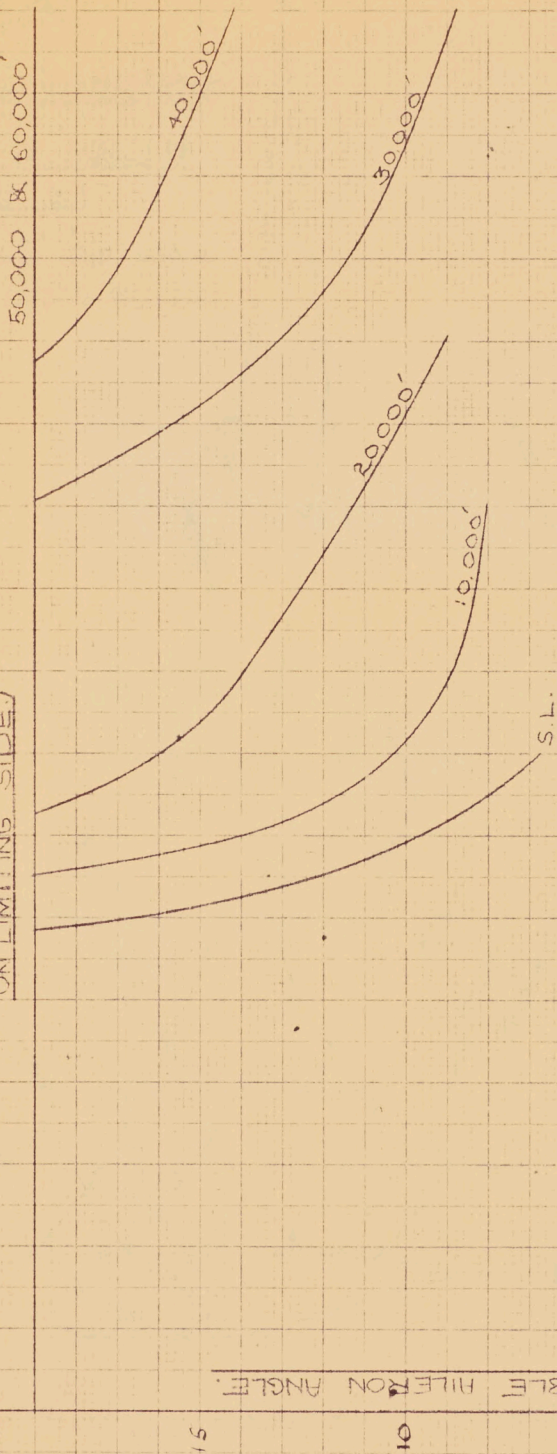
MAXIMUM AVAILABLE RUDDER WITH 15,000 LB-FT HINGE-MOMENT.

C-105.

MAXIMUM AVAILABLE
RUDDER WITH 15,000 LB-FT
HINGE MOMENT, vs MACH N²
AND ALTITUDE.
(CAL & LANGLEY WT TESTS
TO MACH 2. PLOTS OF
CH vs δF USED NOT DERIVATIVES)

C-105

MAXIMUM AVAILABLE AILERON DEFLECTION
WITH 25,000 LB HINGE MOMENT
 (ASSUMING THAT WING TWIST DUE TO AILERON
 JUST NEUTRALIZES WING TWIST DUE TO LIFT
 ON LIMITING SIDE)



MAX AVAILABLE AILERON ANGLE.

MACH No.

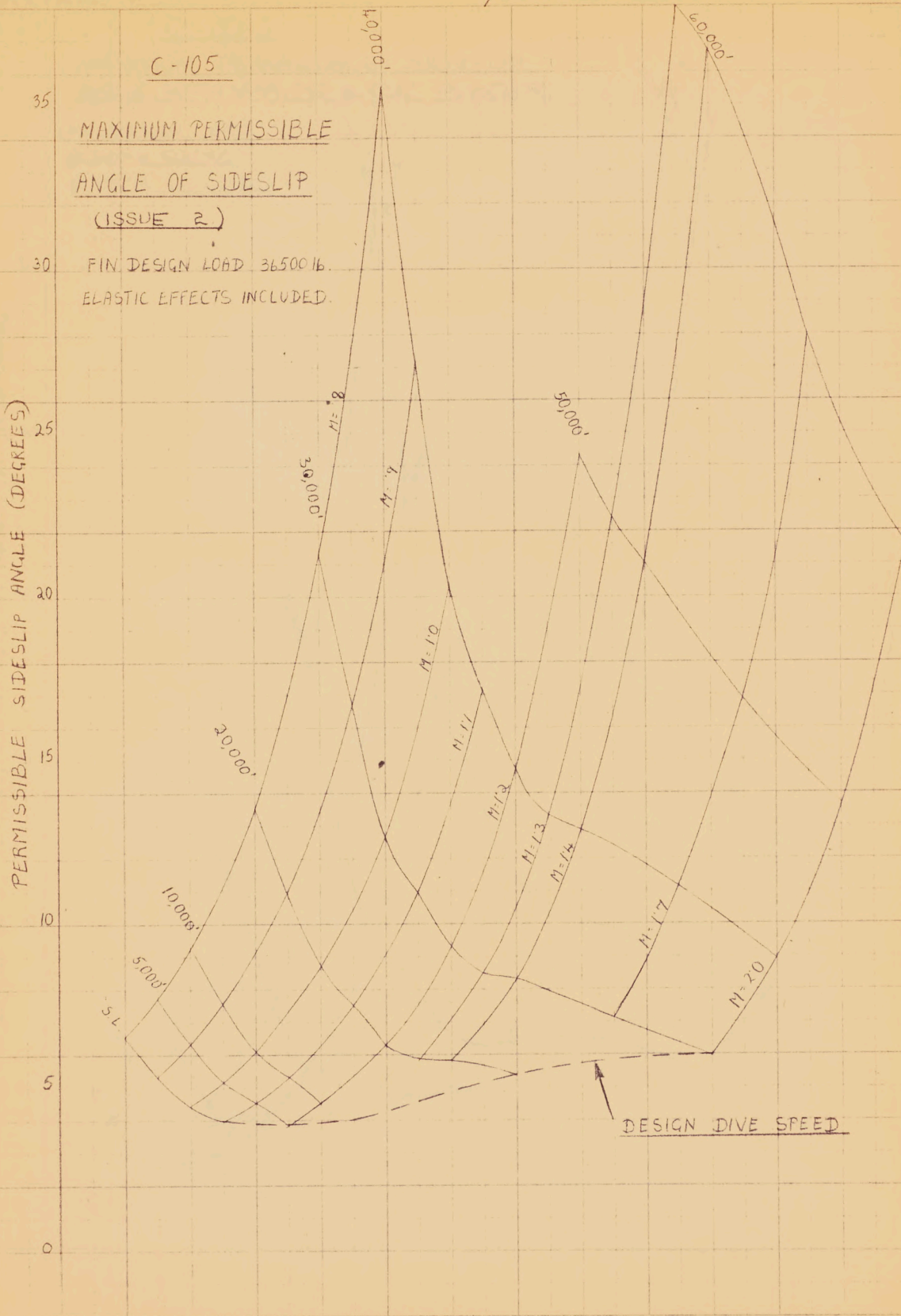
1 Nov. Dec. '58

6.

C-105

MAXIMUM PERMISSIBLE
ANGLE OF SIDESLIP
(ISSUE 2)

FIN DESIGN LOAD 36500 LB.
ELASTIC EFFECTS INCLUDED.

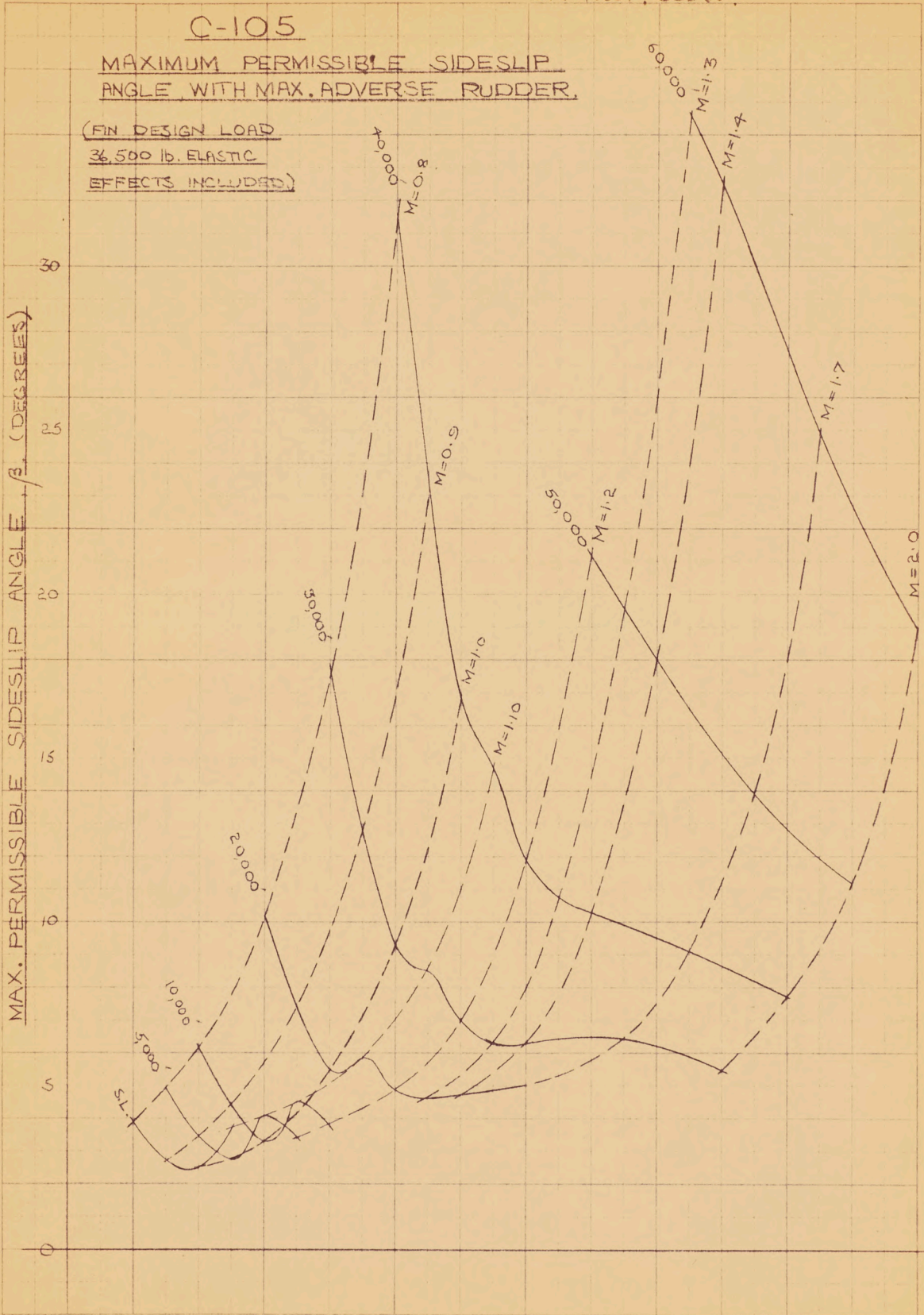


DESIGN DIVE SPEED

C-105

MAXIMUM PERMISSIBLE SIDESLIP ANGLE WITH MAX. ADVERSE RUDDER.

(FIN DESIGN LOAD
36,500 lb. ELASTIC
EFFECTS INCLUDED)



NO. 3474 20 DIETZGEN GRAPH TABLE
20 x 20 IN. IND.

EUGENE W. DYLLA

LONG WAVER
1883-1884
MADE IN U.S.A.