

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
MILTON, 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
D. Garland
CHECKED BY D. Ewart

DATE Dec. 1956

DATE

SUPERVISED BY

DATE

APPROVED BY

DATE

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

TECHNICAL DEPARTMENT

C-105

REPORT NO. P/Control/97

SHEET NO.

PREPARED BY

DATE

Dec. 1956

CHECKED BY

DATE

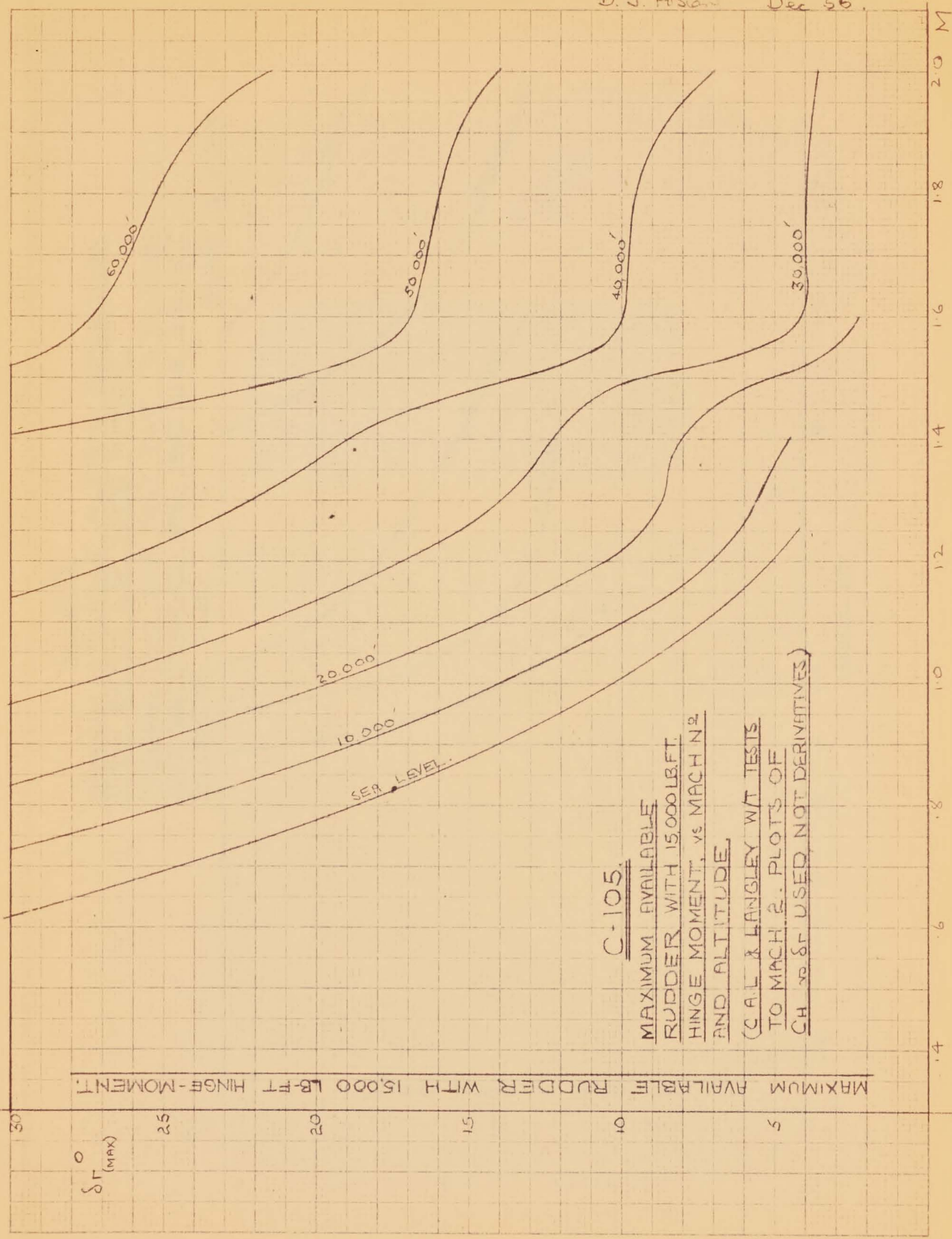
INDEX.

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



C-105.

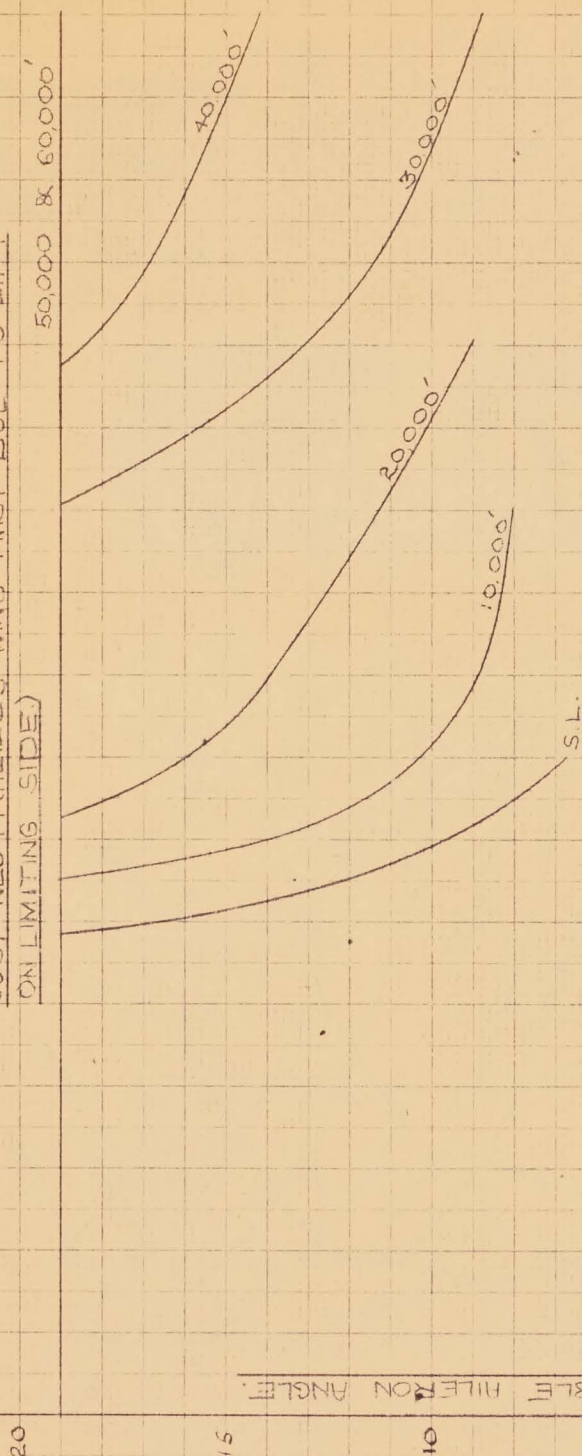
MAXIMUM AVAILABLE
RUDDER WITH 15,000 LB-FT
HINGE MOMENT, vs MACH N²
AND ALTITUDE.
(CAL & LANGLEY W/T TESTS
TO MACH 2. PLOTS OF
CH vs $\delta \gamma$ USED NOT DERIVATIVES)

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

C-105

MAXIMUM AVAILABLE AILERON DEFLECTION
WITH 25000 LB HINGE MOMENT.

(ASSUMING THAT WING TWIST DUE TO AILERON
JUST NEUTRALIZES WING TWIST DUE TO LIFT
ON LIMITING SIDE)



(SUPERCEDES P/CONTROL/35.5.6.)

P/CONTROL/97. 3.6.

D. J. Foster Dec 56

C-105

MAXIMUM PERMISSIBLE SIDESLIP
ANGLE WITH MAX. ADVERSE RUDDER.

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

