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VOLUME 1 OF 9

INVESTIGATIONS ON A 0.020-SCALE JET PLUME MODEL (88-OTS) OF THE ROCKWELL INTERNATIONAL INTEGRATED SSV CONFIGURATION 140C (MODIFIED) IN THE NASA/ARC 11-FOOT TRANSONIC WIND TUNNEL (IA72)

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

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JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services
SPACE DIVISION CHRYSLER CORPORATION

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by

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Prepared under NASA Contract Number NAS9-13247

by

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Houston, Texas

WIND TUNNEL TEST SPECIFICS:

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NASA Series Number:	IA72
Model Number:	88-OTS
Test Dates:	May 19 to May 31, 1975
Occupancy Hours:	200

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(IA72)

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M. E. Nichols, Rockwell International Space Division

ABSTRACT

Test purpose was to determine wing and vertical tail root bending moments, rudder and elevon hinge moments, nozzle gimbal moments, surface pressure profiles on the orbiter, ET, and SRB, and ET base cooling rates. Various MPS and SRM plumes were simulated using cold gas, flow-through nozzles calibrated for plume shape and mass flow. Mach number was varied from 0.90 to 1.40; Reynolds number range was 2.80×10^6/ft to 4.5×10^6/ft. Angle-of-attack was varied from -6° to 2°; angle-of-sideslip was varied from -4° to 4°. Test was conducted May 19-31, 1975; test program was a continuation of the jet plume simulation series, including tests IA19 and IA80.

This report for IA72 consists of nine volumes:

Volume 1 - force data plot figures 4 through 11

Volume 2 - force data plot figures 12 through 13

Volume 3 - force data plot figures 14 through 18

Volume 4 - pressure data plot figure 19

Volume 5 - tabulated source data - force

Volume 6 - tabulated source data - pressure,
(data sets 5NEAXX, 5NEBXX)

Volume 7 - tabulated source data - pressure,
(data sets 5NECXX, 5NEDXX, 5NEEXX)

Volume 8 - tabulated source data - pressure,
(data sets 5NEFXX, 5NEGXX, 5NEHXX)

Volume 9 - tabulated source data - pressure,
(data sets 5NEIXX, 5NEJXX).

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SCHEDULE OF COEFFICIENTS PLOTTED:

(A) $C_{P_{bSRB}}$, $C_{P_{bET}}$, $C_{P_{bORB}}$ versus $P_{c_{SRB}}/P_\infty$

(B) C_{N_W}, C_{B_W}, C_{T_W}, $C_{h_{EI}}$, $C_{h_{EO}}$ versus $P_{c_{SRB}}/P_\infty$

(C) C_{Y_V}, C_{B_V}, C_{T_V}, C_{h_R} versus $P_{c_{SRB}}/P_\infty$

(D) $C_{P_{3A}}$, $C_{P_{4A}}$, $C_{P_{5A}}$, $C_{P_{6A}}$, $C_{P_{7A}}$, $C_{P_{8A}}$, $C_{P_{11A}}$, $C_{P_{13A}}$, $C_{P_{14A}}$, $C_{P_{17A}}$, $C_{P_{18A}}$, $C_{P_{19A}}$, $C_{P_{20A}}$, $C_{P_{21A}}$, $C_{P_{33}}$, $C_{P_{34}}$, $C_{P_{51}}$, $C_{P_{52}}$, $C_{P_{57}}$, $C_{P_{58}}$ versus $P_{c_{SRB}}/P_\infty$

(E) $C_{P_{901}}$ to $C_{P_{922}}$, $C_{P_{924}}$, $C_{P_{925}}$, $C_{P_{927}}$ to $C_{P_{940}}$ versus $P_{c_{SRB}}/P_\infty$

SCHEDULE OF COEFFICIENTS PLOTTED (Concluded):

(F) $C_{P_{b_{SRB}}}$, $C_{P_{b_{ET}}}$, $C_{P_{b_{ORB}}}$ versus α

(G) C_{N_W}, C_{B_W}, C_{T_W}, $C_{h_{EI}}$, $C_{h_{EO}}$ versus α

(H) C_{Y_V}, C_{B_V}, C_{T_V}, C_{h_R} versus α

(I) C_{V_1}, C_{N_1}GMN, X_{N_1}CP, C_{H_1}, C_{N_1}GMY, X_{Y_1}CP, C_{V_2}, C_{N_2}GMN, X_{N_2}CP, C_{H_2}, C_{N_2} GMY, X_{Y_2}CP, C_{V_3}, C_{N_3}GMN, X_{N_3}CP, C_{H_3}, C_{N_3}GMY, X_{Y_3}CP, C_{V_5}, C_{N_5}GMN, X_{N_5}CP, C_{H_5}, C_{N_5}GMY, X_{Y_5}CP, C_{V_6}, C_{N_6}GMN, X_{N_6}CP, C_{H_6}, C_{N_6}GMY, X_{Y_6}CP versus α

(J) $C_{P_{5A}}$, $C_{P_{6A}}$, $C_{P_{7A}}$, $C_{P_{8A}}$, $C_{P_{11A}}$, $C_{P_{17A}}$, $C_{P_{18A}}$, $C_{P_{19A}}$, $C_{P_{20A}}$, $C_{P_{21A}}$, $C_{P_{51}}$, $C_{P_{52}}$, $C_{P_{57}}$, $C_{P_{58}}$ versus M

(K) C_P versus ϕ

NOMENCLATURE

Plot Symbol	Mnemonic	Definition
A_i		area associated with pressure tap i, ft.^{2}
$A_{b_{ORB}}$		base area of orbiter, ft.^{2}
$A_{b_{ET}}$		base area of ET, ft.^{2}
$A_{b_{SRB}}$		base area of SRB, ft.^{2}
BM_V		vertical tail-root bending moment (about vertical tail reference center), in.-lb
BM_{V_I}		vertical tail-root bending moment at inboard gauge, in.-lb
BM_{V_O}		vertical tail-root bending moment at outboard gauge, in.-lb
BM_W		wing-root bending moment (about wing reference center), in.-lb
BM_{W_I}		wing-root bending moment at inboard gauge, in.-lb
BM_{W_O}		wing-root bending moment at outboard gauge, in.-lb
b_V	BREF	span of vertical tail, in.
b_W	BREF	span of wing, in.
C_{B_V}	CBMV	vertical tail-root bending-moment coefficient
C_{B_W}	CBMW	wing-root bending-moment coefficient
$C_{h_{EI}}$	CHEI	hinge-moment coefficient for inboard elevon
$C_{h_{EO}}$	CHEO	hinge-moment coefficient for outboard elevon

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
$C_{h_{ET}}$	CHET	total elevon hinge-moment coefficient
C_{h_R}	CHR	hinge-moment coefficient for rudder
C_{N_W}	CNW	wing normal-force coefficient
CONFIG	CONFIG	configuration
C_{V_1}	CN1N	orbiter top center MPS nozzle vertical force coefficient
C_{V_2}	CN2N	orbiter LH MPS nozzle vertical force coefficient
C_{V_3}	CN3N	orbiter RH MPS nozzle vertical force coefficient
C_{V_5}	CN5N	RH SRB nozzle vertical force coefficient
C_{V_6}	CN6N	orbiter LH OMS nozzle vertical force coefficient
C_{p_i}		pressure coefficient for model surface tap i
CPR_j		chamber-pressure ratio for nozzle j
$C_{P_{b_{SRB}}}$	CPBSRB	area-weighted SRB base pressure coefficient
$C_{P_{b_{ET}}}$	CPBET	area-weighted ET base pressure coefficient
$C_{P_{b_{ORB}}}$	CPBORB	area-weighted ORB base pressure coefficient
$C_{P_{3A}}$	CPV3A	orbiter vent pressure coefficient, average of $C_{p_{22,24,26,28}}$
$C_{P_{4A}}$	CPV4A	orbiter vent pressure coefficient, average of $C_{p_{30,32,36,38}}$

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
$C_{P_{5A}}$	CPV5A	orbiter vent pressure coefficient, average of $C_{p_{40,42,44,46}}$
$C_{P_{6A}}$	CPV6A	orbiter vent pressure coefficient, average of $C_{p_{48,50,54,56}}$
$C_{P_{7A}}$	CPV7A	orbiter vent pressure coefficient, average of $C_{p_{60,62,64,66}}$
$C_{P_{8A}}$	CPV8A	orbiter vent pressure coefficient, average of $C_{p_{67-70}}$
$C_{P_{11A}}$	CPV11A	orbiter vent pressure coefficient, average of $C_{p_{76,78,80,81}}$
$C_{P_{13A}}$	CPV13A	orbiter vent pressure coefficient, average of $C_{p_{21,23,25,27}}$
$C_{P_{14A}}$	CPV14A	orbiter vent pressure coefficient, average of $C_{p_{29,31,35}}$
$C_{P_{17A}}$	CPV17A	orbiter vent pressure coefficient, average of $C_{p_{39,41,43,45}}$
$C_{P_{18A}}$	CPV18A	orbiter vent pressure coefficient, average of $C_{p_{47,49,53,55}}$
$C_{P_{19A}}$	CPV19A	orbiter vent pressure coefficient, average of $C_{p_{59,61,63,65}}$
$C_{P_{20A}}$	CPV20A	orbiter vent pressure coefficient, average of $C_{p_{67,69,71,73}}$
$C_{P_{21A}}$	CPV21A	orbiter vent pressure coefficient, average of $C_{p_{75,77,79,82}}$
$C_{P_{33}}$	CPV33	orbiter vent pressure coefficient, $C_{p_{33}}$

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
$C_{P_{34}}$	CPV34	orbiter vent pressure coefficient, $C_{p_{34}}$
$C_{P_{51}}$	CPV51	orbiter vent pressure coefficient, $C_{p_{51}}$
$C_{P_{52}}$	CPV52	orbiter vent pressure coefficient, $C_{p_{52}}$
$C_{P_{57}}$	CPV57	orbiter vent pressure coefficient, $C_{p_{57}}$
$C_{P_{58}}$	CPV58	orbiter vent pressure coefficient, $C_{p_{58}}$
C_{H_1}	CS1N	orbiter top center MPS nozzle horizontal force coefficient
C_{H_2}	CS2N	orbiter LH MPS nozzle horizontal force coefficient
C_{H_3}	CS3N	orbiter RH MPS nozzle horizontal force coefficient
C_{H_5}	CS5N	RH SRB nozzle horizontal force coefficient
C_{H_6}	CS6N	orbiter LH OMS nozzle horizontal force coefficient
C_{T_V}	CTMV	vertical tail-root torsional moment coefficient
C_{T_W}	CTMW	wing-root torsional moment coefficient
$C_{N_1}GMY$	CYM1N	orbiter top center MPS nozzle horizontal plane gimbal moment coefficient
$C_{N_2}GMY$	CYM2N	orbiter LH MPS nozzle horizontal plane gimbal moment coefficient
$C_{N_3}GMY$	CYM3N	orbiter RH MPS nozzle horizontal plane gimbal moment coefficient
$C_{N_5}GMY$	CYM5N	RH SRB nozzle horizontal plane gimbal moment coefficient

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
$C_{N_1}GMY$	CYM6N	orbiter LH OMS nozzle horizontal plane gimbal moment coefficient
C_{Y_V}	CYV	vertical tail side-force coefficient
$\bar{c}_E$	LREF	MAC of total elevon panel, in.
$\bar{c}_{EI}$	LREF	MAC of inboard elevon panel, in.
$\bar{c}_{EO}$	LREF	MAC of outboard elevon panel, in.
$\bar{c}_{ET}$	LREF	MAC of ET, in.
$\bar{c}_R$	LREF	MAC of rudder panel, in.
$\bar{c}_V$	LREF	MAC of vertical tail, in.
$\bar{c}_W$	LREF	MAC of wing, in.
$C_{N_1}GMN$	CZM1N	orbiter top center MPS nozzle vertical plane gimbal moment coefficient
$C_{N_2}GMN$	CZM2N	orbiter LH MPS nozzle vertical plane gimbal moment coefficient
$C_{N_3}GMN$	CZM3N	orbiter RH MPS nozzle vertical plane gimbal moment coefficient
$C_{N_5}GMN$	CZM5N	RH SRB nozzle vertical plane gimbal moment coefficient
$C_{N_6}GMN$	CZM6N	orbiter LH OMS nozzle vertical plane gimbal moment coefficient
	ET	external tank
EPR_j		exit pressure ratio for nozzle j
FS	FS	fuselage station
GIMBAL	GIMBAL	gimbal deflection schedule, deg.

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
H_j		horizontal force, perpendicular to nozzle-j axis, lb.
H_k		calorimeter output, mv
HM_{ET}		hinge moment of ET, in.-lb.
HM_{EI}		hinge moment of inboard elevon, in.-lb.
HM_{EO}		hinge moment of outboard elevon, in.-lb.
HM_R		hinge moment of rudder, in.-lb.
K_k		calorimeter calibration value, BTU/ft^2•sec•mv
	LH	left half
ℓ_B	LREF	reference body length, in.
LREFj, ℓ_j	LREF	reference length (nozzle length) for component j, in.
MPS	MPS	main propulsion system
$P_{c_{MPS}}/P_\infty$	MPSPR	MPS nozzle pressure ratio, $P_{c_{MPS}}/P_\infty$
MRP	MRP	moment reference point
MS	MS	missile station
M_∞, M	MACH	freestream Mach number
NjGMN		nozzle gimbal moment, vertical plane, in.-lb.
NjGMY		nozzle gimbal moment, horizontal plane, in.-lb.
NF_W		wing-root normal force, lb.
N		nozzle, nose (orbiter)
	OMS	orbital maneuvering system
	OTS	orbiter + external tank + solid rocket booster
ϕ_O, ϕ_T, ϕ_B	PHI	model angle-of-roll

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
P_{c_j}	PCJ/P	chamber pressure (absolute) for nozzle j, psia
P_{e_j}	PEPJ	exit pressure (absolute) for nozzle j, psia
P_{cMPS}		MPS air supply total pressure, psia, (as set)
P_{cSRB}		SRB air supply total pressure, psia, (as set)
P	P	pressure, psia
P_i		pressure (absolute) at model surface tap i, psia
P_T	PT	freestream total pressure, psia
P_∞	PO	freestream static pressure, psia
Q_k		heat-flux rate, BTU/ft^2·sec
q_∞	Q	freestream dynamic pressure, psf
	RCS	reaction control system
R/R_{OD}	R/RO	radius divided by outer radius
Re/ft	RN/L	freestream unit Reynolds number, ft x 10^6
S_{EI}	SREF	inboard reference elevon area, ft^2
S_{EO}	SREF	outboard reference elevon area, ft^2
S_{ET}	SREF	reference ET area, ft^2
S_R	SREF	reference rudder area, ft^2
$SREF_j$	SREF	reference area, (nozzle exit area) for component j, ft^2
SRM	SRM	solid rocket motor
SRB	SRB	solid rocket booster
P_{cSRB}/P_∞	SRBPR	SRB nozzle pressure ratio, P_{cSRB}/P_∞
S_V	SREF	reference vertical tail area, ft^2
	SSV	space shuttle vehicle

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
S_W	SREF	reference wing area, ft^2
SF_V		vertical tail-root side force, lb.
S_j		nozzle j area, ft^2
T_k		thermocouple temperature, °R
TM_V		vertical tail-root torsional moment (about vertical tail reference center), in.-lb.
TM_{V_G}		vertical tail-root torsional moment at gauge, in.-lb.
TM_W		wing-root torsional moment (about wing reference center), in.-lb.
TM_{W_G}		wing-root torsional moment at gauge, in.-lb.
T_T	TT	freestream total temperature, °R
$T_{T_{MPS}}$		MPS air supply total temperature, °R
$T_{T_{SRB}}$		SRB air supply total temperature, °R
T_∞	TO	freestream static temperature, °R
V_j		vertical force, perpendicular to nozzle-j axis, lb.
X_{CP_V}	XVCP	vertical tail center-of-pressure, longitudinal location, in.
X_{CP_W}	XWCP	wing center-of-pressure, longitudinal location, in.
X_N		orbiter nose station, in.
XN_jN1		location of forward vertical gauge, in.

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
XN_jN2		location of aft vertical gauge, in.
XN_jY1		location of forward horizontal gauge, in.
XN_jY2		location of aft horizontal gauge, in.
$XNRC_j$	XMRP	nozzle moment reference center (X station), in.
X_o, X_0	XO	orbiter longitudinal location, in.
X_s, X_B	XS	SRB longitudinal location, in.
X_T	XT	ET longitudinal location, in.
X_{TMV_G}		longitudinal location of vertical tail-root torsional gauge, in.
X_{TMW_G}		longitudinal location of wing-root torsional gauge, in.
X_{VRC}	XMRP	longitudinal (station) location of vertical tail reference center, in.
X_{WRC}	XMRP	longitudinal (station) location of wing reference center, in.
$X_{Y_1}CP$	XYCP1N	orbiter top center MPS nozzle horizontal plane center-of-pressure coefficient
$X_{Y_2}CP$	XYCP2N	orbiter LH MPS nozzle horizontal plane center-of-pressure coefficient
$X_{Y_3}CP$	XYCP3N	orbiter RH MPS nozzle horizontal plane center-of-pressure coefficient
$X_{Y_5}CP$	XYCP5N	RH SRB nozzle horizontal plane center-of-pressure coefficient
$X_{Y_6}CP$	XYCP6N	orbiter LH OMS nozzle horizontal plane center-of-pressure coefficient

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
$X_{N_1}CP$	XZCP1N	orbiter top center MPS nozzle vertical plane center-of-pressure coefficient
$X_{N_2}CP$	XZCP2N	orbiter LH MPS nozzle vertical plane center-of-pressure coefficient
$X_{N_3}CP$	XZCP3N	orbiter RH MPS nozzle vertical plane center-of-pressure coefficient
$X_{N_5}CP$	XZCP5N	RH SRB nozzle vertical plane center-of-pressure coefficient
$X_{N_6}CP$	XZCP6N	orbiter LH OMS nozzle vertical plane center-of-pressure coefficient
Y_{BMW_I}		lateral location of inboard wing-root bending gauge, in.
$YNRC_j$		moment reference center (Y, buttline), in.
Y_{BMW_O}		lateral location of outboard wing-root bending gauge, in.
Y_{CP_V}	YVCP	vertical tail center-of-pressure, lateral location, in.
Y_{CP_W}	YWCP	wing center-of-pressure, lateral location, in.
Y_o, Y_O	YO	orbiter lateral location, in.
Y_s	YS	SRB lateral location, in.
Y_T	YT	ET lateral location, in.
Y_{WRC}	YMRP	lateral (buttplane) location of wing reference center, in.
Z_{BMV_O}		vertical location of outboard vertical tail-root bending gauge, in.
Z_{BMV_T}		vertical location of inboard vertical tail-root bending gauge, in.

NOMENCLATURE (Continued)

Plot Symbol	Mnemonic	Definition
Z_{CP_V}		vertical tail center-of-pressure vertical location, in.
Z_{VRC}	ZMRP	vertical (waterplane) location of vertical tail reference center, in.
Z_o, Z_O	ZO	orbiter vertical location, in.
Z_s	ZS	SRB vertical location, in.
Z_T	ZT	ET vertical location, in.

Deflections

α	ALPHA	model angle-of-attack, degrees
α_{N_j}		pitch-angle of nozzle-j axis in a plane parallel to the orbiter plane of symmetry, degrees
β	BETA	model angle-of-sideslip, degrees
γ_{N_j}		pitch-angle of nozzle-j axis in a plane which yaws with the nozzle, degrees
δ_{BF}	BDFLAP	bodyflap setting, degrees
δ_{EI}	ELV-IB	inboard elevon setting, degrees
δ_{EO}	ELV-OB	outboard elevon setting, degrees
δ_R	RUDDER	rudder setting, degrees
δ_{SB}	SPDBRK	speedbrake setting, degrees
ψ_{N_j}		yaw-angle of nozzle-j axis in an orbiter waterplane, degrees
δ_{1-5}		nozzle gimbal deflection angle, deg.

NOMENCLATURE (Concluded)

SUBSCRIPTS

B	base, body, bending
E	elevon
G	gauge
I	inboard
O, o	outboard, orbiter
R	rudder
S, s	solid rocket booster
T	external tank, total, torsion
V	vertical tail
W	wing
c	chamber
e	exit
i	surface pressure-tap number
j	nozzle number
k	ET-base calorimeter number
l	left
r	right
∞	static freestream

CONFIGURATIONS INVESTIGATED

Model 88-OTS was a 0.020-scale replica of the configuration 140C (modified) integrated SSV with short OMS pods and active cold air MPS and SRM plume simulation.

The model was instrumented for MPS and SRM system chamber and nozzle exit pressures, plume simulation control, and system total temperatures. The rudder and the inboard and outboard left-hand elevons were strain-gauged for hinge moments and the wing and vertical tail were instrumented for root bending and torsional moments.

Each of the MPS nozzles, the right-hand SRM nozzle, and the left-hand OMS nozzle were strain-gauged for gimbal-centered moments and forces in two planes of action.

Arranged for recording via 12 Scanivalve modules in three gangs were 187 model surface pressure taps. This instrumentation included 40 nozzle exterior taps on the left-hand SRM nozzle.

Base region of the ET was fitted with four thermocouple-calorimeter assemblies for measuring aspiration-induced cooling rates. However, these assemblies were not operational because of installation/model errors.

See table IV for various model nozzle and control surface deflections and tables VII through XI for locations of surface pressure taps.

CONFIGURATIONS INVESTIGATED (Continued)

Configurations tested are described as follows:

OTS-1	basic configuration with pressure-instrumented left SRB
OTS-2	OTS-1 with left SRB heat shield

Individual components are described below and in table III.

Component	Definition	
B_{62}	fuselage	Orbiter
C_{12}	canopy	
E_{52}	elevon	
F_{10}	bodyflap	
M_{16}	OMS/RCS pods	
N_{87}	MPS nozzles, conical	
N_{89}	OMS nozzles	
R_5	rudder/speedbrake	
V_8	vertical tail	
W_{127}	wing	
T_{31}	external tank	ET
AT_{28}	attach structure	
AT_{31}	attach structure	
AT_{32}	attach structure	

CONFIGURATIONS INVESTIGATED (Concluded)

Component	Definition	
FL_{10}	feedline	ET
FL_{11}	feedline	
FR_{10}	aft attach crossbeam	
PT_{22}	ET protuberances	
PT_{23}	ET protuberances	
PT_{24}	ET protuberances	
PT_{25}	ET protuberances	
PT_{26}	ET protuberances	
PT_{27}	ET protuberances	
N_{88}	SRB nozzle	SRB
PS_{11}	SRB protuberances	
PS_{12}	SRB protuberances	
PS_{13}	SRB protuberances	
PS_{14}	SRB protuberances	
PS_{17}	SRB protuberances	
PS_{18}	SRB protuberances	
PS_{19}	SRB protuberances	
S_{22}	solid rocket booster	

TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan 11- by 11-foot Transonic Wind Tunnel is a closed-circuit, air-medium, variable-density facility capable of attaining Mach numbers from 0.6 to 1.4 at Reynolds numbers from 1.7×10^6/ft to 9.4×10^6/ft. The test section is 22 feet long, and models are installed on internal strain-gauge balances mounted to sting-type support systems.

Shadowgraph and Schlieren photographic equipment is available, and pressure transducer instrumentation is provided.

Tunnel operating temperature is 580°R. Extended high Reynolds number runs are restricted by power availability.

DATA REDUCTION

Standard NASA/ARC methods were used to reduce wing and vertical tail root bending moment data and rudder and elevon hinge moment data. Pressure ratios were calculated for each of the plume simulation nozzles, and pressure coefficients were computed for each of the operating surface static taps.

The test data consisted of:

(1) Pressures

  (a) orbiter vent locations

  (b) model base regions

  (c) left SRB nozzle external surface

(2) Wing panel loads

(3) Vertical tail panel loads

(4) Inboard and outboard elevon hinge moments

(5) Rudder hinge moments

(6) Nozzle gimbal moments

Effects of Main engine and SRB engine plumes on these items were investigated during the test. Data were reduced and are presented in the data figures to show these effects.

All pressure data were reduced to coefficients as follows:

$$C_{P_i} = \frac{P_i - P_\infty}{q_\infty}$$

Vent pressures are presented both individually and as an average of pressures located in the vicinity of a particular vent. The averages

were computed as follows:

$$C_{P_{JA}} = \frac{\Sigma C_{P_i}}{k}$$

i = tap number
k = number of taps

where:

JA	k	i VALUES
3A	4	22, 24, 26, 28
4A	4	30, 32, 36, 38
5A	4	40, 42, 44, 46
6A	4	48, 50, 54, 56
7A	4	60, 62, 64, 66
8A	4	68, 70, 67, 69
11A	4	76, 78, 80, 81
13A	4	21, 23, 25, 27
14A	3	29, 31, 35
17A	4	39, 41, 43, 45
18A	4	47, 49, 53, 55
19A	4	59, 61, 63, 65
20A	4	67, 69, 71, 73
21A	4	75, 77, 79, 82

Individual pressures used for the averaging process were generally located at corners of a vent. Pressure taps 33, 34, 37, 51, 52, 57, and 58 were not averaged.

Base pressures were used to calculate a weighted average base pressure coefficient on each model component as follows:

DATA REDUCTION (Continued)

$$C_{P_{b_j}} = \frac{\Sigma A_i C_{P_i}}{A_{b_j}}, \quad \begin{array}{l} i = \text{tap number} \\ j = \text{ORB, ET, SRB} \end{array}$$

where:

ORBITER		ET		SRB	
i (TAP NO.)	$A_i/A_{b_{ORB}}$	i (TAP NO.)	$A_i/A_{b_{ET}}$	i (TAP NO.)	$A_i/A_{b_{SRB}}$
371	.02964	541	.1008	621	0.33
372	.1018	805	.0266	623	0.33
373	.1018	807	.0266	624	0.33
374	.02964	810	.1108		
375	↓	811	.2216		
376		812	.1108		
377		814	.0261		
378		818	.1144		
379		819	.0522		
380		820	.0522		
381		821	.0119		
713		823	.0355		
714		825	.0474		
715		826	.0121		
716		831	.0483		
717		834	.0030		
718					
719					
720					
721					
722					
723					
724	.2037				

Wing bending and torsional moment and normal force data were reduced to coefficient form as follows:

$$C_{B_W} = \frac{BM_W}{q_\infty S_W \, b_W}$$

$$C_{T_W} = \frac{TM_W}{q_\infty S_W \, \bar{c}_W}$$

DATA REDUCTION (Continued)

$$C_{N_W} = \frac{NF_W}{q_\infty S_W}$$

where:

CONSTANT	VALUE	
	FULL SCALE	MODEL SCALE
S_W, ft.^{2}	2690.0	1.076
b_W, in.	936.68	18.734
$\bar{c}_W$, in.	474.8	9.496
MRP:		
X_0, in.	1307.0	26.140
Y_0, in.	106.0	2.120

Wing center-of-pressure X_{CP_W} was also calculated and is presented in model coordinates X_0 and Y_0.

Vertical tail root-bending and torsional moment, and side force coefficients were similarly calculated:

$$C_{B_V} = \frac{BM_V}{q_\infty S_V b_V}$$

$$C_{T_V} = \frac{TM_V}{q_\infty S_V \bar{c}_V}$$

$$C_{Y_V} = \frac{SF_V}{q_\infty S_V}$$

where:

DATA REDUCTION (Continued)

CONSTANT	VALUE	
	FULL SCALE	MODEL SCALE
S_V, ft.^{2}	413.25	0.1653
b_V, in.	315.72	6.314
$\bar{c}_V$, in.	199.81	3.996
MRP:		
X_0, in.	1414.3	28.286
Z_0, in.	503.0	10.060

Vertical tail center-of-pressure X_{CP_V} was calculated and is presented in model coordinates X_0, Z_0.

Elevon and rudder hinge moments were reduced to coefficient form as follows:

$$C_{h_i} = \frac{HM_i}{q_\infty S_i \bar{c}_i}, \quad i = EI, EO, R$$

where:

CONSTANT	CONTROL SURFACE	
	INBOARD, OUTBOARD TOTAL ELEVON	RUDDER
S_i, ft.^{2}:		
Full Scale	210.0	100.15
Model Scale	0.084	0.04006
$\bar{c}_i$, in.:		
Full Scale	90.7	73.20
Model Scale	1.814	1.464

DATA REDUCTION (Continued)

Inboard and outboard elevon hinge moment coefficients were summed up to calculate the total elevon hinge moment coefficient.

Nozzle gimbal moments and forces were reduced to coefficients. All moments were reduced about the gimbal point of the respective nozzle they represented. These coefficients were defined as follows:

$$C_{V_j} = \frac{V_j}{q_\infty S_j} \qquad (j = \text{nozzle})$$

$$C_{H_j} = \frac{H_j}{q_\infty S_j}$$

$$C_{N_j GMN} = \frac{N_j GMN}{q_\infty S_j \ell_j}$$

$$C_{N_j GMY} = \frac{N_j GMY}{q_\infty S_j \ell_j}$$

where:

j	NOZZLE	S_j, ft.^{2}		ℓ_j, in.		MRP, in. X_T	
		FULL SCALE	MODEL SCALE	FULL SCALE	MODEL SCALE	FULL SCALE	MODEL SCALE
1	TOP MPS	44.90	.01796	121.20	2.424	2186.0	43.720
2	LEFT MPS	44.90	.01796	121.20	2.424	2209.2	44.184
3	RIGHT MPS	44.90	.01796	121.20	2.424	2209.2	44.184
5	RIGHT SRB	115.70	.04628	143.695	2.8739	2418.0	48.360
6	LEFT OMS	13.60	.00544	56.00	1.120	2259.0	45.180

Note that the left SRB nozzle (No. 4) was not instrumented with a hinge moment gauge, but instead was instrumented to measure pressures.

DATA REDUCTION (Concluded)

Longitudinal and lateral center-of-pressure locations ($X_{N_j}CP$, and $X_{Y_j}CP$) on each nozzle were calculated and are presented as a fraction of the reference length from the gimbal point.

CONCLUDING REMARKS

Several data error aspects are worthy of discussion. In each case, instrumentation dependability and responsiveness appeared as critical factors.

The external tank base cooling segment of the test had to be deleted because of the improper construction of the heat-flux calorimeters installed in the model. The tunnel data acquisition system was not compatible with the type of calorimeters used.

Elevon and rudder hinge moments and wing and vertical tail root bending moments were consistently good, and no unusual analytical problems are presented by those data.

However, the five gimbal-moment instrumentation packages showed significant zero shifts, sometimes on the order of the values being measured for nominal deflection configurations. Thermal compensation problems and thermal stress preloading of the gauges appeared to be the major difficulty.

Surface static and base region pressure data were at times adversely affected by undependable Scanivalve calibration and reference systems. Beginning with run 38, forward orbiter fuselage surface pressure data were lost. Also, ET base pressures were not obtainable during runs 160 through 177.

Nozzle control pressure instrumentation was exceptionally good, and the loss of the MPS system total temperature thermocouple from run 73 on did not present any problems.

REFERENCES

IL, SAS/AERO/74-079, "Mounting Strut Requirements for Plume Pressure Models."

IL, SAS/AERO/74-118, "Wind Tunnel Test Requirements for IA19."

IL, SAS/WTO/74-254, "Model Design Requirements for the 0.02-Scale Jet Plume 88-OTS Space Shuttle Wind Tunnel Model" and Addenda #1, #2, #3, and #4.

IL, SAS/WTO/74-290, "Available Mylar Orbiter Drawings."

IL, SAS/WTO/74-344, "Orbiter Vehicle Wind Tunnel Model Lines."

IL, SAS/WTO/74-367, "Calibrations of 88-OTS SRB and MPS Flow-Through Nozzles."

IL, SAS/AERO/74-422, "Airloads Unit Data Processing Requirements for Tests IA81 and IA19."

IL, SAS/AERO/74-298, "Wind Tunnel Test Requirements for IA80 (Pressure Test with MPS and SRM Exhaust Plume Simulations, Elevon and Engine Nozzle Hinge Moments, and Wing and Vertical Root Bending and Torsion Loads)," 5-31-74.

IL, SAS/AERO/SL/74-055, "ET Wind Tunnel Model Requirements" and "SRB Wind Tunnel Model Requirements," 7-10-74, and 7-18-74.

IL, SAS/AERO/SL/74-060, "Model Requirements for Design of Orbiter Umbilical Doors," 8-16-74.

IL, SAS/AERO/74-465, "SSME and RCS Plume Simulation Nozzles for Integrated Vehicle Loads Tests (IA19A, B, and IA80); Two Percent Model," 7-10-74.

IL, SAS/AERO/SL/74-082, "Elevon Deflection Requirements for Tests IA80 and 82," 9-26-74.

IL, SAS/AERO/SL/74-086, "New Instrumentation for Models 88 and 75 OTS," 10-11-74.

IL, SAS/AERO/SL/74-085, "Internal Nozzle Contours for WTT IA80," 10-1-74.

Report, SD74-SH-0276, "Pretest Information for Test IA19 of the 0.02-Scale 88-OTS Jet Plume Space Shuttle Model in the 11 x 11-Foot Leg of the NASA/ARC Unitary Plan Wind Tunnel," 9-3-74.

REFERENCES (Concluded)

IL, SAS/WTO/74-254, Addendum #5, "Additions to Model Design Requirements," 10-2-74.

IL, SAS/WTO/74-254, Addendum #6, "Model Requirements for Test IA80 of the 0.02-Scale Jet Plume 88-OTS SSV Model," 10-14-74.

SD74-SH-0311, "Pretest Information for Test IA80 of the 0.020-Scale 88-OTS Jet-Plume Space Shuttle Vehicle Model in the 11X11-Foot Leg of the NASA/ARC Unitary Plan Wind Tunnel," 28 September 1974.

SD75-SH-0117, "Pretest Information for Test IA72 of the 0.020-Scale 88-OTS Configuration 140C (Modified) Integrated Space Shuttle Vehicle Jet-Plume Model in the NASA/ARC UPWT 11-By-11-Foot Leg for Determination of Aspiration-Induced Nozzle Gimbal-Moments and ET Base Cooling," May 5, 1975.

TABLE I.

TEST : IA72

DATE : 6-16-75

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.90	2.8×10^6/ft.	3.3	80
↓	4.0	4.9	↓
1.10	4.2	5.8	
1.25	4.2	6.2	
1.40	4.5	6.3	

BALANCE UTILIZED: NONE

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF			
SF			
AF			
PM			
RM			
YM			

COMMENTS:

TABLE II.

TEST: ARC 11-472-1 (E472) DATA SET RUN NUMBER COLLATION SUMMARY DATE: 10/22/72 REVISED

DATA SET IDENTIFIER	CONFIGURATION	SCHD.	PARAMETERS/VALUES													NO.	MACH NUMBERS				TEST RUN NUMBERS
*ME 01	QTS-1	D	E	47	C	D	1	46	40	48	2	5	0			1				2	
02					284	E														3	
03					189	C														4	
04					122	D														5	
05					298	E														18	
06					202															19	
07					128	Y														20	
08					0	0													6		
09					227	E													7		
10					149														8		
11					100	Y													9		
12					237	G													21		
13					158														22		
14					106	Y													23		
15					0	0												10			
16					190	H												11			
17					132	I												12			
Y 18	Y	Y	Y	Y	97	J	Y	Y	Y	Y	Y	Y	Y			Y		13			

* SEE PAGE 73 FOR DATA SET IDENTIFIERS AND COEFFICIENT SCHEDULES

1 13 19 25 31 37 43 49 55 61 67 75 76

P_c/P_∞ SRB SCHEDULES

COEFFICIENTS

B = 125, 152, 131 C = 112, 123, 144, 163, 172
D = 119, 130, 148, 160, 167 E = 75, 98
F = 92, 102, 113, 123 G = 57, 75 H = 63, 68, 78

IDVAR(11) I = 65, 75, 85, 95 J = 58, 69, 76, 88, 92

IDVAR(12) K = 38, 48

NEW M = 25, 33, 45, 54, 66, 81, 94 N = 18, 21 P = 18, 22, 18 Q = 21

GIMBAL CODE	δ_1	δ_2	δ_3	δ_4	δ_5	δ_6
1	U16	U10	U10	0	0	(U8.82, L14.5)
2	(U21, R8)	(U10, L8)	(U10, R8)	L8	R8	↓

GIMBAL CODE	δ_1	δ_2	δ_3	δ_4	δ_5	δ_6
3	(U21, R8)	(U2, L4)	(U18, R4)	D8	(U7.4, L8)	(U8.82, L14.5)
4	↓	↓	↓	U8	(D4, R4)	↓

U = UP, D = DOWN, L = LEFT, R = RIGHT

TABLE II. (Continued)

TEST: ARC-11-072(IA72)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 10/22/75 REVISED

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES P_T	P_2/P_∞	P_c/P_∞	δ_{1A-D}	δ_1	δ_2	δ_3	δ_4/δ_5	δ_{EI}	δ_{EO}	NO. OF RUNS	MACH NUMBERS 0.9	1.1	1.25	1.4
*NE*19	ØTS-1	0	0	14.7	200	K	1	U16	U10	U10	0	8	0	1		24		
20					134	R										25		
21				↓	98	↓										26		
22				10	0	0									14			
23					127	M									15			
24					95										16			
25					70	↓									17			
26					136	N									27			
27					102	P									28			
↓ 28	↓	↓	↓	↓	73	Q	↓	↓	↓	↓	↓	↓	↓	↓	29			

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS

α OR β SCHEDULES

IDVAR (1) IDVAR (2) NDV

TABLE II. (Continued)

TEST: ARC 11-072-1 (IA72) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE: 10/22/75 REVISED

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES: MPS	SRB	δ_1	δ_2	δ_3	δ_4	δ_5	δ_6	δ_7	δ_8	NO. SET	MACH NUMBERS: 3.9	1.1	1.25	1.2
*NE*29	ØTS-1	0	0	VARY1	OFF	U16	U10	U10	0	0	8	0	1	1	30	31	32	33
30		0	0	OFF	VARY2										37	36	35	34
31		A	-4		OFF										40	43	46	47
32			0												39	42	45	48
33			4	Y	Y										38	41	44	49
34			-4	N	N										59	56	53	50
35			0												60	57	54	51
36			4	Y	Y							Y			61	58	55	52
37			-4	OFF	OFF							4			80	74	68	62
38			0												81	75	69	63
39			4	Y	Y										82	76	70	64
40			-4	N	N										83	77	71	65
41			0												84	78	72	66
42			4	Y	Y						Y				85	79	73	67
43			-4	OFF	OFF						C				86	92	98*	104
44			0												87	93	99	105
Y 45	Y	Y	4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	88	94	100	106

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

α OR β SCHEDULES

COEFFICENTS

$VARY_1 = <N, N, >N, >>N$ (MPS)

$VARY_2 = <N, N, >N$ (SRB)

IDVAR (1) IDVAR (2) NDV

α Ⓐ = -6, -4, 0, 2

* NO α = -6°

TABLE II. (Continued)

TEST: ARC 11-672-1 (IA72)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 10/22/75 REVISED

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MPS	SRB	δ_1	δ_2	δ_3	δ_4	δ_5	δ_{EI}	δ_{EO}	δ IM-BAL	NO. OF RUNS	MACH NUMBERS 0.9	1.1	1.25	1.4
*NE*46	ØTS-1	A	-4	N	N	U16	U10	U10	0	0	0	4	1	4	89	95	101	107
47			0												90	96	102	108
48			4												91	97	103	109
49			-4	OFF	OFF	U21 R8	U10 L8	U10 R8	L8	R8	8		2		128	122	116	110
50			0												129	123	117	111
51			4												130	124	118	112
52			-4	N	N										131	125	119	113
53			0												132	126	120	114
54			4												133	127	121	115
55	ØTS-2 (HEAT SHIELD ON)	0	0												141	139	137	135
56		0	0	OFF	OFF										140	138	136	134
57	ØTS-1	A	-4				U2 L4	U18 R4	D8	U7.4 L8			3	3	160	166	172	
58			0												161	167*	173	
59			4												162	168	174**	
60			-4	N	N										163	169	175	
61			0												164	170	176	
62			4												165	171	177*	

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

* NO $\alpha = -4^\circ$

** NO $\alpha = 0^\circ$

TABLE II. (Concluded)

TEST: ARC 11-072-1 (IA72)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: 10/22/75 REVISED

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES MPS	SRB	δ_1	δ_2	δ_3	δ_4	δ_5	δ_{EI}	δ_{EO}	GMR-BRL	NO. OF RUNS	MACH NUMBERS 0.9	1.1	1.25	1.4
**NE*63	ØTS-1	A	-4	OFF	OFF	U21 R8	U2 L4	U18 R4	U8	D4 R4	8	4	4	3	142	148	154	
64			0												[illegible]	[illegible]	155	
65			4															
66			-4	N	N										145**	151	157	
67			0												146**	152	158	
68			4												147	153	159	

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

** α = 0 ONLY

*** n.a. α = -6°

TABLE III
MODEL DIMENSIONAL DATA

MODEL COMPONENT: ATTACH STRUCTURE - AT_{28}

GENERAL DESCRIPTION: Rear orbiter to ET attach structure (left & right hand)

2 members

MODEL SCALE: 0.020

MODEL DRAWING NO.: _____

DRAWING NO.: VL78-000063, -000062B

DIMENSIONS:

MEMBER		FULL SCALE		MODEL SCALE
#1	X_o	1317.00		26.34
	Y_o	- 96.50	(LH)	- 1.930
		96.50	(RH)	1.930
	Z_o	267.50		5.350
	X_T	2058.00		41.16
	Y_T	-125.68	(LH)	- 2.514
		125.68	(RH)	2.514
	Z_T	515.5		10.310
#2	X_o	1317.00		26.34
	Y_o	- 96.50	(LH)	-1.930
		96.50	(RH)	1.930
	Z_o	267.50		5.350
	X_T	1872.0		37.44
	Y_T	-125.68	(LH)	-2.514
		125.68	(RH)	2.514
	Z_T	504.5		10.090
Diameter, In. #1		11.5		0.230
#2		15.5		0.310

TABLE III (Cont'd)

MODEL COMPONENT: ATTACH STRUCTURE - AT 31

GENERAL DESCRIPTION: Rear ET to SRB attach structure (LH & RH) (3 members)

MODEL SCALE: 0.020 MODEL DRAWING: _____

DRAWING NO.: VL78-000063, -000062B, -000066

DIMENSIONS:

MEMBER		FULL SCALE	MODEL SCALE
#1	X_T	2058.00	41.16
	Y_T	-171.50 (LH)	-3.430
		171.50 (RH)	3.430
	Z_T	457.00	9.140
	X_s	1511.00	30.22
	Y_s	53.24	1.064
	Z_s	57.00	1.140
#2	X_T	2058.00	41.16
	Y_T	-163.85	-3.277
	Z_T	449.81	8.996
	X_s	1511.00	30.22
	Y_s	76.56	1.531
	Z_s	15.73	0.315
#3	X_T	2058.00	41.16
	Y_T	-161.72	3.234
	Z_T	343.00	6.860
	X_s	1511.0	30.22
	Y_s	53.24	1.065
	Z_s	- 57.00	- 1.140

Diameter of members, In.:			
	#1	_____	_____
	#2	_____	_____
	#3	_____	_____

TABLE III (Cont'd.)

MODEL COMPONENT: ATTACH STRUCTURE - AT32

GENERAL DESCRIPTION: Forward orbiter/ET attach structure (2 member structure)

MODEL SCALE: 0.020

DRAWING NO.: VL78-000062B, Martin Marietta 8260020914

DIMENSIONS:

	MEMBER		FULL SCALE	MODEL SCALE
	#1	X_o	388.15	7.763
		Y_o	0.0	0.0
Attach point on orbiter Z_T= 614.		Z_o	LWR ML	LWR ML
		X_T	1129.9	22.598
		Y_T	46.50	0.930
Attach point on tank		Z_T	562.58	11.252
	#2	X_o	388.15	7.763
		Y_o	0.0	0.0
		Z_o	LWR ML	LWR ML
		X_T	1129.9	22.598
		Y_T	-46.50	- 0.930
		Z_T	562.58	11.252
Diameter, In.	#1		6.0	0.120
	#2		6.0	0.120

TABLE III. (Cont'd)

MODEL COMPONENT : BODY - B_{62}

GENERAL DESCRIPTION : Configuration 140C orbiter fuselage, MCR 200-R4. Similar to 140A/B fuselage except aft body revised &improved midbody-wing-boot fairing, X_o = 940 to X_o = 1040.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-000140C, -000202C, -000205A
VL70-000200B, -000203

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (IML: Fwd Sta X_o=238), In.	1290.3	25.806
Length (OML: Fwd Sta X_o = 235), In.	1293.3	25.866
Max Width (At X_o = 1528.3), In.	264.0	5.280
Max Depth (At X_o = 1464), In.	250.00	5.00
Fineness Ratio (OML Length/Max. Width)	4.899	4.899
Area - Ft^2		
Max. Cross-Sectional	340.885	0.136
Planform		
Wetted		
Base		

TABLE III (Cont'd)

MODEL COMPONENT : CANOPY - C_{12}

GENERAL DESCRIPTION : Configuration 140C orbiter canopy, vehicle cabin updated to MCR 200-R4. Used with fuselage B_{62}.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-000140C, -000202B, -000204

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (X_o = 434.645-578), In.	143.357	2.867
Max Width (At X_o = 513.127), In.	152.412	3.048
Max Depth (At Z_o = 501 to 449.39), In.	51.61	1.032
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (Cont'd)

MODEL COMPONENT: ELEVON - E_{52}

GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at X_o = 1387, elevon split line X_o = 312.5, 6.0" gaps, beveled edges, and centerbodies.

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000140C, -006089, -006092, SS-A01260

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Area - Ft^2	210.0	0.084
Span (equivalent), In.	349.2	6.984
Inb'd equivalent chord, In.	118.0	2.360
Outb'd equivalent chord, In.	55.19	1.104
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.2096	0.2096
At Outb'd equiv. chord	0.4004	0.4004
Sweep Back Angles, degrees		
Leading Edge	0.0	0.0
Tailing Edge	- 10.056	- 10.056
Hingeline	0.0	0.0
Area Moment (Product of area & $\bar{c}$) ~~(Normal to hinge line)~~ Ft^3	1587.25	0.0127
Mean Aerodynamic Chord, In.	90.7	1.814
Hingeline dihedral (origin at Z_o = 261.3509), deg.	5.229	5.229

TABLE III. (Cont'd)

MODEL COMPONENT : BODY FLAP - F_{10}

GENERAL DESCRIPTION : Configuration 140C body flap. Hingeline located at X_o = 1532, Z_o = 287.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-000140C, -355114

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (X_o = 1525.5 to X_o = 1613), In.	87.50	1.750
Max Width (At L.E., X_o = 1525.5), In.	256.00	5.12
Max Depth (X_o = 1532), In.	19.798	0.594
Fineness Ratio		
Area - Ft^2		
Max. Cross-Sectional (At H.L.)	35.196	0.0140
Planform	135.00	0.0540
Wetted		
Base (X_o = 1613)	4.89	0.196

TABLE III (Cont'd)

MODEL COMPONENT: FEEDLINE - FL_{10}

GENERAL DESCRIPTION: LH_2 feedline on upper left-hand side of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	2071.5	41.430
	Y_T	- 70.0	-1.40
	Z_T	573.934	11.479
Trailing edge at:	X_T	2081.8	41.636
	Y_T	-70.00	-2.10
	Z_T	584.059	11.681
Line diameter (17.0 I.D.)		18.160	0.363

TABLE III (Cont'd)

MODEL COMPONENT: FEEDLINE - FL_{11}

GENERAL DESCRIPTION: LOX feedline on upper right-hand of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1000.667	20.013
	Y_T	70.00	1.40
	Z_T	150.519	3.010
Trailing edge at:	X_T	2071.5	41.430
	Y_T	70.00	1.400
	Z_T	573.934	11.479
Line diameter (17. - I.D.)		(O.D.) 18.16	0.363

TABLE III (Cont'd)

MODEL COMPONENT: FAIRING - FR_{10}

GENERAL DESCRIPTION: Umbilical door fairing between aft ET/orbiter attach structure.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Leading edge at X_T	2052.0	41.040
Length	193.00	3.860
Width	15.00	0.300

TABLE III (Cont'd)

MODEL COMPONENT : OMS POD - M_{16}

GENERAL DESCRIPTION : Configuration 140C orbiter OMS pod - short pod.

MODEL SCALE: 0.020

DRAWING NUMBER : VL70-008401, -008410

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta X_o = 1310.5), In.	258.50	5.170
Max Width (At X_o = 1511), In.	136.8	2.736
Max Depth (At X_o = 1511), In.	74.70	1.494
Fineness Ratio	2.484	2.484
Area - Ft^2	58.864	0.024
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III (Cont'd)

MODEL COMPONENT: MPS NOZZLES - N_{87}

GENERAL DESCRIPTION: Flow-through MPS nozzles.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01279

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO. 1.55, 2.0, 2.2, 2.6, 3.0, 3.5		
Length - In.		
Gimbal Point to Exit Plane	157.0	3.140
Throat to Exit Plane	181.55	3.631
Diameter - In.		
Exit	90.435	1.809
Throat	23.350	0.467
Inlet		
Area - ft^2		
Exit	44.607	0.078
Throat	2.974	0.00198
Gimbal Point (Station) - In.		
Upper Nozzle		
X_o	1445.00	28.90
Y_o	0.0	0.0
Z_o	443.00	8.860
Lower Nozzles		
X_o	1468.17	29.363
Y_o	± 53.0	±1.06
Z_o	342.64	6.853
Null Position - Deg.		
Upper Nozzle		
Pitch	16	16
Yaw	0	0
Lower Nozzle		
Pitch	10	10
Yaw	0	0

TABLE III (Cont'd)

MODEL COMPONENT: SRB NOZZLES - N_{88}

GENERAL DESCRIPTION: Flow-through SRB nozzle simulator = 7.0 prototype.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01281

DIMENSIONS:

	FULL SCALE	MODEL SCALE
MACH NO. 1.55, 2.0, 2.2, 2.6, 3.0, 3.5		
Length - In.		
Gimbal Point to Exit Plane	86.8	1.736
Throat to Exit Plane	112.135	2.243
Diameter - In.		
Exit	144.290	2.886
Throat	64.53	1.291
Inlet		
Area - ft^2		
Exit	356.738	0.143
Throat	22.712	0.009
Gimbal Point (Station) - In.		
~~Upper Nozzle~~		
X_B	1902.6	38.052
Y_B	250.2	5.010
Z		
Lower Nozzles		
X		
Y		
Z		
Null Position - Deg.		
~~Upper Nozzle~~ Upper Nozzle		
Pitch 1	0	0
Yaw	0	0
Lower Nozzle		
Pitch		
Yaw		

TABLE III (Cont'd)

MODEL COMPONENT: OMS NOZZLE - N_{89}

GENERAL DESCRIPTION: OMS Nozzle in stowed position which is outboard 8 deg and down 7 deg from null position. Use with M_{16}.

MODEL SCALE: 0.020

DRAWING NUMBER: SS-A01279

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	56.0	1.12
Throat to Exit Plane		
Diameter - In.		
Exit	50.0	1.00
Throat		
Inlet		
Area - ft^2		
Exit		
Throat		
Gimbal Point (Station) - In.		
~~Upper Nozzle~~		
X_o	1518.00	30.360
Y_o	88.00	1.76
Z_o	492.0	9.840
Lower Nozzles		
X		
Y		
Z		
Null Position - Deg.		
~~Upper Nozzle~~		
Pitch	15°49'	15°49'
Yaw	6°30	6°30'
Lower Nozzle		
Pitch		
Yaw		

TABLE III (Cont'd)

MODEL COMPONENT: ELECTRICAL TUNNEL - PS_{11}

GENERAL DESCRIPTION: Tunnel running longitudinally on the SRB for electrical wires.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Width, In.	5.70	0.114
Radius, In.	5.70	0.114
Height, In.	4.70	0.094
Leading edge at Sta.	494.70	9.894
L.E. sweepback angle, deg.	30.00	30.0

TABLE III (Cont'd)

MODEL COMPONENT: CIRCUMFERENTIAL STIFFENER - PS_{12}

GENERAL DESCRIPTION: Four ring stiffeners located at the aft end of the solid rocket boosters. The stiffener is a curved l-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Height, In.		2.5	0.05
Length, In.		2.0	0.04
Locations;	$X_B =$	1602.00	32.04
		1644.00	32.88
		1729.00	34.58
		1771.00	35.42

TABLE III (Cont'd)

MODEL COMPONENT: CIRCUMFERENTIAL STIFFENER - PS_{13}

GENERAL DESCRIPTION: Ring stiffener located at the point where the skirt flares. The stiffener is I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Height, In.		6.50	0.130
Length, In.		4.00	0.080
Location centerline	X_B	1833.70	36.674

TABLE III (Cont'd)

MODEL COMPONENT: SOLID ROCKET BOOSTER, EXTERNAL TANK ATTACH - PS_{14}

GENERAL DESCRIPTION: Two-ring stiffeners located at aft end of solid rocket boosters. The stiffener is curved I-beam.

MODEL SCALE: 0.020

DRAWING NO.: VC77-000002

DIMENSIONS:		FULL SCALE	MODEL SCALE
Height, In.		8.00	0.160
Length, In.		3.00	0.060
Location centerline	X_B	1511.00	30.22

TABLE III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCE - PS_{17}

GENERAL DESCRIPTION: Electrical connecting box mounted on top of PS_{14}.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Width, In.	60.0	1.20
Depth, In.	17.5	0.35

Centerline of box located 15° inboard from vertical plane of symmetry.

TABLE III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCE - PS_{18}

GENERAL DESCRIPTION: Tie-down fixtures mounted on the aft skirt. Total of four mounted 30° on both sides of vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Sta. of L.E. (X_B)	1861.2	37.224
Sta. of T.E. (X_B)	1925.2	38.504
Max. Width, In.	14.2	0.284
Height, In.	8.3	0.166

TABLE III (Cont'd)

MODEL COMPONENT: SRB PROTUBERANCES - PS_{19}

GENERAL DESCRIPTION: Aft separation motor pod mounted on aft skirt at 20° inboard from top vertical plane of symmetry.

MODEL SCALE: 0.020

DRAWING NO.: None

DIMENSIONS:

	FULL SCALE	MODEL SCALE
Width, In.	14.0	0.28
Height, In. (at T.E.)	19.0	0.38
Sweepback of L.E., Deg.	15.0	15.0

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT_{22}

GENERAL DESCRIPTION: Left-hand electrical conduit line on T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, VL78-000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1084.333	21.687
	Y_T	- 99.591	- 1.992
	Z_T	-139.620	- 2.792
Trailing edge at:	X_T	2058.00	41.160
	Y_T	- 99.591	- 1.992
	Z_T	-139.620	- 2.792
Line diameter		2.0x6.0	0.04x0.12.

Centerline of line located radially at $\emptyset$= 35.5°

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT_{23}

GENERAL DESCRIPTION: LOX recirculation line on right-hand upper side of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1040.667	20.813
	Y_T	94.169	1.883
	Z_T	540.934	11.819
Trailing edge at:	X_T	2062.920	41.258
	Y_T	70.000	1.400
	Z_T	573.934	11.479
Line diameter		4.0	0.080

Centerline of line located radially at Ø= 35°45'

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT_{24}

GENERAL DESCRIPTION: LH_2 recirculation line on T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1040.667	20.813
	Y_T	- 94.169	-1.883
	Z_T	540.934	11.819
Trailing edge at:	X_T	2062.920	41.258
	Y_T	- 70.000	-1.400
	Z_T	573.934	11.479
Line diameter		4.0	0.080

Centerline of line located radially at $\emptyset$= 33°45'

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT_{25}

GENERAL DESCRIPTION: Right-hand aft electrical conduit line on T_{28} with LH_2 pressure sensor line and LOX vent valve actuator line.

MODEL SCALE: k 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	1084.333	21.687
	Y_T	99.591	1.992
	Z_T	139.620	2.792
Trailing edge at:	X_T	2058.000	41.160
	Y_T	99.591	1.992
	Z_T	139.620	2.792
Line diameter		2.0 x 6.0	0.04 x 0.12

Centerline of line located radially at $\emptyset$= 35.5°

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCES - PT_{26}

GENERAL DESCRIPTION: LOX pressure line on the T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000063, -000062B, Martin Marietta 82600207000

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	360.733	7.215
	Y_T	15.145	0.303
	Z_T	407.718	8.154
Trailing edge at:	X_T	2083.5	41.670
	Y_T	63.25	1.265
	Z_T	609.00	12.18
Line diameter		2.0	0.040

Centerline of line located radially at $\emptyset = 27°$

TABLE III (Cont'd)

MODEL COMPONENT: ET PROTUBERANCE - PT_{27}

GENERAL DESCRIPTION: Electrical conduit on the right-hand forward section of T_{28}.

MODEL SCALE: 0.020

DRAWING NO.: VL78-000062B

DIMENSIONS:

		FULL SCALE	MODEL SCALE
Leading edge at:	X_T	360.733	7.215
	Y_T	11.549	0.231
	Z_T	412.474	8.249
Trailing edge at:	X_T	876.273	17.525
	Y_T	226.114	4.522
	Z_T	646.774	12.935
Line diameter			

Centerline of line located radially at Ø= 47.5°

TABLE III (Cont'd)

MODEL COMPONENT: RUDDER - R_5

GENERAL DESCRIPTION: Configuration 140C orbiter rudder (identical to configuration 140A/B rudder)

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000146B, -000095

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Area - F^2	100.15	0.0040
Span (equivalent), In.	201.00	4.02
Inb'd equivalent chord, In.	91.585	1.832
Outb'd equivalent chord, In.	50.833	1.017
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge		
Trailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Product of area and $\bar{c}$) (~~Normal to hinge line~~), Ft^3	610.92	0.0049
Mean Aerodynamic Chord, In.	73.2	1.464

TABLE III (Cont'd)

MODEL COMPONENT : BOOSTER SOLID ROCKET MOTOR - S_{22}

GENERAL DESCRIPTION : The BSRM is an external propulsion system which is jettisoned and recoverable after burnout. The BSRM's can be refurbished and reused after recovery.

MODEL SCALE: 0.020

DRAWING NUMBER : VC77-000002C, VC70-000002A, VC72-000002C

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length , In.	1789.60	35.792
Max Width (Tank Dia.,)In.	146.00	2.92
Max Depth (Aft shroud dia.), In.	208.20	4.164
Fineness Ratio	8.596	8.596
Area - Ft^2		
Max. Cross-Sectional	236.423	0.094
Planform		
Wetted		
Base		
WP of BSRM Centerline (Z_T)	400.0	8.0
FS of BSRM nose (X_T)	743.0	14.860
BP of BSRM centerline (Y_T)	250.5	5.010

TABLE III (Cont'd)

MODEL COMPONENT : EXTERNAL TANK - T_{31}

GENERAL DESCRIPTION : Same as T_{28} less PT_{12}.

MODEL SCALE: 0.020

DRAWING NUMBER : VL72-000143D, VL78-000063
(Dimensions are to tank structural OML, TPS not included)

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length , In.	1844.275	36.886
Max Width (Dia.), In.	331.00	6.62
Max Depth		
Fineness Ratio	5.687	5.687
Area - Ft^2		
Max. Cross-Sectional	594.678	0.2379
Planform		
Wetted		
Base		

TABLE III (Cont'd)

MODEL COMPONENT: VERTICAL - V_8

GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail (identical to configuration 140 A/B vertical tail).

MODEL SCALE: 0.020

DRAWING NUMBER: VL70-000140C, -000146B

DIMENSIONS:	FULL SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo) - Ft^2		
Planform	413.253	0.165
Span (Theo) - In.	315.72	6.314
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep-Back Angles, Degrees.		
Leading Edge	45.00	45.00
Trailing Edge	26.25	26.25
0.25 Element Line	41.13	41.13
Chords:		
Root (Theo) WP	268.50	5.370
Tip (Theo) WP	108.47	2.169
MAC	199.81	3.996
Fus. Sta. of .25 MAC	1463.35	29.267
W.P. of .25 MAC	635.52	12.710
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle - Deg.	10.00	10.00
Trailing Wedge Angle - Deg.	14.92	14.92
Leading Edge Radius	2.00	0.040
Void Area	13.17	0.0053
Blanketed Area	0.0	0.0

TABLE III (Concluded)

MODEL COMPONENT: WING-W_{127}

GENERAL DESCRIPTION: Configuration 140C orbiter wing. MCR 200.R4: similar to 140A/B wing W_{116}, but with refinements. Improved wing-boat-midbody fairing (X_o = 940 to X_o = 1040); elevon split line relocated from Y_o = 281 to Y_o = 312.5

TEST NO.

DWG. NO. VL70-000140C, -000200B

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2 Planform	2690.00	1.076
Span (Theo In.)	936.68	18.733
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	3.000	3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.056	-10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	13.785
Tip, (Theo) B.P.	137.85	2.757
MAC	474.81	9.496
Fus. Sta. of .25 MAC	1136.83	22.737
W.P. of .25 MAC	290.58	5.812
B.L. of .25 MAC	182.13	3.643
EXPOSED DATA		
Area (Theo) Ft^2	1751.50	0.7006
Span, (Theo) In. BP108	720.68	14.414
Aspect Ratio	2.059	2.059
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.09	11.242
Tip 1.00 $\frac{b}{2}$	137.85	2.757
MAC	392.83	7.857
Fus. Sta. of .25 MAC	1185.98	23.720
W.P. of .25 MAC	294.30	5.886
B.L. of .25 MAC	251.77	5.035
Airfoil Section (Rockwell Mod NASA) XXXX-64		
Root $\frac{b}{2}$ =	0.113	0.113
Tip $\frac{b}{2}$ =	0.120	0.120
Data for (1) of (2) Sides		
Leading Edge Cuff Planform Area Ft^2	113.18	0.0453
Leading Edge Intersects Fus M. L. @ Sta	500.00	10.00
Leading Edge Intersects Wing @ Sta	1024.00	20.480

TABLE IV.

NOZZLE OPERATING CONDITIONS

Nozzle Type	M	P_∞ (psia)	P_cNOM (psia)	P_cHIGH (psia)	P_cLOW (psia)
SRM					
	0.90	8.69	314	449 706	-
	1.10	6.88	321	484 797	213
	1.25	5.67	372	612 978	233
	1.40	4.62	410	665 963	249
MPS					
	0.90	8.69	367	472	289
	1.10	6.88	880	1211	646
	1.25	5.67	961	1279	711
	1.40	4.62	909	1260	650

TABLE V.

NOZZLE GIMBAL SCHEDULE

GIMBAL CODE	GIMBAL DEFLECTIONS, deg.					
	δ_1	δ_2	δ_3	δ_4	δ_5	δ_6
1	16 UP	10 UP	10 UP	0	0	8.82 UP 14.5 LEFT
2	21 UP 8 RIGHT	10 UP 8 LEFT	10 UP 8 RIGHT	8 LEFT	8 RIGHT	8.82 UP 14.5 LEFT
3	21 UP 8 RIGHT	2 UP 4 LEFT	18 UP 4 RIGHT	8 DOWN	7.4 UP 8 LEFT	8.82 UP 14.5 LEFT
4	21 UP 8 RIGHT	2 UP 4 LEFT	18 UP 4 RIGHT	8 UP	4 DOWN 4 RIGHT	8.82 UP 14.5 LEFT

TABLE VI

IA72 —— COEFFICIENT SCHEDULE

Dataset Type	Data Set Sequence	1st ID	2nd ID	Coefficients 1	2	3	4	5	6	7	8	9	10
ANEAXX	1-28, 30	MACH	SRBPR	CNW	CBMW	CTMW	XWCP	YWCP					
	29	MACH	MPSPR	CNW	CBMW	CTMW	XWCP	YWCP					
	31-68	MACH	ALPHA	CNW	CBMW	CTMW	XWCP	YWCP					
BNEAXX	1-28, 30	MACH	SRBPR	CYV	CBMV	CTMV	XVCP	YVCP					
	29	MACH	MPSPR	CYV	CBMV	CTMV	XVCP	YVCP					
	31-68	MACH	ALPHA	CYV	CBMV	CTMV	XVCP	YVCP					
CNEAXX	1-28, 30	MACH	SRBPR	CN1N	CZM1N	XZCP1N	CS1N	CYM1N	XYCP1N				
	29	MACH	MPSPR	CN1N	CZM1N	XZCP1N	CS1N	CYM1N	XYCP1N				
	31-68	MACH	ALPHA	CN1N	CZM1N	XZCP1N	CS1N	CYM1N	XYCP1N				
DNEAXX	1-28, 30	MACH	SRBPR	CN2N	CZM2N	XZCP2N	CS2N	CYM2N	XYCP2N				
	29	MACH	MPSPR	CN2N	CZM2N	XZCP2N	CS2N	CYM2N	XYCP2N				
	31-68	MACH	ALPHA	CN2N	CZM2N	XZCP2N	CS2N	CYM2N	XYCP2N				
ENEAXX	1-28, 30	MACH	SRBPR	CN3N	CZM3N	XZCP3N	CS3N	CYM3N	XYCP3N				
	29	MACH	MPSPR	CN3N	CZM3N	XZCP3N	CS3N	CYM3N	XYCP3N				
	31-68	MACH	ALPHA	CN3N	CZM3N	XZCP3N	CS3N	CYM3N	XYCP3N				
FNEAXX	1-28, 30	MACH	SRBPR	CN5N	CZM5N	XZCP5N	CS5N	CYM5N	XYCP5N				
	29	MACH	MPSPR	CN5N	CZM5N	XZCP5N	CS5N	CYM5N	XYCP5N				
	31-68	MACH	ALPHA	CN5N	CZM5N	XZCP5N	CS5N	CYM5N	XYCP5N				
GNEAXX	1-28, 30	MACH	SRBPR	CN6N	CZM6N	XZCP6N	CS6N	CYM6N	XYCP6N				
	29	MACH	MPSPR	CN6N	CZM6N	XZCP6N	CS6N	CYM6N	XYCP6N				
	31-68	MACH	ALPHA	CN6N	CZM6N	XZCP6N	CS6N	CYM6N	XYCP6N				
HNEAXX	1-28, 30	MACH	SRBPR	CHR									
	29	MACH	MPSPR	CHR									
	31-68	MACH	ALPHA	CHR									
INEAXX	1-28, 30	MACH	SRBPR	PC1/P	PC2/P	PC3/P	PC4/P	PC5/P	PEP1	PEP2	PEP3	PEP5	
	29	MACH	MPSPR	PC1/P	PC2/P	PC3/P	PC4/P	PC5/P	PEP1	PEP2	PEP3	PEP5	
	31-68	MACH	ALPHA	PC1/P	PC2/P	PC3/P	PC4/P	PC5/P	PEP1	PEP2	PEP3	PEP5	
JNEAXX	1-28, 30	MACH	SRBPR	CHEI	CHEO								
	29	MACH	MPSPR	CHEI	CHEO								
	31-68	MACH	ALPHA	CHEI	CHEO								

TABLE VI (Continued)

IA72 —— COEFFICIENT SCHEDULE

Dataset Type	Data Set Sequence	1st ID	2nd ID	Coefficients 1	2	3	4	5	6	7	8	9	10
ONEAXX	1-28, 30	MACH	SRBPR	CPBSRB	CPBET	CPBORB							
	29	MACH	MPSPR	CPBSRB	CPBET	CPBORB							
	31-56	MACH	ALPHA	CPBSRB	CPBET	CPBORB							
	57-62	MACH	ALPHA	CPBSRB	CPBORB								
	63-68	MACH	ALPHA	CPBSRB	CPBET	CPBORB							
2NEAXX	1-28, 30	MACH	SRBPR	CPV3A	CPV4A	CPV5A	CPV6A	CPV7A					
	29	MACH	MPSPR	CPV3A	CPV4A	CPV5A	CPV6A	CPV7A					
	31-68	MACH	ALPHA	CPV5A	CPV6A	CPV7A							
RNEAXX	1-28, 30	MACH	SRBPR	CPV8A	CPV11A	CPV13A	CPV14A	CPV17A	CPV18A				
	29	MACH	MPSPR	CPV8A	CPV11A	CPV13A	CPV14A	CPV17A	CPV18A				
	31-68	MACH	ALPHA	CPV8A	CPV11A	CPV13A	CPV14A	CPV17A	CPV18A				
UNEAXX	1-28, 30	MACH	SRBPR	CPV19A	CPV20A	CPV21A	CPV33	CPV34	CPV51	CPV52	CPV57	CPV58	
	29	MACH	MPSPR	CPV19A	CPV20A	CPV21A	CPV33	CPV34	CPV51	CPV52	CPV57	CPV58	
	31-68	MACH	ALPHA	CPV19A	CPV20A	CPV21A	CPV51	CPV52	CPV57	CPV58			
5NEAXX (ORB. FUSELAGE LH)	1-28, 30	MACH	SRBPR	Cp's - function of X_0 (FS), Z_0(FS) (See TABLE VII)									
	29	MACH	MPSPR										
	31-68	MACH	ALPHA										
5NEBXX (ORB. FUSELAGE RH)	1-28, 30	MACH	SRBPR	Cp's - function of X_0(FS),Z_0(FS) (see TABLE VII)									
	29	MACH	MPSPR										
	31-68	MACH	ALPHA										
5NECXX (ORB. FUSELAGE RADIAL)	1-28, 30	MACH	SRBPR	Cp's - function of ϕ_0, X_0(FS) (see TABLE VIII)									
	29	MACH	MPSPR										
	31-68	MACH	ALPHA										
5NEDXX (BODY FLAP UPPER)	1-28, 30	MACH	SRBPR	Cp's - function of X_0(FS), Y_0(FS) (see TABLE VIII)									
	29	MACH	MPSPR										
	31-68	MACH	ALPHA										
5NEEXX (BODY FLAP LOWER)	1-28, 30	MACH	SRBPR	Cp's - function of X_0(FS), Y_0(FS) (see TABLE VIII)									
	29	MACH	MPSPR										
	31-68	MACH	ALPHA										

TABLE VI (Concluded)

Dataset Type	Data Set Sequence	1st ID	2nd ID	Coefficients
5NEFXX (ORB. BASE)	1-28, 30 29 31-68	MACH MACH MACH	SRBPR MPSPR ALPHA	C_p's - function of Y_o(FS), Z_o(FS) (see Table IX)
5NEGXX (ET)	1-28, 30 29 31-68	MACH MACH MACH	SRBPR MPSPR ALPHA	C_p's - function of ϕ_T, X_T(FS) (see Table X)
5NEHXX (ET BASE)	1-28, 30 29 31-68	MACH MACH MACH	SRBPR MPSPR ALPHA	C_p's - function of ϕ_T, R/ROD (see Table X)
5NEIXX (RIGHT SRB BASE)	1-28, 30 29 31-68	MACH MACH MACH	SRBPR MPSPR ALPHA	C_p's - function of ϕ_B, X_B(FS) (see Table X)
5NEJXX (LEFT SRB NOZZLE)	1-28, 30 31-68	MACH MACH MACH	SRBPR MPSPR ALPHA	C_p's - function of ϕ_B, X_S(FS) (see Table XI)

TABLE VII
ORBITER FUSELAGE RECTILINEAR PRESSURE TAP LOCATIONS

X_o(FS)	Z_o(FS)	X_o(MS)	Z_o(MS)	Tap # LH	Tap # RH
380	354	7.60	7.08	--	2*
412	354	8.24	7.08	--	6*
380	363	7.60	7.26	--	4*
412	363	8.24	7.26	--	8*
754	377	15.08	7.54	--	12*
774	377	15.48	7.54	17*	18*
754	388	15.08	7.76	13*	14*
774	388	15.48	7.76	19*	20*
924	351	18.48	7.02	29	30
945	351	18.90	7.02	35	36
924	362	18.48	7.24	31	32
945	362	18.90	7.24	37	38
895	377	17.90	7.54	21	22
915	377	18.30	7.54	25	26
895	388	17.90	7.76	23	24
915	388	18.30	7.76	27	28
985	377	19.70	7.54	39	40
1005	377	20.10	7.54	43	44
985	388	19.70	7.76	41	42
1005	388	20.10	7.76	45	46
1118	377	22.36	7.54	47	48
1138	377	22.76	7.54	53	54
1118	388	22.36	7.76	49	50
1138	388	22.76	7.76	55	56
1381	336	27.62	6.72	75	76
1401	336	28.02	6.72	79	80
1381	349	27.62	6.98	77	78
1401	349	28.02	6.98	81	82
1342	336	26.84	6.72	59	60
1354	336	27.08	6.72	63	64
1342	343	26.84	6.86	61	62
1354	343	27.08	6.86	65	66
1370	309	27.40	6.18	67	68
1377	309	27.54	6.18	71	72
1370	314	27.40	6.28	69	70
1377	314	27.54	6.28	73	74

* Taps 2-20 not recorded.

TABLE VIII. ORBITER FUSELAGE RADIAL AND BODY FLAP PRESSURE TAP LOCATIONS

ORBITER FUSELAGE - RADIAL LOCATIONS

X_o(FS)	X_o(MS)	ϕ_o	TAP #
570	11.40	120°	10*
760	15.20	120°	16*
942	18.84	120°	34
1125	22.50	120°	52
1307	26.14	120°	58
570	11.40	240°	9*
760	15.20	240°	15*
942	18.84	240°	33
1125	22.50	240°	51
1307	26.14	240°	57

* Taps not recorded

ORBITER BODY FLAP

X_o(FS)	Y_o (FS)	X_o(MS)	Y_o(MS)	TAP # UPPER SURF.	TAP # LOWER SURF.
1555	-94.5	31.10	-1.89	700	701
1555	-41.0	31.10	-0.82	704	705
1555	0	31.10	0.0	382	386
1555	41.0	31.10	0.82	708	709
1555	94.5	31.10	1.89	383	388
1590	-94.5	31.80	-1.89	702	703
1590	-41.0	31.80	-0.82	706	707
1590	0	31.80	0.0	384	387
1590	41.0	31.80	0.82	710	711
1590	94.5	31.80	1.89	385	389

TABLE IX. ORBITER BASE PRESSURE TAP LOCATIONS (Concluded)

Y_0(FS)	Z_0(FS)	Y_0(MS)	Z_0(MS)	TAP #
-115.	329.5	-2.30	6.59	379
-21.9	305.	-.438	6.10	717
0	329.5	0	6.59	380
21.9	305.	.438	6.10	718
115.	329.5	2.30	6.59	381
-115.	357.5	-2.30	7.15	716
0	357.5	0	7.15	720
115.	357.5	2.30	7.15	719
-115.	400.	-2.30	8.00	374
0	386.	0	7.72	376
115.	400.	2.30	8.00	378
-104.5	419.	-2.09	8.38	715
-43.5	410.5	-0.87	8.21	375
43.5	410.5	0.87	8.21	377
104.5	419.	2.09	8.38	721
-122.5	444.	-2.45	8.88	372
-86.5	435.	-1.73	8.70	714
86.5	435.	1.73	8.70	722
122.5	444.	2.45	8.88	373
-88.5	459.	-1.77	9.18	713
-50.0	500.	-1.00	10.0	371
50.0	500.	1.00	10.0	370
88.5	459.	1.77	9.18	723
--	--	R.H.OMS	R.H.OMS	724

TABLE X. EXTERNAL TANK AND RIGHT SRB BASE PRESSURE TAP LOCATIONS

EXTERNAL TANK

X_T(FS)	X_T(MS)	ϕ_T							
		0	45°	90°	135°	180°	225°	270°	315°
950	19.0		800*		801*		802*		803*
1900	38.0	518*		521*		804*		515*	
2058	41.16	805		806*		807		808*	

EXTERNAL TANK BASE

R/ROD	ϕ_T							
	0	45°	90°	135°	180°	225°	270°	315°
0	541							
0.45							809*	
.635	810		811		812		813*	
.840	814	815*	816*	817*	818		819	820
.895	821		822*	823	824*			825
.946	826		827*	828*	829**	830*		831
1.00				832*		833*		834

RIGHT SRB BASE

X_B(FS)	X_B(MS)	ϕ_B			
		0	90°	180°	270°
1900	38.0	623	624	621	622**

* taps not recorded

** zero data recorded

TABLE XI. LEFT SRB PRESSURE TAP LOCATIONS

X_B-IN.		ϕ_B - DEGREES															
(MS)	(FS)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
38.052	1902.6	901		902		903		904		905		906		907		908	
39.148	1957.4	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924
39.730	1986.5	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

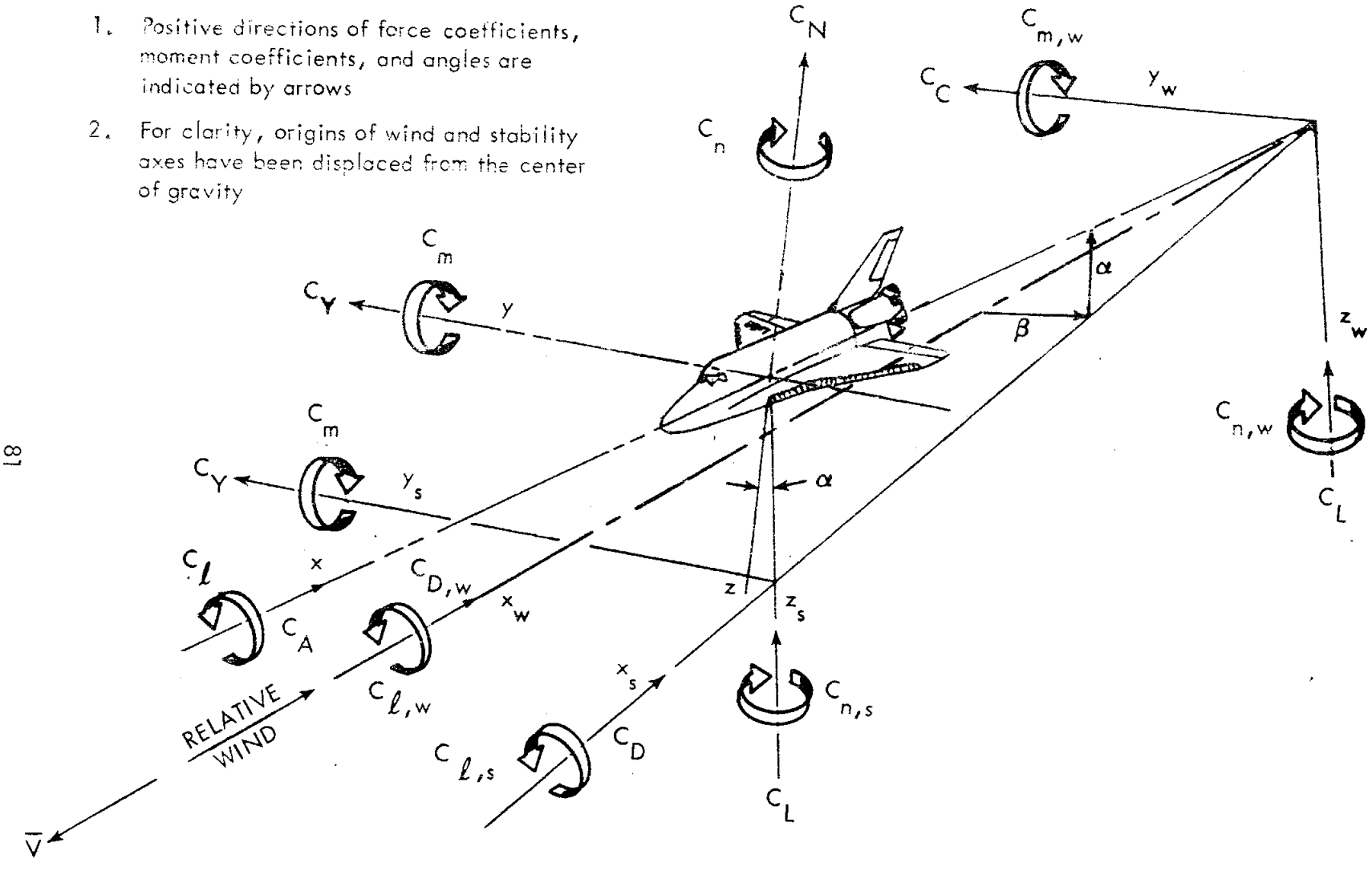
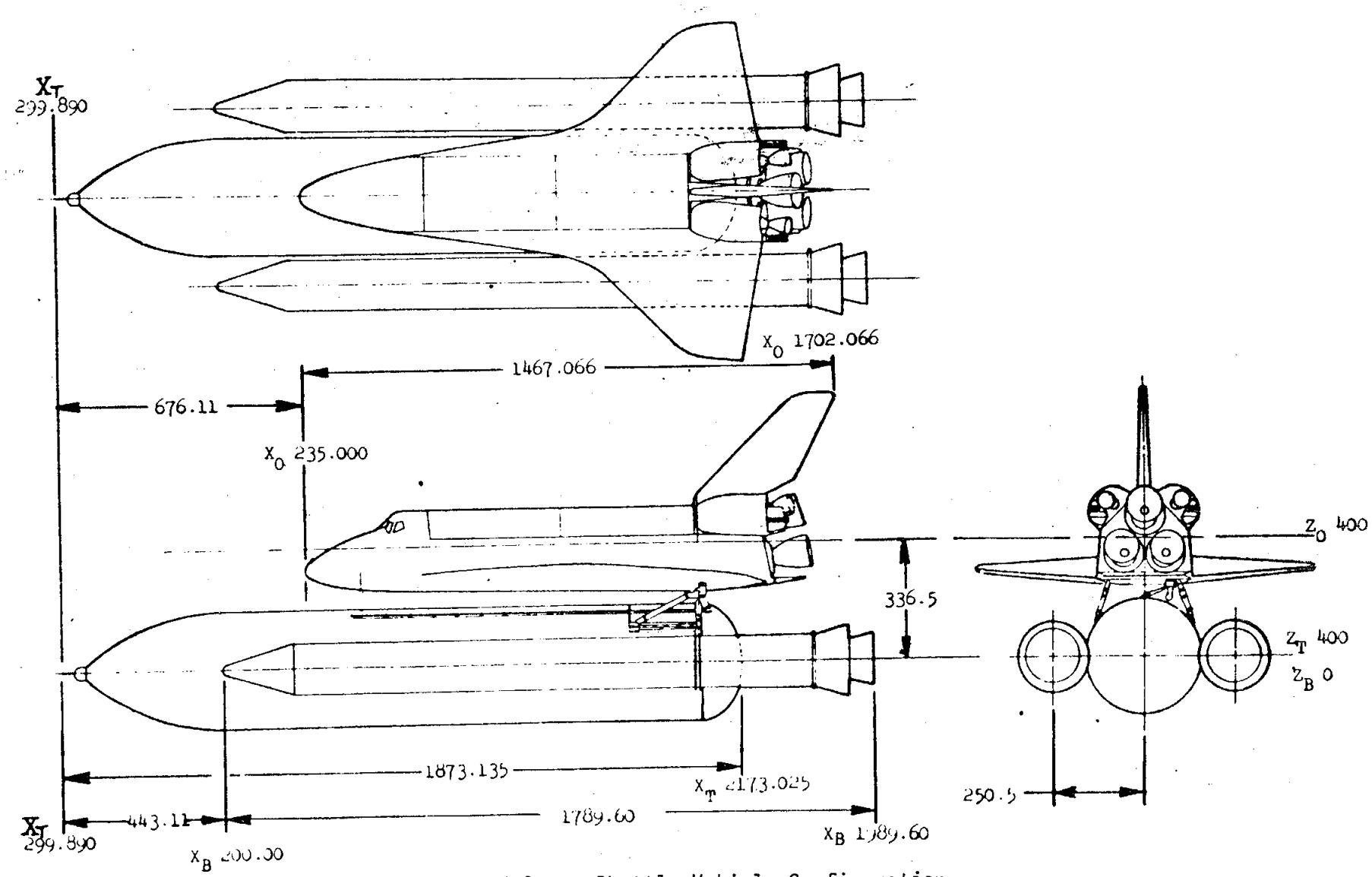
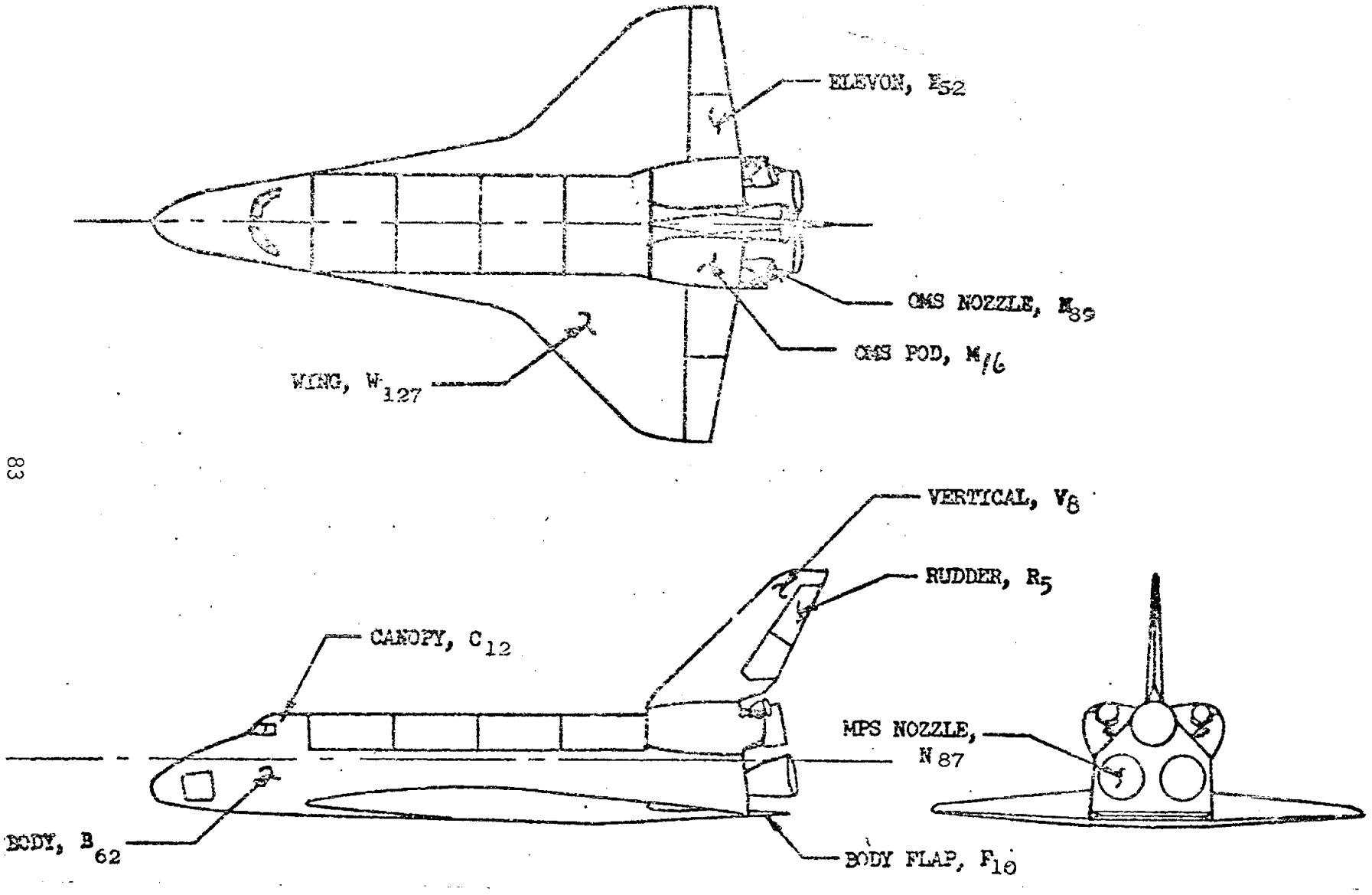


Figure 1. Axis Systems

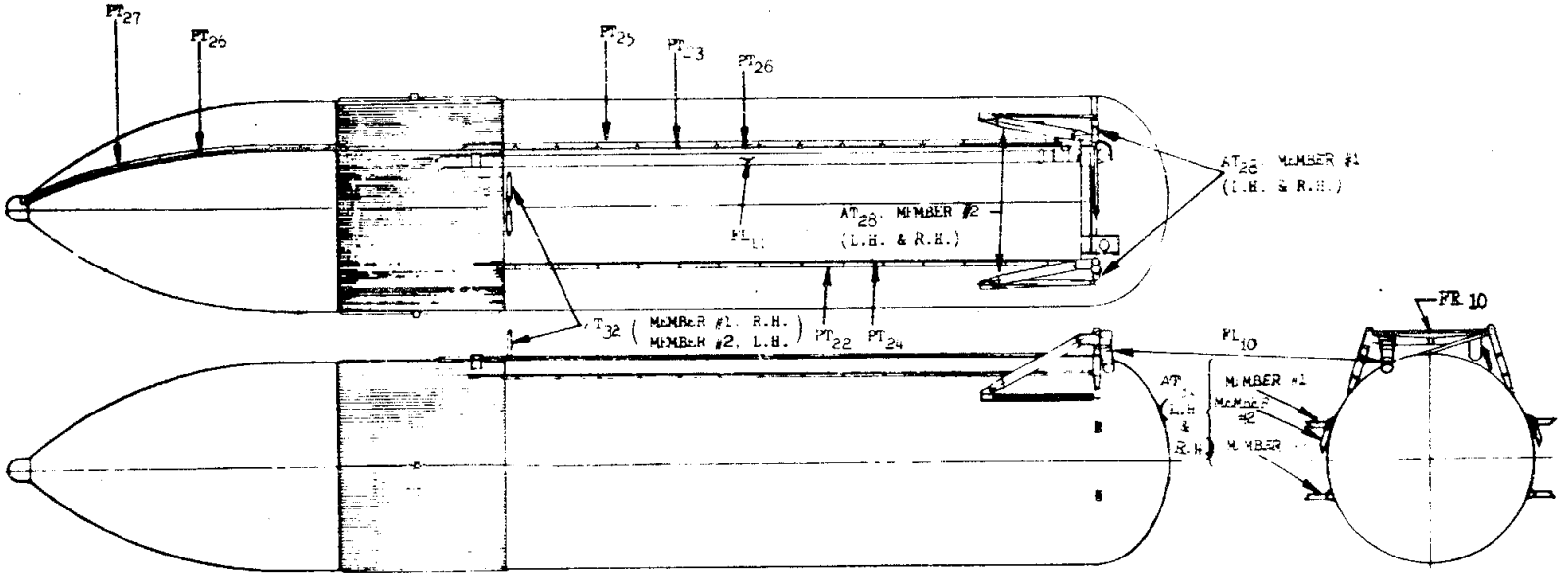


a. Integrated Space Shuttle Vehicle Configuration

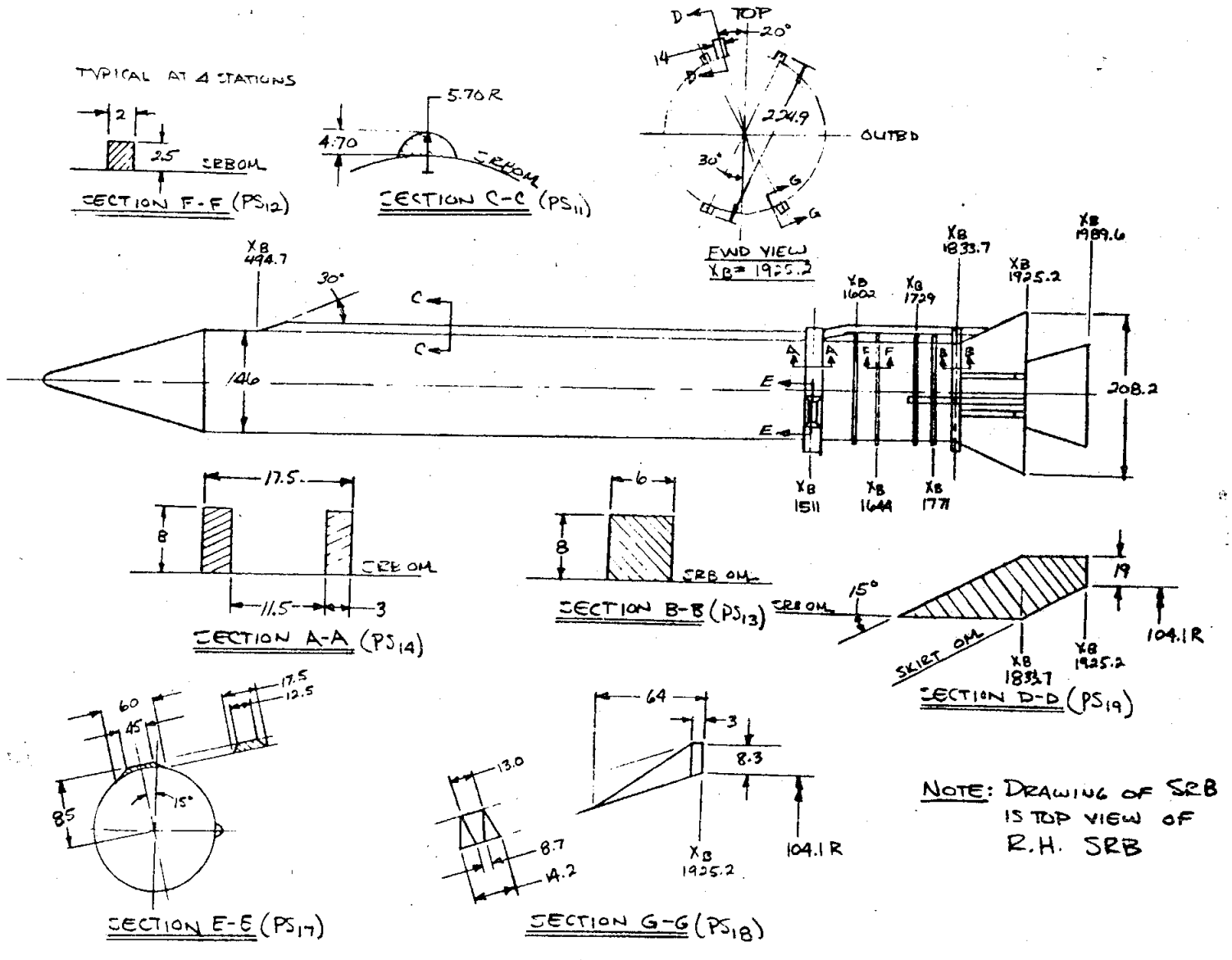
Figure 2. Model Sketches



b. Orbiter Components
Figure 2. Continued.



c. External Tank Protrusions
Figure 2. Continued.



d. SRB Protrusions

Figure 2. Concluded.

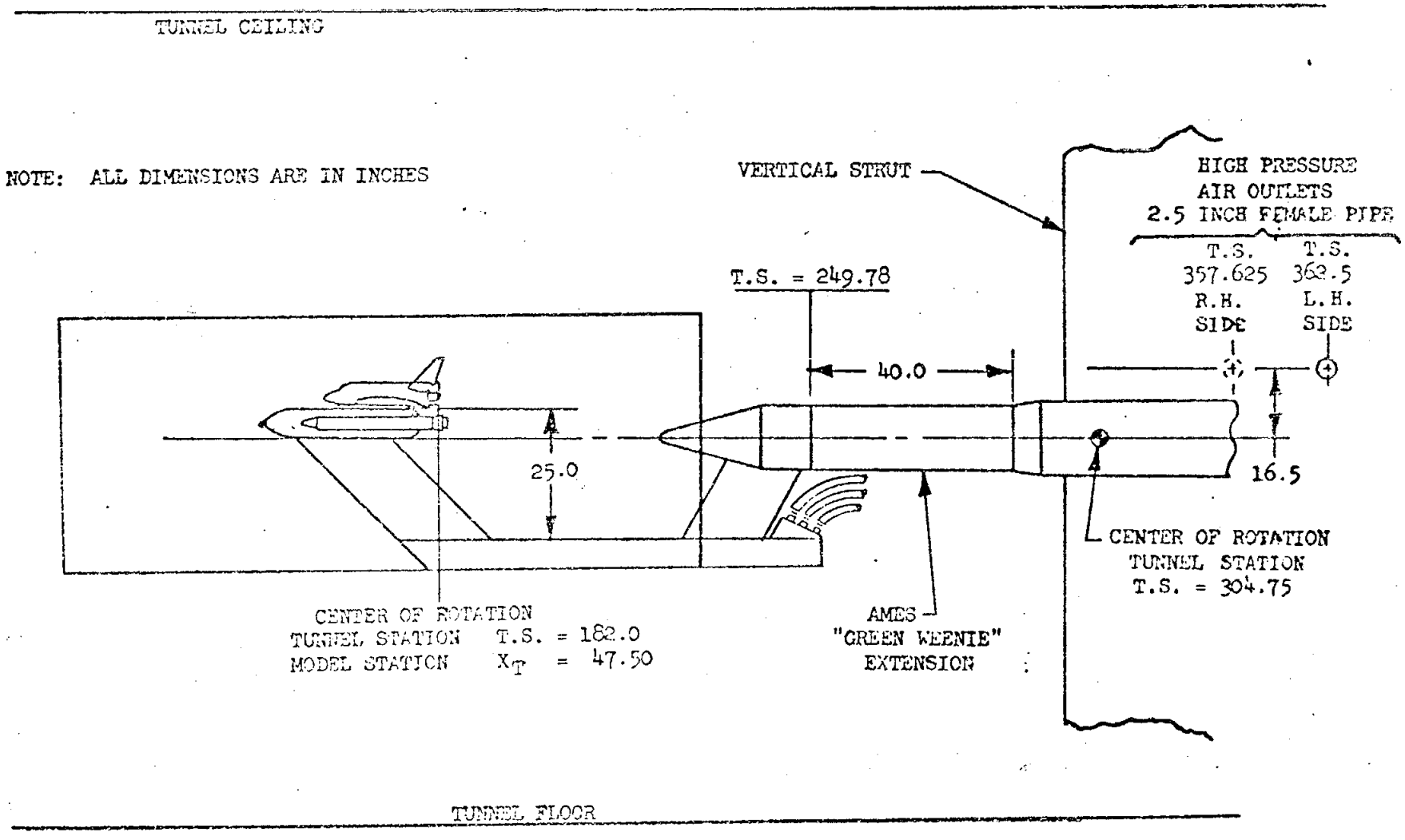


Figure 3. Model Installation

DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ONEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ONEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ONEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

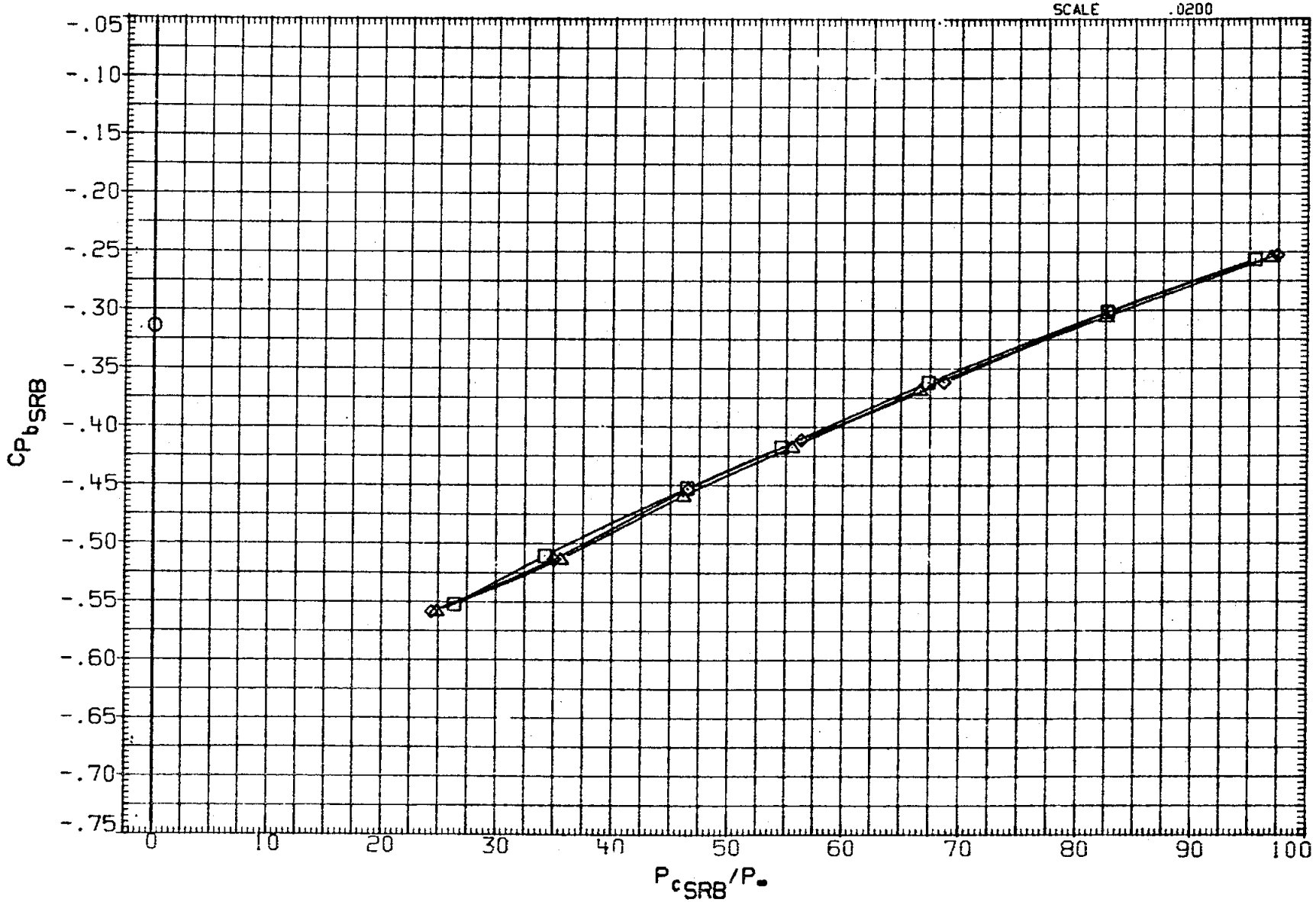


FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ONEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ONEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ONEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

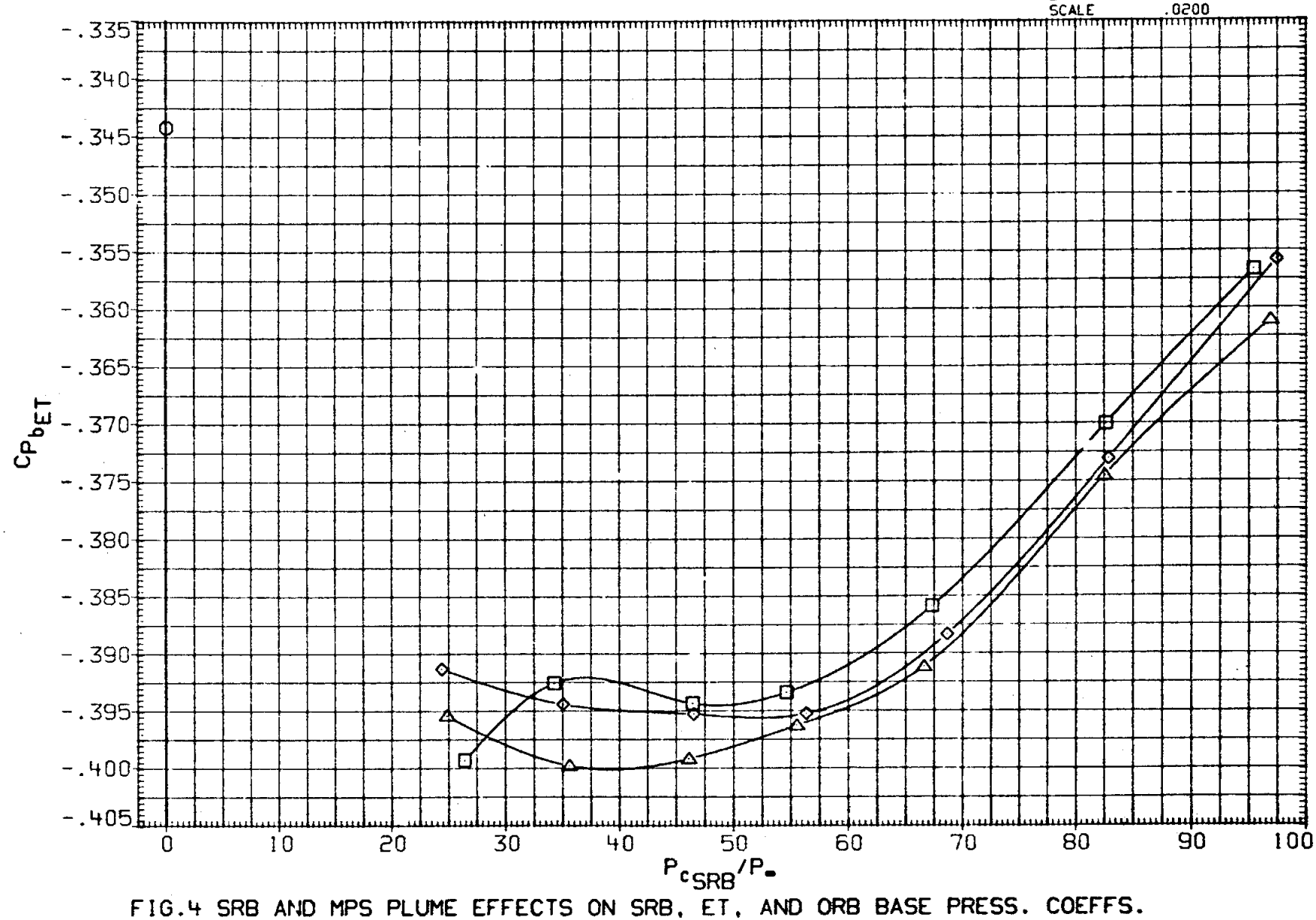


FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A) MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ONEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ONEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ONEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

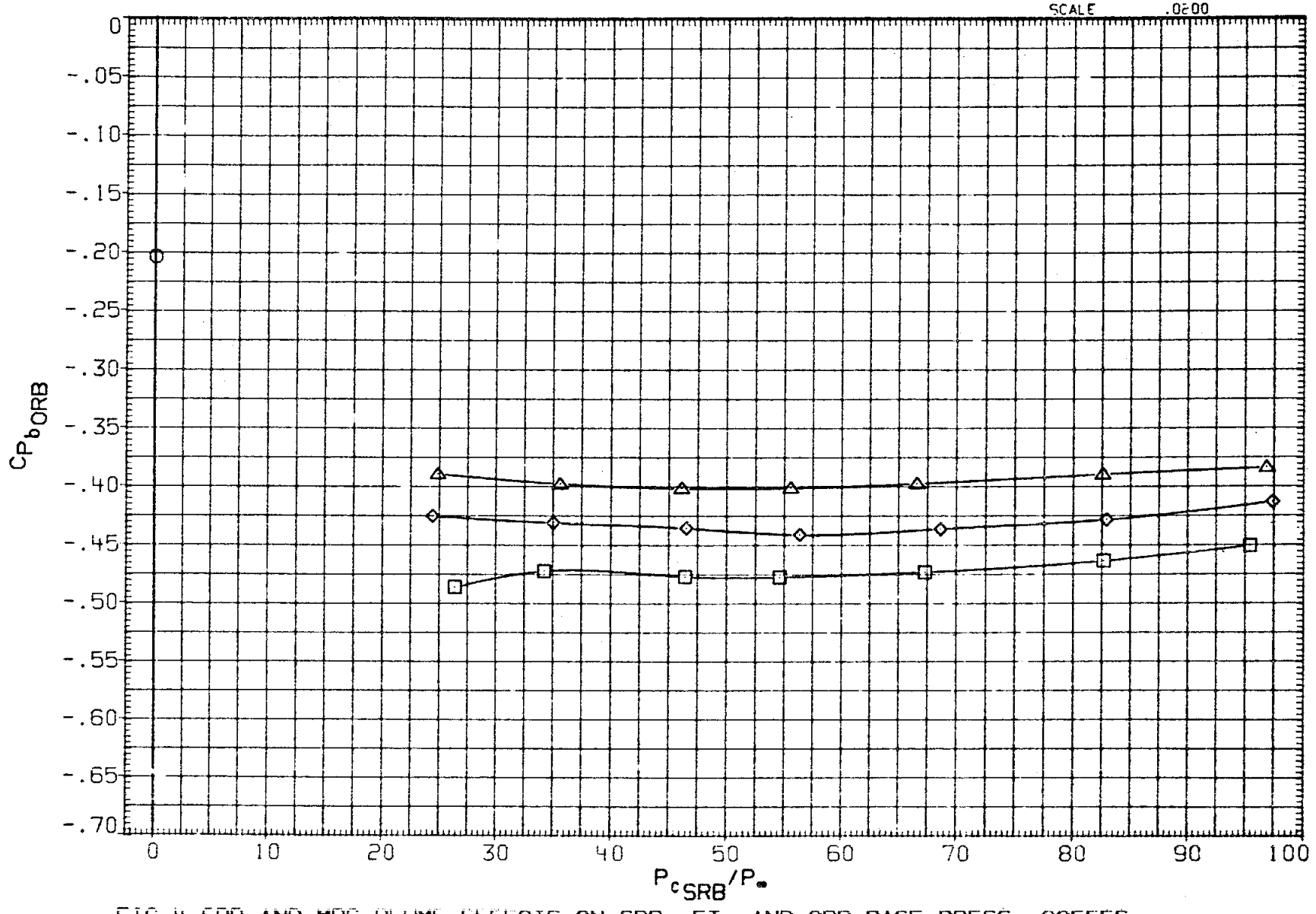


FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA19	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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YMRP	.0000	N.A.
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SCALE	.0200	

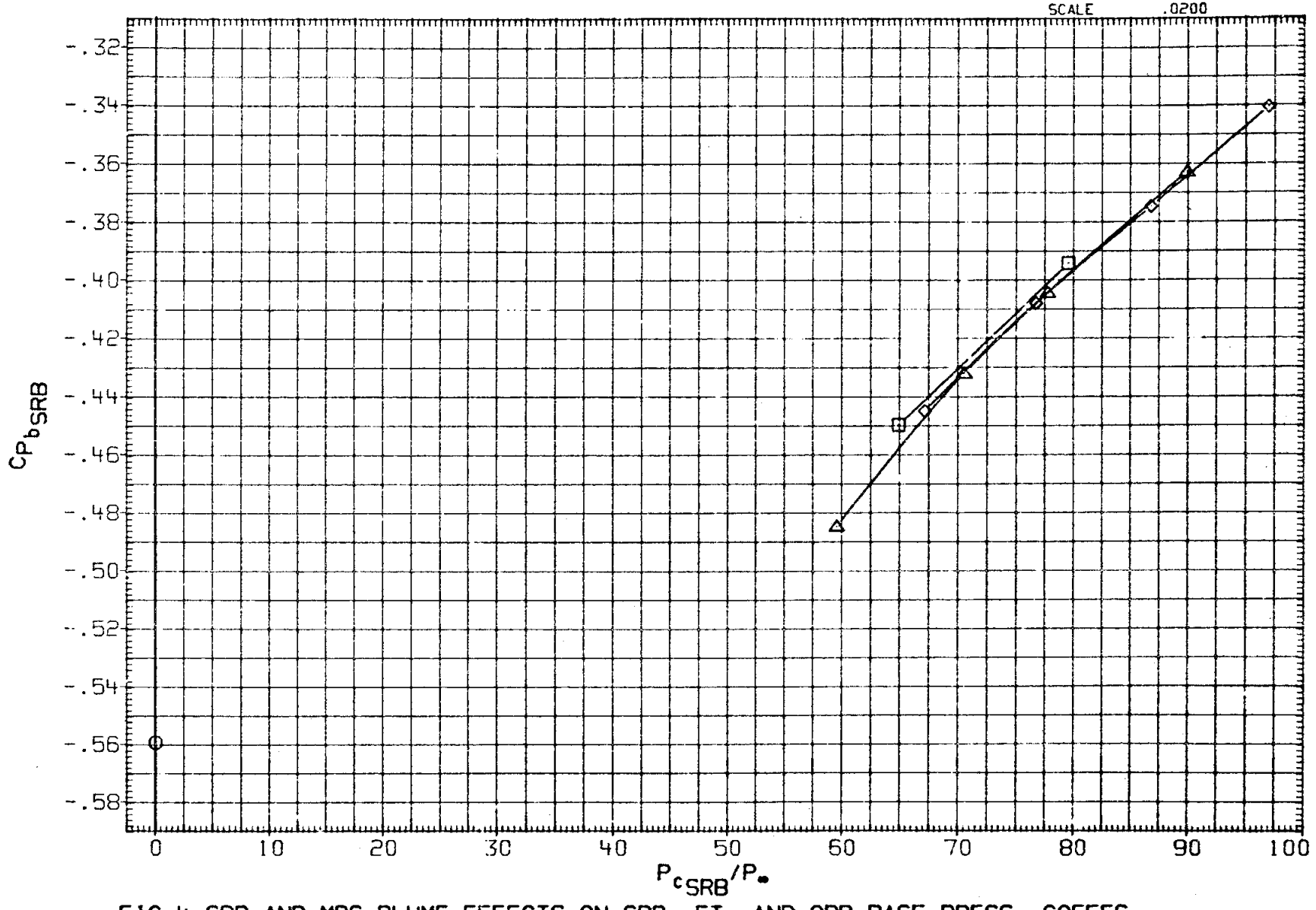

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

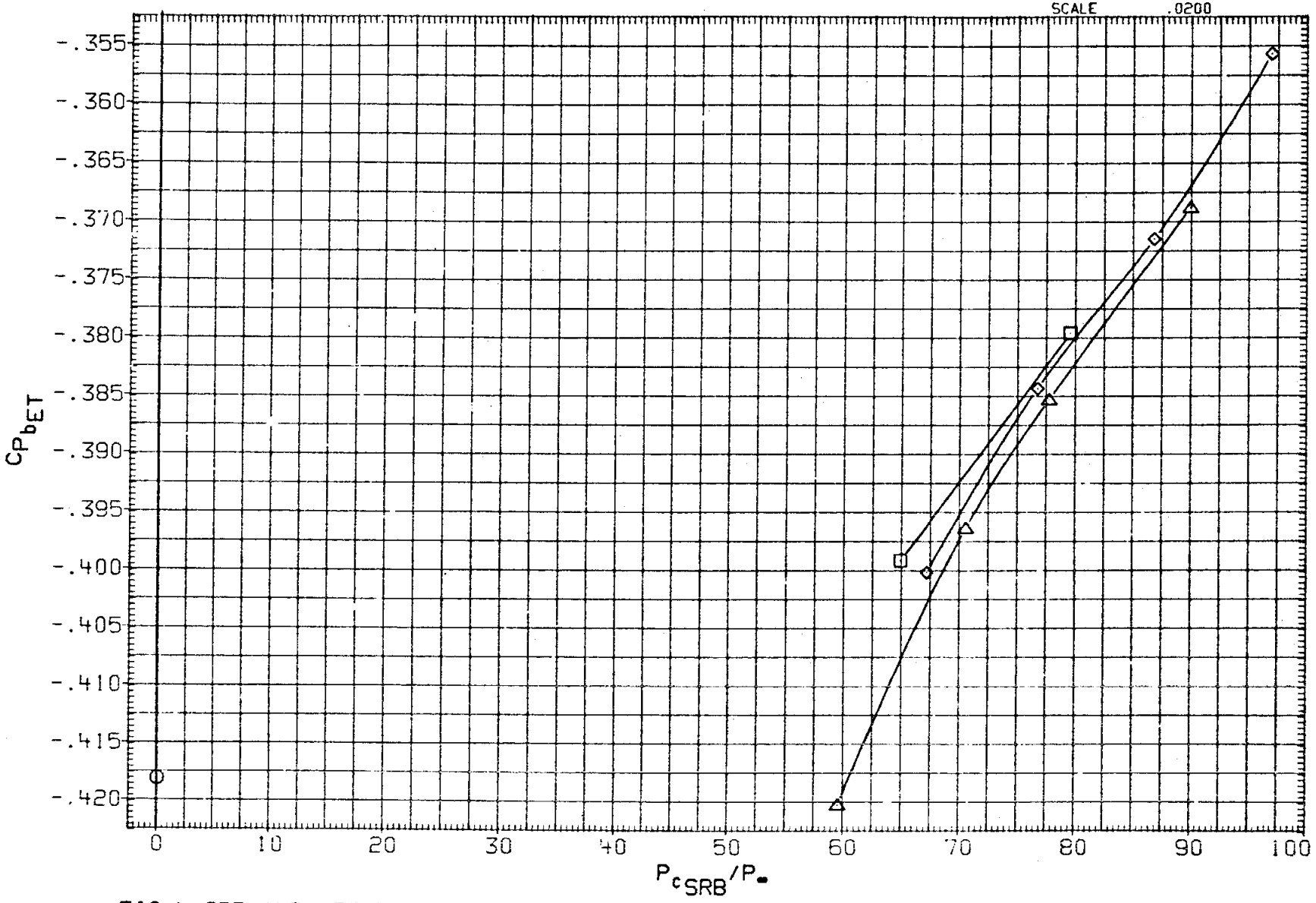

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

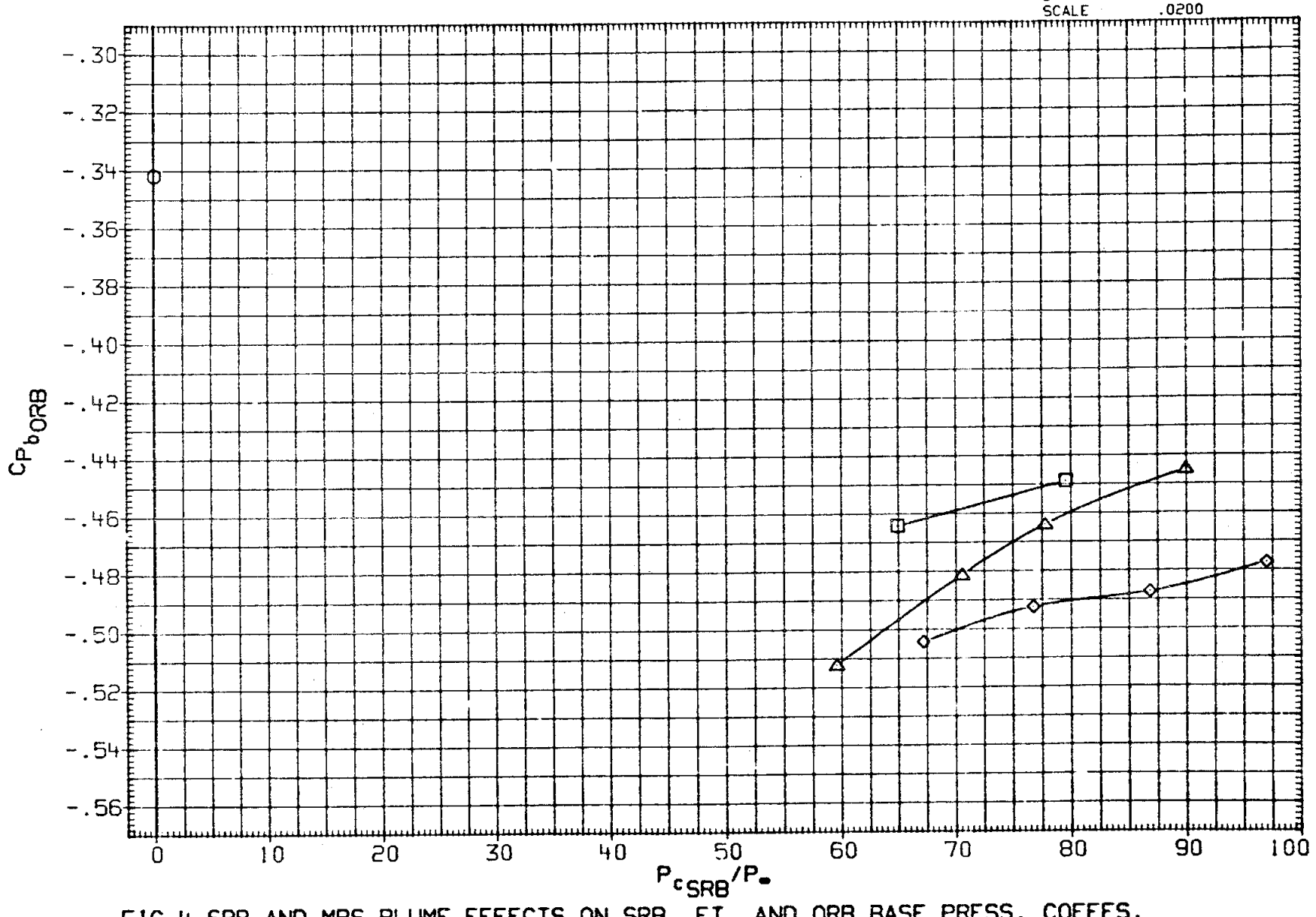

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

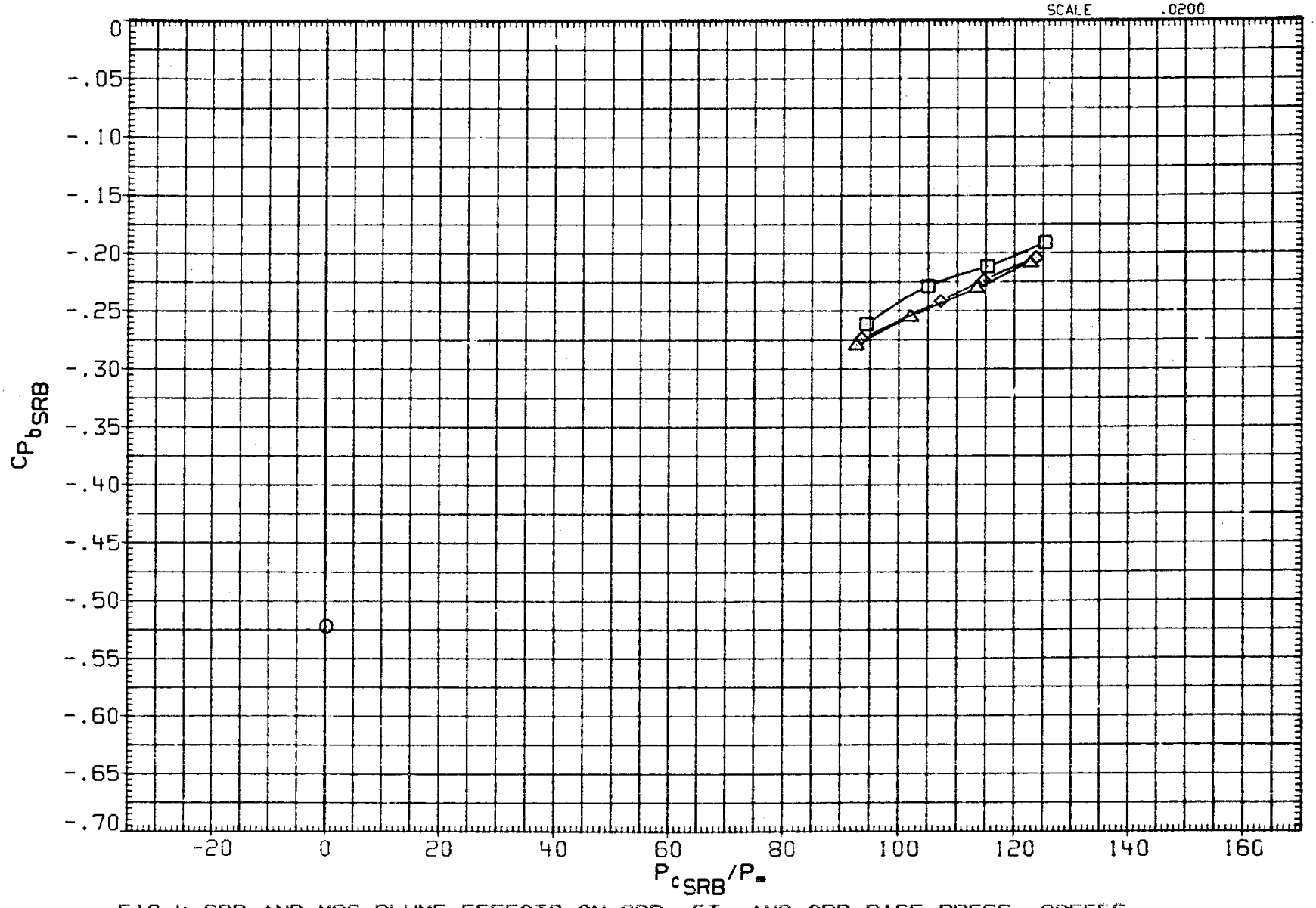

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

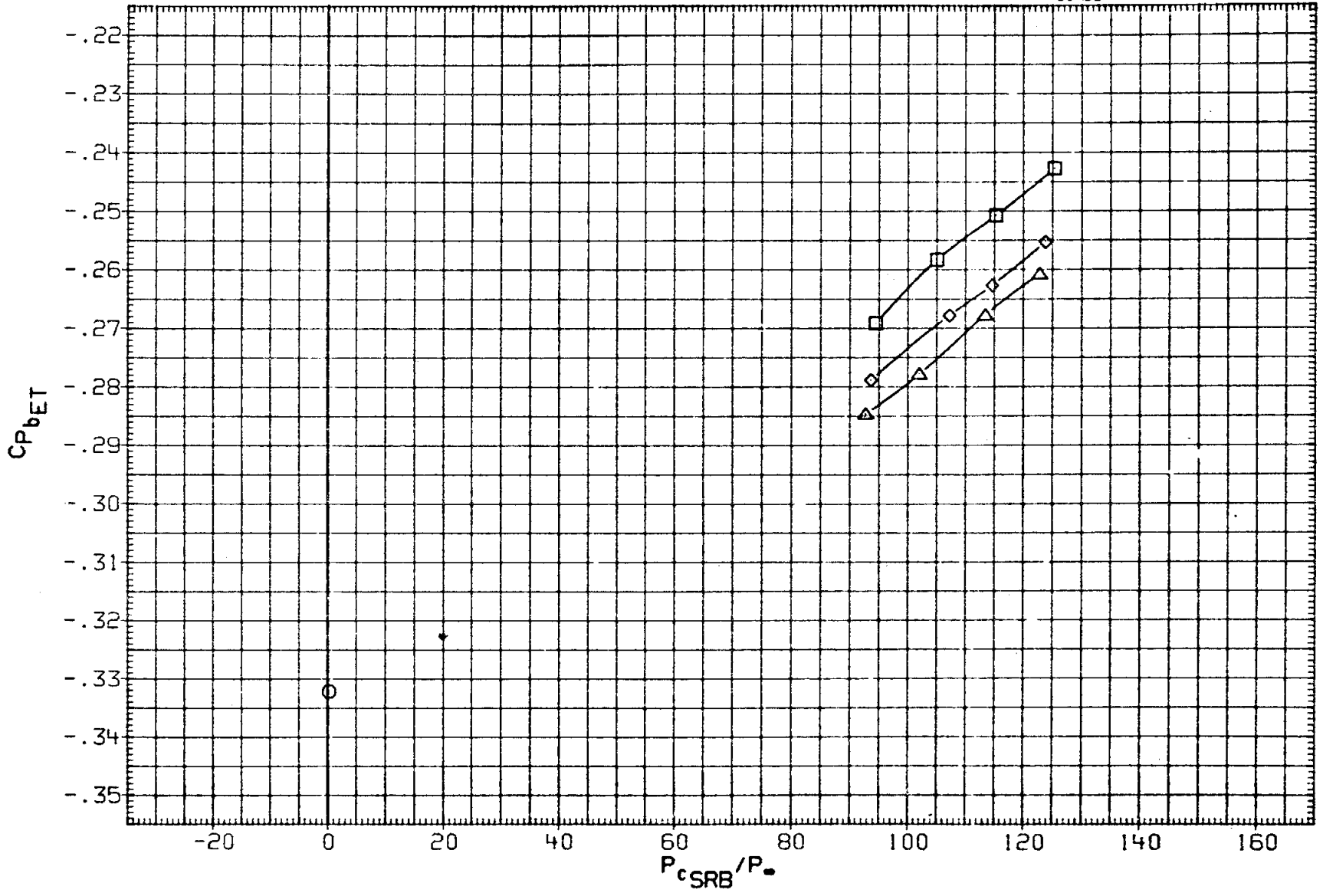

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

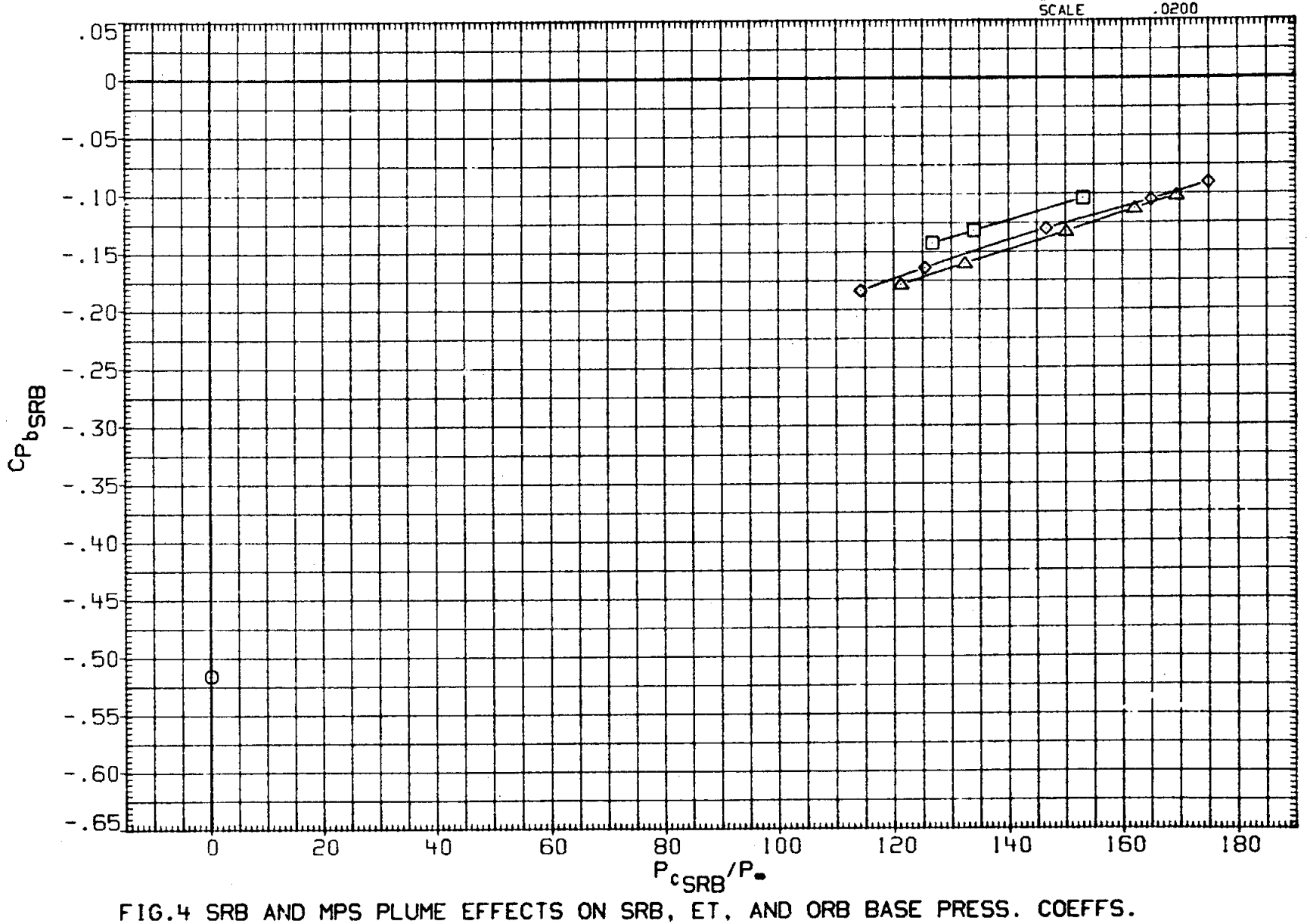

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0000	

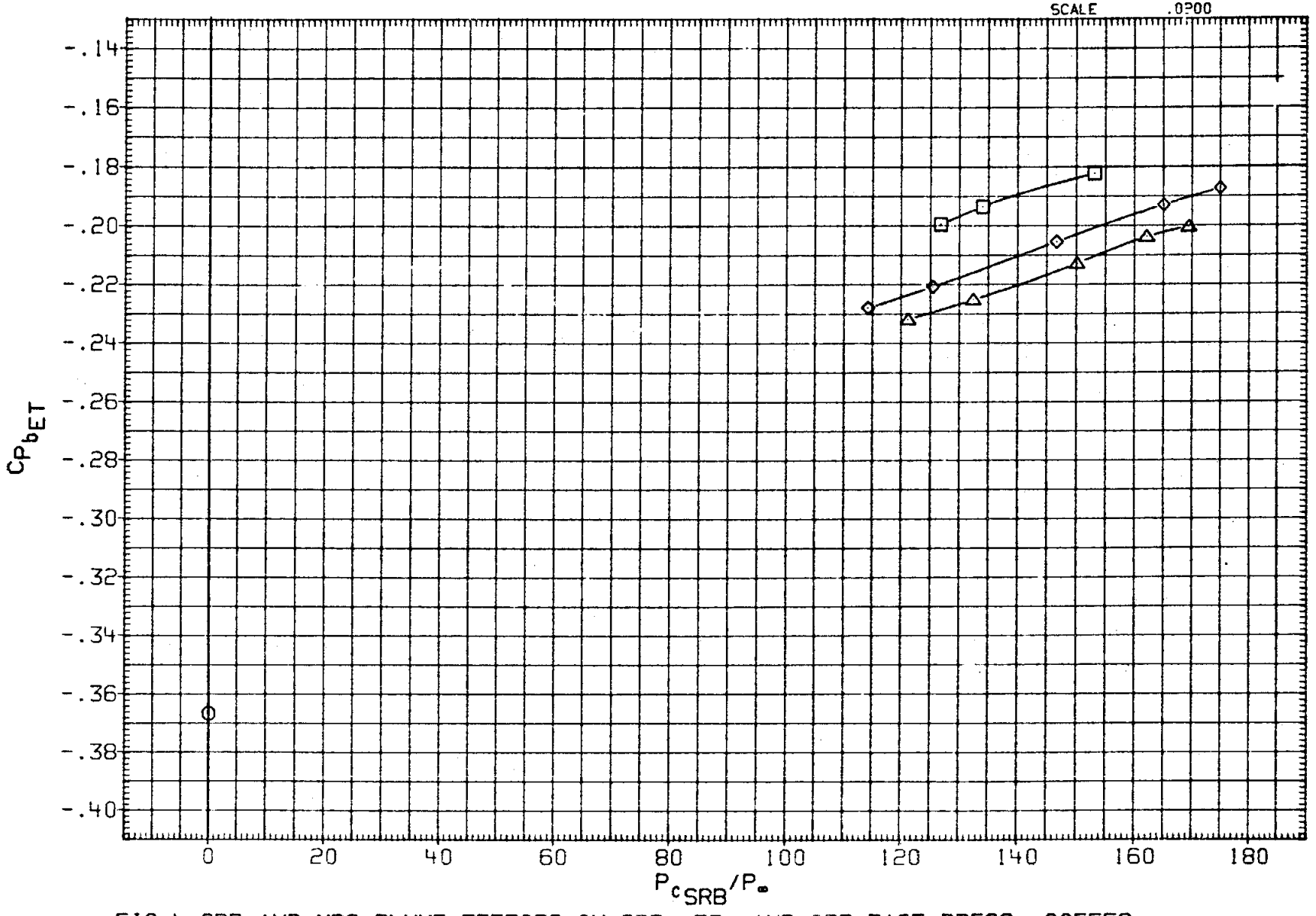

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ONEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ONEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ONEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ONEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

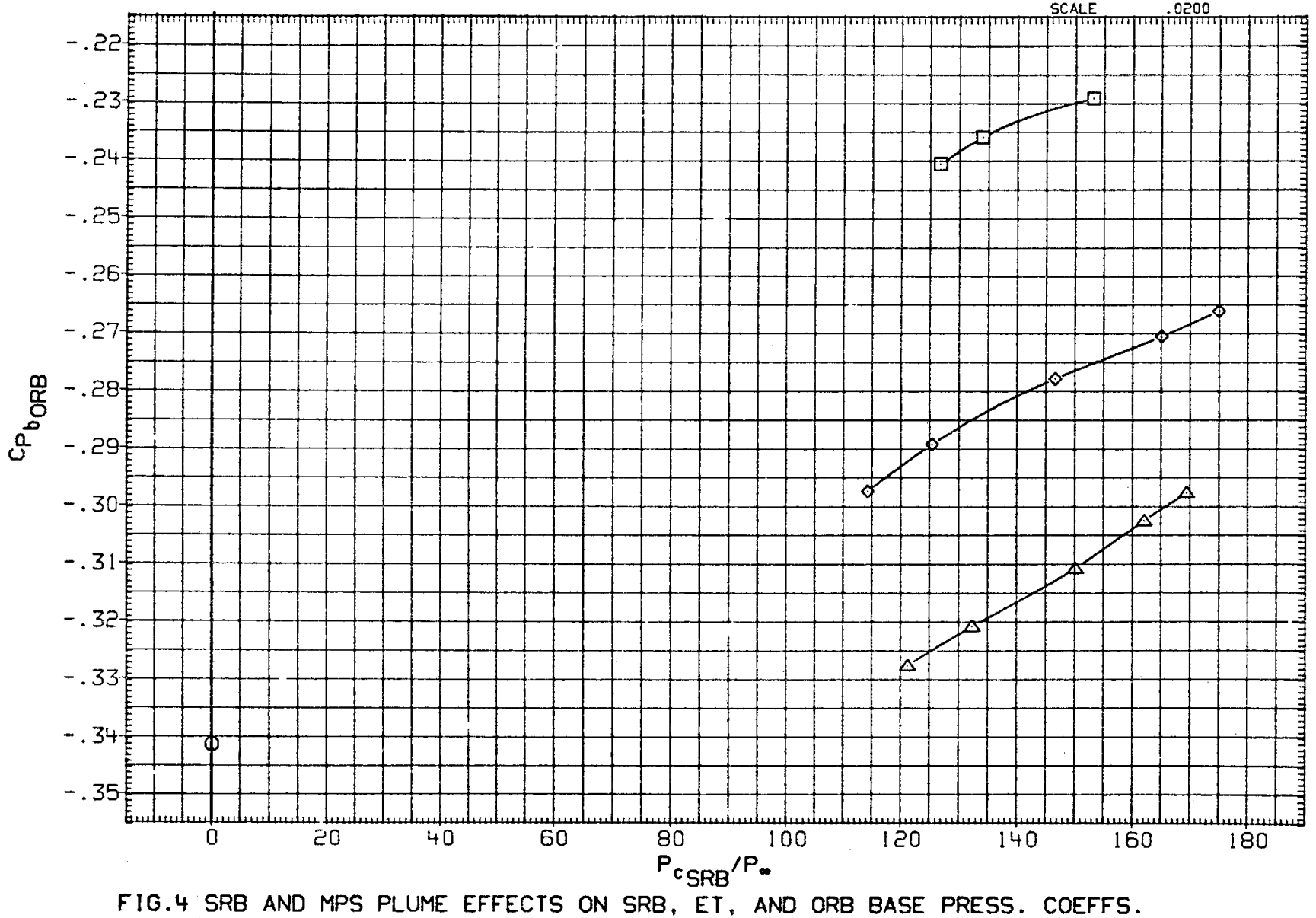

FIG.4 SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ANEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ANEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ANEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

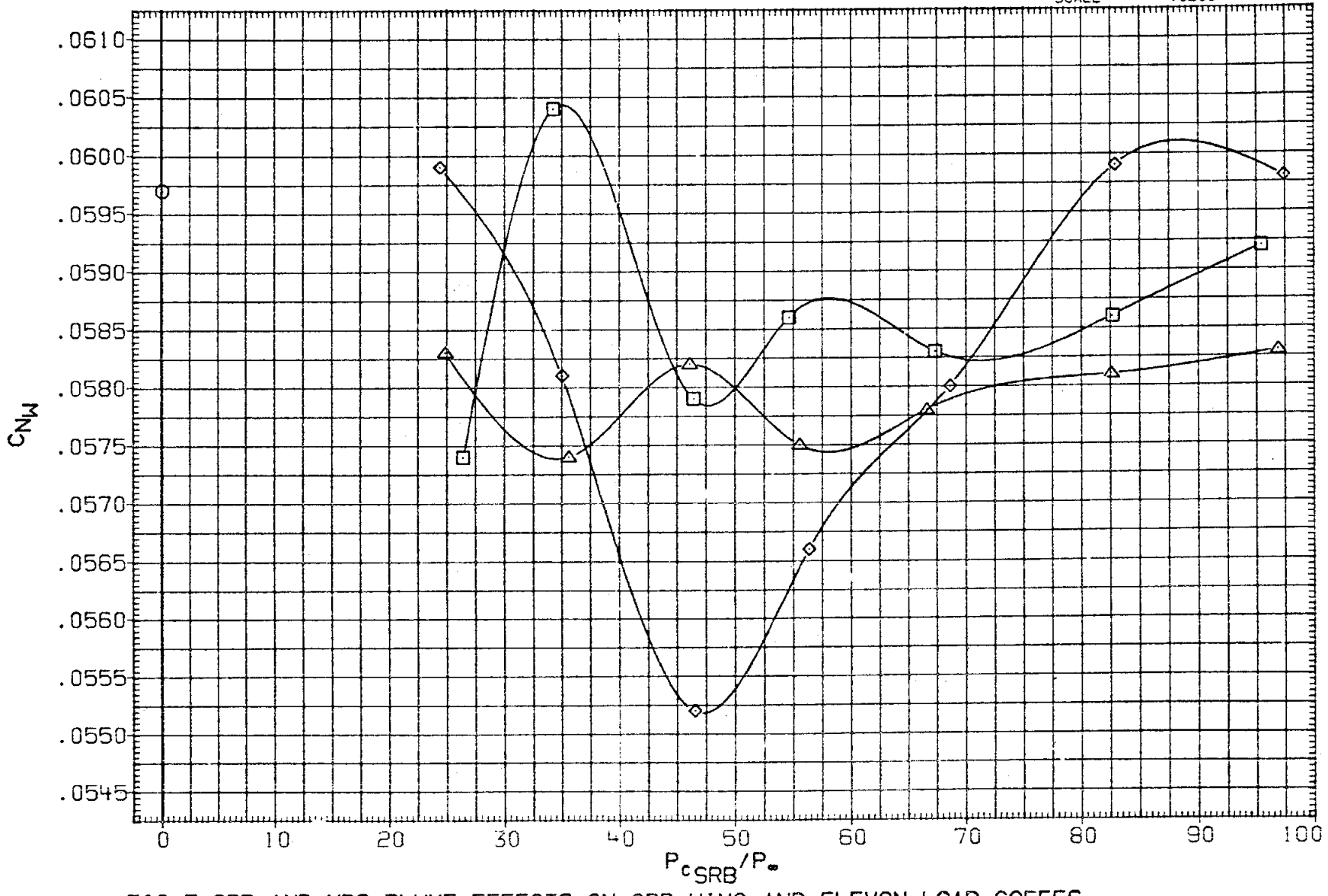

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ANEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ANEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ANEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

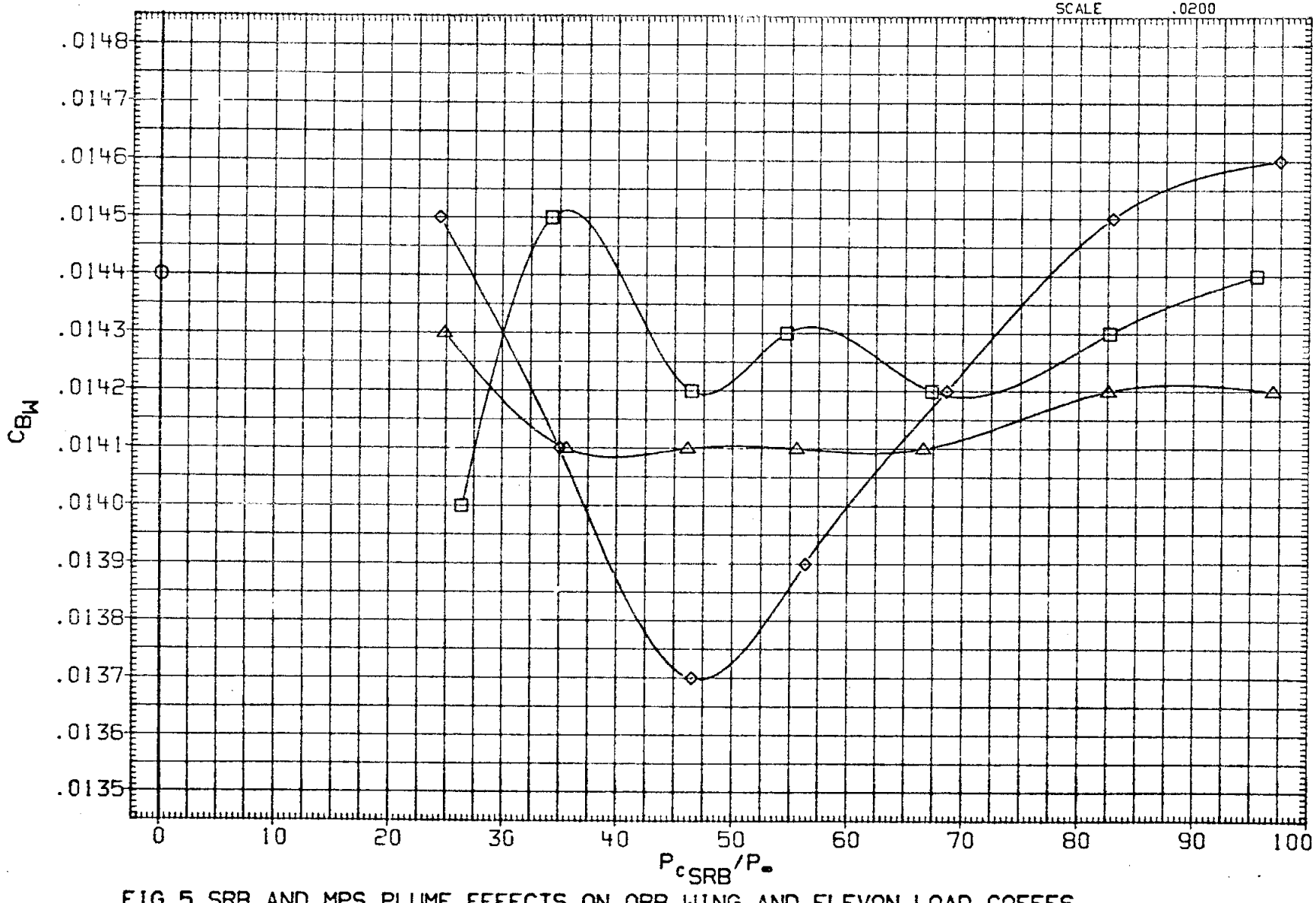

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A) MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ANEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ANEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ANEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

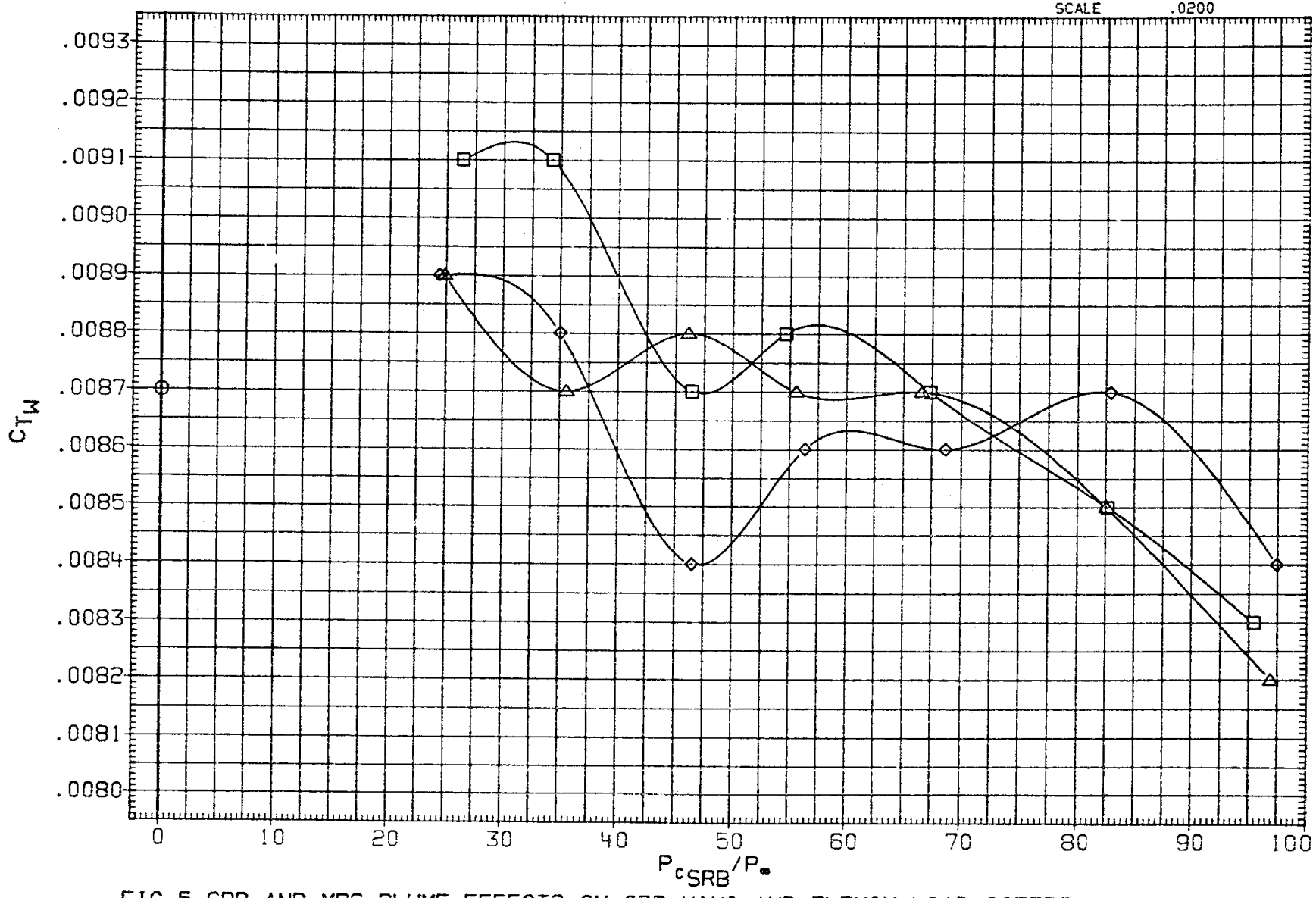

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
JNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
JNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
JNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
BREF	90.7000	IN.
CREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
JNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
JNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
JNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

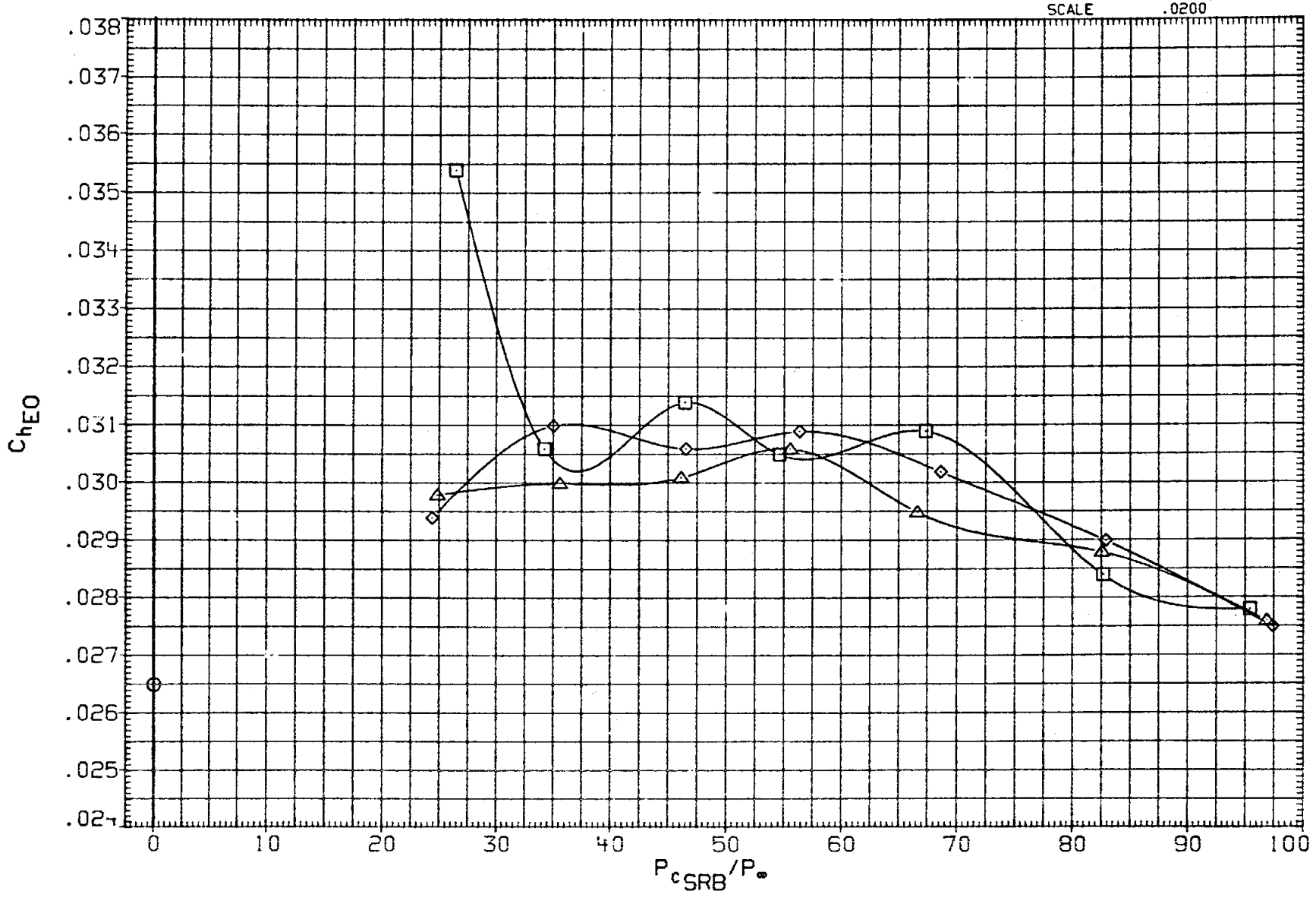

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

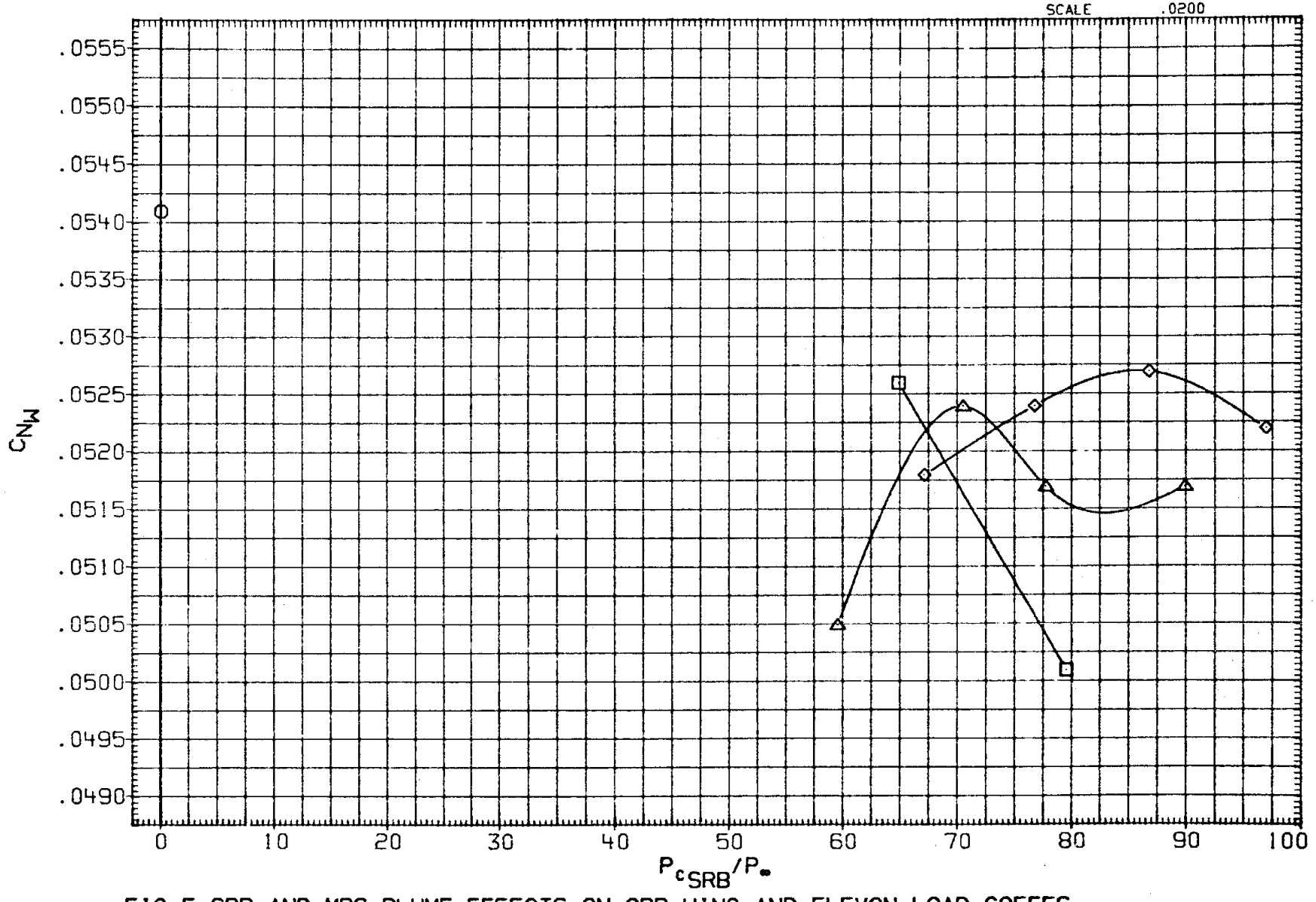

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

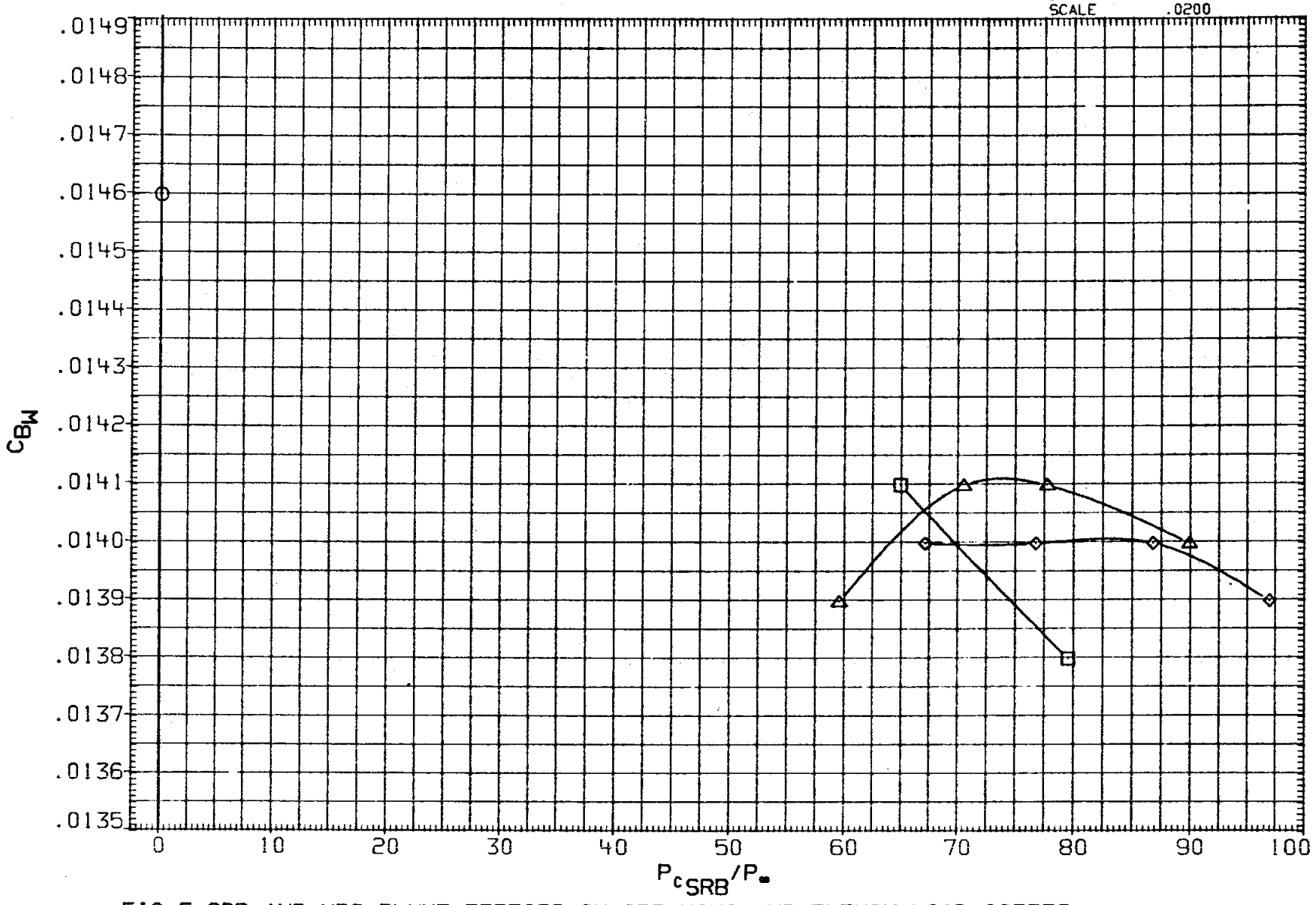

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

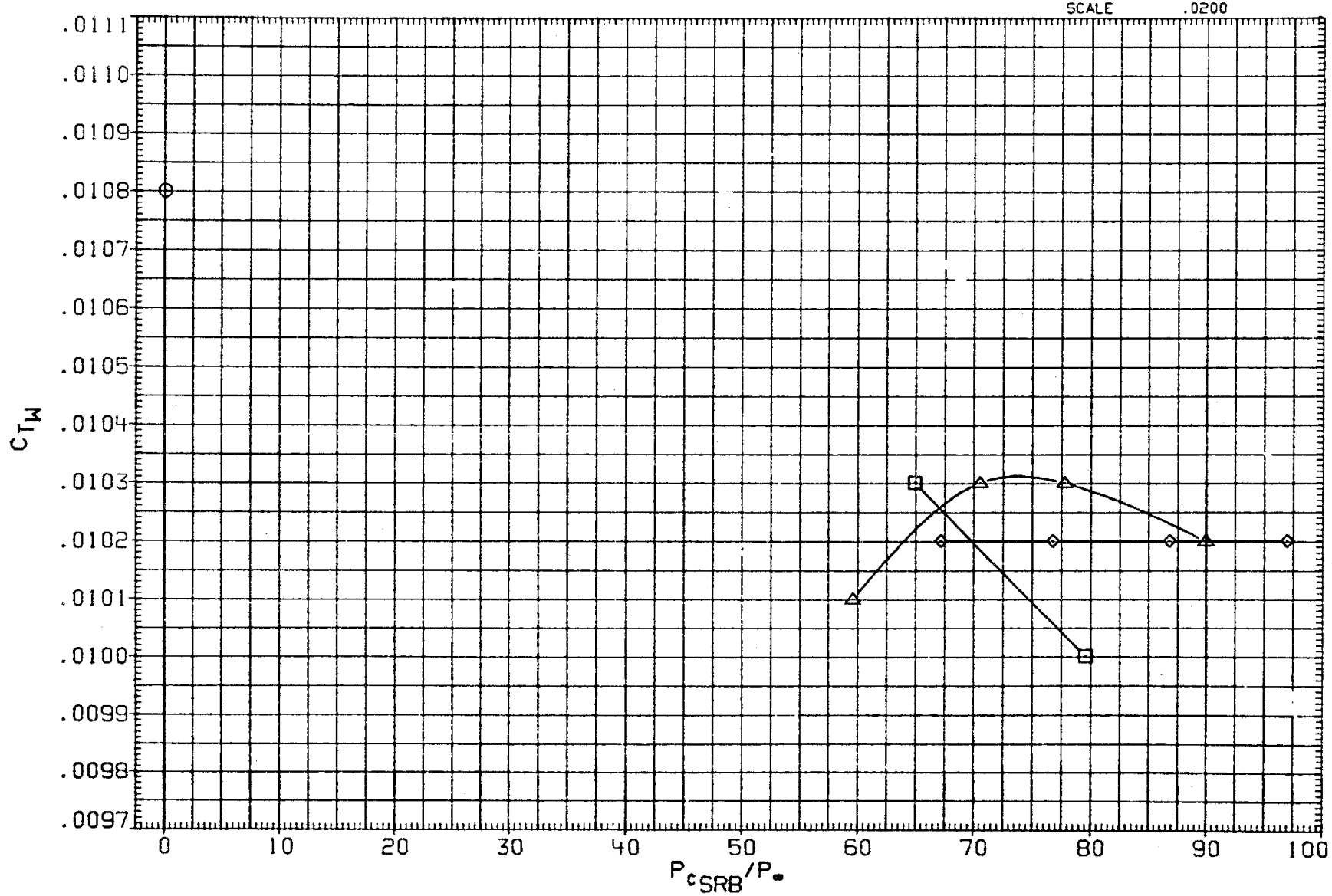

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

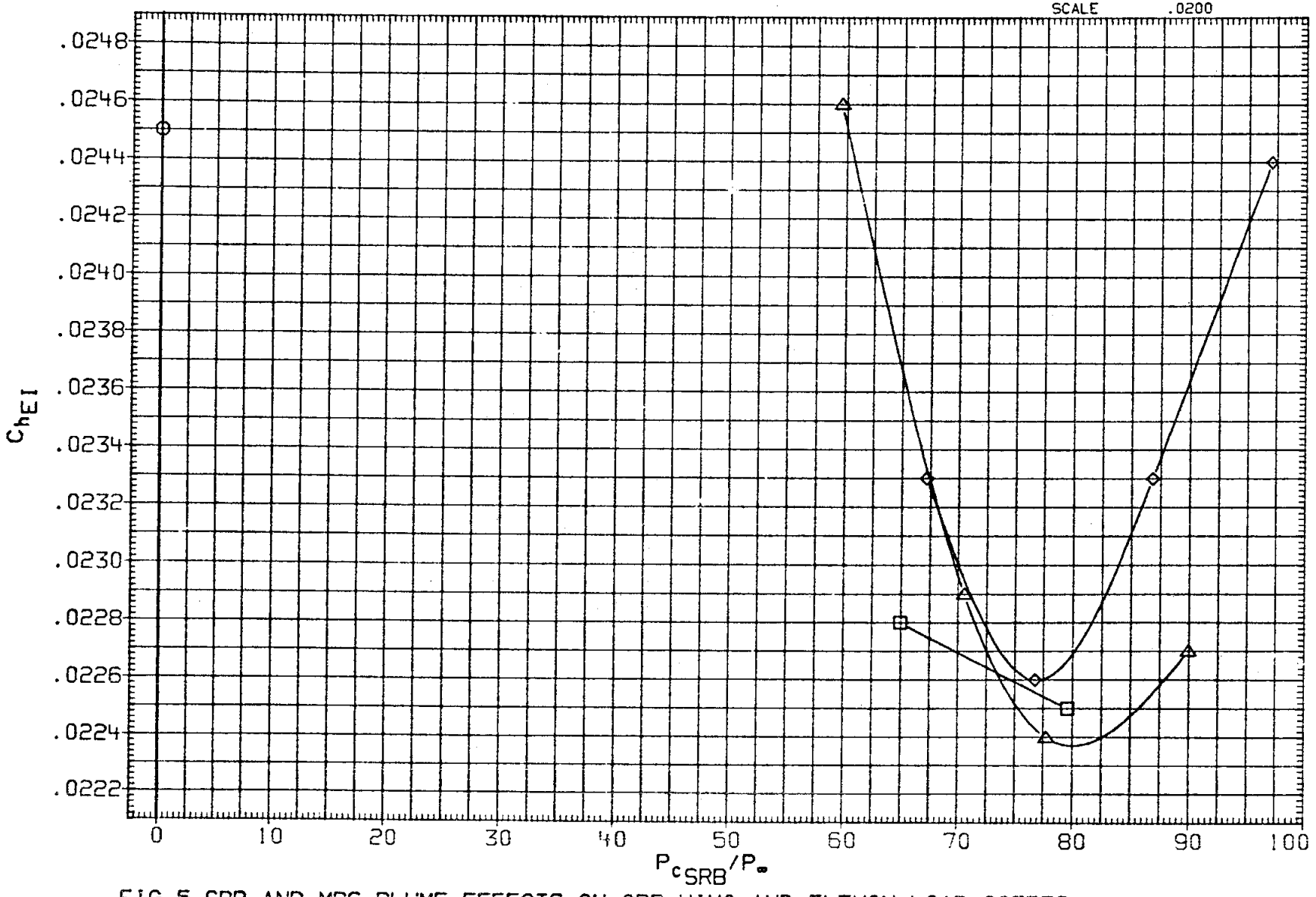

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

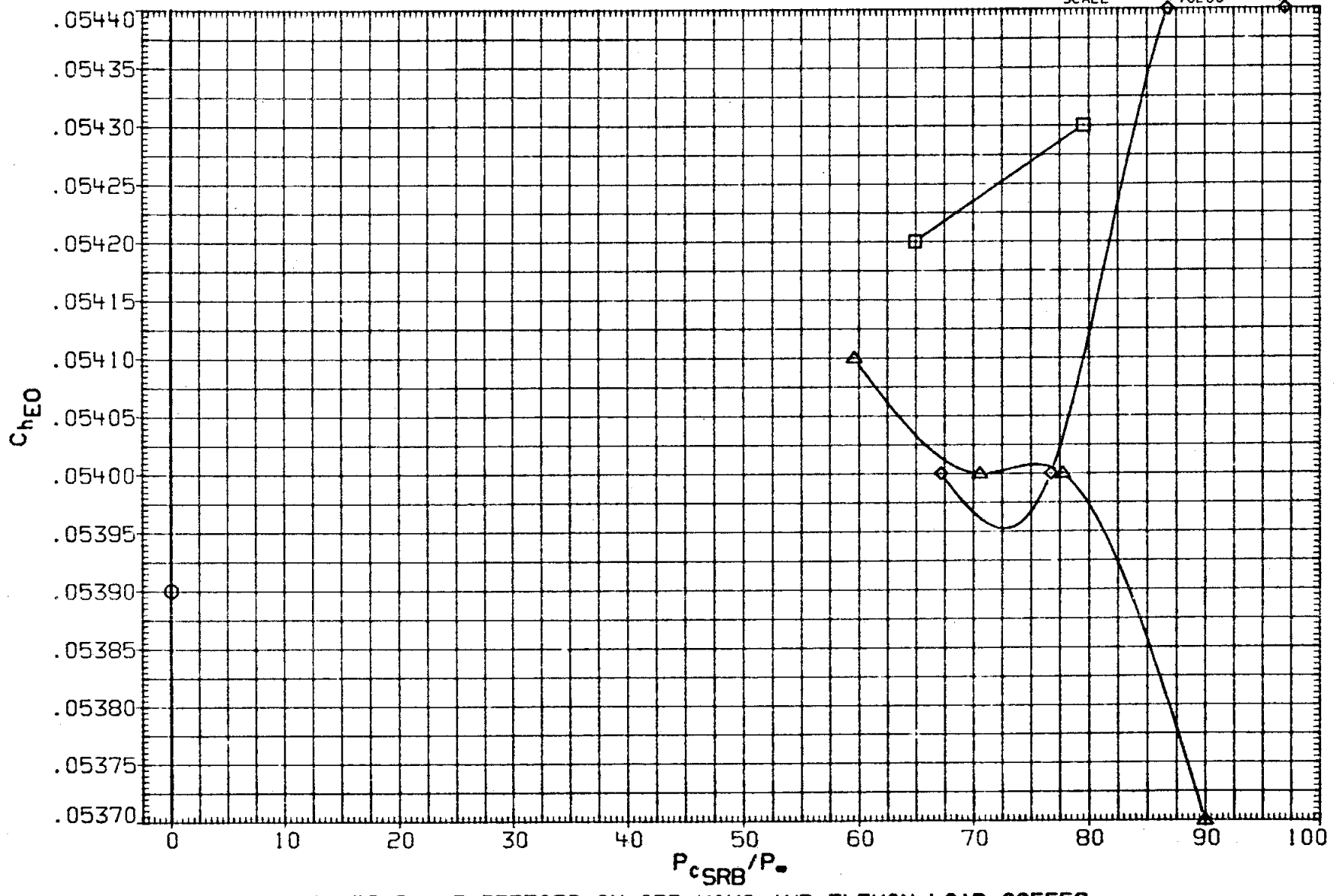

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

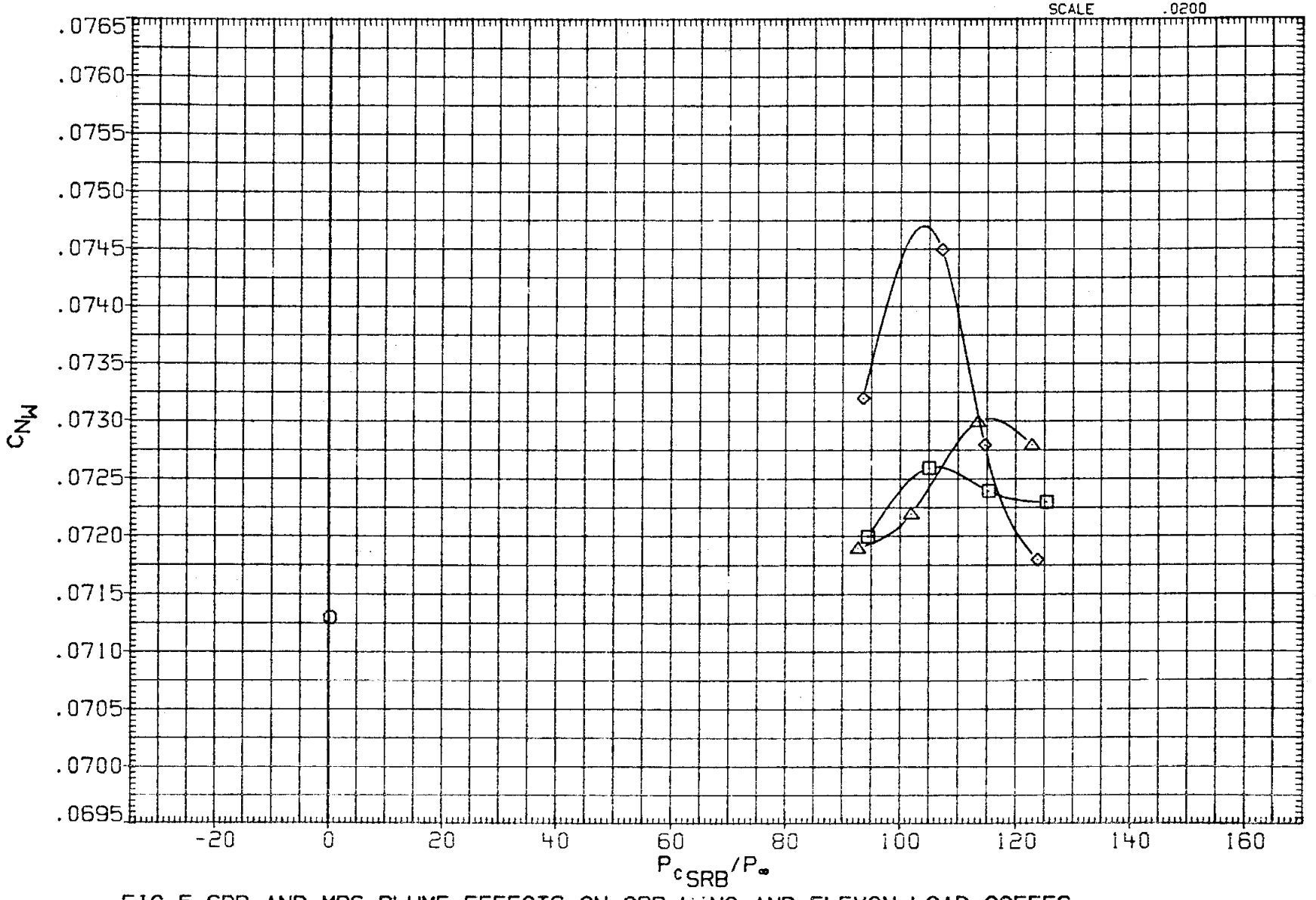

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

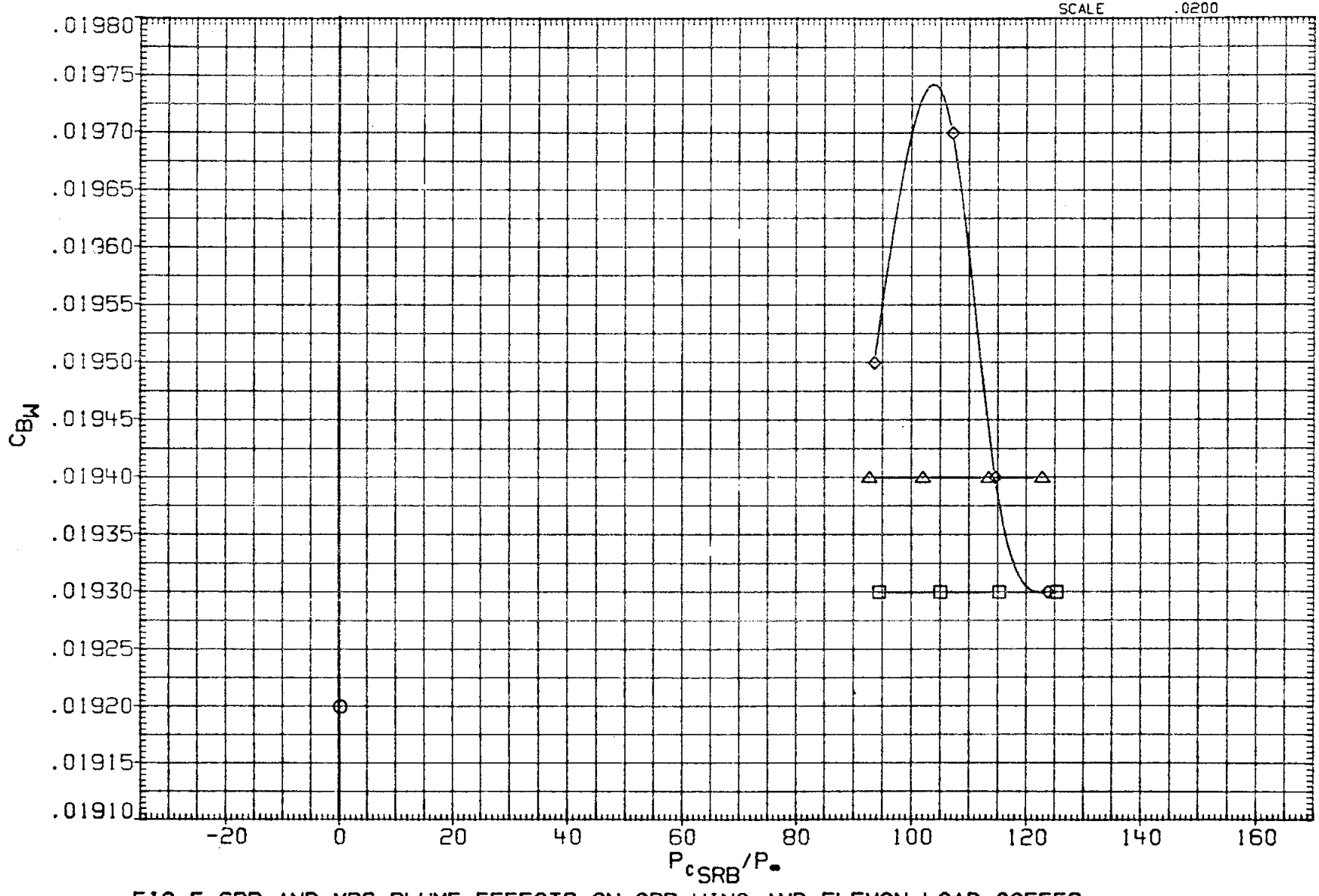

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

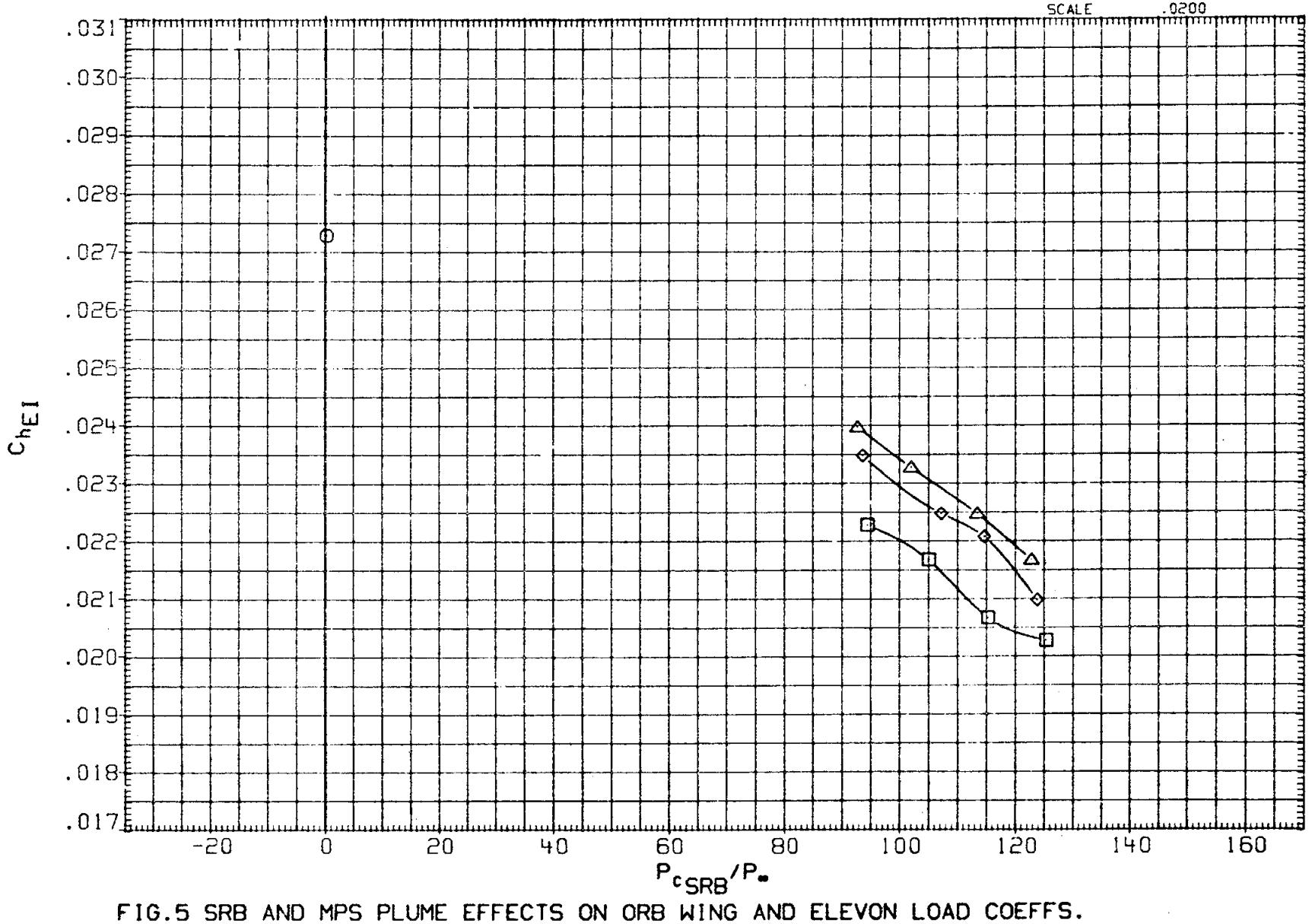

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

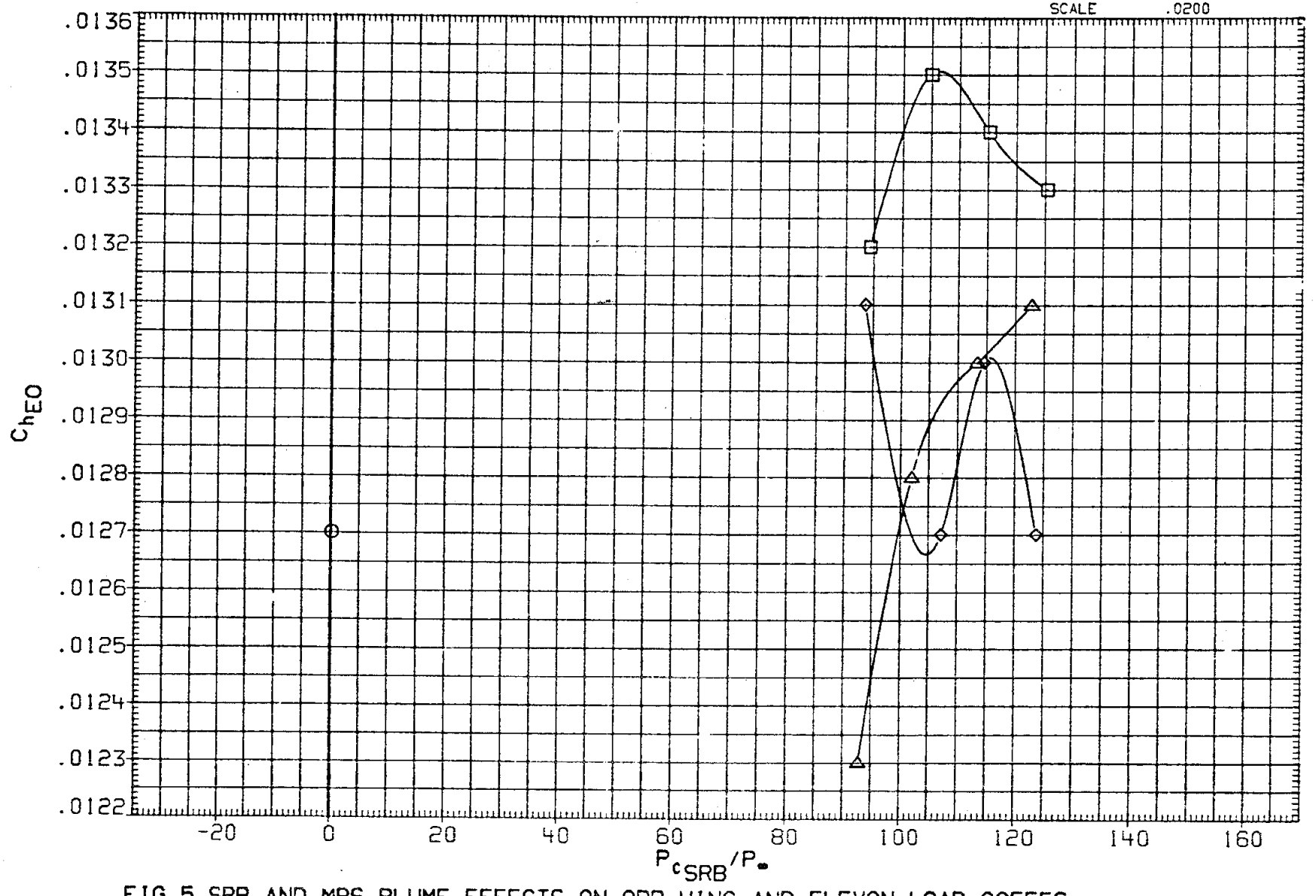

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

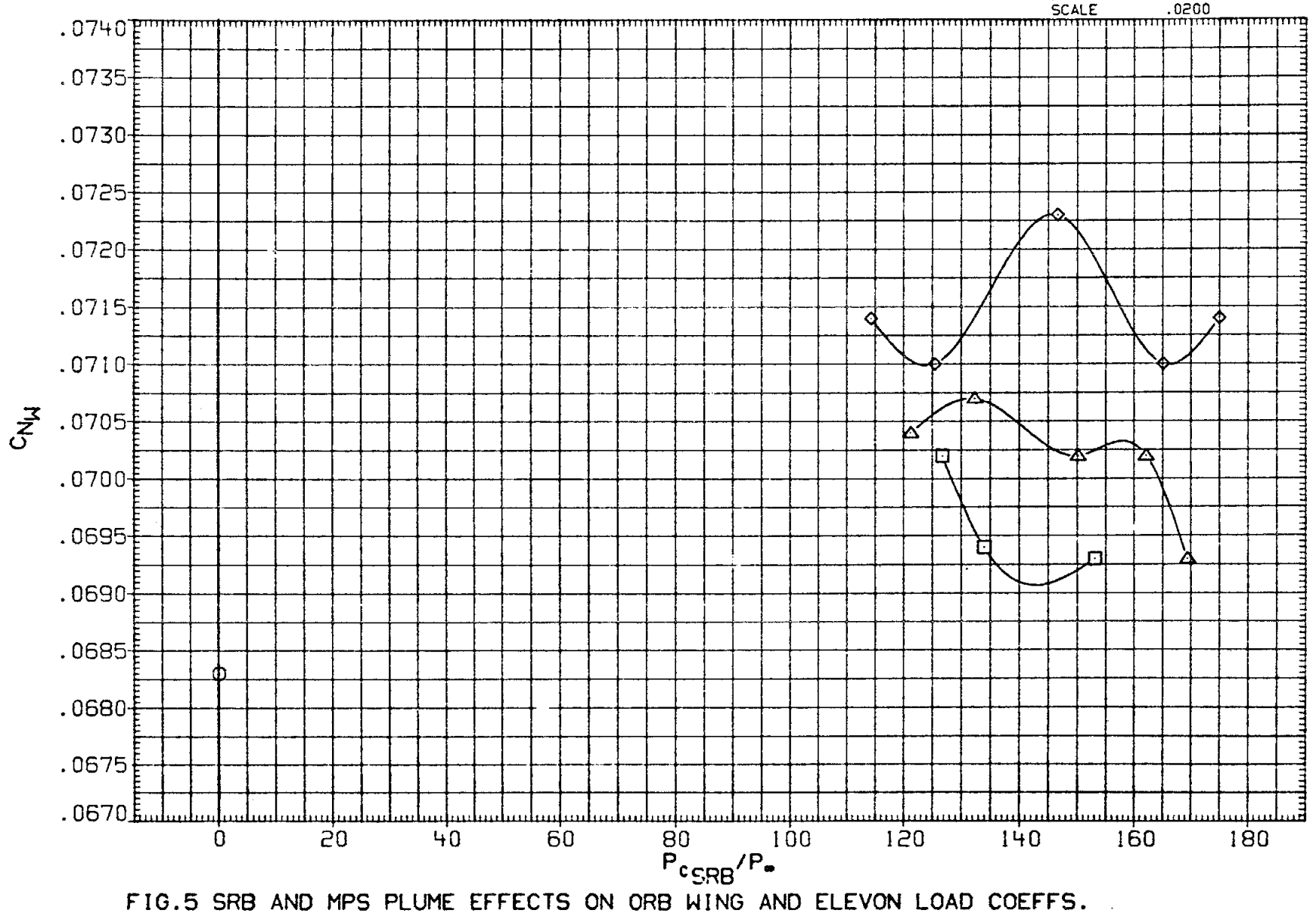

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION
ANEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF
ANEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-
ANEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM
ANEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

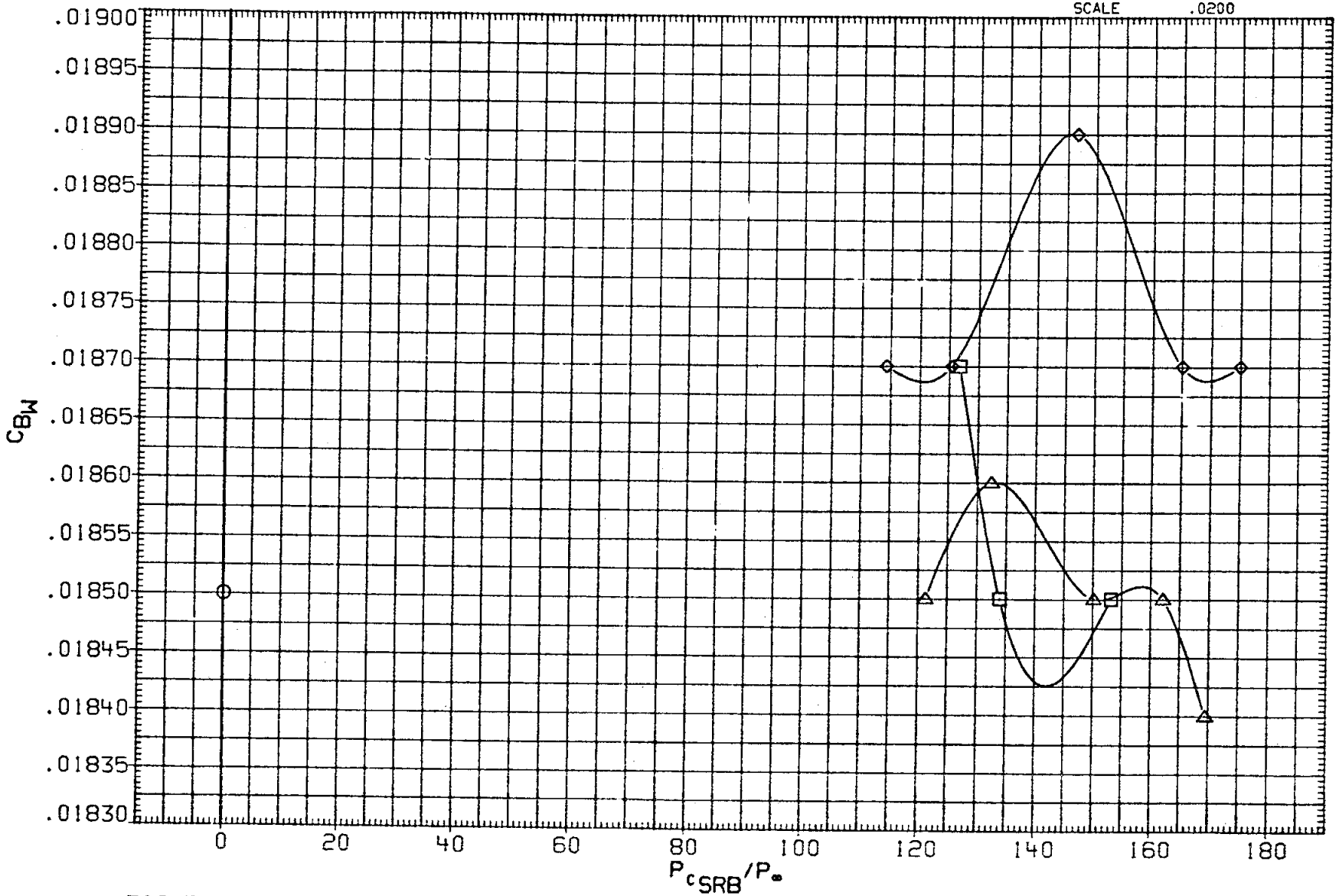

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ANEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ANEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ANEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ANEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

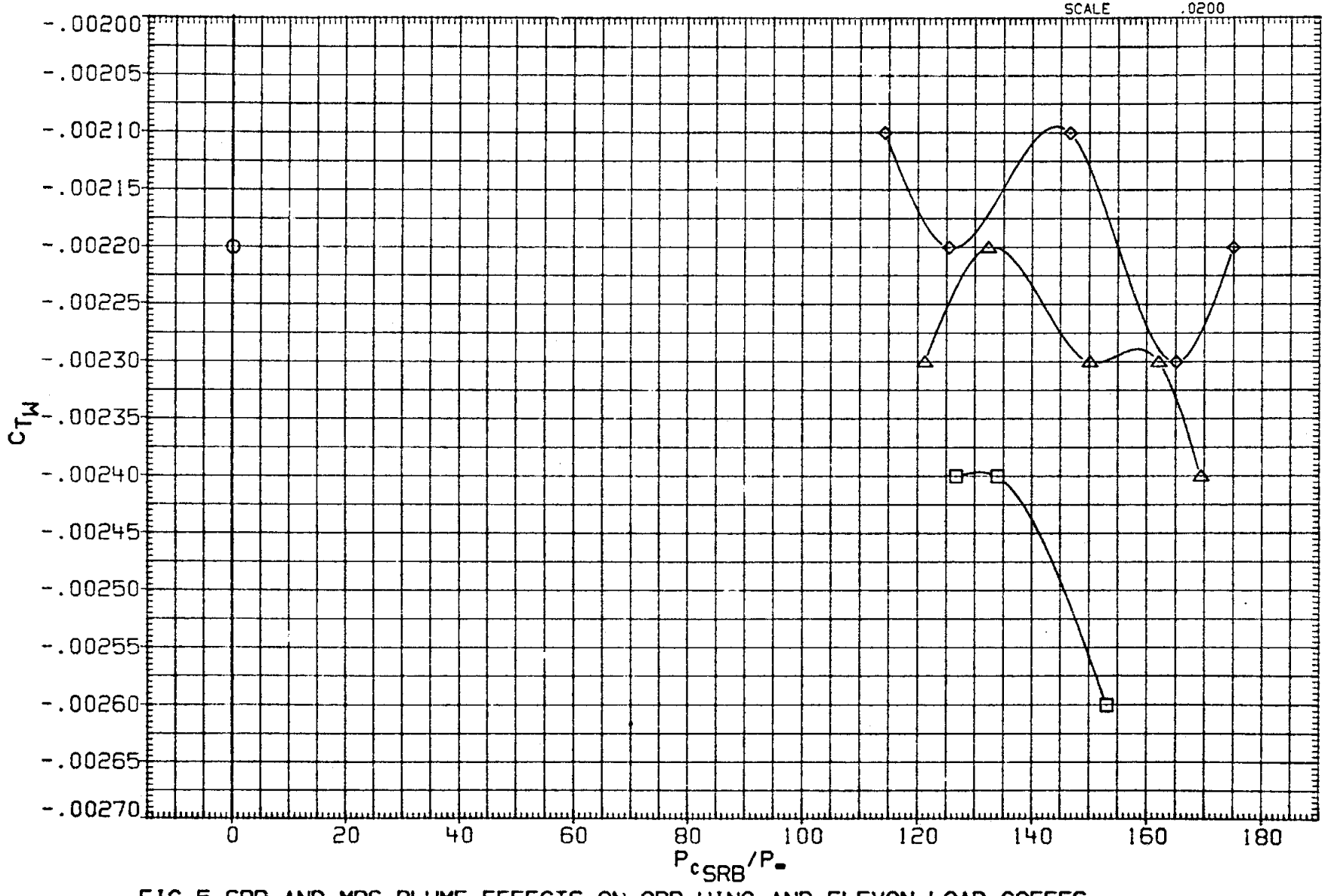

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

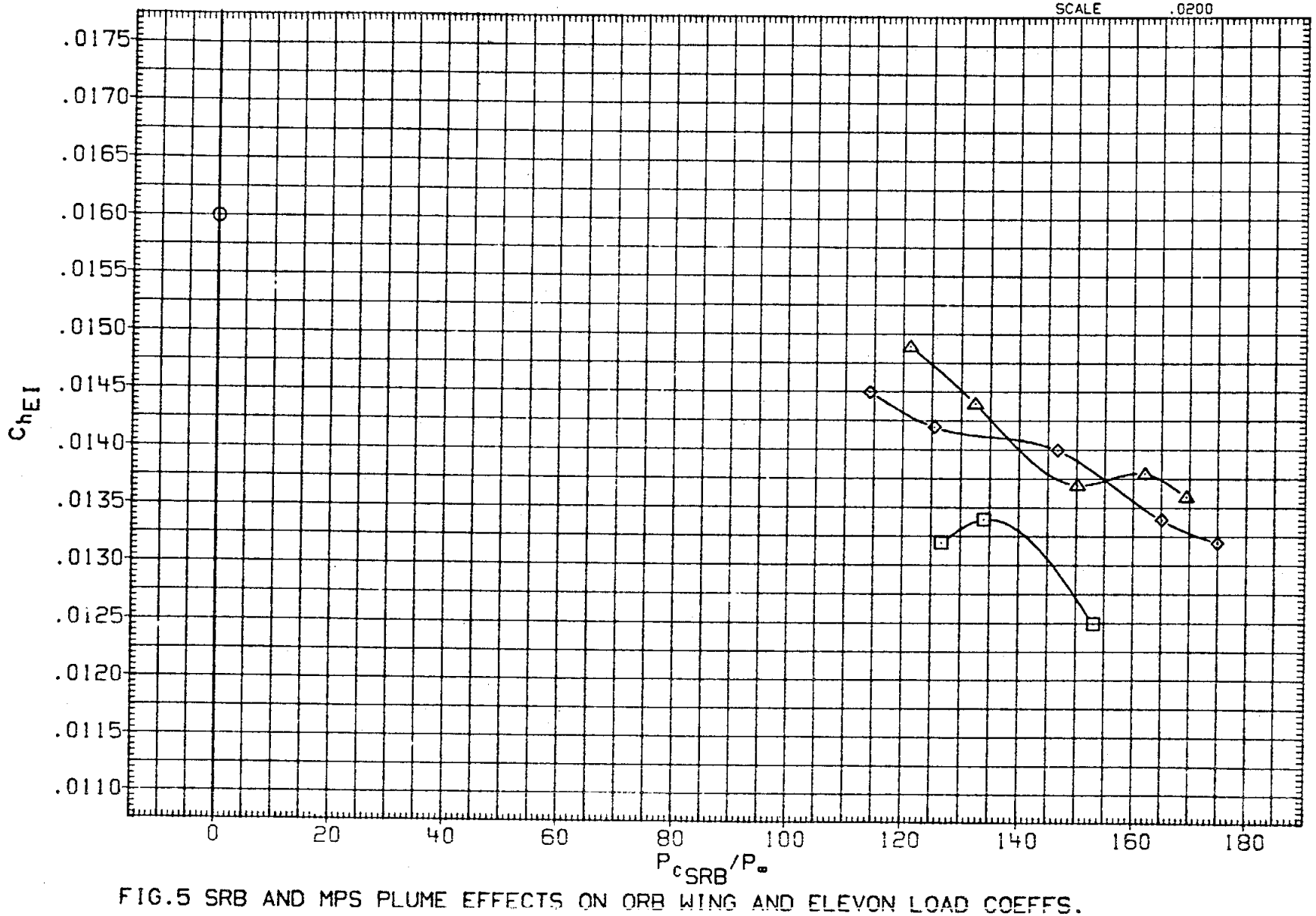

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
JNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
JNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
JNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
JNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

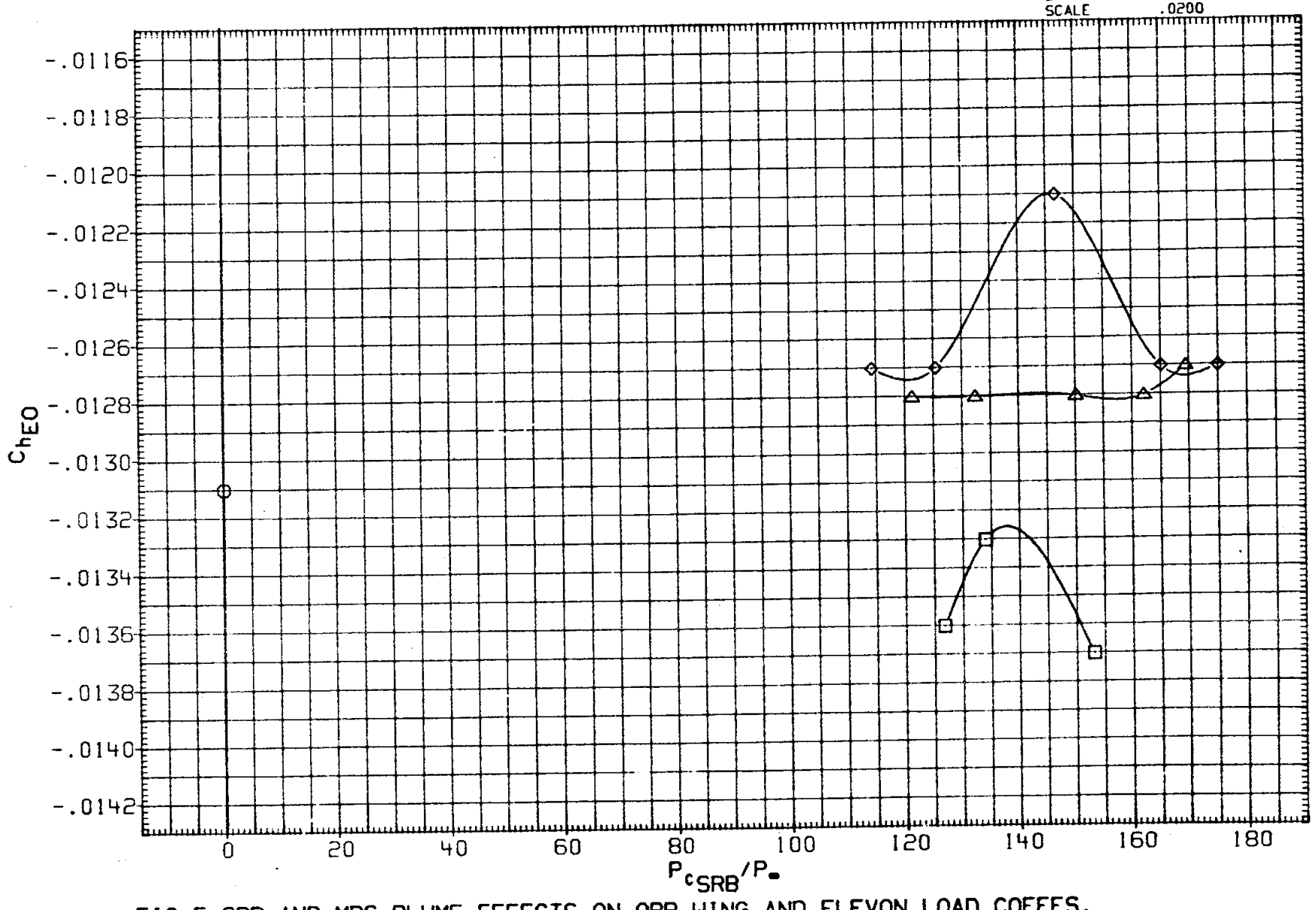

FIG.5 SRB AND MPS PLUME EFFECTS ON ORB WING AND ELEVON LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
HNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
HNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
HNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
HNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

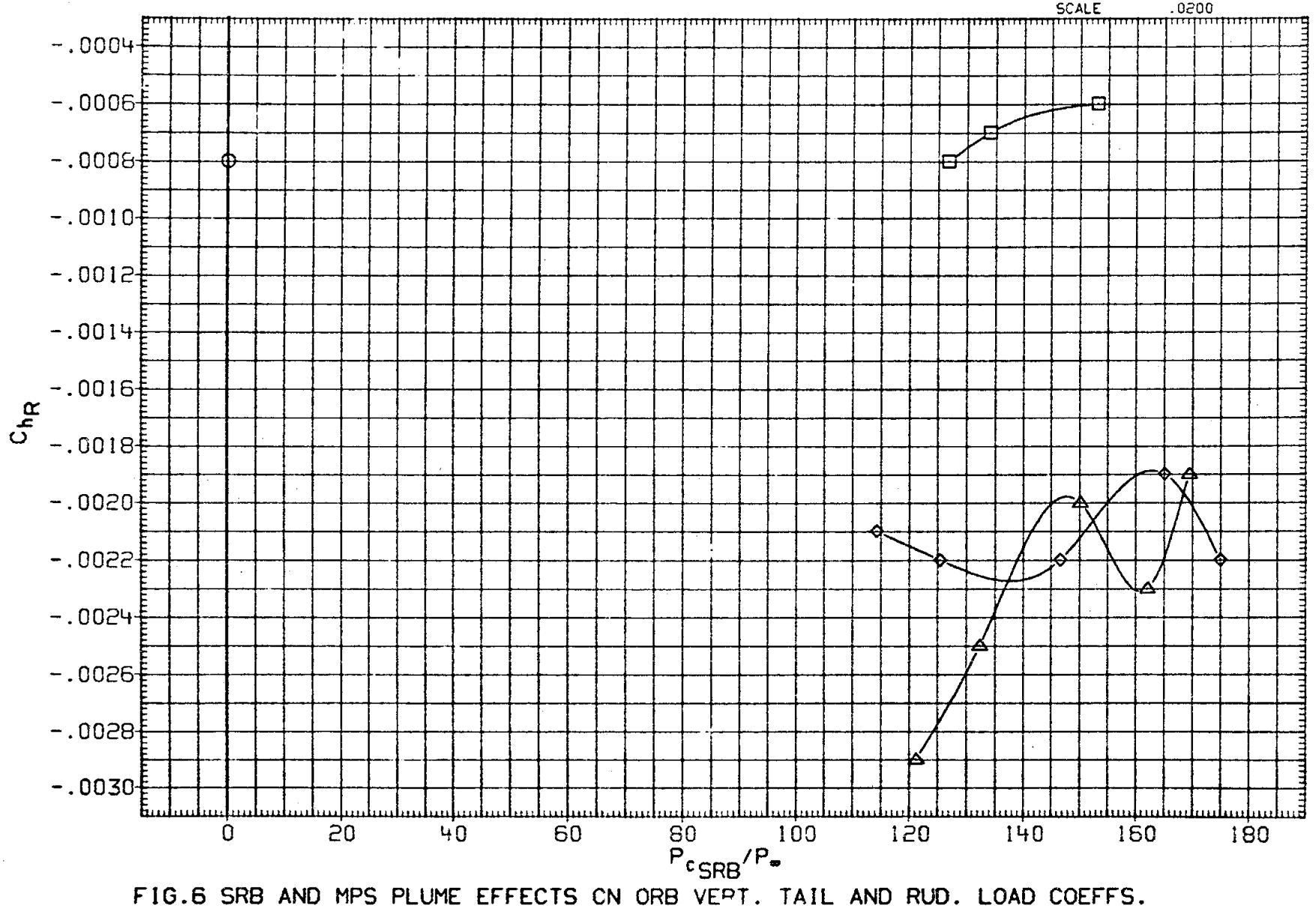

FIG.6 SRB AND MPS PLUME EFFECTS CN ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

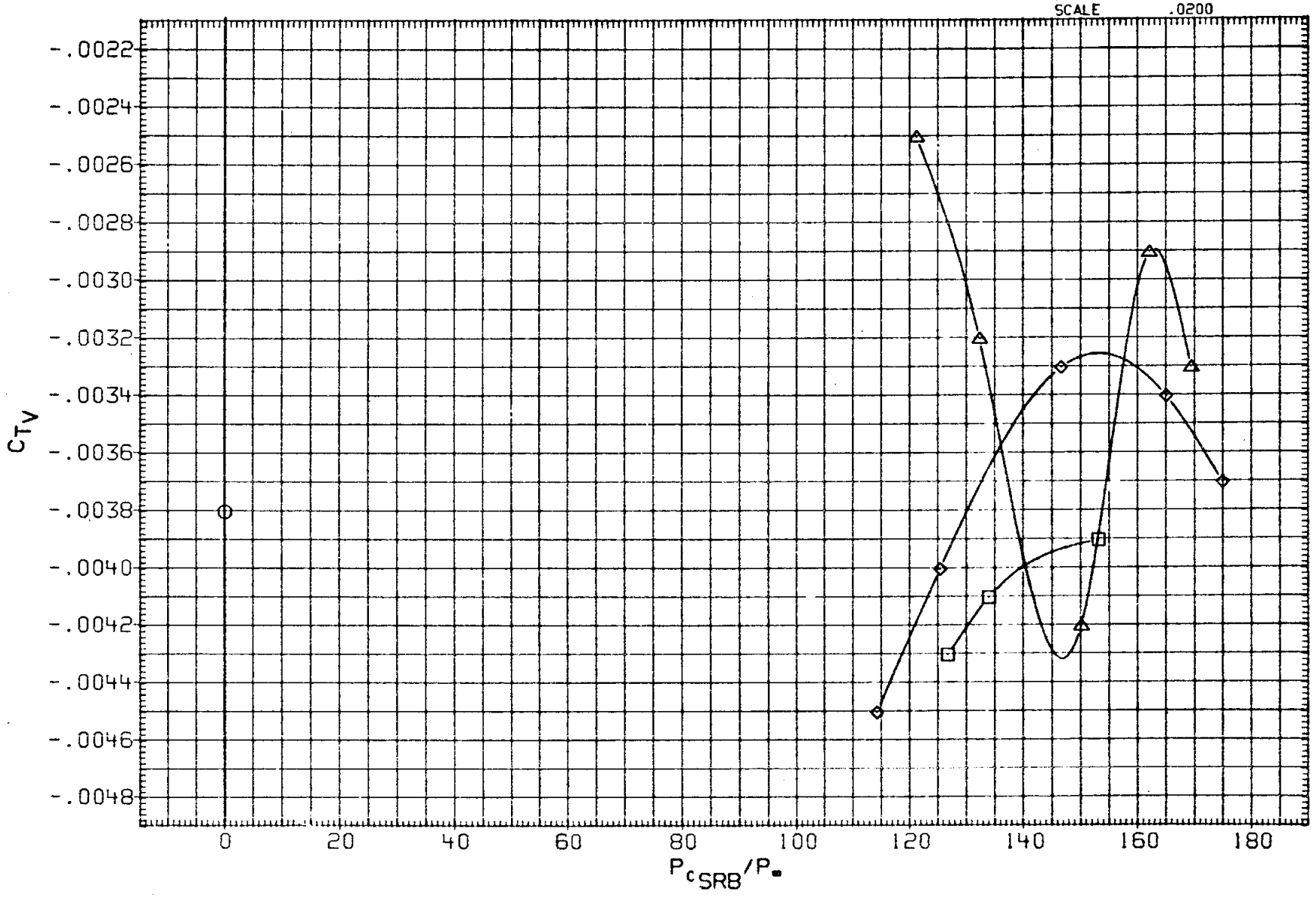

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

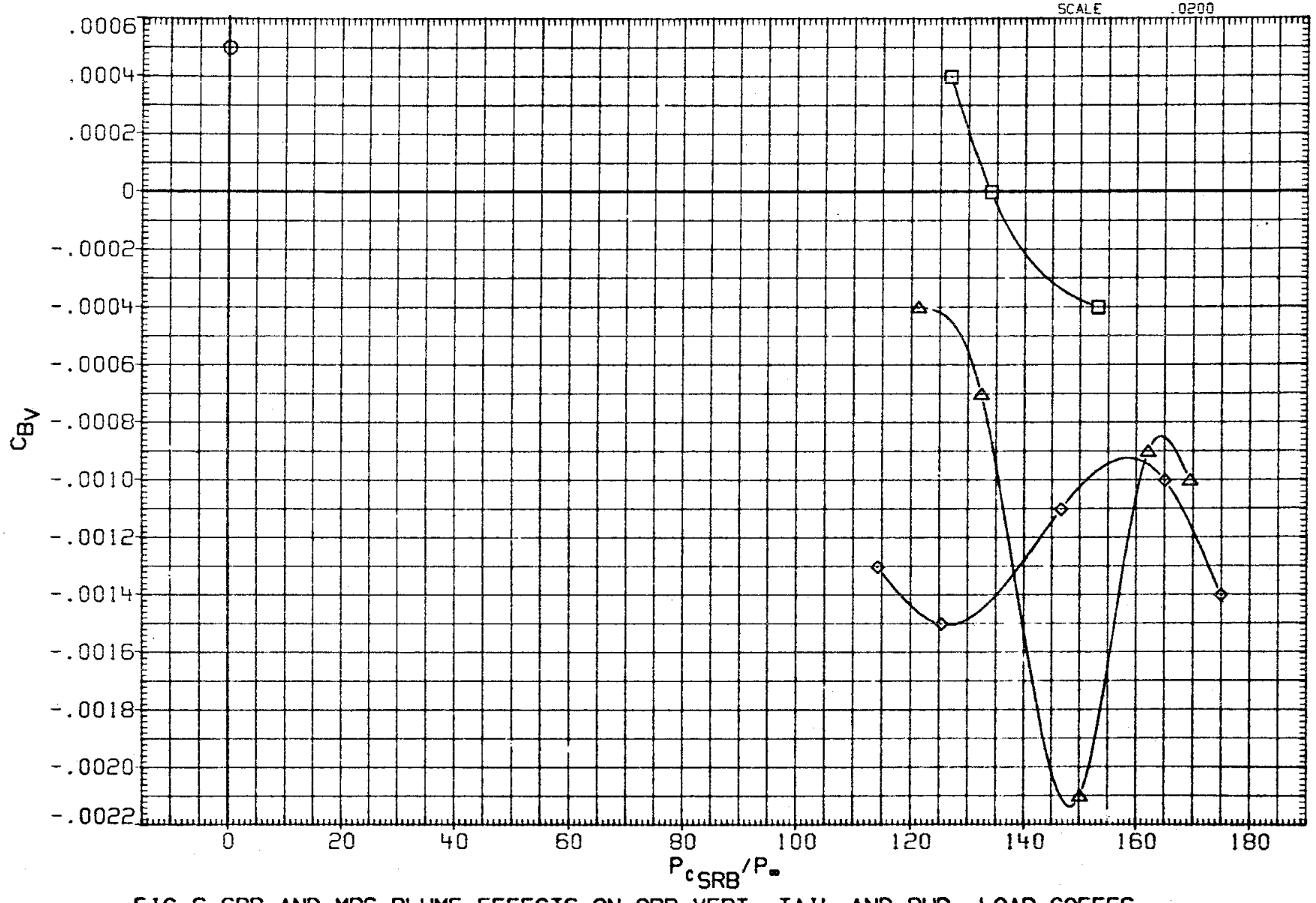

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

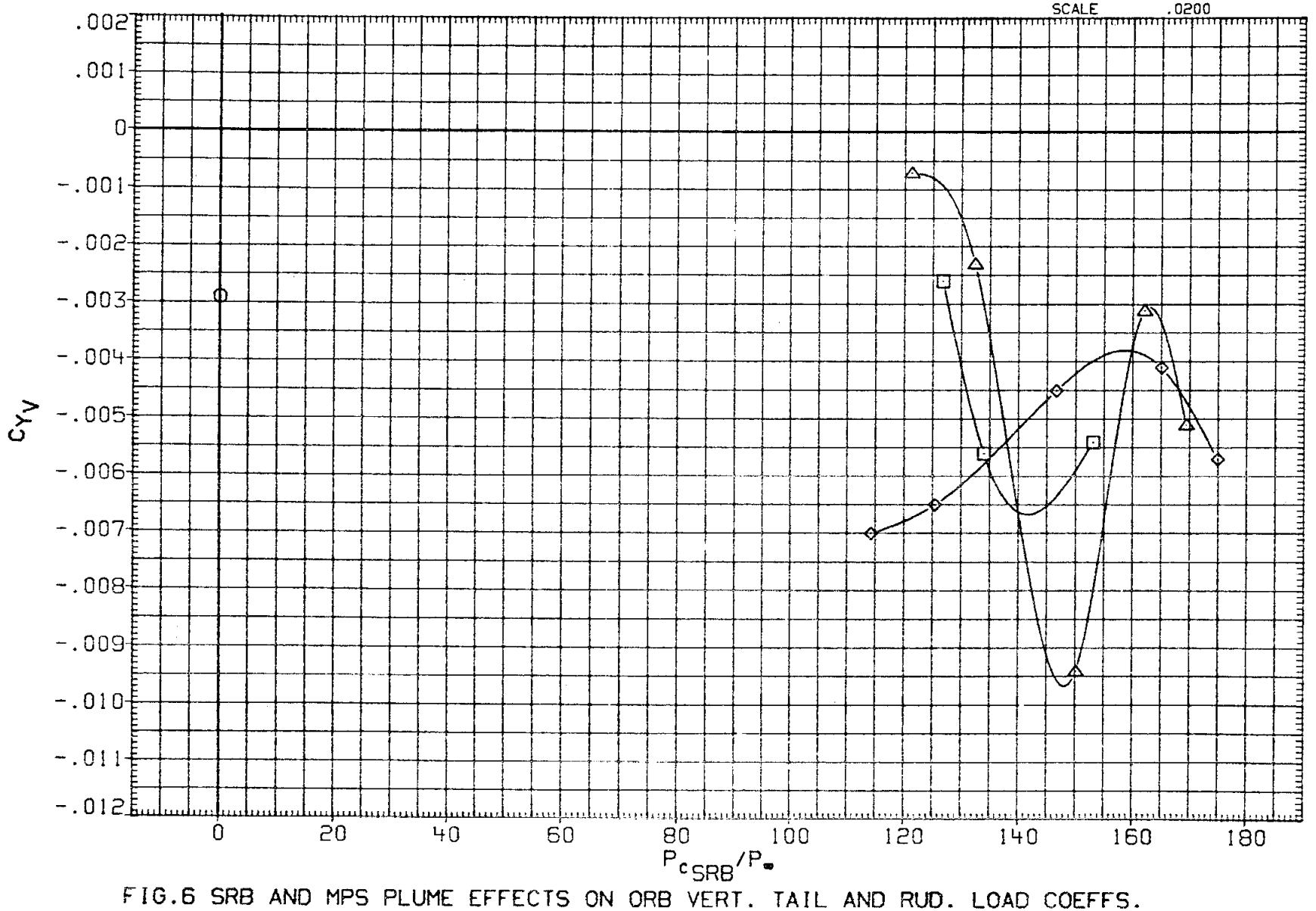

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
HNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
HNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
HNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
HNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

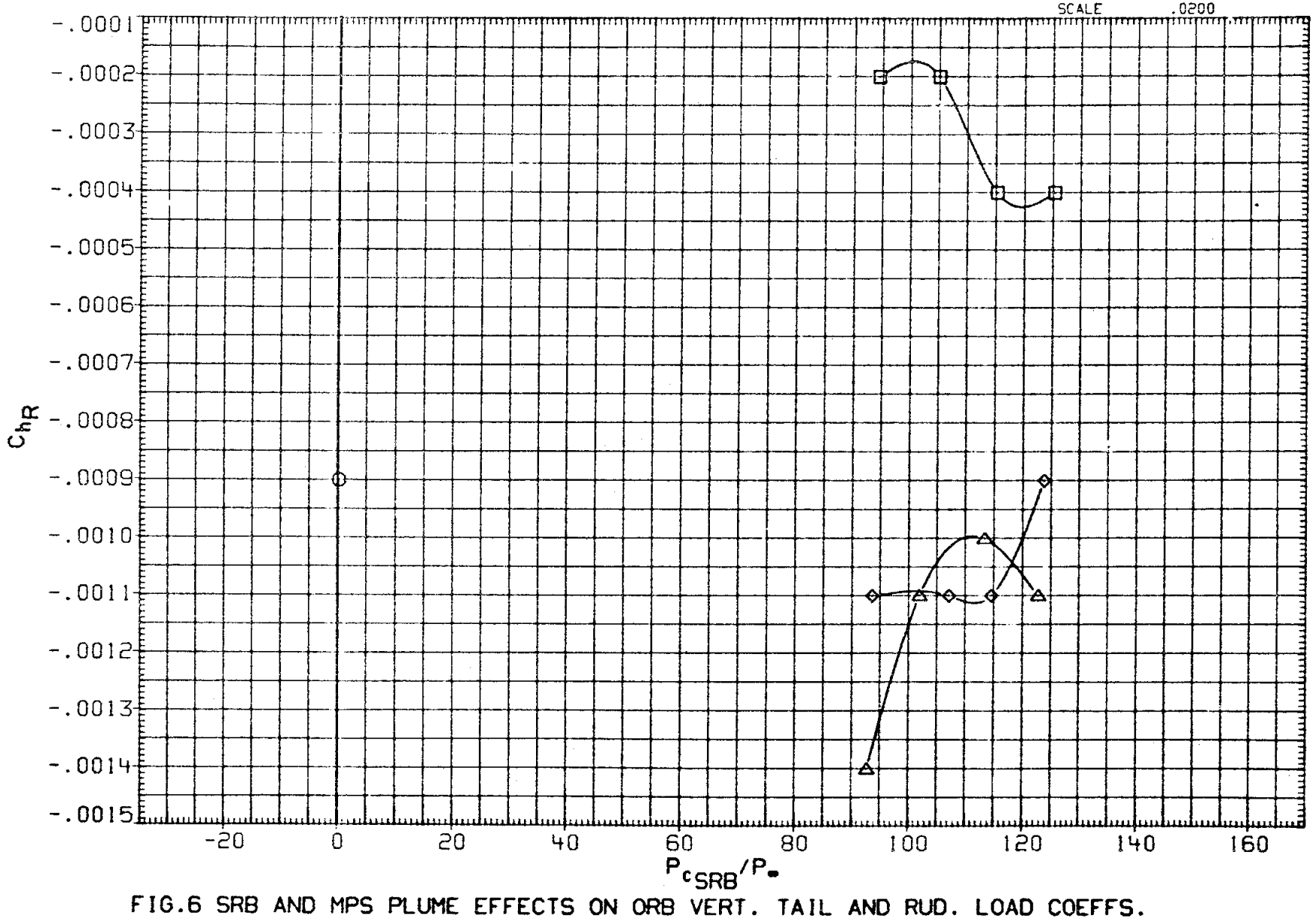

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

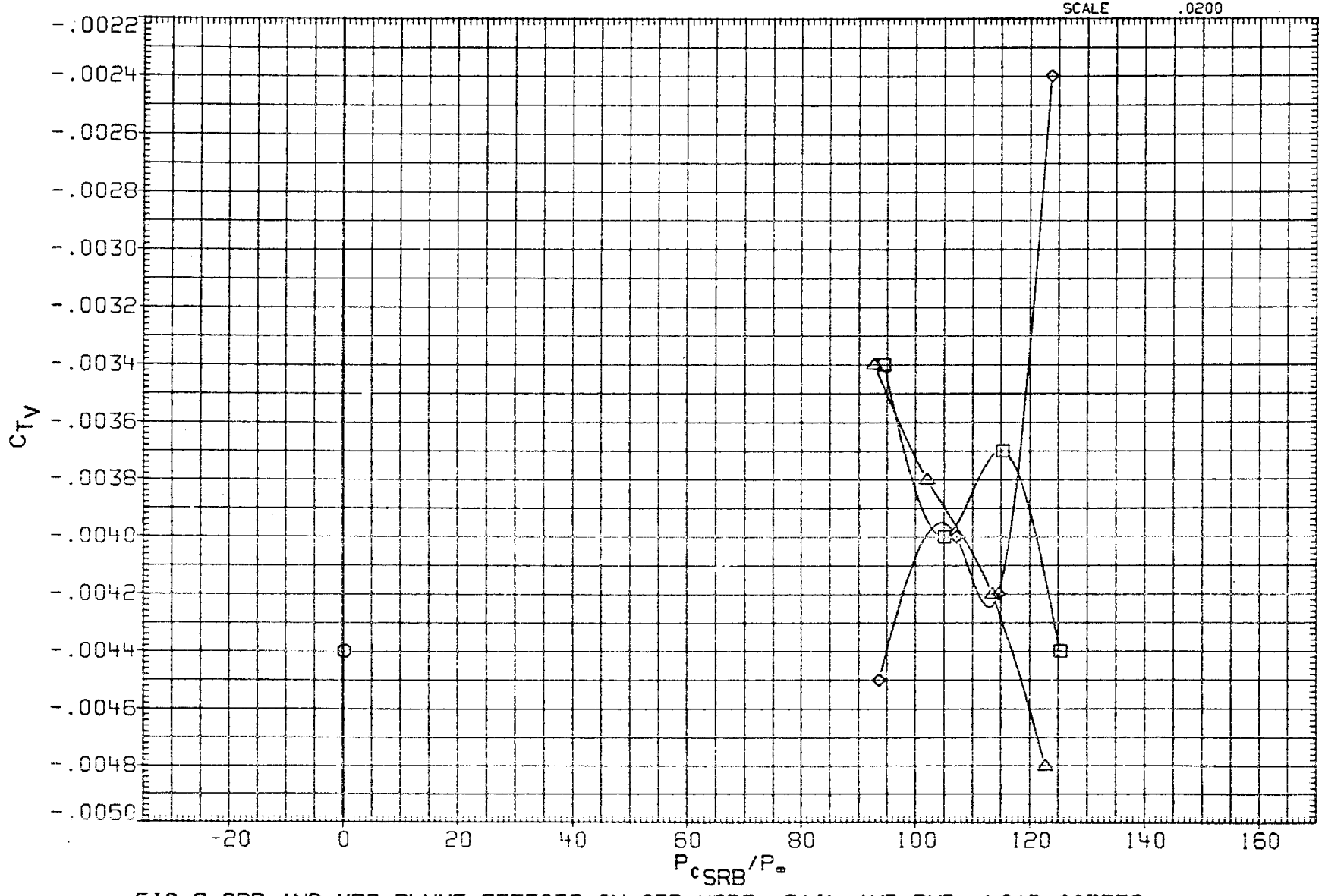

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.9100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

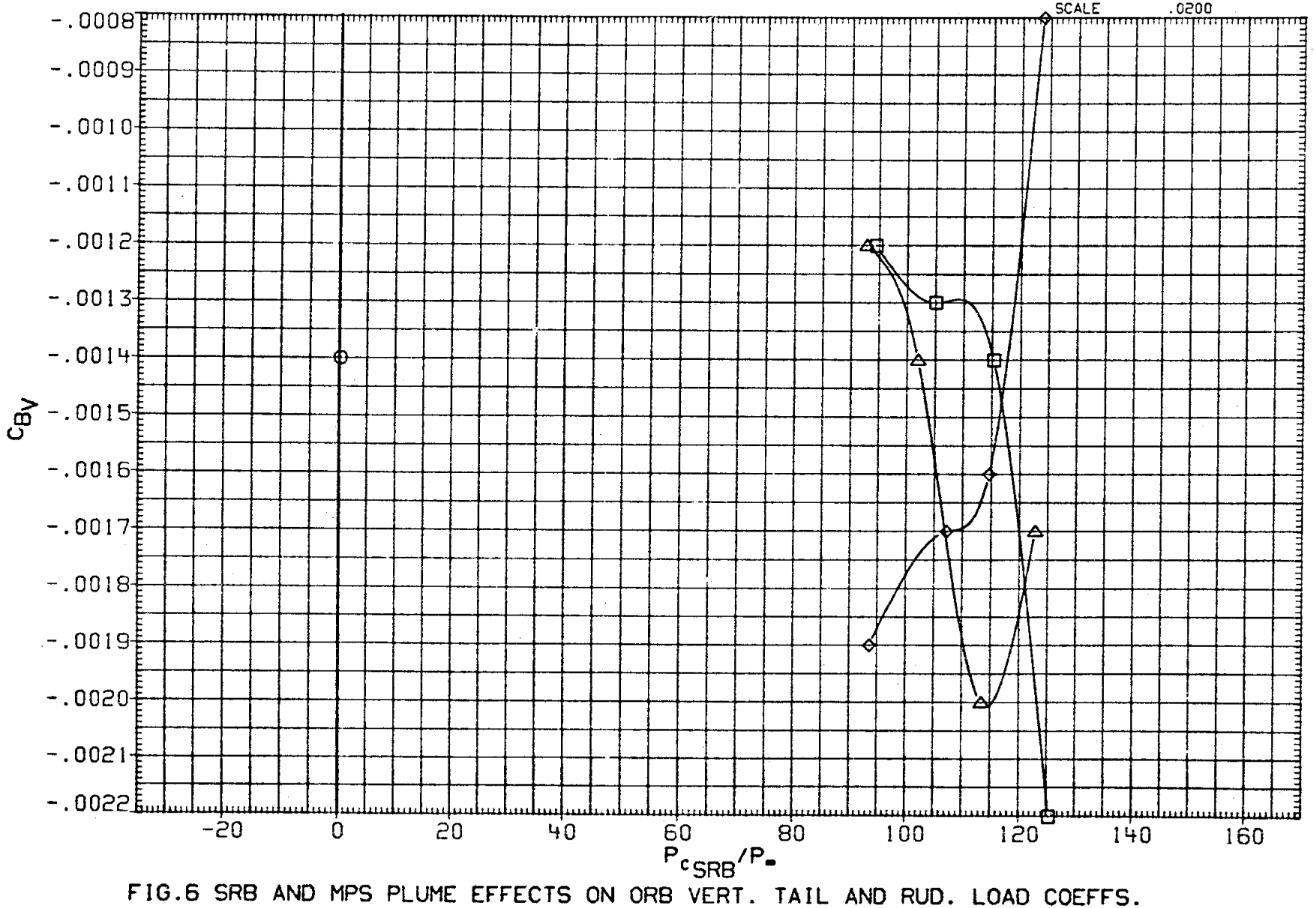

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

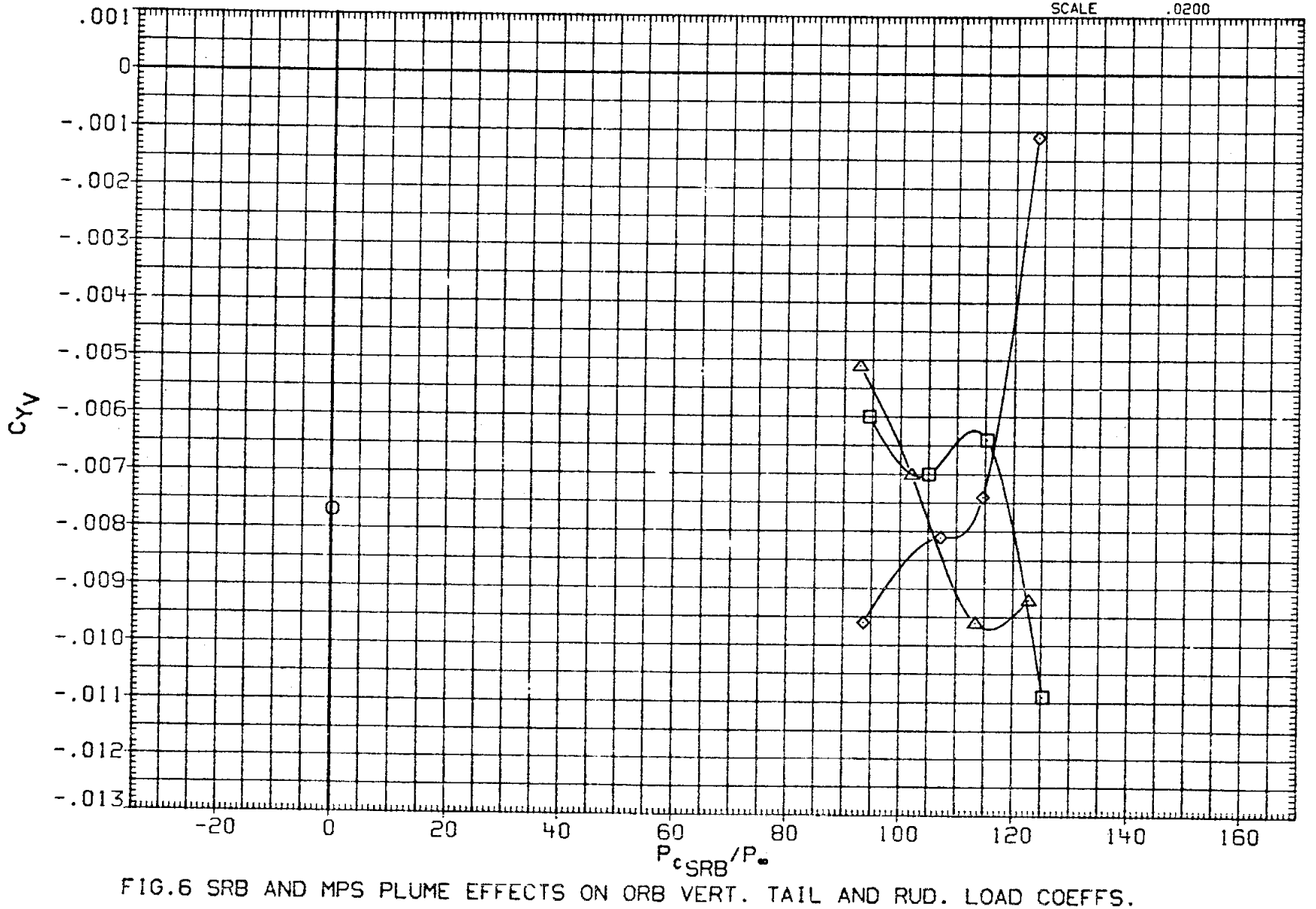

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
HNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
HNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
HNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
HNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

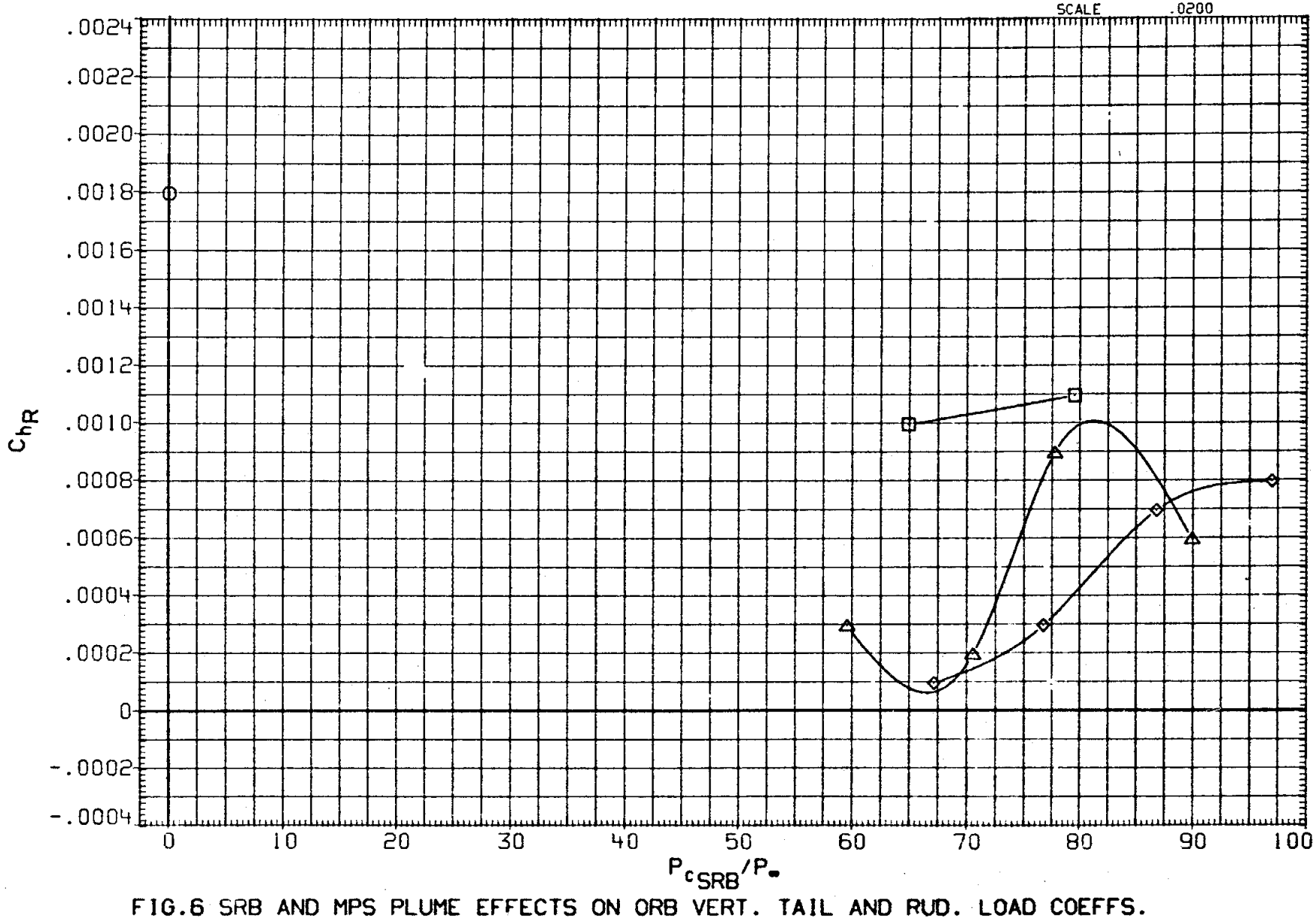

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

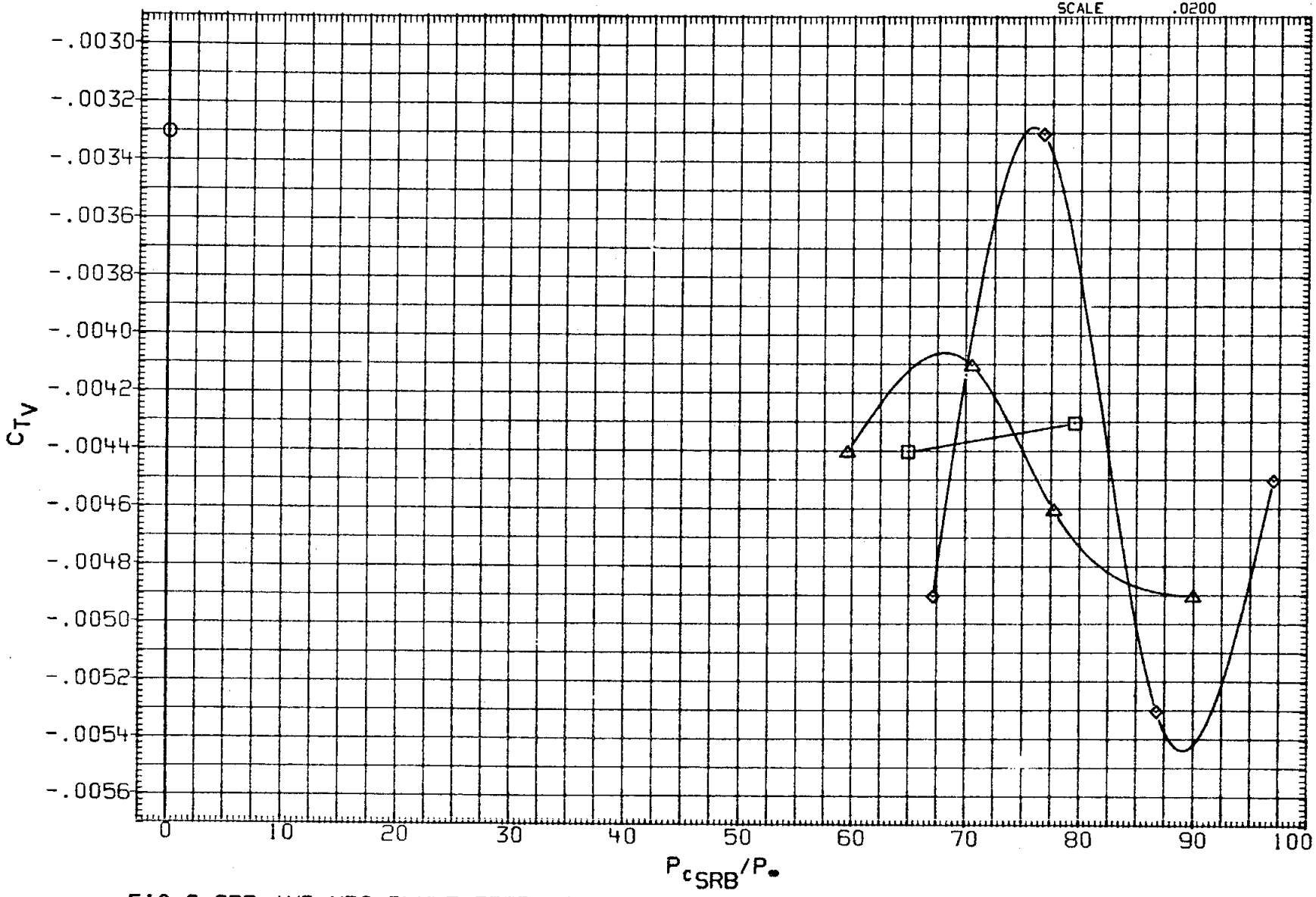

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

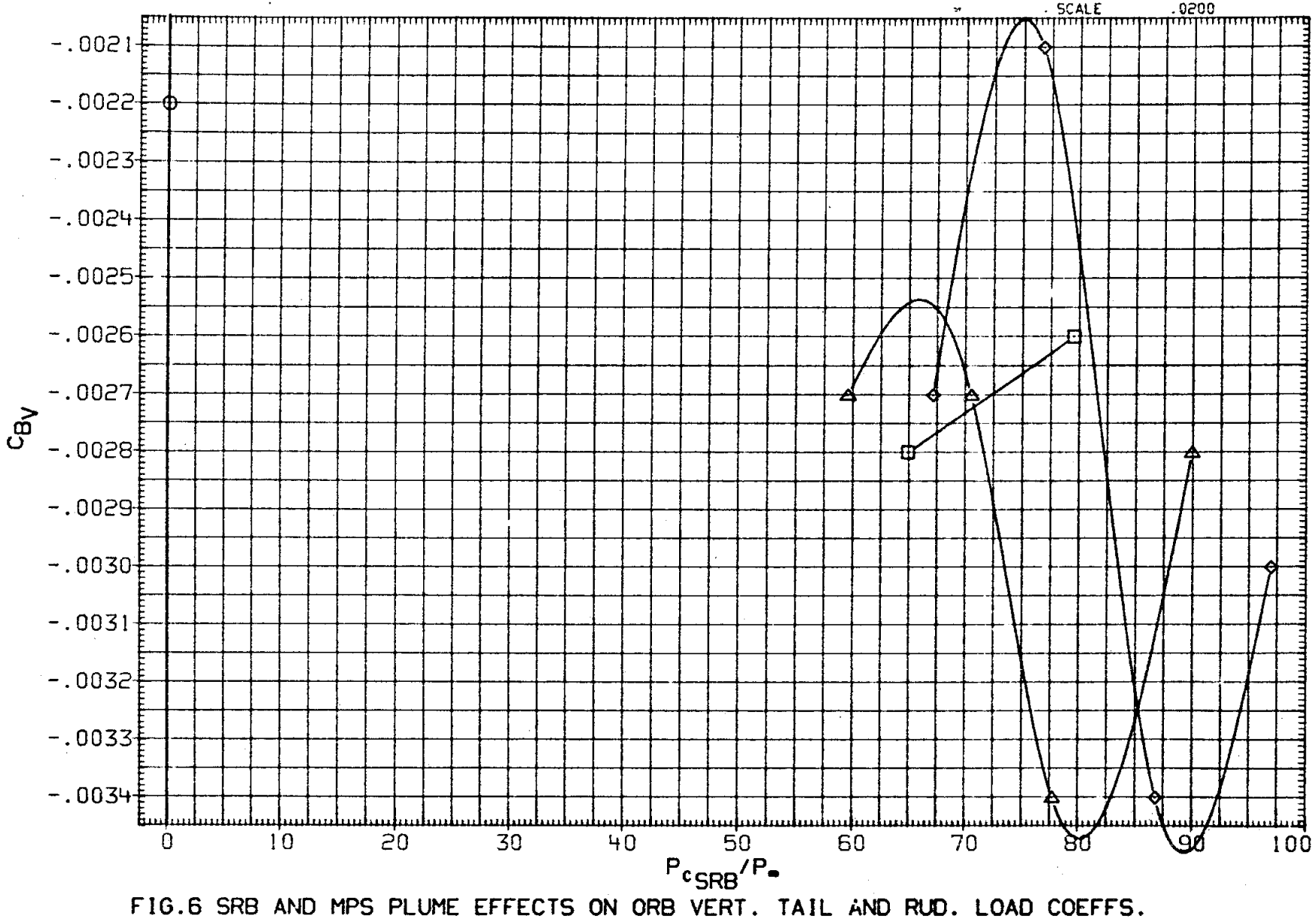

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
BNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
BNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
BNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

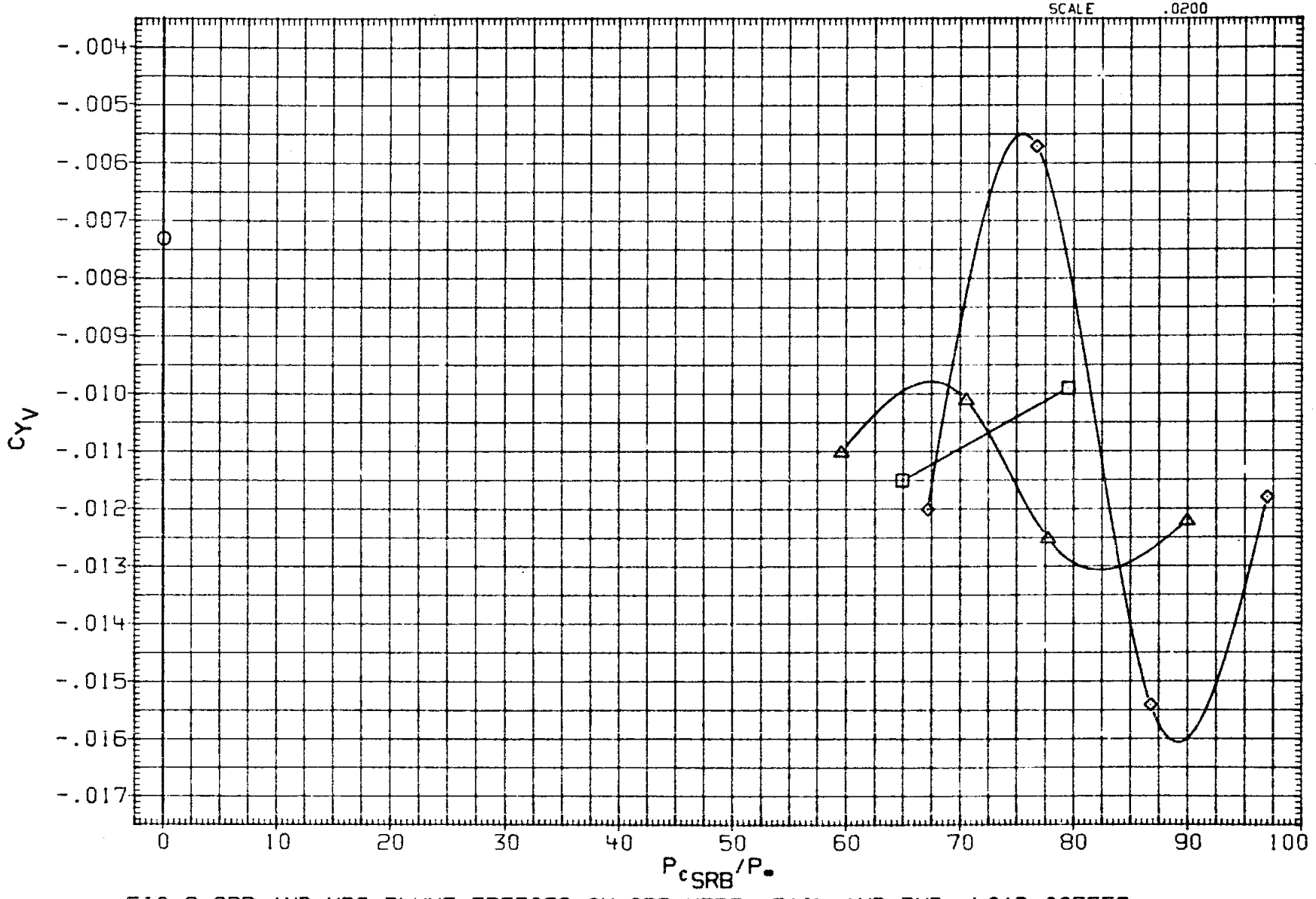

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
HNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
HNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
HNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
HNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

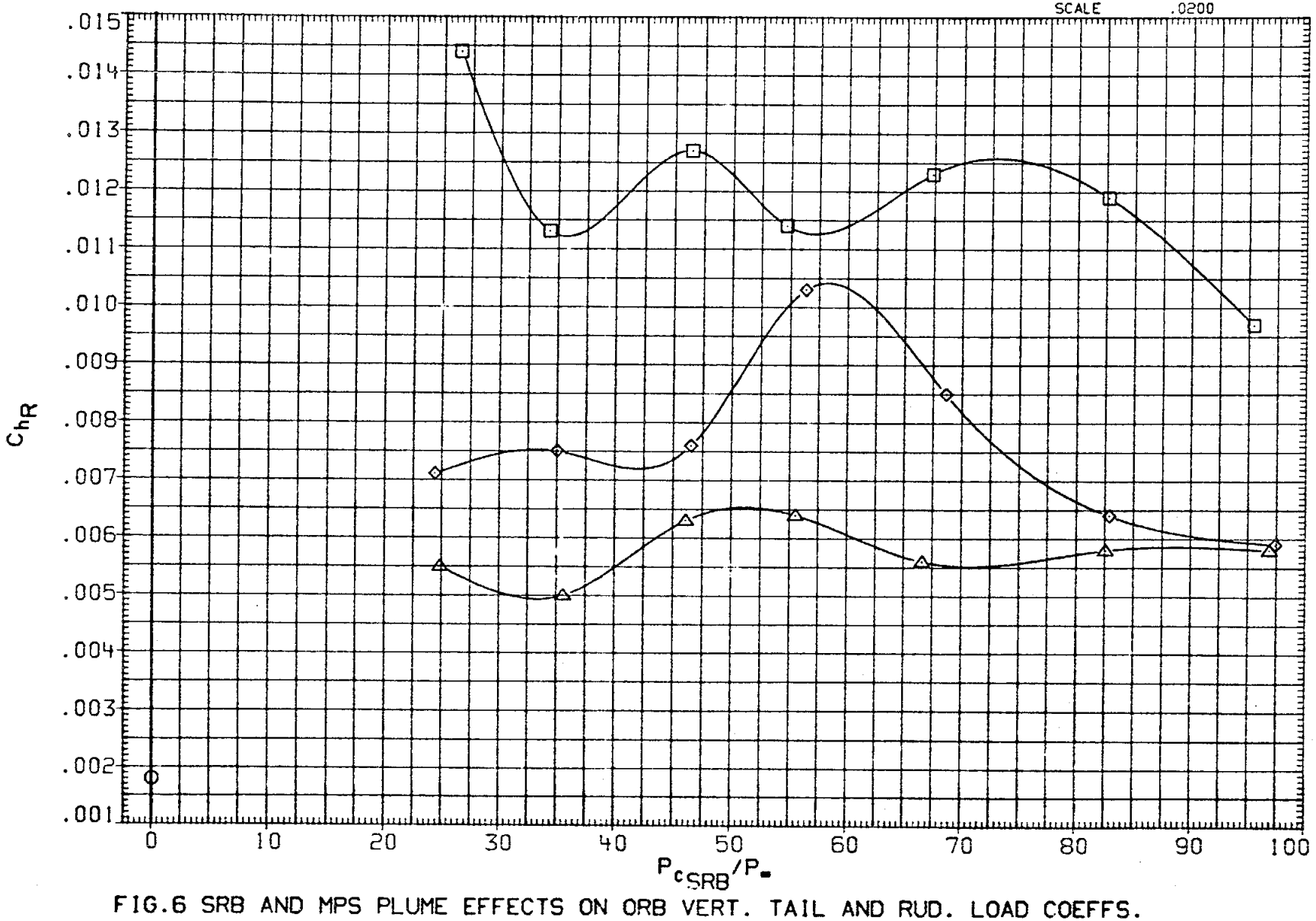

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
BNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
BNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
BNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

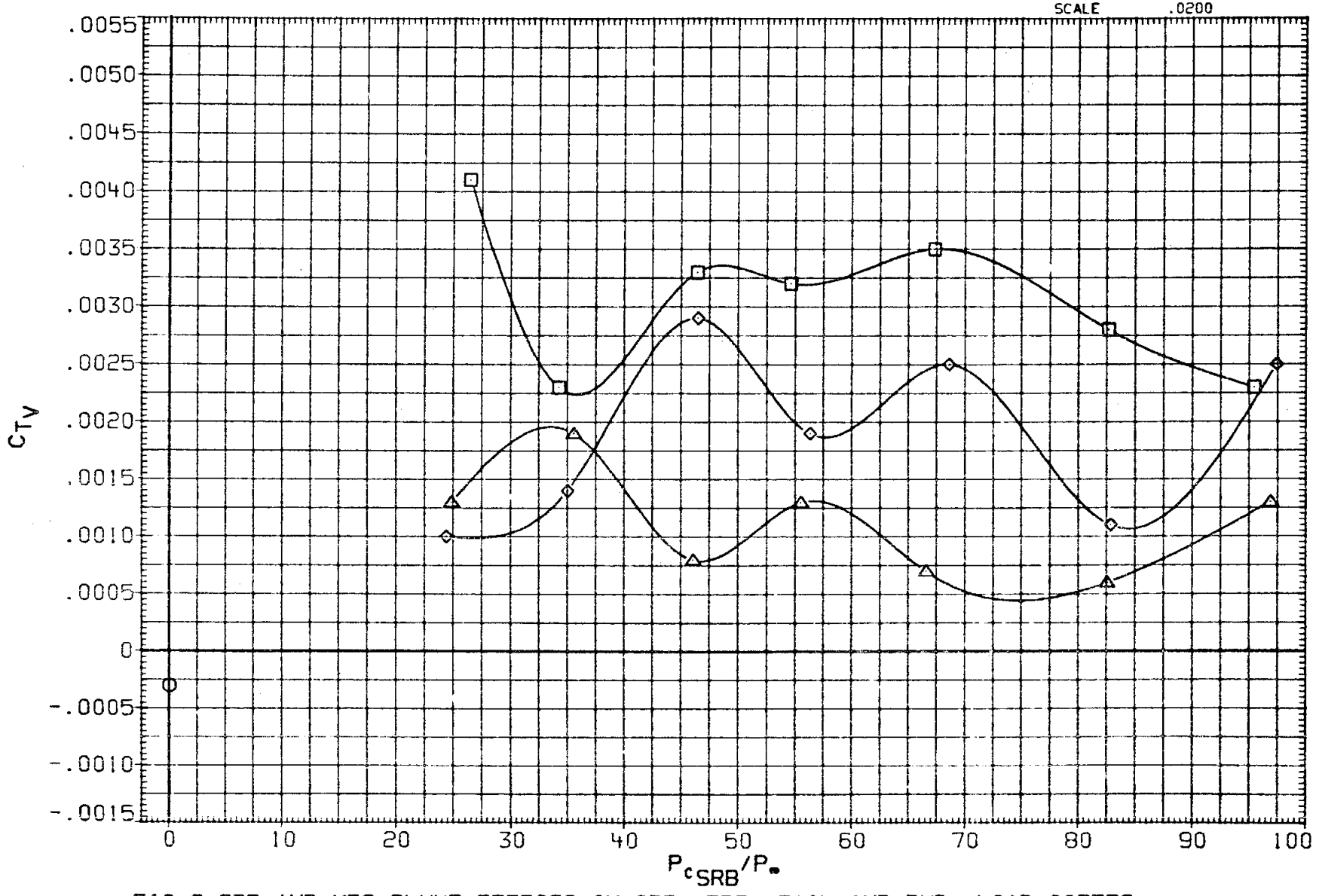

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
BNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
BNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
BNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

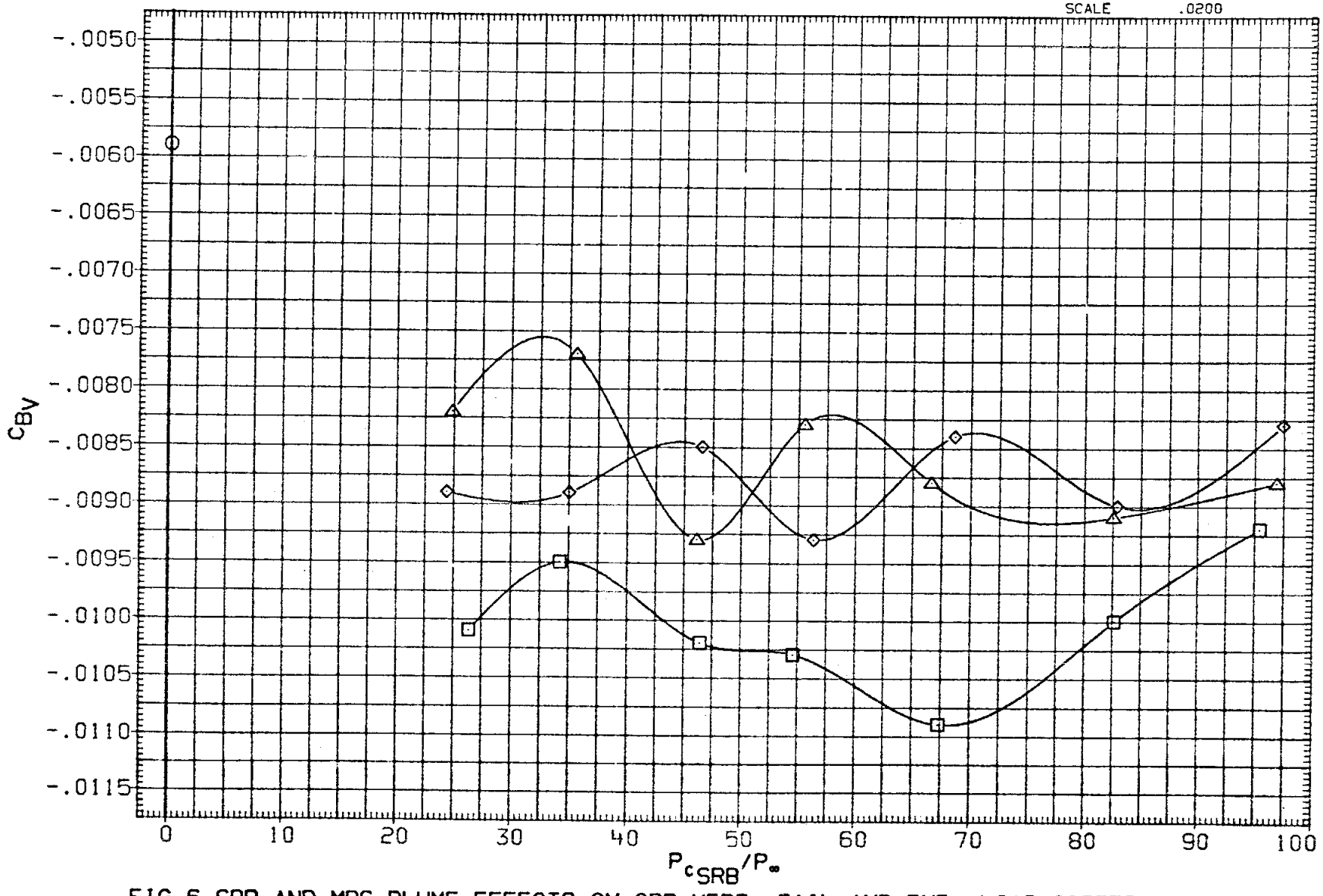

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
BNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
BNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
BNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
BNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

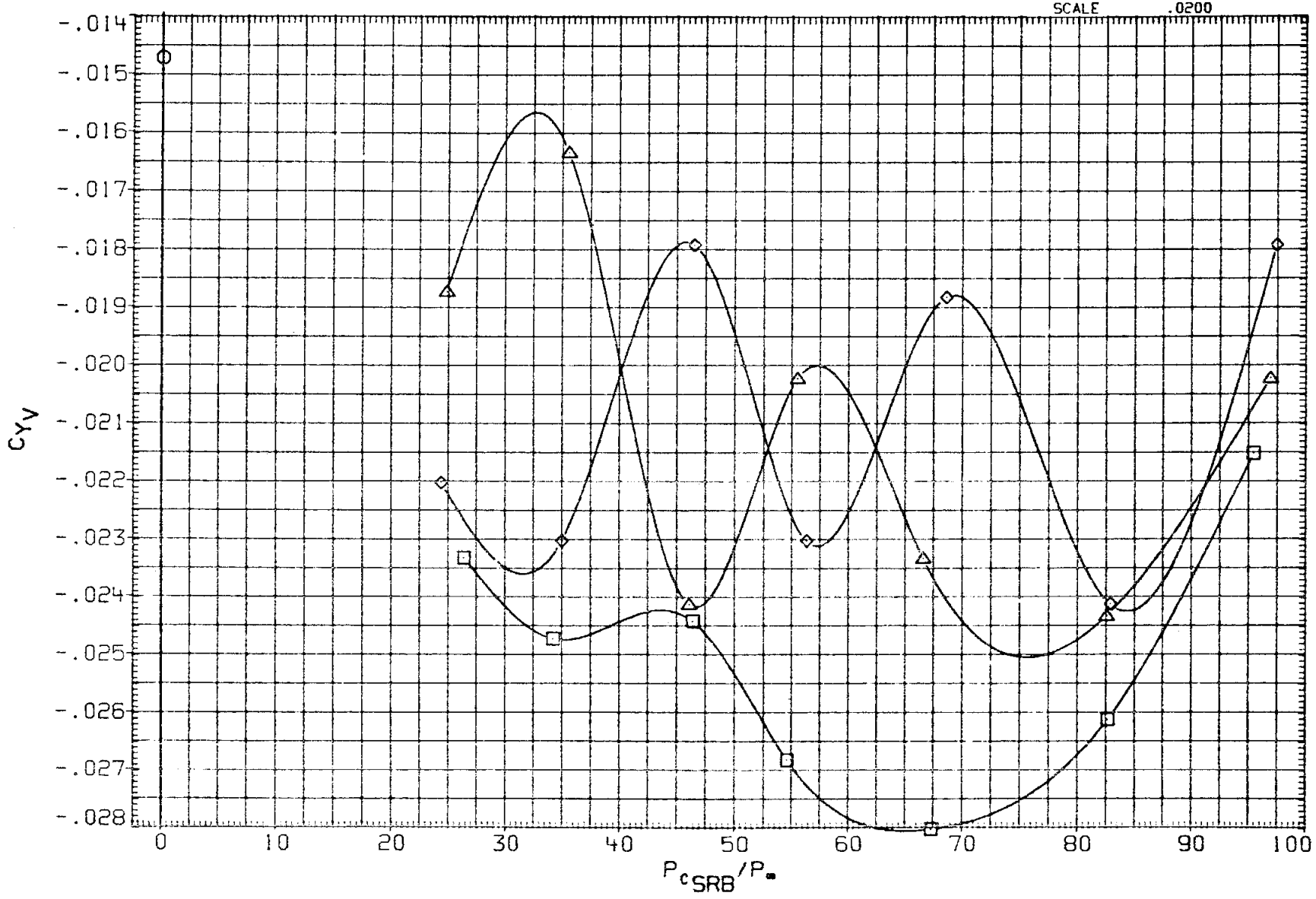

FIG.6 SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
2NEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
2NEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
2NEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

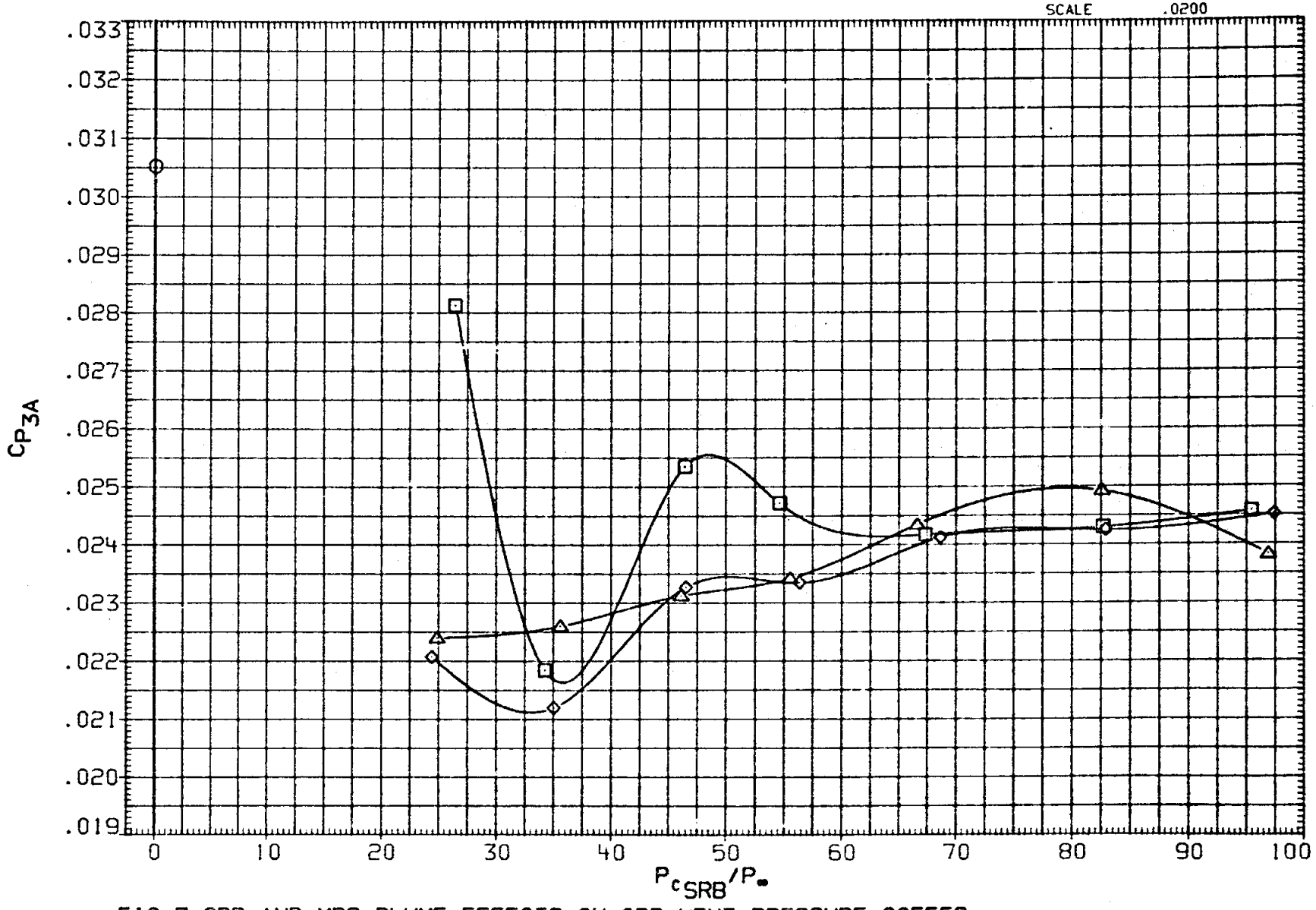

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
2NEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
2NEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
2NEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

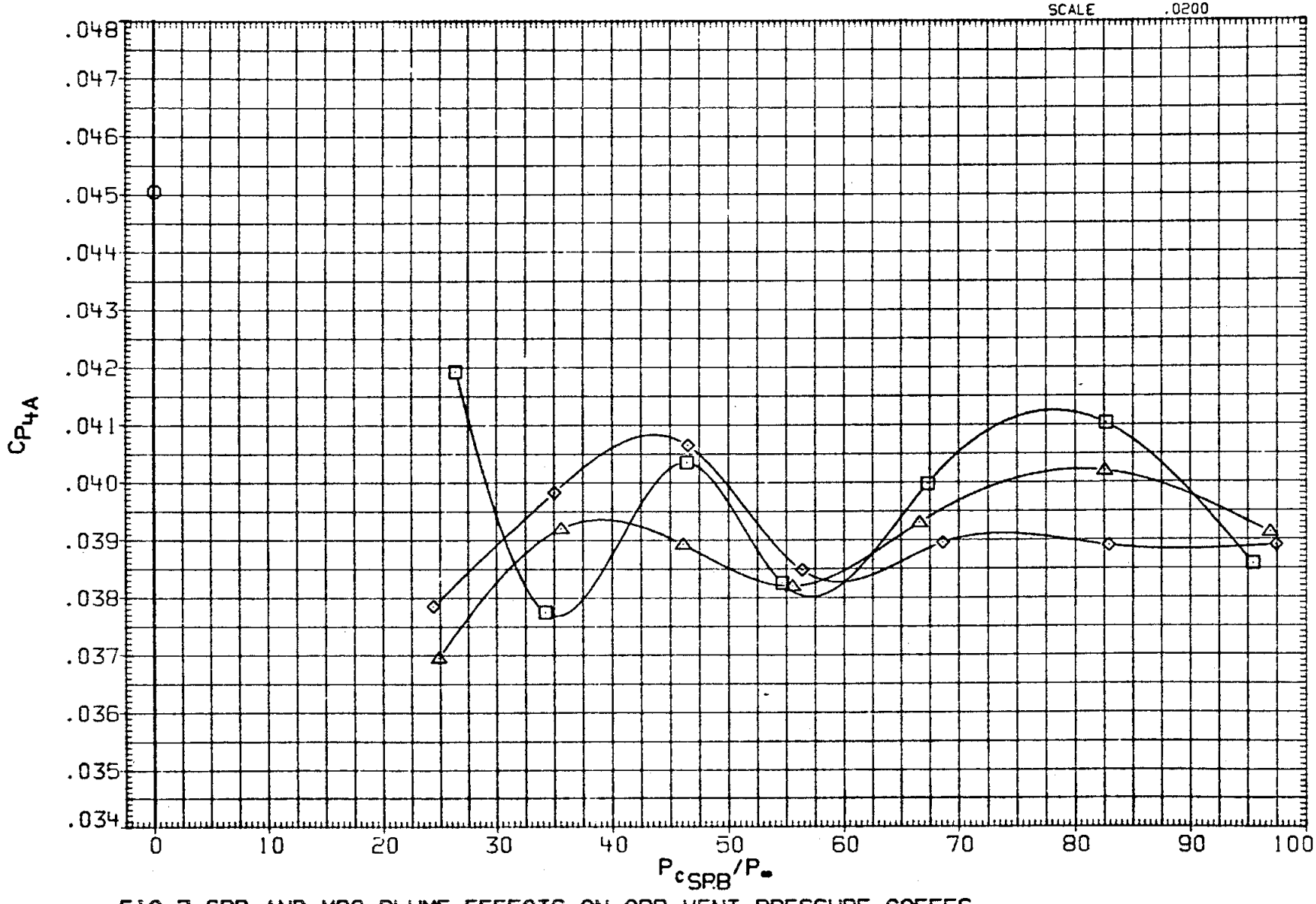

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
2NEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
2NEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
2NEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

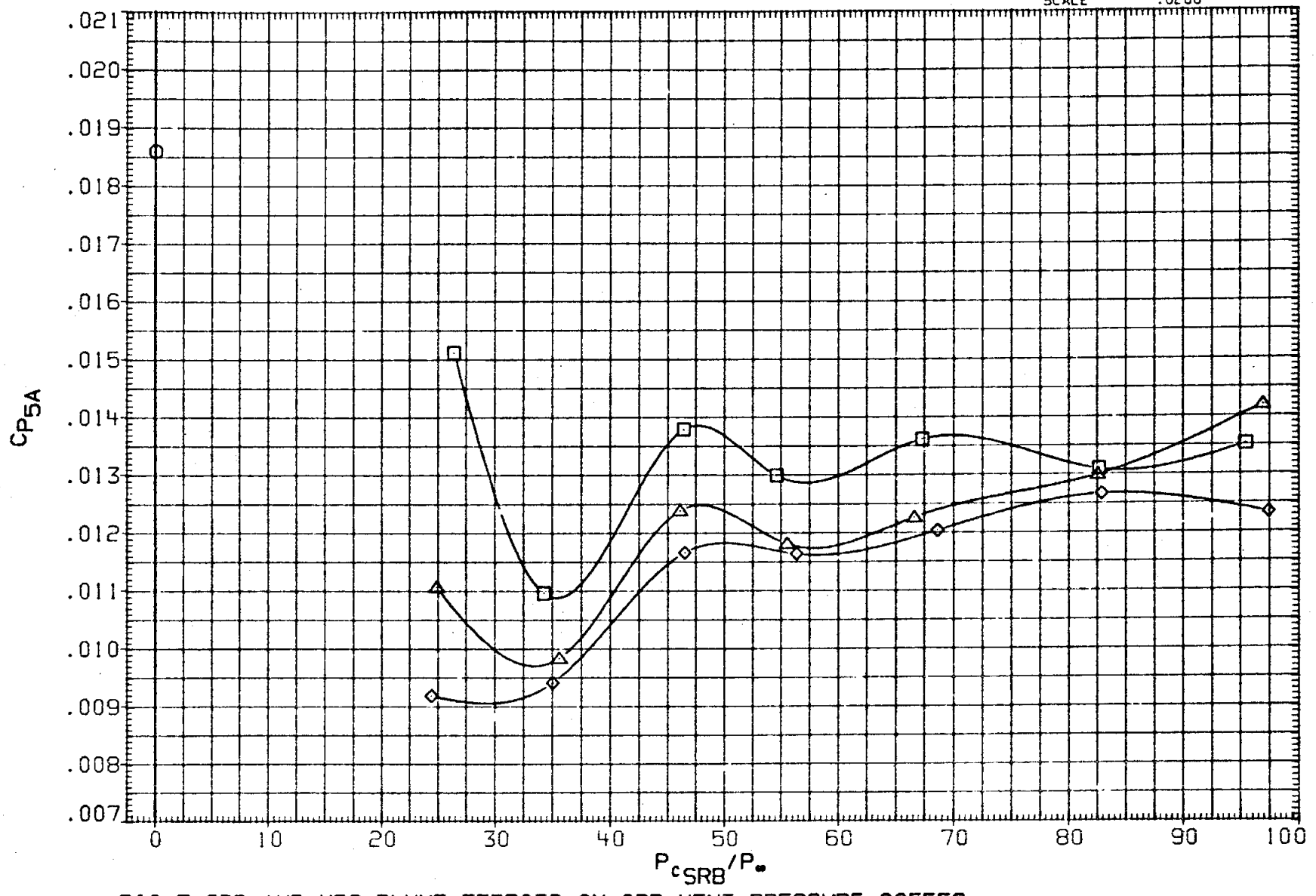

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
2NEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
2NEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
2NEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

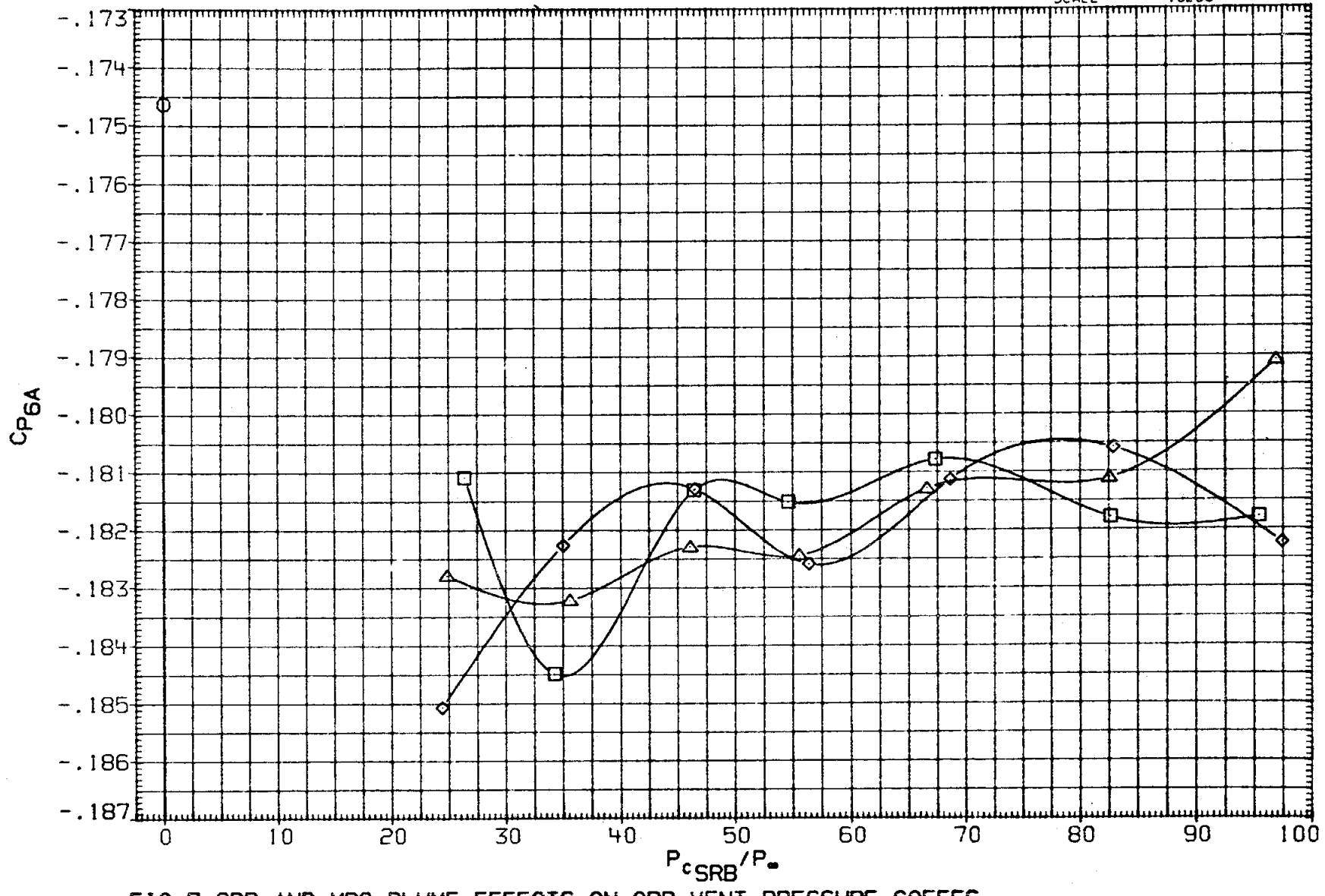

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
2NEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
2NEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
2NEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

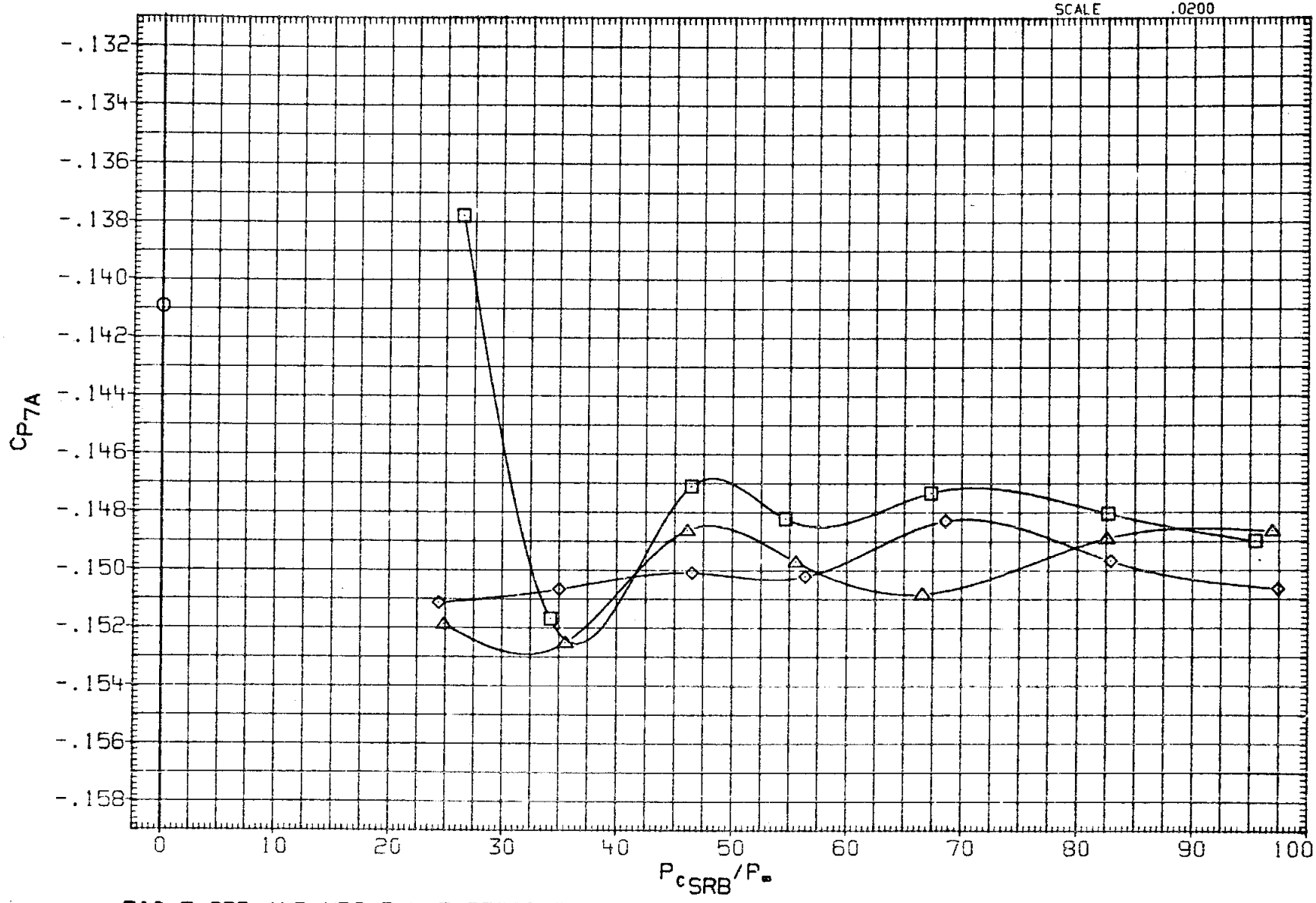

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

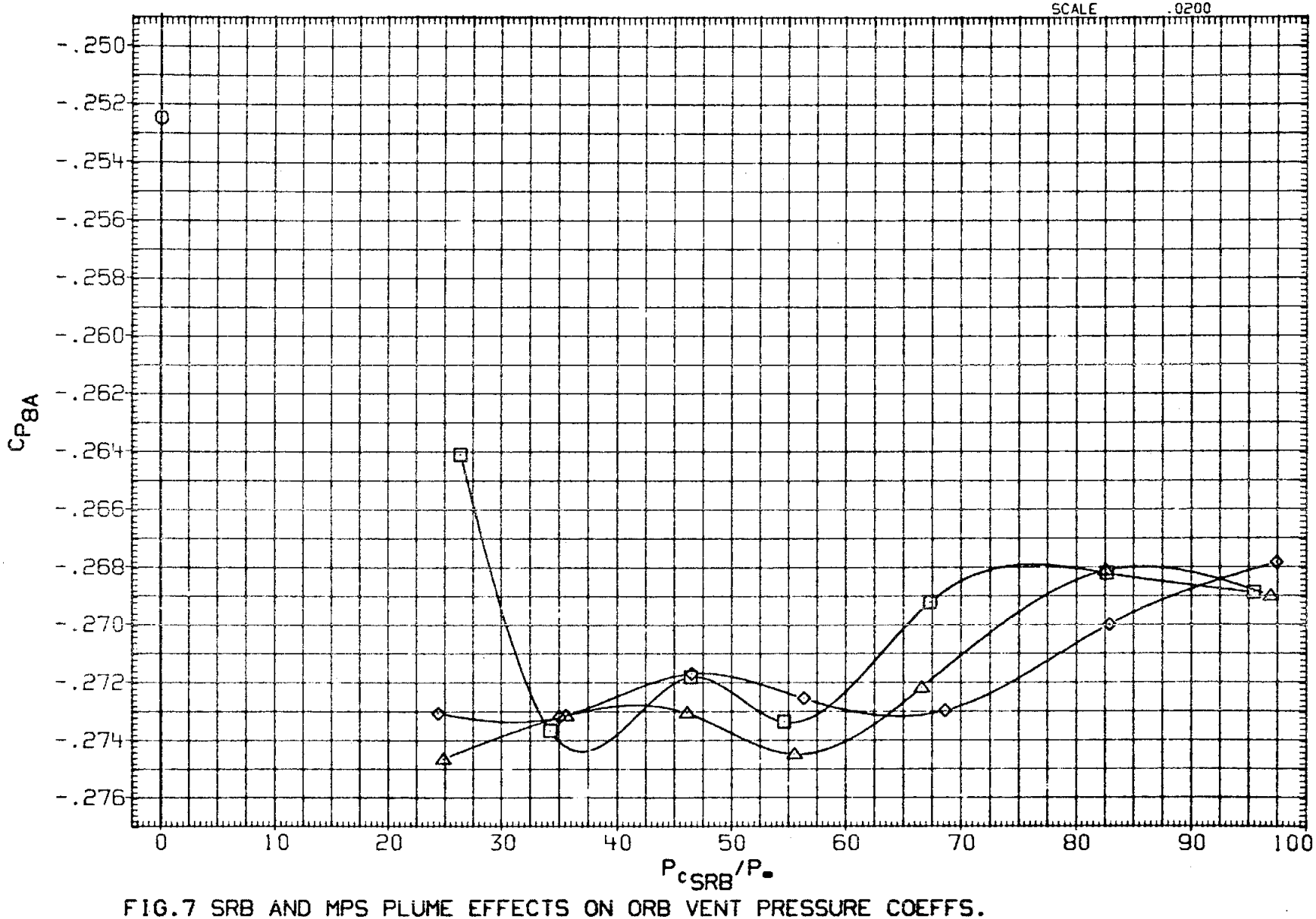

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

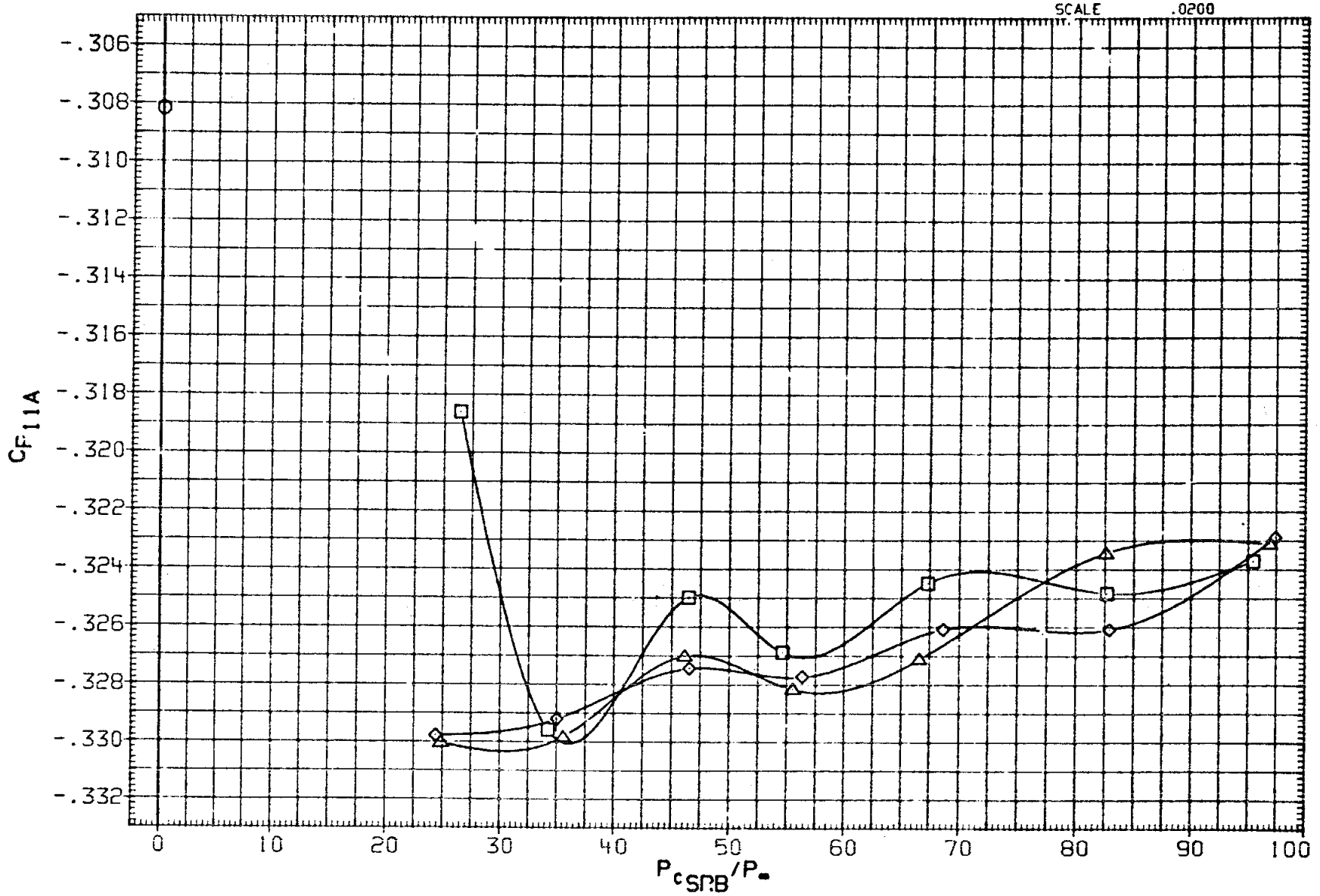

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

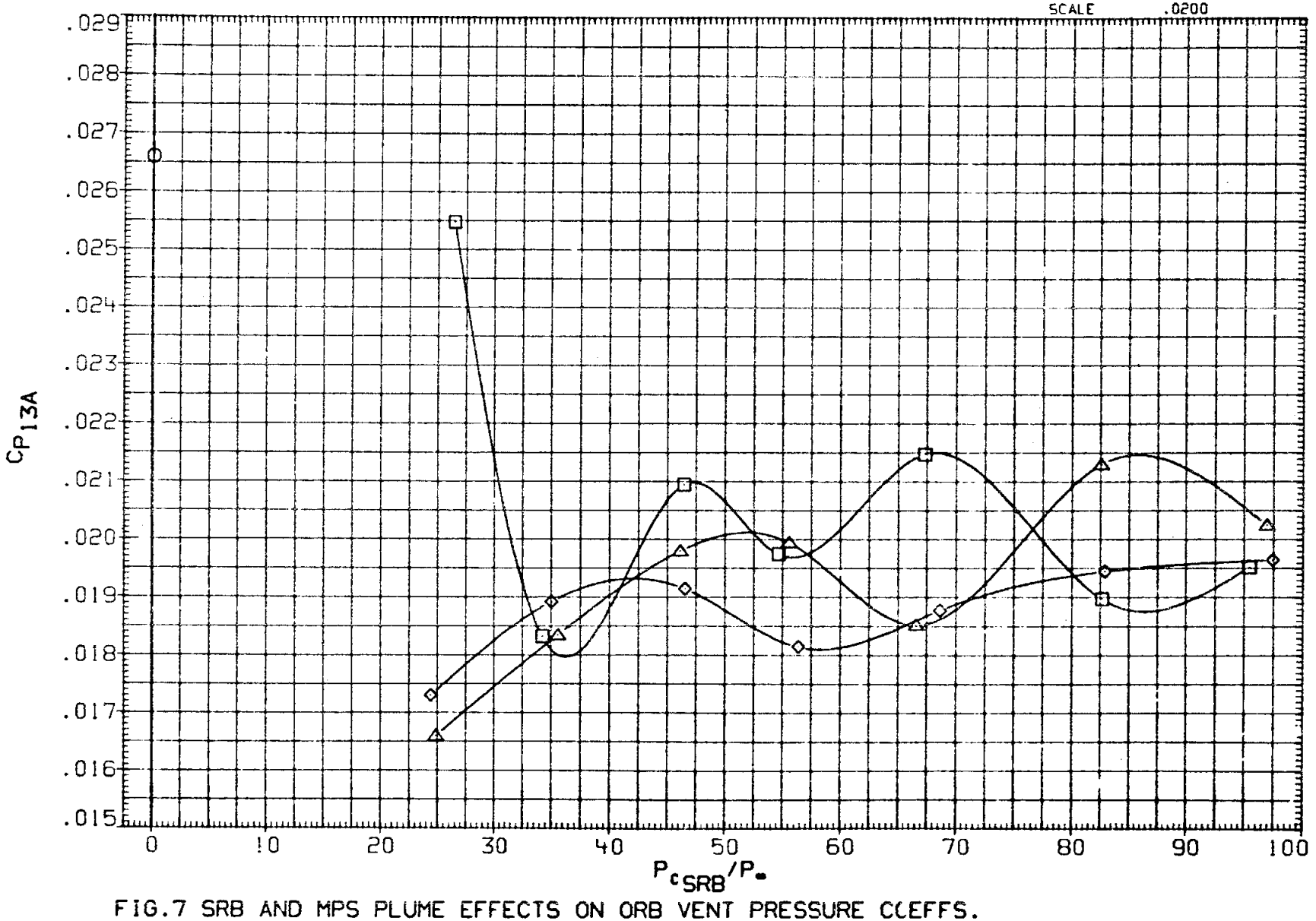

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

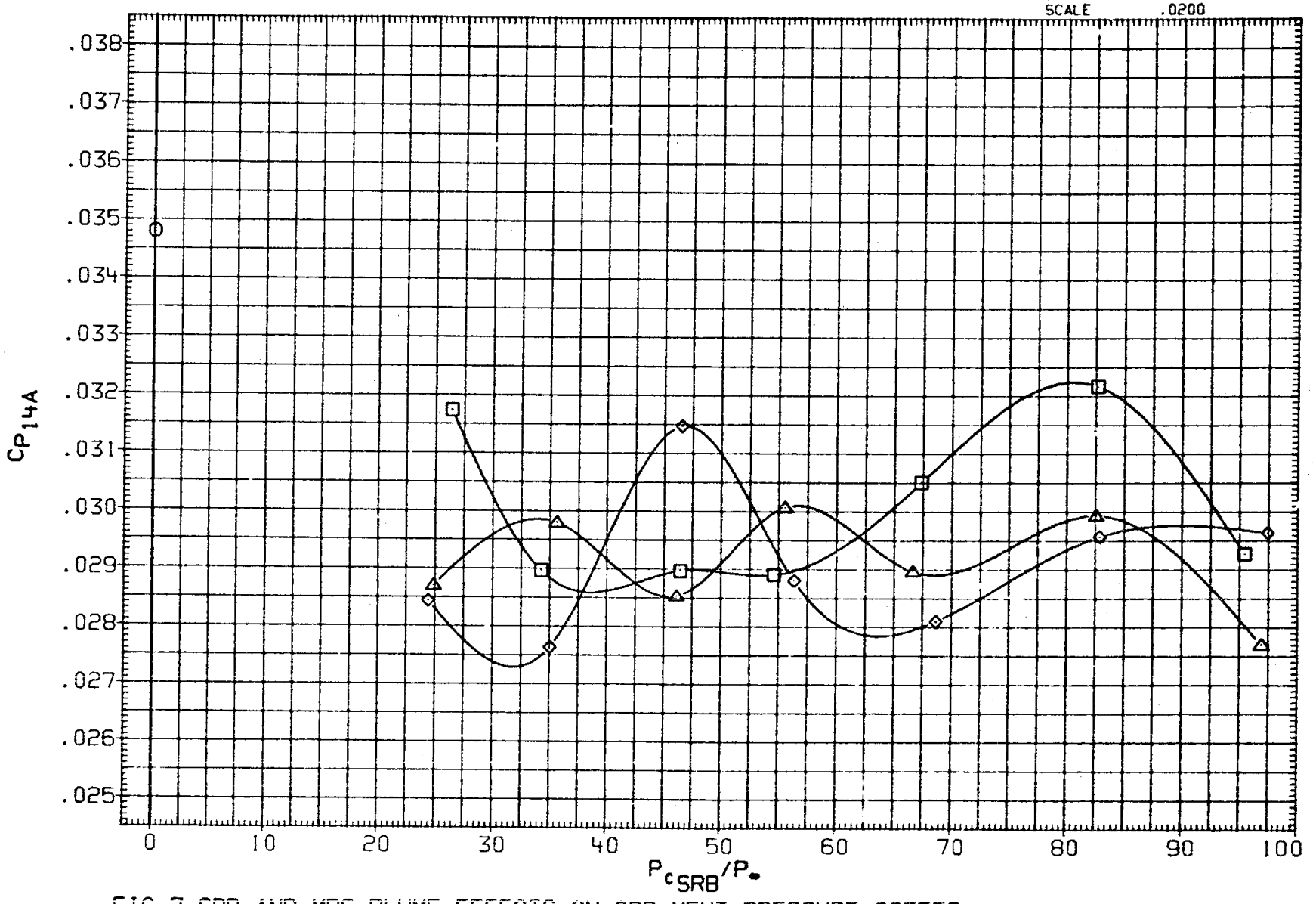

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

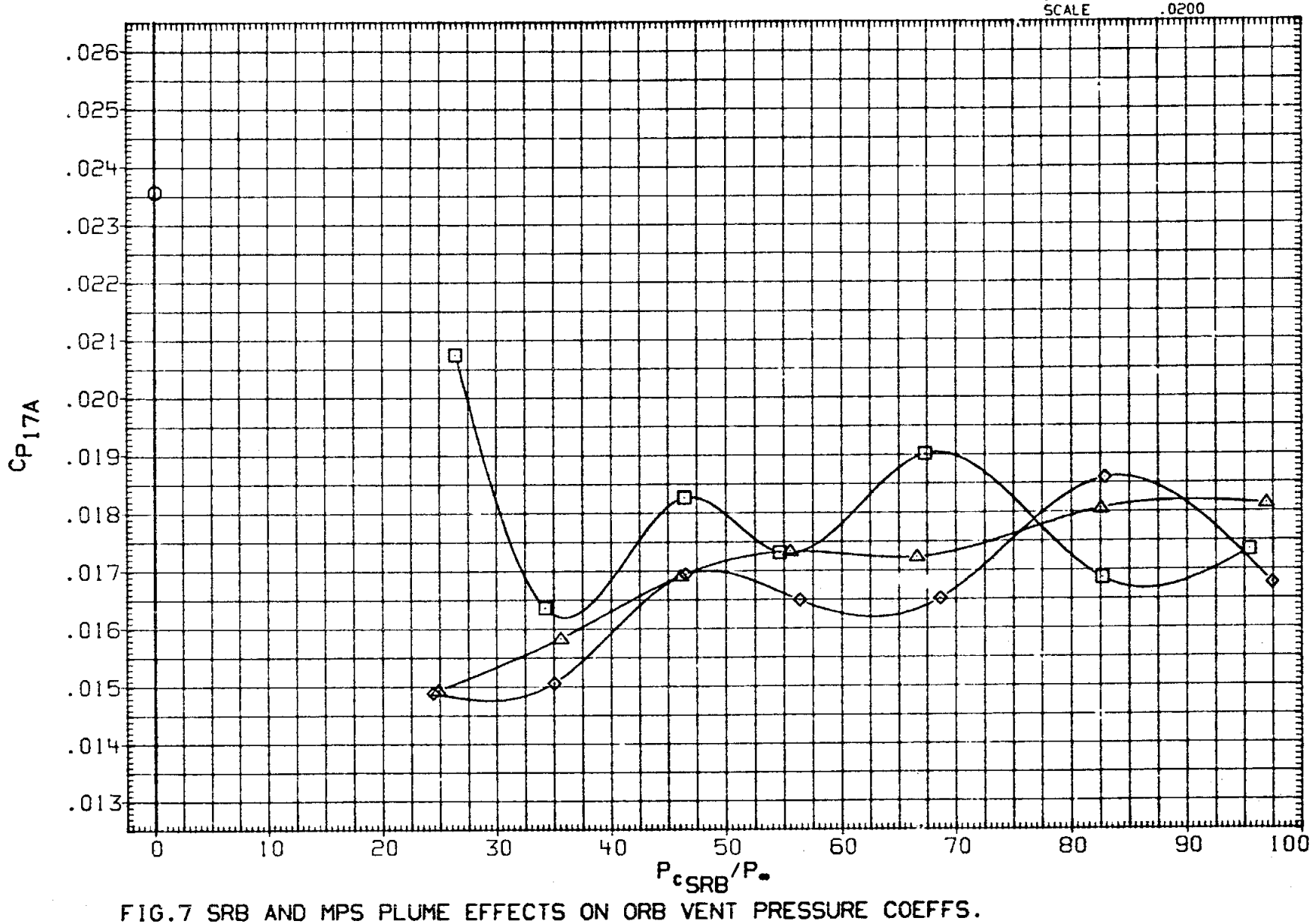

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
RNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
RNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
RNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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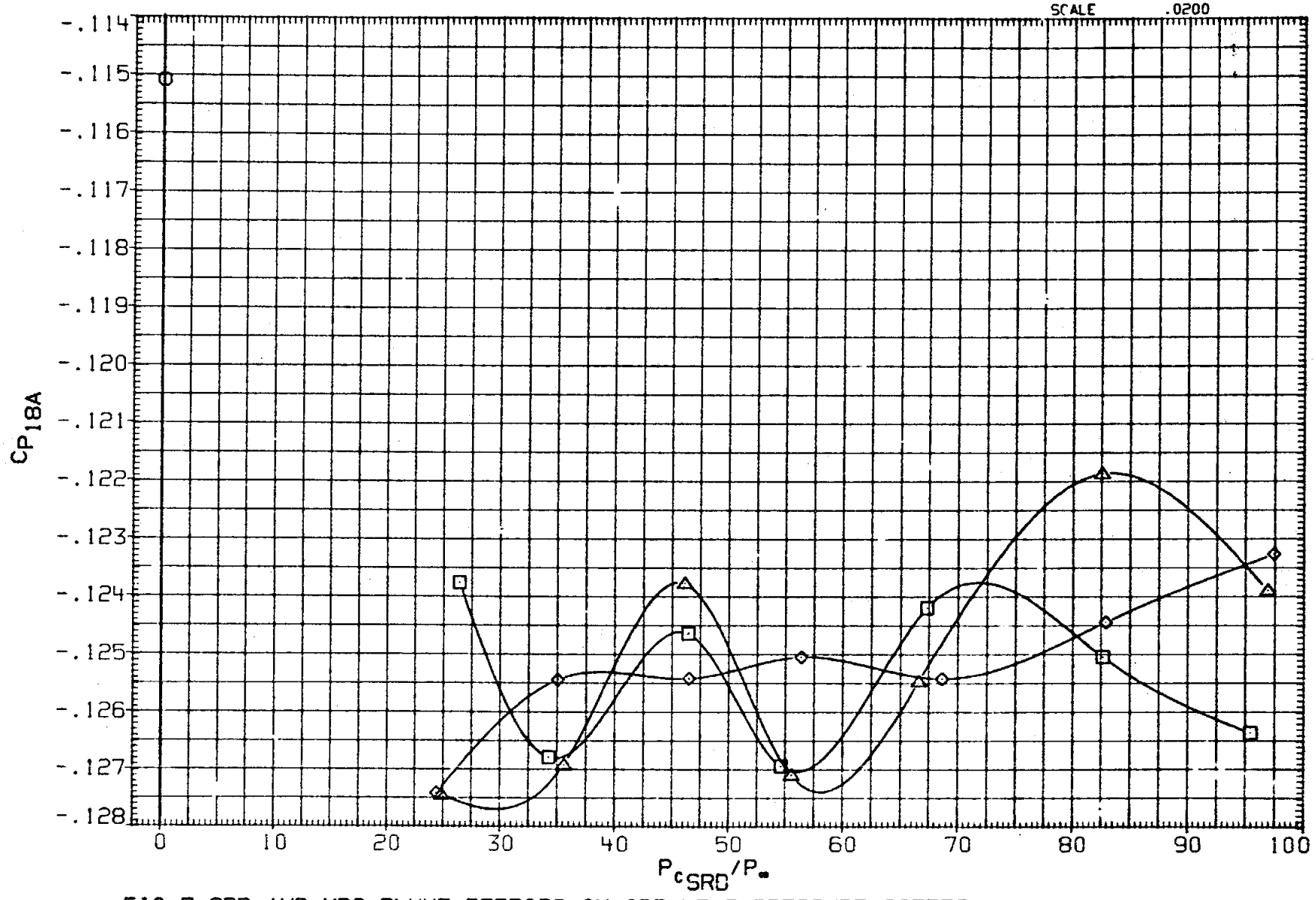

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

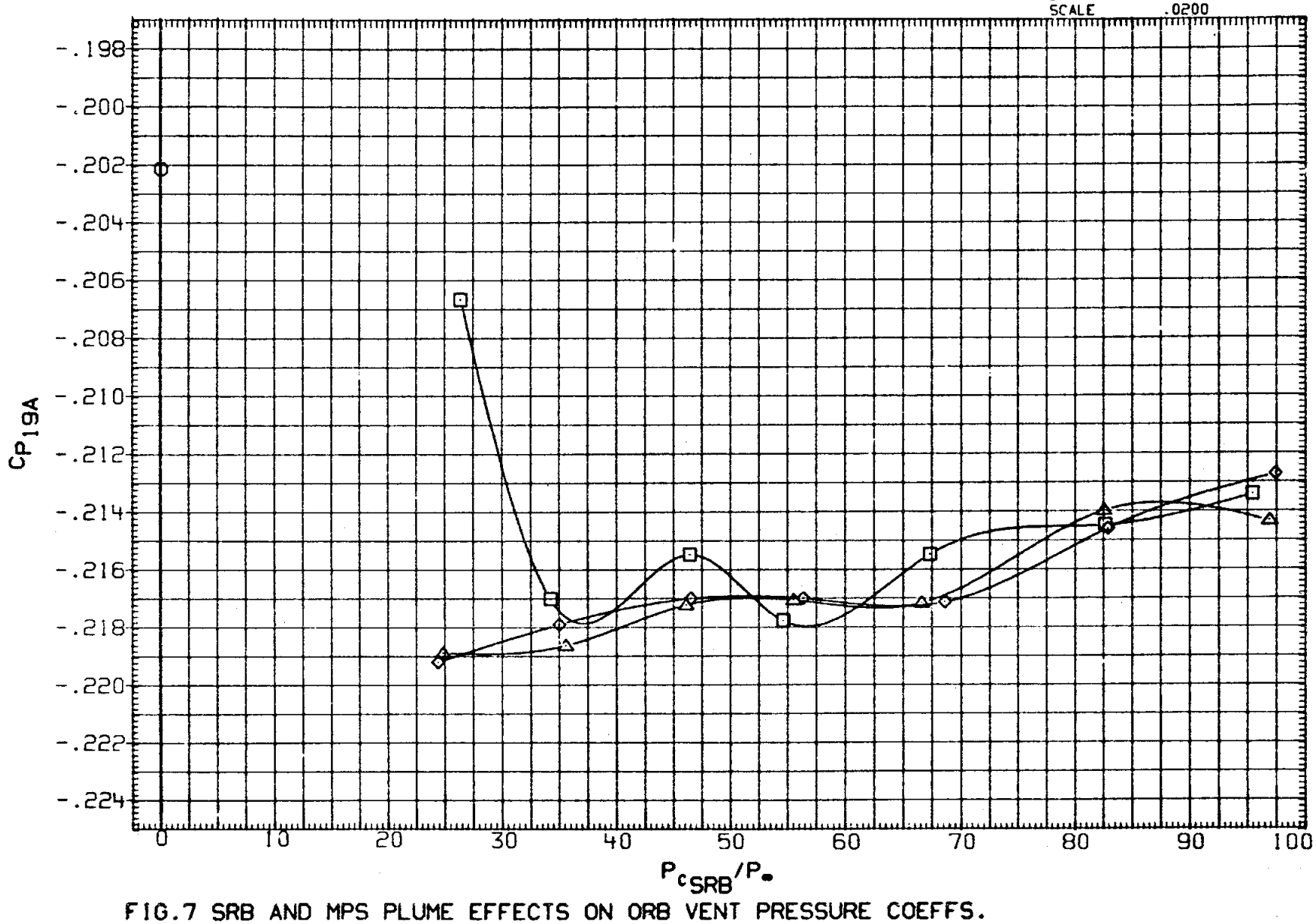

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

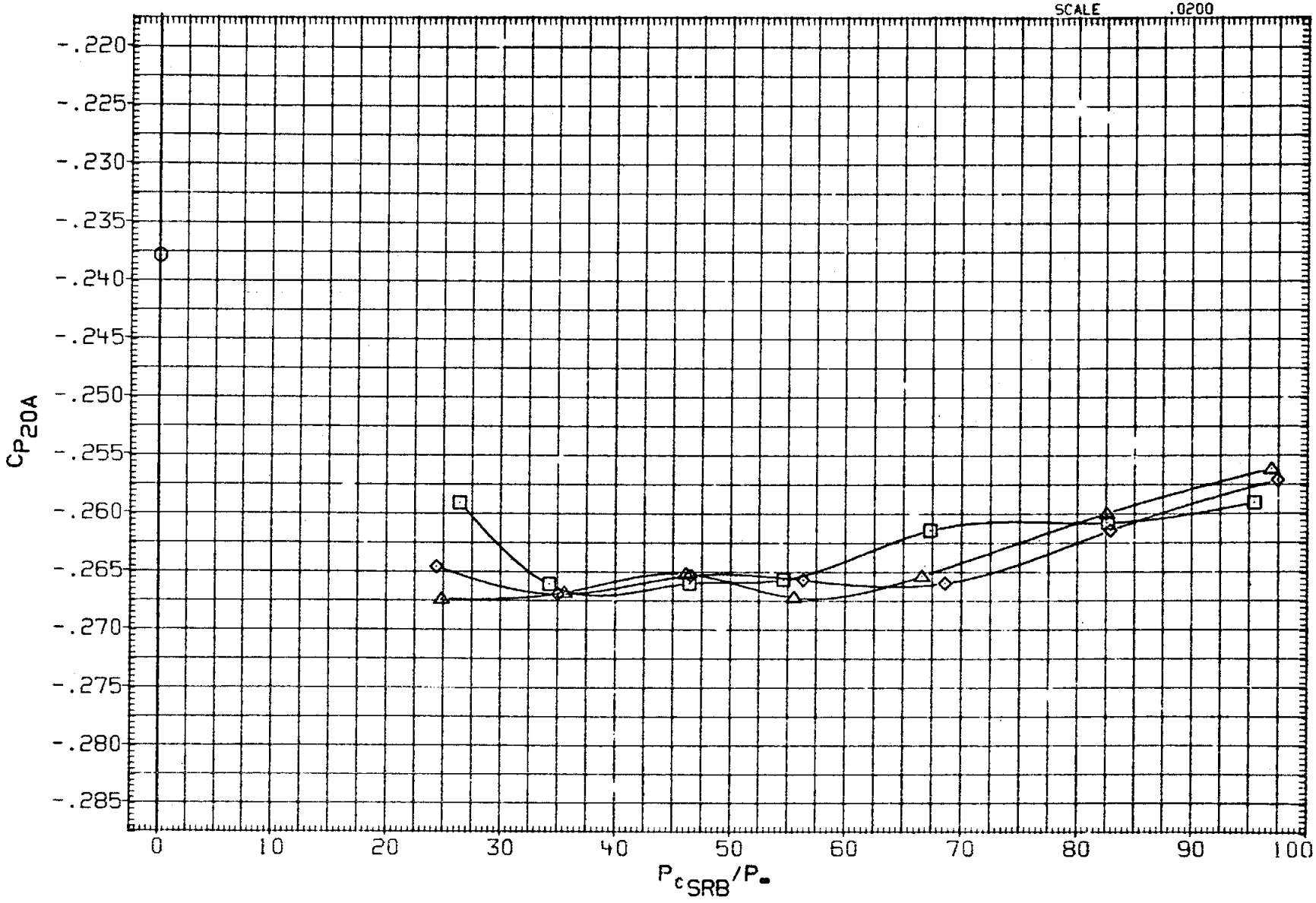

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

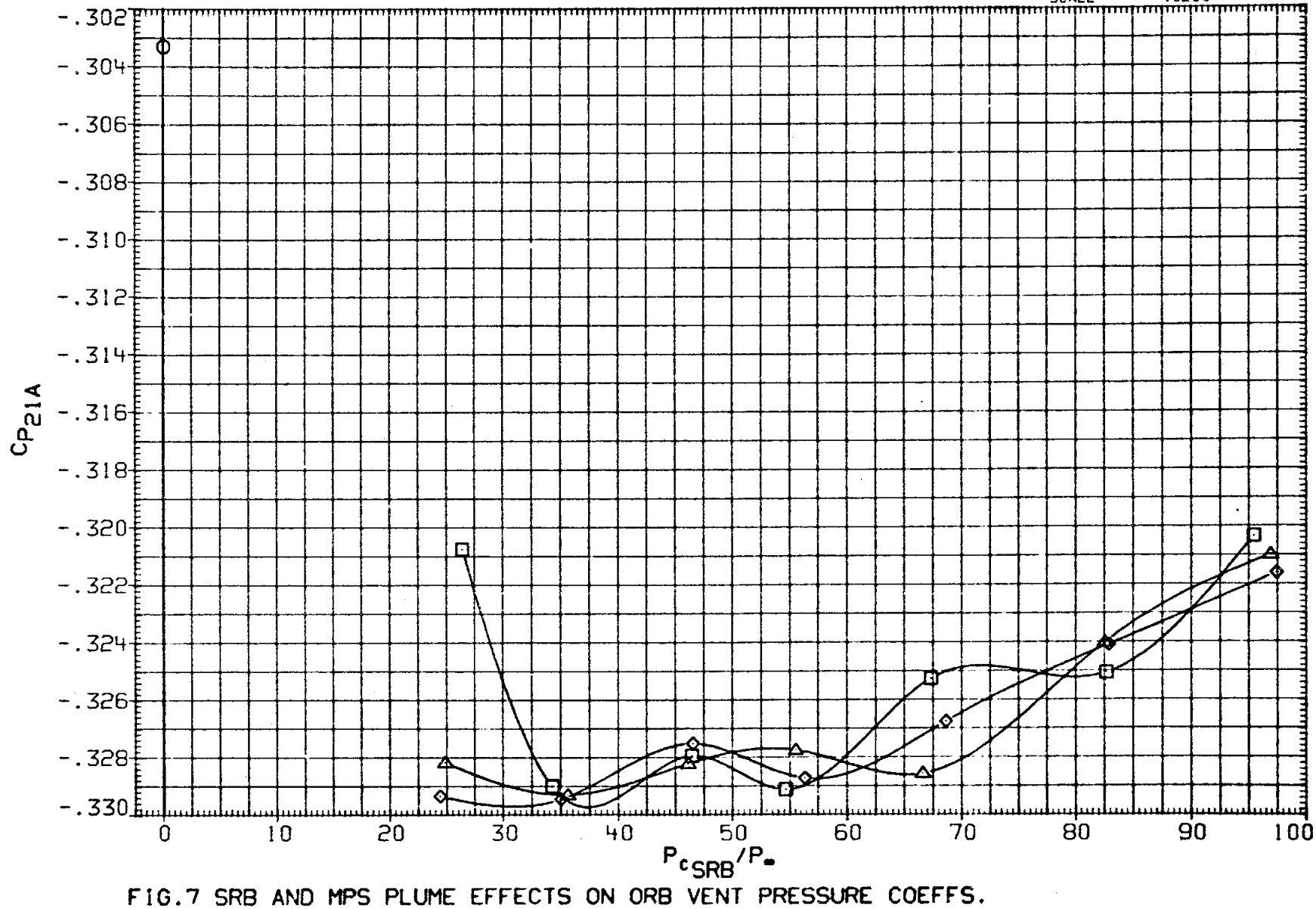

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

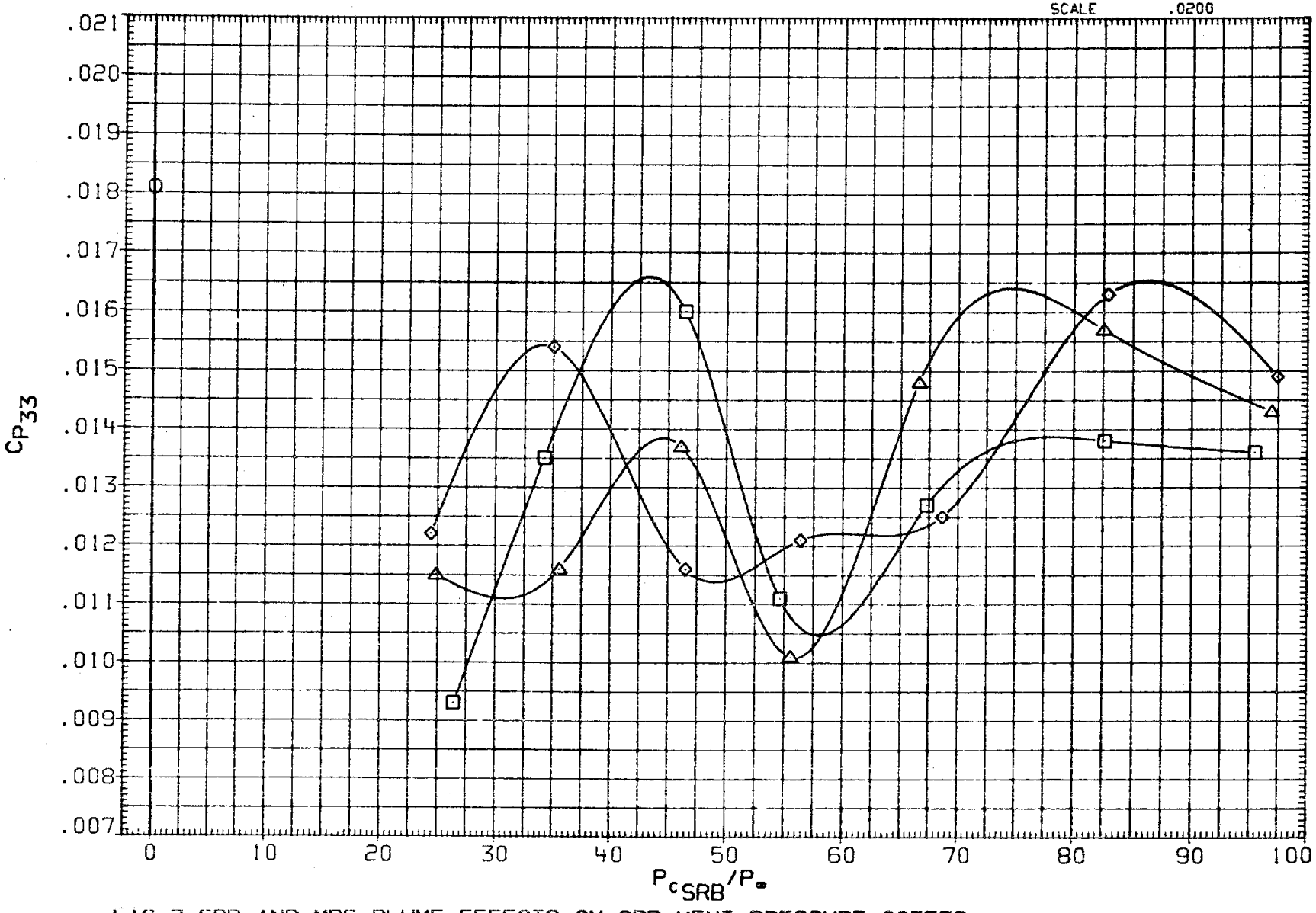

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
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ZMRP	.0000	N A.
SCALE	.0200	

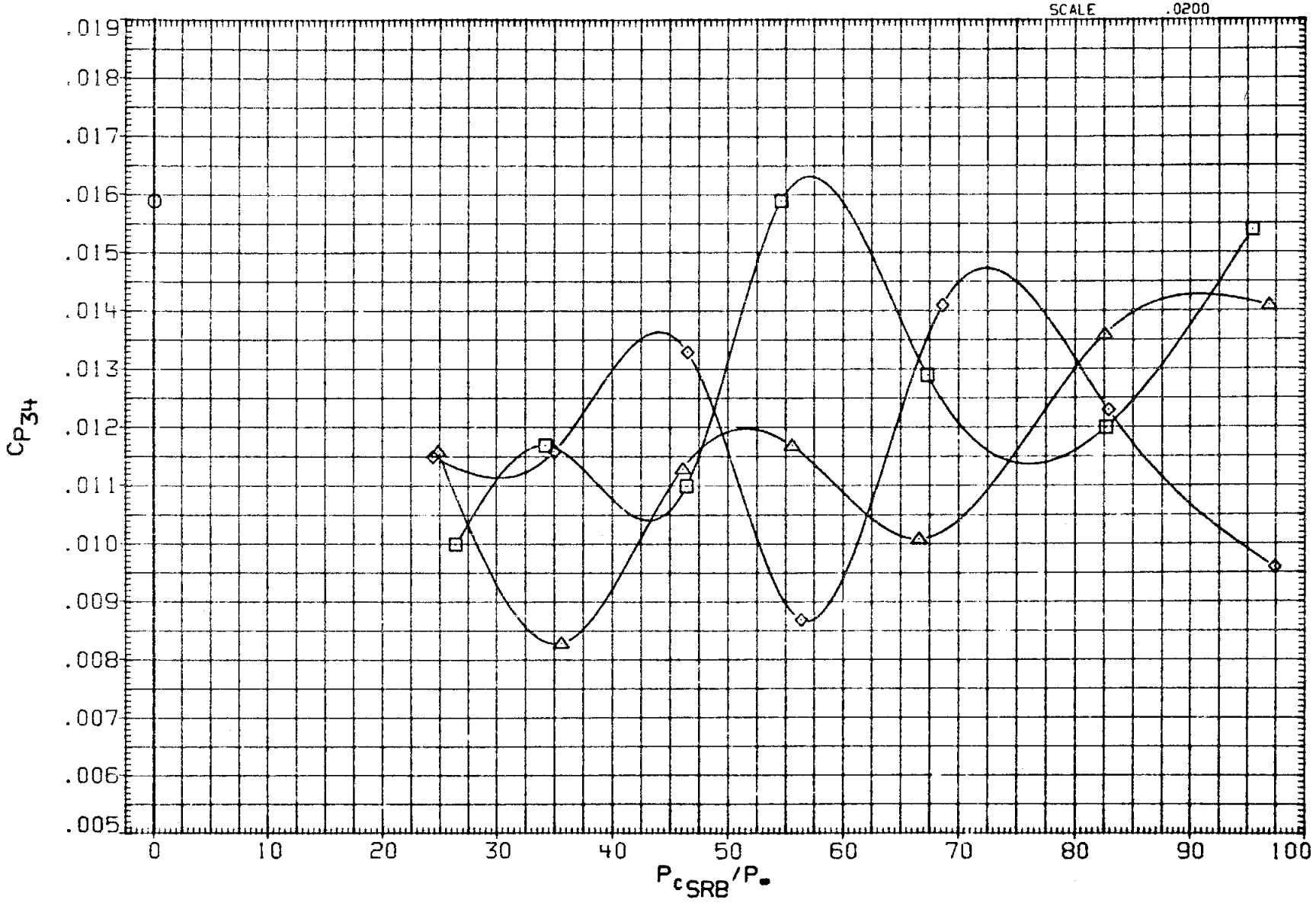

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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ZMRP	.0000	N.A.
SCALE	.0200	

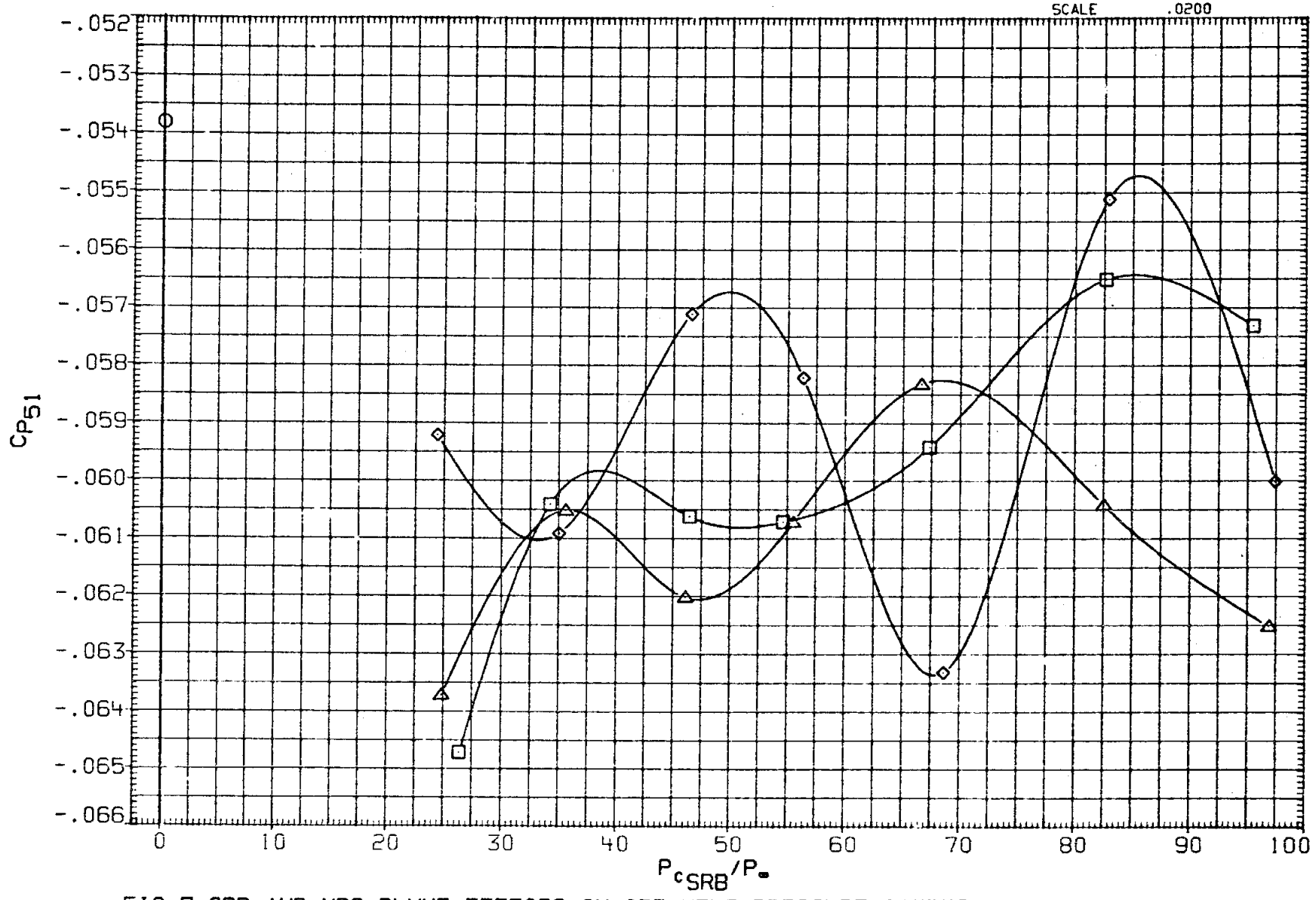

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

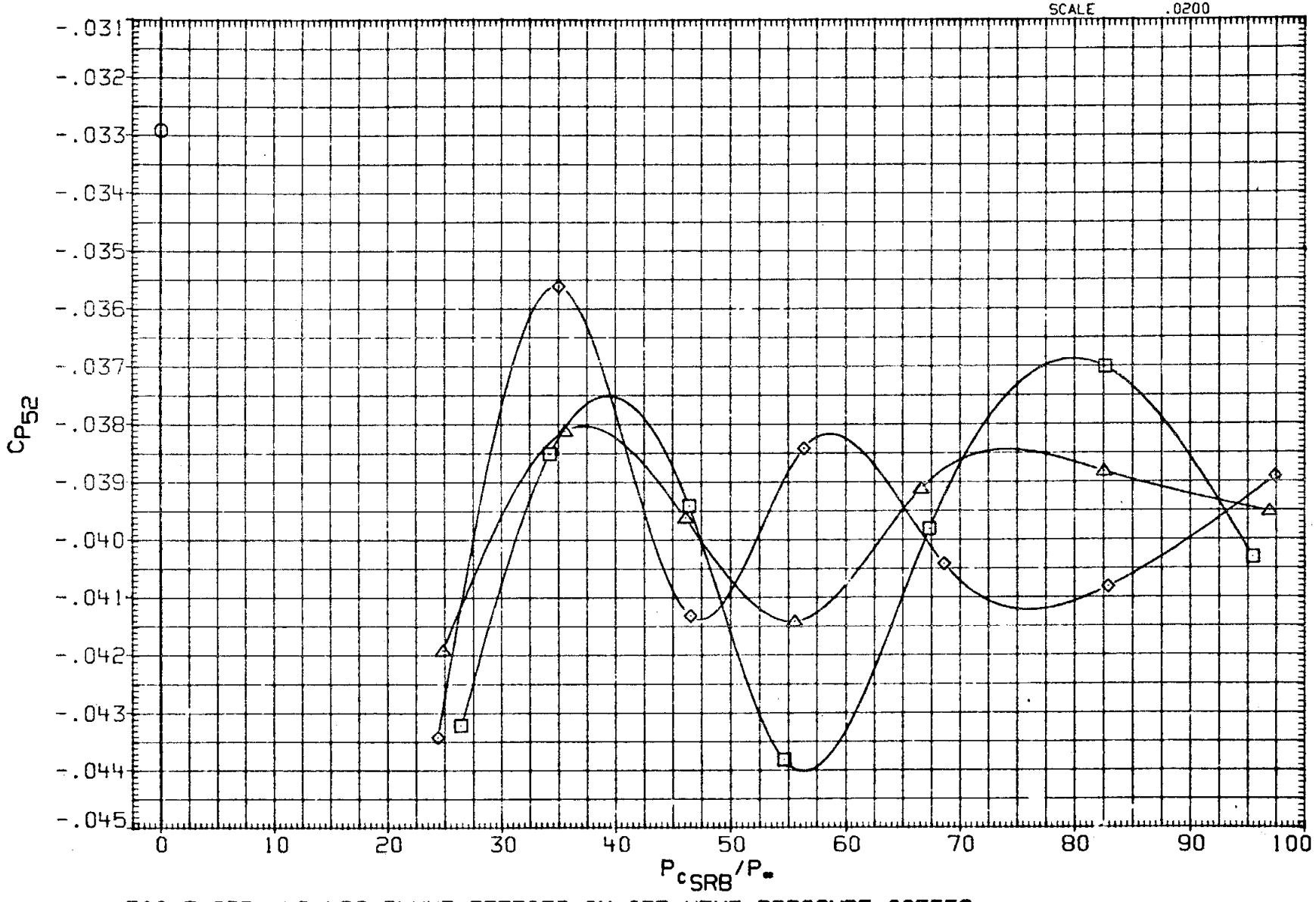

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

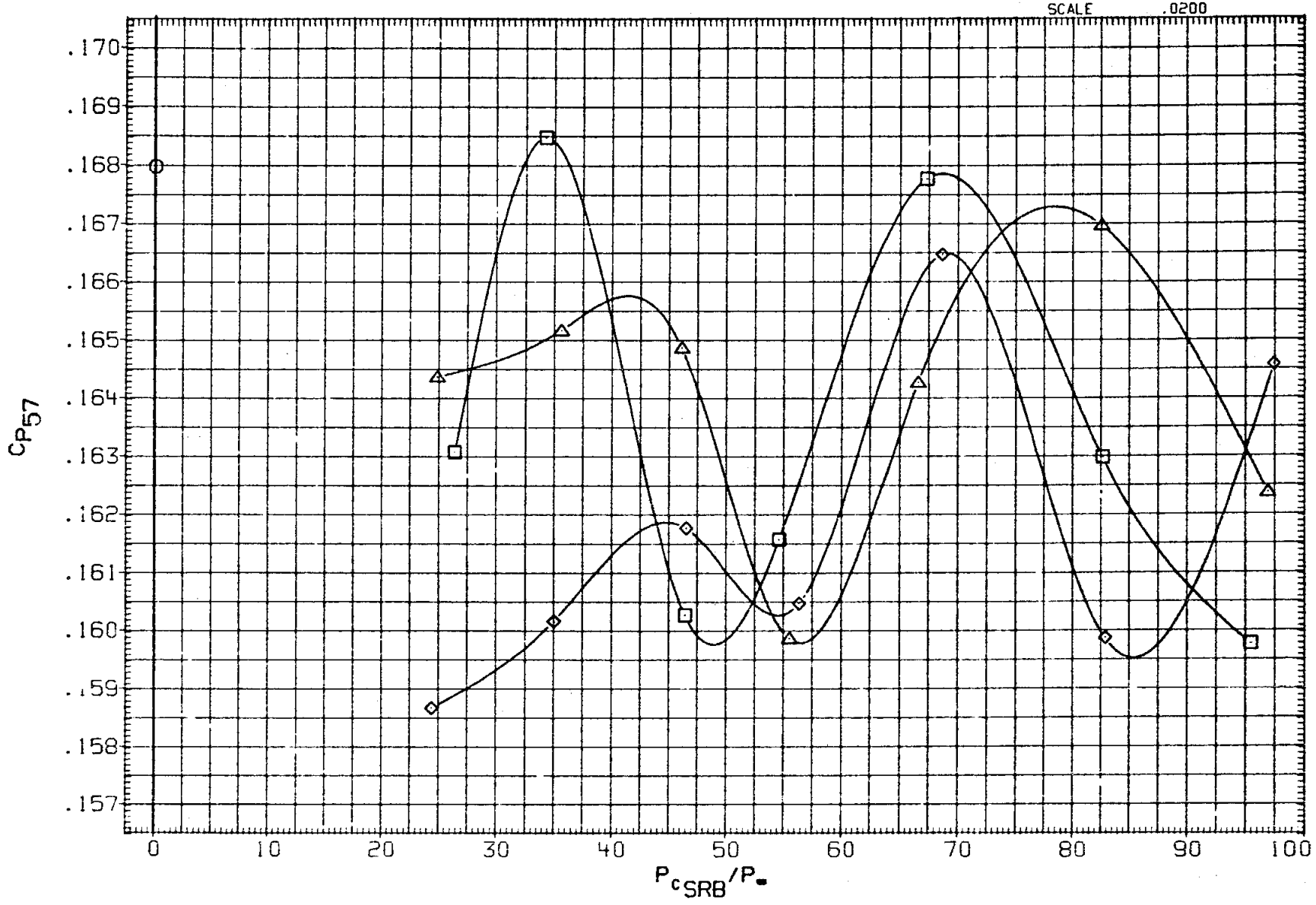

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
UNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
UNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
UNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

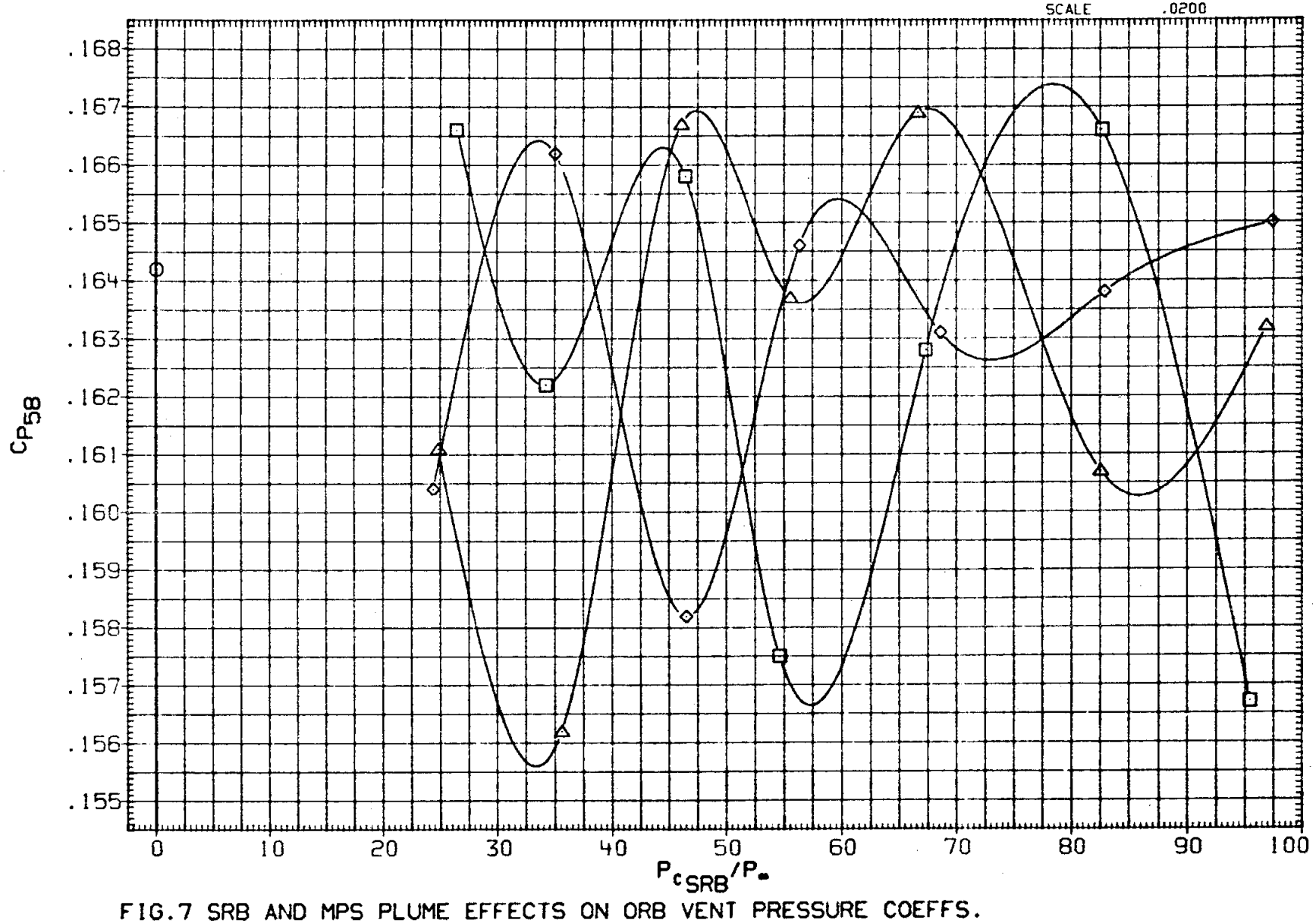

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

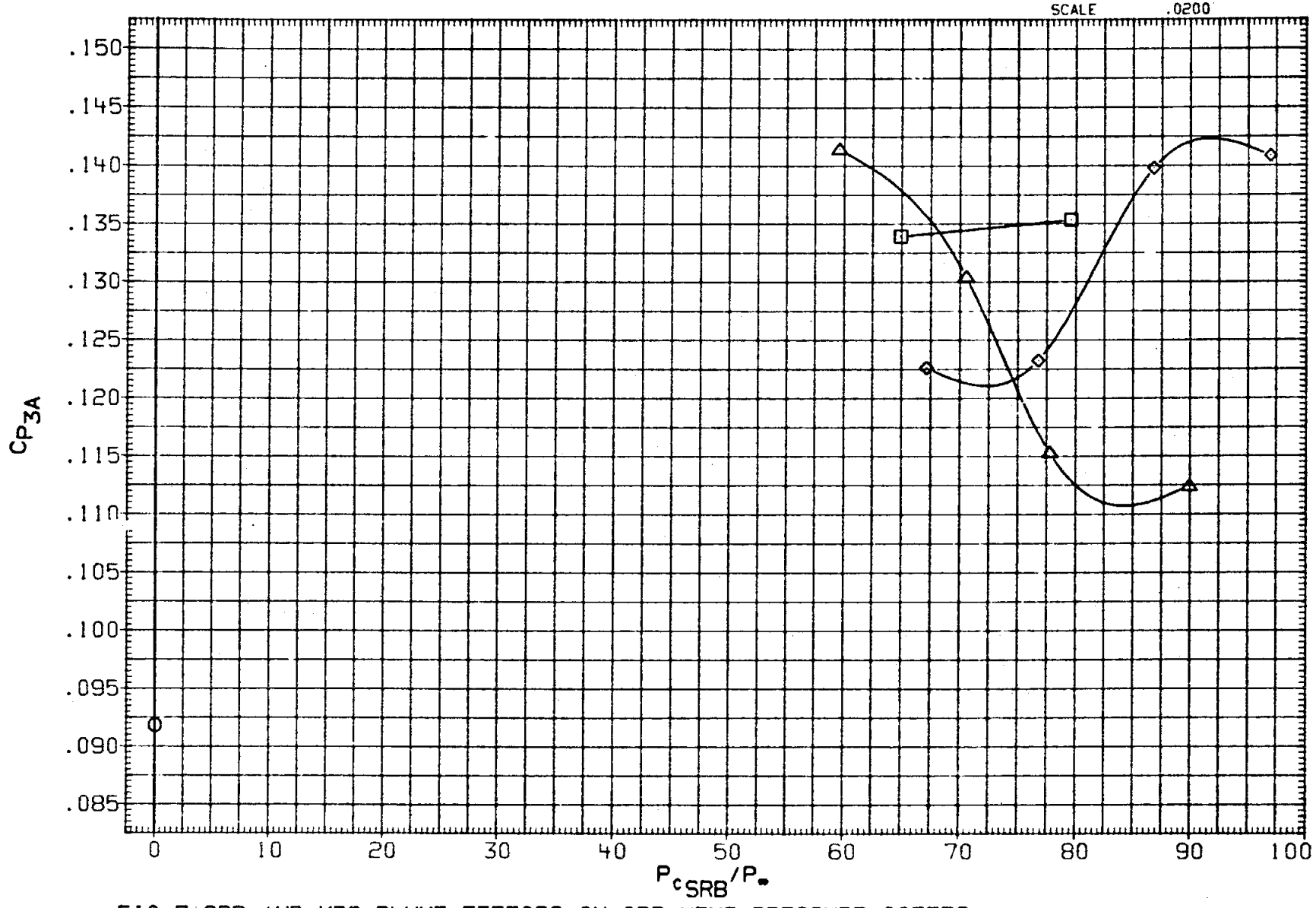

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

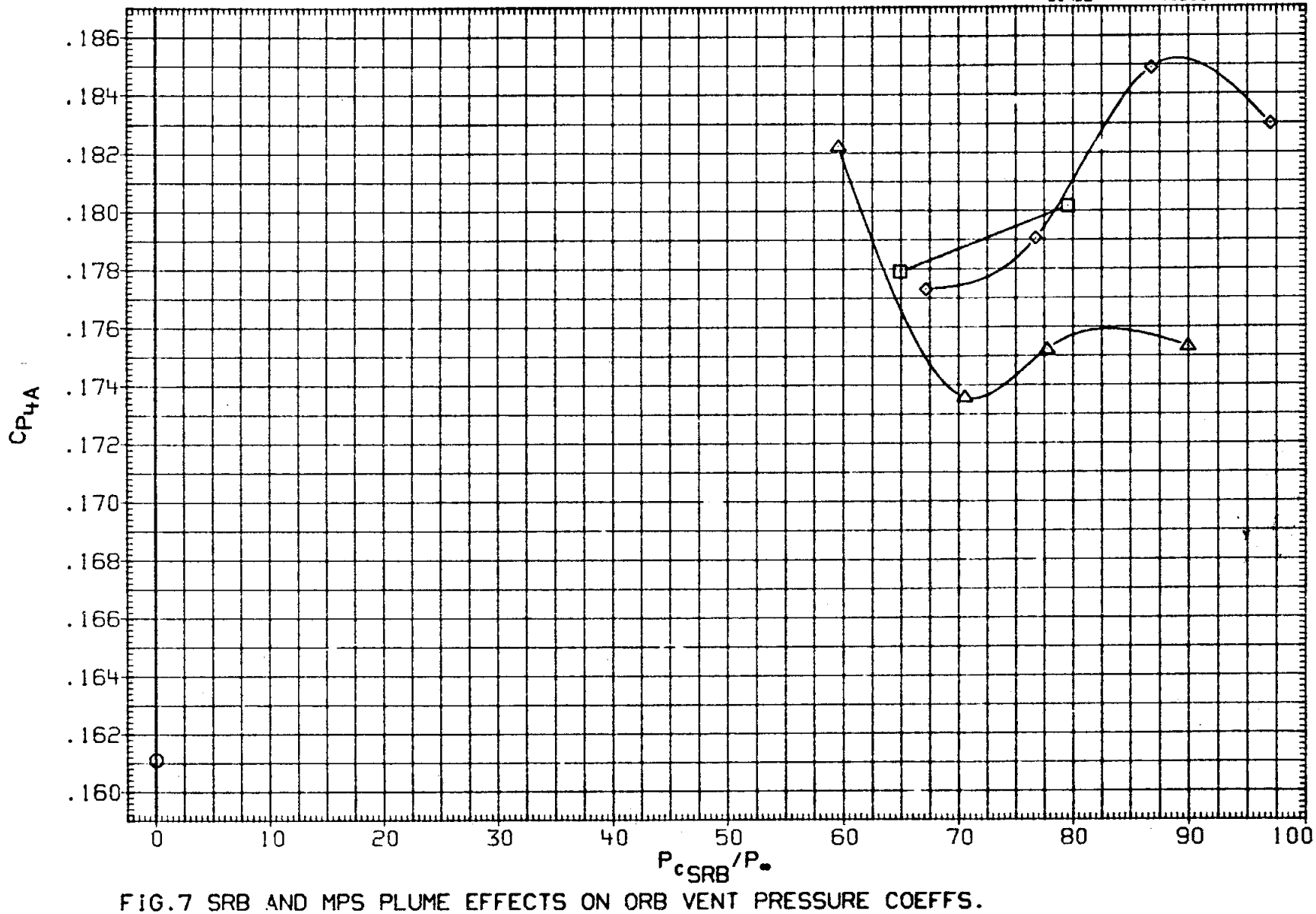

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

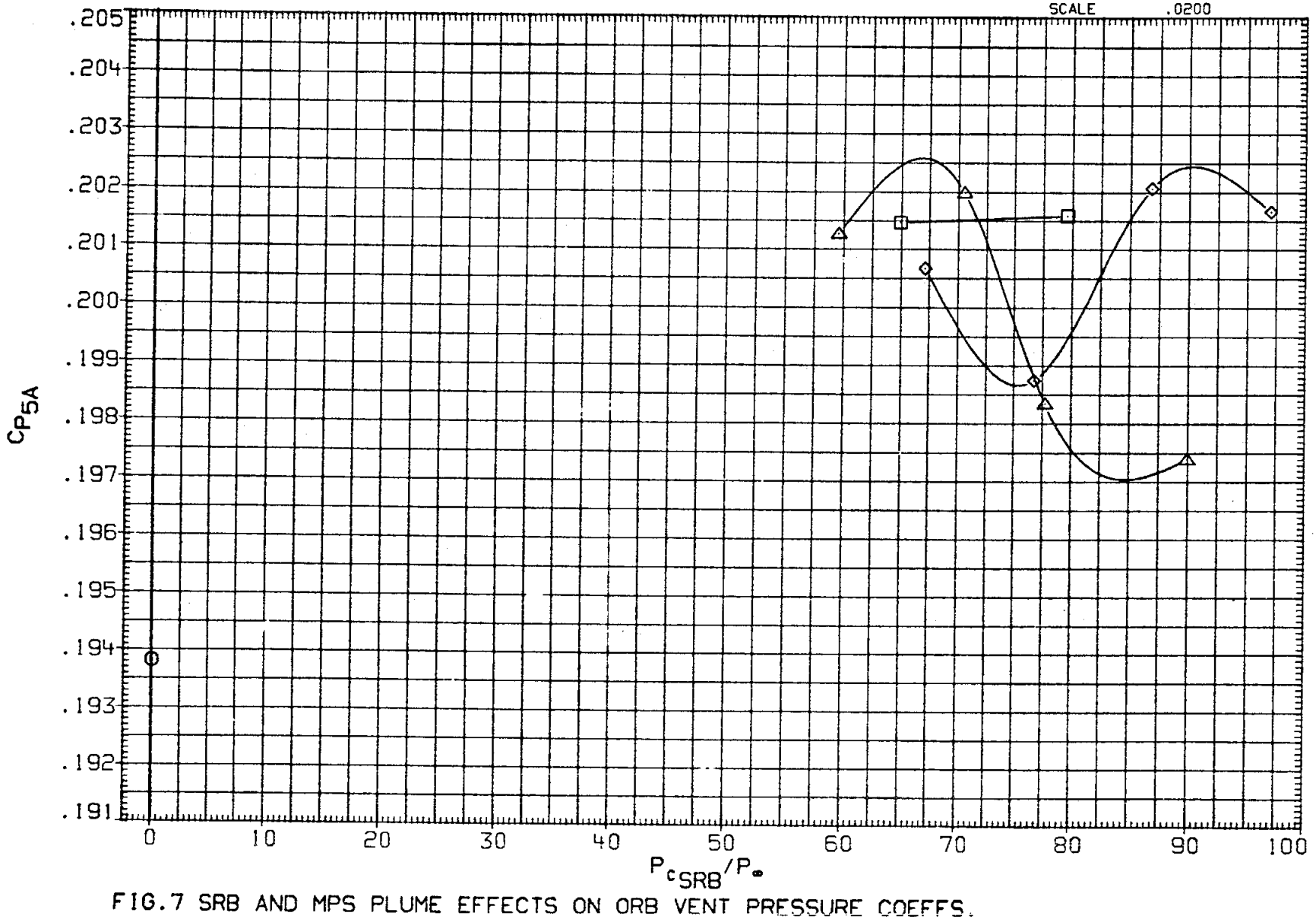

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

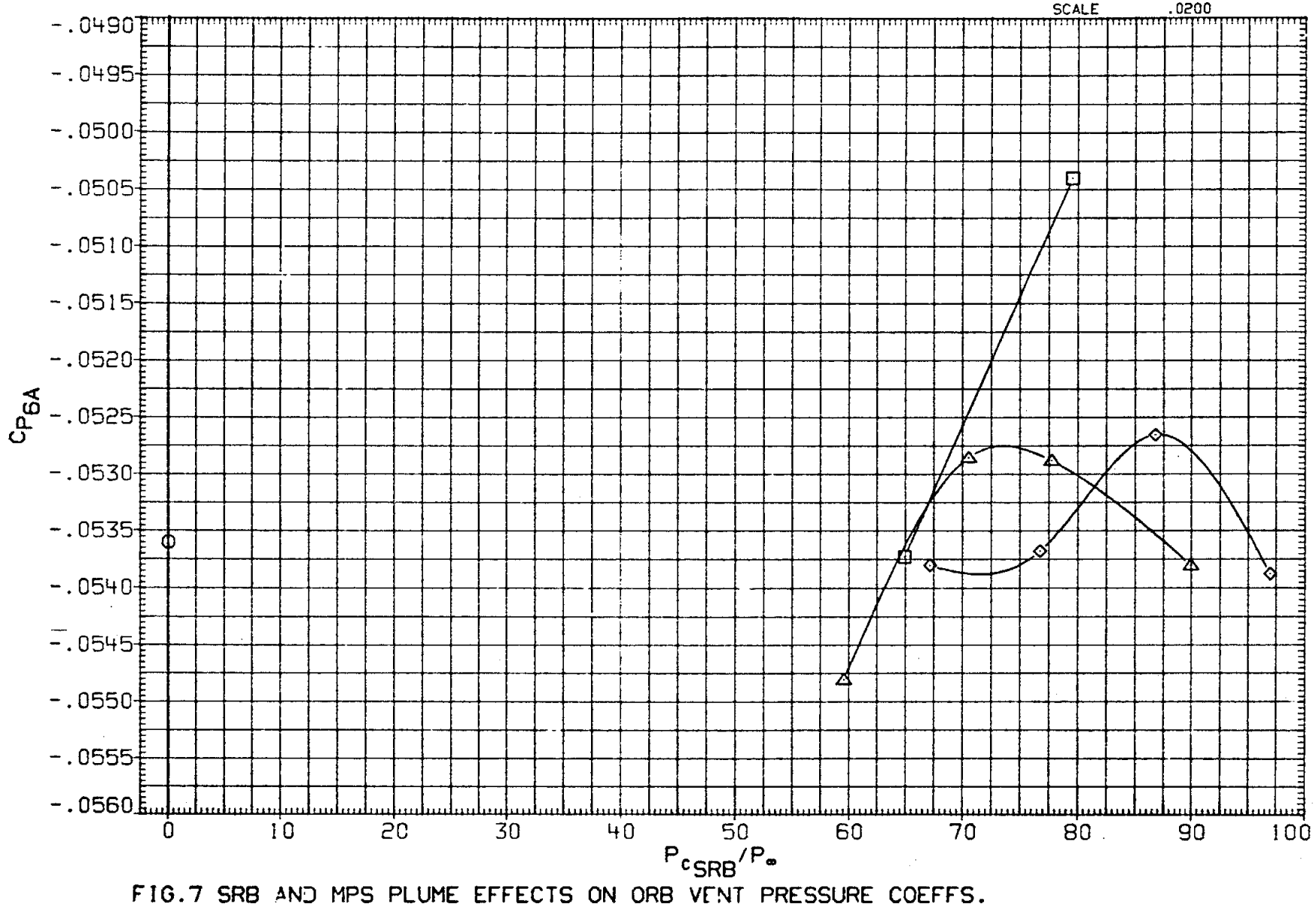

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
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SCALE	.0200	

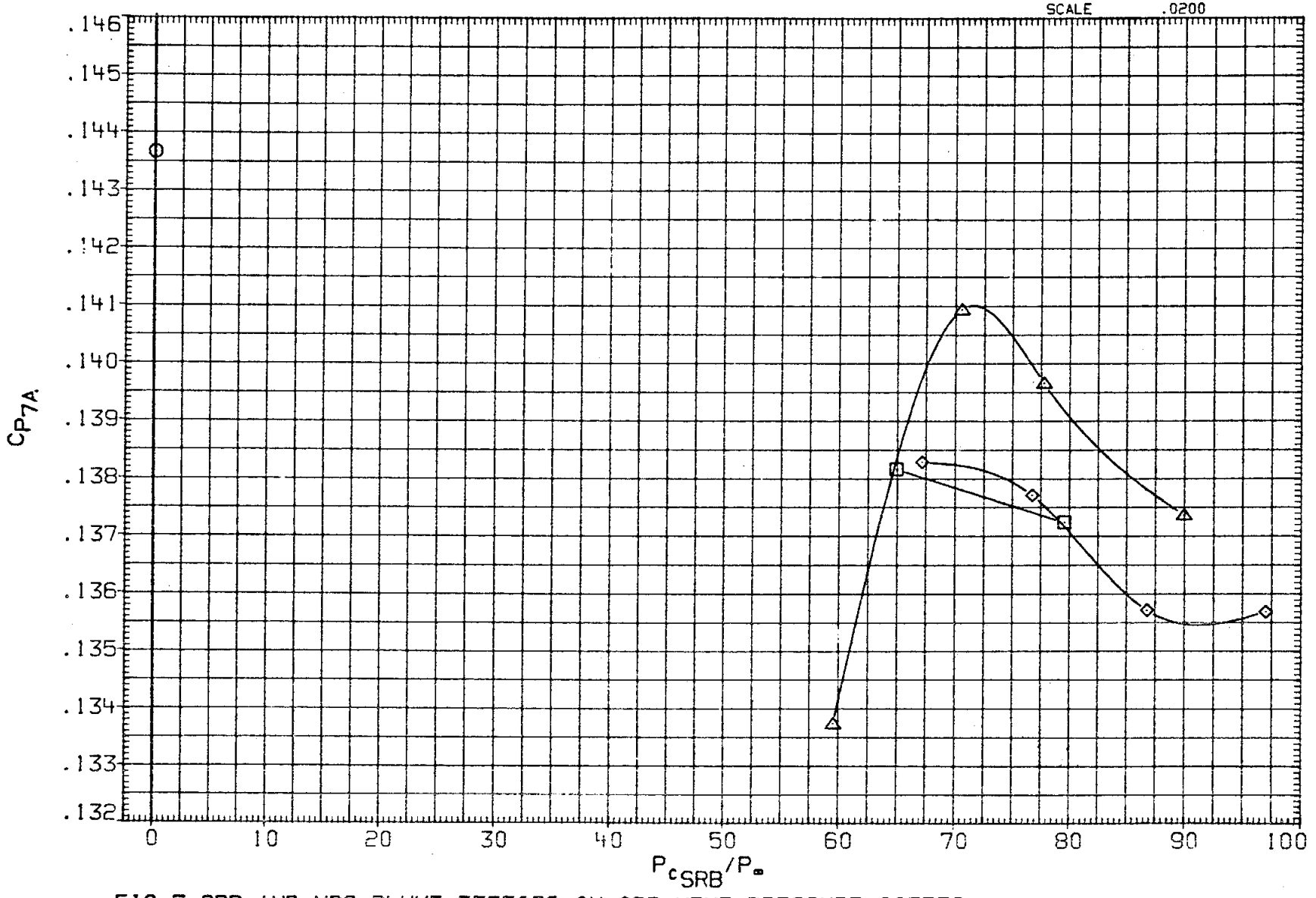

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

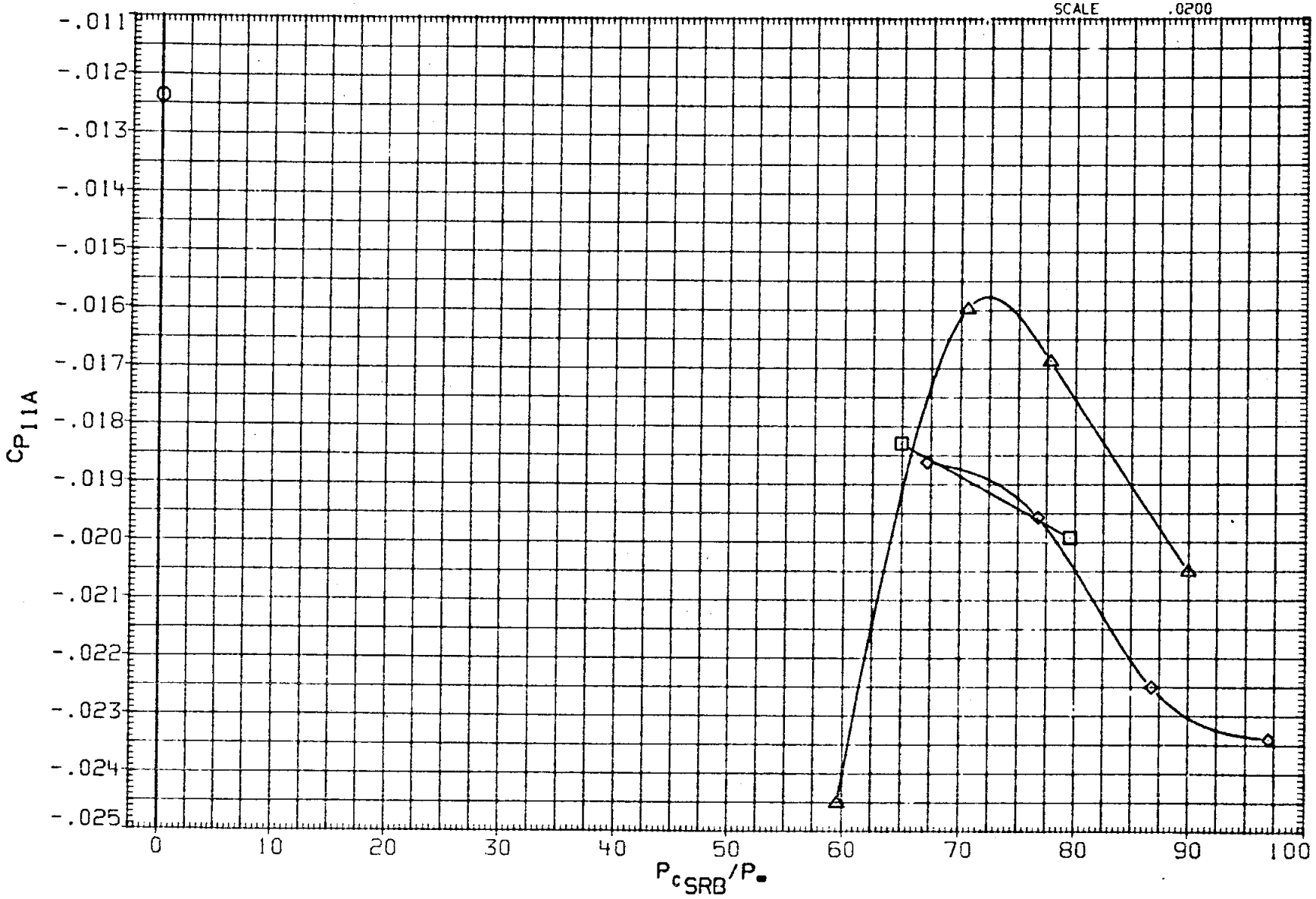

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

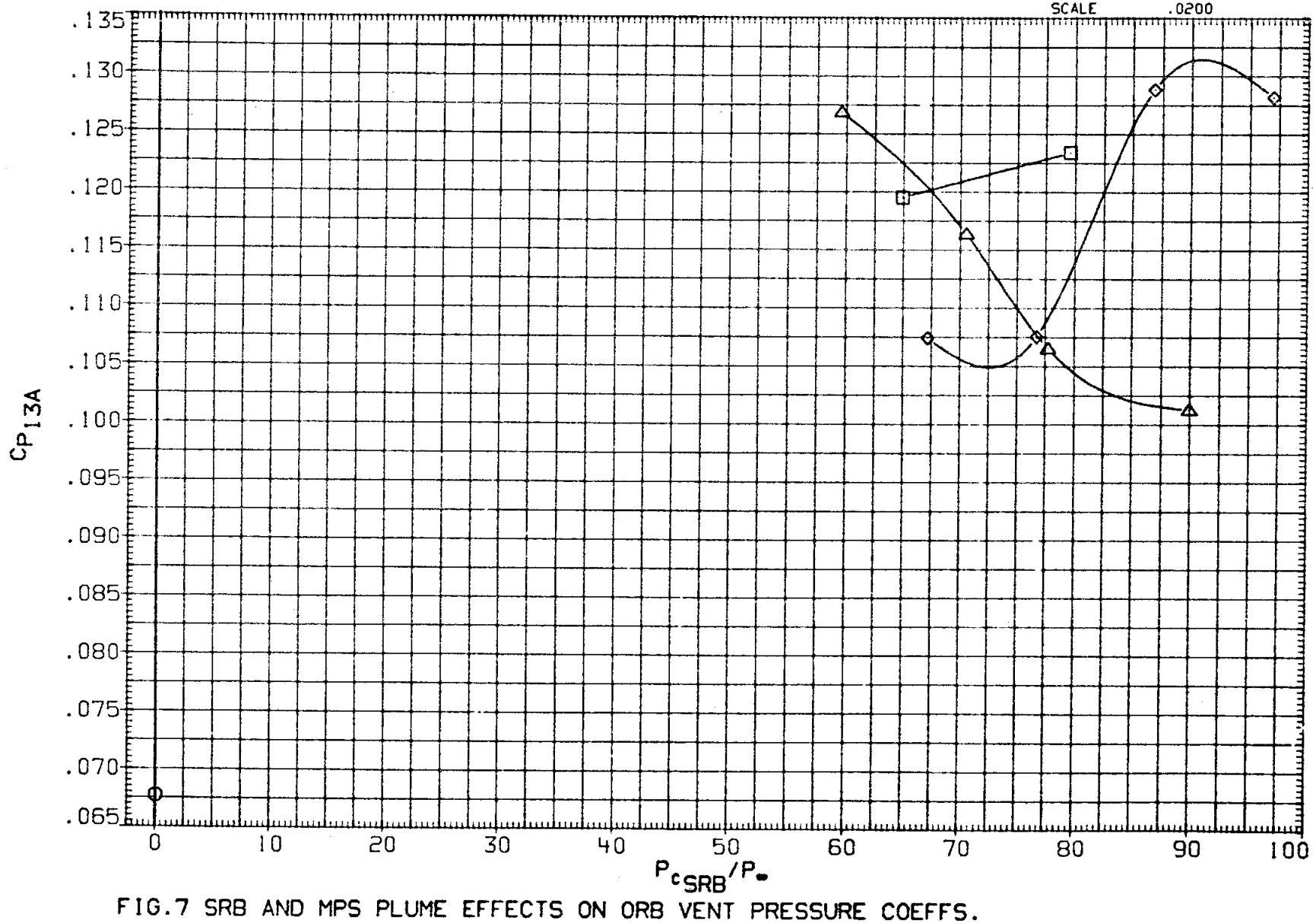

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
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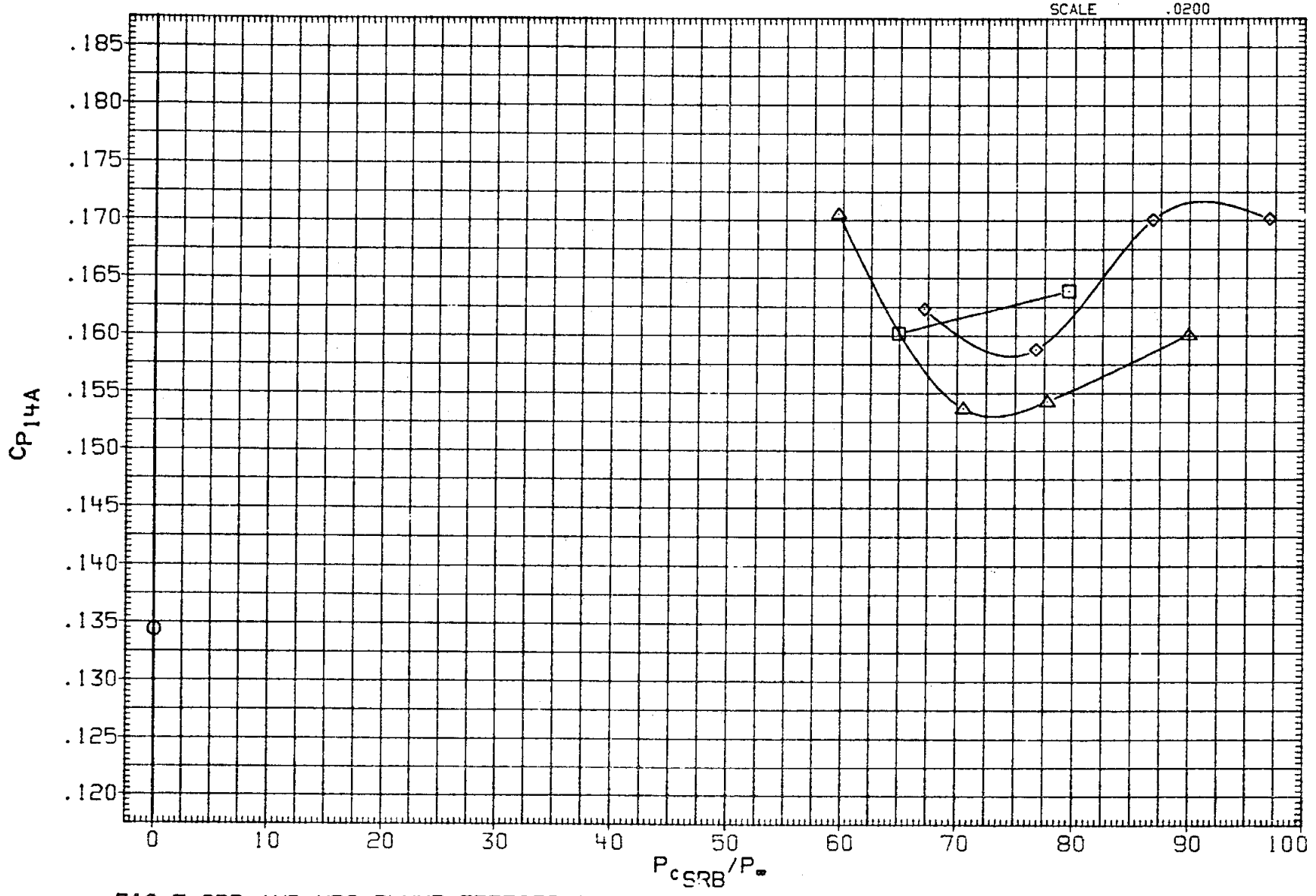

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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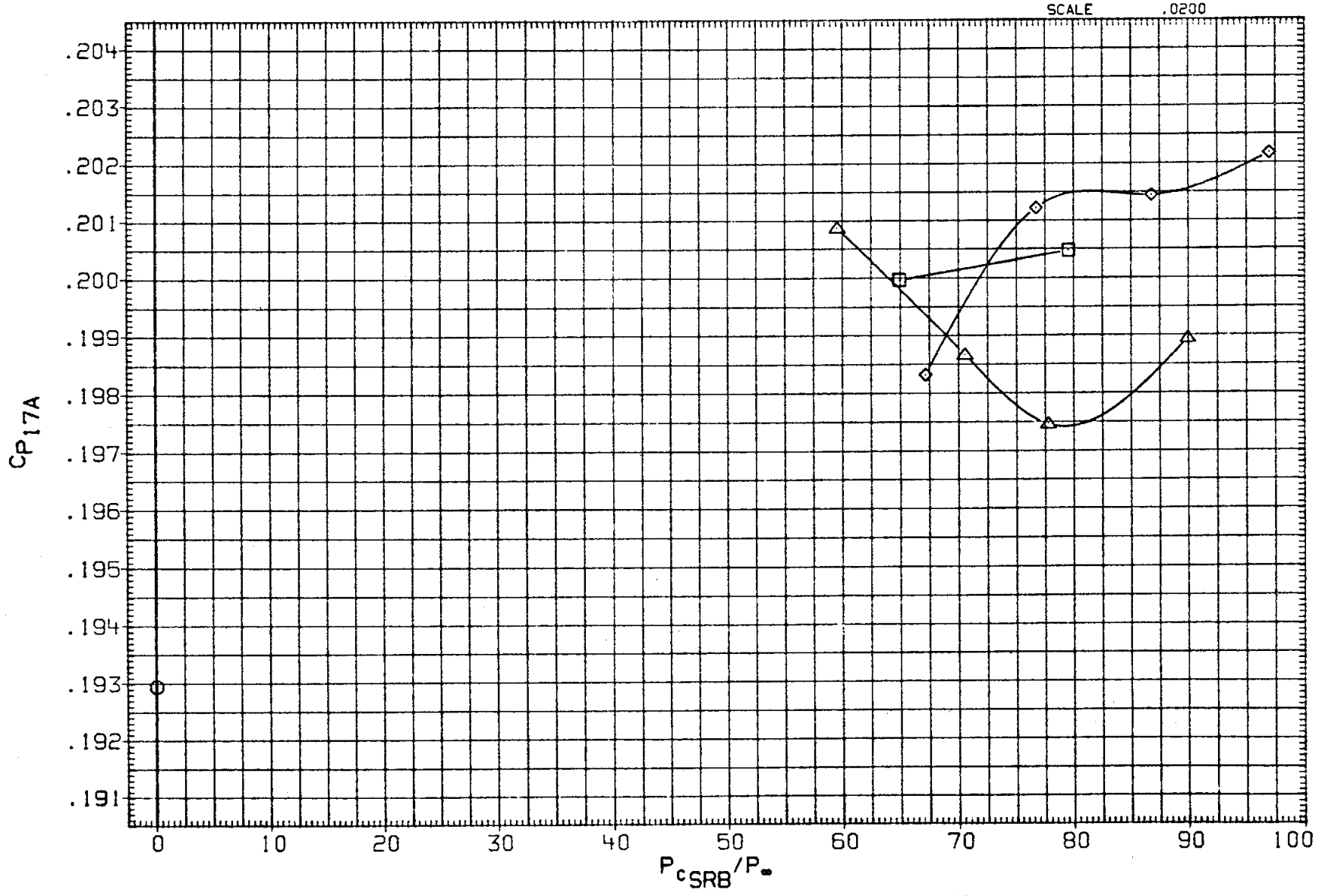

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION
RNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF
RNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-
RNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM
RNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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SCALE	.0200	

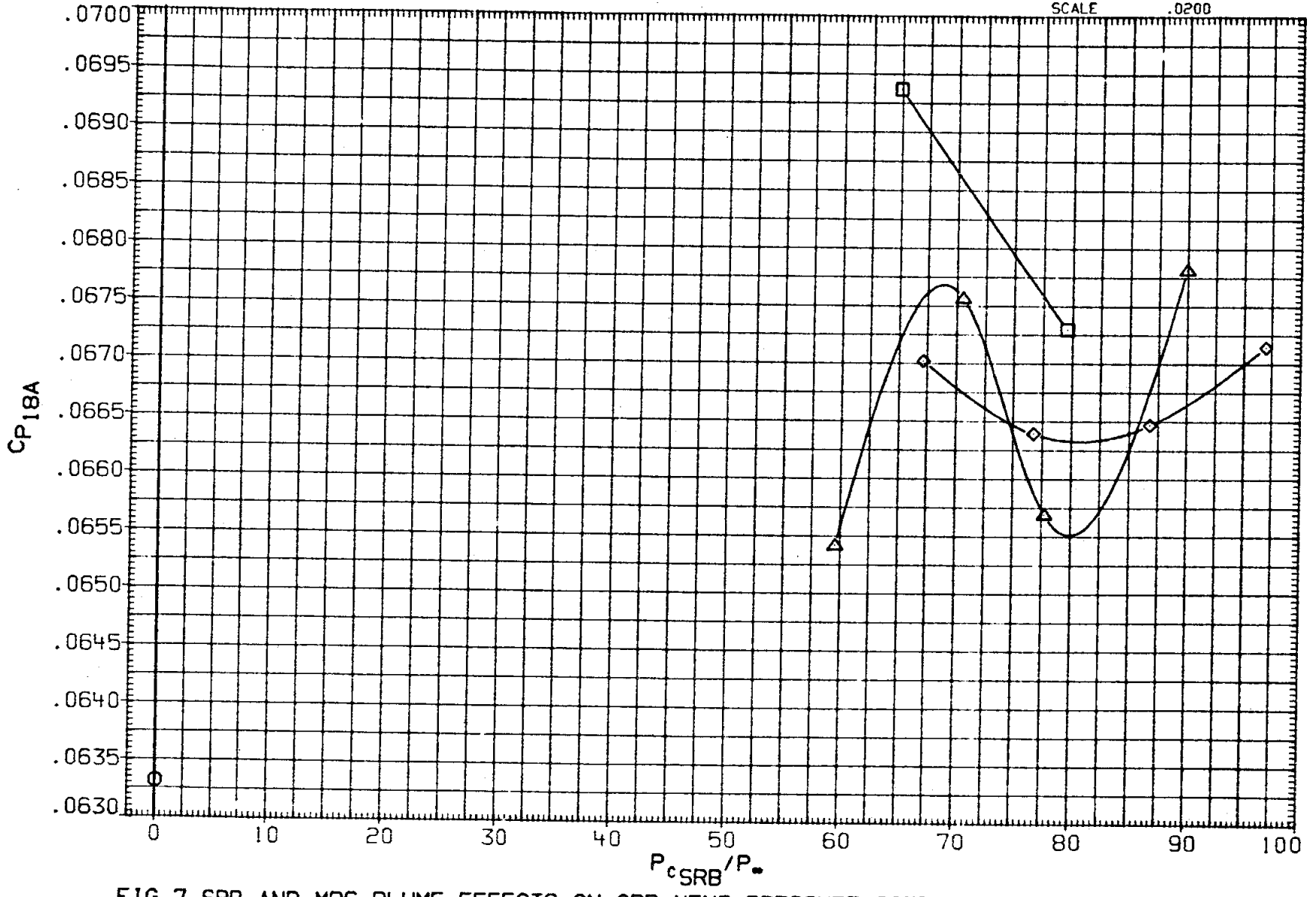

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
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SCALE	.0200	

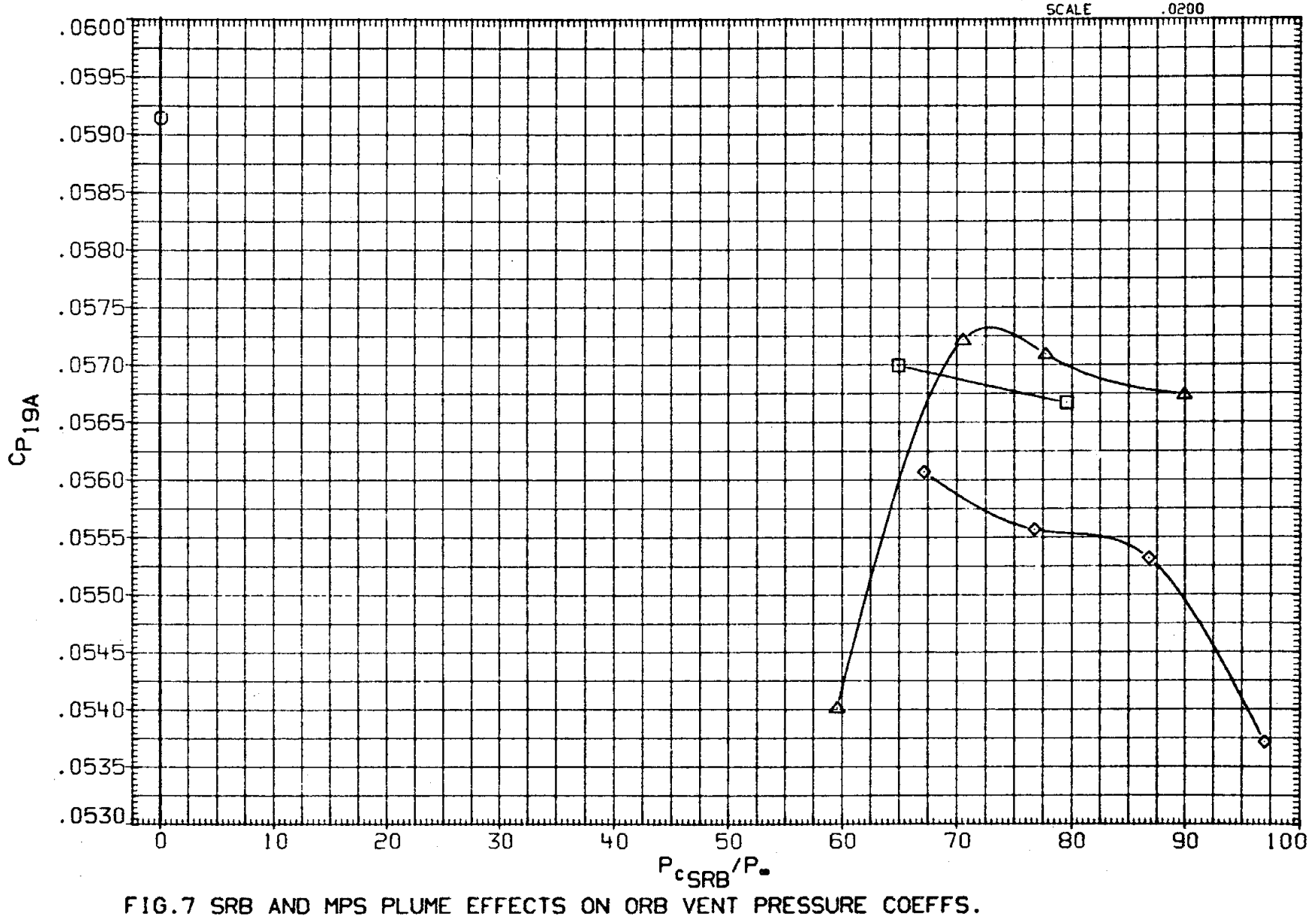

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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YMRP	.0000	N.A.
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SCALE	.0200	

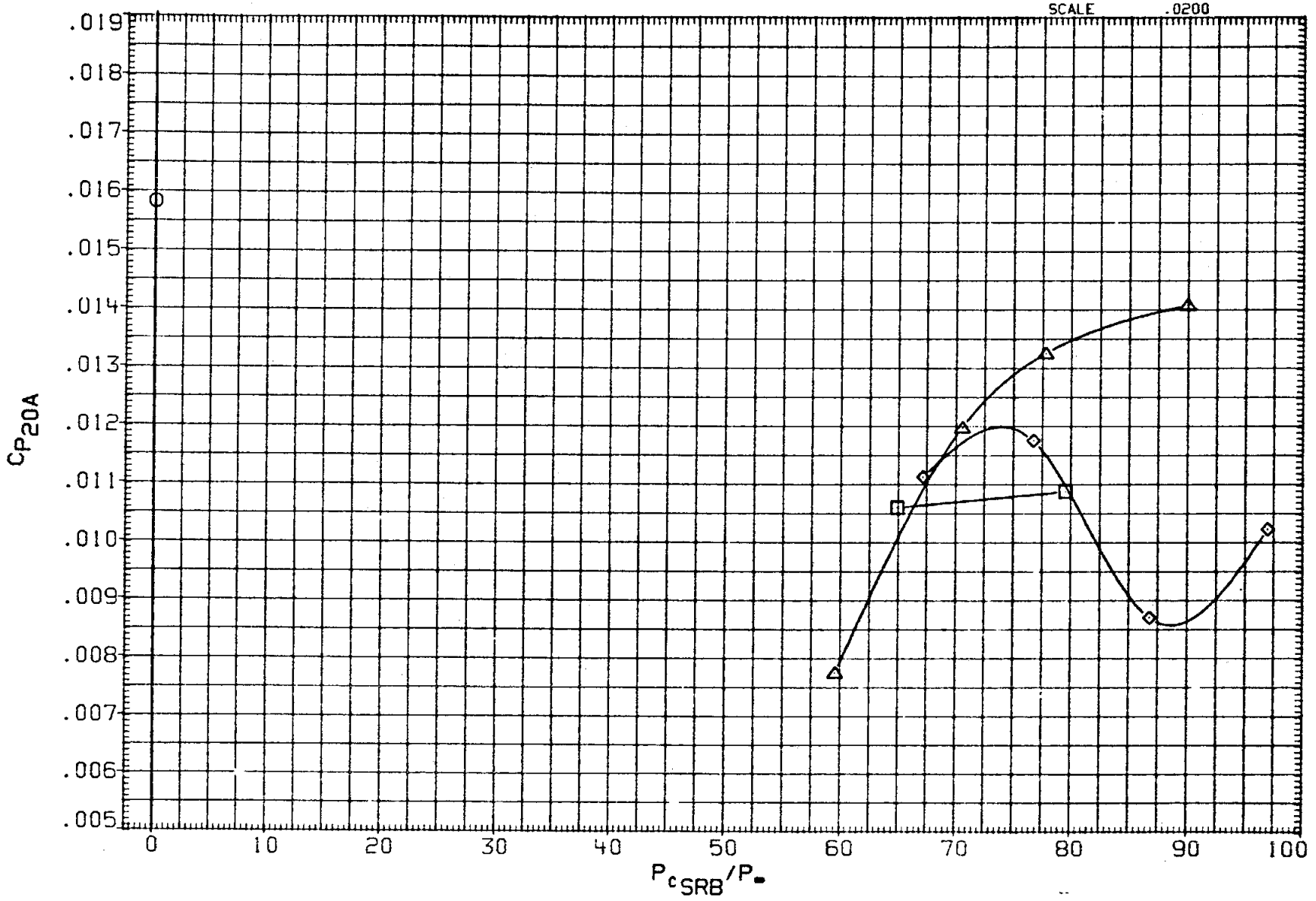

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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ZMRP	.0000	N.A.
SCALE	.0200	

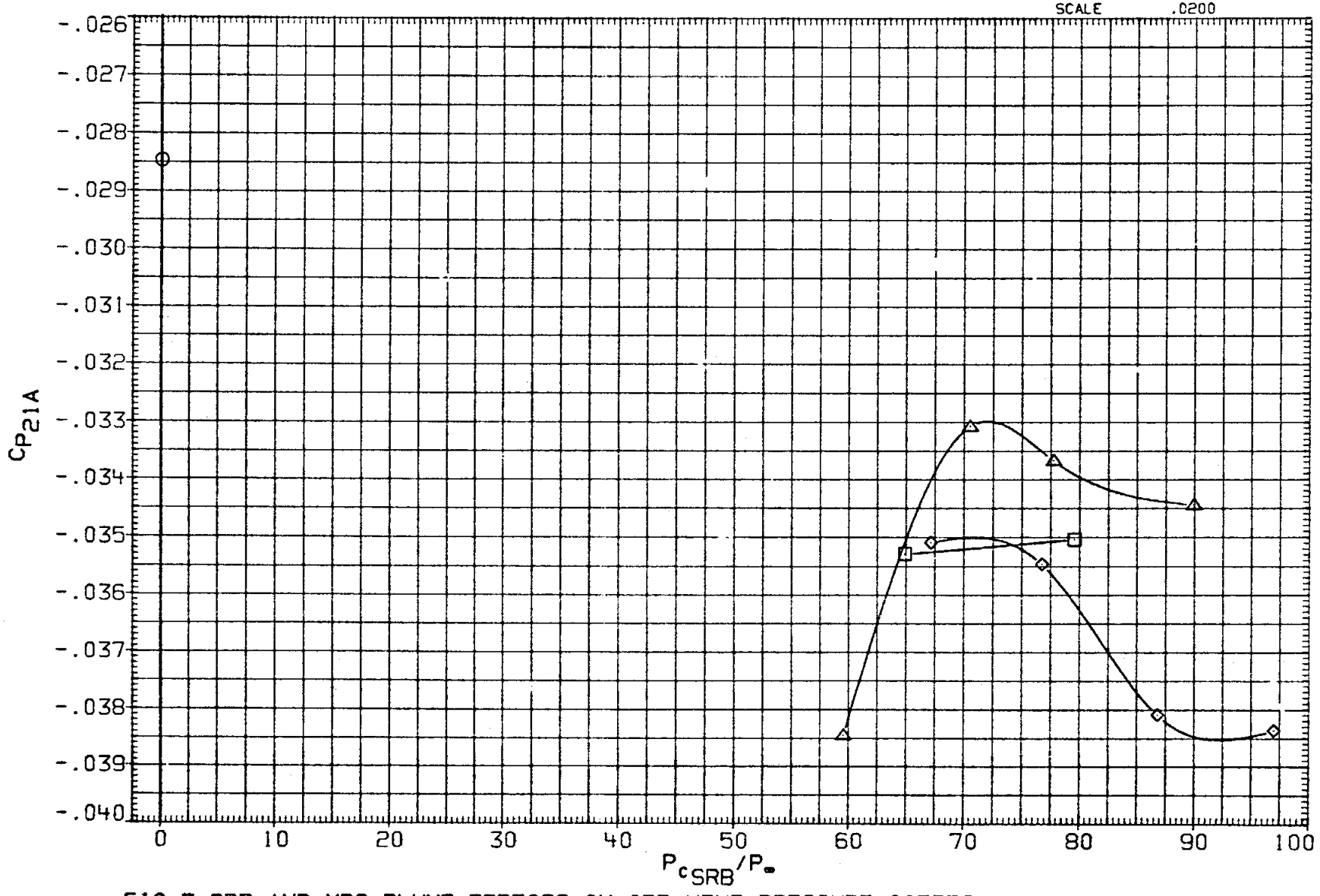

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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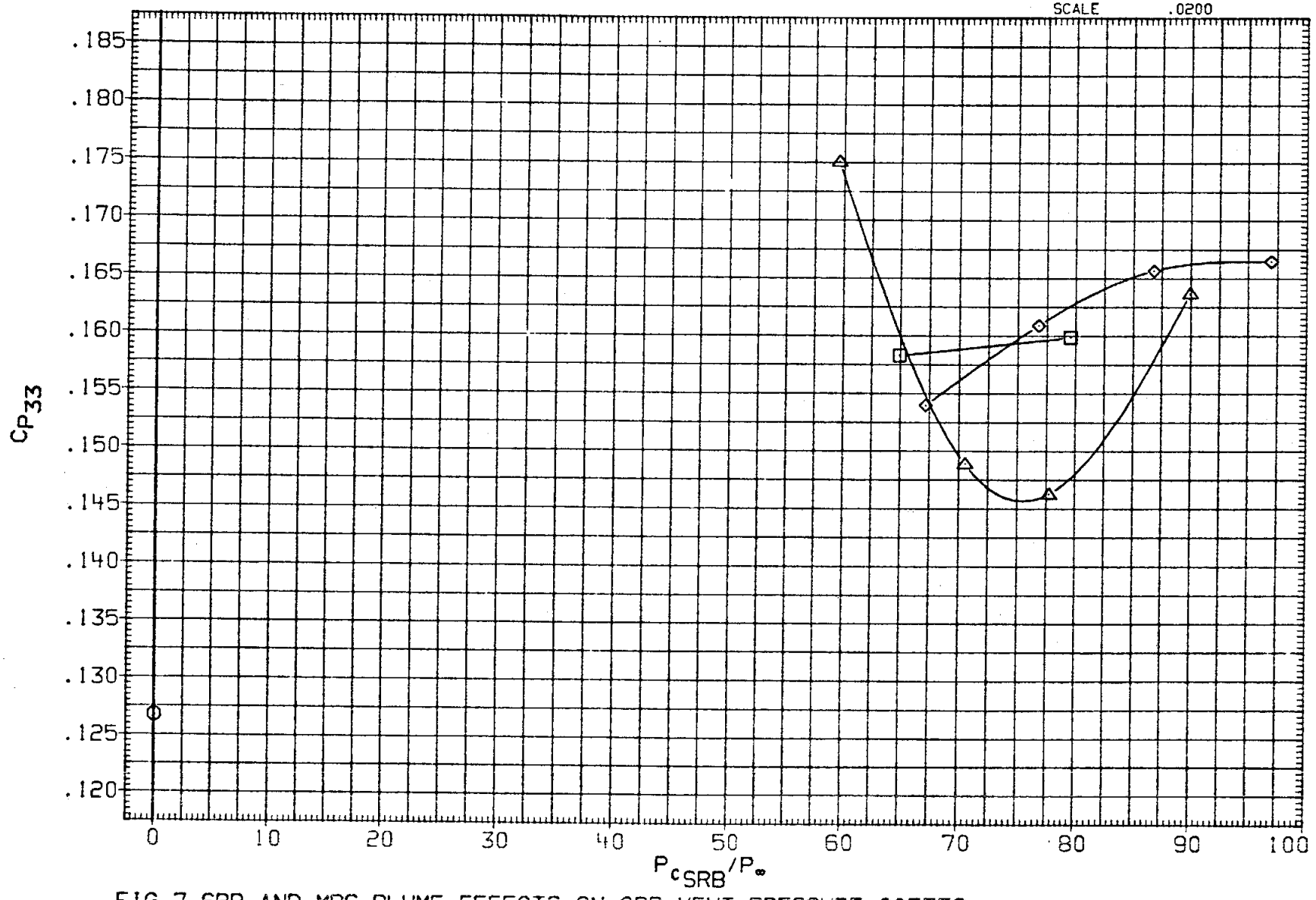

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

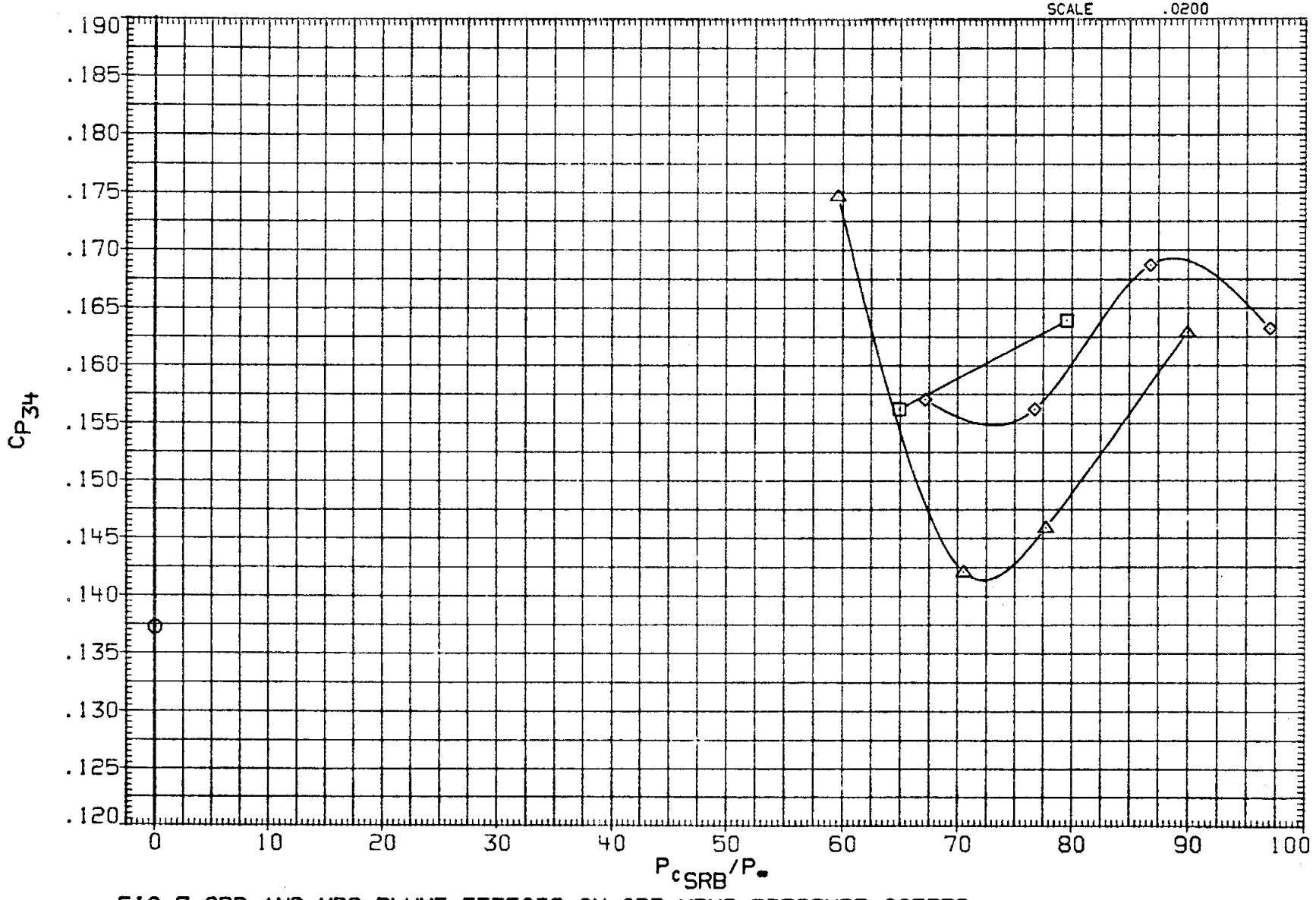

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

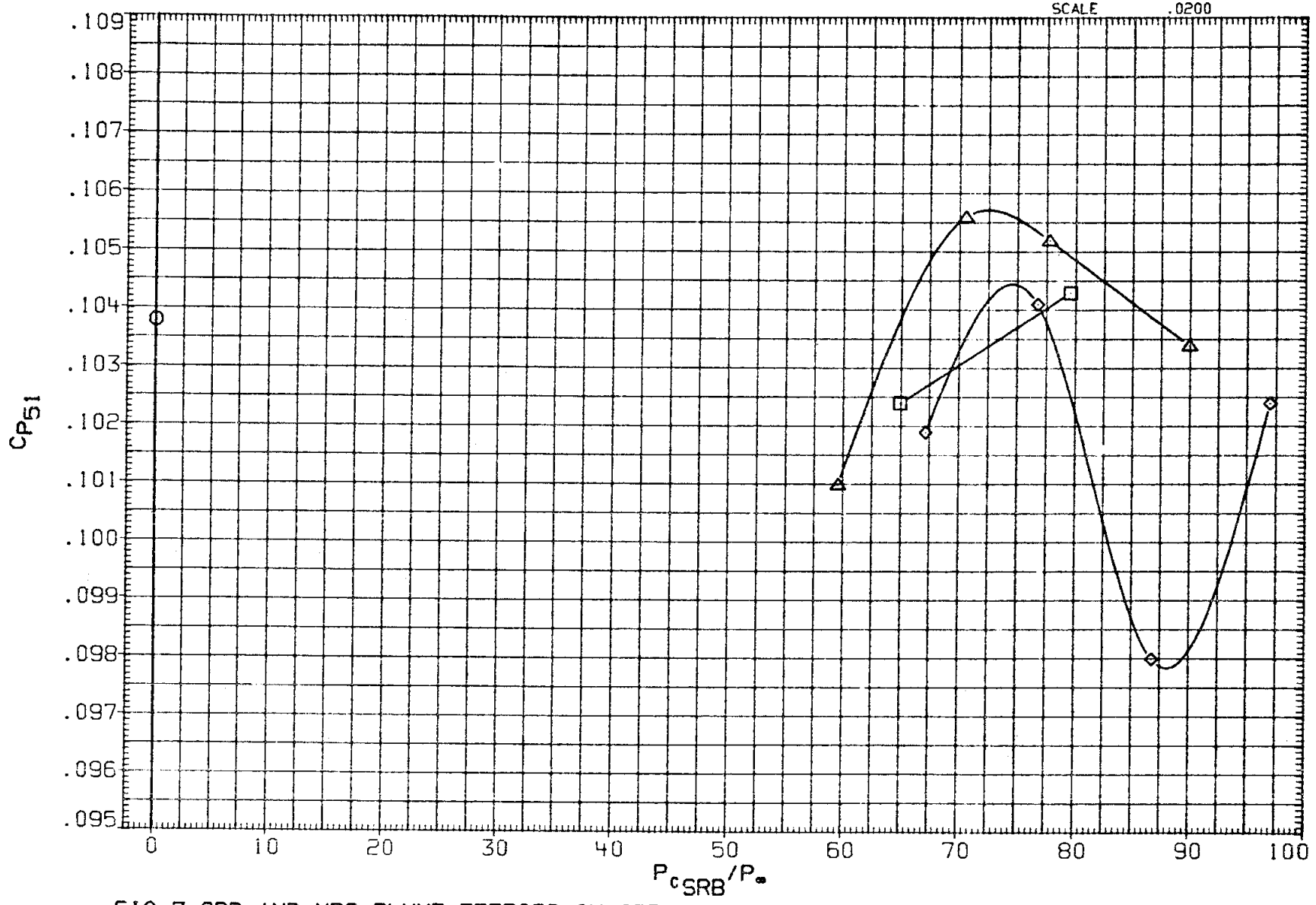

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A7) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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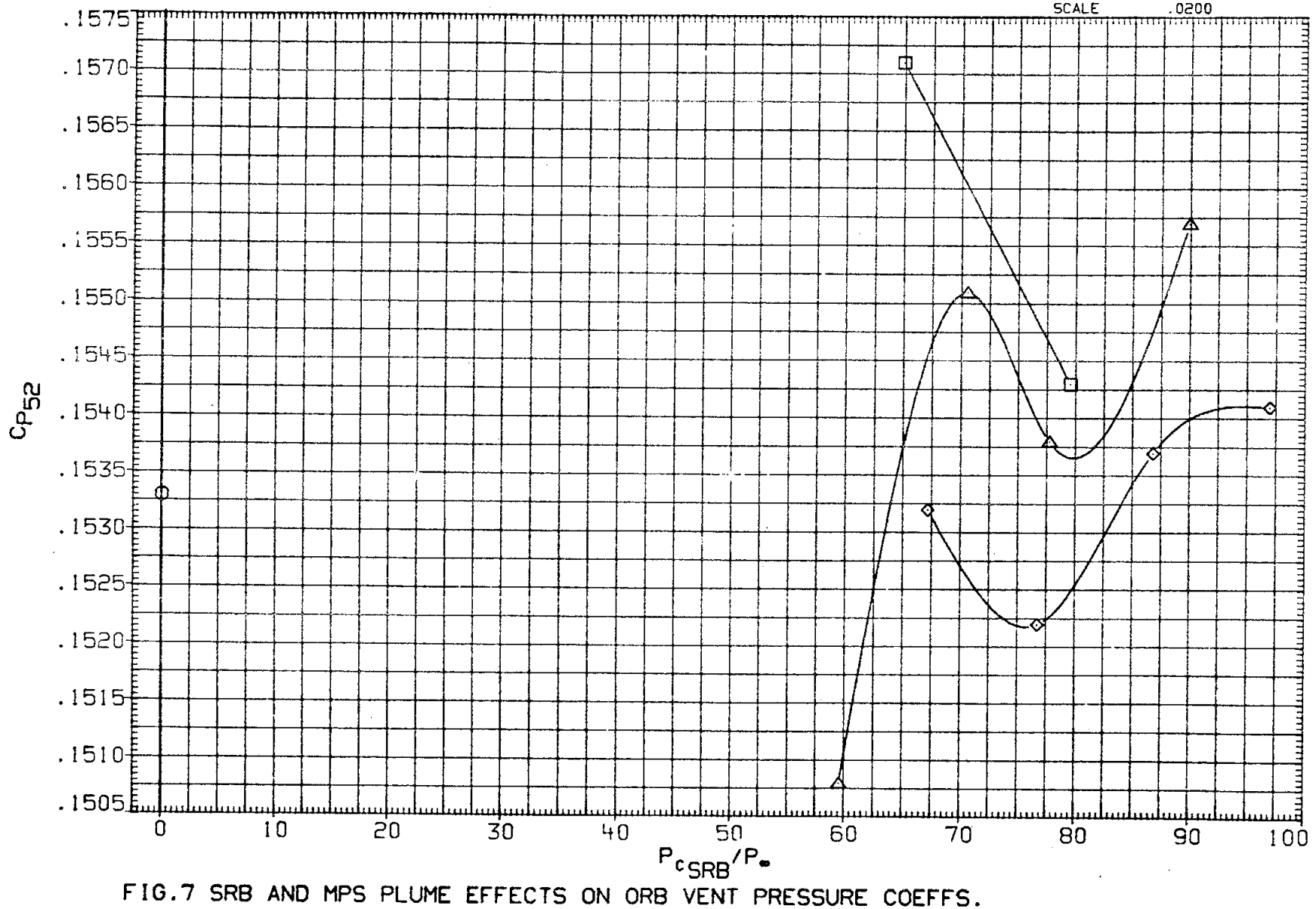

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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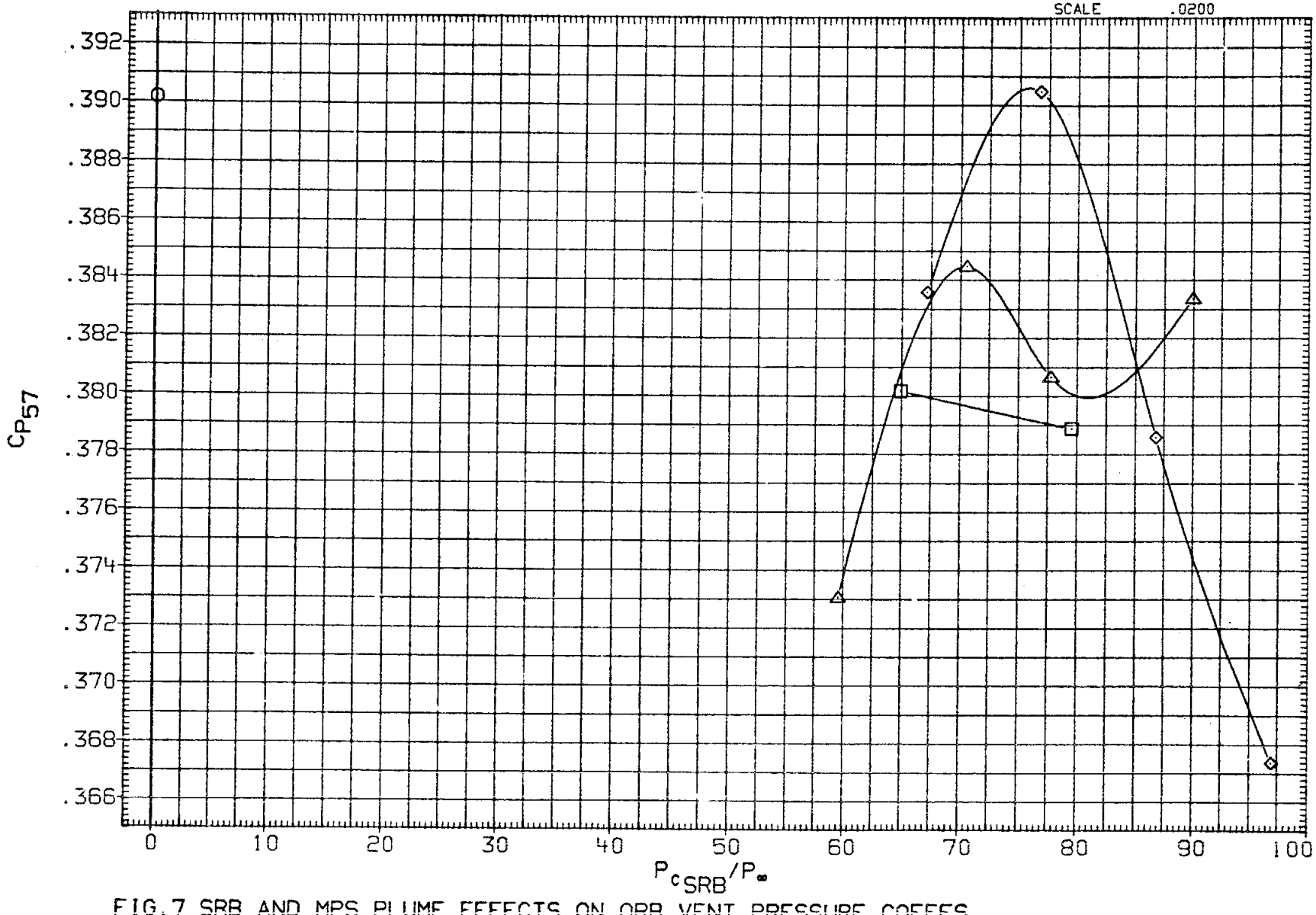

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
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ZMRP	.0000	N.A.
SCALE	.0200	

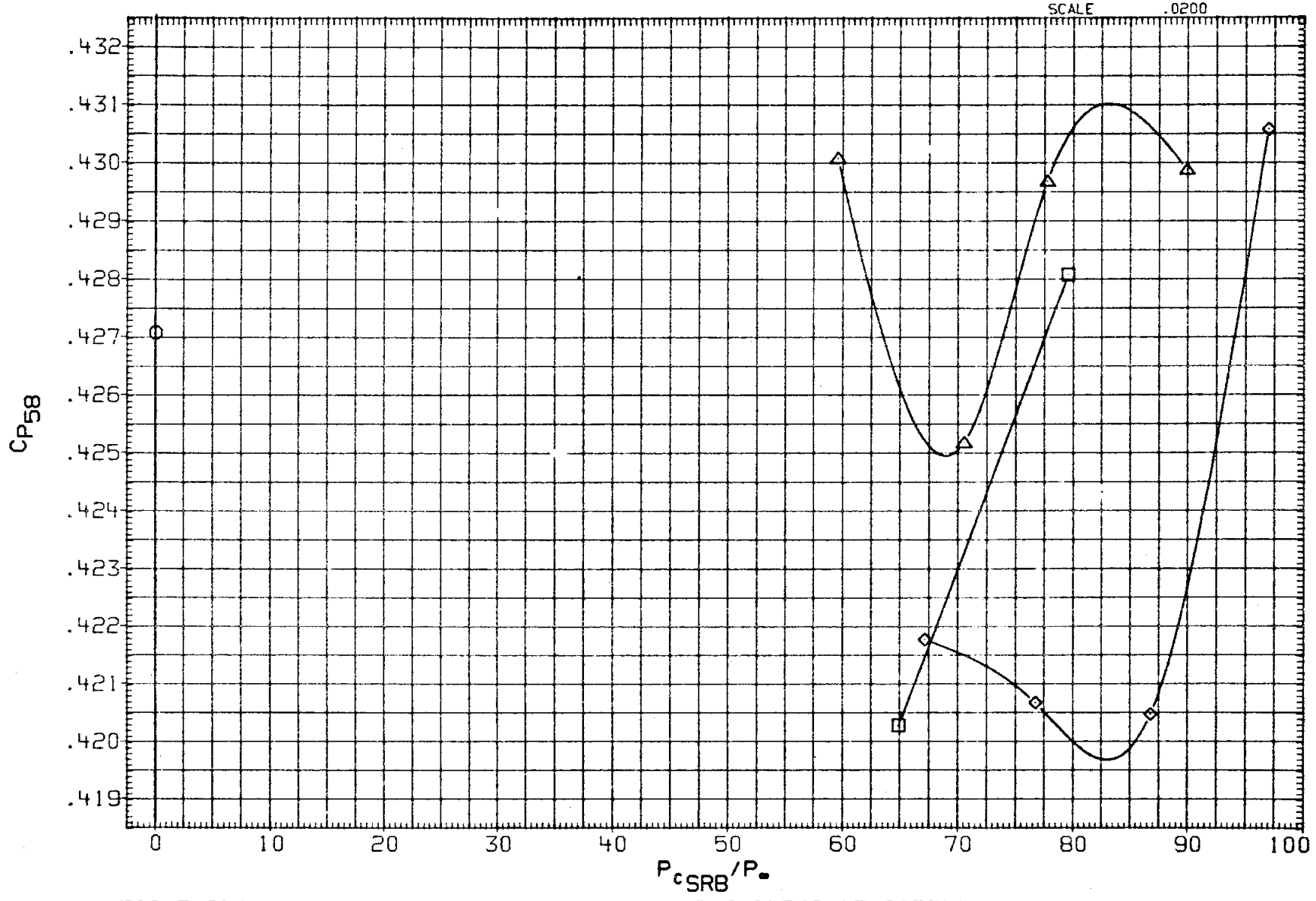

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

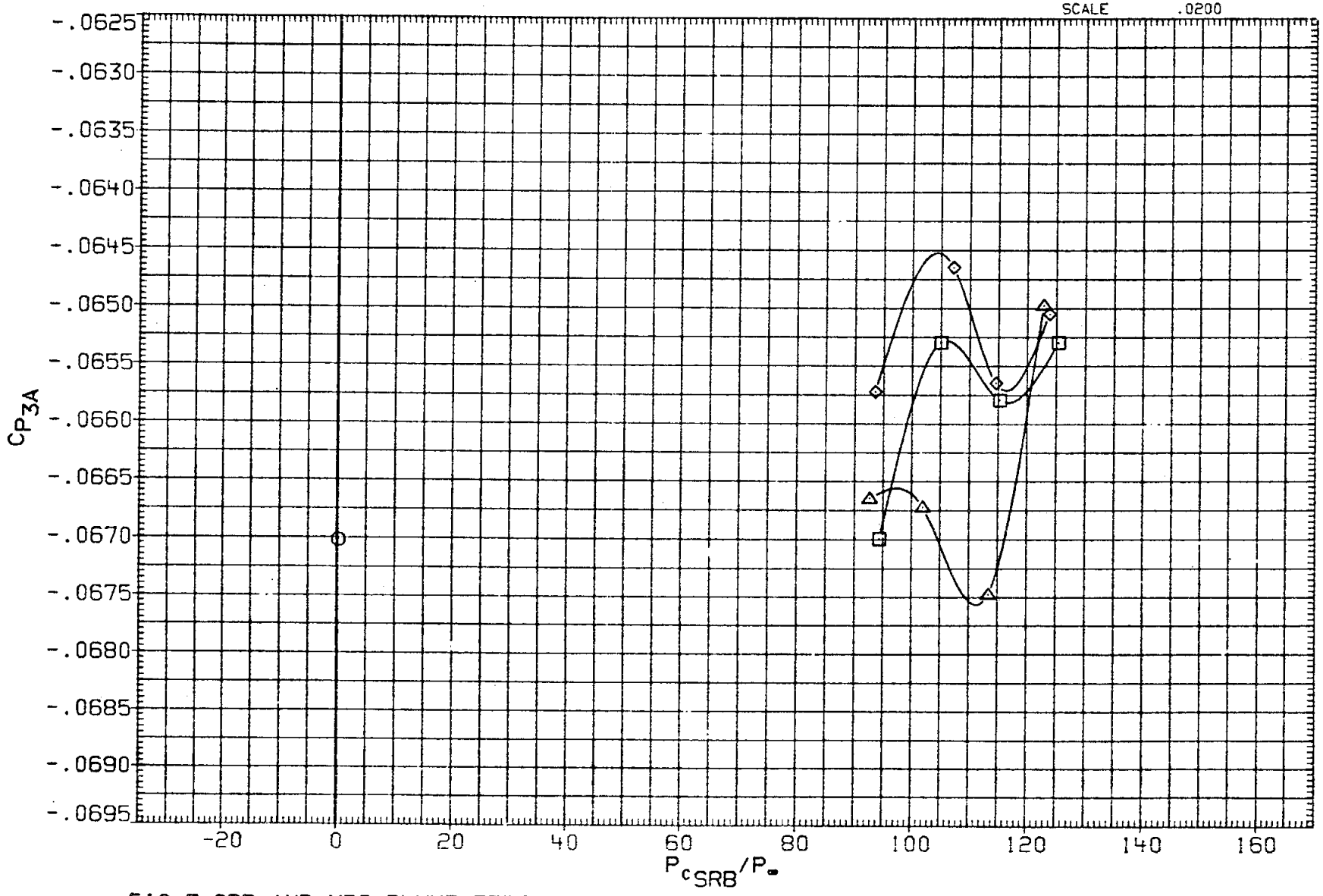

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

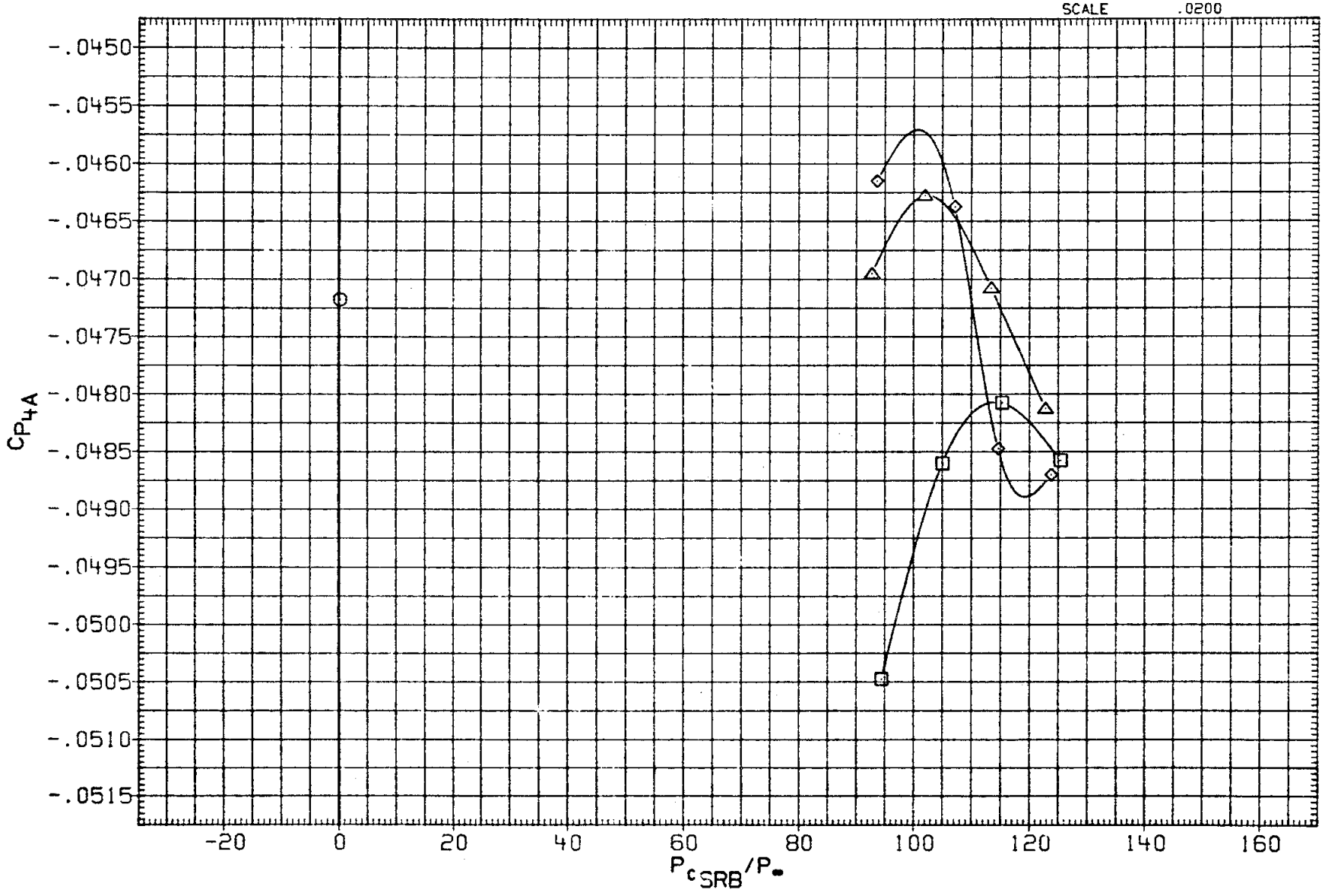

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

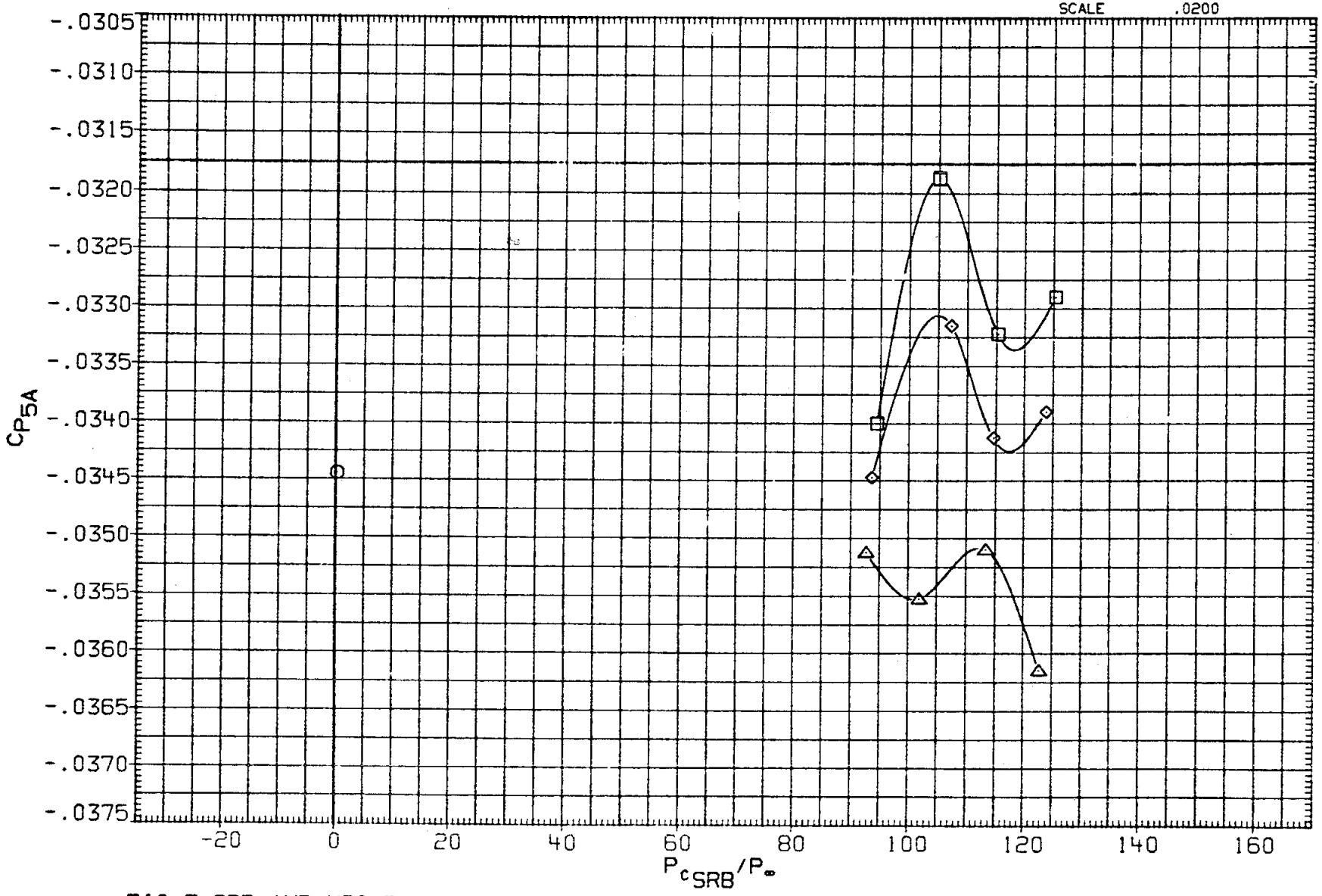

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

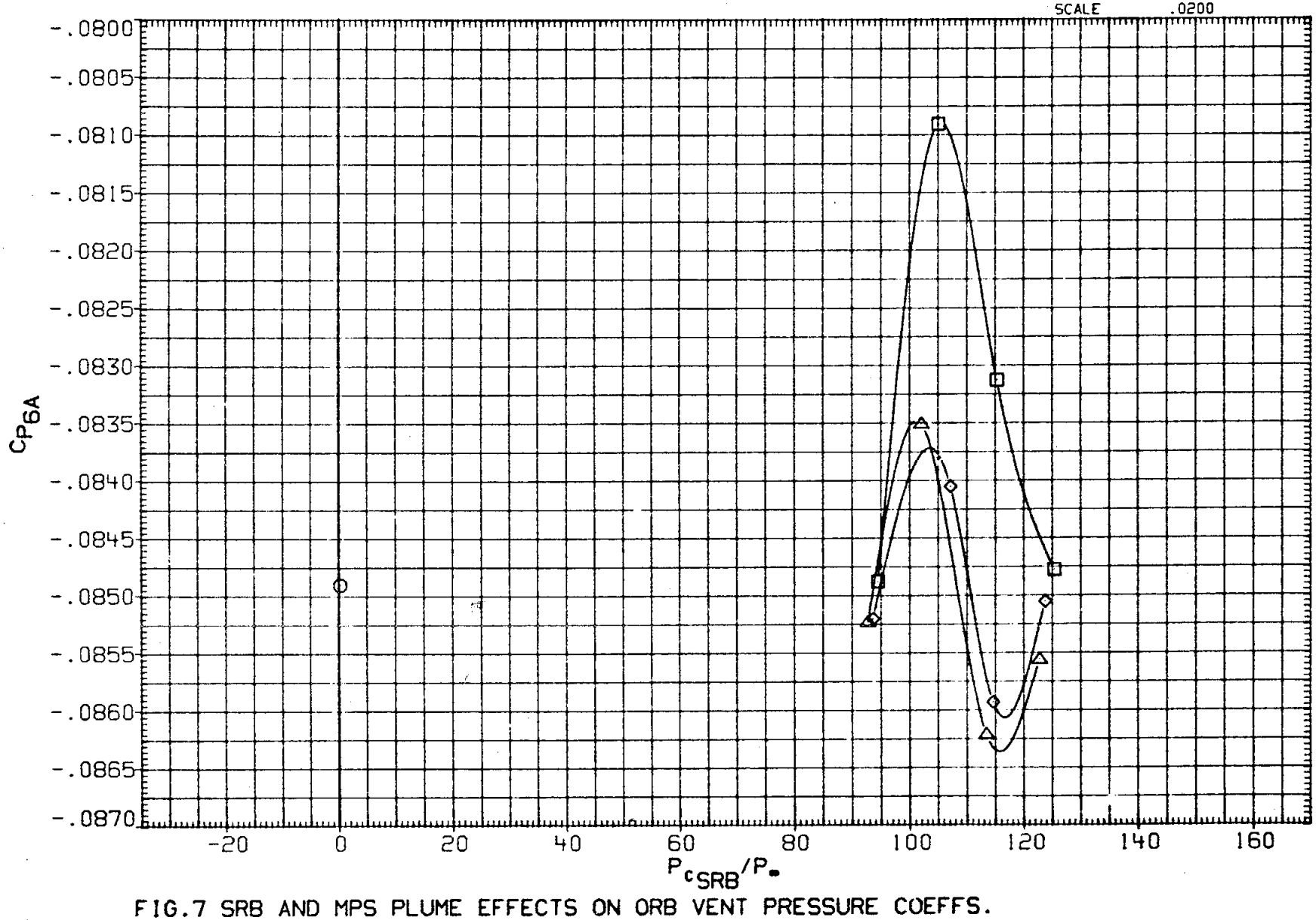

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

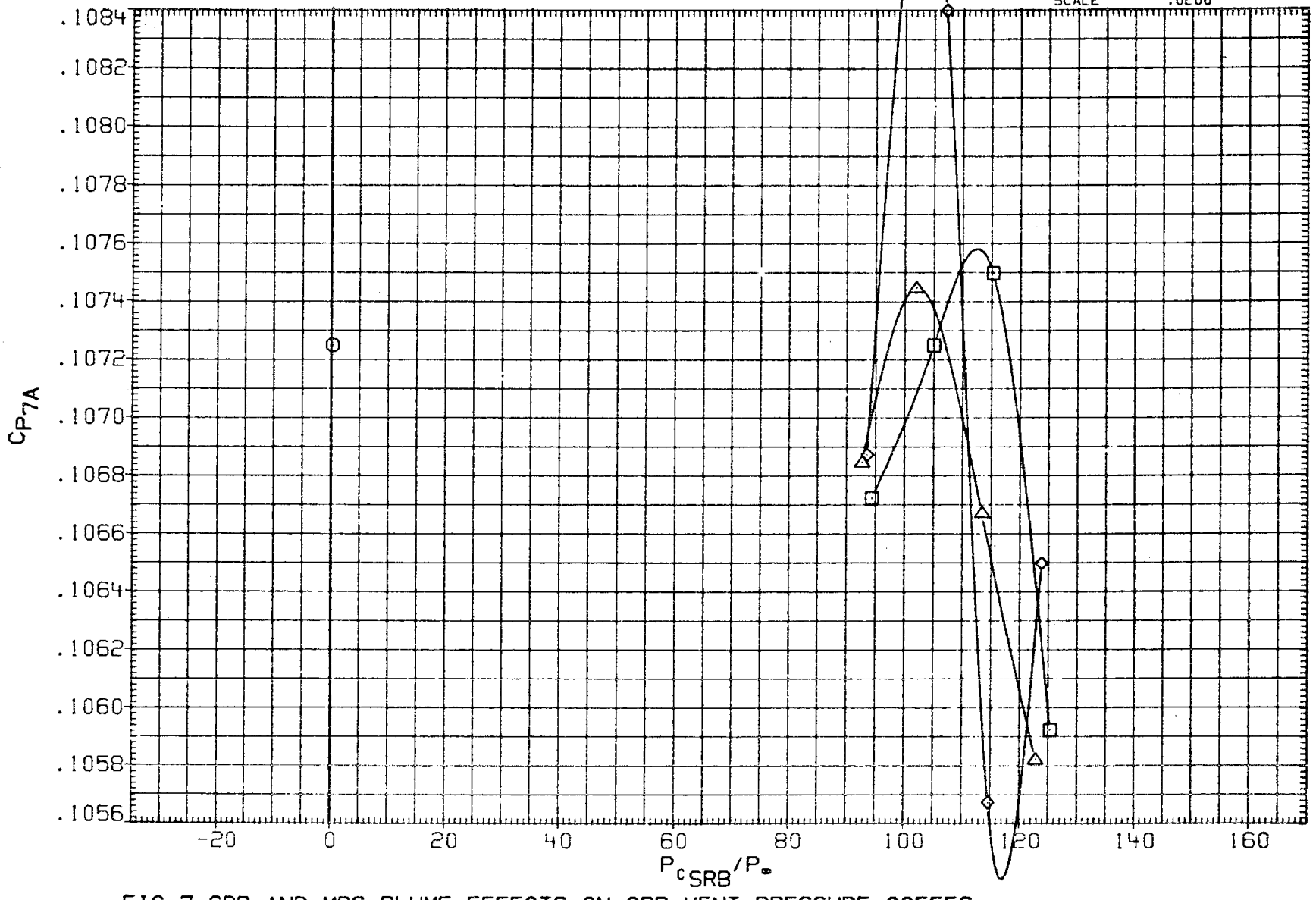

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

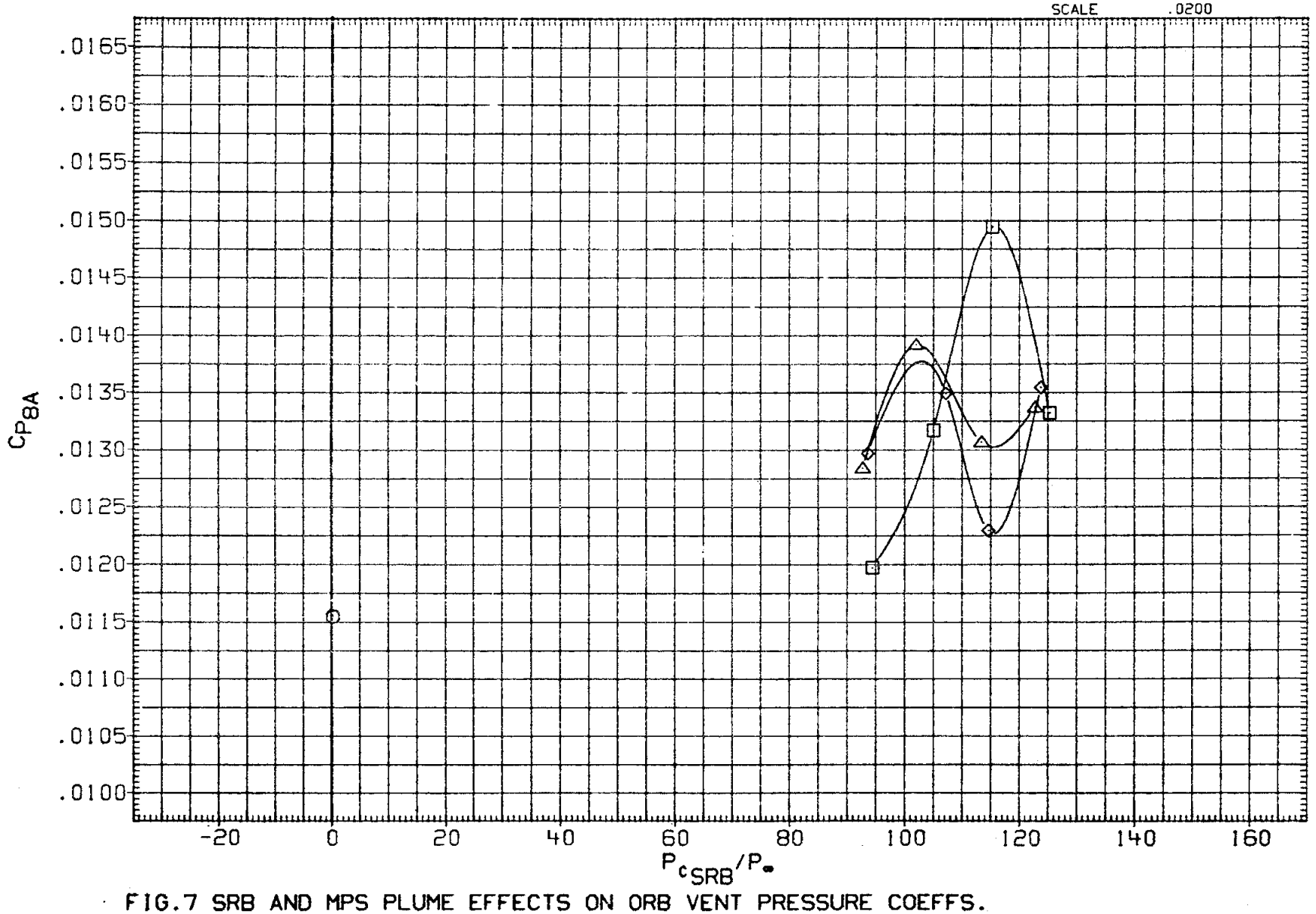

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

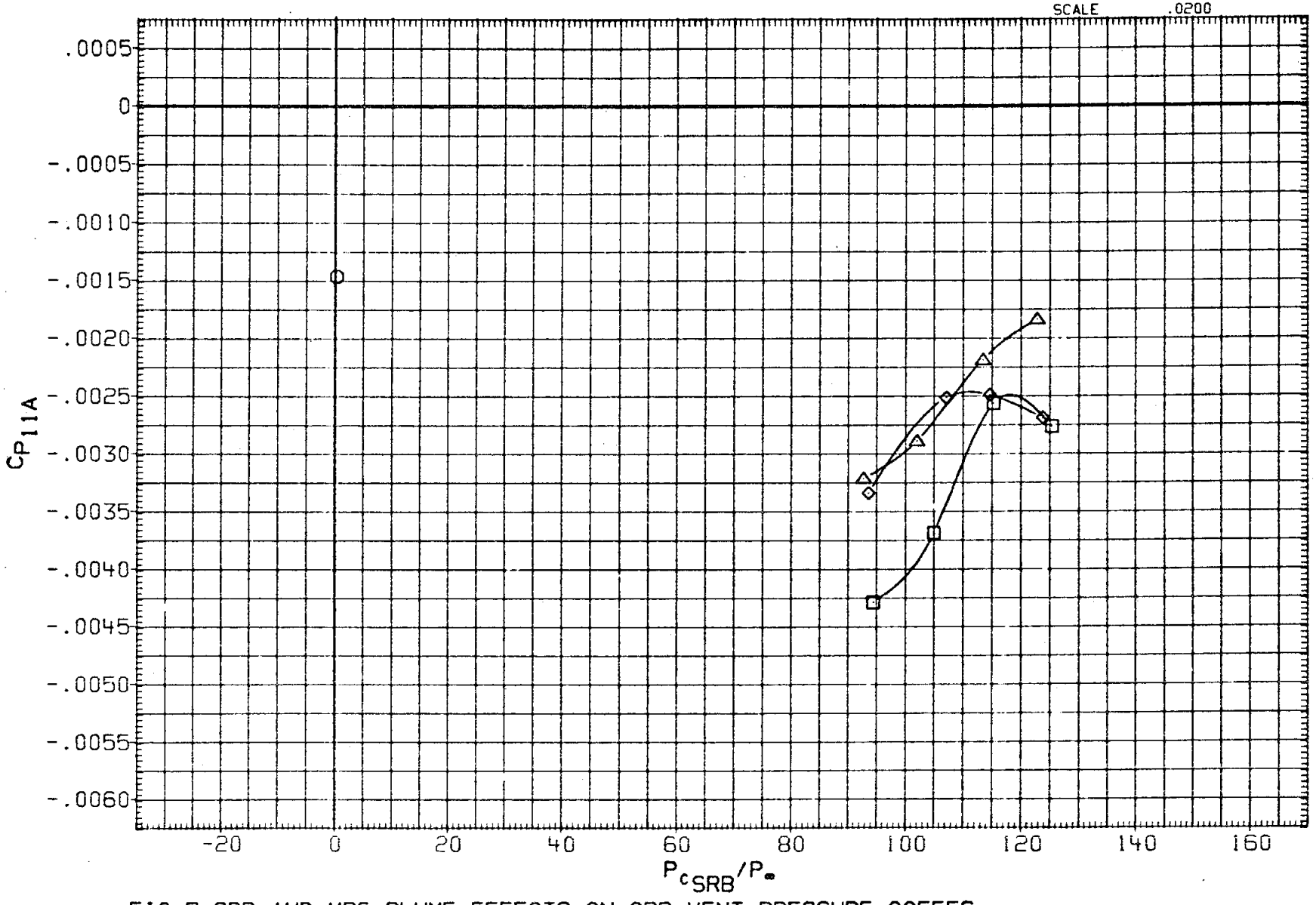

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

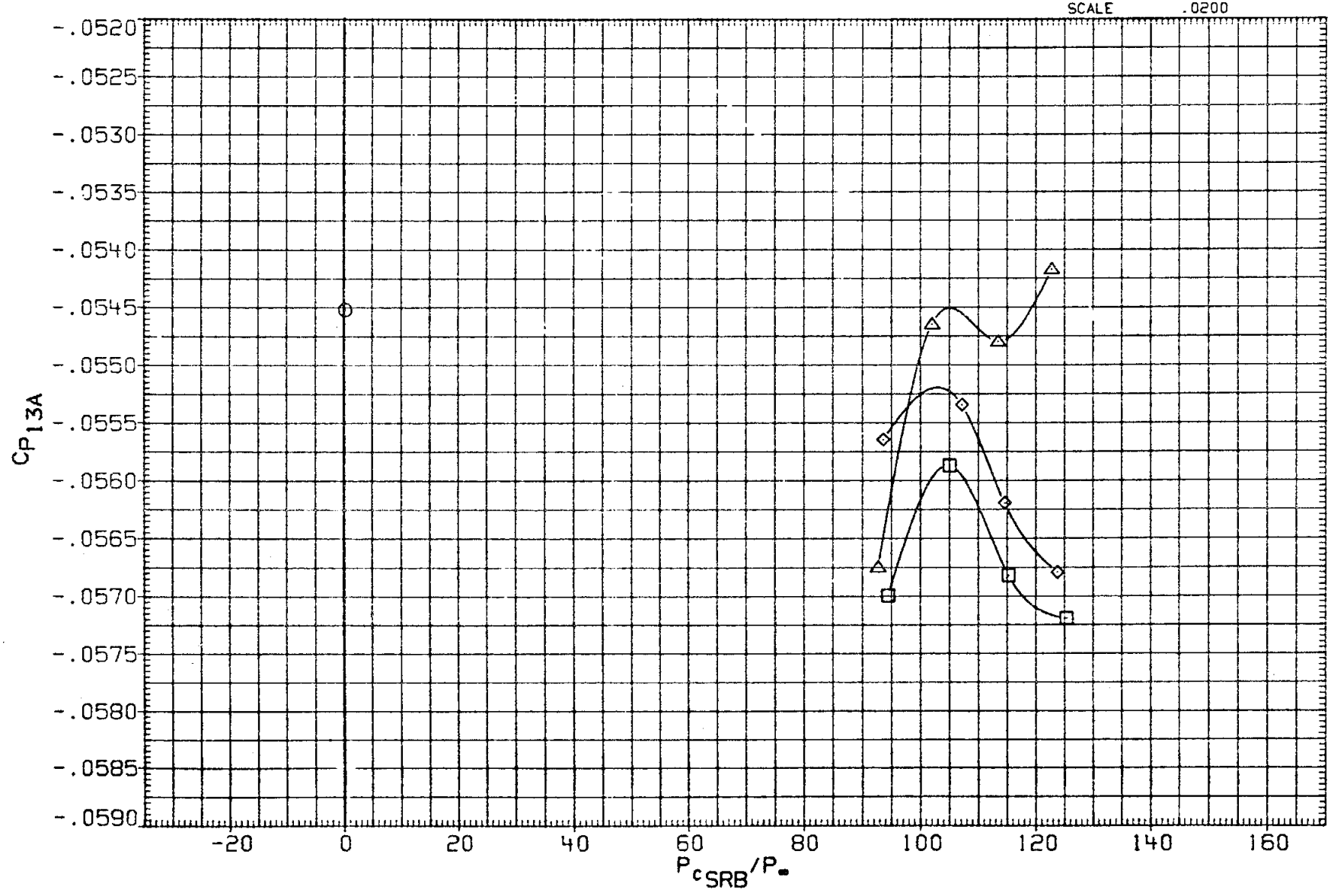

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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YMRP	.0000	N.A.
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SCALE	.0200	

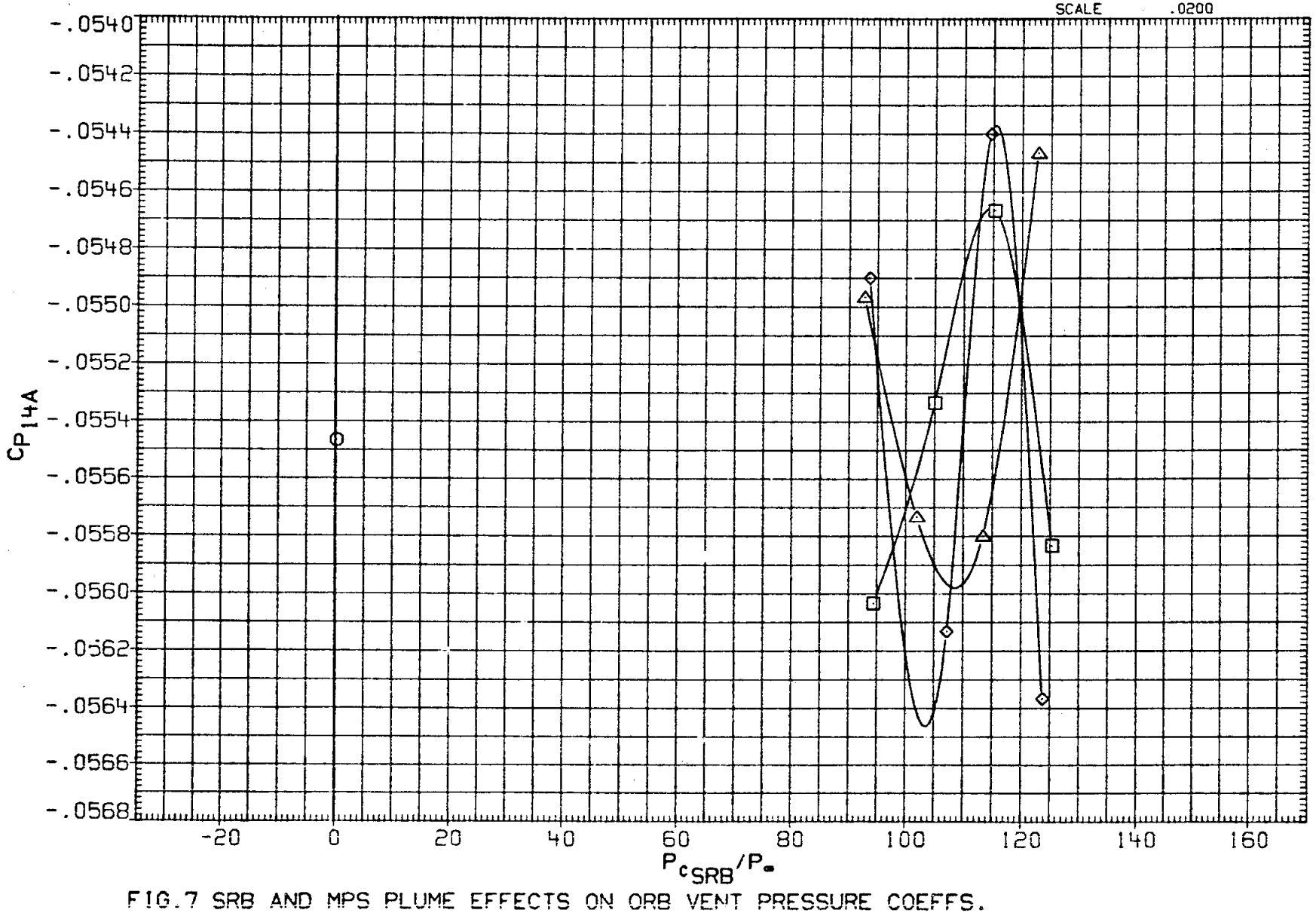

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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ZMRP	.0000	N.A.
SCALE	.0200	

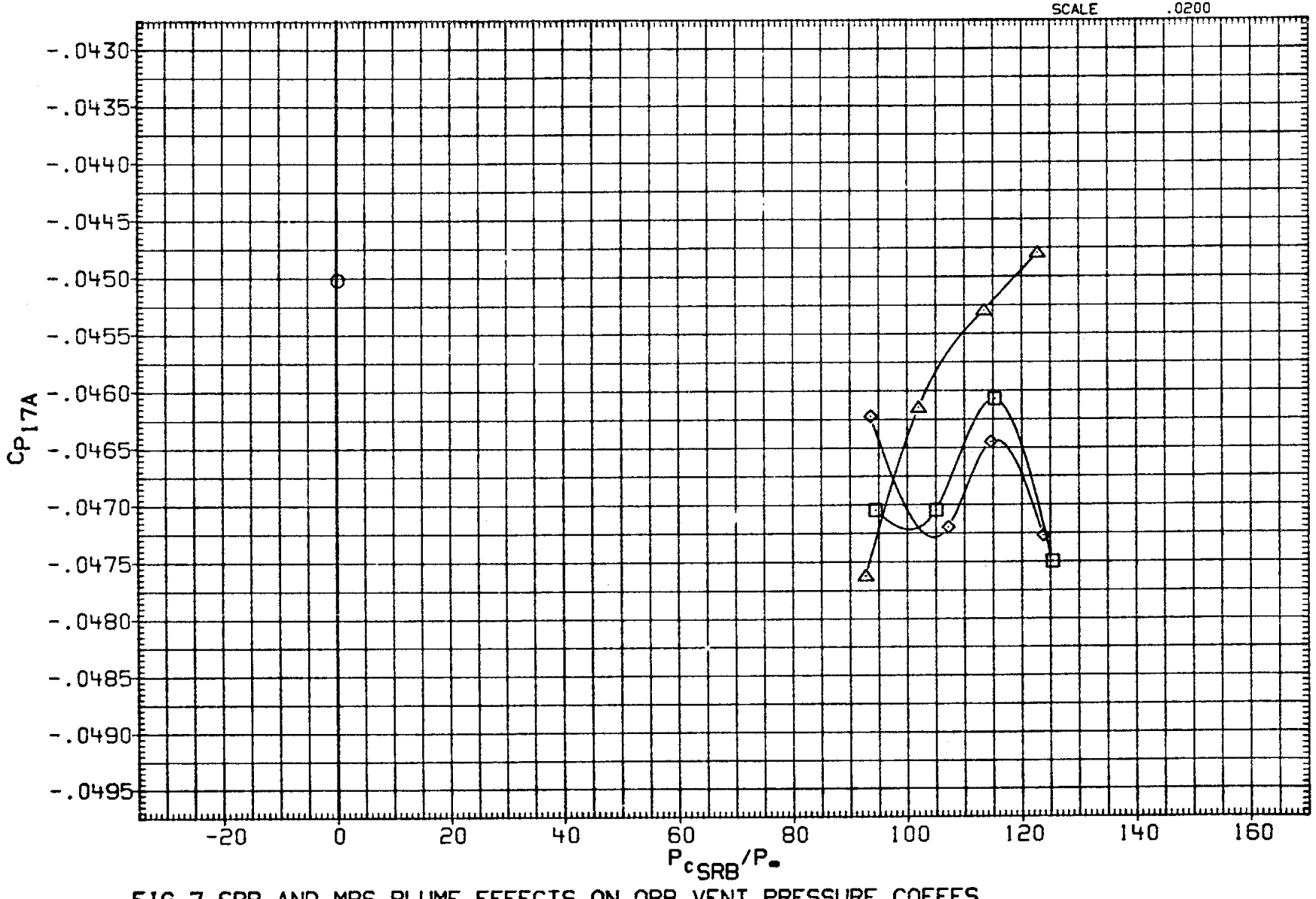

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

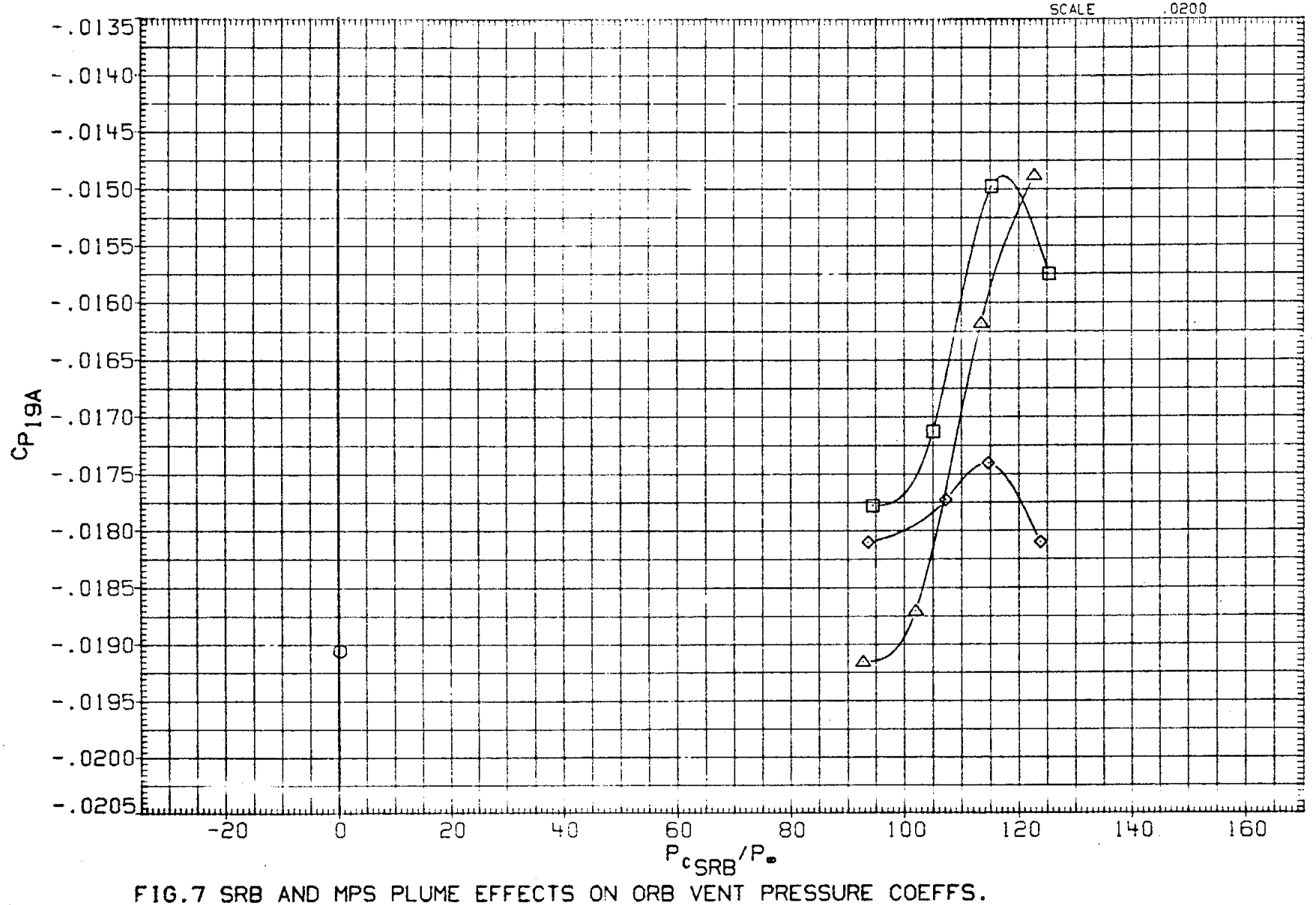

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

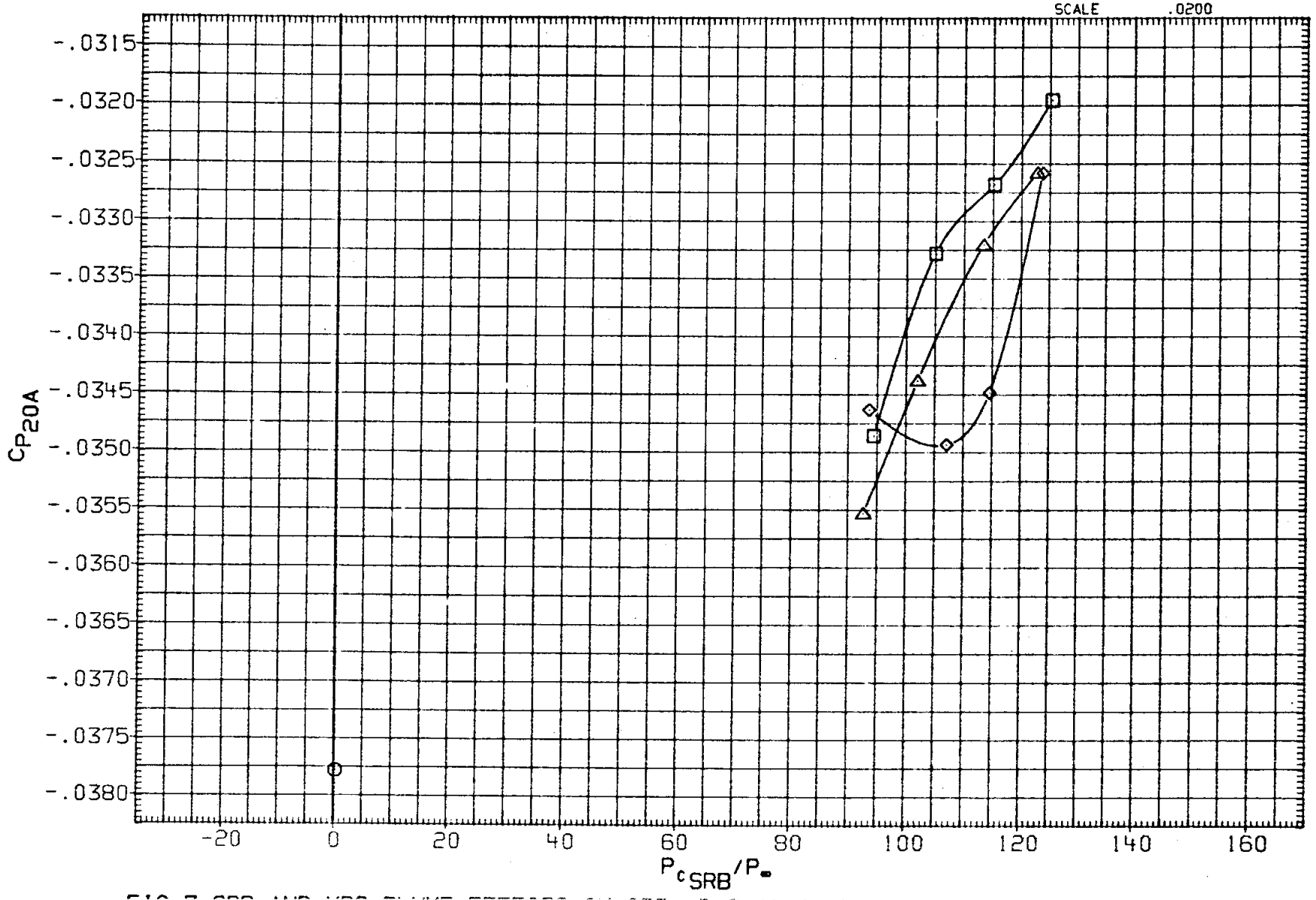

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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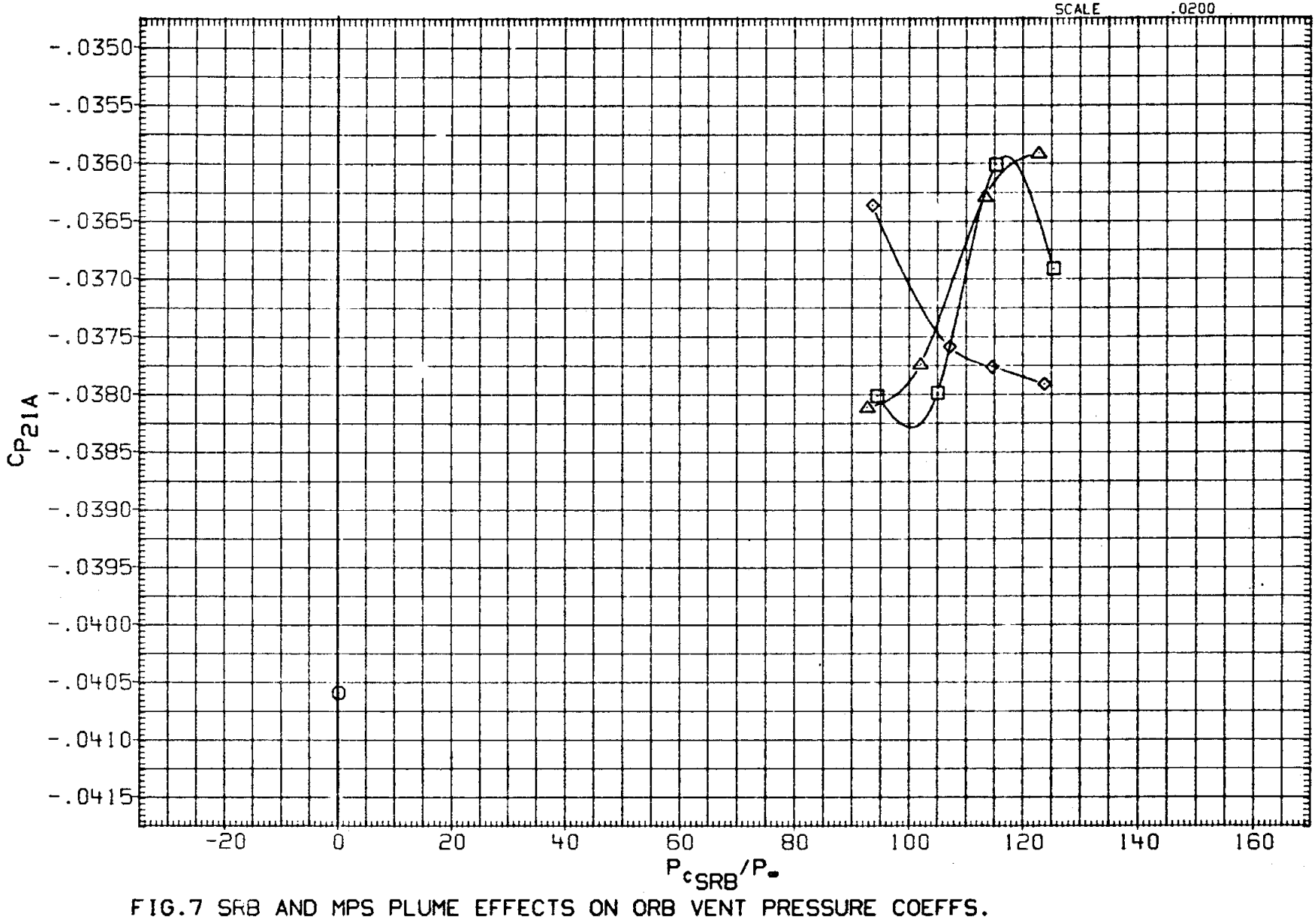

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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LREF	90.7000	IN.
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YMRP	.0000	N.A.
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SCALE	.0200	

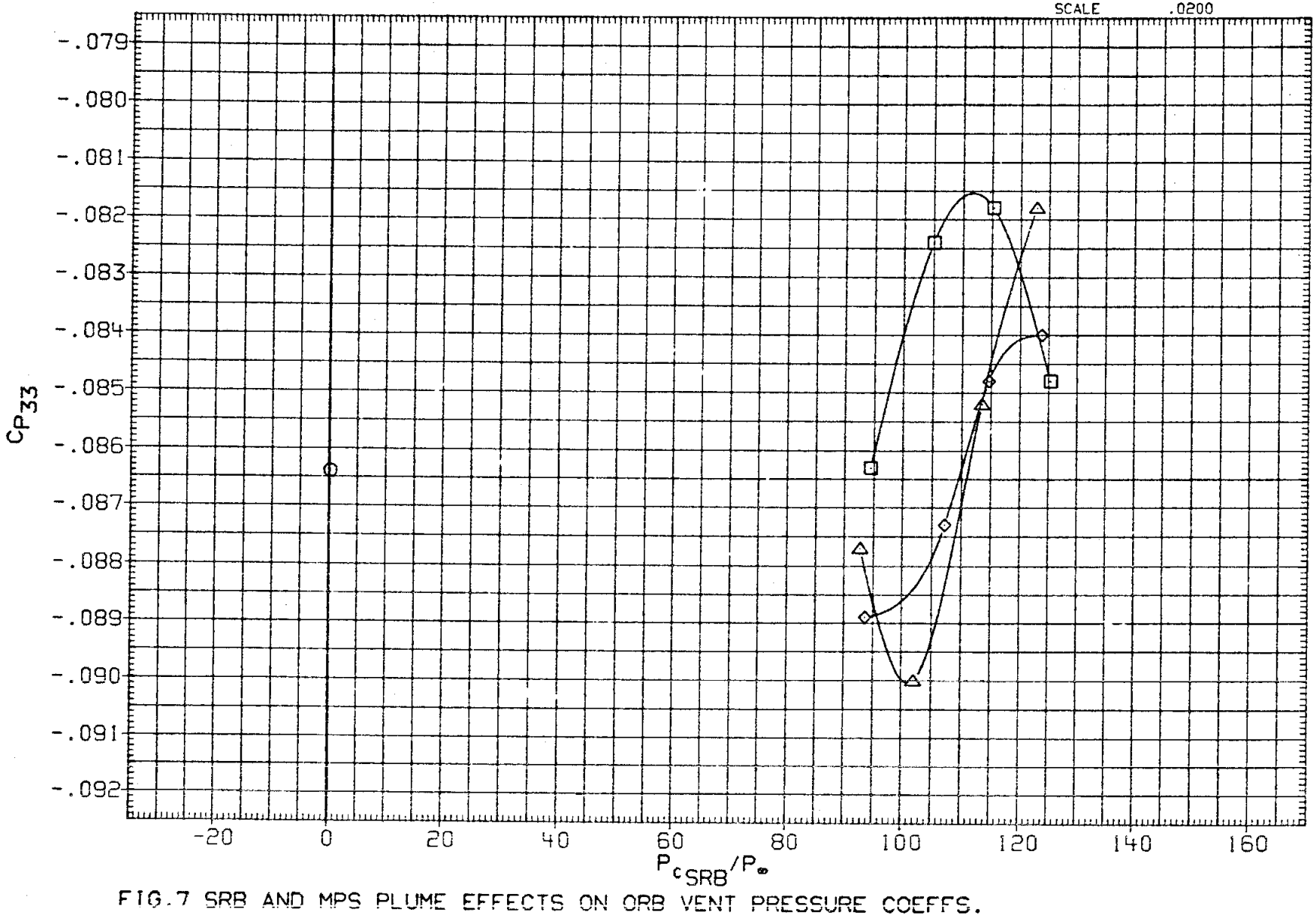

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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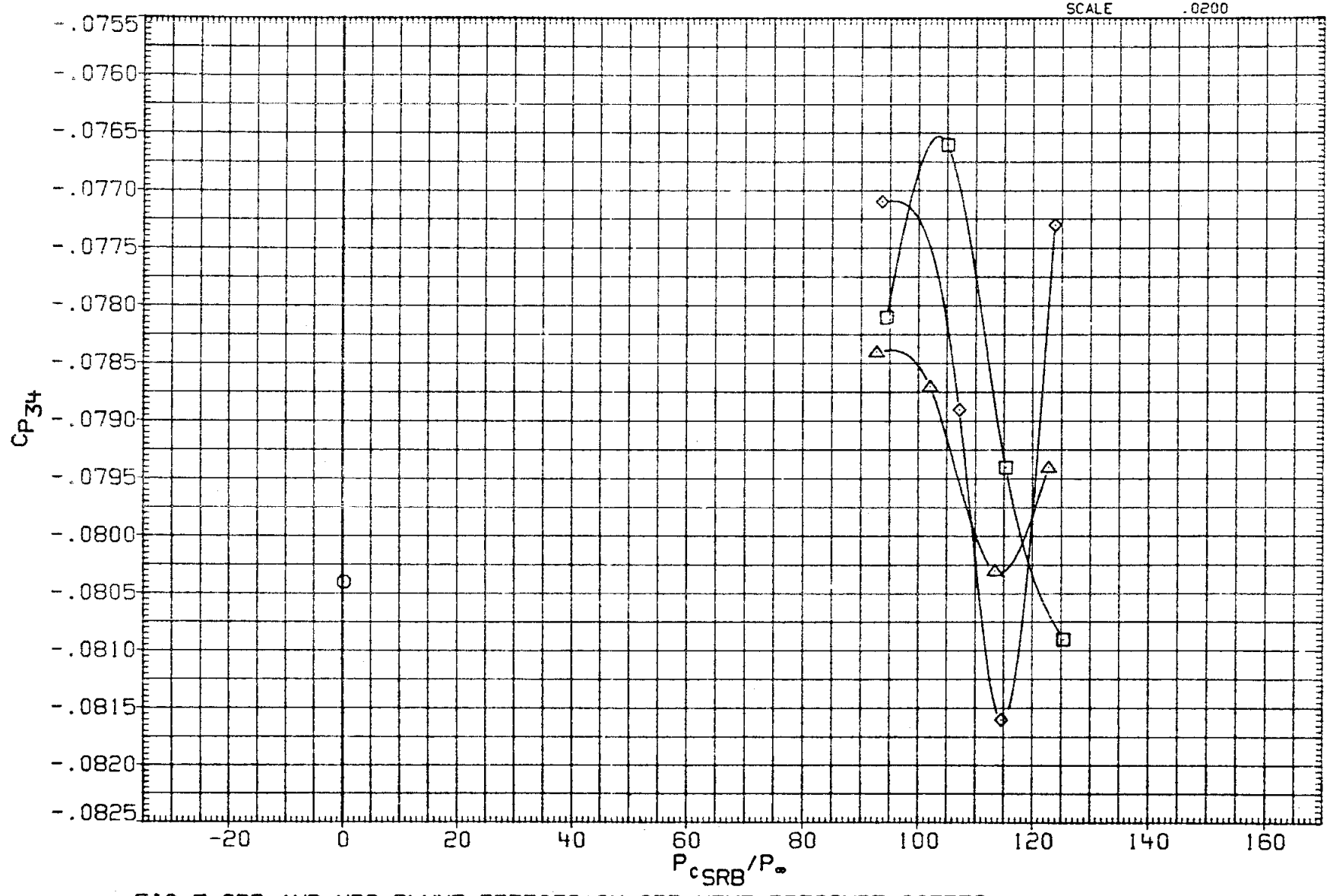

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

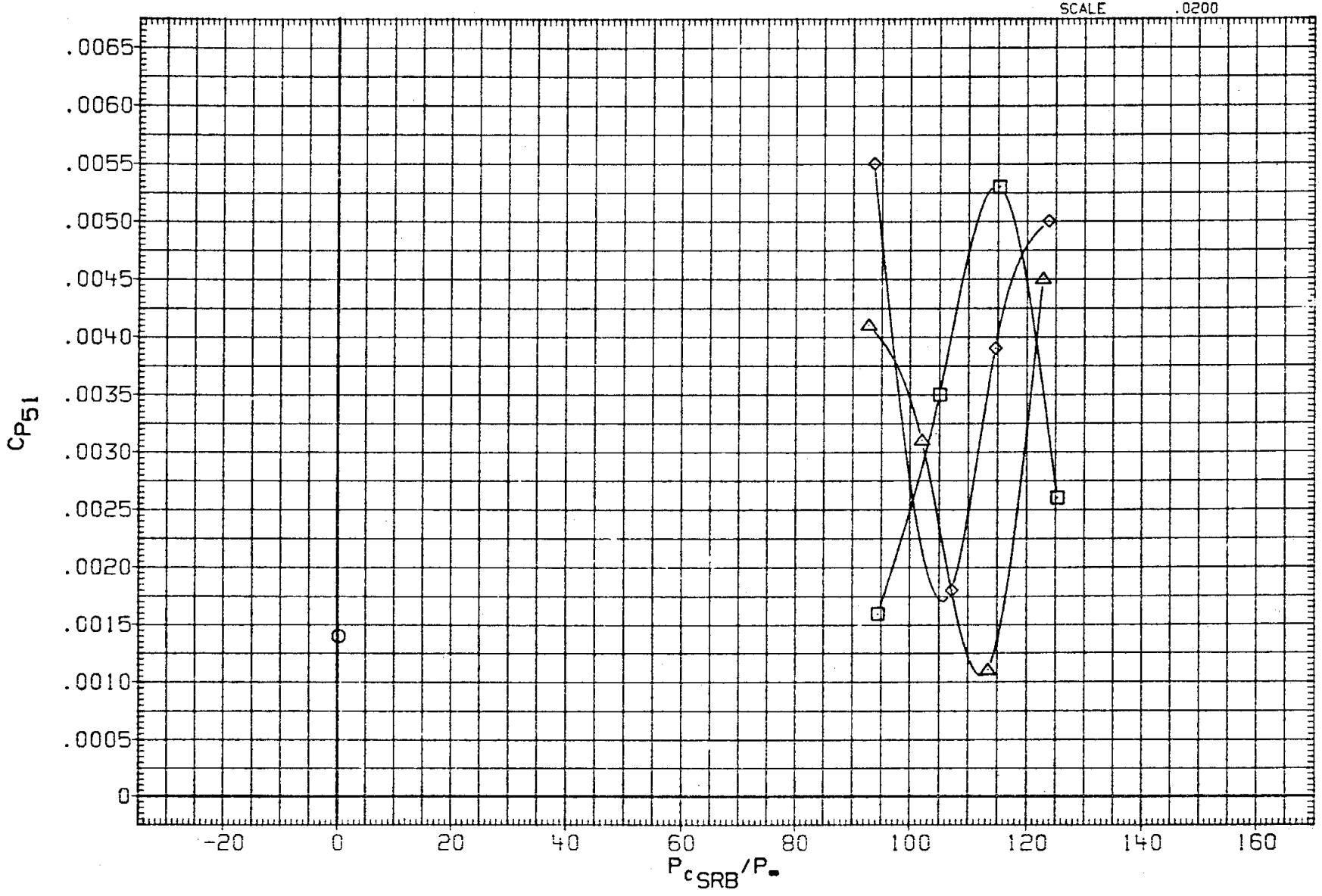

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

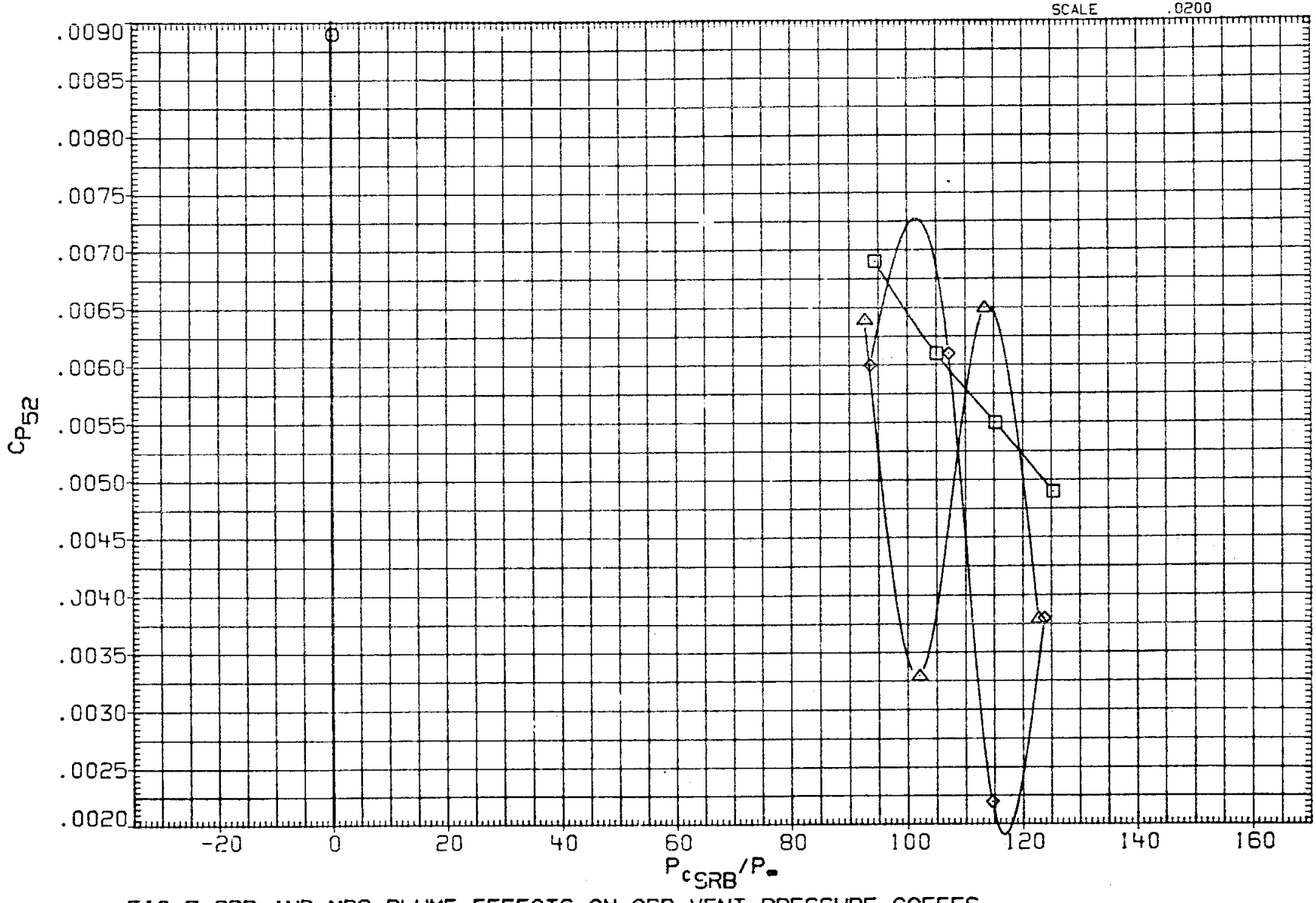

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

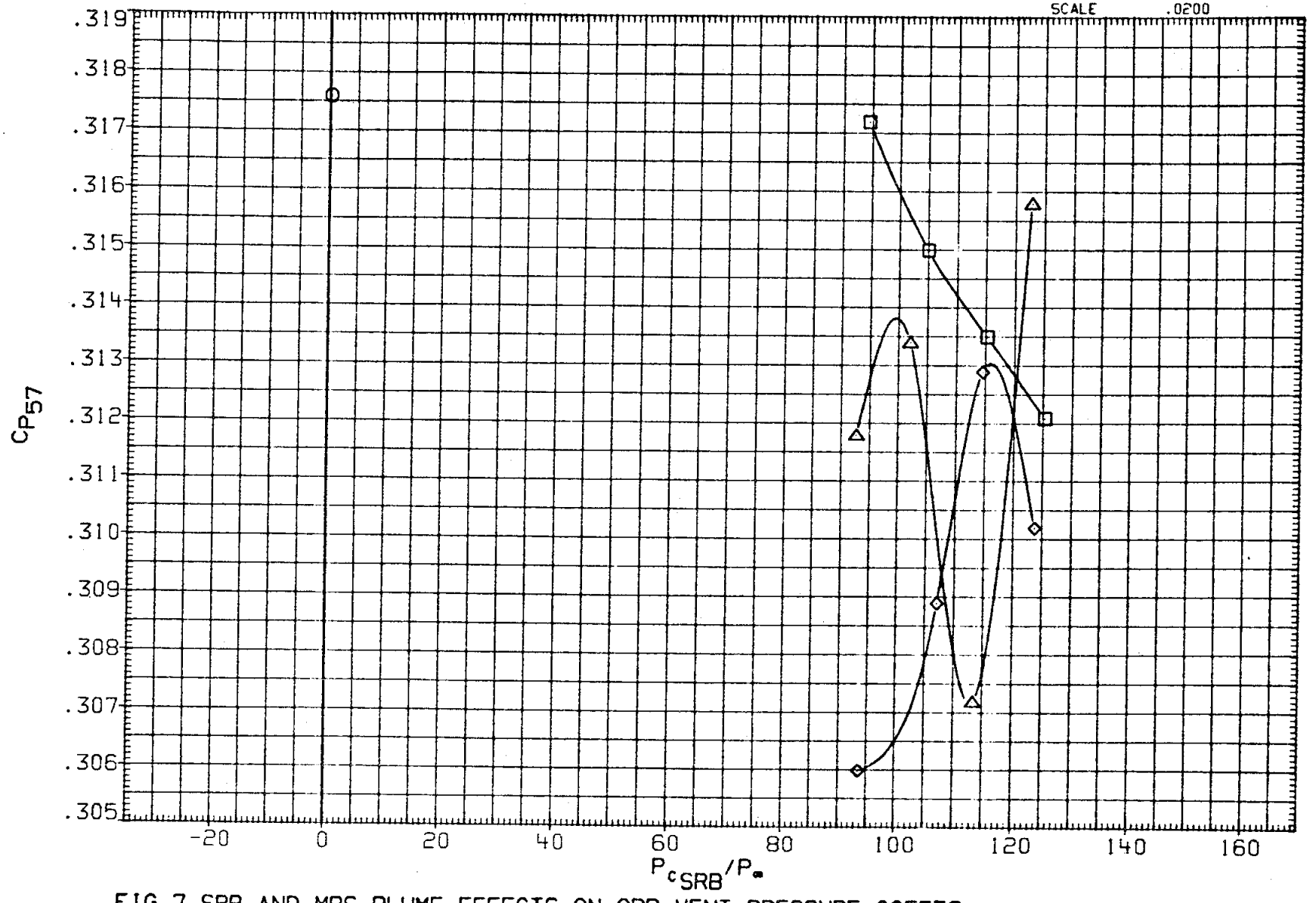

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

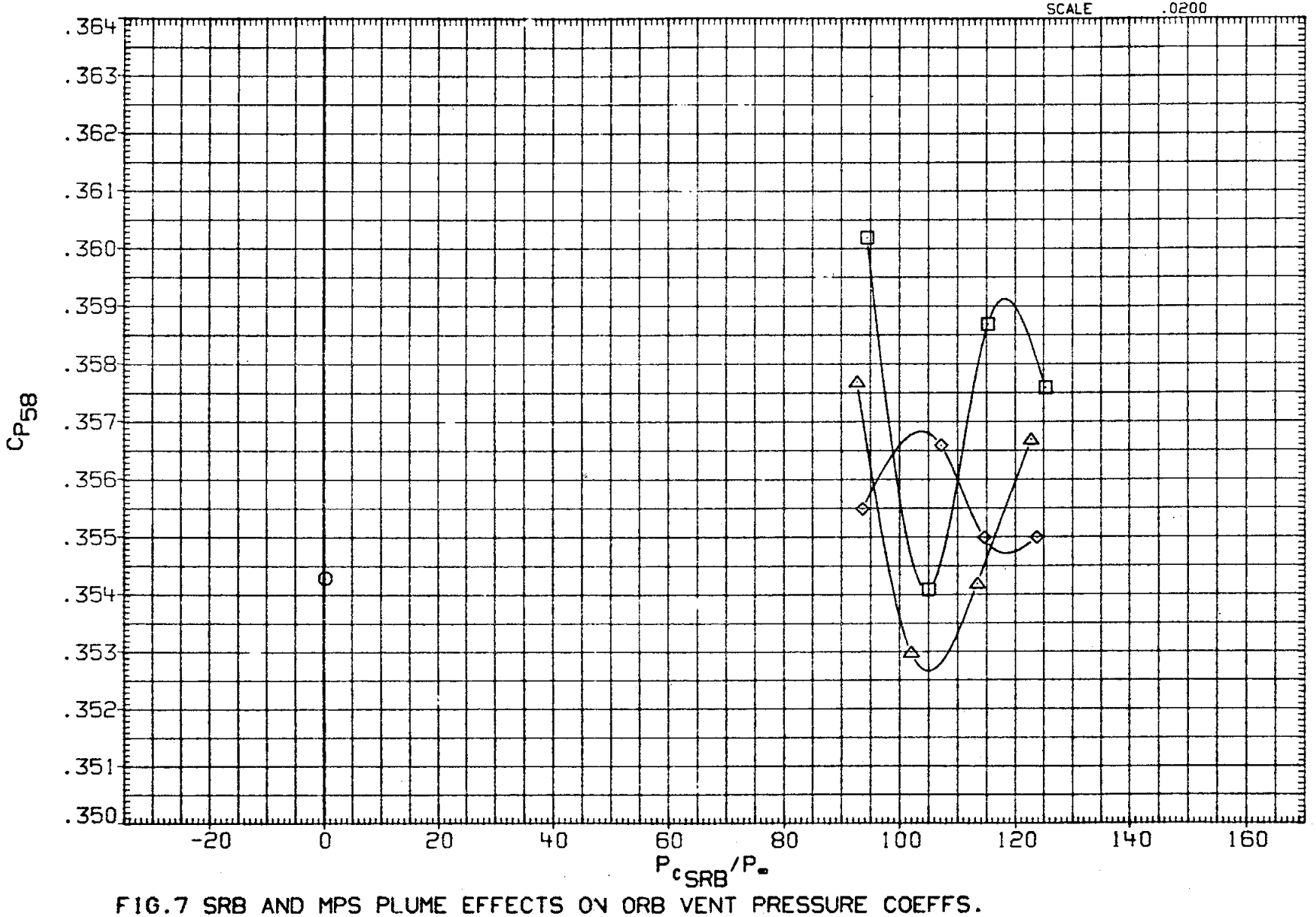

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
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SCALE	.0200	

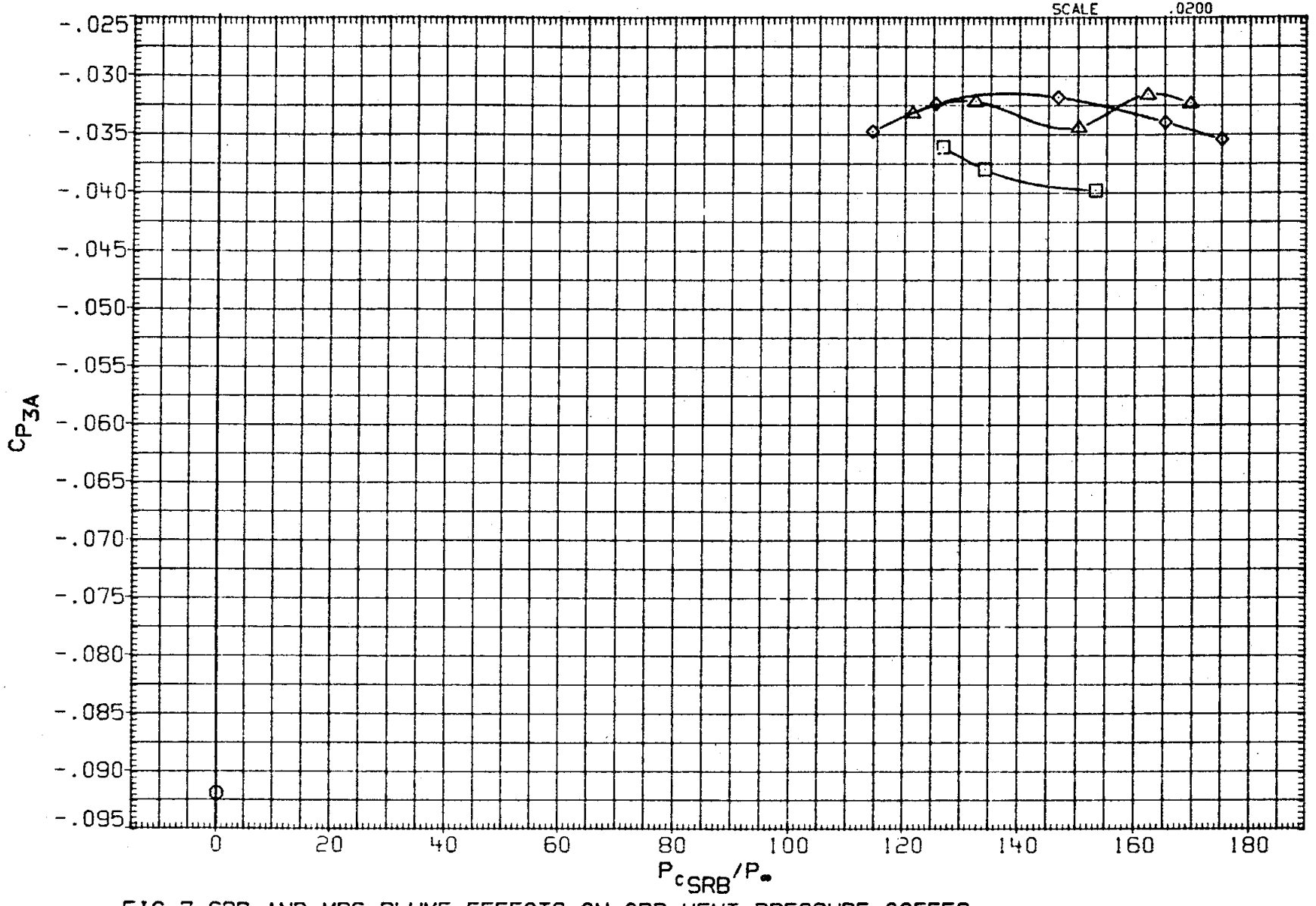

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

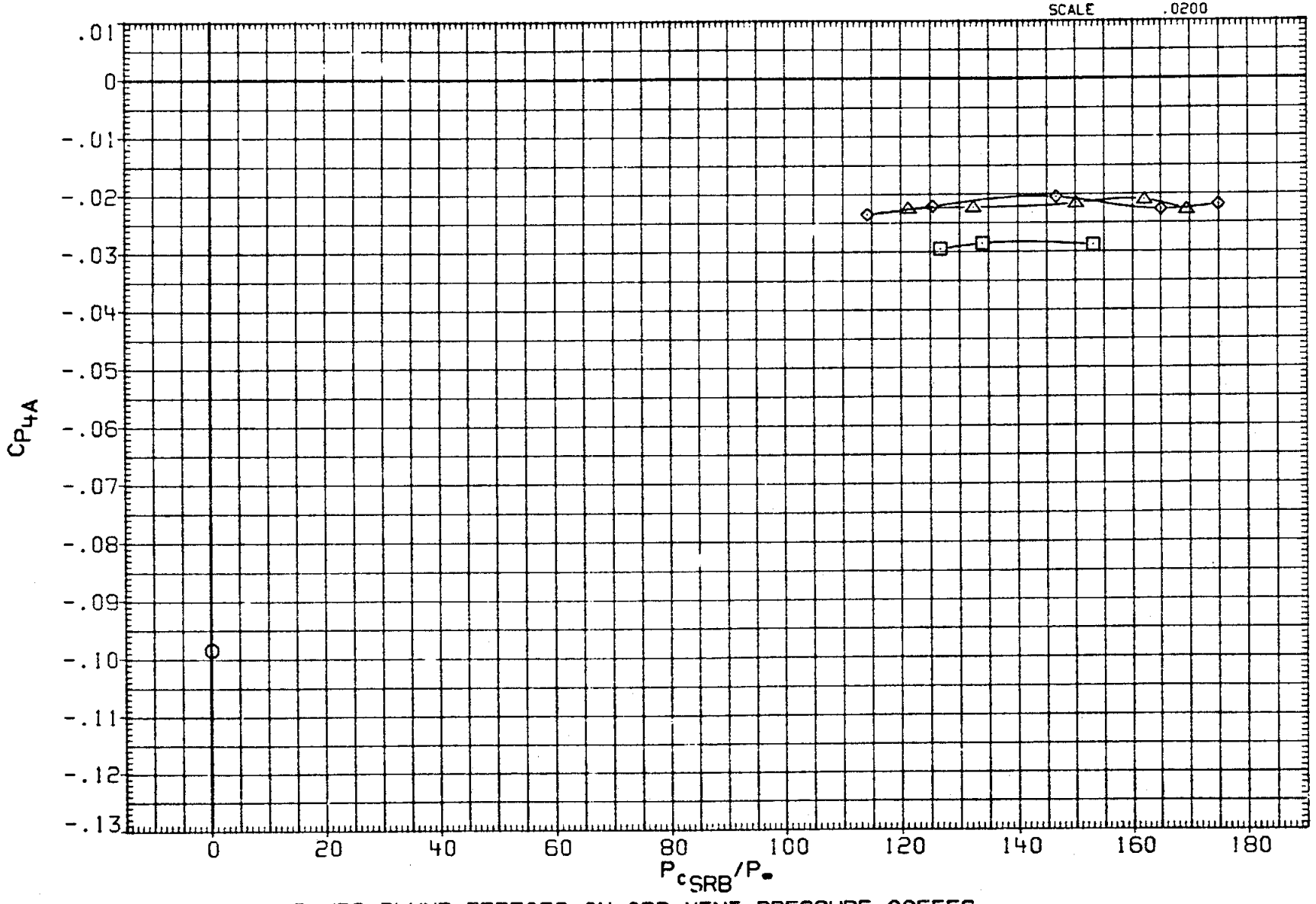

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

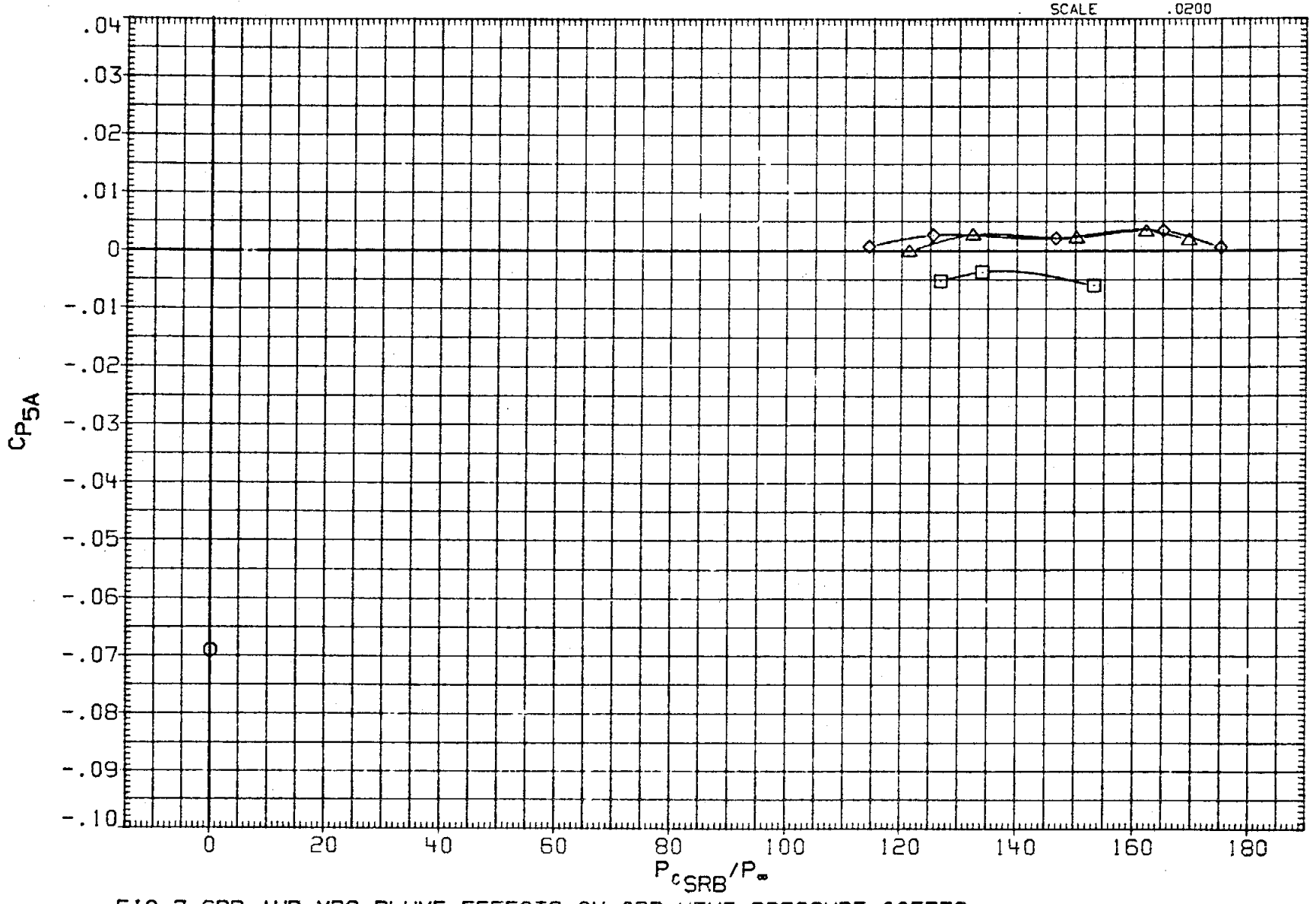

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

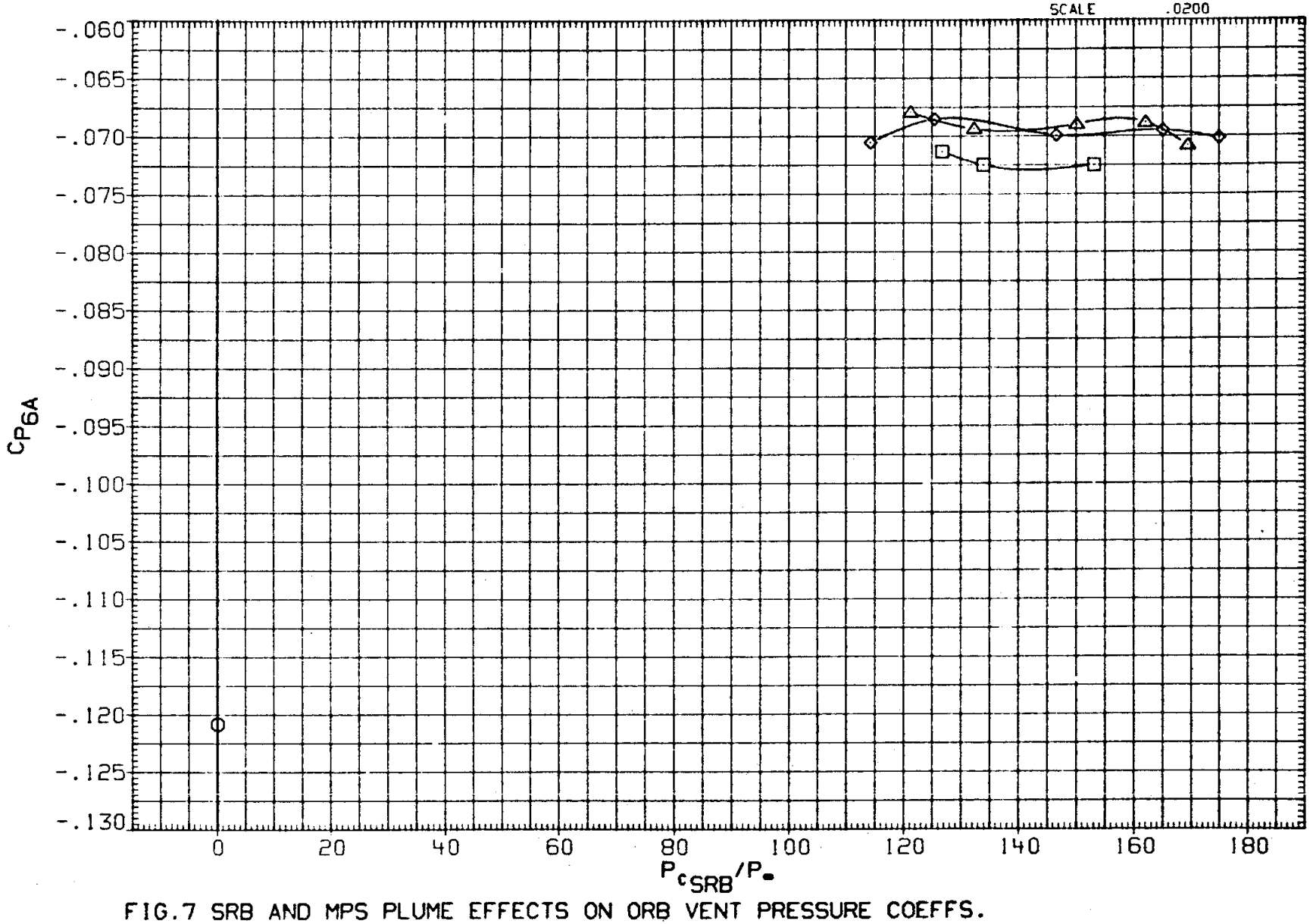

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
2NEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
2NEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
2NEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
2NEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

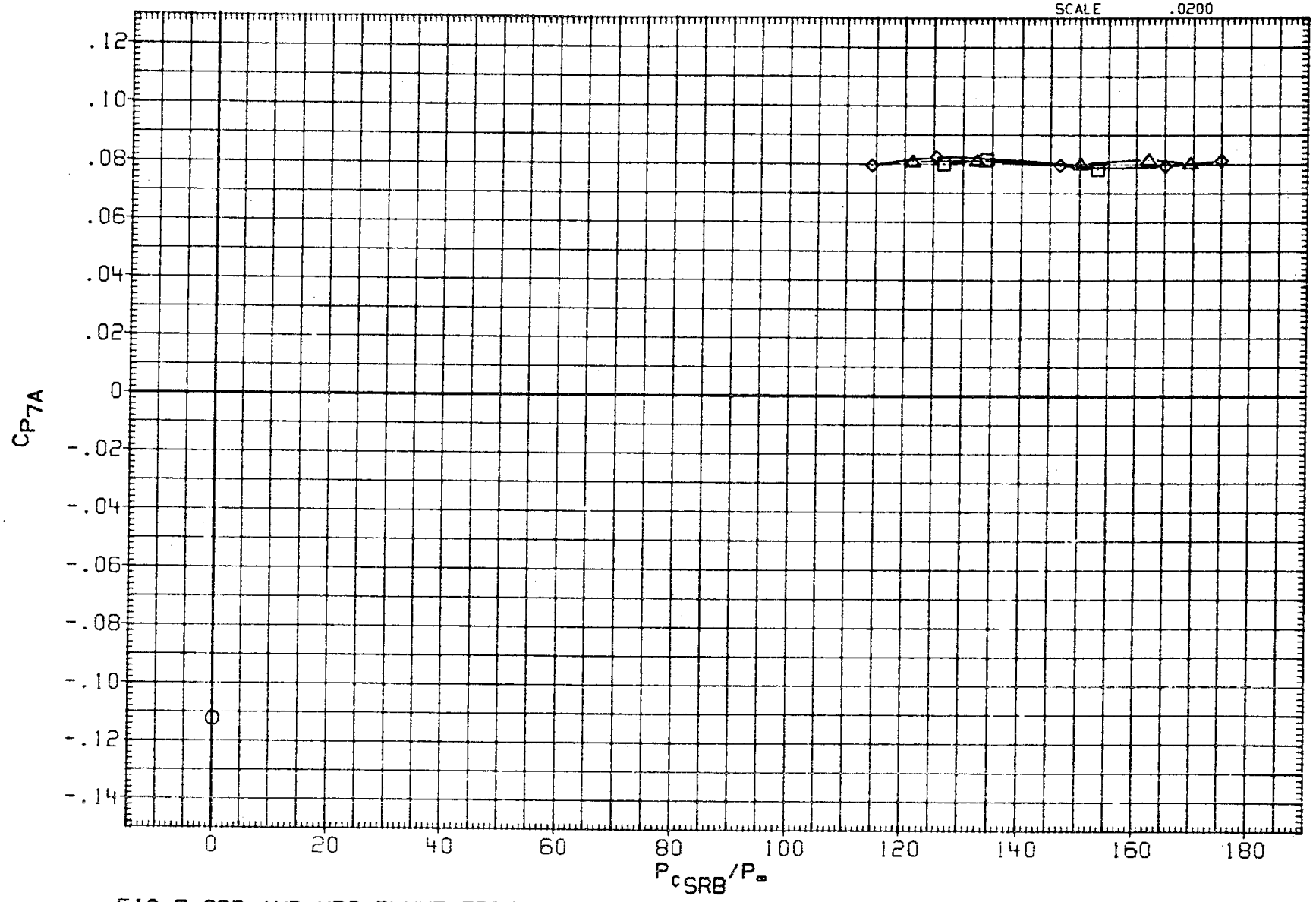

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

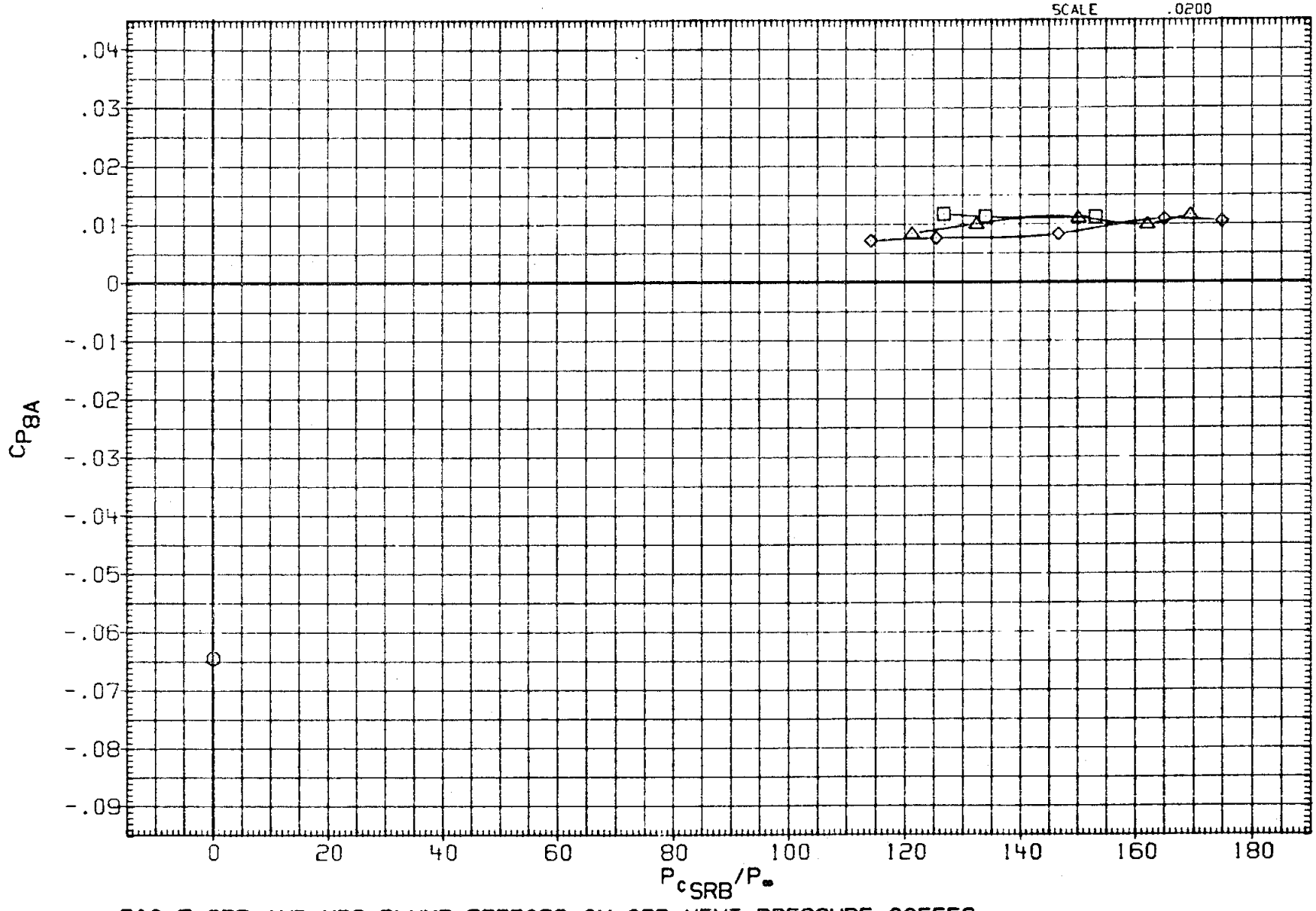

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

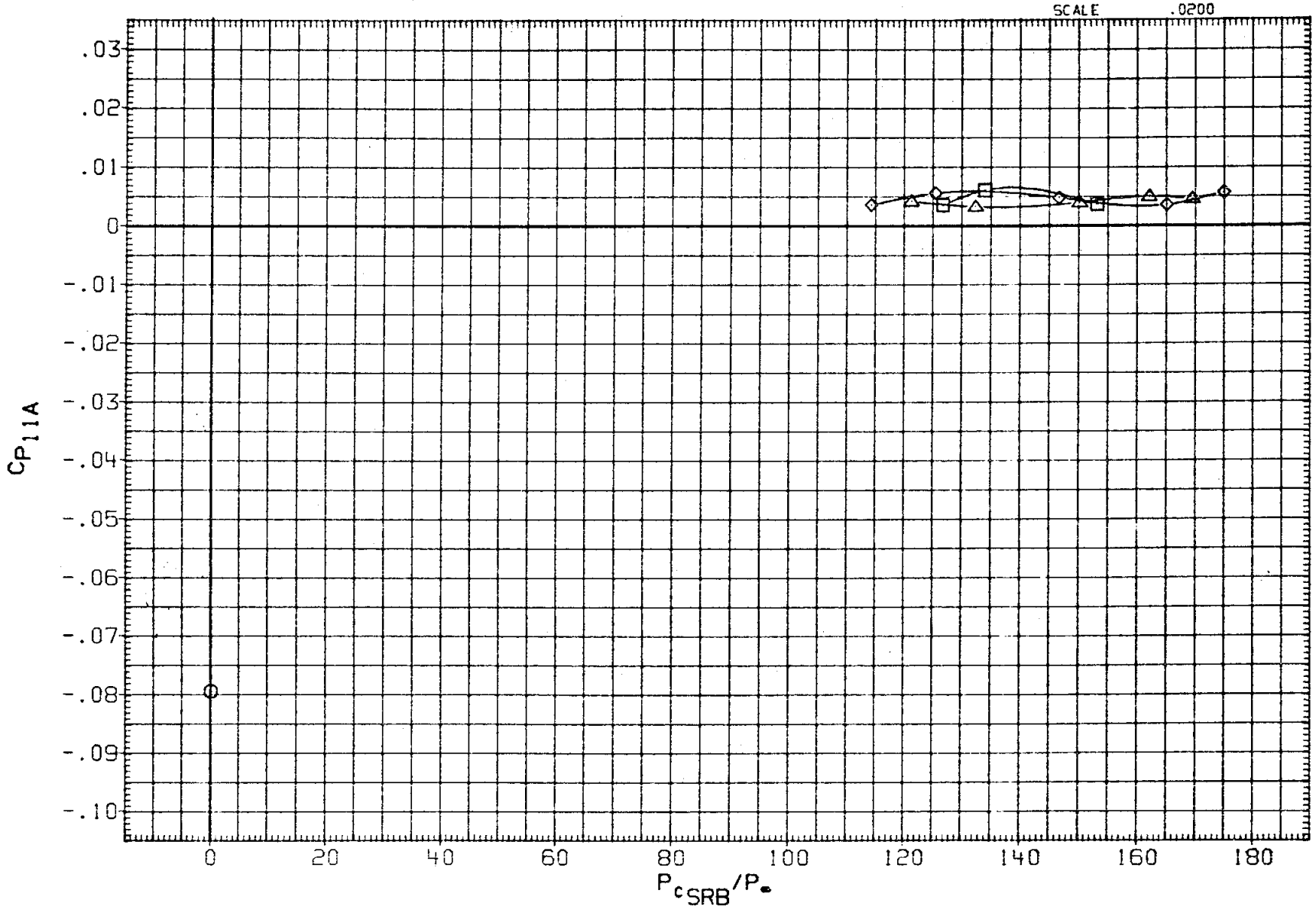

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

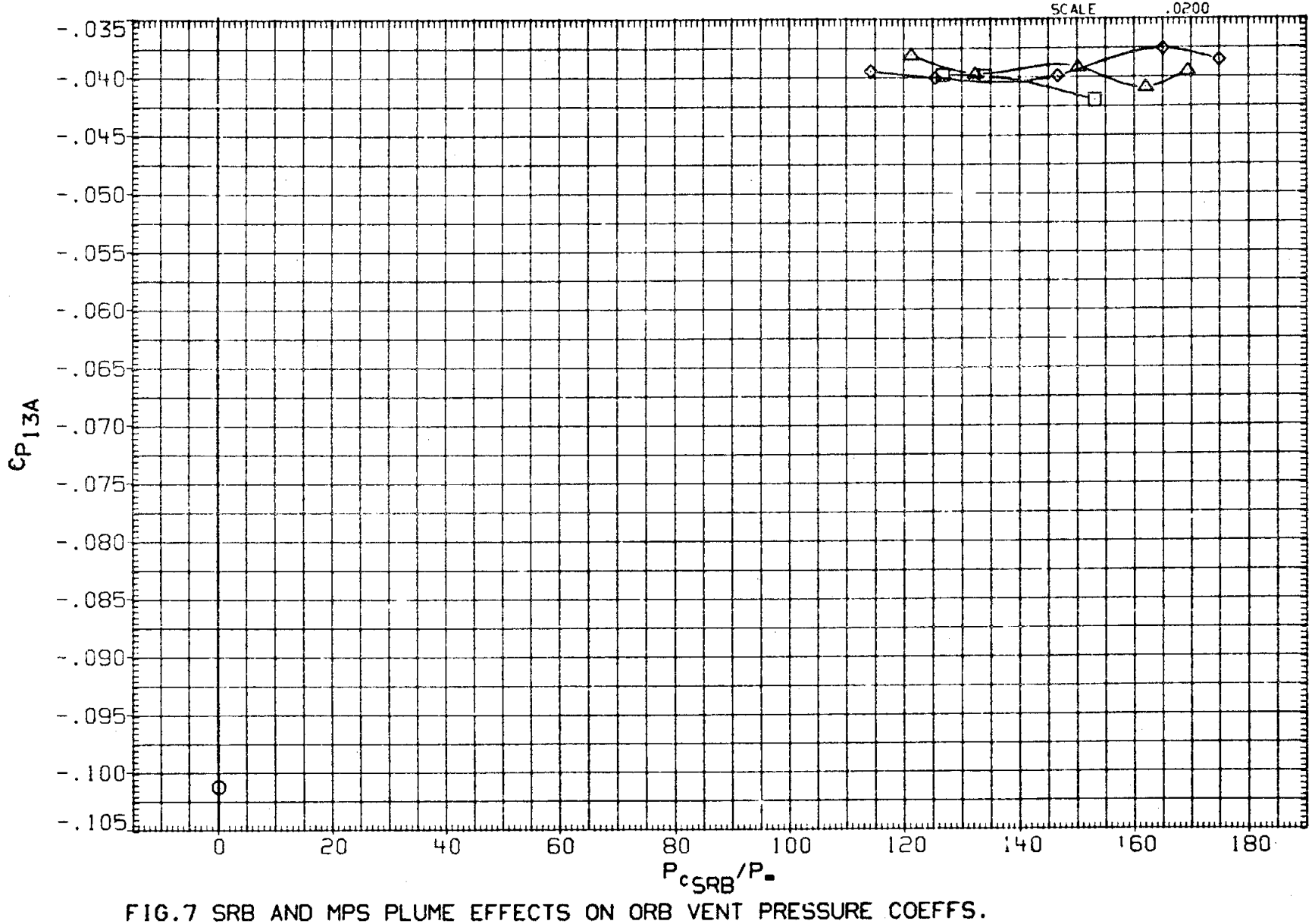

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

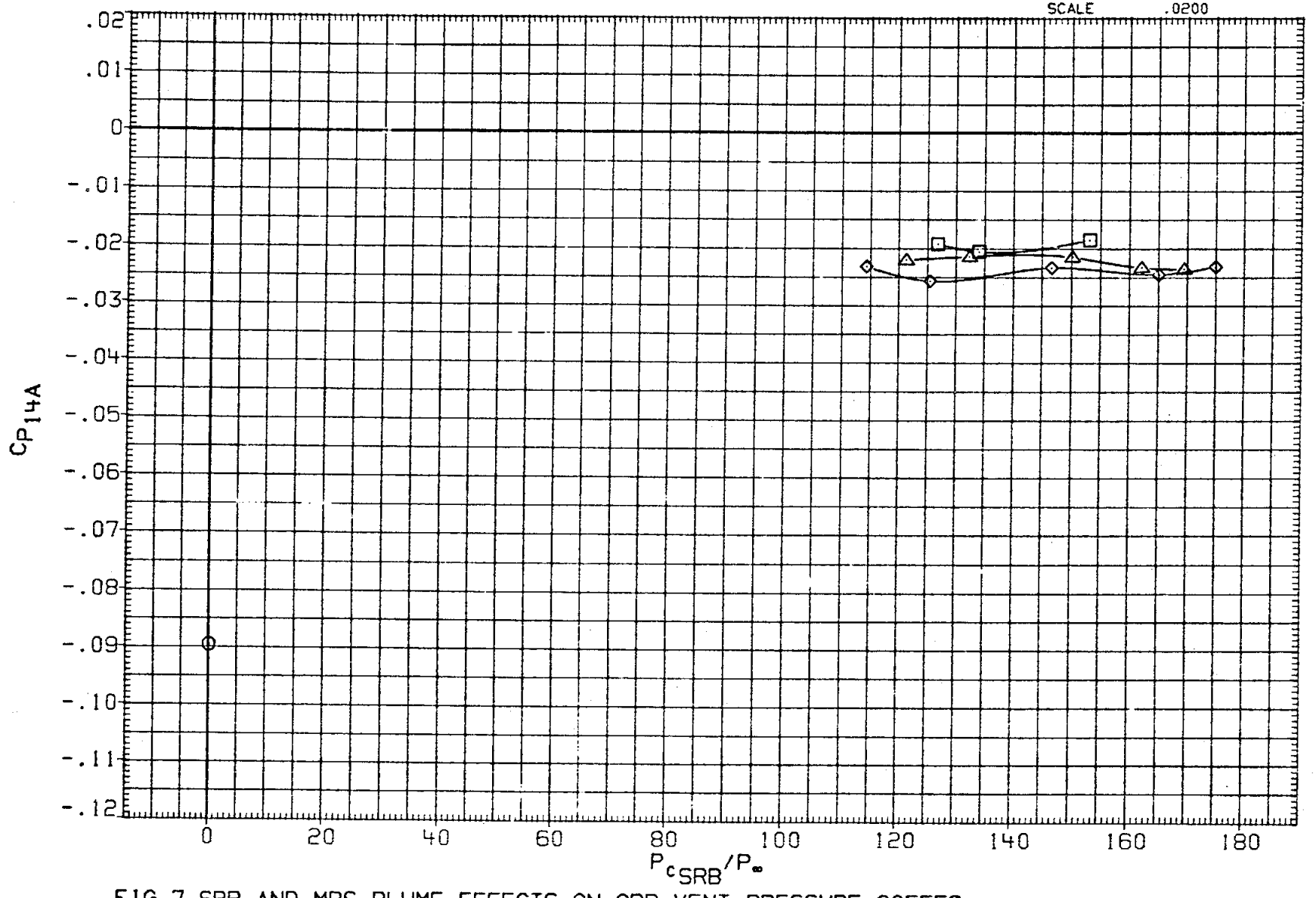

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
RNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

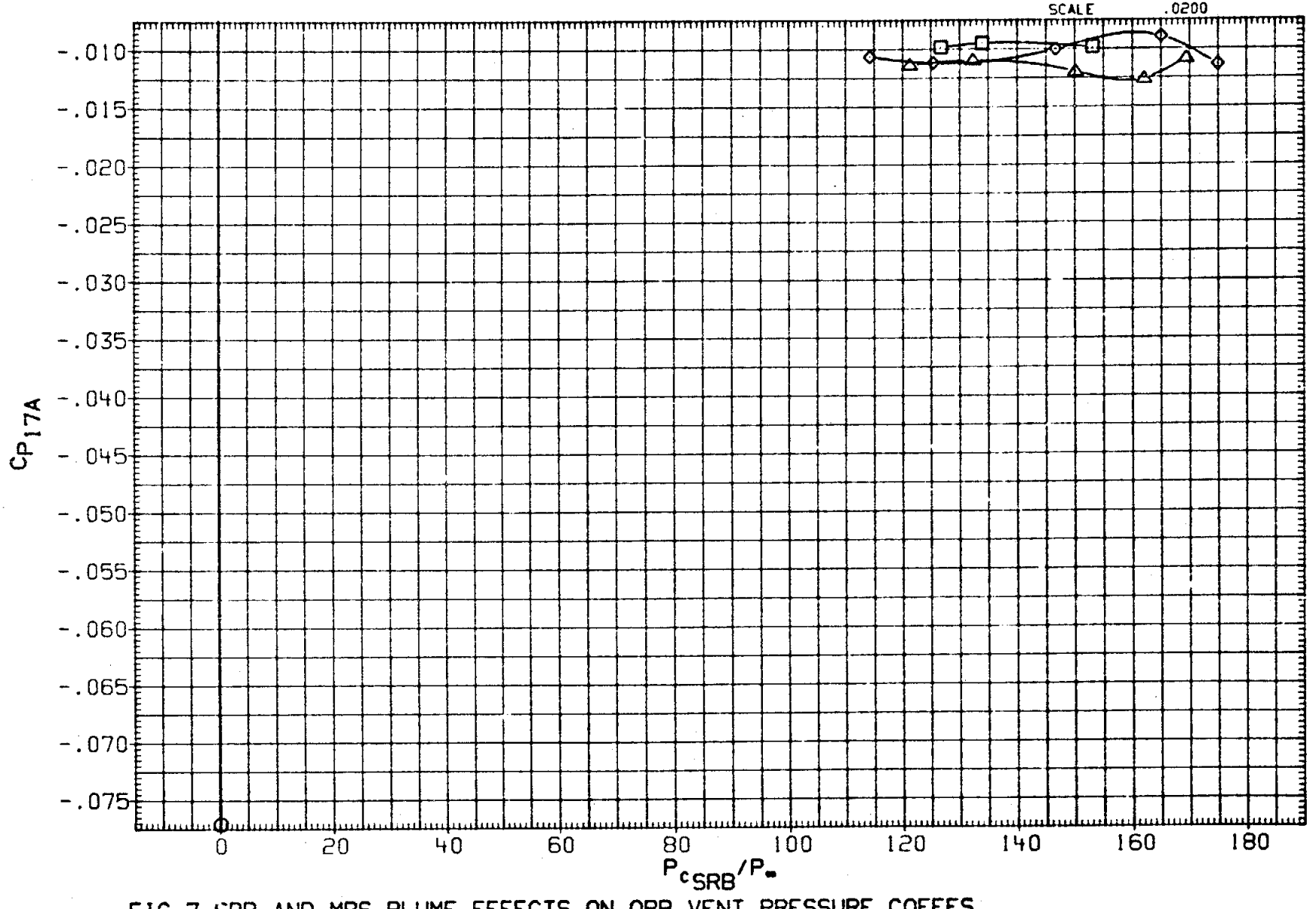

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
RNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
RNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
RNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	3.000	.000
RNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

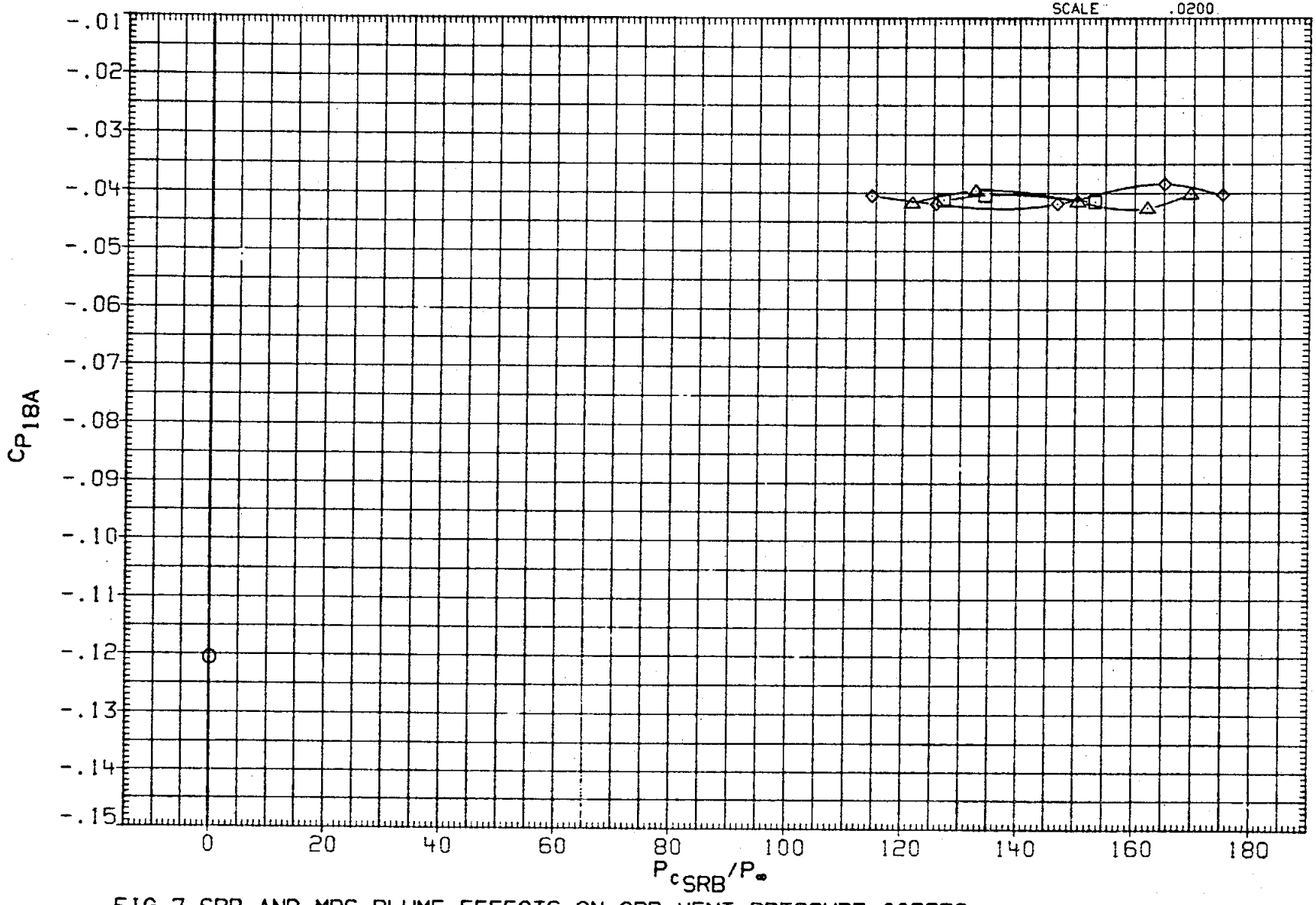

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

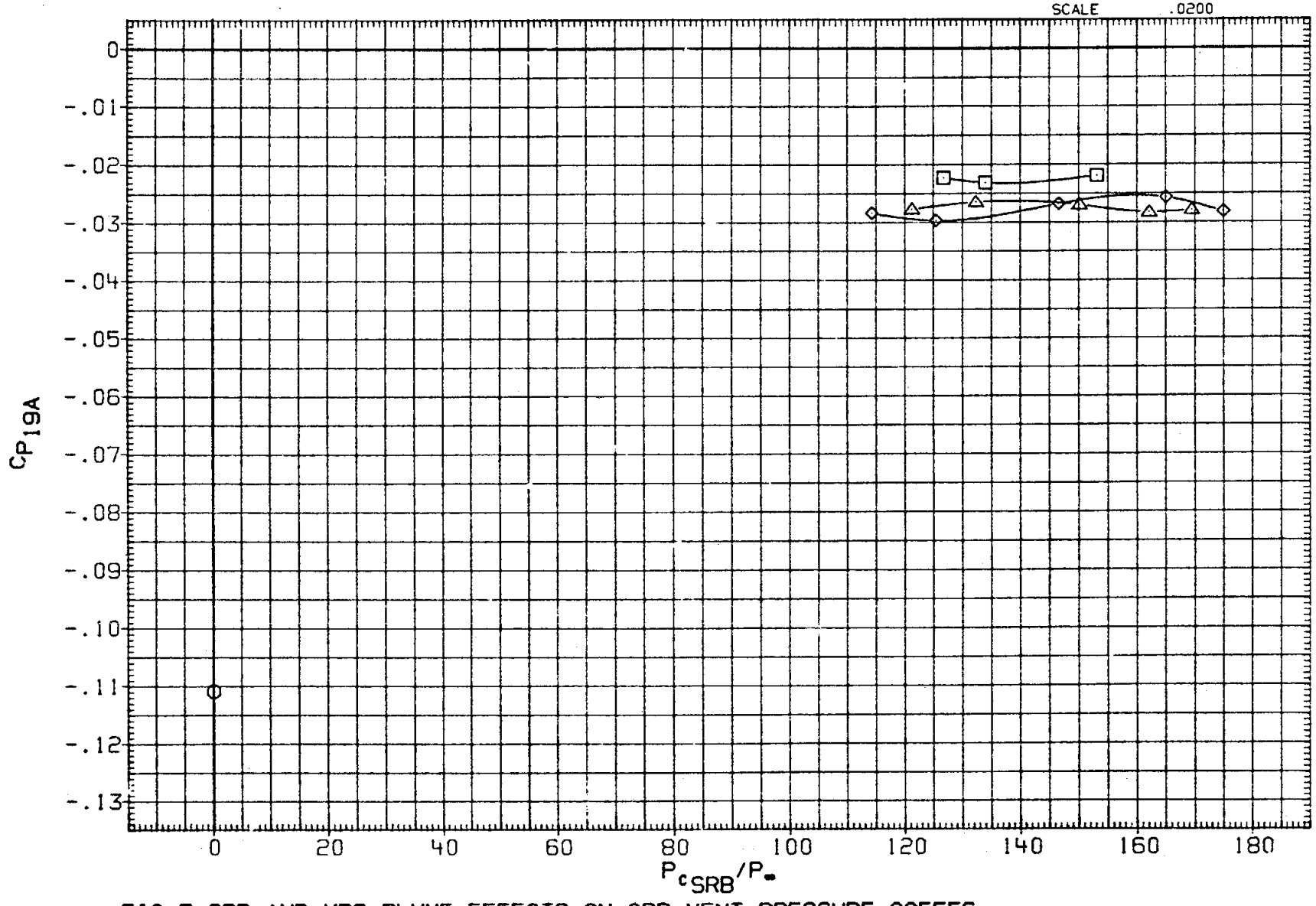

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

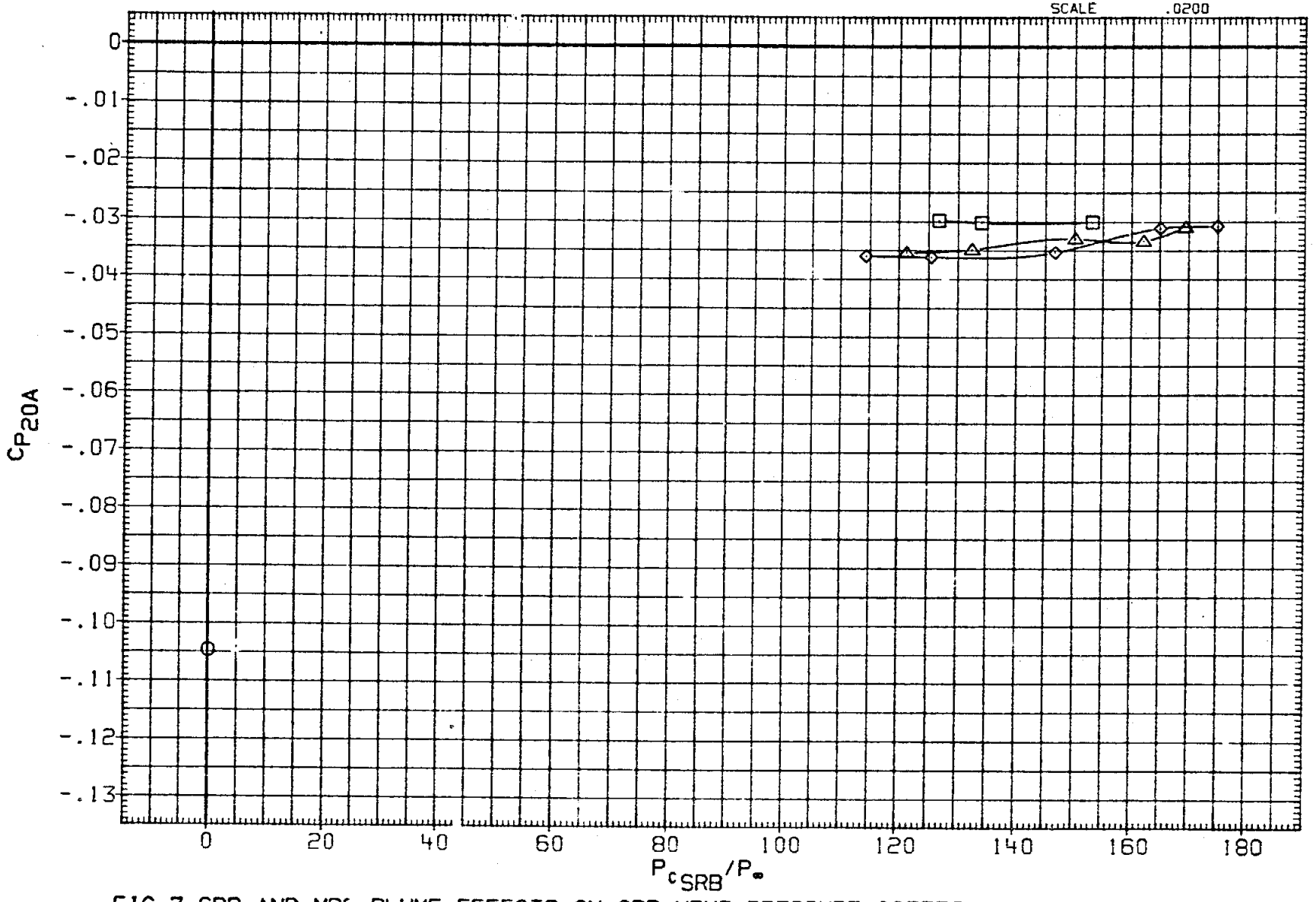

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

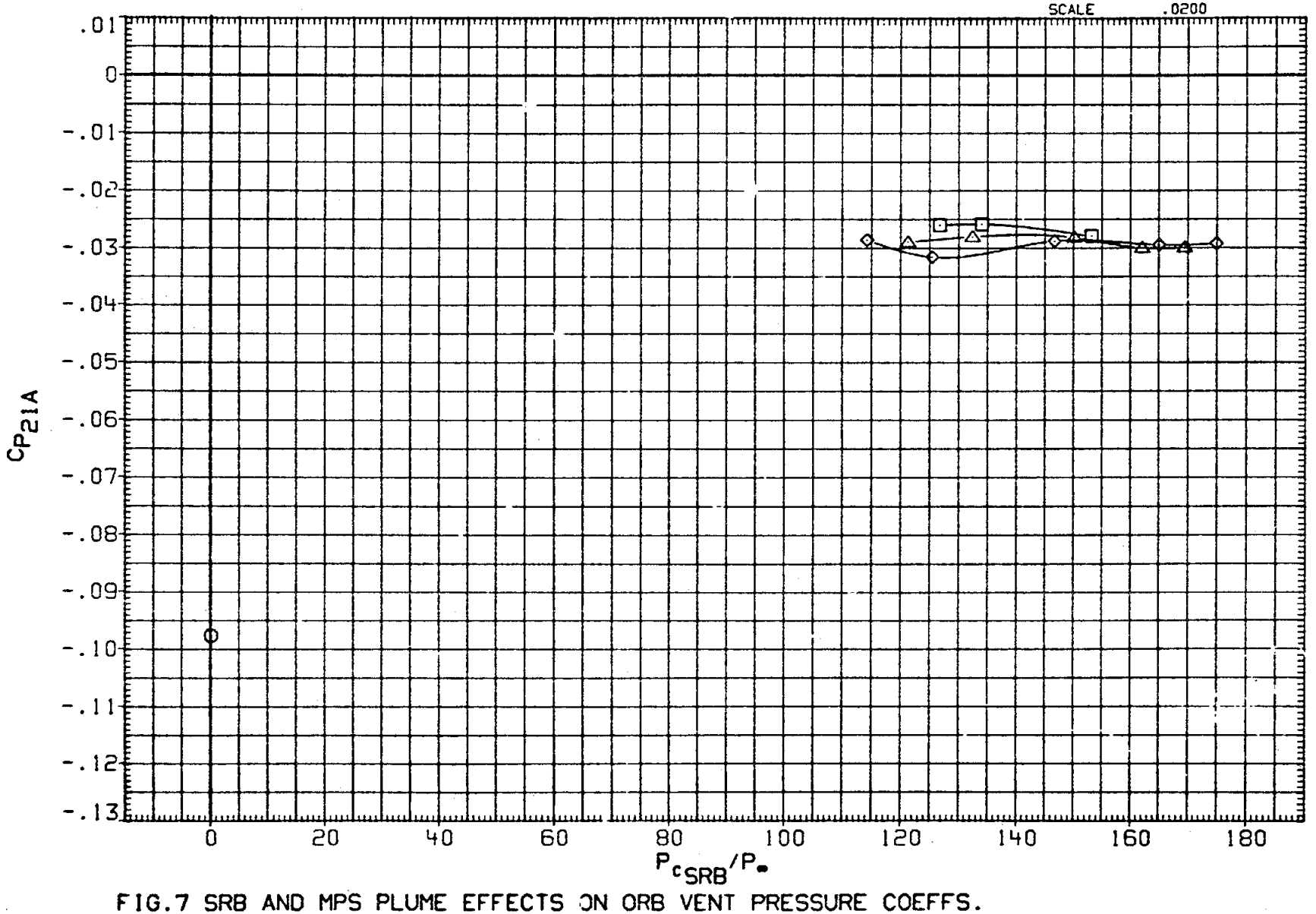

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

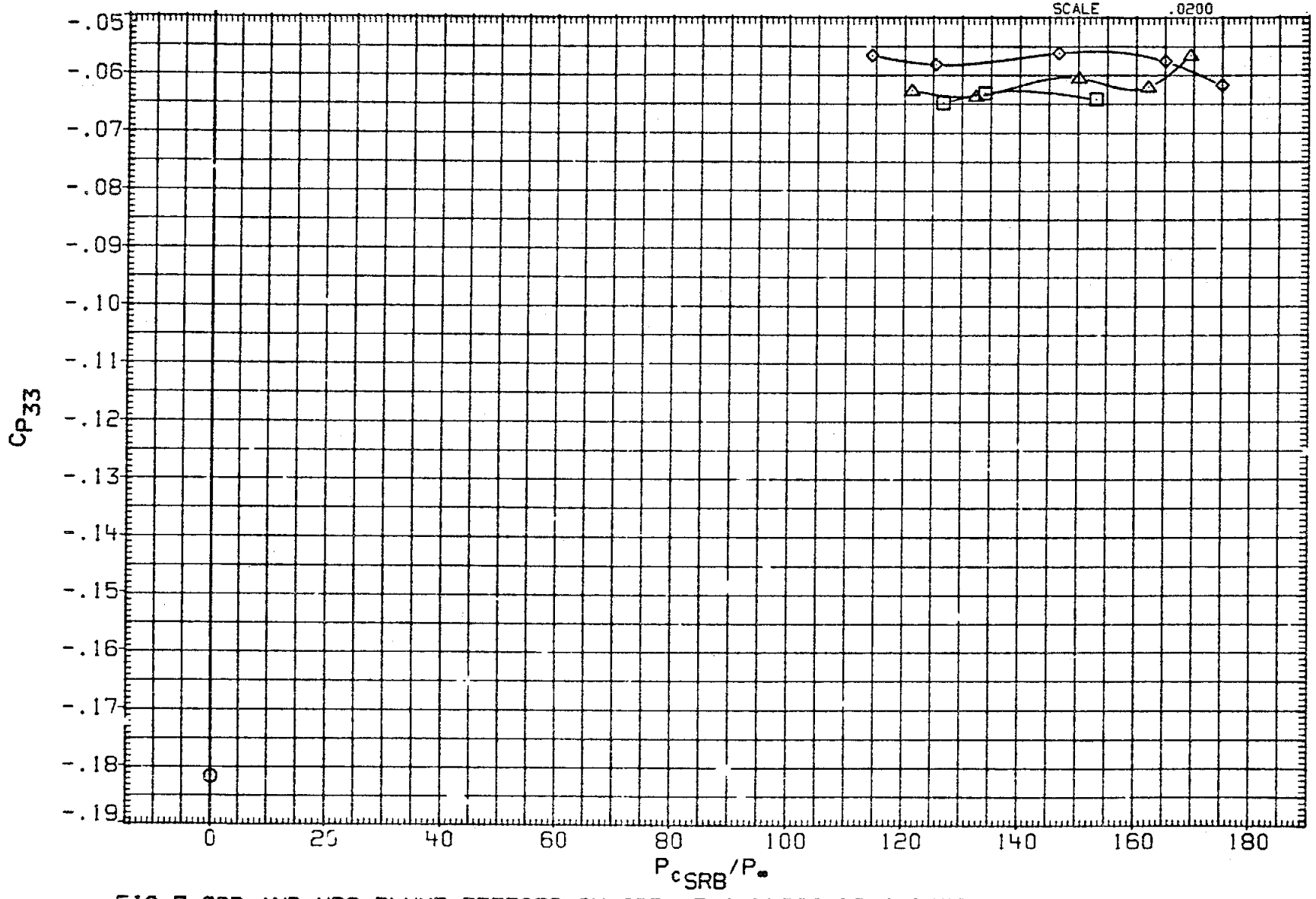

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

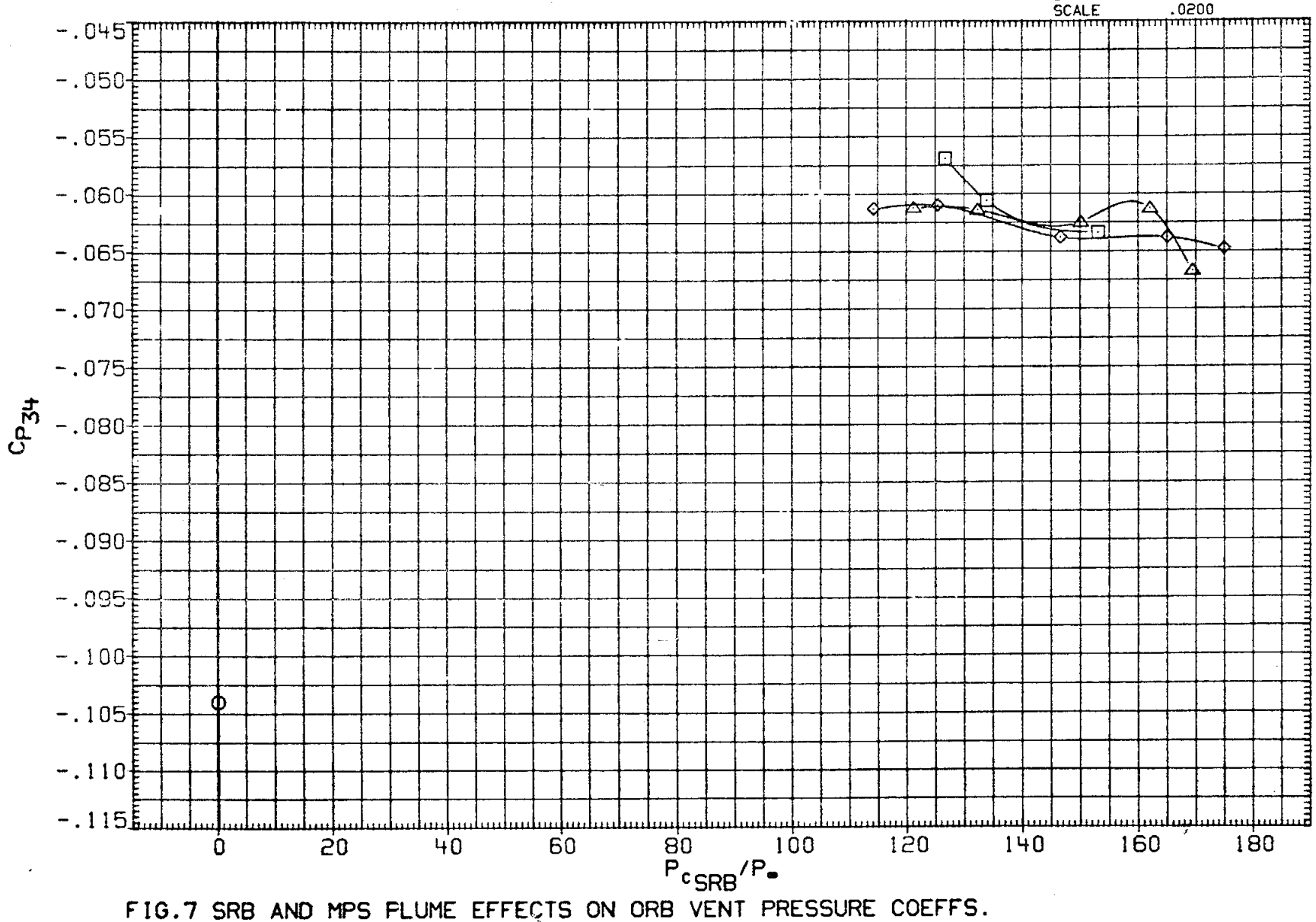

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

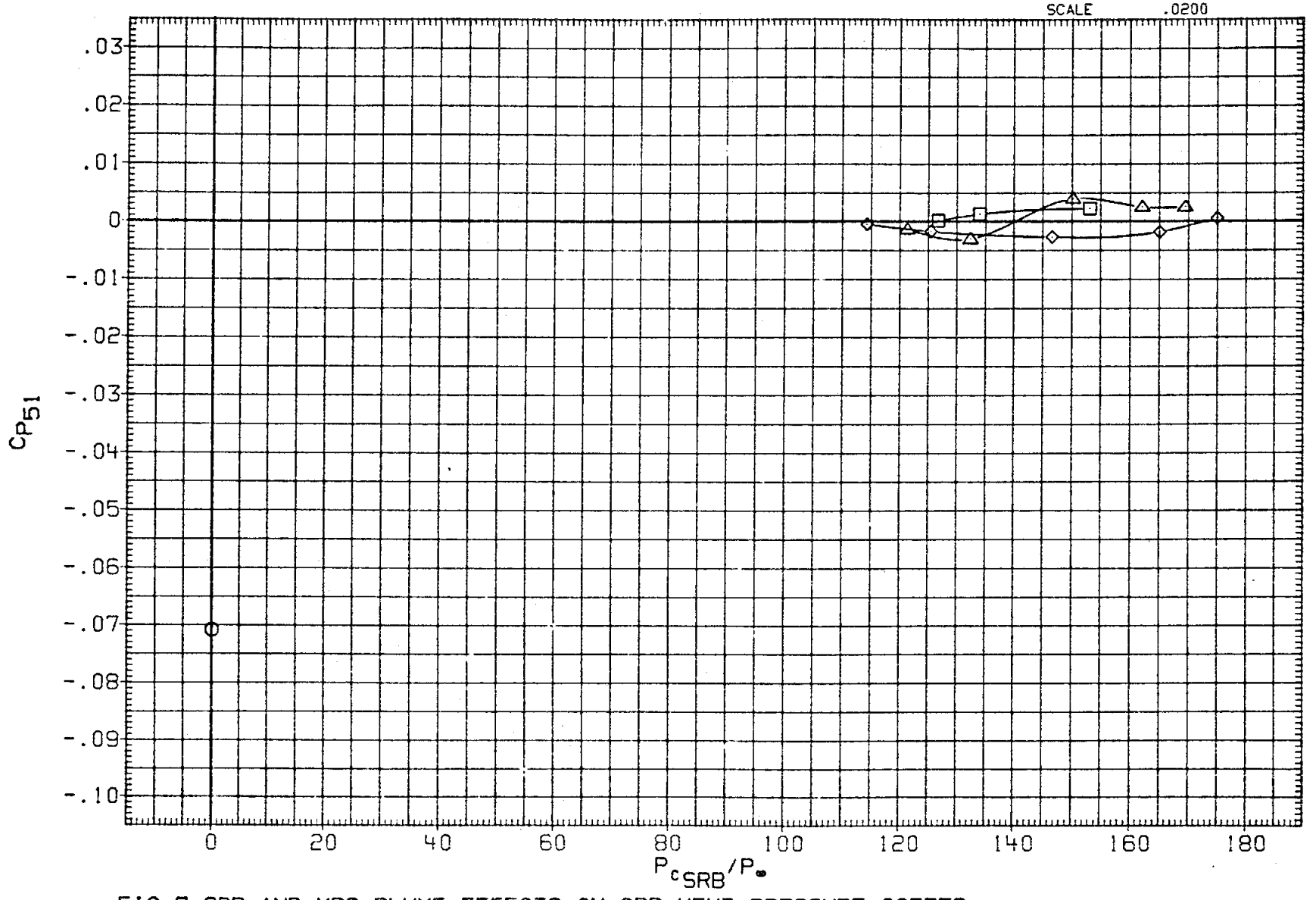

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

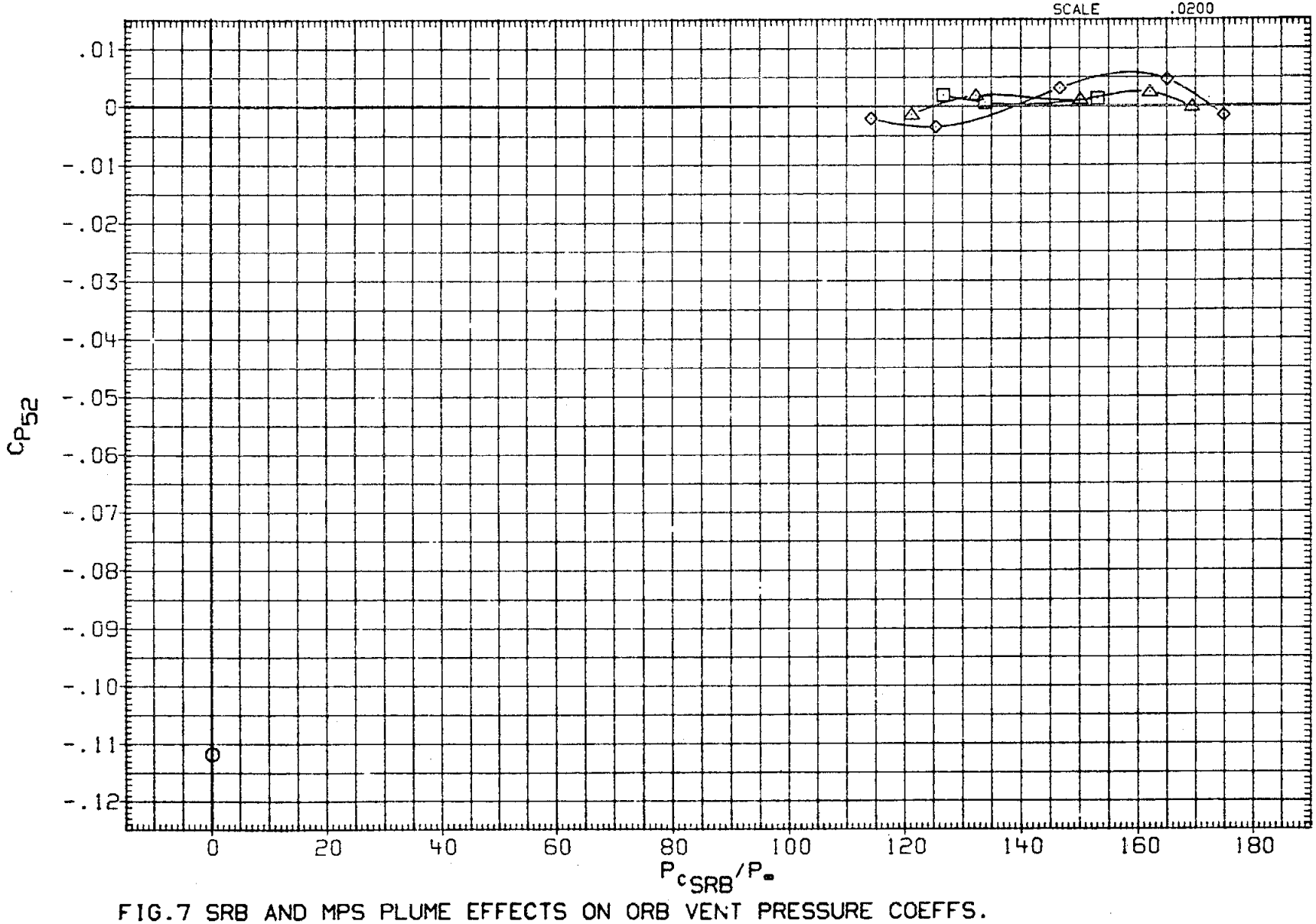

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

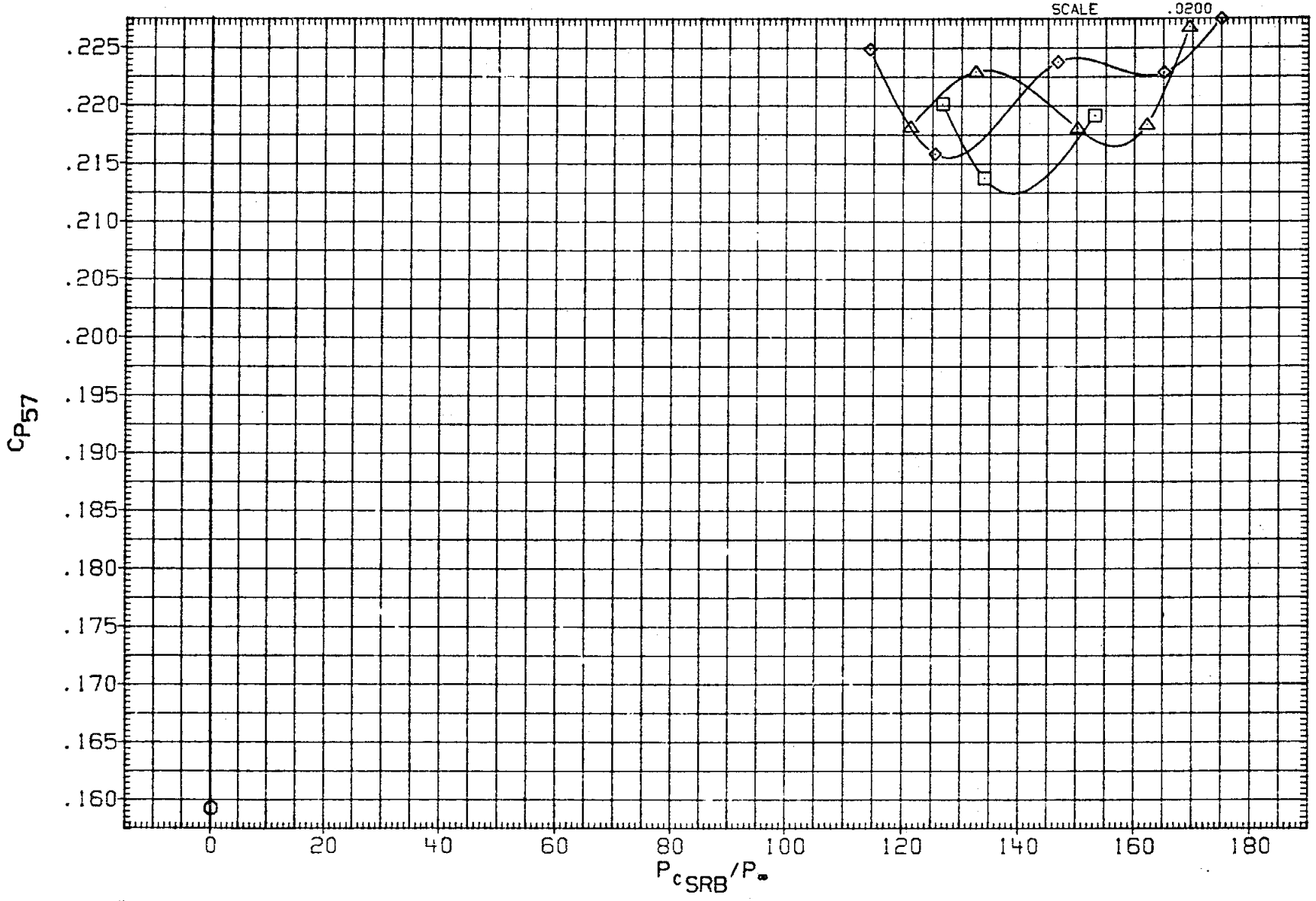

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
UNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
UNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
UNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
UNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

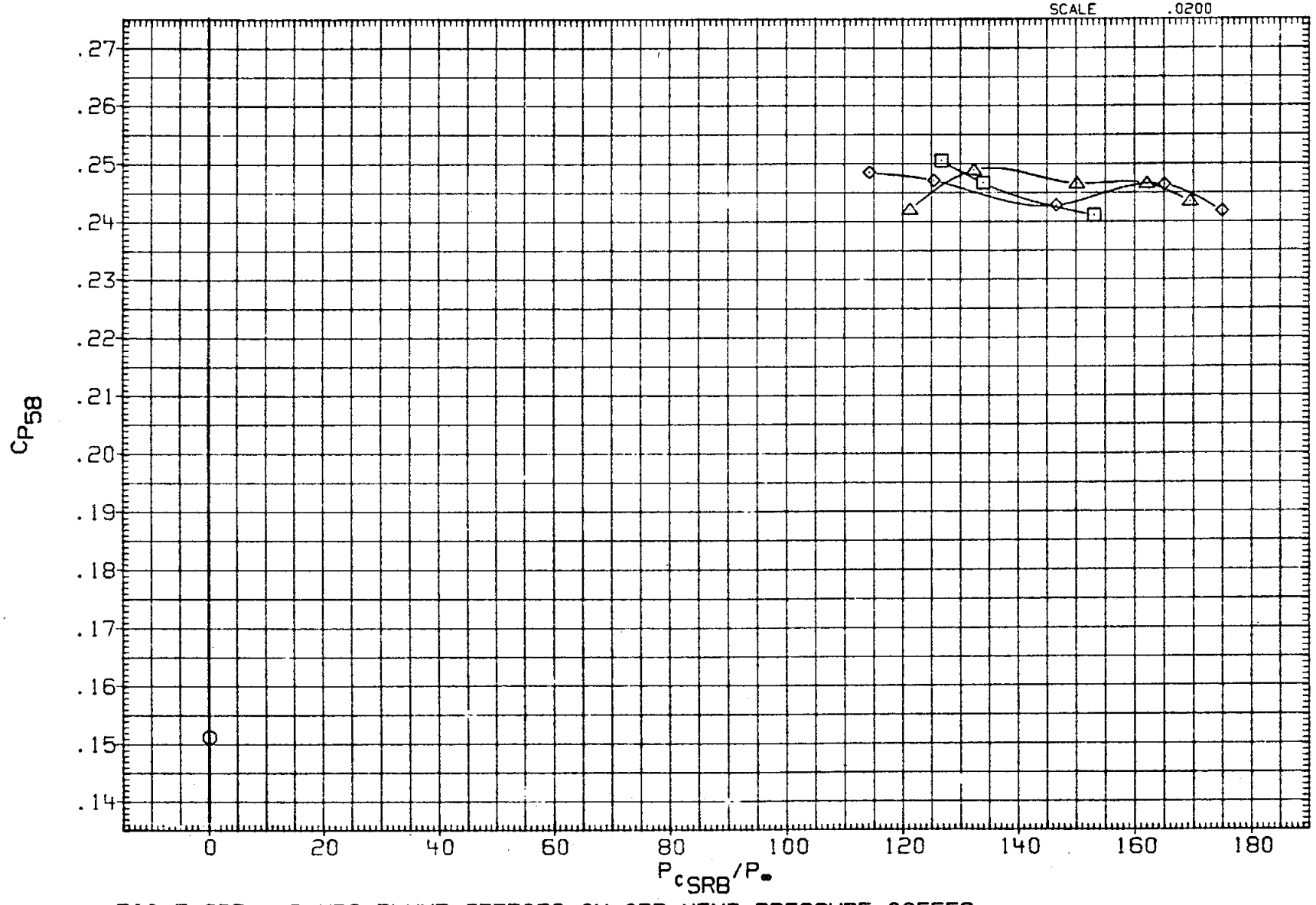

FIG.7 SRB AND MPS PLUME EFFECTS ON ORB VENT PRESSURE COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

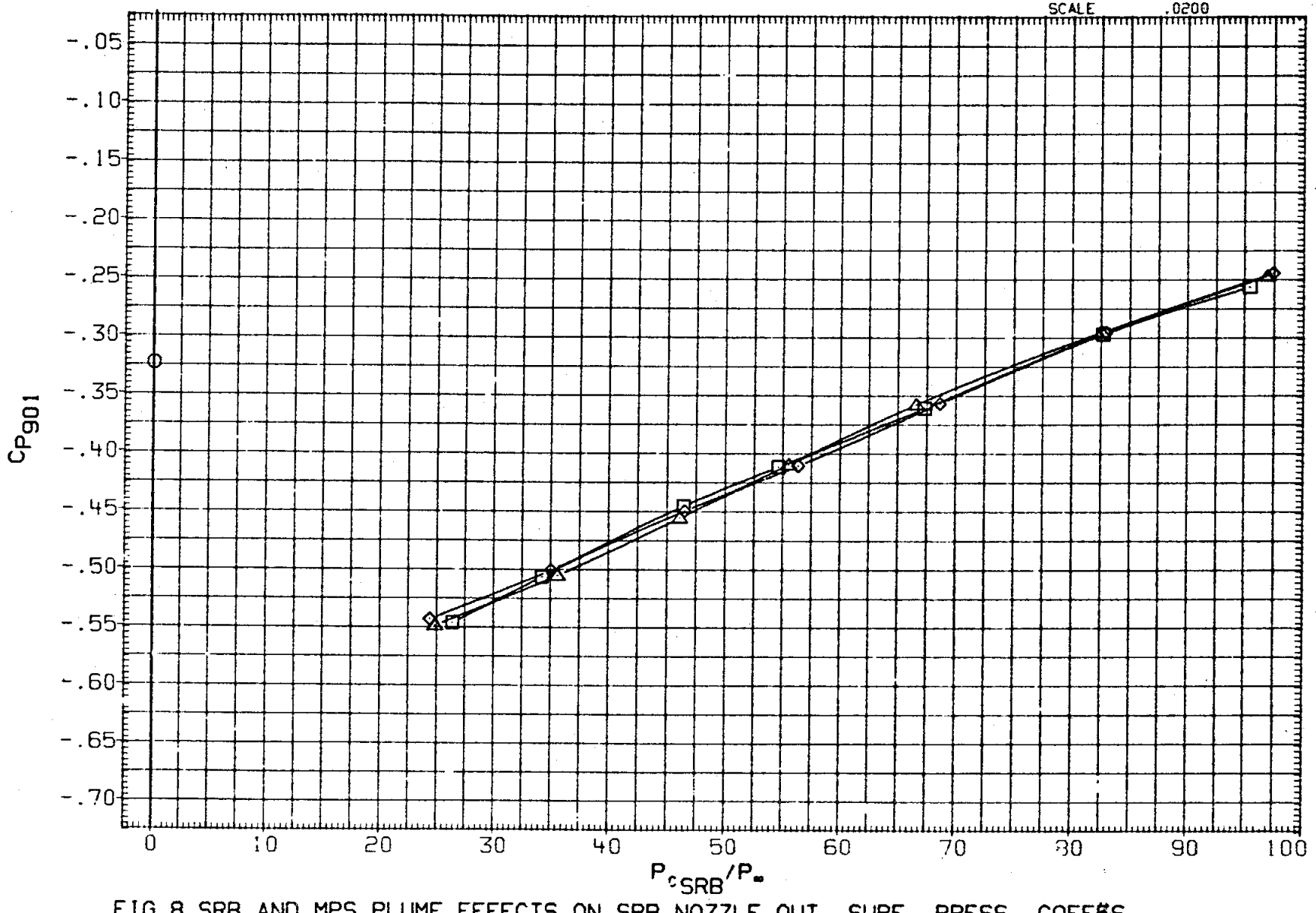

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEF#S.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

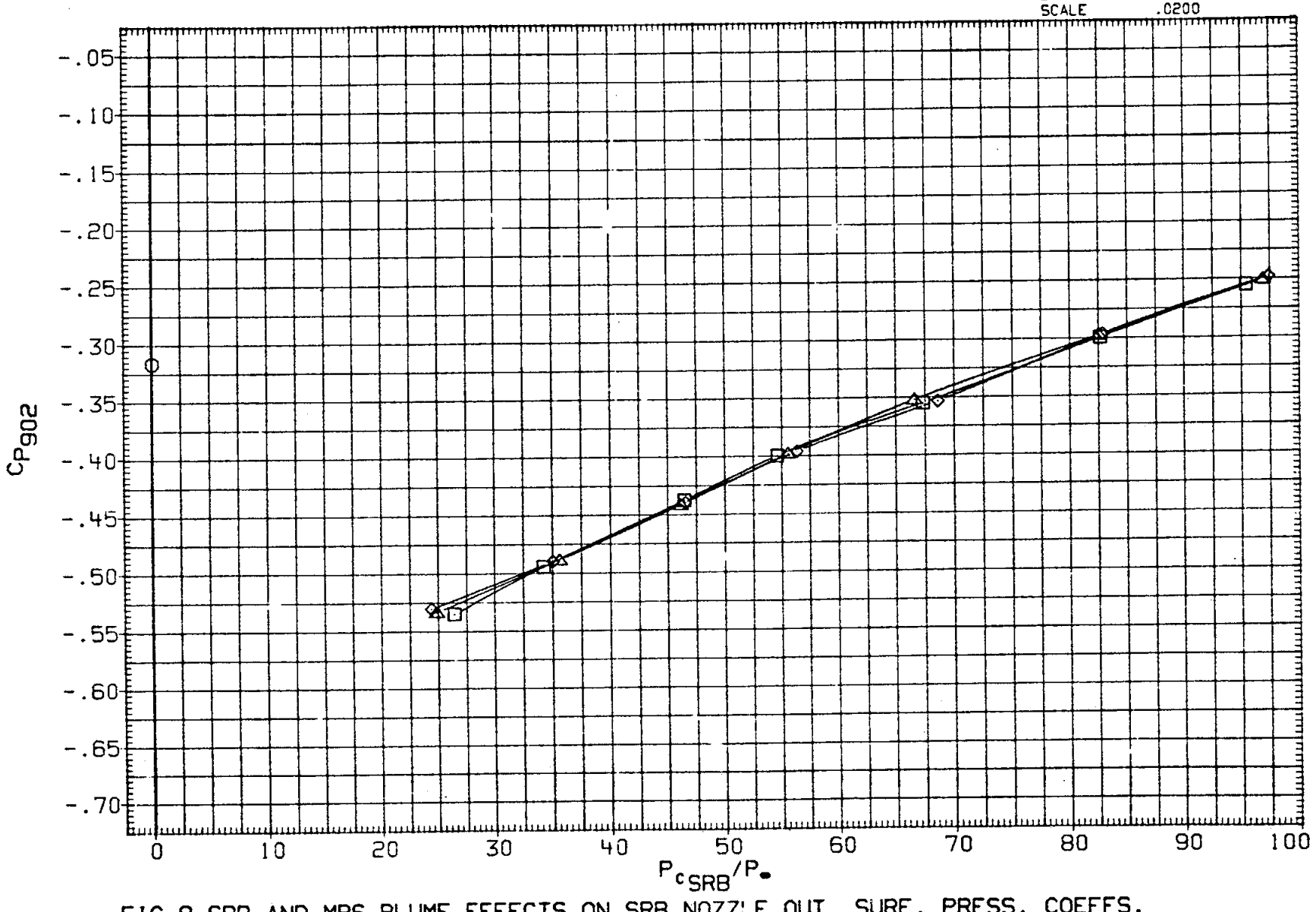

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

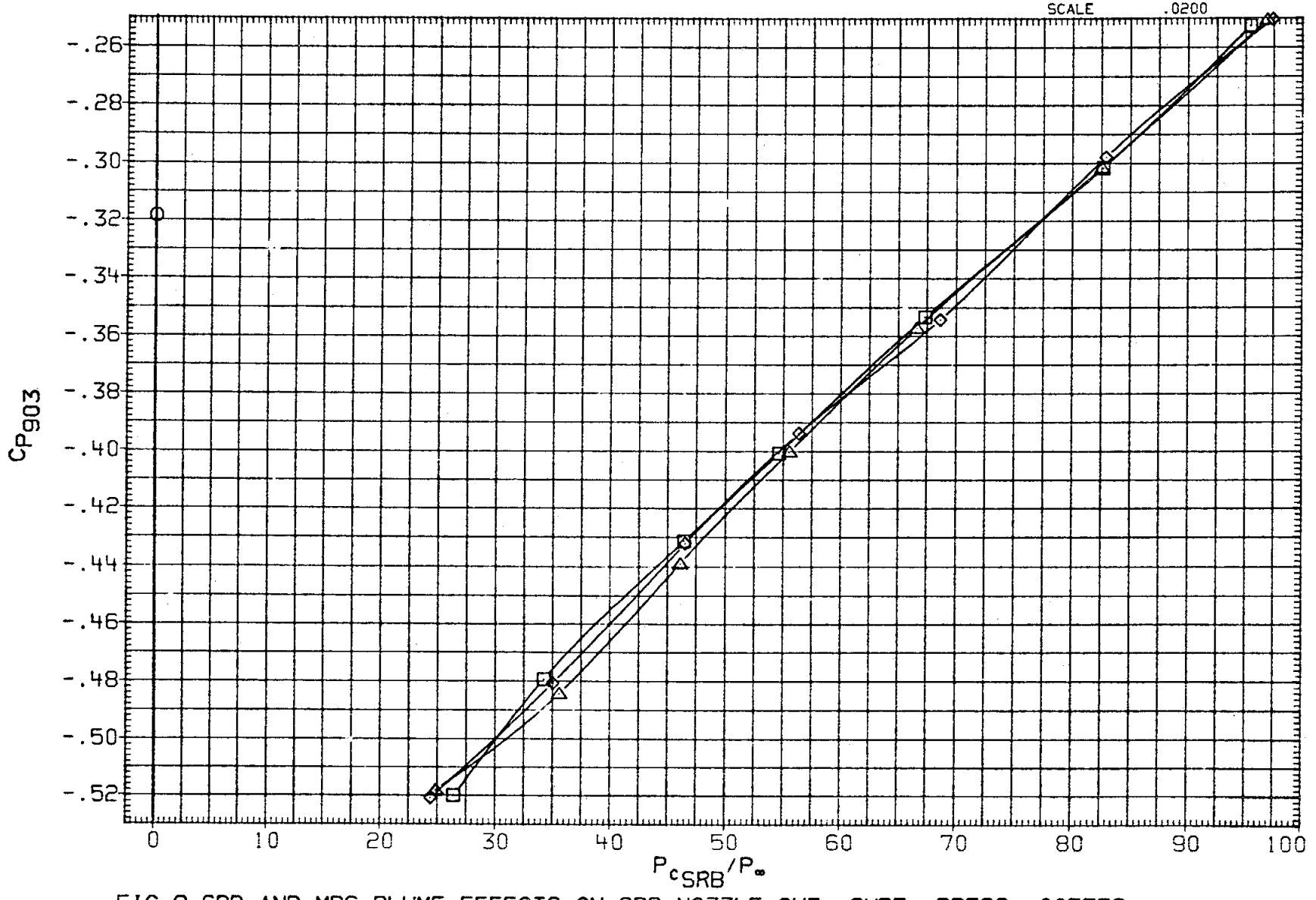

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

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SCALE	.0200	

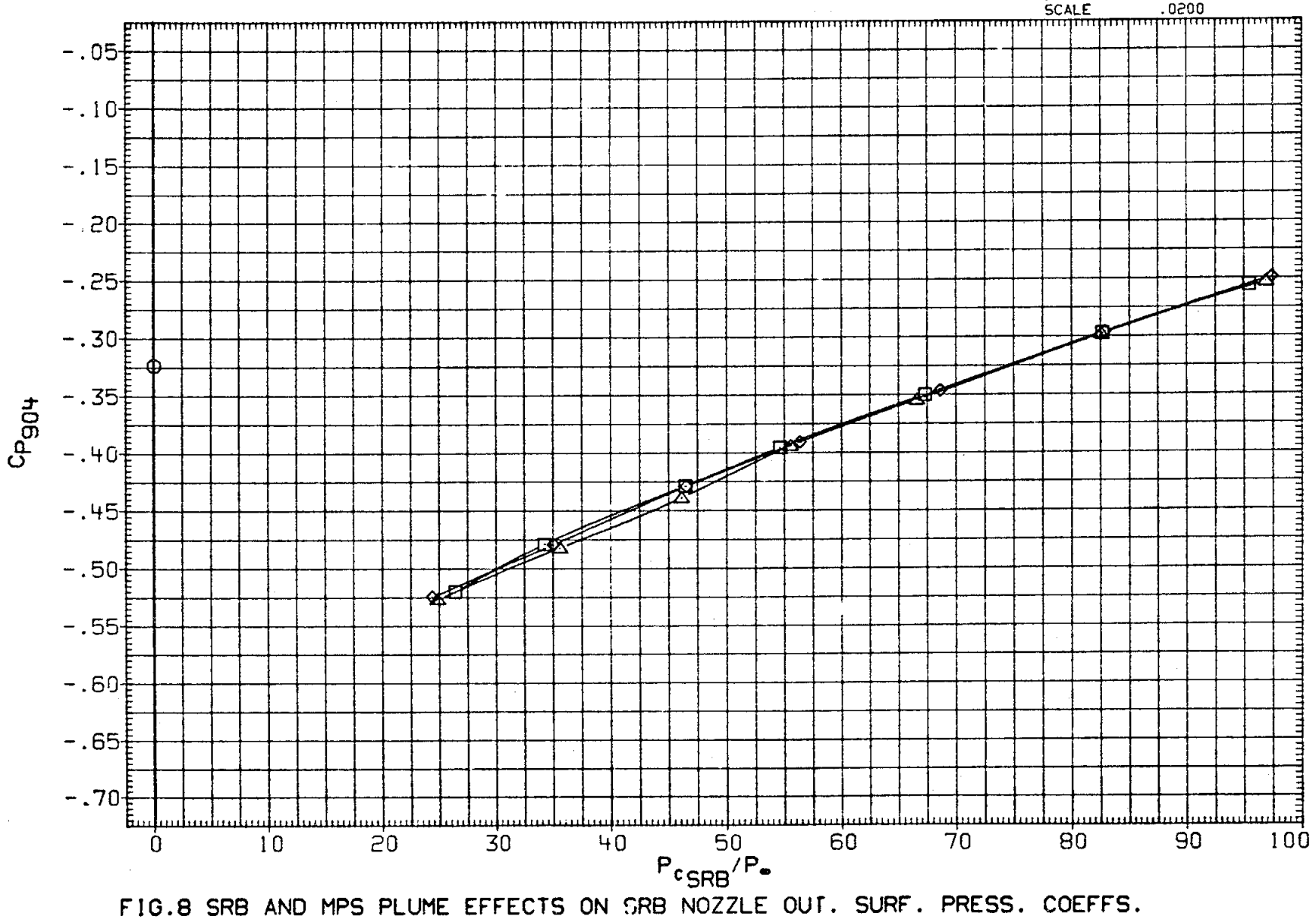

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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SCALE	.0200	

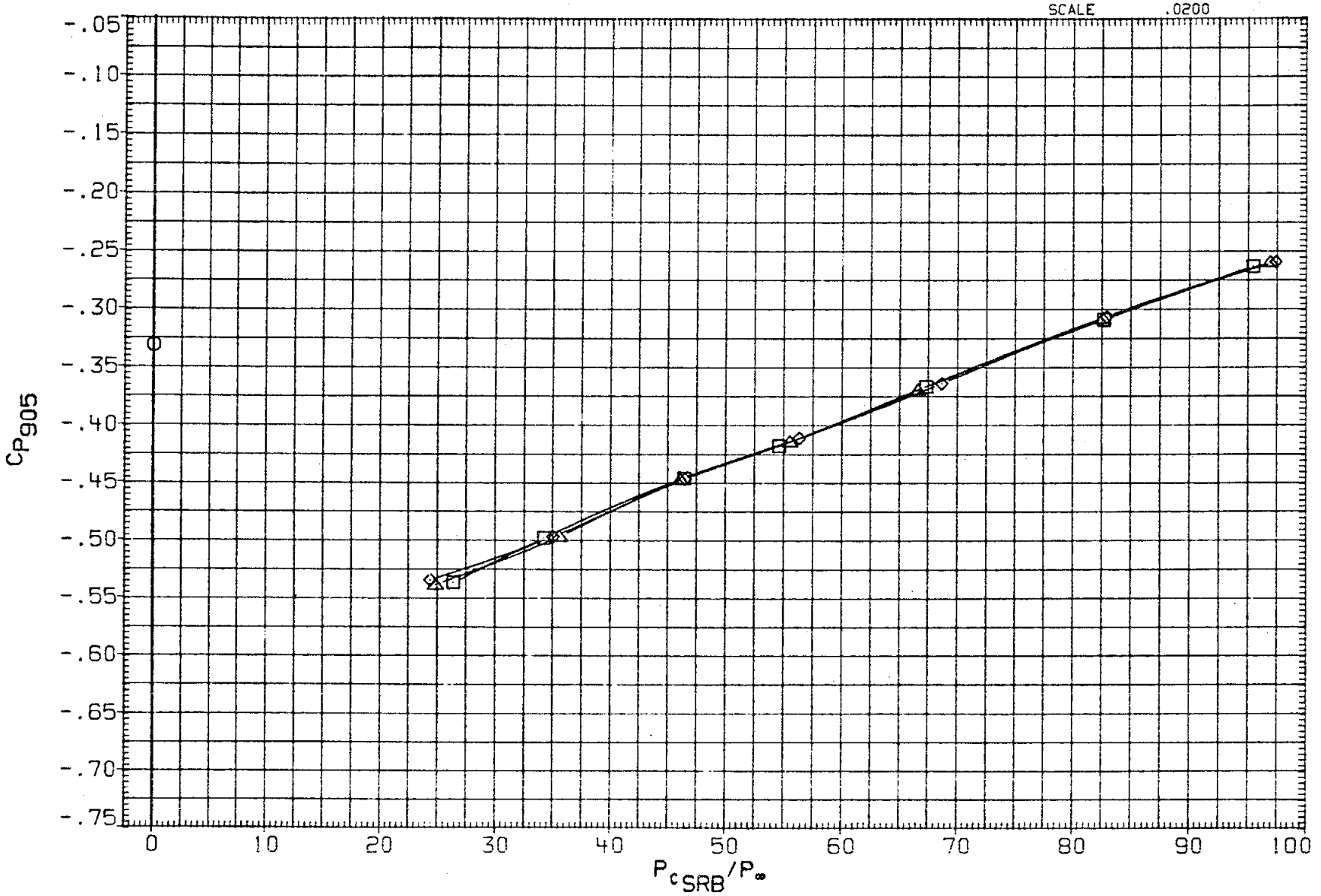

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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SCALE	.0200	

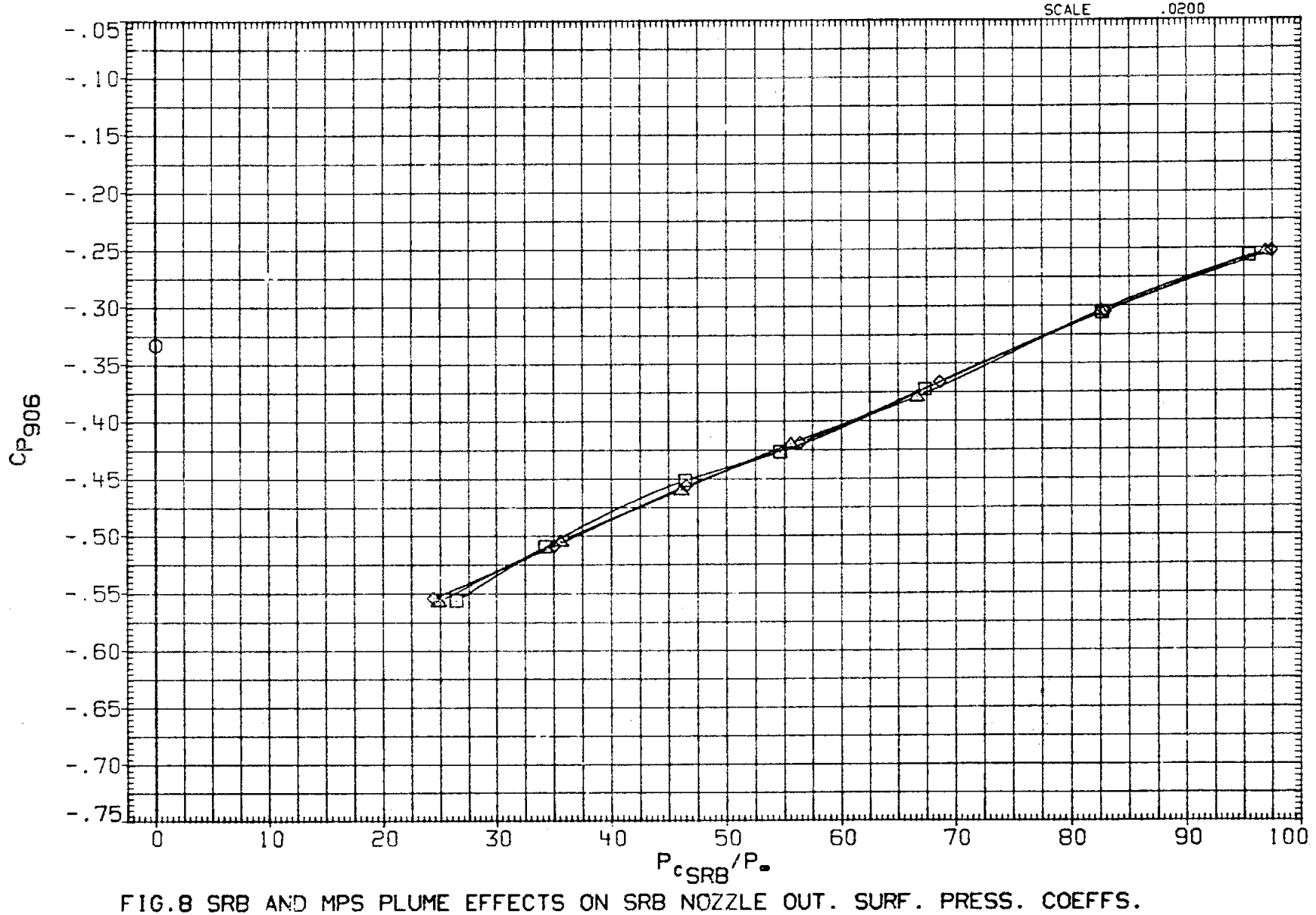

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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BREF	.0000	N.A.
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SCALE	.0200	

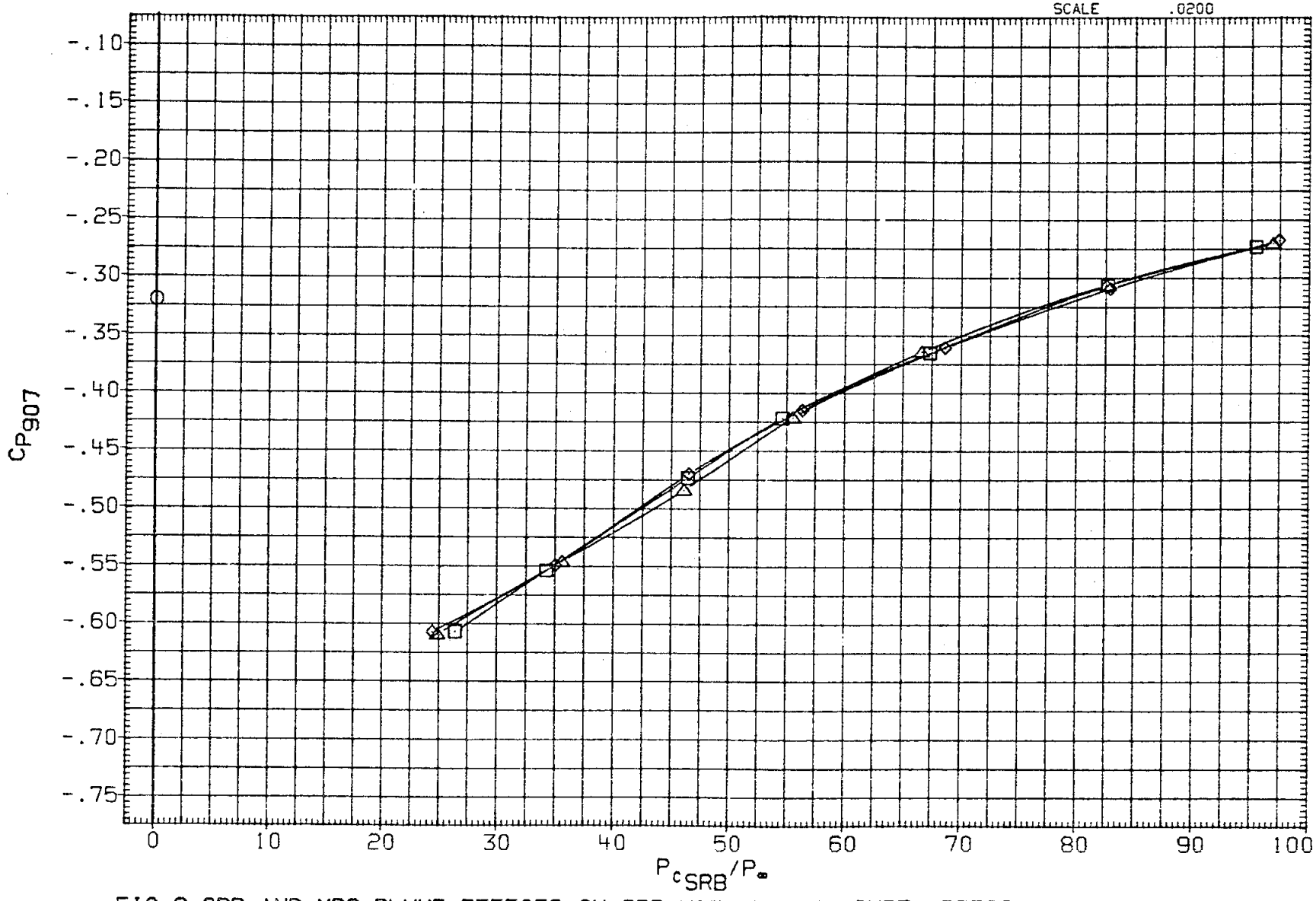

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

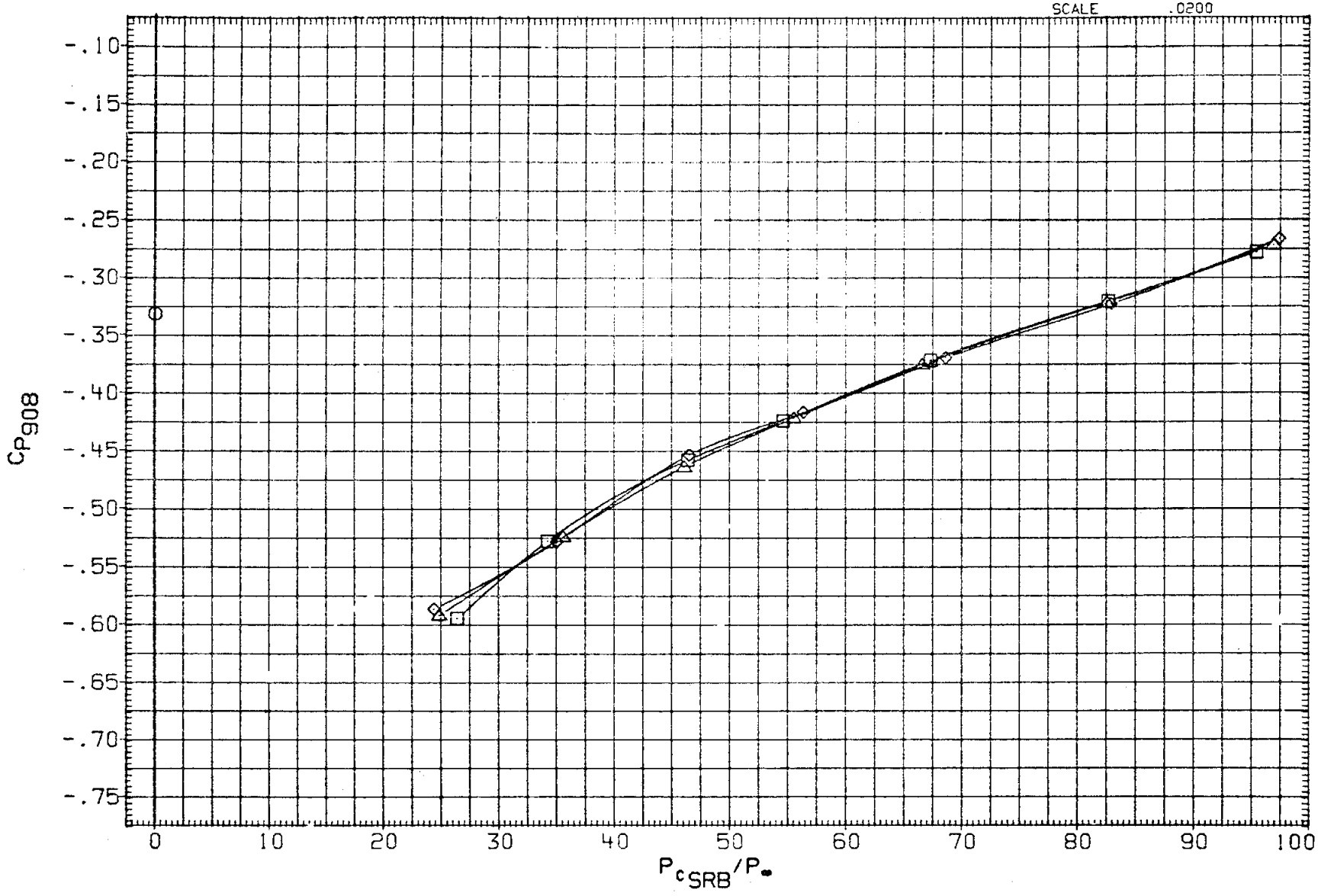

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

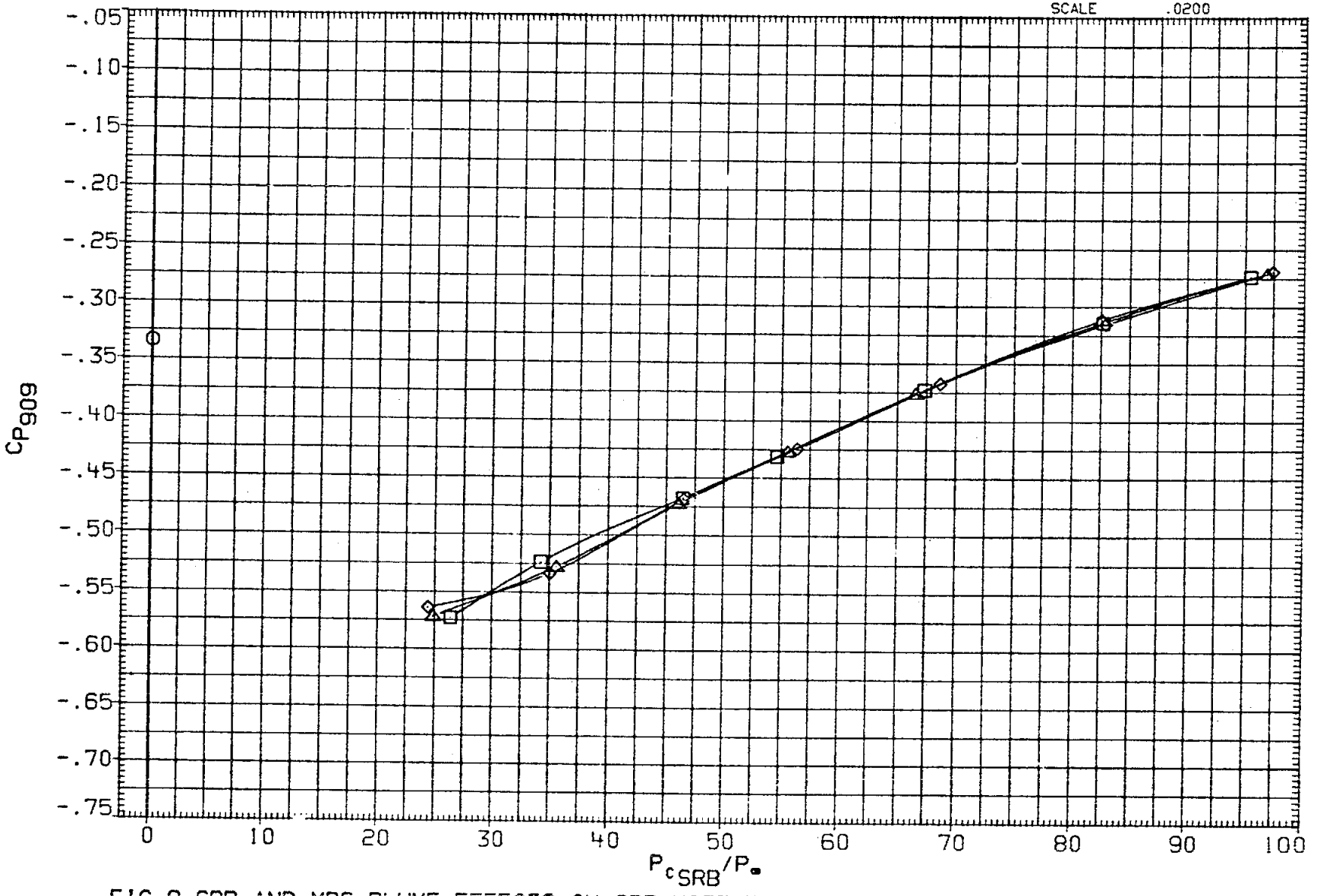

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
WNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
WNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
WNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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SCALE	.0200	

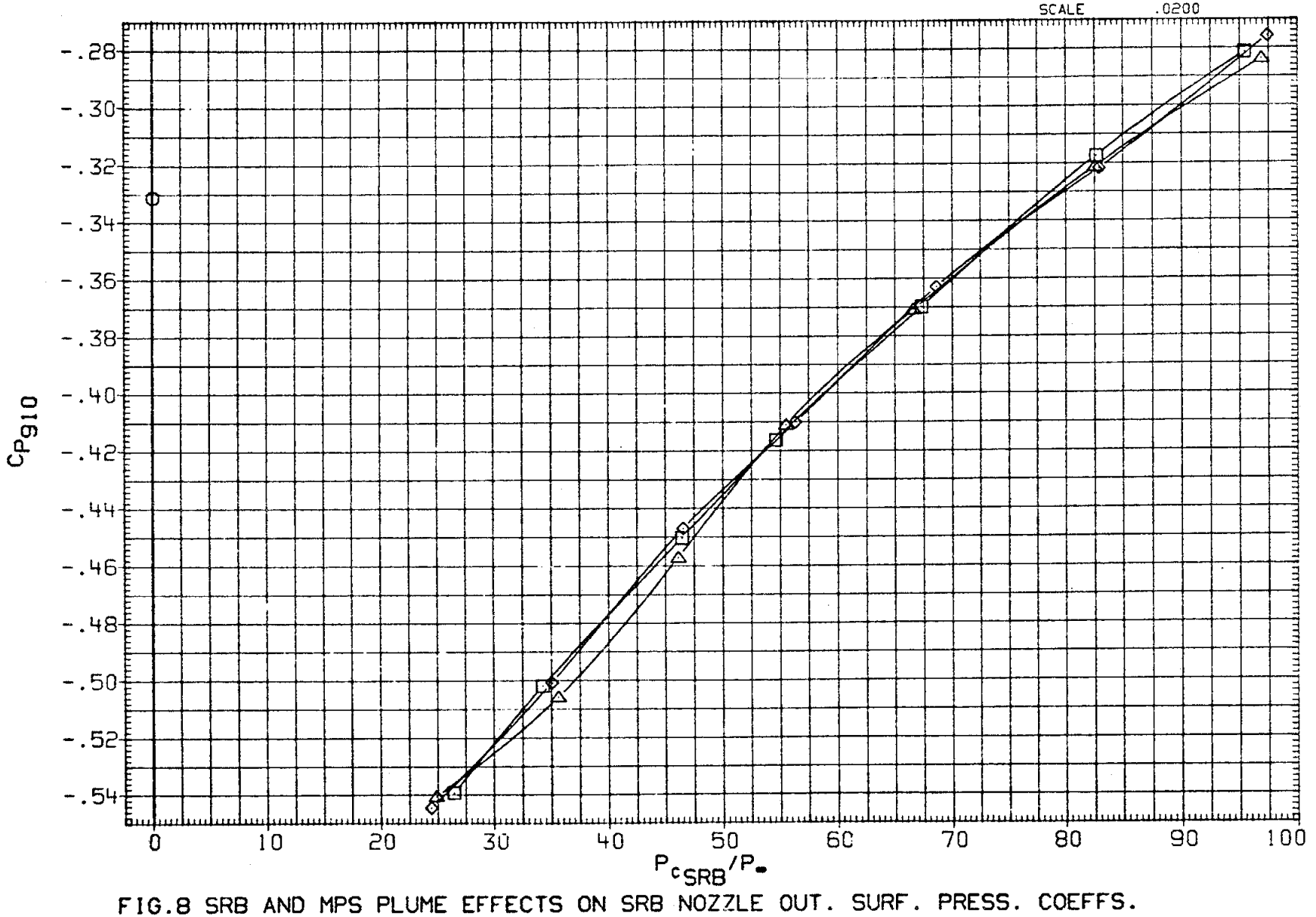

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
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ZMRP	.0000	N.A.
SCALE	.0200	

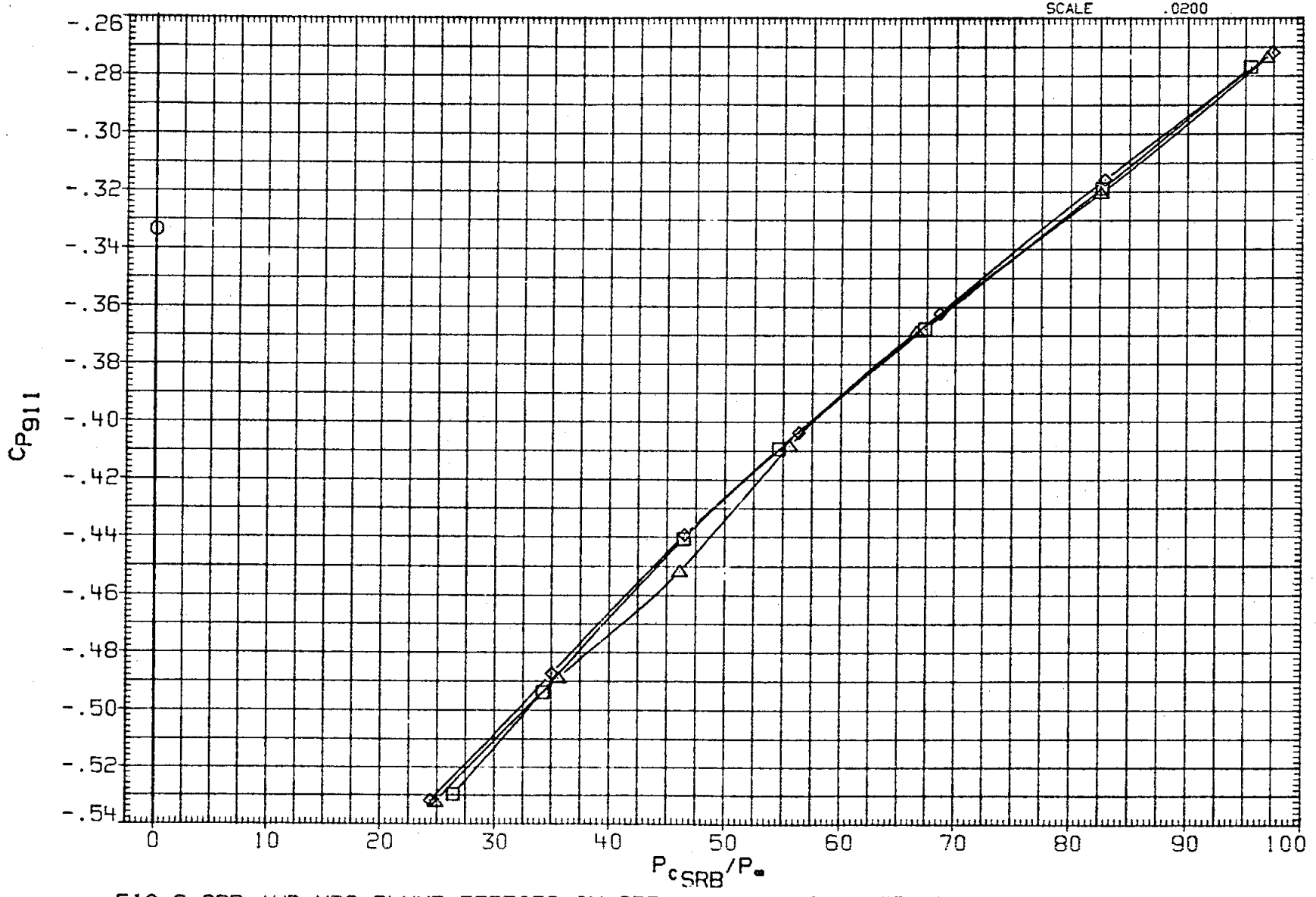

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

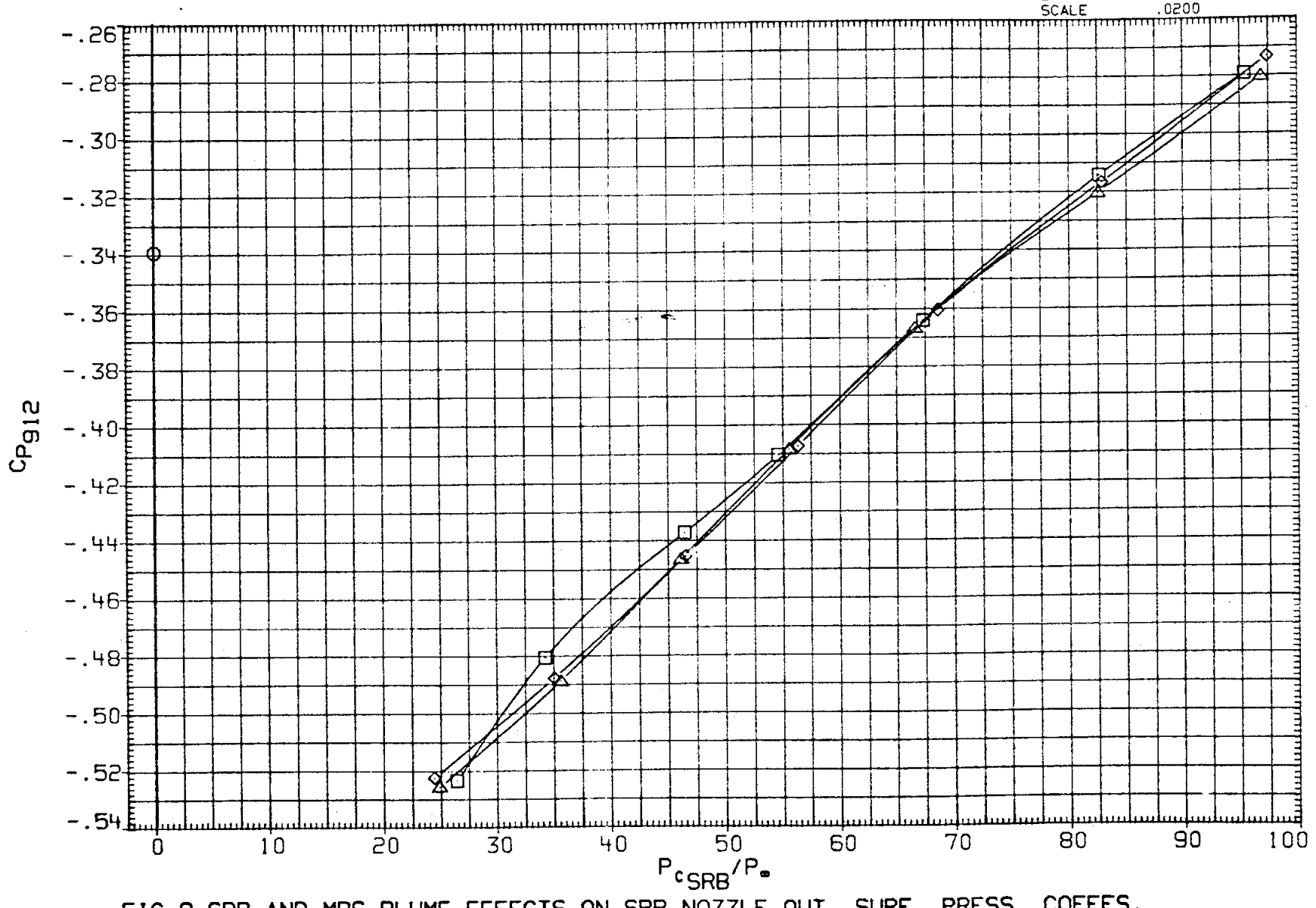

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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ZMRP	.0000	N.A.
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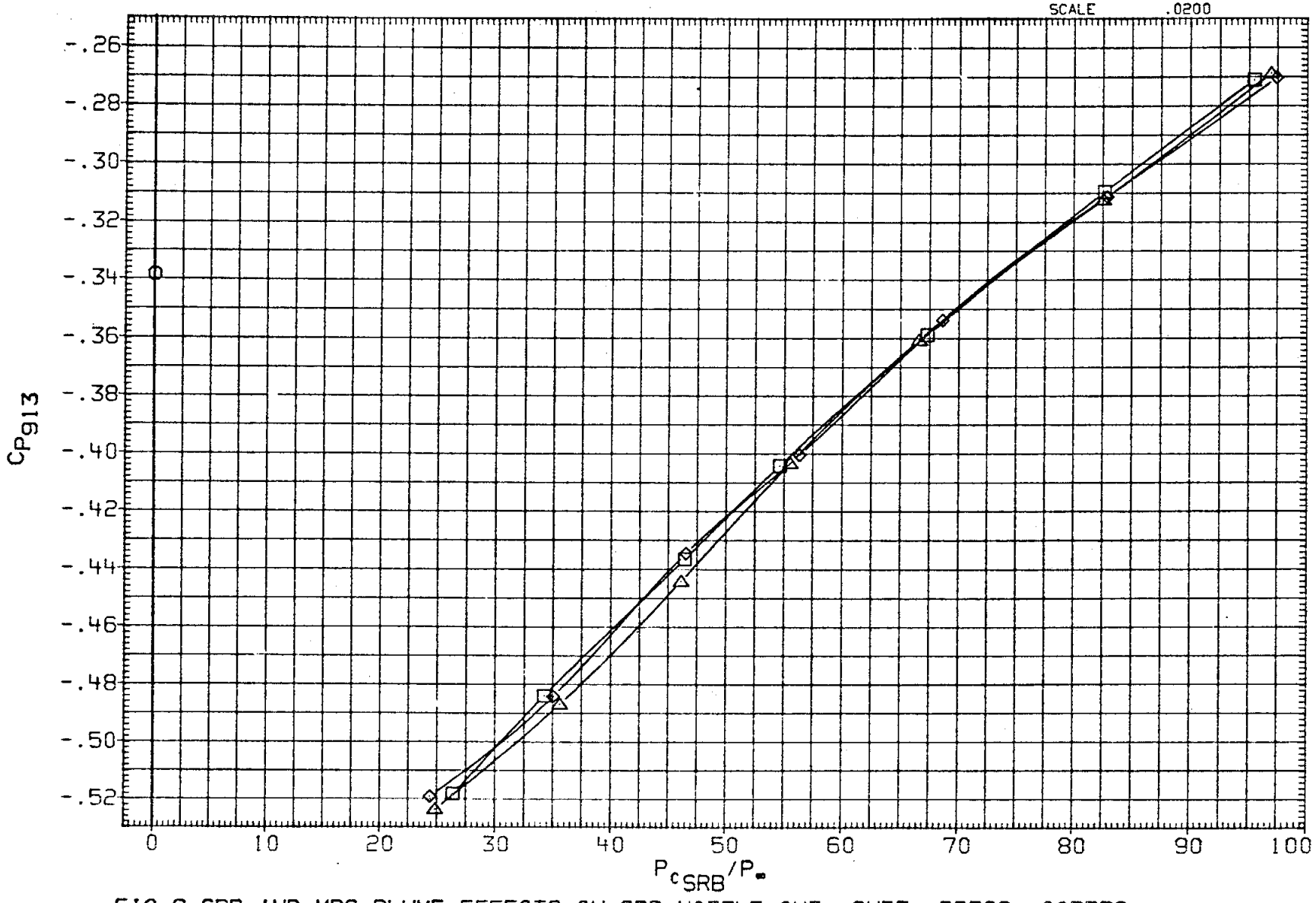

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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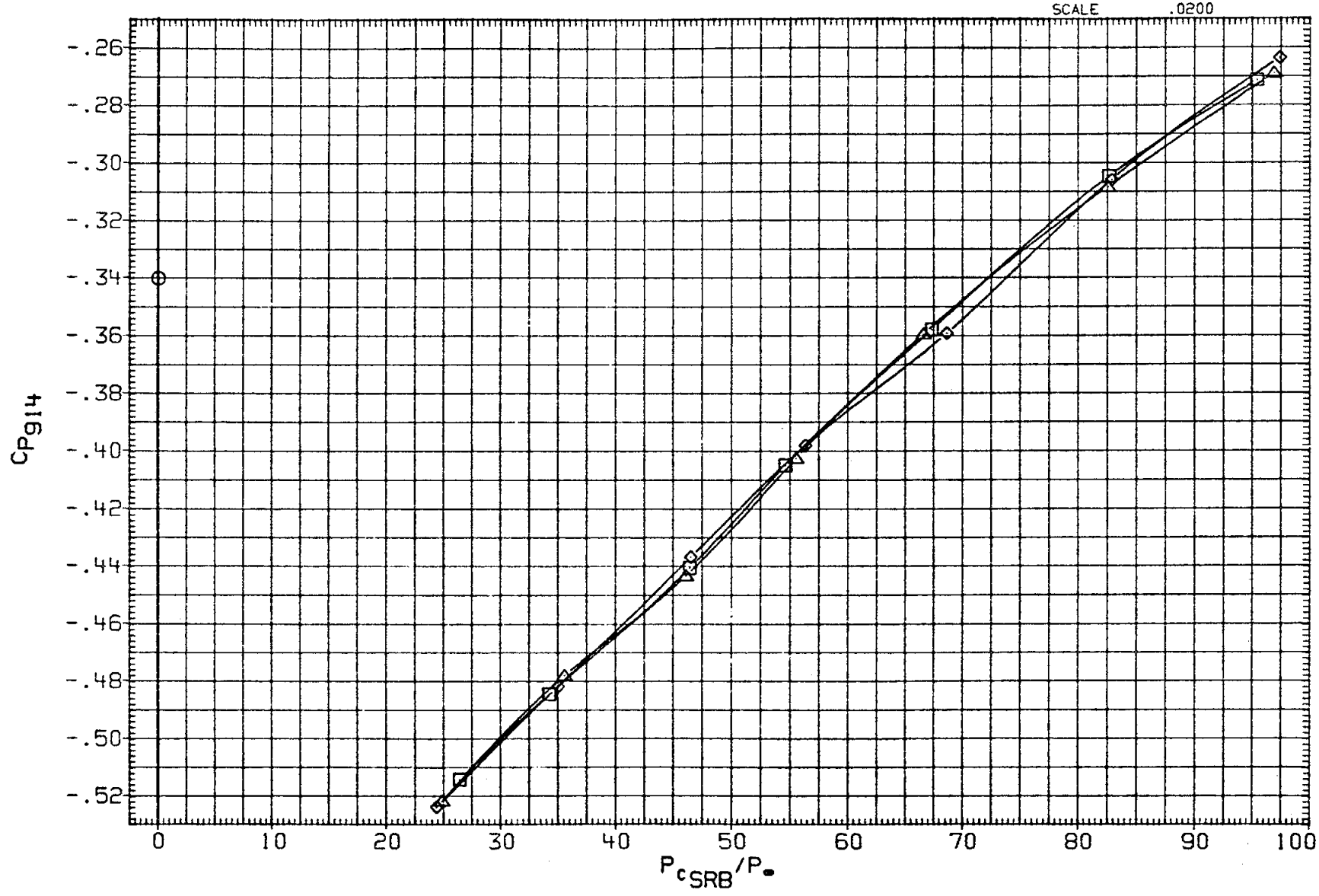

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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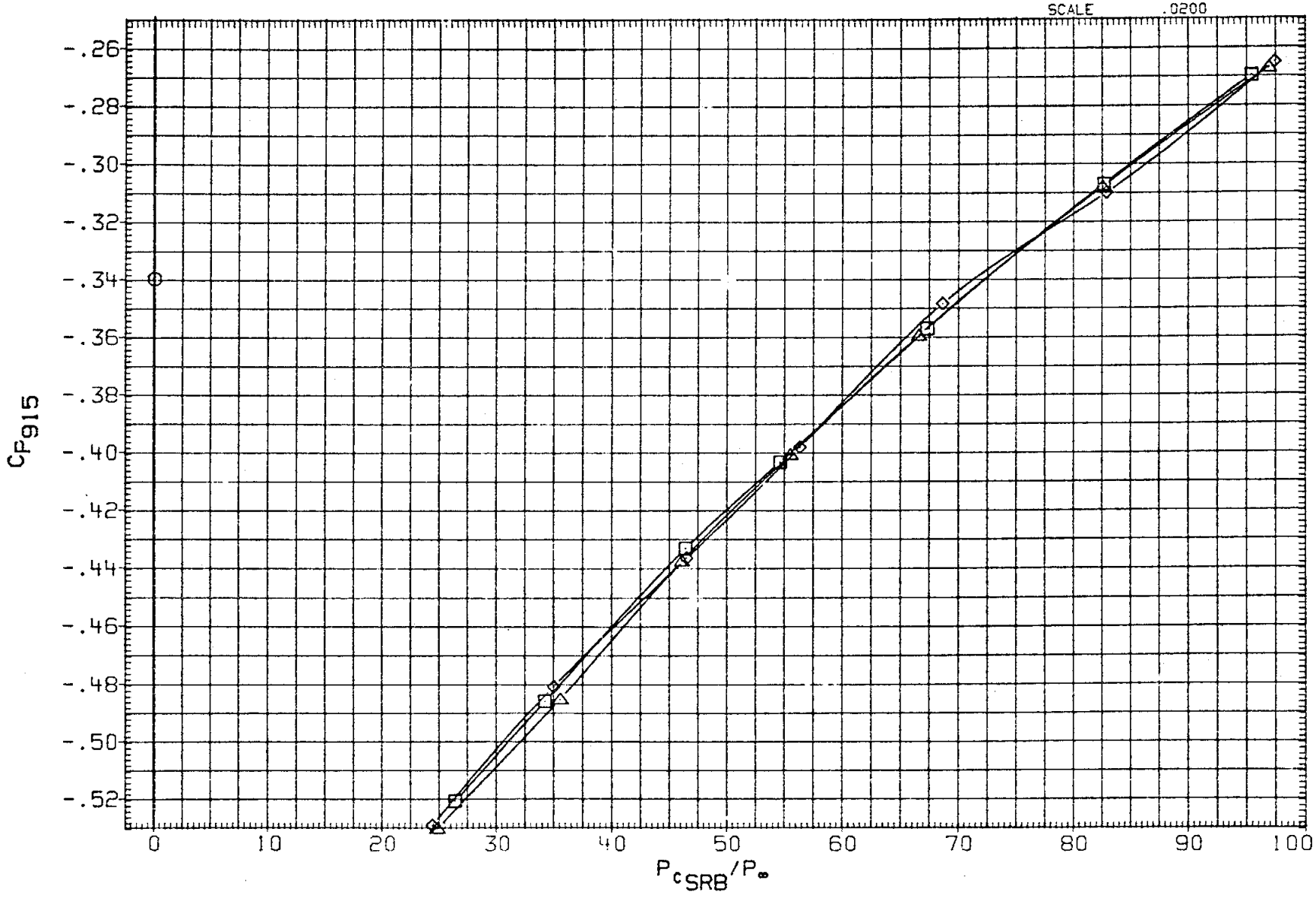

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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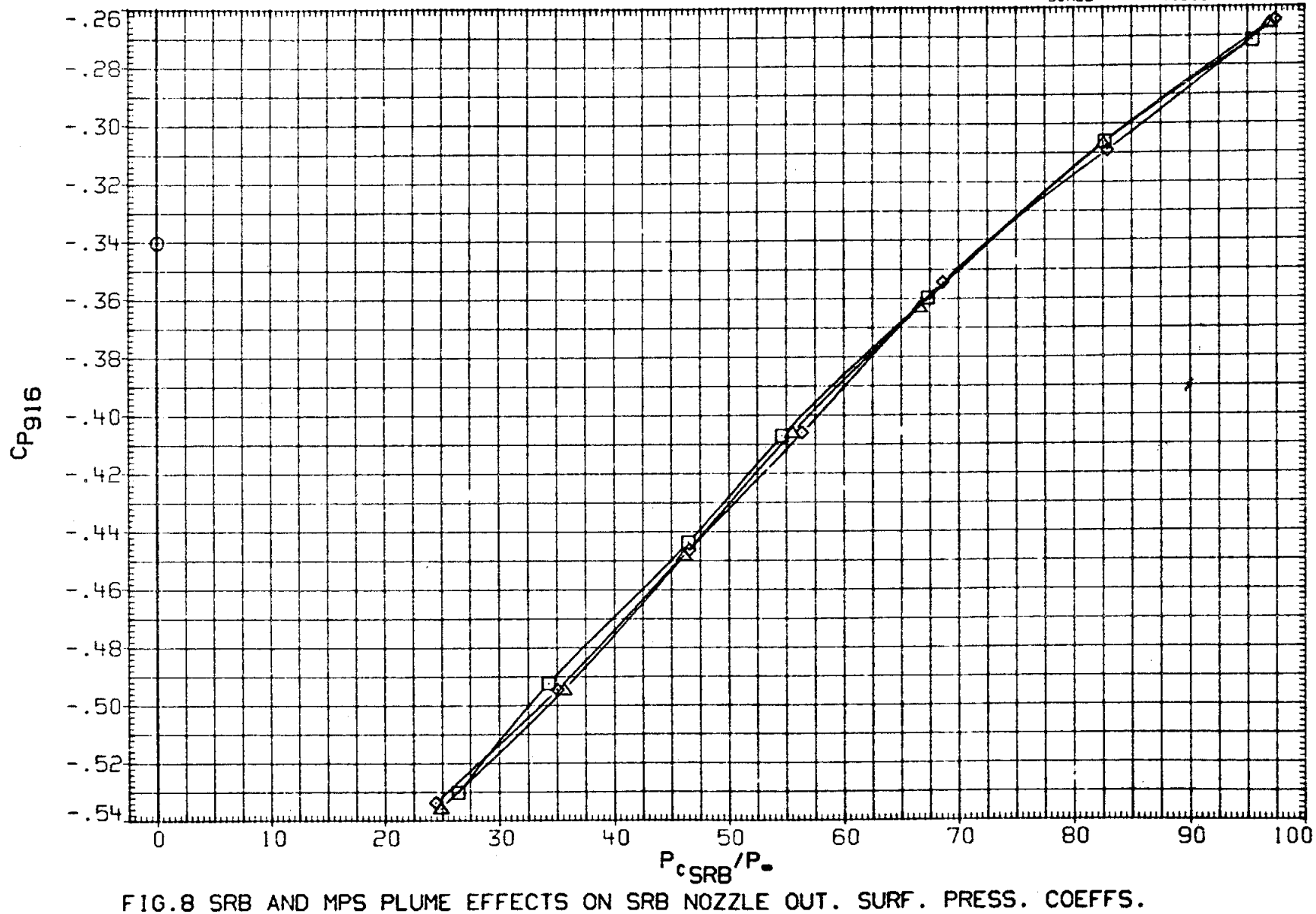

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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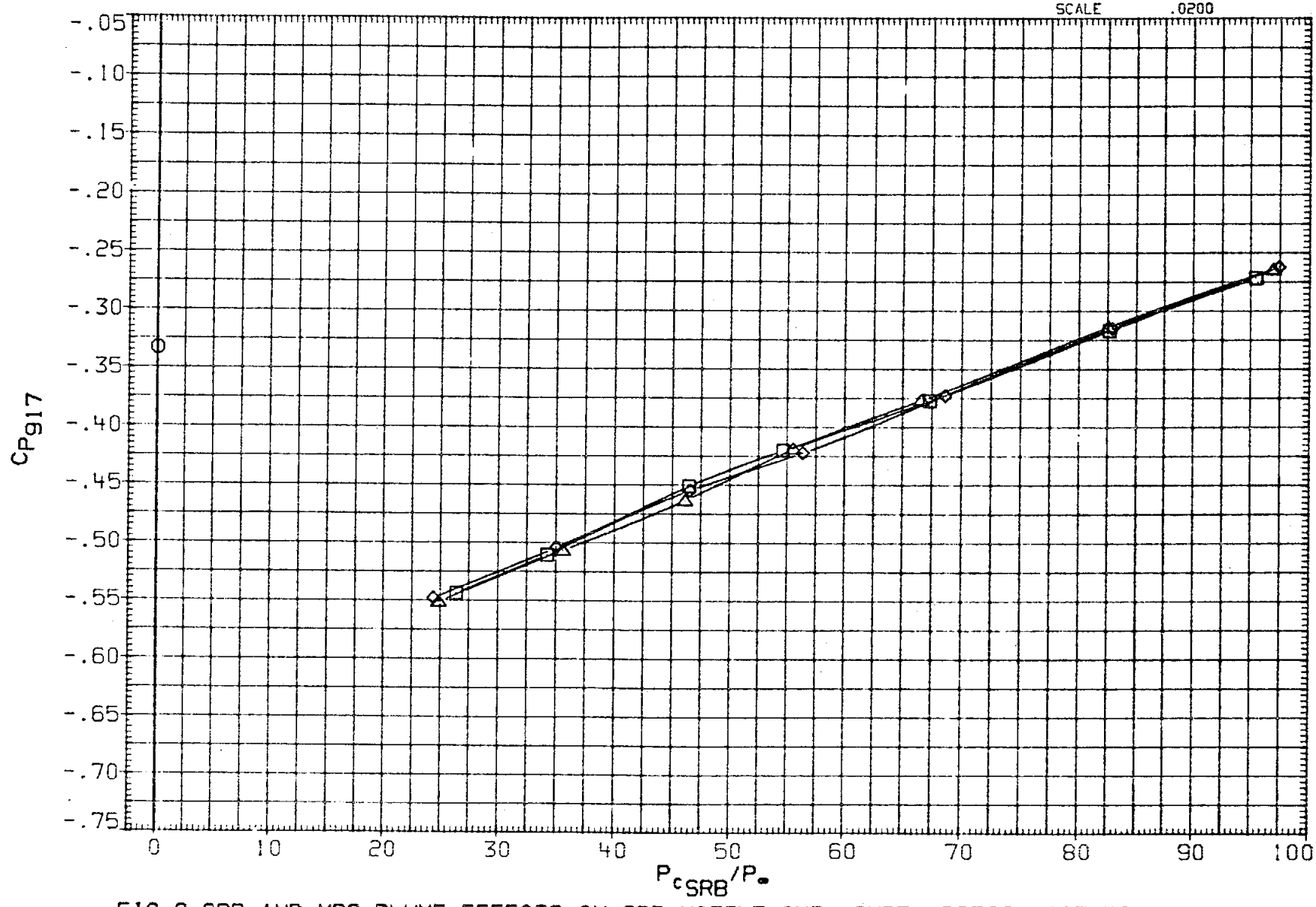

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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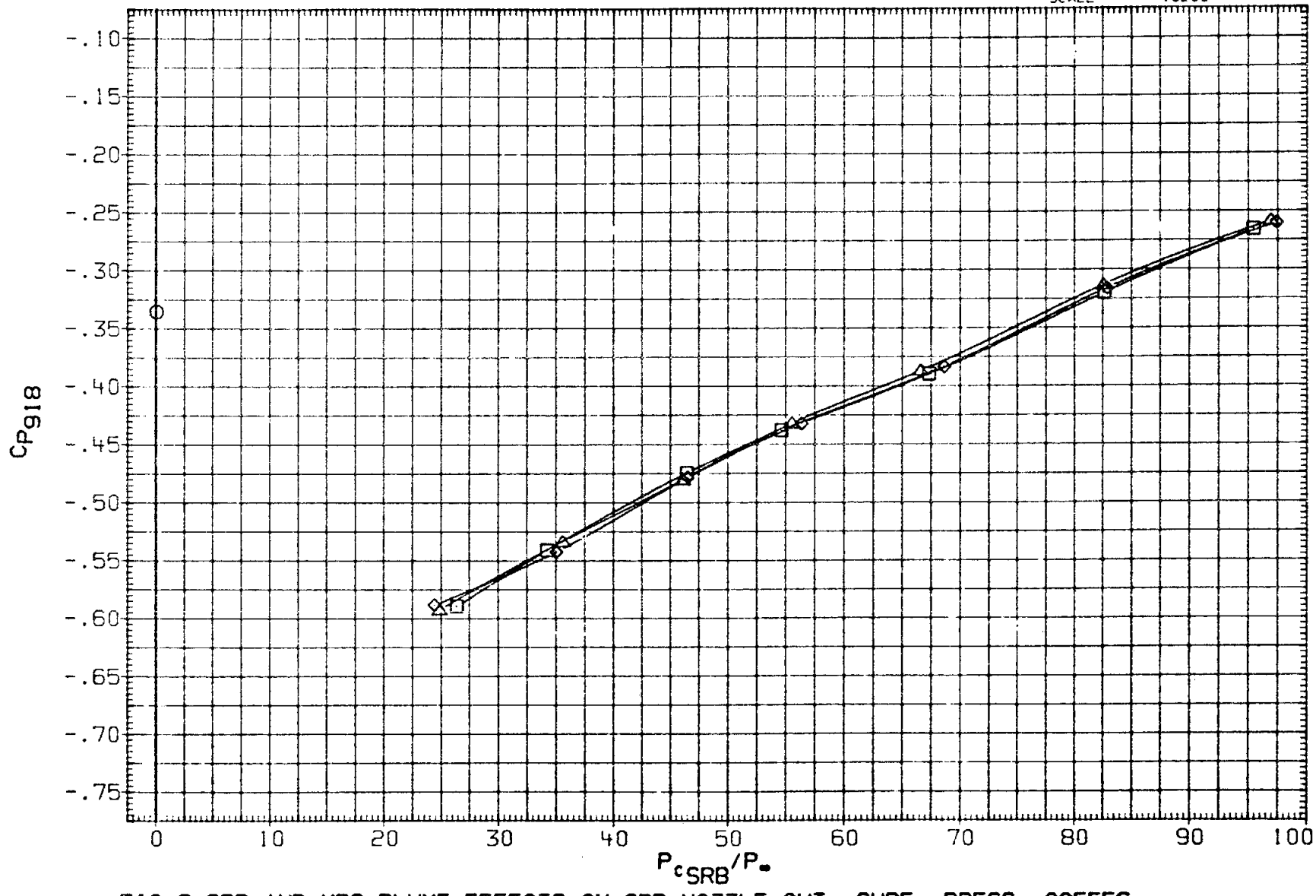

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

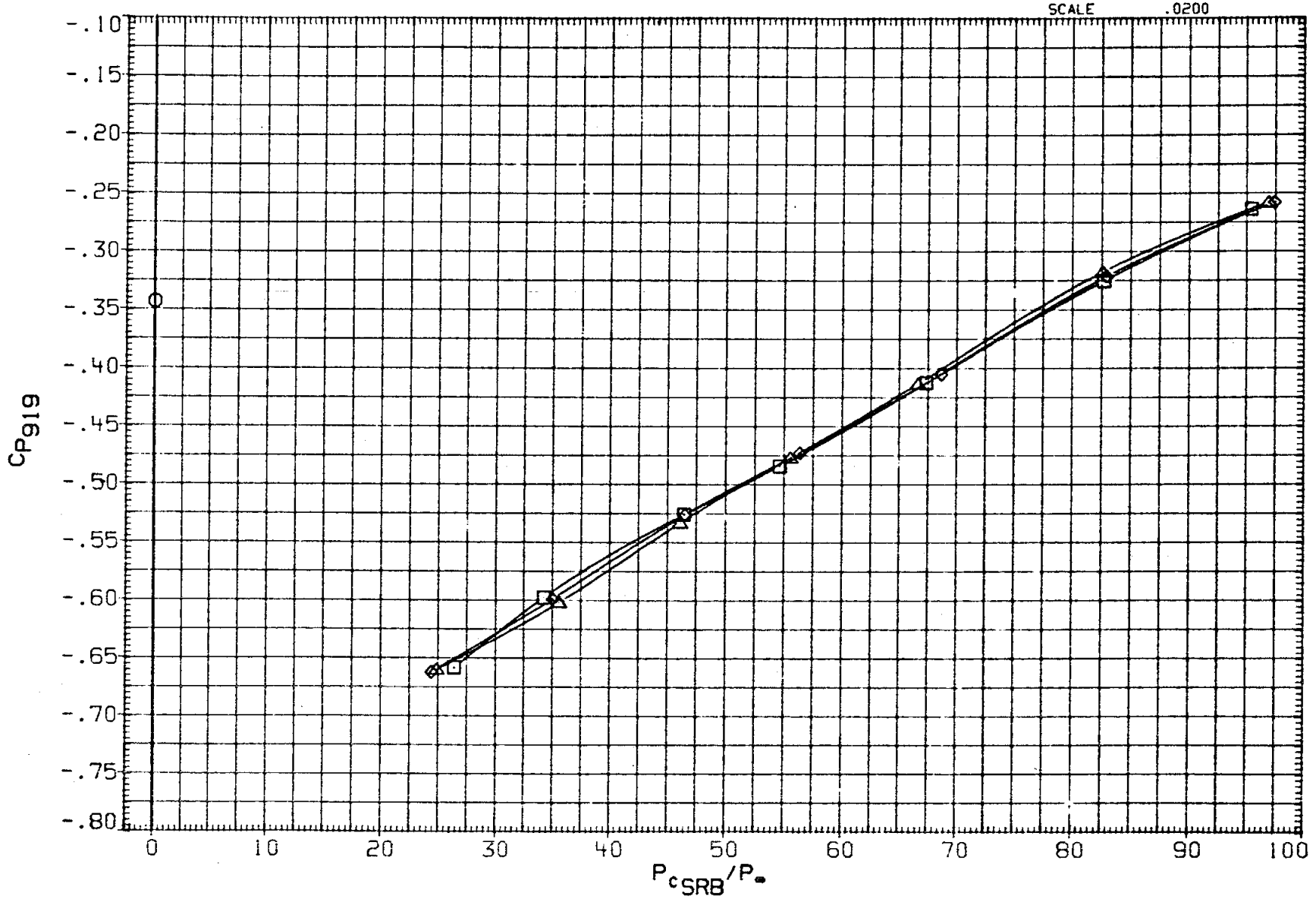

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
XNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
XNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
XNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

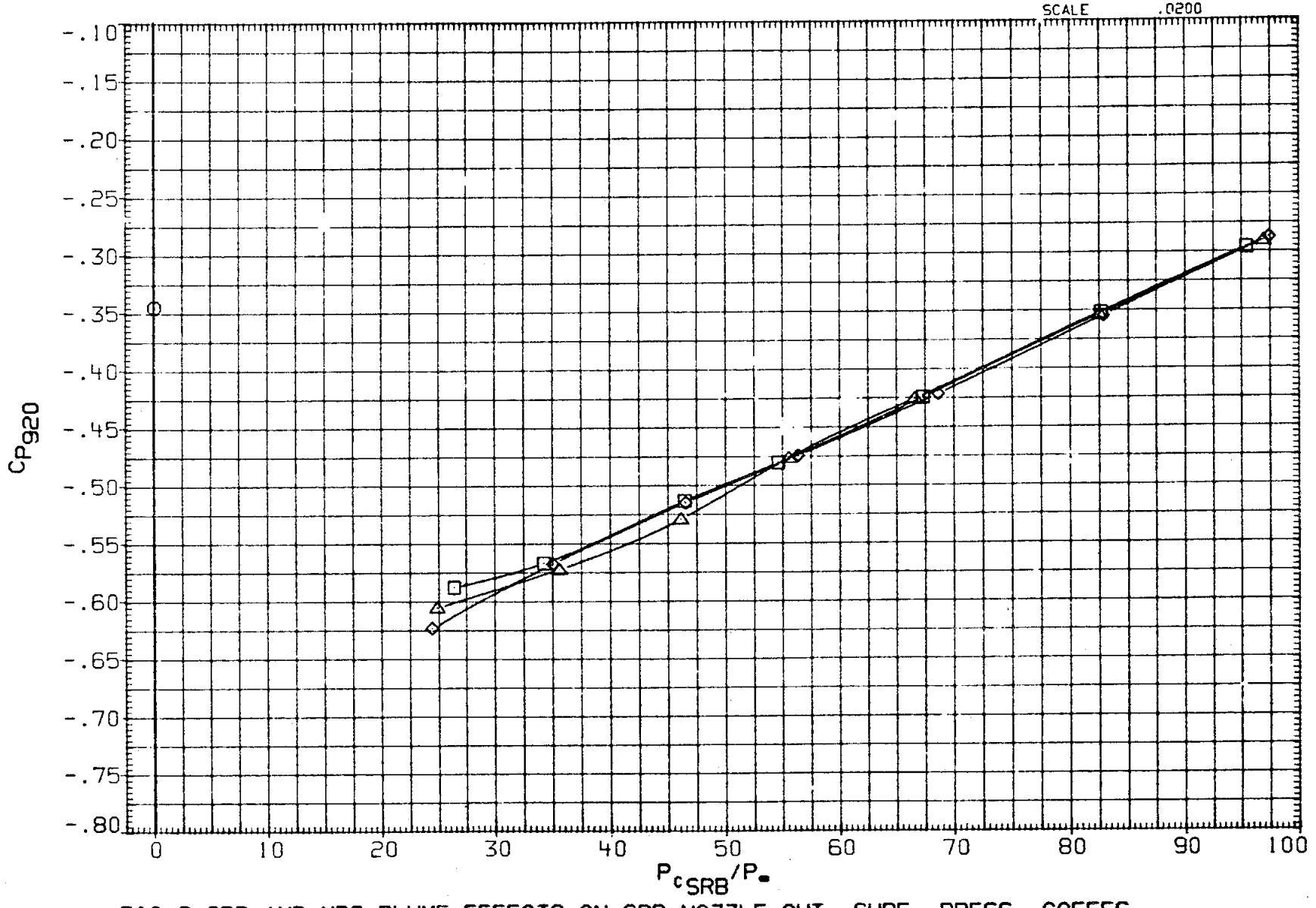

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

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ZMRP	.0000	N.A.
SCALE	.0200	

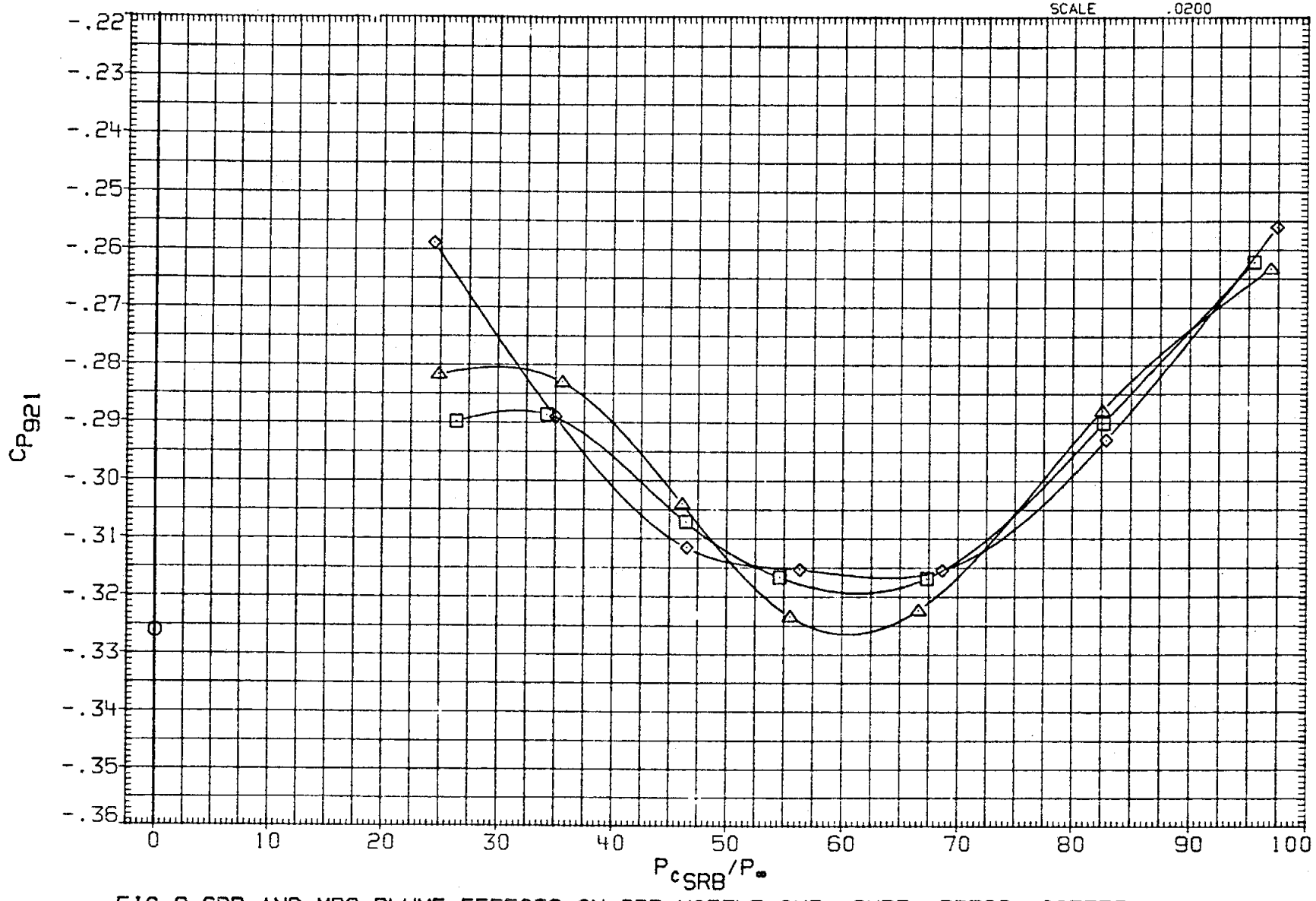

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

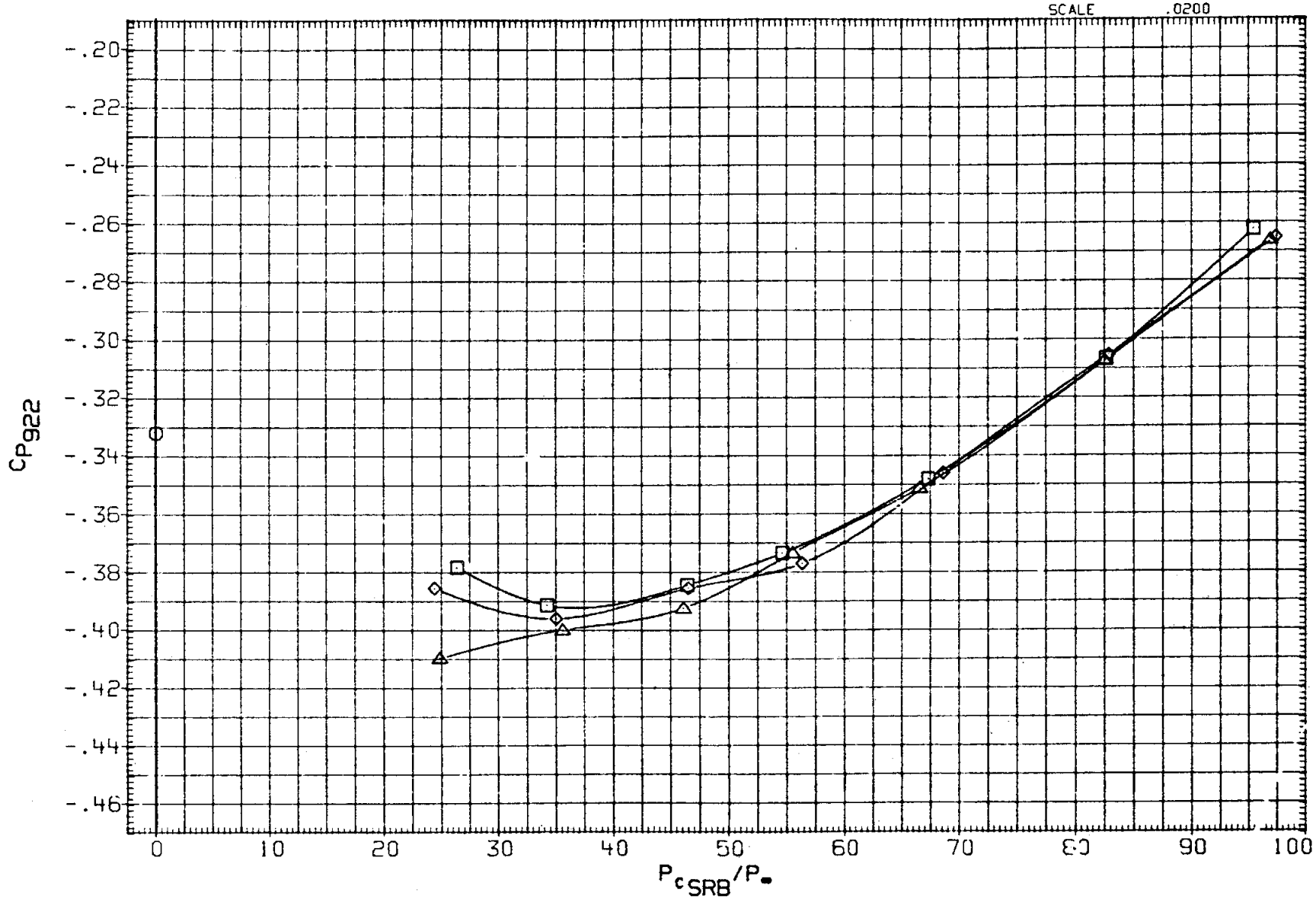

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

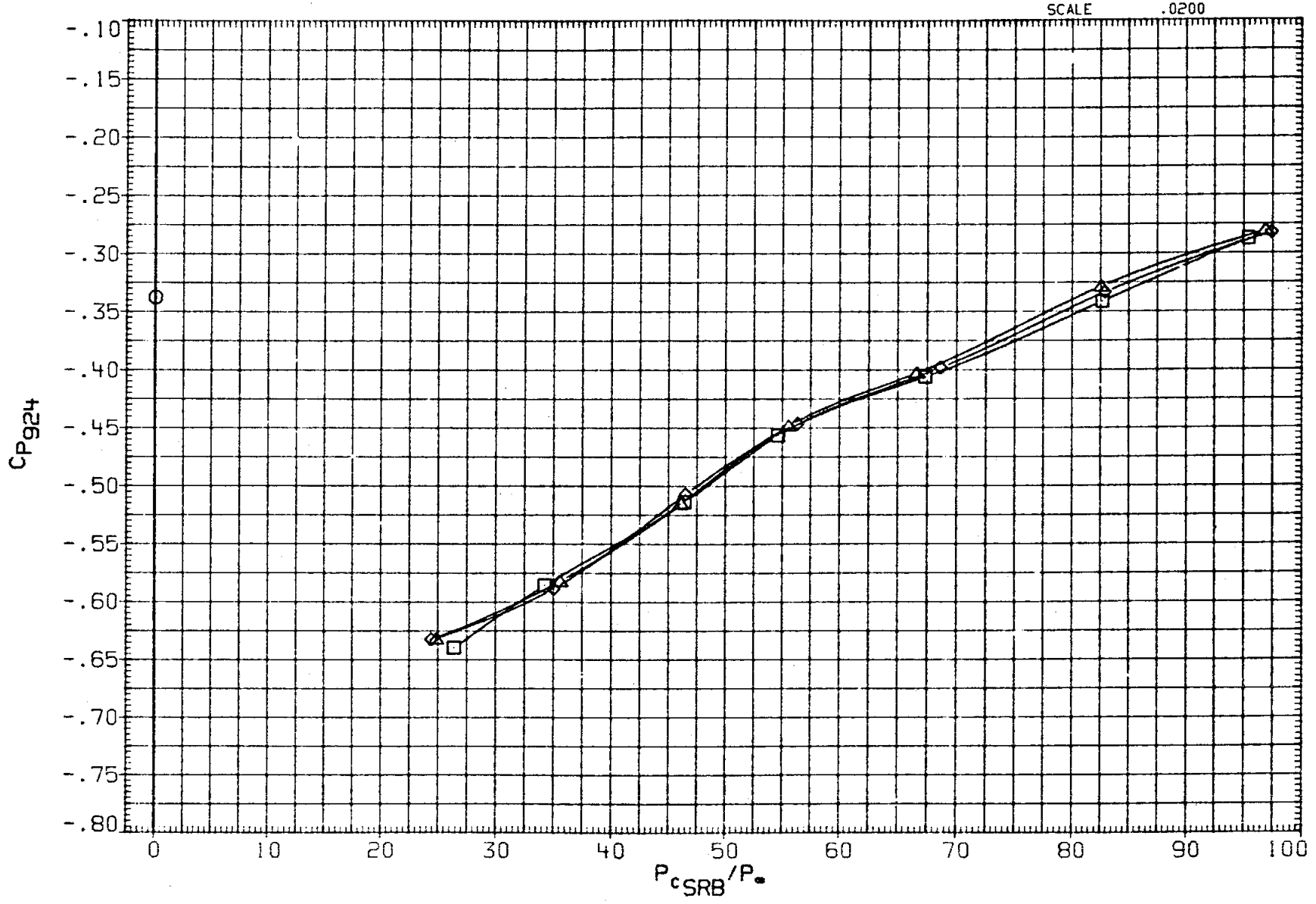

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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SCALE	.0200	

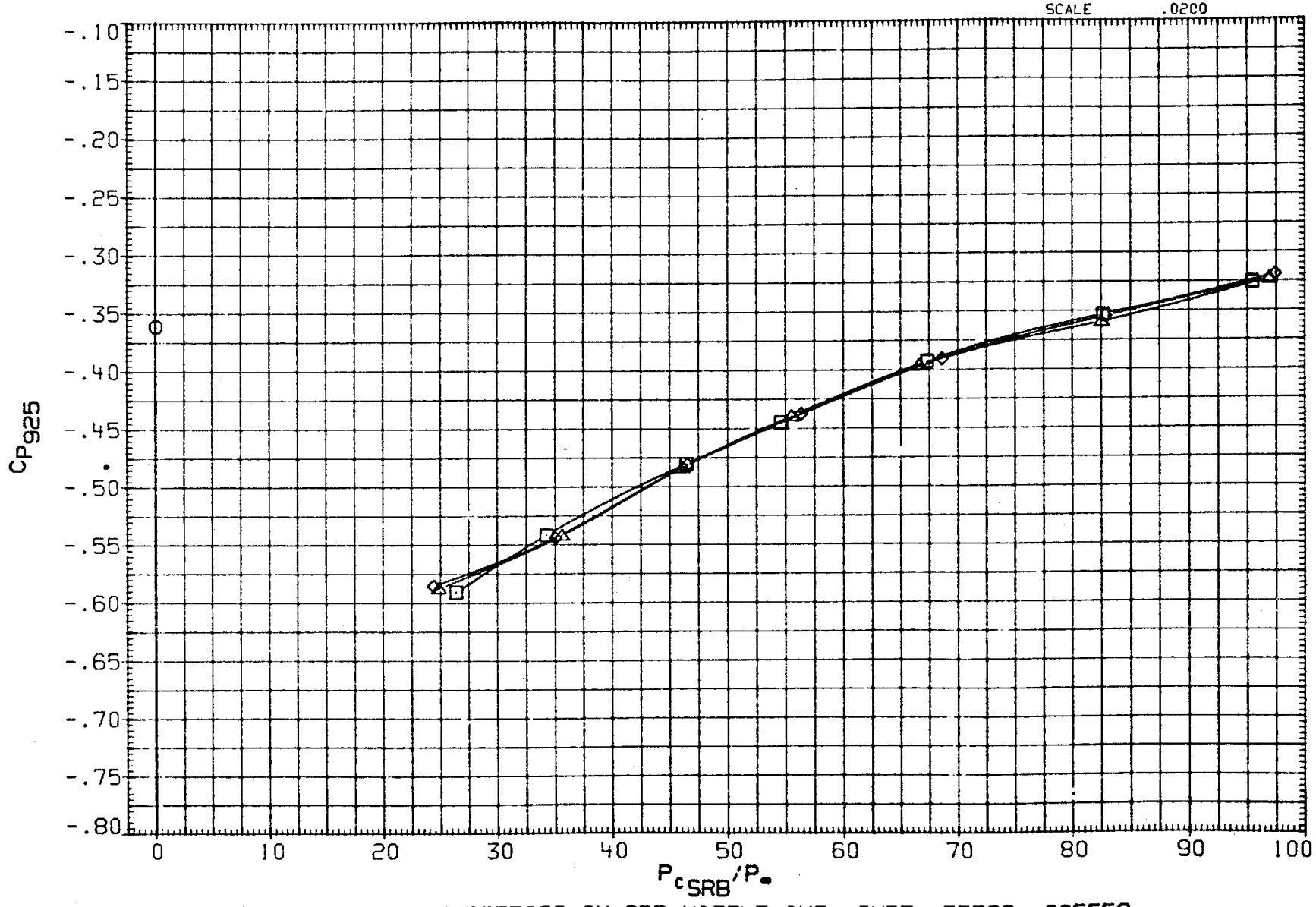

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

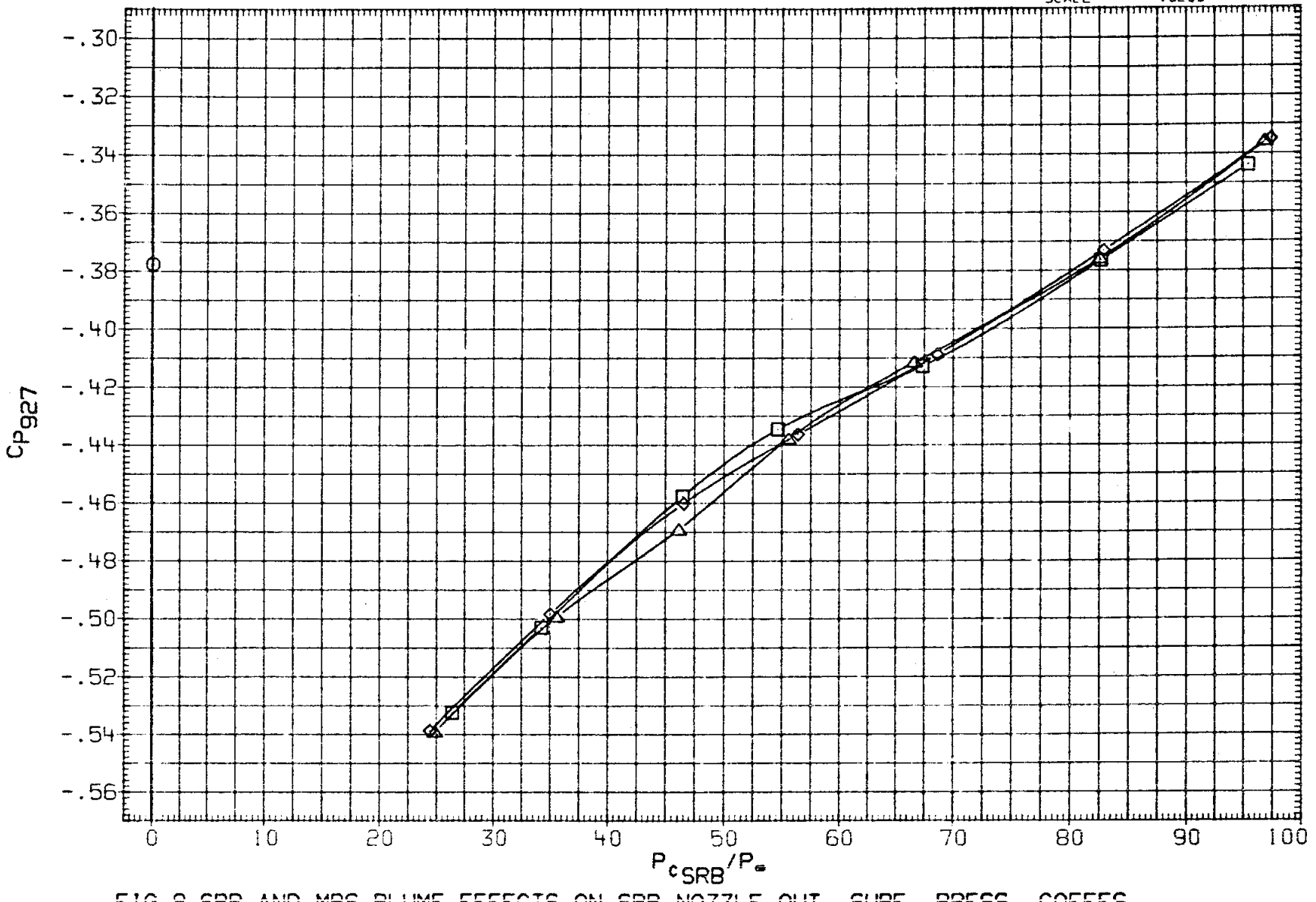

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

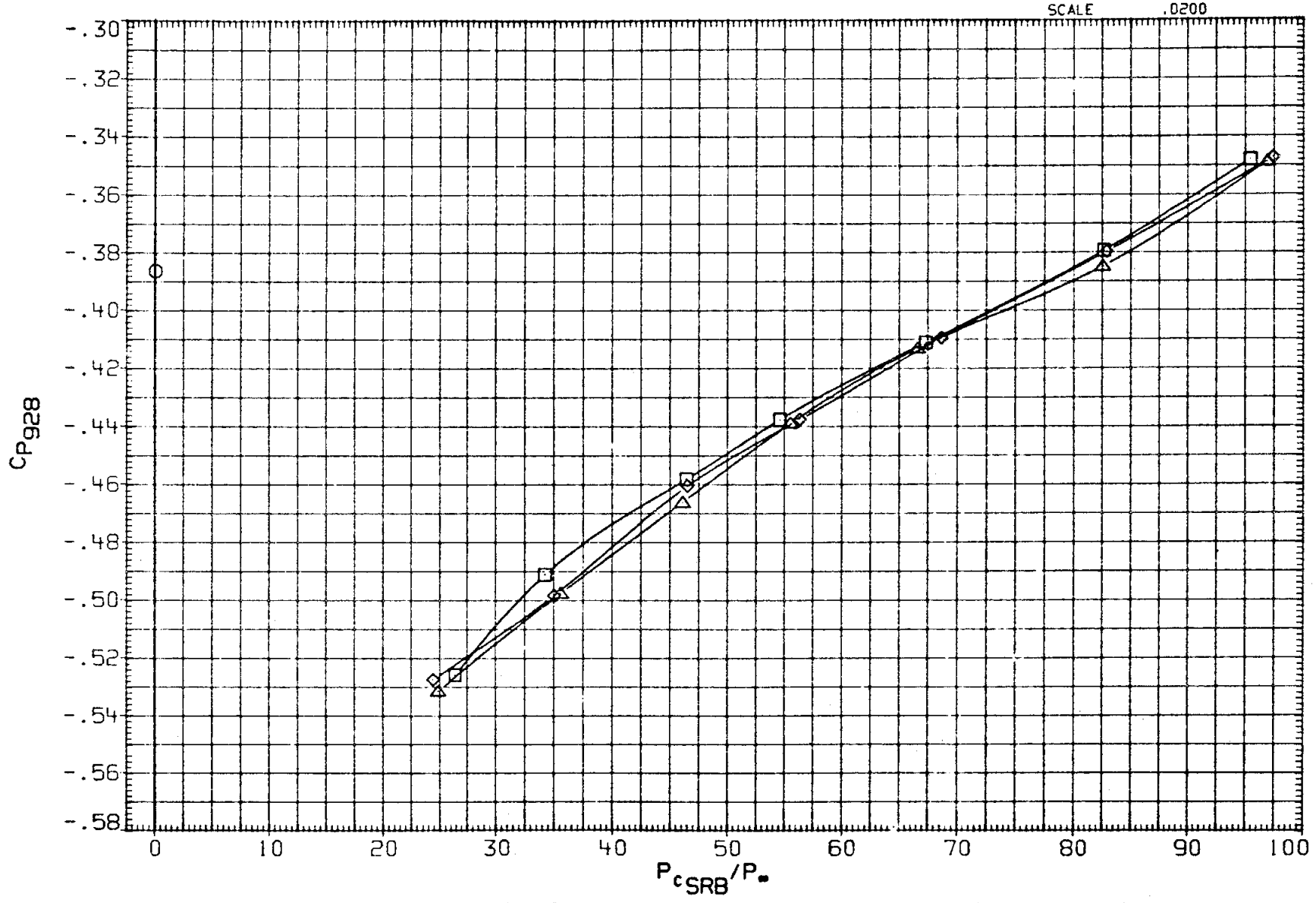

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
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SCALE	.0200	

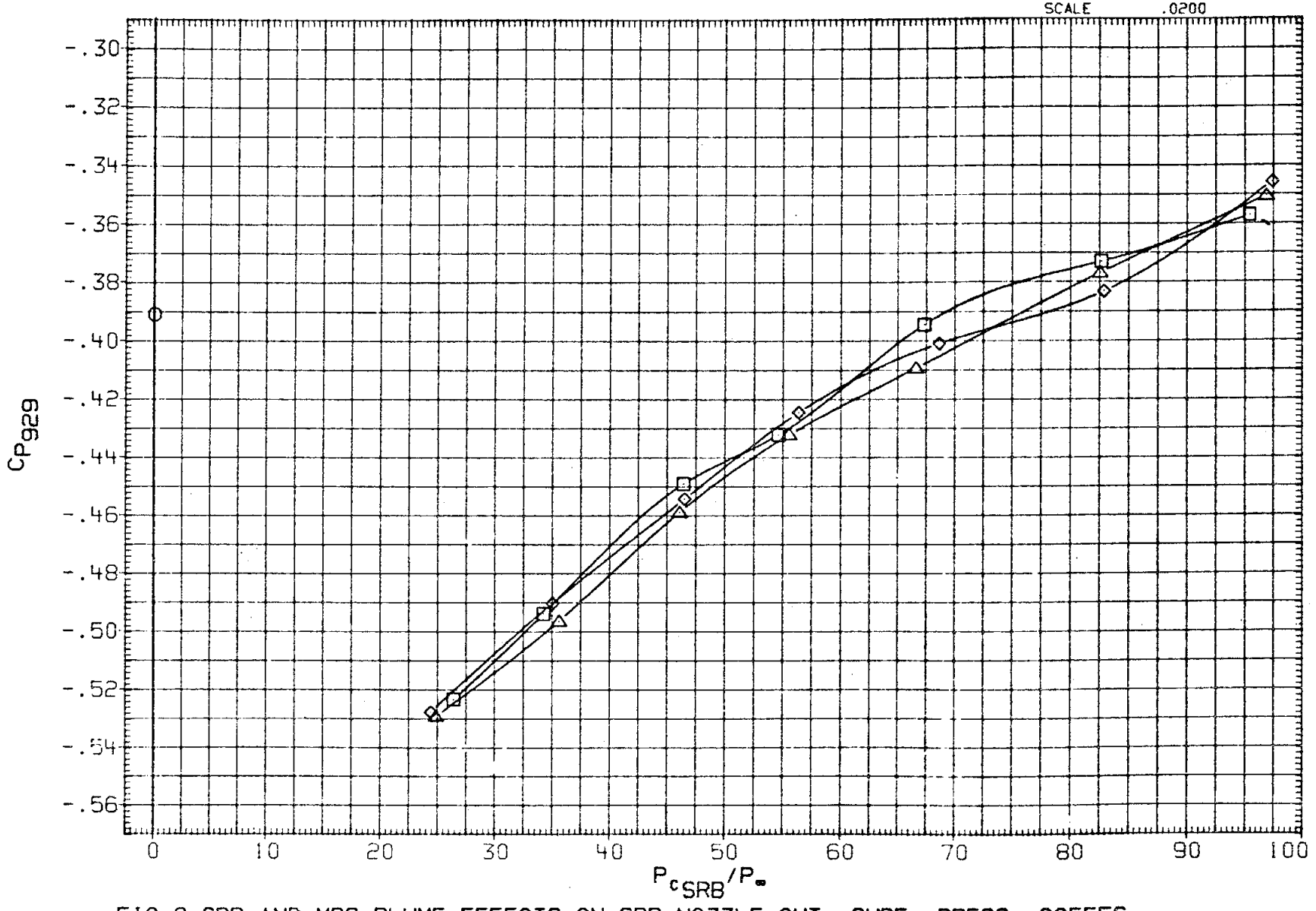

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
YNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
YNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
YNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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SCALE	.0200	

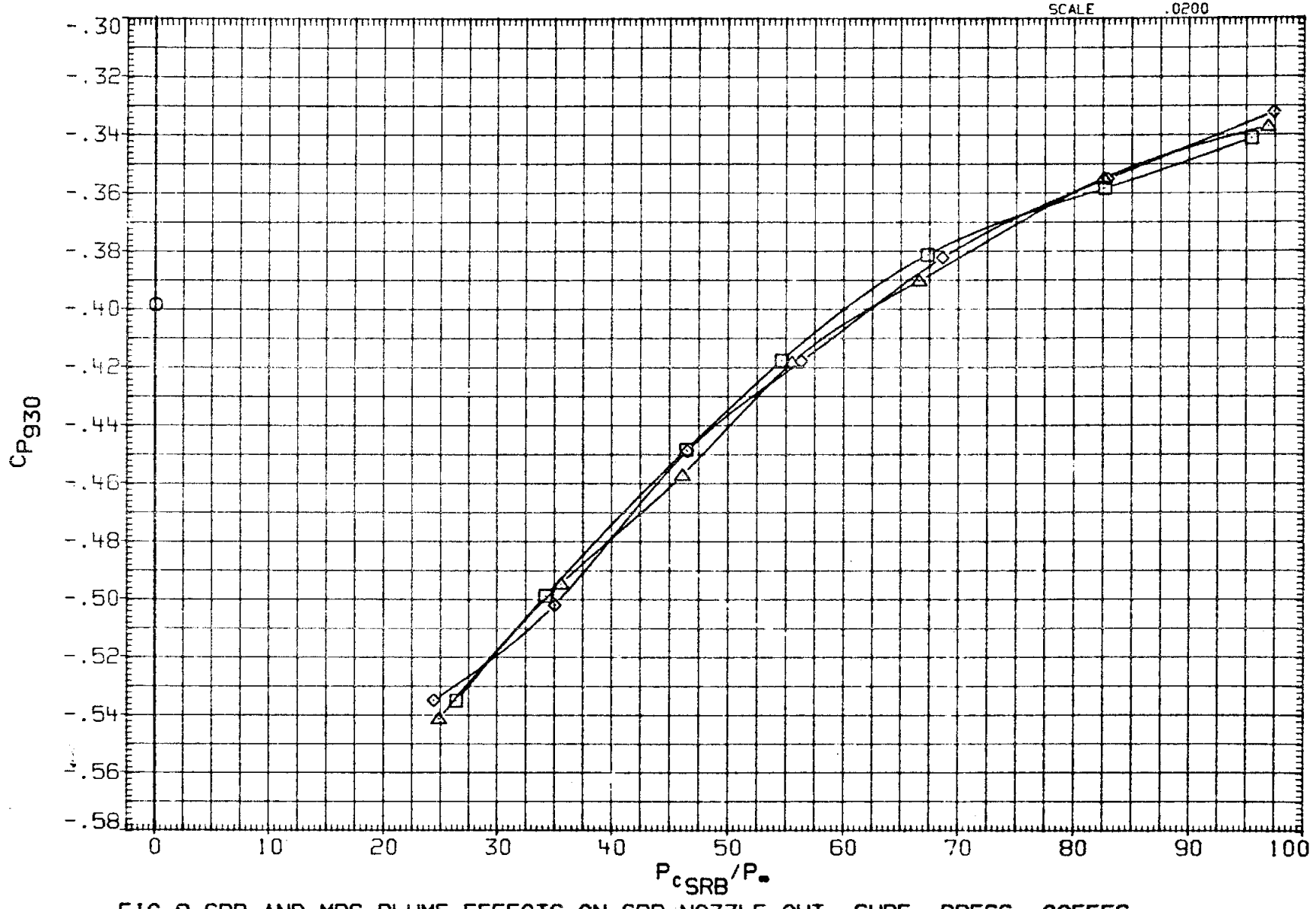

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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BREF	.0000	N.A.
XMRP	.0000	N.A.
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ZMRP	.0000	N.A.
SCALE	.0200	

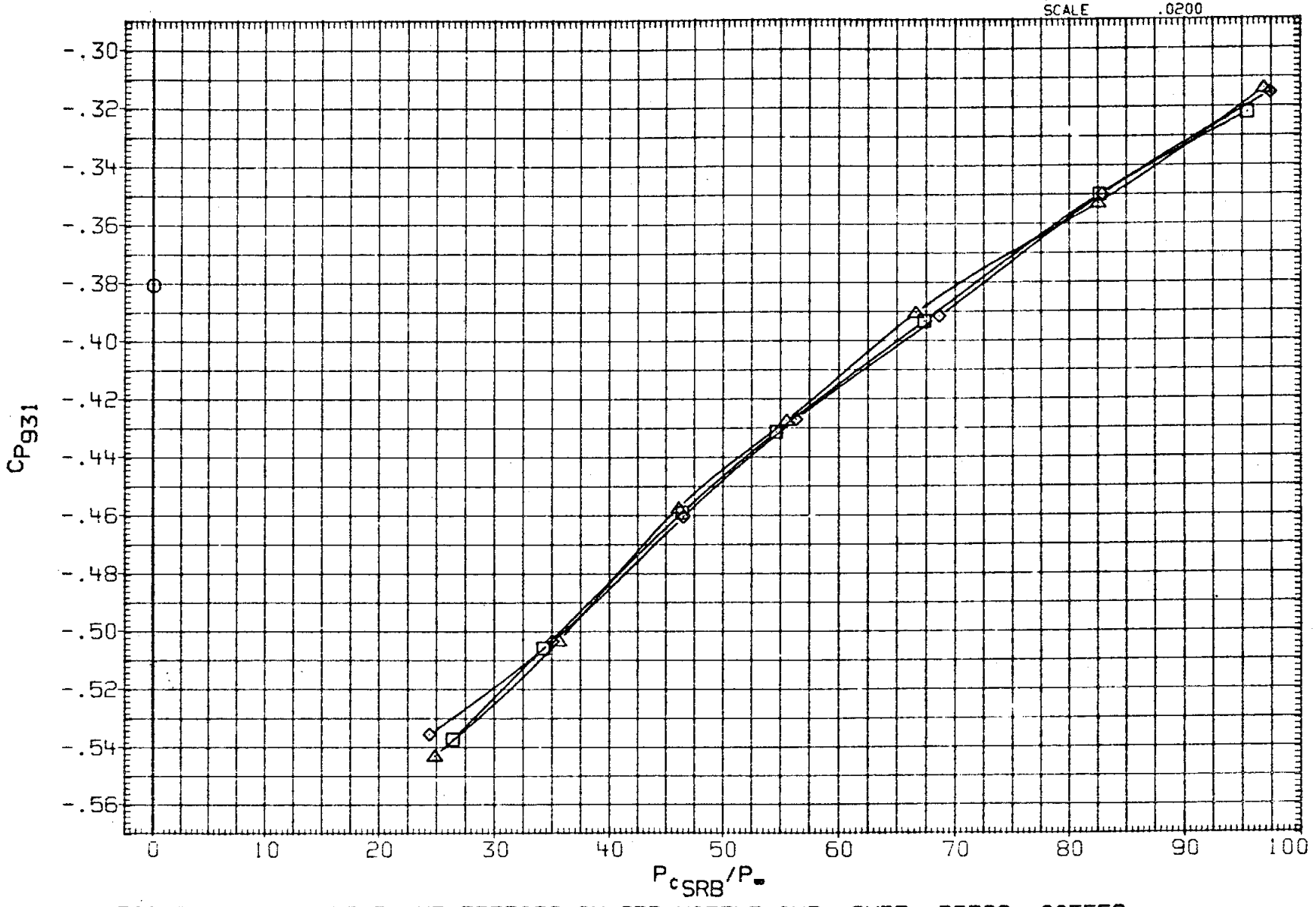

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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XMRP	.0000	N.A.
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ZMRP	.0000	N.A.
SCALE	.0200	

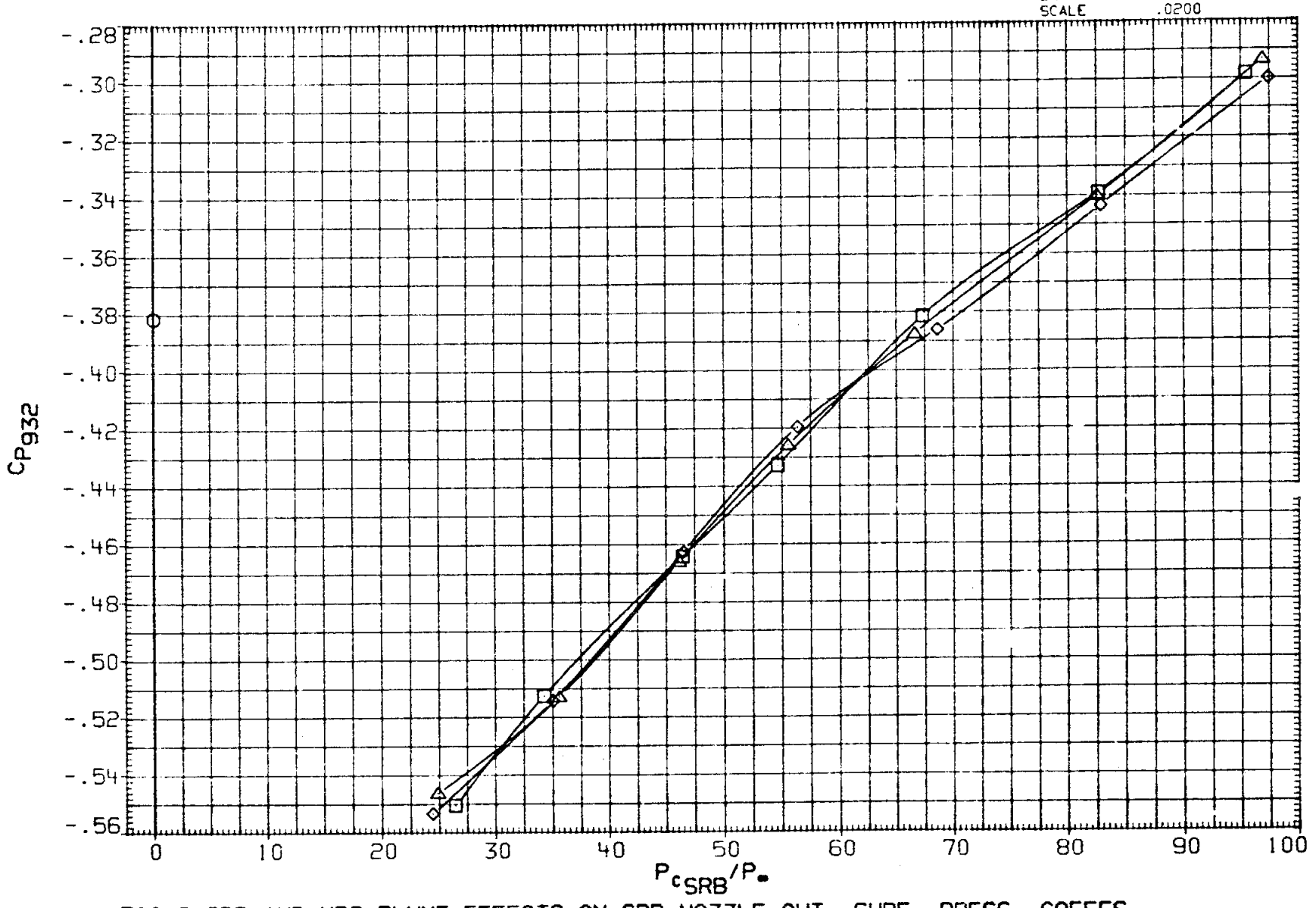

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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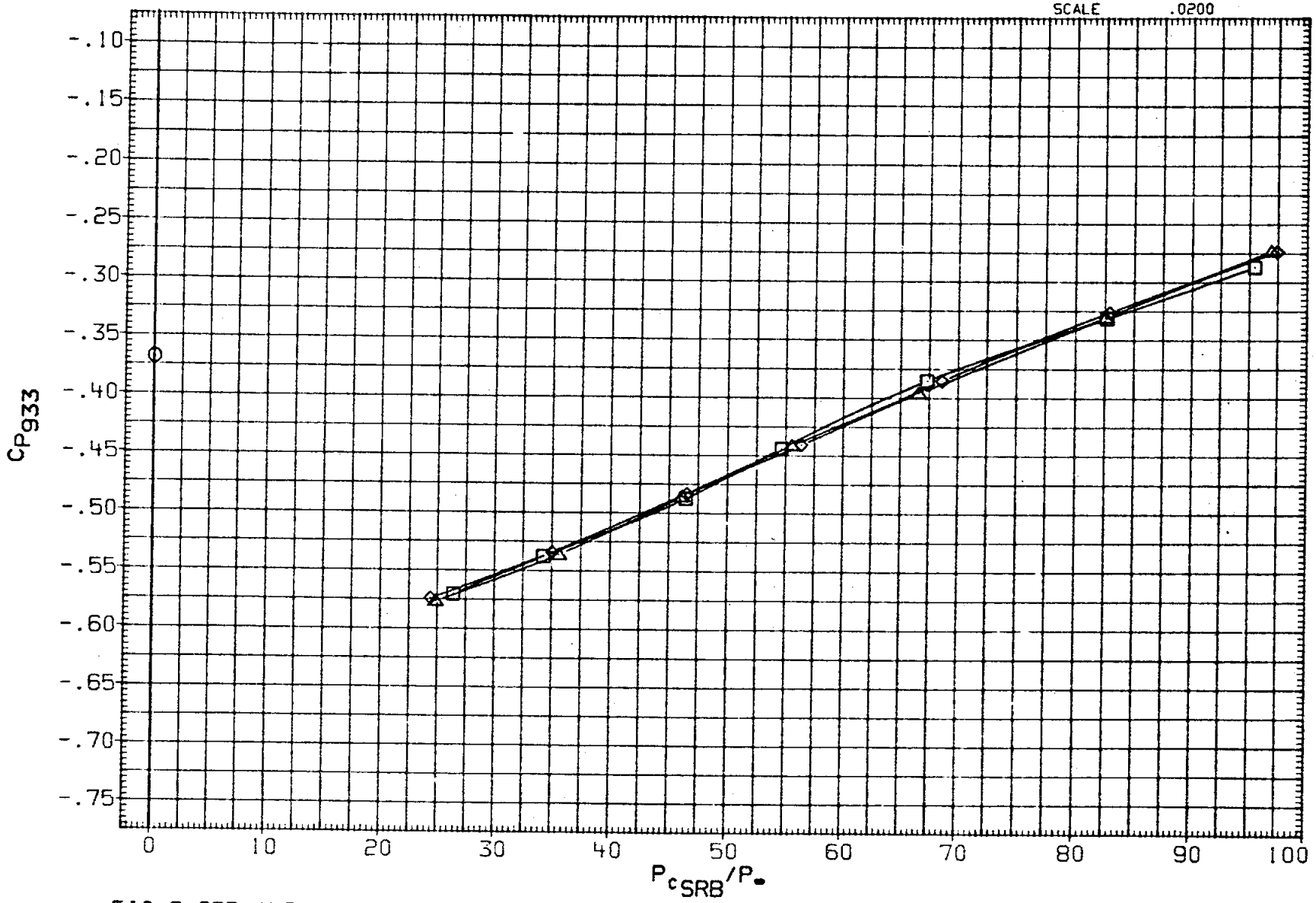

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(IA72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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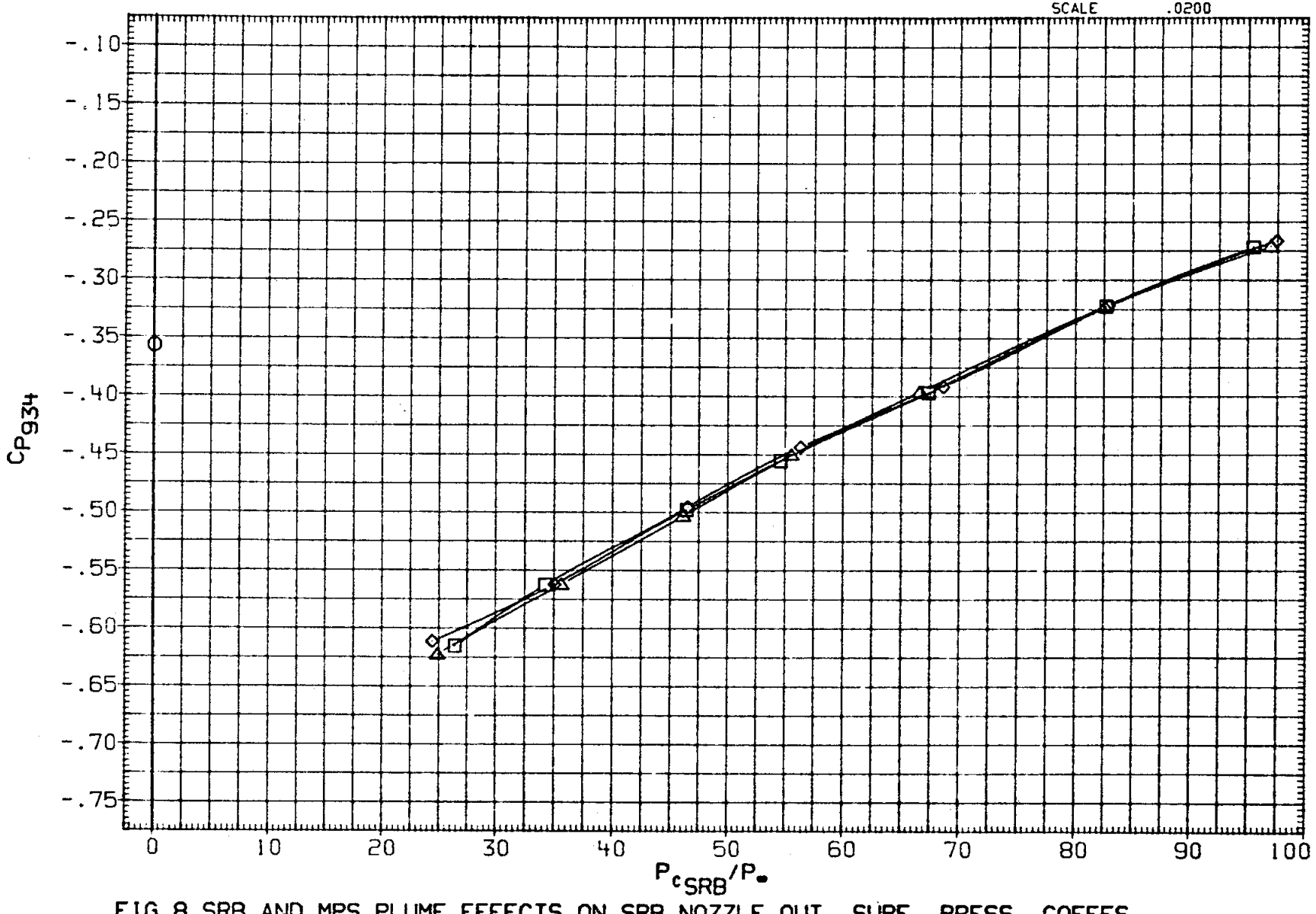

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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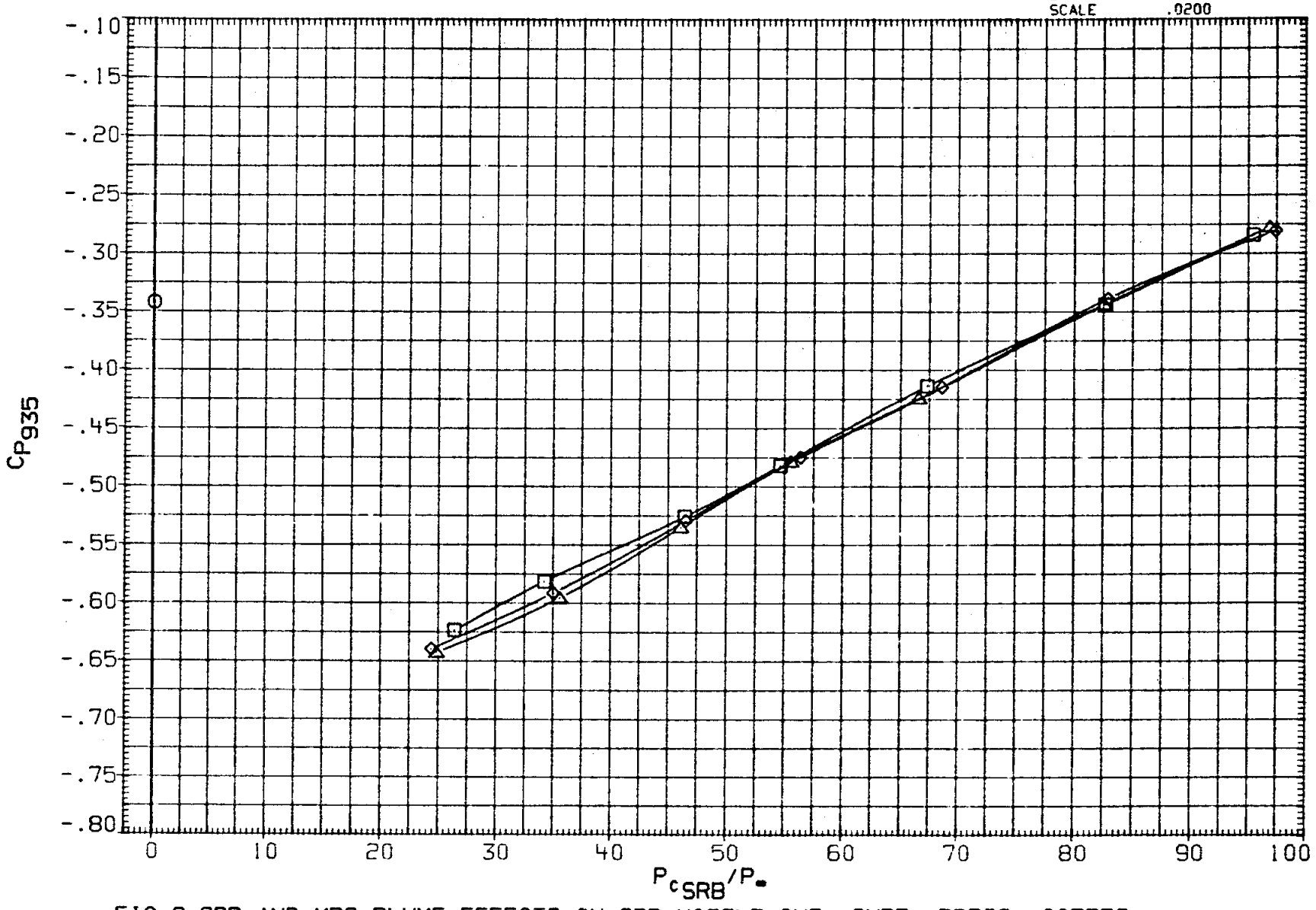

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION
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ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
10.000	1.000	8.000	.000
10.000	1.000	8.000	.000
10.000	1.000	8.000	.000
10.000	1.000	8.000	.000

REFERENCE INFORMATION

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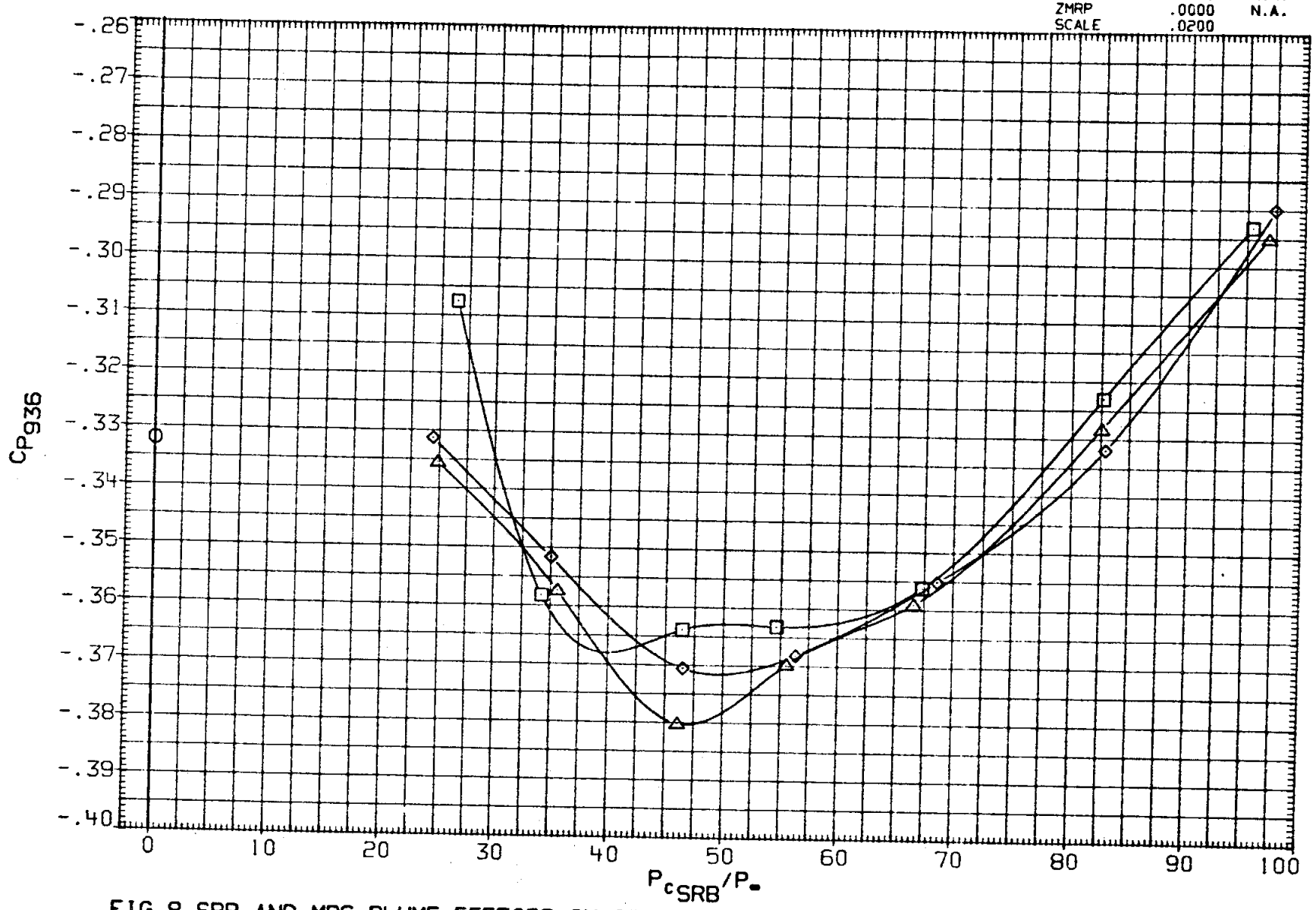

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
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ZNEA23	□	ARC11-072(IA72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(IA72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
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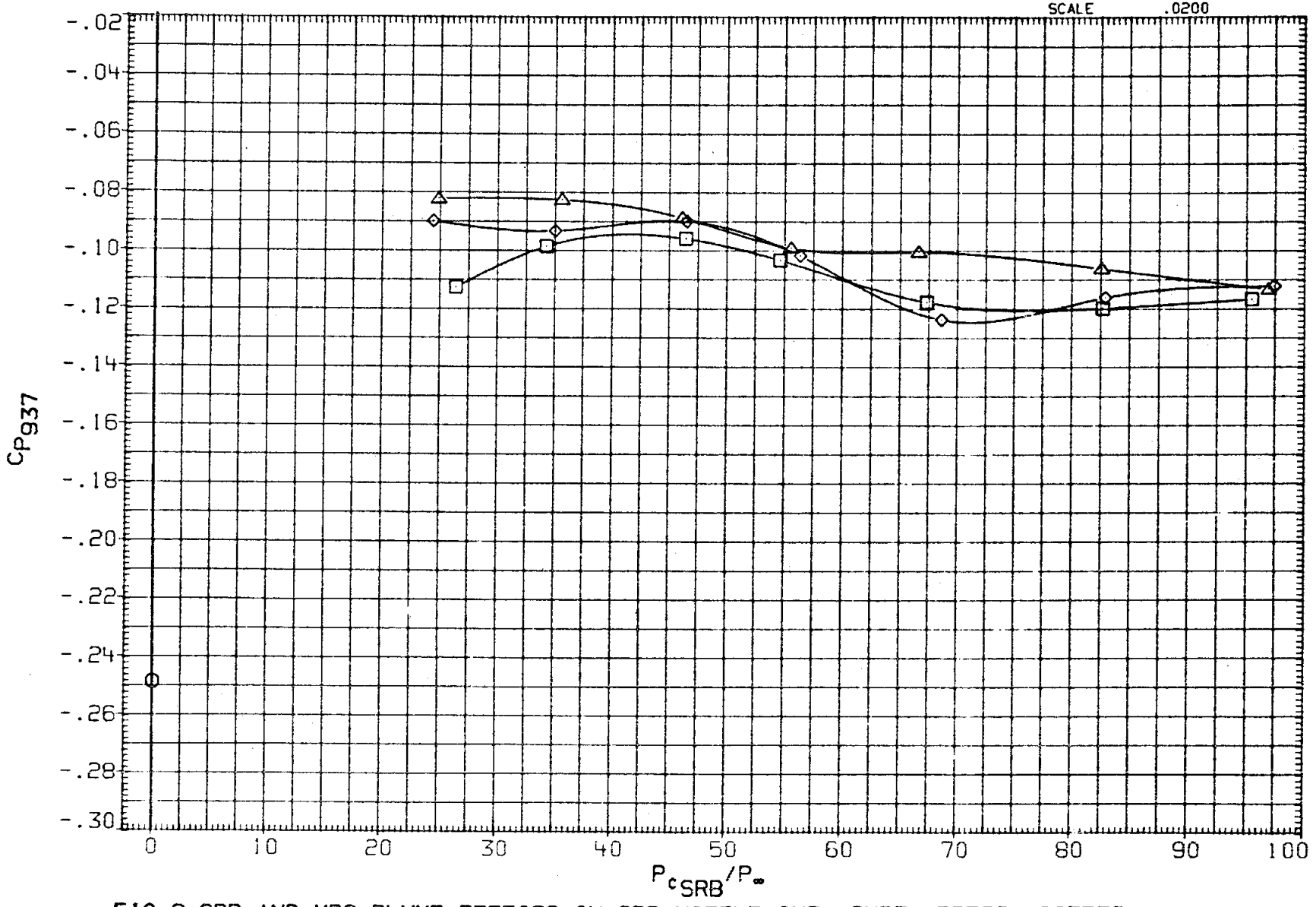

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
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ZNEA25	△	ARC11-072(IA72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

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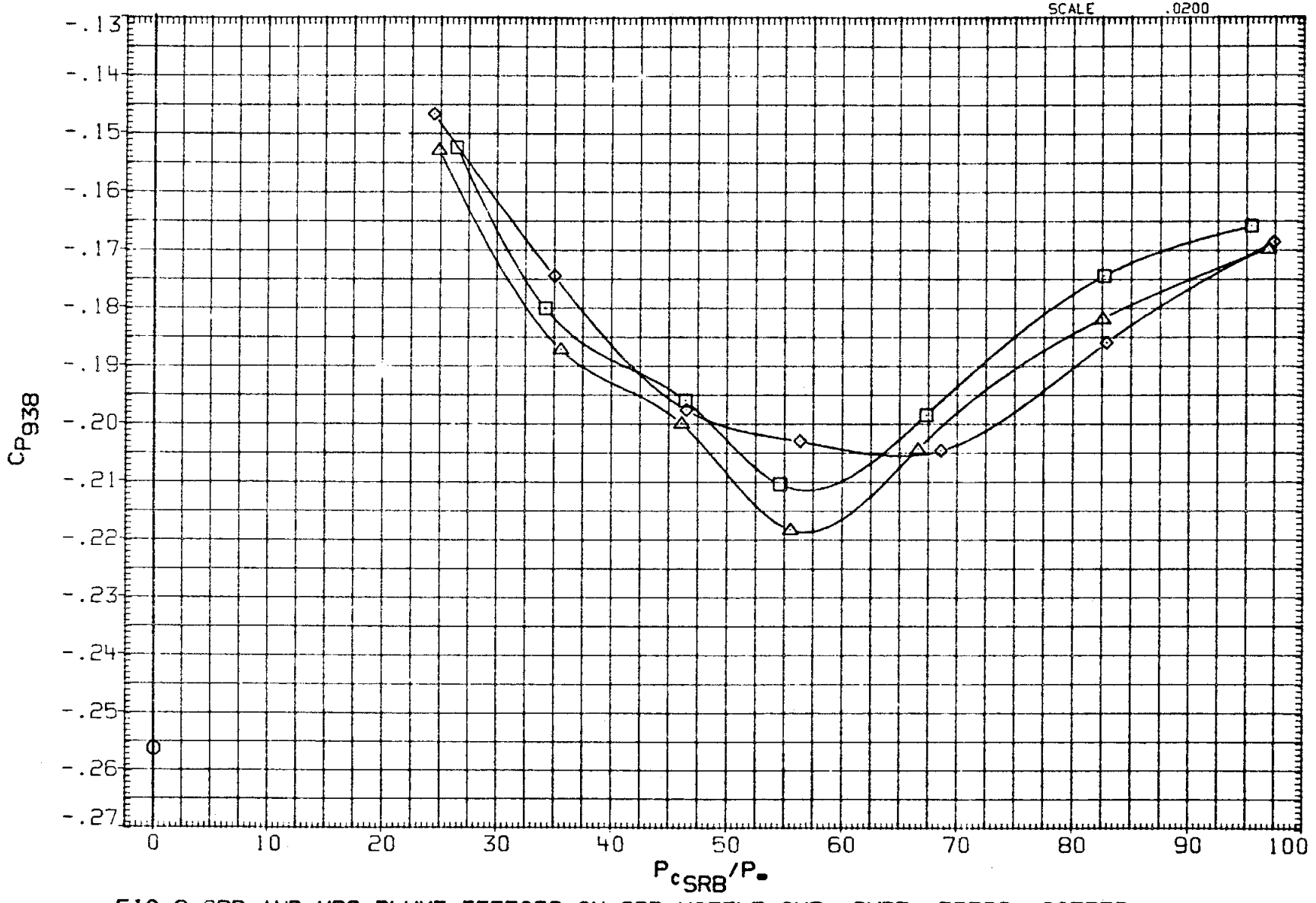

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

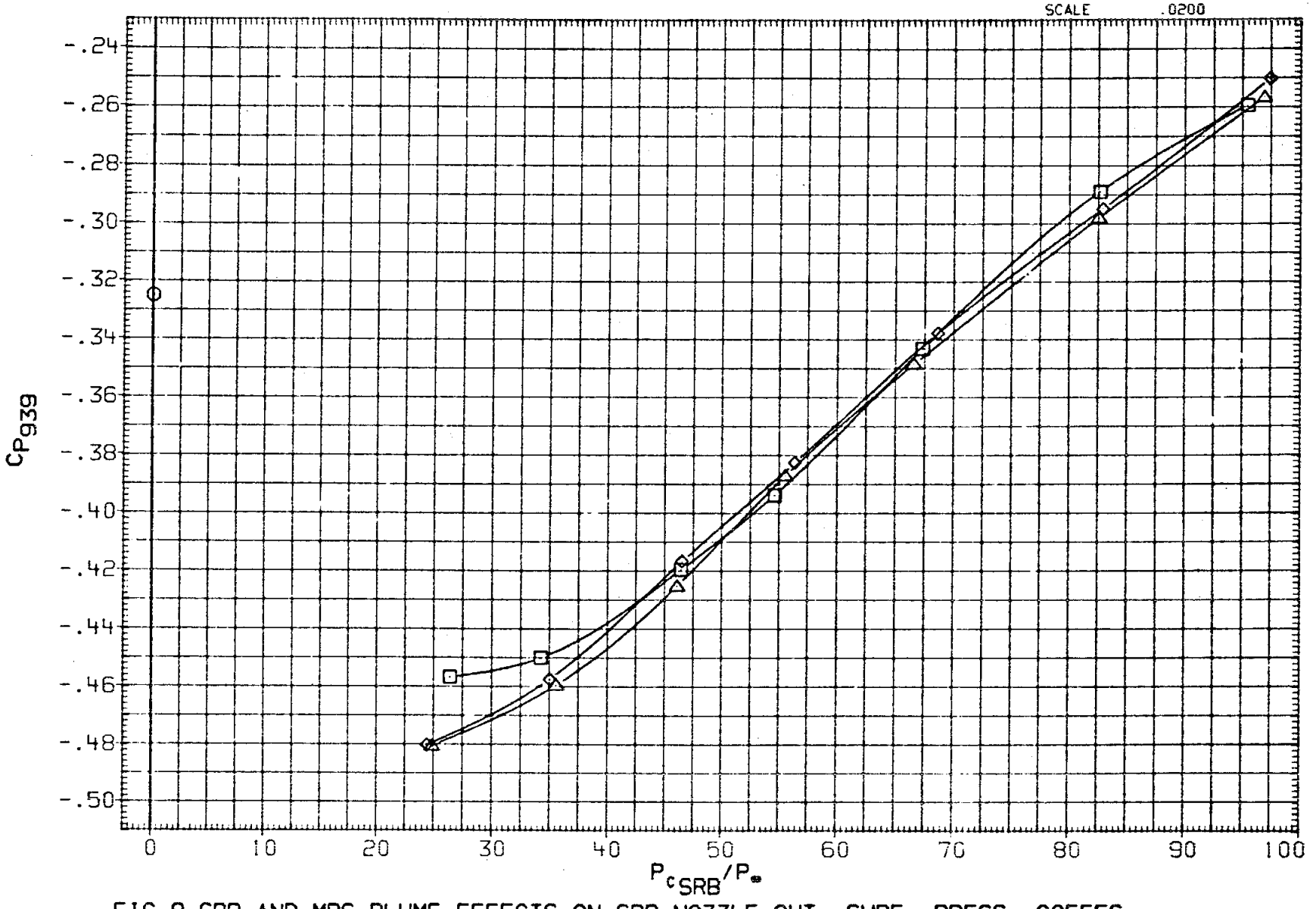

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA22	○	ARC11-072(1A72) OTS-1, MPS=OFF	10.000	1.000	8.000	.000
ZNEA23	□	ARC11-072(1A72) OTS-1, MPS=NOM-	10.000	1.000	8.000	.000
ZNEA24	◇	ARC11-072(1A72) OTS-1, MPS=NOM	10.000	1.000	8.000	.000
ZNEA25	△	ARC11-072(1A72) OTS-1, MPS=NOM+	10.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

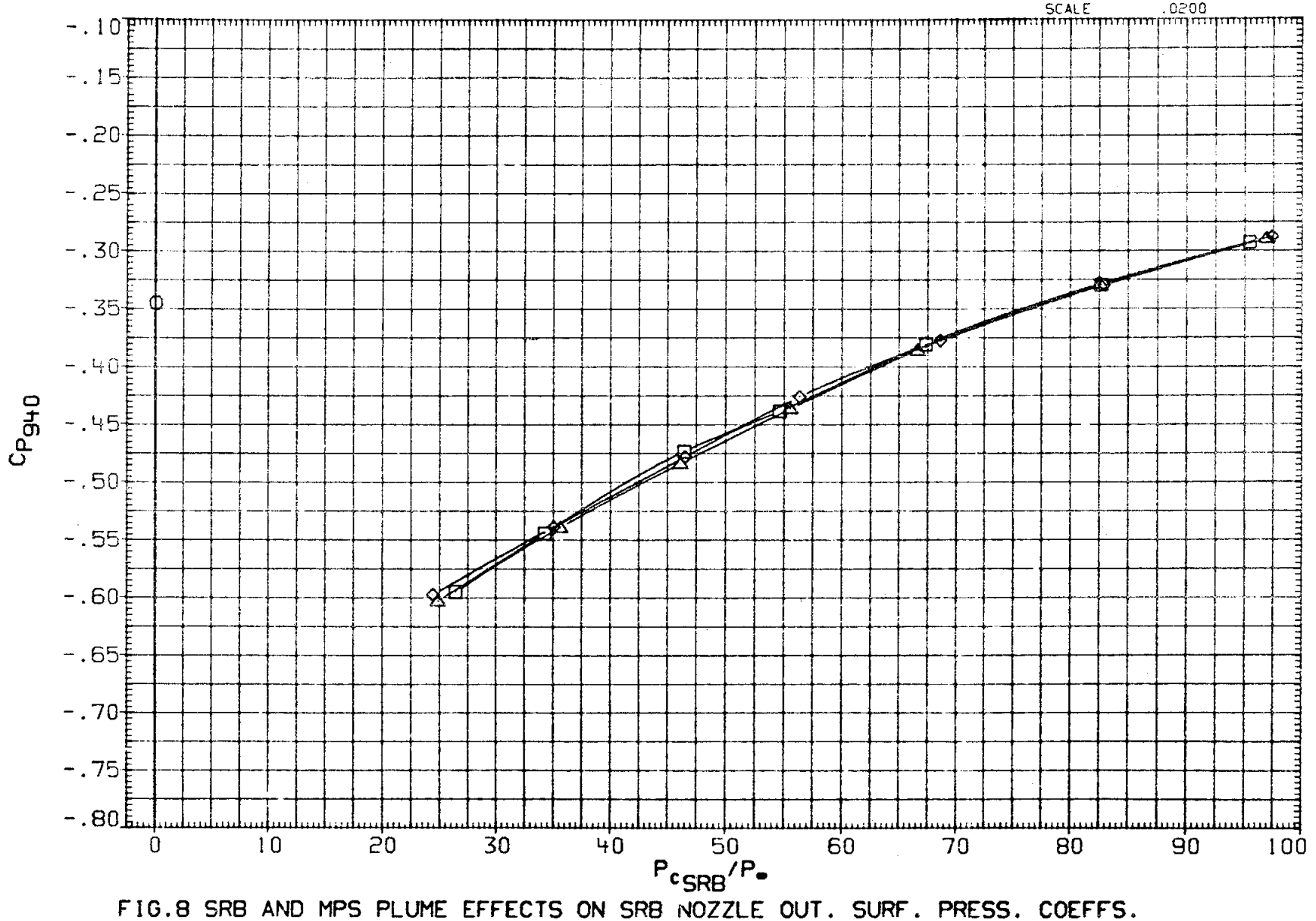

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
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ZMRP	.0000	N.A.
SCALE	.0200	

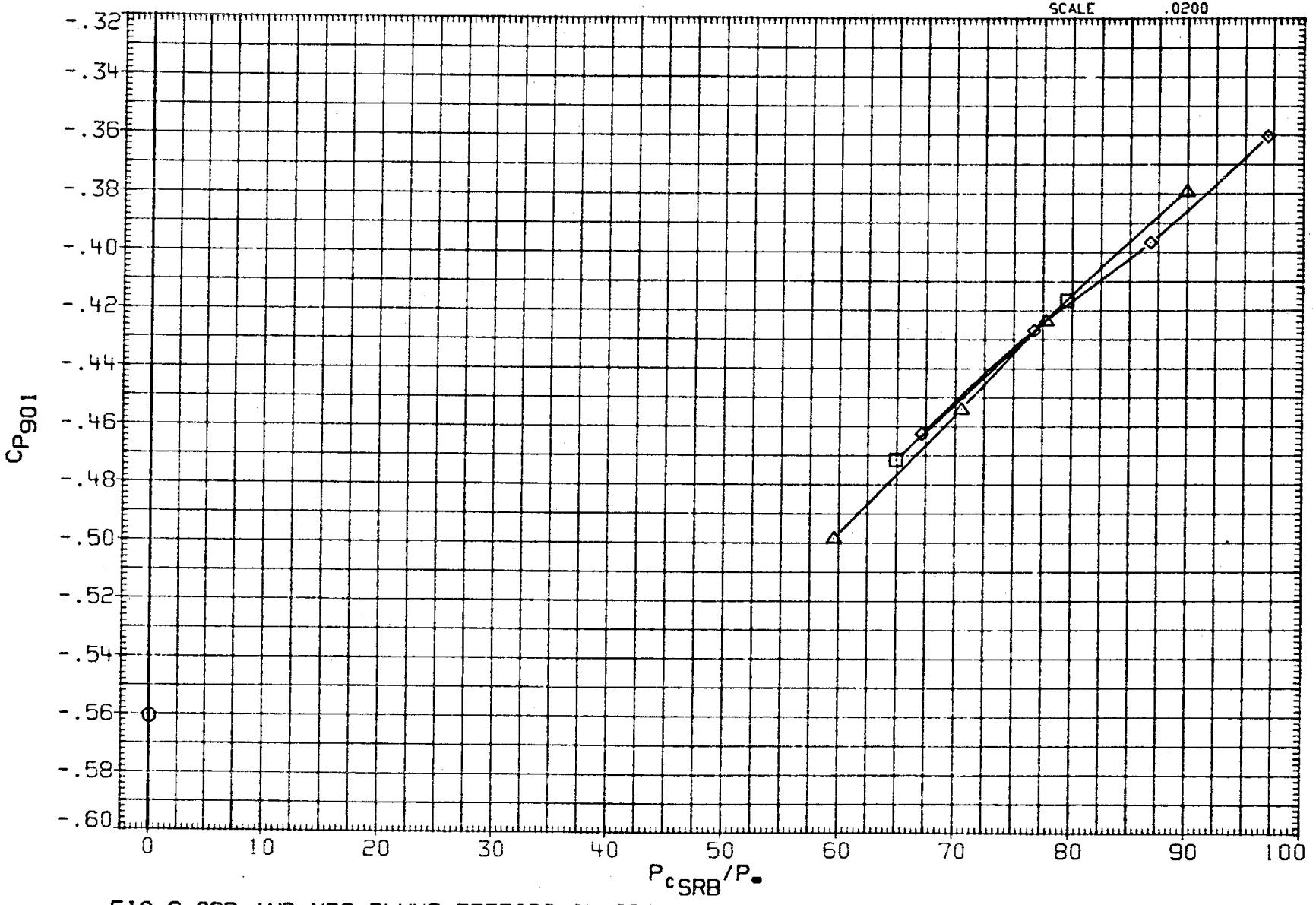

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

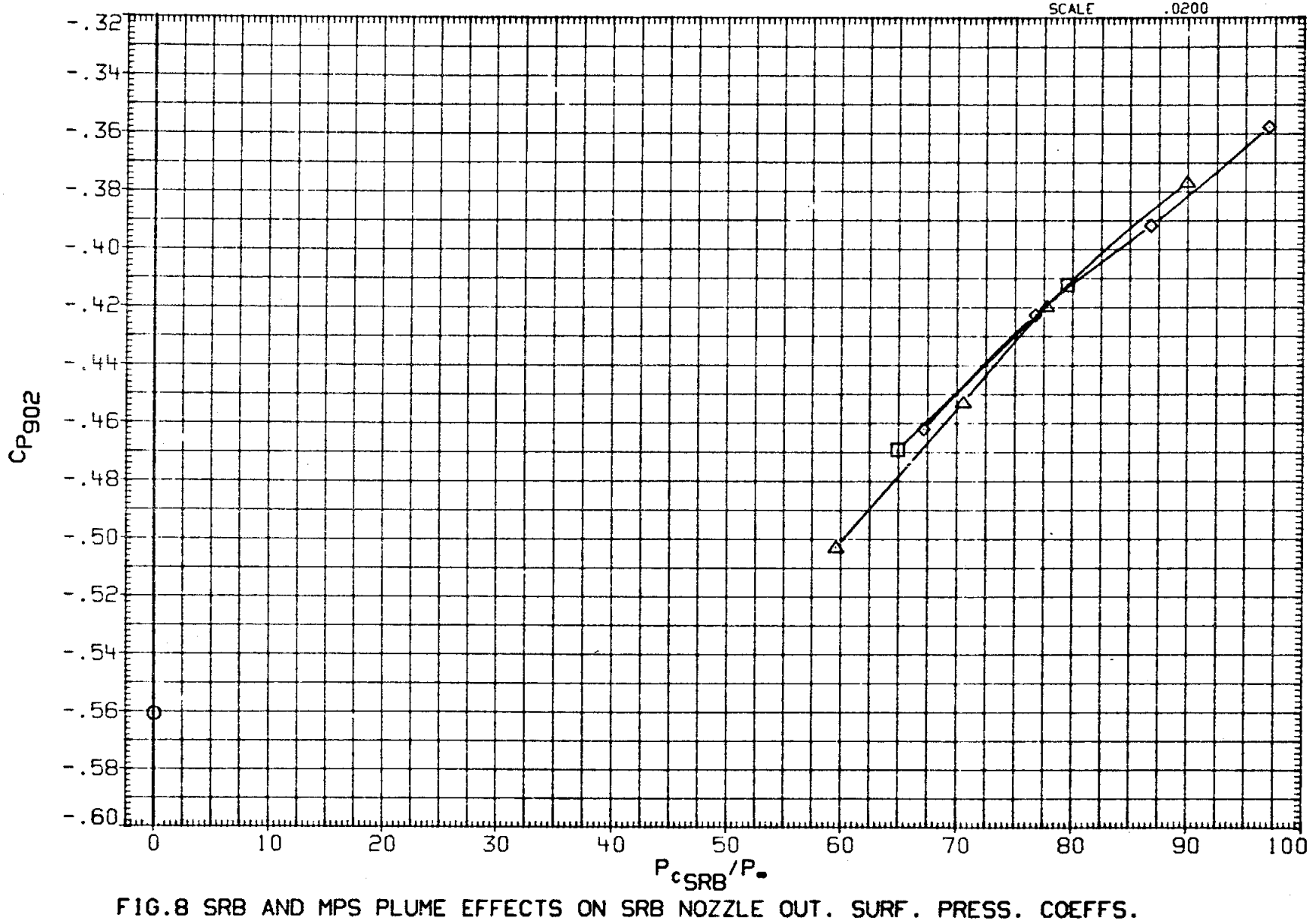

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION
WNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF
WNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-
WNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM
WNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

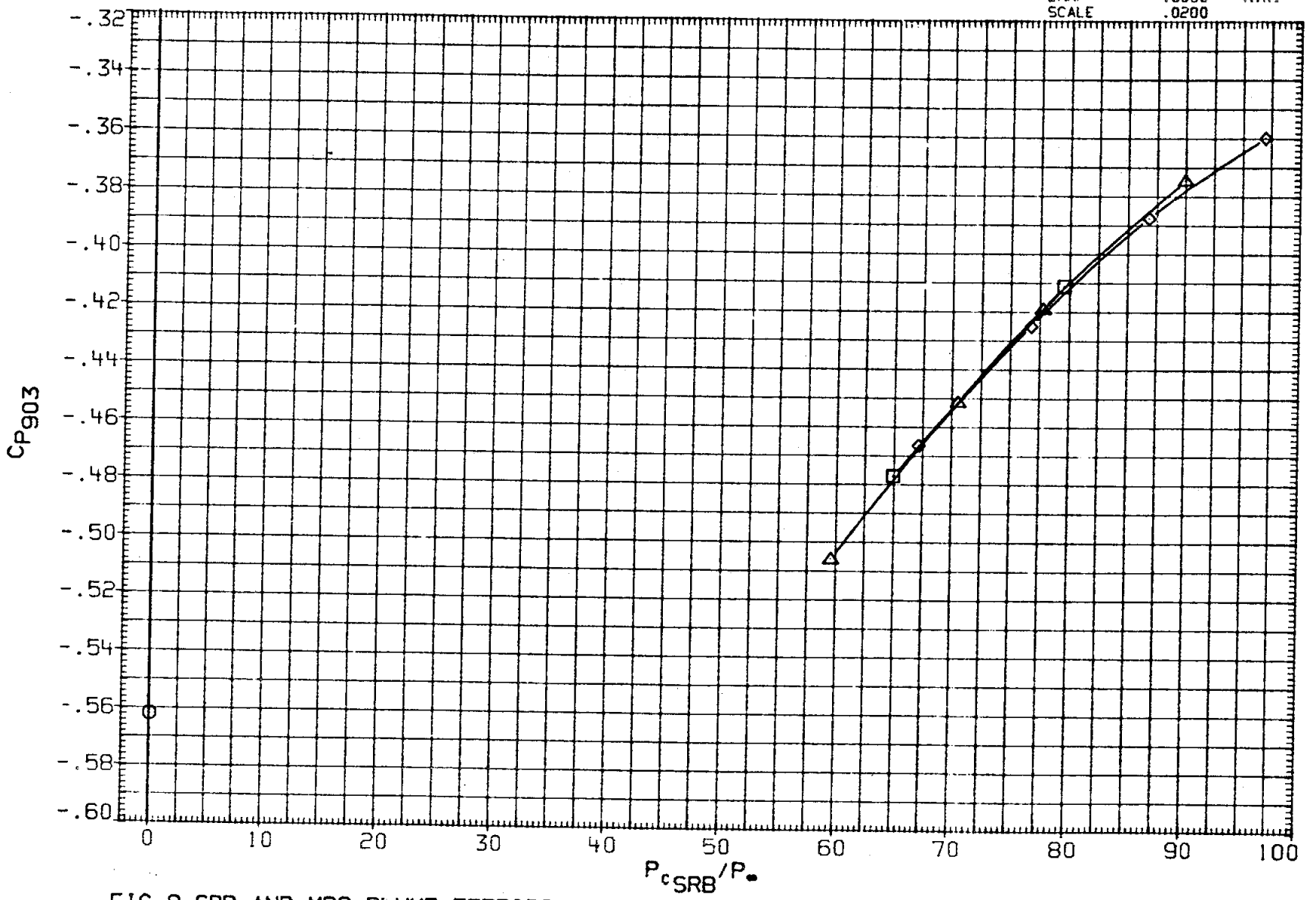

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

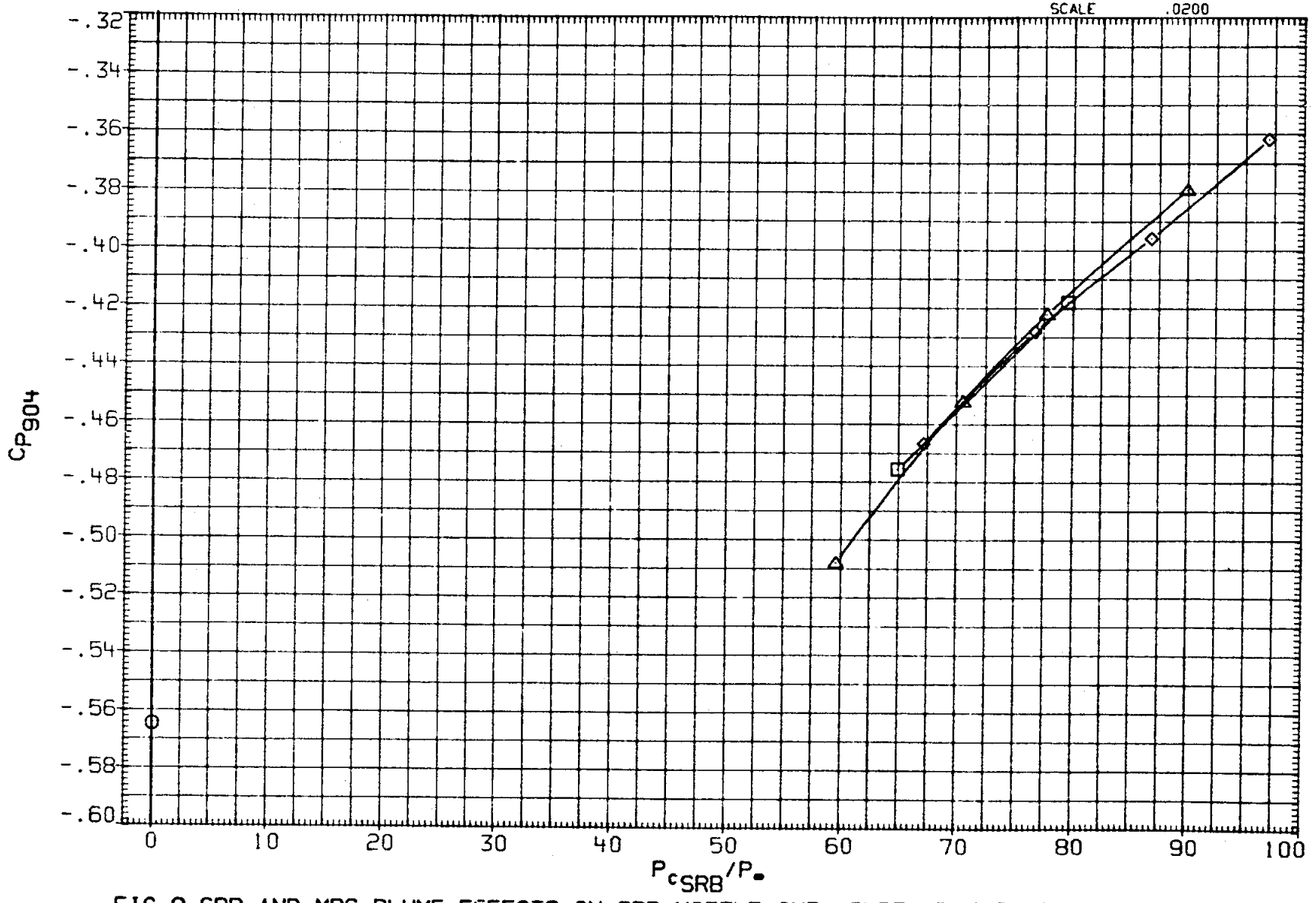

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

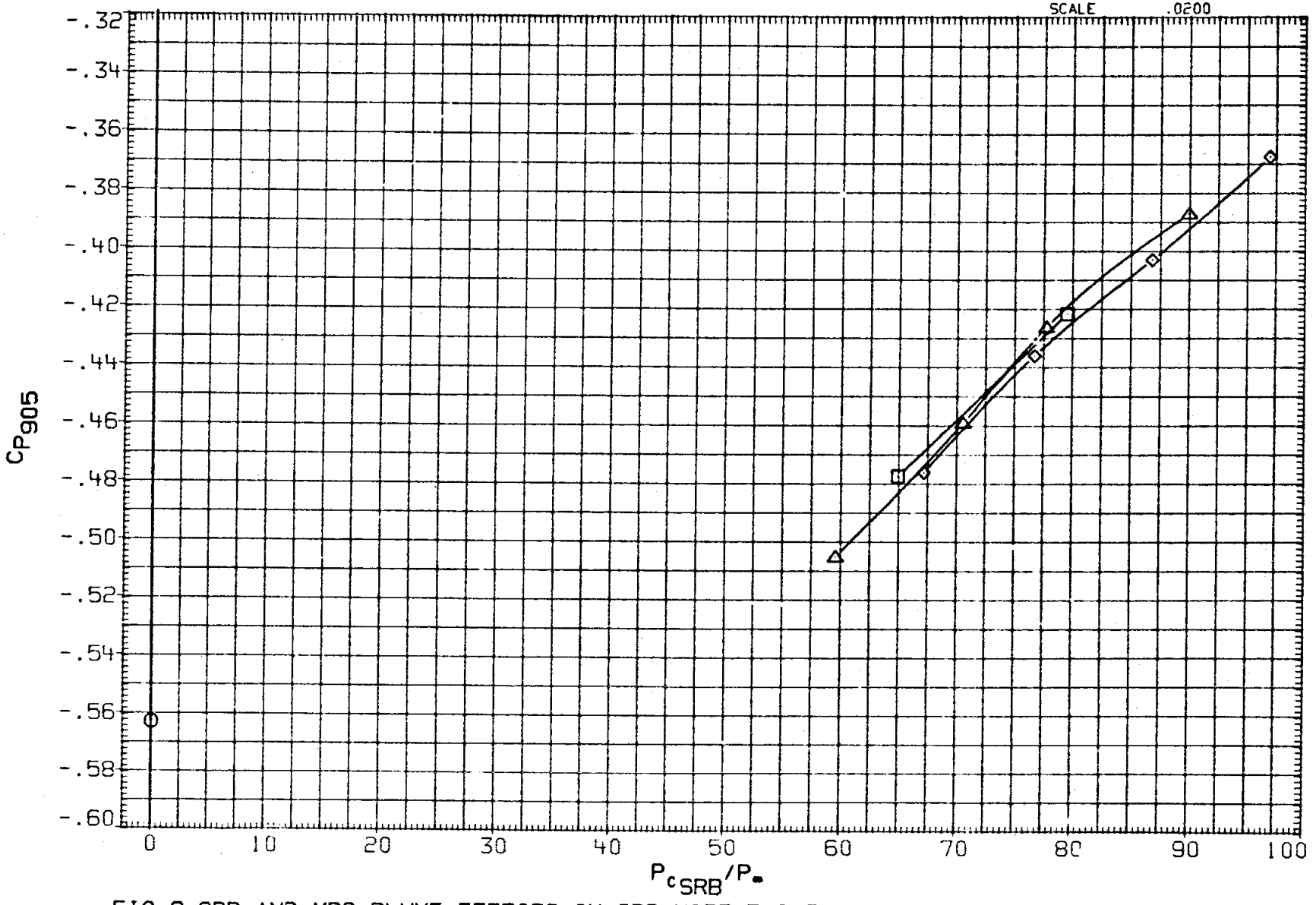

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

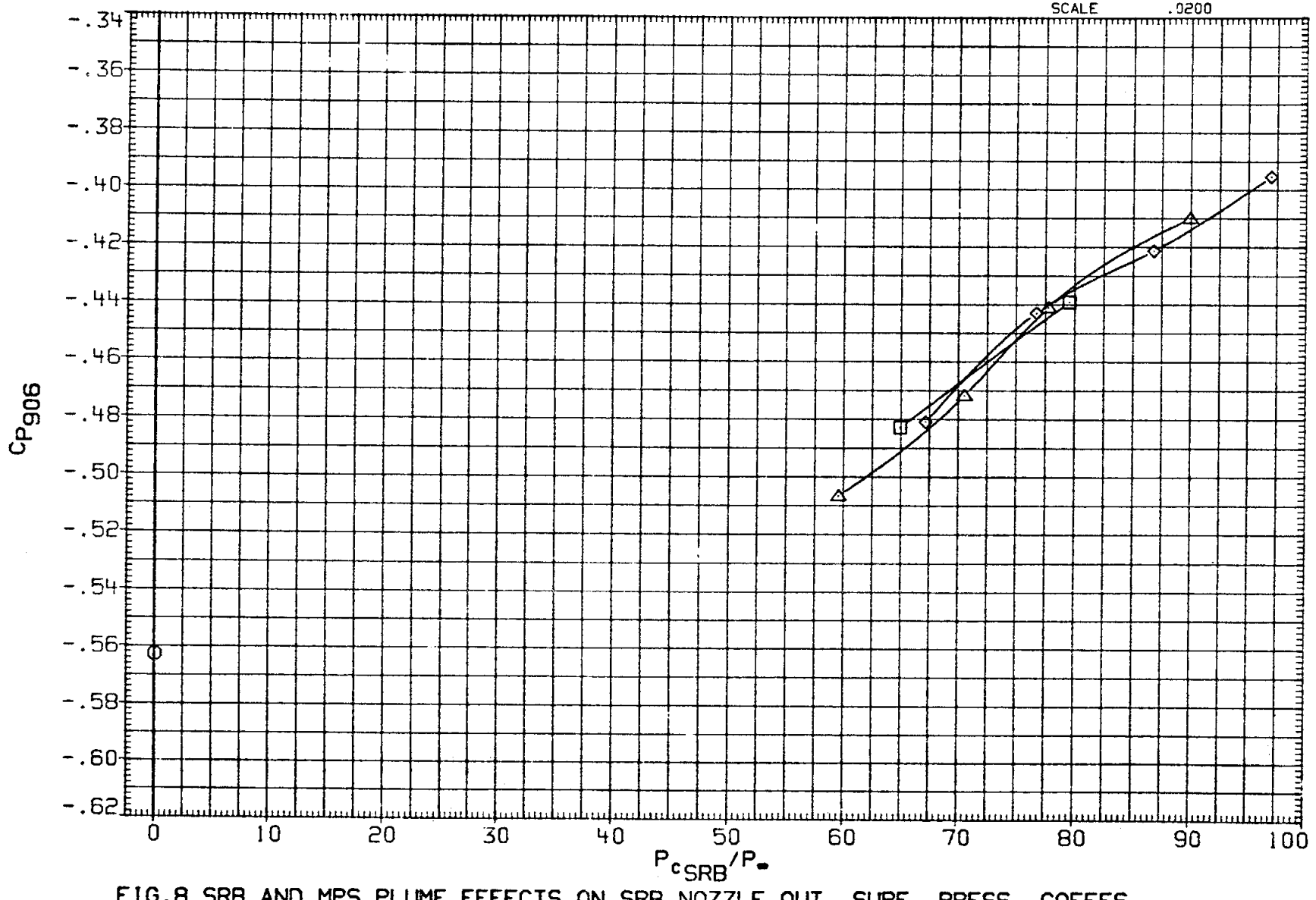

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

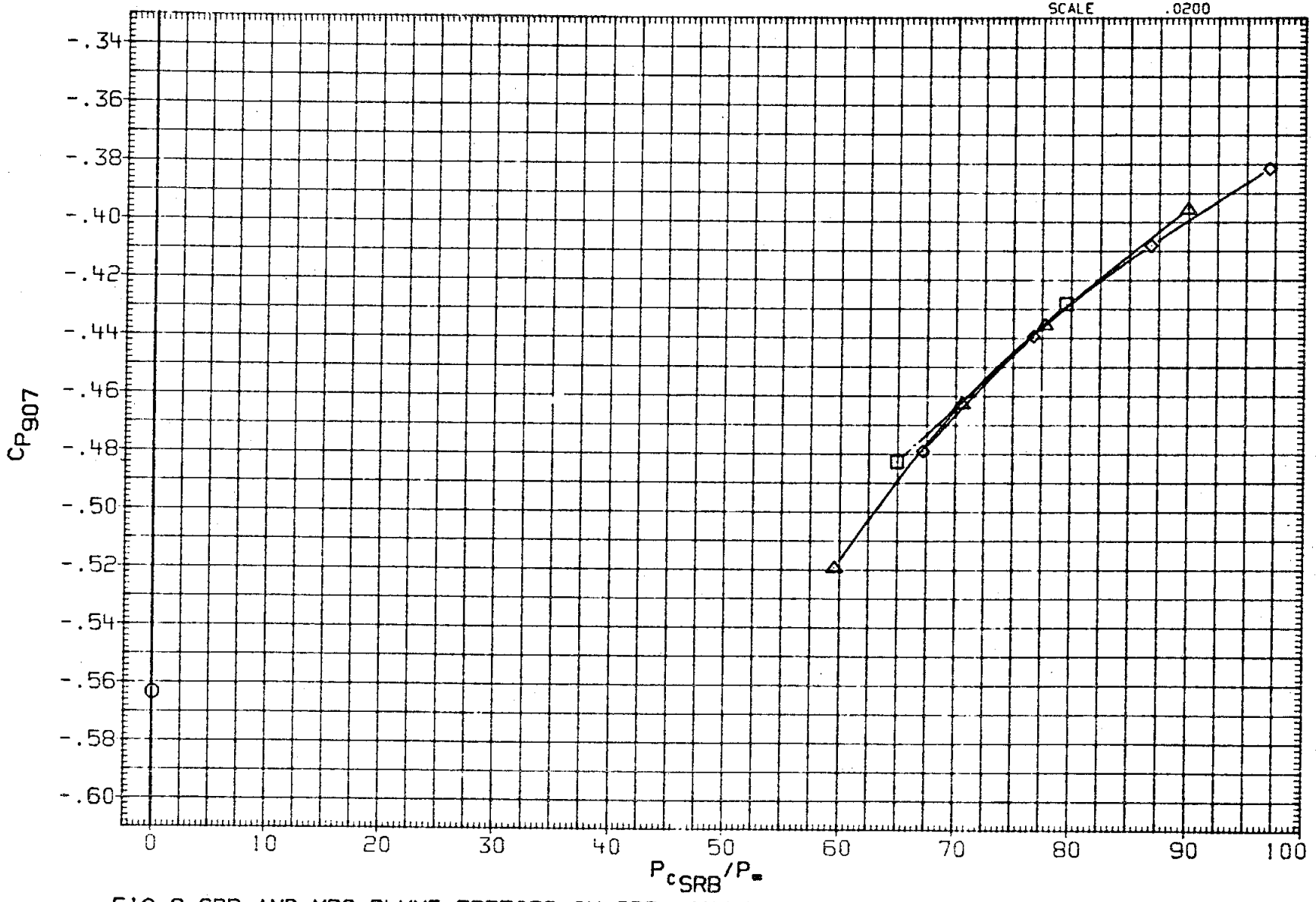

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

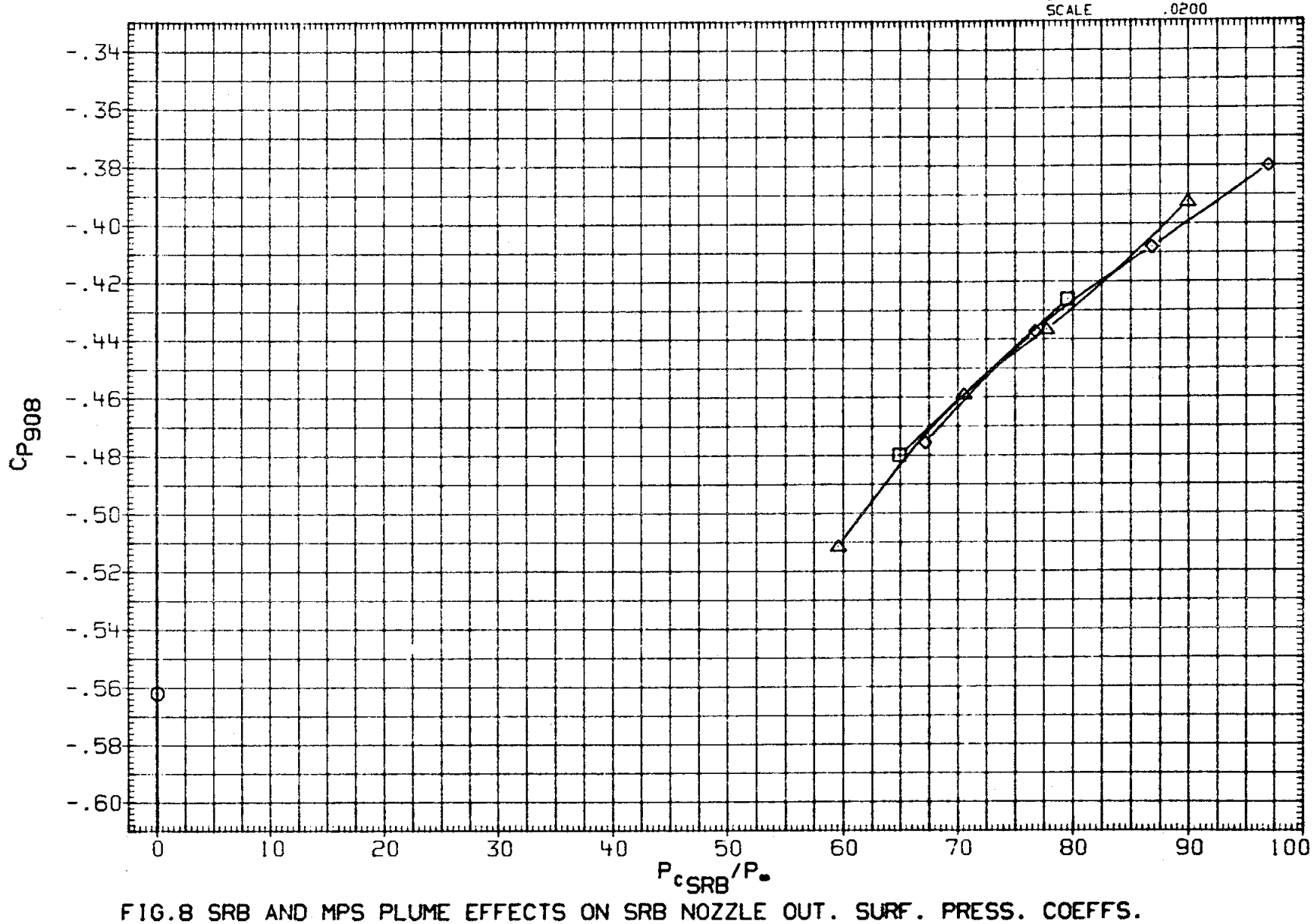

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

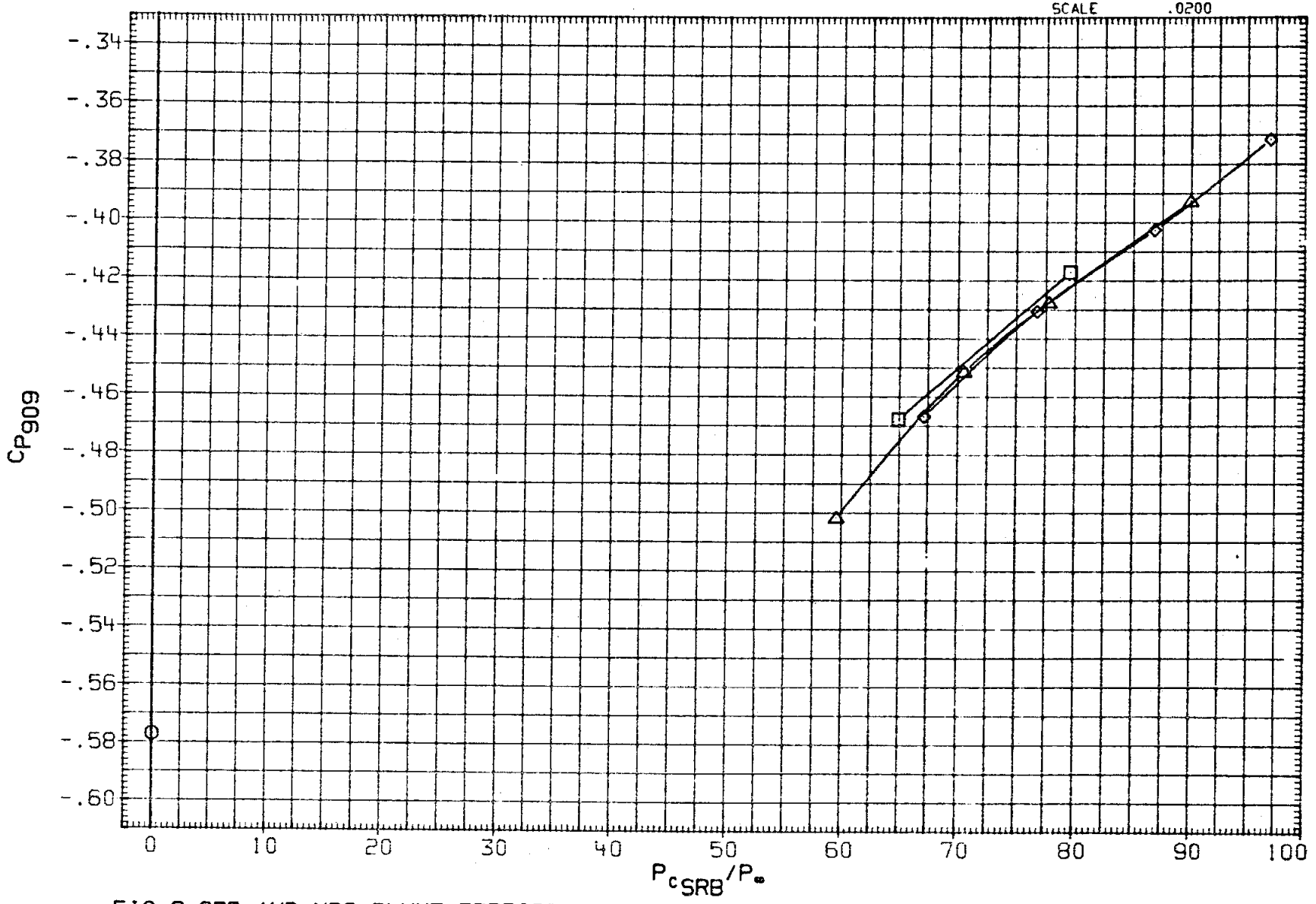

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

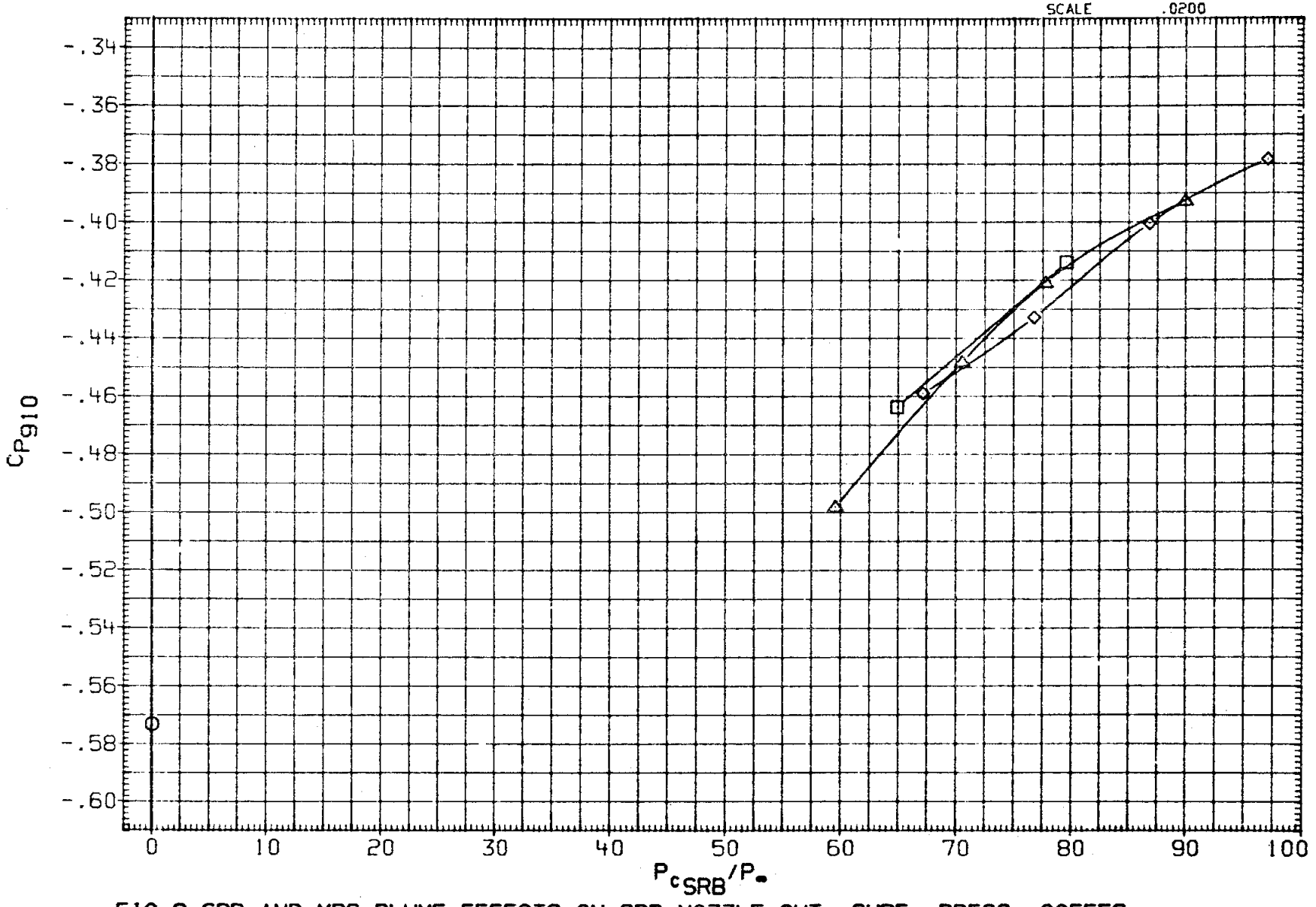

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

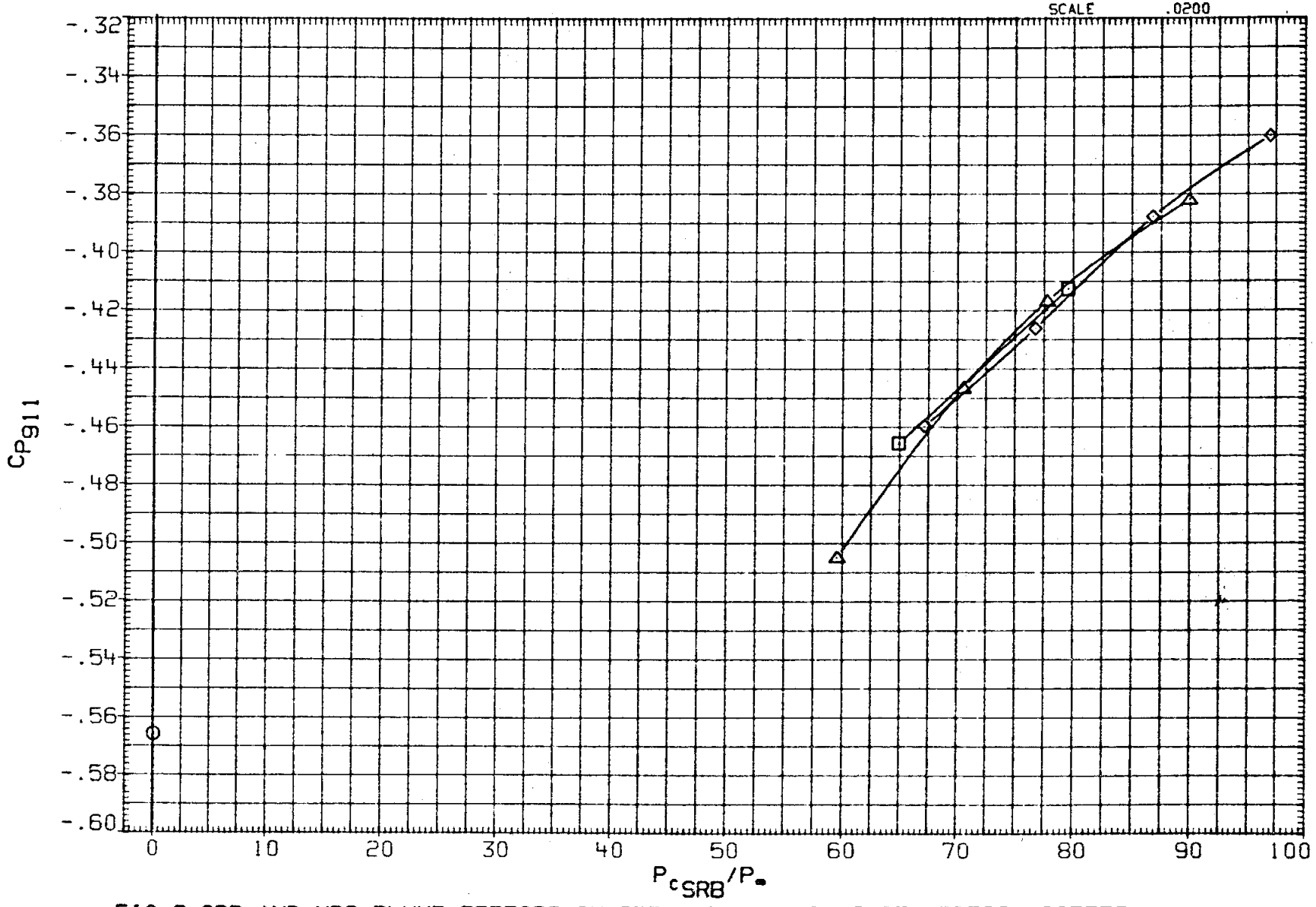

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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SCALE	.0200	

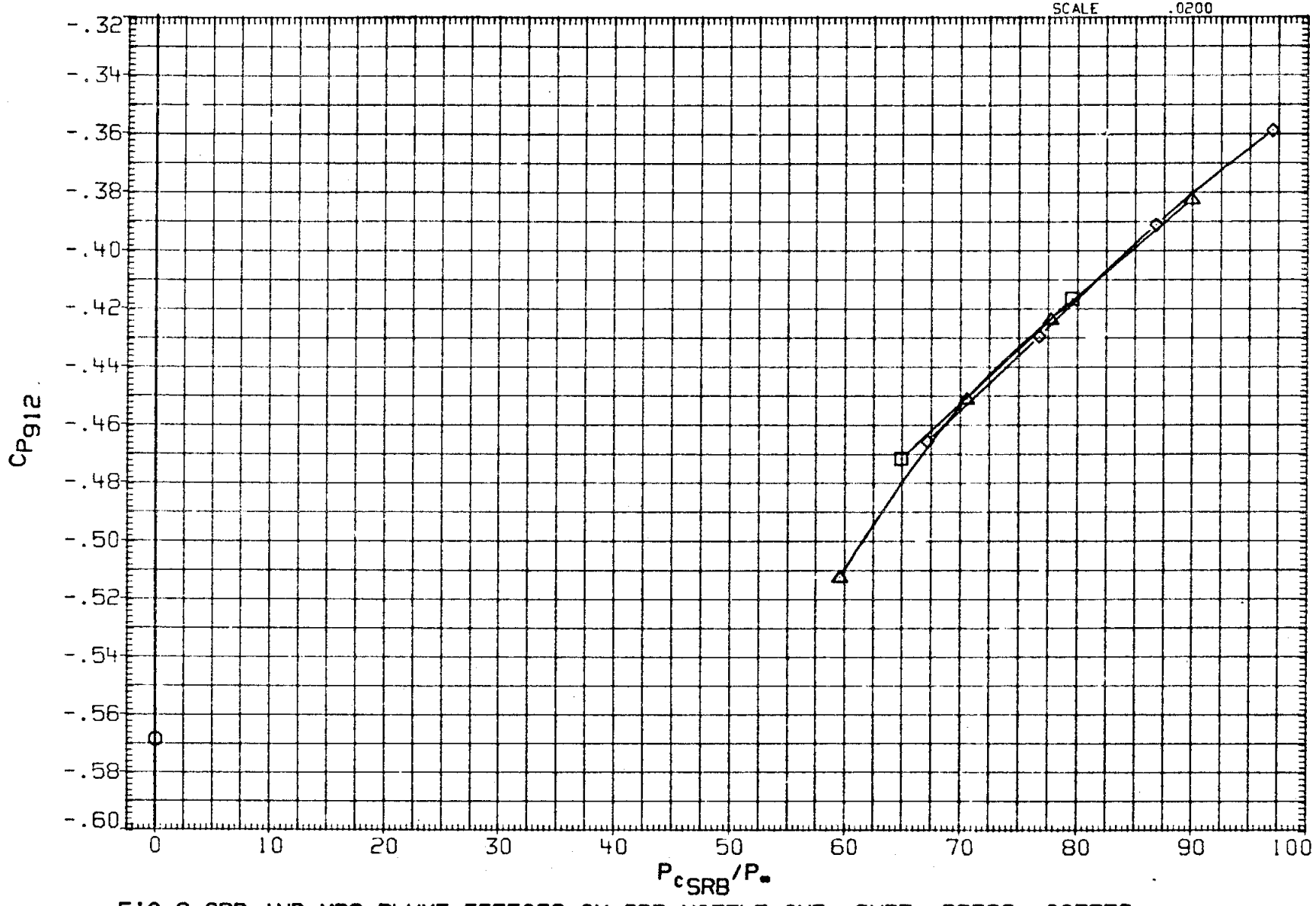

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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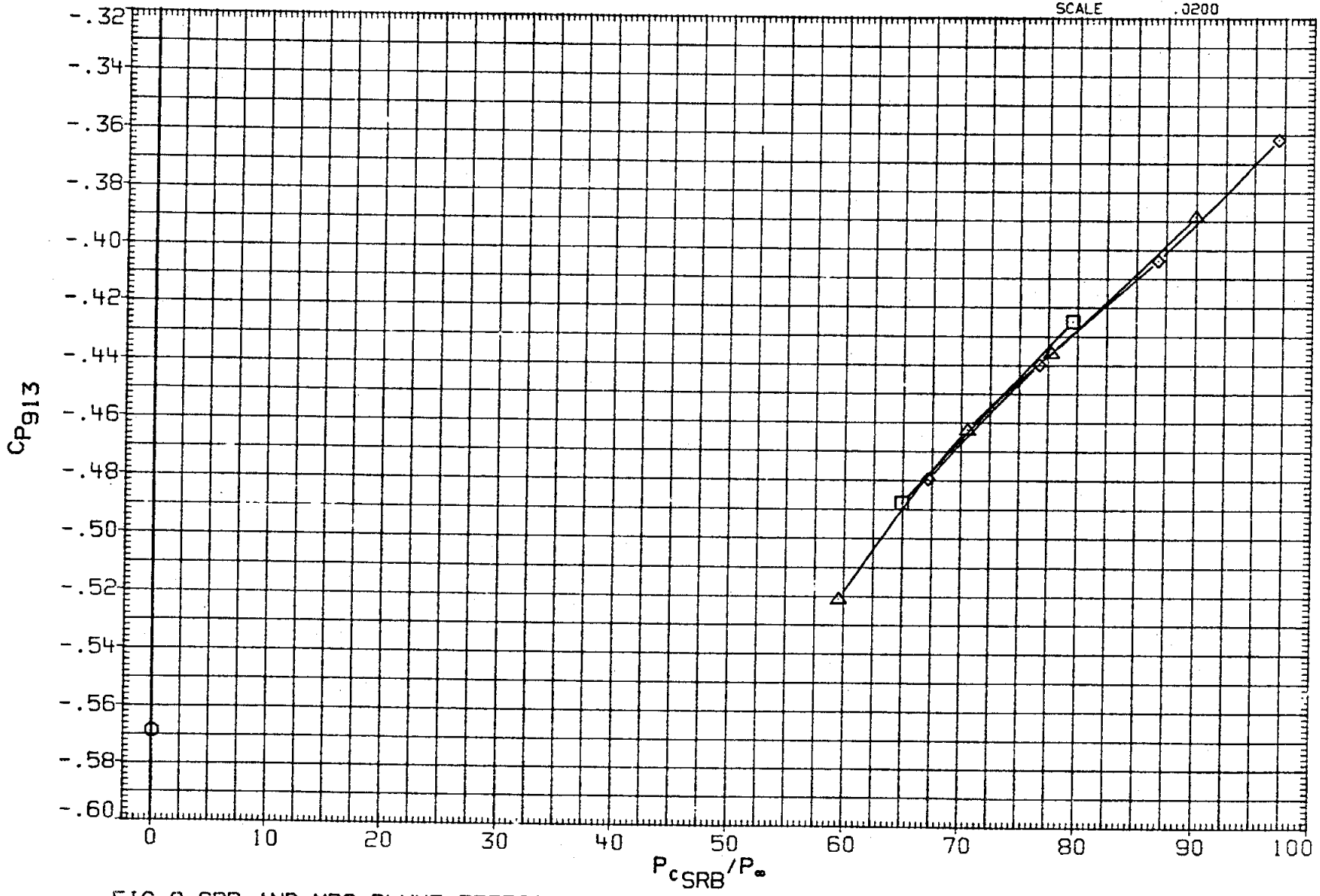

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A) MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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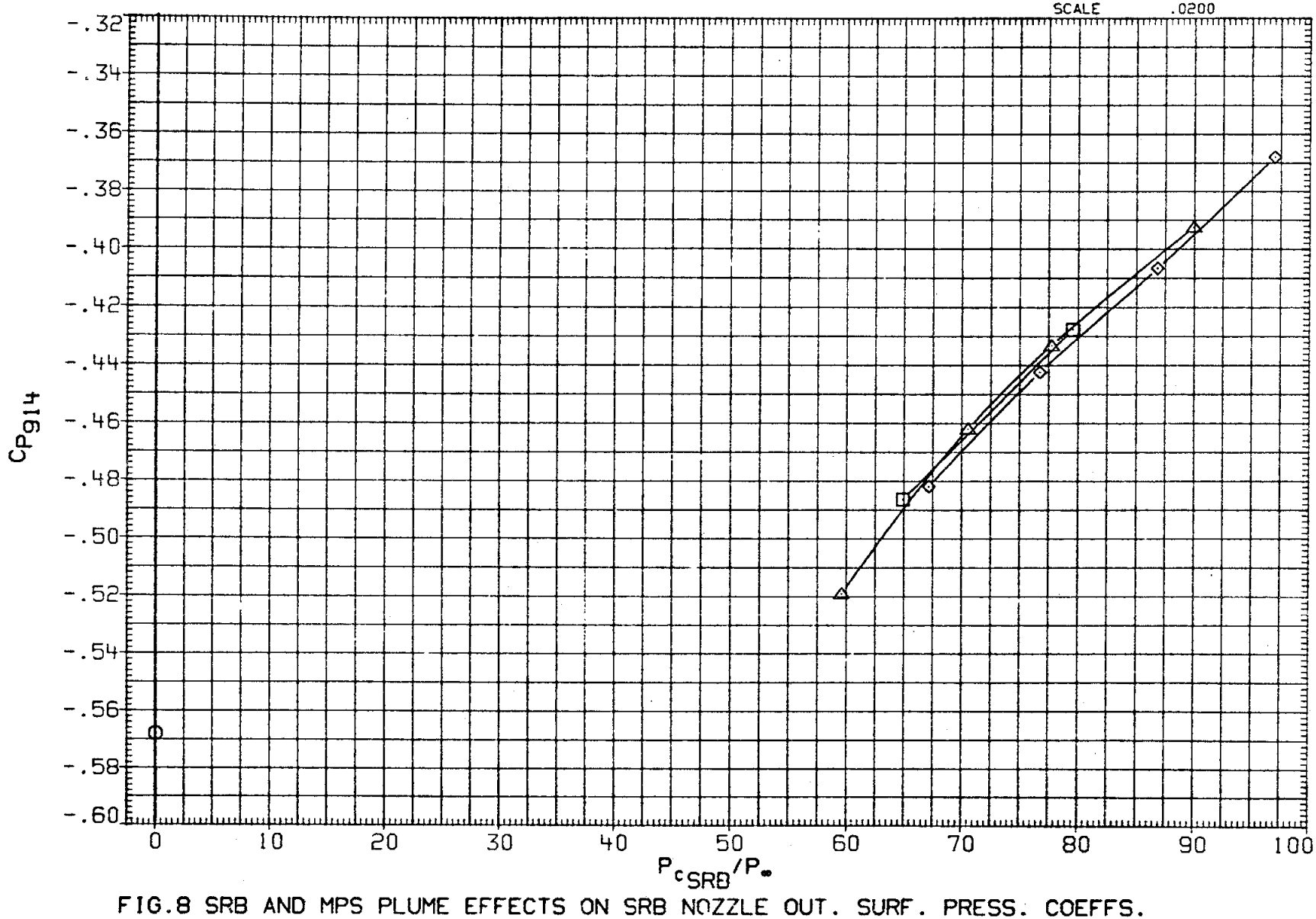

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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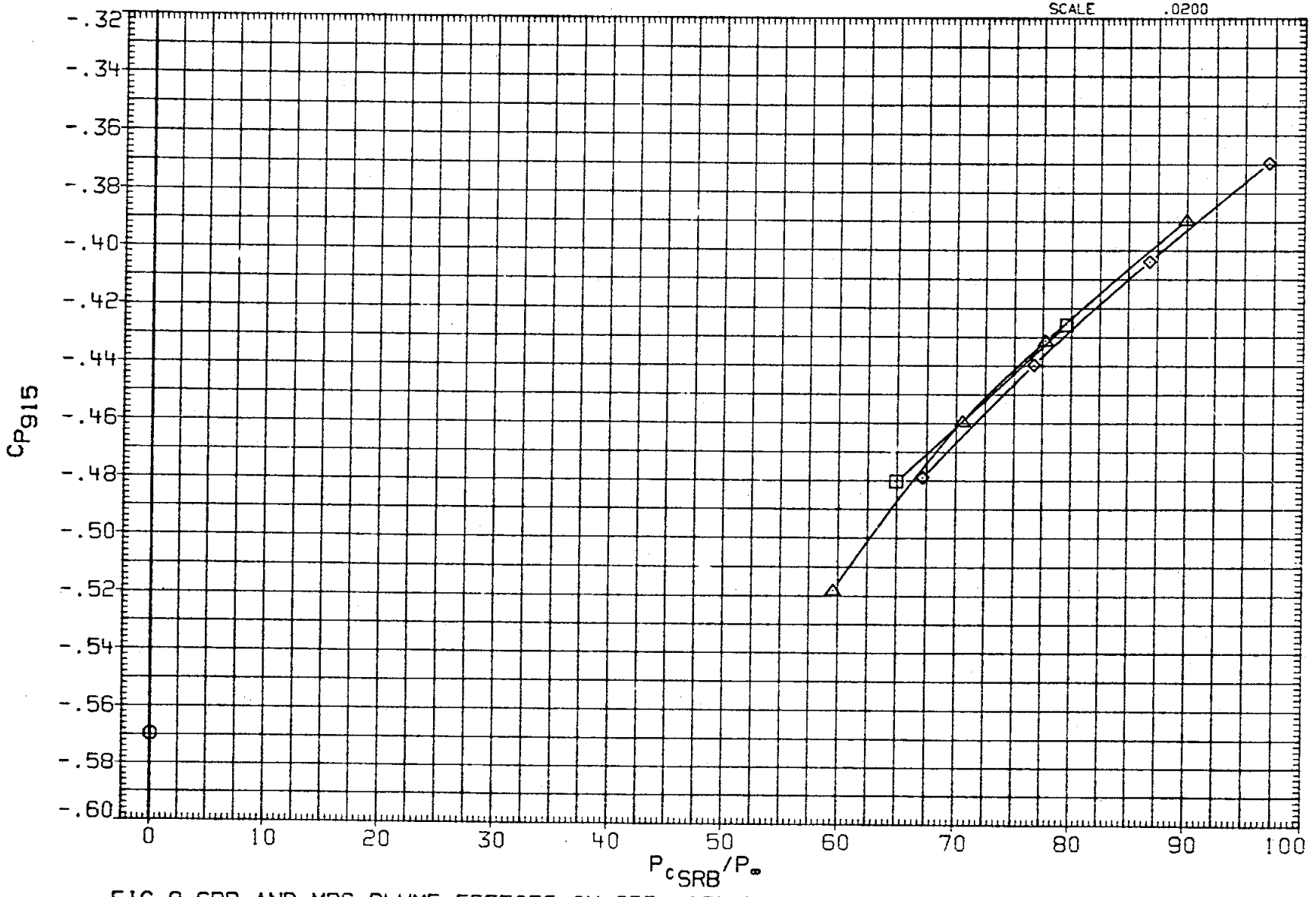

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
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REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

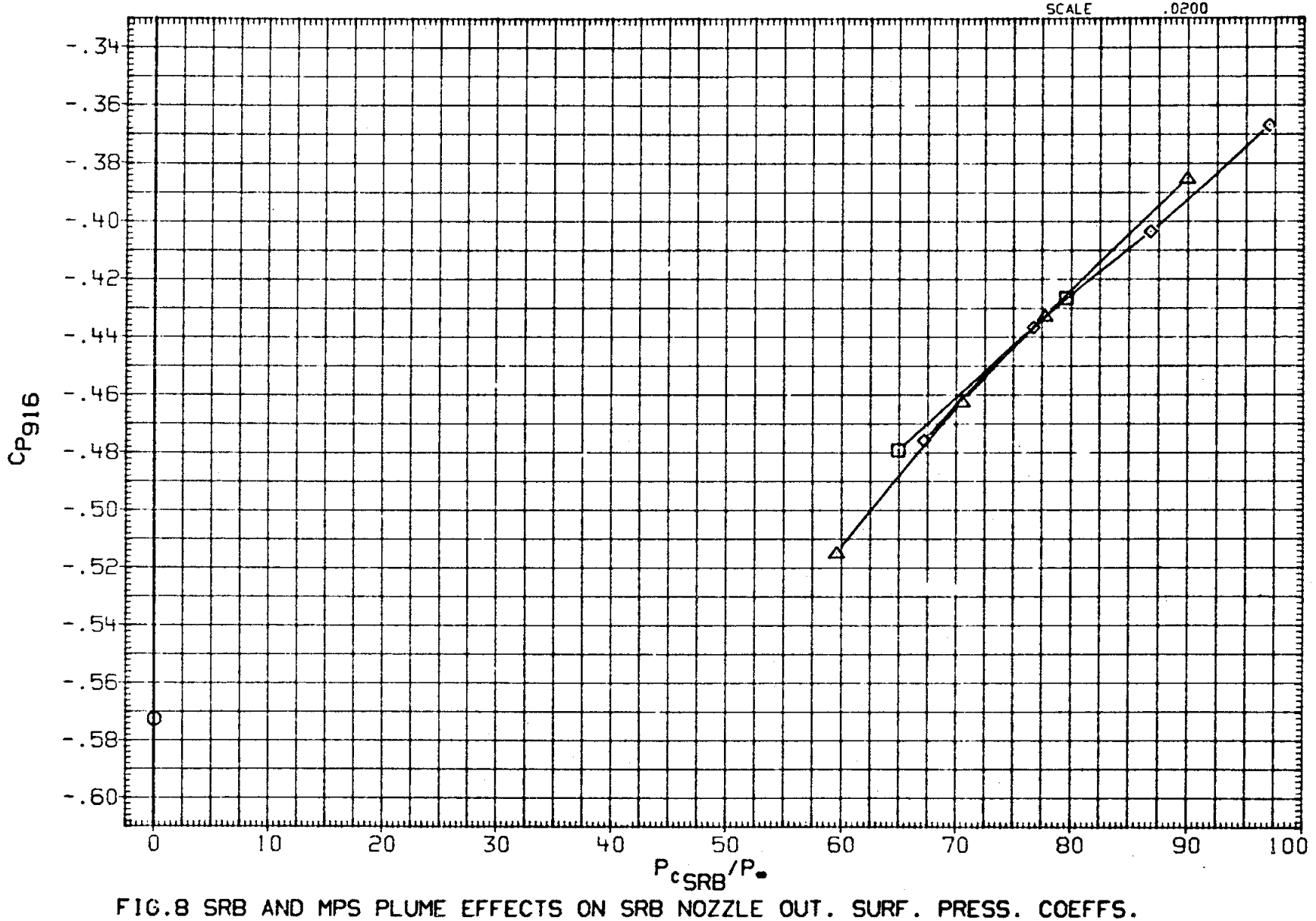

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

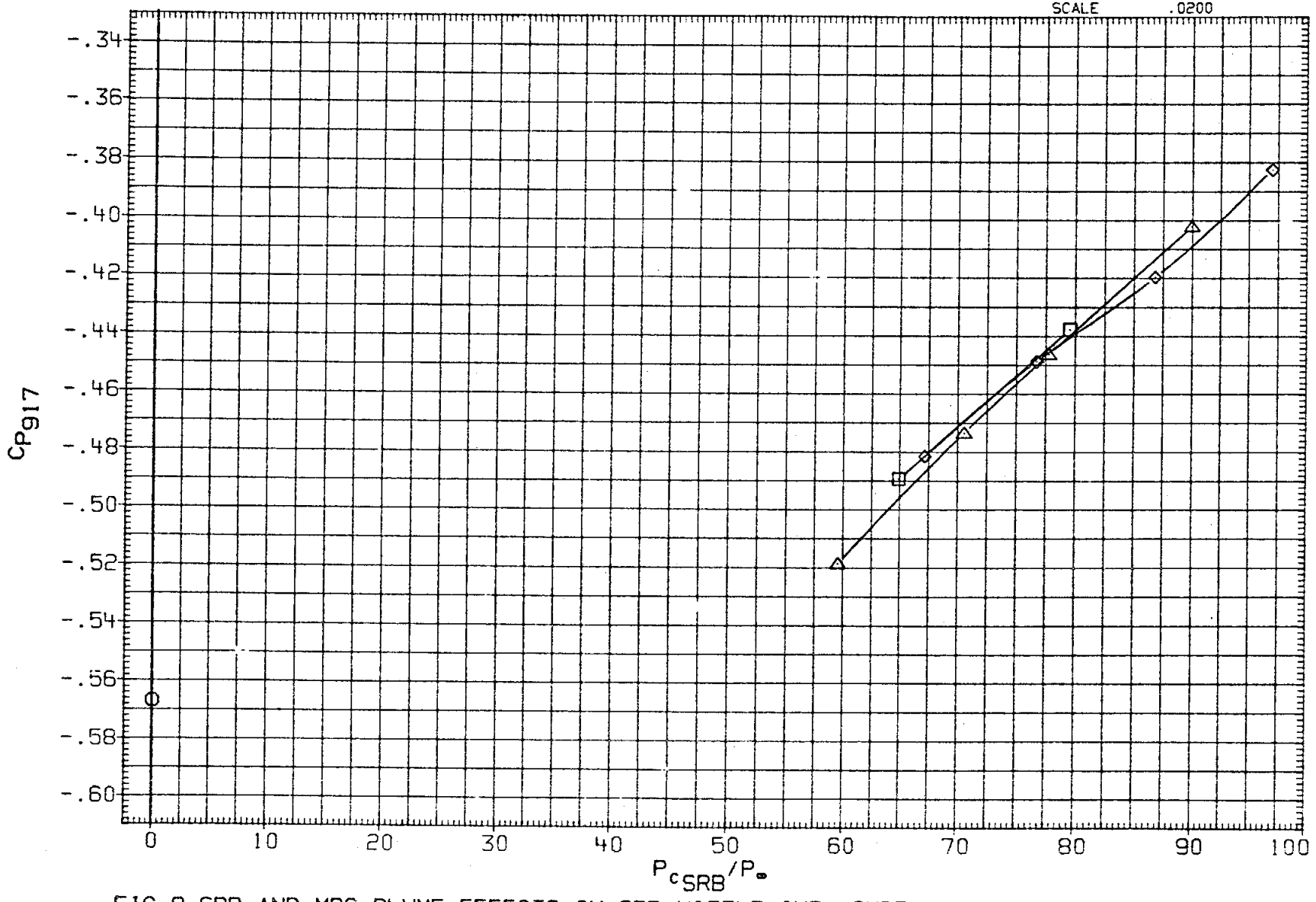

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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SCALE	.0200	

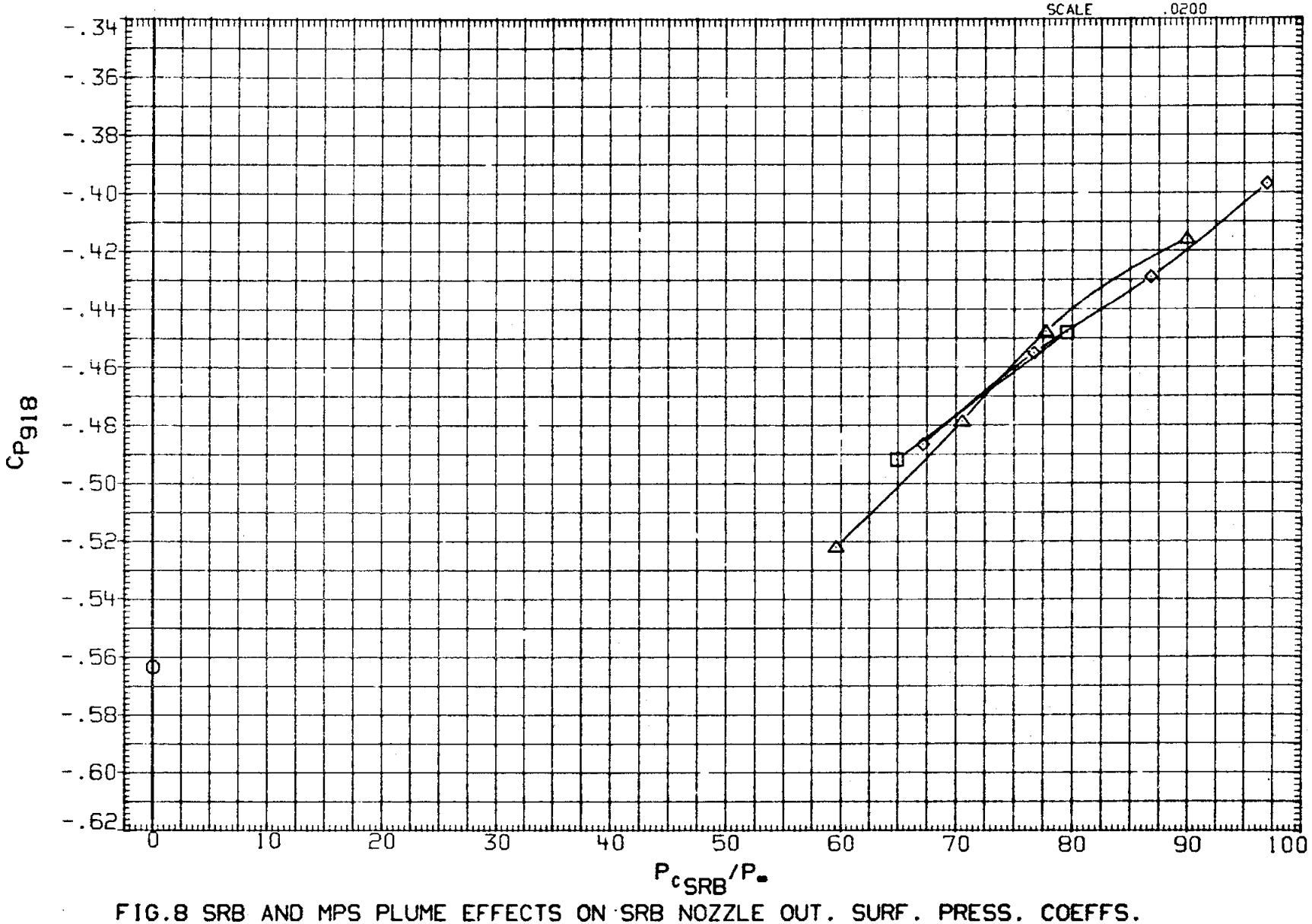

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-1B	ELV-0B
XNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

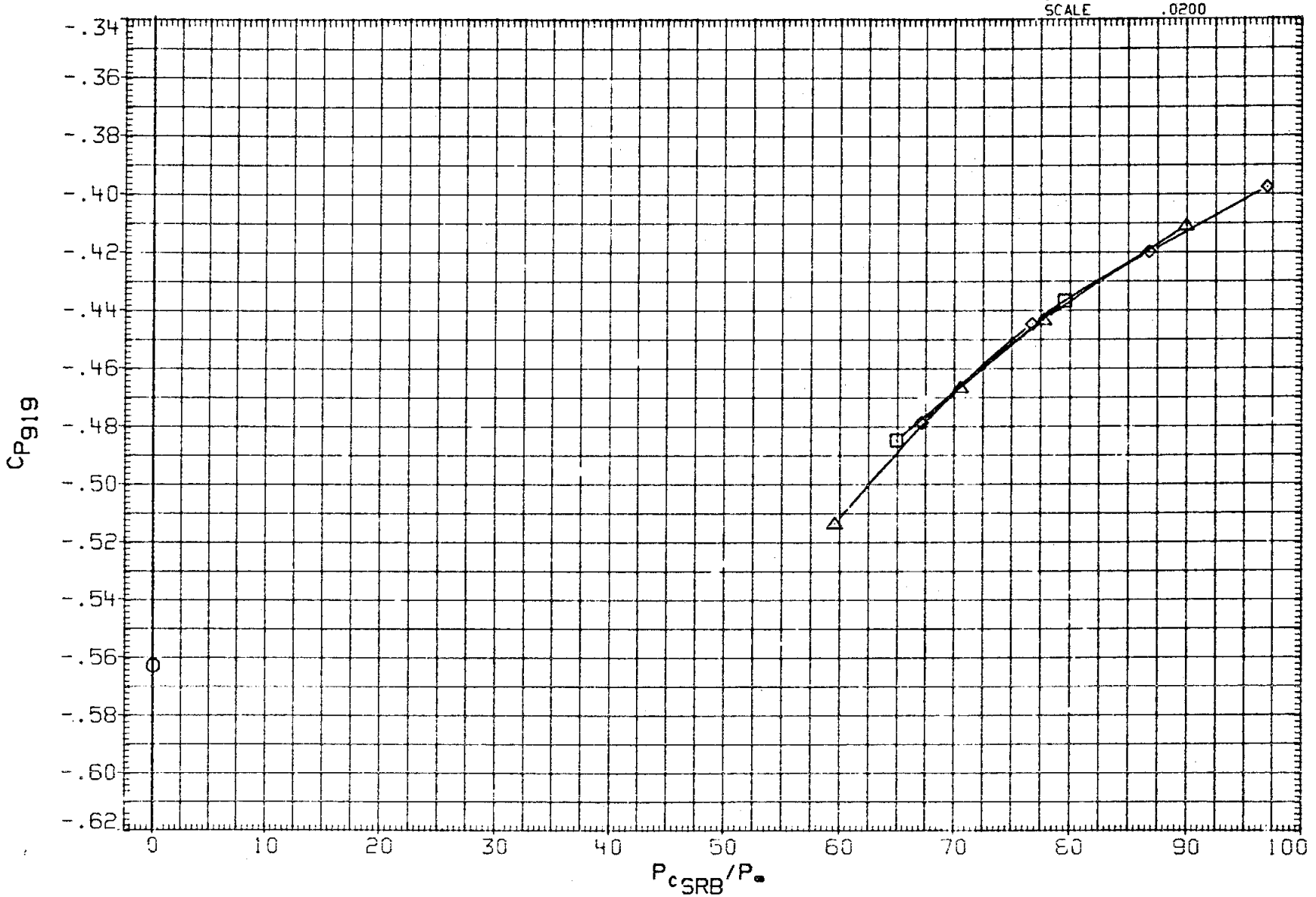

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

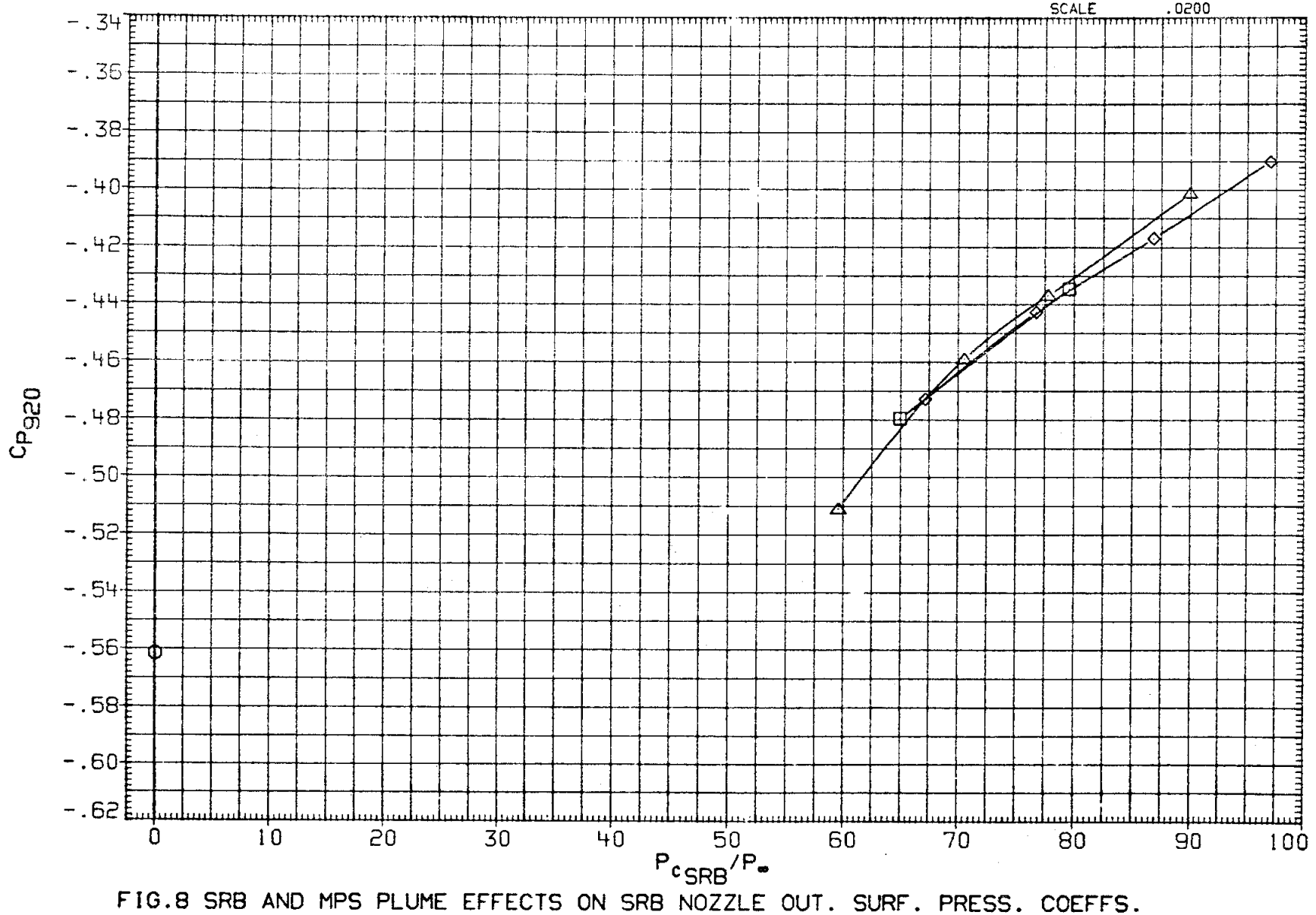

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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BREF	.0000	N.A.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

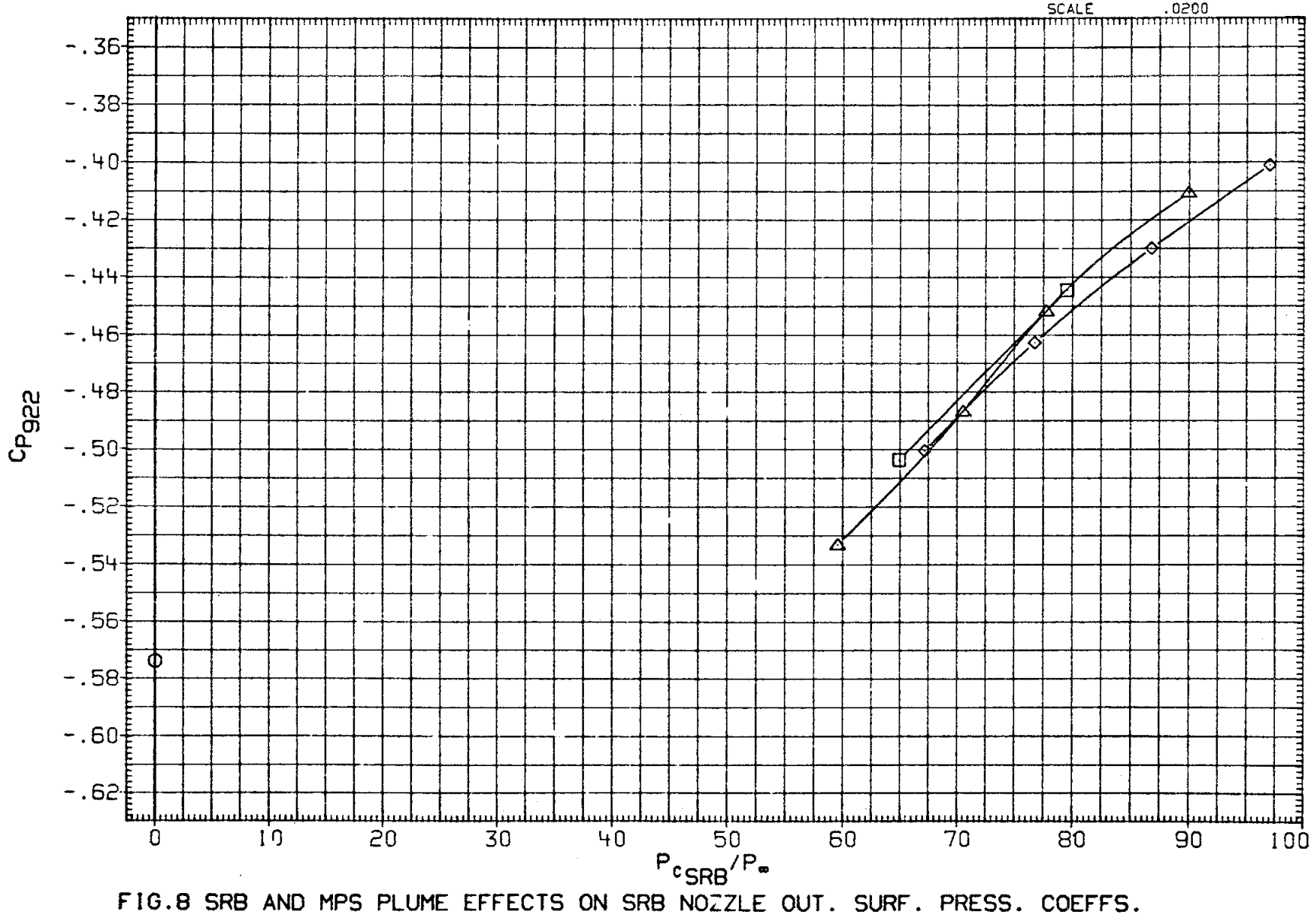

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

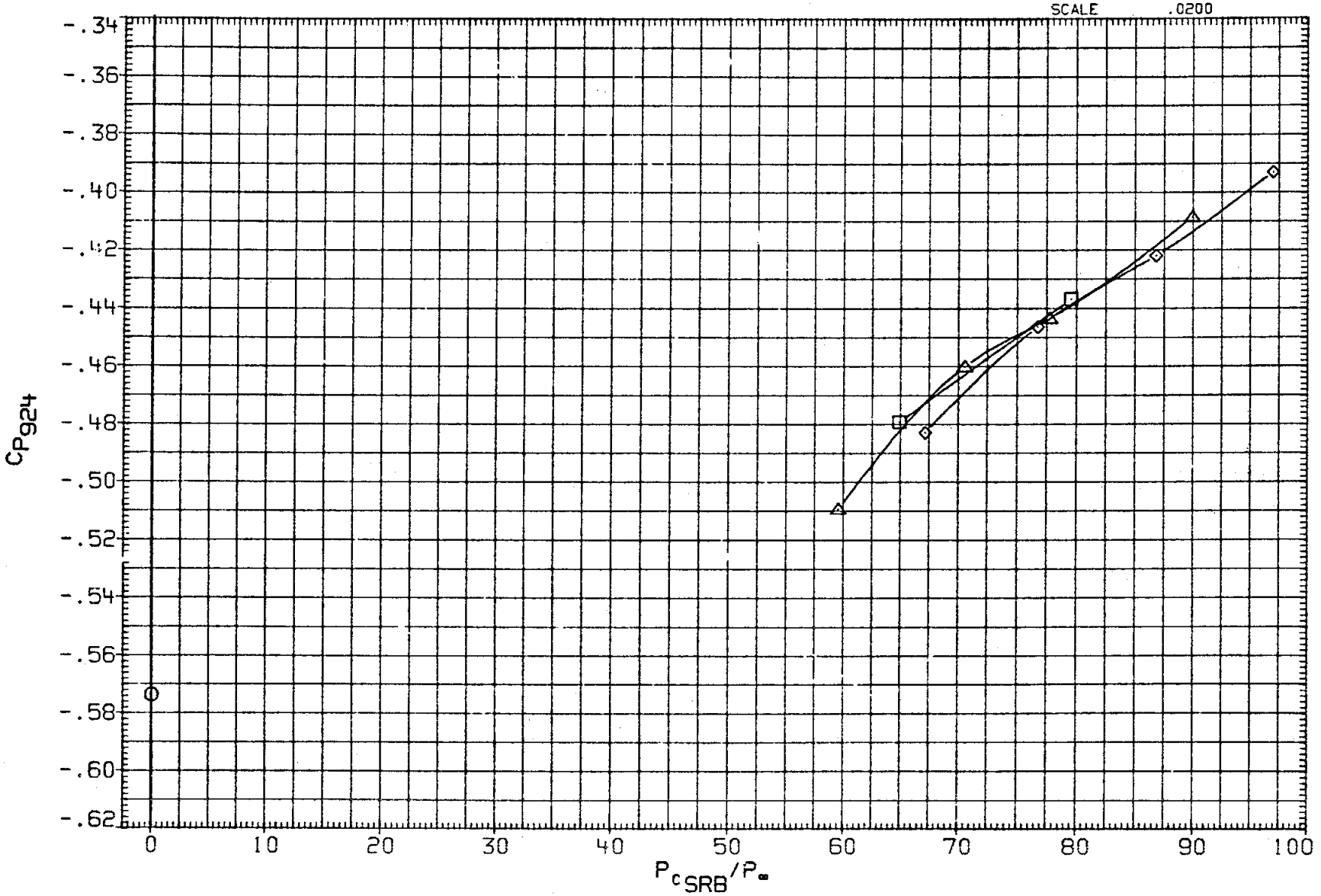

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

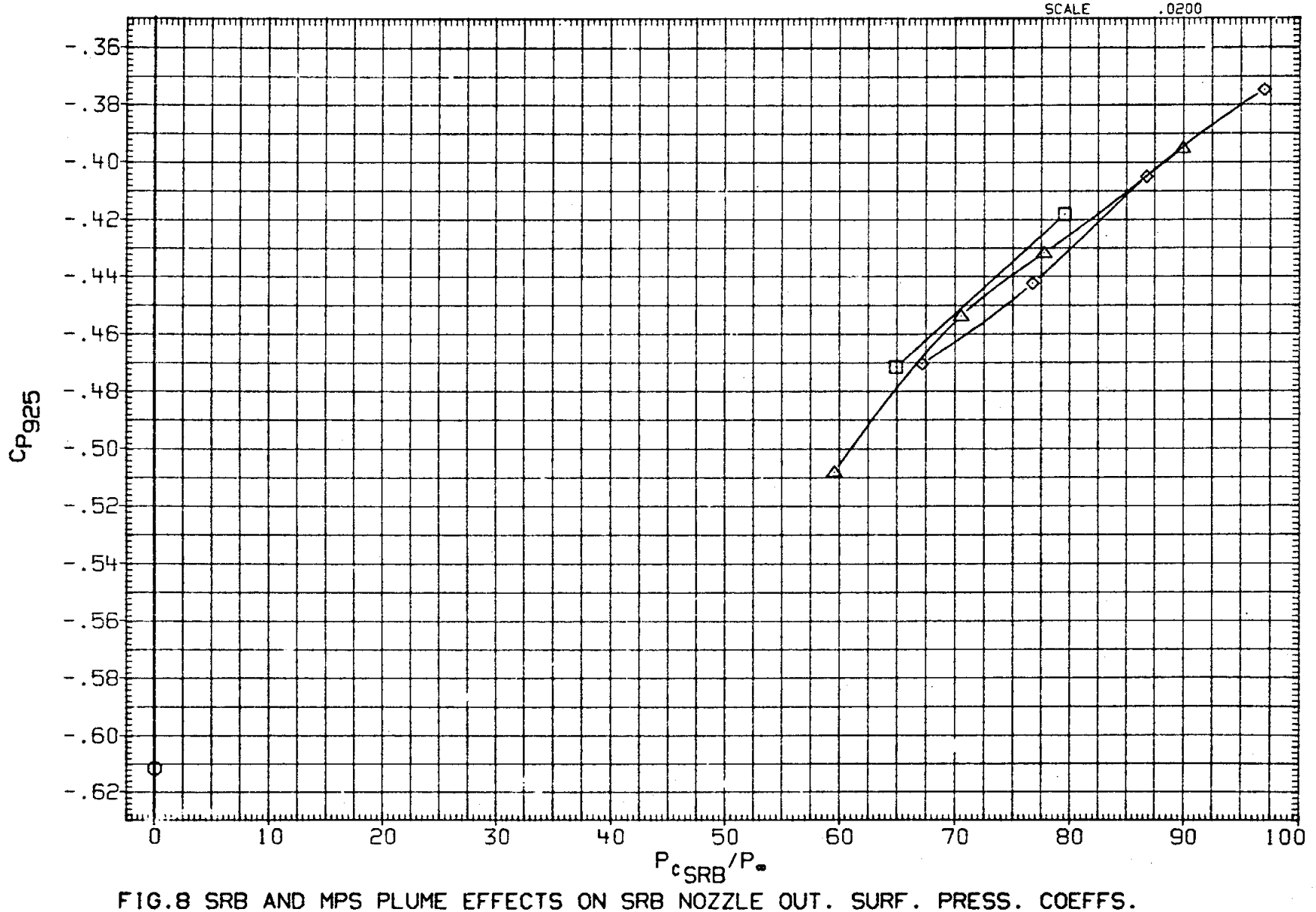

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

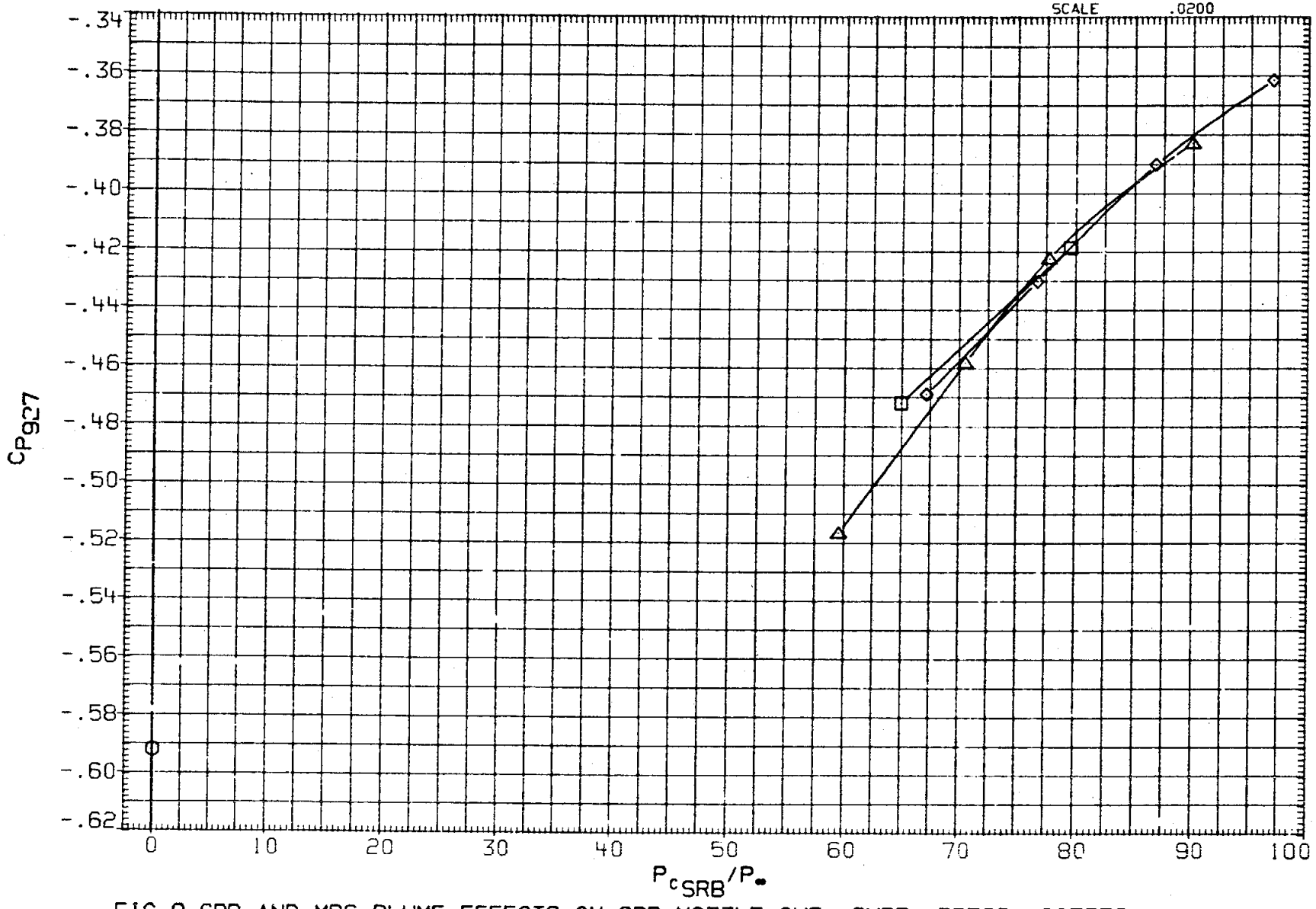

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

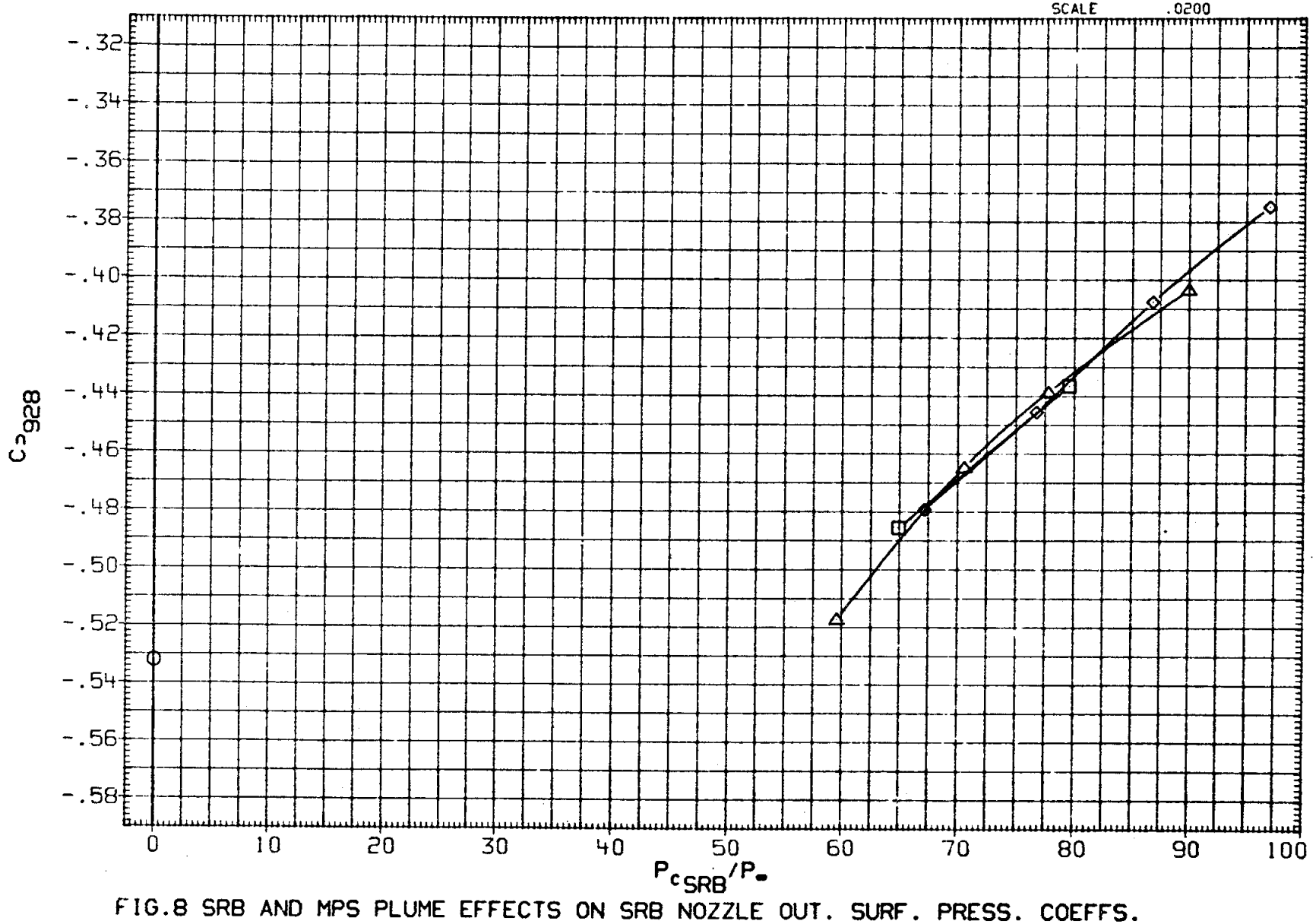

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

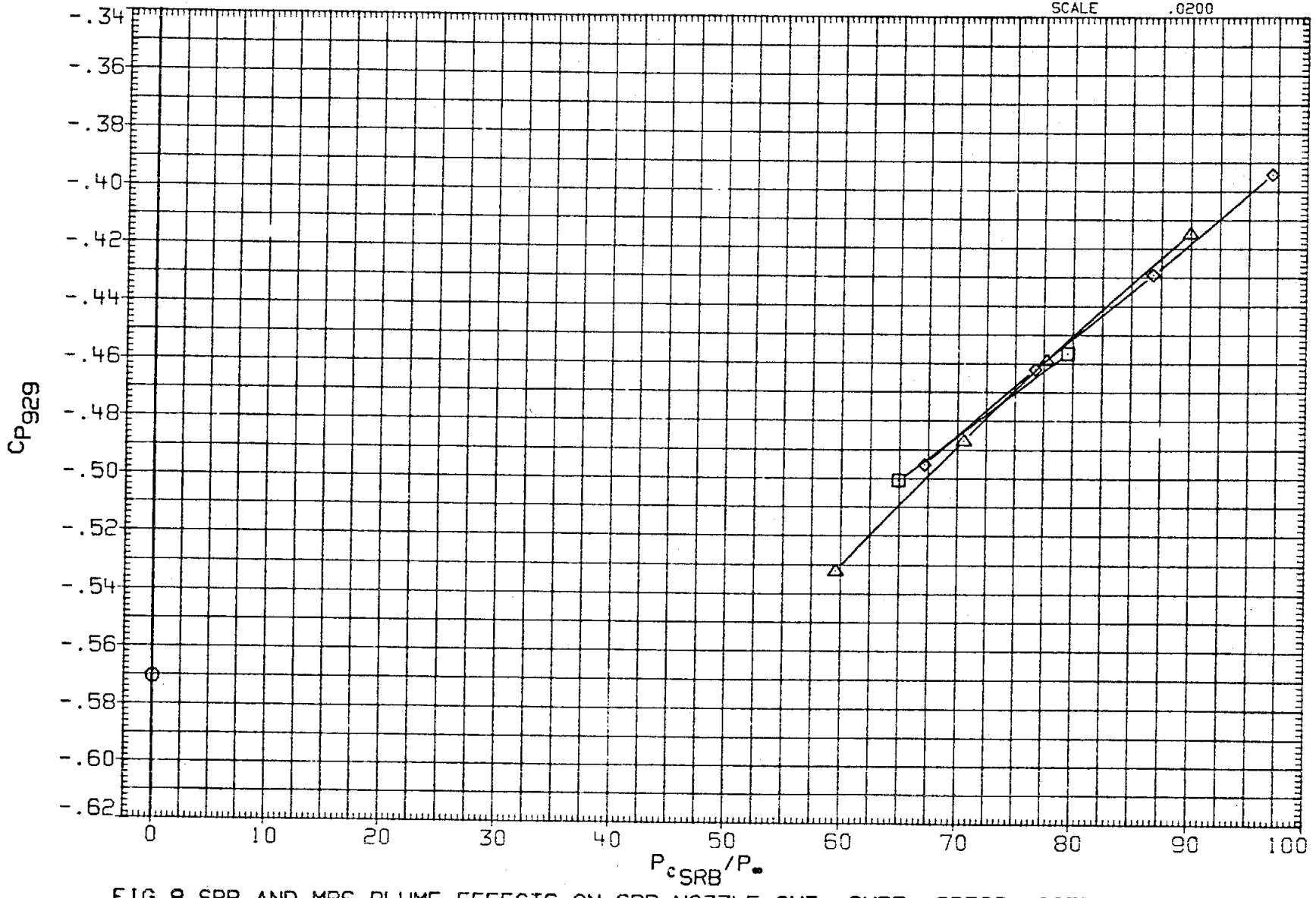

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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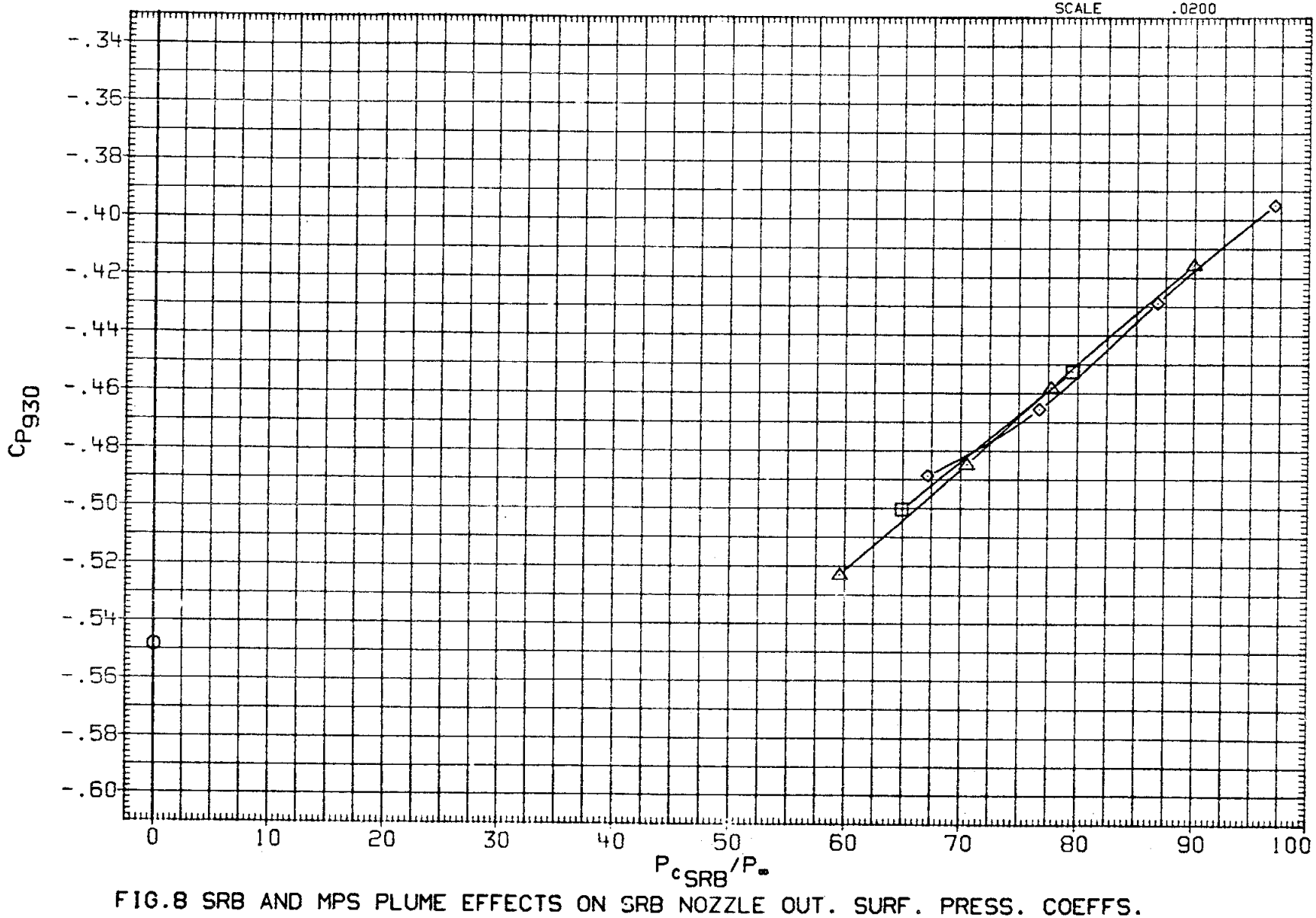

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

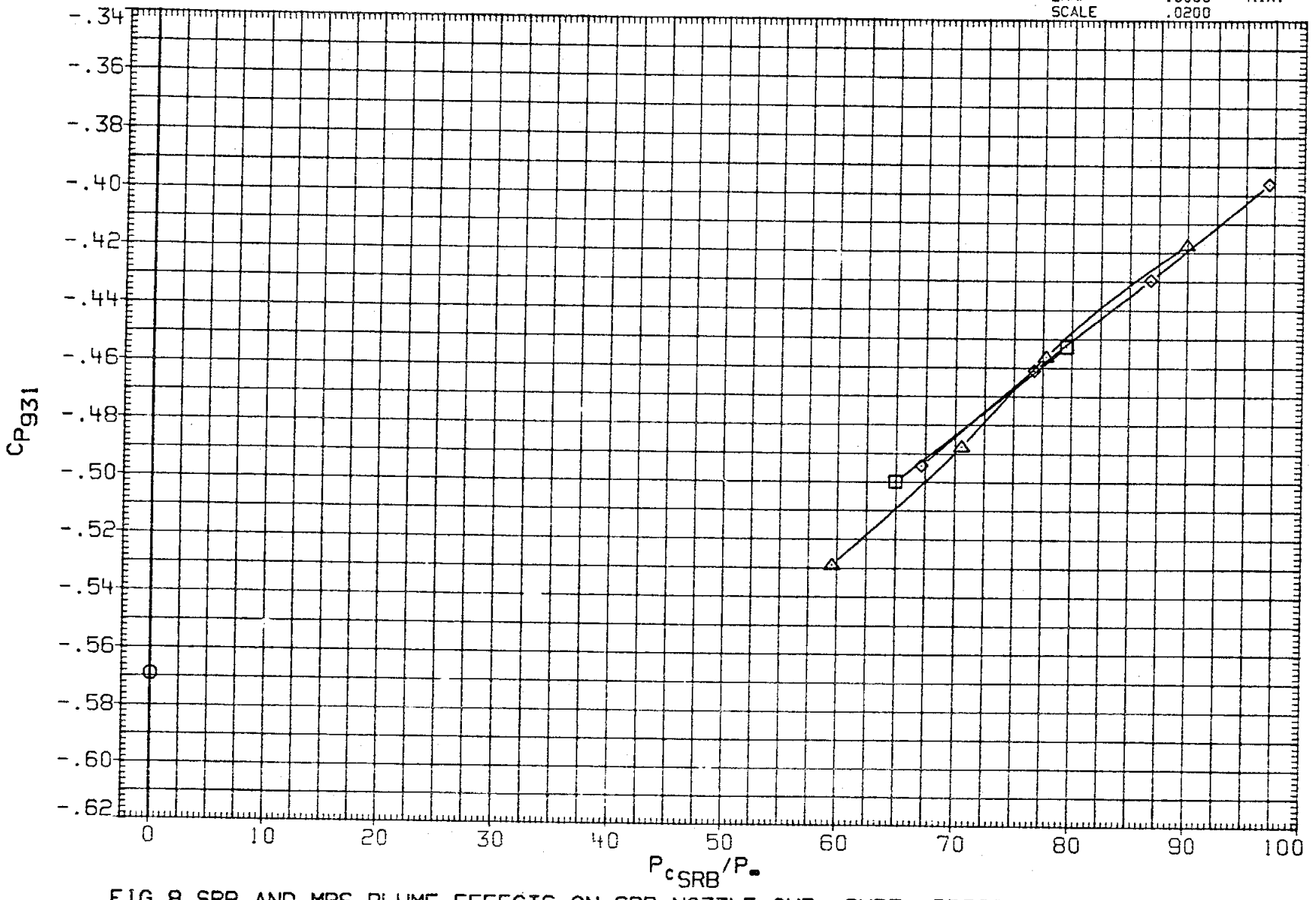

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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SCALE	.0200	

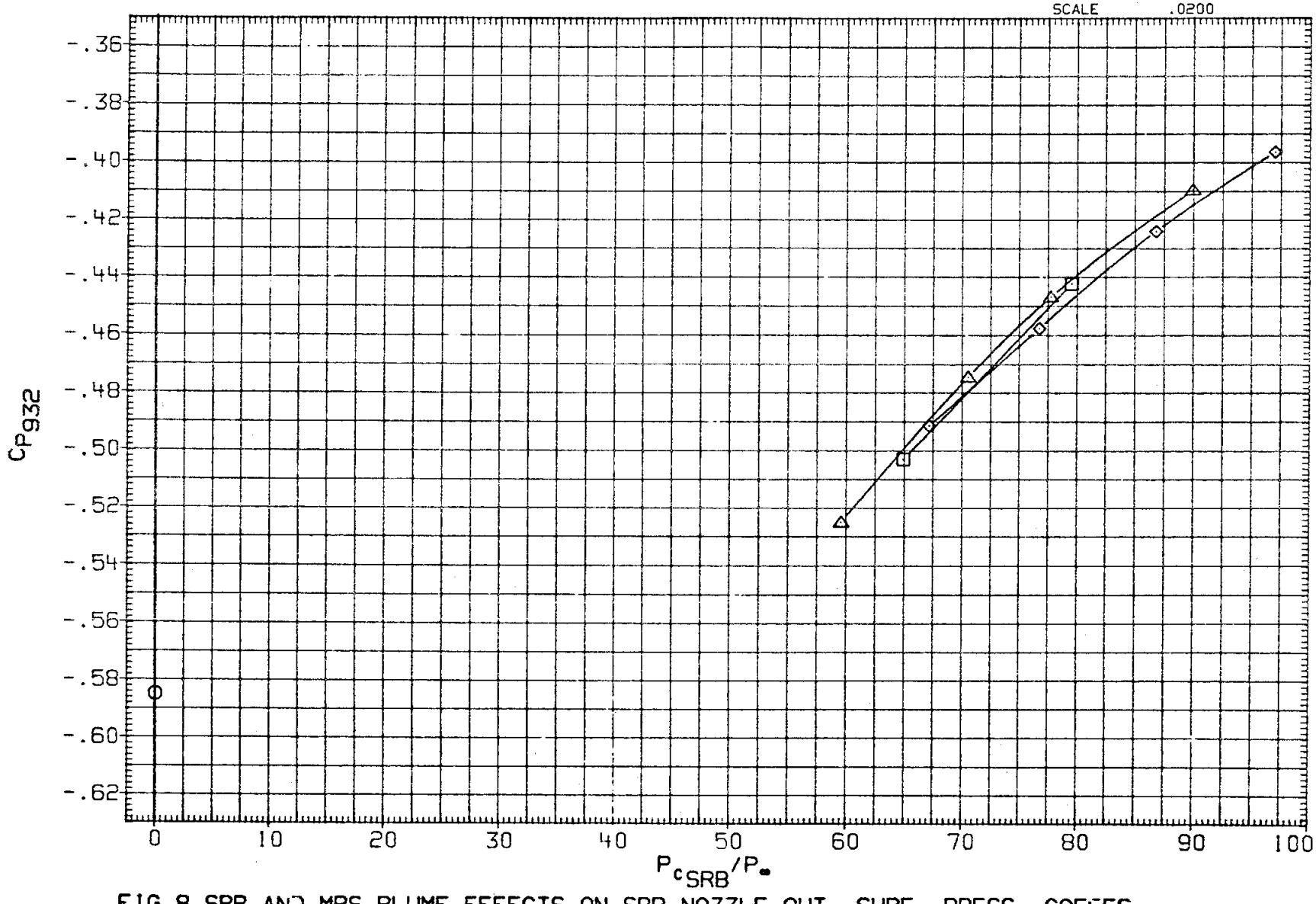

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	G.MBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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SCALE	.0200	

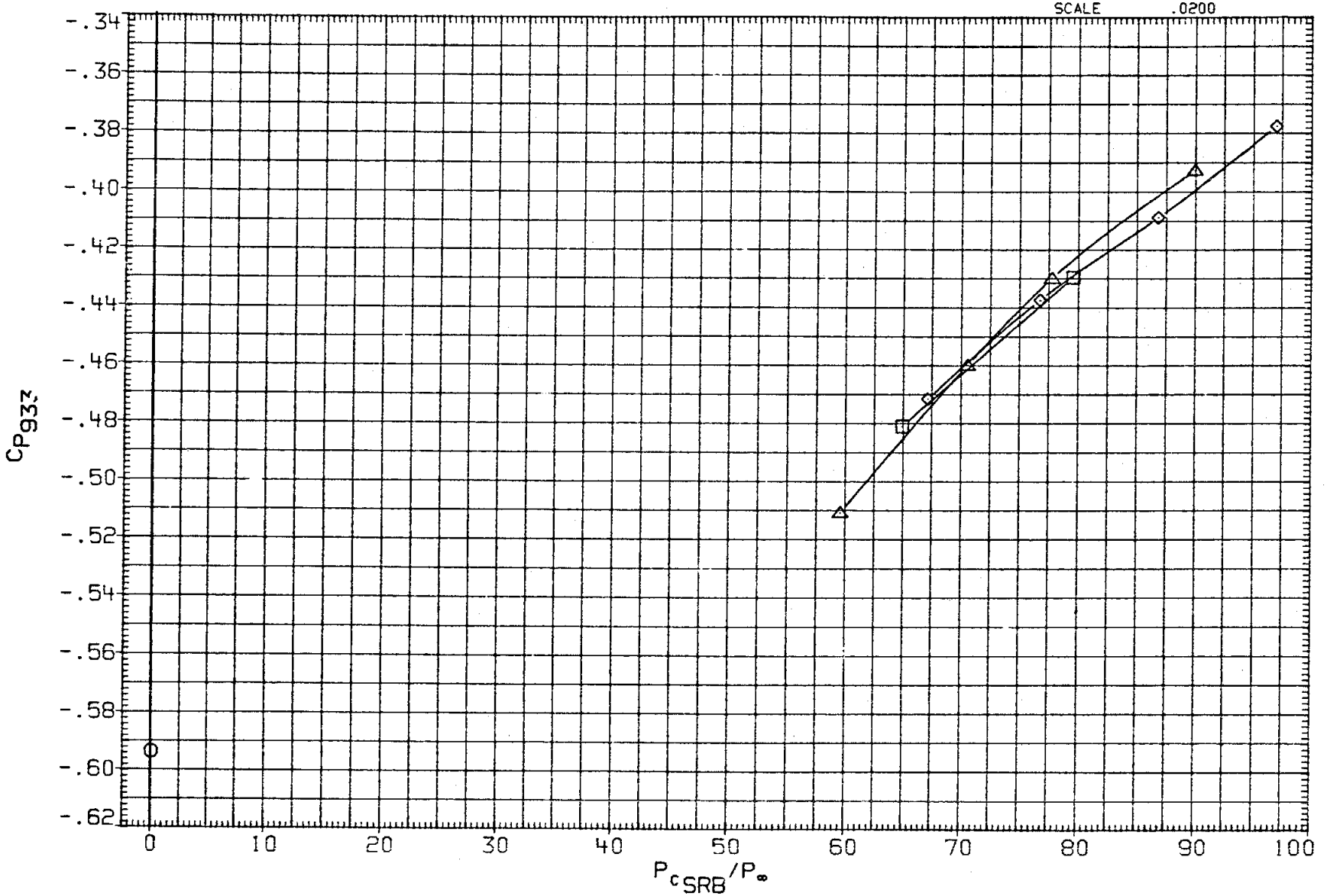

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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BREF	.0000	N.A.
XMRP	.0000	N.A.
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ZMRP	.0000	N.A.
SCALE	.0200	

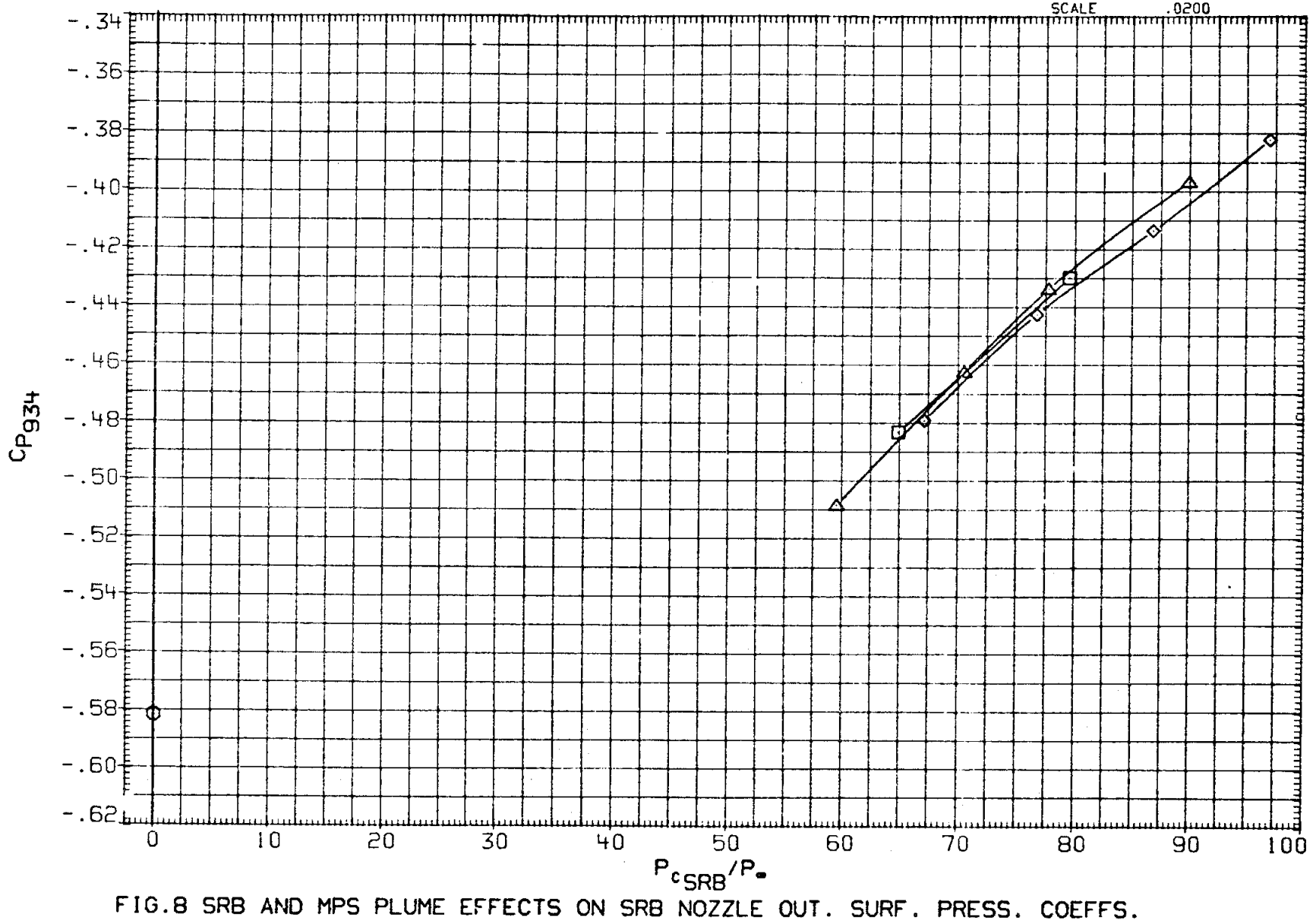

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

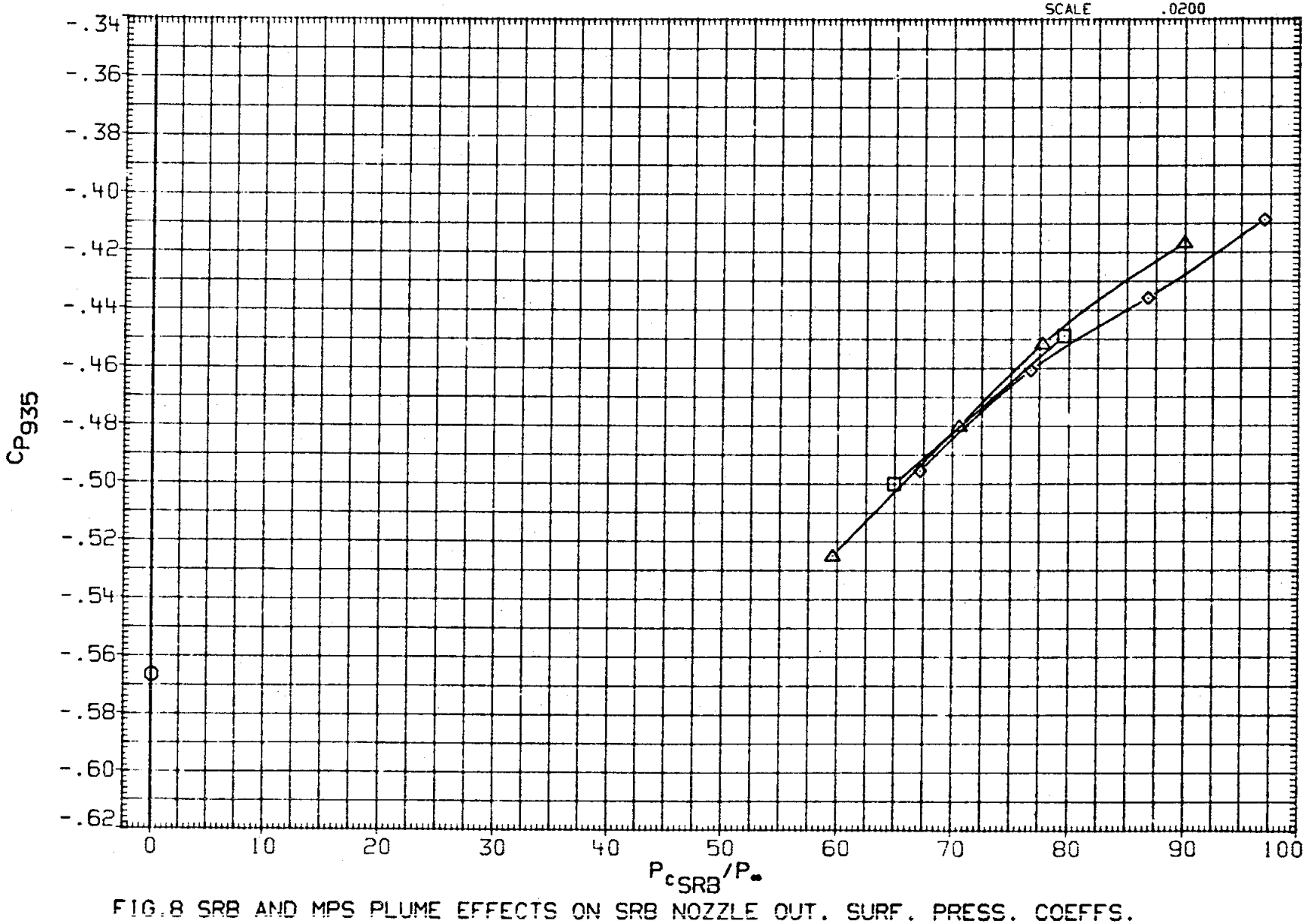

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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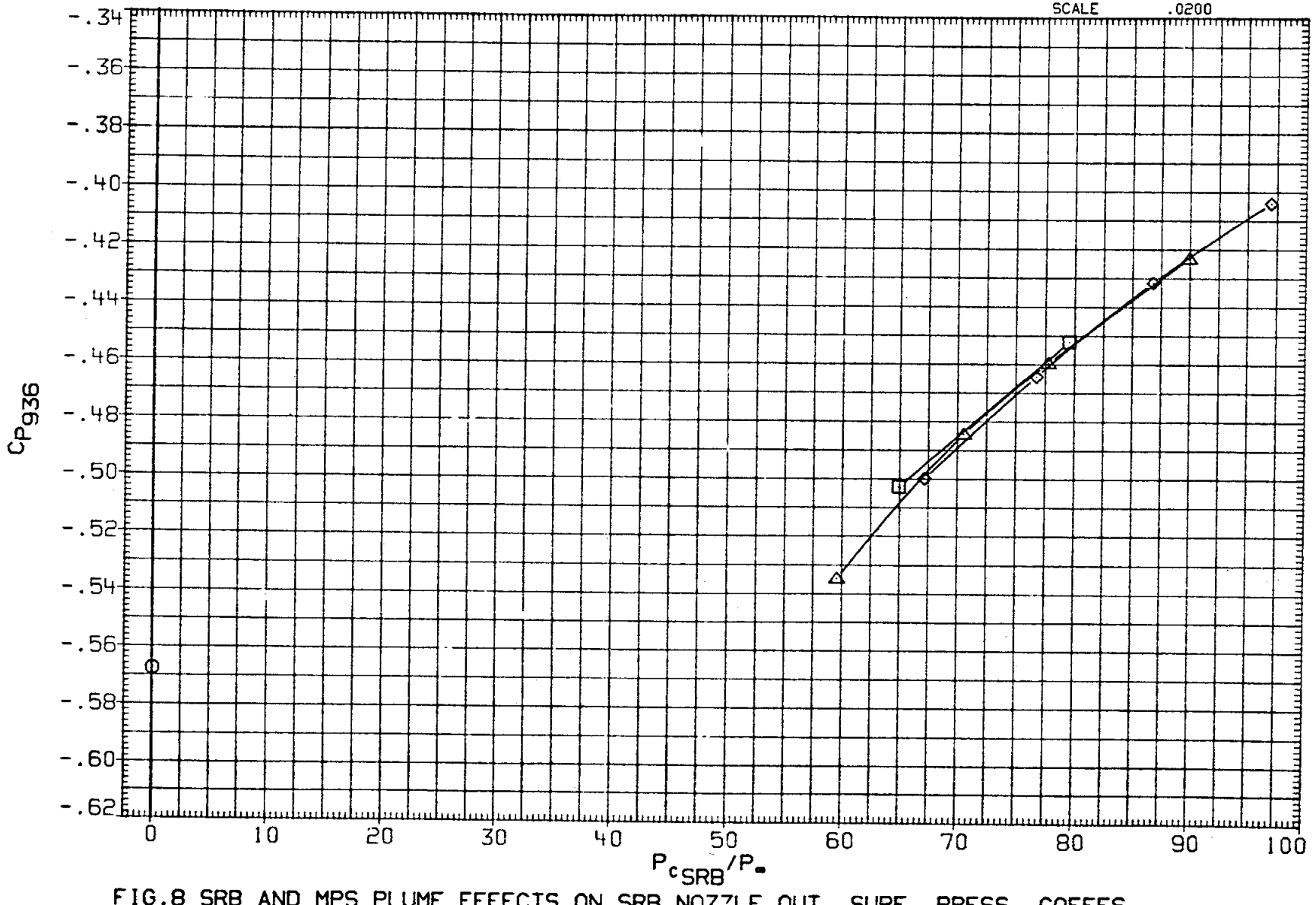

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

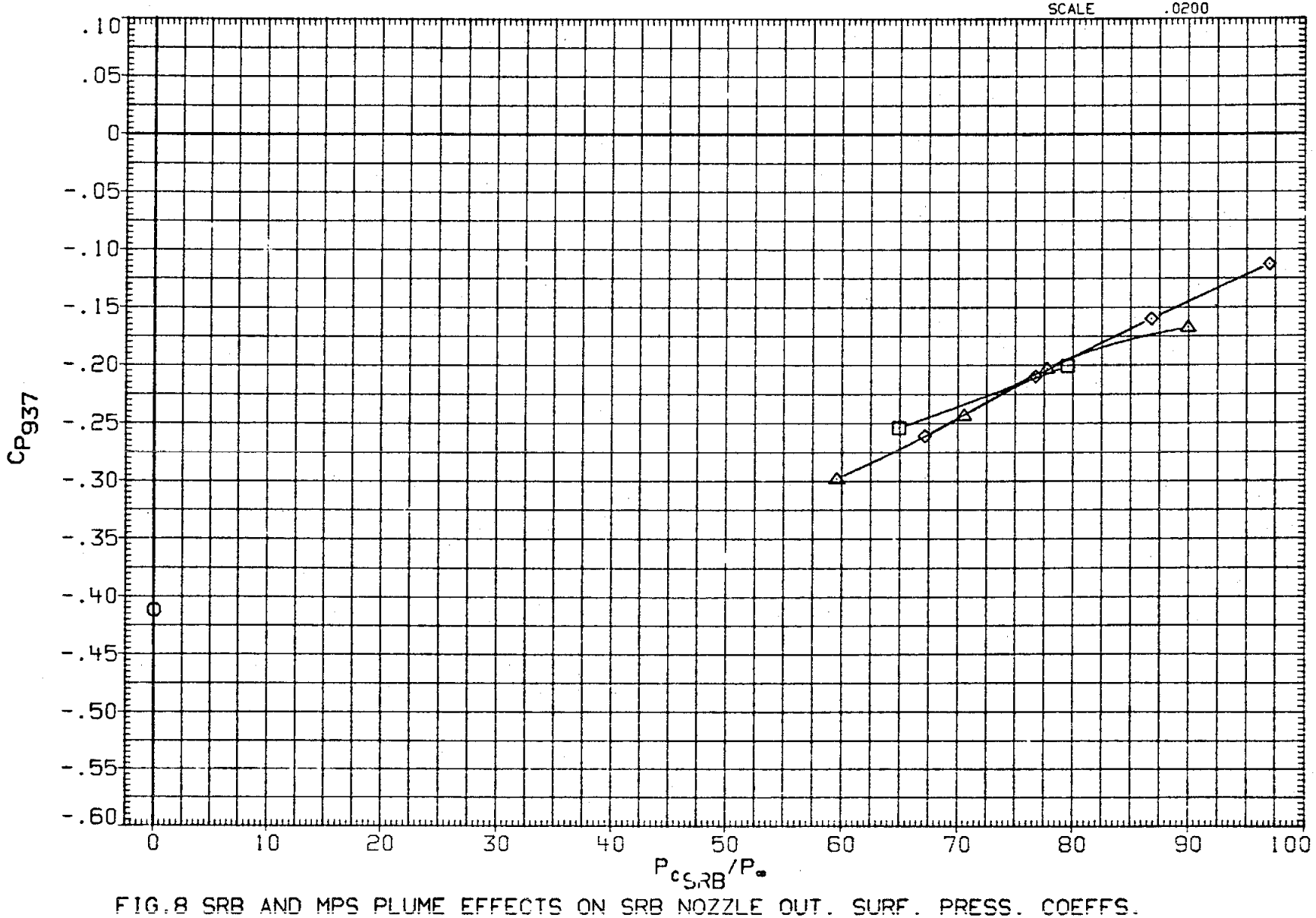

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

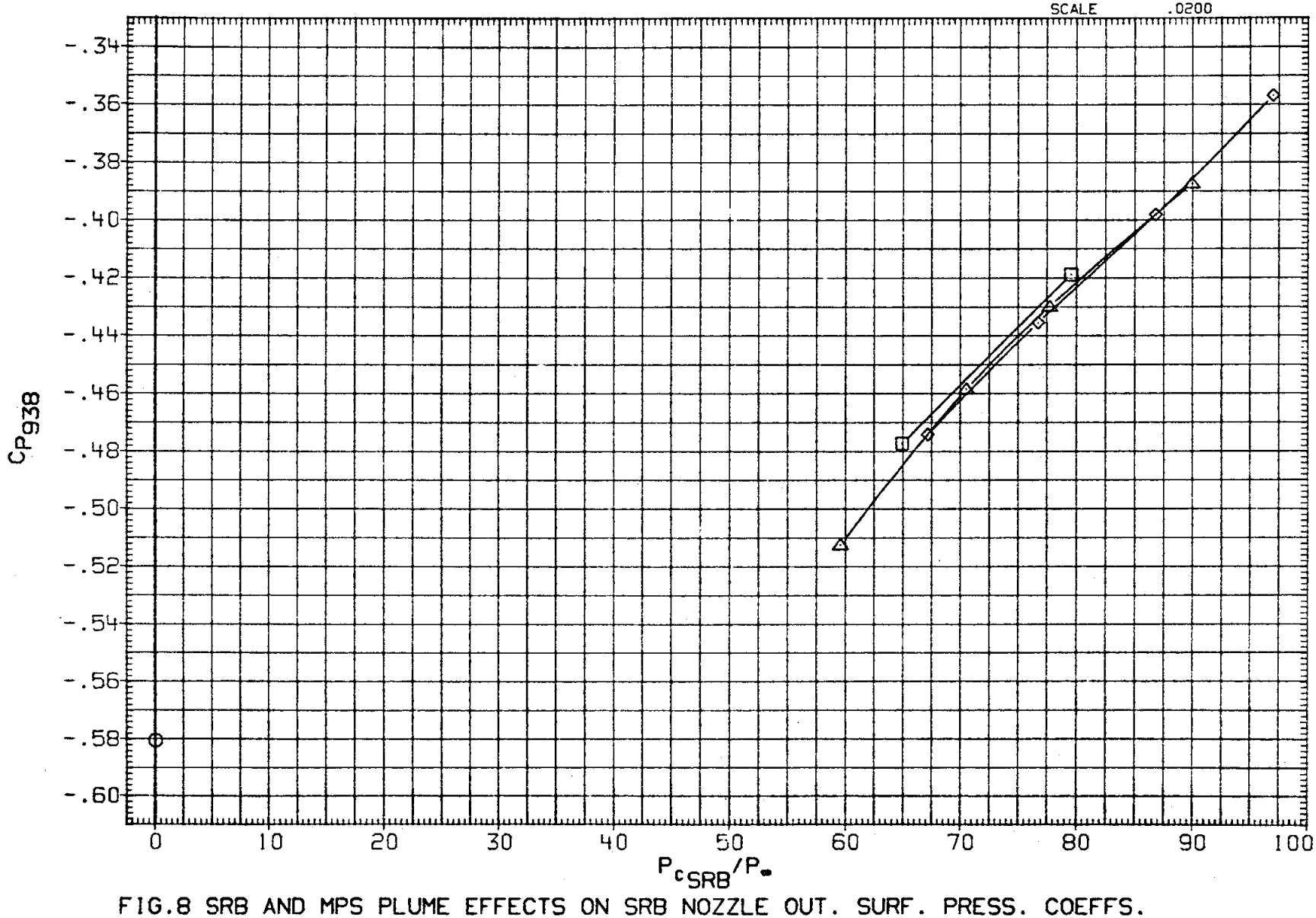

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

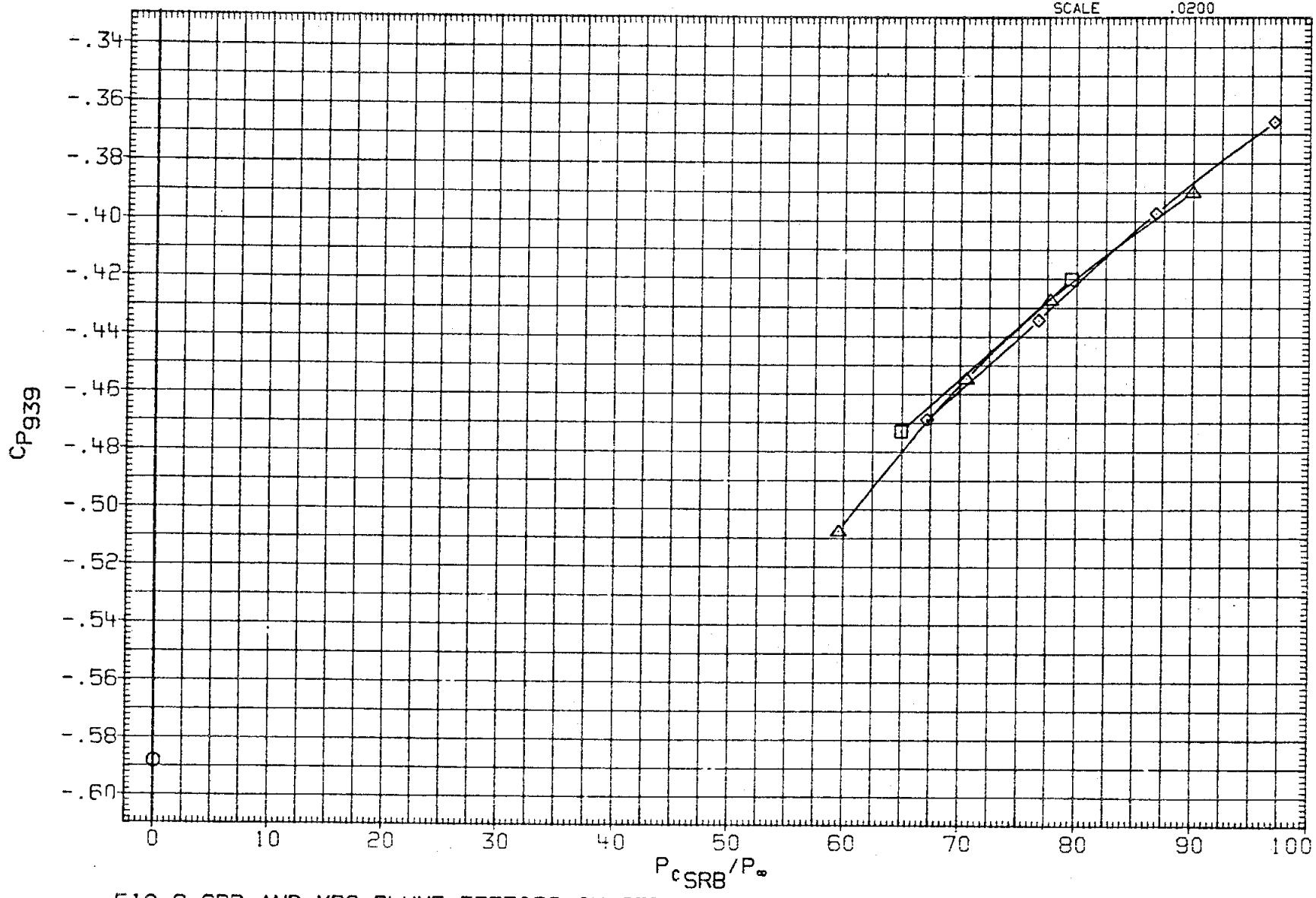

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA15	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA16	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA17	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA18	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

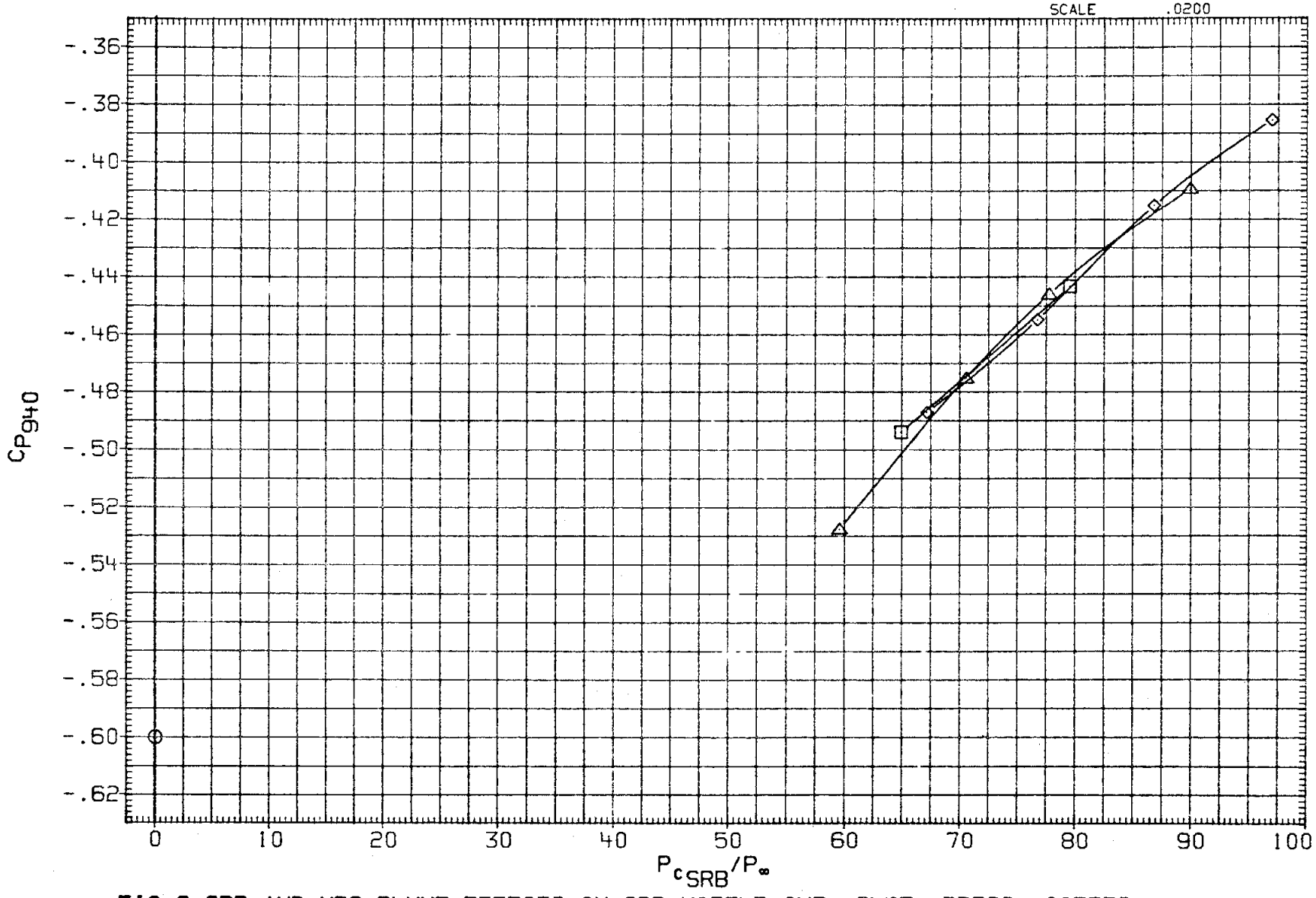

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

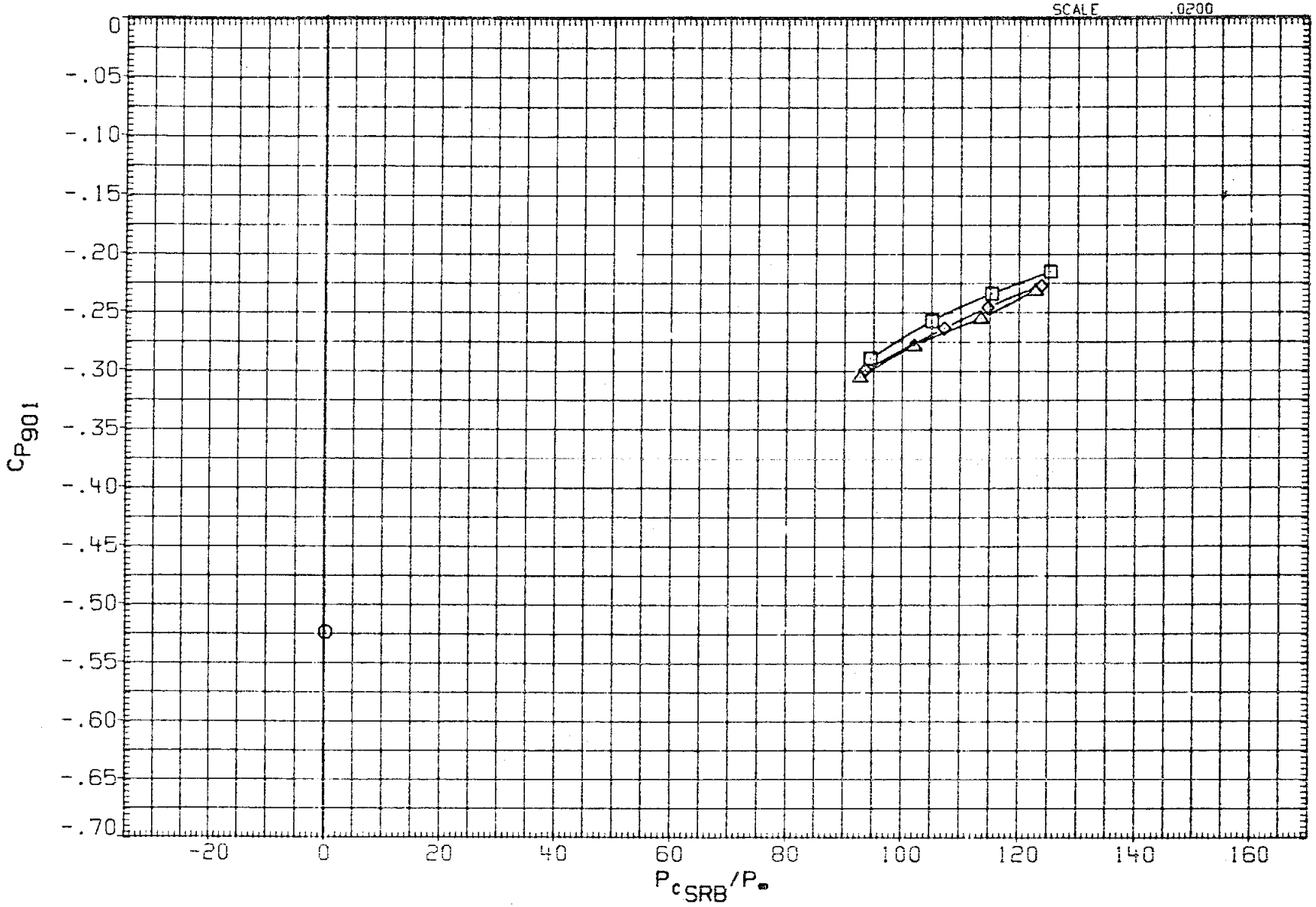

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

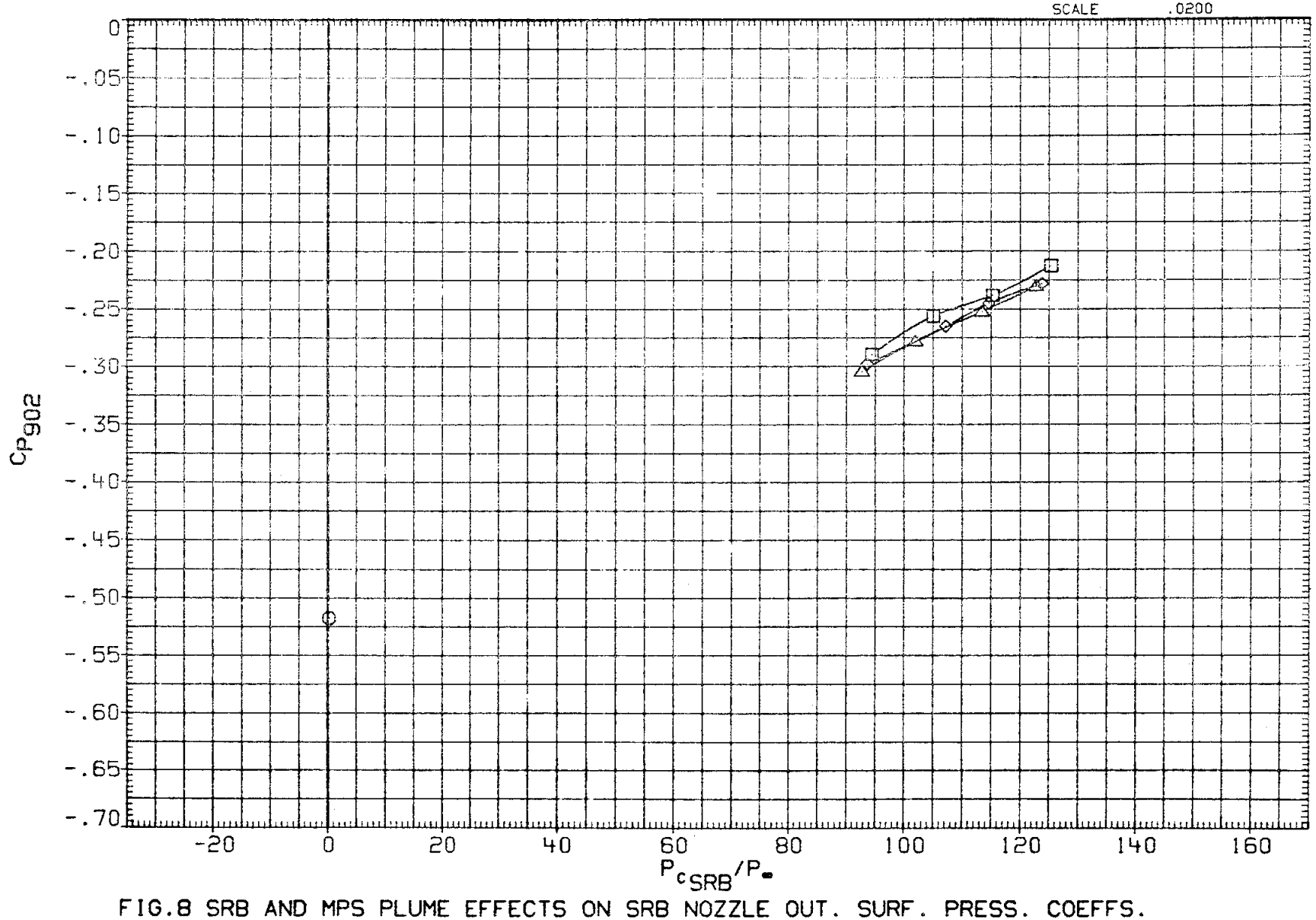

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

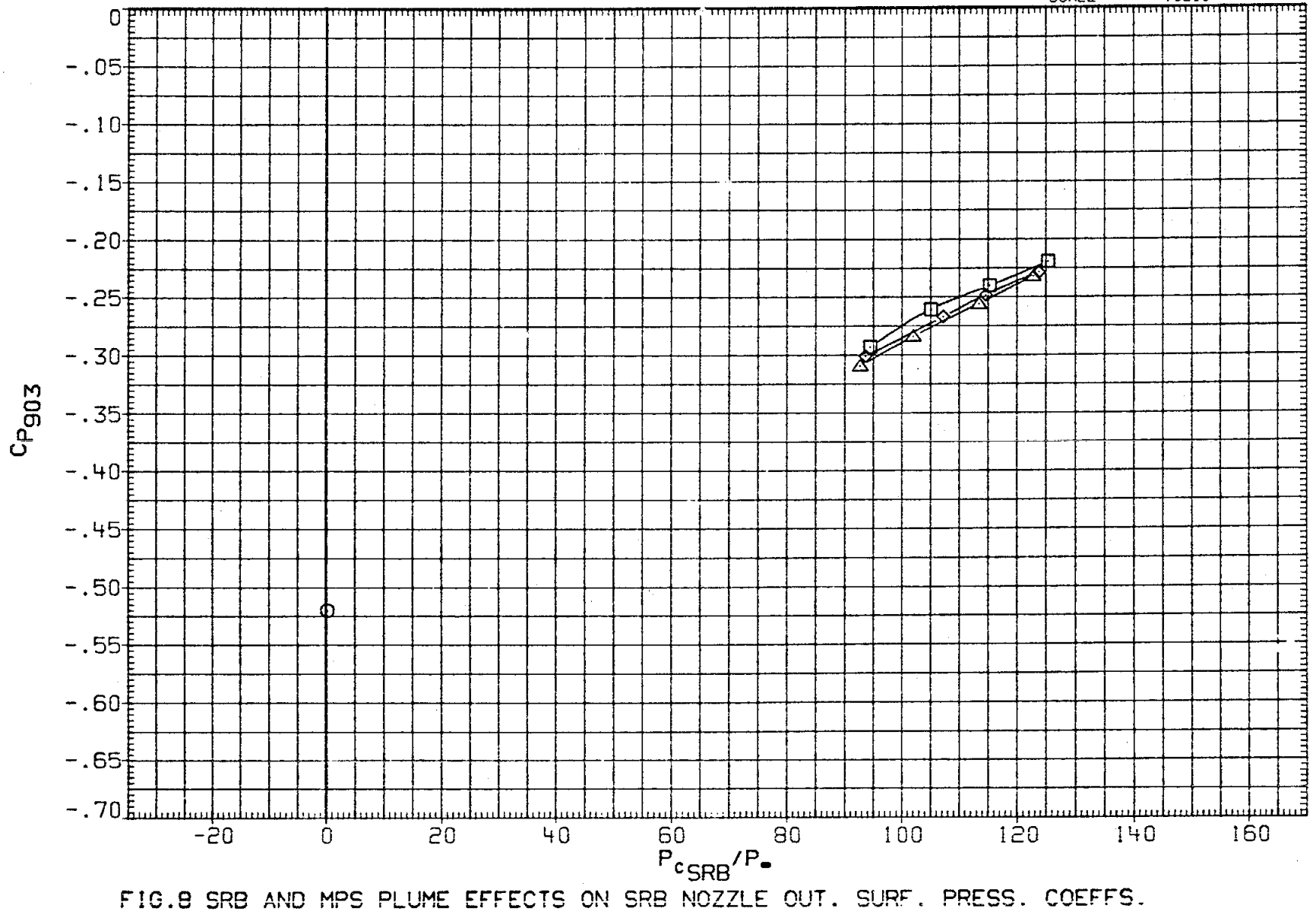

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
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LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

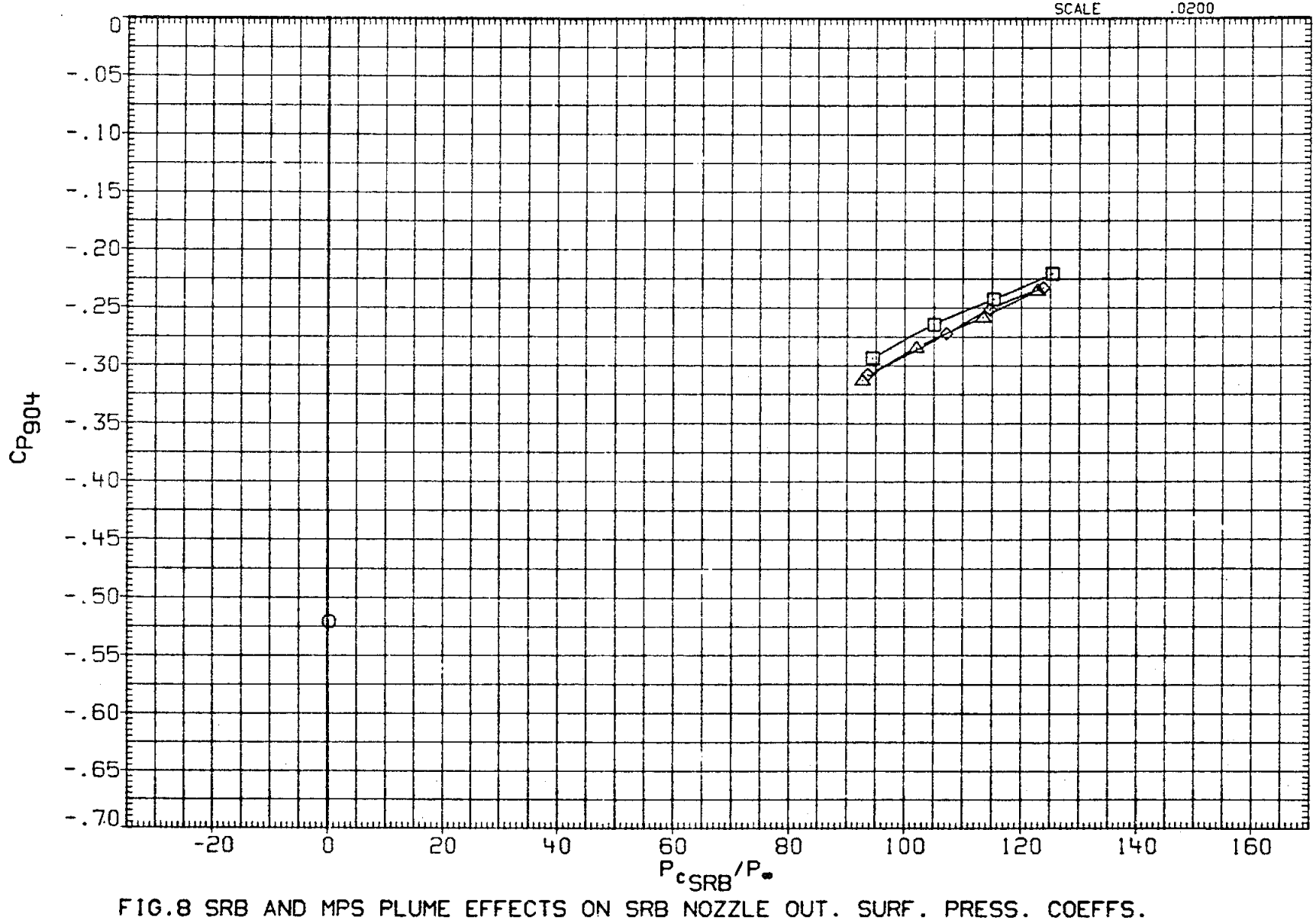

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

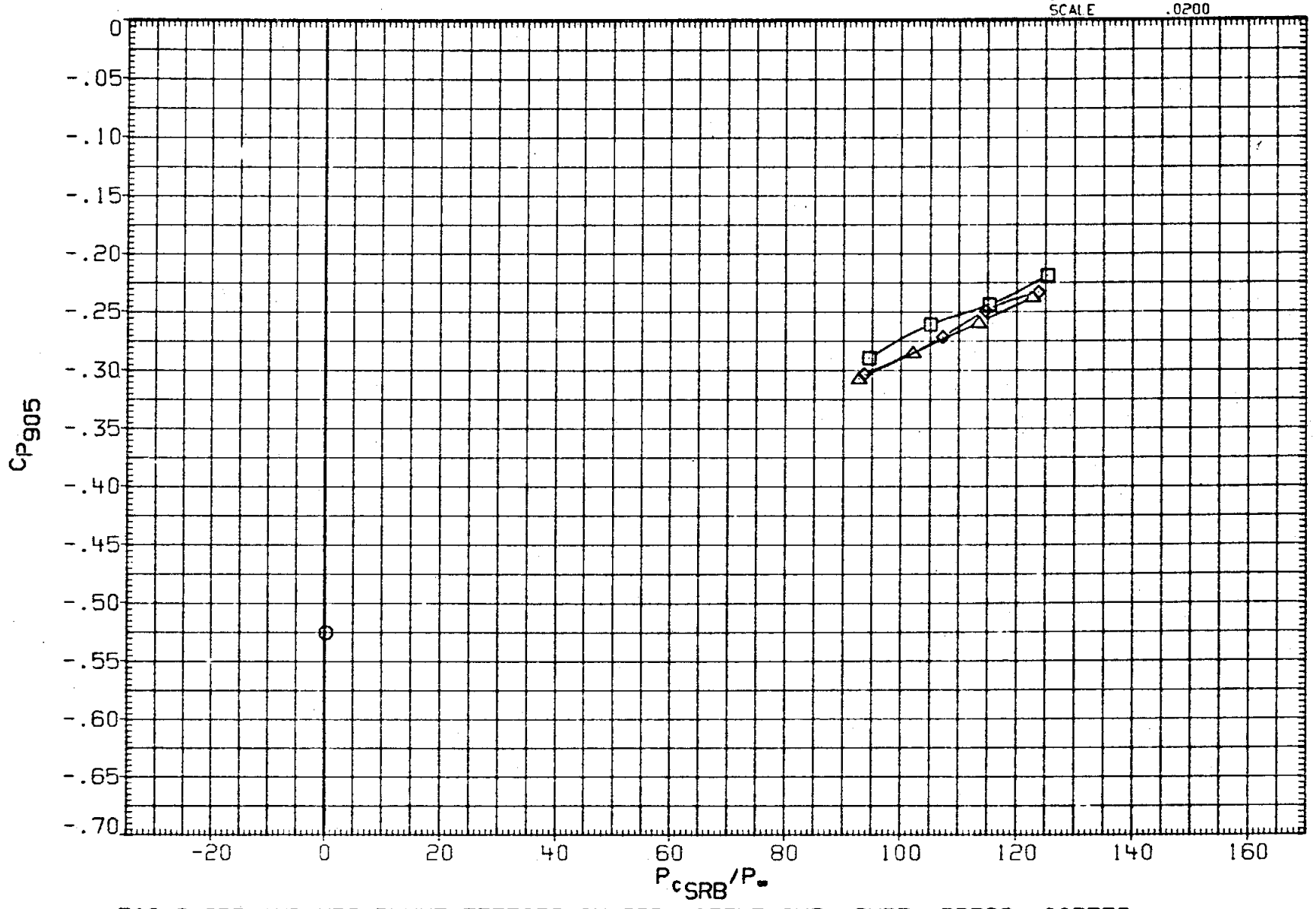

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

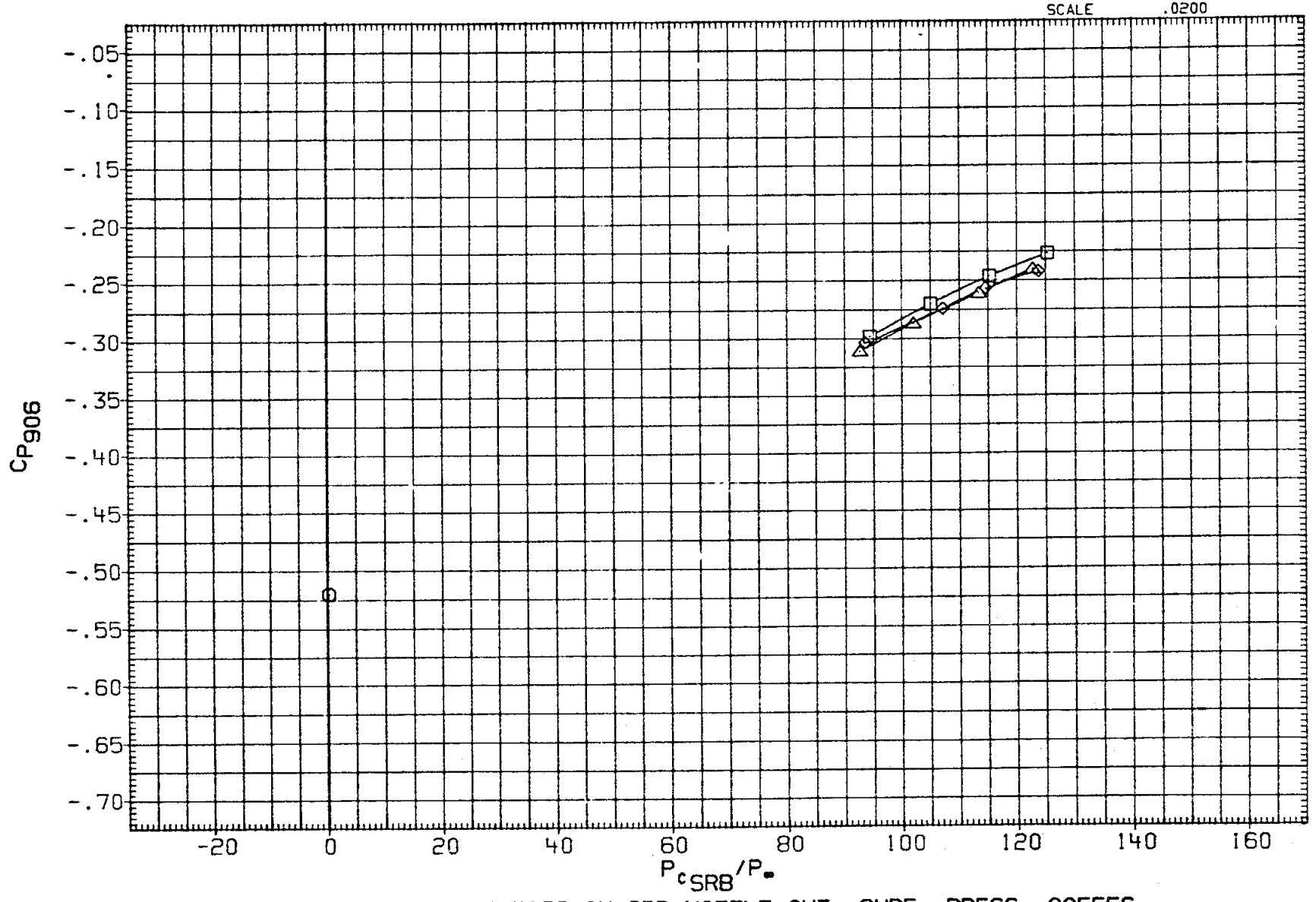

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

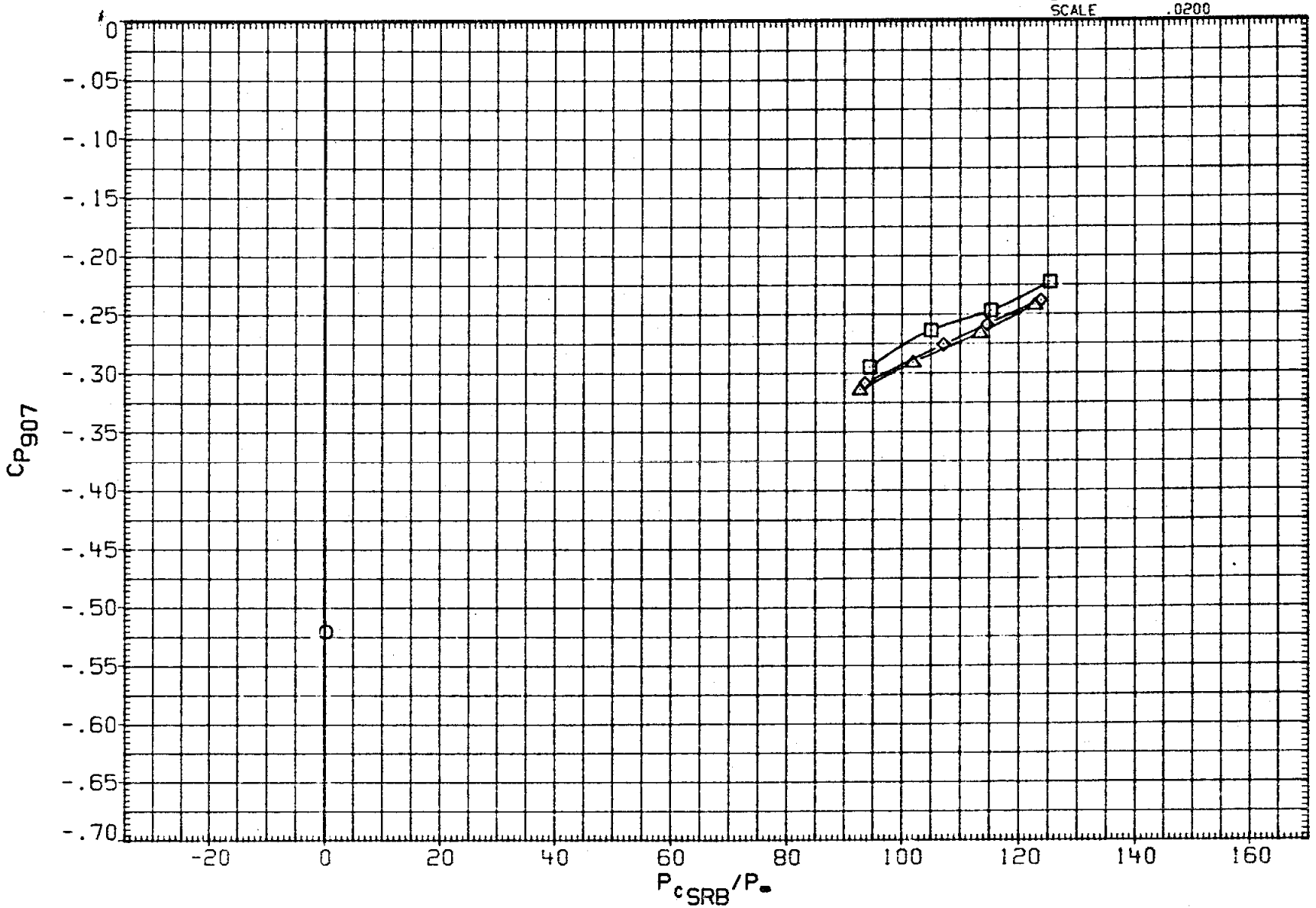

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
WNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF
WNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-
WNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM
WNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

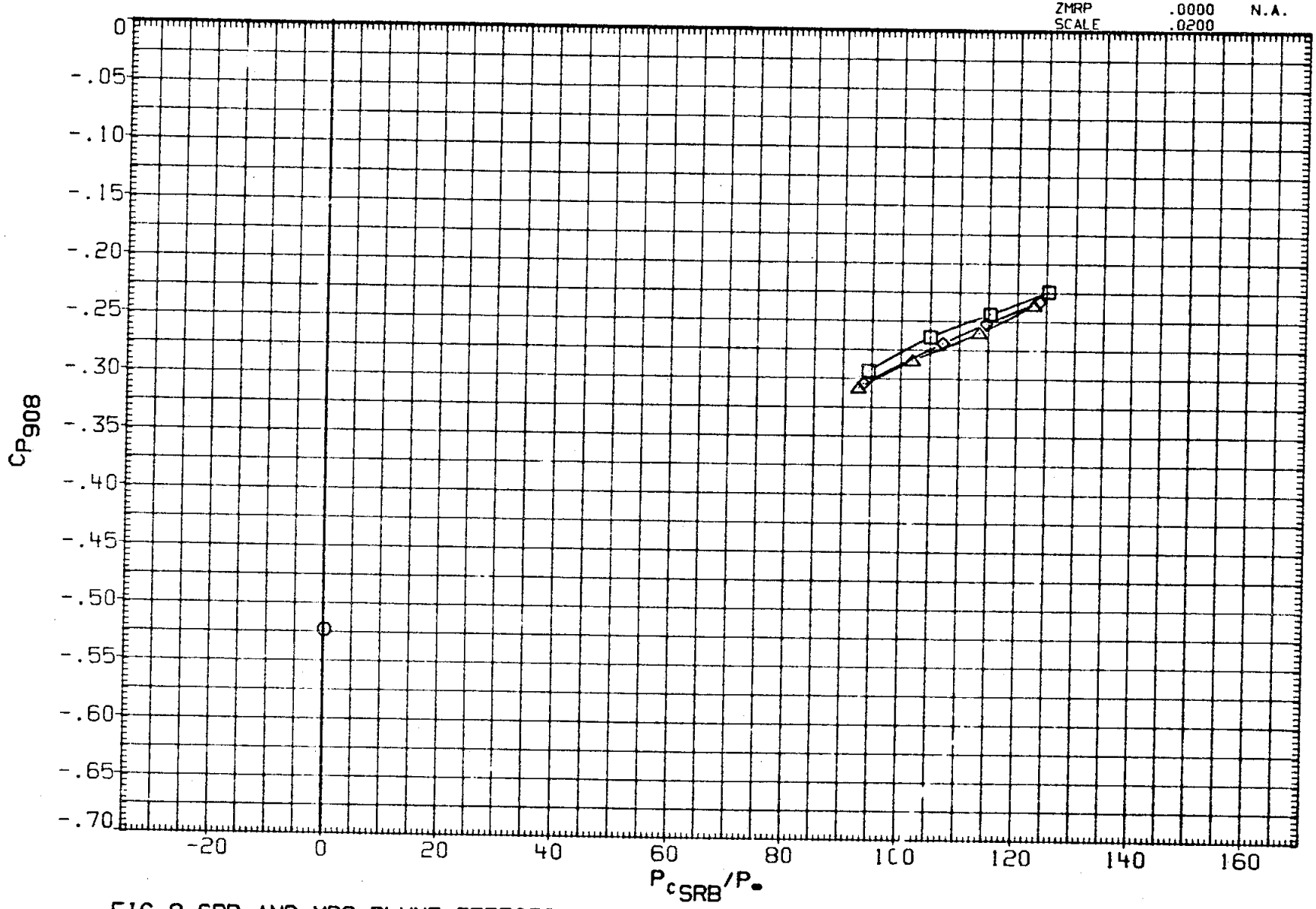

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
WNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
WNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
WNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
WNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

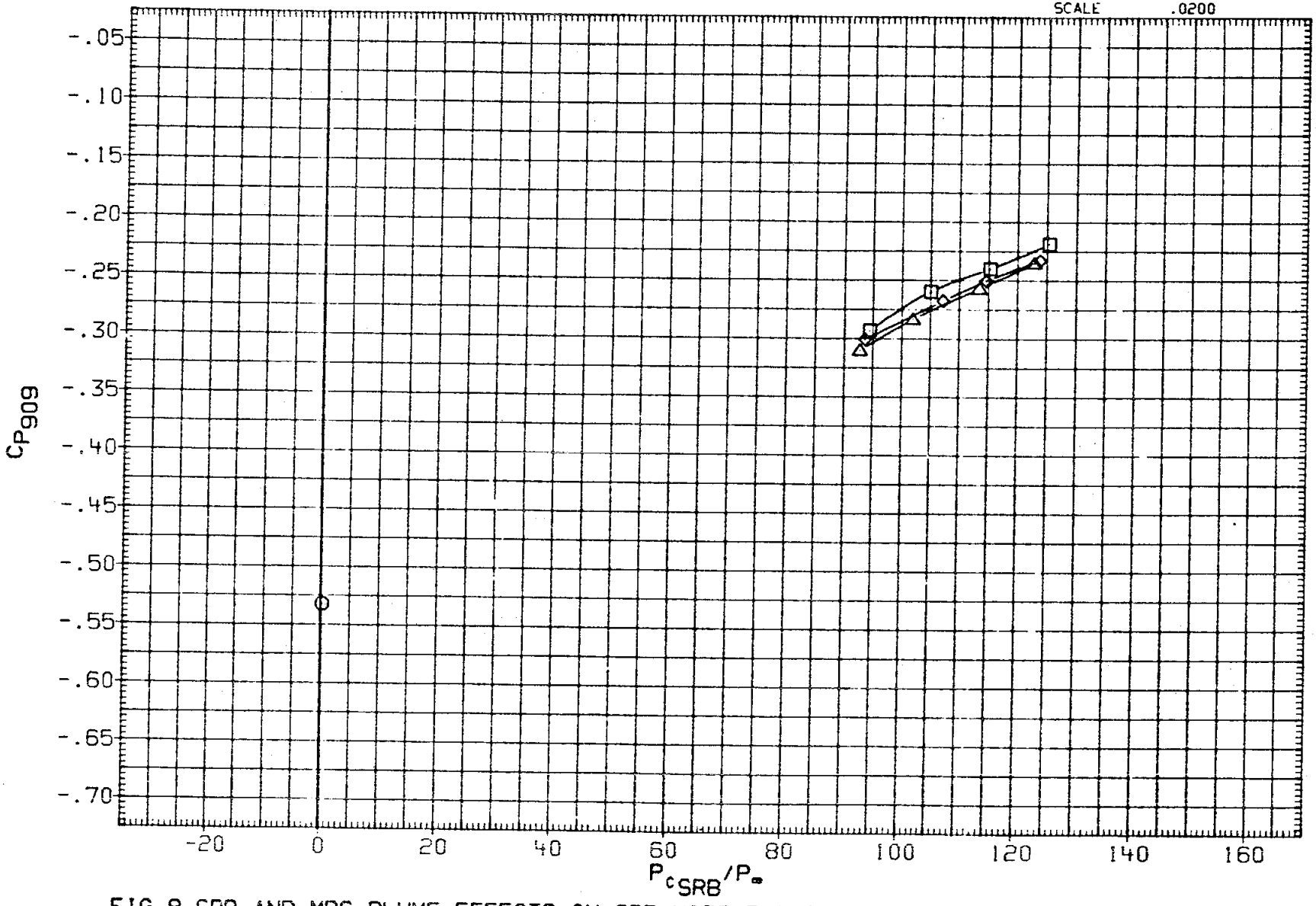

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
WNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
WNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
WNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
WNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

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ZMRP	.0000	N.A.
SCALE	.0200	

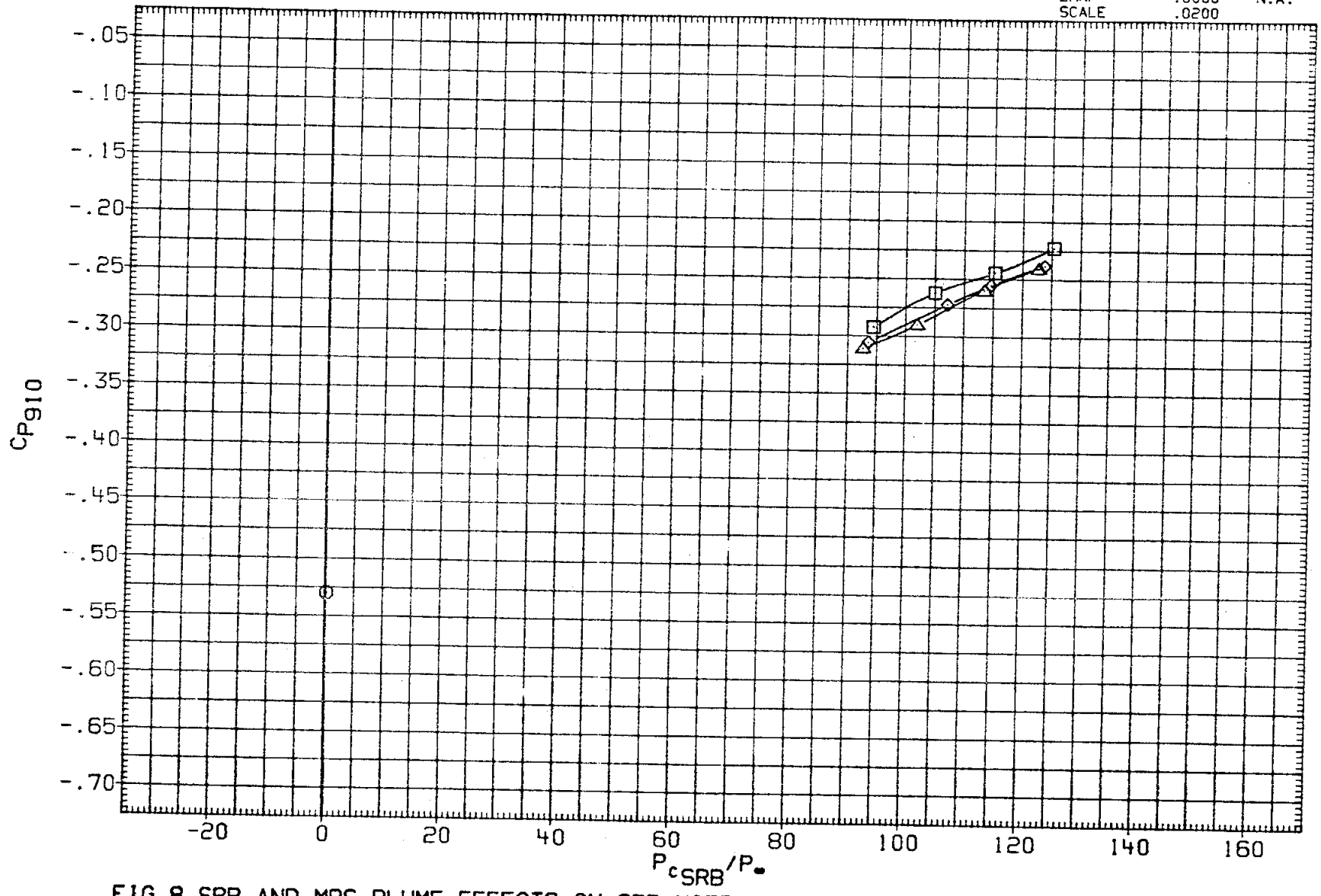

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

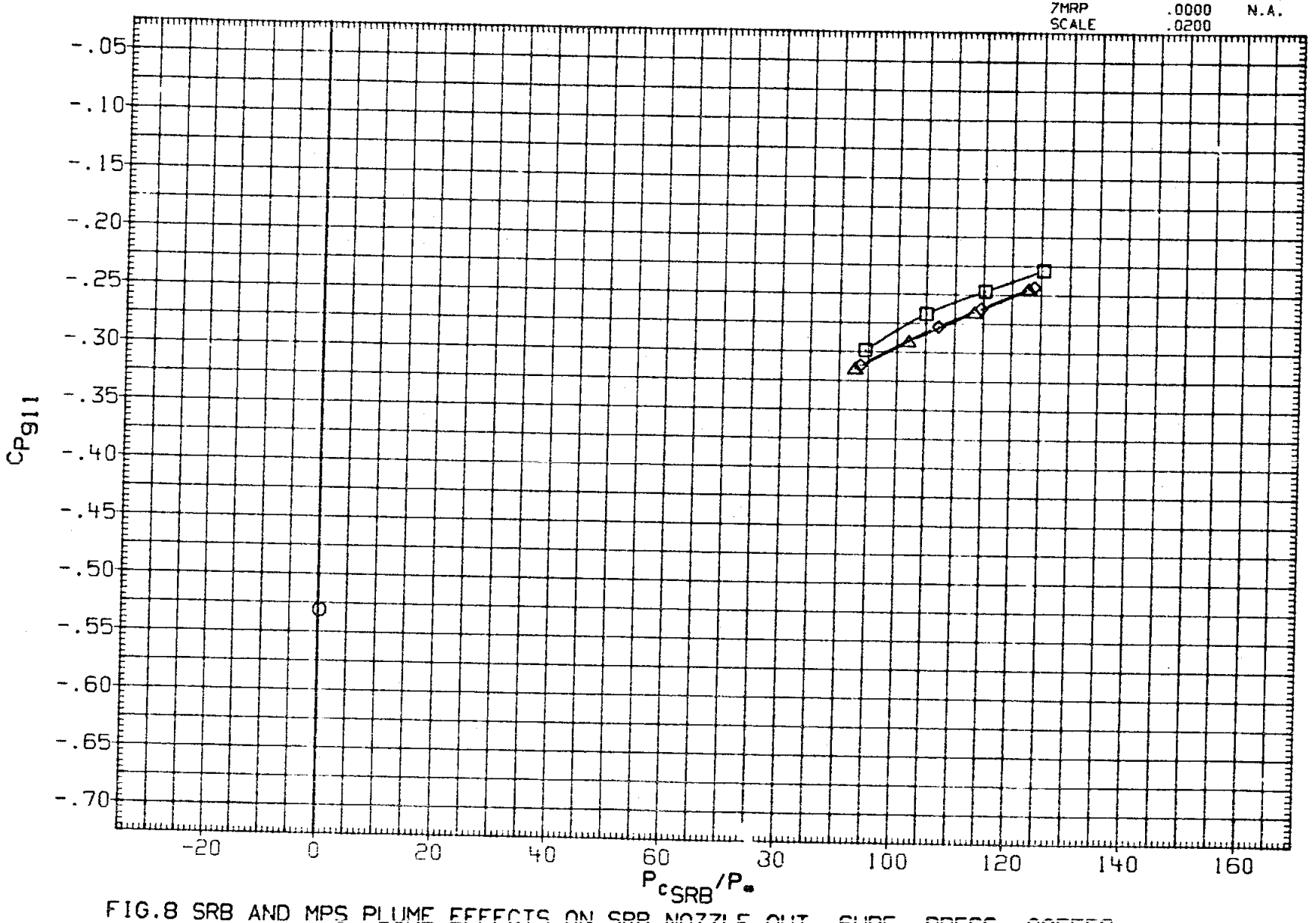

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	9.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

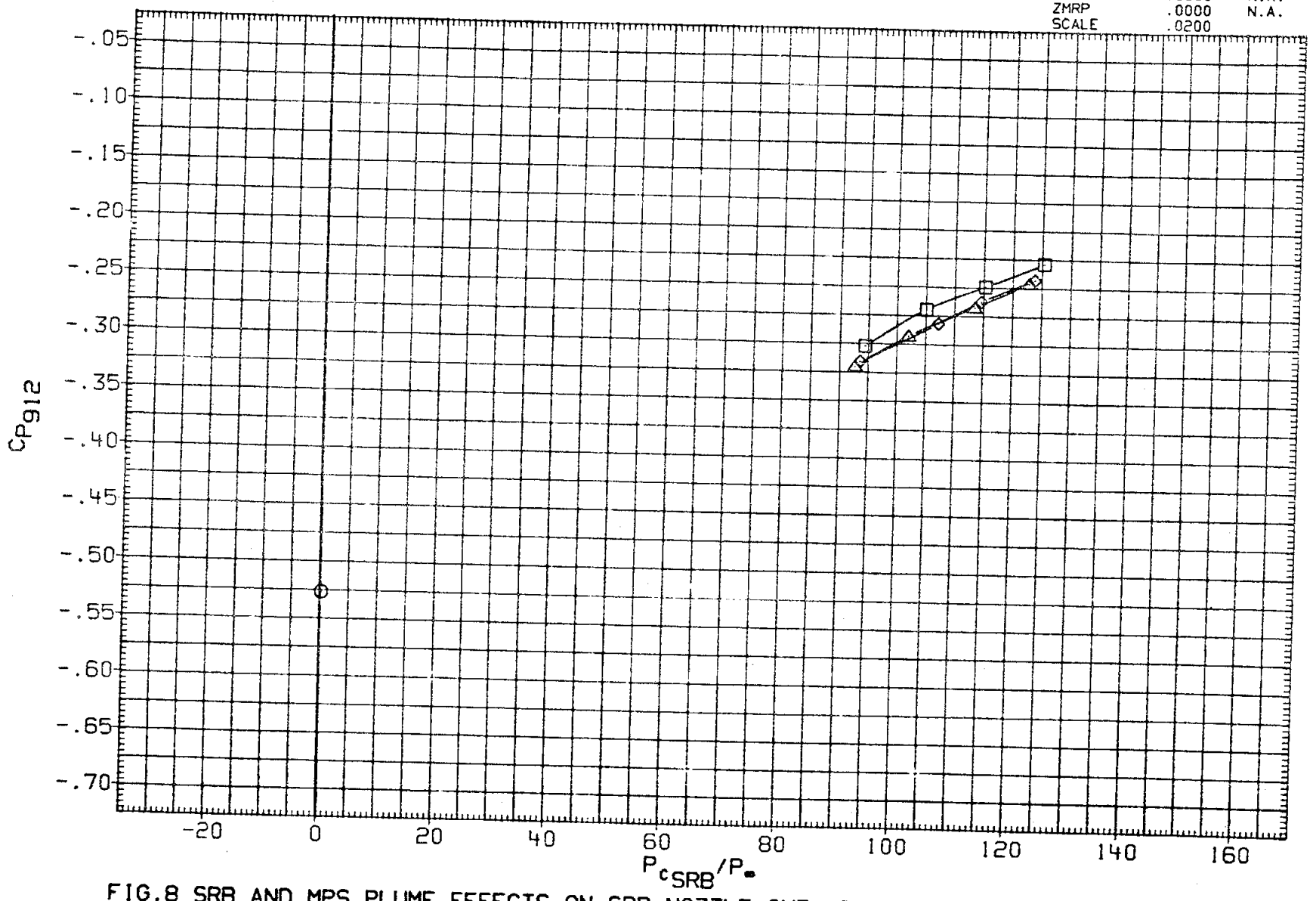

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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SCALE	.0200	

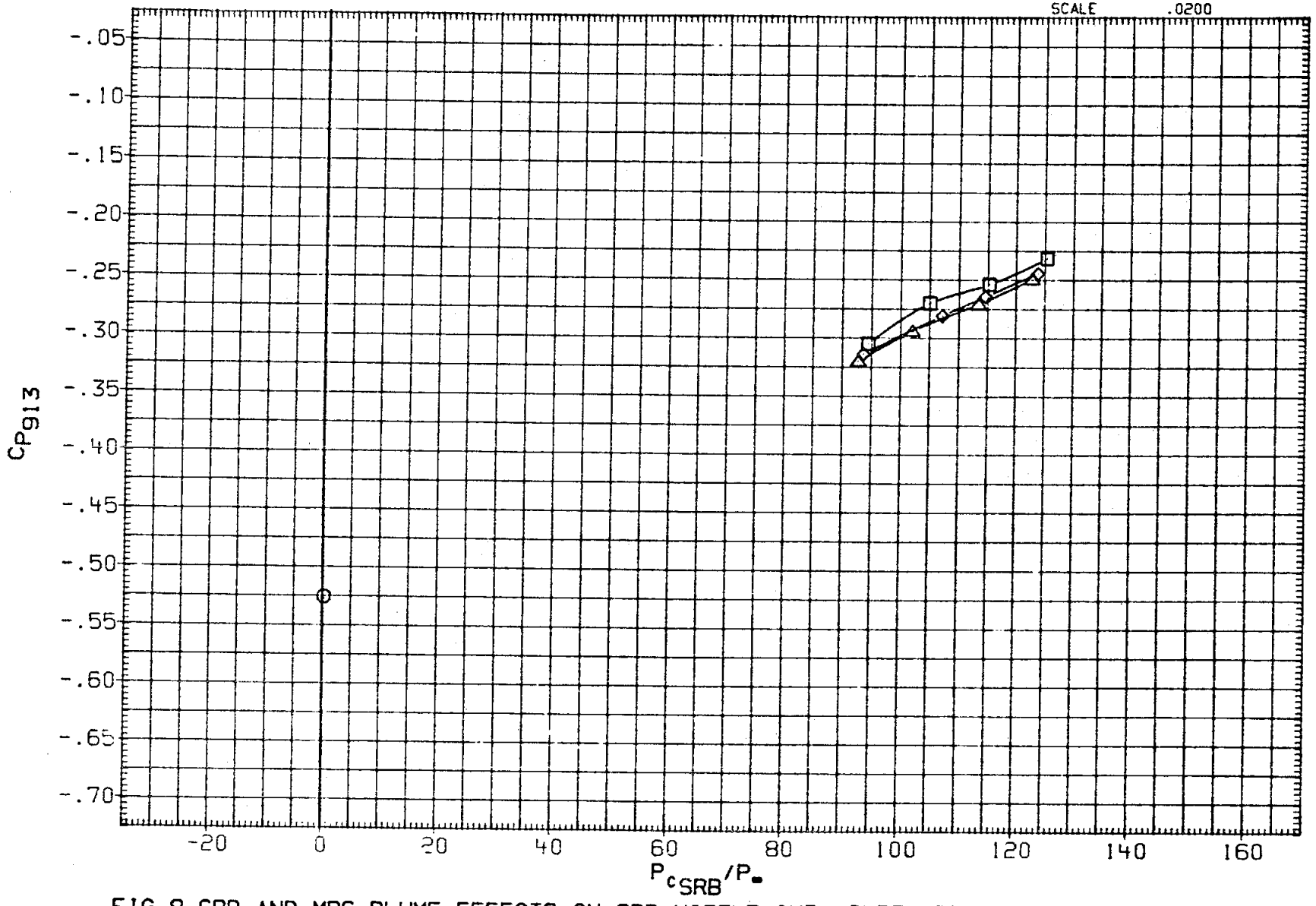

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

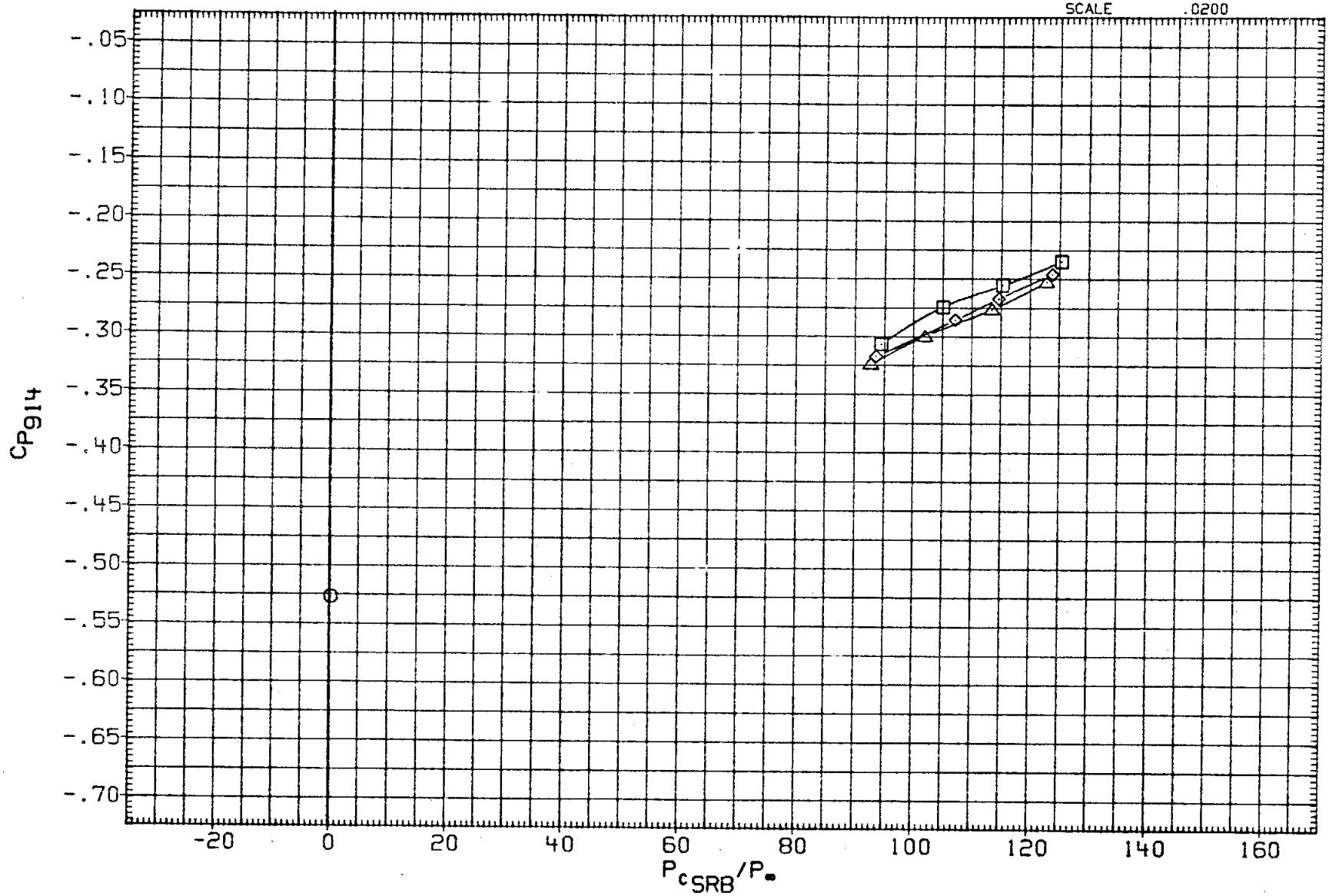

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

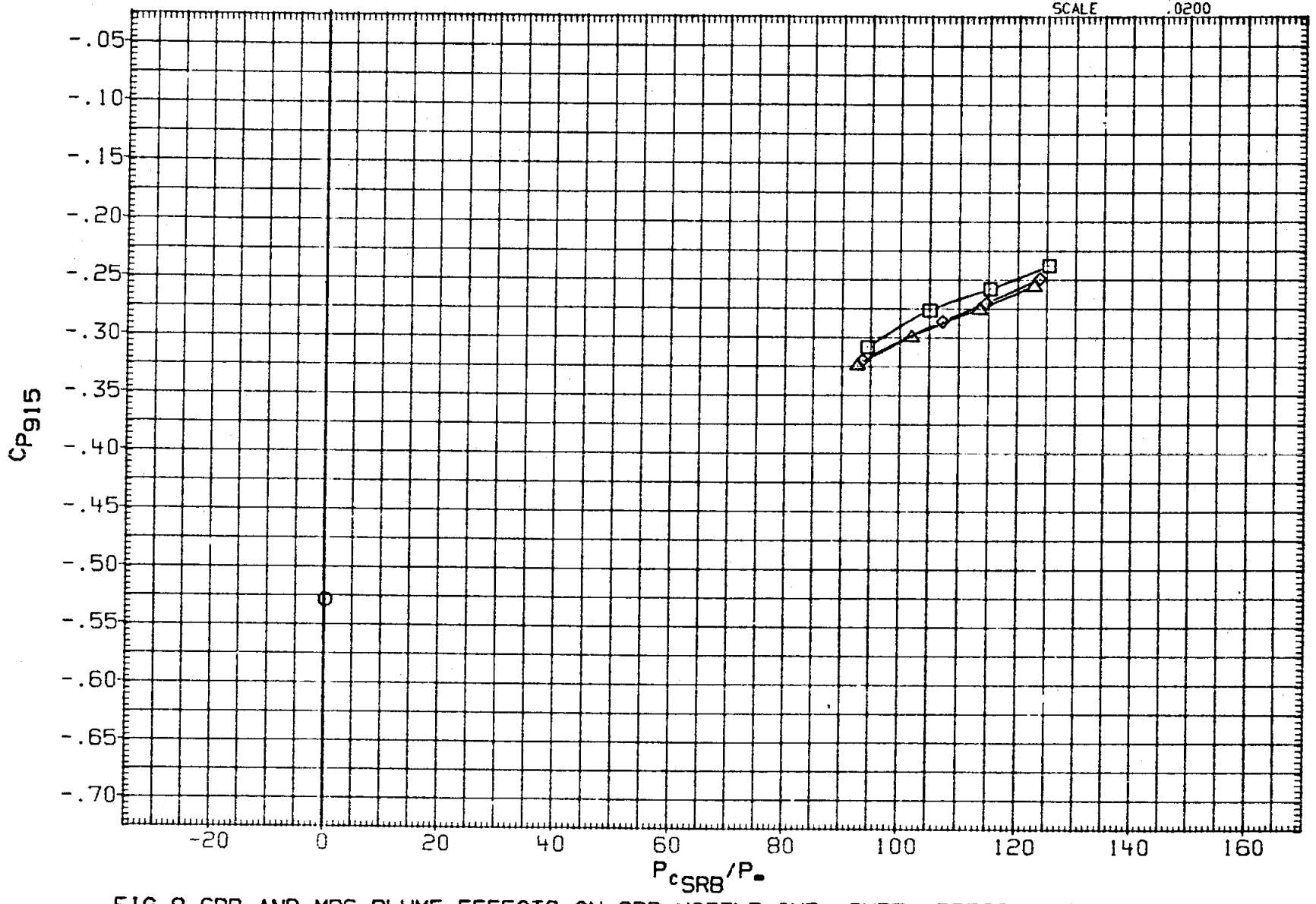

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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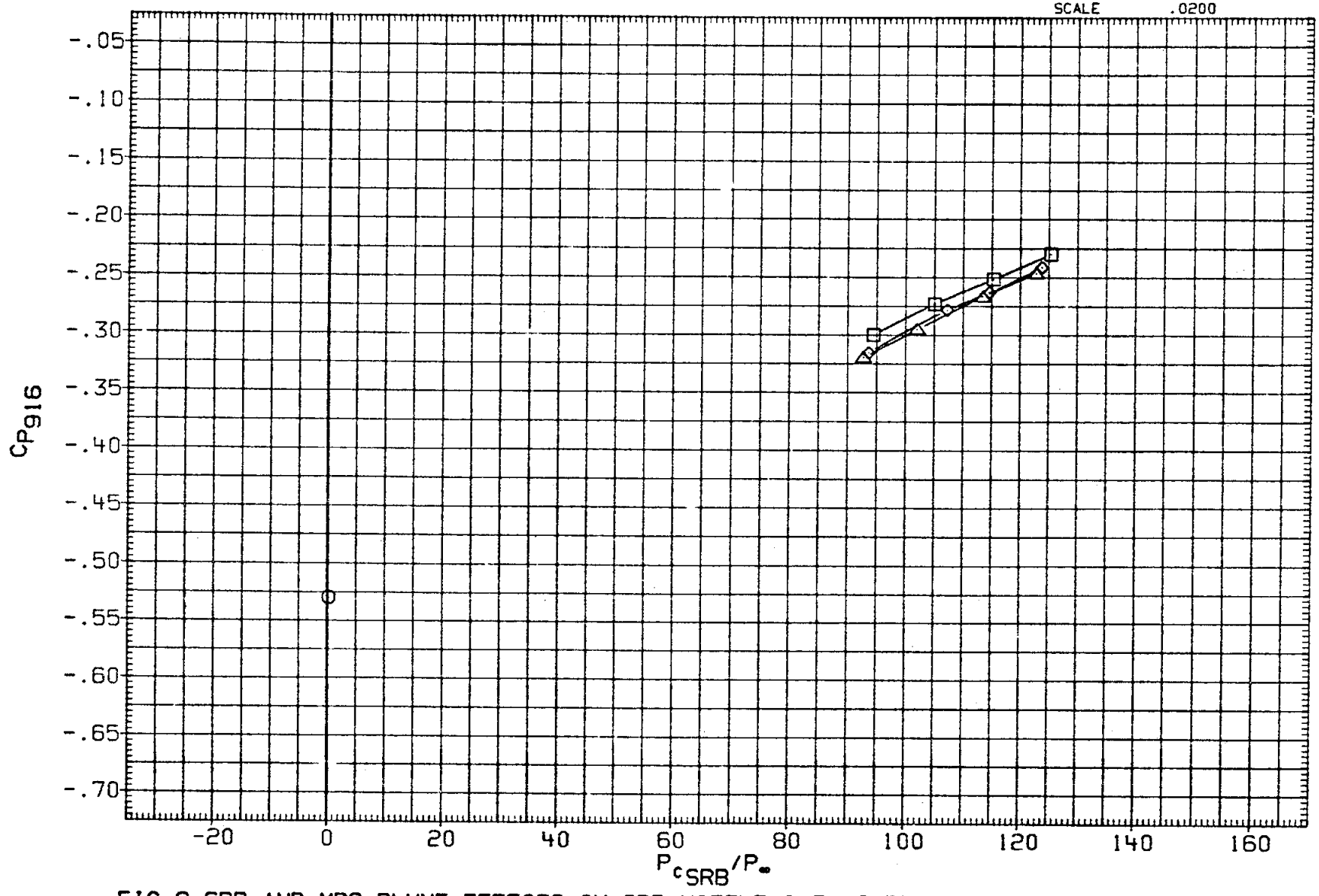

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-13	ELV-08
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

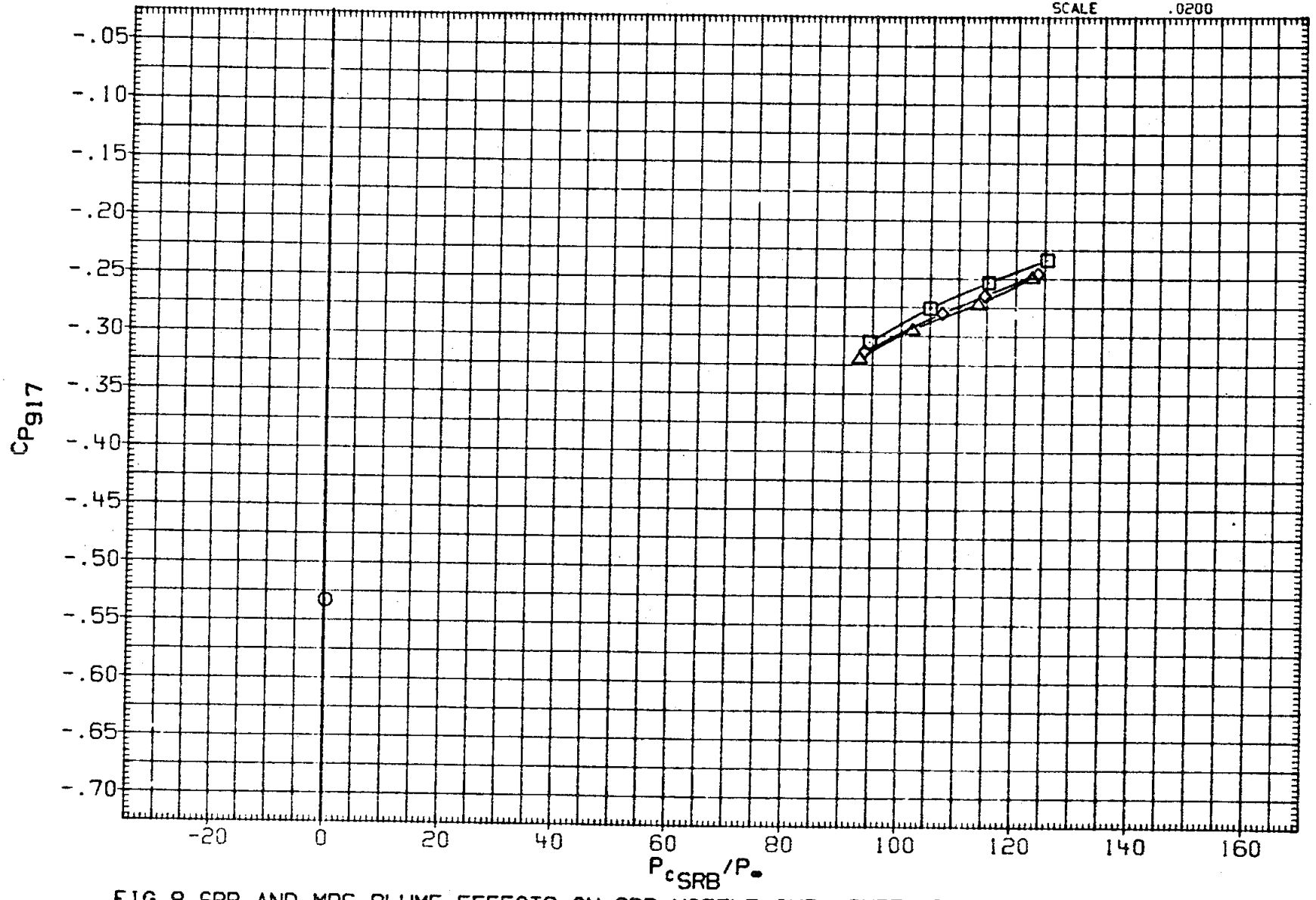

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

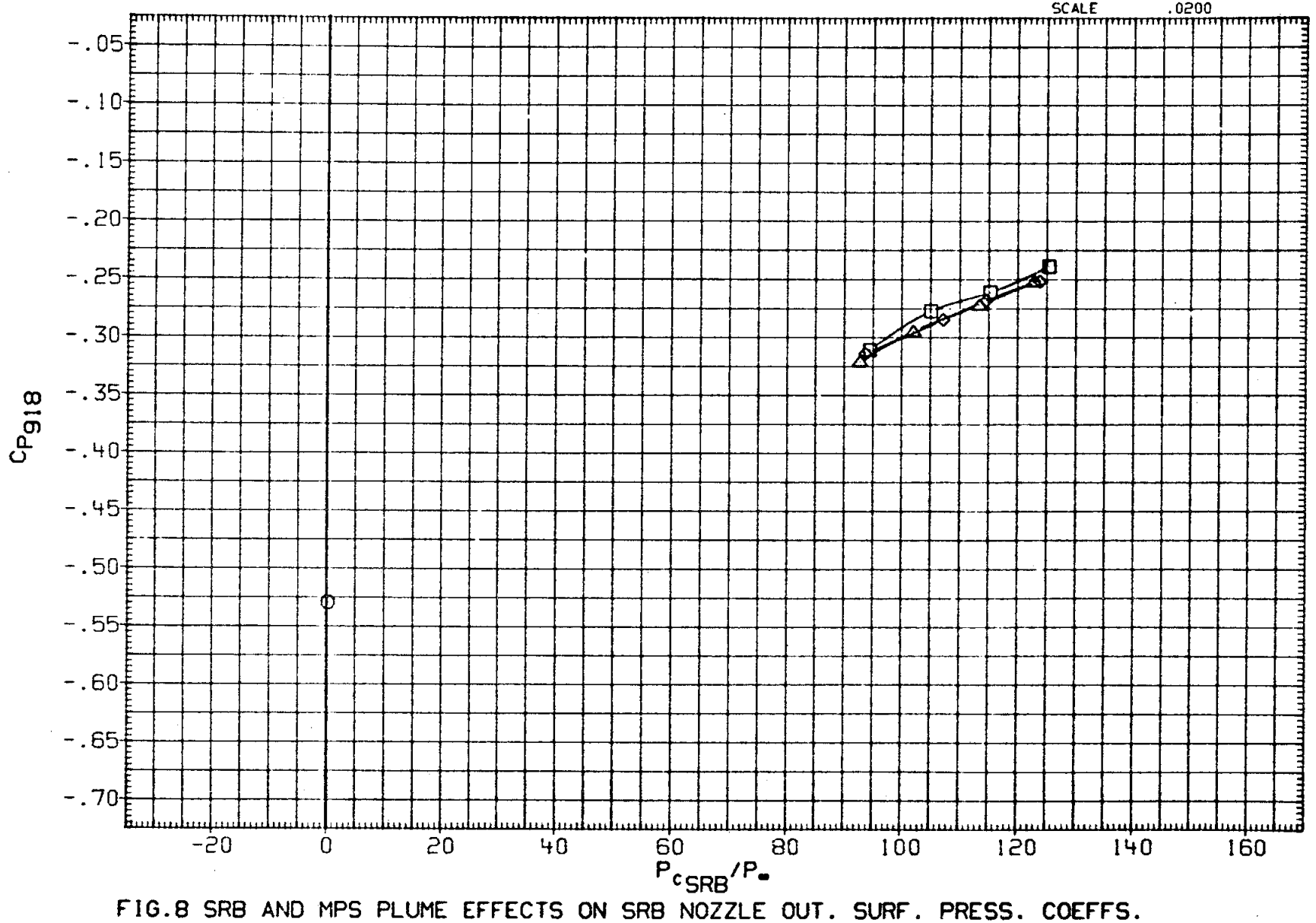

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

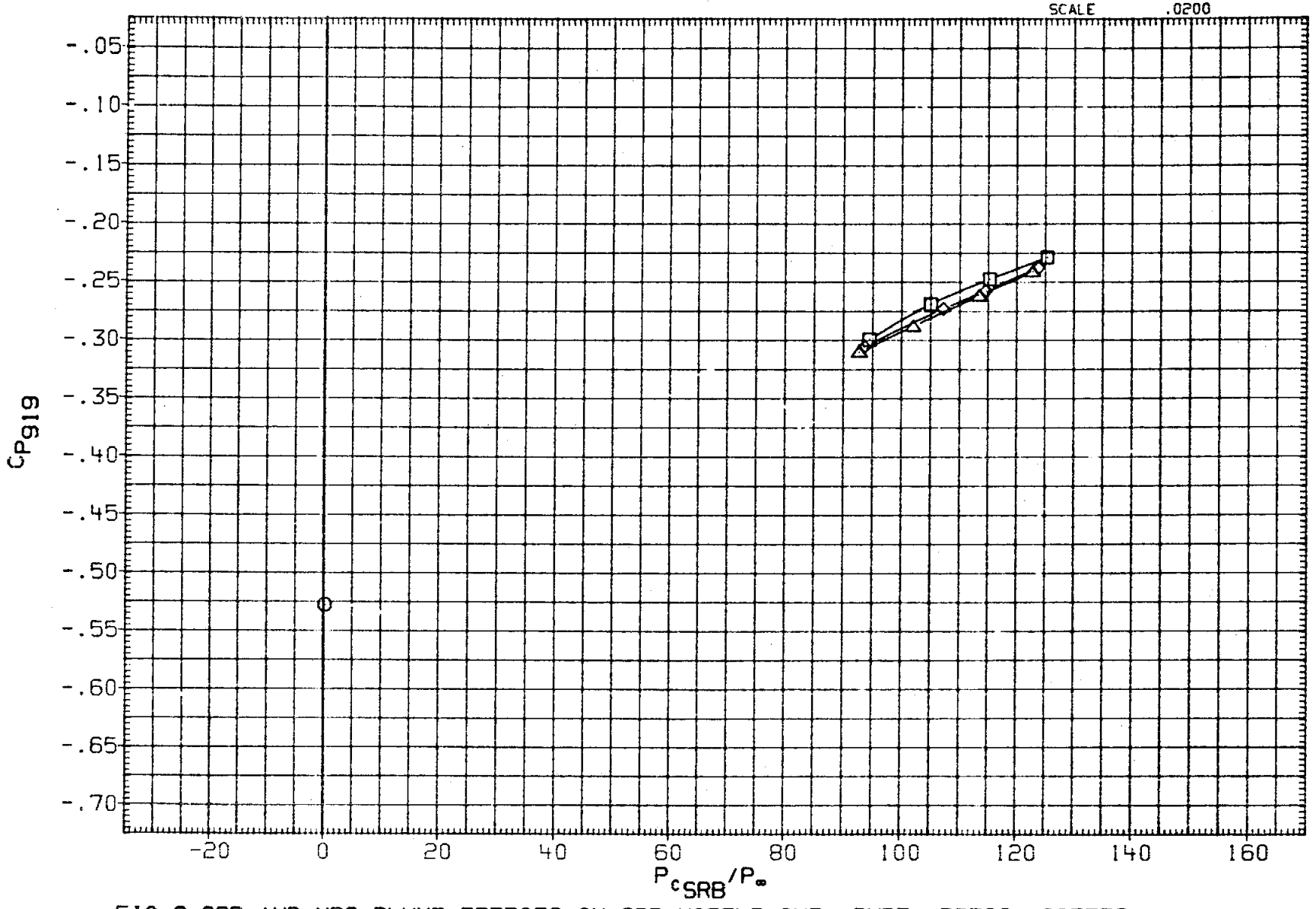

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

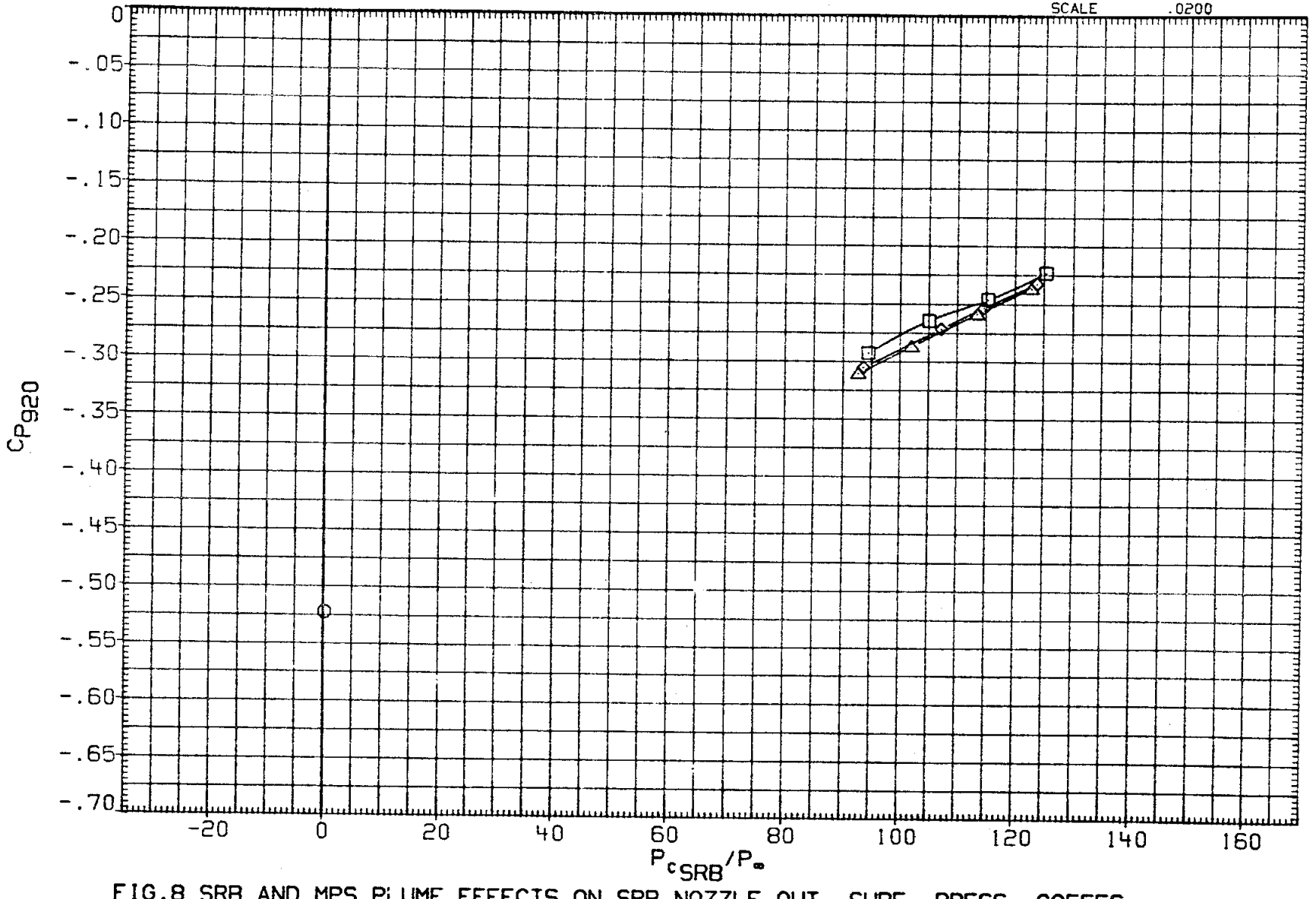

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

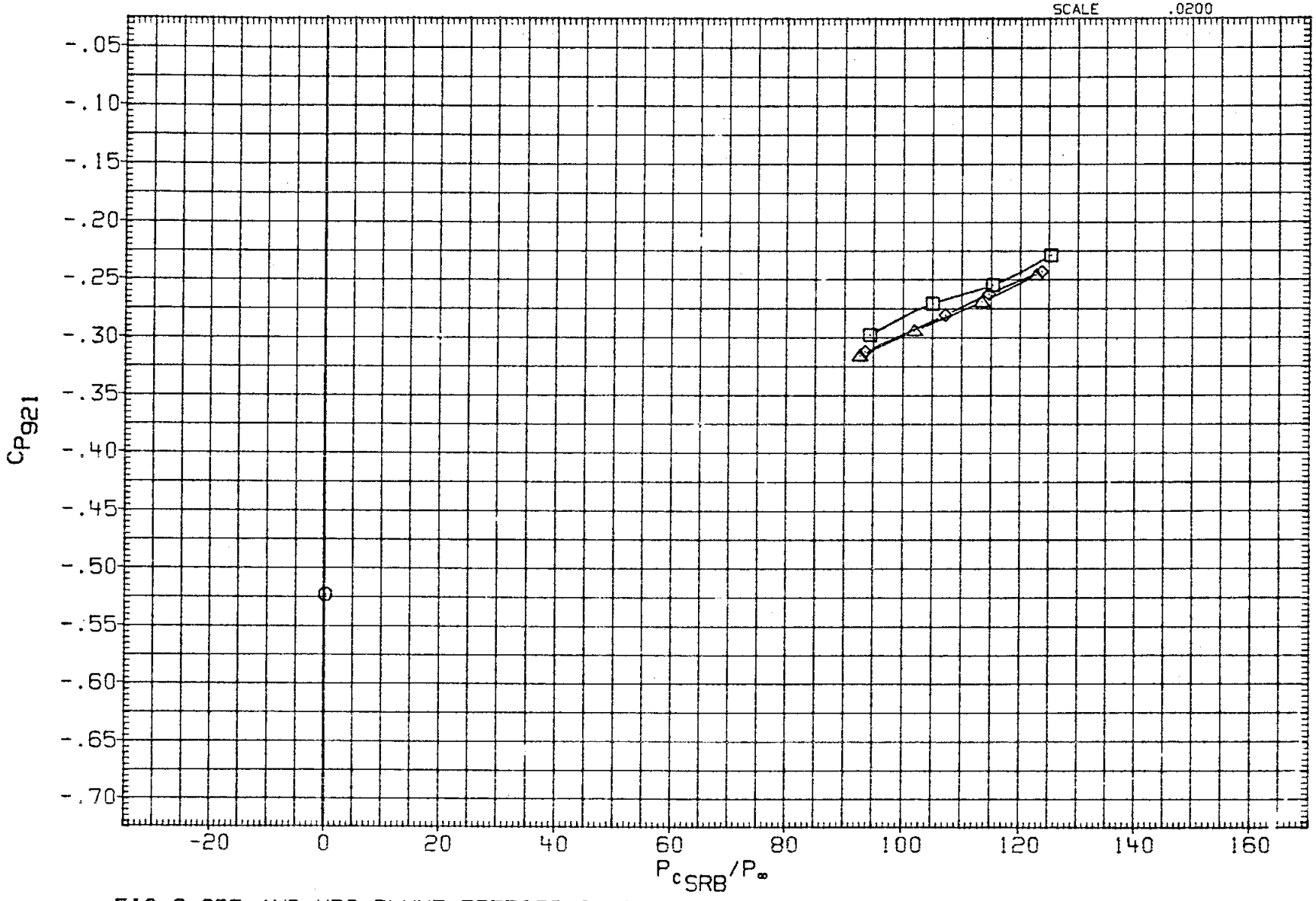

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

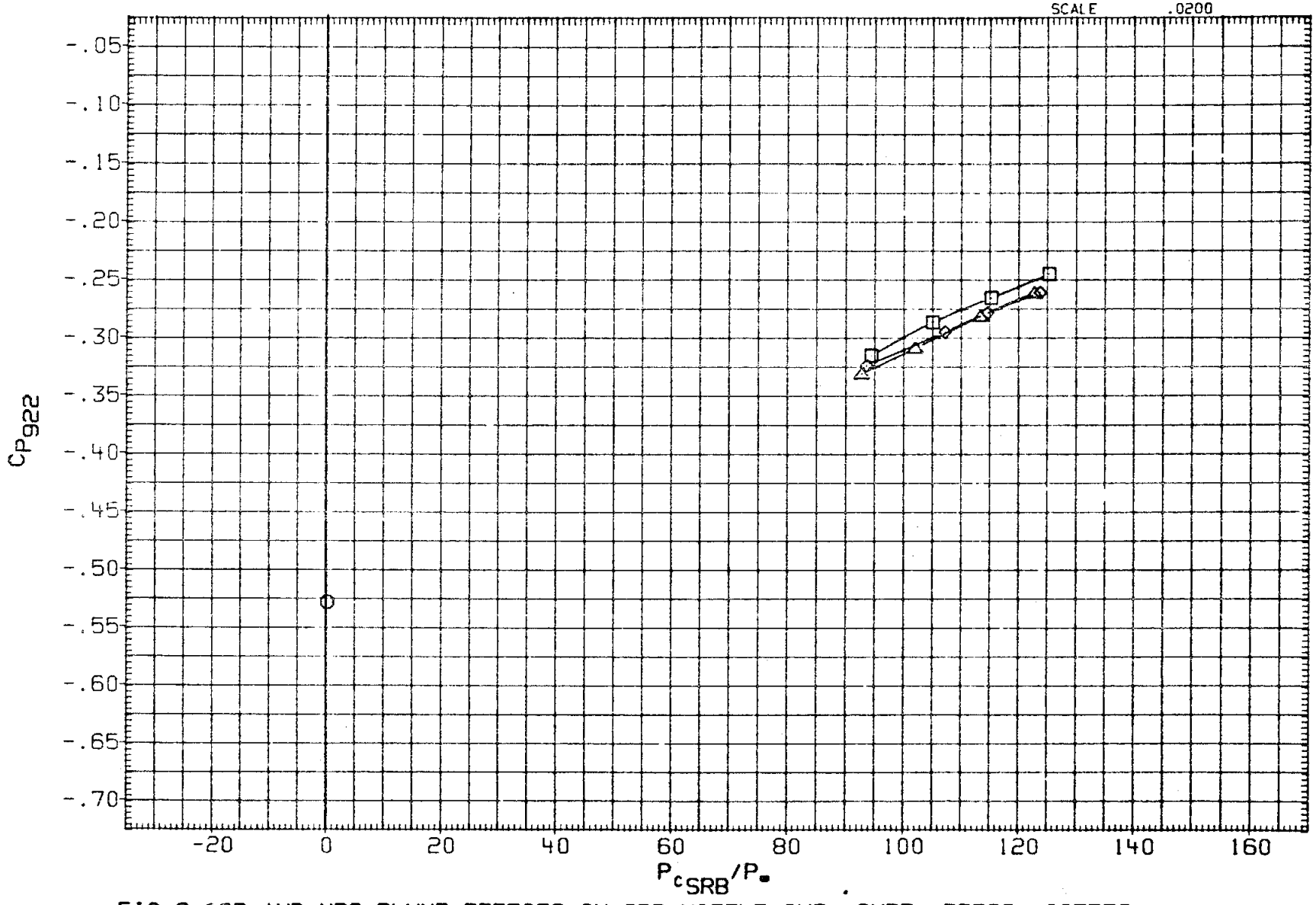

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
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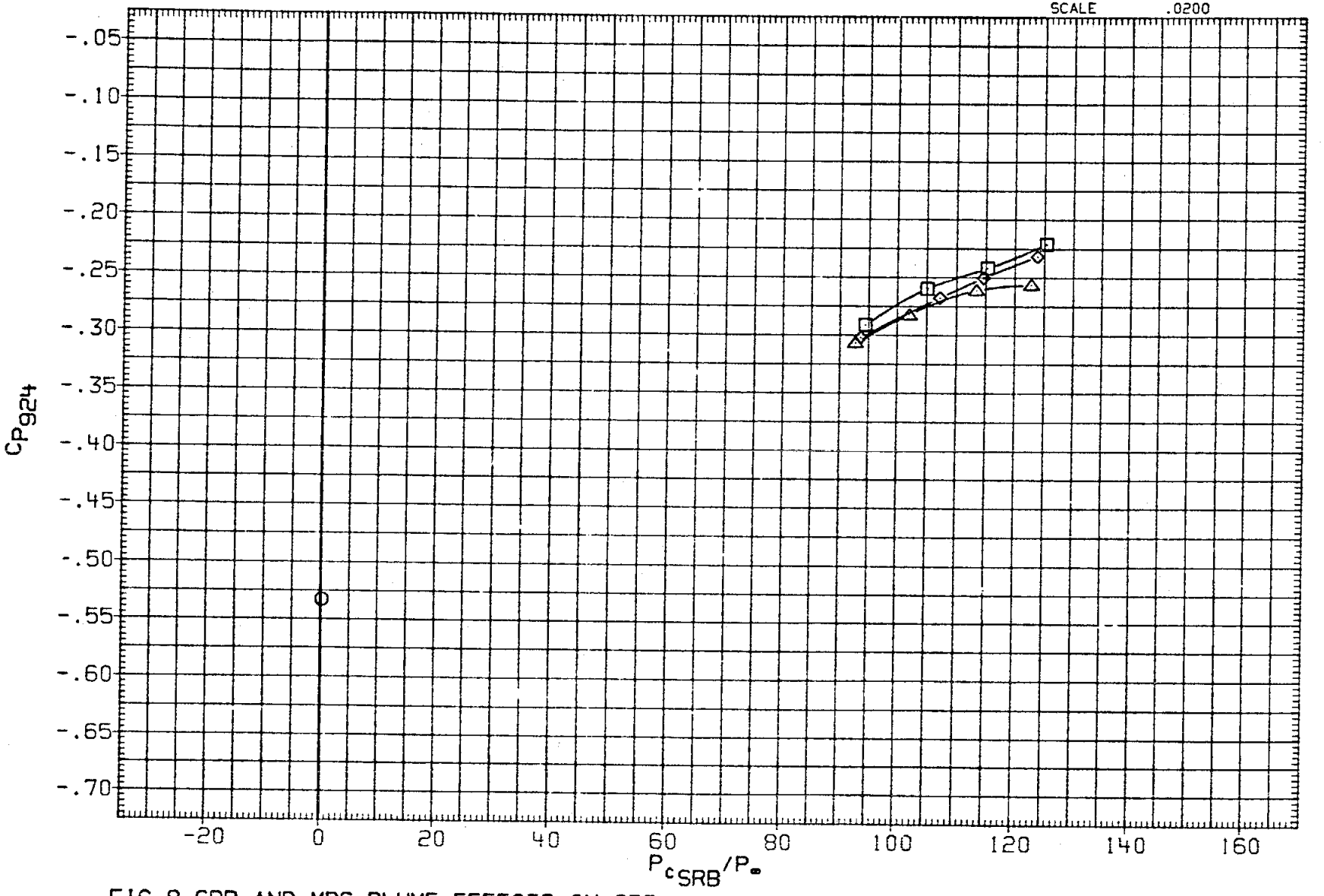

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARCII-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARCII-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARCII-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARCII-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

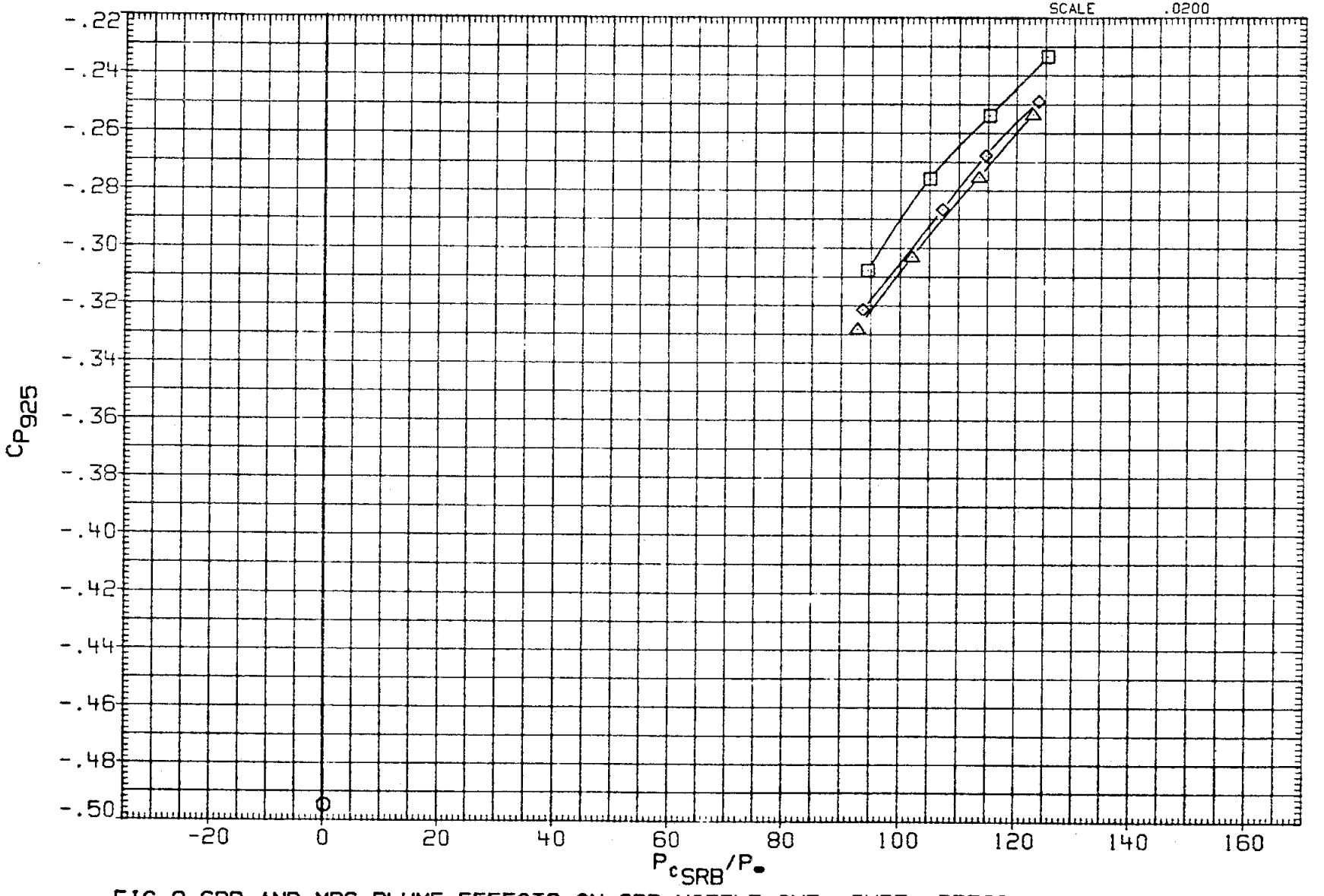

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARC11-072(1A72) OTS-1 MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

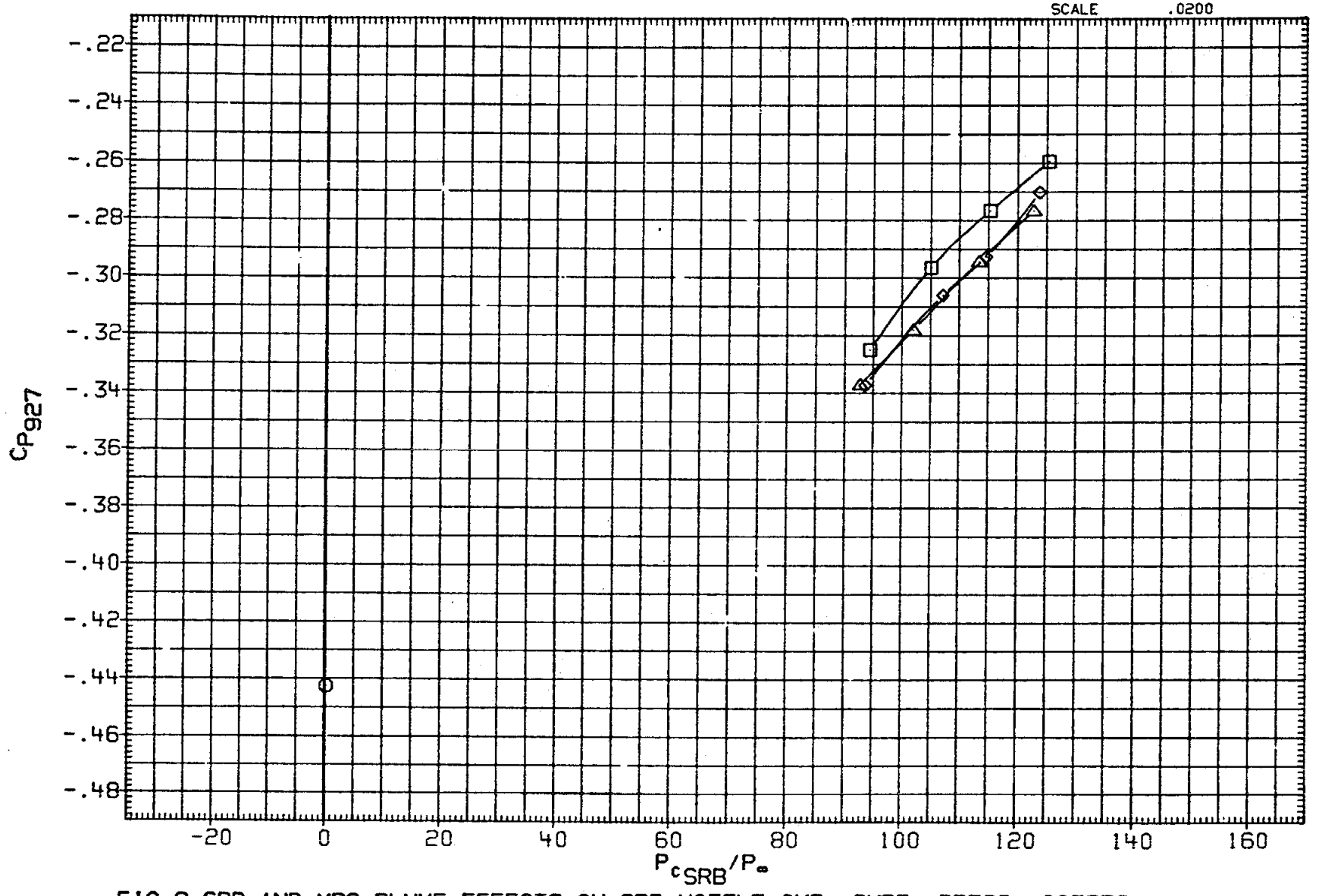

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
YNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
YNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
YNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
YNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

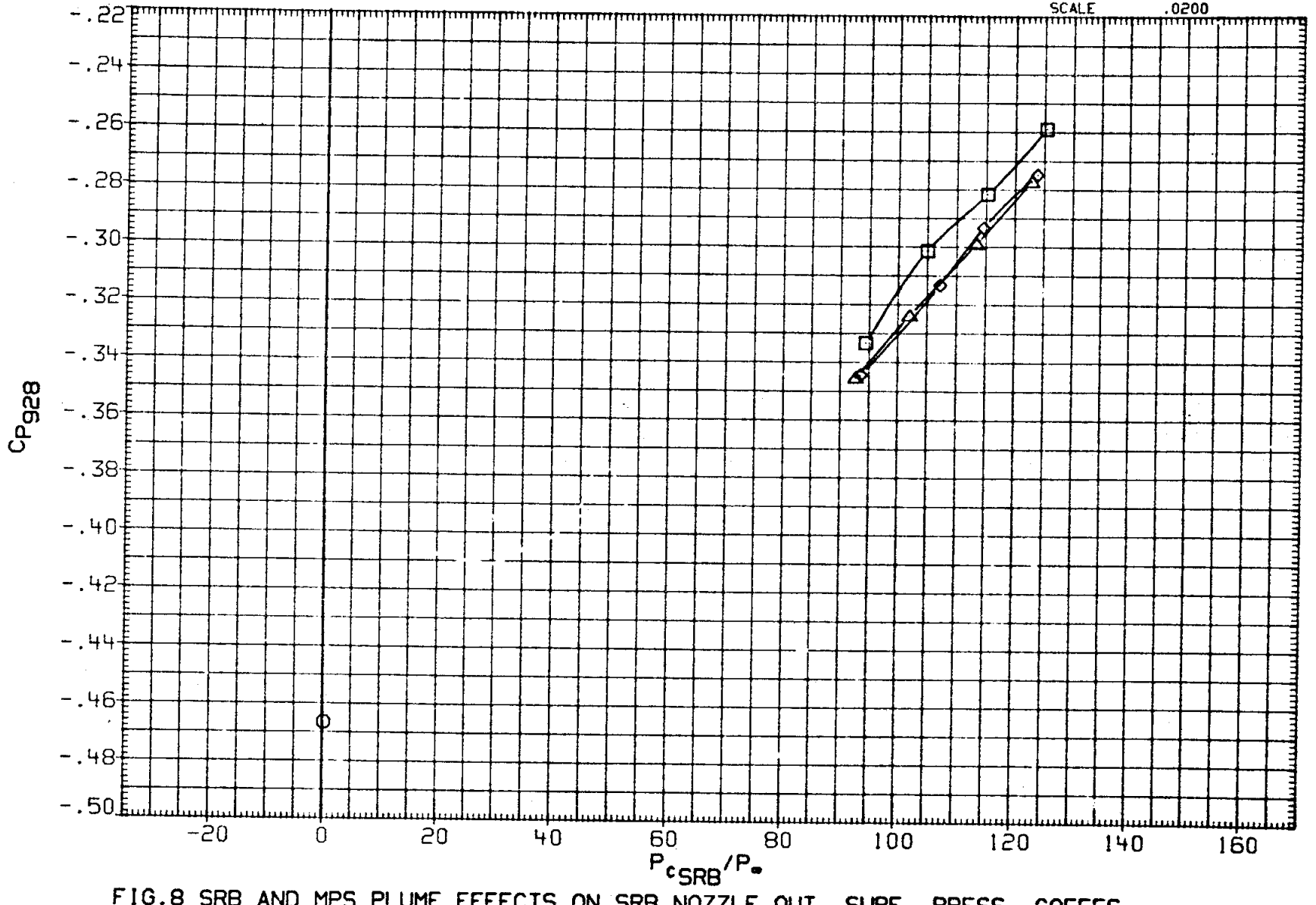

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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SCALE	.0200	

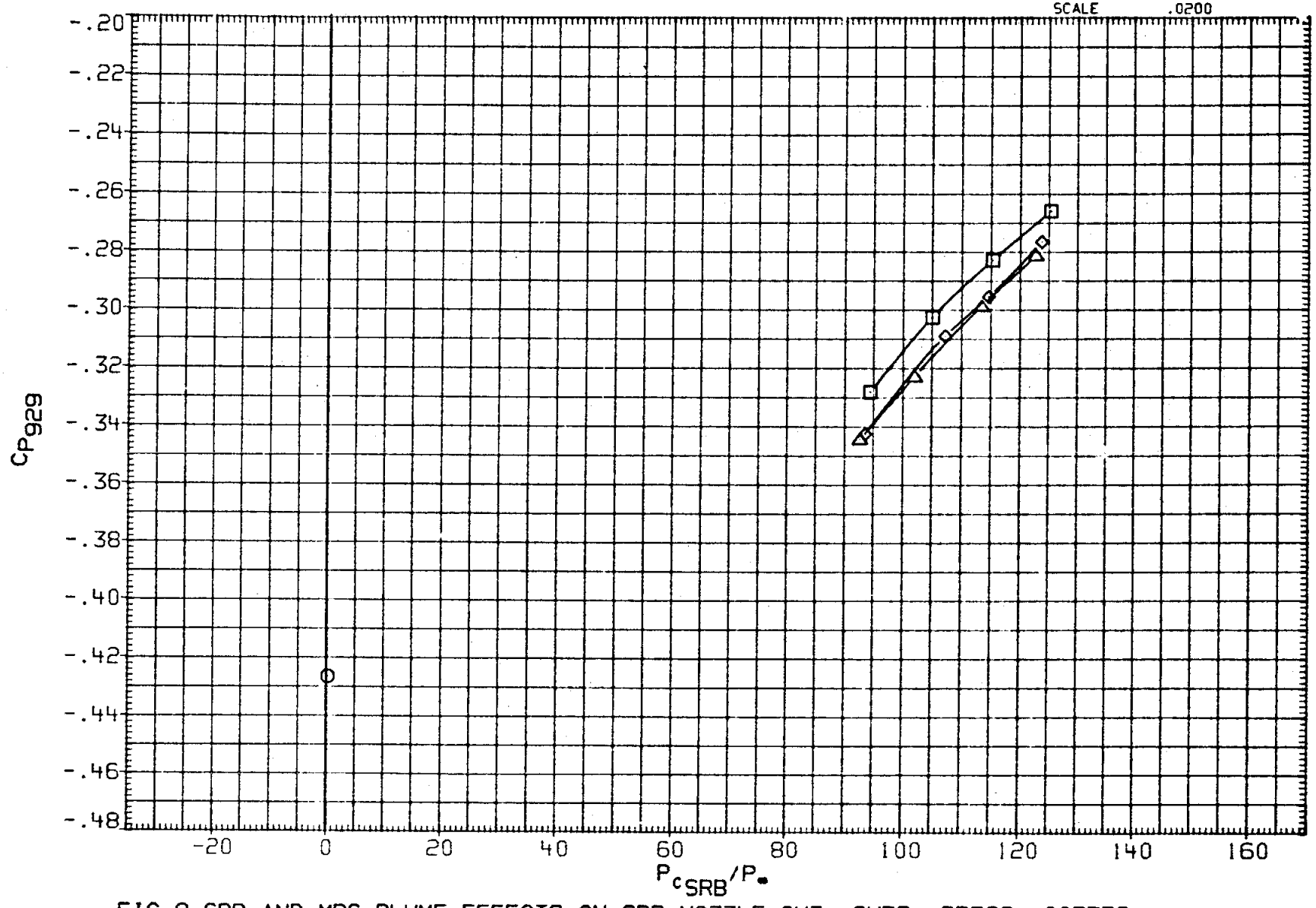

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA08	○	ARCII-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA09	□	ARCII-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA10	◇	ARCII-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA11	△	ARCII-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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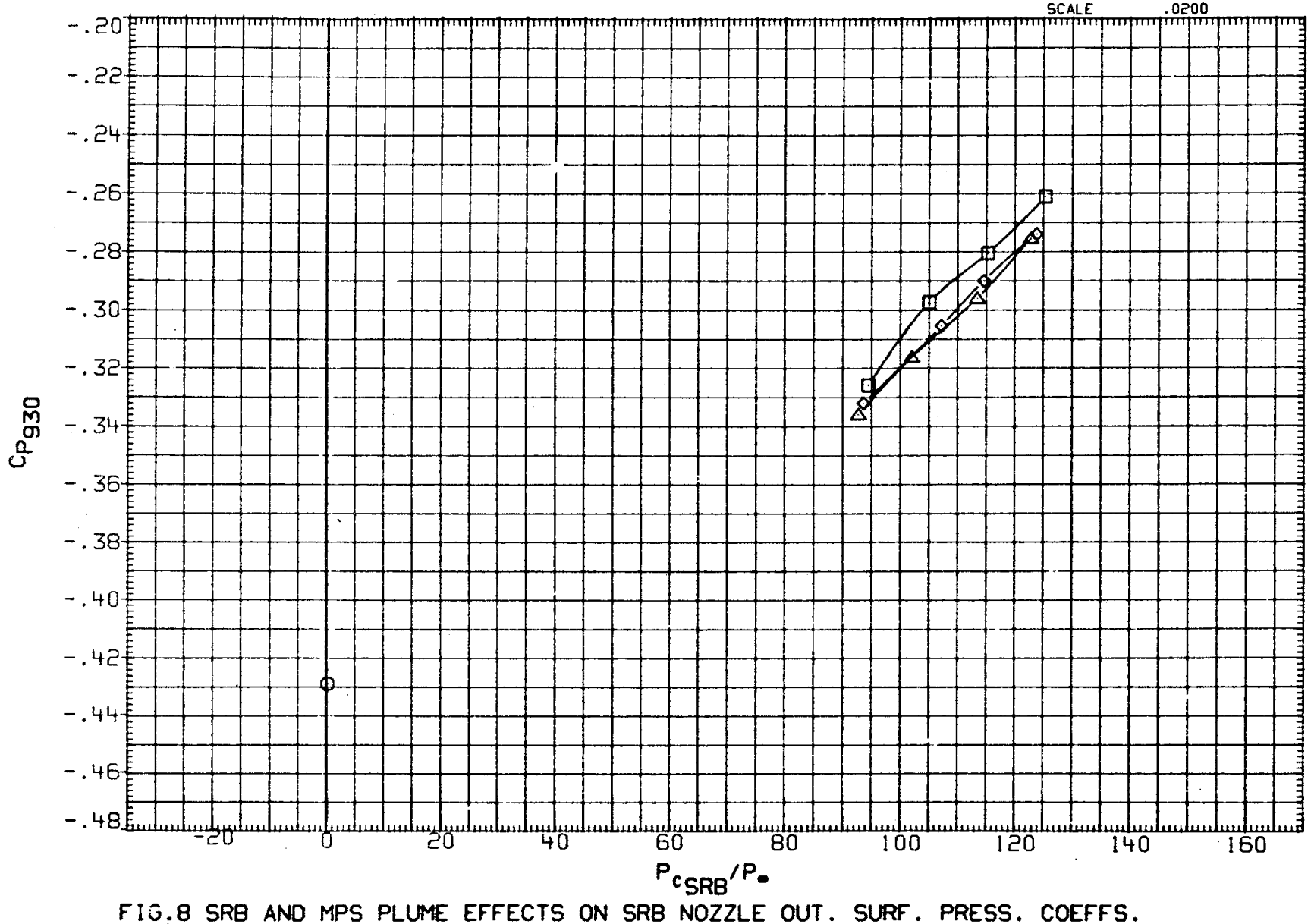

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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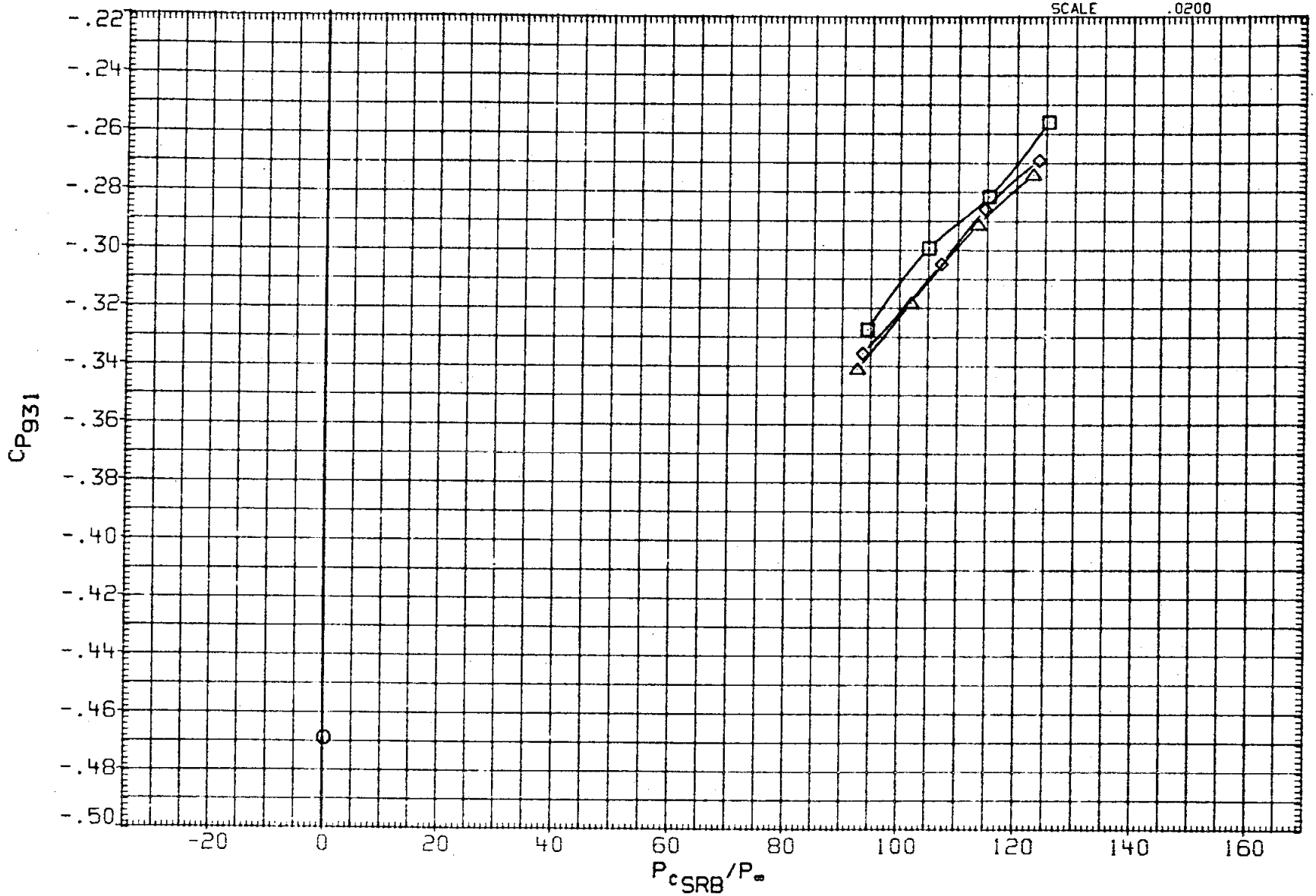

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

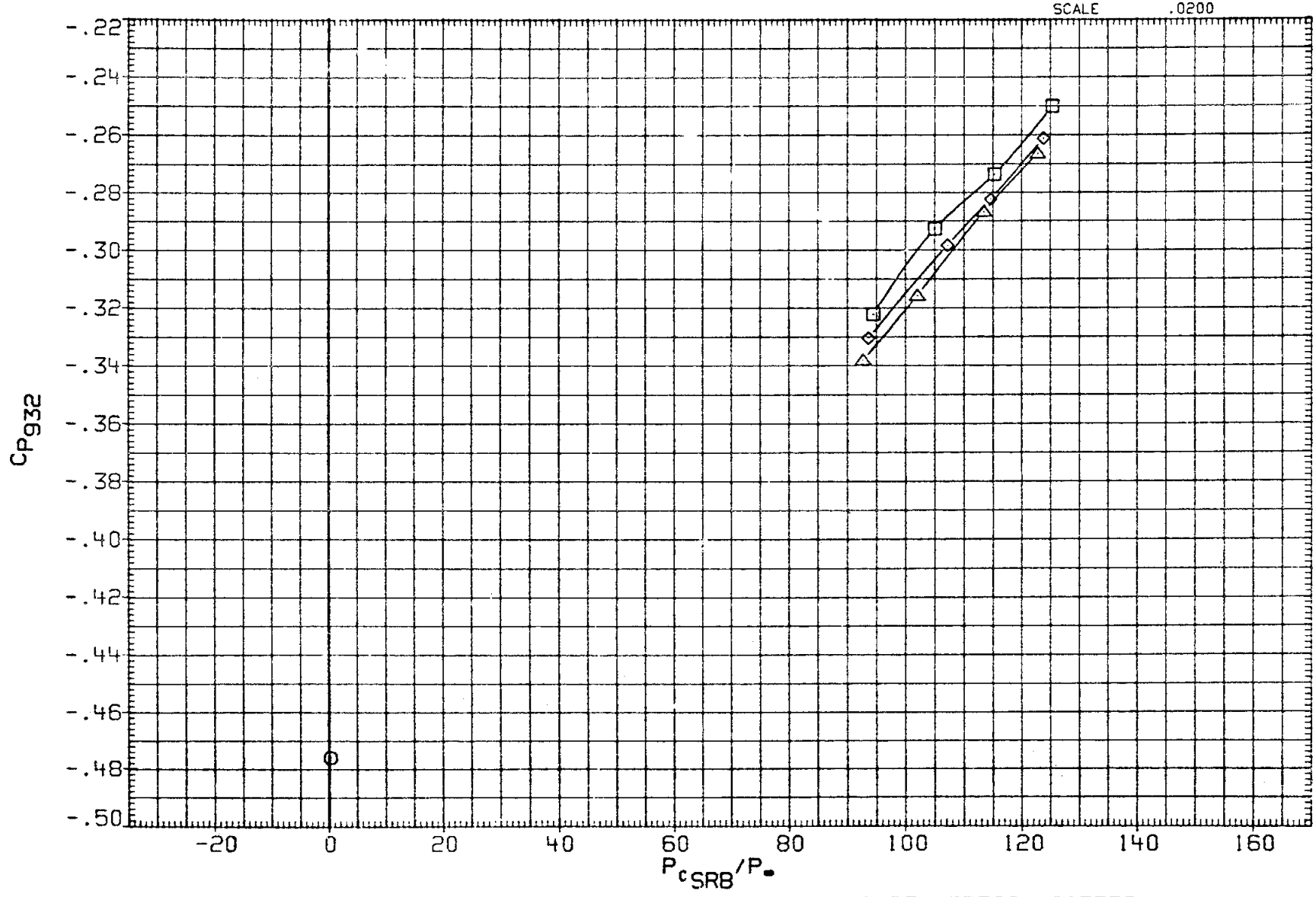

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

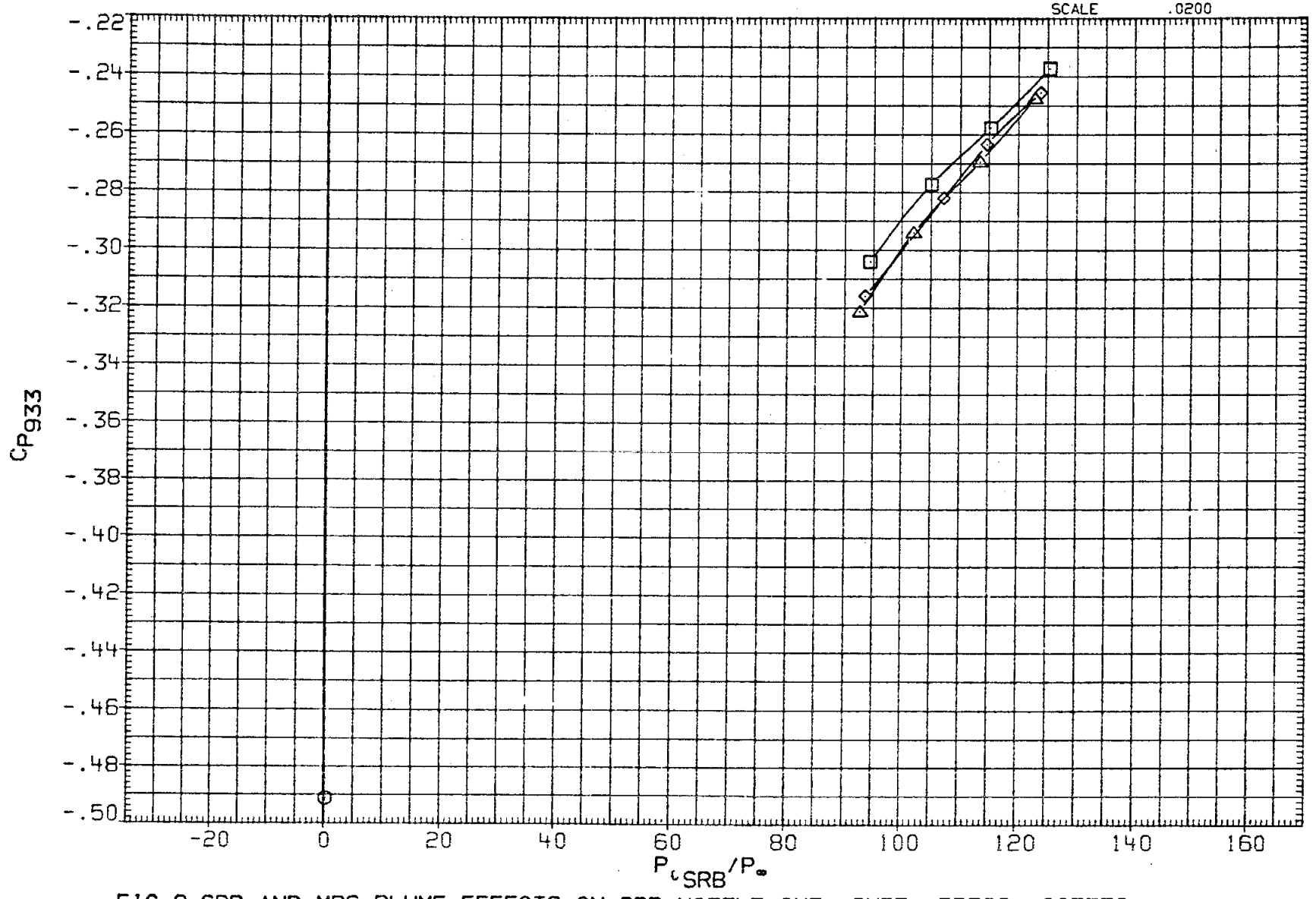

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
ZNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF
ZNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-
ZNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM
ZNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

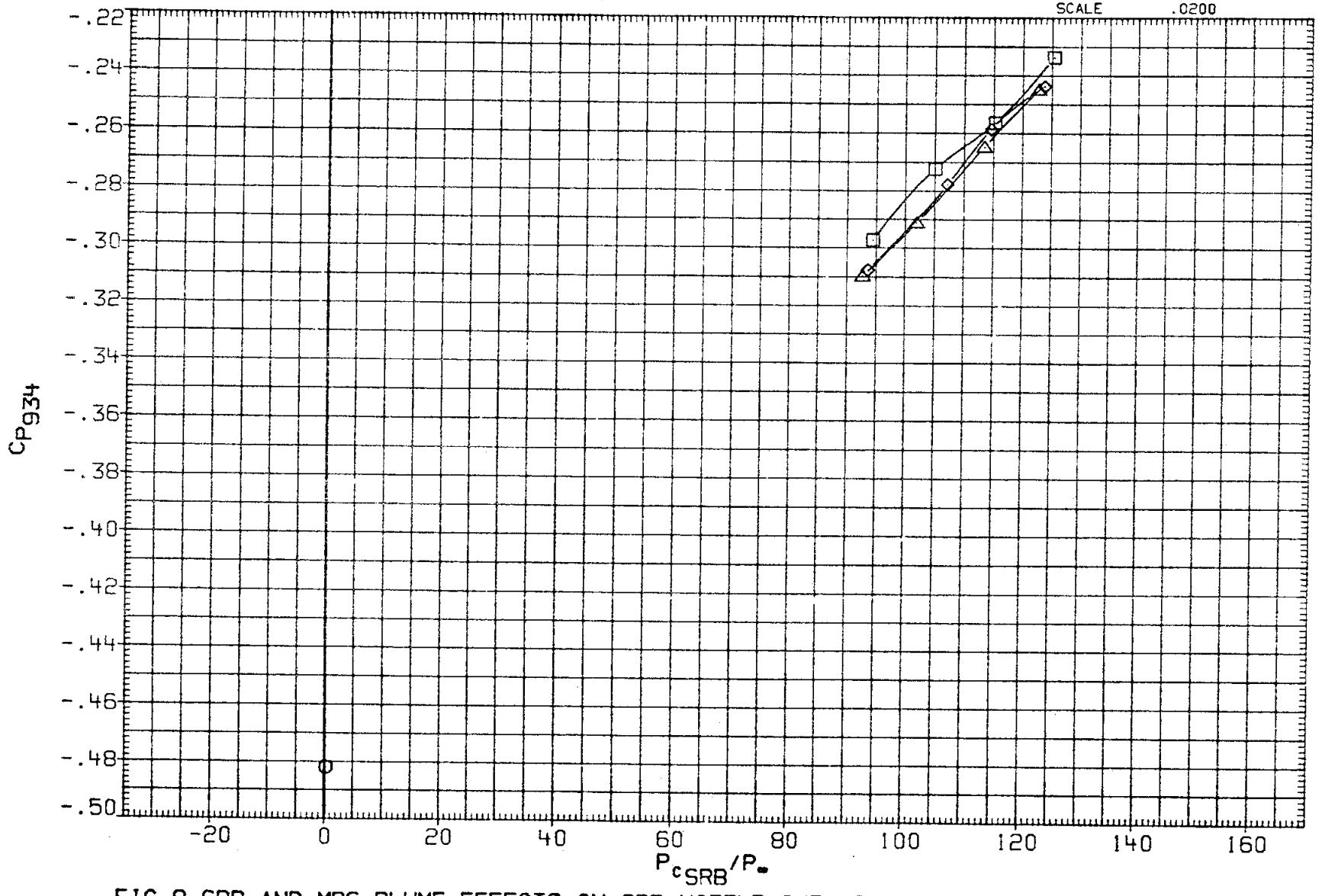

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

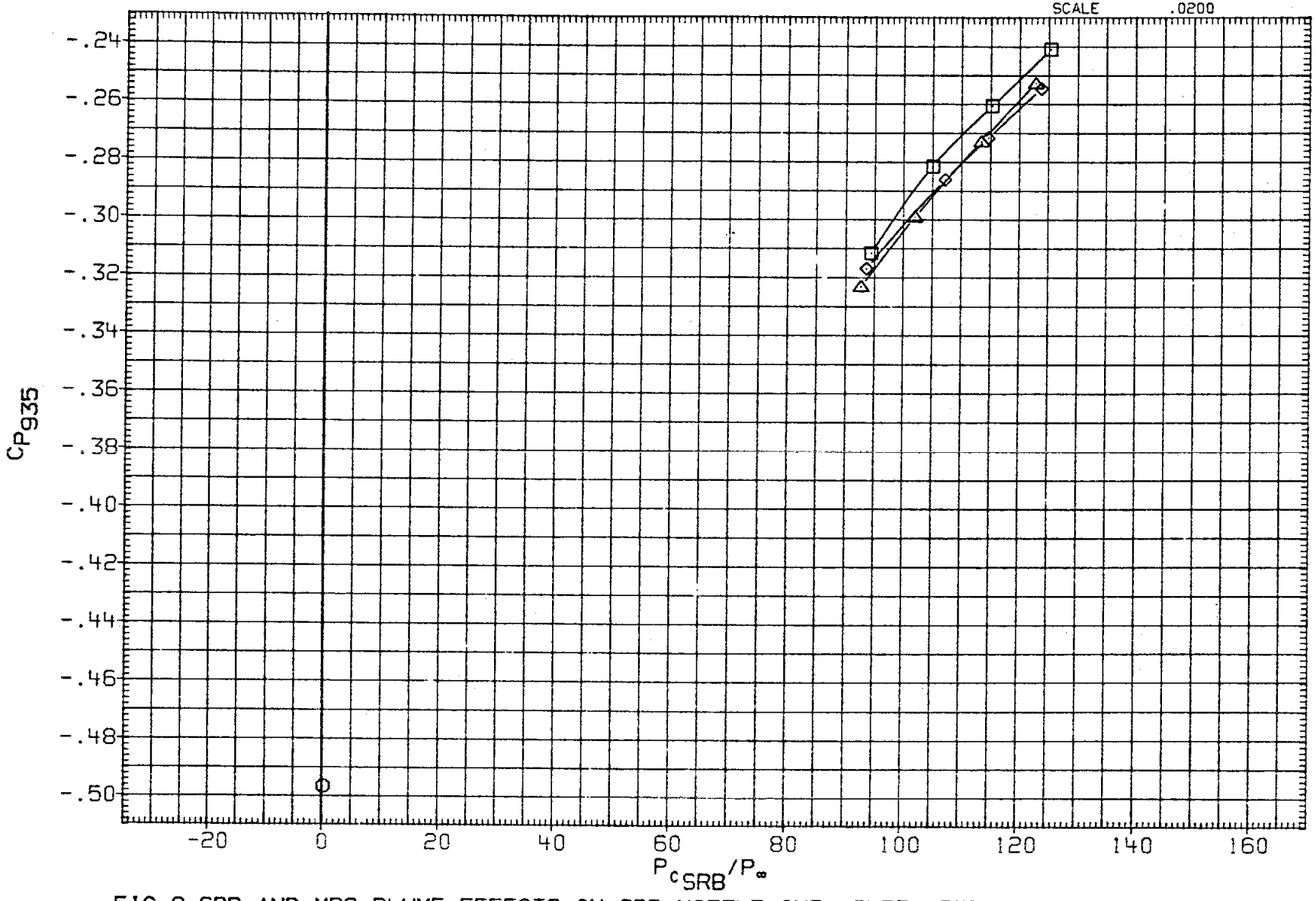

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

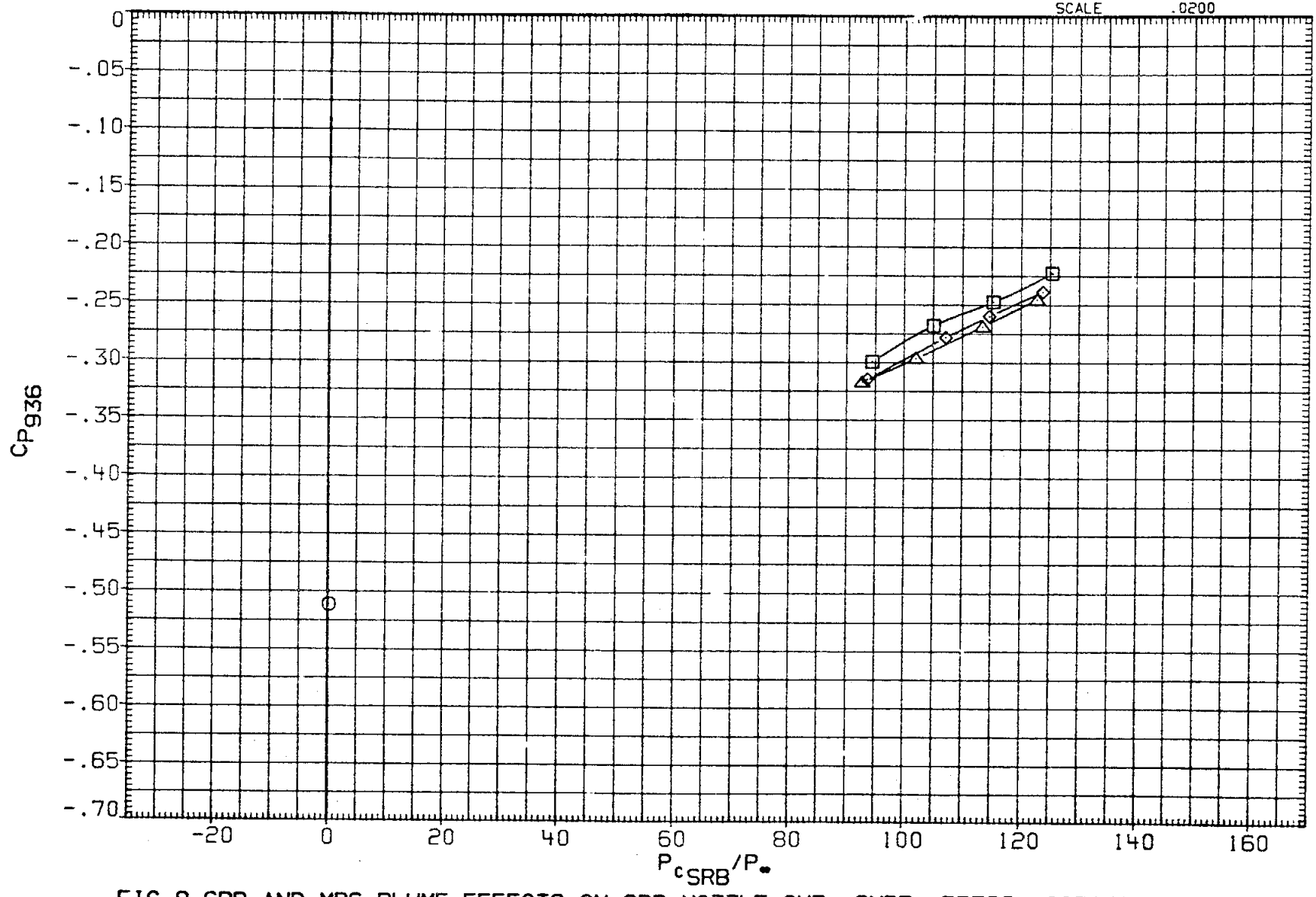

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

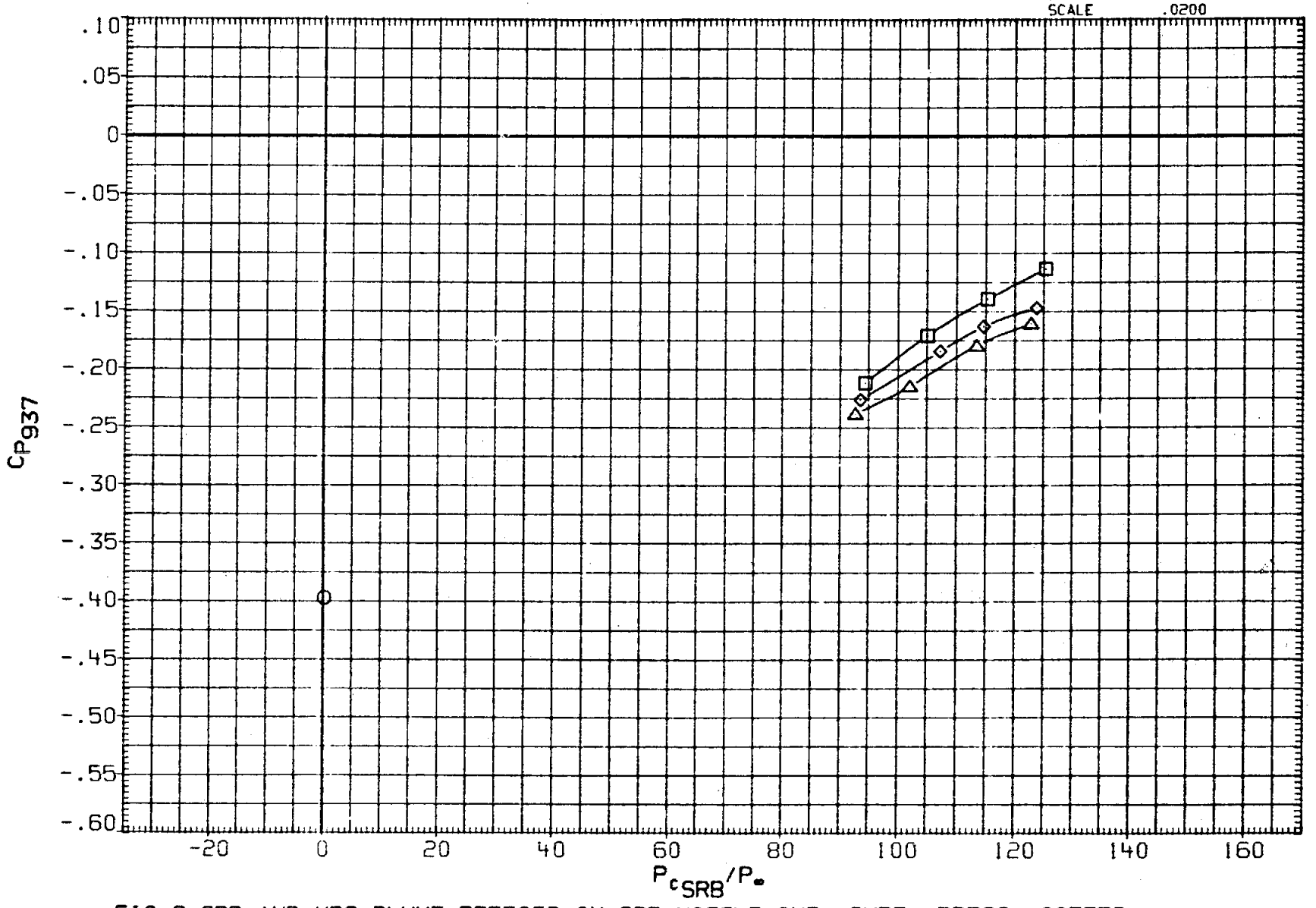

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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ZMRP	.0000	N.A.
SCALE	.0200	

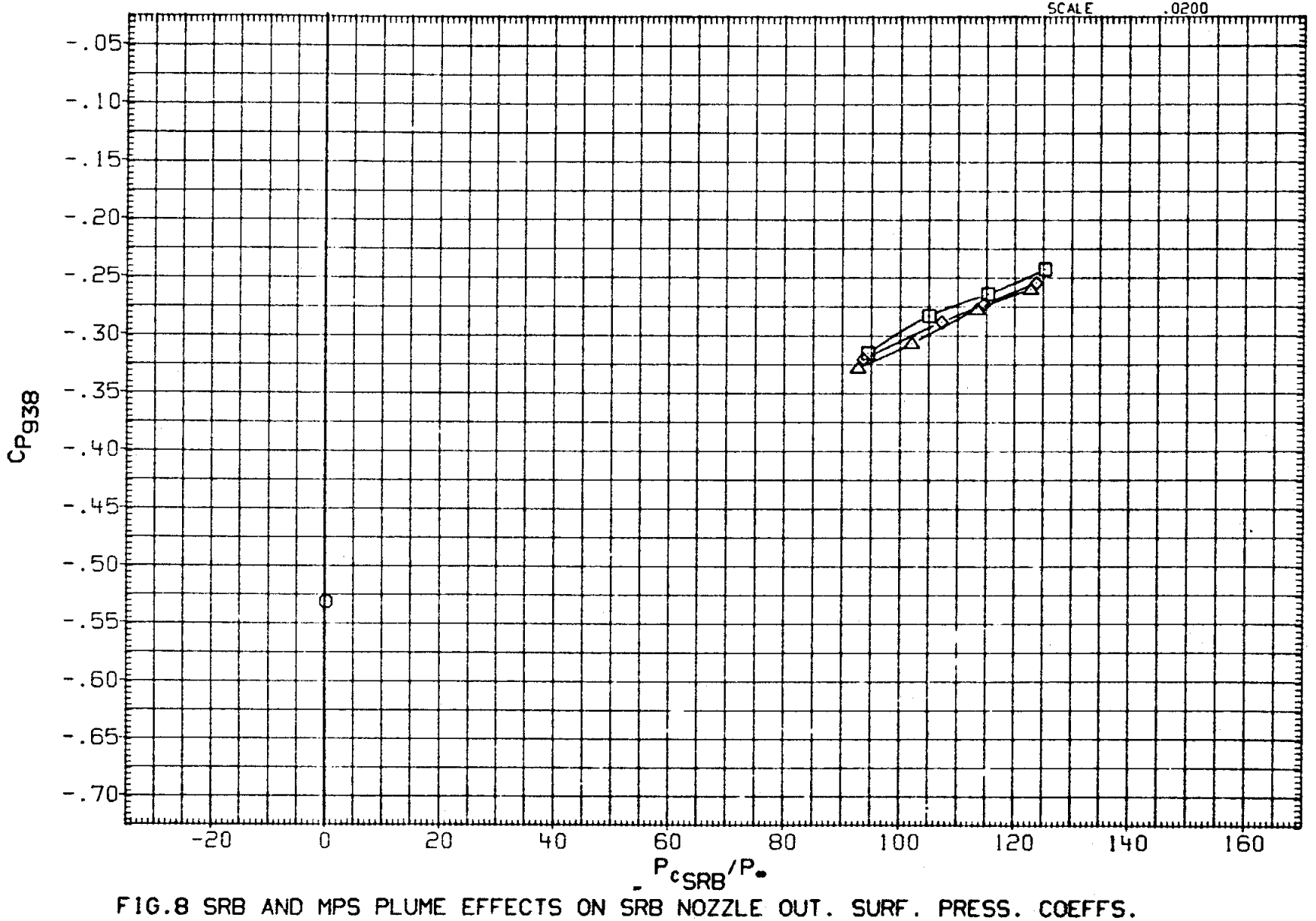

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
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SCALE	.0200	

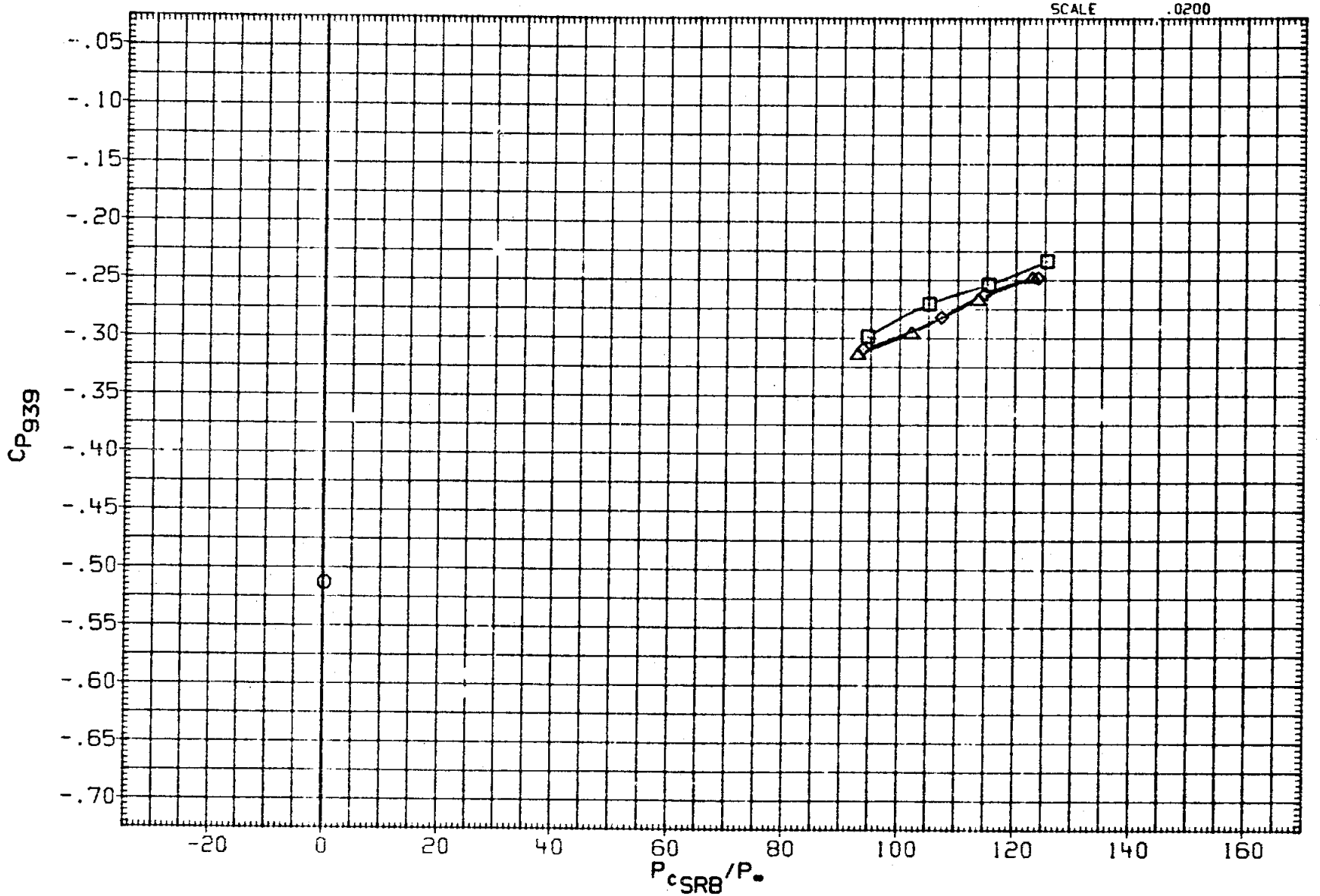

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A) MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA08	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA09	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA10	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA11	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
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SCALE	.0200	

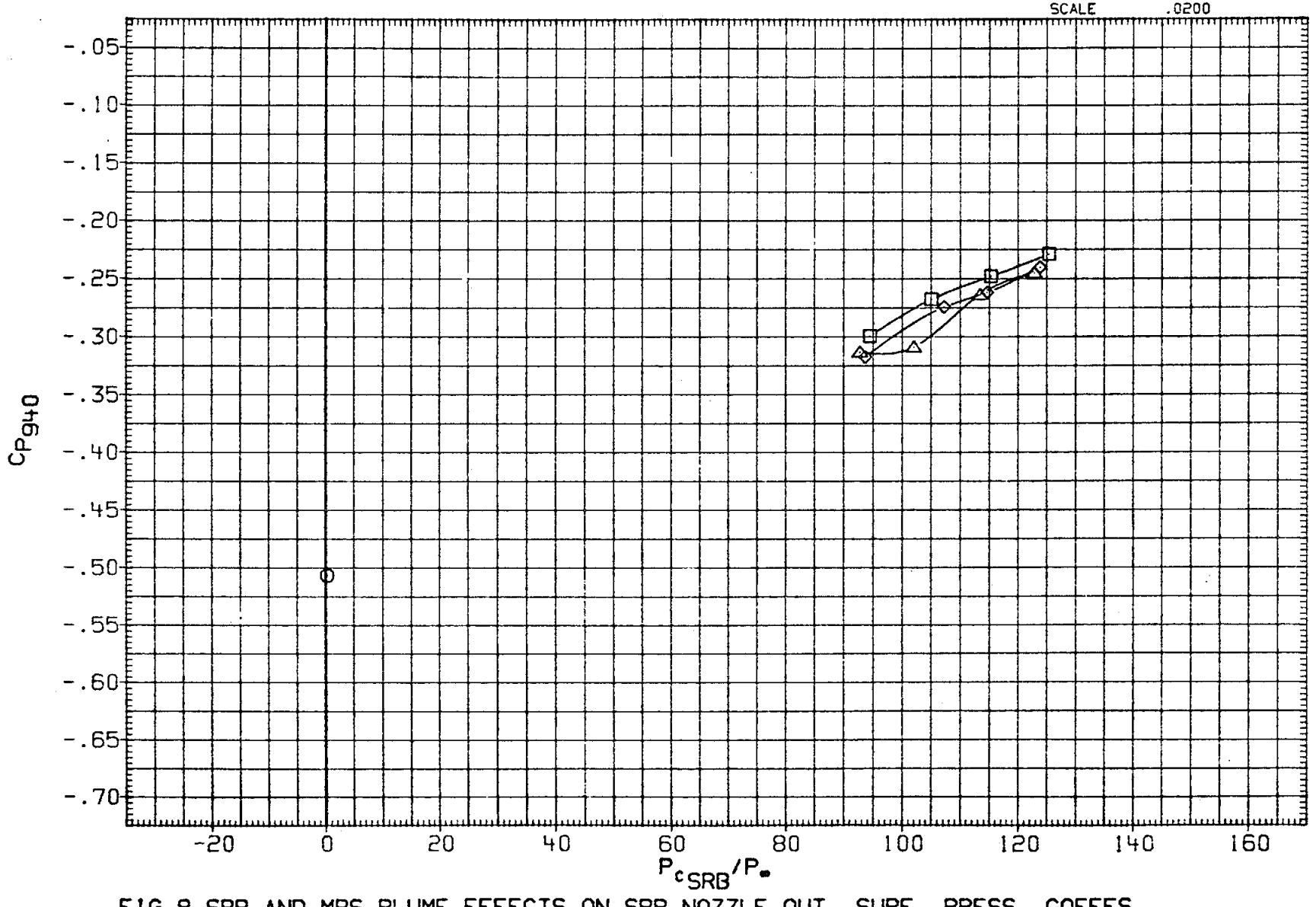

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
WNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF
WNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-
WNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM
WNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+

PT	GIMBAL	ELV-IB	ELV-OB
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000
14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

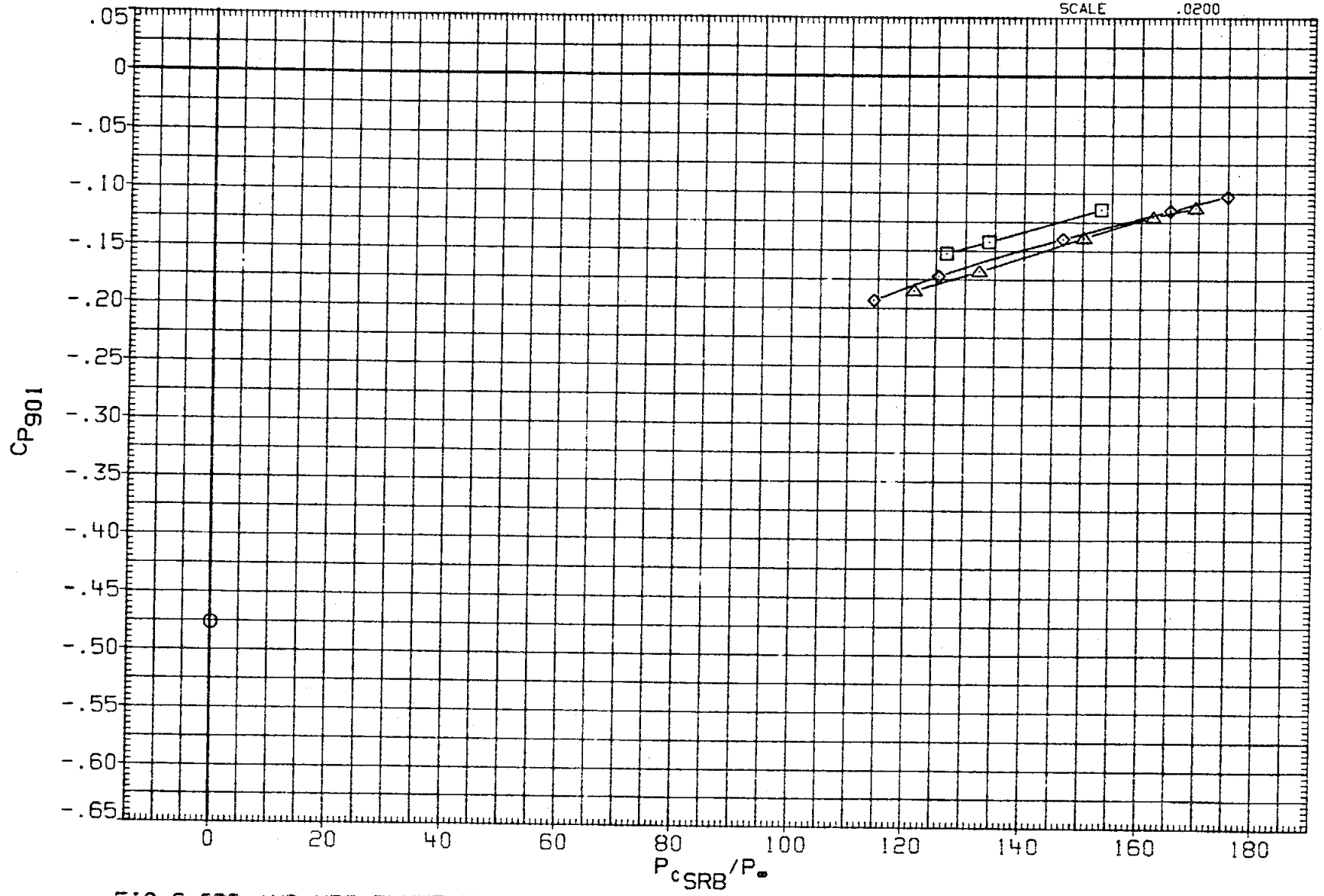

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

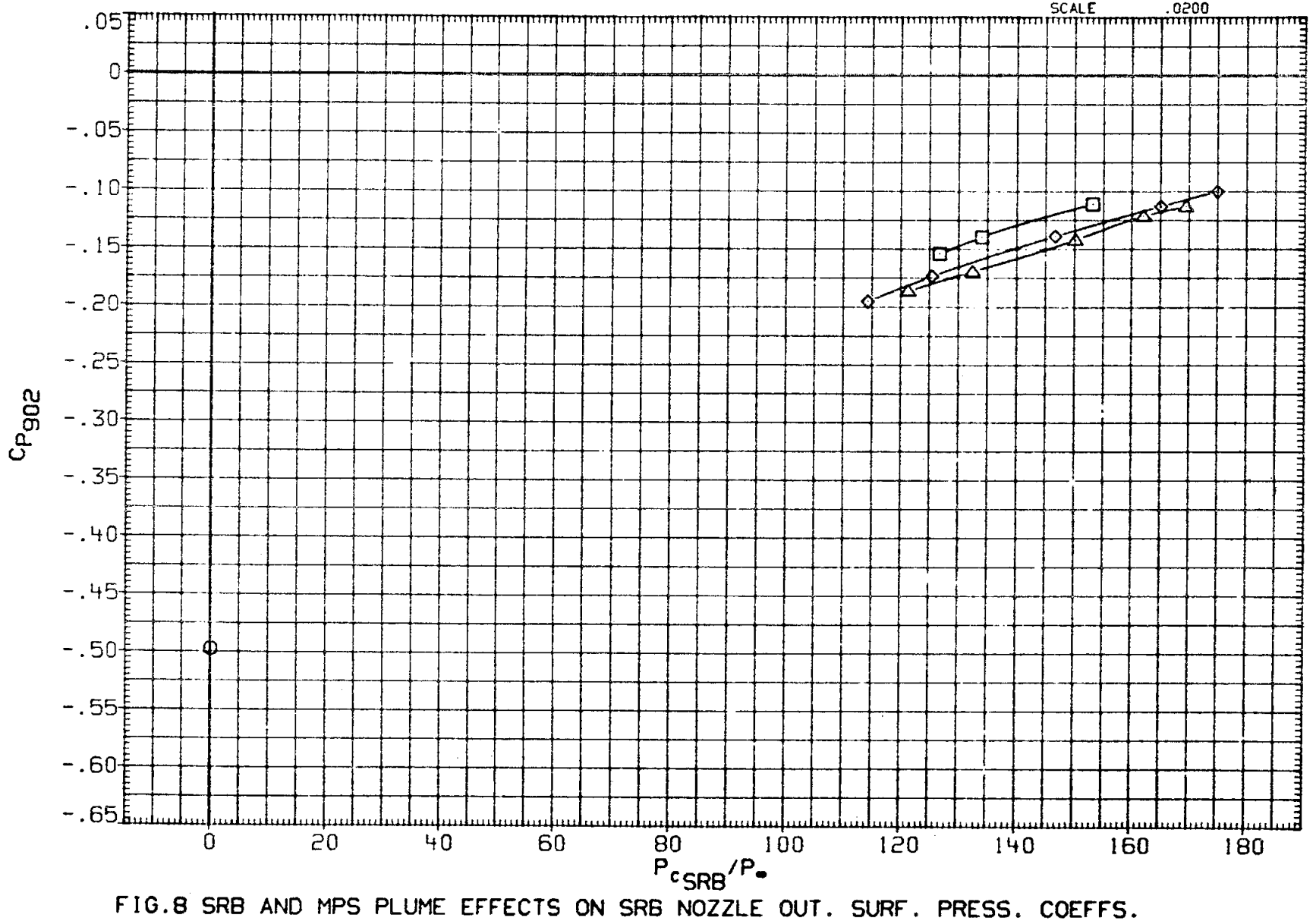

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

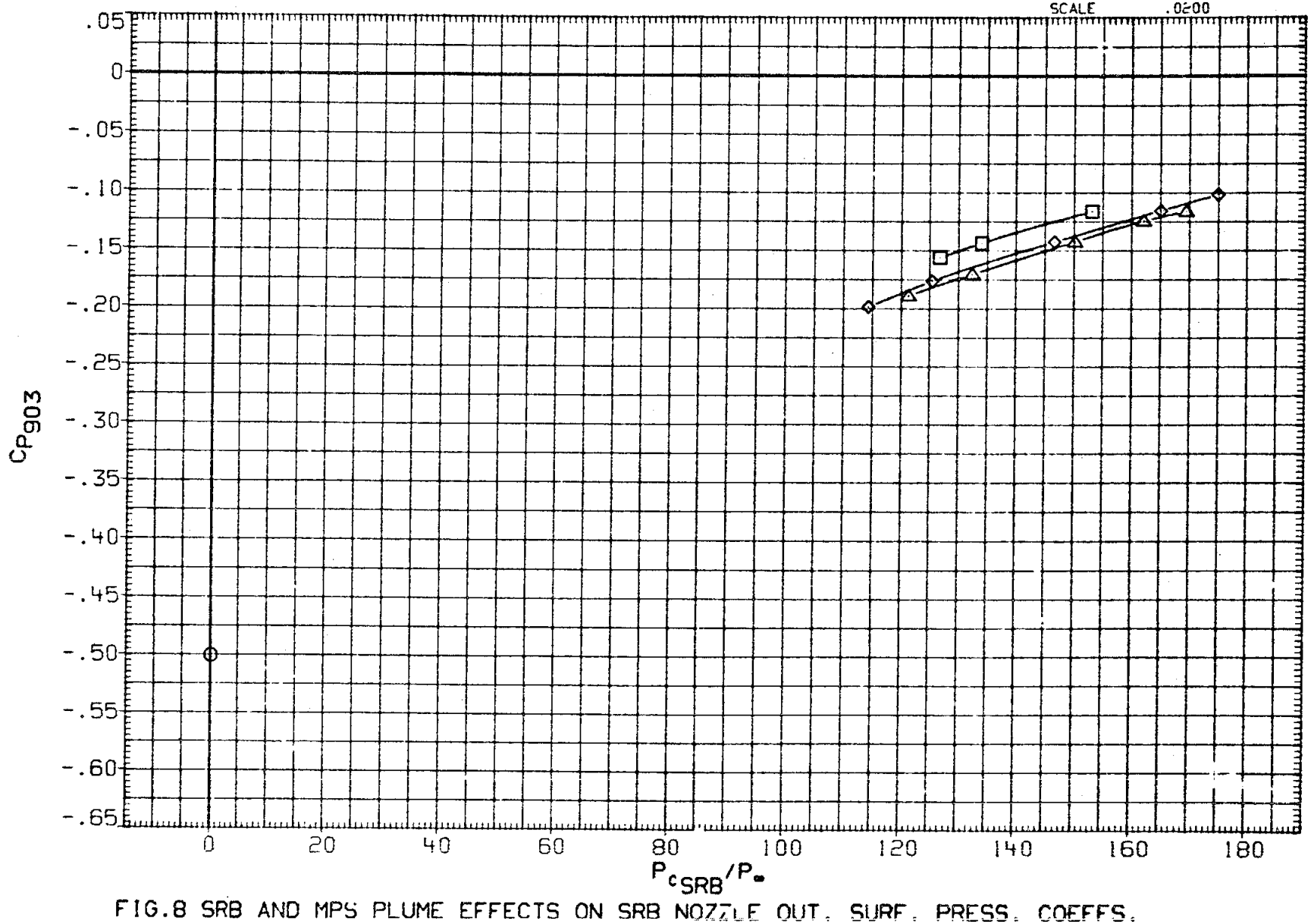

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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XMRP	.0000	N.A.
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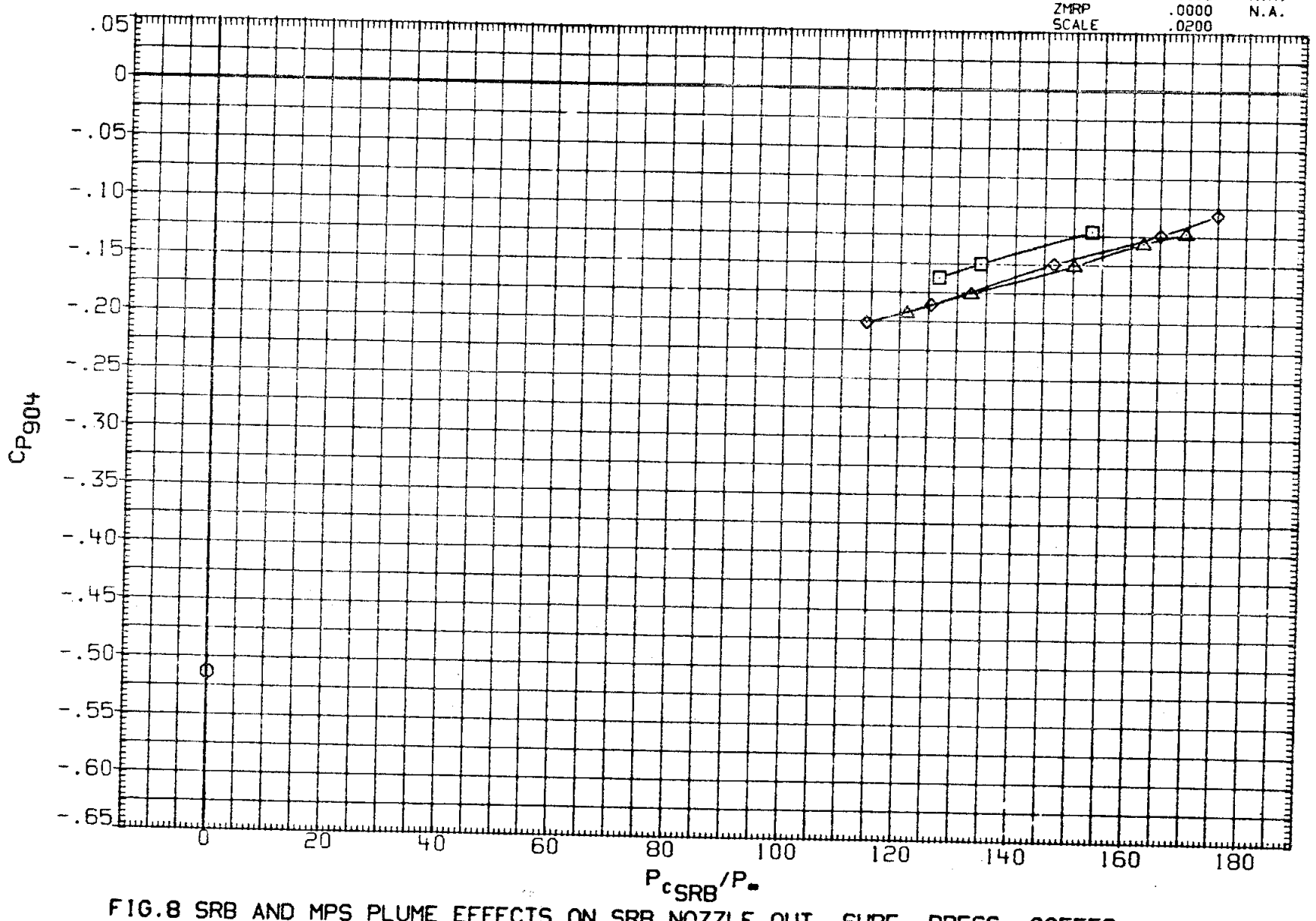

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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WNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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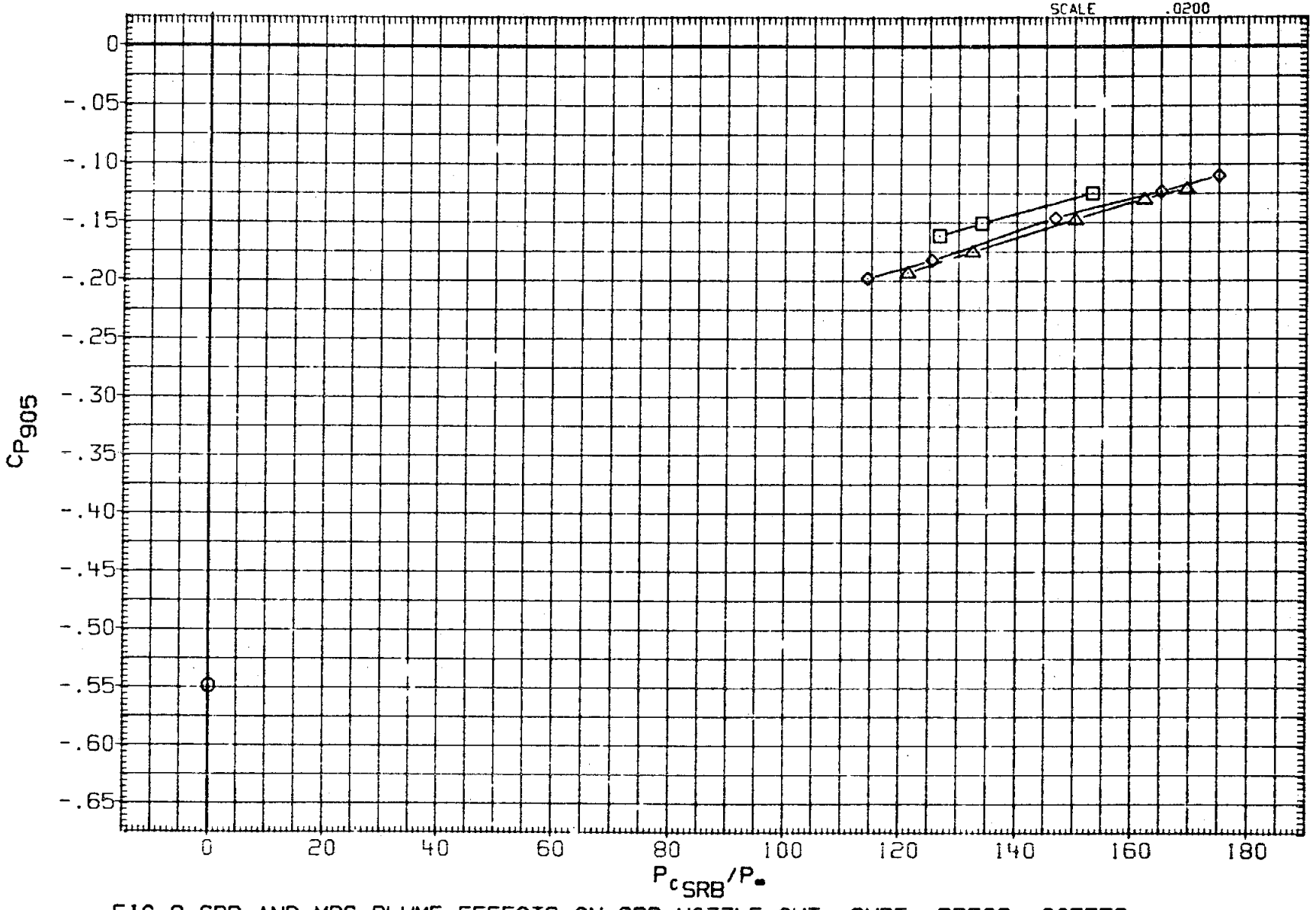

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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WNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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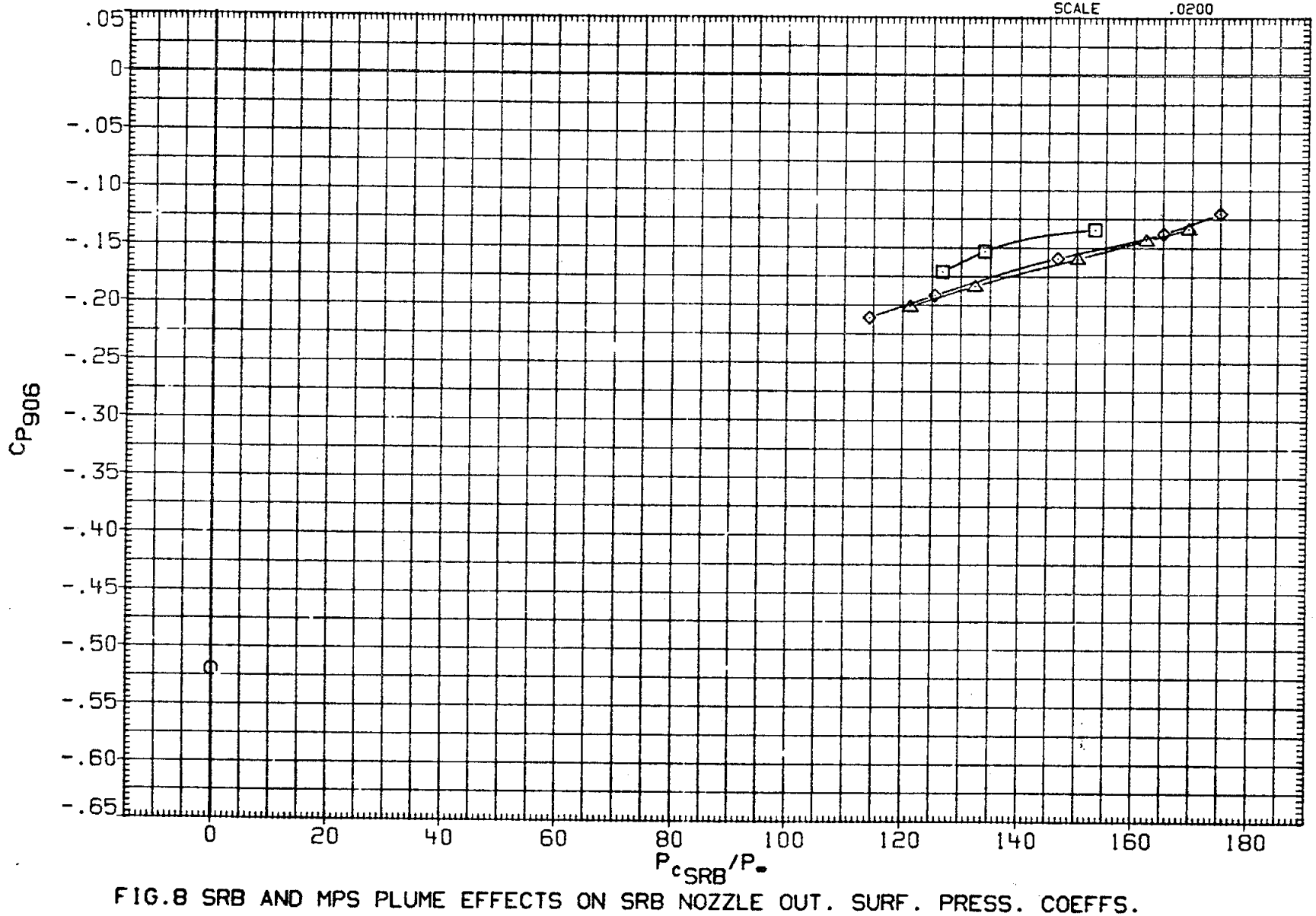

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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WNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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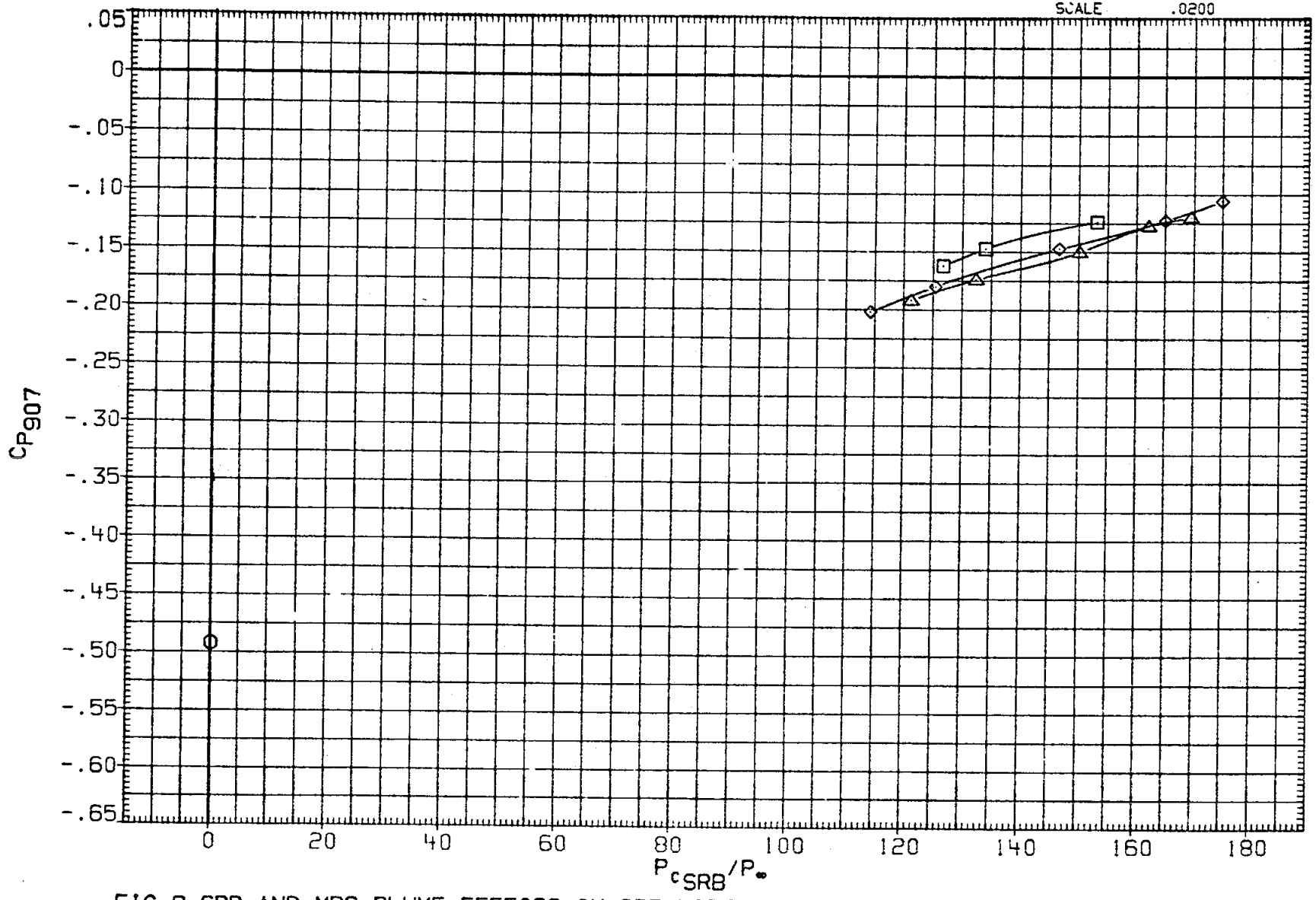

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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WNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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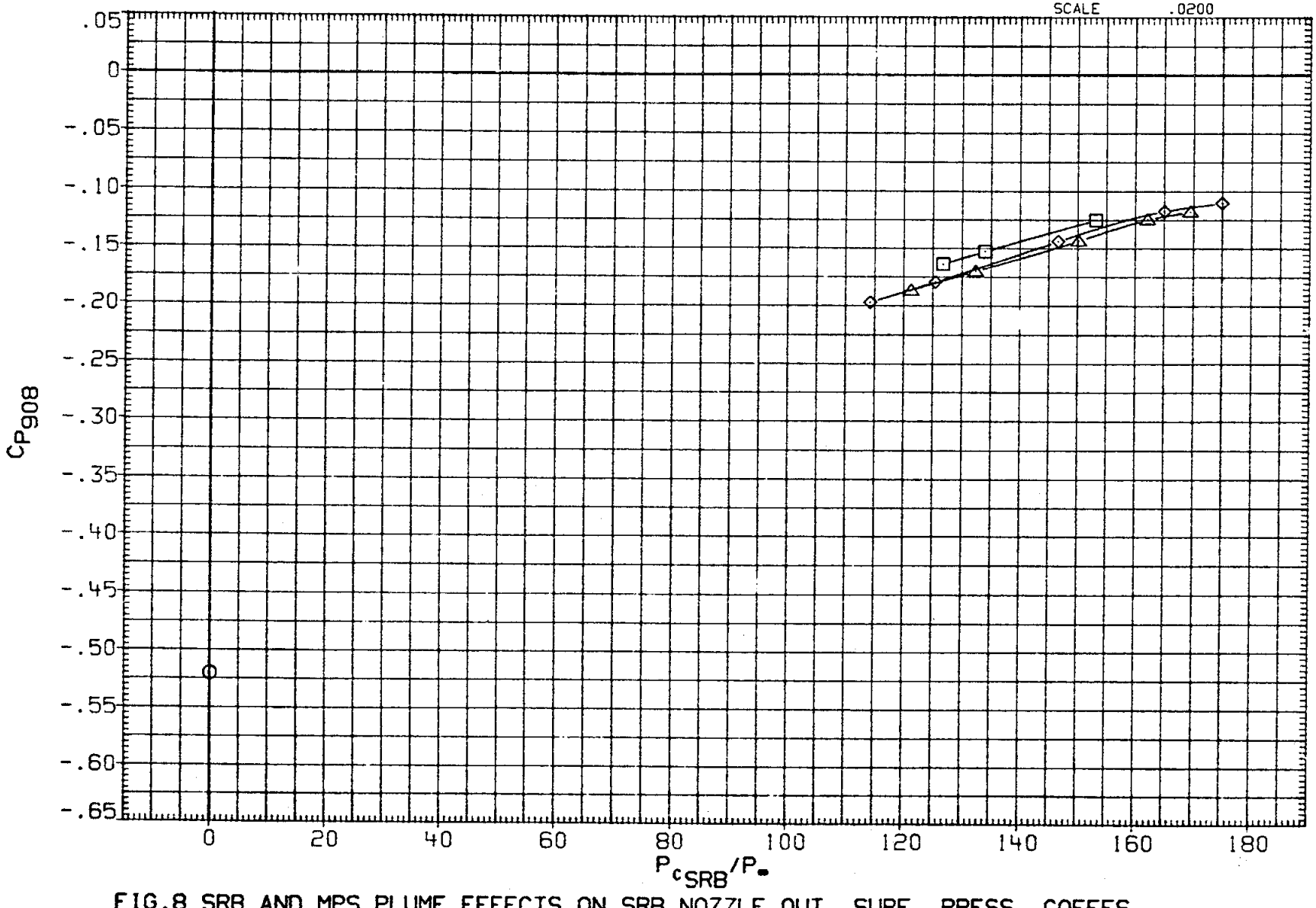

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
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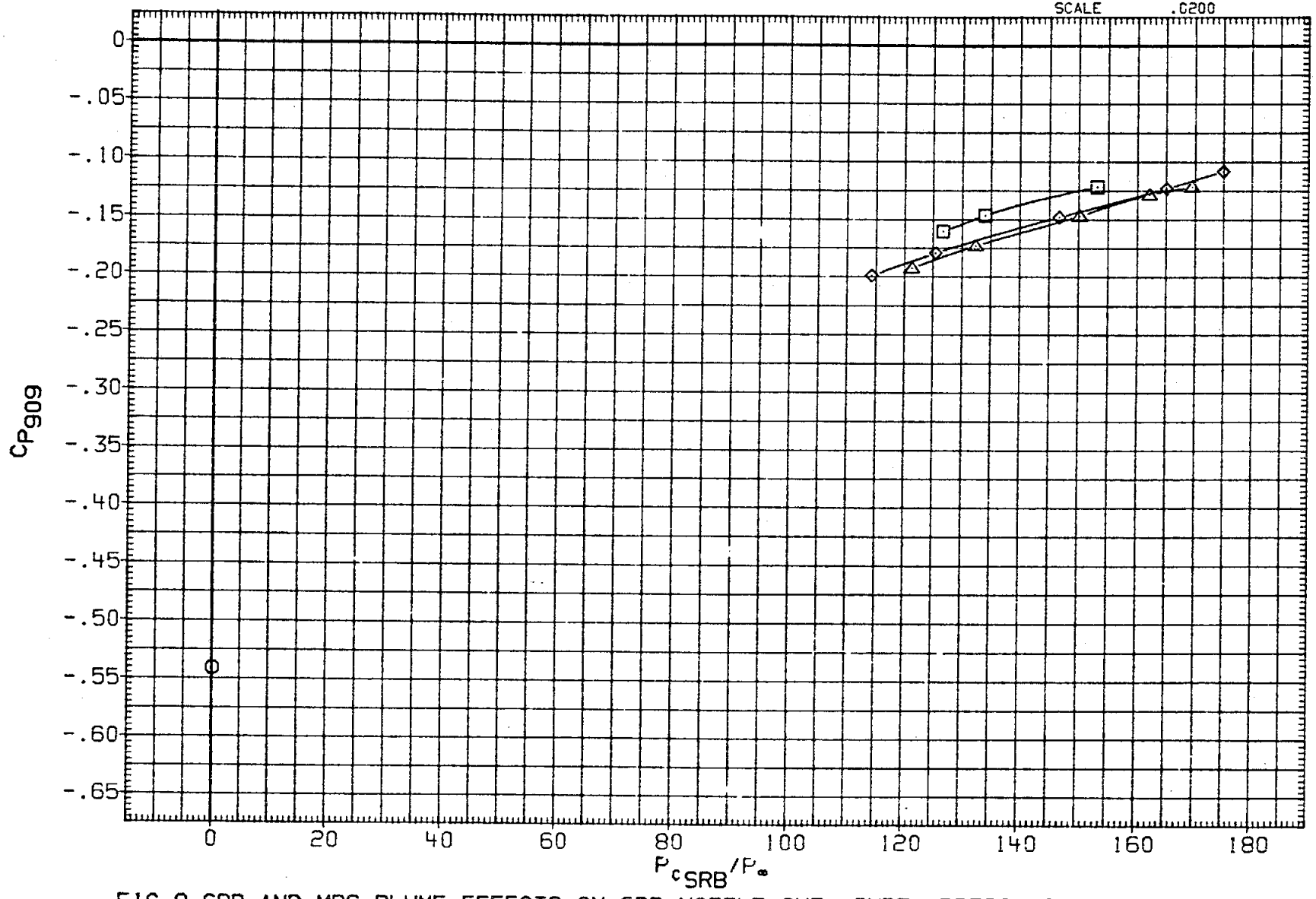

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
WNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
WNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
WNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
WNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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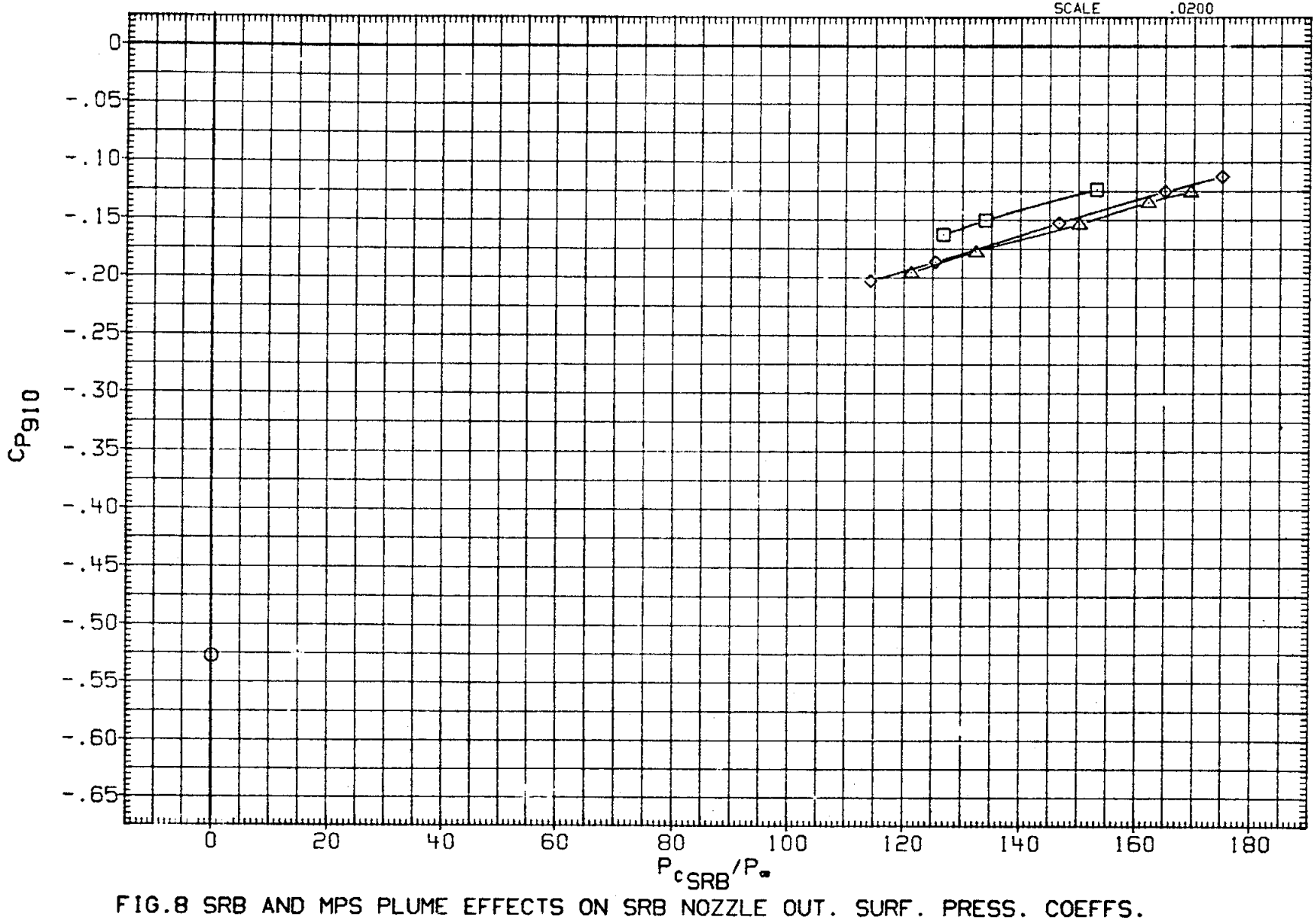

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DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
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XNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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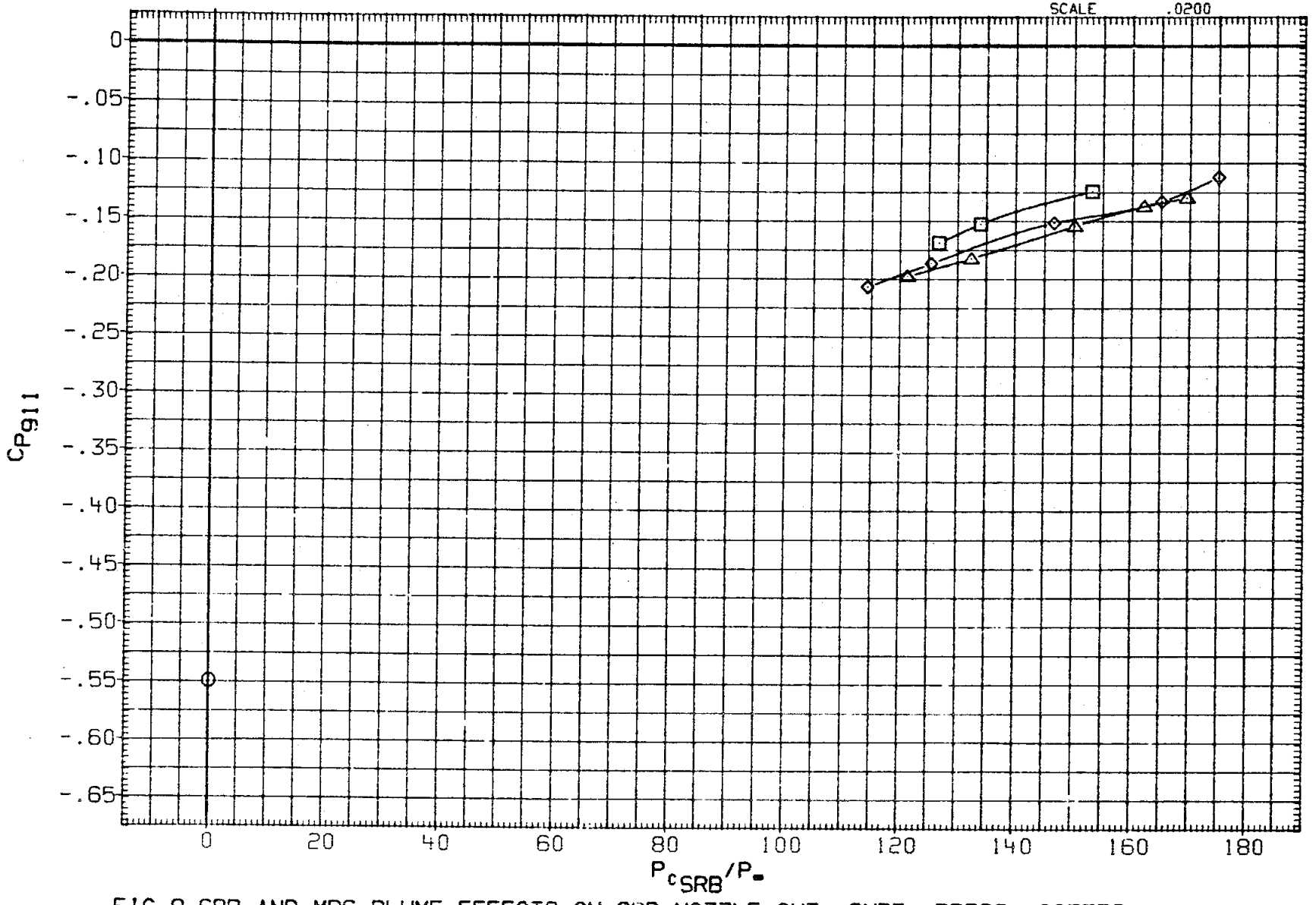

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(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
XNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
XNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
XNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
XNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

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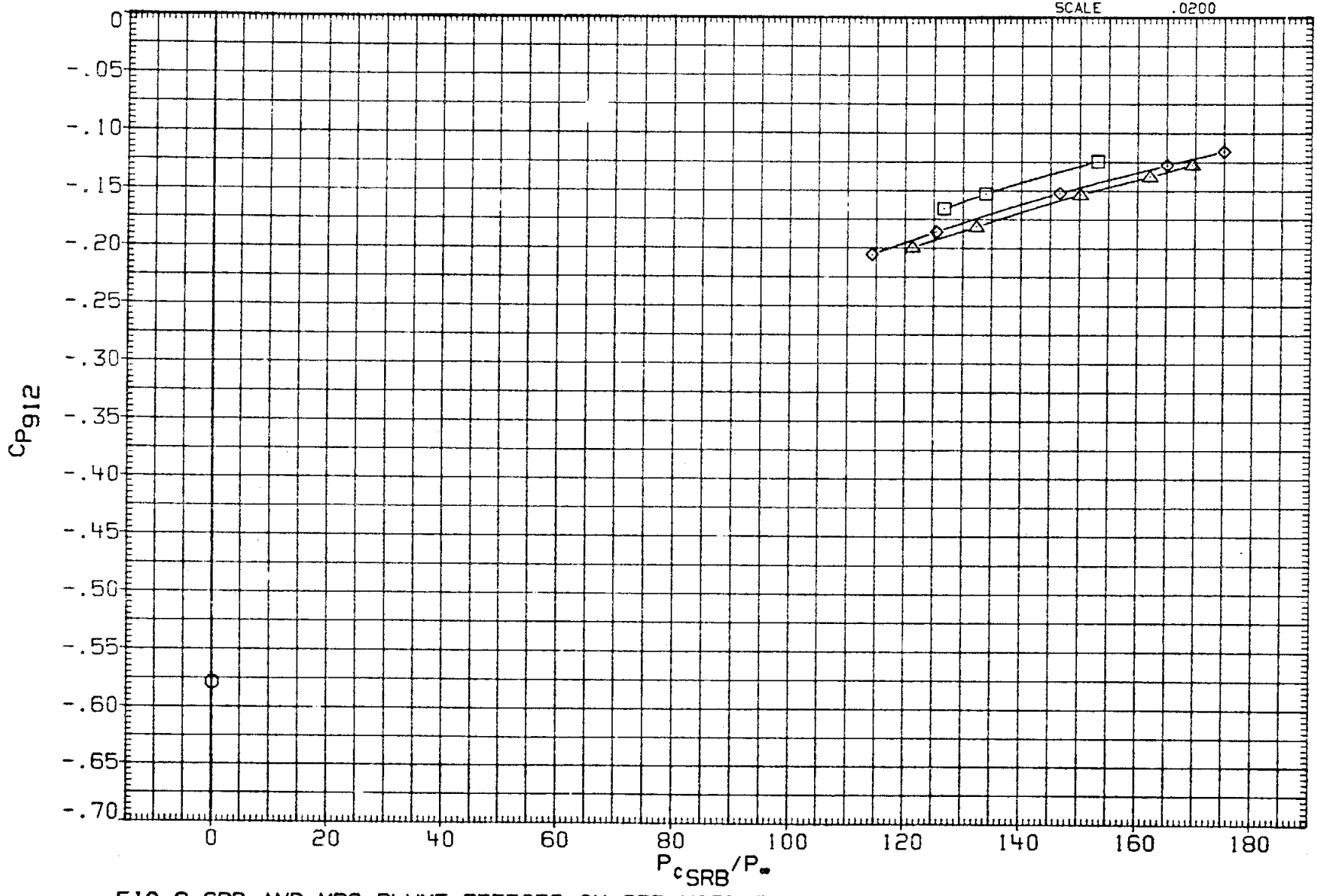

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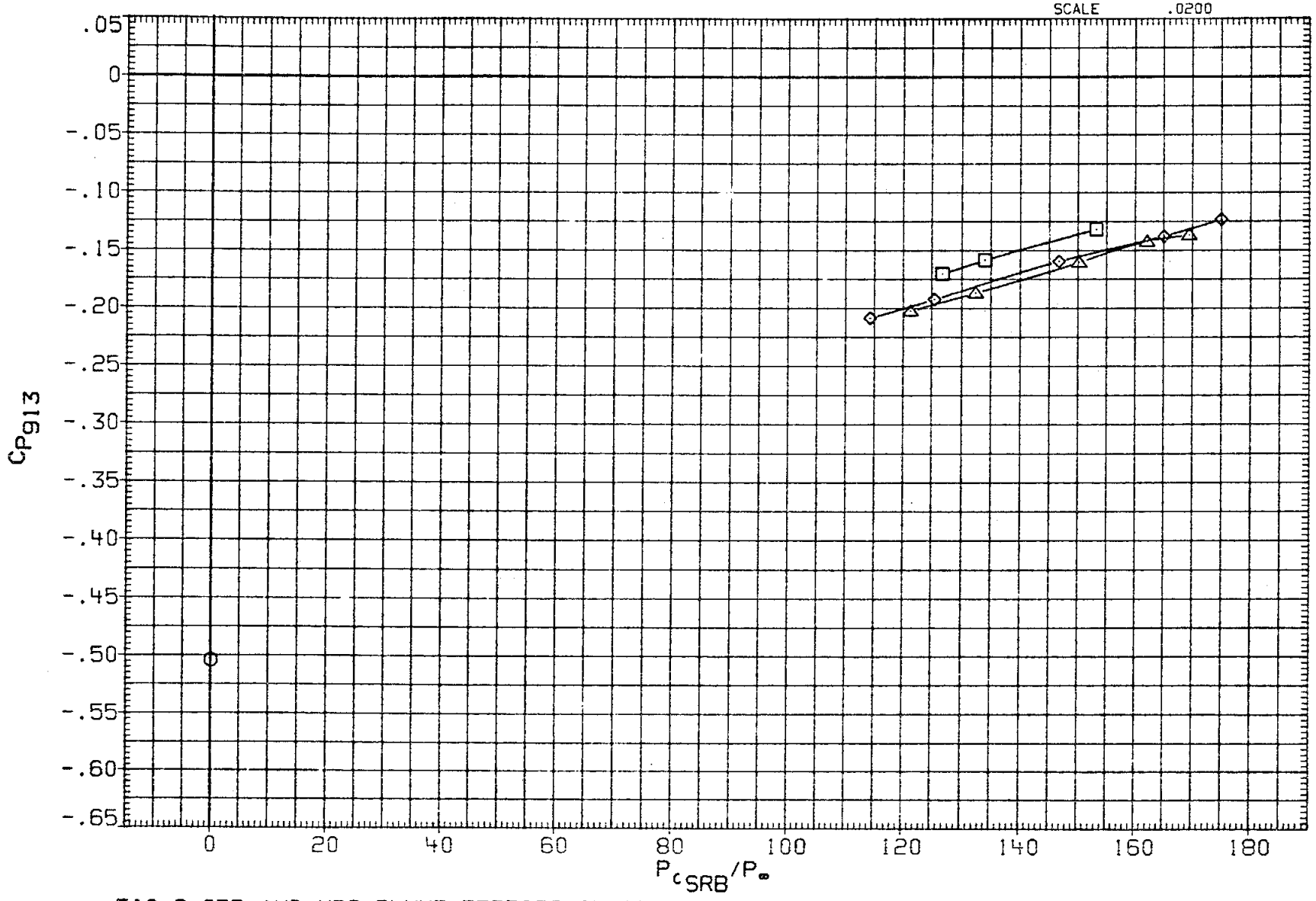

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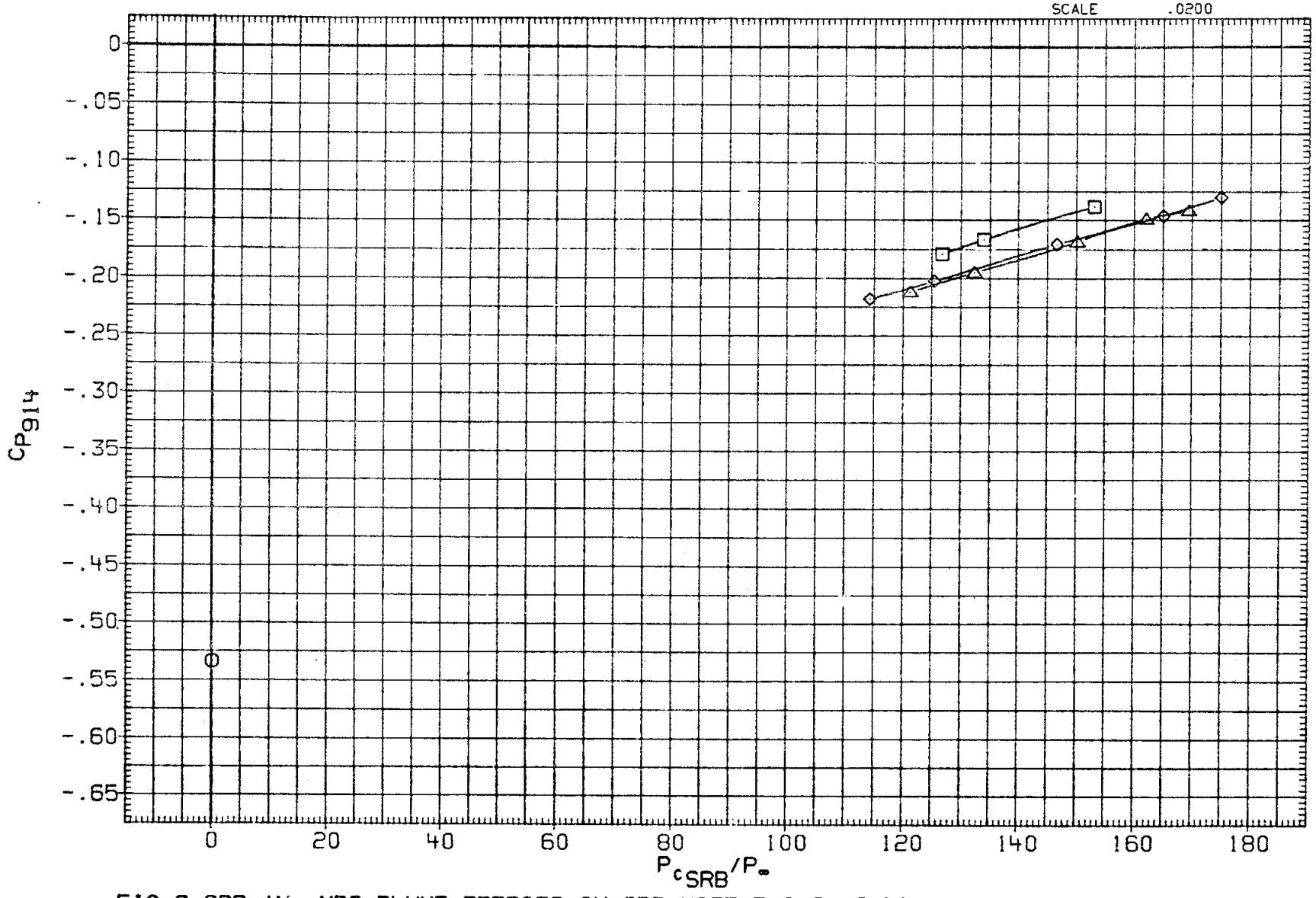

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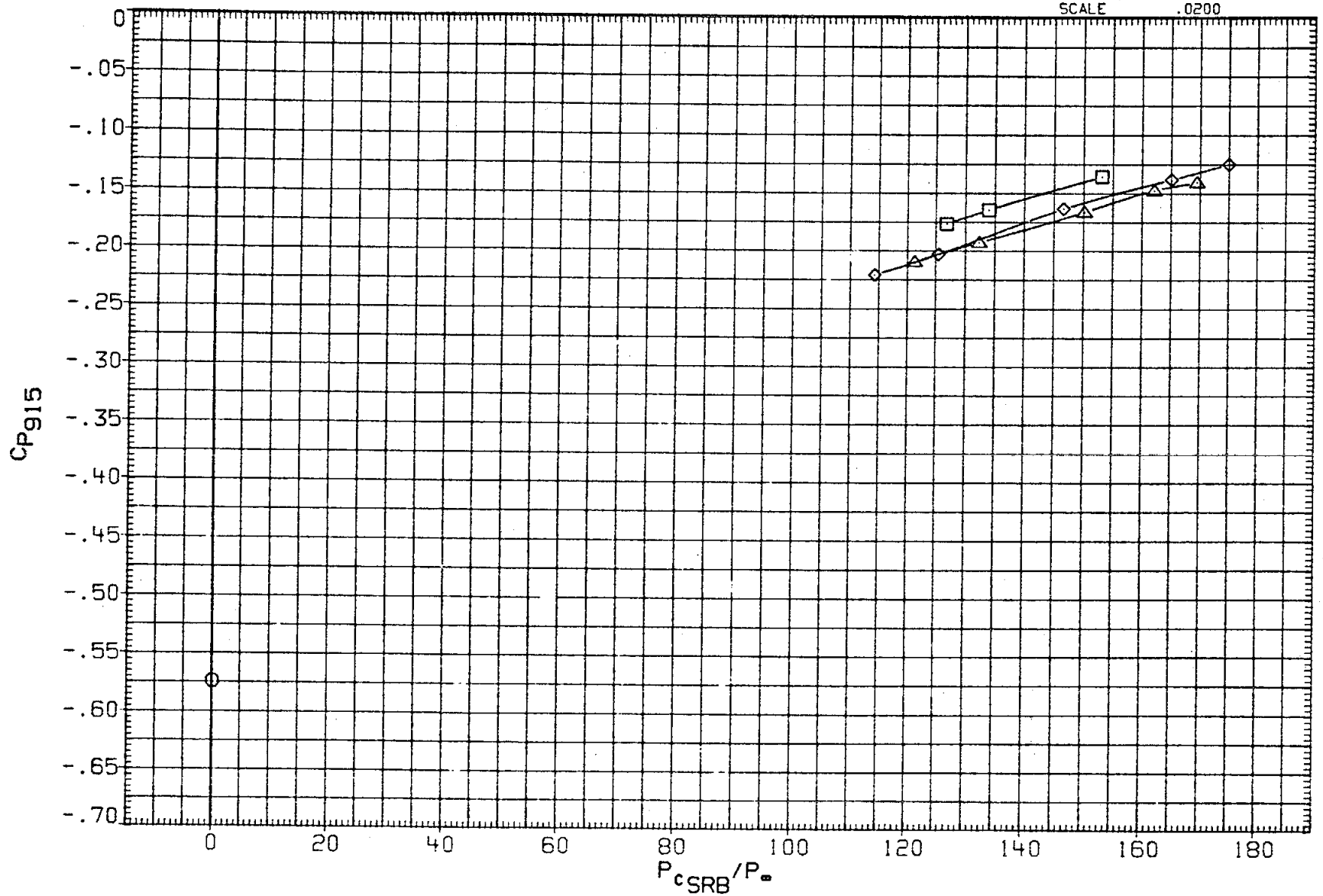

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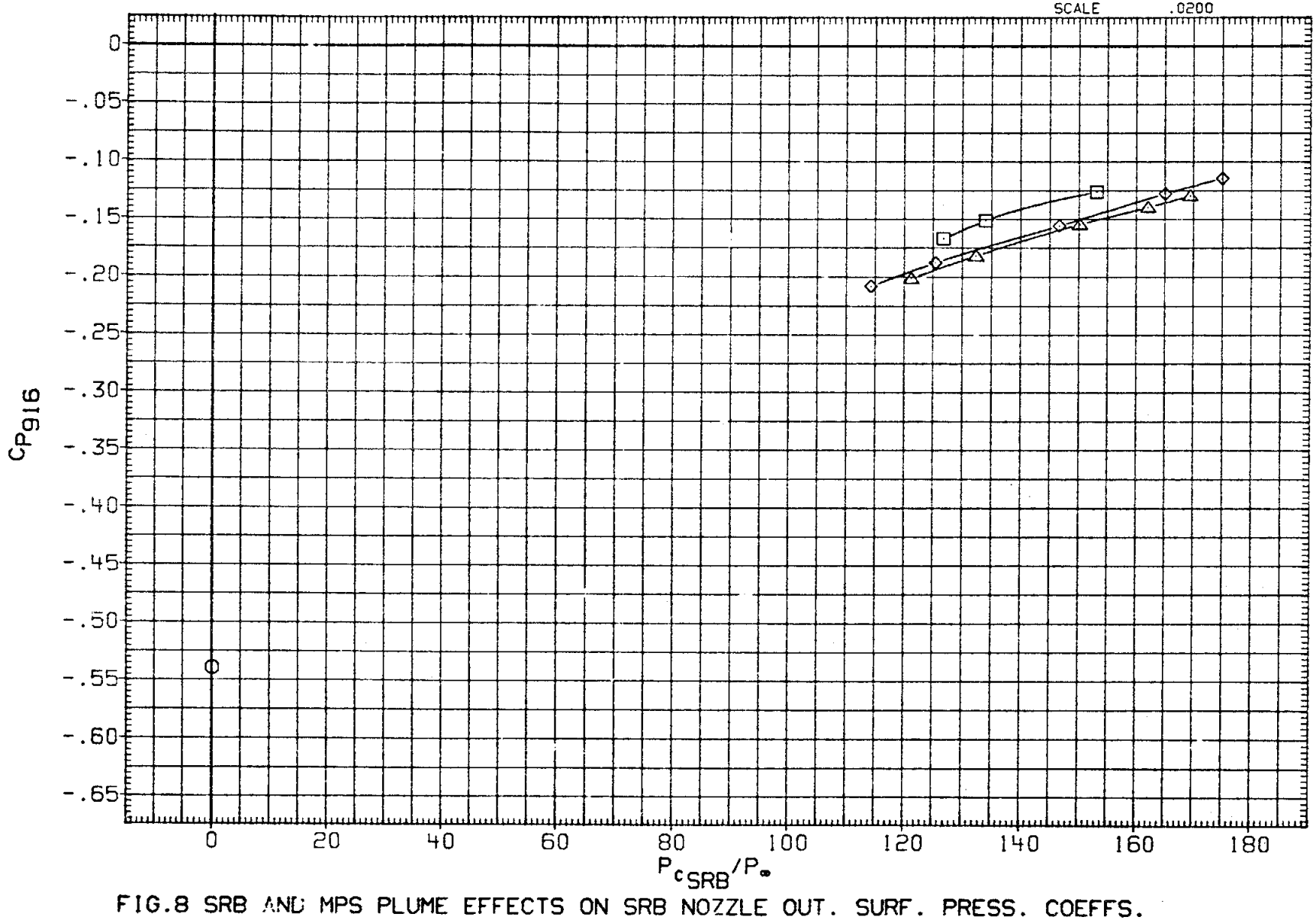

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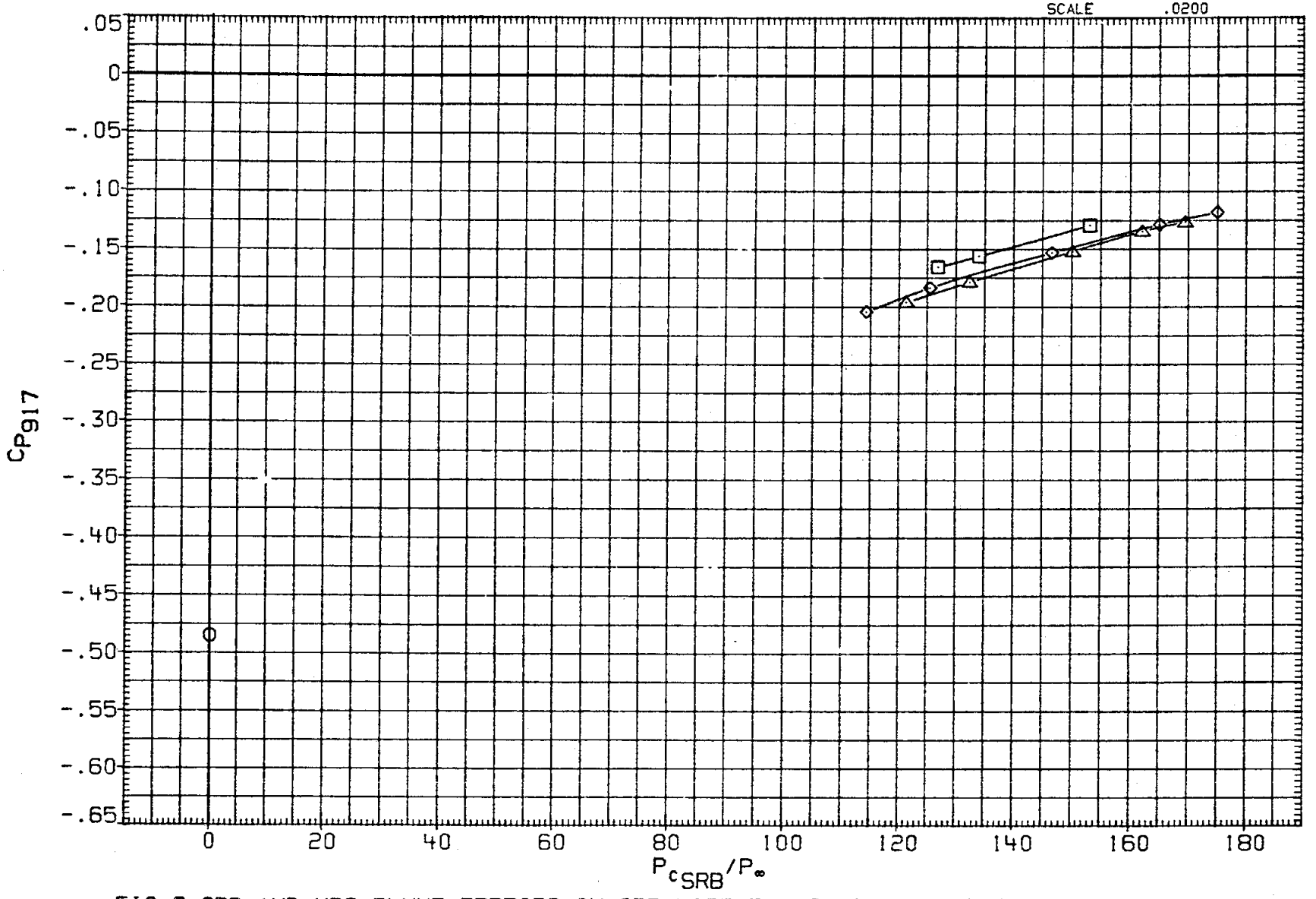

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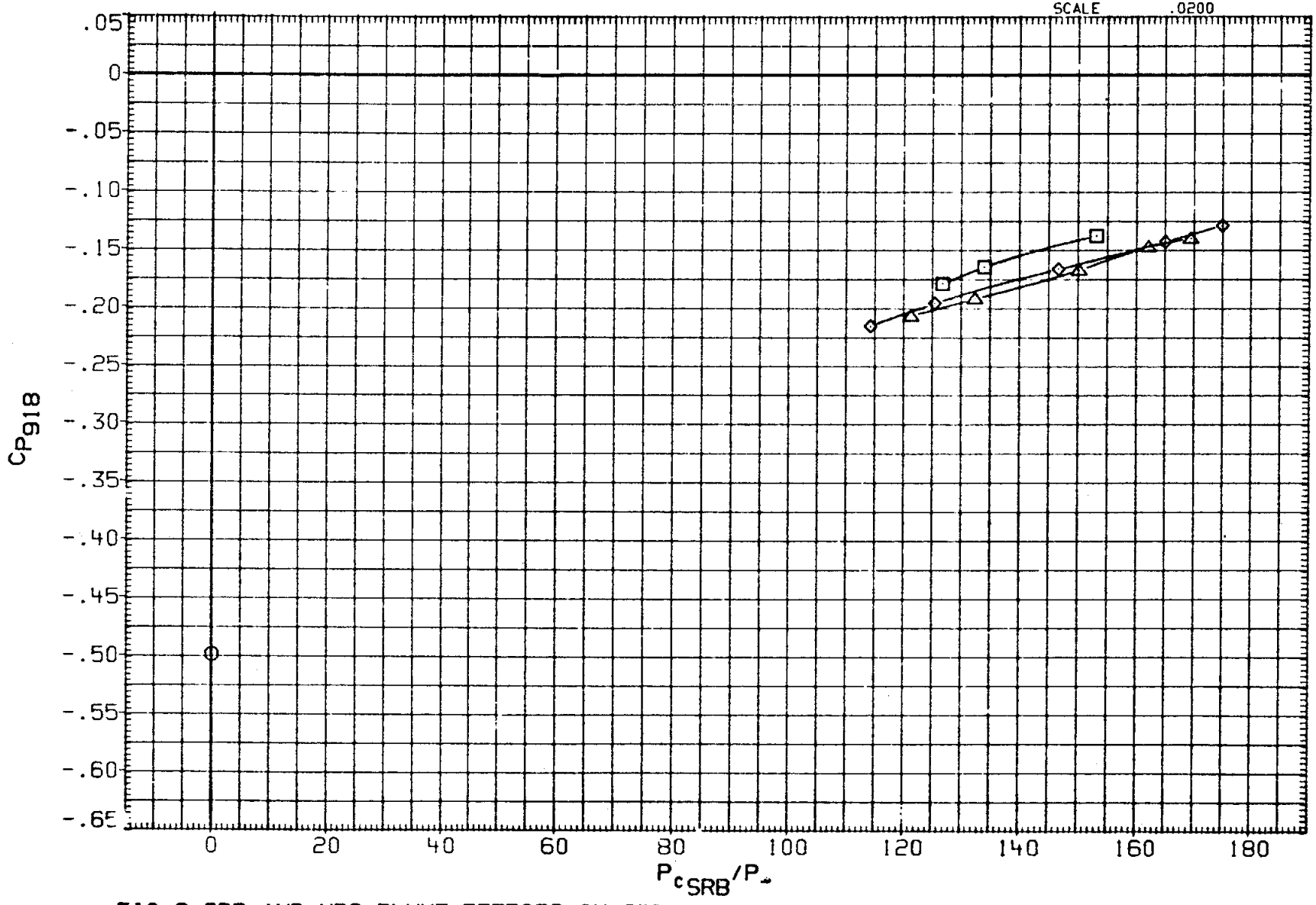

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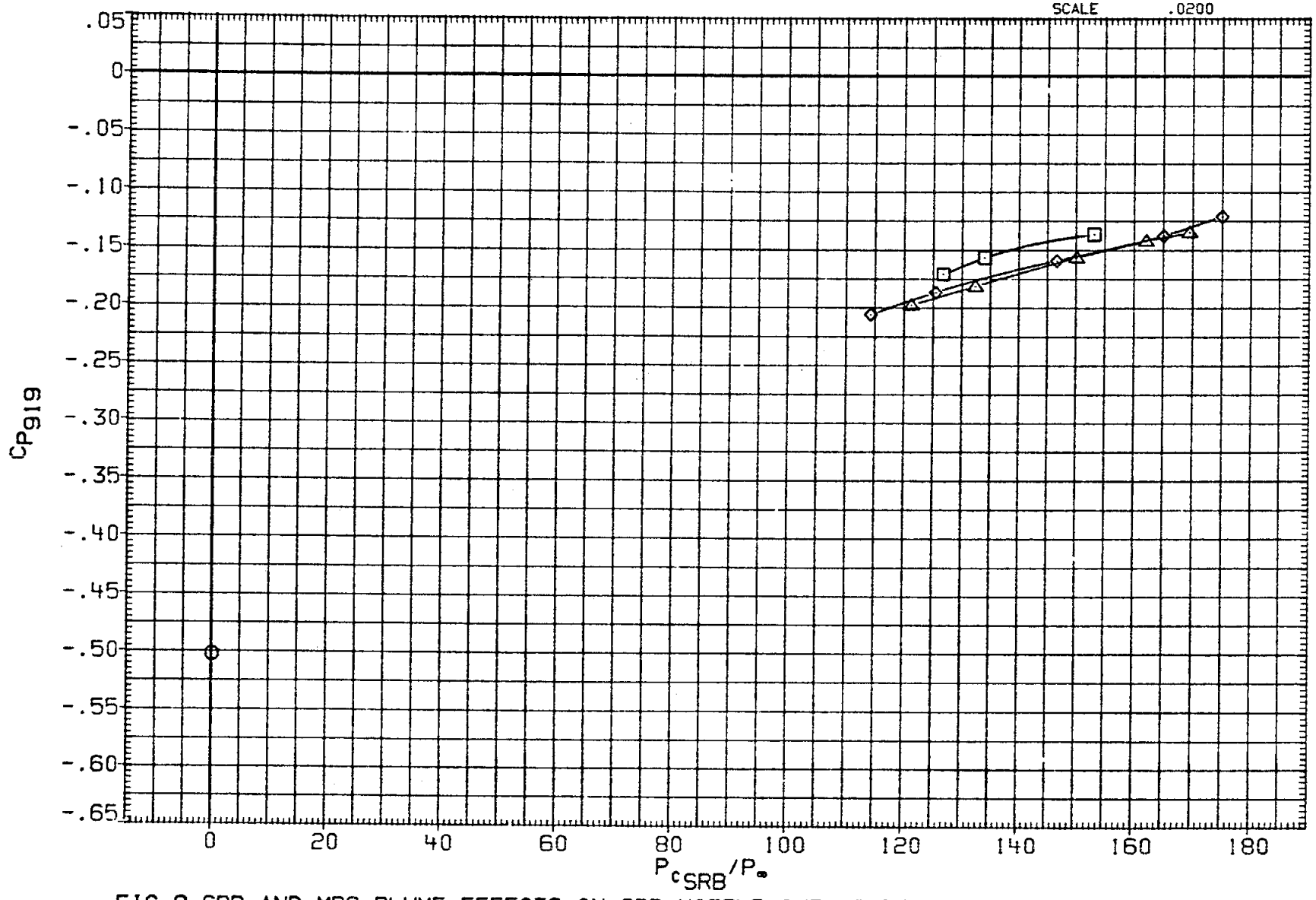

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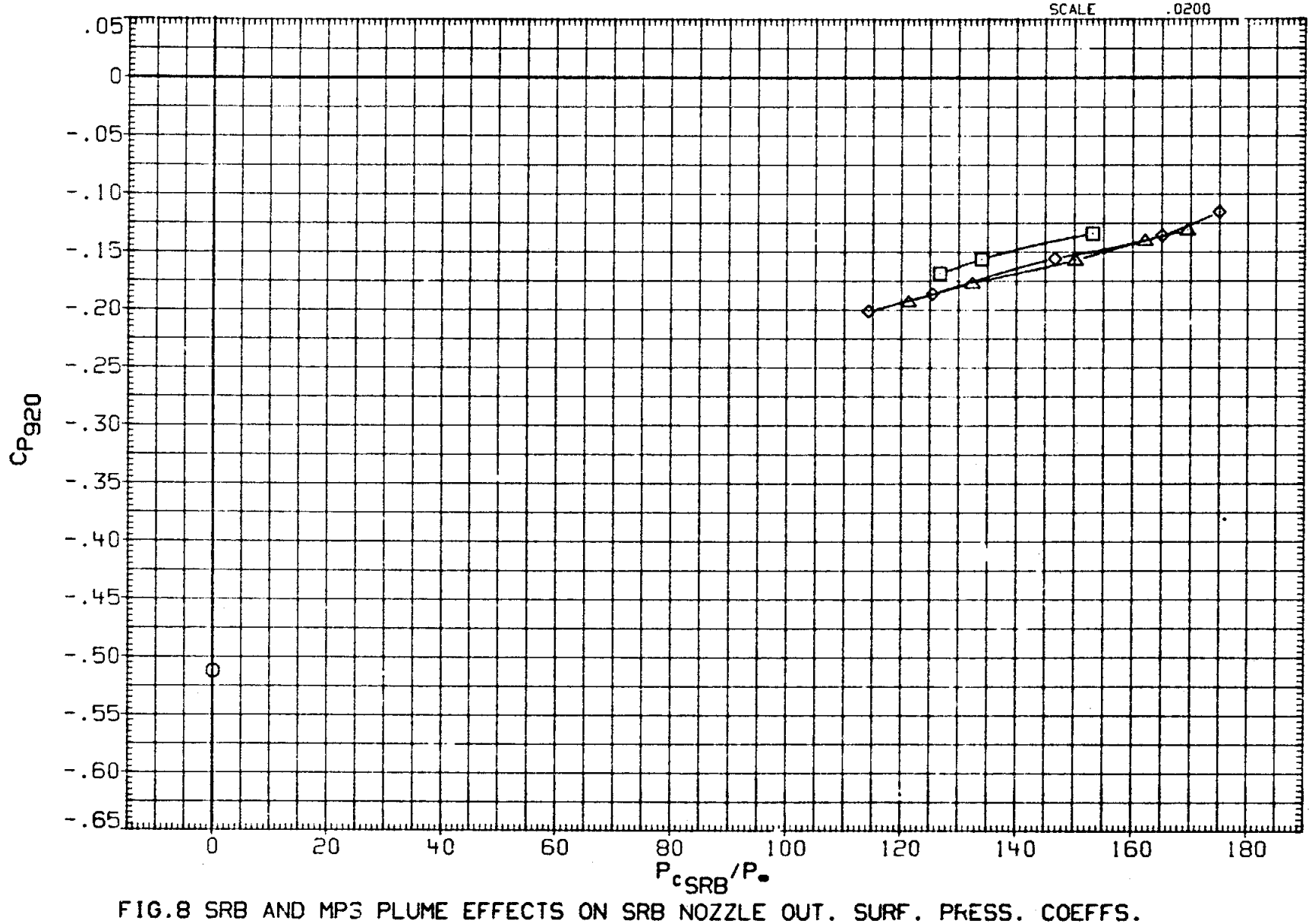
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	



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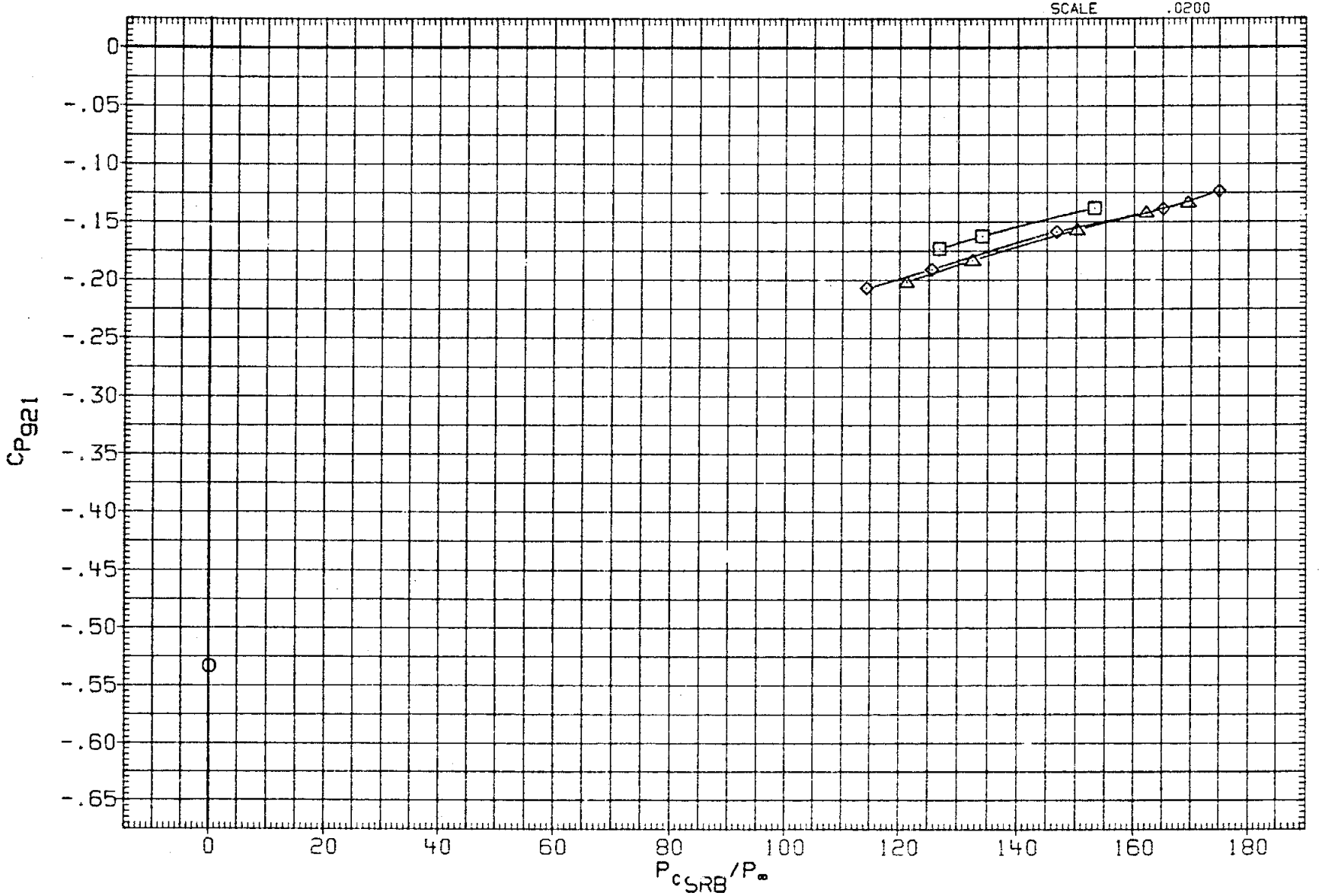

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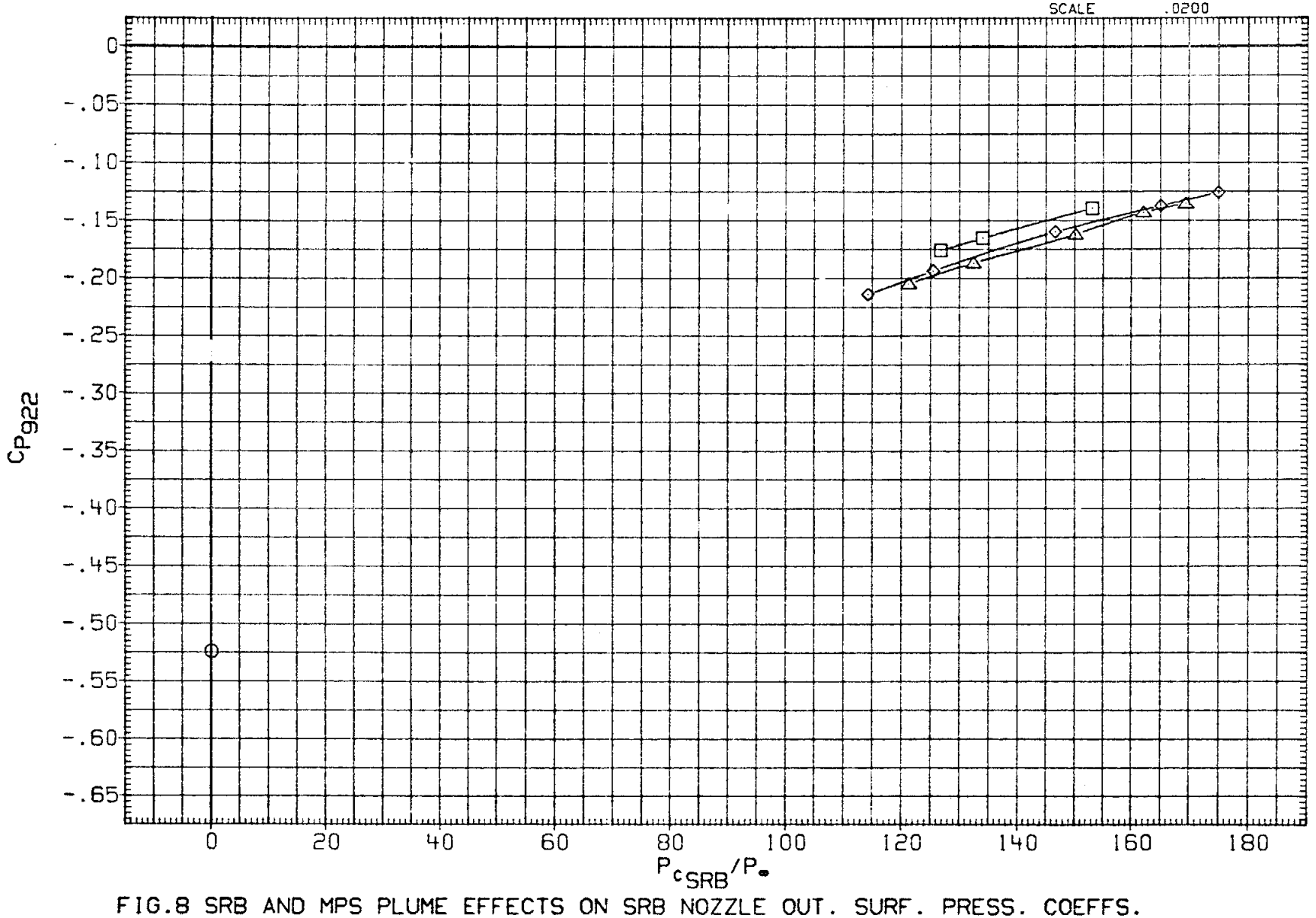

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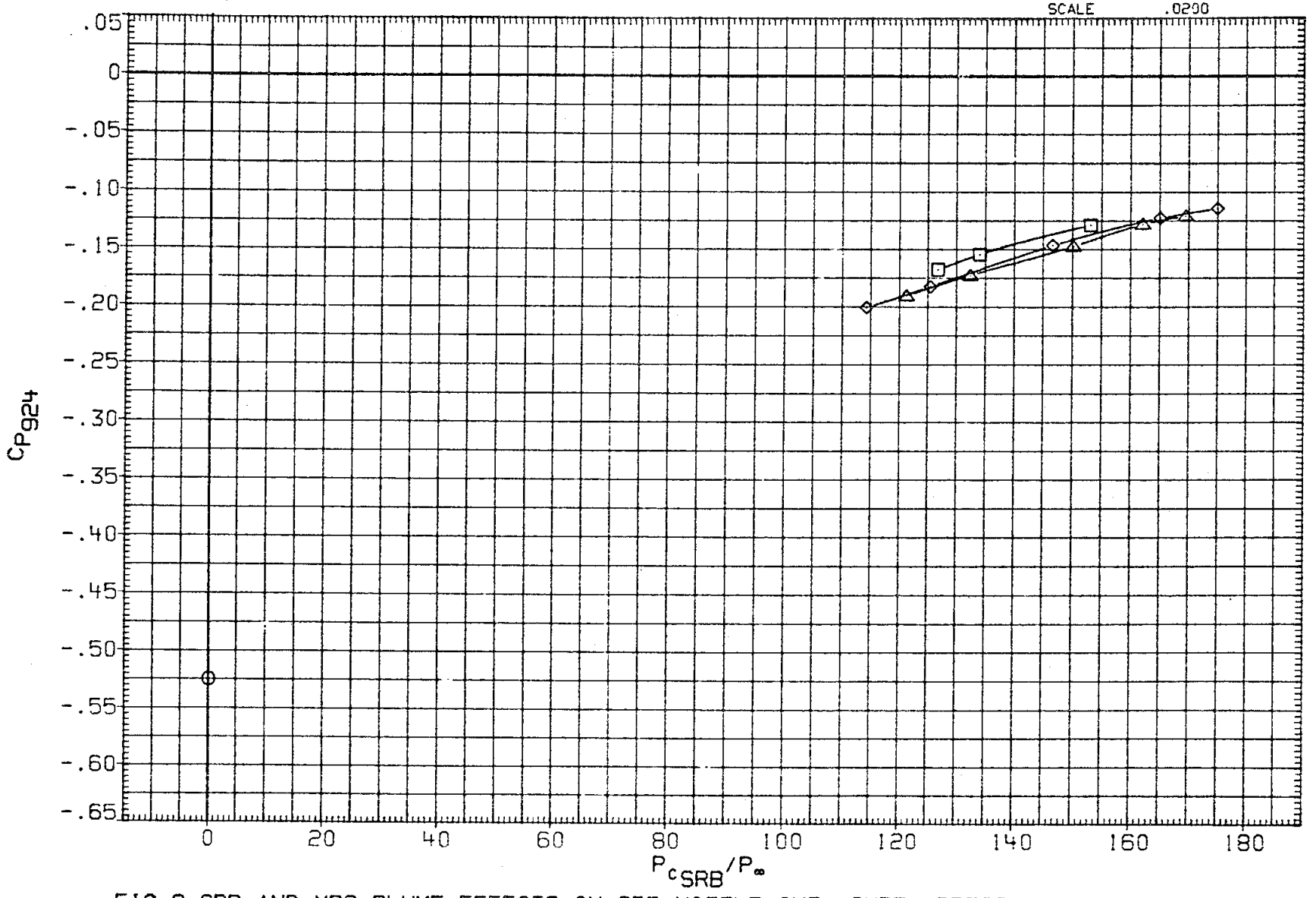

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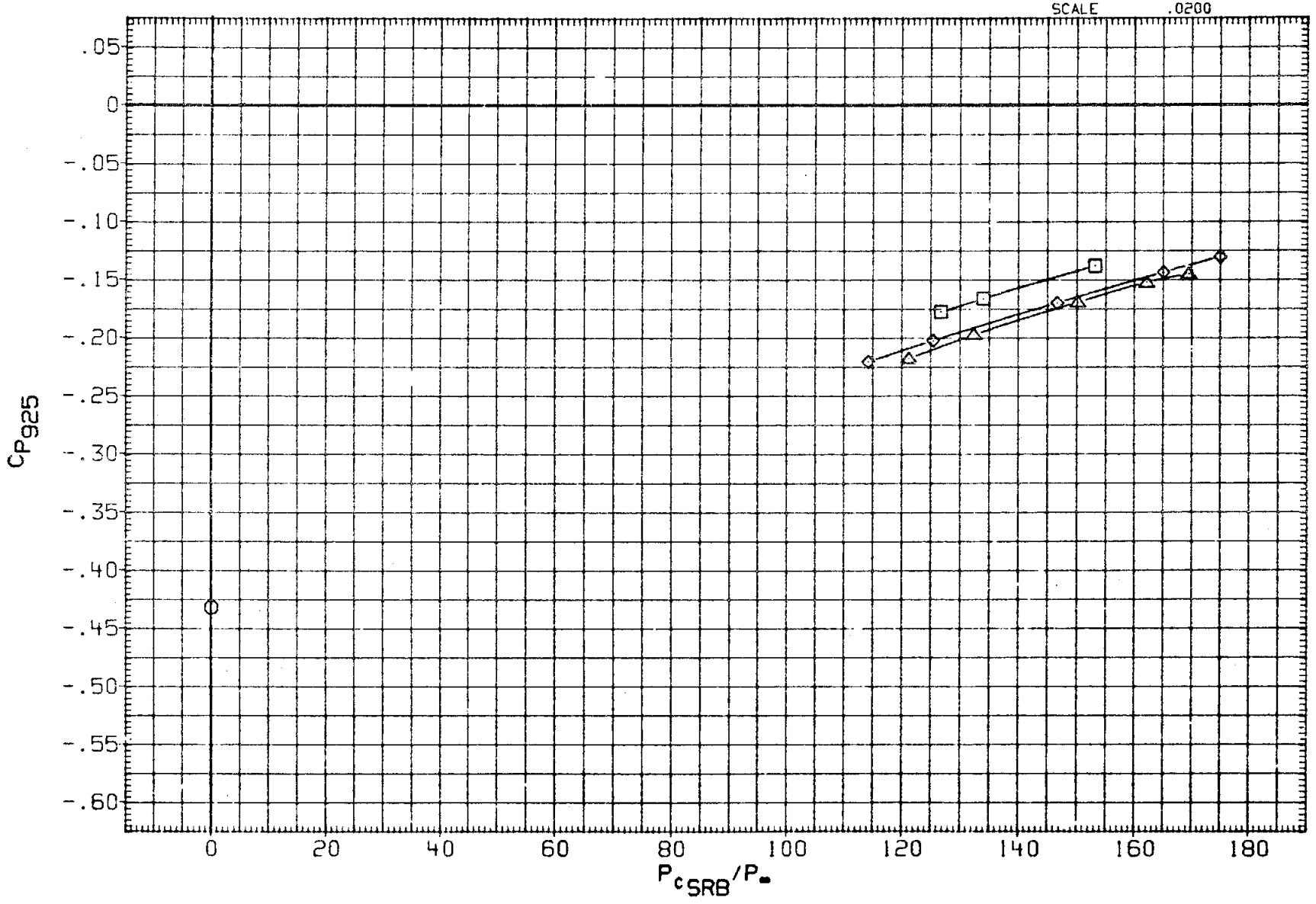

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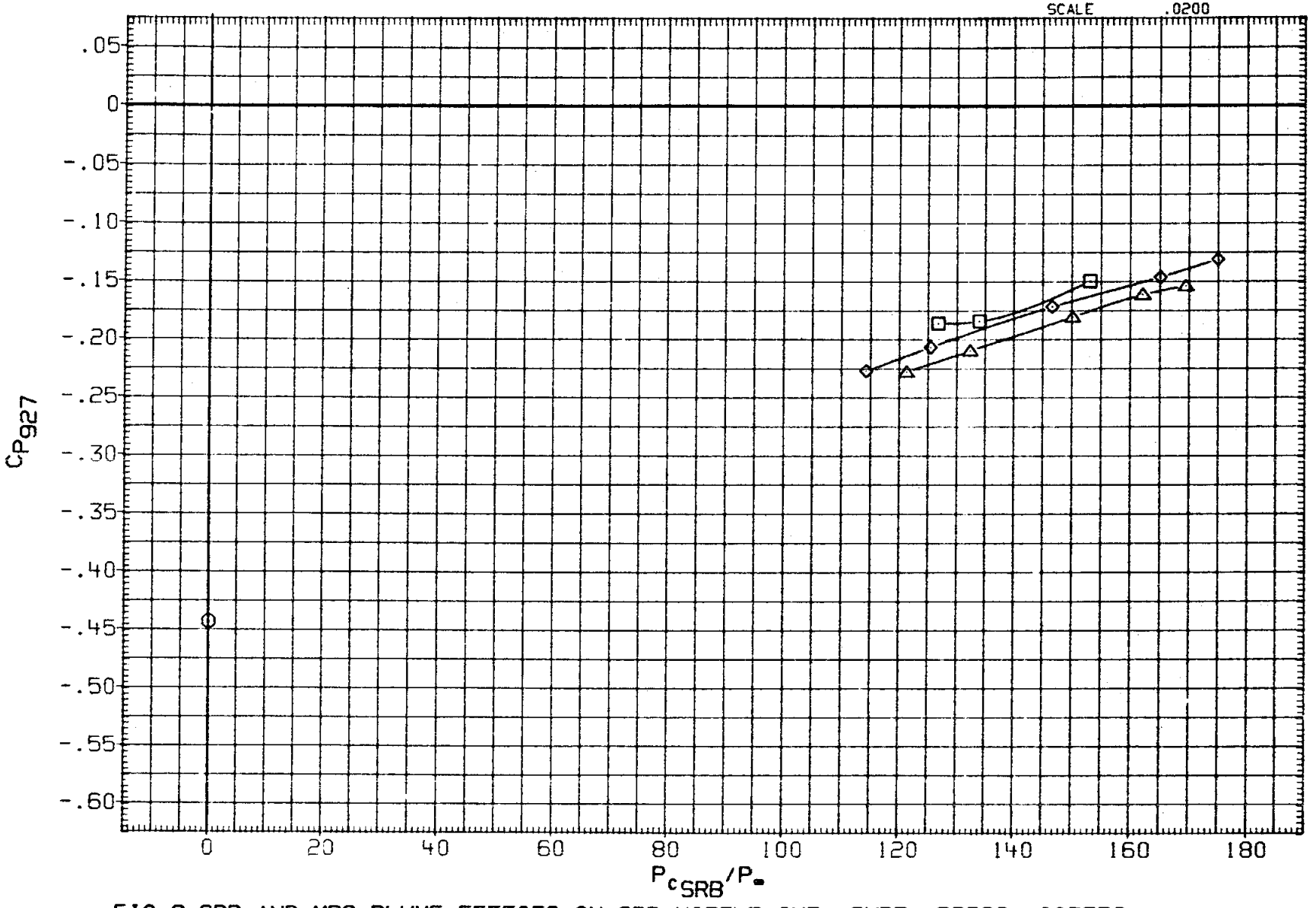

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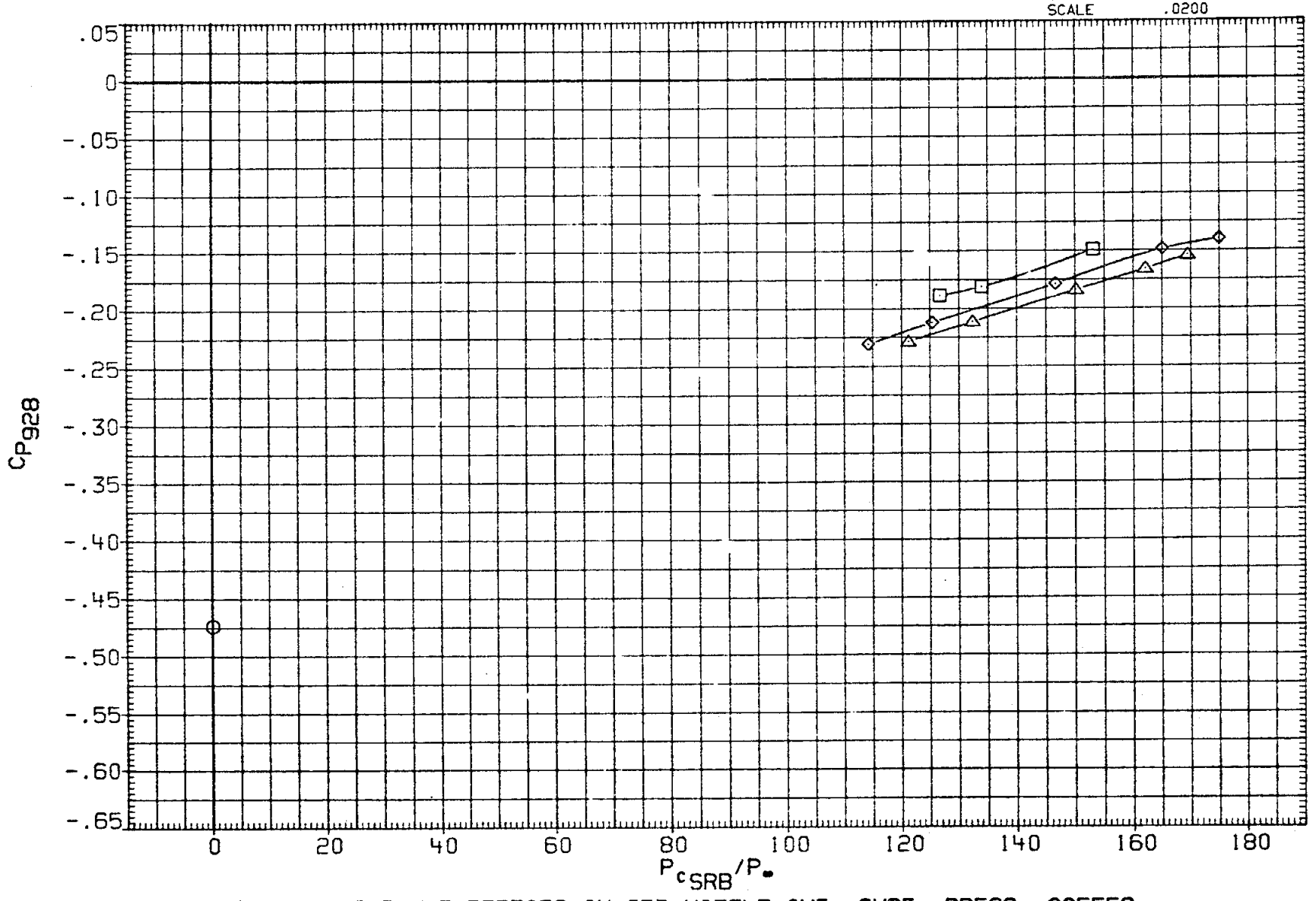

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YNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

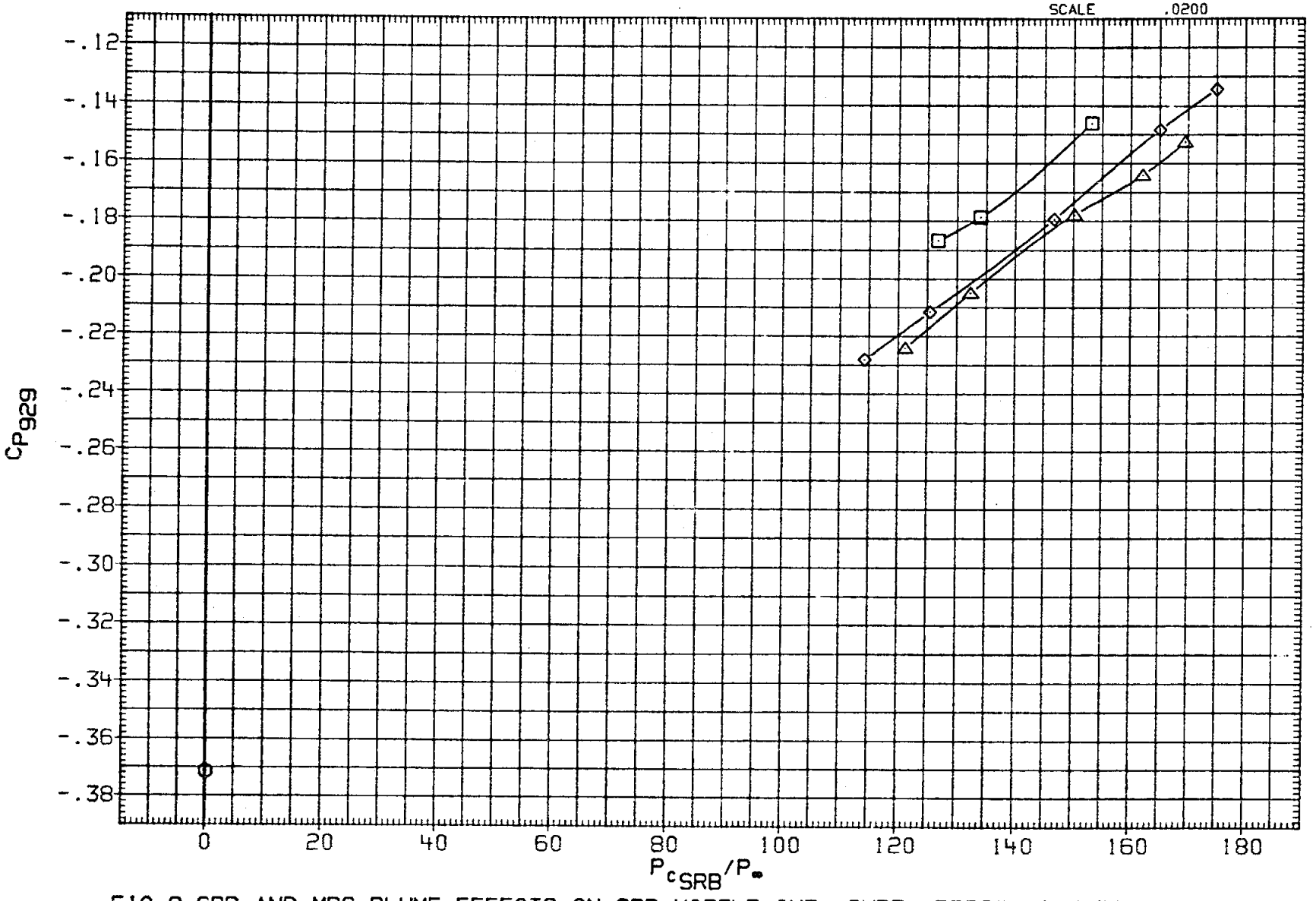

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
YNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
YNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
YNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
YNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

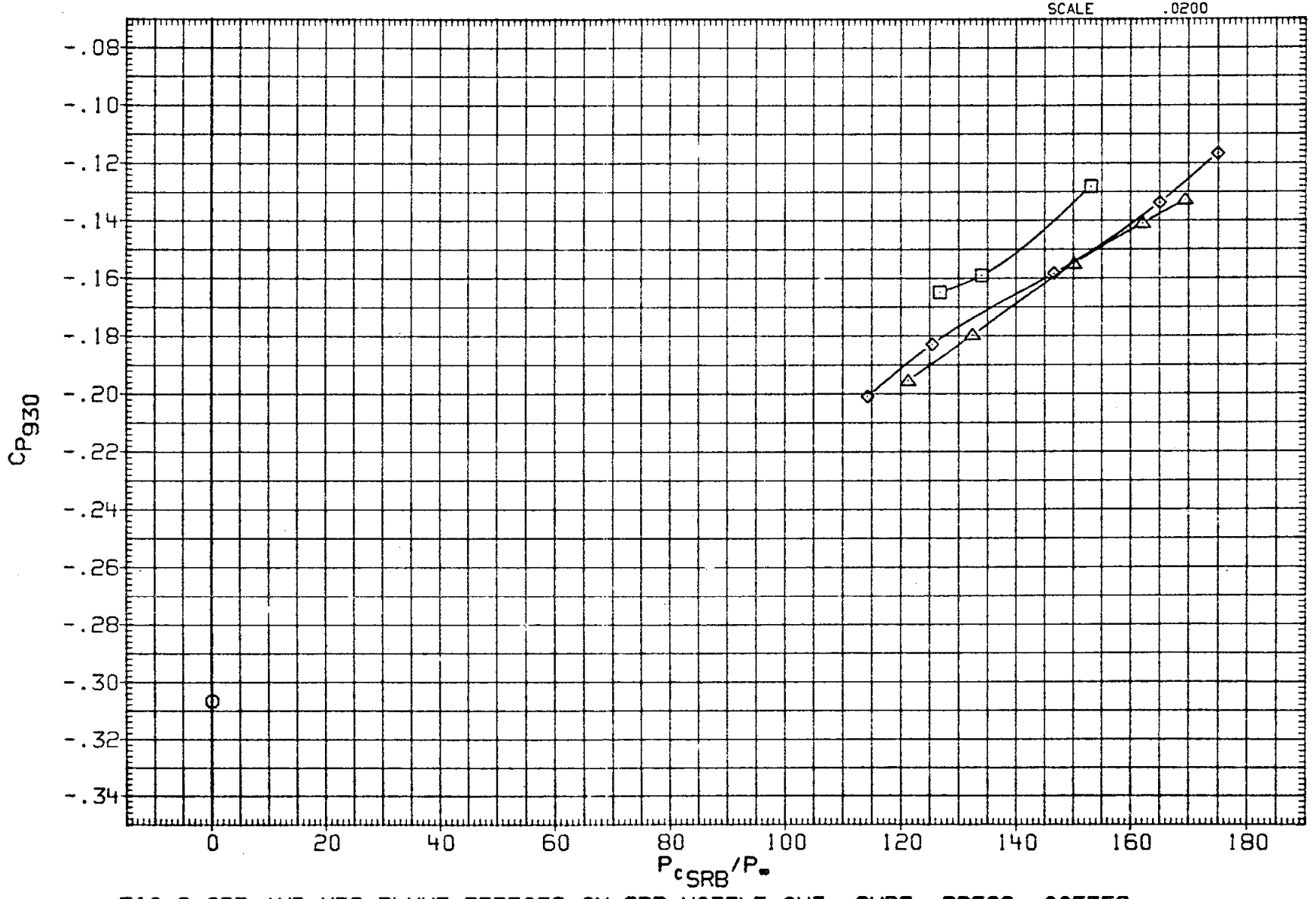

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

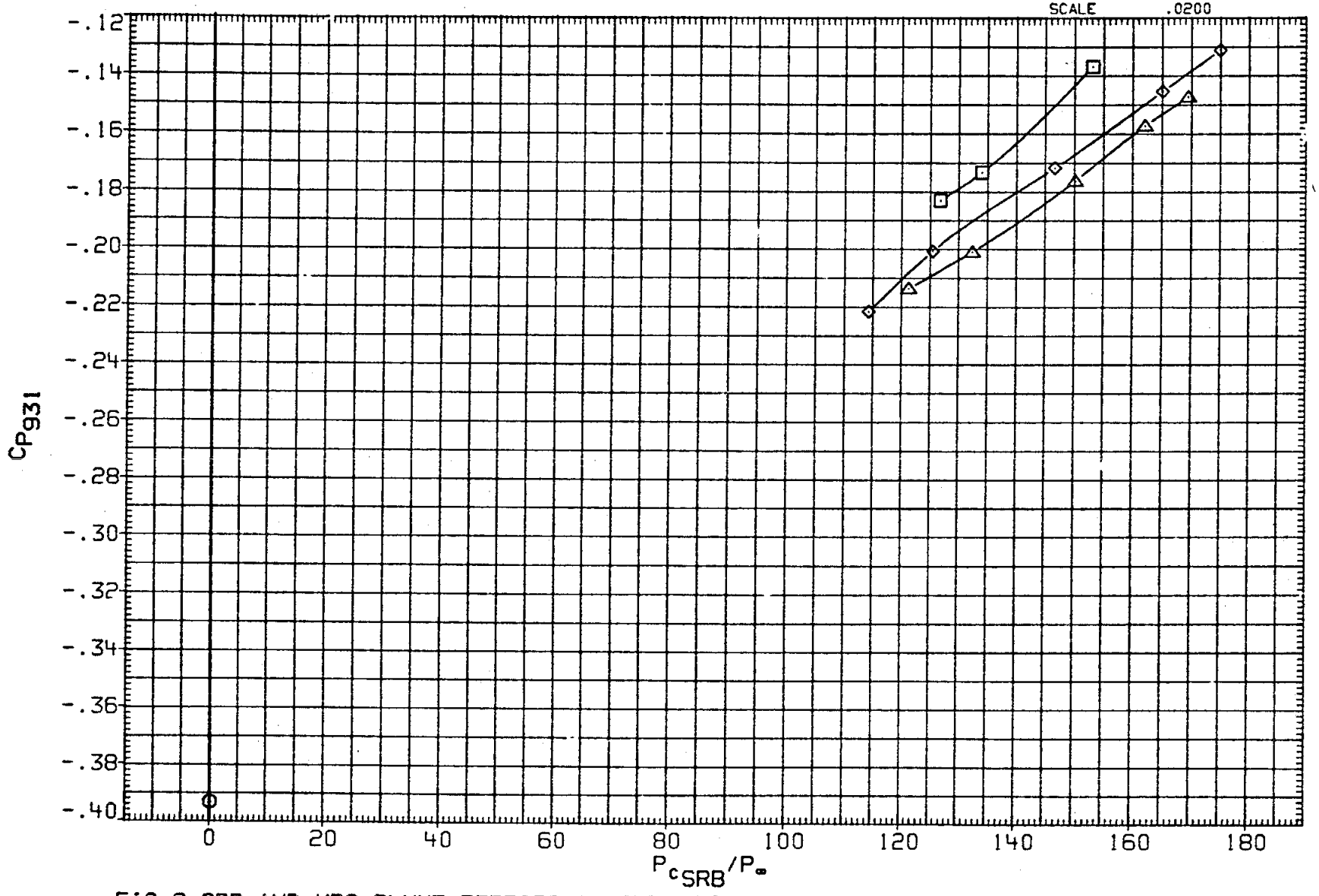

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

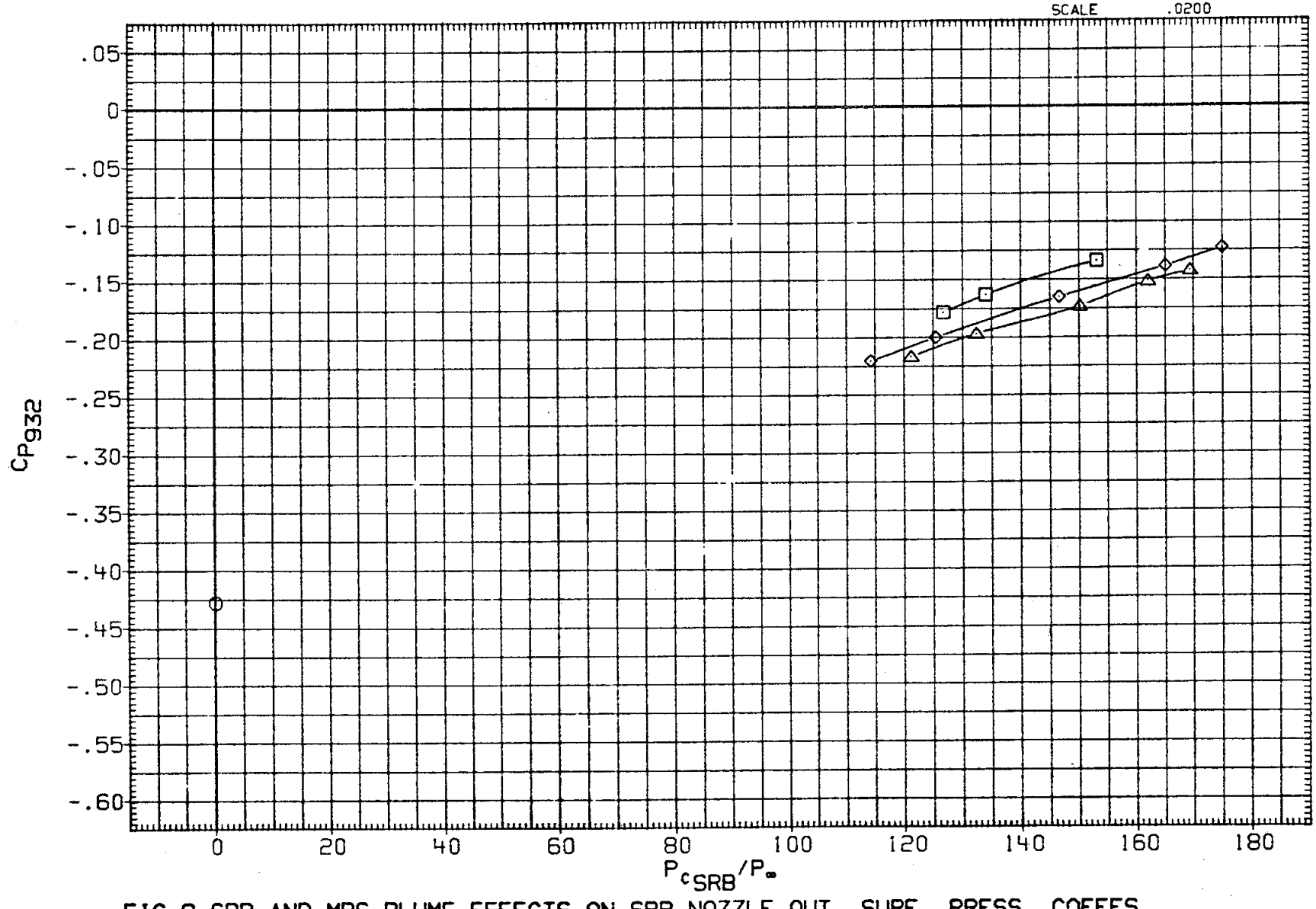

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

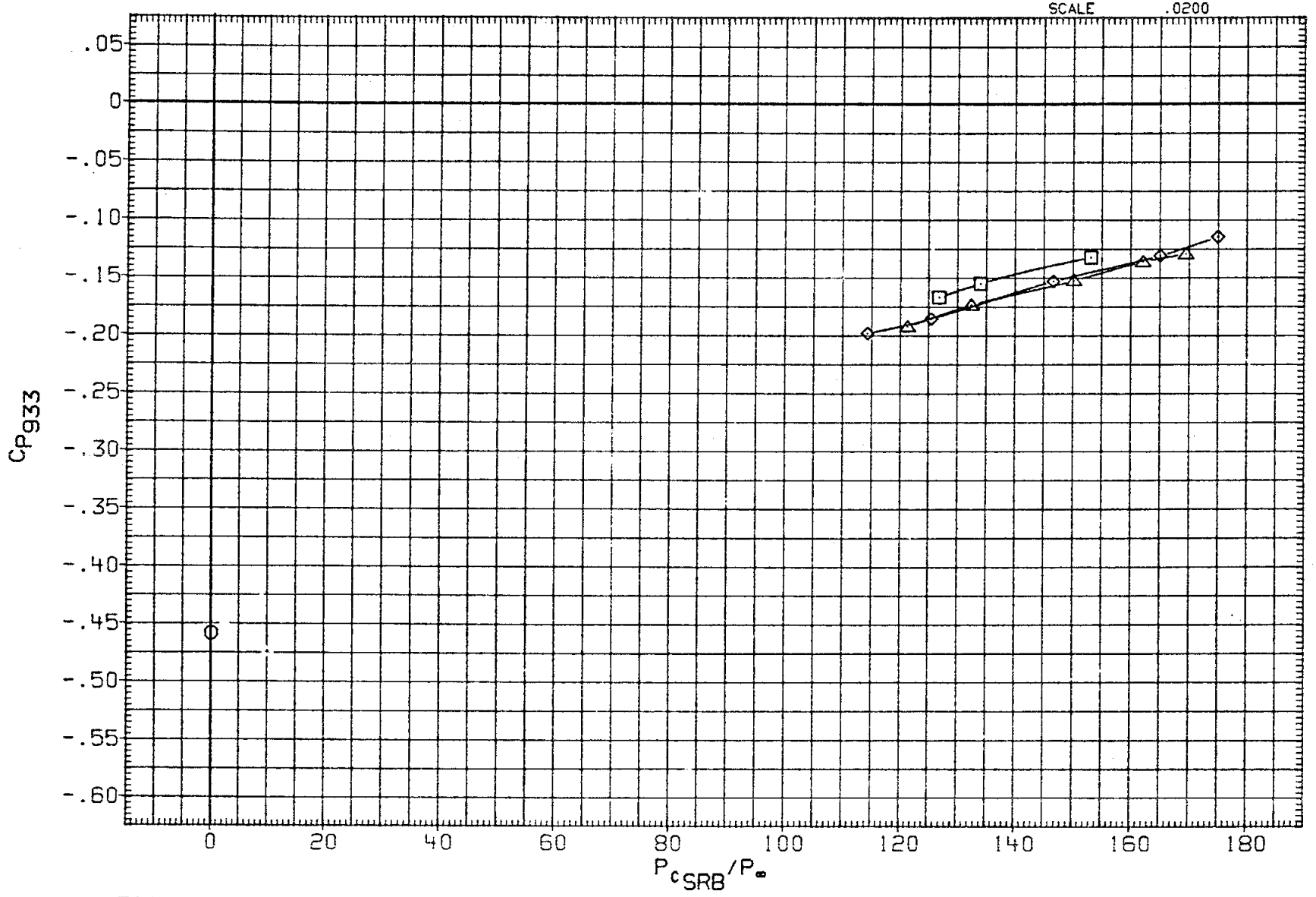

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

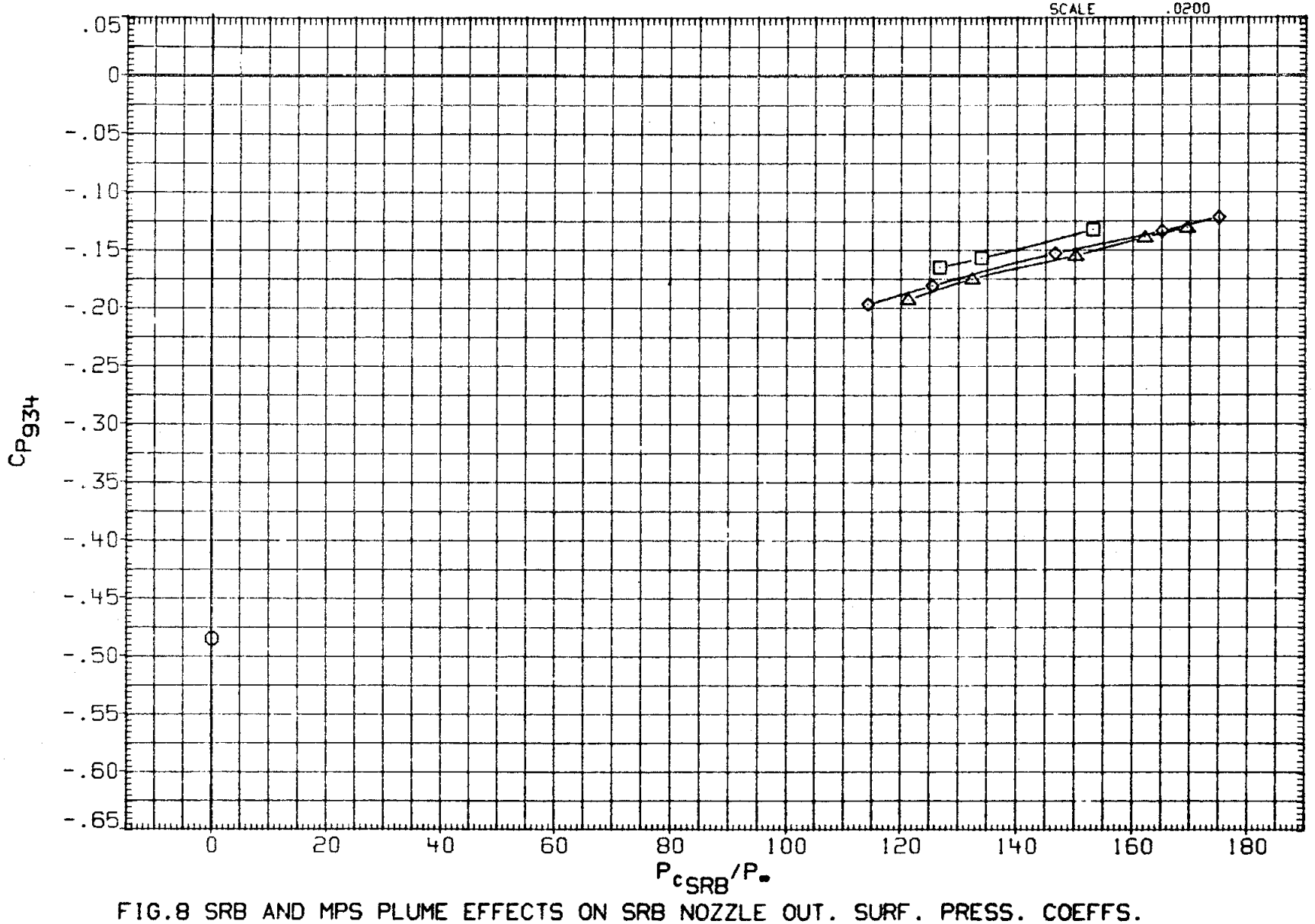

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A) MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

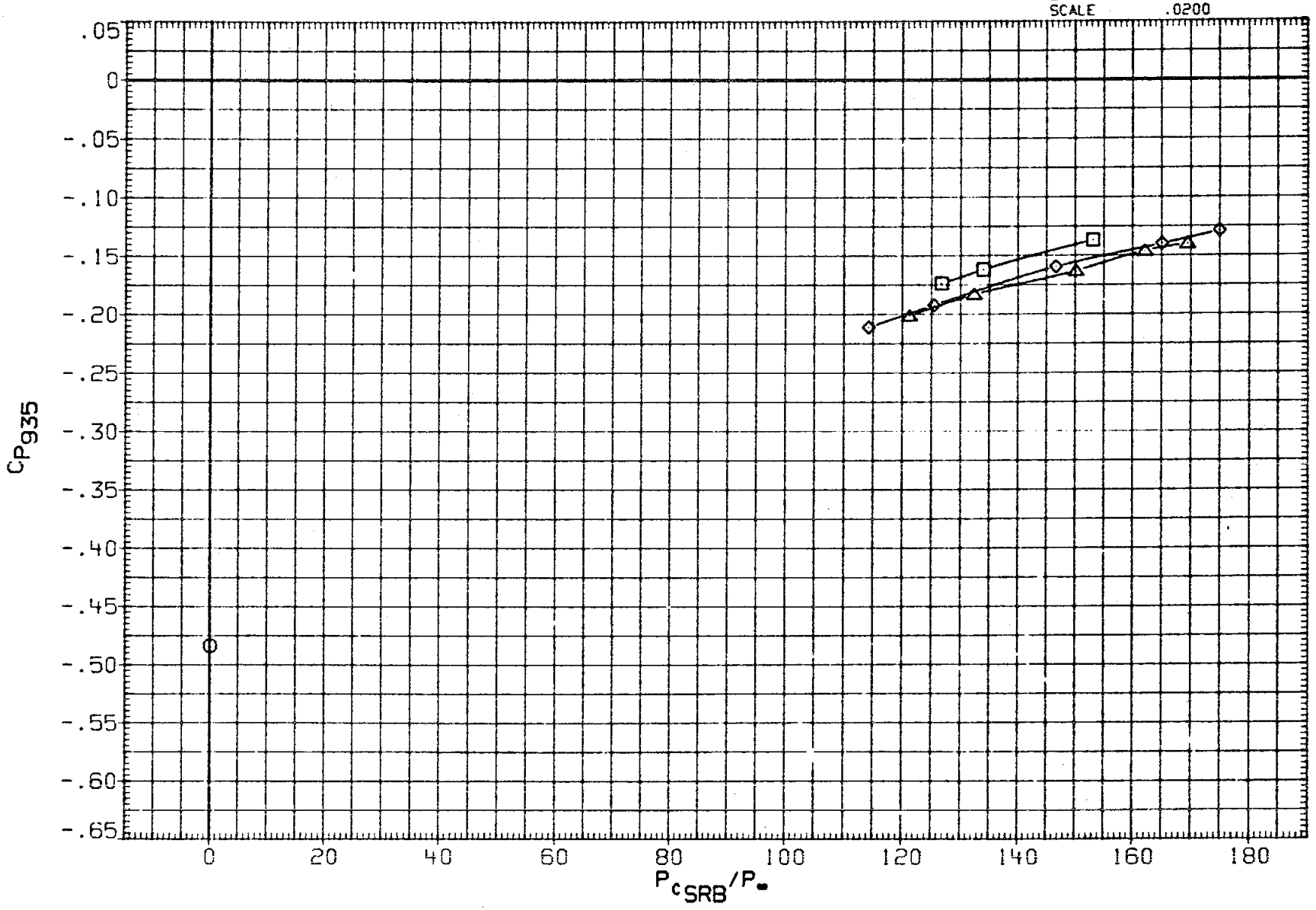

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

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BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

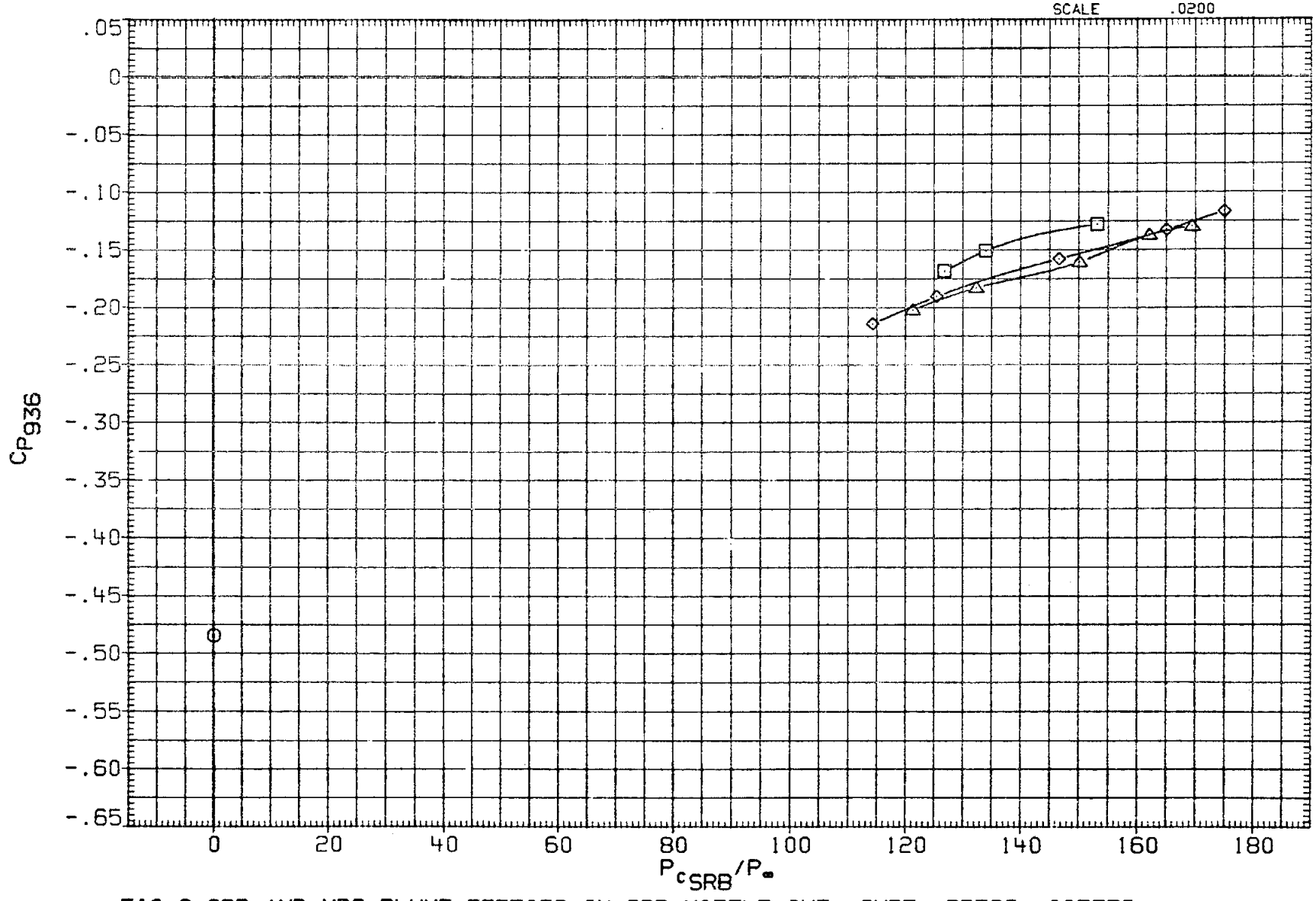

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(1A72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

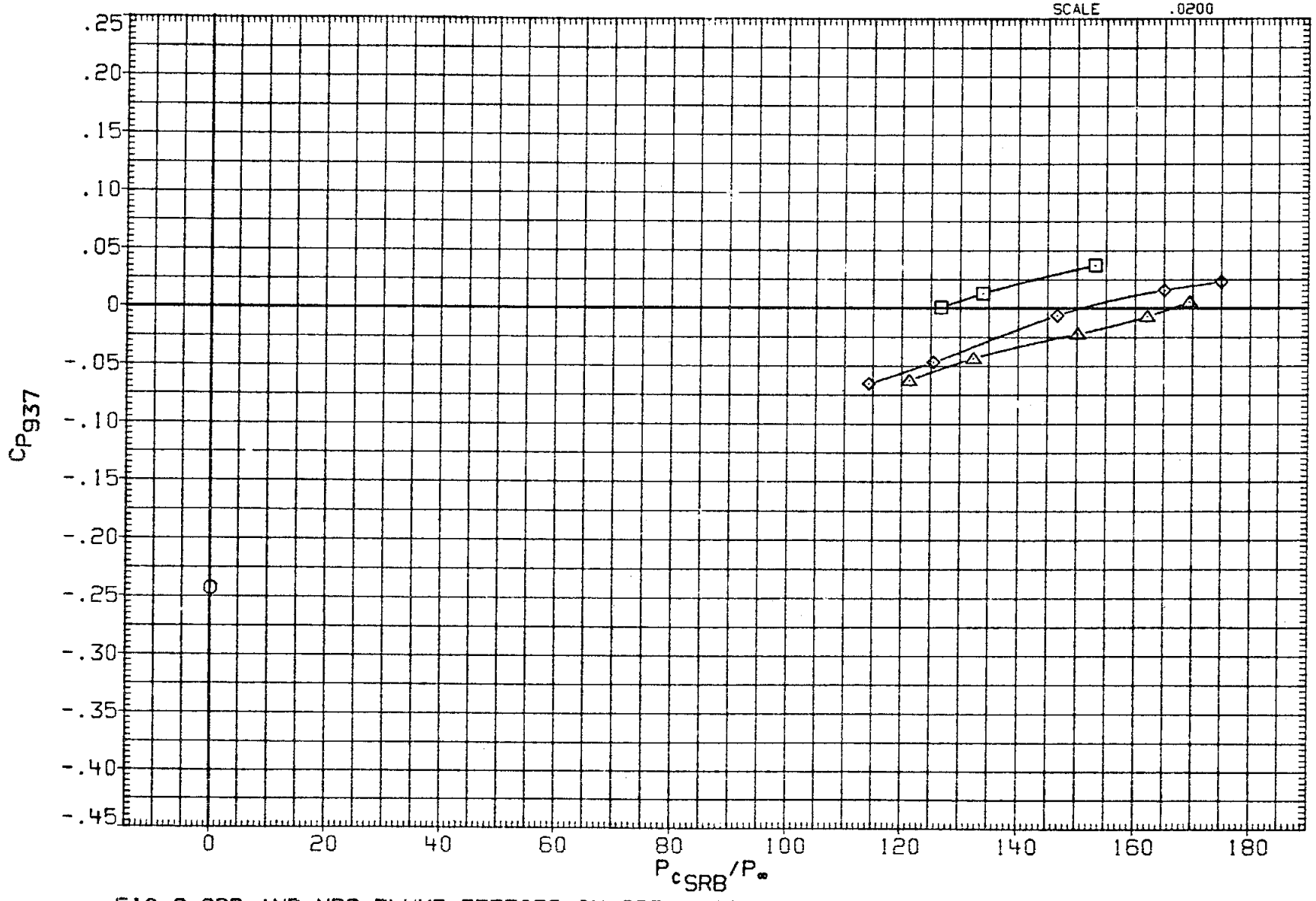

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

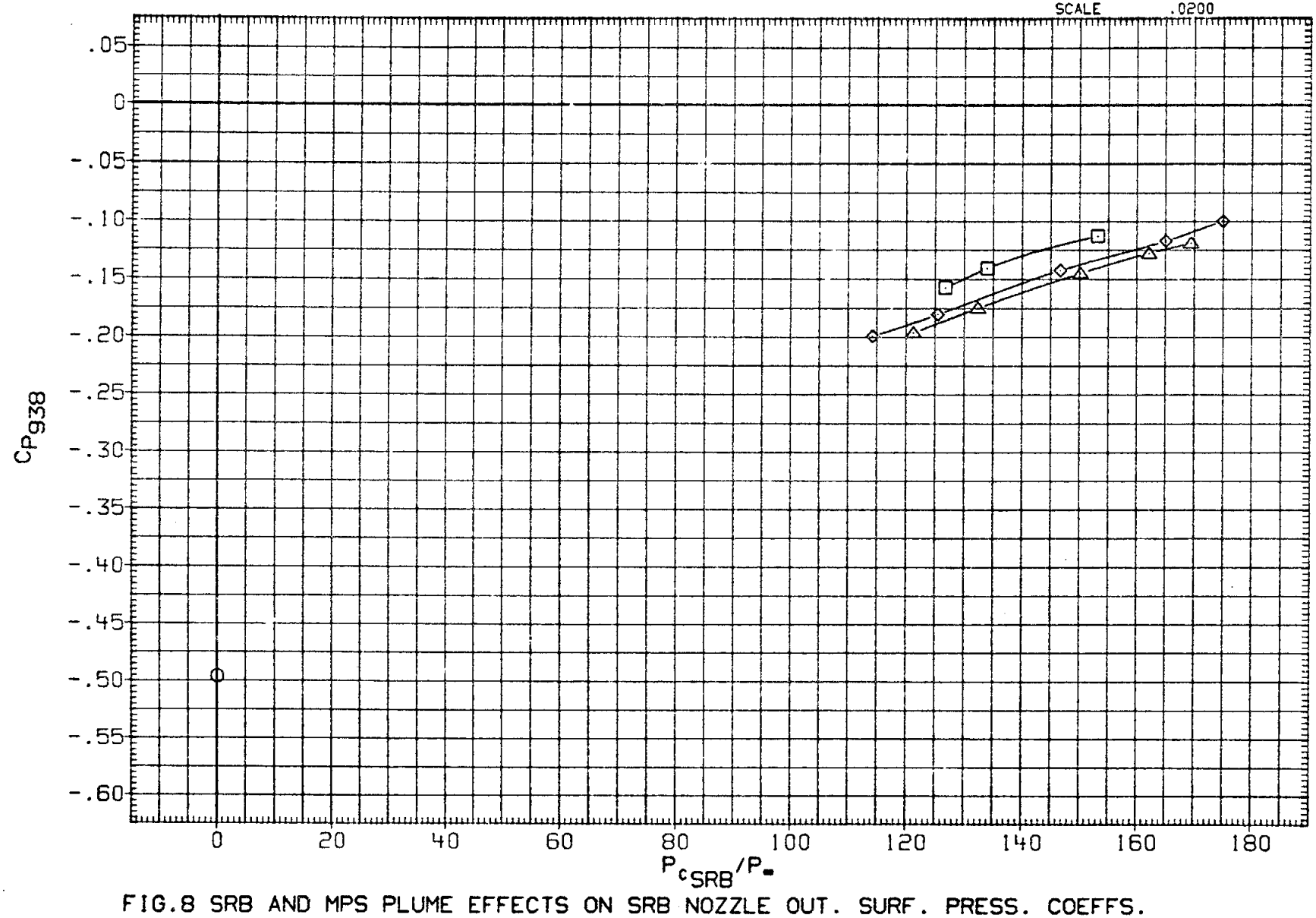

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-'B	ELV-OB
ZNEA01	○	ARC11-072(IA72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(IA72) OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(IA72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(IA72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

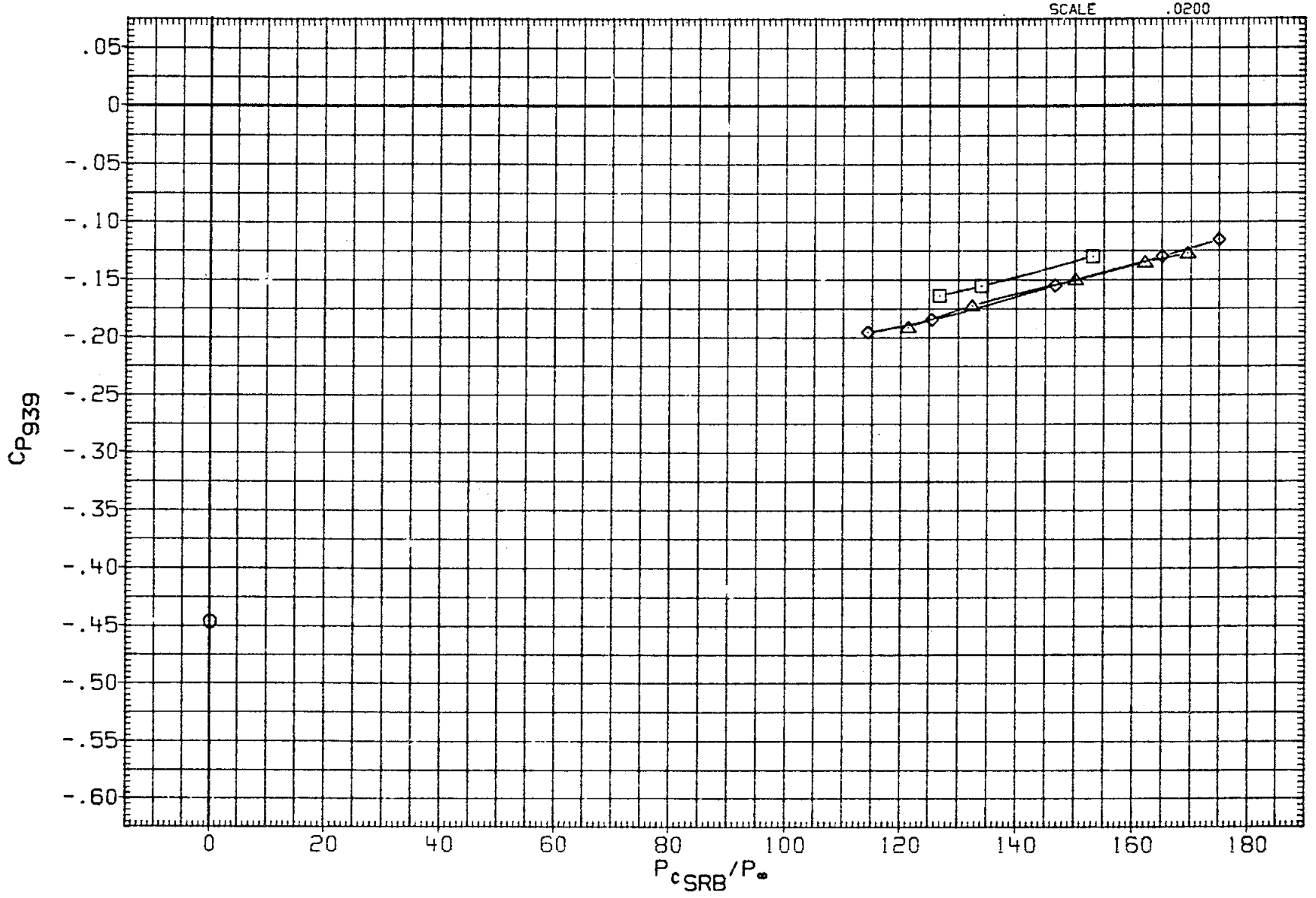

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	PT	GIMBAL	ELV-IB	ELV-OB
ZNEA01	○	ARC11-072(1A72) OTS-1, MPS=OFF	14.700	1.000	8.000	.000
ZNEA02	□	ARC11-072(1A72, OTS-1, MPS=NOM-	14.700	1.000	8.000	.000
ZNEA03	◇	ARC11-072(1A72) OTS-1, MPS=NOM	14.700	1.000	8.000	.000
ZNEA04	△	ARC11-072(1A72) OTS-1, MPS=NOM+	14.700	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

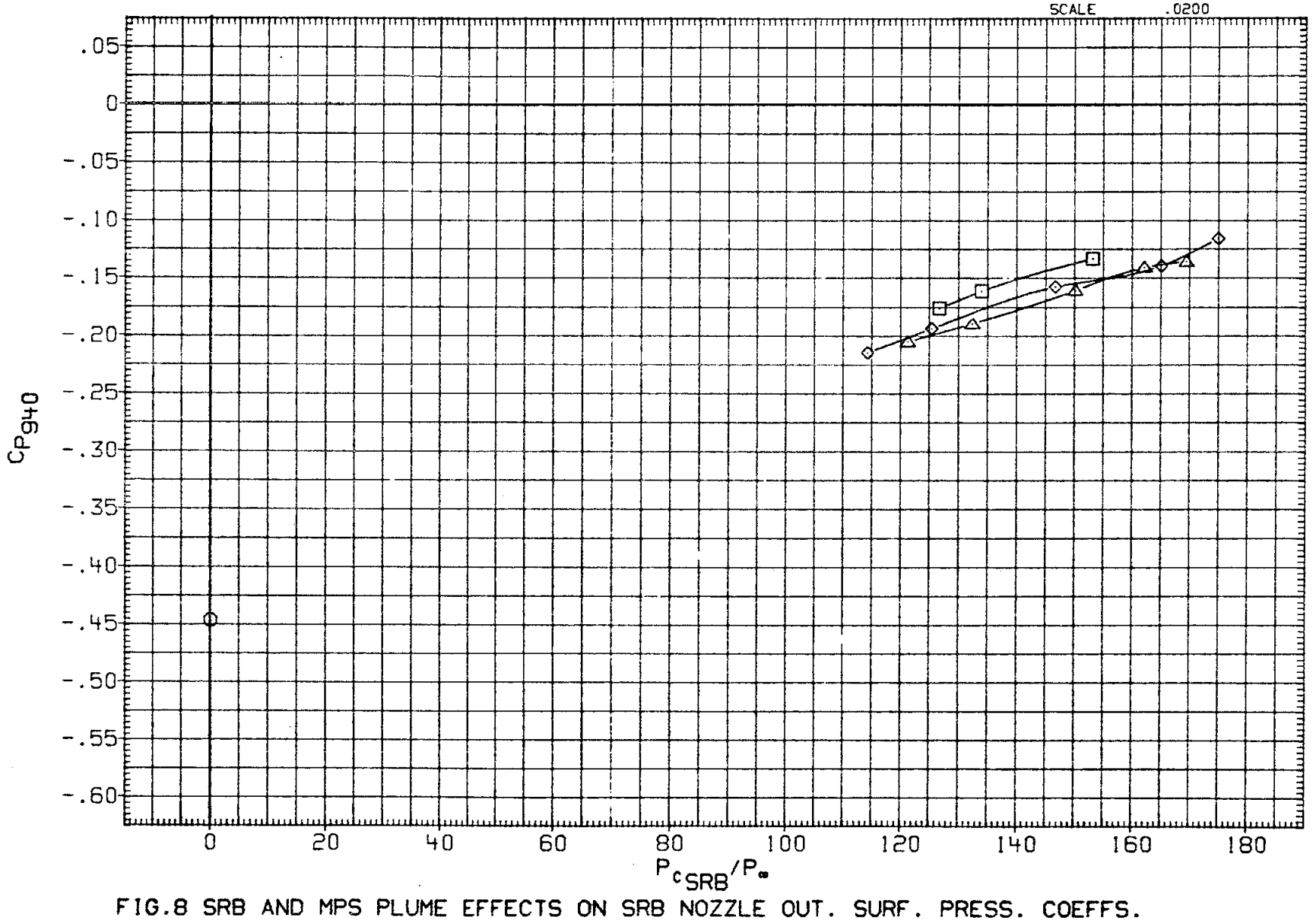

FIG.8 SRB AND MPS PLUME EFFECTS ON SRB NOZZLE OUT. SURF. PRESS. COEFFS.

(A)MACH = 1.33

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

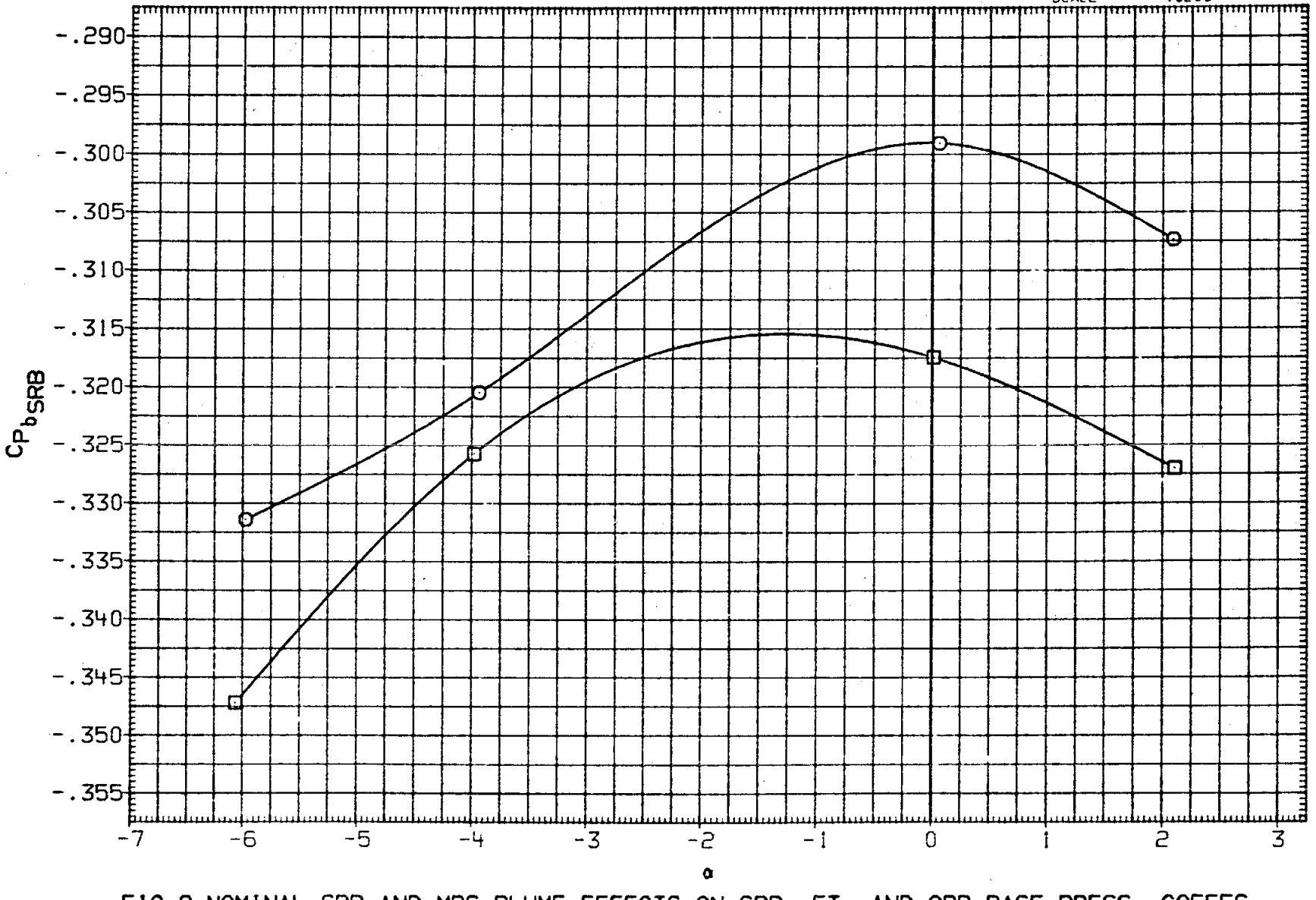

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

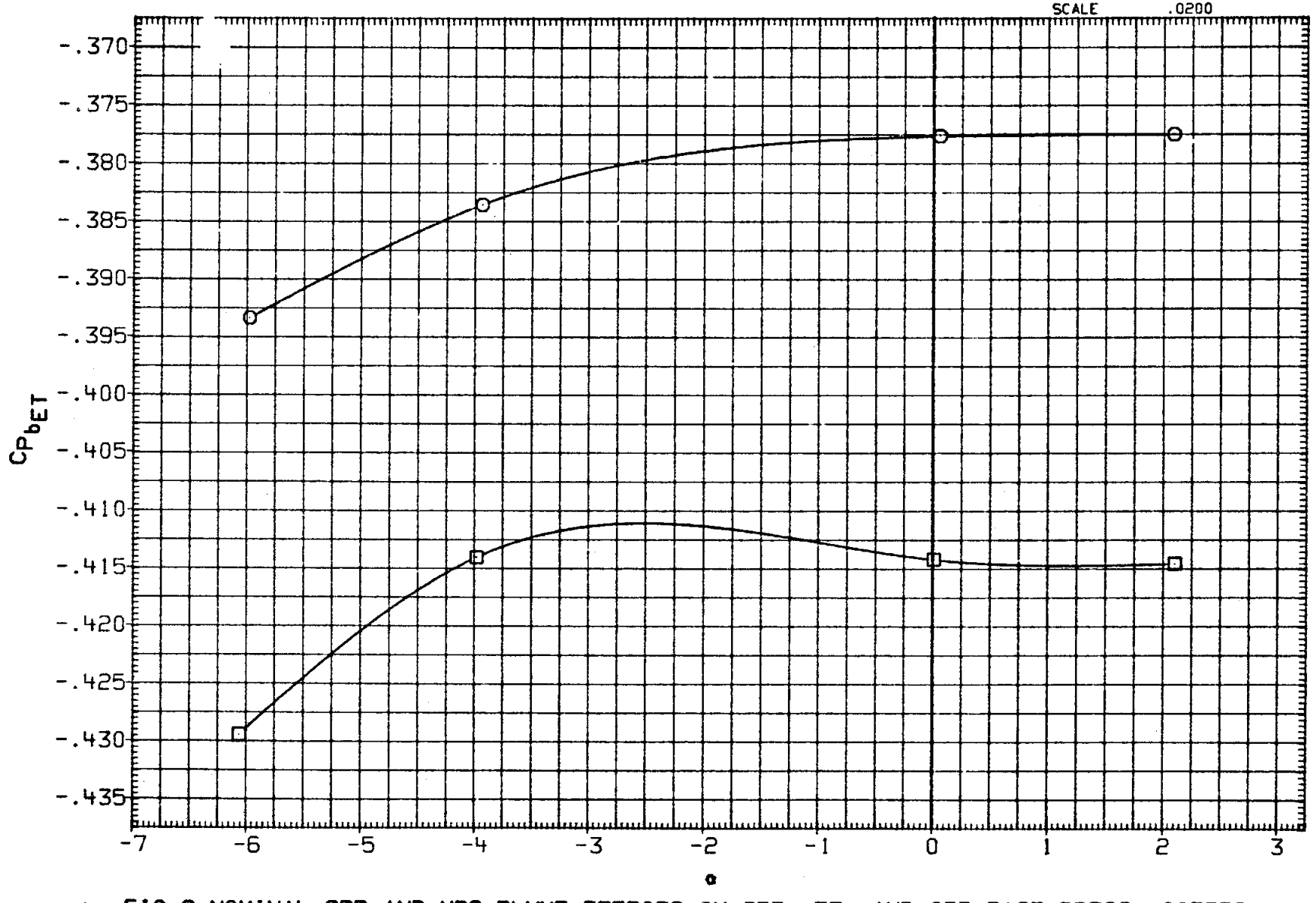

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

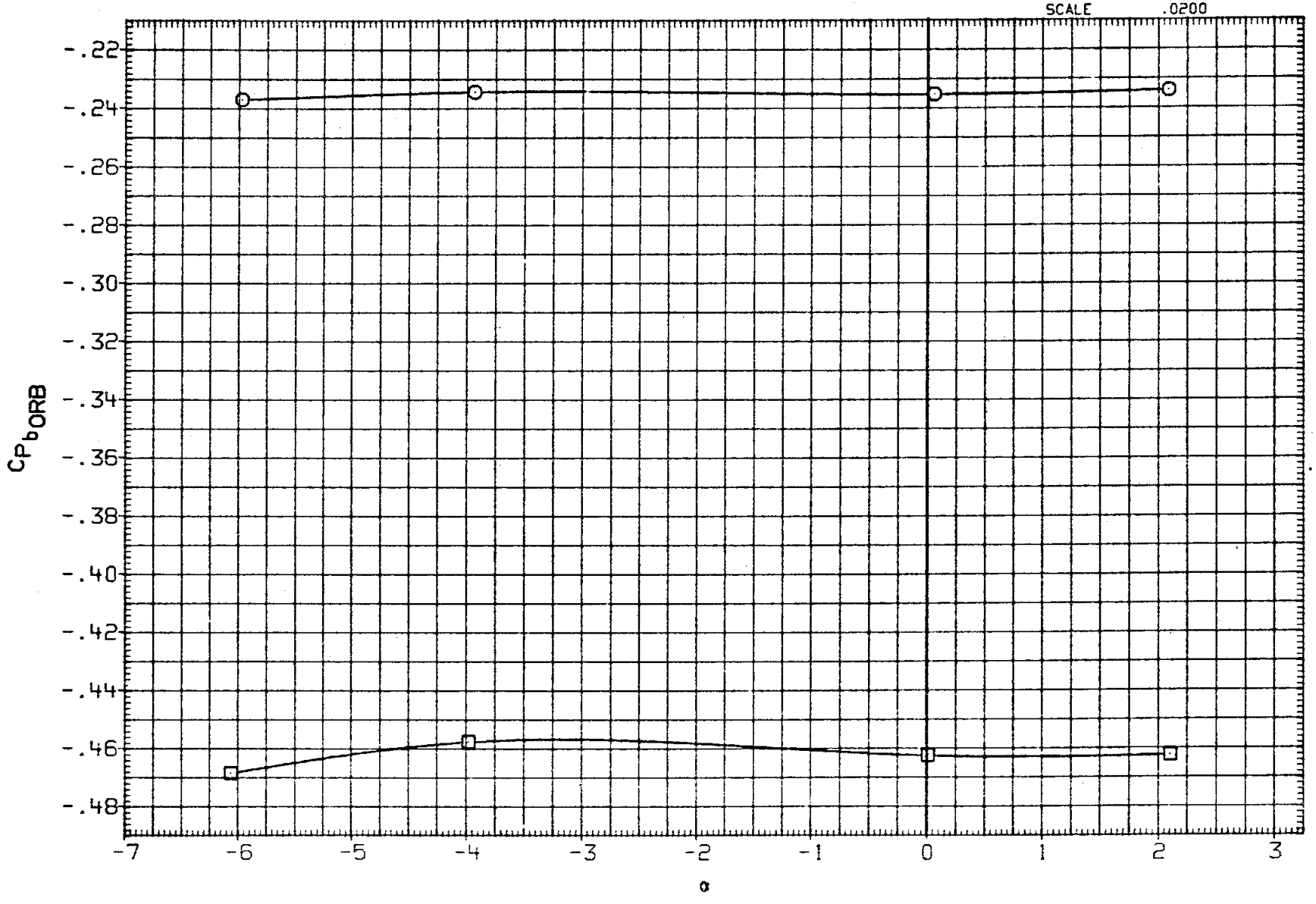

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

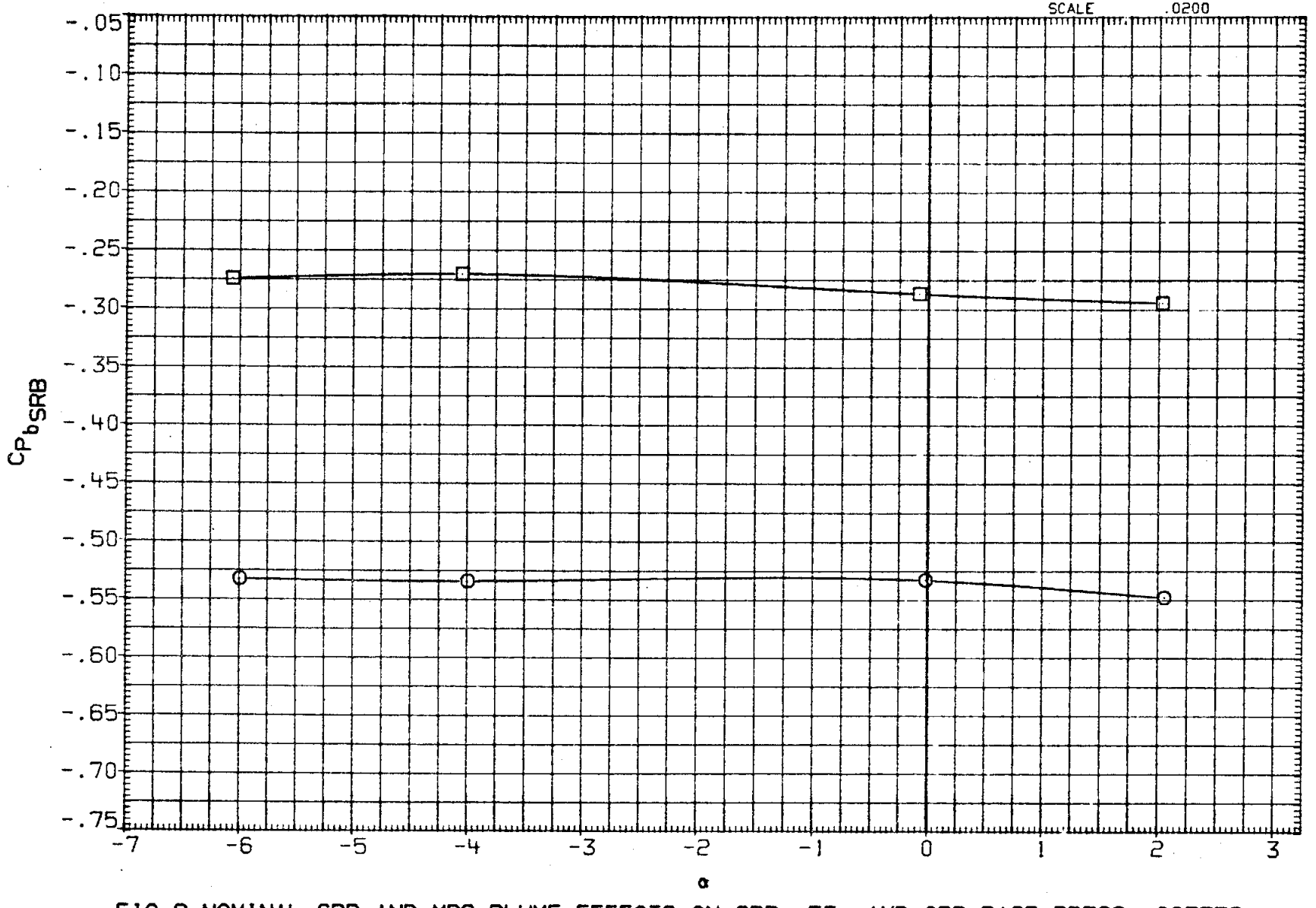

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

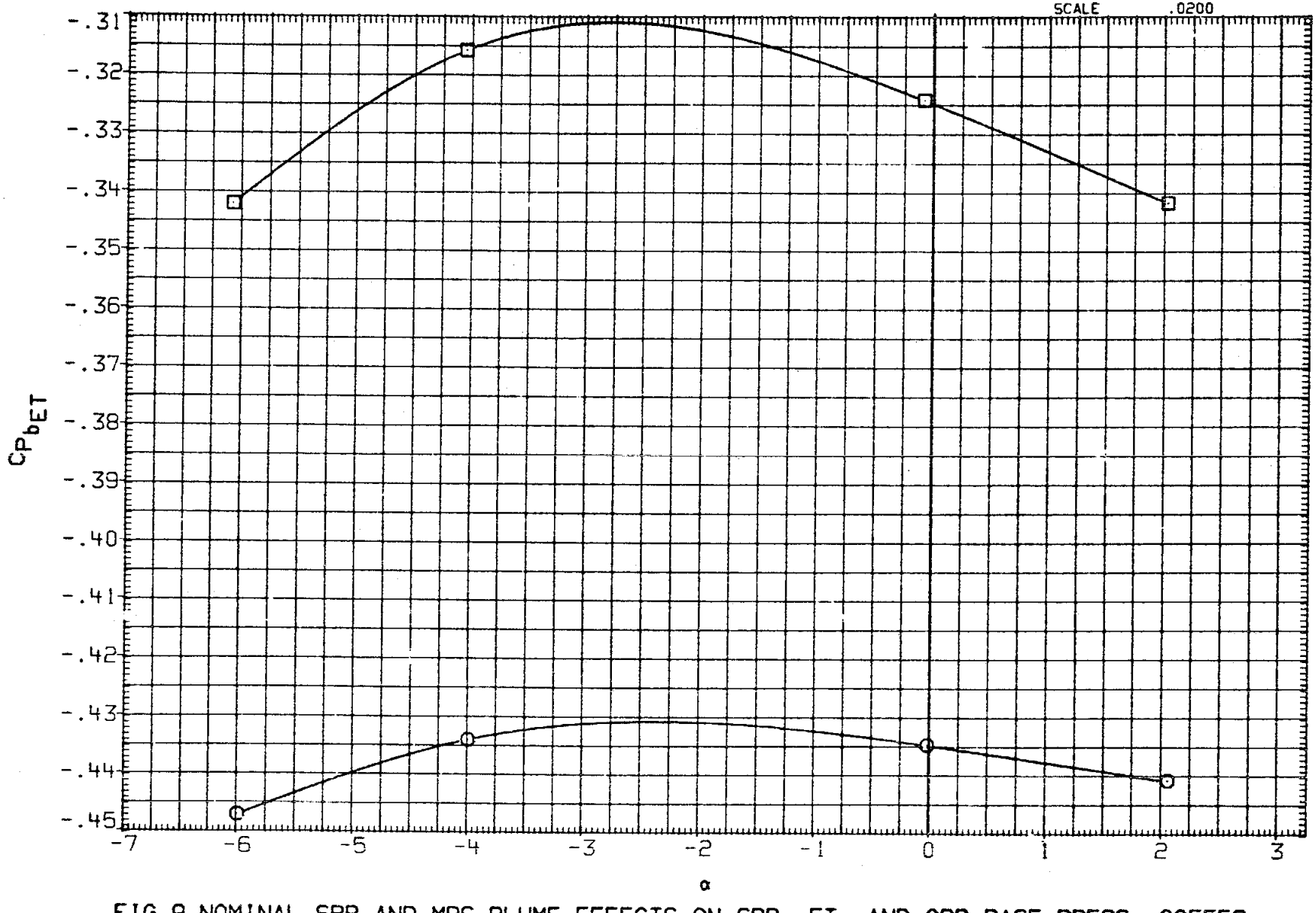

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

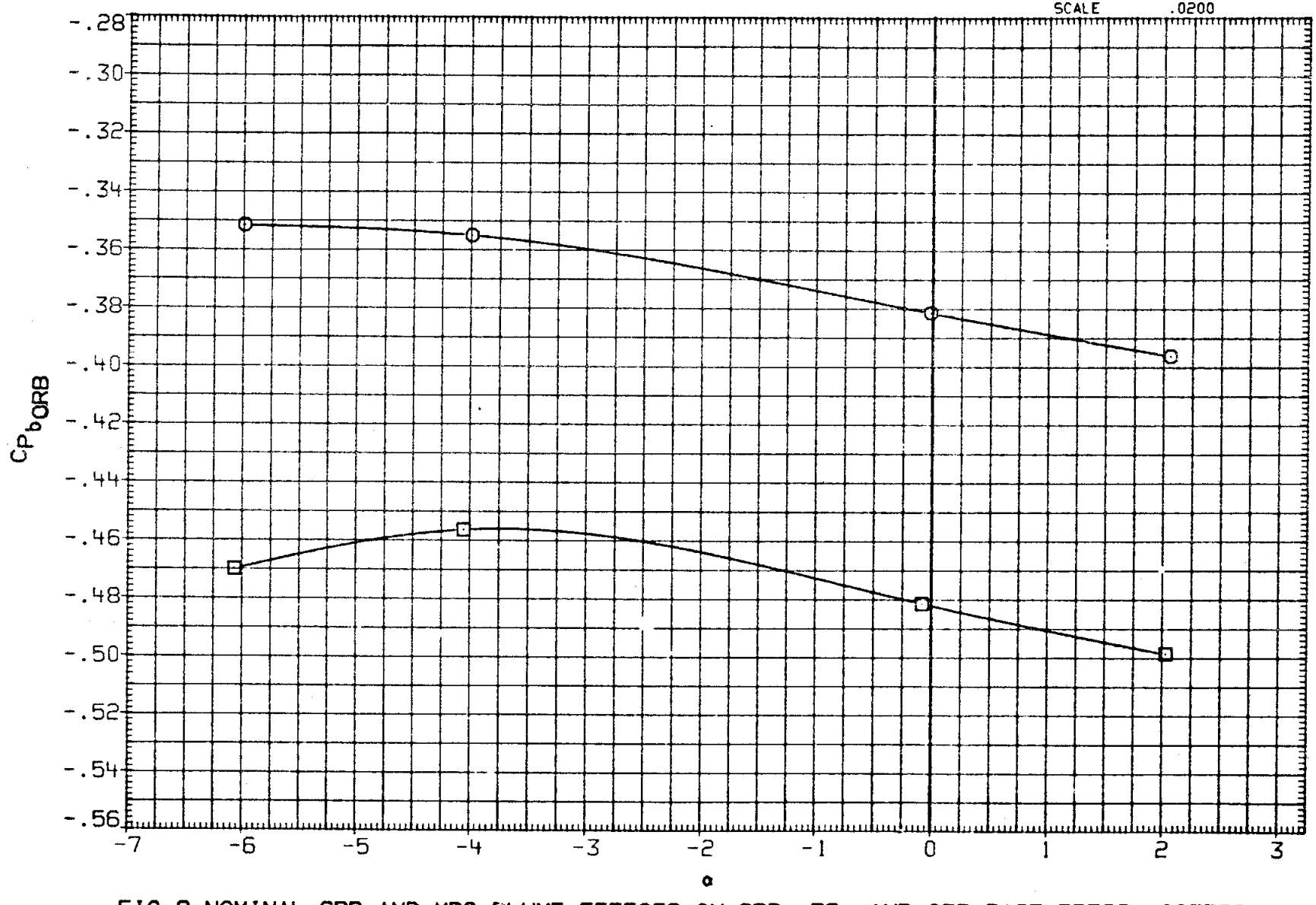

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

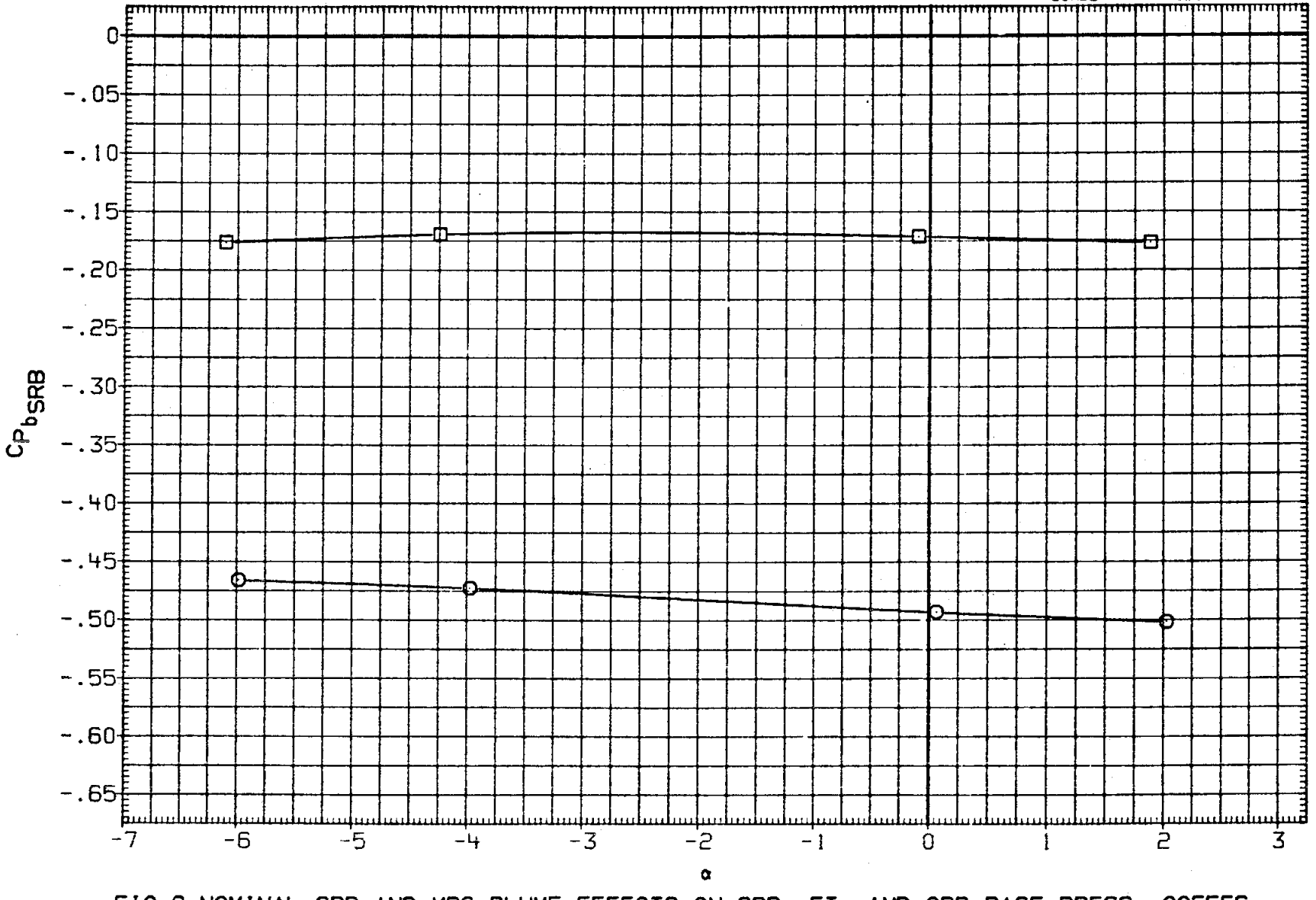

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

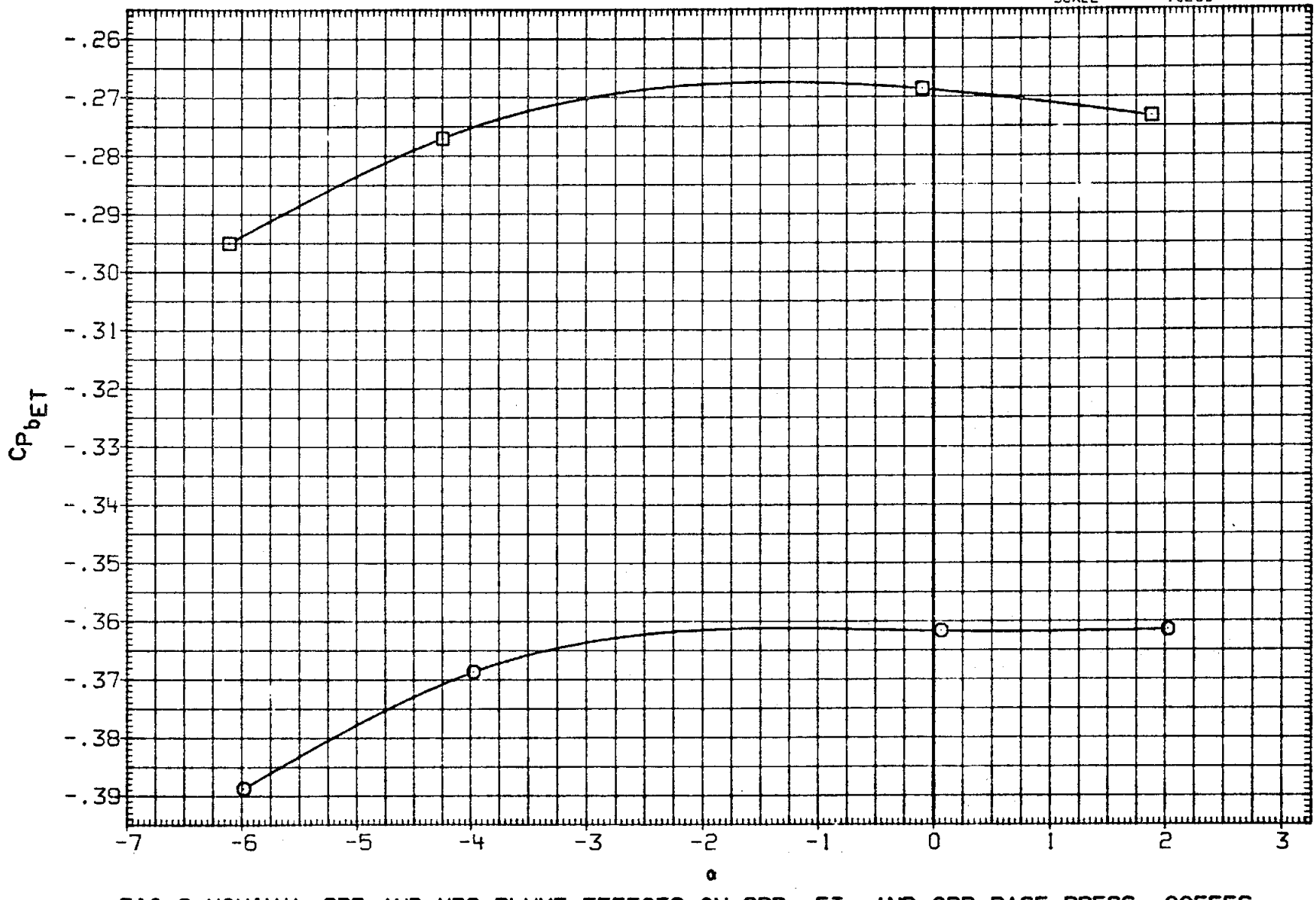

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

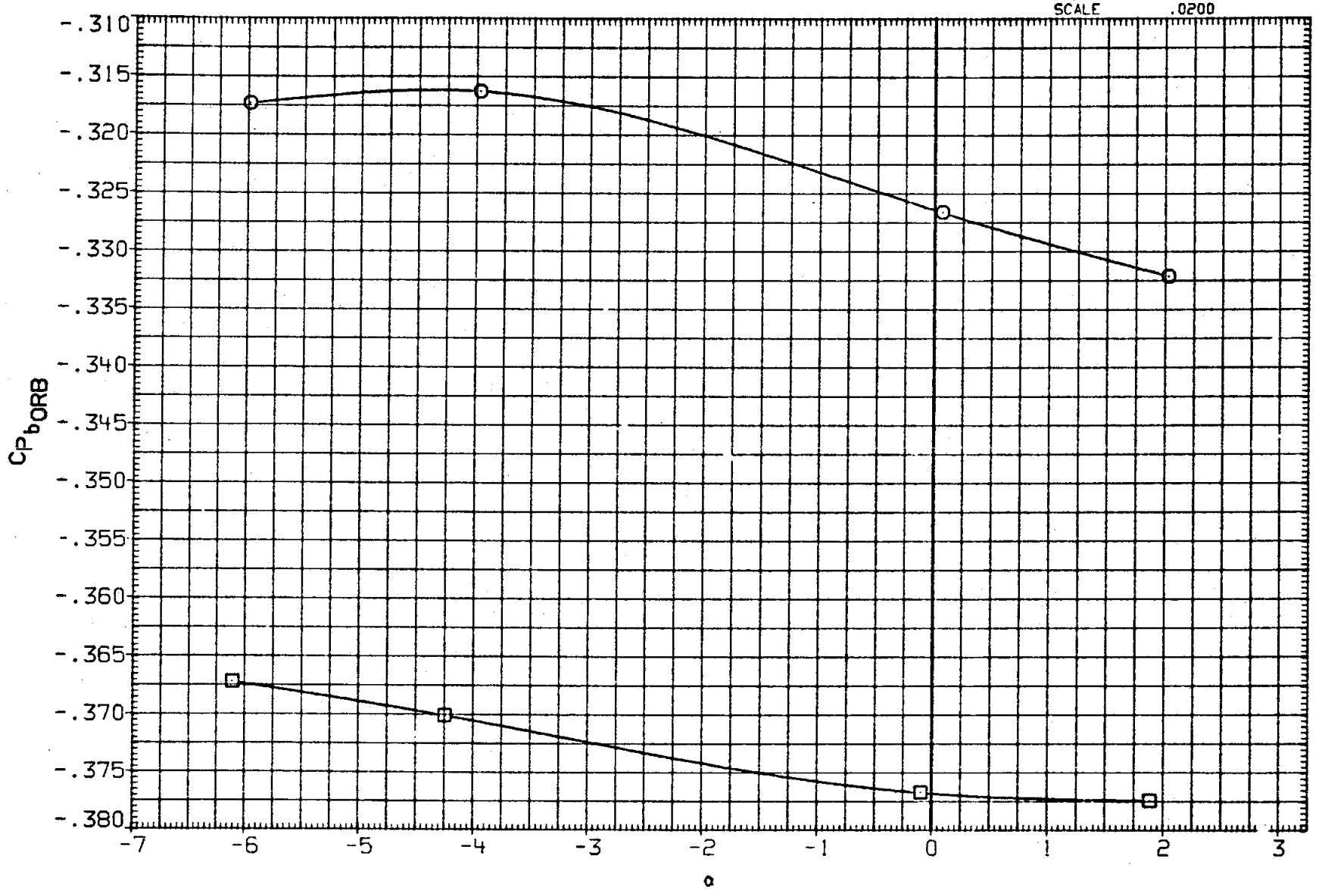

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

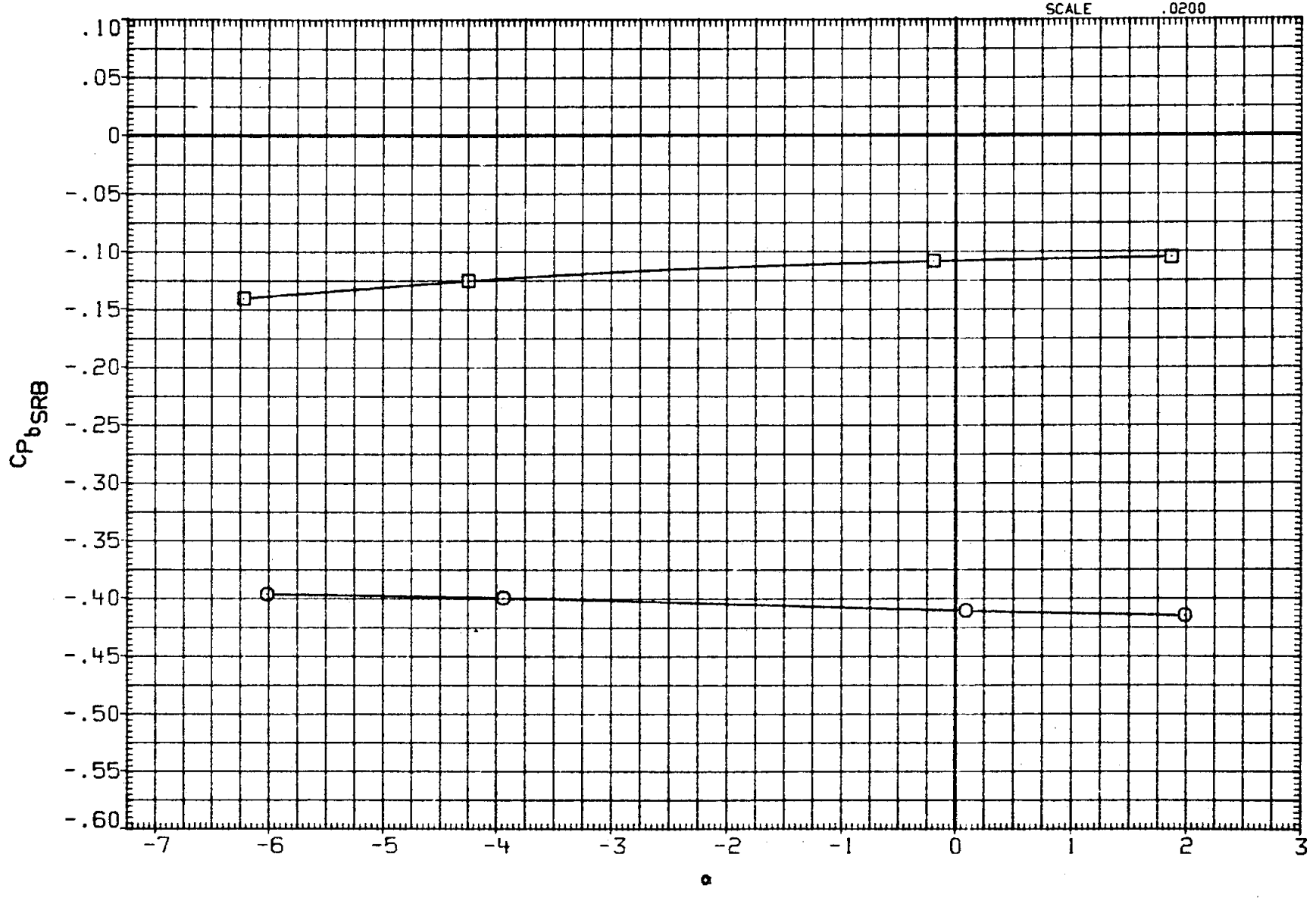

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

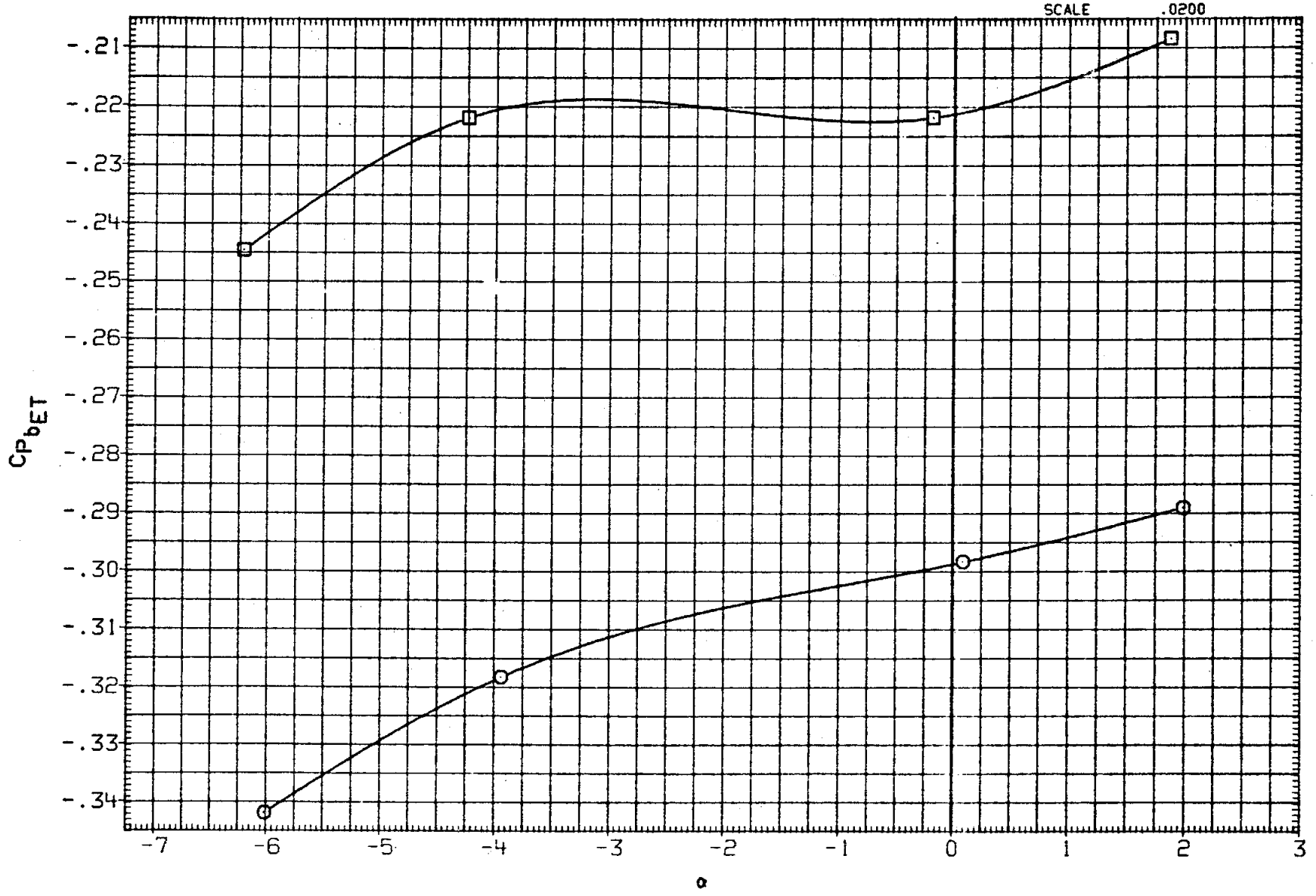

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ONEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

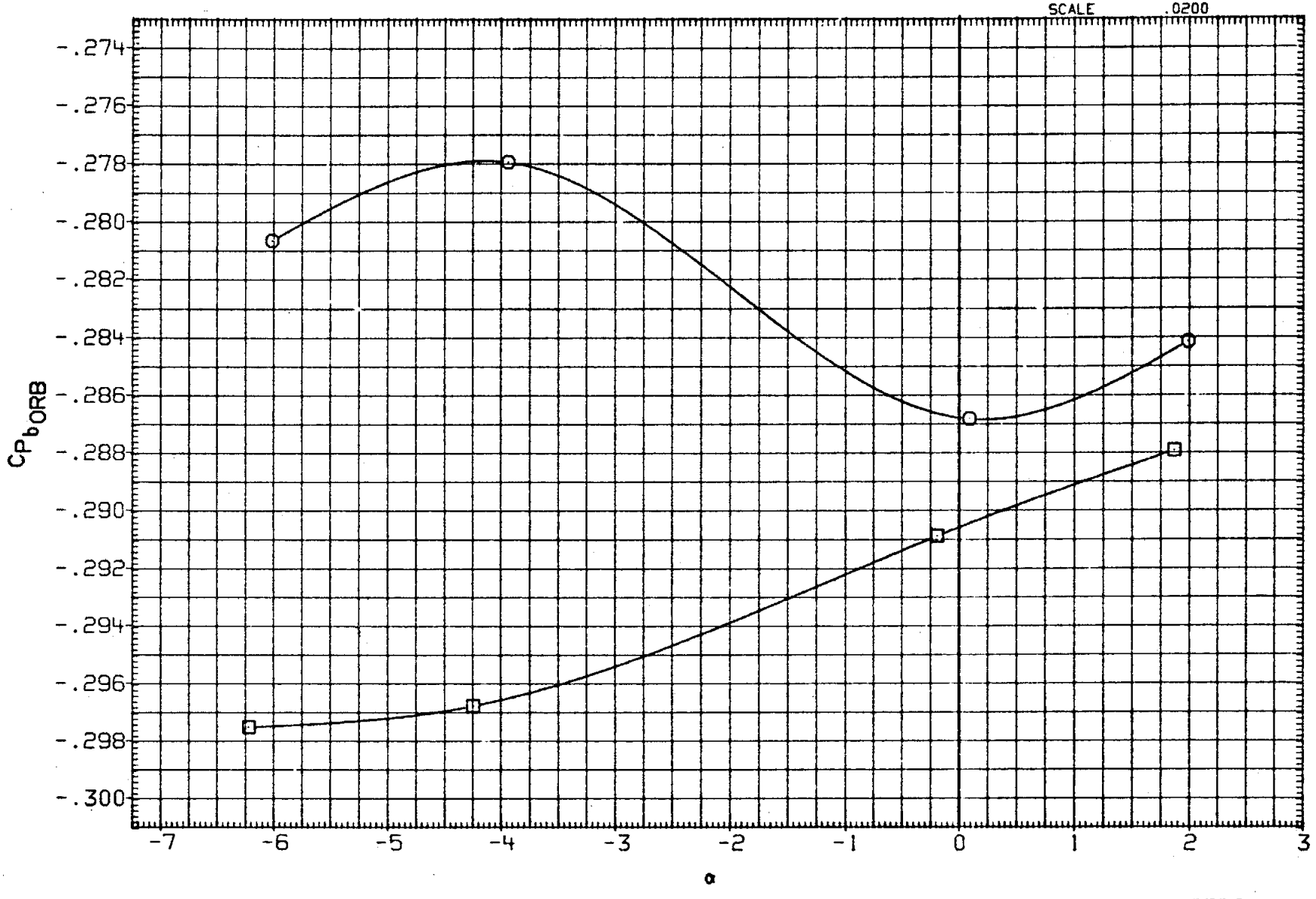

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

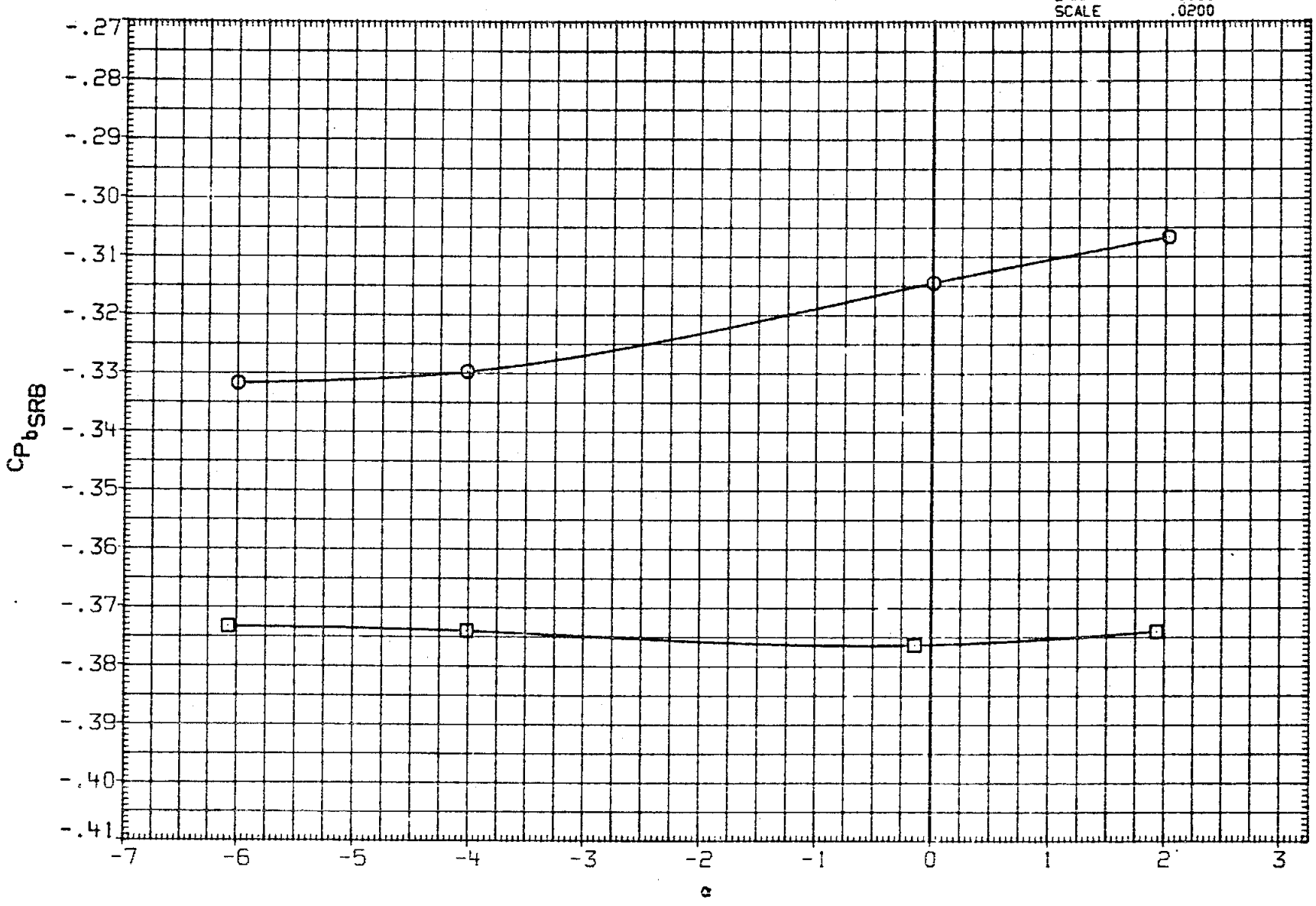

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

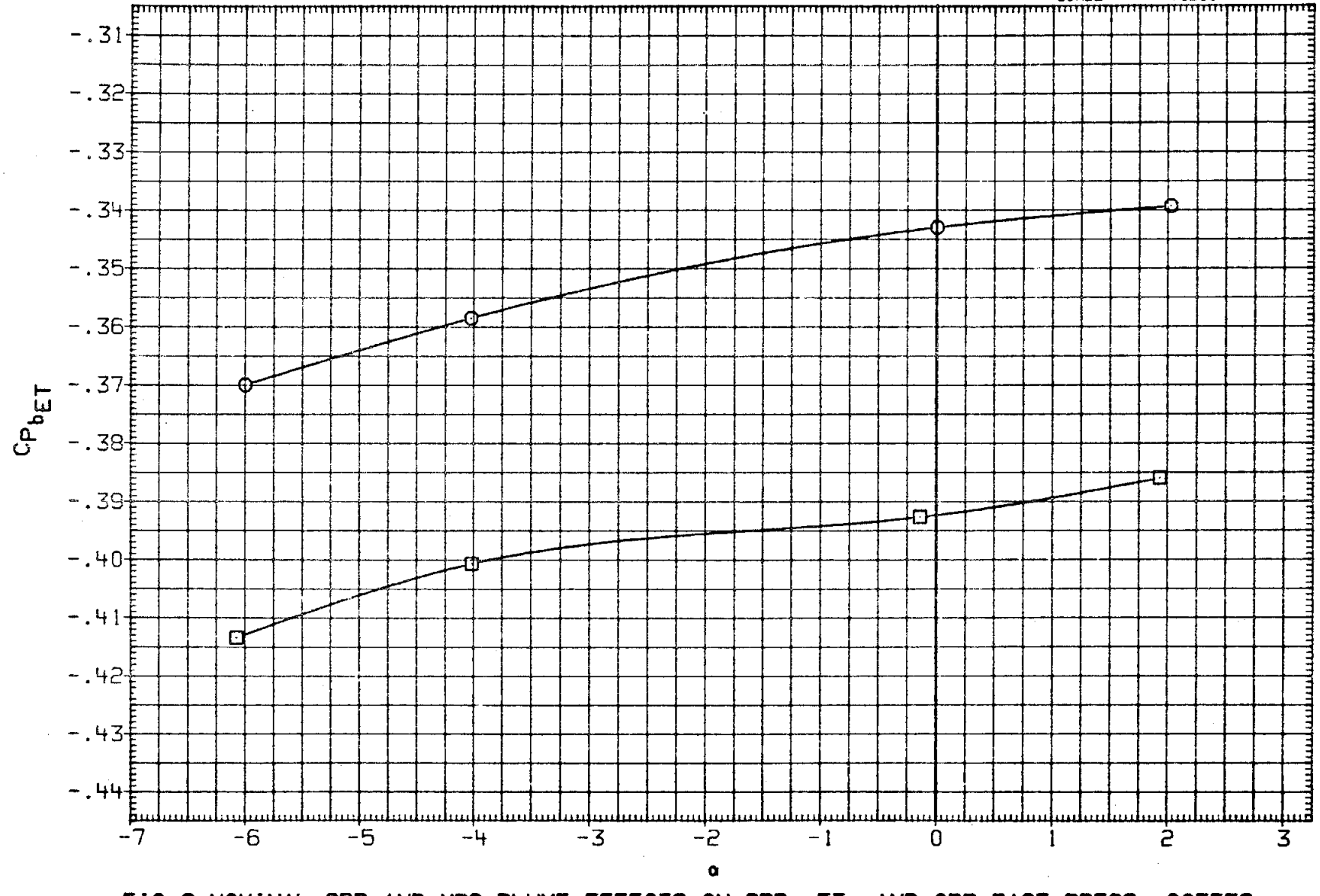

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

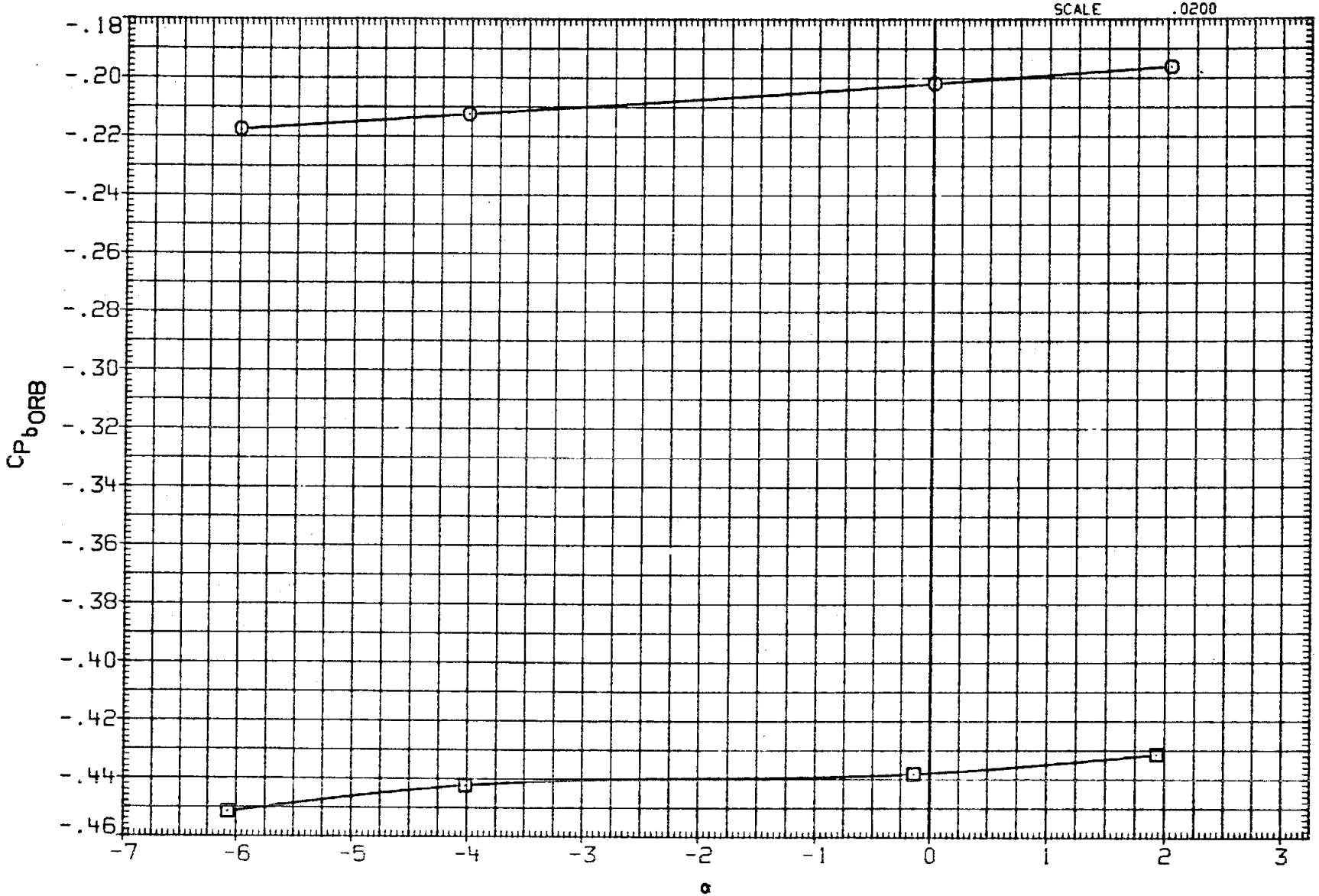

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

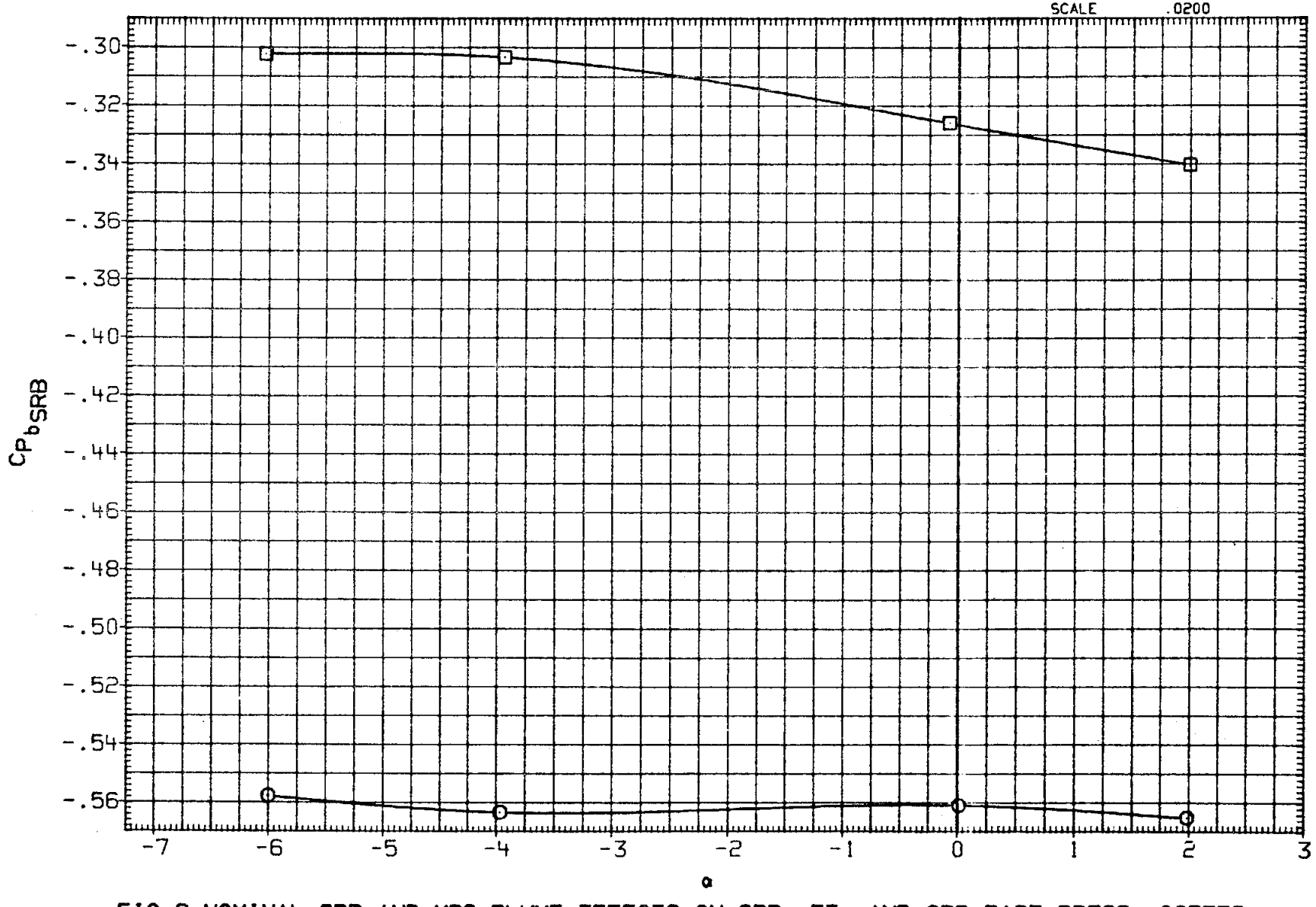

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

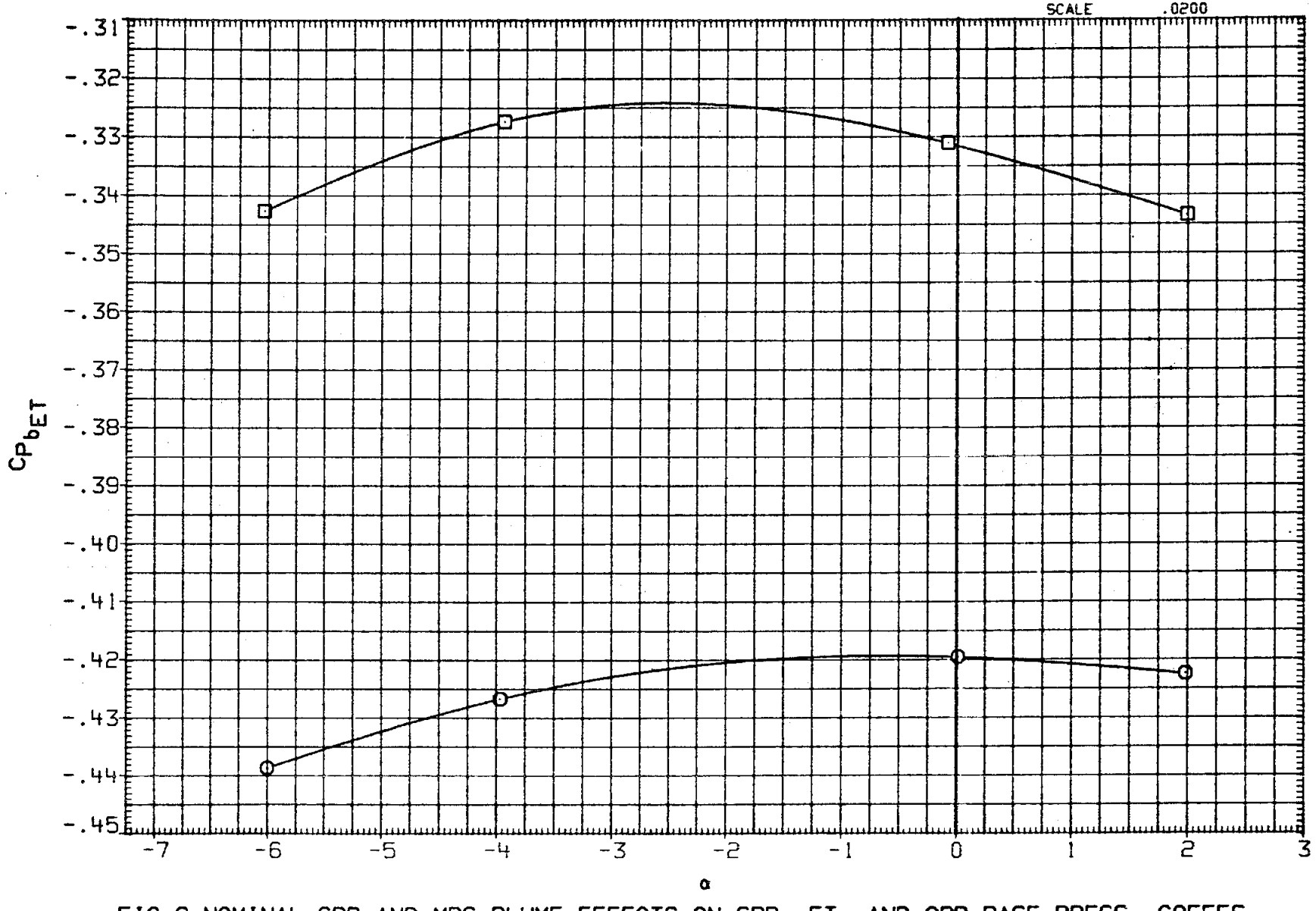

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

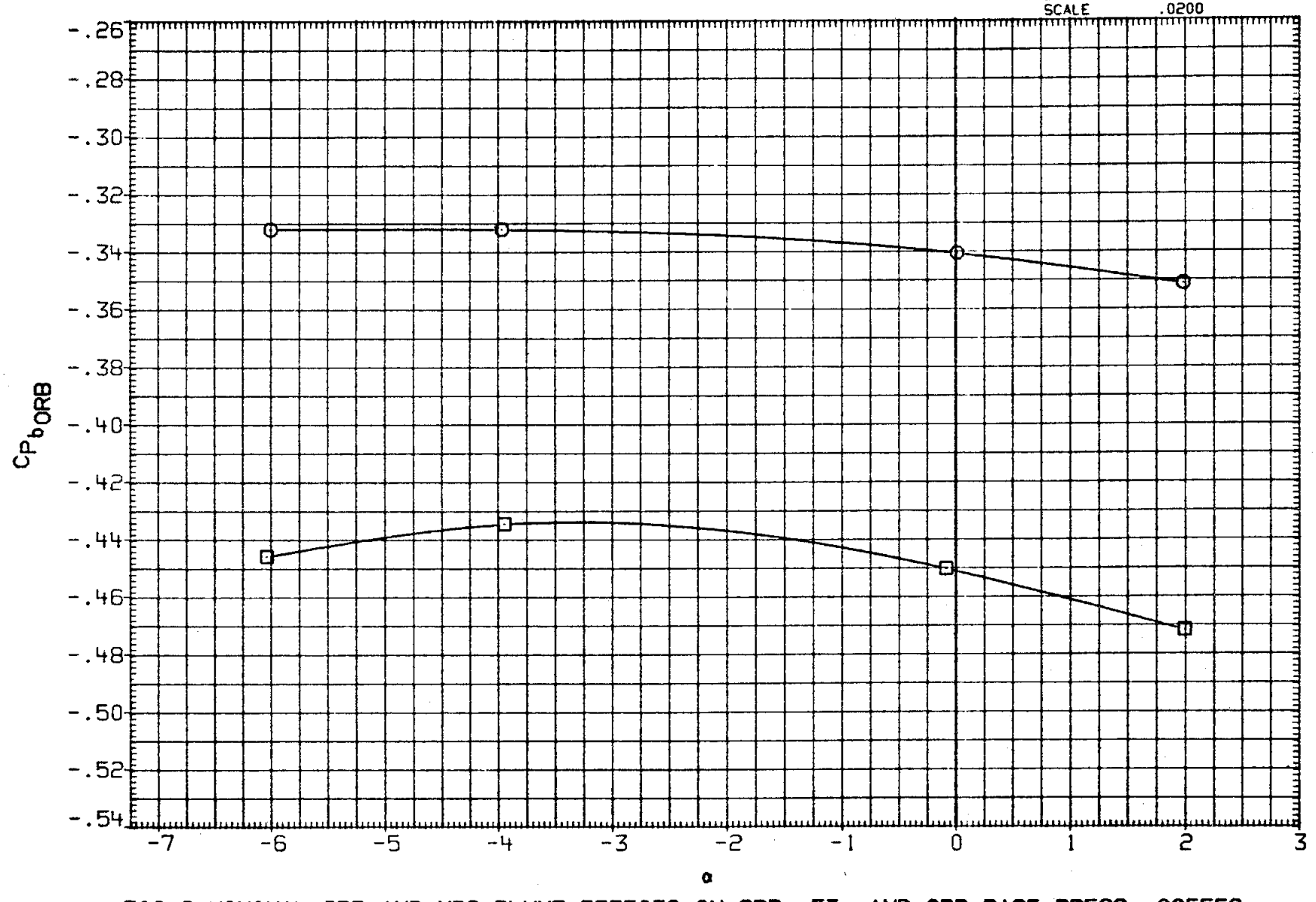

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

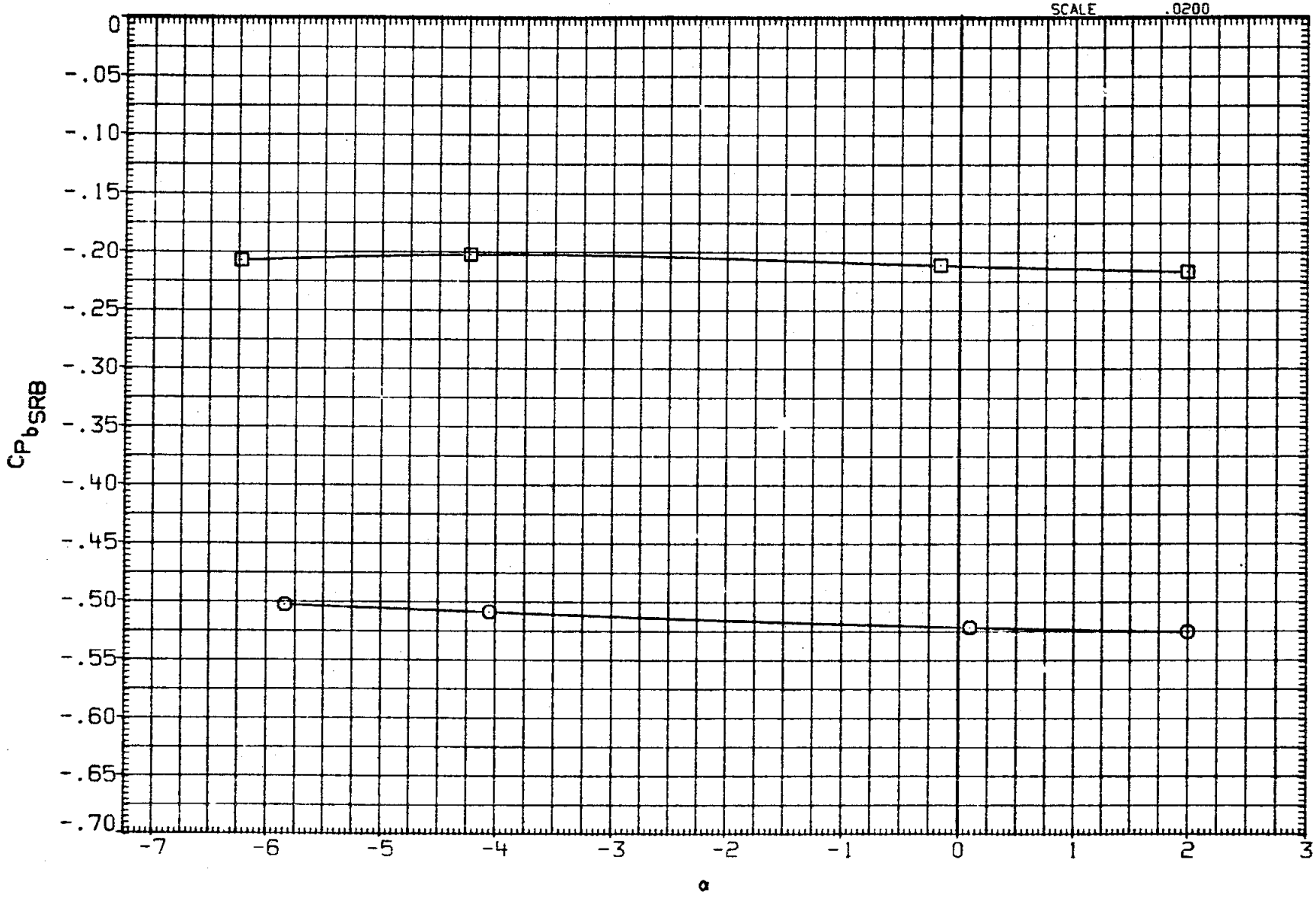

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

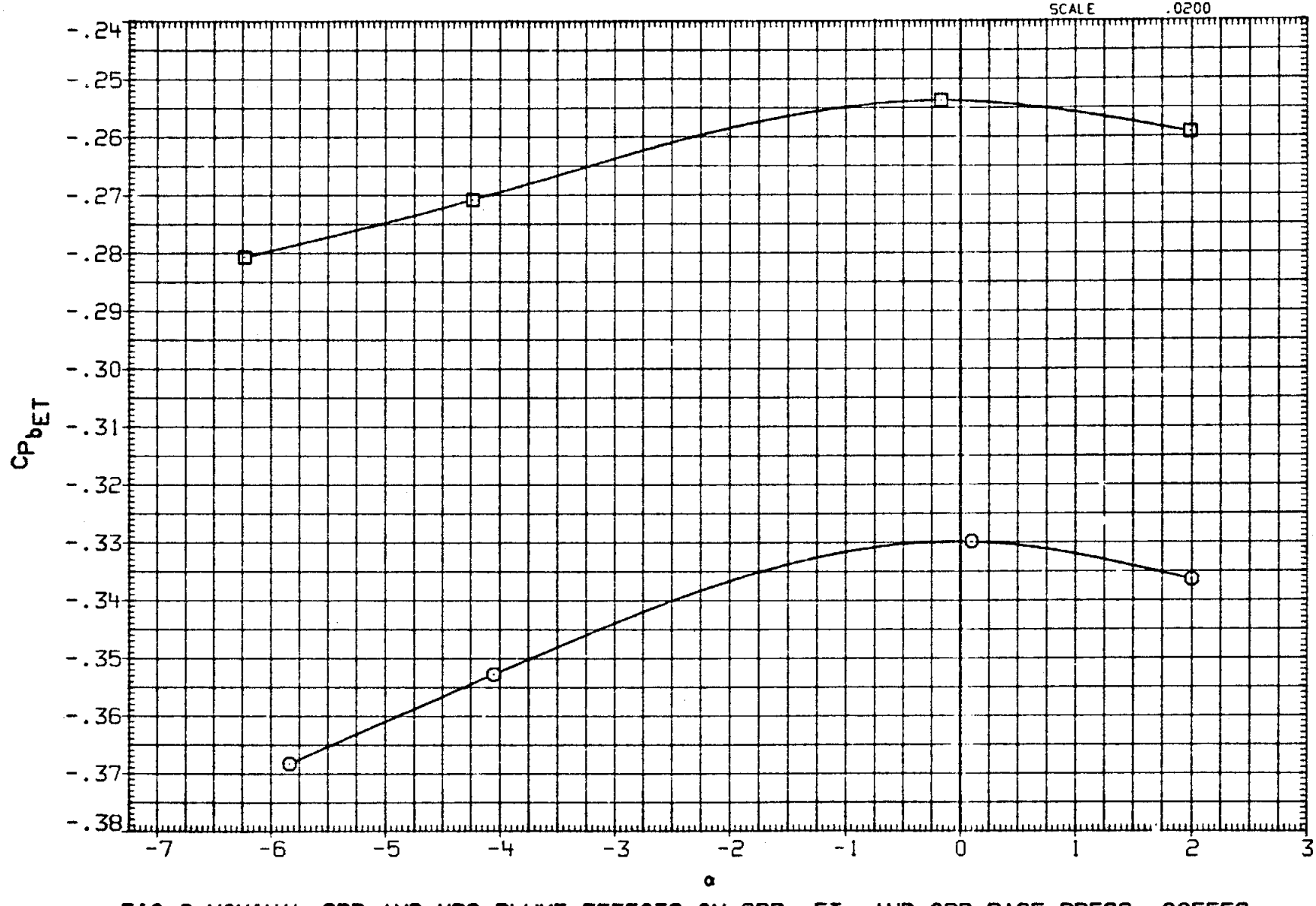

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

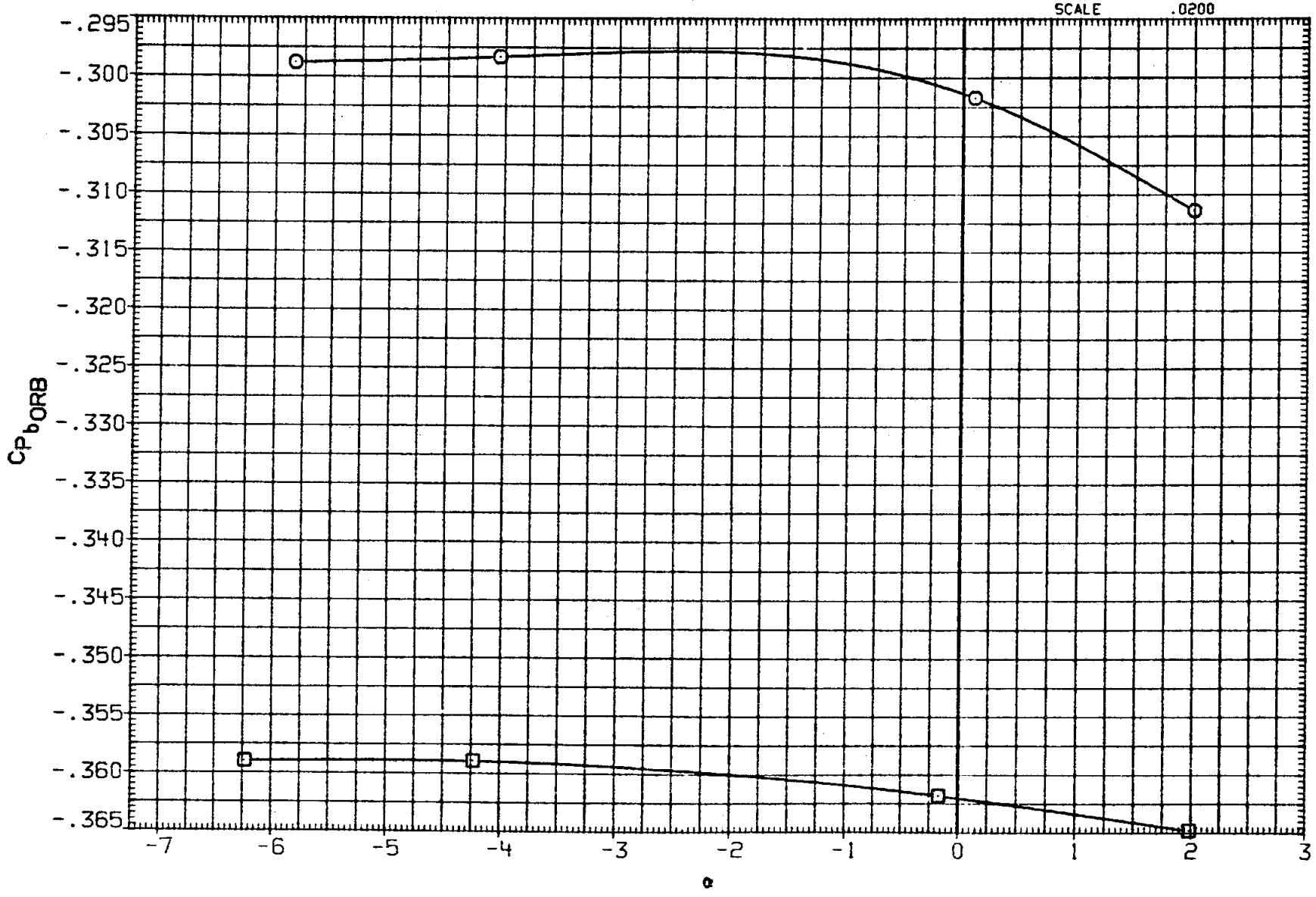

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

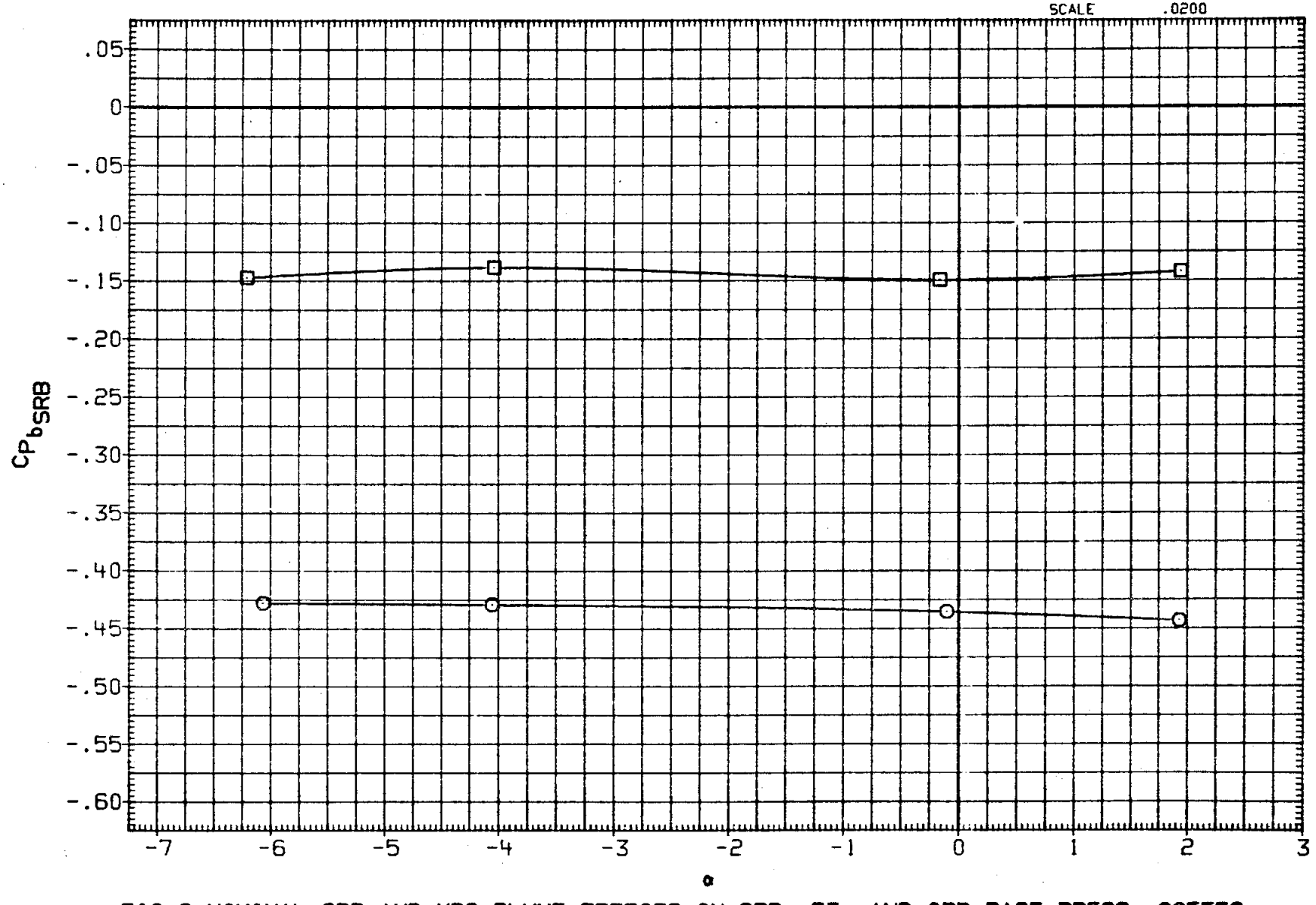

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

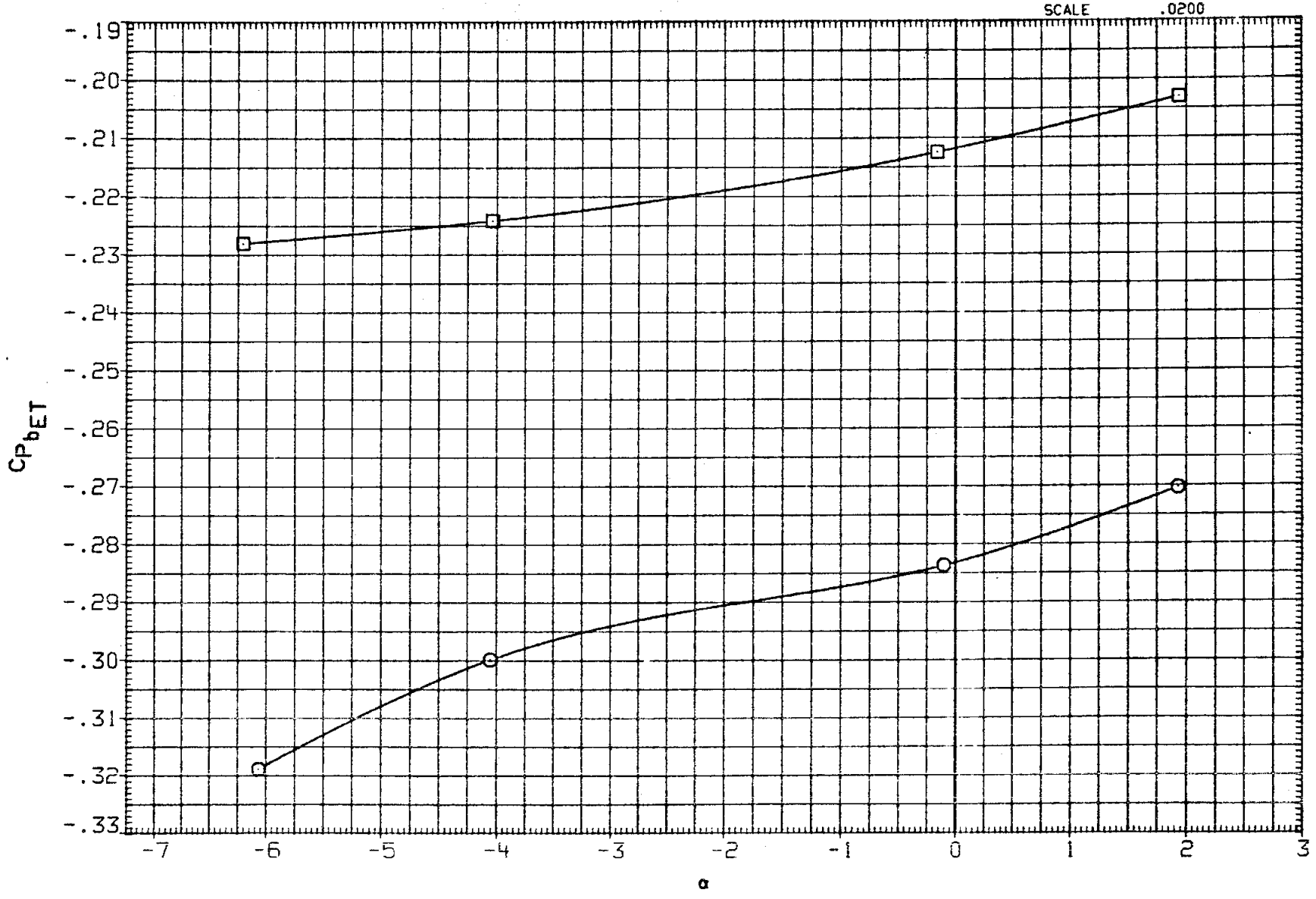

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ONEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

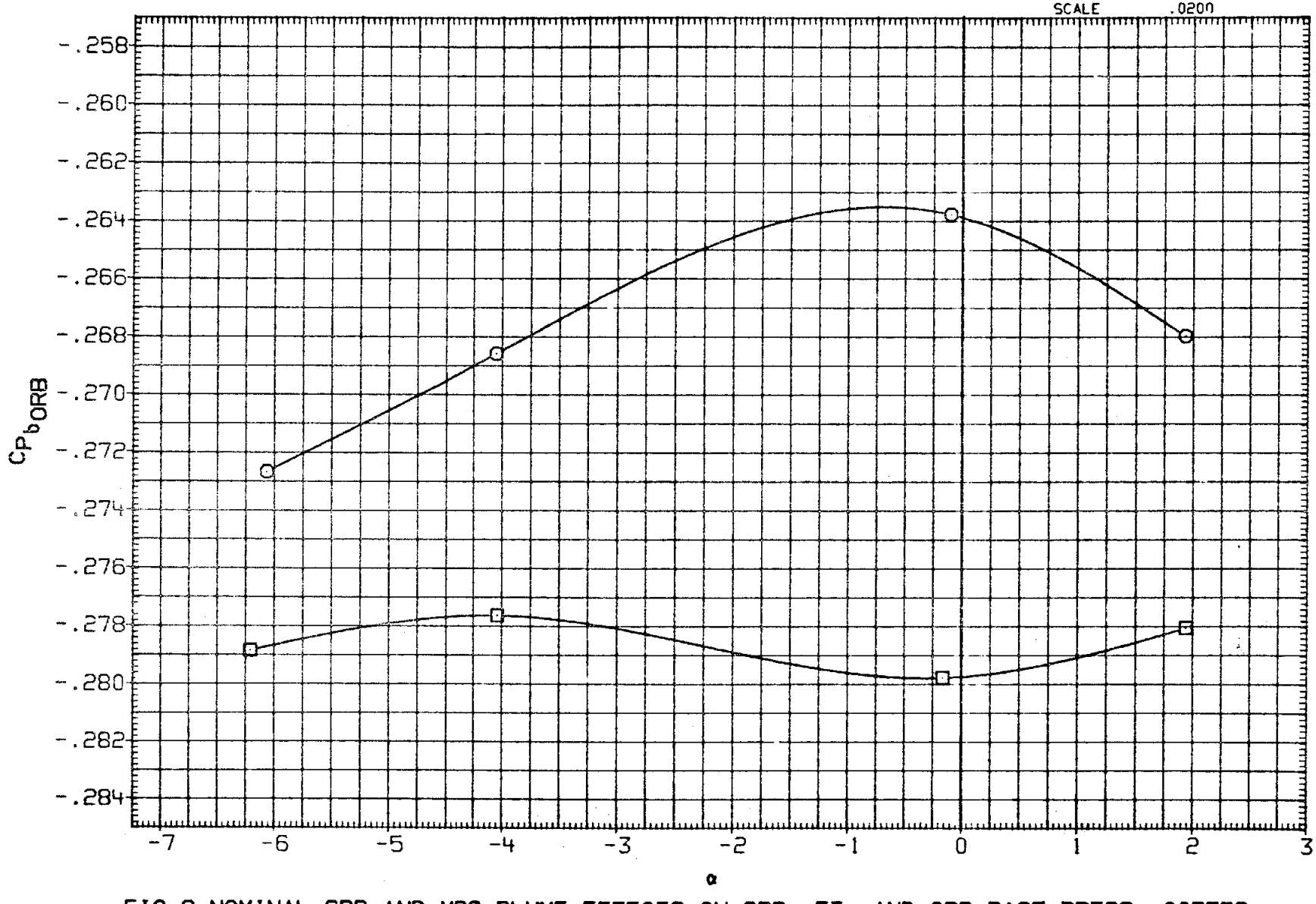

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

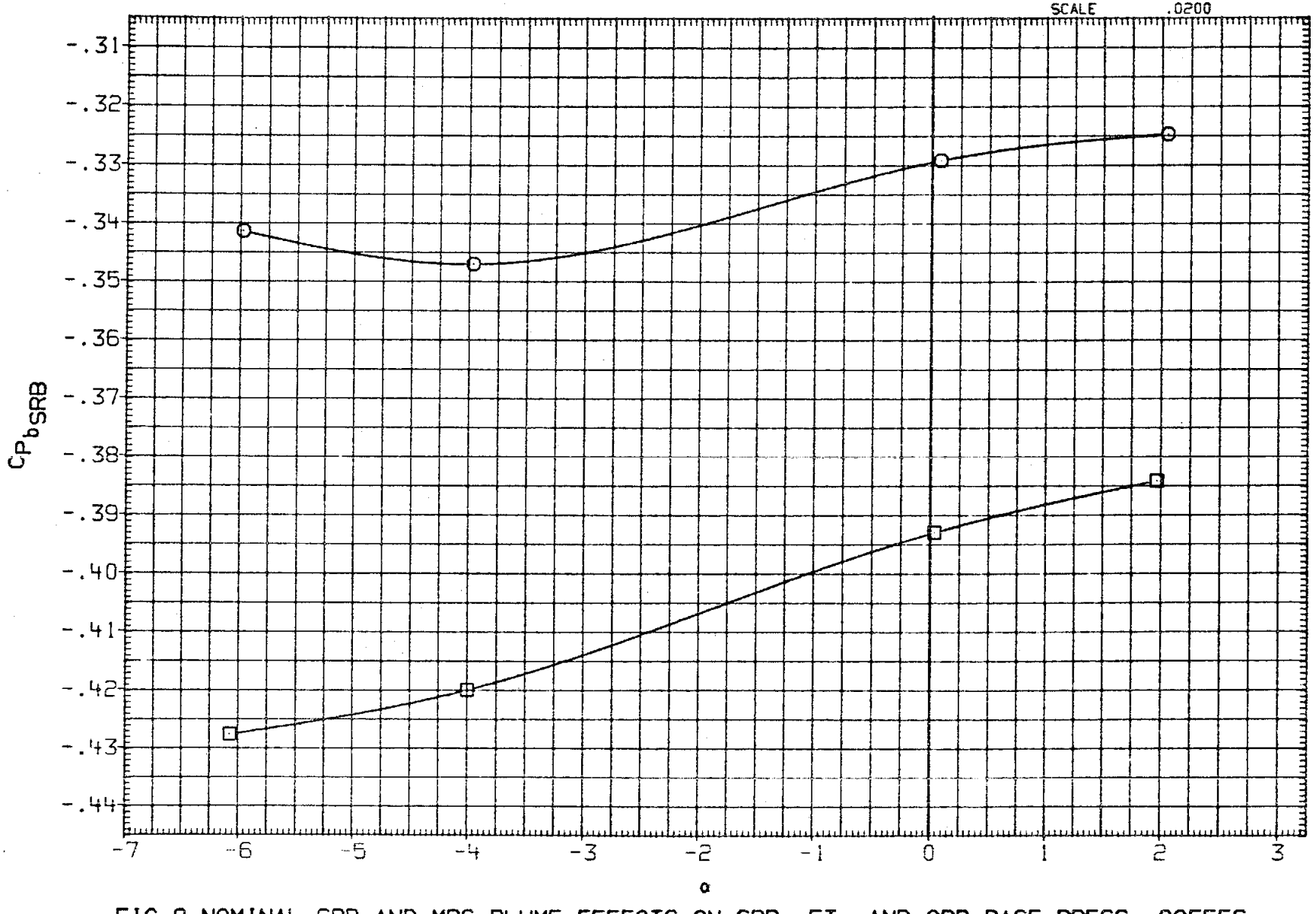

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

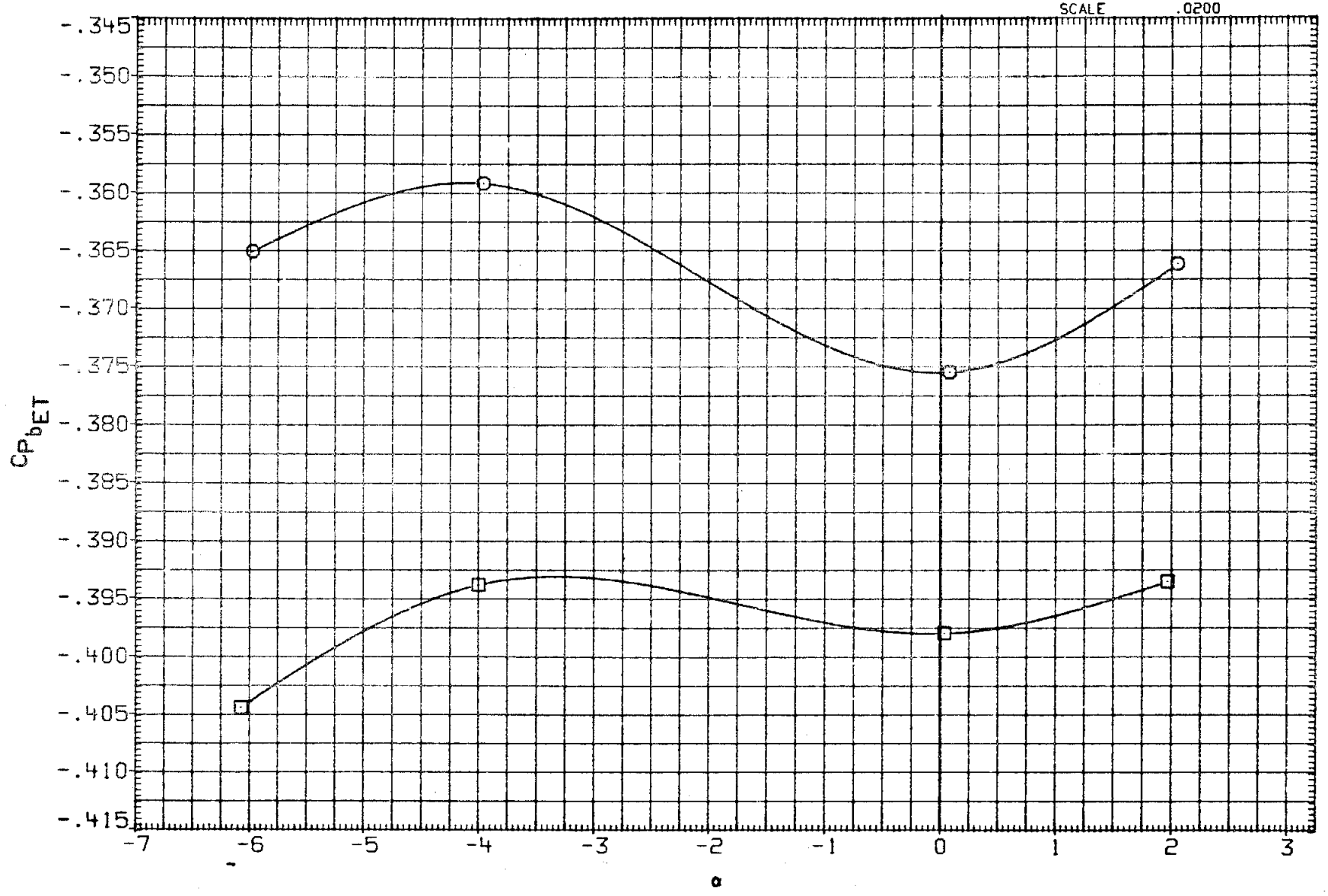

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

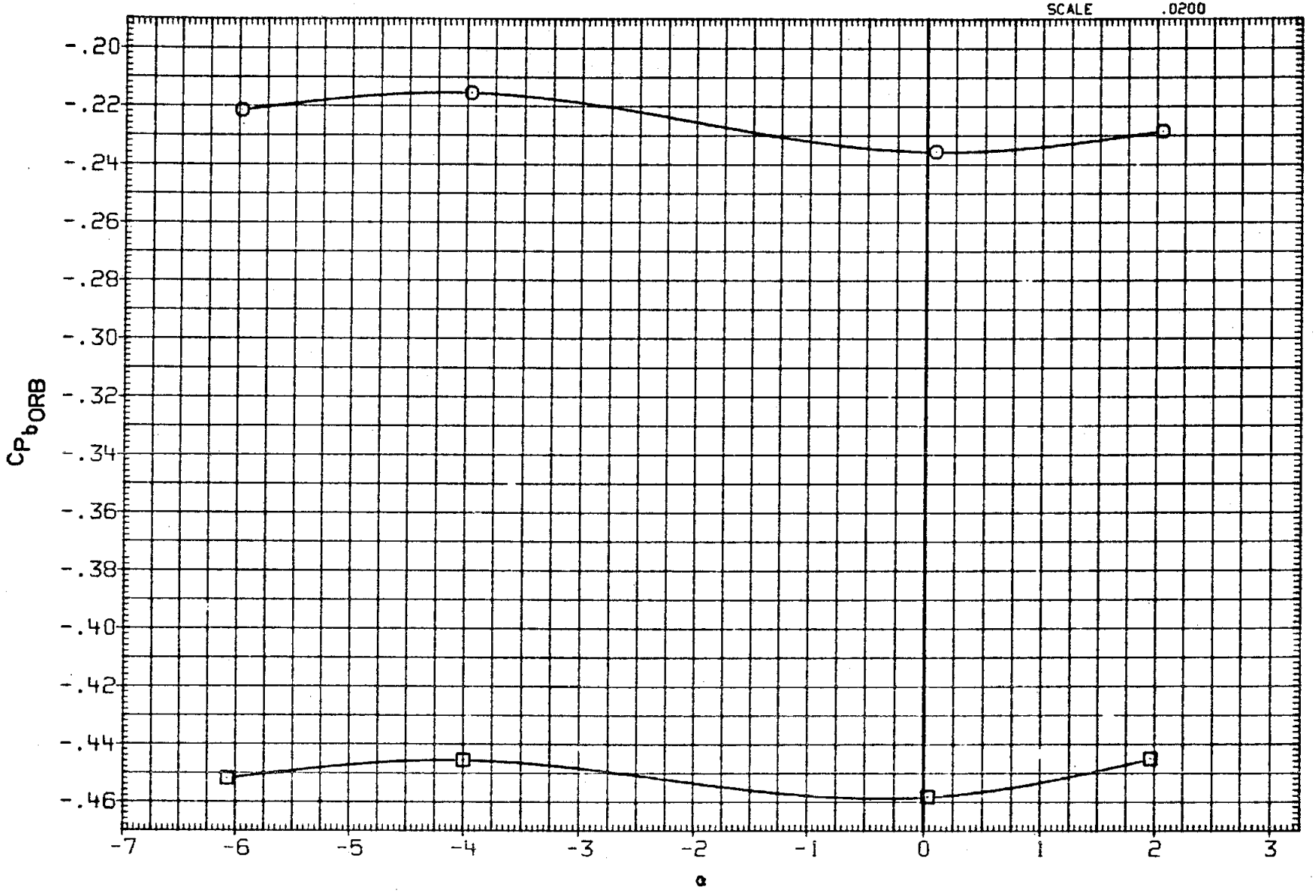

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

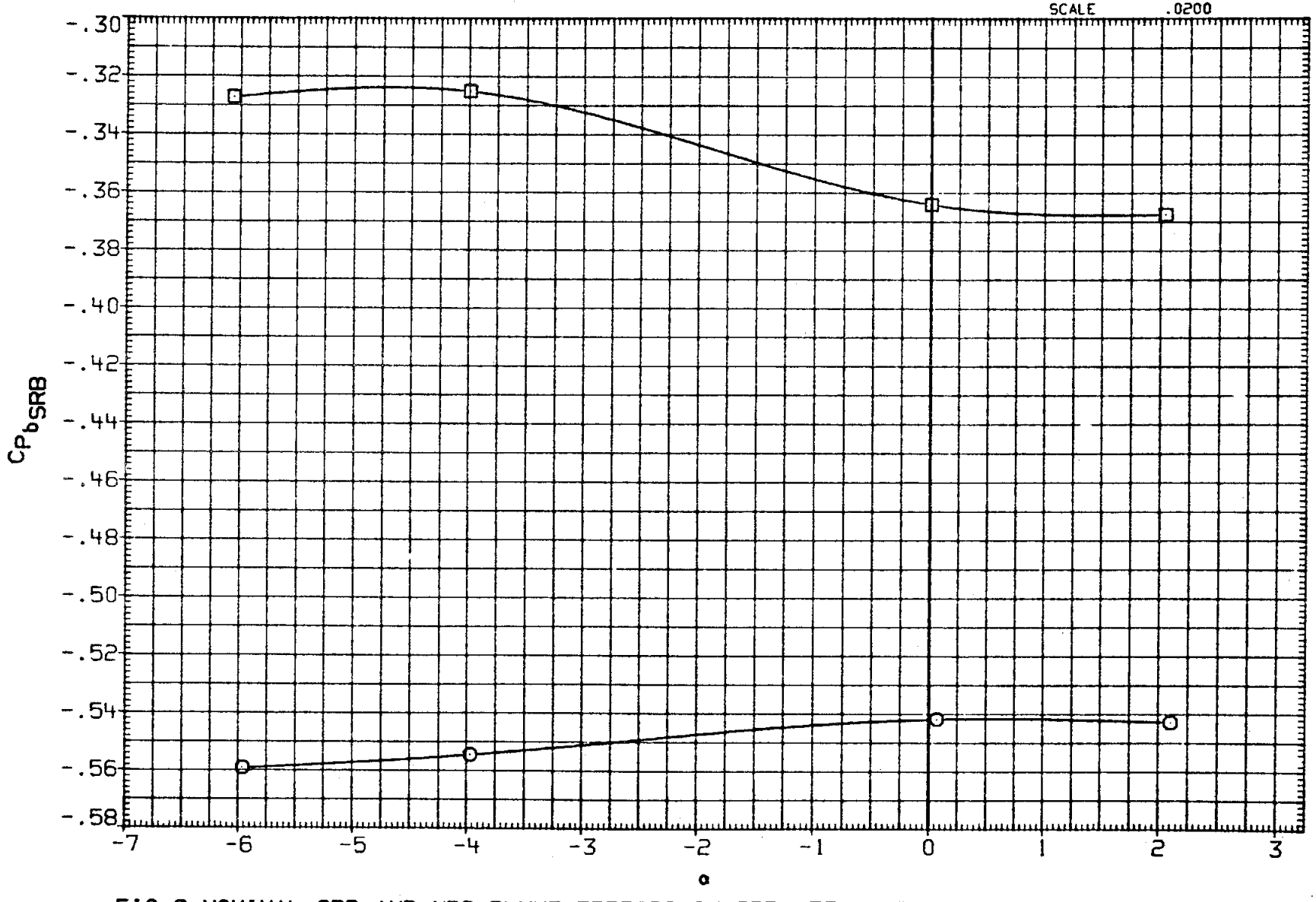

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

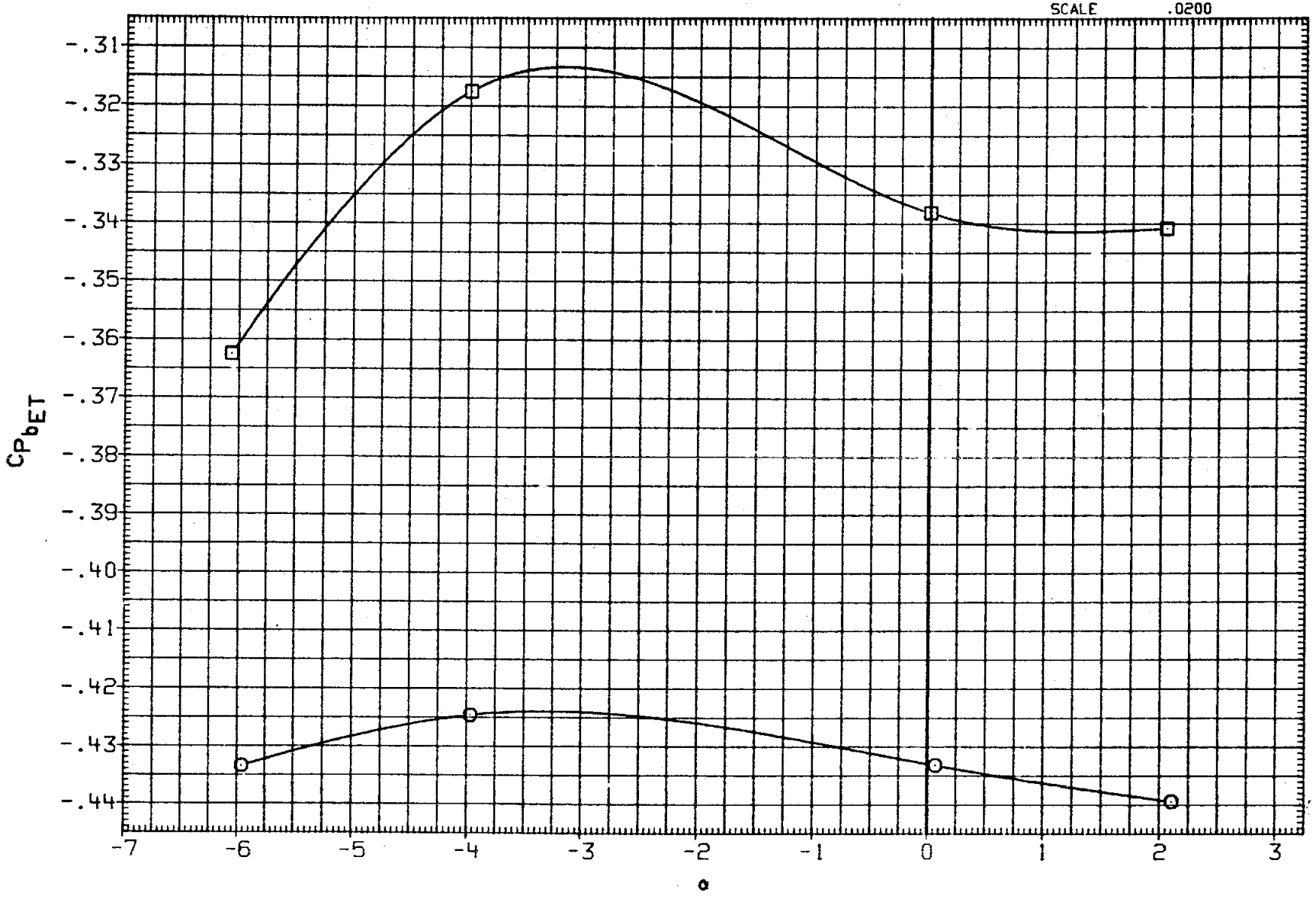

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

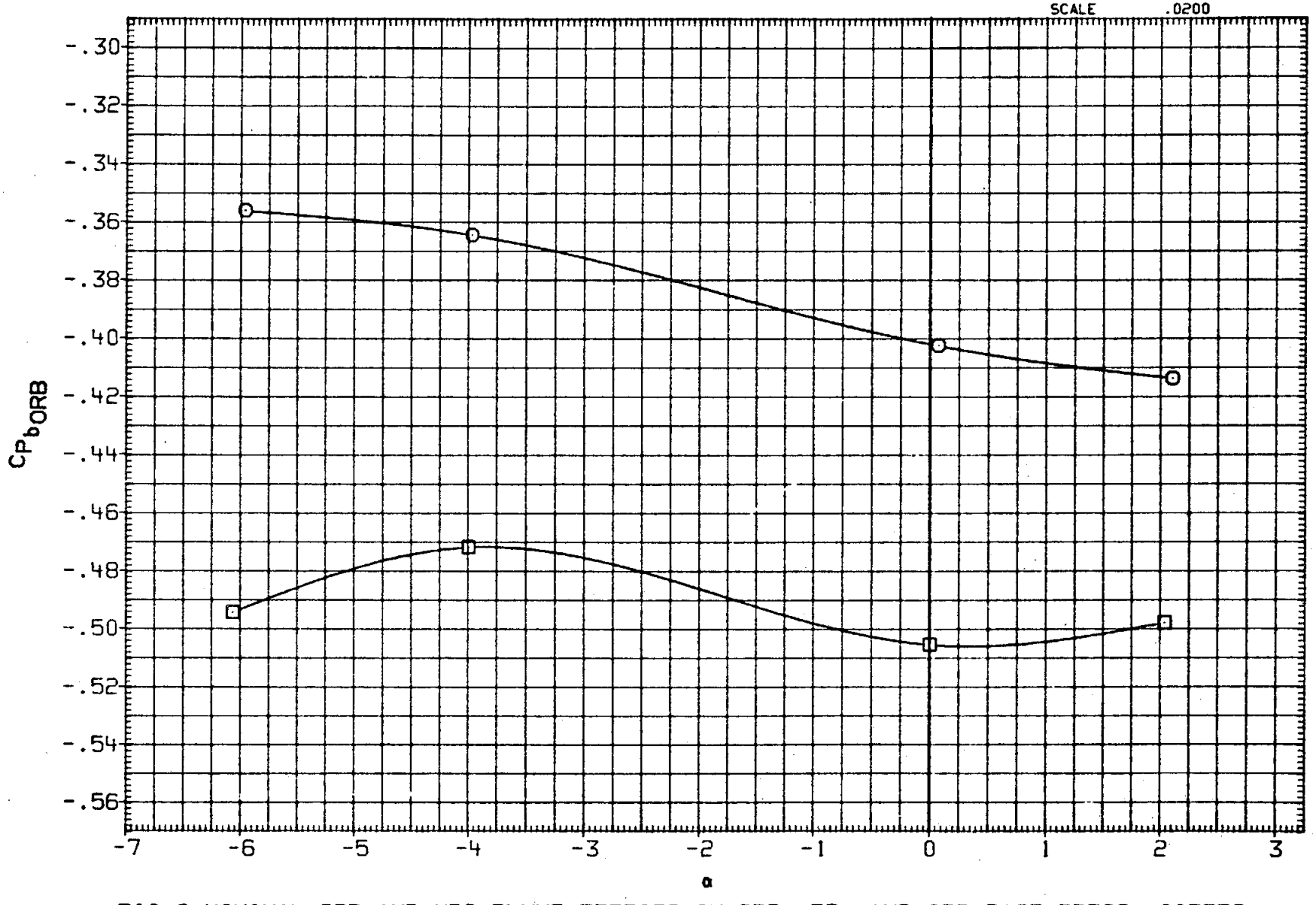

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

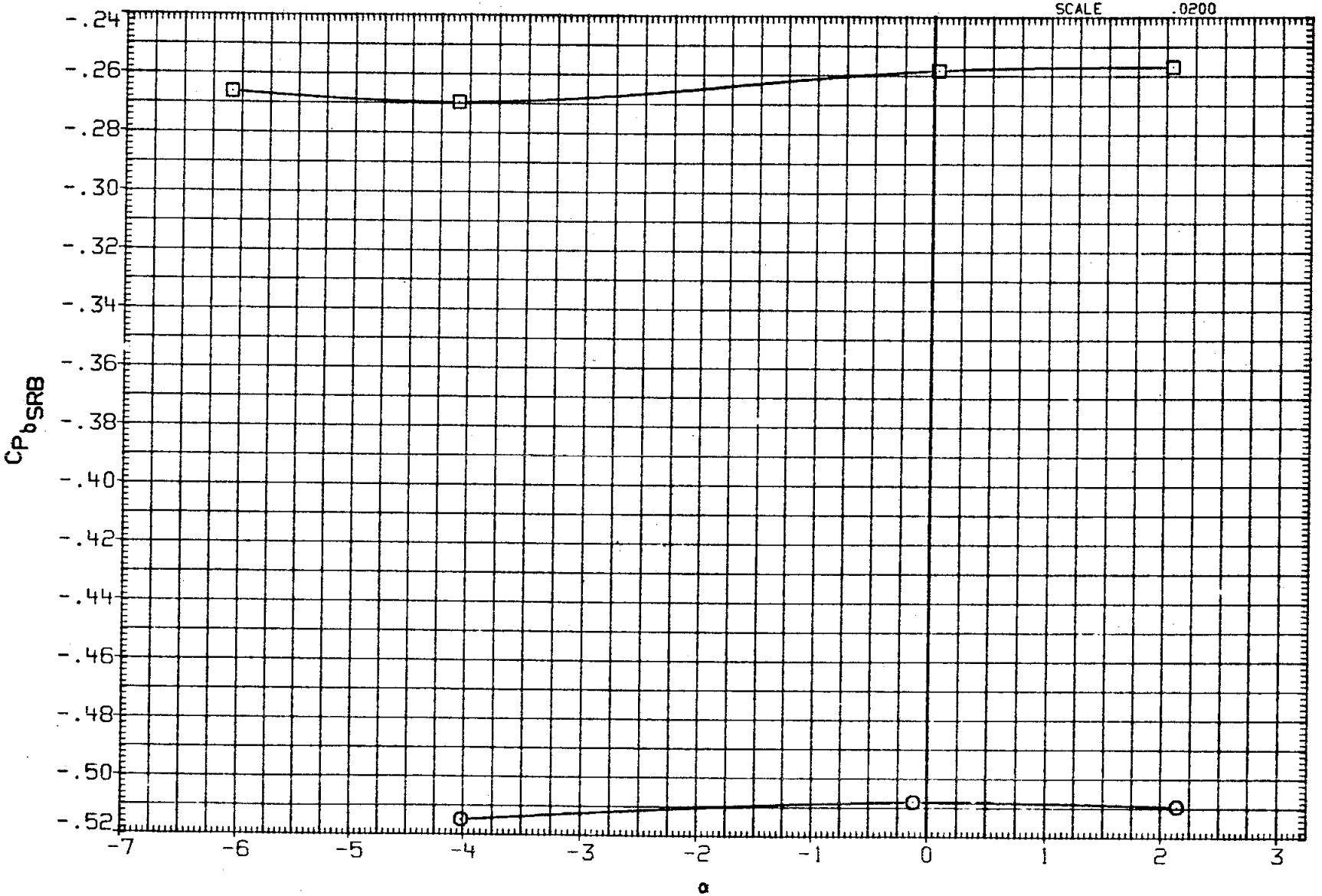

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

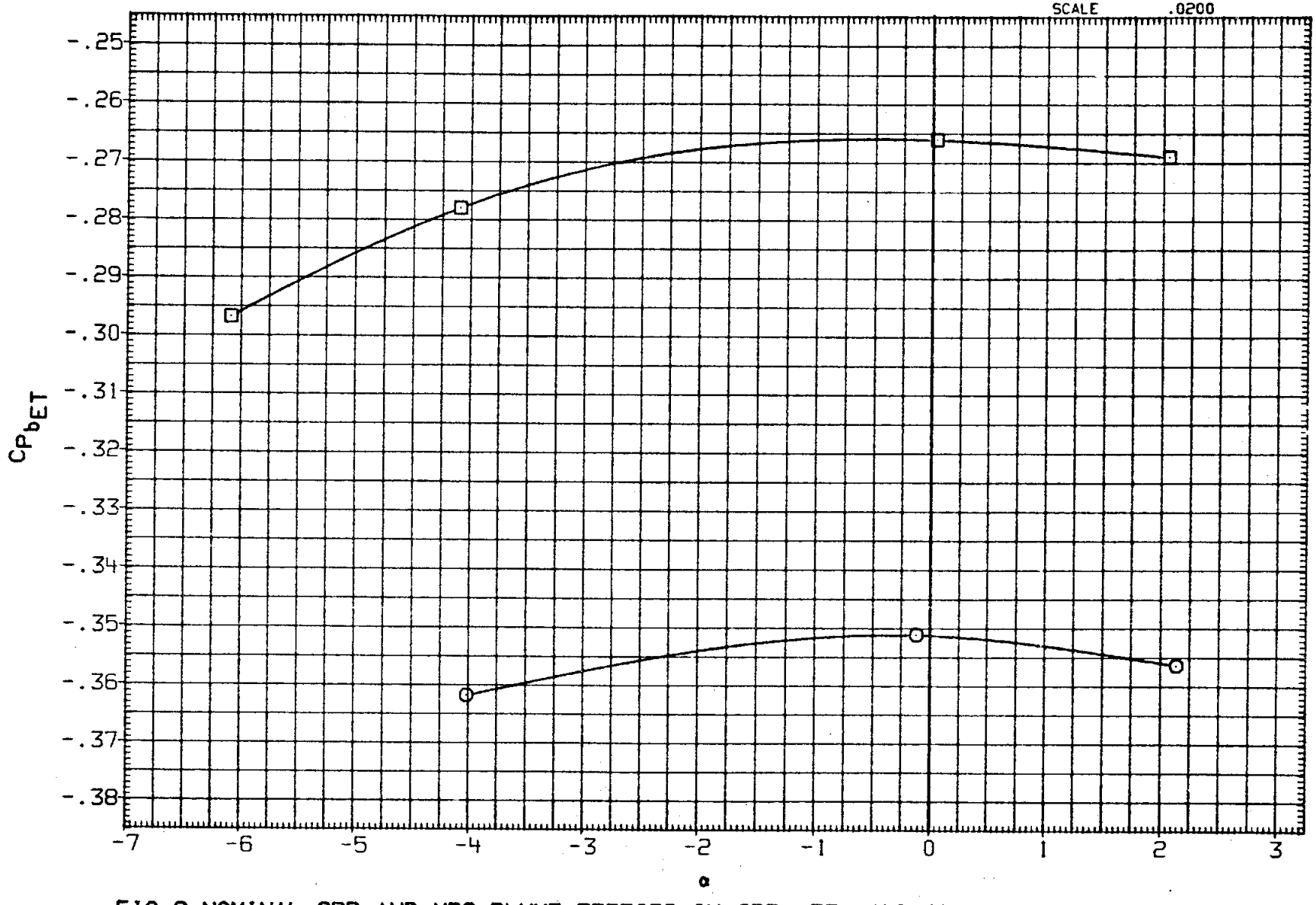

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

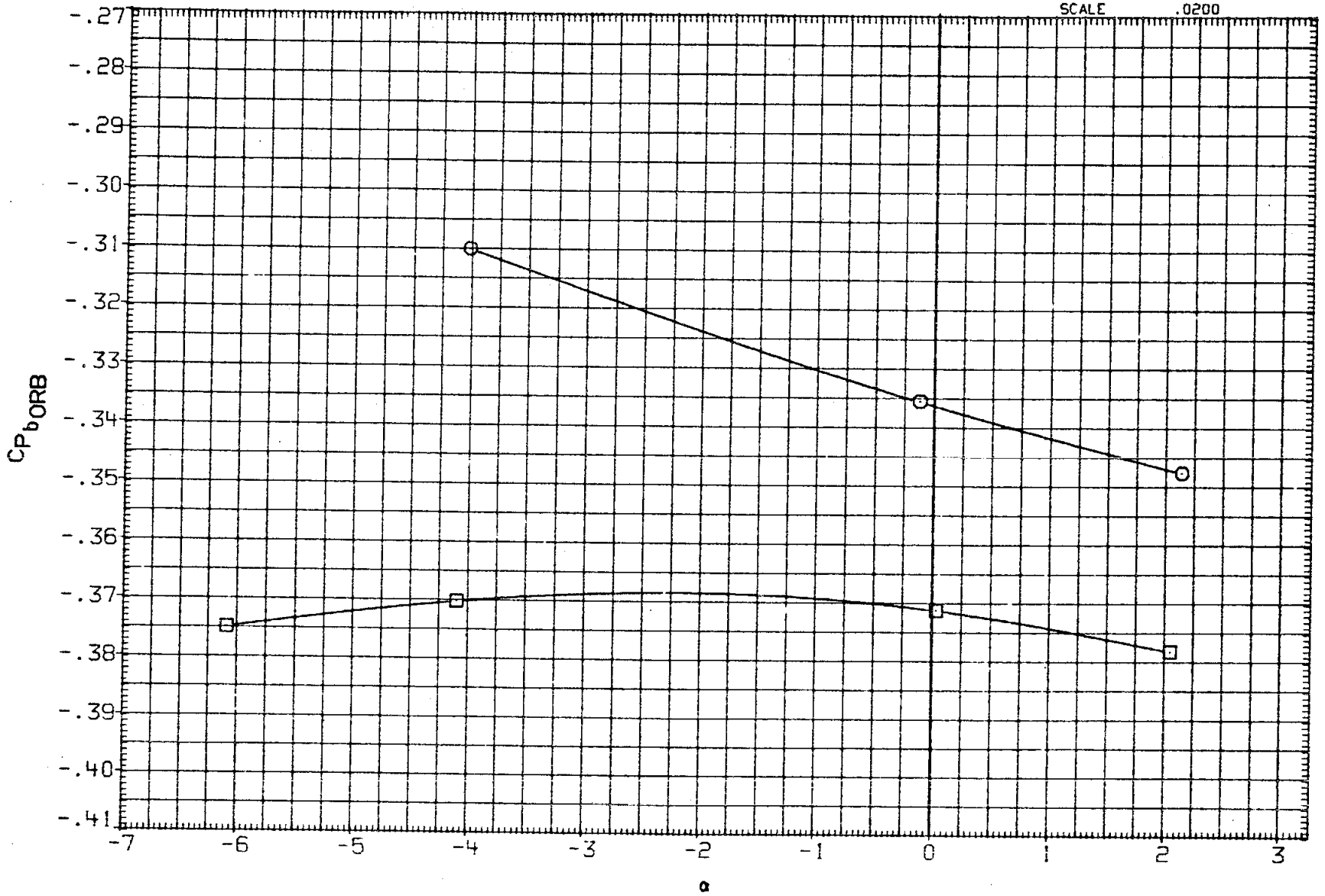

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

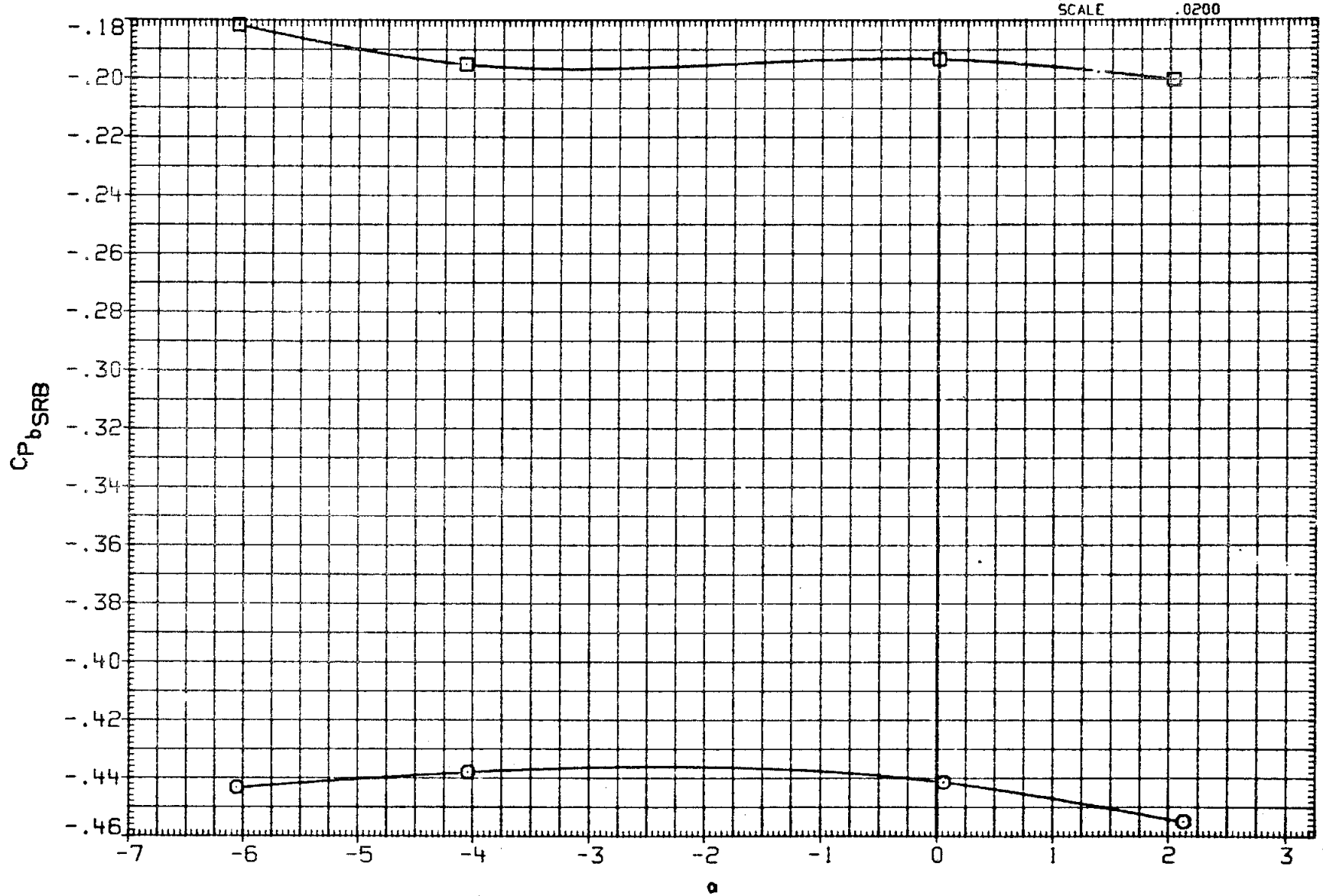

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

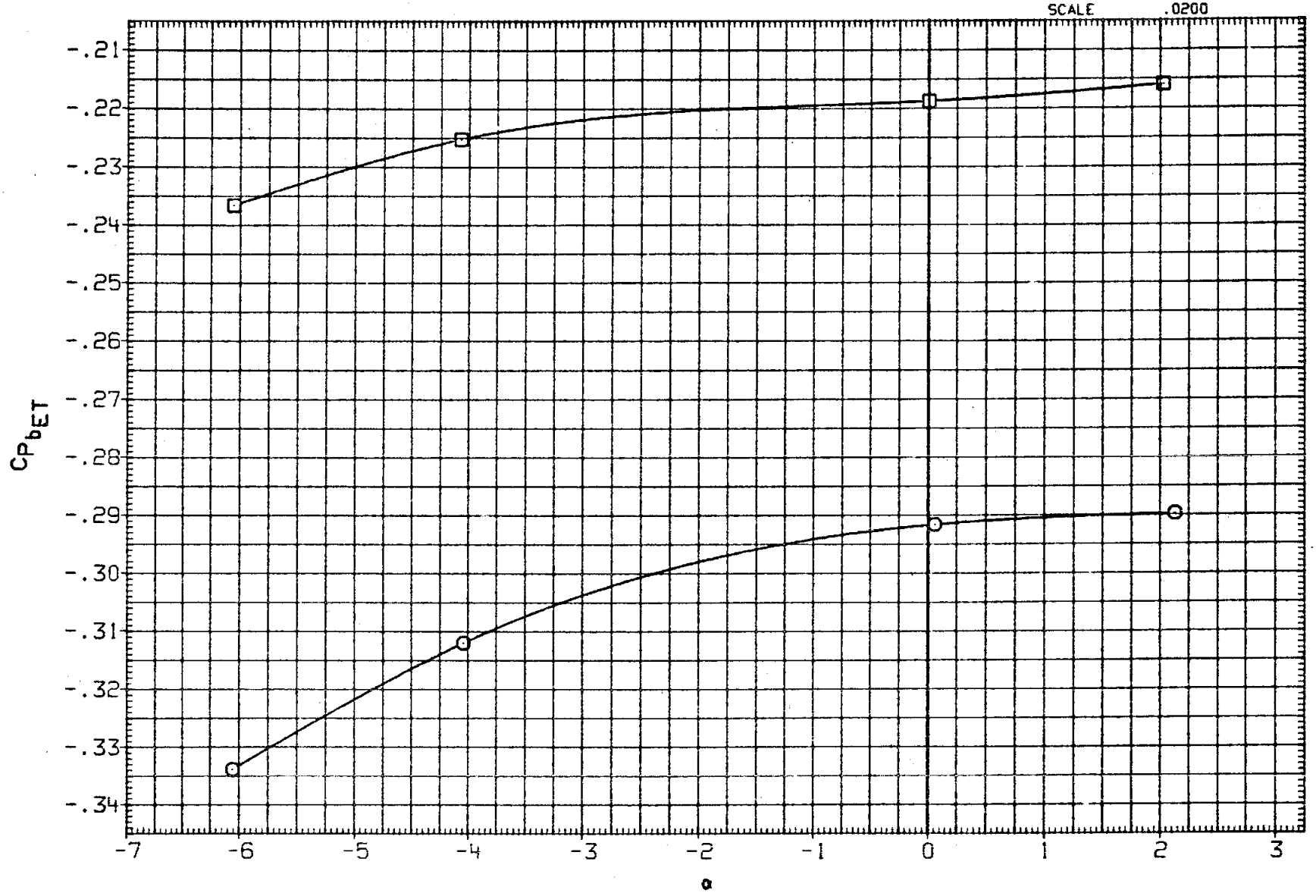

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ONEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

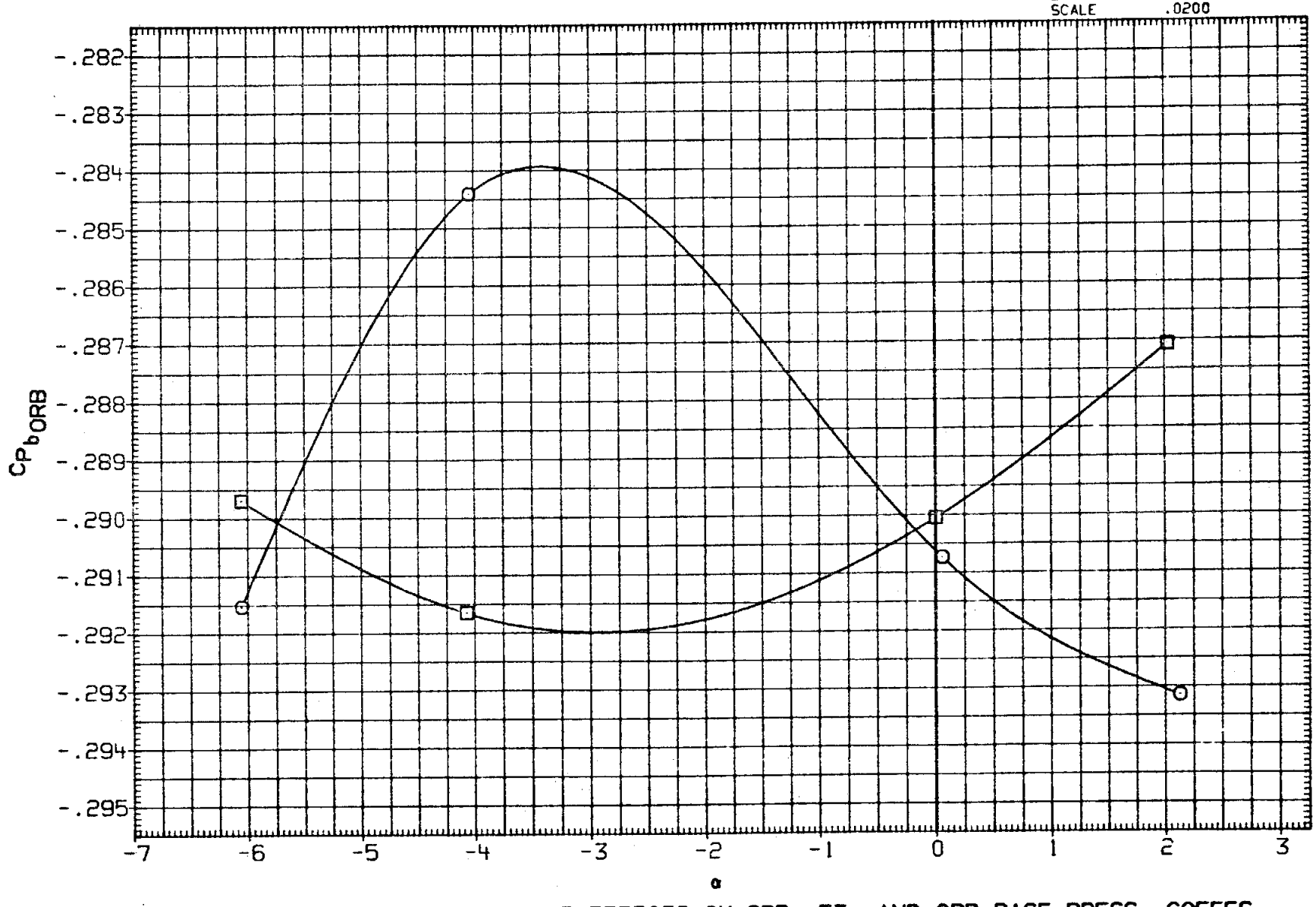

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

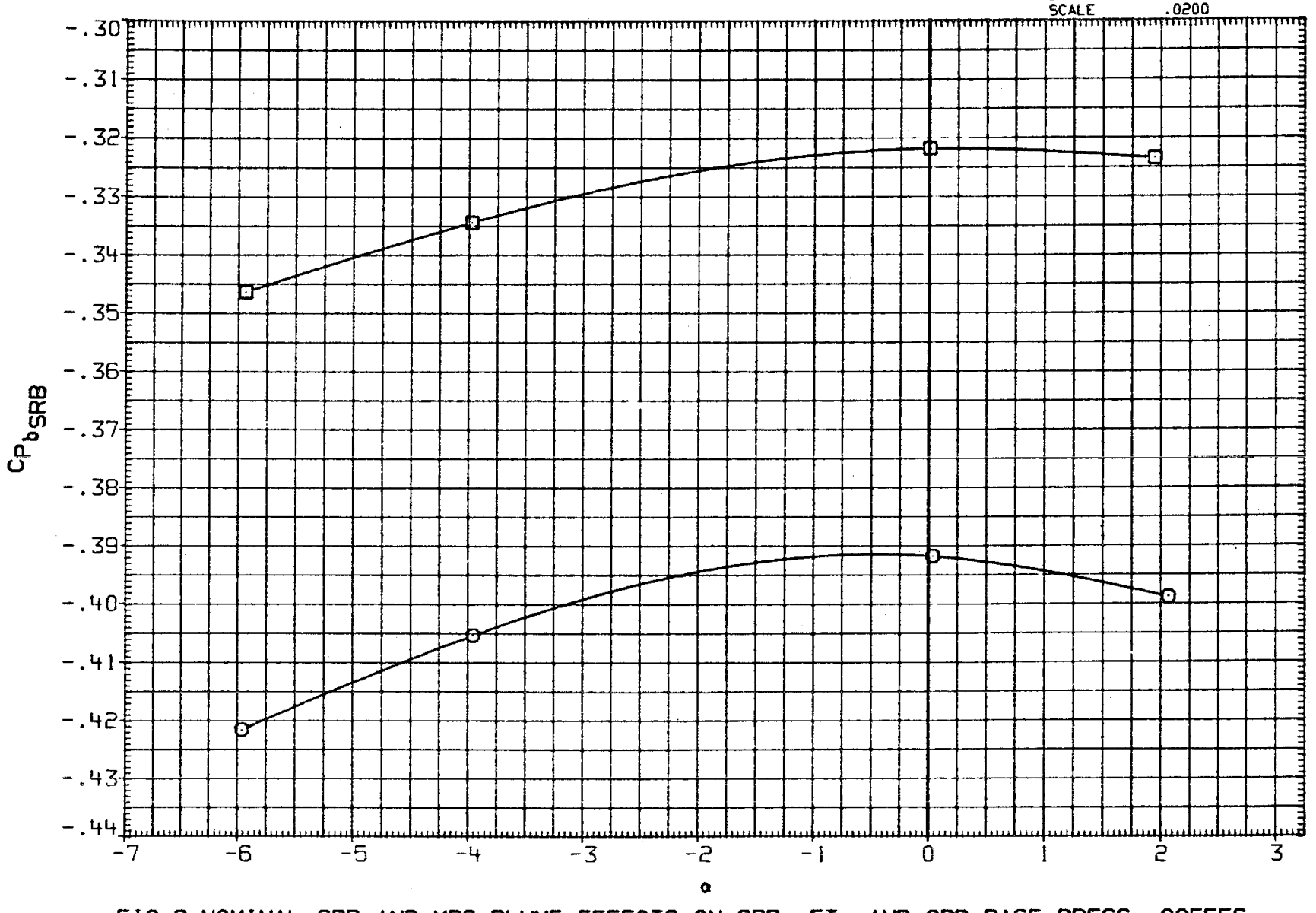

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

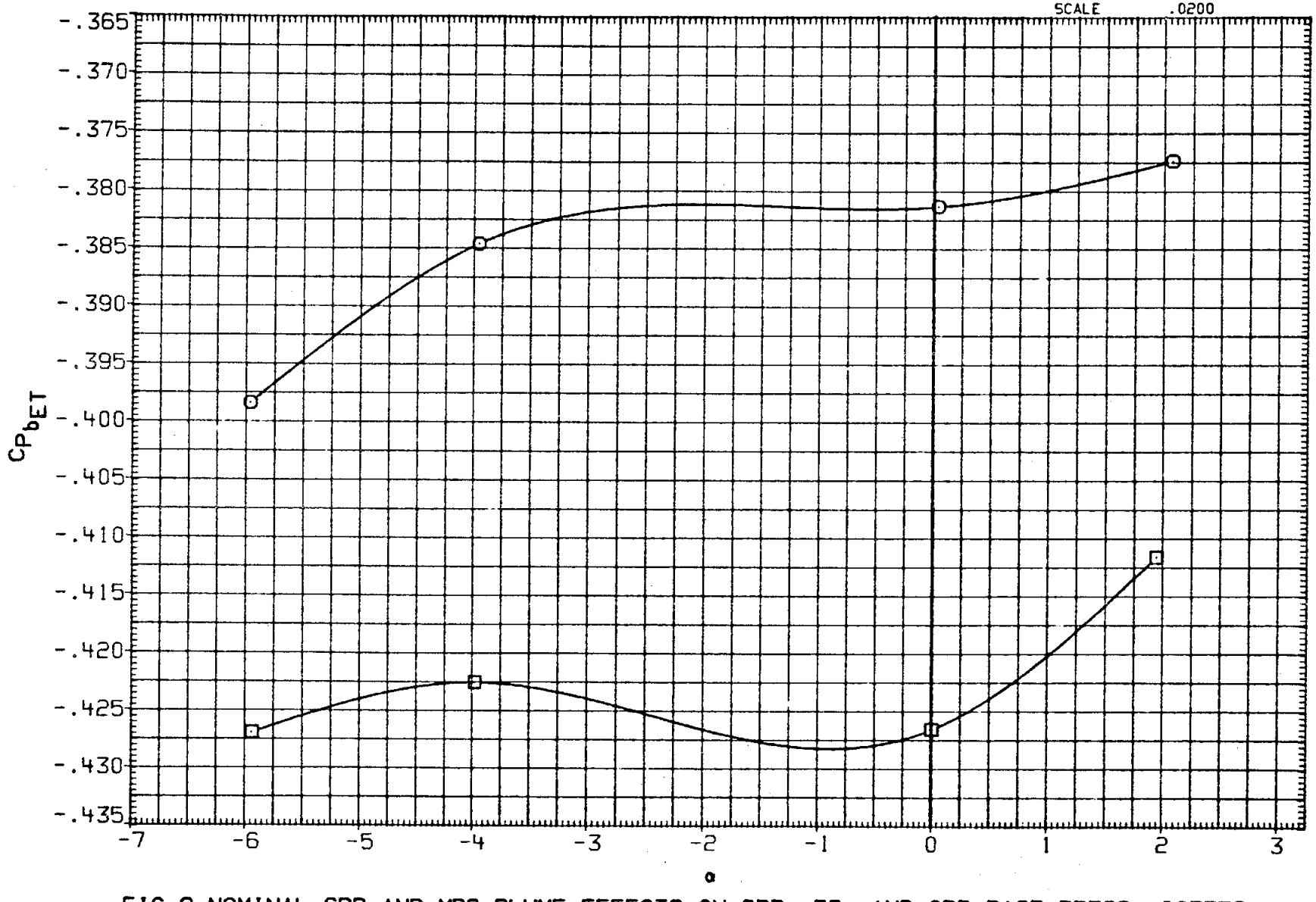

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

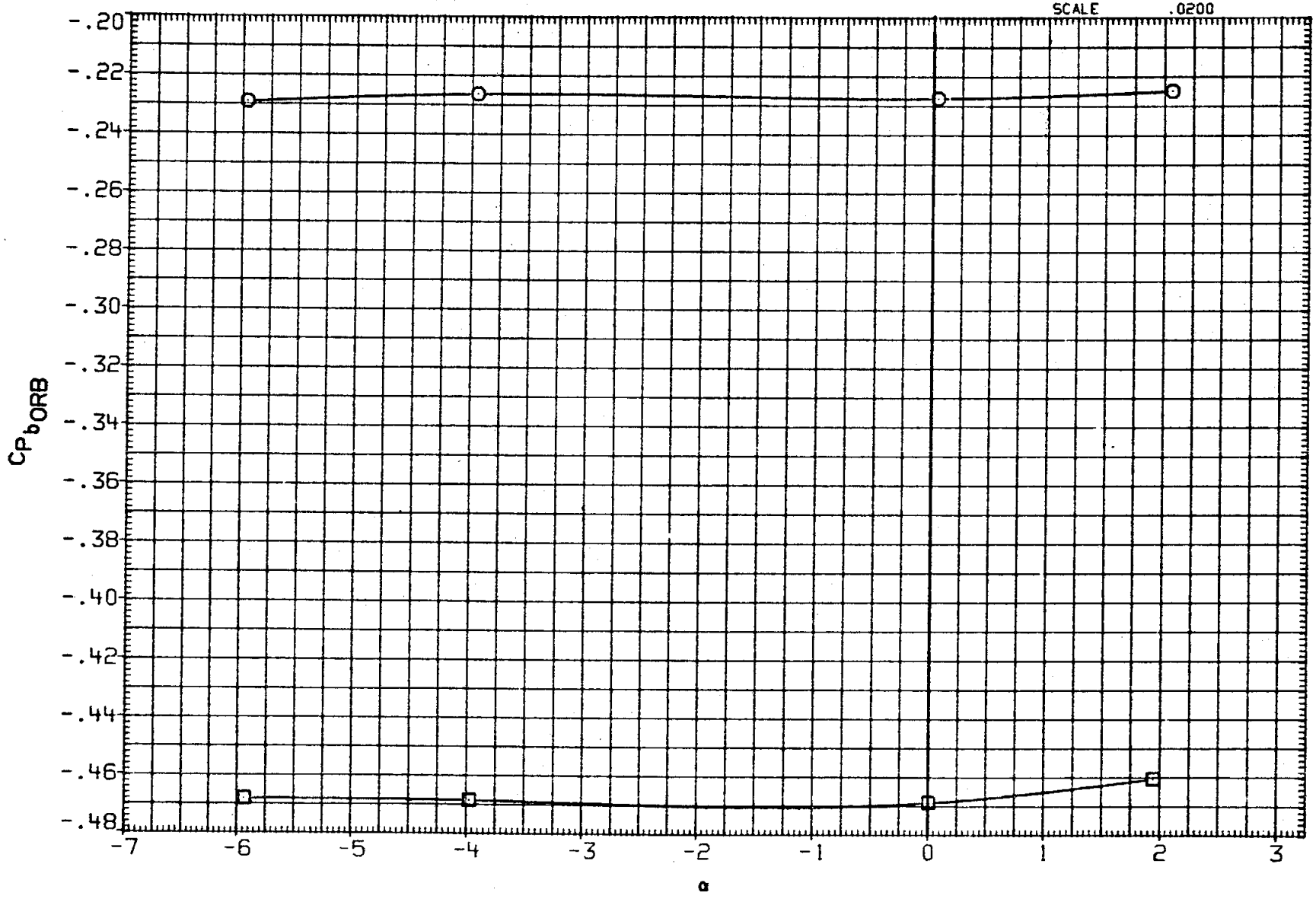

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

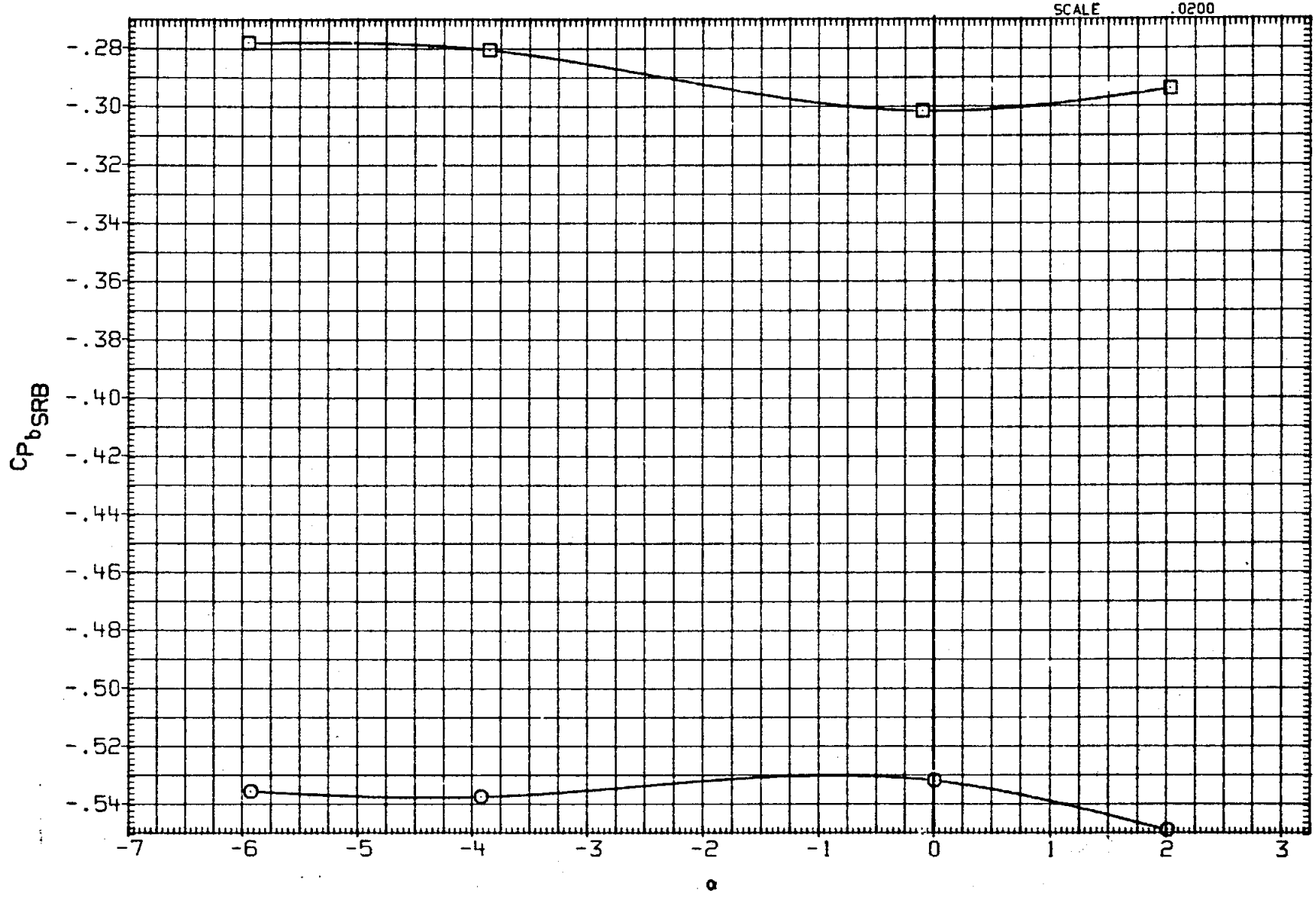

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

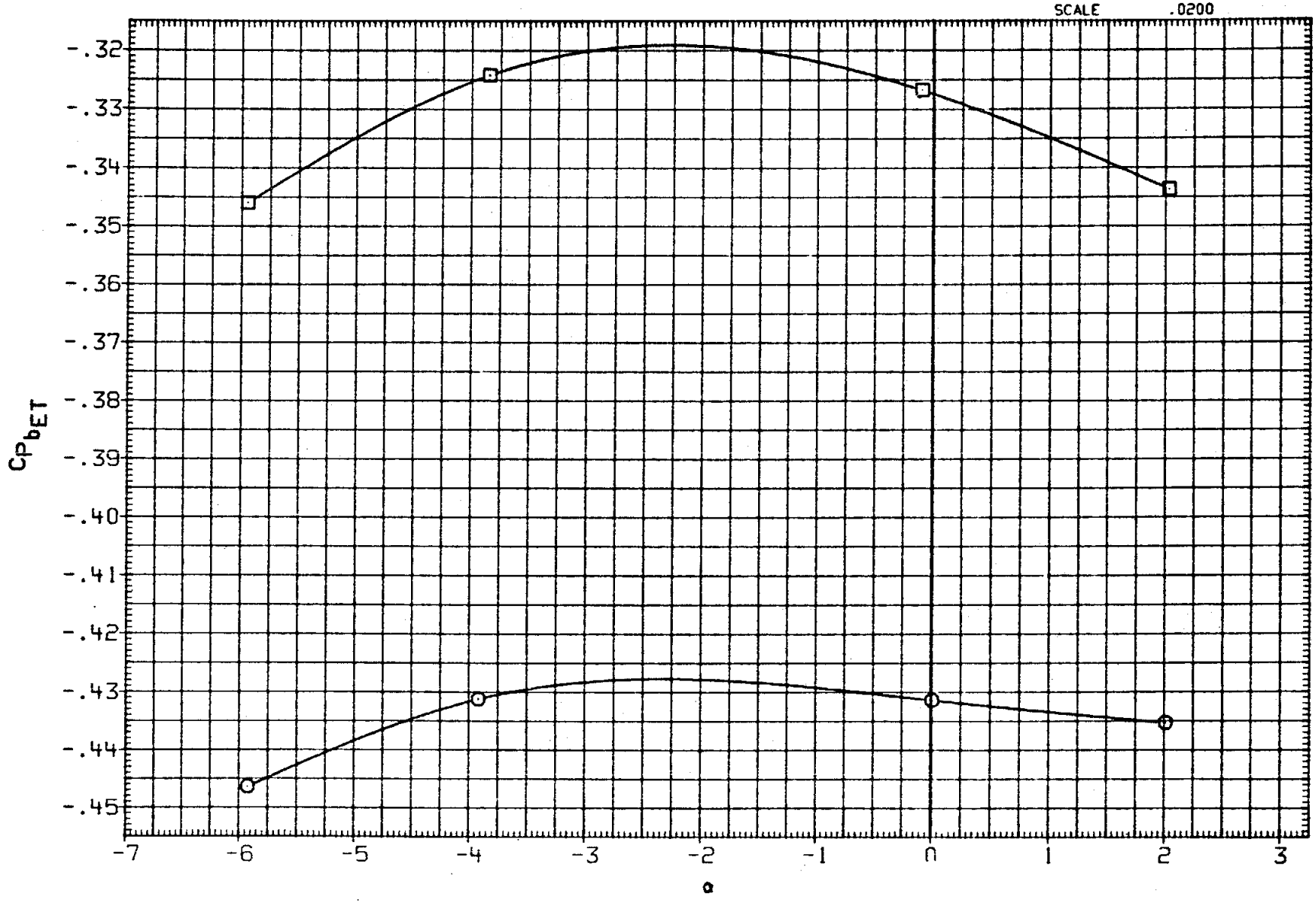

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

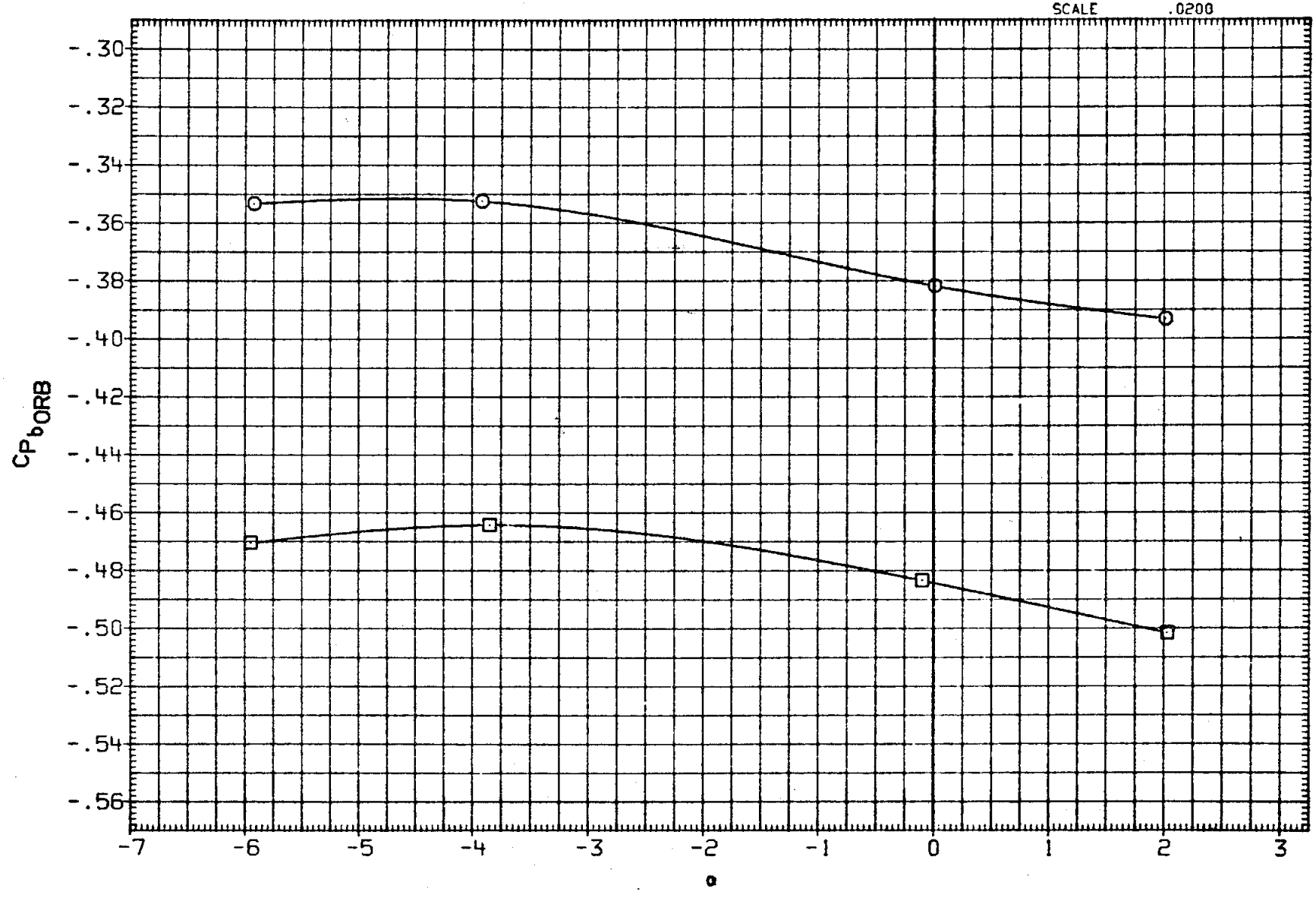

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

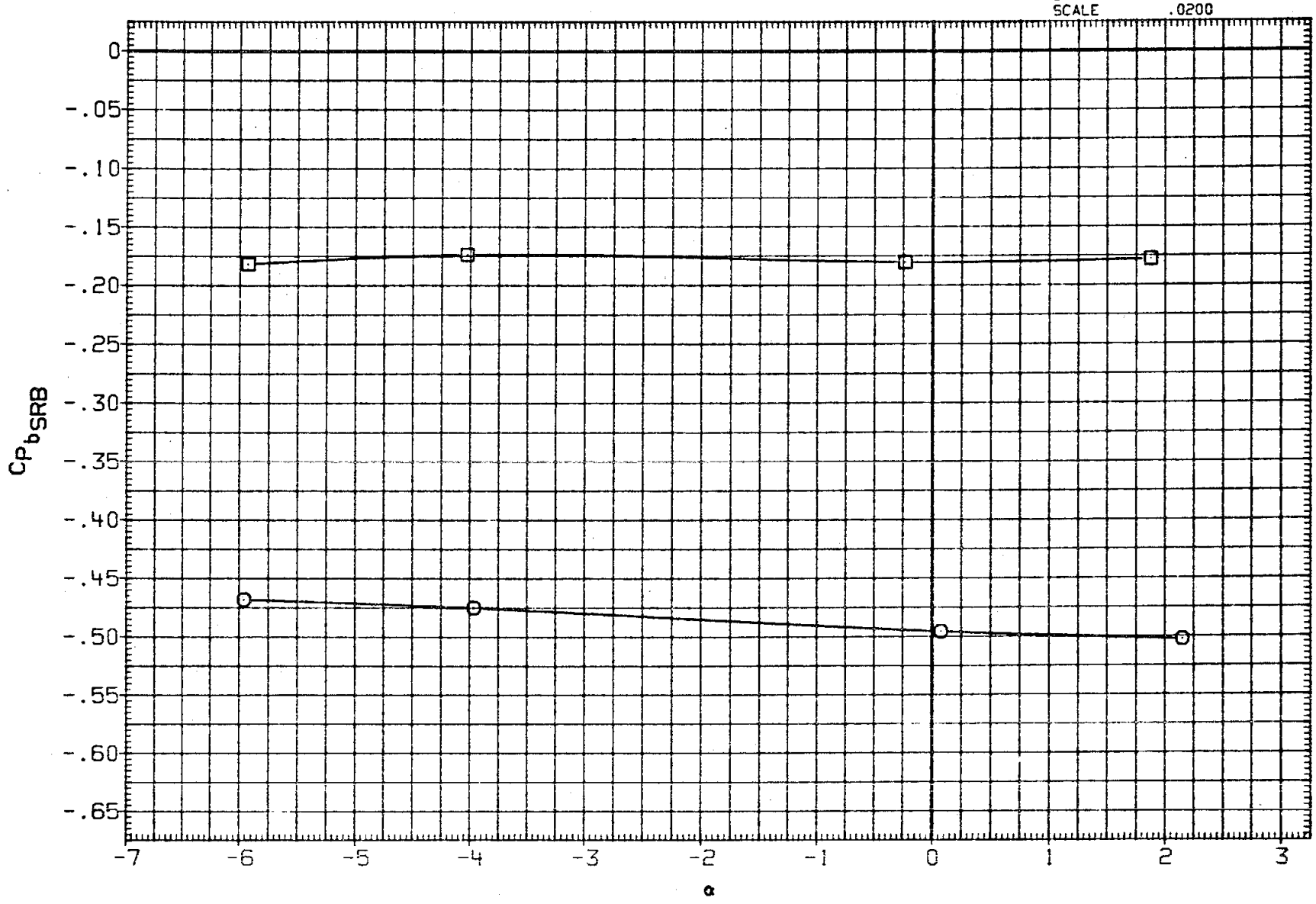

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

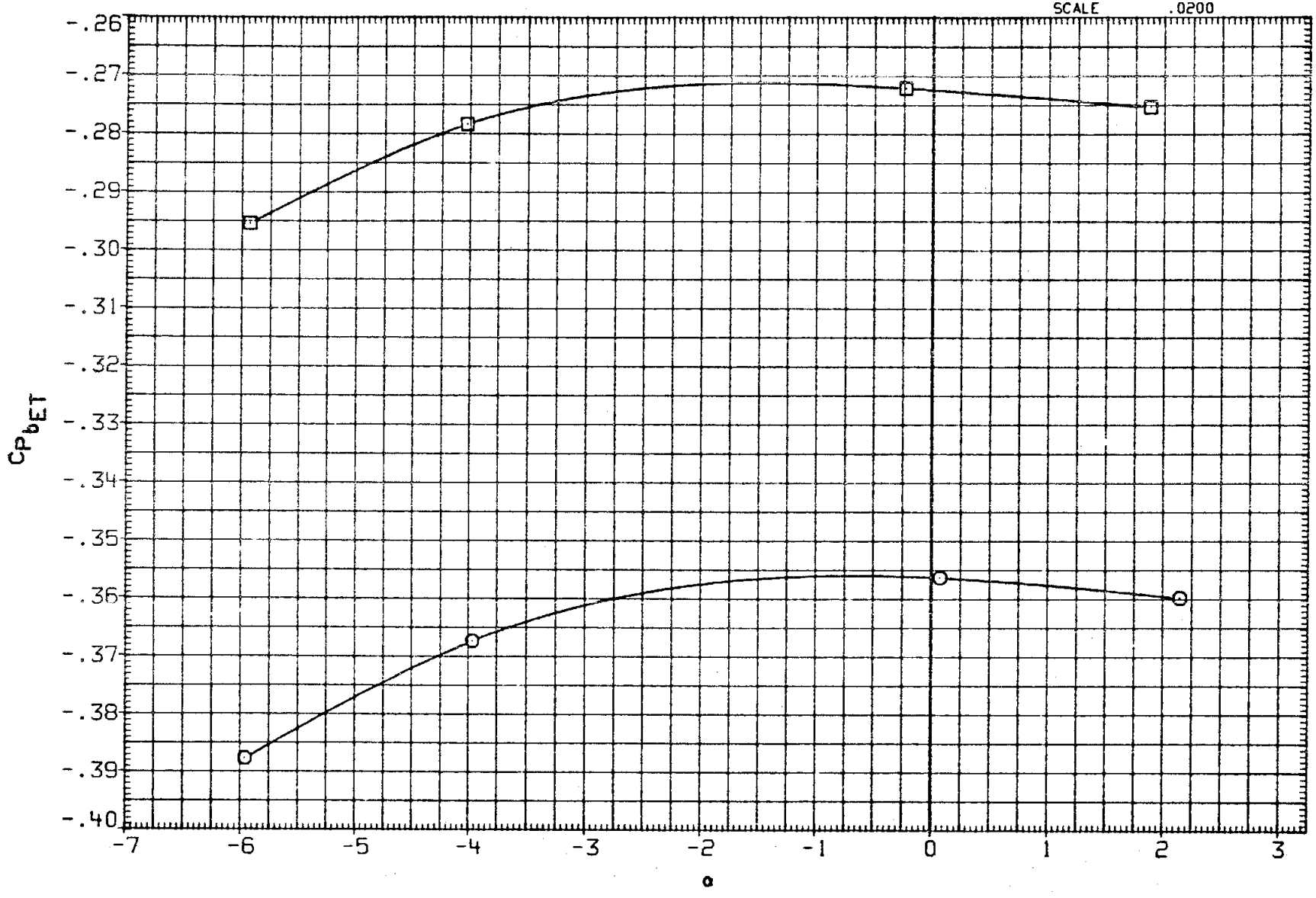

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

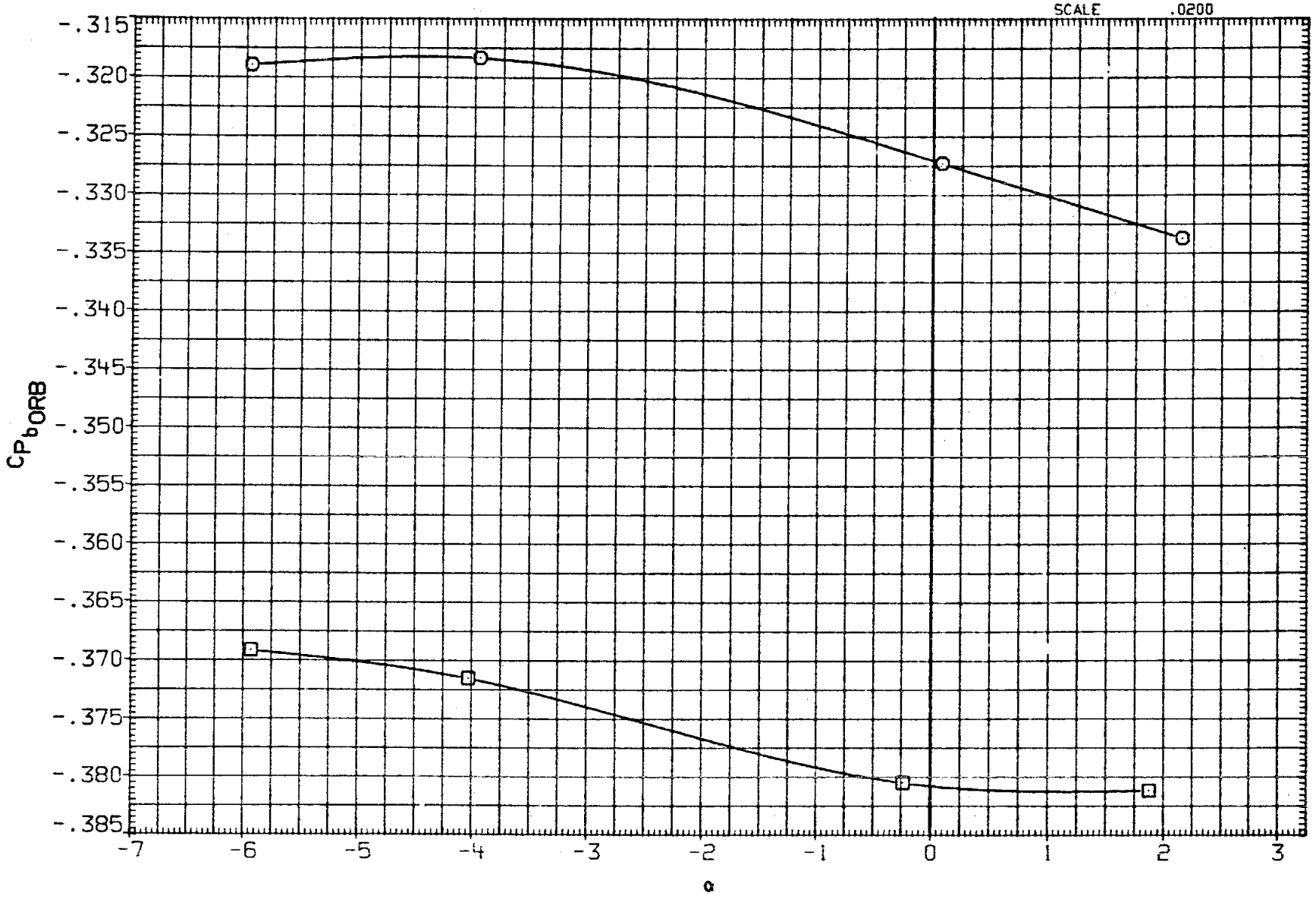

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

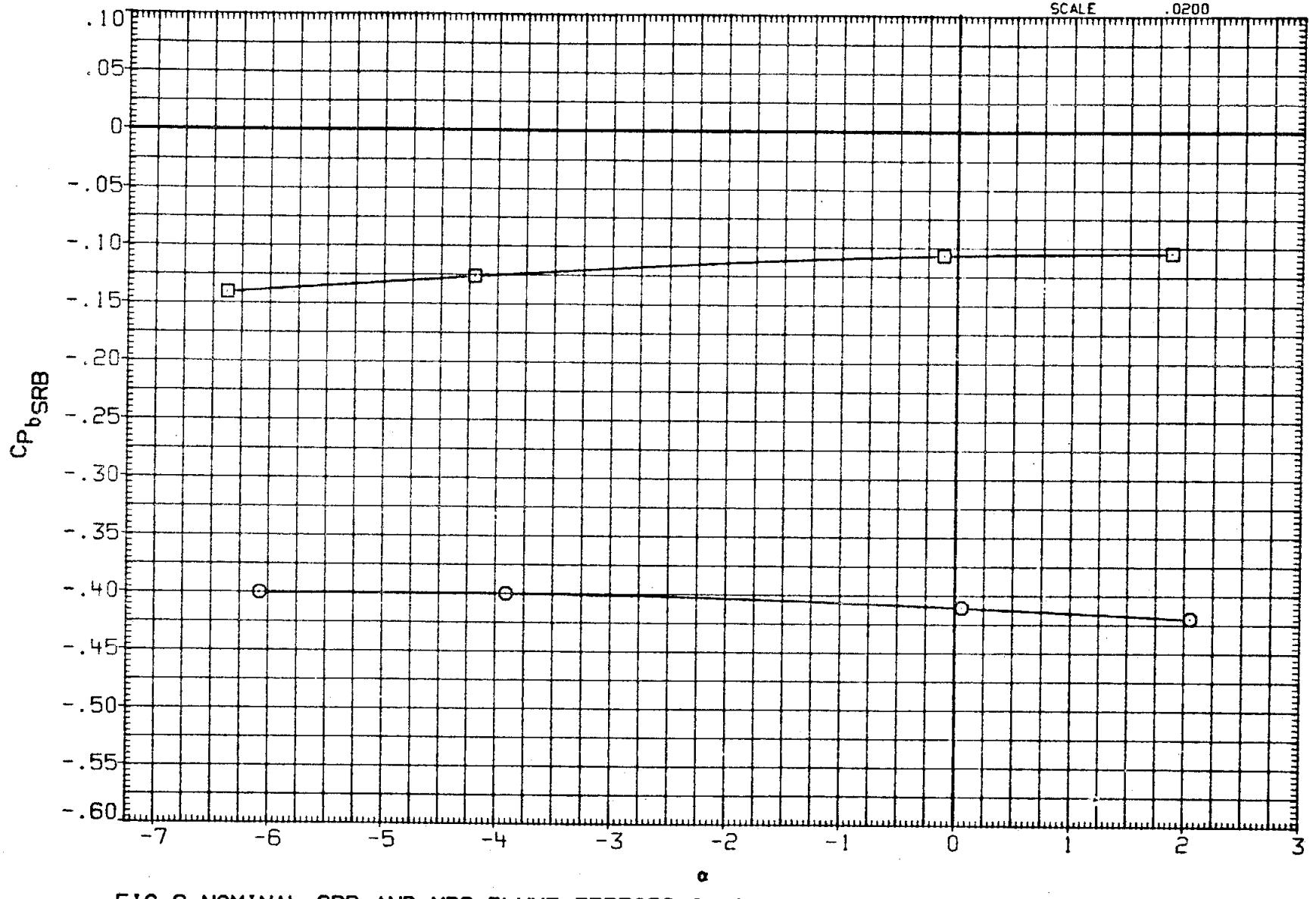

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

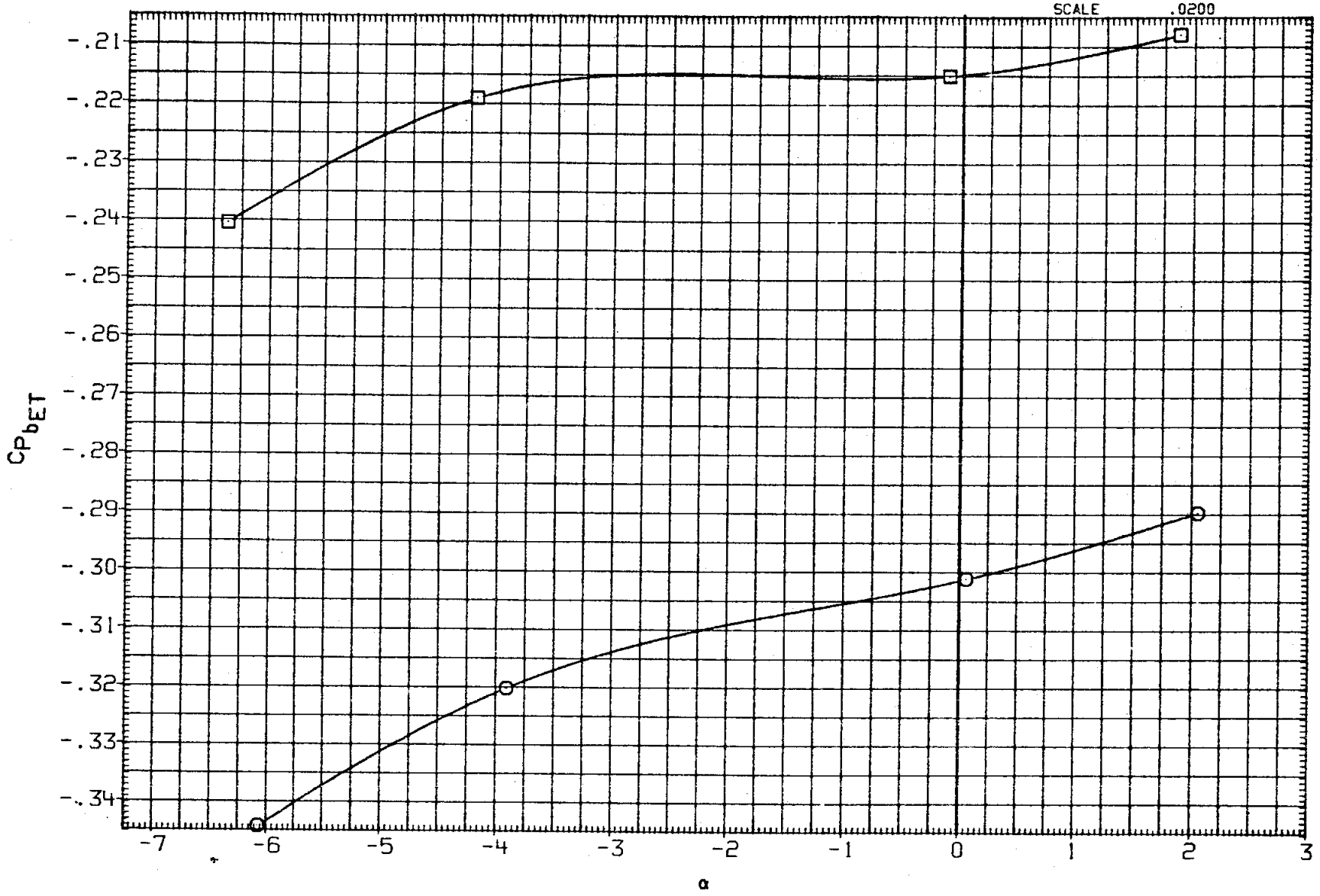

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ONEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

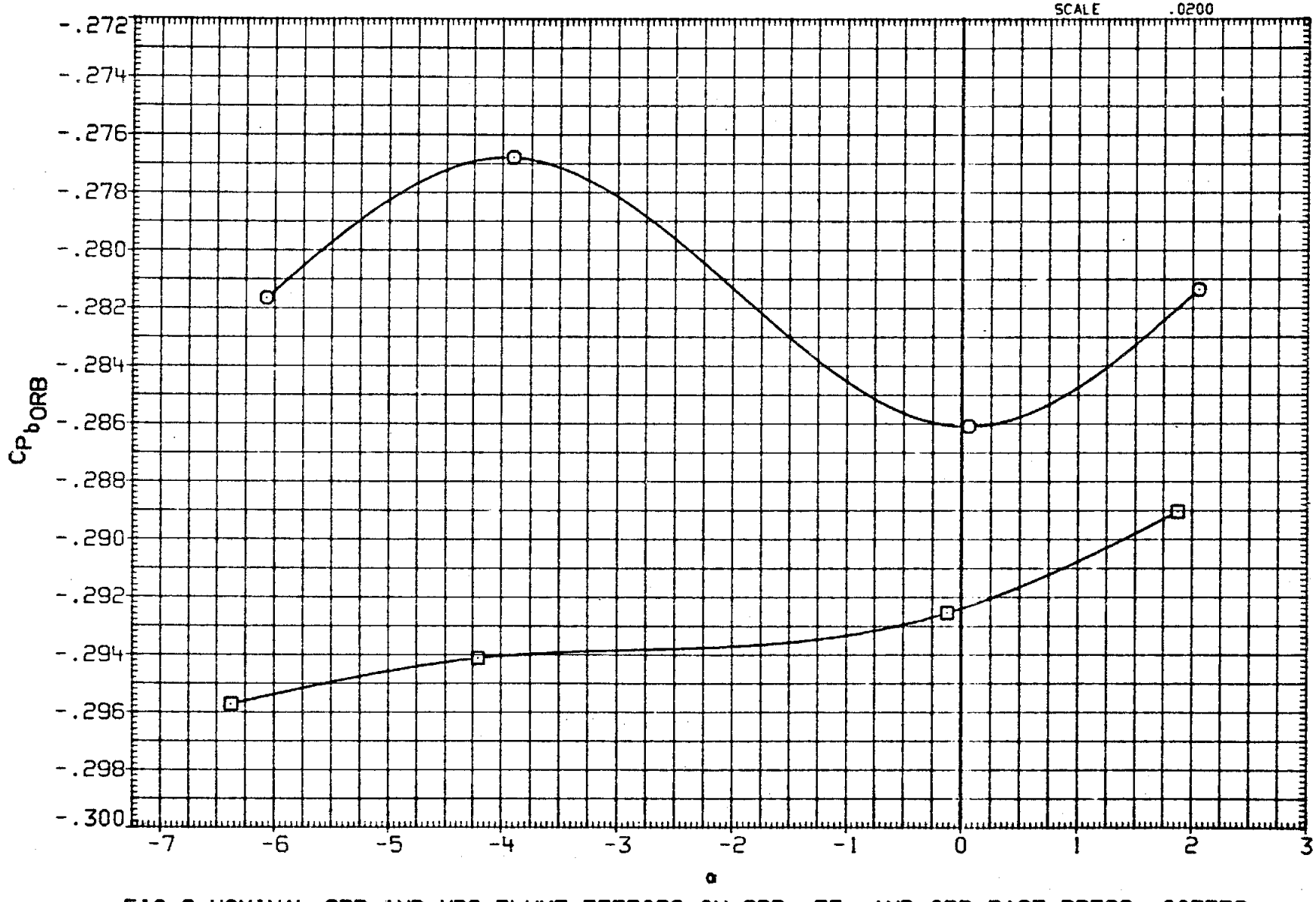

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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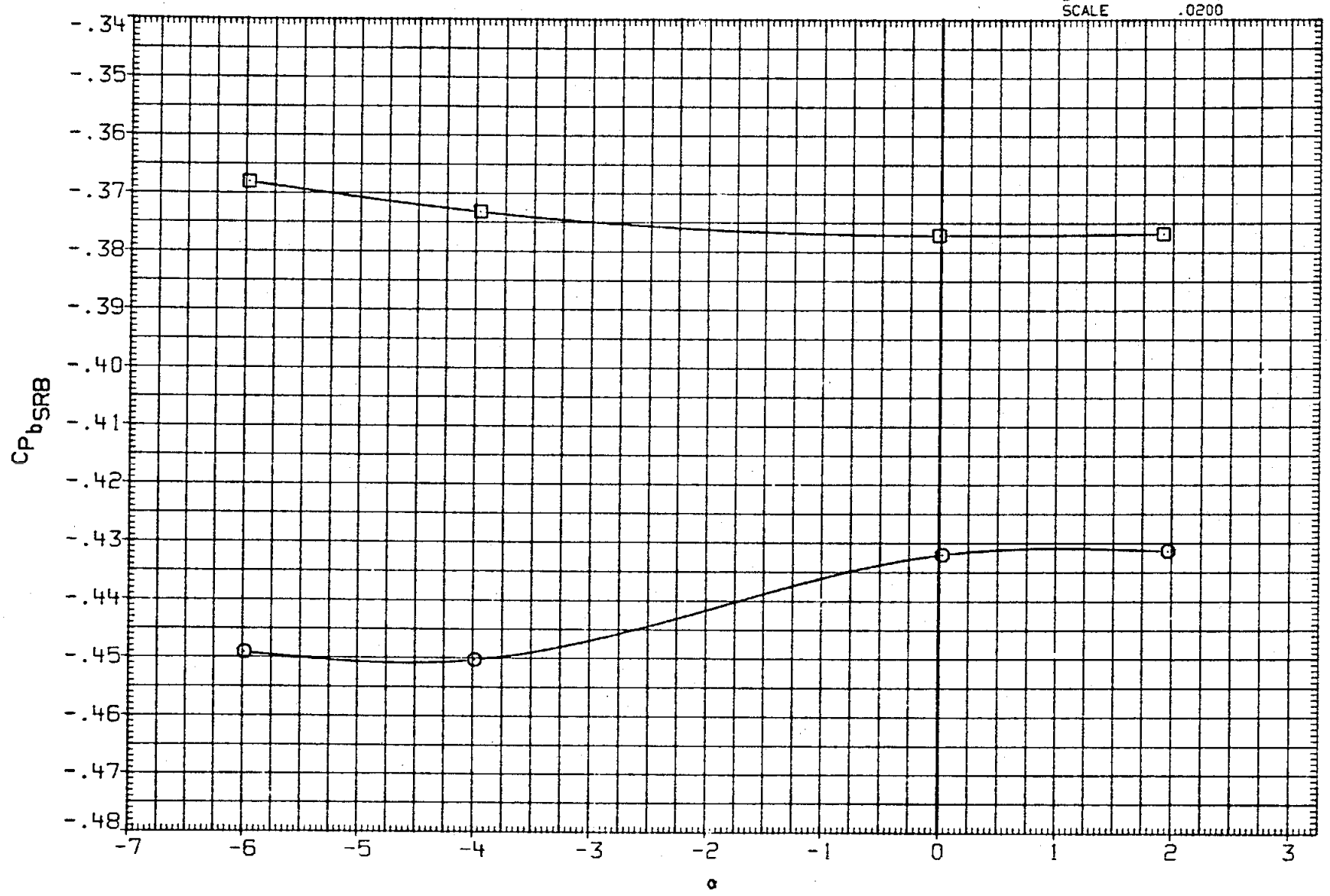

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

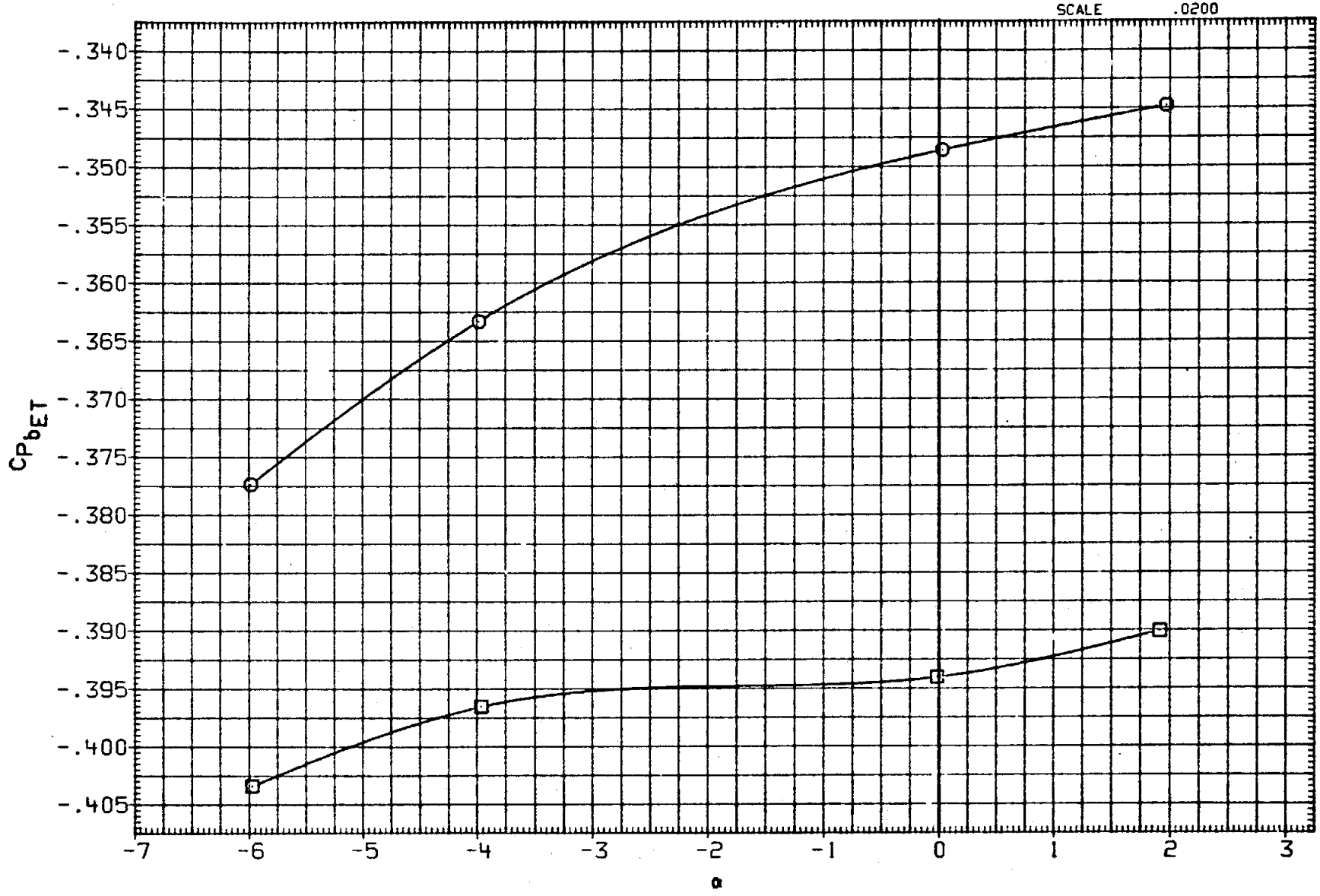

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

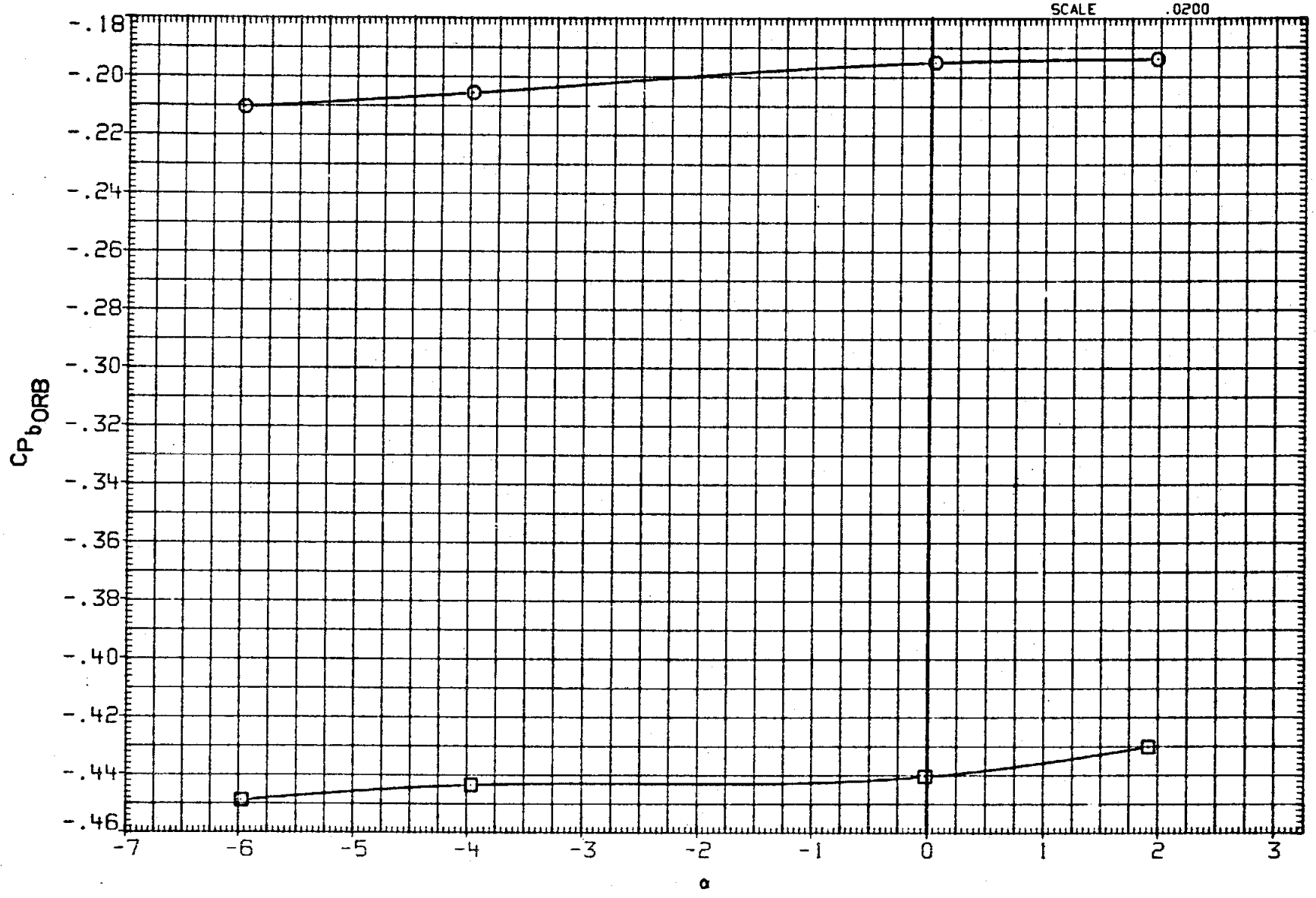

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

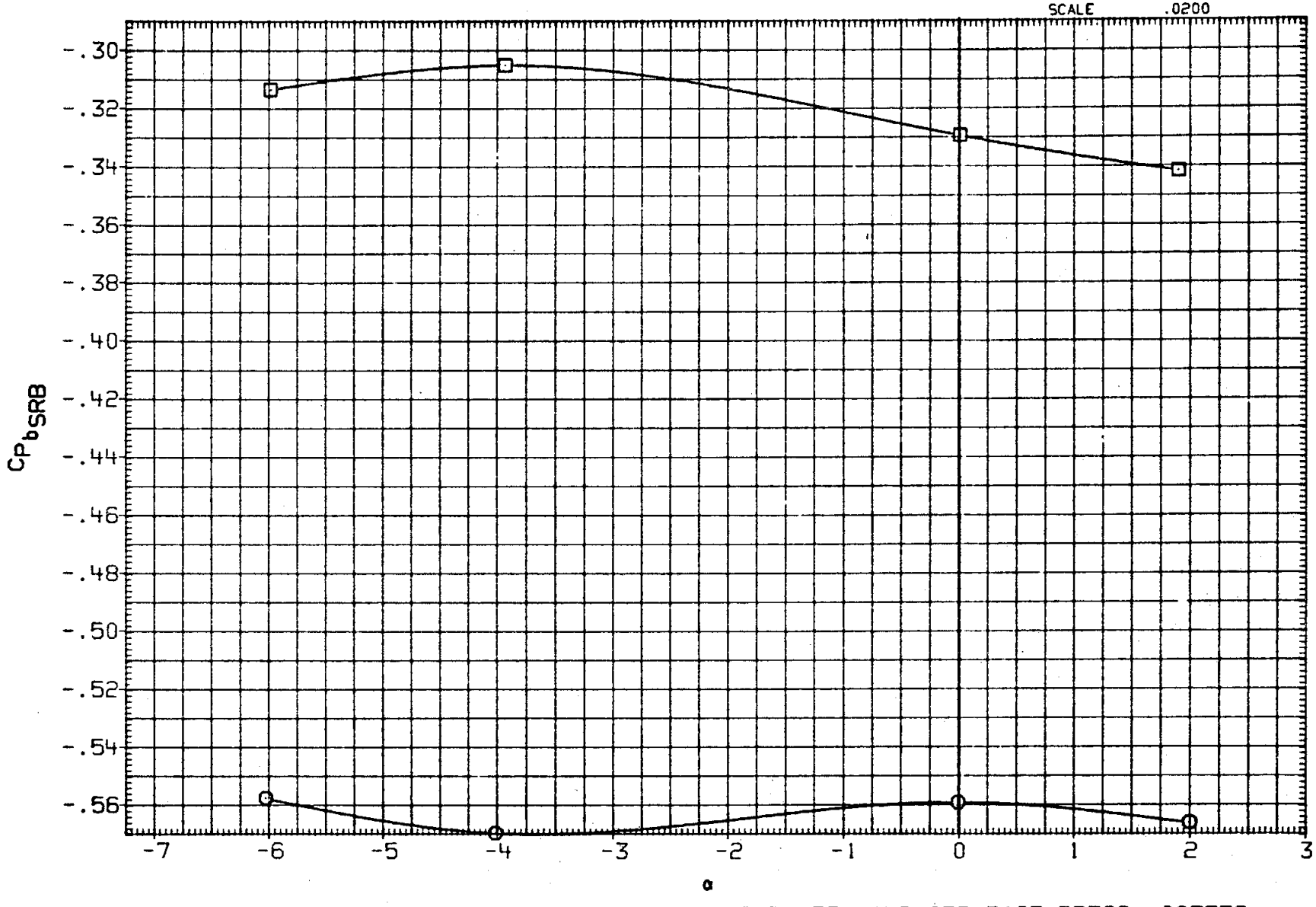

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

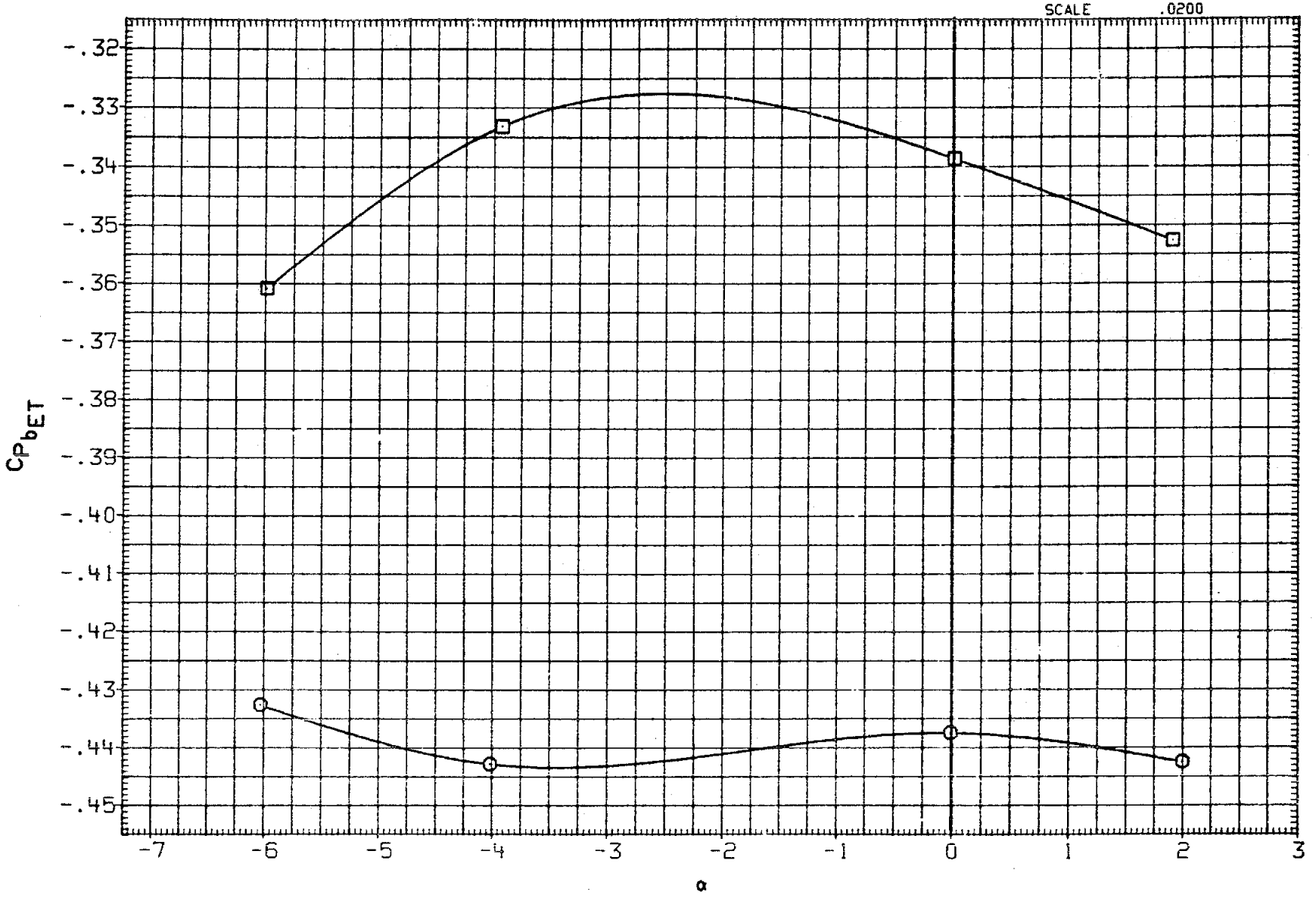

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

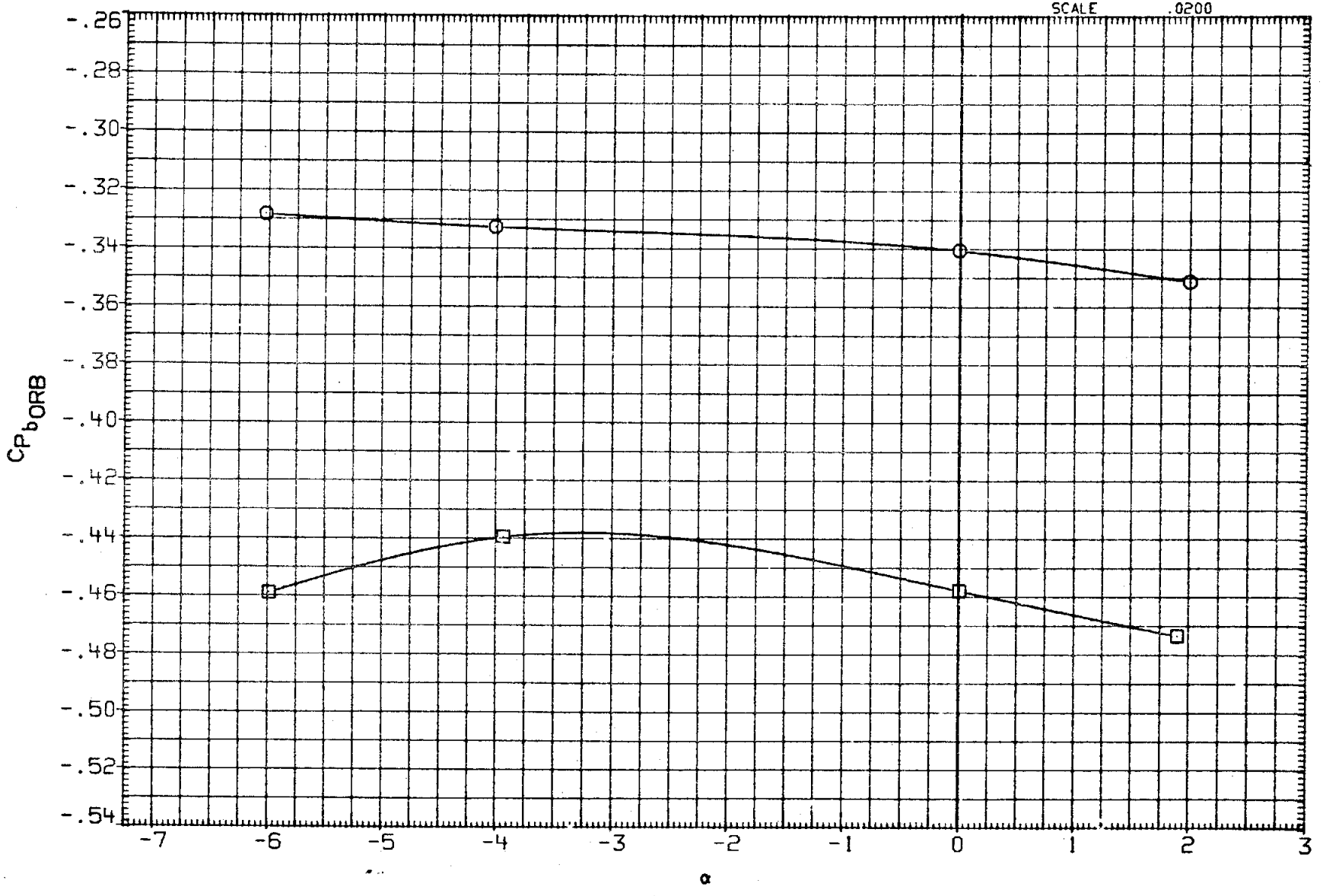

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA3B	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

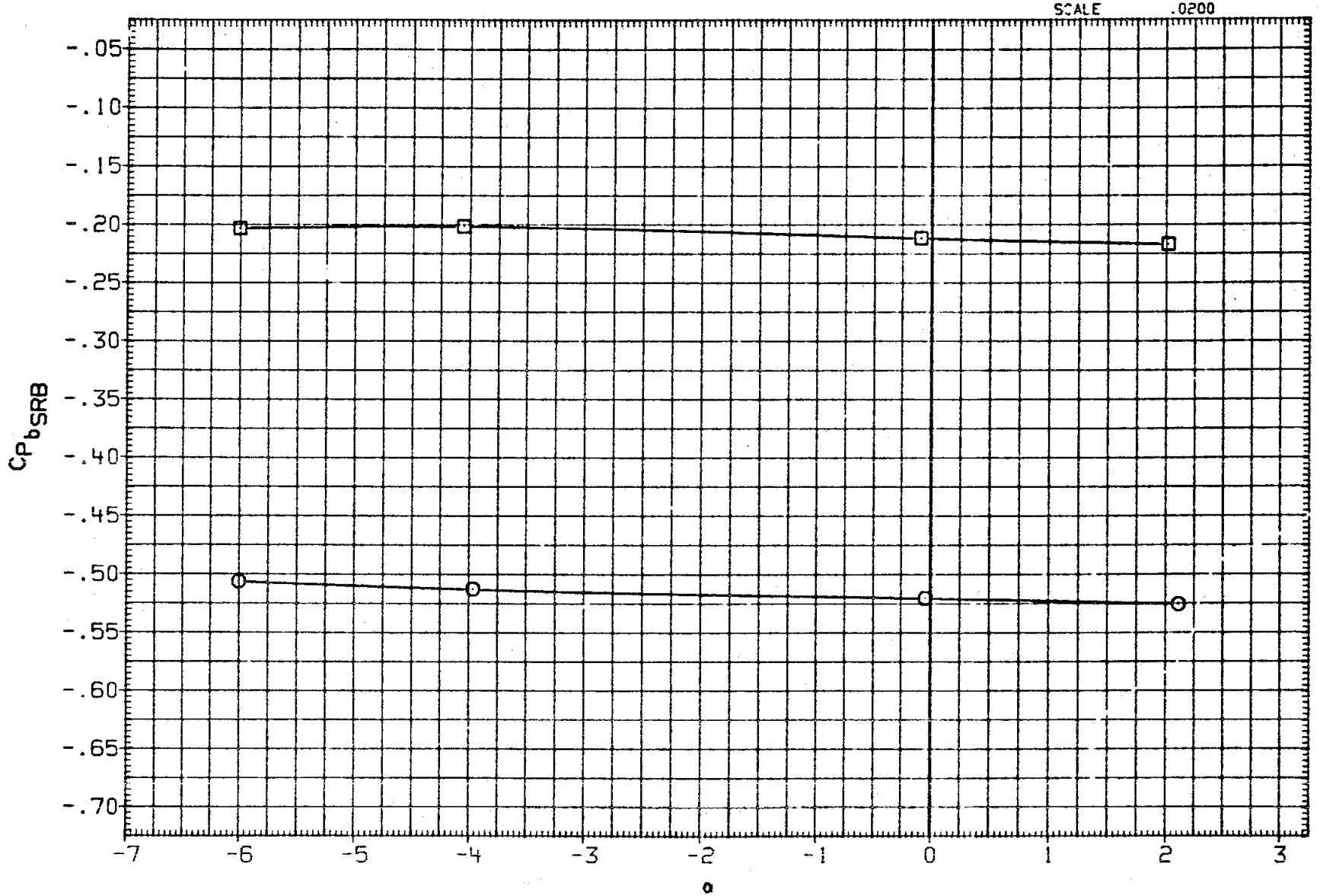

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

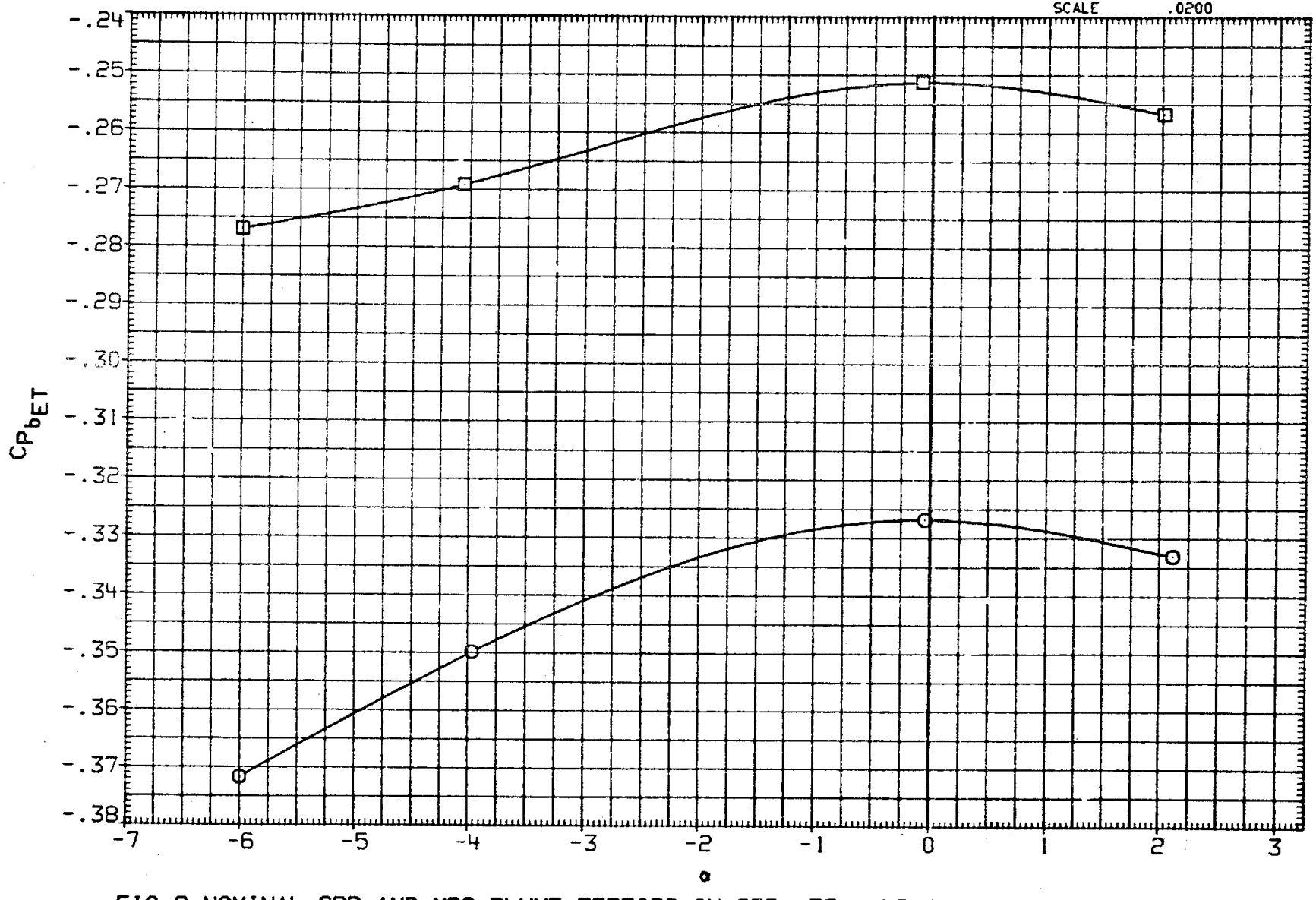

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

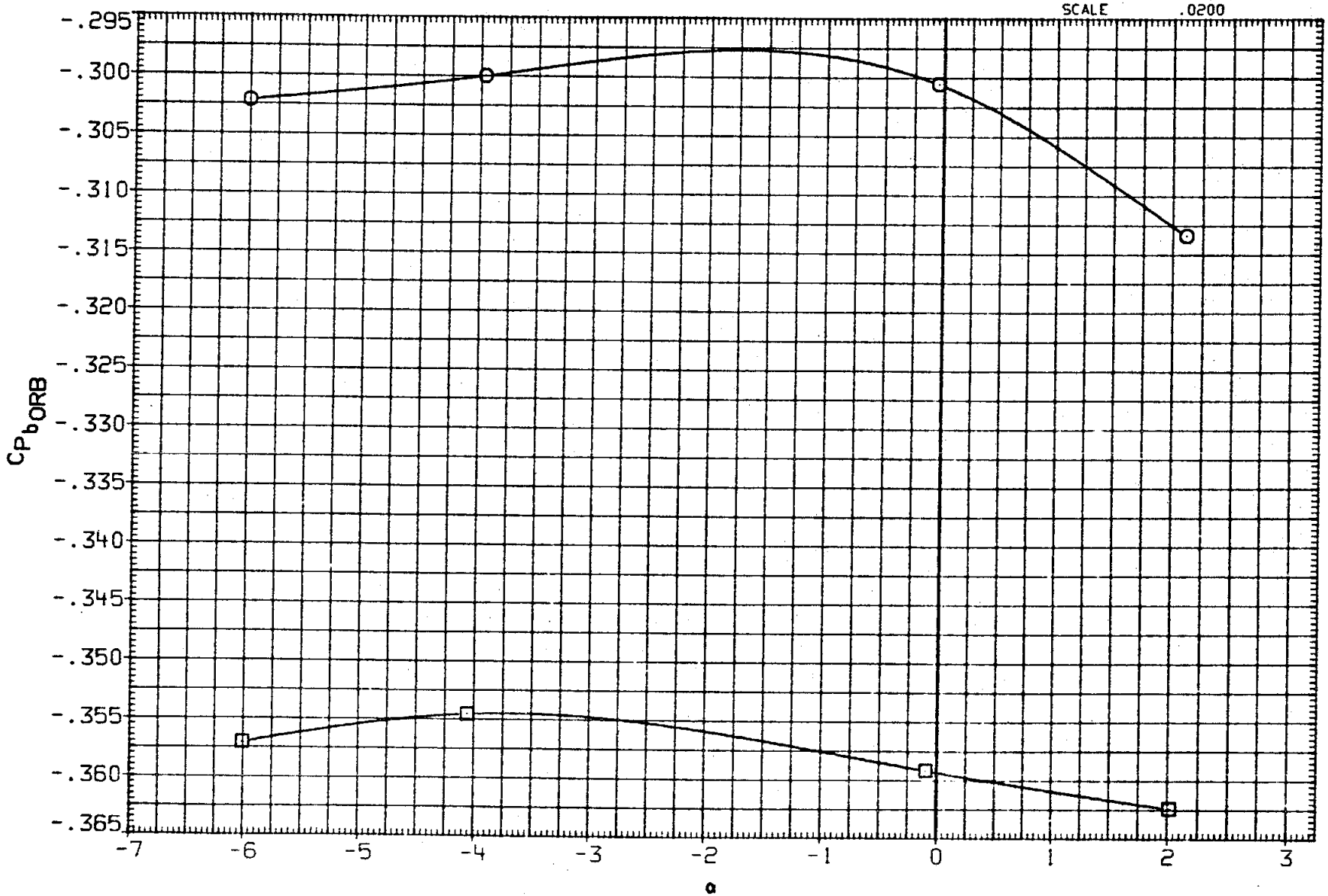

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

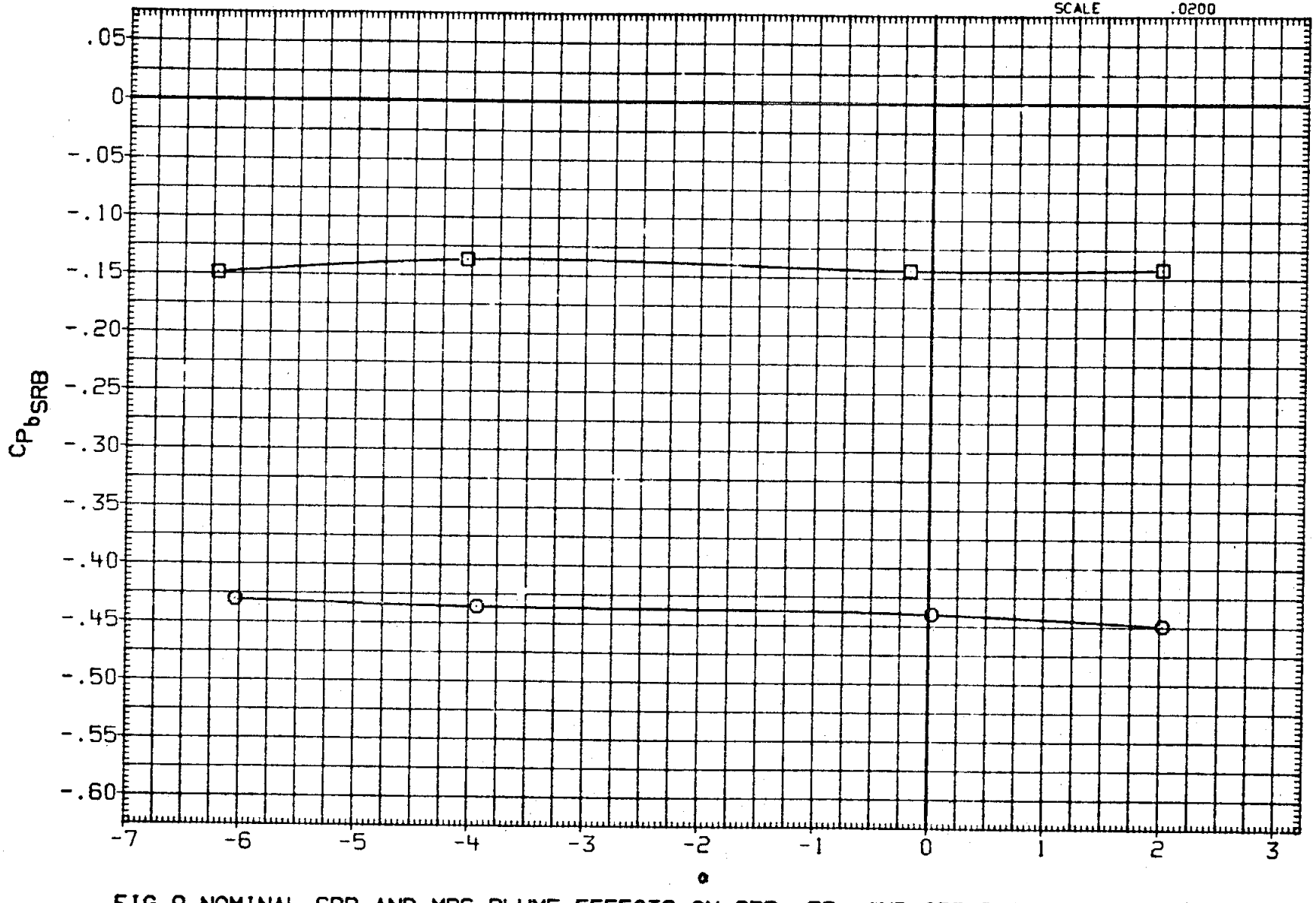

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION
ONEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF
ONEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	4.000
.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

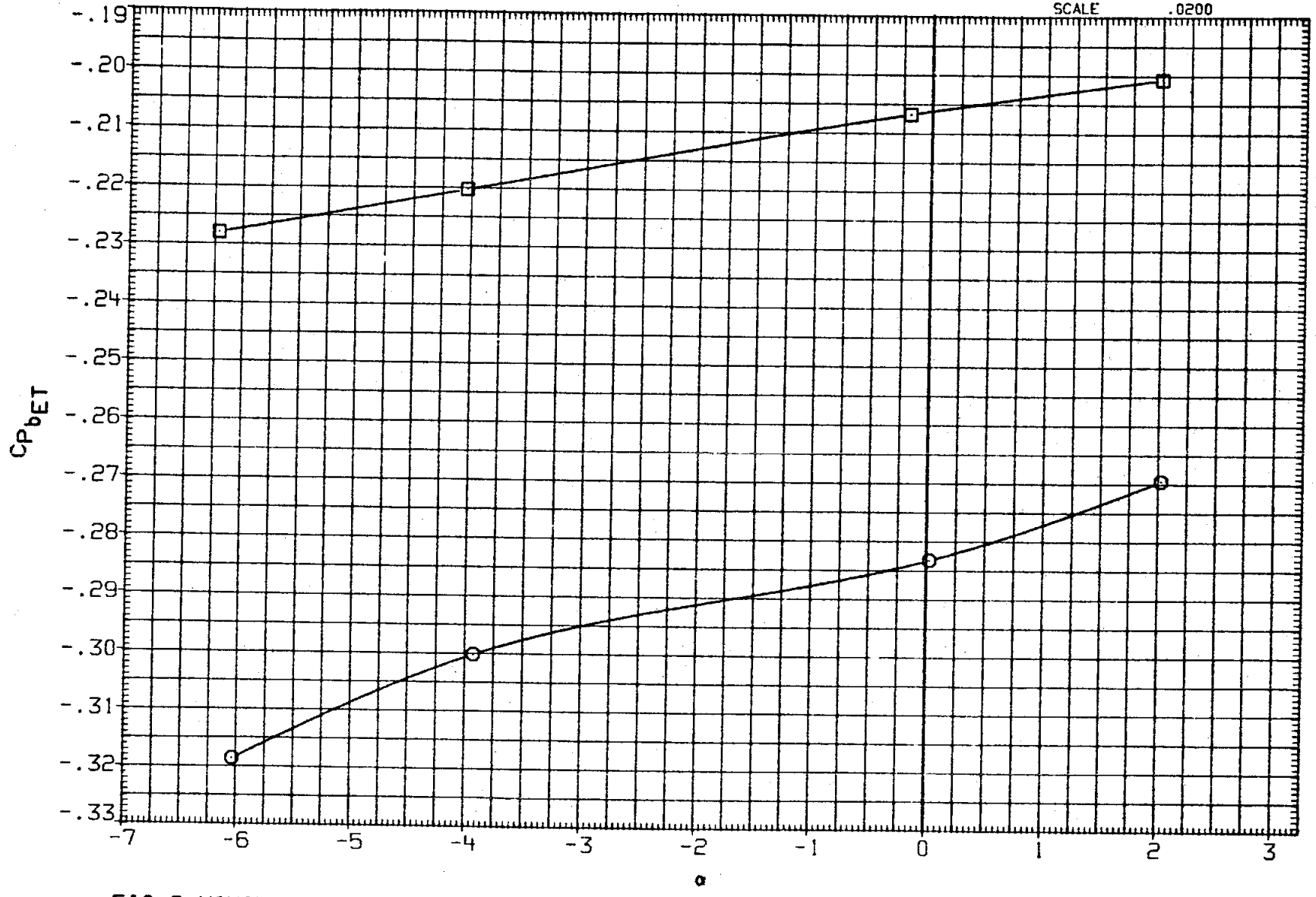

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ONEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

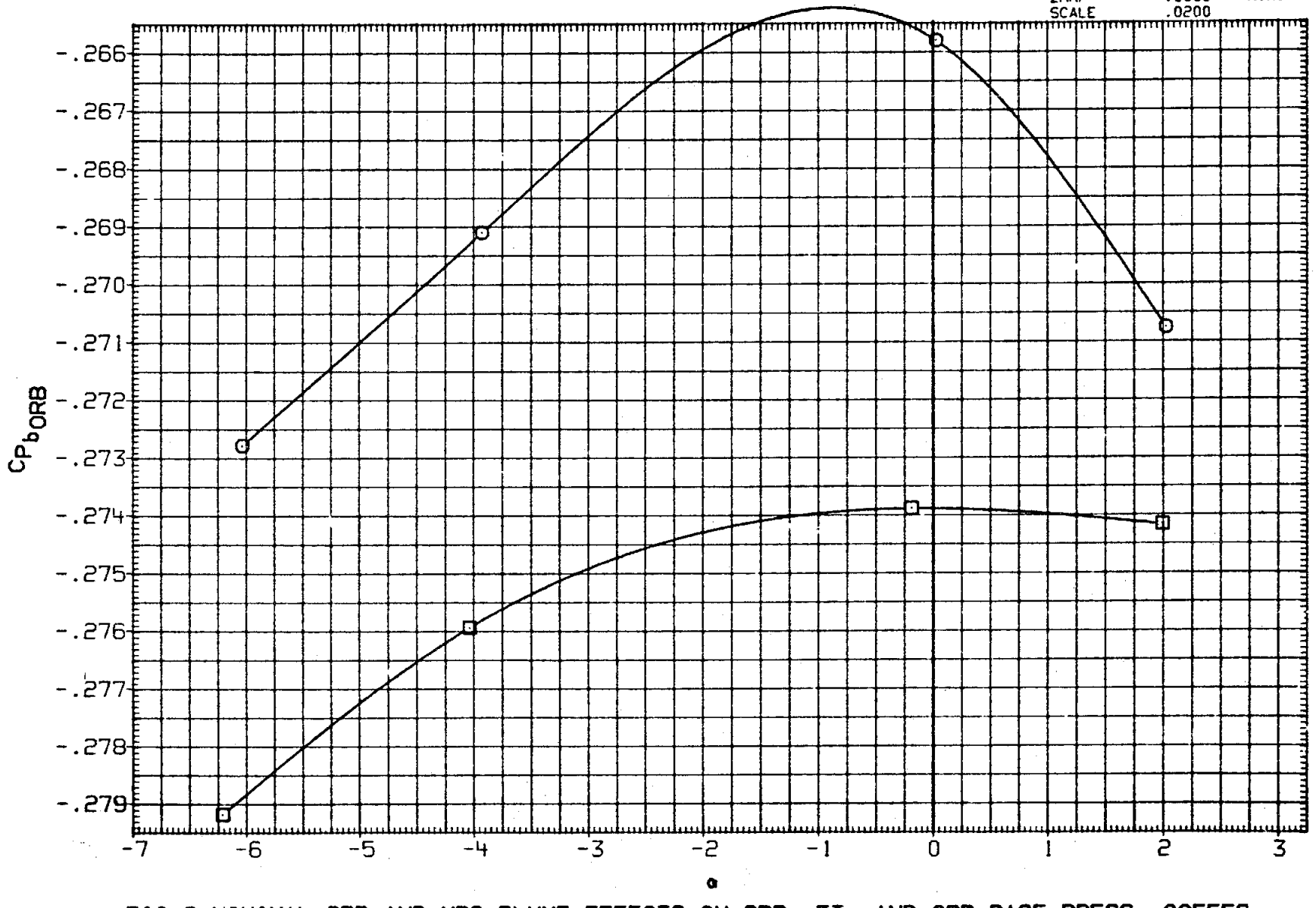

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

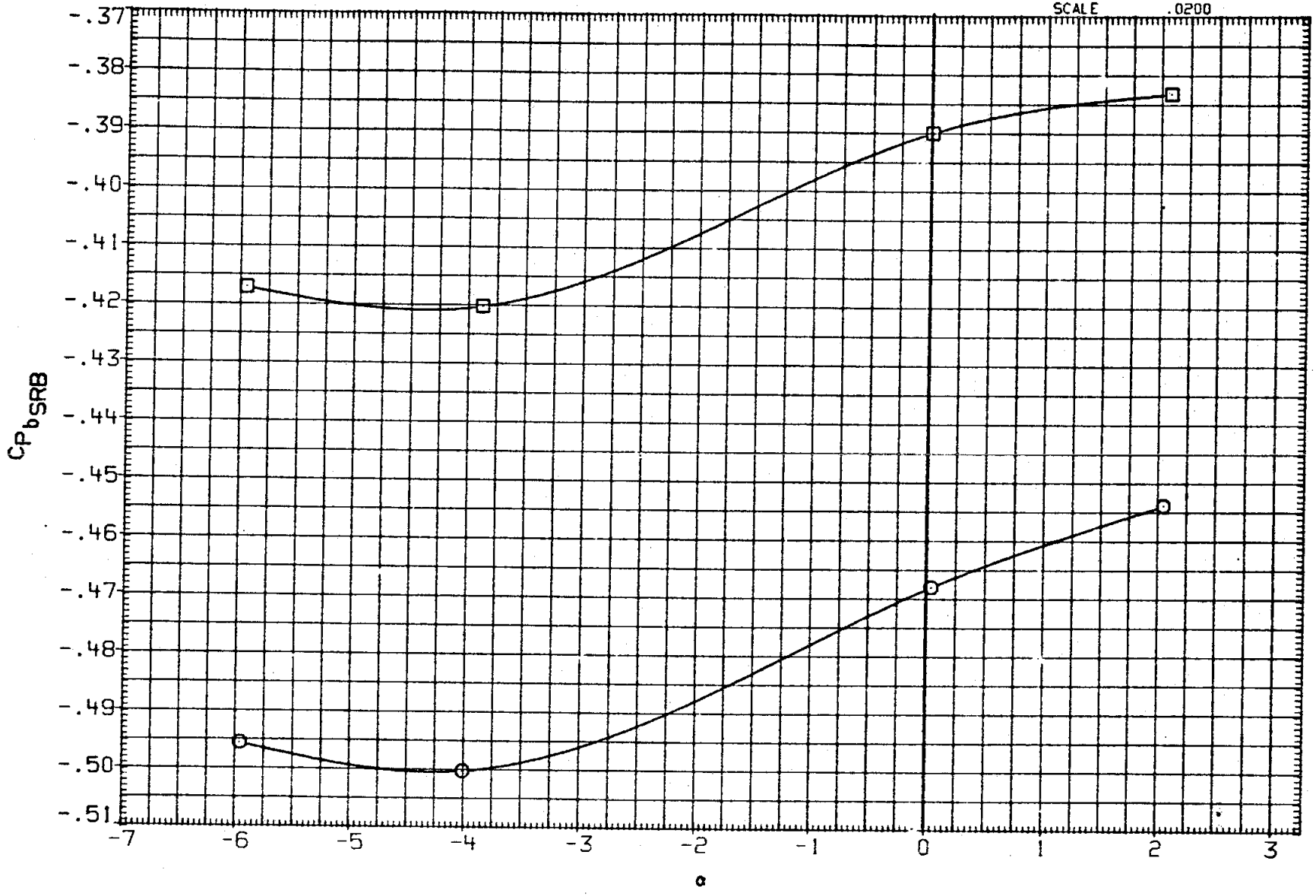

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

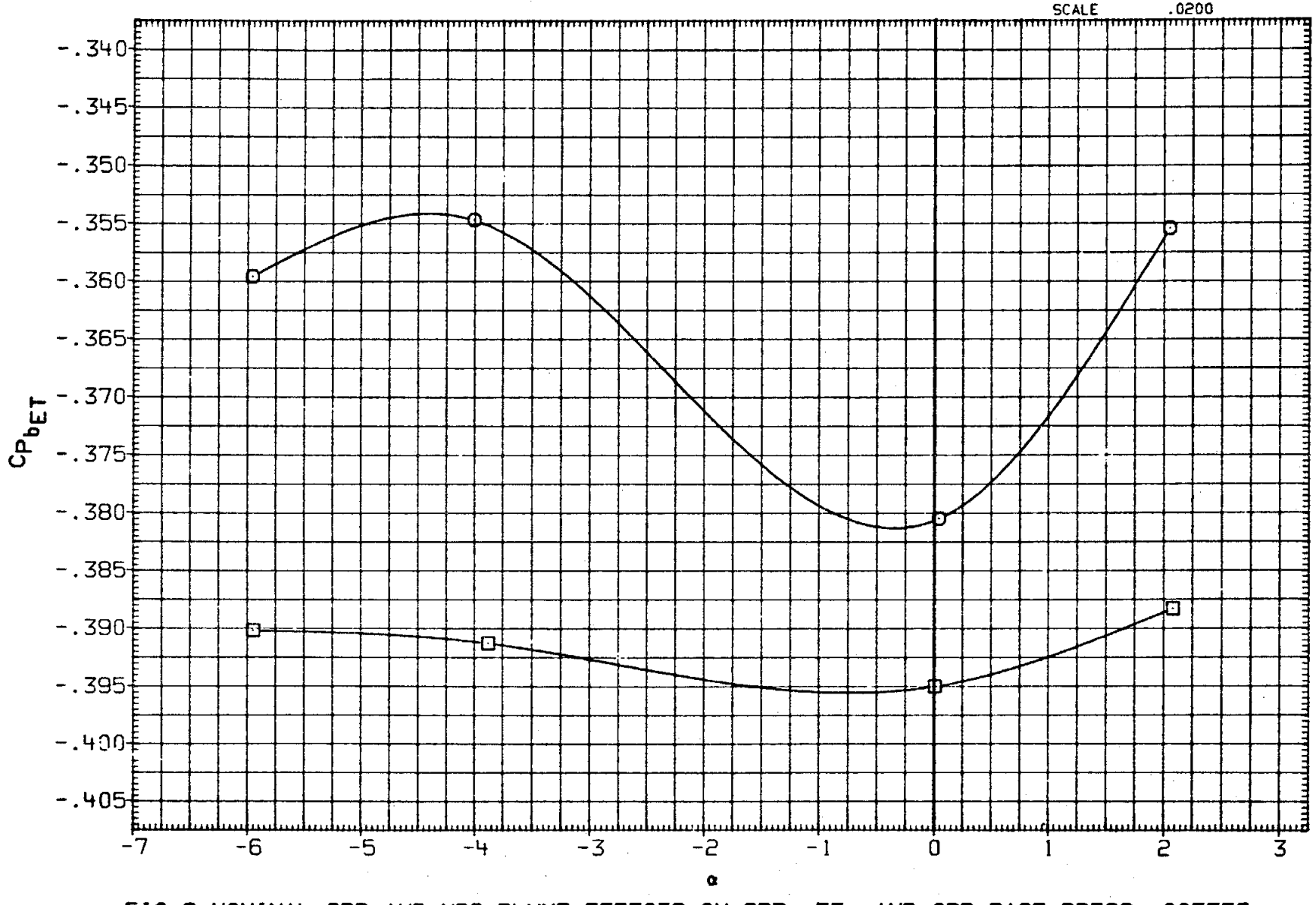

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

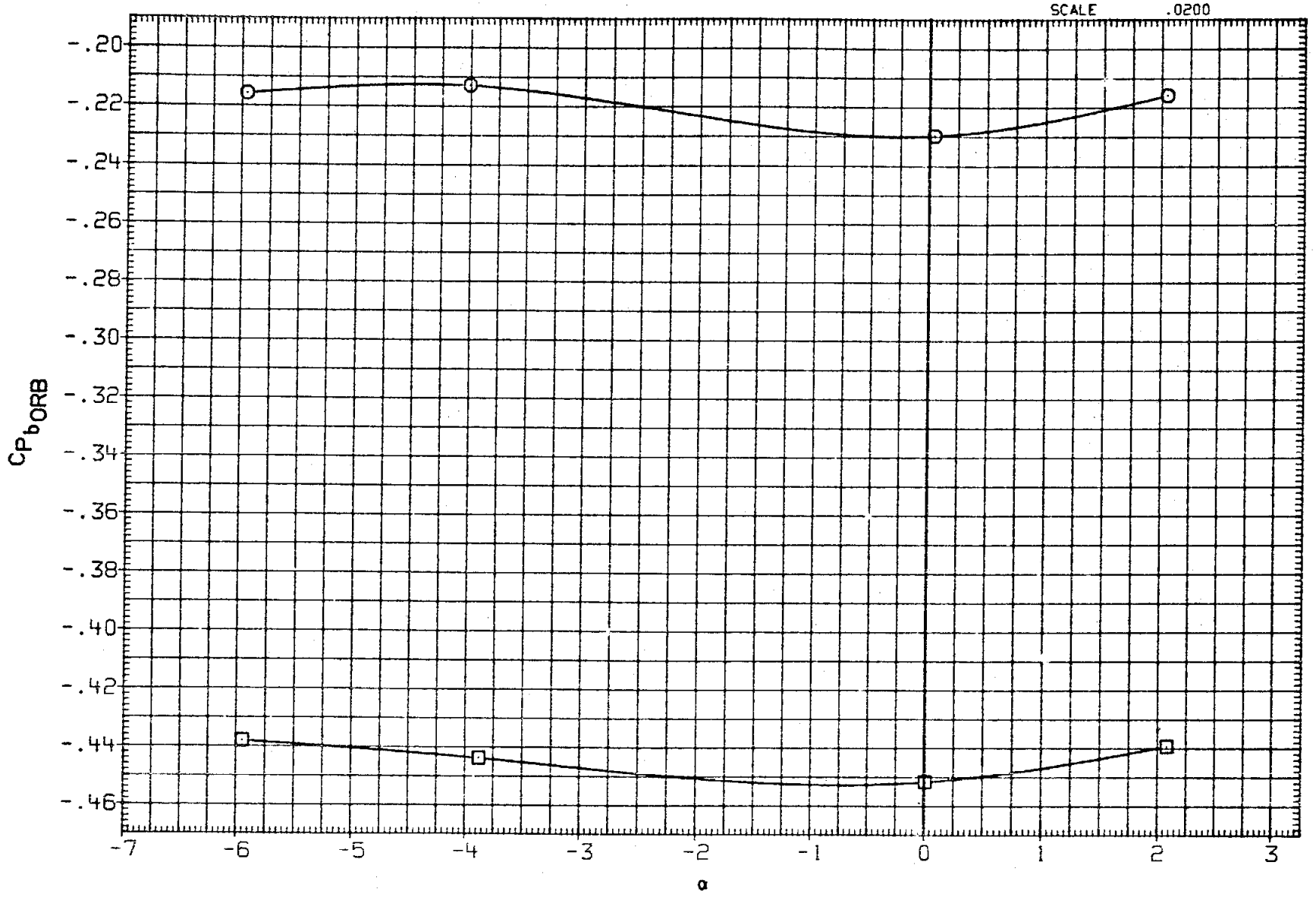

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

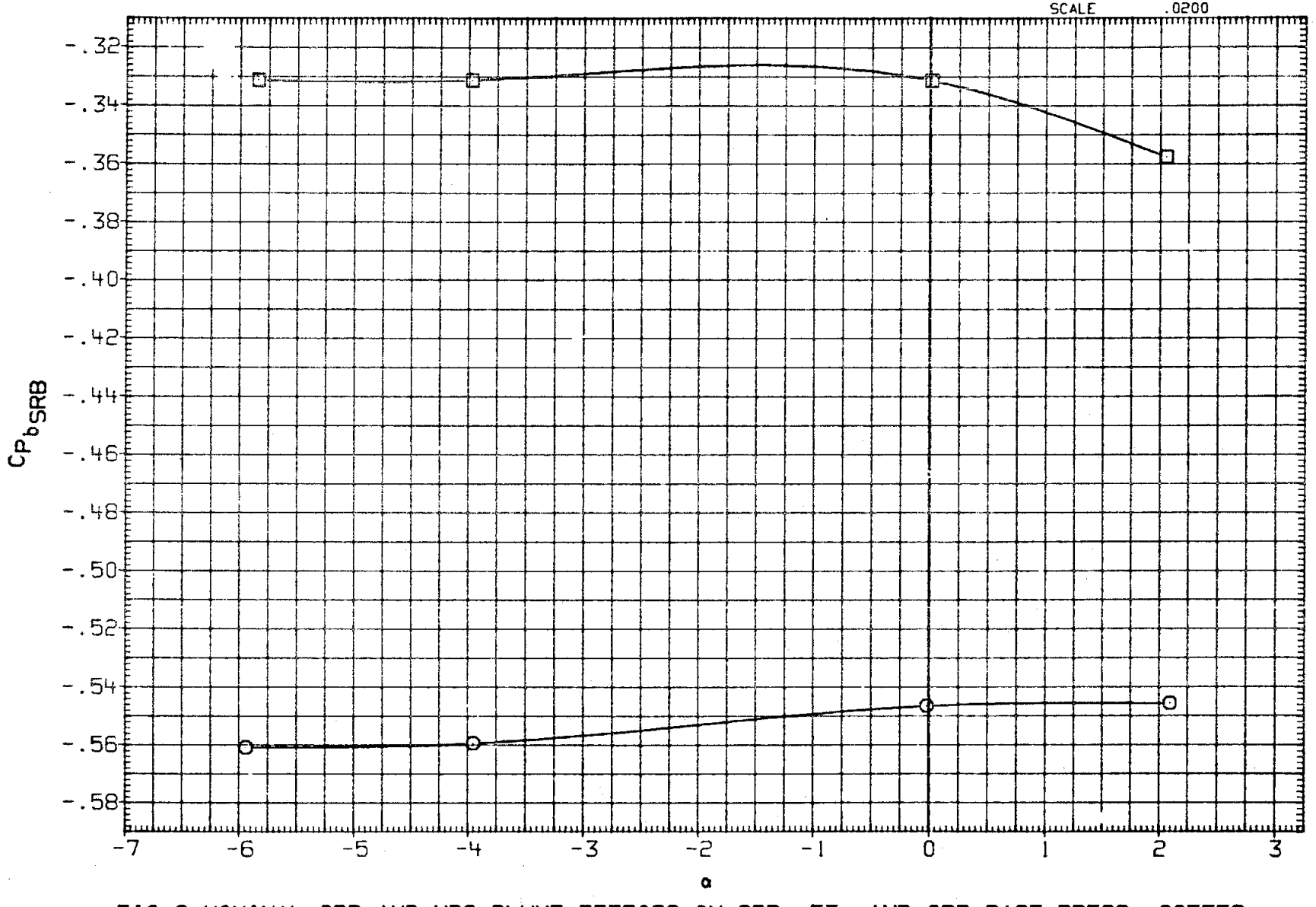

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
DREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

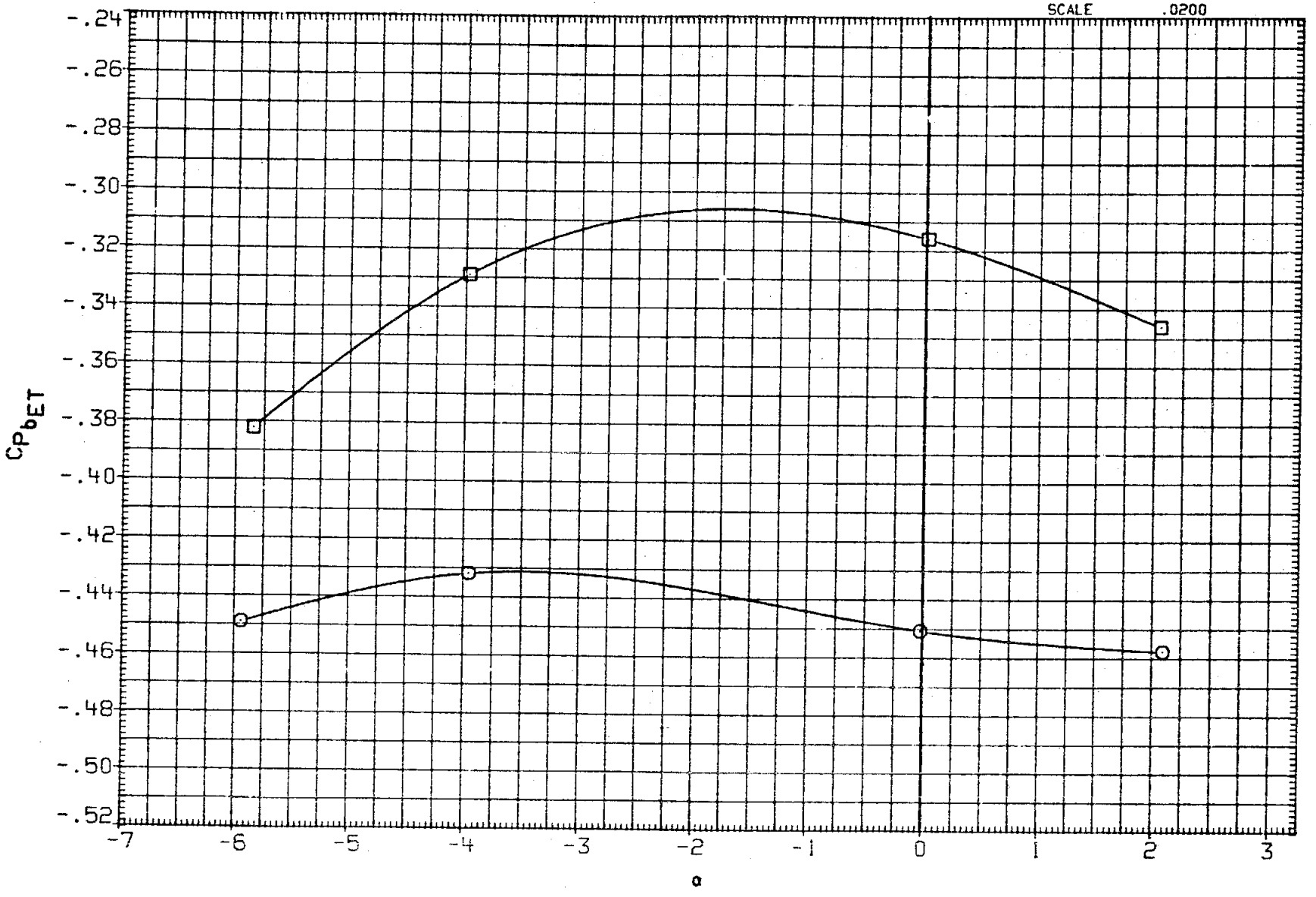

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

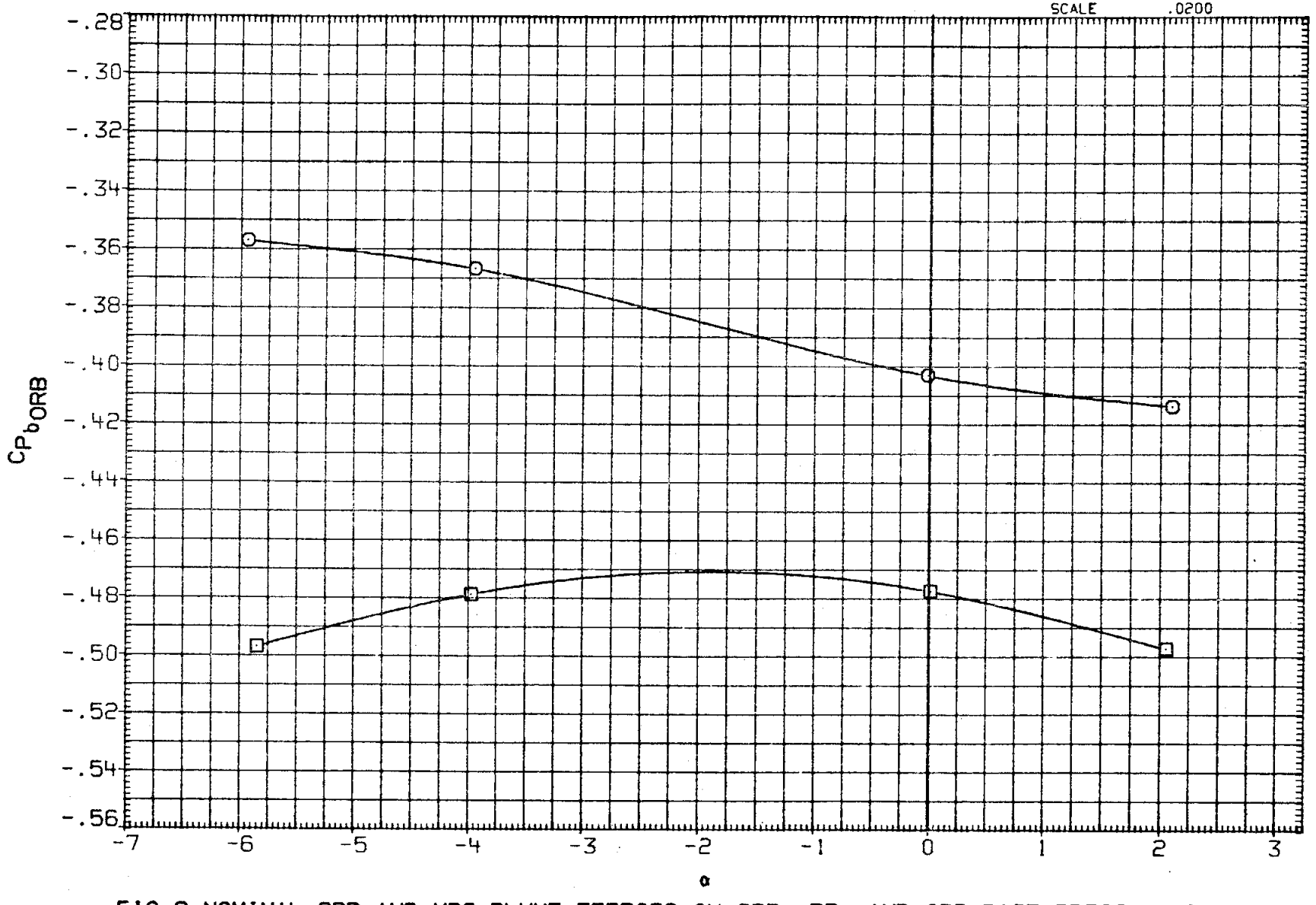

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

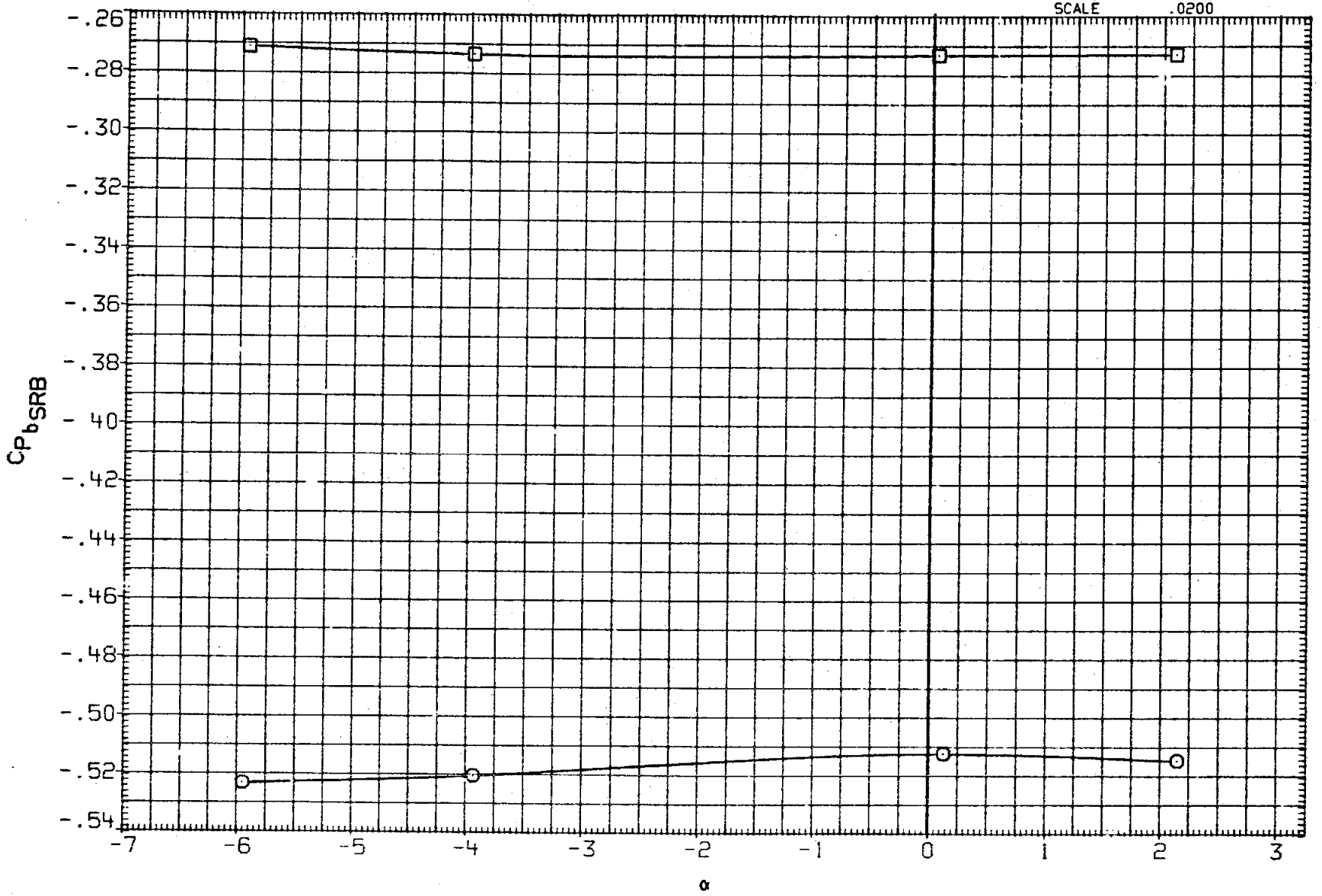

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

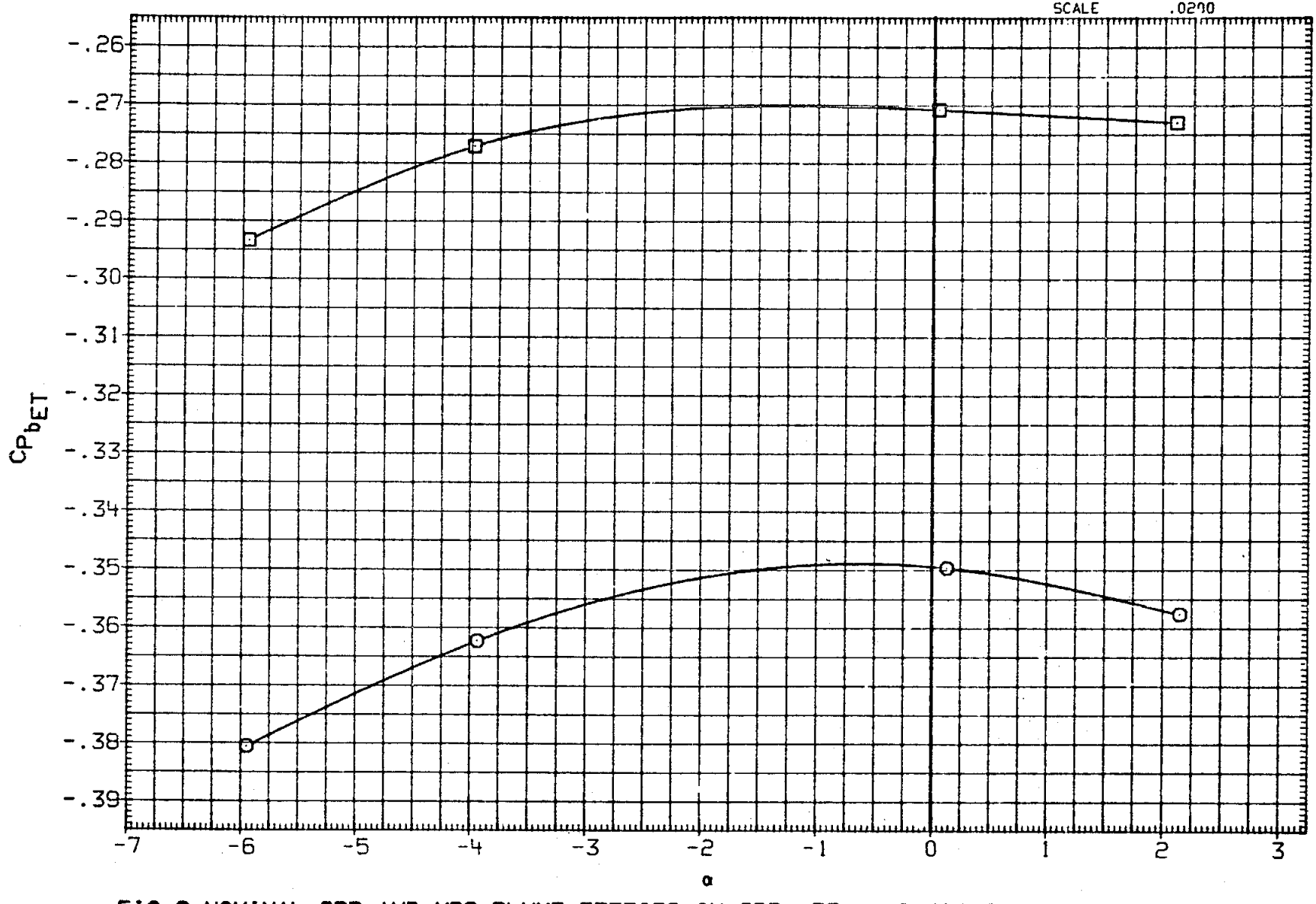

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

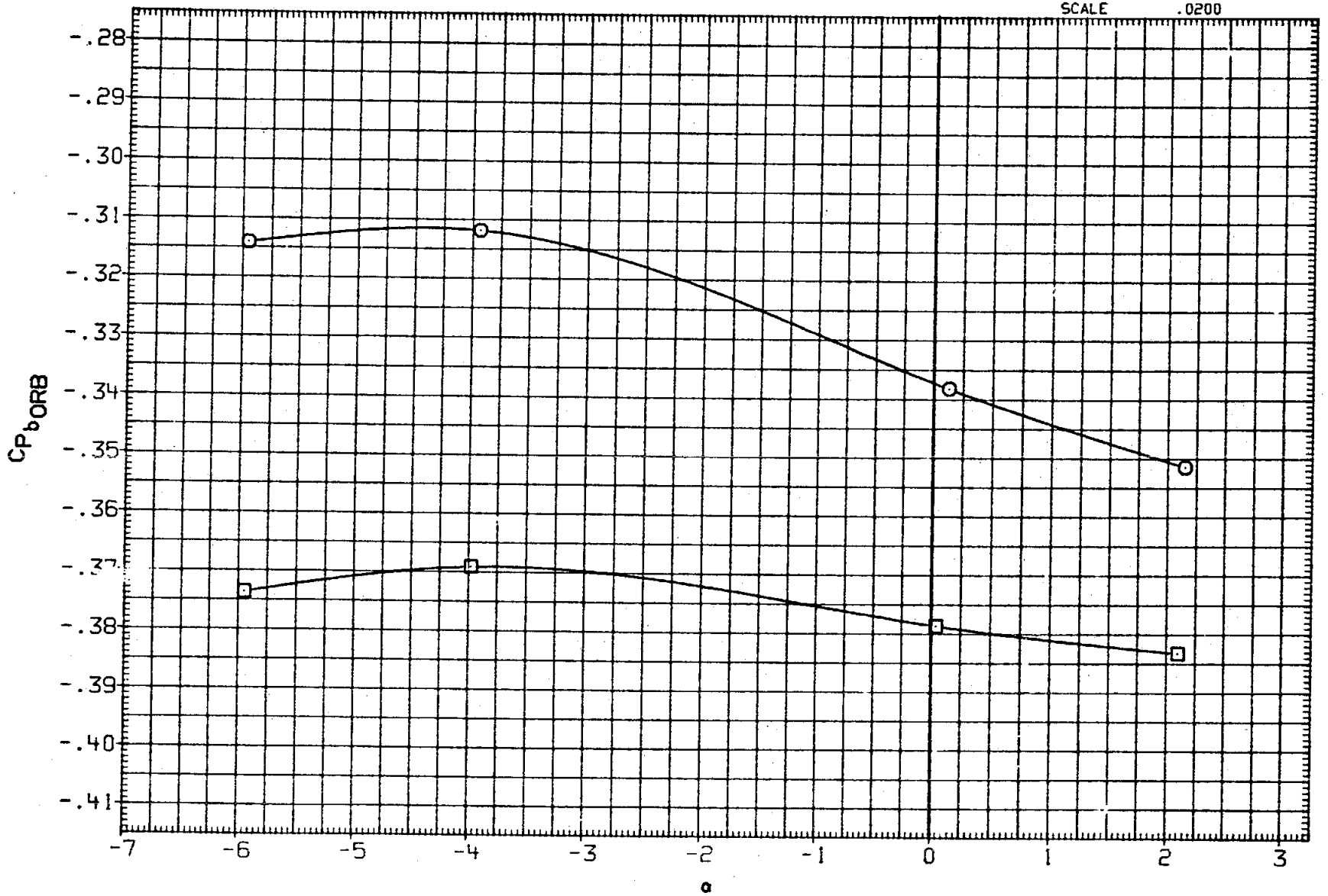

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

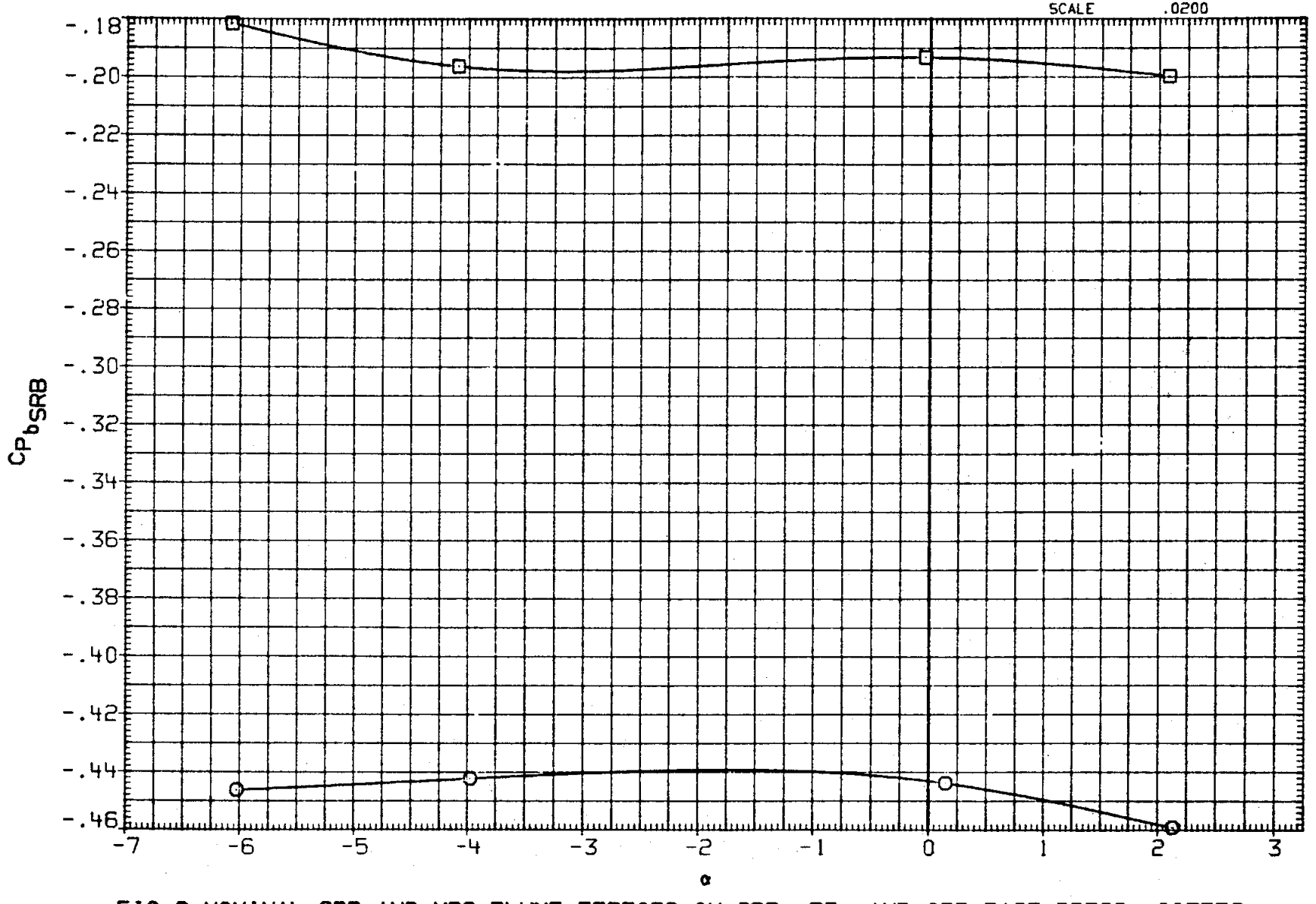

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

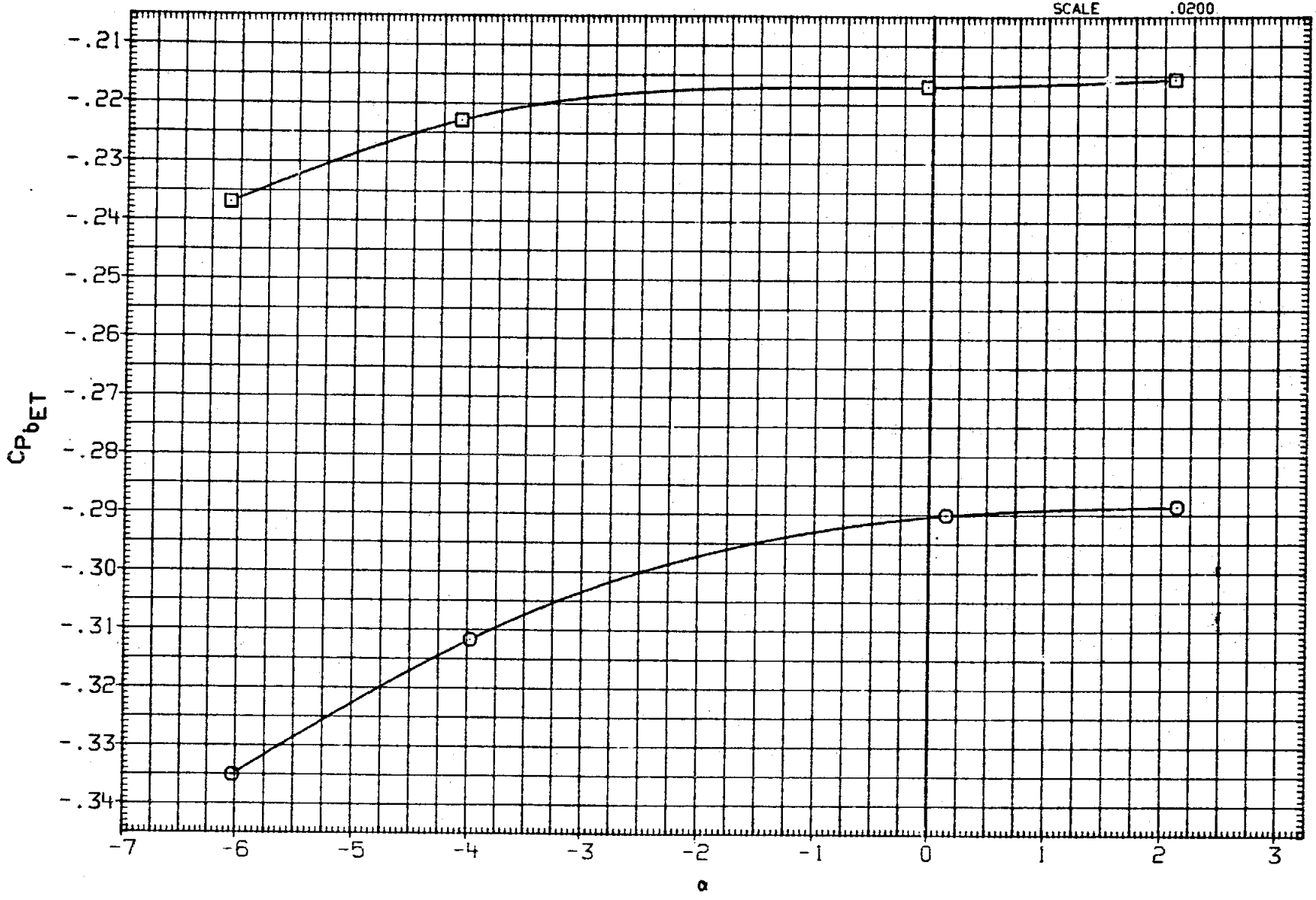

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ONEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

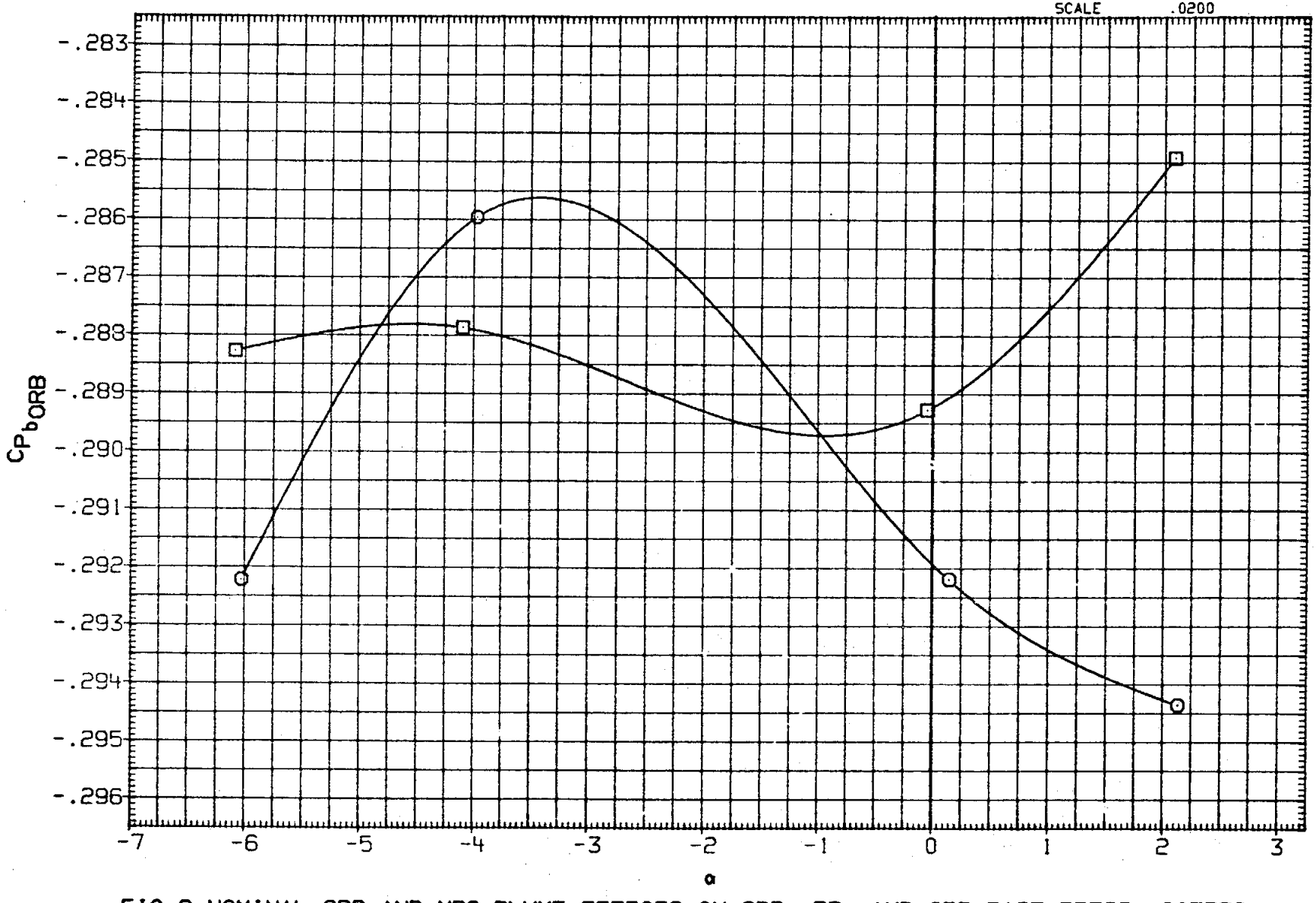

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH =* 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

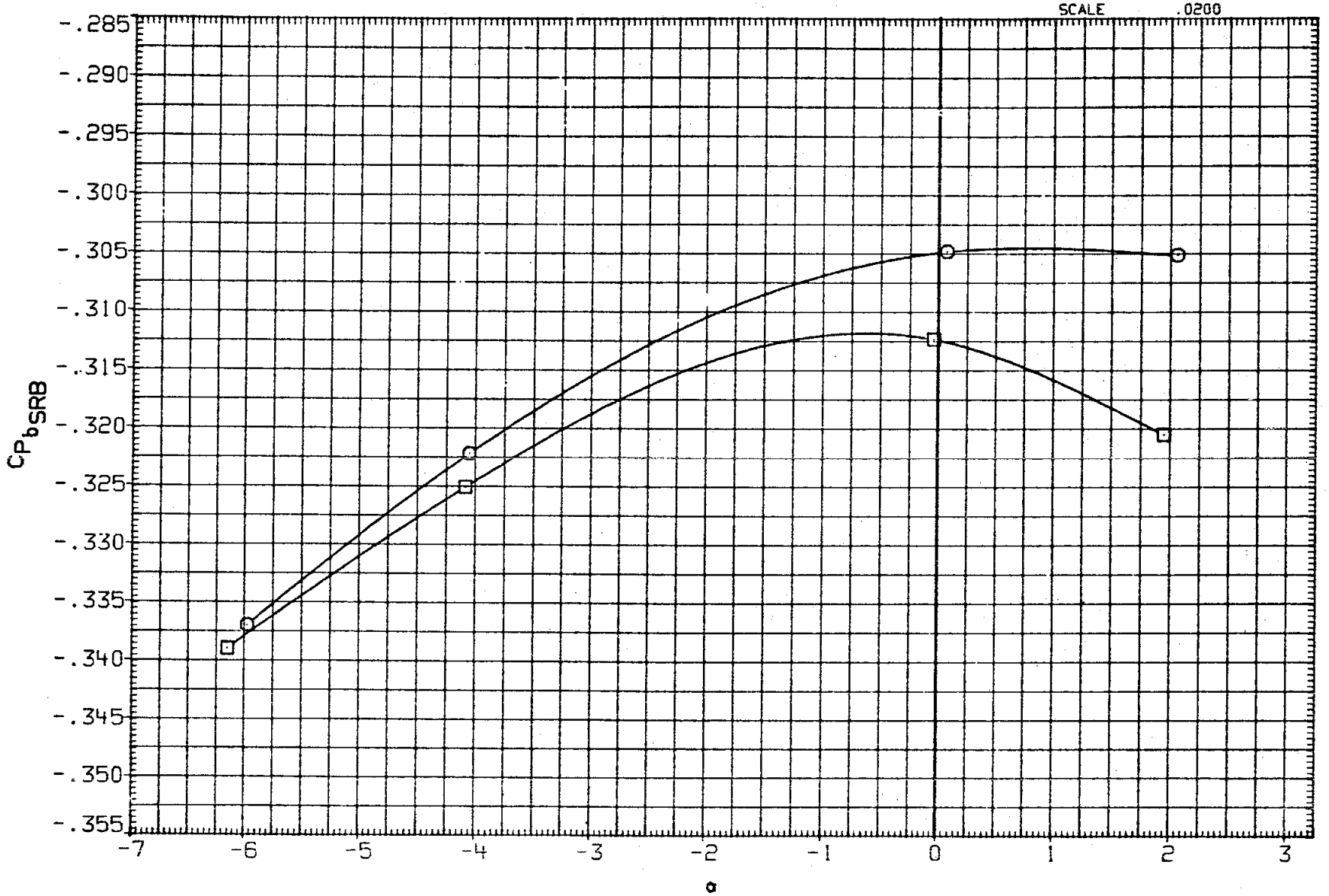

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

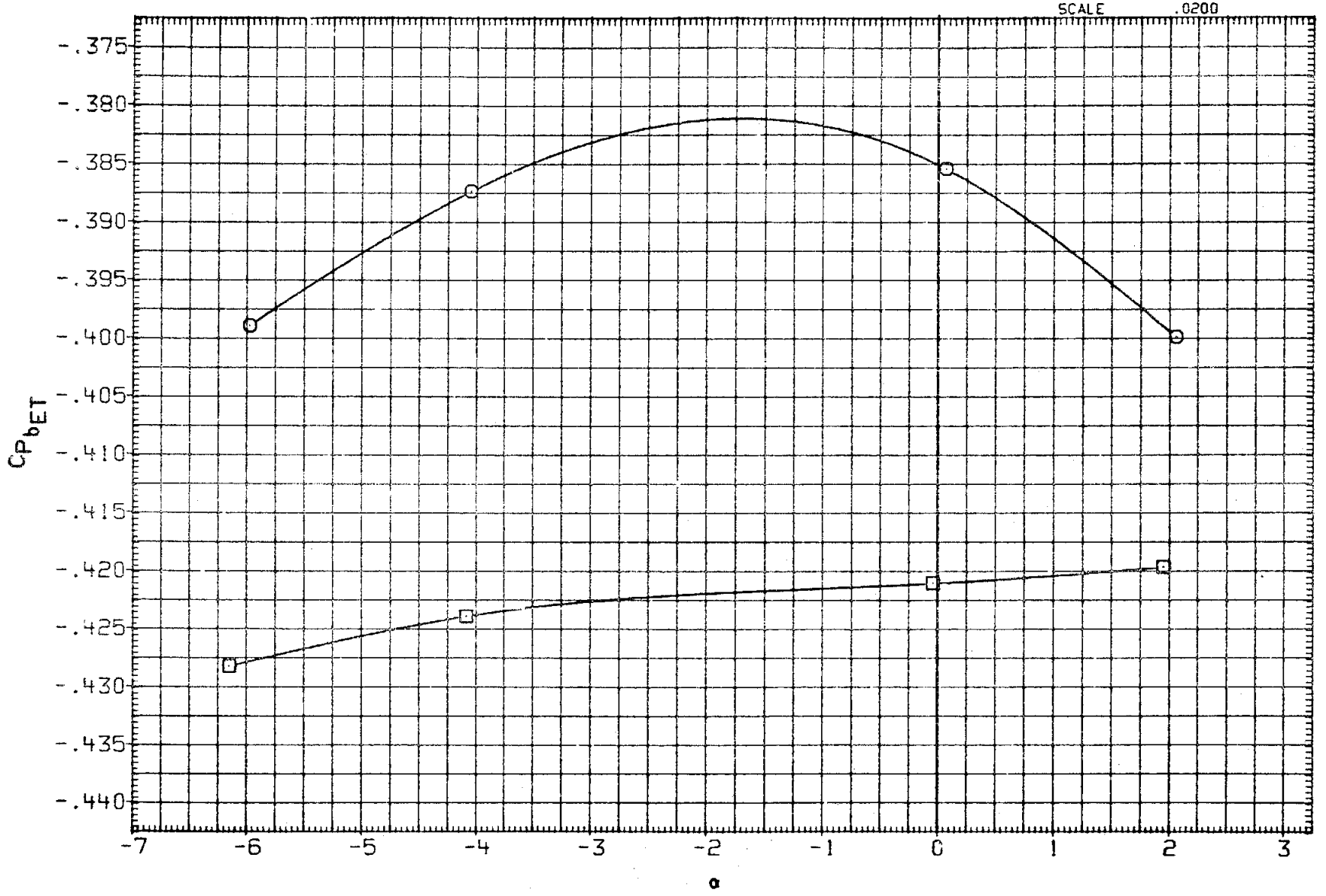

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

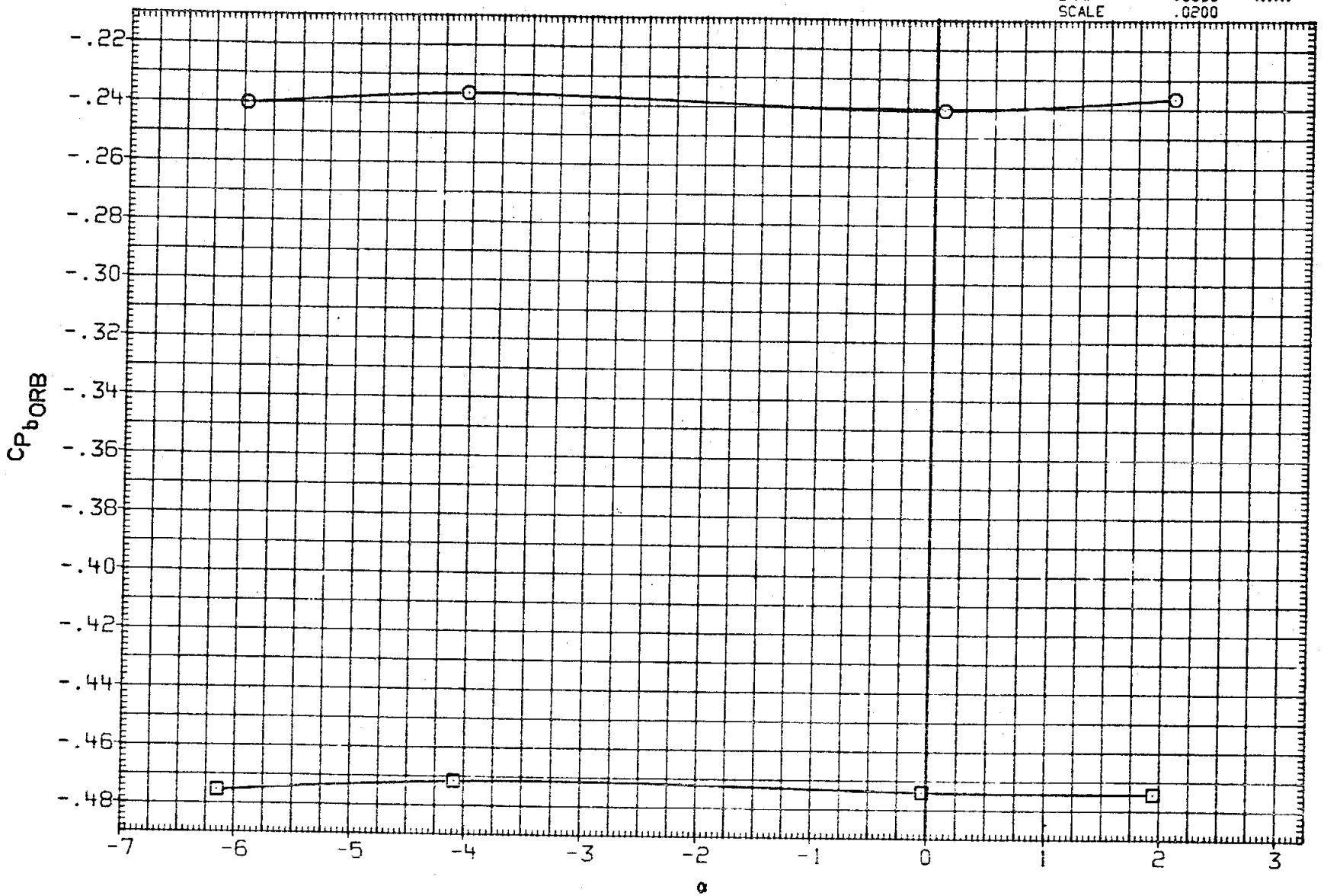

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

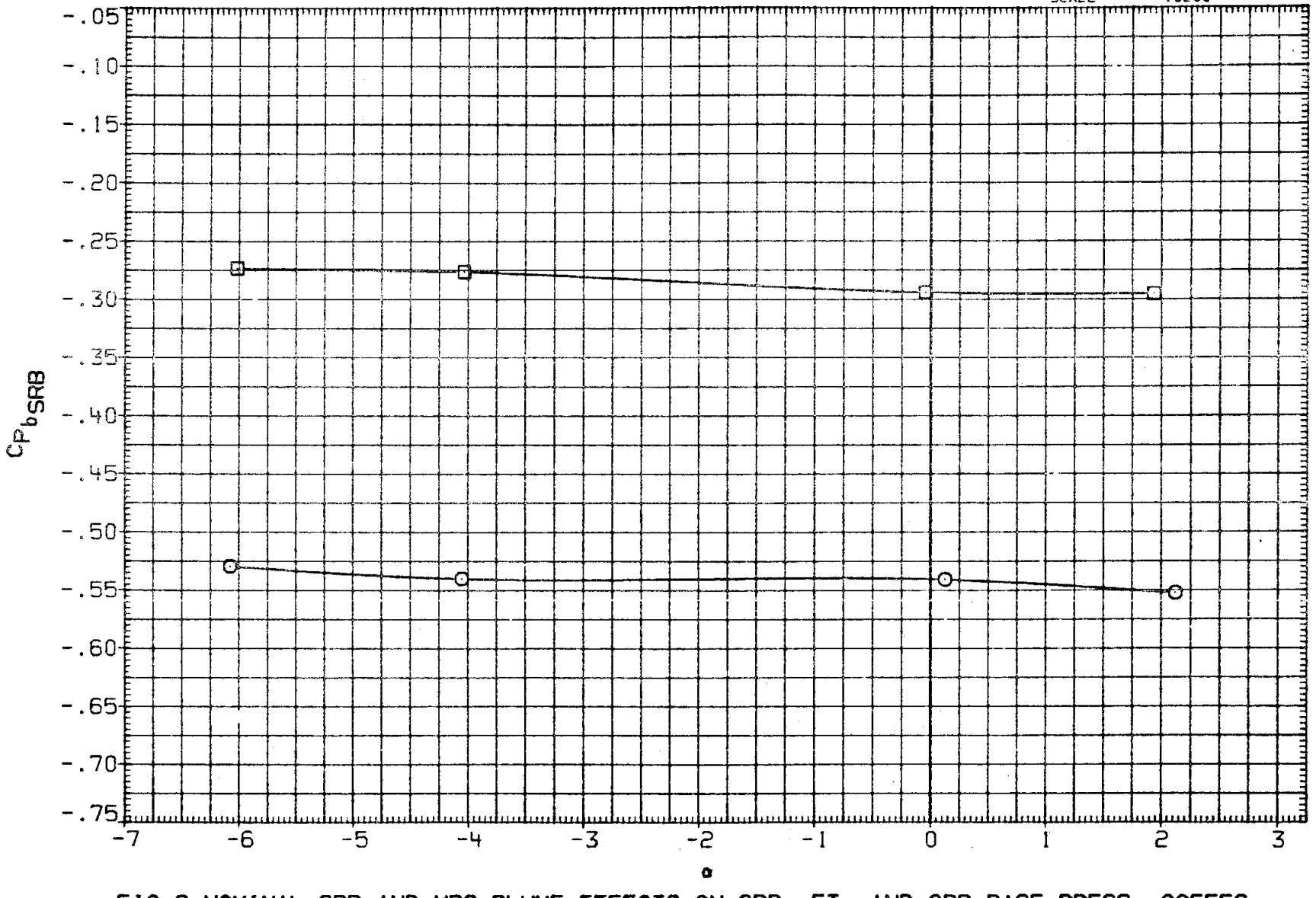

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

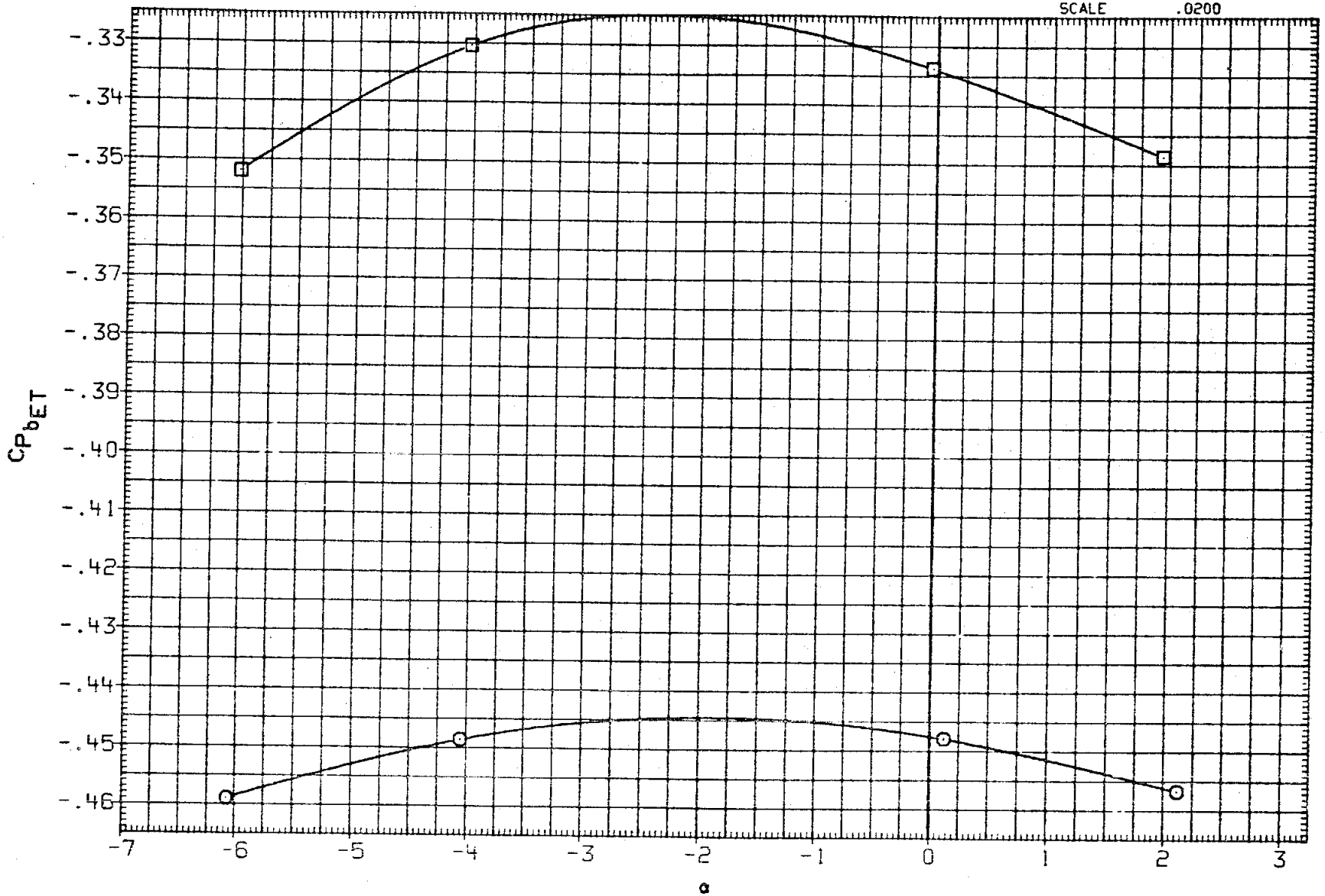

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

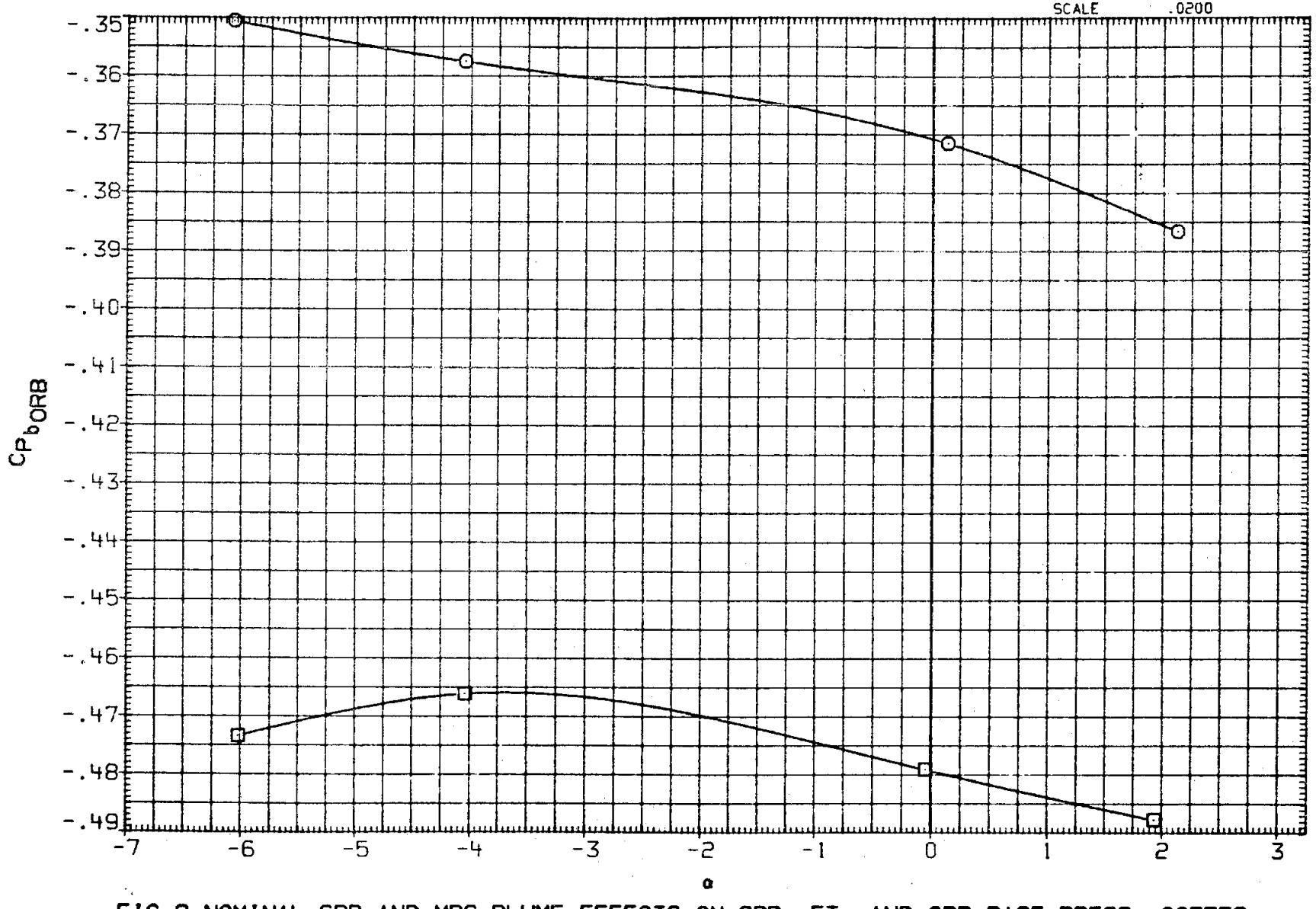

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

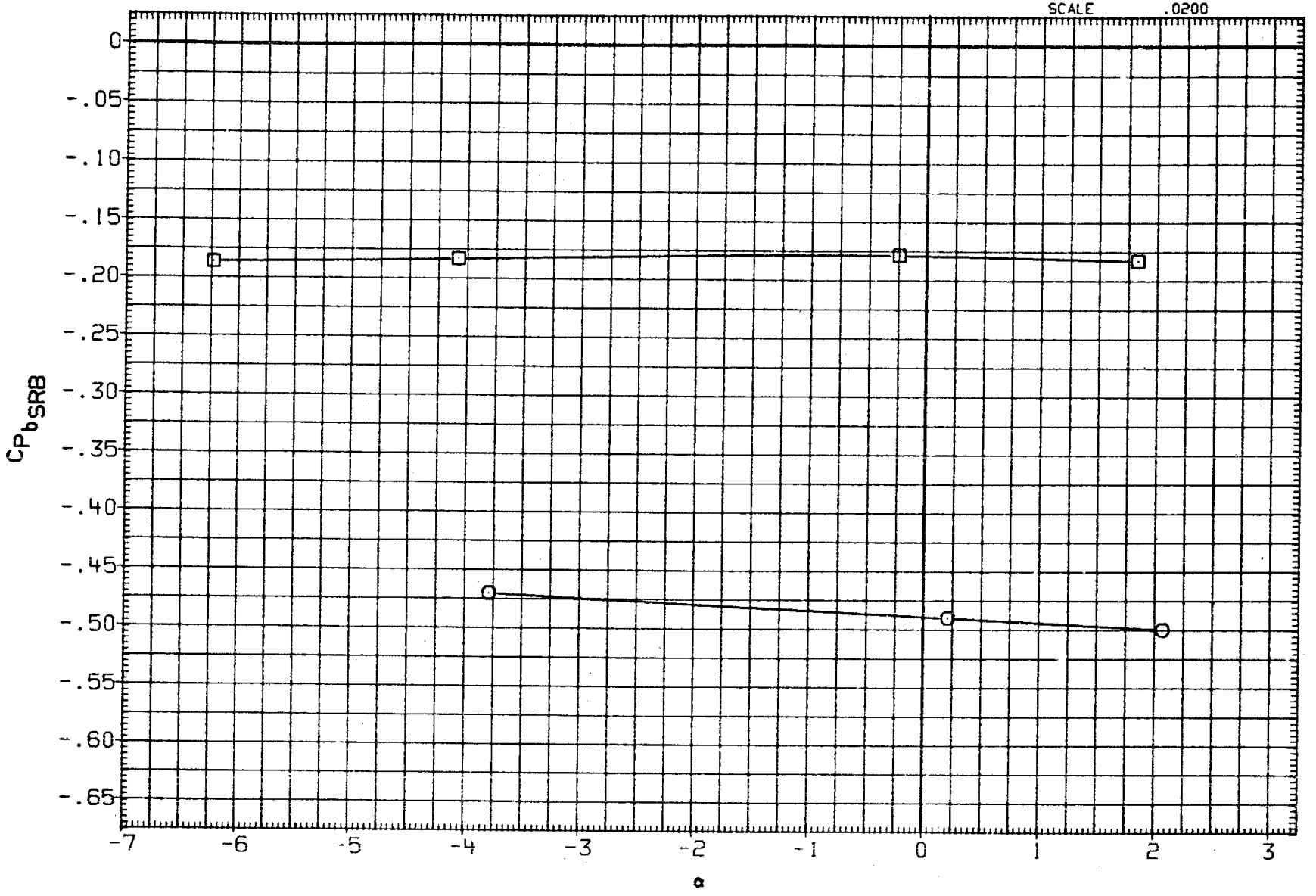

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

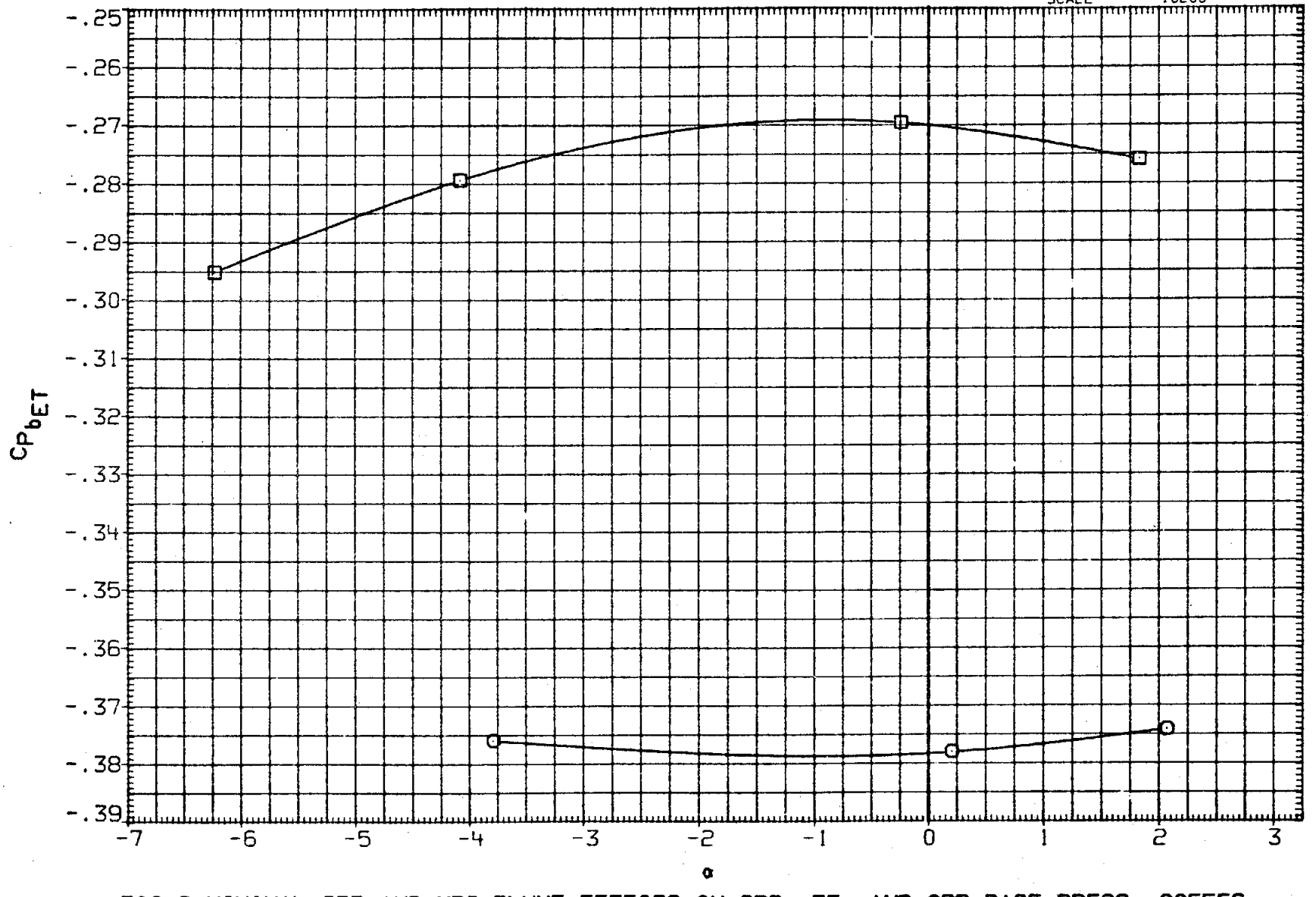

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

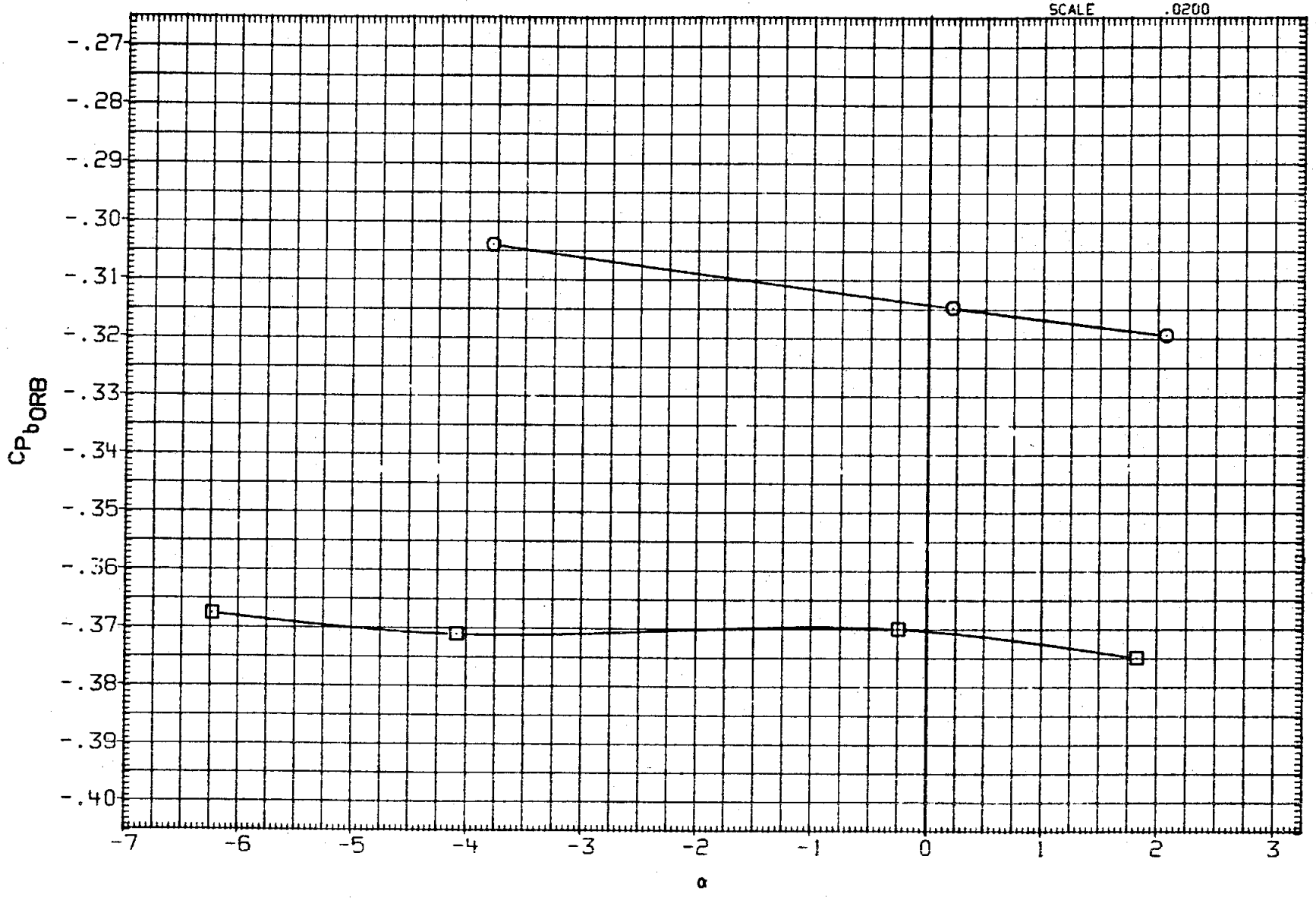

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

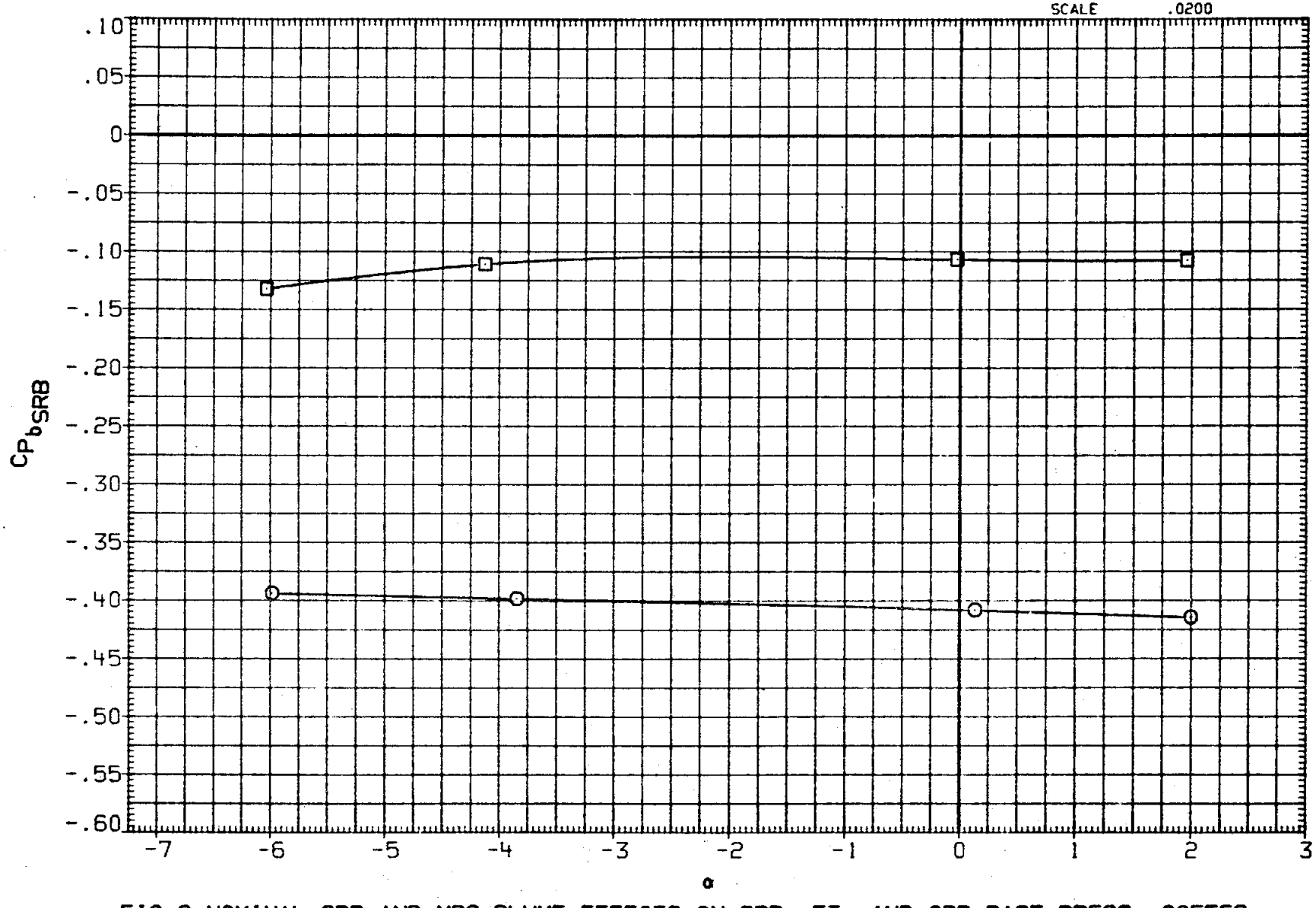

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

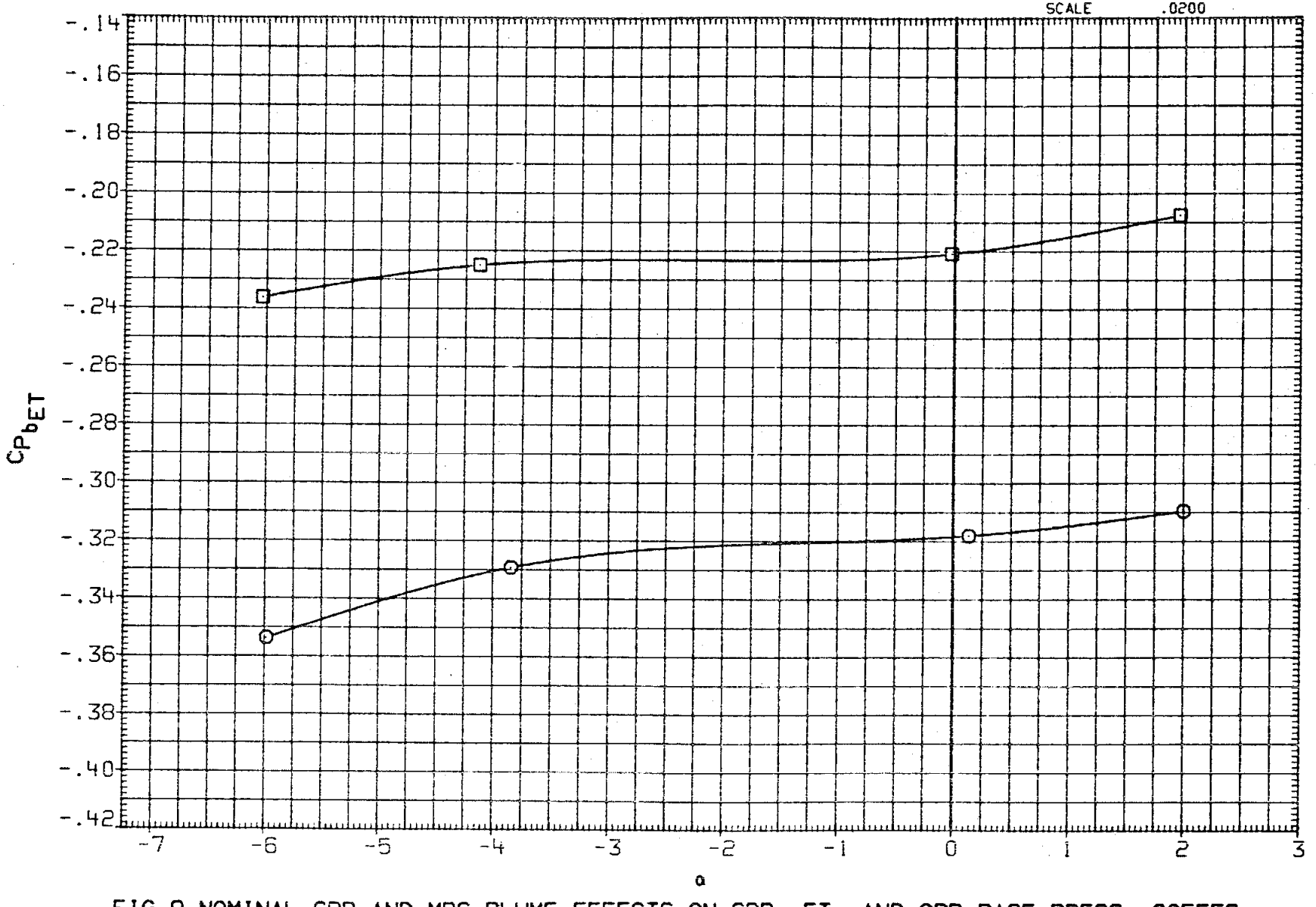

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

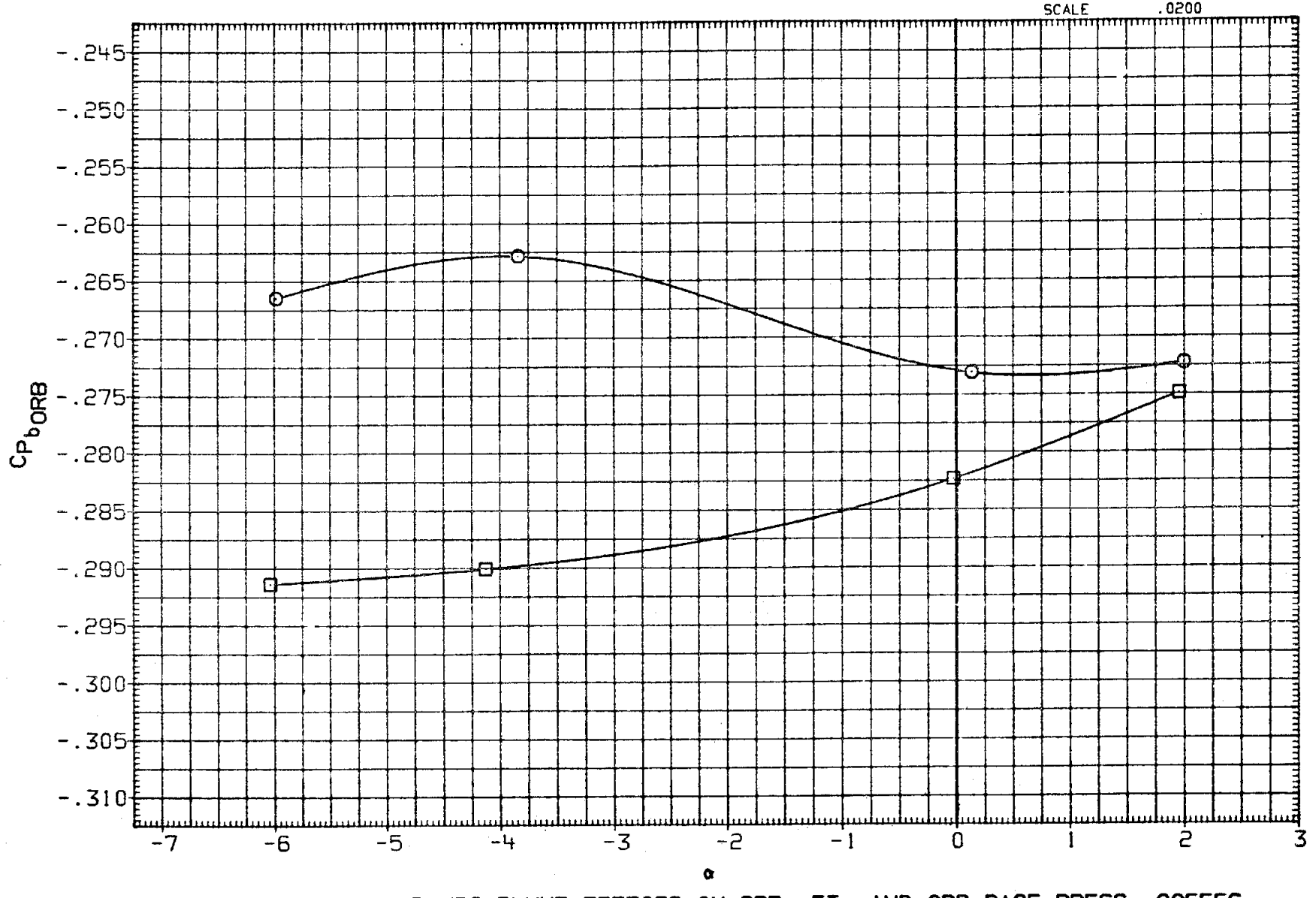

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

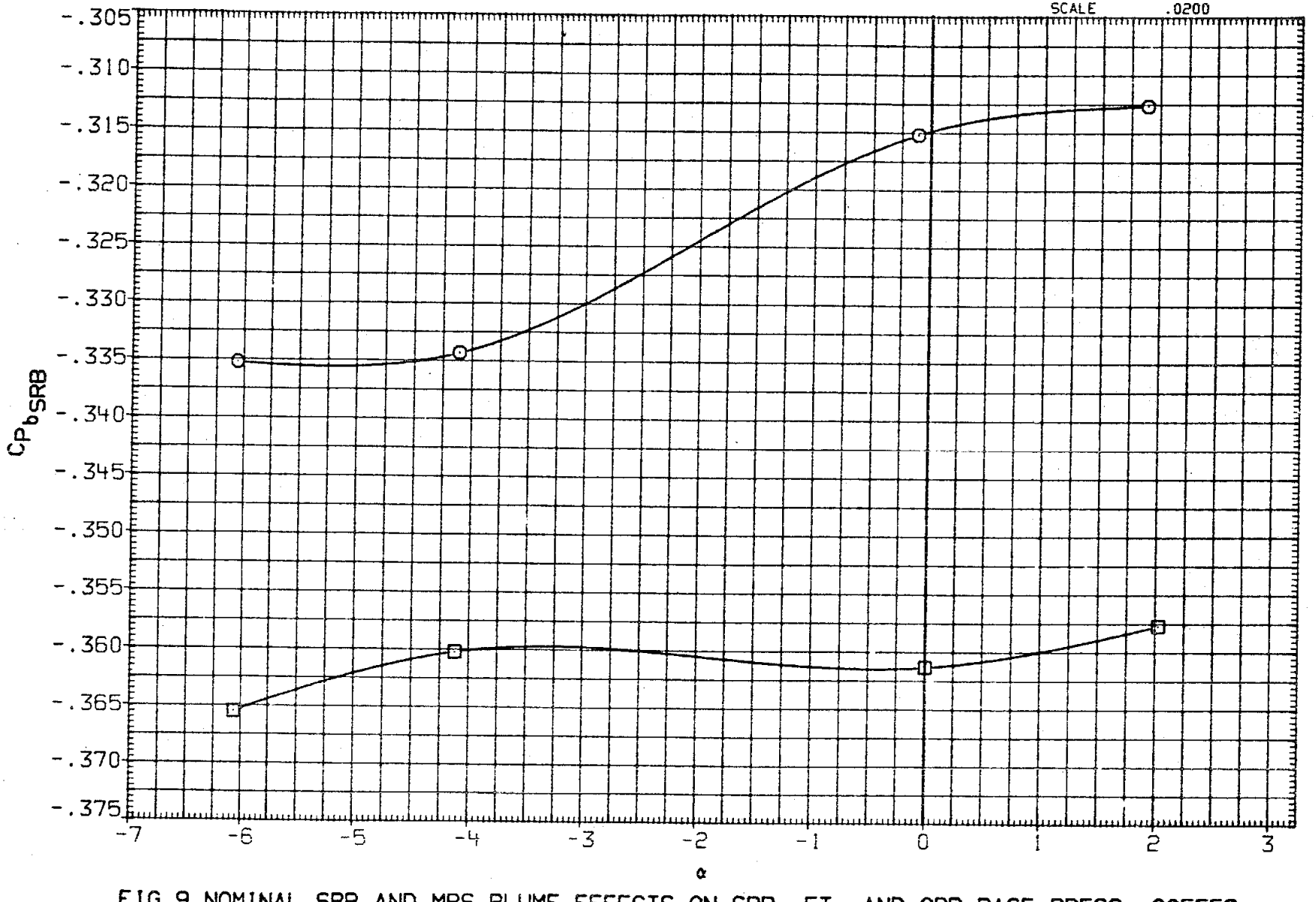

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

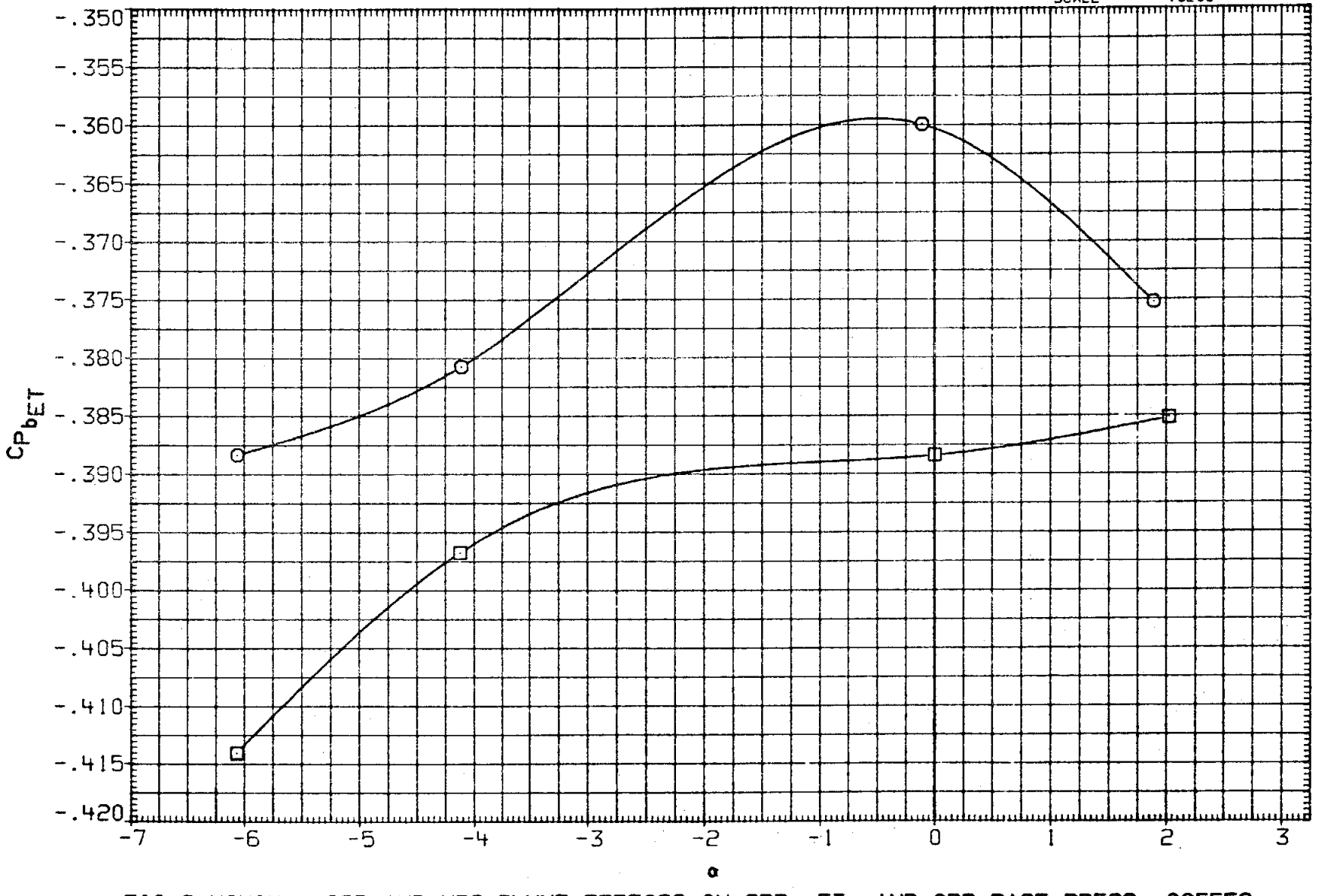

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

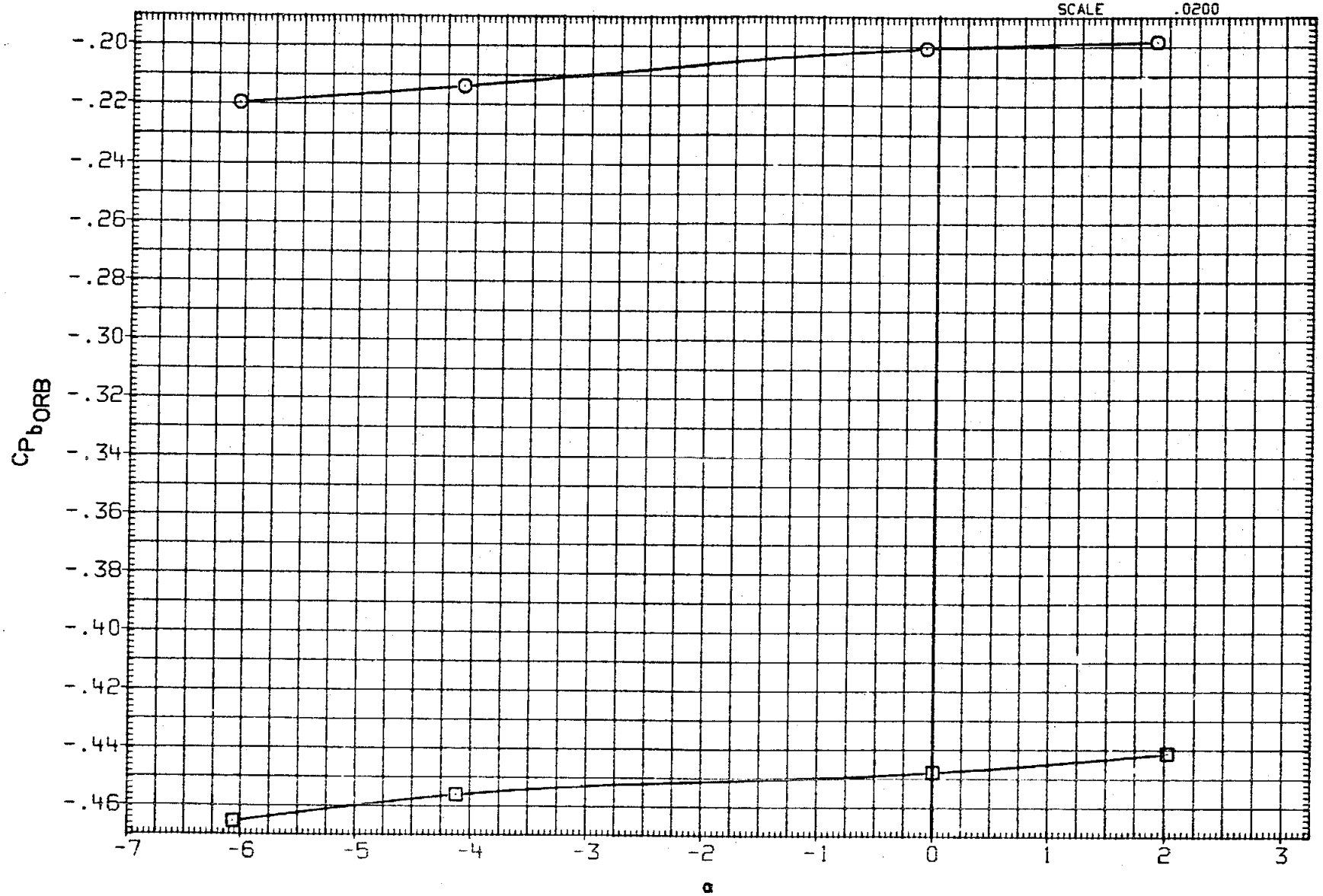

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARCII-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARCII-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

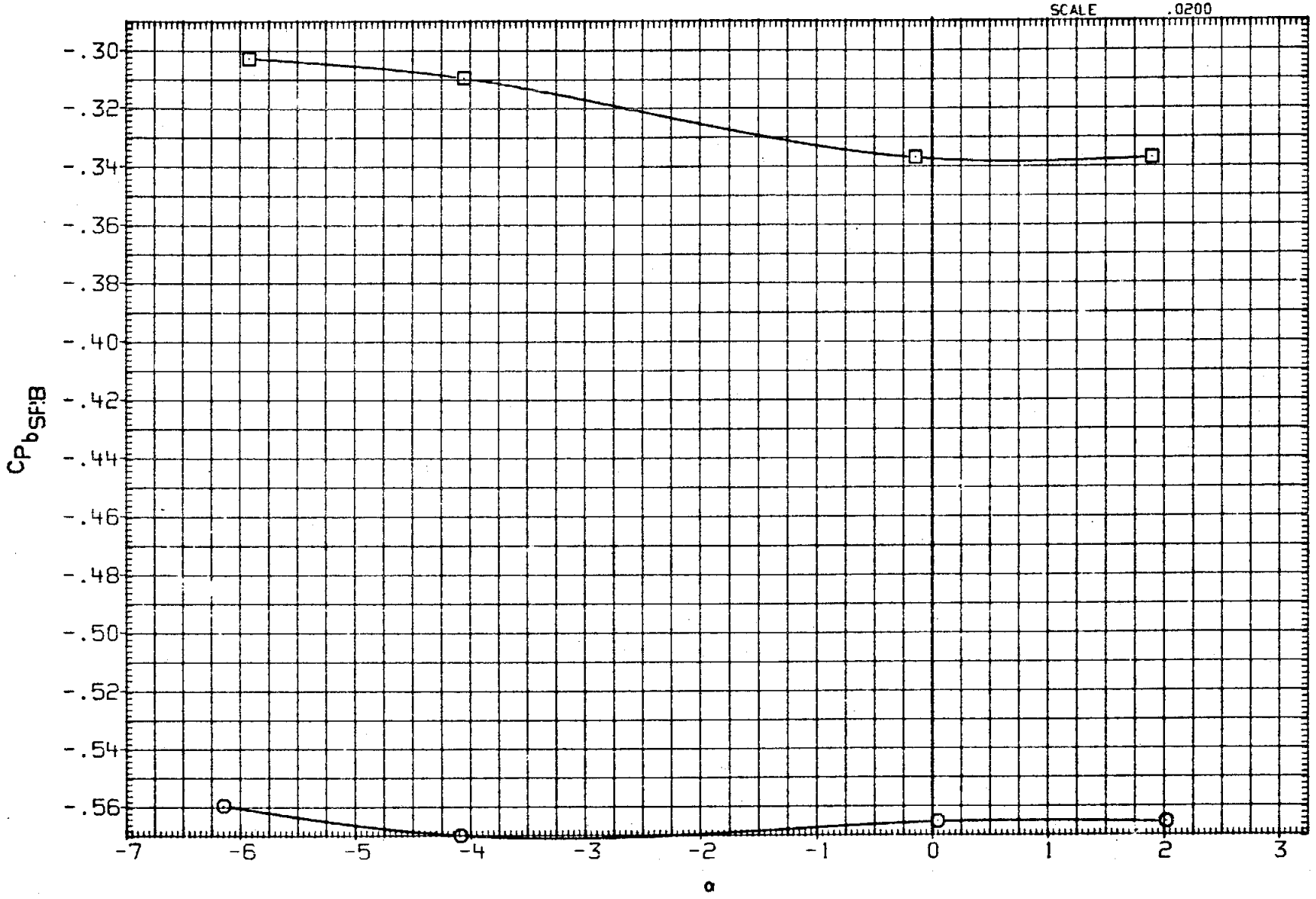

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

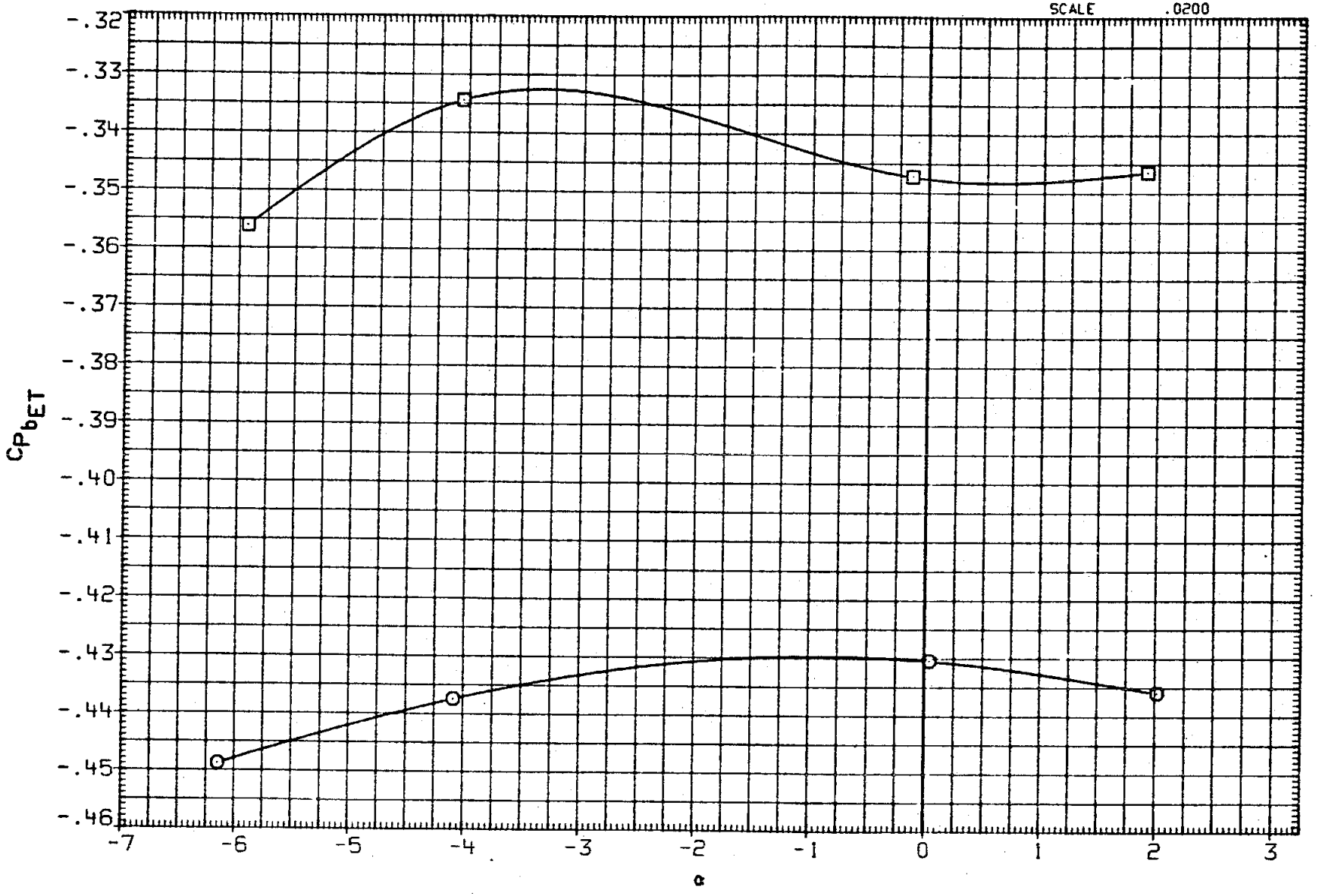

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

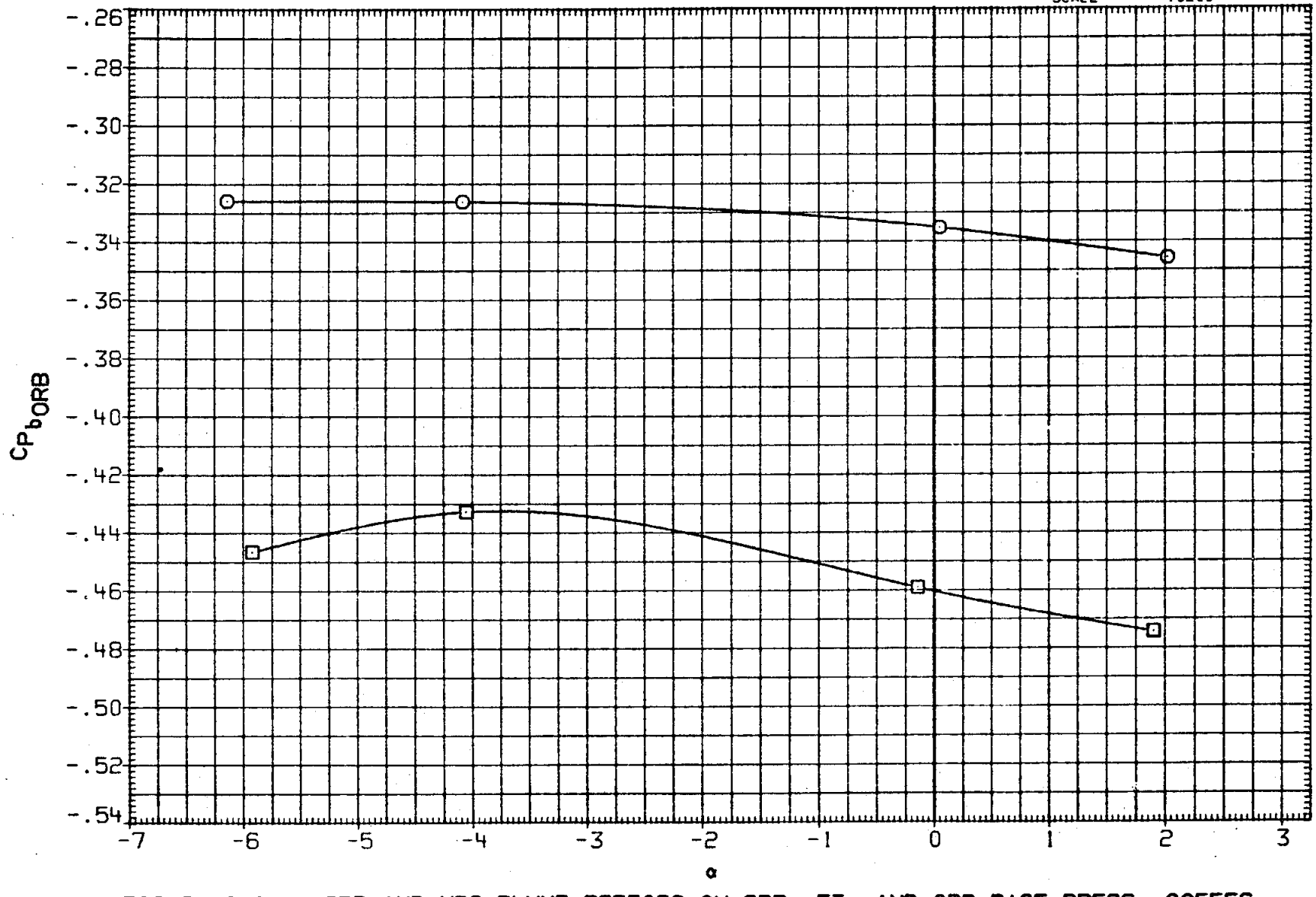

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

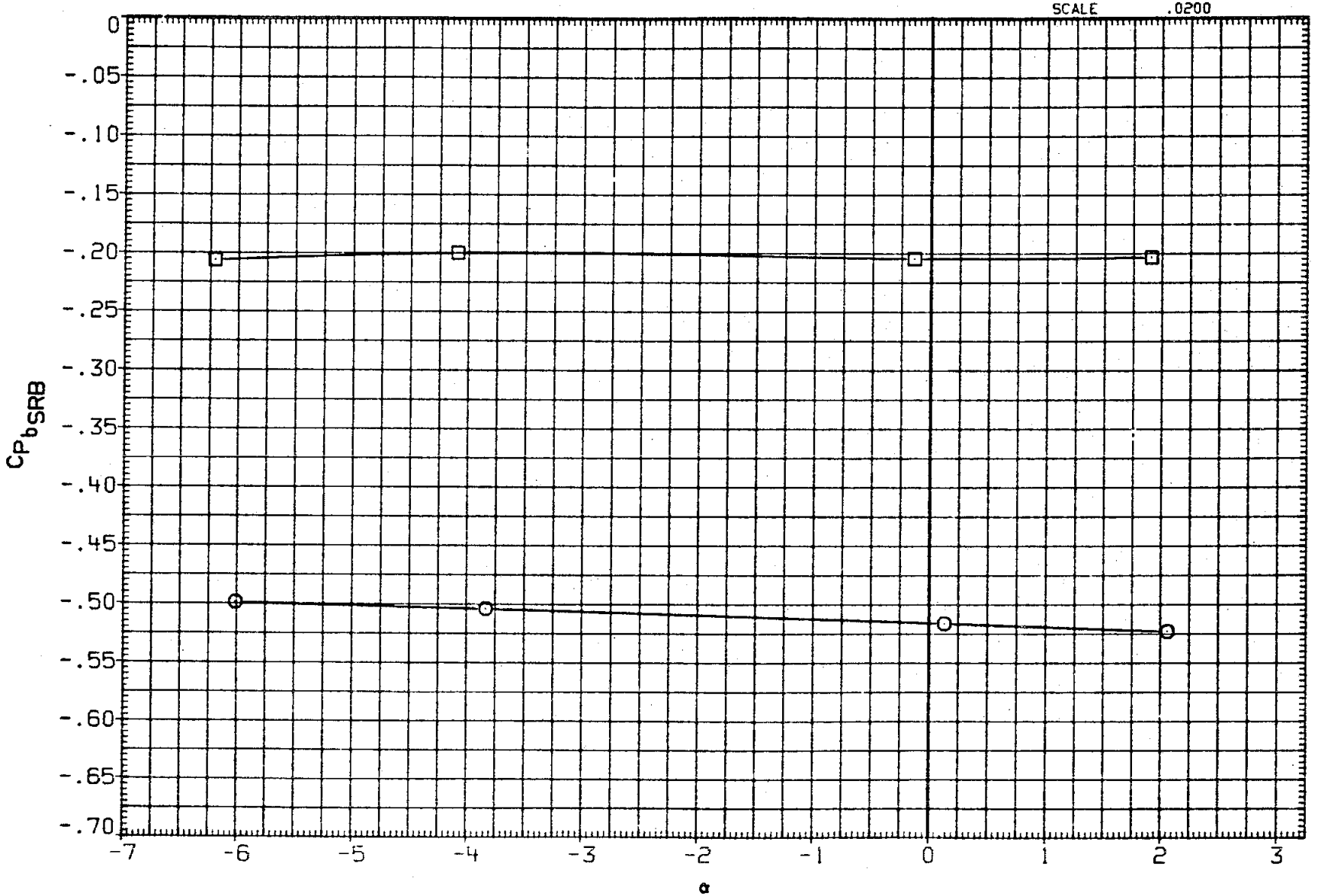

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

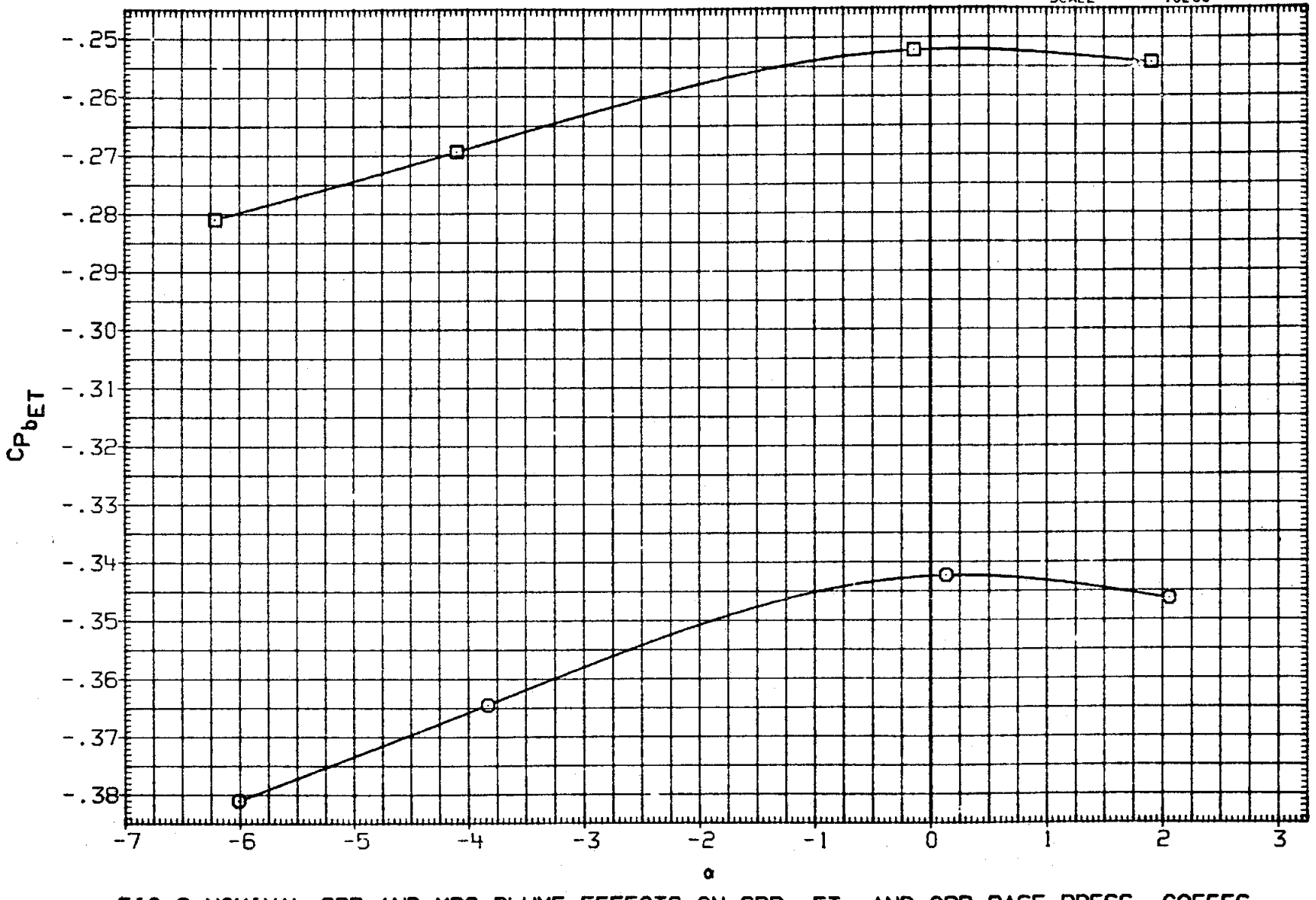

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

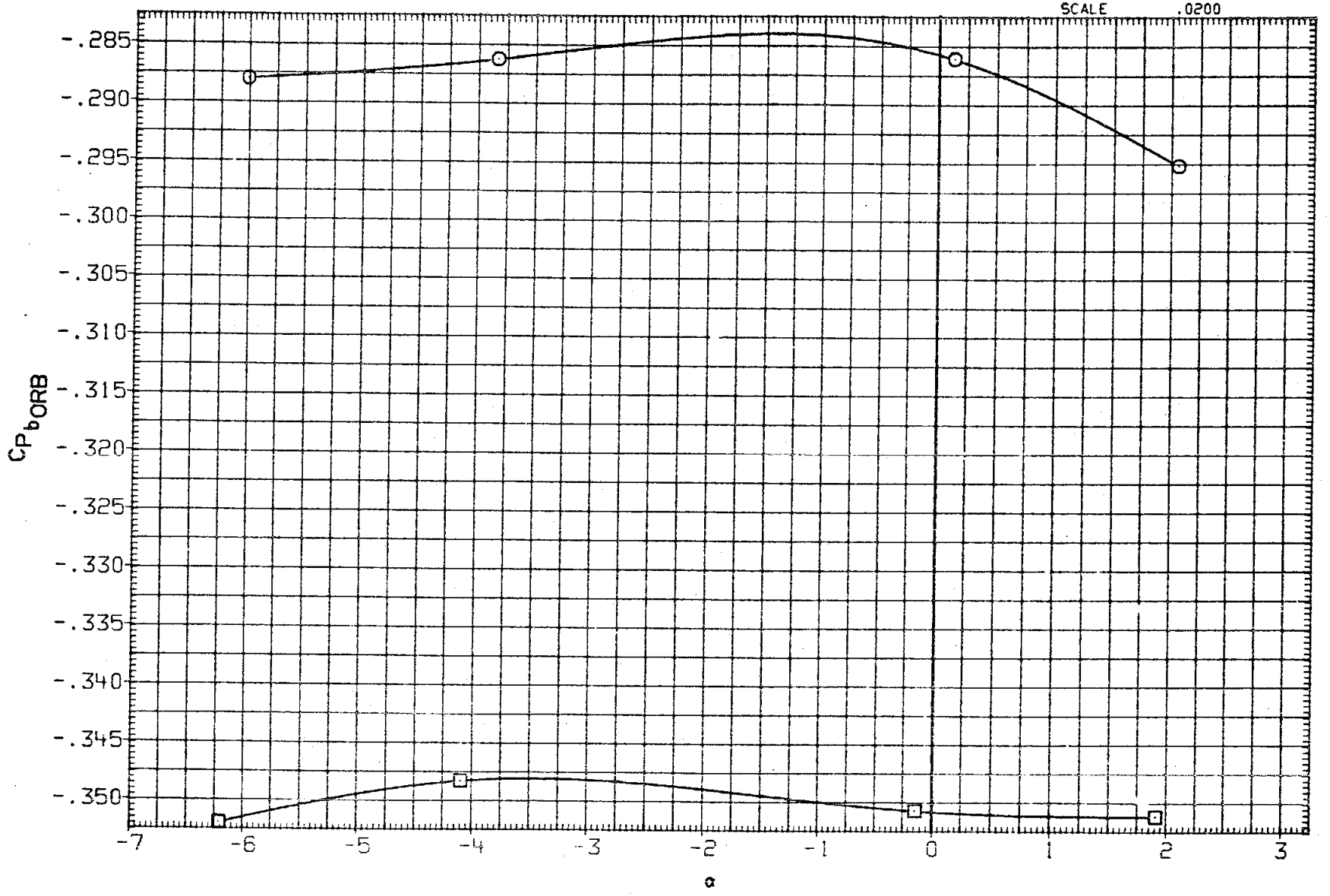

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

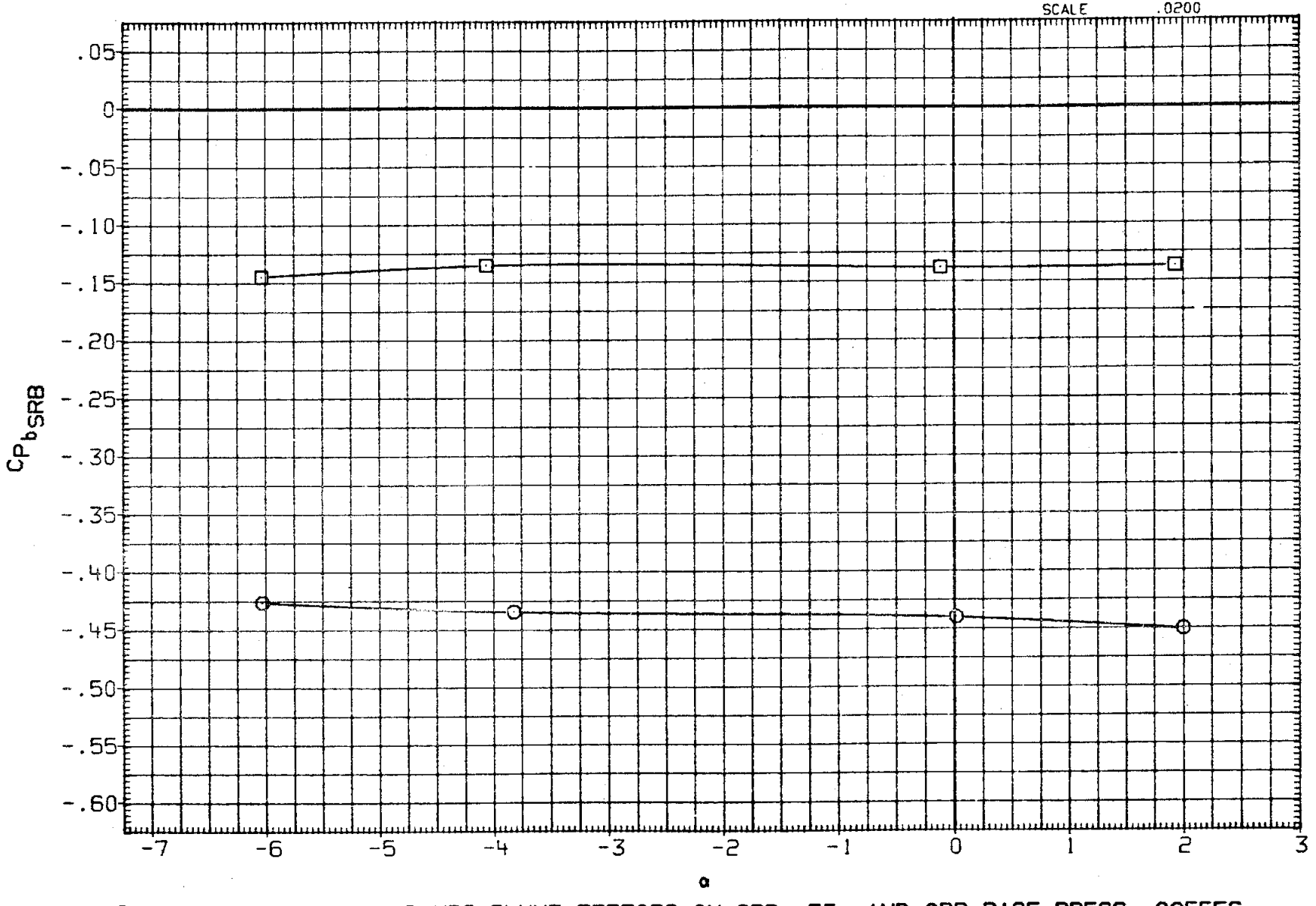

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

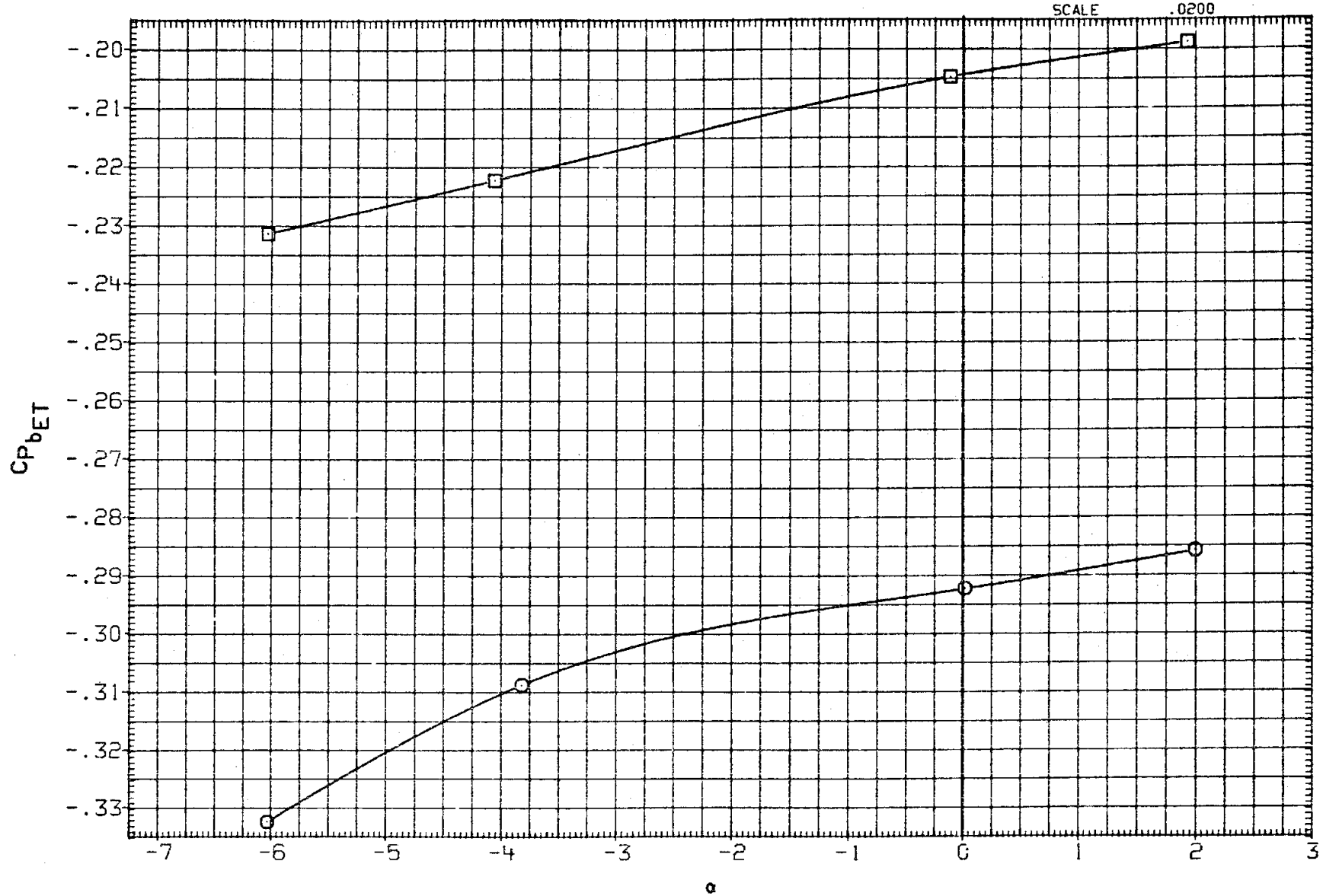

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

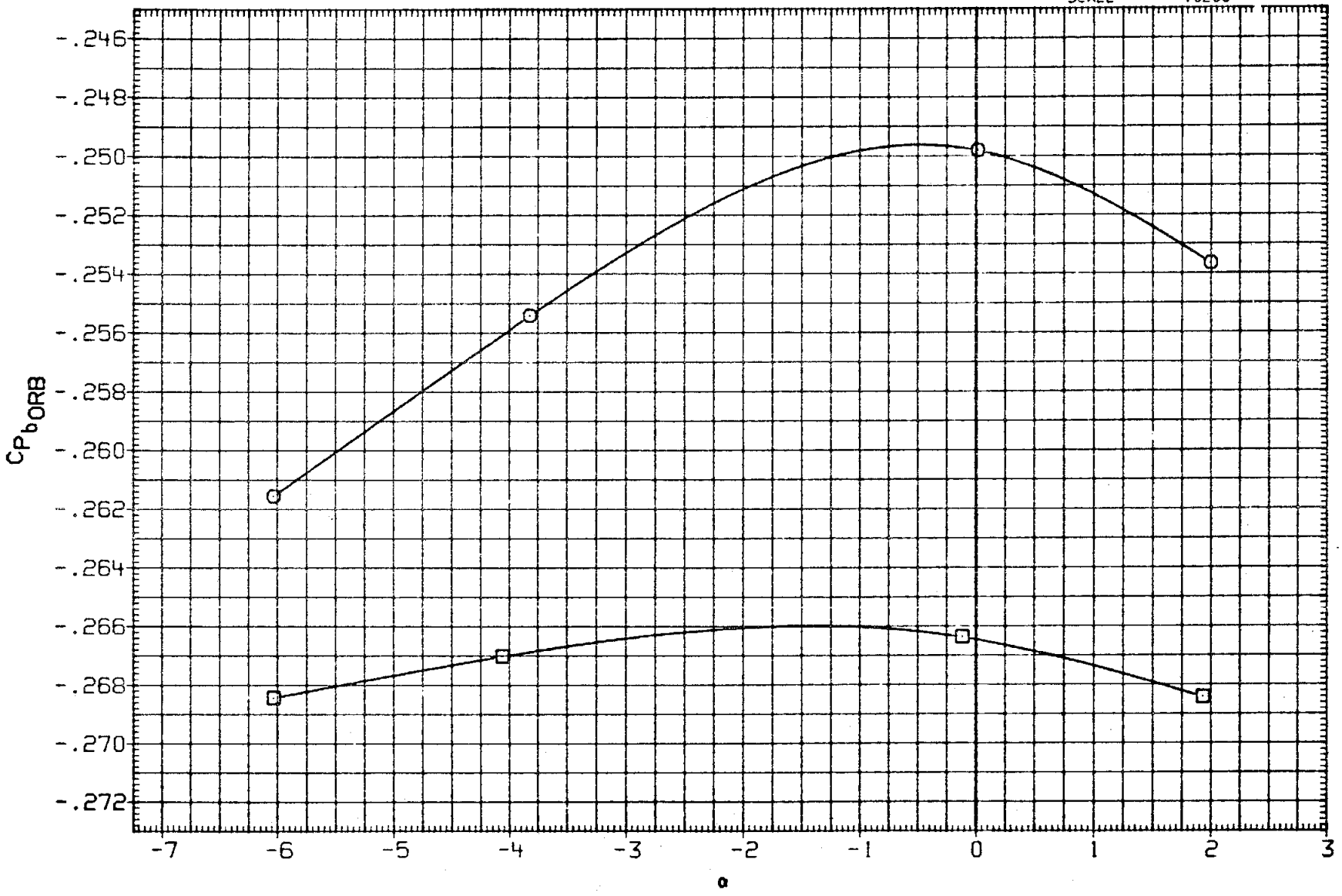

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

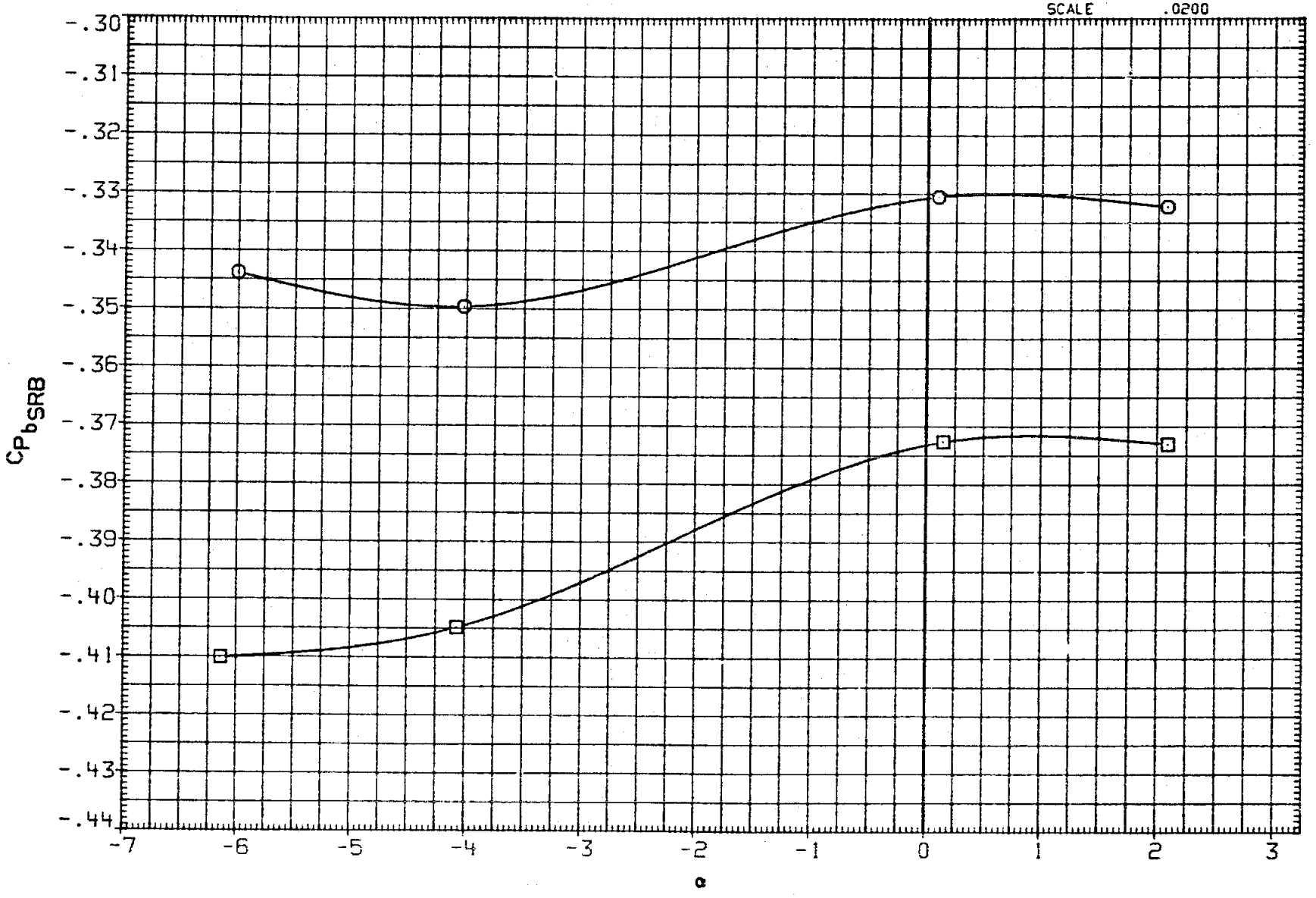

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

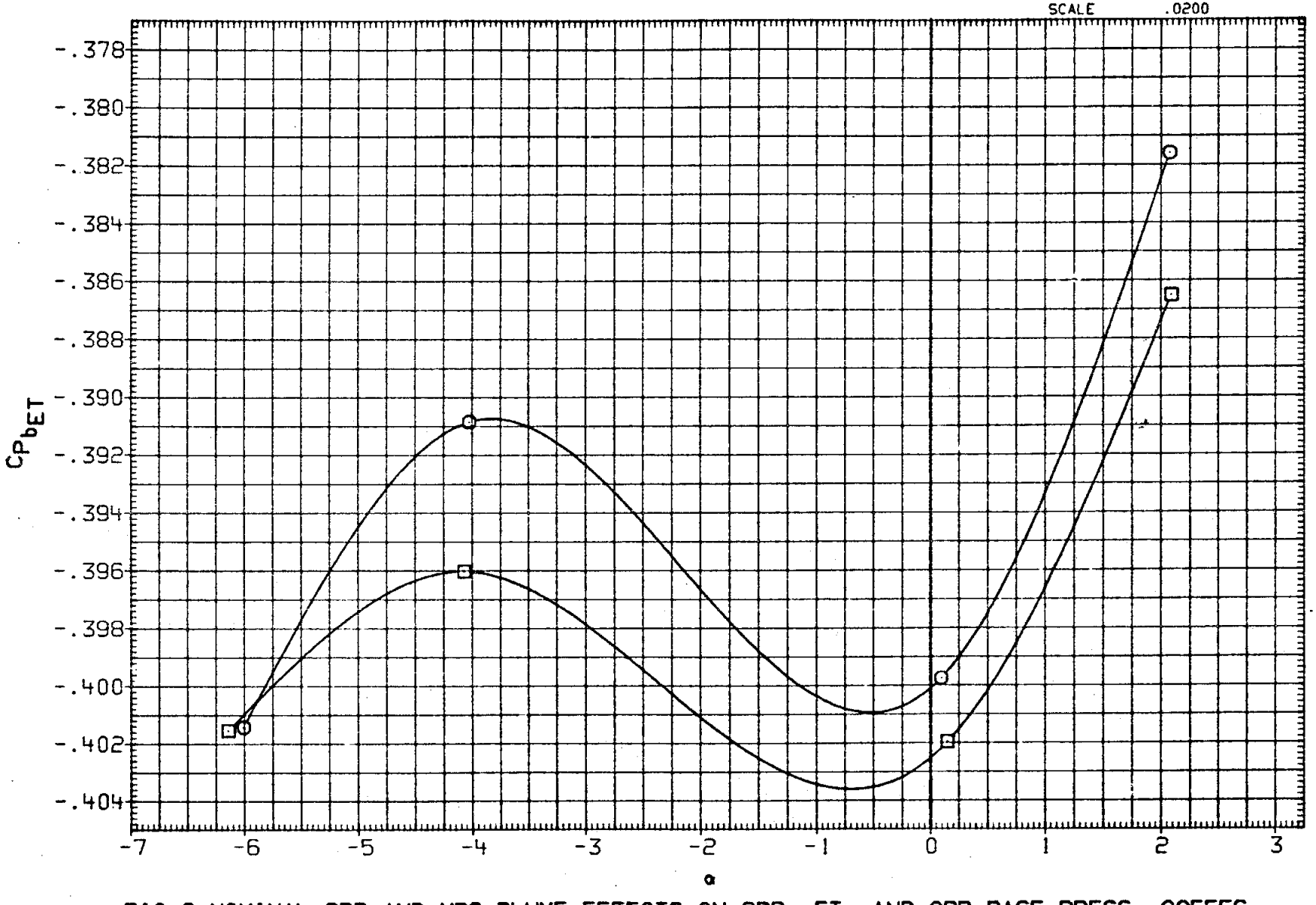

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

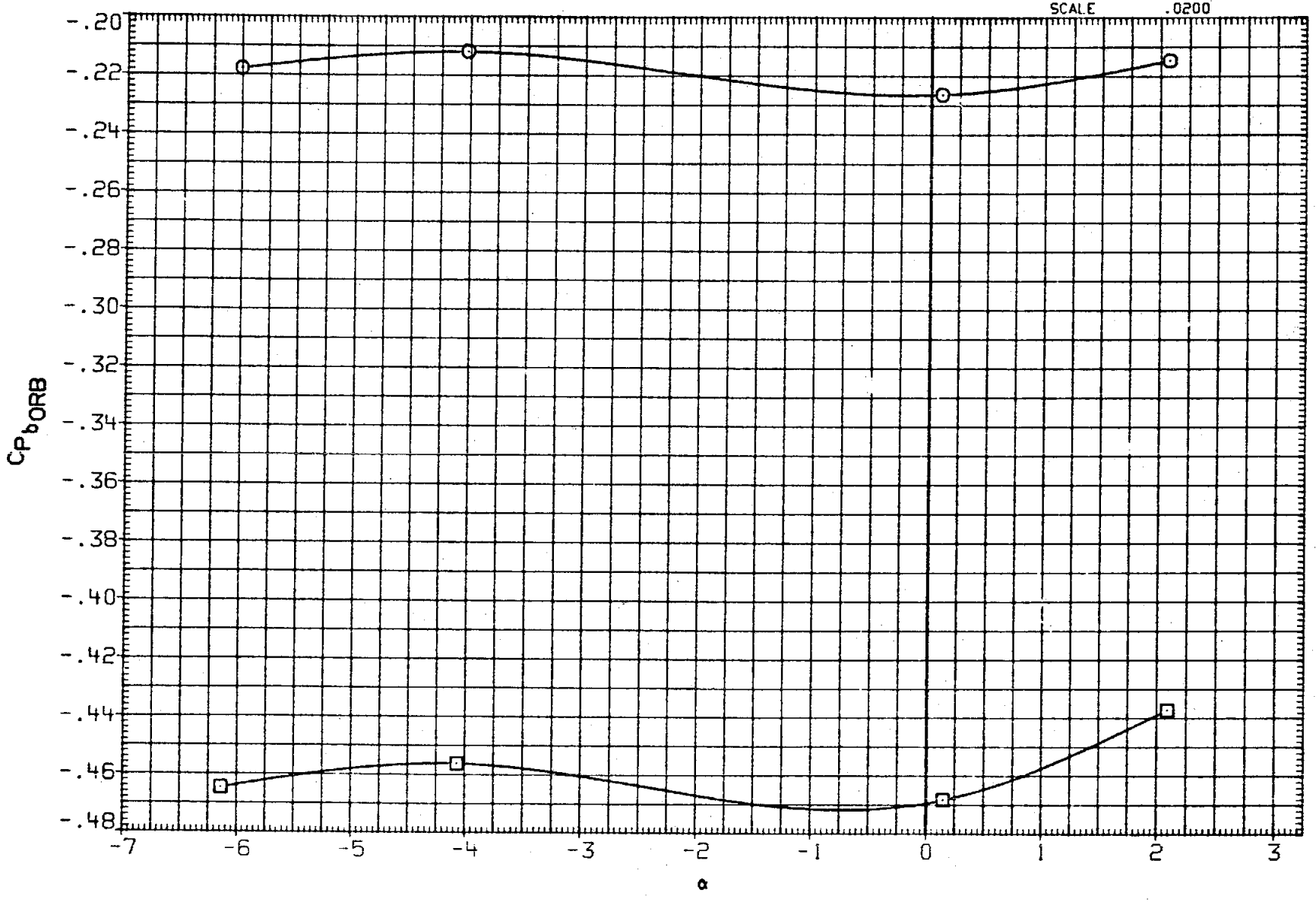

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

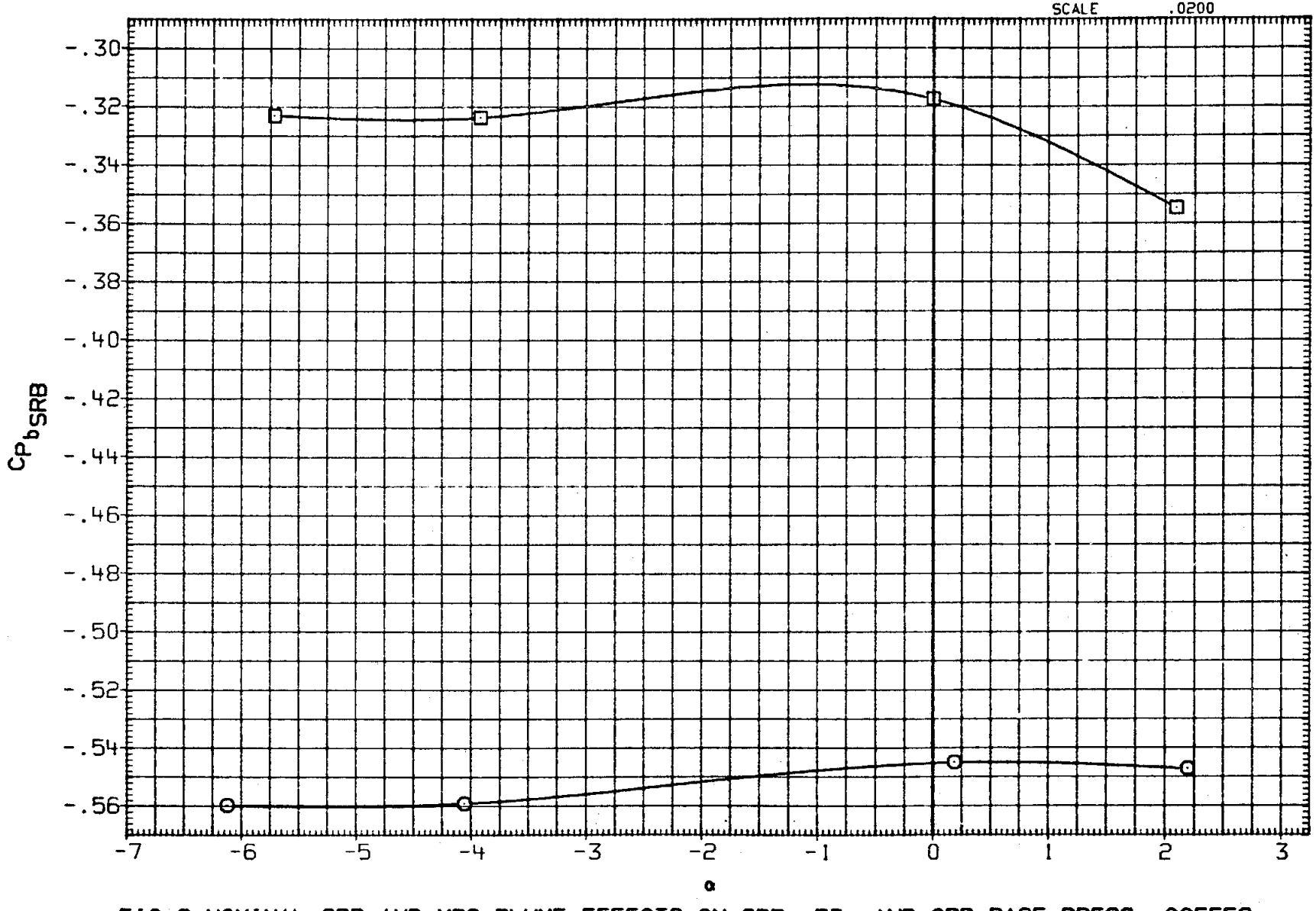

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

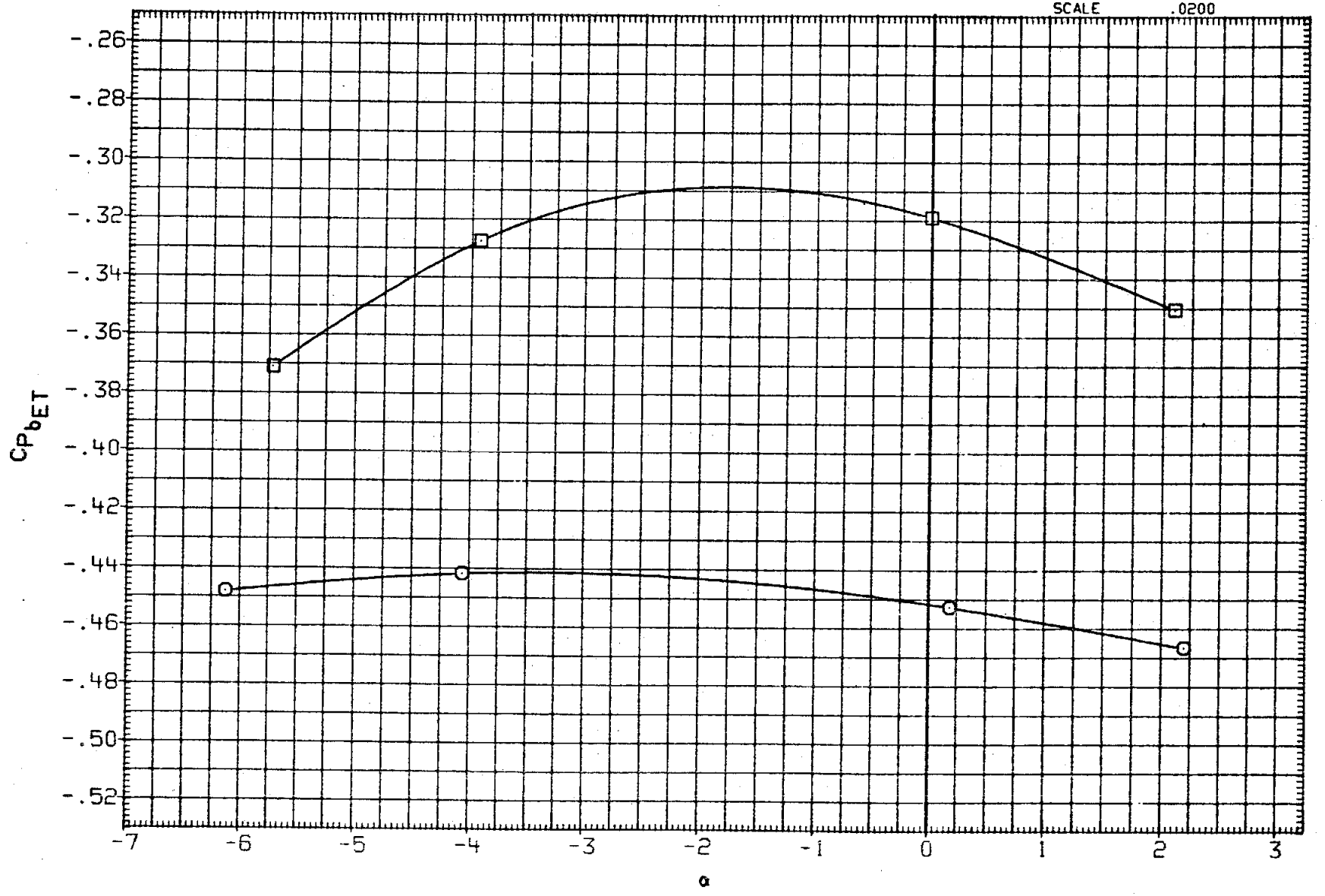

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

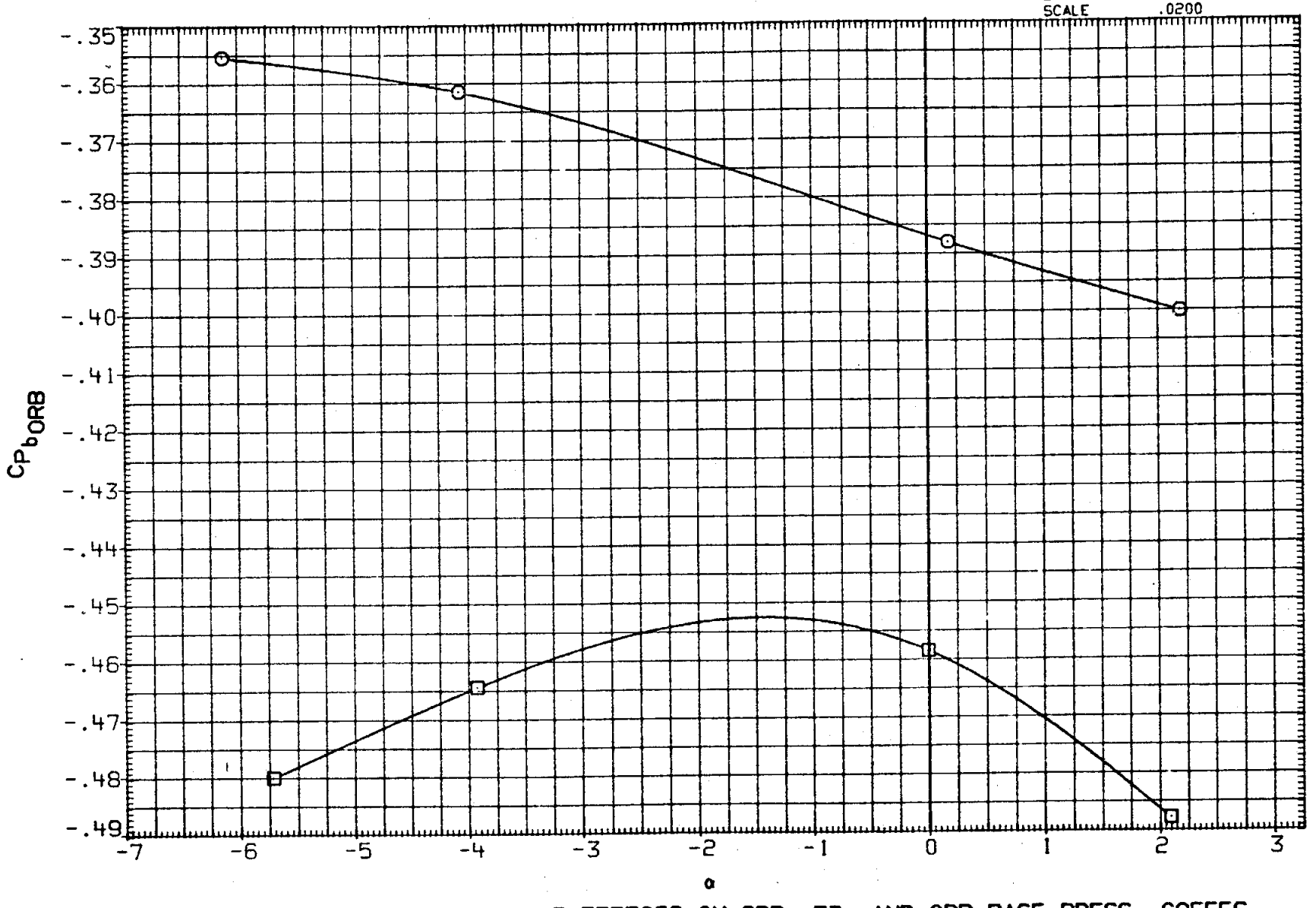

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

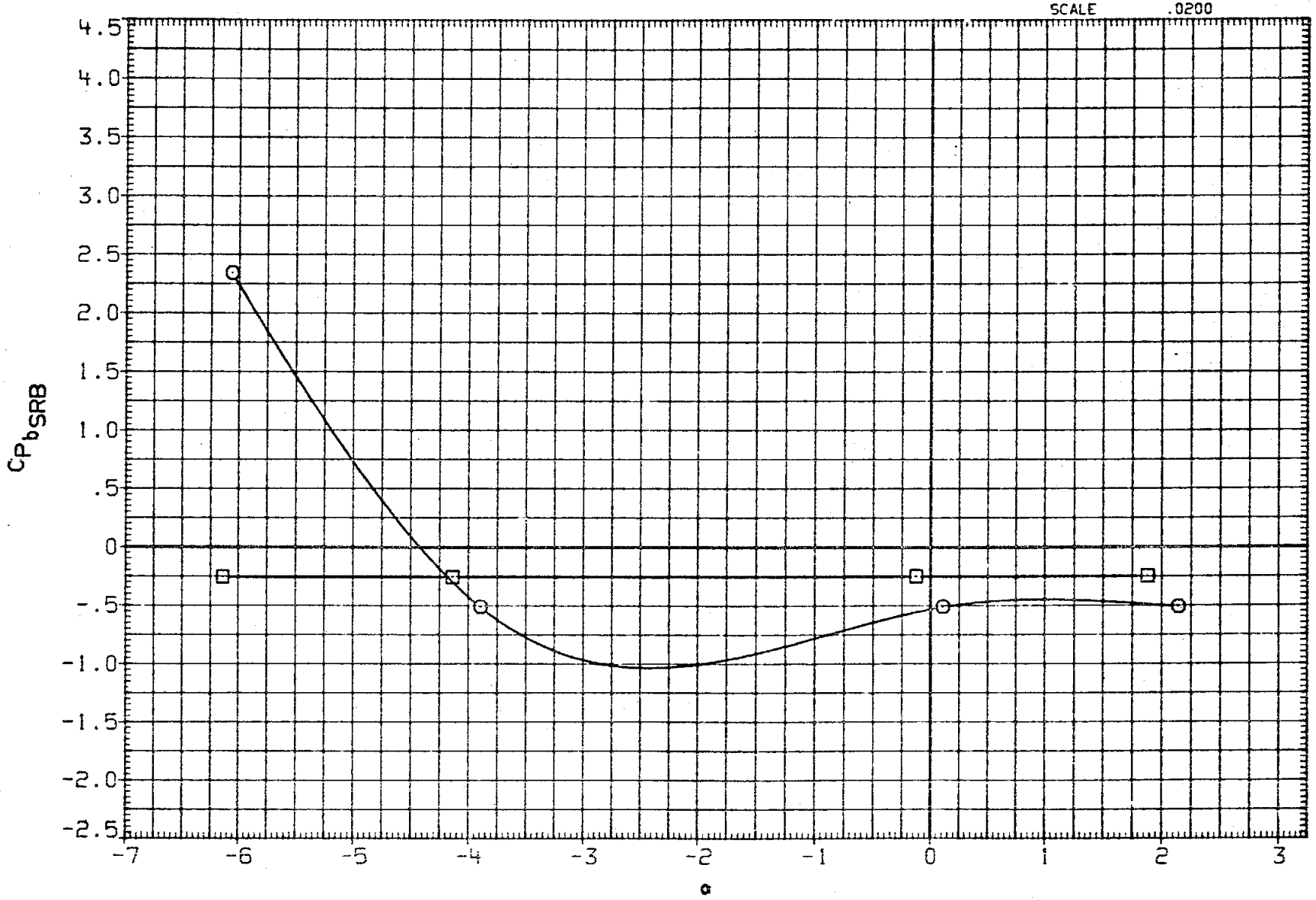

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

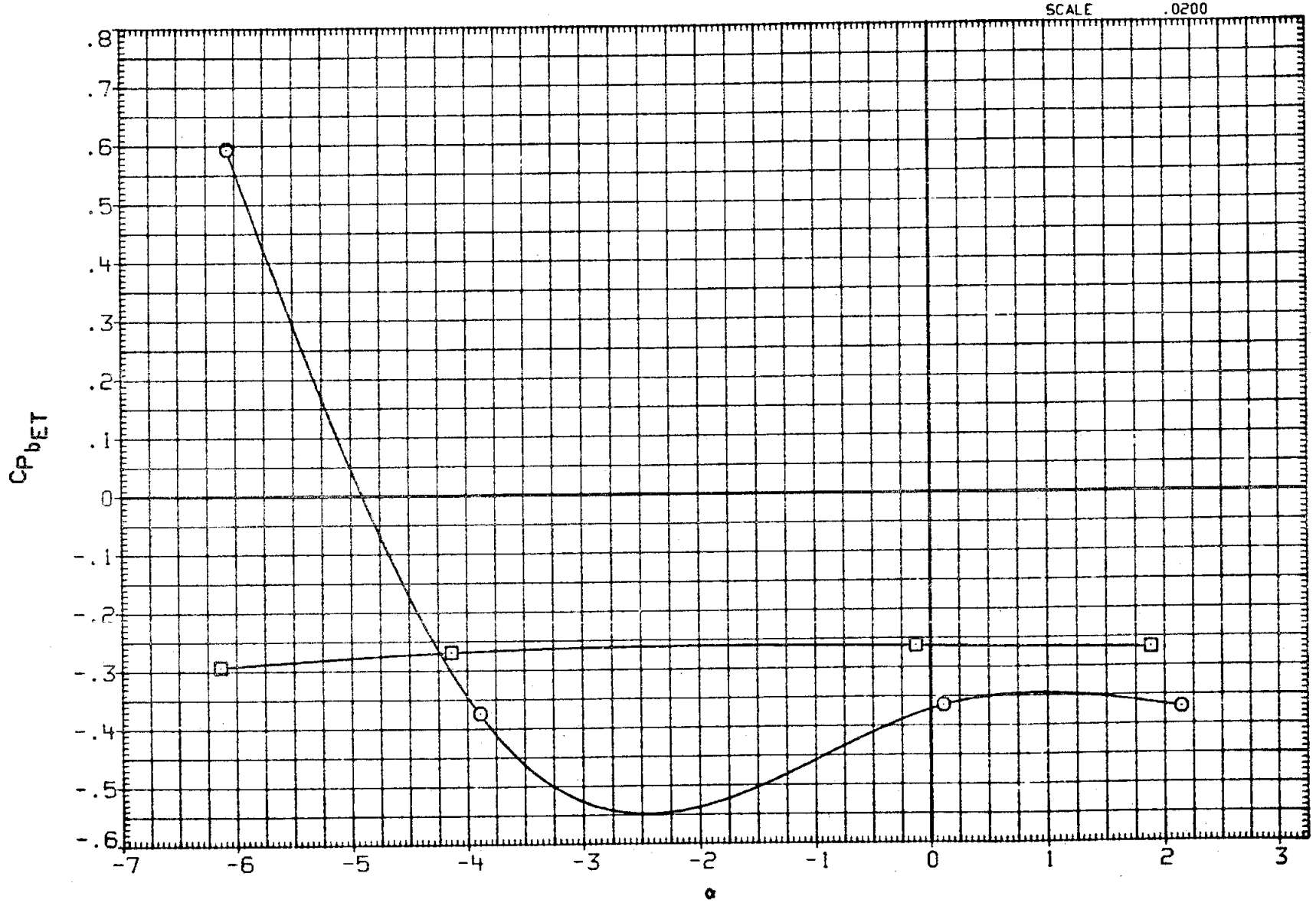

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

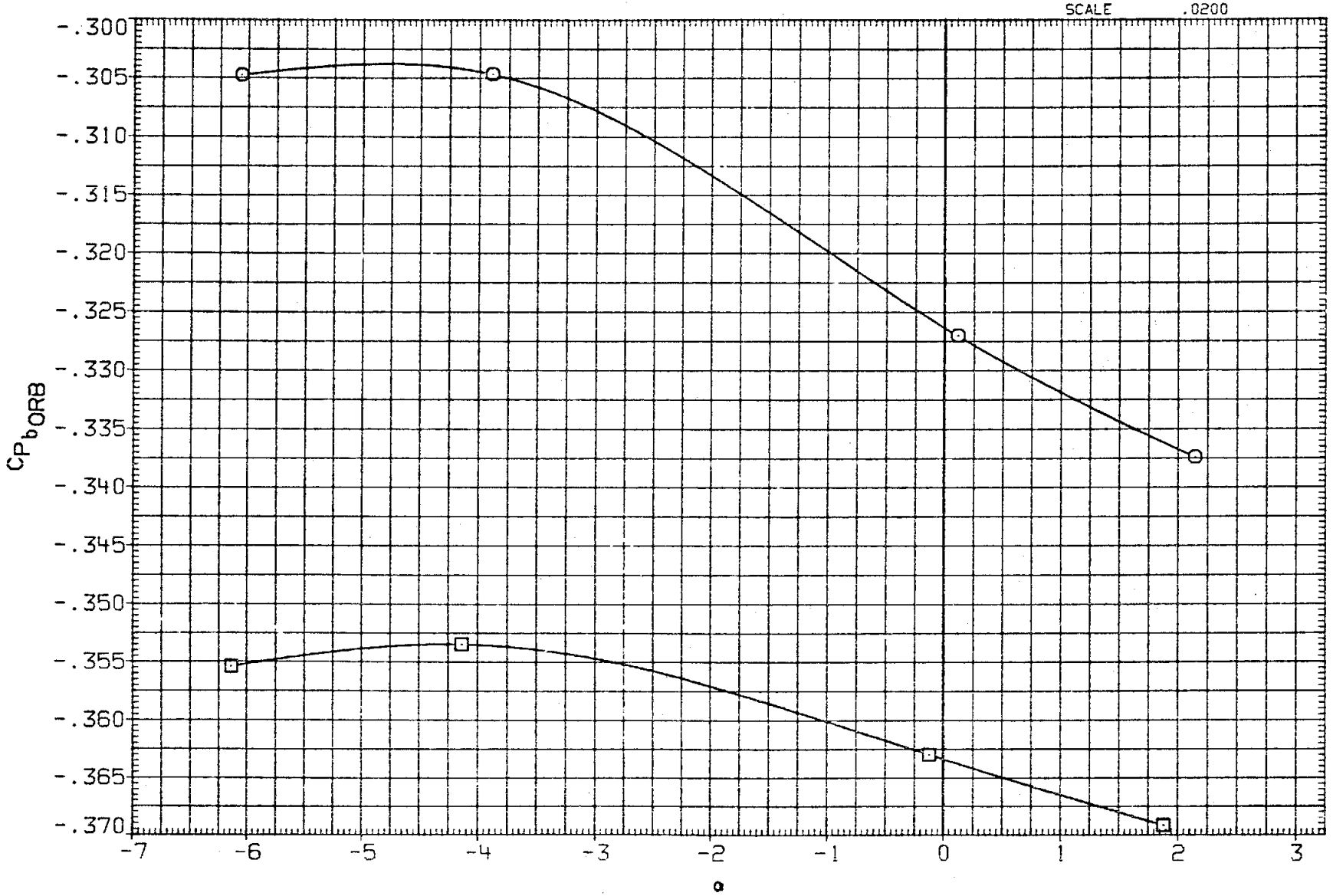

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

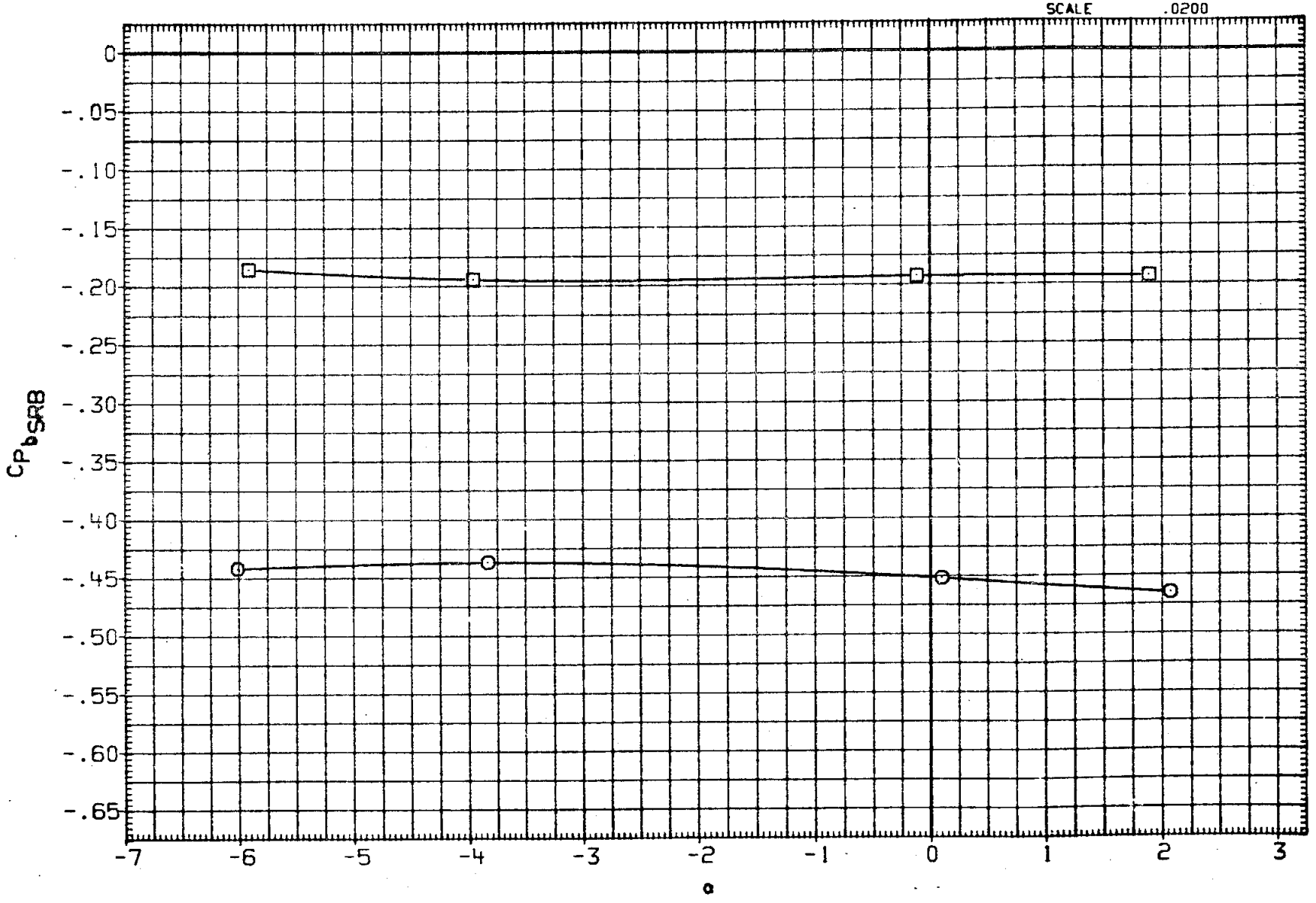

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

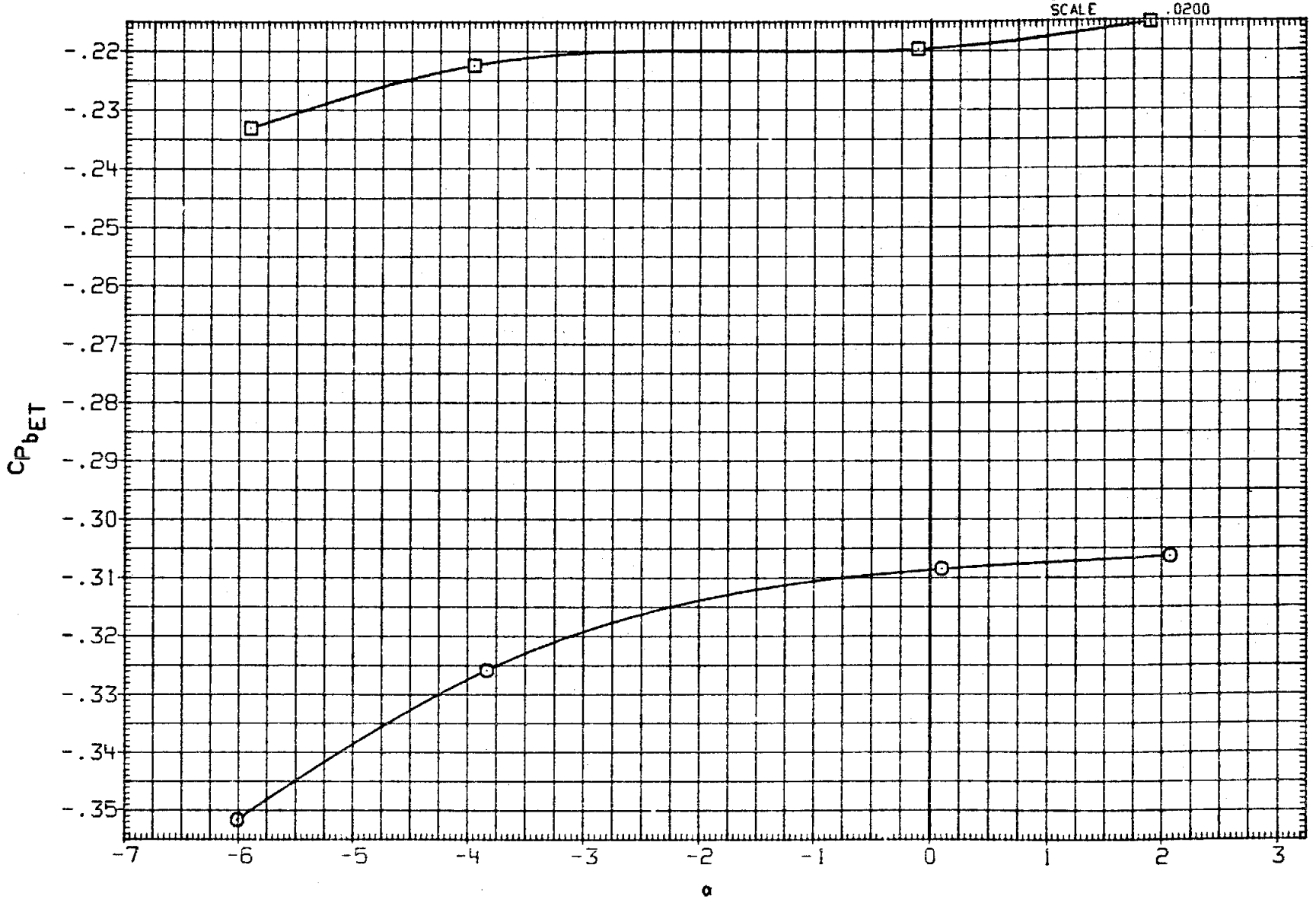

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ONEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ONEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

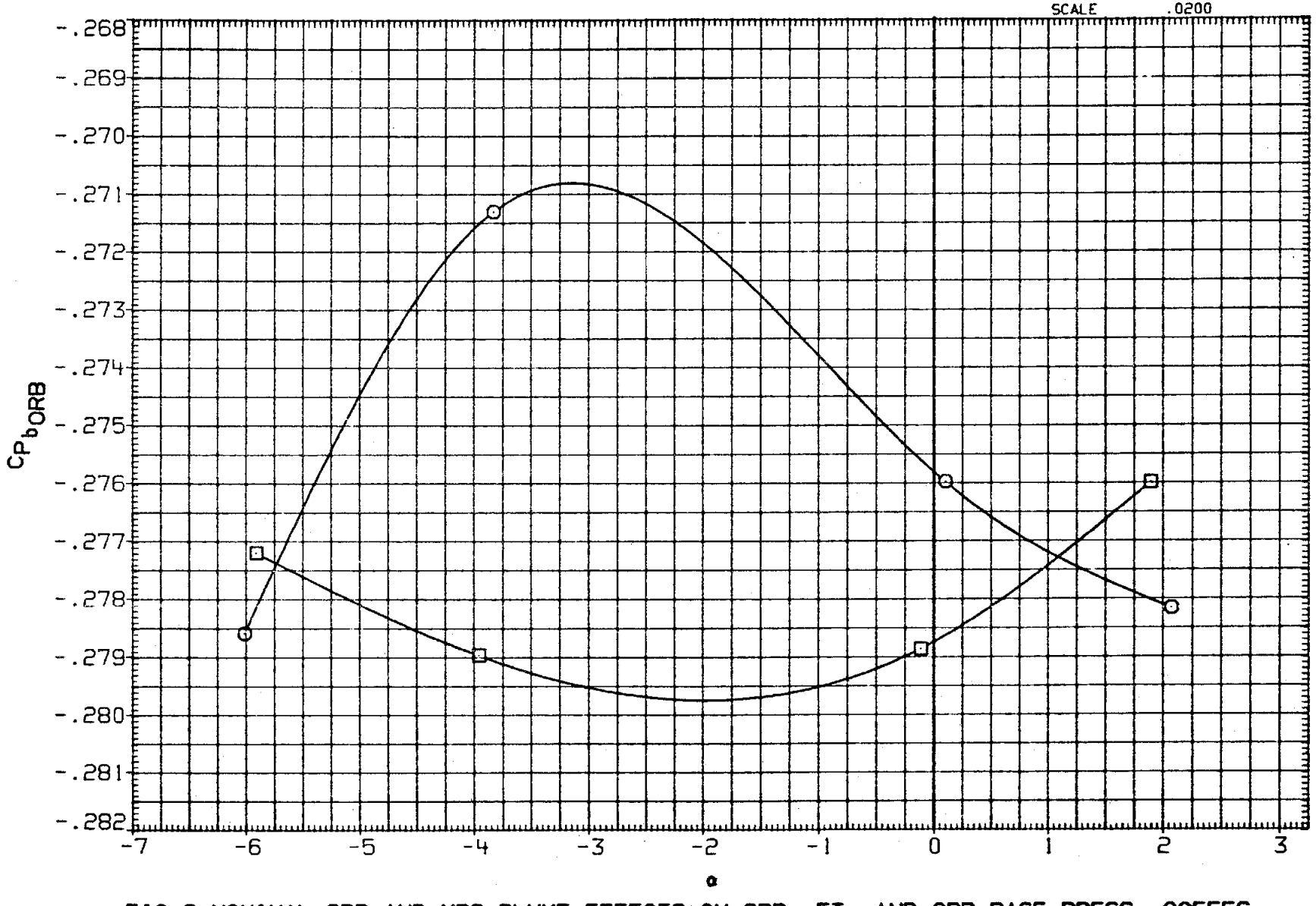

FIG.9 NOMINAL SRB AND MPS PLUME EFFECTS ON SRB, ET, AND ORB BASE PRESS. COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

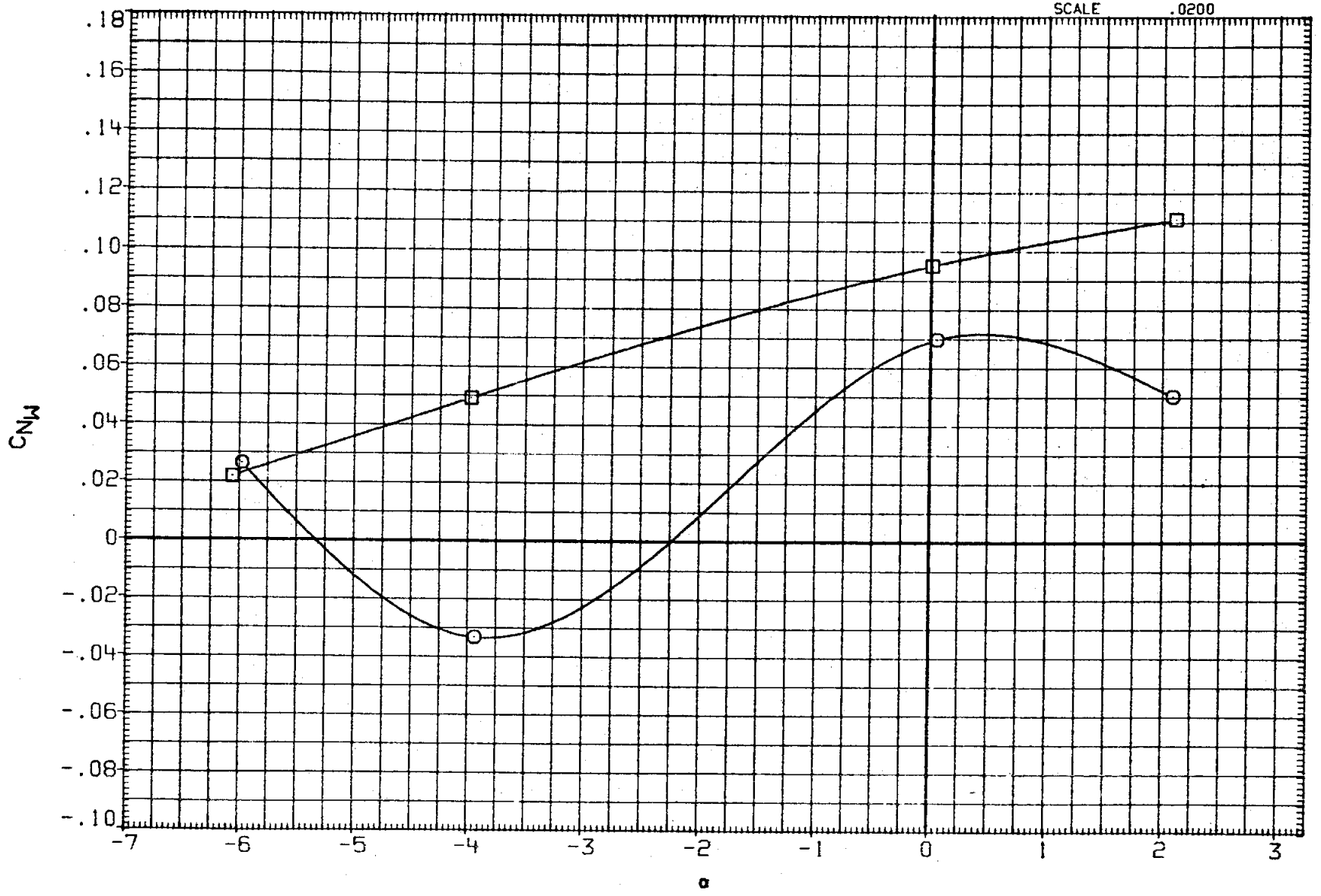

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

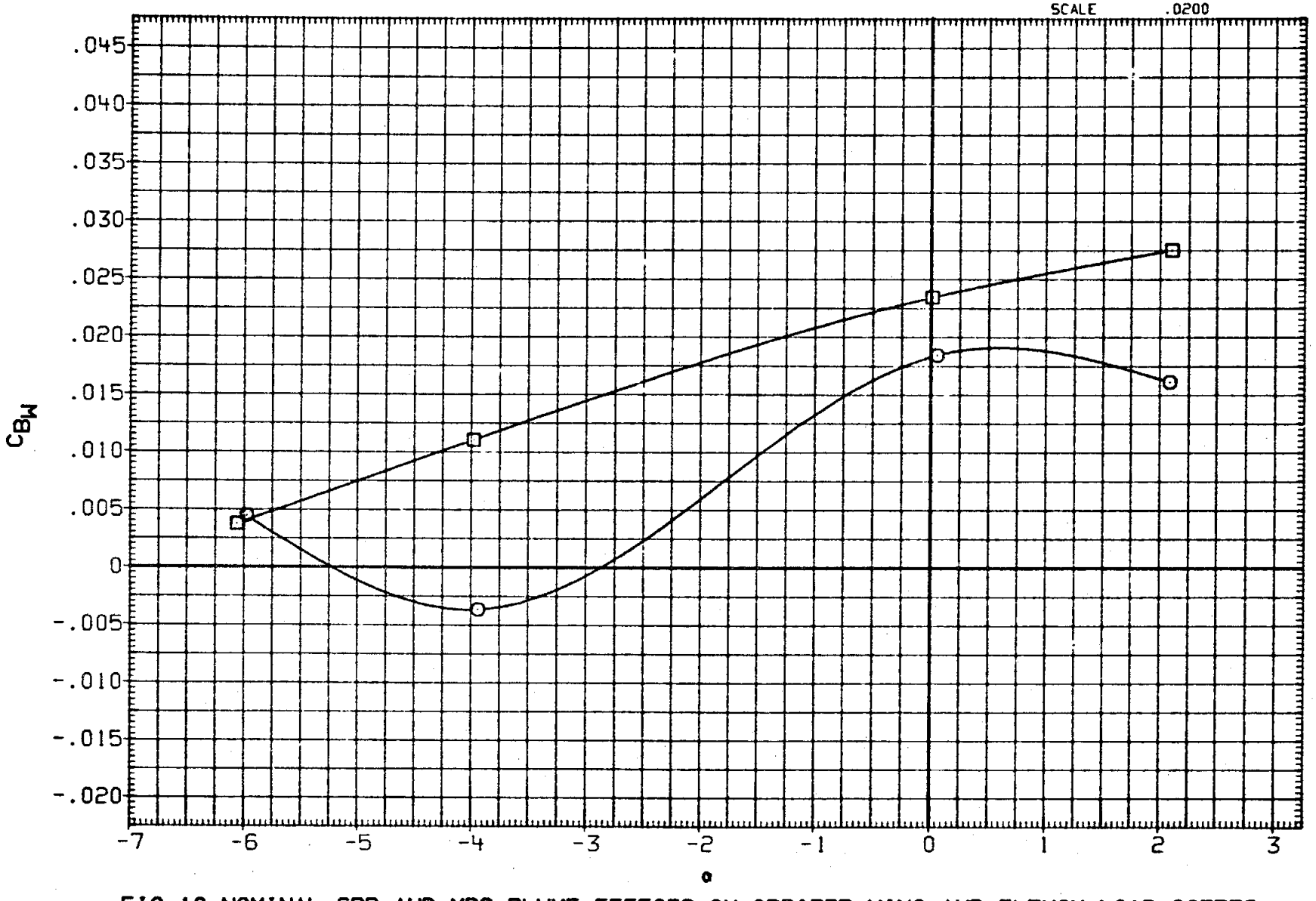

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

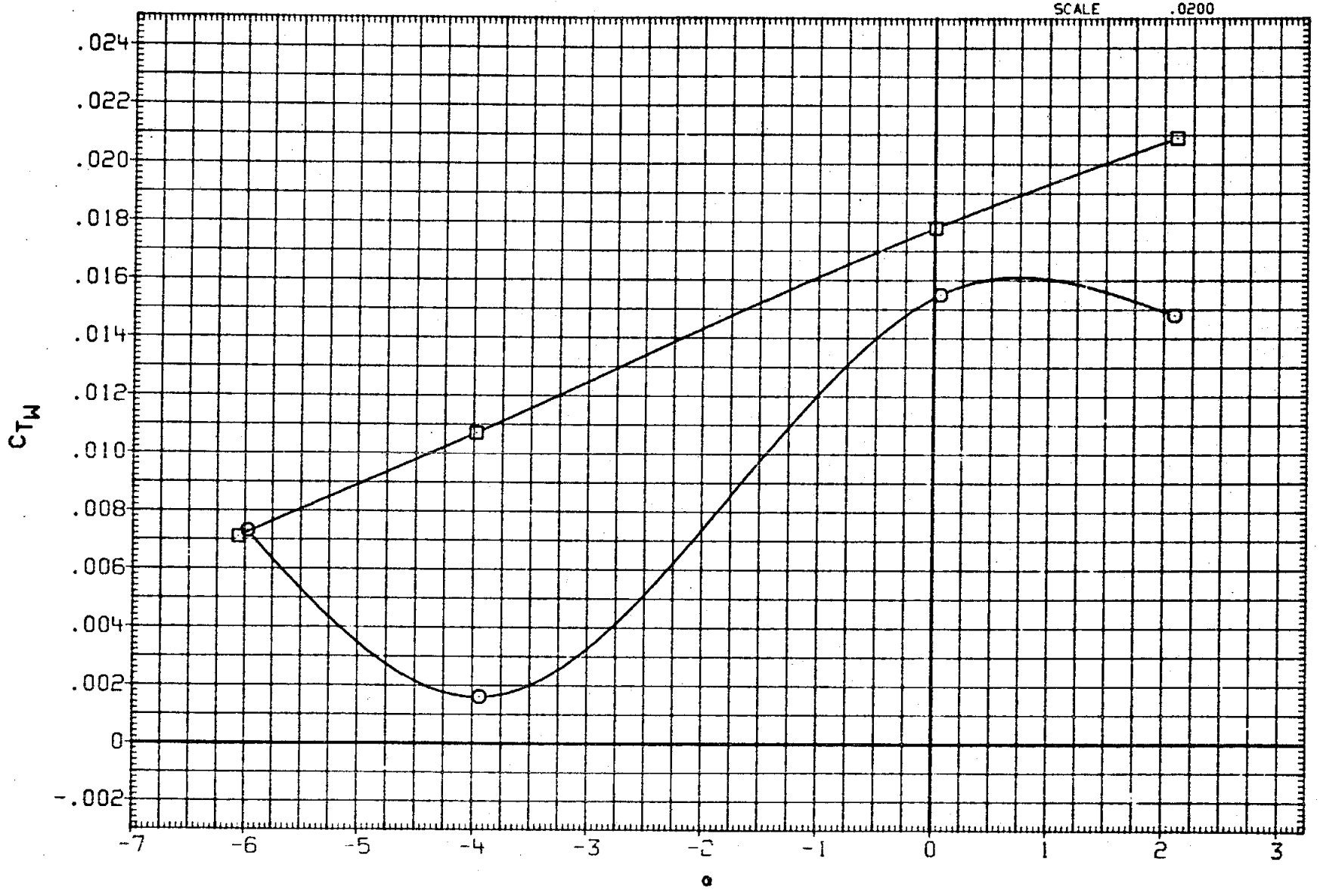

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

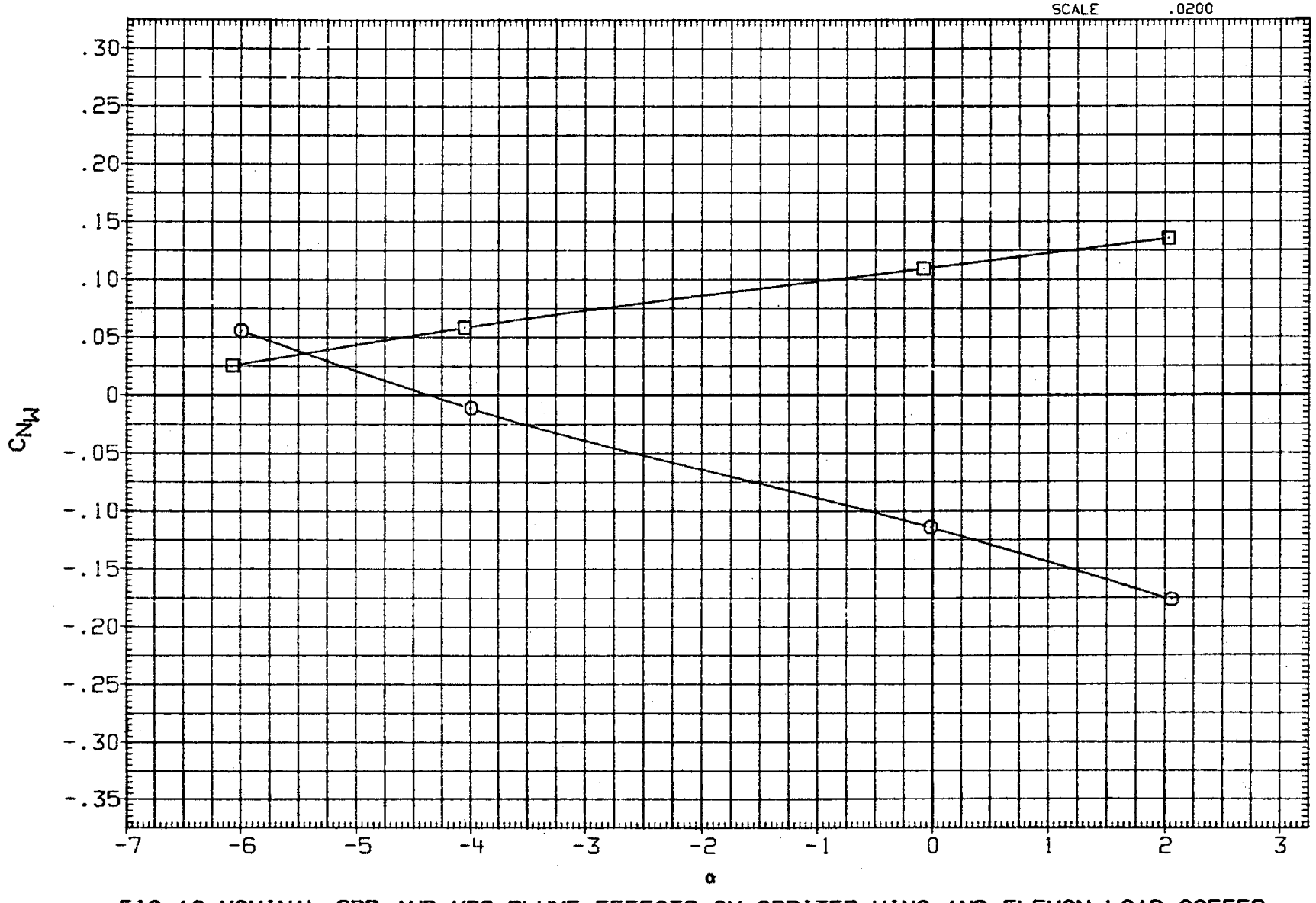

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

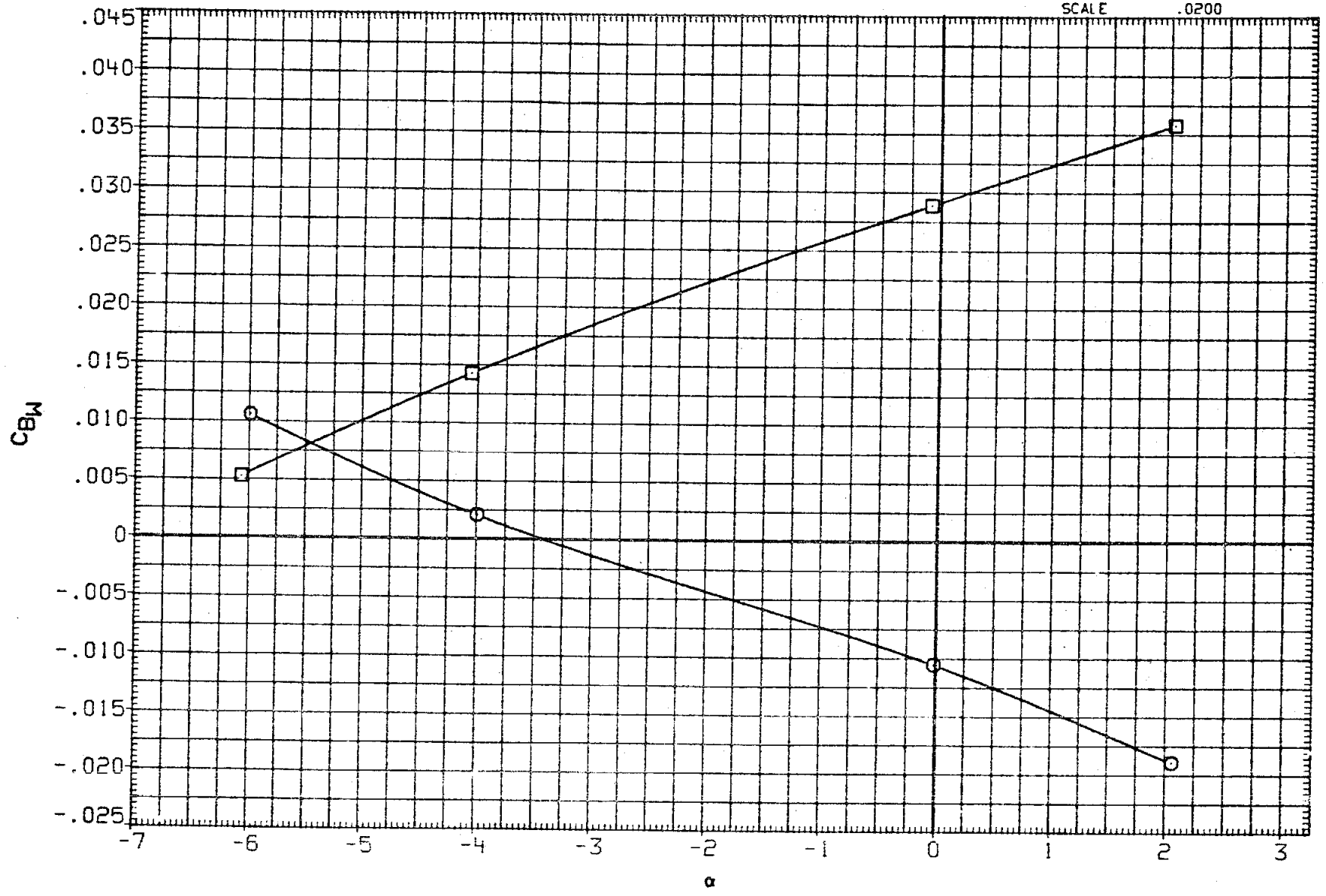

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

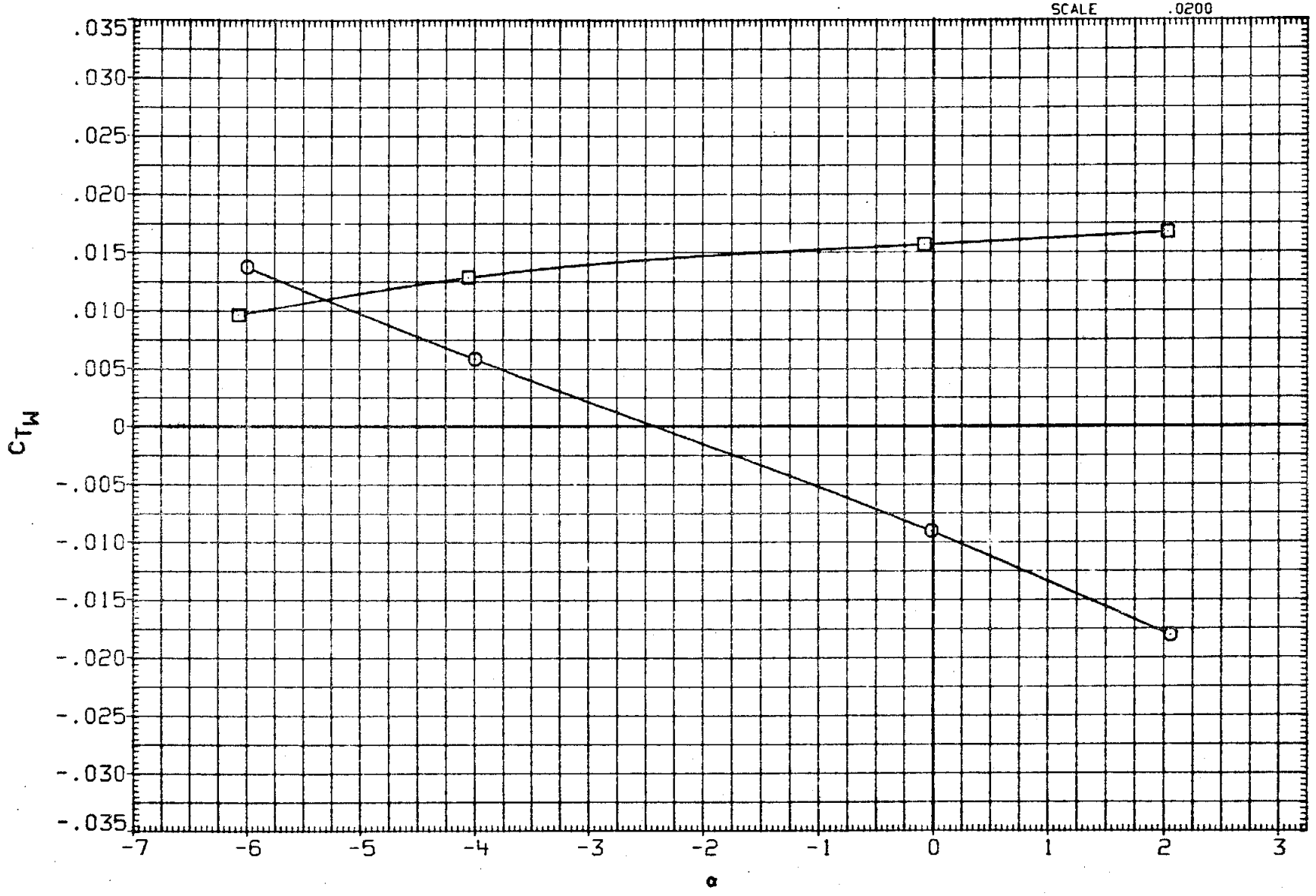

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

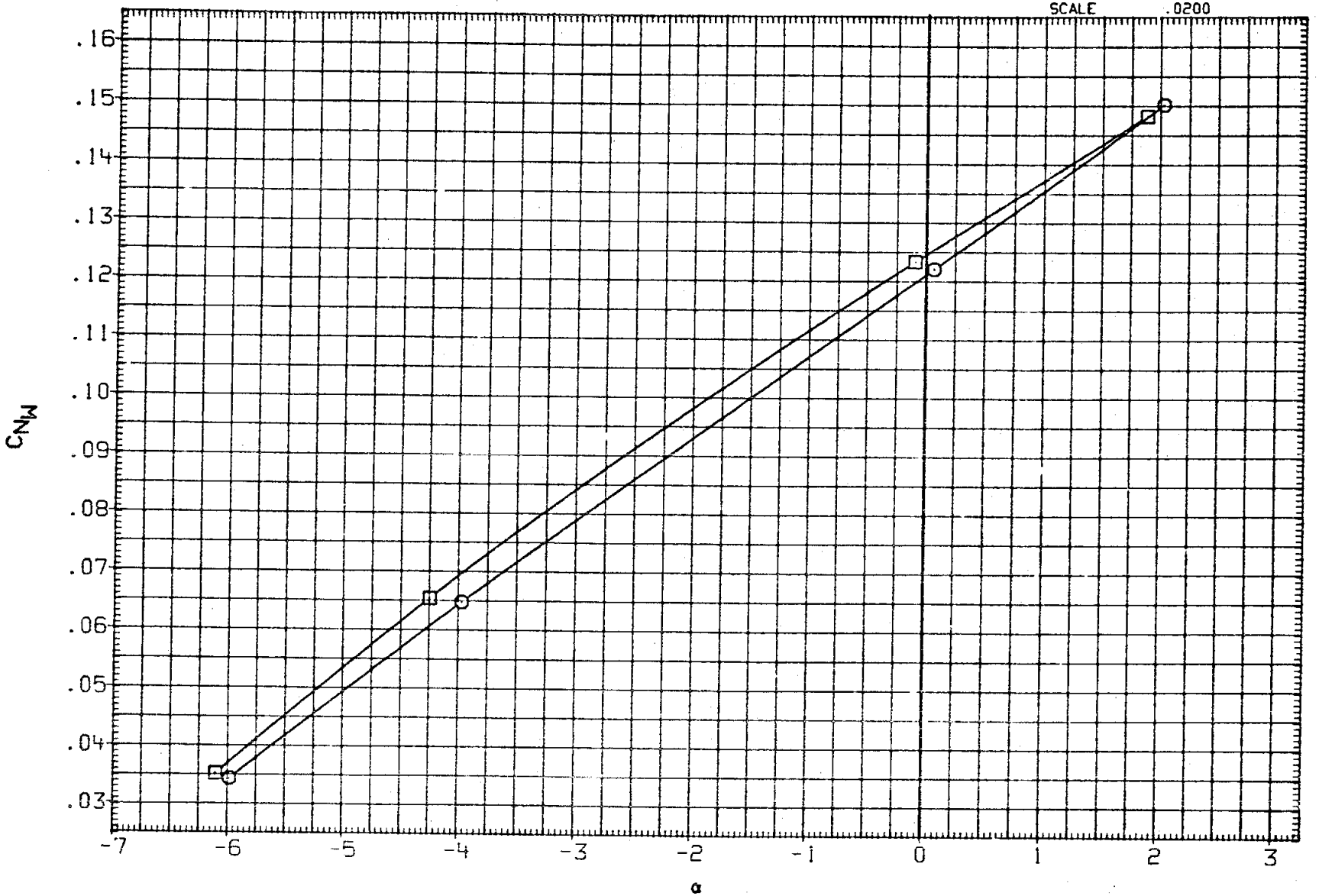

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

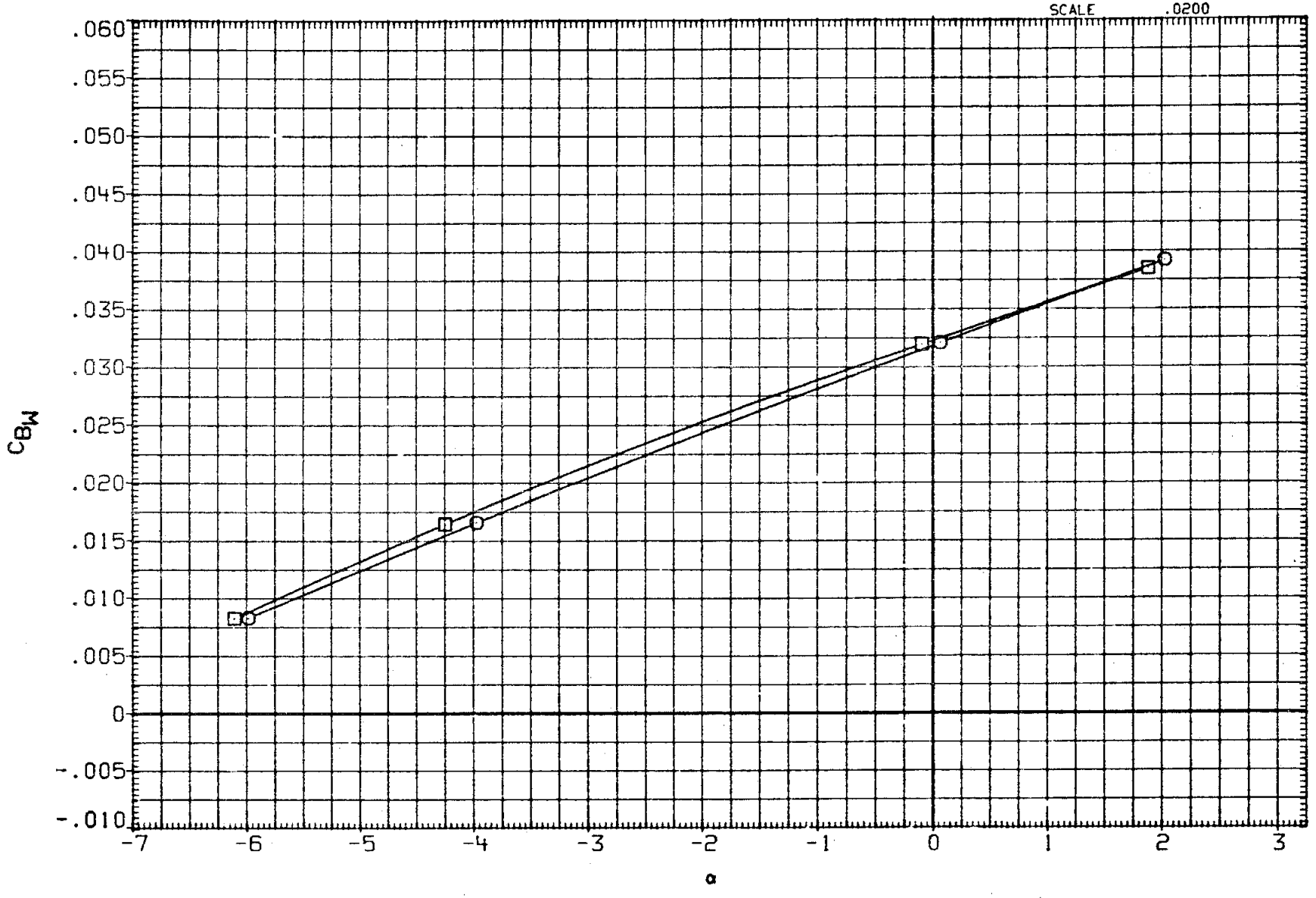

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

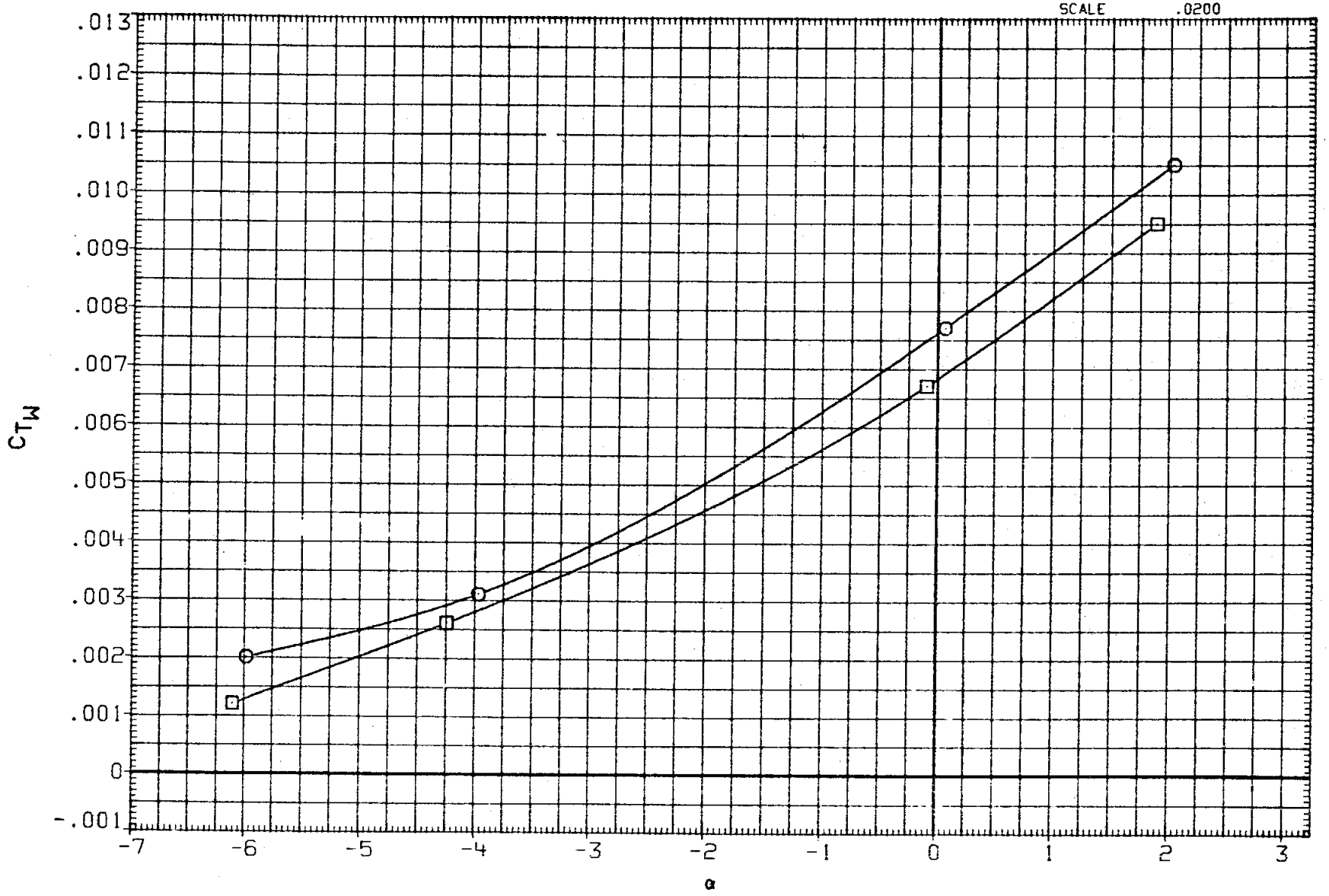

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

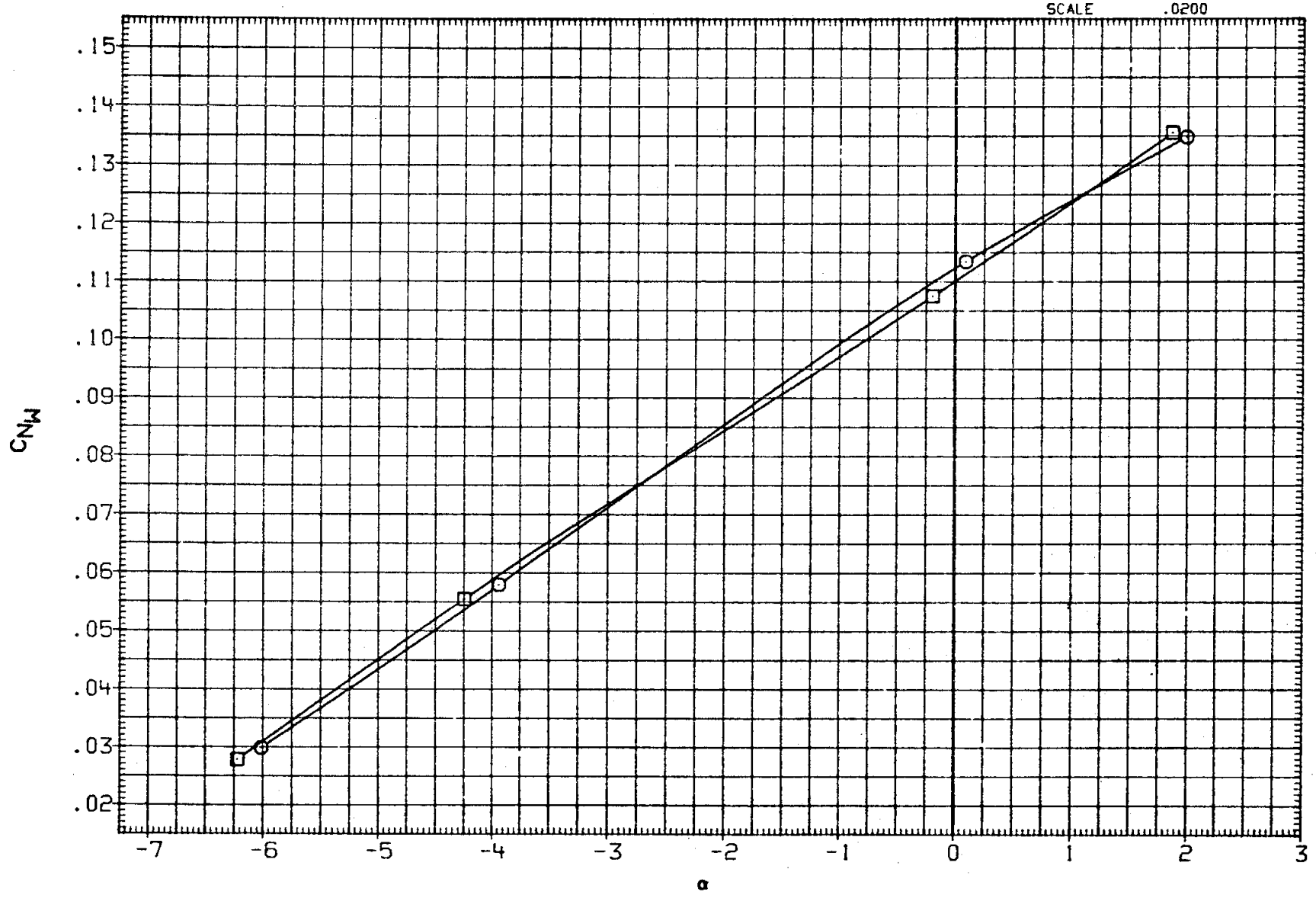

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
CREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

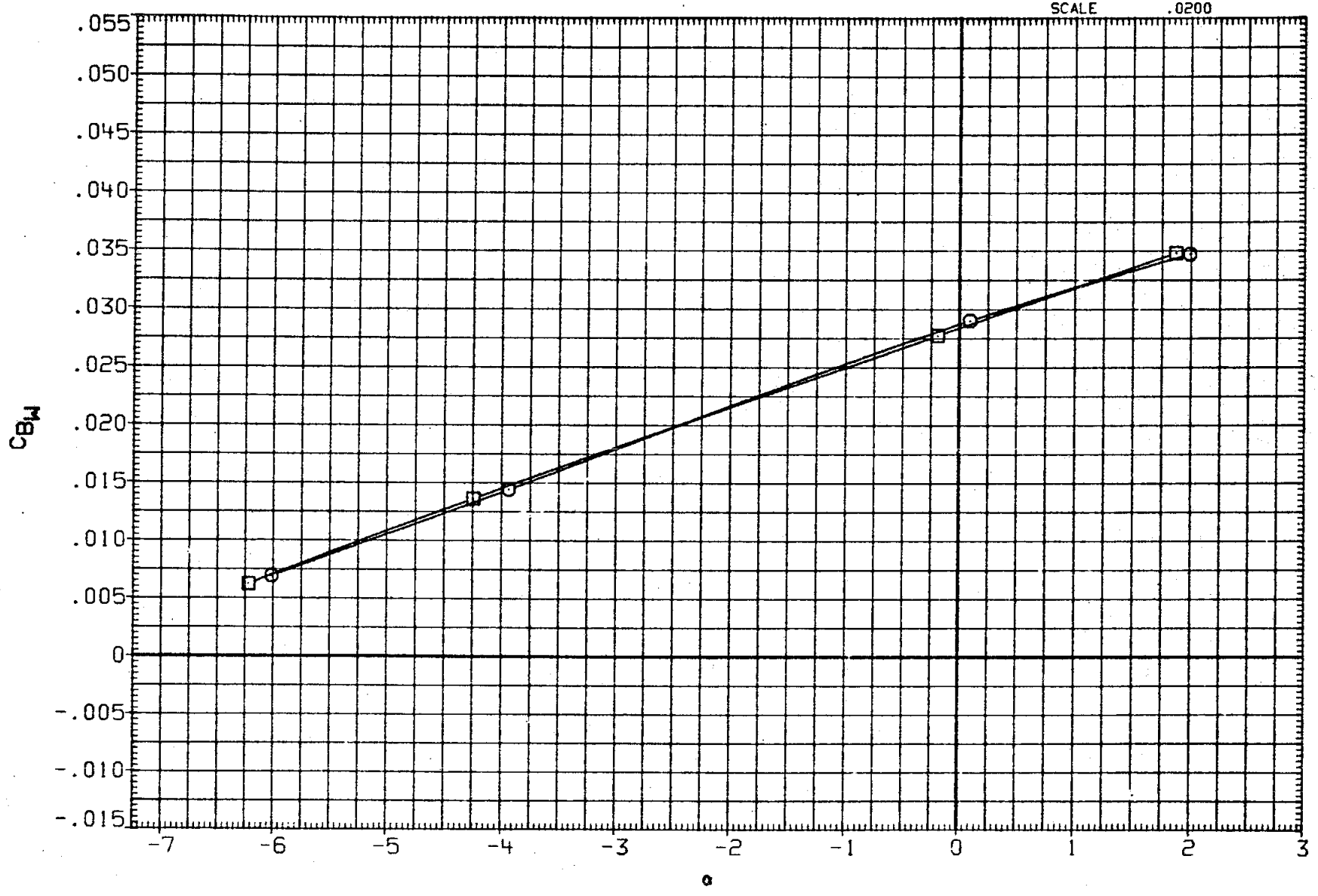

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
ANEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREI	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

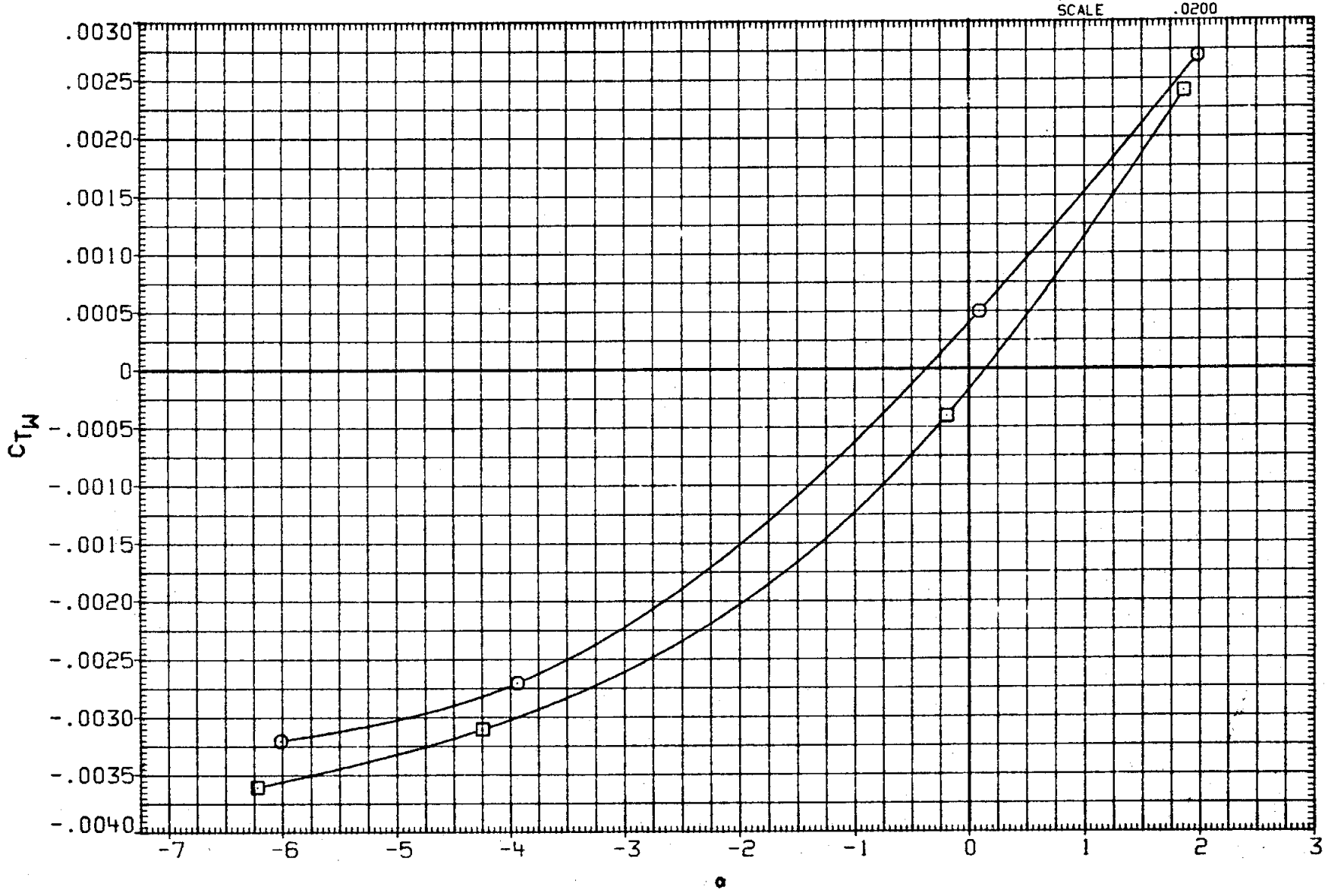

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

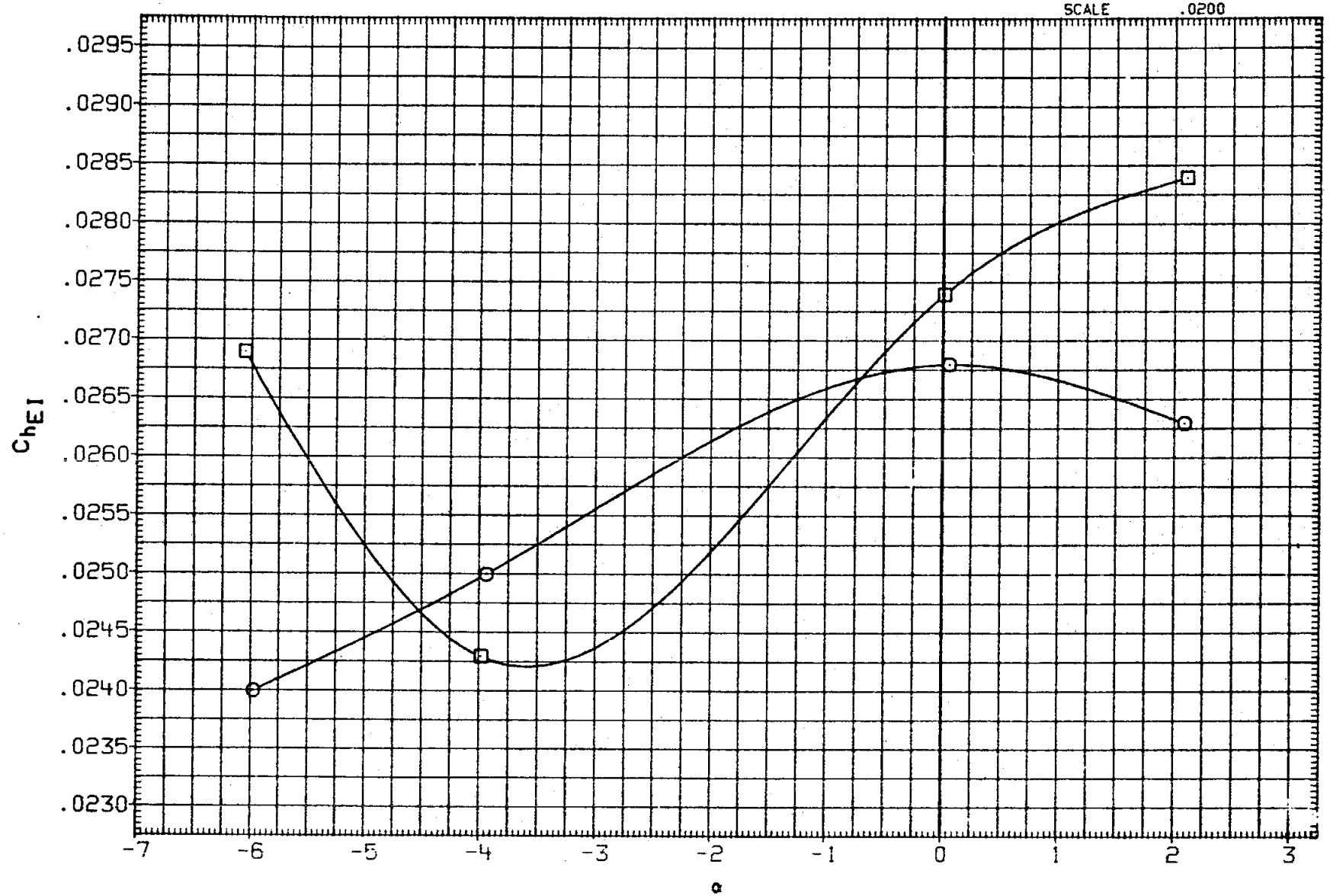

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

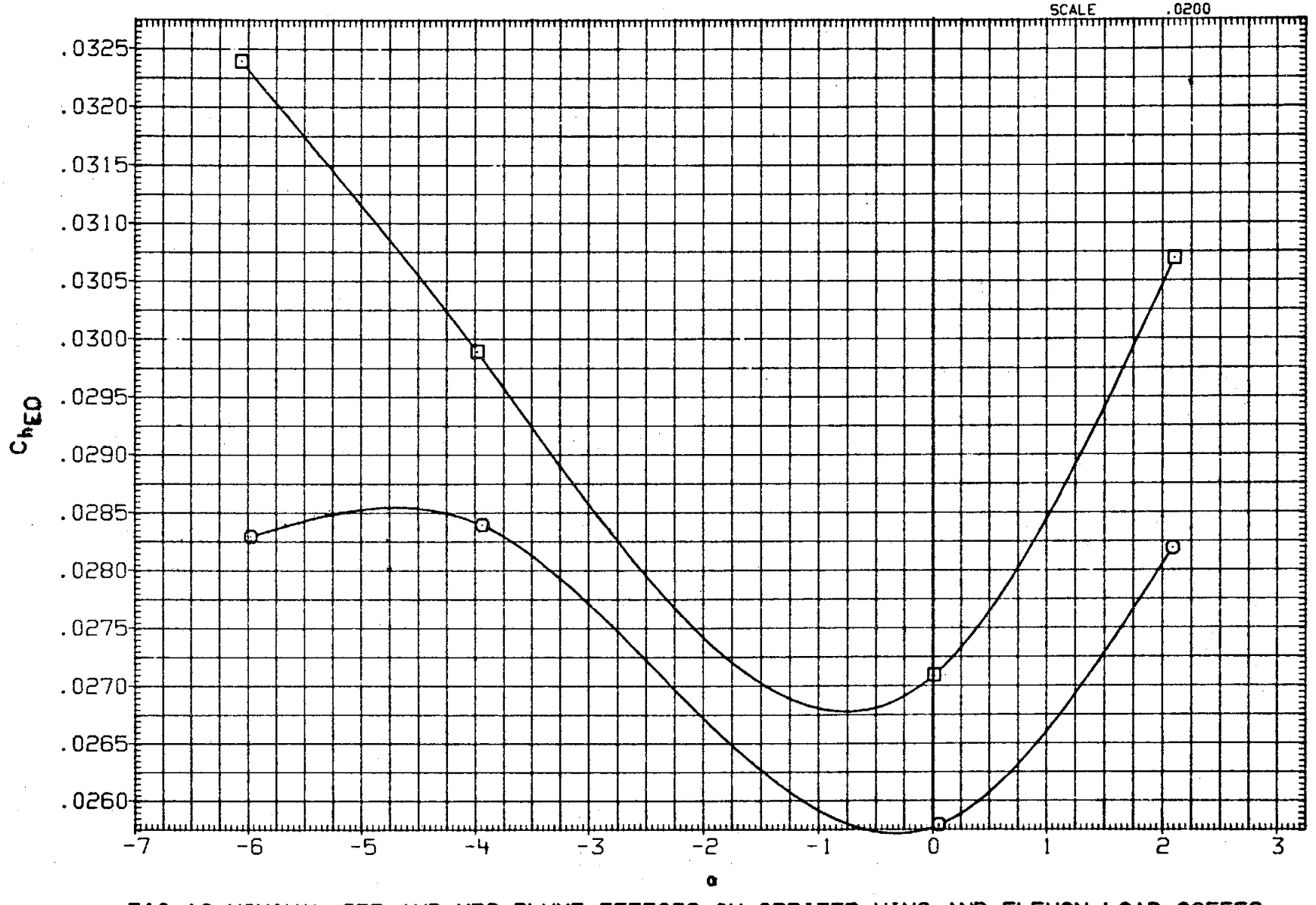

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

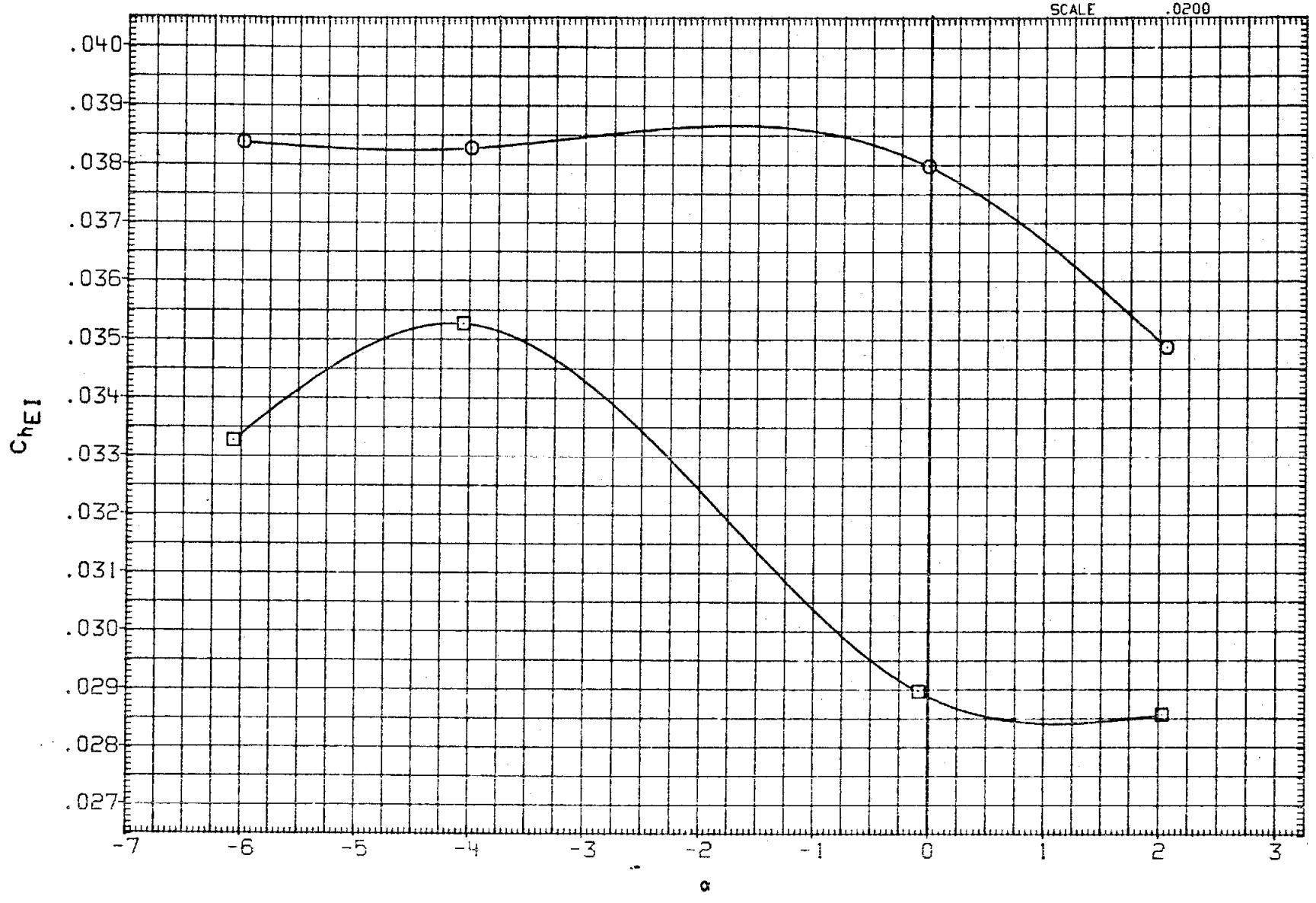

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

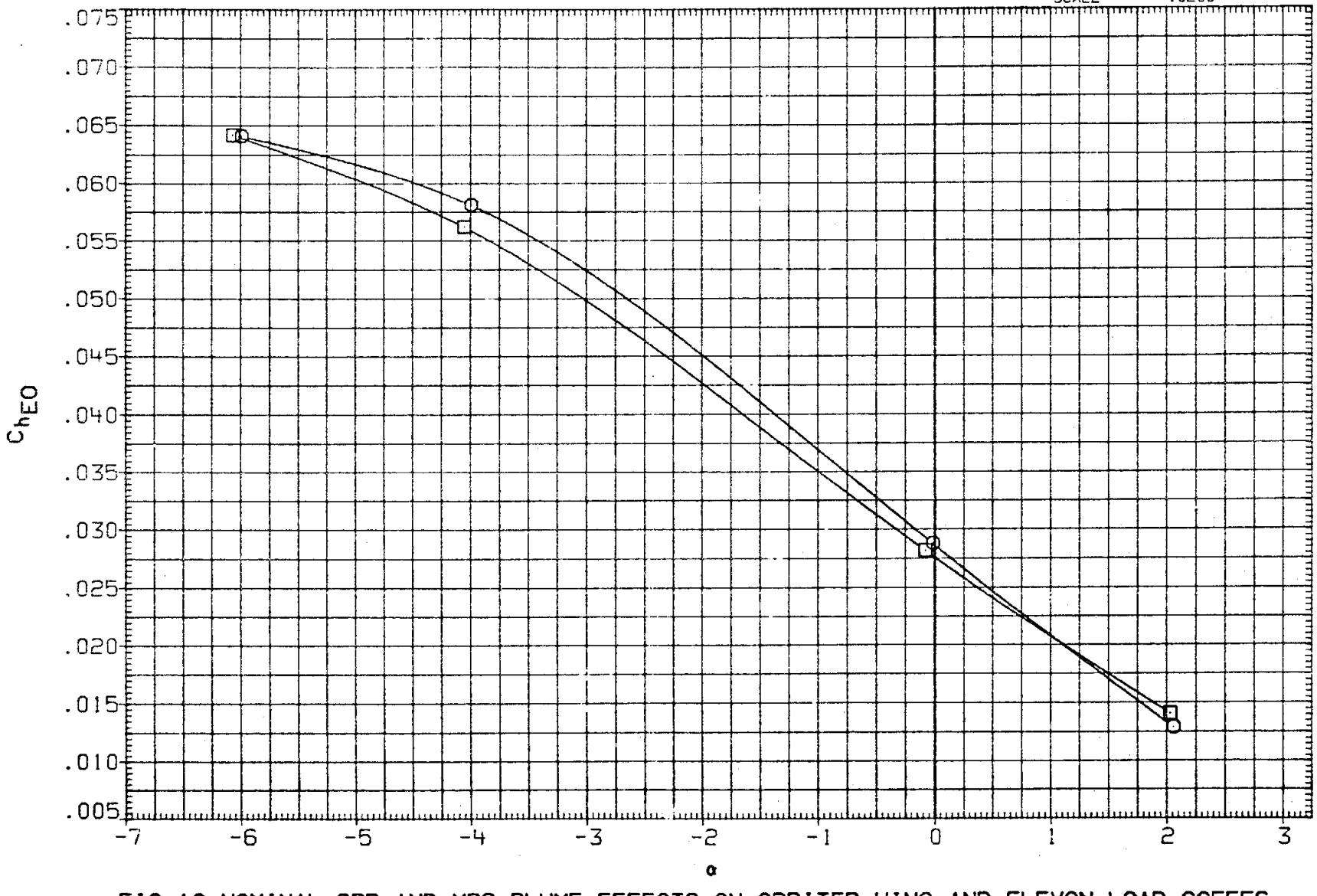

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

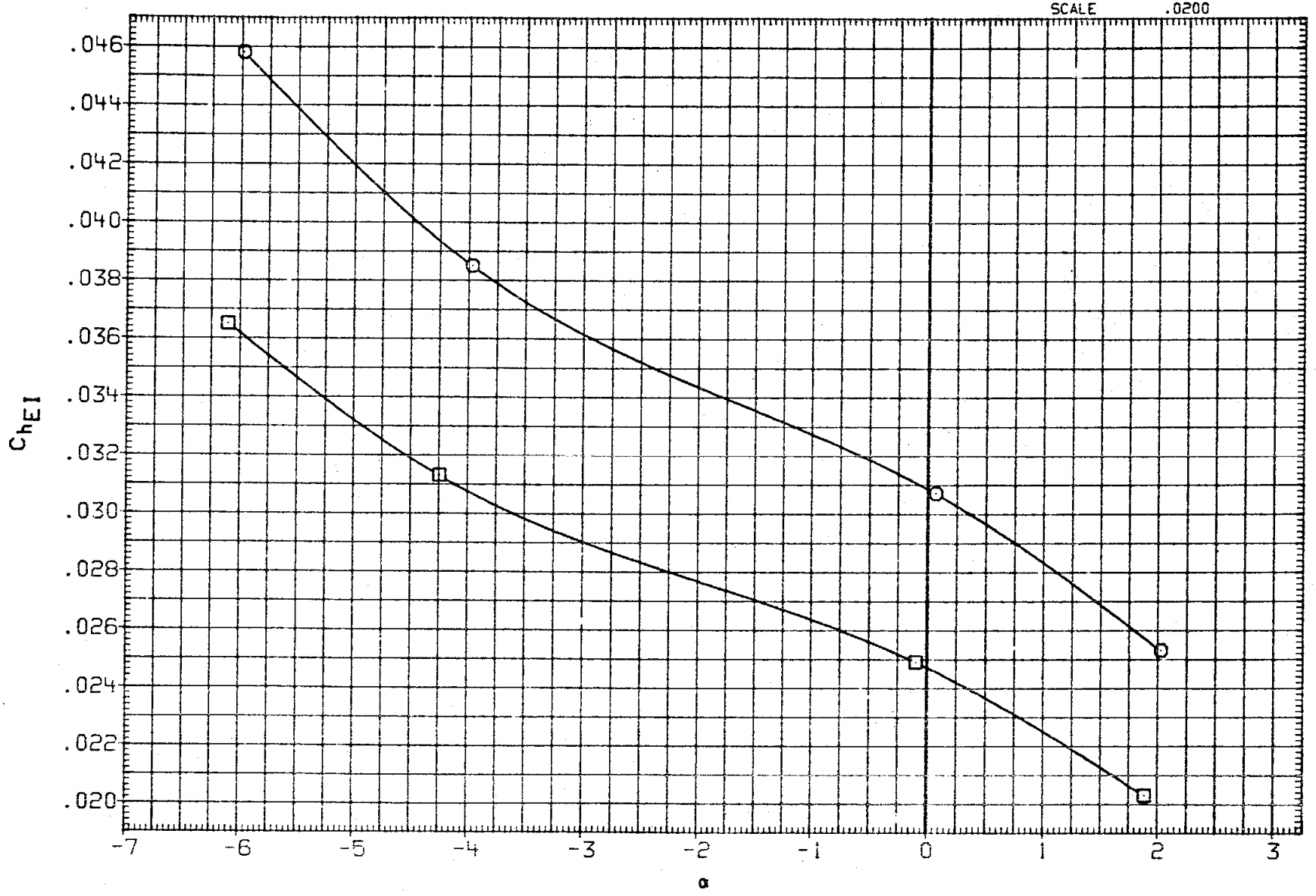

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

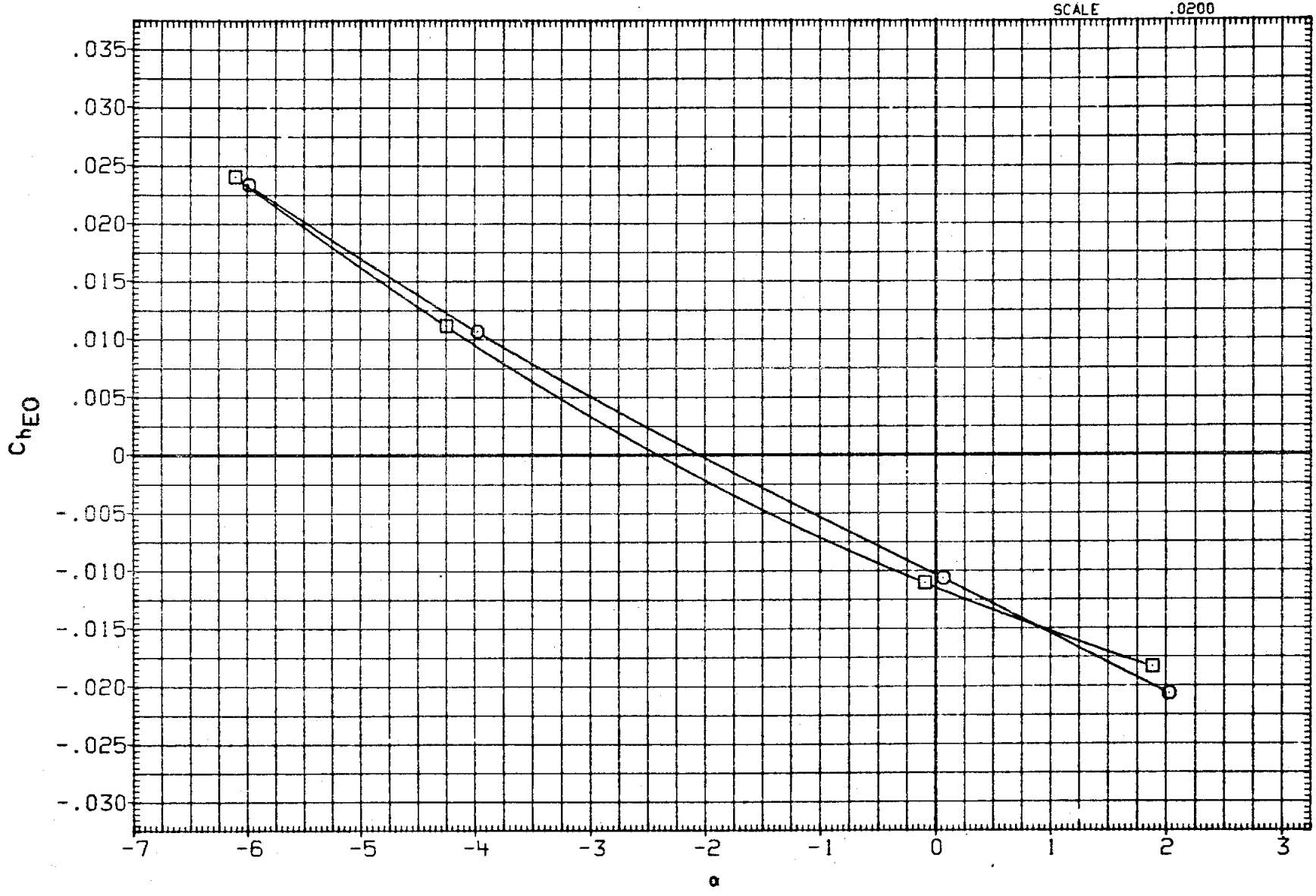

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

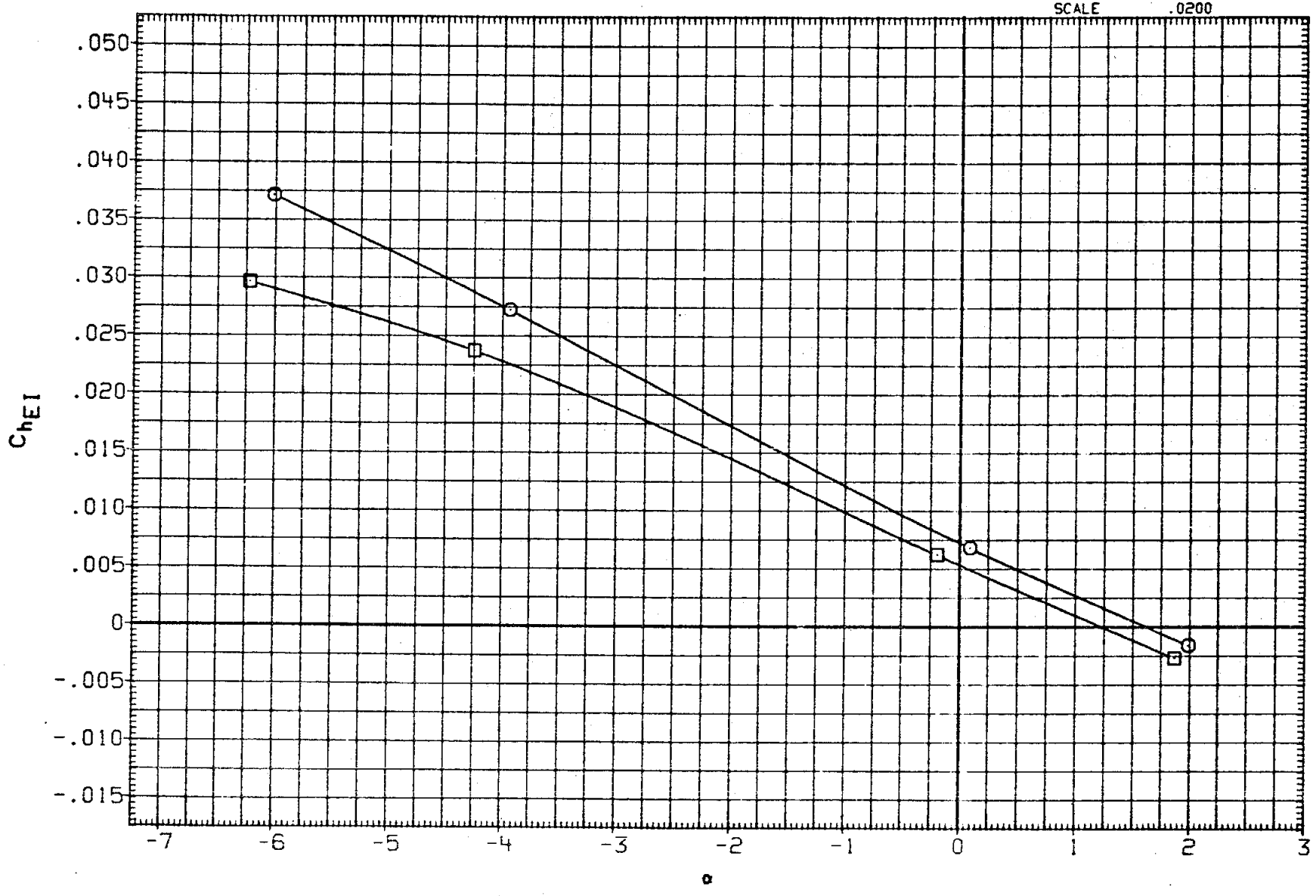

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
JNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

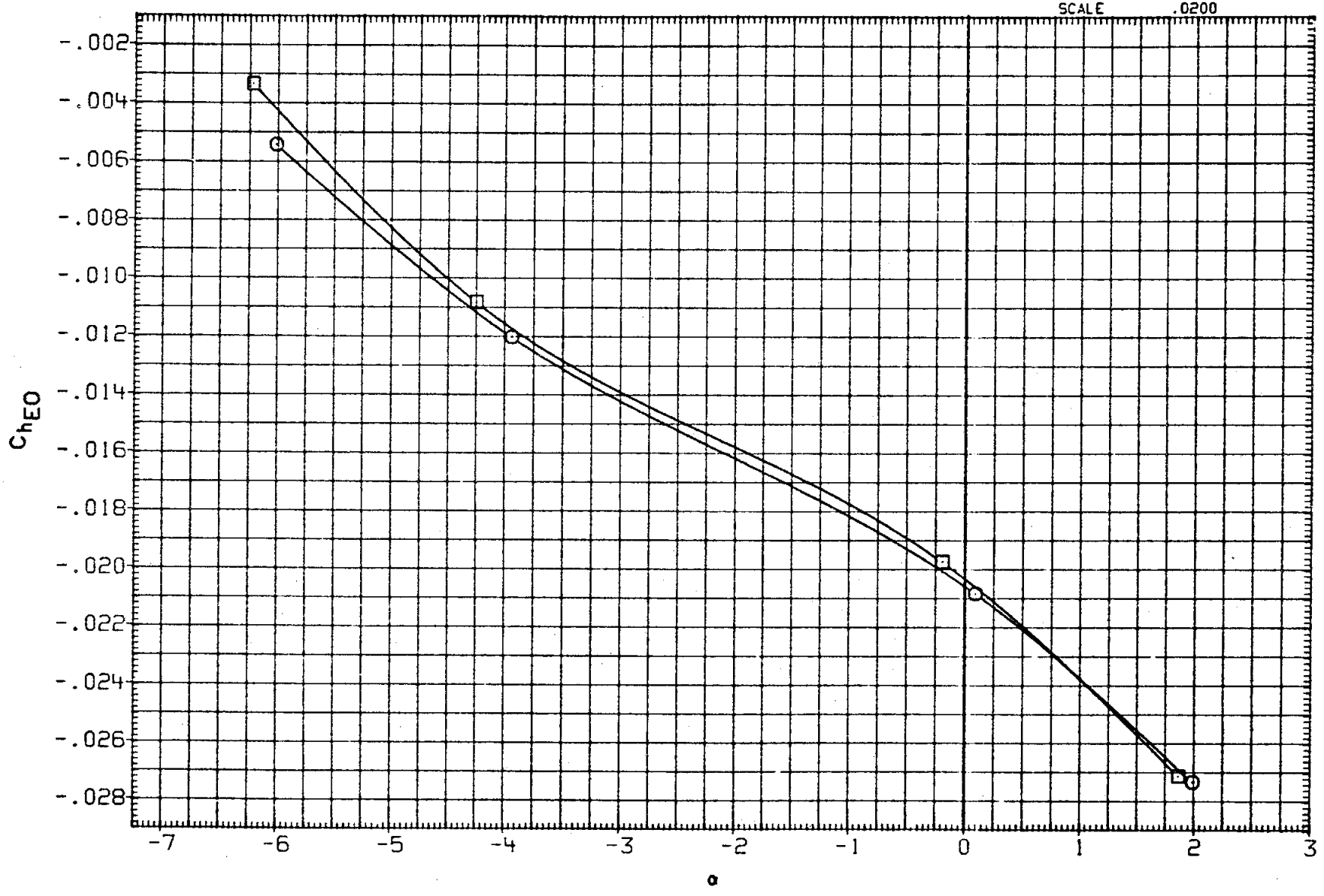

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

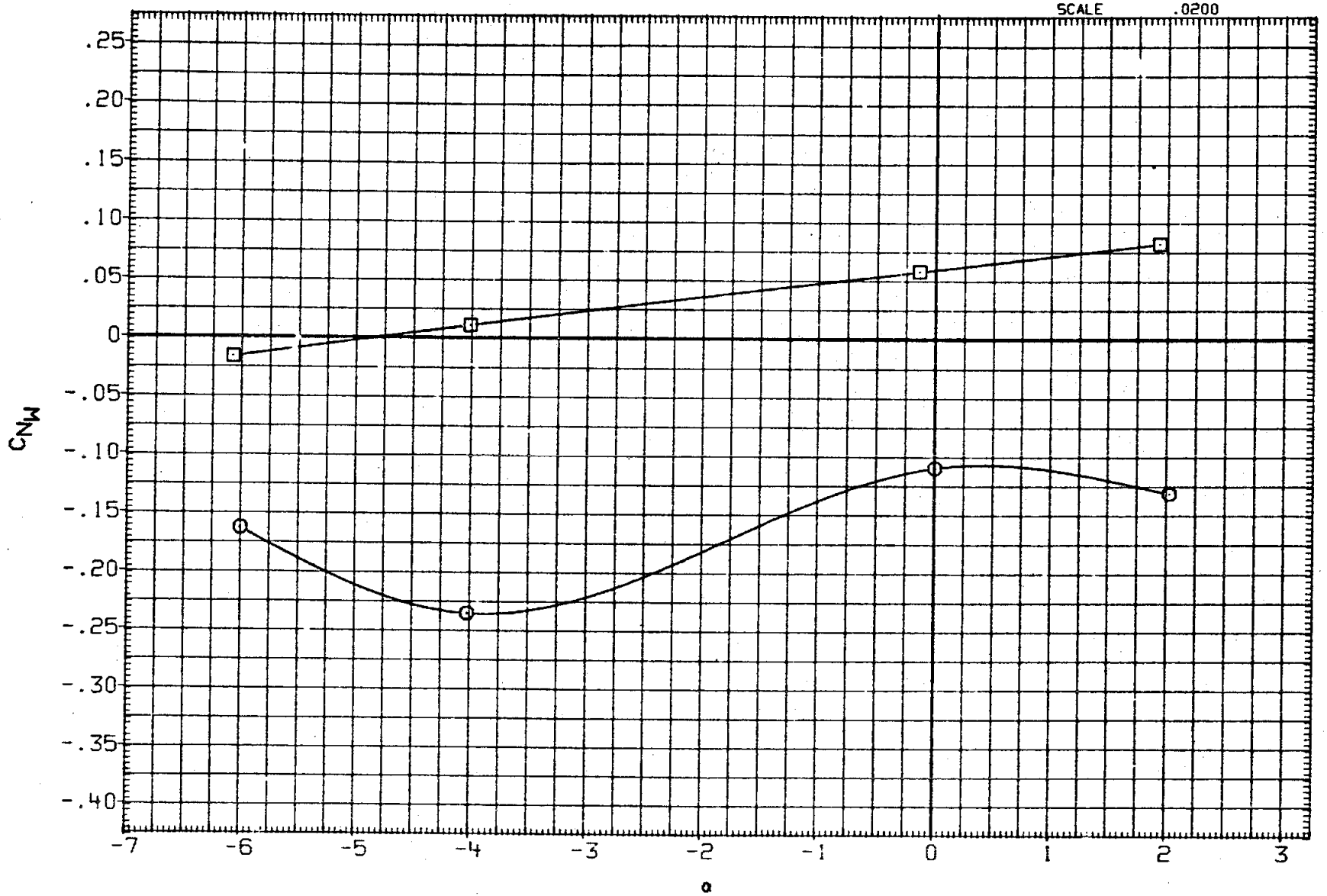

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

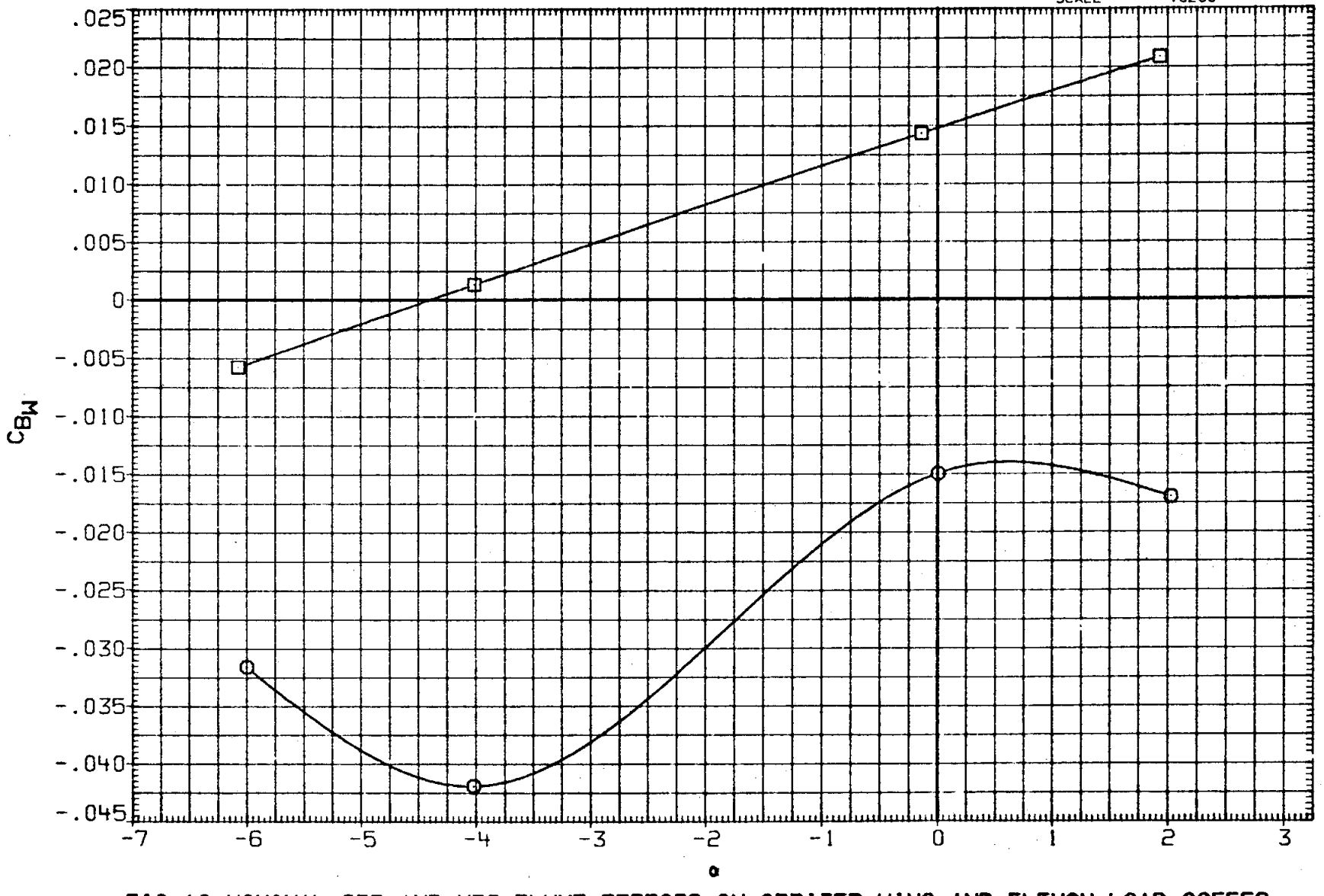

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
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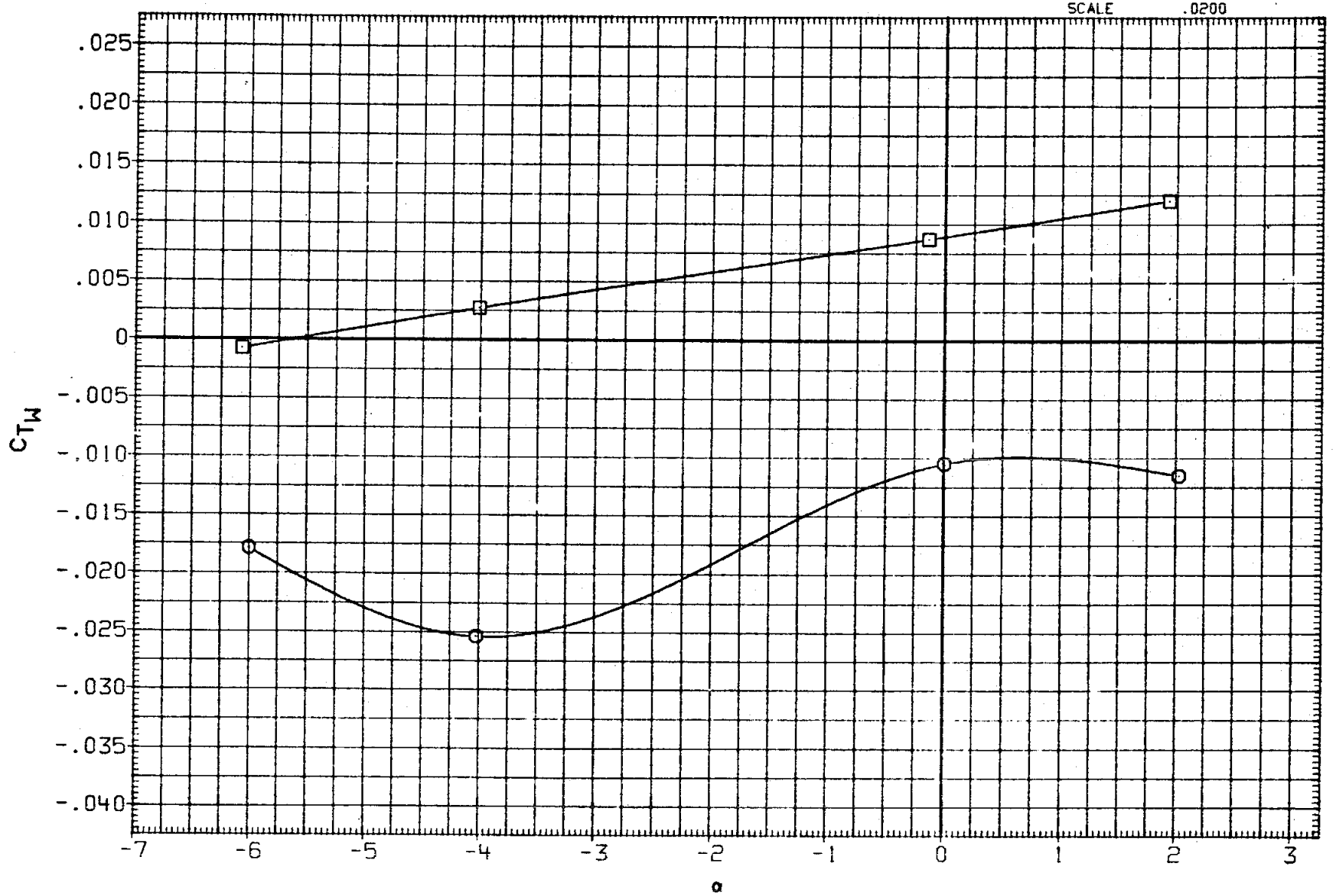

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

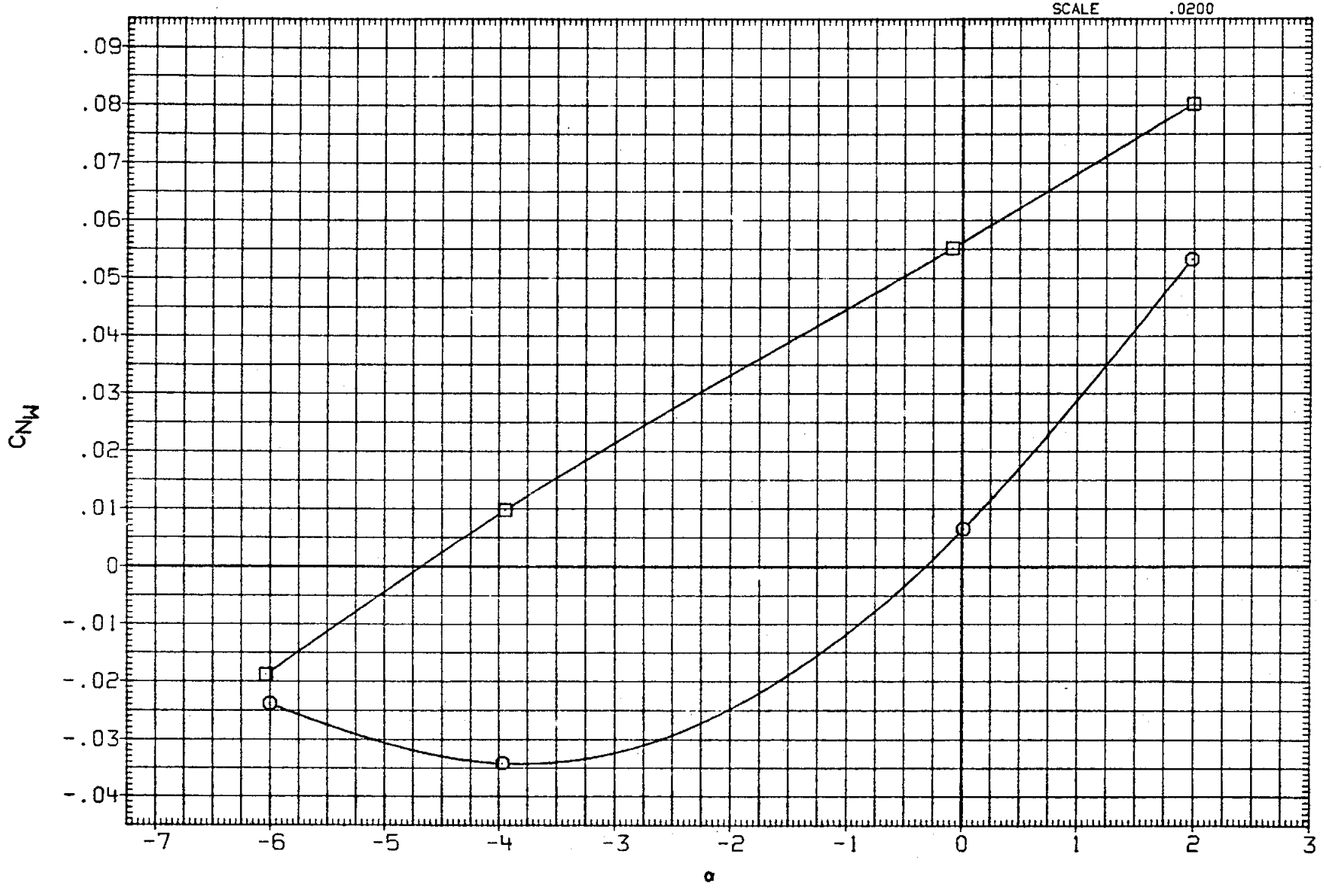

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARCII-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARCII-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

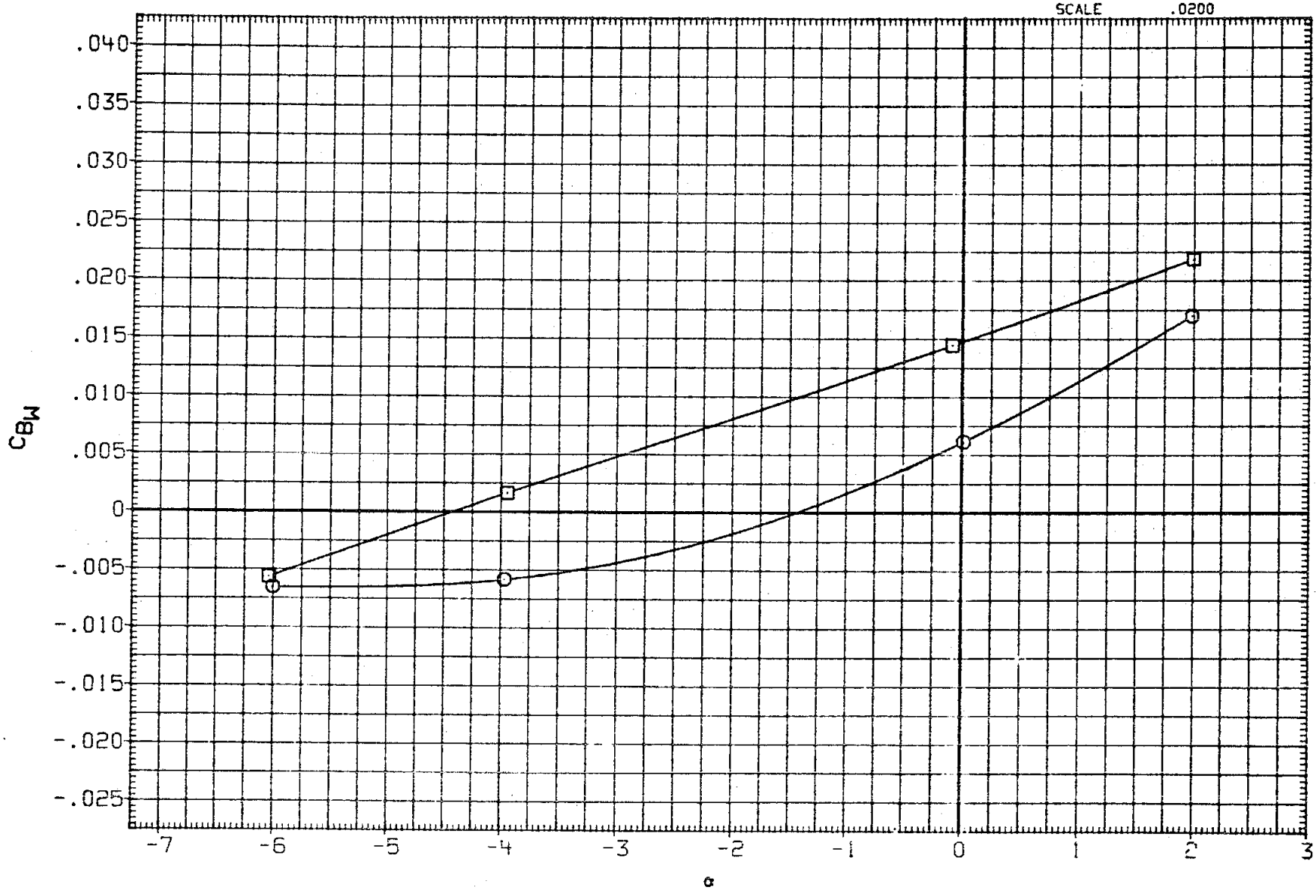

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

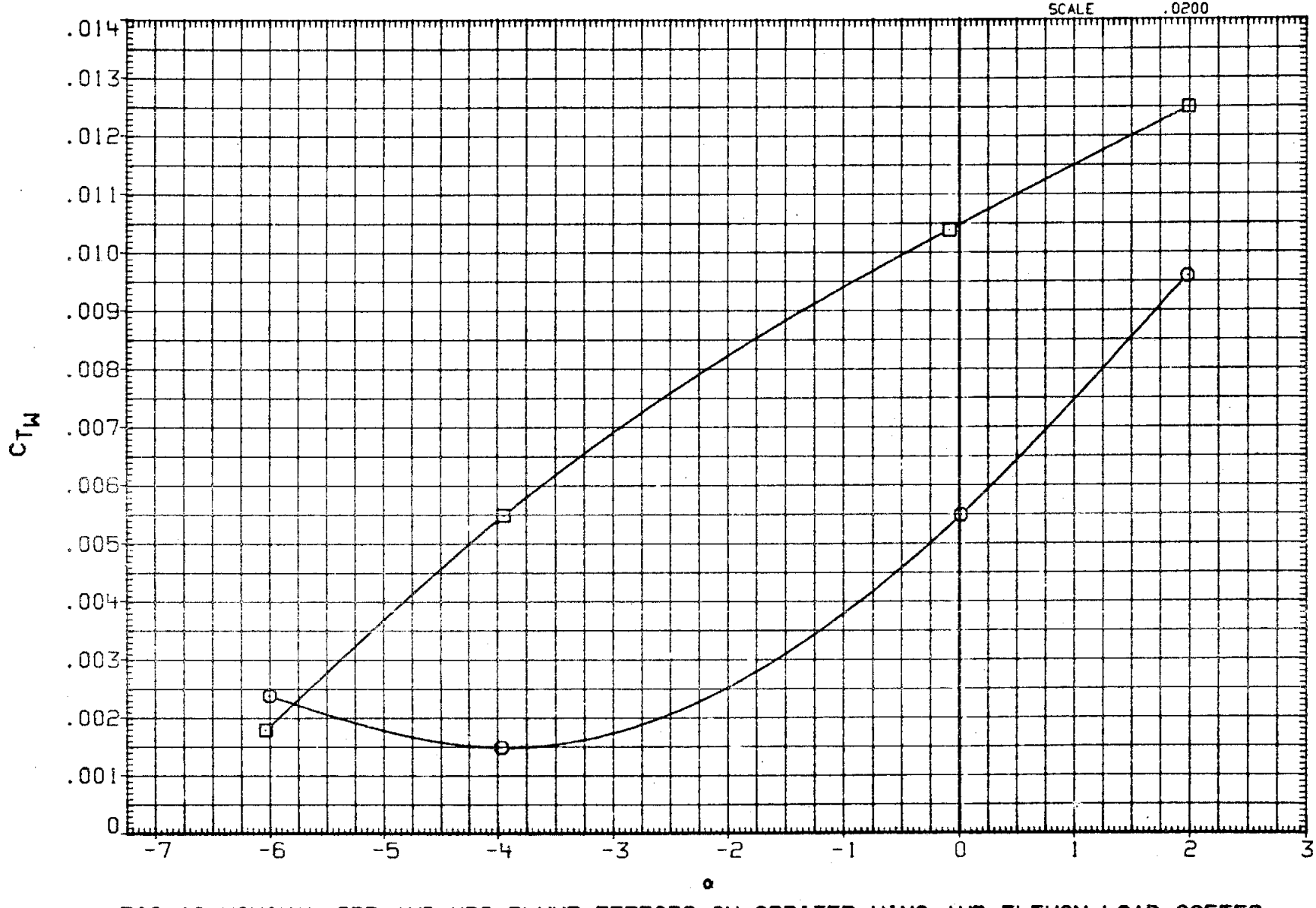

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

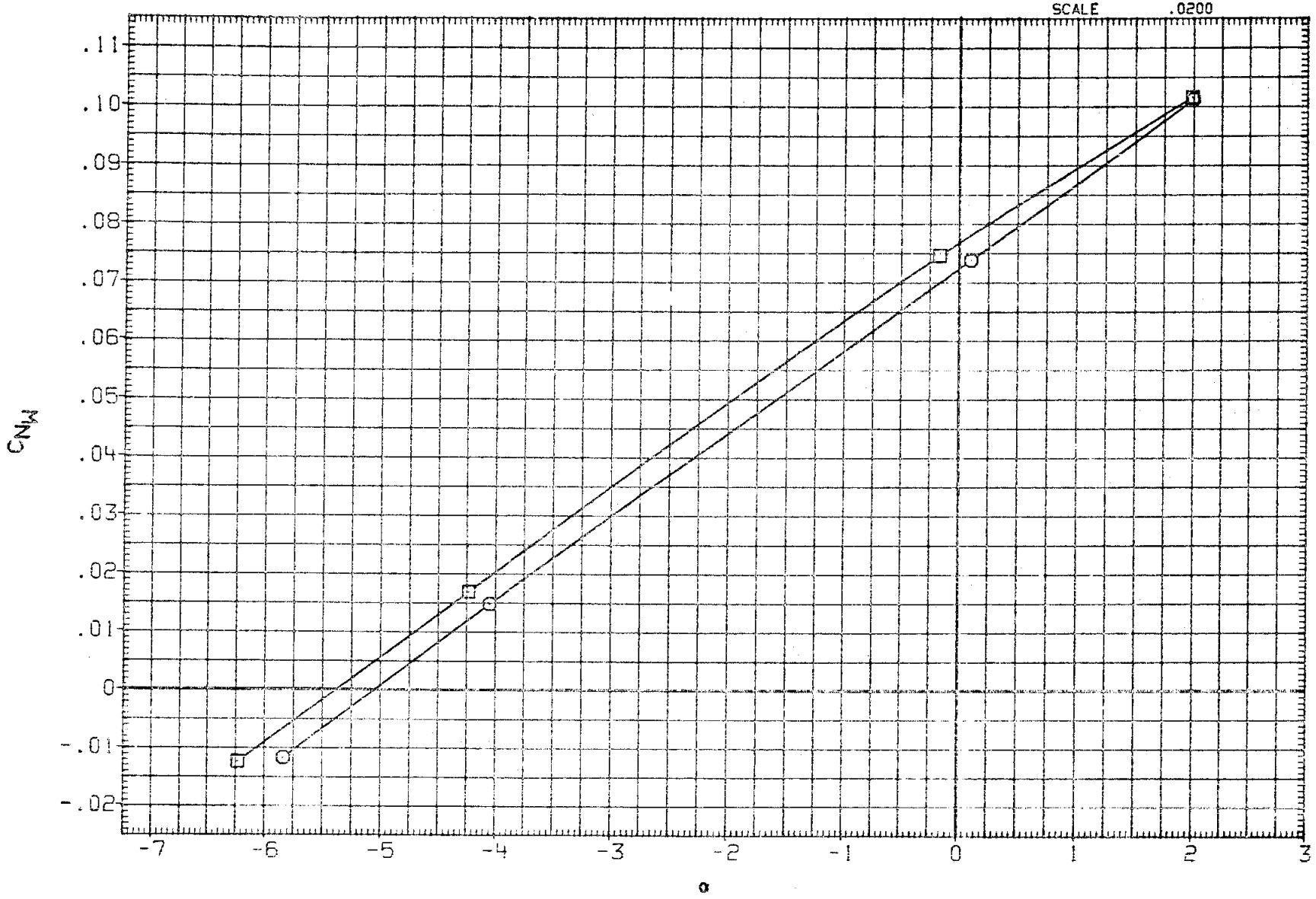

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

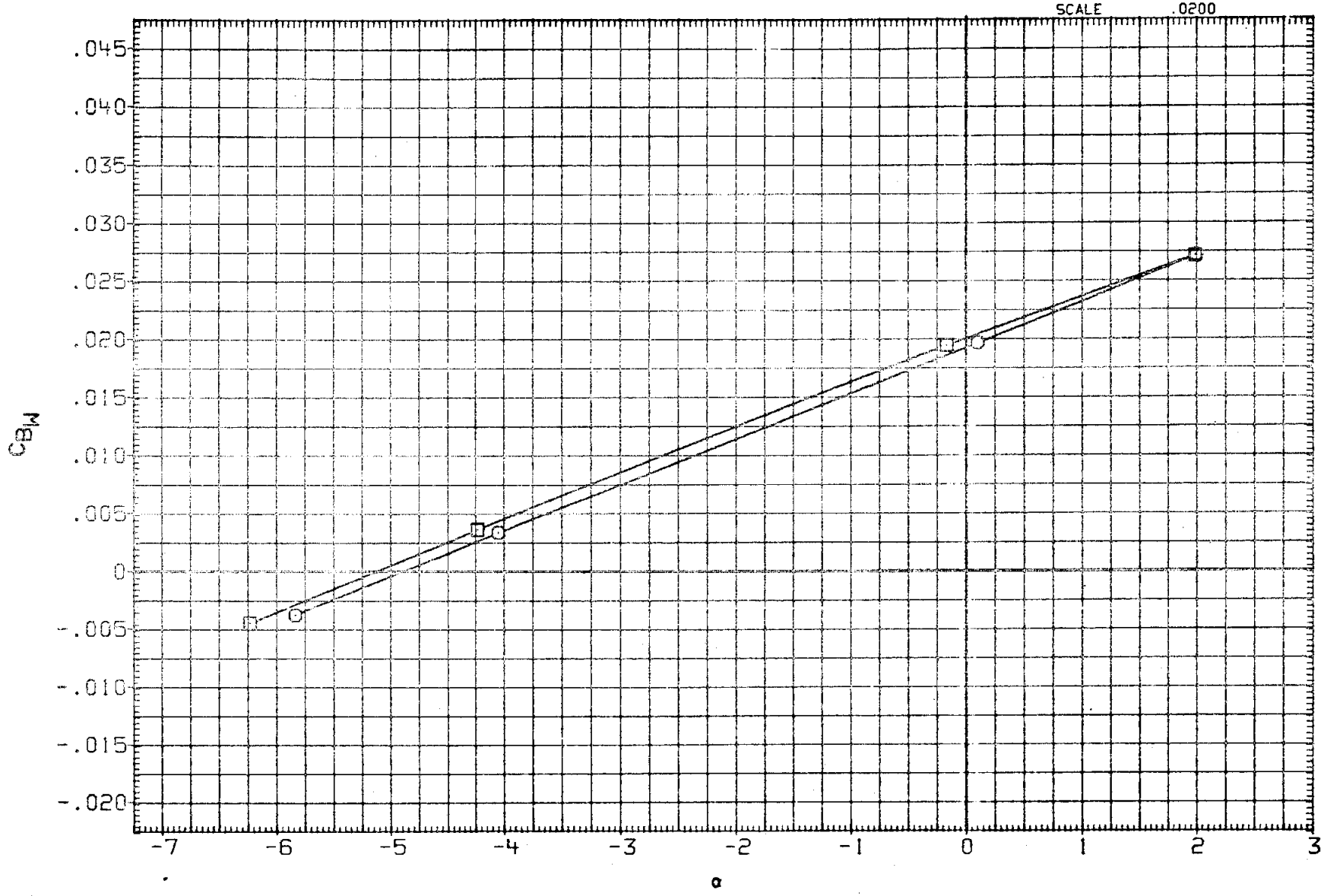

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

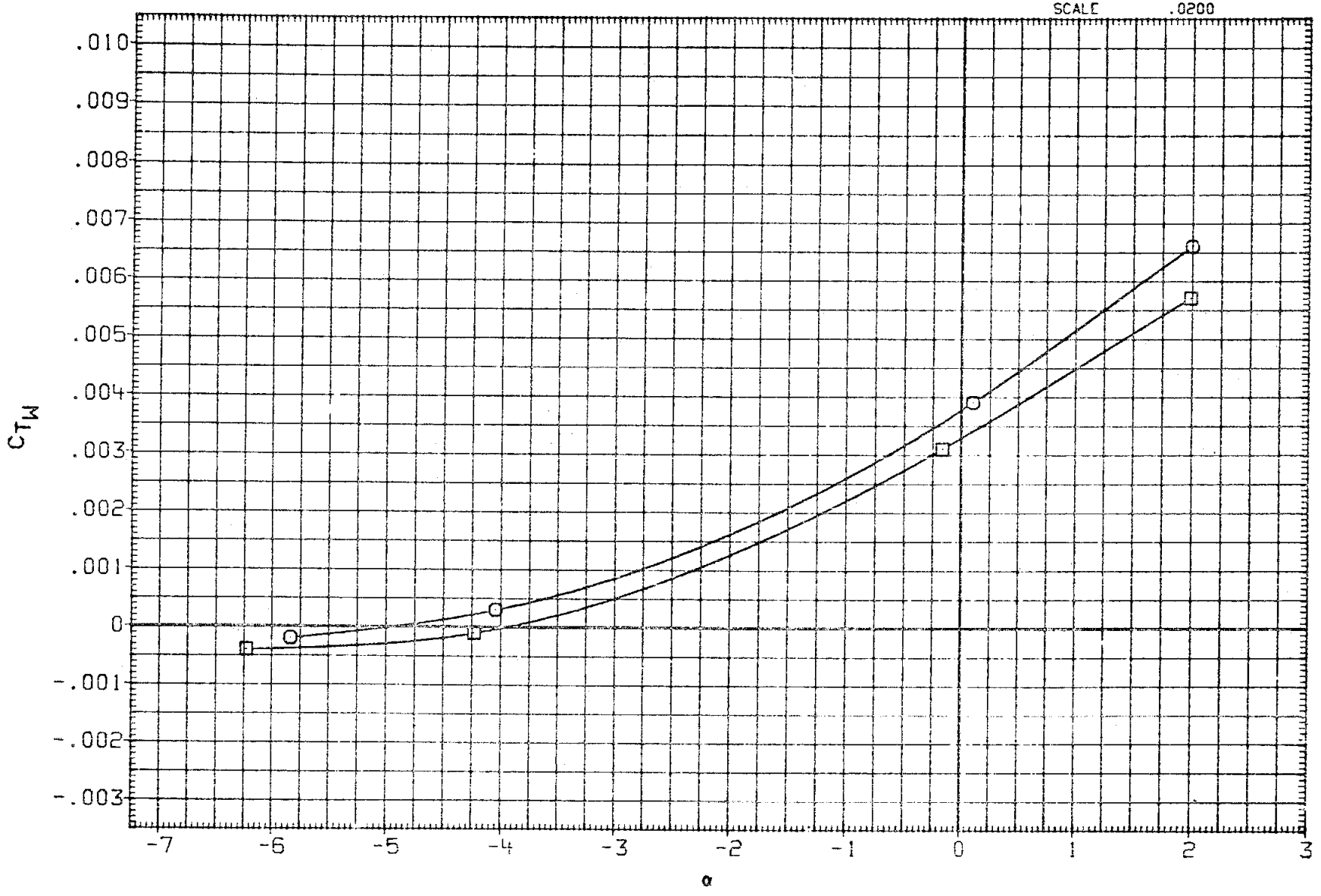

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

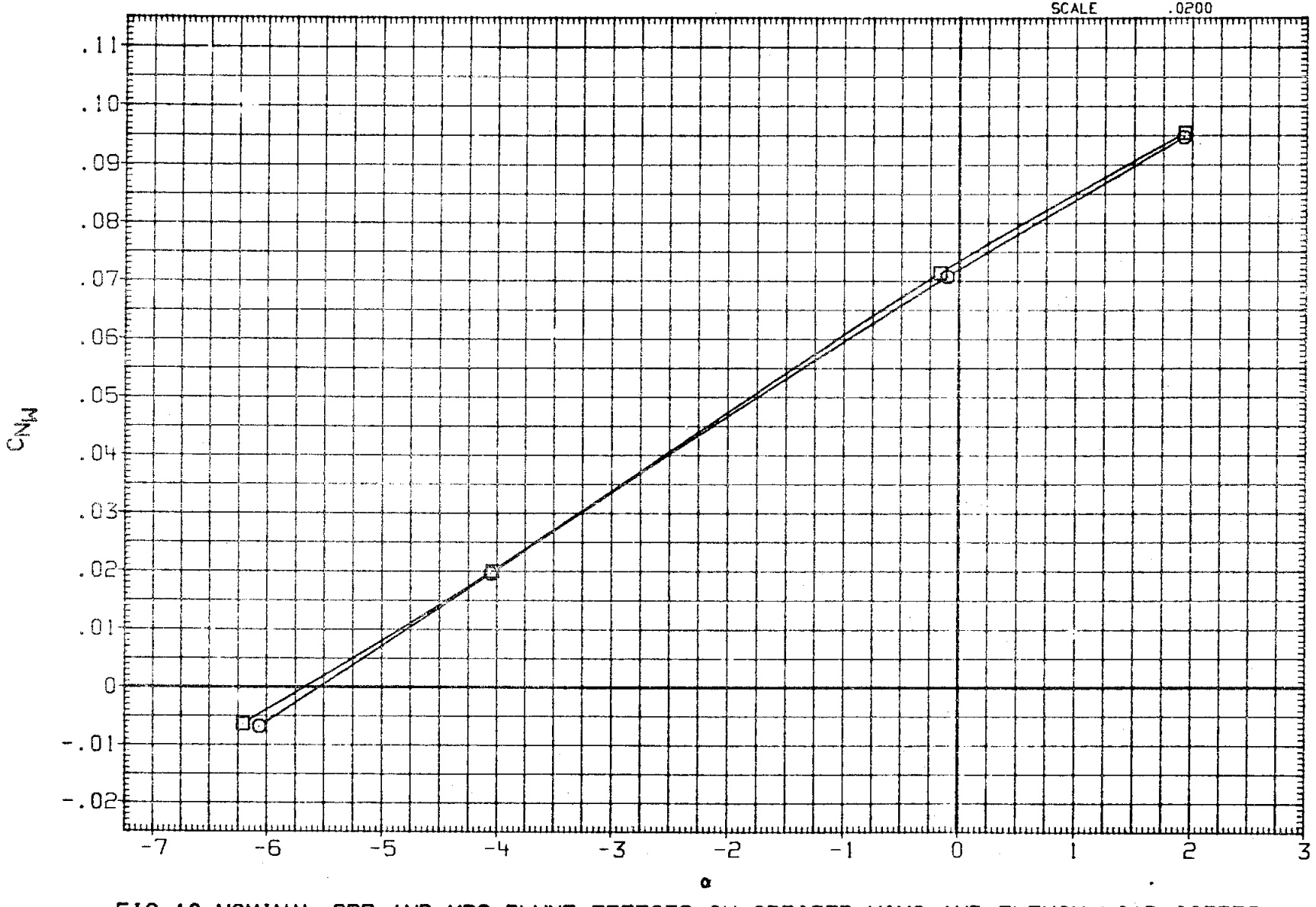

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

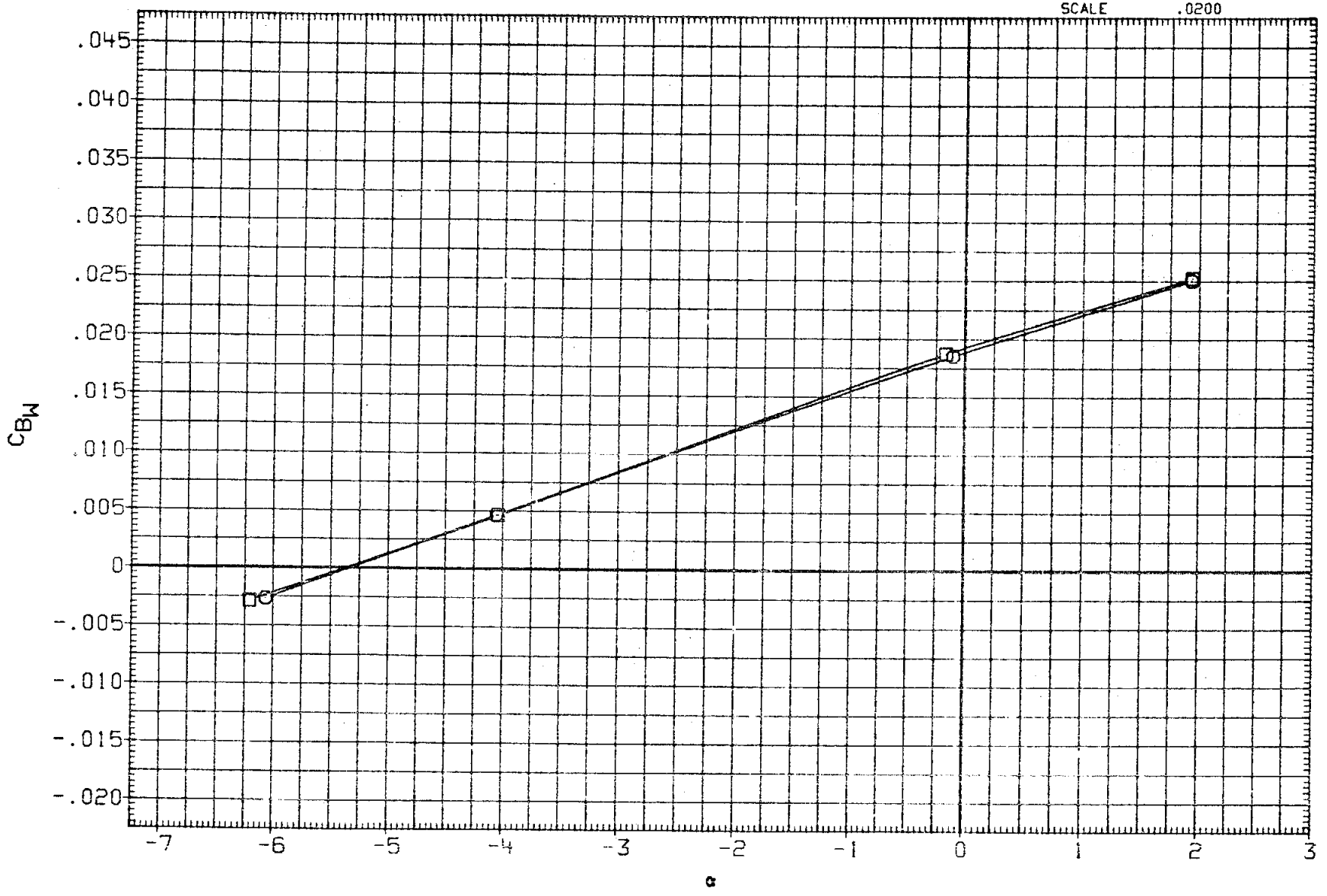

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

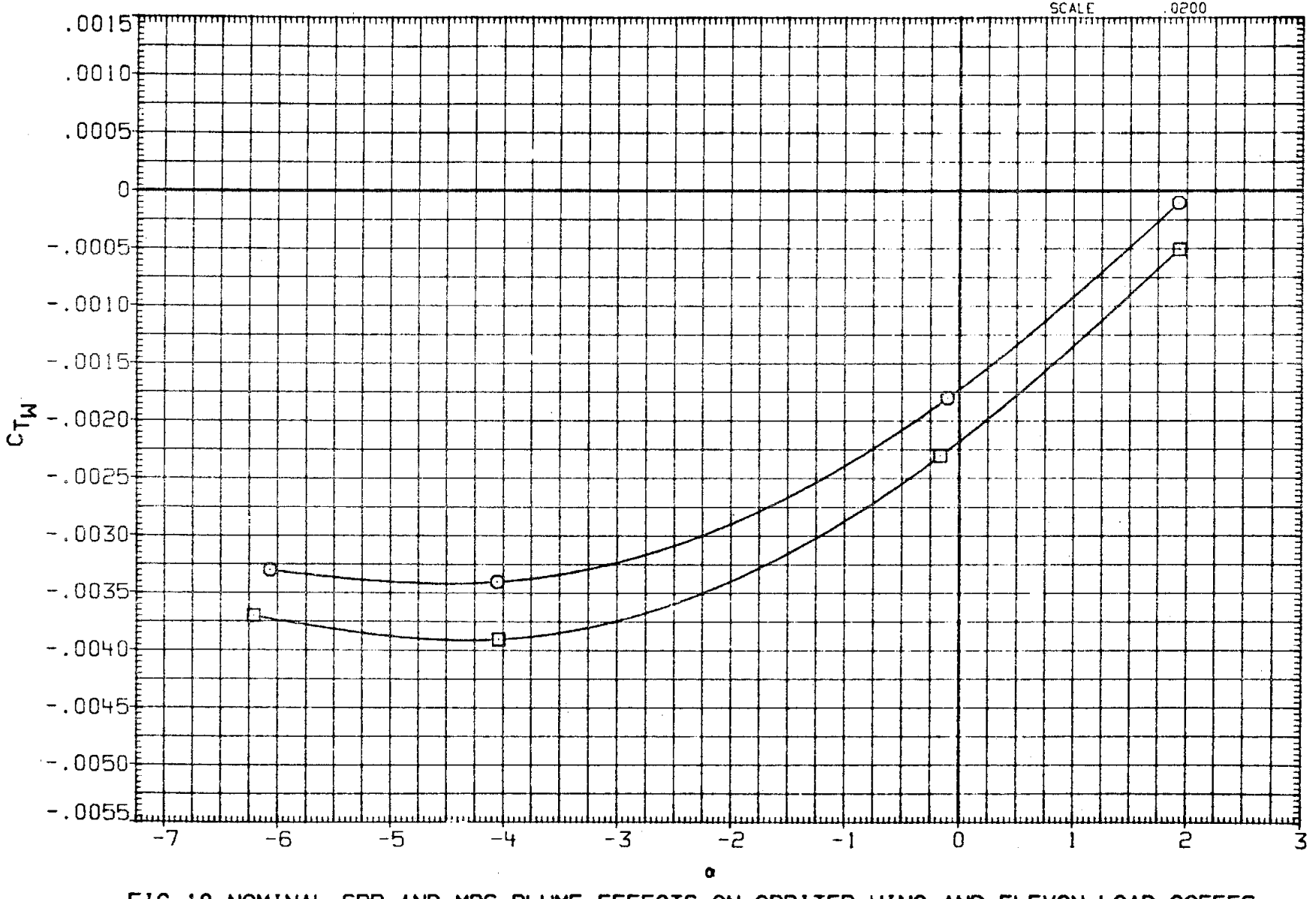

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

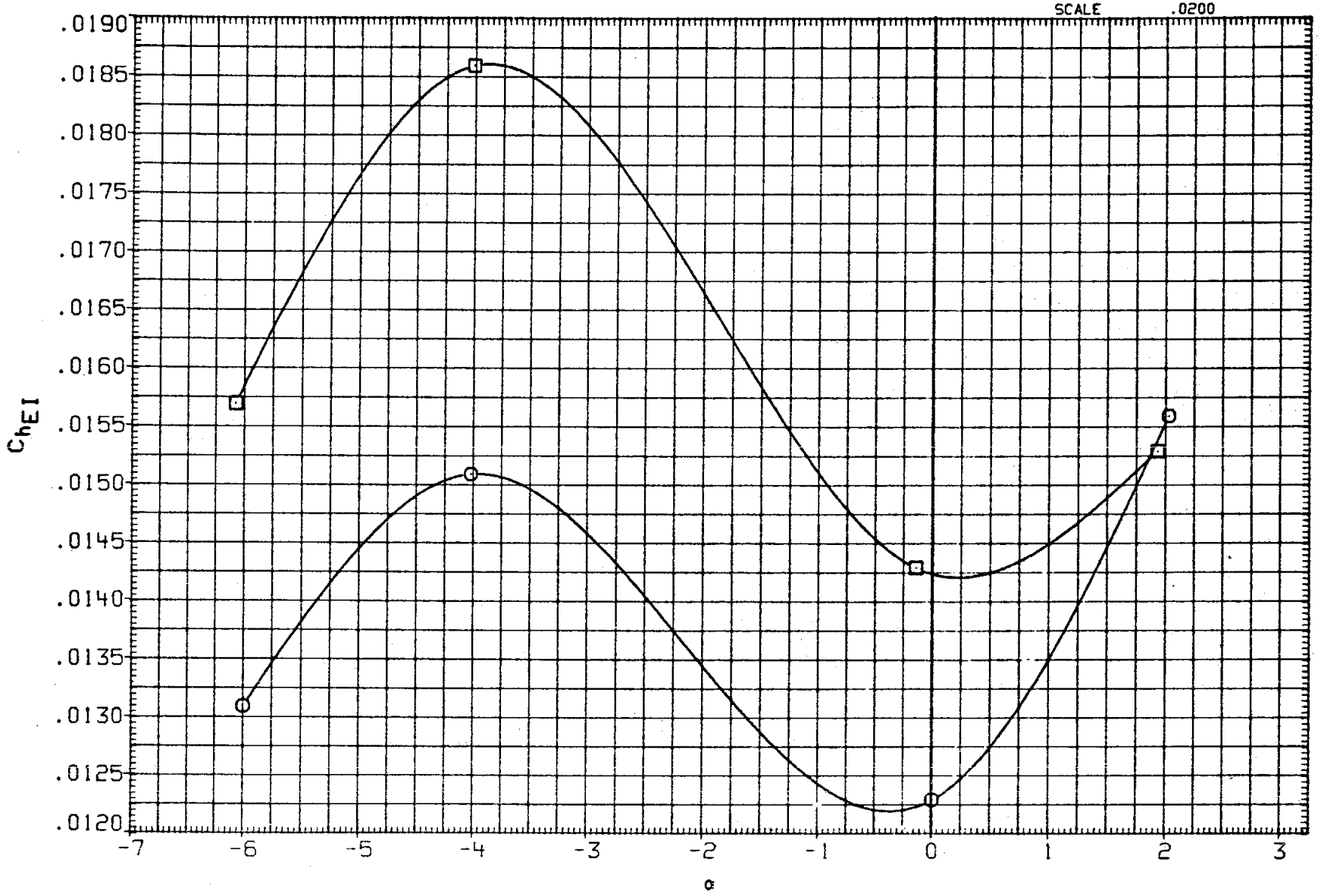

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	9.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

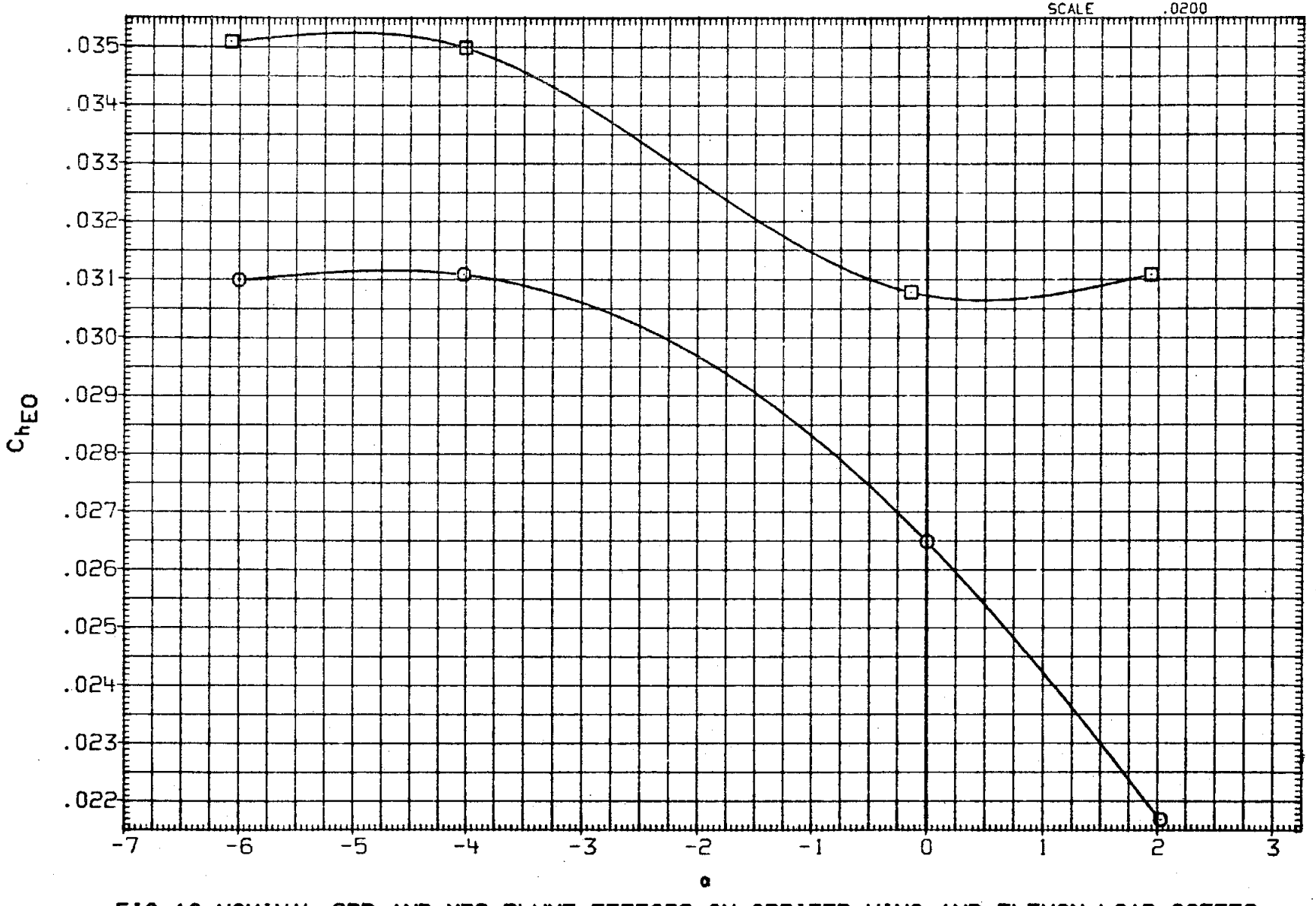

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

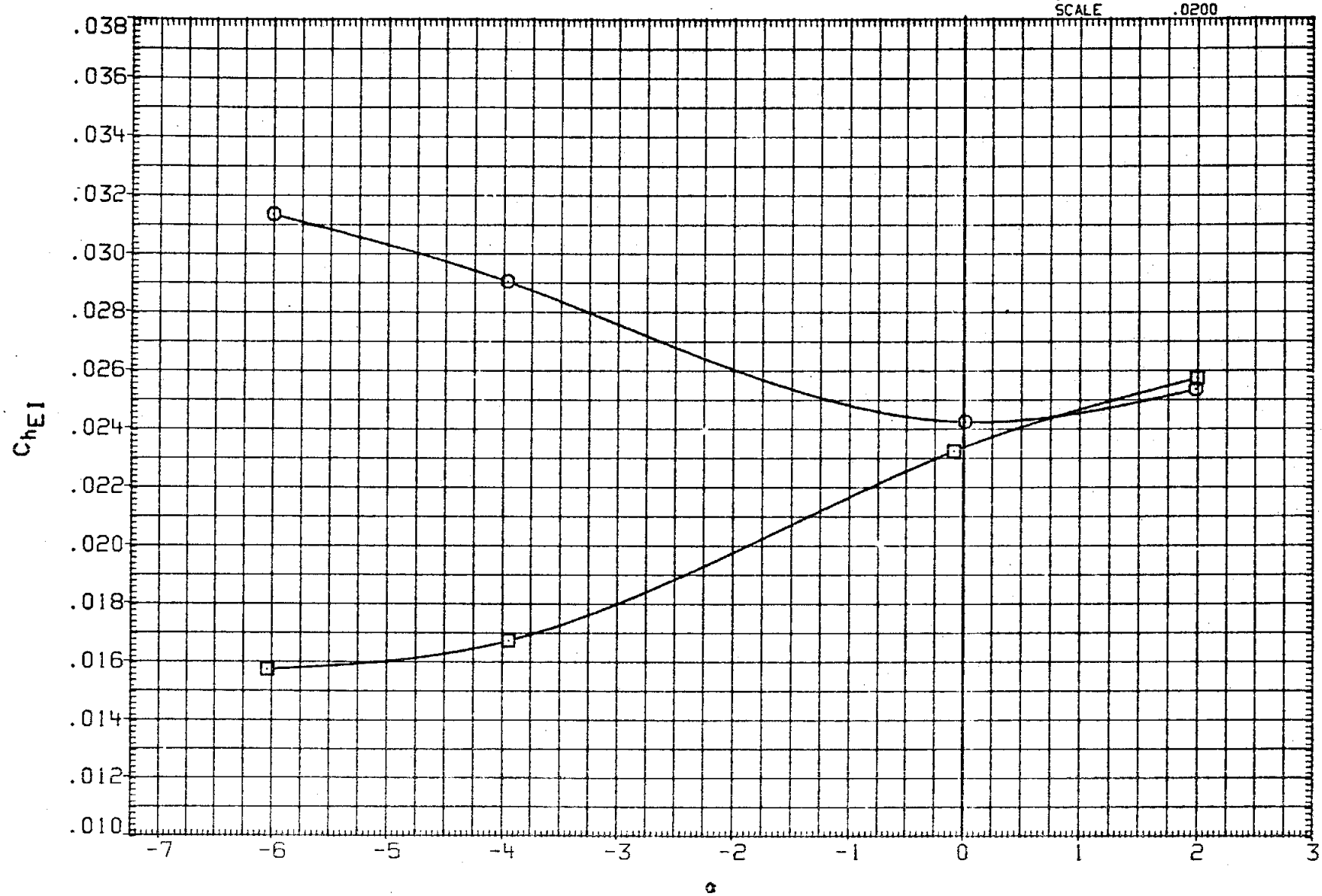

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

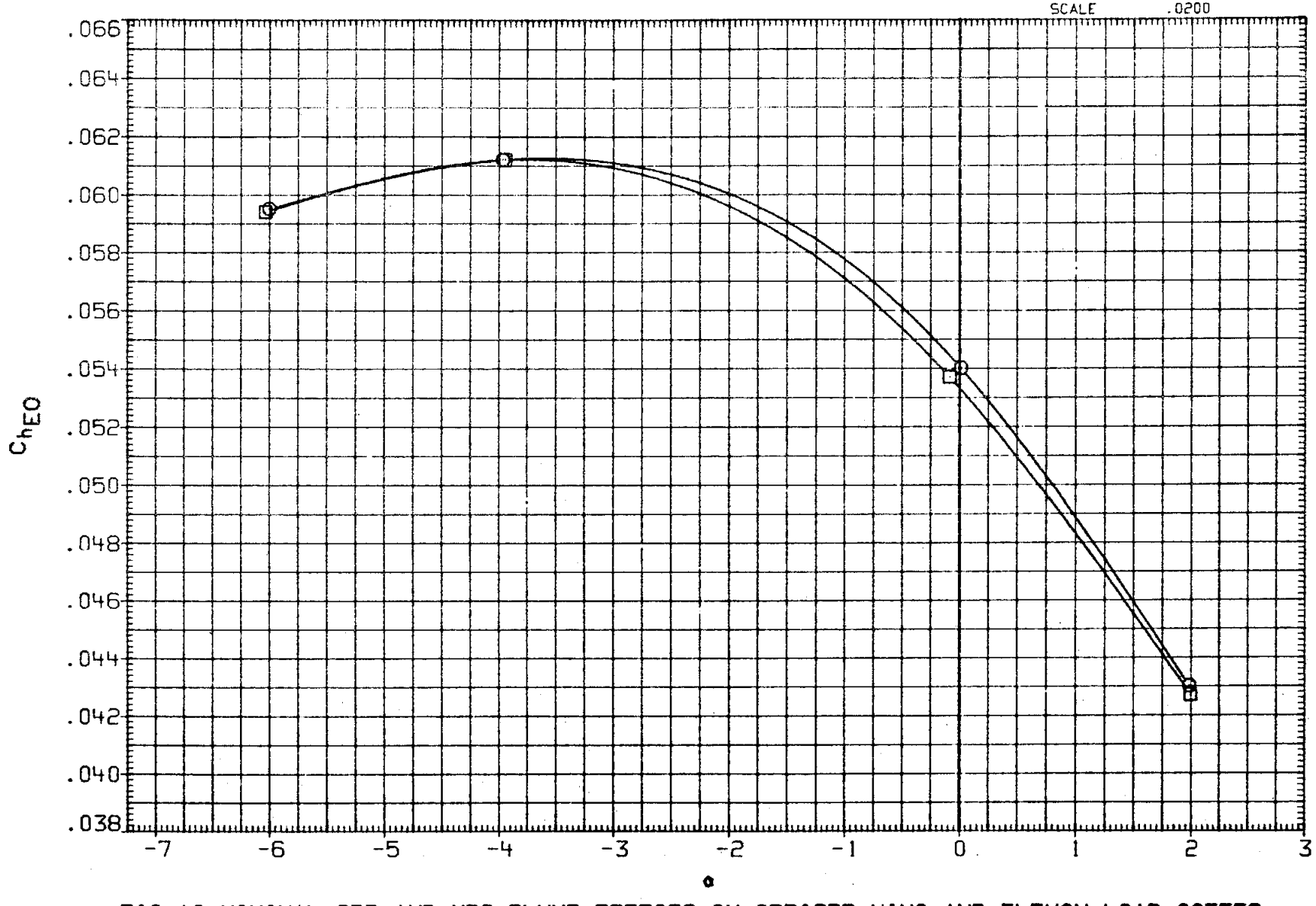

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

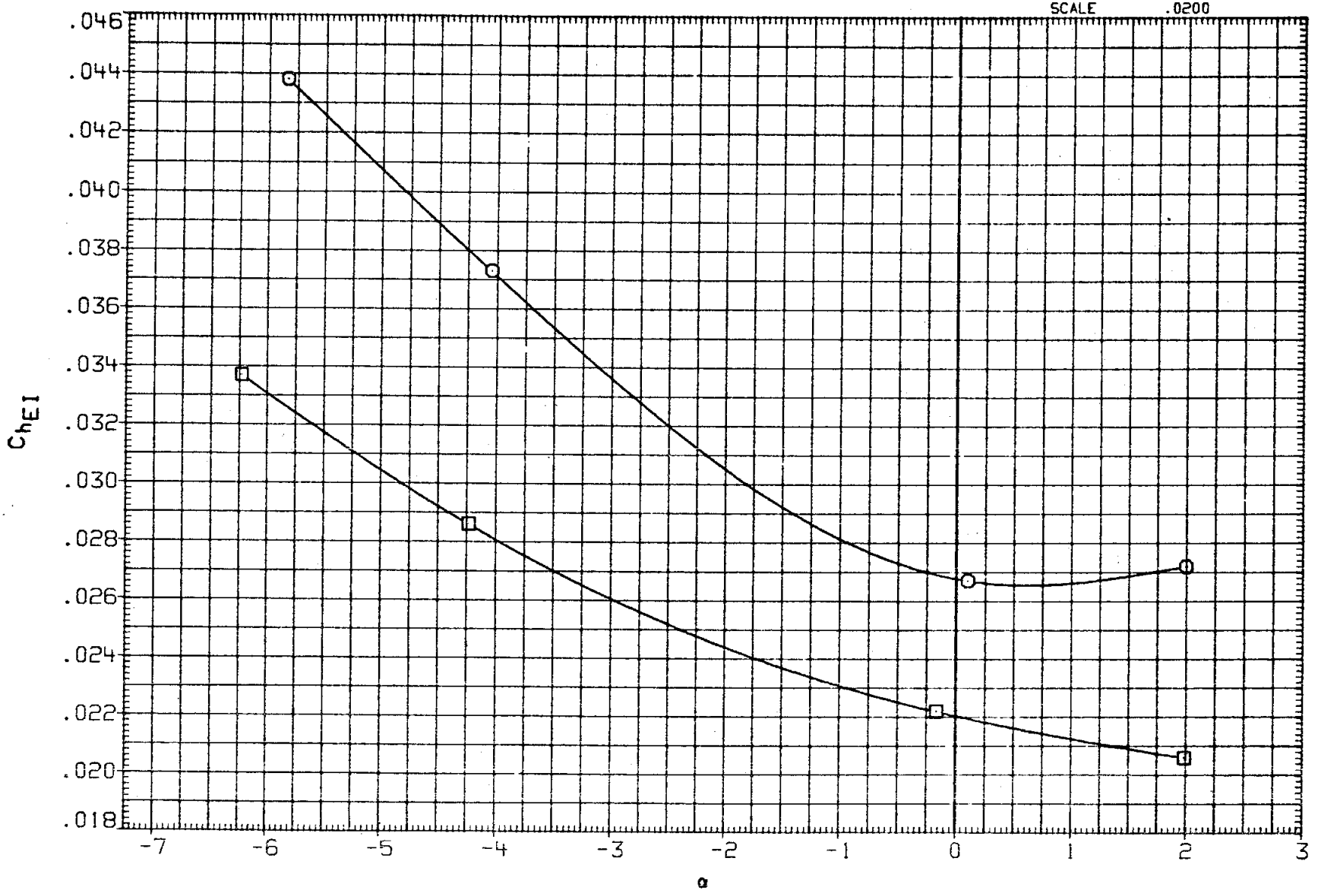

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

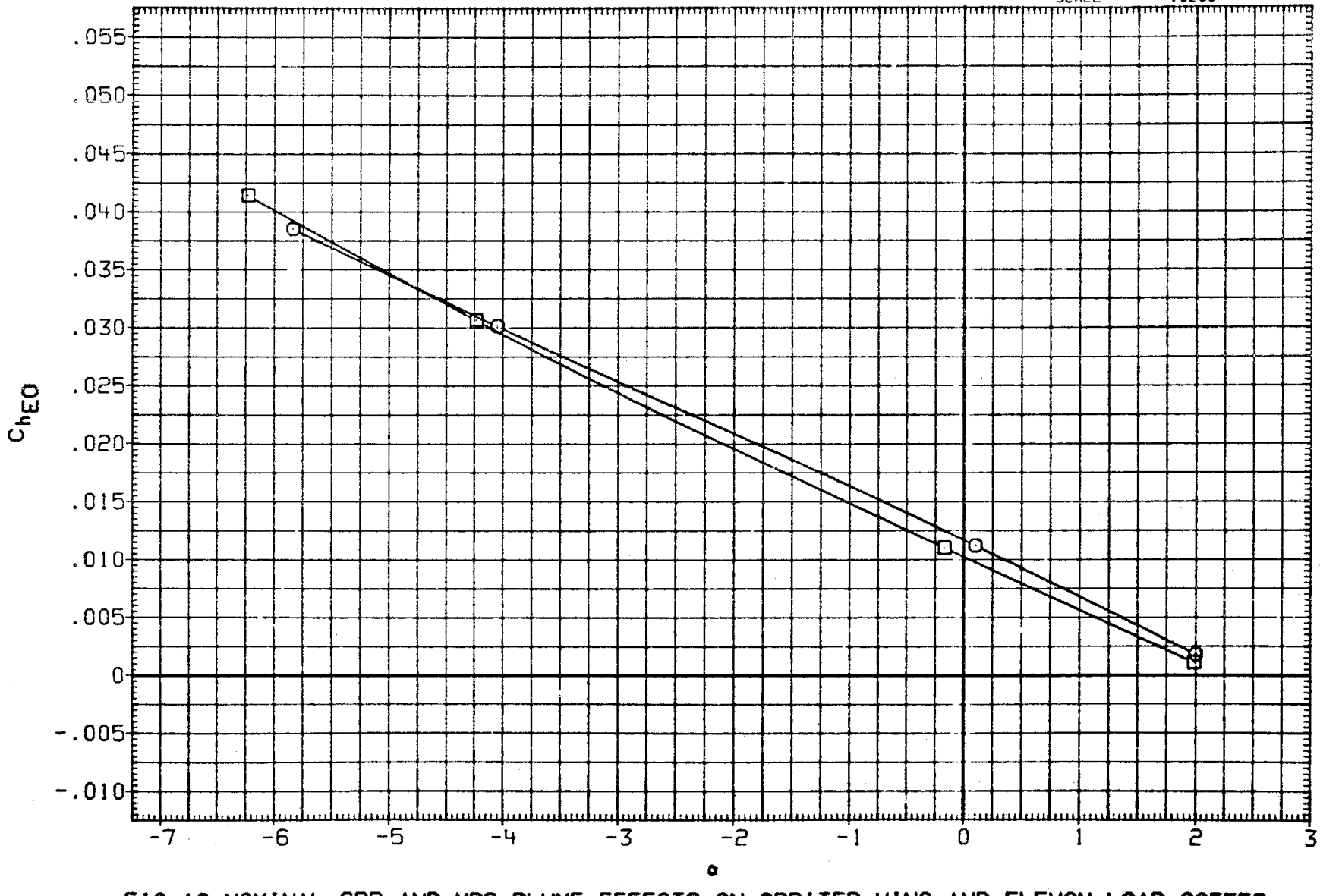

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARCII-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARCII-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

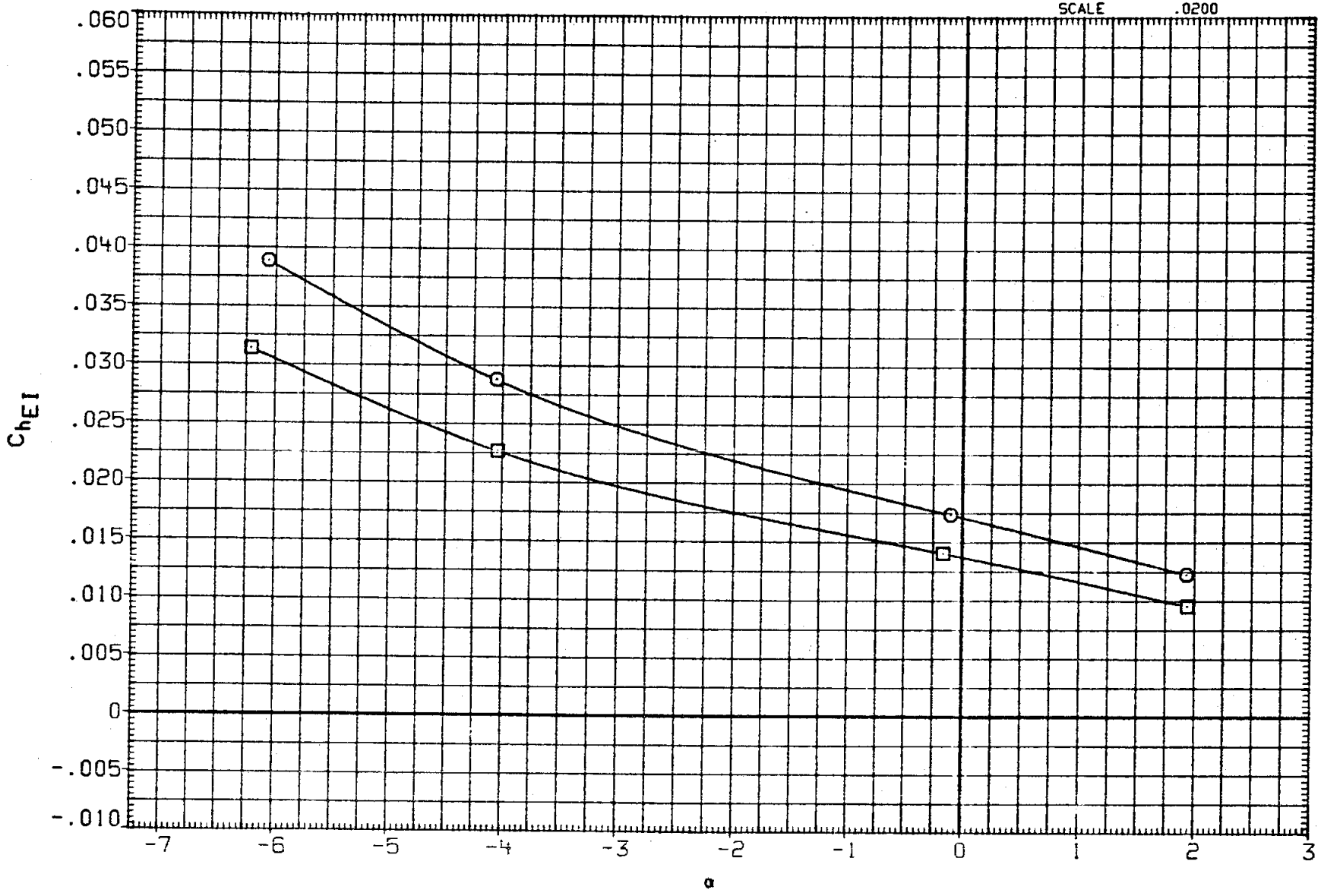

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
JNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

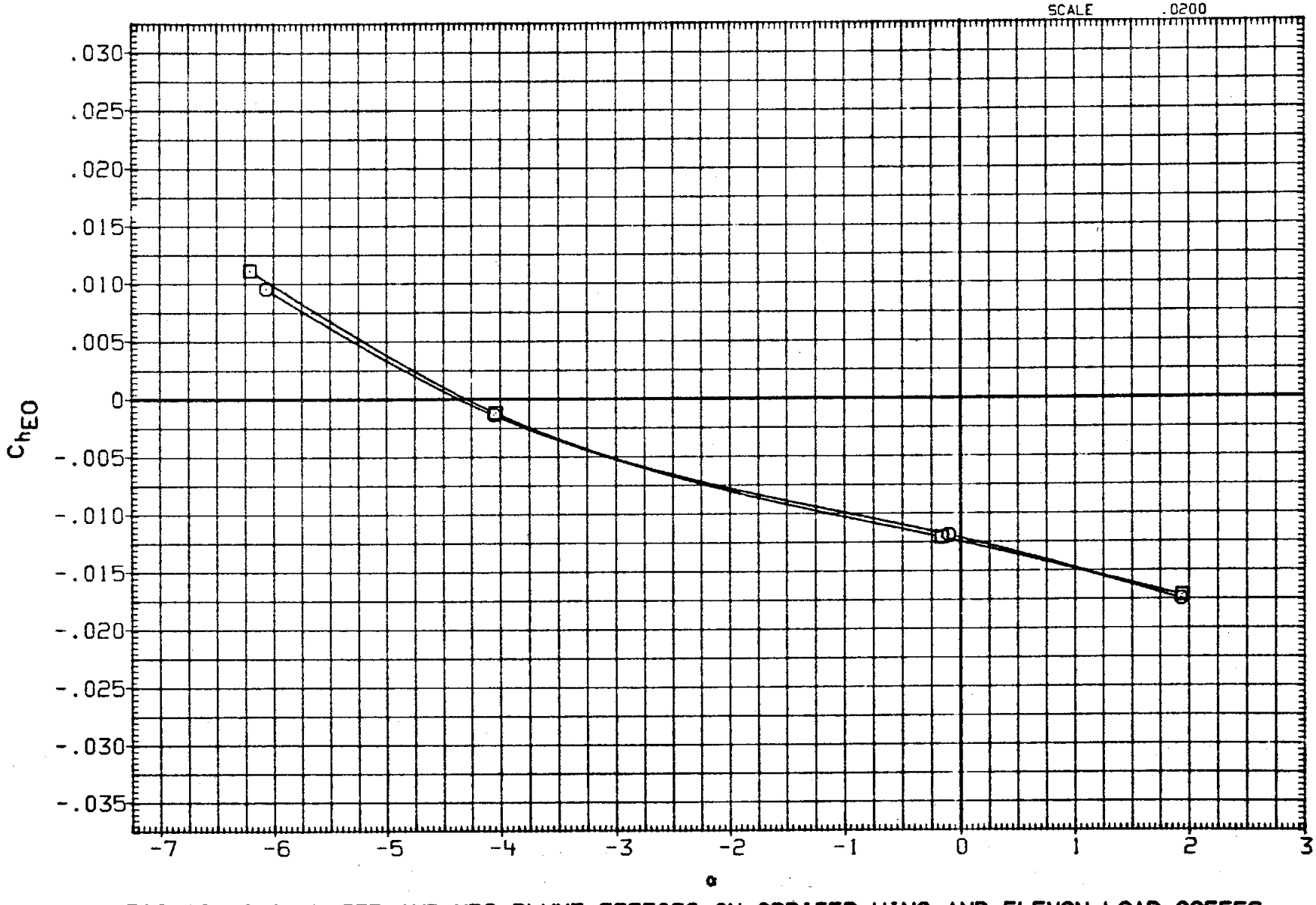

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

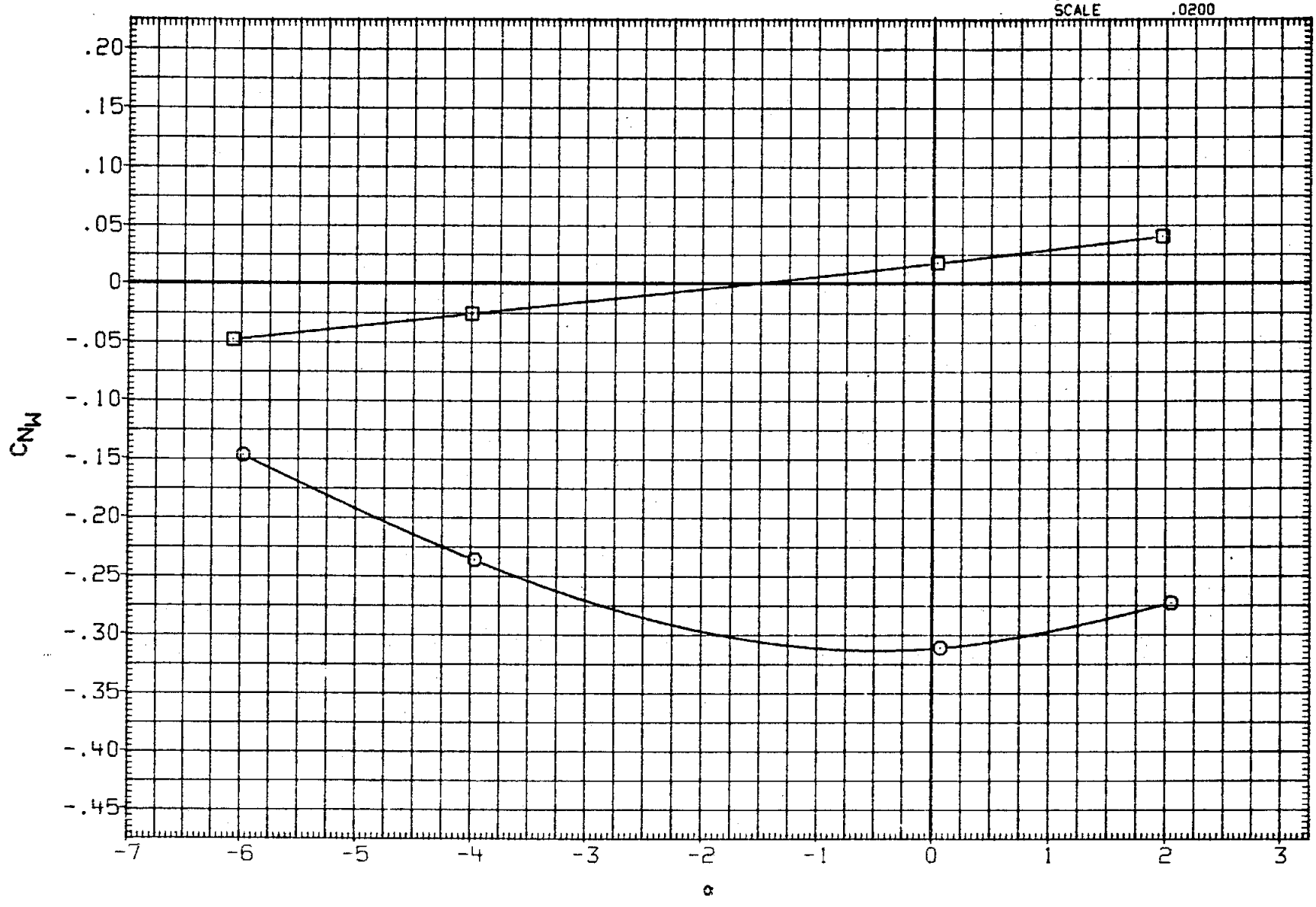

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

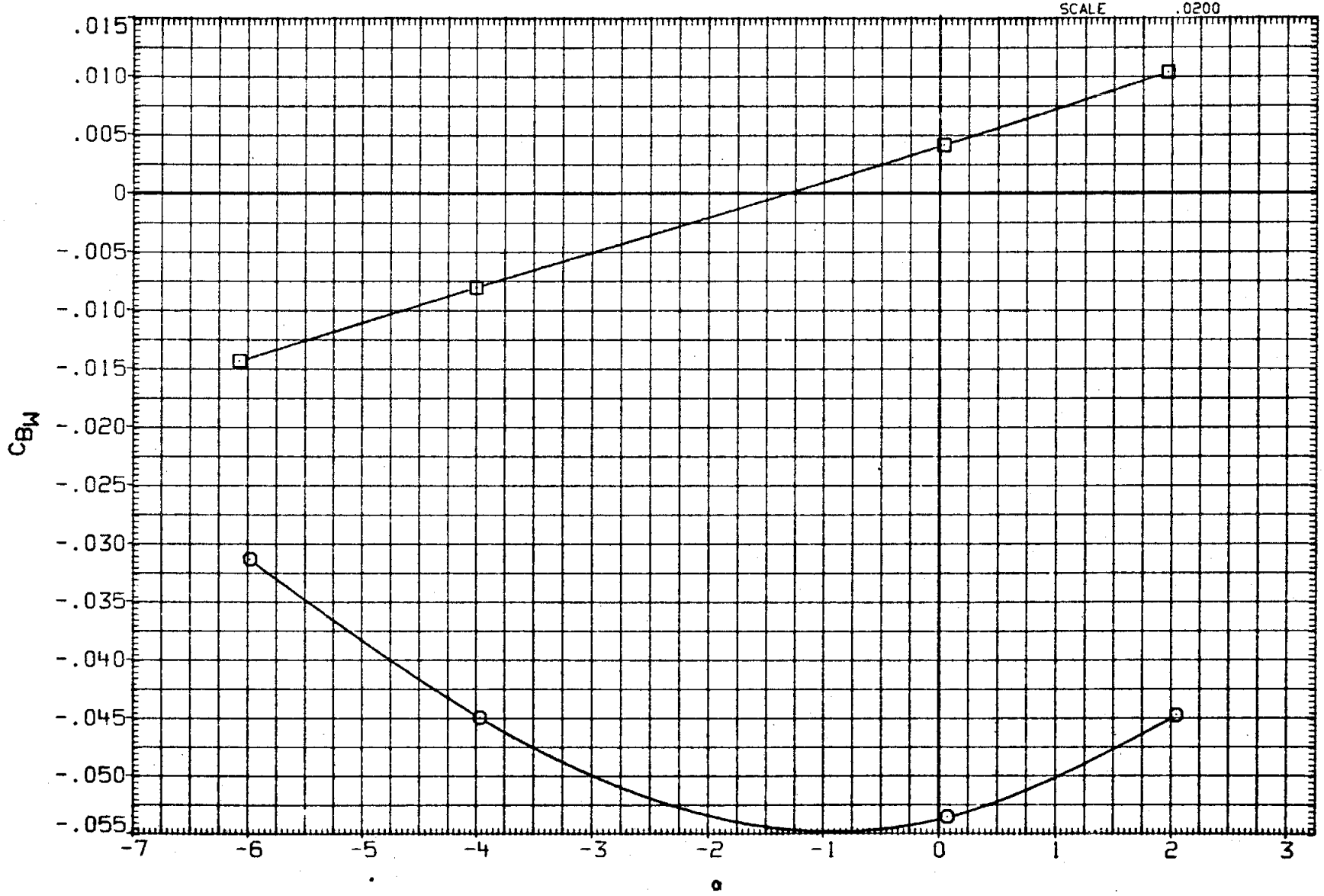

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

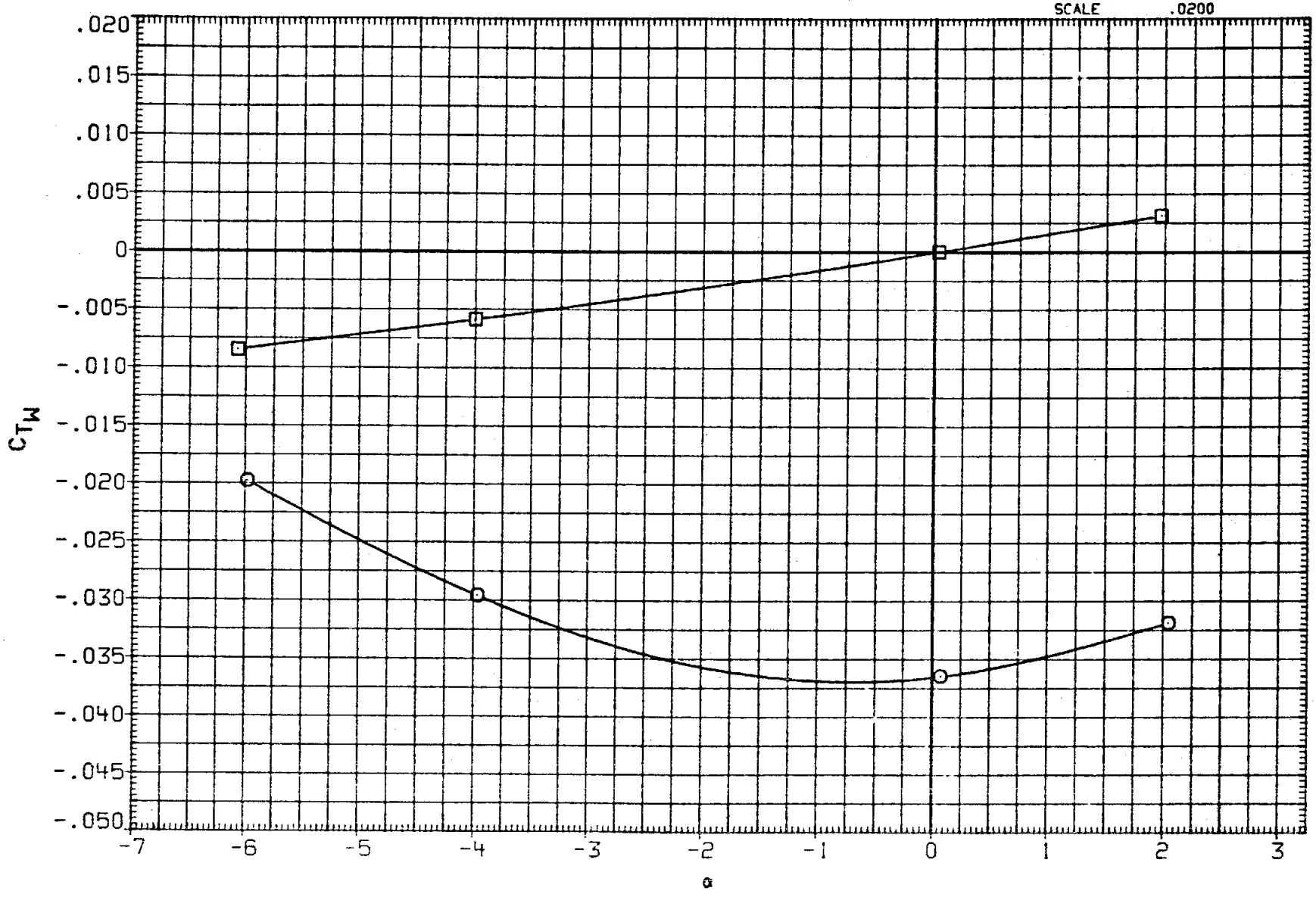

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

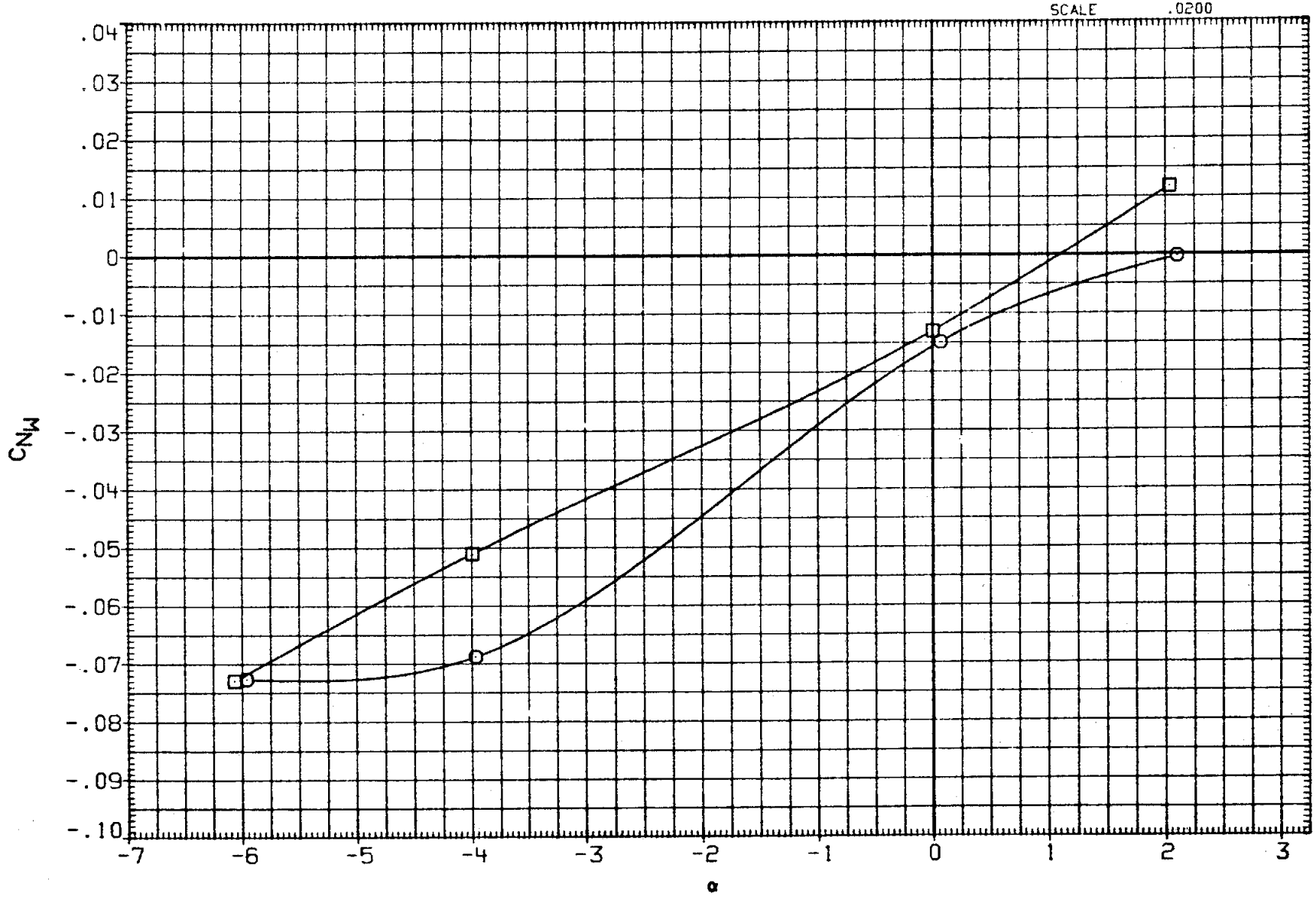

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

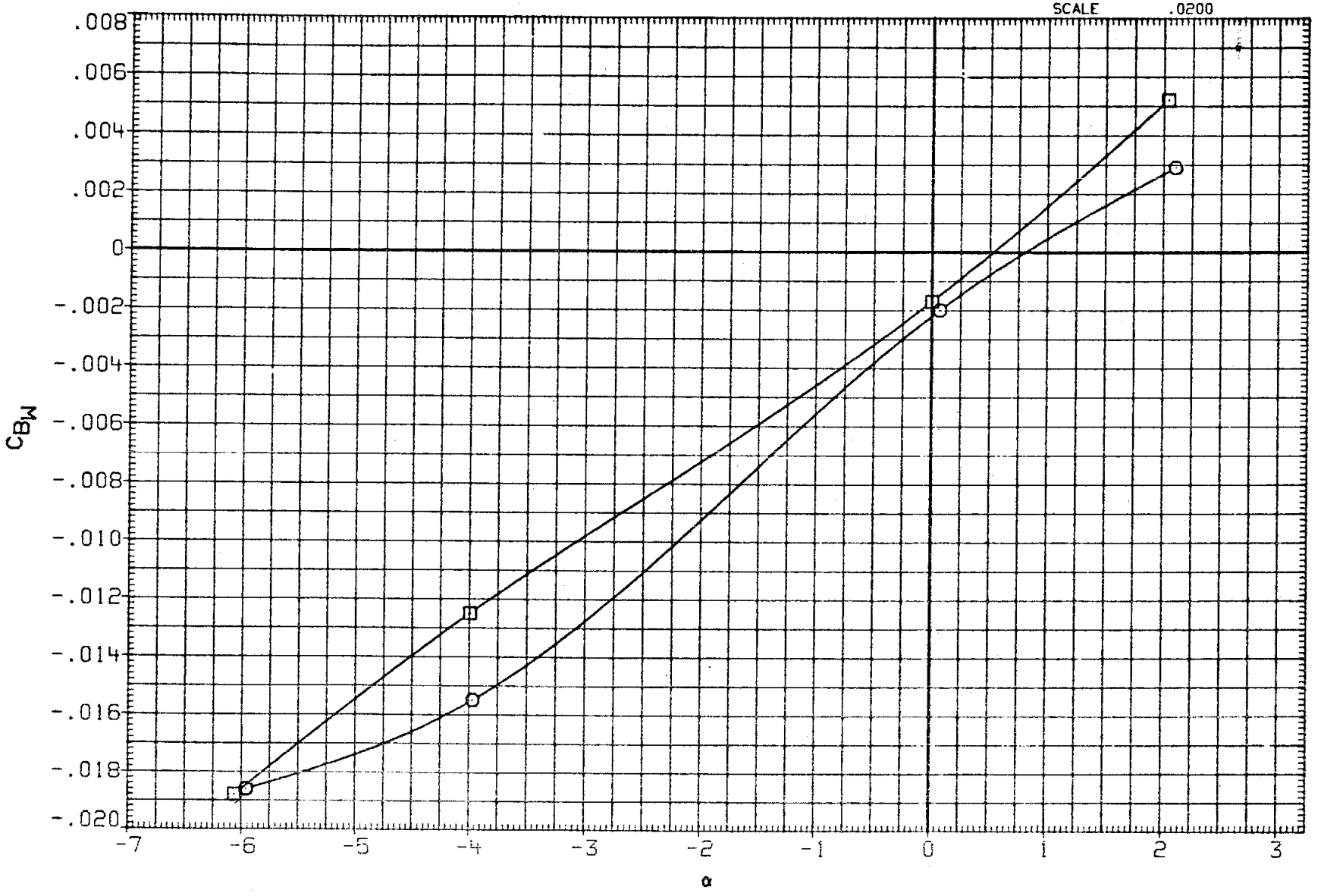

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

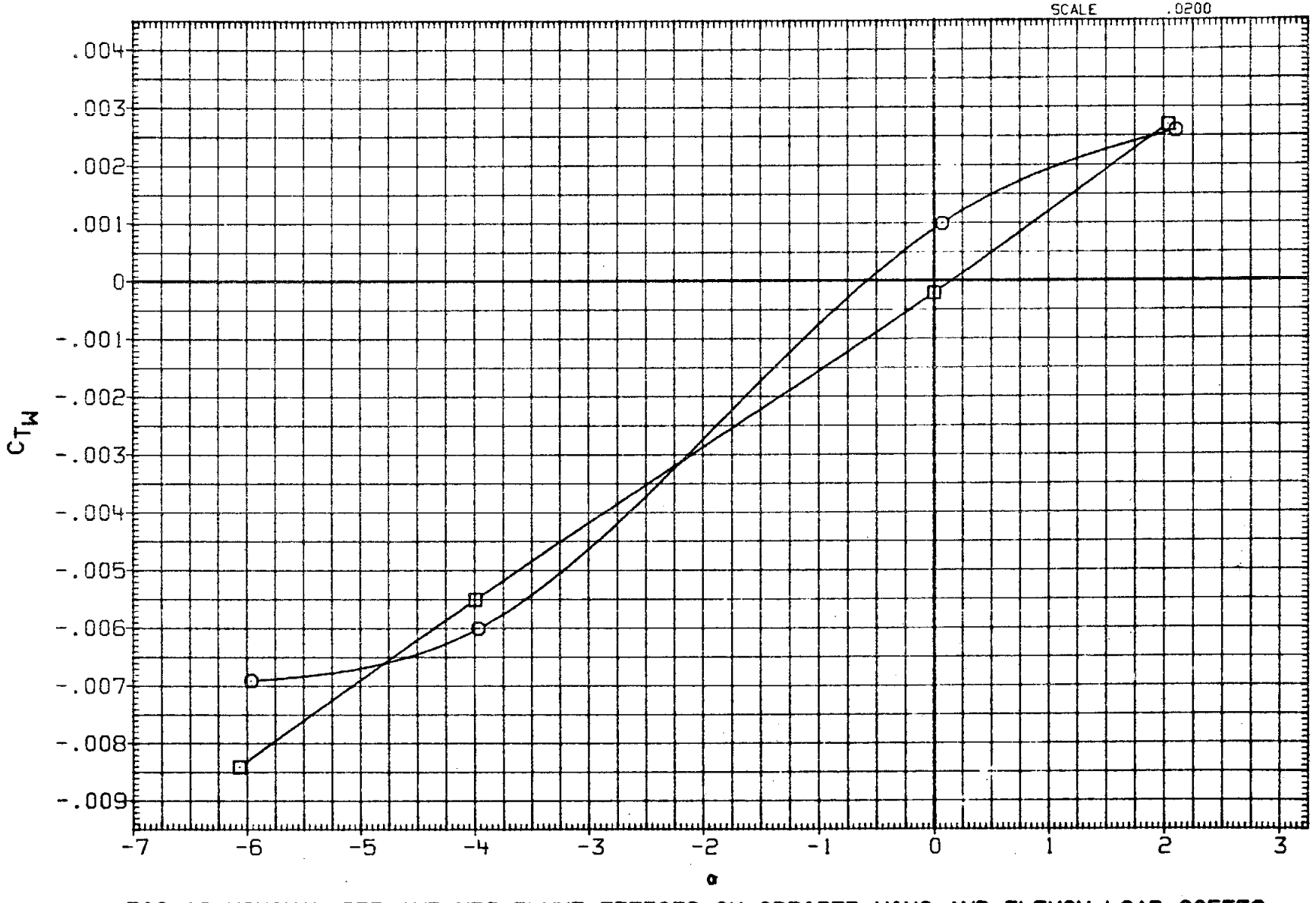

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

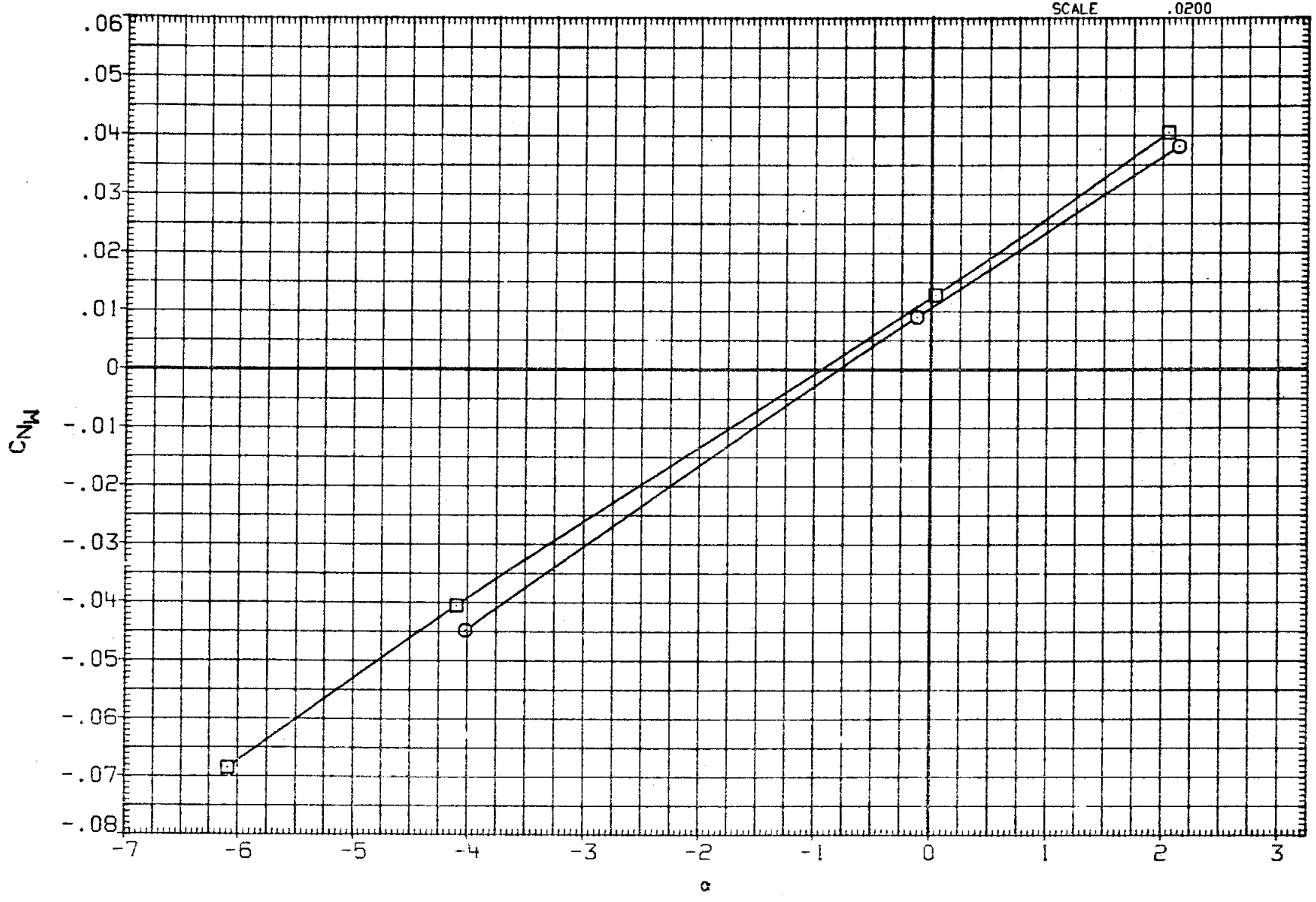

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

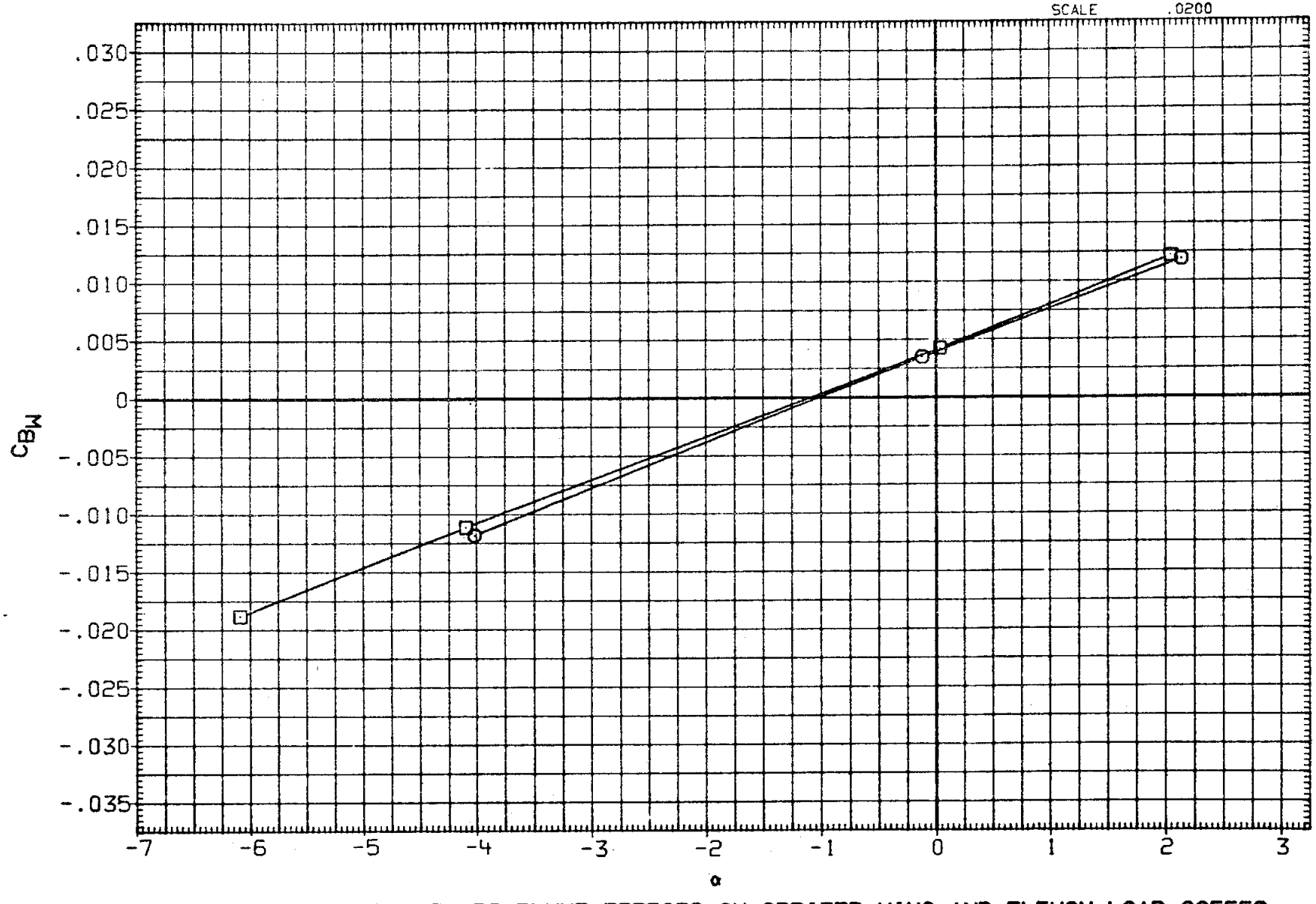

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

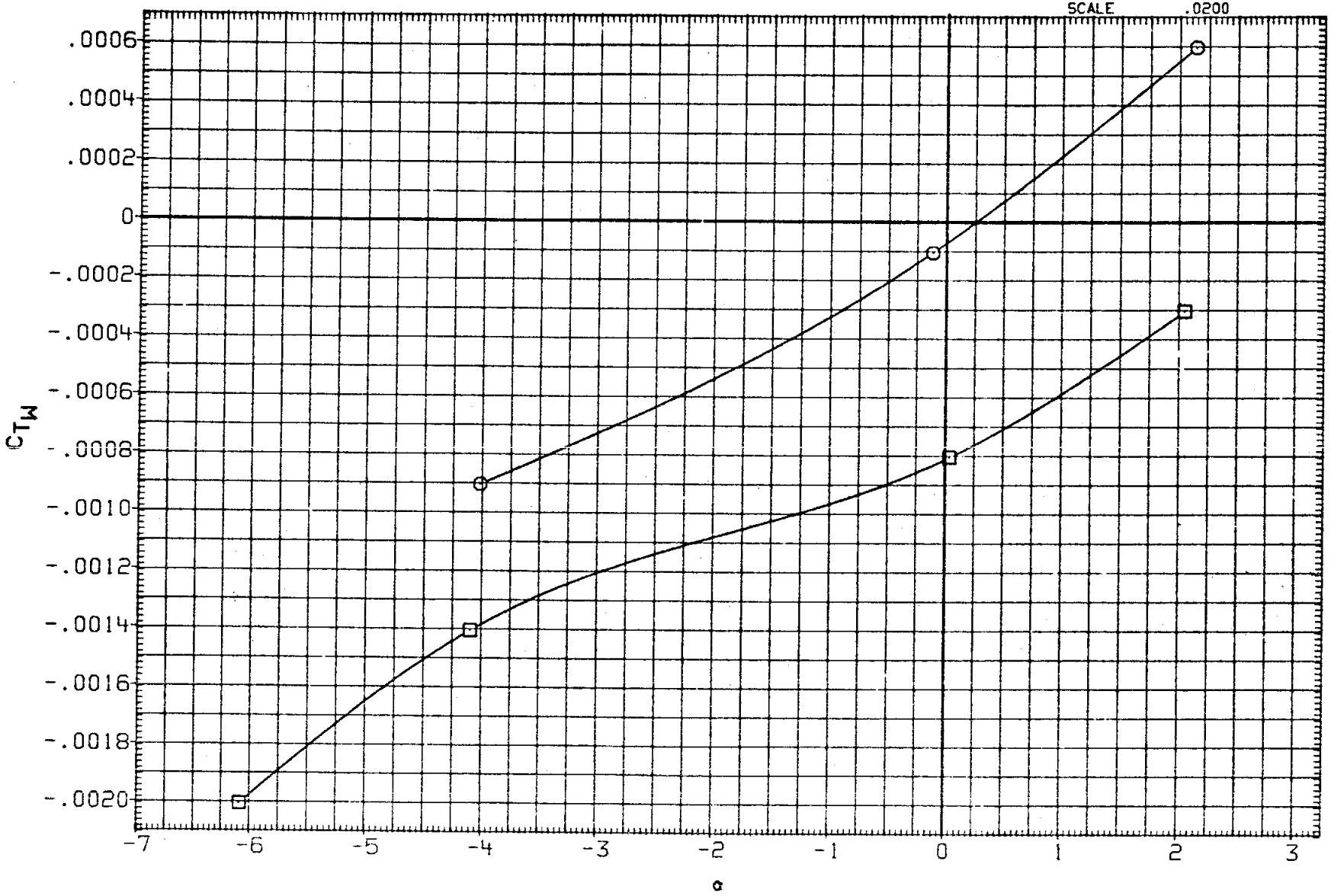

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

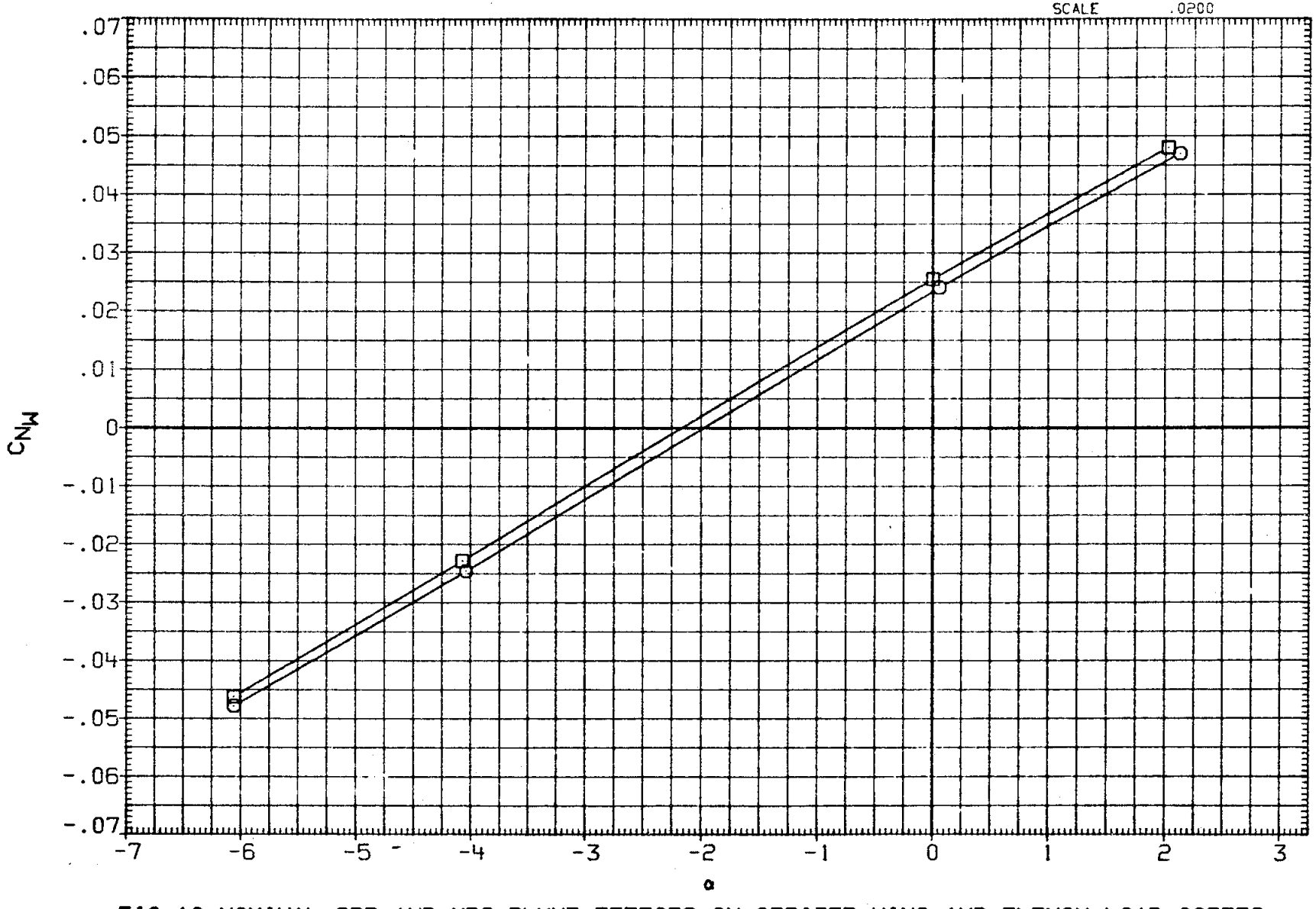

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

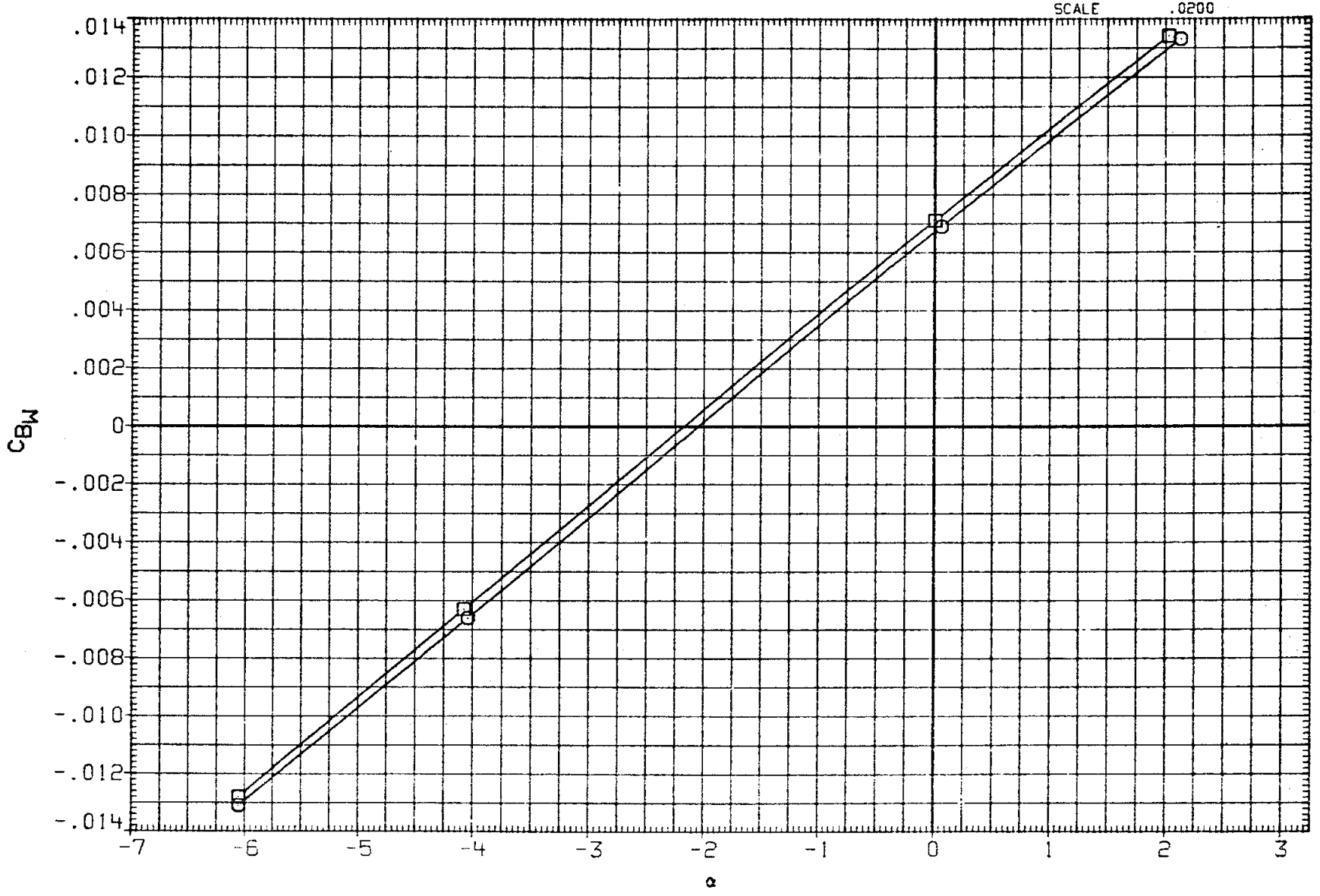

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
ANEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

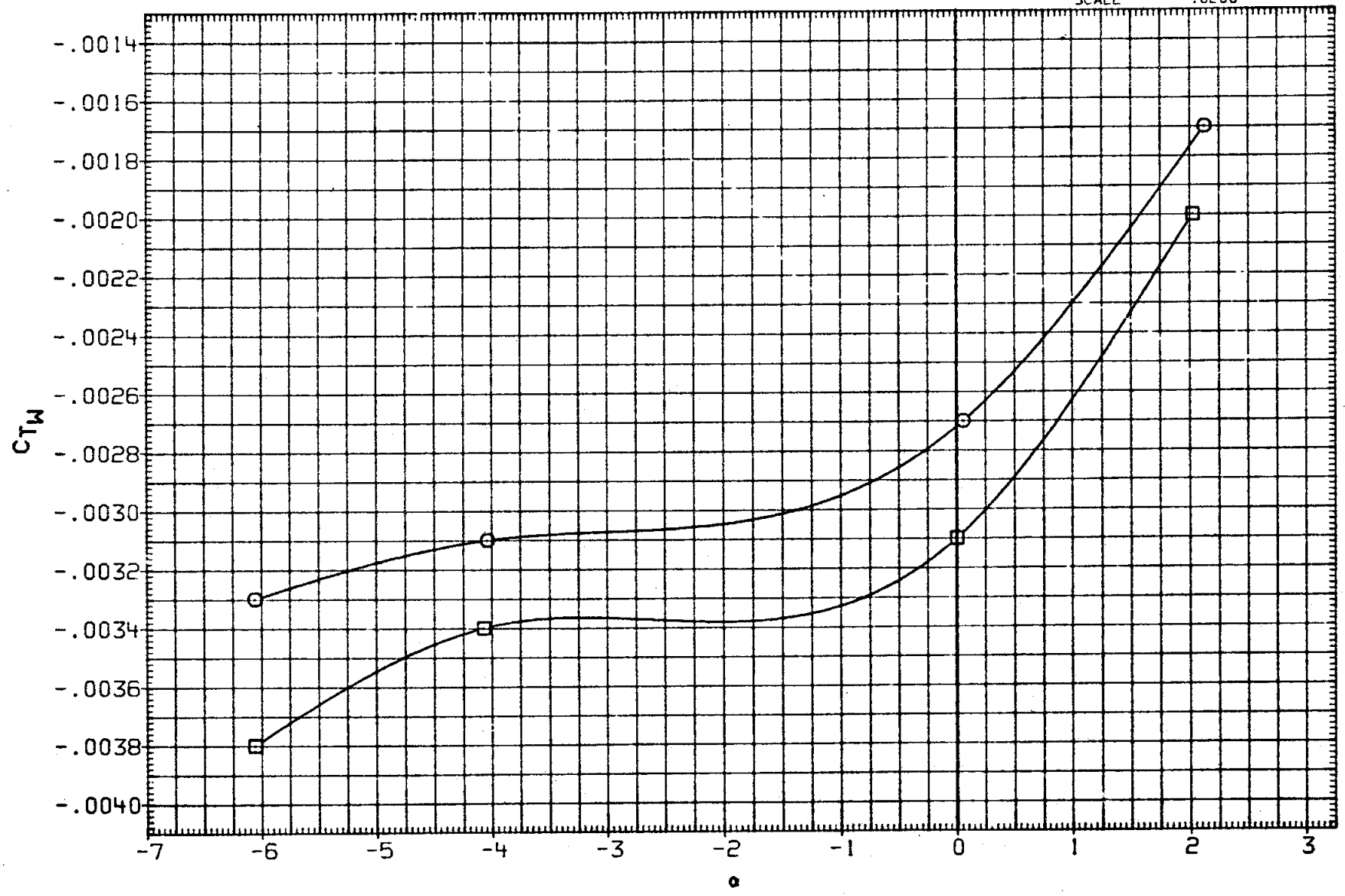

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

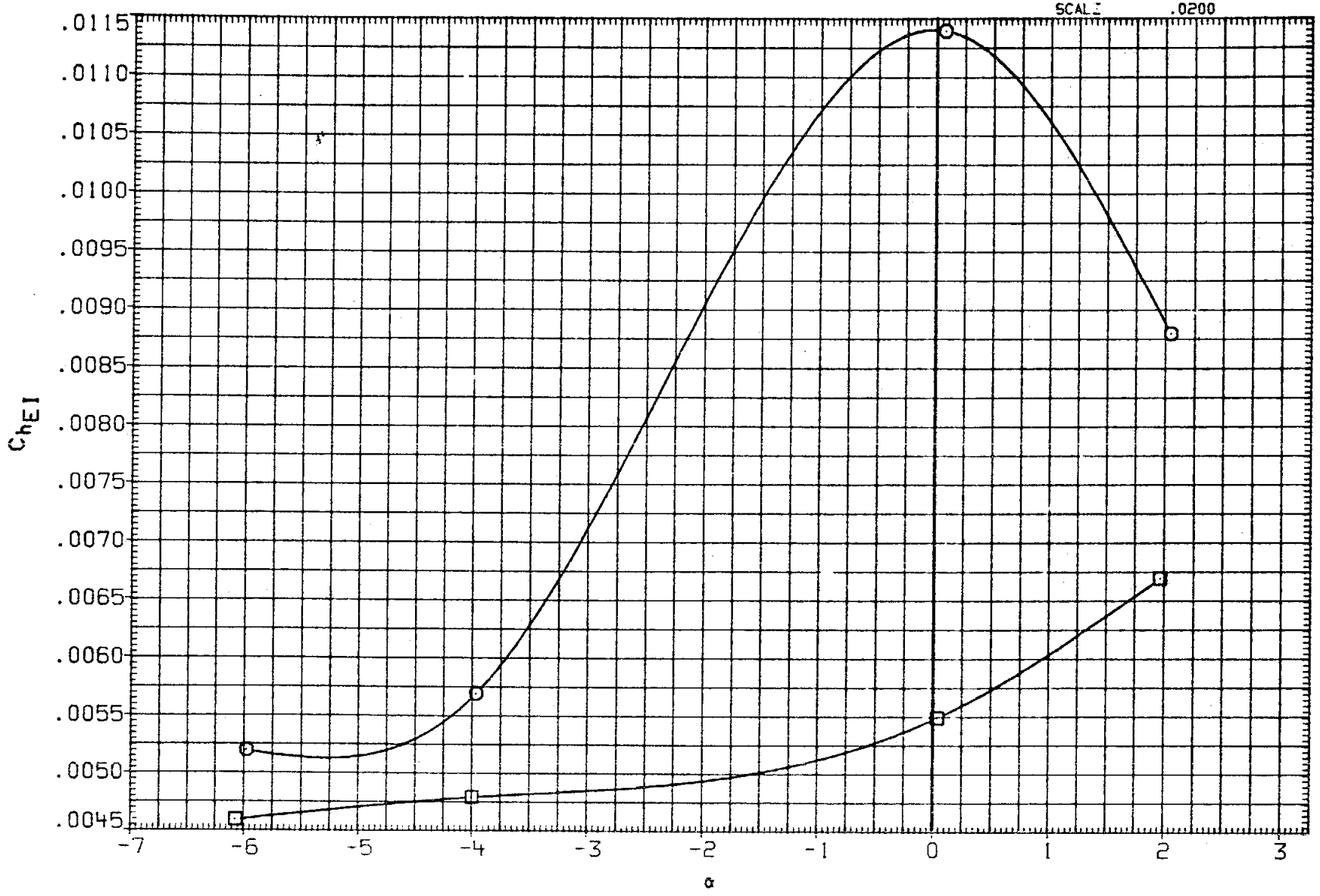

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

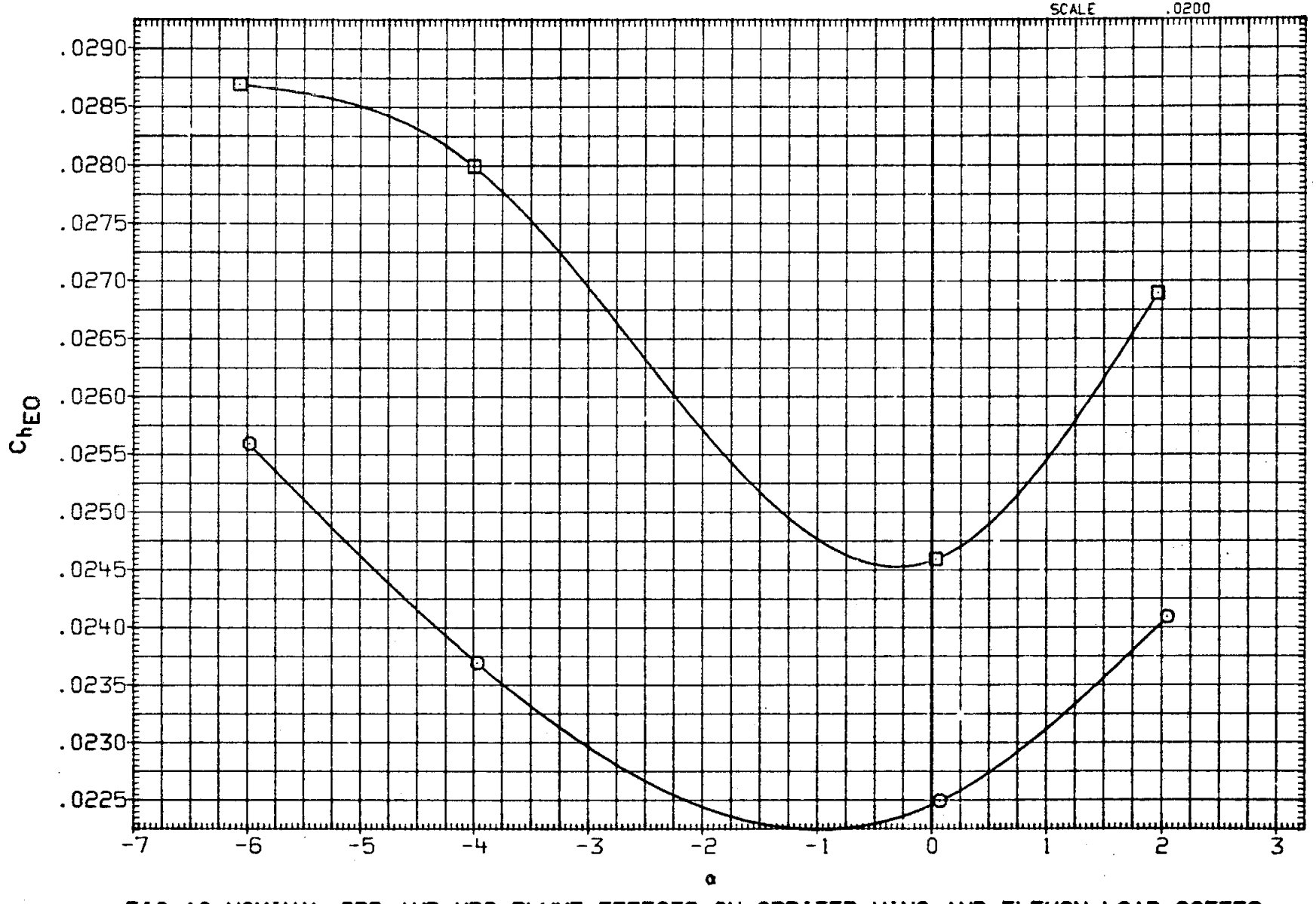

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

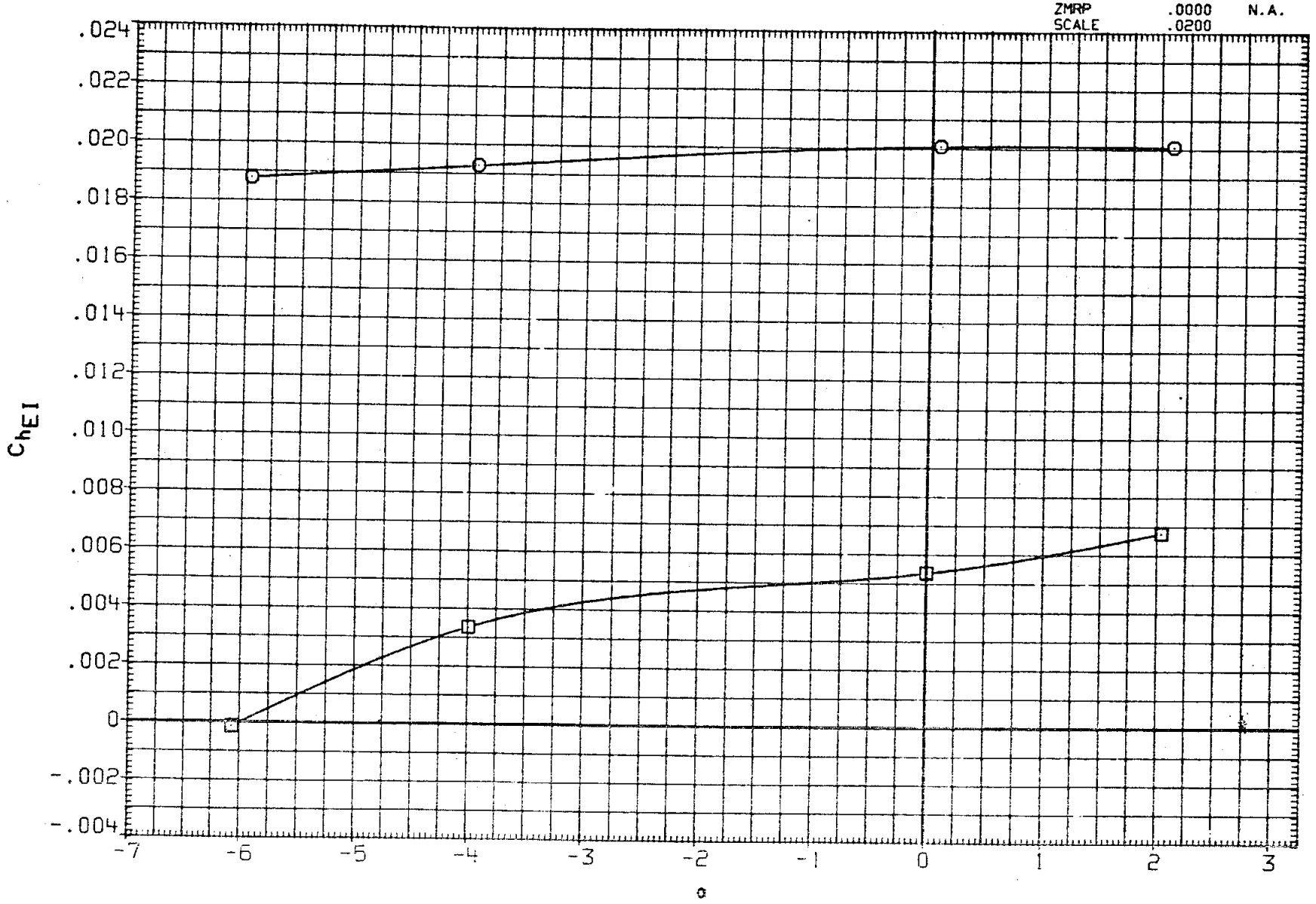

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

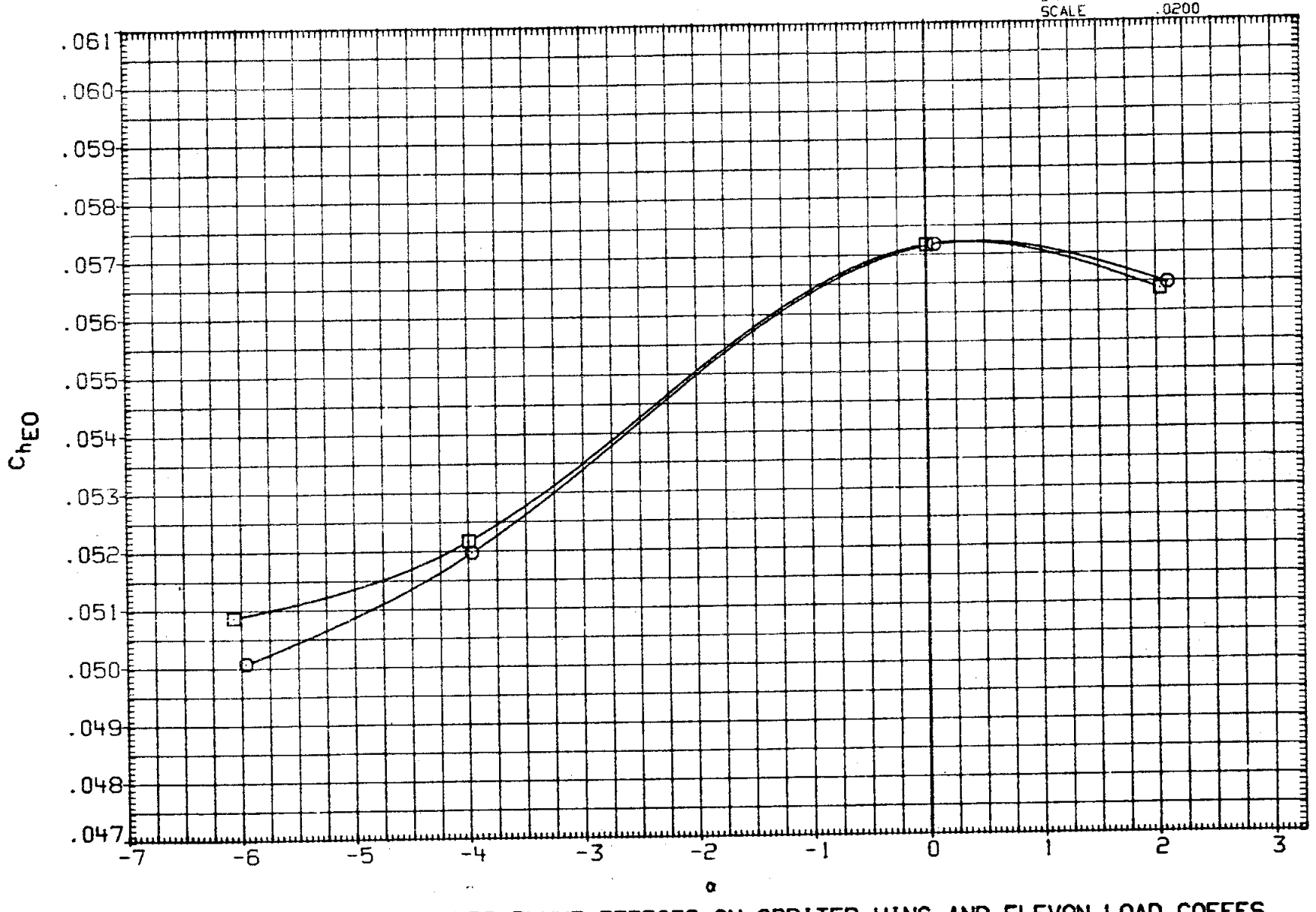

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

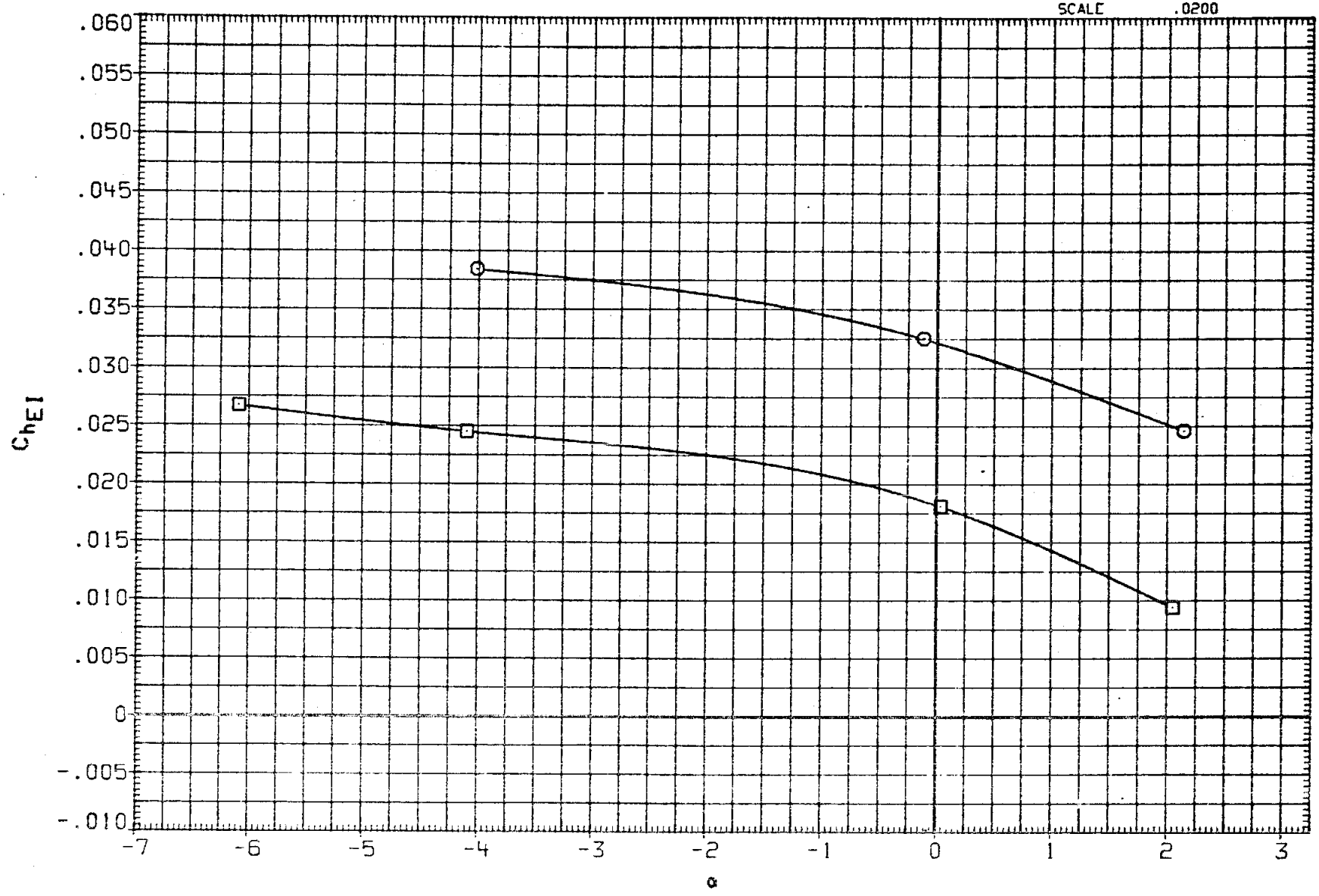

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

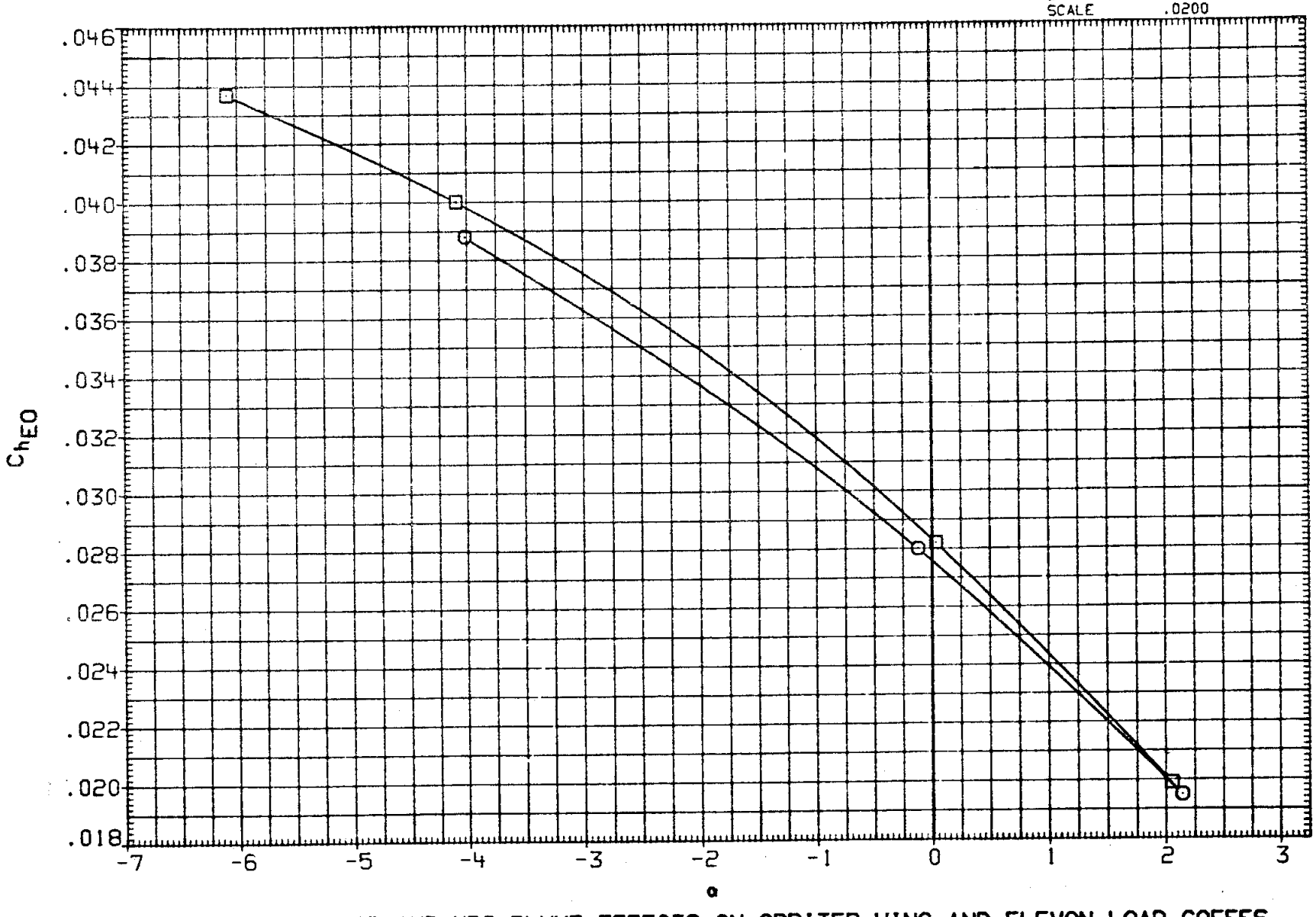

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

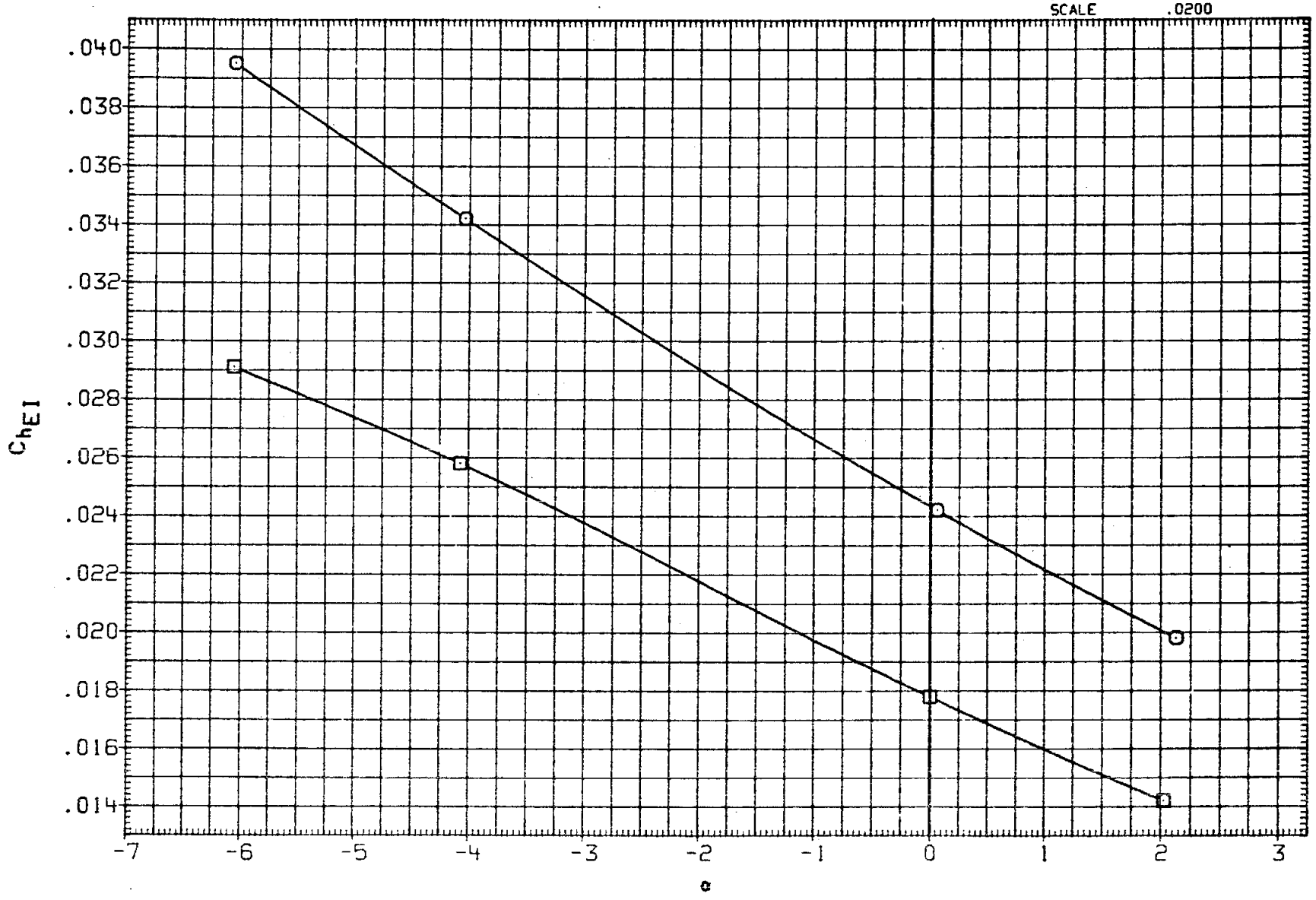

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
JNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

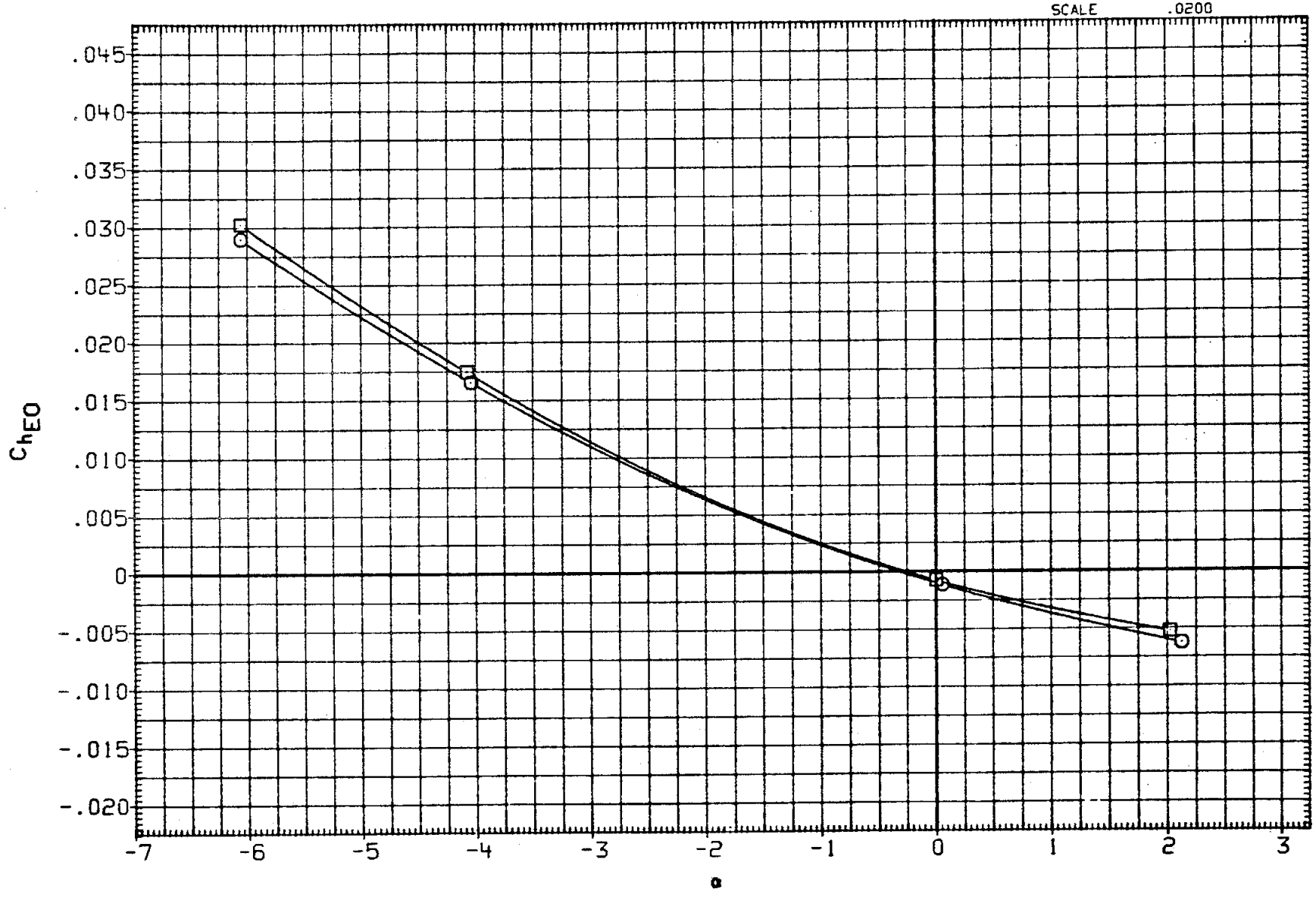

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

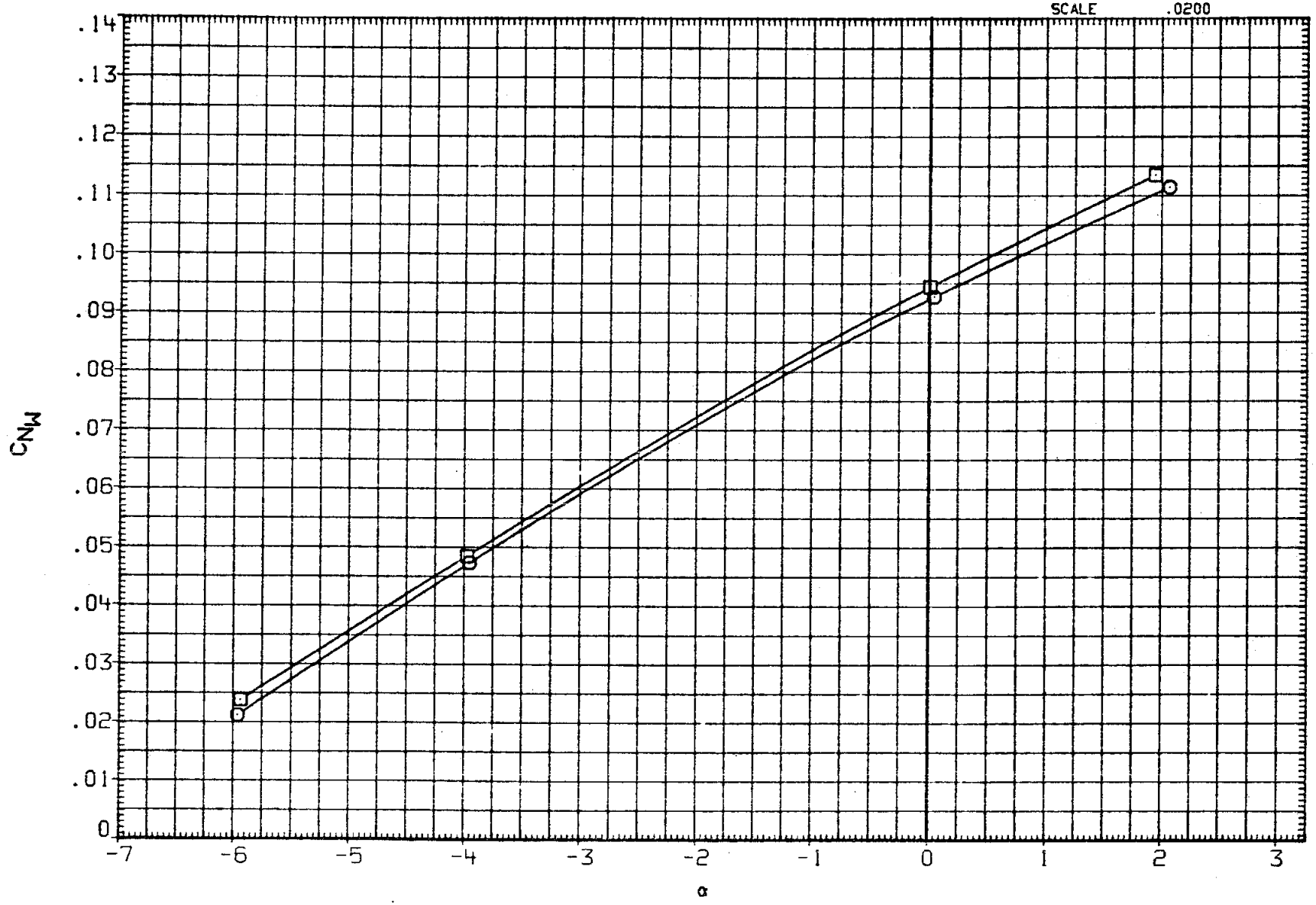

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

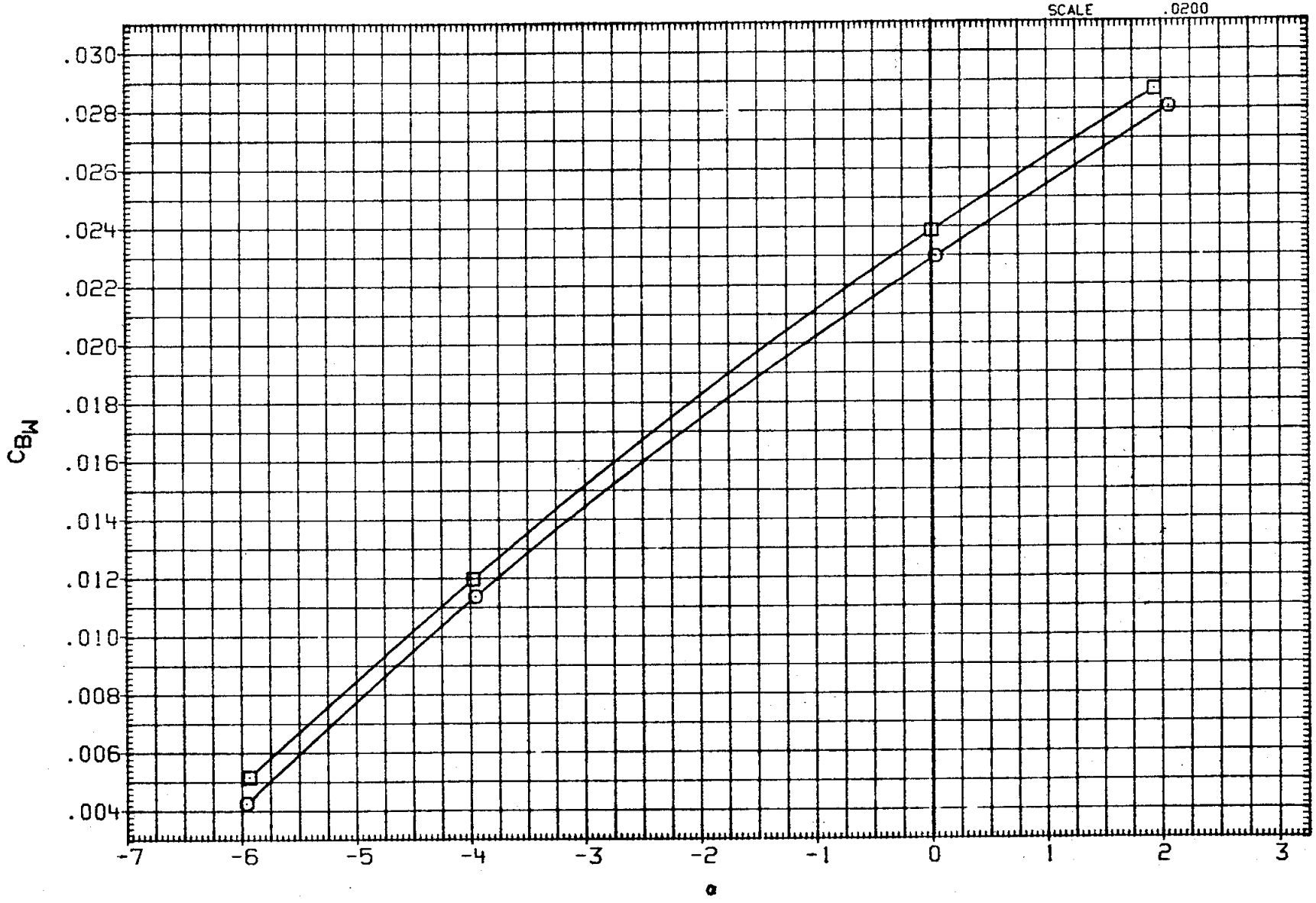

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

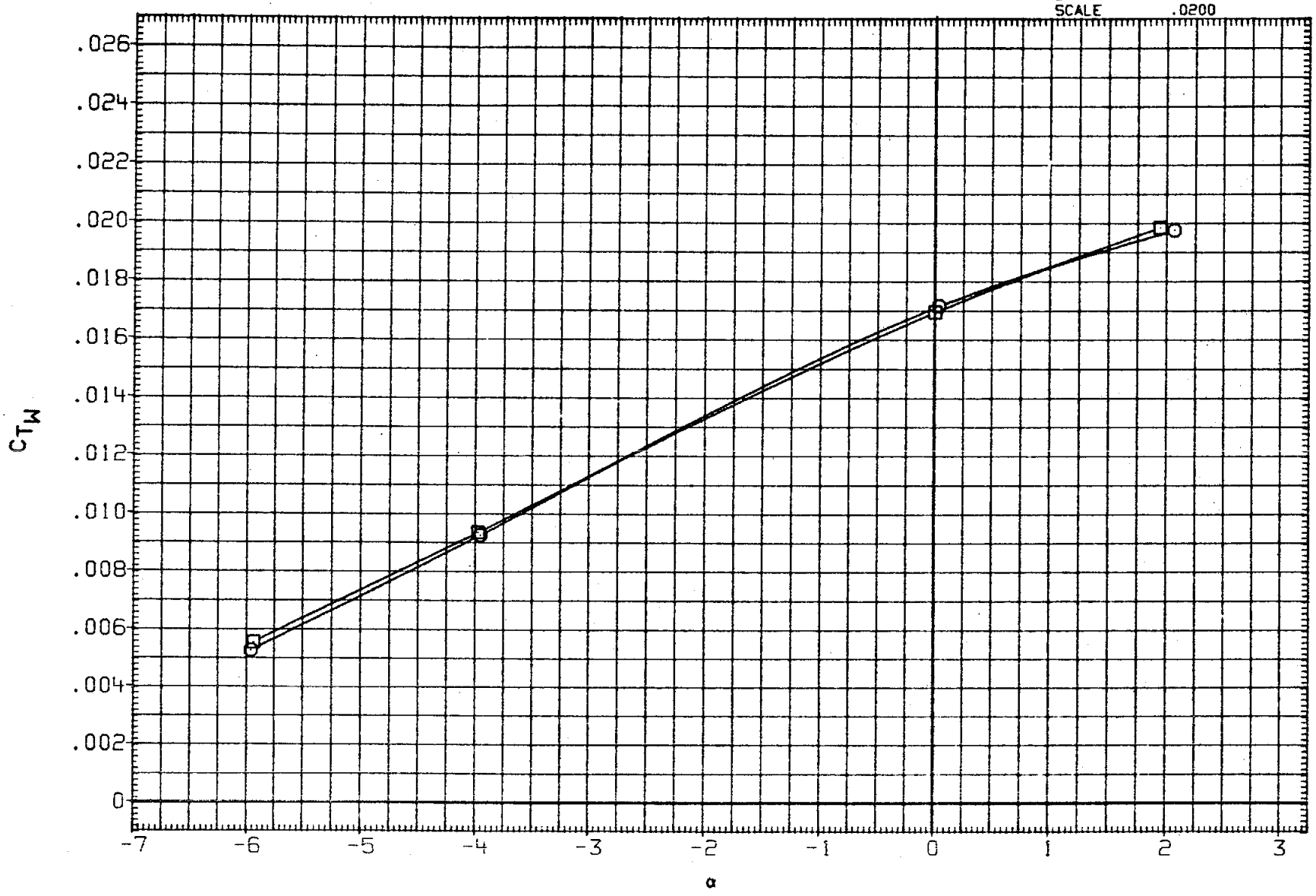

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A) MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6600	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

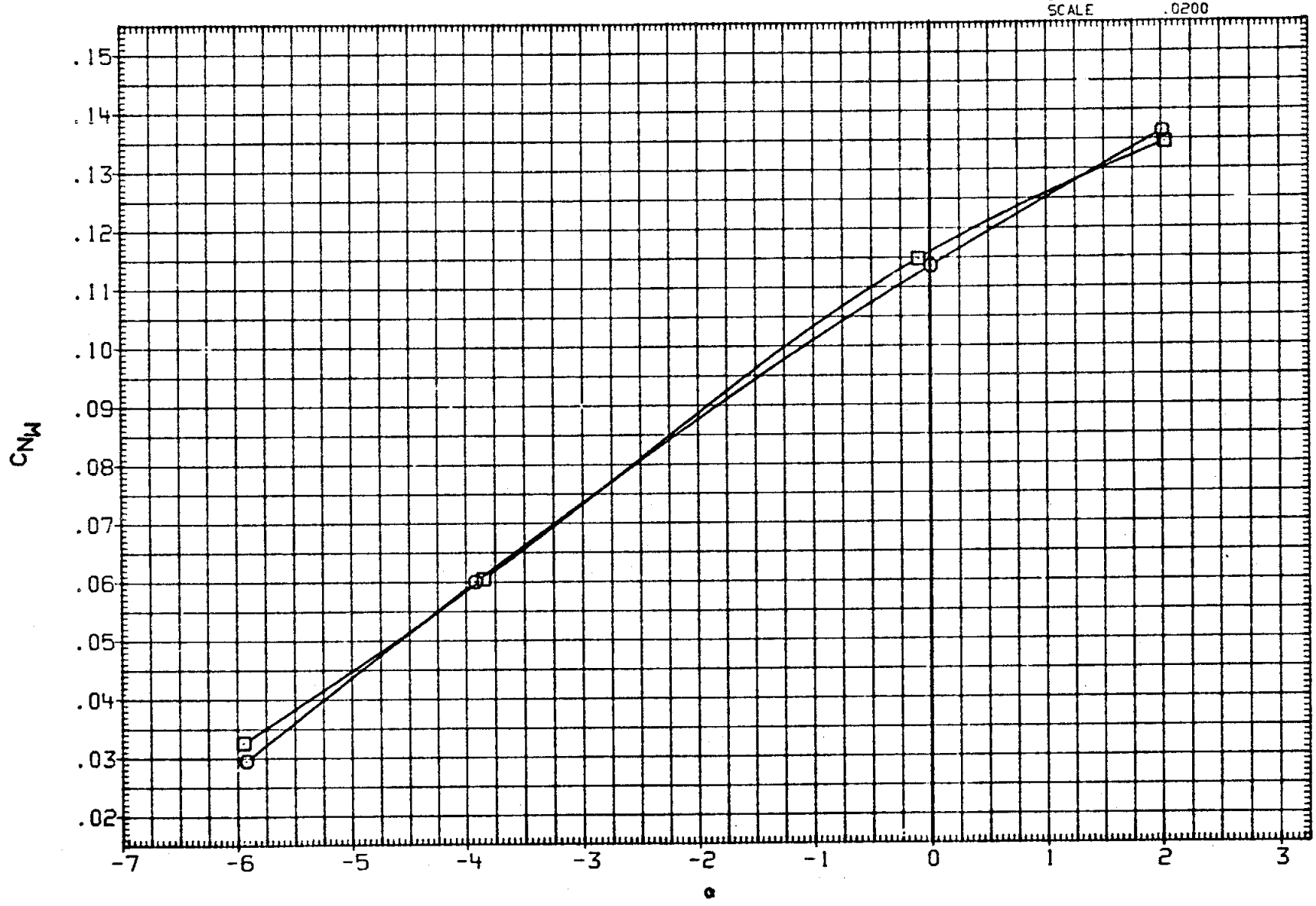

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

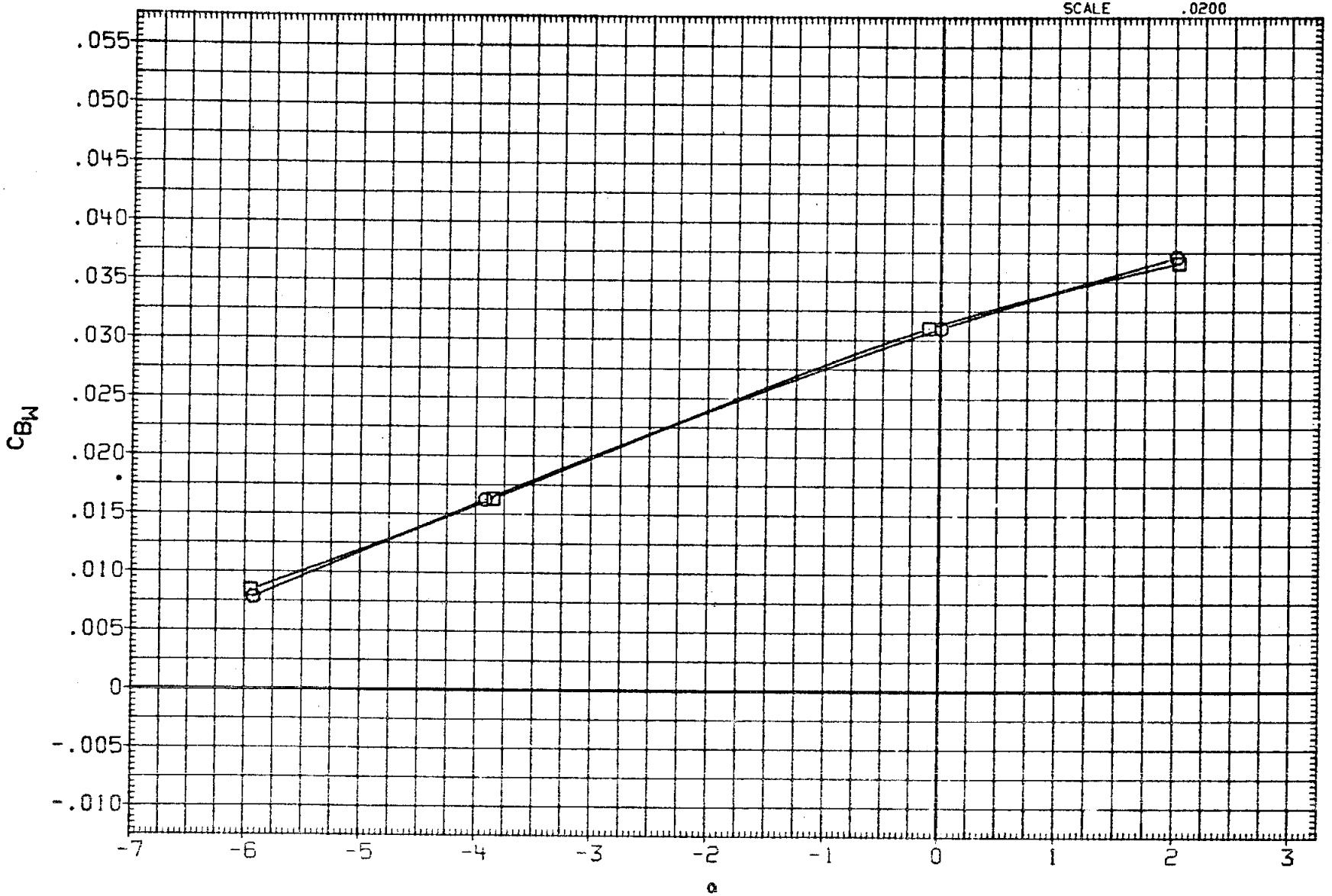

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

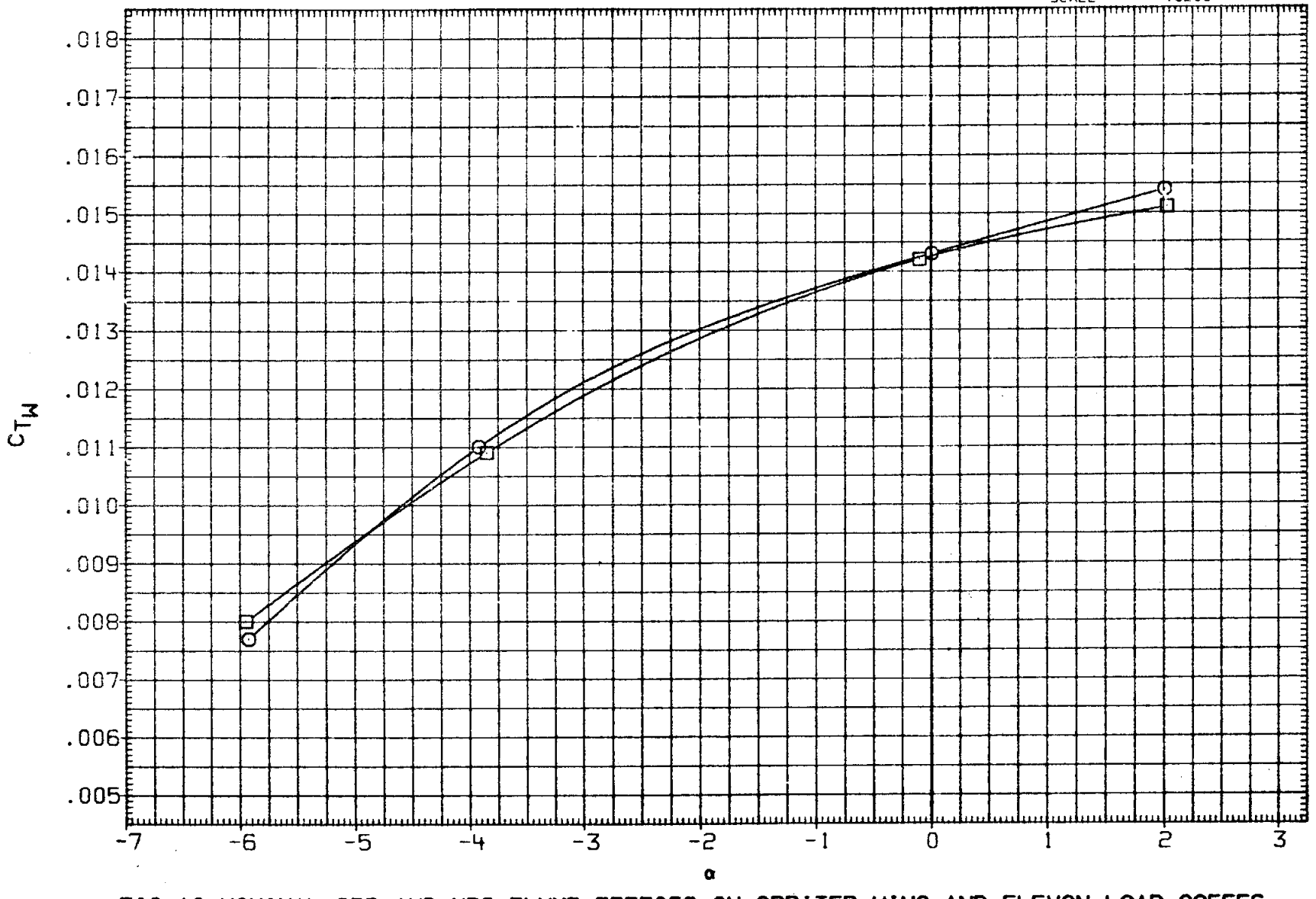

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

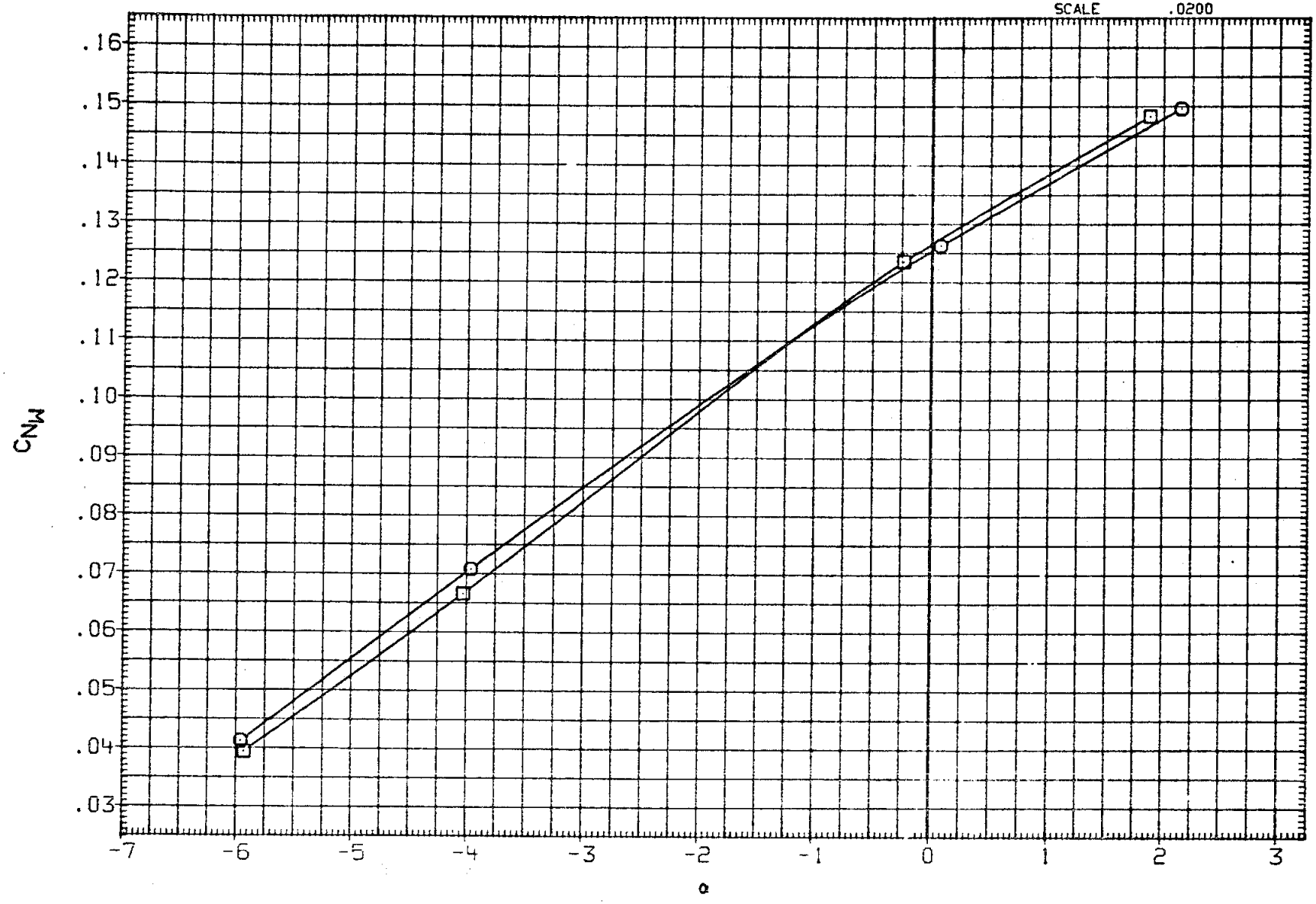

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

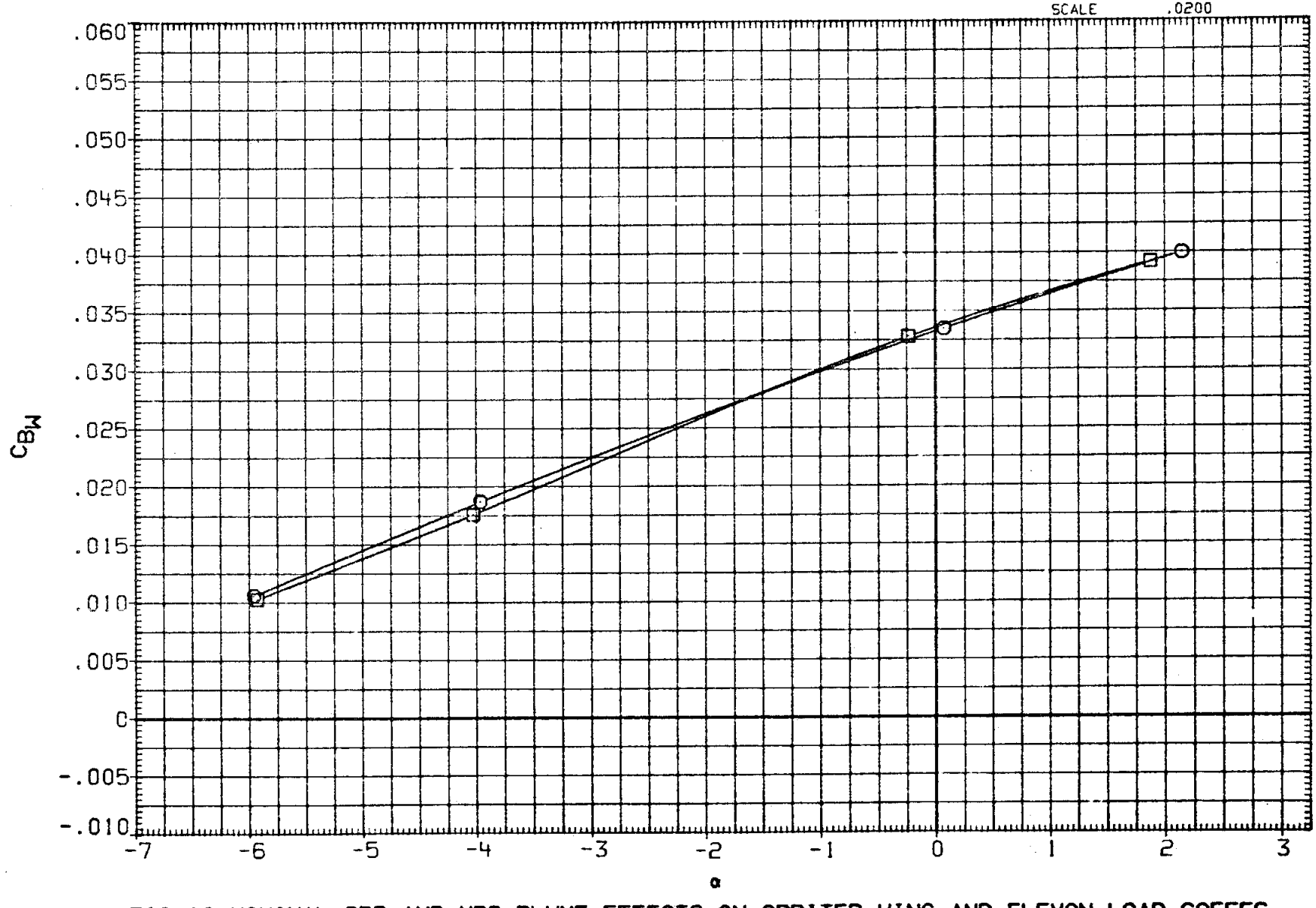

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

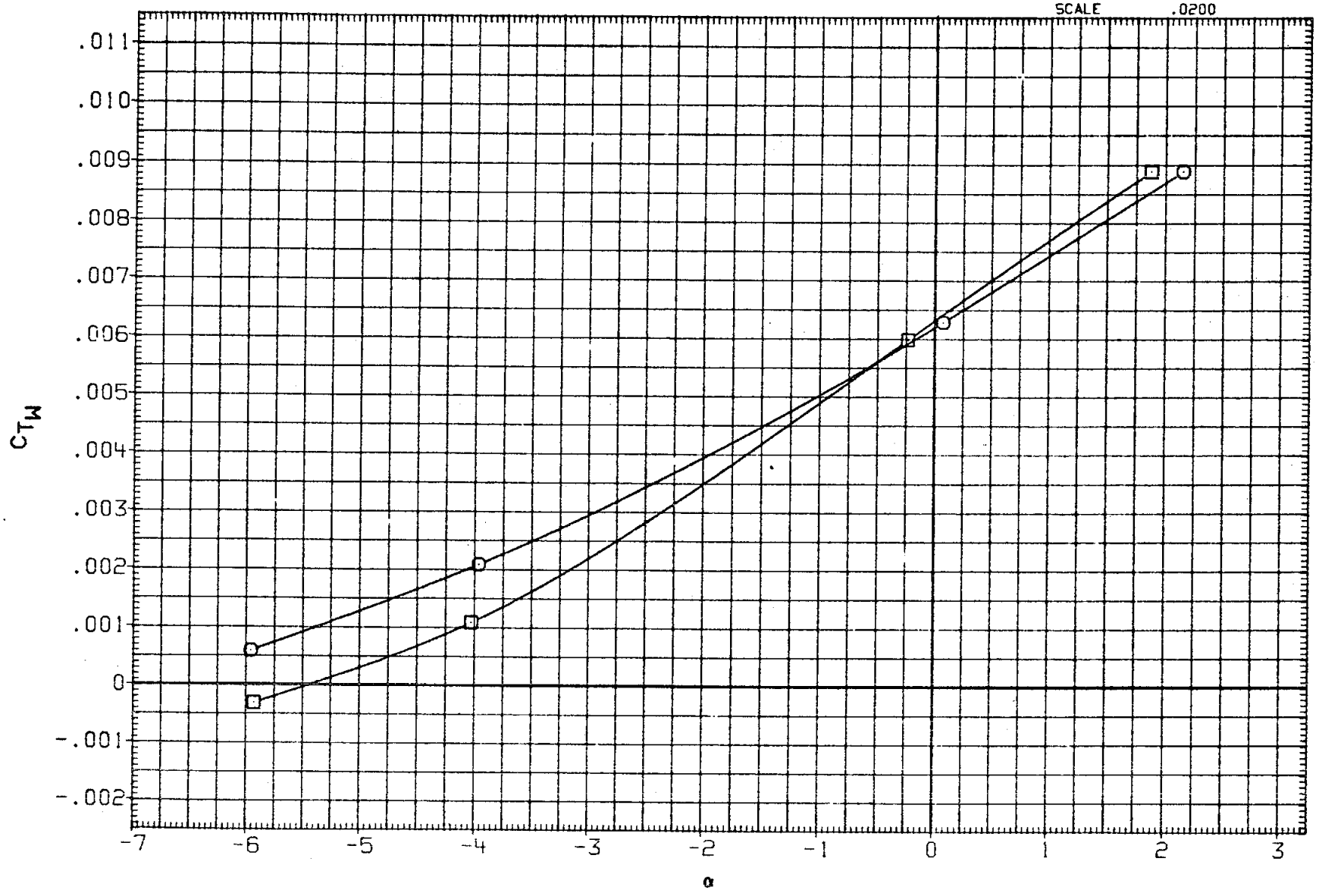

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

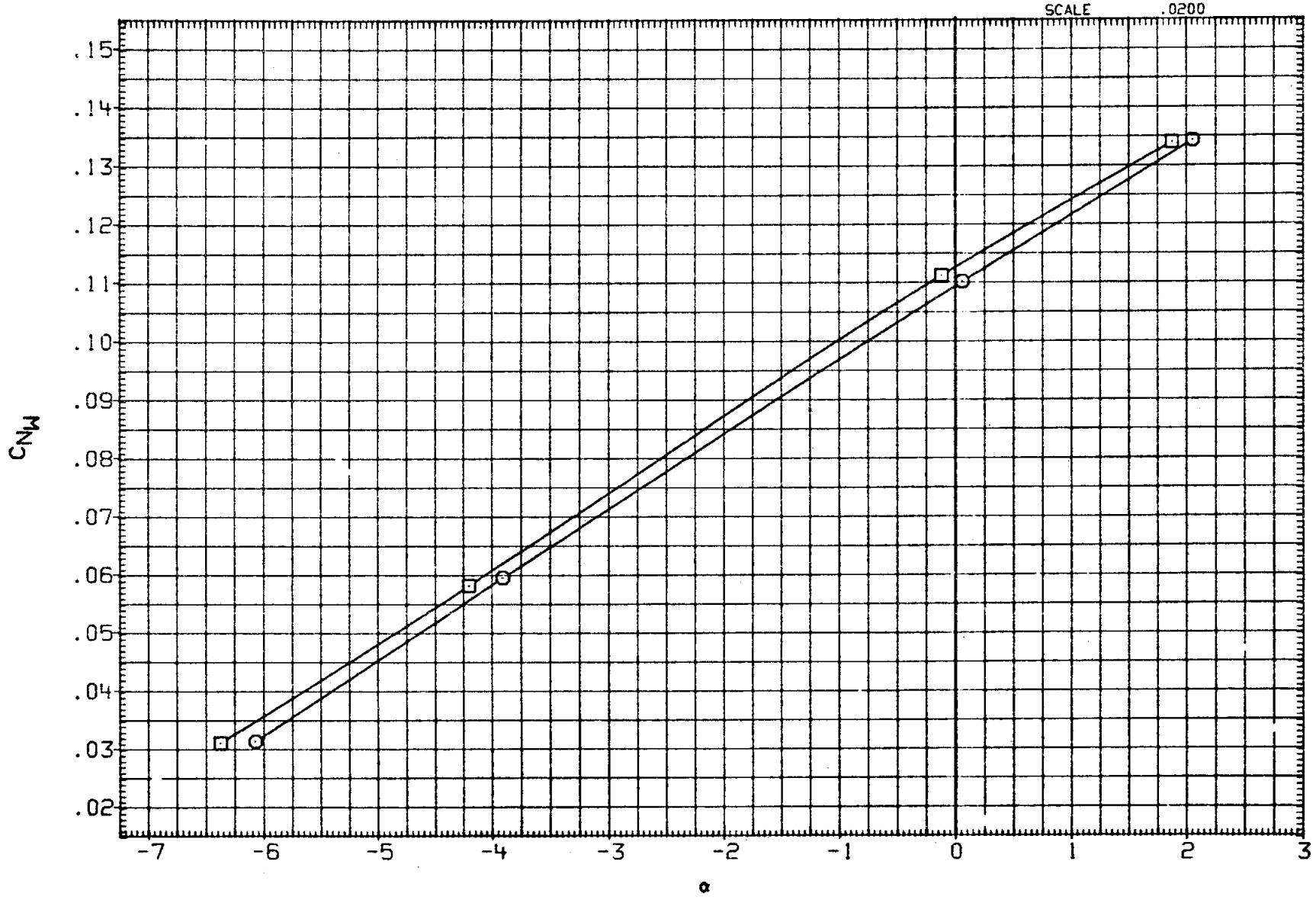

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

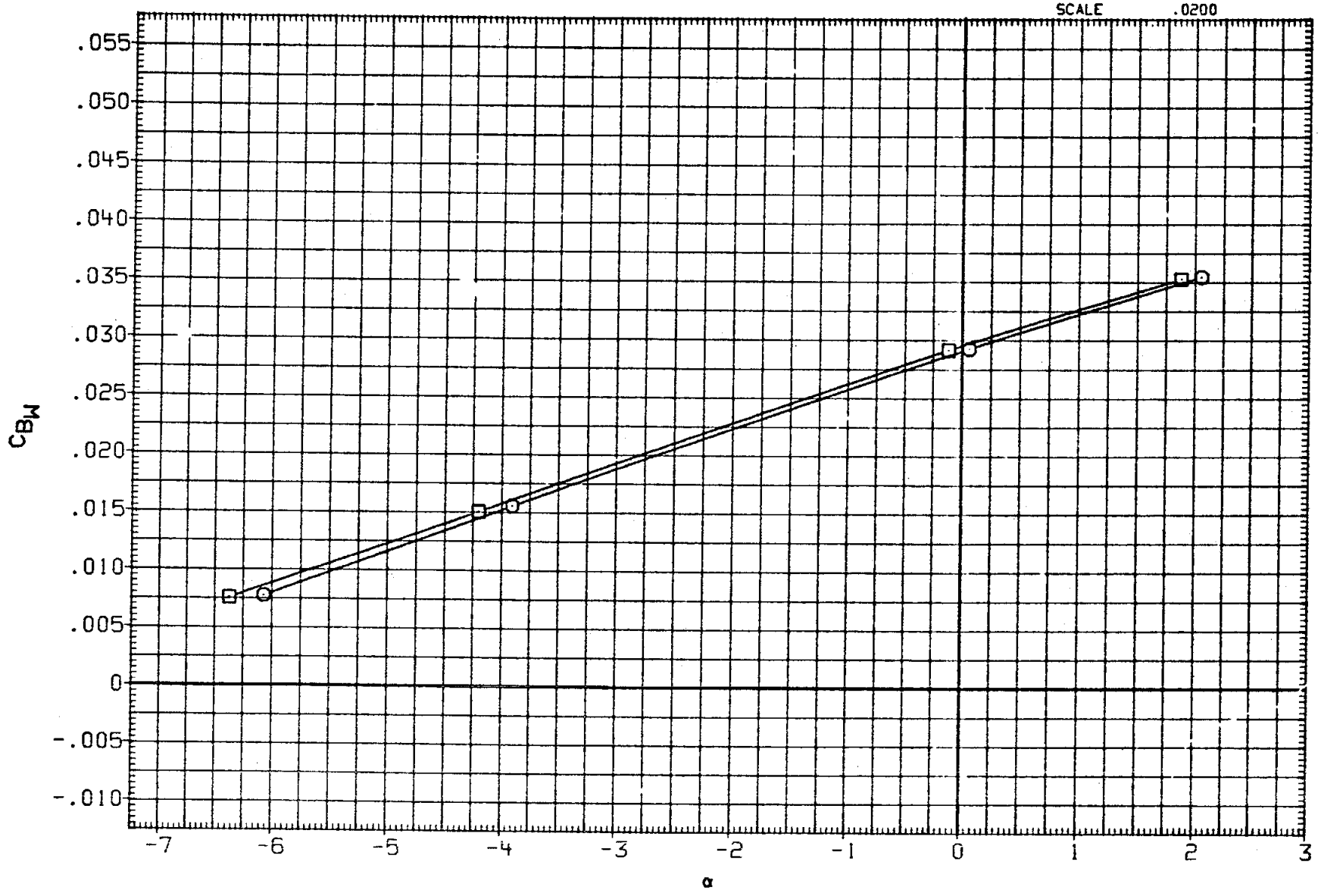

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
ANEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

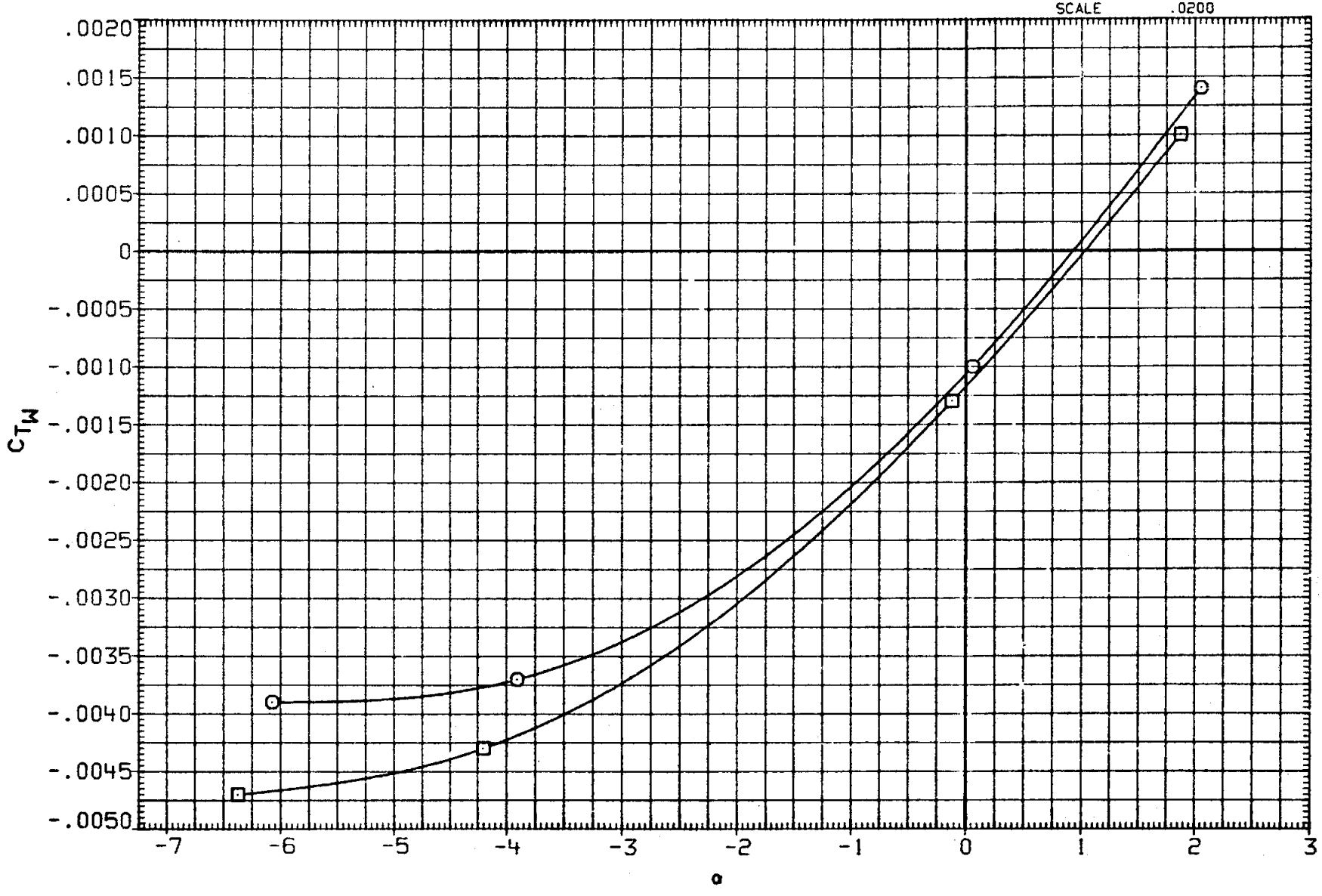

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

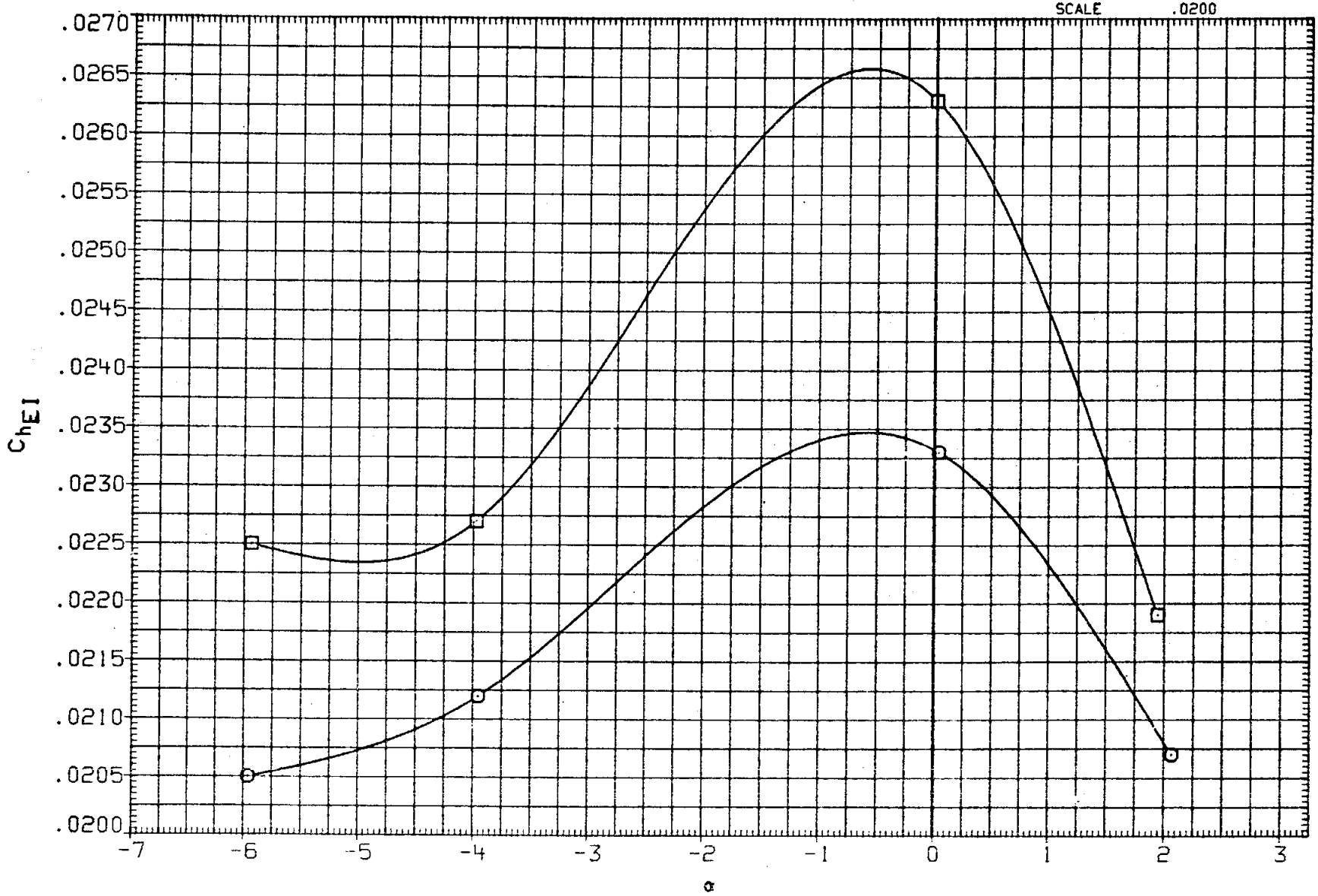

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

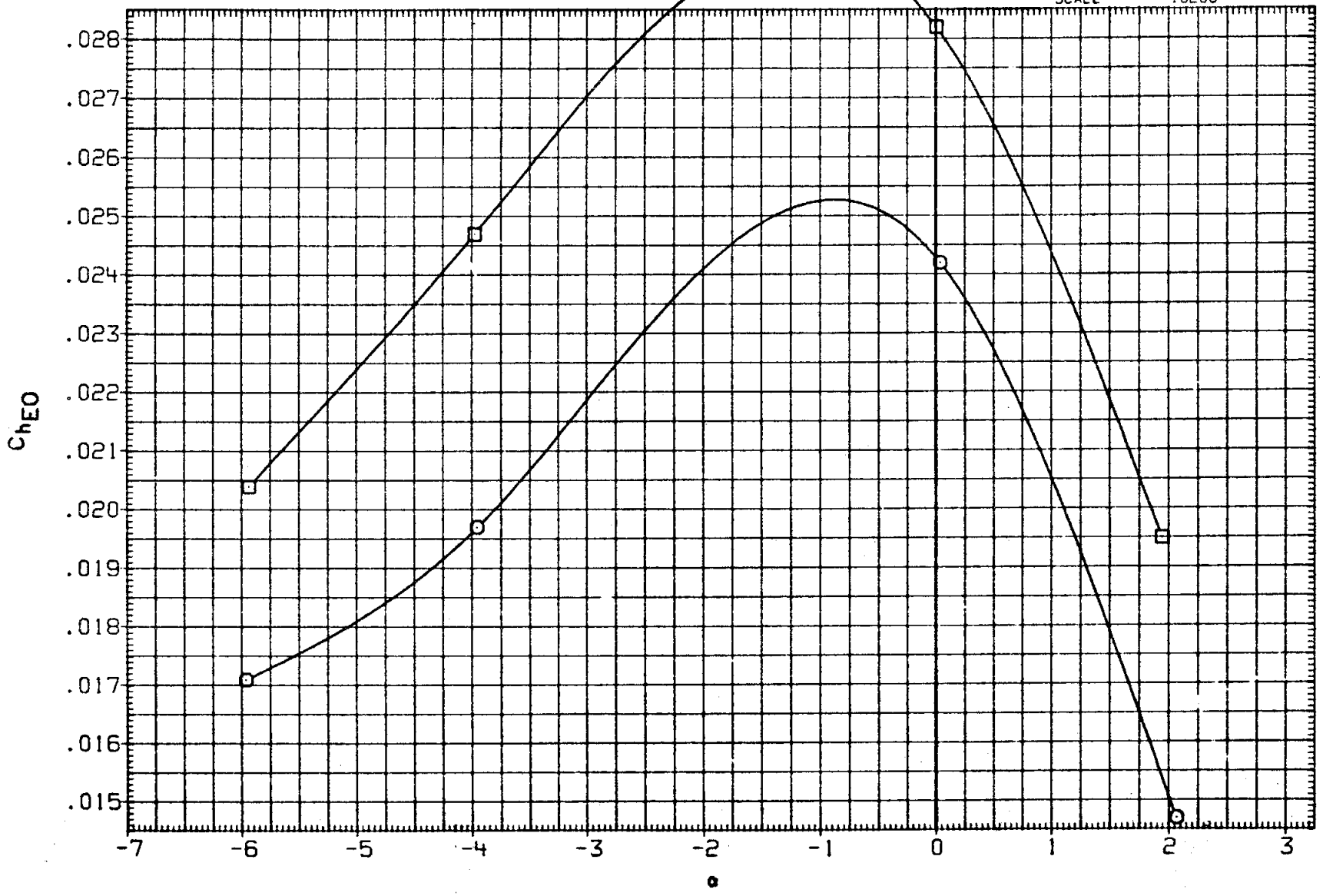

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

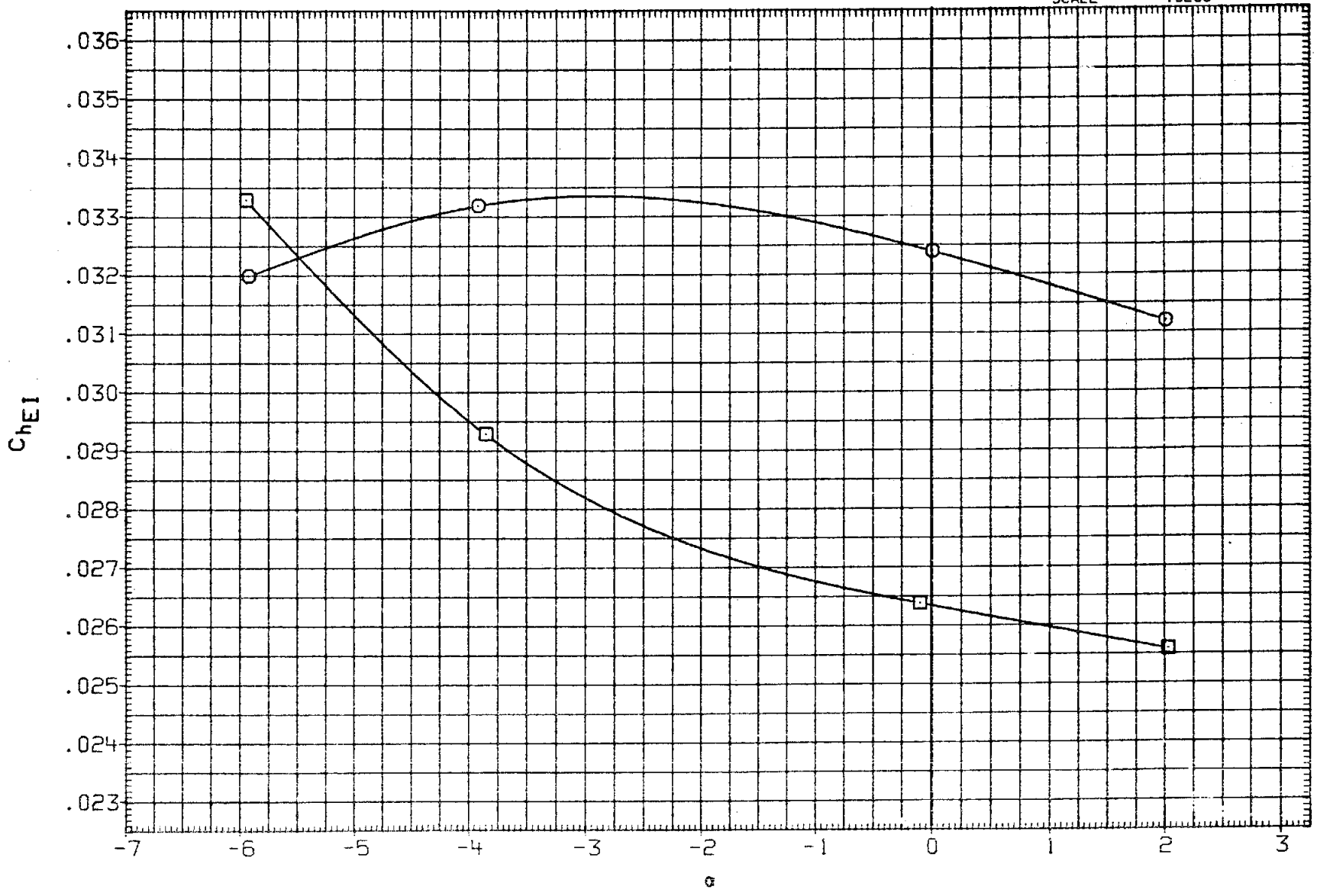

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

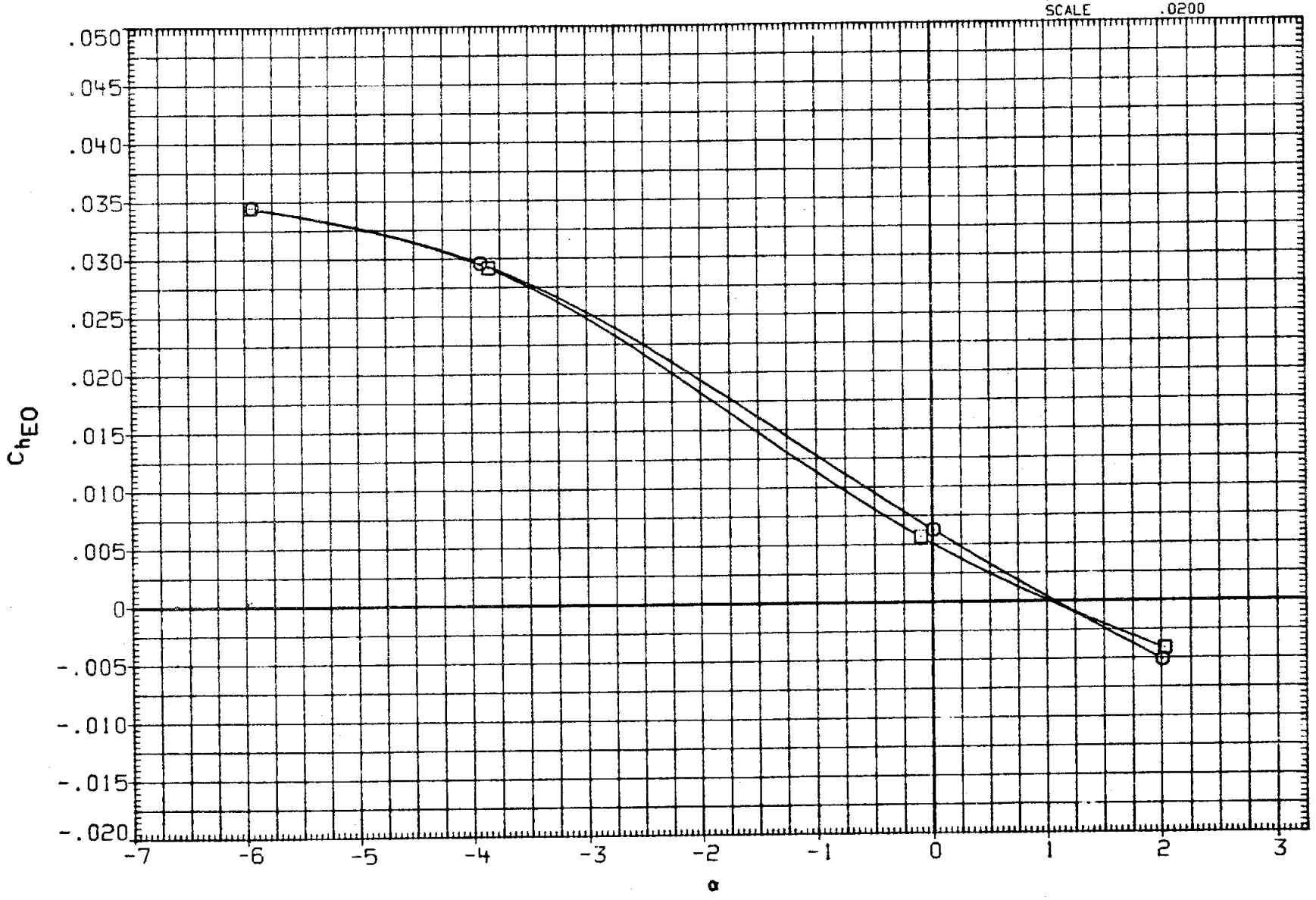

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

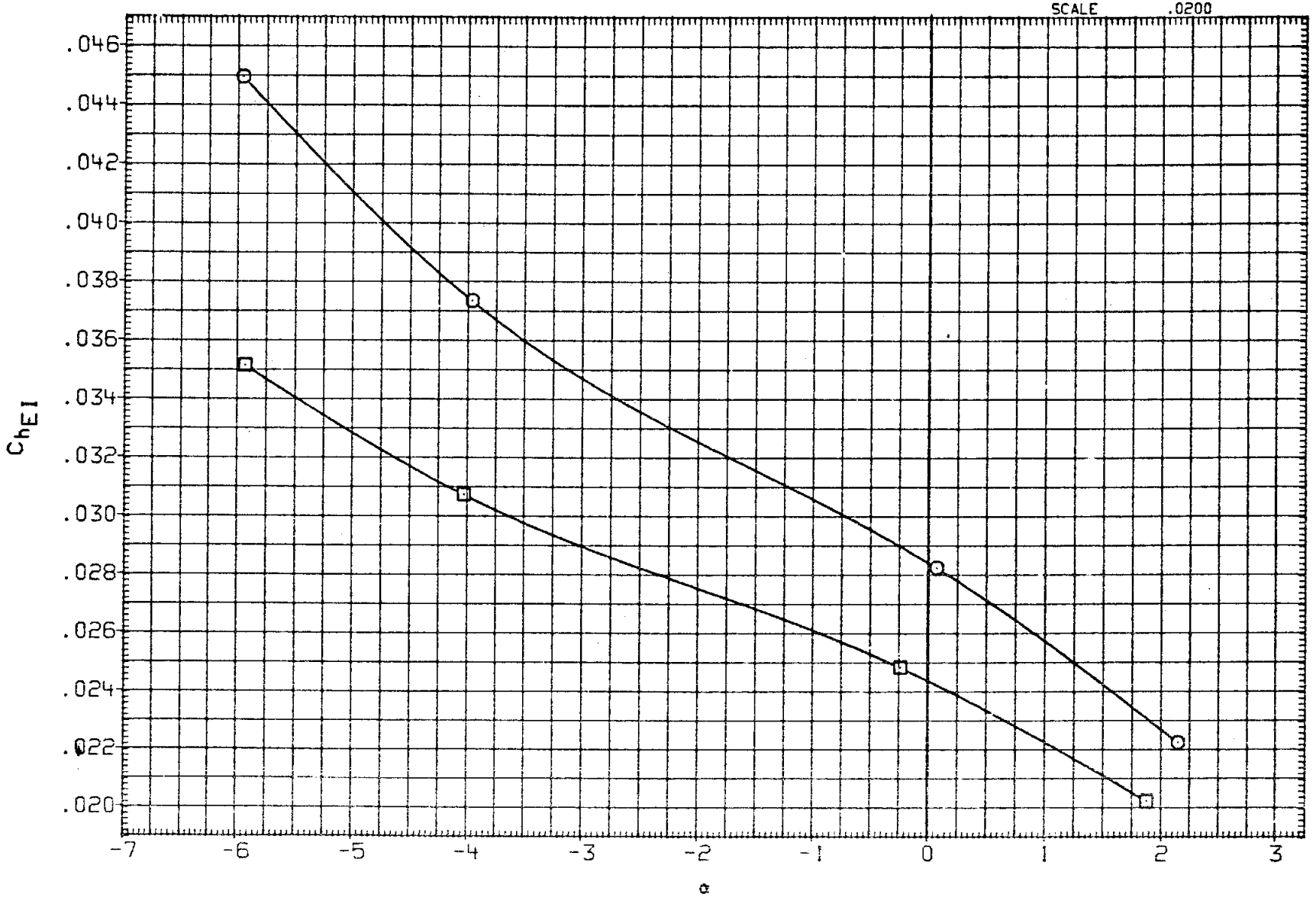

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

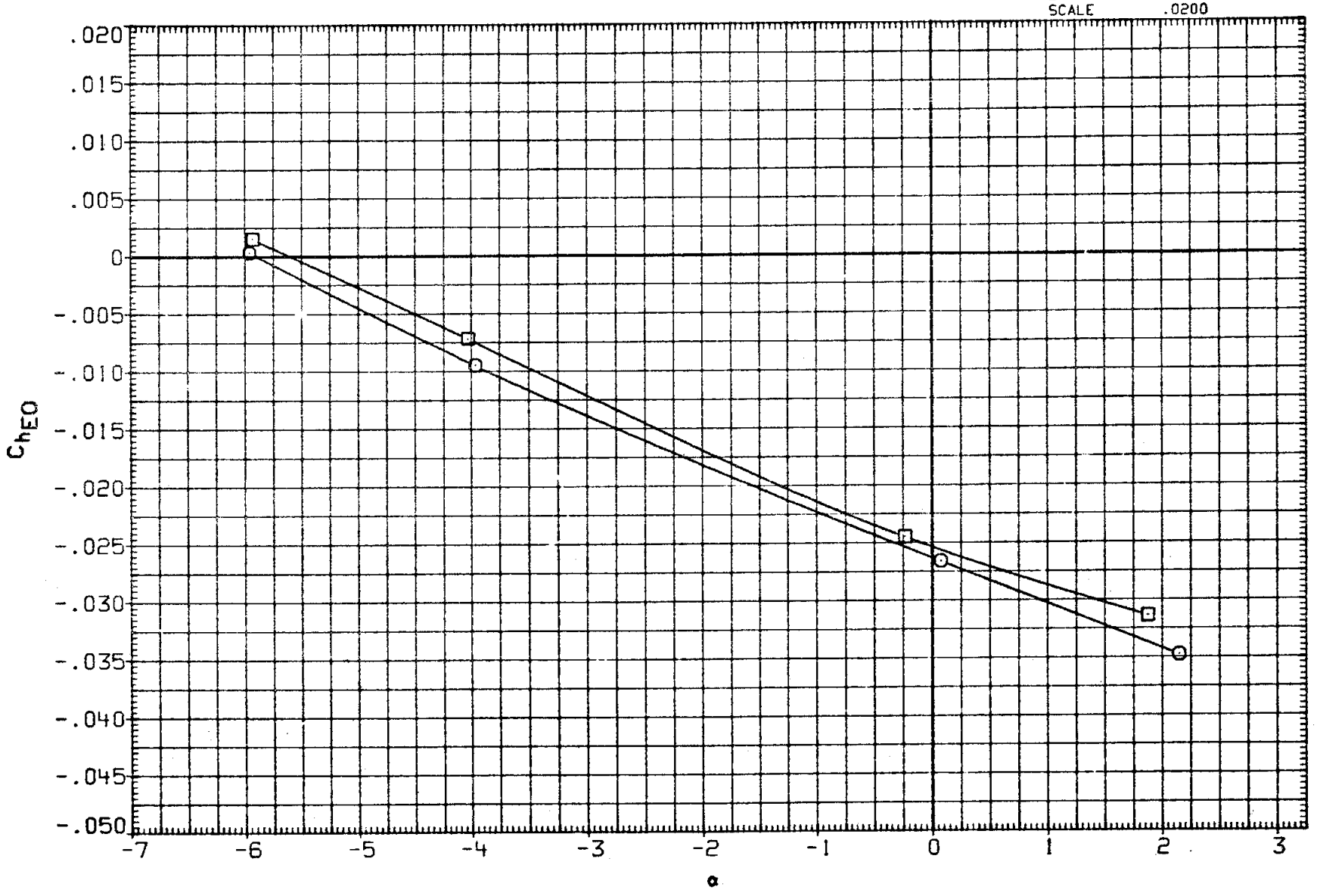

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

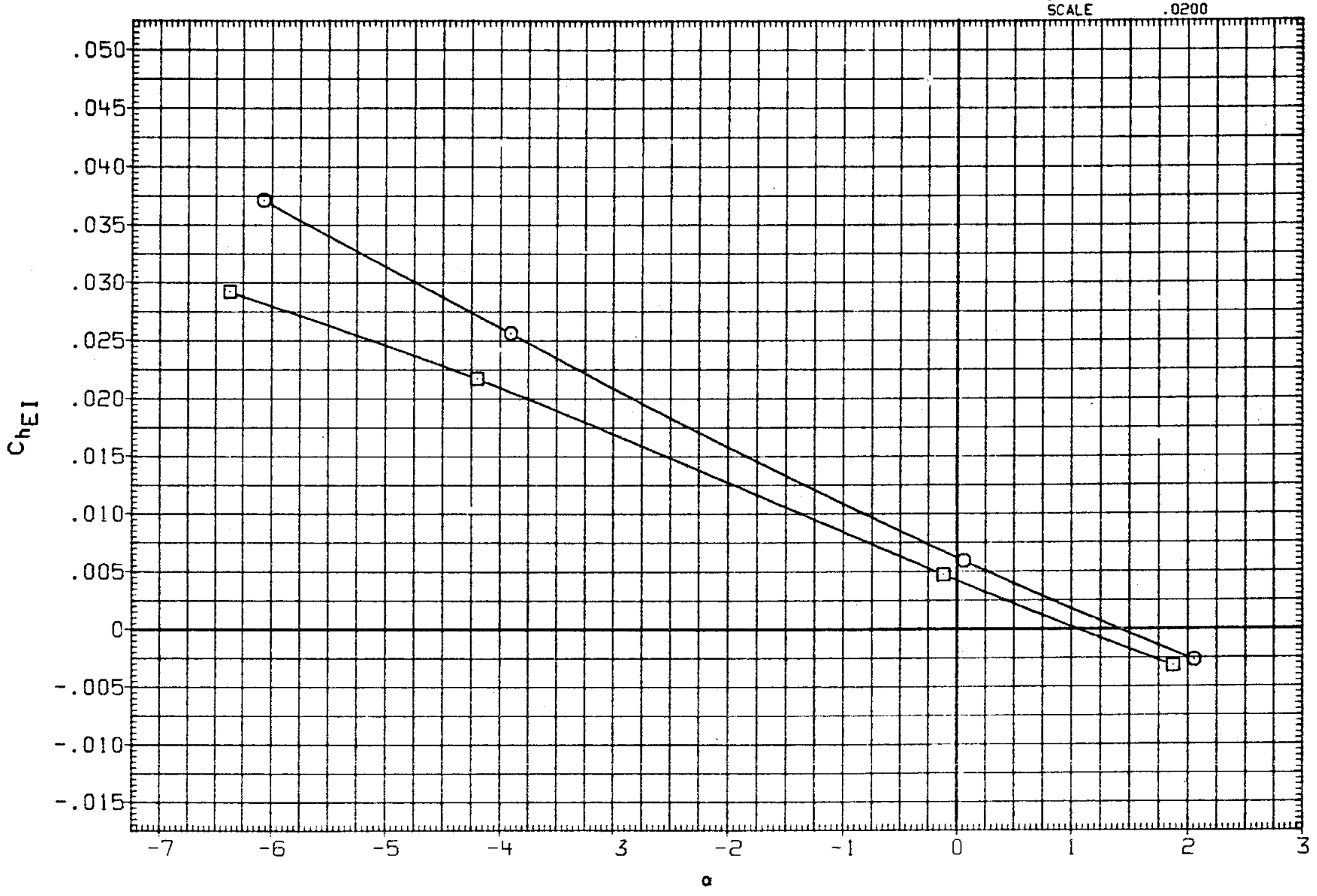

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
JNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

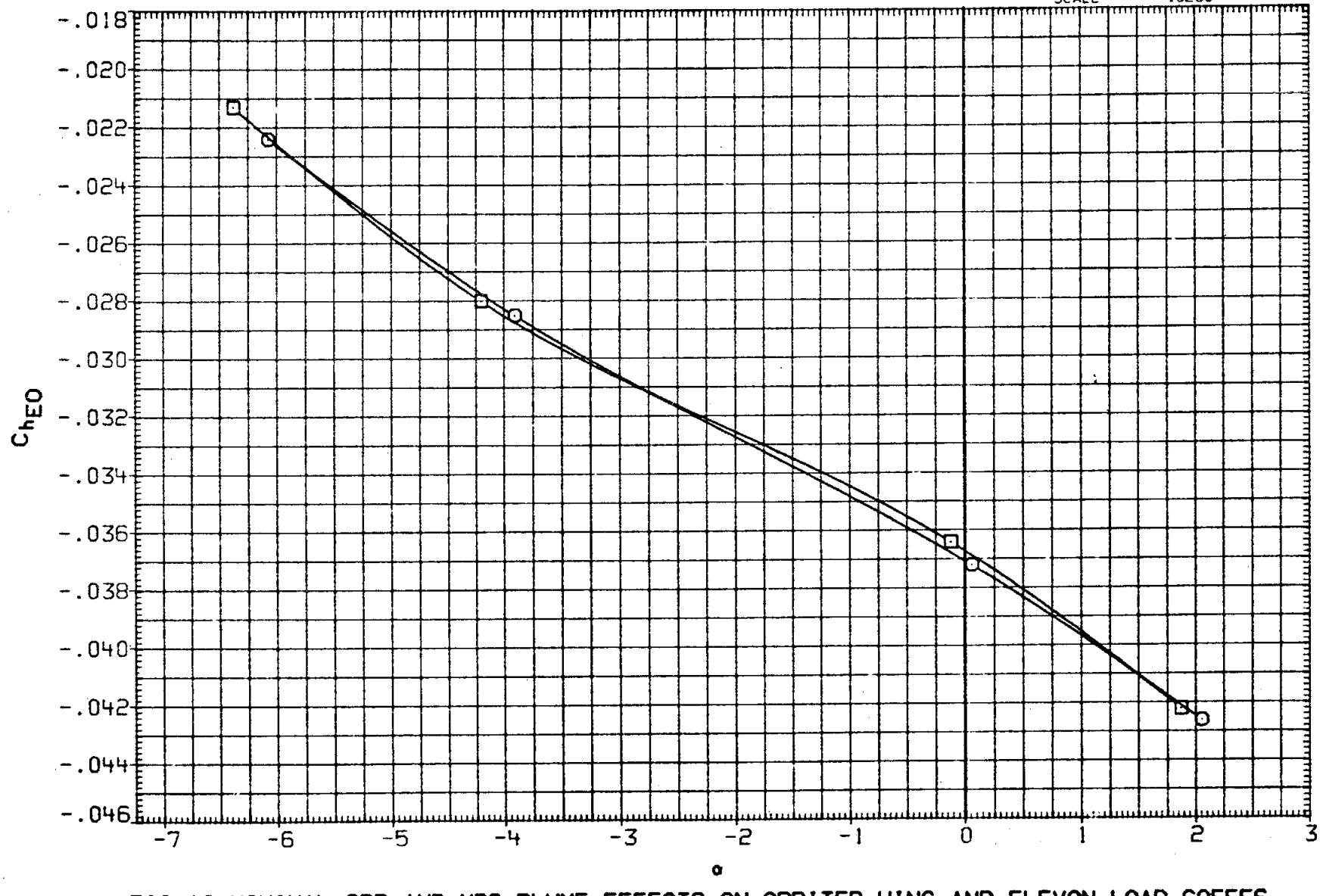

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

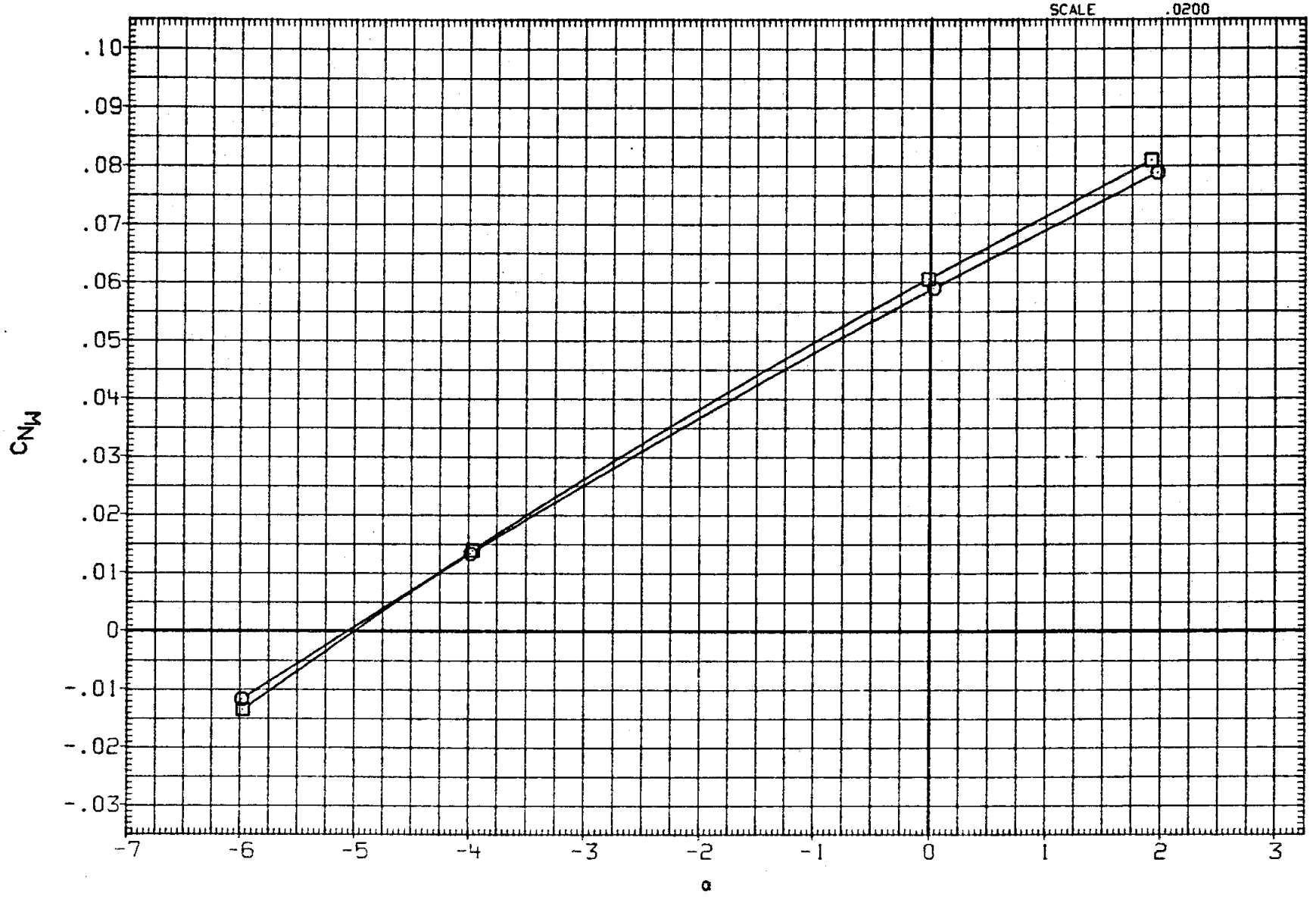

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

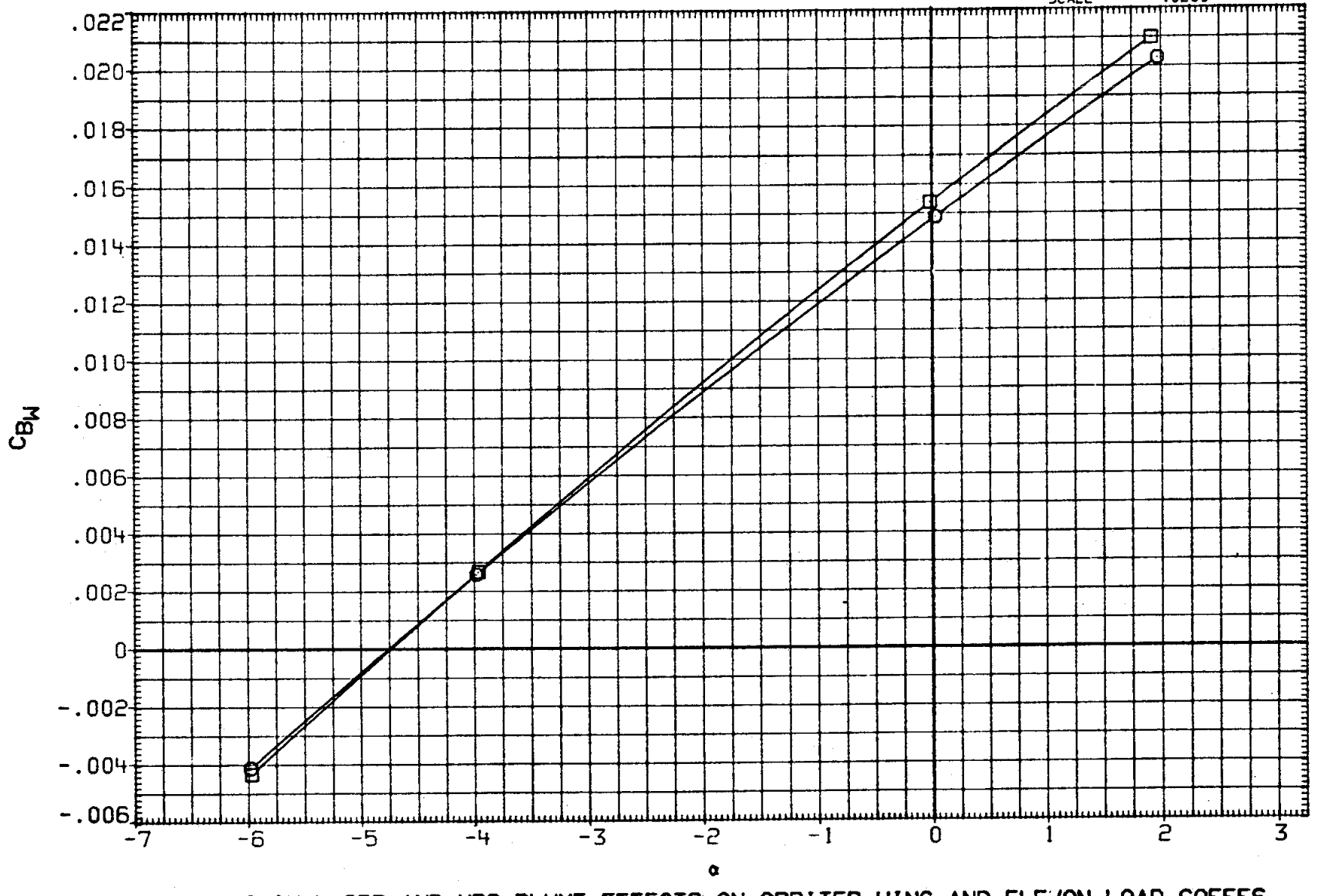

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

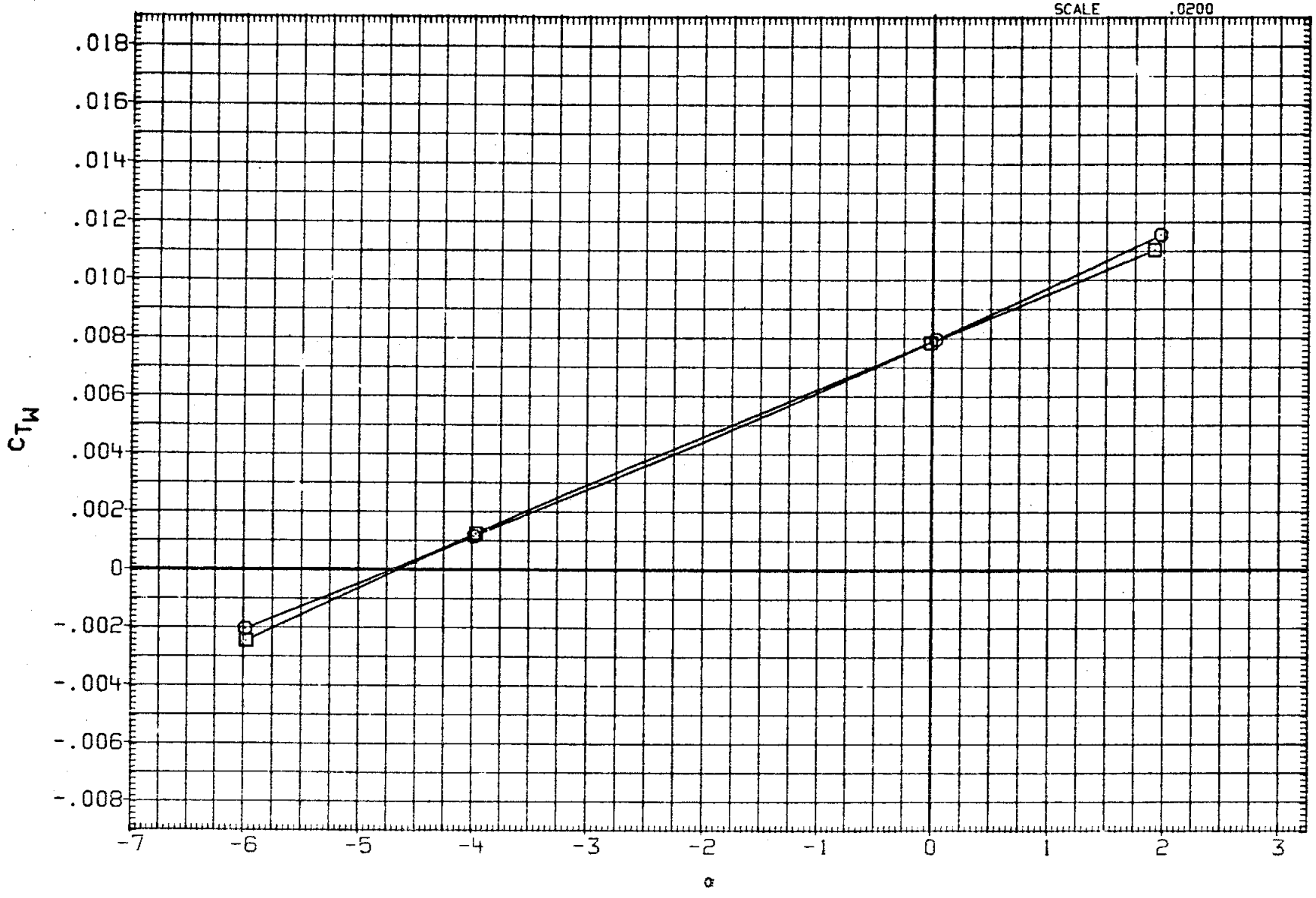

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

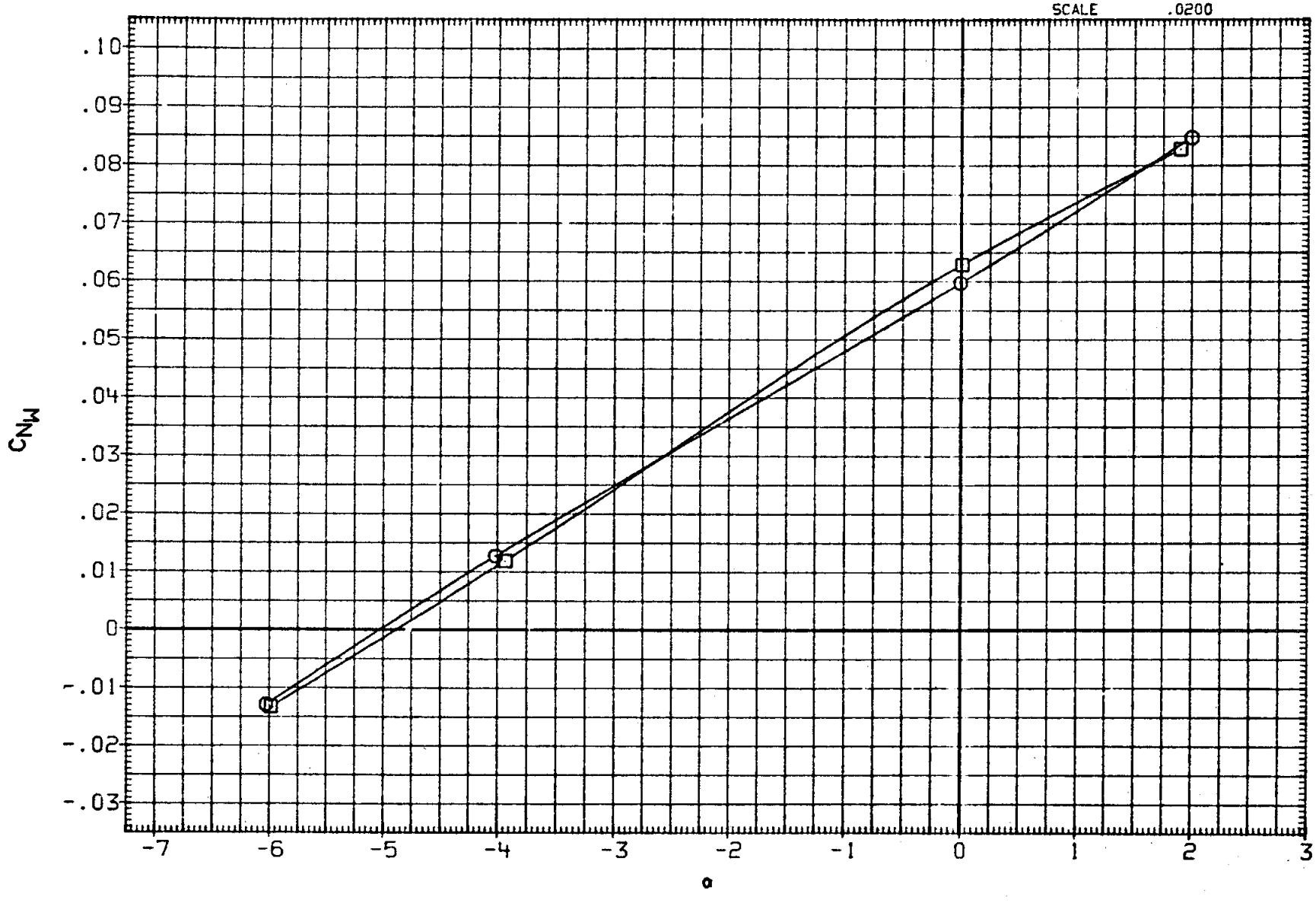

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

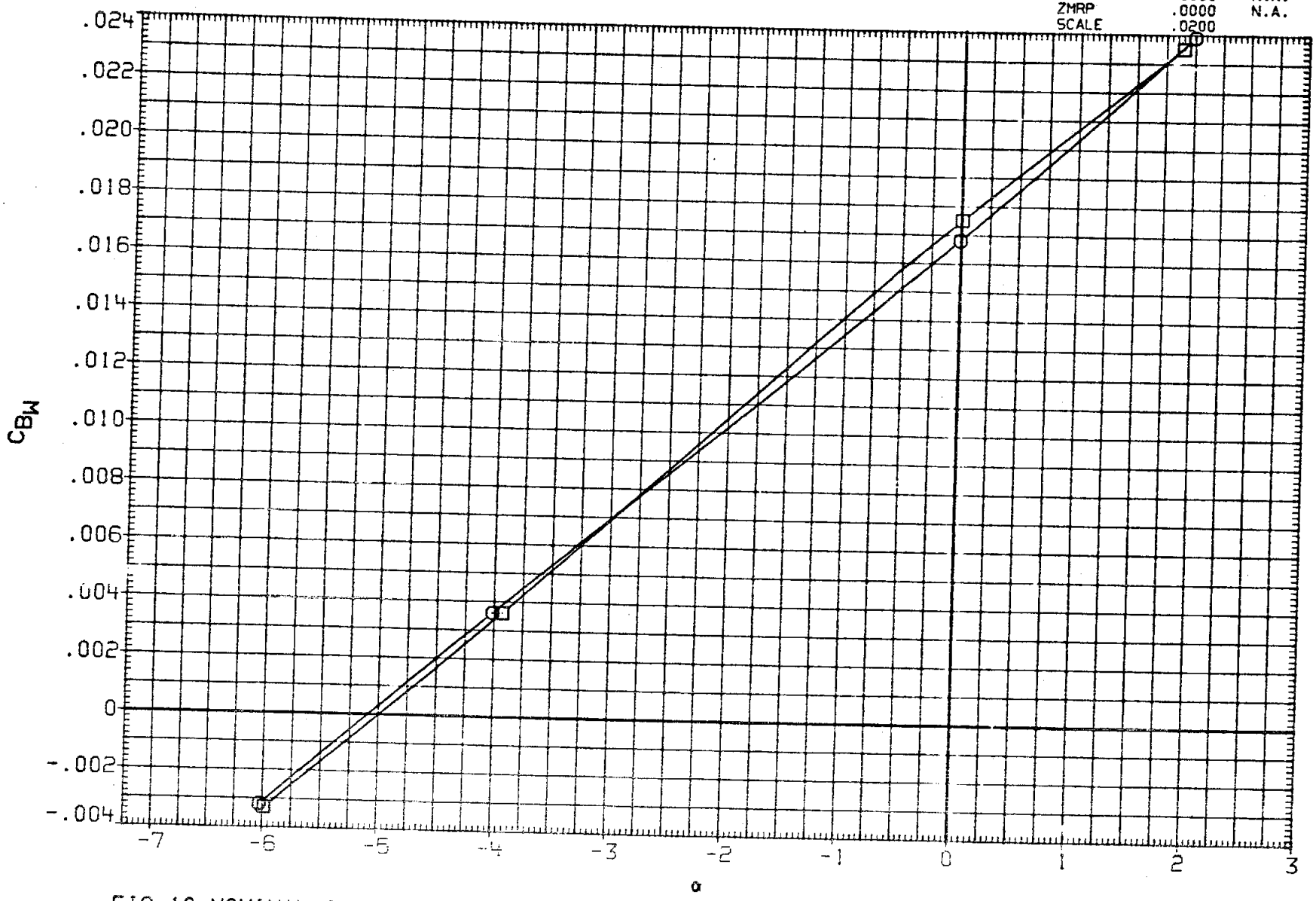

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

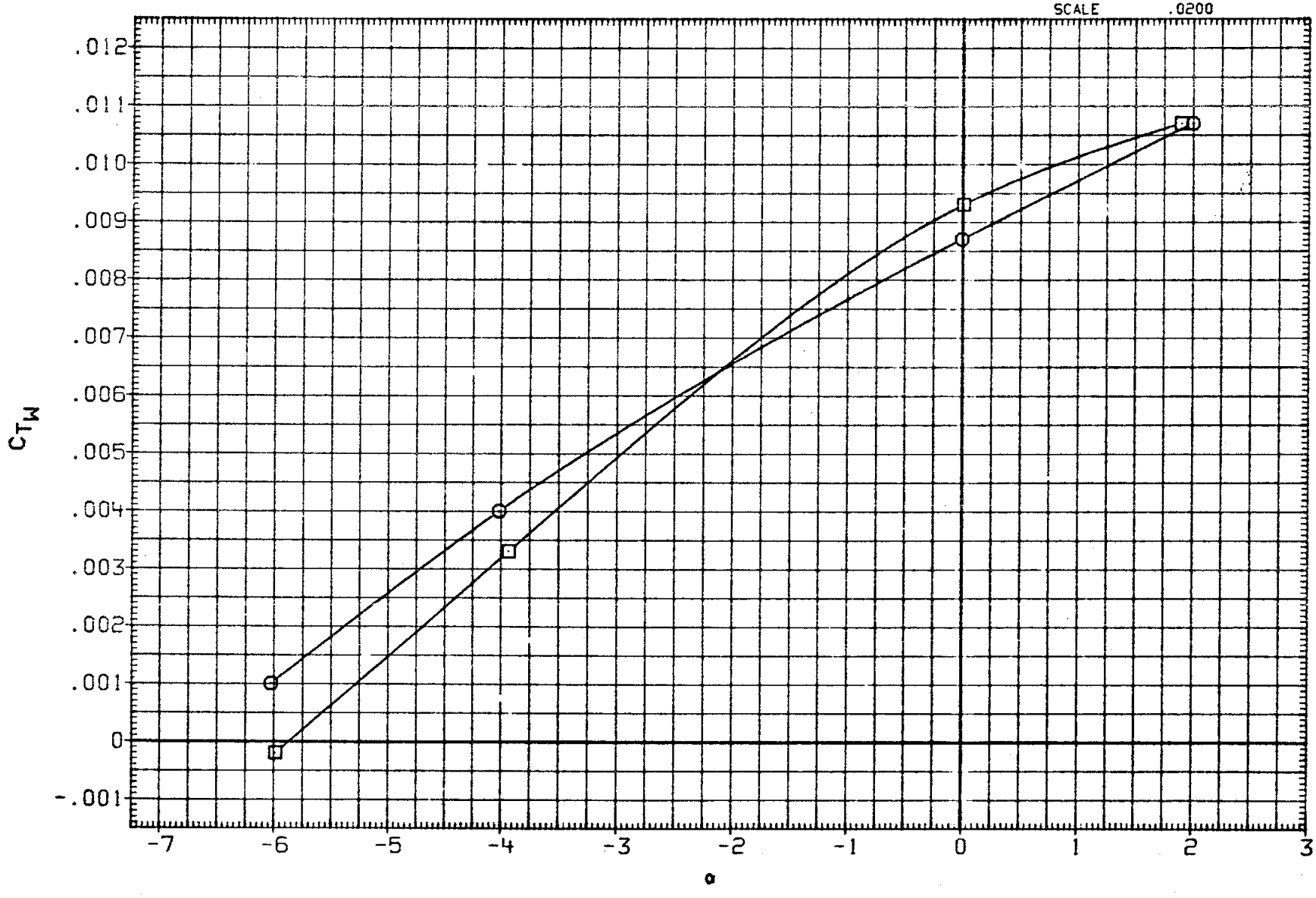

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

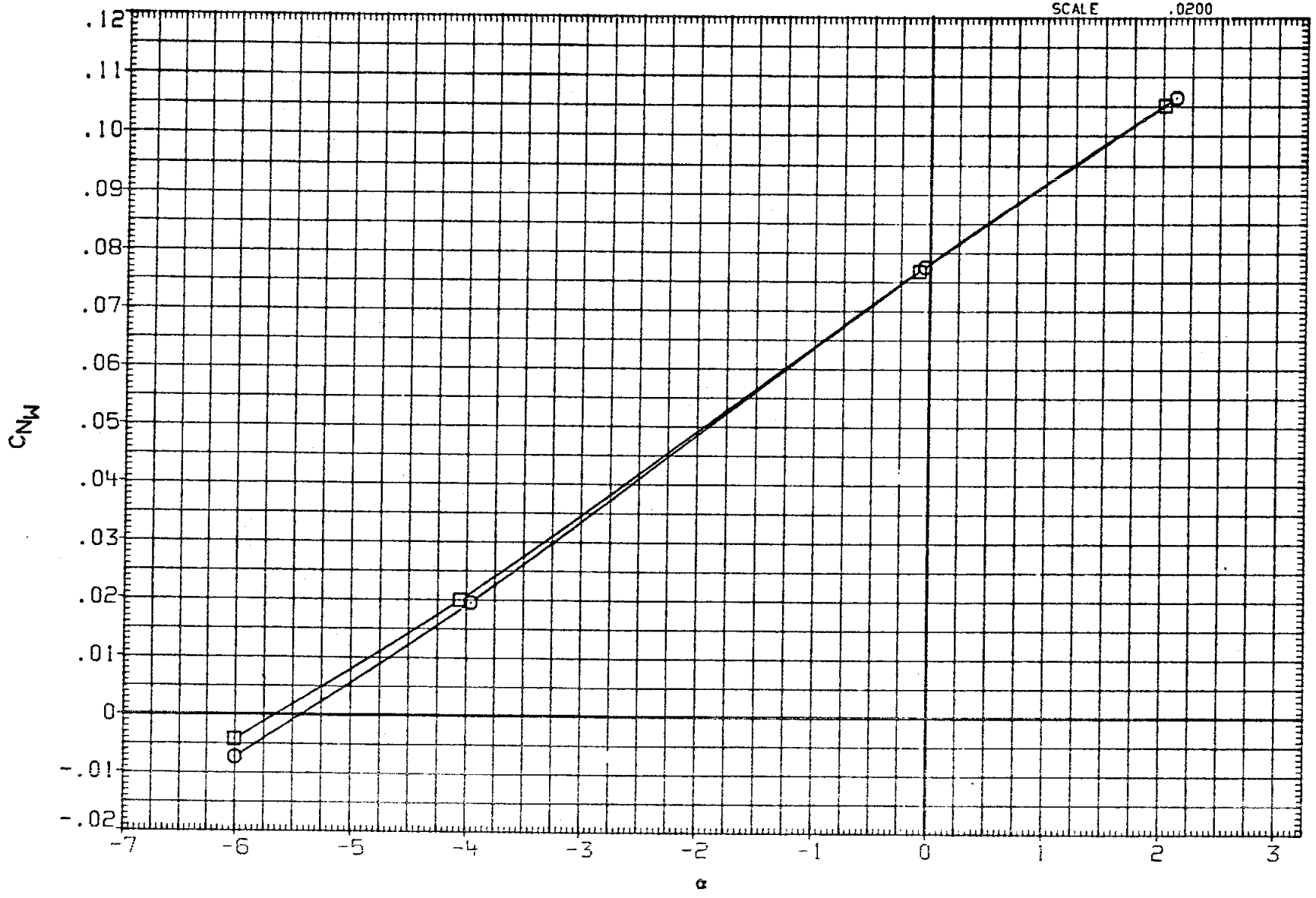

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

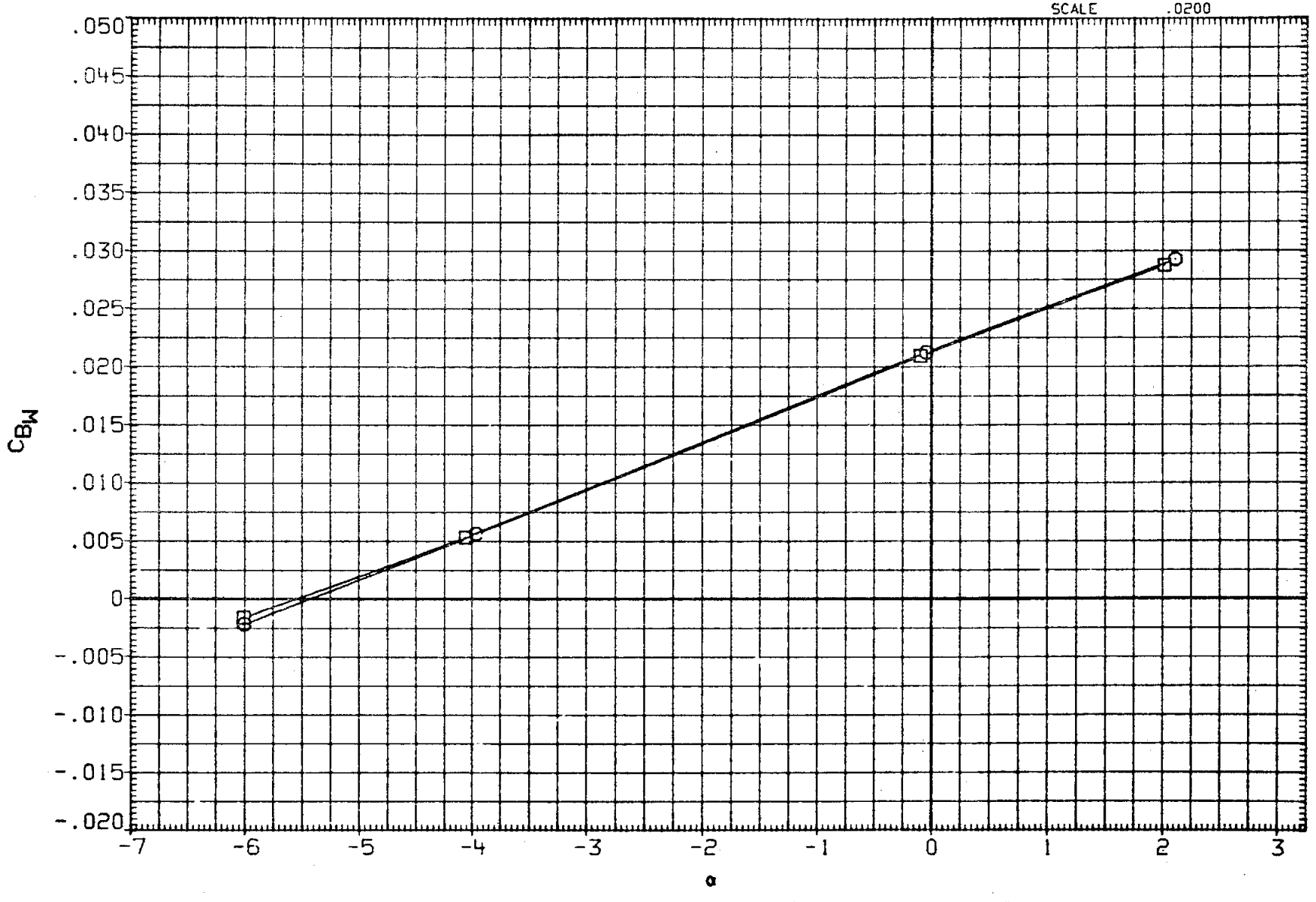

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
ANEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF
ANEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	4.000
.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

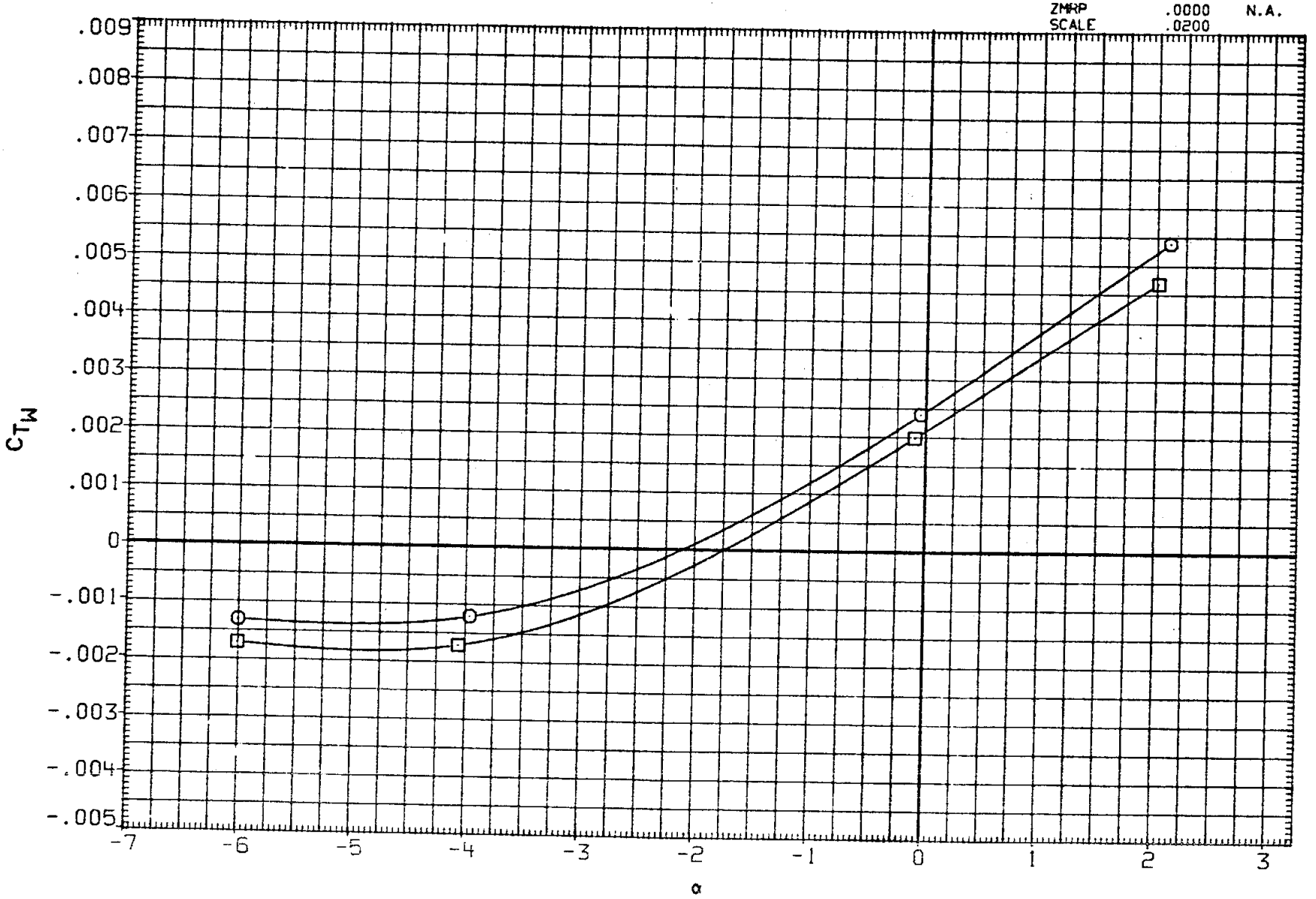

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

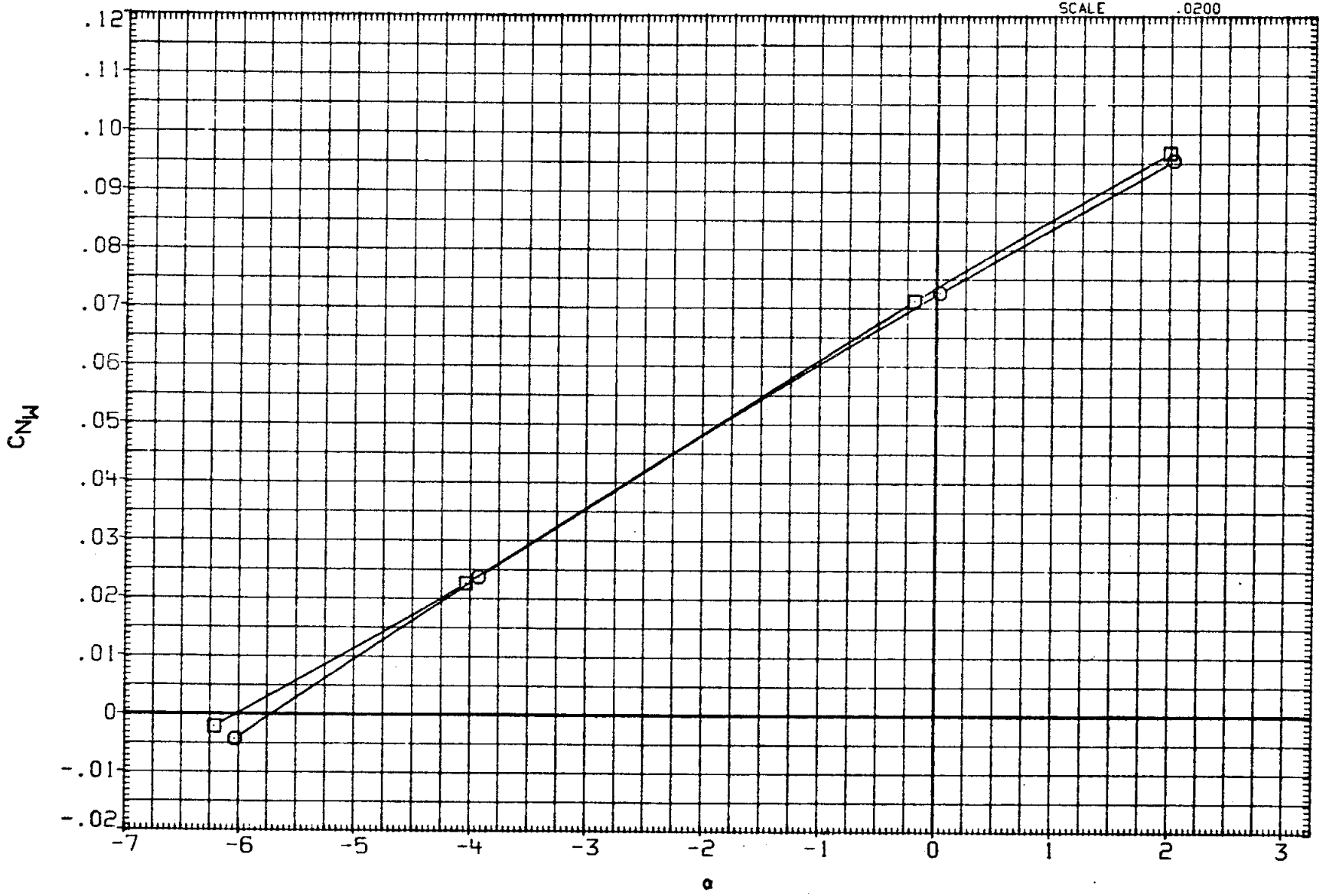

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION
ANEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF
ANEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	4.000
.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

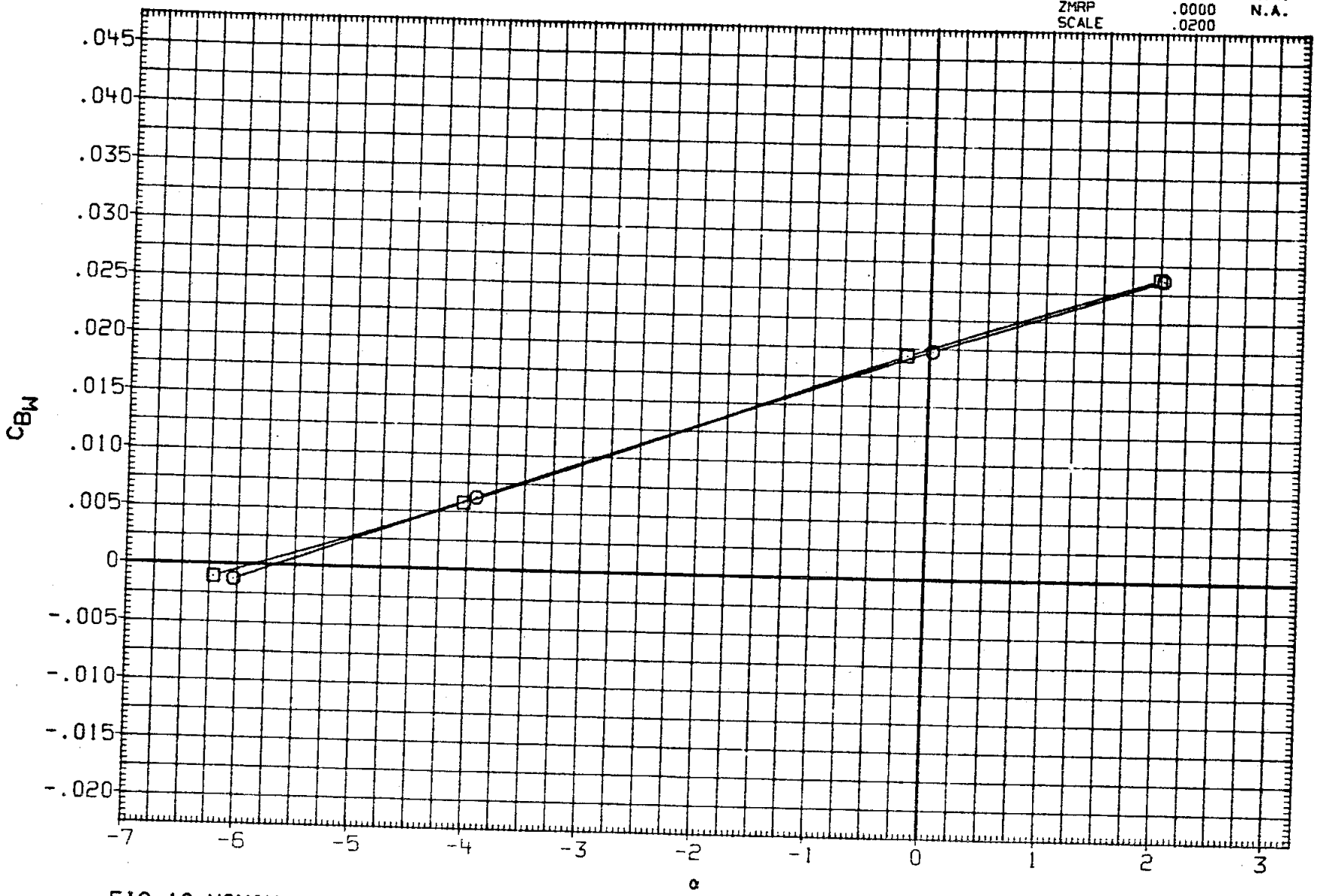

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
ANEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

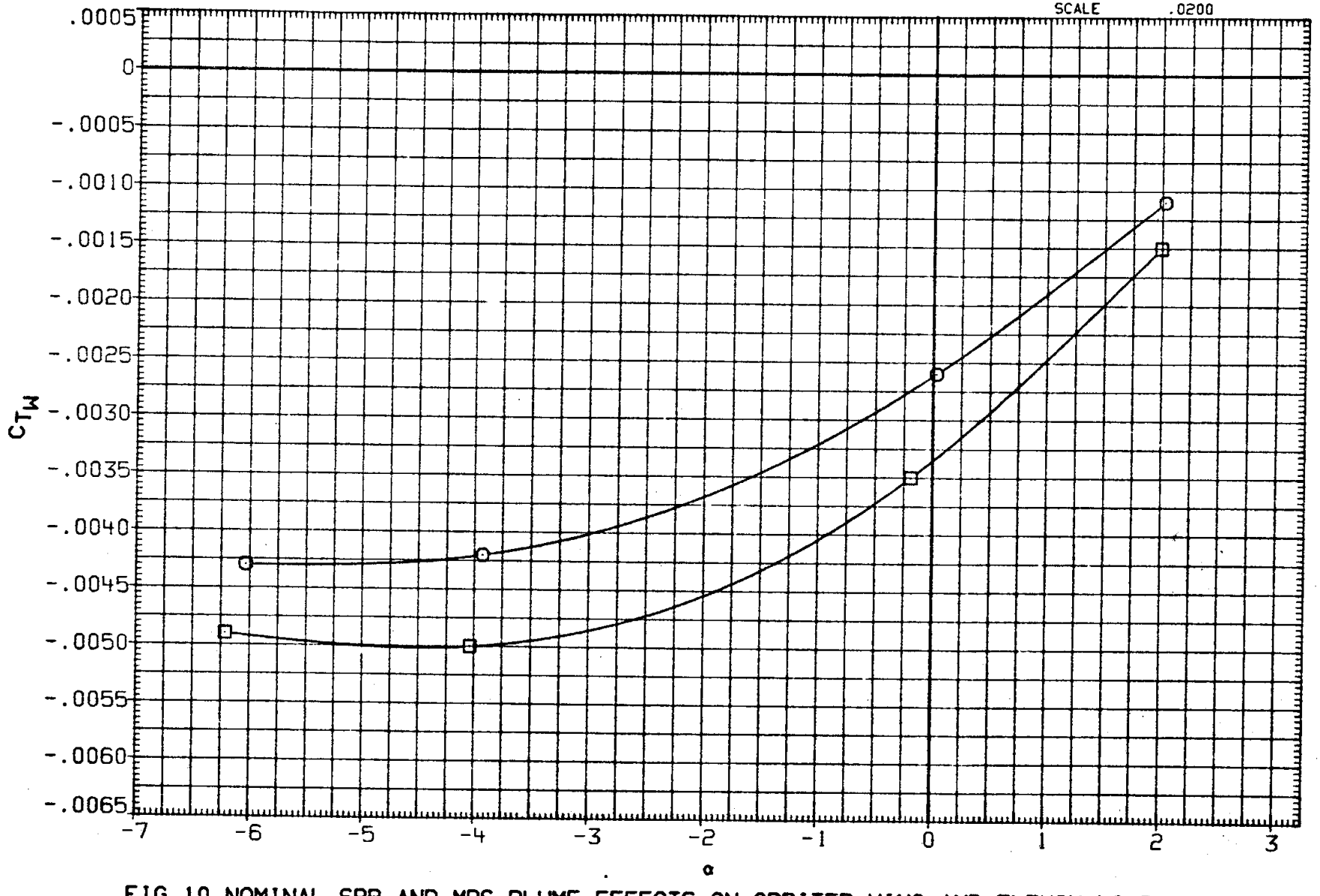

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

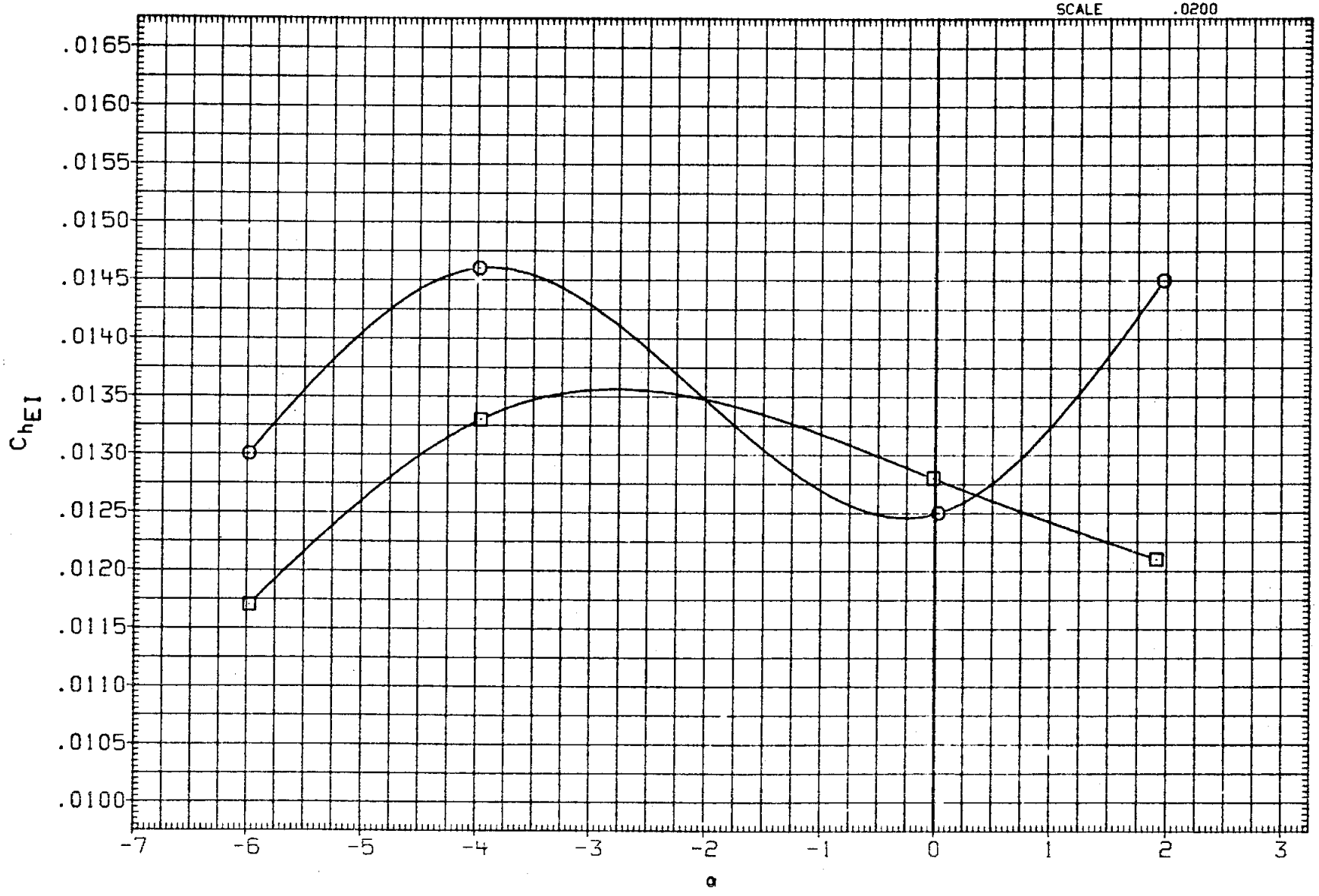

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

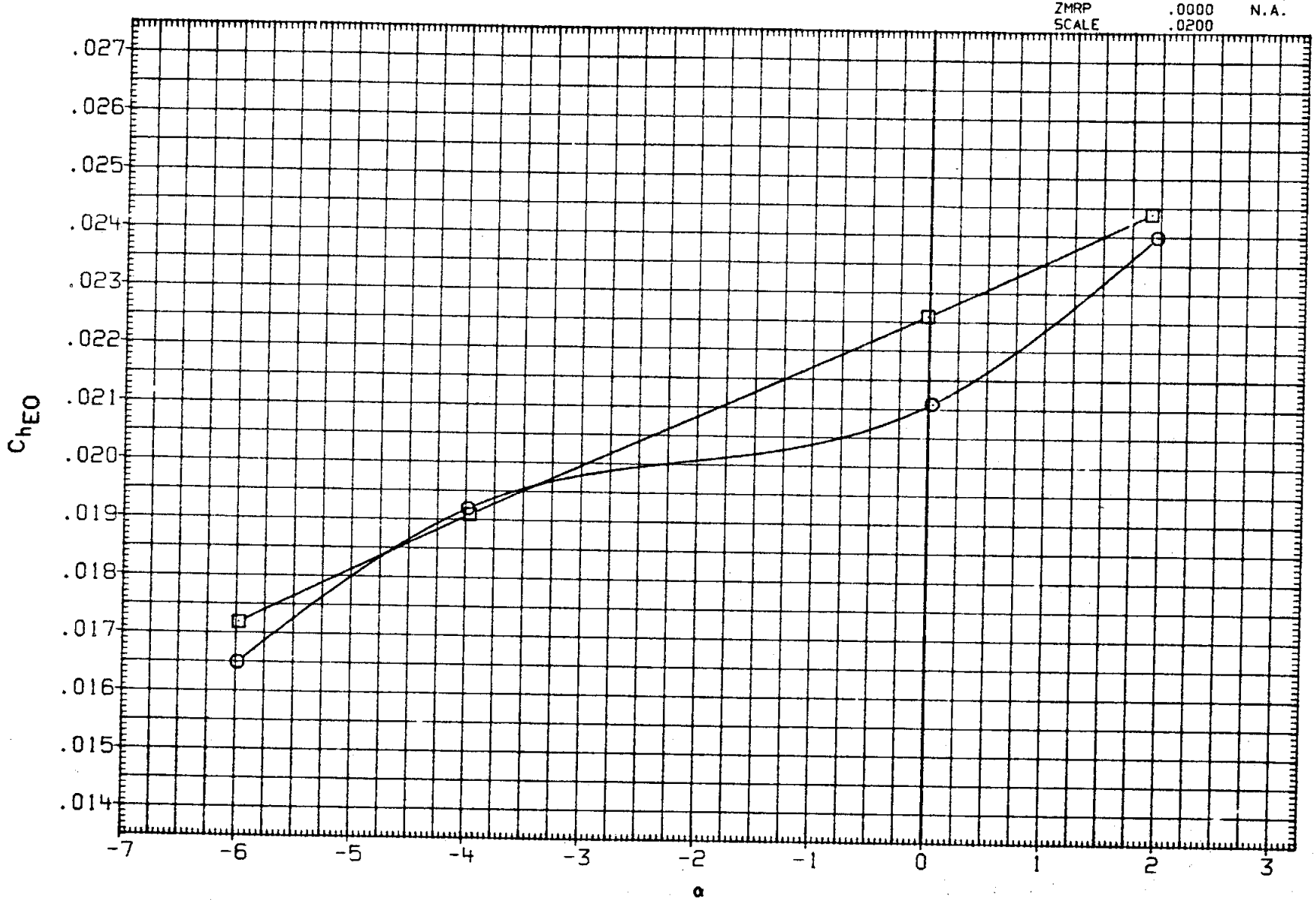

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

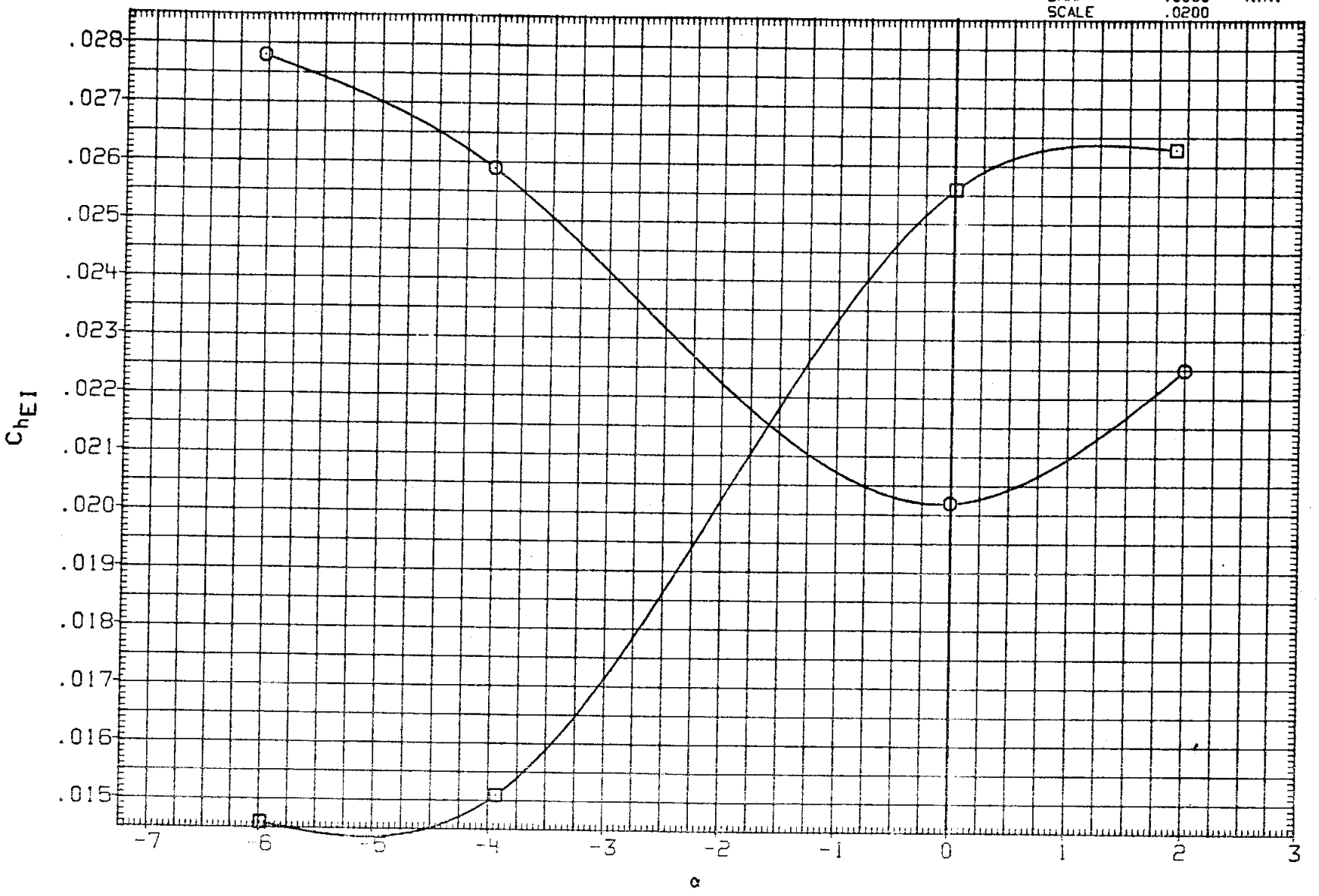

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

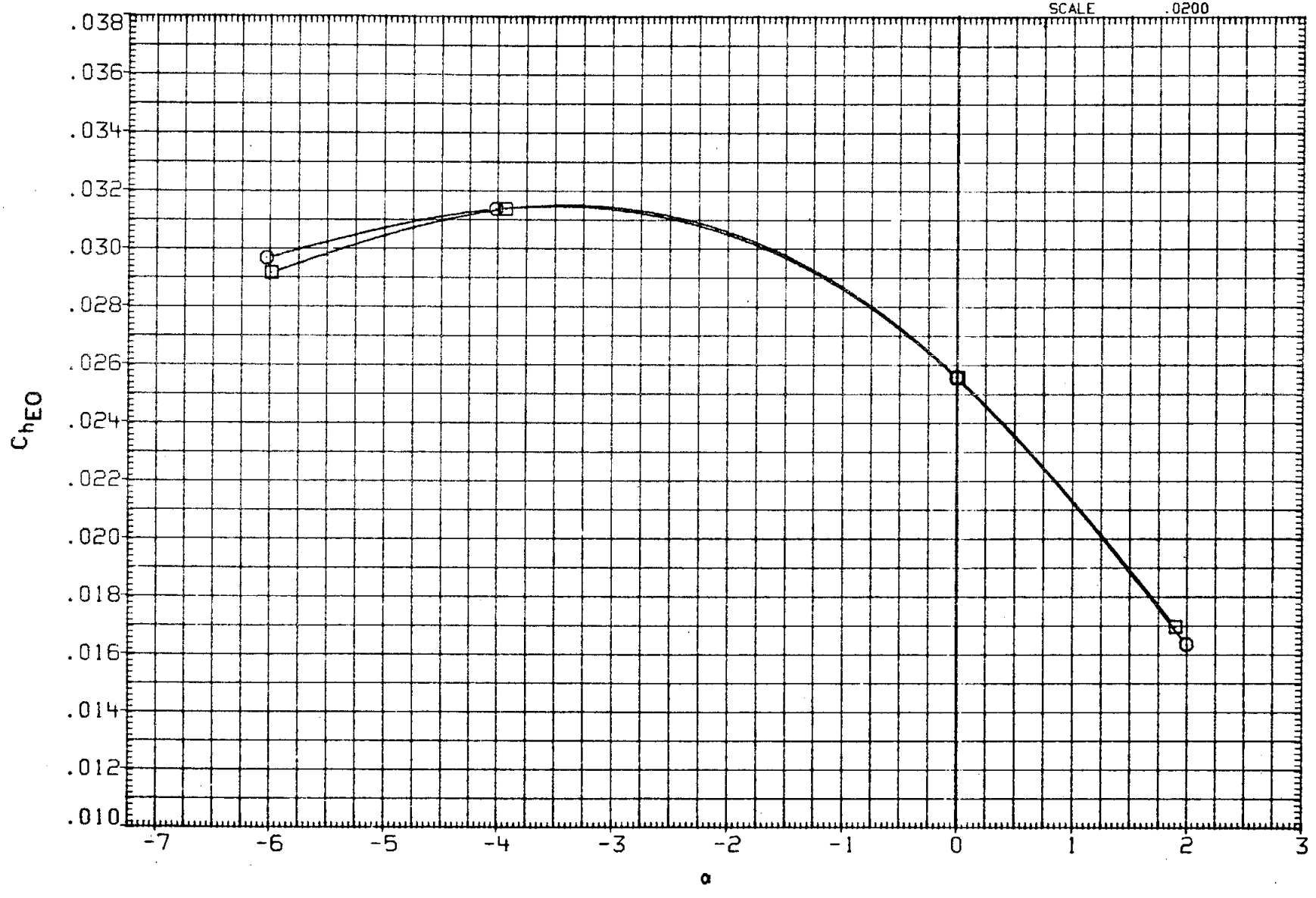

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

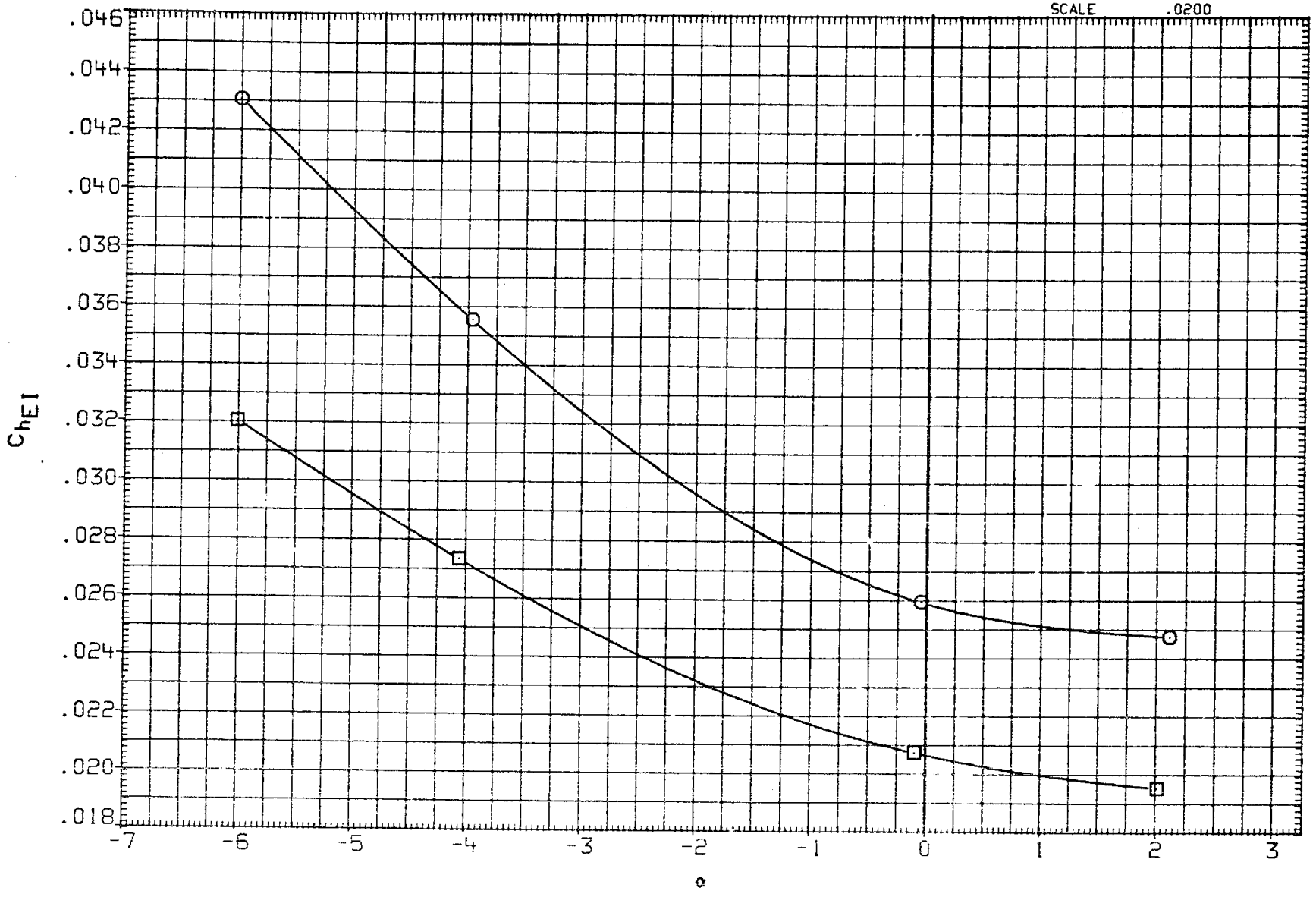

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

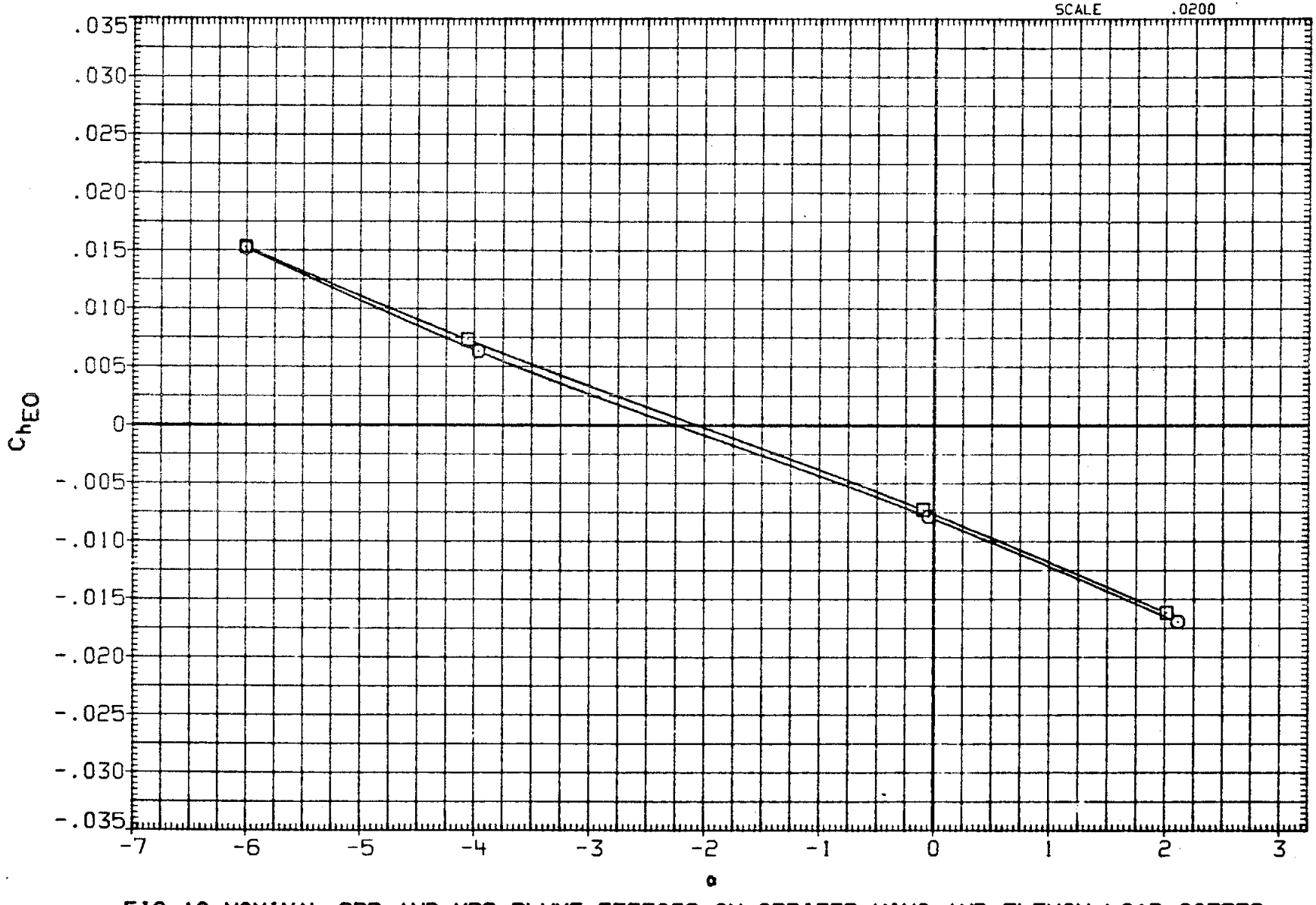

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION
JNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF
JNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	4.000
.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

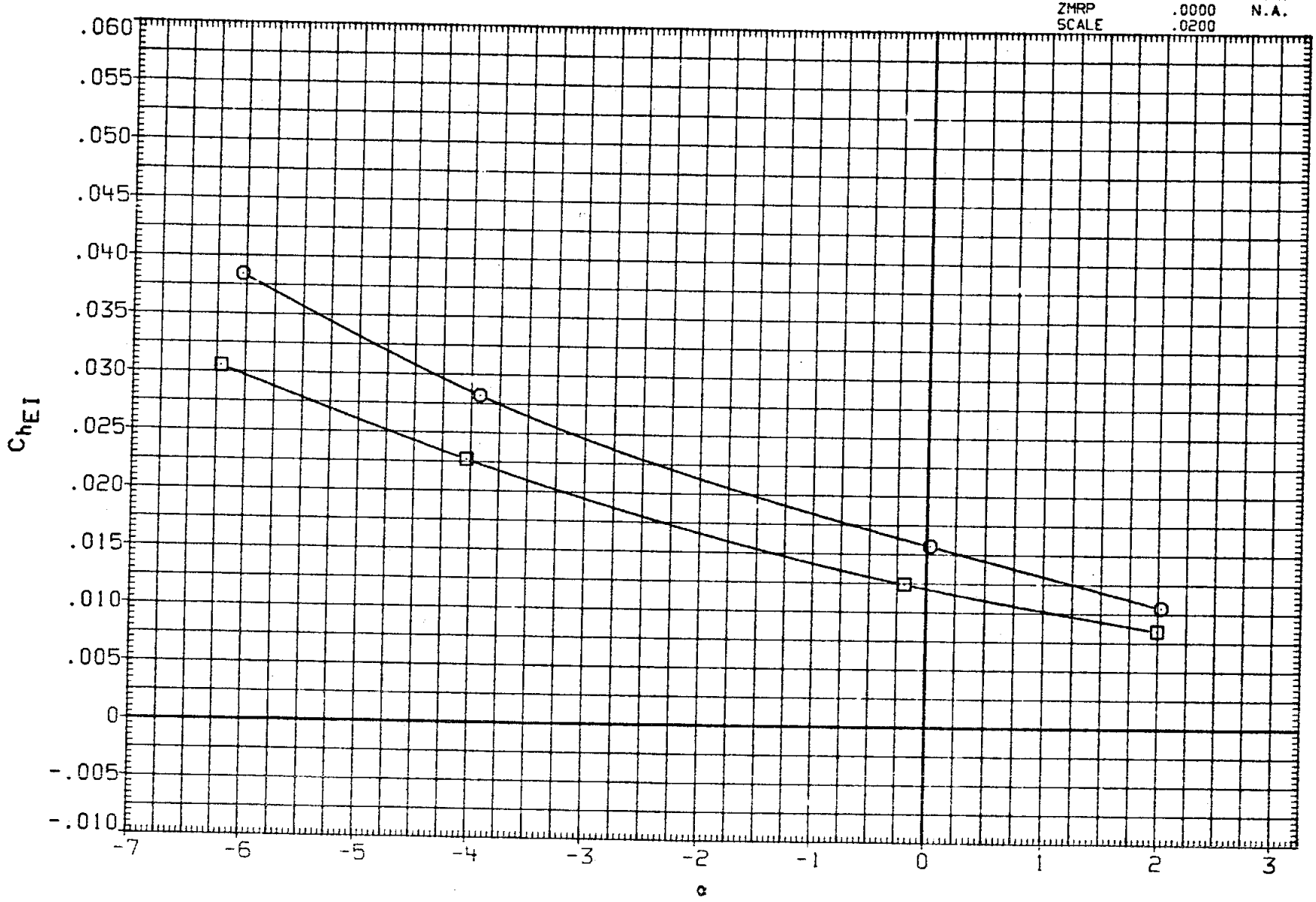

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
JNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

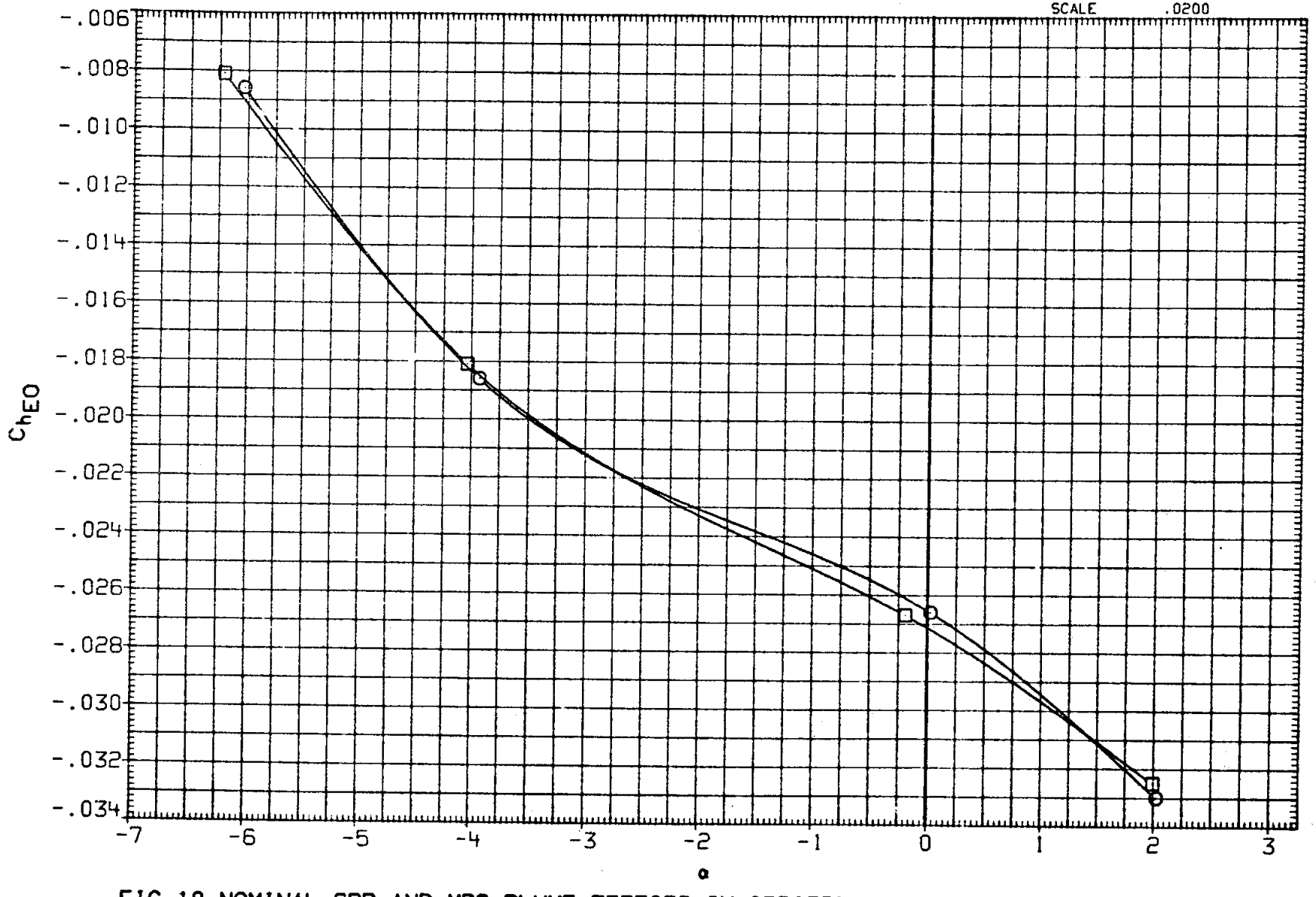

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

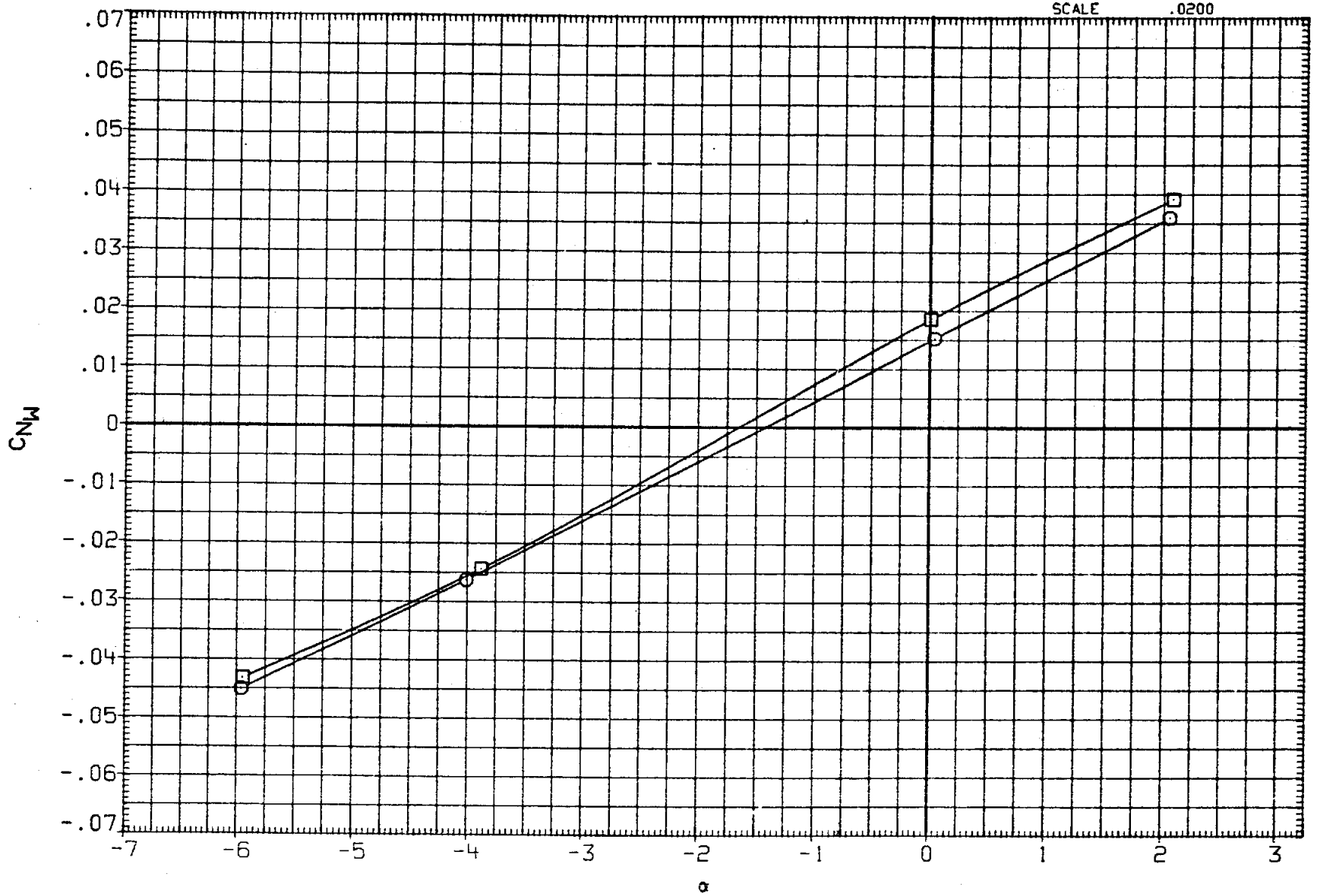

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

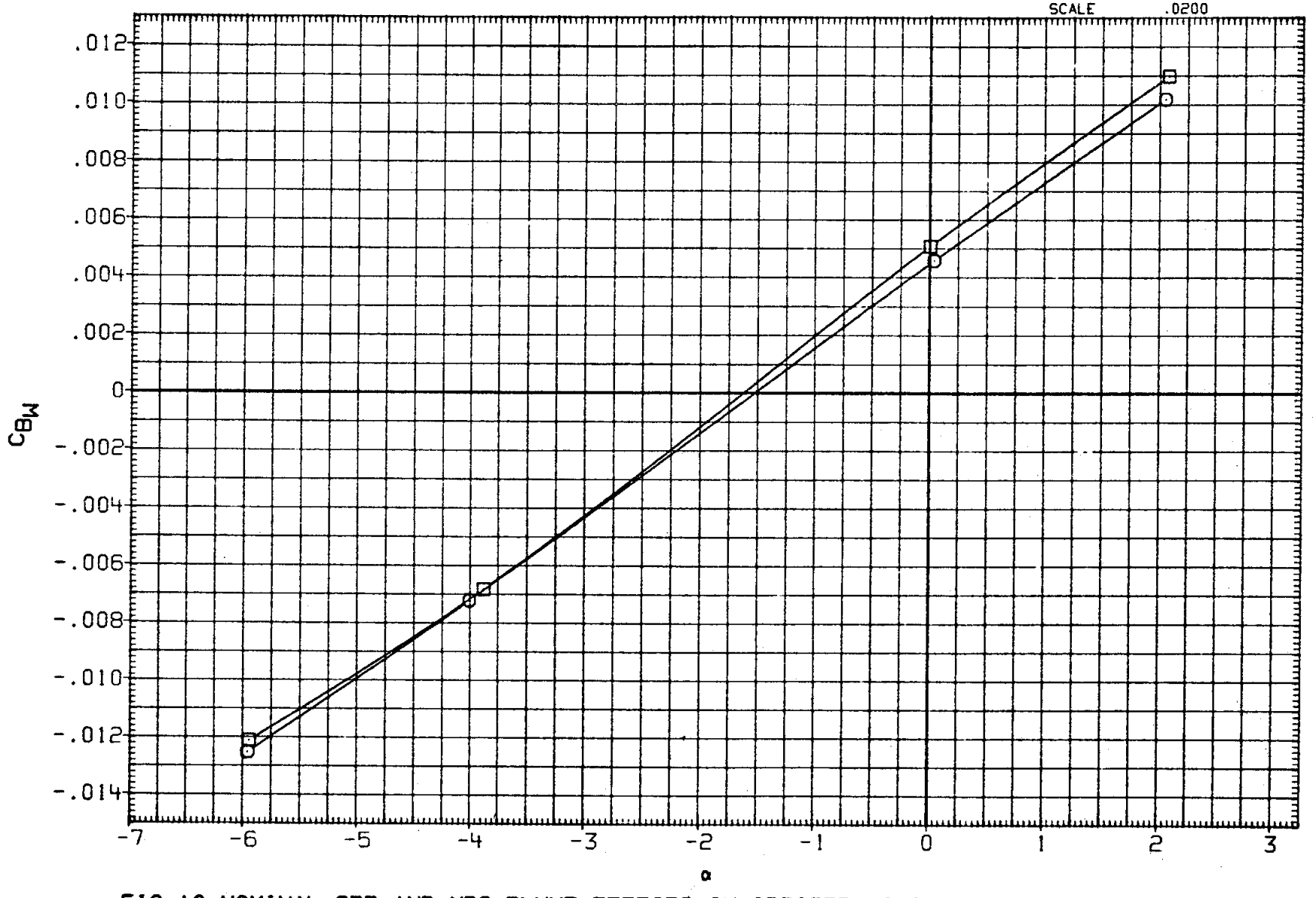

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

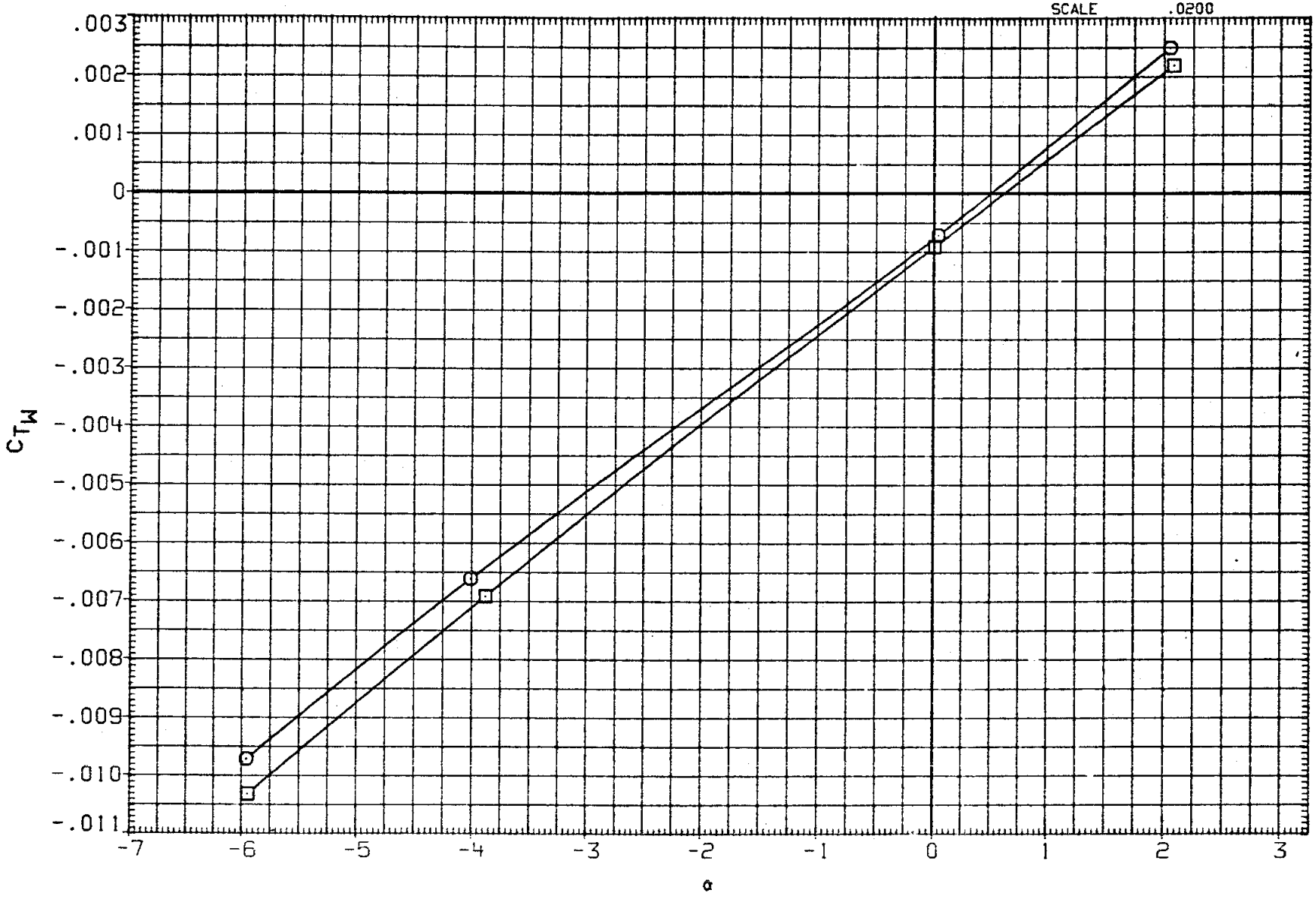

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	6.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

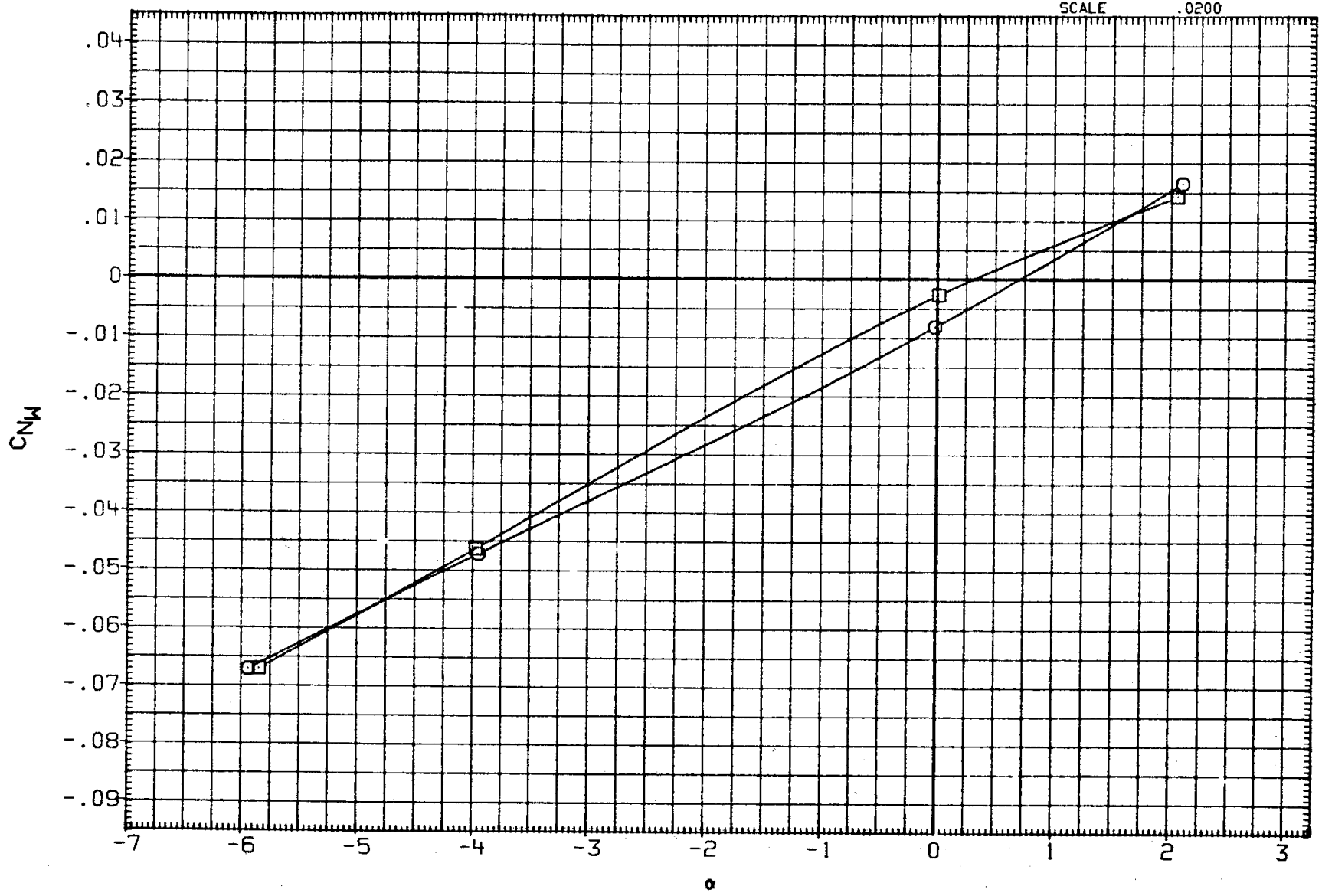

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

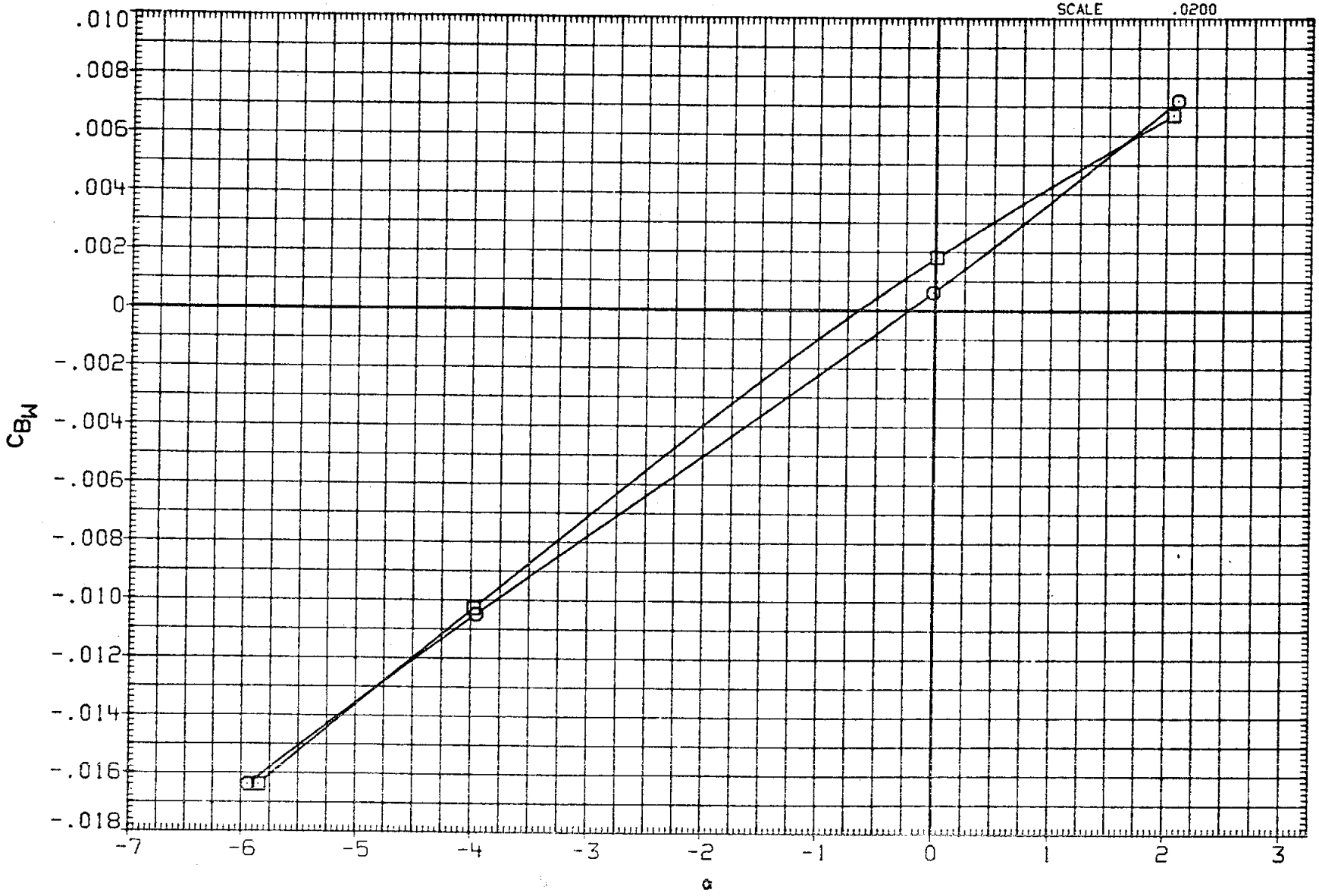

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

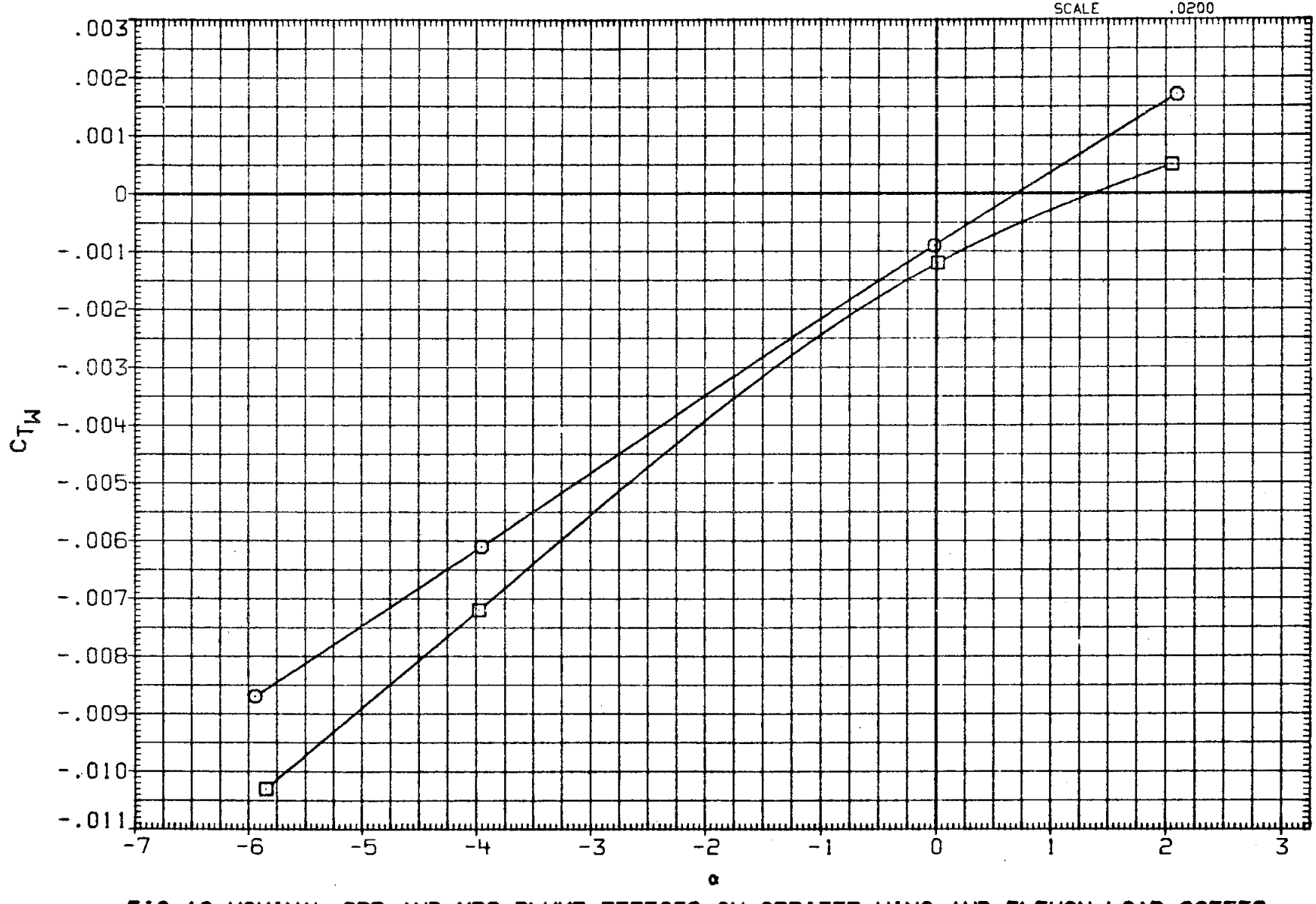

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

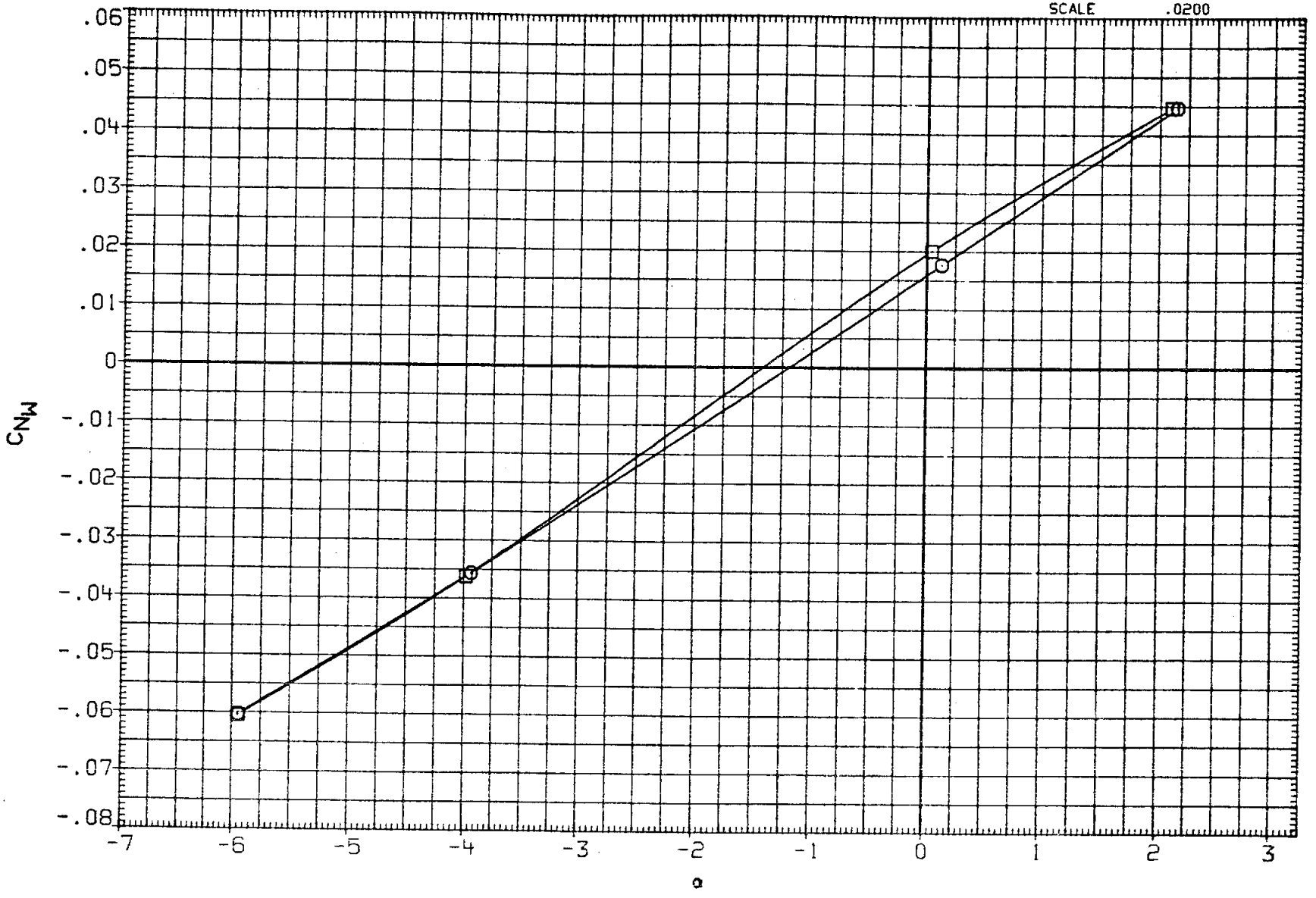

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

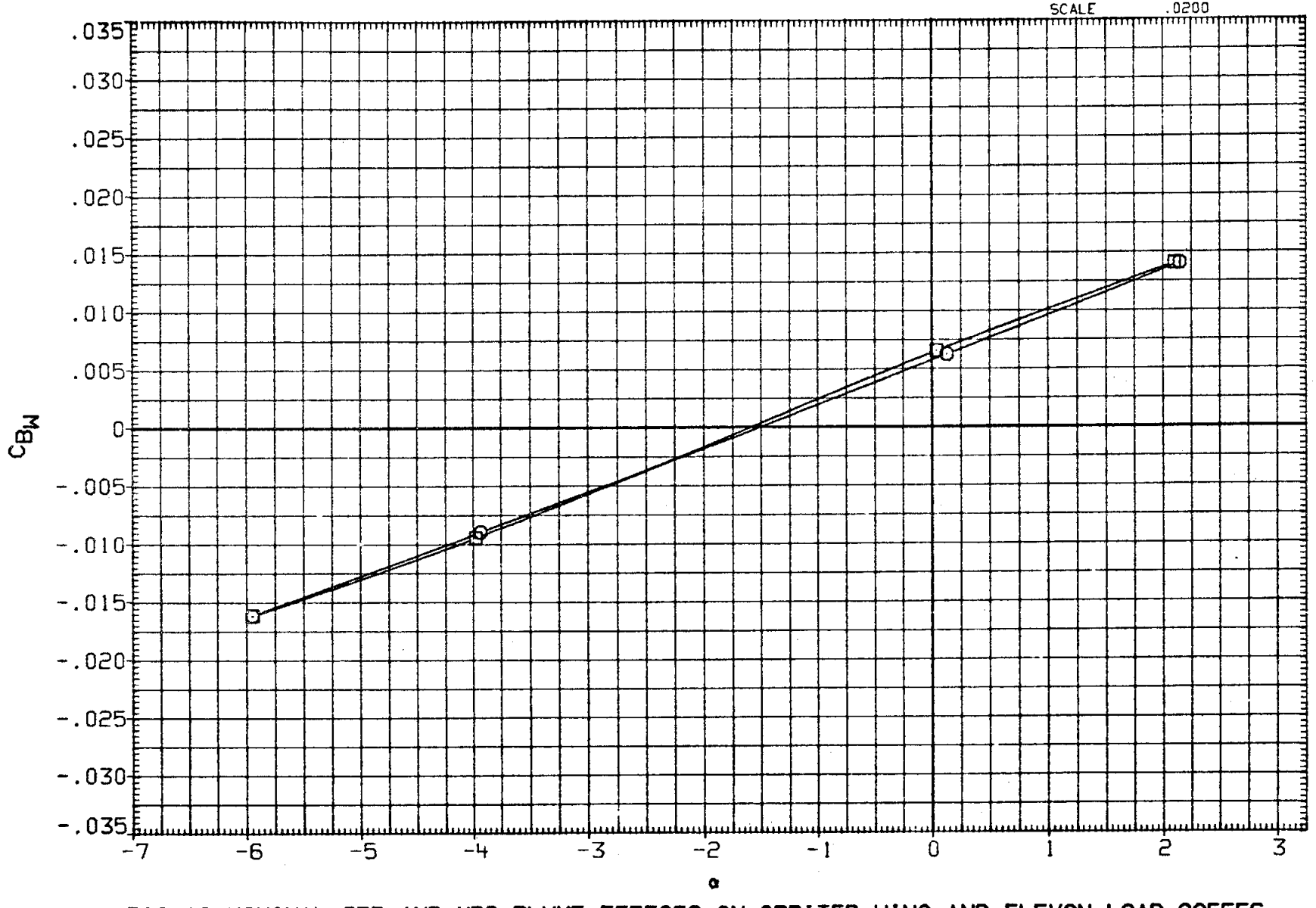

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

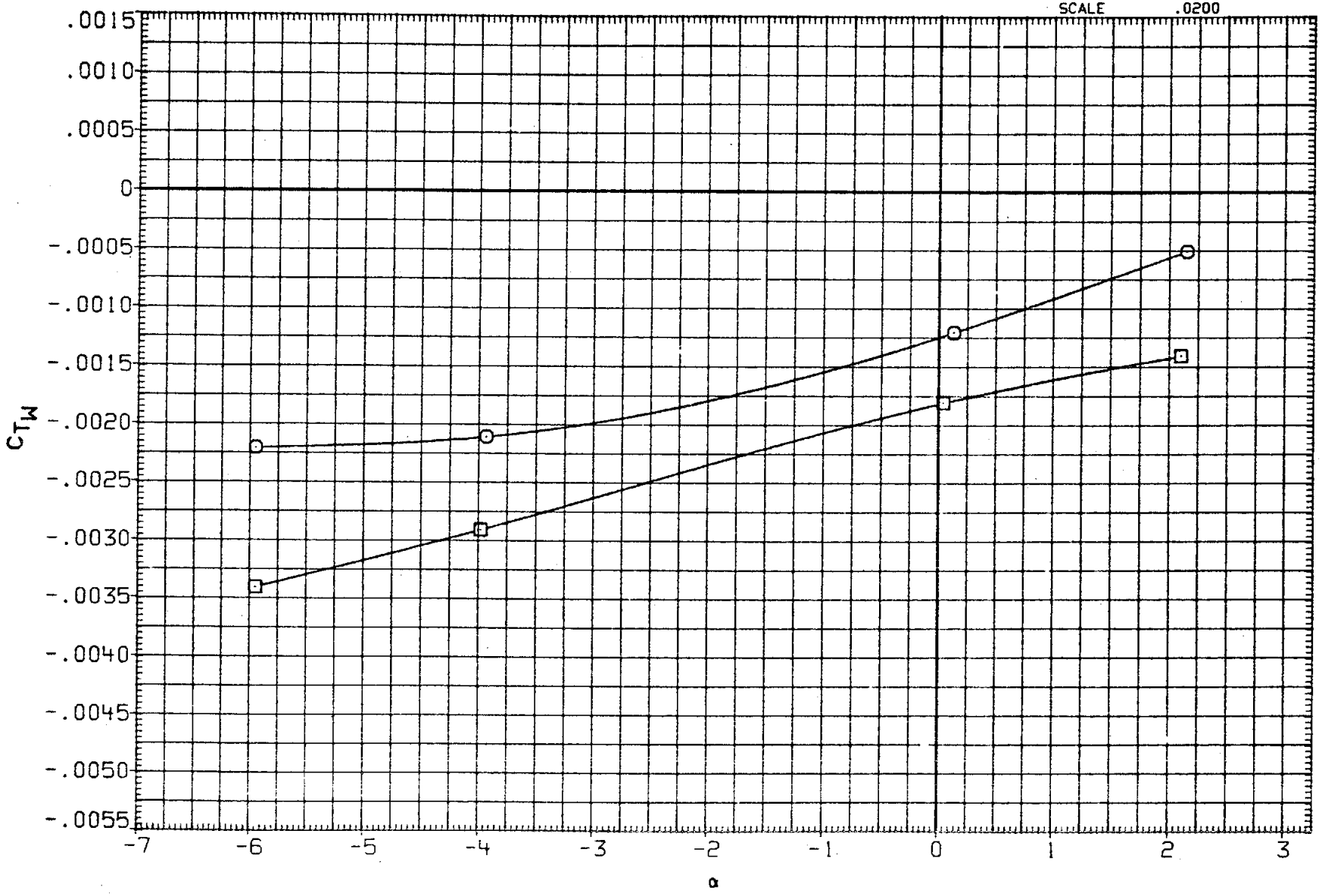

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

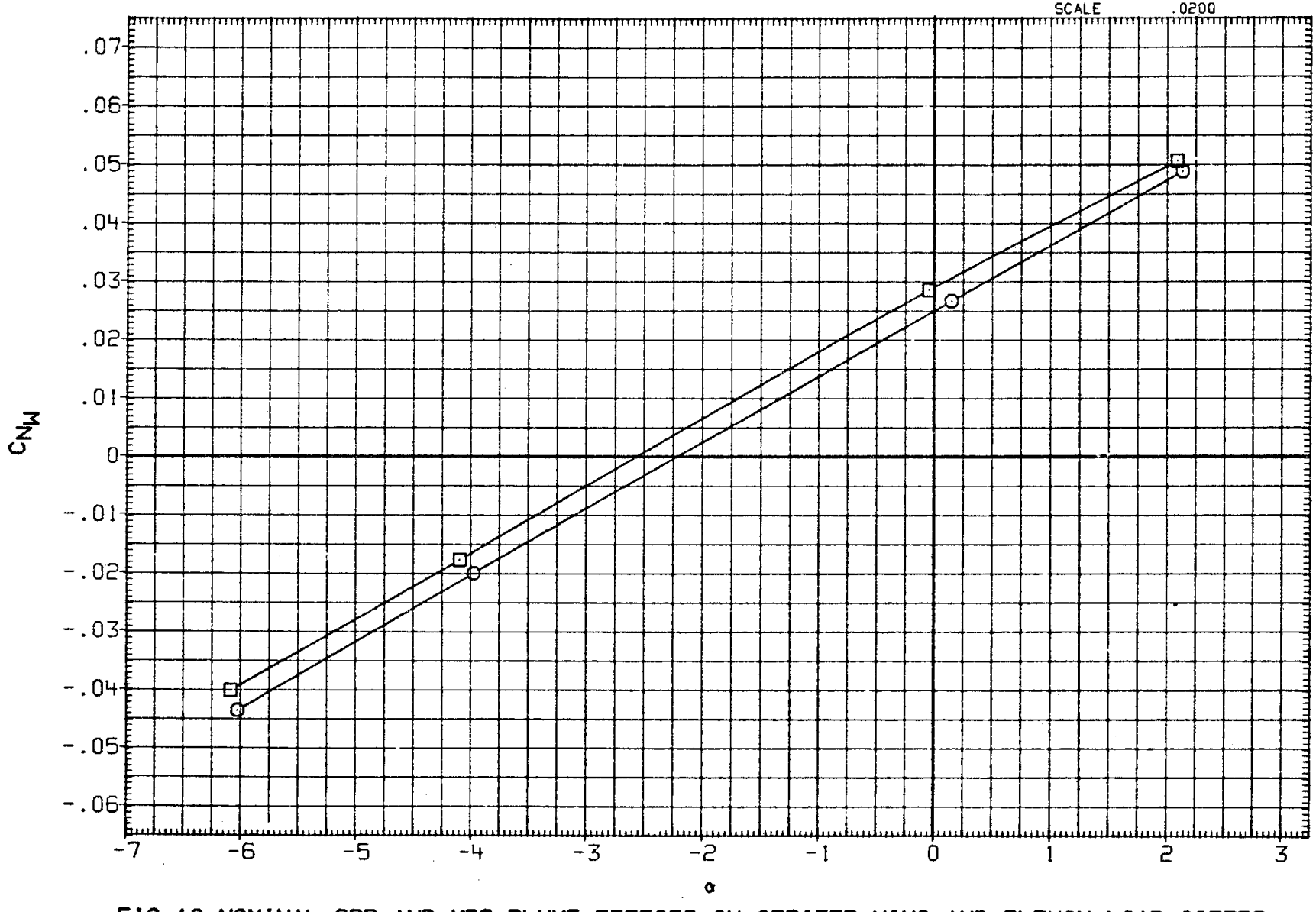

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

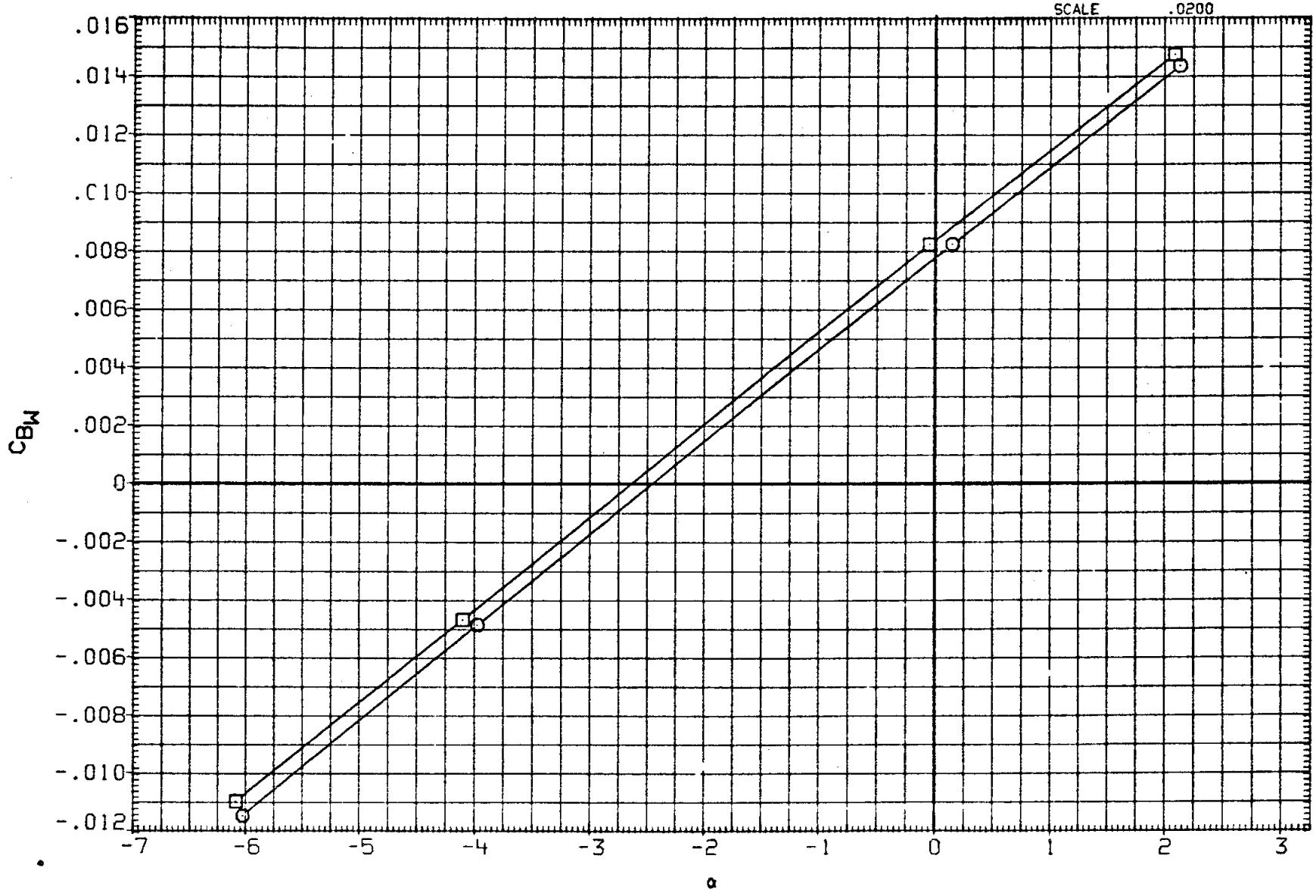

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
ANEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

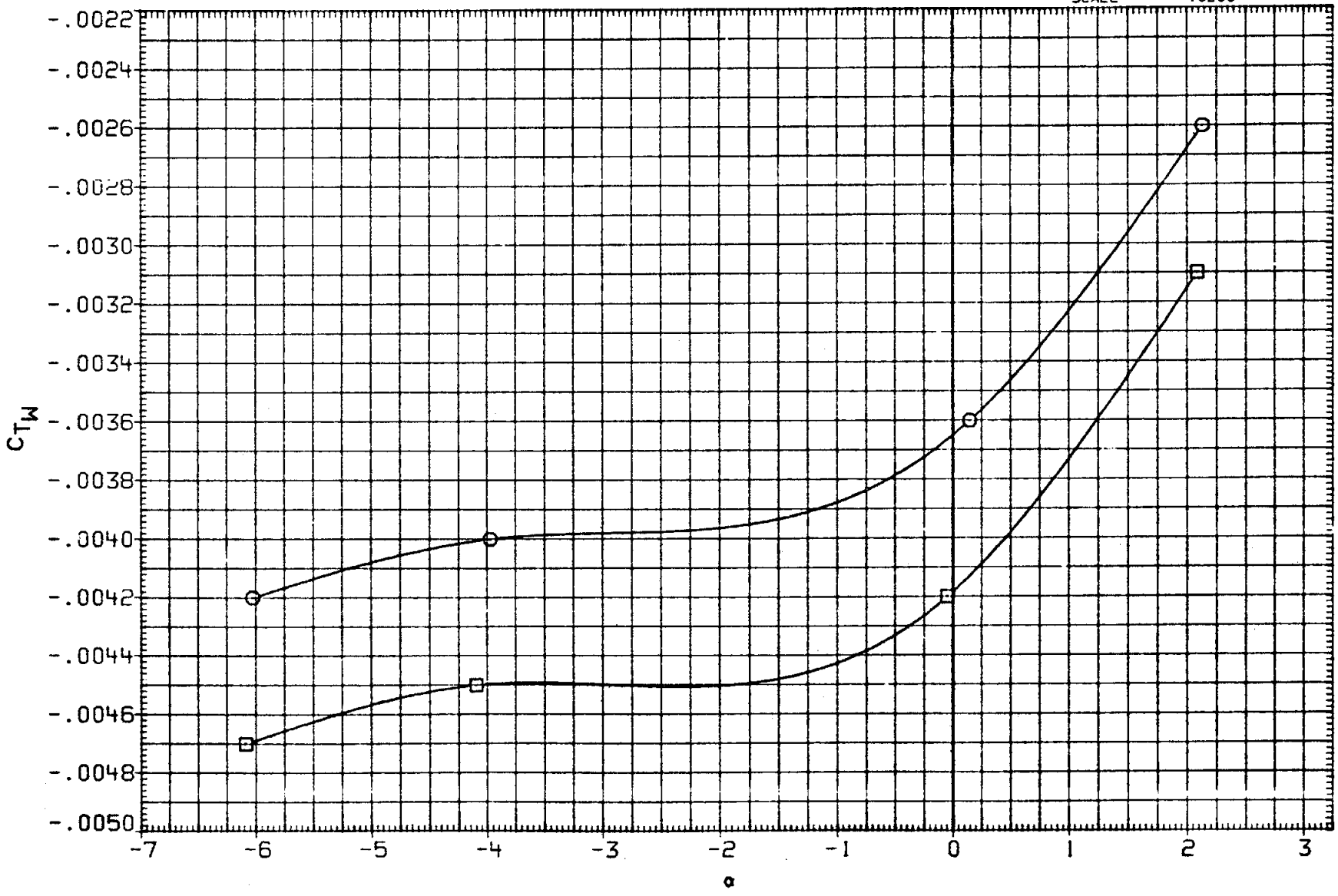

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

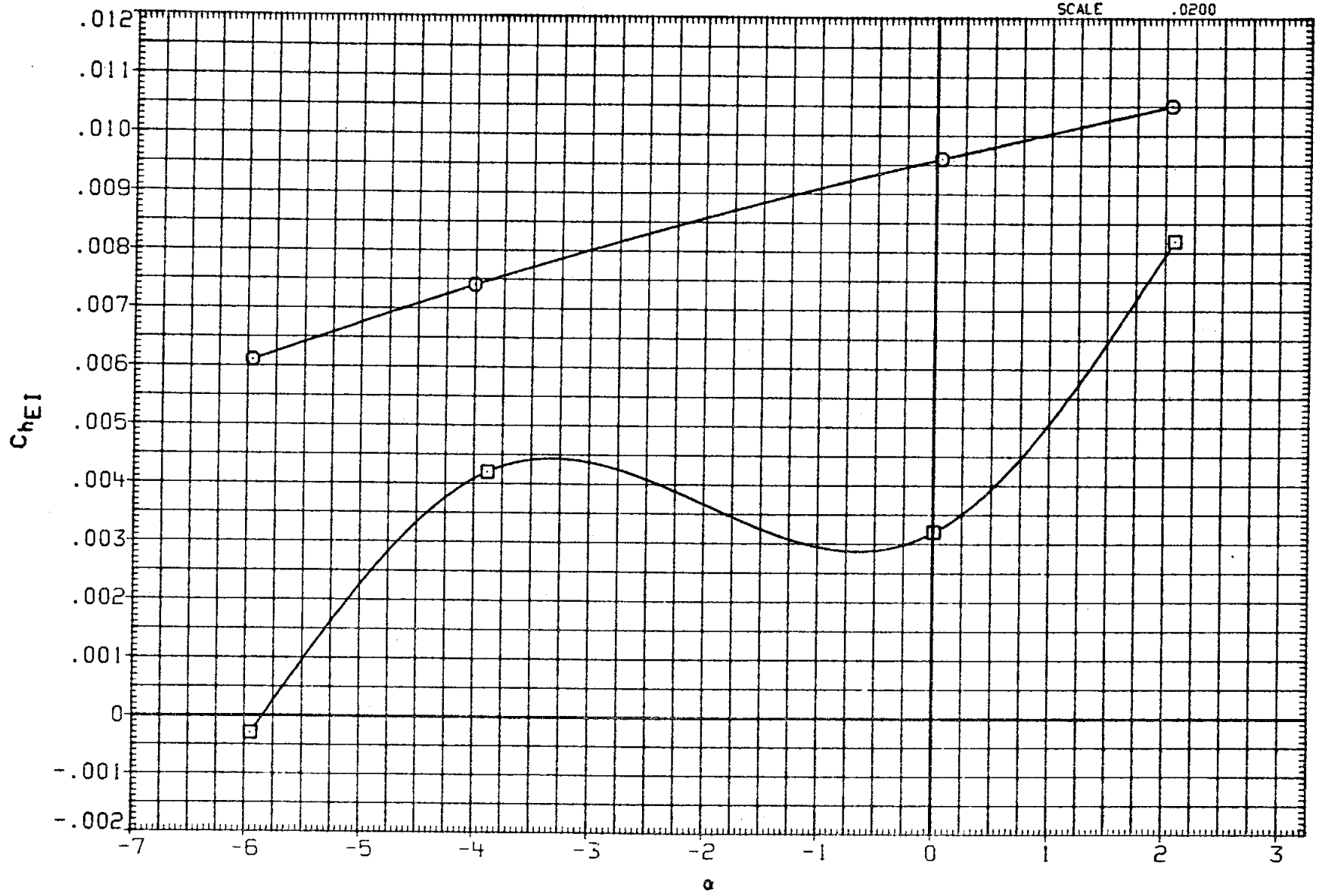

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

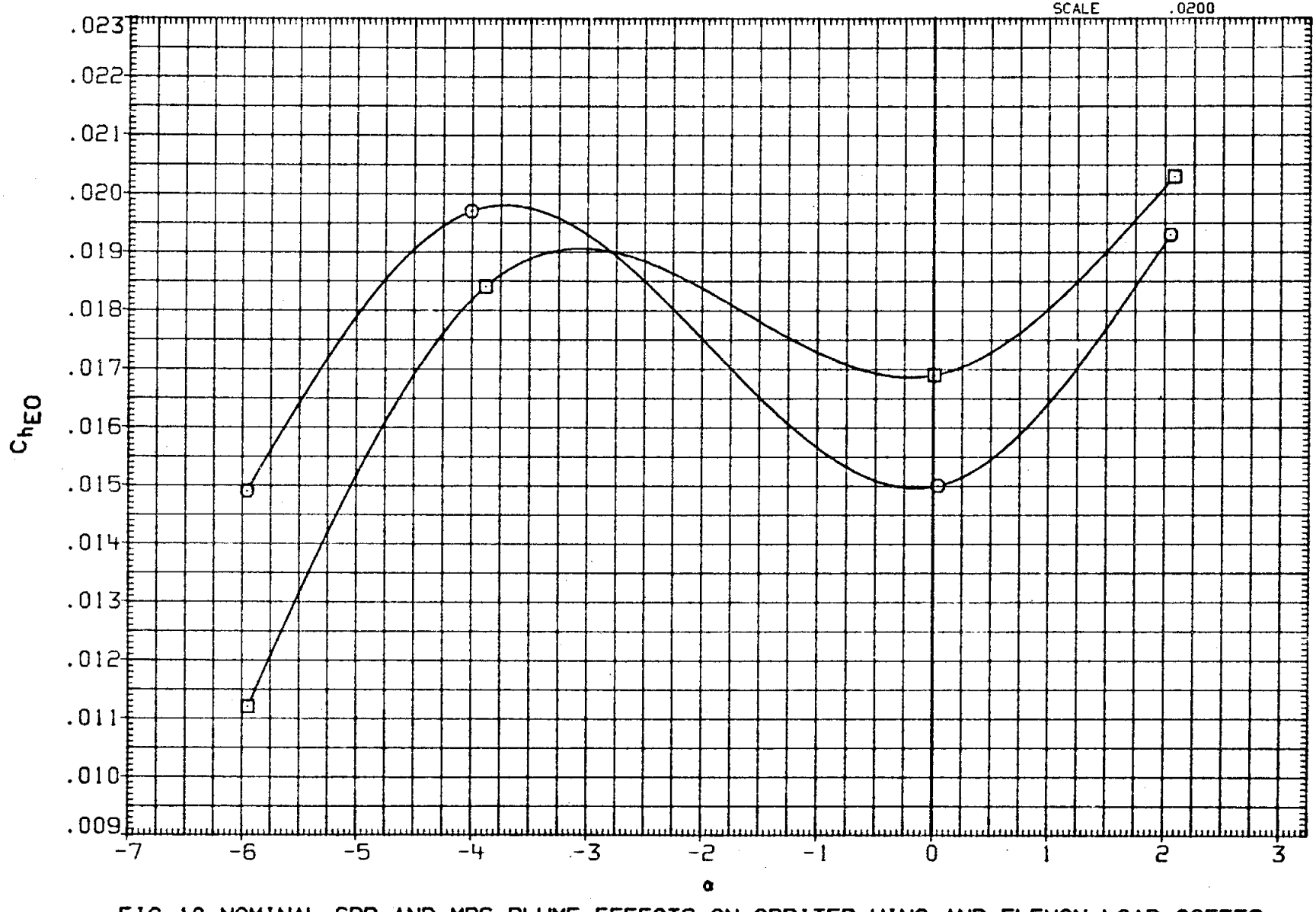

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

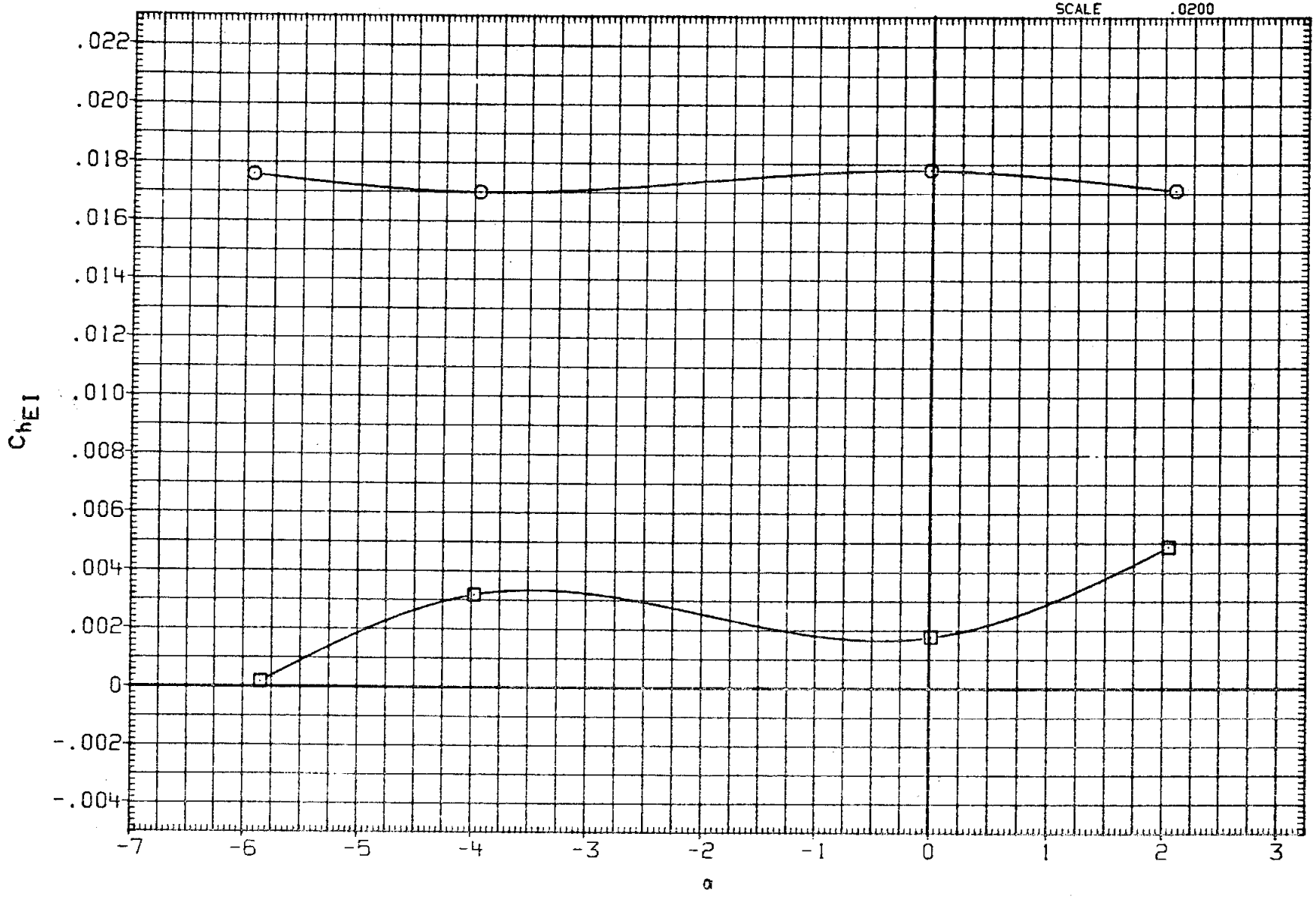

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

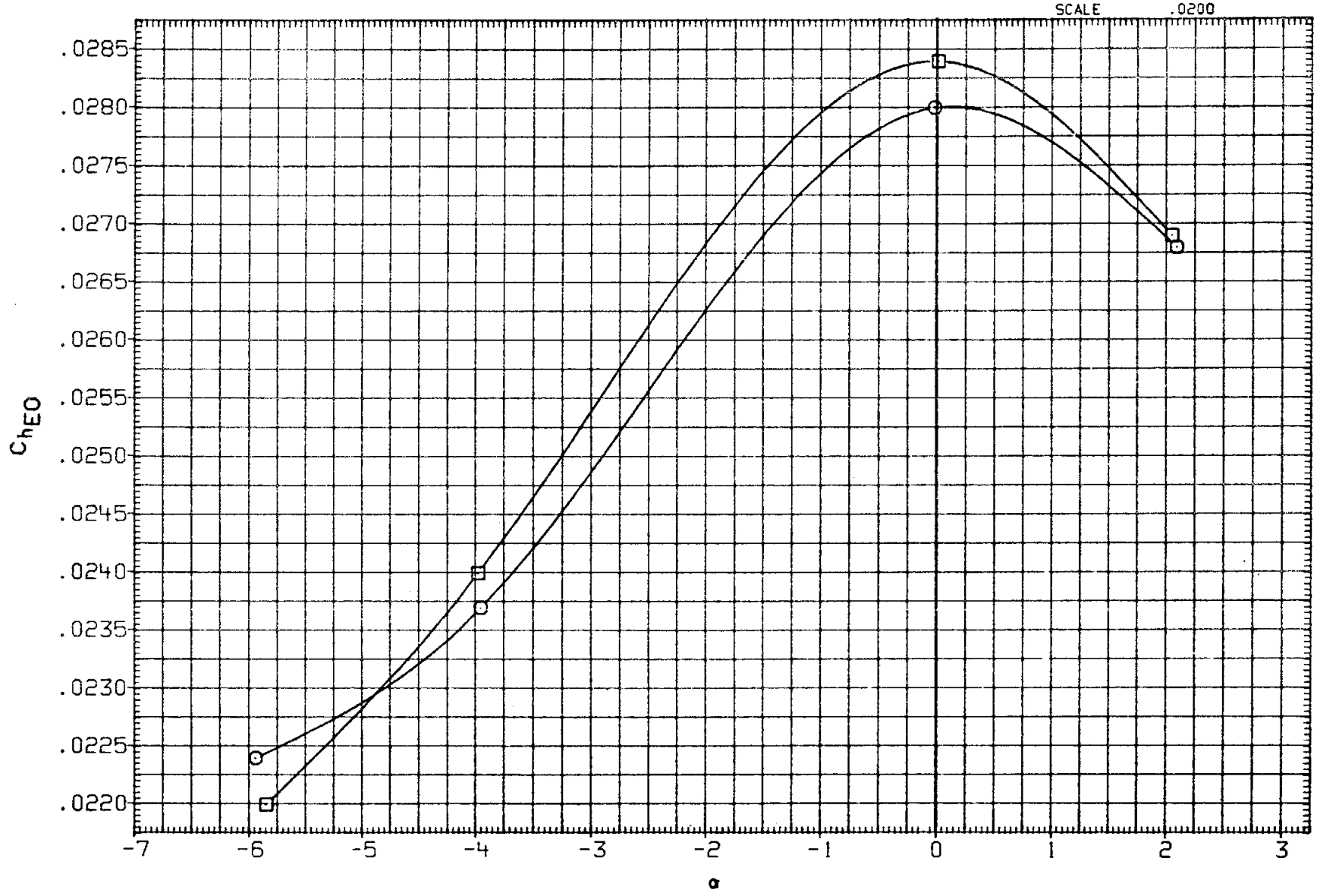

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

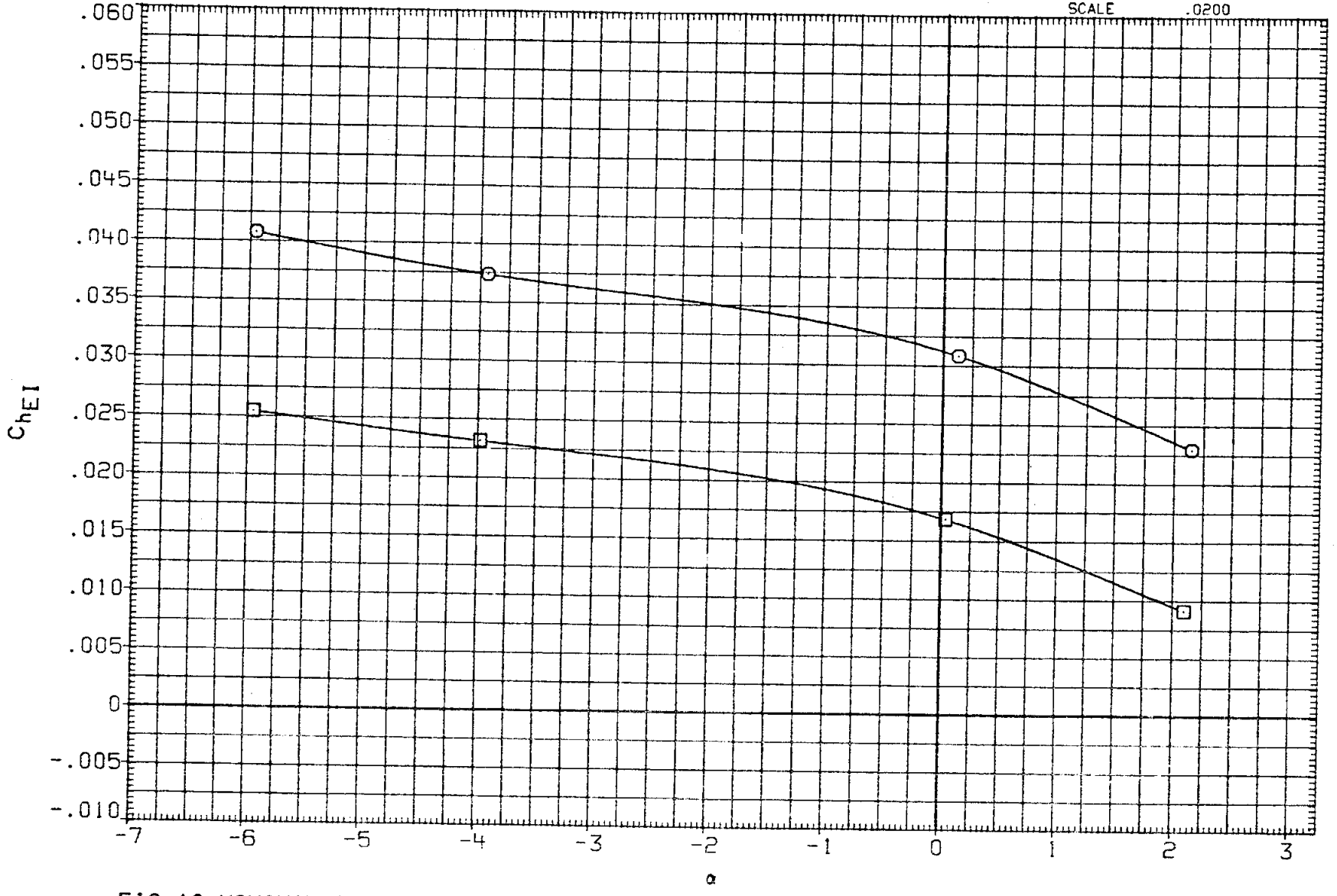

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

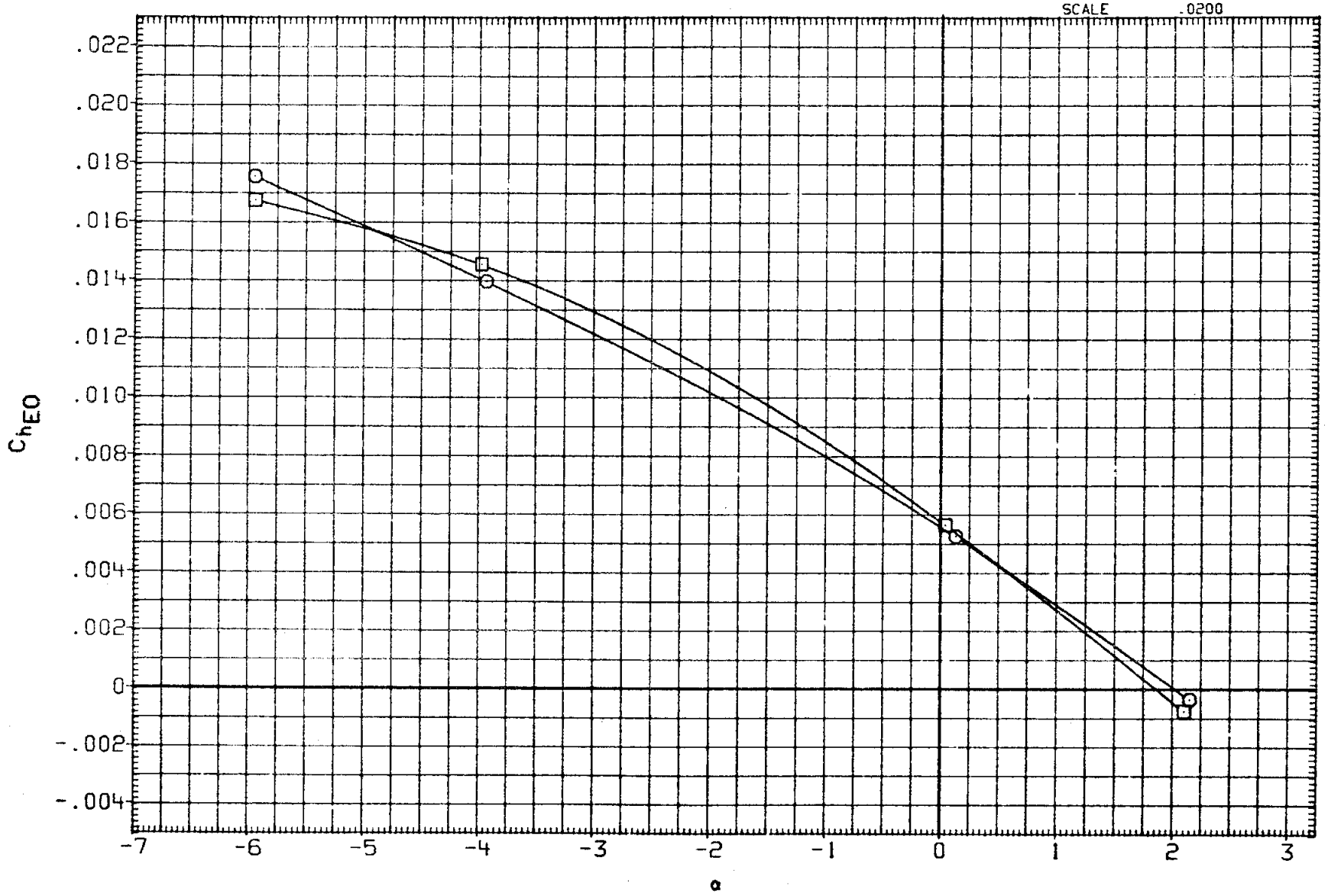

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

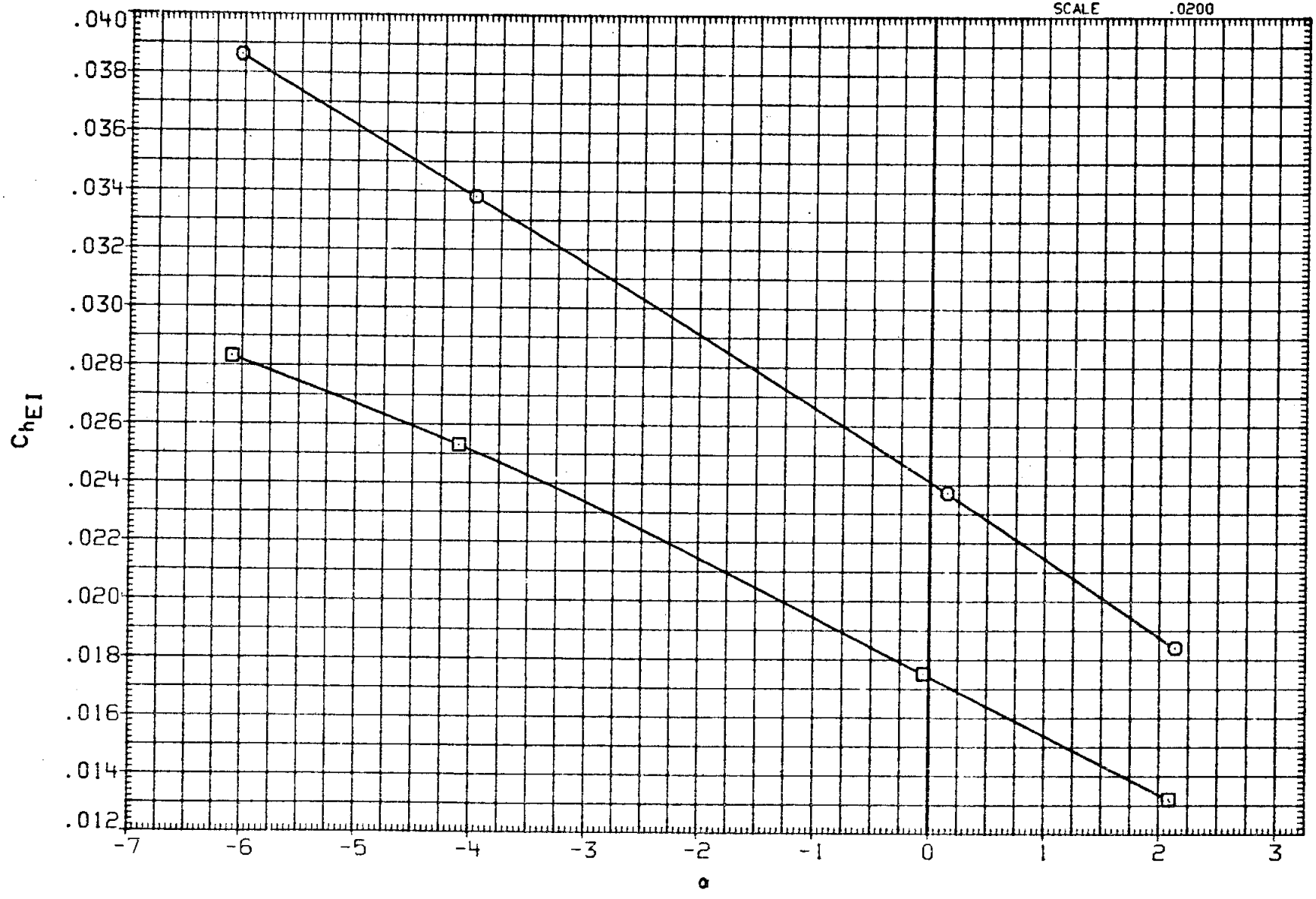

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
JNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

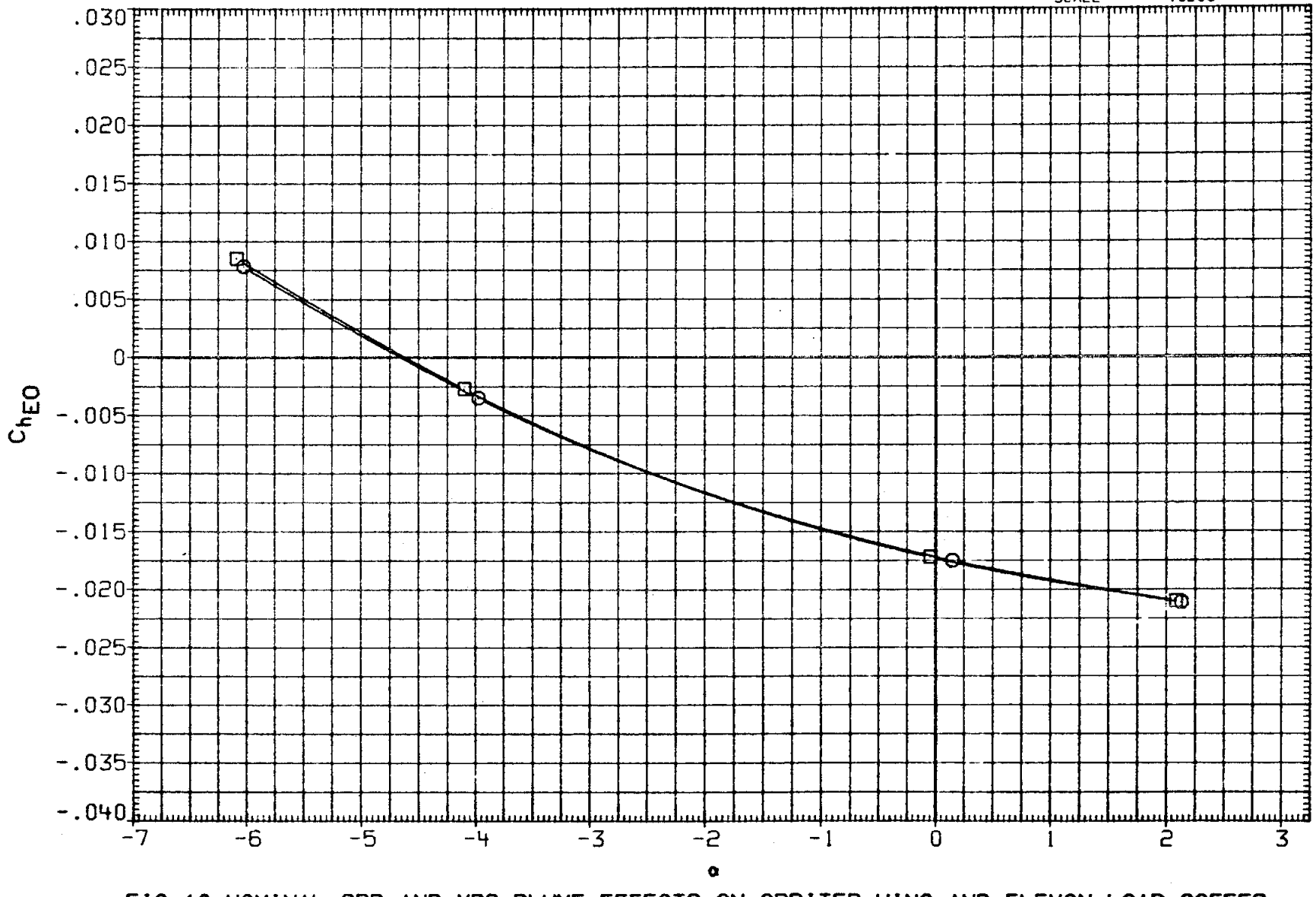

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

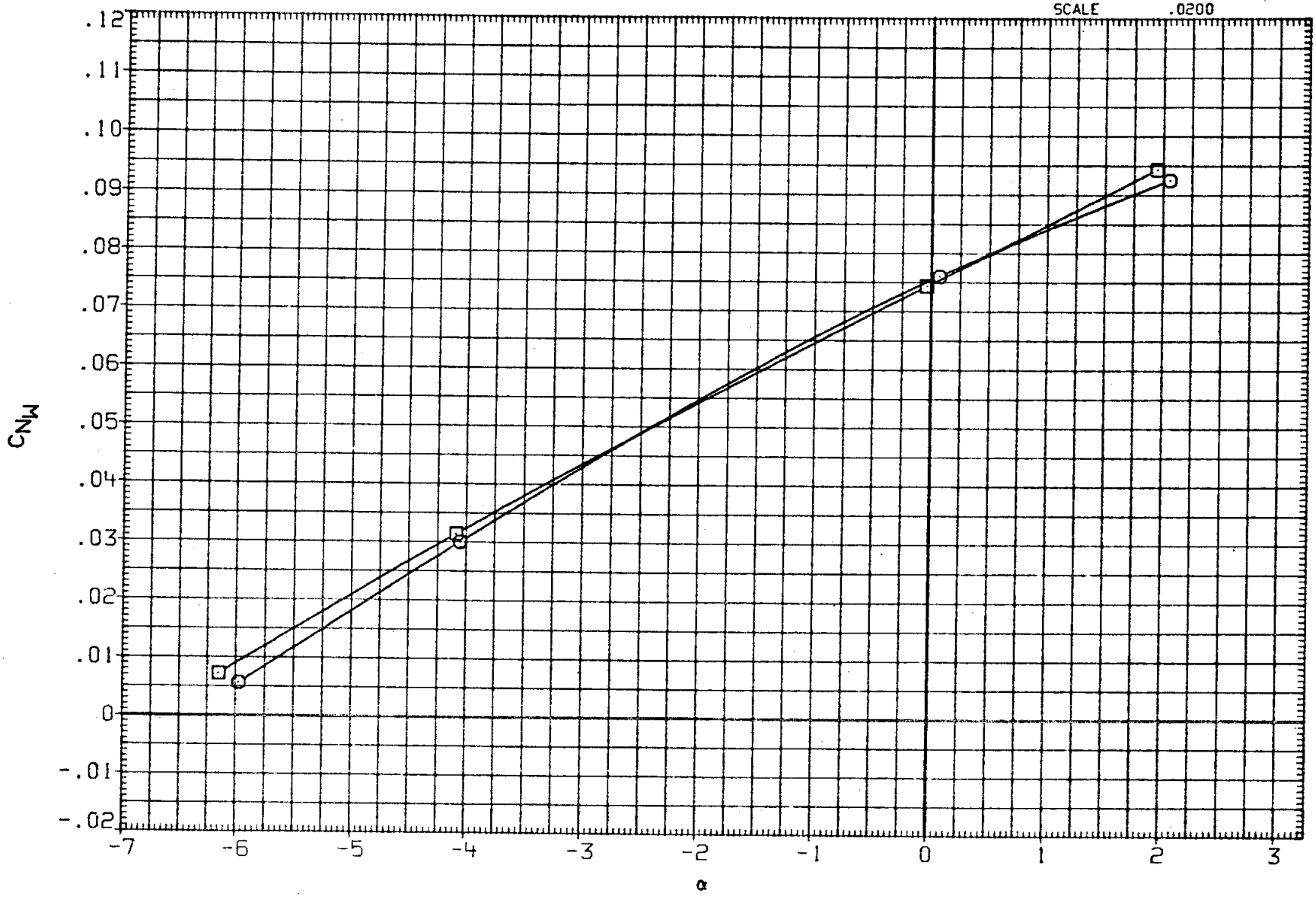

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

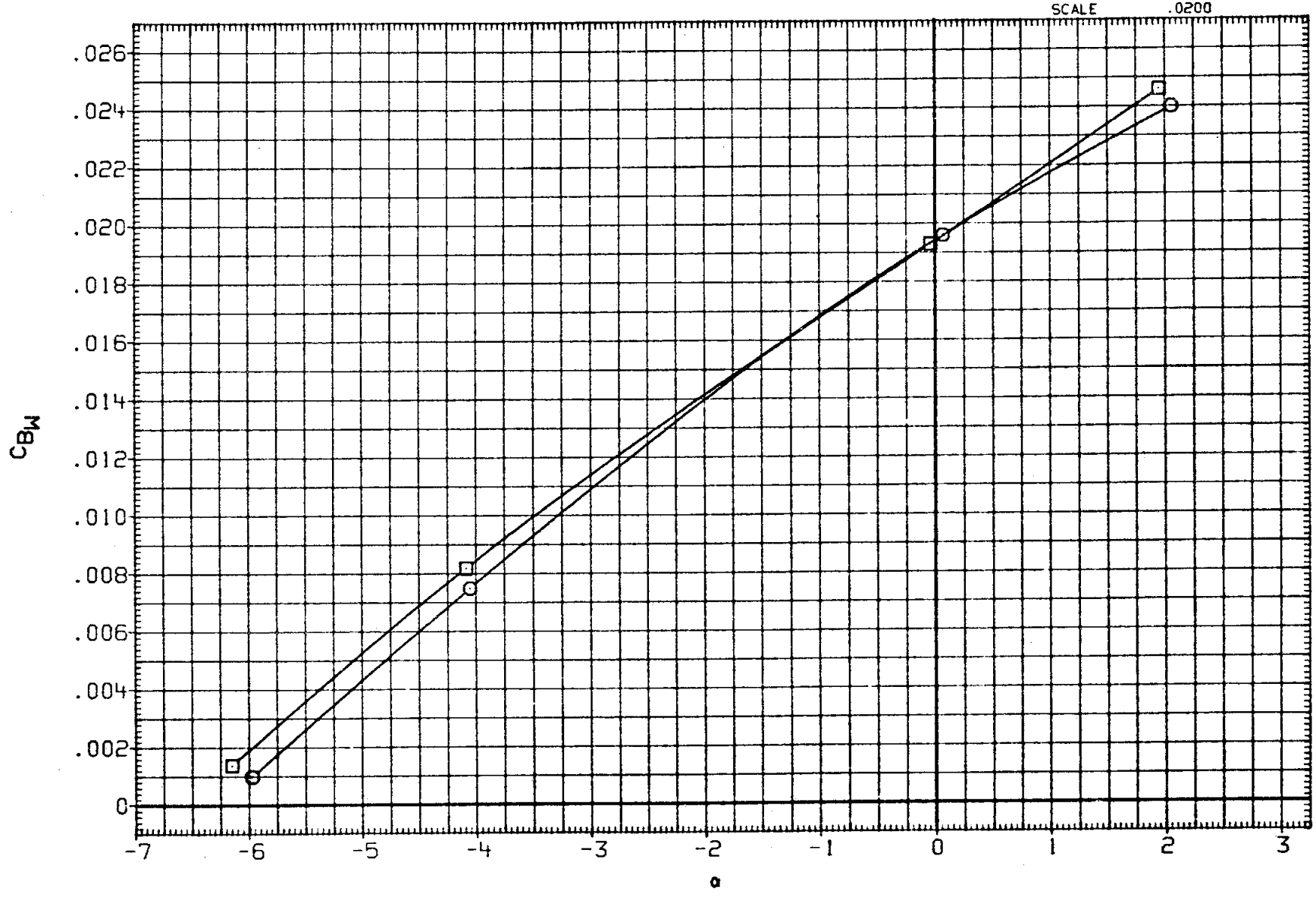

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

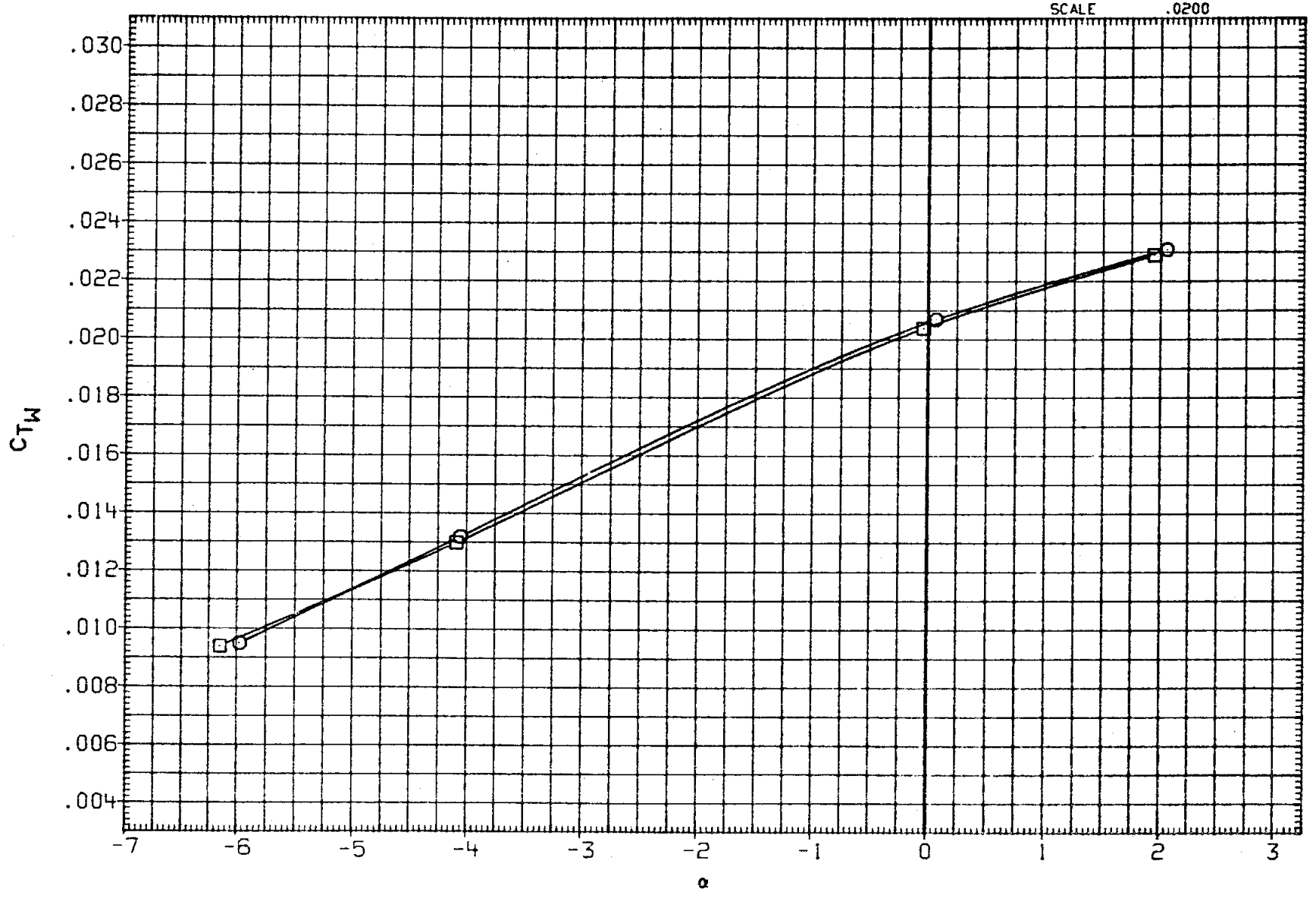

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

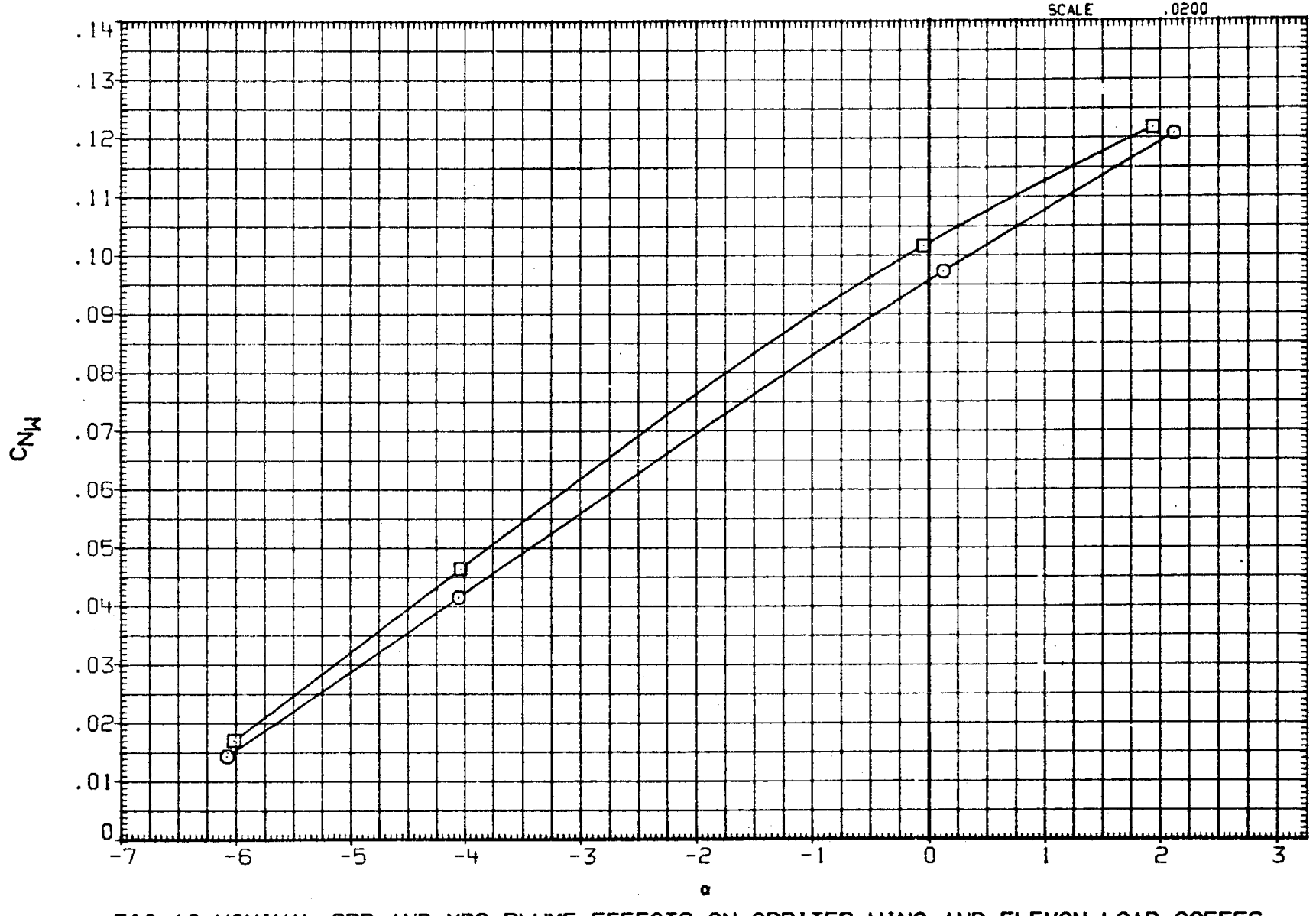

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

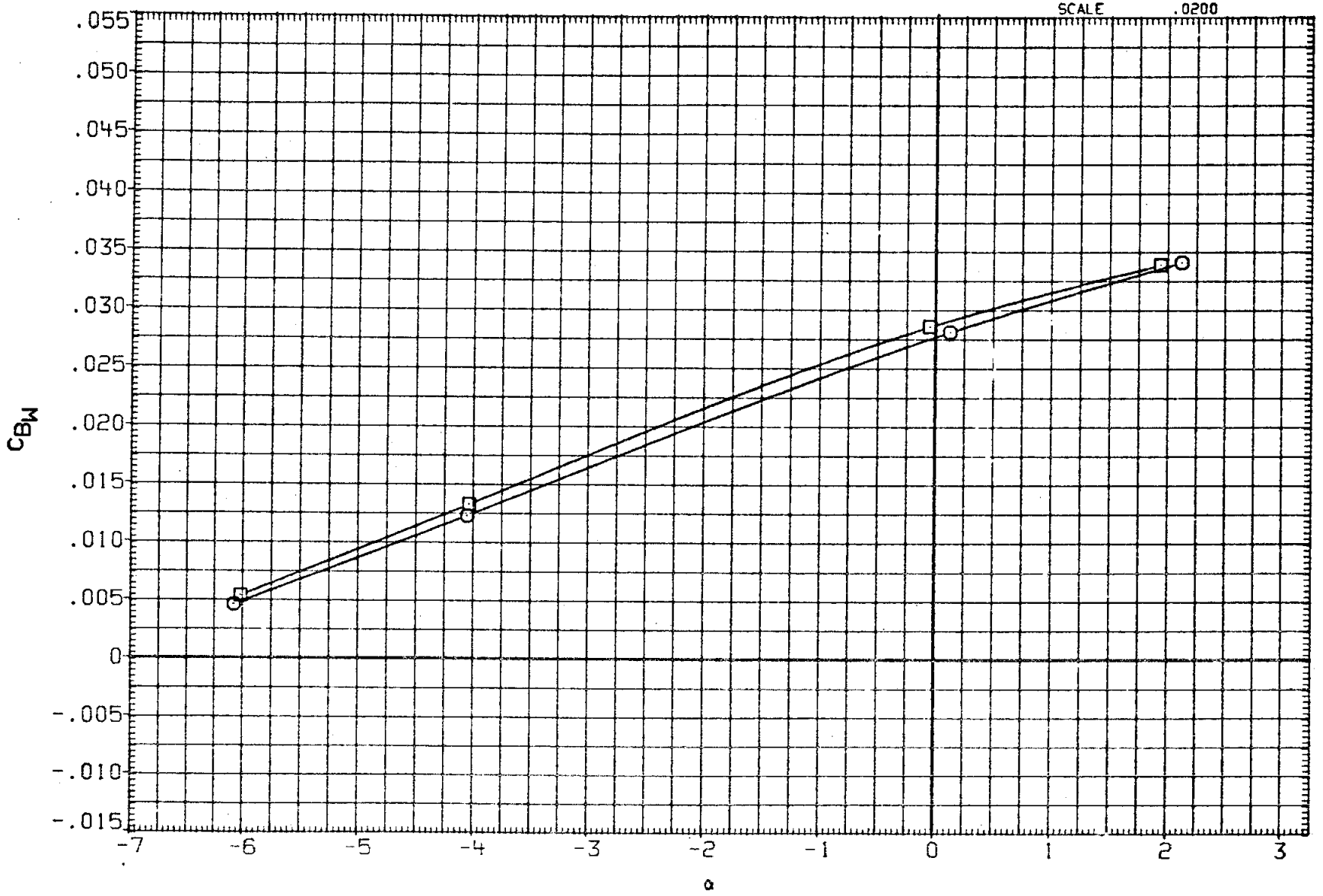

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	935.6800	IN.
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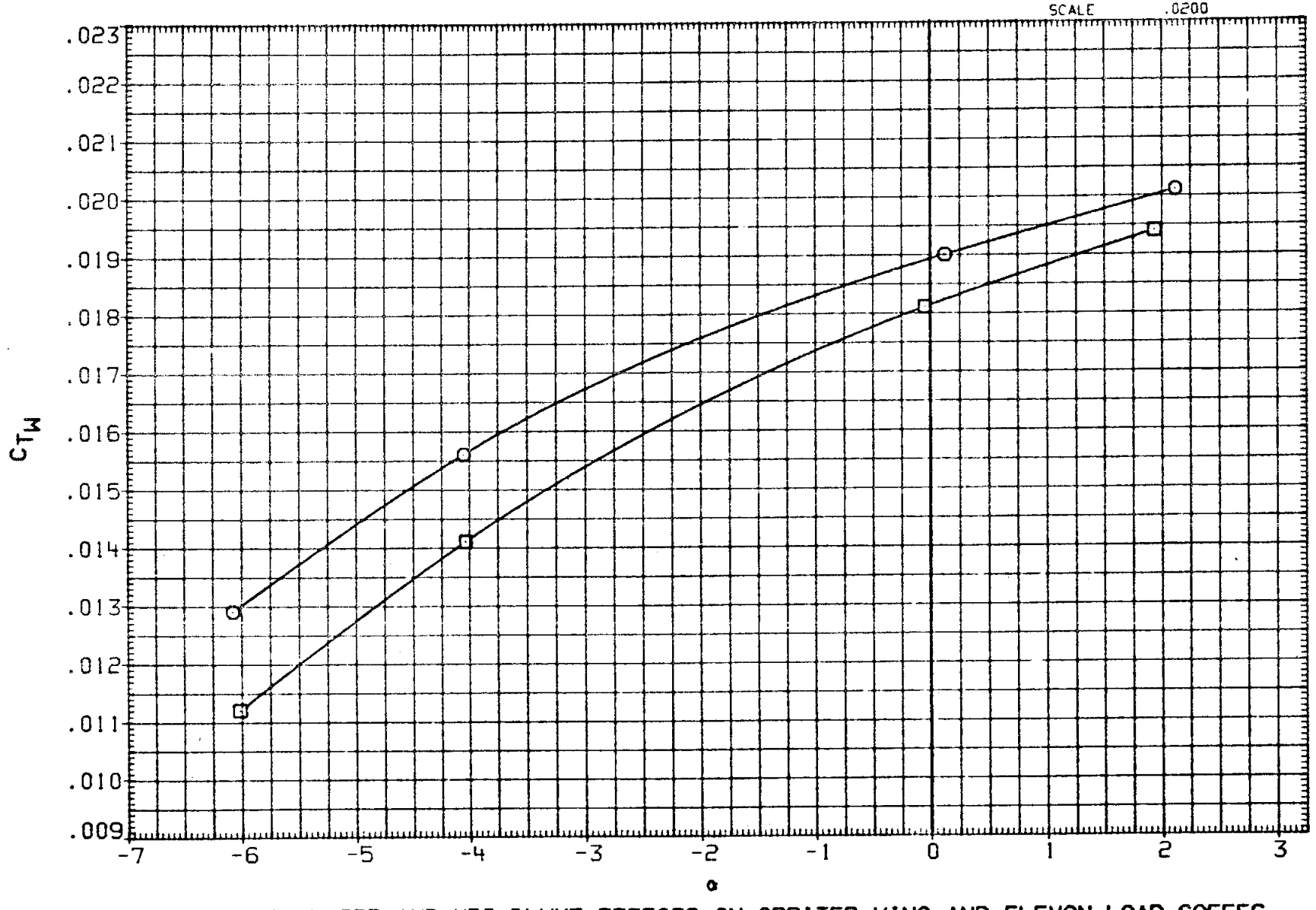

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
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YMRP	.0000	N.A.
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SCALE	.0200	

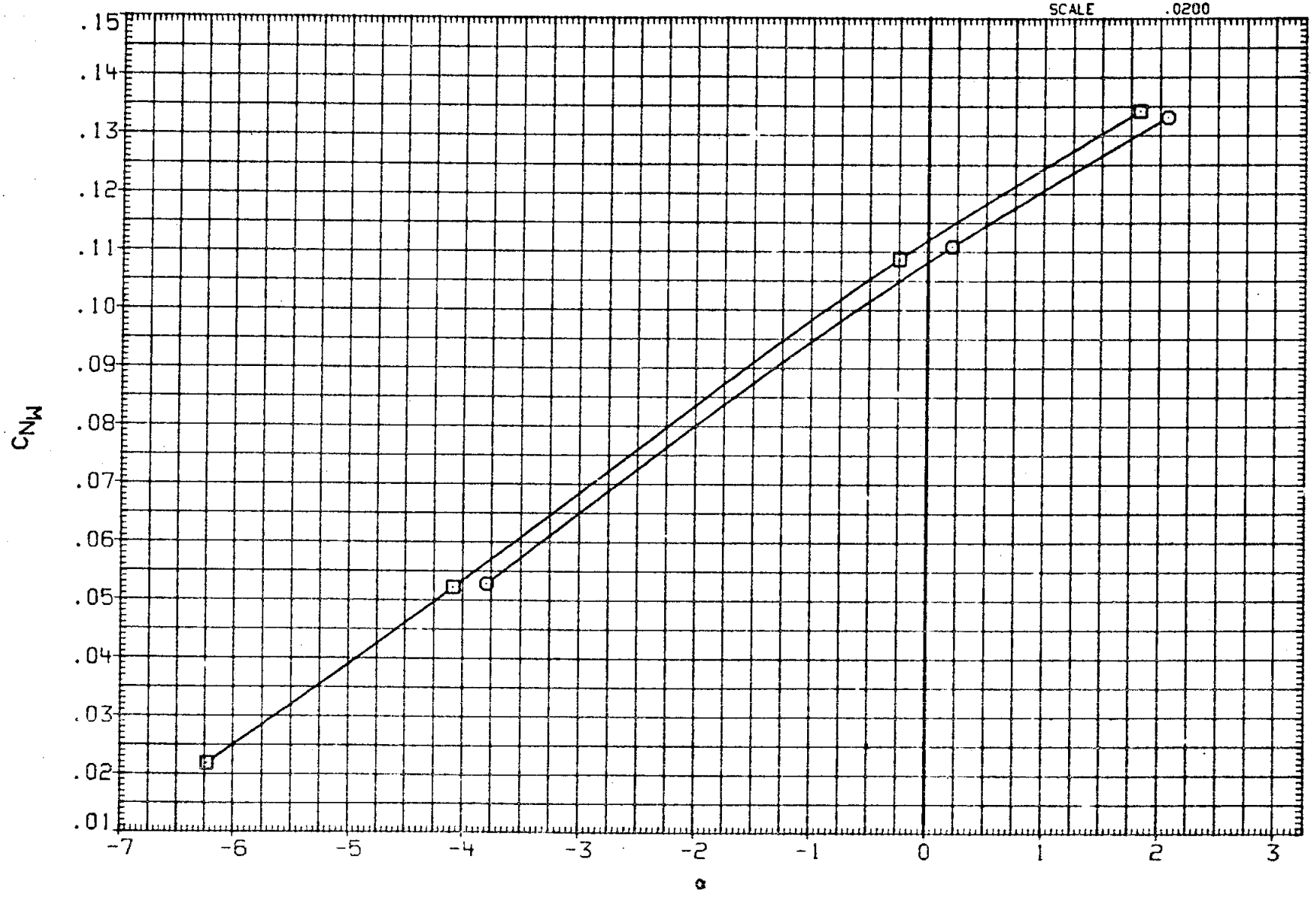

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

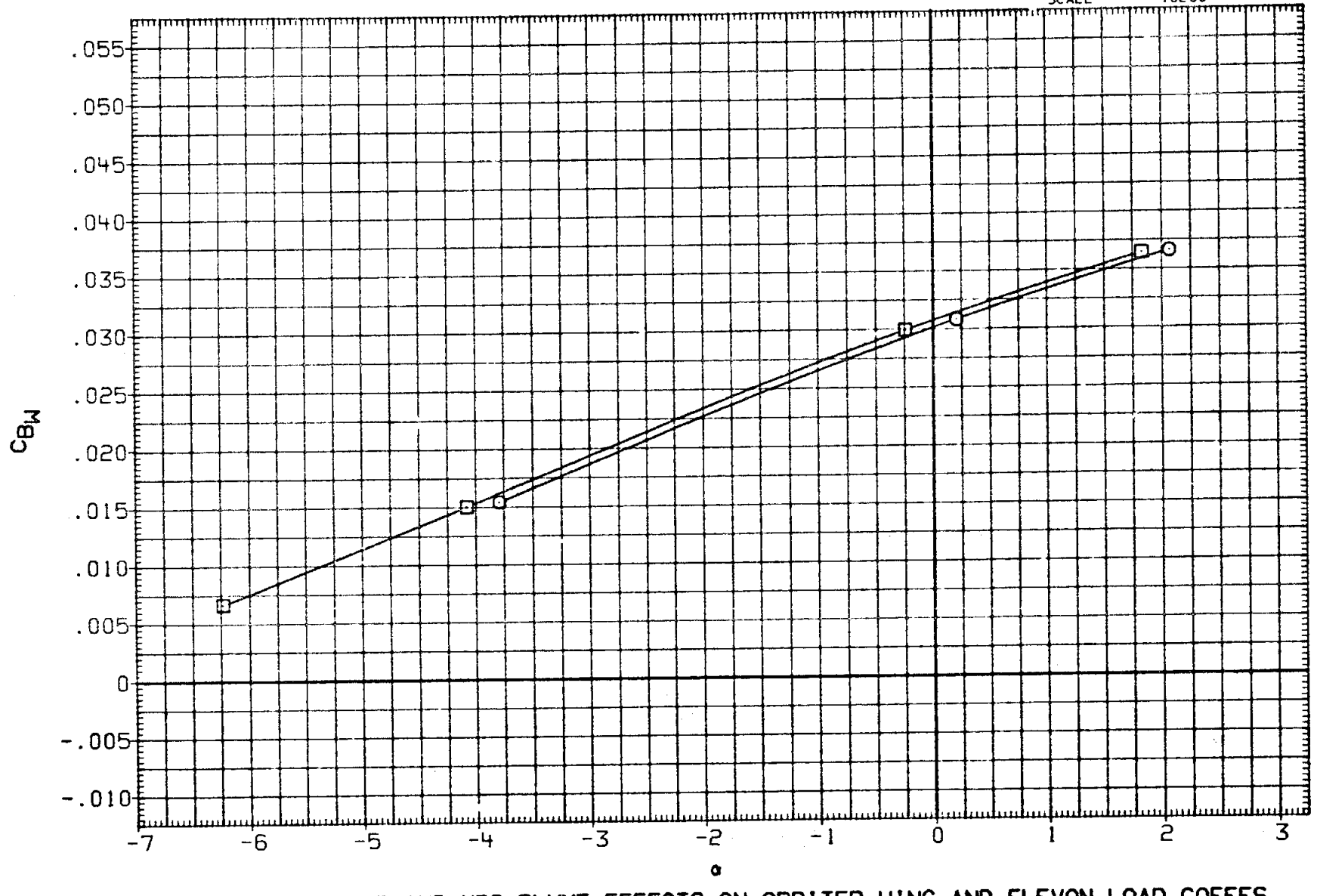

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

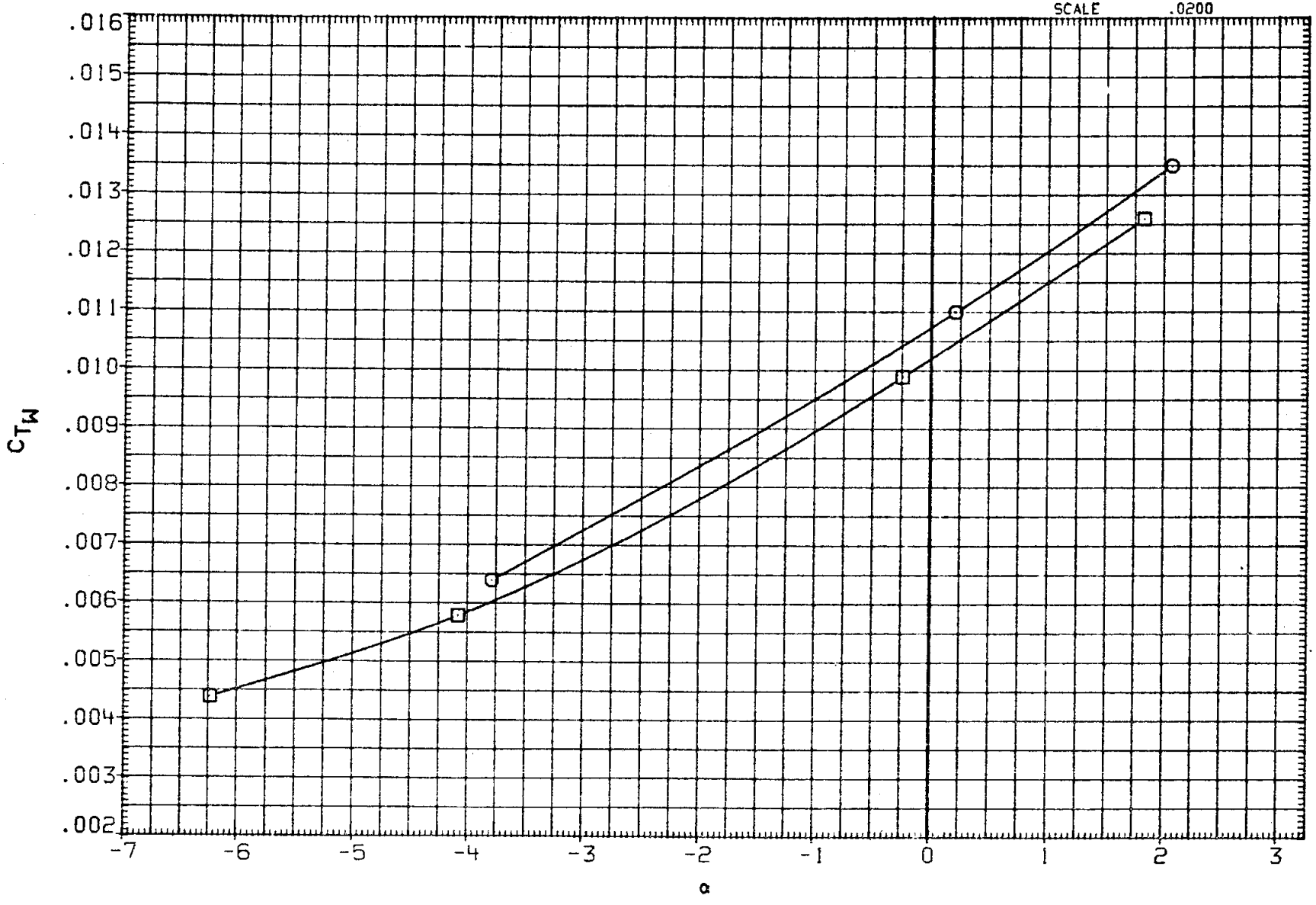

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
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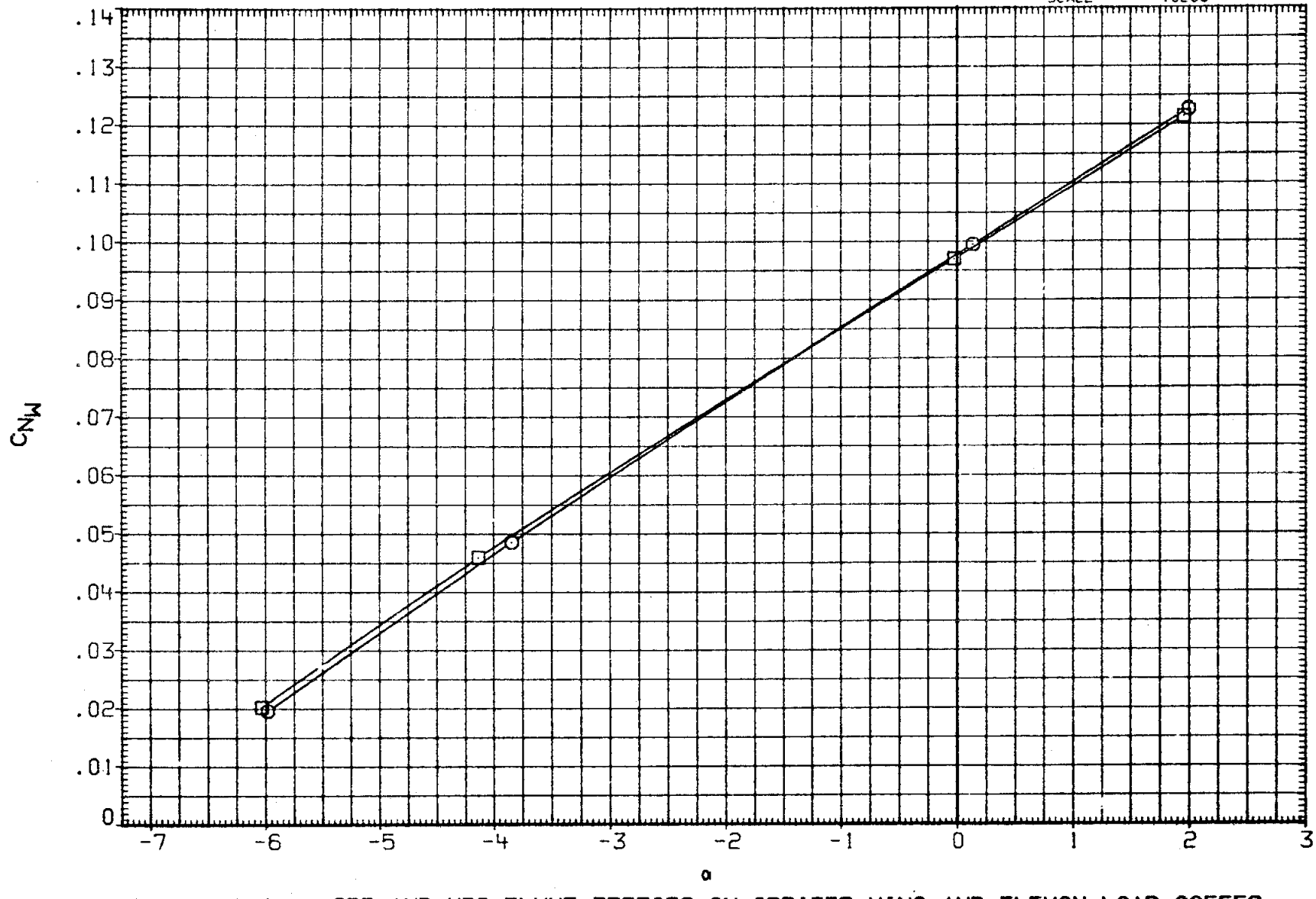

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

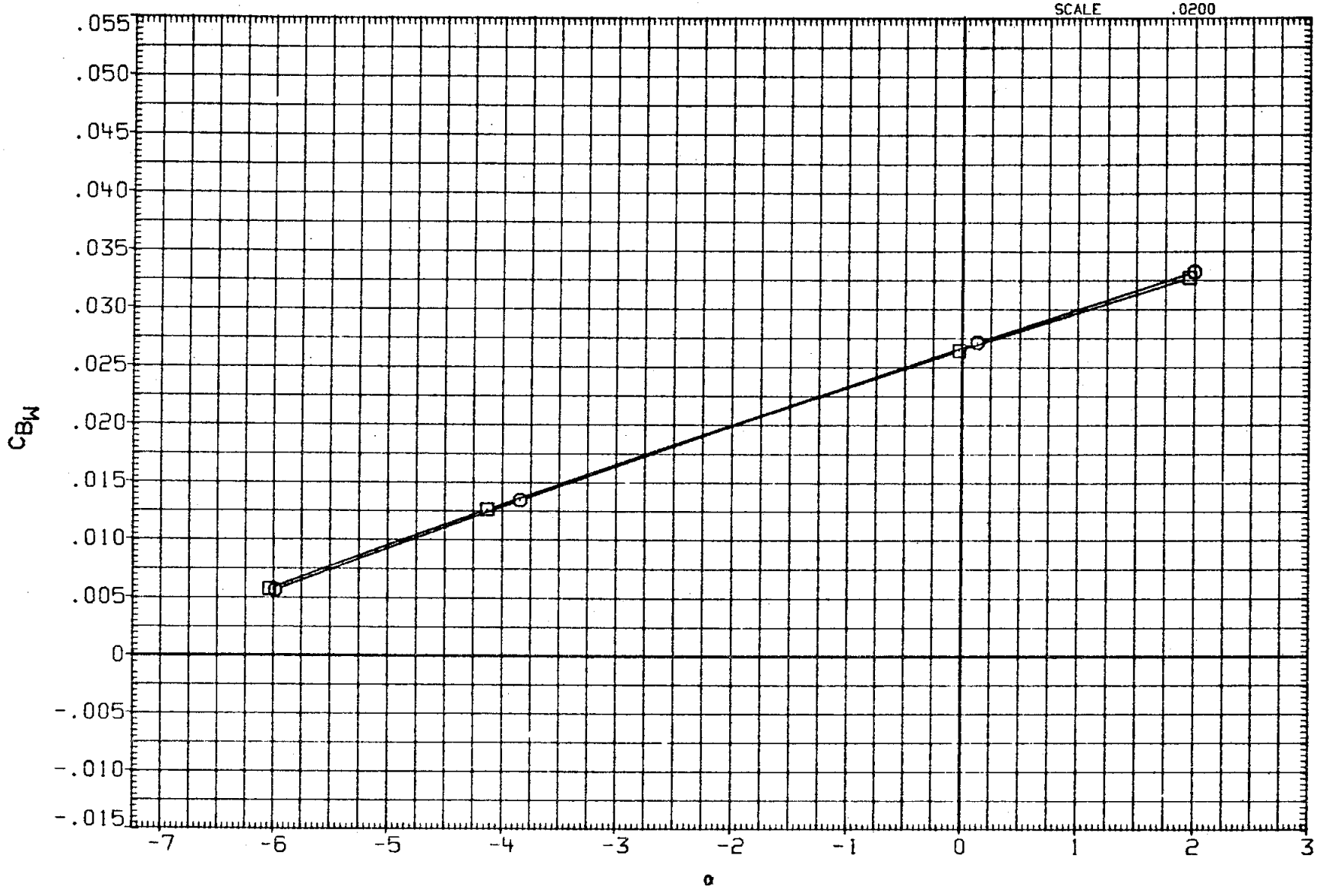

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
ANEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

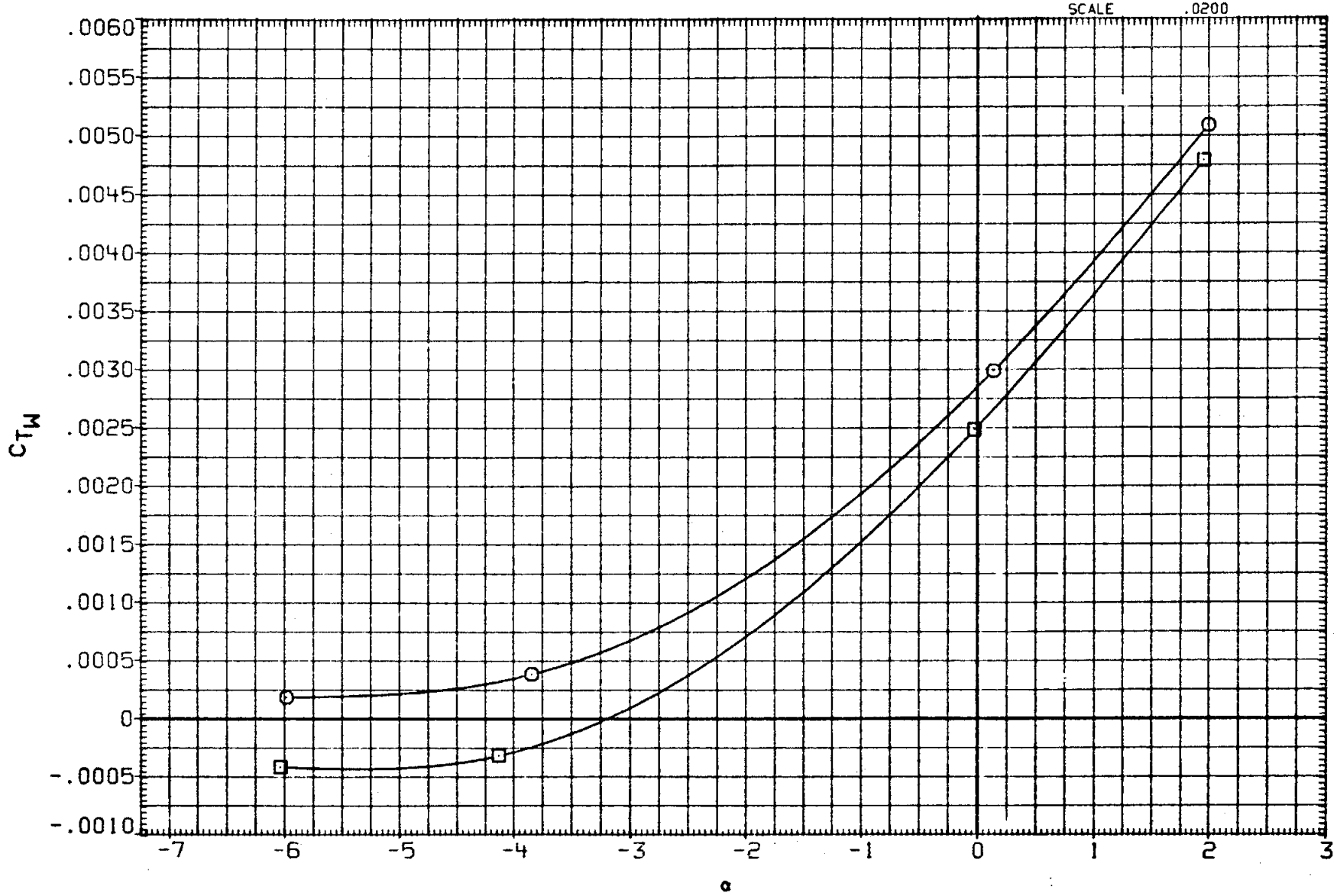

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

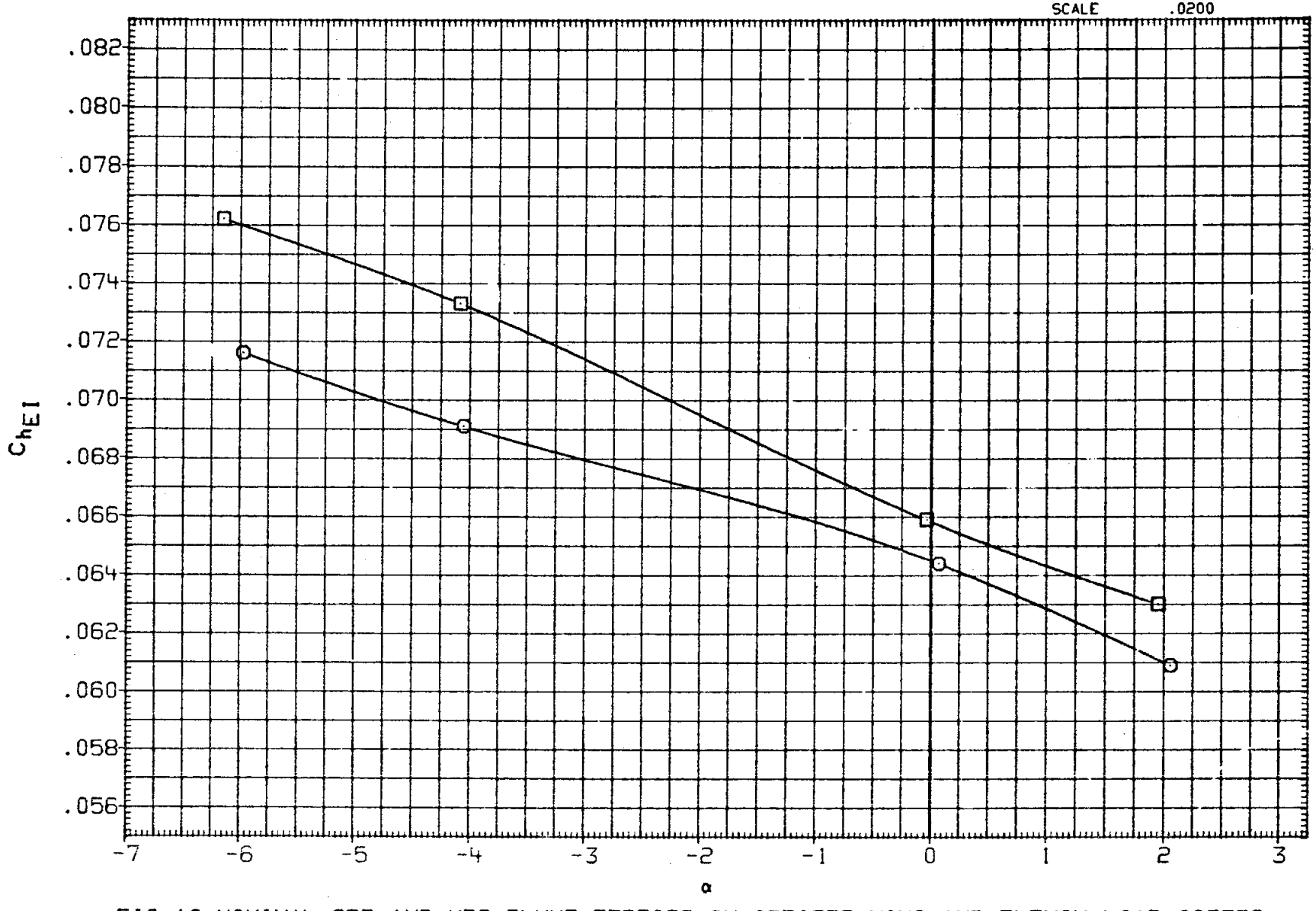

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

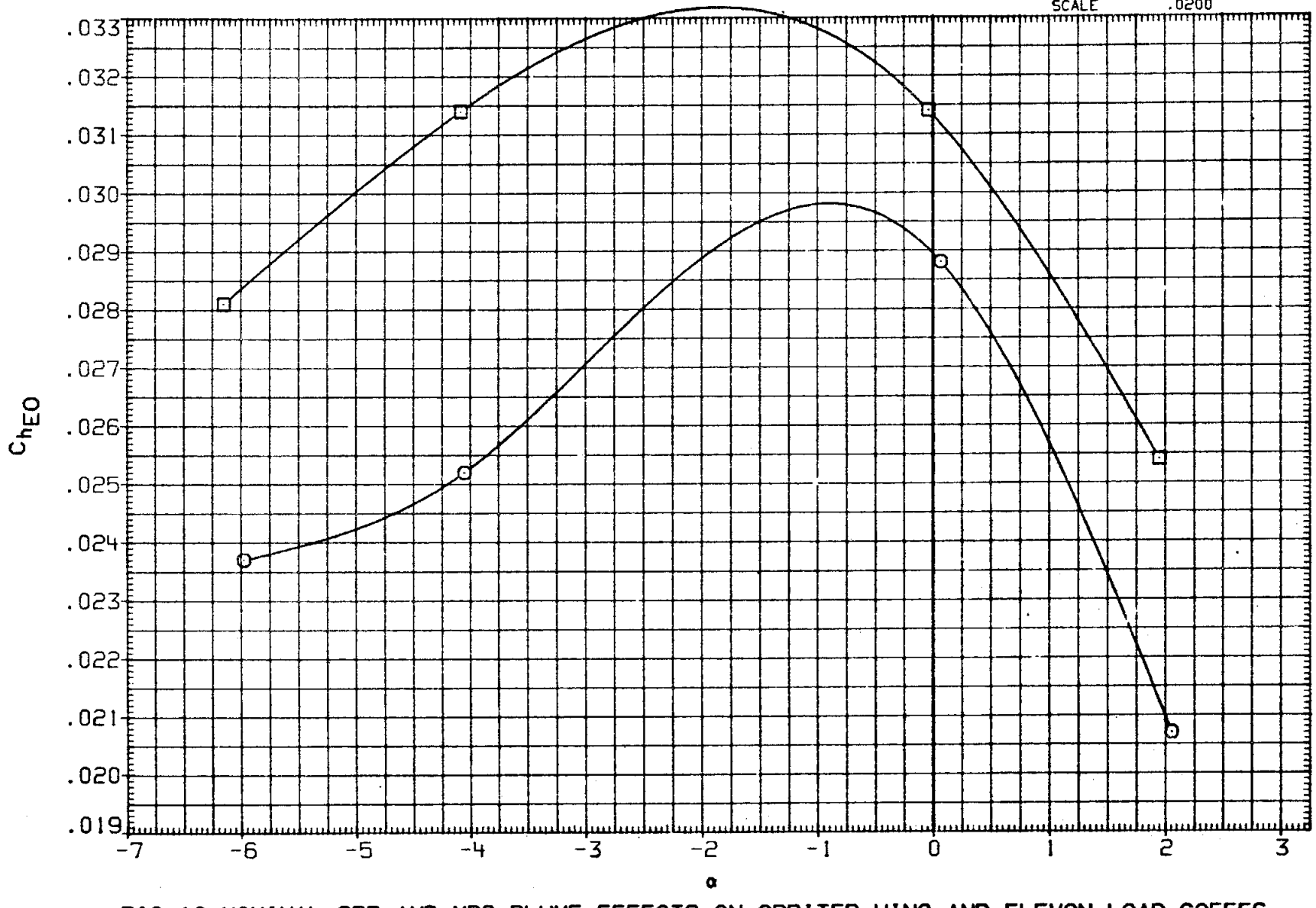

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

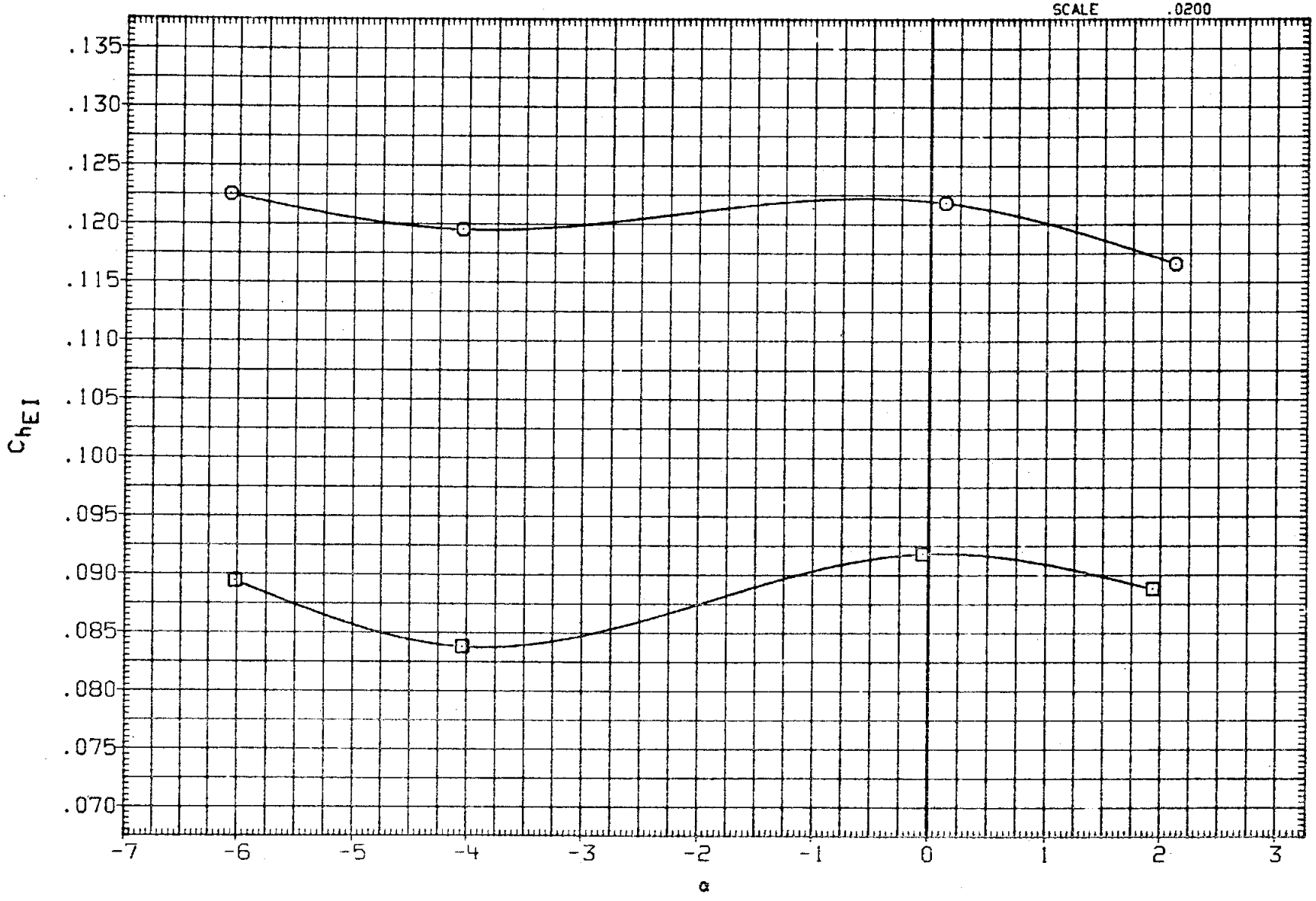

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

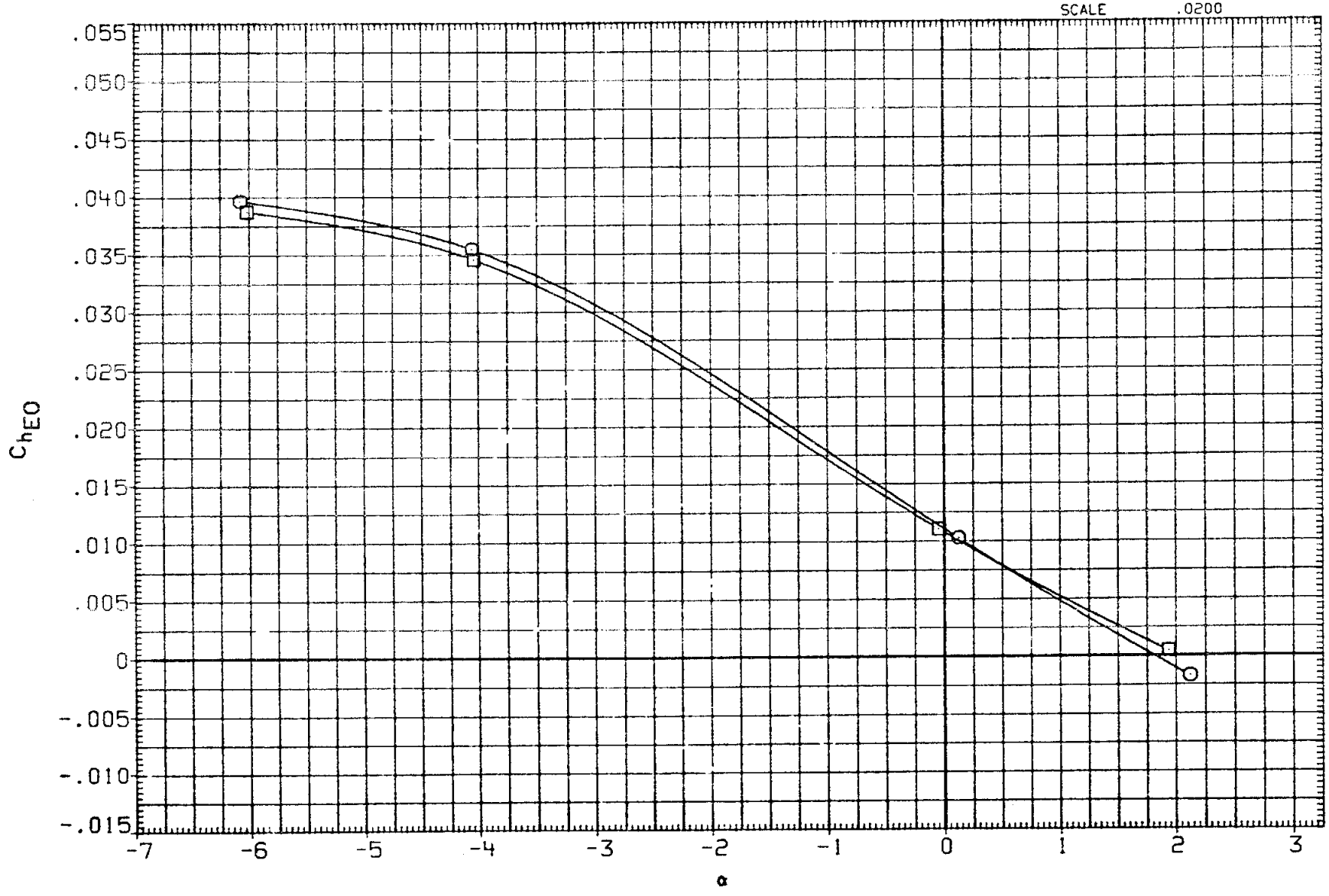

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

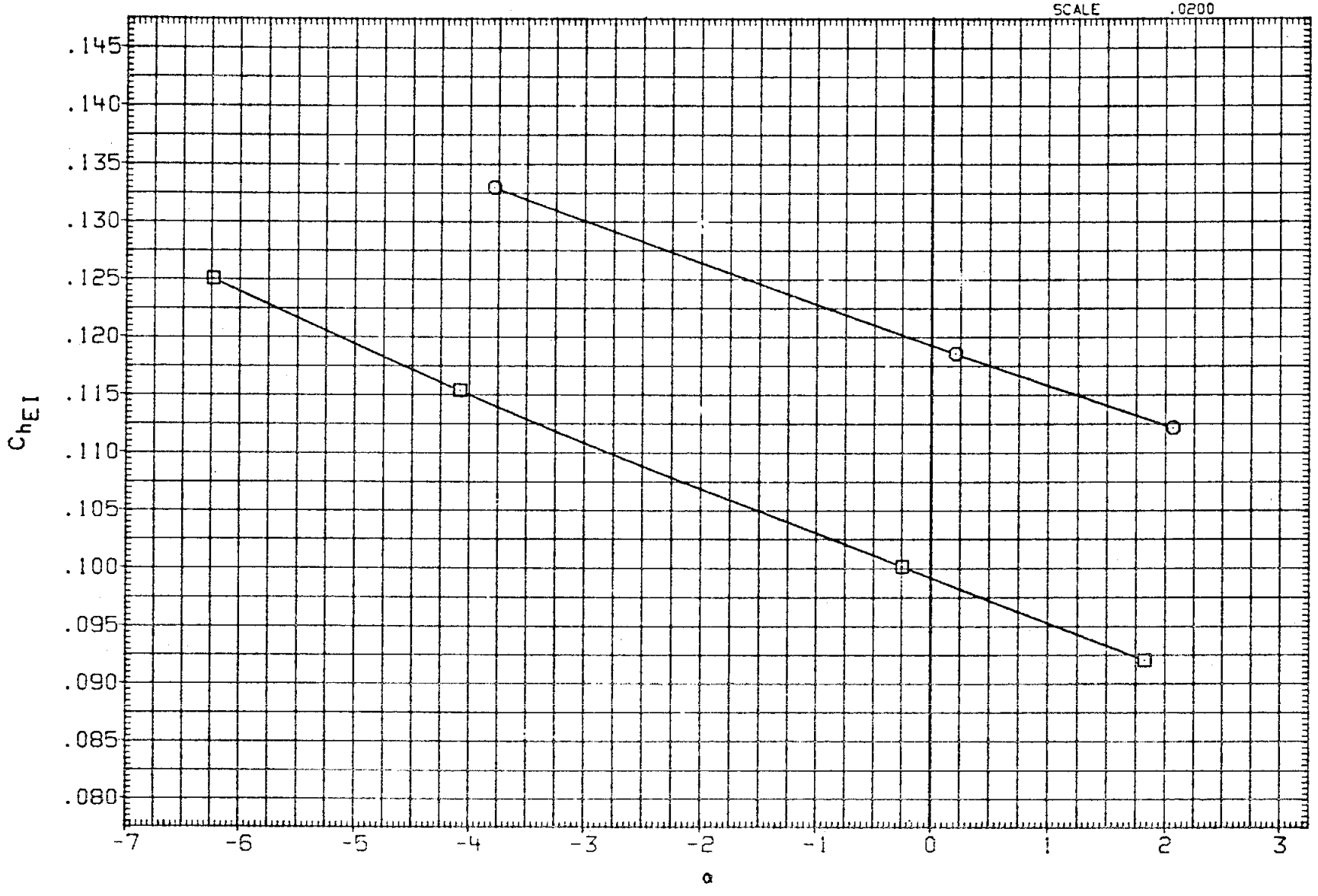

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

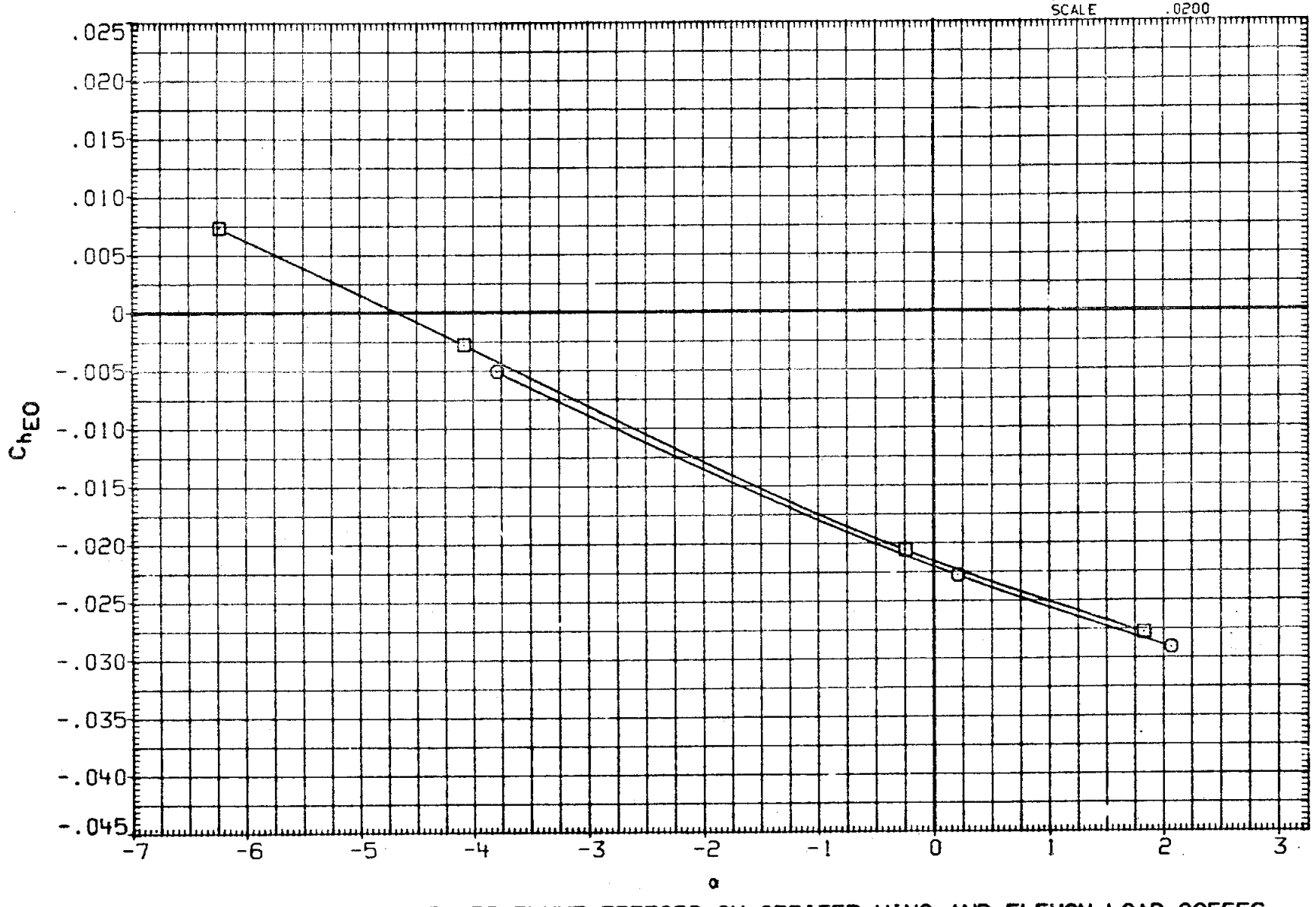

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

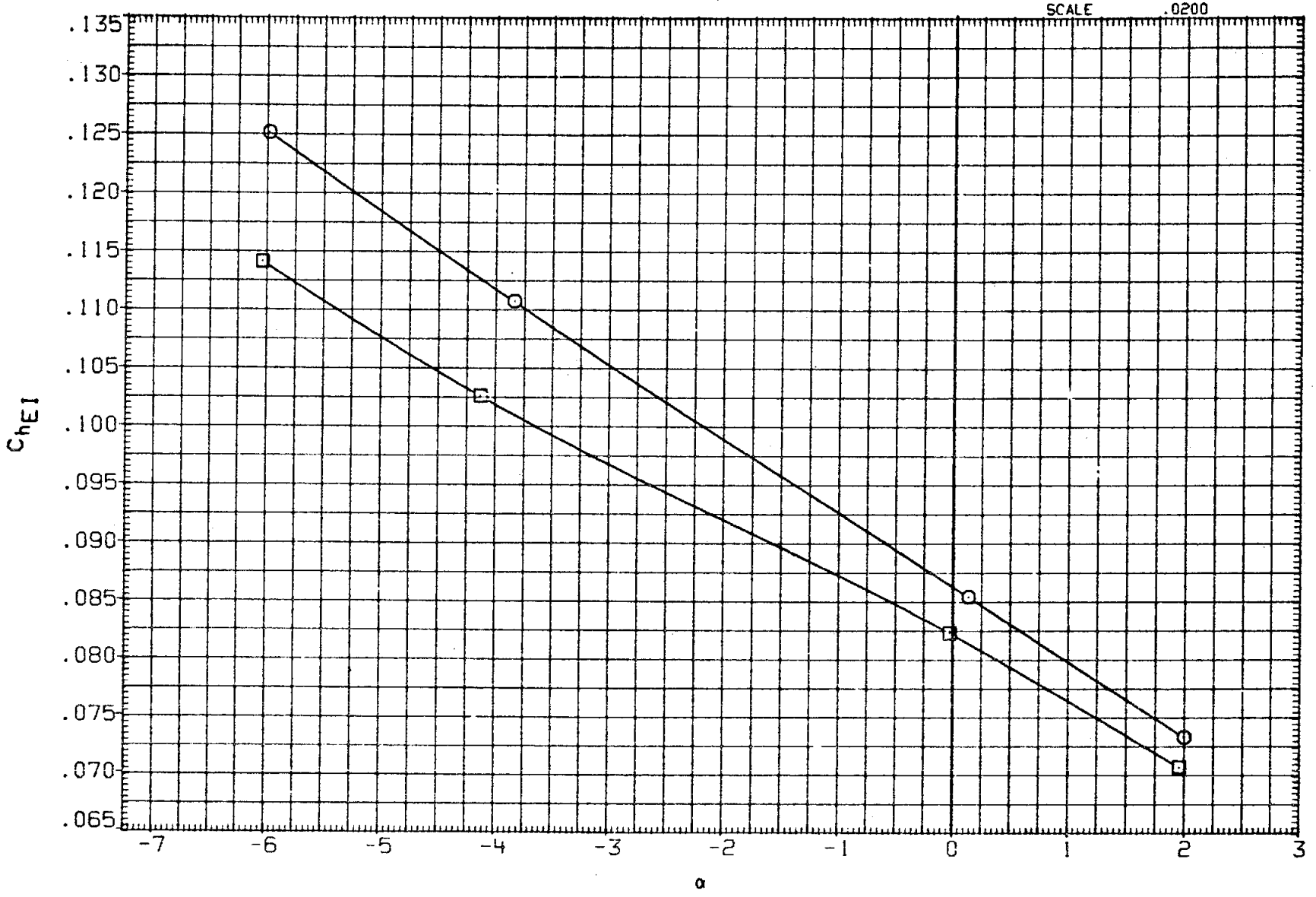

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
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XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

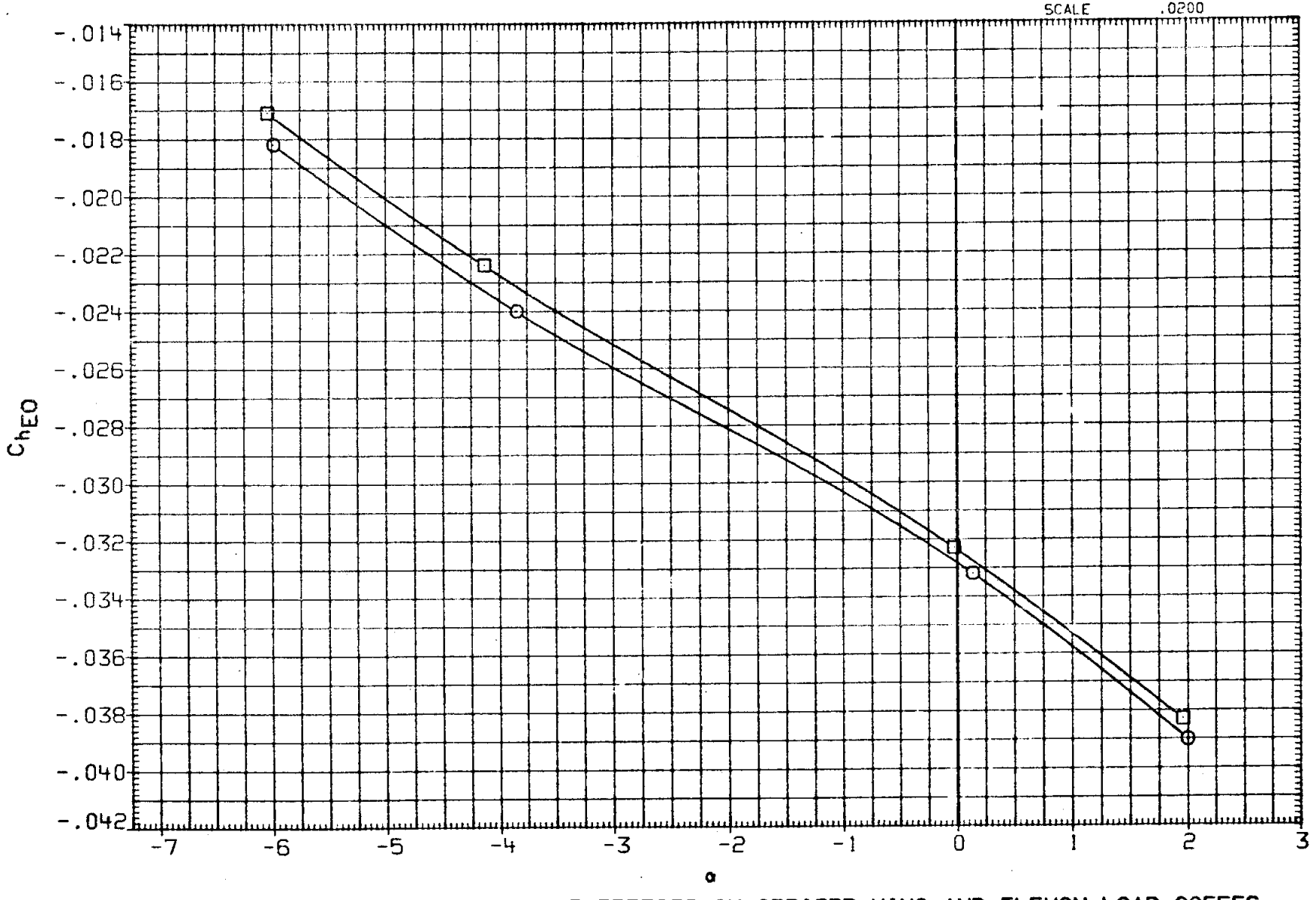

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

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LREF	474.8000	IN.
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YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

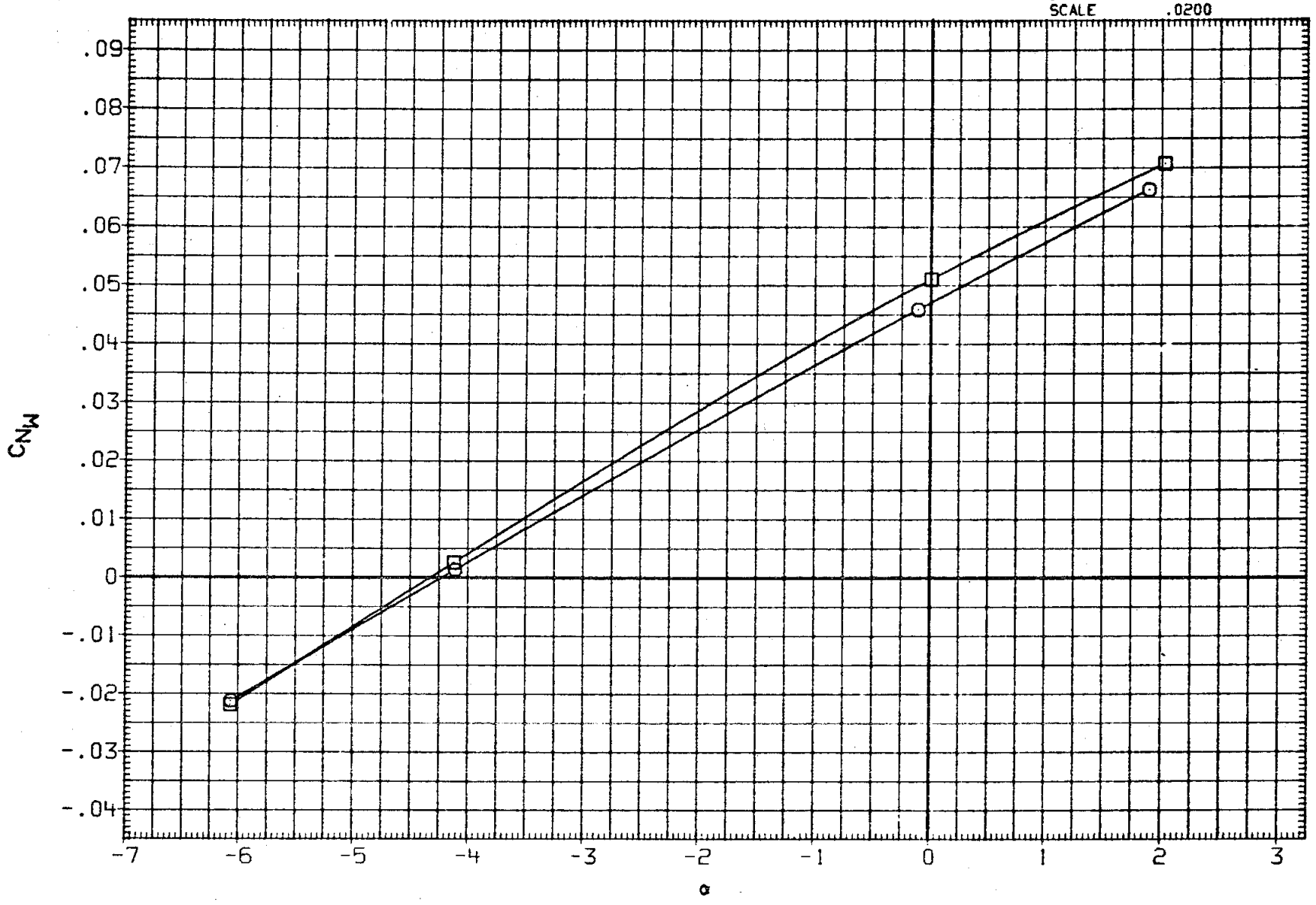

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

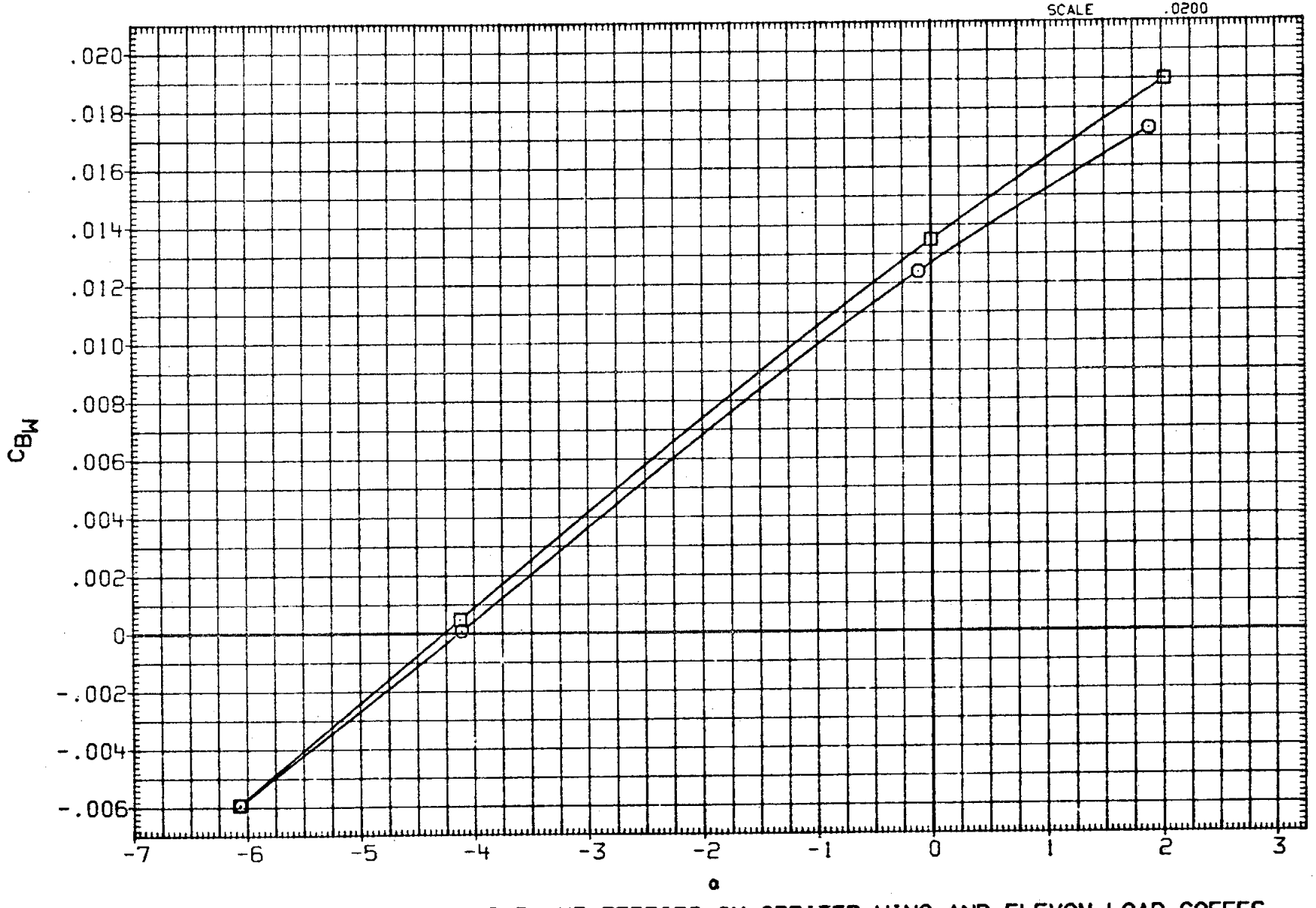

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

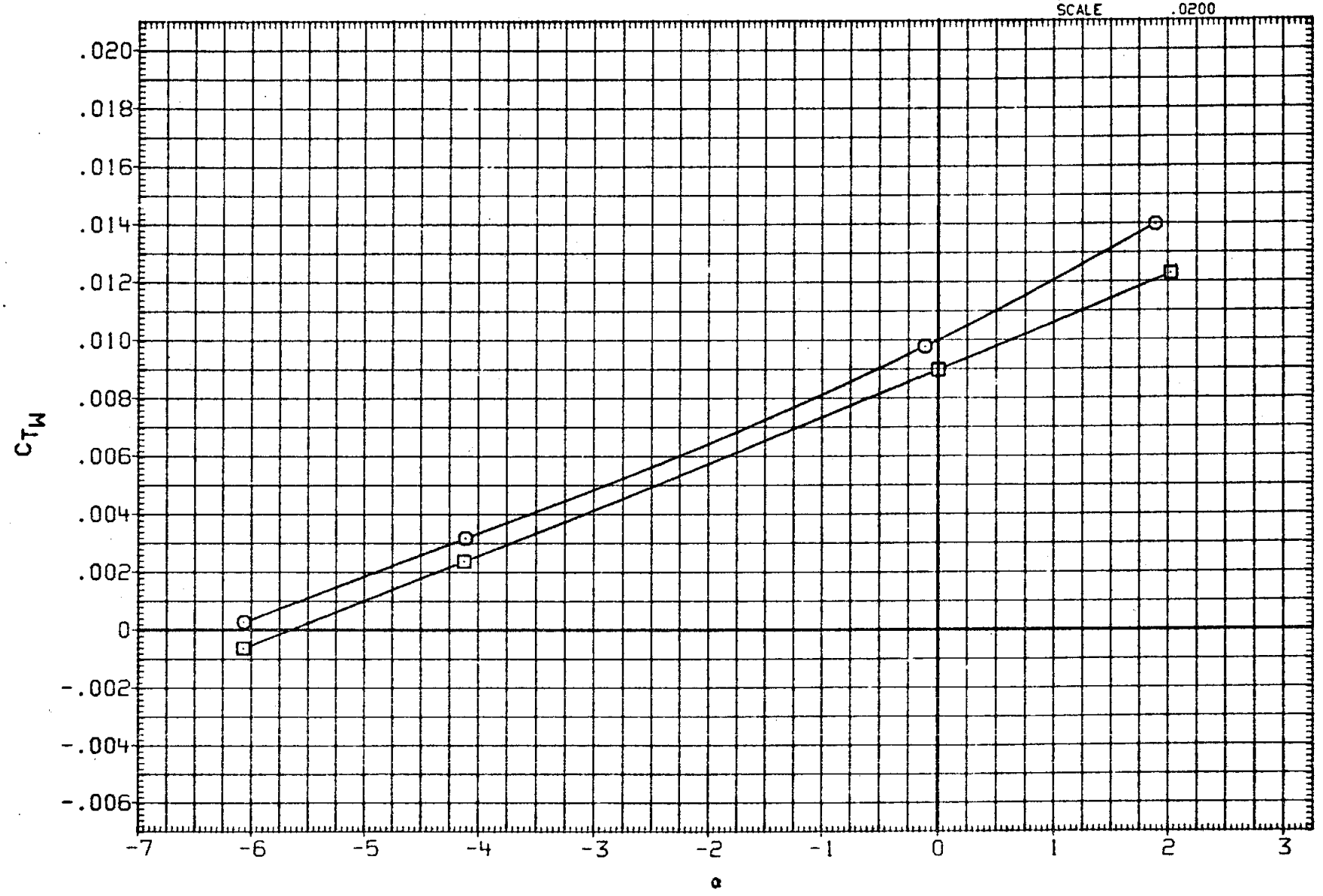

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

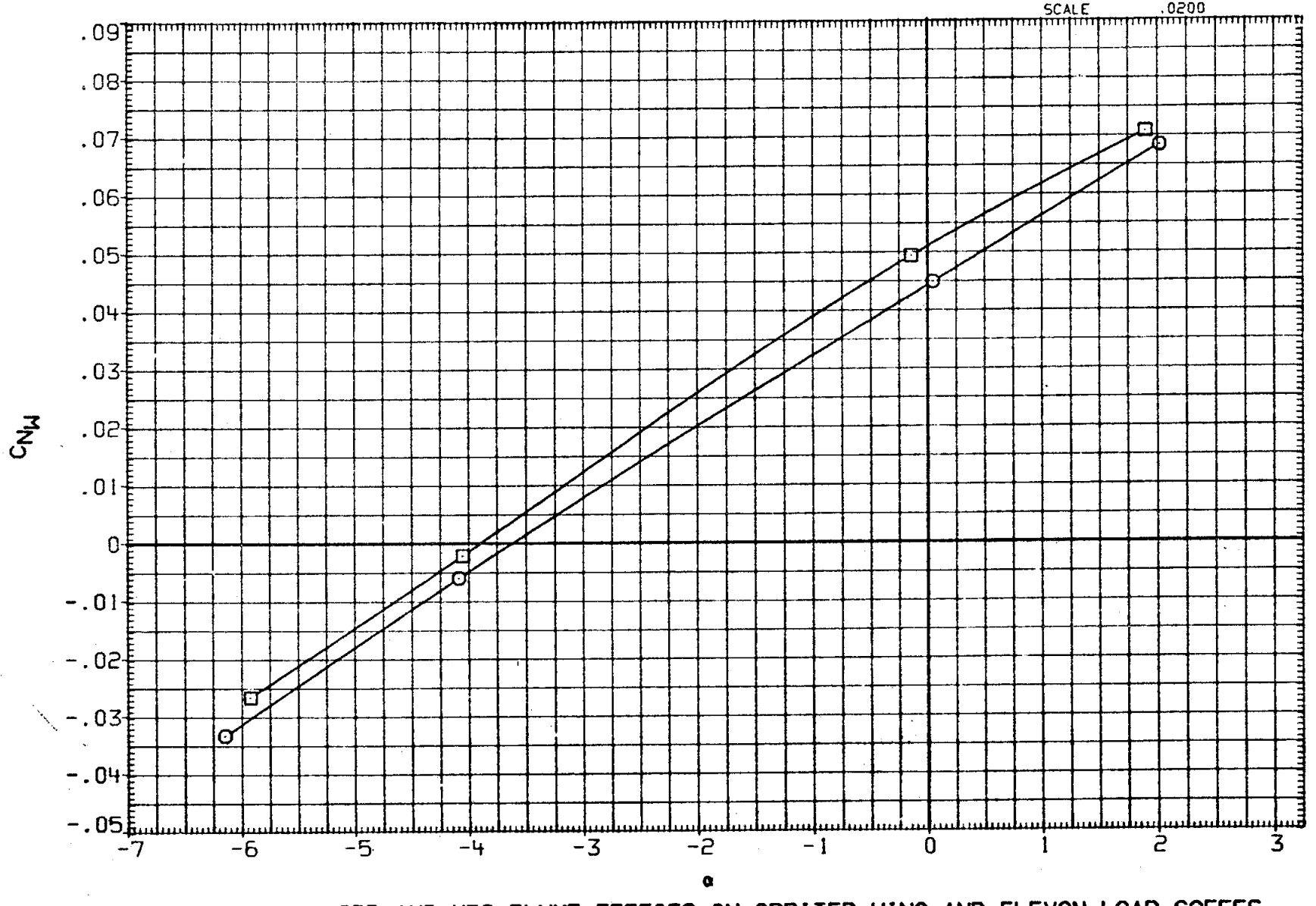

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

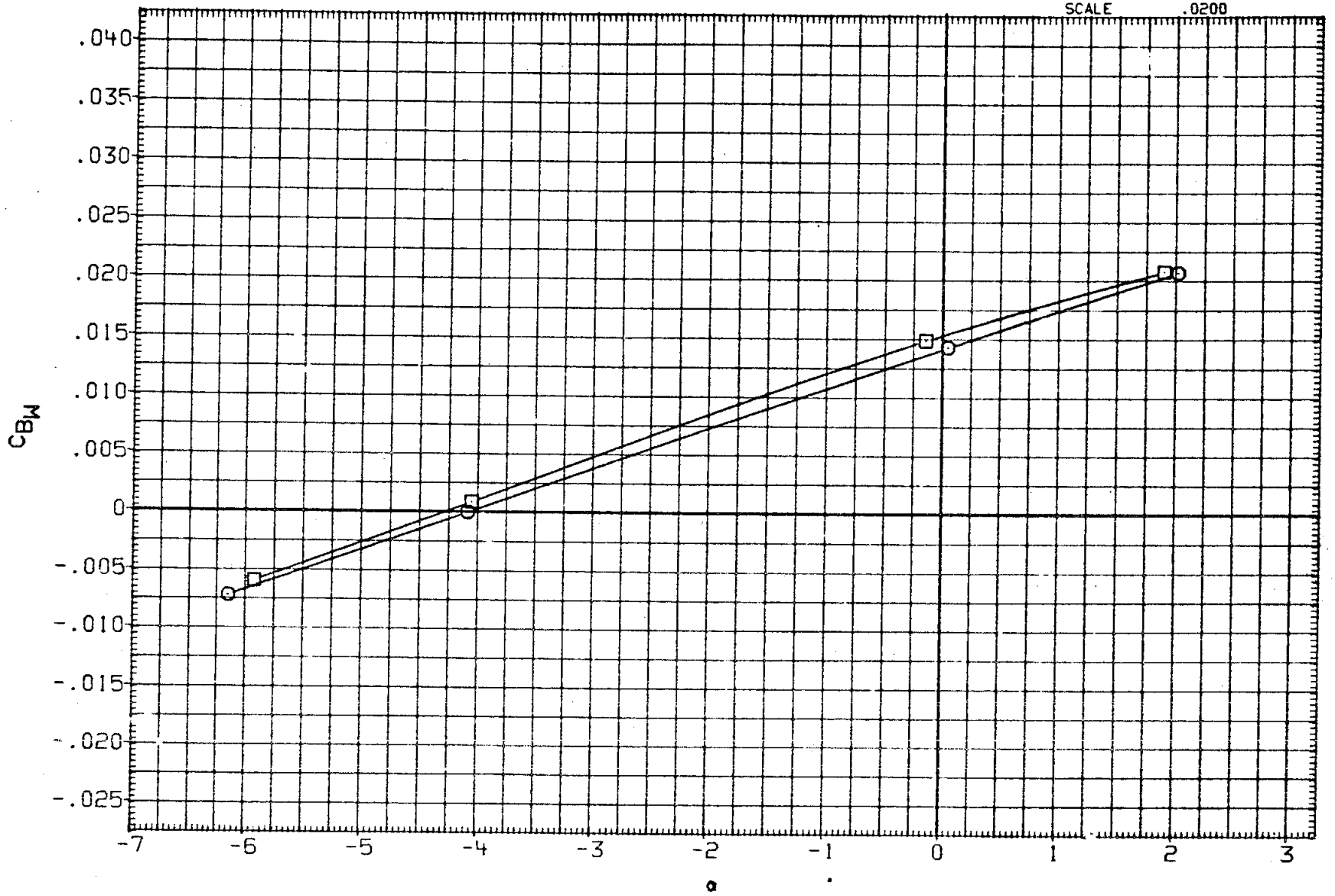

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

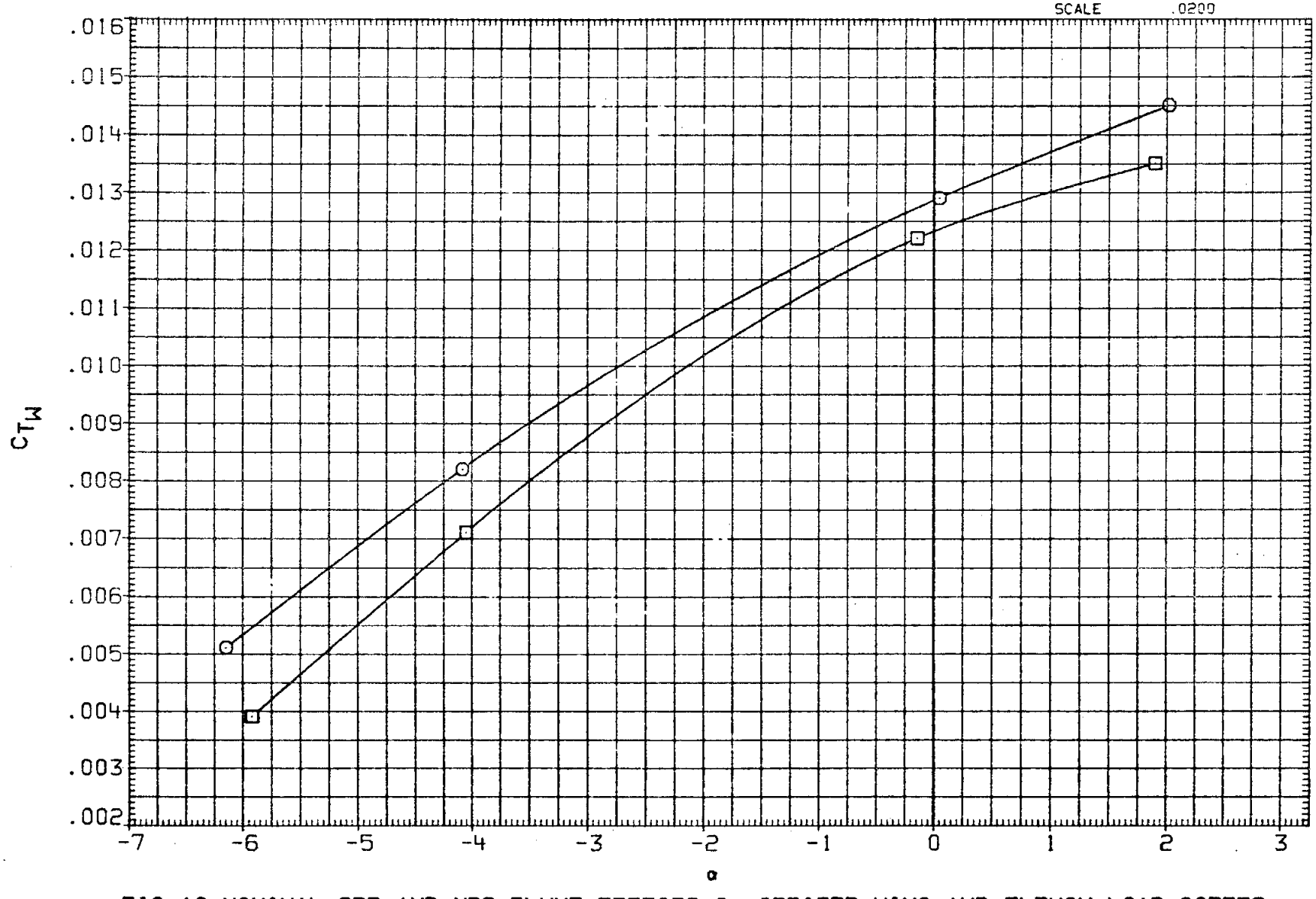

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

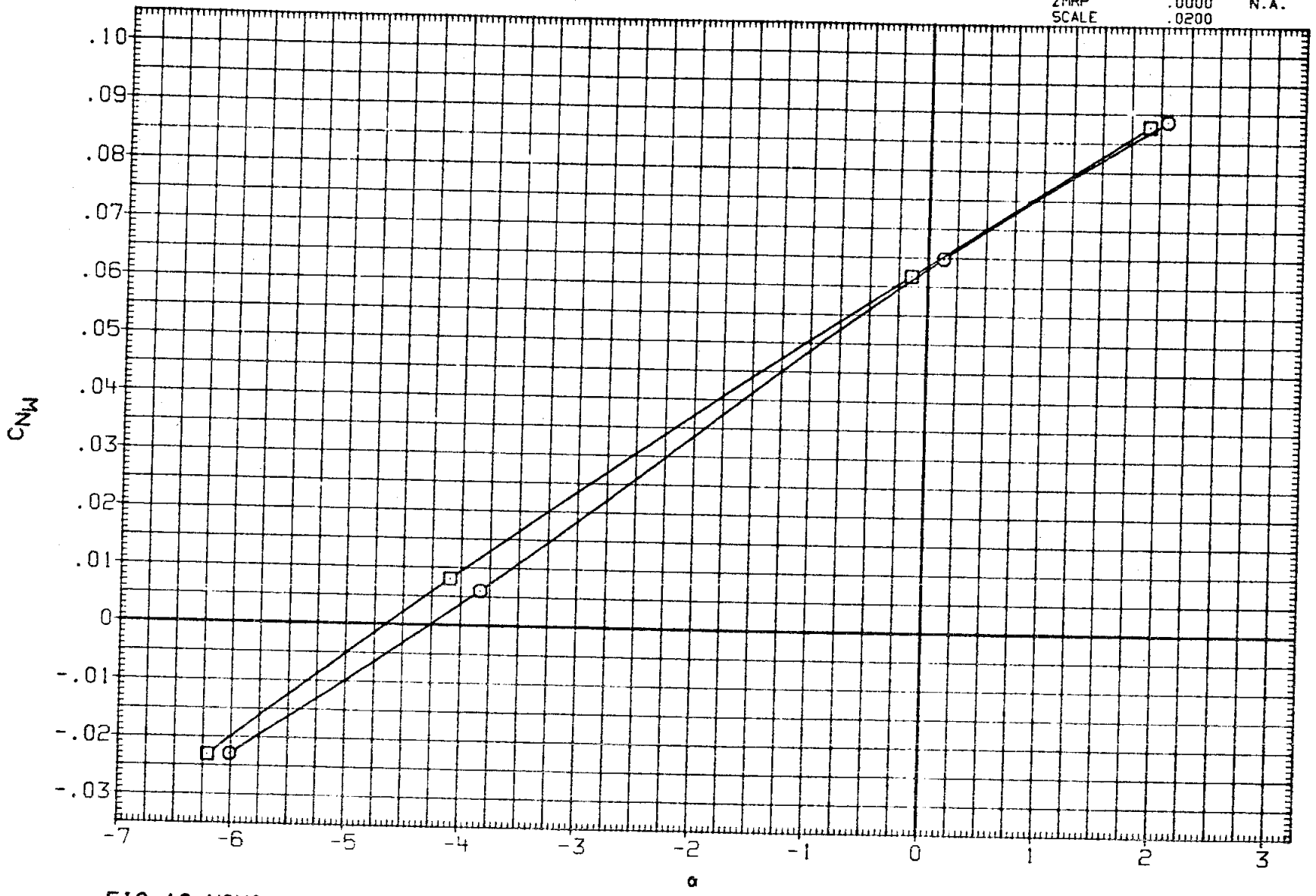

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

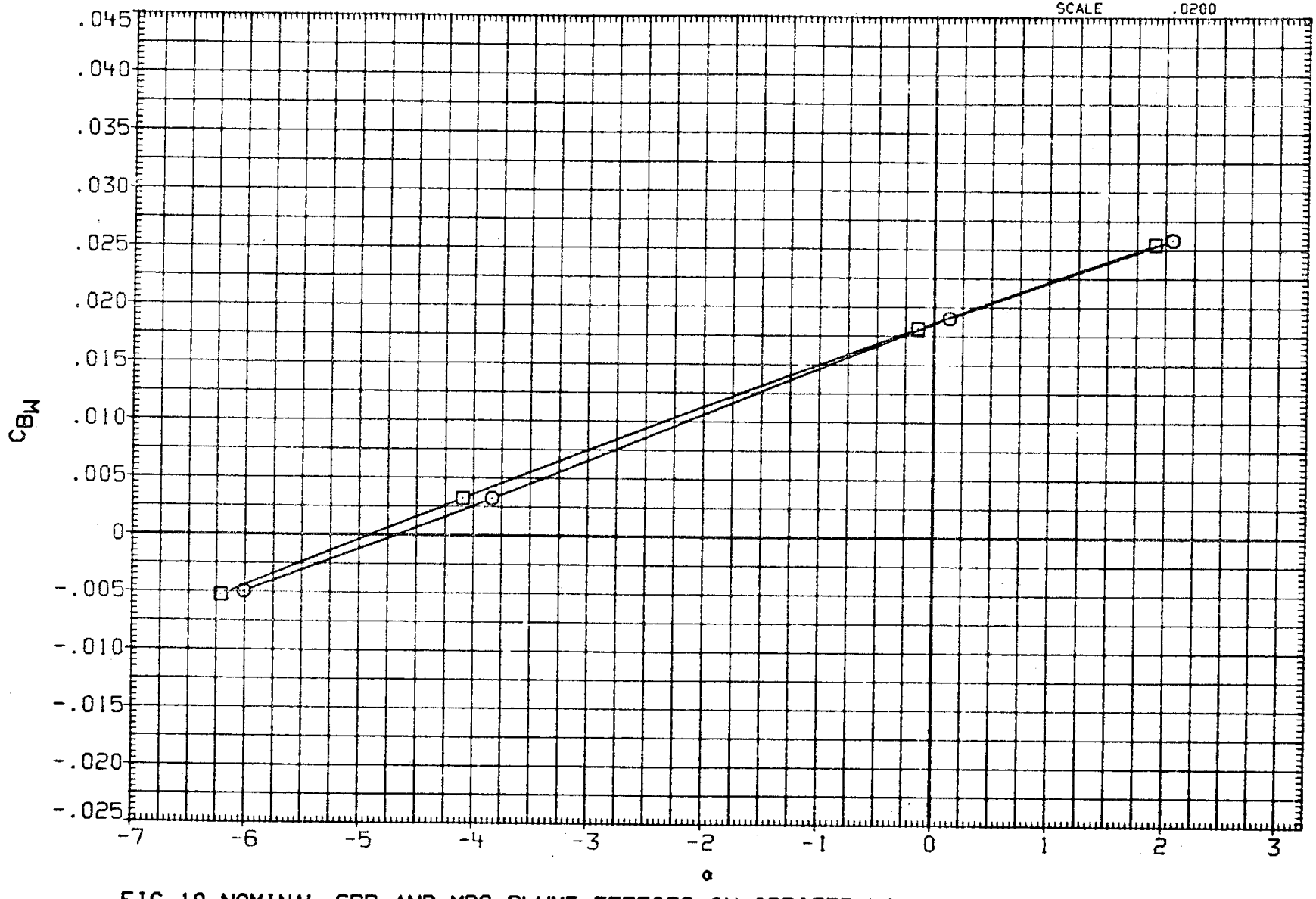

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

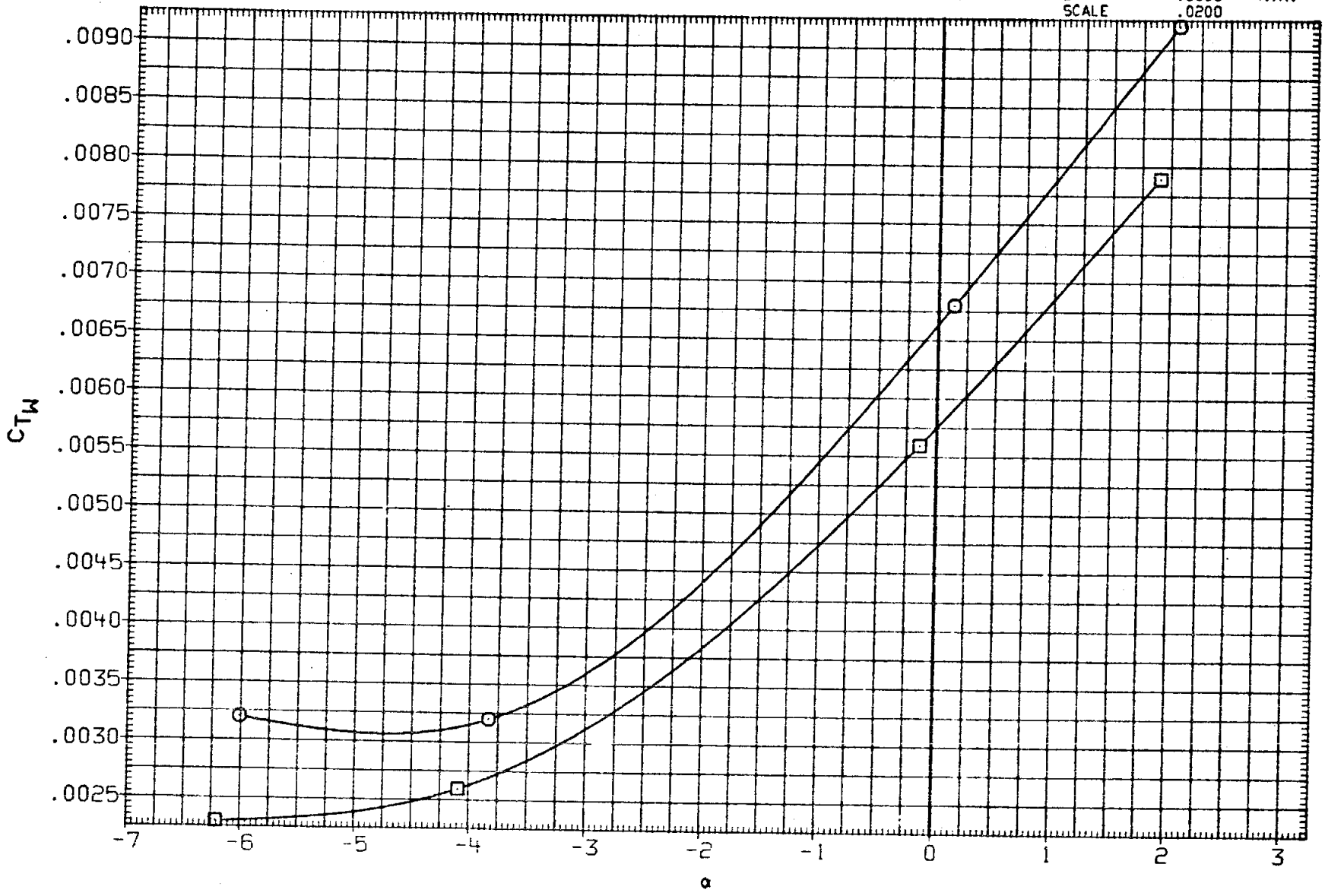

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

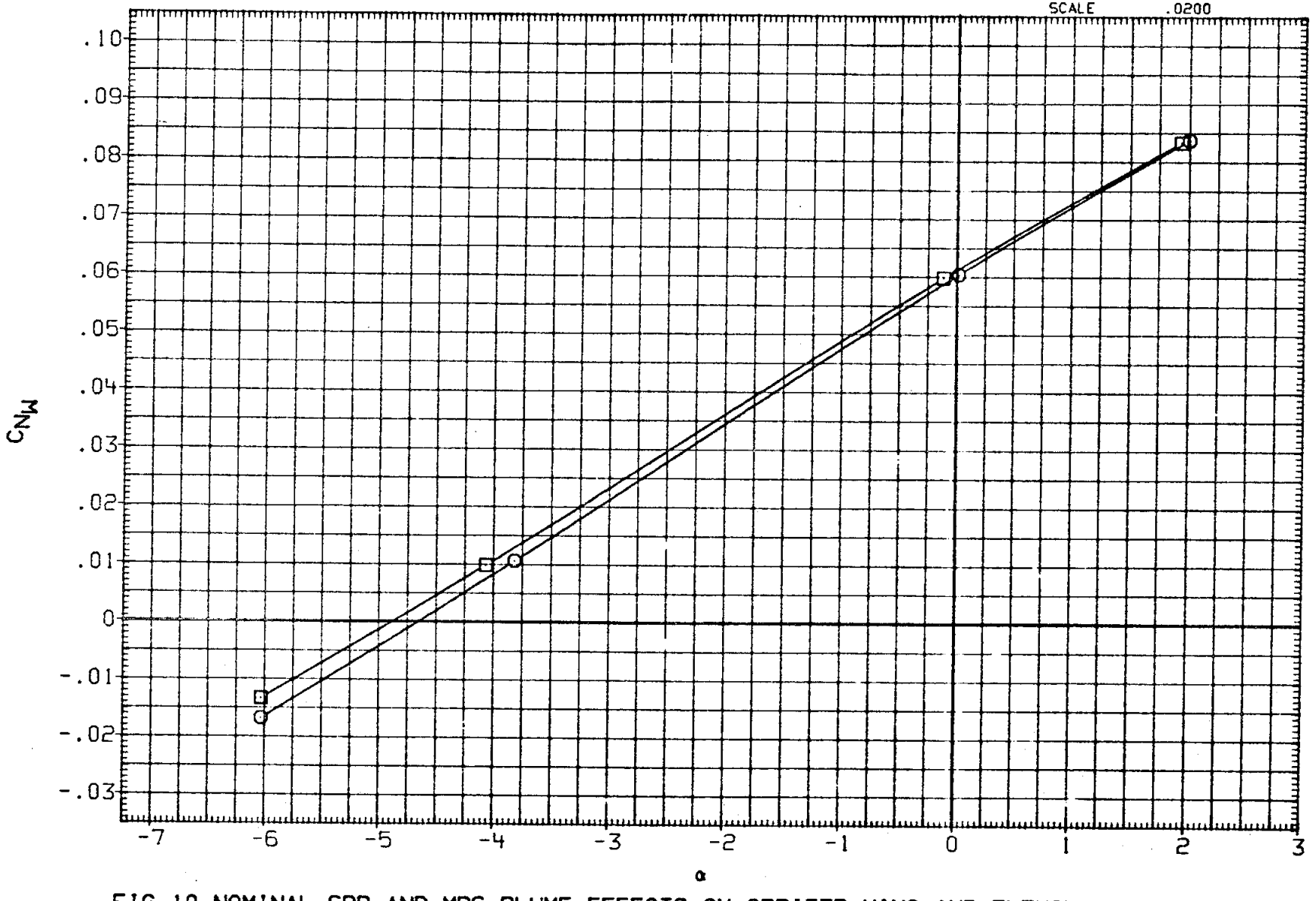

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA44	○	ARC11-072(1A72) OTS-1. MPS=OFF SRB=OFF	.000	1.000	.000	4.000
ANEA47	□	ARC11-072(1A72) OTS-1. MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

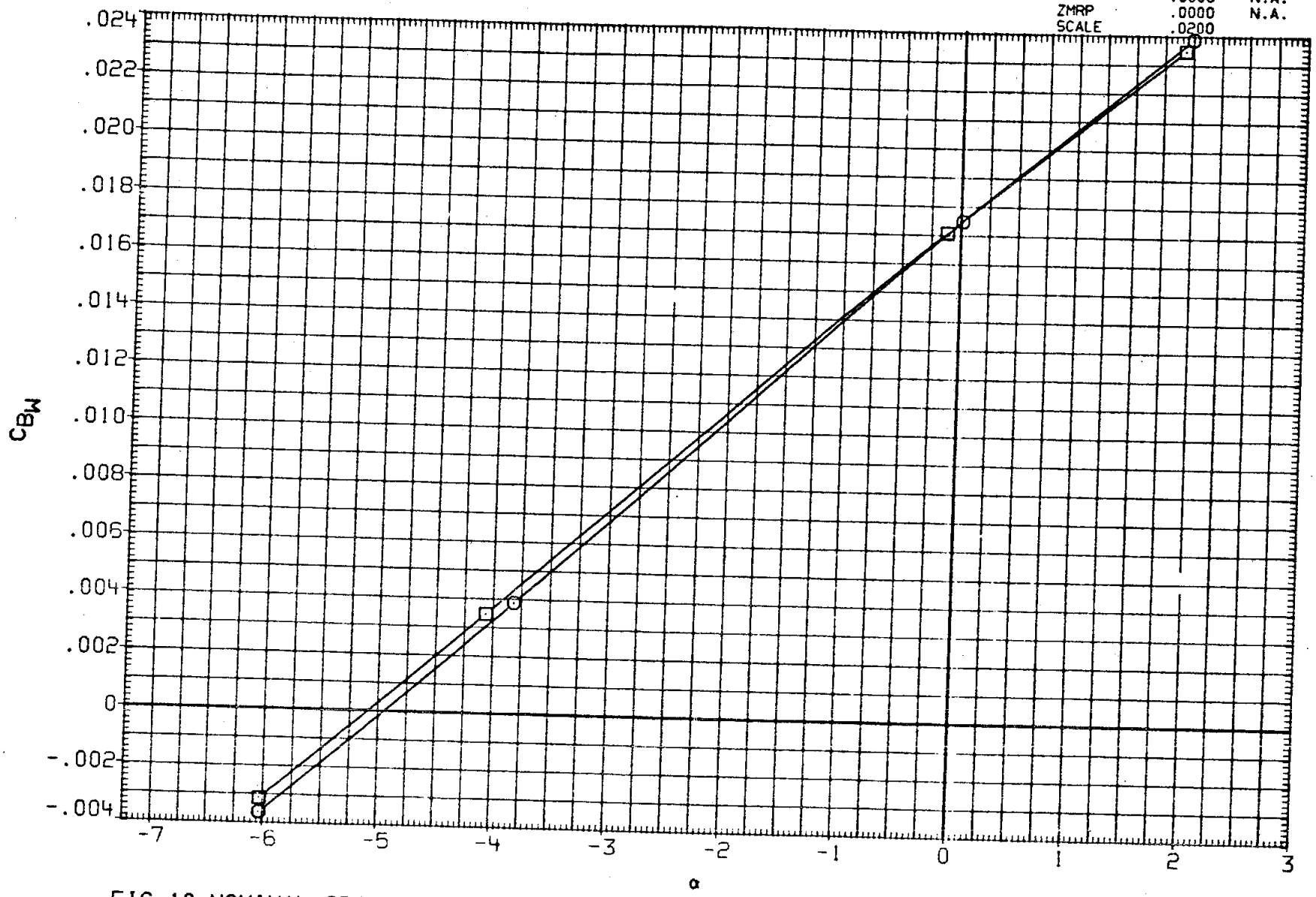

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION
ANEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF
ANEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	.000	4.000
.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

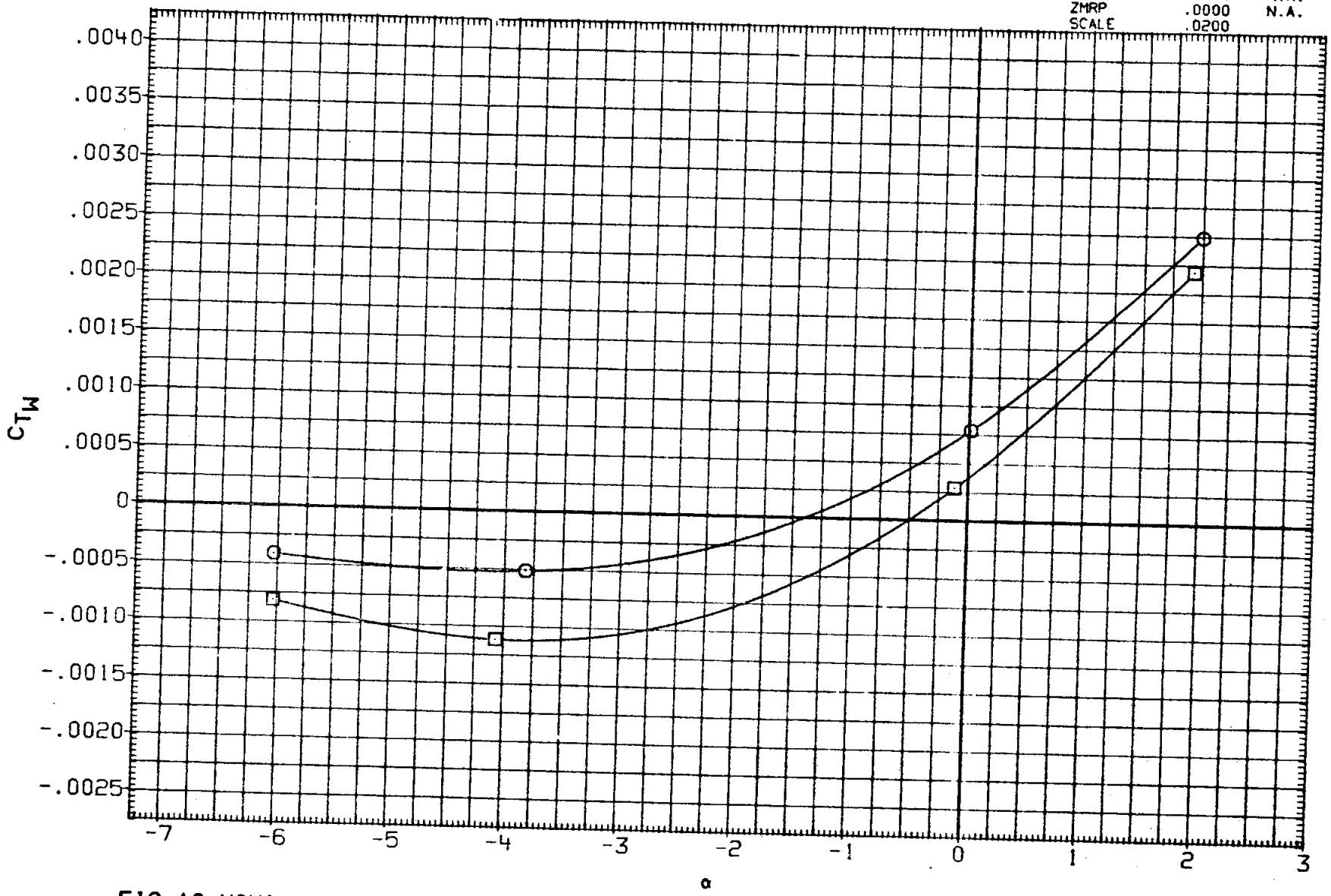

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

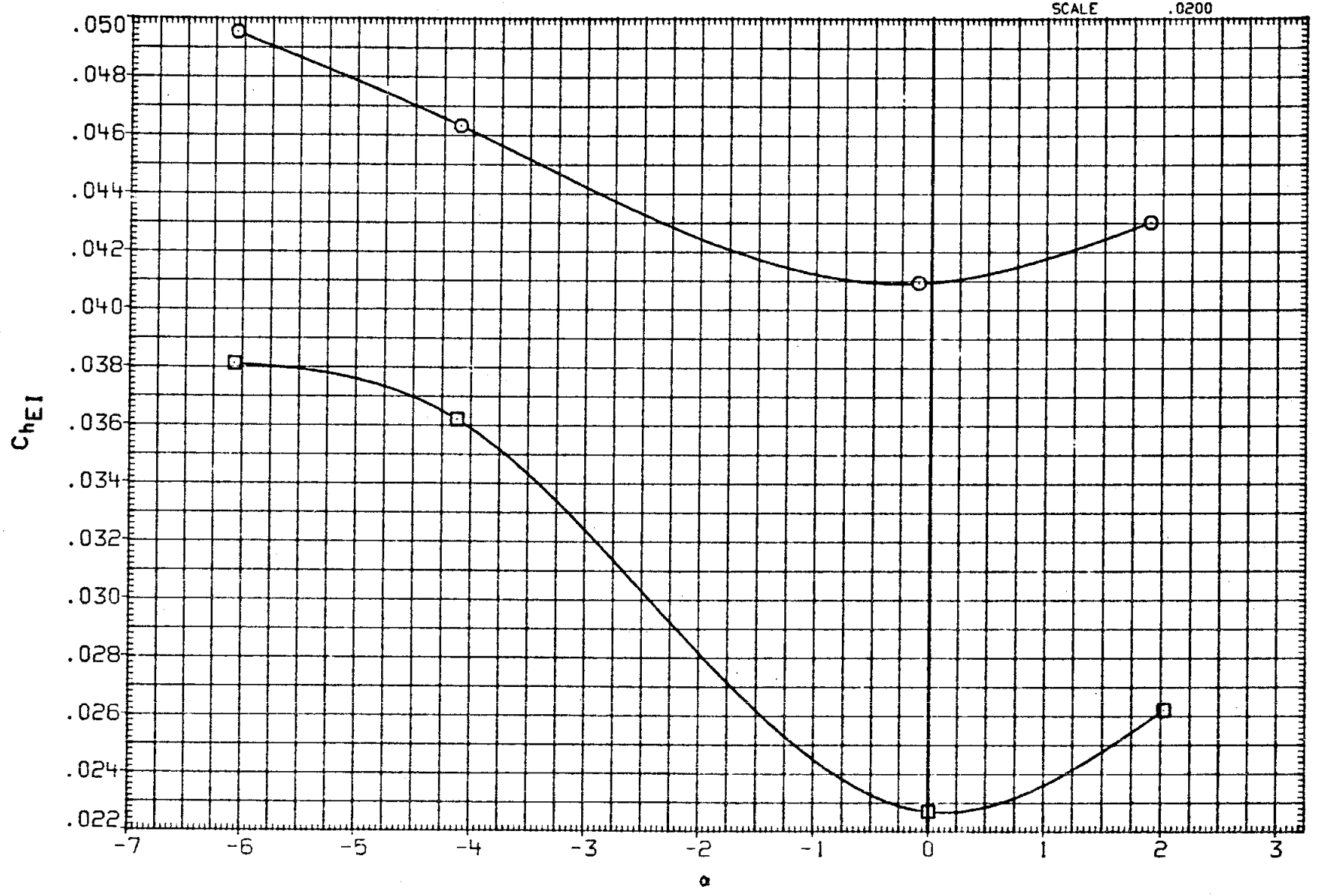

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

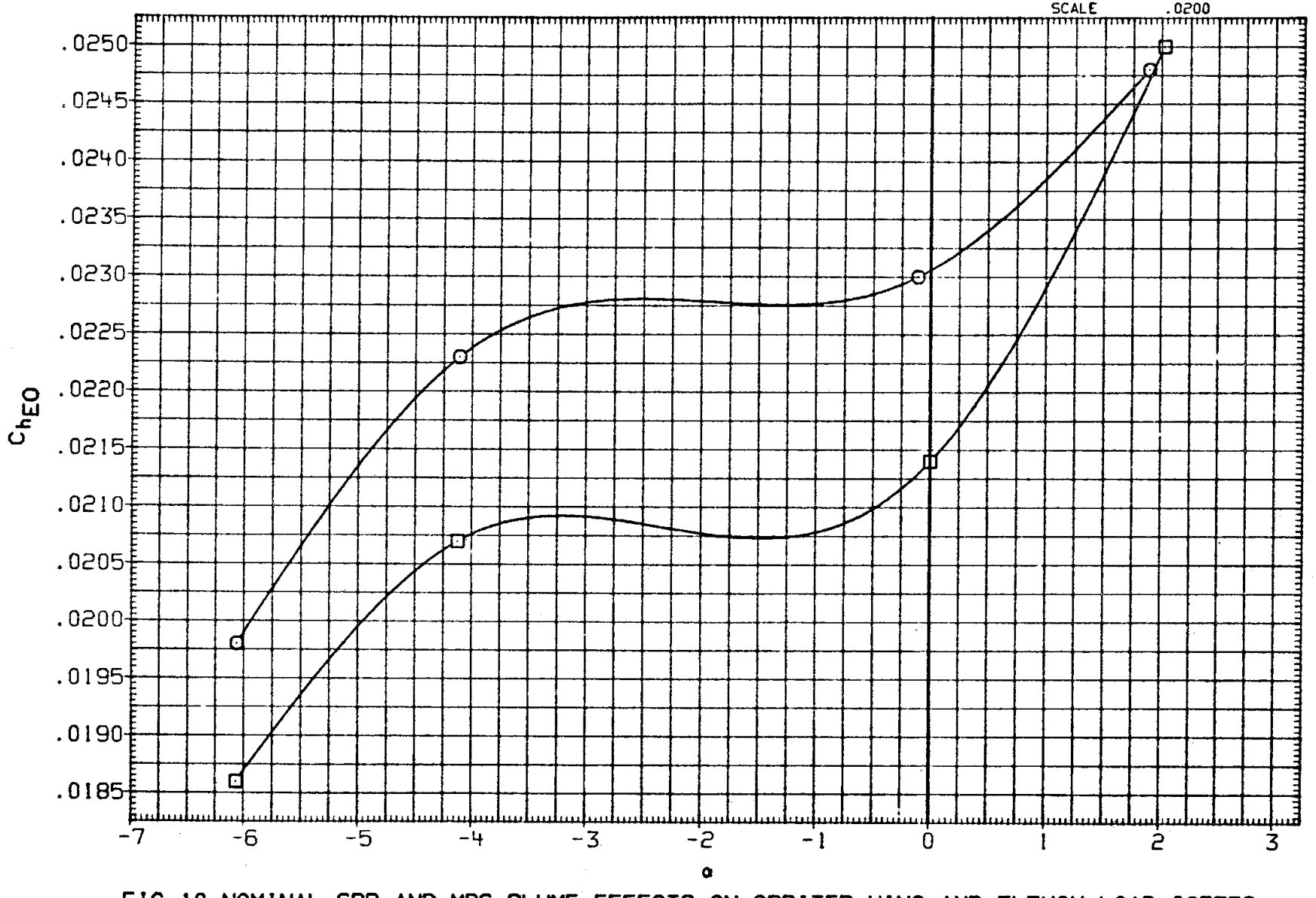

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

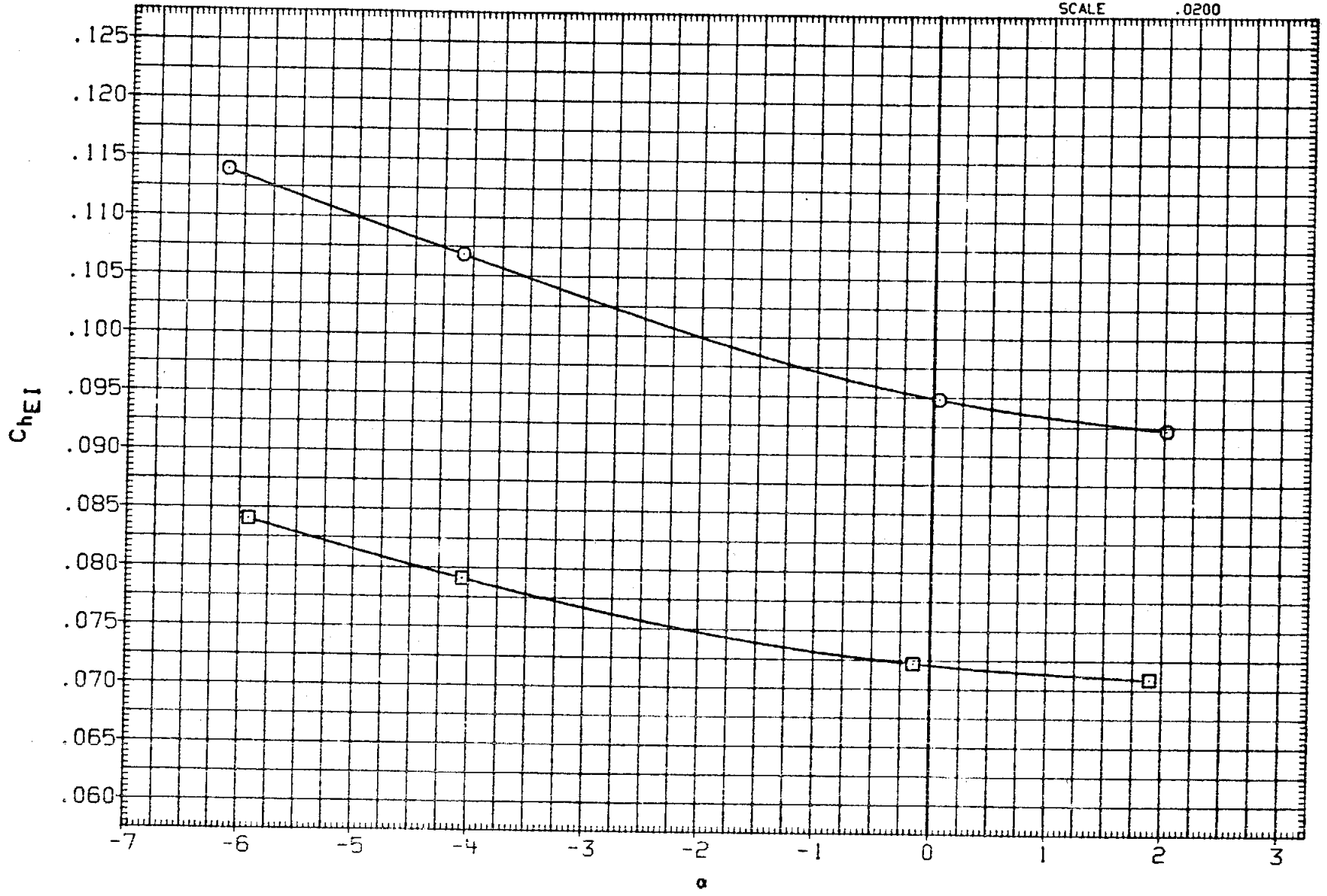

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

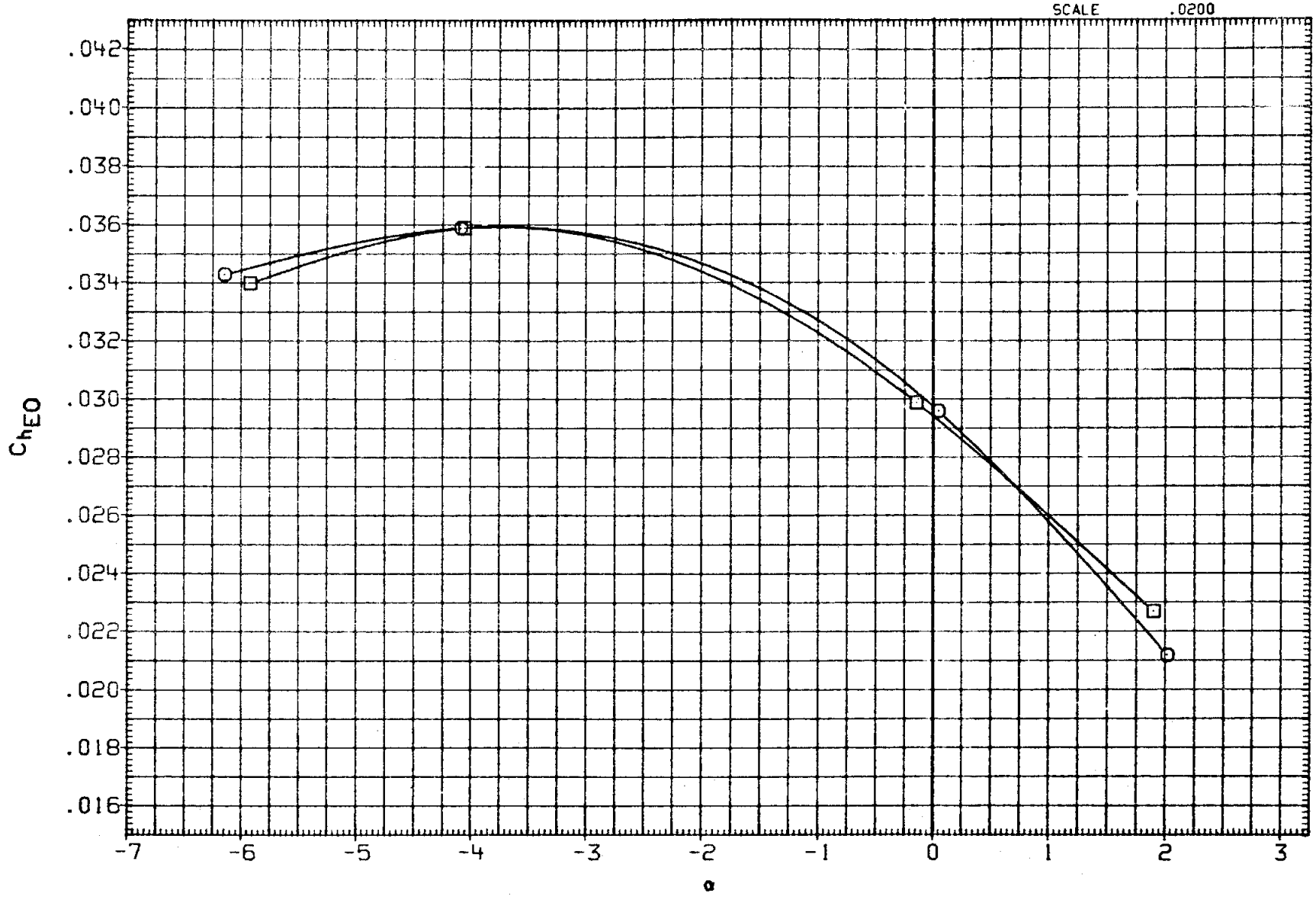

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

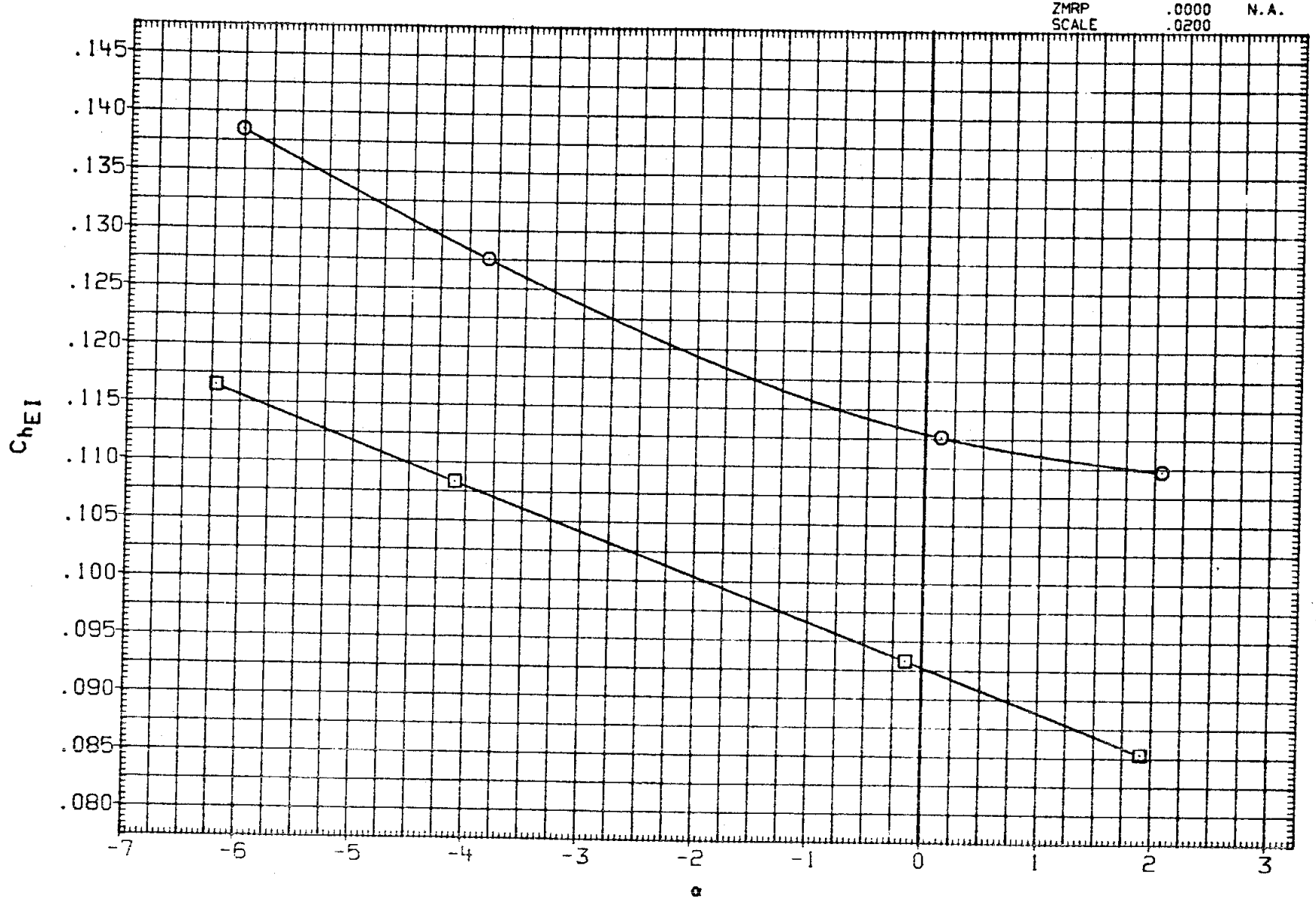

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

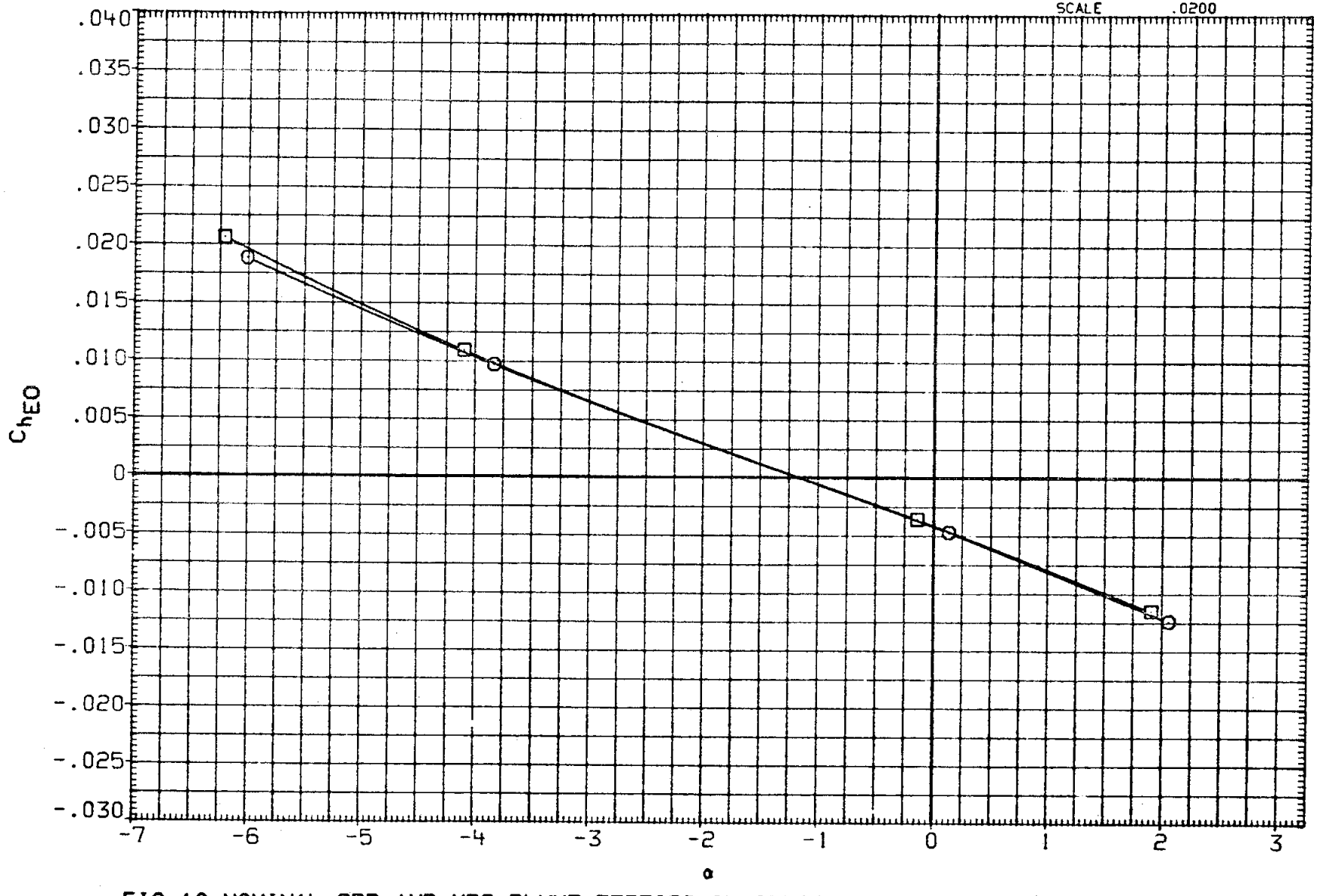

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

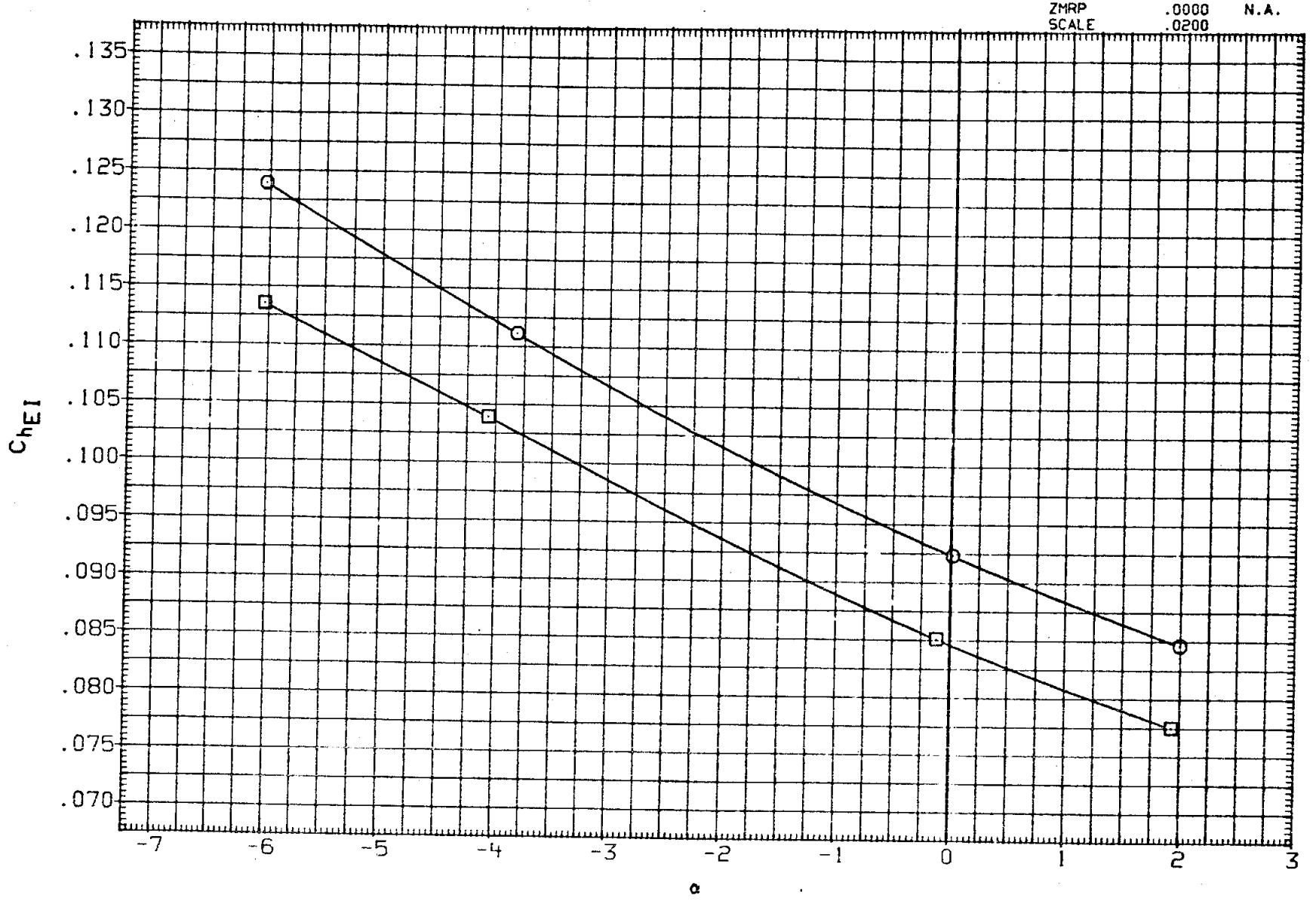

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
JNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

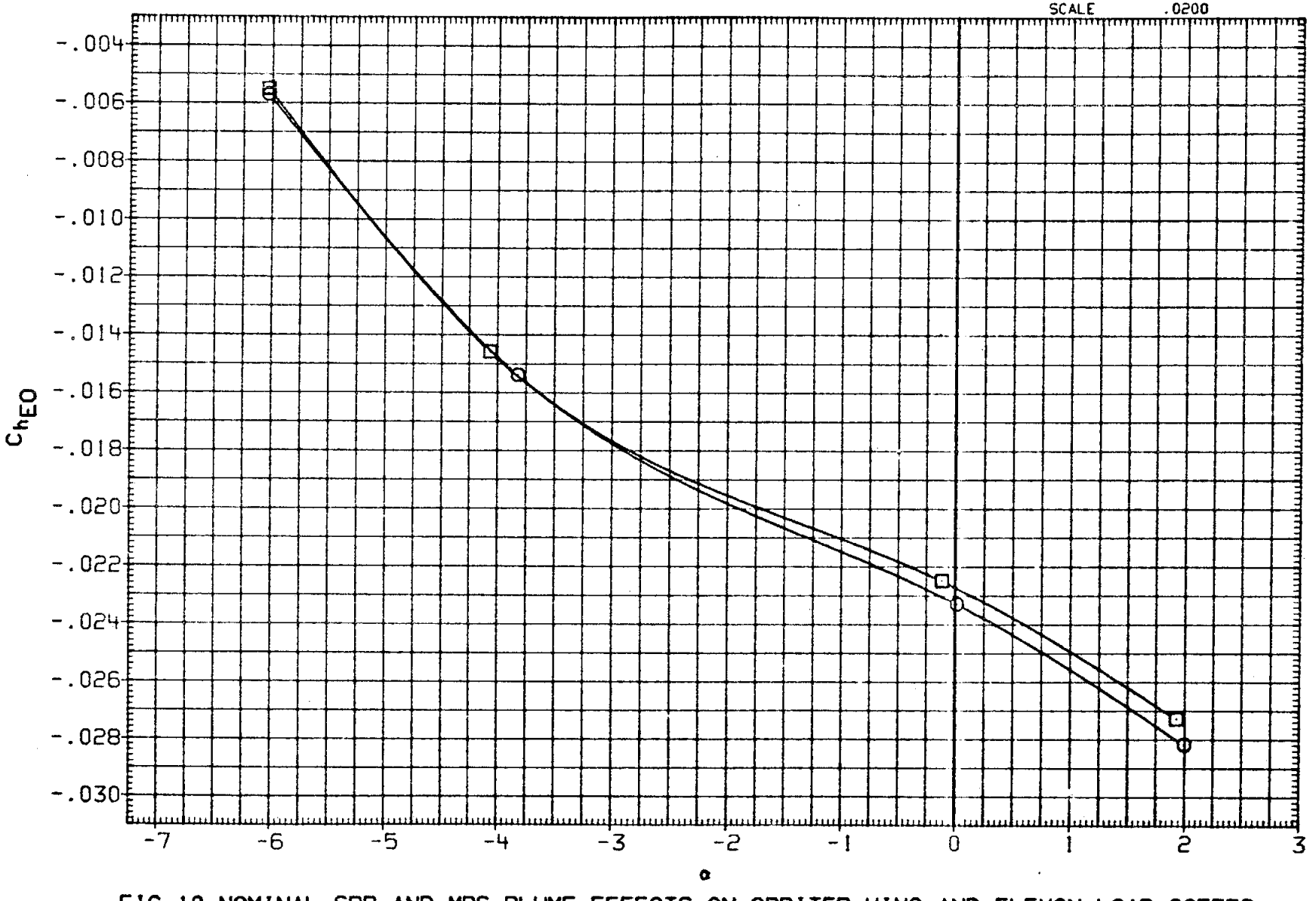

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

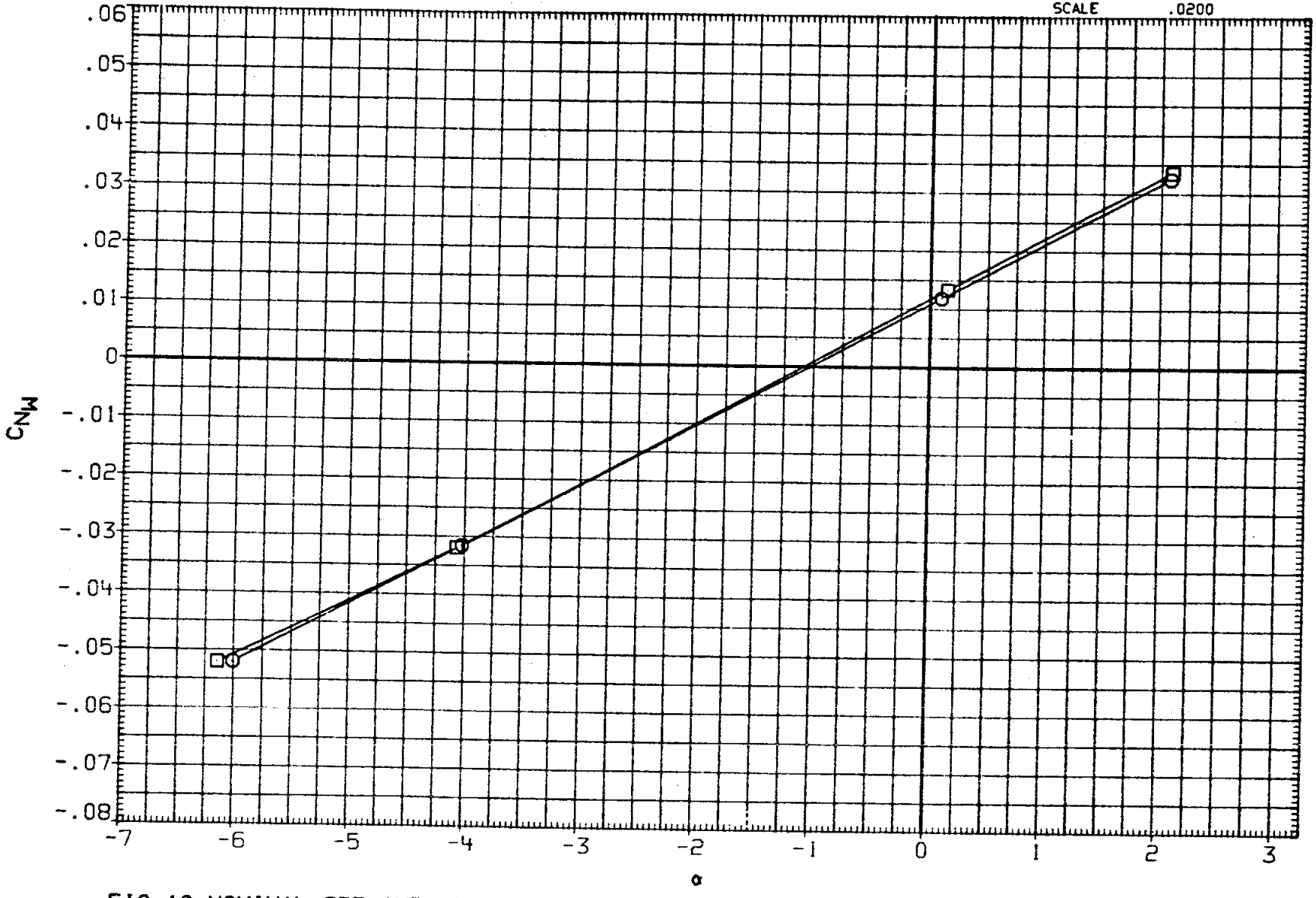

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

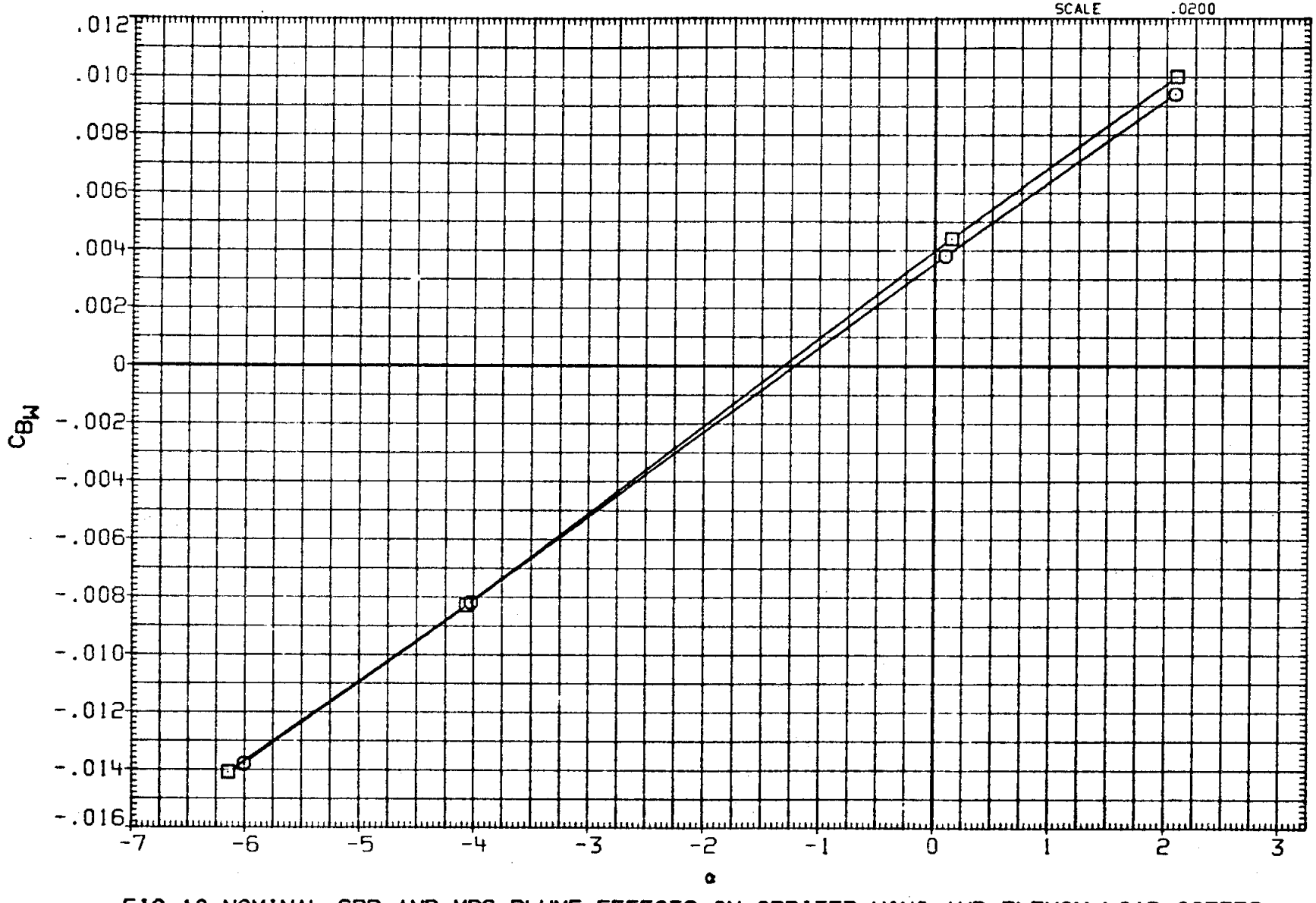

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

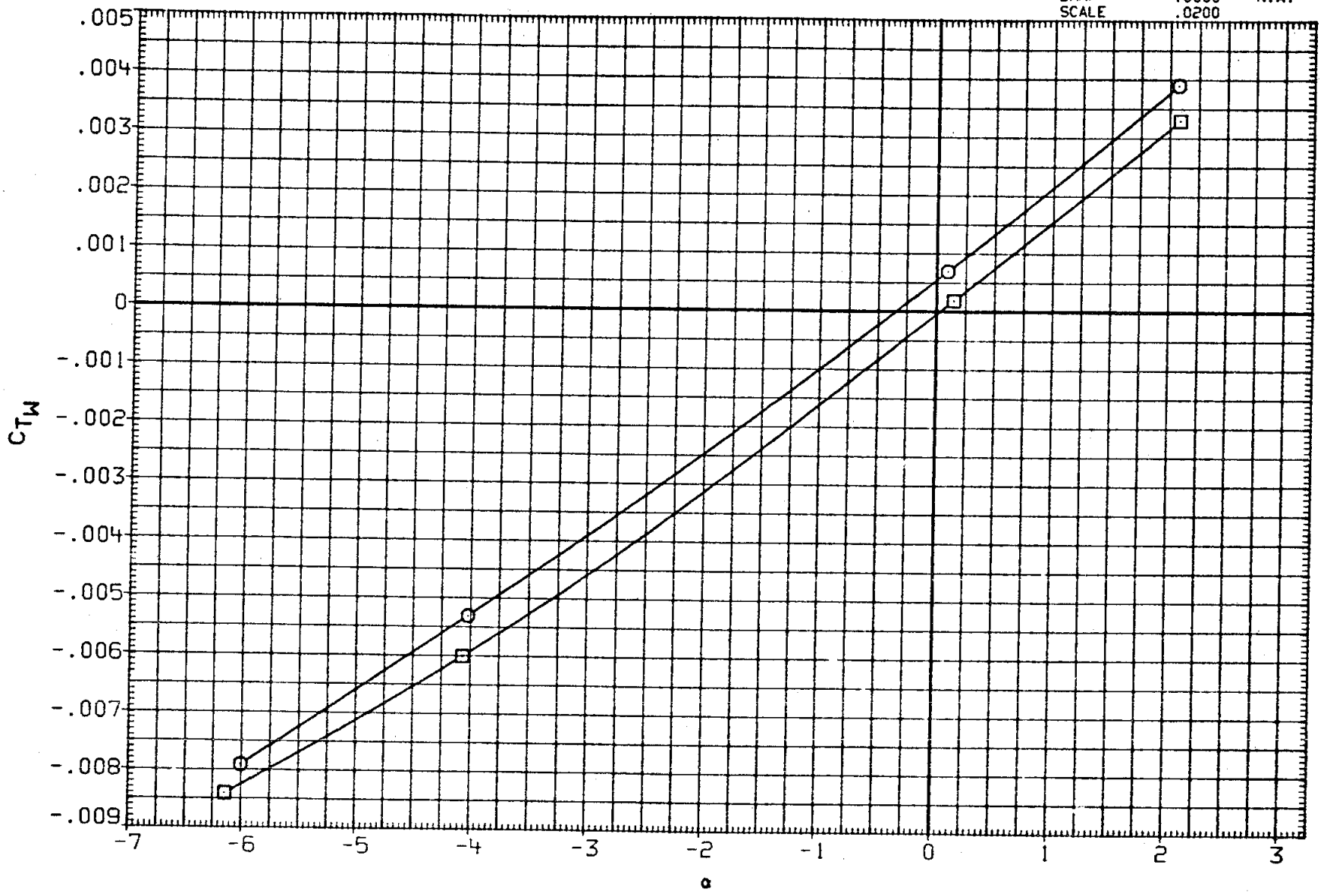

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

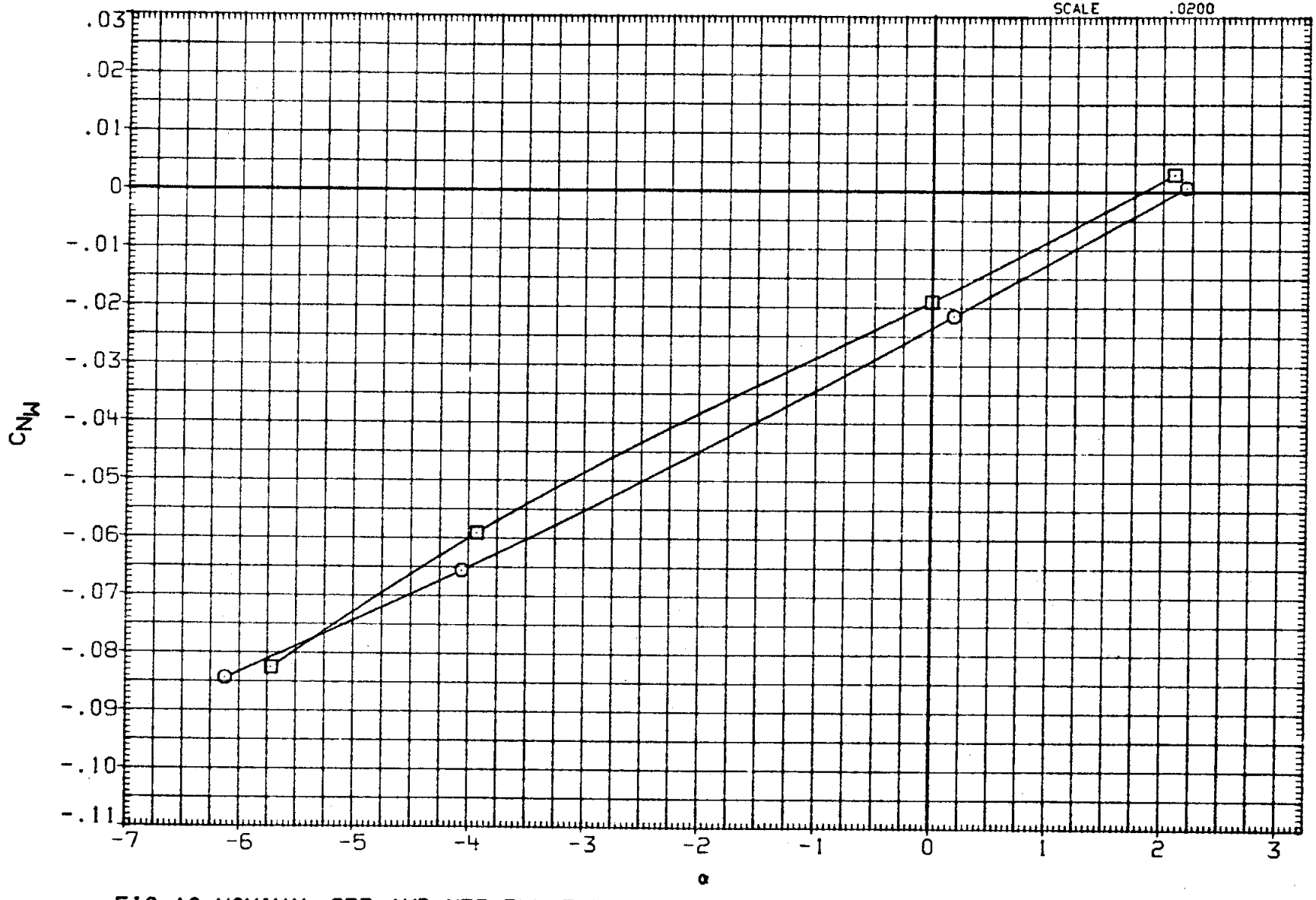

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

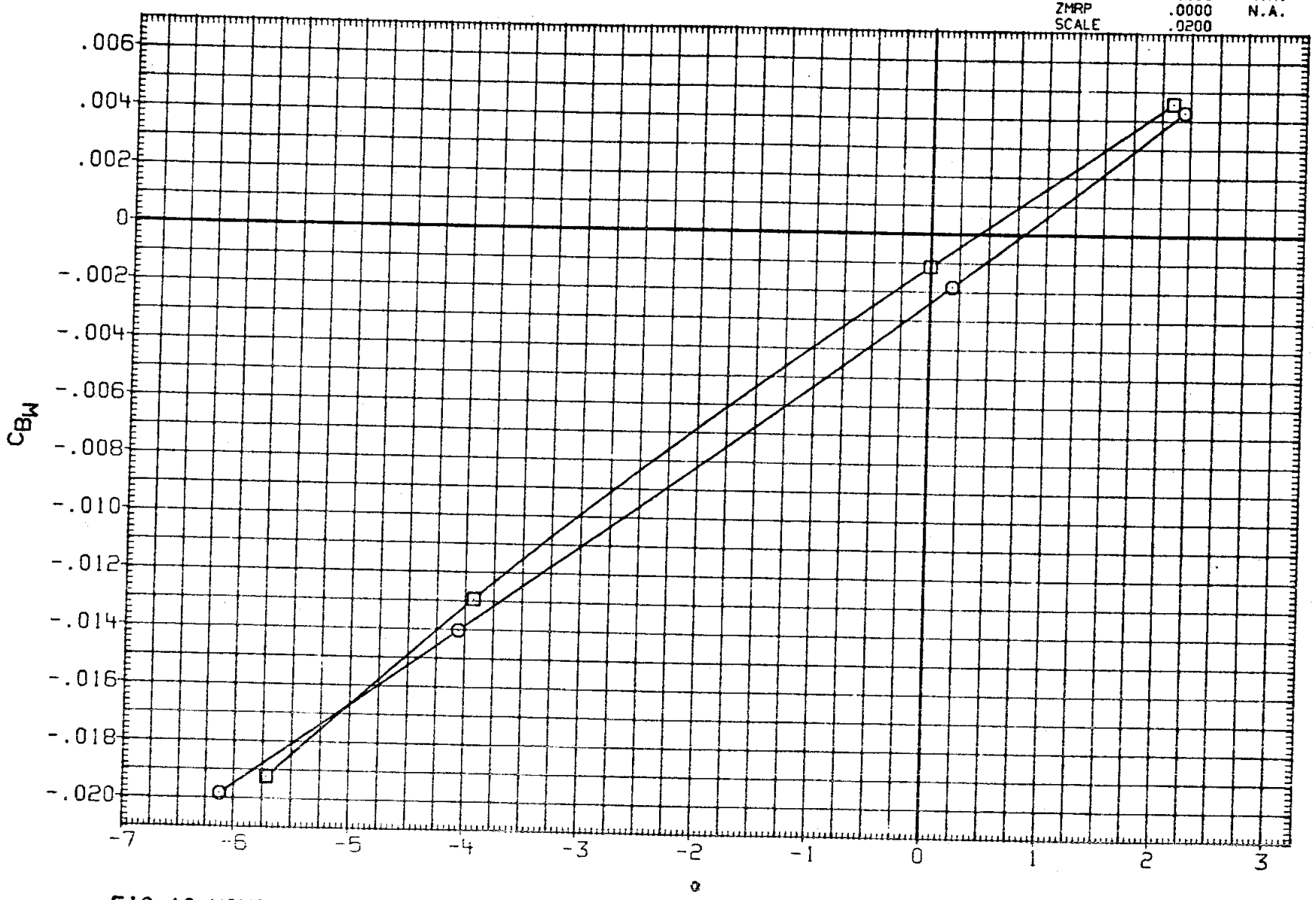

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.9000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

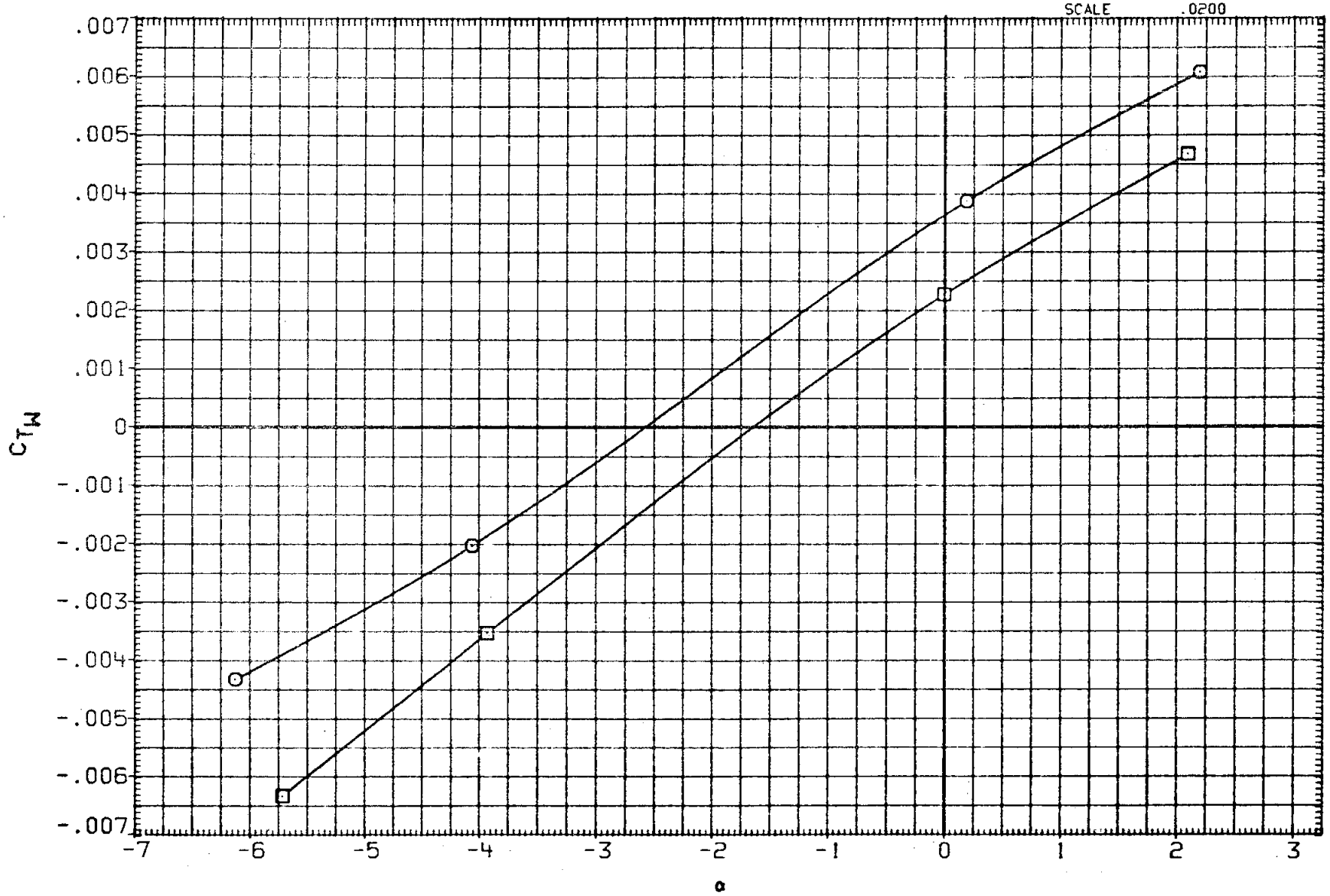

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

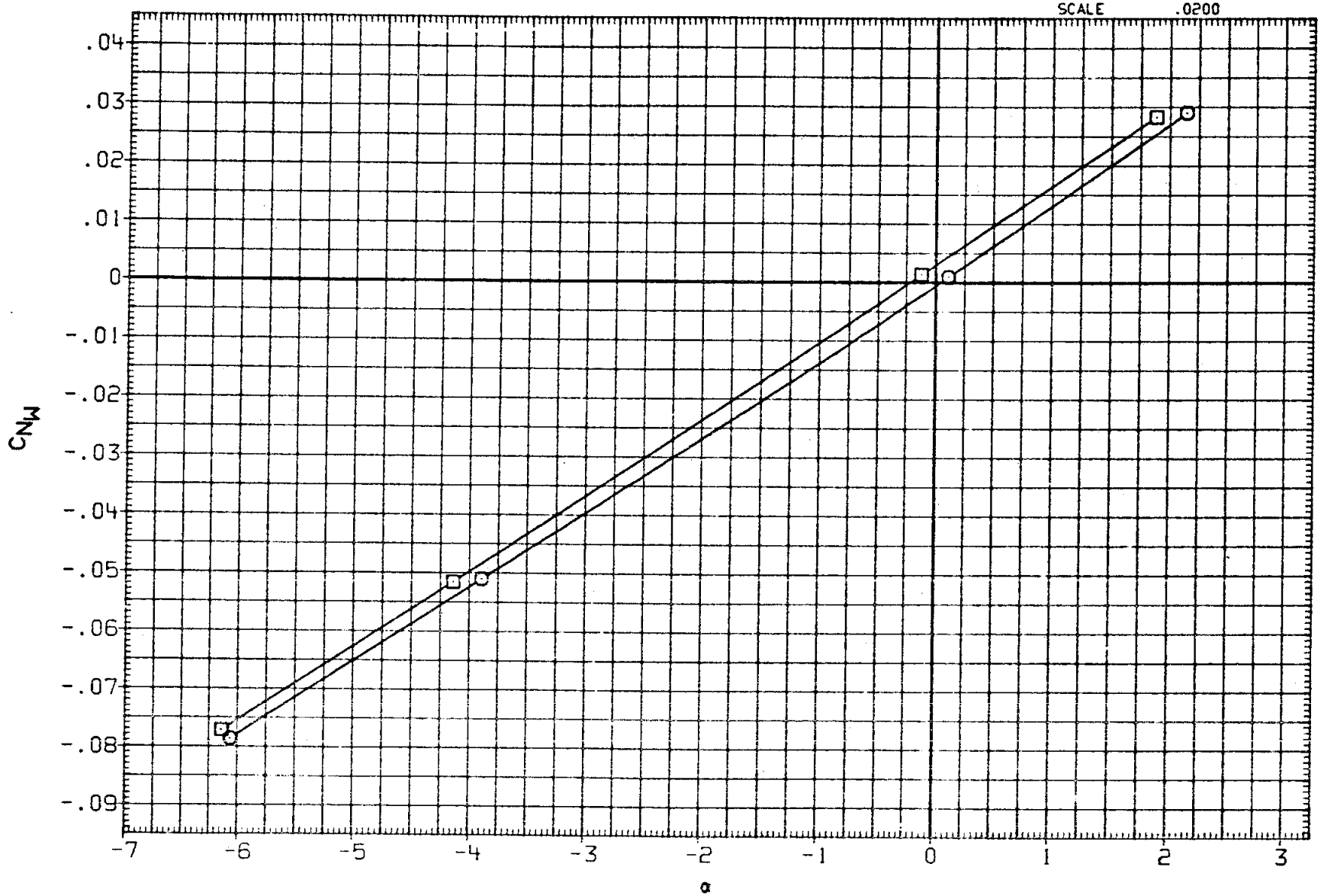

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

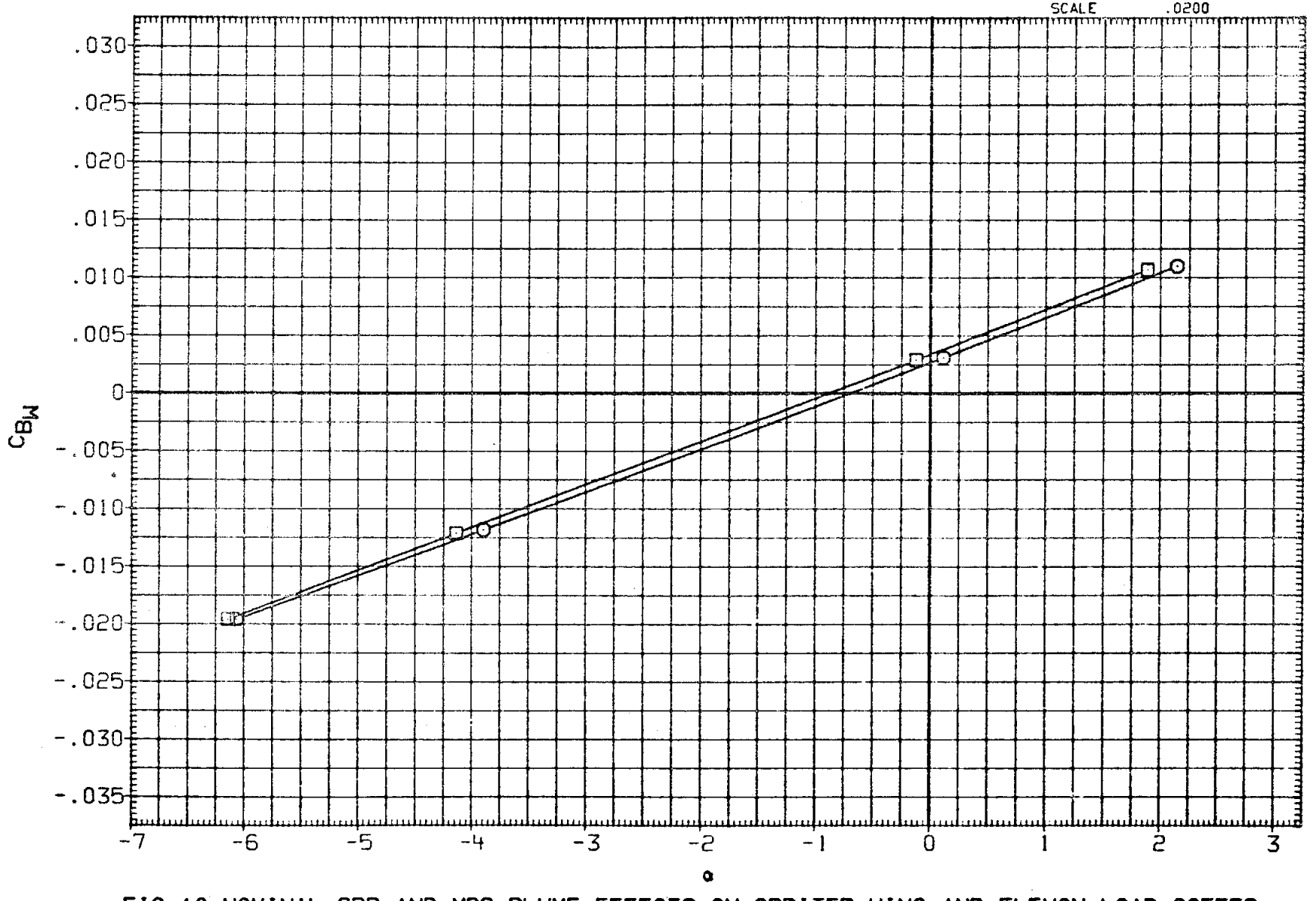

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

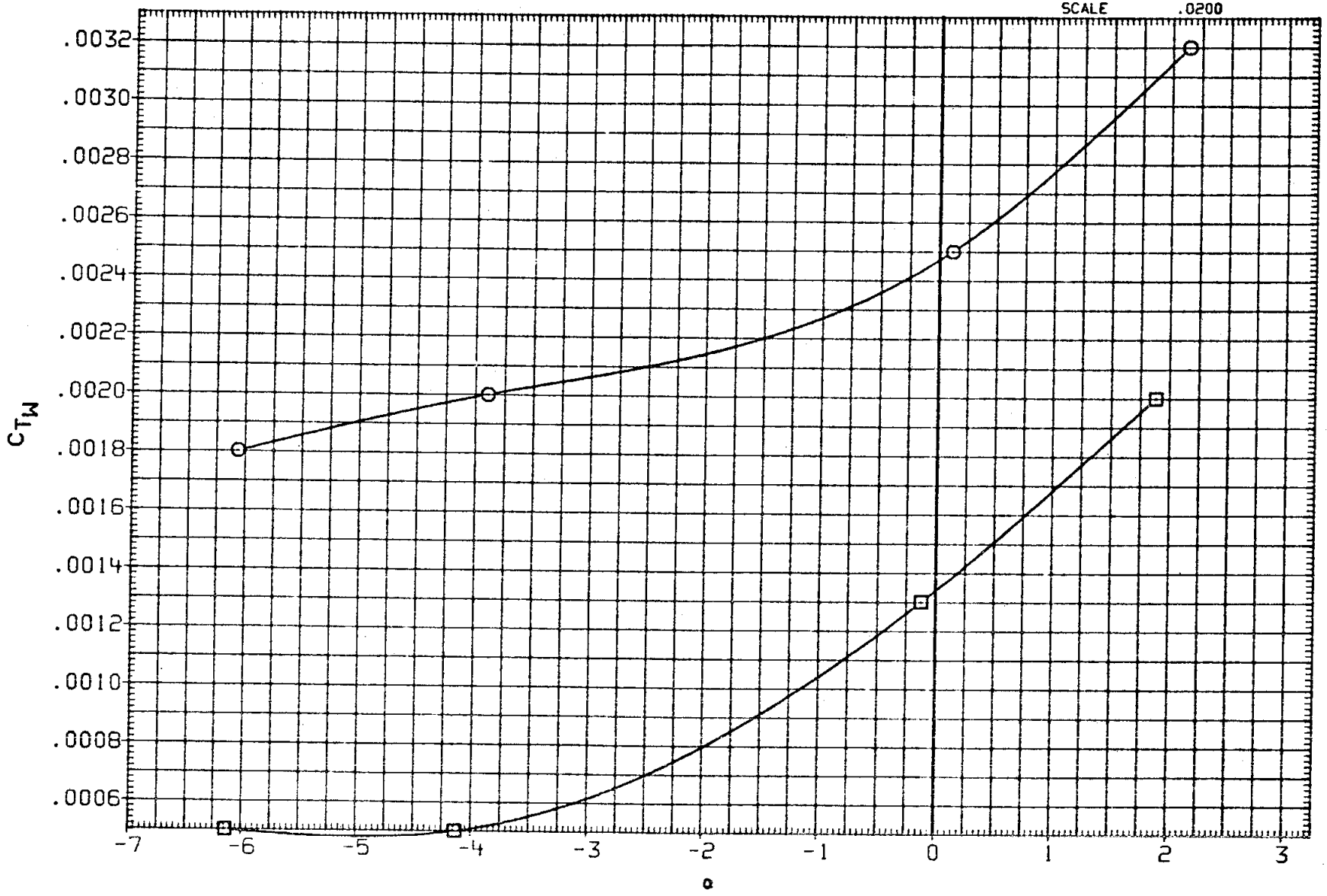

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

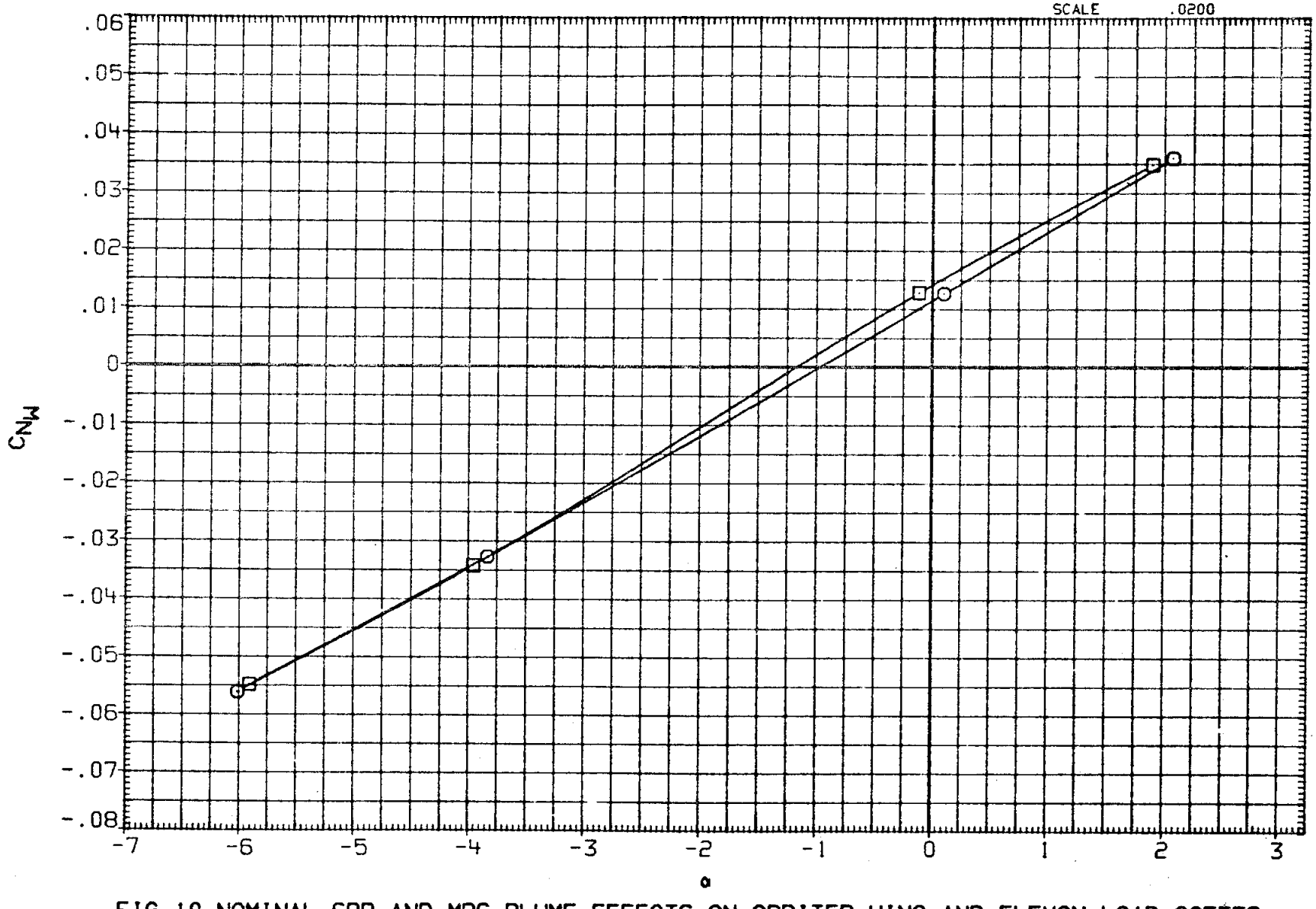

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.5800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

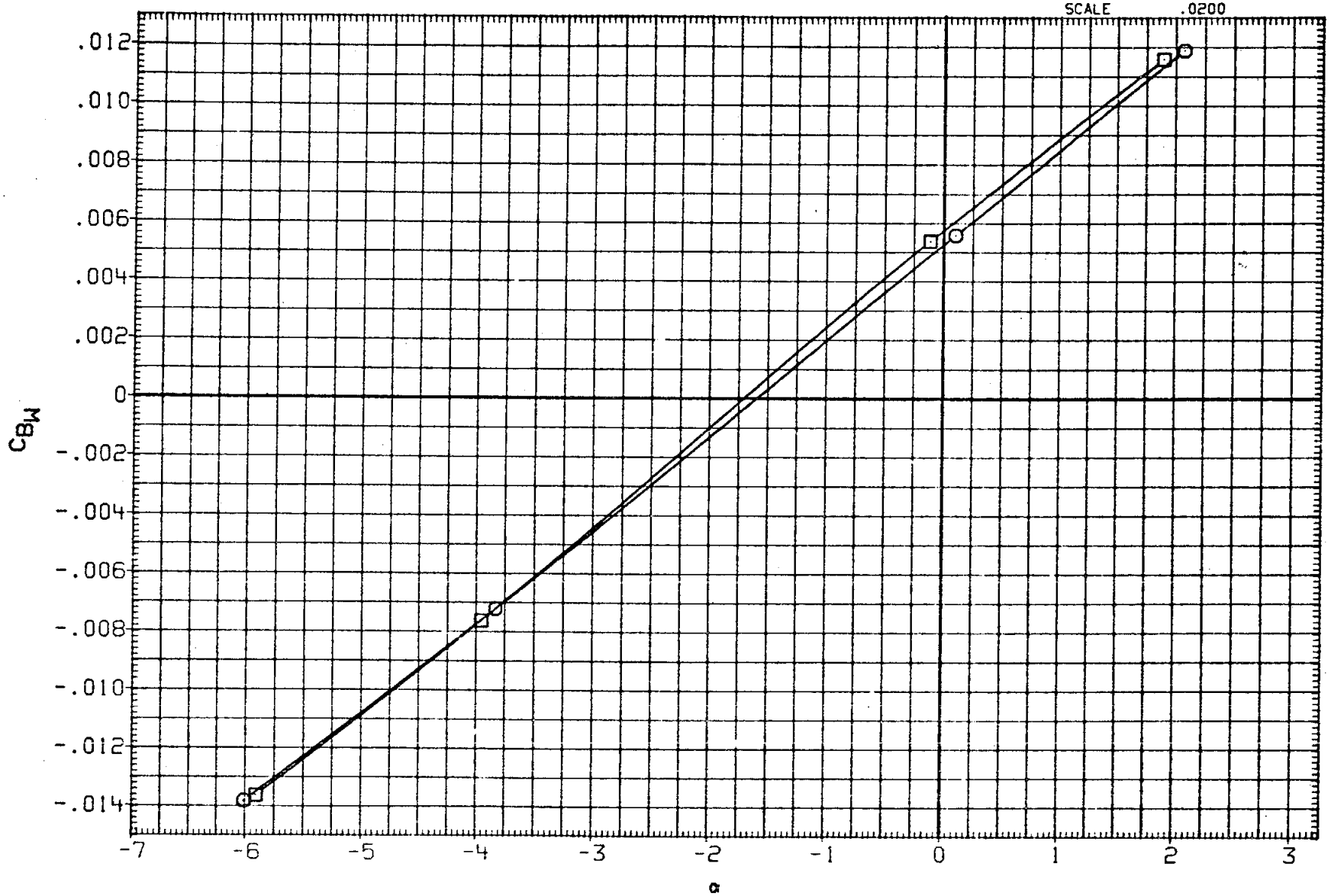

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
ANEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
ANEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	474.8000	IN.
BREF	936.6800	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

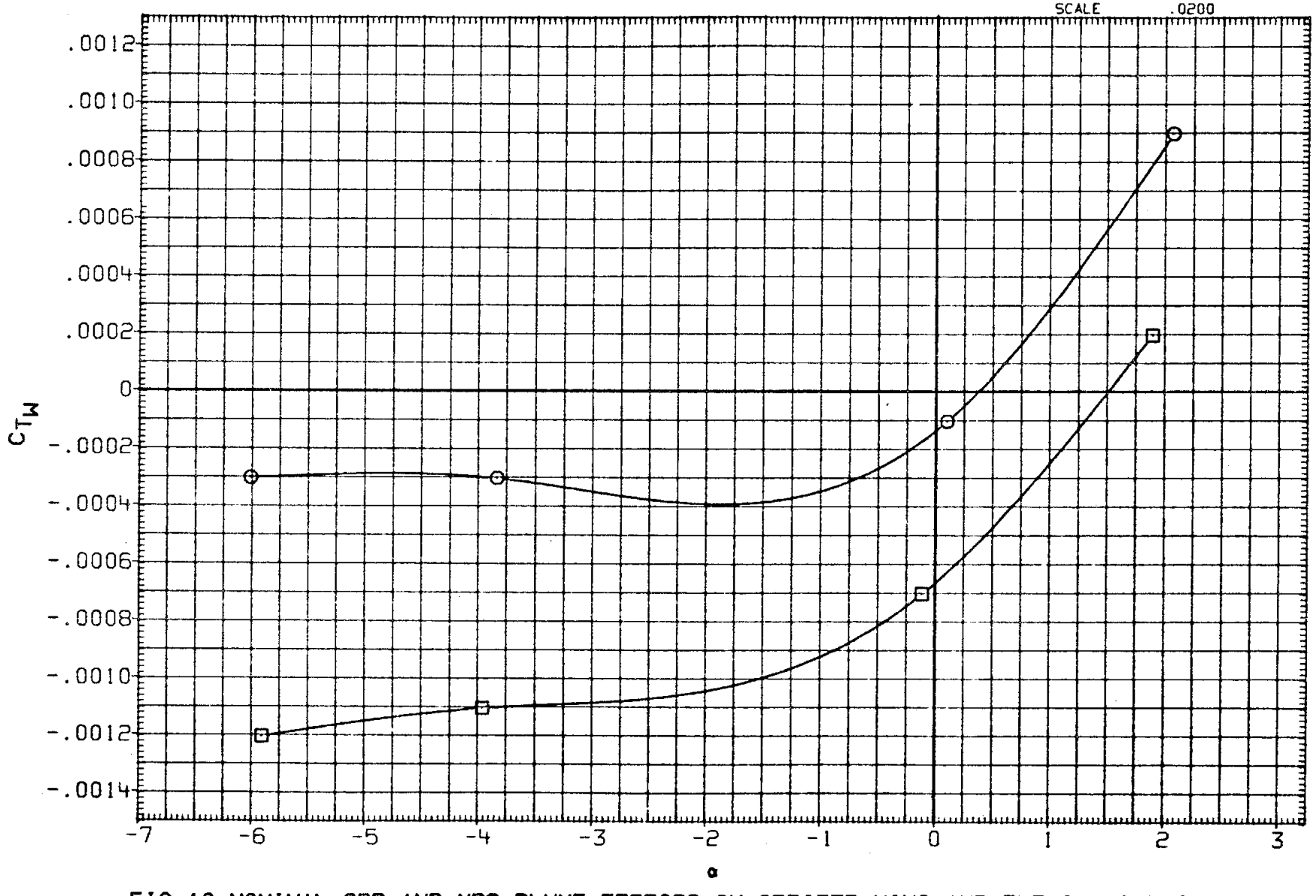

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

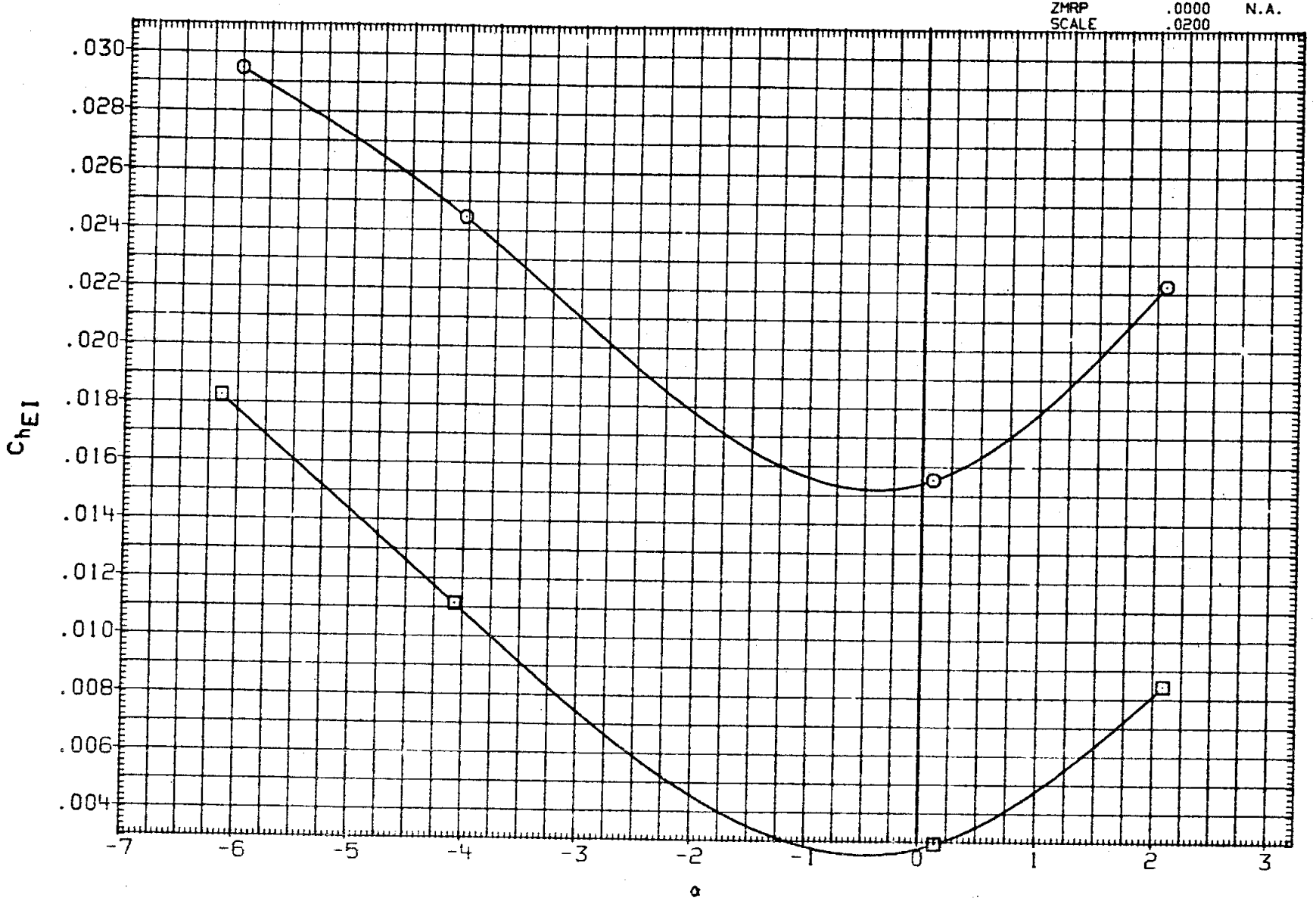

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

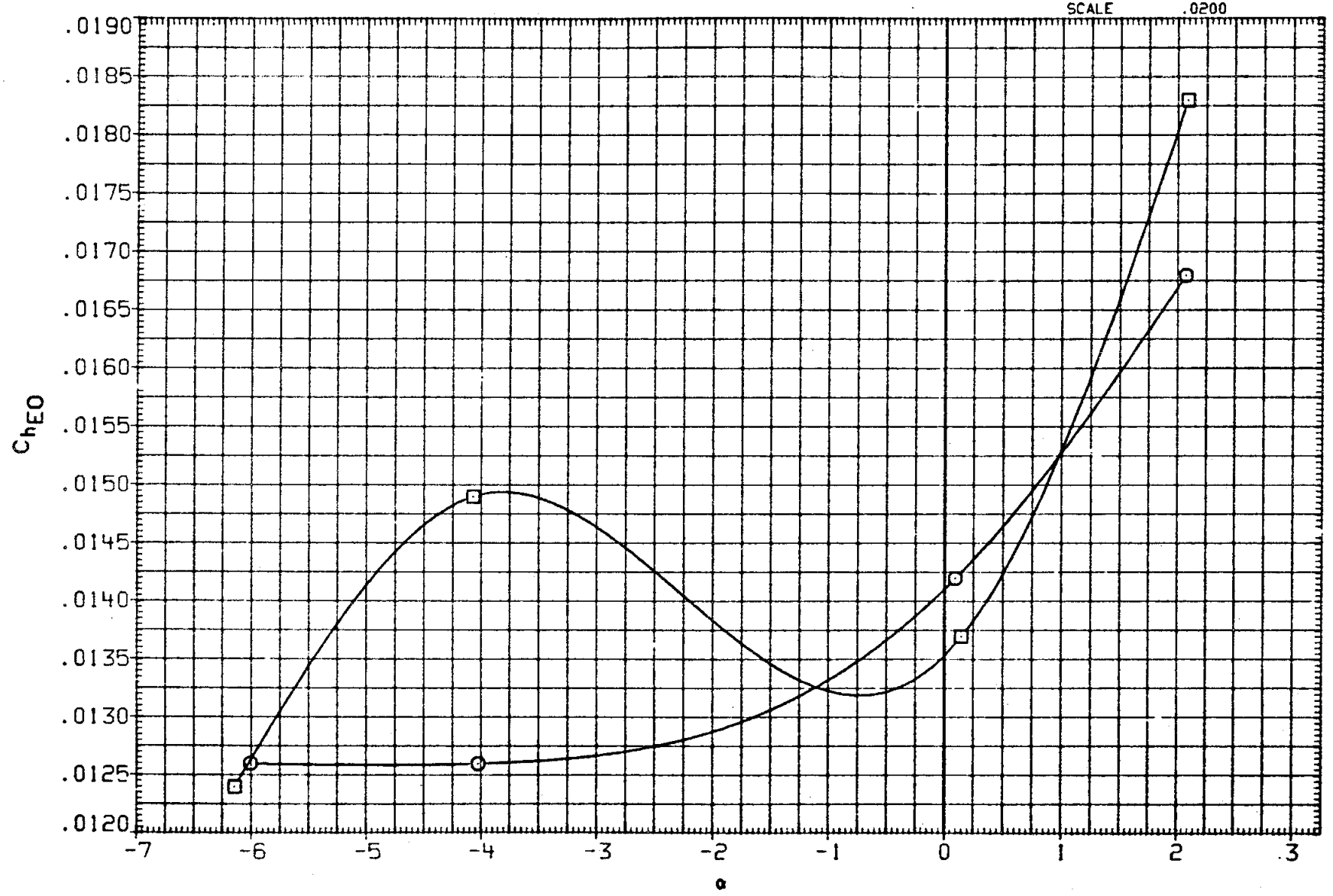

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

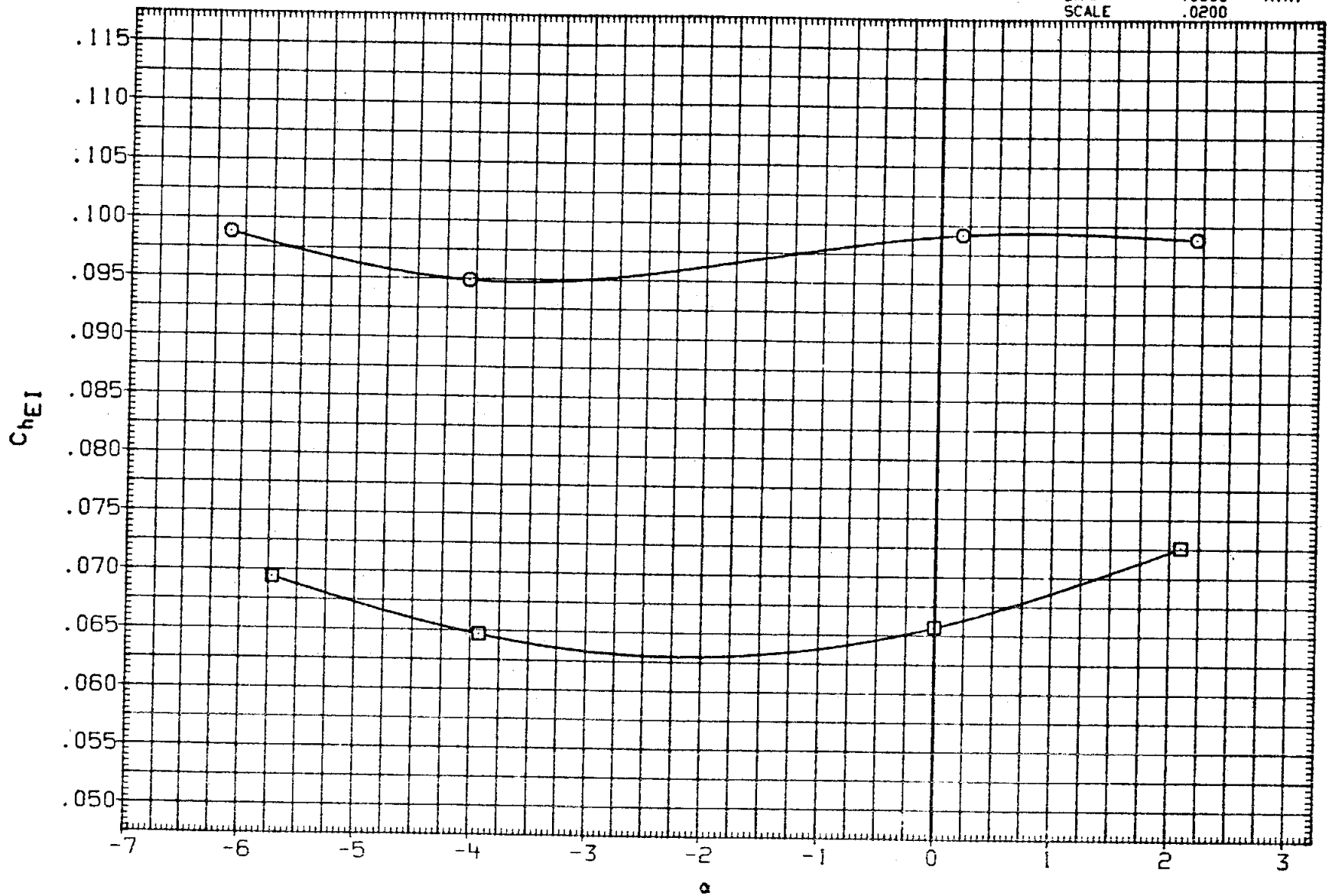

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

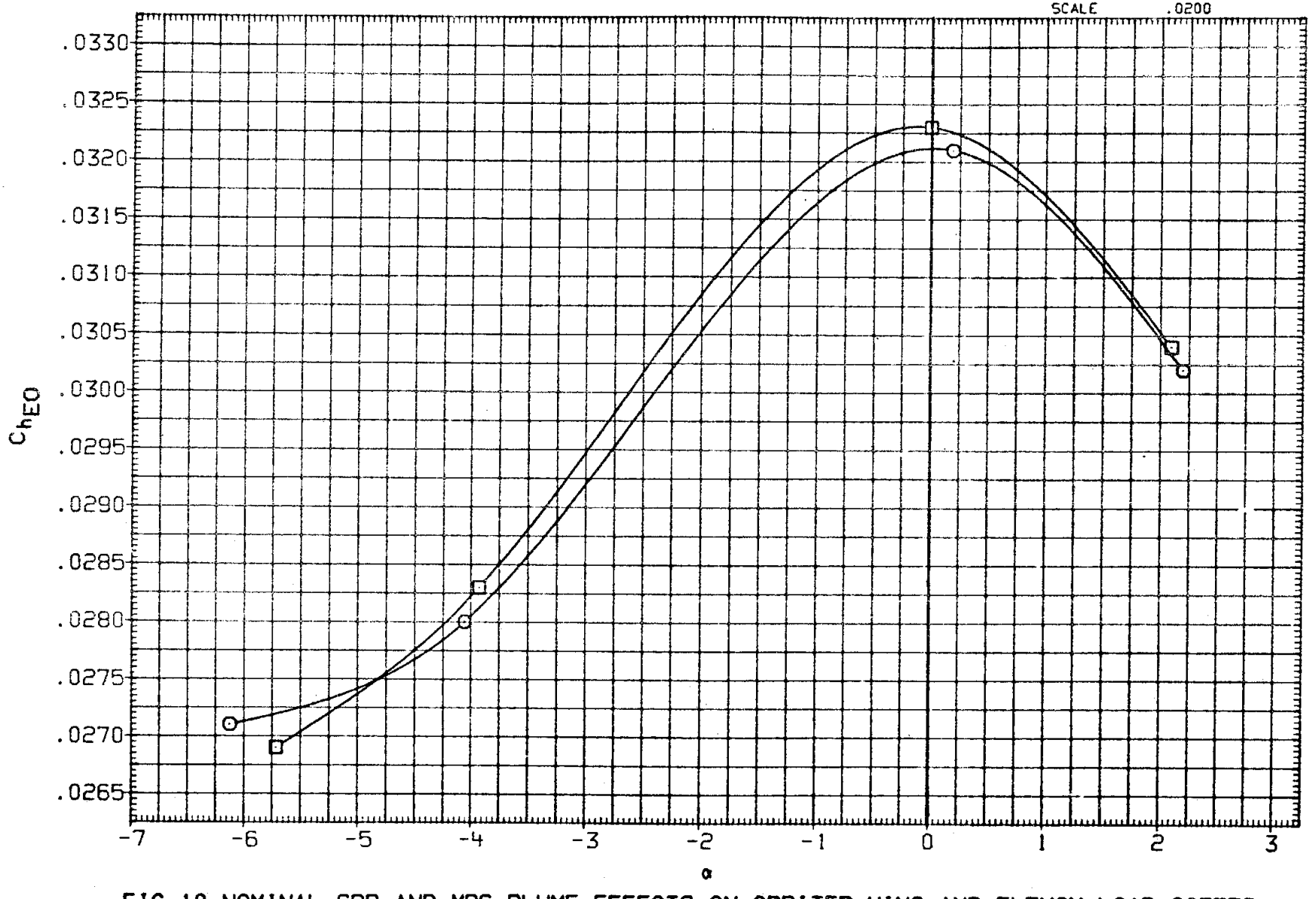

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(B) MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

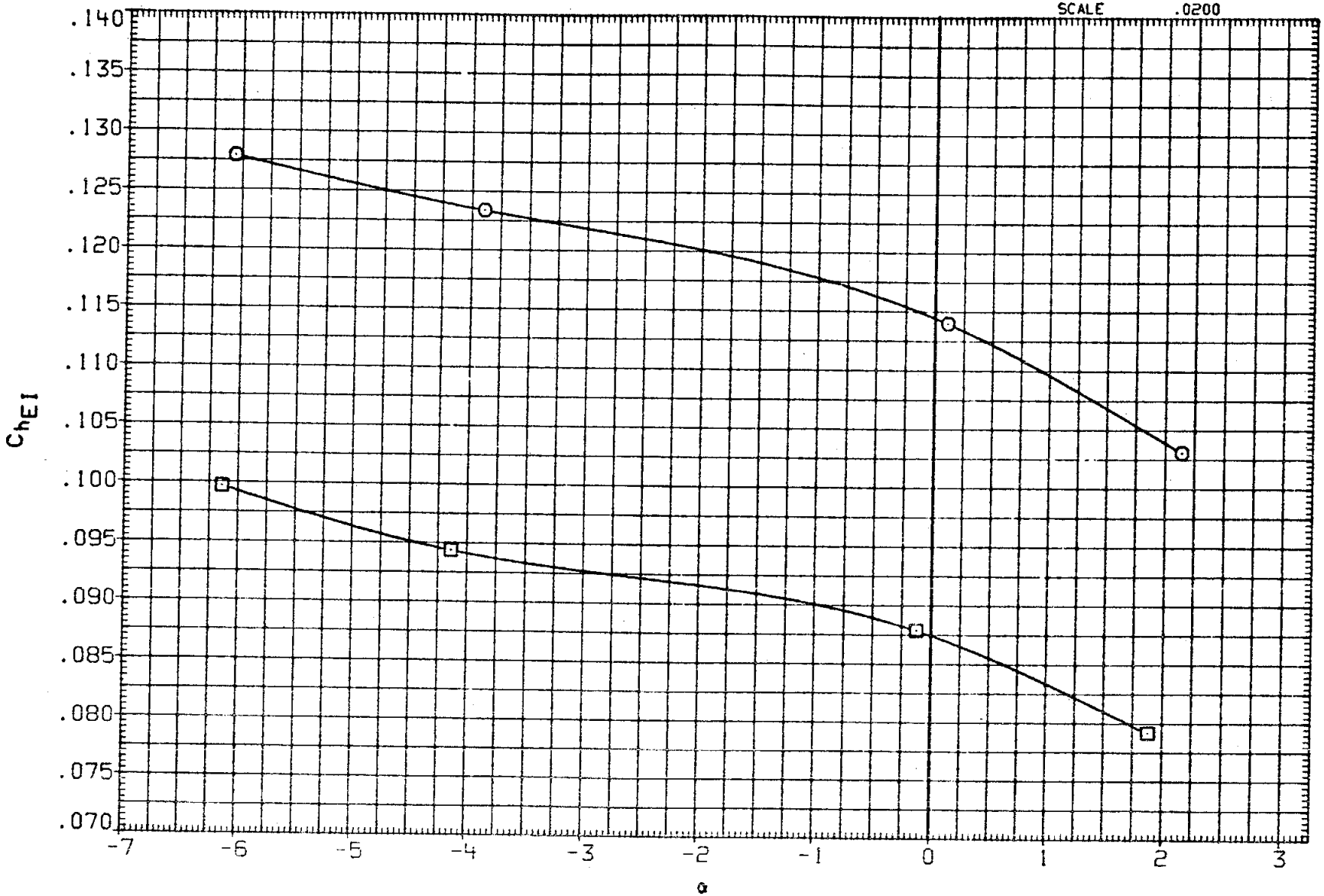

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

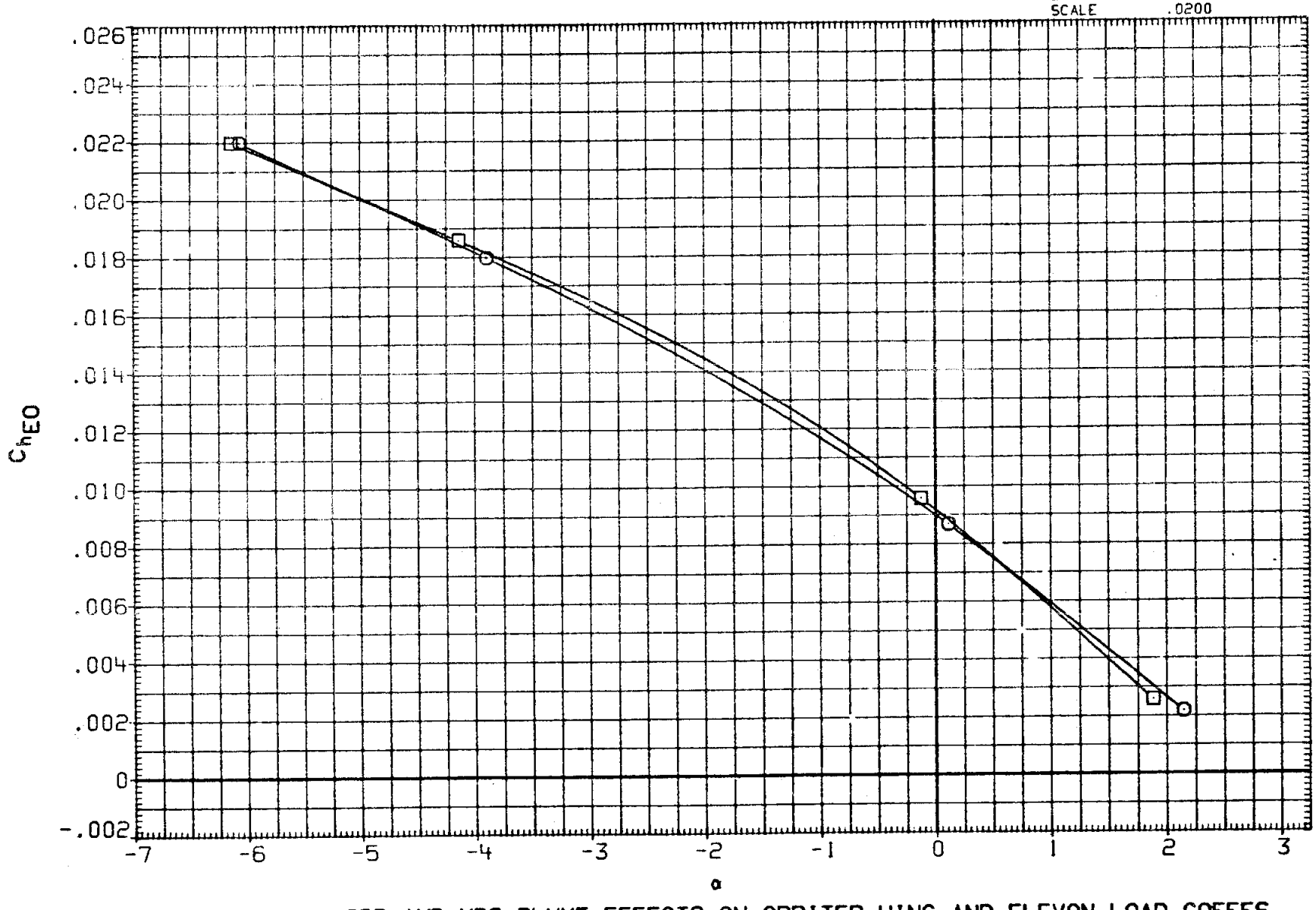

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

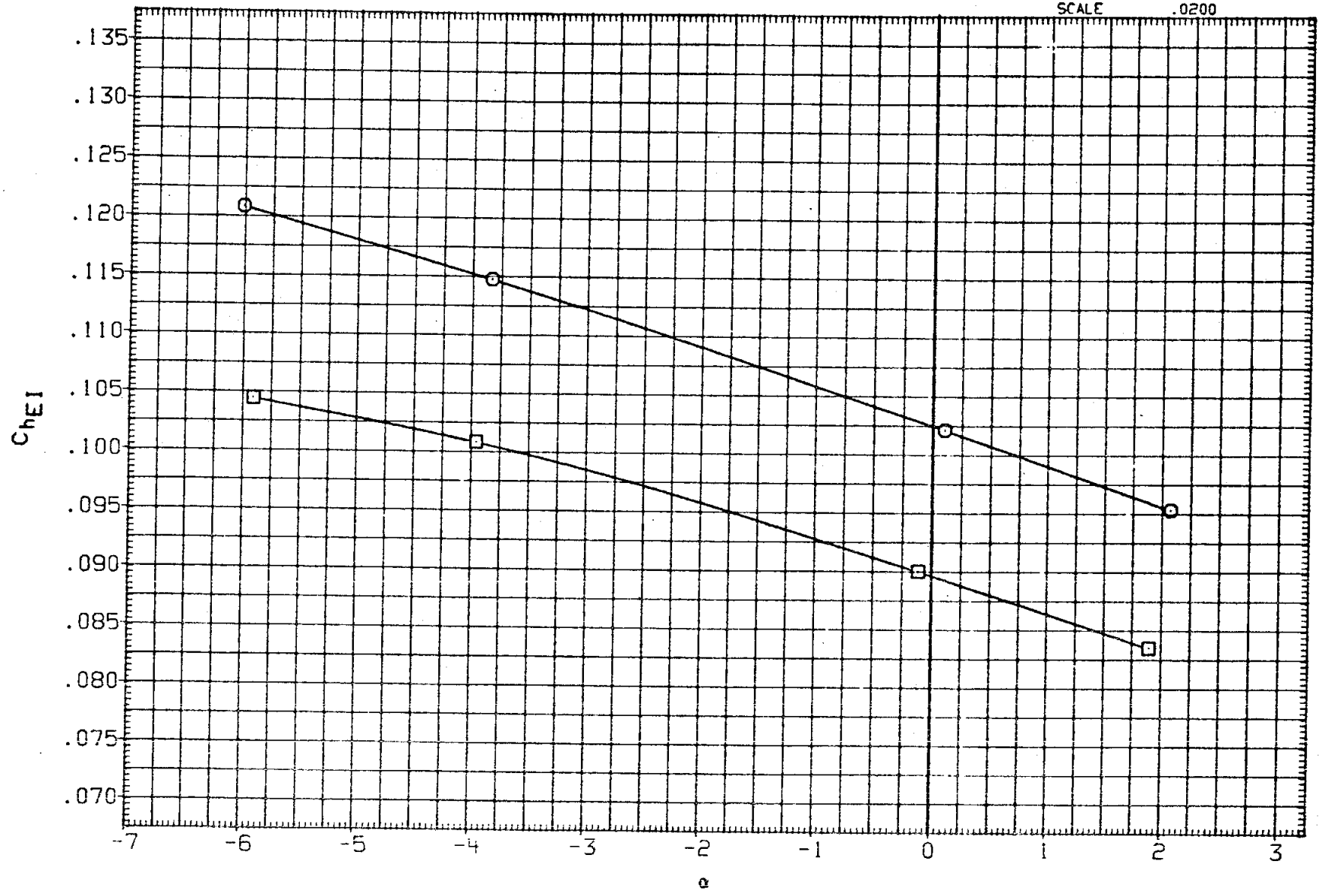

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
JNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
JNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	210.0000	SQ.FT.
LREF	90.7000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

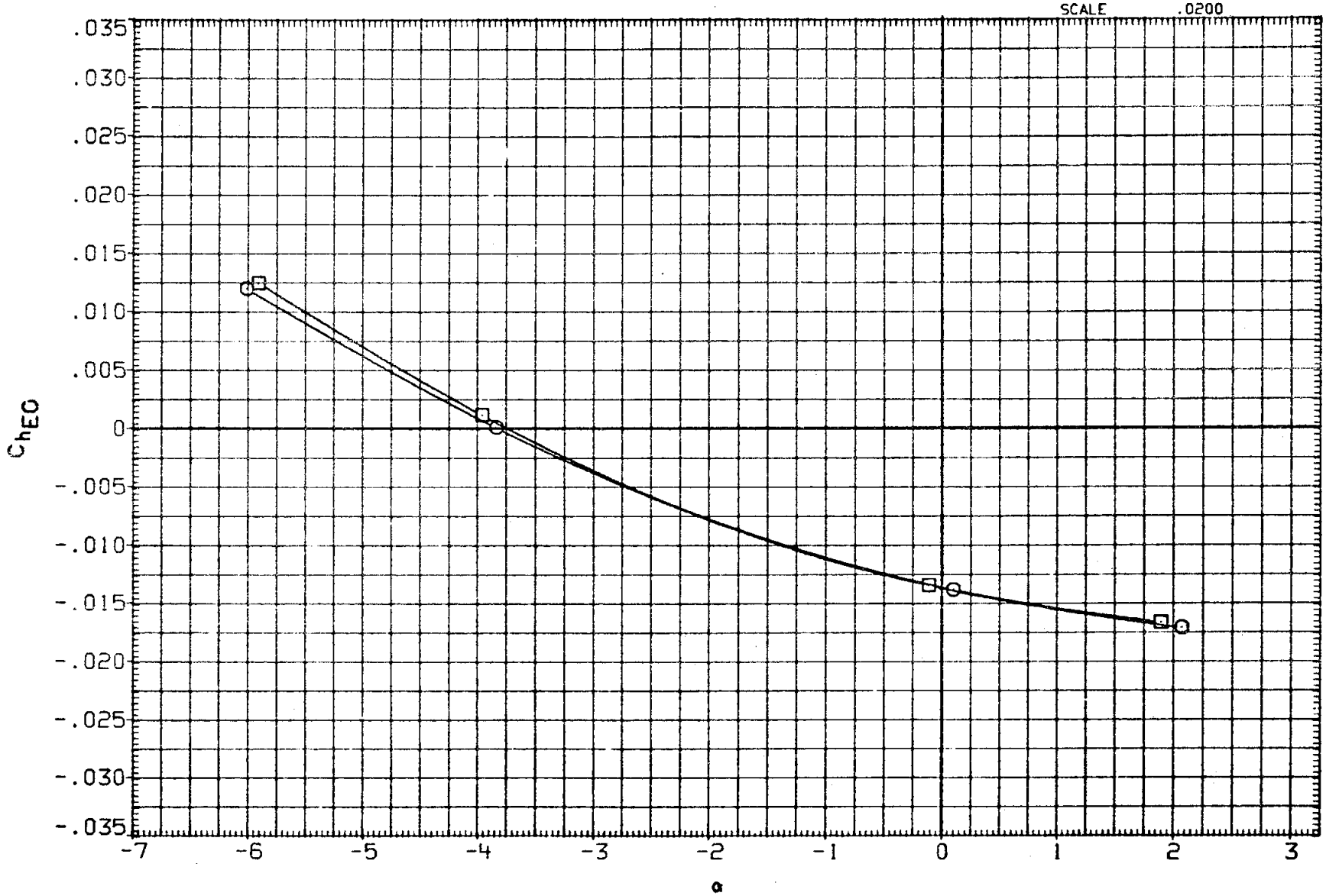

FIG.10 NOMINAL SRB AND MPS PLUME EFFECTS ON ORBITER WING AND ELEVON LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

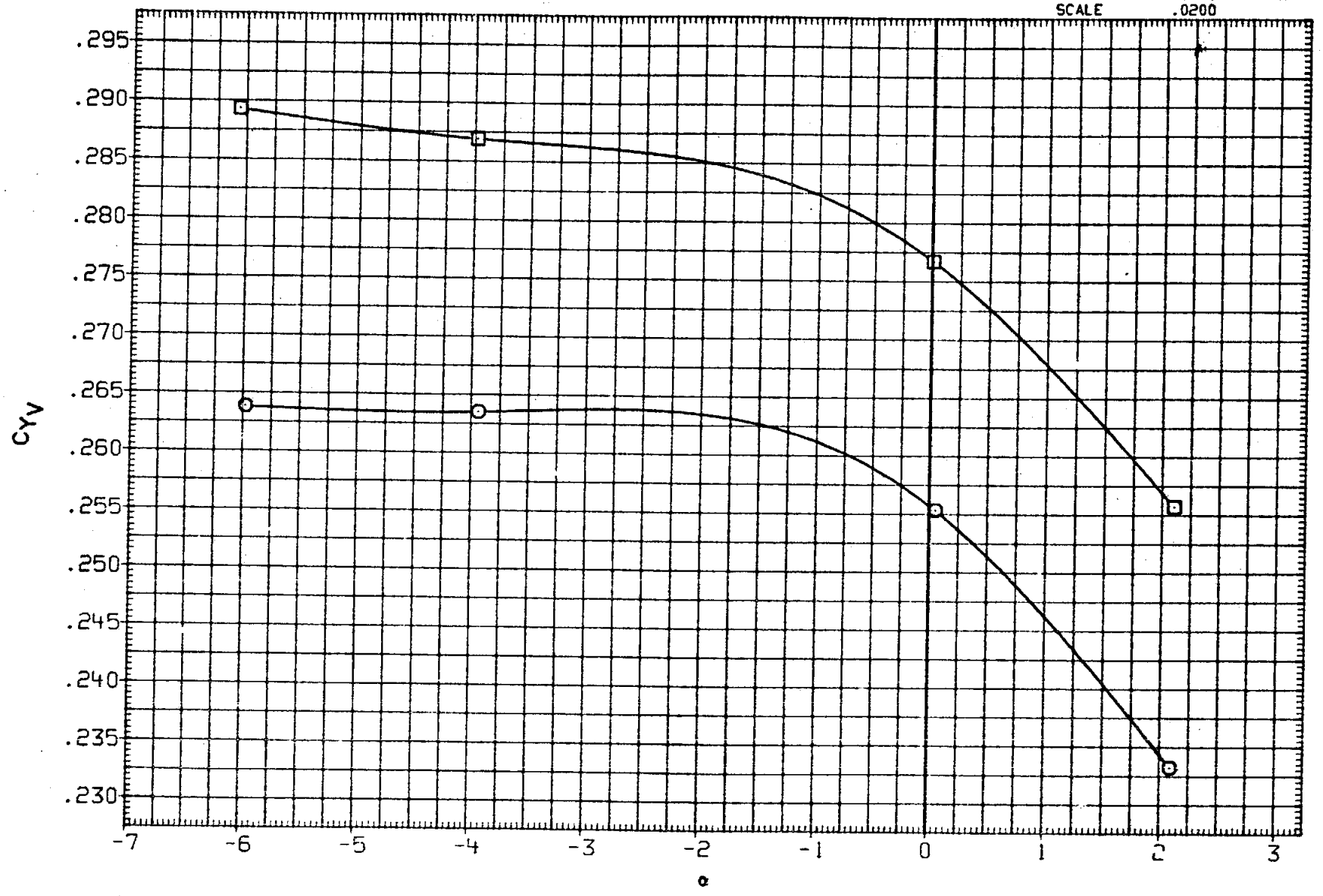

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

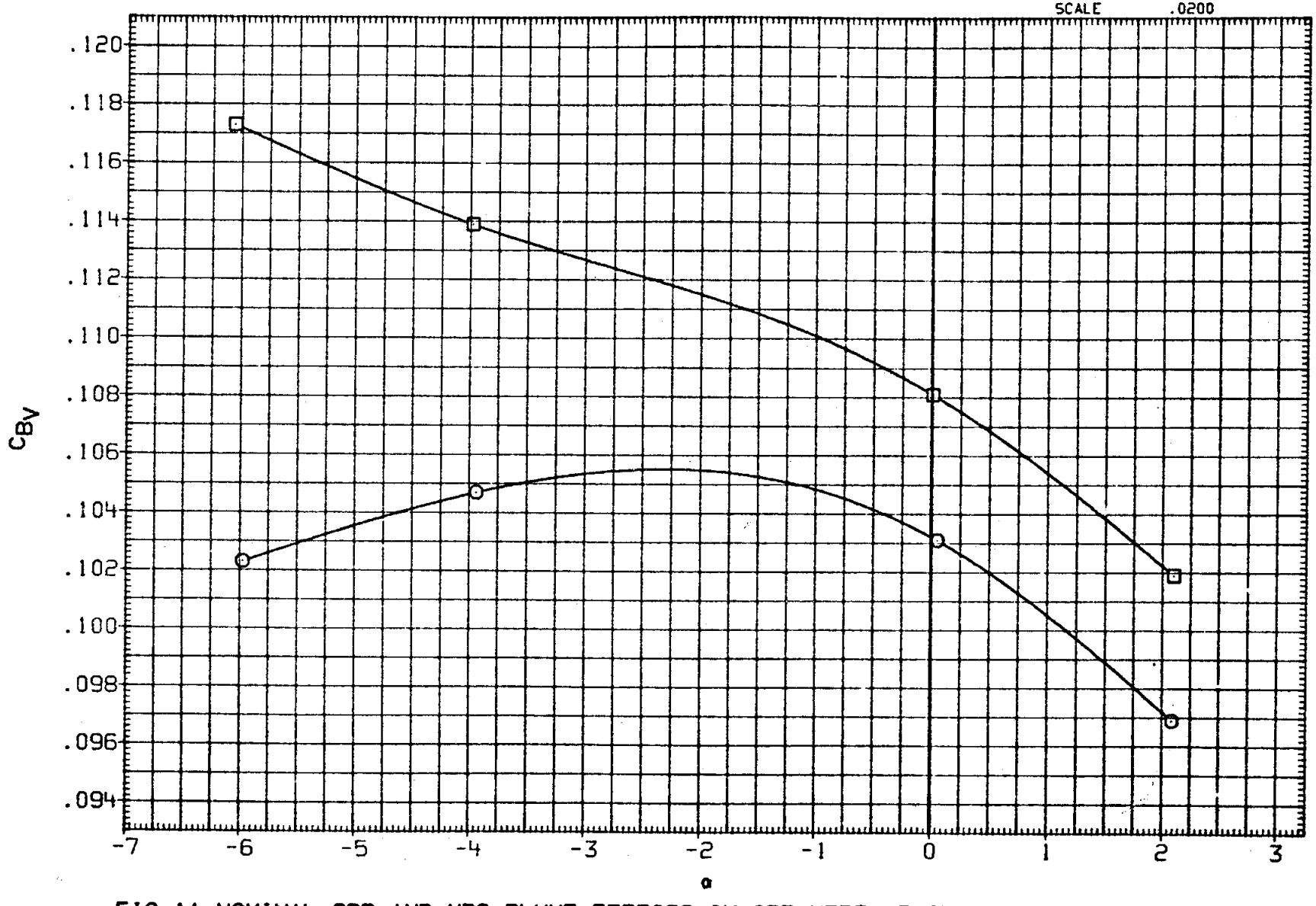

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

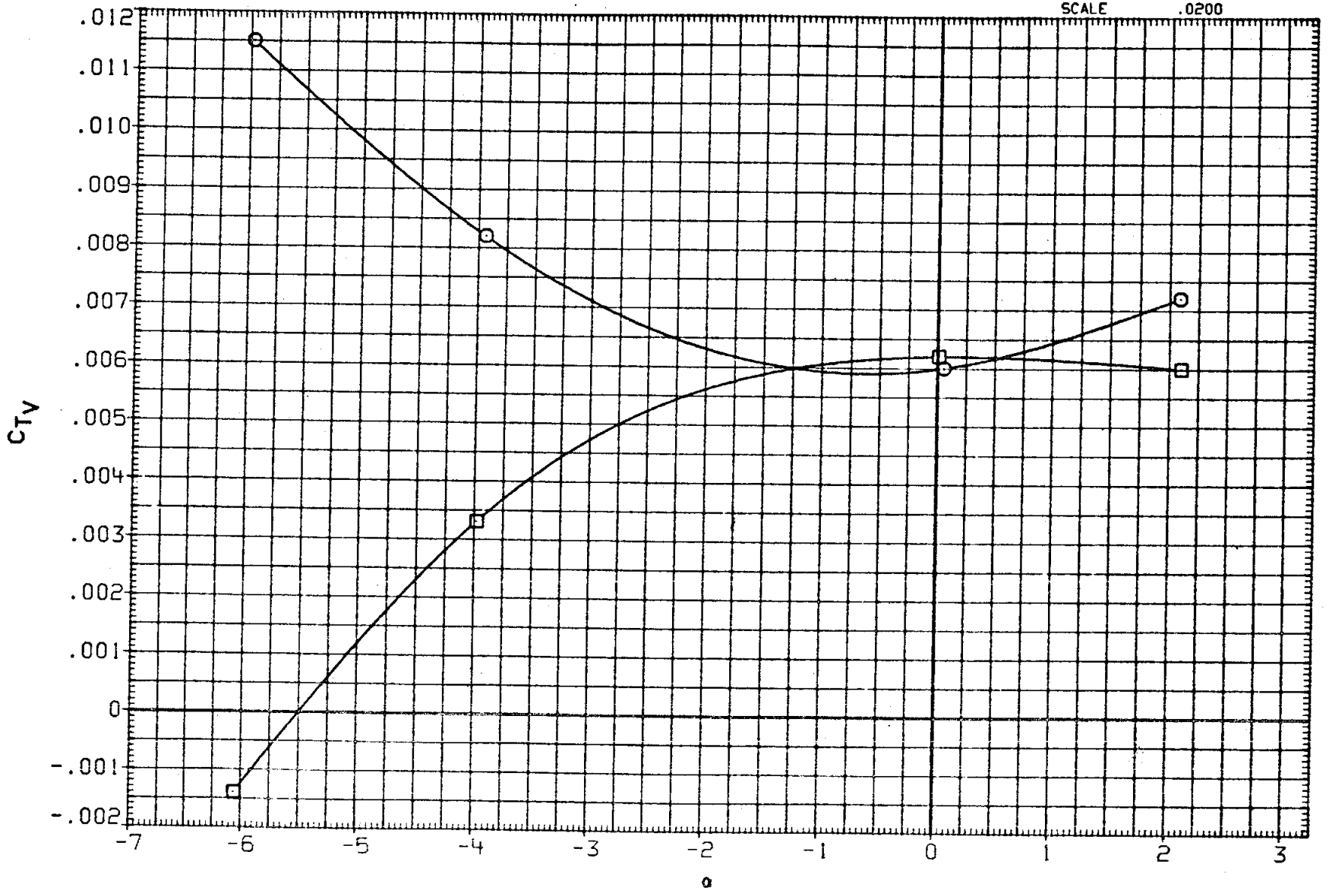

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

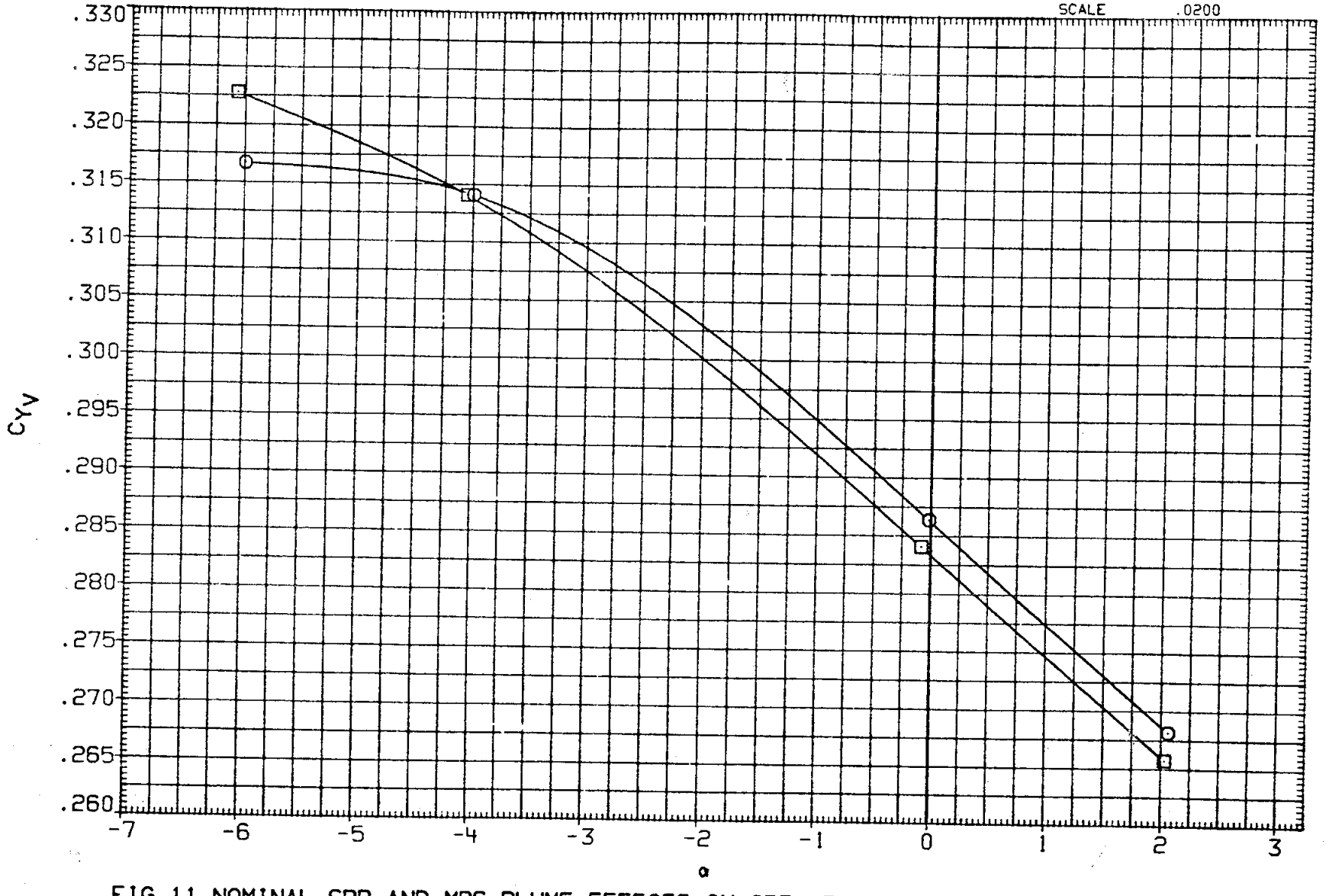

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

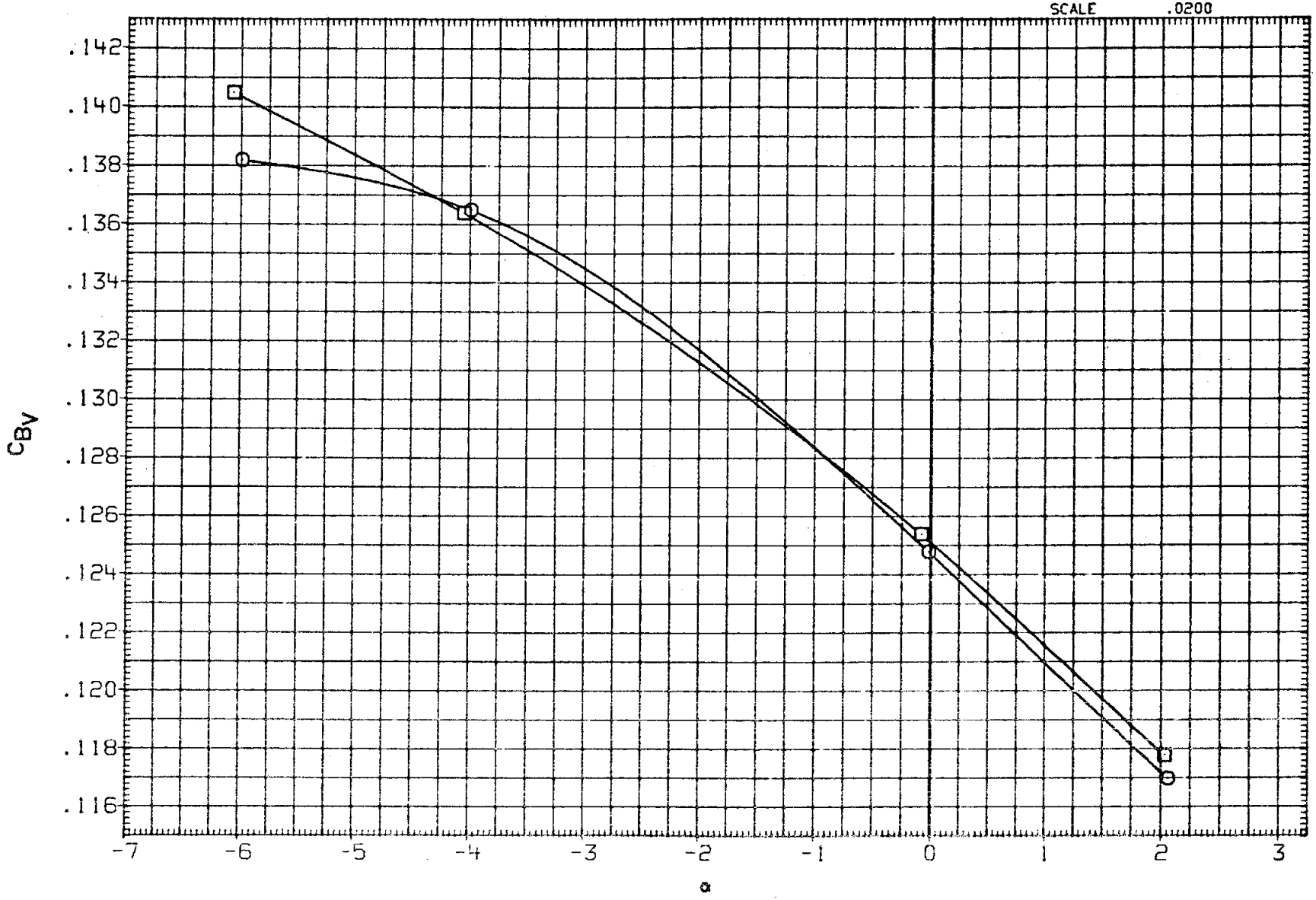

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

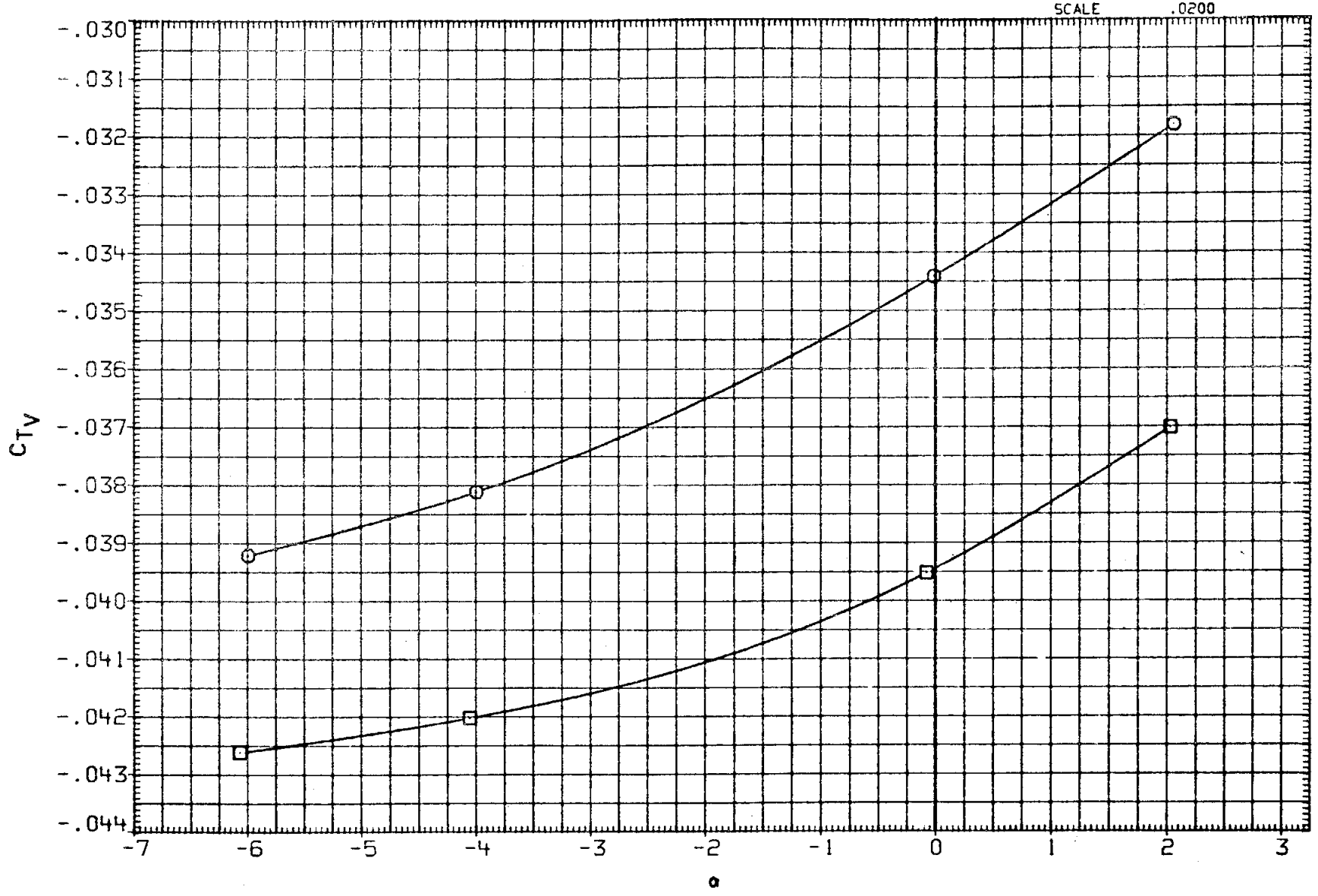

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

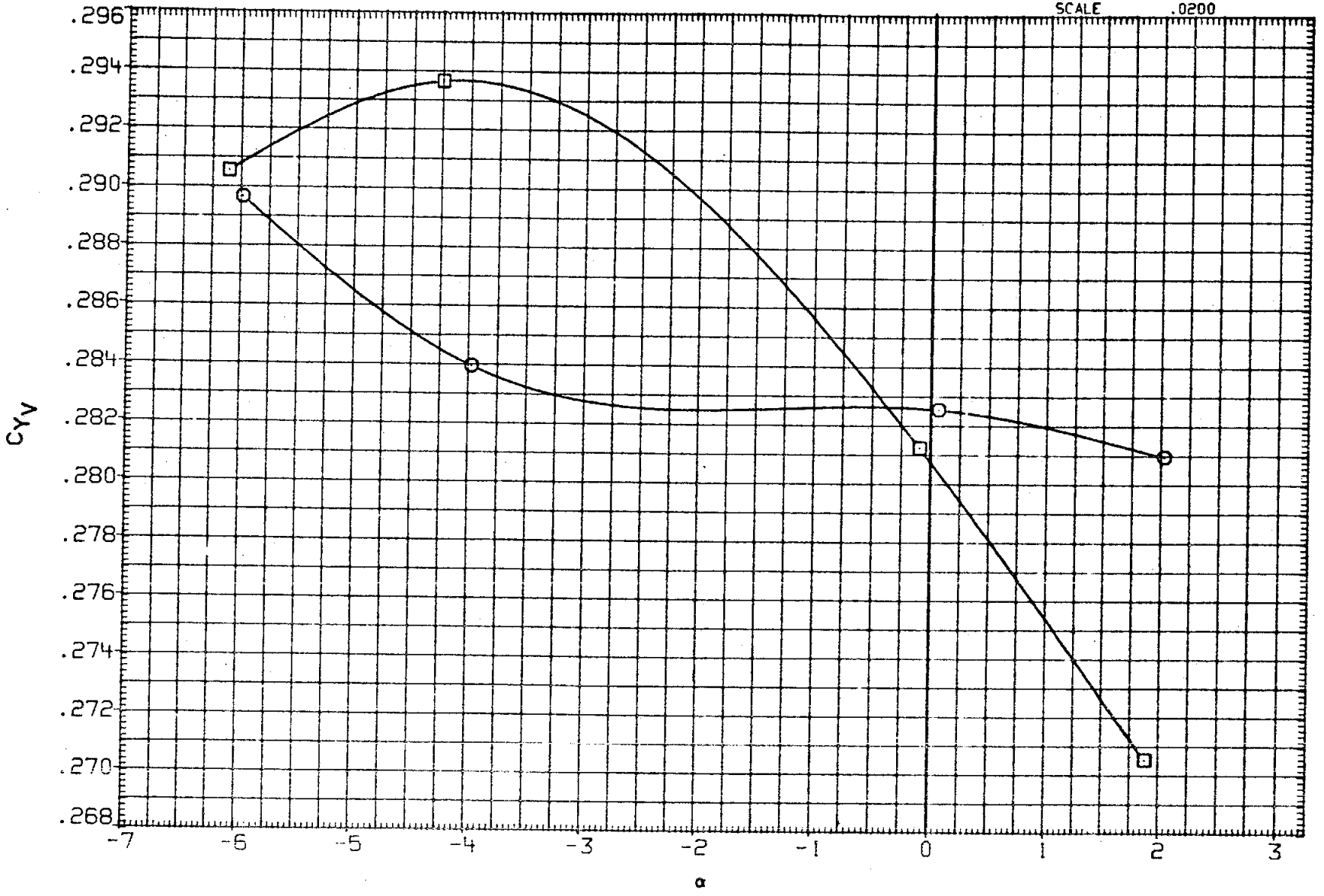

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

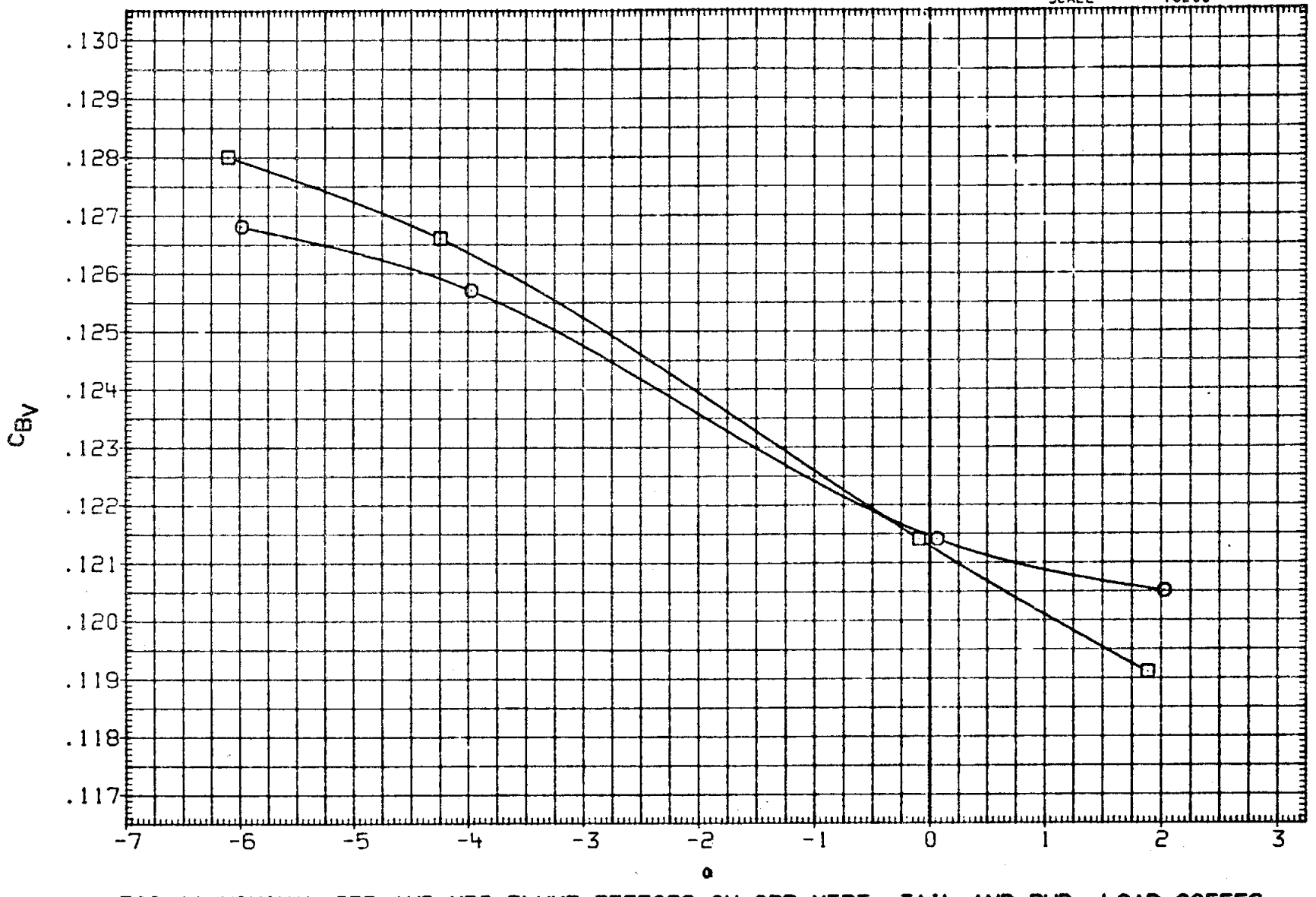

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

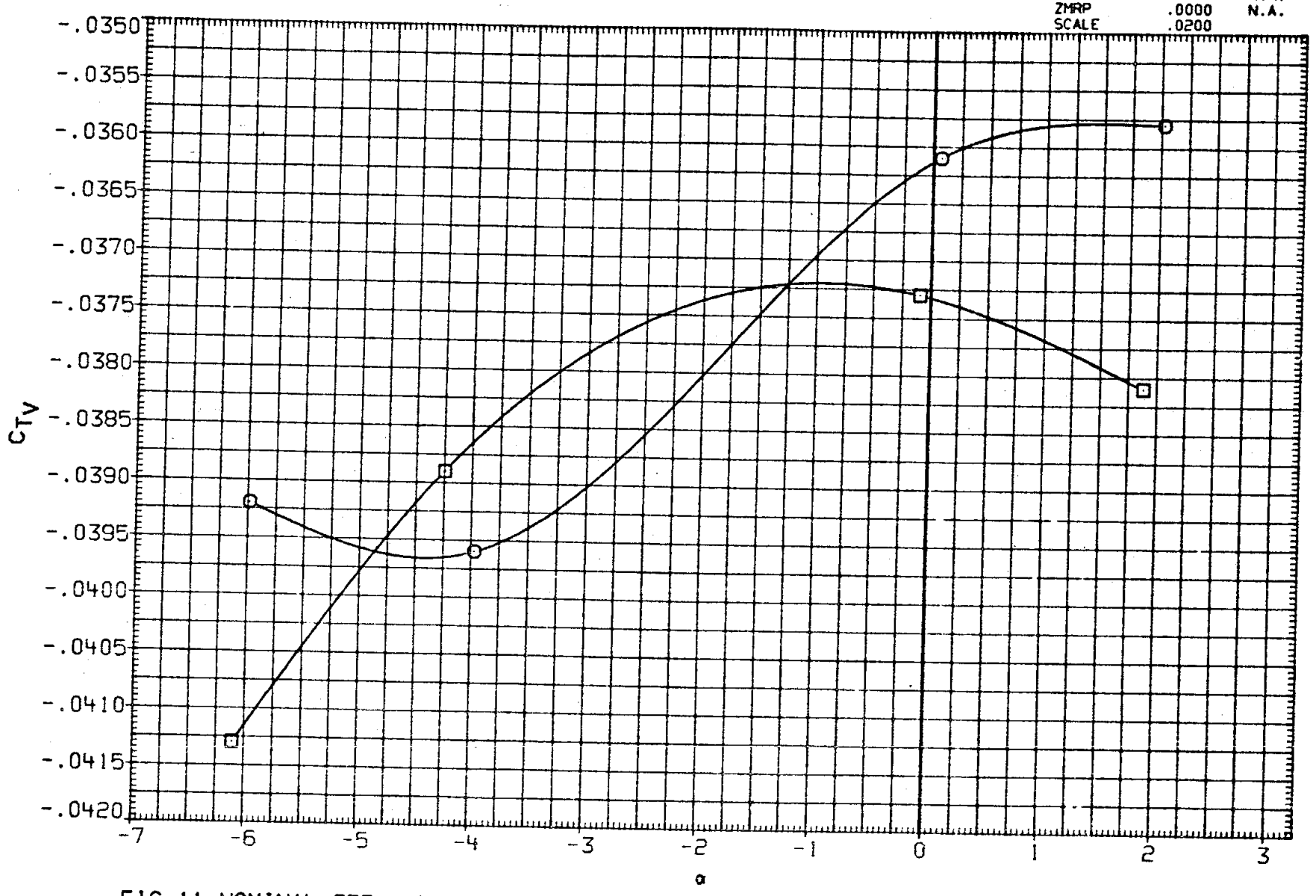

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

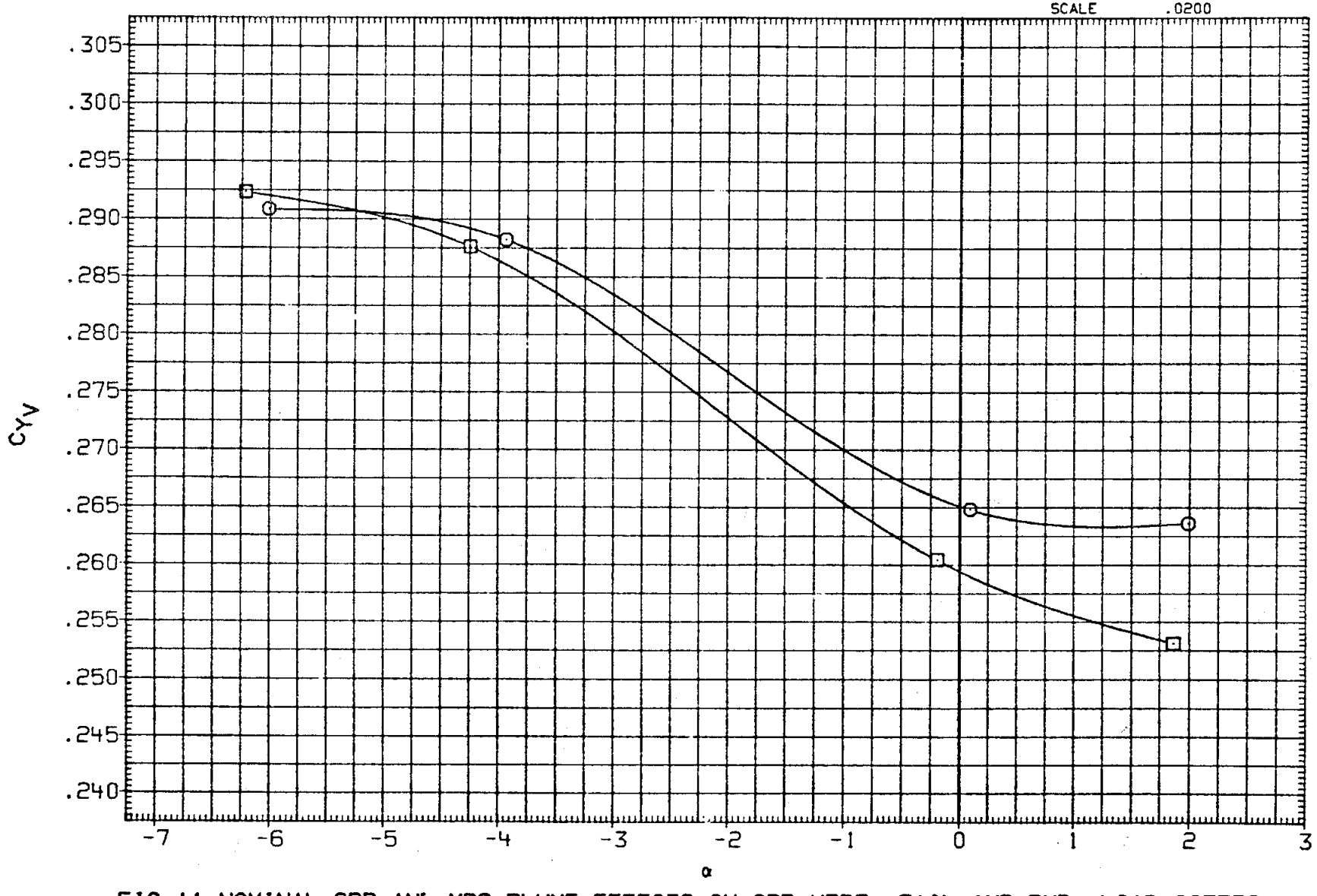

FIG.11 NOMINAL SRB ANL MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

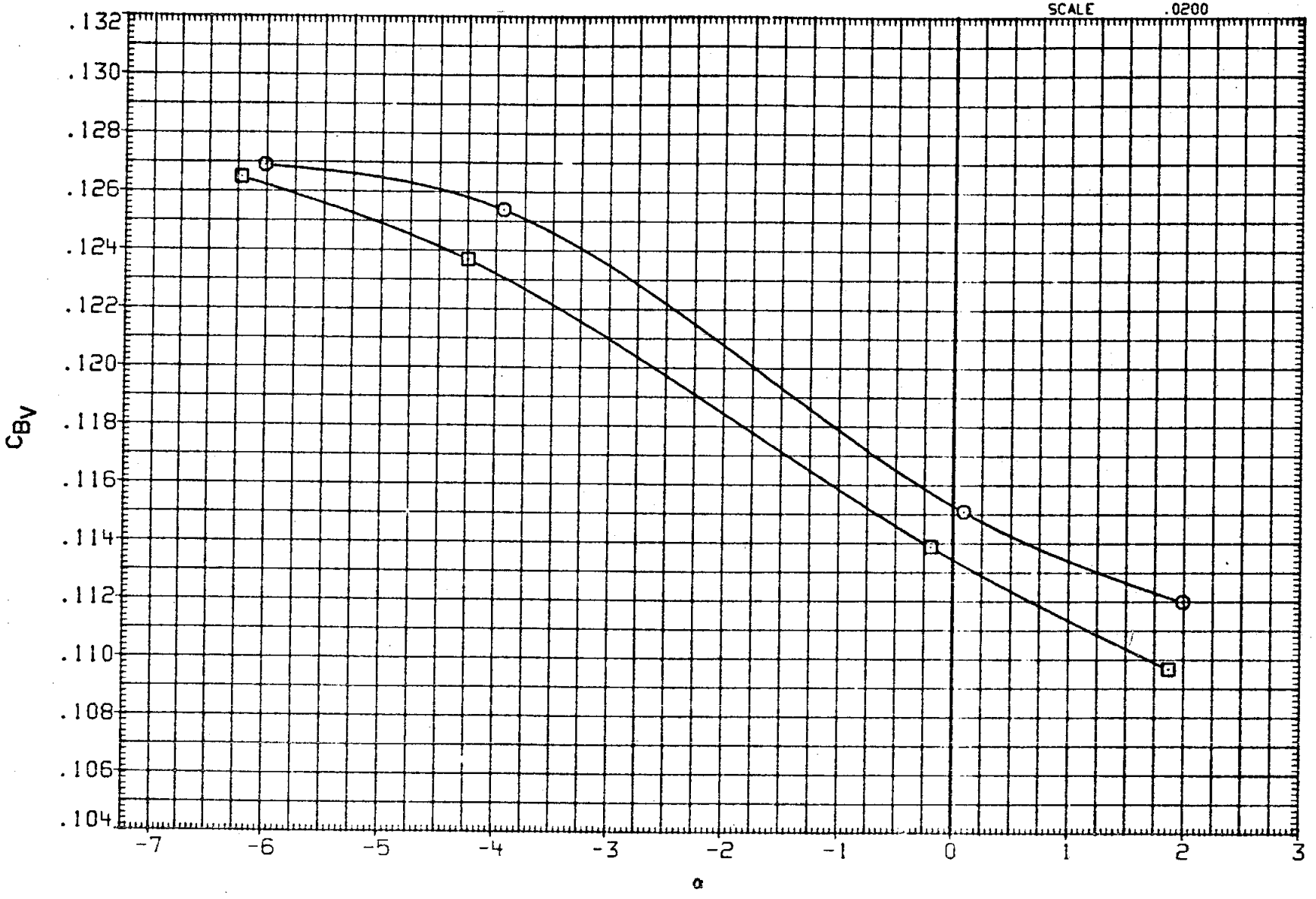

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
BNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

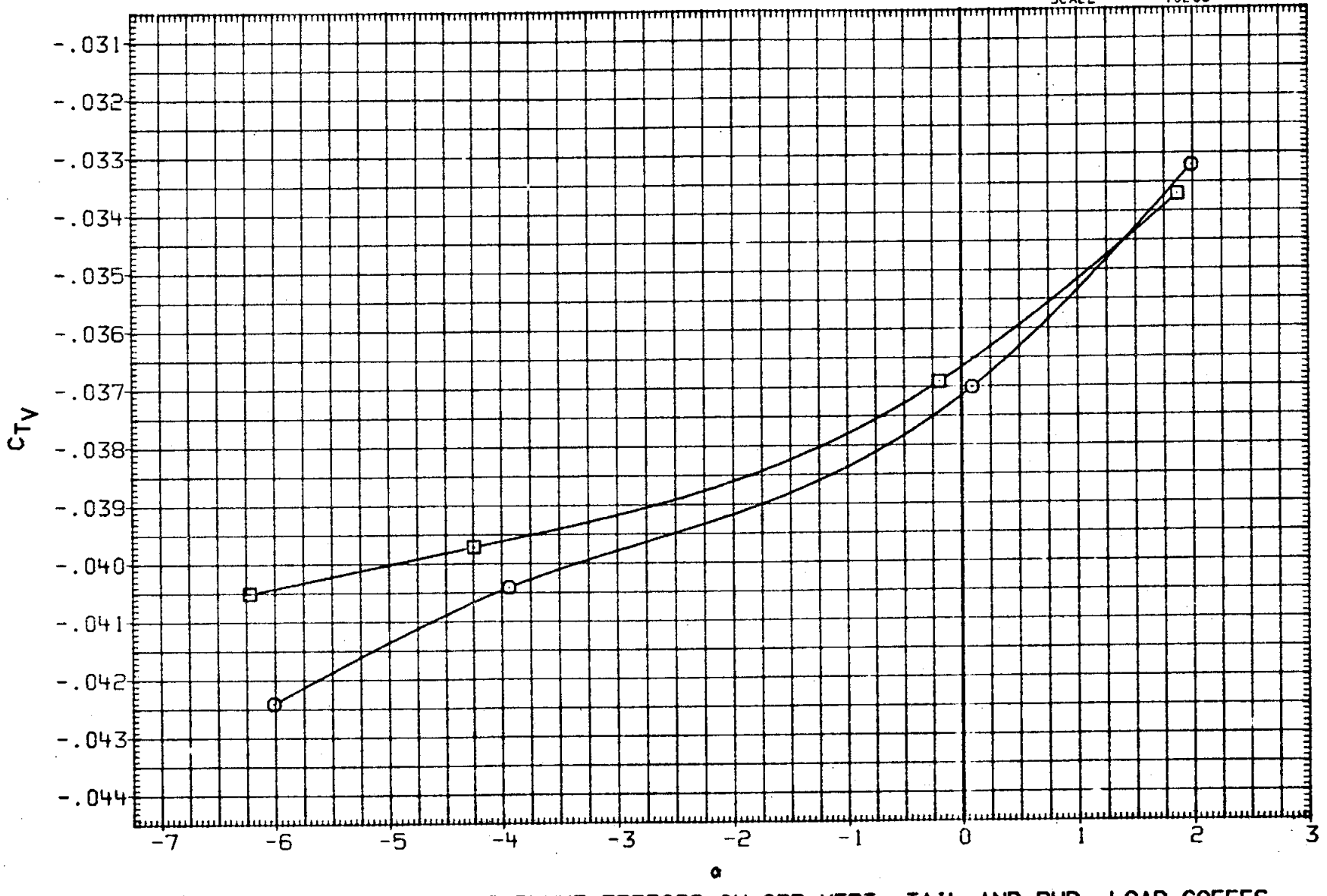

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
HNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

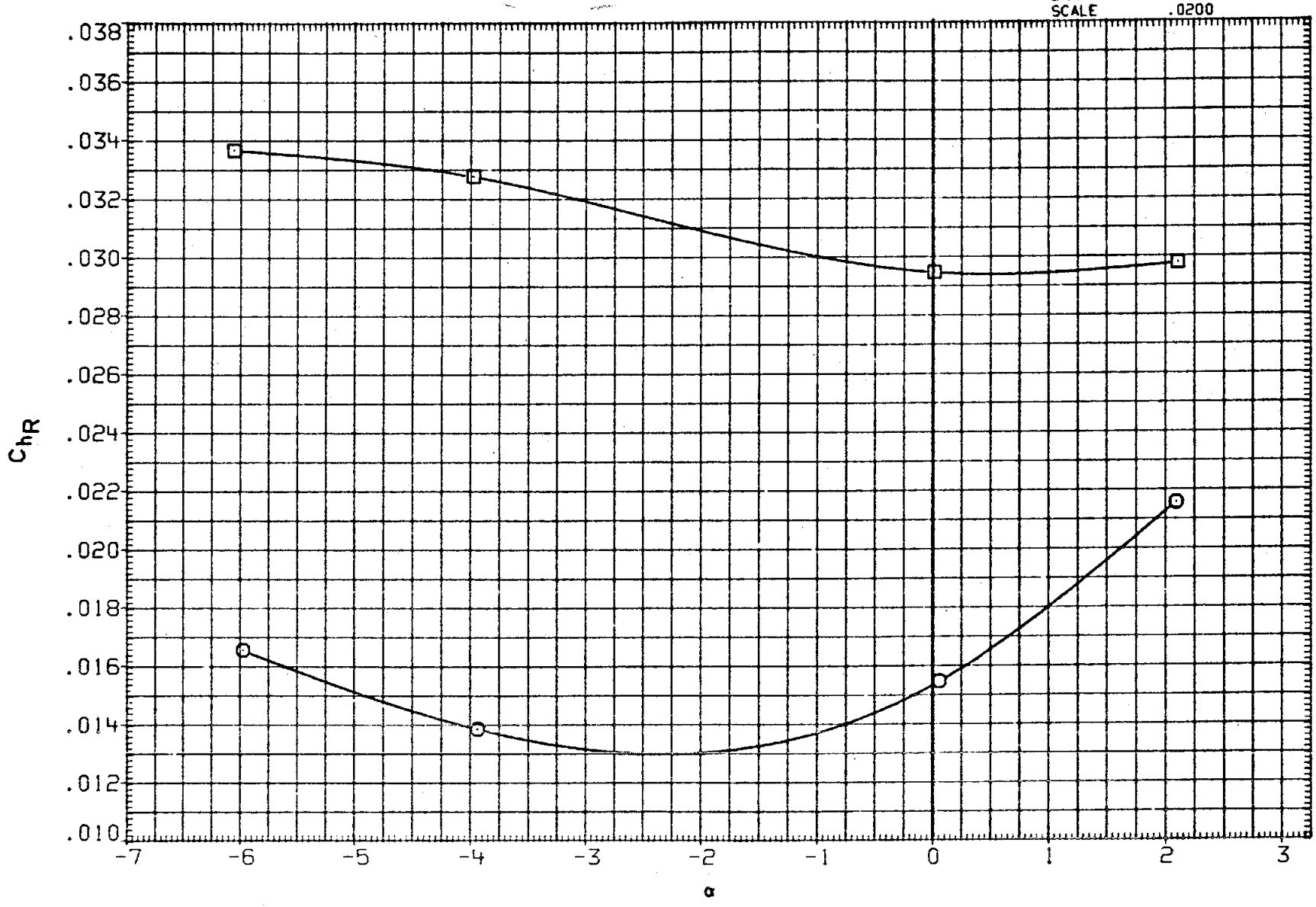

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
HNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

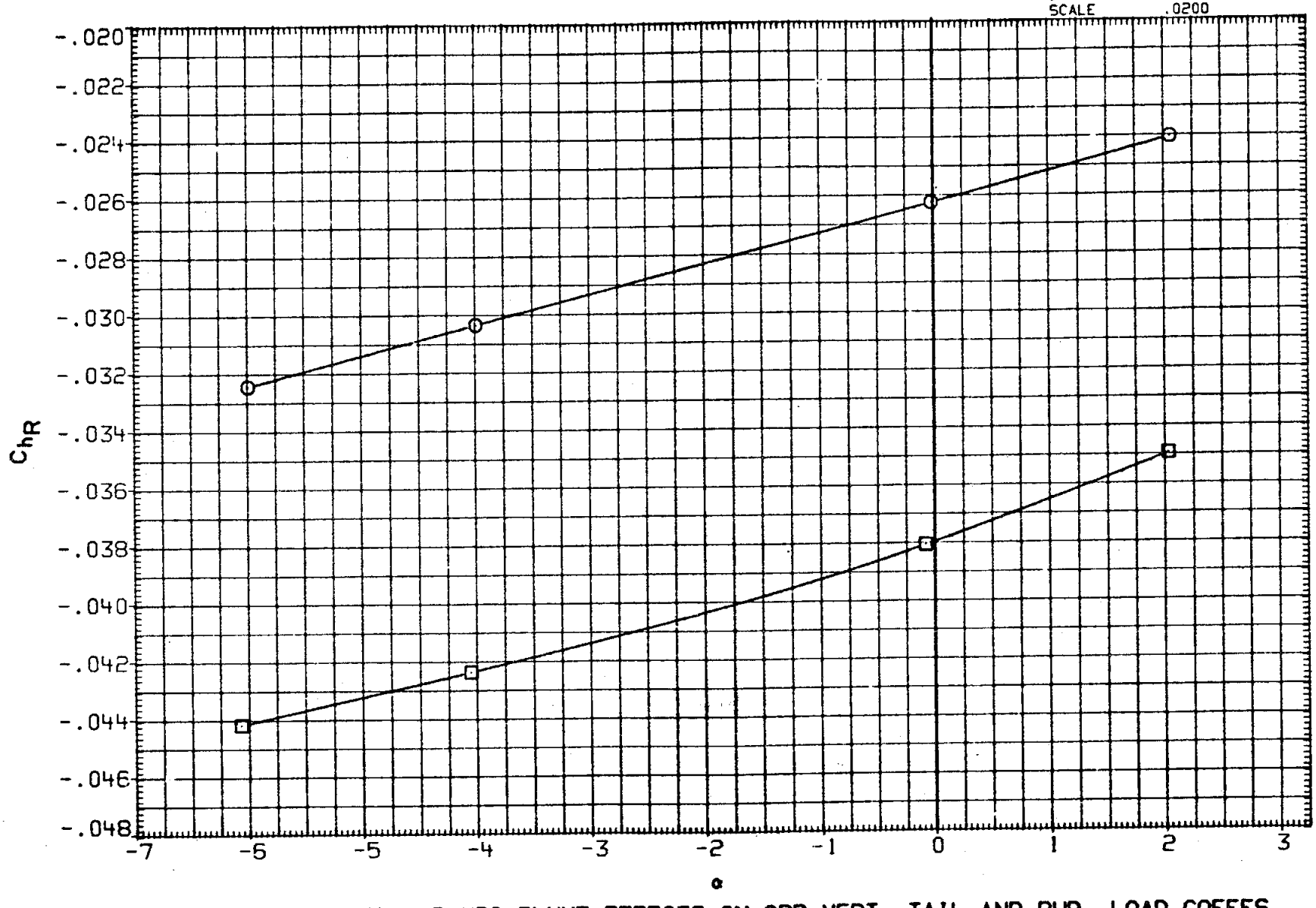

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA31	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
HNEA34	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

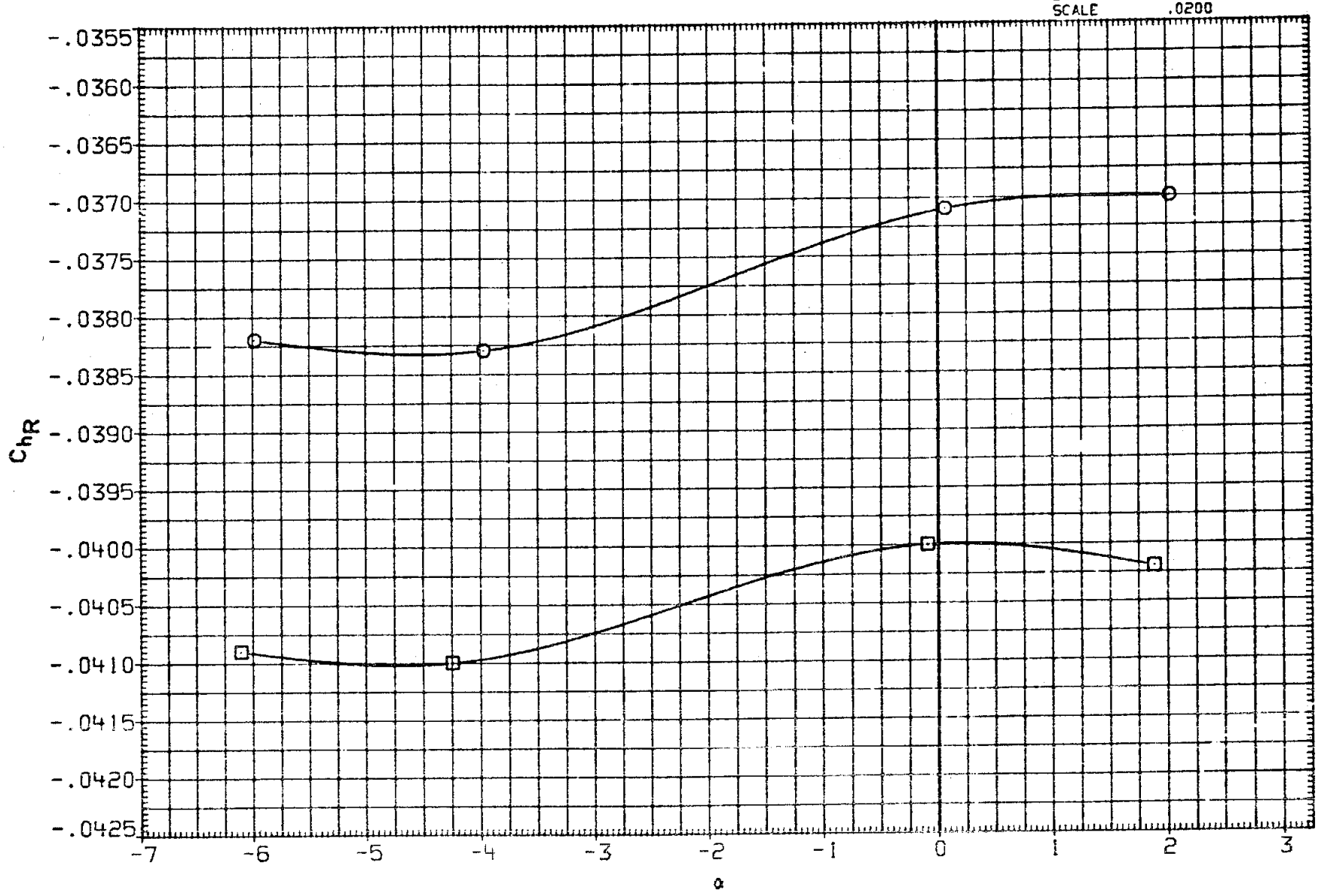

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA31	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	.000
HNEA34	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

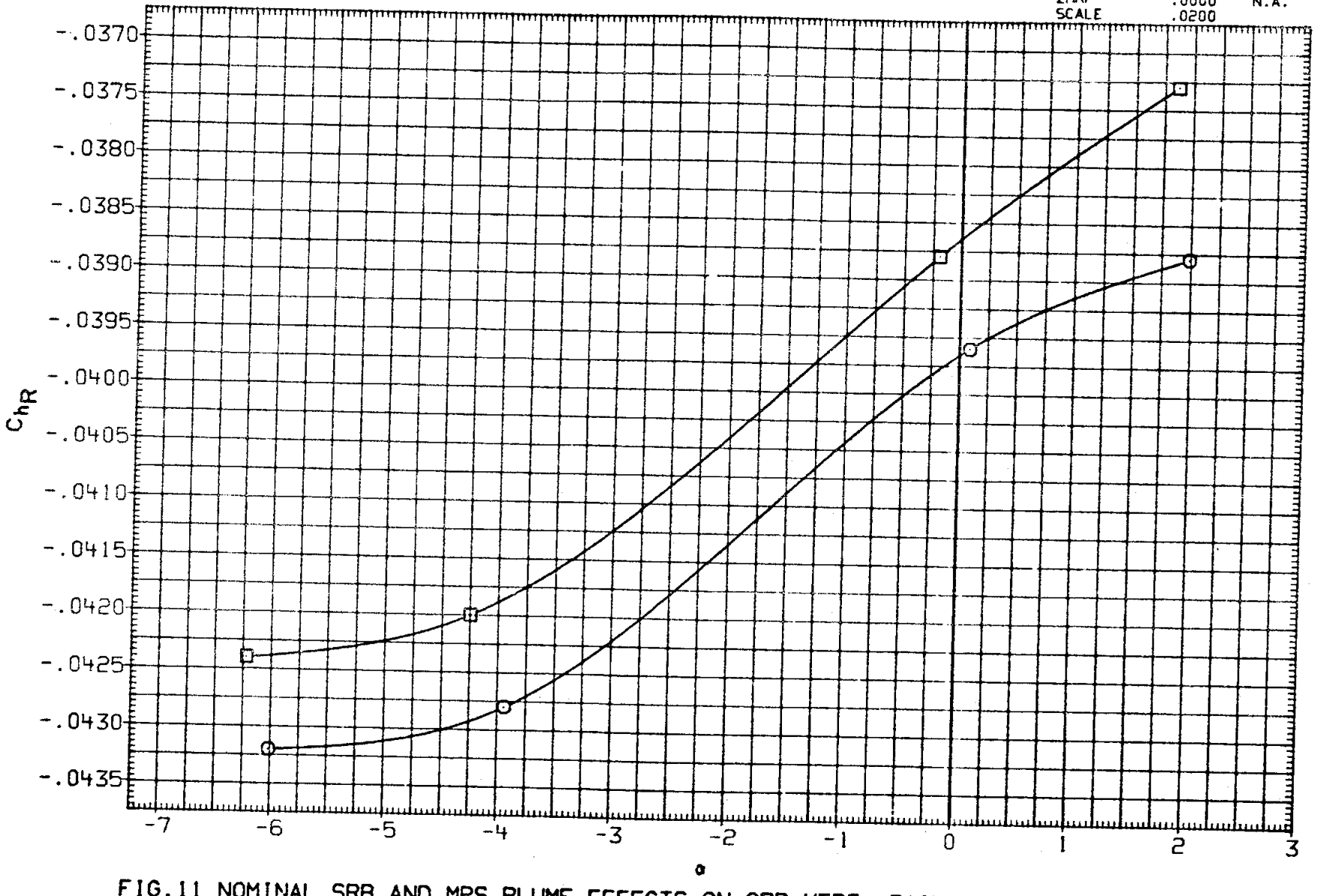

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	.000
.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

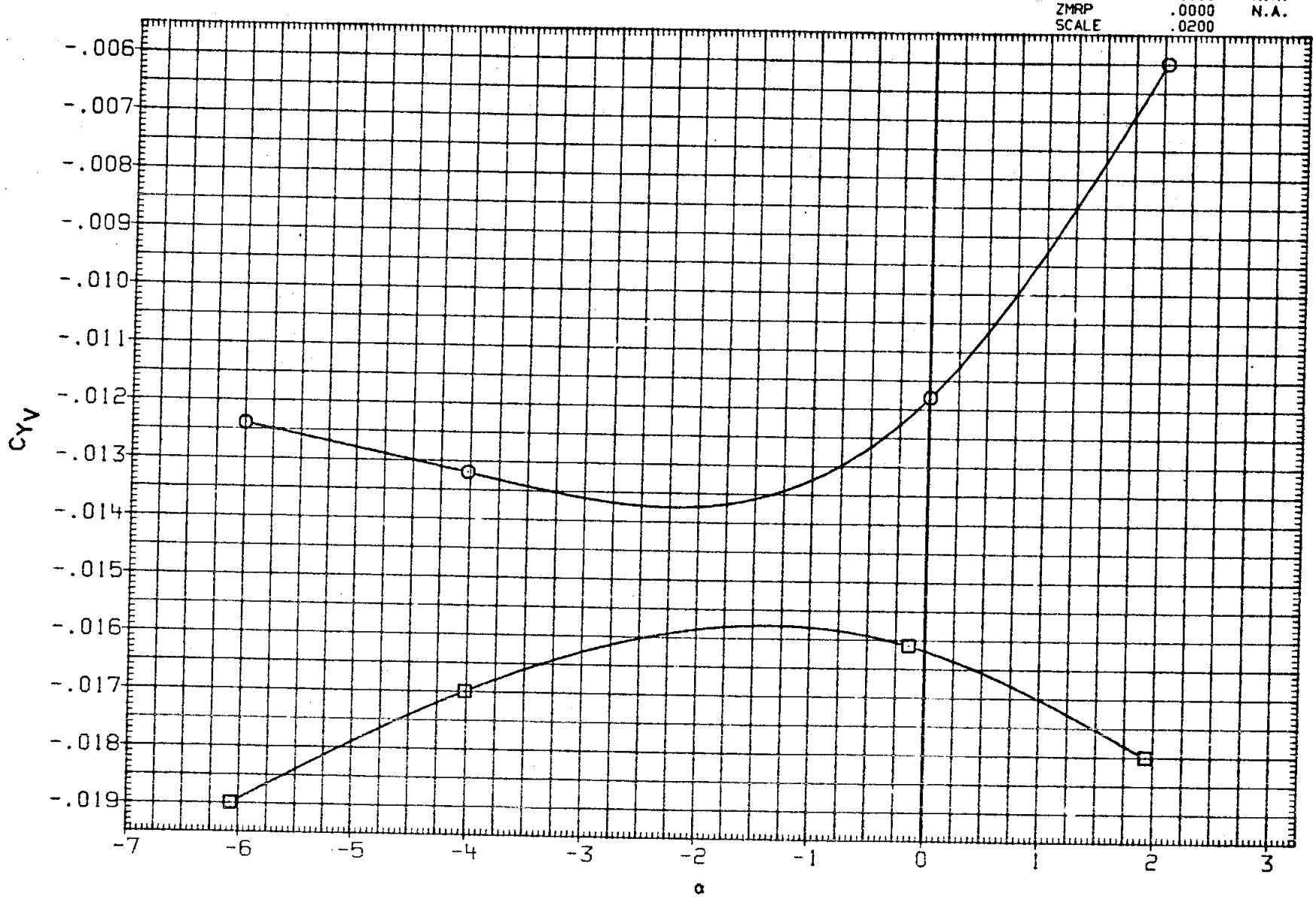

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

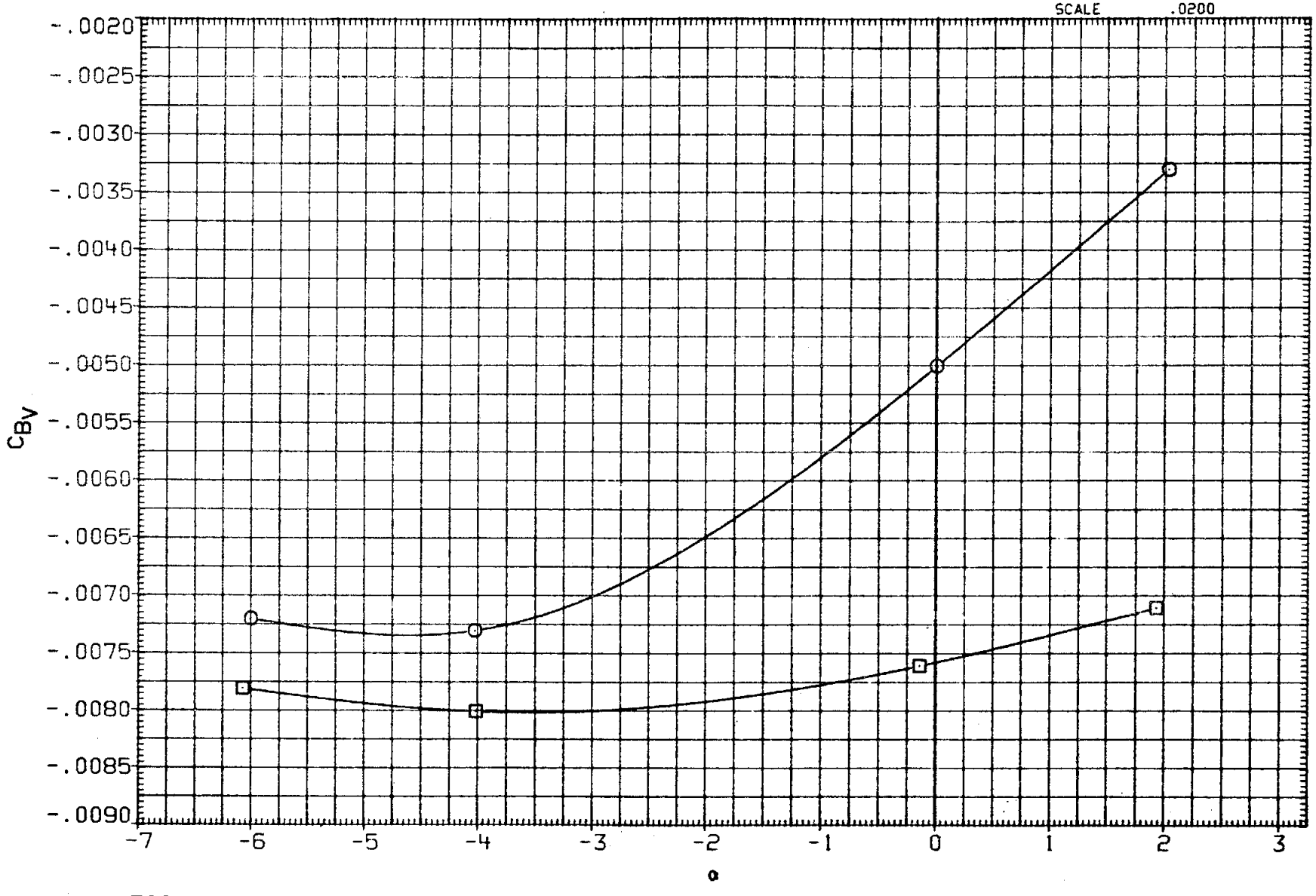

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM

BETA	GIMBAL	ELV-IB	ELV-OB
.000	1.000	8.000	.000
.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

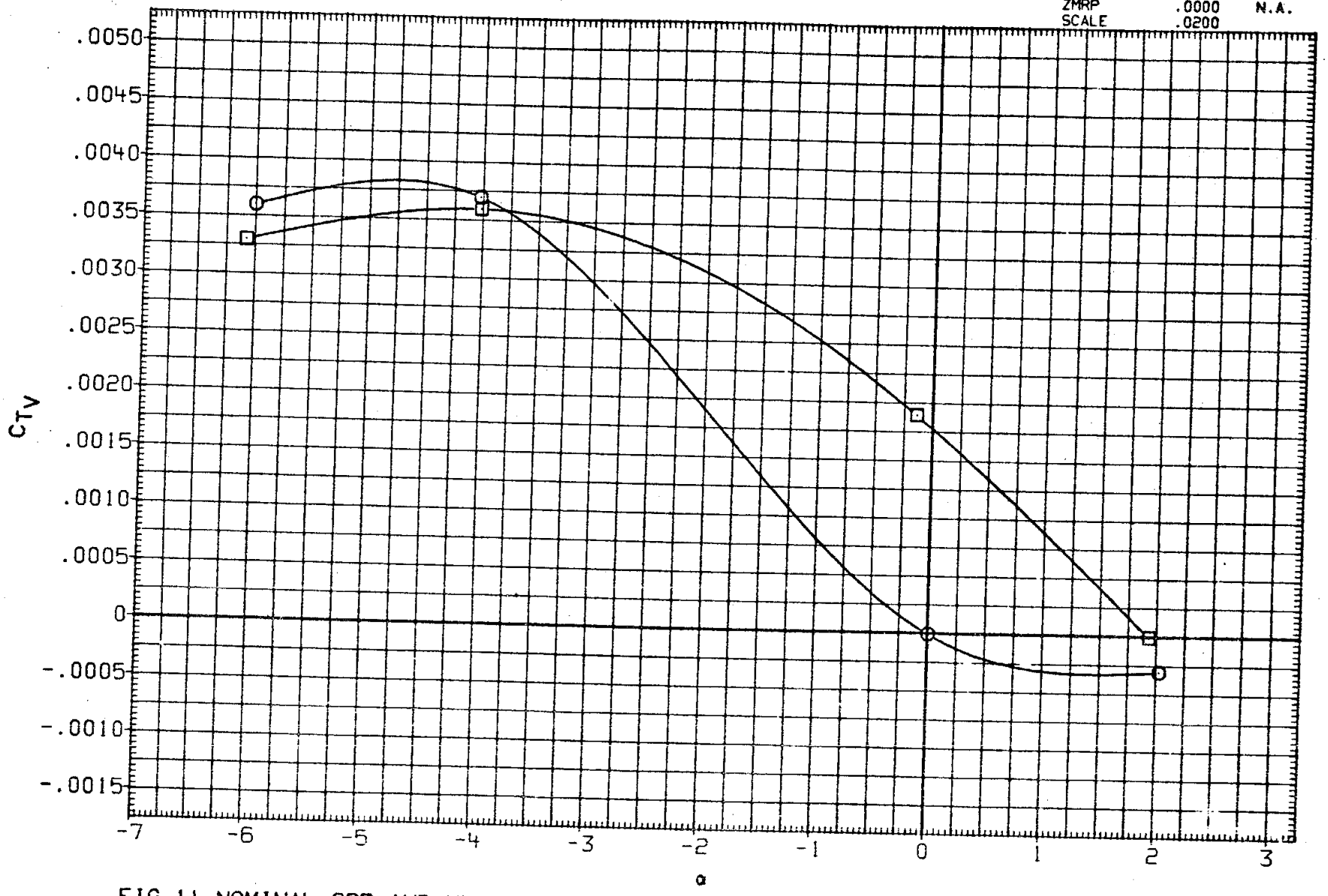

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

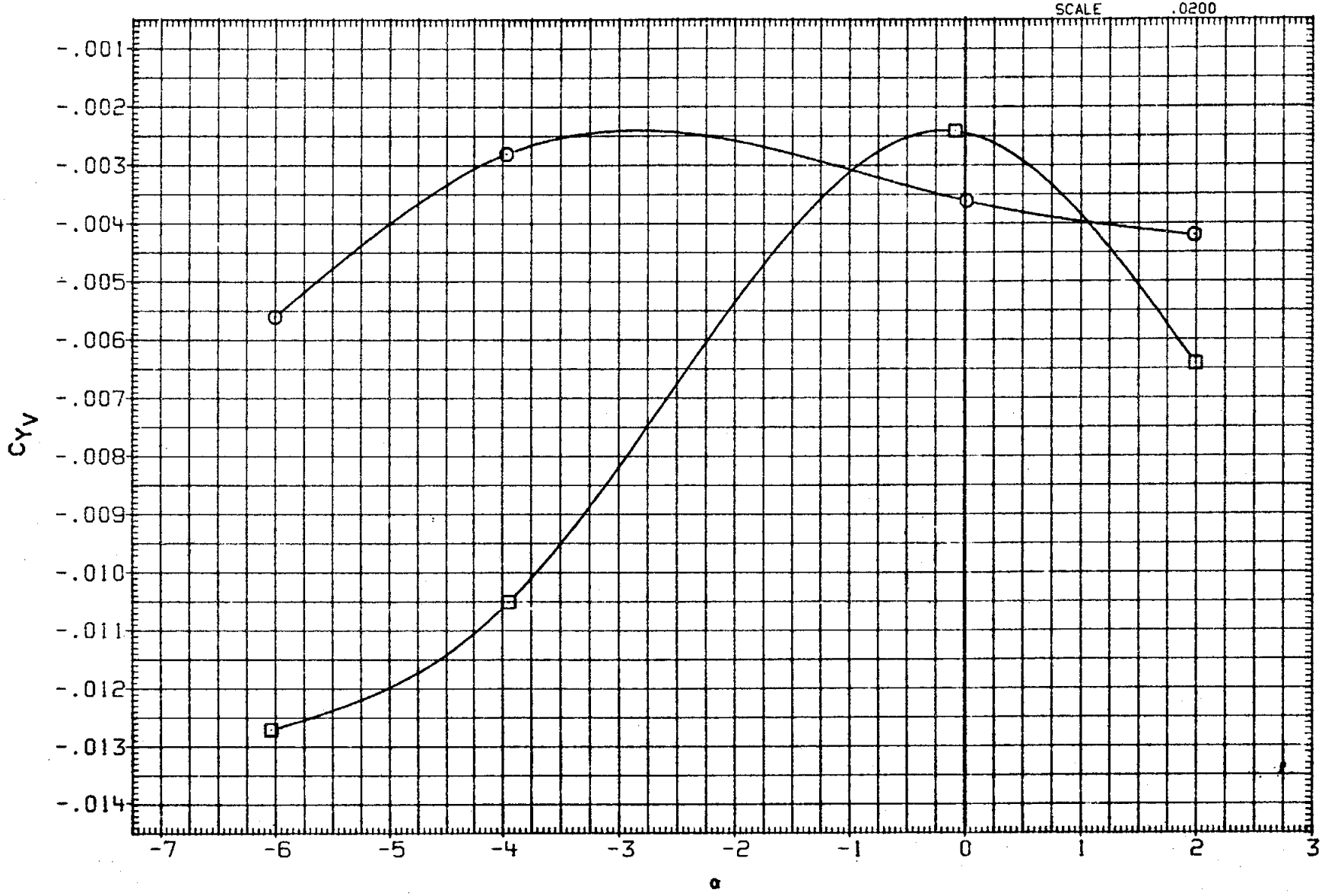

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

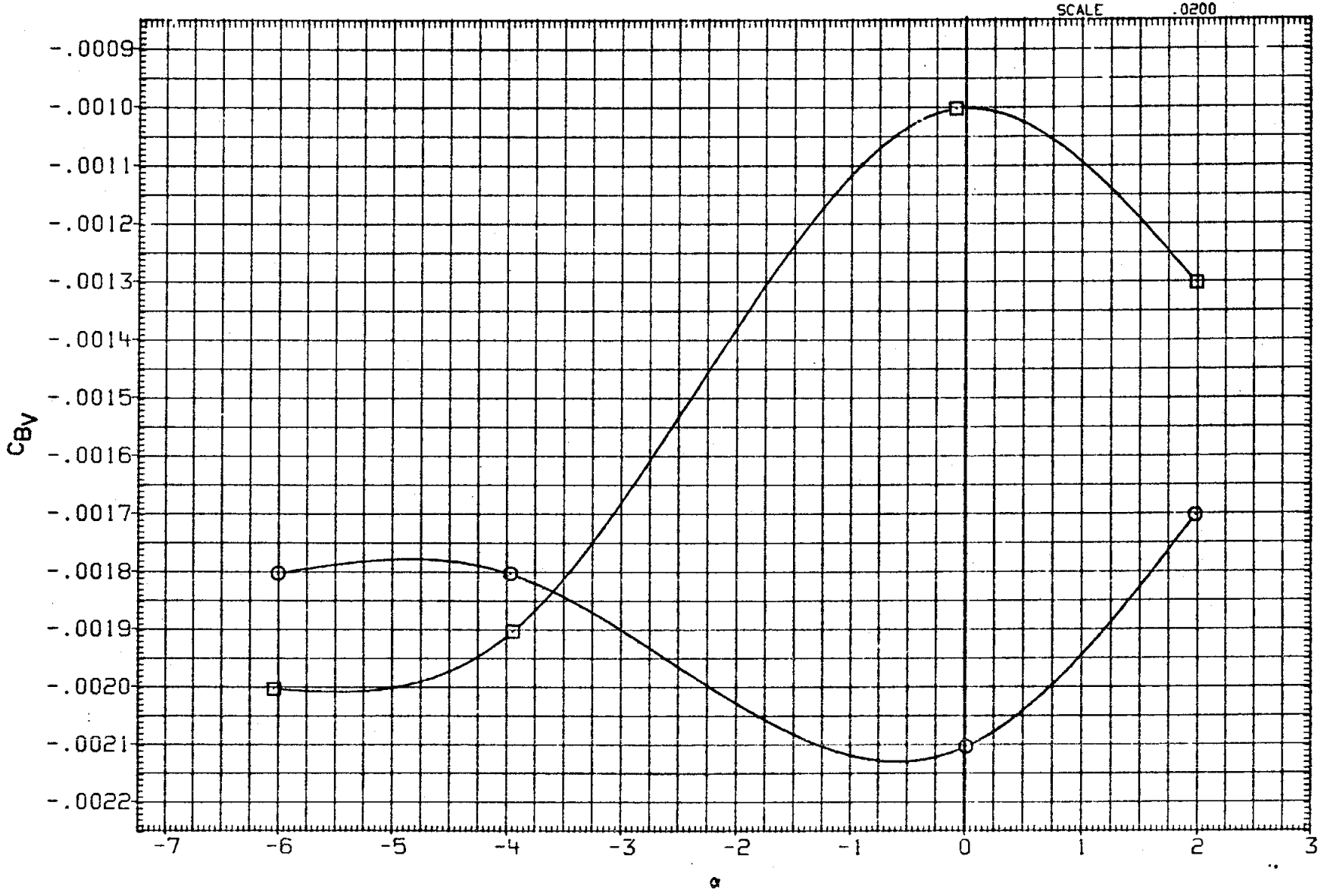

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

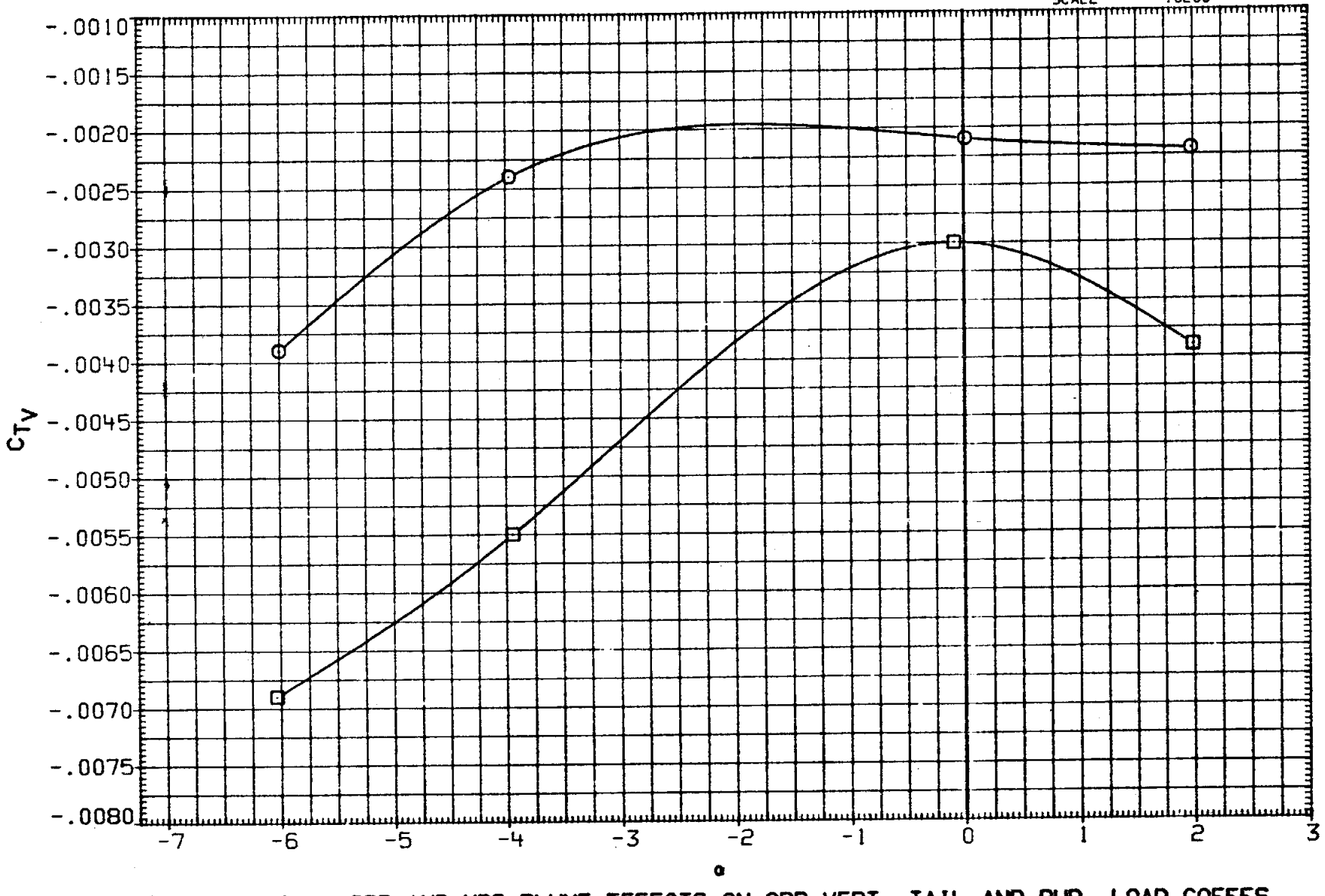

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

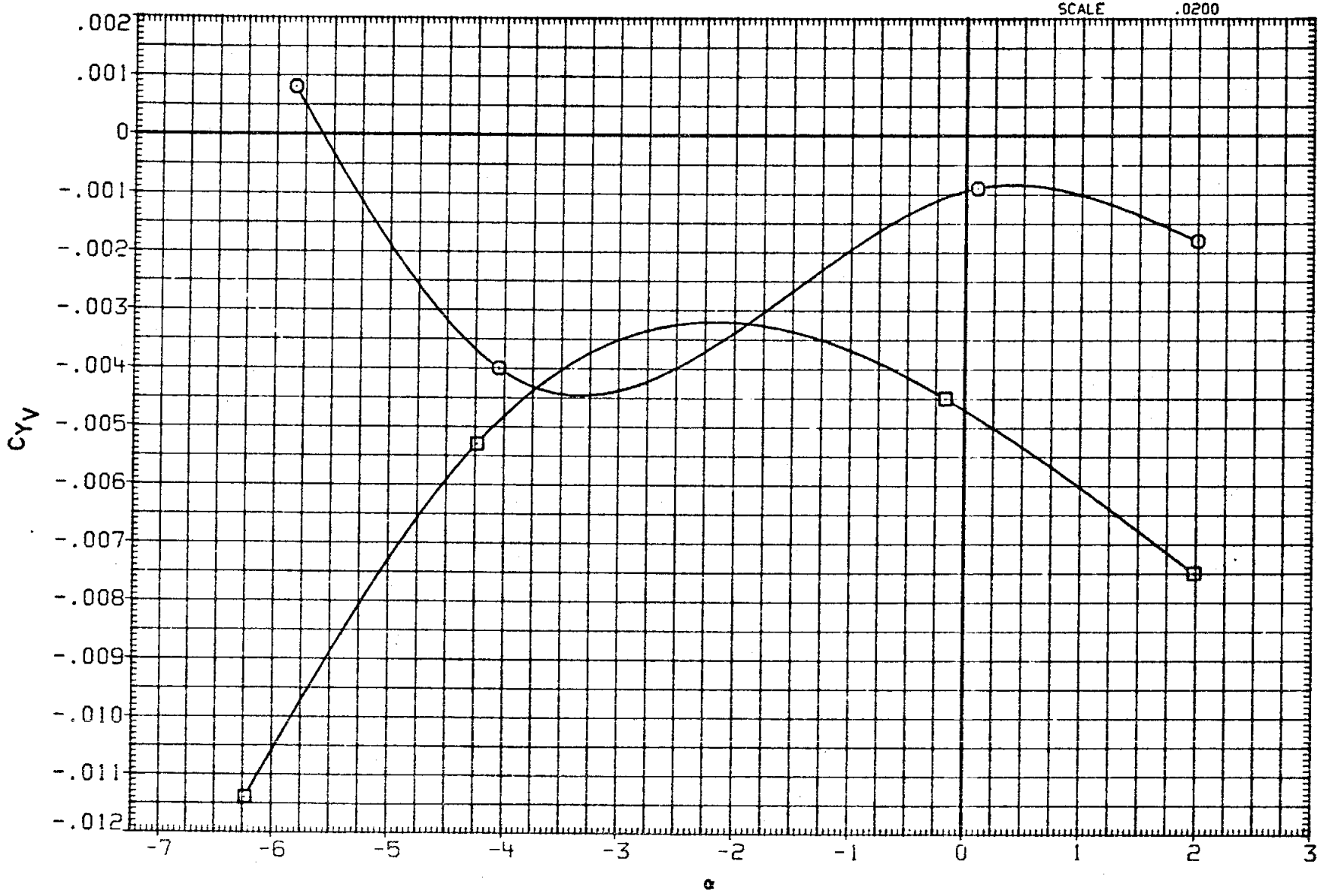

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

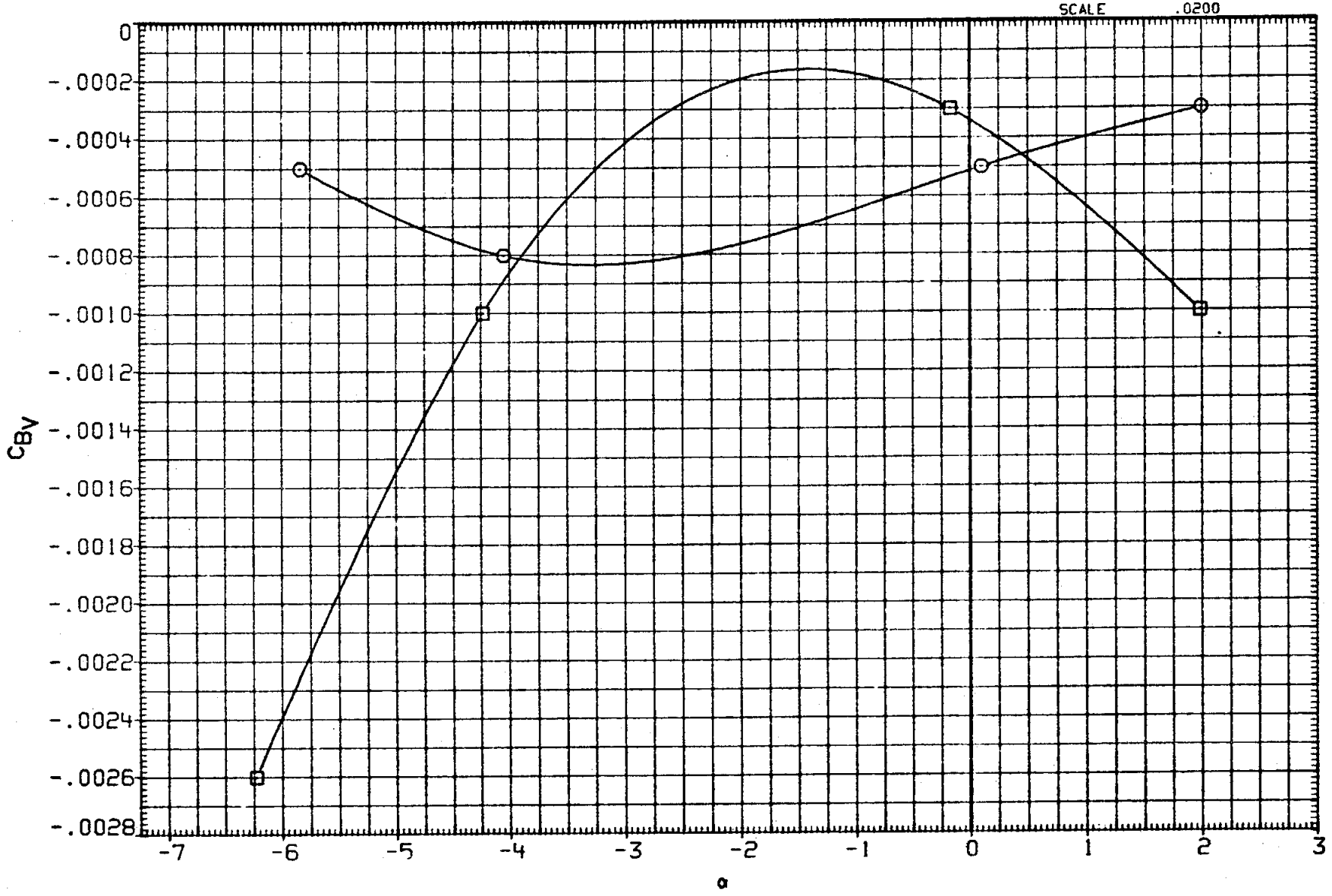

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

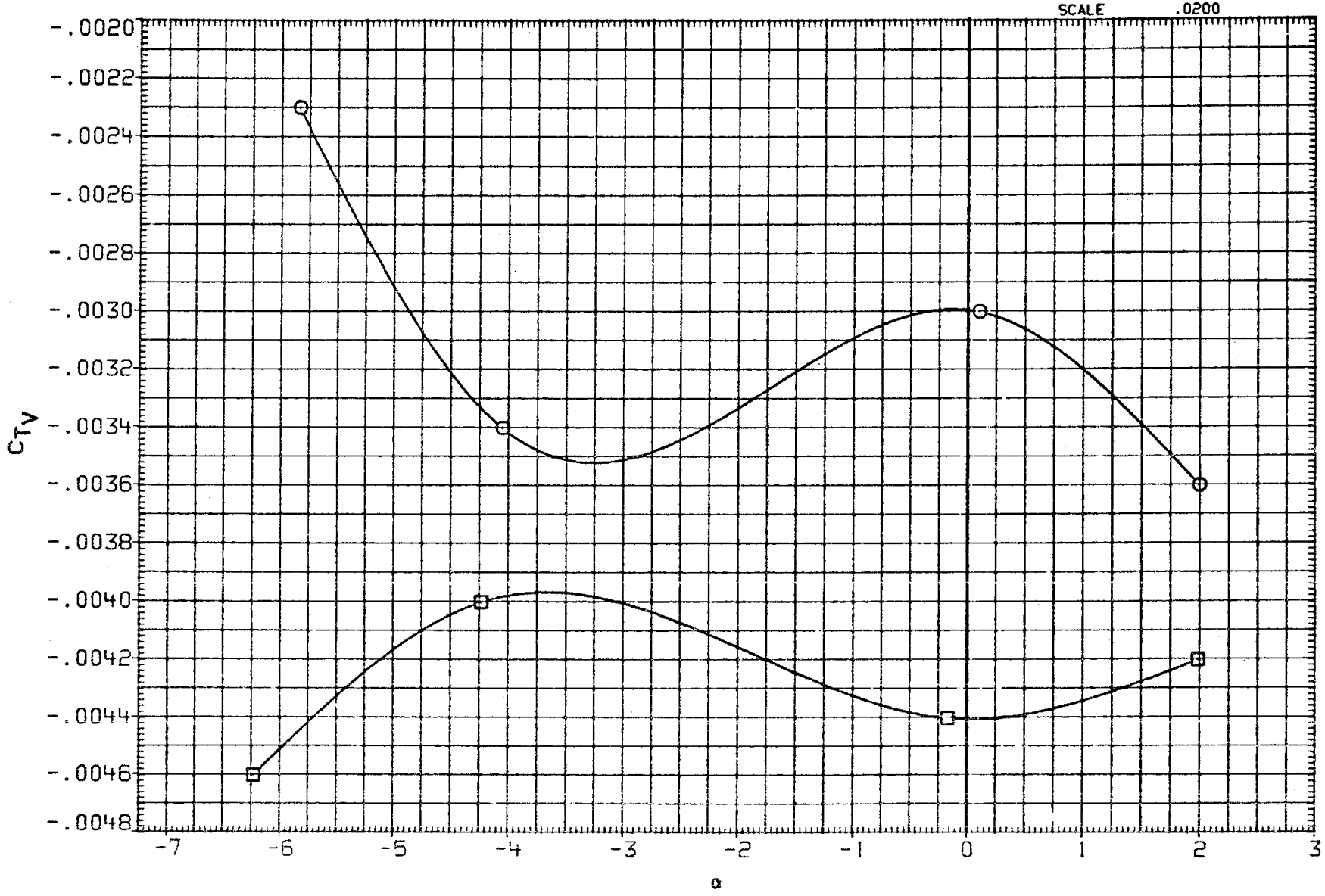

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	OIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

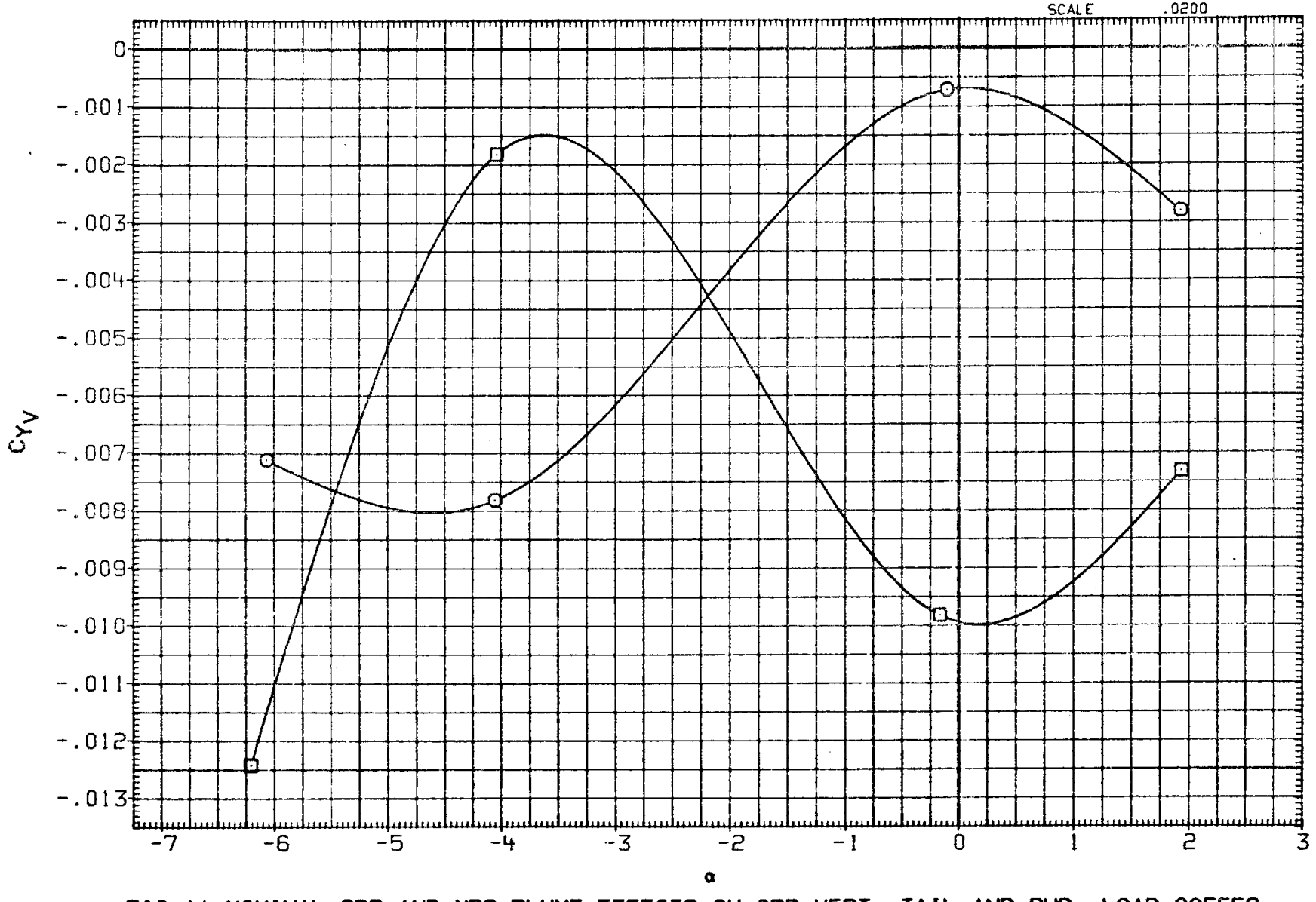

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

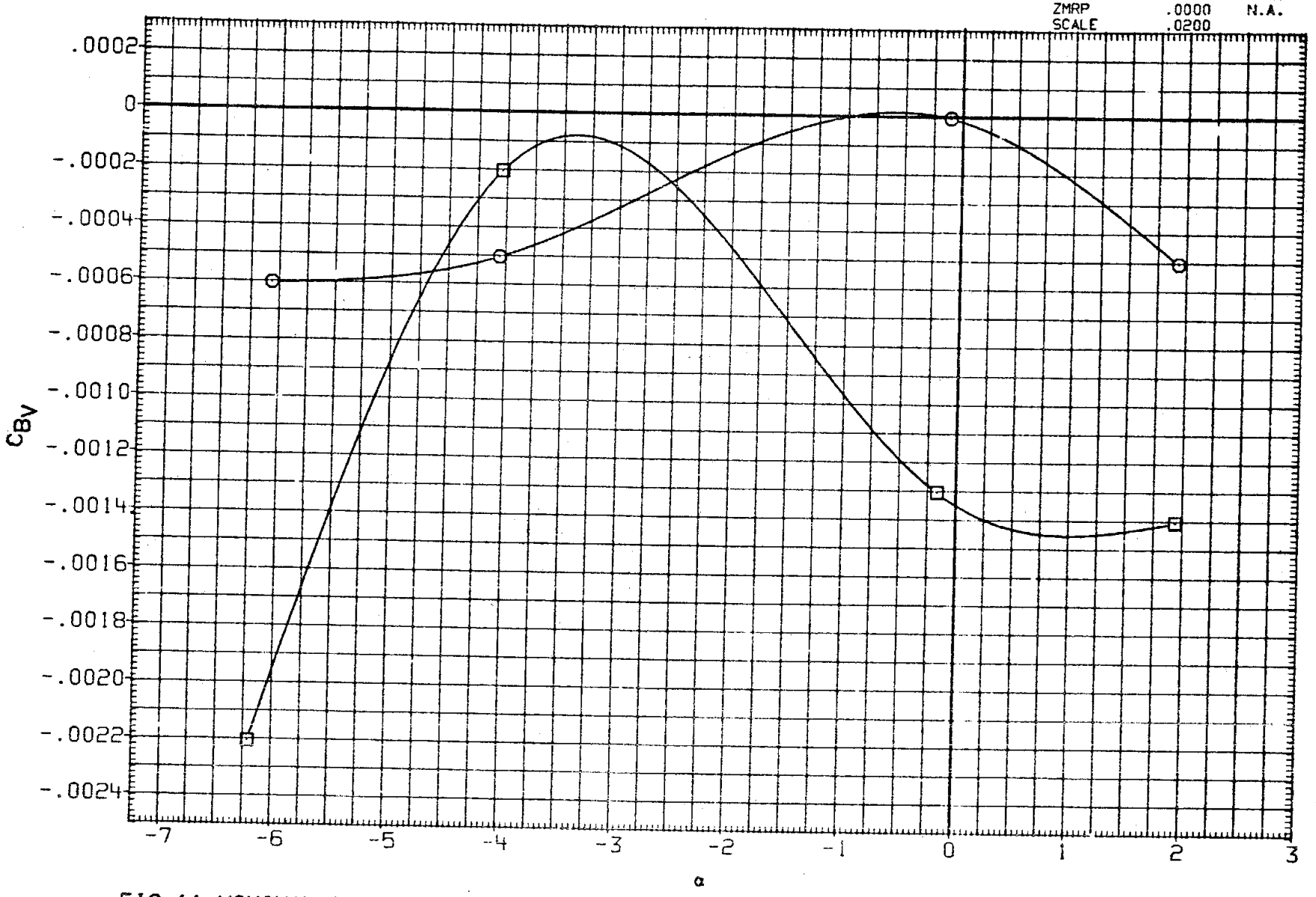

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
BNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

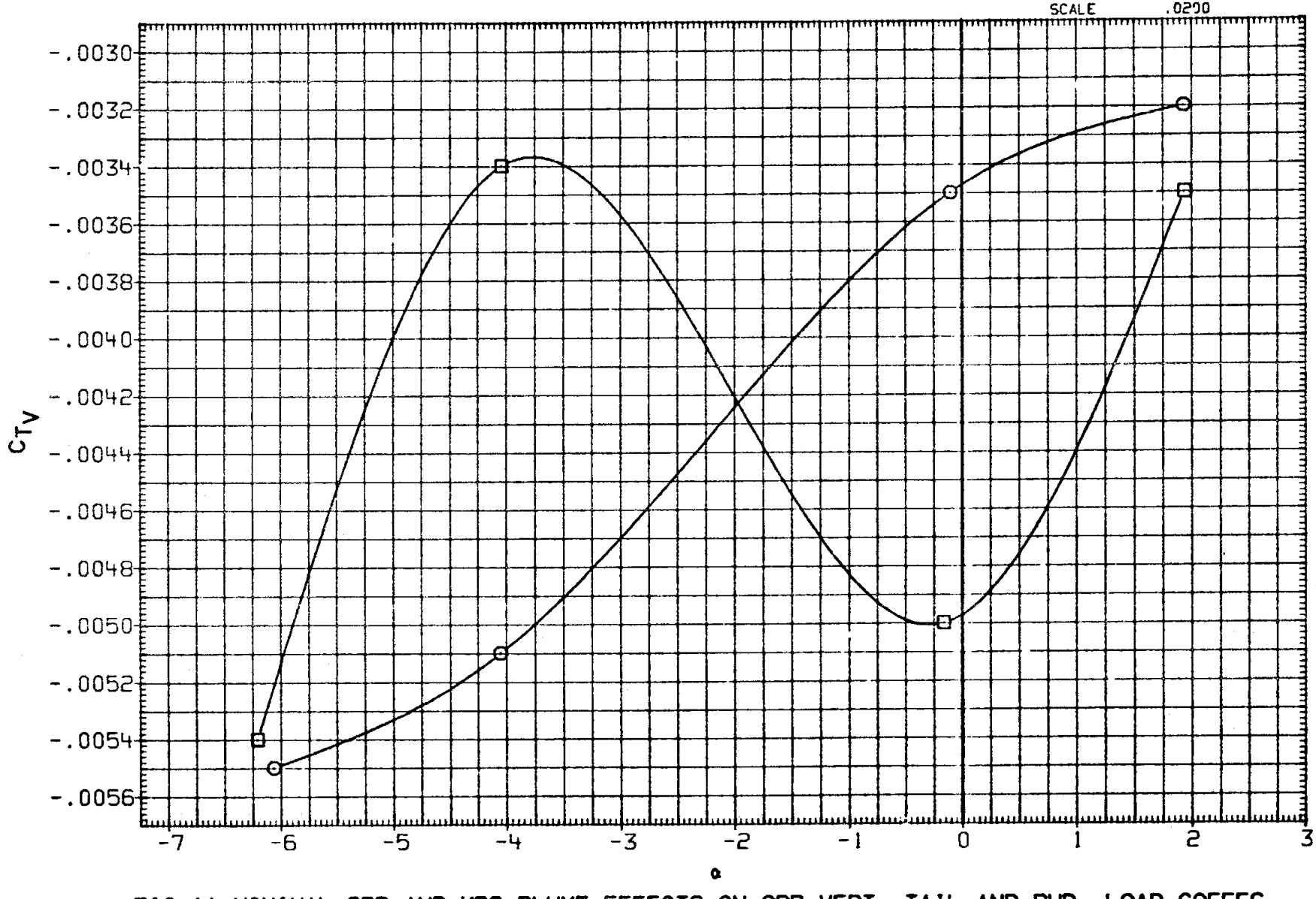

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
HNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

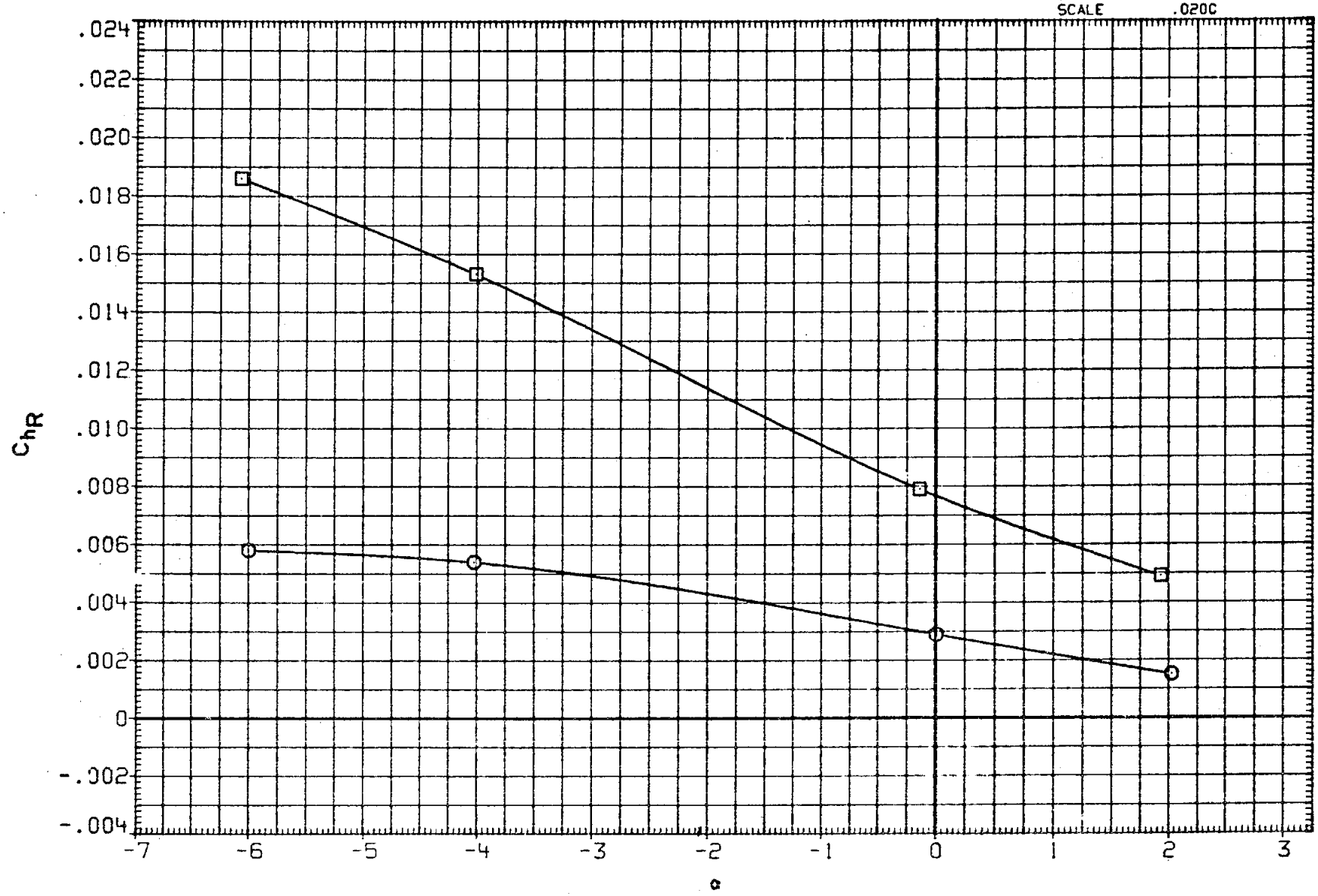

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA32	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
HNEA35	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

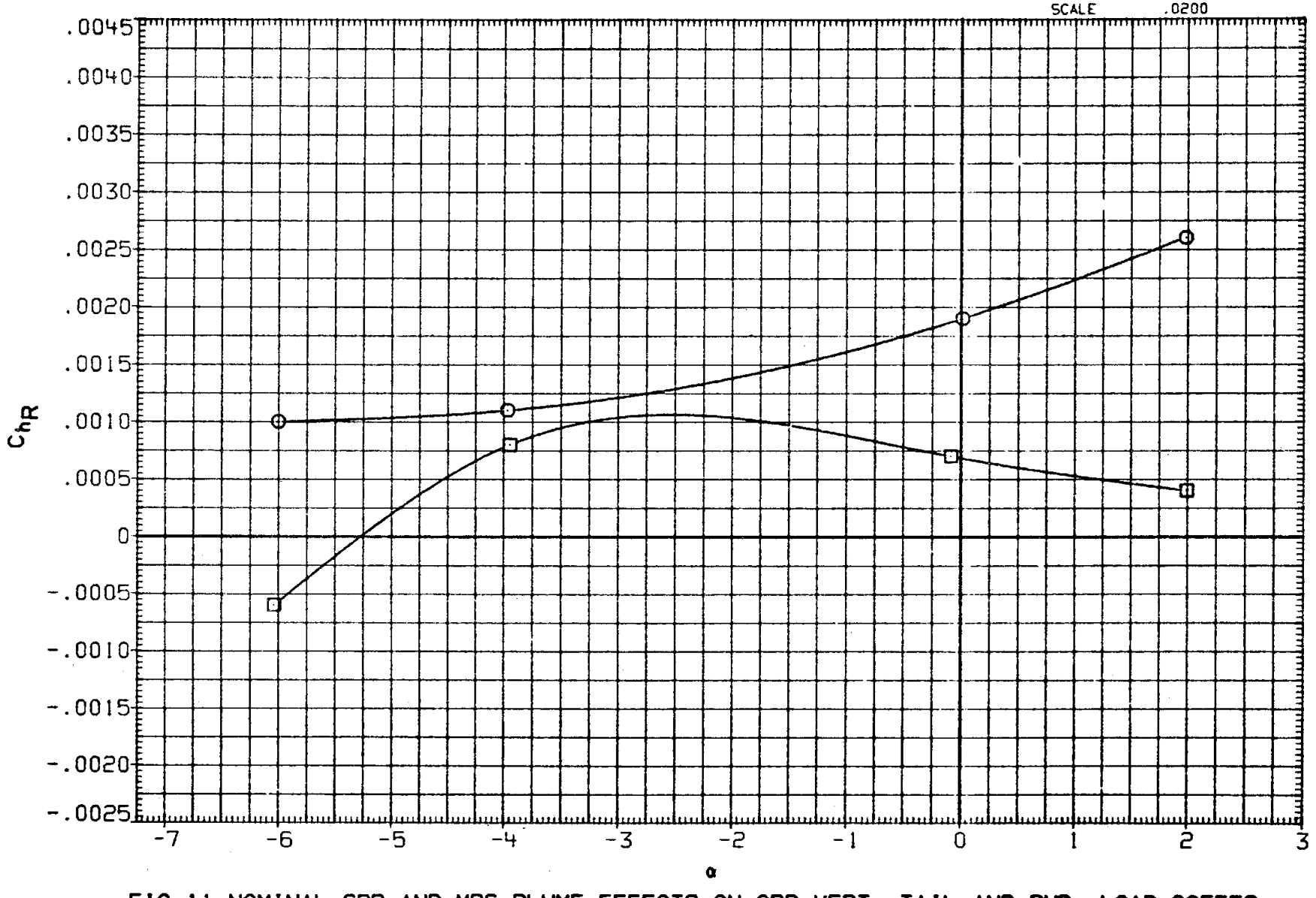

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
HNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

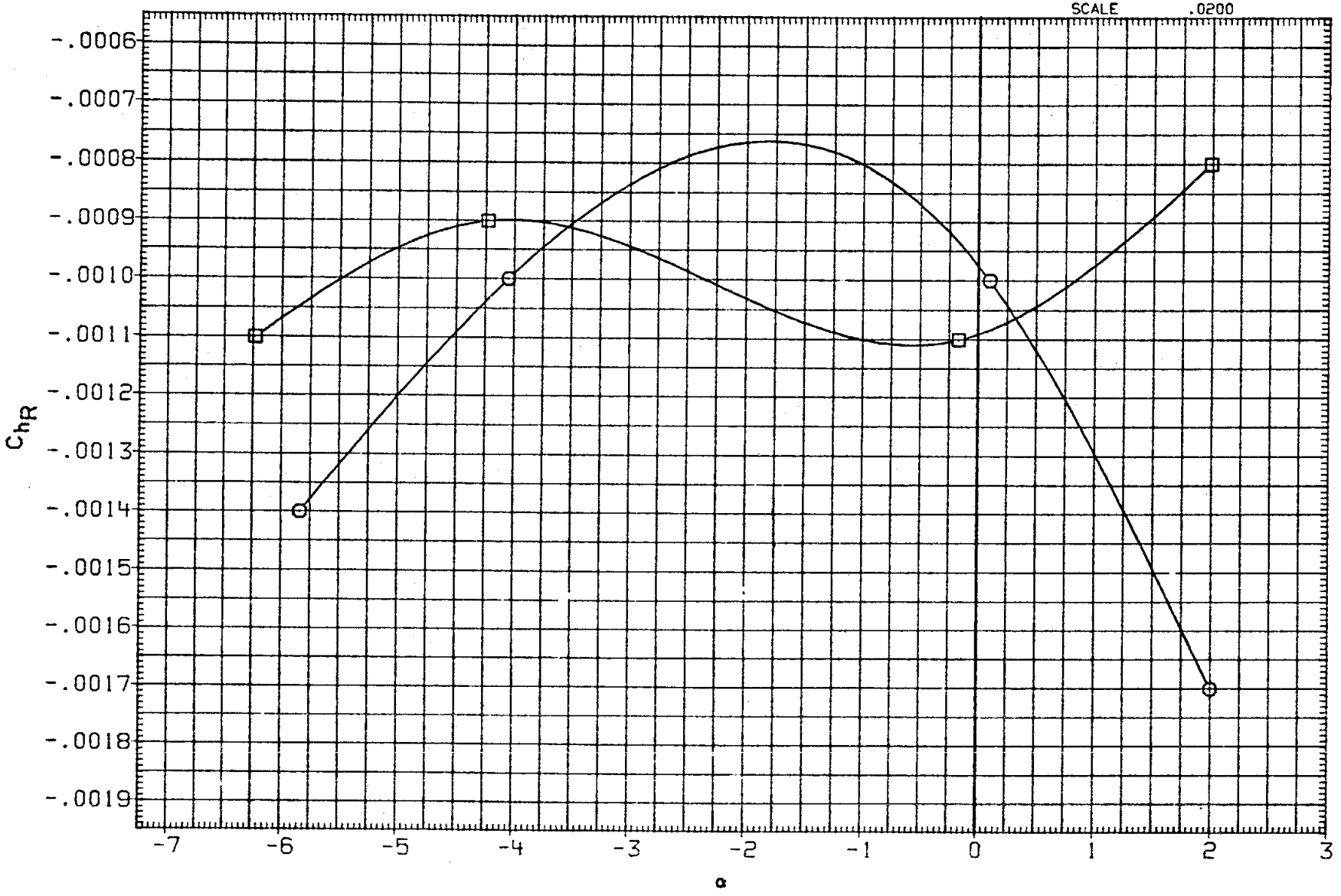

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA32	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	.000
HNEA35	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

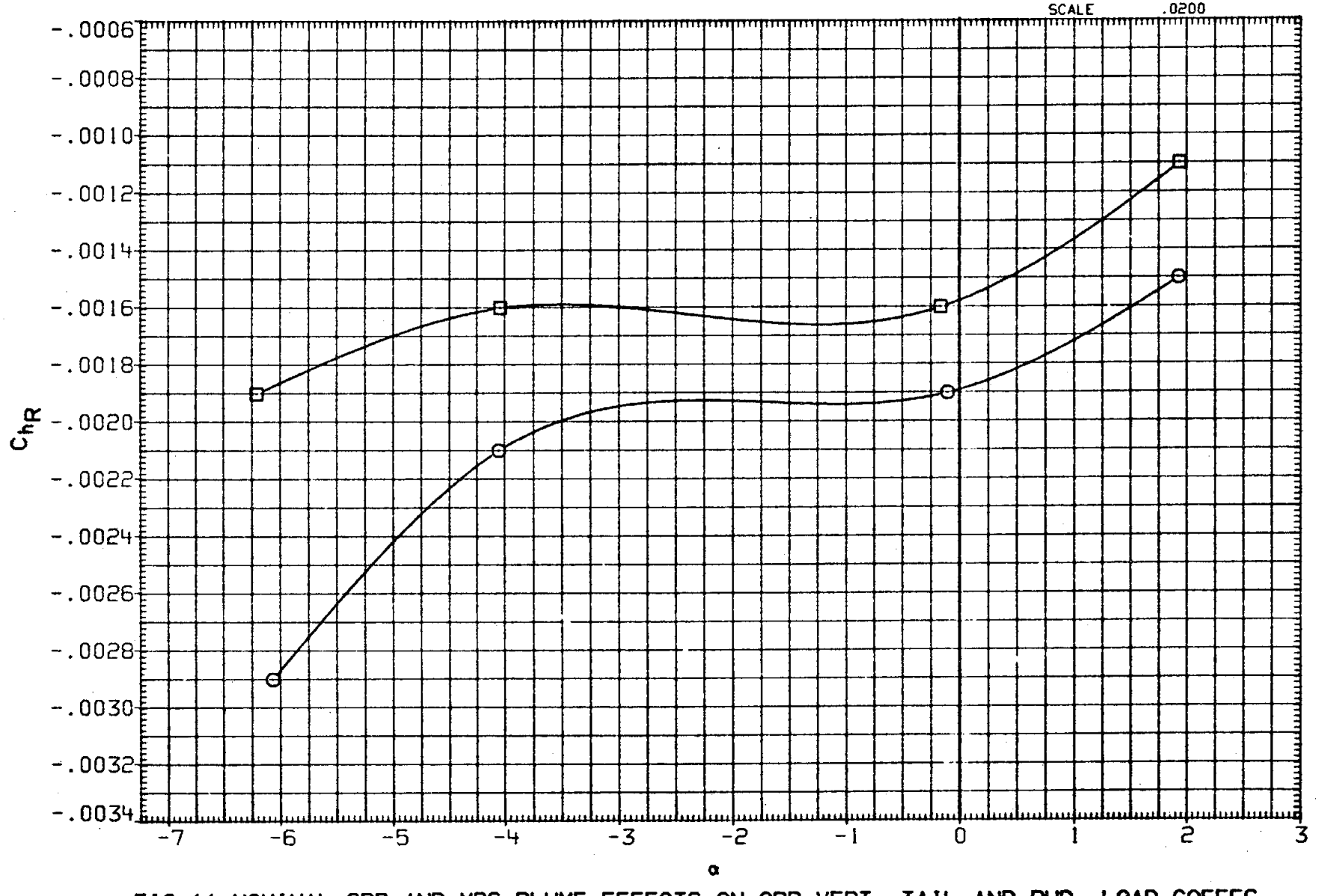

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

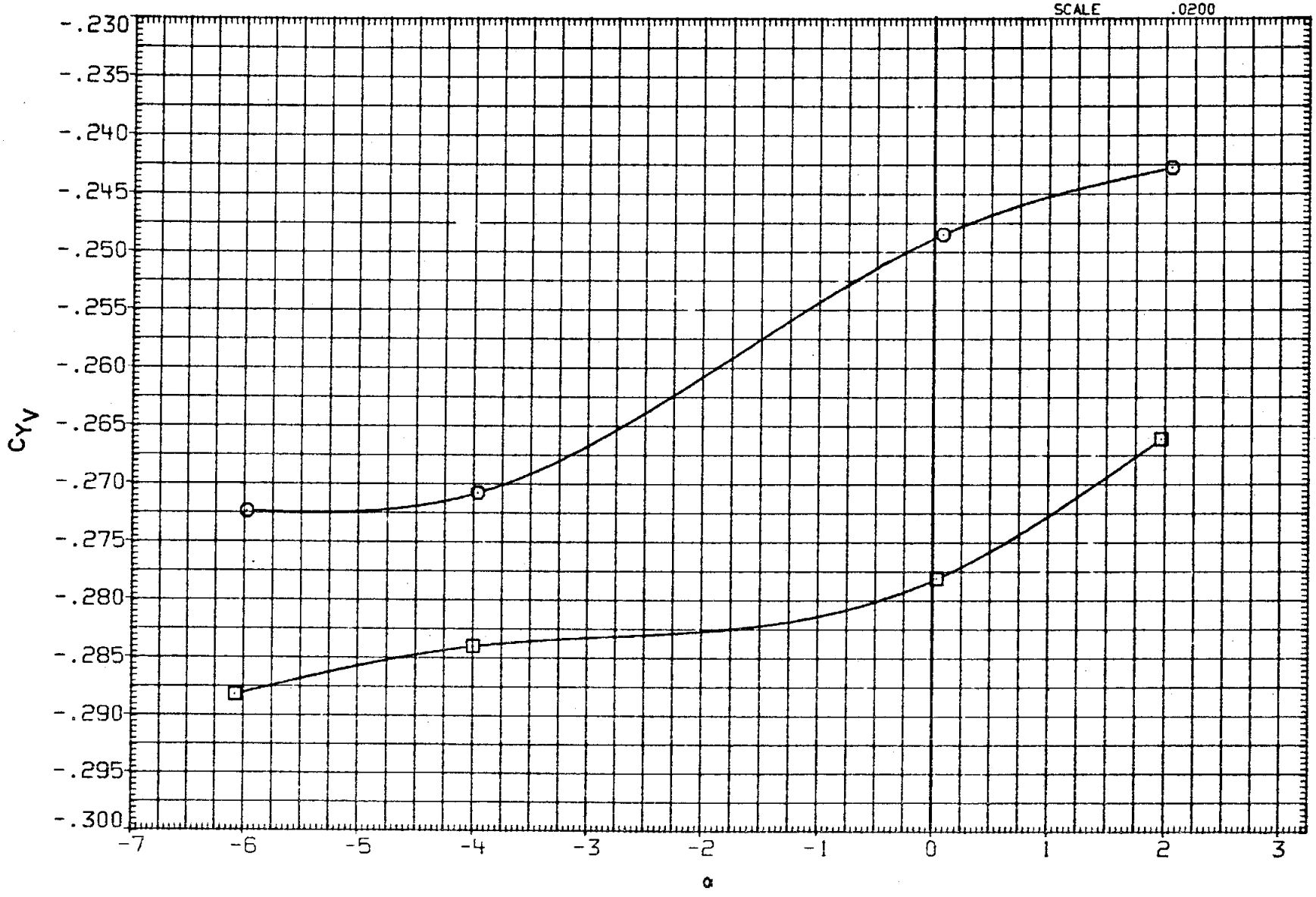

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

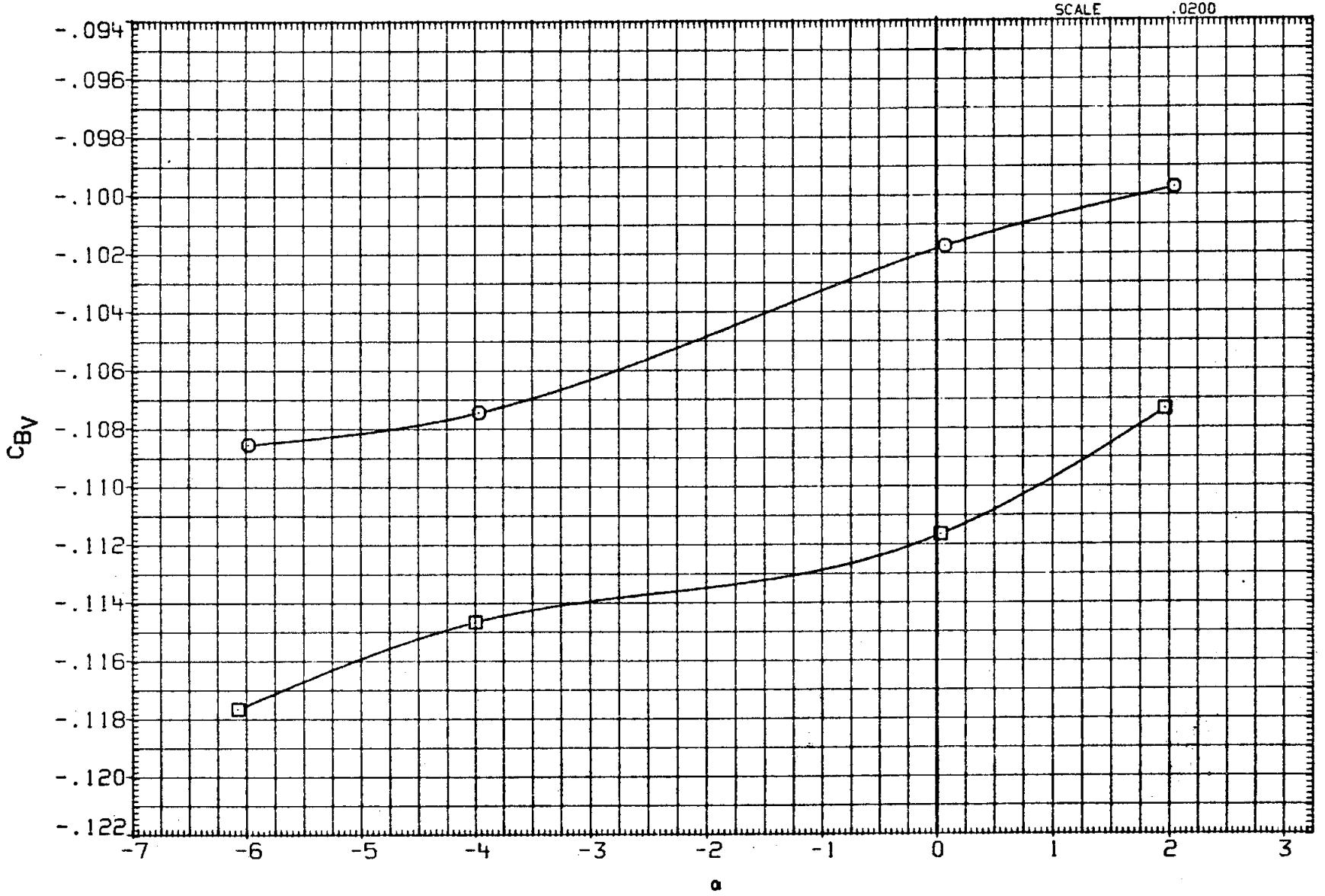

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

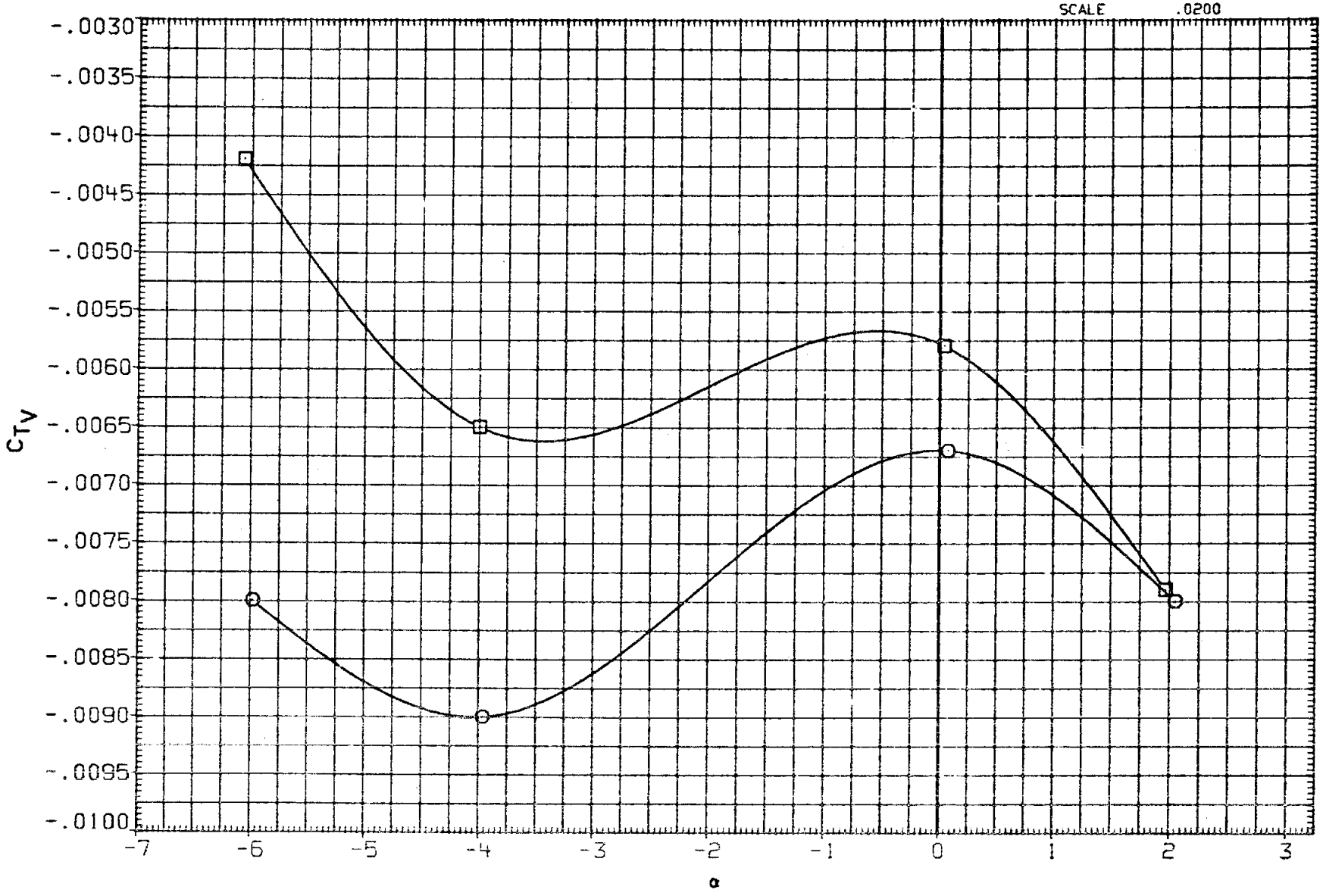

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

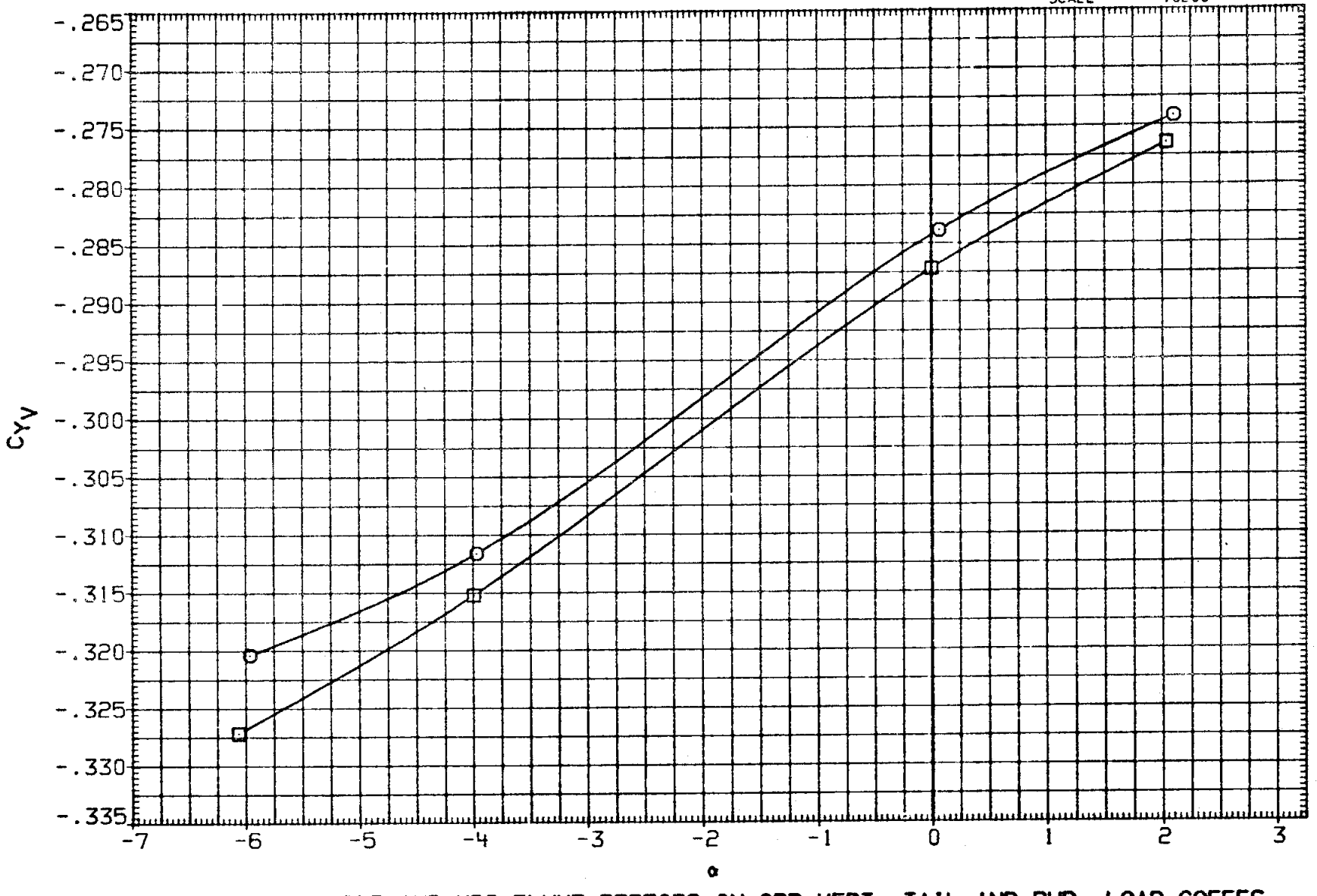

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

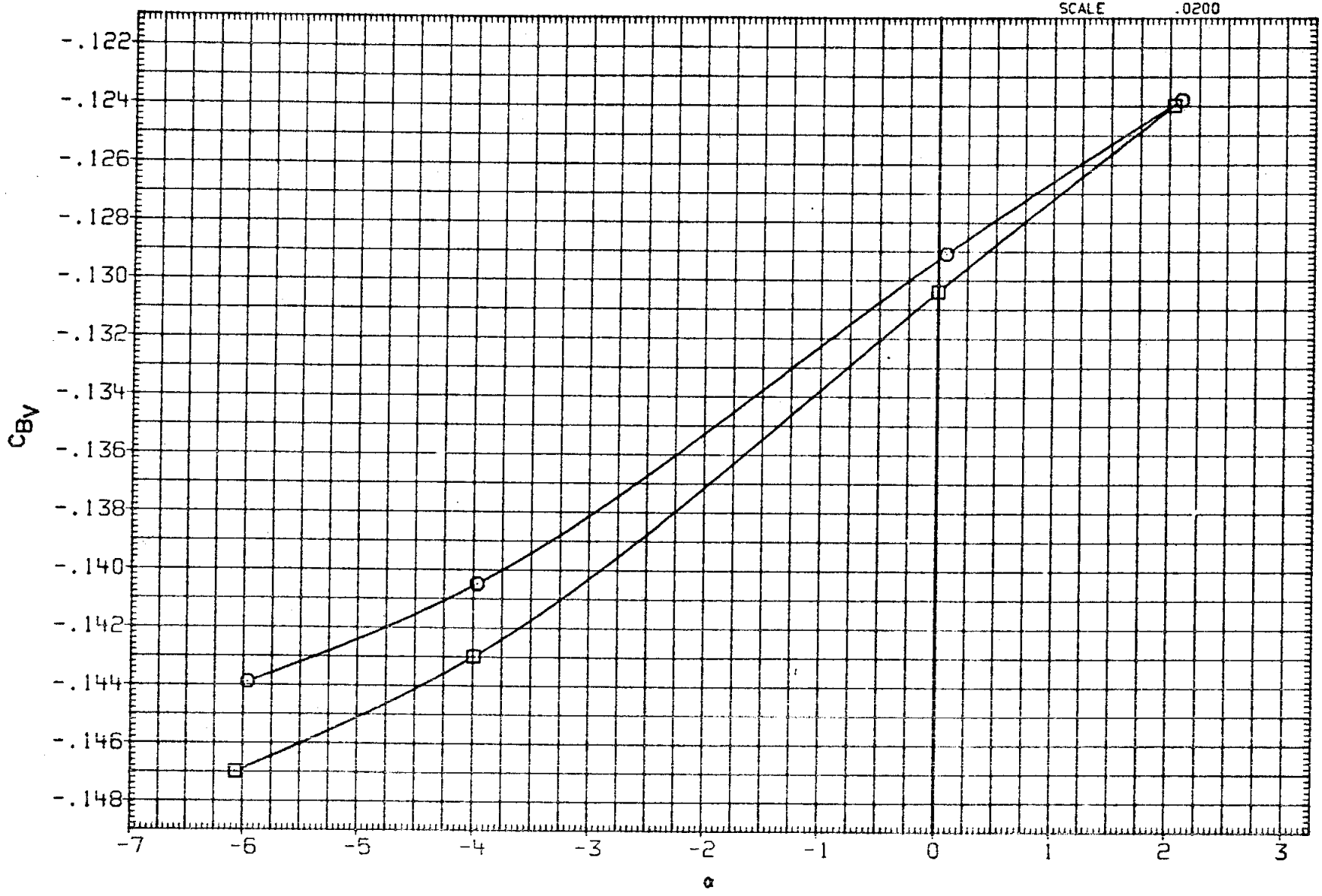

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

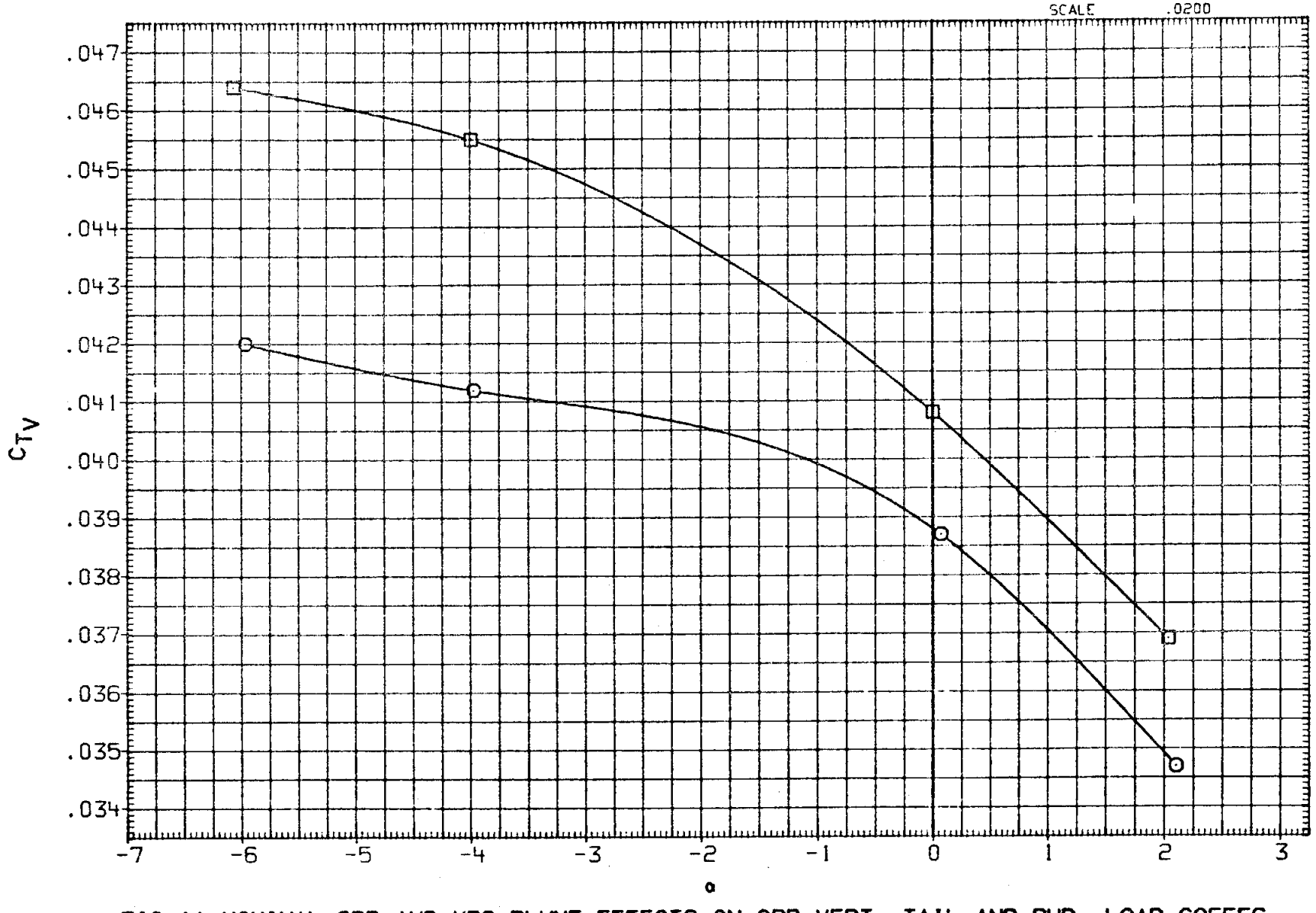

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

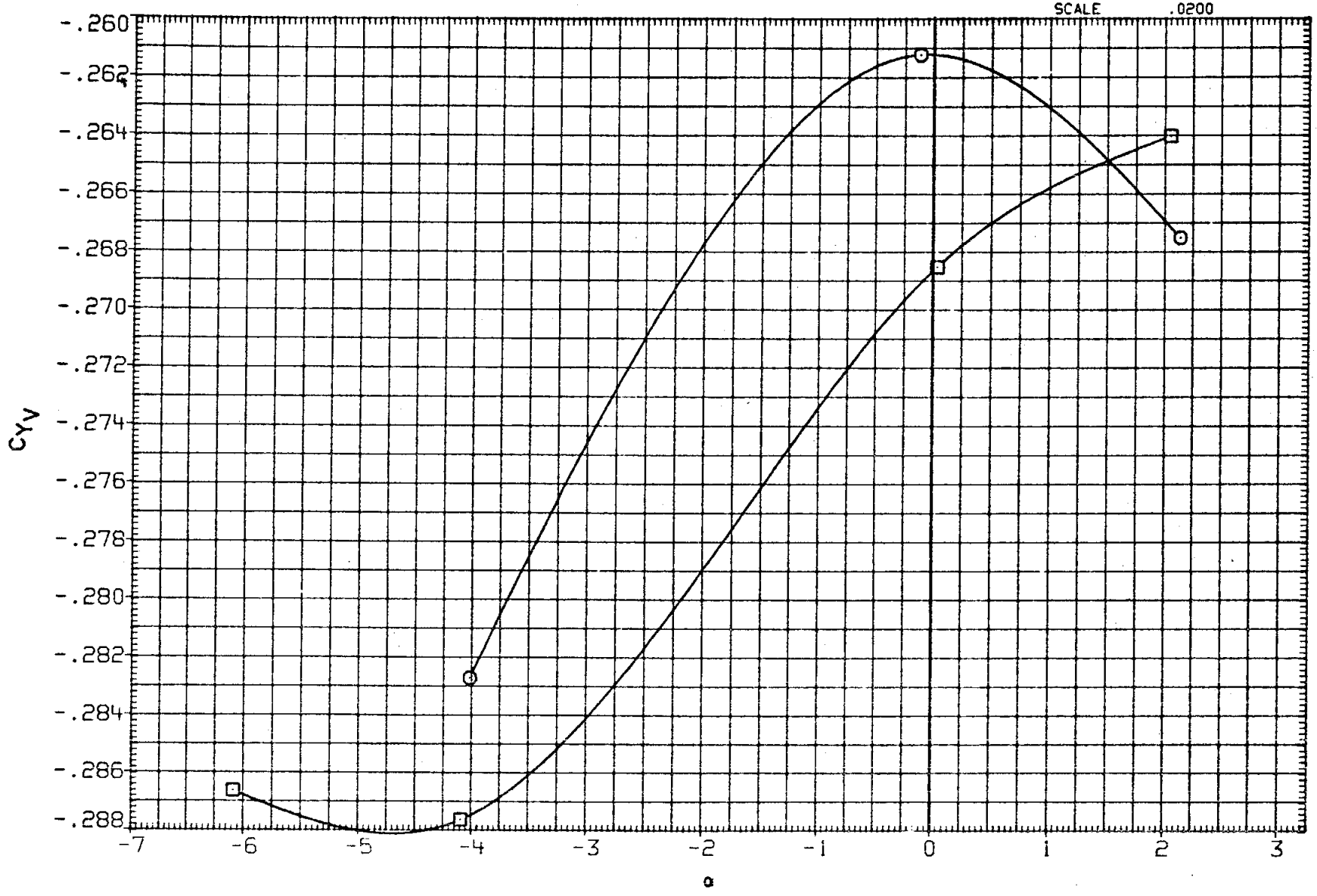

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

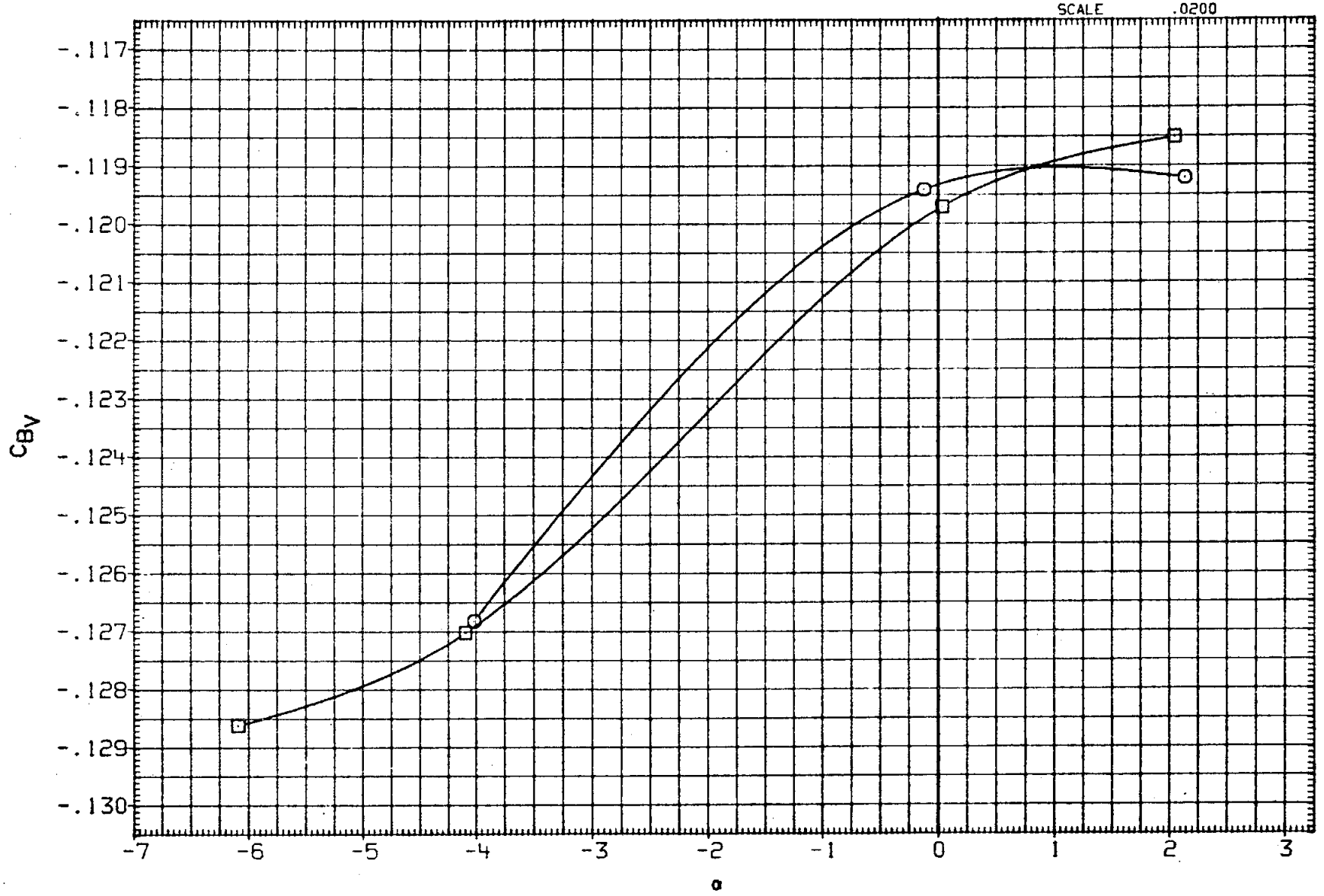

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

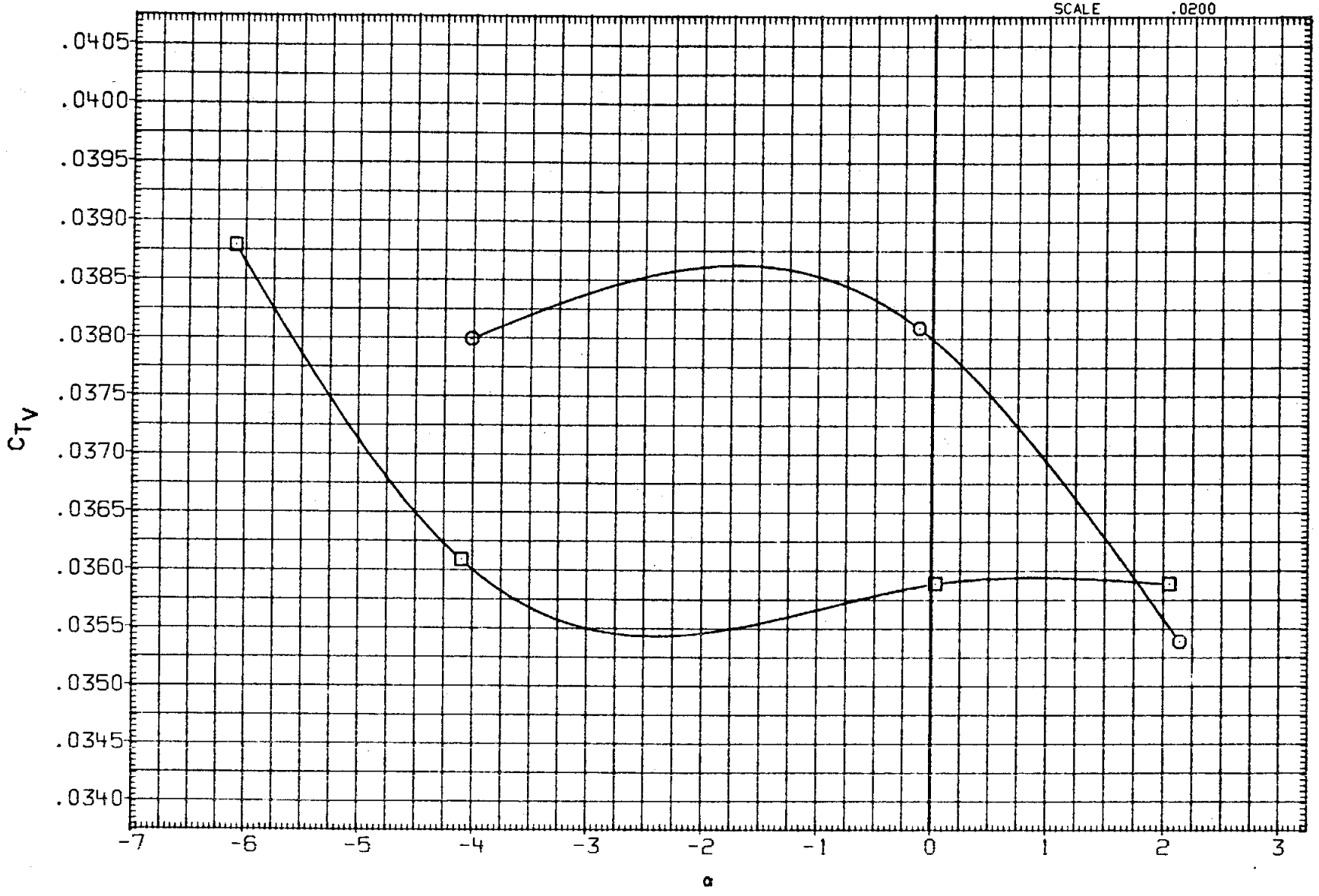

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

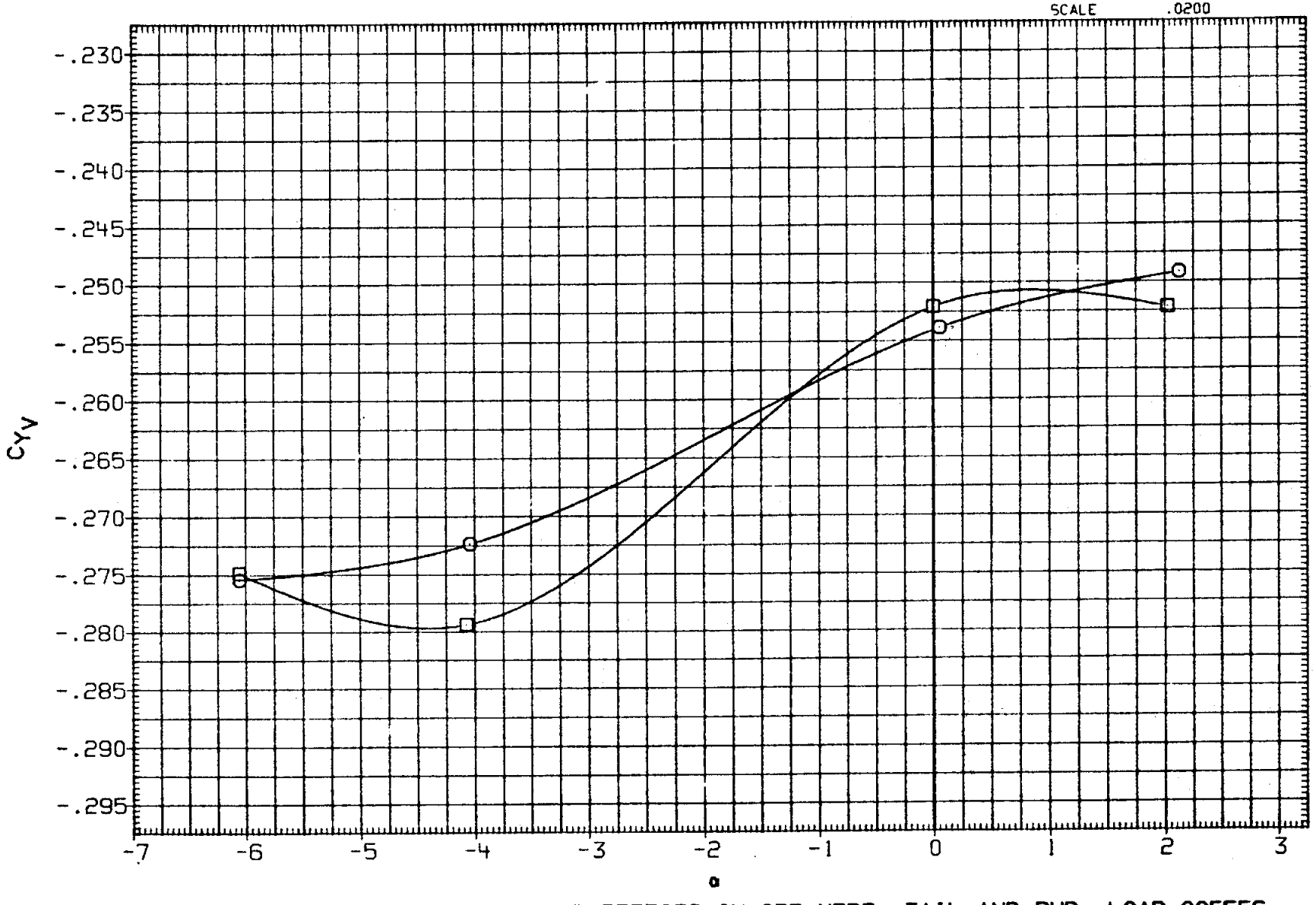

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

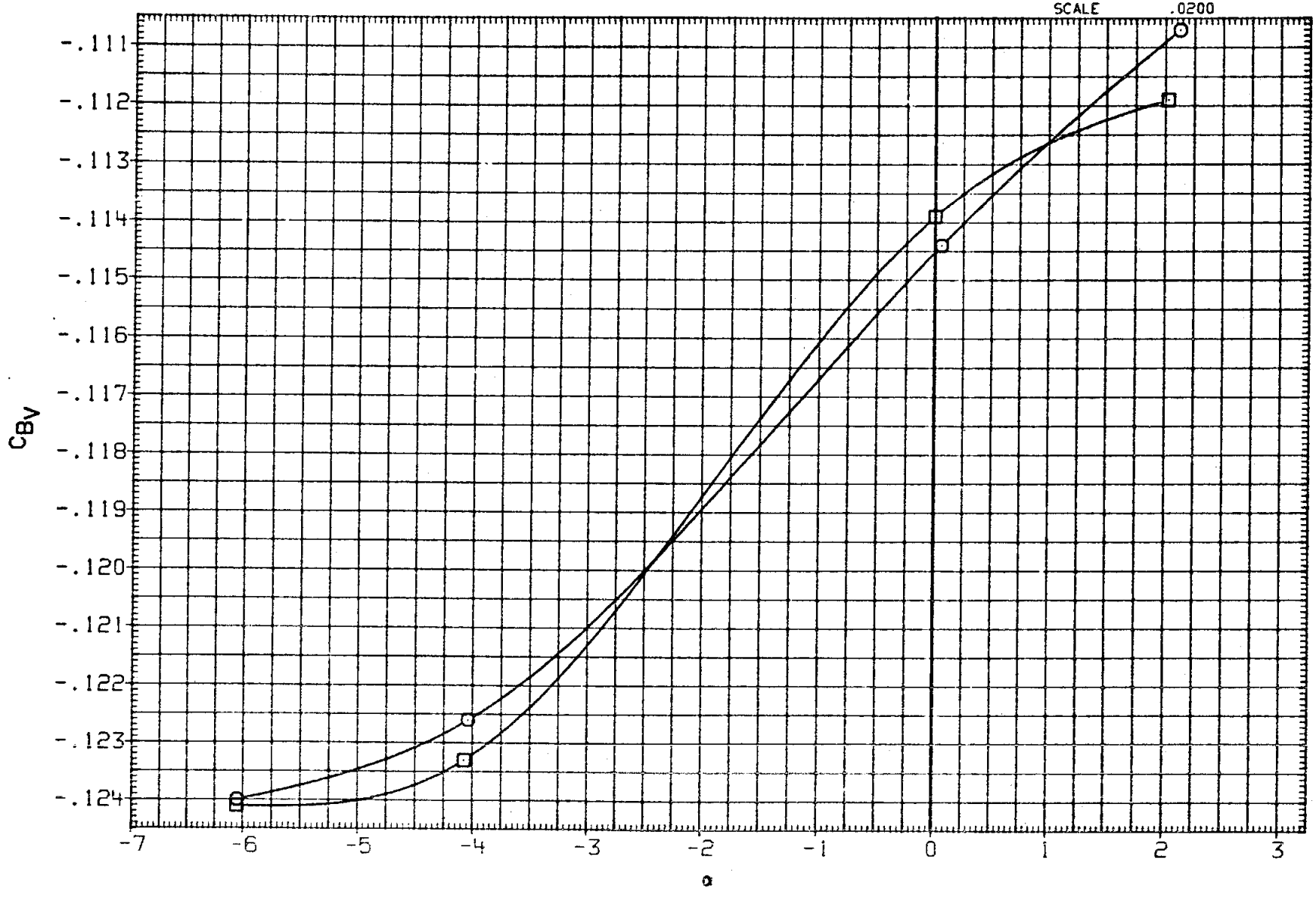

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
BNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

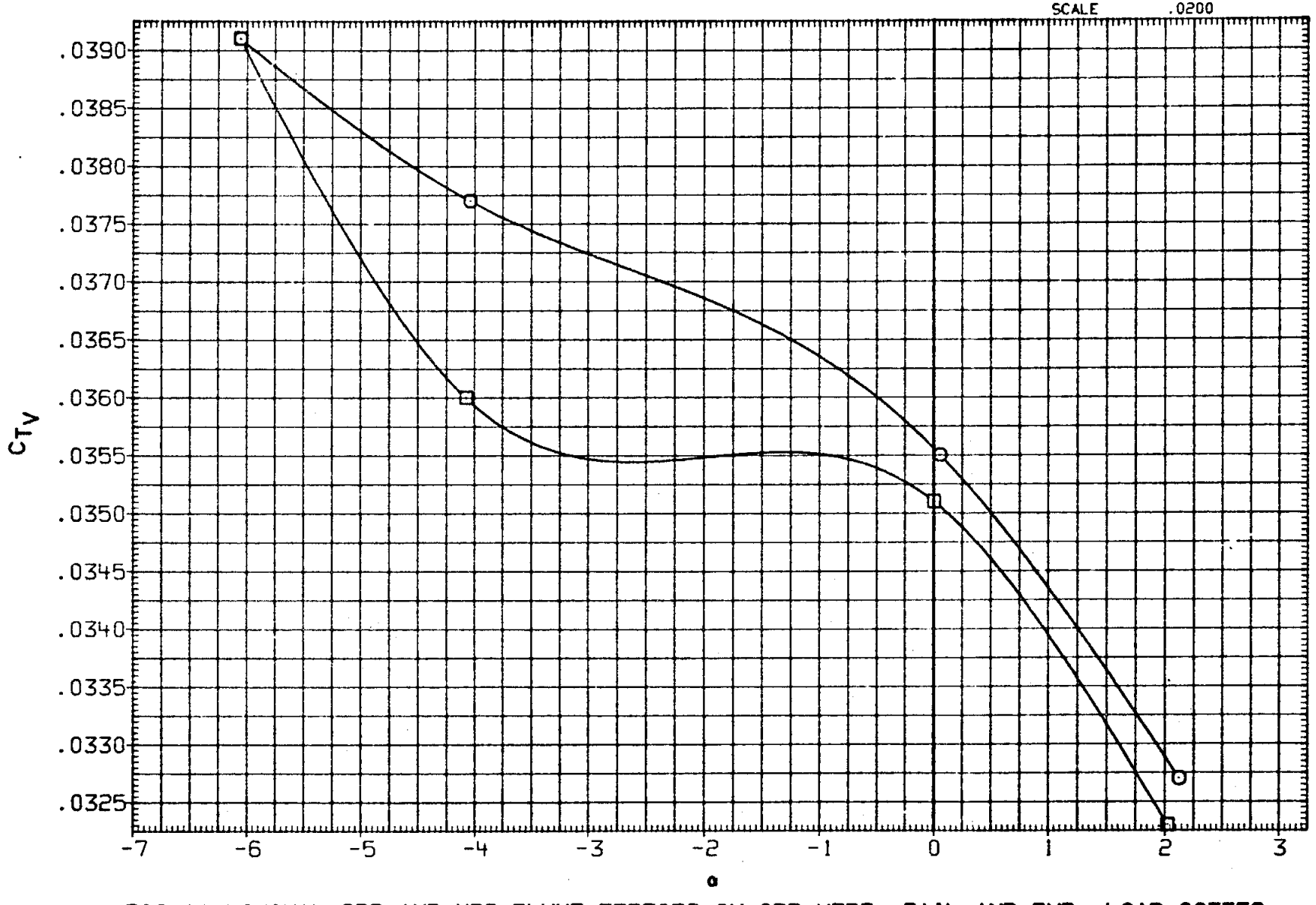

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
HNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

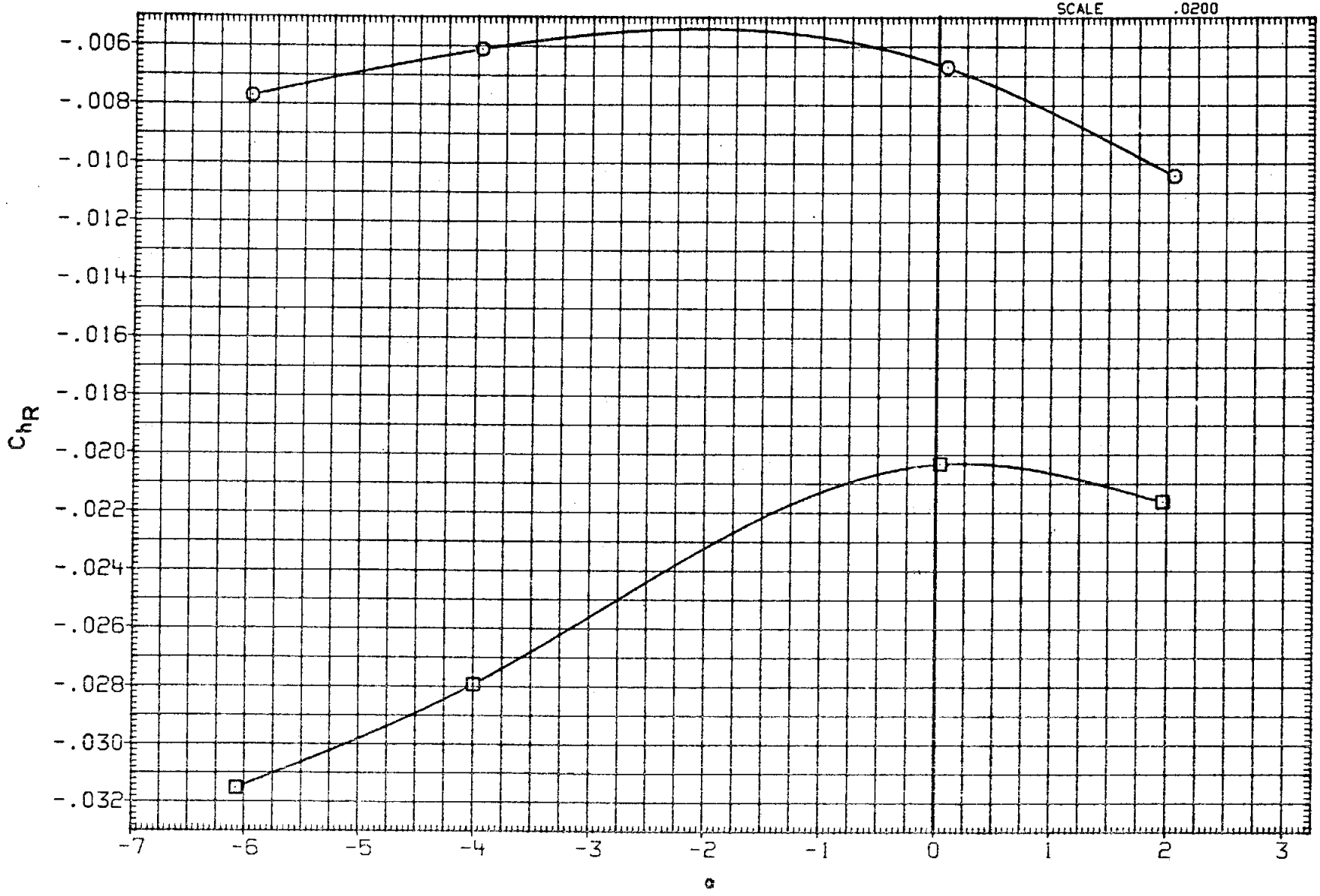

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
HNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

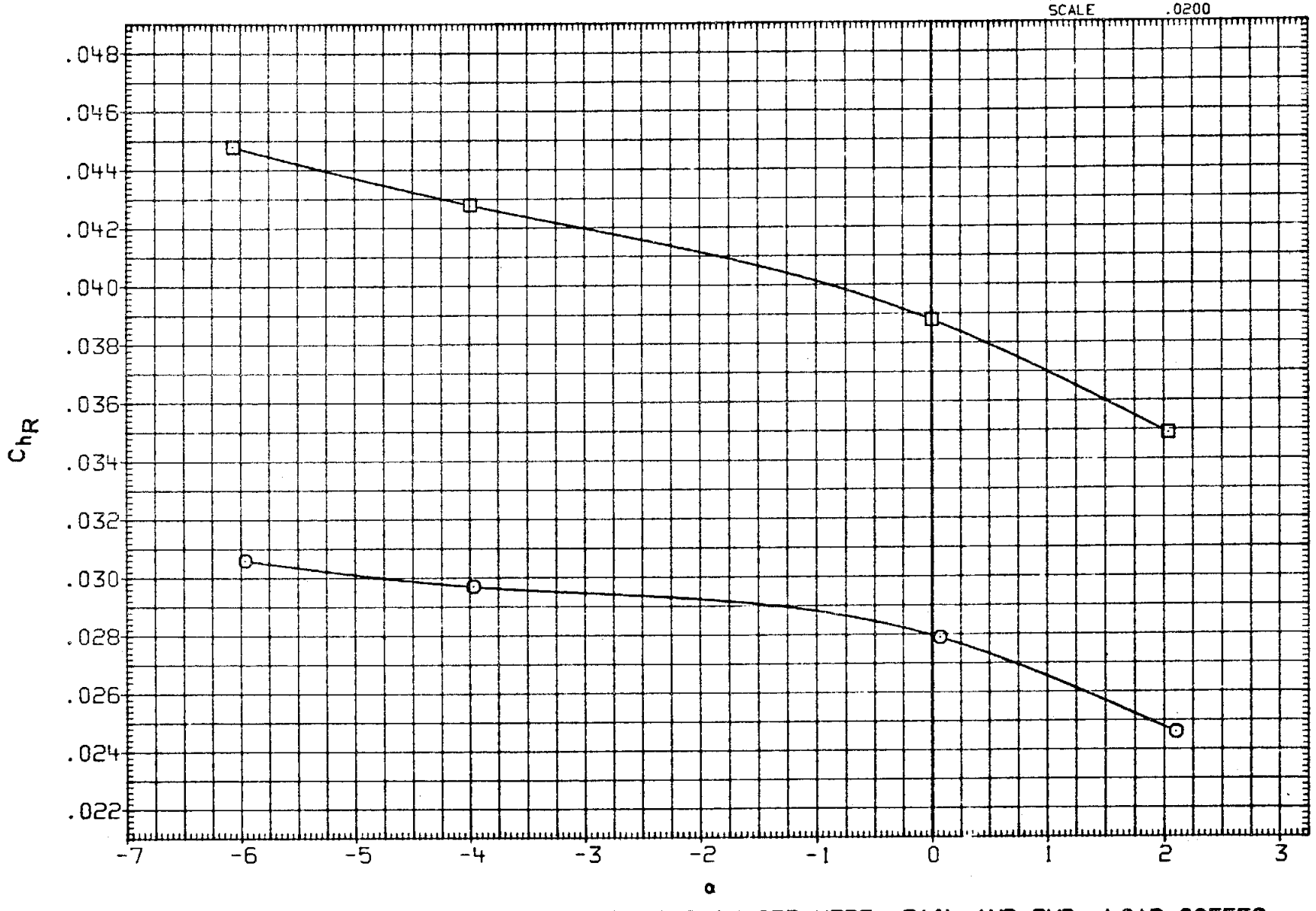

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA33	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
HNEA36	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

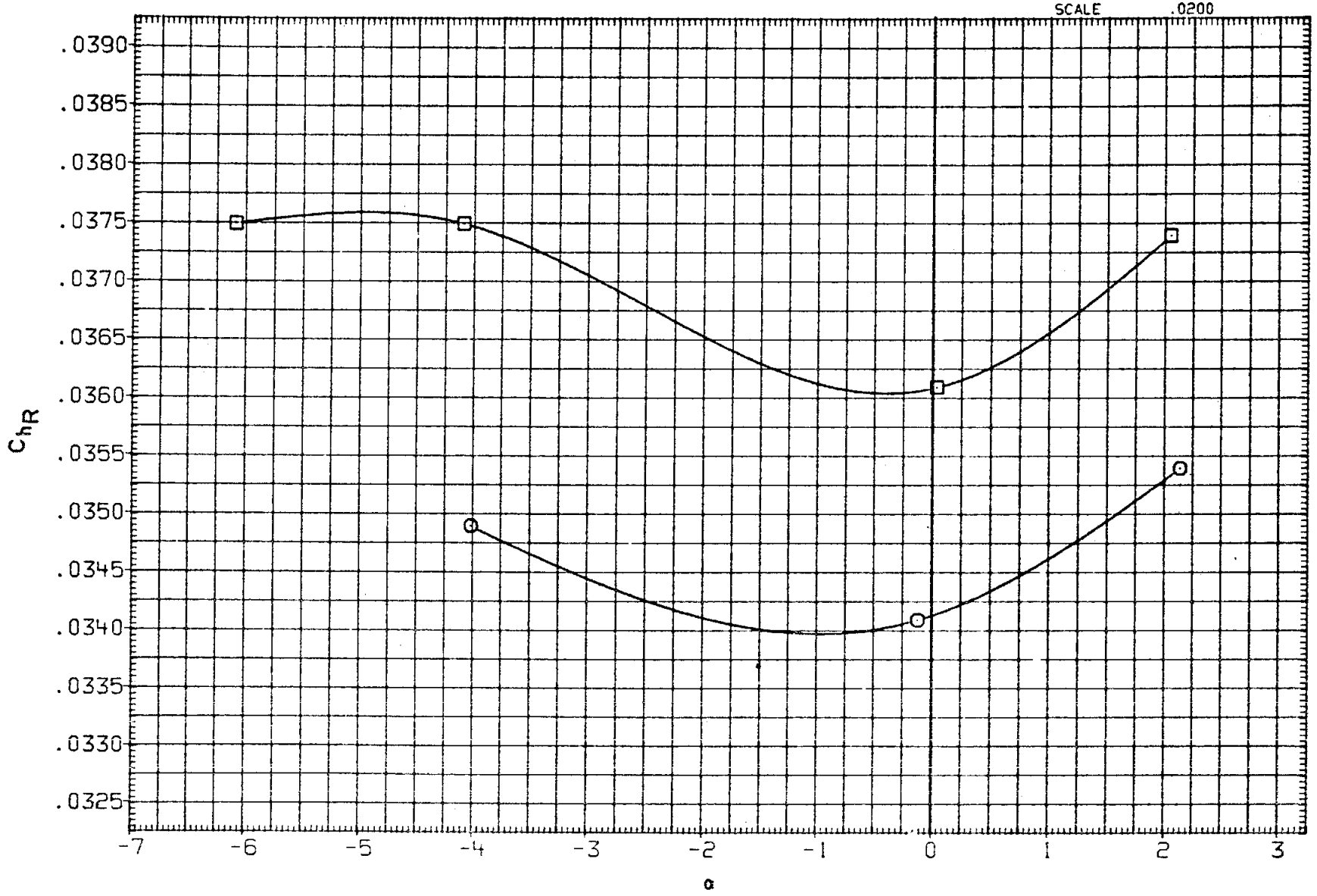

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA33	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	.000
HNEA36	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

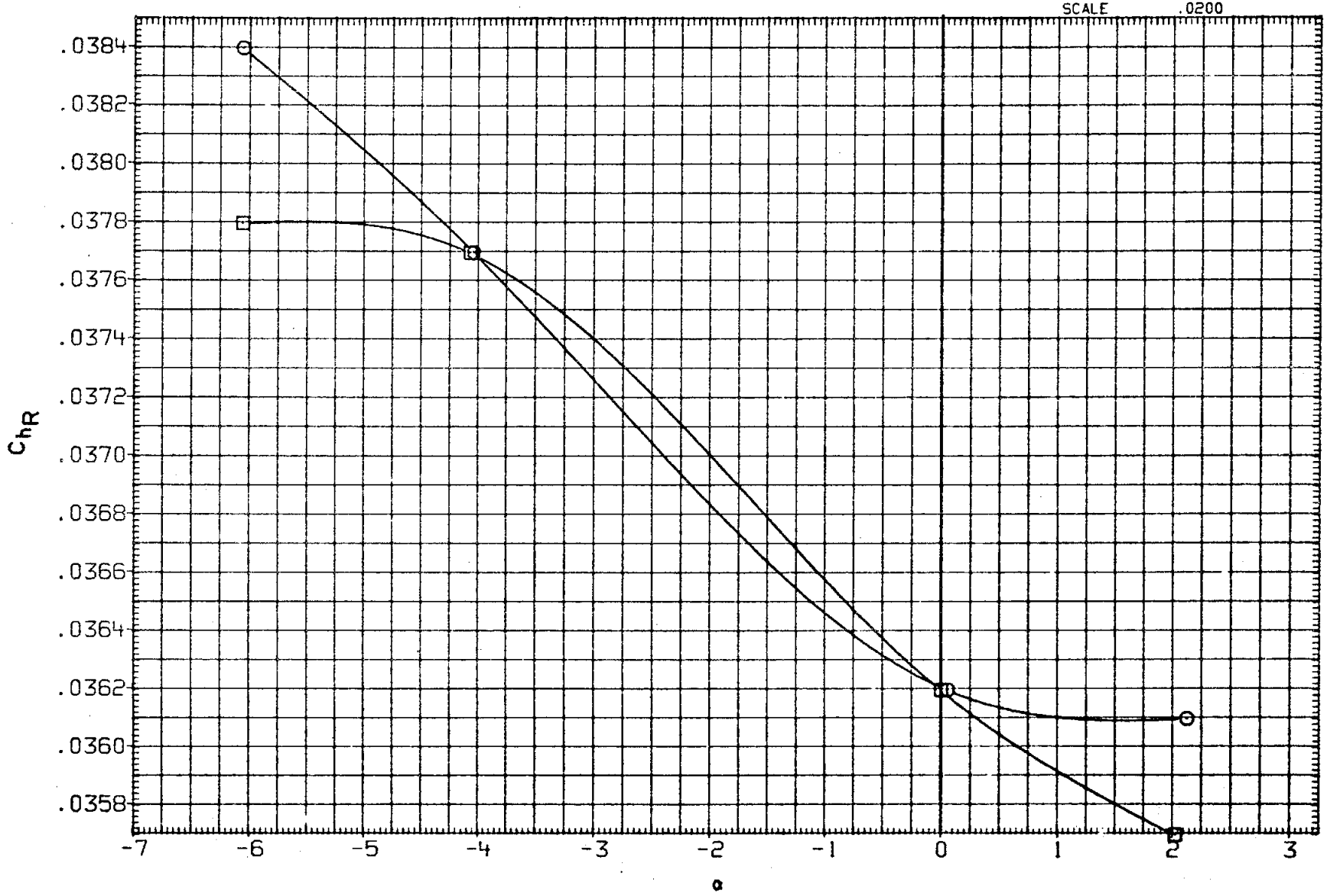

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

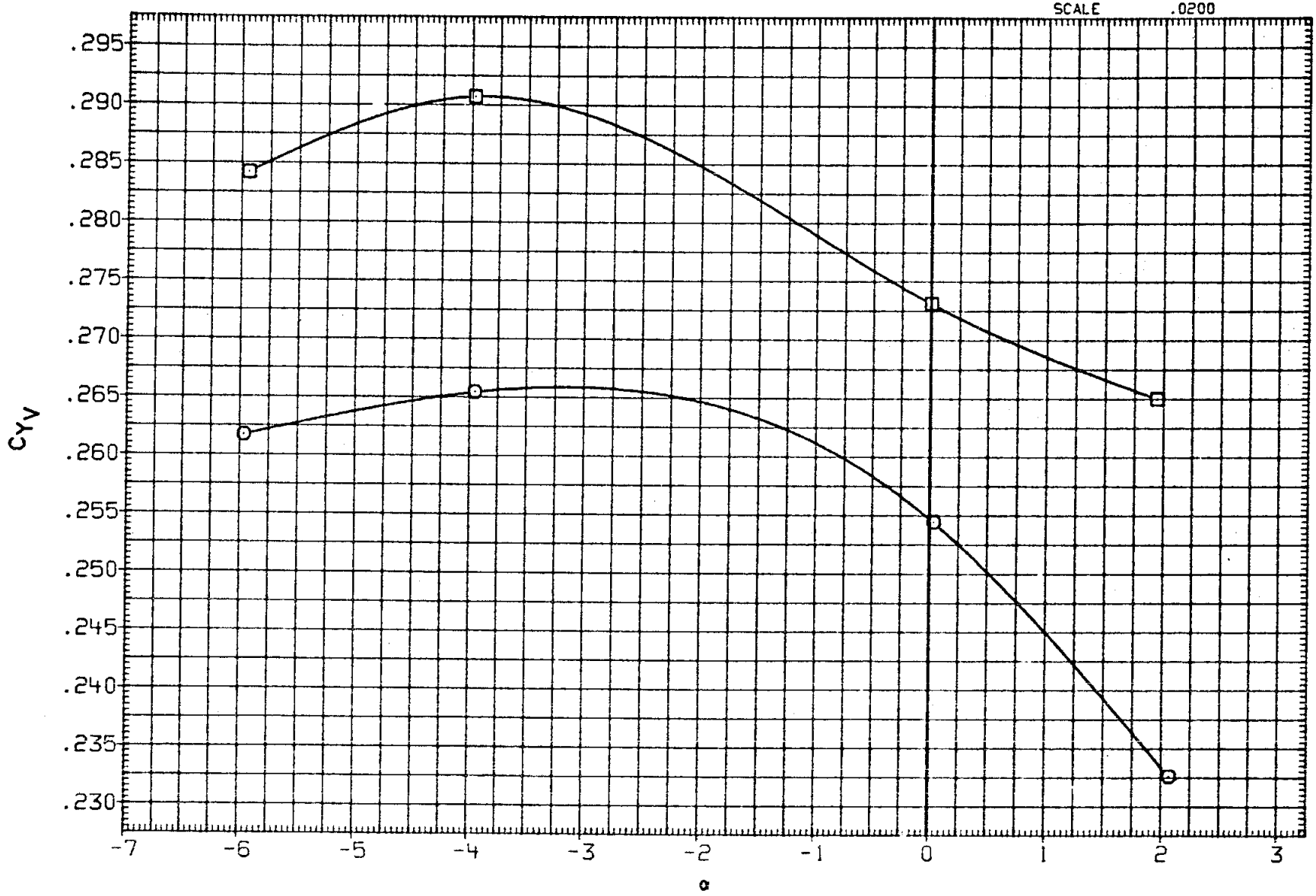

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

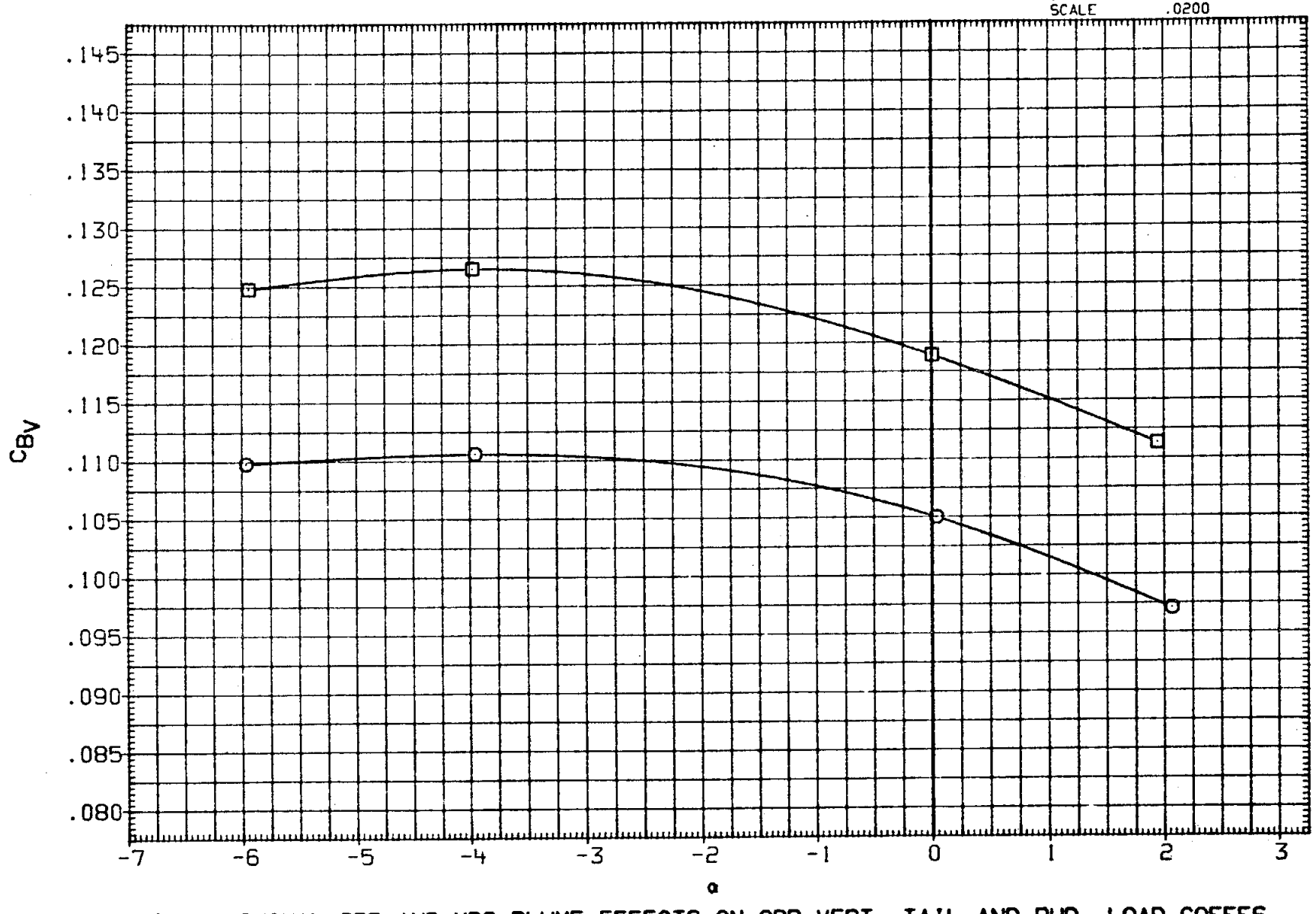

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

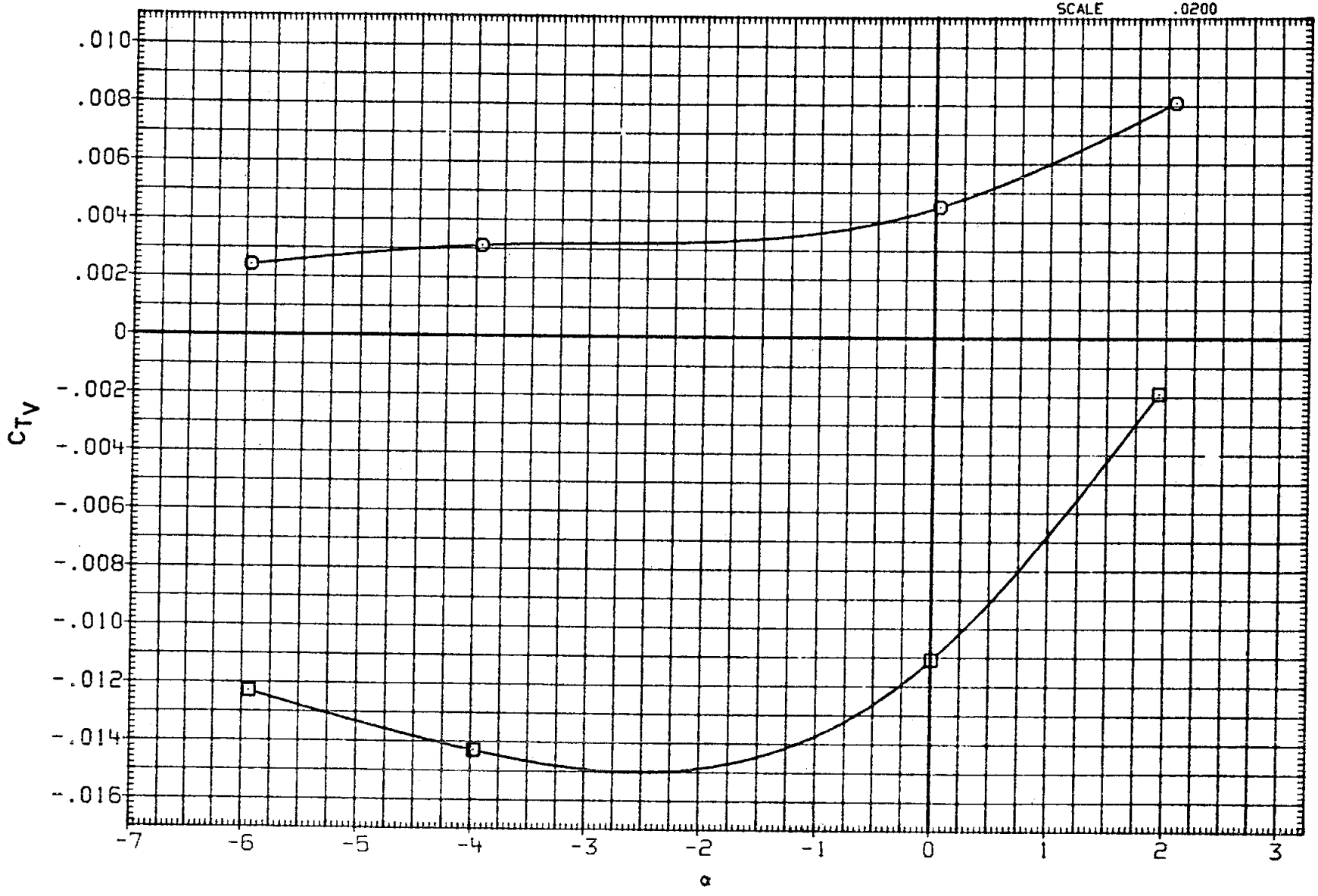

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

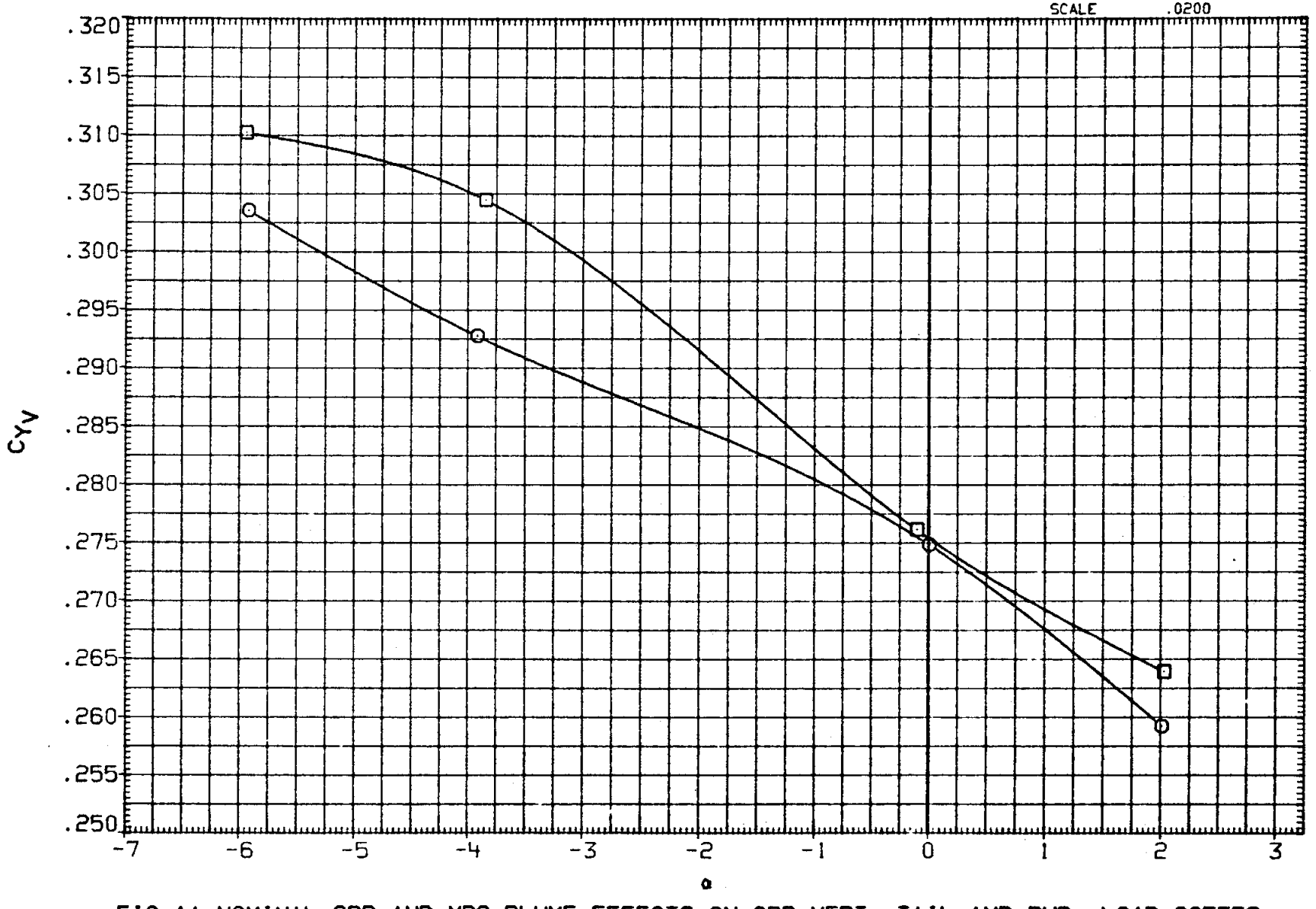

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

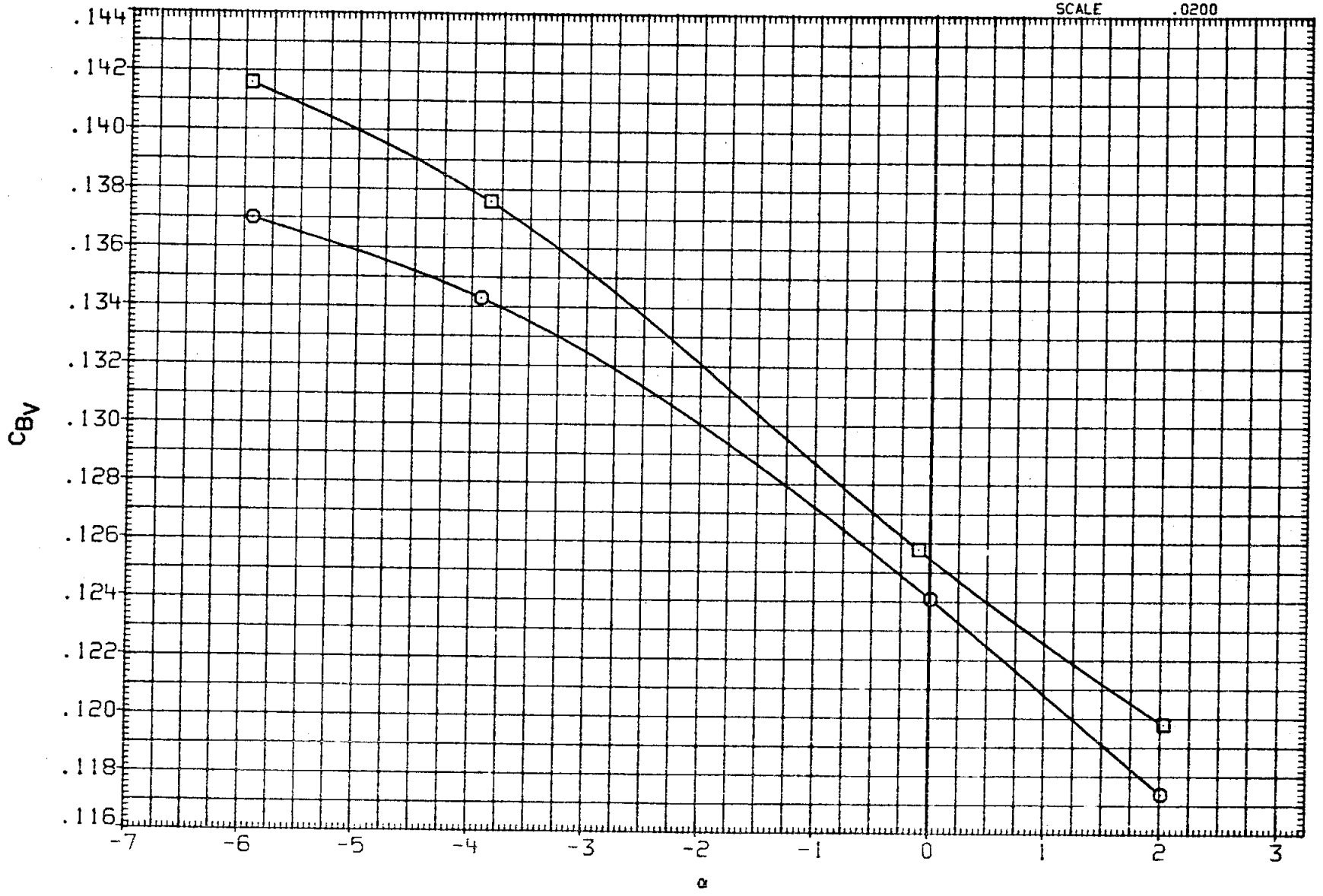

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

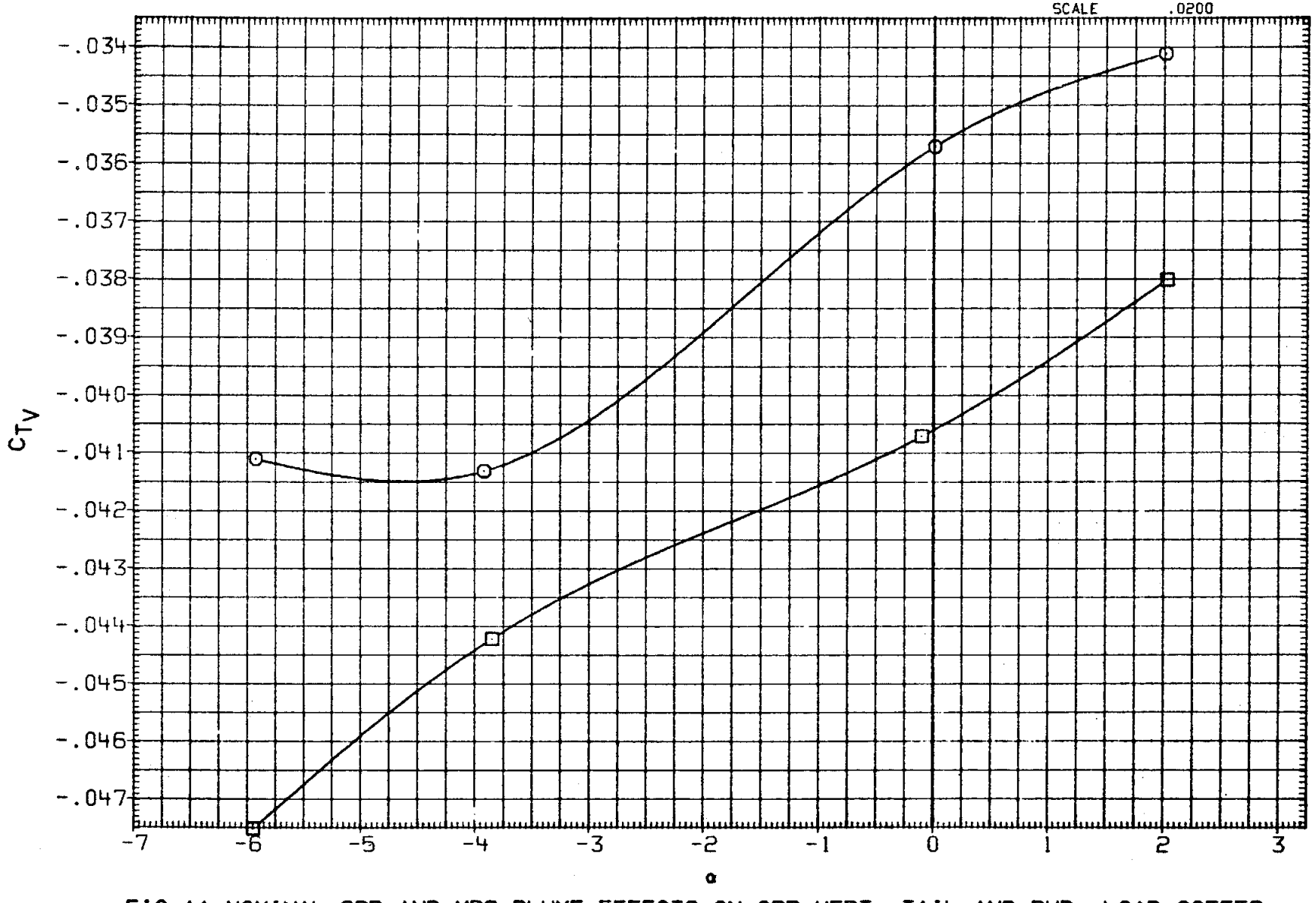

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

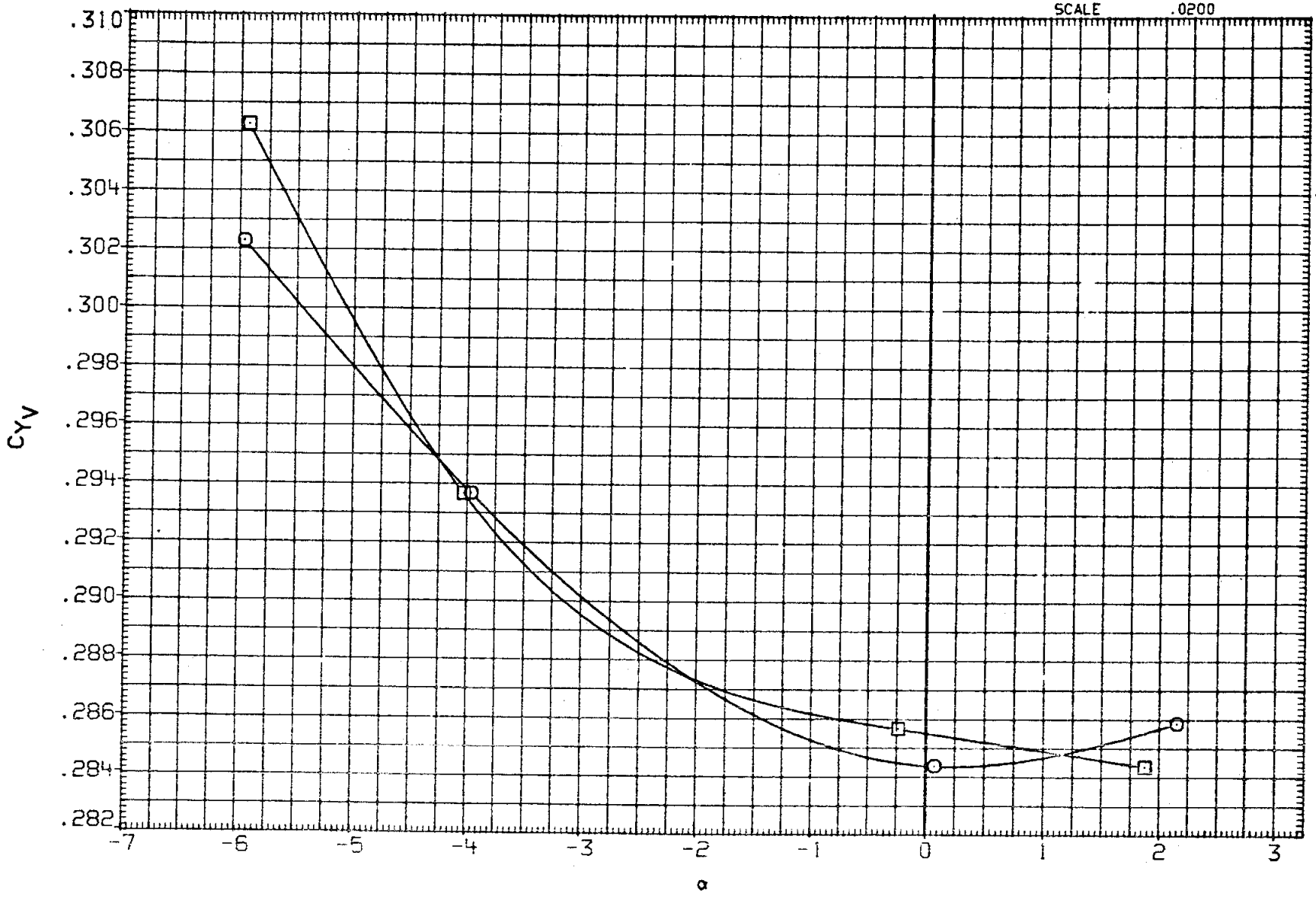

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

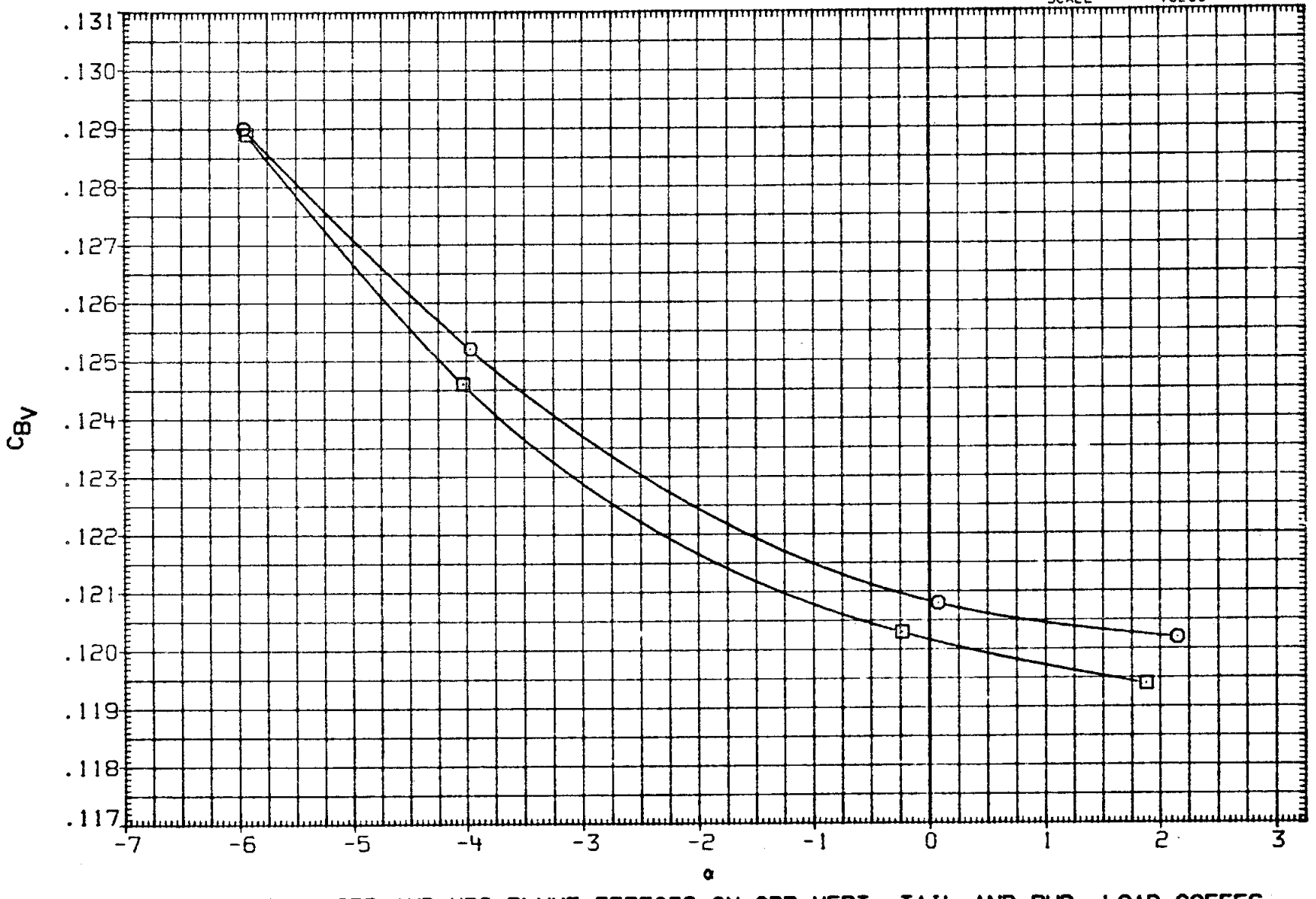

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

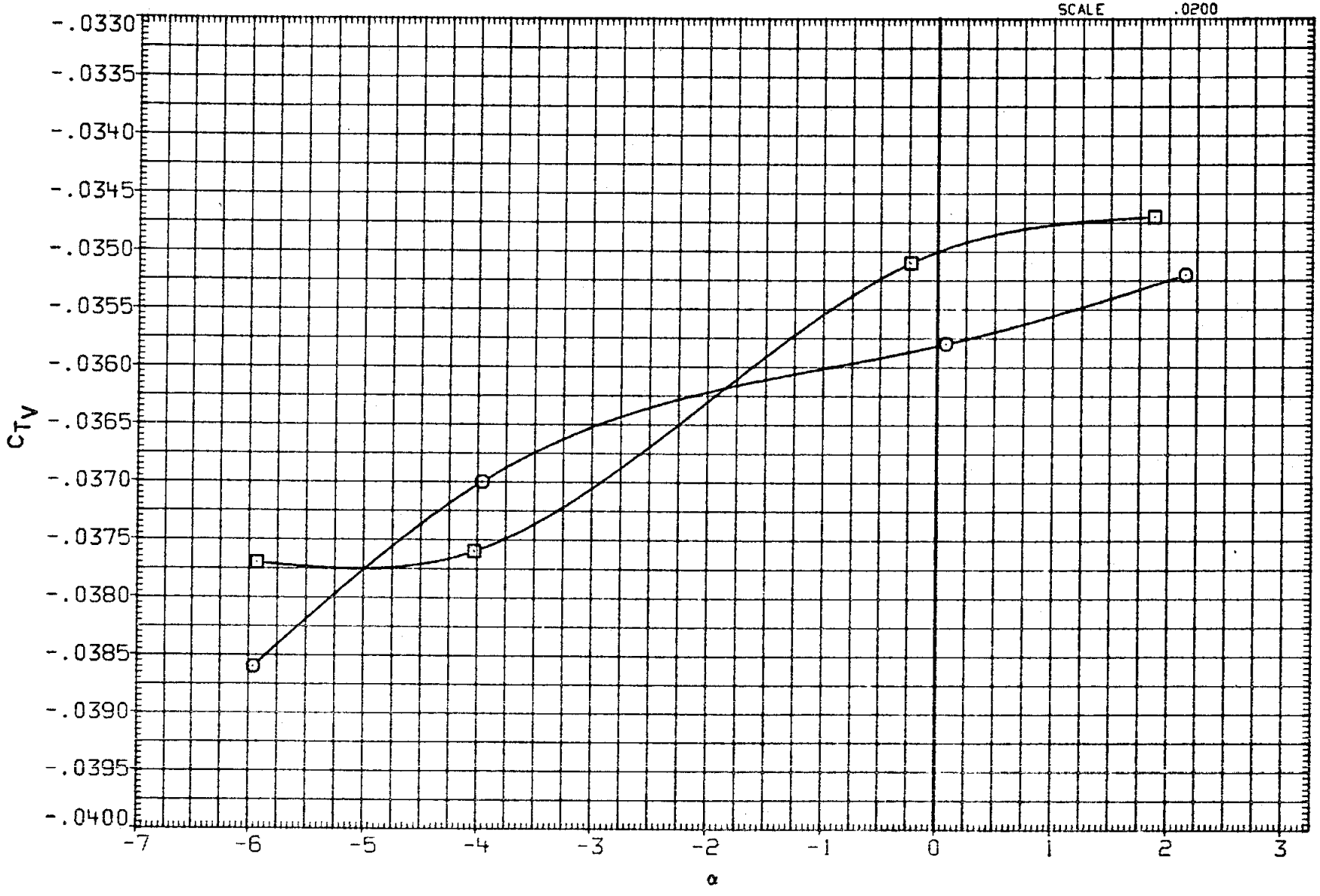

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

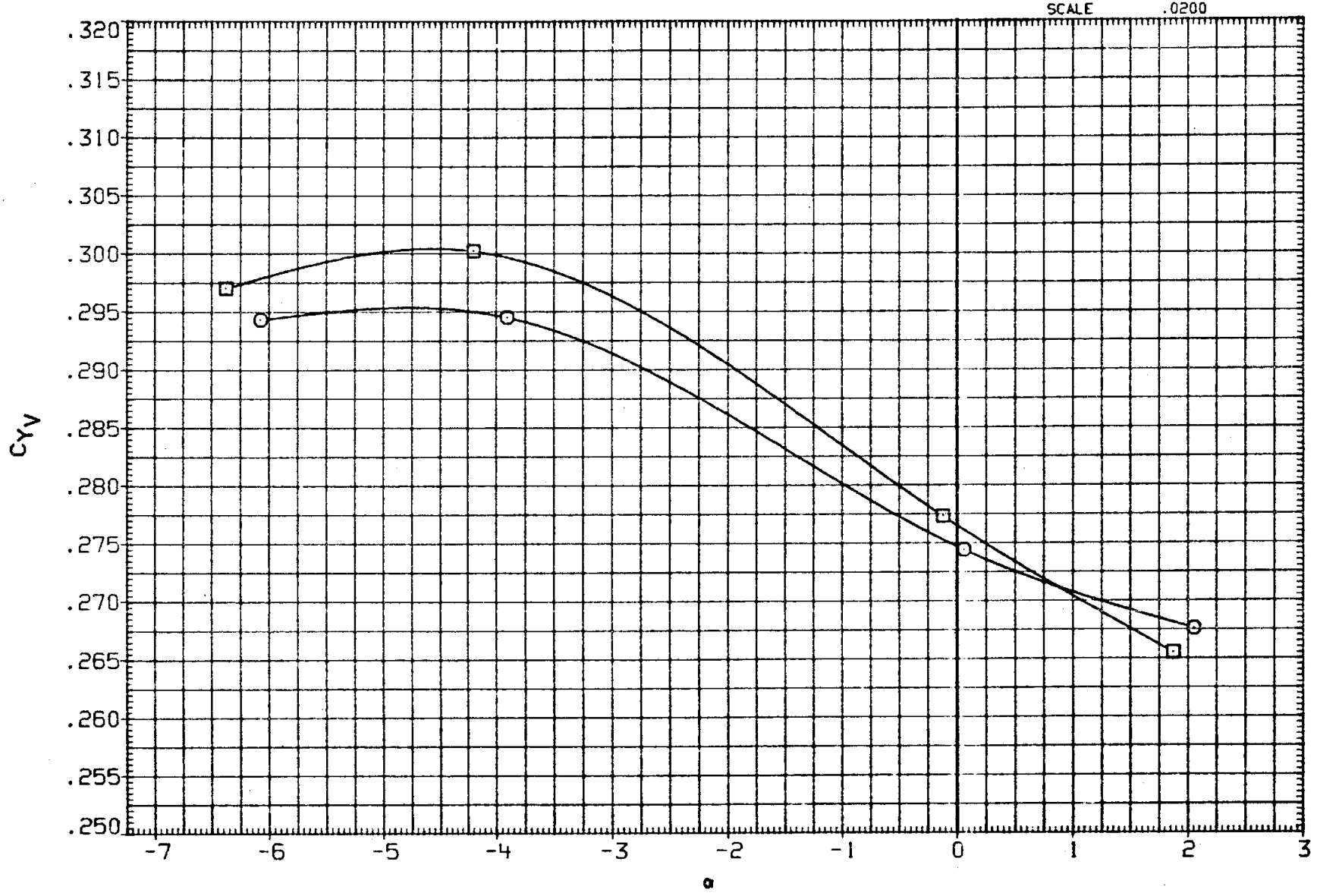

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

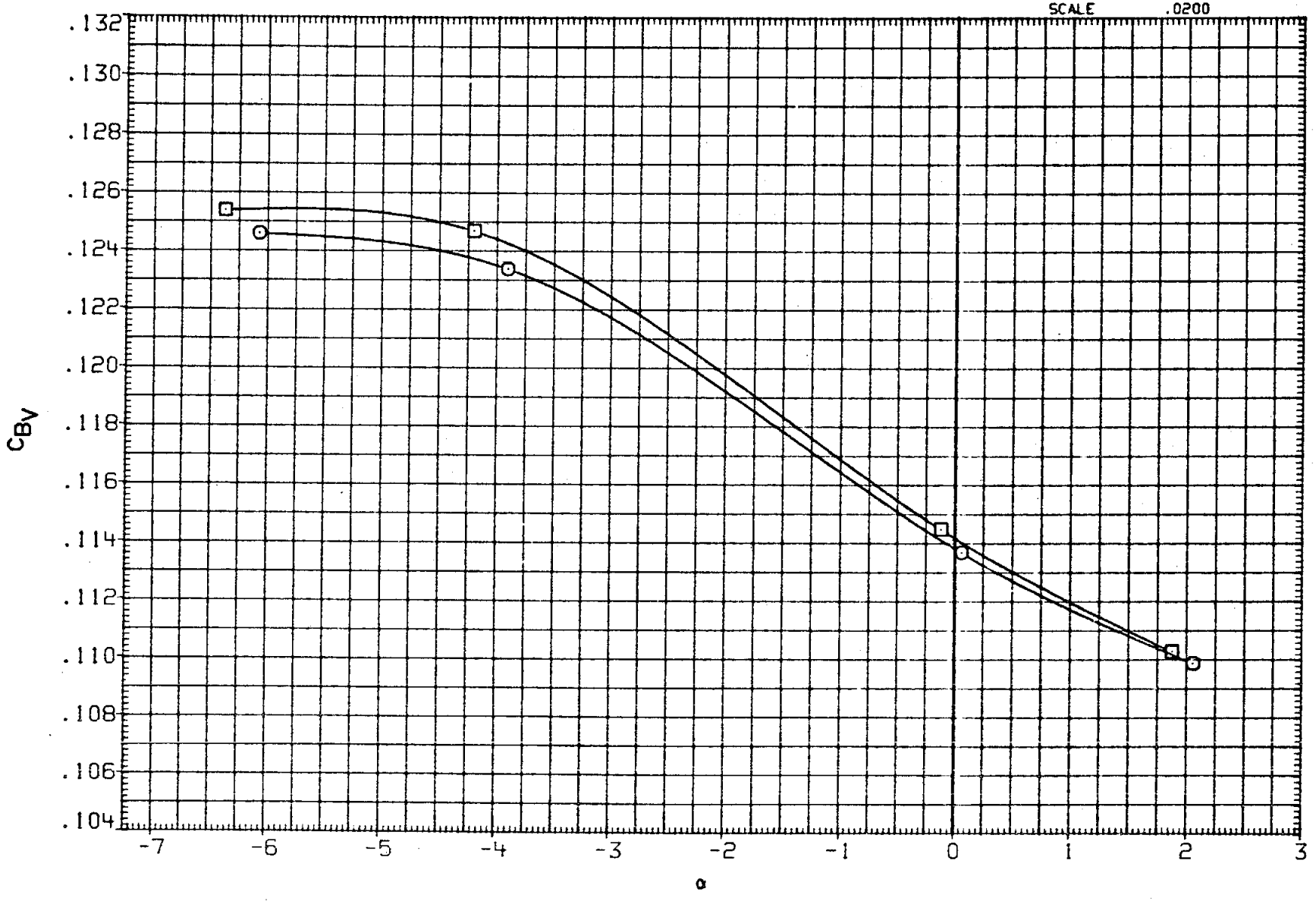

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
BNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

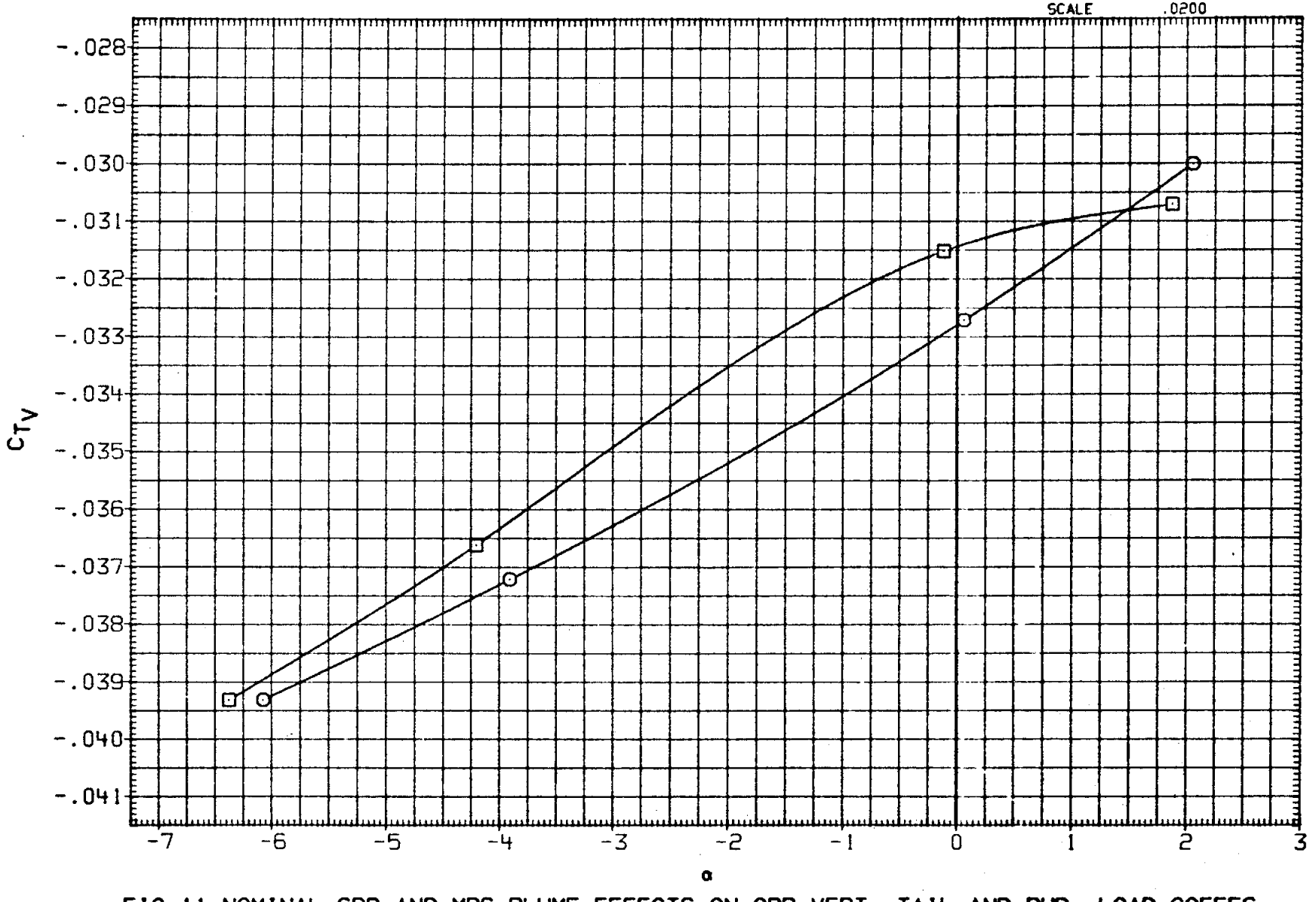

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
HNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

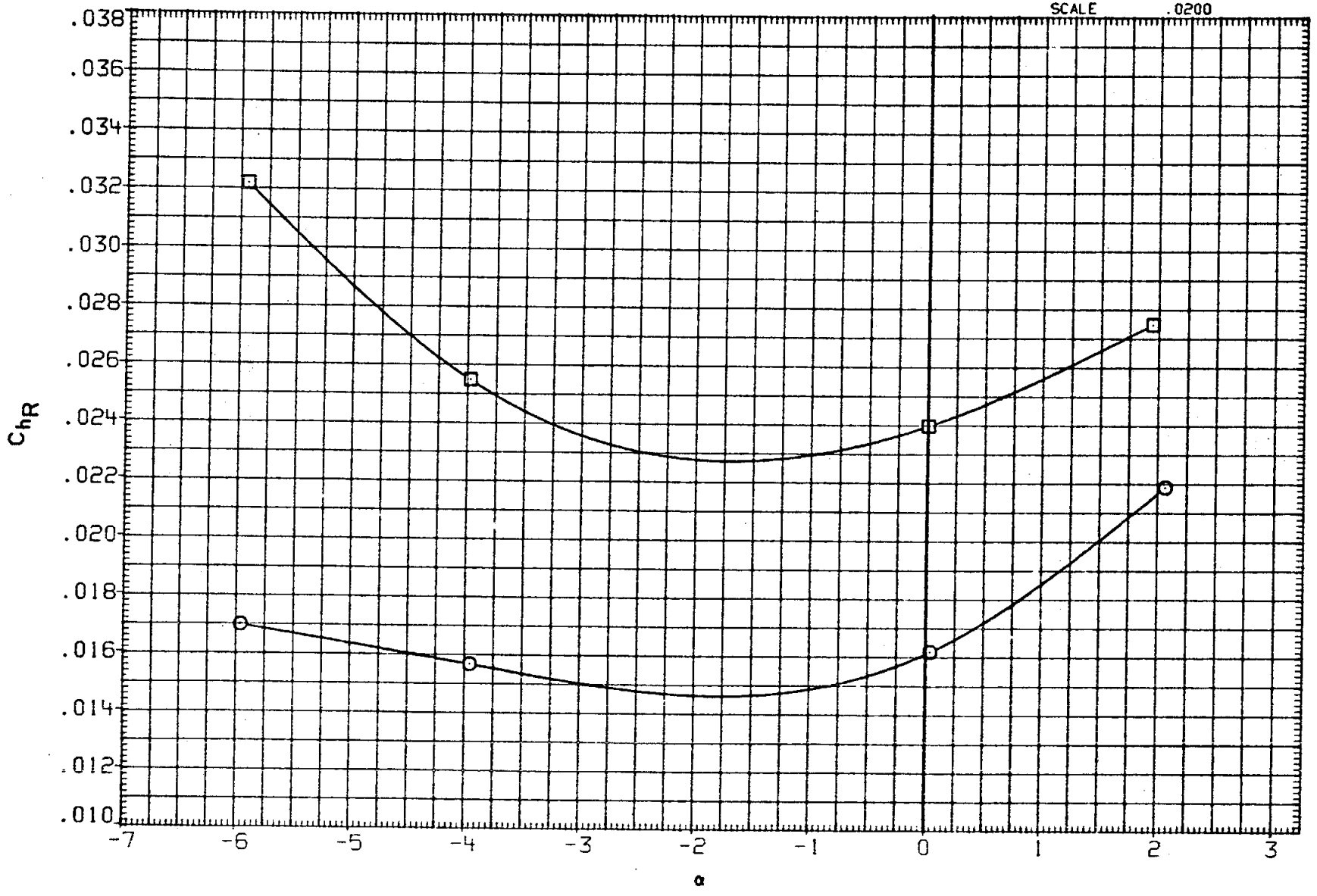

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
HNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

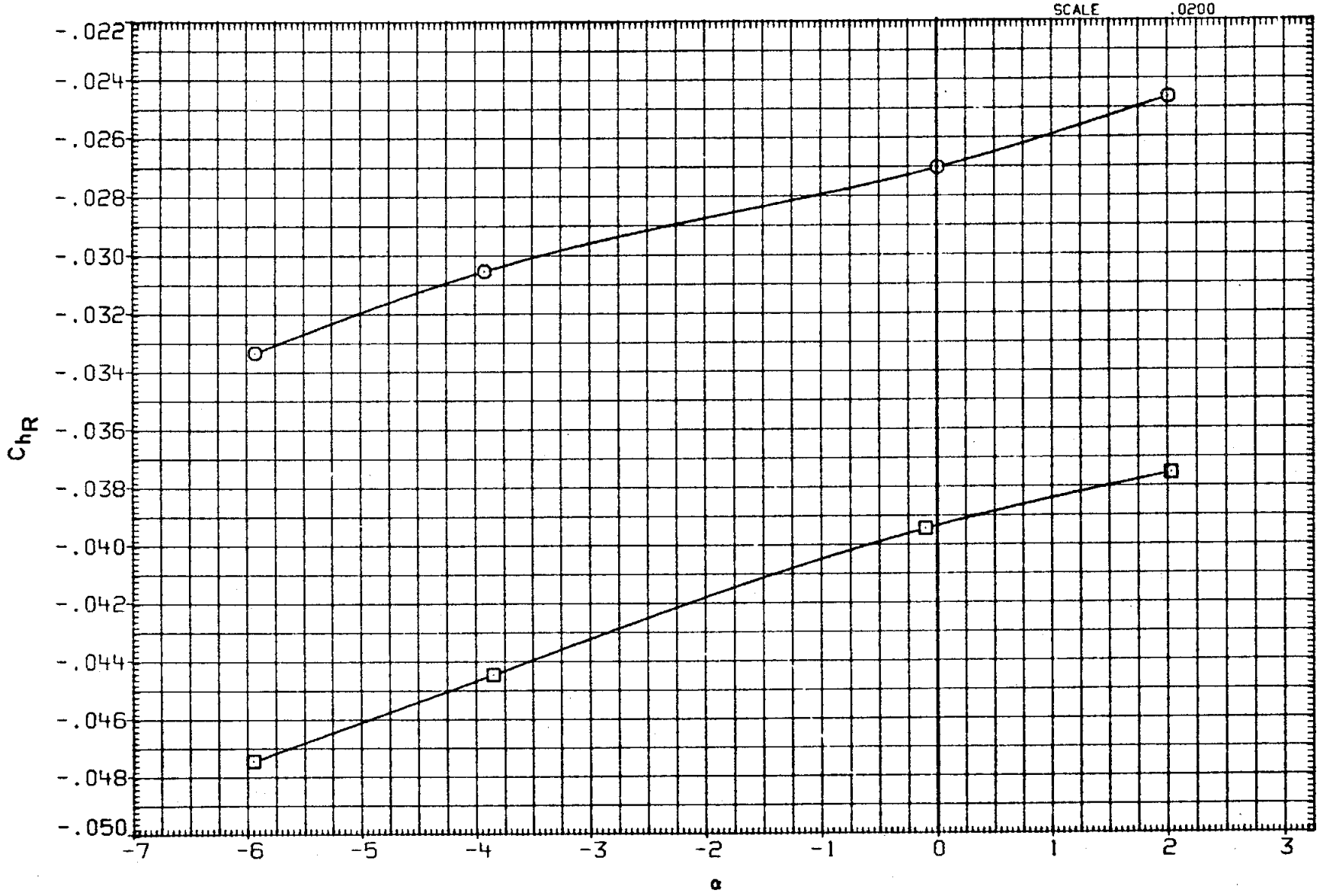

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
HNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

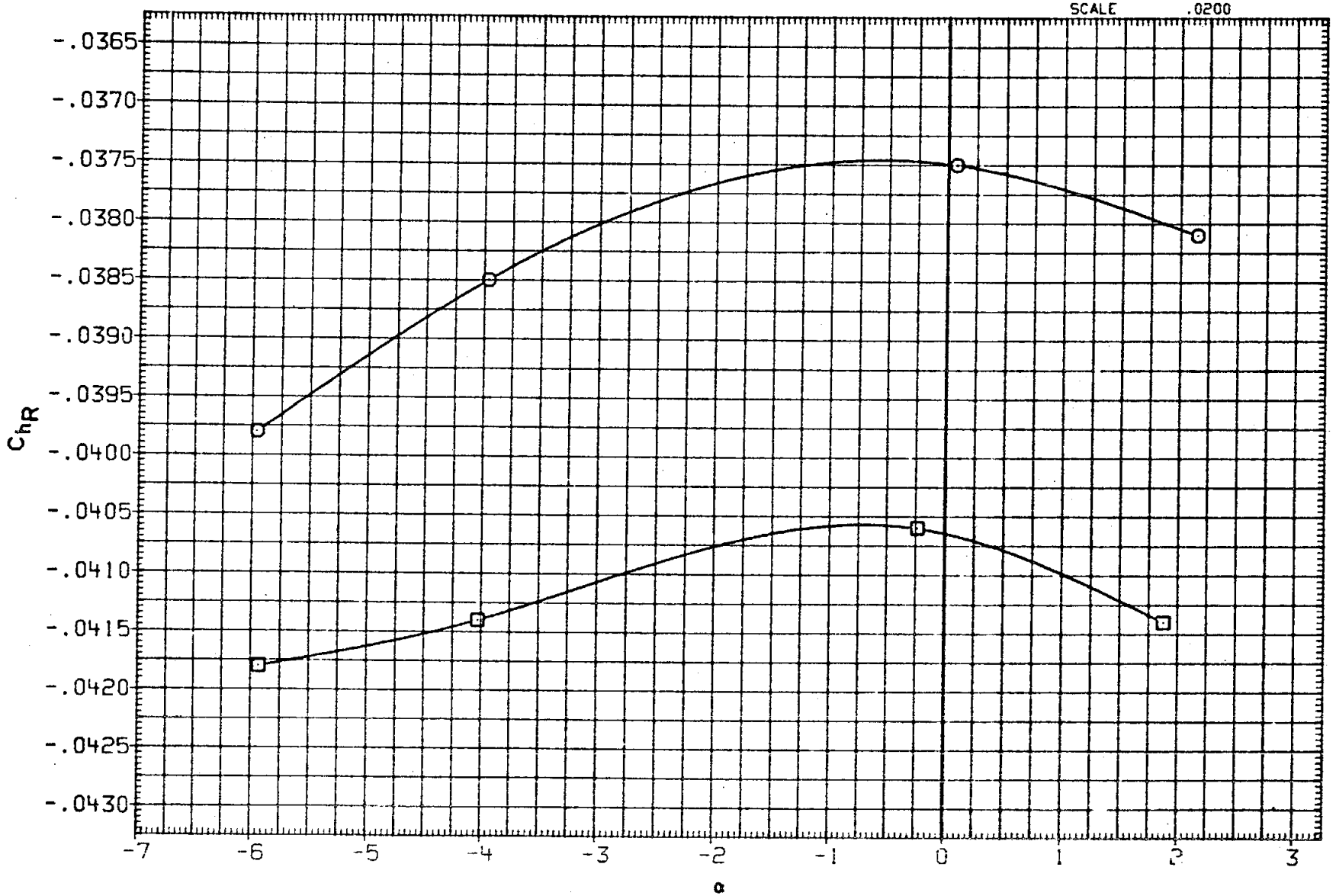

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA37	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	8.000	4.000
HNEA40	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

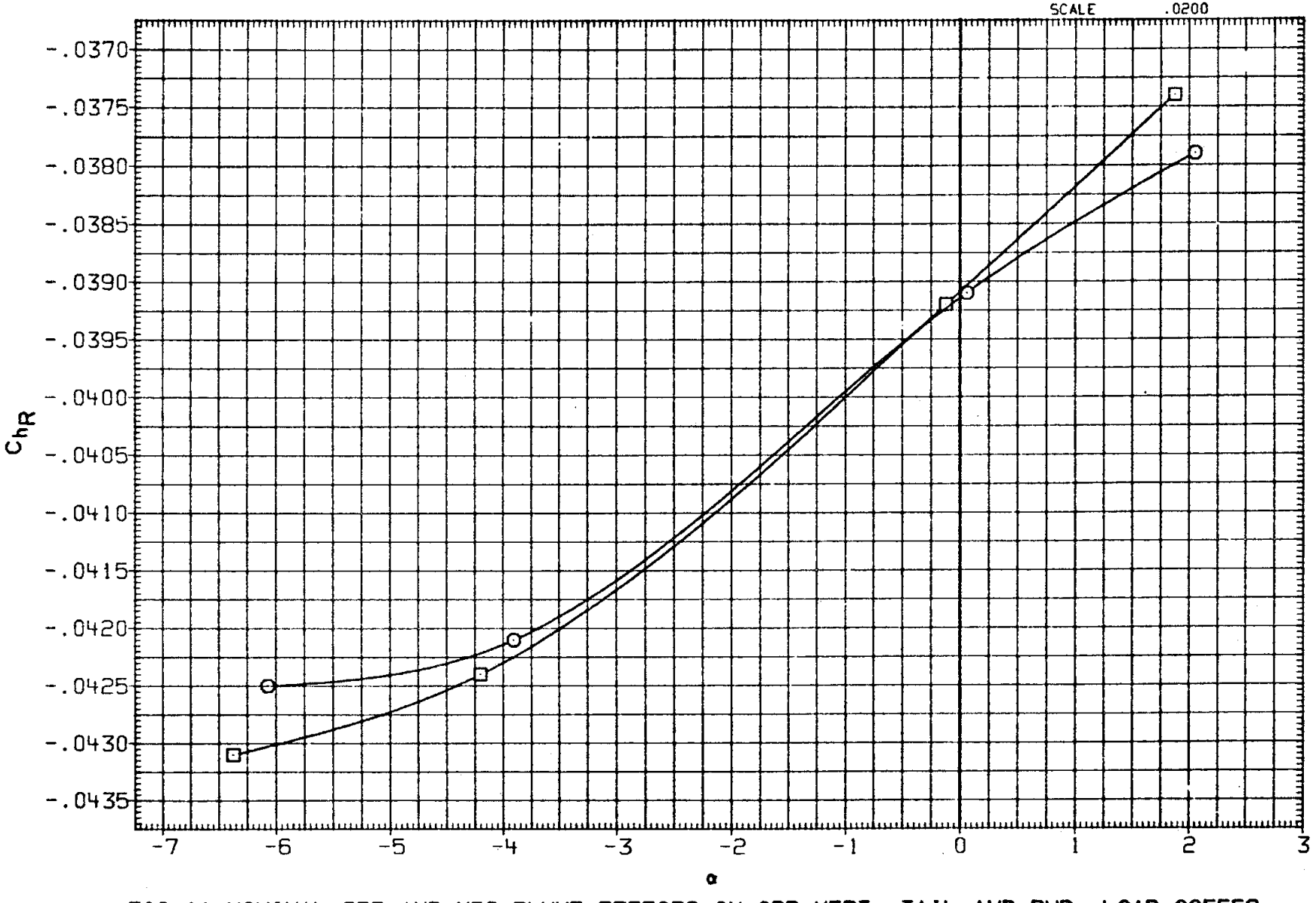

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

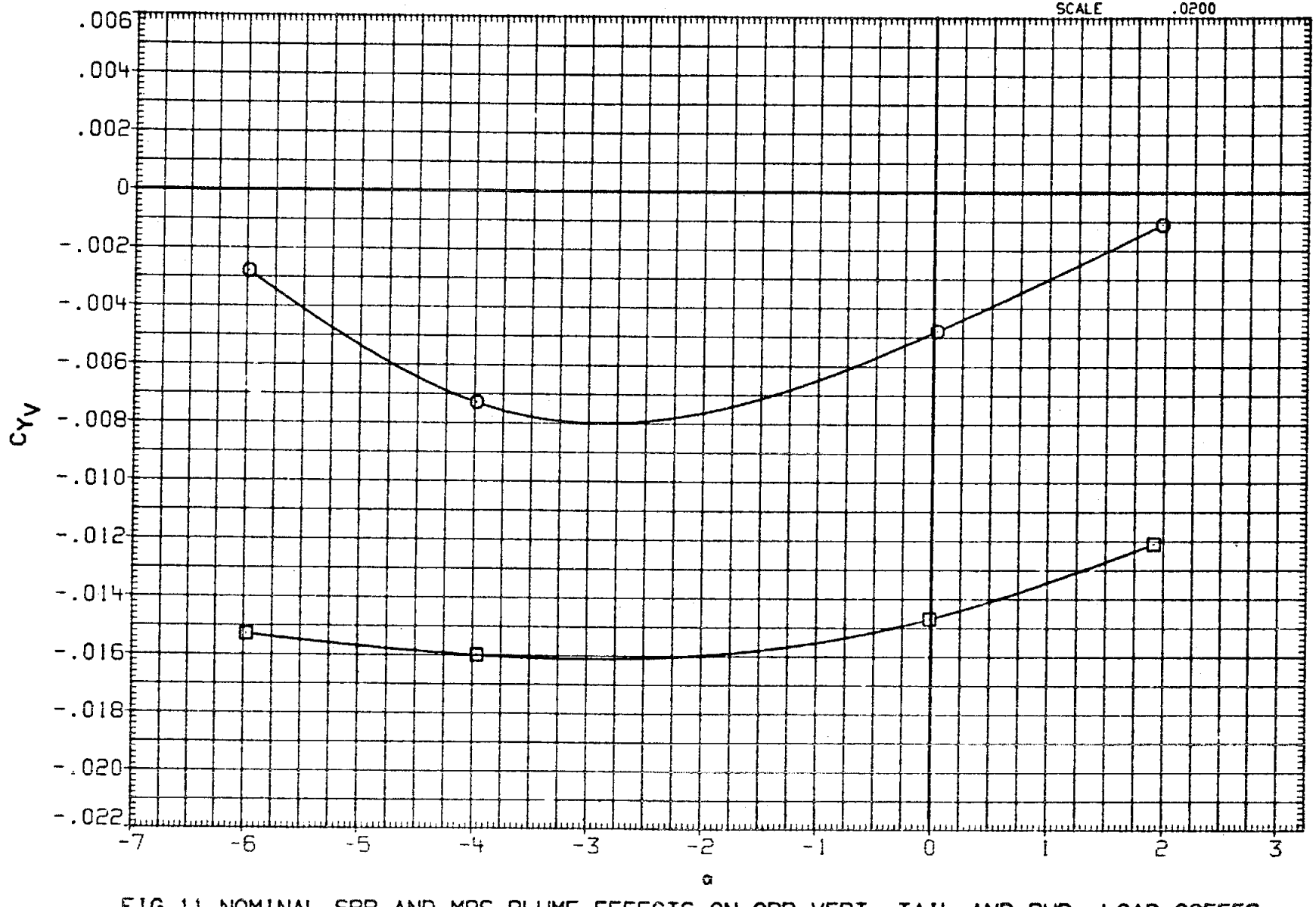

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

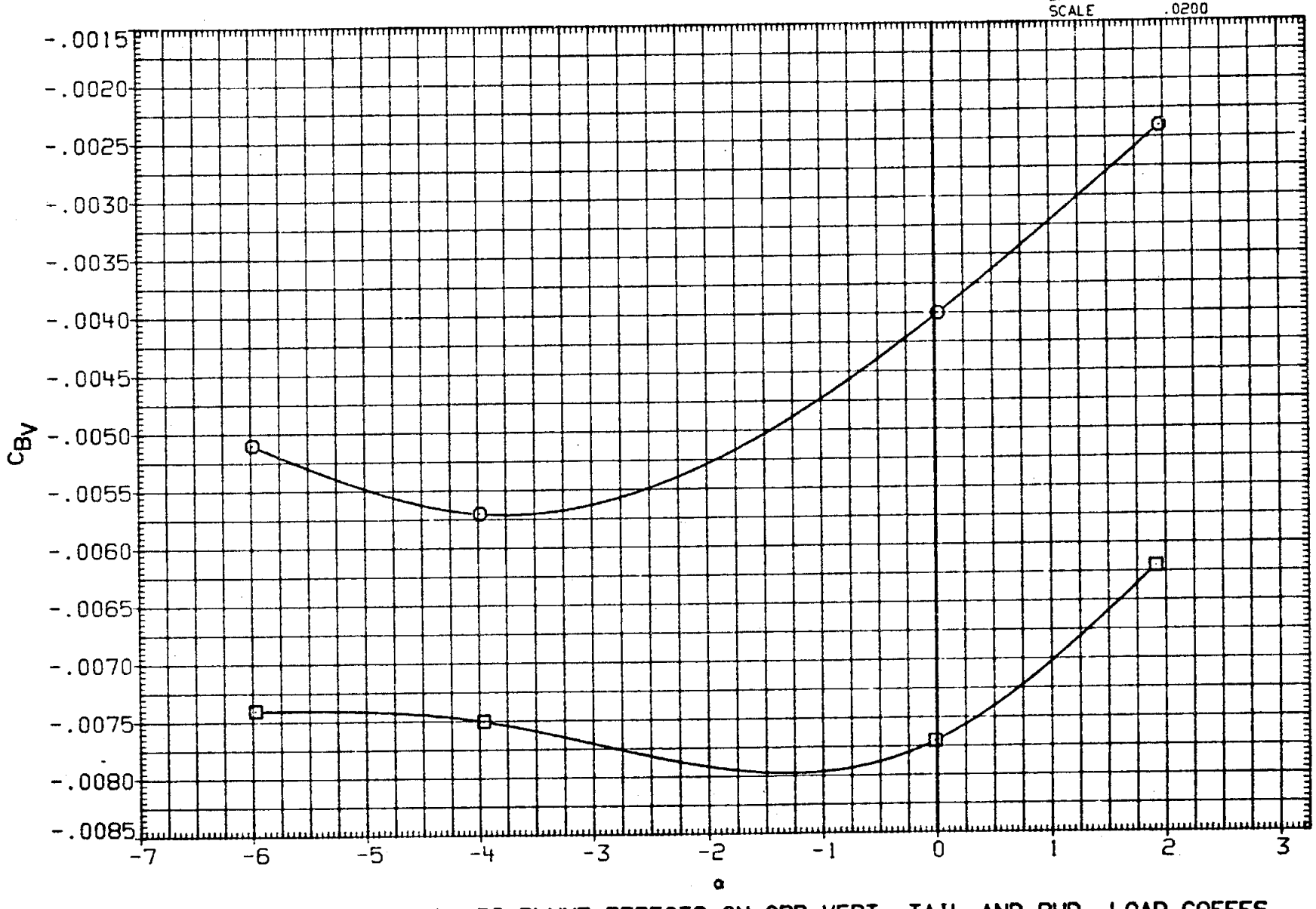

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

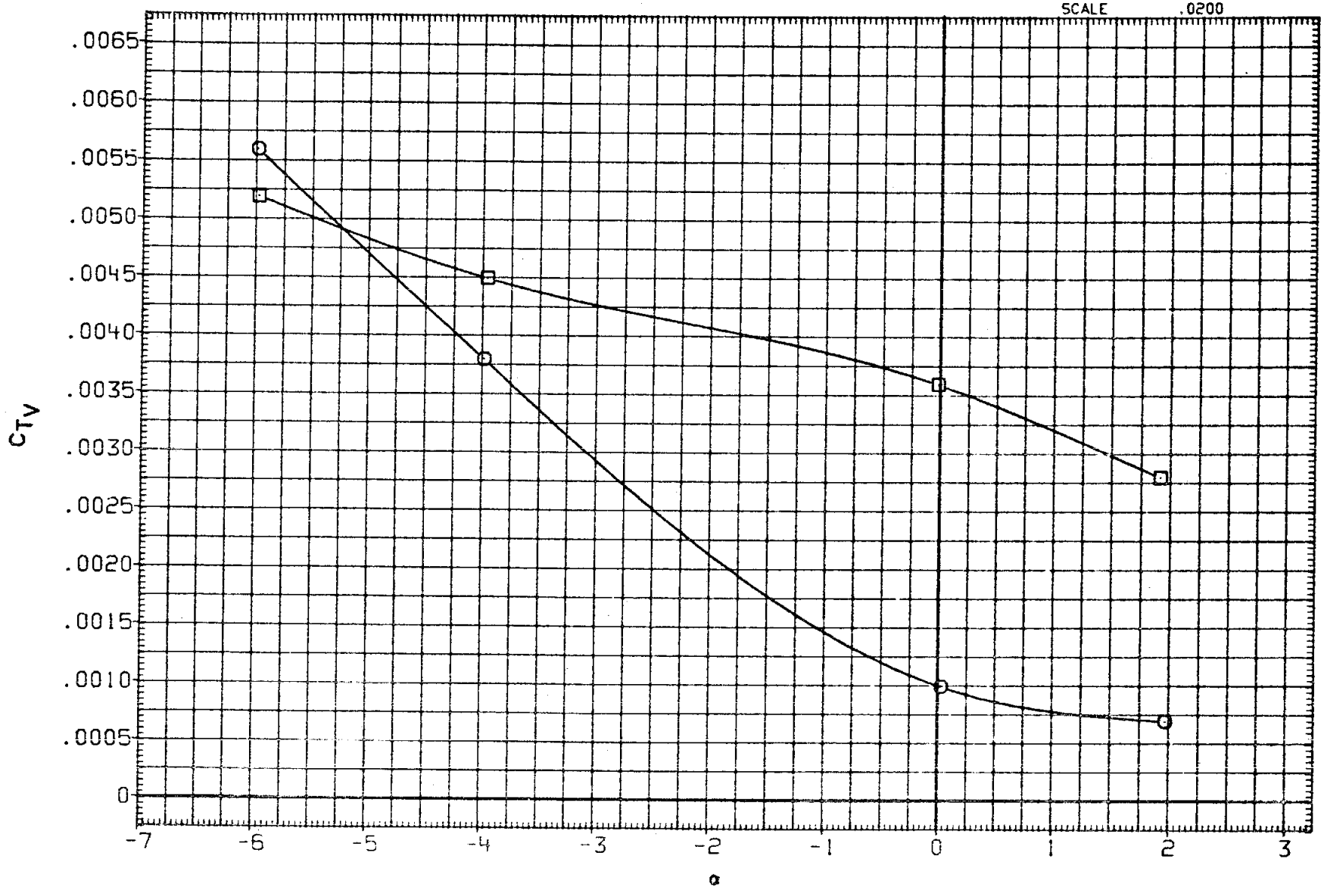

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

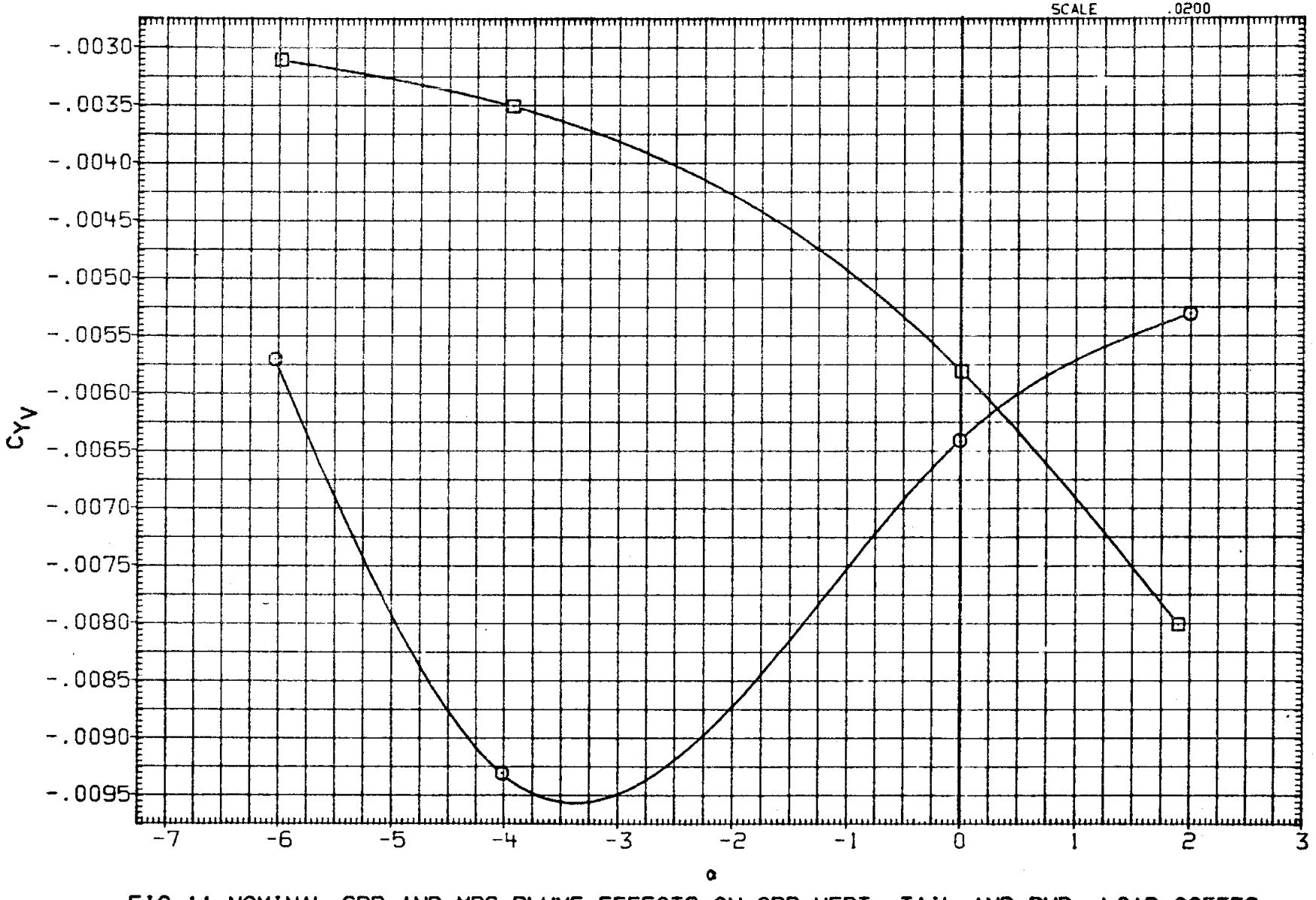

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

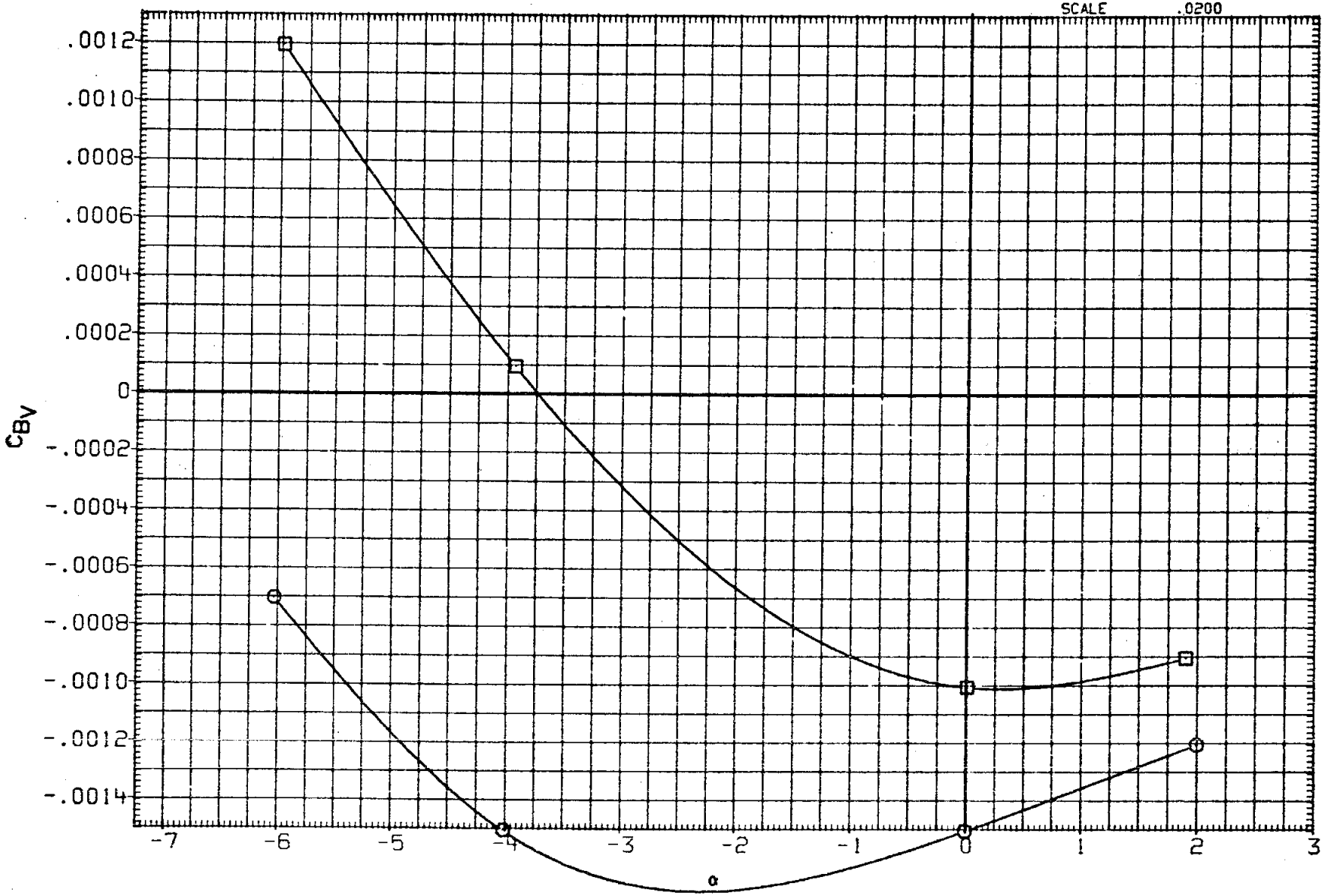

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

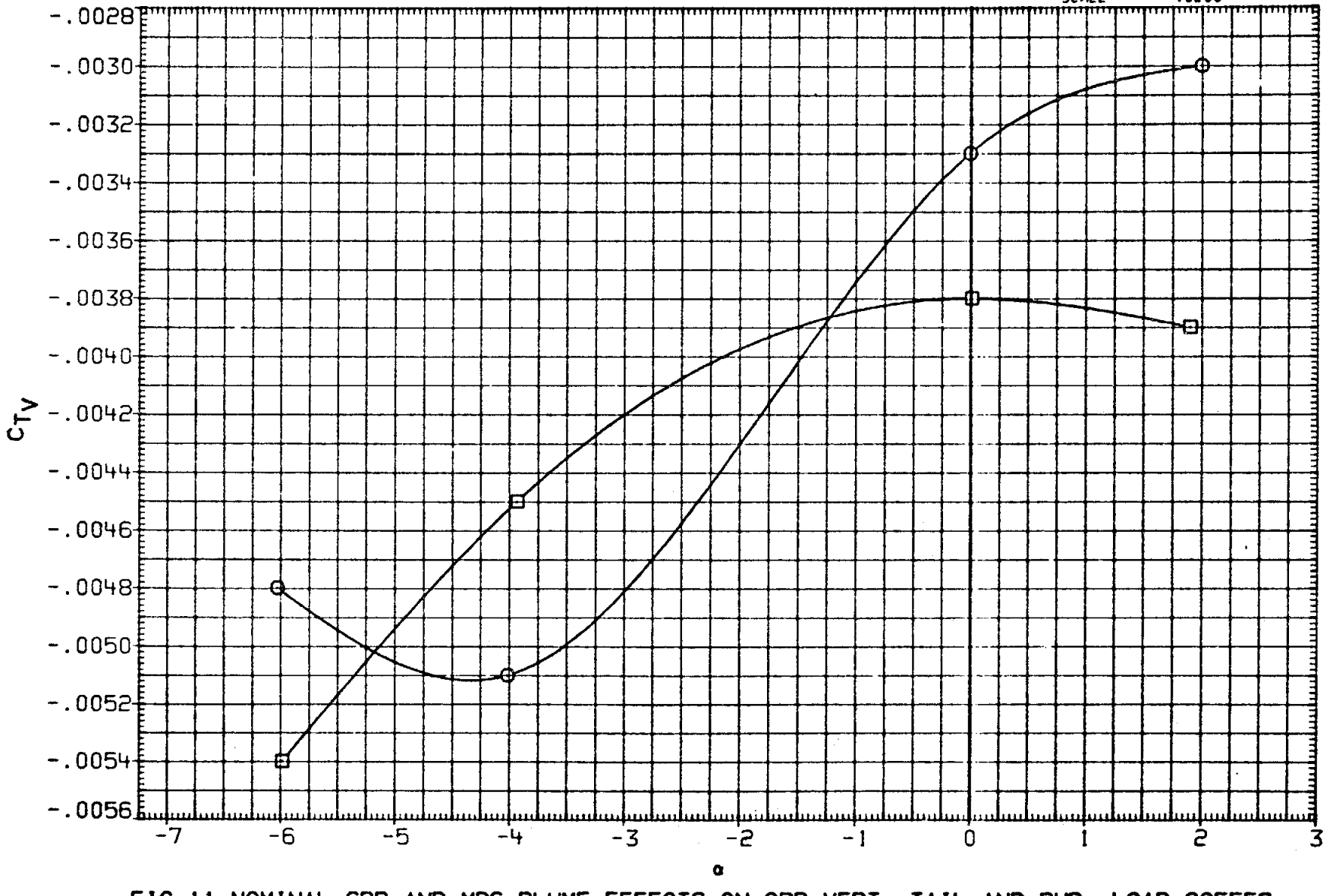

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH '= 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

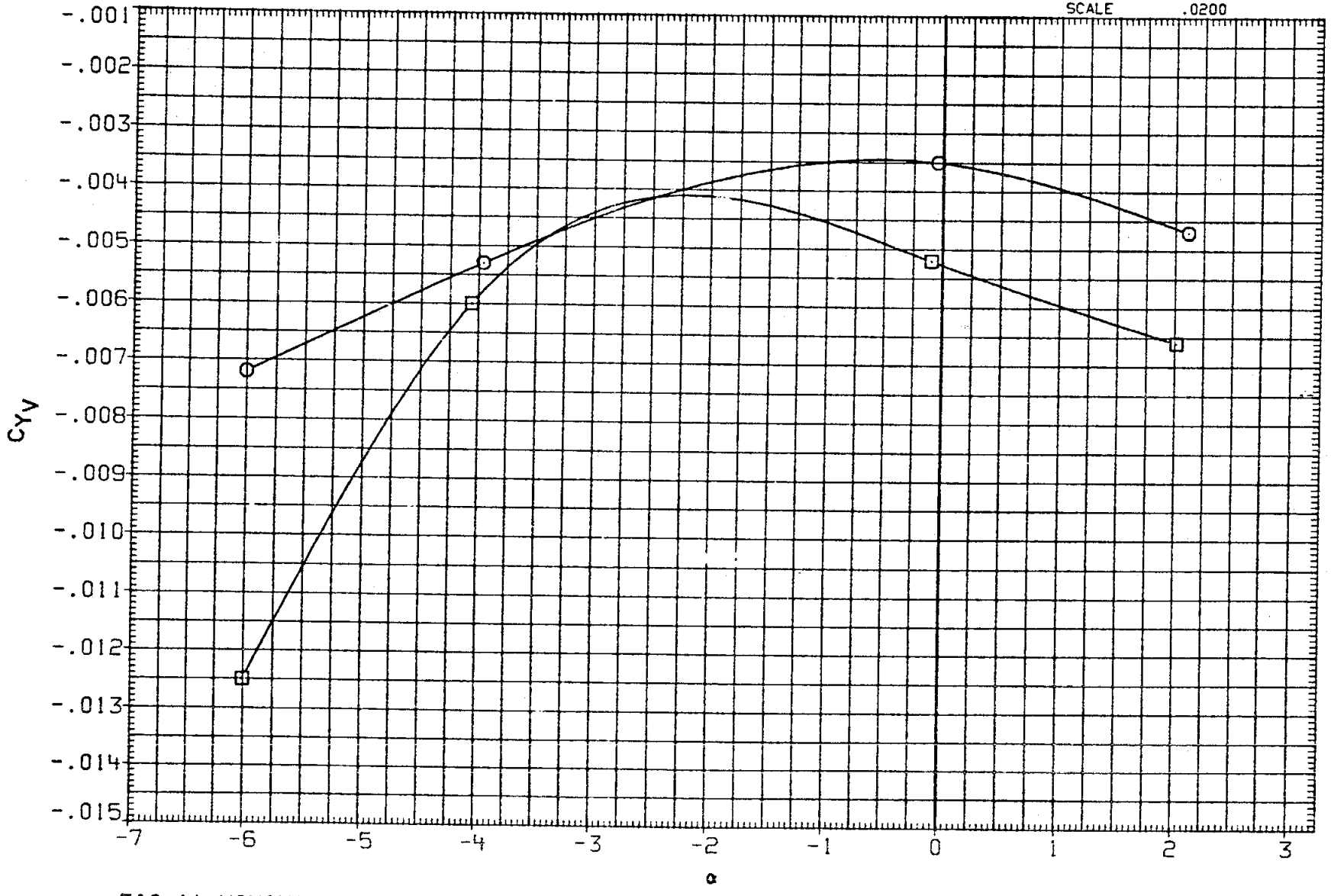

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

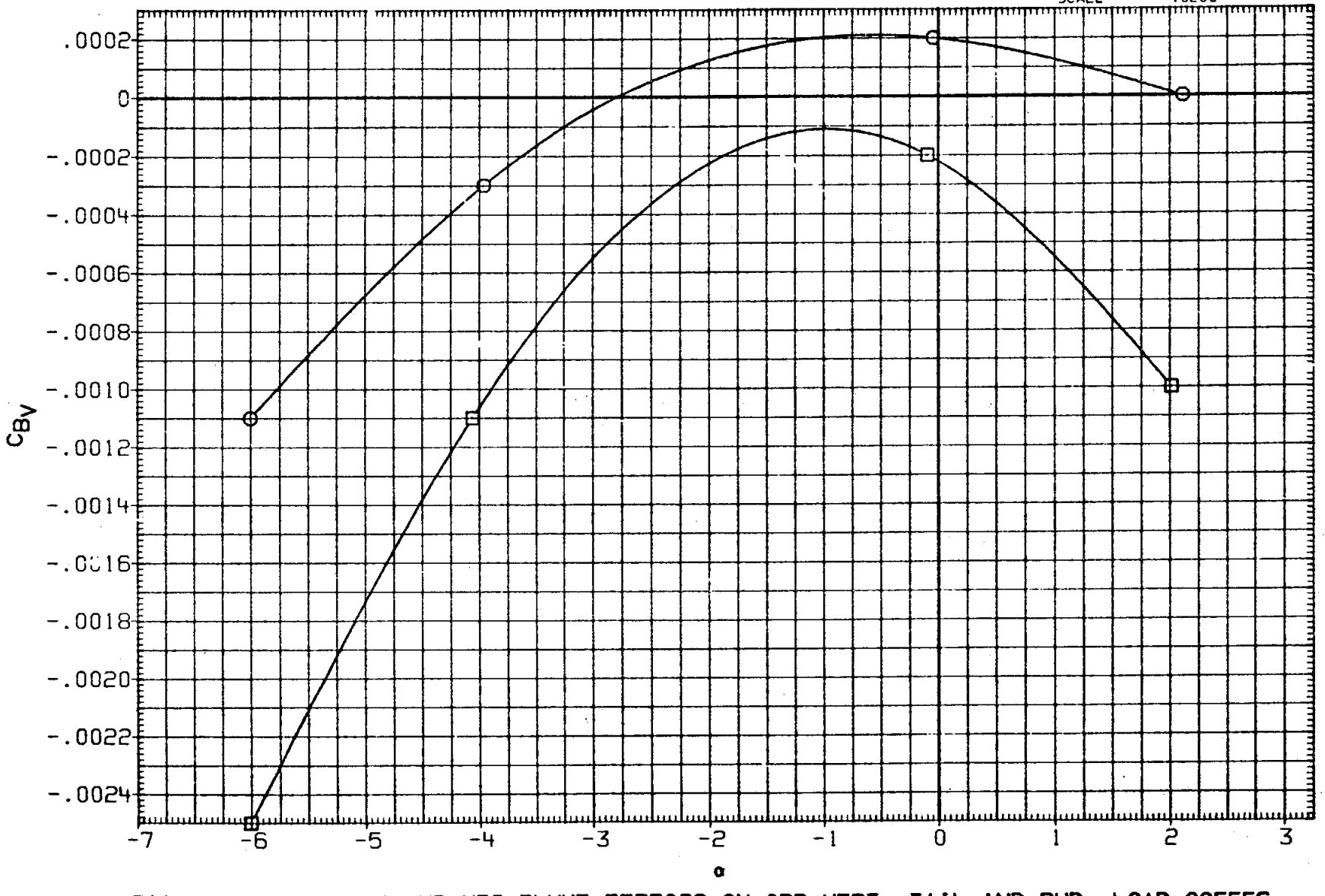

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

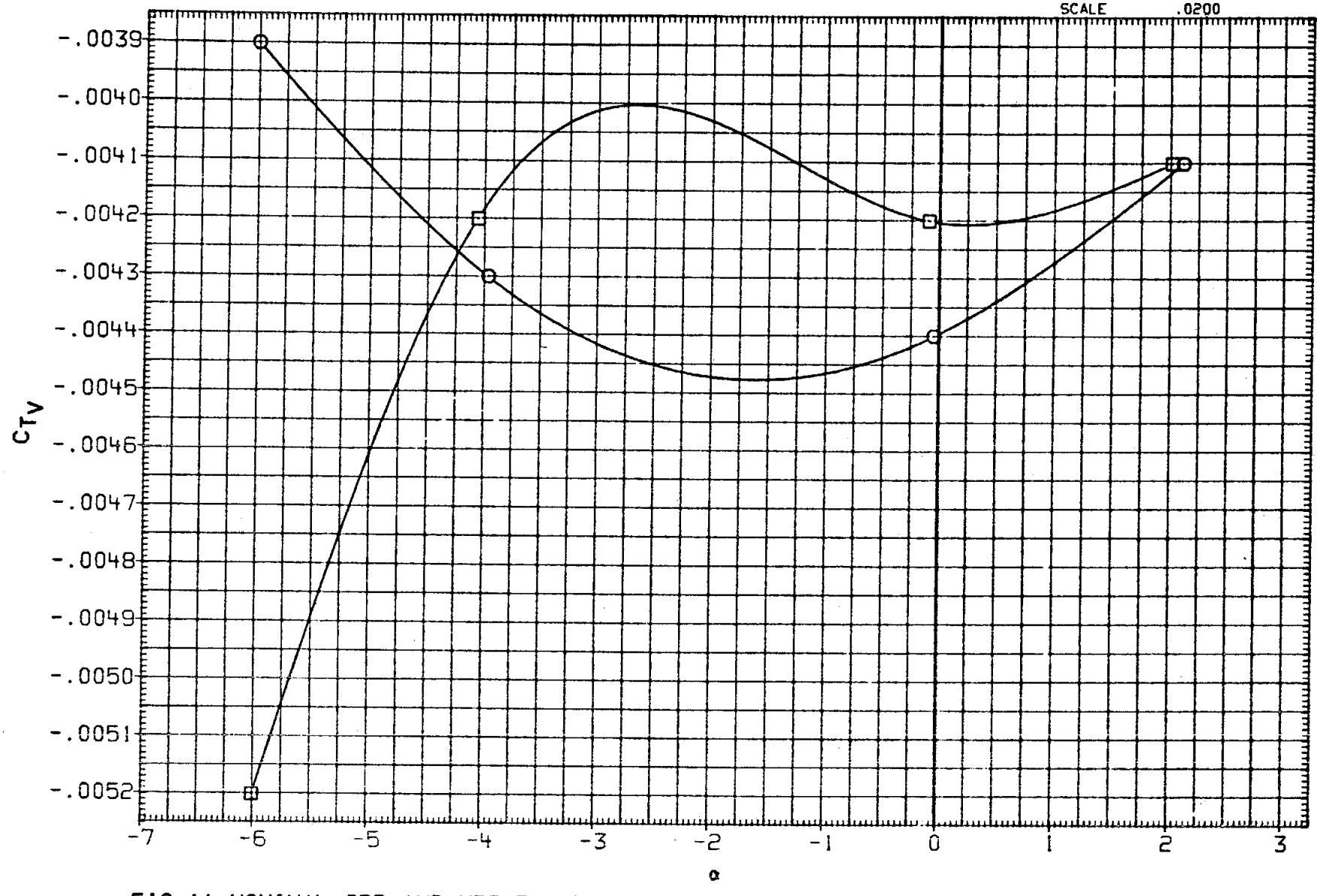

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

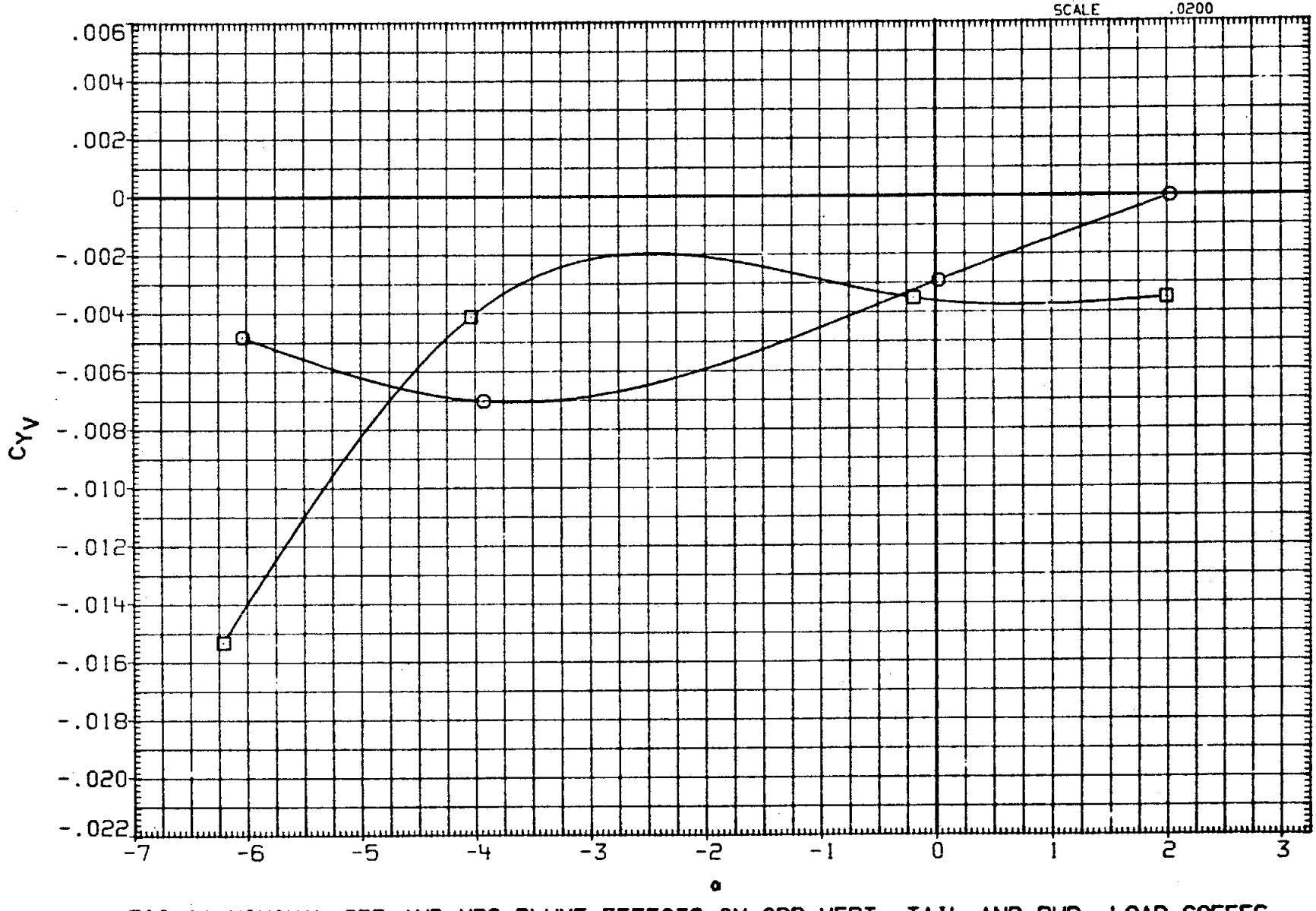

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

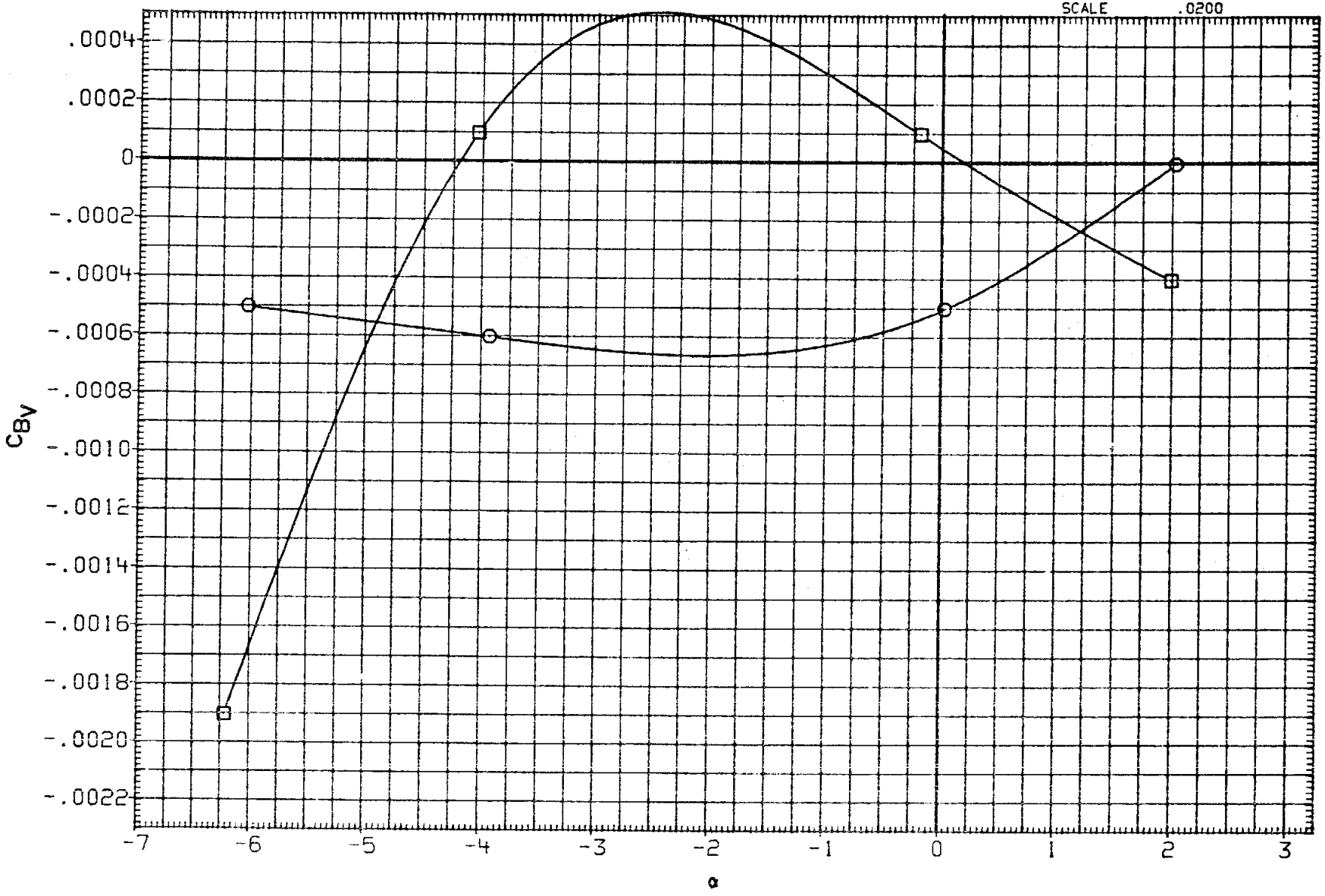

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
BNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

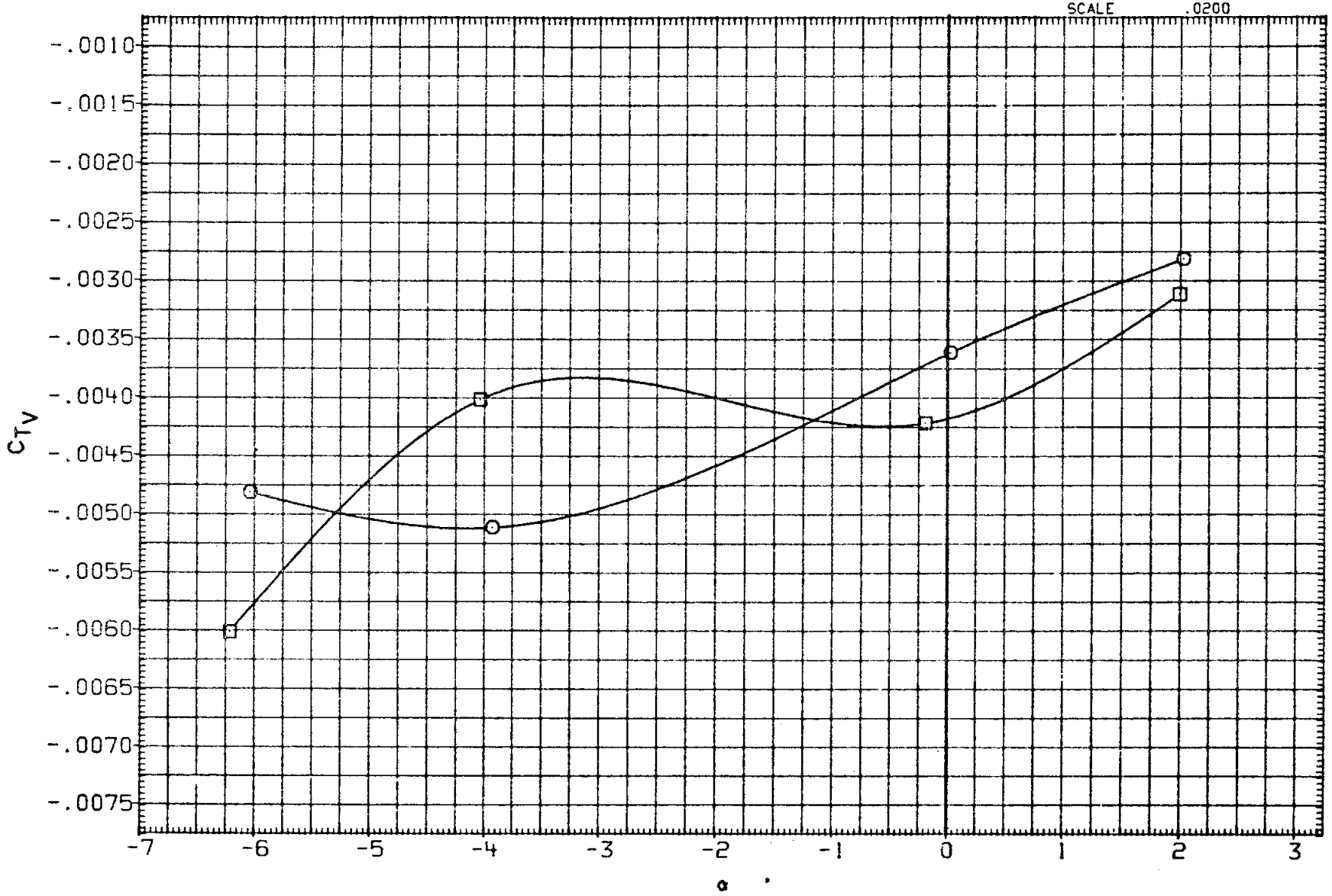

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
HNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

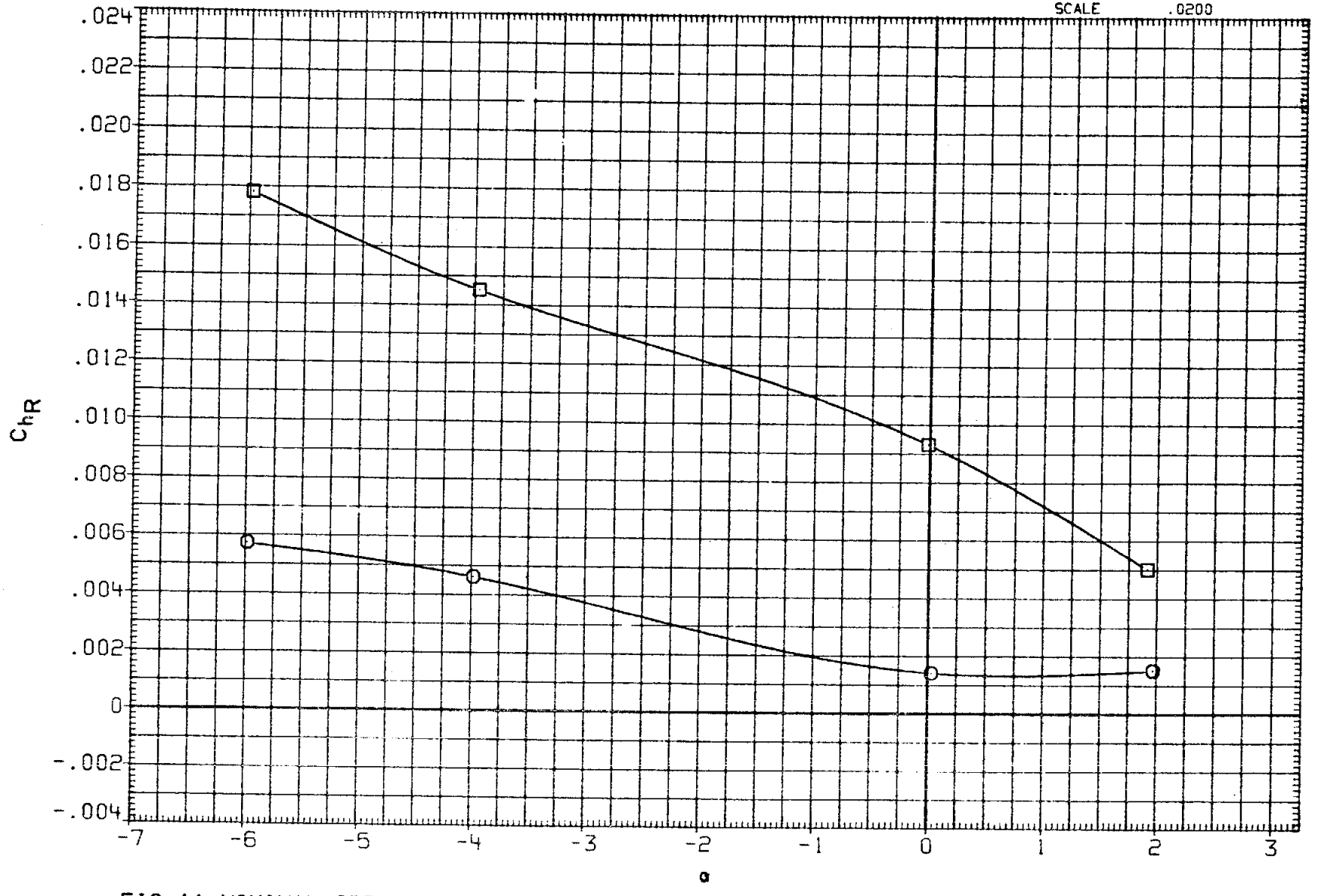

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
HNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

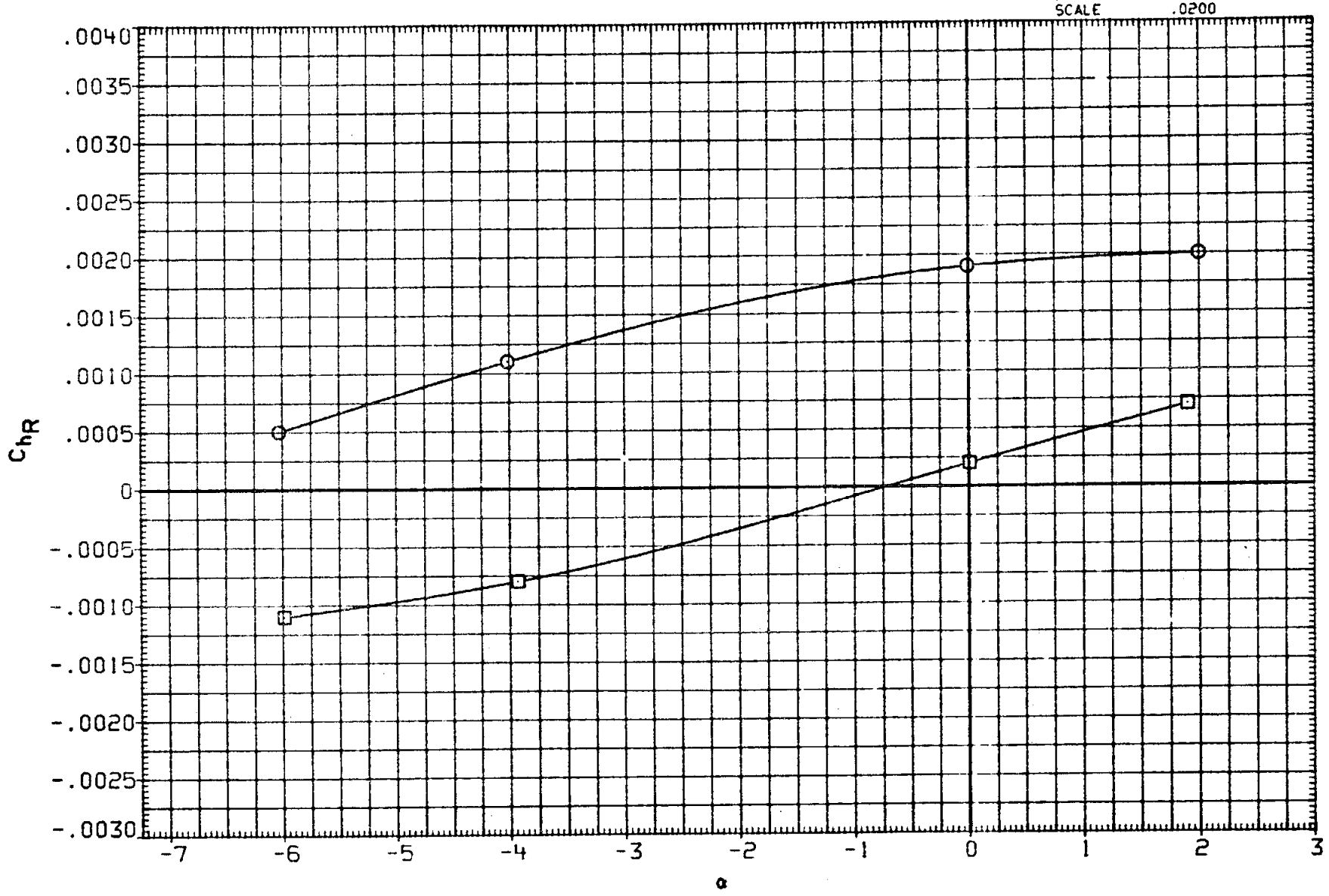

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA38	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
HNEA41	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

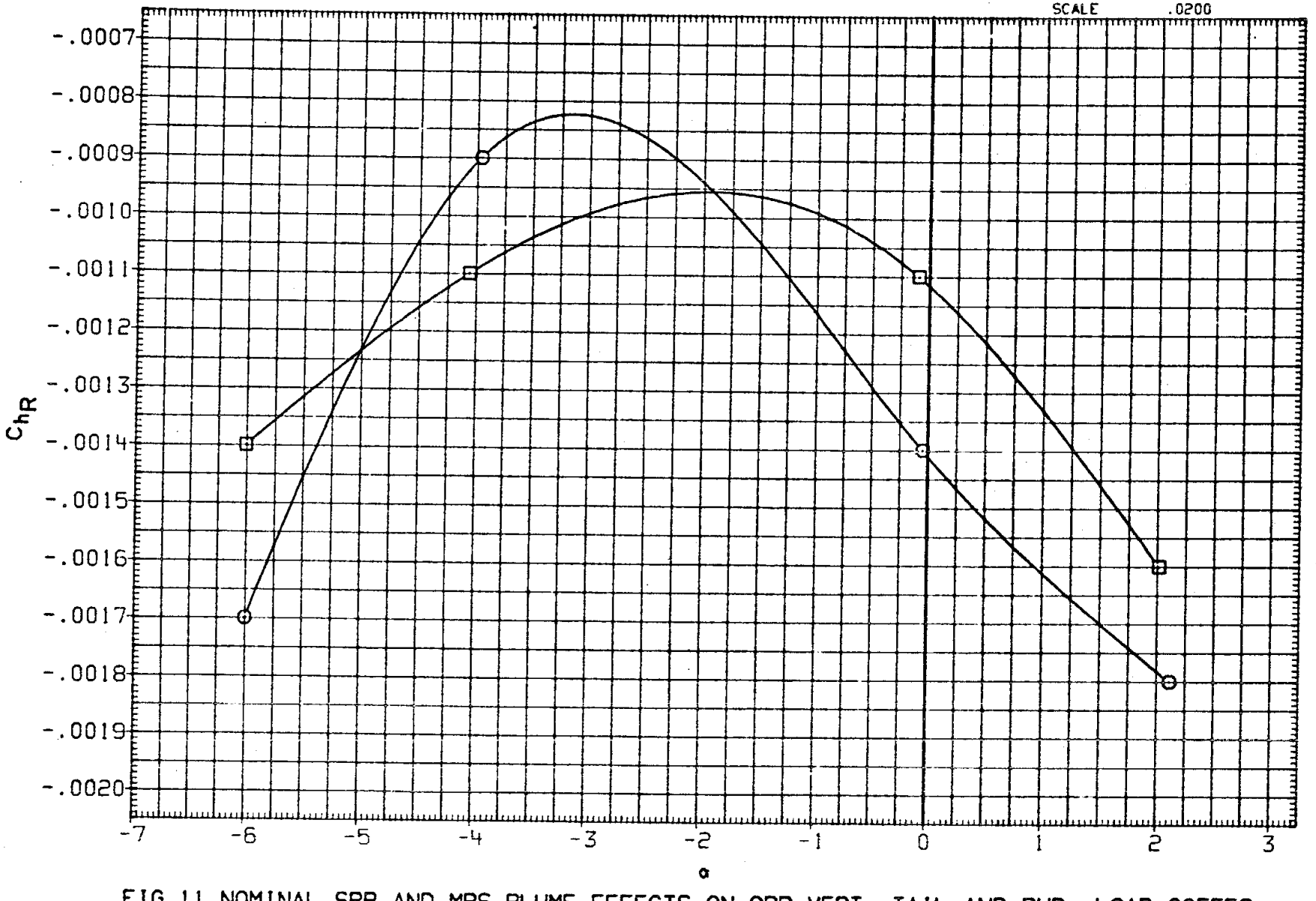

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA38	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	8.000	4.000
HNEA41	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

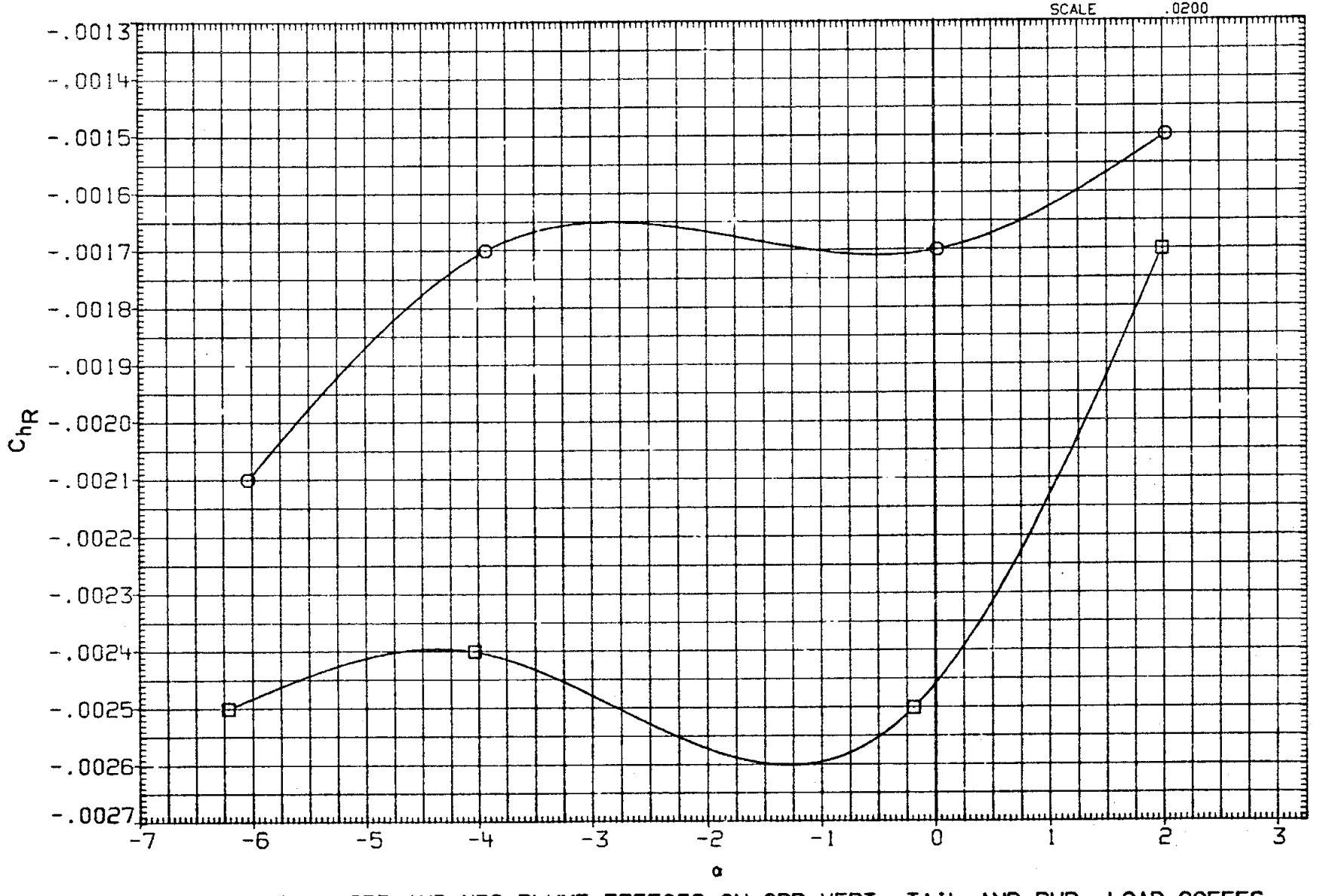

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

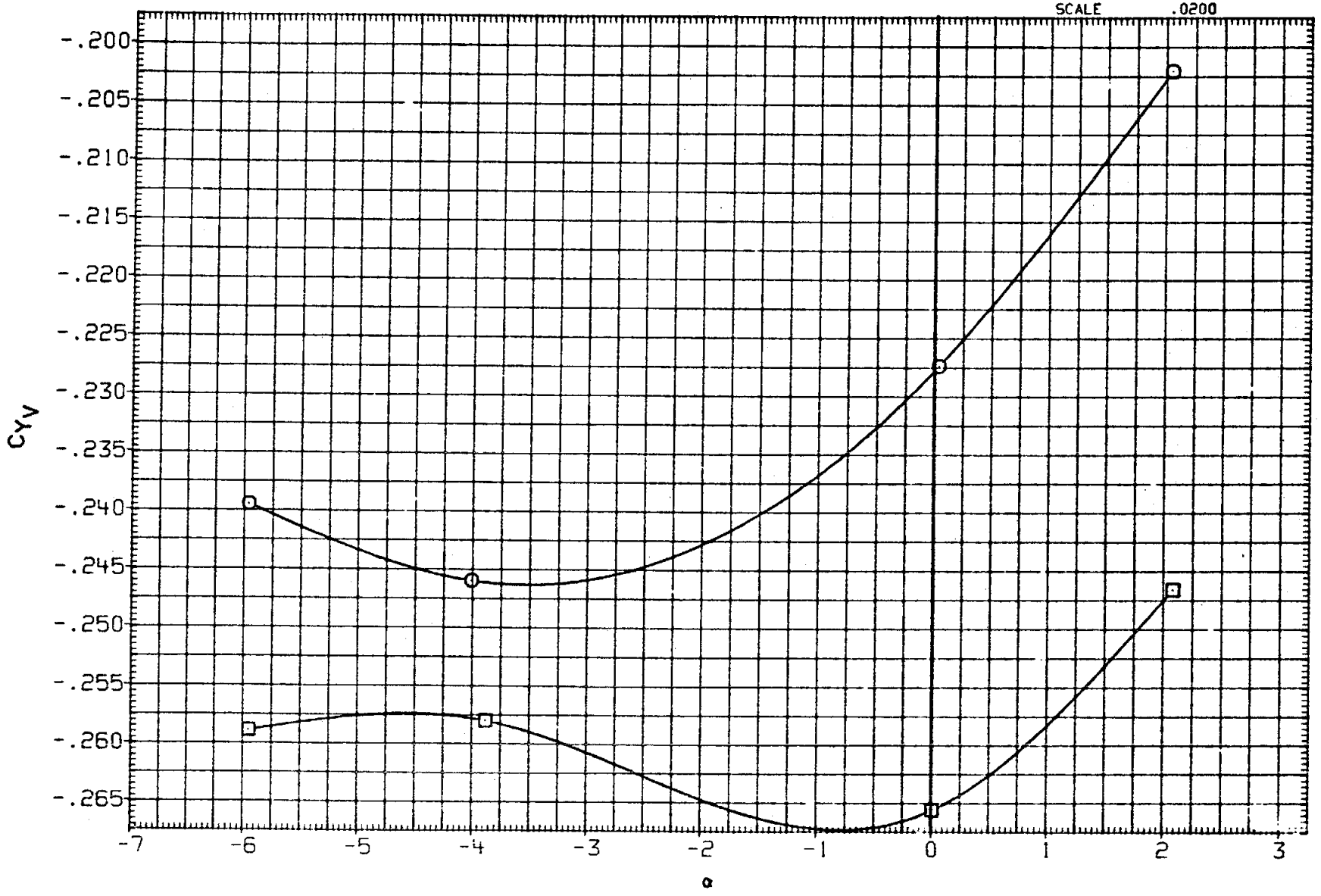

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

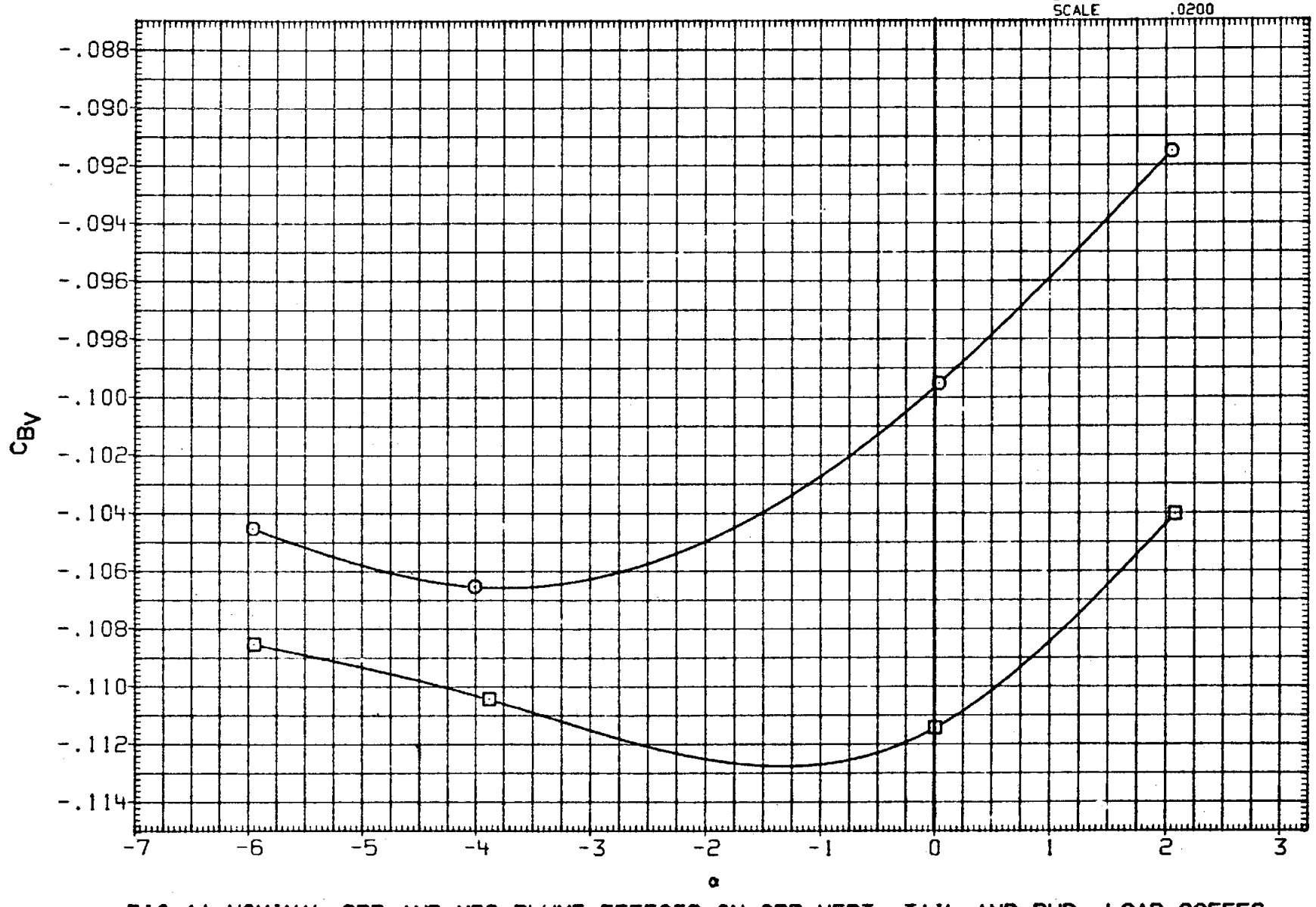

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .91

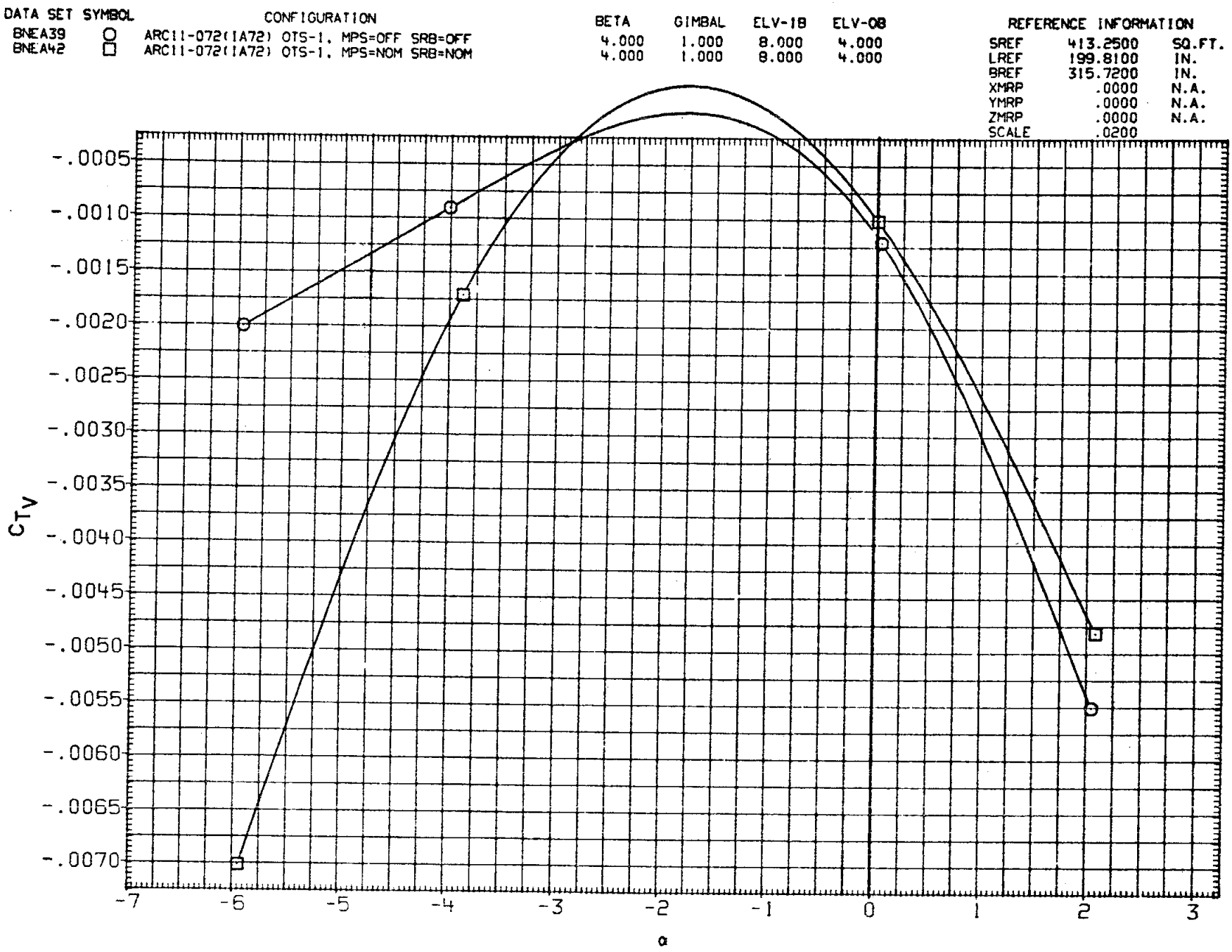

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

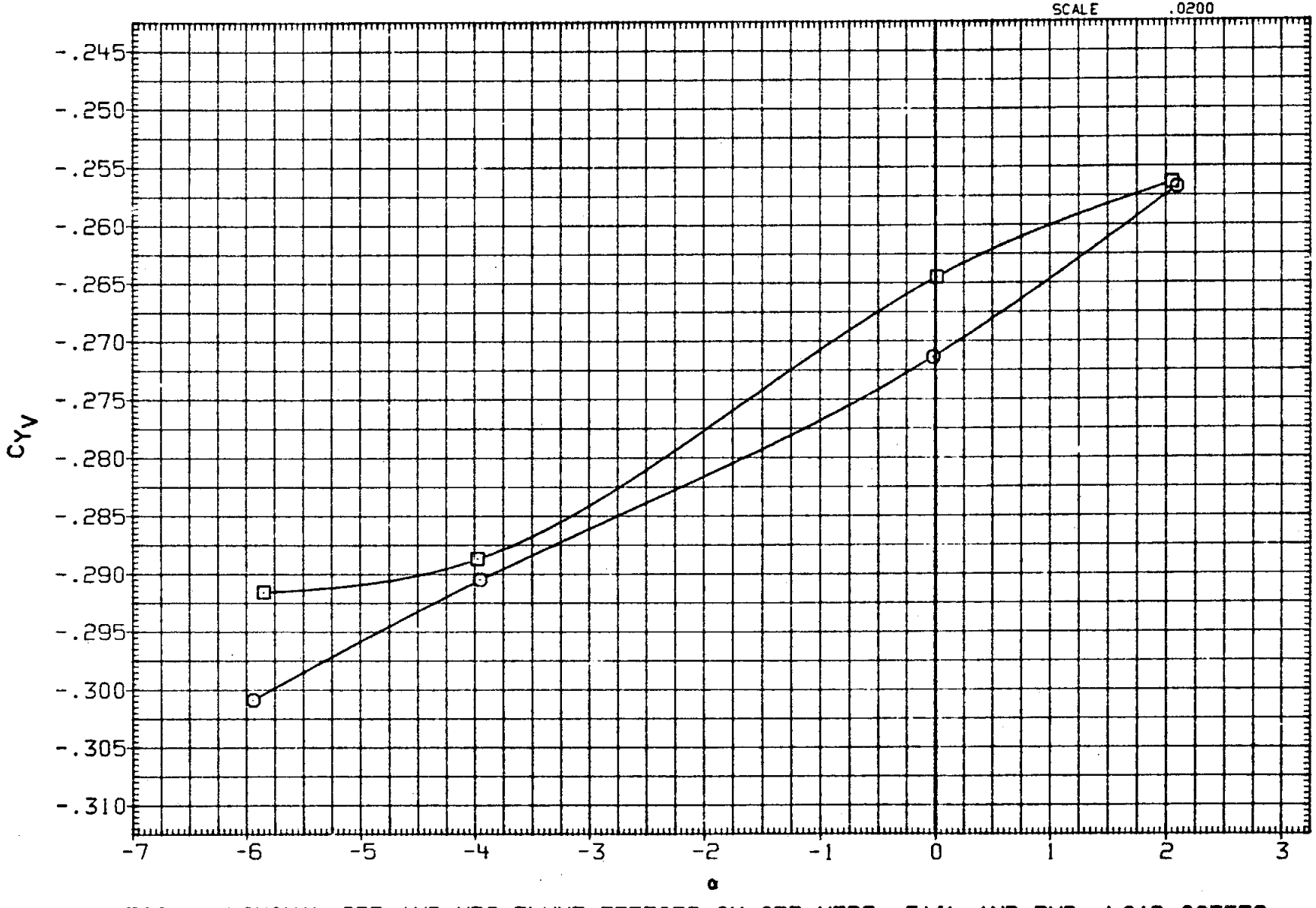

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

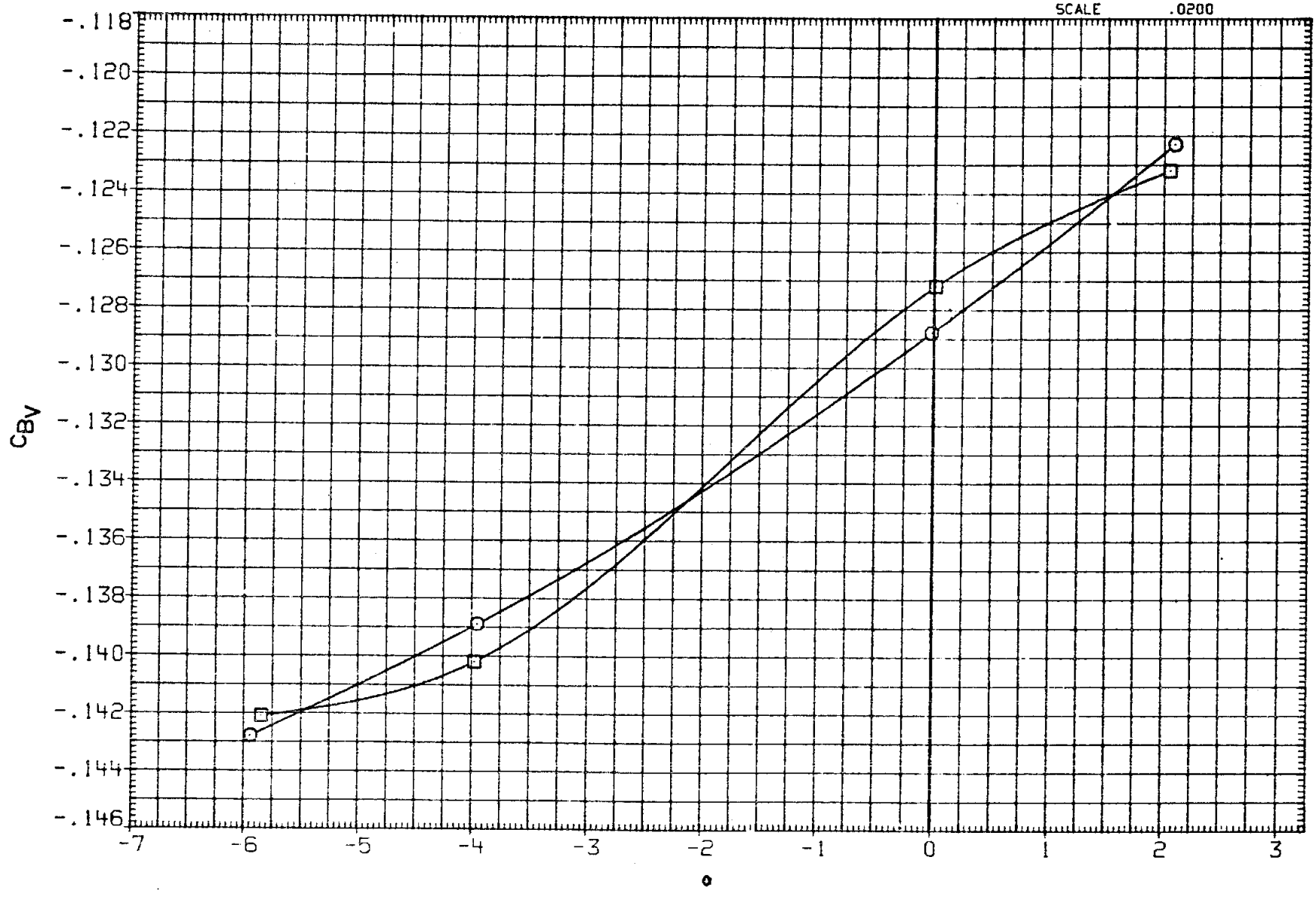

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

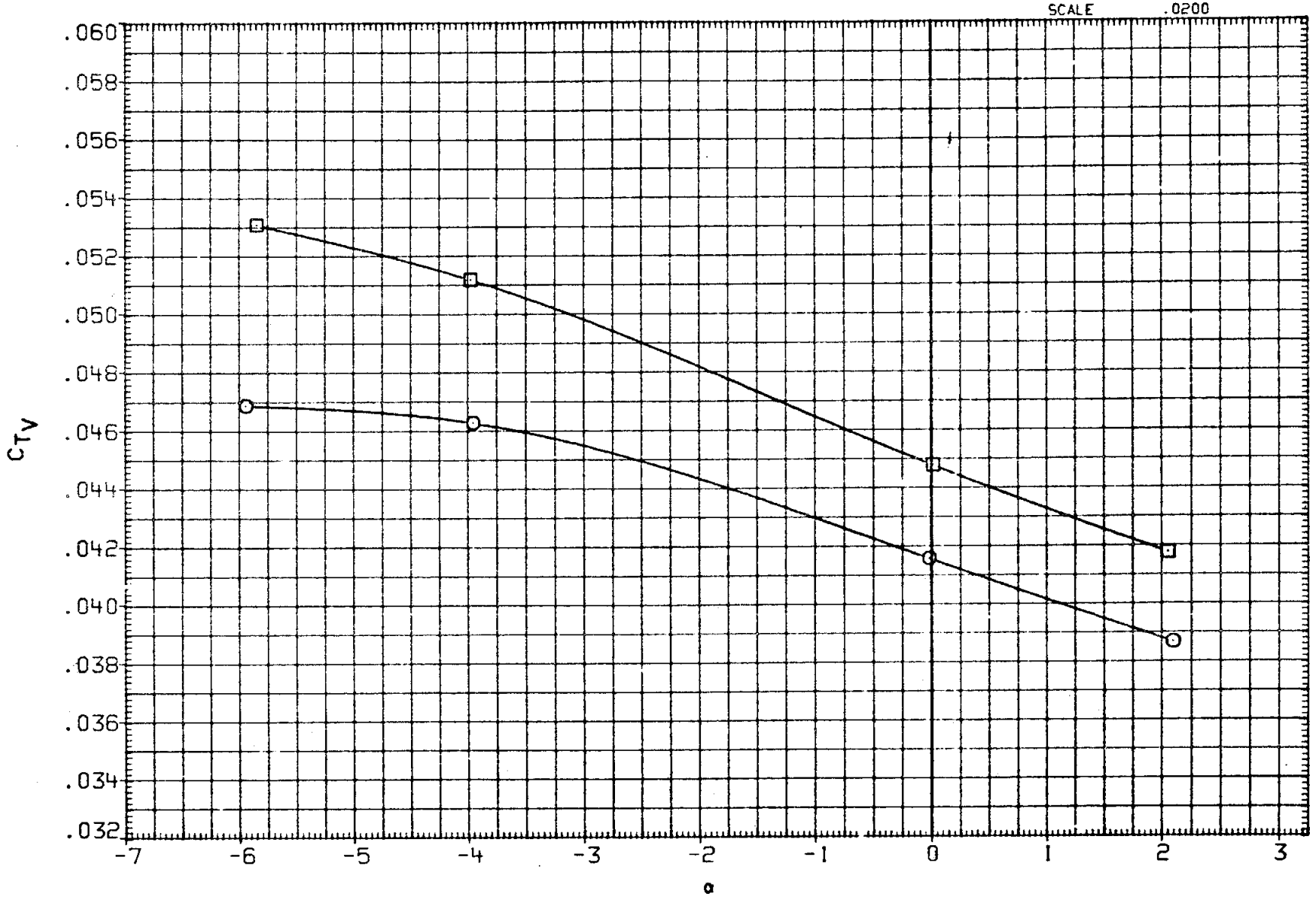

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

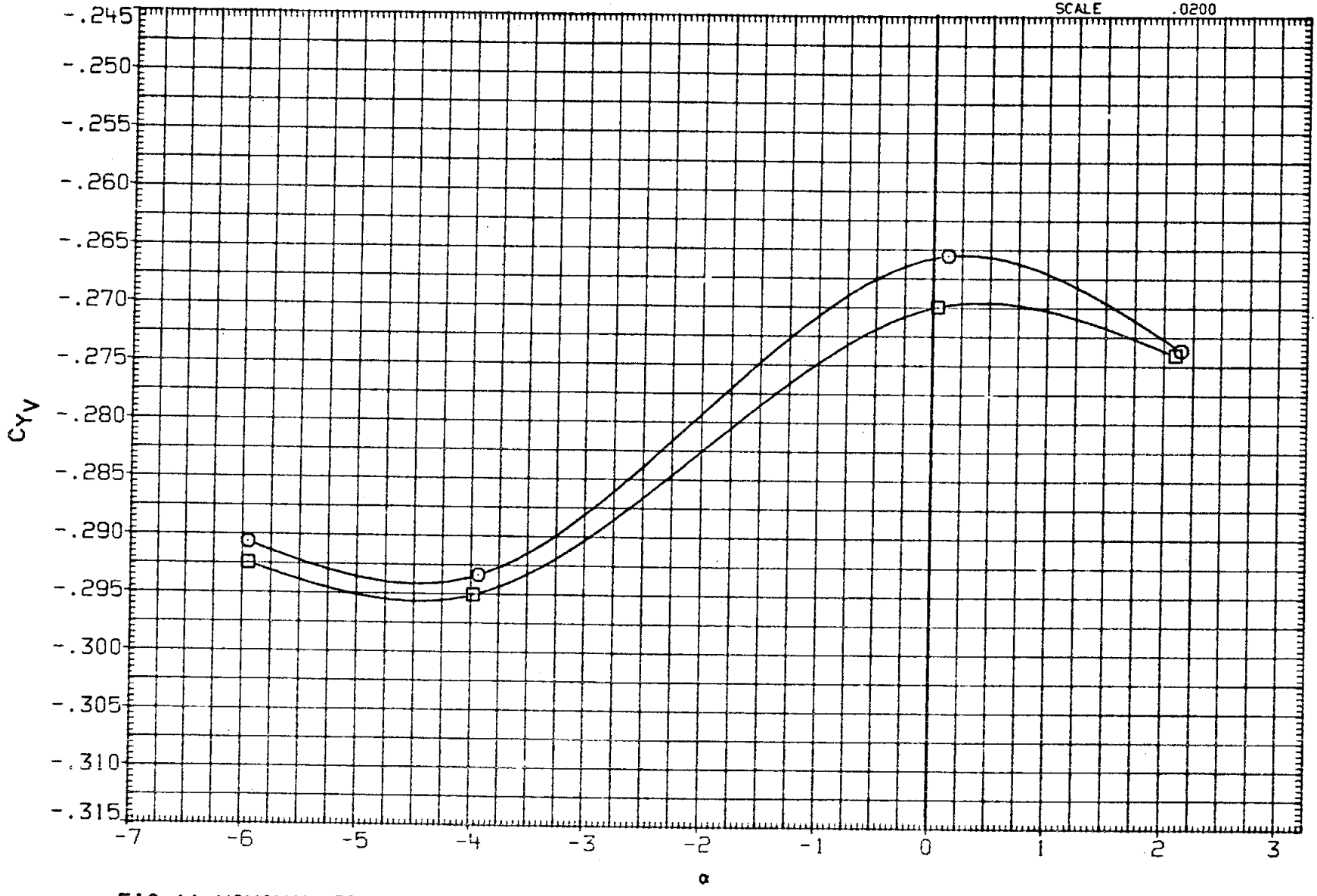

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

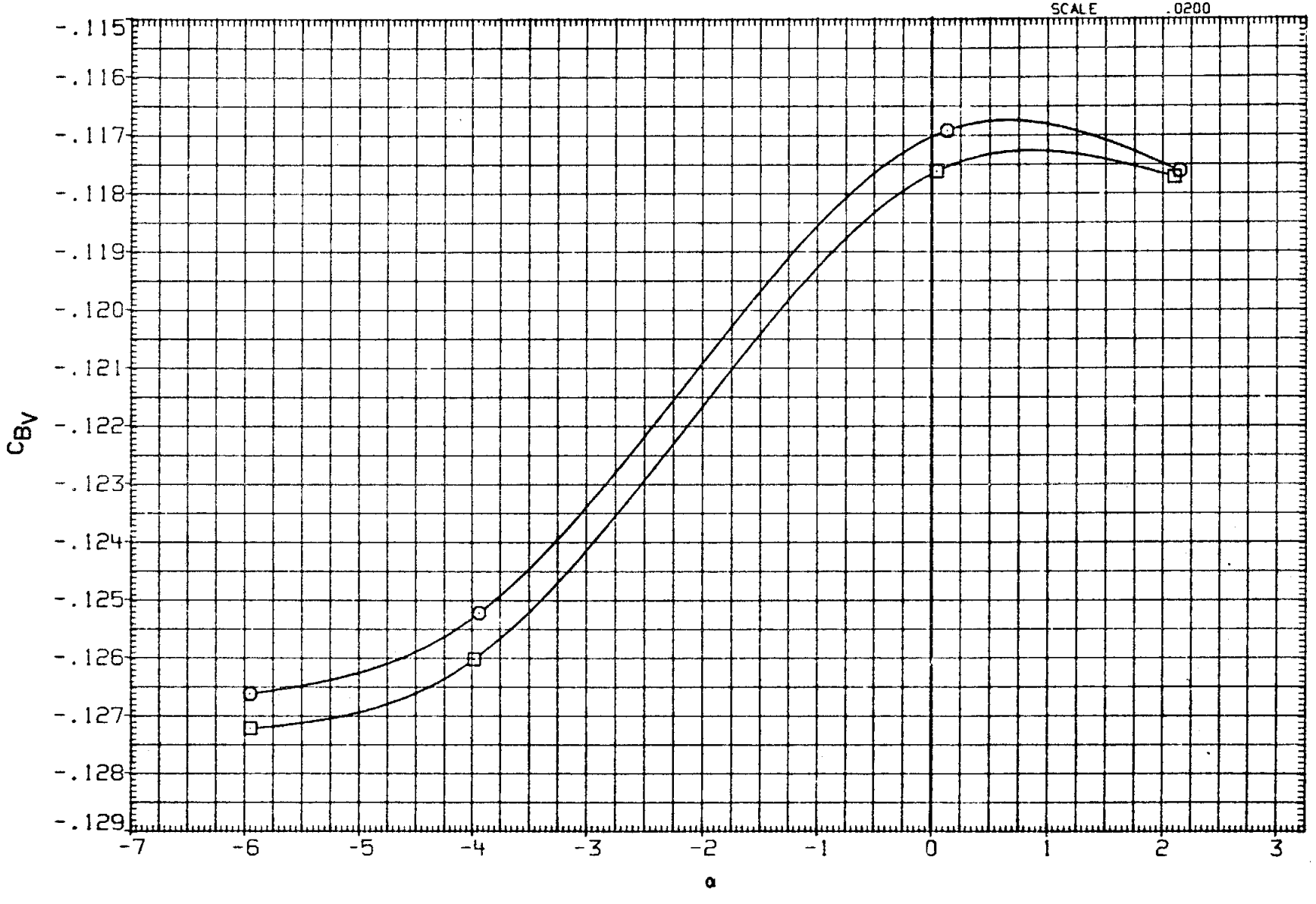

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

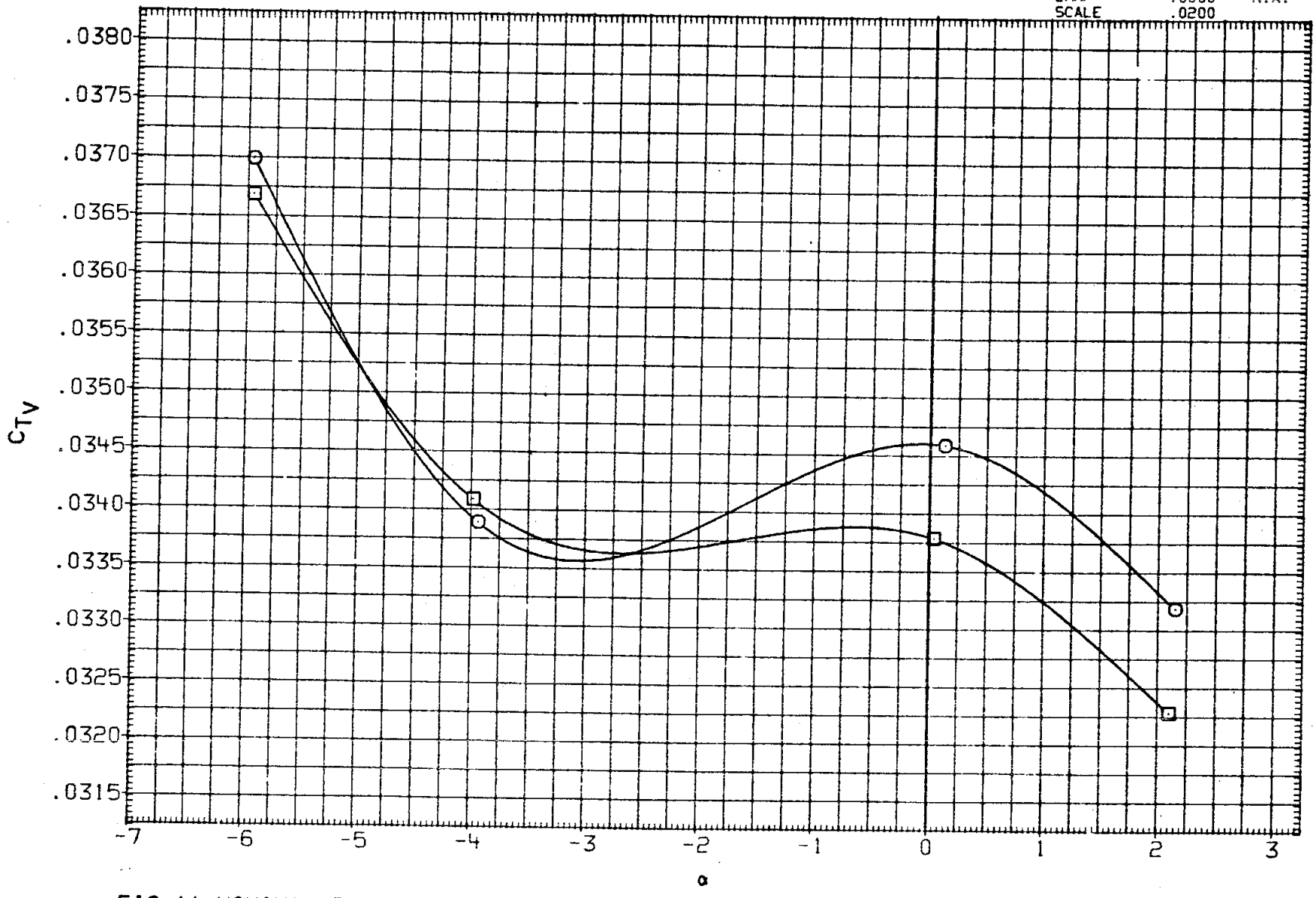

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

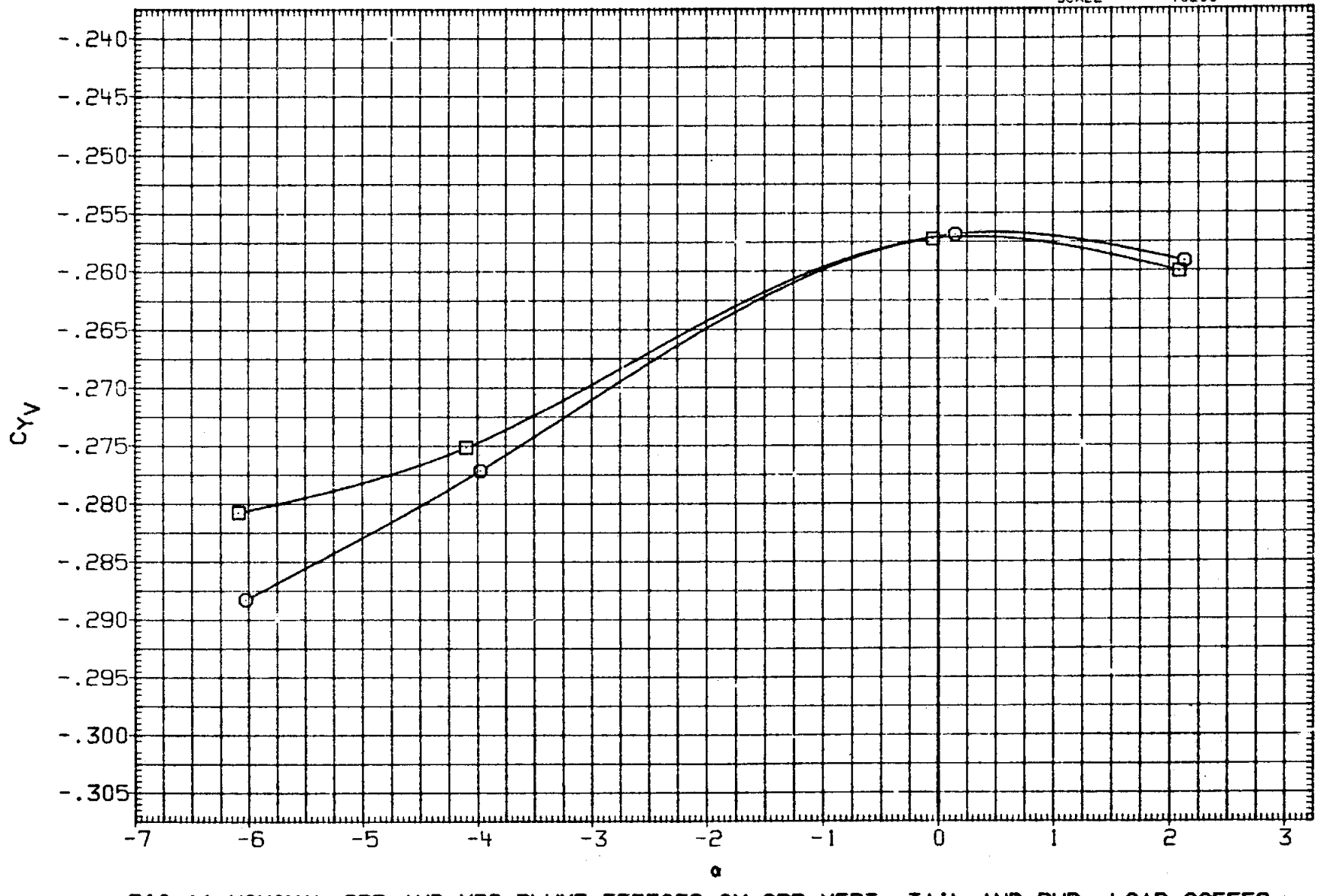

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

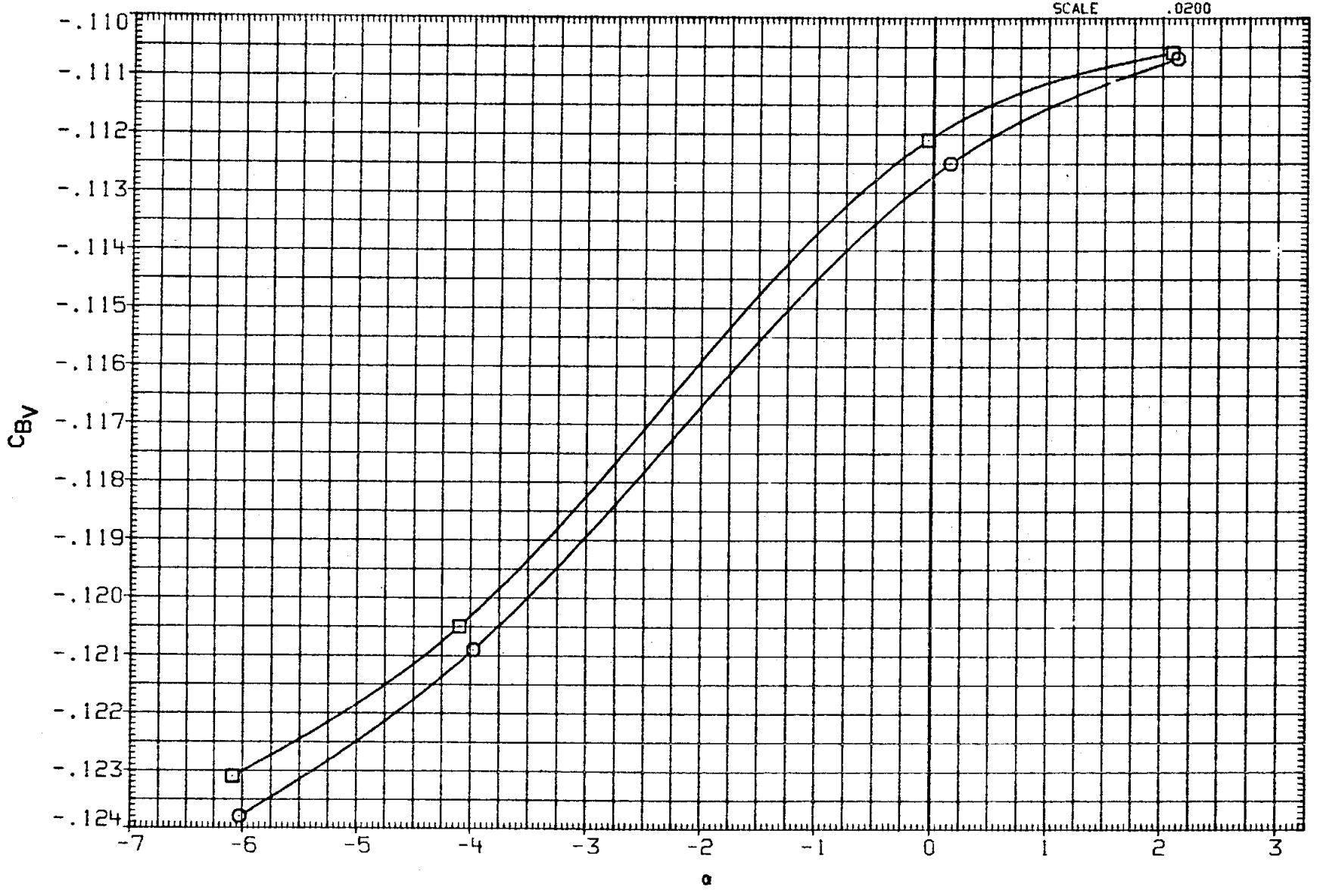

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
BNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

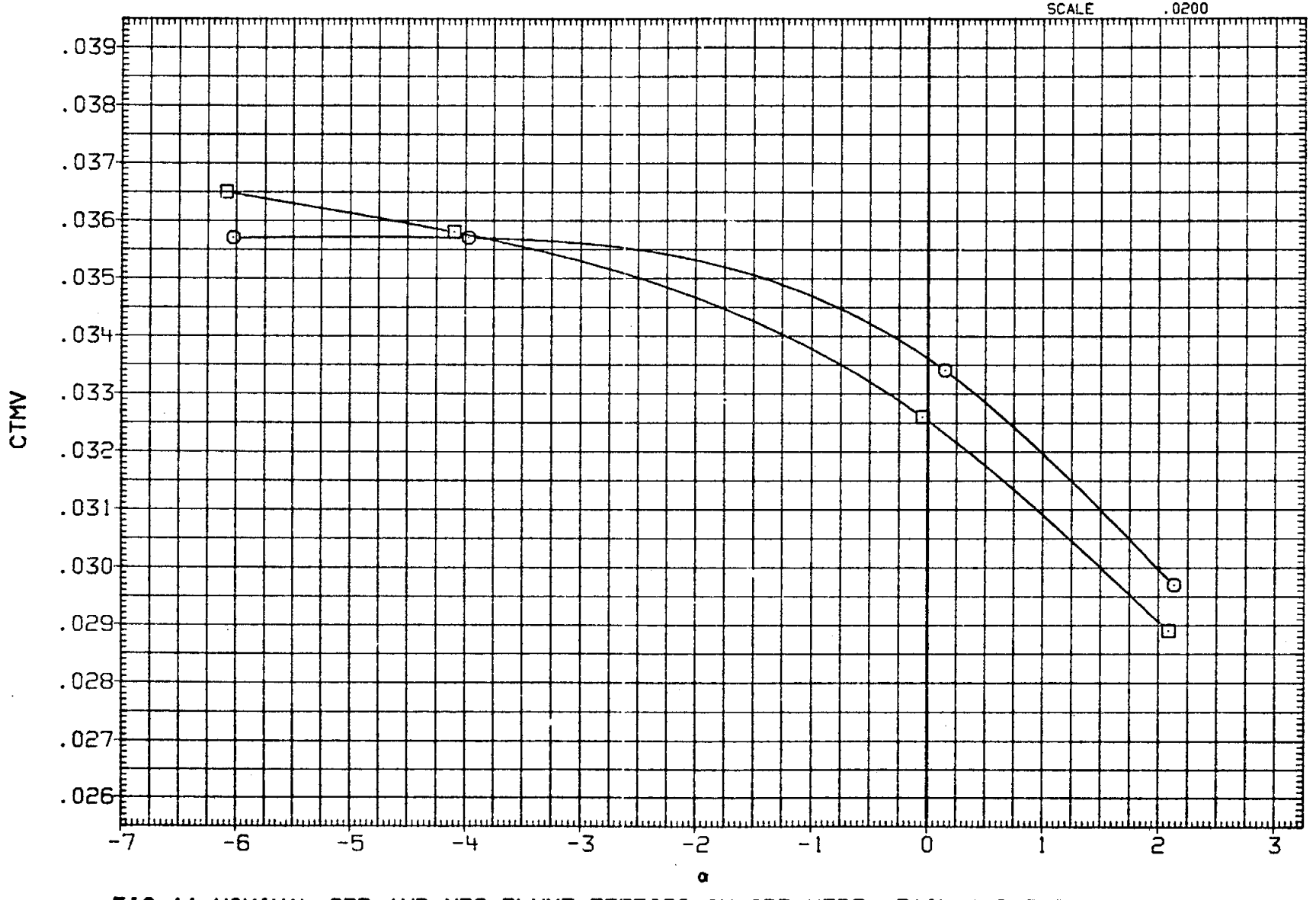

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA39	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
HNEA42	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

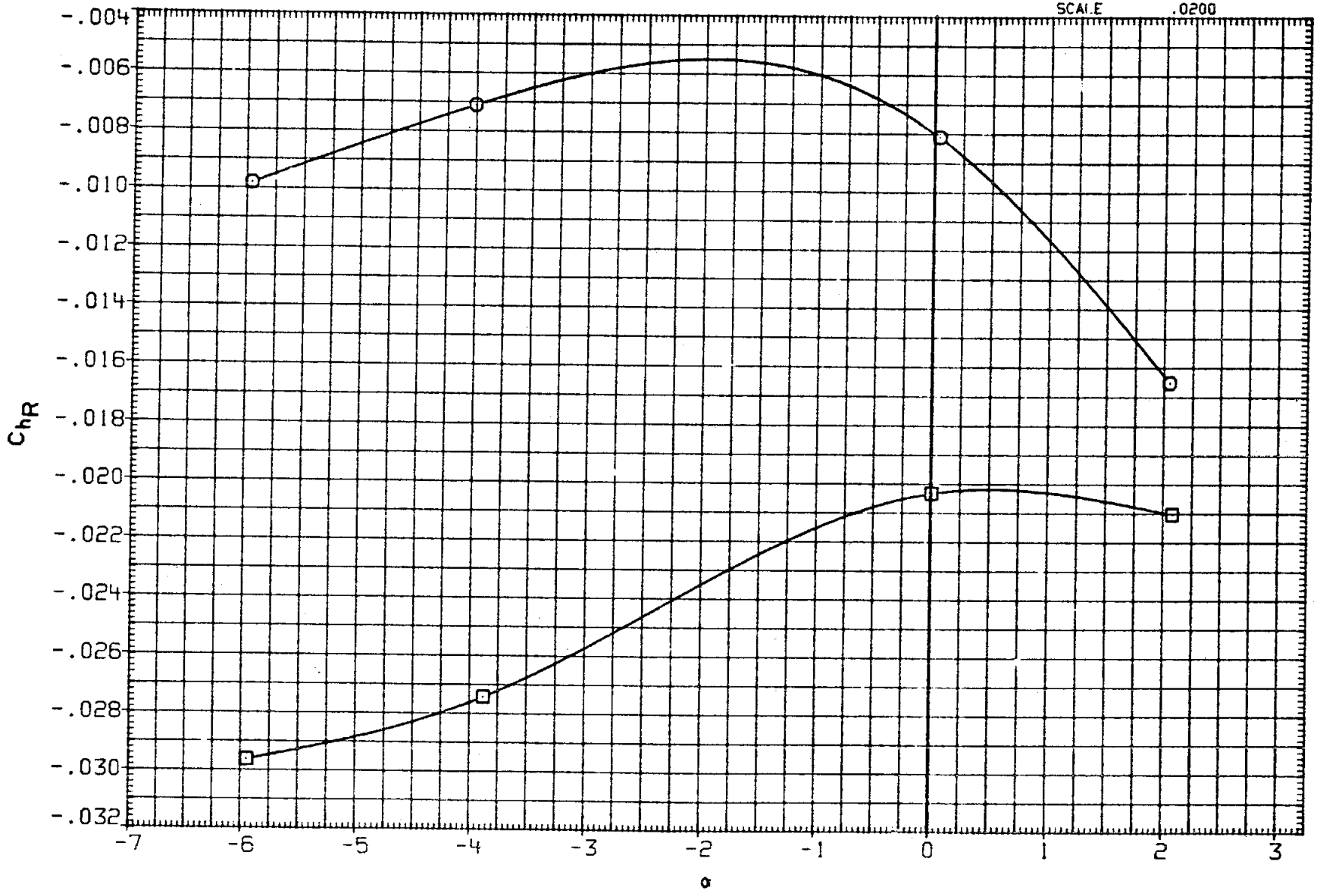

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .91

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
HNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION		
SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

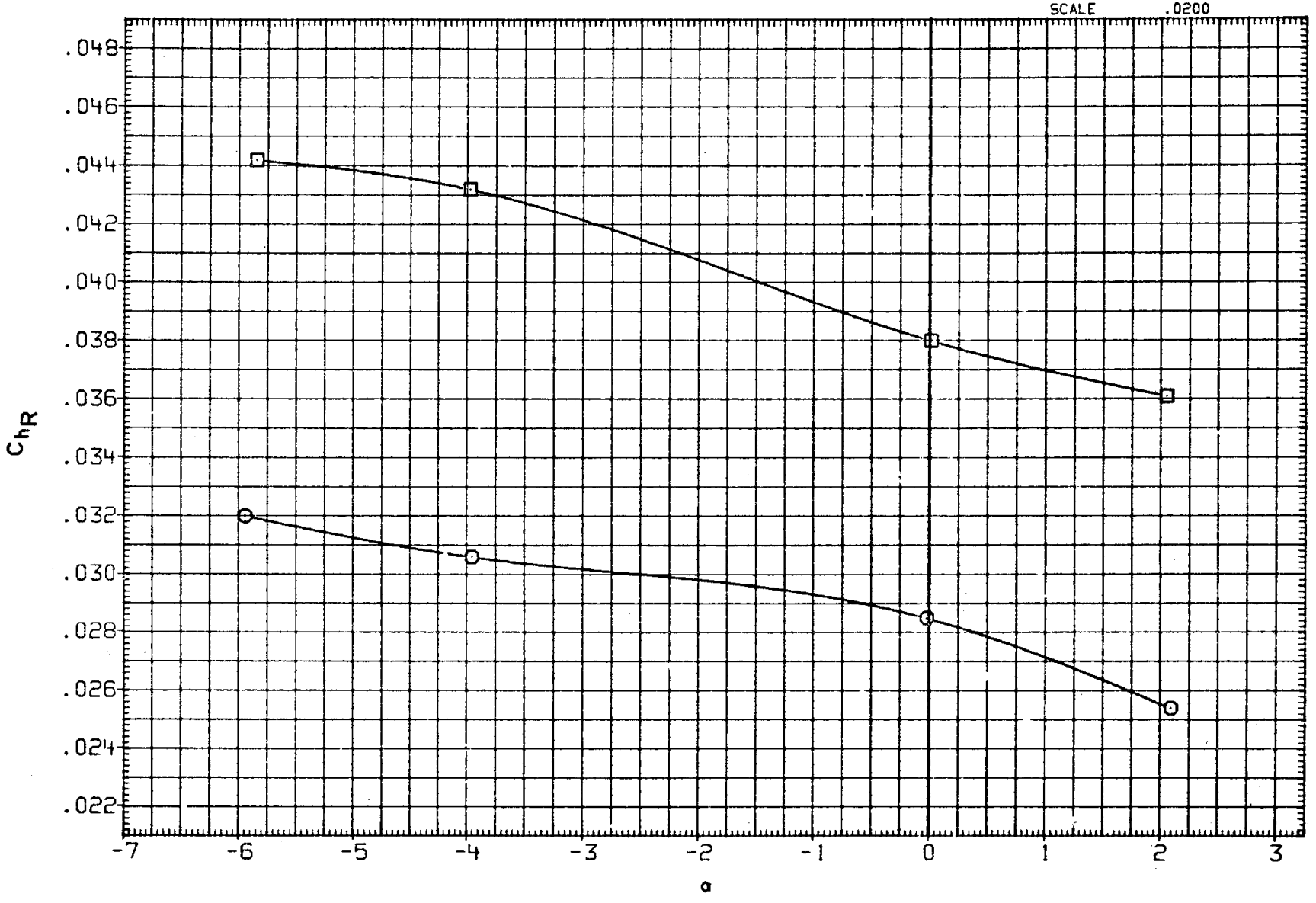

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-1B	ELV-0B
HNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
HNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

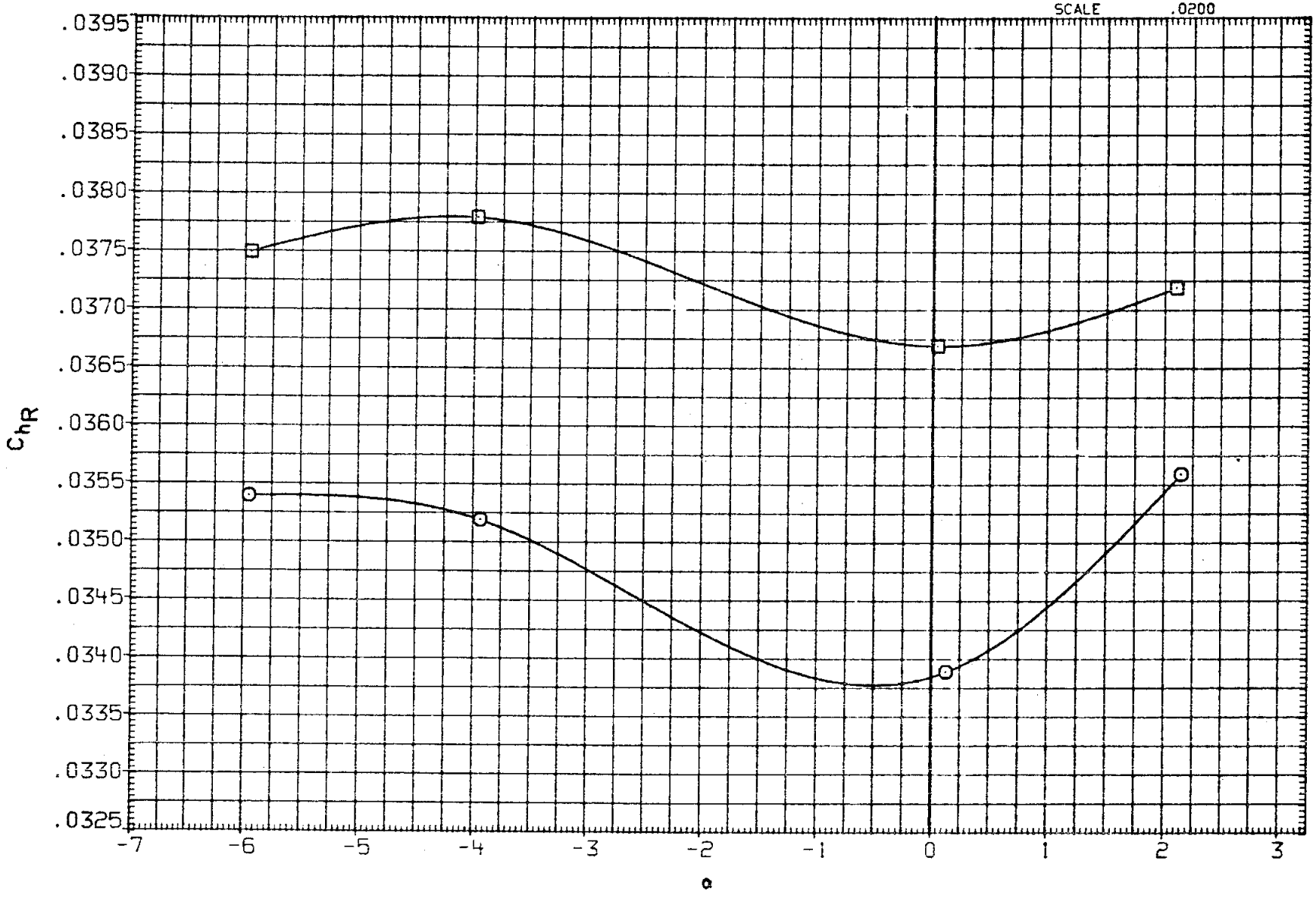

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA39	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	8.000	4.000
HNEA42	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	8.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

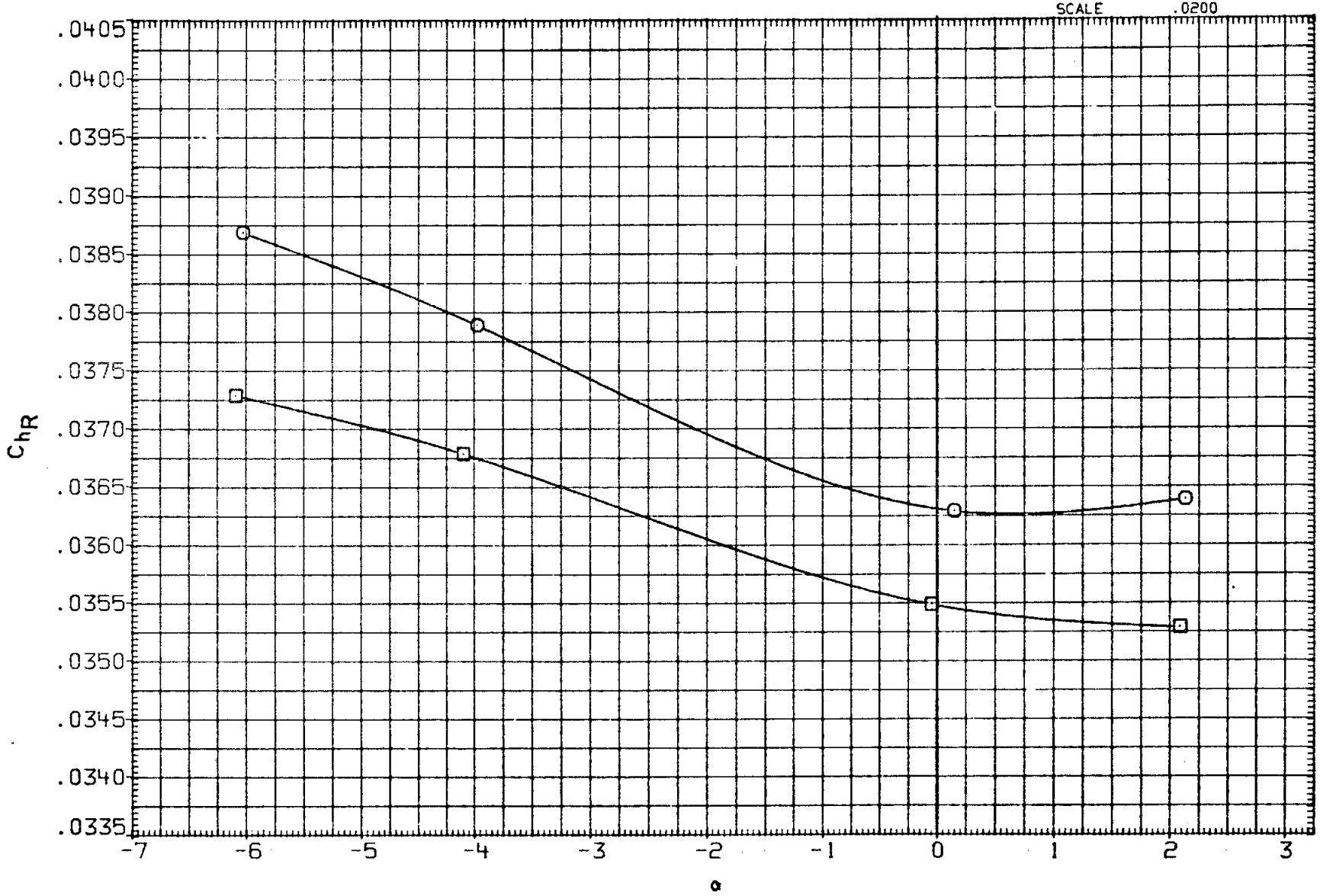

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

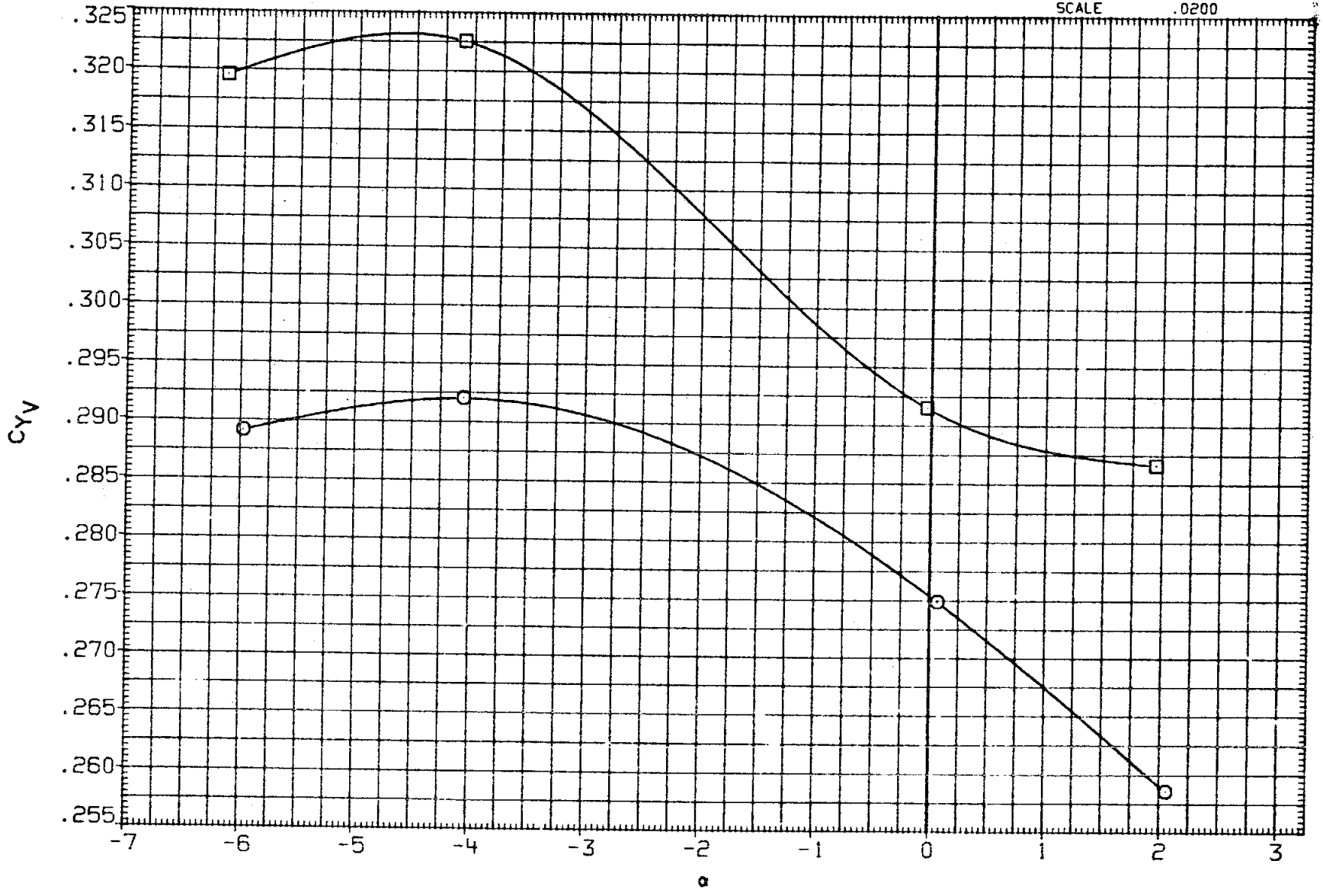

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

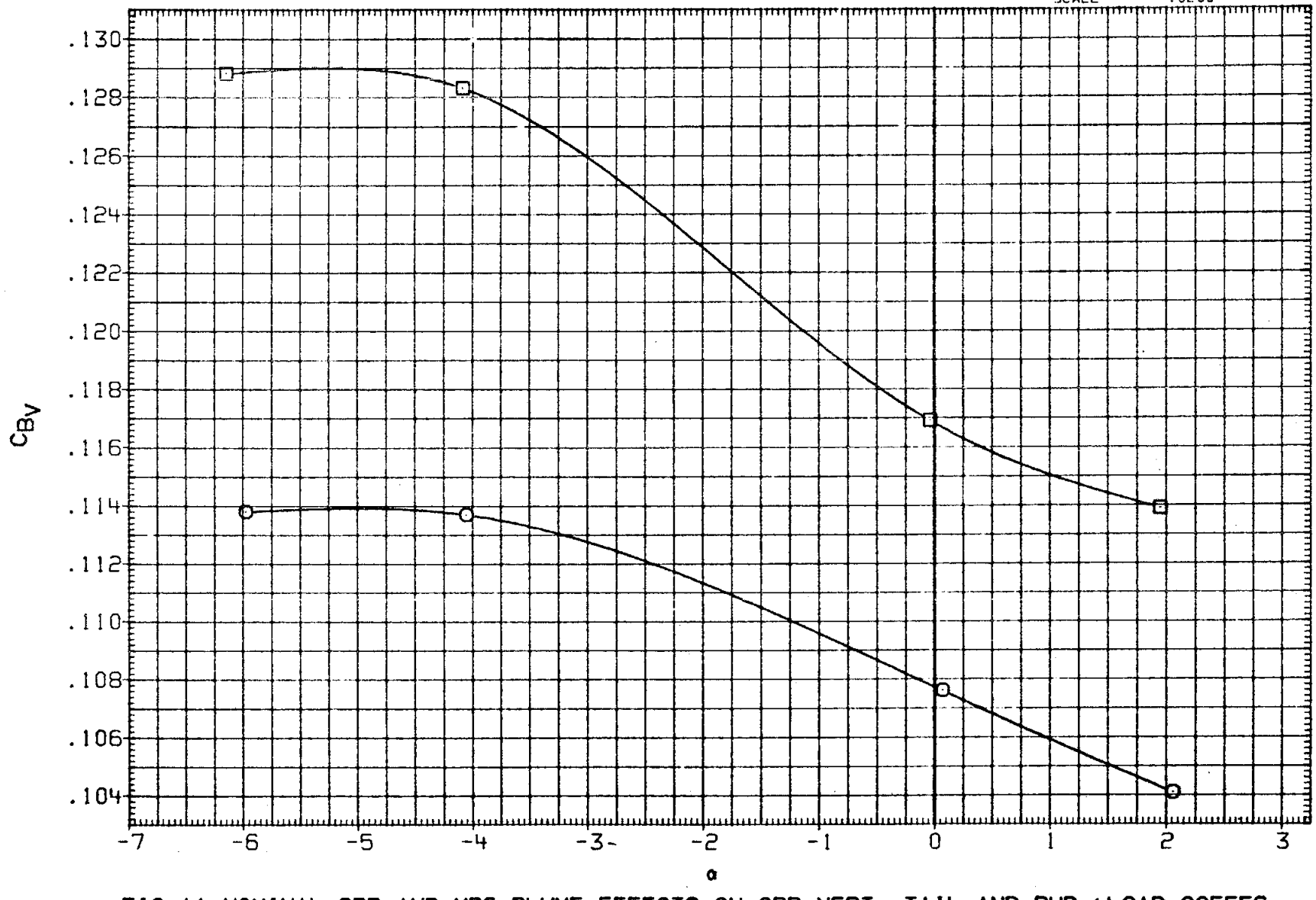

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

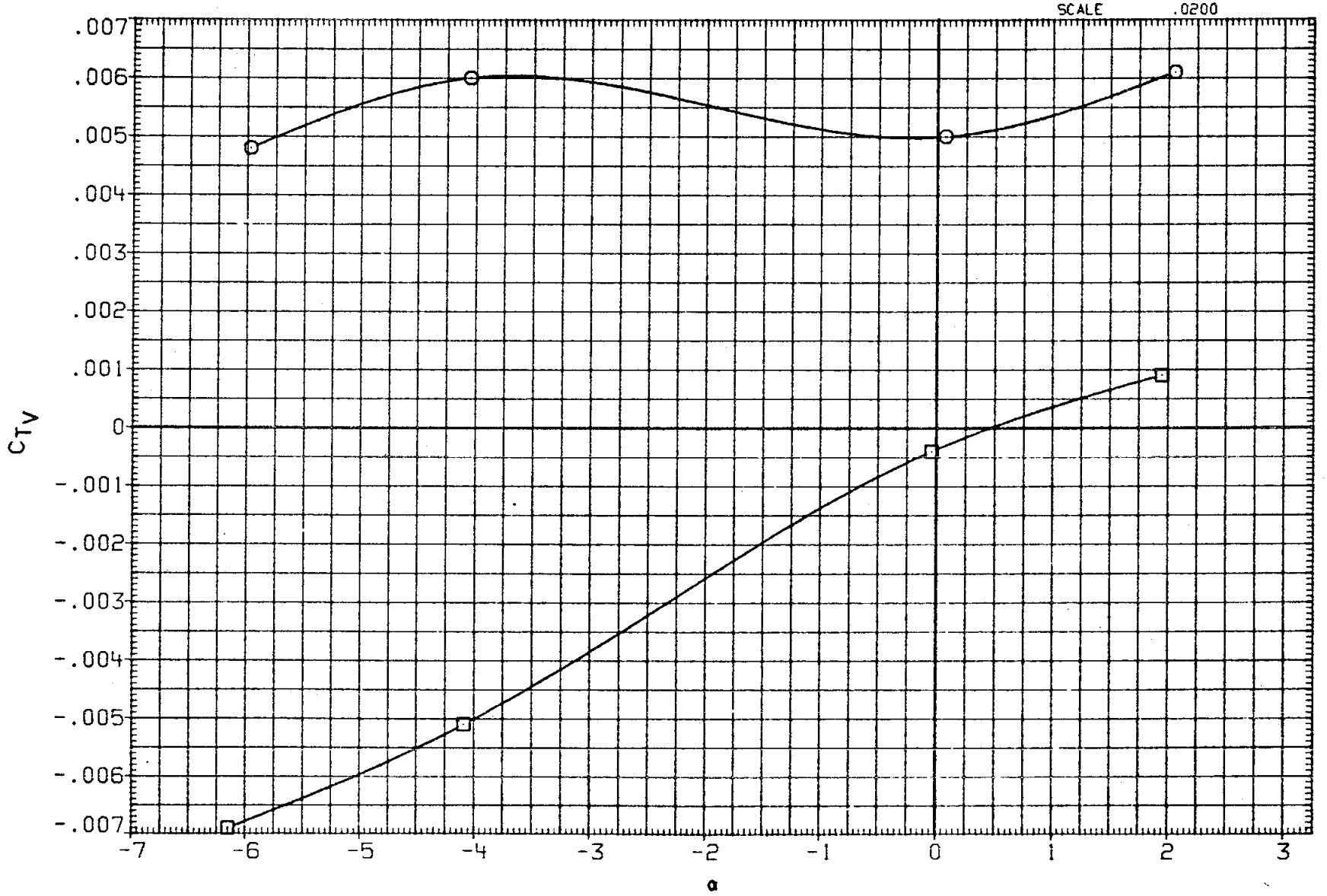

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

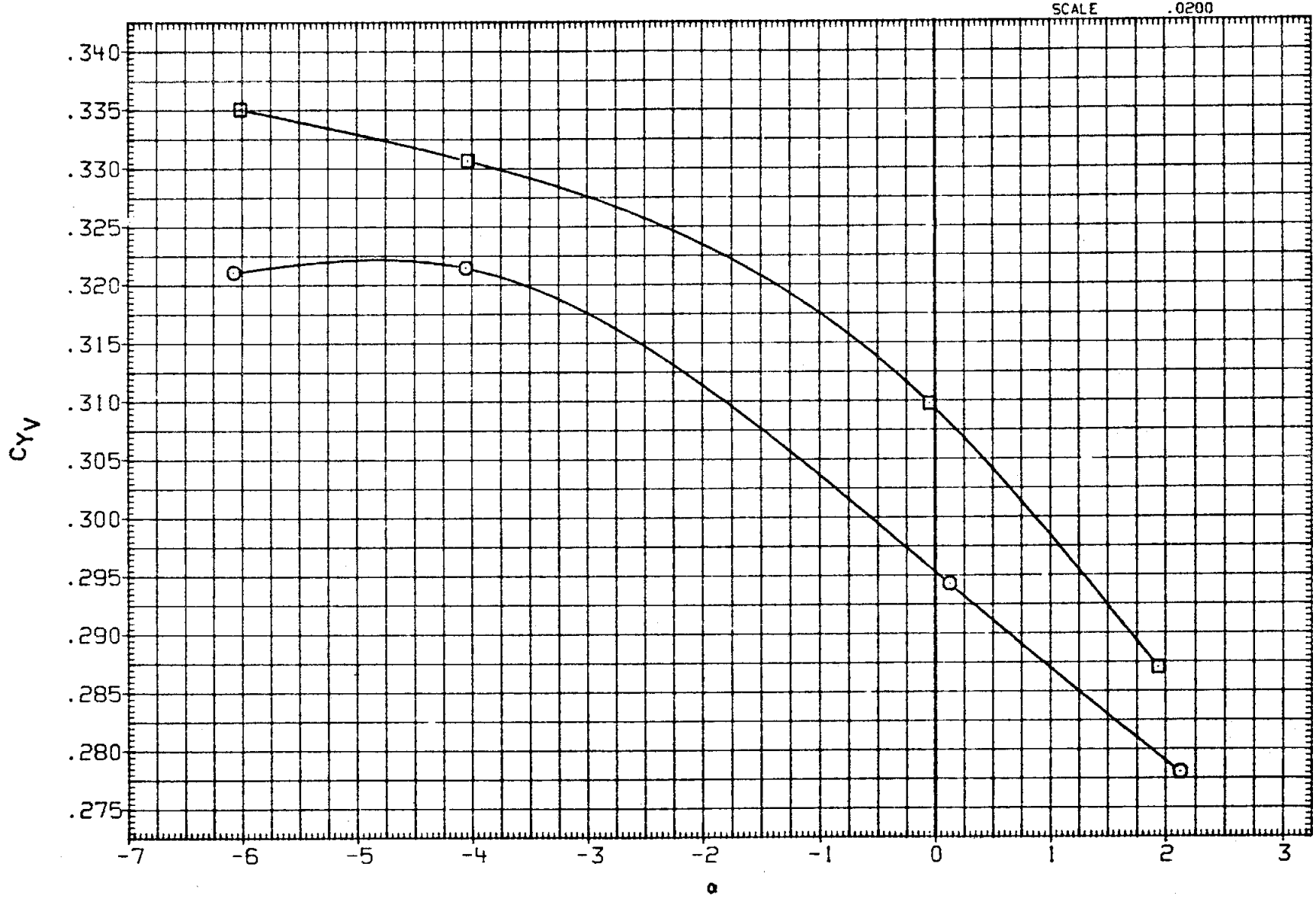

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

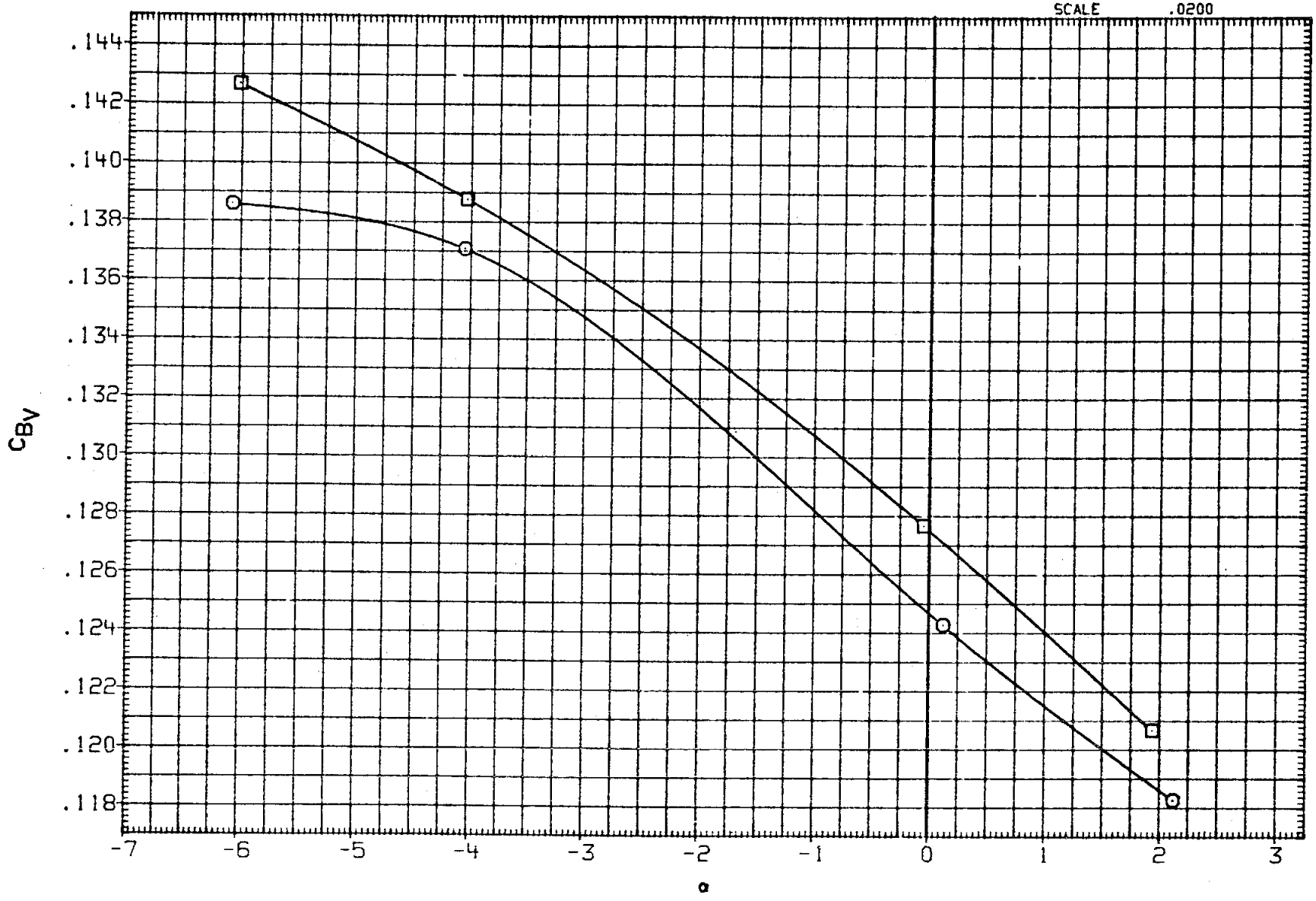

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

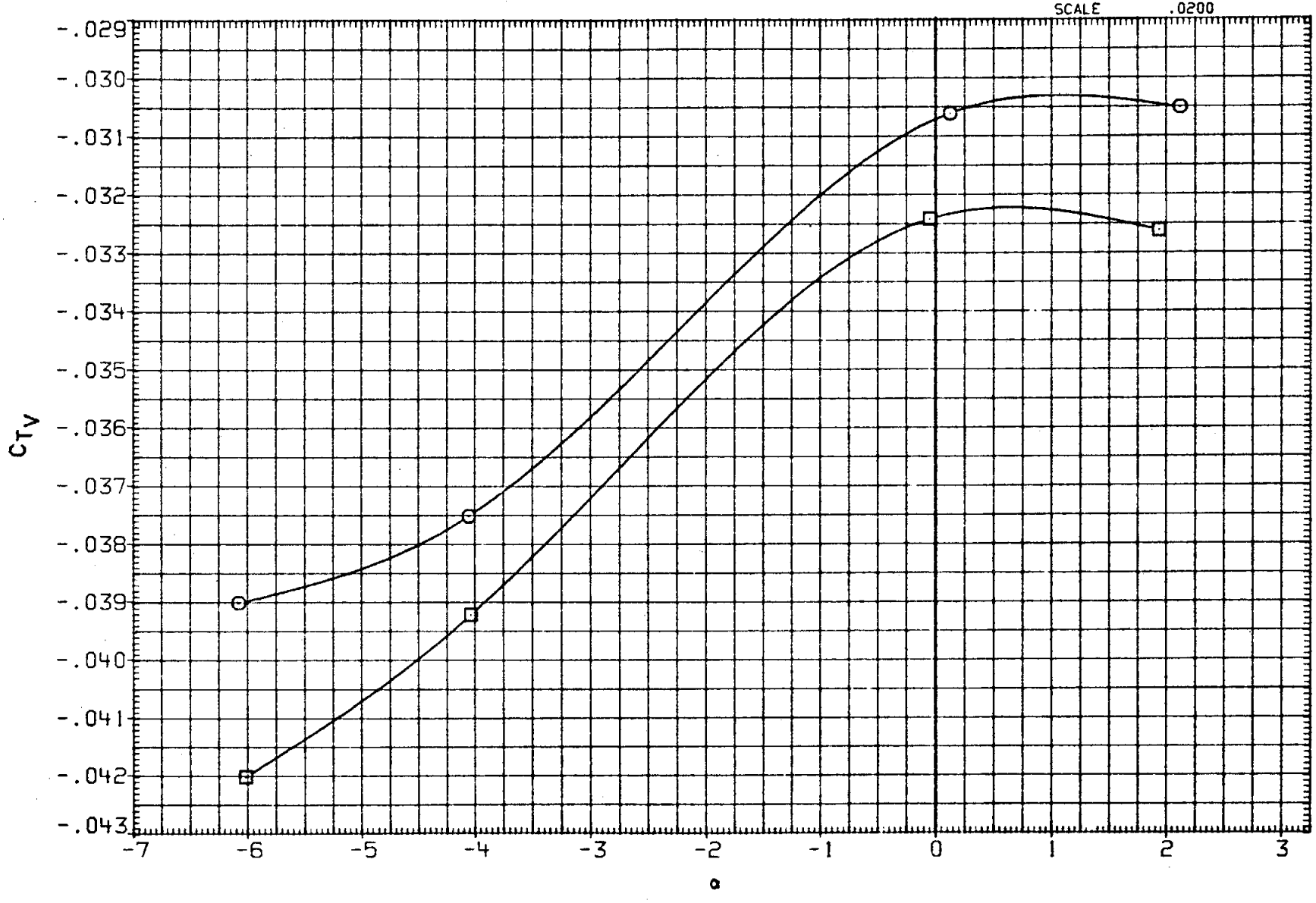

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

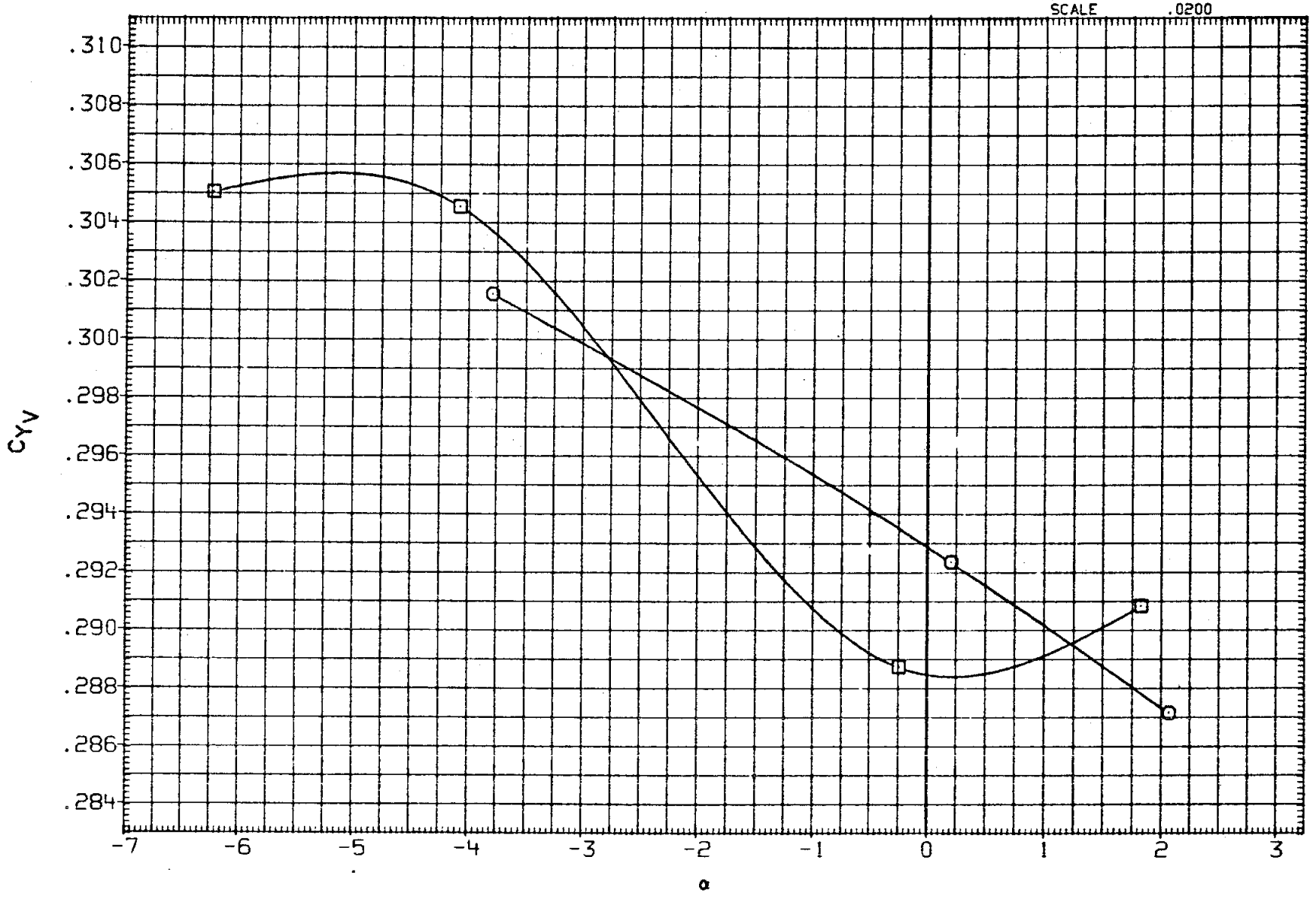

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

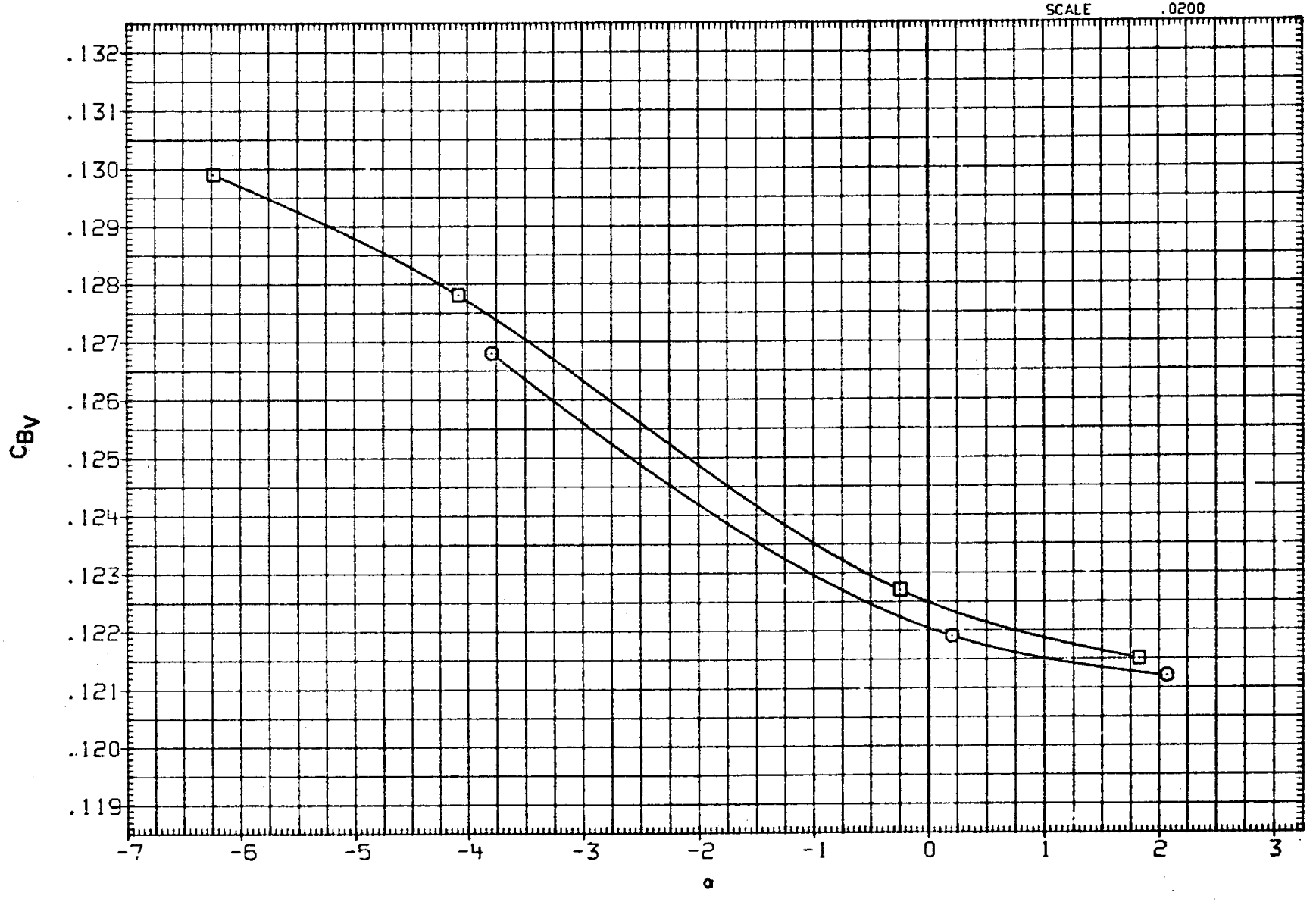

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

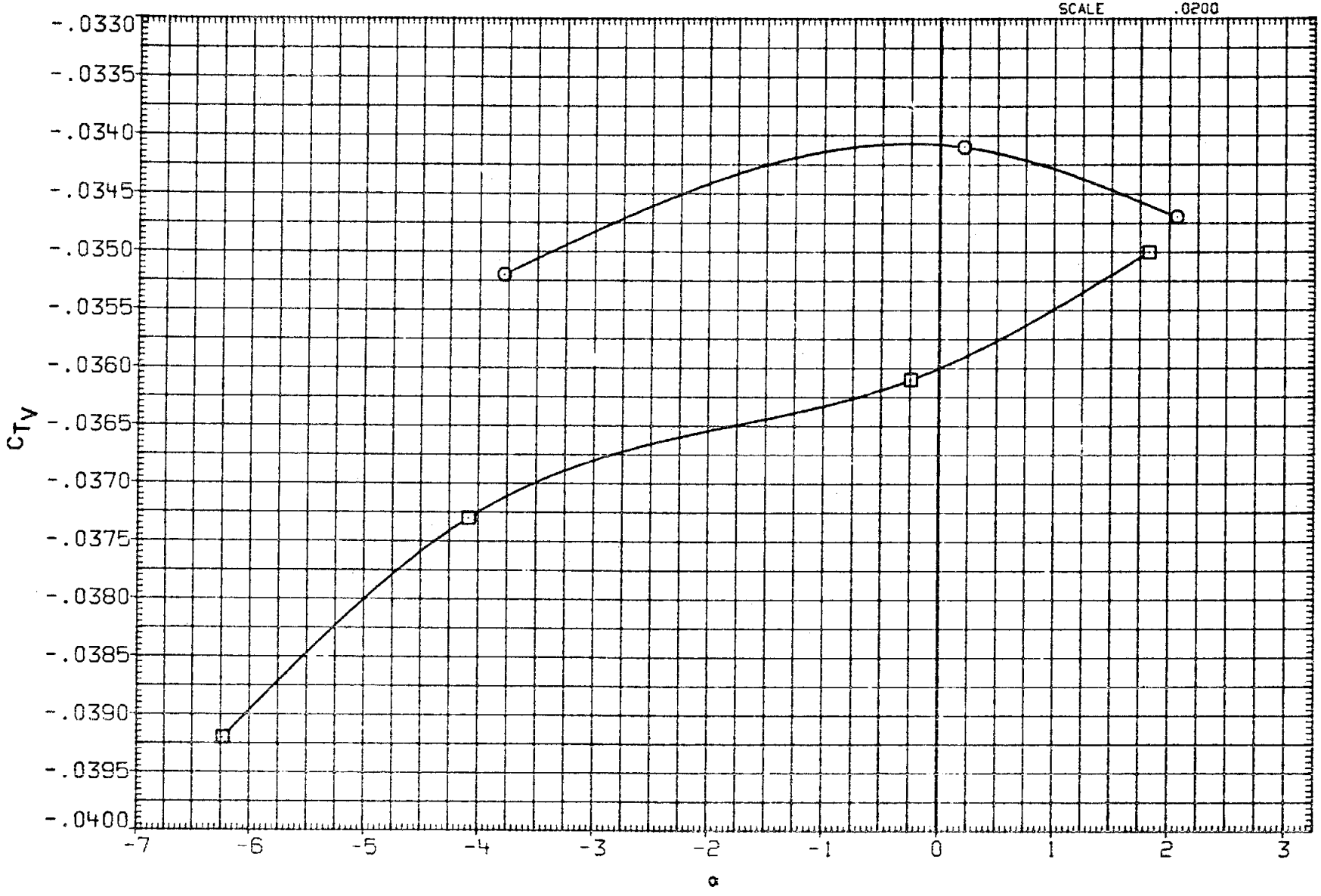

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

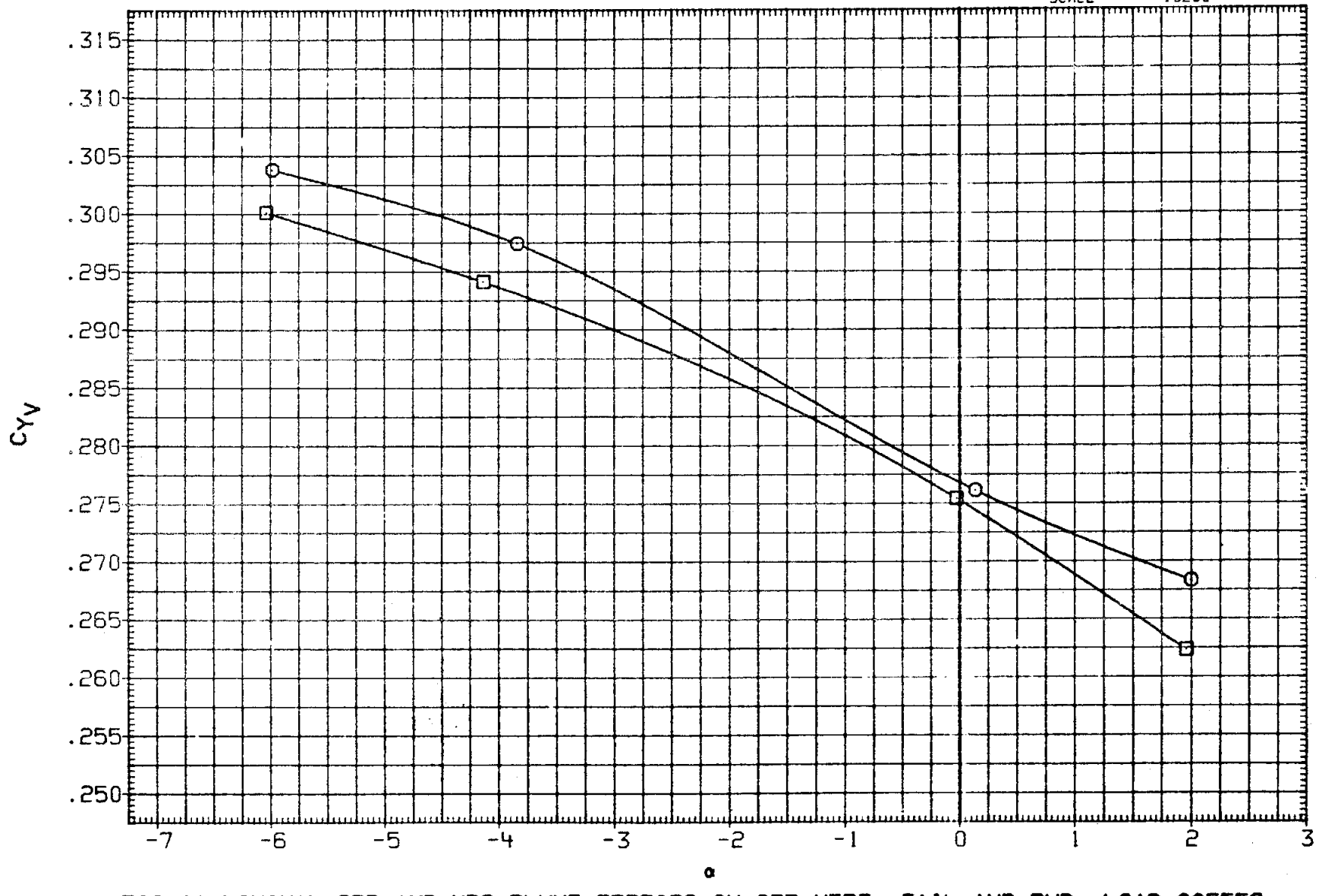

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

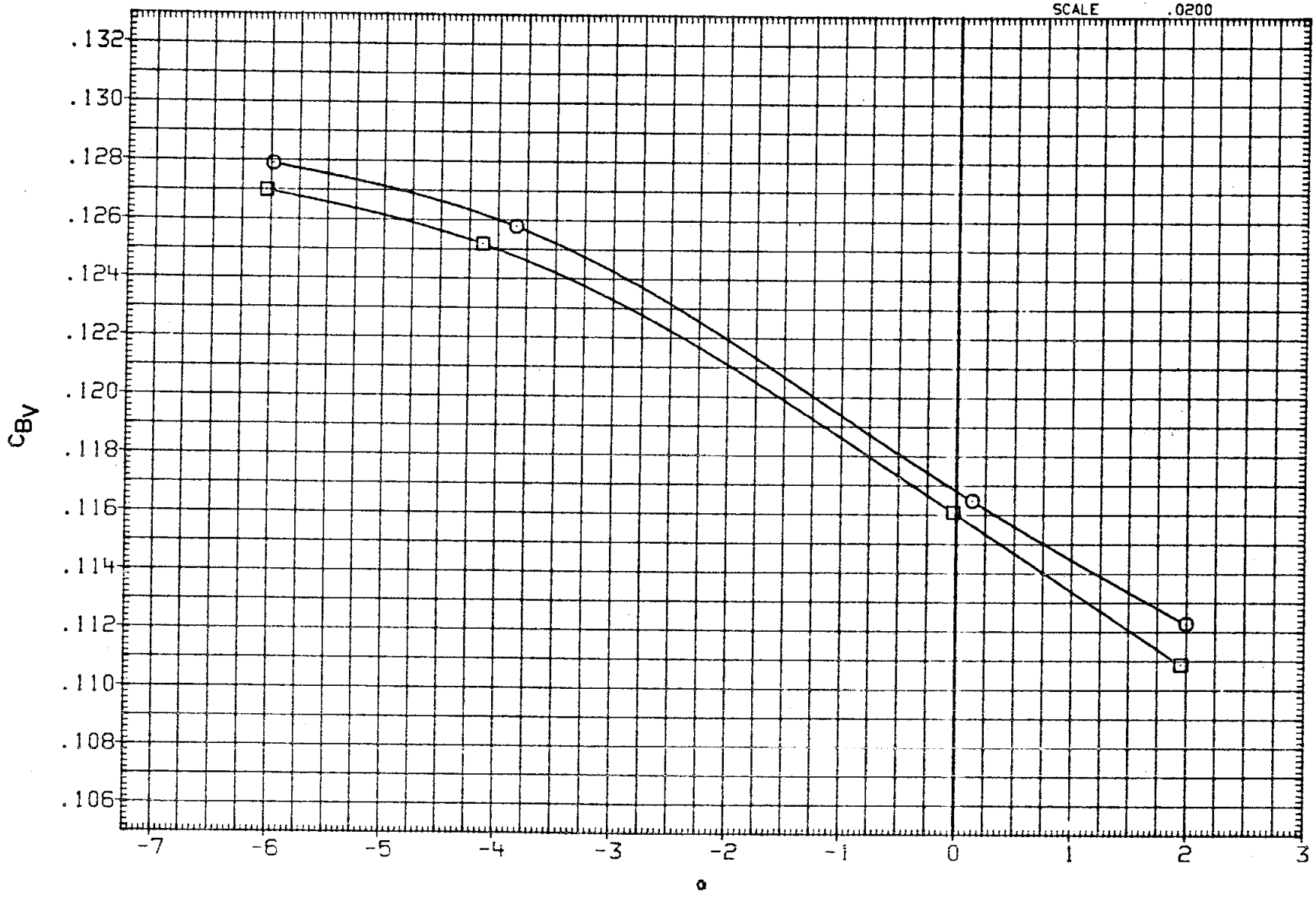

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
BNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

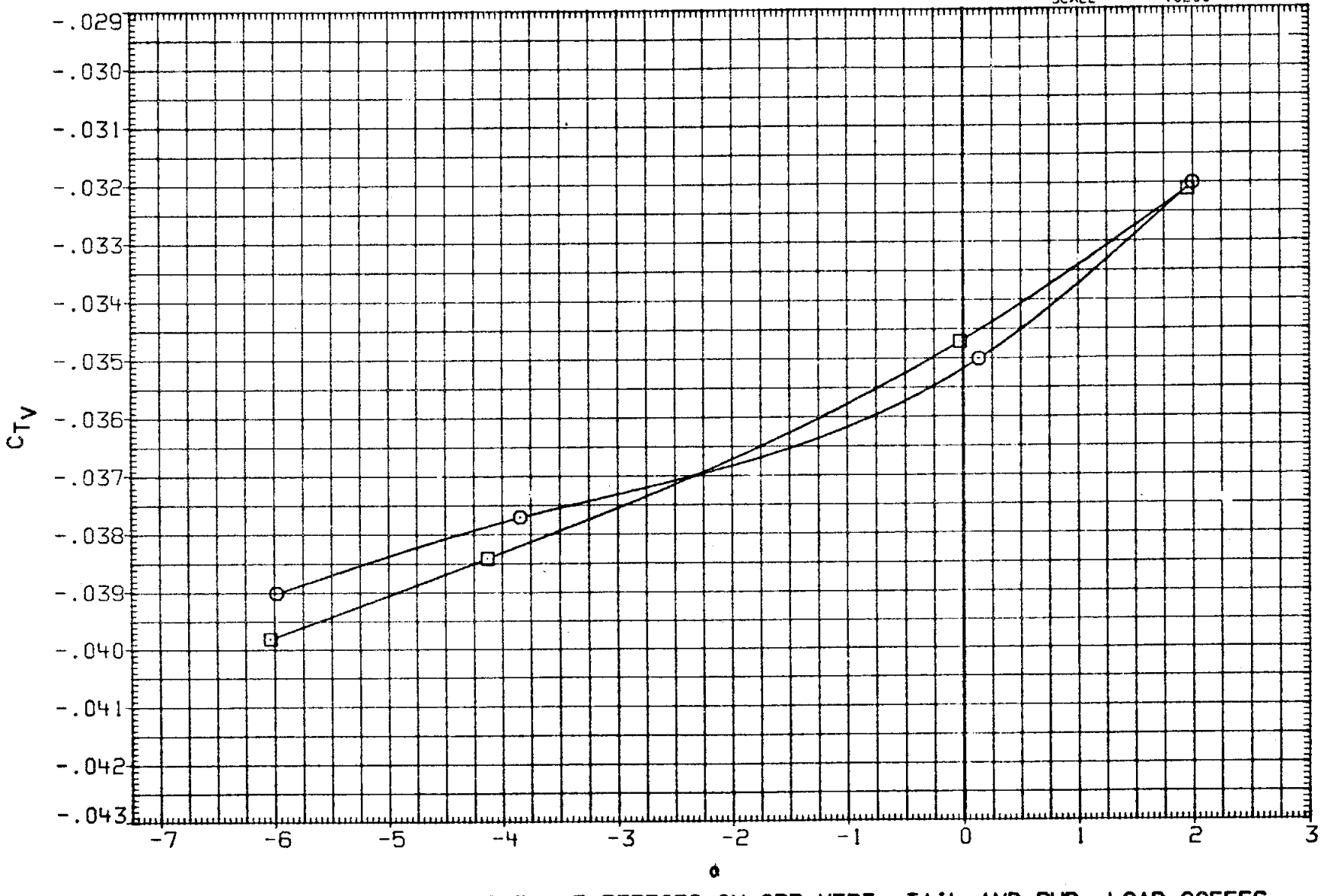

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
HNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

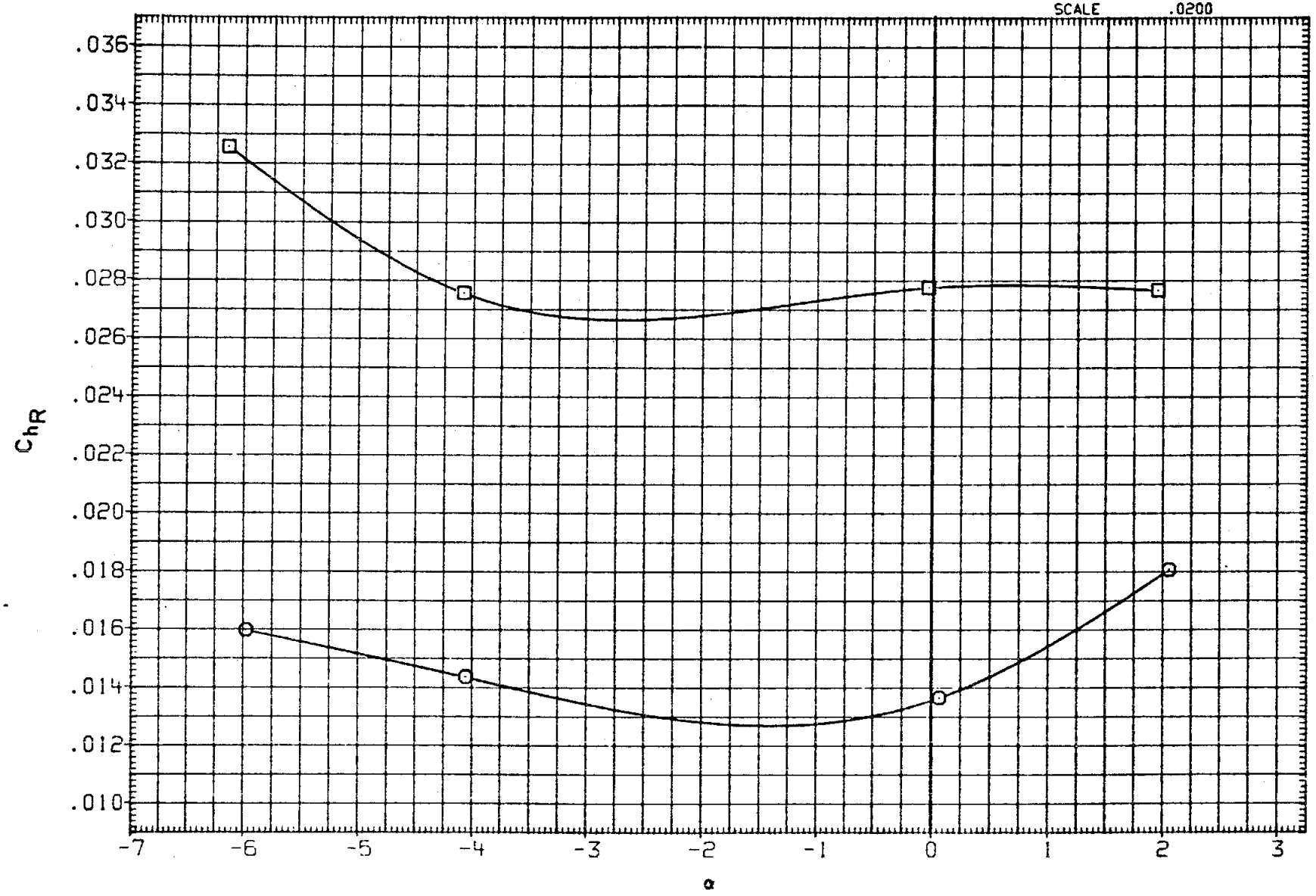

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
HNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

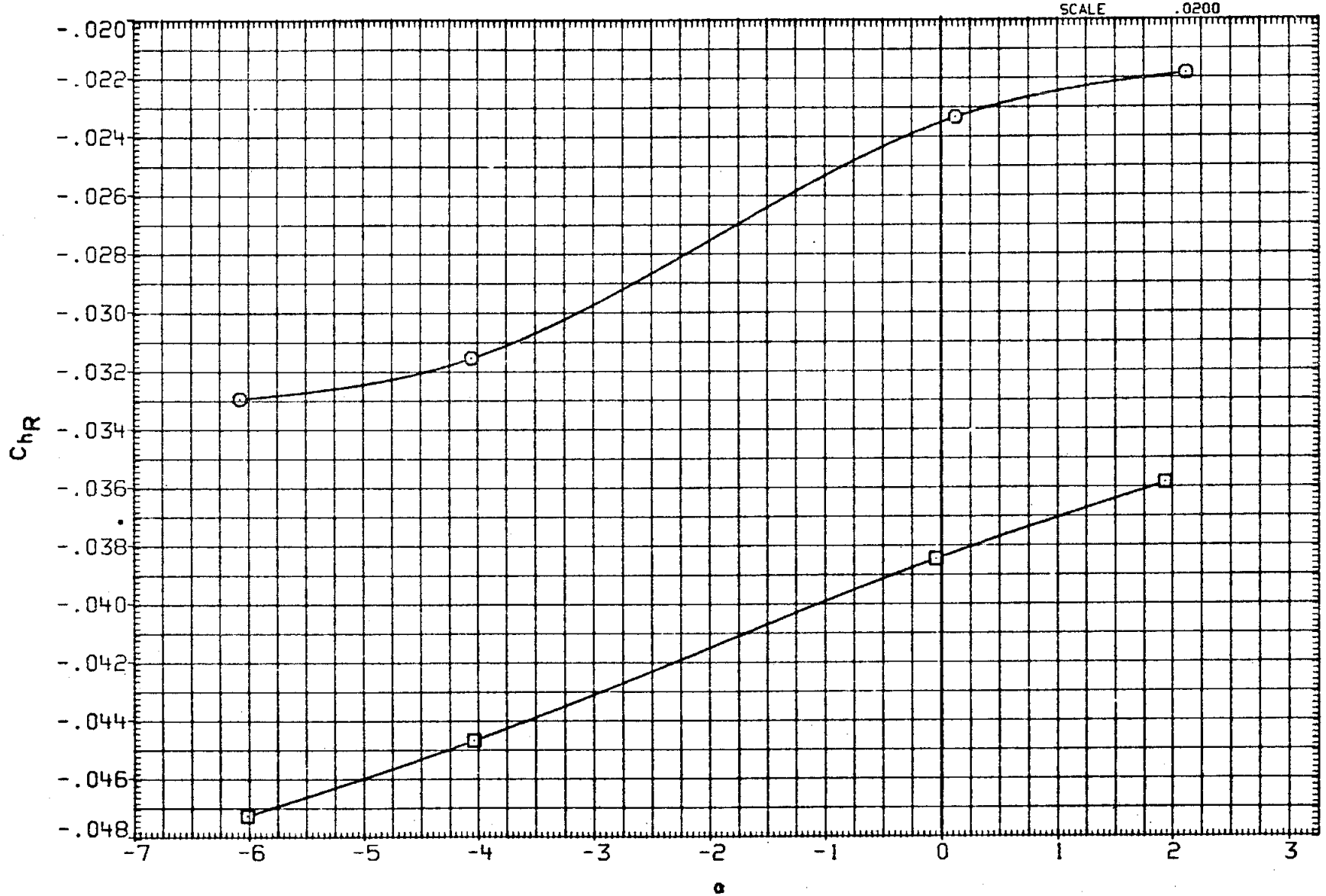

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA43	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
HNEA46	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

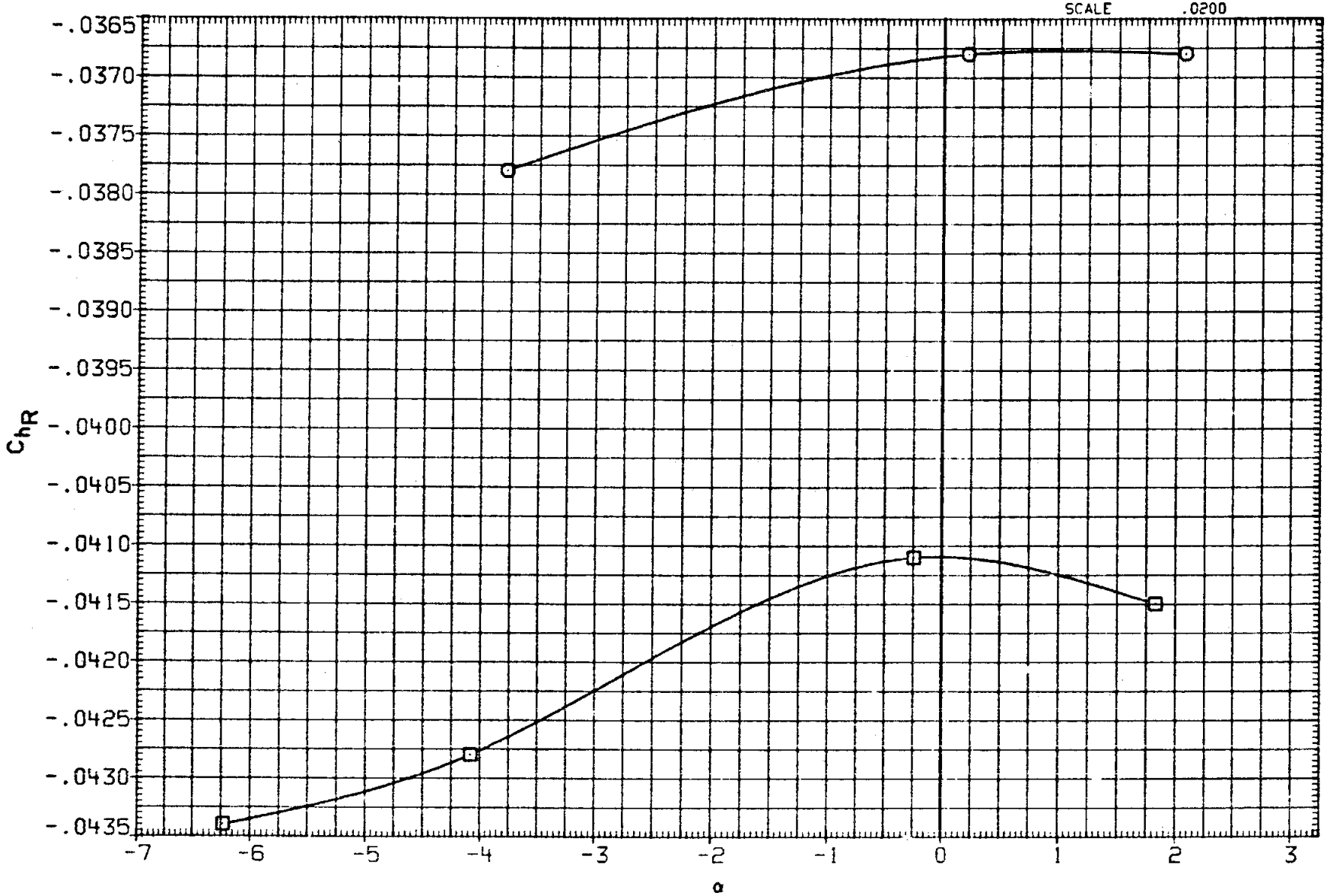

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA43	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	-4.000	1.000	.000	4.000
HNEA46	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	-4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

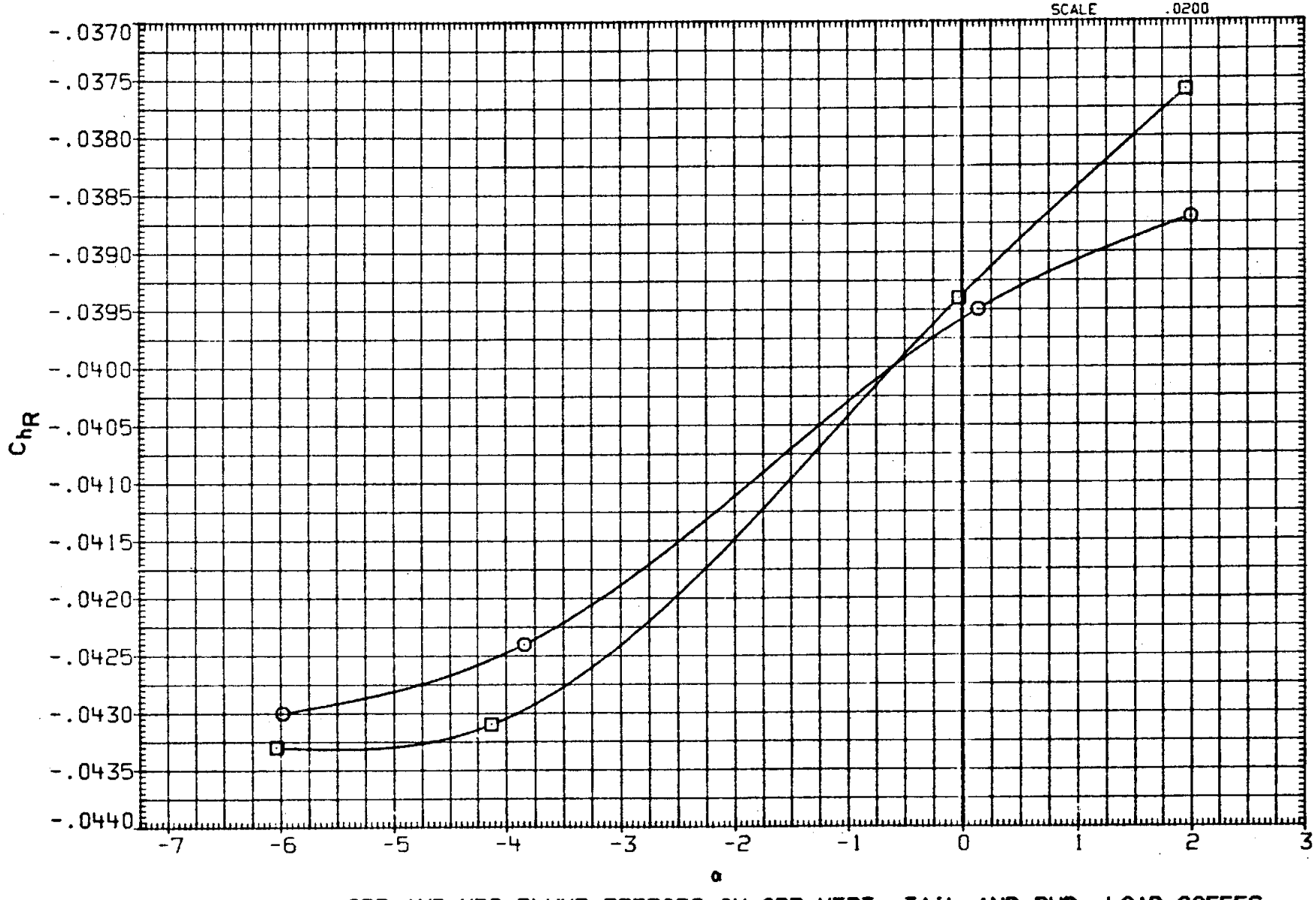

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

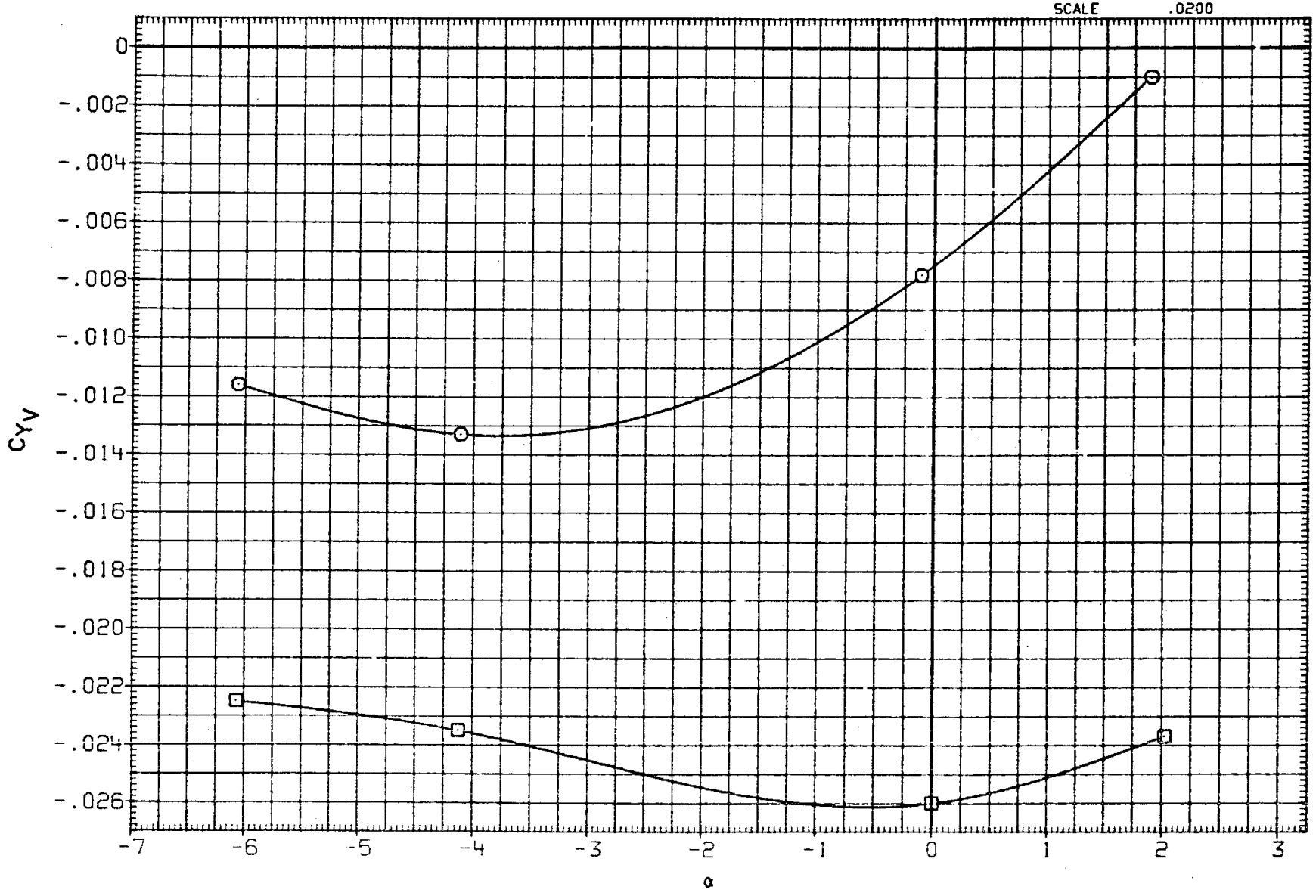

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

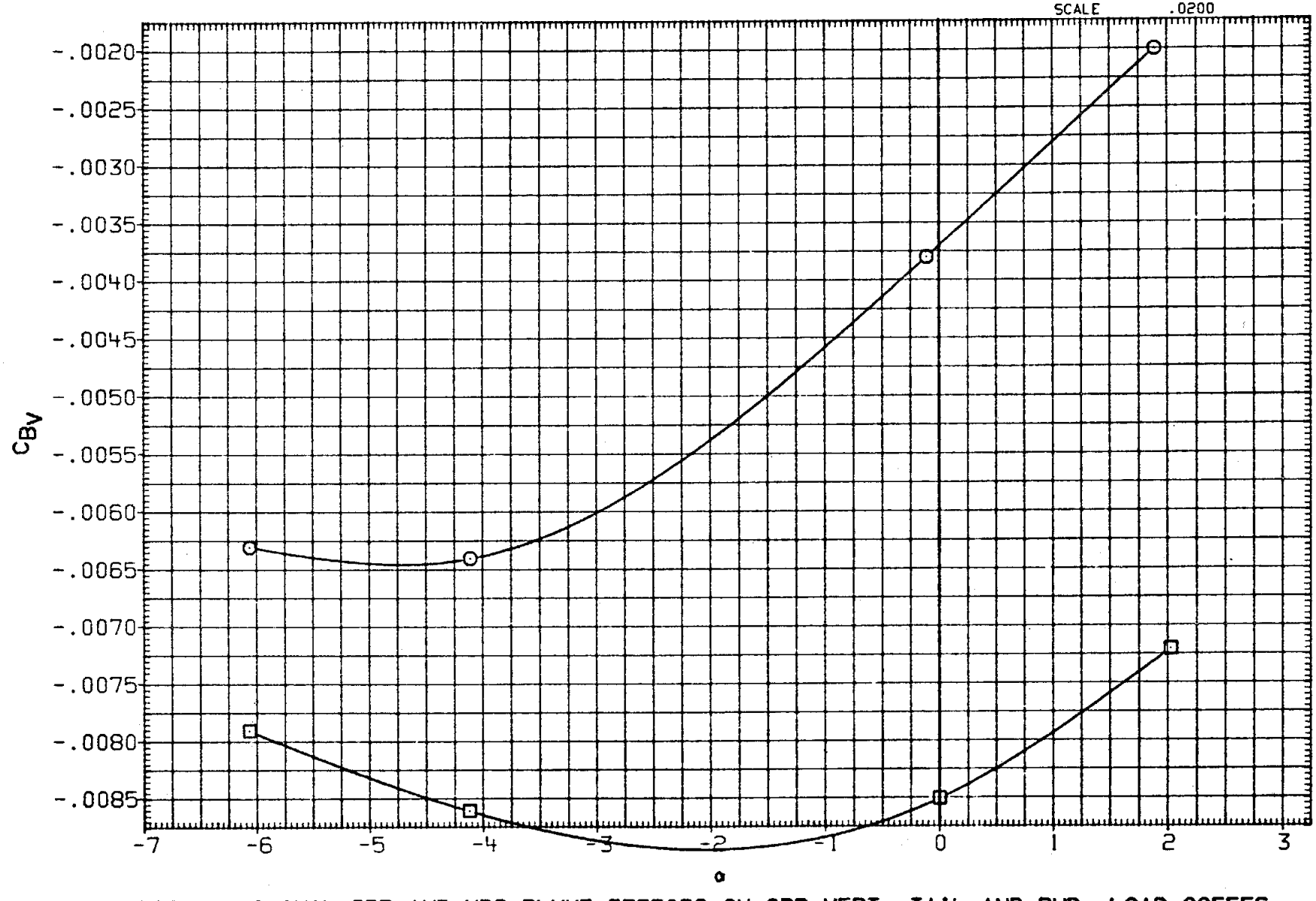

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

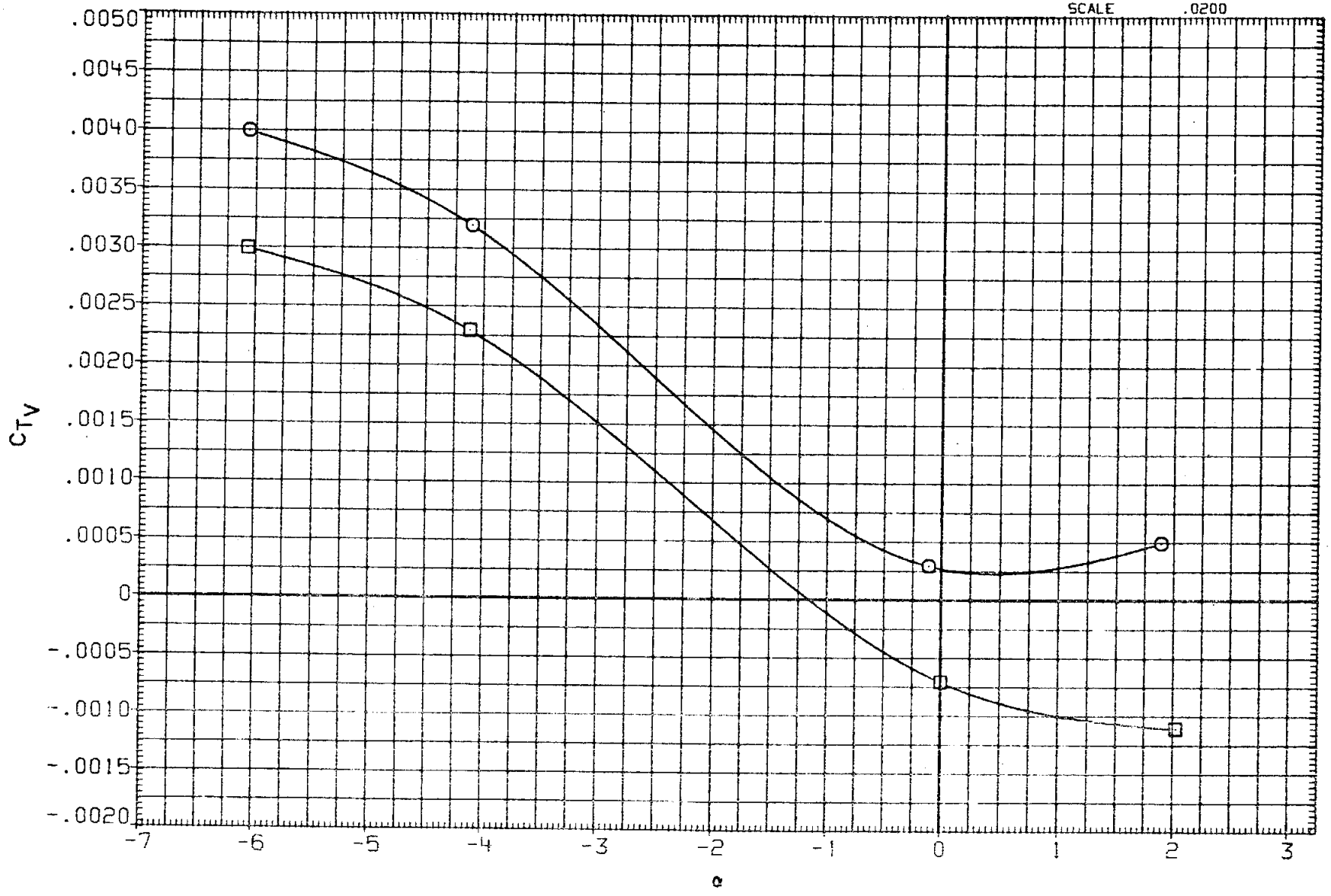

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

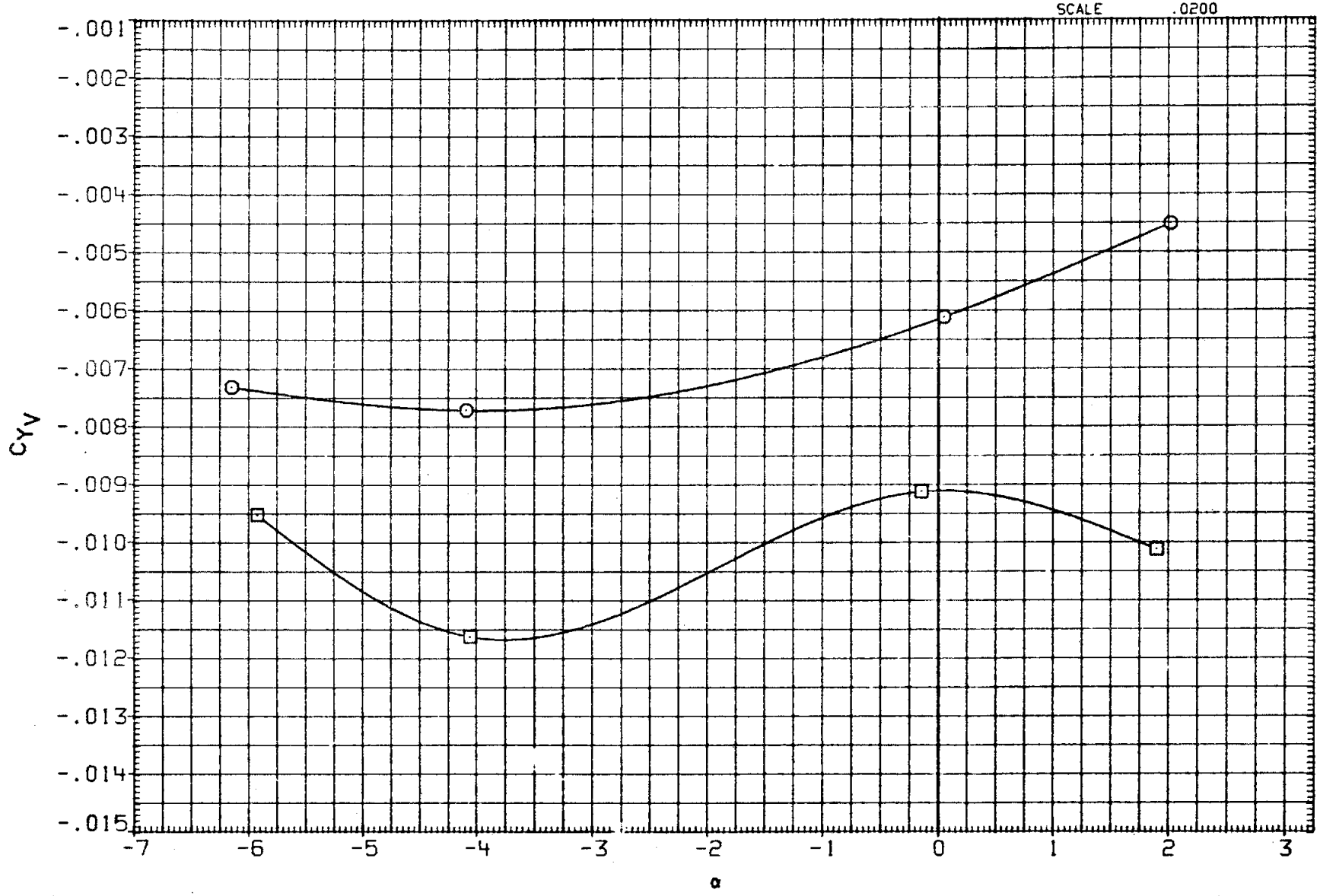

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

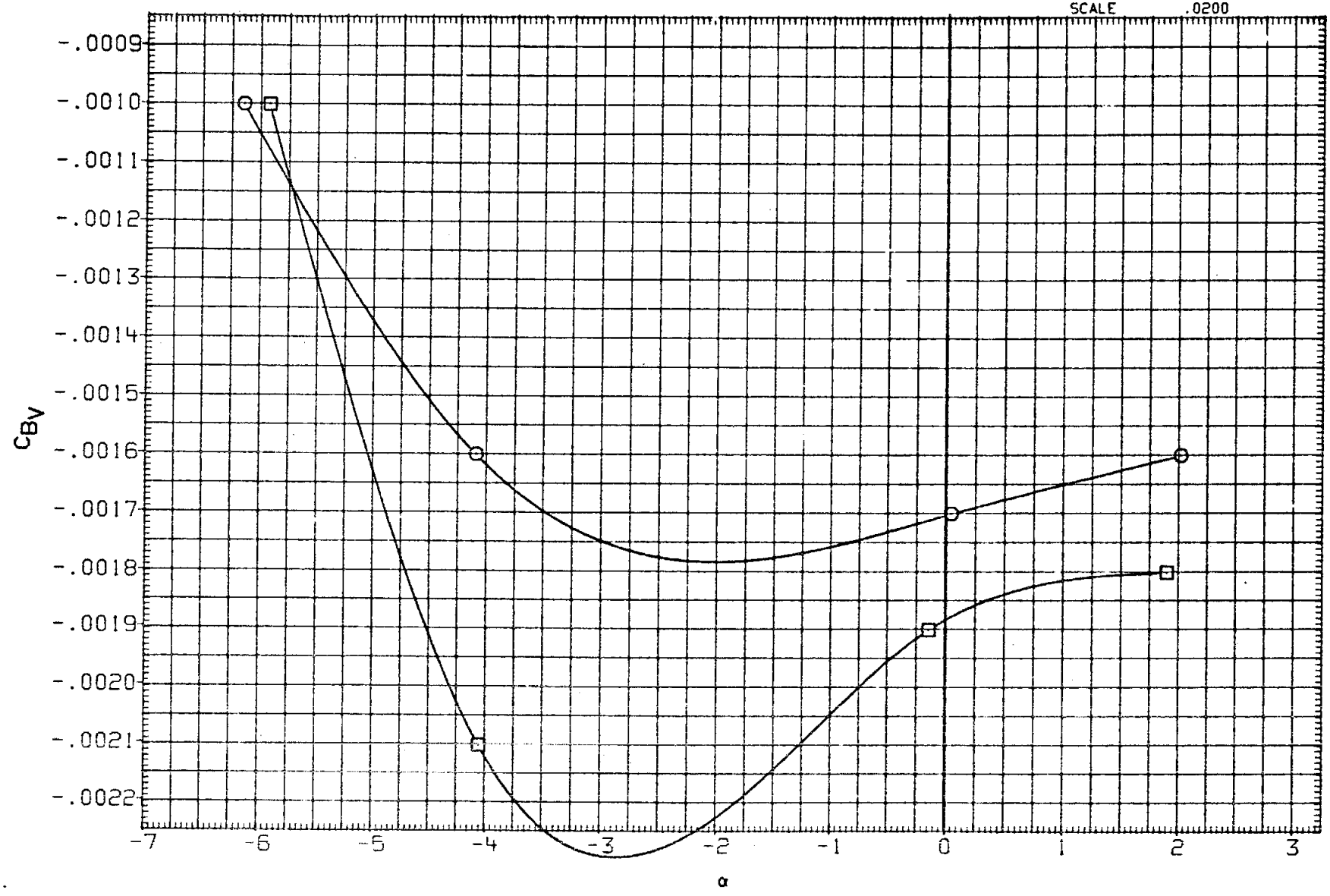

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

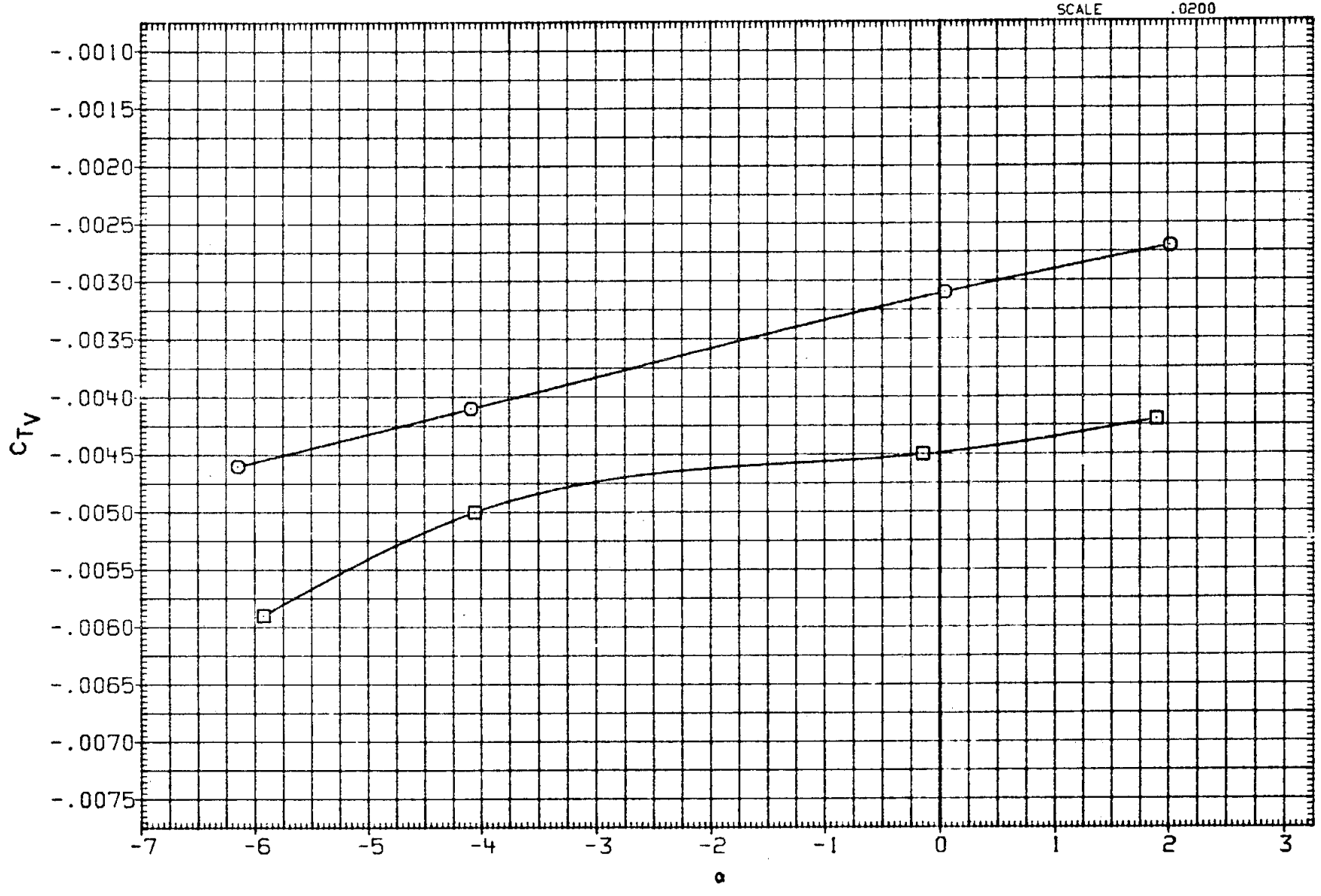

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

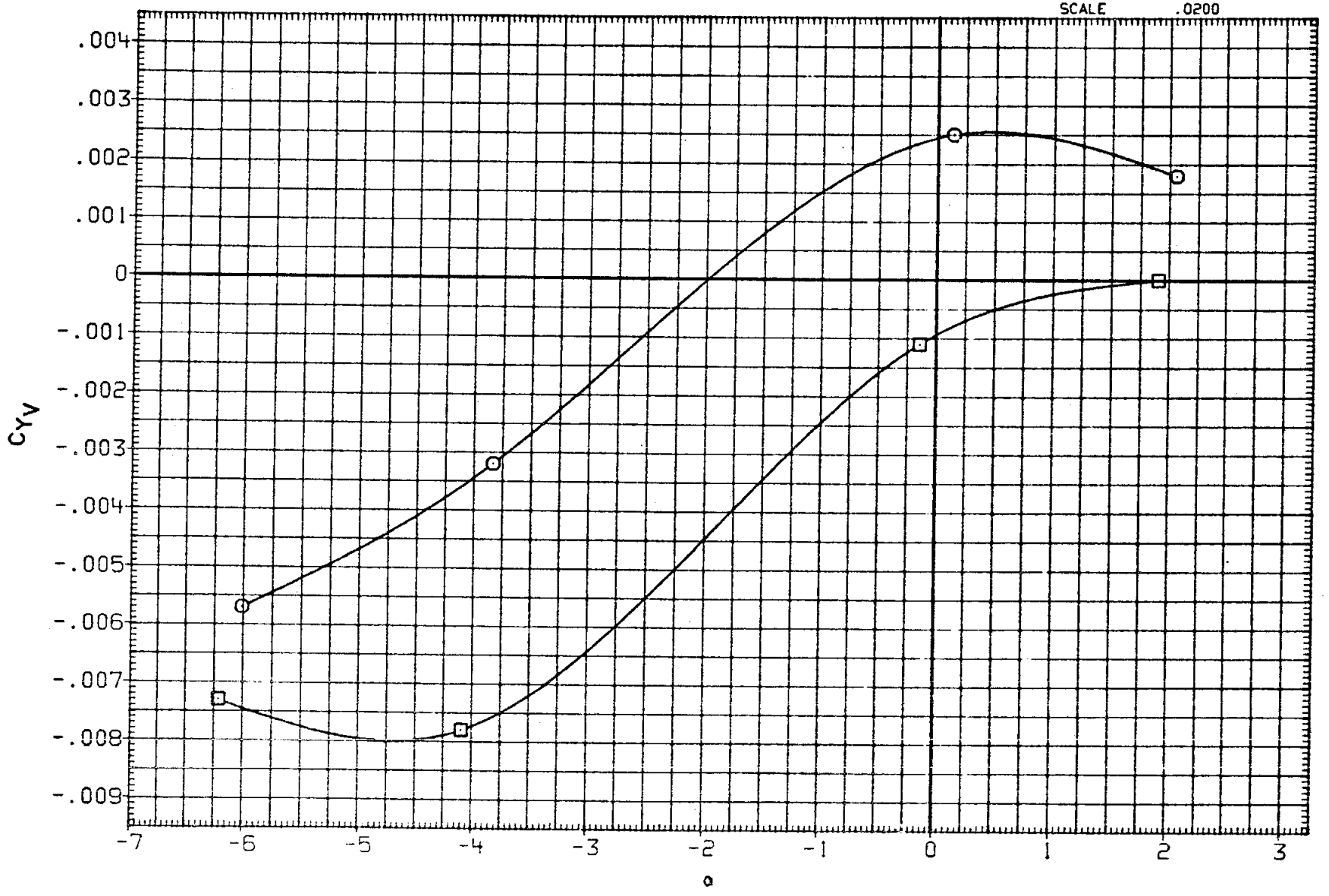

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION		
SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

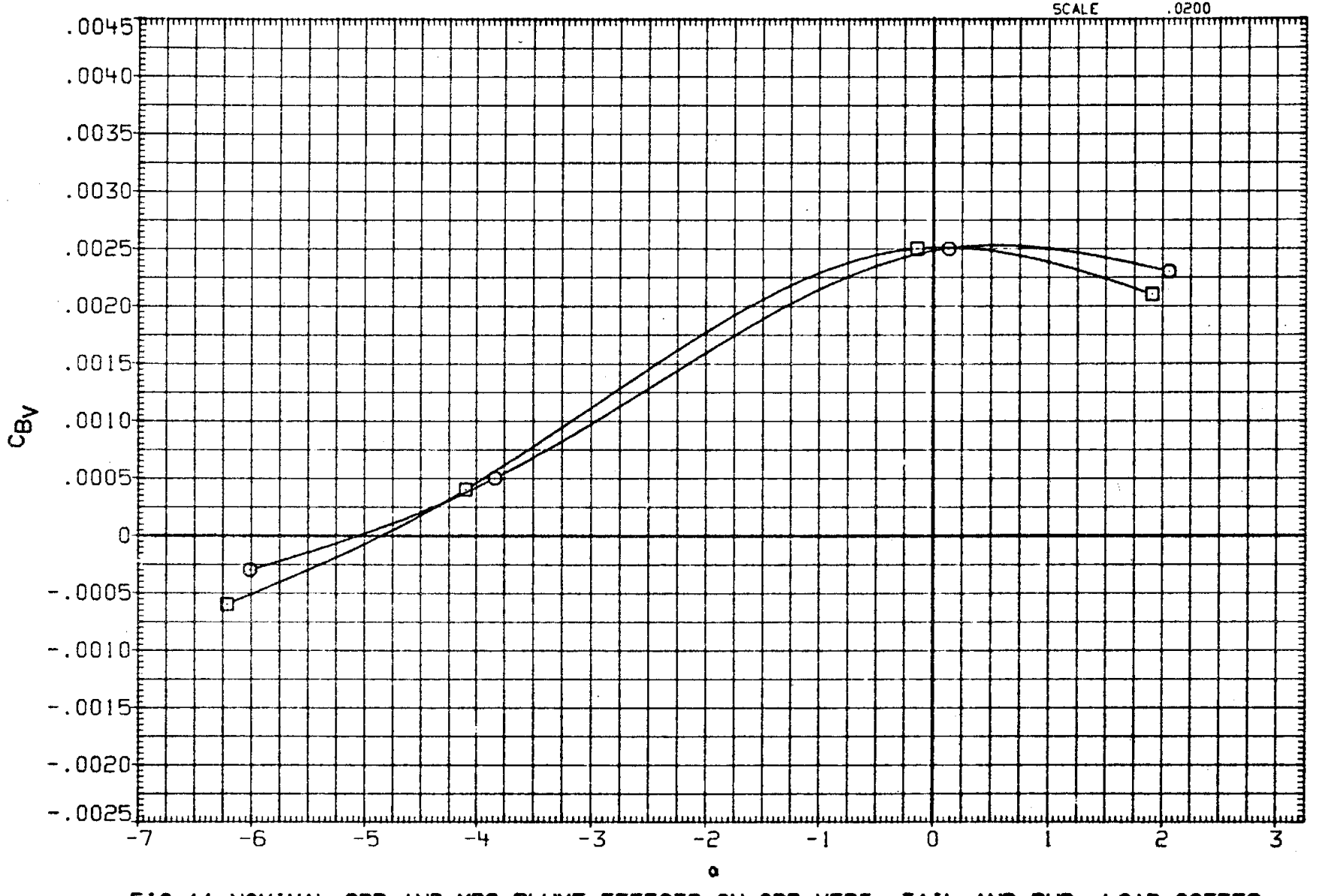

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

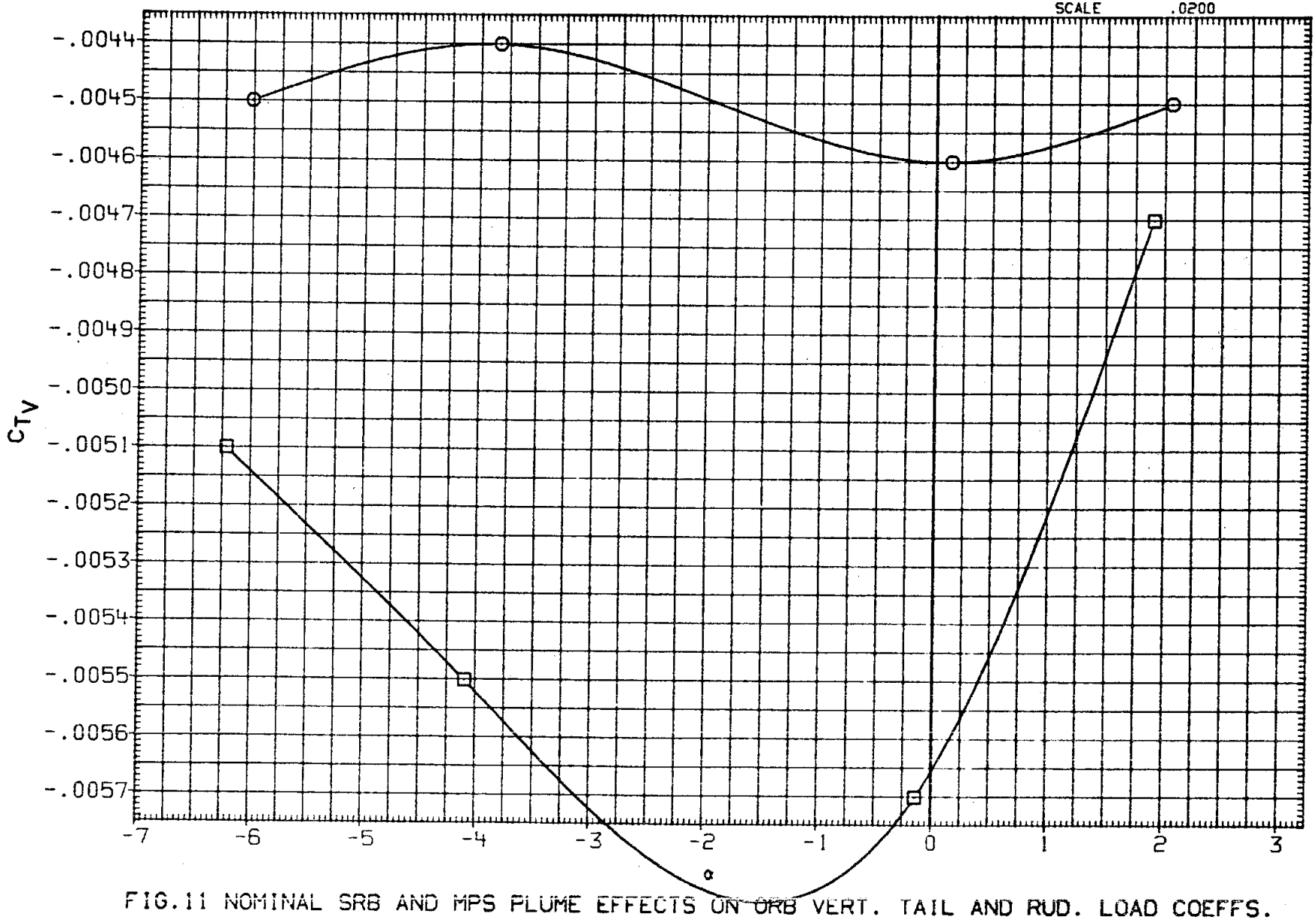

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

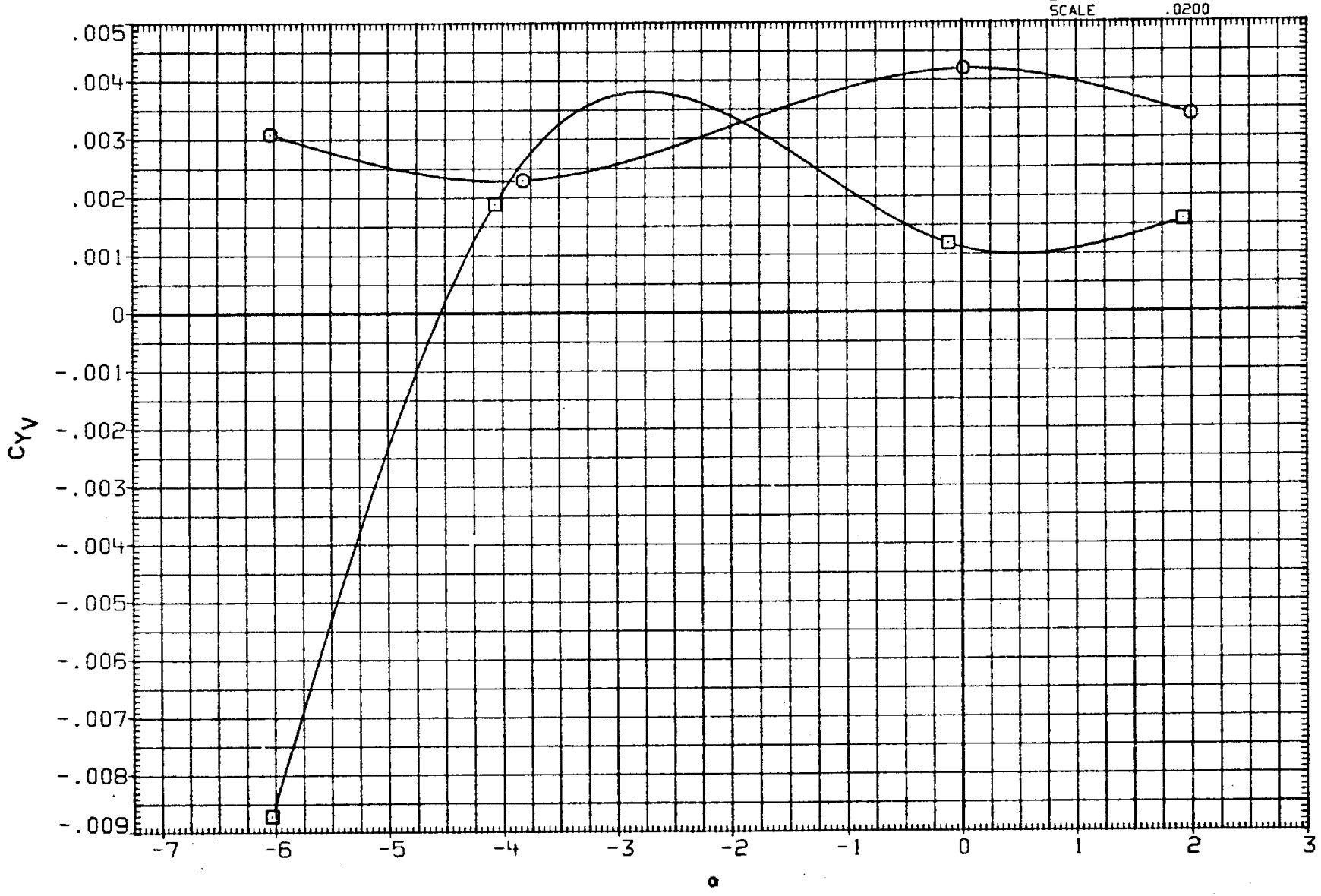

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

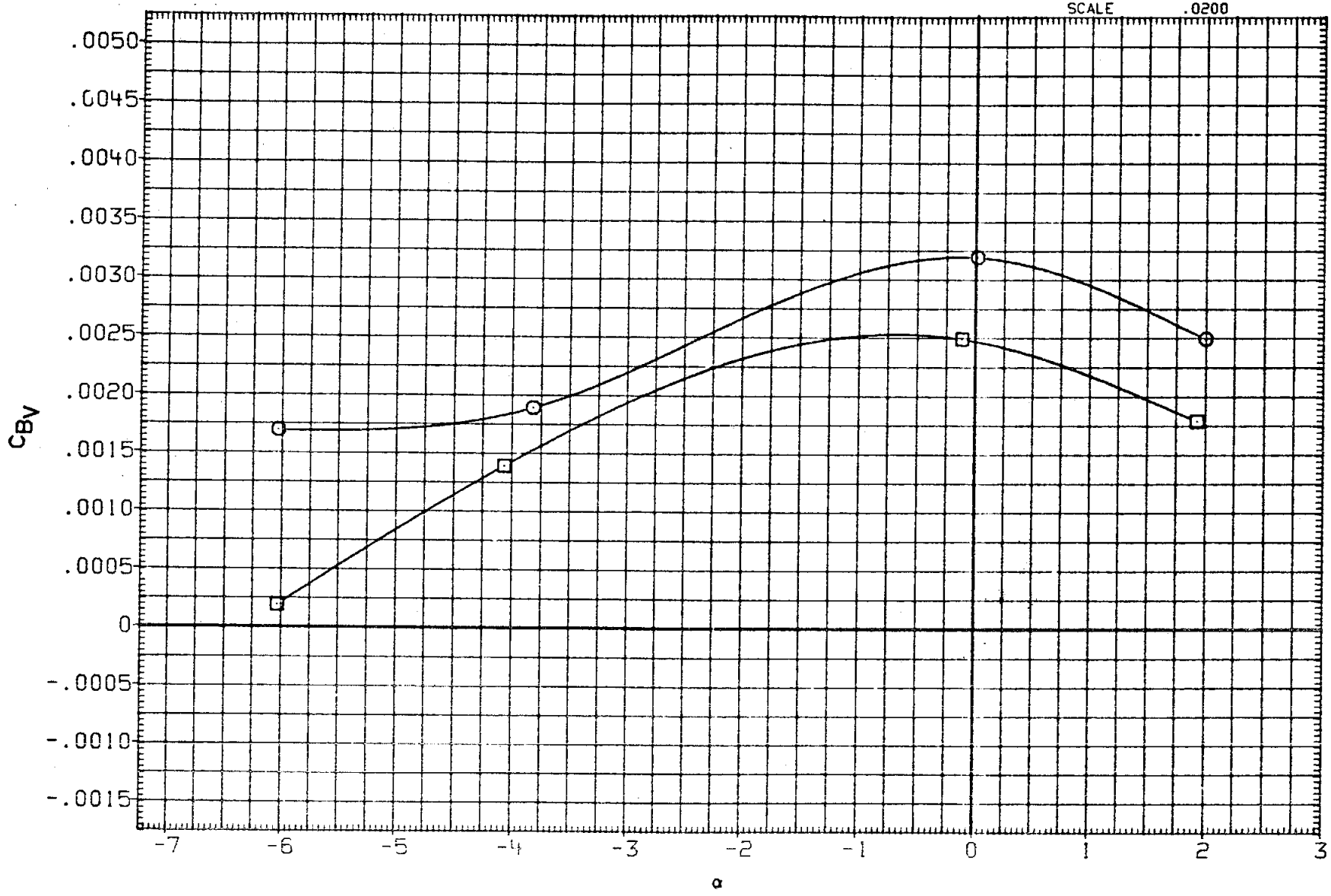

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
BNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

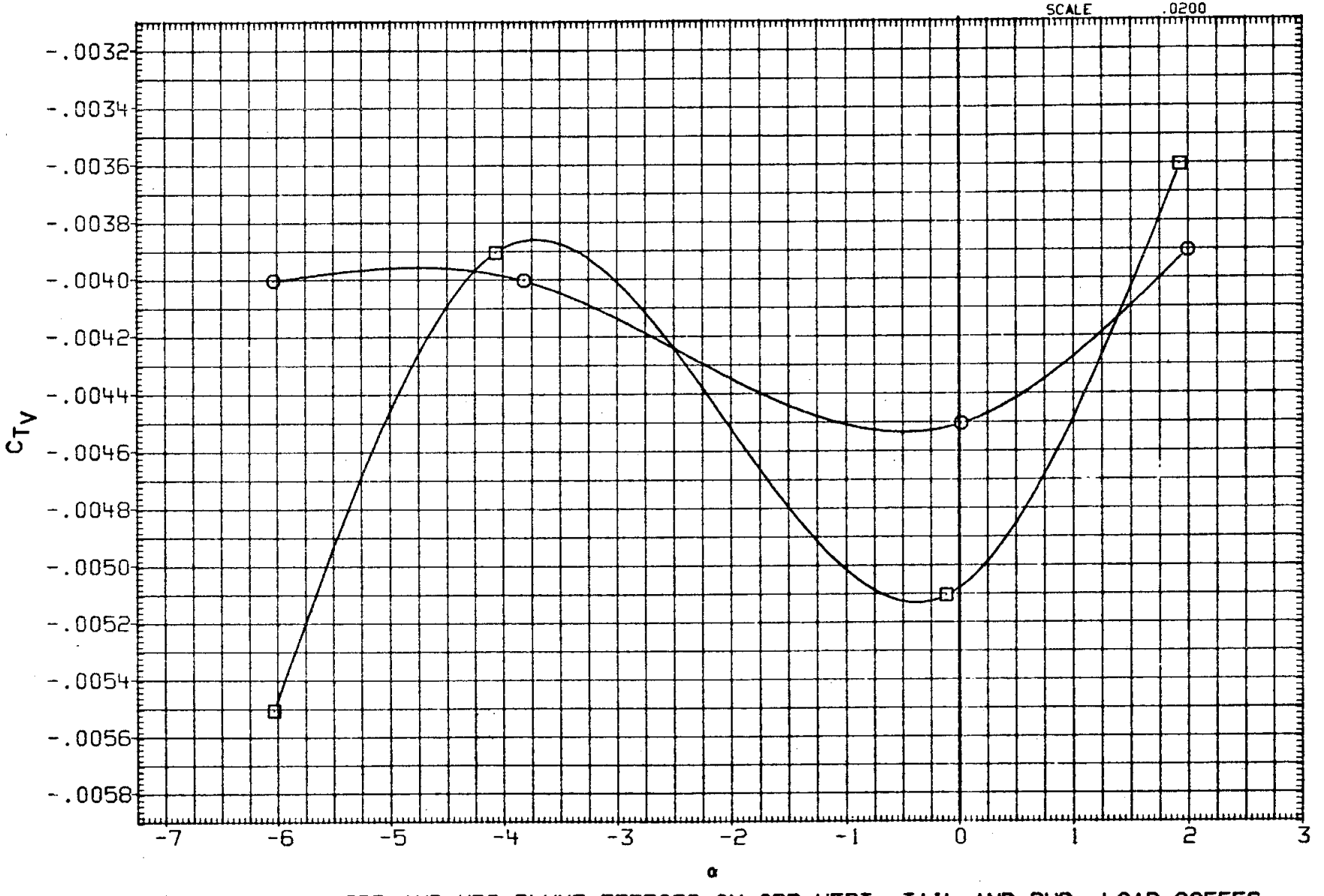

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA44	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
HNEA47	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

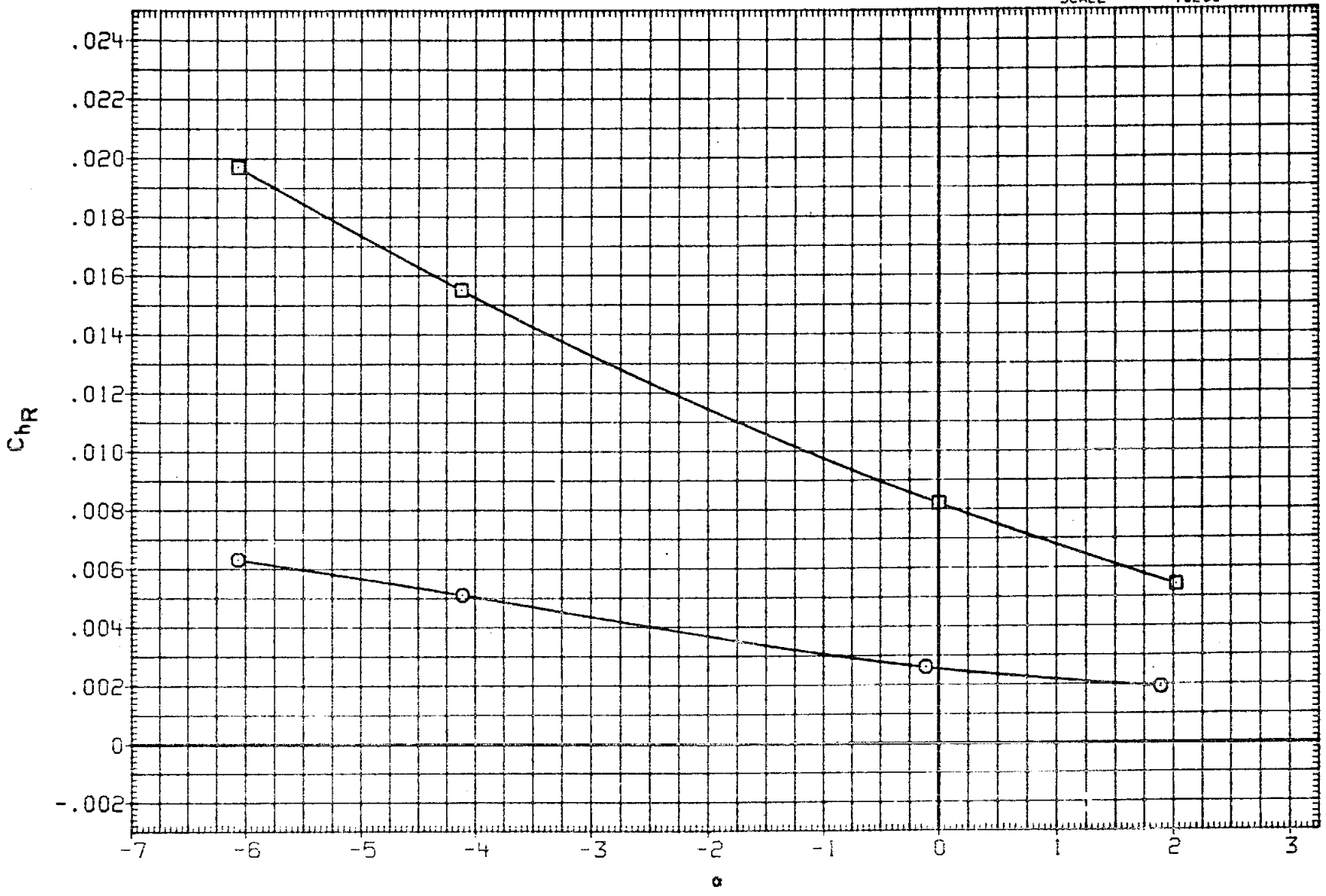

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
HNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

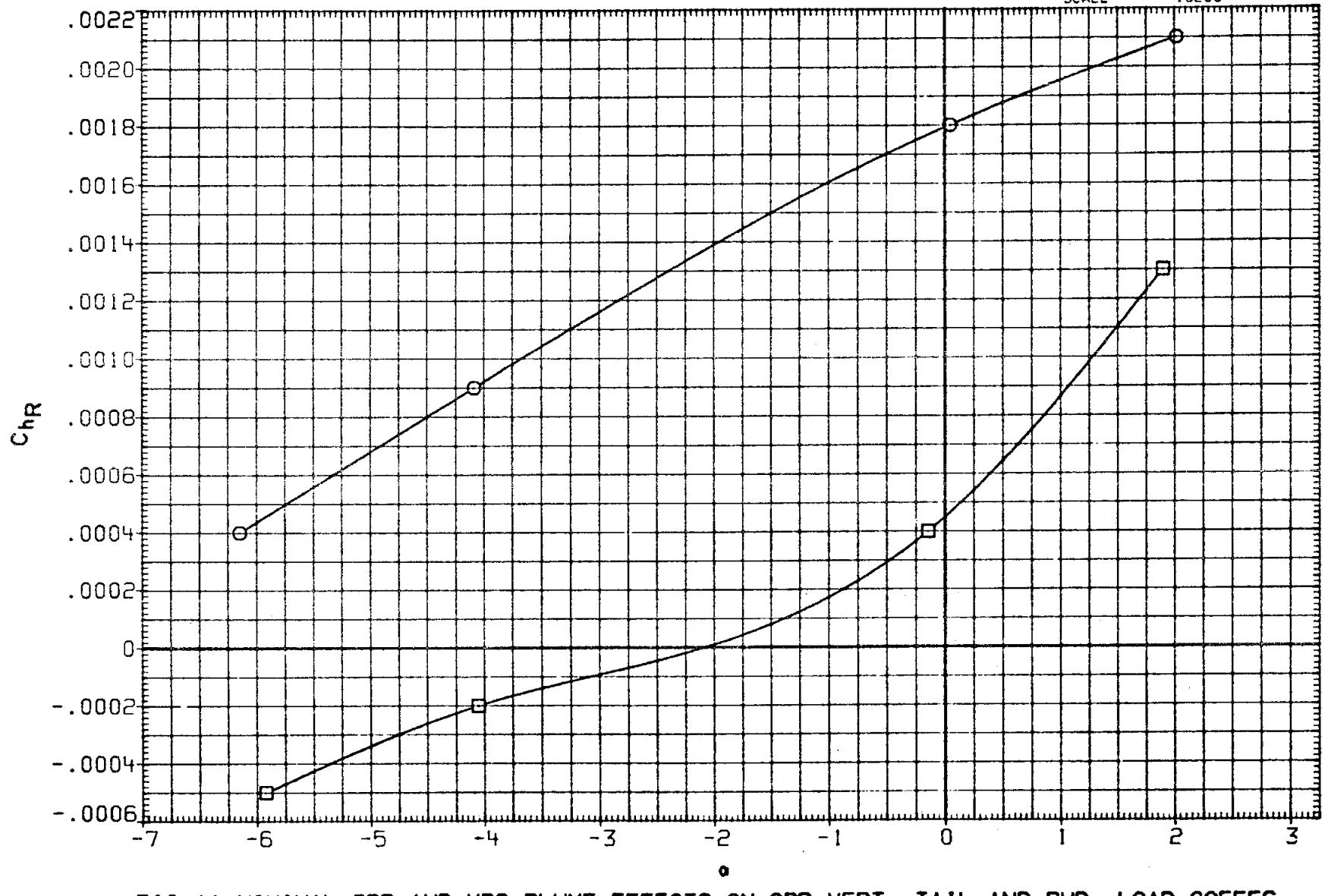

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
HNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

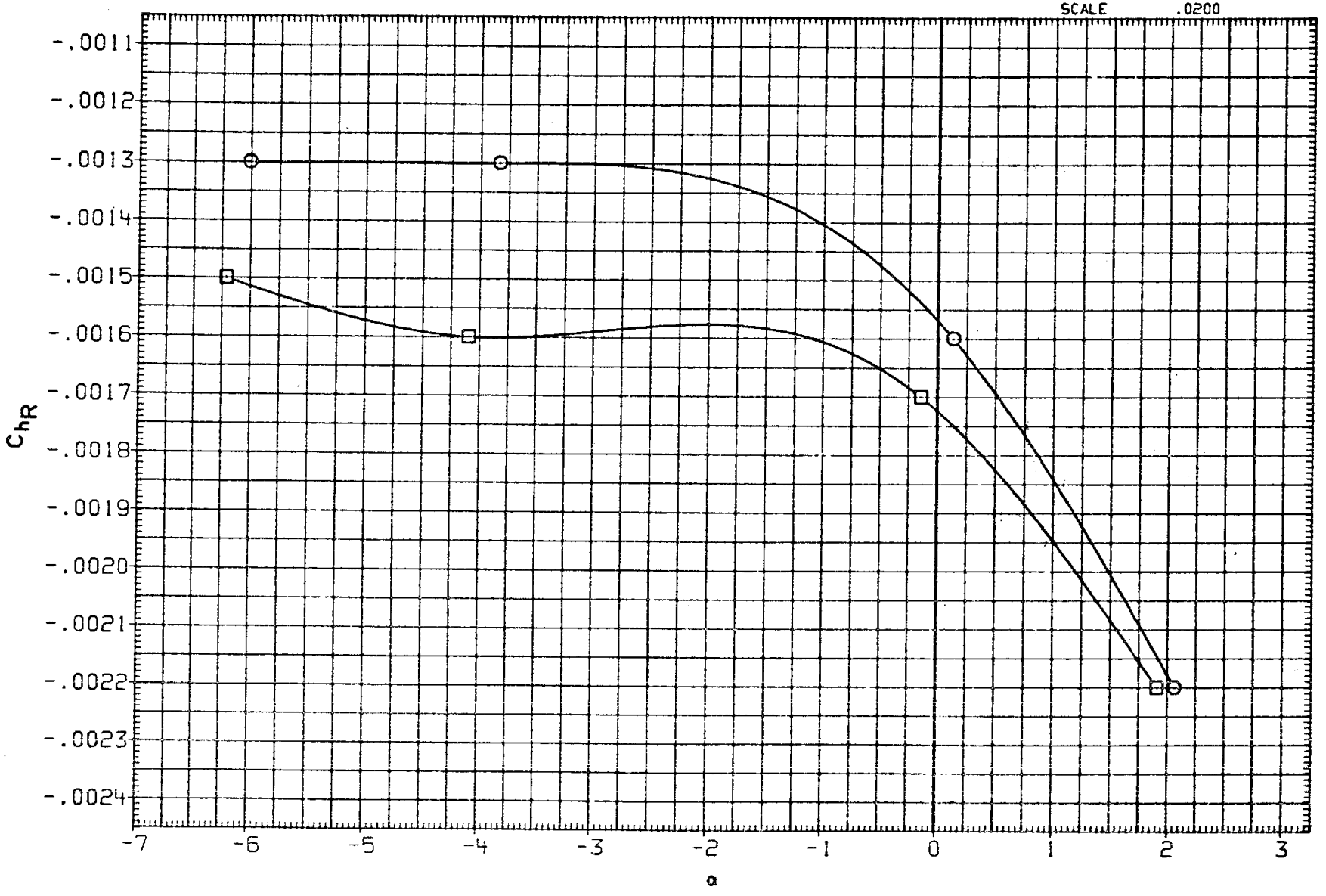

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA44	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	.000	1.000	.000	4.000
HNEA47	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

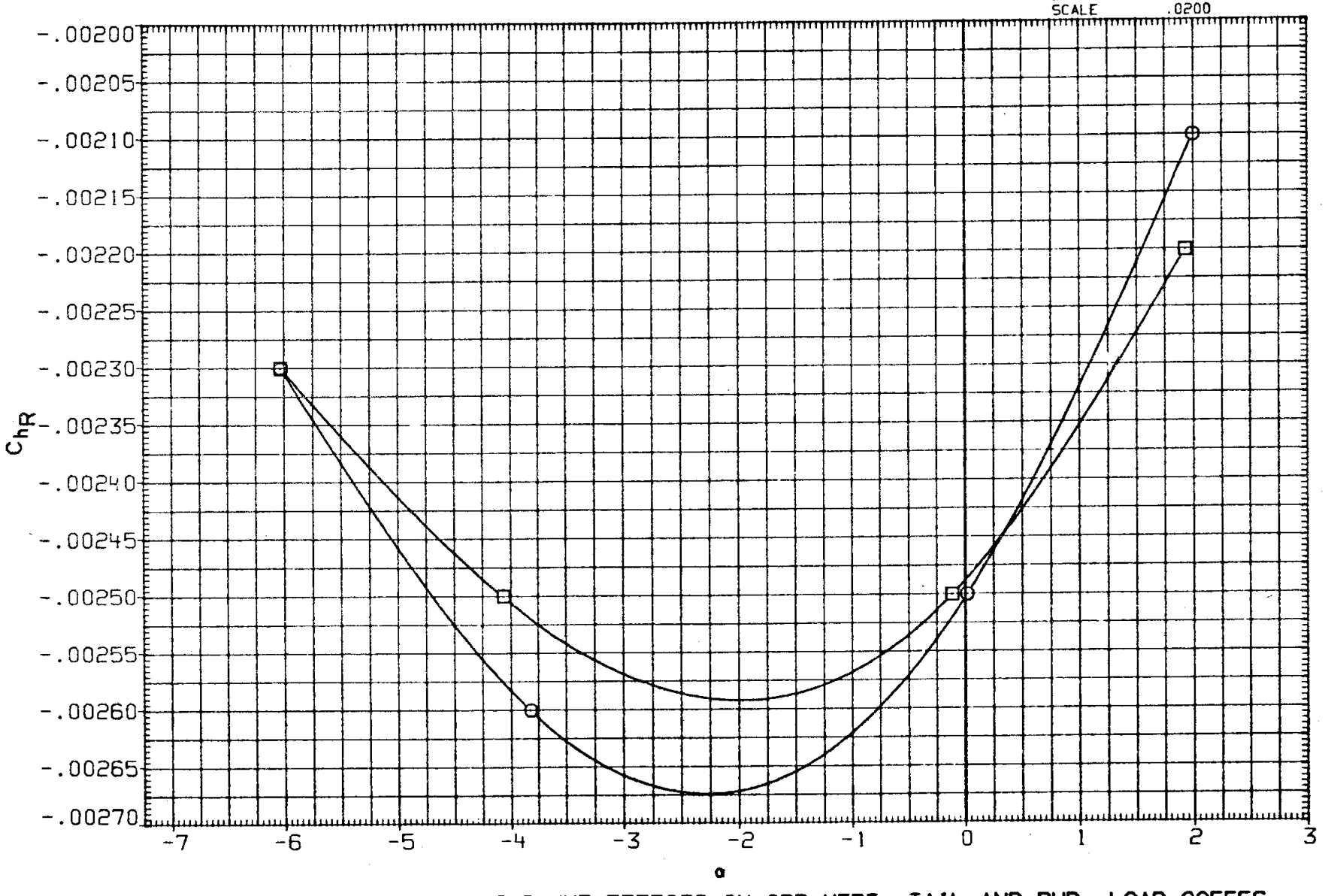

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.41

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

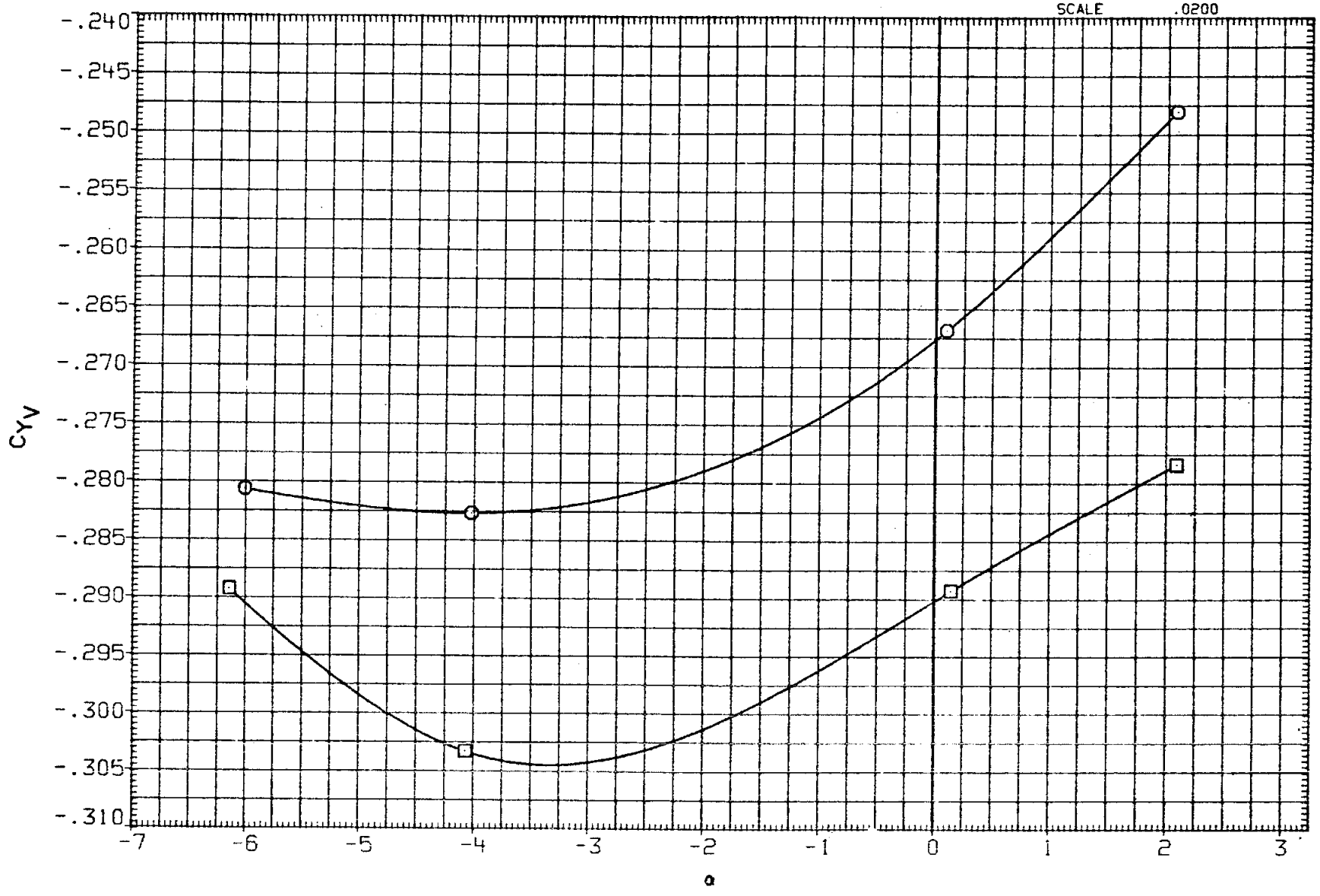

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

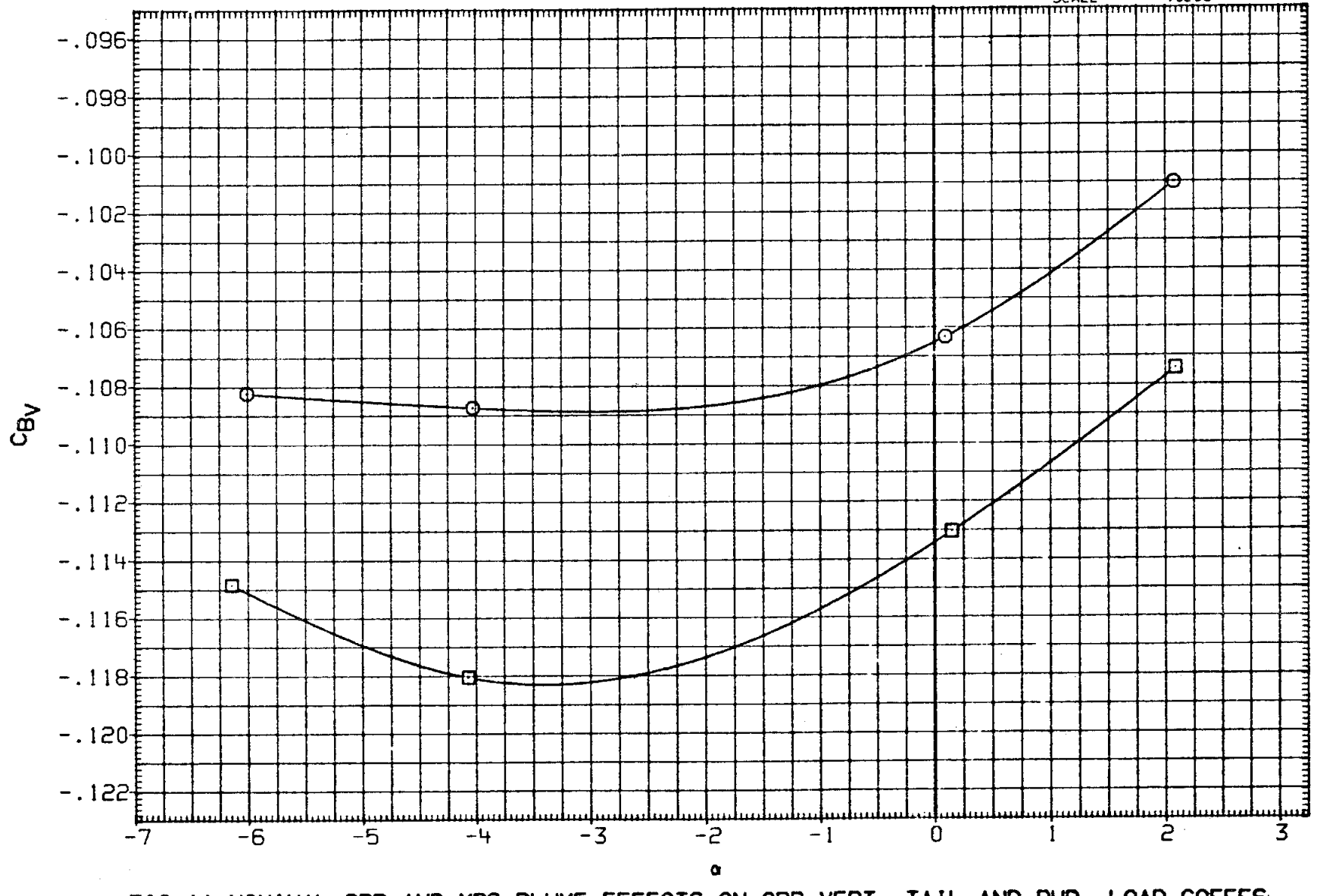

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

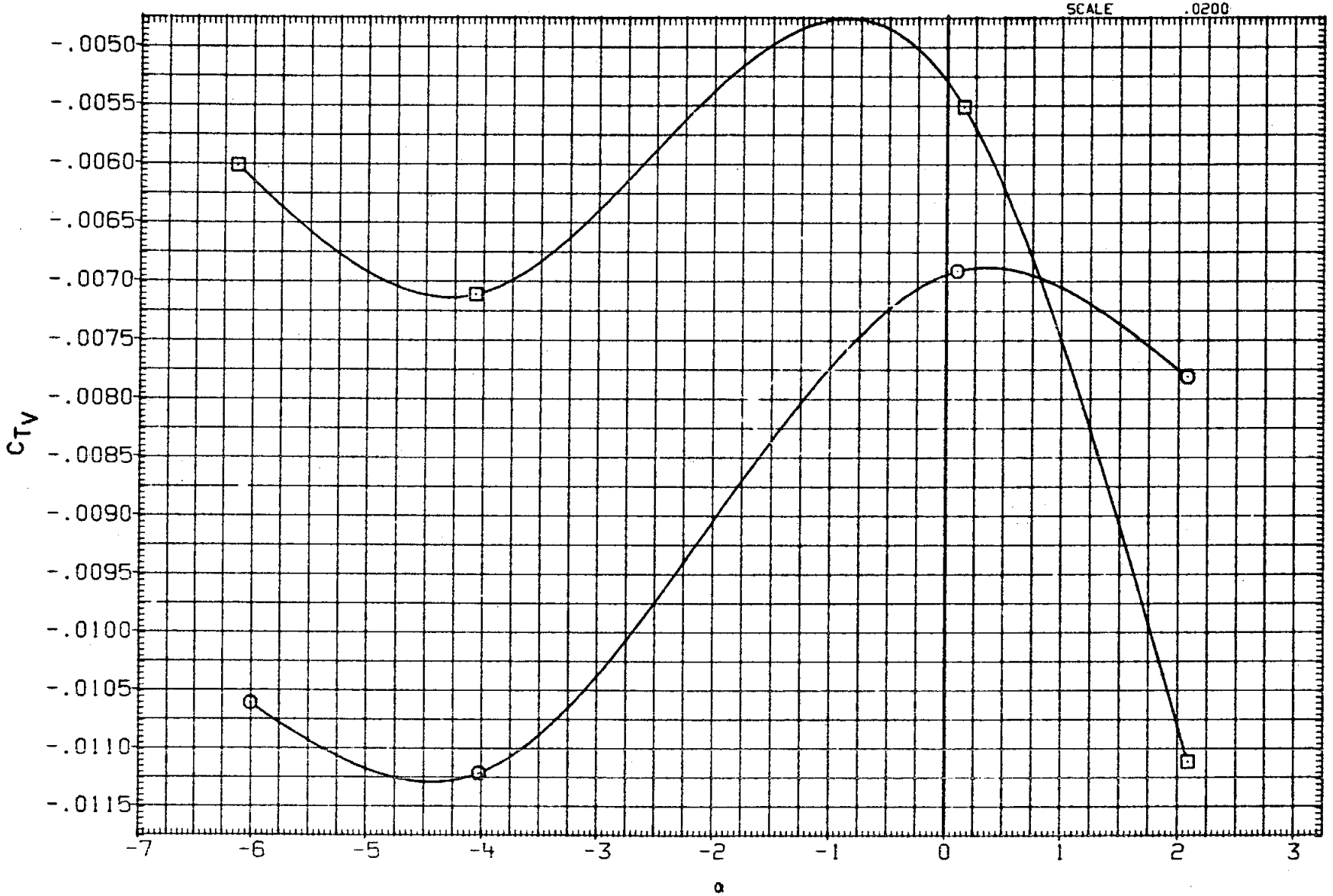

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

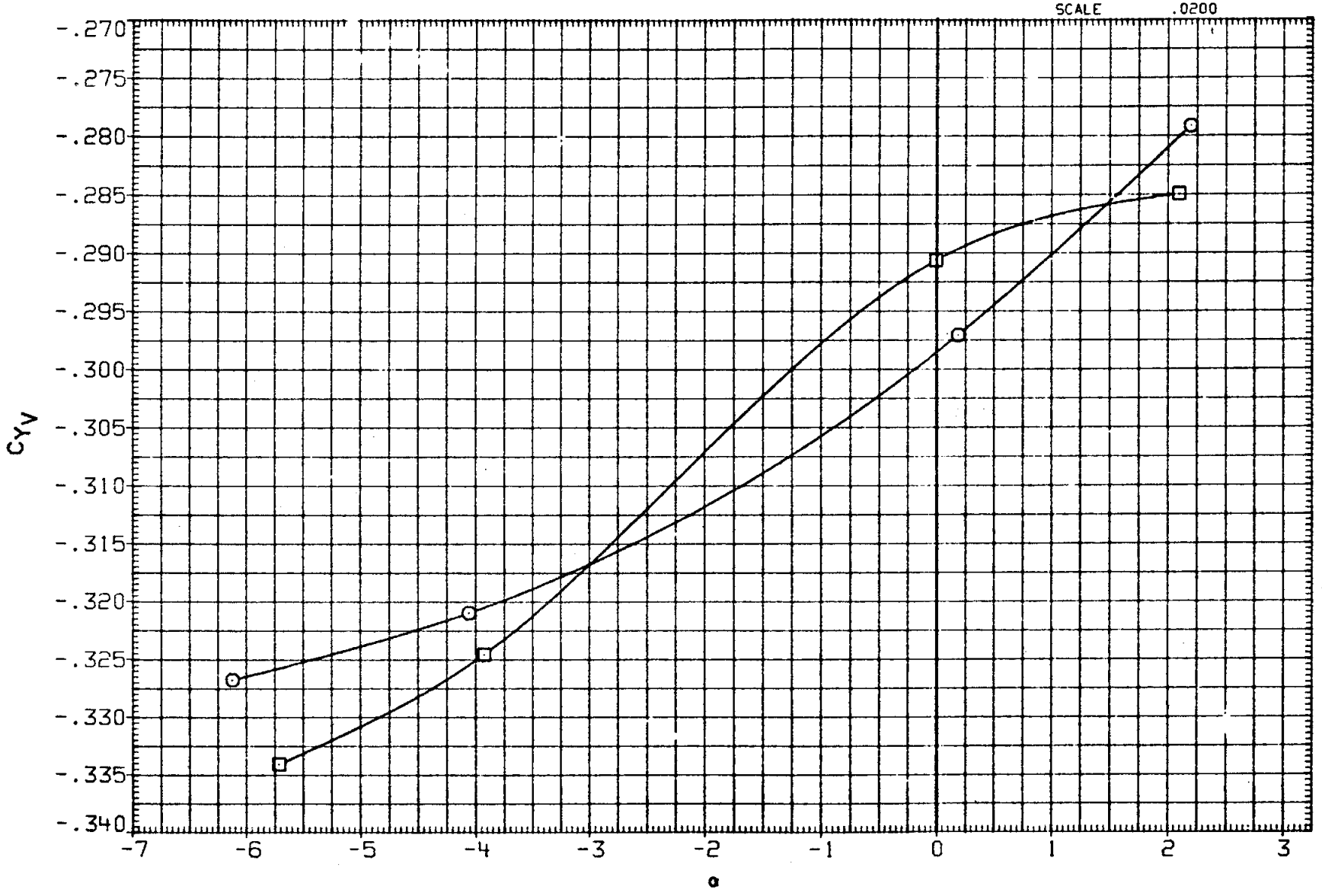

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

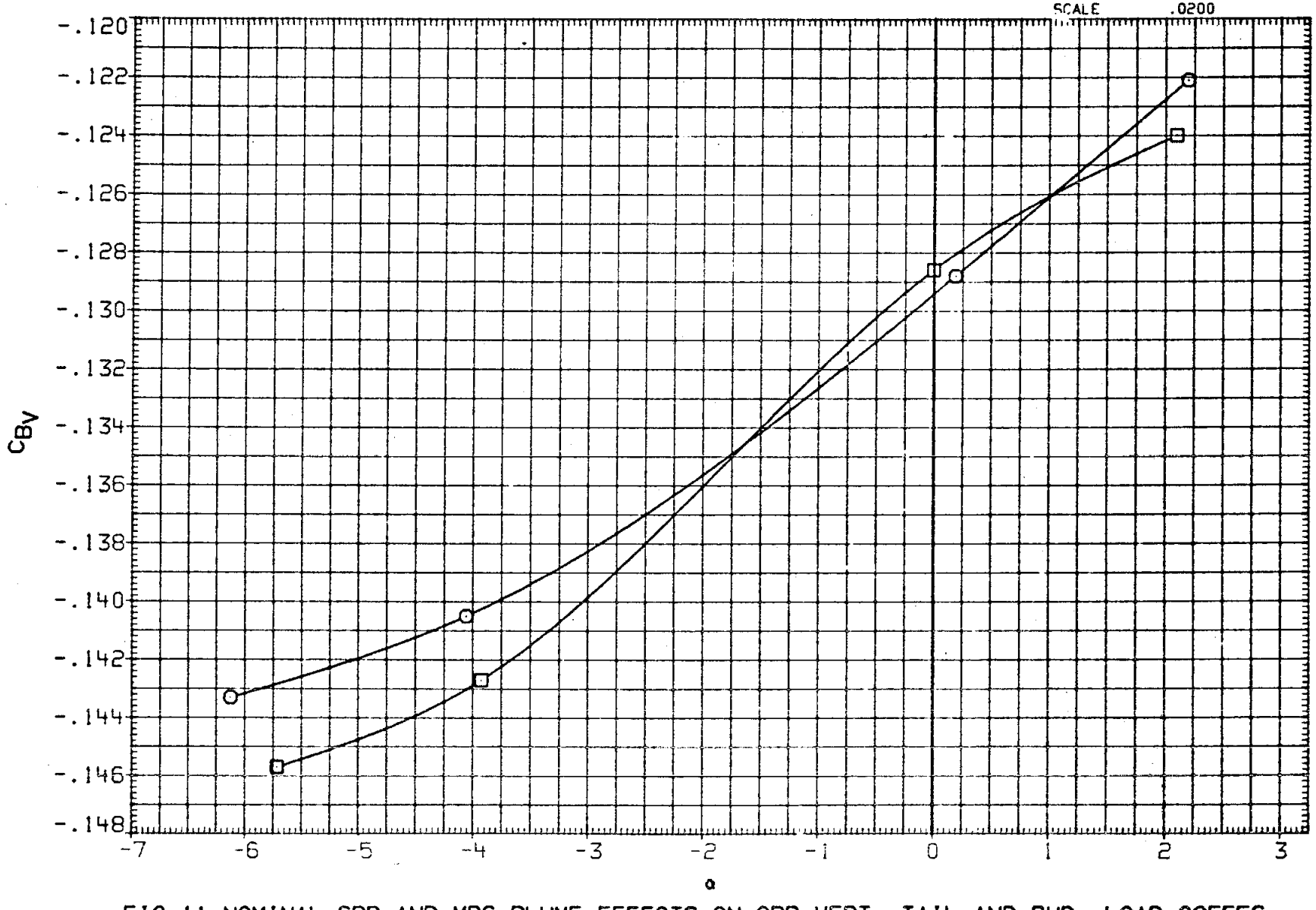

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

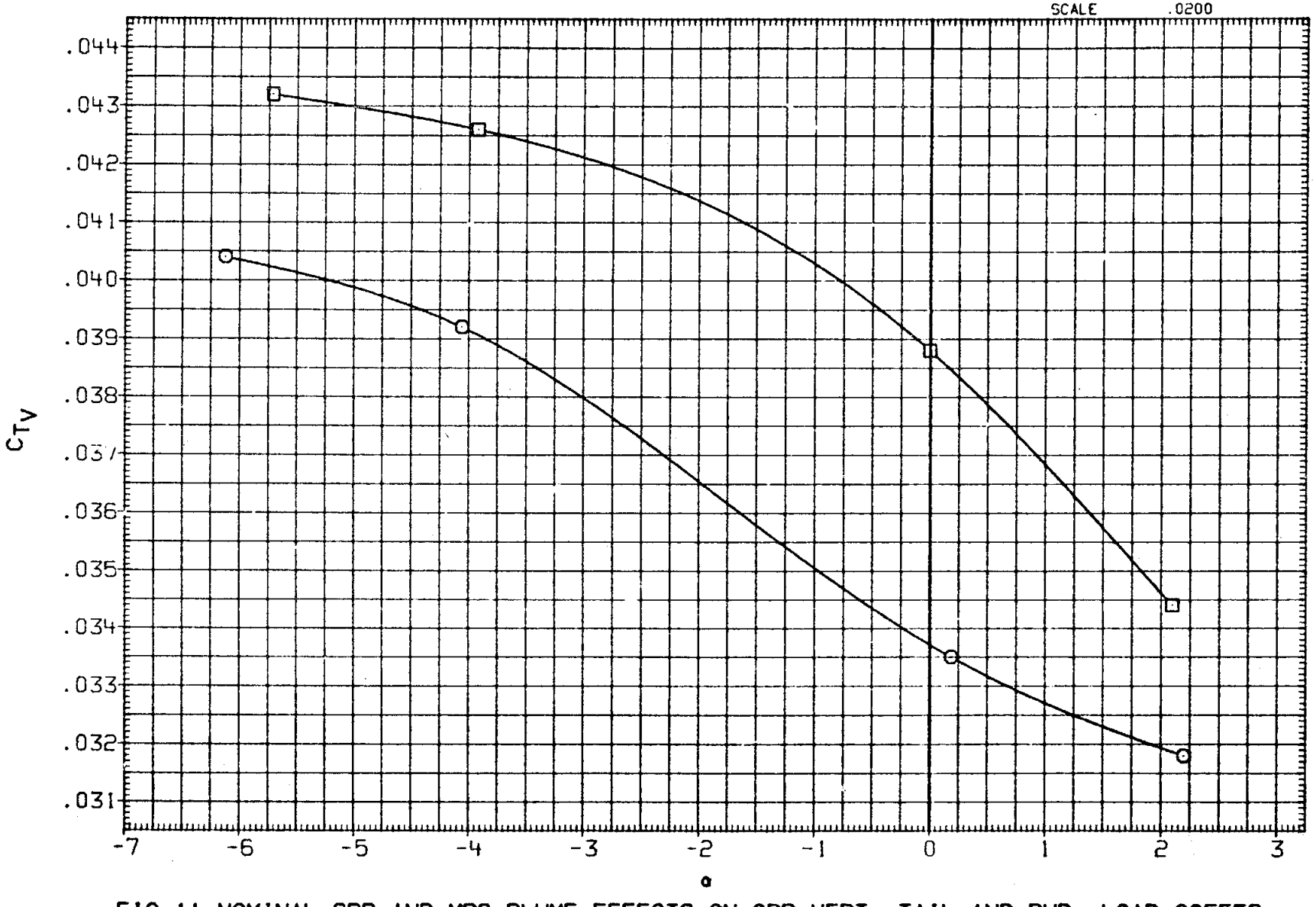

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

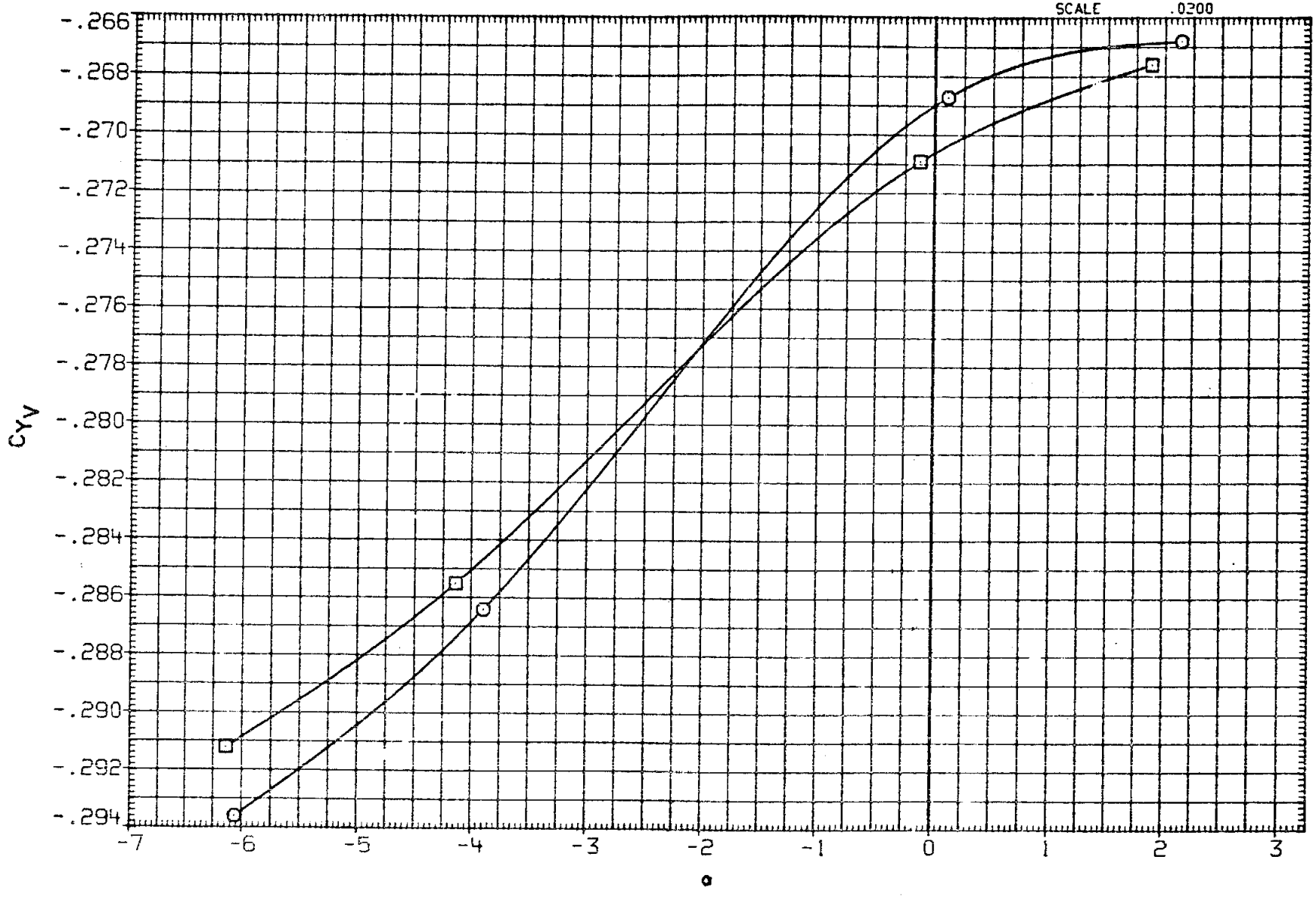

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

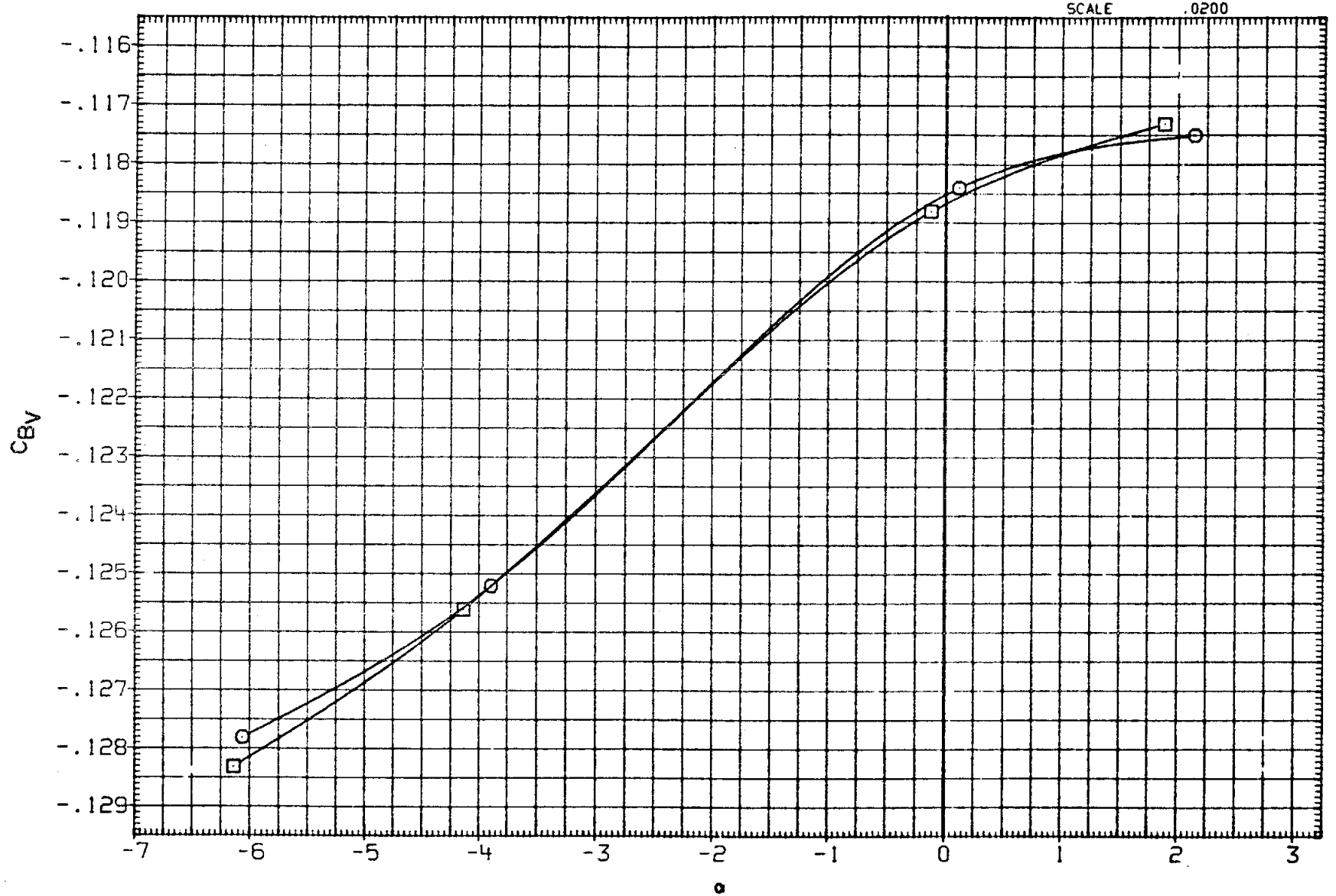

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

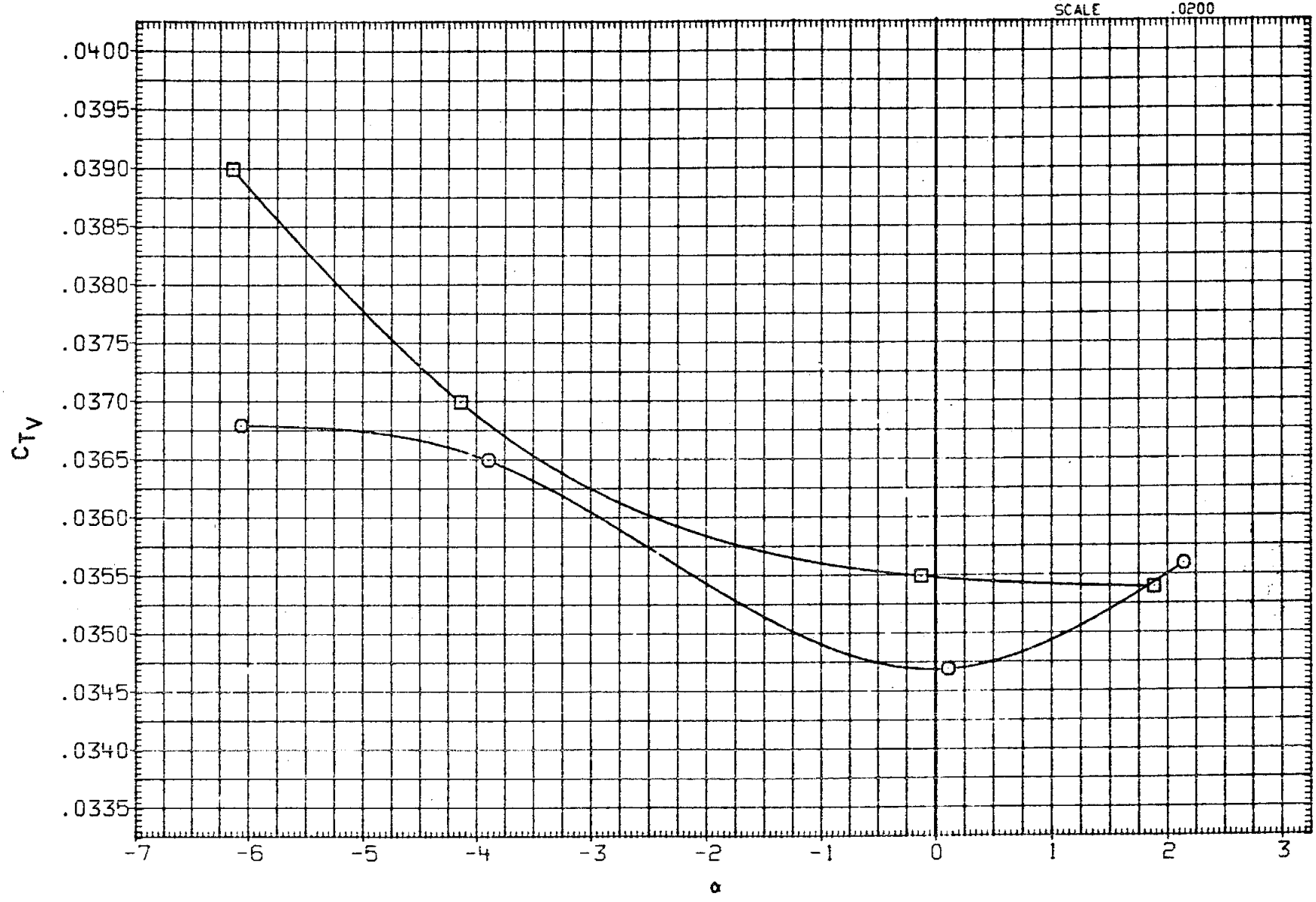

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
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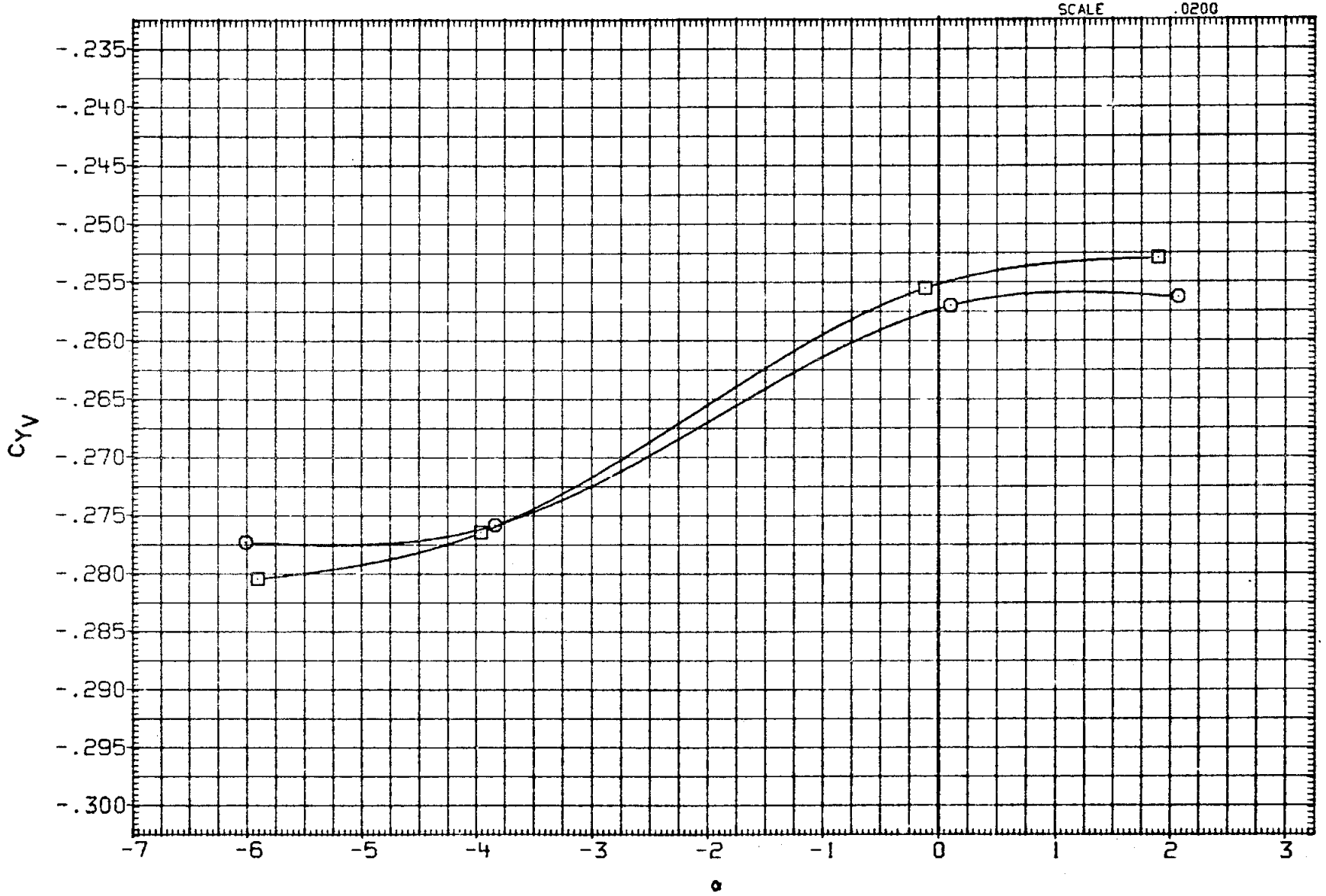

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

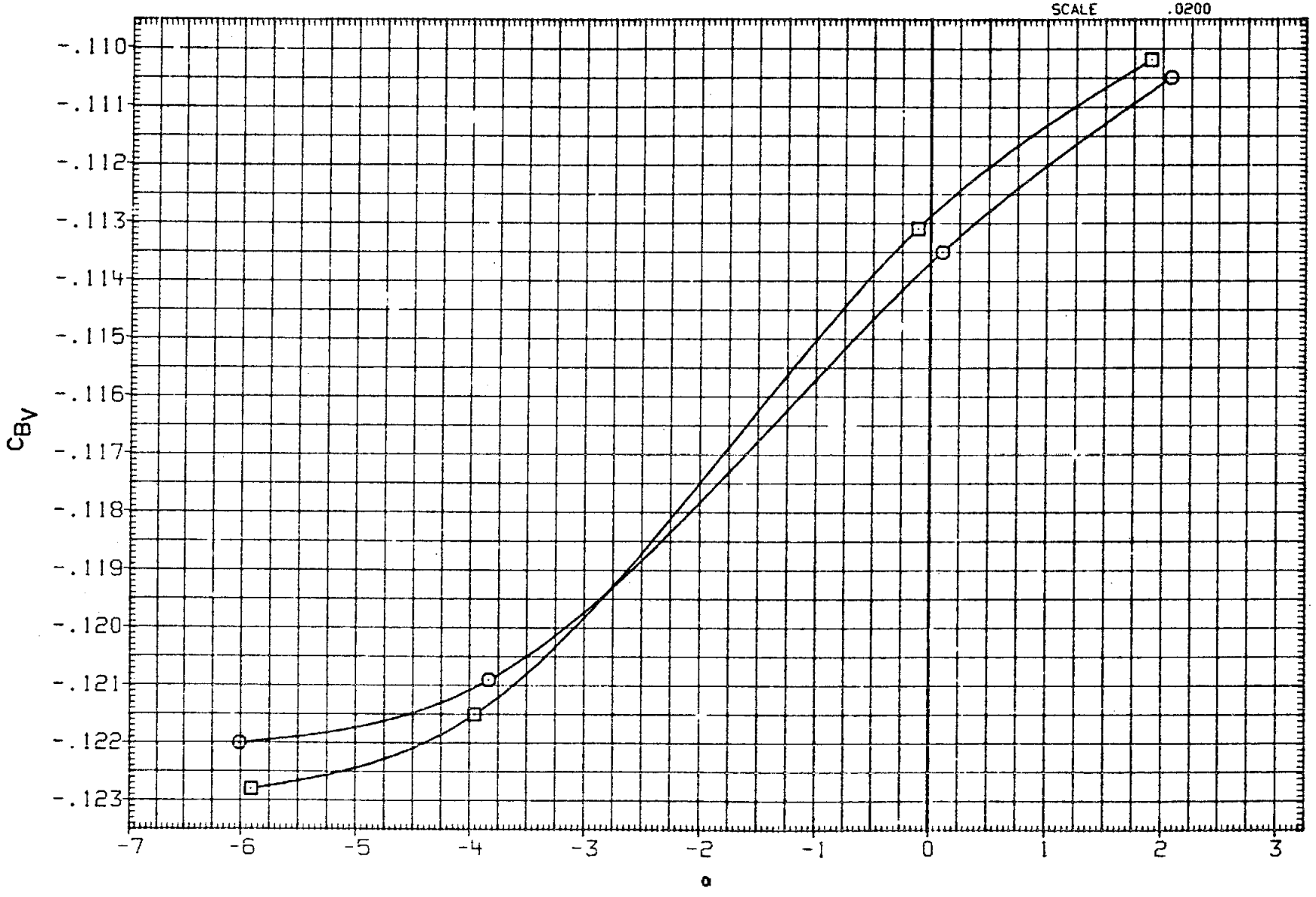

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
BNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
BNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	413.2500	SQ.FT.
LREF	199.8100	IN.
BREF	315.7200	IN.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

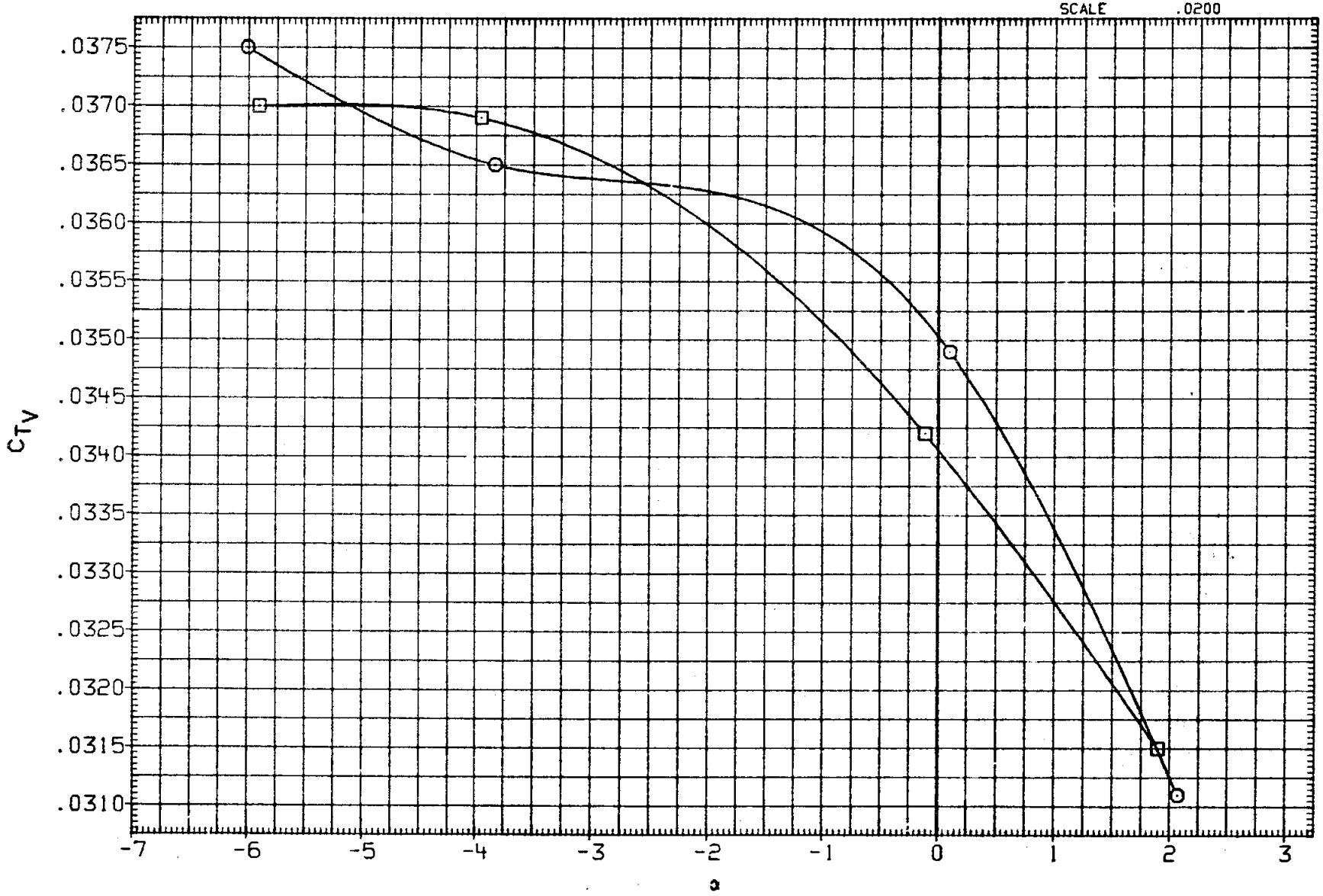

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA45	○	ARC11-072(IA72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
HNEA48	□	ARC11-072(IA72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

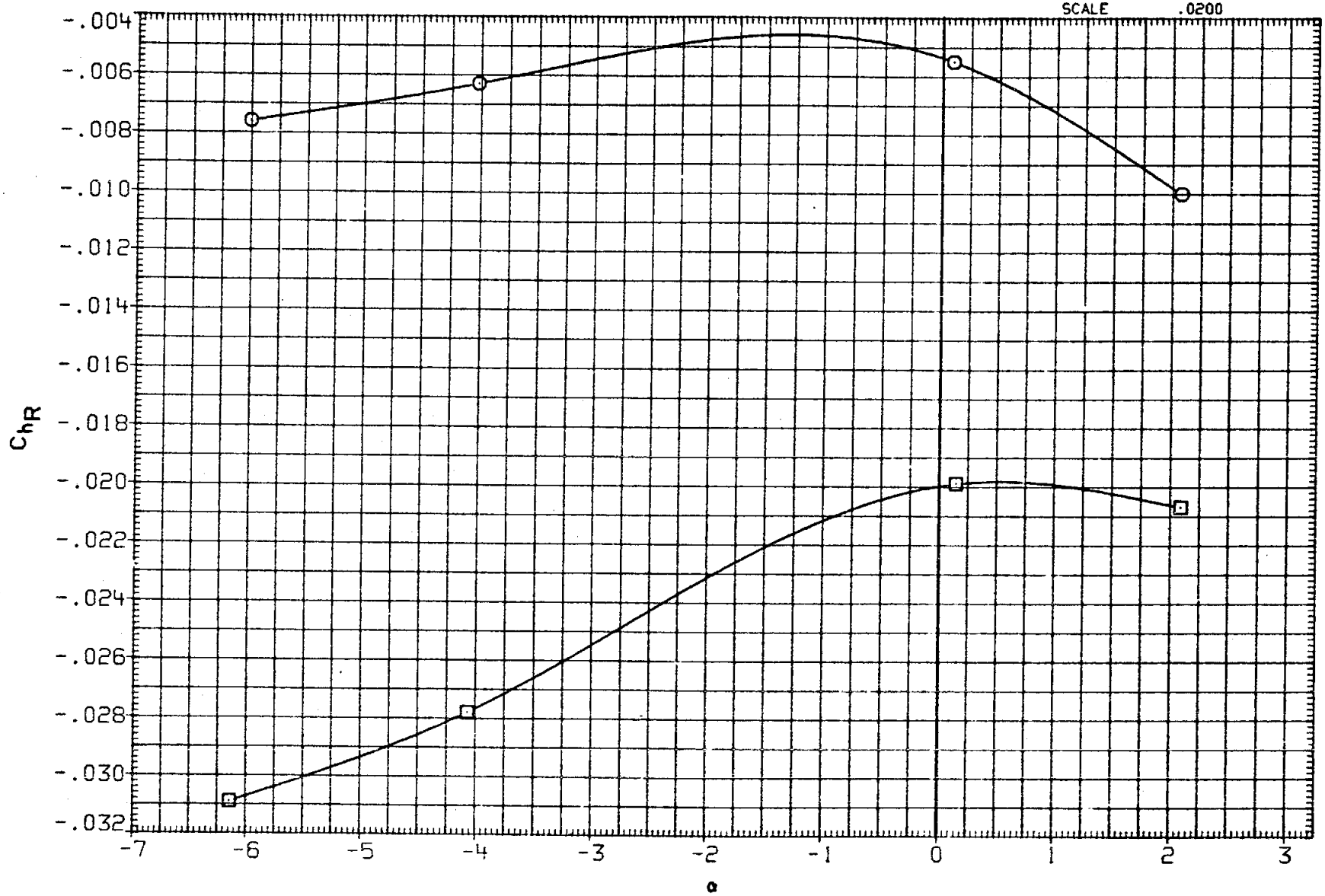

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(A)MACH = .90

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
HNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

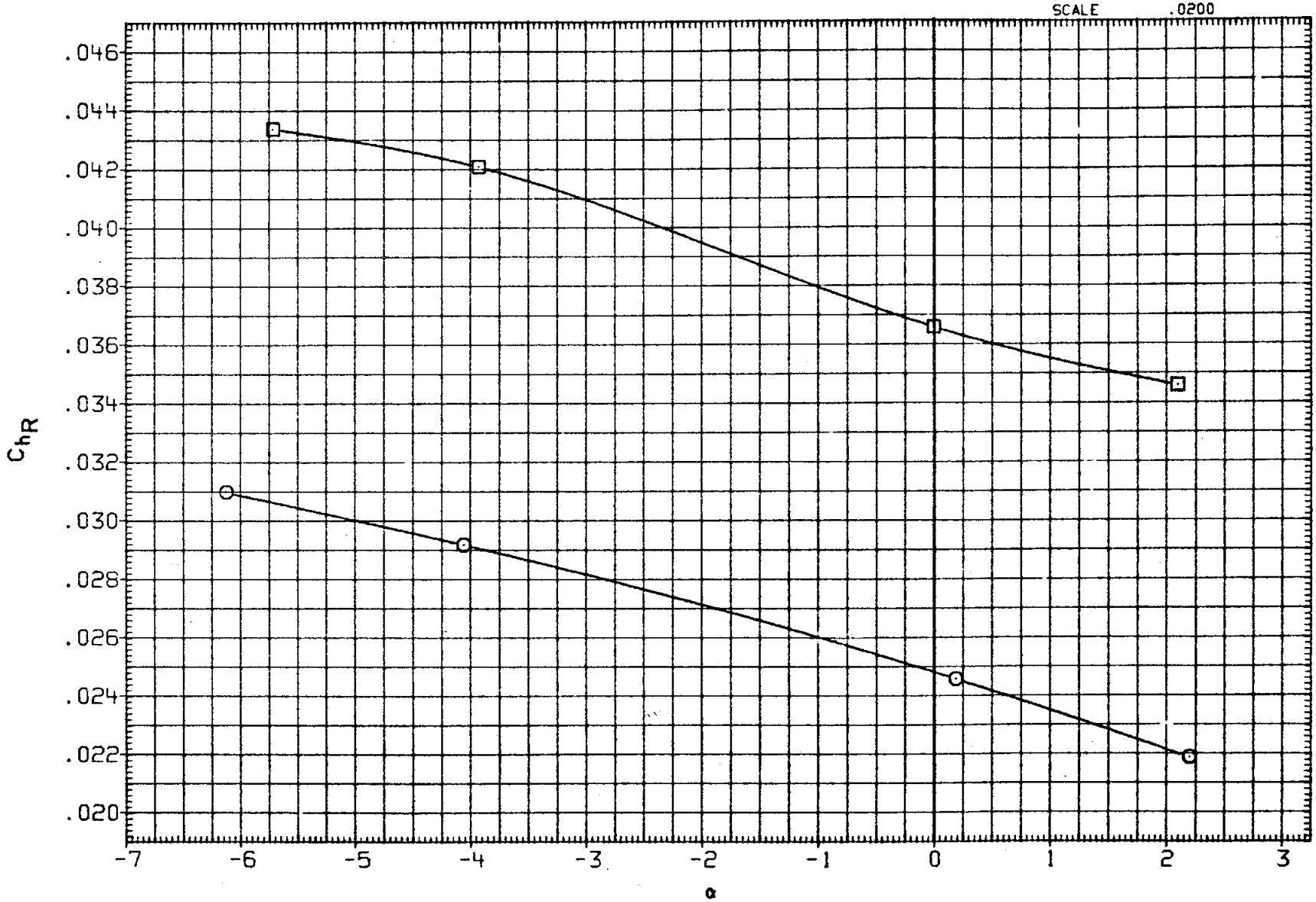

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(B)MACH = 1.10

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
HNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

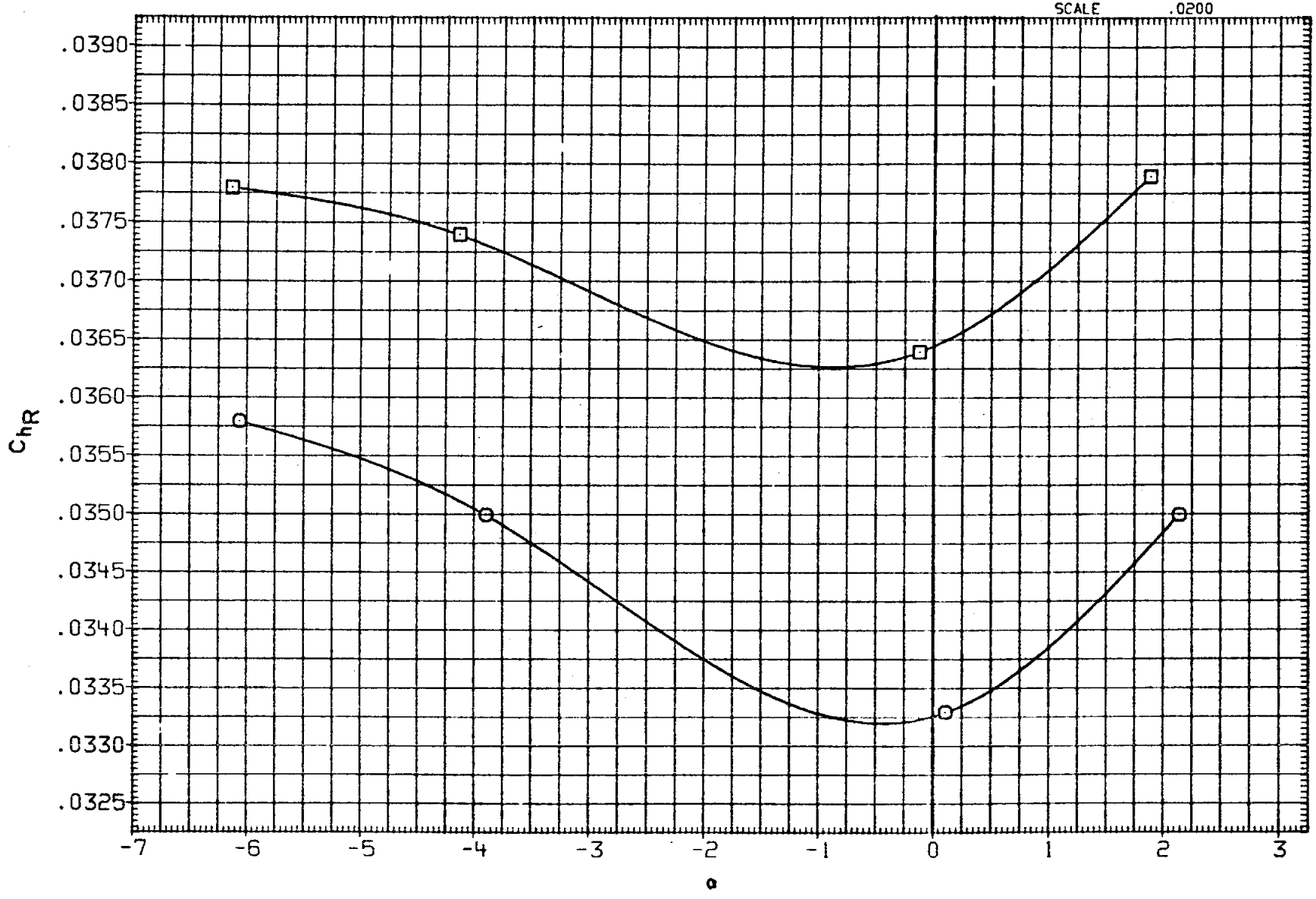

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(C)MACH = 1.25

DATA SET	SYMBOL	CONFIGURATION	BETA	GIMBAL	ELV-IB	ELV-OB
HNEA45	○	ARC11-072(1A72) OTS-1, MPS=OFF SRB=OFF	4.000	1.000	.000	4.000
HNEA48	□	ARC11-072(1A72) OTS-1, MPS=NOM SRB=NOM	4.000	1.000	.000	4.000

REFERENCE INFORMATION

SREF	100.1500	SQ.FT.
LREF	73.2000	IN.
BREF	.0000	N.A.
XMRP	.0000	N.A.
YMRP	.0000	N.A.
ZMRP	.0000	N.A.
SCALE	.0200	

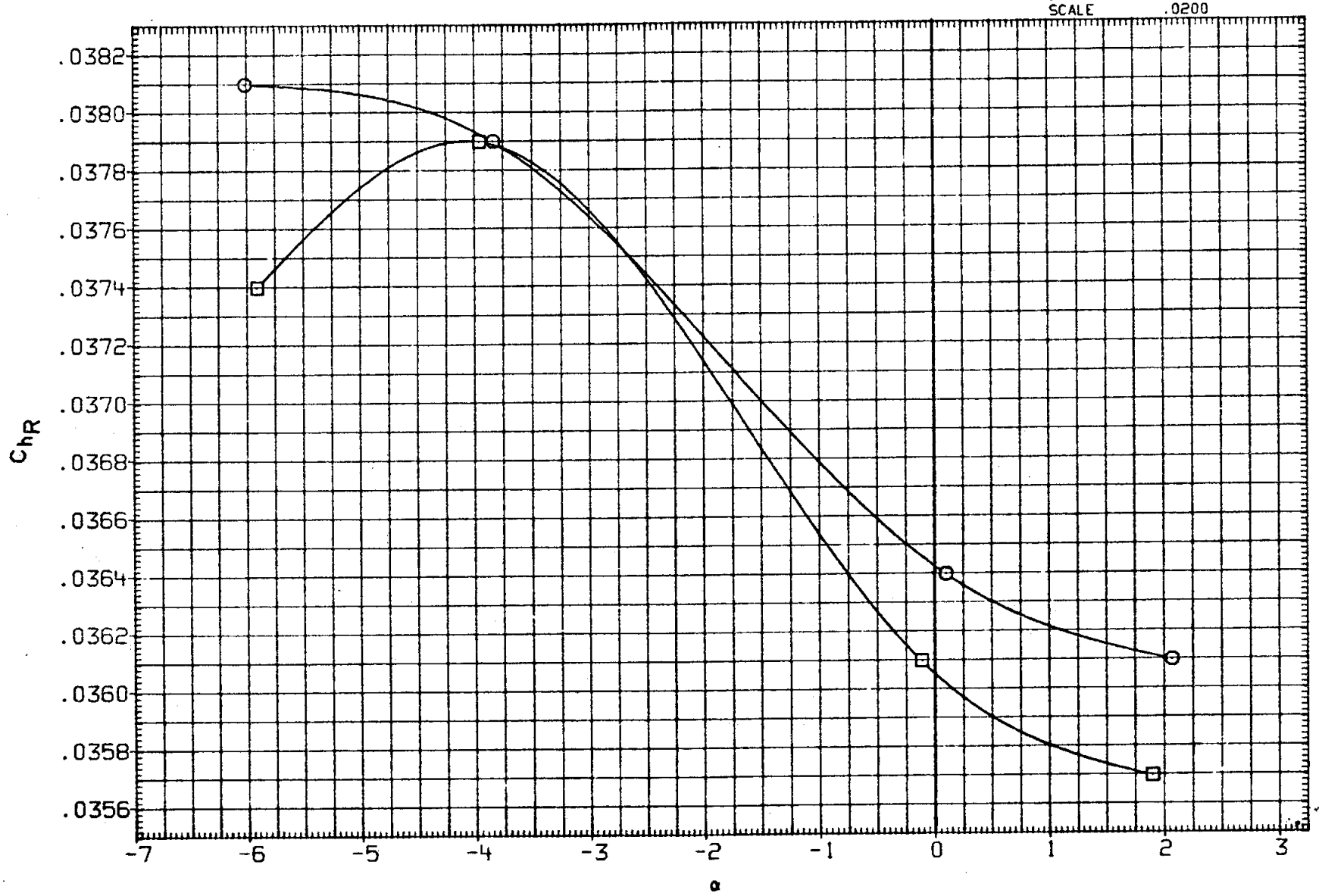

FIG.11 NOMINAL SRB AND MPS PLUME EFFECTS ON ORB VERT. TAIL AND RUD. LOAD COEFFS.

(D)MACH = 1.40