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Summary.—Tests were made at a Reynolds number of $1 \cdot 8 \times 10^6$ and Mach numbers up to 0·93. The wing tip was cropped to a taper of 1/7 and the wing section was RAE 102, symmetrical, 10 per cent thickness/chord at 35 per cent chord.

Form drag is highly localised near the root at low speed. Above $M = 0 \cdot 88$, rearward movement of the strong shock causes a rapid rise of drag at all sections.

Spanwise loading at low incidence is close to potential theory for wing without body up to $M = 0 \cdot 9$. A tip stall occurs at $M \geqslant 0 \cdot 9$ for $\alpha = 3 \cdot 65$ deg and at $M \geqslant 0 \cdot 8$ for $\alpha = 7 \cdot 7$ deg, and causes a nose-down moment. Overall lift slope at low C_L's increases to a maximum at about $M = 0 \cdot 89$, then falls off with signs of a recovery at $M = 0 \cdot 92$.

Local aerodynamic centres at low C_L agree with potential theory for wing alone at low speeds, but move backwards beyond $M = 0 \cdot 8$. The overall aerodynamic centre for the wing moves back about 10 per cent mean chord by $M = 0 \cdot 92$.

There is a loss of elevon power for angles up to − 5 deg above $M = 0 \cdot 92$, as found on a complete model at lower Reynolds number.

LIST OF SYMBOLS

M	Mach number
x	Chordwise distance
y	Spanwise distance
c	Local wing chord
c	Standard mean chord
s	Wing semi-span (gross)
C_p	Pressure coefficient (pressure increment ÷ dynamic pressure)

* R.A.E. Report Aero. 2335, received 15th December, 1949.

LIST OF SYMBOLS—*continued*

C_L		Lift coefficient
C_D		Drag coefficient
C_m		Pitching-moment coefficient
α		Wing incidence
η		Elevon deflection
a_1	=	$(\partial C_L/\partial \alpha)_{M,\eta}$ Lift slope against incidence
a_2	=	$(\partial C_L/\partial \eta)_{M,\alpha}$ Lift slope against elevon angle
m		Reversal parameter $= -(\partial C_m/\partial \eta)_{C_L}$
h		Distance of aerodynamic centre behind wing apex
ΔH		Total-head defect in wake

Primes denote local values of coefficients.

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1. *Introduction.*—The tests reported here were planned to provide general data on the surface pressures over a delta wing at high subsonic speeds. For comparison, balance measurements were also arranged. Use of a half-model both simplified the installation of pressure tubing and gave an important increase in Reynolds number compared with the low value obtainable on a complete model.

The pressure distributions are the most accurate and reliable of the results given. The balance measurements and the coefficients obtained by integration of the pressure plots are viewed qualitatively and are presented with the idea of supporting and checking complete model data.

2. *Experimental Details.*—2.1. *Model and Installation.*—The half-model was constructed of wood with 'Tufnol' elevon. Fig. 1 gives a general arrangement and Table 1 the principal dimensions. The wing section was symmetrical and of 10 per cent thickness/chord ratio with its maximum thickness at 35 per cent chord approximately (*see* Table 5).

For balance measurements, the scheme was to measure aerodynamic forces on the net wing in the presence of the body. The half-fuselage was bolted directly to the turntable in the tunnel floor, while the wing passed through a slot in the fuselage and turntable and was bolted to a balance mounting plate (Fig. 2). There was a 1/10-in. clearance at the surface between wing stub and fuselage. In the pressure-plotting tests this gap was fully sealed as indicated in Fig. 2. It was not possible to obtain a seal free of mechanical constraint for the balance measurements, and the gap was left completely open. The effect of the degree of sealing was investigated (section 2.2).

The plain-nose elevon was held by internal fixing plates bent to the desired angular setting.

2.2. *Range of Tests.*—Pressure plotting, sealing tests and balance measurements were made at incidences up to 8 deg, elevon deflections up to − 5 deg, and Mach numbers up to 0·93. Details are given in Table 2. The sealing tests included measurements with a pitot comb 2 in. behind the innermost pressure station, the conditions included being (*a*) gap unsealed, (*b*) rubber-membrane seal, (*c*) fully sealed condition (*see* Fig. 2).

2.3. *Corrections to Measurements*.—The blockage corrections to Mach number, pressure and force coefficients were calculated by the method of Evans[1] (1949). Typical Mach number corrections were as follows :—

M, nominal	0·6	0·7	0·8	0·9	0·91
ΔM (correction)	0·001	0·002	0·003	0·021	0·027
Estimated accuracy in Mach number			±0·001	±0·003	±0·005

Incidence and force coefficients were corrected for flow inclination. In addition to the usual lifting-line correction, a sidewash in the stream (incidence on the model) of 0·45 deg at all Mach numbers was assumed on the evidence of a number of balance test results on symmetrical half-models.

3. *Results and Discussions*.—3.1. The results are presented in Tables 3 to 4 and Figs. 3 to 28. In the interests of space and clarity, some of the pressure measurements tabulated are not plotted. Gaps in the tabulated results were due to occasional camera failures.

3.2. *Pressure Distributions with Elevon Neutral* (*Figs.* 3 *to* 14).—The basic chordwise distributions at three incidences and a range of Mach numbers are plotted as C_p against x/c in Figs. 3 to 5, some typical isobar patterns are shown in Figs. 6 and 7.

At near-zero incidence, increase of Mach number has the usual effect of at first increasing $(-C_p)$ values without major distortion of the chordwise distribution until at $M = 0·88$ the maximum $(-C_p)$ has about twice its low-speed value. Above this Mach number, when a shock-wave has developed, the shock position moves back on the chord without much alteration in the minimum pressure coefficient. As may be more readily seen from the isobars (Fig. 6) backward displacement of the suction peaks considerably reduces the sweep of the line of peak suctions when the Mach number reaches 0·93. Such an effect would be expected on the wing alone but it may have been modified by the presence of the body. These isobar changes are most obviously reflected in the curves of form drag at low incidence (Fig. 8) obtained by integration of the pressure plots. The inboard form drag is counteracted to some extent up to $M = 0·87$ by a thrust over the outer wing sections.

Above $M = 0·87$, suctions begin to develop aft of the maximum thickness as the shock moves back and the form drag at all sections increases rapidly. In potential flow an increase in form drag at the root section would be expected and this would be exactly balanced by an increase in the thrust at the outer sections so that the total form-drag would remain zero. It is not yet possible to calculate the potential form-drag at the root so that we cannot say whether the increase in drag with Mach number which is measured starts at the tip as a loss in thrust, or is due to an extra drag at the root.

Considering the pressure distributions at incidence (Figs. 4, 5, 7 and 9), it must be noted that the first pressure hole behind the leading edge was at 5 per cent chord. This means that there is some uncertainty about the nature of the suction peaks near the leading edge ; this must give rise to possible errors in integrated coefficients. The chordwise lift loading at low M is compared in Fig. 9a for $y/s = 0·58$ with the theoretical potential flow solution of Garner[2] (1949) which has been worked out at this patricular y/s value for the wing without body or tip radius. The disparity between the theoretical and experimental loadings is not large and is apparently not a fuselage effect. It is quite similar to that found[3] (1949) between the theory and unpublished National Physical Laboratory low-speed measurements at $y/s = 0·67$ on this wing without body, as also shown in Fig. 9a.

The movement of shock-wave position with increasing Mach number occurs also at incidence on the upper surface (Figs. 4, 5, 7 and 9). In addition however, the suction peaks near the leading edge tend to collapse at high M, particularly near the tip. Extensive flow separation occurs on the upper surface at the furthest out section at $M \geqslant 0 \cdot 9$ when $\alpha = 3 \cdot 65$ deg, and at $M \geqslant 0 \cdot 8$ when $\alpha = 7 \cdot 7$ deg at both outboard sections. A noteworthy feature of the distributions at both $\alpha = 3 \cdot 65$ deg and $\alpha = 7 \cdot 7$ deg is a double suction-peak, more noticeable at the inner spanwise stations (Figs. 4 and 5). They appear to arise from the decrease in the sweepback of the isobars from leading edge to trailing edge (*see* Fig. 7). Near the leading edge the local Mach number component normal to the isobars is less than unity and the flow is effectively of subsonic type. Further back the component is greater than unity and a normal type of supersonic region exists terminating in a shock-wave. At the higher incidence on the outboard sections the double peak effect is masked by the existence of flow separation.

Local normal force and pitching-moment coefficients were obtained by direct integration, ignoring the profile-slope effect on C_m. (For the incidences of these tests the difference between normal force and true lift is small and will be neglected in the graphs and the ensuing discussion.) The results are shown in Figs. 10 and 11. A tip stall sets in at a Mach number below $M = 0 \cdot 8$ for $\alpha = 7 \cdot 7$ deg. and at $M = 0 \cdot 9$ for $\alpha = 3 \cdot 65$ deg. Owing to the appreciable suctions at the aerofoil rear when the flow has separated as discussed above, the loss of lift at the tip when it stalls is not large. There is however a marked nose-down pitching moment (Fig. 11) and the overall effect on the pitching moment for the whole wing is nose-down, rather than nose-up as at the usual tip stall on a swept wing. The effect shows up in the balance measurements (section 3·5 and Fig. 23). Positive pitching moments at small positive C_L occur at the tip station for $M = 0 \cdot 92$ (Fig. 11). These arise from opposite loadings over the aerofoil rear (unlike the positive C_m's at this station for C_L near 0·3, which are due to high forward suction peaks) and may explain the ' flat ' in the pitching-moment curve near $C_L = 0$ for $M = 0 \cdot 93$ in the balance results (Fig. 23*c*). The spanwise loading at two incidences is shown in Fig. 12, and the lift slope over the linear parts of the curves (Fig. 10) has been used to obtain the non-dimensional circulation in Fig. 13 where it is compared with the theories of Garner[2] (1949) and Falkner[5] (1948) for wing without body. The theoretical curves for $M > 0$ are for unpublished results of Falkner using a method which Falkner[6] (1948) and Jones[7] (1949) have shown to give results close to those obtained by applying linear perturbation theory. The agreement indicated by Fig. 13 is good in view of the presence of the body and the difficulties of integrating the recorded pressures, as well as the obvious limitations of flat plate inviscid theory. The same remarks apply for $M \leqslant 0 \cdot 8$ to the spanwise variation of local aerodynamic centre (Fig. 13), obtained as a mean between $\alpha = -0 \cdot 45$ deg and $3 \cdot 65$ deg. At higher M, when potential flow conditions cease to apply, the experimental aerodynamic centres move backwards quite markedly and reach an approximately constant chordwise position of 35 per cent of local chord at $M = 0 \cdot 9$. It is worth noting that the ' external ' supersonic solution[9] for a full delta having pointed tips gives a local aerodynamic centre at 50 per cent of local chord at the root, 36 per cent at half-semi-span, and 33 per cent at the tip.

Spanwise integration of lift and moment loadings to obtain overall coefficients, though obviously liable to error with only four spanwise experimental stations, was attempted using loading curves faired at the tips and root similarly to the theoretical curves without body. Integrations were made over both gross and net semi-span, the latter to enable comparison with balance measurements to be made. The results are discussed later (section 3·6) in conjunction with the balance measurements and the results obtained on a complete model.

3.3. *Effect of Elevon Deflection* (*Figs.* 15 *to* 17).—In the interests of space, the local pressure distribution curves have not been plotted for this report, except for Fig. 15 which is included to show the type of curves obtained.

The distribution of the change of loading at $\alpha = 3 \cdot 65$ deg caused by an elevon deflection of -5 deg is shown on Fig. 16. It will be seen that in addition to the expected peaks near the hinge-line, other peaks occur at 50 per cent to 70 per cent of the chord, caused by the forward movement of the upper-surface shock-wave when the elevon is raised.

Integration of the pressure distributions for local C_L and C_m at various angles gave the values in Table 4. In view of their importance in reversal calculations[8], the parameters a_2' or $(\partial C_L'/\partial\eta)_\alpha$, m' or $-(\partial C_m'/\partial\eta)_{C_L}'$ and $m'(a_2'/a_1')$ or $-(\partial C_m'/\partial\alpha)_{C_L}'$ have been derived graphically and are plotted in Fig. 17 (the primes indicate local values). Since m' is a derivative at constant C_L', it has been obtained from the relation :

$$m' \equiv -(\partial C_m'/\partial\eta)_{C_L}' = -(\partial C_m'/\partial\eta)_\alpha + (a_2'/a_1')(\partial C_m'/\partial\alpha)_\eta .$$

The increase in $m'(a_1'/a_2')$ with increasing M is more marked at the outboard than at the inboard sections.

3.4. *Effect of Stub-body Gap on Pressure Distribution and Wake* (*Figs.* 18 *to* 20).—It is as well to consider this before dealing with the balance measurements. The pressure distributions along the two inner stations, at several Mach numbers and two incidences, are compared in Figs. 18 and 19 for the three gap conditions indicated in Fig. 2. Simple pitot-comb measurements at a short distance behind the trailing edge at 23·4 per cent semi-span gave the results in Fig. 20. The pressure distribution near the fuselage is considerably modified by flow between the tunnel ' dead space ' and working-section. The marked enlargement in the wake ' top-hat ' curves without seal, however, should not be regarded as due to a proportional increase in drag. As might be expected, the pressure distributions are flattened. Stoppage of the main gap flow by the lower seal leaves a much less serious effect due to the remaining slot, though it is an appreciable one at high Mach number. At 40·7 per cent semi-span the pressure distribution is very slightly modified with the gap unsealed.

In view of these results, the balance measurements must be regarded as of mainly qualitative interest and subject to check against the complete model results and the pressure plots in the present report (*see* section 3.6).

3.5. *Balance Measurements* (*Figs* 21 *to* 24).—The lift, drag and pitching-moment coefficients are given in Figs. 21, 22 and 23 ; they are based on the net wing area to the fuselage side, as the balance ostensibly measures the force on this area in the presence of the fuselage.

The lift and moment curves for $\eta = 0$ deg are linear at low Mach number up to the highest C_L reached (about 0·5). A fall-off in C_L at about $\alpha = 5\cdot5$ deg begins at $M = 0\cdot8$ and eventually the pitching-moment curves begin to bend in the nose-down sense. These phenomena are consistent with the collapse of leading-edge suction peaks on the outer wing at a stall, accompanied by separation over the rear surface, at moderate to high incidence and high M (*see* section 3.2). It will be noted that although the model was nominally symmetrical, the value of C_{M0} shows a small random deviation from zero which becomes 0·01 at the highest M, and must be due to cumulative asymmetries in the rig and in the shocked flow. The drag curve at zero lift confirms the results of the pressure plot (Figs. 3 and 8) in associating the Mach number of 0·88 at which the well-developed shock-wave begins to move aft, with a rapid increase of drag. The Mach number for 0·005 increase in C_D is 0·89 at $C_L = 0$.

3.6. *Comparison between Balance Measurements, Pressure Data, and Complete Model Tests* (*Figs.* 25 *to* 28).—The balance measurements of drag are compared in Fig. 25 with the drag for the complete wing found in unpublished tests, and there is reasonable agreement in the curves for $C_L = 0$. The more rapid increase in C_D with C_L in the complete model tests is a characteristic effect of the low Reynolds number. The Mach numbers for 0·005 increase in C_D are very nearly the same in both tests, for the C_L values plotted.

In Figs. 26 and 27, the overall lift gradient and aerodynamic centre position are compared, points obtained from integration of the pressure data being included. The half-model balance measurements give rather higher values of $\partial C_L/\partial\alpha$ than the complete model tests*. There is, however, all round agreement in the nature of the variation with Mach number, the initial

* (Added 1952). The difference is of the order which might be expected with the ' net wing ' technique used for the half-model.

compressibility rise reaching a maximum between $M = 0 \cdot 88$ and $0 \cdot 90$, and falling off to a minimum at about $0 \cdot 92$ followed by signs of recovery. Good qualitative agreement is similarly shown in aerodynamic-centre movement. As on other delta wings of this order of thickness and sweep, Mach number increase causes a backward movement of the aerodynamic centre which here amounts to 11 per cent of mean chord by $M = 0 \cdot 92$, for all tests except those of the complete model. It has been shown (see Gates[9] (1949)) that the aerodynamic centre of a delta wing alone at supersonic speeds is situated at the centre of area, the total theoretical backward movement of aerodynamic centre between low-speed and completely supersonic conditions amounting to about 23 per cent of mean chord. The complete model tests indicate that up to $M = 0 \cdot 94$ the fuselage reduces the aerodynamic centre movement considerably.

In Fig, 28 elevon effectiveness results are compared. The difference between the elevon chords should on simple theory cause a difference of only about 10 per cent in the elevon effectiveness so that the agreement between half- and complete-model results may be regarded as good. It seems that the change of loading and moment caused by elevon deflection extends across the fuselage. The pressure-plot integrations are also, in view of the difficulties of integration, reasonably close to the corresponding direct measurements. Fig. 28 thus shows that the loss of elevon power found on the complete model persists at a significantly higher Reynolds number, and re-emphasizes the probability of control difficulties with a wing of this kind at Mach numbers above $0 \cdot 92$.

4. *Conclusions.*—4.1. Measurements of pressure distribution show the following features :—

(*a*) At near-zero incidence the peak suctions increase with Mach number to a maximum value at about $M = 0 \cdot 88$ without major distortion of the chordwise distribution. Between $M = 0 \cdot 88$ and $0 \cdot 93$ the peak suction moves aft, keeping just ahead of the shock-wave, without much change in magnitude, thus reducing the sweepback of the line of peak suctions.

(*b*) In accordance with theoretical indications, the form drag at near-zero incidence and low M is large and positive near the root, and negative in the outer regions. As the shock-waves move back at Mach numbers above $0 \cdot 88$, the form drag increases and has become positive at all sections at $M = 0 \cdot 91$.

(*c*) The chordwise loading due to $3 \cdot 65$ deg incidence is similar at low speeds to that predicted by flat-plate theory. At higher Mach numbers there is a marked increase in loading aft of the maximum thickness which produces greater lift and a rearwards movement of the aerodynamic centre. This effect tends to be masked near the tip, expecially at higher incidence, by flow separation.

(*d*) At low incidence the spanwise distribution of circulation is quite close to potential theory for wing without body, up to $M = 0 \cdot 9$. Tip stalling occurs however at $M \geqslant 0 \cdot 9$ when $\alpha = 3 \cdot 65$ deg and at $M \geqslant 0 \cdot 8$ when $\alpha = 7 \cdot 7$ deg. Local aerodynamic centres at low incidence are close to the theoretical positions up to a Mach number of $0 \cdot 8$, but at higher Mach numbers, move aft at all sections. Tip stalling produces additional nose-down moments at higher incidence.

(*e*) For elevon deflections up to -5 deg the reversal parameter m increases with Mach number, this effect being more severe for the outboard sections.

4.2. Pressure and wake measurements indicate a change in pressure distribution near the fuselage due to airflow through a gap round the wing stub. For this reason the balance measurements are of limited quantitative value.

4.3. Comparison between overall coefficients from pressure data, balance measurements, and complete model results, shows that :—

(*a*) Balance drag variation with M agrees well at $C_L = 0$ with complete model data obtained at lower Reynolds number, and both agree with the pressure plot in that rapid increase in drag begins at about $M = 0 \cdot 88$.

(b) All the results show very similar variation with Mach number of lift slope, which reaches a maximum for M between $0 \cdot 88$ and $0 \cdot 90$, and a backward movement of aerodynamic centre of the order of 10 per cent of mean chord by $M = 0 \cdot 92$.

(c) Balance measurements agree with pressure results in showing nose-down moments at high speed and C_L from $0 \cdot 4$ to $0 \cdot 5$ due to tip-stalling.

(d) There is confirmation of complete model results, by both balance and pressure plotting, in indicating a loss of elevon power, at low angles, above a Mach number of $0 \cdot 92$.

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TABLE 1

Dimensions of Half-Model

Wing	
Gross wing area (leading edge produced to centre-line)	3·49 sq ft
Gross mean chord ($\bar{c}$)	1·52 ft
Net wing area	2·60 sq ft
Net mean chord	1·34 ft
Gross semi-span (s)	2·300 ft
Theoretical root chord (C_r)	2·67 ft
Tip chord (leading edge and trailing edge produced)	0·369 ft
Aspect ratio of complete model	3·03
Sweepback of wing leading edge	45 deg
Sweepback of quarter-chord line	36·9 deg
Type of section	symmetrical, RAE102
Maximum thickness/chord ratio	10 per cent at 35 per cent chord
Elevon area	0·42 sq ft
Elevon chord/wing chord	0·15
Fuselage	
Overall length	4·83 ft
Maximum half-width (in plane of wing)	0·425 ft
Distance, nose to theoretical wing apex	0·785 ft
Fineness ratio	8·8 : 1
Axis of moments	
Distance behind theoretical wing apex	1·28 ft
Position on gross mean chord	0·230
Position on net mean chord	0·095

Position of pressure-plotting sections

Distance from centre-line (ft)	0·538	0·935	1·335	1·867
Chord (ft)	2·130	1·731	1·332	0·799
y/s	0·234	0·407	0·581	0·812
$c/\bar{c}$	1·404	1·141	0·878	0·527

TABLE 2

Range of Tests

Pressure plotting

α (deg) Nominal	η (deg)	M
−1, 0, 1, 4, 8	0, −1	0·4 to 0·935
0, 4	−3, −5	0·4 to 0·935

Seal tests at $\eta = 0$ deg

α (deg) Nominal	M
0, 4	0·6, 0·835
0	0·885, 0·92

Balance measurements
(Lift, drag, pitching moment)

α (deg) Nominal	η (deg)	M
−1, 0, 1, 2, 4, 6	0, −1, −3, −5	0·4 to 0·93
8	0, −1, −3, −5	0·4 to 0·885

TABLE 3A

C_p at $\eta = 0$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 234$

M	0·399	0·598	0·798	0·836	0·867	0·883	0·897	0·905	0·919	0·934
Upper										
x/c = 0·00	0·455	0·484	0·545	0·562	0·581	0·590	0·602	0·606	0·615	0·625
0·05	−0·017	−0·007	−0·007	−0·008	−0·004	0·009	0·022	0·027	0·033	0·044
0·01	−0·088	−0·085	−0·092	−0·091	−0·084	−0·078	−0·069	−0·062	−0·056	−0·045
0·30	−0·202	−0·220	−0·269	−0·279	−0·289	−0·290	−0·295	0·287	−0·248	−0·274
0·50	−0·198	−0·220	−0·291	−0·329	−0·390	−0·422	−0·438	−0·435	−0·429	−0·420
0·60	−0·143	0·159	−0·208	−0·230	−0·273	−0·322	−0·413	−0 431	−0·442	−0·438
0·70	−0·082	−0·089	−0·115	−0·123	−0·128	−0·126	−0·176	−0·249	−0·407	−0·453
0·80	−0·024	−0·022	−0·030	−0·030	−0·029	−0·023	−0·017	−0·013	−0·046	−0·371
0·84	0·003	0·006	0·011	0·016	0·019	0·024	0·031	0·036	0·027	−0·172
0·87	0·022	0·026	0·031	0·036	0·040	0·045	0·053	0·057	0·053	−0·050
0·92	0·045	0·051	0·061	0·067	0·074	0·079	0·086	0·090	0·090	0·046
1·00	0·160	0·175	0·199	0·213	0·223	0·229	0·237	0·239	0·236	0·199
Lower										
x/c = 0·05	−0·292	−0·292	−0·245	−0·220	−0·208	−0·185	−0·180	−0·173	−0·157	−0·141
0·10	−0·305	−0·316	−0·308	−0·296	−0·288	−0·272	−0·270	−0·263	−0·250	−0·234
0·30	−0·301	−0·330	−0·383	−0·393	−0·401	−0·389	−0·388	−0·380	−0·373	−0·357
0·50	−0·239	−0·269	−0·361	−0·423	−0·516	−0·522	−0·528	−0·519	−0·518	−0·507
0·60	−0·165	−0·186	−0·232	−0·253	−0·378	−0·493	−0·521	−0·519	−0·497	−0·508
0·70	−0·106	−0·117	−0·142	−0·145	−0·133	−0·133	−0·308	−0·424	−0·496	−0·527
0·80	−0·043	−0·050	−0·058	−0·052	−0·043	−0·032	−0·018	−0·018	−0·050	−0·377
0·84	−0·032	−0·034	−0·033	−0·031	−0·019	−0·010	0·004	0·007	0·017	−0·168
0·86										
0·93	0·040	0·045	0·059	0·066	0·073	0·081	0·088	0·093	0·094	0·053

C_p at $\eta = 0$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 407$

M	0·399	0·598	0·798	0·836	0·867	0·883	0·897	0·905	0·919	0·934
Upper										
x/c = 0·00	0·388	0·481	0·413	0·426	0·439	0·447	0·455	0·458	0·468	0·476
0·05	−0·057	−0·046	−0·068	−0·073	−0·071	−0·069	−0·061	−0·056	−0·051	−0·042
0·10	−0·143	−0·143	−0·174	−0·182	−0·185	−0·183	−0·178	−0·172	−0·167	−0·155
0·30	−0·229	−0·247	−0·318	−0·340	−0·363	−0·361	−0·365	−0·356	−0·358	−0·350
0·50	−0·196	−0·220	−0·293	−0·332	−0·392	−0·451	−0·501	−0·502	−0·500	−0·492
0·60	−0·130	−0·149	−0·195	−0·210	−0·242	−0·352	−0·438	−0·491	−0·487	−0·495
0·70	−0·065	−0·071	−0·090	−0·093	−0·092	−0·067	−0·072	−0·245	−0·429	−0·479
0·80	−0·002	0	0	0	0·007	0·019	0·042	0·060	0·035	−0·418
0·84	0·001	0·005	0·014	0·021	0·028	0·034	0·050	0·064	0·089	−0·290
0·87	0·031	0·039	0·047	0·054	0·063	0·070	0·085	0·096	0·118	−0·075
0·92	0·064	0·074	0·091	0·101	0·112	0·119	0·131	0·137	0·151	0·139
1·00	0·169	0·188	0·218	0·231	0·246	0·255	0·267	0·272	0·273	0·257
Lower										
x/c = 0·05	−0·347	−0·383	−0·383	−0·370	−0·363	−0·345	−0·342	−0·333	−0·319	−0·300
0·10	−0·340	−0·377	−0·403	−0·401	−0·401	−0·390	−0·388	−0·378	−0·367	−0·352
0·30	−0·331	−0·372	−0·470	−0·514	−0·498	−0·489	−0·484	−0·473	−0·463	−0·447
0·50	−0·248	−0·281	−0·361	−0·425	−0·582	−0·615	−0·620	−0·610	−0·607	−0·597
0·60	−0·163	−0·181	−0·218	−0·228	−0·312	−0·533	−0·581	−0·593	−0·578	−0·592
0·70	−0·097	−0·107	−0·121	−0·118	−0·085	−0·052	−0·240	−0·392	0·521	−0·566
0·80	−0·028	−0·030	−0·029	−0·022	−0·005	0·019	0·053	0·056	0·007	−0·433
0·84	−0·017	−0·013	−0·004	0·003	0·017	0·035	0·063	0·073	0·070	−0·211
0·86	−0·002	−0·007	0·005	0·011	0·025	0·041	0·065	0·077	0·090	−0·065
0·93	0·058	0·066	0·090	0·098	0·112	0·124	0·140	0·150	0·163	0·140

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 581$

M	0·399	0·598	0·798	0·836	0·867	0·883	0·898	0·909	0·922	0·934
Upper										
x/c = 0·00	0·415	0·396	0·417	0·418	0·425	0·429	0·436	0·436	0·443	0·449
0·05	−0·088	−0·077	−0·115	−0·123	−0·136	−0·135	−0·136	−0·131	−0·128	−0·122
0·10	−0·168	−0·168	−0·218	−0·230	−0·246	−0·245	−0·249	−0·243	−0·242	−0·240
0·30	−0·239	−0·263	−0·343	−0·378	−0·432	−0·433	−0·433	−0·425	−0·422	−0·416
0·50	−0·196	−0·217	−0·292	−0·327	−0·387	−0·459	−0·529	−0·557	−0·583	−0·579
0·60	−0·141	−0·159	−0·199	−0·209	−0·212	−0·261	−0·486	−0·505	−0·529	−0·570
0·70	−0·050	−0·055	−0·063	−0·067	−0·063	−0·039	−0·003	−0·107	−0·466	−0·525
0·80	0·007	0·011	0·016	0·018	0·024	0·038	0·065	0·084	0·054	−0·465
0·84	0·003	0·011	0·024	0·033	0·042	0·051	0·073	0·090	0·102	−0·348
0·87	0·022	0·028	0·043	0·052	0·062	0·070	0·090	0·104	0·123	−0·176
0·92	0·053	0·066	0·090	0·101	0·113	0·119	0·135	0·142	0·156	0·084
1·00	0·169	0·188	0·221	0·237	0·251	0·258	0·268	0·272	0·271	0·238
Lower										
x/c = 0·05	−0·331	−0·384	−0·417	−0·416	−0·407	−0·399	−0·392	−0·383	−0·375	−0·357
0·10	−0·340	−0·393	−0·451	−0·462	−0·450	−0·441	−0·435	−0·427	−0·418	−0·402
0·30	−0·338	−0·381	−0·489	−0·545	−0·591	−0·581	−0·571	−0·559	−0·551	−0·531
0·50	−0·248	−0·280	−0·359	−0·436	−0·619	−0·668	−0·701	−0·706	−0·708	−0·699
0·60	−0·163	−0·184	−0·206	−0·200	−0·155	−0·554	−0·645	−0·647	−0·636	−0·682
0·70	−0·086	−0·092	−0·098	−0·088	−0·046	−0·009	−0·137	−0·291	−0·531	−0·637
0·80	−0·026	−0·022	−0·011	−0·001	0·026	0·057	0·079	0·068	0·003	−0·385
0·84	−0·004	0·002	0·021	0·034	0·059	0·084	0·108	0·109	0·066	−0·201
0·86	0·003	0	0·025	0·034	0·054	0·077	0·108	0·117	0·097	−0·089
0·93	0·058	0·071	0·101	0·112	0·127	0·144	0·164	0·174	0·178	0·104

C_p at $\eta = 0$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 812$

M	0·399	0·598	0·798	0·836	0·867	0·883	0·897	0·905	0·919	0·934
Upper										
x/c = 0·00	0·406	0·399	0·401	0·393	0·393	0·389	0·390	0·388	0·389	0·390
0·05	−0·100	−0·089	−0·126	−0·139	−0·176	−0·187	−0·200	−0·196	−0·194	−0·192
0·11	−0·163	−0·174	−0·227	−0·245	−0·287	−0·302	−0·315	−0·308	−0·310	−0·305
0·30	−0·231	−0·259	−0·335	−0·367	−0·410	−0·485	−0·512	−0·507	−0·502	−0·492
0·50	−0·194	−0·217	−0·284	−0·314	−0·369	−0·418	−0·501	−0·523	−0·600	−0·668
0·60	−0·139	−0·161	−0·215	−0·238	−0·272	−0·270	−0·485	−0·523	−0·572	−0·651
0·70	−0·065	−0·059	−0·054	−0·040	−0·026	−0·021	−0·031	−0·166	−0·508	−0·606
0·80	−0·063	−0·061	−0·049	−0·044	−0·036	−0·026	0·022	0·022	−0·156	−0·600
0·84	−0·026	−0·019	0·001	0·012	0·024	0·030	0·055	0·057	−0·053	
0·87	0·014	0·019	0·035	0·045	0·054	0·057	0·077	0·079	−0·006	
0·92	0·058	0·069	0·096	0·108	0·117	0·116	0·120	0·116	0·060	−0·275
1·00	0·138	0·157	0·197	0·213	0·221	0·214	0·193	0·169	0·105	−0·034
Lower										
x/c = 0·05	−0·336	−0·387	−0·460	−0·486	−0·482	−0·473	−0·454	−0·447	−0·437	−0·418
0·10	−0·362	−0·415	−0·522	−0·567	−0·582	−0·576	−0·559	−0·552	−0·541	−0·522
0·30	−0·336	−0·380	−0·504	−0·584	−0·675	−0·678	−0·671	−0·663	−0·653	−0·636
0·50	−0·248	−0·288	−0·382	−0·454	−0·609	−0·642	−0·651	−0·651	−0·639	−0·734
0·60	−0·168	−0·186	−0·189	−0·157	−0·103	−0·284	−0·555	−0·586	−0·627	−0·704
0·70	−0·061	−0·095	−0·053	−0·033	0·013	−0·010	−0·167	−0·242	−0·349	−0·659
0·80	−0·039	−0·034	−0·012	0·002	0·033	0·046	−0·008	−0·059	−0·149	−0·437
0·84	−0·039	−0·033	0	0·016	0·043	0·062	0·034	−0·010	−0·133	−0·331
0·89										
0·93	0·067	0·081	0·114	0·130	0·149	0·159	0·141	0·114	0·031	−0·126

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot234$

M	0·399	0·598	0·798	0·837	0·866	0·883	0·898	0·909	0·922	0·934
Upper										
x/c = 0·00	0·493	0·520	0·566	0·582	0·596	0·607	0·614	0·623	0·632	0·643
0·05	−0·087	−0·085	−0·085	−0·079	−0·072	−0·055	−0·051	−0·040	−0·029	−0·021
0·10	−0·141	−0·146	−0·152	−0·149	−0·143	−0·129	−0·124	−0·114	−0·104	−0·096
0·30	−0·236	−0·256	−0·307	−0·320	−0·331	−0·334	−0·332	−0·324	−0·312	−0·304
0·50	−0·218	−0·242	−0·319	−0·364	−0·434	−0·464	−0·465	−0·463	−0·457	−0·458
0·60	−0·157	−0·174	−0·226	−0·249	−0·295	−0·390	−0·459	−0·472	−0·471	−0·469
0·70	−0·092	−0·102	−0·127	−0·134	−0·121	−0·131	−0·212	−0·358	−0·460	−0·479
0·80	−0·028	−0·032	−0·036	−0·036	−0·029	−0·021	−0·010	−0·010	−0·071	−0·348
0·84	−0·004	0·003	0·007	0·014	0·020	0·028	0·037	0·042	0·024	−0·123
0·87	0·018	0·023	0·028	0·035	0·041	0·049	0·058	0·064	0·056	−0·020
0·92	0·042	0·051	0·060	0·069	0·076	0·083	0·091	0·096	0·096	0·064
1·00	0·160	0·179	0·202	0·214	0·223	0·233	0·239	0·244	0·238	0·211
Lower										
x/c = 0·05	−0·218	−0·202	−0·159	−0·143	−0·126	−0·118	−0·101	−0·097	−0·087	−0·075
0·10	−0·249	−0·250	−0·240	−0·231	−0·220	−0·215	−0·201	−0·198	−0·189	−0·178
0·30	−0·273	−0·296	−0·342	−0·356	−0·357	−0·357	−0·347	−0·341	−0·333	−0·326
0·50	−0·225	−0·251	−0·335	−0·386	−0·465	−0·490	−0·492	−0·487	−0·483	−0·479
0·60	−0·152	−0·174	−0·222	−0·249	−0·296	−0·437	−0·487	−0·492	−0·488	−0·484
0·70	−0·094	−0·108	−0·134	−0·141	−0·135	−0·133	−0·242	−0·401	−0·492	−0·504
0·80	−0·039	−0·046	−0·053	−0·053	−0·046	−0·037	−0·022	−0·024	−0·095	−0·371
0·84	−0·028	−0·030	−0·032	−0·032	−0·022	−0·014	0	0·005	−0·007	−0·161
0·86										
0·93	0·040	0·048	0·057	0·065	0·072	0·079	0·087	0·093	0·094	0·065

C_p at $\eta = 0$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot407$

M	0·399	0·598	0·798	0·837	0·866	0·883	0·898	0·909	0·922	0·934
Upper										
x/c = 0·00	0·436	0·432	0·448	0·450	0·463	0·469	0·474	0·481	0·487	0·499
0·05	−0·141	−0·137	−0·155	−0·157	−0·153	−0·140	−0·138	−0·128	−0·115	−0·111
0·10	−0·207	−0·213	−0·245	−0·251	−0·252	−0·243	−0·237	−0·229	−0·217	−0·212
0·30	−0·262	−0·287	−0·364	−0·390	−0·404	−0·404	−0·405	−0·402	−0·393	−0·387
0·50	−0·218	−0·244	−0·326	−0·375	−0·448	−0·508	−0·536	−0·535	−0·530	−0·531
0·60	−0·143	−0·162	−0·203	−0·219	−0·245	−0·440	−0·478	−0·479	−0·522	−0·525
0·70	−0·076	−0·083	−0·101	−0·103	−0·091	−0·043	−0·161	—	−0·475	−0·507
0·80	−0·010	−0·009	−0·007	−0·002	0·008	0·028	0·060	0·085	−0·035	−0·432
0·84	−0·006	0·002	0·011	0·020	0·007	0·041	0·065	0·087	0·098	−0·216
0·87	0·027	0·036	0·046	0·056	0·065	0·077	0·096	0·116	0·136	0·016
0·92	0·062	0·074	0·093	0·102	0·114	0·125	0·140	0·152	0·169	0·162
1·00	0·171	0·193	0·221	0·233	0·245	0·257	0·270	0·278	0·281	0·273
Lower										
x/c = 0·045	−0·249	−0·272	−0·271	−0·266	−0·258	−0·254	−0·240	−0·237	−0·227	−0·213
0·095	−0·273	−0·297	−0·319	−0·324	−0·320	−0·317	−0·309	−0·306	−0·297	−0·287
0·295	−0·300	−0·330	−0·416	−0·468	−0·462	−0·453	−0·444	−0·435	−0·425	−0·416
0·495	−0·229	−0·259	−0·342	−0·496	−0·479	−0·562	−0·580	−0·574	−0·568	−0·563
0·595	−0·152	−0·172	−0·209	−0·228	−0·259	−0·444	−0·528	−0·549	−0·561	−0·561
0·695	−0·085	−0·095	−0·113	−0·112	−0·096	−0·054	−0·173	−0·388	−0·509	−0·535
0·795	−0·019	−0·024	−0·025	−0·022	−0·009	0·011	0·045	0·061	−0·056	−0·426
0·835	−0·010	−0·007	−0·003	0·001	0·014	0·030	0·055	0·075	0·066	−0·209
0·86	−0·006	−0·001	0·004	0·011	0·021	0·035	0·059	0·077	0·092	−0·050
0·93	0·058	0·069	0·089	0·097	0·110	0·121	0·137	0·148	0·166	0·155

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 581$

M	0·399	0·598	0·798	0·837	0·866	0·883	0·898	0·909	0·922	0·934
Upper										
x/c = 0·00	0·458	0·451	0·450	0·446	0·453	0·456	0·458	0·464	0·468	0·477
0·055	−0·185	−0·180	−0·211	−0·221	−0·224	−0·217	−0·215	−0·212	−0·198	−0·199
0·10	−0·240	−0·247	−0·296	−0·311	−0·332	−0·321	−0·323	−0·322	−0·311	−0·312
0·30	−0·280	−0·306	−0·395	−0·436	−0·481	−0·480	−0·477	−0·472	−0·467	−0·466
0·50	−0·220	−0·245	−0·326	−0·374	−0·459	−0·528	−0·577	−0·611	−0·624	−0·623
0·60	−0·159	−0·175	−0·205	−0·203	−0·168	−0·423	−0·545	−0·554	−0·571	−0·607
0·70	−0·063	−0·068	−0·080	−0·077	−0·060	−0·004	−0·051	−0·303	−0·541	−0·580
0·80	−0·002	0	0·007	0·014	0·028	0·053	0·089	0·104	−0·001	−0·447
0·84	−0·004	0·008	0·021	0·033	0·046	0·064	0·094	0·116	0·102	−0·241
0·87	0·018	0·026	0·042	0·053	0·067	0·083	0·110	0·132	0·139	−0·046
0·92	0·051	0·066	0·091	0·102	0·116	0·129	0·149	0·164	0·178	0·140
1·00	0·169	0·191	0·225	0·238	0·248	0·258	0·269	0·278	0·283	0·272
Lower										
x/c = 0·05	−0·223	−0·266	−0·299	−0·308	−0·300	−0·298	−0·288	−0·279	−0·278	−0·259
0·10	−0·264	−0·306	−0·361	−0·381	−0·372	−0·368	−0·357	−0·348	−0·343	−0·330
0·30	−0·297	−0·335	−0·432	−0·477	−0·528	−0·534	−0·526	−0·522	−0·507	−0·498
0·50	−0·227	−0·257	−0·344	−0·407	−0·494	−0·579	−0·625	−0·655	−0·650	−0·660
0·60	−0·152	−0·174	−0·194	−0·186	−0·164	−0·423	−0·577	−0·598	−0·621	−0·644
0·70	−0·072	−0·079	−0·089	−0·083	−0·059	−0·005	−0·093	−0·312	−0·549	−0·594
0·80	−0·019	−0·016	−0·007	−0·001	0·015	0·046	0·083	0·087	−0·032	−0·430
0·835	0·003	0·010	0·023	0·034	0·050	0·074	0·105	0·124	0·064	−0·228
0·86	−0·007	0·011	0·025	0·033	0·047	0·070	0·102	0·121	0·118	−0·079
0·93	0·058	0·072	0·099	0·109	0·122	0·139	0·159	0·174	0·186	0·206

C_p at $\eta = 0$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 812$

M	0·399	0·598	0·798	0·837	0·866	0·883	0·898	0·909	0·922	0·934
Upper										
x/c = 0·00	0·440	0·444	0·434	0·425	0·420	0·414	0·414	0·417	0·414	0·422
0·055	−0·207	−0·210	−0·250	−0·263	−0·295	−0·298	−0·299	−0·297	−0·288	−0·285
0·105	−0·256	−0·271	−0·331	−0·354	−0·395	−0·403	−0·408	−0·407	−0·400	−0·397
0·30	−0·280	−0·309	−0·398	−0·438	−0·514	−0·568	−0·569	−0·564	−0·558	−0·553
0·50	−0·220	−0·245	−0·326	−0·369	−0·426	−0·516	−0·542	−0·562	−0·602	−0·690
0·60	−0·165	−0·186	−0·221	−0·221	−0·207	−0·311	−0·519	−0·563	−0·592	−0·638
0·70	−0·059	−0·062	−0·054	−0·045	−0·025	0·011	−0·117	−0·262	−0·498	−0·632
0·795	−0·072	−0·068	−0·052	−0·042	−0·025	0·021	0·035	−0·032	−0·189	−0·518
0·835	−0·032	−0·021	0·002	0·015	0·035	0·062	0·074	0·029	−0·104	−0·392
0·87	0·009	0·020	0·037	0·048	0·067	0·087	0·105	0·083	−0·053	−0·300
0·92	0·053	0·072	0·102	0·111	0·127	0·139	0·147	0·133	0·017	−0·162
1·00	0·134	0·161	0·200	0·214	0·224	0·218	0·202	0·184	0·090	−0·038
Lower										
x/c = 0·05	−0·201	−0·244	−0·303	−0·333	−0·335	−0·346	−0·333	−0·327	−0·321	−0·308
0·10	−0·264	−0·308	−0·393	−0·435	−0·456	−0·466	−0·459	−0·450	−0·444	−0·431
0·295	−0·286	−0·327	−0·429	−0·487	−0·570	−0·605	−0·605	−0·599	−0·590	−0·582
0·495	−0·223	−0·254	−0·345	−0·399	−0·468	−0·566	−0·591	−0·608	−0·640	−0·701
0·60	−0·161	−0·183	−0·214	−0·190	−0·158	−0·305	−0·528	−0·586	−0·633	−0·666
0·695	−0·054	−0·053	−0·044	−0·032	−0·007	0·013	−0·121	−0·248	−0·444	−0·643
0·795	−0·028	−0·027	−0·010	0·002	0·019	0·053	0·032	−0·041	−0·185	−0·447
0·835	−0·037	−0·025	0·002	0·015	0·037	0·067	0·067	0·022	−0·122	−0·347
0·890										
0·93	0·067	0·086	0·116	0·127	0·143	0·157	0·157	0·139	0·028	−0·134

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = +\ 0{\cdot}55$ deg, $y/s = 0{\cdot}234$

M	0·399	0·598	0·797	0·837	0·862	0·885	0·895	0·910	0·921	0·932
Upper										
x/c = 0·00	+0·520	+0·539	+0·570	+0·585	+0·595	+0·610	+0·622	+0·628	+0·636	+0·647
0·05	−0·176	−0·179	−0·189	−0·175	−0·166	−0·141	−0·136	−0·119	−0·111	−0·097
0·10	−0·205	−0·216	−0·233	−0·222	−0·213	−0·194	−0·188	−0·174	−0·166	−0·210
0·30	−0·269	−0·295	−0·356	−0·370	−0·381	−0·377	−0·371	−0·356	−0·345	−0·364
0·50	−0·246	−0·265	−0·347	−0·406	−0·482	−0·500	−0·502	−0·500	−0·499	−0·532
0·60	−0·168	−0·188	−0·237	−0·266	−0·319	−0·466	−0·501	−0·509	−0·503	−0·525
0·70	−0·101	−0·110	−0·135	−0·139	−0·134	−0·143	−0·232	−0·433	−0·495	−0·540
0·80	−0·035	−0·036	−0·038	−0·036	−0·029	−0·015	−9·008	−0·014	−0·064	−0·275
0·84	−0·006	−0·001	+0·005	+0·013	+0·017	+0·029	+0·039	+0·042	+0·024	−0·092
0·87	+0·016	+0·020	0·026	0·034	0·039	0·050	0·059	0·065	0·054	−0·007
0·92	0·042	0·050	0·061	0·071	0·075	0·085	0·093	0·098	0·096	+0·067
1·00	0·164	0·180	0·202	0·215	0·219	0·232	0·240	0·241	0·239	+0·211
Lower										
x/c = 0·05	−0·128	−0·107	−0·062	−0·051	−0·040	−0·033	−0·023	−0·020	−0·010	−0·006
0·10	−0·185	−0·179	−0·160	−0·154	−0·148	−0·143	−0·136	−0·131	−0·125	−0·118
0·30	−0·242	−0·255	−0·297	−0·306	−0·310	−0·310	−0·310	−0·300	−0·295	−0·288
0·50	−0·205	−0·228	−0·304	−0·346	−0·404	−0·450	−0·459	−0·451	−0·450	−0·446
0·60	−0·141	−0·158	−0·210	−0·233	−0·265	−0·361	−0·438	−0·461	−0·463	−0·460
0·70	−0·087	−0·095	−0·123	−0·131	−0·136	−0·129	−0·169	−0·354	−0·459	−0·682
0·80	−0·037	−0·039	−0·050	−0·049	−0·048	−0·034	−0·031	−0·032	−0·099	−0·362
0·84	−0·026	−0·027	−0·029	−0·029	−0·025	−0·016	−0·008	−0·003	−0·016	−0·181
0·93	+0·042	+0·048	+0·057	+0·064	+0·068	+0·077	+0·083	+0·087	+0·088	+0·059

C_p at $\eta = 0$ deg, $\alpha = 0{\cdot}55$ deg, $y/s = 0{\cdot}407$

M	0·399	0·598	0·797	0·837	0·862	0·885	0·895	0·910	0·921	0·932
Upper										
x/c = 0·00	+0·451	+0·455	+0·454	+0·459	+0·463	+0·477	+0·489	+0·490	+0·495	+0·506
0·05	−0·238	−0·246	−0·269	−0·264	−0·253	−0·234	−0·227	−0·213	−0·205	−0·195
0·10	−0·280	−0·296	−0·335	−0·339	−0·331	−0·316	−0·309	−0·296	−0·295	−0·279
0·30	−0·300	−0·331	−0·415	−0·449	−0·455	−0·457	−0·457	−0·443	−0·433	−0·423
0·50	−0·240	−0·270	−0·359	−0·424	−0·504	−0·563	−0·576	−0·577	−0·579	−0·597
0·60	−0·150	−0·171	−0·207	−0·210	−0·286	−0·499	−0·593	−0·545	−0·557	−0·562
0·70	−0·087	−0·092	−0·110	−0·107	−0·132	−0·029	−0·105	−0·483	−0·511	−0·545
0·80	−0·017	−0·013	−0·010	−0·002	+0·009	+0·040	+0·095	+0·086	−0·010	−0·405
0·84	−0·008	−0·003	+0·010	+0·020	0·028	0·050	0·104	+0·100	+0·103	−0·116
0·87	+0·027	+0·031	0·045	0·054	0·064	0·085	0·122	0·128	0·141	+0·065
0·92	0·062	0·072	0·093	0·103	0·113	0·109	0·157	0·162	0·175	+0·169
1·00	0·173	0·193	0·221	0·237	0·244	0·260	0·267	0·280	0·286	0·280
Lower										
x/c = 0·045	−0·146	−0·153	−0·156	−0·152	−0·152	−0·147	−0·142	−0·138	−0·134	−0·126
0·095	−0·198	−0·213	−0·233	−0·234	−0·237	−0·234	−0·229	−0·224	−0·219	−0·213
0·295	−0·262	−0·286	−0·364	−0·400	−0·425	−0·412	−0·406	−0·394	−0·391	−0·380
0·495	−0·209	−0·234	−0·314	−0·356	−0·403	−0·491	−0·529	−0·534	−0·536	−0·528
0·595	−0·148	−0·162	−0·203	−0·224	−0·261	−0·385	−0·460	−0·499	−0·527	−0·530
0·695	−0·074	−0·080	−0·100	−0·100	−0·099	−0·059	−0·069	−0·368	−0·471	−0·505
0·795	−0·015	−0·015	−0·019	−0·018	−0·014	+0·008	+0·029	+0·059	−0·059	−0·409
0·835	−0·004	−0·001	0	+0·005	+0·008	0·024	0·039	0·067	+0·067	−0·253
0·86	+0·001	+0·002	+0·005	0·011	0·015	0·028	0·043	0·067	0·085	−0·104
0·93	0·062	0·072	0·088	0·097	0·103	0·117	0·129	+0·141	0·156	+0·149

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = 0\cdot55$ deg, $y/s = 0\cdot581$

M	0·399	0·598	0·797	0·837	0·862	0·885	0·895	0·910	0·921	0·932
Upper										
x/c = 0·00	+0·456	+0·464	+0·460	+0·459	+0·458	+0·467	+0·477	+0·475	+0·481	+0·488
0·055	−0·293	−0·307	−0·334	−0·340	−0·333	−0·322	−0·316	−0·300	−0·289	−0·283
0·10	−0·319	−0·344	−0·395	−0·414	−0·420	−0·419	−0·419	−0·404	−0·394	−0·388
0·30	−0·317	−0·355	−0·452	−0·550	−0·537	−0·534	−0·533	−0·524	−0·515	−0·509
0·50	−0·242	−0·274	−0·359	−0·434	−0·529	−0·590	−0·615	−0·652	−0·669	−0·677
0·60	−0·163	−0·179	−0·205	−0·190	−0·189	−0·543	−0·593	−0·601	−0·607	−0·639
0·70	−0·079	−0·082	−0·088	−0·079	−0·048	+0·007	−0·105	−0·404	−0·566	−0·601
0·80	−0·008	−0·006	+0·004	+0·016	+0·032	0·075	+0·095	+0·072	−0·018	−0·355
0·84	−0·006	+0·002	0·020	0·034	0·047	0·081	0·104	0·113	+0·081	−0·133
0·87	+0·014	0·023	0·042	0·054	0·068	0·098	0·122	0·137	0·130	0·006
0·92	0·051	0·066	0·093	0·104	0·116	0·139	0·157	0·175	0·180	0·138
1·00	0·171	0·193	0·223	0·239	0·247	0·259	0·267	0·274	0·280	0·268
Lower										
x/c = 0·05	−0·116	−0·137	−0·181	−0·188	−0·193	−0·188	−0·182	−0·182	−0·179	−0·167
0·10	−0·187	−0·208	−0·267	−0·284	−0·292	−0·285	−0·279	−0·275	−0·271	−0·259
0·30	−0·256	−0·285	−0·374	−0·412	−0·452	−0·474	−0·476	−0·467	−0·464	−0·455
0·50	−0·209	−0·232	−0·314	−0·361	−0·411	−0·499	−0·549	−0·606	−0·626	−0·620
0·60	−0·148	−0·165	−0·197	−0·192	−0·205	−0·368	−0·508	−0·548	−0·580	−0·610
0·70	−0·054	−0·062	−0·075	−0·075	−0·067	−0·016	−0·008	−0·309	−0·530	−0·559
0·80	−0·013	−0·007	−0·004	+0·002	+0·009	+0·032	+0·063	+0·088	−0·019	−0·458
0·835	+0·009	+0·016	+0·026	0·034	0·045	0·063	0·085	0·112	+0·097	−0·297
0·86	0·012	0·016	0·025	0·033	0·039	0·057	0·088	0·106	0·118	−0·147
0·93	0·062	0·075	0·097	0·109	0·116	0·131	0·145	0·161	0·171	+0·143

C_p at $\eta = 0$ deg, $\alpha = 0\cdot55$ deg, $y/s = 0\cdot812$

M	0·399	0·598	0·797	0·837	0·862	0·885	0·895	0·910	0·921	0·932
Upper										
x/c = 0·00	+0·421	+0·430	+0·431	+0·423	+0·418	+0·413	+0·420	+0·411	+0·417	+0·415
0·055	−0·328	−0·359	−0·398	−0·424	−0·427	−0·417	−0·411	−0·400	−0·387	−0·280
0·105	−0·348	−0·386	−0·457	−0·497	−0·521	−0·520	−0·517	−0·506	−0·493	−0·487
0·30	−0·322	−0·364	−0·467	−0·527	−0·621	−0·637	−0·637	−0·633	−0·623	−0·619
0·50	−0·242	−0·274	−0·366	−0·434	−0·524	−0·581	−0·592	−0·599	−0·613	−0·662
0·60	−0·159	−0·177	−0·192	−0·161	−0·124	−0·408	−0·496	−0·562	−0·607	−0·644
0·70	−0·081	−0·080	−0·067	−0·049	−0·018	−0·047	−0·157	−0·270	−0·362	−0·577
0·795	−0·072	−0·068	−0·051	−0·033	−0·010	+0·042	+0·002	−0·102	−0·182	−0·331
0·835	−0·030	−0·022	+0·002	+0·021	+0·040	0·079	0·053	−0·037	−0·123	−0·246
0·87	+0·005	+0·014	0·035	0·054	0·073	0·108	0·091	+0·018	−0·071	−0·194
0·92	0·056	0·069	0·099	0·116	0·131	0·151	0·141	0·080	−0·005	−0·124
1·00	0·134	0·157	0·196	0·212	0·218	0·207	0·192	0·143	+0·075	−0·051
Lower										
x/c = 0·05	−0·081	−0·094	−0·161	−0·178	−0·204	−0·213	−0·217	−0·213	−0·214	−0·205
0·10	−0·174	−0·195	−0·277	−0·302	−0·337	−0·354	−0·359	−0·354	−0·354	−0·346
0·295	−0·245	−0·268	−0·363	−0·401	−0·447	−0·525	−0·540	−0·535	−0·534	−0·526
0·495	−0·196	−0·223	−0·301	−0·342	−0·392	−0·485	−0·529	−0·570	−0·635	−0·704
0·60	−0·146	−0·168	−0·229	−0·239	−0·255	−0·293	−0·490	−0·568	−0·607	−0·680
0·695	−0·061	−0·043	−0·033	−0·021	−0·010	+0·016	−0·036	−0·304	−0·551	−0·643
0·795	−0·026	−0·022	−0·010	0	+0·008	0·031	+0·057	−0·023	−0·221	−0·589
0·835	−0·039	−0·028	−0·004	+0·012	0·024	0·044	0·071	+0·032	−0·112	
0·93	+0·071	+0·086	+0·111	0·125	0·132	0·138	0·144	0·122	+0·056	−0·192

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}234$

M	0·399	0·600	0·798	0·836	0·865	0·884	0·898	0·911	0·920
Upper									
x/c = 0·00	0·416	0·456	0·489	0·497	0·513	0·543	0·554	0·566	0·585
0·05	–0·411	–0·392	–0·407	–0·434	–0·400	–0·388	–0·366	–0·347	–0·333
0·10	–0·375	–0·371	–0·398	–0·418	–0·389	–0·379	–0·360	–0·345	–0·331
0·30	–0·349	–0·380	–0·478	–0·514	–0·490	–0·479	–0·460	–0·452	–0·436
0·50	–0·286	–0·315	–0·434	–0·573	–0·615	–0·636	–0·633	–0·623	–0·623
0·60	–0·207	–0·227	–0·283	–0·305	–0·550	–0·609	–0·606	–0·598	–0·585
0·70	–0·130	–0·139	–0·158	–0·151	–0·153	–0·249	–0·440	–0·527	–0·573
0·80	–0·052	–0·051	–0·049	–0·041	–0·036	–0·038	–0·068	–0·108	–0·184
0·84	–0·017	–0·012	–0·005	0·005	0·007	–0·007	–0·014	–0·038	–0·080
0·87	0·007	0·011	0·018	0·028	0·030	0·031	0·016	–0·003	–0·035
0·92	0·036	0·044	0·056	0·065	0·069	0·073	0·064	0·051	0·025
1·00	0·156	0·172	0·187	0·194	0·198	0·203	0·191	0·175	0·156
Lower									
x/c = 0·05	0·067	0·066	0·116	0·143	0·148	0·152	0·156	0·160	0·165
0·10	–0·030	–0·031	–0·001	0·015	0·019	0·019	0·022	0·024	0·029
0·30	–0·148	–0·159	–0·169	–0·177	–0·182	–0·191	–0·192	–0·193	–0·189
0·50	–0·146	–0·164	–0·206	–0·228	–0·263	–0·302	–0·329	–0·347	–0·356
0·60	–0·098	–0·113	–0·148	–0·167	–0·187	–0·219	–0·262	–0·308	–0·347
0·70	–0·057	–0·067	–0·090	–0·100	–0·113	–0·126	–0·146	–0·192	–0·296
0·80	–0·017	–0·021	–0·032	–0·038	–0·041	–0·046	–0·058	–0·066	–0·106
0·84	–0·013	–0·015	–0·017	–0·021	–0·025	–0·049	–0·036	–0·045	–0·061
0·86									
0·93	0·047	0·054	0·056	0·058	0·059	0·058	0·064	0·048	0·032

C_p at $\eta = 0$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}407$

M	0·399	0·600	0·798	0·836	0·865	0·884	0·898	0·911	0·920
Upper									
x/c = 0·00	0·248	0·294	0·296	0·320	0·329	0·377	0·391	0·403	0·421
0·05	–0·539	–0·512	–0·578	–0·612	–0·572	–0·541	–0·512	–0·494	–0·470
0·10	–0·490	–0·489	–0·570	–0·599	–0·568	–0·553	–0·527	–0·516	–0·496
0·30	–0·397	–0·428	–0·575	–0·614	–0·600	–0·585	–0·565	–0·553	–0·538
0·50	–0·295	–0·324	–0·425	–0·600	–0·717	–0·763	–0·762	–0·745	–0·731
0·60	–0·203	–0·218	–0·256	–0·222	–0·541	–0·683	–0·702	–0·699	–0·699
0·70	–0·121	–0·128	–0·136	–0·116	–0·078	–0·209	–0·506	–0·613	–0·640
0·80	–0·039	–0·036	–0·023	–0·029	0·018	0·043	0·022	–0·036	–0·170
0·84	–0·017	–0·013	0·002	0·017	0·019	0·062	0·061	0·043	–0·018
0·87	0·014	0·020	0·036	0·052	0·071	0·092	0·096	0·088	0·051
0·92	0·056	0·066	0·088	0·092	0·116	0·132	0·139	0·138	0·122
1·00	0·162	0·181	0·208	0·220	0·229	0·243	0·243	0·242	0·236
Lower									
x/c = 0·045	0·089	0·054	0·073	0·093	0·083	0·082	0·077	0·078	0·078
0·095	–0·017	–0·046	–0·037	–0·029	–0·036	–0·040	–0·043	–0·044	–0·042
0·295	–0·157	–0·179	–0·213	–0·234	–0·253	–0·281	–0·292	–0·295	–0·289
0·495	–0·147	–0·162	–0·205	–0·236	–0·265	–0·313	–0·370	–0·398	–0·412
0·595	–0·092	–0·107	–0·140	–0·158	–0·179	–0·214	–0·271	–0·345	–0·397
0·695	–0·043	–0·053	–0·073	–0·081	–0·091	–0·096	–0·099	–0·122	–0·306
0·795	0·005	0·005	–0·005	–0·007	–0·013	–9·015	–0·022	–0·021	–0·035
0·835	0·012	0·011	0·009	0·011	0·006	0·004	–0·002	–0·004	–0·008
0·86	0·012	0·016	0·001	0·015	0·013	0·010	0·003	–0·001	–0·008
0·93	0·067	0·075	0·086	0·092	0·095	0·099	0·097	0·094	0·082

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = 3\cdot65$ deg, $y/s = 0\cdot581$

M	0·399	0·600	0·798	0·836	0·865	0·884	0·898	0·911	0·920
Upper									
x/c = 0·00	0·297	0·266	0·280	0·315	0·320	0·368	0·383	0·393	0·406
0·05	−0·658	−0·633	−0·753	−0·761	−0·711	−0·672	−0·635	−0·614	−0·589
0·10	−0·579	−0·579	−0·737	−0·772	−0·732	−0·710	−0·678	−0·661	−0·641
0·30	−0·433	−0·467	−0·656	−0·719	−0·717	−0·716	−0·695	−0·683	−0·672
0·50	−0·302	−0·328	−0·393	−0·627	−0·794	−0·802	−0·788	−0·782	−0·771
0·60	−0·216	−0·228	−0·245	−0·132	−0·489	−0·733	−0·750	−0·751	−0·744
0·70	−0·119	−0·122	−0·113	−0·078	−0·044	−0·241	−0·412	−0·528	−0·633
0·80	−0·035	−0·031	−0·007	0·014	0·052	0·039	−0·070	−0·157	−0·254
0·84	−0·017	−0·010	0·014	0·035	0·064	0·074	0·004	−0·066	−0·162
0·87	0·005	0·011	0·039	0·056	0·083	0·103	0·056	−0·001	−0·088
0·92	0·049	0·060	0·090	0·105	0·123	0·141	0·116	0·081	0·012
1·00	0·156	0·174	0·203	0·224	0·229	0·233	0·208	0·186	0·148
Lower									
x/c = 0·05	0·138	0·082	0·081	0·083	0·065	0·061	0·049	0·048	0·050
0·10	0·014	−0·030	−0·041	−0·047	−0·063	−0·074	−0·085	−0·089	−0·084
0·30	−0·141	−0·170	−0·201	−0·237	−0·263	−0·295	−0·310	−0·320	−0·324
0·50	−0·137	−0·152	−0·199	−0·232	−0·262	−0·311	−0·381	−0·458	−0·488
0·60	−0·087	−0·101	−0·133	−0·152	−0·168	−0·202	−0·252	−0·351	−0·447
0·70	−0·030	−0·037	−0·054	−0·060	−0·070	−0·077	−0·080	−0·068	−0·299
0·80	0·009	0·009	0·007	0·007	0·004	−0·003	−0·014	−0·012	−0·018
0·835	0·025	0·028	0·032	0·037	0·035	0·031	0·021	0·017	0·020
0·86	0·023	0·026	0·029	0·032	0·029	0·021	0·007	0	−0·004
0·93	0·064	0·075	0·091	0·101	0·102	0·098	0·085	0·073	0·054

C_p at $\eta = 0$ deg, $\alpha = 3\cdot65$ deg, $y/s = 0\cdot812$

M	0·399	0·600	0·798	0·836	0·865	0·884	0·898	0·911	0·920
Upper									
x/c = 0·00	−0·065	0·020	0·135	0·193	0·217	0·258	0·279	0·292	0·310
0·055	−0·800	−0·838	−1·068	−1·030	−0·947	−0·880	−0·822	−0·786	−0·755
0·105	−0·676	−0·721	−1·002	−1·005	−0·947	−0·898	−0·854	−0·826	−0·799
0·30	−0·455	−0·503	−0·734	−0·923	−0·920	−0·894	−0·858	−0·842	−0·834
0·50	−0·318	−0·340	−0·338	−0·468	−0·731	−0·743	−0·741	−0·747	−0·771
0·60	−0·209	−0·219	−0·193	−0·120	−0·333	−0·471	−0·515	−0·546	−0·594
0·70	−0·128	−0·125	−0·093	−0·056	−0·134	−0·308	−0·376	−0·411	−0·453
0·795	−0·085	−0·077	−0·042	−0·037	−0·061	−0·194	−0·279	−0·325	−0·369
0·835	−0·044	−0·033	0·001	0·014	−0·013	−0·138	−0·227	−0·279	−0·328
0·87	−0·010	−0·001	0·032	0·046	0·028	−0·083	−0·186	−0·249	−0·292
0·92	0·040	0·057	0·090	0·099	0·080	−0·023	−0·131	−0·196	−0·246
1·00	0·112	0·129	0·166	0·178	0·146	0·041	−0·063	−0·130	−0·183
Lower									
x/c = 0·05	0·211	0·182	0·160	0·140	0·108	0·089	0·066	0·050	0·045
0·10	0·064	0·039	0·012	0·014	−0·043	−0·608	−0·097	−0·112	−0·117
0·295	−0·106	−0·128	−0·173	−0·205	−0·235	−0·270	−0·321	−0·350	−0·360
0·495	−0·119	−0·137	−0·191	−0·225	−0·256	−0·309	−0·354	−0·433	−0·532
0·60	−0·085	−0·103	−0·141	−0·168	−0·203	−0·254	−0·300	−0·374	−0·492
0·695	−0·028	−0·031	−0·050	−0·066	−0·088	−0·128	−0·164	−0·175	−0·408
0·795	−0·013	−0·013	−0·012	−0·012	−0·030	−0·055	−0·085	−0·096	−0·229
0·835	−0·028	−0·022	−0·005	−0·001	−0·014	−0·040	−0·070	−0·086	−0·154
0·890									
0·93	0·067	0·072	0·090	0·095	0·072	0·023	0·078	−0·052	−0·066

B

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 234$

M	0·399	0·598	0·797	0·839	0·870	0·887	0·903	0·911
Upper								
x/c = 0·00	−0·205	−0·071	0·221	0·290	0·345	0·395	0·396	0·418
0·05	−0·833	−0·844	−0·822	−0·766	−0·696	−0·622	−0·616	−0·589
0·10	−0·625	−0·652	−0·686	−0·678	−0·633	−0·586	−0·576	−0·559
0·30	−0·477	−0·527	−0·662	−0·644	−0·610	−0·582	−0·568	−0·562
0·50	−0·356	−0·398	−0·519	−0·770	−0·804	−0·791	−0·771	−0·757
0·60	−0·256	−0·286	−0·322	−0·381	−0·671	−0·714	−0·716	−0·716
0·70	−0·161	−0·179	−0·196	−0·193	−0·270	−0·360	−0·443	−0·517
0·80	−0·068	−0·076	−0·083	−0·088	−0·128	−0·176	−0·206	−0·280
0·84	−0·032	−0·031	−0·039	−0·046	−0·079	−0·127	−0·179	−0·226
0·87	−0·006	−0·006	−0·012	−0·019	−0·046	−0·083	−0·133	−0·181
0·92	0·031	0·035	0·033	0·027	0·007	−0·023	−0·071	−0·123
1·00	0·138	0·148	0·147	0·146	0·127	0·106	0·069	0·030
Lower								
x/c = 0·05	0·317	0·327	0·329	0·335	0·330	0·314	0·337	0·332
0·10	0·191	0·204	0·196	0·194	0·188	0·174	0·194	0·189
0·30	−0·004	0·005	−0·023	−0·037	−0·047	−0·056	−0·052	−0·052
0·50	−0·052	−0·056	−0·103	−0·127	−0·152	−0·168	−0·187	−0·196
0·60	−0·026	−0·031	−0·077	−0·098	−0·120	−0·139	−0·156	−0·168
0·70	−0·004	−0·009	−0·048	−0·067	−0·090	−0·109	−0·132	−0·153
0·80	0·020	0·015	−0·016	−0·035	−0·055	−0·075	−0·102	−0·127
0·84	0·020	0·014	−0·012	−0·030	−0·049	−0·070	−0·097	−0·123
0·86								
0·93	0·058	0·063	0·044	−0·004	0·011	0·006	−0·042	−0·077

C_p at $\eta = 0$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 407$

M	0·399	0·598	0·797	0·839	0·870	0·887	0·903	0·911
Upper								
x/c = 0·00	−0·690	−0·504	−0·057	0·039	0·110	0·155	0·173	0·191
0·05	−1·023	−1·076	−1·235	−1·131	−1·037	0·960	−0·932	−0·909
0·10	−0·813	−0·858	−1·036	−1·021	−0·950	−0·875	−0·865	−0·843
0·30	−0·546	−0·601	−0·797	−0·768	−0·739	−0·719	−0·705	−0·703
0·50	−0·373	−0·408	−0·435	−0·825	−0·888	−0·860	−0·821	−0·809
0·60	−0·256	−0·282	−0·312	−0·316	−0·542	−0·825	−0·861	−0·860
0·70	−0·159	−0·171	−0·203	−0·204	−0·270	−0·324	−0·382	−0·488
0·80	−0·065	−0·067	−0·087	−0·109	−0·141	−0·178	−0·226	−0·249
0·84	−0·032	−0·033	−0·055	−0·072	−0·101	−0·132	−0·181	−0·203
0·87	−0·002	0·002	−0·016	−0·036	−0·062	−0·086	−0·139	−0·166
0·92	0·047	0·053	0·042	0·023	−0·002	−0·019	−0·076	−0·107
1·00	0·149	0·157	0·154	0·146	0·119	0·094	0·039	−0·001
Lower								
x/c = 0·045	0·335	0·318	0·299	0·292	0·280	0·264	0·281	0·275
0·095	0·204	0·199	0·172	0·162	0·149	0·134	0·150	0·143
0·295	−0·004	−0·004	−0·052	−0·073	−0·095	−0·107	−0·112	−0·115
0·495	−0·043	−0·050	−0·103	−0·130	−0·159	−0·175	−0·196	−0·206
0·595	−0·019	−0·027	−0·078	−0·101	−0·127	−0·144	−0·169	−0·191
0·695	0·005	0	−0·044	−0·064	−0·088	−0·104	−0·130	−0·146
0·795	0·040	0·035	−0·002	−0·022	−0·047	−0·065	−0·091	−0·113
0·835	0·036	0·035	0·001	−0·018	−0·044	−0·061	−0·091	−0·115
0·86	0·036	0·035	0	−0·020	−0·051	−0·071	−0·108	−0·136
0·93	0·073	0·078	0·053	0·036	0·021	−0·013	−0·059	−0·089

TABLE 3A—*continued*

C_p at $\eta = 0$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 581$

M	0·399	0·598	0·797	0·839	0·870	0·887	0·903	0·911
Upper								
x/c = 0·00	−0·913	−0·615	−0·087	0·016	0·084	0·128	0·155	0·165
0·055	−1·198	−1·263	−1·463	−1·306	−1·189	−1·130	−1·079	−1·094
0·10	−0·959	−1·025	−1·378	−1·251	−1·161	−1·102	−1·066	−1·060
0·30	−0·607	−0·656	−0·827	−0·908	−0·955	−0·942	−0·930	−0·928
0·50	−0·393	−0·420	−0·511	−0·563	−0·685	−0·705	−0·710	−0·752
0·60	−0·275	−0·294	−0·396	−0·440	−0·487	−0·520	−0·584	−0·632
0·70	−0·161	−0·174	−0·275	−0·355	−0·402	−0·407	−0·453	−0·490
0·80	−0·063	−0·070	−0·159	−0·252	−0·325	−0·335	−0·367	−0·388
0·84	−0·049	−0·044	−0·127	−0·218	−0·296	−0·316	−0·344	−0·362
0·87	−0·012	−0·013	−0·093	−0·183	−0·268	−0·289	−0·320	−0·337
0·92	0·034	0·037	−0·032	−0·120	−0·214	−0·244	−0·280	−0·296
1·00	0·131	0·132	0·073	−0·009	−0·115	−0·168	−0·208	−0·223
Lower								
x/c = 0·05	0·363	0·327	0·301	0·263	0·274	0·254	0·265	0·257
0·10	0·230	0·207	0·173	0·154	0·140	0·122	0·128	0·121
0·30	0·009	0·001	−0·051	−0·077	−0·100	−0·118	−0·129	−0·133
0·50	−0·035	−0·044	−0·103	−0·134	−0·166	−0·186	−0·216	−0·235
0·60	−0·013	−0·025	−0·082	−0·107	−0·136	−0·153	−0·182	−0·197
0·70	0·018	0·006	−0·046	−0·067	−0·095	−0·112	−0·137	−0·153
0·80	0·040	0·029	−0·019	−0·044	−0·071	−0·088	−0·114	−0·132
0·835	0·047	0·041	−0·005	−0·031	−0·051	−0·066	−0·096	−0·115
0·86	0·042	0·037	−0·020	−0·053	−0·093	−0·114	−0·149	−0·174
0·93	0·067	0·066	0·013	−0·031	−0·081	−0·105	−0·138	−0·163

C_p at $\eta = 0$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 812$

M	0·399	0·598	0·797	0·839	0·870	0·887	0·903	0·911
Upper								
x/c = 0·00	−1·694	−0·917	−0·273	−0·176	−0·111	−0·062	−0·015	0·085
0·055	−1·464	−1·475	−0·885	−0·805	−0·755	−0·743	−0·739	−0·772
0·105	−1·145	−1·252	−0·863	−0·787	−0·736	−0·720	−0·714	−0·747
0·30	−0·679	−0·753	−0·746	—	−0·666	−0·644	−0·634	−0·655
0·50	−0·428	−0·484	−0·616	−0·610	−0·606	−0·602	−0·593	−0·619
0·60	−0·296	−0·353	−0·565	−0·574	−0·587	−0·590	−0·586	−0·612
0·70	−0·190	−0·241	−0·508	−0·539	−0·565	−0·576	−0·576	−0·606
0·795	−0·124	−0·168	−0·465	−0·506	−0·547	−0·562	−0·573	−0·601
0·835	−0·081	−0·119	−0·428	−0·464	−0·520	−0·547	−0·551	—
0·87	−0·048	−0·092	−0·410	−0·460	−0·510	−0·534	−0·544	—
0·92	0·003	−0·040	−0·373	−0·427	−0·480	−0·508	−0·521	—
1·00	0·067	0·020	−0·335	−0·395	−0·450	−0·477	−0·489	−0·528
Lower								
x/c = 0·05	0·421	0·380	0·351	0·327	0·306	0·292	0·284	0·273
0·10	0·295	0·257	0·214	0·187	0·165	0·147	0·137	0·126
0·295	0·053	0·029	−0·030	−0·055	−0·082	−0·098	−0·117	−0·129
0·495	−0·019	−0·047	−0·129	−0·160	−0·194	−0·215	−0·240	−0·254
0·60	−0·015	−0·040	−0·129	−0·161	−0·197	−0·221	−0·251	−0·264
0·695	0·016	−0·031	−0·091	−0·142	−0·152	−0·174	−0·211	−0·226
0·795	0·023	−0·013	−0·116	−0·141	−0·167	−0·186	−0·223	−0·252
0·835	0·014	−0·028	−0·138	−0·160	−0·182	−0·198	−0·221	−0·259
0·890								
0·93	0·049	0·020	−0·155	−0·177	−0·190	−0·195	−0·196	−0·233

TABLE 3B

C_p at $\eta = -1$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 234$

M	0·398	0·597	0·796	0·838	0·862	0·883	0·894	0·909	0·922	0·937
Upper										
x/c = 0·00	0·464	0·487	0·553			0·591	0·596	0·609	0·615	0·629
0·05	−0·024	−0·012	−0·012			0·015	0·018	0·037	0·038	0·047
0·10	−0·094	−0·086	−0·094			−0·075	−0·070	−0·062	−0·051	−0·043
0·30	−0·202	−0·217	−0·265			−0·289	−0·288	−0·287	−0·280	−0·270
0·50	−0·187	−0·211	−0·278			−0·421	−0·433	−0·431	−0·425	−0·419
0·60	−0·132	−0·150	−0·195			−0·310	−0·380	−0·430	−0·439	−0·435
0·70	−0·070	−0·232	−0·101			−0·107	−0·119	−0·246	−0·416	−0·453
0·80	−0·002	−0·006	−0·007			−0·001	0·005	0·008	−0·038	−0·414
0·84	0·030	0·034	0·040	0·046	0·049	0·058	0·062	0·066	0·052	−0·274
0·87	0·054	0·057	0·067	0·074	0·078	0·083	0·087	0·092	0·083	−0·125
0·92	0·061	0·066	0·080	0·087	0·091	0·097	0·102	0·106	0·103	0·002
										0·153
1·00	0·158	0·171	0·200	0·212	0·219	0·228	0·231	0·233	0·224	0·192
Lower										
x/c = 0·05	−0·286	−0·287	−0·238	−0·222	−0·210	−0·193	−0·185	−0·168	−0·157	−0·137
0·10	−0·306	−0·316	−0·307	−0·298	−0·290	−0·277	−0·272	−0·257	−0·249	−0·230
0·30	−0·308	−0·331	−0·384	−0·399	−0·402	−0·392	−0·390	−0·378	−0·368	−0·355
0·50	−0·246	−0·273	−0·368	−0·445	−0·521	−0·523	−0·526	−0·521	−0·512	−0·502
0·60	−0·176	−0·193	−0·242	−0·272	−0·390	−0·511	−0·515	−0·523	−0·513	−0·504
0·70	−0·116	−0·126	−0·151	−0·156	−0·146	−0·183	−0·345	−0·498	−0·525	−0·527
0·80	−0·061	−0·065	−0·071	−0·068	−0·059	−0·041	−0·038	−0·056	−0·084	−0·466
0·84	−0·037	−0·039	−0·041	−0·036	−0·028	−0·011	−0·005	−0·002	−0·034	−0·328
0·93	0·029	0·035	0·050	0·056	0·062	0·072	0·076	0·084	0·081	0·001

C_p at $\eta = -1$ deg, $\alpha = -1 \cdot 5$ deg, $y/s = 0 \cdot 407$

M	0·398	0·597	0·796	0·838	0·862	0·883	0·894	0·909	0·922	0·937
Upper										
x/c = 0·00	0·389	0·388	0·421			0·443	0·444	0·455	0·464	0·475
0·05	−0·055	−0·050	−0·068			−0·063	−0·059	−0·053	−0·044	−0·036
0·10	−0·143	−0·146	−0·175			−0·179	−0·176	−0·168	−0·160	−0·150
0·30	−0·227	−0·247	−0·314			−0·360	−0·360	−0·356	−0·543	−0·347
0·50	−0·185	−0·211	−0·281			−0·442	−0·483	−0·501	−0·498	−0·489
0·60	−0·125	−0·144	−0·177			−0·332	−0·408	−0·452	−0·485	−0·493
0·70	−0·046	−0·054	−0·069			−0·048	−0·019	−0·234	−0·431	−0·485
0·80	0·023	0·023	0·029			0·048	0·060	0·089	0·043	−0·438
0·84	0·046	0·054	0·069	0·075	0·080	0·091	0·098	0·119	0·133	−0·366
0·87	0·065	0·072	0·090	0·097	0·103	0·114	0·120	0·137	0·154	−0·209
0·92	0·081	0·090	0·122	0·122	0·129	0·144	0·145	0·157	0·170	0·068
1·00	0·169	0·184	0·219	0·232	0·244	0·256	0·262	0·271	0·275	0·216
Lower										
x/c = 0·045	−0·350	−0·375	−0·377	−0·372	−0·363	−0·347	−0·345	−0·329	−0·313	−0·296
0·095	−0·346	−0·374	−0·400	−0·404	−0·401	−0·393	−0·390	−0·377	−0·412	−0·402
0·295	−0·341	−0·375	−0·476	−0·517	−0·499	−0·487	−0·484	−0·468	−0·542	−0·528
0·495	−0·264	−0·288	−0·373	−0·452	−0·583	−0·619	−0·620	−0·610	−0·603	−0·595
0·595	−0·174	−0·191	−0·232	−0·243	−0·358	−0·560	−0·592	−0·596	−0·595	−0·590
0·695	−0·112	−0·120	−0·136	−0·132	−0·145	−0·098	−0·292	−0·520	−0·552	−0·571
0·795	−0·502	−0·054	−0·056	−0·051	−0·035	0·002	0·021	0·009	−0·220	−0·526
0·835	−0·048	−0·047	−0·045	−0·037	−0·024	0·005	0·024	0·052	−0·003	−0·443
0·86	−0·039	−0·039	−0·033	−0·028	−0·017	0·009	0·027	0·061	0·059	−0·325
0·93	0·044	0·054	0·078	0·088	0·101	0·115	0·126	0·146	0·159	0·041

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = -1\cdot5$ deg, $y/s = 0\cdot581$

M	0·398	0·597	0·796	0·838	0·862	0·883	0·894	0·909	0·922	0·937
Upper										
x/c = 0·00	0·415	0·415	0·424			0·433	0·428	0·437	0·442	0·451
0·055	−0·077	−0·083	−0·113			−0·134	−0·127	−0·128	−0·125	−0·115
0·10	−0·156	−0·170	−0·211			−0·245	−0·241	−0·240	−0·239	−0·232
0·30	−0·229	−0·256	−0·334			−0·434	−0·431	−0·425	−0·421	−0·416
0·50	−0·180	−0·206	−0·275			−0·451	−0·498	−0·552	−0·582	−0·581
0·60	−0·121	−0·147	−0·175			−0·181	−0·374	−0·504	−0·524	−0·573
0·70	−0·021	−0·028	−0·036			−0·012	0·017	−0·088	−0·468	−0·535
0·80	0·040	0·041	0·053			0·074	0·089	0·116	0·066	−0·486
0·84	0·061	0·070	0·092	0·100	0·106	0·117	0·124	0·144	0·138	−0·419
0·87	0·071	0·081	0·103	0·111	0·118	0·130	0·135	0·153	0·161	−0·307
0·92	0·078	0·090	0·118	0·129	0·138	0·149	0·153	0·167	0·174	−0·054
1·00	0·165	0·184	0·221	0·237	0·248	0·259	0·264	0·269	0·263	0·153
										0·192
Lower										
x/c = 0·05	−0·346	−0·378	−0·416	−0·424	−0·414	−0·396	−0·404	−0·386	−0·370	−0·359
0·10	−0·352	−0·389	−0·453	−0·468	−0·453	−0·437	−0·442	−0·426	−0·412	−0·402
0·30	−0·348	−0·387	−0·498	−0·569	−0·593	−0·577	−0·574	−0·557	−0·542	−0·528
0·50	−0·260	−0·291	−0·379	−0·475	−0·630		−0·720	−0·715	−0·705	−0·697
0·60	−0·178	−0·194	−0·218	−0·208	−0·202	−0·628	−0·656	−0·661	−0·667	−0·694
0·70	−0·107	−0·112	−0·119	−0·108	−0·067	−0·036	−0·188	−0·523	−0·621	−0·648
0·80	−0·057	−0·056	−0·047	−0·037	−0·013	0·036	0·049	0·012	−0·154	−0·549
0·835	−0·041	−0·038	−0·023	−0·006	0·019	0·062	0·074	0·075	−0·009	−0·422
0·86	−0·037	−0·039	−0·029	−0·021	−0·004	0·036	0·062	0·080	0·040	−0·309
0·93	0·044	0·055	0·085	0·076	0·112	0·134	0·147	0·163	0·154	−0·025

C_p at $\eta = -1$ deg, $\alpha = -1\cdot5$ deg, $y/s = 0\cdot812$

M	0·398	0·597	0·796	0·838	0·862	0·883	0·894	0·909	0·922	0·937
Upper										
x/c = 0·00	0·397	0·406	0·405			0·398	0·394	0·396	0·398	0·400
0·055	−0·063	−0·079	−0·111			−0·188	−0·188	−0·193	−0·193	−0·184
0·105	−0·143	−0·164	−0·211			−0·304	−0·307	−0·309	−0·308	−0·301
0·30	−0·211	−0·244	−0·316			−0·480	−0·505	−0·509	−0·500	−0·490
0·50	−0·071	−0·196	−0·257			−0·396	−0·466	−0·520	−0·593	−0·668
0·60	−0·114	−0·141	−0·185			−0·186	−0·284	−0·514	−0·572	−0·682
0·70	−0·021	−0·016	−0·007			0·007	0·024	−0·144	−0·501	−0·631
0·795	0·036	0·038	0·057			0·053	0·063	0·048	−0·166	−0·612
0·835	0·074	0·086	0·109	0·115	0·120	0·119	0·115	0·093	−0·067	
0·87	0·078	0·082	0·113	0·124	0·128	0·125	0·124	0·115	0·007	
0·92	0·091	0·099	0·135	0·147	0·151	0·147	0·139	0·124	0·059	−0·462
1·00	0·130	0·146	0·193	0·211	0·215	0·202	0·174	0·119	+0·043	−0·137
Lower										
x/c = 0·05	−0·370	−0·396	−0·473	−0·503	−0·486	−0·460	−0·462	−0·442	−0·423	−0·415
0·10	−0·390	−0·425	−0·537	−0·588	−0·587	−0·566	−0·569	−0·549	−0·529	−0·522
0·295	−0·354	−0·395	−0·523	−0·606	−0·678		−0·674	−0·574	−0·641	−0·631
0·495	−0·275	−0·305	−0·412	−0·505	−0·630	−0·657	−0·670	−0·664	−0·666	−0·773
0·60	−0·193	−0·211	−0·214	−0·175	−0·191	−0·566	−0·621	−0·642	−0·665	−0·750
0·695	−0·092	−0·097	−0·085	−0·061	−0·013	−0·095	−0·221	−0·351	−0·456	−0·722
0·795	−0·061	−0·059	−0·041	−0·024	0·008	0·017	−0·036	−0·152	−0·255	−0·621
0·835	−0·059	−0·054	−0·033	−0·017	0·012	0·034	−0·005	−0·092	−0·189	−0·523
0·93	0·039	0·046	0·086	0·103	0·123	0·132	0·108	0·043	−0·046	−0·278

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot234$

M	0·398	0·600	0·797	0·837	0·864	0·883	0·894	0·908	0·922	0·938
Upper										
x/c = 0·00	0·501	0·523	0·568	0·586	0·597	0·599	+0·609	0·620	0·635	0·646
0·05	−0·024	−0·086	−0·091	−0·078	−0·066	−0·062	−0·053	−0·041	−0·033	−0·017
0·10	−0·146	−0·143	−0·154	−0·148	−0·139	−0·134	−0·126	−0·114	−0·105	−0·092
0·30	−0·234	−0·252	−0·265	−0·320	−0·328	−0·334	−0·332	−0·323	−0·312	−0·296
0·50	−0·205	−0·231	−0·304	−0·355	−0·423	−0·471	−0·463	−0·461	−0·459	−0·455
0·60	−0·146	−0·164	−0·209	−0·236	−0·276	−0·377	−0·434	−0·466	−0·470	−0·464
0·70	−0·079	−0·089	−0·112	−0·117	−0·117	−0·117	−0·133	−0·279	−0·465	−0·478
0·80	−0·008	−0·012	−0·014	−0·012	−0·007	−0·006	0·008	0·012	−0·062	−0·461
0·84	0·025	0·031	0·037	0·042	0·048	0·059	0·064	0·069	0·046	−0·375
0·87	0·045	0·055	0·065	0·071	0·075	0·084	0·089	0·094	0·081	−0·226
0·92	0·056	0·065	0·080	0·087	0·091	0·101	0·104	0·111	0·109	−0·060
1·00	0·162	0·177	0·201	0·214	0·221	0·232	0·233	0·239	0·234	0·140
Lower										
x/c = 0·05	−0·209	−0·203	−0·150	−0·143	−0·133	−0·113	−0·109	−0·097	−0·082	−0·067
0·10	−0·245	−0·252	−0·233	−0·234	−0·226	−0·210	−0·207	−0·196	−0·185	−0·171
0·30	−0·276	−0·299	−0·340	−0·357	−0·361	−0·354	−0·349	−0·338	−0·330	−0·317
0·50	−0·228	−0·255	−0·339	−0·396	−0·478	−0·495	−0·491	−0·484	−0·481	−0·470
0·60	−0·159	−0·181	−0·232	−0·264	−0·322	−0·458	−0·489	−0·493	−0·489	−0·479
0·70	−0·104	−0·117	−0·144	−0·150	−0·148	−0·156	−0·240	−0·427	−0·501	−0·501
0·80	−0·053	−0·060	−0·069	−0·067	−0·062	−9·049	−0·041	−0·039	−0·198	−0·463
0·84	−0·030	−0·036	−0·042	−0·037	−0·031	−0·018	−0·009	0·001	−0·038	−0·391
0·93	0·032	0·037	0·048	0·055	0·061	0·070	0·074	0·083	0·083	−0·045

C_p at $\eta = -1$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot407$

M	0·398	0·600	0·797	0·837	0·864	0·883	0·894	0·908	0·922	0·938
Upper										
x/c = 0·00	0·435	0·435	0·446	0·456	0·460	0·457	0·467	0·476	0·490	0·500
0·05	−0·137	−0·131	−0·157	−0·152	−0·150	−0·142	−0·137	−0·126	−0·118	−0·097
0·10	−0·210	−0·209	−0·244	−0·250	−0·249	−0·243	−0·238	−0·228	−0·219	−0·204
0·30	−0·261	−0·282	−0·357	−0·389	−0·395	−0·403	−0·402	−0·400	−0·395	−0·377
0·50	−0·208	−0·234	−0·312	−0·368	−0·434	−0·505	−0·524	−0·534	−0·533	−0·530
0·60	−0·132	−0·152	−0·182	−0·192	−0·191	−0·423	−0·460	−0·486	−0·522	−0·521
0·70	−0·059	−0·066	−0·082	−0·081	−0·073	−0·039	−0·015	−0·291	−0·473	−0·519
0·80	0·014	0·016	0·023	0·029	0·037	0·047	0·070	0·100	−0·015	−0·487
0·84	0·043	0·049	0·065	0·073	0·080	0·096	0·106	0·127	0·129	−0·451
0·87	0·061	0·070	0·087	0·096	0·102	0·118	0·127	0·146	0·165	−0·350
0·92	0·078	0·090	0·113	0·123	0·131	0·144	0·150	0·164	0·185	−0·046
1·00	0·176	0·191	0·219	0·237	0·246	0·259	0·263	0·254	0·284	0·203
Lower										
x/c = 0·045	−0·248	−0·273	−0·262	−0·268	−0·260	−0·247	−0·245	−0·232	−0·219	−0·206
0·095	−0·272	−0·300	−0·315	−0·226	−0·320	−0·313	−0·309	−0·300	−0·292	−0·277
0·295	−0·303	−0·336	−0·418	−0·473	−0·466	−0·236	−0·442	−0·430	−0·420	−0·404
0·495	−0·239	−0·265	−0·353	−0·412	−0·497	−0·568	−0·578	−0·574	−0·568	−0·556
0·595	−0·163	−0·184	−0·222	−0·250	−0·322	−0·486	−0·528	−0·546	−0·563	−0·556
0·695	−0·099	−0·110	−0·127	−0·126	−0·108	−0·061	−0·180	−0·454	−0·520	−0·542
0·795	−0·042	−0·048	−0·054	−0·049	−0·040	−0·012	0·012	0·043	−0·249	−0·547
0·835	−0·042	−0·042	−0·045	−0·037	−0·030	−0·008	0·010	0·045	−0·008	−0·484
0·86	−0·035	−0·034	−0·034	−0·030	−0·024	−0·003	0·012	0·045	0·060	−0·455
0·93	0·045	0·056	0·100	0·086	0·093	0·110	0·119	0·137	0·162	−0·055

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = -0{\cdot}45$ deg, $y/s = 0{\cdot}581$

M	0·398	0·600	0·797	0·837	0·864	0·883	0·894	0·908	0·922	0·938
Upper										
x/c = 0·00	0·457	0·452	0·450	0·455	0·453	0·447	0·457	0·461	0·473	0·479
0·055	−0·177	−0·170	−0·208	−0·219	−0·225	−0·219	−0·217	−0·210	−0·203	−0·187
0·10	−0·232	−0·240	−0·291	−0·311	−0·321	−0·321	−0·321	−0·318	−0·316	−0·303
0·30	−0·270	−0·297	−0·383	−0·434	−0·482	−0·490	−0·476	−0·476	−0·471	−0·458
0·50	−0·205	−0·232	−0·308	−0·361	−0·439	−0·524	−0·546	−0·586	−0·627	−0·620
0·60	−0·135	−0·155	−0·177	−0·168	−0·136	−0·332	−0·488	−0·552	−0·571	−0·821
0·70	−0·039	−0·043	−0·049	−0·046	−0·036	0·006	0·034	−0·128	−0·535	−0·577
0·80	0·032	0·034	0·047	0·056	−0·065	0·080	0·107	0·127	0·013	−0·537
0·84	0·056	0·067	0·089	0·098	0·107	0·125	0·136	0·154	0·124	−0·502
0·87	0·065	0·077	0·101	0·111	0·120	0·138	0·148	0·166	0·165	−0·438
0·92	0·076	0·090	0·118	0·131	0·142	0·156	0·163	0·181	0·195	−0·220
1·00	0·171	0·189	0·223	0·239	0·247	0·259	0·263	0·254	0·281	0·146
Lower										
x/c = 0·05	−0·232	−0·271	−0·296	−0·306	−0·299	−0·295	−0·289	−0·278	−0·266	−0·256
0·10	−0·270	−0·311	−0·359	−0·381	−0·374	−0·364	−0·358	−0·345	−0·337	−0·324
0·30	−0·305	−0·344	−0·436	−0·486	−0·337	−0·534	−0·526	−0·513	−0·503	−0·486
0·50	−0·241	−0·271	−0·359	−0·432	−0·521	−0·599	−0·641	−0·662	−0·666	−0·653
0·60	−0·168	−0·187	−0·210	−0·210	−0·231	−0·509	−0·583	−0·602	−0·531	−0·651
0·70	−0·090	−0·099	−0·111	−0·108	−0·078	−0·024	−0·094	−0·413	−0·581	−0·611
0·80	−0·046	−0·048	−0·045	−0·037	−0·021	0·018	0·043	0·062	−0·193	−0·562
0·835	−0·035	−0·030	−0·020	−0·007	0·008	0·043	0·062	0·094	0·022	−0·516
0·86	−0·035	−0·034	−0·029	−0·024	−0·014	0·020	0·043	0·079	0·065	−0·472
0·93	0·045	0·058	0·083	0·095	0·105	0·125	0·137	0·156	0·171	−0·142

C_p at $\eta = -1$ deg, $\alpha = -0{\cdot}45$ deg, $y/s = 0{\cdot}812$

M	0·398	0·600	0·797	0·837	0·864	0·883	0·894	0·908	0·922	0·938
Upper										
x/c = 0·00	0·444	0·446	0·438	0·436	0·427	0·414	0·418	0·417	0·425	0·425
0·055	−0·181	−0·194	−0·233	−0·258	−0·289	−0·294	−0·298	−0·295	−0·288	−0·273
0·105	−0·234	−0·256	−0·316	−0·351	−0·390	−0·402	−0·406	−0·407	−0·402	−0·389
0·30	−0·251	−0·294	−0·377	−0·426	−0·482	−0·572	−0·568	−0·564	−0·559	−0·545
0·50	−0·199	−0·255	−0·299	−0·344	−0·498	−0·511	−0·523	−0·527	−0·607	−0·717
0·60	−0·141	−0·161	−0·180	−0·175	−0·150	−0·169	−0·355	−0·526	−0·595	−0·724
0·70	−0·022	−0·025	−0·015	−0·005	0·006	0·027	0·007	−0·169	−0·510	−0·676
0·795	0·027	0·032	0·052	0·059	0·064	0·073	0·090	0·033	−0·213	−0·654
0·835	0·069	0·082	0·109	0·118	0·126	0·133	0·132	0·077	−0·134	
0·87	0·078	0·087	0·111	0·126	0·136	0·149	0·148	0·114	−0·057	
0·92	0·096	0·106	0·135	0·151	0·161	0·170	0·169	0·148	0·013	−0·548
1·00	0·136	0·153	0·192	0·213	0·220	0·214	0·202	0·170	0·058	−0·265
Lower										
x/c = 0·05	−0·223	−0·253	−0·313	−0·330	−0·340	−0·339	−0·333	−0·318	−0·308	−0·301
0·10	−0·281	−0·320	−0·404	−0·440	−0·464	−0·466	−0·247	−0·444	−0·437	−0·426
0·295	−0·303	−0·341	−0·443	−0·499	−0·587	−0·584	−0·602	−0·592	−0·584	−0·571
0·495	−0·239	−0·274	−0·367	−0·442	−0·515	−0·585	−0·603	−0·612	−0·638	−0·739
0·60	−0·179	−0·202	−0·242	−0·234	−0·235	−0·475	−0·569	−0·604	−0·635	−0·738
0·695	−0·090	−0·090	−0·079	−0·057	−0·028	−0·038	−0·143	−0·301	−0·493	−0·702
0·795	−0·050	−0·049	−0·039	−0·028	−0·008	0·031	0·017	−0·078	−0·237	−0·664
0·838	−0·048	−0·043	−0·030	−0·019	−0·002	0·042	0·036	−0·020	−0·162	
0·93	0·047	0·055	0·083	0·100	0·115	0·138	0·137	0·105	−0·022	−0·411

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = 0\cdot55$ deg, $y/s = 0\cdot234$

M	0·399	0·600	0·797	0·835	0·864	0·883	0·898	0·905	0·921	0·938
Upper										
x/c = 0·00	0·525	0·542	0·573			0·612	0·620	0·622	0·636	0·650
0·05	−0·177	−0·173	−0·180			−0·149	−0·137	−0·128	−0·109	−0·091
0·10	−0·206	−0·209	−0·222			−0·414	−0·187	−0·181	−0·164	−0·146
0·30	−0·230	−0·288	−0·345			−0·379	−0·369	−0·360	−0·343	−0·323
0·50	−0·223	−0·252	−0·332			−0·498	−0·592	−0·499	−0·499	−0·490
0·60	−0·155	−0·176	−0·222			−0·441	−0·496	−0·503	−0·503	−0·493
0·70	−0·087	−0·098	−0·123			−0·114	−0·189	−0·314	−0·497	−0·509
0·80	−0·013	−0·016	−0·016			0·003	0·014	0·015	−0·046	−0·498
0·84	0·023	0·025	0·033	0·039	0·047	0·060	0·067	0·071	0·050	−0·436
0·87	0·045	0·050	0·061	0·067	0·076	0·085	0·092	0·094	0·085	−0·298
0·92	0·058	0·062	0·080	0·086	0·092	0·103	0·110	0·114	0·113	−0·165
1·00	0·161	0·176	0·203	0·212	0·222	0·233	0·238	0·241	0·238	0·112
Lower										
x/c = 0·05	−0·127	−0·116	−0·066	−0·046	−0·046	−0·032	−0·028	−0·019	−0·014	0·082
0·10	−0·188	−0·187	−0·164	−0·153	−0·155	−0·143	−0·141	−0·132	−0·162	−0·112
0·30	−0·250	−0·264	−0·298	−0·307	−0·315	−0·312	−0·309	−0·301	−0·294	−0·278
0·50	−0·215	−0·235	−0·309	−0·353	−0·415	−0·458	−0·458	−0·456	−0·450	−0·439
0·60	−0·151	−0·169	−0·217	−0·245	−0·284	−0·384	−0·448	−0·463	−0·463	−0·451
0·70	−0·096	−0·107	−0·133	−0·143	−0·147	−0·147	−0·216	−0·335	−0·466	−0·474
0·80	−0·048	−0·054	−0·064	−0·065	−0·063	−0·053	−0·044	−0·042	−0·166	−0·442
0·84	−0·026	−0·031	−0·038	−0·036	−0·033	−0·022	−0·010	−0·005	−0·032	−0·397
0·93	0·034	0·038	0·048	0·053	0·059	0·069	0·074	0·078	0·079	−0·160

C_p at $\eta = -1$ deg, $\alpha = 0\cdot55$ deg, $y/s = 0\cdot407$

M	0·399	0·600	0·797	0·835	0·864	0·883	0·898	0·905	0·921	0·938
Upper										
x/c = 0·00	0·457	0·456	0·459			0·478	0·486	0·483	0·494	0·510
0·05	−0·230	−0·232	−0·260			−0·238	−0·222	−0·217	−0·200	−0·185
0·10	−0·274	−0·285	−0·325			−0·318	−0·306	−0·299	−0·283	−0·269
0·30	−0·296	−0·324	−0·405			−0·457	−0·451	−0·445	−0·431	−0·409
0·50	−0·228	−0·258	−0·342			−0·551	−0·568	−0·575	−0·581	−0·580
0·60	−0·135	−0·155	−0·193			−0·479	−0·515	−0·530	−0·557	−0·558
0·70	−0·067	−0·077	−0·090			−0·009	−0·112	−0·330	−0·509	−0·552
0·80	0·009	0·011	0·019			0·063	0·090	0·106	0·028	−0·532
0·84	0·038	0·044	0·061	0·068	0·082	0·102	0·120	0·134	0·140	−0·503
0·87	0·058	0·065	0·085	0·093	0·105	0·124	0·140	0·151	0·170	−0·407
0·92	0·077	0·088	0·113	0·121	0·132	0·150	0·160	0·170	0·190	−0·212
										0·115
1·00	0·174	0·191	0·222	0·234	0·246	0·261	0·270	0·276	0·287	0·154
Lower										
x/c = 0·045	−0·151	−0·166	−0·155	−0·148	−0·155	−0·145	−0·147	−0·137	−0·134	−0·118
0·095	−0·206	−0·223	−0·233	−0·234	−0·239	−0·232	−0·231	−0·224	−0·220	−0·206
0·295	−0·272	−0·296	−0·366	−0·404	−0·426	−0·414	−0·402	−0·396	−0·386	−0·369
0·495	−0·223	−0·246	−0·322	−0·368	−0·421	−0·502	−0·533	−0·538	−0·535	−0·522
0·595	−0·160	−0·178	−0·215	−0·242	−0·298	−0·418	−0·473	−0·500	−0·528	−0·524
0·695	−0·087	−0·096	−0·116	−0·119	−0·111	−0·069	−0·164	−0·361	−0·482	−0·512
0·795	−0·035	−0·040	−0·049	−0·047	−0·043	−0·023	0·007	0·033	−0·210	−0·482
0·835	−0·035	−0·036	−0·039	−0·037	−0·033	−0·017	0·004	0·025	0	−0·460
0·86	−0·030	−0·031	−0·032	−0·031	−0·027	−0·011	0·004	0·024	0·054	−0·456
0·93	0·049	0·058	0·075	0·084	0·092	0·106	0·118	0·127	0·150	−0·215

TABLE 3B—*continued*

C_p at $\eta = -$ 1 deg, $\alpha = 0 \cdot 55$ deg, $y/s = 0 \cdot 581$

M	0·399	0·600	0·797	0·835	0·864	0·883	0·898	0·905	0·921	0·938
Upper										
x/c = 0·00	0·466	0·469	0·464			0·469	0·473	0·474	0·481	0·493
0·055	−0·274	−0·285	−0·323			−0·323	−0·313	−0·304	−0·289	−0·270
0·10	−0·304	−0·326	−0·371			−0·418	−0·412	−0·407	−0·393	−0·374
0·30	−0·304	−0·341	−0·439			−0·535	−0·530	−0·526	−0·515	−0·496
0·50	−0·228	−0·259	−0·338			−0·572	−0·602	−0·622	−0·667	−0·673
0·60	−0·135	−0·154	−0·175			−0·476	−0·575	−0·594	−0·608	−0·666
0·70	−0·048	−0·055	−0·058			0·032	−0·040	−0·176	−0·532	−0·625
0·80	0·027	0·029	0·044			0·102	0·122	0·119	0·008	−0·585
0·84	0·051	0·062	0·087	0·096	0·110	0·134	0·149	0·152	0·107	−0·553
0·87	0·064	0·073	0·099	0·108	0·123	0·147	0·162	0·171	0·155	−0·496
0·92	0·075	0·088	0·120	0·130	0·144	0·164	0·179	0·190	0·197	−0·352
1·00	0·172	0·189	0·225	0·237	0·248	0·260	0·267	0·273	0·283	0·085
Lower										
x/c = 0·05	−0·133	−0·157	−0·182	−0·190	−0·194	−0·189	−0·184	−0·181	−0·175	−0·161
0·10	−0·199	−0·226	−0·269	−0·286	−0·293	−0·287	−0·279	−0·274	−0·267	−0·252
0·30	−0·269	−0·300	−0·380	−0·420	−0·462	−0·479	−0·473	−0·470	−0·460	−0·444
0·50	−0·225	−0·249	−0·326	−0·378	−0·433	−0·517	−0·577	−0·612	−0·625	−0·613
0·60	−0·164	−0·182	−0·213	−0·219	−0·256	−0·432	−0·524	−0·549	−0·590	−0·610
0·70	−0·070	−0·083	−0·098	−0·099	−0·084	−0·087	−0·007	−0·302	−0·542	−0·574
0·80	−0·039	−0·040	−0·041	−0·037	−0·028	−0·002	0·034	0·060	−0·180	−0·533
0·835	−0·026	−0·024	−0·017	−0·009	0·004	0·029	0·051	0·078	0·023	−0·509
0·86	−0·028	−0·031	−0·030	−0·019	−0·020	0·002	0·029	0·052	0·073	−0·509
0·93	0·049	0·058	0·082	0·092	0·101	0·117	0·131	0·142	0·167	−0·318

C_p at $\eta = -$ 1 deg, $\alpha = 0 \cdot 55$ deg, $y/s = 0 \cdot 812$

M	0·399	0·600	0·797	0·835	0·864	0·883	0·898	0·905	0·921	0·938
Upper										
x/c = 0·00	0·433	0·441	0·435			0·421	0·420	0·417	0·234	0·419
0·055	−0·300	−0·324	−0·374			−0·403	−0·407	−0·399	−0·390	−0·366
0·105	−0·324	−0·357	−0·434			−0·517	−0·514	−0·507	−0·498	−0·475
0·30	−0·302	−0·342	−0·443			−0·630	−0·628	−0·631	−0·623	−0·608
0·50	−0·219	−0·250	−0·337			−0·575	−0·580	−0·585	−0·608	−0·760
0·60	−0·133	−0·151	−0·150			−0·259	−0·397	−0·472	−0·594	−0·762
0·70	−0·039	−0·040	−0·025			0·014	−0·095	−0·183	−0·345	−0·724
0·795	0·020	0·026	0·051			0·092	0·049	−0·020	−0·179	−0·695
0·835	0·064	0·076	0·106	0·115	0·129	0·137	0·097	0·039	−0·120	
0·87	0·069	0·079	0·113	0·124	0·143	0·158	0·133	0·076	−0·070	
0·92	0·088	0·102	0·137	0·150	0·169	0·183	0·170	0·131	−0·002	
1·00	0·126	0·147	0·194	0·209	0·221	0·218	0·210	0·174	0·073	−0·466
Lower										
x/c = 0·05	−0·103	−0·120	−0·170	−0·187	−0·205	−0·215	−0·212	−0·210	−0·205	−0·198
0·10	−0·195	−0·220	−0·288	−0·315	−0·343	−0·103	−0·145	−0·356	−0·346	−0·338
0·295	−0·258	−0·289	−0·376	−0·418	−0·475	−0·530	−0·533	−0·534	−0·527	−0·516
0·495	−0·219	−0·248	−0·325	−0·373	−0·421	−0·514	−0·552	−0·575	−0·649	−0·699
0·60	−0·166	−0·193	−0·253	−0·270	−0·319	−0·418	−0·535	−0·574	−0·610	−0·720
0·695	−0·107	−0·089	−0·072	−0·056	−0·032	−0·006	−0·127	−0·299	−0·593	−0·683
0·795	−0·037	−0·040	−0·035	−0·029	−0·018	0·009	0·025	−0·021	−0·302	−0·654
0·835	−0·045	−0·040	−0·028	−0·025	−0·012	0·015	0·035	0·018	−0·176	
0·93	0·041	0·052	0·085	0·095	0·107	0·122	0·129	0·118	0·005	−0·577

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = 3 \cdot 6$ deg, $y/s = 0 \cdot 234$

M	0·398	0·598	0·798	0·837	0·864	0·883	0·894	0·907	0·922	0·938
Upper										
x/c = 0·00	0·405	0·452	0·479	0·508	0·518	0·542	0·546	0·574	0·578	
0·05	−0·419	−0·398	−0·412	−0·398	−0·401	−0·382	−0·379	−0·365	−0·336	−0·311
0·10	−0·379	−0·375	−0·401	−0·391	−0·391	−0·376	−0·372	−0·362	−0·333	−0·311
0·30	−0·346	−0·376	−0·472	−0·502	−0·492	−0·476	−0·471	−0·464	−0·434	−0·415
0·50	−0·275	−0·306	−0·419	−0·566	−0·612	−0·626	−0·627	−0·636	−0·616	−0·604
0·60	−0·195	−0·218	−0·272	−0·295	−0·535	−0·607	−0·609	−0·614	−0·586	−0·546
										−0·577
0·70	−0·115	−0·125	−0·145	−0·141	−0·133	−0·220	−0·371	−0·508	−0·563	−0·586
0·80	−0·031	−0·032	−0·030	−0·024	−0·016	−0·018	−0·035	−0·077	−0·148	−0·510
0·84	0·007	0·011	0·018	0·029	0·033	0·033	0·020	−0·011	−0·054	−0·373
0·87	0·032	0·035	0·047	0·057	0·059	0·061	0·052	0·025	−0·012	−0·464
0·92	0·045	0·057	0·071	0·081	0·085	0·090	0·089	0·073	0·044	−0·129
1·00	0·156	0·168	0·193	0·203	0·205	0·210	0·206	0·204	0·173	0·056
Lower										
x/c = 0·05	0·078	0·075	0·125	0·128	0·149	0·150	0·155	0·160	0·173	0·181
0·10	−0·022	−0·029	0·005	0·005	0·018	0·016	0·022	0·025	0·036	0·044
0·30	−0·146	−0·157	−0·169	−0·182	−0·186	−0·195	−0·191	−0·191	−0·183	−0·176
0·50	−0·146	−0·164	−0·211	−0·239	−0·274	−0·309	−0·326	−0·348	−0·355	−0·351
0·60	−0·106	−0·119	−0·154	−0·175	−0·199	−0·227	−0·256	−0·319	−0·351	−0·362
0·70	−0·066	−0·074	−0·099	−0·110	−0·124	−0·135	−0·152	−0·211	−0·317	−0·366
0·80	−0·031	−0·033	−0·045	−0·051	−0·057	−0·062	−0·069	−0·082	−0·148	−0·328
0·84	−0·013	−0·016	−0·025	−0·027	−0·032	−0·034	−0·039	−0·046	−0·074	−0·294
0·93	0·038	0·043	0·048	0·053	0·051	0·052	0·050	0·032	0·030	−0·221

C_p at $\eta = -1$ deg, $\alpha = 3 \cdot 6$ deg, $y/s = 0 \cdot 407$

M	0·398	0·598	0·798	0·837	0·864	0·883	0·894	0·907	0·922	0·938
Upper										
x/c = 0·00	0·240	0·286	0·285	0·324	0·343	0·376	0·384	0·411	0·417	0·444
0·05	−0·539	−0·520	−0·580	−0·567	−0·565	−0·539	−0·526	−0·516	−0·472	−0·443
0·10	−0·490	−0·495	−0·569	−0·566	−0·566	−0·551	−0·544	−0·533	−0·496	−0·471
0·30	−0·392	−0·428	−0·567	−0·600	−0·601	−0·583	−0·576	−0·569	−0·538	−0·516
0·50	−0·284	−0·312	−0·404	−0·584	−0·710	−0·752	−0·756	−0·765	−0·729	−0·701
0·60	−0·186	−0·206	−0·240	−0·209	−0·510	−0·669	−0·687	−0·711	−0·694	−0·687
0·70	−0·102	−0·108	−0·116	−0·098	−0·051	−0·154	−0·355	−0·567	−0·631	−0·643
0·80	−0·013	−0·010	0·004	0·017	0·045	0·066	0·060	0·012	−0·120	−0·614
0·84	0·021	0·026	0·046	0·063	0·080	0·101	0·101	0·082	0·024	−0·562
0·87	0·043	0·049	0·071	0·089	0·103	0·123	0·128	0·121	0·088	−0·408
0·92	0·069	0·080	0·106	0·119	0·132	0·149	0·154	0·157	0·144	−0·103
1·00	0·165	0·182	0·210	0·225	0·232	0·243	0·241	0·253	0·245	0·144
Lower										
x/c = 0·045	0·098	0·066	0·082	0·075	0·083	0·080	0·081	0·079	0·090	0·095
0·095	−0·013	−0·038	−0·032	−0·040	−0·039	−0·043	−0·042	−0·042	−0·034	−0·027
0·295	−0·157	−0·178	−0·214	−0·238	−0·260	−0·285	−0·292	−0·293	−0·283	−0·270
0·495	−0·146	−0·166	−0·213	−0·241	−0·278	−0·325	−0·367	−0·399	−0·412	−0·413
0·595	−0·104	−0·166	−0·150	−0·171	−0·195	−0·230	−0·265	−0·357	−0·404	−0·419
0·695	−0·059	−0·067	−0·087	−0·094	−0·106	−0·112	−0·117	−0·155	−0·347	−0·404
0·795	−0·017	−0·021	−0·031	−0·036	−0·041	−0·047	−0·052	−0·056	−0·106	−0·353
0·835	−0·019	−0·019	−0·028	−0·029	−0·035	−0·037	−0·042	−0·052	−0·058	−0·339
0·86	−0·015	−0·016	−0·024	−0·024	−0·029	−0·033	−0·039	−p·051	−0·054	−0·389
0·93	0·052	0·060	0·074	0·082	0·084	0·088	0·087	0·084	0·078	−0·208

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = 3\cdot6$ deg, $y/s = 0\cdot581$

M	0·398	0·598	0·798	0·837	0·864	0·883	0·894	0·907	0·922	0·938
Upper										
x/c = 0·00	0·205	0·252	0·270	0·308	0·332	0·366	0·373	0·400	0·406	0·428
0·055	−0·645	−0·647	−0·749	−0·730	−0·701	−0·673	−0·654	−0·636	−0·590	−0·559
0·10	−0·566	−0·584	−0·728	−0·743	−0·726	−0·708	−0·693	−0·683	−0·641	−0·614
0·30	−0·417	−0·462	−0·641	−0·704	−0·717	−0·714	−0·705	−0·703	−0·669	−0·650
0·50	−0·284	−0·311	−0·369	−0·560	−0·772	−0·788	−0·790	−0·788	−0·758	−0·751
0·60	−0·190	−0·207	−0·222	−0·160	−0·413	−0·682	−0·733	−0·730	−0·730	−0·84
0·70	−0·090	−0·093	−0·085	−0·054	−0·015	−0·171	−0·294	−0·427	−0·559	−0·784
0·80	0·001	0·005	0·029	0·049	0·082	0·068	0·012	−0·104	−0·210	−0·695
0·84	0·032	0·039	0·068	0·091	0·110	0·107	0·075	−0·021	−0·125	−0·636
0·87	0·047	0·055	0·087	0·106	0·125	0·133	0·114	0·038	−0·058	−0·554
0·92	0·069	0·081	0·115	0·129	0·145	0·158	0·153	0·110	0·037	−0·325
1·00	0·158	0·174	0·207	0·225	0·230	0·232	0·224	0·205	0·156	0·054
Lower										
x/c = 0·05	0·136	0·096	0·081	0·067	0·062	0·058	0·053	0·047	0·057	0·065
0·10	0·012	−0·019	−0·042	−0·059	−0·069	−0·077	−0·083	−0·088	−0·161	−0·068
0·30	−0·146	−0·170	−0·217	−0·245	−0·266	−0·301	−0·310	−0·319	−0·318	−0·315
0·50	−0·146	−0·164	−0·213	−0·241	−0·281	−0·327	−0·376	−0·430	−0·489	−0·488
0·60	−0·099	−0·112	−0·143	−0·163	−0·189	−0·220	−0·250	−0·369	−0·461	−0·483
0·70	−0·051	−0·058	−0·075	−0·083	−0·095	−0·103	−0·106	−0·164	−0·372	−0·449
0·80	−0·019	−0·023	−0·029	−0·030	−0·037	−0·045	−0·054	−0·056	−0·114	−0·406
0·835	−0·011	−0·010	−0·008	−0·003	−0·006	−0·010	−0·019	−0·013	−0·028	−0·348
0·86	−0·015	−0·019	−0·024	−0·024	−0·033	−0·045	−0·054	−0·075	−0·076	−0·426
0·93	0·052	0·058	0·076	0·086	0·085	0·082	0·077	0·061	0·043	−0·344

C_p at $\eta = -1$ deg, $\alpha = 3\cdot6$ deg, $y/s = 0\cdot812$

M	0·398	0·598	0·798	0·837	0·864	0·883	0·894	0·907	0·922	0·938
Upper										
x/c = 0·00	−0·004	−0·048	0·151	−0·193	0·234	0·262	0·276	0·301	0·307	0·325
0·055	−0·756	−0·824	−1·031	−1·005	−0·934	−0·881	−0·841	−0·517	−0·753	−0·706
0·105	−0·650	−0·711	−0·970	−0·985	−0·940	−0·900	−0·870	−0·852	−0·798	−0·759
0·30	−0·426	−0·483	−0·697	−0·899	−0·909	−0·878	−0·858	−0·851	−0·822	−0·825
0·50	−0·286	−0·312	−0·314	−0·344	−0·642	−0·678	−0·685	−0·709	−0·748	−0·901
0·60	−0·175	−0·187	−0·164	−0·099	−0·268	−0·414	−0·457	−0·503	−0·556	−0·874
0·70	−0·086	−0·084	−0·052	−0·024	−0·092	−0·255	−0·319	−0·376	−0·424	−0·843
0·795	−0·006	0·002	0·039	0·042	−0·004	−0·141	−0·213	−0·284	−0·340	−0·796
0·835	0·038	0·046	0·083	0·093	0·045	−0·089	−0·161	−0·240	−0·300	
0·87	0·049	0·060	0·098	0·110	0·073	−0·046	−0·128	−0·197	−0·268	
0·92	0·076	0·089	0·127	0·138	0·112	0·009	−0·070	−0·139	−0·218	−0·621
1·00	0·114	0·128	0·171	0·185	0·157	0·065	−0·008	−0·073	−0·155	−0·472
Lower										
x/c = 0·05	0·200	0·185	0·152	0·129	0·105	0·087	0·069	0·052	0·052	0·050
0·10	0·054	0·037	0·002	−0·023	−0·049	−0·073	−0·094	−0·111	−0·111	−0·112
0·295	−0·119	−0·138	−0·187	−0·215	−0·248	−0·281	−0·316	−0·349	−0·354	−0·354
0·495	−0·139	−0·160	−0·212	−0·243	−0·285	−0·330	−0·362	−0·463	−0·539	−0·547
0·60	−0·110	−0·125	−0·164	−0·193	−0·233	−0·281	−0·313	−0·403	−0·537	−0·570
0·695	−0·062	−0·064	−0·082	−0·100	−0·132	−0·178	−0·207	−0·259	−0·474	−0·551
0·795	−0·037	−0·036	−0·040	−0·046	−0·064	−0·092	−0·117	−0·151	−0·387	−0·515
0·835	−0·046	−0·039	−0·033	−0·036	−0·057	−0·087	−0·125	−0·127	−0·324	−0·492
0·93	0·038	0·043	0·064	0·071	0·045	−0·007	−0·042	−0·073	−0·157	−0·523

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = 7{\cdot}7$ deg, $y/s = 0{\cdot}234$

M	0·399	0·600	0·799	0·838	0·863	0·889	0·898	0·907
Upper								
x/c = 0·00	−0·227	−0·071		0·319	0·344		0·391	0·397
0·05	−0·840	−0·883		−0·723	−0·693		−0·631	−0·618
0·10	−0·628	−0·663		−0·647	−0·630		−0·588	−0·578
0·30	−0·471	−0·521		−0·632	−0·613		−0·577	−0·563
0·50	−0·341	−0·383		−0·753	−0·784		−0·766	−0·759
0·60	−0·242	−0·270		−0·364	−0·632		−0·712	−0·713
0·70	−0·143	−0·159		−0·405	−0·227		−0·422	−0·487
0·80	−0·048	−0·051		−0·071	−0·095		−0·206	−0·244
0·84	−0·008	−0·009	−0·021	−0·026	−0·044	−0·113	−0·155	−0·192
0·87	0·018	0·019	0·009	0·003	−0·011	−0·071	−0·115	−0·147
0·92	0·045	0·049	0·045	0·042	0·034	−0·012	−0·053	−0·088
1·00	0·144	0·152	0·156	0·155	0·139	0·109	0·082	0·052
Lower								
x/c = 0·05	0·327	0·342	0·332	0·312	0·322	0·323	0·336	0·341
0·10	0·195	0·204	0·193	0·176	0·182	0·182	0·191	0·196
0·30	−0·004	−0·010	−0·029	−0·043	−0·048	−0·055	−0·051	−0·050
0·50	−0·055	−0·070	−0·108	−0·130	−0·150	−0·174	−0·185	−0·195
0·60	−0·035	−0·048	−0·084	−0·102	−0·121	−0·146	−0·159	−0·172
0·70	−0·013	−0·024	−0·057	−0·074	−0·092	−0·121	−0·137	−0·154
0·80	0·005	−0·001	−0·029	−0·045	−0·062	−0·095	−0·117	−0·136
0·84	0·018	0·008	−0·020	−0·033	−0·055	−0·087	−0·110	−0·128
0·93	0·051	0·048	0·034	0·025	0·012	−0·021	−0·051	−0·081

C_p at $\eta = -1$ deg, $\alpha = 7{\cdot}7$ deg, $y/s = 0{\cdot}407$

M	0·399	0·600	0·799	0·838	0·863	0·889	0·898	0·907
Upper								
x/c = 0·00	−0·648	−0·399		0·067	0·110		0·174	0·190
0·05	−1·012	−0·069		−1·090	−1·034		−0·953	−0·925
0·10	−0·806	−0·868		−0·969	−0·941		−0·881	−0·861
0·30	−0·544	−0·602		−0·762	−0·741		−0·715	−0·703
0·50	−0·361	−0·398		−0·802	−0·897		−0·828	−0·807
0·60	−0·242	−0·266		−0·306	−0·438		−0·849	−0·850
0·70	−0·136	−0·150		−0·187	−0·229		−0·351	−0·425
0·80	−0·035	−0·038		−0·081	−0·101		−0·204	−0·239
0·84	0	0	−0·023	−0·038	−0·056	−0·132	−0·160	−0·192
0·87	0·025	0·029	0·007	−0·006	−0·020	−0·087	−0·119	−0·153
0·92	0·060	0·069	0·054	0·044	0·032	−0·023	−0·056	−0·089
1·00	0·151	0·168	0·158	0·154	0·133	0·092	0·058	0·018
Lower								
x/c = 0·045	0·334	0·341	0·299	0·275	0·275	0·276	0·281	0·281
0·095	0·201	0·203	0·168	0·147	0·145	0·143	0·148	0·148
0·295	−0·010	−0·022	−0·058	−0·078	−0·094	−0·108	−0·111	−0·113
0·495	−0·052	−0·068	−0·111	−0·135	−0·157	−0·185	−0·197	−0·207
0·595	−0·030	−0·044	−0·088	−0·107	−0·129	−0·158	−0·175	−0·193
0·695	−0·008	−0·018	−0·056	−0·075	−0·095	−0·123	−0·139	−0·153
0·795	0·018	0·010	−0·028	−0·046	−0·068	−0·102	−0·122	−0·141
0·835	0·009	0·002	−0·035	−0·056	−0·077	−0·119	−0·144	−0·167
0·86	0·007	−0·001	−0·038	−0·059	−0·085	−0·136	−0·177	−0·218
0·93	0·060	0·060	0·040	0·027	0·007	−0·038	−0·072	−0·104

TABLE 3B—*continued*

C_p at $\eta = -1$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 581$

M	0·399	0·600	0·799	0·838	0·863	0·889	0·898	0·907
Upper								
x/c = 0·00	−0·859	−0·499		0·025	0·080		0·143	0·161
0·055	−1·175	−1·283		−1·278	−1·188		−1·098	−1·070
0·10	−0·943	−1·020		−1·223	−1·184		−1·083	−1·052
0·30	−0·595	−0·657		−0·901	−0·957		−0·940	−0·923
0·50	−0·374	−0·410		−0·518	−0·651		−0·707	−0·736
0·60	−0·255	−0·278		−0·417	−0·445		−0·552	−0·607
0·70	−0·136	−0·150		−0·329	−0·369		−0·434	−0·466
0·80	−0·030	−0·038		−0·221	−0·282		−0·348	−0·371
0·84	0	−0·003	−0·099	−0·182	−0·249	−0·308	−0·387	−0·340
0·87	0·020	0·020	−0·070	−0·149	−0·218	−0·283	−0·298	−0·316
0·92	0·054	0·055	−0·020	−0·090	−0·164	−0·240	−0·257	−0·275
1·00	0·133	0·137	0·080	0·012	−0·072	−0·159	−0·183	−0·208
Lower								
x/c = 0·05	0·360	0·361	0·300	0·276	0·270	0·263	0·262	0·261
0·10	0·228	0·224	0·169	0·146	0·137	0·127	0·127	0·125
0·30	0·003	−0·009	−0·058	−0·081	−0·101	−0·121	−0·127	−0·132
0·50	−0·046	−0·062	−0·116	−0·141	−0·168	−0·201	−0·218	−0·240
0·60	−0·021	−0·036	−0·090	−0·113	−7·137	−0·167	−0·183	−0·196
0·70	0	−0·010	−0·063	−0·084	−0·108	−0·136	−0·152	−0·164
0·80	0·012	0·002	−0·053	−0·077	−0·101	−0·135	−0·152	−0·162
0·835	0·012	0·005	−0·048	−0·070	−0·094	−0·124	−0·142	−0·139
0·86	0·005	−0·010	−0·079	−0·115	−0·157	−0·229	−0·278	−0·308
0·93	0·054	0·051	−0·009	−0·046	−0·087	−0·145	−0·180	−0·219

C_p at $\eta = -1$ deg, $\alpha = 7 \cdot 7$ deg, $y/s = 0 \cdot 812$

M	0·399	0·600	0·799	0·838	0·863	0·889	0·898	0·907
Upper								
x/c = 0·00	−1·594	−0·521		−0·260	−0·110		−0·030	−0·018
0·055	−1·408	−1·446		−0·783	−0·756		−0·740	−0·758
0·105	−1·109	−1·266		−0·762	−0·736		−0·716	−0·734
0·30	−0·650	−0·783		−0·687	−0·665		−0·637	−0·645
0·50	−0·396	−0·502		−0·602	−0·600		−0·598	−0·606
0·60	−0·262	−0·372		−0·565	−0·577		−0·584	−0·597
0·70	−0·149	−0·252		−0·523	−0·546		−0·570	−0·589
0·795	−0·061	−0·156		−0·479	−0·513		−0·553	−0·579
0·835	−0·024	−0·114	−0·398				−0·540	−0·563
0·87	−0·002	−0·065	−0·376	−0·434	−0·483		−0·536	−0·563
0·92	0·031	−0·022	−0·340	−0·404	−0·454	−0·488	−0·514	−0·543
1·00	0·065	0·022	−0·306	−0·378	−0·433	−0·466	−0·488	−0·516
Lower								
x/c = 0·05	0·417		0·349	0·327	0·312	0·292	0·282	0·276
0·10	0·285	0·277	0·209	0·187	0·167	0·146	0·136	0·130
0·295	0·042	0·026	−0·040	−0·060	−0·081	−0·105	−0·118	−0·125
0·495	−0·039	−0·066	−0·144	−0·172	−0·199	−0·229	−0·244	−0·254
0·60	−0·037	−0·065	−0·149	−0·179	−0·208	−0·243	−0·260	−0·271
0·695	−0·013	−0·039	−0·122	−0·050	−0·173	−0·210	−0·231	−0·241
0·795	−0·008	−0·039	−0·147	−0·177	−0·195	−0·216	−0·240	−0·256
0·835	−0·017	−0·047	−0·174	−0·205	−0·220	−0·219	−0·246	−0·244
0·93	0·020	−0·012	−0·195	−0·239	−0·274	−0·317	−0·364	−0·396

TABLE 3c

C_p at $\eta = -3$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 234$

M	0·398	0·598	0·796	0·837	0·864	0·884	0·897	0·908	0·921	0·934
Upper										
x/c = 0·00	0·502	0·524	0·569	0·582	0·595	0·608	0·617	0·621	0·631	0·645
0·05	−0·085	−0·068	−0·070	−0·068	−0·059	−0·047	−0·044	−0·037	−0·024	−0·021
0·10	−0·136	−0·132	−0·140	−0·138	−0·134	−0·126	−0·119	−0·112	−0·099	−0·096
0·30	−0·224	−0·242	−0·294	−0·308	−0·320	−0·331	−0·329	−0·323	−0·313	−0·302
0·50	−0·195	−0·218	−0·290	−0·338	−0·381	−0·450	−0·460	−0·455	−0·458	−0·460
0·60	−0·129	−0·147	−0·190	−0·211	−0·233	−0·316	−0·414	−0·453	−0·469	−0·470
0·70	−0·059	−0·066	−0·085	−0·089	−0·090	−0·082	−0·088	−0·167	−0·398	−0·480
0·80	0·025	0·026	0·027	0·031	0·035	0·043	0·050	0·050	0·028	−0·341
0·84	0·080	0·086	0·100	0·106	0·114	0·222	0·127	0·126	0·118	−0·102
0·87	0·104	0·110	0·129	0·135	0·142	0·150	0·156	0·156	0·151	0·015
0·92	0·086	0·093	0·110	0·117	0·125	0·132	0·138	0·139	0·139	0·065
1·00	0·161	0·175	0·196	0·207	0·214	0·225	0·228	0·224	0·213	0·141
Lower										
x/c = 0·05	−0·226	−0·223	−0·180	−0·157	−0·143	−0·125	−0·111	−0·102	−0·095	−0·074
0·10	−0·261	−0·271	−0·258	−0·243	−0·232	−0·220	−0·209	−0·201	−0·195	−0·177
0·30	−0·292	−0·313	−0·358	−0·365	−0·364	−0·357	−0·349	−0·339	−0·335	−0·322
0·50	−0·248	−0·273	−0·363	−0·416	−0·385	−0·501	−0·496	−0·488	−0·486	−0·475
0·60	−0·180	−0·200	−0·255	−0·294	−0·354	−0·491	−0·503	−0·498	−0·491	−0·484
0·70	−0·131	−0·141	−0·174	−0·182	−0·177	−0·257	−0·426	−0·494	−0·507	−0·505
0·80	−0·096	−0·100	−0·114	−0·114	−0·107	−0·092	−0·086	−0·132	−0·318	−0·471
0·84	−0·079	−0·080	−0·091	−0·090	−0·081	−0·064	−0·055	−0·055	−0·124	−0·343
0·86										
0·93	0·007	0·011	0·022	0·029	0·034	0·046	0·053	0·061	0·060	−0·014

C_p at $\eta = -3$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 407$

M	0·398	0·598	0·796	0·837	0·864	0·884	0·897	0·908	0·921	0·934
Upper										
x/c = 0·00	0·434	0·432	0·450	0·451	0·462	0·470	0·475	0·479	0·486	0·499
0·05	−0·123	−0·123	−0·134	−0·143	−0·141	−0·134	−0·133	−0·127	−0·113	−0·109
0·10	−0·191	−0·202	−0·228	−0·238	−0·242	−0·238	−0·235	−0·228	−0·215	−0·209
0·30	−0·246	−0·272	−0·342	−0·370	−0·393	−0·402	−0·402	−0·402	−0·395	−0·385
0·50	−0·191	−0·217	−0·294	−0·342	−0·394	−0·472	−0·508	−0·526	−0·532	−0·534
0·60	−0·112	−0·127	−0·157	−0·156	−0·143	−0·321	−0·450	−0·469	−0·502	−0·526
0·70	−0·032	−0·037	−0·049	−0·050	−0·043	−0·014	0·027	−0·081	−0·430	−0·503
0·80	0·056	0·063	0·074	0·082	0·088	0·105	0·123	0·136	0·138	−0·384
0·84	0·091	0·102	0·126	0·135	0·145	0·157	0·171	0·178	0·192	−0·150
0·87	0·124	0·135	0·158	0·170	0·180	0·194	0·204	0·211	0·222	0·046
0·92	0·111	0·119	0·143	0·156	0·164	0·177	0·189	0·194	0·205	0·145
1·00	0·170	0·189	0·215	0·232	0·243	0·257	0·268	0·271	0·276	(0·2)?
Lower										
x/c = 0·045	−0·272	−0·287	−0·298	−0·280	−0·268	−0·254	−0·244	−0·234	−0·232	−0·212
0·095	−0·294	−0·314	−0·343	−0·335	−0·328	−0·319	−0·311	−0·303	−0·300	−0·284
0·295	−0·323	−0·352	−0·442	−0·485	−0·470	−0·452	−0·444	−0·433	−0·425	−0·412
0·495	−0·263	−0·287	−0·379	−0·437	−0·513	−0·586	−0·587	−0·578	−0·571	−0·563
0·595	−0·191	−0·210	−0·253	−0·301	−0·384	−0·533	−0·558	−0·569	−0·569	−0·563
0·695	−0·131	−0·139	−0·164	−0·160	−0·136	−0·210	−0·463	−0·519	−0·539	−0·546
0·795	−0·090	−0·095	−0·109	−0·107	−0·095	−0·051	−0·010	−0·115	−0·418	−0·505
0·835	−0·107	−0·113	−0·124	−0·123	−0·115	−0·083	−0·042	−0·016	−0·195	−0·468
0·86	−0·114	−0·123	−0·136	−0·139	−0·136	−0·107	−0·069	−0·030	−0·059	−0·419
0·93	0·020	0·026	0·048	0·059	0·069	0·086	0·104	0·119	0·141	−0·023

TABLE 3c—*continued*

C_p at $\eta = -3$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 581$

M	0·398	0·598	0·796	·0837	0·864	0·884	0·897	0·908	0·921	0·934
Upper										
x/c = 0·00	0·454	0·459	0·450	0·447	0·454	0·459	0·461	0·461	0·465	0·477
0·055	−0·149	−0·163	−0·186	−0·206	−0·217	−0·217	−0·216	−0·209	−0·201	−0·195
0·10	−0·211	−0·232	−0·272	−0·292	−0·313	−0·321	−0·323	−0·319	−0·315	−0·311
0·30	−0·250	−0·281	−0·363	−0·416	−0·463	−0·477	−0·477	−0·473	−0·475	−0·466
0·50	−0·184	−0·211	−0·284	−0·331	−0·380	−0·487	−0·519	−0·555	−0·610	−0·627
0·60	−0·116	−0·126	−0·145	−0·135	−0·112	−0·133	−0·438	−0·528	−0·560	−0·608
0·70	−0·013	−0·013	−0·019	−0·012	−0·004	0·033	0·068	0·004	−0·343	−0·568
0·80	0·073	0·082	0·100	0·111	0·120	0·140	0·158	0·167	0·138	−0·403
0·84	0·113	0·127	0·156	0·167	0·177	0·189	0·200	0·204	0·199	−0·210
0·87	0·124	0·137	0·167	0·182	0·192	0·205	0·216	0·222	0·222	−0·044
0·92	0·104	0·117	0·147	0·164	0·174	0·188	0·201	0·208	0·215	0·099
1·00	0·168	0·187	0·219	0·243	0·246	0·260	0·271	0·272	0·269	0·148
Lower										
x/c = 0·05	−0·263	−0·283	−0·330	−0·319	−0·303	−0·295	−0·285	−0·281	−0·276	−0·261
0·10	−0·299	−0·323	−0·389	−0·392	−0·377	−0·365	−0·354	−0·349	−0·343	−0·330
0·30	−0·329	−0·363	−0·465	−0·503	−0·538	−0·534	−0·526	−0·516	−0·506	−0·495
0·50	−0·261	−0·295	−0·391	−0·466	−0·545	−0·657	−0·678	−0·677	−0·669	−0·658
0·60	−0·197	−0·217	−0·252	−0·272	−0·360	−0·594	−0·617	−0·635	−0·650	−0·656
0·70	−0·129	−0·137	−0·151	−0·141	−0·105	−0·127	−0·465	−0·573	−0·593	−0·609
0·80	−0·098	−0·100	−0·107	−0·099	−0·082	−0·019	0·018	−0·063	−0·376	−0·553
0·835	−0·092	−0·094	−0·093	−0·083	−0·065	−0·017	0·026	0·030	−0·139	−0·481
0·86	−0·118	−0·132	−0·142	−0·141	−0·129	−0·076	−0·027	0·010	−0·033	−0·390
0·93	0·016	0·025	0·052	0·065	0·076	0·101	0·122	0·139	0·144	−0·072

C_p at $\eta = -3$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 812$

M	0·398	0·598	0·796	0·837	0·864	0·884	0·897	0·908	0·921	0·934
Upper										
x/c = 0·00	0·432	0·443	0·428	0·423	0·420	0·419	0·417	0·411	0·414	0·420
0·055	−0·145	−0·169	−0·204	−0·233	−0·268	−0·290	−0·298	−0·294	−0·295	−0·284
0·105	−0·204	−0·234	−0·289	−0·319	−0·362	−0·397	−0·405	−0·405	−0·409	−0·401
0·30	−0·237	−0·271	−0·349	−0·390	−0·429	−0·546	−0·565	−0·563	−0·565	−0·555
0·50	−0·175	−0·200	−0·270	−0·308	−0·344	−0·454	−0·514	−0·534	−0·575	−0·709
0·60	−0·118	−0·135	−0·149	−0·142	−0·106	−0·054	−0·228	−0·439	−0·574	−0·696
0·70	0·005	0·005	0·015	0·024	0·029	0·045	0·044	−0·085	−0·243	−0·659
0·795	0·027	0·042	0·069	0·082	0·094	0·109	0·218	0·065	−0·107	−0·609
0·835	0·117	0·136	0·169	0·184	0·192	0·193	0·173	0·116	−0·032	−0·537
0·87	0·124	0·141	0·170	0·193	0·194	0·196	0·184	0·136	0·017	−0·480
0·92	0·115	0·131	0·162	0·177	0·185	0·188	0·178	0·145	0·062	−0·346
1·00	0·135	0·159	0·194	0·210	0·217	0·205	0·170	0·113	0·030	−0·143
Lower										
x/c = 0·05	−0·268	−0·284	−0·354	−0·360	−0·353	−0·345	−0·331	−0·327	−0·312	−0·304
0·10	−0·321	−0·346	−0·444	−0·469	−0·472	−0·468	−0·457	−0·450	−0·437	−0·428
0·295	−0·332	−0·368	−0·483	−0·537	−0·605	−0·613	−0·607	−0·598	−0·587	−0·578
0·495	−0·270	−0·302	−0·409	−0·492	−0·562	−0·630	−0·635	−0·649	−0·660	−0·731
0·60	−0·208	−0·230	−0·281	−0·293	−0·364	−0·620	−0·636	−0·647	−0·650	−0·692
0·695	−0·125	−0·131	−0·118	−0·090	−0·048	−0·165	−0·350	−0·432	−0·532	−0·676
0·795	−0·134	−0·133	−0·133	−0·115	−0·085	−0·029	−0·099	−0·175	−0·264	−0·556
0·835	−0·171	−0·174	−0·170	−0·152	−0·208	−0·036	−0·048	−0·114	−0·193	−0·453
0·890										
0·93	0·018	0·029	0·058	0·075	0·092	0·115	0·093	0·030	−0·057	−0·248

TABLE 3c—*continued*

C_p at $\eta = -3$ deg, $\alpha = 3 \cdot 65$ deg, $y/s = 0 \cdot 234$

M	0·398	0·598	0·796	0·839	0·866	0·885	0·897	0·909	0·919
Upper									
x/c = 0·00			0·487	0·494	0·528	0·548	0·550	0·559	0·574
0·05			−0·418	−0·433	−0·396	−0·375	−0·372	−0·362	−0·342
0·10			−0·403	−0·414	−0·387	−0·366	−0·366	−0·357	−0·340
0·30			−0·468	−0·504	−0·484	−0·469	−0·463	−0·452	−0·440
0·50			−0·399	−0·544	−0·608	−0·628	−0·632	−0·631	−0·626
0·60			−0·252	−0·262	−0·481	−0·596	−0·604	−0·597	−0·591
0·70			−0·124	−0·114	−0·105	−0·153	−0·259	−0·435	−0·547
0·80			−0·004	0·012	0·020	0·016	0·004	−0·032	−0·089
0·84	0·058	0·064	0·071	0·082	0·087	0·081	0·069	0·038	−0·003
0·87	0·082	0·087	0·101	0·110	0·117	0·113	0·105	0·079	0·043
0·92	0·073	0·082	0·099	0·109	0·117	0·121	0·121	0·110	0·086
1·00	0·157	0·169	0·191	0·202	0·210	0·213	0·213	0·210	0·198
Lower									
x/c = 0·05	0·073	0·063	0·118	0·142	0·138	0·148	0·156	0·167	0·168
0·10	−0·030	−0·040	−0·002	0·012	0·008	0·016	0·021	0·030	0·033
0·30	−0·156	−0·183	−0·182	−0·188	−0·196	−0·195	−0·194	−0·187	−0·186
0·50	−0·162	−0·181	−0·230	−0·258	−0·294	−0·321	−0·340	−0·348	−0·357
0·60	−0·123	−0·137	−0·176	−0·197	−0·224	−0·251	−0·292	−0·326	−0·354
0·70	−0·090	−0·100	−0·124	−0·138	−0·153	−0·167	−0·194	−0·259	−0·328
0·80	−0·068	−0·072	−0·090	−0·095	−0·101	−0·105	−0·111	−0·123	−0·204
0·84	−0·057	−0·062	−0·072	−0·078	−0·081	−0·084	−0·088	−0·093	−0·126
0·86									
0·93	0·014	0·015	0·019	0·024	0·027	0·029	0·028	0·025	0·015

C_p at $\eta = -3$ deg, $\alpha = 3 \cdot 65$ deg, $y/s = 0 \cdot 407$

M	0·398	0·598	0·796	0·839	0·866	0·885	0·897	0·909	0·919
Upper									
x/c = 0·00			0·305	0·325	0·464	0·383	0·386	0·398	0·411
0·05			−0·587	−0·598	−0·555	−0·530	−0·523	−0·512	−0·487
0·10			−0·573	−0·592	−0·563	−0·543	−0·538	−0·528	−0·507
0·30			−0·553	−0·607	−0·595	−0·575	−0·569	−0·556	−0·543
0·50			−0·376	−0·551	−0·700	−0·751	−0·755	−0·750	−0·737
0·60			−0·216	−0·182	−0·516	−0·644	−0·683	−0·692	−0·697
0·70			−0·088	−0·067	−0·019	−0·060	−0·215	−0·419	−0·586
0·80			0·051	0·068	0·092	0·107	0·104	0·057	−0·028
0·84	0·071	0·080	0·103	0·120	0·139	0·150	0·151	0·124	0·075
0·87	0·100	0·111	0·134	0·153	0·171	0·183	0·188	0·172	0·140
0·92	0·100	0·108	0·135	0·150	0·165	0·178	0·186	0·186	0·177
1·00	0·166	0·181	0·210	0·224	0·235	0·241	0·243	0·244	0·242
Lower									
x/c = 0·045	0·084	0·048	0·074	0·084	0·073	0·078	0·079	0·089	0·087
0·095	−0·026	−0·054	−0·042	−0·040	−0·048	−0·045	−0·044	−0·036	−0·037
0·295	−0·171	−0·198	−0·231	−0·253	−0·274	−0·290	−0·298	−0·289	−0·287
0·495	−0·167	−0·187	−0·237	−0·268	−0·304	−0·356	−0·391	−0·401	−0·413
0·595	−0·125	−0·139	−0·177	−0·198	−0·228	−0·262	−0·320	−0·276	−0·407
0·695	−0·087	−0·096	−0·119	−0·131	−0·142	−0·147	−0·155	−0·246	−0·363
0·795	−0·059	−0·066	−0·085	−0·090	−0·099	−0·105	−0·109	−0·106	−0·205
0·835	−0·083	−0·089	−0·109	−0·114	−0·124	−0·130	−0·137	−0·135	−0·169
0·86	−0·082	−0·101	−0·125	−0·134	−0·146	−0·157	−0·182	−0·226	−0·271
0·93	0·027	0·032	0·044	0·053	0·059	0·064	0·066	0·065	0·063

TABLE 3c—*continued*

C_p at $\eta = -3$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}812$

M	0·398	0·598	0·796	0·839	0·866	0·885	0·897	0·909	0·919
Upper									
x/c = 0·00			0·180	0·209	0·241	0·265	0·280	0·287	0·299
0·055			—0·978	—0·995	—0·914	—0·861	—0·823	—0·797	—0·766
0·105			—0·920	—0·983	—0·925	—0·885	—0·858	—0·833	—0·809
0·30			—0·645	—0·979	—0·892	—0·863	—0·839	—0·820	—0·827
0·50			—0·289	—0·220	—0·564	—0·624	—0·625	—0·645	—0·734
0·60			—0·139	—0·078	—0·197	—0·350	—0·397	—0·439	—0·517
0·70			—0·021	0·011	—0·040	—0·185	—0·259	—0·319	—0·377
0·795			0·070	0·077	0·038	—0·075	—0·159	—0·234	—0·297
0·835	0·091	0·101	0·140	0·157	0·107	—0·116	—0·110	—0·186	—0·251
0·87	0·100	0·108	0·151	0·170	0·146	0·030	—0·071	—0·150	—0·220
0·92	0·104	0·116	0·157	0·173	0·165	0·080	—0·013	—0·093	—0·165
1·00	0·126	0·143	0·181	0·198	0·188	0·123	0·043	—0·028	—0·111
Lower									
x/c = 0·05	0·170	0·151	0·133	0·123	0·009	0·071	0·048	0·053	0·050
0·10	0·023	0·005	—0·021	—0·036	—0·066	—0·090	—0·107	—0·111	—0·116
0·295	—0·145	—0·168	—0·217	—0·240	—0·273	—0·308	—0·346	—0·354	—0·361
0·495	—0·164	—0·189	—0·249	—0·281	—0·326	—0·372	—0·418	—0·512	—0·548
0·60	—0·138	—0·155	—0·205	—0·233	—0·276	—0·324	—0·370	—0·463	—0·561
0·695	—0·094	—0·100	—0·125	—0·146	—0·179	—0·232	—0·267	—0·373	—0·509
0·795	—0·098	—0·113	—0·134	—0·139	—0·150	—0·172	—0·193	—0·257	—0·449
0·835	—0·140	—0·165	—0·179	—0·175	—0·187	—0·212	—0·226	—0·270	—0·425
0·890									
0·93	0·012	0·014	0·039	0·052	0·042	0·001	0·042	—0·081	—0·295

C_p at $\eta = -3$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}581$

M	0·398	0·598	0·796	0·839	0·866	0·885	0·897	0·909	0·919
Upper									
x/c = 0·00			0·296	0·323	0·353	0·369	0·376	0·387	0·399
0·055			—0·744	—0·744	—0·984	—0·662	—0·644	—0·631	—0·604
0·10			—0·722	—0·761	—0·719	—0·699	—0·686	—0·675	—0·652
0·30			—0·616	—0·710	—0·715	—0·706	—0·699	—0·689	—0·677
0·50			—0·343	—0·496	—0·740	—0·786	—0·758	—0·762	—0·755
0·60			—0·195	—0·141	—0·292	—0·575	—0·658	—0·698	—0·722
0·70			—0·053	—0·022	0·026	—0·087	—0·215	—0·324	—0·422
0·80			0·077	0·101	0·129	0·119	0·051	—0·041	—0·147
0·84	0·086	0·098	0·128	0·154	0·167	0·159	0·110	0·032	—0·065
0·87	0·102	0·112	0·146	0·169	0·186	0·186	0·152	0·090	0·001
0·92	0·097	0·110	0·144	0·161	0·177	0·190	0·181	0·148	0·086
1·00	0·161	0·178	0·210	0·228	0·237	0·236	0·228	0·217	0·186
Lower									
x/c = 0·05	0·115	0·070	0·071	0·070	0·053	0·054	0·049	0·055	0·055
0·10	—0·008	—0·046	—0·055	—0·061	—0·079	—0·082	—0·087	—0·080	—0·082
0·30	—0·167	—0·193	—0·239	—0·262	—0·291	—0·309	—0·317	—0·316	—0·321
0·50	—0·169	—0·191	—0·243	—0·273	—0·315	—0·366	—0·437	—0·478	—0·493
0·60	—0·127	—0·143	—0·181	—0·202	—0·229	—0·258	—0·322	—0·411	—0·469
0·70	—0·085	—0·090	—0·116	—0·126	—0·136	—0·144	—0·138	—0·235	—0·403
0·80	—0·068	—0·072	—0·088	—0·091	—0·100	—0·109	—0·113	—0·101	—0·240
0·835	—0·065	—0·070	—0·080	—0·078	—0·082	—0·088	—0·087	—0·074	—0·136
0·86	—0·101	—0·112	—0·136	—0·145	—0·162	—0·187	—0·247	—0·328	—0·358
0·93	0·020	0·027	0·045	0·057	0·060	0·062	0·055	0·047	0·034

C

TABLE 3D

C_p at $\eta = -5$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 234$

M	0·399	0·600	0·797	0·838	0·861	0·886	0·897	0·911	0·921	0·936
Upper										
x/c = 0·00	0·488	0·519	0·570	0·588						0·646
0·05	—0·061	—0·065	—0·065	—0·062						—0·018
0·10	—0·118	—0·129	—0·136	—0·135						—0·094
0·30	—0·208	—0·235	—0·286	—0·306						—0·301
0·50	—0·178	—0·204	—0·273	—0·313						—0·459
0·60	—0·109	—0·127	—0·167	—0·183						—0·470
0·70	—0·035	—0·042	—0·056	—0·059						—0·481
0·80	0·064	0·066	0·075	0·081						—0·242
0·84	0·139	0·153	0·170	0·179	0·185	0·195	0·199	0·197	0·181	0·013
0·87	0·155	0·167	0·188	0·199	0·205	0·216	0·221	0·220	0·211	0·095
0·92	0·113	0·123	0·140	0·149	0·155	0·165	0·169	0·171	0·164	0·090
1·00	0·155	0·169	0·183	0·195	0·197	0·202	0·200	0·189	0·158	0·074
Lower										
x/c = 0·05	—0·247	—0·226	—0·184	—0·160	—0·150	—0·133	—0·121	—0·107	—0·102	—0·076
0·10	—0·278	—0·273	—0·261	—0·247	—0·240	—0·227	—0·216	—0·204	—0·200	—0·176
0·30	—0·304	—0·320	—0·363	—0·370	—0·371	—0·363	—0·353	—0·342	—0·337	—0·319
0·50	—0·262	—0·287	—0·381	—0·444	—0·507	—0·552	—0·498	—0·490	—0·485	—0·473
0·60	—0·200	—0·220	—0·277	—0·325	—0·424	—0·511	—0·507	—0·498	—0·493	—0·482
0·70	—0·156	—0·167	—0·200	—0·210	—0·217	—0·408	—0·486	—0·508	—0·509	—0·503
0·80	—0·134	—0·141	—0·158	—0·159	—0·148	—0·130	—0·171	—0·334	—0·426	—0·469
0·84	—0·134	—0·141	—0·156	—0·150	—0·130	—0·110	—0·112	—0·175	—0·266	—0·361
0·86										
0·93	—0·015	—0·011	—0·002	0·006	0·013	0·025	0·033	0·035	0·022	—0·068

C_p at $\eta = -5$ deg, $\alpha = -0 \cdot 45$ deg, $y/s = 0 \cdot 407$

M	0·399	0·600	0·797	0·838	0·861	0·886	0·897	0·911	0·921	0·936
Upper										
x/c = 0·00	0·415	0·434	0·447	0·457						0·497
0·05	—0·098	—0·120	—0·133	—0·139						—0·107
0·10	—0·171	—0·194	—0·226	—0·236						—0·208
0·30	—0·229	—0·259	—0·230	—0·364						—0·384
0·50	—0·173	—0·198	—0·273	—0·317						—0·535
0·60	—0·083	—0·098	—0·123	—0·120						—0·524
0·70	—0·004	—0·005	—0·012	—0·010						—0·493
0·80	0·100	0·115	0·130	0·140						—0·270
0·84	0·157	0·173	0·203	0·215	0·221	0·235	0·245	0·252	0·248	0·007
0·87	0·177	0·194	0·223	0·237	0·246	0·260	0·270	0·276	—	0·155
0·92	0·137	0·151	0·174	0·188	0·199	0·212	0·221	0·226	0·223	0·151
1·00	0·168	0·185	0·204	0·219	0·231	0·249	0·262	0·266	0·233	0·070
Lower										
x/c = 0·045	—0·295	—0·296	—0·298	—0·285	—0·276	—0·263	—0·250	—0·240	—0·237	—0·209
0·095	—0·313	—0·321	—0·344	—0·339	—0·334	—0·327	—0·316	—0·308	—0·304	—0·281
0·295	—0·339	—0·364	—0·452	—0·491	—0·475	—0·459	—0·444	—0·433	—0·425	—0·408
0·495	—0·282	—0·305	—0·401	—0·466	—0·558	—0·598	—0·587	—0·578	—0·571	—0·558
0·595	—0·215	—0·235	—0·284	—0·253	—0·466	—0·566	—0·574	—0·573	—0·569	—0·558
0·695	—0·160	—0·169	—0·196	—0·190	—0·149	—0·459	—0·523	—0·542	—0·547	—0·543
0·795	—0·136	—0·145	—0·164	—0·157	—0·134	—0·066	—0·184	—0·451	—0·496	—0·502
0·835	—0·167	—0·175	—0·187	—0·169	—0·138	—0·094	—0·079	—0·303	—0·424	—0·457
0·86	—0·208	—0·230	—0·274	—0·238	—0·269	—0·386	—0·235	—0·199	—0·305	—0·470
0·93	—0·002	0·005	0·027	0·041	0·054	0·077	0·099	0·114	0·067	—0·153

TABLE 3D—*continued*

C_p at $\eta = -5$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot581$

M	0·399	0·600	0·797	0·838	0·861	0·886	0·897	0·911	0·921	0·936
Upper										
x/c = 0·00	0·442	0·453	0·452	0·433						0·477
0·055	−0·123	−0·149	−0·183	−0·200						−0·199
0·10	−0·186	−0·217	−0·267	−0·291						−0·311
0·30	−0·227	−0·262	−0·346	−0·392						−0·466
0·50	−0·160	−0·186	−0·258	−0·292						−0·626
0·60	−0·081	−0·088	−0·103	−0·092						−0·596
0·70	0·023	0·021	0·026	0·031						−0·560
0·80	0·126	0·139	0·141	0·155						−0·278
0·84	0·188	0·208	0·241	0·254	0·263	0·270	0·274	0·270	0·248	−0·044
0·87	0·179	0·200	0·233	0·248	0·257	0·268	0·266	0·275	—	0·092
0·92	0·133	0·153	0·181	0·197	0·208	0·224	0·233	0·236	0·225	0·116
1·00	0·163	0·183	0·205	0·222	0·234	0·257	0·268	0·262	0·213	0·023
Lower										
x/c = 0·05	−0·291	−0·297	−0·328	−0·323	−0·308	−0·300	−0·284	−0·277	−0·274	−0·254
0·10	−0·319	−0·338	−0·390	−0·396	−0·381	−0·371	−0·354	−0·345	−0·341	−0·324
0·30	−0·350	−0·382	−0·478	−0·524	−0·548	−0·541	−0·525	−0·512	−0·505	−0·489
0·50	−0·286	−0·317	−0·421	−0·508	−0·610	−0·693	−0·686	−0·676	−0·668	−0·653
0·60	−0·225	−0·244	−0·286	−0·332	−0·510	−0·632	−0·647	−0·658	−0·659	−0·652
0·70	−0·164	−0·174	−0·190	−0·177	−0·117	−0·481	−0·586	−0·600	−0·604	−0·606
0·80	−0·156	−0·162	−0·173	−0·163	−0·130	−0·047	−0·158	−0·465	−0·531	−0·551
0·835	−0·170	−0·192	−0·197	−0·175	−0·143	−0·079	−0·055	−0·257	−0·396	−0·497
0·86	−0·206	−0·230	−0·265	−0·315	−0·379	−0·211	−0·114	−0·127	−0·234	−0·435
0·93	−0·008	0·002	0·031	0·046	0·061	0·089	0·111	0·118	0·049	−0·188

C_p at $\eta = -5$ deg, $\alpha = -0\cdot45$ deg, $y/s = 0\cdot812$

M	0·399	0·600	0·797	0·838	0·861	0·886	0·897	0·911	0·921	0·936
Upper										
x/c = 0·00	0·417	0·433	0·431	0·424						0·424
0·055	−0·101	−0·131	−0·184	−0·211						−0·287
0·105	−0·167	−0·199	−0·267	−0·299						−0·401
0·30	−0·206	−0·240	−0·319	−0·354						−0·555
0·50	−0·142	−0·168	−0·236	−0·264						−0·696
0·60	−0·085	−0·095	−0·096	−0·082						−0·668
0·70	0·042	0·045	0·057	0·066						−0·644
0·795	0·086	0·102	0·137	0·149						−0·544
0·835	0·181	0·204	0·241	0·254	0·259	0·253	0·223	0·152	0·019	−0·464
0·87	0·196	0·220	0·251	0·267	0·270	0·264	0·242	0·194	0·066	−0·354
0·92	0·148	0·171	0·200	0·215	0·219	0·209	0·191	0·157	0·082	−0·223
1·00	0·133	0·155	0·186	0·200	0·202	0·163	0·106	0·031	−0·043	−0·202
Lower										
x/c = 0·05	−0·319	−0·329	−0·369	−0·282	−0·361	−0·348	−0·326	−0·317	−0·307	−0·294
0·10	−0·361	−0·386	−0·461	−0·490	−0·482	−0·471	−0·452	−0·443	−0·434	−0·421
0·295	−0·361	−0·398	−0·514	−0·592	−0·620	−0·618	−0·603	−0·592	−0·583	−0·570
0·495	−0·302	−0·337	−0·455	−0·545	−0·633	−0·675	−0·674	−0·676	−0·677	−0·732
0·60	−0·242	−0·269	−0·320	−0·369	−0·587	−0·669	−0·662	−0·658	−0·657	−0·692
0·695	−0·162	−0·174	−0·164	−0·124	−0·079	−0·461	−0·552	−0·575	−0·600	−0·674
0·795	−0·191	−0·196	−0·199	−0·177	−0·127	−0·130	−0·214	−0·275	−0·318	−0·588
0·835	−0·247	−0·253	−0·253	−0·225	−0·177	−0·096	−0·127	−0·191	−0·240	−0·486
0·890										
0·93	−0·013	−0·001	0·025	0·044	0·064	0·068	0·020	−0·051	−0·121	−0·294

TABLE 3D—*continued*

C_p at $\eta = -5$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}234$

M	0·398	0·598	0·799	0·836	0·861	0·887	0·897	0·907	0·922
Upper									
x/c = 0·00	0·431	0·450	0·483	0·503	0·524	0·547		0·580	
0·05	−0·392	−0·412	−0·441	−0·424	−0·402	−0·384		−0·351	
0·10	−0·357	−0·381	−0·415	−0·408	−0·391	−0·375		−0·350	
0·30	−0·324	−0·360	−0·460	−0·500	−0·489	−0·472		−0·453	
0·50	−0·246	−0·278	−0·367	−0·488	−0·594	−0·624		−0·644	
0·60	−0·161	−0·181	−0·222	−0·225	−0·310	−0·578		−0·608	
0·70	−0·073	−0·079	−0·090	−0·086	−0·075	−0·095		−0·564	
0·80	0·038	0·040	0·050	0·057	0·062	0·060		−0·076	
0·84	0·116	0·121	0·138	0·147	0·147	0·141	0·124	0·102	0·125
0·87	0·131	0·139	0·160	0·170	0·171	0·171	0·156	0·144	0·079
0·92	0·103	0·111	0·132	0·139	0·145	0·153	0·147	0·150	0·117
1·00	0·156	0·169	0·189	0·194	0·199	0·206	0·193	0·202	0·187
Lower									
x/c = 0·05	0·059	0·080	0·128	0·136	0·138	0·151	0·154	0·161	0·171
0·10	−0·046	−0·032	0	0·005	0·005	0·019	0·021	0·024	0·035
0·30	−0·173	−0·178	−0·194	−0·198	−0·202	−0·200	−0·196	−0·194	−0·183
0·50	−0·182	−0·195	−0·250	−0·277	−0·308	−0·340	−0·347	−0·359	−0·357
0·60	−0·141	−0·154	−0·198	−0·217	−0·242	−0·287	−0·308	−0·340	−0·357
0·70	−0·113	−0·123	−0·153	−0·166	−0·179	−0·204	−0·227	−0·292	−0·343
0·80	−0·106	−0·115	−0·134	−0·138	−0·143	−0·140	−0·141	−0·151	−0·262
0·84	−0·110	−0·120	−0·141	−0·142	−0·137	−0·124	−0·121	−0·114	−0·167
0·86									
0·93	−0·008	−0·009	−0·003	0	0·003	0·009	0·009	0·009	0·002

C_p at $\eta = -5$ deg, $\alpha = 3{\cdot}65$ deg, $y/s = 0{\cdot}407$

M	0·398	0·598	0·799	0·836	0·861	0·887	0·897	0·907	0·922
Upper									
x/c = 0·00	0·285	0·299	0·326	0·340	0·363	0·385		0·416	
0·05	−0·504	−0·533	−0·591	−0·583	−0·460	−0·529		−0·498	
0·10	−0·459	−0·496	−0·573	−0·579	−0·566	−0·544		−0·521	
0·30	−0·361	−0·406	−0·541	−0·595	−0·601	−0·580		−0·559	
0·50	−0·246	−0·275	−0·337	−0·461	−0·664	−0·737		−0·753	
0·60	−0·141	−0·159	−0·184	−0·160	−0·182	−0·595		−0·713	
0·70	−0·043	−0·048	−0·047	−0·035	0·001	−0·003		−0·579	
0·80	0·074	0·083	0·106	0·120	0·137	0·157		−0·023	
0·84	0·134	0·144	0·177	0·192	0·203	0·214	0·200	0·190	0·101
0·87	0·153	0·166	0·200	0·216	0·226	0·240	0·228	0·232	0·172
0·92	0·129	0·139	0·168	0·181	0·191	0·208	0·202	0·220	0·204
1·00	0·170	0·181	0·206	0·212	0·218	0·228	0·218	0·232	0·223
Lower									
x/c = 0·045	0·074	0·074	0·076	0·079	0·073	0·075	0·078	0·079	0·092
0·095	−0·037	−0·041	−0·044	−0·046	−0·050	−0·048	−0·044	−0·044	0·030
0·295	−0·188	−0·203	−0·247	−0·265	−0·284	−0·298	−0·298	−0·297	−0·282
0·495	−0·188	−0·204	−0·262	−0·291	−0·322	−0·388	−0·399	−0·412	−0·414
0·595	−0·148	−0·162	−0·204	−0·226	−0·252	−0·310	−0·346	−0·393	−0·412
0·695	−0·117	−0·128	−0·155	−0·165	−0·170	−0·167	−0·195	−0·301	−0·380
0·795	−0·104	−0·116	−0·140	−0·143	−0·141	−0·133	−0·125	−0·116	−0·281
0·835	−0·141	−0·154	−0·173	−0·166	−0·152	−0·127	−0·109	−0·100	−0·180
0·86	−0·188	−0·211	−0·253	−0·313	−0·466	−0·571	−0·556	−0·566	−0·564
0·93	0·005	0·008	0·025	−0·013	0·042	0·054	0·053	0·054	0·056

TABLE 3D—*continued*

C_p at $\eta = -5$ deg, $\alpha = 3 \cdot 65$ deg, $y/s = 0 \cdot 581$

M	0·398	0·598	0·799	0·836	0·861	0·887	0·897	0·907	0·922
Upper									
x/c = 0·00	0·271	0·291	0·328	0·338	0·355	0·377		0·398	
0·055	−0·583	−0·631	−0·723	−0·723	−0·694	−0·656		−0·620	
0·10	−0·517	−0·567	−0·710	−0·744	−0·727	−0·696		−0·671	
0·30	−0·381	−0·429	−0·596	−0·691	−0·718	−0·706		−0·697	
0·50	−0·235	−0·263	−0·305	−0·304	−0·681	−0·740		−0·764	
0·60	−0·137	−0·150	−0·158	−0·123	−0·087	−0·439		−0·728	
0·70	−0·026	−0·025	−0·006	0·015	0·059	−0·017		−0·432	
0·80	0·096	0·108	0·141	0·162	0·178	0·166		−0·151	
0·84	0·156	0·170	0·207	0·228	0·237	0·217	0·173	0·105	−0·056
0·87	0·158	0·172	0·211	0·230	0·237	0·234	0·201	0·156	0·014
0·92	0·131	0·145	0·182	0·194	0·203	0·219	0·204	0·193	0·102
1·00	0·170	0·183	0·210	0·217	0·220	0·225	0·210	0·217	0·180
Lower									
x/c = 0·05	0·098	0·092	0·067	0·070	0·053	0·048	0·048	0·050	0·062
0·10	−0·024	−0·032	−0·064	−0·070	−0·081	−0·088	−0·088	−0·087	−0·074
0·30	−0·184	−0·203	−0·257	−0·278	−0·302	−0·321	−0·322	−0·324	−0·318
0·50	−0·193	−0·214	−0·273	−0·303	−0·341	−0·418	−0·460	−0·490	−0·492
0·60	−0·154	−0·171	−0·215	−0·237	−0·260	−0·312	−0·357	−0·436	−0·474
0·70	−0·121	−0·131	−0·156	−0·165	−0·171	−0·169	−0·167	−0·310	−0·423
0·80	−0·121	−0·133	−0·153	−0·152	−0·147	−0·139	−0·131	−0·111	−0·329
0·835	−0·173	−0·170	−0·181	−0·164	−0·146	−0·123	−0·104	−0·088	−0·227
0·86	−0·197	−0·218	−0·267	−0·356	−0·549	−0·622	−0·598	—	−0·600
0·93	−0·002	0·002	0·026	0·039	0·047	0·053	0·046	0·023	−0·004

C_p at $\eta = -5$ deg, $\alpha = 3 \cdot 65$ deg, $y/s = 0 \cdot 812$

M	0·398	0·598	0·799	0·836	0·861	0·887	0·897	0·907	0·922
Upper									
x/c = 0·00	0·136	0·153	0·213	0·230	0·250	0·290		0·297	
0·055	−0·646	−0·726	−0·921	−0·955	−0·913	−0·849		−0·782	
0·105	−0·568	−0·642	−0·874	−0·952	−0·929	−0·881		−0·826	
0·30	−0·385	−0·434	−0·602	−0·821	−0·880	−0·848		−0·853	
0·50	−0·228	−0·251	−0·255	−0·166	−0·376	−0·537		−0·774	
0·60	−0·115	−0·119	−0·099	−0·060	−0·072	−0·263		−0·555	
0·70	−0·013	−0·009	0·025	0·049	0·047	−0·105		−0·386	
0·795	0·074	0·191	0·134	0·141	0·117	−0·005		−0·302	
0·835	0·156	0·172	0·211	0·228	0·198	0·053	−0·014	−0·111	−0·244
0·87	0·172	0·187	0·226	0·247	0·223	0·107	0·023	−0·072	−0·189
0·92	0·145	0·163	0·203	0·214	0·209	0·144	0·070	−0·015	−0·134
1·00	0·131	0·153	0·191	0·201	0·298	0·163	0·109	0·042	−0·088
Lower									
x/c = 0·05	0·145	0·116	0·120	0·107	0·088	0·062	0·057	0·050	0·053
0·10	−0·002	−0·004	−0·037	−0·053	−0·074	−0·104	−0·109	−0·116	−0·112
0·295	−0·169	−0·188	−0·242	−0·263	−0·291	−0·338	−0·352	−0·360	−0·357
0·495	−0·193	−0·217	−0·283	−0·319	−0·358	−0·410	−0·459	−0·531	−0·546
0·60	−0·169	−0·188	−0·243	−0·273	−0·313	−0·370	−0·403	−0·504	−0·566
0·695	−0·130	−0·145	−0·179	−0·199	−0·226	−0·287	−0·319	−0·434	−0·517
0·795	−0·137	−0·162	−0·195	−0·196	−0·189	−0·192	−0·197	−0·335	−0·473
0·835	−0·163	−0·217	−0·252	−0·236	−0·205	−0·188	−0·181	−0·300	−0·441
0·890									
0·93	0·005	−0·012	0·007	0·022	0·027	−0·008	−0·063	−0·166	−0·311

TABLE 4

Local Lift and Pitching-Moment Coefficients from Integration of Pressure Plots

α (deg)	η (deg)	y/s	M = 0·40		M = 0·80		M = 0·93	
			C_L'	C_m'	C_L'	C_m'	C_L'	C_m'
−0·45	0	0·234	−0·033	0	−0·030	0·003	−0·030	0·004
		0·407	−0·026	−0·001	−0·035	0·002	−0·032	0·002
		0·581	−0·011	0·001	−0·024	0	−0·018	−0·002
		0·812	−0·001	−0·001	−0·016	−0·004	−0·010	−0·004
	−3	0·234	−0·083	0·020	−0·090	0·024	−0·050	0·017
		0·407	−0·098	0·027	−0·119	0·033	−0·080	0·032
		0·581	−0·101	0·030	−0·126	0·035	−0·069	0·030
		0·812	−0·115	0·033	−0·148	0·039	−0·030	0·009
	−5	0·234	−0·126	0·033	−0·126	0·041	−0·080	0·031
		0·407	−0·160	0·048	−0·194	0·058	−0·108	0·048
		0·581	−0·157	0·049	−0·182	0·060	−0·093	0·046
		0·812	−0·188	0·053	−0·222	0·058	−0·028	0·010

Pitching moments are taken about the local quarter-chord.

α (deg)	η (deg)	y/s	M = 0·40		M = 0·80		M = 0·86		M = 0·90	
			C_L'	C_m'	C_L'	C_m'	C_L'	C_m'	C_L'	C_m'
3·65	0	0·234	0·154	−0·004	0·200	−0·006	0·234	−0·013	0·244	−0·026
		0·407	0·189	−0·002	0·231	−0·001	0·268	−0·009	0·276	−0·026
		0·581	0·231	−0·001	0·275	0·004	0·316	−0·007	0·331	−0·031
		0·812	0·276	0	0·346	0·015	0·412	−0·006	0·399	−0·040
	−3	0·234			0·149	0·014	0·176	0·009	0·181	0·003
		0·407			0·158	0·029	0·191	0·021	0·197	0·013
		0·581			0·186	0·038	0·236	0·037	0·243	0·013
		0·812			0·216	0·055	0·276	0·045	0·268	0·020
	−5	0·234	0·068	0·027	0·111	0·034	0·134	0·031	0·194	−0·003
		0·407	0·071	0·040	0·103	0·051	0·112	0·058	0·195	0·011
		0·581	0·088	0·046	0·118	0·062	0·144	0·064	0·231	0·011
		0·812	0·097	0·050	0·128	0·076	0·179	0·074	0·248	0·024

TABLE 5

Co-ordinates of RAE102 *section,* 10 *per cent thick*

x, per cent chord	$\pm y$, per cent chord
0·50	0·825
0·75	1·009
1·00	1·163
1·25	1·298
2·50	1·820
5·00	2·529
7·50	3·041
10	3·445
15	4·050
20	4·473
25	4·759
30	4·932
35	4·999
40	4·953
45	4·770
50	4·492
55	4·146
60	3·751
65	3·318
70	2·860
75	2·387
80	1·910
85	1·433
90	0·955
95	0·477
100	0

Leading-edge radius 0·686 per cent chord
Maximum ordinate 5·000 at 35·6 per cent chord

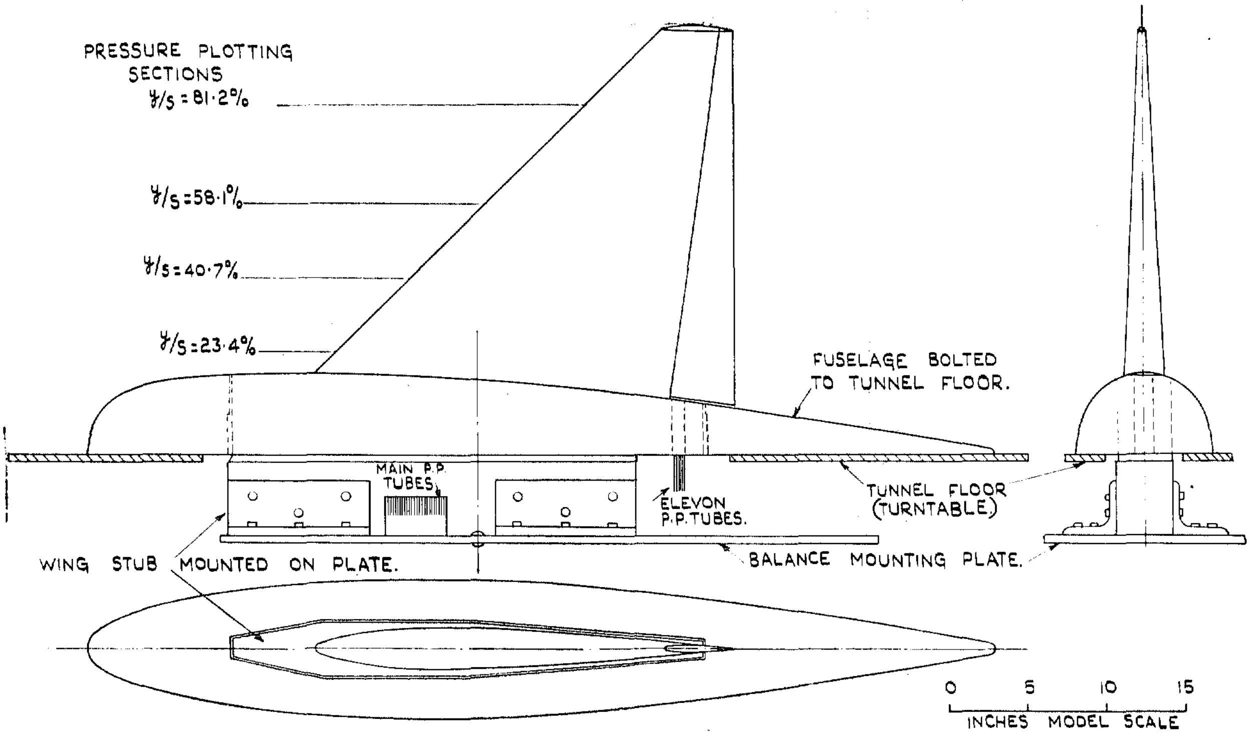

FIG. 1. General arrangement of delta half-model mounted in tunnel.

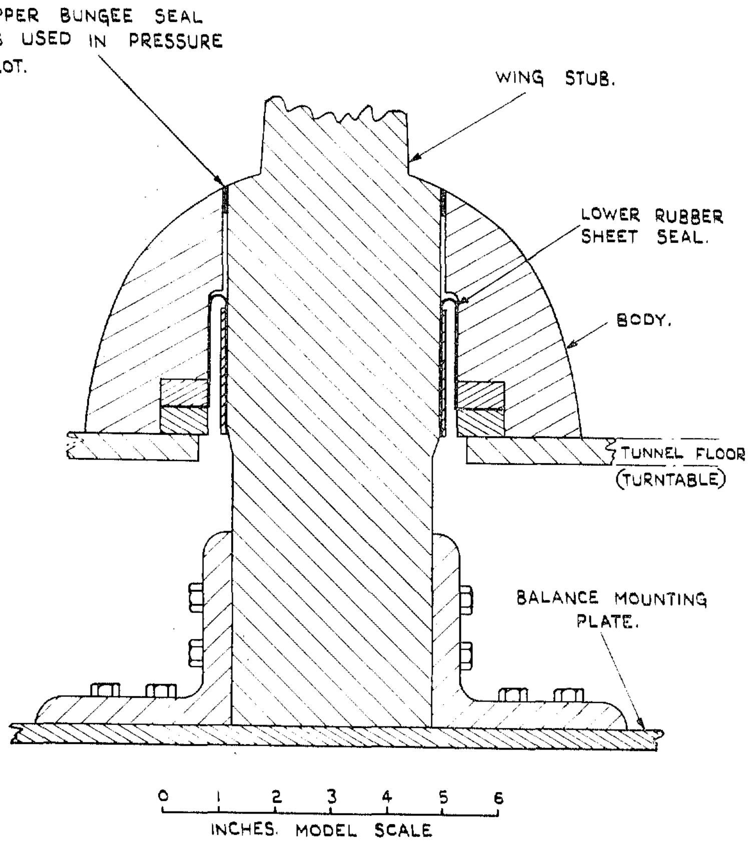

FIG. 2. Details of sealing arrangements.

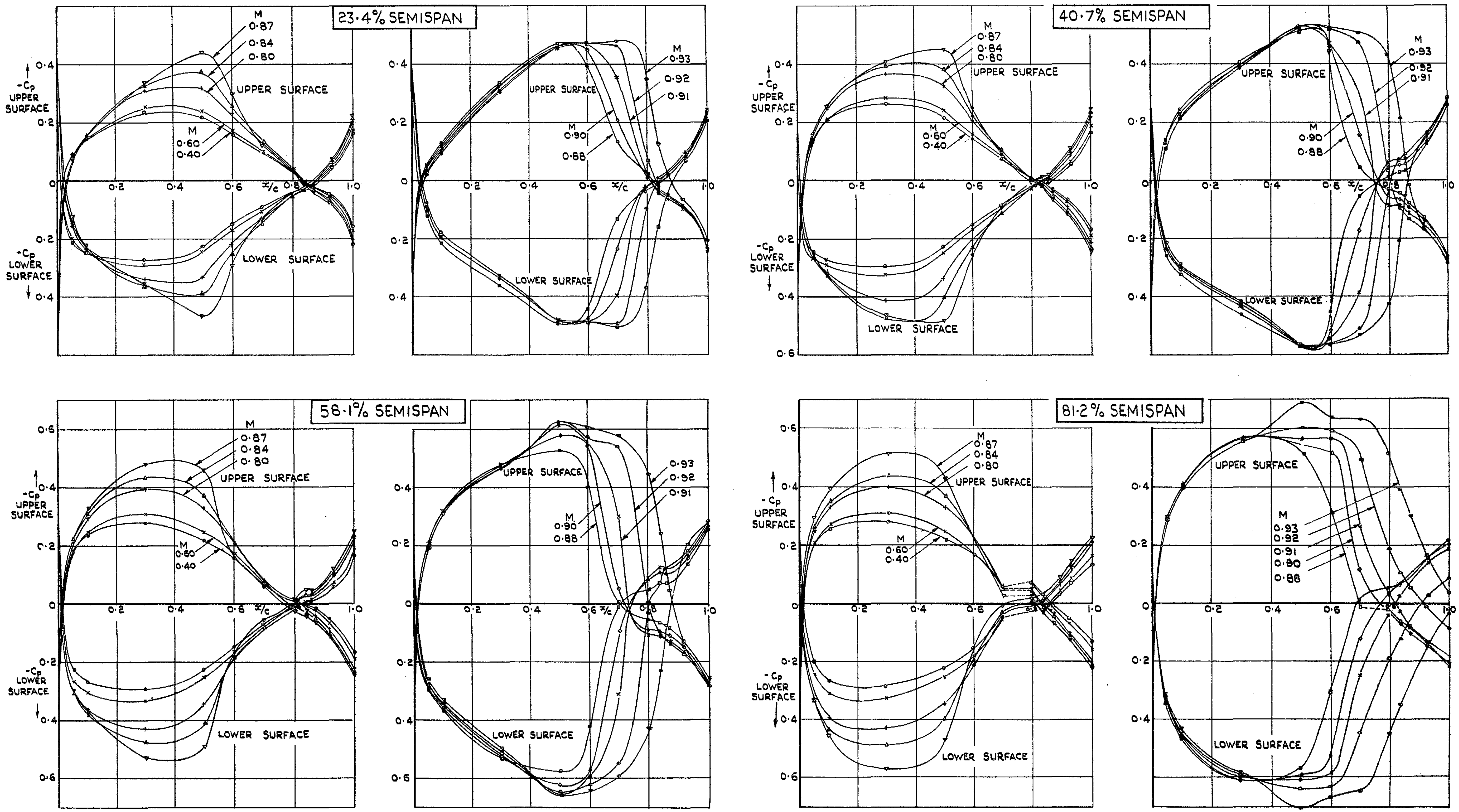

FIG. 3. PRESSURE PLOT, Cp vs. x/c, $\alpha = -0{\cdot}45°$, $\eta = 0°$.

(1336) Wt 18 1,035 10/54 Gp959 C & R LTD

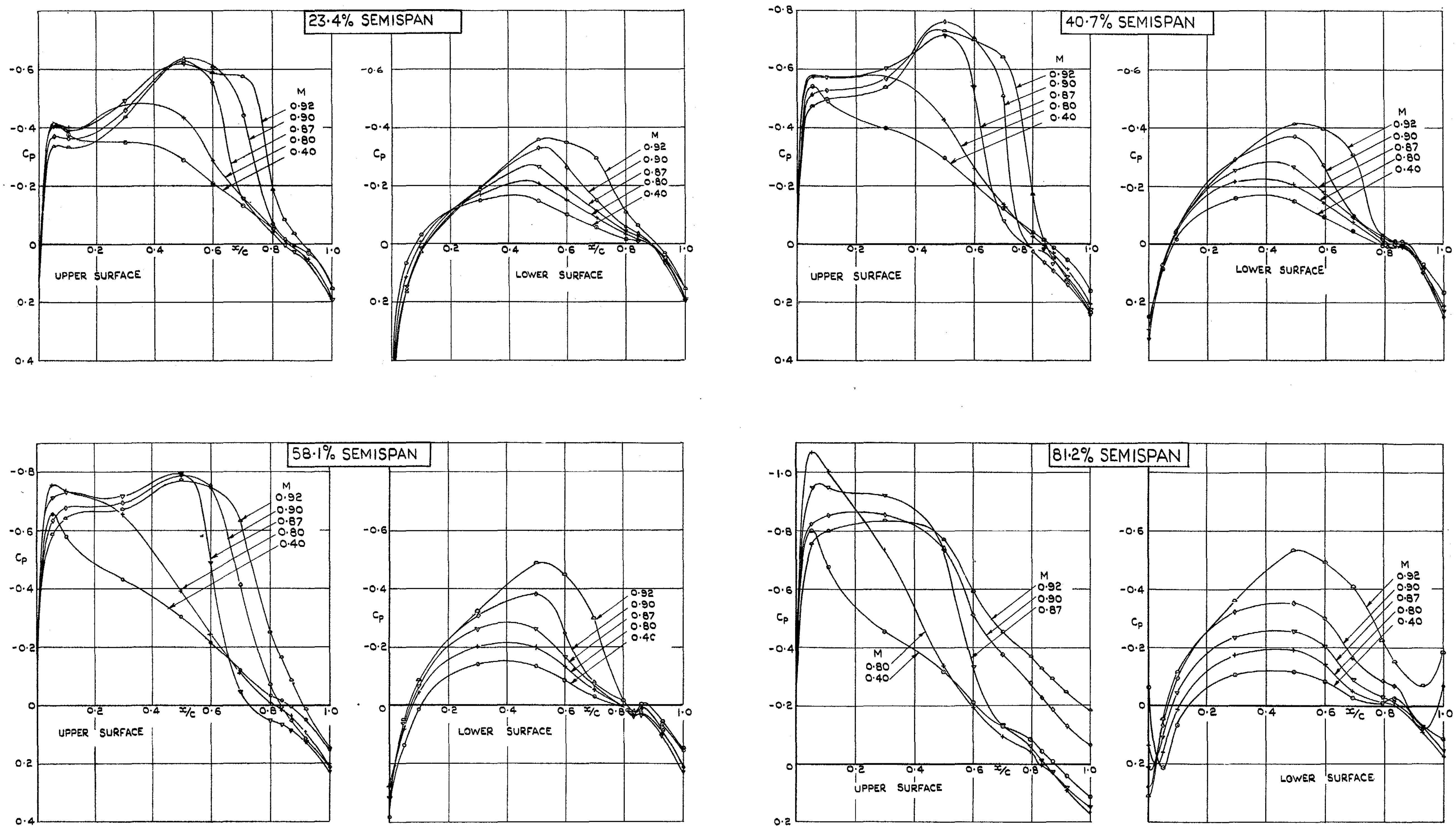

FIG. 4. PRESSURE PLOT, C_p vs. x/c, $\alpha = 3 \cdot 65^\circ$, $\eta = 0^\circ$.

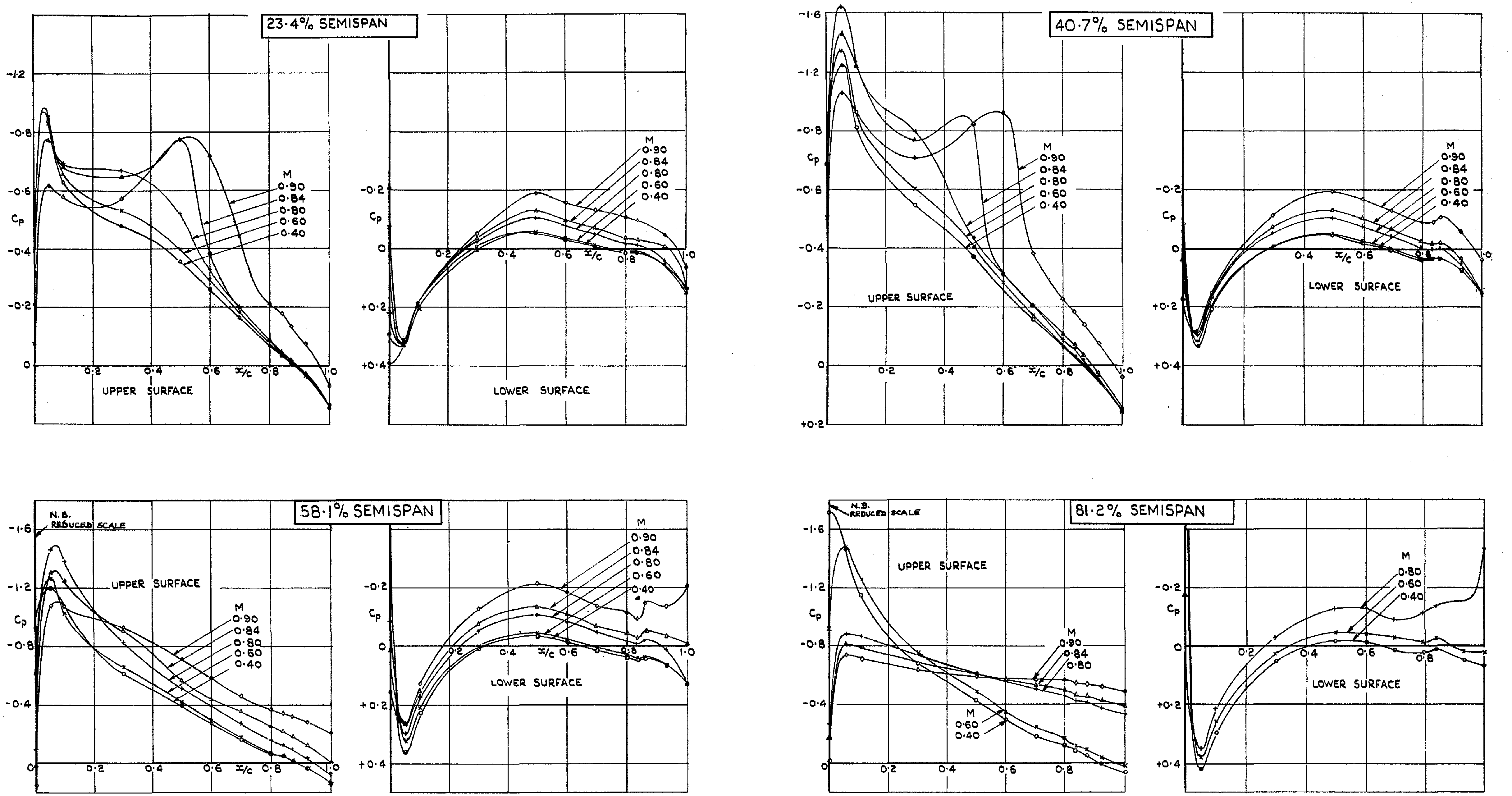

FIG. 5. PRESSURE PLOT, C_p vs. x/c, $\alpha = 7 \cdot 7^\circ$, $\eta = 0^\circ$

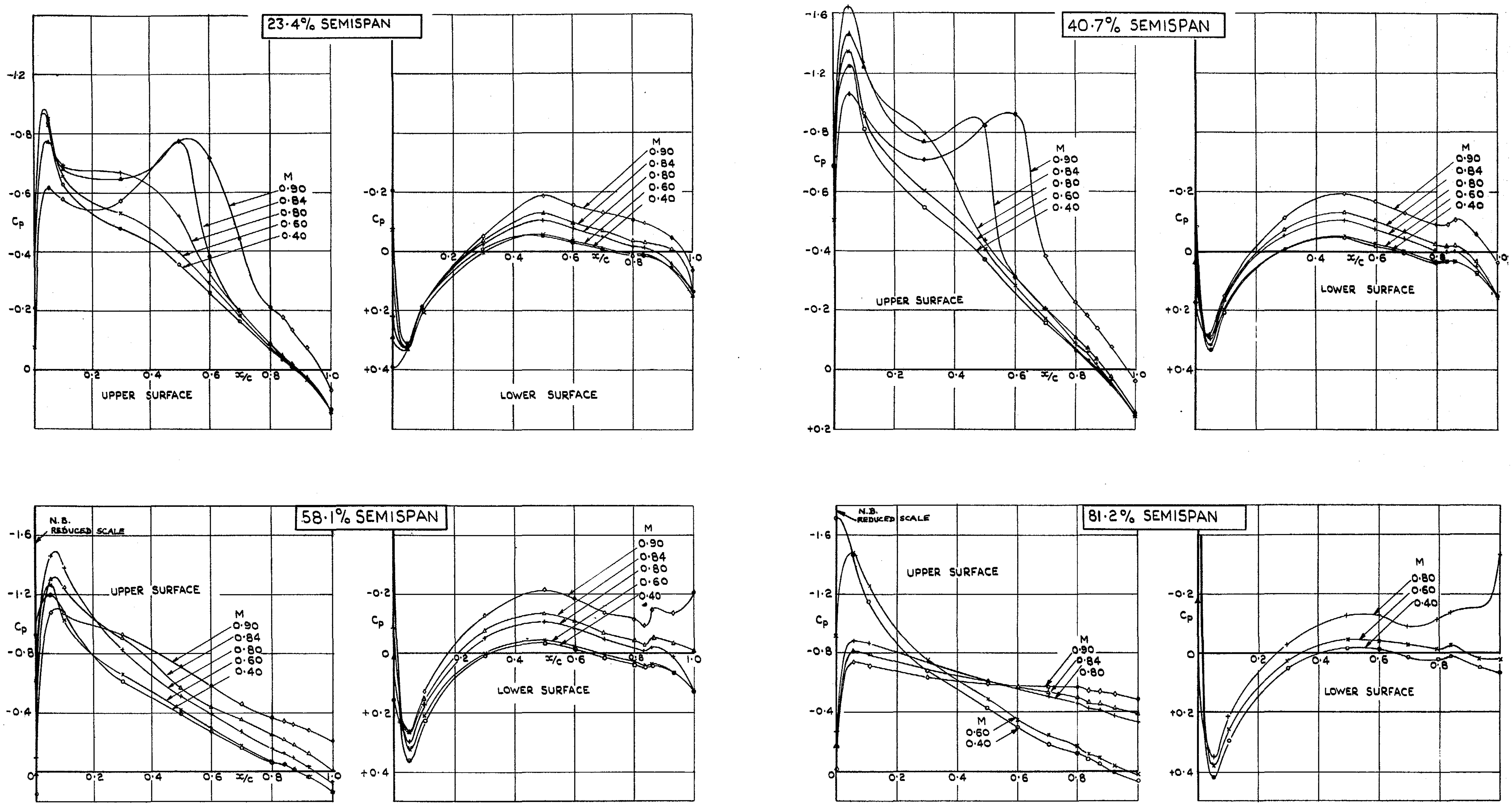

FIG. 5. PRESSURE PLOT, C_p vs. x/c, $\alpha = 7 \cdot 7^\circ$, $\eta = 0^\circ$

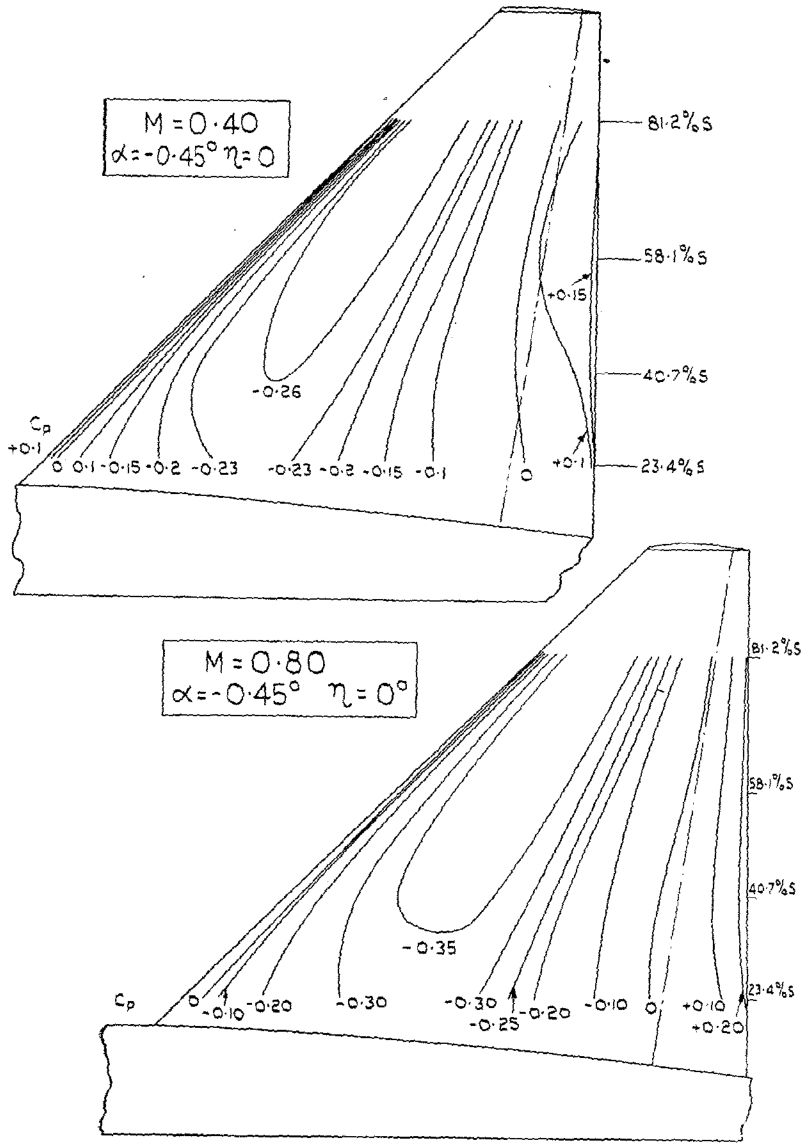

FIG. 6a. Upper surface C_p contours. $\eta = 0$ deg.

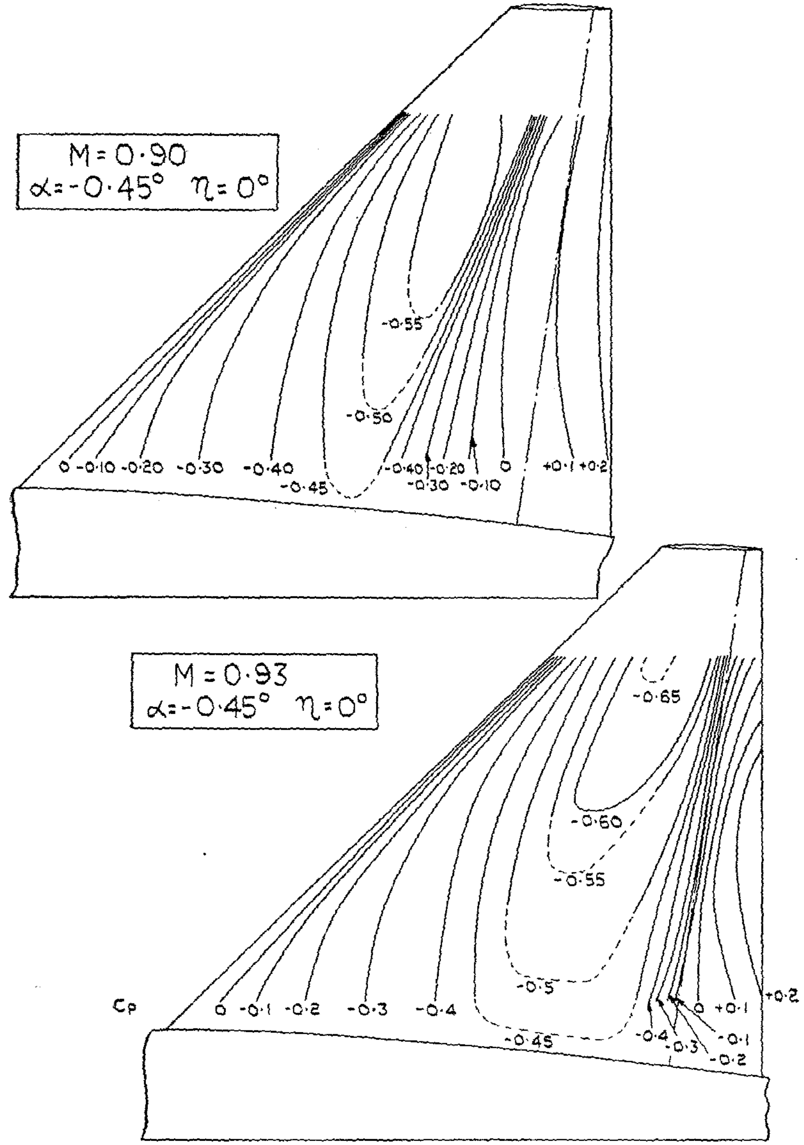

FIG. 6b. Upper surface C_p contours. $\eta = 0$ deg.

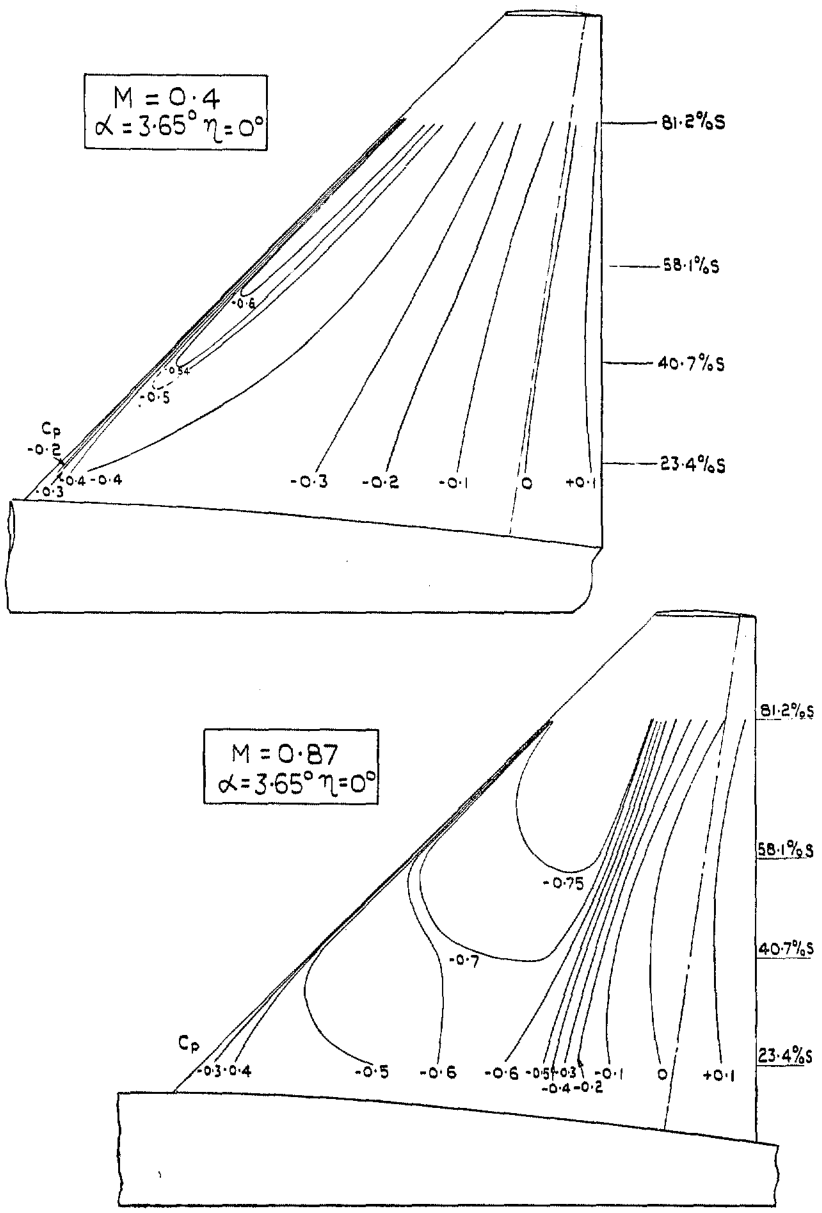

FIG. 7. Upper surface C_p contours. $\eta = 0$ deg.

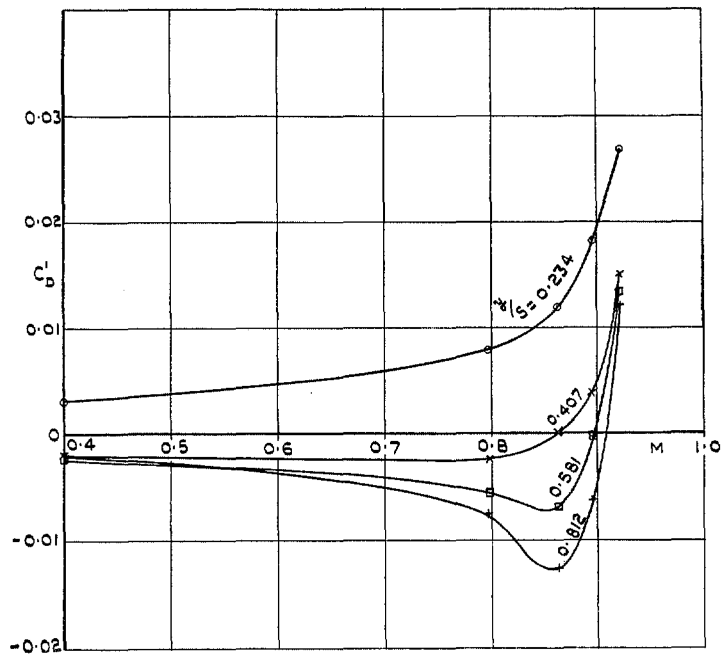

FIG. 8. Local form-drag coefficients from integration of pressure plots. $\alpha = 0{\cdot}55$ deg, $\eta = 0$ deg.

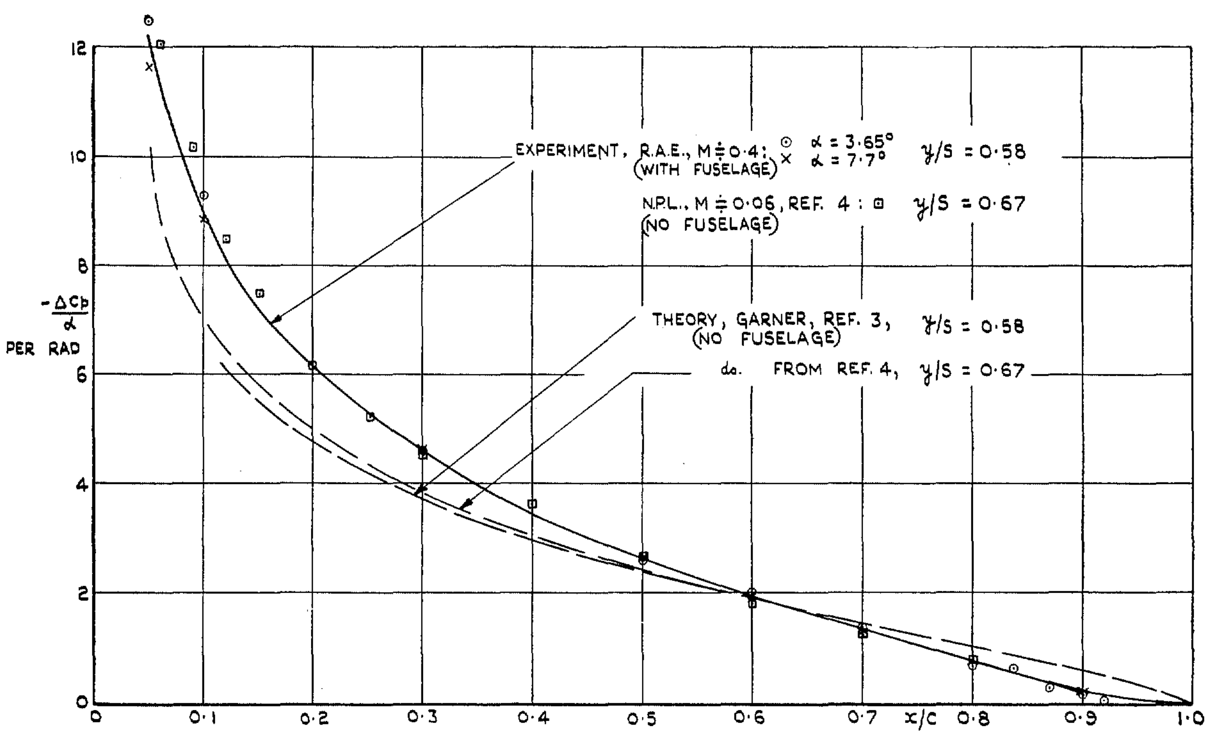

FIG. 9a. Chordwise loading due to incidence—comparison with theory and N.P.L. results (low speeds).

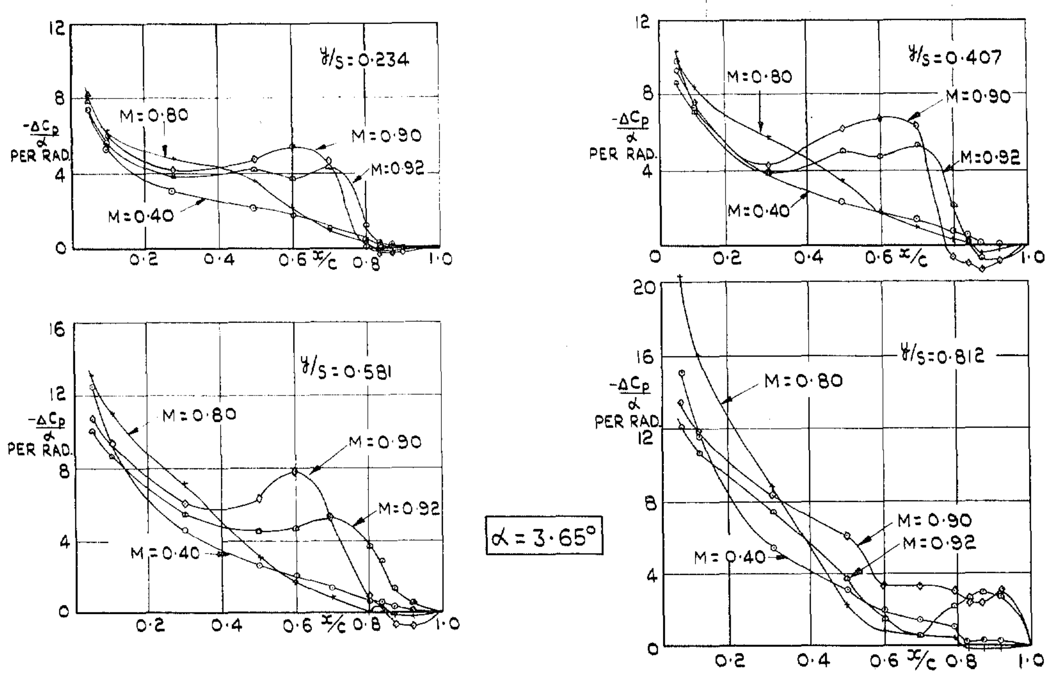

FIG. 9b. Chordwise loading due to incidence—effect of Mach number.

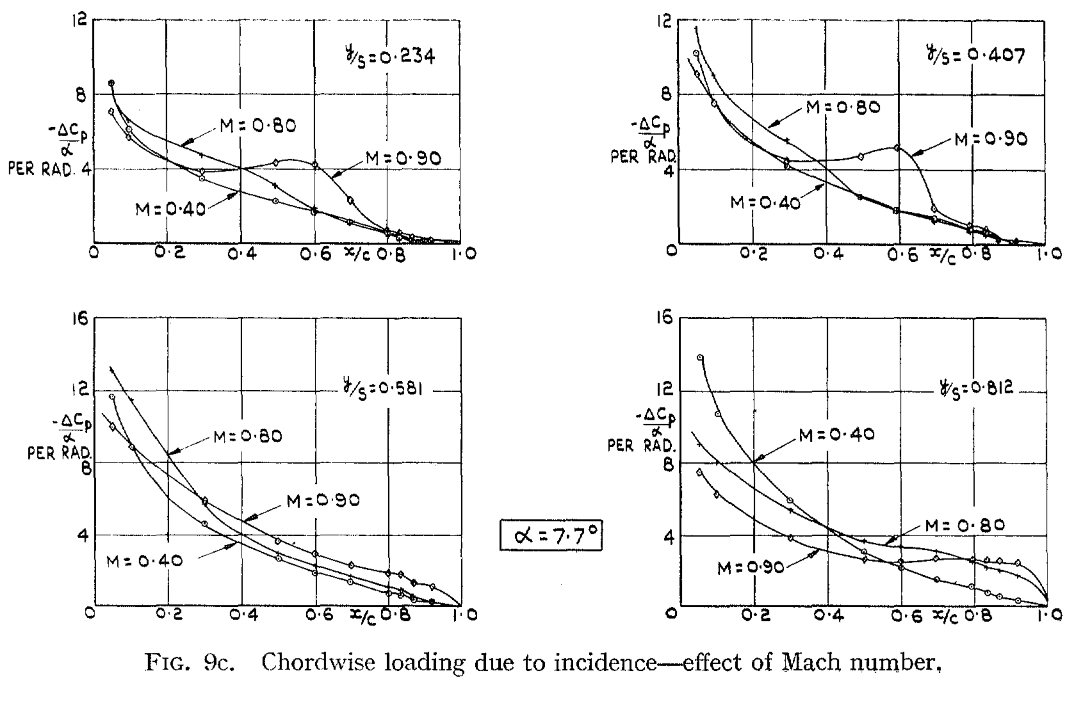

FIG. 9c. Chordwise loading due to incidence—effect of Mach number.

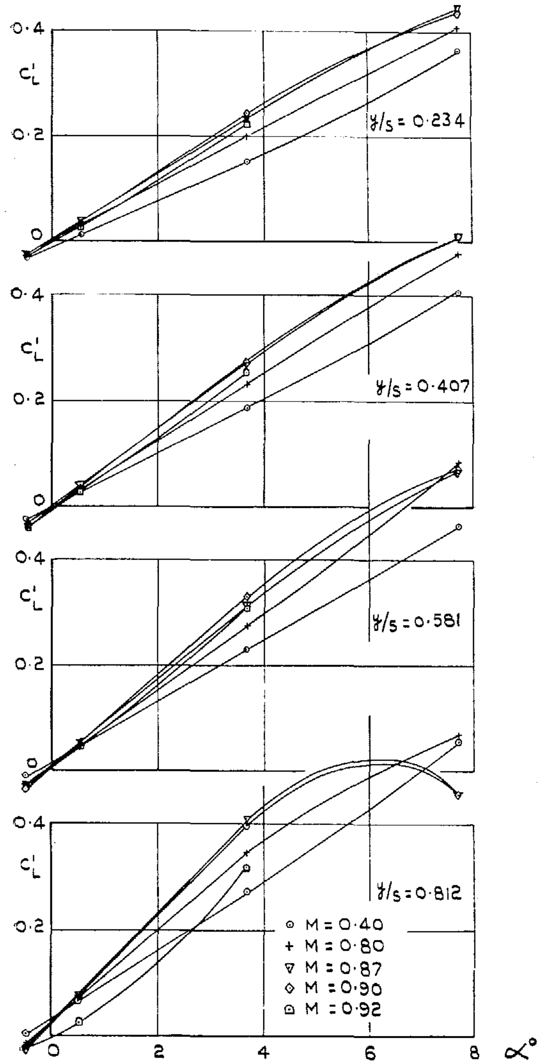

FIG. 10. Local lift curves at $\eta = 0$ deg from pressure plots.

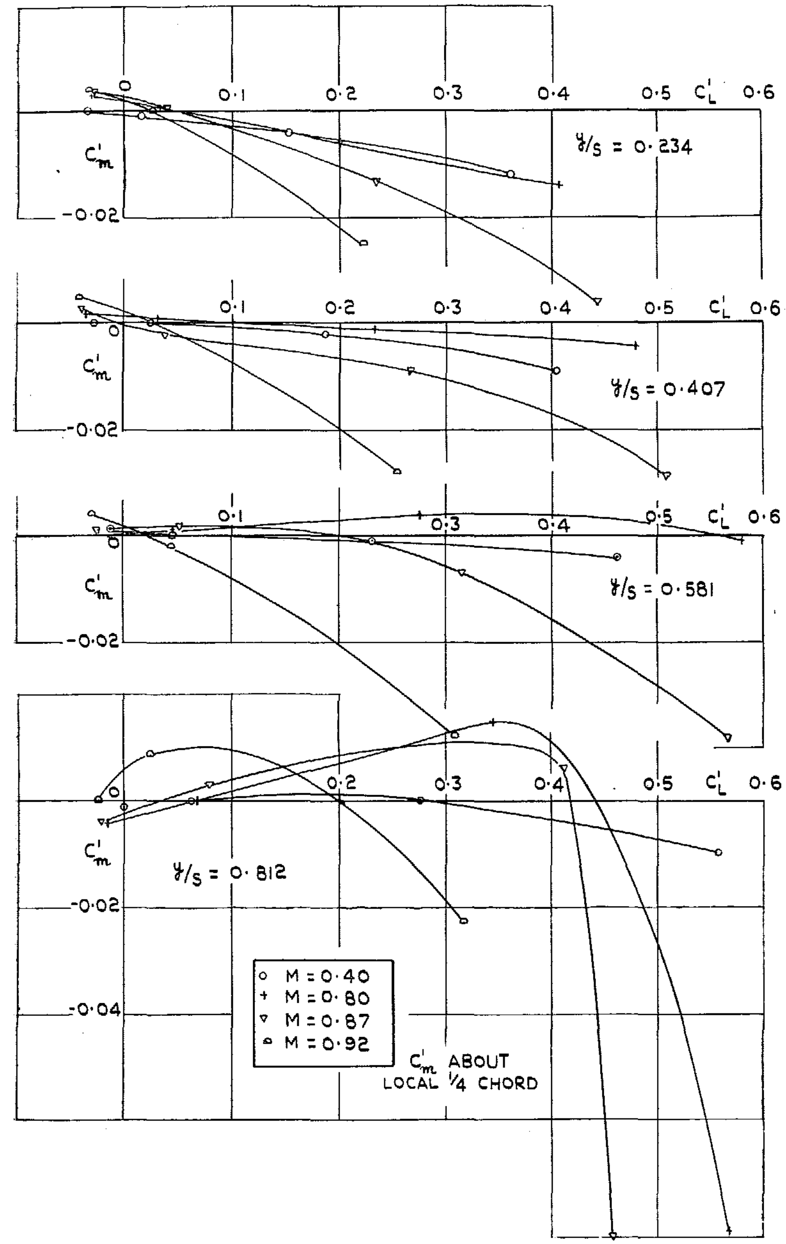

FIG. 11. Local pitching moment *vs.* lift curves at $\eta = 0$ deg from pressure plots.

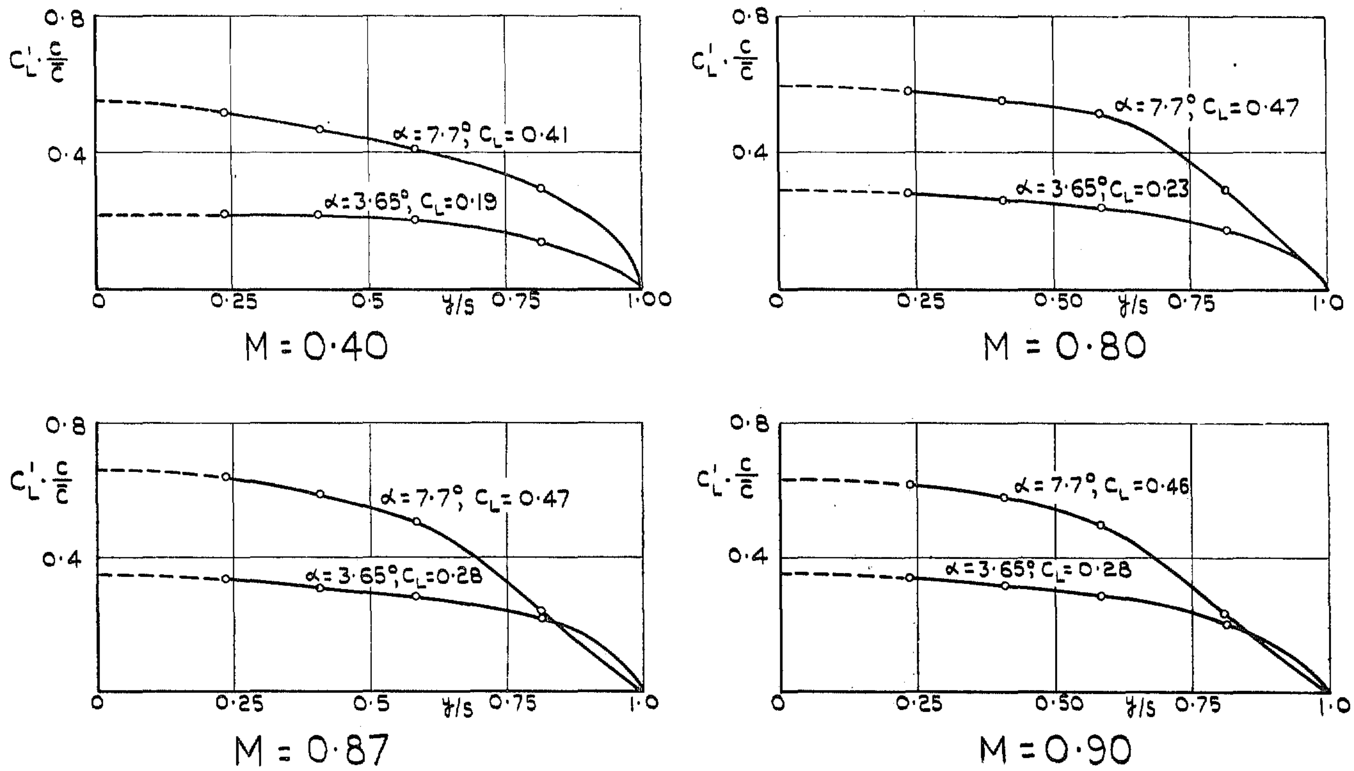

FIG. 12. Effect of Mach number on spanwise loading.

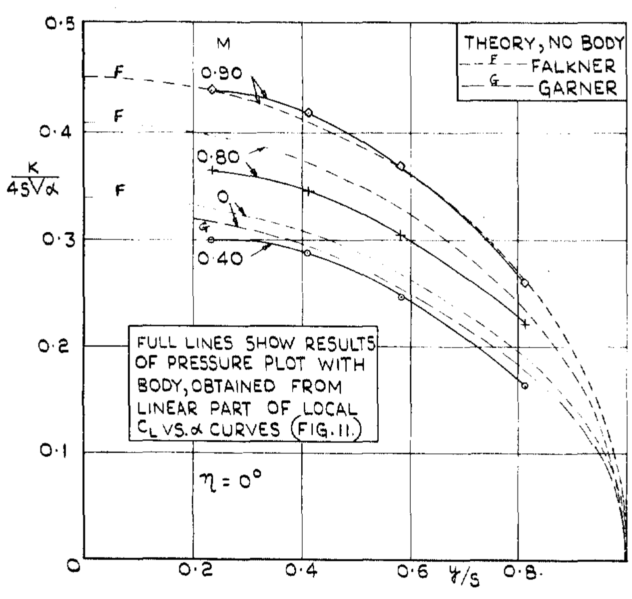

FIG. 13. Distribution of circulation over span.

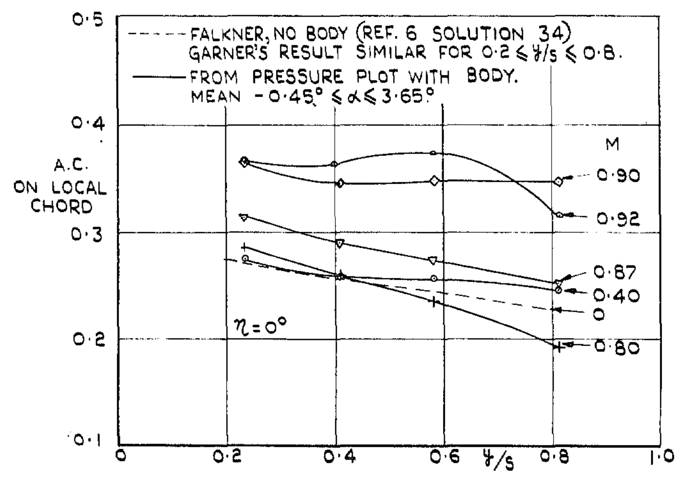

FIG. 14. Spanwise variation, aerodynamic centre.

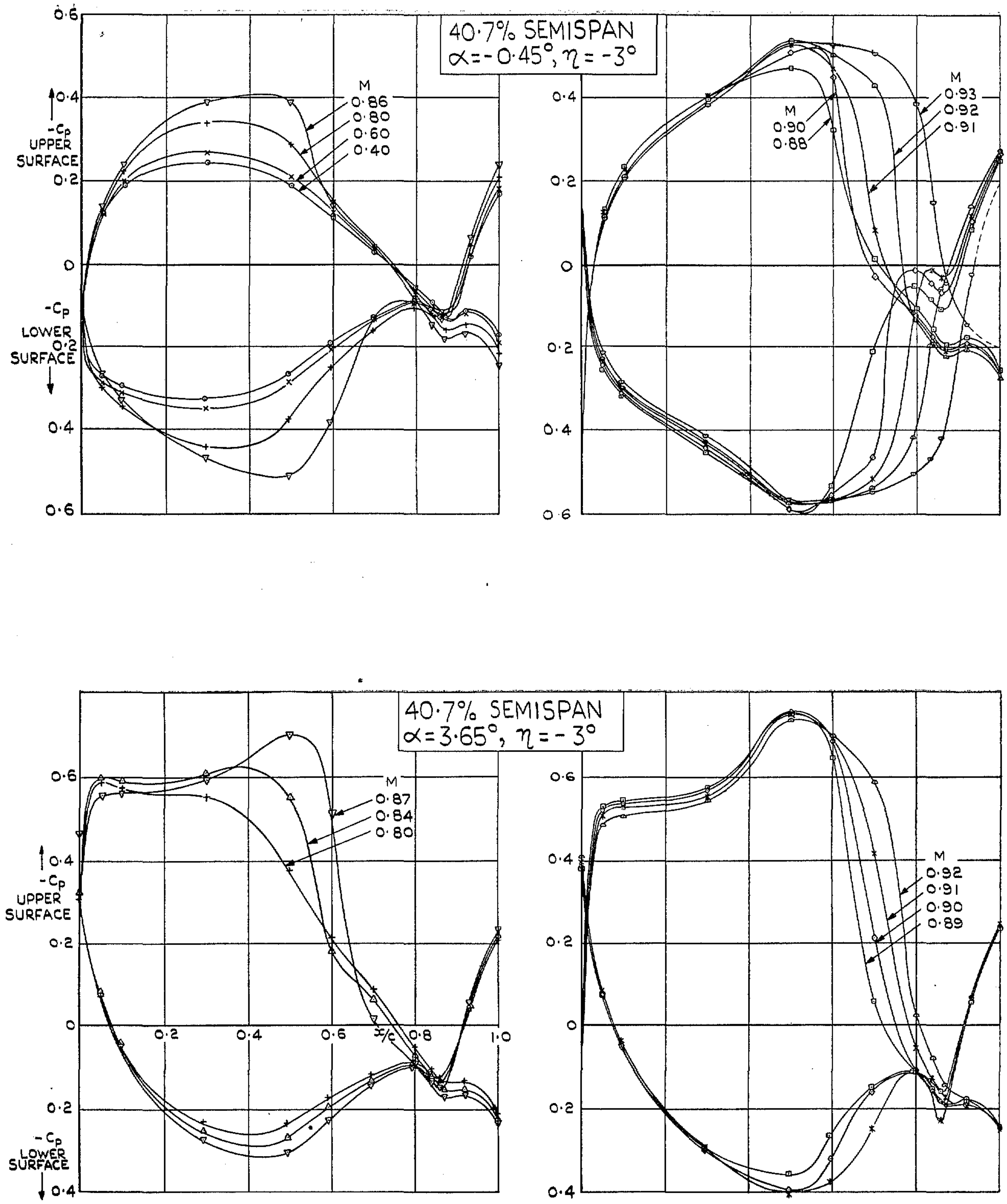

FIG. 15. Pressure plot, C_p vs. x/c. Elevon deflected.

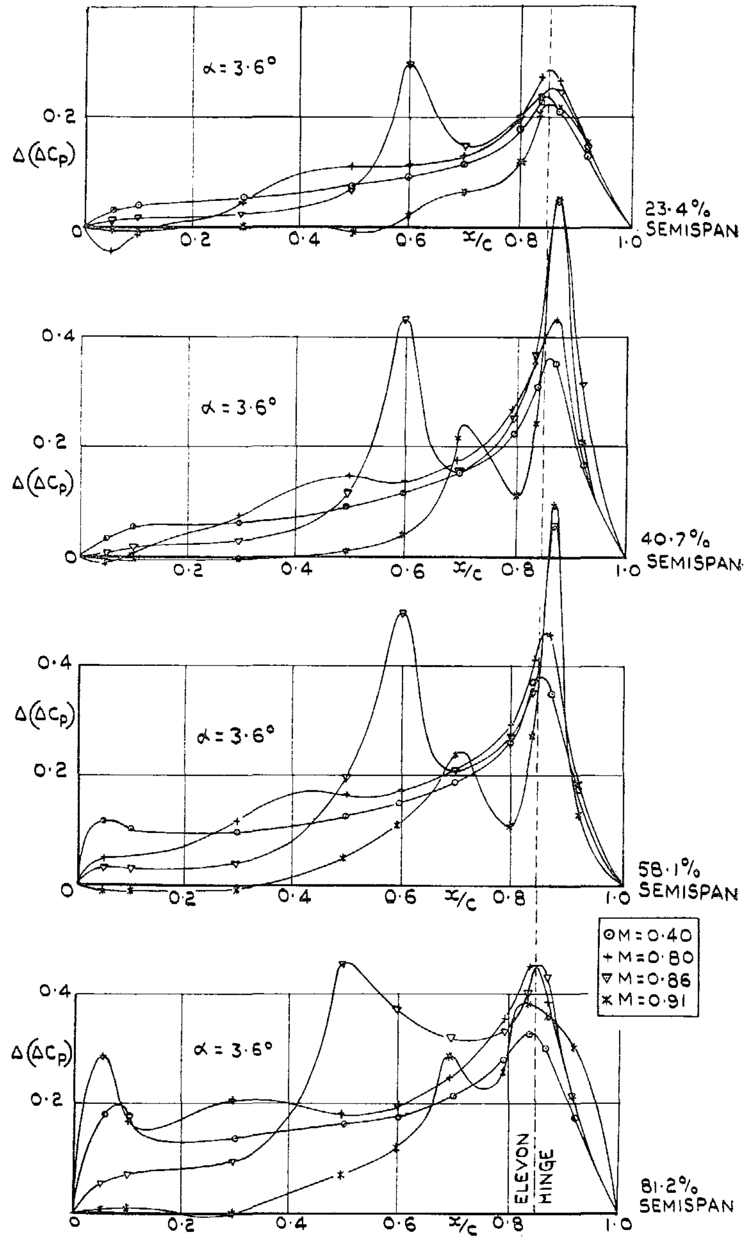

FIG. 16. Increment in chordwise loading due to — 5 deg elevon.

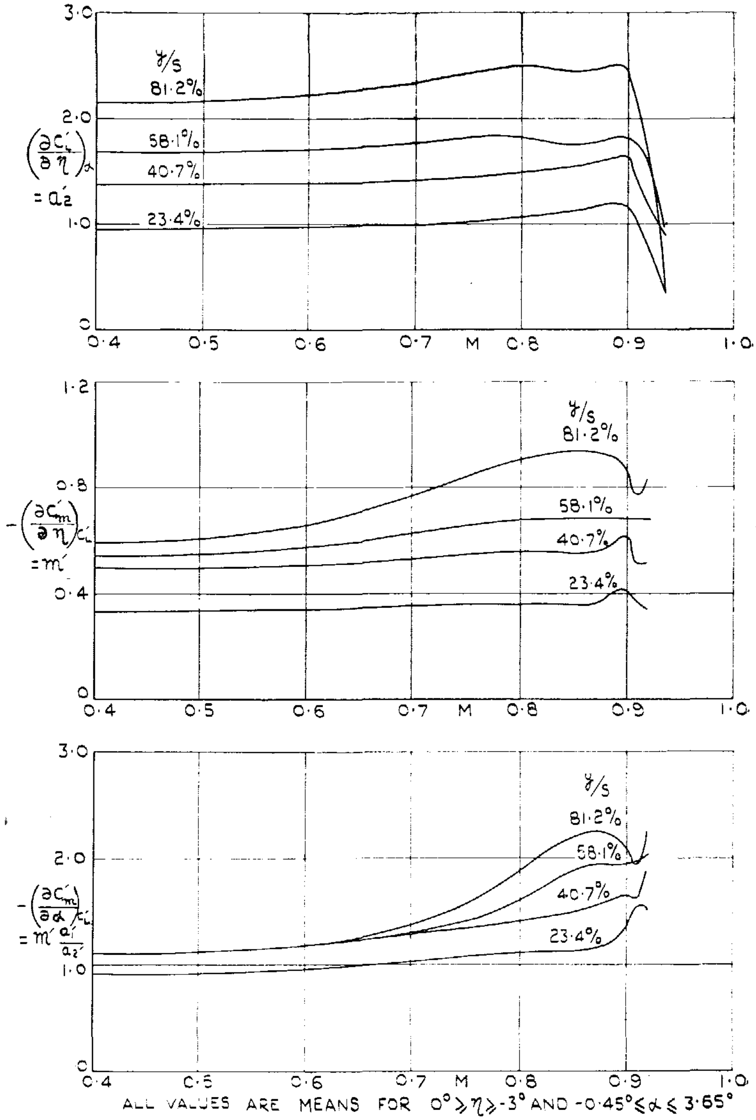

FIG. 17. Elevon derivatives from pressure plots.

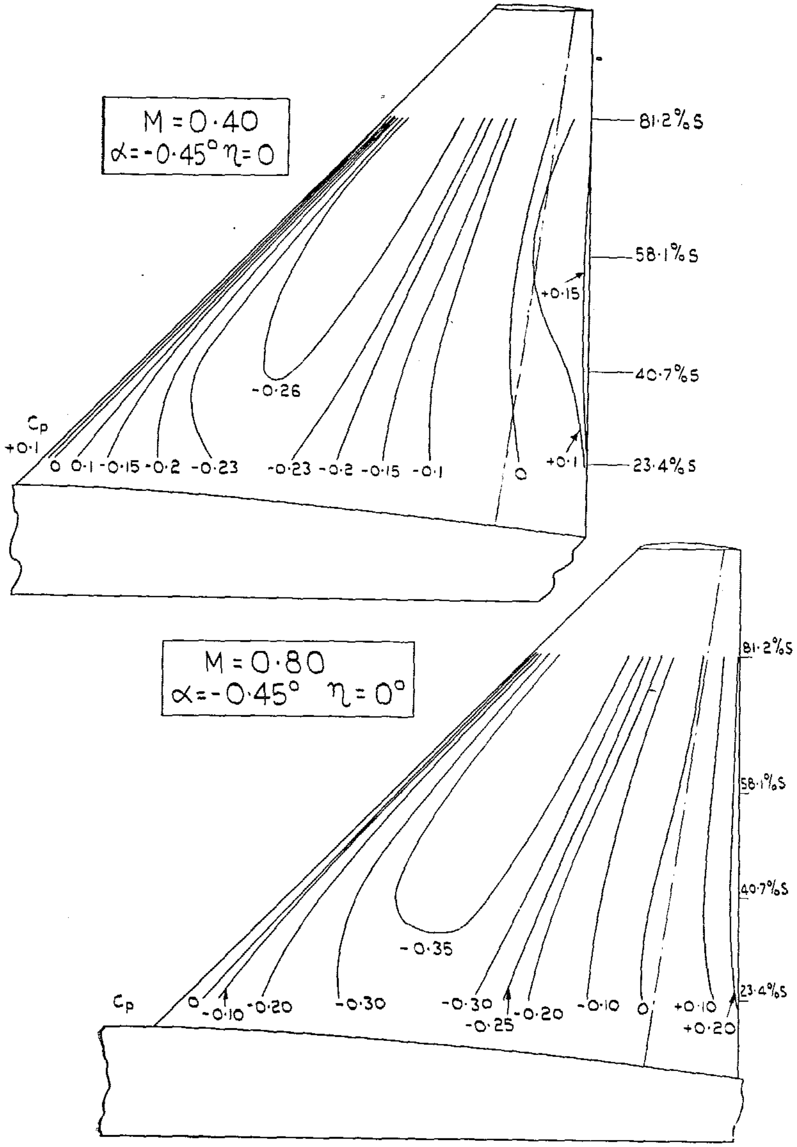

FIG. 6a. Upper surface C_p contours. $\eta = 0$ deg.

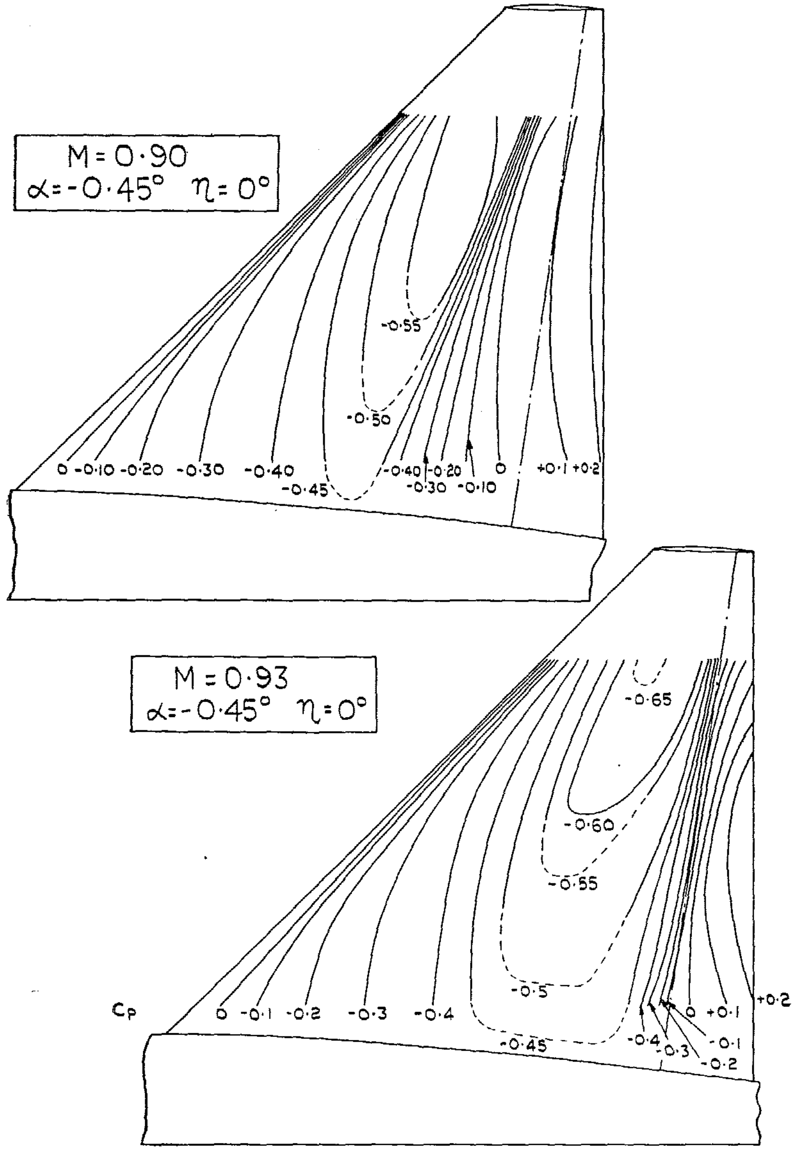

FIG. 6b. Upper surface C_p contours. $\eta = 0$ deg.

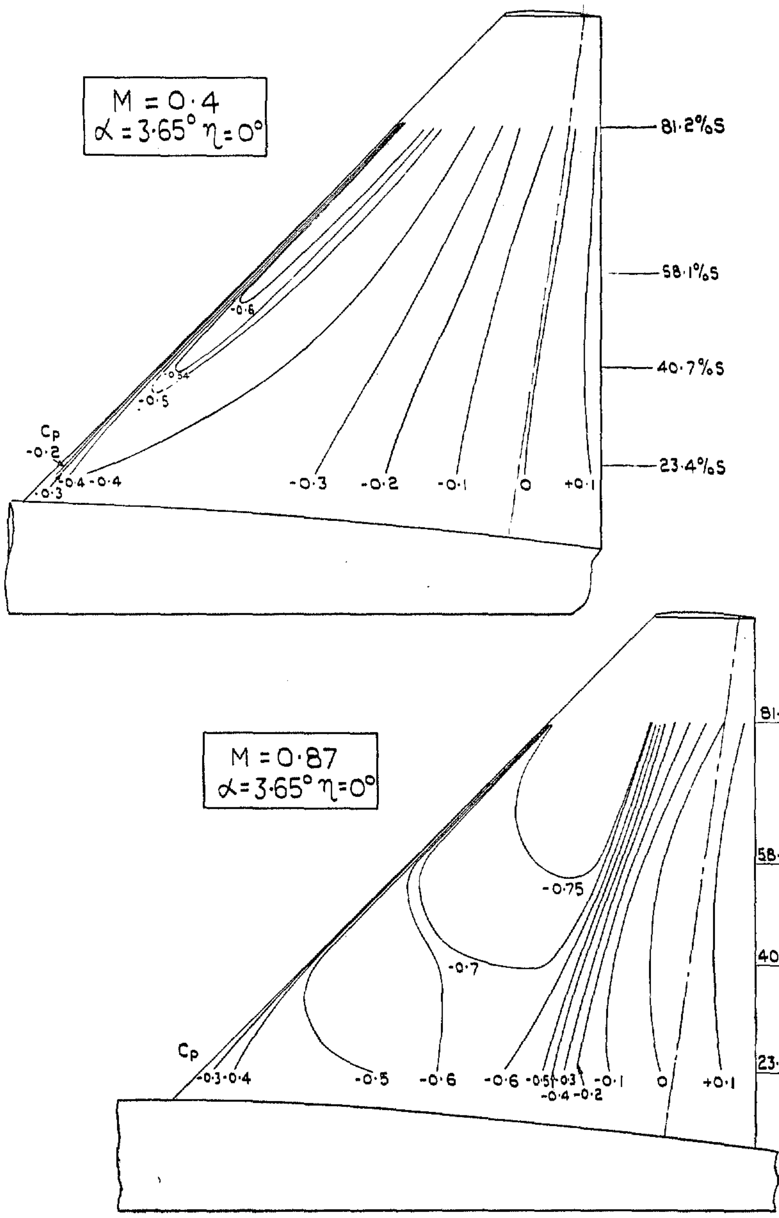

FIG. 7. Upper surface C_p contours. $\eta = 0$ deg.

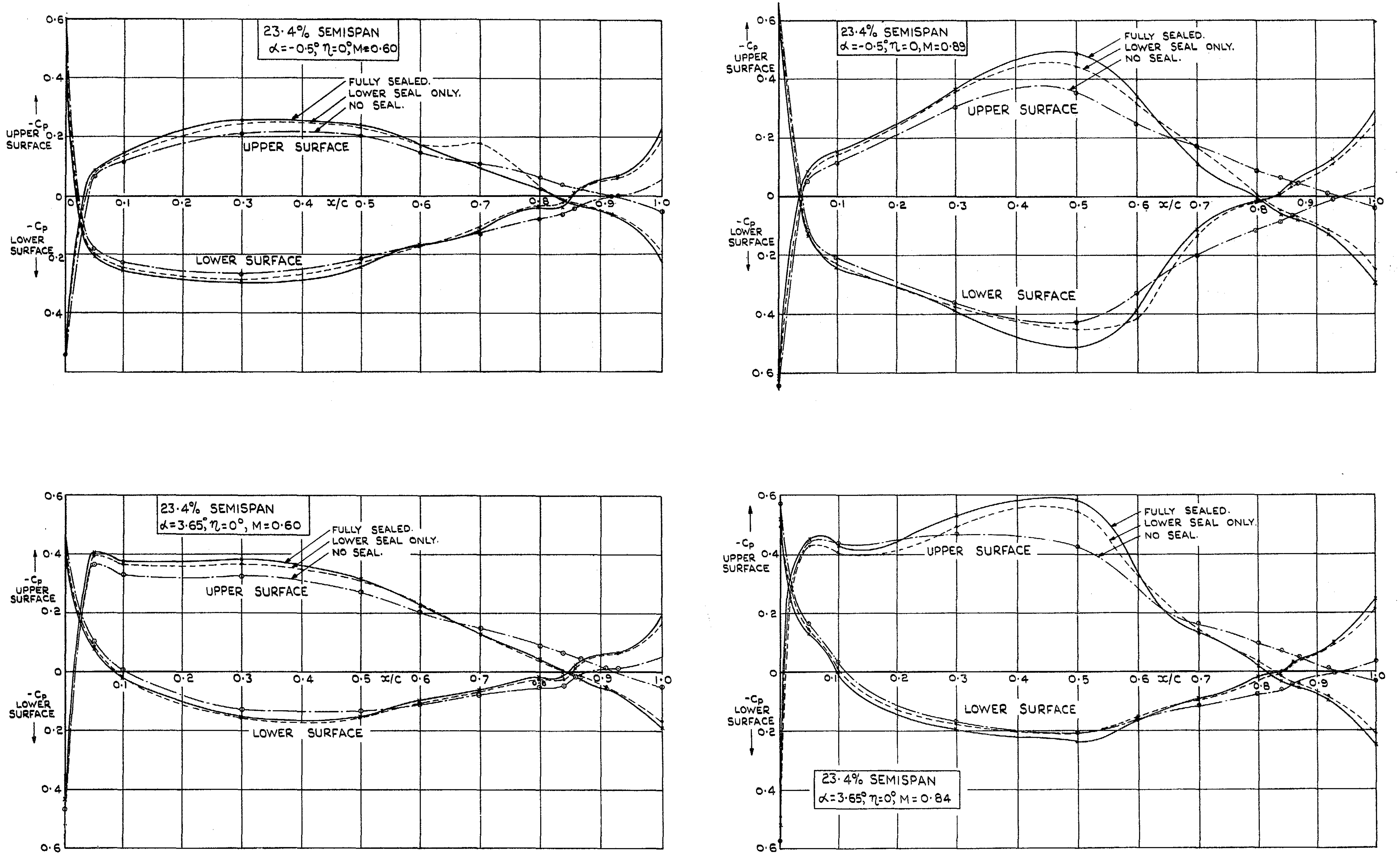

FIG. 18. PRESSURE DISTRIBUTION FOR VARIOUS STUB-BODY GAP CONDITIONS, $y/s = 0 \cdot 234$.

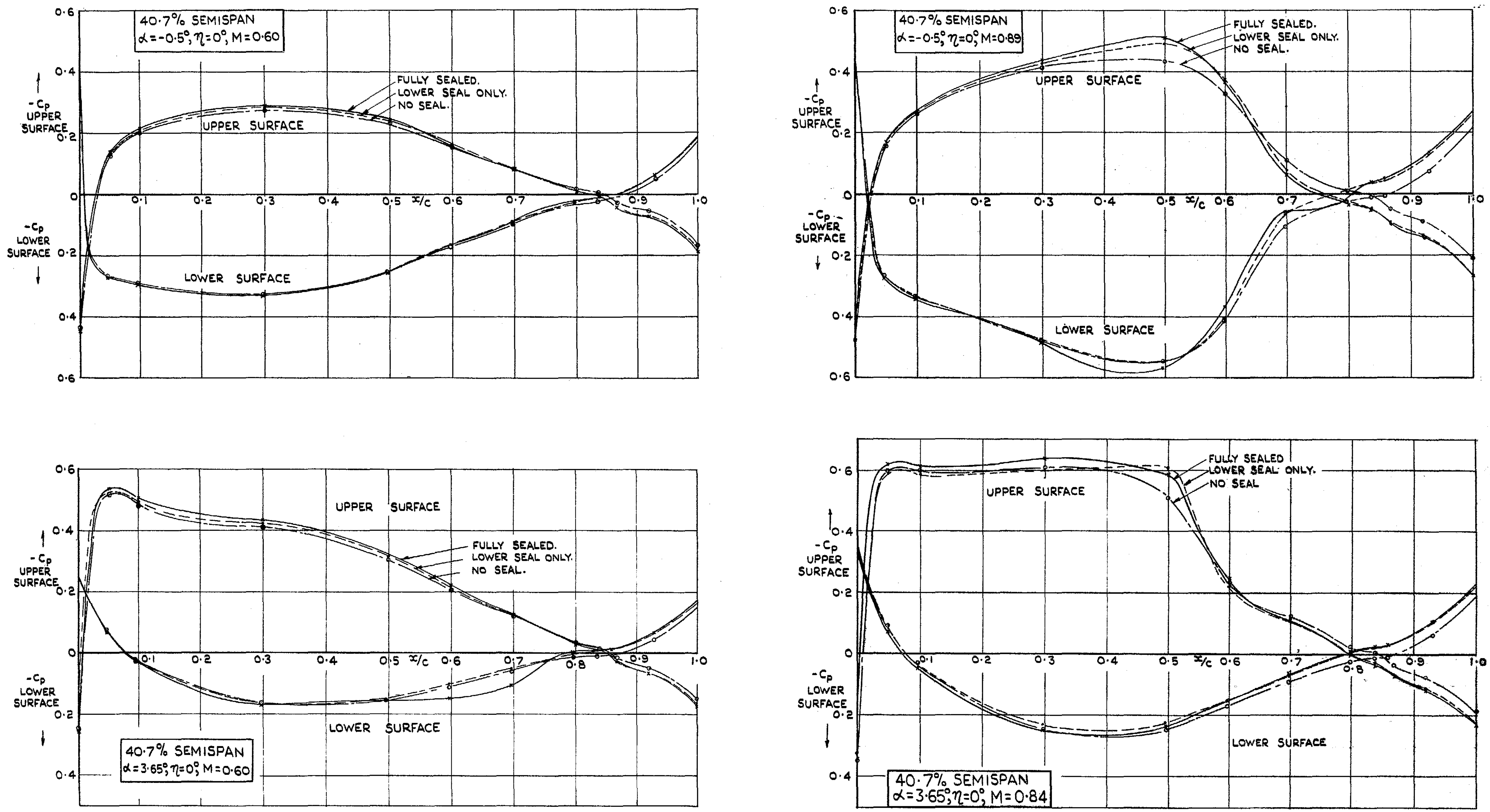

FIG. 19. PRESSURE DISTRIBUTION FOR VARIOUS STUB-BODY GAP CONDITIONS, y/s = 0·407.

(1338) Wt18 1,035 10/54 Gp959 C&R LTD

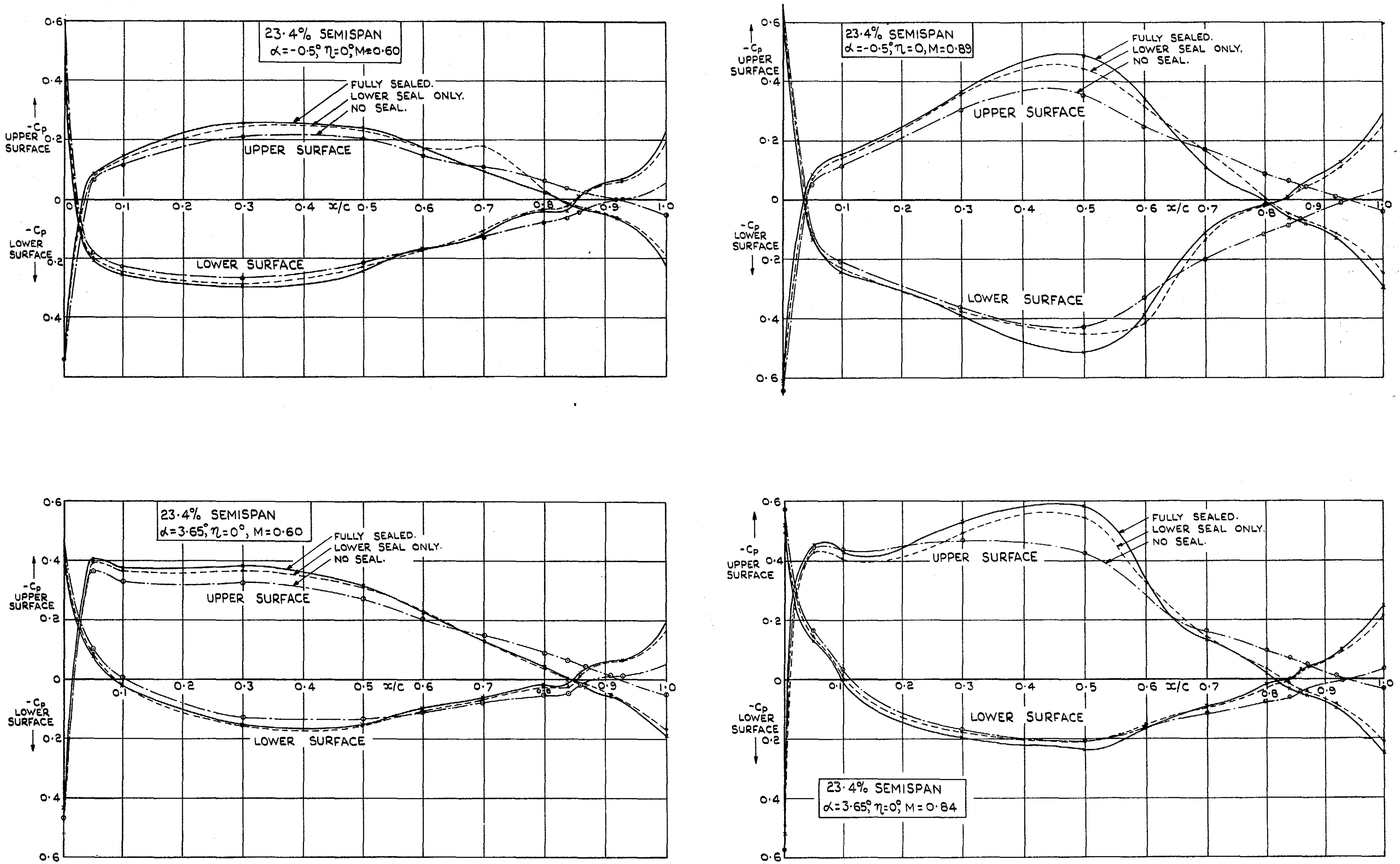

FIG. 18. PRESSURE DISTRIBUTION FOR VARIOUS STUB-BODY GAP CONDITIONS, $y/s = 0{\cdot}234$.

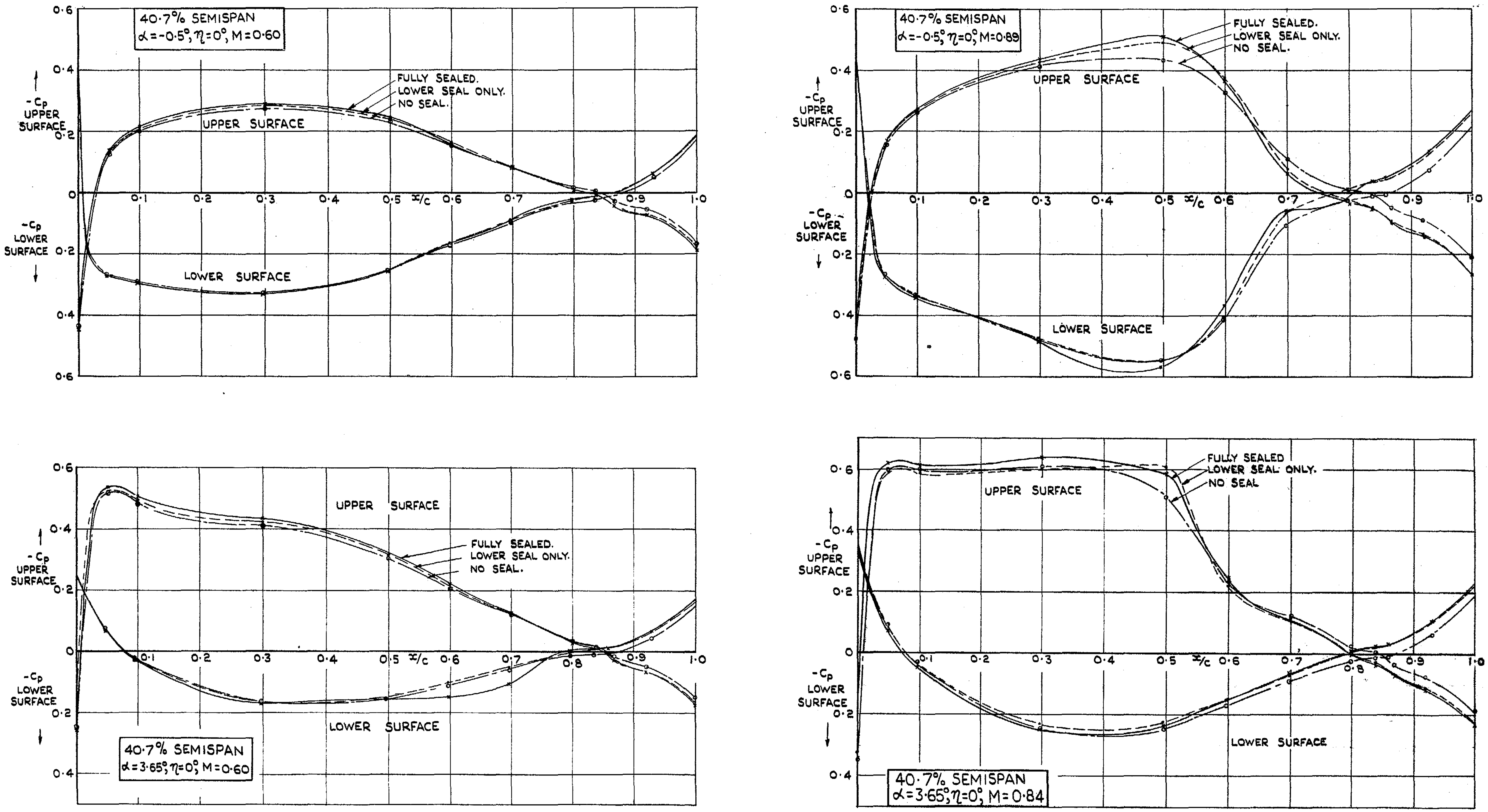

FIG. 19. PRESSURE DISTRIBUTION FOR VARIOUS STUB-BODY GAP CONDITIONS, $y/s = 0.407$

(1338) Wt18 1,035 10/54 Gp959 C.&R. LTD

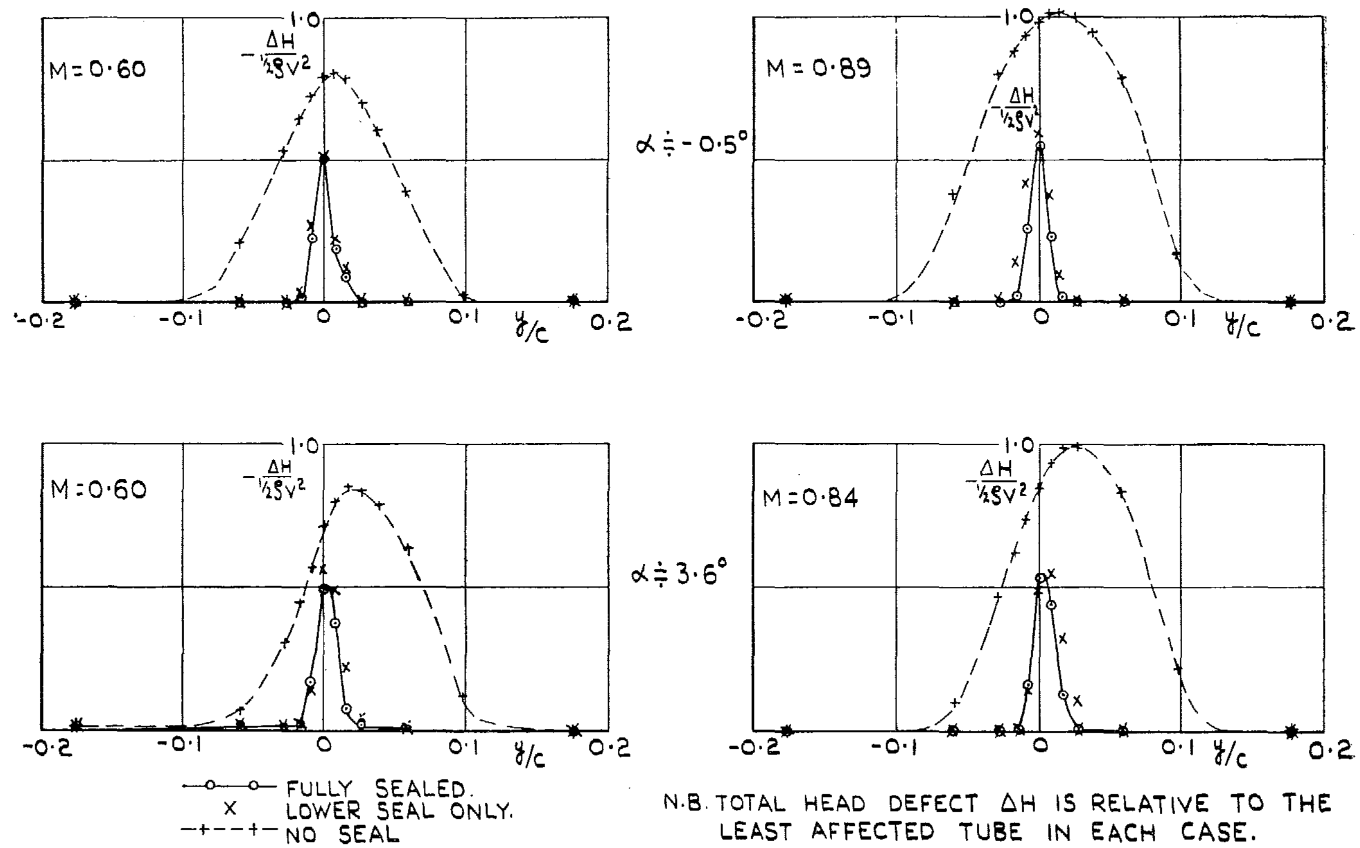

FIG. 20. 'Wake' at $0 \cdot 078c$ aft of trailing-edge at $23 \cdot 4$ per cent semi-span with various stub-body gap conditions.

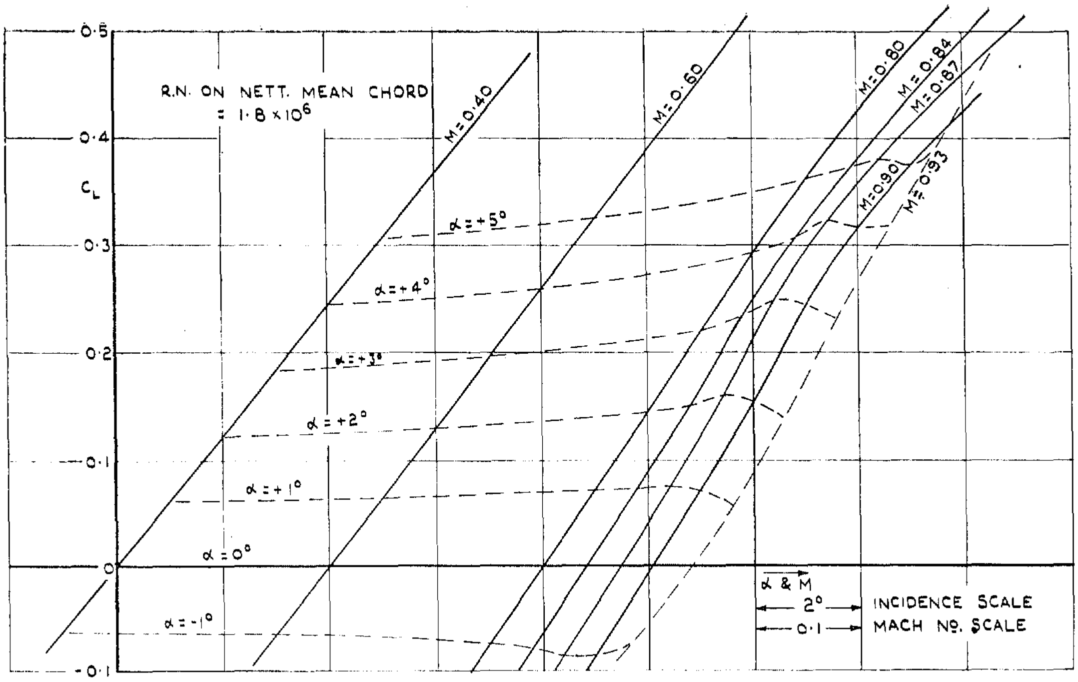

FIG. 21. Lift carpet (net lift in presence of body). $\eta = 0$ deg. Balance data.

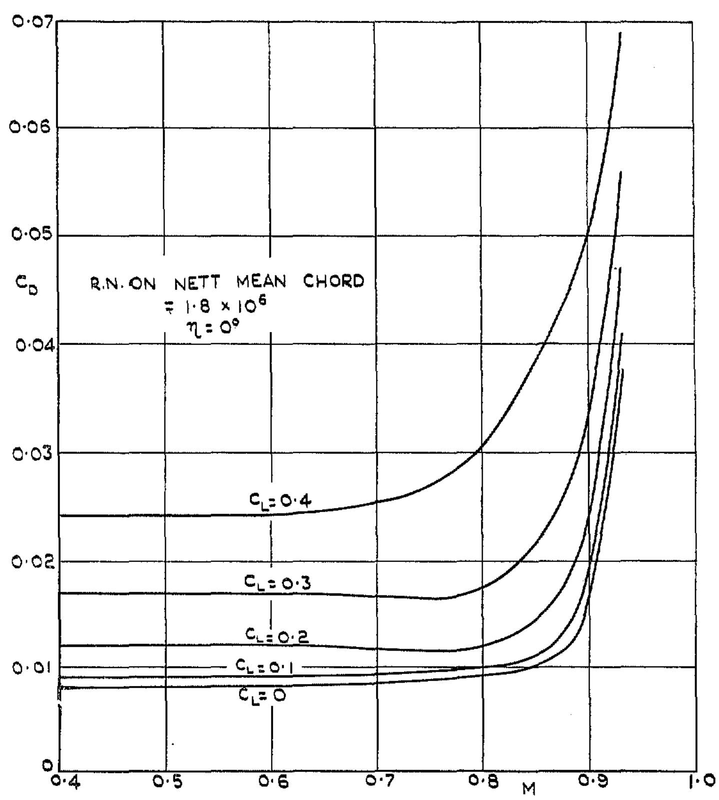

FIG. 22. Net wing C_D in presence of body vs. M at constant net C_L. Balance measurements.

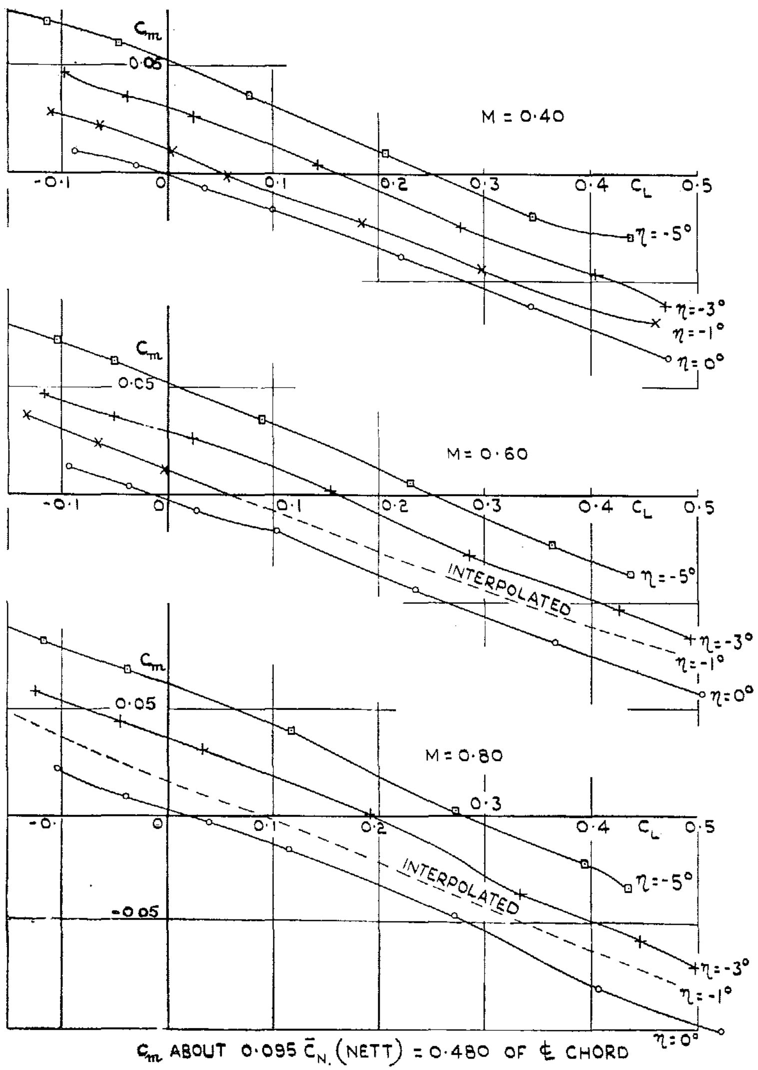

FIG. 23a. Net wing C_m vs. net wing C_L at constant M in presence of body. Balance measurements.

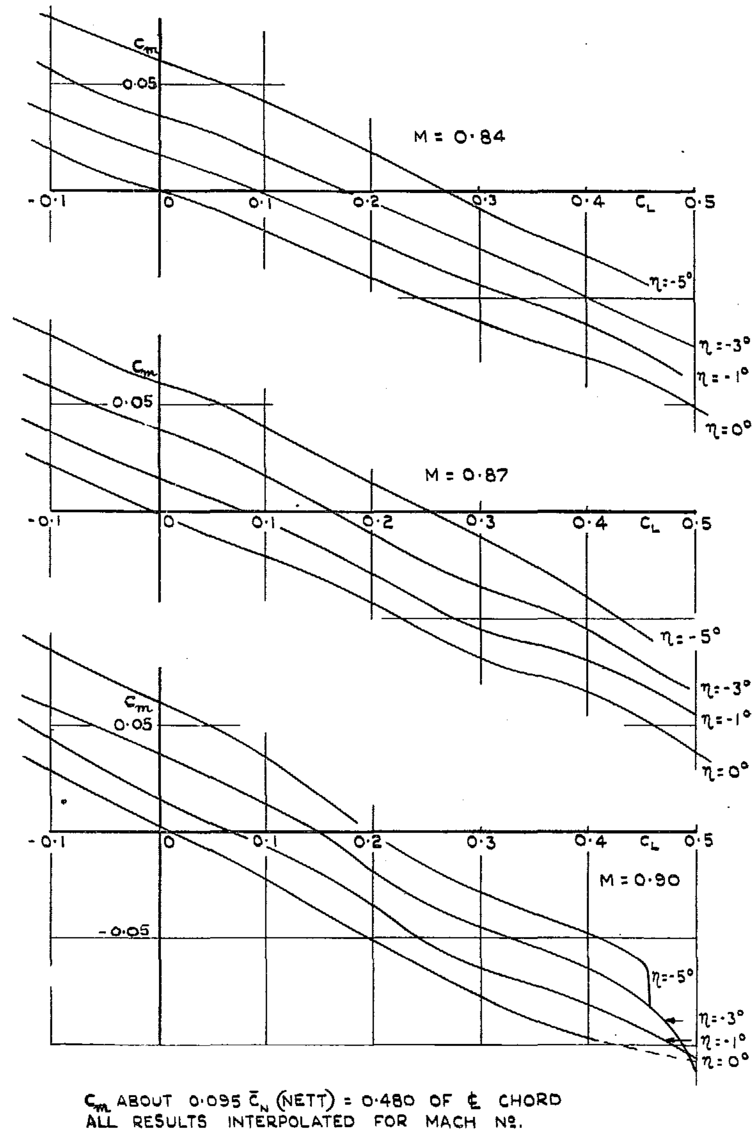

FIG. 23b. Net wing C_m vs. net wing C_L at constant M in presence of body. Balance measurements.

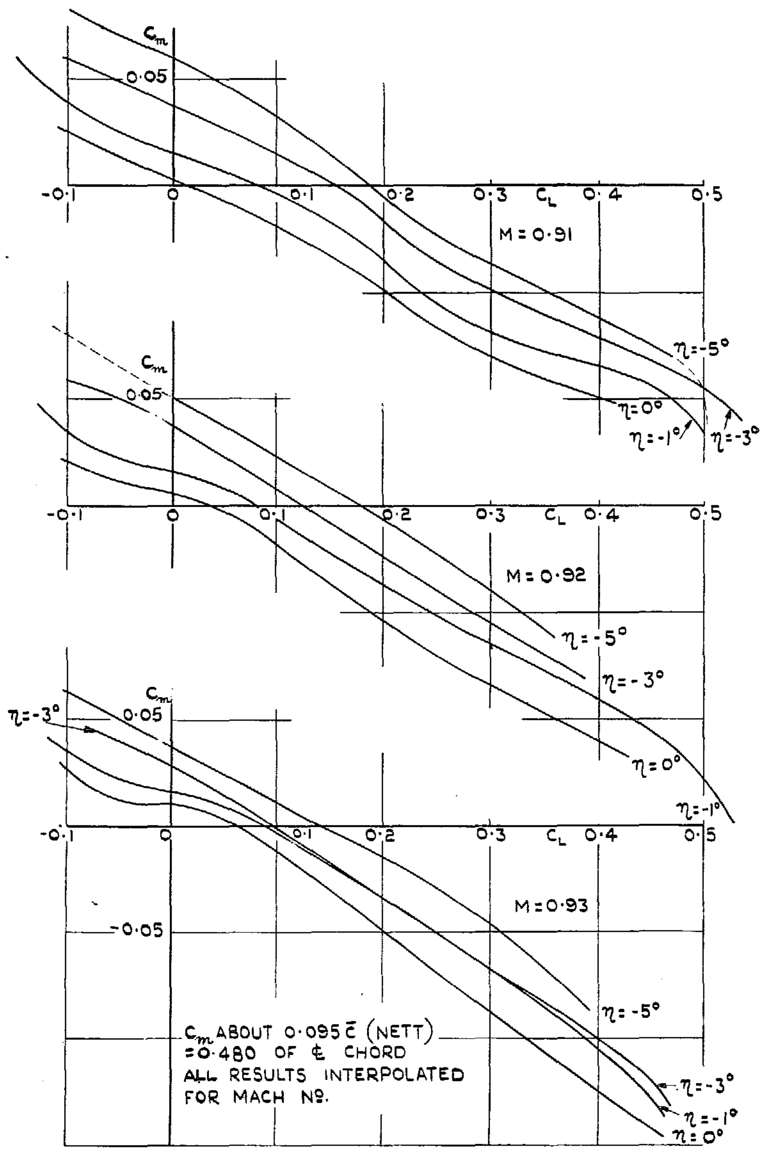

FIG. 23c. Net wing C_m vs. net wing C_L at constant M in presence of body. Balance measurements.

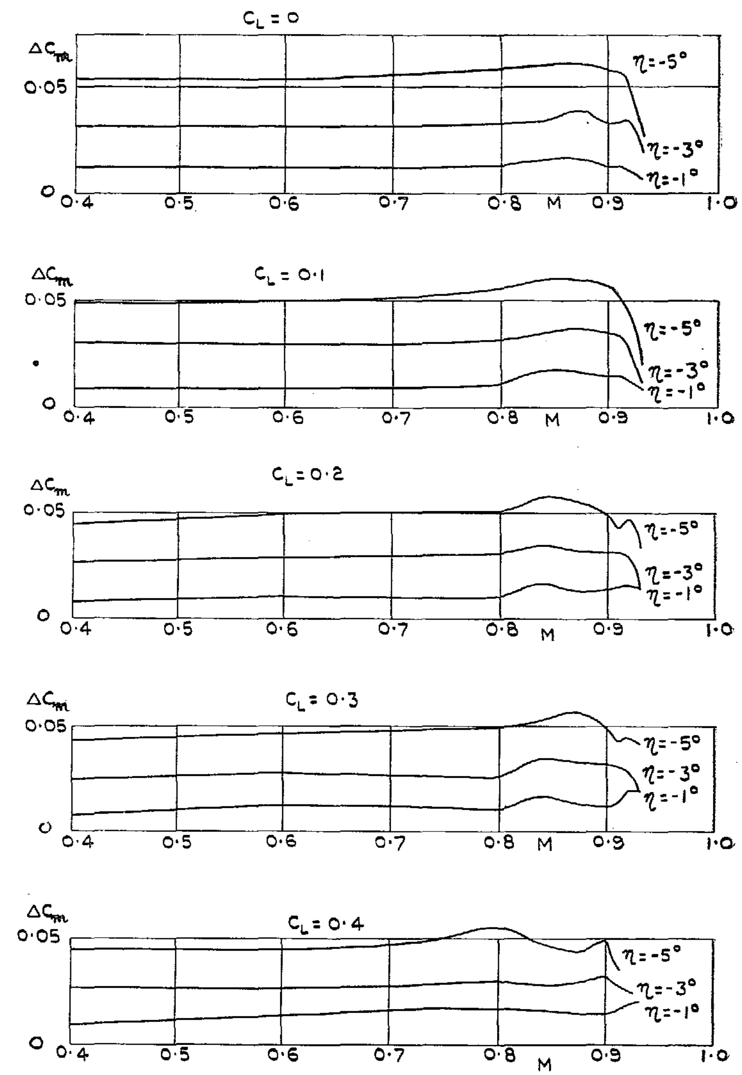

FIG. 24. Net wing C_m increment due to elevon vs. M at constant net wing C_L. Balance data.

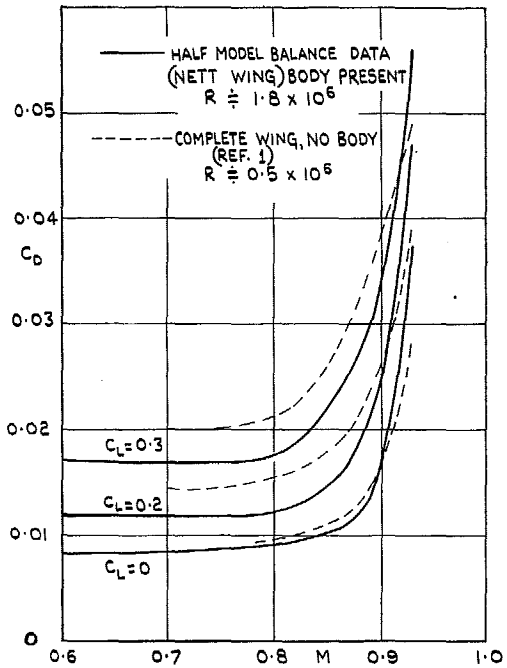

FIG. 25. Comparison of half-model drag (body present) with complete wing drag. $\eta = 0$ deg.

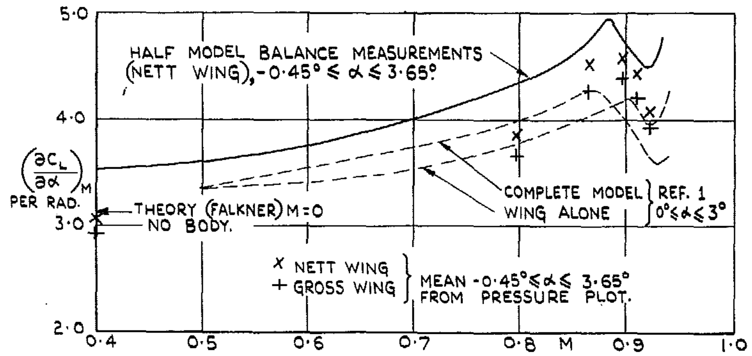

FIG. 26. Lift gradient *vs.* Mach number.

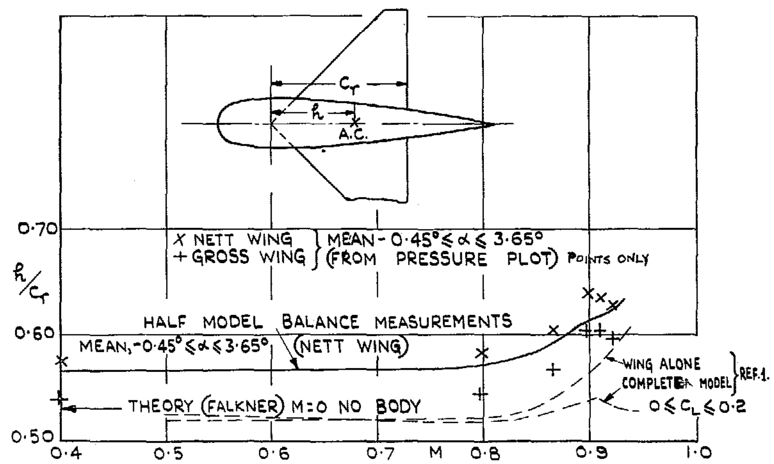

FIG. 27. Overall aerodynamic centre *vs.* Mach number.

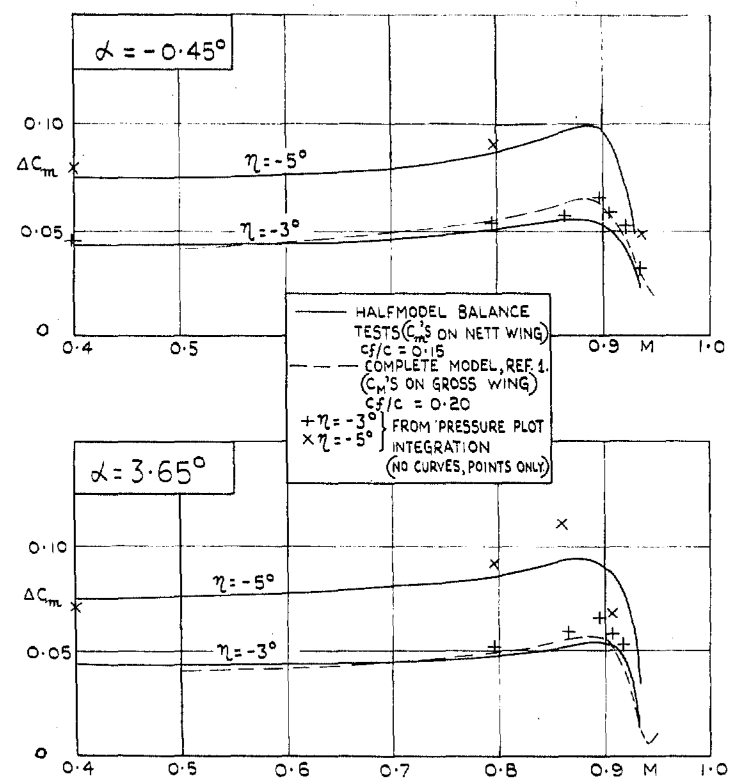

FIG. 28. Pitching-moment increments due to elevon vs. M at constant α.

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