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by

K. G. Winter and J. B. Moss

Aerodynamics Dept., R.A.E., Bedford

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MEASUREMENTS OF PRESSURE DISTRIBUTION ON A HALF-MODEL WING-BODY COMBINATION OF 55° SWEEP OVER A WIDE RANGE OF REYNOLDS NUMBER

by

K. G. Winter
J. B. Moss**

SUMMARY

The tests were made in the RAE 8ft × 8ft wind tunnel mainly at a Mach number of 0.55 where a range of Reynolds number, based on wing chord, of 2 to 27 million was obtained for the pressure plotting station situated at about two-thirds span. Limited tests were also made at a Mach number of 0.8, and at supersonic speeds. For angles of incidence for which the upper surface pressure distribution is of the design type (50% rooftop), changes in Reynolds number do not produce changes in character of the flow. The lift developed depends upon the trailing-edge boundary-layer thickness and can be increased considerably by the action of vortex generators. At higher angles of incidence the pressure recovery at the trailing edge is strongly influenced by the boundary-layer condition.

The results at supersonic speeds illustrate some features of shock-wave boundary-layer interaction.

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* Replaces RAE Technical Report 74149 - ARC 35978

** Now at Department of Aeronautics and Astronautics, University of Southampton.

CONTENTS

1 INTRODUCTION

The tests described in this Report were made in the RAE 8ft × 8ft wind tunnel in May 1962 and November 1963 as part of the research programme into the design of swept-winged aircraft to cruise at near-sonic speed. Because of new developments in the aerodynamics appropriate to such aircraft, for example wing sections with rear-loading and sections with supercritical flow, the possible direct applications of the work diminished and the tests were not reported earlier. However, the results are of general value because of the wide range of Reynolds number covered, and serve also to illustrate the characteristics of several aspects of the flow over swept wings. Furthermore, it is considered that the results provide useful test cases for the methods of calculation for both inviscid and viscous flow which have recently been developed, and the present Report has been written to make them available generally.

At the time when the work described was initiated, design methods using sonic theory were being applied to wing-body combinations intended for flight at low supersonic speed, and supporting experiments were being made only at low values of Reynolds number[1]. It was considered that measurements should be made over as wide a range of Reynolds number as possible on one of the designs, to determine the sensitivity of the design to boundary-layer effects. The model chosen was designed by Lock and is described in Ref.1. It has a wing of 55 degrees sweepback, and utilises a combination of wing warp and differential body waisting, with the aim of obtaining a uniform two-dimensional type of pressure distribution over the span. Though the design was for sonic speed the pressure distribution, provided shock waves are absent, should not differ substantially from that at lower speeds, and the main body of the work was done at a Mach number of 0.55, at which speed the highest values and greatest range of Reynolds number were available in the RAE 8ft × 8ft wing tunnel with the compressor configuration then in use. The half-model was of five times the scale of that used by Lock, and had a root chord of 0.76 m (30 in) giving a maximum Reynolds number of about 27 million. The lowest Reynolds number of the test was 2 million to enable direct comparison to be made with the previous results.

Pressure-plotting holes were provided at one chordwise station only, at about two-thirds semi-span, and along the wing trailing edge. It was considered that the provision of holes at four stations as in Ref.1 would have impaired model strength sufficiently to have limited the maximum Reynolds number to less than that available from the tunnel. In addition to the pressure measurements,

surveys of the boundary layer at the trailing edge of the wing were made at the pressure-plotting station, and the skin friction along the chord was determined using the razor-blade technique[2]. The razor blades were mounted with their edges normal to the free stream direction. Thus when large crossflows are present, as is often the case, the measured skin friction coefficients must be regarded as qualitative only. Photographs were taken of tufts on the otherwise clean wing. Unfortunately due to defective light-flash equipment the quality of the photographs is poor.

This Report presents mainly the pressure distributions, with limited reference only to the boundary-layer measurements.

As noted in Ref.1, the boundary-layer effects at subsonic speed are mild for the chosen pressure-plotting station at the design angle of incidence. However, the effects of change in Reynolds number on, for example, local lift-curve slope are of general interest. At high angles of incidence the beneficial effects on rear separation of increasing Reynolds number can be seen. More striking are results with vortex generators, which have a strong effect at all Reynolds numbers.

A limited amount of testing was done at supersonic speeds. These results serve to illustrate some features of shock-wave boundary-layer interaction, and are probably still unique in having skin friction distributions as well as pressure distributions.

The model was also tested at transonic speeds in the ARA 9ft × 8ft tunnel. Some of the results of these tests have been briefly reported[3,4].

2 DESCRIPTION OF MODEL

The model planform is shown in Fig.1. Detailed dimensions are listed in Table 2. Over the inboard part of the wing (up to $y/b = 0.44$) the wing is untapered, of chord 0.76 m (30 in), with a sweep angle of 55 degrees. Over the outboard part the leading edge is curved, terminating at a streamwise tip. The design was based on a two-dimensional section of 12% thickness: chord ratio having an RAE 103 thickness distribution, cambered to give a rooftop pressure distribution on the upper surface back to 50% chord at the design condition. This corresponds[1] to a lift coefficient of 0.18 at a Mach number of unity for the wing of 55 degrees sweep. The thickness/chord ratio for the swept wing was 6.9%. The wing warp distribution was calculated by sonic theory to give a chord-wise load distribution invariant across the span. Because differential waisting on the body was also used, the wing twist is not severe, as is shown in Fig.2.

Pressure holes of 0.8mm diameter were provided along the chord on both surfaces at one spanwise station (y/s = 0.67), and over the whole span at 95% chord. The positions of the pressure holes are detailed in the tabulated results.

The model was mounted on a turn-table in the sidewall of the 8ft × 8ft wind tunnel. A spacing piece of thickness 51 mm (2 in), but fairing to zero at the nose, was provided beneath the body, to stand the model off from the wall so as to reduce wall boundary-layer effects.

For part of the tests a transition trip of ballotini of size between 0.25 and 0.36 mm was cemented to both wing surfaces covering a rather extensive band between 5 and 10% chord but distributed sparsely (about 60 particles per 100 mm^2 or 400 per in^2). The size was chosen on the basis of Ref.5 to promote transition at the lowest test Reynolds number of 2×10^6. Provision was made for the attachment of vortex generators on both surfaces at 55% chord. These were triangular of 25mm (1in) root chord and 6mm (0.25in) high and were set at 25 degrees inclination to the free stream direction (apex toed outboard), at a spanwise spacing of 32 mm (1.25 in).

3 RANGE OF TESTS

As has been stated the majority of the tests were made at a nominal Mach number of 0.55. Some of the tests were repeated at a Mach number of 0.8, and a few measurements were made at supersonic speeds. The last tests were not directly concerned with the original purpose of the experiments, but it was considered worth while to take the opportunity to obtain information on flows with shock waves present over a wide Reynolds number range.

The tests were made in two series. During the first of these (denoted '1' in Table 1 and the figures) on the clean wing only, there was a failure of the adhesion of the resin, in which the tubes, leading to the pressure holes, were set in a groove on the wing surface. These tests were repeated (denoted '2') when the wing had been repaired. The details of the programme, in which three configurations, namely, clean wing, 'C', with transition trip, 'T', and with both transition trip and vortex generators, 'V', were tested, are listed in Table 1. For most conditions the range of angle of incidence covered was from $-2\frac{1}{2}$ to $+5\frac{1}{2}$ degrees. The Reynolds number quoted is based upon the local chord at the pressure-plotting station. The numbers of the table are also shown in which the results are given, as pressure coefficients for subsonic speeds and also as p/H_n (Table 7) for supersonic speeds.

Table 1

Range of tests

M_{nom} \ $Re_c \times 10^{-6}$ nom	2	4	8	12	16	20	27
0.55	C(1)3(a) C(2)4(a) T 5(a) V 6(a)	C(1)3(b) C(2)4(b) T 5(b) V 6(b)	C(1)3(c) C(2)4(c) T 5(c) V 6(c)	C(2)4(d) T 5(d)	C(1)3(d) C(2)4(e) T 5(e) V 6(d)		C(1)3(e) C(2)4(f) T 5(f)
0.8	C(1)3(f) C(2)4(g) T 5(g) V 6(e)	C(1)3(g)	C(1)3(h) C(2)4(h) T 5(h)		C(1)3(j)	C(1)3(k)	
1.4	C(1)3(l) 7(a)	C(1)3(m) 7(b)	C(1)3(n) 7(c)		C(1)3(o) 7(d)		
1.6			C(1)3(p) 7(e)				
1.8			C(1)3(q) 7(f)				
2.0			C(1)3(r) 7(g)				

4 CORRECTIONS

Corrections have been applied to the angle of incidence of the model, α, to account for tunnel constraint and for wing deflection under load, and to Mach number to account for model blockage of the tunnel stream.

The tunnel constraint correction was estimated for the analogous arrangement of a complete model mounted centrally in a rectangular tunnel 16ft × 8ft by the method of Ref.6. The corrections calculated in degrees for conditions at the pressure-plotting station are

$$\Delta\alpha = 1.32C_L \quad \text{for} \quad M = 0.55$$

$$\Delta\alpha = 1.56C_L \quad \text{for} \quad M = 0.8 \ .$$

A correction to pitching moment for streamline curvature of $\Delta C_m = 0.002C_L$, calculated from Ref.7, has also been applied to the pitching moment obtained by integration of the measured pressures.

The correction for wing deflection was determined by loading the wing and measuring the deflection at the pressure-plotting station. The loading was accomplished by shot bags placed along a line across the span at constant percentage chord (30% chord) determined by the centre of pressure position at the design angle of incidence as measured at the pressure-plotting station. It was assumed that constant local C_L had been achieved aerodynamically so that the load could be made proportional to the local chord. Assuming linearity and neglecting the variation of the centre of pressure position, the derived correction can be expressed as

$$\Delta\alpha = -0.015qC_L$$

where α is in degrees and q in kPa. The magnitude of the correction at $M = 0.55$ and $\alpha = 2$ degrees varies from -0.01 degree at $Re_c = 2 \times 10^6$ to -0.15 degree at $Re_c = 27 \times 10^6$.

The Mach number and reference pressure used in the evaluation of coefficients was determined from measurements of pressure on the tunnel floor and roof. It was established, by calculation for a flow with a source in the centre of a tunnel 16ft × 8ft, that the Mach number at the pressure-plotting station was close to that at a point analogous to the centre line on roof and floor of an 8ft × 8ft tunnel.

5 ACCURACY

The accuracy of setting of the angle of incidence was 0.02 degree, but uncertainty in the corrections applied (for the subsonic tests) for tunnel constraint, and for deflection of the model under load may entail errors of up to 0.1 degree. Corrections to the angle of incidence have not been applied to the measurements at supersonic speeds.

Pressure coefficients at subsonic speeds are estimated to be accurate, on a basis of possible reading errors, to within 0.001 at the highest Reynolds numbers and proportionally less at lower Reynolds number. There is some uncertainty in the blockage corrections which may lead to errors of up to 0.01 in the absolute level of the pressure coefficient. At supersonic speed reading errors give an accuracy of about 0.002 for p/H_n.

Integration of the measured pressures should be accurate to within about 0.005 for the normal force coefficient at the lowest Reynolds numbers. It is difficult to assess the accuracy of axial-force coefficient because of its sensitivity to the assumed trailing-edge pressure. There are appreciable differences in the results from the two test series.

6 RESULTS AND DISCUSSION

6.1 Subsonic

6.1.1 Pressure distribution

The measured pressure distributions on the upper surface over the range of angle of incidence at the lowest Reynolds number of the test, 2 million, are shown for the clean wing at nominal Mach numbers of 0.55 and 0.8 in Figs.4 and 5. It is apparent from these results that the pressure distribution is well-behaved back to the trailing edge for small values of angle of incidence, and only at an angle of incidence of 5.6 degrees and above is there any evidence of flow separation which might be expected to lead to dramatic scale effects. At these higher values of angle of incidence, the pressures imply a marked thickening of the wing boundary layer towards the trailing edge. At lower values the pressure recovery at 95% chord is sensibly independent of angle of incidence. One surprising feature is the non-monotonic variation of pressure coefficient with angle of incidence over the region between 50% and 80% chord. This is referred to later. The design rooftop pressure distribution is achieved at an angle of incidence of about 2 degrees. There is, however, a ripple in the rooftop pressure at about 15% chord. This is thought to be genuine and not associated with a defective pressure hole or an error in aerofoil ordinate. The tuft photographs, Figs.6 and 7, of the wing without transition trip show the increasing outflow of the boundary layer near the trailing edge with increase of angle of incidence. At the highest angle at $M = 0.55$ the flow is parallel to the trailing edge.

Figs.8, 9 and 10 give details of the pressure distribution at $M = 0.55$ for Reynolds numbers of 2, 16 and 27 million for the clean wing and, where the results are available, with the transition trip and with transition trip and vortex generators. Consider firstly an angle of incidence of 2 degrees, comparing Figs.8d, 9e and 10f. At a Reynolds number of 2 million the addition of a transition trip produces a marked reduction in lift, which is restored by the addition of vortex generators. At 16 million there is little effect of adding the transition trip but the vortex generators still provide some small benefit. At 27 million no

tests were made with vortex generators, nor with the trip at α = 2 degrees, but at angles of incidence of 1.4 and 3.4 degrees the addition of the trip produces little change, apart from a disturbance between 5 and 10% chord on the lower surface, where the transition trip was placed. It can be seen from Fig.26, which shows the skin friction distribution at a Reynolds number of 2 million, that the flow is laminar back to about $x/c = 0.5$ at angles of incidence between 1.4 and 3.4 degrees but that transition moves well forward at higher or lower angles, and from Fig.27 that at an angle of 1.4 degrees transition has moved forward for Reynolds numbers of 8 million and above. Thus no major effects of the presence of a transition trip are to be expected for angles of incidence outside the range 1.4 to 3.4 degrees or for Reynolds numbers above 8 million. A brief discussion of the behaviour of transition is given in section 6.1.2. The tuft photographs of Fig.11 show little variation of the surface flow pattern with Reynolds number at an angle of incidence of 2 degrees*.

Larger scale effects are apparent at higher angles of incidence. At α = 5.6 degrees and a Reynolds number of 2 million (Fig.8g for the clean wing), as already noted, the positive pressure gradient on the upper surface is not sustained towards the trailing edge. This is taken to be evidence of a rapid thickening of the boundary layer. In two dimensions the pressure distribution would be taken as indicating separation. The flow on the upper surface of the clean wing is turbulent as shown in Fig.26 and the addition of a transition trip has only a small effect. The vortex generators however, produce large changes. The pressure recovery at the trailing edge is considerably improved and the velocity over the whole of the upper surface increased. Figs.8h and 8j show that further increase of angle of incidence for the clean wing leads to continuing deterioration of the trailing-edge pressure recovery. Raising the Reynolds number to 16 million (Fig.9j) produces an improvement in the trailing-edge behaviour but, as at lower angles of incidence, the vortex generators are still beneficial. Further improvement in the trailing-edge behaviour occurs at the highest Reynolds number (Fig.10k). The tuft photographs of Fig.12 at an angle of 5.5 degrees show the reduction of outflow at the wing trailing edge with increasing Reynolds number.

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* A curious feature of the tuft photographs at the higher Reynolds numbers is the occurrence of streaks at about 1/3 and 2/3 span and near the tip. It is thought that these arose from disintegration of the tufts at the large values of kinetic pressure, resulting in trails of powder.

As noted in respect of Figs.4 and 5 the pressure coefficient on the upper surface does not decrease consistently with angle of incidence. This effect is shown further in Fig.17 where the pressure coefficient at $x/c = 0.55$ is plotted against angle of incidence. It will be seen that without trip at $Re_c = 2 \times 10^6$ the curve is straight up to about 2 degrees angle of incidence and is in fact steeper than at 27×10^6 but that the suction decreases for further increase in angle. With trip, the positive slope is lower but maintained longer. The variation is presumably the effect of camber induced by boundary-layer growth. For the clean wing at $\alpha = 1.4$ and 2 degrees, and $Re_c = 2 \times 10^6$, the shapes of the pressure distribution, Fig.4, near $x/c = 0.6$ suggests that there may be a laminar separation bubble occurring as the laminar flow along the rooftop encounters the adverse pressure gradient. This bubble is not indicated by the razor-blade measurements (Fig.26) at $\alpha = 1.4$ but the presence of the razor blades may have influenced the flow. With vortex generators for $Re_c = 2 \times 10^6$ the curve is close to that for $Re_c = 27 \times 10^6$ at which Reynolds number the trip has virtually no effect.

The general characteristics are much the same at $M = 0.8$. Results at 2, 8 and 20 million are shown in Figs.13 to 15. (There is evidence in some of these results, e.g. Fig.13d, that the datum pressure may be inconsistent. The pressure coefficients for vortex generators present are virtually all consistently more positive than for the clean wing.) At an angle of incidence of 5.5 degrees the trailing-edge effects are more marked than at the lower Mach number. Increase of Reynolds number from 2 to 20 million (Figs.13f and 15f) produces an even more marked improvement than at $M = 0.55$. Vortex generators were tested only at a Reynolds number of 2 million. The improvement in the trailing-edge flow which they produce (Fig.13f) is striking.

The tuft photographs at 2 degrees angle of incidence (Fig.16) show little effect of increase of Reynolds number from 2 to 8 million. The region of strong outflow extending rearward from about $x/c = 0.7$ can be seen at an angle of 5.7 degrees. Unfortunately no photographs are available at a Reynolds number of 20 million.

Further details of the behaviour of the pressure coefficient near the trailing edge on the upper surface, at $x/c = 0.95$, are shown in Figs.18 to 25. Figs.18a to 18d show the variation with Reynolds number at both $M = 0.55$ and 0.8 at the pressure-plotting station for angles of incidence of 1.4 and 5.5 degrees. The interpretation of Fig.18 depends upon the consistency with which the

effective Mach number of the tests (and hence the datum static pressure) has been determined over the range of Reynolds number. To avoid the uncertainty the results have been replotted in Fig.19 as the difference between the pressure coefficients at $x/c = 0.4$ and $x/c = 0.95$. This method of plotting removes most of the unexpected features of Fig.18. At $\alpha = 1.4$ degrees there is little variation of pressure recovery with Reynolds number, though at Reynolds numbers between 2 and 8 million there are indications of opposite trends for the wing clean or with trip. These trends are not inconsistent with the trends in boundary-layer displacement thickness which can be deduced, for $\alpha = 2$ degrees, from Fig.37. At the higher angle of incidence, $\alpha = 5.5$ degrees, Figs.19c and 19d, where stronger viscous effects are expected, and where transition is well forward at all Reynolds numbers, a strong favourable effect of increase of Reynolds number is shown, independently of whether a trip is present or not. The powerful effect of the vortex generators in eliminating the variation of pressure recovery with variation of Reynolds number is shown. This is illustrated further in Figs.20 and 23, at $M = 0.55$ and 0.8 respectively, which show that the vortex generators practically eliminate any variation of pressure recovery with angle of incidence. The reduction of the deterioration of the pressure recovery with increasing angle as Reynolds number is raised is also apparent.

The spanwise variation of pressure recovery is illustrated for angles of incidence of about 2 and 5.5 degrees at Mach numbers of 0.55 and 0.8 in Figs.21, 22 and 24, 25 respectively. At 2 degrees angle of incidence the pressure is nearly constant across the span until near the tip, and is not dependent upon the condition of the wing. At the higher angle the pressure recovery deteriorates outboard of about half span at the lower Reynolds numbers for the wing with or without trip. At the highest Reynolds number the pressure recovery is fairly uniform up to about 80% span. The vortex generators produce a variation nearly independent of Reynolds number. It is interesting that without vortex generators the high suction near the tip is not sustained for low Reynolds numbers. It is assumed that the high suction is related to the tip vortex and that at low Reynolds numbers the strong boundary-layer outflow interferes with the vortex development moving the vortex inboard and weakening it. The same features are apparent at $M = 0.8$ but the spanwise extent of the loss of pressure recovery is increased.

6.1.2 Transition

Sample measurements of skin friction coefficient (expressed in terms of the local kinetic pressure) are shown in Figs.26 to 30. In interpreting these results it should be noted that the pieces of razor blade used to determine c_f were attached with their edges normal to the free stream direction, so that the absolute level of c_f indicated will be erroneous in regions of large cross flow. The razor blades were fitted at intervals of 0.1 in x/c so that the position of transition cannot be determined with great accuracy. The presence of the razor blades will have some destabilizing effect on a laminar flow. This effect should, however, be small at the lowest value of Reynolds number. The measurements of c_f can be used to illustrate some of the features of the boundary-layer transition process for a swept leading edge[8]. At $Re_c = 2 \times 10^6$ and $M = 0.55$ (Fig.26a) the position of the initiation of turbulent flow on the upper surfaces, as indicated by a peak in c_f, varies from forward of $x_c = 0.1$, to about $x/c = 0.65$ as the angle of incidence varies. At the lowest angle, $\alpha = -2.8$ degrees, despite there being a favourable gradient back to $x/c = 0.5$ (Fig.8a) turbulent flow is established by $x/c = 0.2$, whereas the rooftop distribution at $\alpha = 1.4$ degrees leads to the far-back transition at $x/c = 0.65$. On the lower surface transition appears to be well forward at $\alpha = -2.8$ degrees, perhaps because of the strong adverse pressure gradient following a peak suction at the nose of the section. For higher angles of incidence, except for $\alpha = 5.6$ degrees, the flow on the lower surface appears to be transitional up to $x/c = 0.5$. The variation of the position of the establishment of a fully turbulent boundary layer with Reynolds number at $M = 0.55$ and angle of incidence, obtained from Figs.26, 27, 28 and other skin friction measurements not illustrated, is summarized in Figs.31a and 31b.

Speculative explanations for most of the features can be provided qualitatively by considering the properties of the flow near the leading edge, together with the subsequent pressure distribution. Fig.32 shows the variation of the velocity normal to the surface generators at the pressure-plotting station with distance round the leading edge. The velocity is made non-dimensional by dividing, arbitrarily, by the critical speed of sound; in the calculation of the velocity from the measured pressures the local angle of sweepback (62 degrees) was used and no account was taken of additional effects due to the taper of the wing. Also shown are lines with a velocity gradient equal to the minimum for which contamination of a laminar boundary layer will not occur for a leading edge of constant angle of sweep. The curvature in planform of

the leading edge of the wing tested will lead to decreasing stability of the leading-edge flow with increasing distance outboard along the wing. This effect has been largely ignored in the subsequent discussion. The lines are drawn for values of Re_c of 2, 4 and 8 million with the parameter $Re_{\theta_{al}} \left(= 0.405 \frac{U_\infty \sin \phi}{\sqrt{\nu_{al}(\partial u_n/\partial s)}} \right)$ taken to have the value 90 (see for example Pfenninger[9]). It can be seen from this figure, that as the stagnation point moves along either the upper surface (negative angle of incidence) or the lower surface (positive angle of incidence) so the velocity gradient there diminishes, thus lessening the stability of the boundary layer along the stagnation line. At $\alpha = -2.8$ degrees the velocity gradient is less than critical, even at $Re_c = 2 \times 10^6$, so that instability of the boundary layer is likely to be initiated on the stagnation line, but on the upper surface presumably the subsequent favourable pressure gradient, which is fairly strong up to about $x/c = 0.2$ (Fig.8a), defers transition until about that point. For Re_c greater than 4×10^6 the leading-edge condition is more dominant and transition is then forward of $x/c = 0.1$. On the lower surface the gradient is favourable only up to less than $x/c = 0.01$ (Fig.32) and early transition ensues for all the test Reynolds numbers. At $\alpha = -0.7$ degree, the stagnation-line flow is stable for $Re_c = 2 \times 10^6$, and approximately critical for $Re_c = 4 \times 10^6$. For the latter Reynolds number transition occurs on the upper surface at $x/c = 0.2$ at about the end of the strong favourable gradient (Fig.8b), whereas at $Re_c = 2 \times 10^6$ transition also appears to occur at $x/c = 0.2$, but it is apparently followed by a relaminarization of the flow, with a subsequent transition at about $x/c = 0.65$. The behaviour on the lower surface at $\alpha = -0.7$ degree (and also at $\alpha = 1.4$ and 3.6 degrees) is also curious. At both $Re_c = 2 \times 10^6$ (Fig.26) and $Re_c = 4 \times 10^6$ (not shown) there appears to be a long transition region extending back to $x/c = 0.5$, despite a mildly adverse pressure gradient (Fig.8b). This statement is perhaps questionable because of the shape of the curve of skin friction distribution which, even at $Re_c = 27 \times 10^6$, continues to show a mild peak at $x/c = 0.5$ (similar to that for $\alpha = 1.4$ degrees illustrated in Fig.27). For $Re_c = 8 \times 10^6$ and greater, transition can, however, be determined fairly confidently to be forward of $x/c = 0.1$. At $\alpha = 1.4$ degrees the leading-edge flow is at its most stable condition (for the values of angle of incidence considered) and is stable for both $Re_c = 2$ and 4×10^6. Consequently on the upper surface transition is well back, not occurring until $x/c = 0.65$, where the pressure gradient has become adverse following the termination of the rooftop at $x/c = 0.5$ (Fig.8c).

For $Re_c = 8 \times 10^6$, where the leading-edge flow has become unstable, transition is at $x/c = 0.2$, i.e. at the end of the favourable gradient, and is forward of $x/c = 0.1$ for higher Reynolds numbers. On the lower surface (Fig.27), where the pressure is almost constant (Fig.8c), transition appears to be indeterminate for $Re_c = 2$ and 4×10^6 , occurring somewhere between $x/c = 0.2$ and 0.5 (as noted earlier for $\alpha = -0.7$ degree). However, for $Re_c > 4 \times 10^6$ the leading-edge instability brings transition forward of $x/c = 0.1$. The behaviour at $\alpha = 3.6$ degrees is fairly similar to that at $\alpha = 1.4$ degrees but the leading-edge flow is slightly less stable, and the presence of an adverse pressure gradient on the upper surface brings transition forward there. At $\alpha = 5.6$ degrees the strong adverse pressure gradient on the upper surfcae, following the peak suction aft of the leading edge, results in a transition position forward of $x/c = 0.1$. The stagnation-line flow is close to critical at $Re_c = 2 \times 10^6$ but on the lower surface the favourable pressure gradient delays transition to about $x/c = 0.25$. At higher Reynolds numbers the stagnation-line instability appears to be dominant and to bring transition forward of $x/c = 0.1$. It is interesting to note that at $\alpha = 5.6$ degrees the velocity distribution on the upper surface (Fig.32) indicates the presence of a bubble starting at about $x/c = 0.01$ and with an extent reducing from about $1\frac{1}{2}\%$ chord as Reynolds number increases.

6.1.3 Forces and moments

The measured pressures have been integrated, using a trapezium formula, to obtain lift, drag and pitching moment. Lift curves are shown in Figs.33a and 33b for M = 0.55, and in Figs.34a and 34b for M = 0.8, the results of the first series of tests on the clean wing being given separately for both speeds. At the lowest Reynolds number the first series gives consistently higher values of C_L than the second series but is in good agreement at other Reynolds numbers. Inspection of the pressure distributions suggests that the cause of the discrepancy may be an error in the reference pressure used for the lower surface. Other apparent errors occur for some points at $\alpha = 1.4$ and 2 degrees implying inaccuracy in the setting of the angle of incidence. Apart from these discrepancies the curves show a consistent story. The first point to note is the increasing range of the linear part of the curves with increasing Reynolds number. The linear range is also increased by the addition of a trip at low Reynolds number primarily because of a reduction of lift, compared with the clean wing, at the lower values of angle of incidence. With vortex generators the curves are linear over the whole range of angle of incidence covered at M = 0.55, but not at M = 0.8, and the slope is increased appreciably.

In Fig.35 the lift coefficients at M = 0.55 interpolated from Fig.33 at a series of values of angle of incidence are plotted against Reynolds number. The curves show clearly the beneficial effects of vortex generators particularly at the highest angle of 6 degrees. However, there is still a favourable effect of increasing Reynolds number. As noted earlier for the clean wing, laminar boundary-layer flow only occurs to any appreciable extent over the range of angle of incidence of 1.4 to 3.4 degrees. The existence of laminar flow is reflected in the behaviour of C_L at an incidence of 2 degrees. For the clean wing, up to a Reynolds number of 8 million, (higher than would have been anticipated from Fig.27) C_L is as high as with vortex generators, but then falls to the lower level obtained with a transition trip. One other interesting feature is that where the Reynolds number is sufficiently high for turbulent flow to occur naturally on the clean wing the lift coefficients are very close to those obtained with a trip. There is thus no evidence at M = 0.55 of 'overfixing', by a trip chosen for a Reynolds number of 2 million, at a Reynolds number as high as 27 million.

Lift curve slopes (taken over a range of angle of incidence of about -3 to +2 degrees) for both M = 0.55 and M = 0.8 are shown in Fig.36. At M = 0.55 the results show much the same behaviour as for C_L at α = 2 degrees in Fig.35.

The information at M = 0.8 is less complete but for the clean wing there is no drop in lift curve slope with increasing Reynolds number and the level remains above that with a trip. Fig.31 shows that the flow is almost fully turbulent for a Reynolds number of 8 million without trip. On the basis of the result with trip at 8 million there is thus an adverse effect of the trip on lift curve slope at M = 0.8.

A property of the flow which has a more direct relationship to the change in lift curve slope than simply a Reynolds number would be some function of the thickness of the boundary layers on both surfaces near the trailing edge. For example, the difference in displacement thickness would be a measure of the change of effective angle of incidence produced by the boundary layers. The boundary-layer characteristics have been measured on the upper surface at x/c = 0.95 , and the displacement thickness $\left(\delta^* = \delta_1 - \delta_2 \tan \varphi\right)$ will give some guidance as to the effective change in angle. Accordingly, in Fig.37 the lift curve slope has been plotted against the displacement thickness measured at an angle of 2 degrees for a Mach number of 0.55. This is not a particularly useful plot but nevertheless serves to show that there is some consistency, within a

band of some 5%, for all the results at a Mach number of 0.55, i.e. for the natural boundary layer, for the tripped boundary layer and for the boundary layer thinned by vortex generators.

A further aspect of boundary-layer influence is that on the angle of incidence for zero lift. Fig.38 shows that a change of about $\frac{1}{4}$ degree over the Reynolds number range occurs for the clean wing. With the trip the sign of the change is altered and the magnitude much reduced. With vortex generators the angle is independent of Reynolds number.

The pressure-drag coefficient for M = 0.55 is shown in Fig.39. Whilst the integration of measured pressure is inaccurate and no corrections have been applied, the results appear self-consistent. They serve to show mainly the effects of rear separation in that, with or without trip, at Reynolds number less than 8 million C_D is nonlinear with C_L^2. With vortex generators the variation is linear down to the lowest Reynolds number. The variation in level with Reynolds number is apparently not dependent upon the state of the boundary layer since it is roughly the same with or without trip or vortex generators. It must therefore be ascribed to a variation of buoyancy effect with Reynolds number, though since the tunnel geometry was not changed with Reynolds number the opposite tendency might have been expected.

At M = 0.8 (Fig.40) the data are more scattered but the reduction in drag variation with lift with increase of Reynolds number is still apparent. The improvement in trailing-edge pressure recovery produced by vortex generators is not shown up in the drag coefficient.

Figs.41 and 42 illustrate the reduction in pitching moment variation with normal force both with increase of Reynolds number and with the addition of vortex generators.

6.2 Supersonic

The variation of pressure distribution with angle of incidence at M = 1.4 is illustrated in Fig.43 for a Reynolds number of 16 million. It should be noted that no corrections have been made to the angle of incidence for the measurements at supersonic speeds. On the upper surface a shock wave in the region x/c = 0.45 to 0.6 is present at all values of angle of incidence. The shock wave fails to cause separation only at the lowest angle, as shown by the tuft photographs of Fig.45, and confirmed by the trailing-edge pressure recovery in Fig.43a and the skin friction in Fig.44a. At the lowest angle of incidence shock waves are present on the lower surface at about x/c = 0.1 and 0.5 .

Figs.46 to 49 illustrate the well-known difference in behaviour of the interaction of a shock wave with laminar or turbulent boundary layers. As shown in Fig.46 for an angle of incidence of 1.3 degrees the shock wave on the upper surface at about $x/c = 0.55$ produces a complete separation to the trailing edge when the flow is turbulent (Re_c = 4, 8 and 16 million). When the flow is laminar (Re_c = 2 million) separation is rapidly followed by transition and reattachment, as shown by the skin friction distribution, with a continuous rise of pressure to the trailing edge. There is little scale effect on the pressure distribution when the boundary layer is turbulent. At the same angle of incidence for the lower surface the occurrence of transition can be seen in Fig.47 to have a local effect upon the pressure distribution.

At a high angle of incidence (α = 5.3 degrees, Fig.48) the laminar separation bubble is of considerable length and the pressure is nearly constant from $x/c = 0.3$ to 0.9 . The skin friction distribution suggests, however, that reattachment as a turbulent boundary layer occurs at about $x/c = 0.6$. At the higher Reynolds numbers there is a gradual change in the shock-wave boundary-layer interaction, with a sharp pressure rise occurring only for a Reynolds number of 16 million when the boundary layer is fully turbulent. For all Reynolds numbers there is indication of a small bubble near the nose of the section. On the lower surface (Fig.49) the effects of transition on the pressure distribution are again evident.

Figs.50a, b and c show the development of the pressure distribution with increase of Mach number up to 2.0 at a Reynolds number of 8 million. There are no unexpected features in the results, which show the progression towards the trailing edge of the upper surface shock wave as Mach number increases. It should be noted that the results at M = 1.6 will be influenced by reflection of the body nose shock from the tunnel roof and floor. The distributions of skin friction (Fig.51) show that the upper-surface shock waves cause separation, with strong outflow as indicated by the tufts (Fig.52). The boundary layer at the shock wave is fully turbulent for Mach numbers of 1.6, 1.8 and 2.0 but is transitional for M = 1.4.

For completeness normal force coefficients from integration of the pressures are given in Fig.53. Despite the severe separations on the wing the curves are linear.

7 CONCLUSIONS

At values of lift coefficient near design at subsonic speed the effect on pressure distribution of an increase in Reynolds number from 2 million to 27 million does not produce any marked change in character. The lift developed does, however, depend upon the boundary-layer thickness at the trailing edge. A reduction of thickness caused by increasing Reynolds number, by using vortex generators or by the presence of some laminar flow will lead to a gain in lift. The changes in lift are similar to those expected in two-dimensional flow.

At higher values of angle of incidence ($\alpha \doteq 5.5$ degrees) the trailing-edge separation which occurs at low Reynolds numbers is almost eliminated by increase of Reynolds number. The effect of vortex generators is striking in that the pressure recovery at $x/c = 0.95$ is higher for the lowest Reynolds number of the test, when vortex generators are fitted, than for the highest Reynolds number with the wing clean.

At supersonic speeds the main interest of the results lies in the details of the shock-wave boundary-layer interaction on the wing upper surface. The change in character of the interaction with changes in the state of the boundary layer is illustrated.

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Wing Ordinates (Dimensions in inches)

y	6.303		6.5		7.0		8.0		9.0		10.00		11.00		12.00		13.00	
c	30 00		30		30		30		30		30		30		30		30	
x/c	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l
0	1.271_5	1.271_5	1.194	1.194	1.022_5	1.022_5	0.762_5	0.762_5	0.575_5	0.575_5	0.432	0.432	0.317_5	0.317_5	0.225	0.225	0.151_5	0.151_5
0.0002	1.304_5	1.238_5	1.227	1.161	1.055_5	0.989_5	0.795_5	0.729_5	0.608_5	0.542_5	0.465	0.399	0.350_5	0.284_5	0.258	0.192	0.184_5	0.118_5
0.001	1.344_5	1.197_5	1.267	1.120	1.095_5	0.948_5	0.836_5	0.689_5	0.649_5	0.502_5	0.506	0.359	0.391_5	0.244_5	0.299_5	0.152_5	0.226	0.079
0.003	1.396_5	1.143	1.319_5	1.065_5	1.149	0.895	0.890_5	0.636_5	0.704	0.450	0.561	0.307_5	0.447	0.193_5	0.355	0.101_5	0.282	0.028
0.007	1.460_5	1.073_5	1.384	0.997	1.215	0.828	0.958_5	0.571_5	0.773	0.386	0.631	0.244	0.517_5	0.130_5	0.426_5	0.039_5	0.354	-0.330
0.014	1.535	0.990	1.459	0.915	1.293	0.748	1.039_5	0.494_5	0.855_5	0.311	0.715	0.170_5	0.603	0.058_5	0.513	-0.320	0.441_5	-0.103
0.025	1.617	0.894	1.543_5	0.820_5	1.380	0.657	1.131_5	0.408_5	0.951	0.228	0.812_5	0.089_5	0.702_5	-0.020_5	0.614	-0.109	0.544	-0.179
0.04	1.698_5	0.793	1.627	0.721_5	1.468_5	0.563_5	1.226	0.321	1.049_5	0.144	0.914	0.008	0.806_5	-0.098_5	0.720_5	-0.184_5	0.653	-0.252_5
0.06	1.780	0.685_5	1.711_5	0.617	1.559	0.464_5	1.324_5	0.230	1.153	0.058_5	1.021_5	-0.072_5	0.917_5	-0.176_5	0.834_5	-0.260	0.769_5	-0.325
0.08	1.842_5	0.596	1.777	0.530	1.630	0.383	1.403_5	0.156_5	1.237_5	-0.009_5	1.110	-0.137	1.009	-0.237_5	0.929	-0.318	0.866	-0.381
0.10	1.892_5	0.518_5	1.829	0.455	1.687_5	0.313_5	1.468_5	0.094_5	1.307_5	-0.066_5	1.184	-0 190	1.086_5	-0.287_5	1.009	-0.365	0.948_5	-0.425_5
0.12	1.933	0.450	1.872	0.389	1.735_5	0.252_5	1.524	0.040_5	1.368	-0.115_5	1.248	-0.235	1.154	-0.329	1.079	-0.404	1.020_5	-0.463
0.15	1.980	0.359	1.922_5	0.301	1.793	0.171_5	1.591_5	-0.029_5	1.443	-0.178	1.329	-0.292	1.239	-0.382	1.168	-0.453	1.113	-0.508_5
0.18	2.013_5	0.279_5	1.958_5	0.224_5	1.835_5	0.101_5	1.644_5	-0.089_5	1.503	-0.231	1.394_5	-0.339_5	1.309	-0.425	1.241_5	-0.492_5	1.189_5	-0.544_5
0.22	2.040_5	0.187	1.989	0.135_5	1.674_5	0.021	1.695_5	-0.158	1.563	-0.290	1.462	-0.391_5	1.382_5	-0.471	1.320	-0.533_5	1.272	-0.581_5
0.26	2.049_5	0.106_5	2.002	0.058_5	1.894_5	-0.048_5	1.727_5	-0.216	1.604	-0.339_5	1.510	-0.433_5	1.436	-0.507_5	1.378_5	-0.565	1.335	-0.608_5
0.30	2.043	0.036	1.998_5	-0.008_5	1.898_5	-0.108_5	1.742_5	-0.264_5	1.627_5	-0.379_5	1.539_5	-0.467_5	1.472	-0.535	1.419_5	-0.587_5	1.379_5	-0.627_5
0.34	2.021_5	-0.026	1.980	-0.067_5	1.887	-0.160_5	1.741_5	-0.305_5	1.634_5	-0.412_5	1.553_5	-0.493_5	1.491_5	-0.556	1.444	-0.603_5	1.408_5	-0.638_5
0.38	1.985	-0.079	1.946_5	-0.117_5	1.860_5	-0.203_5	1.725	-0.339	1.626	-0.437_5	1.551_5	-0.512_5	1.495	-0.569	1.452_5	-0.611_5	1.421_5	-0.642_5
0.42	1.934_5	-0.124_5	1.899	-0.159_5	1.819	-0.239_5	1.694	-0.364_5	1.602_5	-0.456	1.534_5	-0.524	1.483_5	-0.575	1.446	-0.612_5	1.419	-0.639_5
0.46	1.868_5	-0.160_5	1.836	-1.192_5	1.762_5	-0.266	1.647_5	-0.381	1.563_5	-0.465_5	1.501_5	-0.527	1.456	-0.572_5	1.423_5	-0.605	1.400_5	-0.628
0.52	1.735	-0.191	1.707	-0.219	1.643	-0.283	1.542_5	-0.383_5	1.469_5	-0.456_5	1.417_5	-0.508_5	1.380	-0.546	1.354_5	-0.571_5	1.337_5	-0.588_5
0.58	1.560	-0.192	1.536	-0.216	1.482	-0.270	1.396	-0.356	1.334_5	-0.417_5	1.291	-0.461	1.261_5	-0.490_5	1.242	-0.510	1.230	-0.522
0.66	1.288	-0.1705	1.269_5	-0.189	1.227_5	-0.231	1.161_5	-0.297_5	1.115	-0.343_5	1.084	-0.375	1.064	-0.395	1.051_5	-0.407	1.044_5	
0.78	0.836_5	-0.116	0.825_5	-0.127_5	0.800_5	-0.152_5	0.763_5		0.739_5		0.725		0.716		0.711		0.708	
0.787	0.810	-0.113	0.799	-0.124	0.775		0.739		0.717		0.703		0.695		0.690		0.687_5	
1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000_5	0.000_5	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	-0.000

y	14.00		15.00		16.00		17.00		18.00		19.00		20.00		21.01		22.09	
c	30.00		30.00		30.00		30.00		30.00		30.00		30.00		30.00		29.97	
x/c	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l
0	0.095_5	0.095_5	0.055_5	0.055_5	0.030	0.030	0.017	0.017	0.012_5	0.012_5	0.014_5	0.014_5	0.020	0.020	0.025_5	0.025_5	0.030	0.030
0.0002	0.128_5	0.062_5	0.0890	0.023	0.063_5	-0.002_5	0.050	-0.016	0.046	-0.020	0.047_5	-0.018_5	0.053	-0.013	0.059	-0.007	0.063	-0.003
0.001	0.170_5	0.023_5	0.130_5	-0.016_5	0.105	-0.042	0.092	-0.055	0.087_5	-0.059_5	0.089_5	-0.057_5	0.095	-0.052	0.100_5	-0.046_5	0.105	-0.042
0.003	0.226_5	-0.027_5	0.187	-0.067	0.161_5	-0.092	0.148_5	-0.105_5	0.144	-0.109_5	0.146	-0.107_5	0.151_5	-0.102_5	0.157	-0.096_5	0.161_5	-0.092
0.007	0.298_5	-0.088_5	0.259_5	-0.127_5	0.234_5	-0.152_5	0.221_5	-0.165_5	0.217	-0.170	0.219	-0.168	0.224_5	-0.162_5	0.230	-0.157	0.234_5	-0.152
0.014	0.387	-0.157_5	0.348_5	-0.196	0.324	-0.221	0.311	-0.234	0.307	-0.238	0.309	-0.236	0.314	-0.230_5	0.320	-0.224_5	0.324_5	-0.219_5
0.025	0.491	-0.232	0.453_5	-0.269_5	0.429_5	-0.293_5	0.416_5	-0.306_5	0.412_5	-0.310_5	0.414_5	-0.308_5	0.420	-0.303	0.426	-0.297	0.431	-0.291_5
0.04	0.601_5	-0.304	0.565	-0.340_5	0.541_5	-0.364	0.529_5	-0.376	0.525_5	-0.379_5	0.528	-0.377	0.533_5	-0.372	0.539_5	-0.365_5	0.545	-0.359_5
0.06	0.720	-0.374_5	0.685	-0.409_5	0.662_5	-0.431_5	0.651	-0.443	0.648	-0.446_5	0.650_5	-0.444	0.656_5	-0.438	0.663	-0.431_5	0.668_5	-0.425
0.08	0.818_5	-0.428_5	0.785	-0.462	0.764	-0.483	0.753	-0.493_5	0.750	-0.496_5	0.753	-0.493_5	0.759_5	-0.487_5	0.766_5	-0.480_5	0.772_5	-0.473
0.10	0.902_5	-0.471_5	0.870_5	-0.503_5	0.850_5	-0.523_5	0.840_5	-0.533_5	0.838_5	-0.535_5	0.841_5	-0.532_5	0.848_5	-0.525_5	0.855_5	-0.518_5	0.862_5	-0.510_5
0.12	0.976_5	-0.506_5	0.946	-0.537	0.927	-0.556	0.918	-0.565_5	0.916	-0.567	0.920	-0.563_5	0.927	-0.556_5	0.934_5	-0.548_5	0.941_5	-0.540
0.15	1.071_5	-0.549_5	1.043	-0.578	1.026	-0.595_5	1.018	-0.603_5	1.017	-0.604	1.021_5	-0.599_5	1.029	-0.592	1.037_5	-0.583_5	1.045	-0.574_5
0.18	1.151	-0.583	1.124_5	-0.609_5	1.109	-0.625	1.102_5	-0.631_5	1.102_5	-0.631_5	1.107_5	-0.626_5	1.115_5	-0.618_5	1.124_5	-0.609_5	1.132_5	-0.600
0.22	1.237	-0.616_5	1.213_5	-0.640	1.200	-0.653_5	1.194_5	-0.659	1.196	-0.657_5	1.202	-0.651_5	1.210_5	-0.643	1.220	-0.633_5	1.228_5	-0.623
0.26	1.303	-0.640_5	1.282_5	-0.661	1.271	-0.672_5	1.267_5	-0.676	1.269_5	-0.673_5	1.276_5	-0.667	1.285_5	-0.658	1.295	-0.648_5	1.304	-0.637_5
0.30	1.351_5	-0.655_5	1.333_5	-0.673_5	1.324	-0.683	1.322	-0.685	1.325	-0.682	1.332_5	-0.674_5	1.341_5	-0.665_5	1.351_5	-0.655_5	1.360_5	-0.644_5
0.34	1.384	-0.663_5	1.368_5	-0.679	1.361	-0.686_5	1.360	-0.687	1.364	-0.683	1.371_5	-0.676	1.380_5	-0.666_5	1.390_5	-0.656_5	1.399_5	-0.646
0.38	1.400	-0.664	1.387_5	-0.676_5	1.381_5	-0.682_5	1.382	-0.682	1.386_5	-0.677_5	1.394	-0.670	1.403	-0.661	1.412_5	-0.651_5	1.421	-0.641
0.42	1.401	-0.657_5	1.391	-0.667_5	1.387	-0.671_5	1.388	-0.670_5	1.392_5	-0.666	1.400	-0.658_5	1.409	-0.650	1.418	-0.640_5	1.426_5	-0.630_5
0.46	1.386	-0.642_5	1.378	-0.650_5	1.375_5	-0.653	1.377	-0.651_5	1.382	-0.646_5	1.389	-0.639_5	1.397_5	-0.631_5	1.406	-0.622_5	1.414	-0.613
0.52	1.327	-0.599	1.322	-0.604	1.321	-0.605	1.323_5	-0.602_5	1.328	-0.598	1.334_5	-0.591_5	1.342	-0.584	1.349_5	-0.576_5	1.356_5	-0.568
0.58	1.223_5	-0.528_5	1.221	-0.531	1.221	-0.531	1.223_5	-0.528_5	1.228	-0.524	1.233_5	-0.518_5	1.240	-0.512	1.246_5	-0.505_5	1.252_5	-0.498
0.66	1.041_5		1.040_5		1.041_5		1.044		1.047_5		1.051_5		1.056_5		1.062		1.067_5	
0.78	0.706_5		0.706_5		0.706_5		0.708		0.710		0.713		0.716_5		0.721		0.725	
0.787	0.686		0.685_5		0.685_5		0.687		0.689		0.692		0.695_5		0.699_5		0.704	
1.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Wing ordinates

y	23.26		24.51		25.85		27.29		28.82		30.45		32.17		33.97		35.82	
c	29.89		29.75		29.53		29.22		28.81		28.2		27.57		26.68		25.58	
x/c	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l
0	0.031_5	0.031_5	0.028	0.028	0.017_5	0.017_5	0.000	0.000	-0.023_5	-0.023_5	-0.051	-0.051	-0.082	-0.082	-0.114_5	-0.114_5	-0.151	-0.151
0.0002	0.065	-0.001	0.061	-0.004_5	0.050_5	-0.014_5	0.032_5	-0.031_5	0.008_5	-0.054_5	-0.019_5	-0.082	-0.051	-0.111_5	-0.085	-0.143_5	-0.122_5	-0.179
0.001	0.106_5	-0.040	0.102_5	-0.043	0.091_5	-0.053	0.073_5	-0.069_5	0.049	-0.095	0.020	-0.118	-0.012	-0.147	-0.047	-0.178	-0.086_5	-0.211_5
0.003	0.163	-0.090	0.159	-0.092_5	0.148	-0.102	0.129_5	-0.118	0.104_5	-0.139_5	0.074_5	-0.164_5	0.041	-0.192	0.004_5	-0.221	-0.036_5	-0.253
0.007	0.236	-0.149_5	0.232	-0.152	0.221	-0.160	0.202	-0.175	0.176_5	-0.195	0.145_5	-0.219	0.111	-0.245	0.072_5	-0.272	0.029	-0.301
0.014	0.326_5	-0.216_5	0.322_5	-0.218	9.311	-0.225_5	0.292	-0.238_5	0.266	-0.257	0.234_5	-0.279	0.198	-0.303	0.157	-0.327_5	0.111	-0.353_5
0.025	0.433	-0.287_5	0.429	-0.288	0.418	-0.293_5	0.399	-0.305	0.372_5	-0.321_5	0.340	-0.341_5	0.302	-0.362_5	0.259	-0.384	0.210	-0.406_5
0.04	0.547_5	-0.355	0.544	-0.354	0.533_5	-0.358	0.514_5	-0.367_5	0.488	-0.381_5	0.454_5	-0.398_5	0.415	-0.417	0.370	-0.435_5	0.318	-0.454
0.06	0.671_5	-0.419	0.669	-0.416_5	0.659	-0.418_5	0.640_5	-0.425_5	0.614	-0.437	0.580	-0.451_5	0.539	-0.467	0.491_5	-0.482	0.437	-0.496
0.08	0.776	-0.466_5	0.774	-0.462_5	0.764_5	-0.463	0.746_5	-0.468	0.720	-0.477	0.686	-0.489	0.644	-0.502	0.595	-0.514	0.538_5	-0.524_5
0.10	0.866	-0.503	0.864_5	-0.498	0.856	-0.496_5	0.838_5	-0.500	0.812_5	-0.507_5	0.777_5	-0.517	0.735	-0.527_5	0.685_5	-0.537	0.627	-0.544_5
0.12	0.946	-0.532	0.945	-0.526	0.936_5	-0.523_5	0.920	-0.525	0.894	-0.530_5	0.859	-0.538_5	0.816	-0.547	0.765_5	-0.554	0.706	-0.558_5
0.15	1.050	-0.565_5	1.049_5	-0.558	1.042	-0.554	1.029_5	-0.554	1.000	-0.557	0.965_5	-0.562	0.922	-0.567_5	0.870_5	-0.571_5	0.809_5	-0.572_5
0.18	1.138	-0.590	1.138	-0.581_5	1.130_5	-0.576	1.115	-0.574_5	1.090	-0.575_5	1.055_5	-0.578_5	1.012_5	-0.581	0.960	-0.582	0.898_5	-0.580
0.22	1.234_5	-0.612_5	1.234_5	-0.603	1.228	-0.596_5	1.213	-0.592_5	1.188_5	-0.591_5	1.155	-0.591_5	1.112	-0.591_5	1.059_5	-0.589	0.996_5	-0.593_5
0.26	1.310	-0.626_5	1.310_5	-0.616_5	1.304_5	-0.608_5	1.290	-0.603_5	1.266_5	-0.600	1.233	-0.598	1.190_5	-0.595_5	1.138	-0.590_5	1.075	-0.582
0.30	1.366_5	-0.633_5	1.367_5	-0.623	1.361_5	-0.614	1.347_5	-0.607_5	1.324_5	-0.603	1.292_5	-0.599	1.250_5	-0.594	1.198_5	-0.586_5	1.135_5	-0.576
0.34	1.405_5	-0.634_5	1.406_5	-0.624	1.401	-0.614_5	1.387_5	-0.607	1.365_5	-0.601	1.334	-0.595_5	1.293	-0.588_5	1.241_5	-0.579_5	1.179	-0.566_5
0.38	1.427	-0.630	1.428	-0.619	1.422_5	-0.609	1.410	-0.601	1.388_5	-0.593_5	1.358	-0.587	1.318	-0.578_5	1.268	-0.568	1.206_5	-0.553_5
0.42	1.431_5	-0.619_5	1.432_5	-0.608_5	1.428	-0.598_5	1.416	-0.589_5	1.395_5	-0.581_5	1.366	-0.574	1.327	-0.564_5	1.278_5	-0.553	1.218	-0.537_5
0.46	1.419	-0.602_5	1.420	-0.592	1.415_5	-0.581_5	1.404	-0.572	1.384_5	-0.563_5	1.356_5	-0.555	1.319	-0.545	1.271_5	-0.532_5	1.213	-0.516_5
0.52	1.361	-0.558	1.362	-0.547_5	1.358_5	-0.537_5	1.348_5	-0.528	1.331	-0.519	1.305	-0.510	1.270	-0.500	1.225_5	-0.487_5	1.171	-0.471_5
0.58	1.257	-0.489	1.258	-0.479	1.255	-0.469_5	1.246_5	-0.460_5	1.231	-0.451_5	1.208	-0.443	1.176		1.136		1.086_5	
0.66	1.071	-0.399_5	1.072_5		1.071		1.064		1.051_5		1.032		1.005_5		0.972		0.930_5	
0.78	0.728_5		0.730_5		0.729_5		0.725_5		0.717		0.704		0.685_5		0.663		0.635_5	
0.787	0.707		0.709		0.708_5		0.704_5		0.696		0.683		0.665_5		0.643_5		0.617	
1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

TA

y	37.69		39.53		41.30		42.92		44.36		45.54		46.47		47.10		47.47	
c	24.22		22.58		20.64		18.39		15.84		13.01		9.95		6.73		3.39	
x/c	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l	z_u	z_l
0	-0.193_5	-0.193_5	-0.243	-0.243	-0.301	-0.301	-0.366_5	-0.366_5	-0.428_5	-0.428_5	-0.473_5	-0.473_5	-0.496	-0.496	-0.465_5	-0.465_5	-0.351_5	-0.351_5
0.0002	-0.166_5	-0.220	-0.218	-0.267_5	-0.278	-0.323_5	-0.345_5	-0.386	-0.410_5	-0.445	-0.458_5	-0.487_5	-0.484_5	-0.506_5	-0.458	-0.473	-0.348	-0.355
0.001	-0.132	-0.250_5	-0.185_5	-0.296	-0.248	-0.349_5	-0.349	-0.409	-0.387	-0.465_5	-0.439_5	-0.503	-0.469_5	-0.518_5	-0.448	-0.481	-0.343	-0.359
0.003	-0.084_5	-0.289_5	-0.140_5	-0.331_5	-0.206_5	-0.381	-0.281	-0.437	-0.354_5	-0.488_5	-0.412	-0.522	-0.448_5	-0.533	-0.433_5	-0.490_5	-0.335_5	-0.363_5
0.007	-0.021_5	-0.334	-0.081_5	-0.372_5	-0.151_5	-0.417_5	-0.231	-0.468	-0.310	-0.514	-0.375	-0.542_5	-0.419_5	-0.548	-0.413_5	-0.500_5	-0.325_5	-0.368_5
0.014	0.057_5	-0.382_5	-0.006	-0.416	-0.080_5	-0.455_5	-0.166	-0.500	-0.252	-0.540	-0.326_5	-0.562_5	-0.382	-0.562_5	-0.387_5	-0.509_5	-0.312	-0.373_5
0.025	0.153	-0.431	0.085_5	-0.459	0.005_5	-0.492	-0.086	-0.529_5	-0.180_5	-0.562_5	-0.265_5	-0.579	-0.334	-0.574	-0.354	-0.516	-0.294_5	-0.375
0.04	0.257_5	-0.473_5	0.186	-0.495_5	0.101	-0.522	0.003	-0.552	-0.100_5	-0.578_5	-0.197	-0.589_5	-0.279_5	-0.580	-0.315_5	-0.518_5	-0.275	-0.376
0.06	0.373_5	-0.510_5	0.297_5	-0.526	0.207_5	-0.545_5	0.103	-0.568	-0.010	-0.587	-0.119	-0.593_5	-0.216_5	-0.579_5	-0.271_5	-0.516_5	-0.252	-0.373
0.08	0.472	-0.534_5	0.393_5	-0.545	0.299_5	-0.558_5	0.189	-0.575_5	0.068_5	-0.589_5	-0.050_5	-0.591	-0.161	-0.574_5	-0.231_5	-0.511_5	-0.230_5	-0.369_5
0.10	0.558_5	-0.550_5	0.477_5	-0.557	0.380	-0.565_5	0.265	-0.577_5	0.138_5	-0.587	0.010_5	-0.585_5	-0.110_5	-0.566_5	-0.195_5	-0.503_5	-0.211	-0.364
0.12	0.636	-0.561_5	0.552	-0.564_5	0.452	-0.568_5	0.333	-0.576	0.201	-0.582	0.066	-0.577_5	-0.064	-0.556_5	-0.161_5	-0.494_5	-0.192_5	-0.357_5
0.15	0.737_5	-0.571_5	0.651	-0.569_5	0.547	-0.568_5	0.423_5	-0.570_5	0.285	-0.571	0.140_5	-0.563	-0.001	-0.539	-0.115	-0.479	-0.167	-0.347
0.18	0.824_5	-0.575_5	0.736	-0.569_5	0.629	-0.564	0.501_5	-0.561_5	0.357_5	-0.558	0.205_5	-0.546_5	0.055_5	-0.520	-0.073	-0.462	-0.143	-0.336
0.22	0.921	-0.575	0.830	-0.564_5	0.720_5	-0.554_5	0.589_5	-0.547	0.440	-0.538_5	0.281	-0.523	0.121_5	-0.493_5	-0.022_5		-0.113_5	
0.26	0.999	-0.570	0.906_5	-0.556	0.795	-0.542_5	0.661	-0.530	0.508	-0.518	0.344	-0.499	0.178_5		0.022		-0.086_5	
0.30	1.059	-0.561_5	0.966	-0.544_5	0.853_5	-0.527_5	0.718_5	-0.512	0.563_5	-0.496	0.396_5	-0.474	0.227		0.061		-0.061_5	
0.34	1.103	-0.550	1.010	-0.531	0.897	-0.511_5	0.7162	-0.493	0.606_5	-0.474	0.438_5	-0.449	0.267_5		0.095		-0.038_5	
0.38	1.131	-0.535_5	1.039	-0.514_5	0.927	-0.493	0.793	-0.472_5	0.638_5	-0.451	0.471	-0.424	0.300		0.124		-0.018	
0.42	1.144	-0.518	1.053_5	-0.496	0.943_5	-0.473	0.811_5	-0.450_5	0.660	-0.427	0.494_5	-0.398	0.325_5		0.148		-0.000	
0.46	1.141_5	-0.496_5	1.053_5	-0.473_5	0.946	-0.450	0.817_5	-0.426	0.670	-0.401	0.508_5	-0.371	0.342_5		0.166_5		0.016	
0.52	1.103_5	-0.451_5	1.021	-0.428_5	0.920_5	-0.405	0.800	-0.380_5	0.661_5	-0.355_5	0.510		0.353		0.184		0.034	
0.58	1.025_5		0.951		0.859_5		0.750_5		0.625		0.487		0.343_5		0.188		0.047	
0.66	0.880		0.817_5		0.741_5		0.650_5		0.546_5		0.431_5		0.310_5		0.178		0.055_5	
0.78	0.602_5		0.561_5		0.511_5		0.452		0.383_5		0.308		0.228		0.138_5		0.054	
0.787	0.585		0.545_5		0.496_5		0.439		0.373		0.300		0.222_5		0.135_5		0.053_5	
1.00	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

BODY ORDINATES (Dimensions in inches)

x from wing apex	Baseplate thickness	Radius	Baseplate thickness 2.000 for x>-10 Elliptic Sections			
			x	Upper width	Semi-height	Lower width
-60	0	0				
-59	0.138	0.435	10.5	6.254	6.260	6.267
-58	0.232	0.730	12.0	6.178	6.199	6.220
-57	0.313	0.986	13.5	6.077	6.118	6.159
-56	0.387	1.220	15.0	5.956	6.023	6.090
-55	0.456	1.438	16.5	5.820	5.919	6.018
-54	0.521	1.647	18.0	5.670	5.806	5.944
-53	0.583	1.438	19.5	5.508	5.688	5.868
-52	0.643	2.024	21.0	5.337	5.566	5.794
-51	0.700	2.204	22.5	5.158	5.440	5.722
-50	0.755	2.377	24.0	4.976	5.316	5.656
-49	0.808	2.544	25.5	4.793	5.194	5.596
-48	0.859	2.706	27.0	4.612	5.079	5.546
-47	0.909	2.864	28.5	4.438	4.973	5.508
-46	0.958	3.016	30.0	4.272	4.878	5.485
-45	1.005	3.164	31.5	4.120	4.799	5.478
-44	1.050	3.309	33.0	3.992	4.735	5.478
-43	1.095	3.450	36.0	3.832	4.655	5.478
-42	1.138	3.586	39.0	3.844	4.648	5.478
-41	1.191	3.720	42.0	3.905	4.677	5.478
-40	1.222	3.850	45.0	4.000	4.740	5.478
-39	1.263	3.979	48.0	4.128	4.803	5.478
-38	1.302	4.102	51.0	4.276	4.878	5.478
-37	1.340	4.222	54.0	4.444	4.962	5.478
-36	1.378	4.340	57.0	4.626	5.052	5.478
-35	1.414	4.454	60.0	4.822	5.150	5.478
-34	1.450	4.566	63.0	5.032	5.256	5.478
-33	1.484	4.676	66.0	5.230	5.316	5.490
-32	1.518	4.782	69.0	5.415	5.472	5.525
-31	1.551	4.886	72.0	5.568	5.582	5.595
-30	1.583	4.986		Radius		
-29	1.614	5.084				
-28	1.644	5.180	75.0	5.693		
-27	1.674	5.272	78.0	5.788		
-26	1.702	5.361	81.0	5.835		
-25	1.729	5.448	100	5.835		
-24	1.756	5.531				
-23	1.781	5.612				
-22	1.806	5.689				
-21	1.830	5.763				
-20	1.852	5.834				
-19	1.874	5.902				
-18	1.894	5.966				
-17	1.913	6.026				
-16	1.931	6.082				
-15	1.947	6.134				
-14	1.962	6.180				
-13	1.975	6.222				
-12	1.986	6.258				
-11	1.995	6.285				
-10	2.000	6.300				

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 2 \times 10^6$

α	-2.81	-0.66	1.45	3.56	5.64
M	0.559	0.558	0.557	0.558	0.555
$10^{-6}Re_c$	2.03	2.02	2.02	2.03	2.03

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	-0171	0203	0229	-0069	-0645
0042	6757	0229	0219	0200	-0012	-0413	-0956
0084	6757	0461	0235	0160	-0072	-0443	-0888
0178	6757	0832	0228	0116	-0089	-0393	-0834
0281	6757	1171	0199	0071	-0112	-0374	-0796
0385	6757	1459	0170	0048	-0123	-0348	-0604
0585	6757	1924	0130	0001	-0159	-0345	-0526
0783	6757	2305	0098	-0024	-0165	-0332	-0483
0987	6757	2651	0072	-0050	-0172	-0324	-0453
1488	6757	3333	0020	-0083	-0186	-0308	-0410
1990	6757	3854	0001	-0103	-0187	-0291	-0370
2490	6757	4245	-0029	-0118	-0195	-0280	-0344
2987	6757	4523	-0048	-0126	-0195	-0273	-0314
3493	6757	4707	-0052	-0137	-0195	-0261	-0295
3994	6757	4797	-0067	-0141	-0192	-0255	-0269
4495	6757	4790	-0080	-0147	-0190	-0241	-0244
4996	6757	4675	-0077	-0139	-0179	-0207	-0210
5497	6757	4444	-0070	-0121	-0161	-0175	-0159
5996	6757	4108	-0060	-0093	-0147	-0135	-0111
7000	6757	3271	-0029	-0058	-0063	-0085	-0065
7513	6757	2777	-0011	-0035	-0040	-0051	-0043
7996	6757	2266	0007	-0013	-0011	-0022	-0032
8496	6757	1713	0016	0004	0003	0006	-0026
9006	6757	1142	0038	0029	0032	0036	-0019
9497	6757	0587	0053	0052	0058	0054	-0016
Lower Surface							
0000	6757	-0370	-0171	0203	0229	-0069	-0645
0035	6757	-0741	-0539	-0023	0222	0198	-0038
0080	6757	-0955	-0554	-0098	0180	0258	0174
0174	6757	-1195	-0473	-0114	0123	0242	0267
0282	6757	-1360	-0463	-0112	0087	0199	0247
0383	6757	-1487	-0416	-0105	0075	0179	0238
0580	6757	-1677	-0230	-0091	0059	0163	0222
0787	6757	-1810	-0203	-0082	0037	0134	0197
0984	6757	-1897	-0180	-0078	0034	0112	0175
1482	6757	-2042	-0142	-0066	0028	0088	0139
1985	6757	-2125	-0116	-0047	0020	0080	0123
2488	6757	-2152	-0090	-0040	0019	0075	0115
2985	6757	-2156	-0075	-0036	0027	0064	0100
3491	6757	-2135	-0064	-0028	0012	0057	0089
3992	6757	-2086	-0064	-0025	0007	0049	0080
4488	6757	-1994	-0050	-0018	0018	0048	0072
4996	6757	-1877	-0039	-0011	0018	0044	0065
5494	6757	-1707	-0020	0001	0026	0048	0069
5999	6757	-1525	-0011	0013	0027	0053	0070
6495	6757	-1343	0003	0016	0034	0057	0062
6998	6757	-1155	0012	0017	0043	0058	0056
7498	6757	-0968	0028	0034	0059	0066	0061
8004	6757	-0785	0033	0035	0057	0064	0050
8501	6757	-0591	0047	0057	0067	0074	0057
8998	6757	-0400	0056	0058	0073	0072	0044
95% Chord							
9497	1613	0587	0083	0071	0070	0051	0015
9497	2348	0587	0065	0060	0063	0051	0015
9497	3084	0587	0064	0059	0065	0054	0018
9497	3818	0587	0062	0049	0060	0052	0012
9497	4553	0587	0054	0056	0055	0055	0012
9497	5290	0587	0053	0055	0062	0058	0003
9497	6025	0587	0054	0049	0059	0059	-0007
9497	6757	0587	0053	0052	0058	0054	-0016
9497	7503	0587	0053	0048	0059	0055	-0038
9497	8241	0587	0057	0056	0063	0062	-0079
9497	8976	0587	0061	0055	0058	0051	-0095
9497	9712	0587	0038	0056	0032	-0107	-0030

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 4 \times 10^6$

α	-2.83	-0.64	1.44	3.57	5.63
M	0.556	0.557	0.556	0.554	0.553
$10^{-6}Re_c$	4.04	4.06	4.04	4.04	4.02

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	-0231	0174	0200	-0105	-0709
0042	6757	0229	0196	0194	-0021	-0437	-1042
0084	6757	0461	0214	0148	-0087	-0472	-0983
0178	6757	0832	0206	0106	-0103	-0414	-0875
0281	6757	1171	0179	0062	-0133	-0395	-0670
0385	6757	1459	0150	0039	-0145	-0377	-0613
0585	6757	1924	0106	-0011	-0176	-0371	-0575
0783	6757	2305	0075	-0036	-0184	-0353	-0524
0987	6757	2651	0049	-0058	-0195	-0343	-0483
1488	6757	3333	0004	-0090	-0206	-0323	-0448
1990	6757	3854	-0020	-0099	-0213	-0311	-0405
2490	6757	4245	-0047	-0121	-0213	-0292	-0380
2987	6757	4523	-0060	-0123	-0204	-0271	-0350
3493	6757	4707	-0077	-0136	-0211	-0269	-0329
3994	6757	4797	-0091	-0145	-0210	-0260	-0306
4495	6757	4790	-0101	-0150	-0208	-0255	-0283
4996	6757	4675	-0101	-0141	-0195	-0228	-0245
5497	6757	4444	-0094	-0125	-0173	-0198	-0202
5996	6757	4108	-0080	-0100	-0140	-0156	-0159
6498	6757	3713	-0058	-0077	-0112	-0122	-0117
7000	6757	3271	-0049	-0064	-0089	-0096	-0093
7513	6757	2777	-0032	-0044	-0065	-0065	-0072
7996	6757	2266	-0015	-0022	-0039	-0035	-0055
8496	6757	1713	-0002	-0001	-0018	-0013	-0046
9006	6757	1142	0020	0023	0009	0011	-0037
9497	6757	0587	0035	0040	0030	0026	-0033
Lower Surface							
0000	6757	-0370	-0131	0174	0200	-0105	-0709
0035	6757	-0741	-0612	-0051	0194	0173	-0074
0080	6757	-0955	-0637	-0121	0150	0236	0150
0174	6757	-1195	-0543	-0135	0094	0220	0240
0282	6757	-1360	-0480	-0130	0060	0187	0230
0383	6757	-1487	-0326	-0121	0044	0163	0215
0580	6757	-1677	-0277	-0105	0030	0138	0198
0787	6757	-1810	-0236	-0098	0015	0114	0172
0984	6757	-1897	-0211	-0090	0006	0096	0153
1482	6757	-2042	-0172	-0074	-0002	0072	0120
1985	6757	-2125	-0142	-0056	-0003	0060	0106
2488	6757	-2152	-0120	-0043	-0003	0056	0096
2985	6757	-2156	-0103	-0041	-0003	0052	0081
3491	6757	-2135	-0093	-0035	-0001	0045	0071
3992	6757	-2086	-0090	-0041	-0007	0033	0055
4488	6757	-1994	-0073	-0032	-0002	0032	0053
4996	6757	-1877	-0065	-0026	-0004	0029	0045
5494	6757	-1707	-0048	-0015	0006	0032	0043
5999	6757	-1523	-0036	-0006	0013	0035	0043
6495	6757	-1343	-0023	0003	0016	0037	0042
6998	6757	-1155	-0017	0003	0013	0032	0033
7498	6757	-0968	-0001	0019	0027	0042	0039
8004	6757	-0783	0007	0023	0027	0038	0030
8501	6757	-0591	0024	0036	0040	0047	0037
8998	6757	-0400	0034	0043	0043	0047	0027
95% Chord							
9497	1613	0587	0062	0065	0048	0035	-0000
9497	2348	0587	0045	0049	0044	0031	-0002
9497	3084	0587	0042	0049	0043	0034	-0001
9497	3818	0587	0038	0044	0037	0030	-0005
9497	4553	0587	0034	0042	0035	0029	-0008
9497	5290	0587	0037	0042	0034	0030	-0012
9497	6025	0587	0036	0042	0035	0027	-0023
9497	6757	0587	0035	0040	0030	0026	-0033
9497	7503	0587	0035	0044	0031	0027	-0050
9497	8241	0587	0039	0046	0037	0029	-0100
9497	8976	0587	0037	0049	0048	0042	-0146
9497	9712	0587	0026	0059	0021	-0175	-0077

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.75	-0.69	1.40	1.97	3.51	5.57
M	0.555	0.555	0.554	0.550	0.552	0.549
$10^{-6}Re_c$	8.06	8.06	8.01	8.14	7.98	7.98

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 c_p$					
Upper Surface								
0000	6757	-0370	-0224	0146	0194	0139	-0112	-0737
0042	6757	0229	0189	0185	-0019	-0135	-0446	-1080
0084	6757	0461	0209	0141	-0085	-0188	-0468	-1033
0178	6757	0832	0200	0100	-0101	-0166	-0405	-0777
0281	6757	1171	0172	0057	-0128	-0198	-0386	-0701
0385	6757	1459	0149	0031	-0144	-0223	-0380	-0655
0585	6757	1924	0098	-0017	-0170	-0232	-0374	-0606
0783	6757	2305	0066	-0036	-0178	-0231	-0355	-0549
0987	6757	2651	0053	-0041	-0173	-0225	-0332	-0498
1488	6757	3333	-0012	-0022	-0207	-0232	-0329	-0466
1990	6757	3854	-0034	-0114	-0207	-0242	-0309	-0423
2490	6757	4245	-0058	-0130	-0211	-0242	-0302	-0397
2987	6757	4523	-0069	-0134	-0207	-0239	-0284	-0366
3493	6757	4707	-0088	-0147	-0211	-0240	-0278	-0346
3994	6757	4797	-0102	-0155	-0212	-0234	-0270	-0326
4495	6757	4790	-0113	-0161	-0211	-0233	-0260	-0304
4996	6757	4675	-0110	-0151	-0195	-0215	-0235	-0270
5497	6757	4444	-0104	-0139	-0175	-0200	-0208	-0231
5996	6757	4108	-0083	-0112	-0144	-0158	-0166	-0181
6498	6757	3713	-0066	-0089	-0112	-0128	-0131	-0141
7000	6757	3271	-0055	-0074	-0091	-0103	-0104	-0111
7513	6757	2777	-0040	-0057	-0069	-0079	-0076	-0084
7996	6757	2266	-0022	-0032	-0040	-0049	-0047	-0059
8496	6757	1713	-0007	-0014	-0019	-0025	-0023	-0043
9006	6757	1142	0013	0010	0007	0003	-0001	-0028
9497	6757	0587	0030	0029	0027	0024	0016	-0021
Lower Surface								
0000	6757	-0370	-0224	0146	0194	0139	-0112	-0737
0035	6757	-0741	-0627	-0135	0179	0208	0155	-0091
0080	6757	-0955	-0646	-0154	0135	0190	0226	0140
0174	6757	-1195	-0526	-0145	0080	0141	0213	0241
0282	6757	-1360	-0387	-0142	0056	0103	0178	0226
0383	6757	-1487	-0351	-0139	0037		0152	0207
0580	6757	-1677	-0285	-0114	0029	0060	0127	0191
0787	6757	-1810	-0241	-0097	0021	0047	0113	0173
0984	6757	-1897	-0216	-0092	0012	0034	0097	0149
1482	6757	-2042	-0180	-0089	-0006	0013	0064	0111
1985	6757	-2125	-0145	-0072	-0004	0011	0054	0095
2488	6757	-2152	-0123	-0061	-0005	0009	0047	0084
2985	6757	-2156	-0114	-0063	-0011	0000	0036	0069
3491	6757	-2135	-0100	-0055	-0010	0002	0032	0060
3992	6757	-2086	-0094	-0056	-0017	-0007	0020	0044
4488	6757	-1994	-0082	-0049	-0011	-0003	0021	0042
4996	6757	-1877	-0075	-0047	-0015	-0007	0015	0033
5494	6757	-1707	-0056	-0033	-0006	0000	0020	0035
5999	6757	-1523	-0042	-0022	0002	0009	0022	0034
6495	6757	-1343	-0029	-0013	0007	0012	0025	0033
6998	6757	-1155	-0026	-0014	0004	0008	0019	0024
7498	6757	-0968	-0007	0002	0017	0022	0028	0030
8004	6757	-0783	-0001	0006	0018	0021	0026	0023
8501	6757	-0591	0020	0023	0031	0032	0037	0033
8998	6757	-0400	0026	0028	0033	0035	0034	0025
0000	6757	-0370	-0224	0146	0194	0139	-0112	-0737
95% Chord								
9497	1613	0587	0055	0050	0040	0035	0028	-0002
9497	2348	0587	0038	0038	0037	0039	0027	0001
9497	3084	0587	0035	0034	0033	0032	0027	0001
9497	3818	0587	0032	0029	0029	0031	0024	-0000
9497	4553	0587	0032	0031	0028	0026	0021	-0004
9497	5290	0587	0030	0028	0027	0026	0021	-0007
9497	6025	0587	0029	0028	0026	0026	0017	-0013
9497	6757	0587	0030	0029	0027	0024	0016	-0021
9497	7503	0587	0031	0029	0027	0027	0015	-0031
9497	8241	0587	0034	0033	0029	0028	0011	-0061
9497	8976	0587	0038	0040	0032	0026	-0009	-0153
9497	9712	0587	0031	0048	0032	-0024	-0163	-0118

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 16 \times 10^6$

α	-2.83	-0.70	1.34	1.98	3.43	5.51
M	0.546	0.551	0.554	0.555	0.555	0.554
$10^{-6}Re_c$	15.9	16.3	16.6	16.7	16.7	16.7

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0240	0161	0202	0146	-0094	-0727
0042	6757	0229	0190	0179	-0018	-0120	-0429	-1061
0084	6757	0461	0218	0160	-0072	-0171	-0453	-0999
0178	6757	0832	0216	0110	-0080	-0160	-0376	-0769
0281	6757	1171	0184	0064	-0115	-0185	-0371	-0697
0385	6757	1459	0151	0028	-0143	-0208	-0376	-0665
0585	6757	1924	0103	-0022	-0173	-0228	-0370	-0604
0783	6757	2305	0072	-0045	-0179	-0227	-0349	-0546
0987	6757	2651	0065	-0045	-0168	-0210	-0318	-0489
1488	6757	3333	0012	-0085	-0187	-0221	-0308	-0441
1990	6757	3854	-0027	-0116	-0206	-0235	-0310	-0420
2490	6757	4245	-0051	-0132	-0211	-0236	-0300	-0393
2987	6757	4523	-0057	-0130	-0200	-0222	-0278	-0357
3493	6757	4707	-0085	-0153	-0215	-0234	-0283	-0350
3994	6757	4797	-0095	-0156	-0211	-0227	-0270	-0327
4495	6757	4790	-0108	-0163	-0211	-0226	-0263	-0310
4996	6757	4675	-0104	-0153	-0196	-0207	-0239	-0276
5497	6757	4444	-0102	-0145	-0179	-0189	-0215	-0242
5996	6757	4108	-0084	-0118	-0146	-0154	-0173	-0196
6498	6757	3713	-0062	-0093	-0116	-0120	-0137	-0150
7000	6757	3271	-0050	-0075	-0092	-0096	-0108	-0116
7513	6757	2777	-0035	-0056	-0069	-0070	-0080	-0082
7996	6757	2266	-0019	-0034	-0043	-0043	-0049	-0050
8496	6757	1713	-0004	-0016	-0020	-0019	-0023	-0024
9006	6757	1142	0017	0010	0008	0008	0005	0000
9497	6757	0587	0037	0033	0033	0034	0029	0016
Lower Surface								
0000	6757	-0370	-0240	0161	0202	0146	-0094	-0727
0035	6757	-0741	-0675	-0076	0189	0219	0183	-0066
0080	6757	-0955	-0667	-0139	0141	0190	0231	0151
0174	6757	-1195	-0498	-0133	0097	0149	0220	0249
0282	6757	-1360	-0412	-0129	0061	0108	0181	0236
0580	6757	-1677	-0302	-0117	0024	0062	0127	0197
0787	6757	-1810	-0254	-0103	0018	0050	0109	0176
0984	6757	-1897	-0225	-0097	0008	0037	0090	0155
1482	6757	-2042	-0184	-0089	-0009	0016	0060	0117
1985	6757	-2125	-0149	-0073	-0006	0015	0051	0102
2488	6757	-2152	-0127	-0064	-0006	0012	0043	0088
2985	6757	-2156	-0116	-0063	-0014	0003	0031	0074
3491	6757	-2135	-0100	-0055	-0010	0004	0029	0067
3992	6757	-2086	-0098	-0059	-0019	-0006	0016	0051
4488	6757	-1994	-0081	-0047	-0013	-0001	0019	0051
4996	6757	-1877	-0074	-0046	-0016	-0005	0012	0041
5494	6757	-1707	-0057	-0033	-0008	0003	0017	0042
5999	6757	-1523	-0041	-0021	0002	0010	0022	0044
6495	6757	-1343	-0028	-0012	0006	0014	0024	0043
6998	6757	-1155	-0024	-0013	0003	0011	0018	0035
7498	6757	-0968	-0006	0004	0018	0023	0029	0043
8004	6757	-0783	0002	0008	0018	0023	0028	0038
8501	6757	-0591	0022	0027	0035	0039	0041	0047
8998	6757	-0400	0029	0031	0037	0040	0040	0044
95% Chord								
9497	1613	0587	0064	0052	0044	0042	0034	0018
9497	2348	0587	0045	0041	0041	0042	0035	0023
9497	3084	0587	0040	0035	0035	0037	0033	0023
9497	3818	0587	0037	0032	0032	0034	0031	0025
9497	4553	0587	0032	0029	0029	0030	0027	0020
9497	5290	0587	0035	0031	0031	0032	0029	0022
9497	6025	0587	0035	0030	0031	0032	0028	0019
9497	6757	0587	0037	0033	0033	0034	0029	0016
9497	7503	0587	0040	0036	0033	0035	0028	0018
9497	8241	0587	0040	0037	0035	0035	0028	0002
9497	8976	0587	0044	0041	0037	0035	0017	-0045
9497	9712	0587	0035	0045	0013	-0020	-0224	-0202

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 27 \times 10^6$

α	-2.82	-0.75	1.28	1.90	3.35	5.39
M	0.552	0.552	0.551	0.551	0.546	0.547
$10^{-6}Re_c$	27.0	27.0	27.0	26.9	26.7	26.8

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0237	0156	0209	0163	-0080	-0680
0042	6757	0229	0189	0187	-0003	-0093	-0414	-1013
0084	6757	0461	0216	0150	-0058	-0146	-0442	-0958
0178	6757	0832	0216	0121	-0064	-0136	-0366	-0737
0281	6757	1171	0182	0071	-0104	-0167	-0369	-0676
0385	6757	1459	0156	0042	-0127	-0185	-0367	-0635
0585	6757	1924	0100	-0014	-0163	-0215	-0371	-0586
0783	6757	2305	0071	-0036	-0168	-0212	-0349	-0530
0987	6757	2651	0073	-0029	-0150	-0189	-0312	-0469
1488	6757	3333	-0000	-0089	-0190	-0221	-0324	-0443
1990	6757	3854	-0027	-0108	-0197	-0224	-0313	-0411
2490	6757	4245	-0046	-0120	-0197	-0221	-0300	-0382
2987	6757	4523	-0058	-0125	-0193	-0214	-0285	-0352
3493	6757	4707	-0085	-0145	-0206	-0224	-0288	-0345
3994	6757	4797	-0096	-0150	-0204	-0220	-0277	-0324
4495	6757	4790	-0108	-0156	-0204	-0218	-0269	-0307
4996	6757	4675	-0104	-0147	-0187	-0199	-0246	-0274
5497	6757	4444	-0102	-0139	-0172	-0183	-0223	-0243
5996	6757	4108	-0085	-0114	-0143	-0152	-0185	-0197
6498	6757	3713	-0061	-0087	-0108	-0115	-0144	-0151
7000	6757	3271	-0050	-0069	-0086	-0091	-0116	-0117
7513	6757	2777	-0036	-0051	-0063	-0067	-0088	-0084
7996	6757	2266	-0018	-0030	-0037	-0040	-0058	-0051
8496	6757	1713	-0004	-0012	-0015	-0016	-0031	-0022
9006	6757	1142	0017	0013	0012	0012	-0001	0005
9497	6757	0587	0039	0038	0039	0039	0026	0025
Lower Surface								
0000	6757	-0370	-0237	0156	0209	0163	-0080	-0680
0035	6757	-0741	-0675	-0087	0190	0218	0183	-0048
0080	6757	-0955	-0664	-0149	0139	0186	0228	0163
0174	6757	-1195	-0491	-0136	0097	0144	0215	0252
0282	6757	-1360	-0414	-0135	0062	0103	0172	0233
0580	6757	-1677	-0305	-0122	0023	0056	0114	0190
0787	6757	-1810	-0254	-0105	0018	0045	0098	0173
0984	6757	-1897	-0226	-0098	0010	0034	0080	0150
1482	6757	-2042	-0185	-0089	-0006	0014	0050	0113
1985	6757	-2125	-0148	-0072	-0003	0014	0043	0099
2488	6757	-2152	-0126	-0062	-0004	0011	0035	0087
2985	6757	-2156	-0116	-0062	-0011	0003	0022	0071
3491	6757	-2135	-0100	-0053	-0007	0005	0021	0066
3992	6757	-2086	-0100	-0057	-0016	-0006	0007	0049
4488	6757	-1994	-0082	-0046	-0009	0000	0011	0049
4996	6757	-1877	-0077	-0045	-0013	-0004	0003	0038
5494	6757	-1707	-0059	-0031	-0003	0005	0009	0041
5999	6757	-1523	-0043	-0020	0004	0011	0014	0042
6495	6757	-1343	-0030	-0011	0010	0016	0017	0043
6998	6757	-1155	-0027	-0011	0008	0012	0011	0034
7498	6757	-0968	-0007	0007	0022	0026	0023	0043
8004	6757	-0783	-0002	0009	0021	0024	0019	0036
8501	6757	-0591	0023	0031	0040	0042	0037	0051
8998	6757	-0400	0031	0036	0043	0044	0035	0046
99% Chord								
9497	1613	0587	0061	0056	0052	0049	0032	0025
9497	2348	0587	0043	0044	0046	0047	0032	0028
9497	3084	0587	0039	0039	0041	0041	0028	0029
9497	3818	0587	0036	0036	0037	0038	0025	0029
9497	4553	0587	0034	0033	0035	0035	0022	0027
9497	5290	0587	0036	0036	0037	0037	0024	0027
9497	6025	0587	0036	0035	0037	0037	0024	0028
9497	6757	0587	0039	0038	0039	0039	0026	0025
9497	7503	0587	0036	0038	0040	0040	0024	0026
9497	8241	0587	0038	0039	0040	0040	0024	0018
9497	8976	0587	0042	0045	0043	0041	0019	-0015
9497	9712	0587	0036	0048	0022	-0001	-0172	-0438

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.8$ $Re_{c_{nom}} = 2 \times 10^6$

α	-2.86	-0.71	1.47	3.61	5.74
M	0.824	0.825	0.826	0.823	0.814
$10^{-6}Re_c$	2.03	2.04	2.05	2.05	2.04

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	-0176	0184	0225	-0058	-0547
0042	6757	0229	0203	0215	0009	-0419	-0946
0084	6757	0461	0215	0167	-0067	-0476	-0904
0178	6757	0832	0207	0126	-0089	-0426	-0884
0281	6757	1171	0182	0079	-0119	-0407	-0889
0385	6757	1459	0149	0057	-0135	-0391	-0856
0585	6757	1924	0107	0002	-0169	-0385	-0682
0783	6757	2305	0074	-0025	-0179	-0368	-0495
0987	6757	2651	0048		-0192	-0359	-0486
1488	6757	3333	-0003	-0085	-0203	-0338	-0442
1990	6757	3854	-0031	-0108	-0209	-0322	-0407
2490	6757	4245	-0061	-0127	-0217	-0316	-0379
2987	6757	4523	-0076	-0142	-0219	-0304	-0344
3493	6757	4707	-0086	-0149	-0217	-0292	-0312
3994	6757	4797	-0096	-0154	-0214	-0280	-0281
4495	6757	4790	-0110	-0159	-0212	-0264	-0251
4996	6757	4675	-0113	-0154	-0201	-0231	-0206
5497	6757	4444	-0106	-0133	-0180	-0199	-0160
5996	6757	4108	-0094	-0108	-0166	-0158	-0121
6490	6757	3713	-0069	-0074	-0102	-0116	-0084
7006	6757	3271	-0058	-0064	-0067	-0089	-0068
7513	6757	2777	-0043	-0041	-0046	-0058	-0056
7996	6757	2266	-0022	-0019	-0022	-0025	-0048
8496	6757	1713	-0010	0004	0003	0003	-0047
9006	6757	1142	0011	0030	0032	0032	-0043
9497	6757	0587	0028	0049	0054	0048	-0049
Lower Surface							
0000	6757	-0370	-0176	0184	0225	-0058	-0547
0035	6757	-0741	-0576	-0046	0211	0197	0002
0080	6757	-0955	-0592	-0128	0168	0252	0191
0174	6757	-1195	-0517	-0149	0111	0236	0258
0282	6757	-1360	-0528	-0139	0078	0198	0241
0383	6757	-1487	-0512	-0128	0061	0178	0233
0580	6757	-1677	-0279	-0113	0043	0155	0215
0787	6757	-1810	-0238	-0105	0029	0130	0186
0984	6757	-1897	-0217	-0096	0024	0112	0168
1482	6757	-2042	-0179	-0076	0017	0087	0138
1985	6757	-2125	-0149	-0069	0010	0075	0115
2488	6757	-2152	-0120	-0054	0012	0066	0105
2985	6757	-2156	-0106	-0040	0017	0063	0100
3491	6757	-2135	-0097	-0031	0013	0054	0082
3992	6757	-2086	-0090	-0030	0005	0046	0066
4488	6757	-1994	-0078	-0025	0010	0045	0064
4996	6757	-1877	-0064	-0020	0010	0042	0062
5494	6757	-1707	-0047	-0006	0018	0045	0064
5999	6757	-1523	-0036	0002	0021	0051	0057
6495	6757	-1343	-0023	0010	0026	0058	0053
6998	6757	-1155	-0013	0014	0039	0055	0047
7498	6757	-0968	-0001	0028	0053	0063	0047
8004	6757	-0783	0009	0033	0052	0057	0038
8501	6757	-0591	0024	0045	0061	0066	0044
8998	6757	-0400	0033	0055	0065	0065	0026
95% Chord							
9497	1613	0587	0067	0080	0076	0051	0002
9497	2348	0587	0047	0063	0065	0059	0007
9497	3084	0587	0043	0061	0063	0060	-0001
9497	3818	0587	0038	0054	0056	0056	-0002
9497	4553	0587	0032	0050	0053	0052	-0008
9497	5290	0587	0032	0054	0056	0053	-0024
9497	6025	0587	0032	0048	0053	0052	-0031
9497	6757	0587	0028	0049	0054	0048	-0049
9497	7503	0587	0031	0049	0054	0051	-0059
9497	8241	0587	0031	0052	0060	0059	-0087
9497	8976	0587	0038	0054	0056	0047	-0119
9497	9712	0587	0000	0058	-0017	-0168	-0051

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.8 \quad Re_{c_{nom}} = 4 \times 10^6$

α	-2.83	-0.69	1.47	3.61	5.72
M	0.825	0.824	0.826	0.816	0.817
$10^{-6}Re_c$	4.05	4.04	4.04	4.02	4.02

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	-0208	0157	0202	-0095	-0619
0042	6757	0229	0204	0197	-0019	-0455	-1103
0084	6757	0461	0224	0151	-0092	-0511	-1105
0178	6757	0832	0218	0109	-0110	-0450	-1048
0281	6757	1171	0189	0064	-0140	-0430	-1007
0385	6757	1459	0164	0038	-0158	-0419	-0715
0585	6757	1924	0115	-0015	-0191	-0409	-0653
0783	6757	2305	0083	-0040	-0198	-0388	-0590
0987	6757	2651	0055	-0062	-0207	-0378	-0540
1488	6757	3333	0009	-0098	-0217	-0350	-0490
1990	6757	3854	-0016	-0111	-0227	-0339	-0447
2490	6757	4245	-0047	-0136	-0235	-0322	-0418
2987	6757	4523	-0060	-0143	-0236	-0300	-0378
3493	6757	4707	-0078	-0154	-0231	-0293	-0345
3994	6757	4797	-0093	-0163	-0228	-0283	-0314
4495	6757	4790	-0103	-0166	-0224	-0271	-0278
4996	6757	4675	-0103	-0158	-0213	-0243	-0229
5497	6757	4444	-0094	-0144	-0195	-0209	-0180
5996	6757	4108	-0074	-0113	-0140	-0161	-0140
6498	6757	3713	-0055	-0089	-0104	-0123	-0111
7000	6757	3271	-0045	-0073	-0088	-0093	-0098
7513	6757	2777	-0031	-0053	-0063	-0062	-0091
7996	6757	2266	-0012	-0030	-0033	-0032	-0082
8496	6757	1713	0005	-0009	-0008	-0009	-0081
9006	6757	1142	0025	0015	0022	0012	-0080
9497	6757	0587	0042	0033	0045	0023	-0085
Lower Surface							
0000	6757	-0370	-0208	0157	0202	-0095	-0619
0035	6757	-0741	-0626	-0075	0200	0175	-0042
0080	6757	-0955	-0665	-0151	0160	0239	0158
0174	6757	-1195	-0593	-0169	0102	0224	0238
0282	6757	-1360	-0566	-0159	0070	0187	0227
0383	6757	-1487	-0375	-0148	0054	0165	0211
0580	6757	-1677	-0291	-0132	0037	0159	0192
0787	6757	-1810	-0248	-0121	0025	0116	0170
0984	6757	-1897	-0221	-0114	0014	0099	0149
1482	6757	-2042	-0178	-0093	0006	0075	0118
1985	6757	-2125	-0144	-0070	0003	0062	0105
2488	6757	-2152	-0120	-0057	0004	0065	0094
2985	6757	-2156	-0105	-0055	0005	0051	0077
3491	6757	-2135	-0092	-0051	0007	0045	0066
3992	6757	-2086	-0086	-0052	0001	0033	0051
4488	6757	-1994	-0071	-0045	0006	0031	0047
4996	6757	-1877	-0061	-0041	0006	0027	0038
5494	6757	-1707	-0043	-0027	0014	0031	0036
5999	6757	-1523	-0028	-0016	0020	0034	0034
6495	6757	-1343	-0016	-0008	0023	0092	0031
6998	6757	-1155	-0011	-0007	0023	0030	0022
7498	6757	-0968	0006	0007	0033	0039	0024
8004	6757	-0783	0014	0012	0037	0036	0016
8501	6757	-0591	0029	0027	0047	0046	0018
8998	6757	-0400	0038	0031	0051	0041	0005
95% Chord							
9497	1613	0587	0075	0064	0061	0038	-0011
9497	2348	0587	0056	0050	0055	0037	-0016
9497	3084	0587	0052	0047	0054	0037	-0023
9497	3818	0587	0049	0042	0049	0033	-0024
9497	4553	0587	0044	0040	0045	0031	-0035
9497	5290	0587	0045	0036	0047	0028	-0052
9497	6025	0587	0044	0036	0045	0024	-0066
9497	6757	0587	0042	0033	0045	0023	-0085
9497	7503	0587	0042	0035	0046	0024	-0104
9497	8241	0587	0045	0039	0050	0030	-0143
9497	8976	0587	0050	0046	0051	0040	-0165
9497	9712	0587	0024	0060	0019	-0263	-0054

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.8$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.78	-0.59	1.43	3.56	5.68
M	0.823	0.819	0.819	0.817	0.823
$10^{-6}Re_c$	8.08	8.06	8.06	8.05	8.08

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 c_p$				
Upper Surface							
0000	6757	-0370	-0207	0158	0202	-0097	-0614
0042	6757	0229	0195	0185	-0006	-0459	-1262
0084	6757	0461	0216	0137	-0079	-0515	-1204
0178	6757	0832	0209	0099	-0096	-0447	-1061
0281	6757	1171	0180	0055	-0130	-0433	-0731
0385	6757	1459	0152	0022	-0147	-0431	-0716
0585	6757	1924	0112	-0023	-0176	-0419	-0670
0783	6757	2305	0077	-0042	-0185	-0396	-0602
0987	6757	2651	0063	-0049	-0182	-0380	-0535
1488	6757	3333	-0003	-0108	-0215	-0357	-0503
1990	6757	3854	-0028	-0122	-0217	-0343	-0452
2490	6757	4245	-0054	-0142	-0226	-0339	-0426
2987	6757	4523	-0066	-0146	-0219	-0318	-0386
3493	6757	4707	-0085	-0158	-0223	-0308	-0358
3994	6757	4797	-0100	-0167	-0225	-0299	-0328
4495	6757	4790	-0111	-0170	-0222	-0286	-0295
4996	6757	4675	-0108	-0160	-0203	-0257	-0249
5497	6757	4444	-0102	-0146	-0185	-0221	-0203
5996	6757	4108	-0080	-0120	-0144	-0182	-0156
6498	6757	3713	-0062	-0092	-0115	-0136	-0123
7000	6757	3271	-0049	-0075	-0090	-0110	-0103
7513	6757	2777	-0036	-0054	-0067	-0077	-0092
7996	6757	2266	-0015	-0030	-0037	-0051	-0076
8496	6757	1713	-0001	-0010	-0015	-0025	-0071
9006	6757	1142	0020	0011	0011	-0008	-0064
9497	6757	0587	0038	0032	0030	0006	-0061
Lower Surface							
0000	6757	-0370	-0207	0158	0202	-0097	-0614
0035	6757	-0741	-0646	-0097	0185	0161	-0047
0080	6757	-0955	-0707	-0140	0139	0222	0162
0174	6757	-1195	-0608	-0146	0083	0205	0251
0282	6757	-1360	-0424	-0137	0057	0172	0234
0383	6757	-1487	-0373	-0135	0038	0147	0216
0580	6757	-1677	-0301	-0115	0029	0121	0202
0787	6757	-1810	-0252	-0098	0025	0110	0181
0984	6757	-1897	-0227	-0091	0014	0095	0159
1482	6757	-2042	-0186	-0086	-0003	0061	0120
1985	6757	-2125	-0150	-0071	-0003	0050	0104
2488	6757	-2152	-0125	-0063	-0002	0039	0093
2985	6757	-2156	-0114	-0059	-0009	0033	0074
3491	6757	-2135	-0099	-0053	-0008	0026	0068
3992	6757	-2086	-0095	-0057	-0014	0014	0052
4488	6757	-1994	-0080	-0047	-0012	0016	0048
4996	6757	-1877	-0071	-0045	-0013	0009	0038
5494	6757	-1707	-0053	-0030	-0003	0015	0039
5999	6757	-1523	-0037	-0020	0005	0018	0038
6495	6757	-1343	-0024	-0012	0010	0019	0036
6998	6757	-1155	-0020	-0010	0007	0014	0025
7498	6757	-0968	-0001	0004	0019	0023	0031
8004	6757	-0783	0006	0009	0019	0021	0022
8501	6757	-0591	0026	0023	0036	0028	0029
8998	6757	-0400	0034	0027	0032	0024	0014
95% Chord							
9497	1613	0587	0070	0058	0050	0029	-0002
9497	2348	0587	0051	0048	0045	0027	-0003
9497	3084	0587	0047	0043	0040	0025	-0006
9497	3818	0587	0043	0040	0036	0024	-0009
9497	4553	0587	0041	0032	0036	0015	-0016
9497	5290	0587	0040	0035	0032	0017	-0026
9497	6025	0587	0038	0032	0030	0011	-0044
9497	6757	0587	0038	0032	0030	0006	-0061
9497	7503	0587	0039	0036	0030	0010	-0086
9497	8241	0587	0041	0039	0031	-0000	-0147
9497	8976	0587	0044	0045	0033	-0014	-0224
9497	9712	0587	0037	0055	0037	-0178	-0078

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.8 \quad Re_{c_{nom}} = 16 \times 10^6$

		α	-2.85	-0.73	1.38	2.03	3.48
		M	0.825	0.822	0.819	0.819	0.820
		$10^{-6}Re_c$	16.0	16.0	16.0	16.0	16.0
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$			$10^3 C_p$		
			Upper Surface				
0000	6757	-0370	-0220	0160	0210	0160	-0052
0042	6757	0229	0203	0202	0005	-0104	-0410
0084	6757	0461	0224	0155	-0064	-0170	-0458
0178	6757	0832	0224	0124	-0076	-0163	-0380
0281	6757	1171	0193	0076	-0115	-0194	-0385
0385	6757	1459	0165	0043	-0140	-0211	-0378
0585	6757	1924	0111	-0012	-0180	-0241	-0384
0783	6757	2305	0080	-0036	-0186	-0239	-0360
0987	6757	2651	0072	-0040	-0177	-0226	-0333
1488	6757	3333	0006	-0095	-0212	-0250	-0331
1990	6757	3854	-0024	-0117	-0221	-0254	-0322
2490	6757	4245	-0050	-0135	-0228	-0257	-0314
2987	6757	4523	-0059	-0137	-0220	-0246	-0293
3493	6757	4707	-0084	-0155	-0229	-0250	-0289
3994	6757	4797	-0096	-0161	-0227	-0246	-0277
4495	6757	4790	-0107	-0166	-0225	-0240	-0264
4996	6757	4675	-0105	-0156	-0207	-0220	-0238
5497	6757	4444	-0103	-0147	-0188	-0198	-0211
5996	6757	4108	-0084	-0121	-0156	-0162	-0165
6498	6757	3713	-0060	-0091	-0119	-0124	-0126
7000	6757	3271	-0048	-0073	-0096	-0098	-0094
7513	6757	2777	-0034	-0053	-0069	-0070	-0067
7996	6757	2266	-0014	-0029	-0042	-0042	-0033
8496	6757	1713	0001	-0009	-0017	-0016	-0008
9006	6757	1142	0021	0015	0008	0010	0018
9497	6757	0587	0043	0039	0033	0034	0037
			Lower Surface				
0000	6757	-0370	-0220	0160	0210	0160	-0052
0035	6757	-0741	-0724	-0086	0186	0220	0199
0080	6757	-0955	-0761	-0156	0135	0189	0244
0174	6757	-1195	-0567	-0154	0092	0148	0234
0282	6757	-1360	-0448	-0144	0058	0108	0194
0580	6757	-1677	-0328	-0129	0019	0059	0137
0787	6757	-1810	-0270	-0111	0013	0048	0122
0984	6757	-1897	-0238	-0103	0008	0036	0102
1482	6757	-2042	-0195	-0093	-0011	0015	0071
1985	6757	-2125	-0157	-0077	-0010	0012	0063
2488	6757	-2152	-0133	-0067	-0011	0009	0056
2985	6757	-2156	-0120	-0064	-0015	0002	0042
3491	6757	-2135	-0102	-0055	-0013	0003	0041
3992	6757	-2086	-0099	-0059	-0022	-0008	0028
4488	6757	-1994	-0083	-0047	-0015	-0002	0029
4996	6757	-1877	-0074	-0044	-0017	-0006	0024
5494	6757	-1707	-0055	-0030	-0008	0002	0028
5999	6757	-1523	-0040	-0020	-0002	0008	0032
6495	6757	-1343	-0026	-0009	0005	0013	0035
6998	6757	-1155	-0021	-0009	0004	0010	0029
7498	6757	-0968	-0002	0007	0016	0021	0039
8004	6757	-0783	0006	0012	0017	0022	0037
8501	6757	-0591	0027	0030	0032	0036	0052
8998	6757	-0400	0037	0037	0036	0039	0049
			95% Chord				
9497	1613	0587	0075	0061	0052	0048	0045
9497	2348	0587	0053	0050	0047	0046	0044
9497	3084	0587	0048	0045	0038	0040	0043
9497	3818	0587	0045	0042	0038	0038	0041
9497	4553	0587	0042	0038	0033	0034	0040
9497	5290	0587	0042	0039	0034	0034	0038
9497	6025	0587	0043	0039	0034	0035	0038
9497	6757	0587	0043	0039	0033	0034	0037
9497	7503	0587	0041	0042	0037	0040	0033
9497	8241	0587	0044	0043	0038	0036	0032
9497	8976	0587	0050	0050	0039	0034	0011
9497	9712	0587	0039	0057	0005	-0048	-0254

Pressure coefficient - Clean Wing (1)

$M_{nom} = 0.8 \quad Re_{c_{nom}} = 20 \times 10^6$

α	-2.82	-0.74	1.34	1.95	3.40	5.46
M	0.817	0.814	0.816	0.813	0.811	0.809
$10^{-6}Re_c$	19.5	19.5	19.6	19.5	19.4	19.4

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0203	0163	0217	0173	-0047	-0560
0042	6757	0229	0200	0196	0007	-0088	-0406	-1176
0084	6757	0461	0226	0158	-0055	-0149	-0451	-1086
0178	6757	0832	0223	0127	-0066	-0144	-0378	-0808
0281	6757	1171	0191	0079	-0107	-0176	-0382	-0751
0385	6757	1459	0166	0047	-0130	-0195	-0380	-0698
0585	6757	1924	0108	-0009	-0171	-0226	-0384	-0639
0783	6757	2305	0079	-0032	-0176	-0224	-0362	-0568
0987	6757	2651	0073	-0032	-0165	-0207	-0330	-0513
1488	6757	3333	0004	-0090	-0200	-0236	-0333	-0474
1990	6757	3854	-0025	-0112	-0210	-0241	-0324	-0440
2490	6757	4245	-0050	-0129	-0216	-0243	-0316	-0414
2987	6757	4523	-0060	-0132	-0209	-0233	-0296	-0378
3493	6757	4707	-0085	-0150	-0219	-0239	-0294	-0362
3994	6757	4797	-0096	-0155	-0214	-0233	-0280	-0337
4495	6757	4790	-0108	-0162	-0214	-0230	-0270	-0313
4996	6757	4675	-0105	-0152	-0197	-0210	-0244	-0275
5497	6757	4444	-0103	-0143	-0178	-0189	-0216	-0237
5996	6757	4108	-0082	-0116	-0146	-0155	-0177	-0187
6498	6757	3713	-0061	-0087	-0110	-0116	-0131	-0136
7000	6757	3271	-0048	-0069	-0086	-0090	-0101	-0100
7513	6757	2777	-0034	-0049	-0061	-0063	-0070	-0068
7996	6757	2266	-0014	-0026	-0033	-0035	-0039	-0038
8496	6757	1713	0001	-0006	-0009	-0009	-0011	-0016
9006	6757	1142	0017	0018	0018	0017	0013	0000
9497	6757	0587	0044	0043	0043	0042	0035	0012
Lower Surface								
0000	6757	-0370	-0203	0163	0217	0173	-0047	-0560
0035	6757	-0741	-0697	-0083	0194	0224	0200	0001
0080	6757	-0955	-0737	-0152	0144	0191	0241	0181
0174	6757	-1195	-0580	-0149	0101	0150	0229	0262
0282	6757	-1360	-0439	-0140	0066	0111	0188	0241
0580	6757	-1677	-0320	-0126	0026	0062	0131	0198
0787	6757	-1810	-0264	-0108	0023	0050	0113	0180
0984	6757	-1897	-0235	-0100	0013	0039	0096	0158
1482	6757	-2042	-0190	-0090	-0003	0019	0065	0121
1985	6757	-2125	-0154	-0073	-0001	0017	0056	0106
2488	6757	-2152	-0128	-0063	-0002	0014	0047	0093
2985	6757	-2156	-0117	-0061	-0009	0007	0037	0078
3491	6757	-2135	-0100	-0052	-0004	0008	0034	0072
3992	6757	-2086	-0098	-0055	-0014	-0002	0022	0055
4488	6757	-1994	-0081	-0044	-0007	0003	0025	0055
4996	6757	-1877	-0073	-0041	-0009	-0000	0019	0045
5494	6757	-1707	-0055	-0027	-0000	0009	0024	0047
5999	6757	-1523	-0039	-0017	0007	0013	0026	0046
6495	6757	-1343	-0024	-0006	0014	0020	0030	0047
6998	6757	-1155	-0020	-0005	0011	0016	0024	0038
7498	6757	-0968	-0001	0011	0025	0029	0035	0045
8004	6757	-0783	0006	0014	0025	0028	0033	0040
8501	6757	-0591	0029	0034	0042	0043	0045	0050
8998	6757	-0400	0038	0040	0045	0046	0046	0044
95% Chord								
9497	1613	0587	0075	0064	0060	0056	0045	0021
9497	2348	0587	0052	0055	0055	0055	0045	0026
9497	3084	0587	0048	0048	0048	0048	0042	0026
9497	3818	0587	0045	0045	0045	0046	0041	0026
9497	4553	0587	0042	0041	0042	0041	0036	0024
9497	5290	0587	0042	0042	0042	0042	0037	0021
9497	6025	0587	0043	0042	0042	0043	0038	0018
9497	6757	0587	0044	0043	0043	0042	0035	0012
9497	7503	0587	0044	0046	0043	0045	0039	0008
9497	8241	0587	0045	0047	0045	0045	0034	-0012
9497	8976	0587	0051	0054	0048	0045	0019	-0069
9497	9712	0587	0041	0060	0016	-0028	-0277	-0136

Pressure coefficient - Clean Wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 2 \times 10^6$

α	-2.75	-0.72	1.29	3.28	5.28
M	1.391	1.391	1.391	1.391	1.391
$10^{-6}Re_c$	2.05	2.06	2.06	2.07	2.05

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	0060	0193	0274	0257	0125
0042	6757	0229	0249	0258	0191	0053	-0171
0084	6757	0461	0245	0222	0123	-0017	-0260
0178	6757	0832	0221	0181	0078	-0051	-0265
0281	6757	1171	0195	0145	0042	-0082	-0258
0385	6757	1459	0176	0123	0011	-0105	-0262
0585	6757	1924	0124	0065	-0038	-0153	-0303
0783	6757	2305	0093	0033	-0064	-0170	-0314
0987	6757	2651	0060	0002	-0090	-0192	-0329
1488	6757	3333	0007	-0046	-0132	-0221	-0344
1990	6757	3854	-0035	-0088	-0165	-0248	-0358
2490	6757	4245	-0073	-0120	-0199	-0273	-0365
2987	6757	4523	-0110	-0153	-0223	-0291	-0336
3493	6757	4707	-0143	-0181	-0250	-0283	-0331
3994	6757	4797	-0169	-0207	-0275	-0265	-0325
4495	6757	4790	-0210	-0245	-0310	-0268	-0329
4996	6757	4675	-0250	-0288	-0341	-0263	-0329
5497	6757	4444	-0284	-0319	-0371		-0342
5996	6757	4108	-0240	-0333	-0353	-0283	-0339
6498	6757	3713	-0104	-0303	-0325	-0276	-0336
7000	6757	3271	-0084	-0171	-0279	-0252	-0331
7513	6757	2777	-0060	-0071	-0218	-0241	-0343
7996	6757	2266	-0041	-0031	-0134	-0234	-0344
8496	6757	1713	-0020	-0010	-0024	-0235	-0352
9006	6757	1142	0008	0016	0034	-0233	-0333
9497	6757	0587	0044	0054	0061	-0202	-0280
Lower Surface							
0000	6757	-0370	0060	0193	0274	0257	0125
0035	6757	-0741	-0250	-0057	0153	0277	0283
0080	6757	-0955	-0367	-0157	0087	0254	0315
0174	6757	-1195	-0455	-0208	0028	0197	0283
0282	6757	-1360	-0443	-0209	0004		0251
0580	6757	-1677	-0393	-0176	-0010	0122	0211
0787	6757	-1810	-0390	-0164	-0024	0102	0185
0984	6757	-1897	-0399	-0159	-0025	0093	0169
1482	6757	-2042	-0387	-0143	-0032	0080	0147
1985	6757	-2125	-0341	-0129	-0033	0070	0129
2488	6757	-2152	-0213	-0117	-0023	0069	0119
2985	6757	-2156	-0185	-0107	-0017	0064	0111
3491	6757	-2135	-0195	-0101	-0022	0051	0087
3992	6757	-2086	-0203	-0097	-0025	0040	0069
4488	6757	-1994	-0209	-0105	-0020	0035	0057
4996	6757	-1877	-0162	-0094	-0015	0035	0051
5494	6757	-1707	-0096	-0029	-0009	0039	0051
5999	6757	-1523	-0056	0003	-0005	0043	0053
6495	6757	-1343	-0034	0016	-0002	0046	0058
6998	6757	-1155	-0026	0016	0000	0042	0056
7498	6757	-0968	-0010	0023	0024	0038	0043
8004	6757	-0783	-0001	0028	0045	0030	0022
8501	6757	-0591	0016	0038	0043	0023	0003
8998	6757	-0400	0033	0051	0041	0007	-0018
95% Chord							
9497	1613	0587	0079	0091	0064	0036	0020
9497	2348	0587	0064	0080	0070	0074	0029
9497	3084	0587	0068	0088	0074	0067	0033
9497	3818	0587	0060	0087	0064	-0002	-0111
9497	4553	0587	0050	0077	0048	-0061	-0178
9497	5290	0587	0039	0064	0037	-0162	-0272
9497	6025	0587	0031	0054	-0017	-0227	-0305
9497	6757	0587	0044	0054	0061	-0202	-0280
9497	7503	0587	0094	0110	-0029	-0209	-0298
9497	8241	0587	0066	0082	-0078	-0136	-0162
9497	8976	0587	0067	0102	-0094	-0072	-0091
9497	9712	0587	0036	0025	-0054	0019	-0050

Pressure coefficient - Clean Wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 4 \times 10^6$

	α	-2.77	-0.82	1.23	3.25	5.18
	M	1.396	1.396	1.396	1.396	1.396
	$10^{-6}Re_c$	4.03	3.98	4.04	4.03	4.01
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$		$10^3 C_p$		
		Upper Surface				
0000	6757	-0370	0073	0172	0271	0237	0125
0042	6757	0229	0264	0249	0199	0044	-0160
0084	6757	0461	0264	0219	0137	-0021	-0253
0178	6757	0832	0244	0181	0091	-0056	-0246
0281	6757	1171	0218	0147	0050	-0088	-0237
0385	6757	1459	0191	0114	0022	-0115	-0254
0585	6757	1924	0148	0069	-0028	-0160	-0297
0783	6757	2305	0116	0036	-0056	-0179	-0310
0987	6757	2651	0085	0009	-0084	-0197	-0318
1488	6757	3333	0032	-0043	-0126	-0227	-0337
1990	6757	3854	-0008	-0079	-0158	-0256	-0352
2490	6757	4245	-0047	-0113	-0190	-0279	-0371
2987	6757	4523	-0077	-0145	-0217	-0301	-0388
3493	6757	4707	-0114	-0176	-0240	-0323	-0402
3994	6757	4797	-0146	-0207	-0264	-0341	-0415
4495	6757	4790	-0186	-0244	-0295	-0369	-0394
4996	6757	4675	-0228	-0284	-0330	-0397	-0390
5497	6757	4444	-0262	-0322	-0362	-0424	-0391
5996	6757	4108	-0167	-0260	-0180	-0436	-0401
6498	6757	3713	-0085	-0122	-0139	-0415	-0384
7000	6757	3271	-0052	-0095	-0131	-0221	-0354
7513	6757	2777	-0031	-0082	-0132	-0189	-0342
7996	6757	2266	-0012	-0069	-0137	-0164	-0326
8496	6757	1713	0010	-0059	-0148	-0171	-0328
9006	6757	1142	0026	-0049	-0154	-0175	-0337
9497	6757	0587	0041	-0031	-0153	-0164	-0286
		Lower Surface					
0000	6757	-0370	0073	0172	0271	0237	0125
0035	6757	-0741	-0233	-0088	0143	0258	0284
0080	6757	-0955	-0351	-0185	0078	0234	0313
0174	6757	-1195	-0437	-0238	0018	0176	0279
0282	6757	-1360	-0442	-0231	-0007	0142	0248
0580	6757	-1677	-0396	-0196	-0023	0103	0207
0787	6757	-1810	-0389	-0184	-0029	0083	0184
0984	6757	-1897	-0393	-0174	-0030	0074	0168
1482	6757	-2042	-0373	-0156	-0031	0066	0147
1985	6757	-2125	-0301	-0142	-0032	0060	0132
2488	6757	-2152	-0157	-0117	-0028	0059	0124
2985	6757	-2156	-0157	-0112	-0022	0056	0117
3491	6757	-2135	-0174	-0117	-0020	0048	0092
3992	6757	-2086	-0184	-0125	-0017	0033	0069
4488	6757	-1994	-0198	-0120	-0017	0025	0061
4996	6757	-1877	-0162	-0064	-0015	0021	0051
5494	6757	-1707	-0078	-0034	-0012	0026	0052
5999	6757	-1523	-0039	-0017	-0005	0032	0055
6495	6757	-1343	-0013	-0008	0016	0036	0053
6998	6757	-1155	-0004	-0006	0024	0030	0040
7498	6757	-0968	0012	0004	0027	0032	0046
8004	6757	-0783	0017	0005	0023	0029	0050
8501	6757	-0591	0030	0013	0024	0030	0042
8998	6757	-0400	0038	0017	0010	0023	0014
		95% Chord					
9497	1613	0587	0105	0072	0066	0023	-0032
9497	2348	0587	0090	0071	0051	0050	0029
9497	3084	0587	0088	0065	0041	0057	0044
9497	3818	0587	0082	0056	0027	0055	-0101
9497	4553	0587	0067	0039	0000	0037	0061
9497	5290	0587	0060	0027	-0050	-0006	-0115
9497	6025	0587	0052	0004	-0110	-0081	-0282
9497	6757	0587	0041	-0031	-0153	-0164	-0286
9497	7503	0587	0108	0014	-0106	-0113	-0284
9497	8241	0587	0080	-0046	-0106	-0193	-0276
9497	8976	0587	0087	0004	-0012	-0143	-0076
9497	9712	0587	-0038	0046	-0003	-0041	-0123

Pressure coefficient - Clean Wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 8 \times 10^6$

α	-2.77	-0.77	3.25	5.20
M	1.402	1.402	1.402	1.402
$10^{-6}Re_c$	7.97	7.96	7.93	7.88

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$			
Upper Surface						
0000	6757	-0370	0052	0160	0231	0134
0042	6757	0229	0244	0239	0038	-0148
0084	6757	0461	0247	0213	-0023	-0242
0178	6757	0832	0228	0176	-0056	-0226
0281	6757	1171	0200	0139	-0090	-0217
0385	6757	1459	0175	0110	-0119	-0237
0585	6757	1924	0129	0060	-0161	-0288
0783	6757	2305	0104	0035	-0178	-0299
0987	6757	2651	0080	0010	-0193	-0305
1488	6757	3333	0012	-0054	-0229	-0328
1990	6757	3854	-0022	-0091	-0250	-0342
2490	6757	4245	-0062	-0127	-0273	-0361
2987	6757	4523	-0089	-0155	-0290	-0377
3493	6757	4707	-0124	-0188	-0317	-0393
3994	6757	4797	-0157	-0216	-0342	-0411
4495	6757	4790	-0197	-0250	-0365	-0424
4996	6757	4675	-0237	-0287	-0378	-0331
5497	6757	4444	-0276	-0327	-0193	-0272
5996	6757	4108	-0201	-0241	-0185	-0245
6498	6757	3713	-0101	-0129	-0179	-0218
7000	6757	3271	-0065	-0108	-0179	-0198
7513	6757	2777	-0047	-0100	-0195	-0204
7996	6757	2266	-0024	-0085	-0206	-0211
8496	6757	1713	-0002	-0075	-0222	-0226
9006	6757	1142	0016	-0060	-0233	-0235
9497	6757	0587	0030	-0041	-0227	-0226
Lower Surface						
0000	6757	-0370	0052	0160	0231	0134
0035	6757	-0741	-0252	-0100	0254	0285
0080	6757	-0955	-0369	-0195	0228	0313
0174	6757	-1195	-0486	-0246	0169	0277
0282	6757	-1360	-0459		0135	0247
0580	6757	-1677	-0434	-0207	0095	0208
0787	6757	-1810	-0425	-0194	0078	0194
0984	6757	-1897	-0414	-0182	0077	0182
1482	6757	-2042	-0384	-0145	0068	0151
1985	6757	-2125	-0287	-0127	0067	0140
2488	6757	-2152	-0169	-0128	0065	0130
2985	6757	-2156	-0171	-0130	0058	0114
3491	6757	-2135	-0187	-0130	0048	0095
3992	6757	-2086	-0202	-0141	0029	0071
4488	6757	-1994	-0217	-0098	0022	0063
4996	6757	-1877	-0201	-0069	0013	0050
5494	6757	-1707	-0097	-0045	0014	0047
5999	6757	-1523	-0050	-0026	0016	0046
6495	6757	-1343	-0025	-0013	0017	0040
6998	6757	-1155	-0015	-0013	0008	0028
7498	6757	-0968	0001	-0001	0010	0026
8004	6757	-0783	0007	0000	-0001	0011
8501	6757	-0591	0019	0011	-0008	-0000
8998	6757	-0400	0028	0013	-0031	-0024
95% Chord						
9497	1613	0587	0095	0066	0064	0063
9497	2348	0587	0076	0065	-0008	-0031
9497	3084	0587	0074	0058	-0028	-0058
9497	3818	0587	0070	0049	-0057	-0122
9497	4553	0587	0056	0034	-0144	-0182
9497	5290	0587	0050	0023	-0195	-0213
9497	6025	0587	0042	0000	-0213	-0217
9497	6757	0587	0030	-0041	-0227	-0226
9497	7503	0587	0049	-0040	-0212	-0197
9497	8241	0587	0073	-0063	-0138	-0219
9497	8976	0587	0077	-0029	-0064	-0084
9497	9712	0587	-0043	0033	0012	-0028

Pressure coefficient - Clean Wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 16 \times 10^6$

	α	-2.75	-0.72	1.30	3.29	5.29
	M	1.410	1.410	1.410	1.410	1.410
	$10^{-6}Re_c$	15.8	15.7	15.7	15.6	15.6

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	0078	0187	0279	0266	0161
0042	6757	0229	0250	0247	0200	0069	-0123
0084	6757	0461	0267	0233	0147	0022	-0220
0178	6757	0832	0248	0200	0109	-0014	-0175
0281	6757	1171	0214	0158	0063	-0056	-0193
0385	6757	1459	0195	0134	0036	-0085	-0220
0585	6757	1924	0140	0076	-0019	-0133	-0275
0783	6757	2305	0107	0042	-0046	-0151	-0280
0987	6757	2651	0087	0020	-0066	-0168	-0285
1488	6757	3333	0019	-0045	-0119	-0210	-0311
1990	6757	3854	-0017	-0081	-0149	-0236	-0324
2490	6757	4245	-0058	-0119	-0180	-0262	-0348
2987	6757	4523	-0086	-0147	-0206	-0277	-0360
3493	6757	4707	-0123	-0182	-0242	-0304	-0379
3994	6757	4797	-0153	-0208	-0271	-0329	-0400
4495	6757	4790	-0191	-0239	-0295	-0353	-0413
4996	6757	4675	-0229	-0275	-0325	-0378	-0229
5497	6757	4444	-0270	-0318	-0363	-0199	-0224
5996	6757	4108	-0230	-0327	-0176	-0183	-0223
6498	6757	3713	-0099	-0141	-0151	-0174	-0221
7000	6757	3271	-0060	-0110	-0142	-0173	-0232
7513	6757	2777	-0042	-0098	-0146	-0186	-0256
7996	6757	2266	-0022	-0076	-0146	-0193	-0265
8496	6757	1713	0003	-0055	-0147	-0204	-0279
9006	6757	1142	0025	-0030	-0146	-0212	-0293
9497	6757	0587	0040	-0005	-0137	-0207	-0273
Lower Surface							
00 0	6757	-0370	0078	0187	0279	0266	0161
0035	6757	-0741	-0247	-0103	0110	0238	0294
0080	6757	-0955	-0360	-0188	0056	0226	0323
0174	6757	-1195	-0450	-0226	0016	0184	0297
0282	6757	-1360	-0456	-0218	-0014	0140	0258
0580	6757	-1677	-0416	-0181	-0026	0107	0221
0787	6757	-1810	-0412	-0167	-0033	0091	0204
0984	6757	-1897	-0408	-0153	-0036	0079	0184
1482	6757	-2042	-0329	-0143	-0050	0066	0155
1985	6757	-2125	-0215	-0129	-0032	0070	0145
2488	6757	-2152	-0185	-0126	-0034	0068	0133
2985	6757	-2156	-0180	-0127	-0023	0059	0116
3491	6757	-2135	-0185	-0127	-0016	0057	0101
3992	6757	-2086	-0201	-0135	-0016	0034	0075
4488	6757	-1994	-0214	-0086	-0013	0027	0067
4996	6757	-1877	-0182	-0057	-0018	0019	0051
5494	6757	-1707	-0083	-0034	-0007	0019	0047
5999	6757	-1523	-0041	-0015	0003	0022	0047
6495	6757	-1343	-0017	-0001	0011	0026	0043
6998	6757	-1155	-0006	0000	0007	0016	0026
7498	6757	-0968	0013	0015	0017	0021	0028
8004	6757	-0783	0019	0014	0012	0008	0010
8501	6757	-0591	0033	0027	0017	0004	0004
8998	6757	-0400	0042	0031	0005	-0019	-0022
95% Chord							
9497	1613	0587	0108	0107	0058	0020	0020
9497	2348	0587	0084	0079	0051	0009	-0032
9497	3084	0587	0079	0073	0040	-0007	-0057
9497	3818	0587	0075	0065	0027	-0029	-0115
9497	4553	0587	0062	0052	0004	-0109	-0208
9497	5290	0587	0058	0044	-0043	-0167	-0226
9497	6025	0587	0053	0030	-0091	-0190	-0262
9497	6757	0587	0040	-0005	-0137	-0207	-0273
9497	7503	0587	0056	-0008	-0144	-0215	-0266
9497	8241	0587	0089	-0030	-0138	-0185	-0243
9497	8976	0587	0092	-0051	-0068	-0104	-0089
9497	9712	0587	-0024	0042	0019	0011	0016

Pressure coefficient - Clean Wing (1)

$M_{nom} = 1.6 \quad Re_{c_{nom}} = 8 \times 10^6$

α	-2.72	-0.80	1.25	3.25	5.23
M	1.603	1.603	1.603	1.603	1.603
$10^{-6}Re_c$	7.97	7.97	7.97	7.97	7.97

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	0140	0206	0260	0272	0238
0042	6757	0229	0274	0277	0234	0149	0040
0084	6757	0461	0272	0252	0190	0096	-0018
0178	6757	0832	0253	0217	0148	0056	-0033
0281	6757	1171	0243	0187	0112	0022	-0063
0385	6757	1459	0225	0159	0086	-0002	-0090
0585	6757	1924	0178	0115	0042	-0047	-0135
0783	6757	2305	0150	0094	0019	-0068	-0145
0987	6757	2651	0127	0069	-0001	-0054	-0158
1488	6757	3333	0072	0016	-0051	-0116	-0188
1990	6757	3854	0037	-0018	-0084	-0149	-0214
2490	6757	4245	0004	-0049	-0111	-0172	-0238
2987	6757	4523	-0021	-0075	-0135	-0191	-0249
3493	6757	4707	-0059	-0108	-0165	-0218	-0270
3994	6757	4797	-0089	-0134	-0189	-0240	-0290
4495	6757	4790	-0122	-0163	-0214	-0262	-0309
4996	6757	4675	-0155	-0192	-0242	-0287	-0194
5497	6757	4444	-0191	-0228	-0271	-0160	-0161
5996	6757	4108	-0207	-0243	-0137	-0134	-0158
6498	6757	3713	-0211	-0104	-0097	-0127	-0154
7000	6757	3271	-0109	-0058	-0091	-0125	-0155
7513	6757	2777	-0039	-0054	-0095	-0135	-0167
7996	6757	2266	-0027	-0052	-0098	-0141	-0176
8496	6757	1713	-0020	-0055	-0105	-0153	-0188
9006	6757	1142	-0012	-0061	-0117	-0166	-0198
9497	6757	0587	0001	-0068	-0126	-0170	-0198
Lower Surface							
0000	6757	-0370	0140	0206	0260	0272	0238
0035	6757	-0741	-0116	-0020	0109	0222	0273
0080	6757	-0955	-0213	-0106	0044	0179	0265
0174	6757	-1195	-0292	-0160	-0010	0120	0213
0282	6757	-1360	-0293	-0164	-0025	0094	0179
0580	6757	-1677	-0274	-0165	-0013	0064	0144
0787	6757	-1810	-0276	-0162	-0017	0055	0125
0984	6757	-1897	-0267	-0152	-0017	0058	0111
1482	6757	-2042	-0232	-0125	-0018	0065	0104
1985	6757	-2125	-0217	-0104	-0011	0057	0117
2488	6757	-2152	-0197	-0082	-0009	0046	0103
2985	6757	-2156	-0180	-0082	-0016	0034	0085
3491	6757	-2135	-0167	-0086	-0032	0018	0073
3992	6757	-2086	-0154	-0095	-0050	-0004	0087
4488	6757	-1994	-0159	-0111	-0068	-0013	0127
4996	6757	-1877	-0173	-0133	-0090	0044	0126
5494	6757	-1707	-0175	-0137	-0053	0069	0121
5999	6757	-1523	-0164	-0122	0011	0076	0116
6495	6757	-1343	-0112	-0055	0030	0074	0109
6998	6757	-1155	-0048	-0018	0030	0062	0094
7498	6757	-0968	-0016	0003	0036	0064	0091
8004	6757	-0783	-0000	0009	0030	0050	0074
8501	6757	-0591	0015	0015	0026	0043	0066
8998	6757	-0400	0026	0009	0013	0027	0046
95% Chord							
9497	1613	0587	0061	0039	0022	-0017	-0072
9497	2348	0587	0071	0055	0019	-0019	-0053
9497	3084	0587	0075	0041	-0006	-0049	-0083
9497	3818	0587	0069	0016	-0047	-0107	-0132
9497	4553	0587	0055	-0014	-0088	-0137	-0206
9497	5290	0587	0041	-0031	-0094	-0169	-0216
9497	6025	0587	0021	-0055	-0113	-0174	-0206
9497	6757	0587	0001	-0068	-0126	-0170	-0198
9497	7503	0587	-0016	-0071	-0121	-0157	-0185
9497	8241	0587	-0031	-0083	-0117	-0144	-0180
9497	8976	0587	-0042	-0052	-0068	-0087	-0151
9497	9712	0587	-0032	-0006	-0003	-0044	-0071

Pressure coefficient - Clean wing (1)

$M_{nom} = 1.8$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.77	-0.81	1.20	3.25	5.23
M	1.807	1.807	1.807	1.807	1.807
$10^{-6}Re_c$	8.00	8.01	8.00	8.00	8.00

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$				
Upper Surface							
0000	6757	-0370	0162	0216	0263	0279	0255
0042	6757	0229	0275	0263	0231	0158	0074
0084	6757	0461	0271	0237	0192	0116	0020
0178	6757	0832	0250	0204	0152	0079	0005
0281	6757	1171	0223	0173	0118	0045	-0021
0385	6757	1459	0205	0150	0093	0021	-0047
0585	6757	1924	0161	0108	0053	-0020	-0089
0783	6757	2305	0135	0084	0032	-0038	-0101
0987	6757	2651	0115	0063	0011	-0055	-0114
1488	6757	3333	0066	0016	-0033	-0090	-0143
1990	6757	3854	0029	-0018	-0065	-0119	-0164
2490	6757	4245	-0000	-0046	-0090	-0141	-0184
2987	6757	4523	-0025	-0069	-0111	-0159	-0201
3493	6757	4707	-0055	-0097	-0137	-0181	-0218
3994	6757	4797	-0079	-0120	-0157	-0199	-0233
4495	6757	4790	-0105	-0143	-0179	-0218	-0250
4996	6757	4675	-0133	-0169	-0202	-0238	-0267
5497	6757	4444	-0162	-0197	-0226	-0260	-0222
5996	6757	4108	-0174	-0209	-0240	-0269	-0165
6498	6757	3713	-0178	-0213	-0243	-0146	-0156
7000	6757	3271	-0192	-0224	-0128	-0133	-0153
7513	6757	2777	-0188	-0098	-0108	-0132	-0156
7996	6757	2266	-0067	-0069	-0099	-0130	-0157
8496	6757	1713	-0032	-0060	-0094	-0129	-0160
9006	6757	1142	-0018	-0059	-0095	-0127	-0161
9497	6757	0587	-0016	-0065	-0101	-0132	-0157
Lower Surface							
0000	6757	-0370	0162	0216	0263	0279	0255
0035	6757	-0741	-0062	0026	0132	0229	0280
0080	6757	-0955	-0146	-0049	0072	0190	0271
0174	6757	-1195	-0216	-0100	0016	0135	0219
0282	6757	-1360	-0219	-0109	-0002	0108	0190
0580	6757	-1677	-0210	-0118	-0020	0078	0155
0787	6757	-1810	-0214	-0125	-0027	0061	0133
0984	6757	-1897	-0211	-0125	-0031	0053	0120
1482	6757	-2042	-0185	-0114	-0034	0033	0093
1985	6757	-2125	-0178	-0106	-0034	0029	0085
2488	6757	-2152	-0174	-0096	-0038	0023	0074
2985	6757	-2156	-0168	-0094	-0042	0014	0058
3491	6757	-2135	-0168	-0099	-0051	0001	0042
3992	6757	-2086	-0167	-0103	-0059	-0013	0023
4488	6757	-1994	-0171	-0112	-0071	-0030	0004
4996	6757	-1877	-0182	-0129	-0089	-0051	-0013
5494	6757	-1707	-0185	-0135	-0095	-0055	-0010
5999	6757	-1523	-0180	-0132	-0090	-0050	0003
6495	6757	-1343	-0174	-0127	-0086	-0043	0017
6998	6757	-1155	-0169	-0123	-0086	-0035	0024
7498	6757	-0968	-0161	-0116	-0079	-0019	0035
8004	6757	-0783	-0146	-0113	-0072	-0011	0041
8501	6757	-0591	-0070	-0102	-0053	0002	0052
8998	6757	-0400	-0035	-0058	-0040	0009	0050
95% Chord							
9497	1613	0587	0005	-0013	-0032	-0060	-0114
9497	2348	0587	-0003	-0018	-0048	-0080	-0102
9497	3084	0587	-0011	-0041	-0084	-0122	-0158
9497	3818	0587	-0020	-0059	-0098	-0156	-0205
9497	4553	0587	-0029	-0067	-0112	-0162	-0198
9497	5290	0587	-0030	-0070	-0112	-0145	-0181
9497	6025	0587	-0024	-0059	-0098	-0145	-0171
9497	6757	0587	-0016	-0065	-0101	-0132	-0157
9497	7503	0587	-0026	-0079	-0115	-0142	-0159
9497	8241	0587	-0012	-0062	-0095	-0127	-0150
9497	8976	0587	-0025	-0057	-0088	-0110	-0129
9497	9712	0587	-0091	-0049	-0026	-0044	-0072

Pressure coefficient - Clean Wing (1)

$M_{nom} = 2.0$ $Re_{c_{nom}} = 8 \times 10^6$

	α	-2.78	-0.76	1.23	1.82	3.22	5.23
	M	2.003	2.003	2.003	2.003	2.003	2.003
	$10^{-6}Re_c$	7.99	7.96	7.92	8.02	7.91	7.90
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	Upper Surface	$10^3 c_p$					
0000	6757	-0370		0195	0244	0282	0290	0292	0272
0042	6757	0229		0291	0273	0237	0222	0178	0103
0084	6757	0461		0282	0251	0207	0193	0143	0055
0178	6757	0832		0261	0219	0169	0153	0108	0039
0281	6757	1171		0235	0189	0136	0120	0076	0014
0385	6757	1459		0217	0168	0111	0097	0051	-0010
0585	6757	1924		0175	0125	0072	0055	0012	-0051
0783	6757	2305		0151	0102	0050	0035	-0005	-0064
0987	6757	2651			0073	0024	0008	-0028	-0082
1488	6757	3333		0088	0042	-0005	-0019	-0053	-0103
1990	6757	3854		0052	0007	-0037	-0050	-0082	-0125
2490	6757	4245		0026	-0016	-0058	-0070	-0101	-0142
2987	6757	4523		0002	-0038	-0077	-0089	-0117	-0157
3493	6757	4707		-0024	-0062	-0099	-0110	-0135	-0172
3994	6757	4797		-0049	-0085	-0119	-0130	-0154	-0187
4495	6757	4790		-0071	-0106	-0139	-0148	-0170	-0202
4996	6757	4675		-0097	-0130	-0160	-0169	-0189	-0217
5497	6757	4444		-0124	-0153	-0182	-0189	-0209	-0234
5996	6757	4108		-0135	-0165	-0195	-0201	-0220	-0243
6498	6757	3713		-0142	-0171	-0198	-0205	-0224	-0231
7000	6757	3271		-0153	-0182	-0208	-0215	-0232	-0163
7513	6757	2777		-0153	-0182	-0209	-0216	-0167	-0162
7996	6757	2266		-0163	-0192	-0200	-0153	-0143	-0160
8496	6757	1713		-0161	-0186	-0122	-0125	-0139	-0158
9006	6757	1142		-0160	-0090	-0115	-0121	-0138	-0158
9497	6757	0587		-0097	-0089	-0114	-0121	-0140	-0161
			Lower Surface						
0000	6757	-0370		0195	0244	0282	0290	0292	0272
0035	6757	-0741		-0004	0072	0167	0194	0243	0294
0080	6757	-0955		-0084	0003	0109	0138	0201	0275
0174	6757	-1195		-0147	-0043	0055	0083	0146	0223
0282	6757	-1360		-0150		0033	0060	0119	0194
0383	6757	-1487		-0146	-0057	0023	0050	0105	0178
0580	6757	-1677		-0149	-0068	0011	0035	0087	0156
0787	6757	-1810		-0153	-0077	-0001	0022	0070	0136
0984	6757	-1897		-0147	-0080	-0006	0016	0063	0125
1482	6757	-2042		-0133	-0077	-0015	0003	0043	0098
1985	6757	-2125		-0131	-0074	-0018	0001	0038	0092
2488	6757	-2152		-0129	-0073	-0019	-0003	0032	0082
2985	6757	-2156		-0127	-0074	-0023	-0008	0024	0072
3491	6757	-2135		-0129	-0080	-0032	-0018	0012	0057
3992	6757	-2086		-0131	-0085	-0041	-0028	0000	0042
4488	6757	-1994		-0136	-0093	-0051	-0040	-0013	0025
4996	6757	-1877		-0146	-0106	-0068	-0058	-0031	0006
5494	6757	-1707		-0151	-0111	-0075	-0064	-0037	0000
5999	6757	-1523		-0150	-0109	-0073	-0062	-0035	0004
6495	6757	-1343		-0148	-0107	-0072	-0059	-0032	0005
6998	6757	-1155		-0148	-0108	-0071	-0059	-0034	0006
7498	6757	-0968		-0145	-0105	-0067	-0056	-0031	0014
8004	6757	-0783		-0146	-0107	-0067	-0056	-0030	0017
8501	6757	-0591		-0142	-0102	-0063	-0050	-0024	0024
8998	6757	-0400		-0135	-0100	-0060	-0050	-0021	0026
			95% Chord						
9497	1613	0587		-0014	-0026	-0048	-0052	-0072	-0128
9497	2348	0587		-0027	-0034	-0062	-0071	-0090	-0118
9497	3084	0587		-0035	-0050	-0090	-0102	-0132	-0170
9497	3818	0587		-0040	-0059	-0100	-0113	-0142	-0177
9497	4553	0587		-0048	-0066	-0101	-0111	-0136	-0168
9497	5290	0587		-0057	-0073	-0100	-0108	-0131	-0159
9497	6025	0587		-0071	-0079	-0107	-0113	-0132	-0159
9497	6757	0587		-0097	-0089	-0114	-0121	-0140	-0161
9497	7503	0587		-0130	-0098	-0121	-0128	-0145	-0168
9497	8241	0587		-0160	-0113	-0130	-0138	-0156	-0183
9497	8976	0587		-0177	-0134	-0145	-0153	-0174	-0198
9497	9712	0587		-0205	-0186	-0188	-0182	-0160	-0151

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 2 \times 10^6$

α	-2.81	-0.69	1.43	2.06	3.54	4.59	5.64	6.67	7.71
M	0.562	0.562	0.562	0.562	0.562	0.562	0.560	0.562	0.561
$10^{-6}Re_c$	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.02	2.01

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$								
Upper Surface											
0000	6757	-0370	-0193	0172	0204	0150	-0094	-0351	-0679	-1041	-1129
0084	6757	0461	0224	0153	-0072	-0167	-0436	-0652	-0885	-1191	-1121
0178	6757	0832	0215	0111	-0091	-0168	-0381	-0556	-0818	-1132	-1100
0281	6757	1171	0186	0074	-0113	-0182	-0363	-0512	-0762	-0789	-1010
0385	6757	1459	0161	0042	-0134	-0192	-0354	-0484	-0550	-0652	-0937
0585	6757	1924	0116	0001	-0157	-0208	-0340	-0436	-0521	-0620	-0837
0783	6757	2305	0083	-0021	-0168	-0214	-0328	-0406	-0475	-0563	-0753
0987	6757	2651	0061	-0043	-0171	-0210	-0313	-0380	-0445	-0514	-0671
1488	6757	3333	0021	-0072	-0178	-0209	-0293	-0327	-0391	-0450	-0531
1990	6757	3854	-0020	-0106	-0196	-0221	-0289	-0319	-0373	-0408	-0456
2490	6757	4245	-0040	-0114	-0197	-0218	-0275	-0298	-0340	-0365	-0390
2987	6757	4523	-0055	-0126	-0198	-0215	-0265	-0284	-0314	-0332	-0342
3493	6757	4707	-0067	-0130	-0194	-0211	-0250	-0261	-0288	-0295	-0297
3994	6757	4797	-0080	-0139	-0196	-0210	-0248	-0252	-0267	-0259	-0261
4495	6757	4790	-0088	-0141	-0190	-0204	-0239	-0239	-0247	-0231	-0230
4996	6757	4675	-0089	-0141	-0183	-0193	-0213	-0209	-0209	-0183	-0184
5497	6757	4444	-0077	-0122	-0164	-0174	-0175	-0172	-0167	-0134	-0143
5996	6757	4108	-0064	-0101	-0147	-0156	-0143	-0136	-0124	-0098	-0118
6498	6757	3713	-0045	-0071	-0087	-0089	-0105	-0102	-0090	-0071	-0091
7000	6757	3271	-0041	-0052	-0072	-0070	-0079	-0068	-0059	-0063	-0079
7513	6757	2777	-0015	-0030	-0038	-0041	-0046	-0046	-0041	-0056	-0073
7996	6757	2266	-0003	-0014	-0019	-0018	-0023	-0008	-0018	-0056	-0064
8496	6757	1713	0012	0008	0007	0009	0007	0015	-0006	-0052	-0060
9006	6757	1142	0040	0036	0039	0036	0035	0035	0003	-0054	-0059
9497	6757	0587	0045	0053	0055	0057	0055	0044	0001	-0067	-0068
Lower Surface											
0000	6757	-0370	-0193	0172	0204	0150	-0094	-0351	-0679	-1041	-1129
0080	6757	-0955	-0599	-0145	0140	0182	0215	0211	0147	0056	-0009
0174	6757	-1195	-0478	-0140	0101	0154	0227	0249	0245	0247	0224
0282	6757	-1360	-0465	-0130	0073	0119	0192	0230	0244	0250	0246
0383	6757	-1487	-0375	-0118	0052	0098	0171	0212	0230	0247	0247
0580	6757	-1677	-0253	-0108	0036	0075	0140	0181	0207	0235	0239
0787	6757	-1810	-0223	-0097	0021	0060	0122	0159	0184	0212	0220
0984	6757	-1897	-0190	-0085	0021	0052	0107	0148	0169	0194	0205
1482	6757	-2042	-0149	-0074	0006	0034	0081	0114	0132	0160	0171
1985	6757	-2125	-0126	-0062	0007	0031	0071	0100	0118	0143	0150
2488	6757	-2152	-0100	-0047	0011	0031	0067	0093	0107	0128	0142
2985	6757	-2156	-0088	-0036	0011	0027	0059	0085	0095	0113	0123
3491	6757	-2135	-0074	-0036	0003	0020	0048	0071	0080	0101	0105
3992	6757	-2086	-0063	-0033	0003	0015	0044	0062	0072	0089	0096
4488	6757	-1994	-0056	-0022	0003	0015	0040	0058	0064	0082	0089
4996	6757	-1877	-0039	-0013	0008	0021	0038	0057	0063	0080	0079
5494	6757	-1707	-0022	-0011	0006	0019	0040	0051	0057	0071	0070
5999	6757	-1523	-0011	0000	0014	0023	0040	0055	0061	0071	0066
6495	6757	-1343	-0003	0012	0022	0031	0048	0063	0062	0064	0060
6998	6757	-1155	0004	0019	0032	0034	0051	0062	0057	0056	0051
7498	6757	-0968	0022	0033	0039	0040	0050	0054	0048	0055	0050
8004	6757	-0783	0027	0038	0048	0053	0059	0059	0050	0046	0041
8501	6757	-0591	0041	0045	0047	0056	0058	0058	0049	0037	0032
8998	6757	-0400	0052	0060	0062	0067	0070	0070	0049	0026	0025
95% Chord											
9497	1613	0587	0071	0071	0066	0067	0055	0040	0016	-0000	-0020
9497	2348	0587	0058	0062	0065	0066	0061	0046	0026	-0001	-0024
9497	3084	0587	0055	0058	0061	0062	0061	0050	0026	-0009	-0039
9497	3818	0587	0046	0054	0056	0058	0057	0045	0021	-0017	-0055
9497	4553	0587	0045	0053	0056	0057	0056	0048	0017	-0025	-0057
9497	5290	0587	0050	0054	0056	0058	0057	0045	0014	-0036	-0059
9497	6025	0587	0056	0056	0058	0060	0058	0051	0008	-0045	-0061
9497	6757	0587	0045	0053	0055	0057	0055	0044	0001	-0067	-0068
9497	7503	0587	0049	0053	0056	0057	0056	0044	-0010	-0081	-0057
9497	8241	0587	0055	0058	0057	0059	0061	0035	-0038	-0121	-0062
9497	8976	0587	0054	0058	0056	0058	0053	0034	-0076	-0129	-0194
9497	9712	0587	0024	0046	0023	-0013	-0111	-0174	-0043	-0028	-0112

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 4 \times 10^6$

α	-2.83	-0.65	1.45	2.09	3.56	5.66
M	0.555	0.556	0.556	0.555	0.555	0.553
$10^{-6}Re_c$	4.03	4.03	4.03	4.04	4.04	4.02

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0229	0161	0192	0126	-0124	-0758
0084	6757	0461	0211	0142	-0089	-0197	-0472	-0998
0178	6757	0832	0209	0104	-0107	-0195	-0410	-0865
0281	6757	1171	0176	0062	-0132	-0210	-0391	-0646
0385	6757	1459	0151	0031	-0149	-0222	-0382	-0616
0585	6757	1924	0107	-0009	-0173	-0234	-0368	-0565
0783	6757	2305	0073	-0035	-0181	-0232	-0354	-0523
0987	6757	2651	0054	-0052	-0187	-0232	-0337	-0485
1488	6757	3333	0011	-0082	-0197	-0230	-0316	-0430
1990	6757	3854	-0021	-0104	-0211	-0245	-0312	-0406
2490	6757	4245	-0041	-0118	-0214	-0241	-0297	-0374
2987	6757	4523	-0058	-0128	-0214	-0238	-0279	-0348
3493	6757	4707	-0072	-0134	-0212	-0233	-0264	-0324
3994	6757	4797	-0087	-0142	-0211	-0229	-0257	-0301
4495	6757	4790	-0099	-0150	-0209	-0229	-0253	-0280
4996	6757	4675	-0098	-0142	-0199	-0212	-0228	-0246
5497	6757	4444	-0090	-0126	-0180	-0188	-0199	-0203
5996	6757	4108	-0076	-0108	-0145	-0157	-0164	-0159
6498	6757	3713	-0058	-0083	-0105	-0121	-0126	-0116
7000	6757	3271	-0047	-0068	-0086	-0096	-0097	-0084
7513	6757	2777	-0028	-0043	-0056	-0066	-0065	-0057
7996	6757	2266	-0013	-0022	-0033	-0039	-0035	-0038
8496	6757	1713	0005	-0003	-0010	-0016	-0008	-0026
9006	6757	1142	0026	0024	0023	0018	0019	-0015
9497	6757	0587	0039	0040	0041	0038	0037	-0013
Lower Surface								
0000	6757	-0370	-0229	0161	0192	0126	-0124	-0758
0080	6757	-0955	-0654	-0164	0130	0173	0205	0108
0174	6757	-1195	-0546	-0157	0098	0144	0211	0232
0282	6757	-1360	-0464	-0143	0069	0110	0183	0230
0383	6757	-1487	-0327	-0132	0053	0088	0161	0219
0580	6757	-1677	-0292	-0121	0030	0063	0130	0196
0787	6757	-1810	-0250	-0109	0018	0046	0107	0171
0984	6757	-1897	-0214	-0098	0018	0042	0094	0154
1482	6757	-2042	-0170	-0077	0005	0029	0071	0124
1985	6757	-2125	-0141	-0065	0002	0020	0057	0105
2488	6757	-2152	-0119	-0052	0006	0018	0053	0096
2985	6757	-2156	-0103	-0045	0006	0016	0049	0084
3491	6757	-2135	-0094	-0046	-0002	0010	0040	0069
3992	6757	-2086	-0083	-0043	-0003	0010	0031	0063
4488	6757	-1994	-0075	-0038	-0003	0008	0029	0055
4996	6757	-1877	-0059	-0029	0002	0011	0031	0053
5494	6757	-1707	-0043	-0021	0009	0016	0031	0049
5999	6757	-1523	-0026	-0009	0016	0021	0035	0049
6495	6757	-1343	-0018	0001	0023	0026	0038	0048
6998	6757	-1155	-0009	0006	0024	0027	0037	0044
7498	6757	-0968	0004	0009	0025	0028	0033	0039
8004	6757	-0783	0011	0020	0034	0035	0040	0037
8501	6757	-0591	0023	0027	0037	0040	0041	0036
8998	6757	-0400	0036	0042	0050	0046	0048	0032
95% Chord								
9497	1513	0587	0057	0063	0056	0048	0033	0002
9497	2348	0587	0048	0053	0054	0050	0039	0009
9497	3084	0587	0046	0049	0048	0046	0041	0011
9497	3819	0587	0038	0039	0038	0034	0034	0005
9497	4553	0587	0037	0041	0040	0035	0034	0004
9497	5290	0587	0040	0041	0042	0036	0034	0001
9497	6025	0587	0042	0044	0043	0040	0039	-0004
9497	6757	0587	0039	0040	0041	0038	0037	-0013
9497	7503	0587	0041	0042	0041	0039	0041	-0024
9497	8241	0587	0044	0047	0046	0042	0046	-0059
9497	8976	0587	0043	0053	0046	0039	0040	-0105
9497	9712	0587	0019	0037	0002	-0034	-0198	-0098

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 8 \times 10^6$

	α	-2.82	-0.71	1.41	2.04	3.51	4.55	5.60	6.65	7.69
	M	0.554	0.554	0.554	0.553	0.551	0.552	0.547	0.549	0.551
	$10^{-6}Re_c$	8.00	8.00	8.00	7.99	7.97	7.98	7.94	7.96	7.99
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$					$10^3 C_p$			
			Upper Surface							
0000	6757	-0370	-0248	0144	0187	0123	-0132	-0409	-0797	-1238	-1736
0084	6757	0461	0198	0132	-0086	-0189	-0474	-0715	-1035	-1385	-1716
0178	6757	0832	0196	0095	-0096	-0182	-0398	-0565	-0779	-0979	-1210
0281	6757	1171	0165	0053	-0124	-0200	-0384	-0522	-0700	-0874	-1059
0385	6757	1459	0140	0024	-0136	-0207	-0369	-0488	-0646	-0793	-0951
0585	6757	1924	0094	-0016	-0168	-0229	-0367	-0464	-0593	-0710	-0835
0783	6757	2305	0073	-0033	-0179	-0233	-0349	-0435	-0546	-0642	-0745
0987	6757	2651	0049	-0052	-0185	-0234	-0338	-0411	-0508	-0593	-0680
1488	6757	3333	0005	-0085	-0194	-0235	-0320	-0373	-0453	-0515	-0578
1990	6757	3854	-0034	-0116	-0210	-0248	-0317	-0361	-0425	-0476	-0523
2490	6757	4245	-0053	-0129	-0211	-0244	-0304	-0340	-0396	-0434	-0471
2987	6757	4523	-0072	-0138	-0212	-0242	-0294	-0323	-0371	-0402	-0427
3493	6757	4707	-0085	-0145	-0212	-0237	-0282	-0304	-0346	-0370	-0385
3994	6757	4797	-0097	-0151	-0212	-0234	-0272	-0288	-0324	-0341	-0349
4495	6757	4790	-0112	-0158	-0213	-0234	-0265	-0275	-0308	-0316	-0313
4996	6757	4675	-0108	-0151	-0197	-0217	-0241	-0248	-0272	-0276	-0262
5497	6757	4444	-0100	-0138	-0178	-0194	-0211	-0215	-0231	-0230	-0210
5996	6757	4108	-0090	-0119	-0153	-0166	-0180	-0177	-0192	-0183	-0163
6498	6757	3713	-0069	-0094	-0121	-0133	-0141	-0136	-0145	-0135	-0123
7000	6757	3271	-0061	-0079	-0101	-0110	-0115	-0105	-0114	-0104	-0102
7513	6757	2777	-0040	-0053	-0071	-0078	-0080	-0070	-0077	-0074	-0088
7996	6757	2266	-0022	-0032	-0043	-0052	-0050	-0039	-0049	-0053	-0078
8496	6757	1713	-0007	-0013	-0024	-0030	-0024	-0018	-0029	-0043	-0076
9006	6757	1142	0012	0011	0008	0002	-0001	0005	-0014	-0033	-0069
9497	6757	0587	0028	0031	0030	0024	0021	0021	-0004	-0027	-0073
			Lower Surface							
0000	6757	-0370	-0248	0144	0187	0123	-0132	-0409	-0797	-1238	-1736
0080	6757	-0955	-0711	-0184	0124	0168	0198	0179	0100	-0001	-0130
0174	6757	-1195	-0567	-0165	0094	0142	0208	0240	0229	0209	0169
0282	6757	-1360	-0401	-0142	0068	0112	0178	0221	0227	0229	0215
0383	6757	-1487	-0367	-0136	0046	0086	0154	0199	0216	0229	0230
0580	6757	-1677	-0316	-0133	0019	0053	0118	0164	0185	0207	0221
0787	6757	-1810	-0268	-0118	0010	0040	0099	0141	0162	0188	0206
0984	6757	-1897	-0227	-0099	0012	0038	0091	0129	0152	0176	0195
1482	6757	-2042	-0184	-0087	-0000	0019	0062	0098	0116	0141	0161
1985	6757	-2125	-0158	-0079	-0007	0010	0046	0079	0093	0117	0137
2488	6757	-2152	-0133	-0068	-0006	0008	0041	0070	0085	0104	0121
2985	6757	-2156	-0114	-0059	-0004	0007	0036	0063	0075	0094	0111
3491	6757	-2135	-0108	-0059	-0009	-0000	0026	0050	0060	0079	0093
3992	6757	-2086	-0096	-0054	-0008	-0001	0021	0046	0053	0070	0083
4488	6757	-1994	-0088	-0052	-0011	-0004	0015	0038	0044	0059	0072
4996	6757	-1877	-0073	-0042	-0004	-0001	0017	0038	0042	0055	0066
5494	6757	-1707	-0057	-0028	0005	0008	0022	0041	0042	0054	0064
5999	6757	-1523	-0040	-0017	0011	0015	0025	0043	0043	0053	0061
6495	6757	-1343	-0030	-0011	0015	0017	0027	0041	0042	0050	0054
6998	6757	-1155	-0023	-0006	0017	0018	0024	0038	0036	0043	0045
7498	6757	-0968	-0011	0000	0019	0021	0025	0037	0032	0039	0042
8004	6757	-0783	0000	0011	0027	0026	0029	0039	0034	0037	0035
8501	6757	-0591	0011	0018	0032	0032	0031	0040	0031	0032	0029
8998	6757	-0400	0027	0029	0040	0039	0037	0041	0033	0029	0019
			95% Chord							
9497	1613	0587	0048	0047	0044	0038	0025	0019	-0000	-0014	-0028
9497	2348	0587	0037	0039	0043	0040	0030	0026	0010	-0004	-0025
9497	3084	0587	0036	0037	0038	0035	0030	0029	0012	-0002	-0022
9497	3818	0587	0025	0025	0025	0023	0022	0022	0007	-0006	-0031
9497	4553	0587	0030	0031	0032	0029	0025	0025	0009	-0006	-0029
9497	5290	0587	0032	0031	0033	0030	0026	0025	0008	-0011	-0046
9497	6025	0587	0030	0031	0032	0029	0025	0025	0004	-0016	-0057
9497	6757	0587	0028	0031	0030	0024	0021	0021	-0004	-0027	-0073
9497	7503	0587	0031	0032	0034	0027	0021	0017	-0008	-0042	-0107
9497	8241	0587	0036	0038	0038	0029	0018	0008	-0031	-0088	-0178
9497	8976	0587	0040	0043	0040	0029	0003	-0031	-0096	-0218	-0321
9497	9712	0587	0012	0035	0002	-0036	-0217	-0195	-0175	-0150	-0134

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 12 \times 10^6$

α	-2.81	-0.71	1.38	2.01	3.47	4.52	5.56	6.60	7.63
M	0.552	0.552	0.555	0.551	0.550	0.553	0.550	0.551	0.552
$10^{-6}Re_c$	12.1	12.1	12.1	12.0	12.0	12.1	12.0	12.0	12.0

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$								
Upper Surface											
0000	6757	-0370	-0237	0149	0194	0135	-0113	-0404	-0790	-1235	-1735
0084	6757	0461	0210	0137	-0079	-0176	-0452	-0699	-1005	-1327	-1669
0178	6757	0832	0211	0095	-0091	-0170	-0382	-0562	-0778	-0994	-1219
0281	6757	1171	0178	0056	-0120	-0191	-0372	-0523	-0702	-0878	-1063
0385	6757	1459	0156	0050	-0132	-0196	-0354	-0487	-0644	-0794	-0951
0585	6757	1924	0103	-0006	-0166	-0220	-0355	-0463	-0591	-0712	-0835
0783	6757	2305	0071	-0034	-0178	-0227	-0340	-0433	-0544	-0645	-0746
0987	6757	2651	0048	-0052	-0189	-0225	-0328	-0410	-0506	-0592	-0680
1488	6757	3333	0005	-0085	-0195	-0230	-0311	-0374	-0452	-0517	-0582
1990	6757	3854	-0033	-0114	-0211	-0240	-0307	-0360	-0425	-0477	-0526
2490	6757	4245	-0053	-0126	-0213	-0238	-0296	-0341	-0396	-0438	-0477
2987	6757	4523	-0071	-0137	-0213	-0236	-0285	-0323	-0371	-0406	-0434
3493	6757	4707	-0085	-0144	-0213	-0233	-0273	-0305	-0349	-0375	-0396
3994	6757	4797	-0095	-0149	-0210	-0227	-0264	-0290	-0326	-0348	-0360
4495	6757	4790	-0110	-0158	-0213	-0227	-0256	-0279	-0311	-0325	-0331
4996	6757	4675	-0107	-0150	-0197	-0209	-0234	-0252	-0277	-0286	-0283
5497	6757	4444	-0102	-0139	-0177	-0187	-0208	-0221	-0239	-0243	-0234
5996	6757	4108	-0091	-0121	-0153	-0161	-0174	-0184	-0199	-0199	-0184
6498	6757	3713	-0069	-0093	-0119	-0125	-0136	-0142	-0152	-0149	-0134
7000	6757	3271	-0060	-0078	-0101	-0104	-0108	-0111	-0120	-0114	-0103
7513	6757	2777	-0040	-0052	-0069	-0072	-0075	-0075	-0082	-0078	-0079
7996	6757	2266	-0020	-0030	-0042	-0044	-0044	-0042	-0050	-0050	-0060
8496	6757	1713	-0007	-0015	-0021	-0021	-0022	-0021	-0028	-0034	-0056
9006	6757	1142	0012	0011	0005	0005	0010	0007	-0007	-0020	-0044
9497	6757	0587	0031	0032	0027	0028	0029	0025	0007	-0011	-0041
Lower Surface											
0000	6757	-0370	-0237	0149	0194	0135	-0113	-0404	-0790	-1235	-1735
0080	6757	-0955	-0712	-0188	0115	0163	0207	0179	0103	-0001	-0131
0174	6757	-1195	-0545	-0165	0086	0135	0218	0240	0231	0208	0167
0282	6757	-1360	-0424	-0141	0059	0106	0186	0220	0228	0228	0217
0383	6757	-1487	-0371	-0137	0038	0081	0158	0196	0216	0228	0230
0580	6757	-1677	-0320	-0136	0007	0045	0118	0159	0182	0204	0218
0787	6757	-1810	-0269	-0119	0001	0034	0099	0137	0161	0185	0204
0984	6757	-1897	-0228	-0100	0004	0033	0092	0127	0150	0175	0195
1482	6757	-2042	-0186	-0088	-0009	0014	0064	0096	0116	0140	0161
1985	6757	-2125	-0158	-0080	-0015	0005	0050	0077	0093	0115	0136
2488	6757	-2152	-0133	-0069	-0012	0005	0041	0066	0083	0103	0121
2985	6757	-2156	-0114	-0059	-0011	0005	0039	0062	0075	0094	0112
3491	6757	-2135	-0108	-0060	-0017	-0004	0027	0048	0059	0077	0093
3992	6757	-2086	-0095	-0054	-0016	-0003	0025	0044	0054	0070	0085
4488	6757	-1994	-0088	-0052	-0018	-0007	0018	0036	0044	0059	0072
4996	6757	-1877	-0072	-0042	-0013	-0003	0021	0036	0043	0056	0067
5494	6757	-1707	-0055	-0027	-0003	0006	0026	0040	0044	0056	0066
5999	6757	-1523	-0038	-0014	0005	0013	0032	0044	0046	0056	0064
6495	6757	-1343	-0028	-0009	0008	0015	0030	0041	0043	0051	0057
6998	6757	-1155	-0021	-0006	0009	0014	0029	0038	0037	0044	0049
7498	6757	-0968	-0012	0002	0013	0016	0031	0038	0036	0040	0044
8004	6757	-0783	0002	0012	0020	0024	0034	0040	0038	0041	0041
8501	6757	-0591	0014	0020	0026	0028	0038	0042	0036	0037	0036
8998	6757	-0400	0029	0031	0034	0037	0040	0043	0037	0036	0029
95% Chord											
9497	1613	0587	0046	0046	0040	0038	0028	0020	0002	-0011	-0026
9497	2348	0587	0037	0039	0039	0038	0033	0028	0014	0003	-0013
9497	3084	0587	0035	0037	0034	0035	0034	0031	0017	0007	-0009
9497	3818	0587	0021	0022	0021	0022	0023	0022	0011	0001	-0017
9497	4553	0587	0030	0030	0028	0029	0029	0027	0015	0004	-0013
9497	5290	0587	0033	0032	0031	0030	0030	0028	0016	0002	-0025
9497	6025	0587	0031	0033	0029	0029	0030	0028	0011	-0002	-0029
9497	6757	0587	0031	0032	0027	0028	0029	0025	0007	-0011	-0041
9497	7503	0587	0030	0032	0029	0029	0029	0023	0003	-0020	-0066
9497	8241	0587	0037	0039	0034	0033	0028	0017	-0013	-0054	-0120
9497	8976	0587	0043	0044	0037	0034	0016	-0015	-0066	-0138	-0307
9497	9712	0587	0010	0032	0003	-0031	-0239	-0312	-0186	-0185	-0167

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 16 \times 10^6$

			α	-2.80	-1.76	-0.72	0.32	1.36	1.99	2.40	3.44	4.48	5.52	6.56	7.59
			M	0.552	0.553	0.551	0.554	0.551	0.551	0.556	0.552	0.552	0.552	0.551	0.554
			$10^{-6}Re_c$	15.8	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$						$10^3 C_p$							
			Upper Surface												
0000	6757	-0370		-0232	0003	0153	0222	0197	0140	0086	-0111	-0398	-0767	-1216	-1709
0084	6757	0461		0210	0196	0139	0056	-0075	-0169	-0240	-0452	-0698	-0988	-1315	-1657
0178	6757	0832		0210	0174	0106	0026	-0087	-0163	-0221	-0382	-0561	-0766	-0991	-1211
0281	6757	1171		0177	0132	0063	-0014	-0117	-0185	-0235	-0373	-0523	-0693	-0875	-1052
0385	6757	1459		0156	0109	0040	-0032	-0128	-0189	-0233	-0355	-0487	-0634	-0790	-0940
0585	6757	1924		0103	0056	-0011	-0076	-0163	-0214	-0252	-0355	-0464	-0582	-0709	-0826
0783	6757	2305		0070	0023	-0038	-0098	-0174	-0219	-0253	-0342	-0435	-0535	-0641	-0737
0987	6757	2651		0047	0003	-0056	-0111	-0180	-0221	-0251	-0330	-0411	-0501	-0592	-0672
1488	6757	3333		0003	-0037	-0089	-0133	-0193	-0226	-0249	-0314	-0379	-0447	-0518	-0577
1990	6757	3854		-0033	-0070	-0117	-0157	-0208	-0236	-0257	-0311	-0364	-0421	-0479	-0522
2490	6757	4245		-0054	-0088	-0131	-0166	-0210	-0234	-0253	-0300	-0345	-0393	-0441	-0473
2987	6757	4523		-0071	-0102	-0141	-0171	-0212	-0232	-0248	-0289	-0328	-0368	-0409	-0432
3493	6757	4707		-0084	-0111	-0147	-0173	-0210	-0228	-0241	-0277	-0310	-0344	-0378	-0395
3994	6757	4797		-0095	-0120	-0152	-0176	-0208	-0223	-0236	-0267	-0295	-0325	-0352	-0361
4495	6757	4790		-0110	-0132	-0162	-0181	-0210	-0224	-0234	-0261	-0285	-0308	-0330	-0334
4996	6757	4675		-0108	-0128	-0154	-0170	-0196	-0207	-0216	-0239	-0257	-0277	-0293	-0287
5497	6757	4444		-0103	-0119	-0142	-0155	-0176	-0185	-0193	-0212	-0226	-0241	-0251	-0238
5996	6757	4108		-0092	-0106	-0126	-0135	-0153	-0159	-0166	-0180	-0191	-0201	-0208	-0191
6498	6757	3713		-0069	-0080	-0097	-0104	-0119	-0124	-0128	-0140	-0147	-0155	-0157	-0137
7000	6757	3271		-0060	-0069	-0083	-0087	-0100	-0103	-0106	-0114	-0119	-0121	-0122	-0104
7513	6757	2777		-0039	-0044	-0057	-0059	-0068	-0070	-0073	-0079	-0081	-0083	-0084	-0072
7996	6757	2266		-0019	-0024	-0033	-0034	-0041	-0041	-0043	-0047	-0048	-0049	-0051	-0050
8496	6757	1713		-0009	-0010	-0018	-0017	-0021	-0022	-0022	-0025	-0024	-0029	-0035	-0038
9006	6757	1142		0013	0013	0007	0012	0006	0007	0008	0006	0004	0000	-0012	-0030
9497	6757	0587		0032	0033	0028	0033	0029	0030	0031	0027	0023	0015	-0002	-0023
			Lower Surface												
0000	6757	-0370		-0232	0003	0153	0222	0197	0140	0086	-0111	-0398	-0767	-1216	-1709
0080	6757	-0955		-0711	-0420	-0190	-0008	0112	0162	0185	0203	0176	0109	0002	-0123
0174	6757	-1195		-0541	-0338	-0168	-0021	0084	0135	0166	0214	0235	0235	0209	0173
0282	6757	-1360		-0421	-0272	-0144	-0027	0059	0106	0132	0182	0215	0230	0228	0221
0383	6757	-1487		-0372	-0249	-0141	-0042	0036	0079	0103	0154	0192	0213	0224	0234
0580	6757	-1677		-0320	-0225	-0142	-0059	0006	0043	0065	0112	0152	0180	0199	0220
0787	6757	-1810		-0269	-0192	-0124	-0054	0000	0033	0052	0095	0132	0161	0182	0207
0984	6757	-1897		-0228	-0162	-0105	-0044	0004	0033	0050	0088	0123	0150	0172	0199
1482	6757	-2042		-0184	-0135	-0094	-0045	-0009	0016	0029	0061	0091	0116	0137	0164
1985	6757	-2125		-0157	-0117	-0085	-0044	-0015	0006	0018	0045	0071	0094	0114	0137
2488	6757	-2152		-0134	-0101	-0074	-0039	-0013	0004	0014	0038	0061	0081	0098	0124
2985	6757	-2156		-0113	-0084	-0061	-0031	-0009	0007	0016	0037	0058	0076	0092	0116
3491	6757	-2135		-0108	-0083	-0064	-0036	-0018	-0003	0005	0023	0043	0060	0073	0096
3992	6757	-2086		-0095	-0073	-0057	-0031	-0015	-0002	0005	0022	0040	0055	0068	0088
4488	6757	-1994		-0089	-0069	-0056	-0033	-0019	-0006	-0000	0015	0031	0044	0056	0075
4996	6757	-1877		-0073	-0056	-0045	-0024	-0012	-0001	0004	0017	0032	0043	0054	0071
5494	6757	-1707		-0054	-0039	-0030	-0012	-0002	0008	0012	0024	0036	0047	0054	0070
5999	6757	-1523		-0037	-0024	-0018	-0000	0007	0015	0020	0029	0040	0049	0056	0069
6495	6757	-1343		-0028	-0017	-0012	0003	0009	0017	0020	0028	0037	0044	0049	0063
6998	6757	-1155		-0021	-0012	-0008	0005	0009	0017	0020	0026	0034	0040	0043	0055
7498	6757	-0968		-0010	-0002	-0001	0012	0013	0019	0024	0029	0033	0040	0041	0049
8004	6757	-0783		0003	0008	0009	0019	0021	0027	0027	0032	0037	0040	0040	0048
8501	6757	-0591		0014	0019	0017	0027	0026	0030	0033	0035	0038	0041	0039	0042
8998	6757	-0400		0028	0031	0030	0036	0036	0038	0039	0039	0042	0039	0035	0040
			95% Chord												
9497	1613	0587		0045	0049	0045	0045	0040	0038	0036	0027	0019	0004	-0012	-0017
9497	2348	0587		0035	0038	0035	0041	0038	0039	0038	0032	0027	0016	0004	-0001
9497	3084	0587		0035	0037	0033	0038	0035	0036	0036	0033	0030	0021	0010	0003
9497	3818	0587		0019	0021	0017	0022	0020	0022	0022	0020	0019	0012	0002	-0004
9497	4553	0587		0030	0032	0027	0032	0029	0030	0030	0028	0027	0020	0008	0001
9497	5290	0587		0033	0034	0030	0034	0031	0032	0032	0029	0027	0019	0007	-0007
9497	6025	0587		0032	0034	0029	0034	0030	0032	0031	0029	0026	0019	0004	-0011
9497	6757	0587		0032	0033	0028	0033	0029	0030	0031	0027	0023	0015	-0002	-0023
9497	7503	0587		0030	0031	0028	0033	0029	0031	0031	0027	0023	0011	-0010	-0038
9497	8241	0587		0037	0040	0035	0040	0035	0036	0035	0028	0019	-0002	-0038	-0087
9497	8976	0587		0043	0047	0042	0045	0039	0037	0034	0019	-0005	-0047	-0097	-0249
9497	9712	0587		0007	0024	0026	0028	0003	-0028	-0064	-0250	-0449	-0213	-0240	-0205

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.55$ $Re_{c_{nom}} = 27 \times 10^6$

α	-2.78	-1.76	-0.73	0.29	1.31	1.92	2.33	3.36	4.38	5.40	6.42
M	0.552	0.551	0.552	0.553	0.550	0.552	0.552	0.550	0.552	0.550	0.550
$10^{-6}Re_c$	27.0	26.9	26.9	27.0	26.9	26.9	26.9	26.8	26.9	26.8	26.8

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$										
Upper Surface													
0000	6757	-0370	-0228	-0000	0154	0220	0199	0147	0099	-0085	-0360	-0724	-1147
0084	6757	0461	0210	0193	0147	0060	-0067	-0158	-0222	-0426	-0664	-0950	-1267
0178	6757	0832	0212	0171	0115	0031	-0078	-0152	-0202	-0359	-0533	-0735	-0955
0281	6757	1171	0179	0130	0072	-0009	-0109	-0175	-0219	-0354	-0501	-0668	-0846
0385	6757	1459	0159	0107	0049	-0027	-0118	-0179	-0217	-0357	-0465	-0611	-0766
0585	6757	1924	0107	0054	-0001	-0071	-0155	-0206	-0238	-0340	-0446	-0564	-0687
0783	6757	2305	0073	0021	-0030	-0093	-0169	-0212	-0240	-0330	-0420	-0521	-0623
0987	6757	2651	0049	-0000	-0047	-0106	-0175	-0215	-0239	-0319	-0398	-0486	-0574
1488	6757	3333	0006	-0039	-0081	-0130	-0189	-0221	-0241	-0306	-0368	-0437	-0504
1990	6757	3854	-0031	-0073	-0109	-0121	-0206	-0232	-0248	-0956	-0355	-0413	-0468
2490	6757	4245	-0053	-0091	-0122	-0162	-0208	-0231	-0245	-0294	-0338	-0386	-0431
2987	6757	4523	-0068	-0104	-0132	-0167	-0209	-0229	-0240	-0283	-0321	-0363	-0400
3493	6757	4707	-0081	-0113	-0139	-0169	-0208	-0224	-0234	-0272	-0304	-0341	-0373
3994	6757	4797	-0092	-0122	-0145	-0172	-0207	-0221	-0230	-0264	-0291	-0322	-0348
4495	6757	4790	-0108	-0136	-0155	-0180	-0211	-0223	-0228	-0259	-0281	-0307	-0329
4996	6757	4675	-0105	-0130	-0147	-0168	-0196	-0206	-0211	-0237	-0256	-0278	-0294
5497	6757	4444	-0101	-0123	-0135	-0155	-0178	-0186	-0189	-0212	-0227	-0243	-0254
5996	6757	4108	-0092	-0111	-0121	-0135	-0156	-0161	-0164	-0182	-0193	-0206	-0213
6498	6757	3713	-0068	-0084	-0090	-0103	-0120	-0125	-0125	-0141	-0149	-0158	-0160
7000	6757	3271	-0059	-0072	-0078	-0087	-0102	-0104	-0104	-0116	-0121	-0127	-0126
7513	6757	2777	-0036	-0047	-0050	-0058	-0069	-0071	-0069	-0079	-0083	-0086	-0084
7996	6757	2266	-0015	-0026	-0027	-0031	-0042	-0041	-0040	-0048	-0048	-0050	-0049
8496	6757	1713	-0008	-0015	-0013	-0018	-0025	-0024	-0021	-0028	-0027	-0028	-0027
9006	6757	1142	0017	0011	0014	0012	0006	0008	0010	0006	0007	0003	-0002
9497	6757	0587	0036	0032	0035	0035	0030	0033	0035	0030	0029	0022	0012
Lower Surface													
0000	6757	-0370	-0228	-0000	0154	0220	0199	0147	0099	-0085	-0360	-0724	-1147
0080	6757	-0955	-0716	-0434	-0198	-0020	0097	0153	0178	0198	0180	0116	0018
0174	6757	-1195	-0539	-0344	-0169	-0027	0073	0129	0160	0207	0235	0232	0213
0282	6757	-1360	-0419	-0277	-0142	-0032	0051	0099	0128	0175	0211	0226	0227
0383	6757	-1487	-0370	-0254	-0140	-0046	0027	0071	0099	0145	0185	0210	0221
0580	6757	-1677	-0320	-0231	-0141	-0064	-0004	0036	0060	0104	0144	0173	0196
0787	6757	-1810	-0266	-0196	-0120	-0057	-0006	0028	0050	0089	0126	0155	0180
0984	6757	-1897	-0225	-0165	-0099	-0046	-0001	0029	0050	0083	0118	0145	0171
1482	6757	-2042	-0182	-0138	-0089	-0046	-0013	0011	0028	0056	0087	0111	0135
1985	6757	-2125	-0155	-0121	-0080	-0045	-0020	0003	0017	0041	0068	0088	0109
2488	6757	-2152	-0133	-0105	-0069	-0041	-0019	-0000	0014	0033	0057	0076	0097
2985	6757	-2156	-0110	-0087	-0056	-0031	-0013	0004	0016	0033	0055	0071	0089
3491	6757	-2135	-0106	-0087	-0059	-0037	-0021	-0006	0006	0020	0040	0054	0072
3992	6757	-2086	-0092	-0076	-0051	-0032	-0018	-0004	0006	0019	0037	0050	0066
4488	6757	-1994	-0087	-0074	-0052	-0035	-0023	-0011	0000	0012	0028	0040	0054
4996	6757	-1877	-0070	-0059	-0039	-0024	-0014	-0003	0006	0015	0030	0040	0053
5494	6757	-1707	-0050	-0041	-0024	-0011	-0003	0006	0014	0023	0036	0044	0054
5999	6757	-1523	-0035	-0028	-0012	-0001	0004	0014	0022	0028	0040	0047	0056
6495	6757	-1343	-0026	-0020	-0006	0003	0007	0015	0023	0027	0037	0043	0052
6998	6757	-1155	-0019	-0016	-0003	0005	0007	0014	0020	0023	0032	0036	0042
7498	6757	-0968	-0008	-0006	0005	0012	0012	0019	0025	0027	0034	0037	0042
8004	6757	-0783	0006	0007	0017	0021	0021	0027	0033	0033	0039	0041	0045
8501	6757	-0591	0017	0016	0024	0028	0026	0032	0036	0036	0041	0041	0043
8998	6757	-0400	0031	0029	0037	0038	0036	0039	0044	0041	0044	0043	0044
95% Chord													
9497	1613	0587	0044	0044	0048	0046	0038	0038	0040	0029	0022	0009	-0004
9497	2348	0587	0036	0034	0040	0041	0037	0039	0042	0035	0031	0022	0016
9497	3084	0587	0037	0033	0038	0038	0033	0036	0039	0034	0033	0026	0019
9497	3818	0587	0017	0013	0019	0019	0015	0018	0022	0017	0018	0014	0010
9497	4553	0587	0033	0029	0034	0033	0028	0031	0034	0029	0029	0026	0021
9497	5290	0587	0036	0032	0036	0036	0031	0033	0036	0031	0031	0025	0019
9497	6025	0587	0036	0032	0036	0036	0030	0033	0036	0031	0031	0025	0018
9497	6757	0587	0036	0032	0035	0035	0030	0033	0035	0030	0029	0022	0012
9497	7503	0587	0031	0028	0033	0033	0028	0030	0033	0028	0028	0020	0009
9497	8241	0587	0040	0037	0042	0041	0035	0037	0039	0032	0028	0014	-0006
9497	8976	0587	0047	0045	0050	0047	0040	0040	0042	0029	0016	-0013	-0051
9497	9712	0587	0005	0015	0025	0023	0001	-0021	-0044	-0183	-0494	-0486	-0201

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.8$ $Re_{c_{nom}} = 2 \times 10^6$

			α	-2.83	-0.69	1.49	2.13	3.63	5.73
			M	0.823	0.821	0.831	0.831	0.831	0.835
			$10^{-6}Re_c$	2.01	1.99	2.00	2.00	2.00	2.06
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$				$10^3 C_p$			
			Upper Surface						
0000	6757	-0370		-0169	0172	0210	0147	-0089	-0576
0084	6757	0461		0216	0158	-0075	-0185	-0484	-0925
0178	6757	0832		0215	0118	-0098	-0191	-0432	-0914
0281	6757	1171		0188	0077	-0125	-0207	-0413	-0933
0385	6757	1459		0155	0044	-0149	-0226	-0407	-0884
0585	6757	1924		0114	-0001	-0174	-0240	-0393	-0673
0783	6757	2305		0075	-0028	-0185	-0245	-0376	-0525
0987	6757	2651		0061	-0045	-0190	-0245	-0360	-0503
1488	6757	3333		0016	-0074	-0197	-0243	-0336	-0443
1990	6757	3854		-0024	-0111	-0217	-0258	-0335	-0433
2490	6757	4245		-0044	-0123	-0220	-0259	-0319	-0399
2987	6757	4523		-0064	-0134	-0221	-0254	-0308	-0365
3493	6757	4707		-0075	-0142	-0218	-0248	-0294	-0330
3994	6757	4797		-0085	-0150	-0220	-0245	-0285	-0299
4495	6757	4790		-0098	-0152	-0211	-0236	-0266	-0262
4996	6757	4675		-0100	-0151	-0199	-0221	-0234	-0220
5497	6757	4444		-0091	-0131	-0185	-0206	-0203	-0171
5996	6757	4108		-0075	-0107	-0169	-0194	-0163	-0129
6498	6757	3713		-0058	-0076	-0111	-0114	-0124	-0097
7000	6757	3271		-0047	-0059	-0070	-0081	-0091	-0078
7513	6757	2777		-0030	-0037	-0045	-0053	-0058	-0070
7996	6757	2266		-0011	-0017	-0023	-0029	-0028	-0062
8496	6757	1713		0009	0005	0002	-0006	0003	-0059
9006	6757	1142		0024	0024	0036	0031	0029	-0049
9497	6757	0587		0044	0047	0056	0051	0046	-0056
			Lower Surface						
0000	6757	-0370		-0169	0172	0210	0147	-0089	-0576
0080	6757	-0955		-0633	-0153	0149	0177	0213	0139
0174	6757	-1195		-0526	-0152	0121	0148	0226	0248
0282	6757	-1360		-0517	-0142	0078	0114	0194	0230
0383	6757	-1487		-0489	-0128	0059	0090	0173	0218
0580	6757	-1677		-0265	-0117	0040	0064	0139	0196
0787	6757	-1810		-0238	-0106	0026	0048	0117	0171
0984	6757	-1897		-0205	-0095	0021	0040	0104	0153
1482	6757	-2042		-0160	-0078	0012	0026	0079	0123
1985	6757	-2125		-0130	-0067	0013	0021	0066	0105
2488	6757	-2152		-0110	-0053	0010	0018	0060	0089
2985	6757	-2156		-0096	-0039	0007	0018	0055	0078
3491	6757	-2135		-0082	-0036	0007	0010	0044	0067
3992	6757	-2086		-0072	-0031	0007	0007	0038	0056
4488	6757	-1994		-0061	-0026	0004	0007	0035	0048
4996	6757	-1877		-0049	-0019	0010	0011	0036	0047
5494	6757	-1707		-0028	-0009	0018	0015	0035	0048
5999	6757	-1523		-0014	-0001	0023	0023	0035	0048
6495	6757	-1343		-0005	0011	0024	0021	0044	0038
6998	6757	-1155		0003	0016	0034	0029	0049	0032
7498	6757	-0968		0014	0018	0053	0045	0046	0034
8004	6757	-0783		0023	0030	0054	0051	0049	0025
8501	6757	-0591		0036	0038	0056	0056	0054	0021
8998	6757	-0400		0050	0052	0062	0059	0057	0013
			95% Chord						
9497	1613	0587		0078	0077	0070	0062	0049	-0016
9497	2348	0587		0059	0065	0066	0060	0056	-0009
9497	3084	0587		0057	0059	0063	0058	0056	-0015
9497	3818	0587		0051	0053	0054	0052	0050	-0015
9497	4553	0587		0048	0050	0057	0051	0047	-0026
9497	5290	0587		0048	0050	0054	0049	0047	-0039
9497	6025	0587		0044	0047	0059	0053	0052	-0040
9497	6757	0587		0044	0047	0056	0051	0046	-0056
9497	7503	0587		0048	0050	0054	0048	0049	-0069
9497	8241	0587		0051	0053	0060	0052	0053	-0098
9497	8976	0587		0051	0053	0057	0046	0044	-0136
9497	9712	0587		0012	0047	-0042	-0159	-0189	-0066

Pressure coefficient - Clean Wing (2)

$M_{nom} = 0.8 \quad Re_{c_{nom}} = 8 \times 10^6$

	α	-2.83	-0.70	1.44	2.08	3.56	5.67
	M	0.824	0.820	0.821	0.821	0.824	0.822
	$10^{-6}Re_c$	8.15	8.13	8.12	8.12	8.14	8.11

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$		$10^3 C_p$					
			Upper Surface						
0000	6757	-0370		-0223	0148	0198	0142	-0096	-0633
0084	6757	0461		0208	0136	-0084	-0182	-0494	-1182
0178	6757	0832		0207	0099	-0098	-0182	-0418	-0987
0281	6757	1171		0177	0056	-0128	-0204	-0406	-0706
0385	6757	1459		0151	0024	-0145	-0214	-0392	-0702
0585	6757	1924		0106	-0017	-0179	-0238	-0391	-0639
0783	6757	2305		0084	-0036	-0189	-0241	-0369	-0580
0987	6757	2651		0056	-0055	-0195	-0242	-0355	-0529
1488	6757	3333		0014	-0091	-0206	-0245	-0340	-0481
1990	6757	3854		-0028	-0123	-0225	-0258	-0339	-0446
2490	6757	4245		-0051	-0138	-0227	-0258	-0326	-0416
2987	6757	4523		-0068	-0148	-0230	-0255	-0313	-0383
3493	6757	4707		-0082	-0157	-0230	-0250	-0298	-0353
3994	6757	4797		-0095	-0162	-0226	-0245	-0286	-0324
4495	6757	4790		-0108	-0170	-0227	-0243	-0276	-0297
4996	6757	4675		-0106	-0161	-0210	-0224	-0248	-0254
5497	6757	4444		-0100	-0145	-0186	-0199	-0215	-0209
5996	6757	4108		-0086	-0125	-0157	-0167	-0176	-0160
6498	6757	3713		-0064	-0097	-0124	-0133	-0136	-0119
7000	6757	3271		-0055	-0082	-0102	-0107	-0106	-0090
7513	6757	2777		-0034	-0056	-0071	-0077	-0073	-0073
7996	6757	2266		-0015	-0032	-0041	-0046	-0040	-0054
8496	6757	1713		-0001	-0012	-0019	-0024	-0019	-0050
9006	6757	1142		0020	0012	0009	0007	0006	-0036
9497	6757	0587		0038	0032	0032	0031	0024	-0033
			Lower Surface						
0000	6757	-0370		-0223	0148	0198	0142	-0096	-0633
0080	6757	-0955		-0773	-0195	0122	0174	0203	0130
0174	6757	-1195		-0624	-0175	0097	0153	0217	0246
0282	6757	-1360		-0440	-0159	0068	0120	0184	0238
0383	6757	-1487		-0387	-0148	0046	0094	0158	0222
0580	6757	-1677		-0332	-0145	0017	0059	0125	0193
0787	6757	-1810		-0279	-0128	0008	0047	0107	0169
0984	6757	-1897		-0237	-0105	0010	0043	0099	0157
1482	6757	-2042		-0188	-0093	-0002	0024	0070	0124
1985	6757	-2125		-0159	-0086	-0010	0015	0054	0103
2488	6757	-2152		-0133	-0072	-0007	0012	0047	0089
2985	6757	-2156		-0114	-0064	-0005	0012	0043	0082
3491	6757	-2135		-0105	-0064	-0012	0004	0032	0067
3992	6757	-2086		-0092	-0058	-0011	0004	0029	0061
4488	6757	-1994		-0083	-0054	-0013	0002	0023	0050
4996	6757	-1877		-0068	-0045	-0007	0005	0023	0047
5494	6757	-1707		-0049	-0032	0002	0014	0029	0049
5999	6757	-1523		-0032	-0019	0010	0021	0034	0050
6495	6757	-1343		-0022	-0011	0014	0022	0033	0045
6998	6757	-1155		-0014	-0007	0015	0023	0031	0039
7498	6757	-0968		-0003	0001	0018	0028	0032	0038
8004	6757	-0783		0009	0010	0026	0033	0035	0033
8501	6757	-0591		0021	0019	0030	0038	0037	0032
8998	6757	-0400		0034	0030	0038	0043	0040	0026
			95% Chord						
9497	1613	0587		0059	0054	0051	0050	0032	-0002
9497	2348	0587		0048	0046	0049	0051	0036	0004
9497	3084	0587		0047	0042	0044	0046	0039	0006
9497	3818	0587		0037	0032	0032	0034	0030	-0001
9497	4553	0587		0040	0035	0036	0039	0032	-0003
9497	5290	0587		0041	0035	0037	0040	0031	-0010
9497	6025	0587		0041	0033	0035	0039	0031	-0020
9497	6757	0587		0038	0032	0032	0031	0024	-0033
9497	7503	0587		0038	0034	0036	0032	0020	-0052
9497	8241	0587		0043	0040	0040	0033	0012	-0103
9497	8976	0587		0045	0047	0043	0027	-0020	-0198
9497	9712	0587		0012	0043	0012	-0059	-0171	-0109

Pressure coefficient - With Trip

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 2 \times 10^6$

			α	-2.81	-0.71	1.42	2.05	3.53	5.62
			M	0.566	0.566	0.566	0.566	0.564	0.566
			$10^{-6}Re_c$	2.02	2.03	2.02	2.02	2.01	2.01
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$				$10^3 C_p$			
			Upper Surface						
0000	6757	-0370		-0185	0180	0222	0166	-0079	-0666
0084	6757	0461		0227	0167	-0047	-0144	-0424	-0865
0178	6757	0832		0220	0123	-0070	-0151	-0372	-0817
0281	6757	1171		0196	0087	-0090	-0161	-0352	-0759
0385	6757	1459		0170	0054	-0113	-0176	-0345	-0533
0585	6757	1924		0126	0017	-0131	-0187	-0330	-0510
0783	6757	2305		0094	-0003	-0140	-0185	-0312	-0468
0987	6757	2651		0066	-0024	-0153	-0191	-0303	-0443
1488	6757	3333		0031	-0052	-0148	-0181	-0271	-0386
1990	6757	3854		-0004	-0076	-0165	-0191	-0266	-0358
2490	6757	4245		-0023	-0091	-0168	-0194	-0255	-0332
2987	6757	4523		-0041	-0098	-0165	-0187	-0244	-0306
3493	6757	4707		-0052	-0106	-0165	-0183	-0229	-0276
3994	6757	4797		-0067	-0113	-0165	-0180	-0217	-0254
4495	6757	4790		-0082	-0117	-0165	-0172	-0210	-0232
4996	6757	4675		-0076	-0111	-0151	-0159	-0189	-0196
5497	6757	4444		-0070	-0098	-0127	-0134	-0157	-0153
5996	6757	4108		-0052	-0076	-0101	-0105	-0124	-0113
6498	6757	3713		-0039	-0055	-0069	-0077	-0088	-0073
7000	6757	3271		-0030	-0039	-0053	-0053	-0064	-0049
7513	6757	2777		-0009	-0018	-0025	-0025	-0035	-0028
7996	6757	2266		0013	0008	0005	0005	-0006	-0010
8496	6757	1713		0022	0025	0022	0022	0019	-0008
9006	6757	1142		0040	0043	0040	0040	0029	0003
9497	6757	0587		0055	0058	0059	0058	0048	0003
			Lower Surface						
0000	6757	-0370		-0185	0180	0222	0166	-0079	-0666
0035	6757	-0741		-0575	-0047	0213	0236	0200	-0032
0080	6757	-0955		-0577	-0138	0144	0189	0220	0144
0174	6757	-1195		-0492	-0146	0092	0144	0217	0241
0282	6757	-1360		-0483	-0114	0087	0132	0204	0254
0383	6757	-1487		-0376	-0111	0065	0109	0174	0235
0580	6757	-1677		-0248	-0098	0048	0085	0146	0211
0787	6757	-1810		-0205	-0088	0031	0068	0122	0183
0984	6757	-1897		-0192	-0075	0033	0063	0112	0178
1482	6757	-2042		-0146	-0055	0024	0046	0092	0143
1985	6757	-2125		1156	1164	1167	1171	1170	1156
2488	6757	-2152		-0100	-0027	0029	0044	0075	0115
2985	6757	-2156		-0083	-0022	0028	0042	0069	0105
3491	6757	-2135		-0072	-0025	0020	0035	0058	0091
3992	6757	-2086		-0065	-0025	0013	0028	0047	0079
4488	6757	-1994		-0057	-0018	0013	0024	0043	0072
4996	6757	-1877		-0042	-0010	0020	0028	0043	0068
5494	6757	-1707		-0026	-0005	0022	0029	0041	0066
5999	6757	-1523		-0005	0004	0028	0035	0047	0065
6495	6757	-1343		-0002	0023	0042	0046	0055	0068
6998	6757	-1155		0009	0030	0042	0050	0055	0065
7498	6757	-0968		0021	0023	0035	0042	0043	0050
8004	6757	-0783		0028	0042	0050	0054	0055	0061
8501	6757	-0591		0039	0045	0050	0054	0055	0053
8998	6757	-0400		0052	0058	0063	0063	0060	0048
			95% Chord						
9497	1613	0587		0072	0079	0076	0068	0055	0020
9497	2348	0587		0063	0069	0066	0066	0056	0029
9497	3084	0587		0061	0063	0061	0060	0054	0027
9497	3818	0587		0056	0062	0063	0063	0052	0026
9497	4553	0587		0052	0058	0055	0055	0049	0018
9497	5290	0587		0056	0062	0059	0059	0049	0014
9497	6025	0587		0058	0060	0057	0057	0047	0005
9497	6757	0587		0055	0058	0059	0058	0048	0003
9497	7503	0587		0056	0062	0059	0059	0049	-0012
9497	8241	0587		0056	0065	0063	0063	0052	-0045
9497	8976	0587		0058	0067	0065	0061	0032	-0095
9497	9712	0587		0028	0064	0046	0020	-0114	-0040

Pressure coefficient - With Trip

$M_{nom} = 0.55 \quad Re_{c_{nom}} = 4 \times 10^6$

α	-2.82	-0.70	1.43	2.07	3.56	5.66
M	0.554	0.556	0.556	0.556	0.553	0.553
$10^{-6}Re_c$	4.00	4.00	4.00	4.00	3.98	3.98

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0221	0164	0203	0144	-0117	-0756
0084	6757	0461	0214	0146	-0074	-0171	-0458	-0990
0178	6757	0832	0209	0103	-0095	-0176	-0404	-0871
0281	6757	1171	0179	0065	-0117	-0188	-0381	-0630
0385	6757	1459	0151	0032	-0137	-0204	-0376	-0610
0585	6757	1924	0107	-0013	-0161	-0216	-0364	-0567
0783	6757	2305	0081	-0029	-0166	-0215	-0344	-0520
0987	6757	2651	0057	-0049	-0171	-0218	-0328	-0487
1488	6757	3333	0018	-0070	-0175	-0209	-0301	-0432
1990	6757	3854	-0018	-0100	-0190	-0220	-0295	-0401
2490	6757	4245	-0040	-0117	-0193	-0220	-0285	-0373
2987	6757	4523	-0058	-0127	-0193	-0216	-0274	-0347
3493	6757	4707	-0073	-0132	-0193	-0214	-0263	-0322
3994	6757	4797	-0084	-0139	-0191	-0208	-0251	-0298
4495	6757	4790	-0095	-0145	-0189	-0206	-0243	-0276
4996	6757	4675	-0094	-0136	-0174	-0198	-0219	-0240
5497	6757	4444	-0089	-0126	-0156	-0166	-0189	-0198
5996	6757	4108	-0073	-0104	-0127	-0135	-0154	-0154
6498	6757	3713	-0053	-0079	-0094	-0102	-0115	-0109
7000	6757	3271	-0045	-0063	-0072	-0078	-0089	-0080
7513	6757	2777	-0029	-0039	-0045	-0051	-0060	-0054
7996	6757	2266	-0015	-0011	-0015	-0017	-0027	-0029
8496	6757	1713	0006	-0000	0001	-0001	-0003	-0030
9006	6757	1142	0028	0024	0022	0024	0014	-0017
9497	6757	0587	0044	0044	0042	0040	0030	-0016
Lower Surface								
0000	6757	-0370	-0221	0164	0203	0144	-0117	-0756
0035	6757	-0741	-0643	-0079	0194	0219	0176	-0078
0080	6757	-0955	-0647	-0163	0133	0180	0210	0114
0174	6757	-1195	-0547	-0157	0095	0154	0210	0233
0282	6757	-1360	-0453	-0141	0069	0115	0186	0234
0383	6757	-1487	-0323	-0130	0052	0094	0163	0220
0580	6757	-1677	-0276	-0120	0031	0065	0132	0197
0787	6757	-1810	-0221	-0108	0021	0055	0109	0181
0984	6757	-1897	-0209	-0097	0016	0045	0096	0163
1482	6757	-2042	-0169	-0079	0009	0031	0077	0128
1985	6757	-2125	-0138	-0063	0009	0028	0062	0108
2488	6757	-2152	-0118	-0056	0009	0024	0056	0094
2985	6757	-2156	-0099	-0045	0010	0023	0050	0086
3491	6757	-2135	-0091	-0046	0003	0015	0039	0071
3992	6757	-2086	-0078	-0043	0003	0014	0032	0065
4488	6757	-1994	-0070	-0037	0001	0010	0031	0056
4996	6757	-1877	-0059	-0029	0005	0014	0031	0052
5494	6757	-1707	-0038	-0020	0012	0021	0032	0053
5999	6757	-1523	-0025	-0011	0020	0029	0034	0053
6495	6757	-1343	-0015	-0000	0024	0030	0039	0048
6998	6757	-1155	-0006	0007	0027	0031	0038	0044
7498	6757	-0968	0005	0010	0025	0033	0032	0042
8004	6757	-0783	0017	0022	0035	0039	0040	0040
8501	6757	-0591	0027	0032	0039	0041	0039	0037
8998	6757	-0400	0038	0039	0047	0048	0044	0031
95% Chord								
9497	1613	0587	0059	0060	0056	0050	0033	0002
9497	2348	0587	0046	0049	0053	0049	0037	0006
9497	3084	0587	0048	0049	0048	0047	0037	0008
9497	3818	0587	0040	0041	0042	0042	0032	0006
9497	4553	0587	0041	0039	0041	0039	0031	0003
9497	5290	0587	0042	0041	0045	0041	0035	0000
9497	6025	0587	0044	0043	0041	0041	0031	-0009
9497	6757	0587	0044	0044	0042	0040	0030	-0016
9497	7503	0587	0043	0044	0044	0044	0032	-0029
9497	8241	0587	0048	0049	0048	0045	0029	-0061
9497	8976	0587	0046	0051	0051	0041	0008	-0133
9497	9712	0587	0020	0045	0024	-0006	-0145	-0076

Pressure coefficient - With Trip

$M_{nom} = 0.55$ $Re_{c_{nom}} = 8 \times 10^6$

			α	-2.81	-0.71	1.40	2.03	3.50	4.55	5.60	6.64
			M	0.553	0.554	0.551	0.551	0.551	0.551	0.553	0.552
			$10^{-6}Re_c$	8.00	8.01	8.00	7.99	7.96	7.97	7.99	7.96
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$					$10^3 C_p$				
			Upper Surface								
0000	6757	-0370		-0234	0160	0190	0134	-0127	-0410	-0767	-1219
0084	6757	0461		0206	0146	-0083	-0168	-0464	-0715	-1006	-1372
0178	6757	0832		0202	0108	-0097	-0169	-0399	-0572	-0762	-0975
0281	6757	1171		0171	0069	-0120	-0183	-0377	-0523	-0678	-0862
0385	6757	1459		0145	0043	-0136	-0191	-0364	-0494	-0628	-0786
0585	6757	1924		0099	-0005	-0166	-0211	-0364	-0465	-0573	-0701
0783	6757	2305		0082	-0031	-0177	-0217	-0345	-0437	-0527	-0635
0987	6757	2651		0054	-0052	-0182	-0221	-0333	-0413	-0492	-0586
1488	6757	3333		0010	-0081	-0195	-0221	-0314	-0376	-0436	-0506
1990	6757	3854		-0028	-0111	-0210	-0232	-0311	-0359	-0406	-0464
2490	6757	4245		-0049	-0125	-0211	-0231	-0297	-0340	-0378	-0426
2987	6757	4523		-0065	-0133	-0212	-0228	-0288	-0323	-0352	-0392
3493	6757	4707		-0078	-0140	-0212	-0224	-0276	-0305	-0329	-0361
3994	6757	4797		-0090	-0146	-0210	-0220	-0265	-0288	-0305	-0331
4495	6757	4790		-0103	-0152	-0209	-0216	-0257	-0275	-0287	-0305
4996	6757	4675		-0102	-0146	-0194	-0199	-0233	-0247	-0253	-0264
5497	6757	4444		-0096	-0133	-0175	-0178	-0204	-0213	-0216	-0220
5996	6757	4108		-0084	-0114	-0148	-0148	-0171	-0176	-0174	-0173
6498	6757	3713		-0062	-0088	-0115	-0115	-0131	-0133	-0127	-0125
7000	6757	3271		-0053	-0073	-0096	-0092	-0105	-0104	-0096	-0093
7513	6757	2777		-0032	-0047	-0066	-0060	-0071	-0068	-0061	-0068
7996	6757	2266		-0011	-0024	-0037	-0037	-0037	-0036	-0032	-0044
8496	6757	1713		-0004	-0010	-0017	-0015	-0019	-0017	-0020	-0041
9006	6757	1142		0019	0016	0008	0015	0007	0002	-0005	-0030
9497	6757	0587		0037	0037	0029	0036	0024	0016	0005	-0024
			Lower Surface								
0000	6757	-0370		-0234	0160	0190	0134	-0127	-0410	-0767	-1219
0035	6757	-0741		-0693	-0103	0175	0207	0165	0072	-0074	-0279
0080	6757	-0955		-0691	-0166	0119	0174	0205	0180	0113	0007
0174	6757	-1195		-0555	-0150	0094	0141	0218	0239	0243	0217
0282	6757	-1360		-0393	-0130	0065	0108	0185	0223	0242	0241
0383	6757	-1487		-0352	-0129	0043	0084	0156	0196	0222	0229
0580	6757	-1677		-0286	-0108	0032	0069	0131	0176	0208	0226
0787	6757	-1810		-0222	-0084	0028	0072	0118	0155	0188	0207
0984	6757	-1897		-0220	-0095	0008	0046	0095	0129	0161	0182
1482	6757	-2042		-0176	-0083	-0004	0025	0066	0097	0129	0146
1985	6757	-2125		-0148	-0072	-0012	0016	0051	0078	0105	0125
2488	6757	-2152		-0127	-0064	-0009	0012	0044	0069	0094	0107
2985	6757	-2156		-0108	-0053	-0007	0013	0041	0063	0086	0101
3491	6757	-2135		-0101	-0054	-0014	0005	0029	0049	0072	0083
3992	6757	-2086		-0088	-0047	-0013	0006	0026	0044	0064	0075
4488	6757	-1994		-0082	-0045	-0015	0001	0020	0037	0055	0065
4996	6757	-1877		-0067	-0036	-0010	0004	0021	0036	0053	0060
5494	6757	-1707		-0048	-0021	-0002	0014	0026	0038	0053	0061
5999	6757	-1523		-0031	-0010	0006	0021	0028	0038	0051	0060
6495	6757	-1343		-0023	-0005	0010	0022	0030	0041	0052	0054
6998	6757	-1155		-0015	0000	0010	0022	0028	0036	0047	0047
7498	6757	-0968		-0003	0007	0014	0026	0030	0035	0043	0046
8004	6757	-0783		0008	0017	0021	0031	0033	0038	0045	0041
8501	6757	-0591		0020	0025	0026	0036	0034	0037	0042	0039
8998	6757	-0400		0032	0034	0035	0040	0038	0039	0041	0032
			95% Chord								
9497	1613	0587		0051	0051	0043	0042	0027	0018	0006	-0013
9497	2348	0587		0038	0040	0038	0040	0030	0024	0017	-0001
9497	3084	0587		0040	0041	0036	0041	0031	0025	0020	0002
9497	3818	0587		0028	0028	0026	0030	0023	0019	0014	-0004
9497	4553	0587		0035	0035	0029	0035	0027	0022	0016	-0003
9497	5290	0587		0036	0036	0031	0035	0028	0023	0015	-0008
9497	6025	0587		0037	0037	0030	0035	0025	0018	0008	-0014
9497	6757	0587		0037	0037	0029	0036	0024	0016	0005	-0024
9497	7503	0587		0035	0035	0031	0035	0023	0013	-0003	-0045
9497	8241	0587		0041	0042	0036	0039	0022	0003	-0027	-0092
9497	8976	0587		0045	0048	0038	0036	0003	-0041	-0104	-0215
9497	9712	0587		0013	0036	0004	-0024	-0195	-0171	-0148	-0153

Pressure coefficient - With Trip

$M_{nom} = 0.55$ $Re_{c_{nom}} = 12 \times 10^6$

			$10^{-6}Re_c$	$10^3 C_p$							
			α	-2.81	-0.71	1.38	2.01	3.48	4.52	5.56	6.60
			M	0.552	0.553	0.551	0.553	0.551	0.554	0.552	0.551
				11.9	11.9	11.9	12.0	11.9	12.0	11.9	11.9
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$									
			Upper Surface								
0000	6757	-0370		-0231	0157	0197	0142	-0116	-0400	-0772	-1223
0084	6757	0461		0212	0138	-0075	-0168	-0452	-0696	-0992	-1321
0178	6757	0832		0210	0096	-0090	-0167	-0386	-0566	-0776	-0999
0281	6757	1171		0177	0055	-0116	-0184	-0371	-0523	-0695	-0878
0385	6757	1459		0155	0049	-0131	-0192	-0358	-0491	-0641	-0797
0585	6757	1924		0103	-0005	-0163	-0213	-0354	-0464	-0586	-0712
0783	6757	2305		0074	-0031	-0175	-0218	-0341	-0435	-0541	-0648
0987	6757	2651		0047	-0050	-0181	-0221	-0329	-0413	-0504	-0599
1488	6757	3333		0005	-0083	-0194	-0222	-0310	-0376	-0449	-0519
1990	6757	3854		-0033	-0112	-0207	-0234	-0307	-0360	-0420	-0478
2490	6757	4245		-0055	-0125	-0210	-0231	-0295	-0342	-0391	-0440
2987	6757	4523		-0072	-0134	-0211	-0230	-0286	-0324	-0367	-0406
3493	6757	4707		-0085	-0142	-0211	-0226	-0273	-0306	-0343	-0375
3994	6757	4797		-0096	-0147	-0207	-0221	-0262	-0291	-0321	-0347
4495	6757	4790		-0109	-0155	-0208	-0219	-0255	-0278	-0303	-0322
4996	6757	4675		-0109	-0148	-0194	-0203	-0233	-0252	-0271	-0285
5497	6757	4444		-0103	-0136	-0174	-0182	-0205	-0220	-0234	-0242
5996	6757	4108		-0092	-0117	-0150	-0154	-0173	-0182	-0193	-0195
6498	6757	3713		-0069	-0089	-0116	-0119	-0133	-0140	-0146	-0146
7000	6757	3271		-0060	-0076	-0097	-0096	-0106	-0109	-0112	-0110
7513	6757	2777		-0038	-0049	-0065	-0065	-0071	-0073	-0076	-0078
7996	6757	2266		-0019	-0027	-0038	-0035	-0044	-0040	-0046	-0049
8496	6757	1713		-0009	-0013	-0020	-0019	-0019	-0021	-0027	-0042
9006	6757	1142		0014	0012	0008	0012	0008	0005	-0007	-0024
9497	6757	0587		0032	0034	0030	0034	0028	0021	0005	-0017
			Lower Surface								
0000	6757	-0370		-0231	0157	0197	0142	-0116	-0400	-0772	-1223
0035	6757	-0741		-0714	-0109	0171	0203	0172	0076	-0077	-0277
0080	6757	-0955		-0701	-0176	0120	0172	0208	0181	0110	0003
0282	6757	-1360		-0418	-0134	0065	0113	0190	0223	0237	0236
0383	6757	-1487		-0368	-0130	0040	0083	0157	0191	0212	0221
0580	6757	-1677		-0294	-0107	0033	0071	0140	0176	0203	0222
0787	6757	-1810		-0225	-0083	0025	0069	0126	0160	0180	0199
0984	6757	-1897		-0229	-0096	0007	0037	0094	0126	0152	0175
1482	6757	-2042		-0182	-0082	-0004	0022	0069	0097	0120	0142
1985	6757	-2125		-0155	-0077	-0012	0012	0050	0077	0096	0115
2488	6757	-2152		-0134	-0066	-0011	0008	0043	0064	0083	0099
2985	6757	-2156		-0113	-0055	-0008	0010	0041	0060	0076	0092
3491	6757	-2135		-0107	-0056	-0015	0001	0028	0046	0060	0075
3992	6757	-2086		-0095	-0049	-0014	0002	0026	0042	0055	0068
4488	6757	-1994		-0088	-0048	-0016	-0002	0020	0034	0044	0056
4996	6757	-1877		-0073	-0038	-0011	0001	0021	0034	0043	0052
5494	6757	-1707		-0053	-0024	-0001	0011	0027	0038	0045	0054
5999	6757	-1523		-0034	-0009	0011	0023	0035	0045	0051	0058
6495	6757	-1343		-0028	-0005	0011	0019	0032	0039	0044	0048
6998	6757	-1155		-0021	-0002	0011	0019	0029	0035	0038	0041
7498	6757	-0968		-0009	0004	0015	0023	0029	0037	0037	0039
8004	6757	-0783		0003	0016	0023	0029	0036	0038	0038	0038
8501	6757	-0591		0015	0023	0028	0034	0036	0040	0037	0034
8998	6757	-0400		0028	0035	0037	0040	0042	0040	0037	0030
			95% Chord								
9497	1613	0587		0044	0050	0041	0040	0027	0015	-0000	-0019
9497	2348	0587		0032	0039	0038	0039	0032	0023	0012	-0003
9497	3084	0587		0035	0039	0037	0039	0034	0027	0016	0001
9497	3818	0587		0019	0024	0022	0025	0022	0017	0007	-0006
9497	4553	0587		0029	0033	0030	0032	0030	0024	0013	-0002
9497	5290	0587		0033	0036	0032	0033	0031	0024	0013	-0006
9497	6025	0587		0033	0034	0030	0034	0029	0023	0009	-0009
9497	6757	0587		0032	0034	0030	0034	0028	0021	0005	-0017
9497	7503	0587		0027	0032	0028	0031	0026	0017	-0002	-0032
9497	8241	0587		0036	0041	0035	0035	0026	0011	-0020	-0069
9497	8976	0587		0041	0047	0038	0035	0012	-0027	-0084	-0166
9497	9712	0587		0006	0032	0003	-0027	-0224	-0265	-0189	-0214

Pressure coefficient - With Trip

$M_{nom} = 0.55$ $Re_{c_{nom}} = 16 \times 10^6$

α	-2.80	-0.72	1.36	1.99	3.44	4.48	5.52	6.55
M	0.555	0.553	0.552	0.555	0.555	0.555	0.554	0.554
$10^{-6}Re_c$	16.0	15.9	15.9	15.9	16.0	15.9	15.9	15.9

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$							
Upper Surface										
0000	6757	-0370	-0220	0158	0201	0149	-0104	-0389	-0758	-1184
0084	6757	0461	0215	0143	-0074	-0162	-0439	-0690	-0978	-1291
0178	6757	0832	0216	0108	-0087	-0158	-0373	-0560	-0764	-0978
0281	6757	1171	0180	0065	-0115	-0178	-0361	-0519	-0686	-0858
0385	6757	1459	0159	0040	-0129	-0186	-0347	-0486	-0633	-0778
0585	6757	1924	0107	-0010	-0162	-0208	-0344	-0461	-0579	-0695
0783	6757	2305	0077	-0036	-0174	-0213	-0332	-0434	-0534	-0631
0987	6757	2651	0052	-0055	-0180	-0216	-0322	-0412	-0498	-0582
1488	6757	3333	0008	-0087	-0193	-0218	-0301	-0375	-0445	-0506
1990	6757	3854	-0029	-0116	-0207	-0229	-0299	-0360	-0416	-0465
2490	6757	4245	-0032	-0129	-0210	-0226	-0289	-0342	-0388	-0428
2987	6757	4523	-0067	-0139	-0210	-0226	-0280	-0325	-0364	-0395
3493	6757	4707	-0081	-0146	-0211	-0223	-0266	-0307	-0341	-0365
3994	6757	4797	-0090	-0151	-0207	-0217	-0257	-0292	-0318	-0339
4495	6757	4790	-0104	-0159	-0208	-0216	-0250	-0280	-0302	-0315
4996	6757	4675	-0104	-0152	-0195	-0200	-0228	-0254	-0270	-0279
5497	6757	4444	-0098	-0141	-0176	-0179	-0202	-0223	-0233	-0238
5996	6757	4108	-0088	-0124	-0152	-0153	-0170	-0187	-0194	-0193
6498	6757	3713	-0065	-0095	-0117	-0117	-0131	-0144	-0146	-0142
7000	6757	3271	-0056	-0081	-0099	-0096	-0104	-0114	-0115	-0107
7513	6757	2777	-0033	-0054	-0067	-0062	-0069	-0076	-0076	-0070
7996	6757	2266	-0014	-0034	-0044	-0039	-0041	-0046	-0043	-0040
8496	6757	1713	-0005	-0017	-0020	-0016	-0019	-0024	-0023	-0028
9006	6757	1142	0018	0009	0006	0013	0012	0006	-0001	-0009
9497	6757	0587	0037	0031	0030	0037	0034	0023	0013	-0000
Lower Surface										
0000	6757	-0370	-0220	0158	0201	0149	-0104	-0389	-0758	-1184
0035	6757	-0741	-0714	-0128	0165	0201	0174	0081	-0066	-0255
0080	6757	-0955	-0698	-0182	0115	0169	0210	0181	0113	0016
0282	6757	-1360	-0412	-0140	0062	0113	0192	0221	0238	0243
0383	6757	-1487	-0362	-0139	0036	0083	0157	0188	0213	0226
0580	6757	-1677	-0288	-0113	0031	0074	0143	0176	0206	0229
0787	6757	-1810	-0216	-0083	0037	0075	0134	0158	0191	0212
0984	6757	-1897	-0222	-0103	0005	0039	0095	0123	0154	0180
1482	6757	-2042	-0178	-0091	-0009	0021	0068	0092	0119	0144
1985	6757	-2125	-0150	-0081	-0014	0012	0052	0072	0097	0121
2488	6757	-2152	-0129	-0073	-0014	0009	0043	0061	0084	0105
2985	6757	-2156	-0108	-0060	-0010	0012	0043	0058	0078	0098
3491	6757	-2135	-0102	-0061	-0017	0003	0031	0044	0062	0081
3992	6757	-2086	-0089	-0054	-0015	0003	0029	0040	0056	0075
4488	6757	-1994	-0083	-0054	-0018	-0001	0022	0031	0046	0063
4996	6757	-1877	-0068	-0043	-0012	0004	0023	0031	0045	0060
5494	6757	-1707	-0048	-0028	-0002	0013	0031	0037	0048	0061
5999	6757	-1523	-0029	-0012	0009	0023	0039	0044	0053	0065
6495	6757	-1343	-0024	-0011	0009	0021	0034	0037	0046	0055
6998	6757	-1155	-0016	-0006	0010	0022	0032	0034	0041	0050
7498	6757	-0968	-0004	0002	0014	0024	0033	0035	0039	0047
8004	6757	-0783	0009	0013	0023	0033	0039	0038	0042	0047
8501	6757	-0591	0020	0020	0027	0036	0041	0039	0040	0045
8998	6757	-0400	0033	0031	0037	0043	0044	0040	0042	0041
95% Chord										
9497	1613	0587	0049	0046	0041	0043	0030	0015	0004	-0008
9497	2348	0587	0037	0034	0038	0042	0036	0024	0018	0009
9497	3084	0587	0039	0035	0036	0042	0039	0028	0021	0014
9497	3818	0587	0021	0017	0019	0025	0024	0016	0012	0005
9497	4553	0587	0035	0029	0029	0036	0034	0026	0020	0012
9497	5290	0587	0038	0032	0032	0037	0035	0026	0020	0010
9497	6025	0587	0037	0032	0031	0036	0035	0025	0016	0005
9497	6757	0587	0037	0031	0030	0037	0034	0023	0013	-0000
9497	7503	0587	0030	0026	0027	0033	0030	0018	0006	-0014
9497	8241	0587	0041	0036	0035	0040	0033	0015	-0006	-0041
9497	8976	0587	0048	0043	0040	0041	0020	-0015	-0062	-0119
9497	9712	0587	0009	0025	0004	-0022	-0222	-0379	-0207	-0249

Pressure coefficient - With Trip

$M_{nom} = 0.55$ $Re_{c_{nom}} = 26 \times 10^6$

			α	-2.78	-0.73	1.31	3.36	5.40
			M	0.551	0.551	0.552	0.551	0.551
			$10^{-6}Re_c$	25.6	25.6	25.6	25.6	25.6
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$				$10^3 C_p$		
			Upper Surface					
0000	6757	-0370		-0223	0156	0206	-0088	-0719
0084	6757	0461		0212	0149	-0059	-0424	-0944
0178	6757	0832		0216	0116	-0073	-0361	-0741
0281	6757	1171		0178	0071	-0102	-0351	-0664
0385	6757	1459		0159	0048	-0113	-0337	-0610
0585	6757	1924		0106	-0003	-0149	-0338	-0564
0783	6757	2305		0074	-0030	-0161	-0329	-0521
0987	6757	2651		0049	-0049	-0170	-0319	-0490
1488	6757	3333		0006	-0082	-0178	-0300	-0435
1990	6757	3854		-0031	-0110	-0197	-0300	-0409
2490	6757	4245		-0052	-0123	-0200	-0289	-0382
2987	6757	4523		-0069	-0133	-0201	-0281	-0360
3493	6757	4707		-0082	-0140	-0202	-0270	-0338
3994	6757	4797		-0093	-0147	-0200	-0260	-0317
4495	6757	4790		-0107	-0155	-0201	-0253	-0302
4996	6757	4675		-0108	-0150	-0191	-0235	-0273
5497	6757	4444		-0102	-0137	-0171	-0207	-0237
5996	6757	4108		-0093	-0122	-0148	-0178	-0200
6498	6757	3713		-0067	-0091	-0113	-0136	-0150
7000	6757	3271		-0059	-0078	-0094	-0111	-0119
7513	6757	2777		-0035	-0050	-0061	-0074	-0079
7996	6757	2266		-0017	-0028	-0036	-0044	-0046
8496	6757	1713		-0009	-0015	-0020	-0023	-0024
9006	6757	1142		0016	0013	0013	0010	0005
9497	6757	0587		0035	0035	0036	0032	0019
			Lower Surface					
0000	6757	-0370		-0223	0156	0206	-0088	-0719
0035	6757	-0741		-0739	-0142	0157	0173	-0048
0080	6757	-0955		-0714	-0193	0109	0203	0119
0174	6757	-1195		-0536	-0165	0083	0212	0238
0282	6757	-1360		-0417	-0141	0060	0183	0236
0383	6757	-1487		-0366	-0139	0033	0147	0209
0580	6757	-1677		-0290	-0111	0033	0136	0202
0787	6757	-1810		-0211	-0068	0053	0135	0195
0984	6757	-1897		-0225	-0100	0006	0088	0150
1482	6757	-2042		-0183	-0090	-0007	0059	0114
1985	6757	-2125		-0153	-0079	-0010	0045	0092
2488	6757	-2152		-0132	-0071	-0013	0036	0078
2985	6757	-2156		-0111	-0057	-0007	0036	0075
3491	6757	-2135		-0105	-0058	-0014	0024	0058
3992	6757	-2086		-0092	-0051	-0011	0023	0054
4488	6757	-1994		-0086	-0051	-0015	0015	0043
4996	6757	-1877		-0070	-0039	-0008	0018	0043
5494	6757	-1707		-0050	-0024	0003	0026	0047
5999	6757	-1523		-0031	-0010	0014	0033	0051
6495	6757	-1343		-0025	-0007	0013	0030	0045
6998	6757	-1155		-0017	-0002	0015	0028	0041
7498	6757	-0968		-0007	0005	0020	0030	0039
8004	6757	-0783		0007	0017	0028	0036	0043
8501	6757	-0591		0018	0024	0034	0038	0042
8998	6757	-0400		0032	0036	0042	0043	0044
			95% Chord					
9497	1613	0587		0046	0048	0045	0031	0008
9497	2348	0587		0035	0038	0042	0035	0022
9497	3084	0587		0036	0037	0040	0036	0026
9497	3818	0587		0014	0016	0019	0018	0012
9497	4553	0587		0033	0033	0034	0031	0024
9497	5290	0587		0037	0036	0037	0033	0025
9497	6025	0587		0035	0035	0037	0033	0023
9497	6757	0587		0035	0035	0036	0032	0019
9497	7503	0587		0024	0026	0029	0026	0015
9497	8241	0587		0038	0039	0039	0032	0008
9497	8976	0587		0046	0048	0045	0027	-0031
9497	9712	0587		0001	0023	0010	-0169	-0388

Pressure coefficient - With Trip

$M_{nom} = 0.8$ $Re_{c_{nom}} = 2 \times 10^6$

α	-2.83	-0.69	1.46	2.10	3.60	5.72
M	0.827	0.827	0.826	0.826	0.825	0.828
$10^{-6}Re_c$	2.07	2.07	2.07	2.07	2.07	2.07

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0177	0172	0216	0162	-0079	-0574
0084	6757	0461	0224	0159	-0062	-0162	-0465	-0902
0178	6757	0832	0219	0116	-0089	-0170	-0419	-0880
0281	6757	1171	0191	0080	-0114	-0185	-0399	-0890
0385	6757	1459	0164	0045	-0136	-0204	-0396	-0895
0585	6757	1924	0120	0004	-0160	-0217	-0380	-0728
0783	6757	2305	0092	-0022	-0167	-0219	-0360	-0511
0987	6757	2651	0061	-0047	-0185	-0228	-0350	-0480
1488	6757	3333	0021	-0073	-0184	-0216	-0316	-0435
1990	6757	3854	-0012	-0099	-0198	-0225	-0309	-0412
2490	6757	4245	-0034	-0117	-0203	-0228	-0298	-0380
2987	6757	4523	-0053	-0126	-0201	-0222	-0282	-0347
3493	6757	4707	-0066	-0134	-0198	-0217	-0269	-0315
3994	6757	4797	-0080	-0139	-0198	-0212	-0258	-0283
4495	6757	4790	-0090	-0142	-0195	-0206	-0244	-0248
4996	6757	4675	-0092	-0138	-0178	-0186	-0216	-0203
5497	6757	4444	-0084	-0122	-0154	-0160	-0181	-0153
5996	6757	4108	-0066	-0099	-0122	-0125	-0141	-0115
6498	6757	3713	-0049	-0076	-0091	-0094	-0104	-0087
7000	6757	3271	-0039	-0055	-0068	-0068	-0073	-0070
7513	6757	2777	-0024	-0035	-0040	-0040	-0042	-0060
7996	6757	2266	-0011	-0011	-0013	-0013	-0016	-0052
8496	6757	1713	0013	0007	0008	0008	0006	-0047
9006	6757	1142	0029	0029	0027	0026	0024	-0045
9497	6757	0587	0045	0047	0045	0043	0032	-0051
Lower Surface								
0000	6757	-0370	-0177	0172	0216	0162	-0079	-0574
0035	6757	-0741	-0597	-0065	0204	0228	0194	-0003
0080	6757	-0955	-0606	-0157	0135	0181	0217	0144
0174	6757	-1195	-0535	-0166	0092	0146	0220	0247
0282	6757	-1360	-0527	-0140	0074	0123	0199	0242
0383	6757	-1487	-0510	-0135	0055	0098	0172	0223
0580	6757	-1677	-0260	-0122	0035	0073	0141	0203
0787	6757	-1810	-0232	-0116	0017	0055	0118	0180
0984	6757	-1897	-0209	-0095	0019	0051	0109	0166
1482	6757	-2042	-0162	-0078	0012	0039	0088	0134
1985	6757	-2125	1215	1218	1220	1222	1224	1232
2488	6757	-2152	-0114	-0049	0013	0030	0065	0101
2985	6757	-2156	-0097	-0040	0012	0031	0058	0091
3491	6757	-2135	-0089	-0040	0004	0020	0050	0078
3992	6757	-2086	-0078	-0040	0001	0014	0039	0067
4488	6757	-1994	-0070	-0032	0001	0014	0037	0056
4996	6757	-1877	-0054	-0024	0006	0017	0037	0054
5494	6757	-1707	-0036	-0017	0011	0019	0038	0052
5999	6757	-1523	-0024	-0005	0017	0025	0039	0054
6495	6757	-1343	-0008	0008	0028	0033	0045	0048
6998	6757	-1155	0000	0014	0028	0036	0045	0043
7498	6757	-0968	0003	0011	0023	0031	0037	0037
8004	6757	-0783	0019	0027	0036	0039	0047	0032
8501	6757	-0591	0030	0033	0039	0041	0047	0027
8998	6757	-0400	0043	0045	0046	0049	0046	0017
95% Chord								
9497	1613	0587	0073	0068	0060	0055	0037	-0003
9497	2348	0587	0059	0059	0057	0051	0038	0004
9497	3084	0587	0061	0058	0053	0053	0043	-0005
9497	3818	0587	0053	0053	0051	0051	0041	-0004
9497	4553	0587	0051	0051	0049	0046	0038	-0015
9497	5290	0587	0051	0048	0046	0046	0035	-0026
9497	6025	0587	0049	0049	0044	0044	0034	-0035
9497	6757	0587	0045	0047	0045	0043	0032	-0051
9497	7503	0587	0048	0048	0046	0046	0035	-0061
9497	8241	0587	0051	0053	0049	0046	0033	-0107
9497	8976	0587	0054	0057	0047	0039	0001	-0154
9497	9712	0587	0011	0060	0023	-0007	-0134	-0046

Pressure coefficient - With Trip

$M_{nom} = 0.8$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.83	-0.70	1.43	2.07	3.55	5.67
M	0.817	0.817	0.814	0.809	0.822	0.817
$10^{-6}Re_c$	8.09	8.09	8.04	8.03	8.12	8.05

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0205	0157	0203	0145	-0082	-0625
0084	6757	0461	0211	0144	-0067	-0173	-0476	-1155
0178	6757	0832	0209	0102	-0089	-0181	-0418	-0958
0281	6757	1171	0178	0062	-0116	-0198	-0399	-0704
0385	6757	1459	0152	0030	-0133	-0209	-0396	-0665
0585	6757	1924	0106	-0011	-0167	-0233	-0385	-0643
0783	6757	2305	0090	-0026	-0176	-0236	-0362	-0559
0987	6757	2651	0059	-0051	-0187	-0243	-0349	-0535
1488	6757	3333	0014	-0083	-0198	-0243	-0327	-0474
1990	6757	3854	-0025	-0117	-0214	-0256	-0322	-0437
2490	6757	4245	-0048	-0132	-0218	-0256	-0311	-0406
2987	6757	4523	-0065	-0142	-0219	-0252	-0297	-0373
3493	6757	4707	-0080	-0149	-0218	-0248	-0284	-0343
3994	6757	4797	-0092	-0154	-0215	-0241	-0270	-0313
4495	6757	4790	-0105	-0161	-0213	-0237	-0258	-0286
4996	6757	4675	-0104	-0153	-0197	-0218	-0230	-0242
5497	6757	4444	-0099	-0141	-0173	-0191	-0197	-0195
5996	6757	4108	-0082	-0118	-0144	-0159	-0159	-0149
6498	6757	3713	-0062	-0091	-0108	-0122	-0117	-0106
7000	6757	3271	-0051	-0075	-0089	-0099	-0088	-0082
7513	6757	2777	-0030	-0049	-0056	-0067	-0054	-0064
7996	6757	2266	-0013	-0022	-0031	-0037	-0024	-0051
8496	6757	1713	0000	-0008	-0006	-0015	-0006	-0045
9006	6757	1142	0024	0019	0018	0009	0014	-0035
9497	6757	0587	0041	0039	0036	0026	0027	-0032
Lower Surface								
0000	6757	-0370	-0205	0157	0203	0145	-0082	-0625
0035	6757	-0741	-0715	-0111	0182	0202	0182	-0017
0080	6757	-0955	-0763	-0178	0123	0166	0209	0135
0174	6757	-1195	-0610	-0163	0101	0139	0225	0250
0282	6757	-1360	-0444	-0146	0073	0103	0191	0249
0383	6757	-1487	-0376	-0140	0049	0078	0165	0225
0580	6757	-167	-0309	-0118	0035	0059	0133	0211
0787	6757	-1810	-0241	-0101	0031	0062	0133	0188
0984	6757	-1897	-0232	-0099	0014	0040	0109	0164
1482	6757	-2042	-0181	-0083	0004	0020	0081	0134
1985	6757	-2125	-0156	-0077	-0006	0007	0061	0107
2488	6757	-2152	-0131	-0067	-0003	0006	0055	0095
2985	6757	-2156	-0111	-0056	-0001	0006	0051	0088
3491	6757	-2135	-0103	-0056	-0008	-0003	0039	0073
3992	6757	-2086	-0089	-0050	-0007	-0003	0036	0067
4488	6757	-1994	-0080	-0047	-0008	-0006	0031	0057
4996	6757	-1877	-0066	-0039	-0004	-0003	0030	0053
5494	6757	-1707	-0046	-0023	0006	0005	0034	0055
5999	6757	-1523	-0027	-0008	0016	0016	0042	0058
6495	6757	-1343	-0019	-0004	0018	0015	0040	0051
6998	6757	-1155	-0010	-0000	0018	0015	0037	0045
7498	6757	-0968	0000	0008	0021	0017	0037	0041
8004	6757	-0783	0013	0017	0029	0023	0041	0040
8501	6757	-0591	0024	0026	0033	0028	0041	0036
8998	6757	-0400	0036	0036	0041	0034	0044	0031
95% Chord								
9497	1613	0587	0061	0058	0054	0041	0035	0002
9497	2348	0587	0047	0046	0049	0038	0038	0010
9497	3084	0587	0049	0046	0047	0037	0039	0010
9497	3818	0587	0037	0035	0038	0028	0033	0004
9497	4553	0587	0042	0039	0040	0031	0036	0002
9497	5290	0587	0043	0039	0040	0031	0034	-0004
9497	6025	0587	0042	0040	0038	0028	0029	-0016
9497	6757	0587	0041	0039	0036	0026	0027	-0032
9497	7503	0587	0038	0038	0038	0026	0023	-0049
9497	8241	0587	0045	0046	0043	0029	0015	-0101
9497	8976	0587	0047	0051	0044	0025	-0018	-0188
9497	9712	0587	0011	0046	0005	-0051	-0128	-0094

Pressure coefficient - With Trip and Vortex Generators

$M_{nom} = 0.55$ $Re_{c_{nom}} = 2 \times 10^6$

α	-2.82	-0.70	1.43	2.07	3.56	5.67
M	0.571	0.558	0.565	0.560	0.561	0.560
$10^{-6}Re_c$	2.06	2.02	2.04	2.03	2.05	2.04

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0190	0171	0207	0148	-0119	-0748
0084	6757	0461	0232	0154	-0072	-0170	-0457	-0931
0178	6757	0832	0223	0108	-0089	-0172	-0401	-0883
0281	6757	1171	0196	0073	-0113	-0162	-0382	-0813
0385	6757	1459	0171	0044	-0130	-0200	-0368	-0546
0585	6757	1924	0125	-0001	-0157	-0206	-0355	-0547
0783	6757	2305	0099	-0033	-0162	-0213	-0334	-0505
0987	6757	2651	0069	-0049	-0167	-0212	-0333	-0479
1488	6757	3333	0032	-0072	-0172	-0203	-0295	-0426
1990	6757	3854	0002	-0093	-0182	-0212	-0290	-0392
2490	6757	4245	-0022	-0113	-0168	-0215	-0281	-0369
2987	6757	4523	-0039	-0121	-0188	-0211	-0271	-0344
3493	6757	4707	-0047	-0125	-0185	-0208	-0257	-0320
3994	6757	4797	-0065	-0136	-0185	-0205	-0250	-0302
4495	6757	4790	-0071	-0139	-0184	-0200	-0242	-0279
4996	6757	4675	-0073	-0134	-0172	-0184	-0219	-0248
5497	6757	4444	-0088	-0131	-0162	-0174	-0205	-0231
5996	6757	4108	-0002	-0049	-0078	-0085	-0113	-0135
6498	6757	3713	-0046	-0080	-0105	-0113	-0126	-0126
7000	6757	3271	-0040	-0063	-0071	-0078	-0088	-0099
7513	6757	2777	-0004	-0025	-0037	-0044	-0047	-0054
7996	6757	2266	0017	-0011	-0019	-0022	-0029	-0026
8496	6757	1713	0021	0004	0003	0004	-0007	0004
9006	6757	1142	0053	0034	0032	0022	0030	0041
9497	6757	0587	0066	0051	0056	0054	0054	0057
Lower Surface								
0000	6757	-0370	-0190	0171	0207	0148	-0119	-0748
0035	6757	-0741	-0580	-0052	0213	0234	0186	-0070
0080	6757	-0955	-0578	-0134	0144	0186	0217	0124
0174	6757	-1195	-0489	-0125	0102	0147	0222	0234
0282	6757	-1360	-0485	-0125	0084	0129	0201	0244
0383	6757	-1487	-0359	-0114	0066	0108	0179	0234
0580	6757	-1677	-0250	-0107	0041	0082	0150	0212
0787	6757	-1810	-0186	-0084	0031	0062	0126	0191
0984	6757	-1897	-0190	-0085	0030	0060	0114	0179
1482	6757	-2042	-0151	-0066	0021	0043	0090	0145
1985	6757	-2125	-0112	-0055	0021	0036	0079	0126
2488	6757	-2152	-0099	-0045	0023	0039	0071	0114
2985	6757	-2156	-0085	-0037	0023	0039	0067	0107
3491	6757	-2135	-0072	-0031	0015	0030	0059	0091
3992	6757	-2086	-0067	-0029	0010	0025	0051	0083
4488	6757	-1994	-0059	-0028	0015	0026	0048	0077
4996	6757	-1877	-0044	-0020	0018	0030	0048	0070
5494	6757	-1707	-0034	-0010	0015	0026	0045	0070
5999	6757	-1523	0063	0084	0107	0116	0137	0159
6495	6757	-1343	-0008	0010	0037	0046	0057	0075
6998	6757	-1155	-0007	-0004	0021	0029	0040	0058
7498	6757	-0968	0018	0023	0036	0026	0034	0052
8004	6757	-0783	0031	0036	0048	0046	0053	0064
8501	6757	-0591	0050	0049	0058	0055	0063	0070
8998	6757	-0400	0055	0054	0066	0071	0067	0071
95% Chord								
9497	1613	0587	0067	0062	0071	0072	0061	0033
9497	2348	0587	0060	0055	0064	0065	0061	0054
9497	3084	0587	0068	0056	0061	0063	0063	0059
9497	3818	0587	0055	0047	0055	0057	0053	0049
9497	4553	0587	0055	0050	0052	0053	0053	0060
9497	5290	0587	0055	0047	0052	0057	0049	0064
9497	6025	0587	0061	0052	0054	0048	0055	0059
9497	6757	0587	0066	0051	0056	0054	0054	0057
9497	7503	0587	0056	0051	0053	0058	0058	0051
9497	8241	0587	0061	0050	0061	0063	0063	0048
9497	8976	0587	0065	0053	0051	0048	0030	0034
9497	9712	0587	0024	0050	0020	-0009	-0167	-0171

Pressure coefficient - With Trip and Vortex Generators

$M_{nom} = 0.55$ $Re_{c_{nom}} = 4 \times 10^6$

		α	-2.83	-0.69	1.44	2.09	3.58	5.71
		M	0.556	0.557	0.557	0.557	0.558	0.556
		$10^{-6}Re_c$	4.02	4.03	4.06	4.00	4.06	4.02
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
			Upper Surface					
0000	6757	-0370	-0232	0161	0195	0123	-0137	-0823
0084	6757	0461	0213	0140	-0083	-0197	-0474	-1046
0178	6757	0832	0205	0100	-0105	-0199	-0419	-0905
0281	6757	1171	0175	0060	-0126	-0209	-0394	-0673
0385	6757	1459	0151	0026	-0146	-0224	-0385	-0645
0585	6757	1924	0106	-0015	-0169	-0236	-0369	-0594
0783	6757	2305	0077	-0038	-0175	-0238	-0351	-0544
0987	6757	2651	0048	-0056	-0186	-0238	-0340	-0514
1488	6757	3333	0015	-0080	-0184	-0235	-0309	-0457
1990	6757	3854	-0022	-0108	-0198	-0240	-0303	-0426
2490	6757	4245	-0045	-0123	-0205	-0239	-0295	-0399
2987	6757	4523	-0064	-0134	-0203	-0239	-0284	-0373
3493	6757	4707	-0078	-0141	-0202	-0234	-0272	-0350
3994	6757	4797	-0089	-0146	-0200	-0229	-0263	-0327
4495	6757	4790	-0097	-0151	-0199	-0228	-0251	-0310
4996	6757	4675	-0100	-0147	-0188	-0210	-0232	-0279
5497	6757	4444	-0102	-0143	-0181	-0201	-0219	-0259
5996	6757	4108	-0022	-0059	-0092	-0113	-0125	-0161
6498	6757	3713	-0067	-0101	-0126	-0140	-0150	-0158
7000	6757	3271	-0065	-0078	-0085	-0102	-0101	-0126
7513	6757	2777	-0015	-0038	-0047	-0062	-0062	-0078
7996	6757	2266	-0005	-0020	-0029	-0043	-0040	-0049
8496	6757	1713	0005	-0007	-0016	-0022	-0021	-0022
9006	6757	1142	0029	0016	0022	0004	0020	0015
9497	6757	0587	0043	0039	0045	0031	0044	0046
			Lower Surface					
0000	6757	-0370	-0232	0161	0195	0123	-0137	-0823
0035	6757	-0741	-0656	-0078	0193	0208	0171	-0103
0080	6757	-0955	-0658	-0161	0139	0170	0215	0097
0174	6757	-1195	-0555	-0155	0105	0140	0230	0227
0282	6757	-1360	-0456	-0142	0072	0107	0193	0240
0383	6757	-1487	-0330	-0129	0052	0089	0167	0227
0580	6757	-1677	-0282	-0120	0031	0061	0138	0204
0787	6757	-1810	-0226	-0112	0032	0043	0124	0187
0984	6757	-1897	-0220	-0098	0015	0038	0103	0167
1482	6757	-2042	-0174	-0077	0010	0024	0082	0131
1985	6757	-2125	-0145	-0067	0012	0017	0071	0113
2488	6757	-2152	-0123	-0055	0006	0018	0061	0103
2985	6757	-2156	-0107	-0046	0009	0016	0057	0093
3491	6757	-2135	-0096	-0047	0003	0008	0047	0081
3992	6757	-2086	-0086	-0043	0003	0006	0043	0070
4488	6757	-1994	-0077	-0041	0002	0005	0037	0066
4996	6757	-1877	-0065	-0030	0005	0008	0040	0063
5494	6757	-1707	-0053	-0026	0011	0008	0040	0058
5999	6757	-1523	0048	0067	0107	0103	0138	0154
6495	6757	-1343	-0027	-0004	0022	0023	0042	0058
6998	6757	-1155	-0032	-0019	0003	0000	0025	0044
7498	6757	-0968	0000	0004	0020	0008	0029	0038
8004	6757	-0783	0015	0024	0035	0029	0042	0047
8501	6757	-0591	0030	0037	0050	0038	0055	0053
8998	6757	-0400	0041	0048	0057	0050	0059	0060
			95% Chord					
9497	1613	0587	0055	0056	0060	0054	0054	0028
9497	2348	0587	0047	0047	0046	0042	0050	0049
9497	3084	0587	0050	0046	0049	0041	0051	0048
9497	3818	0587	0032	0032	0035	0029	0039	0032
9497	4553	0587	0041	0041	0042	0036	0040	0036
9497	5290	0587	0041	0039	0039	0033	0039	0042
9497	6025	0587	0041	0035	0040	0029	0042	0045
9497	6757	0587	0043	0039	0045	0031	0044	0046
9497	7503	0587	0035	0036	0038	0032	0039	0044
9497	8241	0587	0048	0049	0051	0041	0049	0041
9497	8976	0587	0046	0046	0038	0026	0019	0009
9497	9712	0587	0017	0043	0008	-0031	-0202	-0162

Pressure coefficient - With Trip and Vortex Generators

$M_{nom} = 0.55$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.81	-0.70	1.41	2.04	3.52	5.63
M	0.556	0.557	0.555	0.555	0.556	0.553
$10^{-6}Re_c$	8.06	8.08	8.05	8.05	8.06	8.05

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
Upper Surface								
0000	6757	-0370	-0235	0152	0185	0123	-0140	-0836
0084	6757	0461	0208	0135	-0083	-0181	-0474	-1069
0178	6757	0832	0204	0094	-0101	-0184	-0407	-0808
0281	6757	1171	0171	0052	-0126	-0197	-0385	-0723
0385	6757	1459	0147	0024	-0138	-0204	-0370	-0666
0585	6757	1924	0107	-0013	-0171	-0225	-0369	-0612
0783	6757	2305	0081	-0034	-0182	-0232	-0351	-0566
0987	6757	2651	0053	-0055	-0188	-0235	-0341	-0530
1488	6757	3333	0011	-0085	-0198	-0232	-0319	-0468
1990	6757	3854	-0026	-0115	-0213	-0244	-0316	-0440
2490	6757	4245	-0048	-0128	-0217	-0244	-0305	-0413
2987	6757	4523	-0065	-0138	-0216	-0241	-0295	-0387
3493	6757	4707	-0078	-0145	-0217	-0237	-0282	-0365
3994	6757	4797	-0090	-0151	-0216	-0234	-0273	-0345
4495	6757	4790	-0102	-0157	-0214	-0231	-0266	-0328
4996	6757	4675	-0102	-0152	-0211	-0224	-0252	-0306
5497	6757	4444	-0108	-0152	-0194	-0207	-0231	-0278
5996	6757	4108	-0022	-0063	-0105	-0116	-0137	-0177
6498	6757	3713	-0087	-0124	-0155	-0162	-0177	-0193
7000	6757	3271	-0064	-0078	-0097	-0102	-0111	-0139
7513	6757	2777	-0011	-0034	-0057	-0062	-0069	-0090
7996	6757	2266	-0002	-0021	-0039	-0044	-0048	-0060
8496	6757	1713	0001	-0015	-0026	-0029	-0032	-0042
9006	6757	1142	0027	0016	0007	0004	0006	0002
9497	6757	0587	0042	0034	0028	0029	0032	0031
Lower Surface								
0000	6757	-0370	-0235	0152	0185	0123	-0140	-0836
0035	6757	-0741	-0700	-0099	0176	0200	0162	-0111
0080	6757	-0955	-0693	-0165	0128	0169	0209	0094
0174	6757	-1195	-0555	-0149	0099	0138	0222	0233
0282	6757	-1360	-0392	-0131	0071	0104	0192	0235
0383	6757	-1487	-0355	-0127	0047	0082	0163	0215
0580	6757	-1677	-0288	-0105	0035	0062	0139	0202
0787	6757	-1810	-0220	-0074	0038	0066	0130	0184
0984	6757	-1897	-0224	-0096	0008	0041	0097	0154
1482	6757	-2042	-0177	-0084	-0004	0021	0071	0122
1985	6757	-2125	-0148	-0073	-0007	0013	0058	0101
2488	6757	-2152	-0128	-0064	-0007	0010	0050	0090
2985	6757	-2156	-0107	-0053	-0004	0012	0047	0082
3491	6757	-2135	-0101	-0053	-0011	0004	0036	0068
3992	6757	-2086	-0089	-0048	-0009	0003	0033	0062
4488	6757	-1994	-0081	-0047	-0012	-0000	0026	0053
4996	6757	-1877	-0068	-0038	-0009	0003	0027	0051
5494	6757	-1707	-0055	-0029	-0001	0007	0032	0050
5999	6757	-1523	0050	0073	0099	0107	0134	0155
6495	6757	-1343	-0031	-0012	0005	0014	0029	0039
6998	6757	-1155	-0035	-0028	-0016	-0006	0010	0030
7498	6757	-0968	-0002	0004	0007	0006	0018	0028
8004	6757	-0783	0016	0023	0028	0029	0036	0036
8501	6757	-0591	0030	0036	0040	0040	0048	0045
8998	6757	-0400	0041	0045	0048	0049	0054	0051
95% Chord								
9497	1613	0587	0051	0049	0053	0050	0049	0029
9497	2348	0587	0045	0038	0034	0035	0039	0038
9497	3084	0587	0046	0040	0036	0036	0040	0037
9497	3818	0587	0020	0015	0013	0015	0021	0023
9497	4553	0587	0040	0034	0030	0030	0033	0023
9497	5290	0587	0040	0033	0029	0028	0030	0028
9497	6025	0587	0040	0032	0027	0027	0032	0031
9497	6757	0587	0042	0034	0028	0029	0032	0031
9497	7503	0587	0028	0025	0022	0023	0026	0027
9497	8241	0587	0048	0043	0038	0038	0041	0032
9497	8976	0587	0049	0042	0028	0025	0015	-0008
9497	9712	0587	0024	0033	-0006	-0037	-0231	-0181

Pressure coefficient - With Trip and Vortex Generators

$M_{nom} = 0.55$ $Re_{c_{nom}} = 16 \times 10^6$

α	-2.80	-0.71	1.37	1.99	3.45	4.50	5.54	6.58
M	0.557	0.556	0.558	0.557	0.554	0.553	0.553	0.551
$10^{-6}Re_c$	16.0	16.0	16.0	16.0	15.9	15.9	15.9	15.9

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$							
Upper Surface										
0000	6757	-0370	-0224	0162	0203	0143	-0127	-0414	-0789	-1248
0084	6757	0461	0216	0145	-0070	-0169	-0464	-0709	-1001	-1336
0178	6757	0832	0216	0111	-0085	-0164	-0394	-0574	-0782	-1008
0281	6757	1171	0181	0066	-0113	-0184	-0383	-0533	-0703	-0886
0385	6757	1459	0161	0043	-0124	-0189	-0366	-0497	-0646	-0803
0585	6757	1924	0108	-0008	-0159	-0212	-0365	-0473	-0592	-0718
0783	6757	2305	0077	-0035	-0170	-0219	-0353	-0446	-0546	-0653
0987	6757	2651	0051	-0054	-0178	-0221	-0342	-0423	-0512	-0602
1488	6757	3333	0009	-0085	-0186	-0221	-0321	-0385	-0454	-0523
1990	6757	3854	-0027	-0113	-0202	-0233	-0319	-0370	-0427	-0484
2490	6757	4245	-0050	-0127	-0206	-0231	-0308	-0353	-0401	-0448
2987	6757	4523	-0066	-0137	-0207	-0231	-0299	-0337	-0377	-0417
3493	6757	4707	-0080	-0145	-0206	-0227	-0289	-0320	-0355	-0390
3994	6757	4797	-0091	-0150	-0205	-0223	-0279	-0306	-0336	-0365
4495	6757	4790	-0105	-0159	-0207	-0223	-0274	-0297	-0321	-0347
4996	6757	4675	-0105	-0153	-0195	-0208	-0253	-0272	-0293	-0312
5497	6757	4444	-0110	-0152	-0188	-0200	-0240	-0255	-0274	-0286
5996	6757	4108	-0024	-0065	-0099	-0109	-0146	-0158	-0172	-0185
6498	6757	3713	-0096	-0123	-0142	-0147	-0179	-0192	-0208	-0212
7000	6757	3271	-0066	-0082	-0094	-0098	-0123	-0127	-0133	-0141
7513	6757	2777	-0010	-0033	-0049	-0054	-0078	-0081	-0086	-0088
7996	6757	2266	-0001	-0021	-0031	-0036	-0056	-0057	-0057	-0058
8496	6757	1713	-0001	-0015	-0023	-0024	-0041	-0041	-0043	-0038
9006	6757	1142	0025	0013	0012	0010	-0005	-0002	0002	0004
9497	6757	0587	0042	0054	0035	0035	0022	0028	0032	0036
Lower Surface										
0000	6757	-0370	-0224	0162	0203	0143	-0127	-0414	-0789	-1248
0035	6757	-0741	-0717	-0120	0173	0203	0162	0071	-0082	-0280
0080	6757	-0955	-0699	-0174	0128	0176	0201	0176	0107	-0002
0174	6757	-1195	-0529	-0156	0098	0149	0214	0240	0239	0213
0282	6757	-1360	-0415	-0135	0072	0119	0185	0223	0240	0242
0383	6757	-1487	-0363	-0131	0046	0089	0152	0192	0215	0230
0580	6757	-1677	-0288	-0107	0041	0079	0136	0178	0207	0232
0787	6757	-1810	-0214	-0070	0049	0075	0127	0165	0196	0212
0984	6757	-1897	-0224	-0098	0012	0042	0087	0126	0156	0185
1482	6757	-2042	-0180	-0087	0001	0025	0060	0094	0122	0148
1985	6757	-2125	-0151	-0077	-0003	0016	0046	0076	0103	0125
2488	6757	-2152	-0130	-0067	-0005	0013	0038	0066	0088	0112
2985	6757	-2156	-0109	-0056	0000	0017	0037	0063	0083	0105
3491	6757	-2135	-0103	-0057	-0008	0008	0024	0048	0068	0088
3992	6757	-2086	-0091	-0050	-0005	0009	0023	0045	0064	0082
4488	6757	-1994	-0086	-0050	-0009	0003	0015	0036	0053	0071
4996	6757	-1877	-0073	-0042	-0006	0005	0014	0034	0049	0066
5494	6757	-1707	-0056	-0030	0004	0014	0021	0039	0053	0068
5999	6757	-1523	0051	0076	0110	0119	0130	0149	0165	0181
6495	6757	-1343	-0039	-0019	0005	0013	0014	0027	0035	0047
6998	6757	-1155	-0035	-0029	-0012	-0005	-0004	0013	0028	0042
7498	6757	-0968	-0004	0002	0013	0014	0006	0015	0028	0038
8004	6757	-0783	0018	0026	0037	0041	0031	0037	0041	0050
8501	6757	-0591	0030	0035	0049	0051	0042	0047	0052	0056
8998	6757	-0400	0042	0047	0056	0059	0050	0054	0056	0064
95% Chord										
9497	1613	0587	0041	0045	0057	0059	0042	0045	0043	0040
9497	2348	0587	0042	0038	0039	0040	0028	0033	0036	0044
9497	3084	0587	0043	0037	0038	0040	0029	0035	0038	0043
9497	3818	0587	0010	0006	0009	0011	0002	0010	0017	0028
9497	4553	0587	0036	0032	0036	0038	0026	0031	0032	0034
9497	5290	0587	0041	0036	0036	0037	0025	0029	0031	0037
9497	6025	0587	0038	0032	0034	0035	0023	0028	0032	0038
9497	6757	0587	0042	0034	0035	0035	0022	0028	0032	0036
9497	7503	0587	0021	0020	0022	0024	0011	0016	0019	0028
9497	8241	0587	0047	0038	0041	0042	0031	0035	0035	0038
9497	8976	0587	0050	0045	0037	0035	0013	0008	-0004	-0002
9497	9712	0587	0019	0027	-0002	-0028	-0194	-0379	-0273	-0168

Pressure coefficient - With Trip and Vortex Generators

$M_{nom} = 0.8$ $Re_{c_{nom}} = 2 \times 10^6$

				α	-2.84	-0.68	1.47	2.13	3.64	5.77
				M	0.811	0.811	0.812	0.810	0.810	0.802
				$10^{-6}Re_c$	2.08	2.07	2.05	2.03	2.03	2.03
		$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 C_p$					
				Upper Surface						
11	14	0000	6757	-0370	-0192	0172	0205	0154	-0102	-0617
13	14	0084	6757	0461	0220	0156	-0072	-0177	-0484	-0923
14	14	0178	6757	0832	0214	0113	-0097	-0183	-0434	-0902
15	14	0281	6757	1171	0186	0074	-0123	-0196	-0415	-0915
16	14	0385	6757	1459	0159	0042	-0145	-0218	-0409	-0894
17	14	0585	6757	1924	0114	-0001	-0167	-0229	-0394	-0664
18	14	0783	6757	2305	0088	-0026	-0176	-0231	-0374	-0508
19	14	0987	6757	2651	0053	-0051	-0191	-0235	-0364	-0506
21	14	1488	6757	3333	0015	-0077	-0190	-0228	-0331	-0454
22	14	1990	6757	3854	-0015	-0101	-0201	-0235	-0321	-0428
23	14	2490	6757	4245	-0044	-0122	-0212	-0240	-0313	-0405
24	14	2987	6757	4523	-0060	-0130	-0212	-0237	-0299	-0376
25	14	3493	6757	4707	-0073	-0136	-0209	-0232	-0286	-0344
26	14	3994	6757	4797	-0089	-0146	-0209	-0229	-0278	-0322
27	14	4495	6757	4790	-0097	-0146	-0204	-0221	-0264	-0294
28	14	4996	6757	4675	-0096	-0140	-0187	-0204	-0242	-0261
74	14	5497	6757	4444	-0109	-0145	-0187	-0196	-0231	-0245
29	14	5996	6757	4108	-0015	-0051	-0086	-0095	-0122	-0132
75	14	6498	6757	3713	-0057	-0082	-0107	-0115	-0140	-0128
31	14	7000	6757	3271	-0060	-0070	-0081	-0087	-0103	-0099
76	14	7513	6757	2777	-0020	-0029	-0045	-0053	-0070	-0060
32	14	7996	6757	2266	-0007	-0014	-0025	-0027	-0038	-0028
77	14	8496	6757	1713	0007	0003	-0005	-0002	-0010	-0003
33	14	9006	6757	1142	0030	0032	0030	0022	0017	0016
34	14	9497	6757	0587	0048	0053	0053	0054	0048	0037
				Lower Surface						
35	14	0035	6757	-0741	-0608	-0059	0208	0232	0191	-0015
36	14	0080	6757	-0955	-0613	-0153	0140	0184	0214	0144
37	14	0174	6757	-1195	-0536	-0160	0100	0153	0220	0236
38	14	0282	6757	-1360	-0537	-0141	0074	0124	0199	0246
39	14	0383	6757	-1487	-0513	-0127	0061	0108	0178	0235
41	14	0580	6757	-1677	-0271	-0122	0034	0078	0143	0208
42	14	0787	6757	-1810	-0244	-0114	0024	0065	0116	0178
43	14	0984	6757	-1897	-0218	-0093	0024	0057	0110	0178
44	14	1482	6757	-2042	-0173	-0077	0013	0041	0087	0143
45	14	1985	6757	-2125	-0144	-0063	0013	0038	0073	0124
46	14	2488	6757	-2152	-0123	-0048	0013	0035	0067	0113
47	14	2985	6757	-2156	-0107	-0040	0013	0035	0065	0105
48	14	3491	6757	-2135	-0094	-0038	0007	0027	0053	0090
49	14	3992	6757	-2086	-0083	-0037	0003	0020	0044	0078
51	14	4488	6757	-1994	-0075	-0031	0006	0023	0041	0073
52	14	4996	6757	-1877	-0060	-0022	0013	0029	0045	0071
53	14	5494	6757	-1707	-0054	-0018	0003	0020	0036	0060
54	14	5999	6757	-1523	0059	0093	0112	0127	0140	0165
55	14	6495	6757	-1343	-0015	0013	0034	0046	0056	0072
56	14	6998	6757	-1155	-0022	-0008	0013	0025	0035	0054
57	14	7498	6757	-0968	-0001	0019	0027	0023	0031	0043
58	14	8004	6757	-0783	0012	0032	0042	0043	0046	0053
59	14	8501	6757	-0591	0028	0046	0054	0052	0052	0051
61	14	8998	6757	-0400	0041	0053	0061	0065	0065	0058
				95% Chord						
62	14	9497	1613	0587	0067	0069	0072	0073	0065	0026
63	14	9497	2348	0587	0058	0060	0060	0066	0066	0049
64	14	9497	3084	0587	0059	0060	0063	0064	0061	0052
65	14	9497	3818	0587	0046	0053	0053	0059	0054	0048
66	14	9497	4553	0587	0051	0053	0050	0054	0051	0048
67	14	9497	5290	0587	0046	0047	0048	0054	0048	0050
68	14	9497	6025	0587	0047	0048	0051	0047	0047	0038
69	14	9497	7503	0587	0046	0053	0056	0057	0052	0035
71	14	9497	8241	0587	0048	0058	0058	0059	0053	0017
72	14	9497	8976	0587	0051	0052	0045	0045	0021	-0015
73	14	9497	9712	0587	0001	0055	0010	-0027	-0237	-0131

Pressure ratio -Clean Wing (1)

$M_{nom} = 1.4$ $Re_{c_{nom}} = 2 \times 10^6$

α	-2.75	-0.72	1.29	3.28	5.28
M	1.391	1.391	1.391	1.391	1.391
$10^{-6}Re_c$	2.05	2.06	2.06	2.07	2.05

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 \frac{p}{q_n}$				
Upper Surface							
0000	6757	-0370	0813	0949	1031	1014	0879
0042	6757	0229	1006	1015	0947	0806	0578
0084	6757	0461	1002	0979	0877	0735	0487
0178	6757	0832	0977	0937	0832	0700	0482
0281	6757	1171	0951	0900	0795	0668	0488
0385	6757	1459	0931	0877	0763	0645	0484
0585	6757	1924	0878	0819	0714	0596	0443
0783	6757	2305	0847	0786	0687	0578	0432
0987	6757	2651	0813	0754	0660	0556	0416
1488	6757	3333	0759	0705	0617	0527	0401
1990	6757	3854	0717	0662	0583	0499	0387
2490	6757	4245	0678	0630	0549	0474	0380
2987	6757	4523	0640	0596	0524	0455	0409
3493	6757	4707	0606	0567	0497	0463	0415
3994	6757	4797	0580	0541	0471	0482	0421
4495	6757	4790	0538	0502	0436	0482	0416
4996	6757	4675	0497	0459	0404	0484	0416
5497	6757	4444	0463	0426	0374		0403
5996	6757	4108	0507	0412	0392	0463	0406
6498	6757	3713	0646	0443	0420	0470	0409
7000	6757	3271	0667	0578	0467	0495	0415
7513	6757	2777	0691	0680	0530	0506	0402
7996	6757	2266	0710	0720	0615	0514	0401
8496	6757	1713	0732	0742	0728	0512	0393
9006	6757	1142	0760	0768	0786	0514	0413
9497	6757	0587	0797	0807	0814	0546	0467
Lower Surface							
0000	6757	-0370	0813	0949	1031	1014	0879
0035	6757	-0741	0497	0693	0908	1034	1040
0080	6757	-0955	0377	0592	0841	1010	1073
0174	6757	-1195	0288	0540	0780	0952	1040
0282	6757	-1360	0301	0539	0756		1008
0580	6757	-1677	0351	0572	0741	0876	0967
0787	6757	-1810	0355	0584	0728	0856	0940
0984	6757	-1897	0345	0590	0727	0846	0924
1482	6757	-2042	0357	0607	0720	0833	0902
1985	6757	-2125	0404	0621	0718	0823	0883
2488	6757	-2152	0535	0632	0728	0822	0873
2985	6757	-2156	0563	0643	0734	0818	0865
3491	6757	-2135	0553	0649	0729	0804	0840
3992	6757	-2086	0545	0653	0727	0793	0822
4488	6757	-1994	0539	0645	0732	0787	0810
4996	6757	-1877	0587	0656	0736	0787	0804
5494	6757	-1707	0654	0723	0743	0791	0804
5999	6757	-1523	0694	0755	0746	0795	0805
6495	6757	-1343	0717	0768	0750	0798	0811
6998	6757	-1155	0726	0769	0752	0794	0809
7498	6757	-0968	0742	0776	0776	0790	0796
8004	6757	-0783	0751	0780	0798	0782	0775
8501	6757	-0591	0768	0791	0795	0775	0755
8998	6757	-0400	0786	0804	0794	0759	0734
95% Chord							
9497	1613	0587	0832	0845	0817	0788	0773
9497	2348	0587	0817	0834	0824	0827	0781
9497	3084	0587	0821	0842	0828	0820	0785
9497	3818	0587	0813	0841	0817	0750	0639
9497	4553	0587	0803	0831	0801	0689	0570
9497	5290	0587	0792	0817	0790	0586	0475
9497	6025	0587	0784	0807	0734	0520	0441
9497	6757	0587	0797	0807	0814	0546	0467
9497	7503	0587	0848	0864	0722	0538	0448
9497	8241	0587	0819	0836	0673	0613	0586
9497	8976	0587	0820	0856	0656	0678	0659
9497	9712	0587	0789	0778	0696	0771	0701

Pressure ratio - Clean wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 4 \times 10^6$

α	-2.77	-0.82	1.23	3.25	5.18
M	1.396	1.396	1.396	1.396	1.396
$10^{-6}Re_c$	4.03	3.98	4.04	4.03	4.01

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 \frac{p}{H_n}$				
Upper Surface							
0000	6757	-0370	0825	0926	1028	0993	0879
0042	6757	0229	1021	1006	0954	0795	0586
0084	6757	0461	1021	0975	0891	0729	0491
0178	6757	0832	1001	0936	0843	0694	0499
0281	6757	1171	0974	0901	0801	0660	0508
0385	6757	1459	0947	0867	0774	0632	0490
0585	6757	1924	0903	0822	0722	0586	0446
0783	6757	2305	0869	0787	0693	0567	0433
0987	6757	2651	0838	0760	0664	0549	0425
1488	6757	3333	0783	0706	0621	0517	0405
1990	6757	3854	0742	0669	0588	0489	0390
2490	6757	4245	0703	0635	0556	0464	0371
2987	6757	4523	0672	0601	0528	0443	0353
3493	6757	4707	0634	0570	0504	0420	0338
3994	6757	4797	0601	0538	0480	0401	0325
4495	6757	4790	0560	0500	0448	0372	0346
4996	6757	4675	0517	0460	0413	0344	0351
5497	6757	4444	0482	0421	0380	0316	0350
5996	6757	4108	0579	0484	0566	0304	0339
6498	6757	3713	0663	0625	0608	0326	0357
7000	6757	3271	0697	0654	0616	0524	0387
7513	6757	2777	0718	0666	0615	0557	0400
7996	6757	2266	0739	0680	0610	0582	0416
8496	6757	1713	0760	0690	0599	0575	0414
9006	6757	1142	0777	0701	0593	0572	0405
9497	6757	0587	0792	0719	0594	0583	0457
Lower Surface							
0000	6757	-0370	0825	0926	1028	0993	0879
0035	6757	-0741	0512	0661	0897	1015	1042
0080	6757	-0955	0391	0561	0830	0990	1072
0174	6757	-1195	0303	0507	0769	0931	1037
0282	6757	-1360	0297	0514	0744	0896	1005
0580	6757	-1677	0345	0550	0727	0856	0963
0787	6757	-1810	0352	0562	0720	0836	0939
0984	6757	-1897	0347	0573	0720	0827	0923
1482	6757	-2042	0368	0590	0719	0818	0901
1985	6757	-2125	0442	0605	0718	0812	0886
2488	6757	-2152	0590	0630	0722	0811	0878
2985	6757	-2156	0590	0636	0729	0808	0870
3491	6757	-2135	0572	0631	0730	0800	0844
3992	6757	-2086	0562	0623	0733	0785	0822
4488	6757	-1994	0548	0628	0734	0776	0813
4996	6757	-1877	0584	0685	0735	0772	0803
5494	6757	-1707	0670	0716	0738	0777	0804
5999	6757	-1523	0711	0733	0746	0783	0807
6495	6757	-1343	0737	0742	0767	0788	0805
6998	6757	-1155	0746	0745	0775	0781	0792
7498	6757	-0968	0762	0755	0778	0783	0798
8004	6757	-0783	0768	0756	0774	0780	0802
8501	6757	-0591	0781	0764	0775	0781	0794
8998	6757	-0400	0789	0768	0761	0774	0765
95% Chord							
9497	1613	0587	0858	0824	0819	0774	0717
9497	2348	0587	0842	0823	0803	0802	0780
9497	3084	0587	0841	0817	0793	0809	0795
9497	3818	0587	0835	0808	0778	0807	0647
9497	4553	0587	0819	0791	0751	0788	0813
9497	5290	0587	0812	0778	0700	0745	0632
9497	6025	0587	0803	0755	0638	0667	0461
9497	6757	0587	0792	0719	0594	0583	0457
9497	7503	0587	0861	0765	0642	0635	0459
9497	8241	0587	0832	0704	0642	0553	0467
9497	8976	0587	0839	0754	0738	0604	0672
9497	9712	0587	0712	0798	0748	0709	0624

Pressure ratio - Clean wing (1)

$M_{nom} = 1.4$ $Re_{c_{nom}} = 8 \times 10^6$

α	-2.77	-0.77	3.25	5.20
M	1.402	1.402	1.402	1.402
$10^{-6}Re_c$	7.97	7.96	7.93	7.88

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 \frac{p}{N_n}$			
Upper Surface						
0000	6757	-0370	0802	0914	0987	0887
0042	6757	0229	1000	0995	0788	0596
0084	6757	0461	1004	0968	0726	0499
0178	6757	0832	0984	0930	0692	0516
0281	6757	1171	0955	0893	0656	0526
0385	6757	1459	0929	0863	0626	0505
0585	6757	1924	0882	0811	0584	0453
0783	6757	2305	0856	0785	0566	0441
0987	6757	2651	0831	0759	0550	0435
1488	6757	3333	0761	0693	0513	0411
1990	6757	3854	0727	0655	0492	0397
2490	6757	4245	0685	0618	0468	0377
2987	6757	4523	0657	0590	0450	0361
3493	6757	4707	0621	0556	0422	0344
3994	6757	4797	0587	0527	0396	0325
4495	6757	4790	0546	0491	0373	0312
4996	6757	4675	0505	0453	0360	0408
5497	6757	4444	0465	0412	0550	0469
5996	6757	4108	0542	0501	0558	0497
6498	6757	3713	0645	0617	0565	0525
7000	6757	3271	0682	0638	0564	0545
7513	6757	2777	0701	0646	0548	0539
7996	6757	2266	0724	0661	0537	0532
8496	6757	1713	0747	0672	0521	0516
9006	6757	1142	0765	0688	0509	0507
9497	6757	0587	0780	0707	0516	0516
Lower Surface						
0000	6757	-0370	0802	0914	0987	0887
0035	6757	-0741	0489	0646	1011	1042
0080	6757	-0955	0368	0549	0984	1072
0174	6757	-1195	0279	0496	0923	1034
0282	6757	-1360	0276		0888	1004
0580	6757	-1677	0302	0536	0847	0963
0787	6757	-1810	0311	0549	0830	0950
0984	6757	-1897	0323	0562	0829	0937
1482	6757	-2042	0354	0600	0819	0905
1985	6757	-2125	0484	0619	0818	0894
2488	6757	-2152	0575	0617	0816	0883
2985	6757	-2156	0573	0616	0809	0867
3491	6757	-2135	0556	0615	0799	0847
3992	6757	-2086	0541	0603	0779	0823
4488	6757	-1994	0525	0648	0771	0814
4996	6757	-1877	0542	0678	0763	0800
5494	6757	-1707	0650	0703	0764	0798
5999	6757	-1523	0697	0722	0766	0797
6495	6757	-1343	0723	0735	0767	0791
6998	6757	-1155	0734	0736	0757	0778
7498	6757	-0968	0750	0748	0760	0776
8004	6757	-0783	0757	0750	0748	0760
8501	6757	-0591	0769	0760	0741	0749
8998	6757	-0400	0778	0762	0717	0724
95% Chord						
9497	1613	0587	0847	0817	0815	0814
9497	2348	0587	0828	0816	0741	0717
9497	3084	0587	0825	0809	0720	0689
9497	3818	0587	0821	0800	0691	0624
9497	4553	0587	0806	0784	0600	0561
9497	5290	0587	0801	0772	0548	0530
9497	6025	0587	0792	0749	0530	0526
9497	6757	0587	0780	0707	0516	0516
9497	7503	0587	0800	0708	0531	0546
9497	8241	0587	0824	0685	0607	0524
9497	8976	0587	0829	0719	0683	0663
9497	9712	0587	0704	0783	0761	0721

Pressure ratio - Clean wing (1)

$M_{nom} = 1.4 \quad Re_{c_{nom}} = 16 \times 10^6$

α	-2.75	-0.72	1.30	3.29	5.29
M	1.410	1.410	1.410	1.410	1.410
$10^{-6}Re_c$	15.8	15.7	15.7	15.6	15.6

$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$	$10^3 \frac{p}{H_n}$				
Upper Surface							
0000	6757	-0370	0828	0941	1037	1023	0914
0042	6757	0229	1006	1003	0955	0819	0618
0084	6757	0461	1024	0989	0899	0769	0518
0178	6757	0832	1004	0954	0860	0733	0565
0281	6757	1171	0969	0911	0812	0688	0546
0385	6757	1459	0949	0886	0785	0659	0518
0585	6757	1924	0892	0826	0727	0608	0461
0783	6757	2305	0857	0790	0699	0590	0456
0987	6757	2651	0837	0767	0678	0572	0451
1488	6757	3333	0766	0699	0623	0529	0423
1990	6757	3854	0729	0662	0592	0501	0410
2490	6757	4245	0687	0623	0560	0475	0385
2987	6757	4523	0657	0594	0532	0459	0373
3493	6757	4707	0619	0558	0496	0430	0353
3994	6757	4797	0587	0531	0465	0405	0331
4495	6757	4790	0548	0498	0440	0380	0318
4996	6757	4675	0508	0460	0409	0354	0508
5497	6757	4444	0466	0416	0370	0540	0514
5996	6757	4108	0507	0407	0564	0557	0515
6498	6757	3713	0644	0600	0590	0566	0517
7000	6757	3271	0685	0632	0599	0567	0506
7513	6757	2777	0703	0645	0595	0554	0481
7996	6757	2266	0724	0667	0596	0546	0471
8496	6757	1713	0749	0689	0594	0535	0457
9006	6757	1142	0772	0715	0595	0526	0442
9497	6757	0587	0788	0742	0605	0531	0463
Lower Surface							
0000	6757	-0370	0828	0941	1037	1023	0914
0035	6757	-0741	0490	0639	0861	0994	1052
0080	6757	-0955	0372	0551	0805	0982	1083
0174	6757	-1195	0279	0512	0763	0938	1056
0282	6757	-1360	0273	0520	0732	0892	1015
0580	6757	-1677	0314	0559	0720	0858	0976
0787	6757	-1810	0319	0573	0712	0841	0959
0984	6757	-1897	0323	0587	0709	0828	0938
1482	6757	-2042	0405	0598	0695	0815	0907
1985	6757	-2125	0523	0613	0713	0819	0897
2488	6757	-2152	0555	0616	0711	0818	0885
2985	6757	-2156	0560	0615	0723	0807	0867
3491	6757	-2135	0554	0614	0730	0806	0851
3992	6757	-2086	0538	0606	0730	0782	0824
4488	6757	-1994	0525	0657	0733	0775	0816
4996	6757	-1877	0558	0688	0728	0767	0799
5494	6757	-1707	0661	0712	0739	0766	0795
5999	6757	-1523	0704	0731	0750	0770	0795
6495	6757	-1343	0729	0746	0758	0774	0791
6998	6757	-1155	0741	0747	0754	0763	0774
7498	6757	-0968	0760	0762	0764	0768	0776
8004	6757	-0783	0766	0762	0759	0755	0757
8501	6757	-0591	0781	0775	0764	0751	0750
8998	6757	-0400	0790	0779	0752	0727	0724
95% Chord							
9497	1613	0587	0858	0858	0807	0767	0767
9497	2348	0587	0833	0828	0799	0756	0713
9497	3084	0587	0829	0822	0788	0739	0688
9497	3818	0587	0824	0814	0775	0717	0628
9497	4553	0587	0812	0801	0751	0633	0530
9497	5290	0587	0807	0792	0702	0574	0512
9497	6025	0587	0801	0777	0652	0550	0474
9497	6757	0587	0788	0742	0605	0531	0463
9497	7503	0587	0805	0738	0597	0524	0470
9497	8241	0587	0839	0715	0604	0555	0494
9497	8976	0587	0843	0693	0676	0639	0654
9497	9712	0587	0722	0790	0766	0758	0764

Pressure ratio - Clean wing (1)

$M_{nom} = 1.6$ $Re_{c_{nom}} = 8 \times 10^6$

			α	-2.72	-0.80	1.25	3.25	5.23
			M	1.603	1.603	1.603	1.603	1.603
			$10^{-6}Re_c$	7.97	7.97	7.97	7.97	7.97
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$				$10^3 \frac{p}{H_n}$		
			Upper Surface					
0000	6757	-0370		0862	0943	1010	1025	0983
0042	6757	0229		1027	1031	0978	0873	0737
0084	6757	0461		1025	1000	0923	0807	0666
0178	6757	0832		1001	0957	0872	0758	0647
0281	6757	1171		0989	0919	0827	0715	0611
0385	6757	1459		0967	0885	0795	0686	0577
0585	6757	1924		0909	0831	0740	0630	0522
0783	6757	2305		0874	0804	0711	0604	0509
0987	6757	2651		0845	0774	0687	0621	0493
1488	6757	3333		0778	0708	0625	0545	0456
1990	6757	3854		0734	0666	0585	0504	0423
2490	6757	4245		0694	0627	0551	0476	0394
2987	6757	4523		0662	0595	0521	0451	0379
3493	6757	4707		0616	0555	0485	0418	0354
3994	6757	4797		0578	0523	0454	0391	0330
4495	6757	4790		0537	0487	0423	0364	0305
4996	6757	4675		0497	0450	0389	0333	0449
5497	6757	4444		0452	0406	0353	0490	0488
5996	6757	4108		0432	0387	0519	0522	0493
6498	6757	3713		0428	0559	0568	0532	0498
7000	6757	3271		0553	0617	0576	0533	0496
7513	6757	2777		0640	0621	0570	0522	0482
7996	6757	2266		0655	0624	0567	0514	0470
8496	6757	1713		0663	0621	0558	0498	0456
9006	6757	1142		0674	0613	0544	0483	0443
9497	6757	0587		0689	0604	0532	0477	0444
			Lower Surface					
0000	6757	-0370		0862	0943	1010	1025	0983
0035	6757	-0741		0545	0664	0824	0964	1027
0080	6757	-0955		0425	0557	0743	0910	1016
0174	6757	-1195		0327	0490	0677	0837	0952
0282	6757	-1360		0326	0486	0657	0804	0911
0580	6757	-1677		0349	0485	0673	0767	0866
0787	6757	-1810		0347	0488	0668	0757	0843
0984	6757	-1897		0358	0500	0668	0760	0825
1482	6757	-2042		0402	0533	0666	0768	0817
1985	6757	-2125		0420	0560	0675	0759	0833
2488	6757	-2152		0445	0588	0677	0746	0816
2985	6757	-2156		0466	0588	0669	0730	0794
3491	6757	-2135		0482	0582	0649	0710	0779
3992	6757	-2086		0498	0571	0627	0684	0796
4488	6757	-1994		0492	0551	0604	0672	0845
4996	6757	-1877		0474	0524	0578	0743	0844
5494	6757	-1707		0472	0518	0623	0774	0839
5999	6757	-1523		0486	0538	0702	0782	0832
6495	6757	-1343		0549	0620	0726	0780	0823
6998	6757	-1155		0629	0666	0726	0765	0805
7498	6757	-0968		0668	0692	0733	0768	0801
8004	6757	-0783		0688	0699	0725	0751	0780
8501	6757	-0591		0706	0707	0721	0742	0771
8998	6757	-0400		0720	0700	0705	0722	0745
			95% Chord					
9497	1613	0587		0764	0737	0715	0667	0599
9497	2348	0587		0776	0756	0711	0665	0622
9497	3084	0587		0781	0739	0680	0628	0585
9497	3818	0587		0774	0709	0630	0556	0525
9497	4553	0587		0757	0671	0579	0519	0433
9497	5290	0587		0740	0650	0572	0479	0420
9497	6025	0587		0714	0621	0549	0473	0433
9497	6757	0587		0689	0604	0532	0477	0444
9497	7503	0587		0668	0601	0538	0493	0460
9497	8241	0587		0650	0586	0541	0510	0465
9497	8976	0587		0636	0624	0604	0580	0501
9497	9712	0587		0648	0681	0685	0634	0600

Pressure ratio - Clean wing (1)

$M_{nom} = 1.8$ $Re_{c_{nom}} = 8 \times 10^6$

	α	-2.77	-0.81	1.20	3.25	5.23
	M	1.807	1.807	1.807	1.807	1.807
	$10^{-6}Re_c$	8.00	8.01	8.00	8.00	8.00
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$		$10^3 \frac{p}{H_n}$		
			Upper Surface			
0000	6757	-0370	0859	0936	1003	1026	0991
0042	6757	0229	1021	1003	0957	0853	0732
0084	6757	0461	1015	0967	0902	0793	0655
0178	6757	0832	0984	0918	0845	0740	0634
0281	6757	1171	0946	0875	0796	0692	0597
0385	6757	1459	0920	0842	0760	0657	0560
0585	6757	1924	0857	0781	0703	0598	0500
0783	6757	2305	0821	0747	0673	0573	0483
0987	6757	2651	0791	0718	0644	0549	0465
1488	6757	3333	0722	0651	0581	0499	0423
1990	6757	3854	0669	0601	0534	0458	0393
2490	6757	4245	0627	0562	0499	0426	0364
2987	6757	4523	0592	0528	0469	0401	0341
3493	6757	4707	0549	0489	0432	0369	0316
3994	6757	4797	0514	0456	0402	0343	0294
4495	6757	4790	0477	0423	0372	0316	0270
4996	6757	4675	0438	0386	0339	0287	0246
5497	6757	4444	0395	0346	0304	0256	0310
5996	6757	4108	0378	0329	0285	0243	0391
6498	6757	3713	0373	0322	0280	0419	0405
7000	6757	3271	0353	0307	0444	0437	0409
7513	6757	2777	0359	0488	0473	0438	0404
7996	6757	2266	0532	0528	0486	0442	0403
8496	6757	1713	0582	0542	0493	0443	0399
9006	6757	1142	0601	0543	0492	0445	0397
9497	6757	0587	0605	0534	0483	0438	0404
			Lower Surface				
0000	6757	-0370	0859	0936	1003	1026	0991
0035	6757	-0741	0539	0664	0816	0954	1028
0080	6757	-0955	0418	0557	0730	0899	1014
0174	6757	-1195	0319	0485	0650	0820	0941
0282	6757	-1360	0314	0472	0624	0781	0900
0580	6757	-1677	0328	0459	0599	0738	0849
0787	6757	-1810	0321	0449	0589	0714	0818
0984	6757	-1897	0325	0448	0583	0703	0799
1482	6757	-2042	0362	0465	0579	0674	0760
1985	6757	-2125	0373	0477	0578	0668	0748
2488	6757	-2152	0379	0491	0574	0661	0733
2985	6757	-2156	0387	0493	0568	0648	0711
3491	6757	-2135	0387	0486	0555	0629	0687
3992	6757	-2086	0388	0480	0542	0609	0661
4488	6757	-1994	0382	0467	0526	0585	0633
4996	6757	-1877	0367	0443	0501	0555	0609
5494	6757	-1707	0363	0435	0492	0548	0613
5999	6757	-1523	0371	0439	0498	0556	0632
6495	6757	-1343	0379	0445	0504	0566	0652
6998	6757	-1155	0386	0451	0504	0577	0662
7498	6757	-0968	0397	0462	0515	0600	0678
8004	6757	-0783	0418	0466	0525	0612	0686
8501	6757	-0591	0527	0482	0551	0630	0702
8998	6757	-0400	0578	0545	0570	0640	0699
			95% Chord				
9497	1613	0587	0634	0609	0582	0541	0465
9497	2348	0587	0623	0601	0558	0514	0482
9497	3084	0587	0612	0569	0508	0453	0402
9497	3818	0587	0599	0544	0488	0404	0335
9497	4553	0587	0586	0532	0467	0396	0344
9497	5290	0587	0585	0527	0468	0420	0368
9497	6025	0587	0593	0543	0488	0420	0383
9497	6757	0587	0605	0534	0483	0438	0404
9497	7503	0587	0590	0514	0463	0424	0400
9497	8241	0587	0611	0539	0492	0446	0413
9497	8976	0587	0591	0546	0501	0471	0443
9497	9712	0587	0497	0558	0590	0564	0525

Pressure ratio - Clean wing (1)

$M_{nom} = 2.0 \quad Re_{c_{nom}} = 8 \times 10^6$

	α	-2.78	-0.76	1.23	1.82	3.22	5.23
	M	2.003	2.003	2.003	2.003	2.003	2.003
	$10^{-6}Re_c$	7.99	7.96	7.92	8.02	7.91	7.90
$10^4 \frac{x}{c}$	$10^4 \frac{y}{c}$	$10^4 \frac{z}{c}$			$10^3 \frac{p}{H_n}$		
Upper Surface							
0000	6757	-0370	0878	0956	1017	1030	1033	1000
0042	6757	0229	1032	1002	0945	0922	0851	0732
0084	6757	0461	1016	0967	0897	0875	0796	0655
0178	6757	0832	0983	0917	0836	0812	0739	0629
0281	6757	1171	0941	0868	0784	0759	0688	0590
0385	6757	1459	0913	0836	0744	0723	0649	0551
0585	6757	1924	0847	0767	0681	0655	0587	0487
0783	6757	2305	0808	0730	0647	0624	0559	0466
0987	6757	2651		0684	0605	0581	0523	0438
1488	6757	3333	0708	0635	0560	0538	0483	0403
1990	6757	3854	0649	0578	0509	0488	0437	0369
2490	6757	4245	0609	0542	0475	0456	0406	0341
2987	6757	4523	0570	0507	0444	0425	0381	0318
3493	6757	4707	0529	0469	0409	0393	0352	0294
3994	6757	4797	0490	0432	0377	0360	0322	0270
4495	6757	4790	0454	0398	0346	0331	0296	0247
4996	6757	4675	0413	0361	0313	0299	0266	0222
5497	6757	4444	0371	0324	0277	0266	0234	0196
5996	6757	4108	0352	0305	0257	0248	0217	0180
6498	6757	3713	0342	0295	0251	0240	0210	0200
7000	6757	3271	0323	0277	0237	0225	0197	0308
7513	6757	2777	0324	0277	0235	0224	0301	0309
7996	6757	2266	0308	0262	0248	0323	0340	0312
8496	6757	1713	0311	0271	0372	0369	0347	0315
9006	6757	1142	0313	0424	0384	0375	0348	0316
9497	6757	0587	0414	0426	0385	0375	0344	0312
Lower Surface								
0000	6757	-0370	0878	0956	1017	1030	1033	1000
0035	6757	-0741	0560	0683	0834	0876	0955	1036
0080	6757	-0955	0434	0573	0741	0788	0887	1006
0174	6757	-1195	0333	0499	0655	0700	0800	0923
0282	6757	-1360	0328		0620	0663	0757	0877
0383	6757	-1487	0334	0476	0603	0647	0735	0852
0580	6757	-1677	0331	0458	0584	0623	0707	0817
0787	6757	-1810	0323	0444	0566	0603	0680	0785
0984	6757	-1897	0333	0441	0558	0593	0668	0766
1482	6757	-2042	0356	0445	0544	0573	0637	0723
1985	6757	-2125	0358	0450	0540	0569	0628	0714
2488	6757	-2152	0361	0451	0538	0563	0619	0698
2985	6757	-2156	0365	0449	0531	0555	0606	0682
3491	6757	-2135	0361	0440	0517	0539	0587	0658
3992	6757	-2086	0359	0433	0502	0523	0568	0634
4488	6757	-1994	0351	0420	0486	0504	0547	0607
4996	6757	-1877	0335	0399	0460	0476	0519	0576
5494	6757	-1707	0326	0390	0448	0466	0509	0568
5999	6757	-1523	0328	0394	0451	0469	0513	0573
6495	6757	-1343	0332	0396	0453	0474	0516	0576
6998	6757	-1155	0332	0396	0454	0474	0514	0577
7498	6757	-0968	0336	0400	0461	0478	0519	0590
8004	6757	-0783	0335	0397	0460	0478	0519	0594
8501	6757	-0591	0341	0404	0467	0483	0529	0606
8998	6757	-0400	0352	0408	0471	0489	0535	0608
95% Chord								
9497	1613	0587	0545	0525	0491	0485	0453	0363
9497	2348	0587	0525	0514	0469	0455	0424	0380
9497	3084	0587	0511	0488	0425	0406	0357	0298
9497	3818	0587	0504	0474	0408	0387	0342	0286
9497	4553	0587	0490	0463	0407	0391	0351	0300
9497	5290	0587	0477	0452	0408	0396	0359	0314
9497	6025	0587	0454	0441	0397	0387	0358	0314
9497	6757	0587	0414	0426	0385	0375	0344	0312
9497	7503	0587	0361	0411	0375	0364	0337	0300
9497	8241	0587	0312	0388	0361	0348	0319	0277
9497	8976	0587	0285	0354	0337	0323	0291	0252
9497	9712	0587	0240	0272	0268	0278	0313	0328

SYMBOLS

a^*	critical speed of sound
b	wing semi-span
c	wing chord at pressure-plotting station 70.03 mm (27.57 in)
C_p	pressure coefficient
C_L	local lift coefficient
C_D	local drag coefficient
C_m	local pitching moment coefficient
C_N	local normal force coefficient
c_f	local skin friction coefficient based on local conditions
H_n	effective total pressure of flow normal to leading edge
M	freestream Mach number
p	static pressure
Re_c	Reynolds number based on chord c and freestream conditions
s	distance along surface from leading edge, normal to leading edge
u_n	surface velocity normal to leading edge
x	chordwise distance
α	angle of incidence of pressure-plotting section
α_0	angle of incidence for zero lift
φ	angle of sweep back
δ_1	streamwise contribution to displacement thickness $\left[= \int_0^{\delta} \left(1 - \frac{\rho u}{\rho_\delta u_\delta}\right) dz\right]$
δ_2	crossflow contribution to displacement thickness $\left[= - \int_0^{\delta} \frac{\rho u}{\rho_\delta u_\delta} dz\right]$
δ^*	displacement thickness $(= \delta_1 - \delta_2 \tan \varphi)$

REFERENCES

No.	Author	Title, etc.
1	R.C. Lock	The aerodynamic design of swept-winged aircraft at transonic and supersonic speeds. Journal R Ae S, Vol.67, No.630, June 1963
2	K.G. Smith L. Gaudet K.G. Winter	The use of surface pitot tubes as skin friction meters at supersonic speeds. ARC R & M 3351, June 1962
3	A.B. Haines J.G. Wingfield T.E.B. Bateman	Interim note on the tests at high Reynolds numbers on a 55° sweptback wing in the ARA transonic tunnel. ARA Aero Memo No.51, May 1964
4	A.B. Haines	Further interim note on the tests at high Reynolds number on a 55° sweptback wing in the ARA transonic tunnel. ARA Aero Memo No.57, October 1965
5	E.R. van Driest C.B. Blumer	Effect of roughness on transition in supersonic flow. AGARD Report 255, April 1960
6	W.E.A. Acum	Corrections for symmetrical swept and tapered wings in rectangular wind tunnels. ARC R & M 2777, April 1950
7	H.C. Garner E.W.E. Rogers W.E.A. Acum E.C. Maskell	Subsonic wind tunnel wall corrections. AGARDograph 109 (1966)
8	D.A. Treadgold J.A. Beasley	Some examples of the application of methods for the prediction of boundary-layer transition on sheared wings. ARC CP No.1246 (1972)
9	W. Pfenninger	Some results from the X-21A program. Part I Flow phenomena at the leading edge of swept wings. AGARDograph 97, May 1965

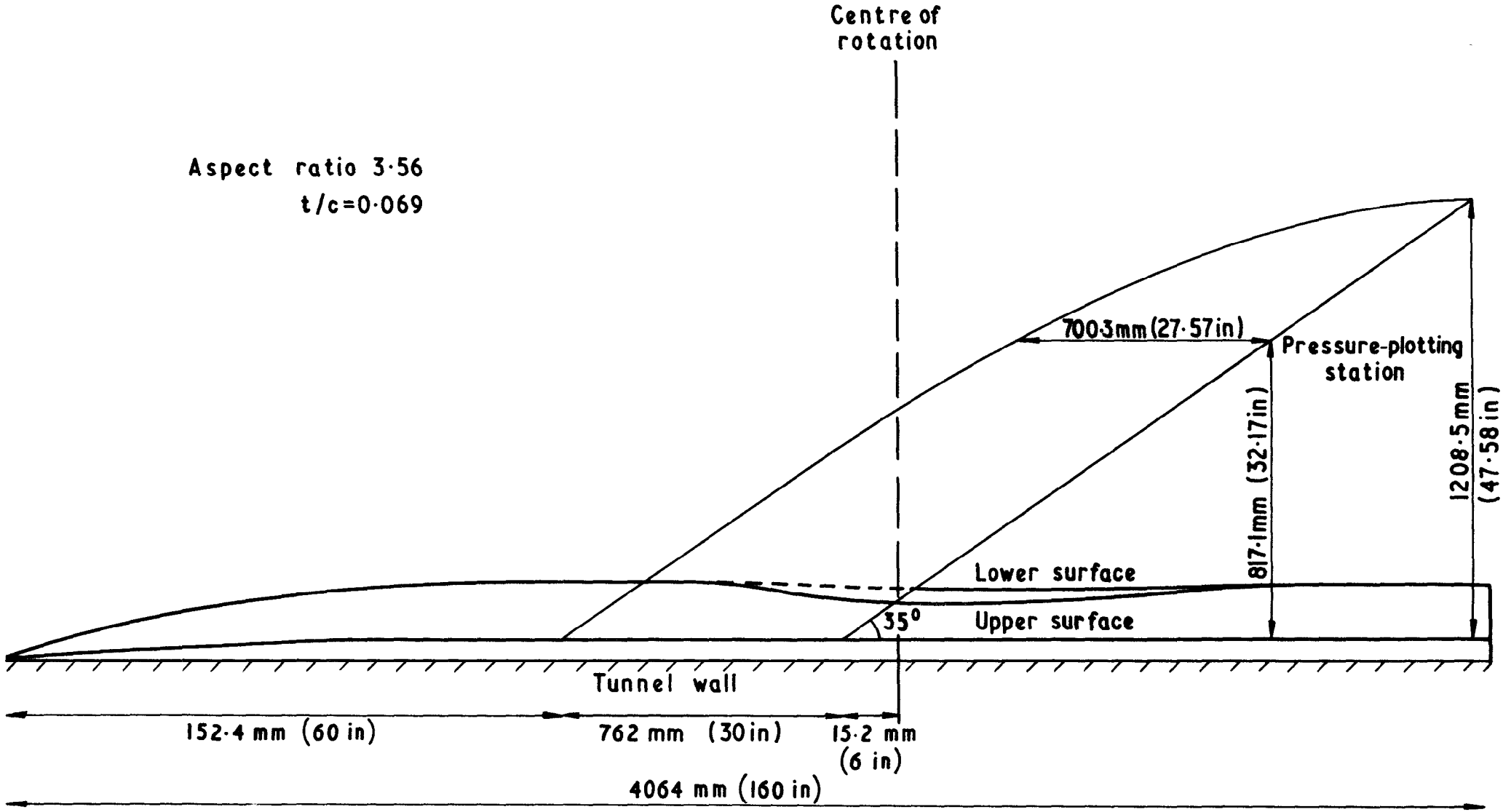

Fig.1 Model dimensions

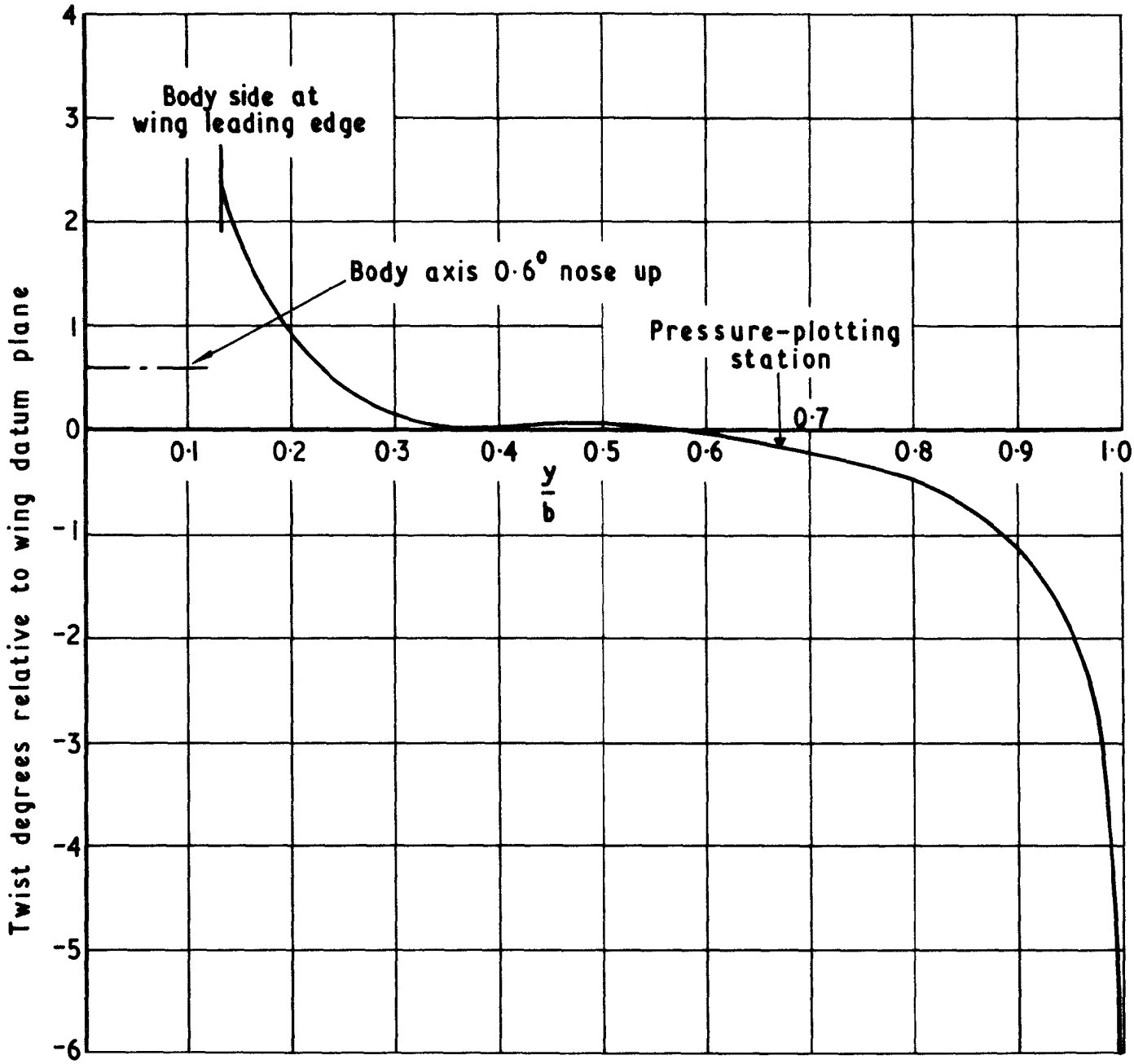

Fig.2 Wing twist distribution

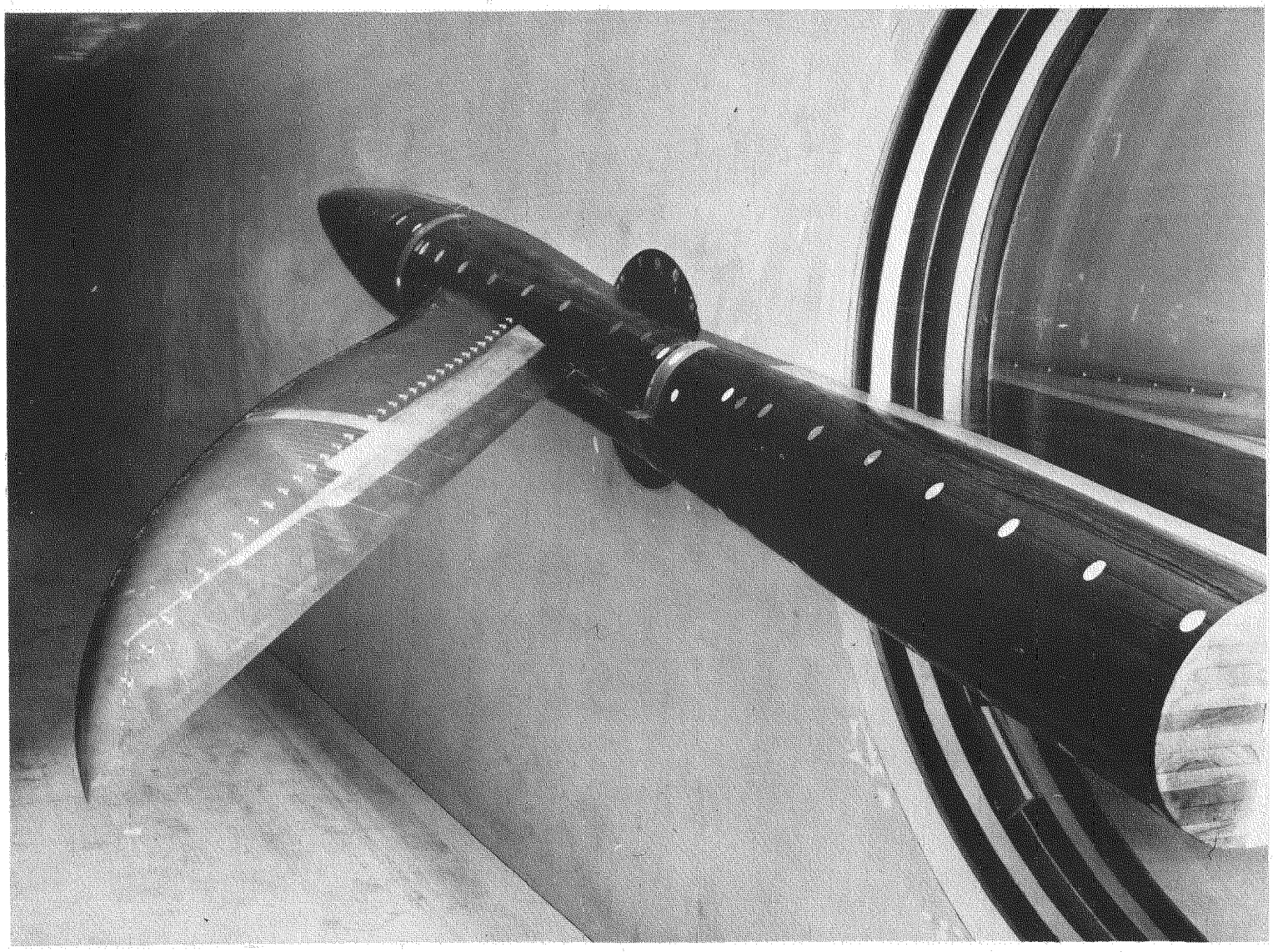

Fig.3 Model (with vortex generators) in tunnel

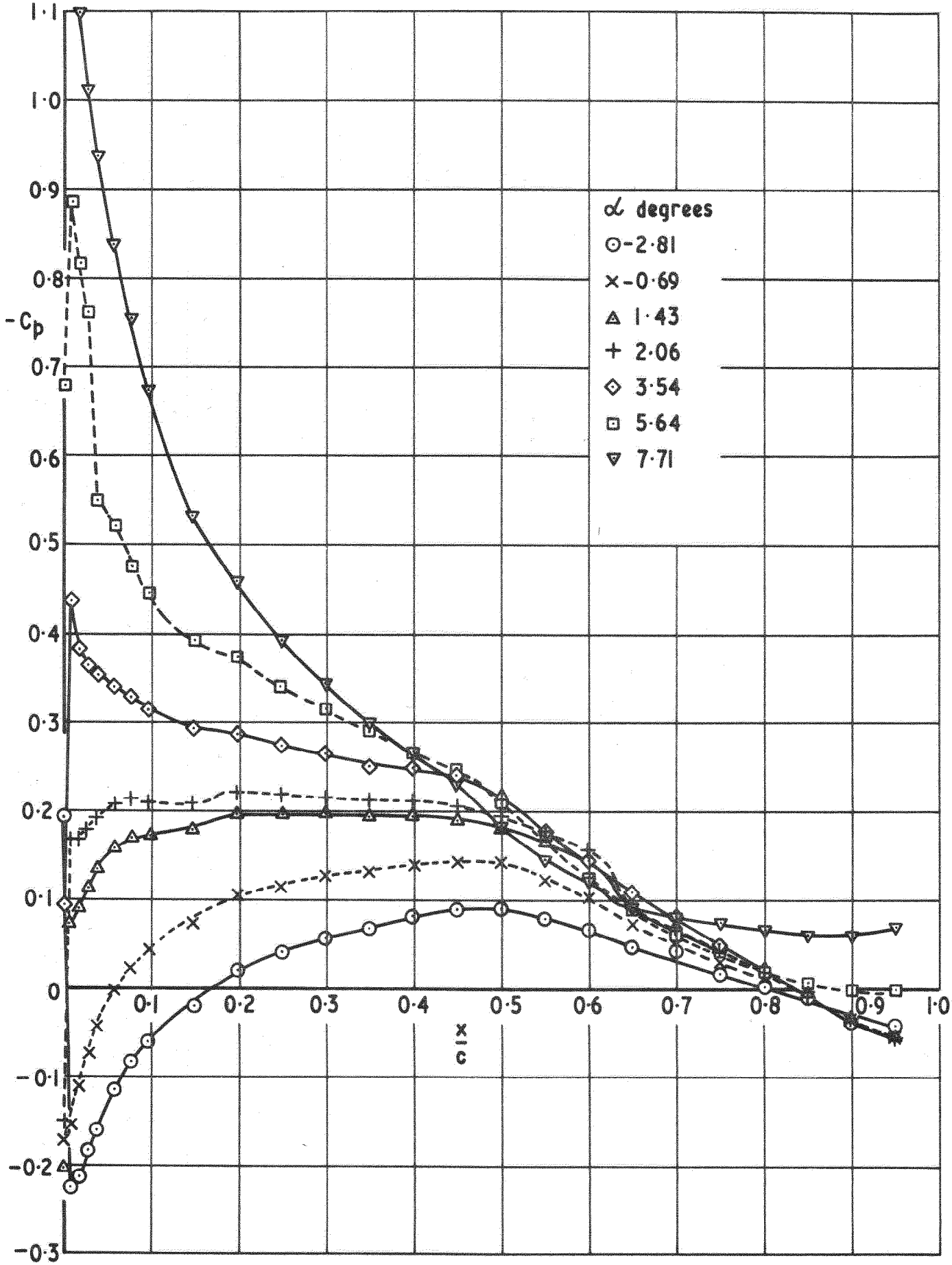

Fig. 4 Pressure distribution - upper surface - clean wing

$M = 0{\cdot}56\ Re_c = 2{\cdot}02 \times 10^6$

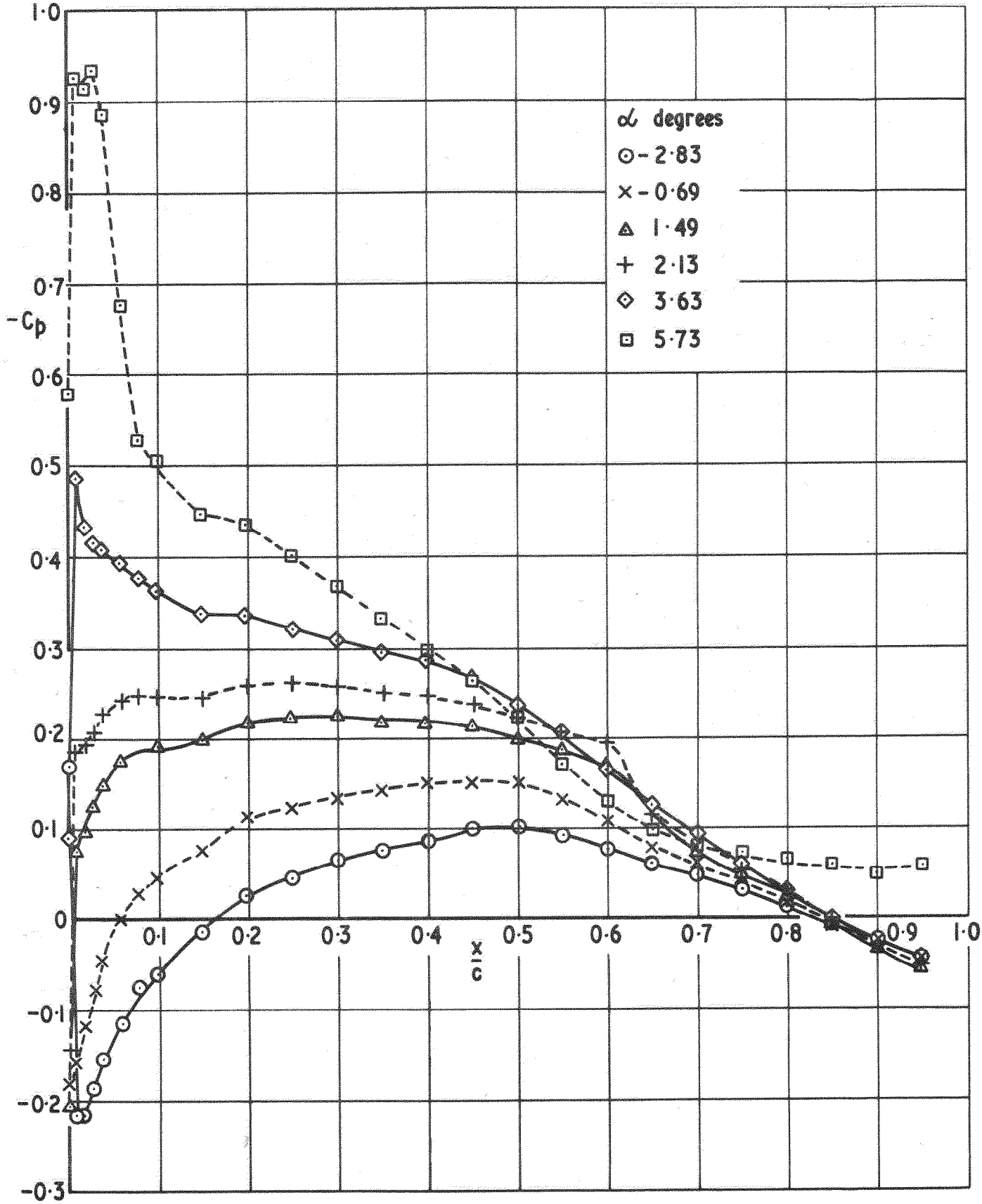

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Fig. 5 Pressure distribution - upper surface - clean wing

$M = 0{\cdot}83\ Re_c = 2{\cdot}00 \times 10^6$

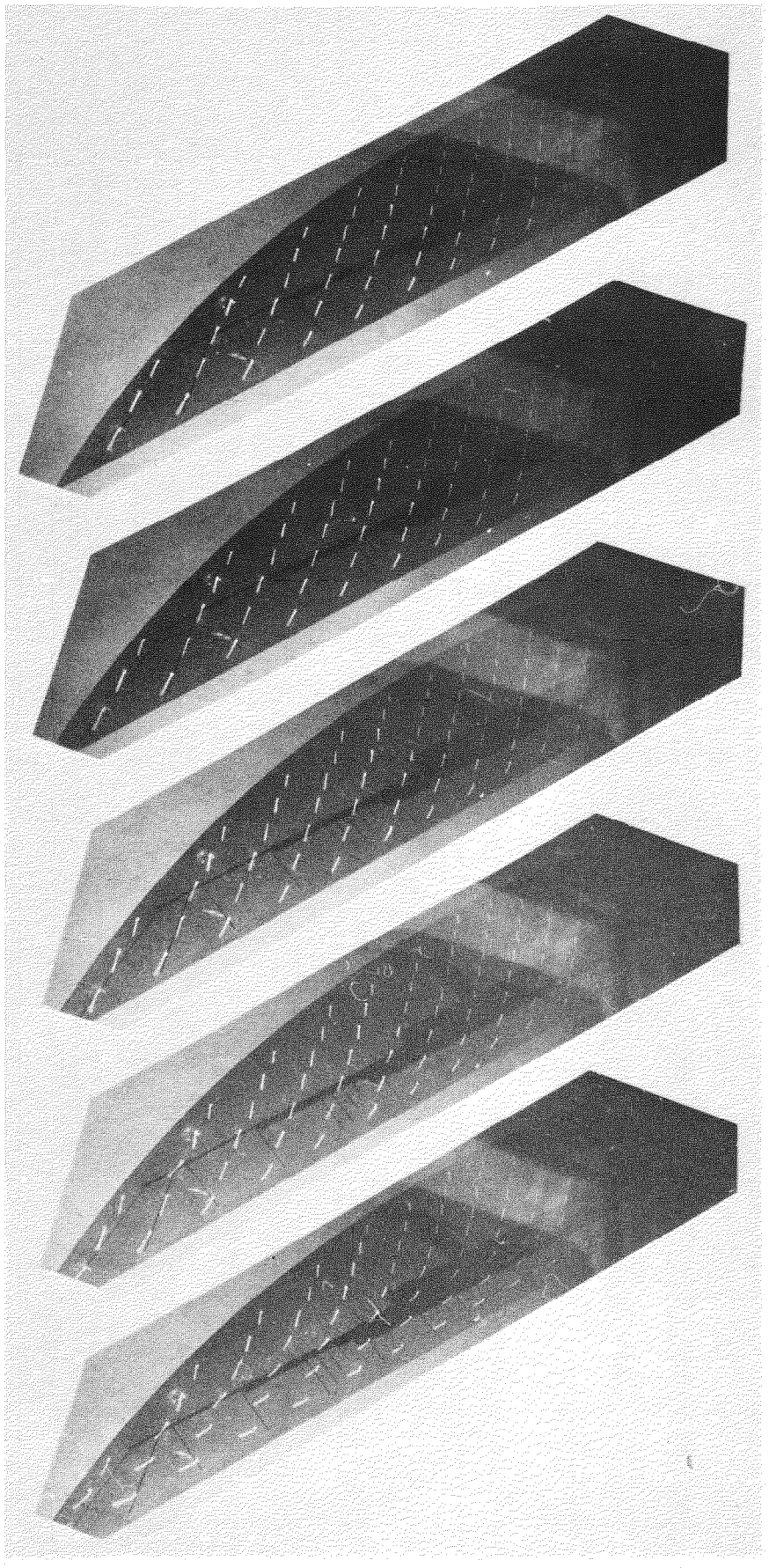


Fig.6 Upper surface tufts. M = 0.56, $Re_c = 2 \times 10^6$

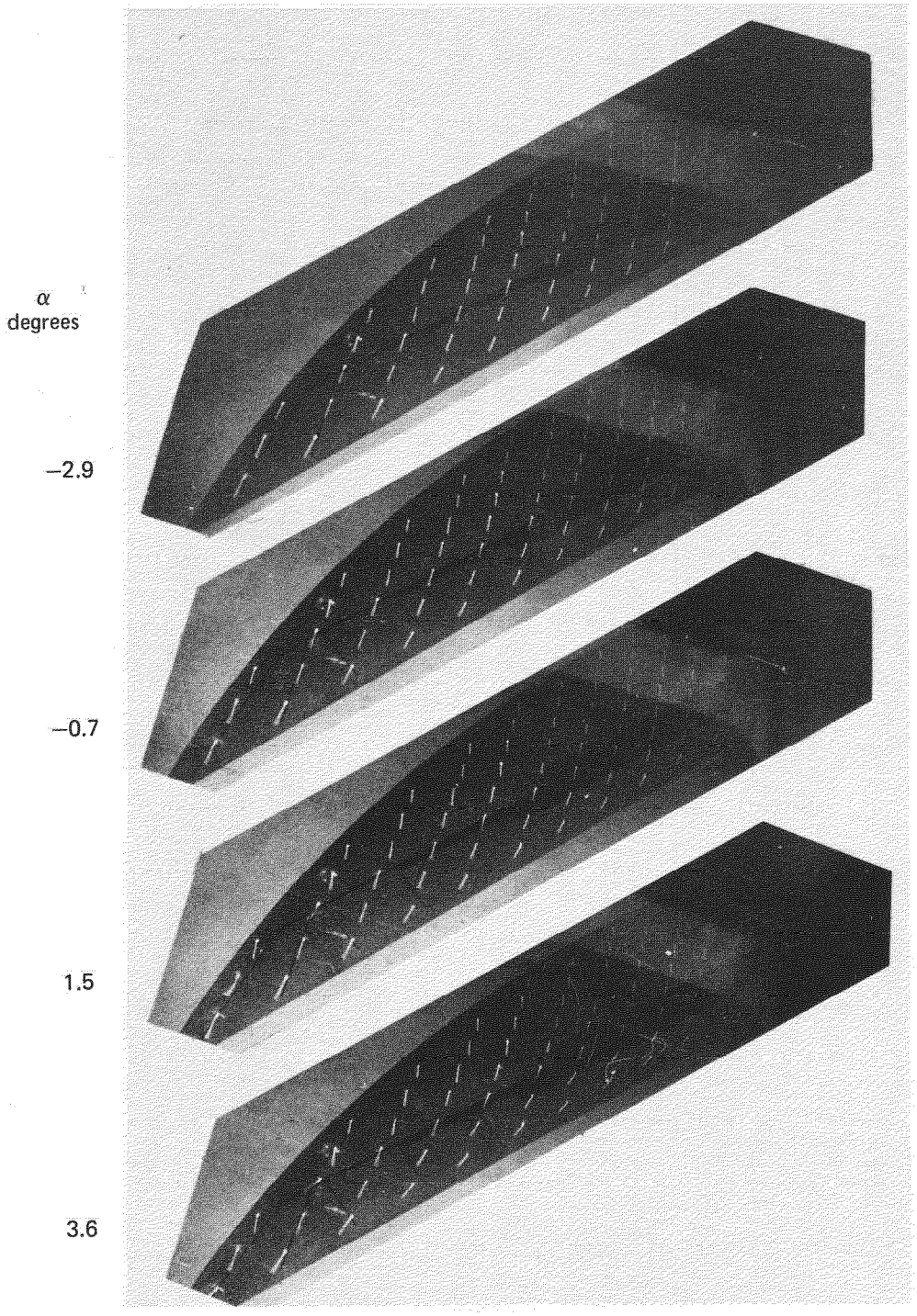
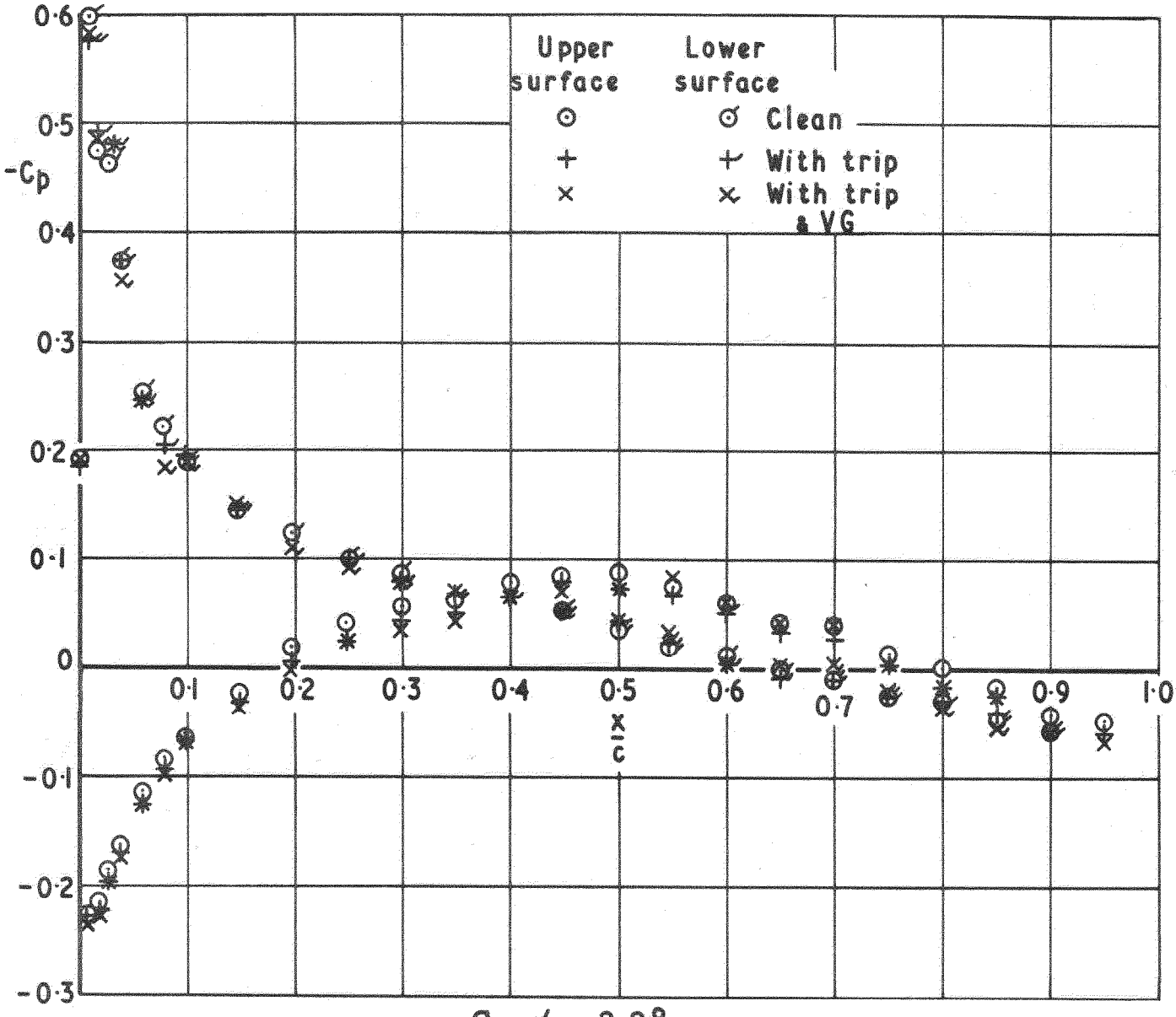
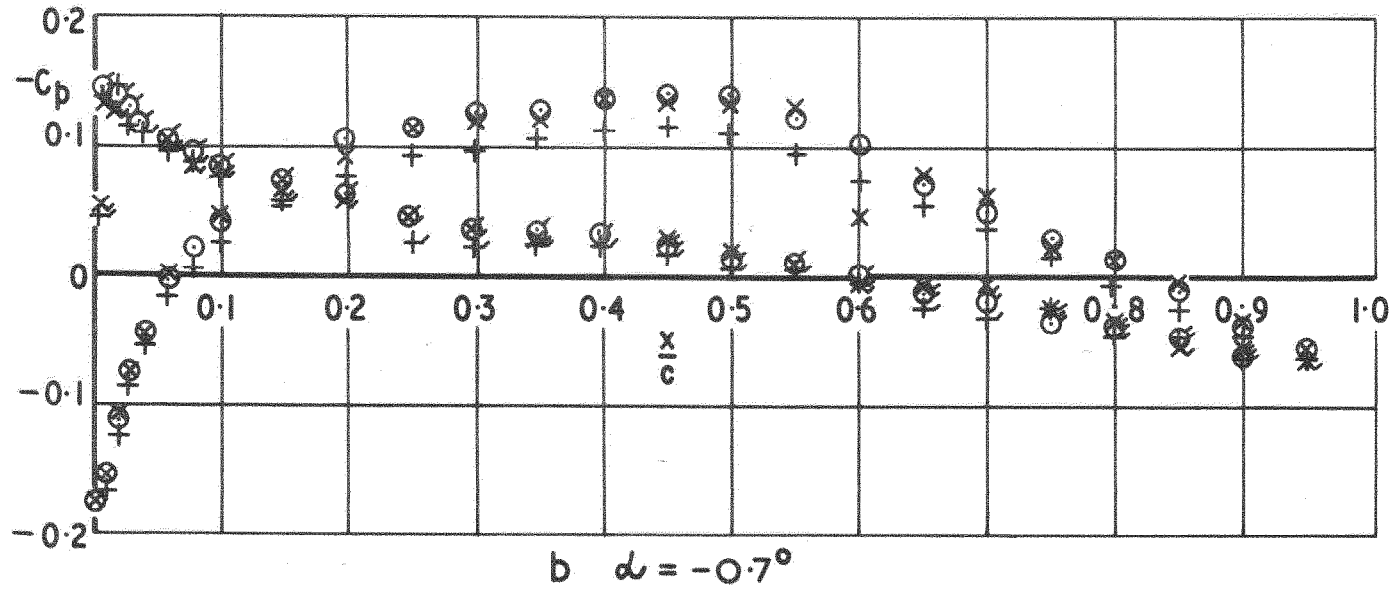


Fig.7 Upper surface tufts. M = 0.82, $Re_c = 2 \times 10^6$



a $\alpha = -2{\cdot}8°$



b $\alpha = -0{\cdot}7°$

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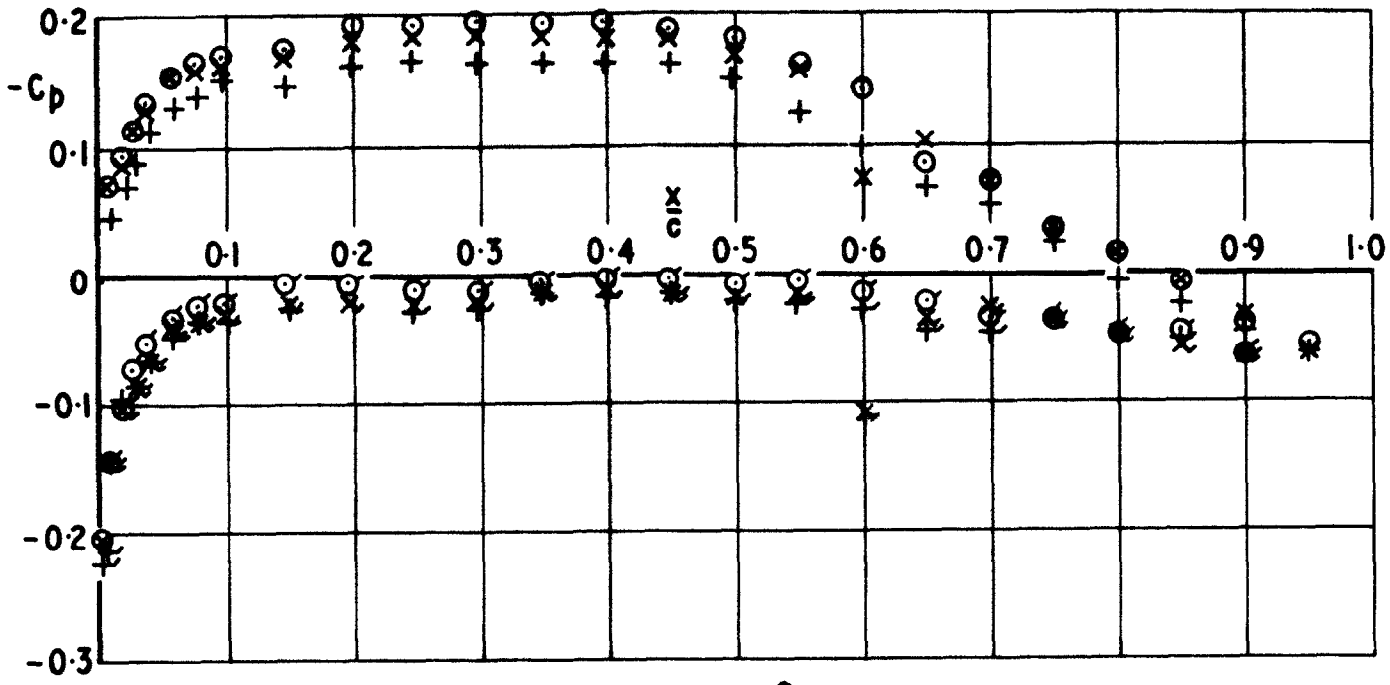
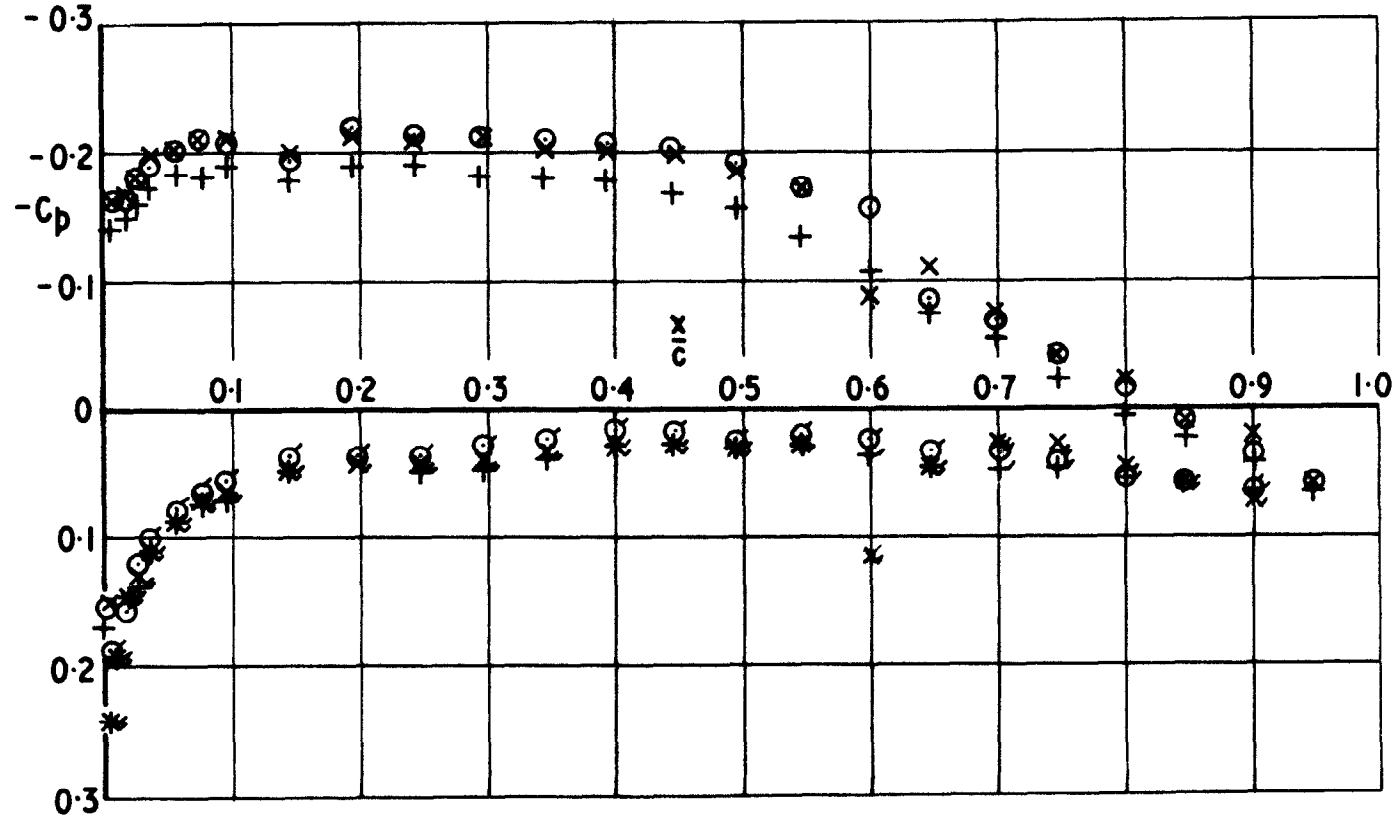
Fig. 8 Section pressure distribution $M = 0{\cdot}56$ $Re_c = 2 \times 10^6$



c α = 1·4°



d α = 2°

Fig. 8 contd

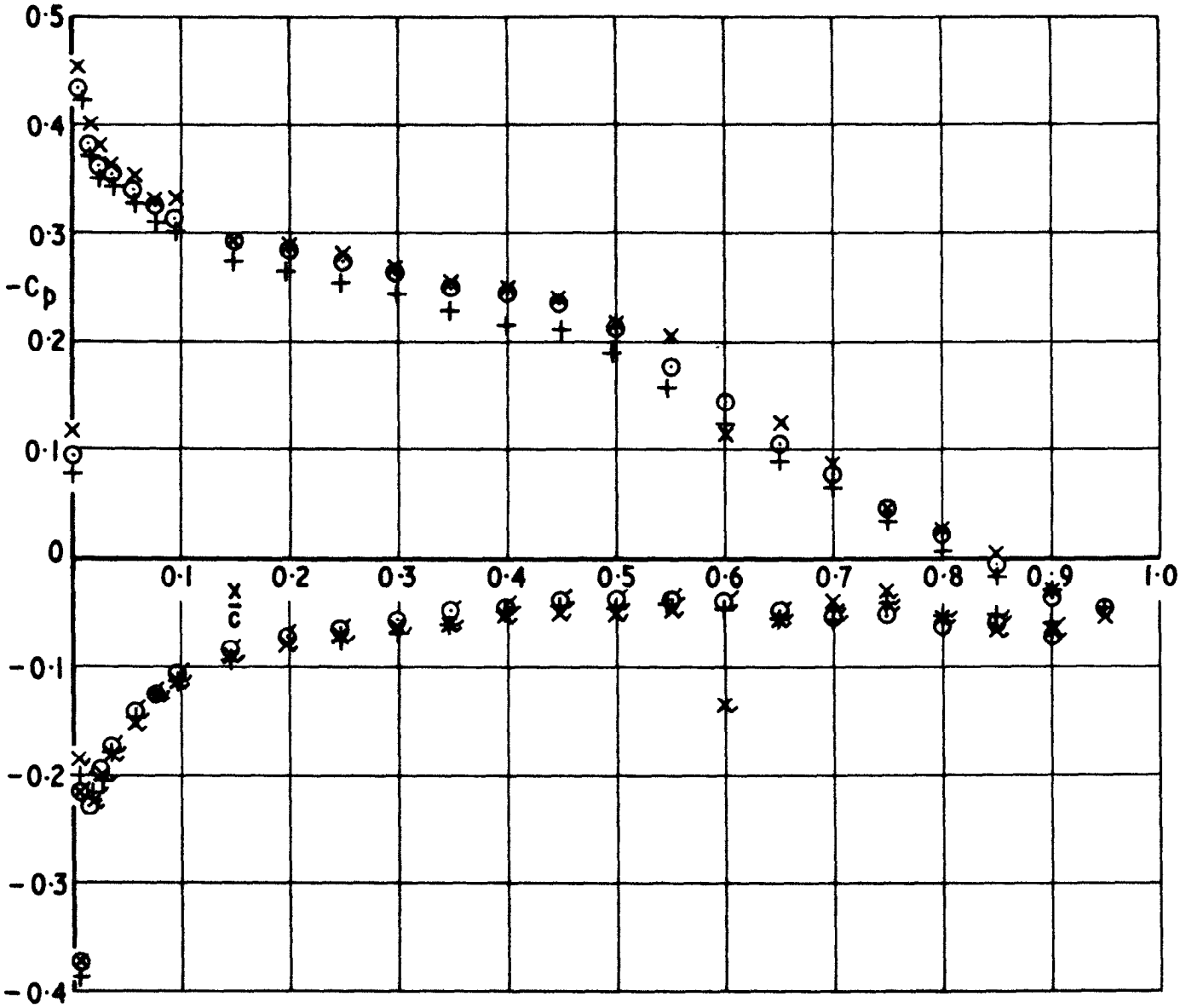


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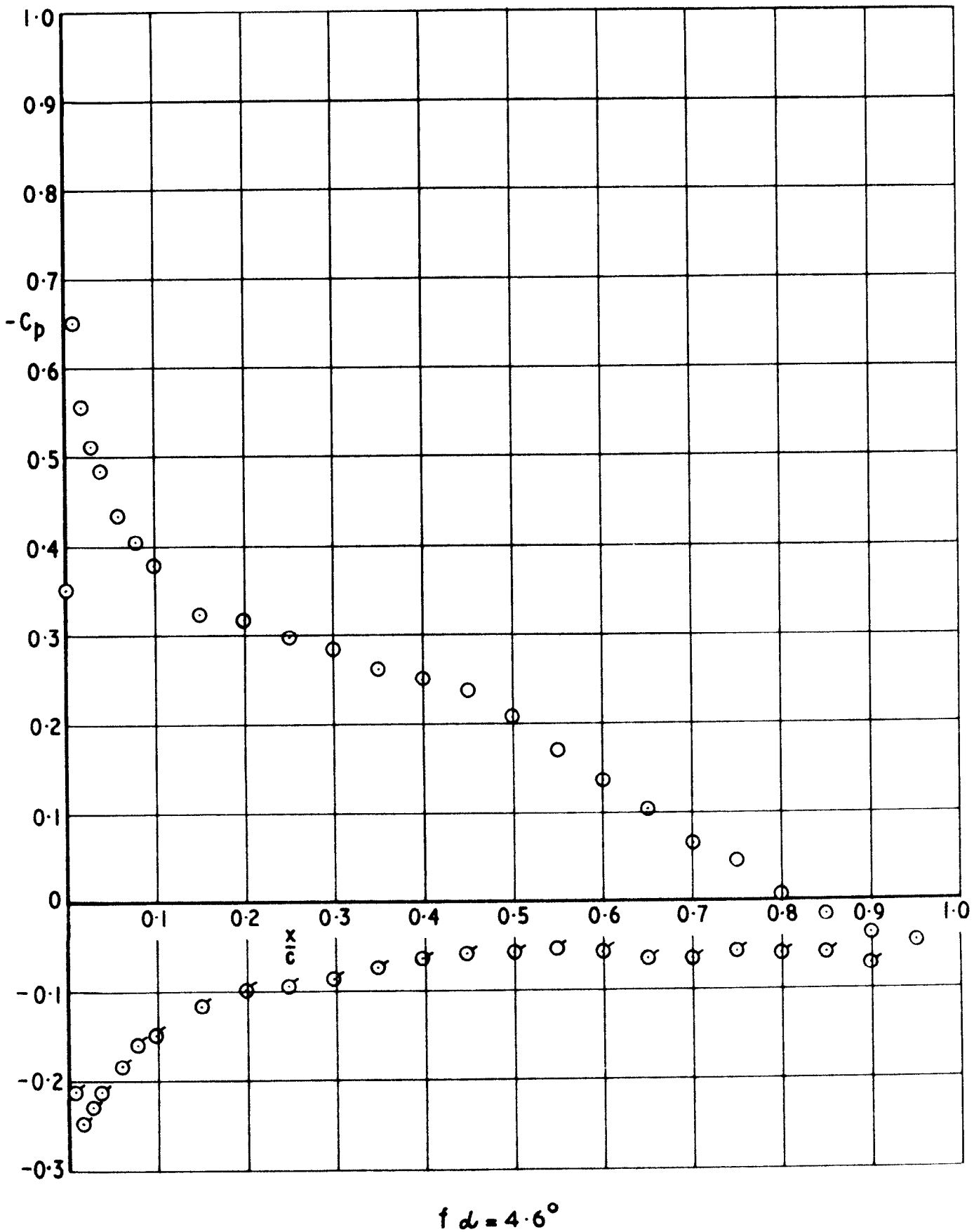
Fig. 8 contd



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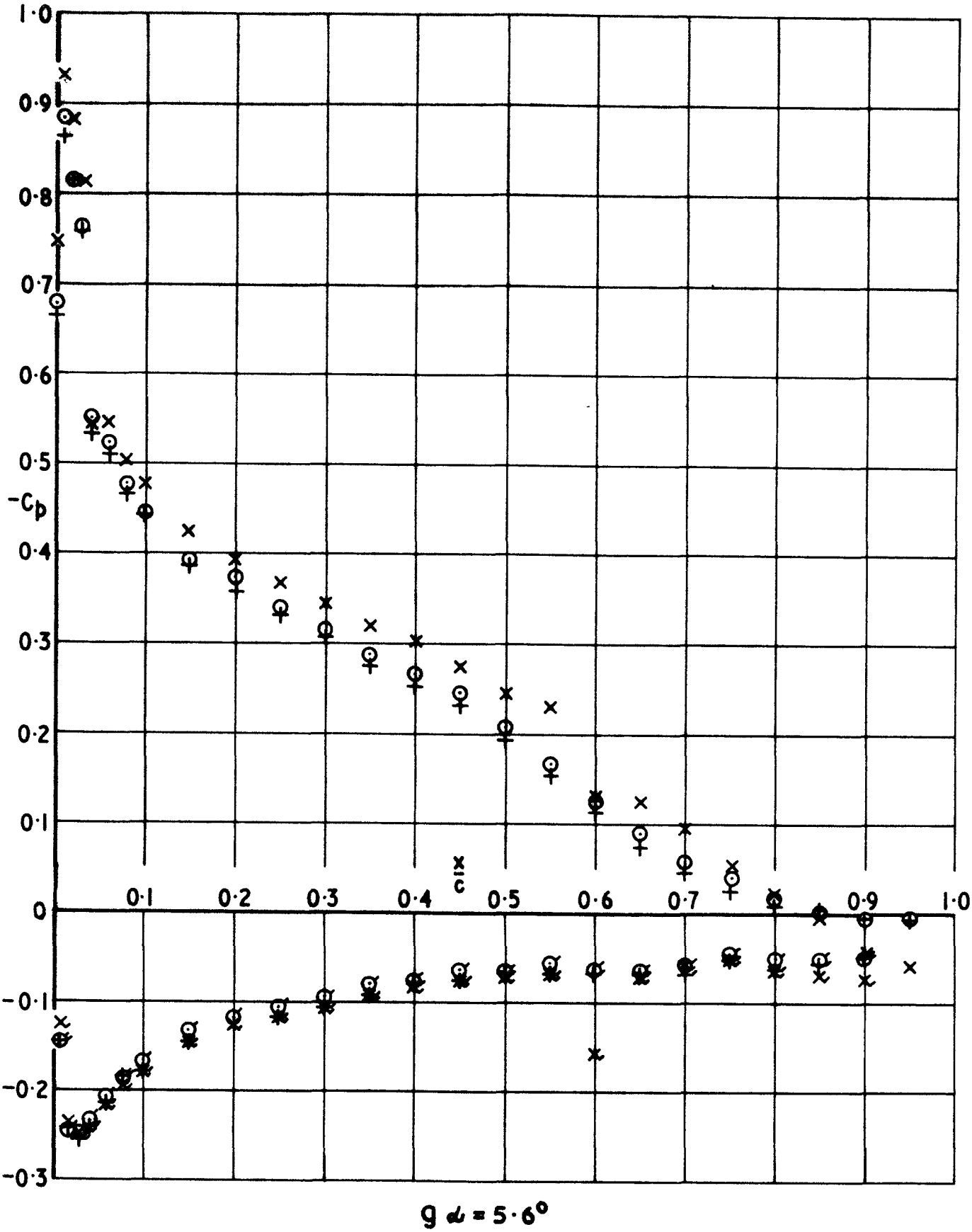

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Fig. 8 contd

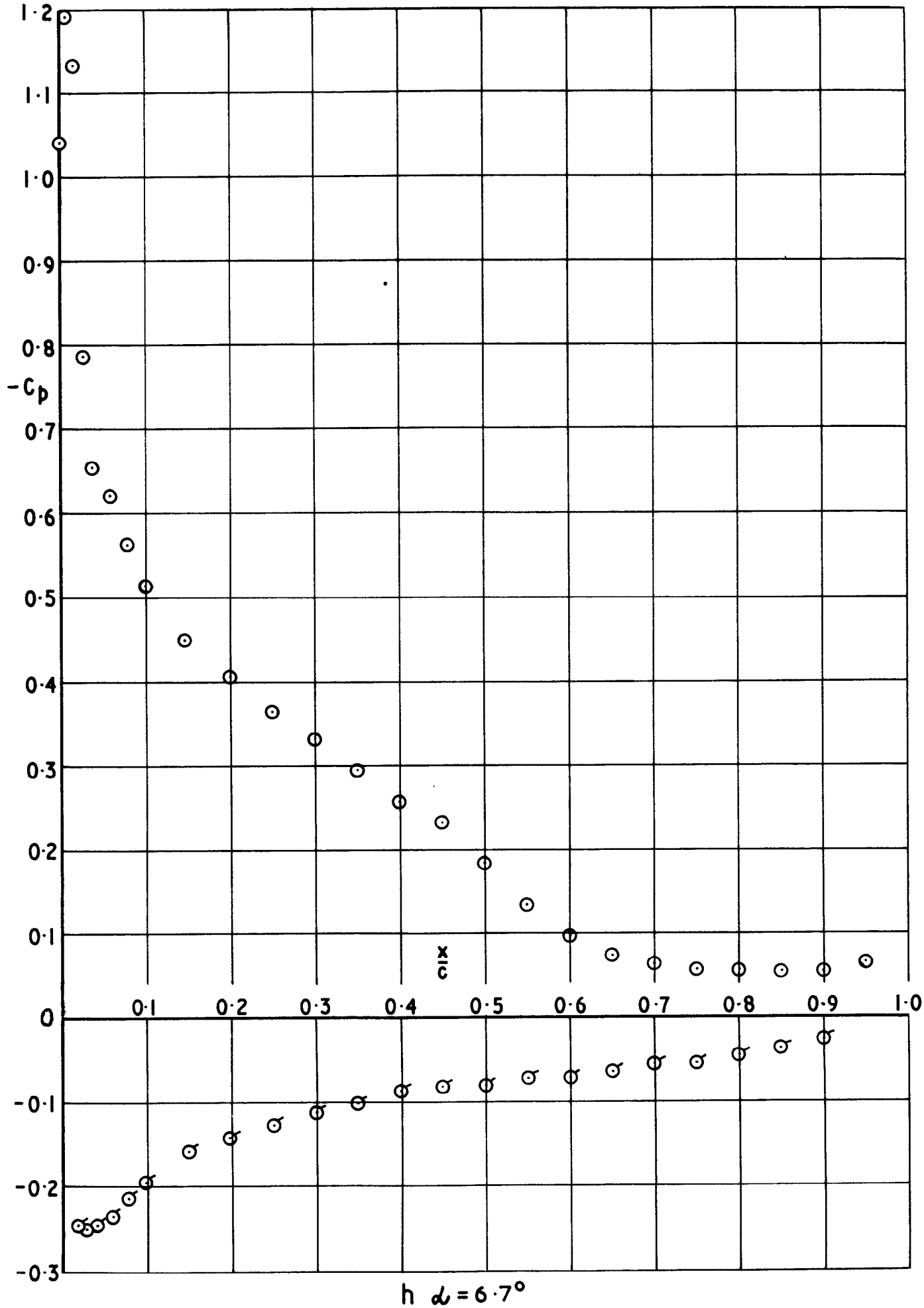

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Fig.8 contd

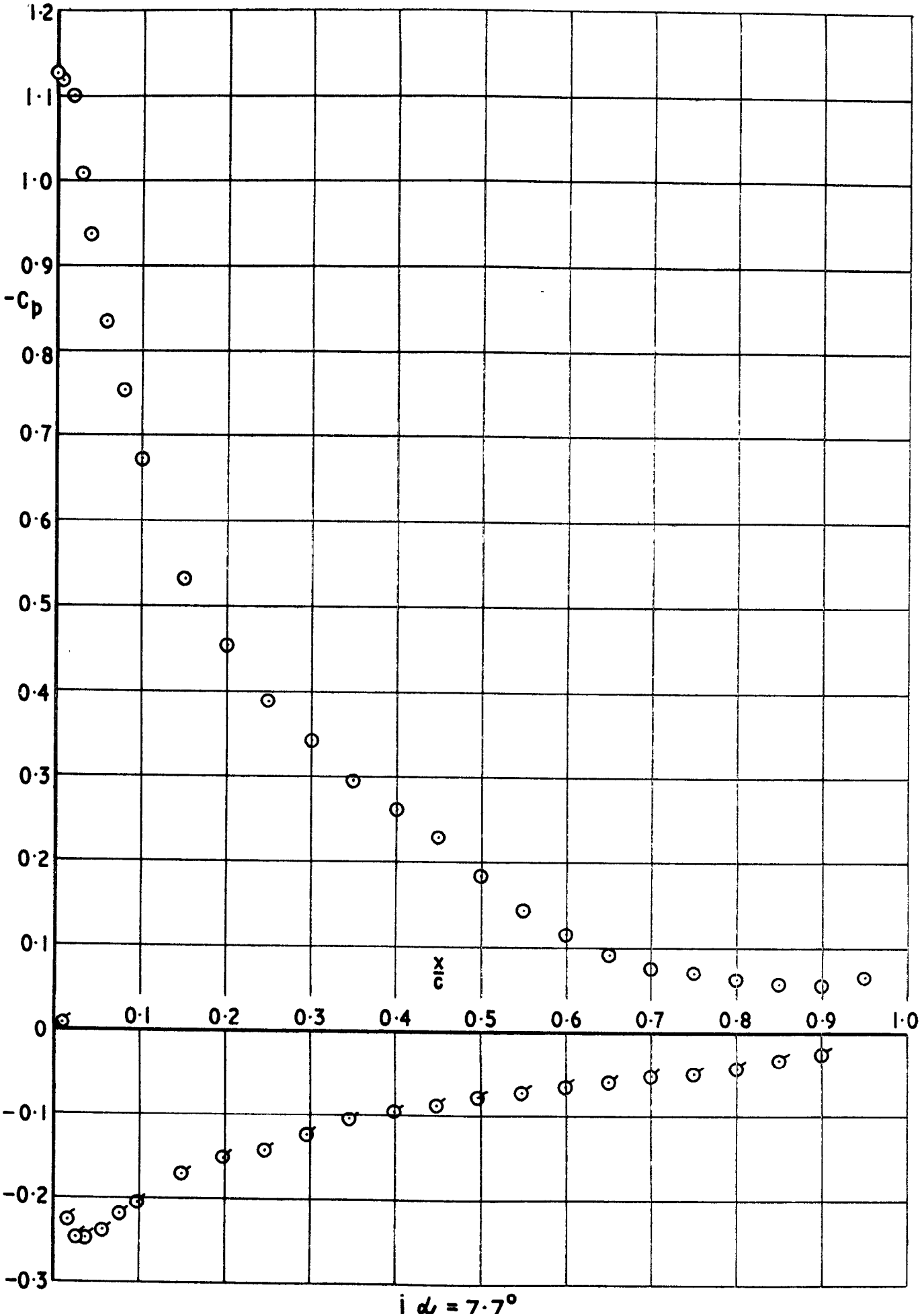
1·2
1·1
1·0
0·9
-Cp
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
0
-0·1
-0·2
-0·3
0·1
0·2
0·3
0·4
0·5
0·6
0·7
0·8
0·9
1·0
x/c
j α = 7·7°

Fig. 8 concld

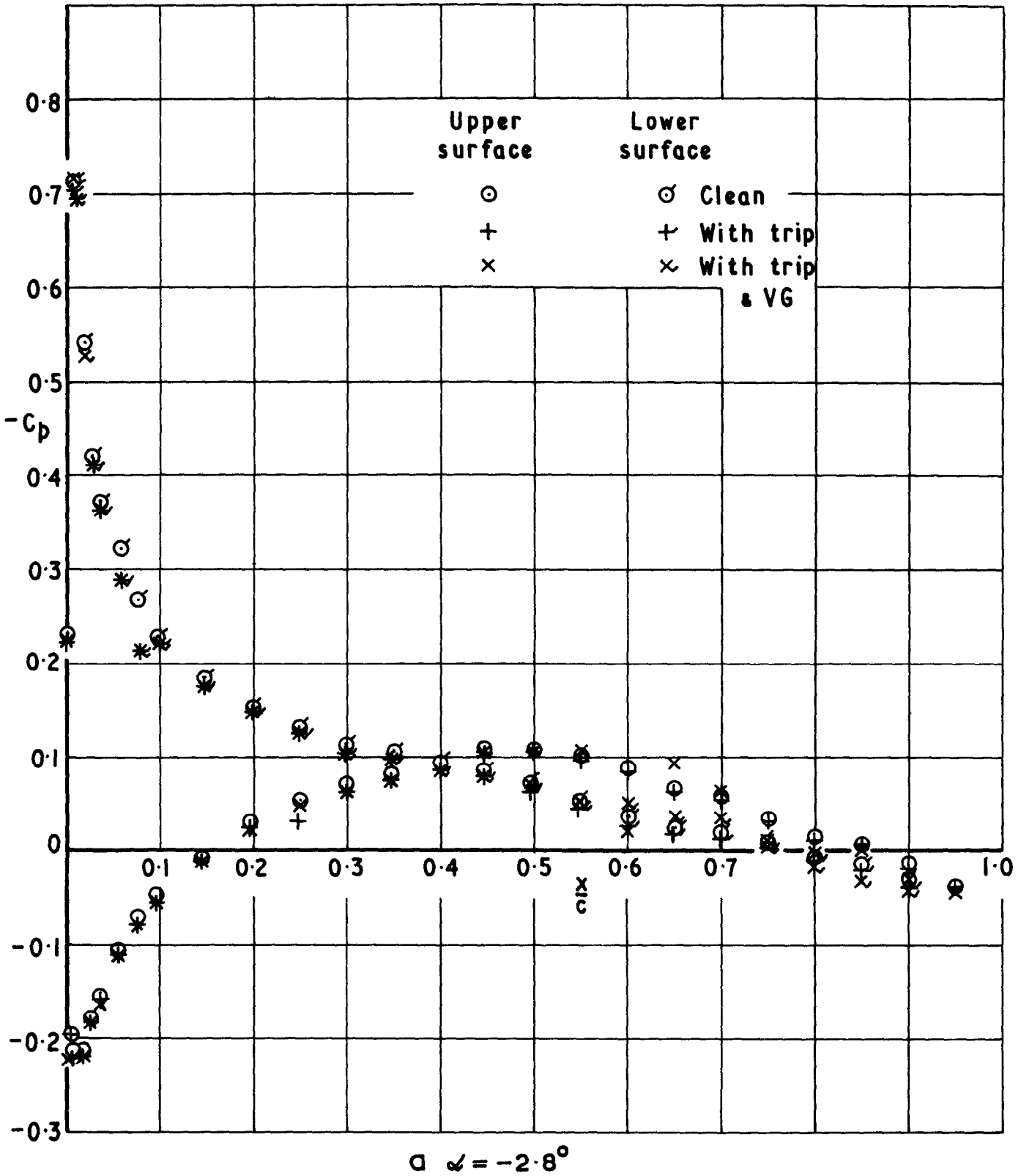

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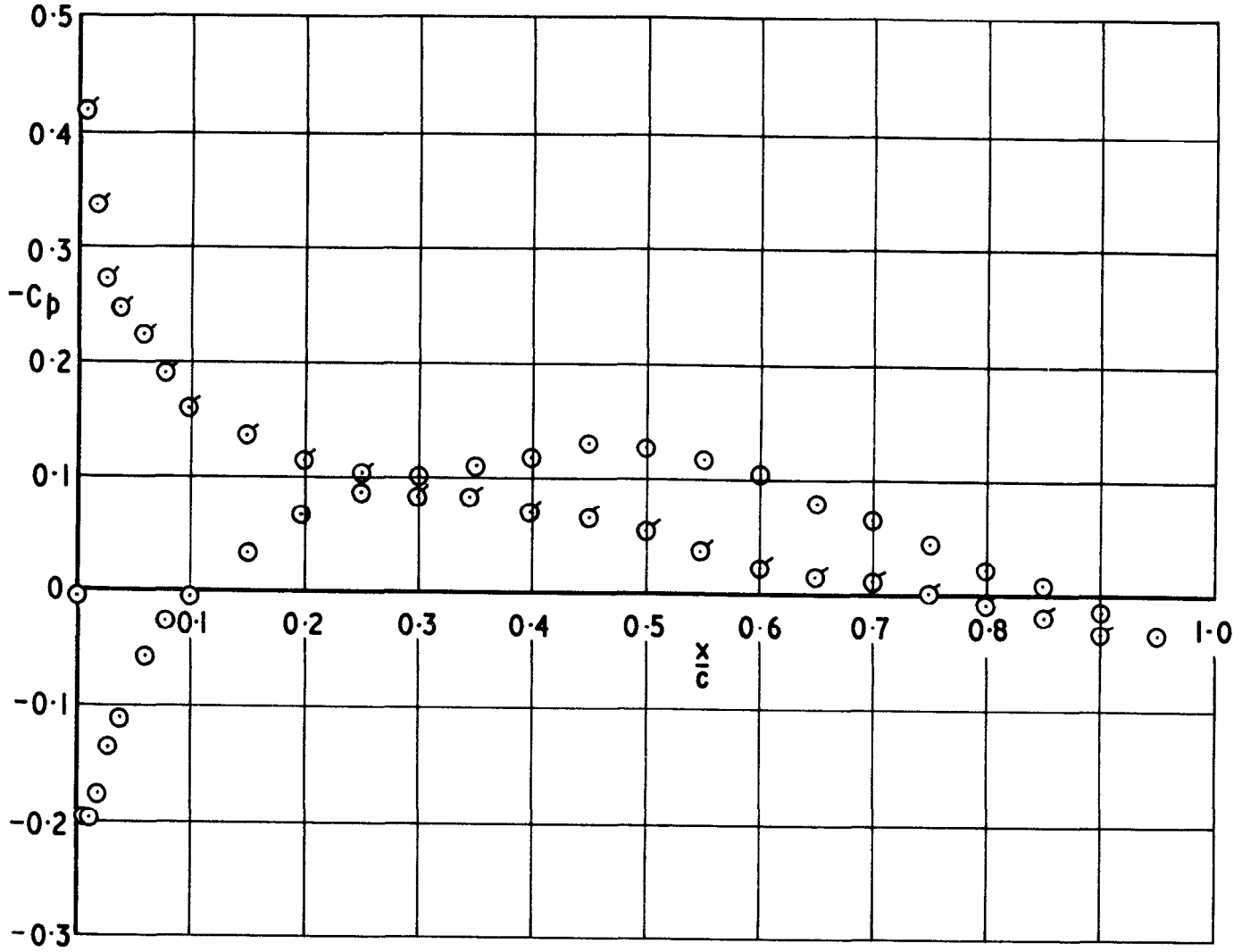
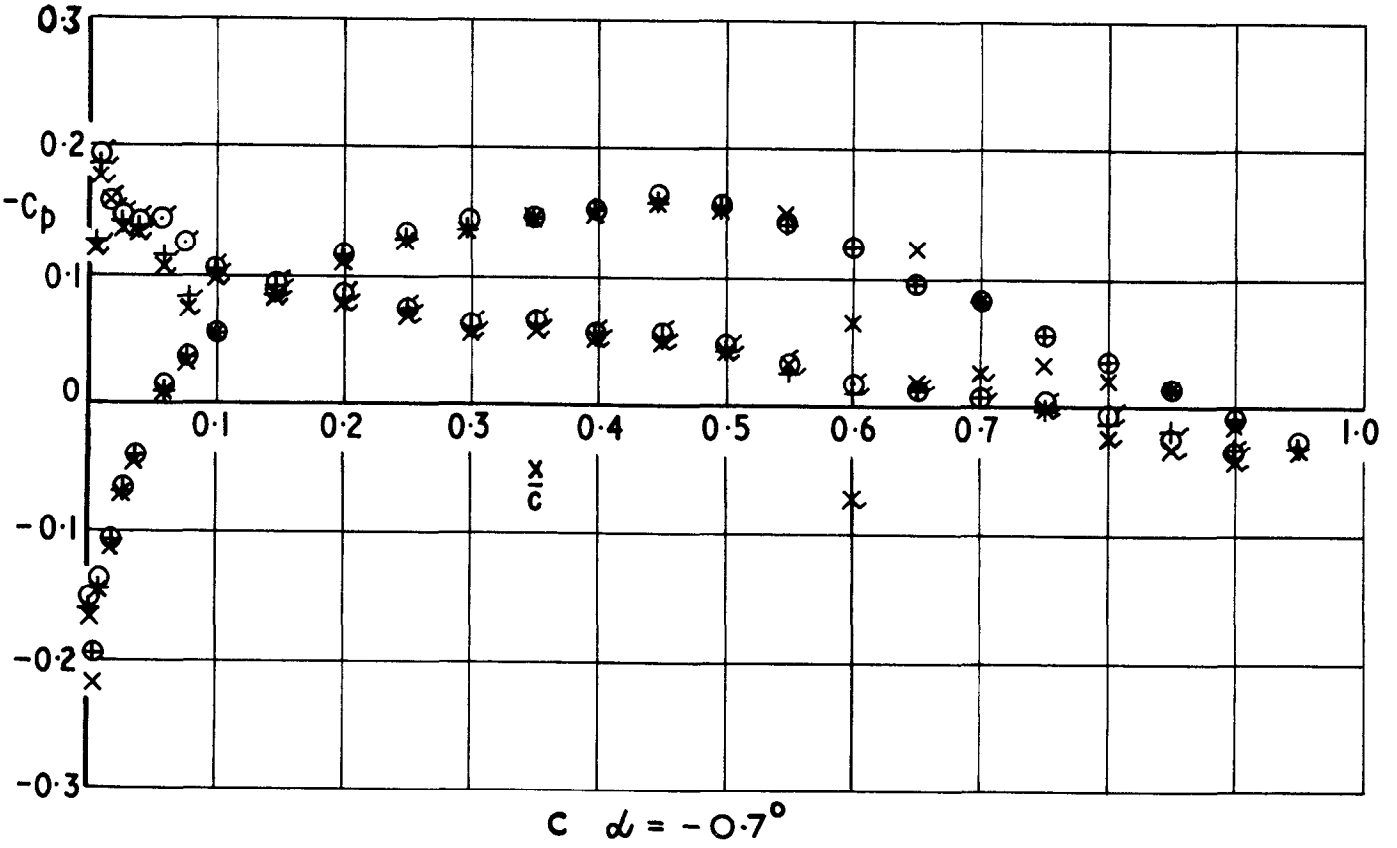
Fig.9 Section pressure distribution $M=0{\cdot}55$ $Re_c = 16 \times 10^6$



b $\alpha = -1{\cdot}8°$



c $\alpha = -0{\cdot}7°$

Fig.9 contd

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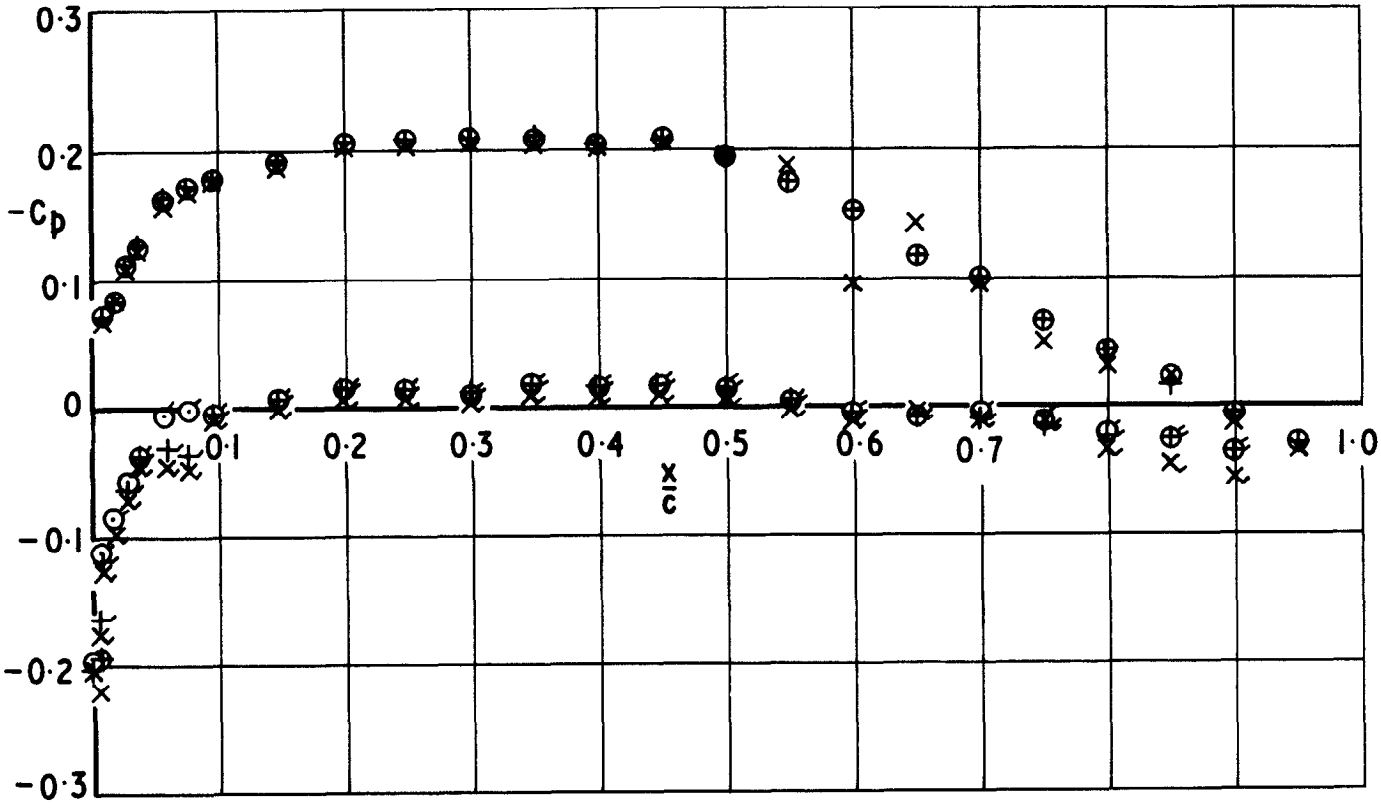
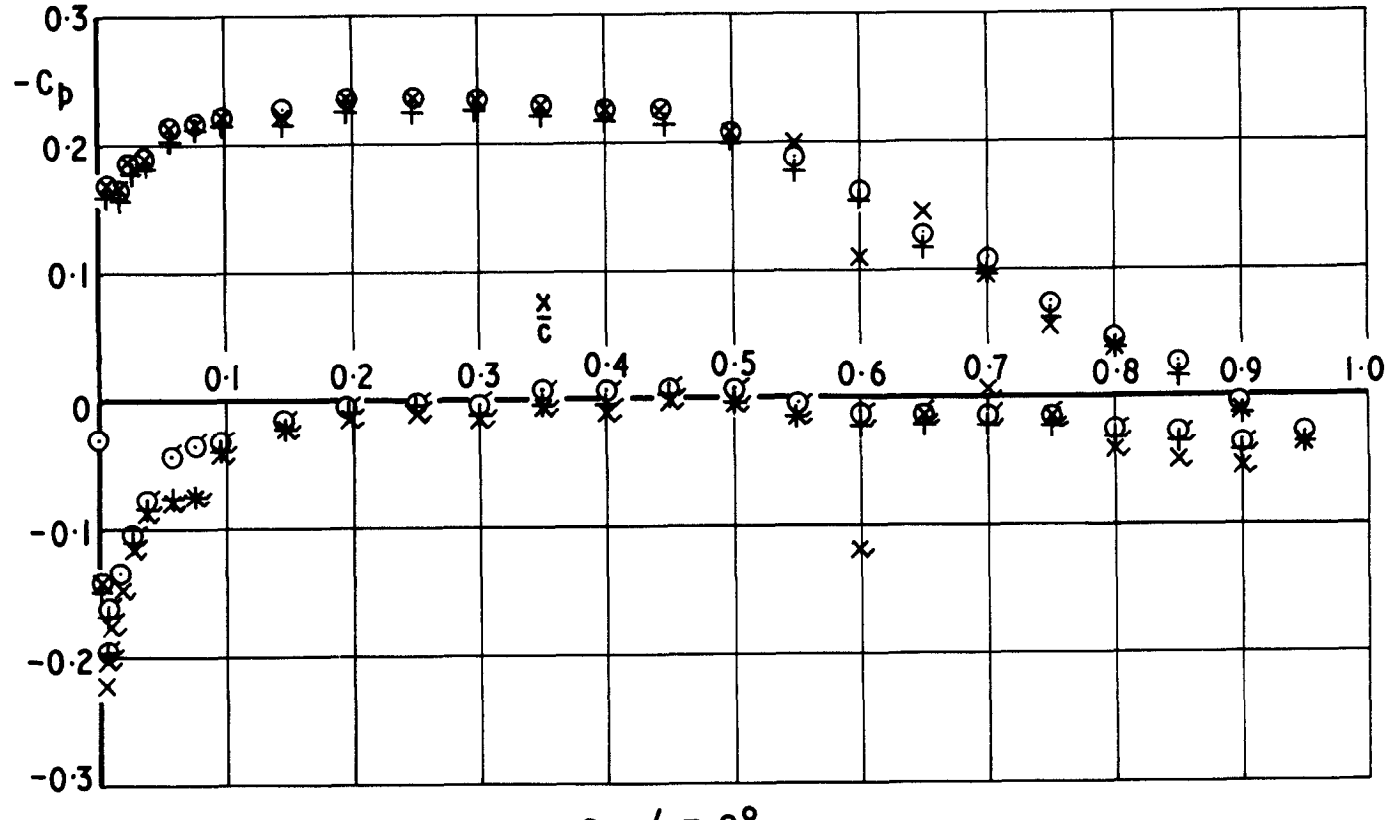
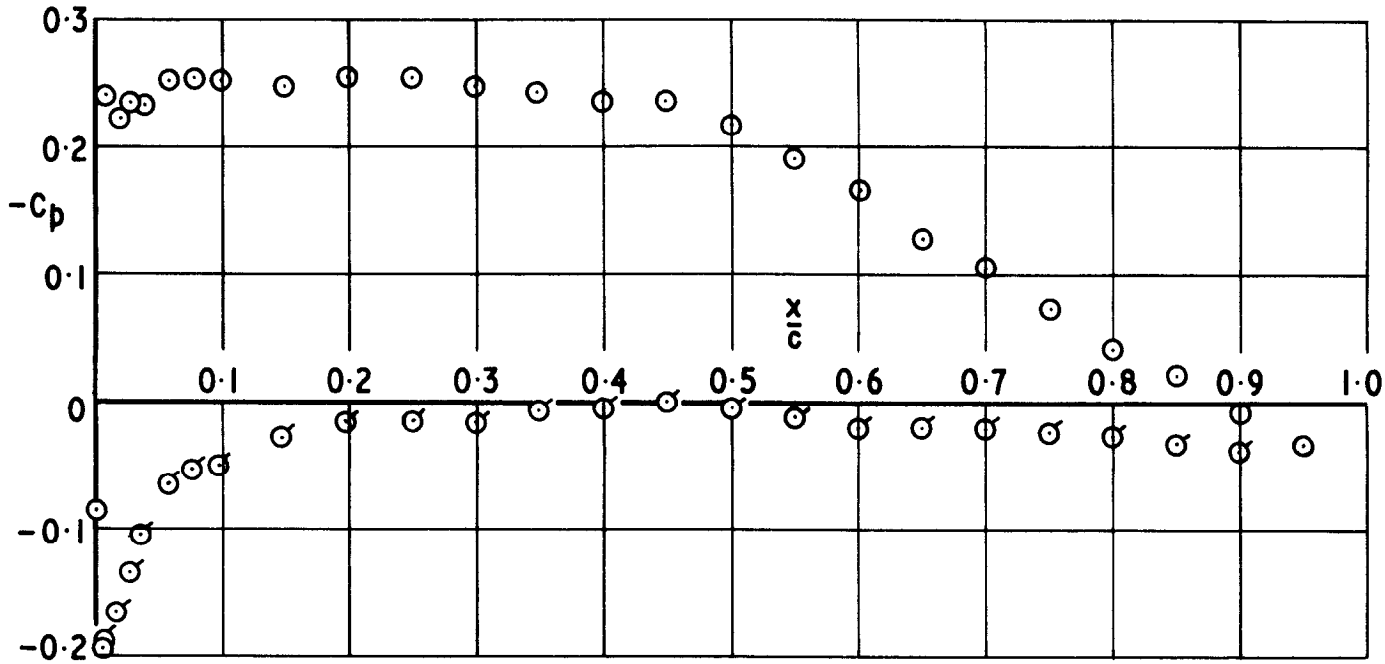


d $\alpha = 1 \cdot 4°$

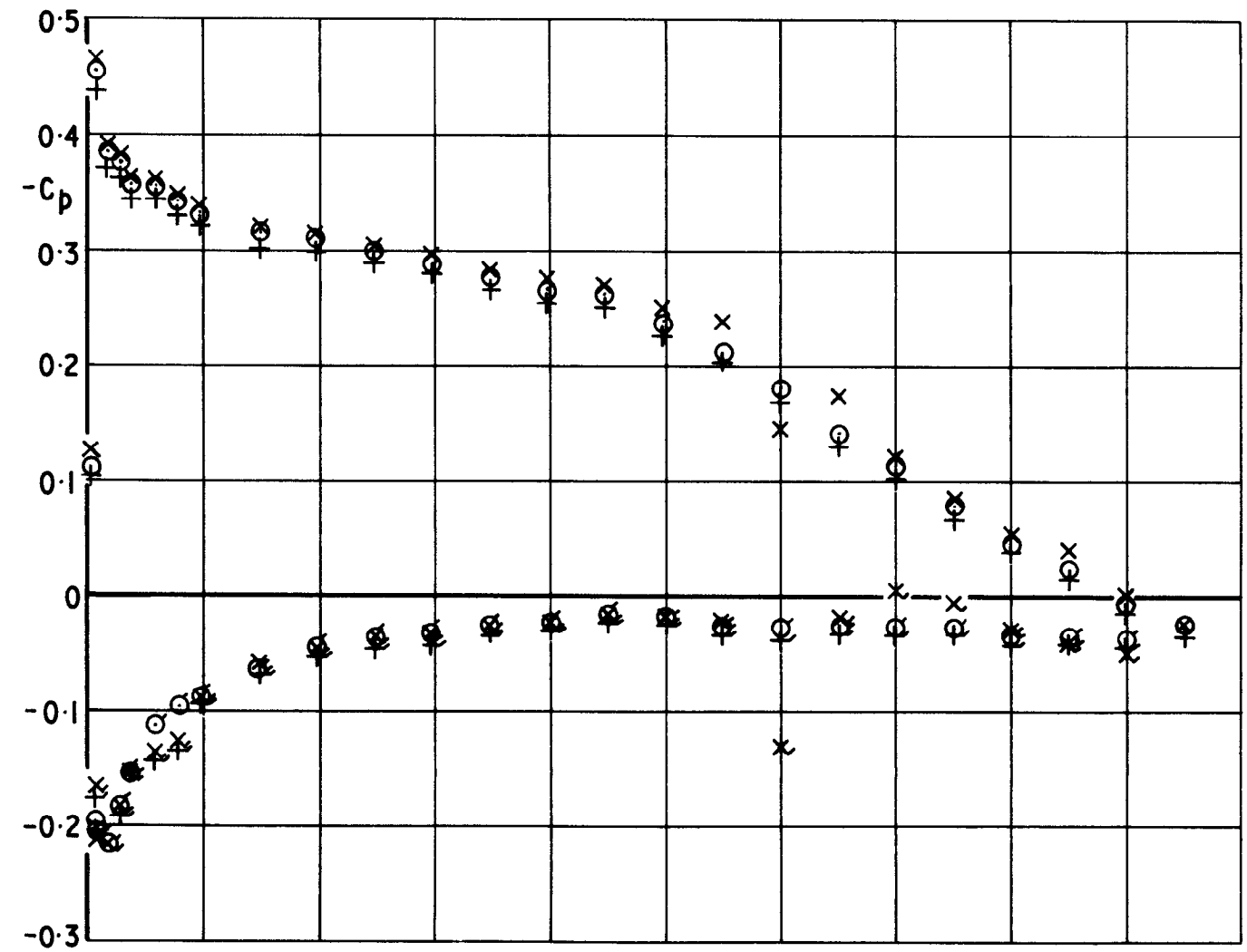


e $\alpha = 2°$

Fig. 9 contd



f $\alpha = 2 \cdot 4°$



g $\alpha = 3 \cdot 4°$

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Fig. 9 contd

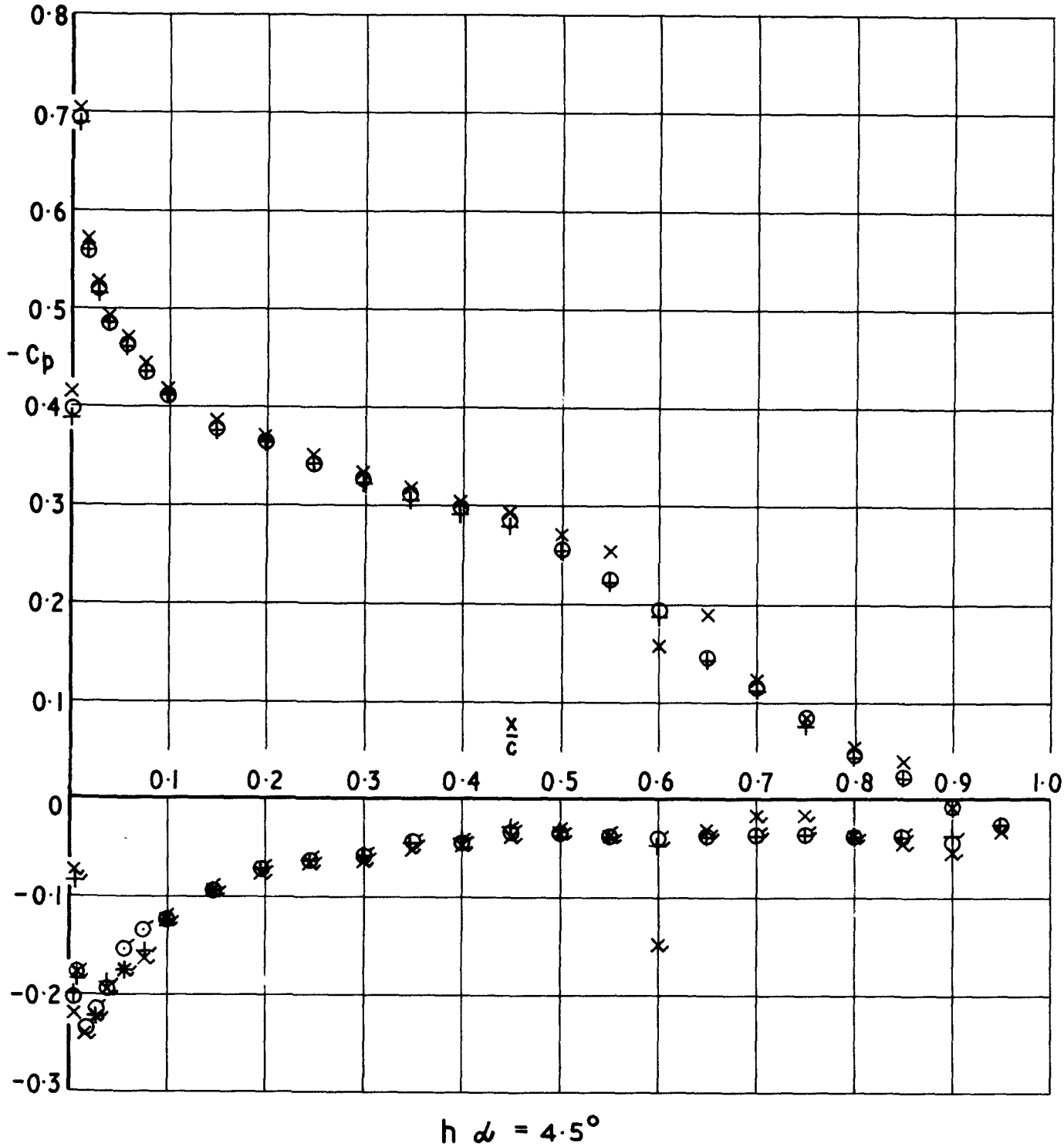

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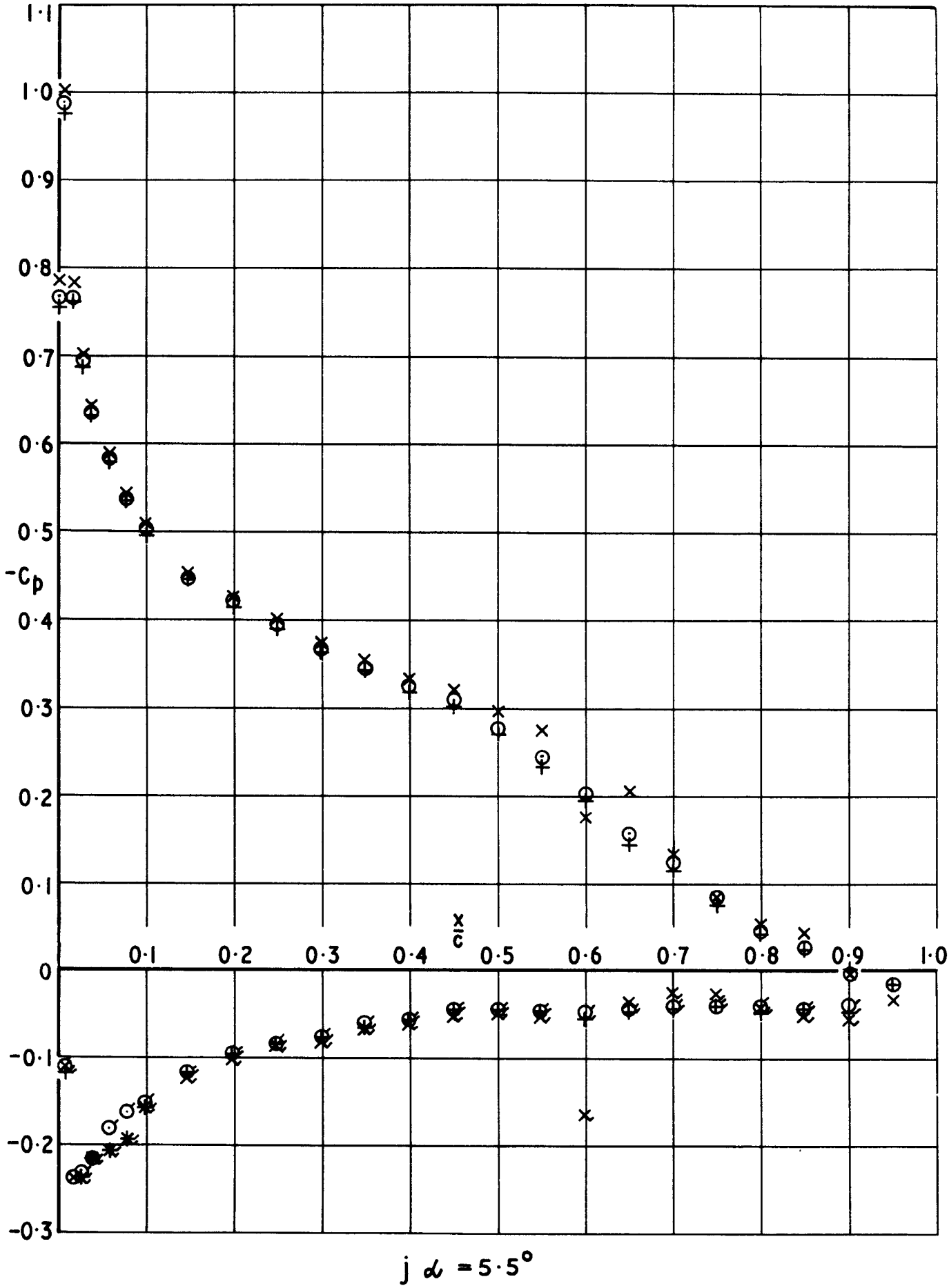
Fig. 9 contd



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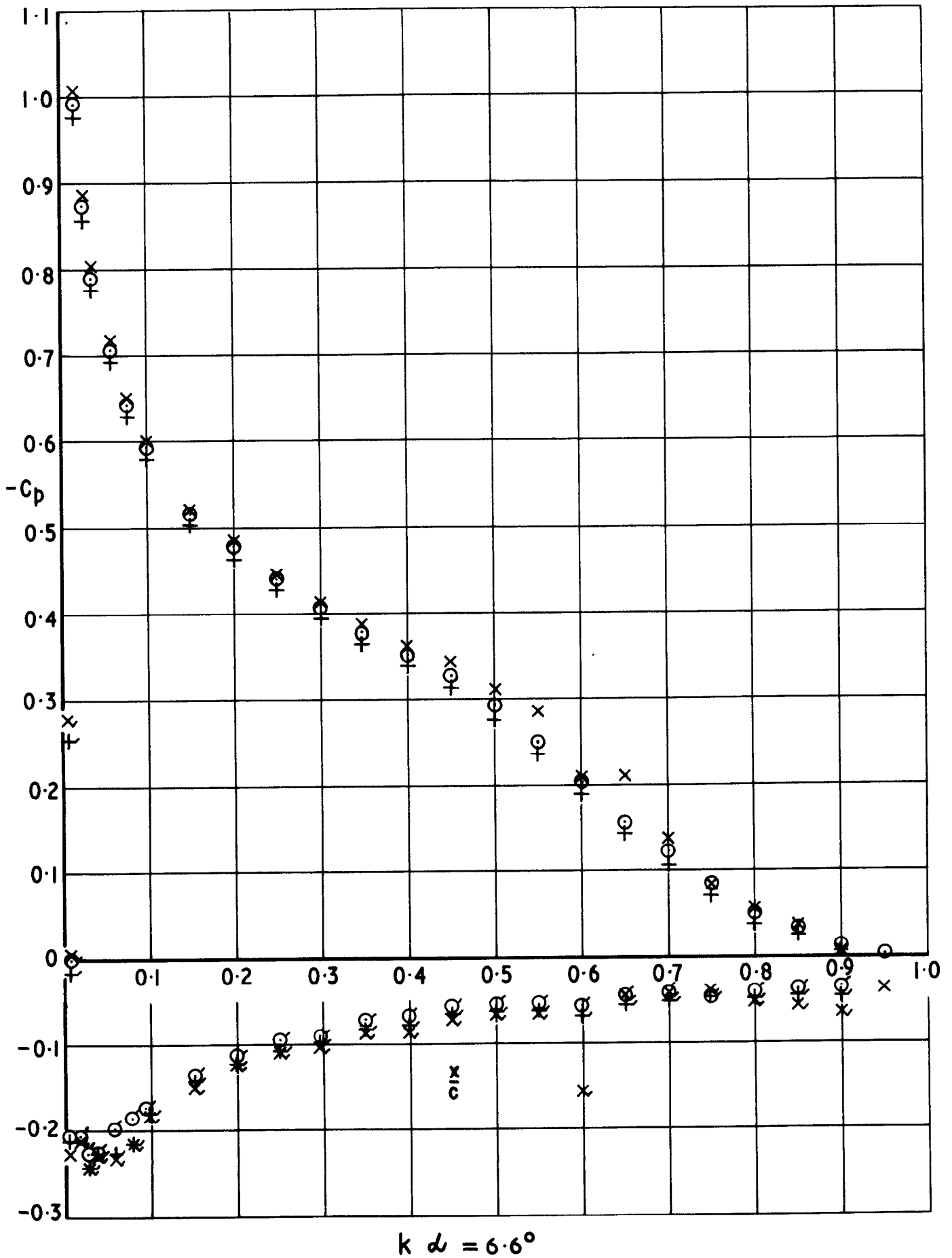

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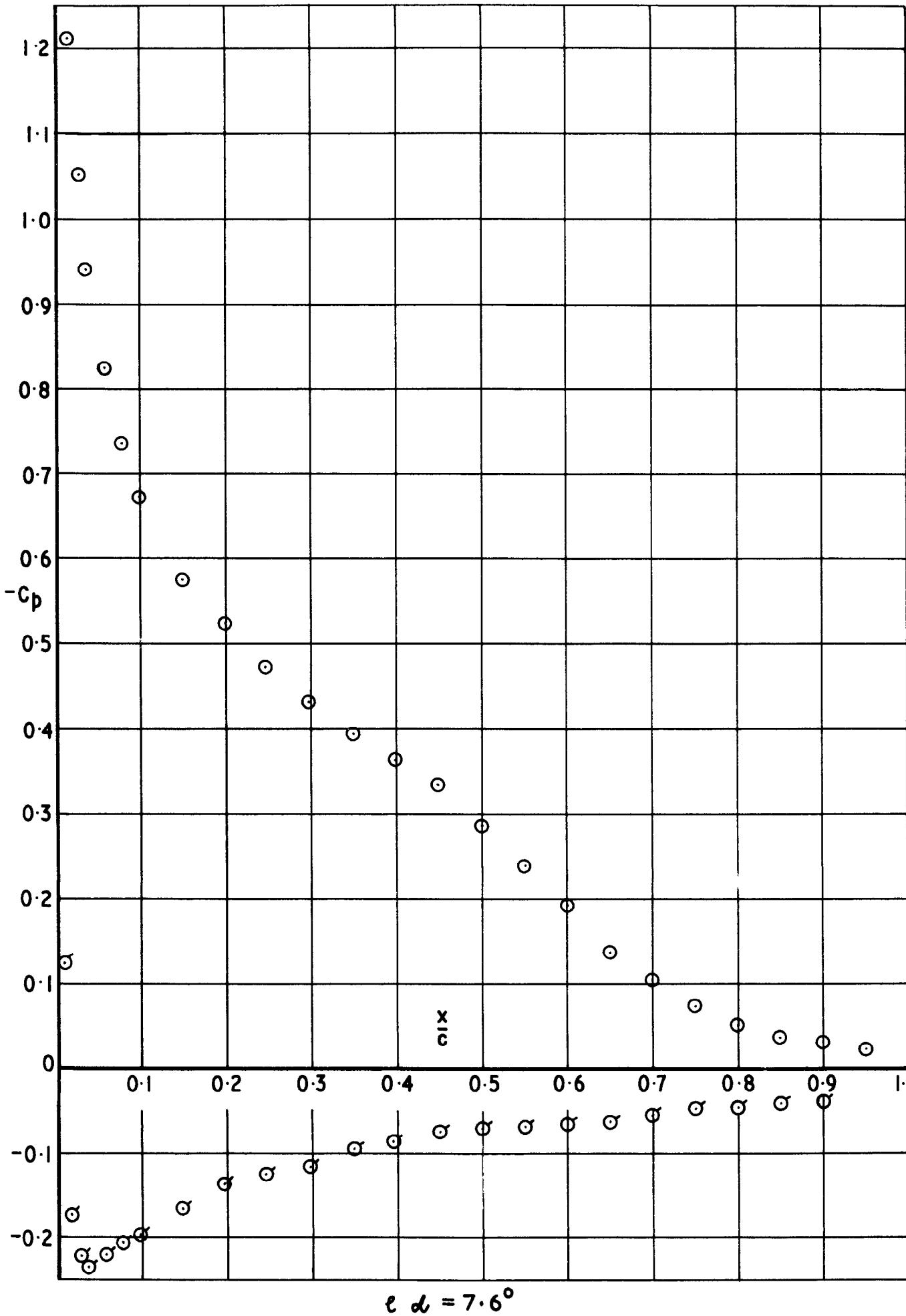

Fig.9 concld

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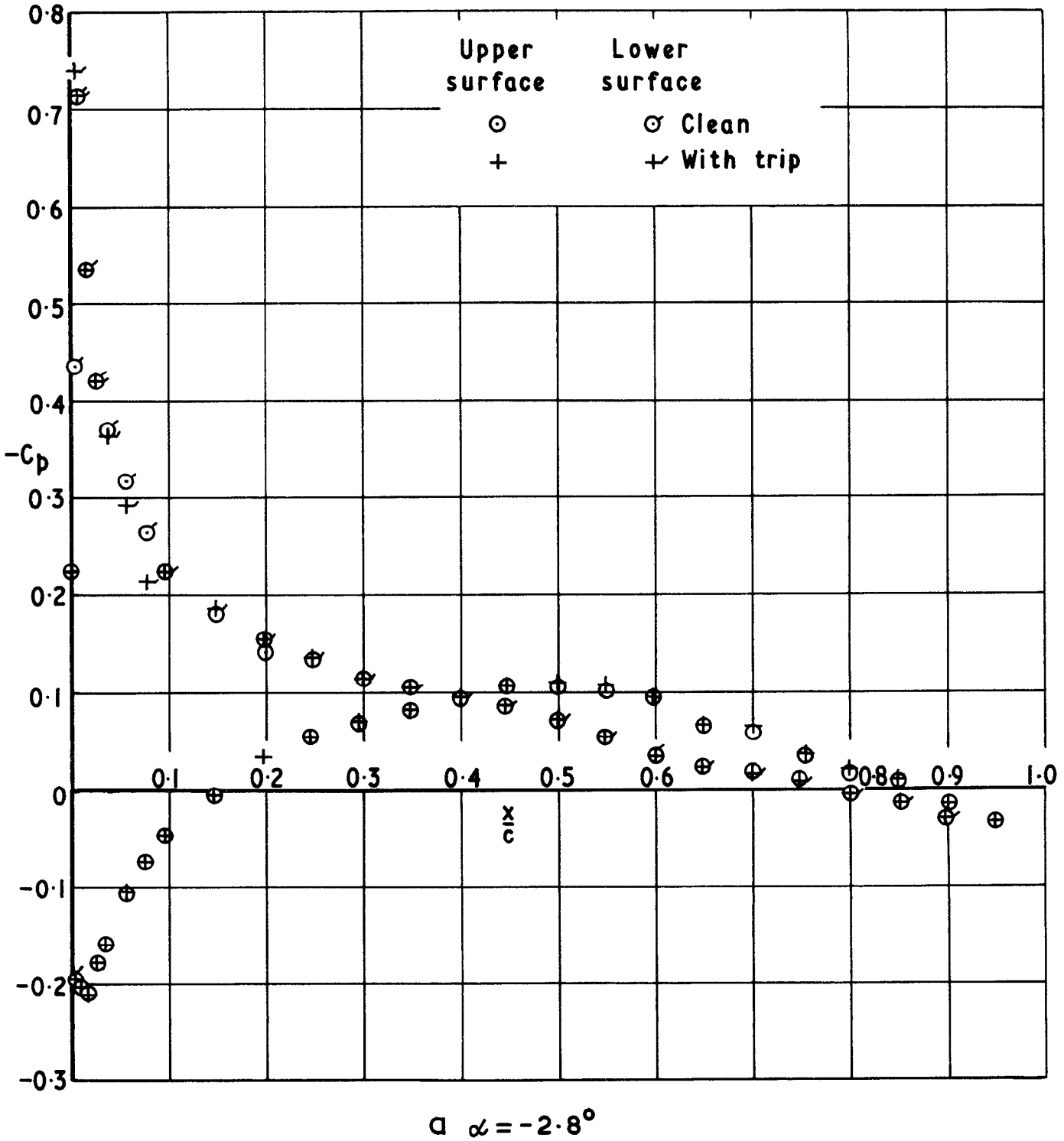
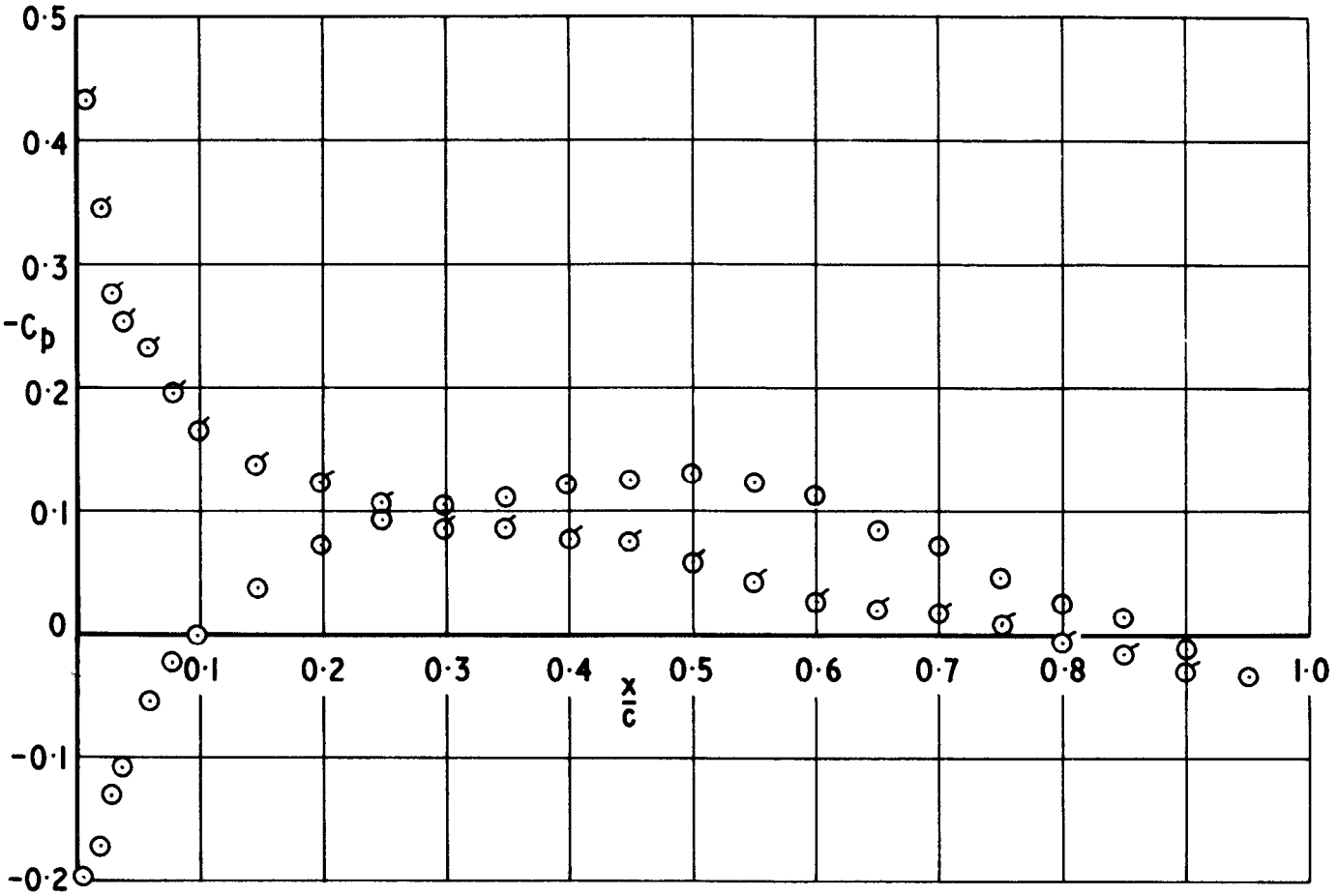
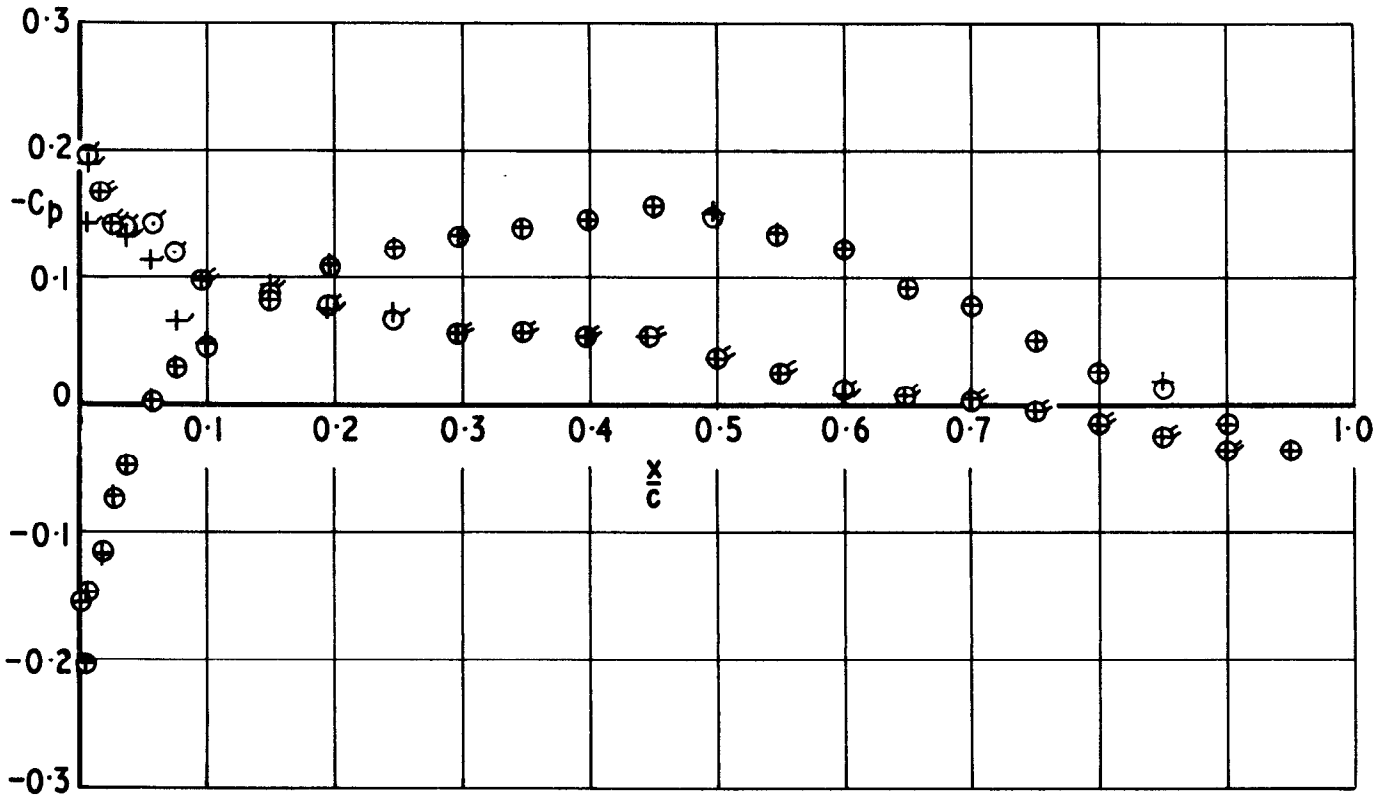


Fig.10 Section pressure distribution M=0·55 Re_c 25-27x10^6



b $\alpha = -1{\cdot}8^\circ$



c $\alpha = -0{\cdot}7^\circ$

Fig.10 contd

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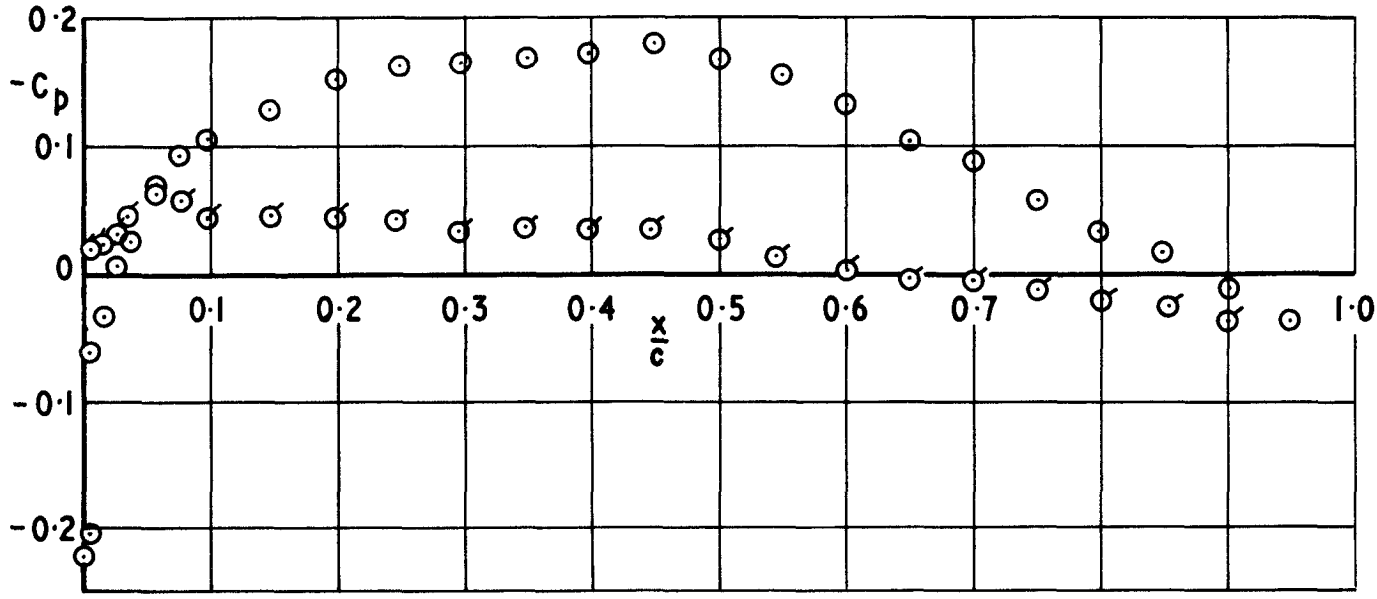
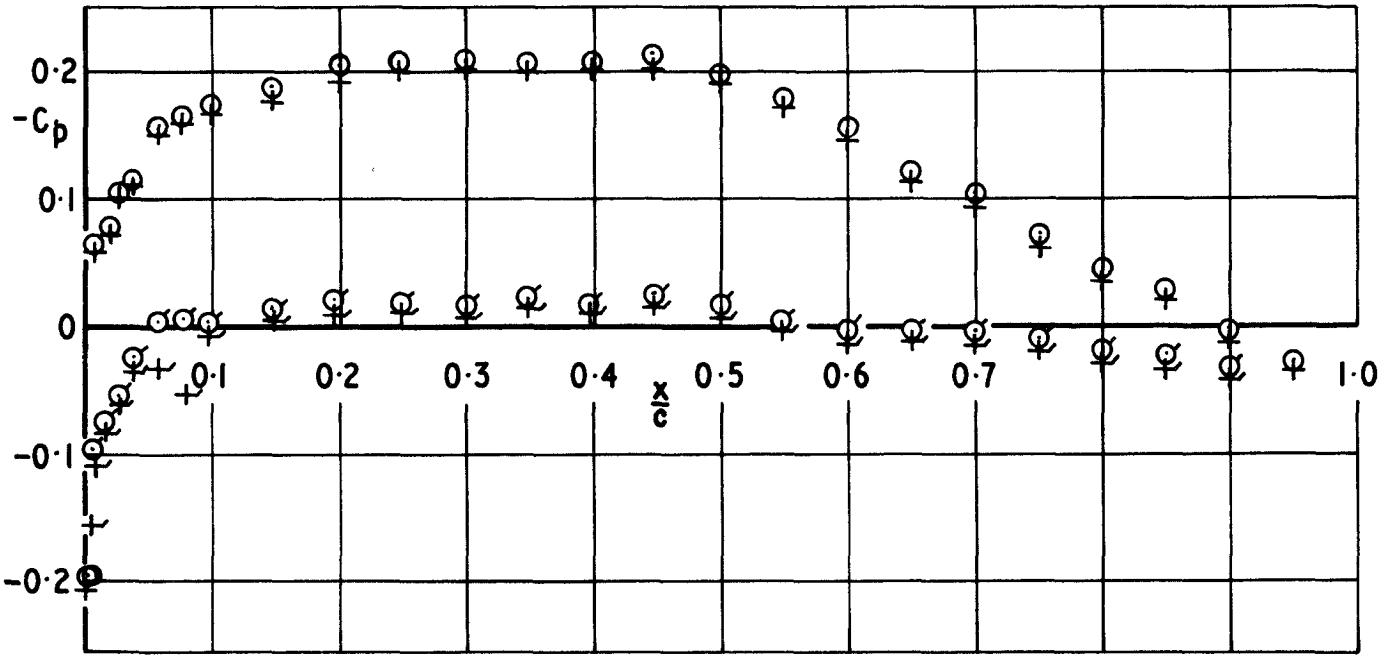
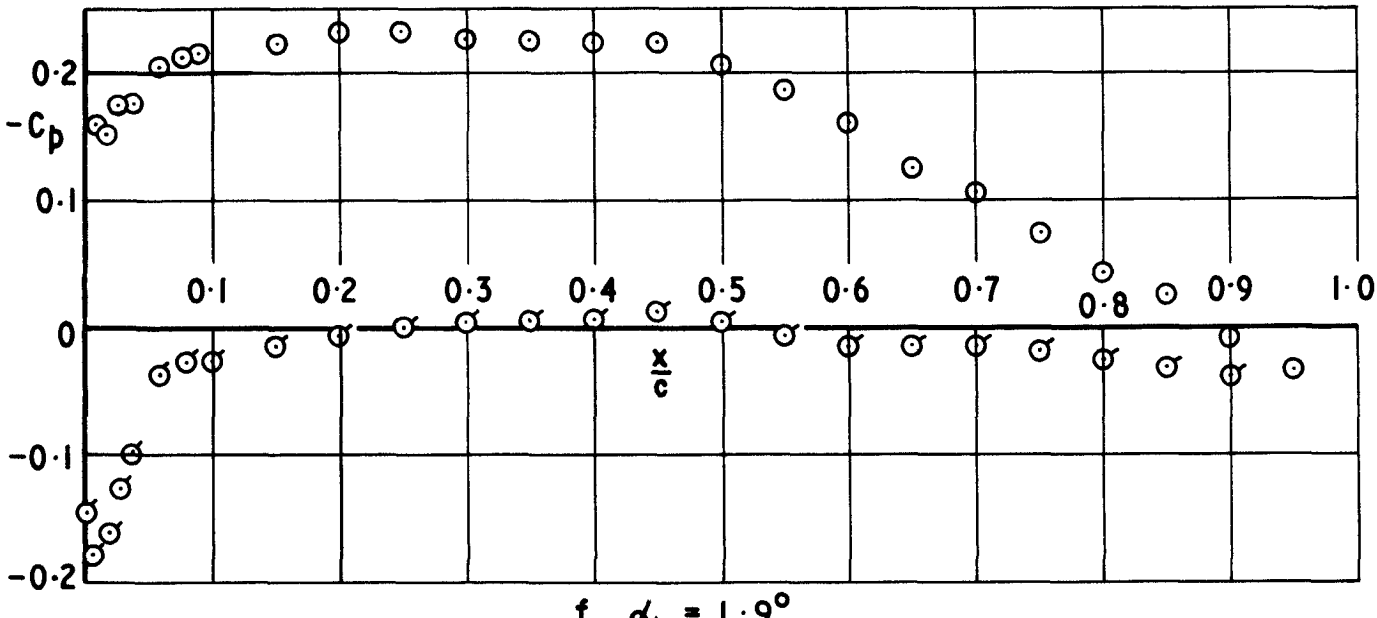


d $\alpha = 0 \cdot 3°$

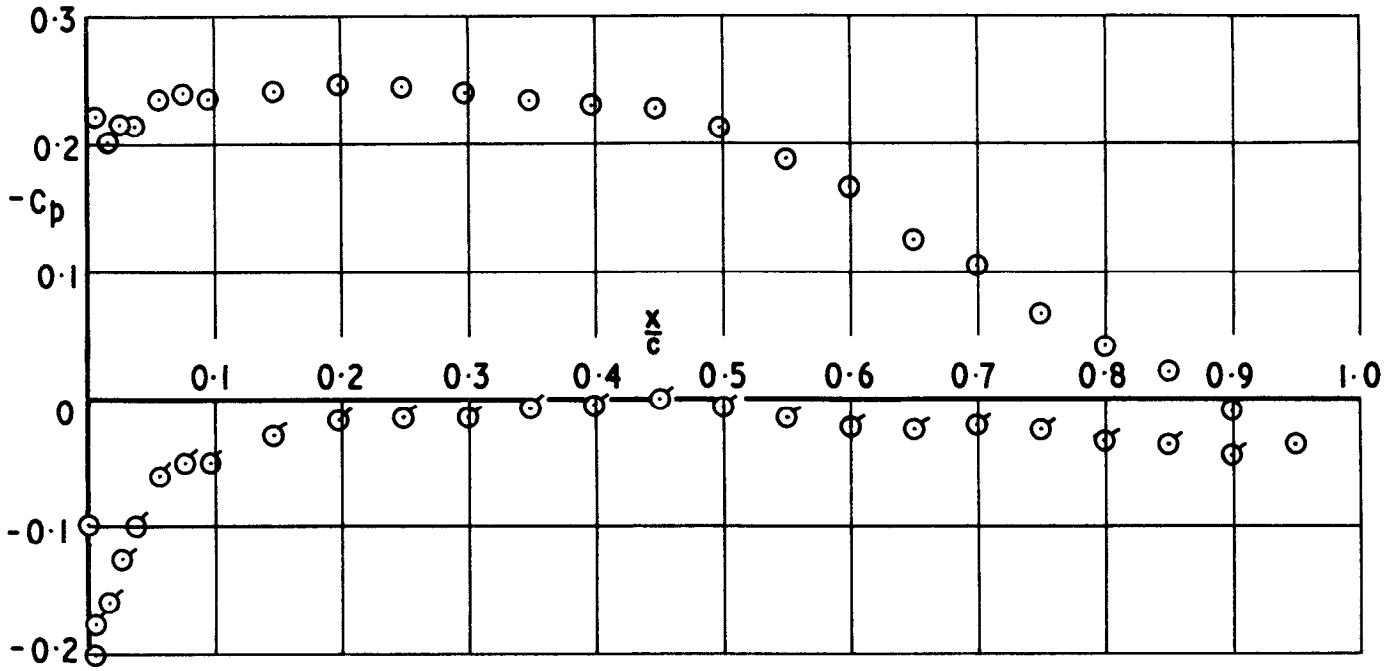


e $\alpha = 1 \cdot 3°$

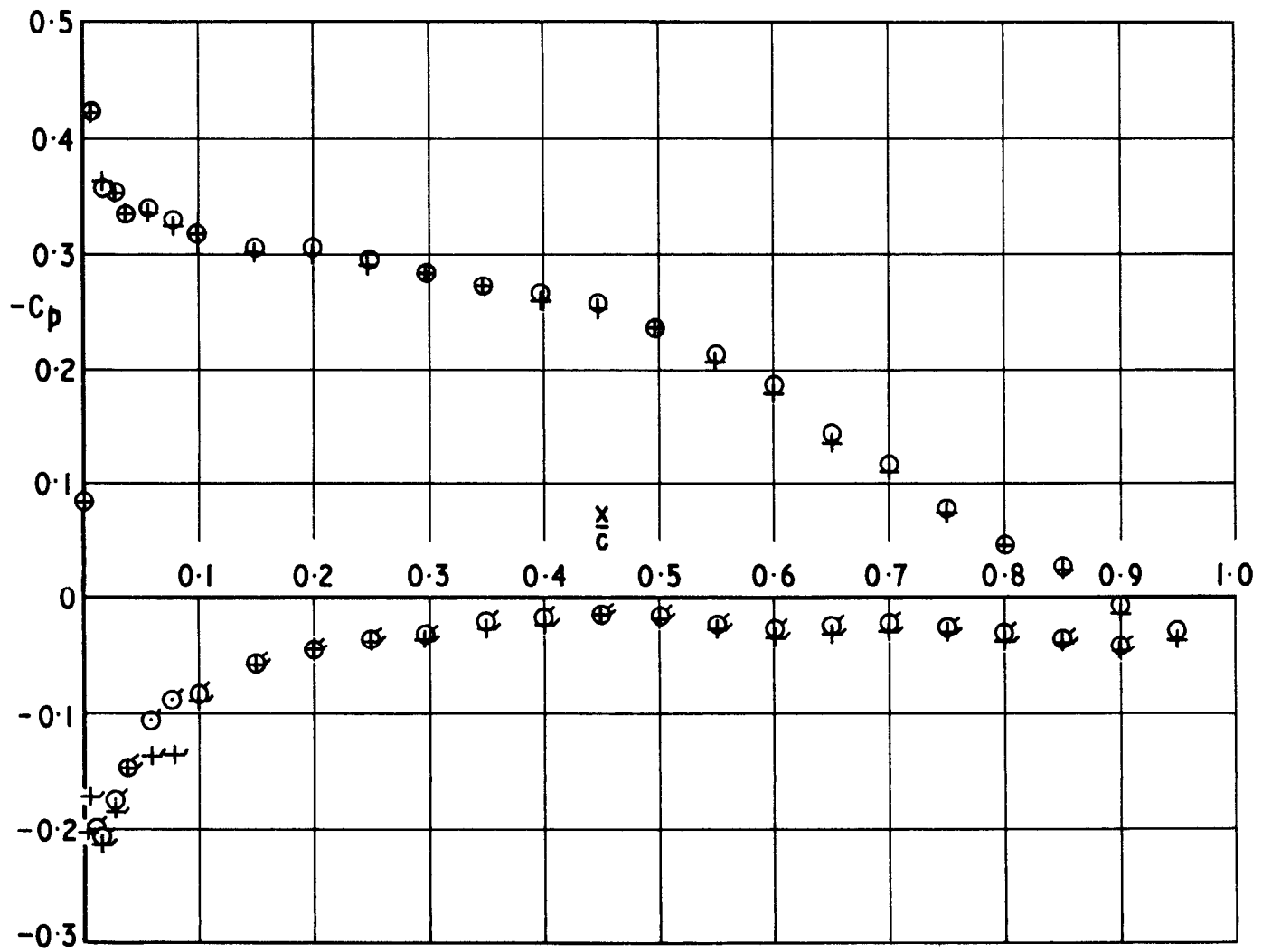


f $\alpha = 1 \cdot 9°$

Fig. 10 contd



g $\alpha = 2 \cdot 3^\circ$



h $\alpha = 3 \cdot 4^\circ$

Fig. 10 contd

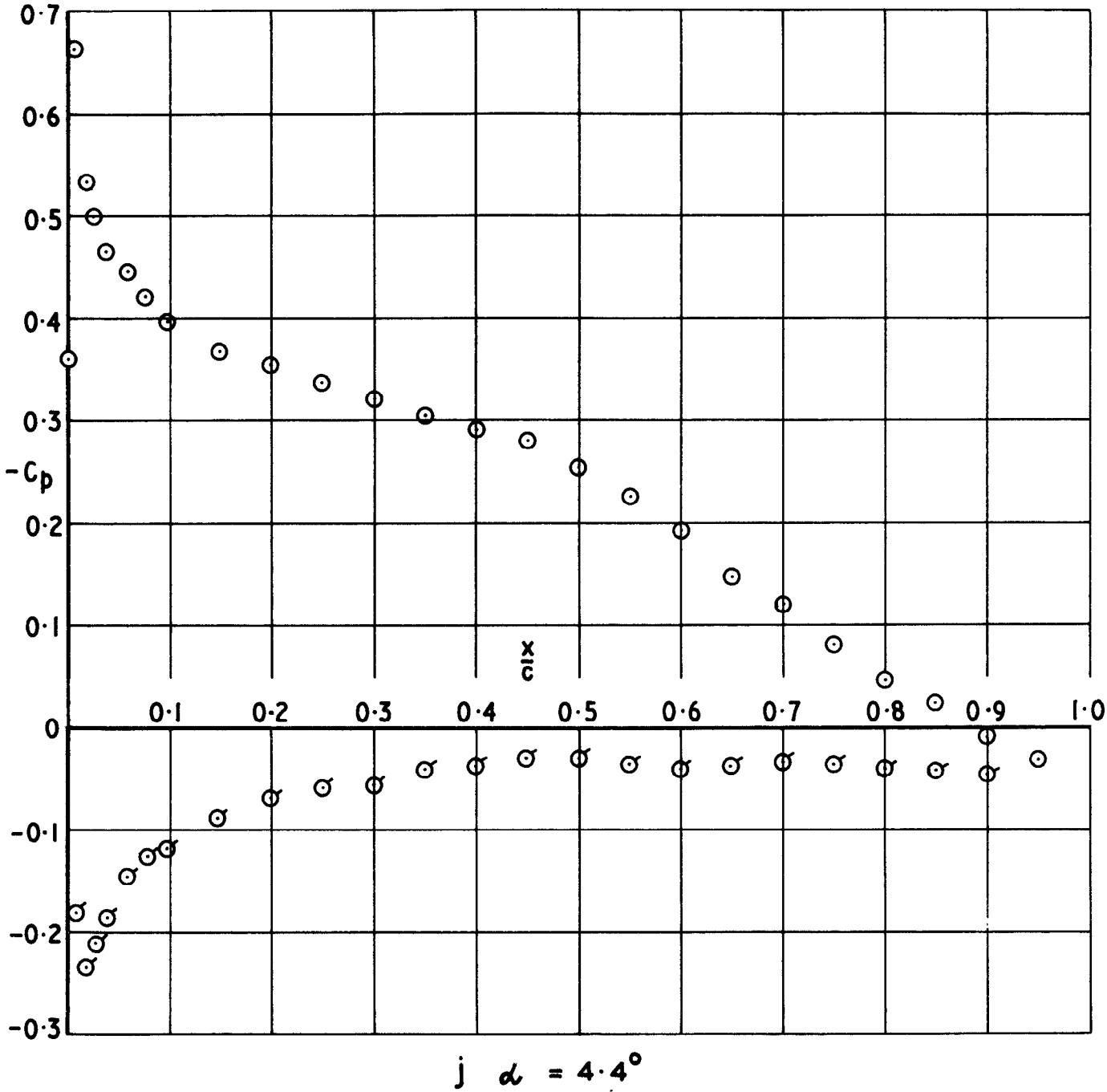


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Fig. 10 contd

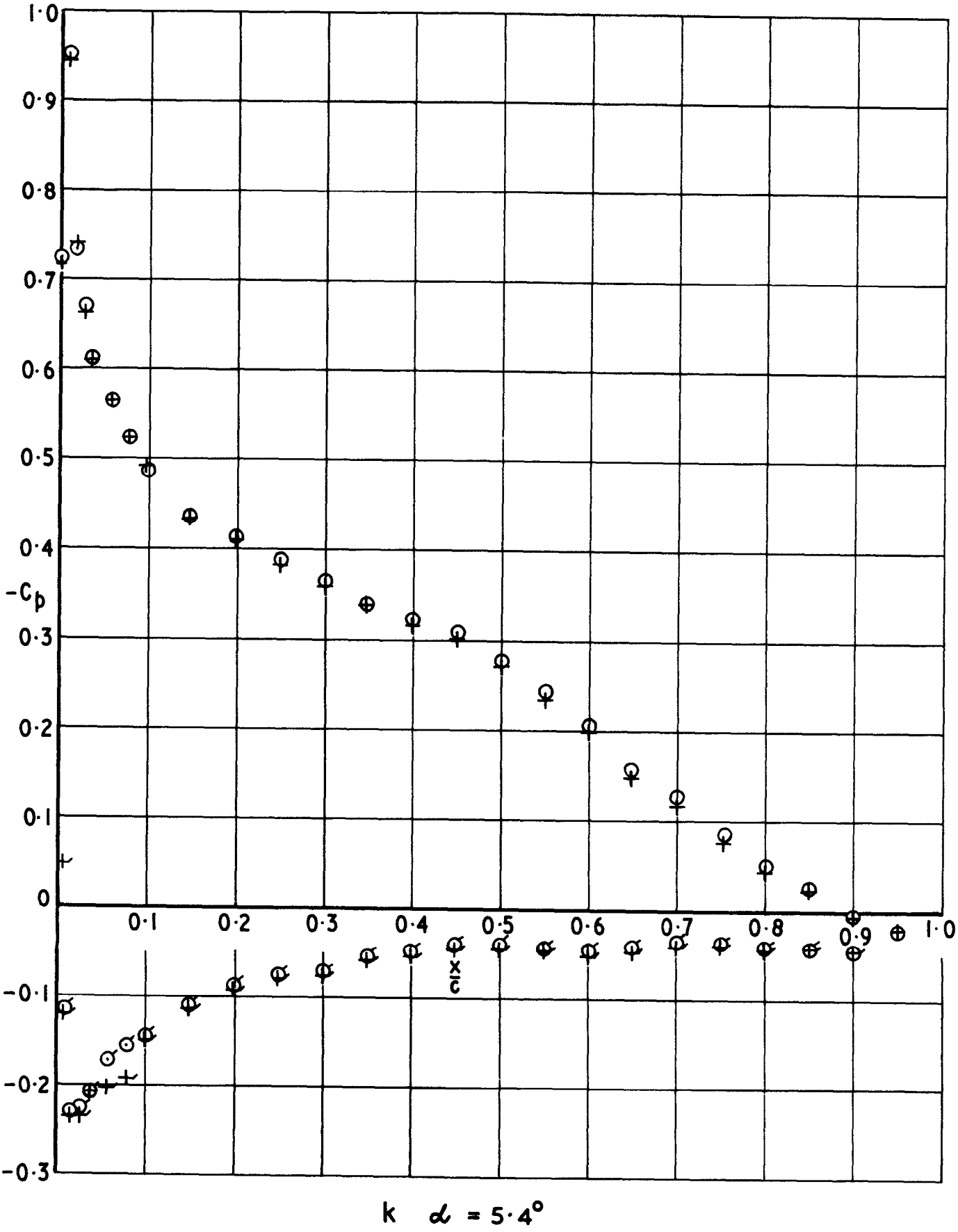

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Fig.10 contd

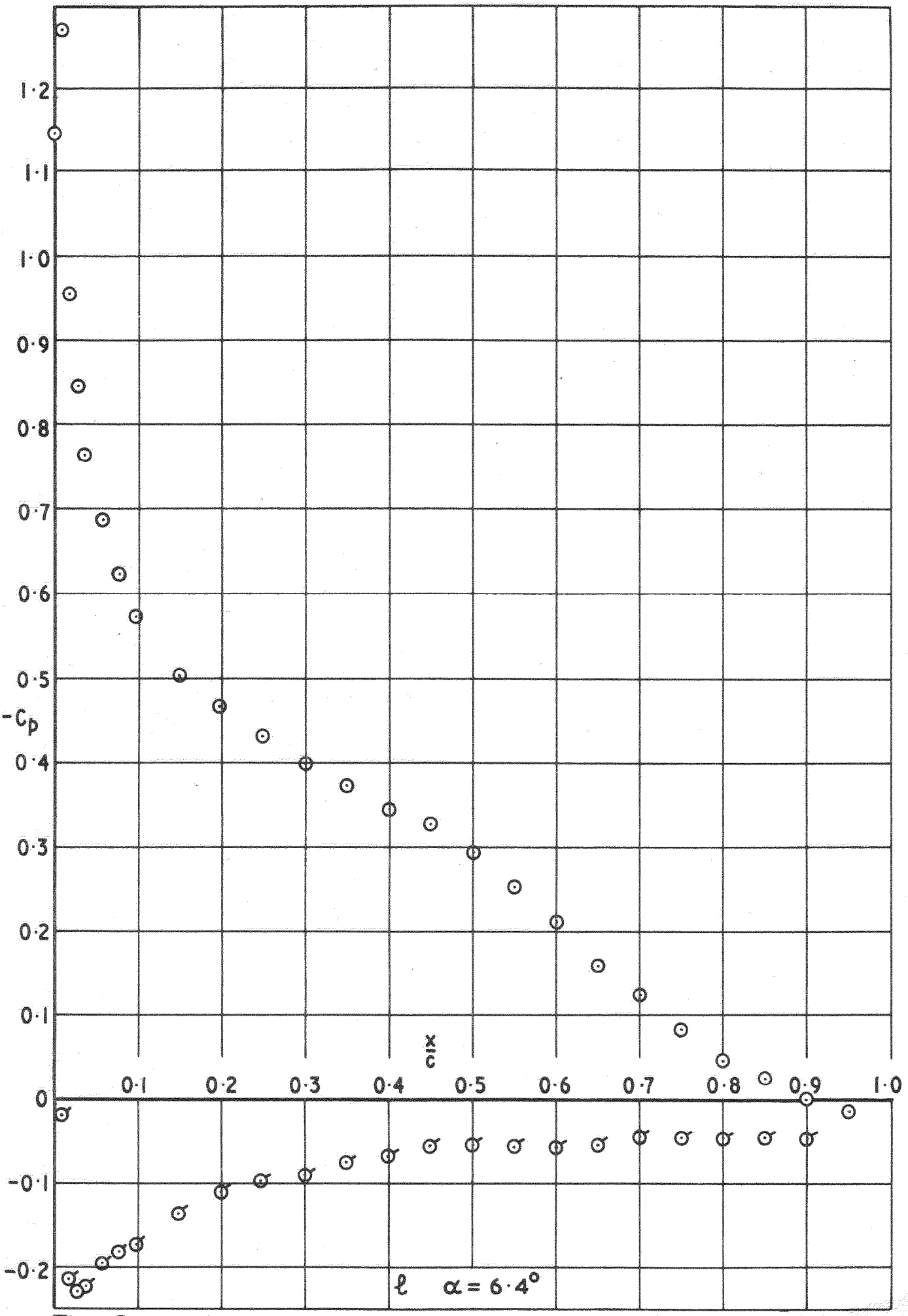

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Fig.10 concld

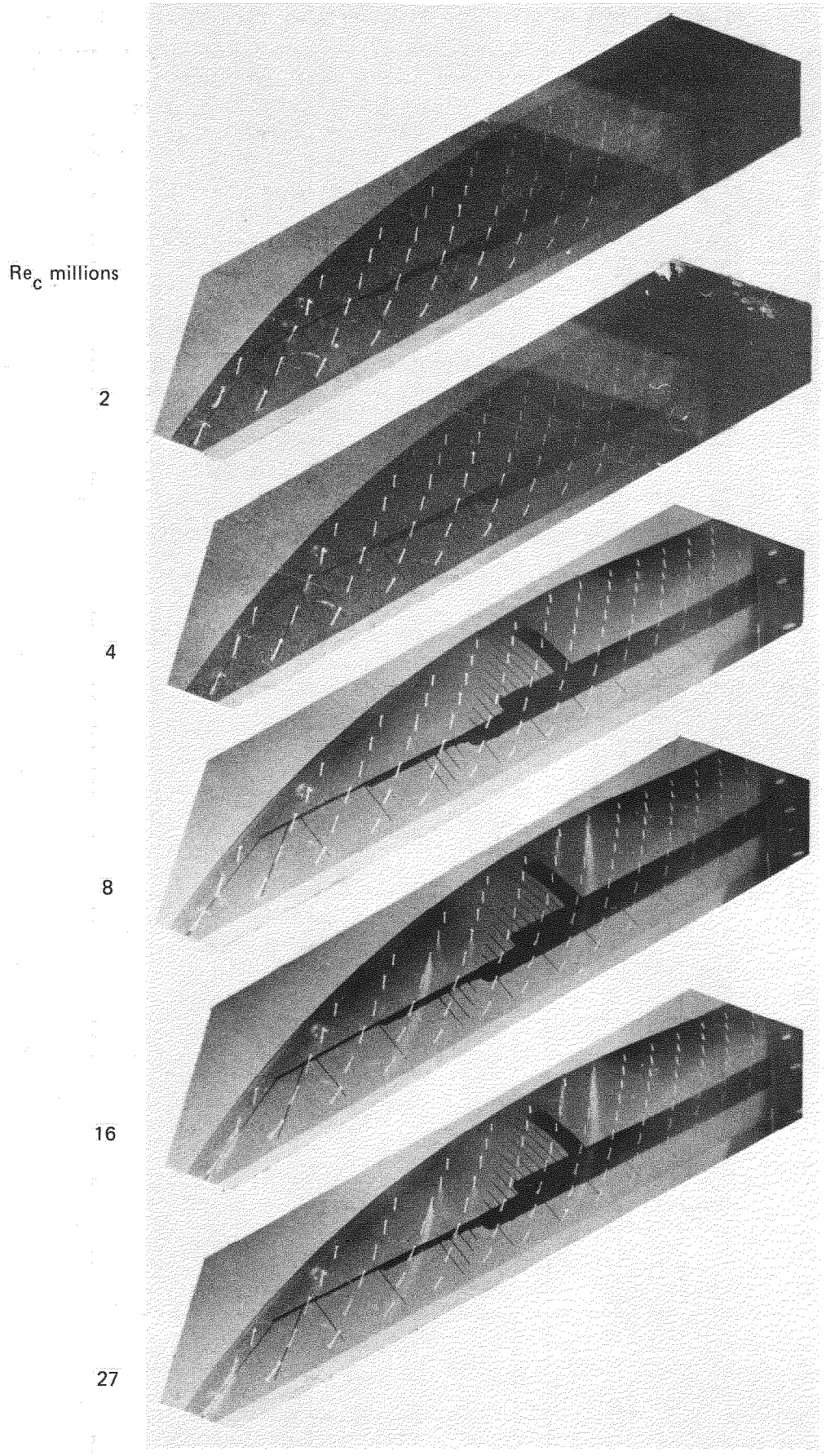


Fig.11 Upper surface tufts. M $\simeq$ 0.55, $\alpha \simeq$ 2 degrees

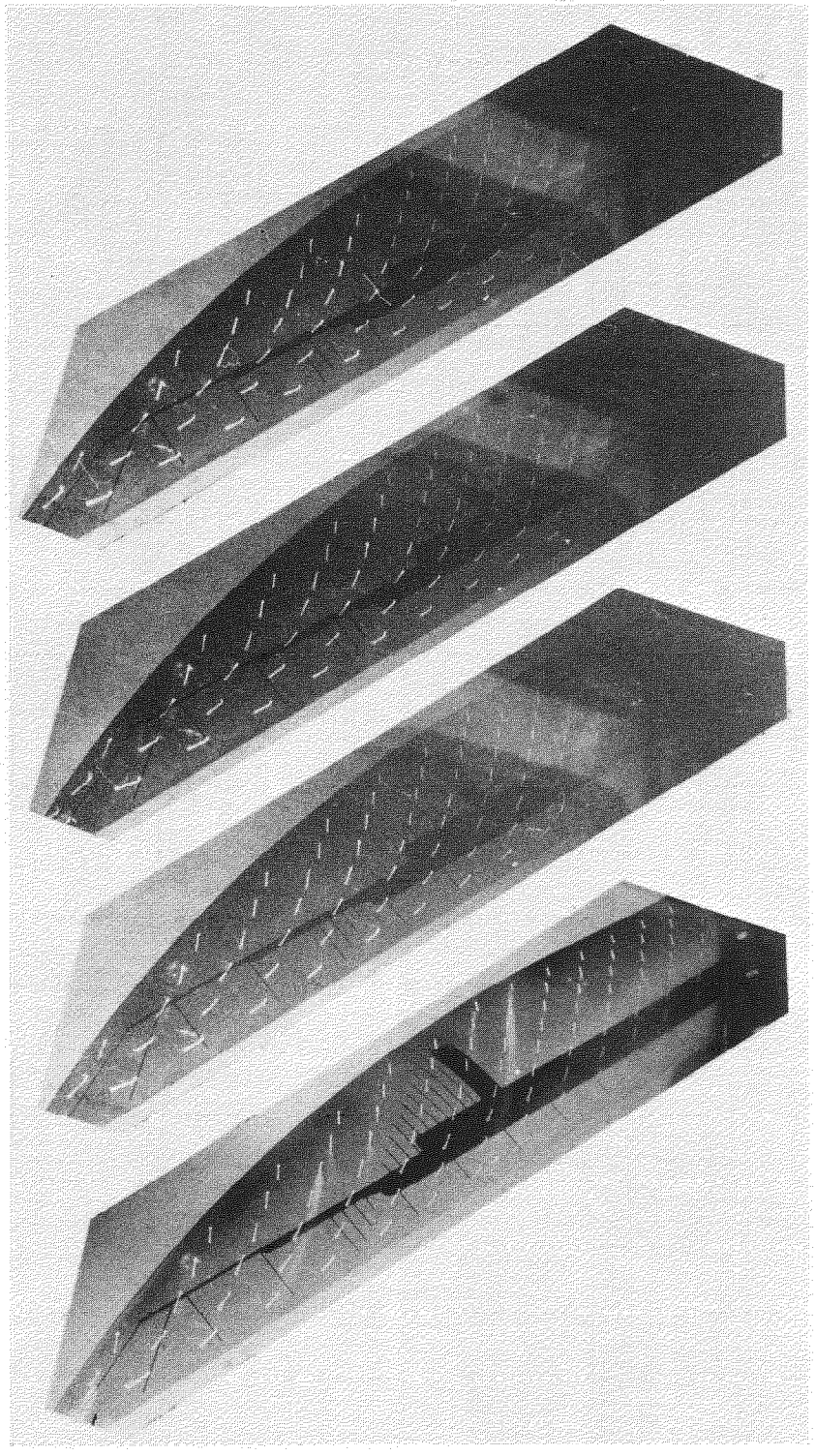
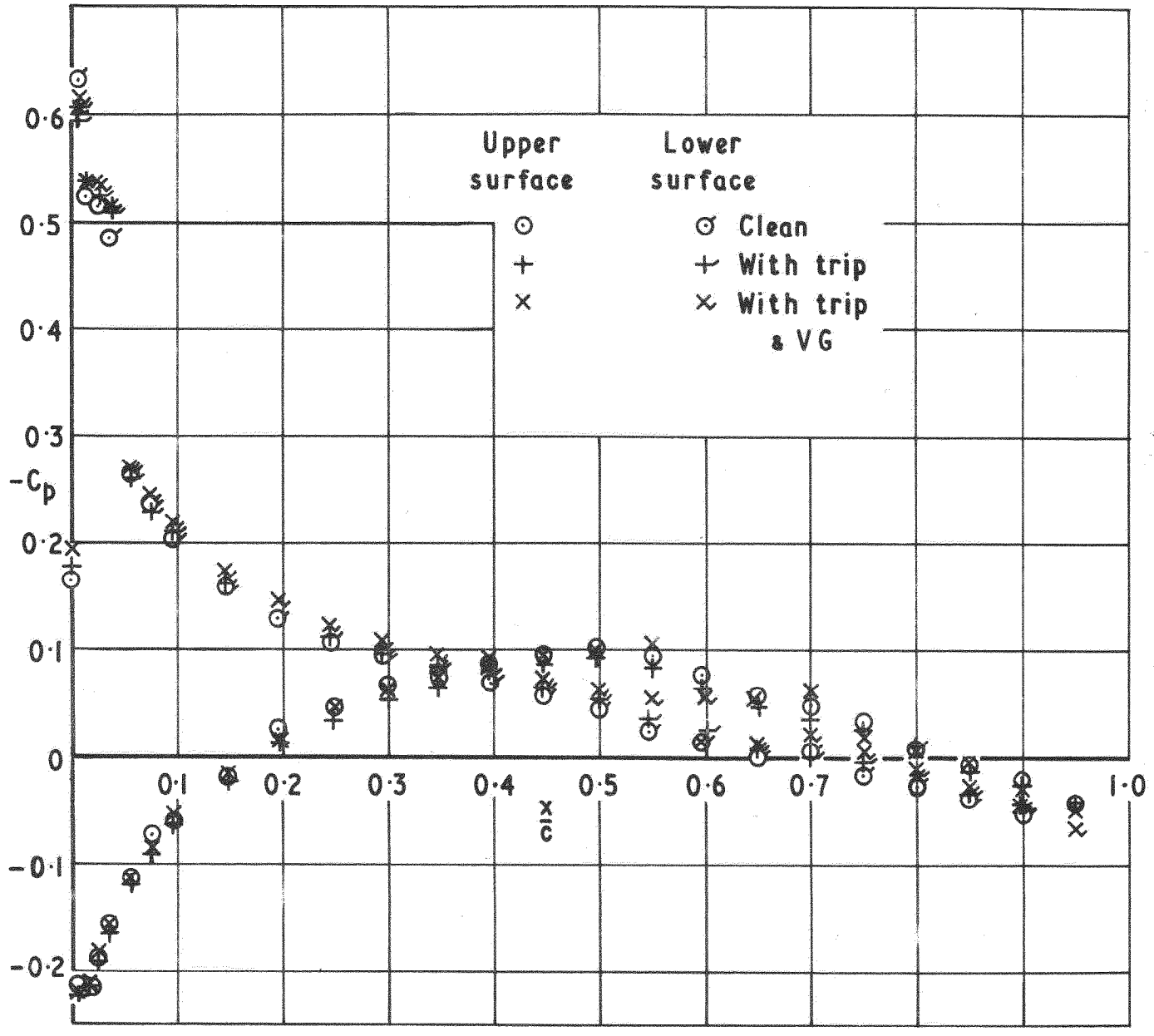
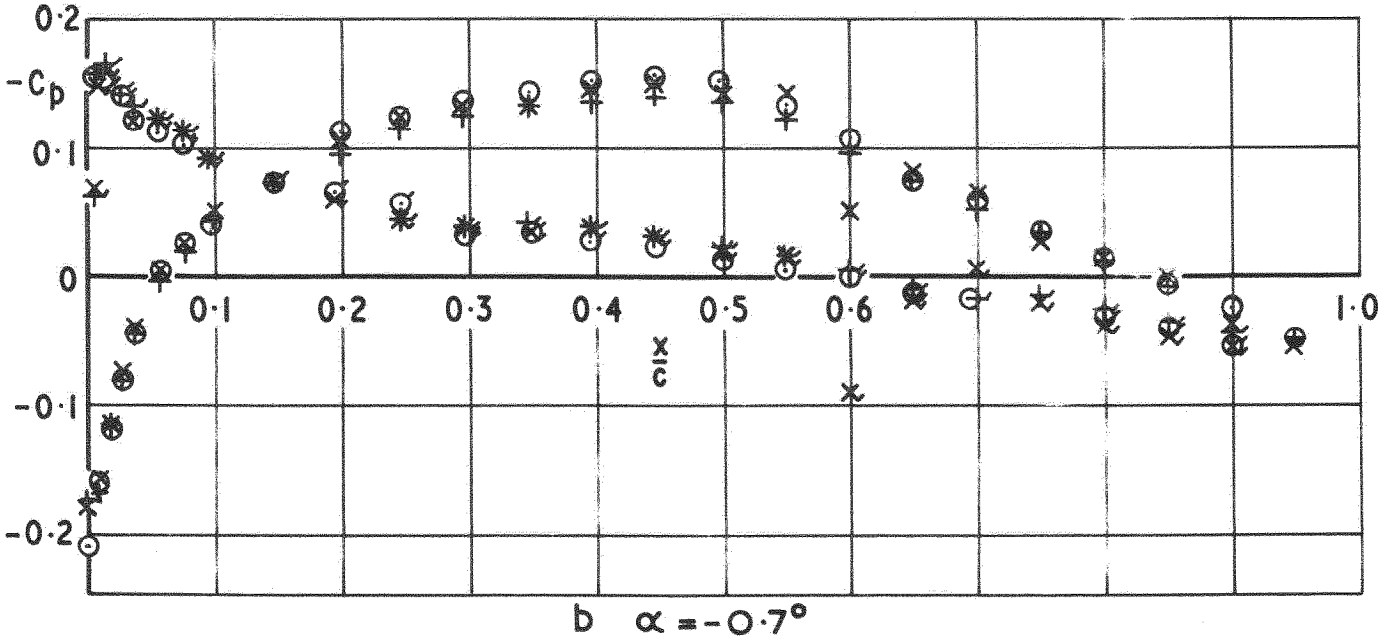


Fig.12 Upper surface tufts. M ≃ 0.55, $\alpha \simeq 5.5$ degrees



a $\alpha = -2{\cdot}8°$



b $\alpha = -0{\cdot}7°$

Fig.13 Section pressure distribution $M = 0{\cdot}82$ $Re_c = 2 \times 10^6$

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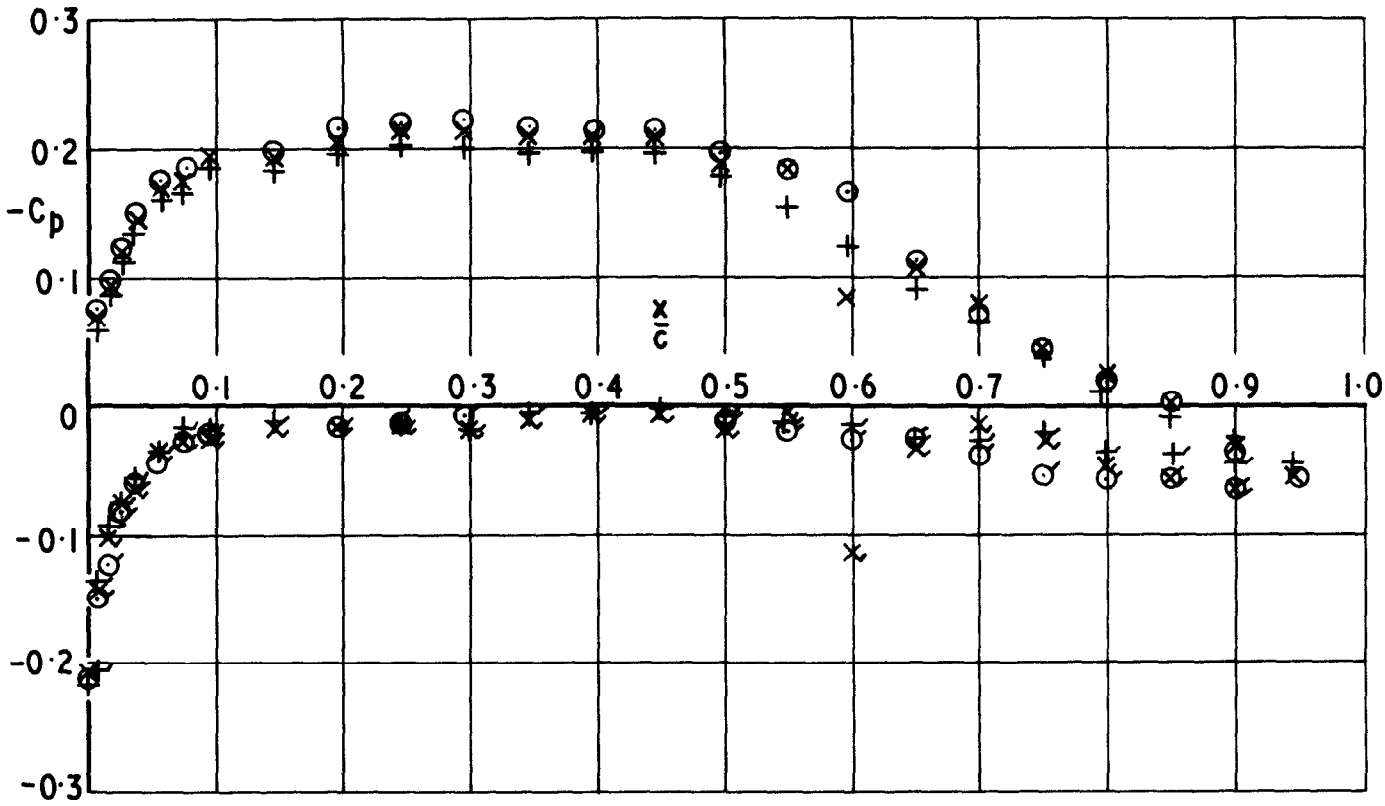
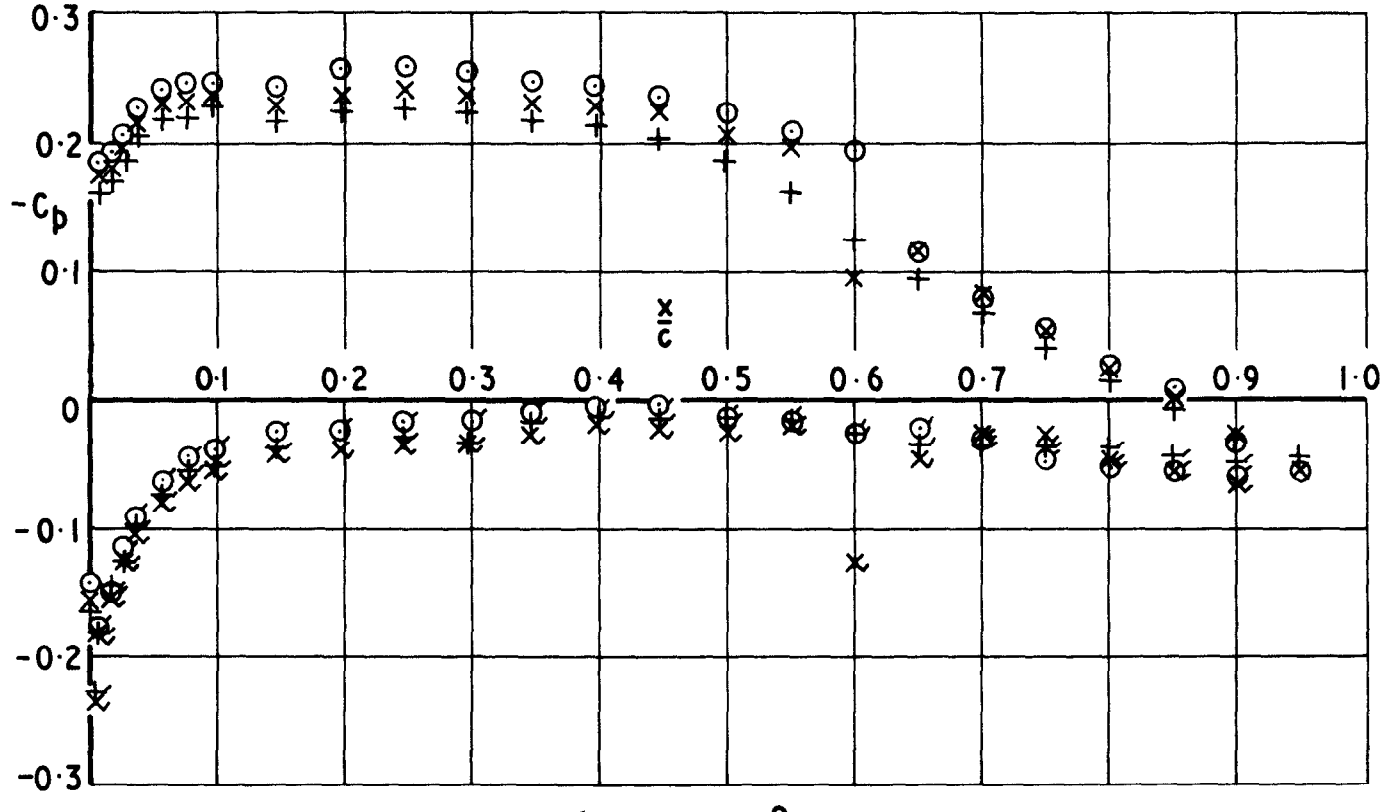


c $\alpha = 1{\cdot}5°$



d $\alpha = 2{\cdot}1°$

Fig. 13 contd

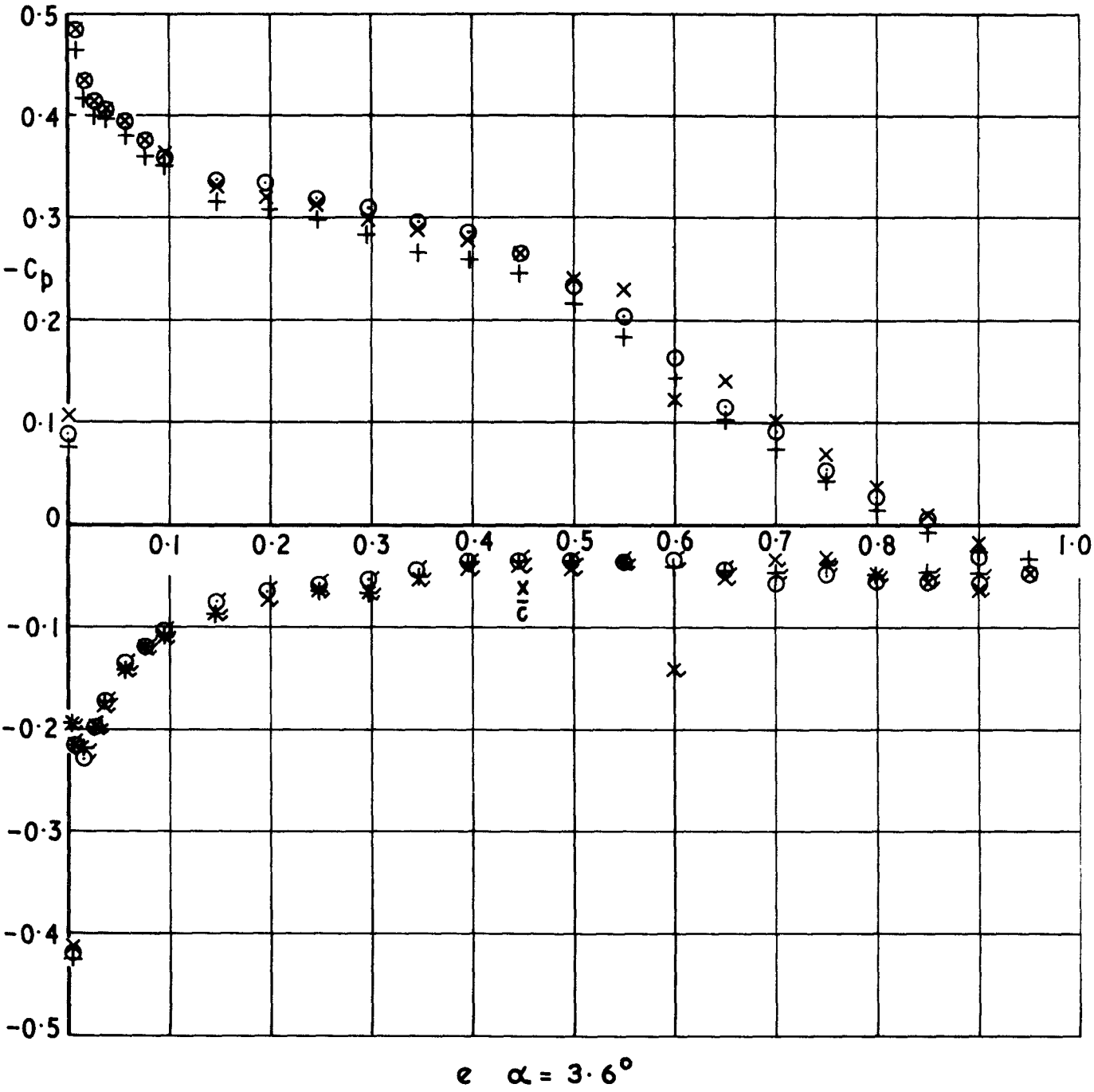


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Fig.13 contd

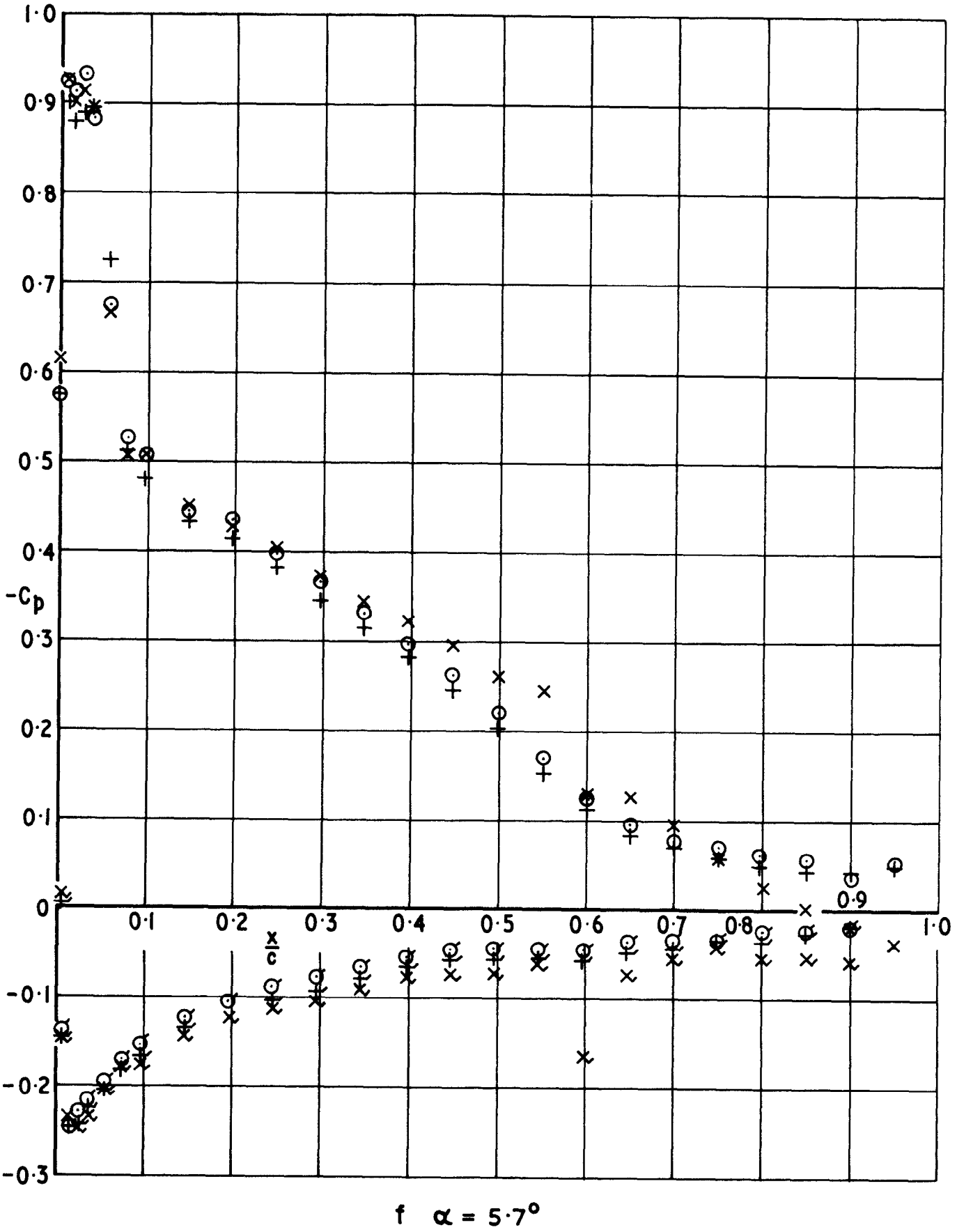

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Fig. 13 concld

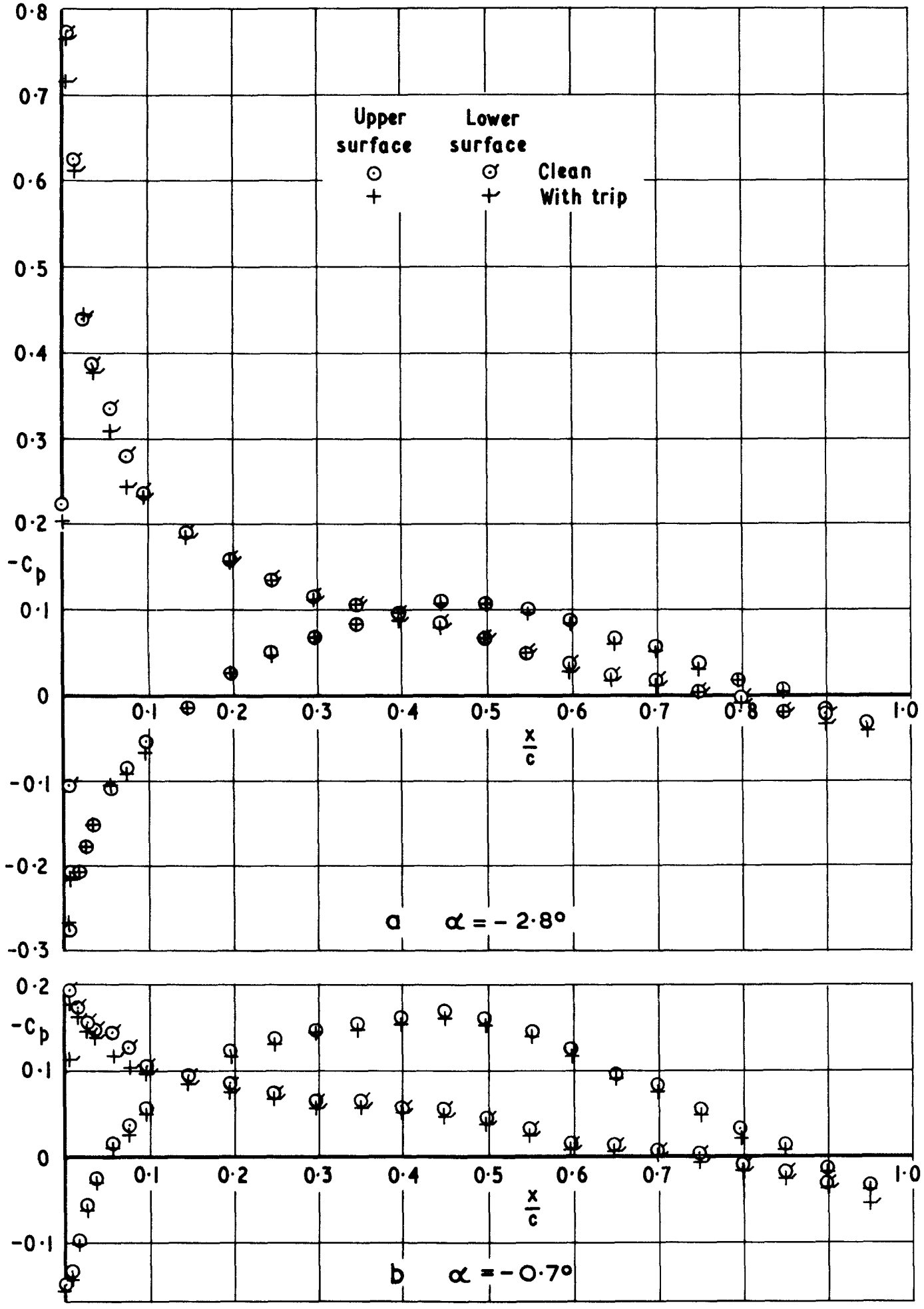

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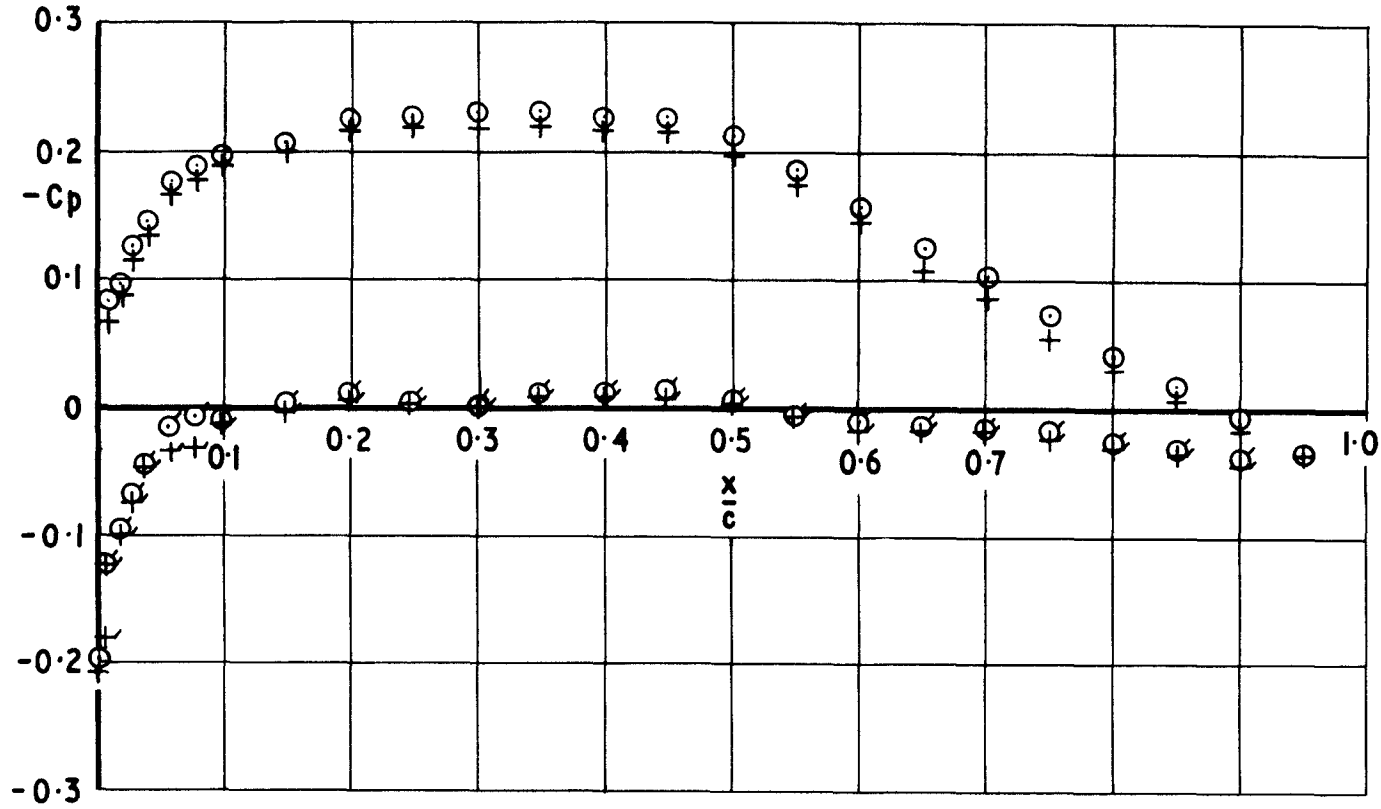
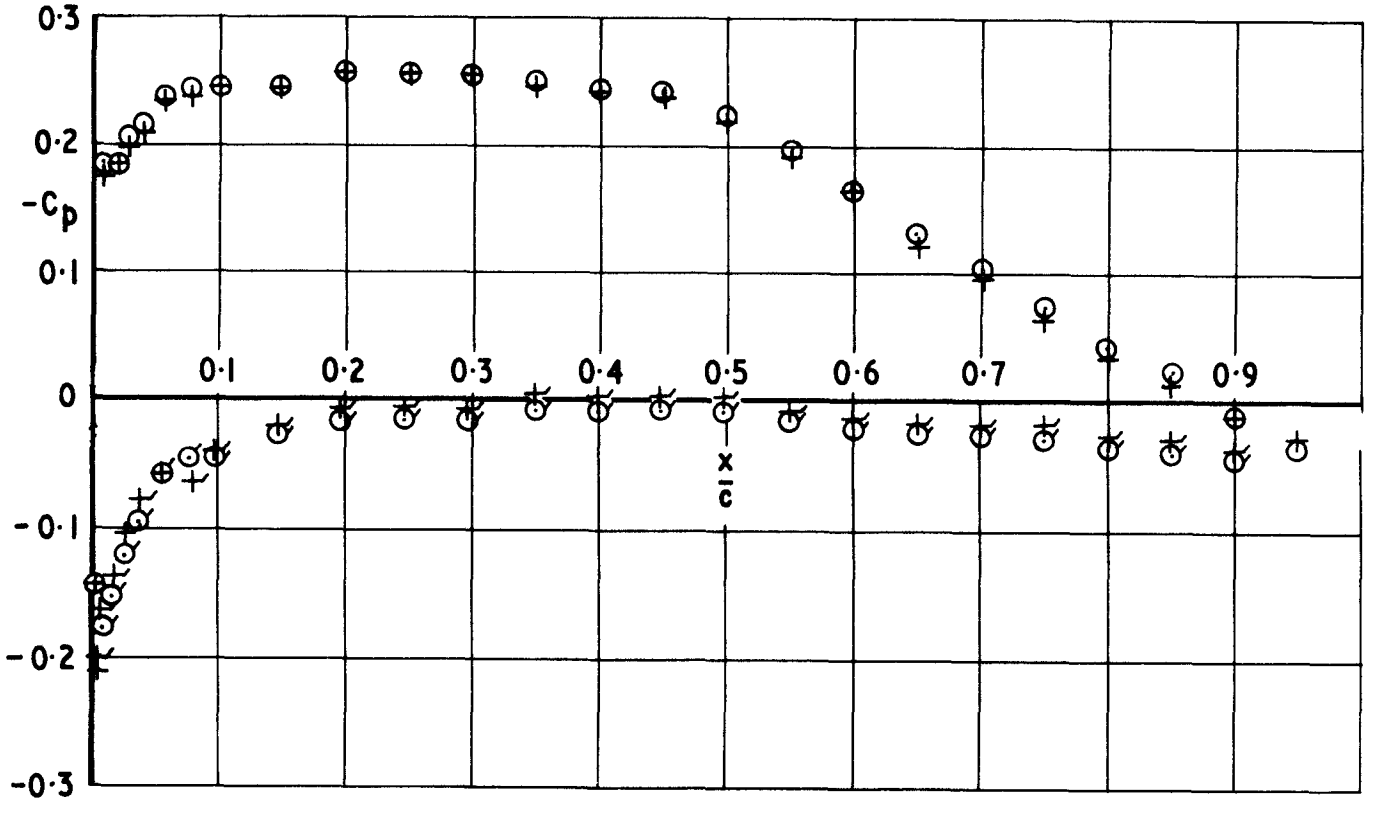
Fig. 14 Section pressure distribution $M = 0.82$ $Re_c = 8 \times 10^6$



c $\alpha = 1 \cdot 4°$



d $\alpha = 2 \cdot 1°$

Fig.14 contd

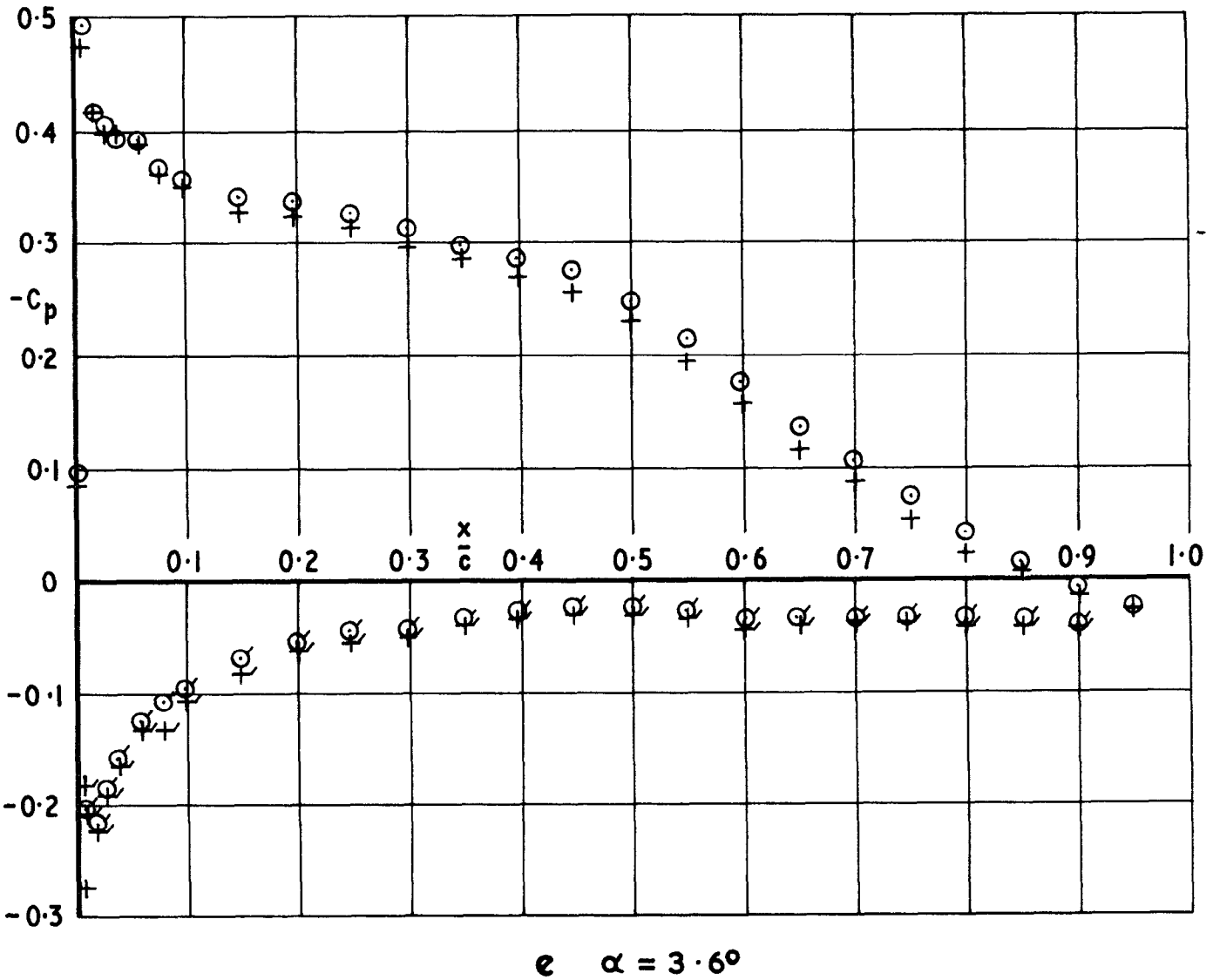


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Fig.14 contd

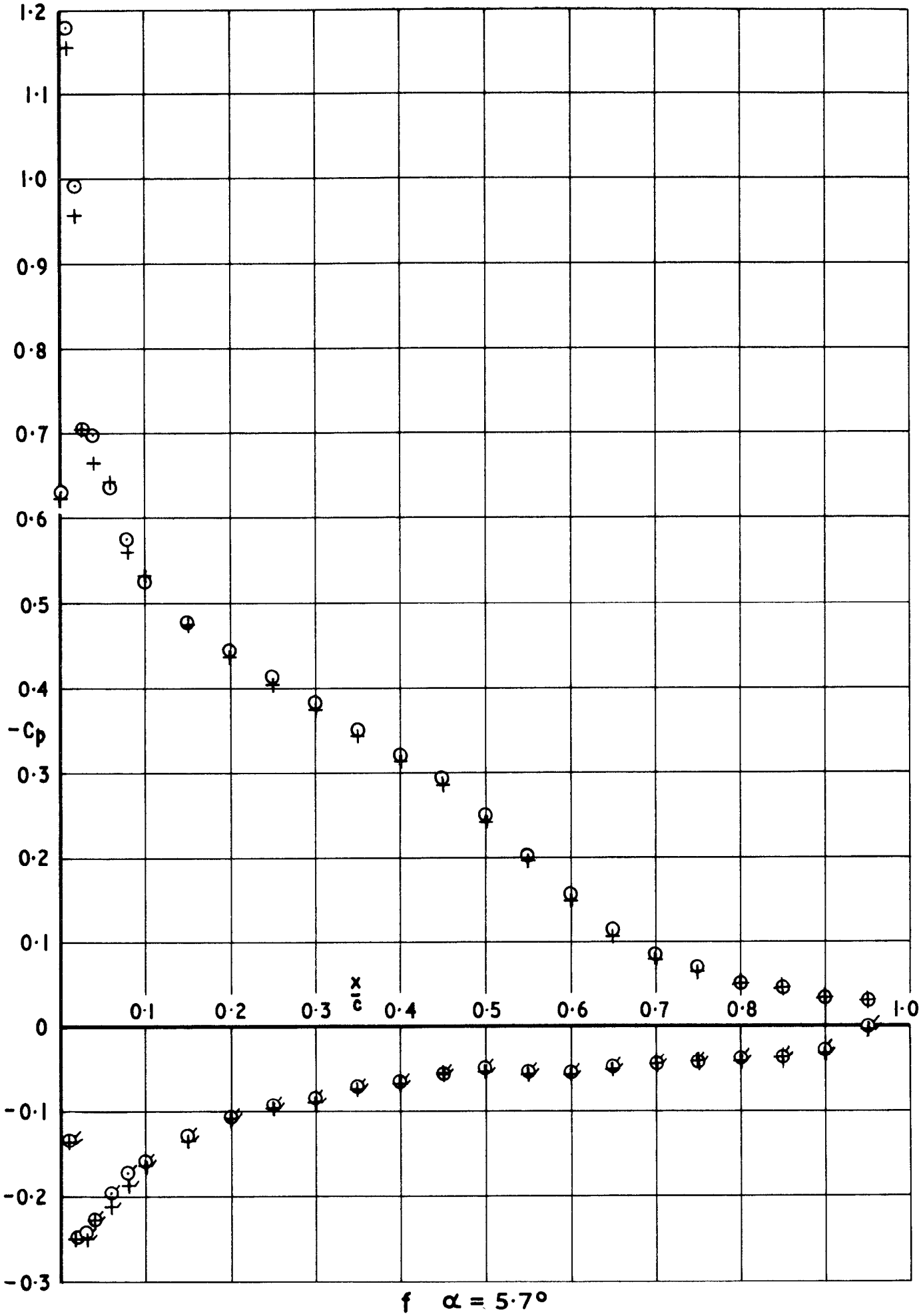

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Fig.14 concld

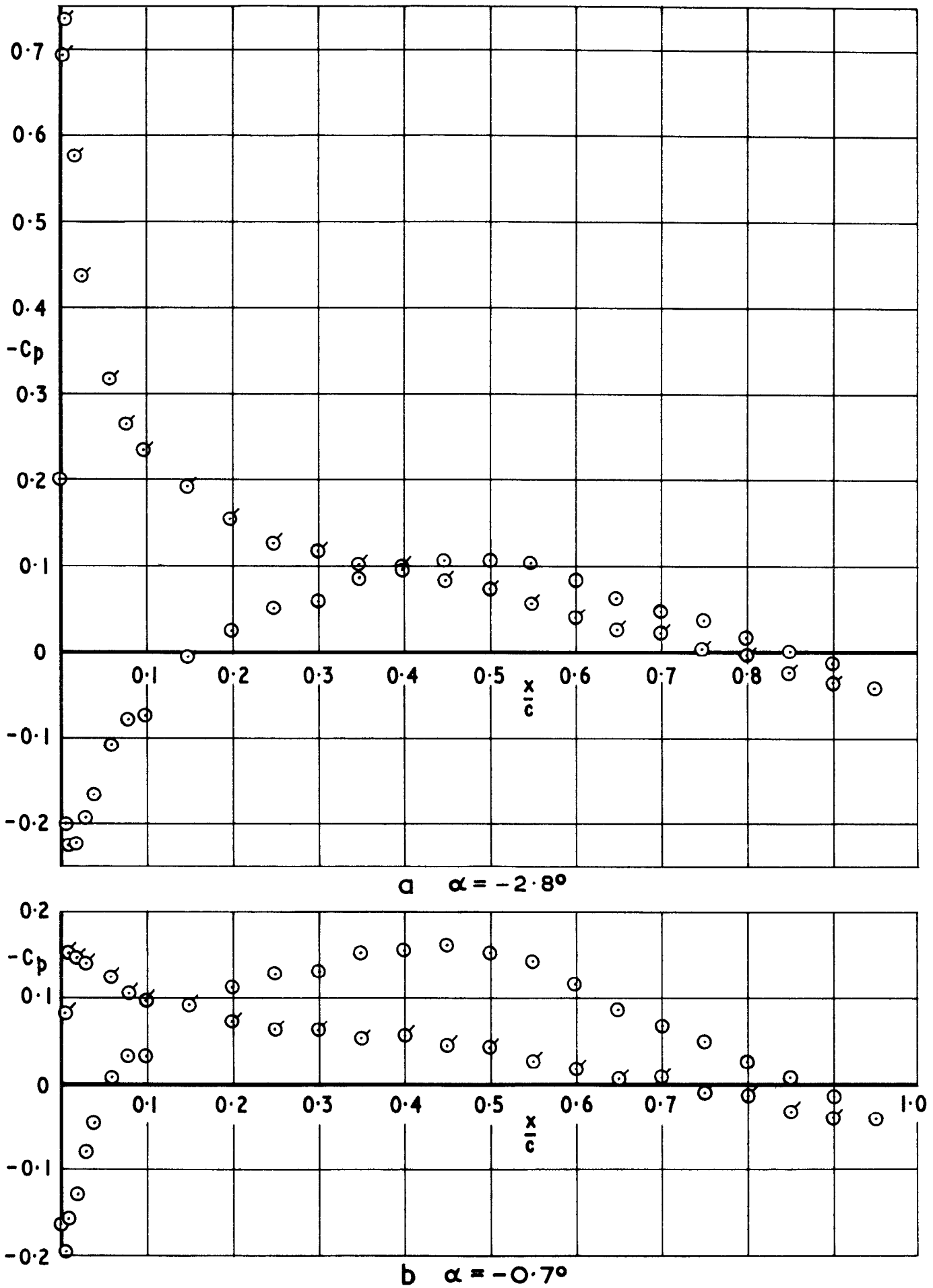

Fig.15 Section pressure distribution $M=0{\cdot}81$ $Re_c=20\times10^6$

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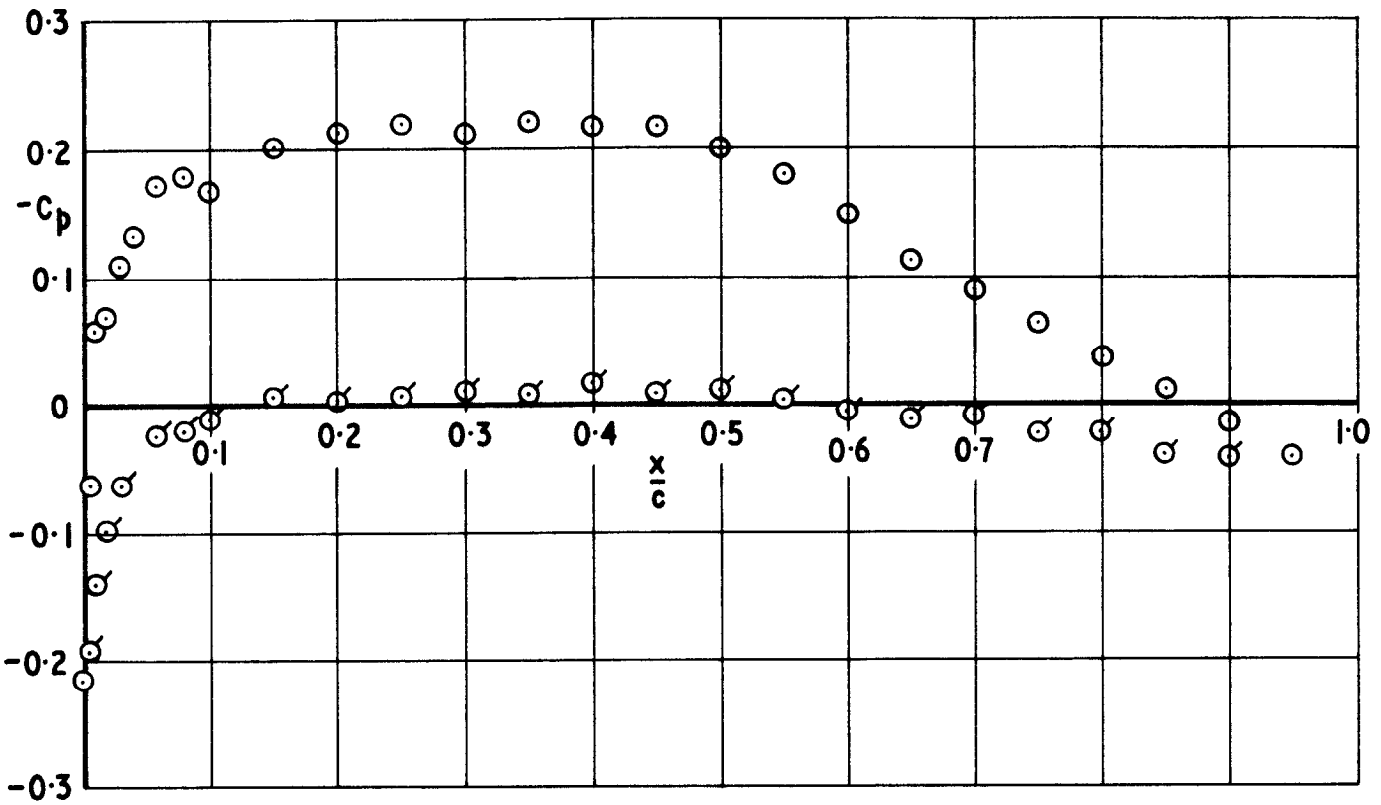
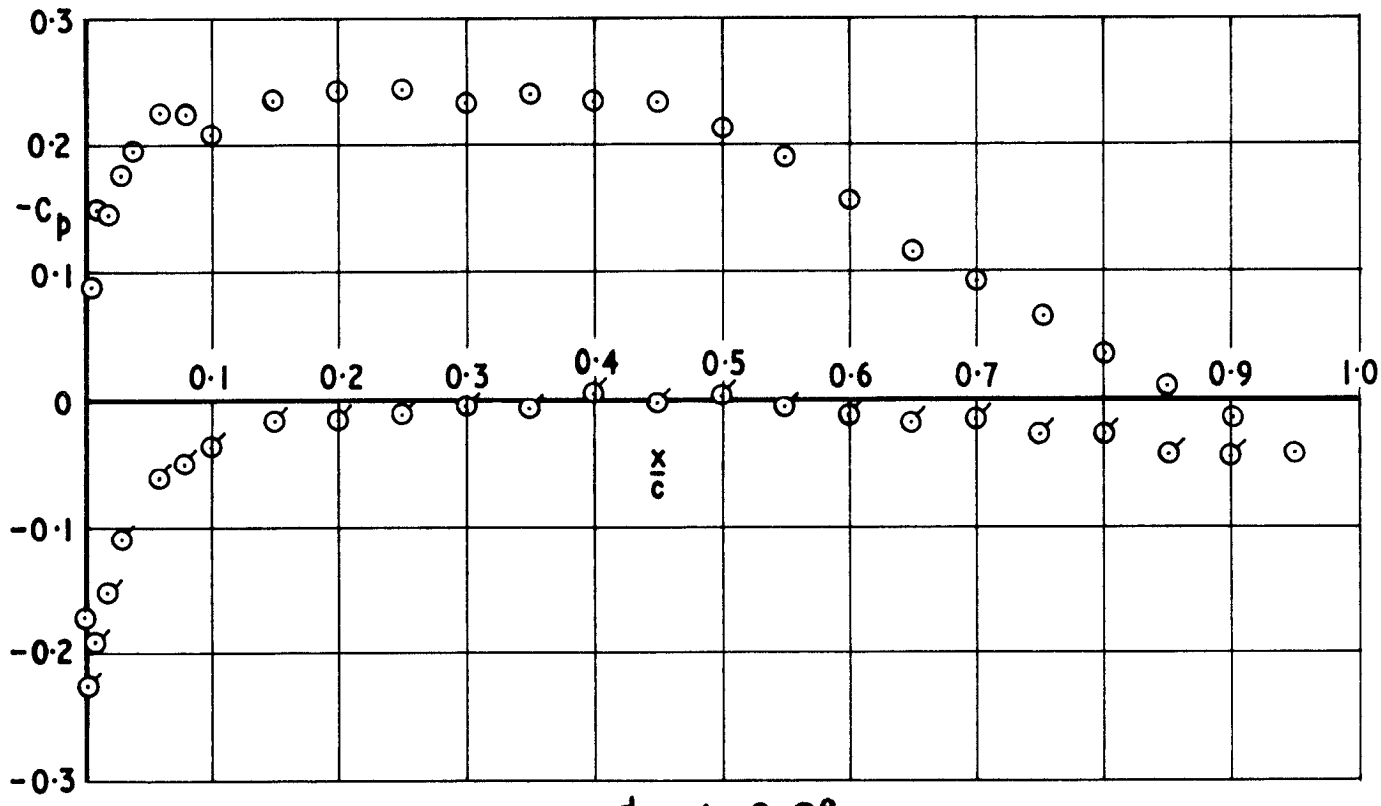
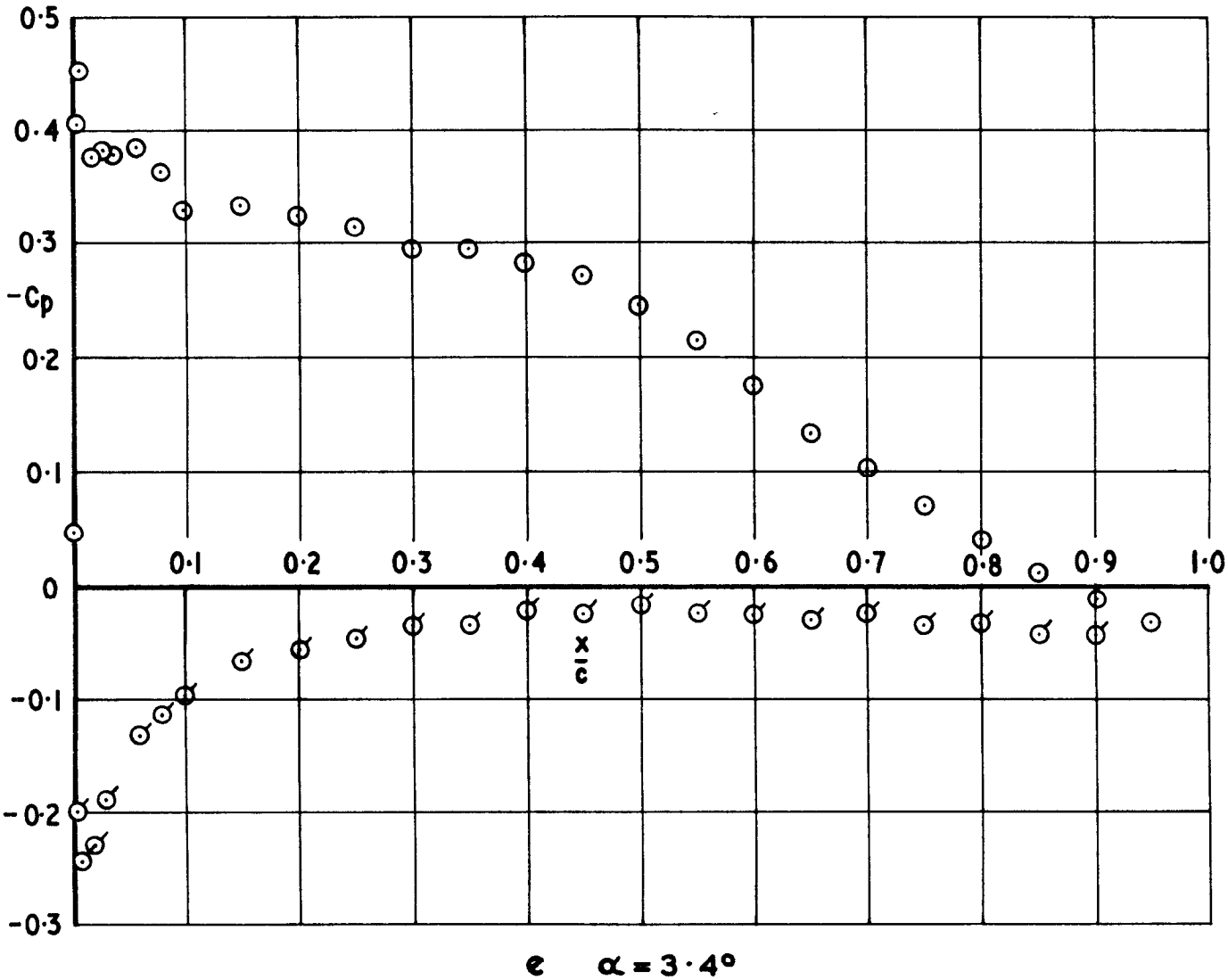


c $\alpha = 1 \cdot 3°$



d $\alpha = 2 \cdot 0°$

Fig. 15 contd



e $\alpha = 3 \cdot 4°$

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Fig. 15 contd

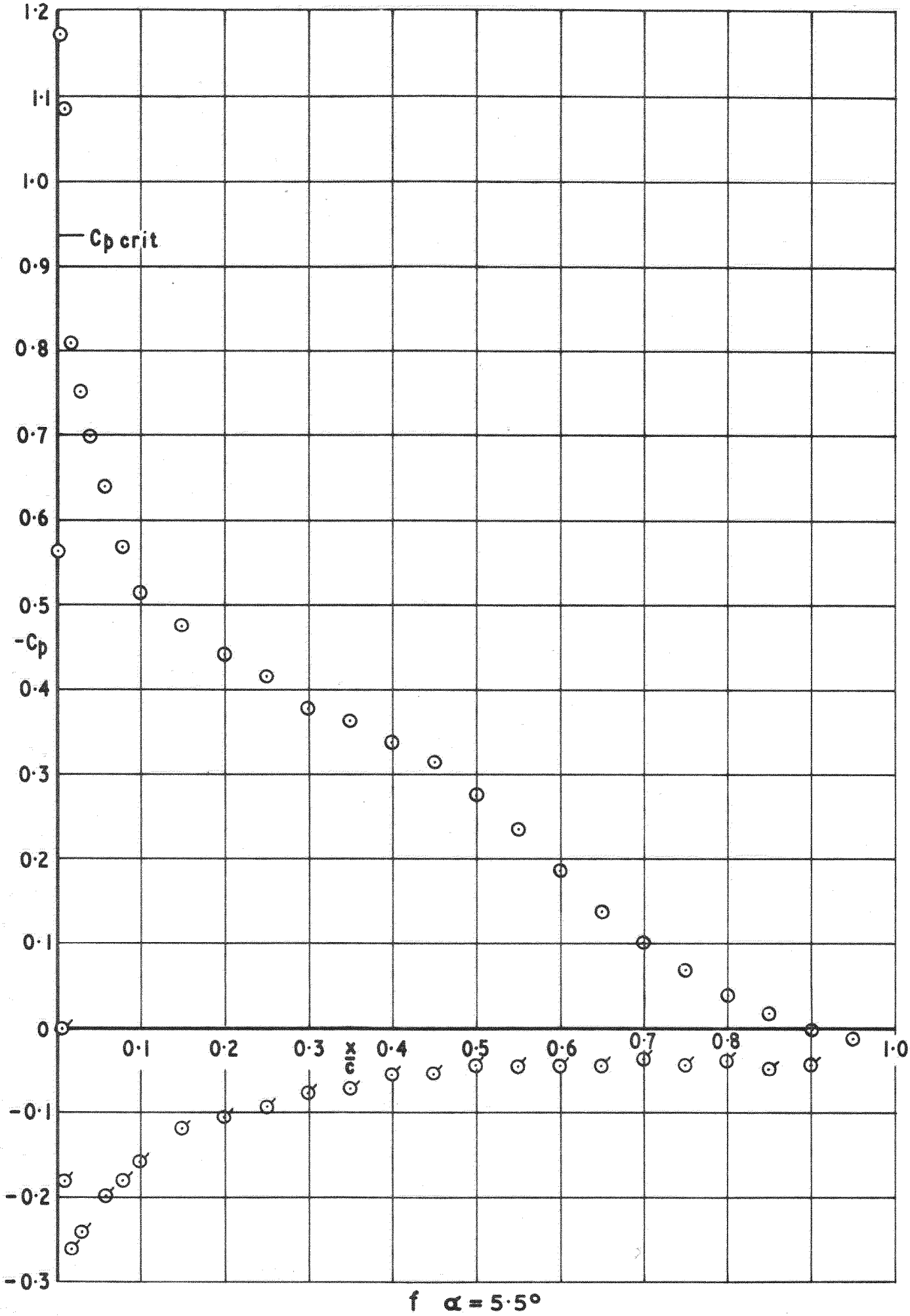

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Fig. 15 concld

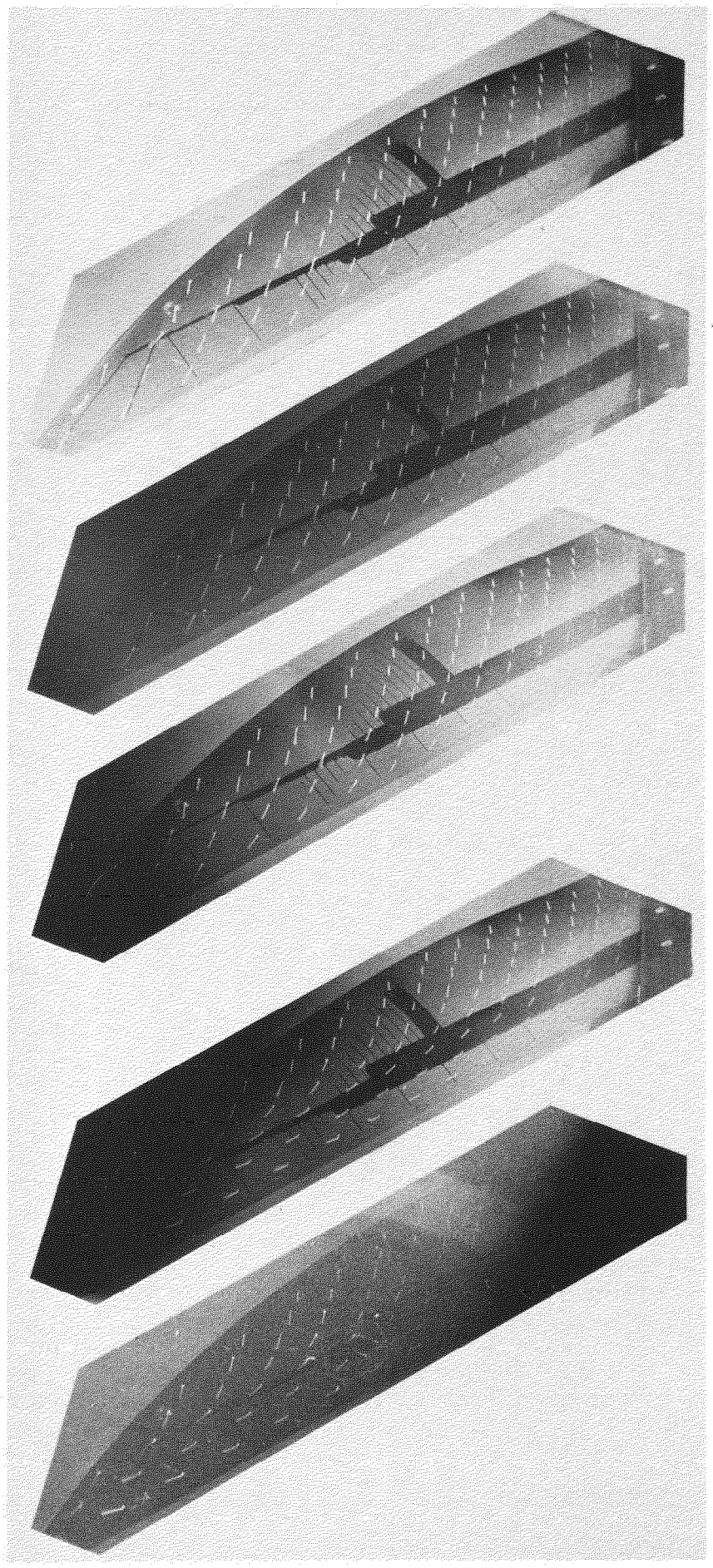

Fig.16 Upper surface tufts. M $\simeq$ 0.82

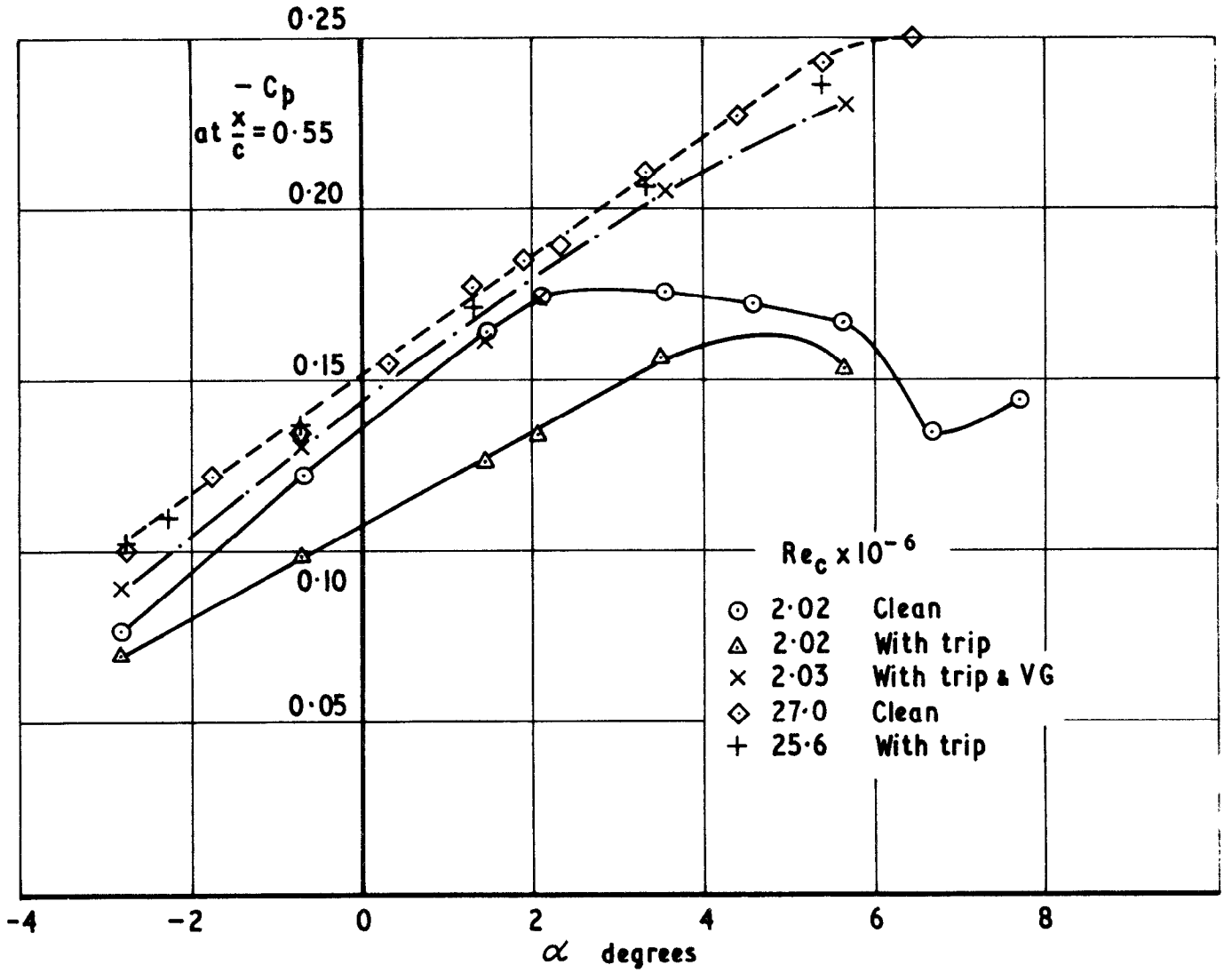

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Fig.17. Variation with angle of incidence of pressure coefficient at $\frac{x}{c}$ = 0·55 M≃0·56

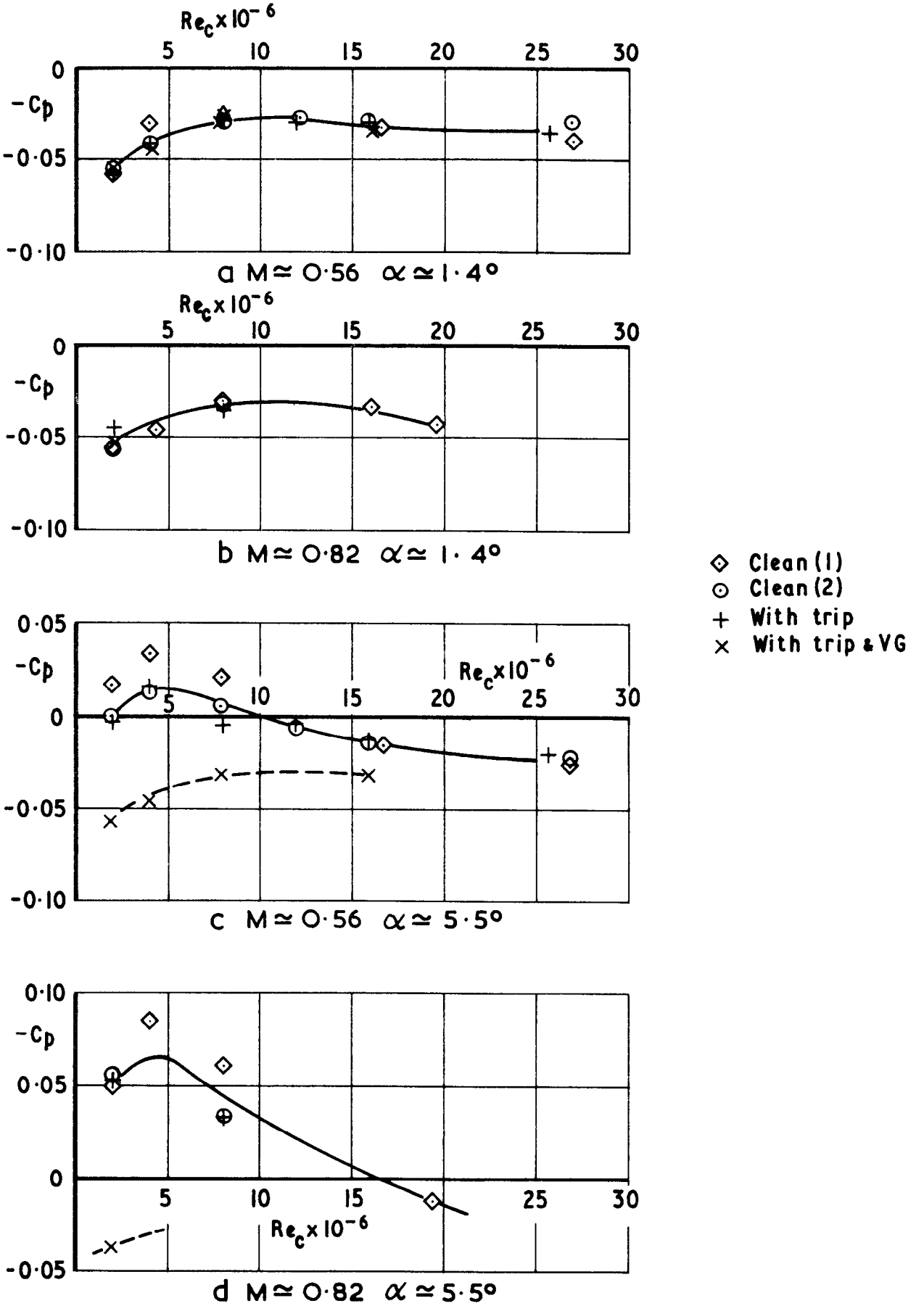

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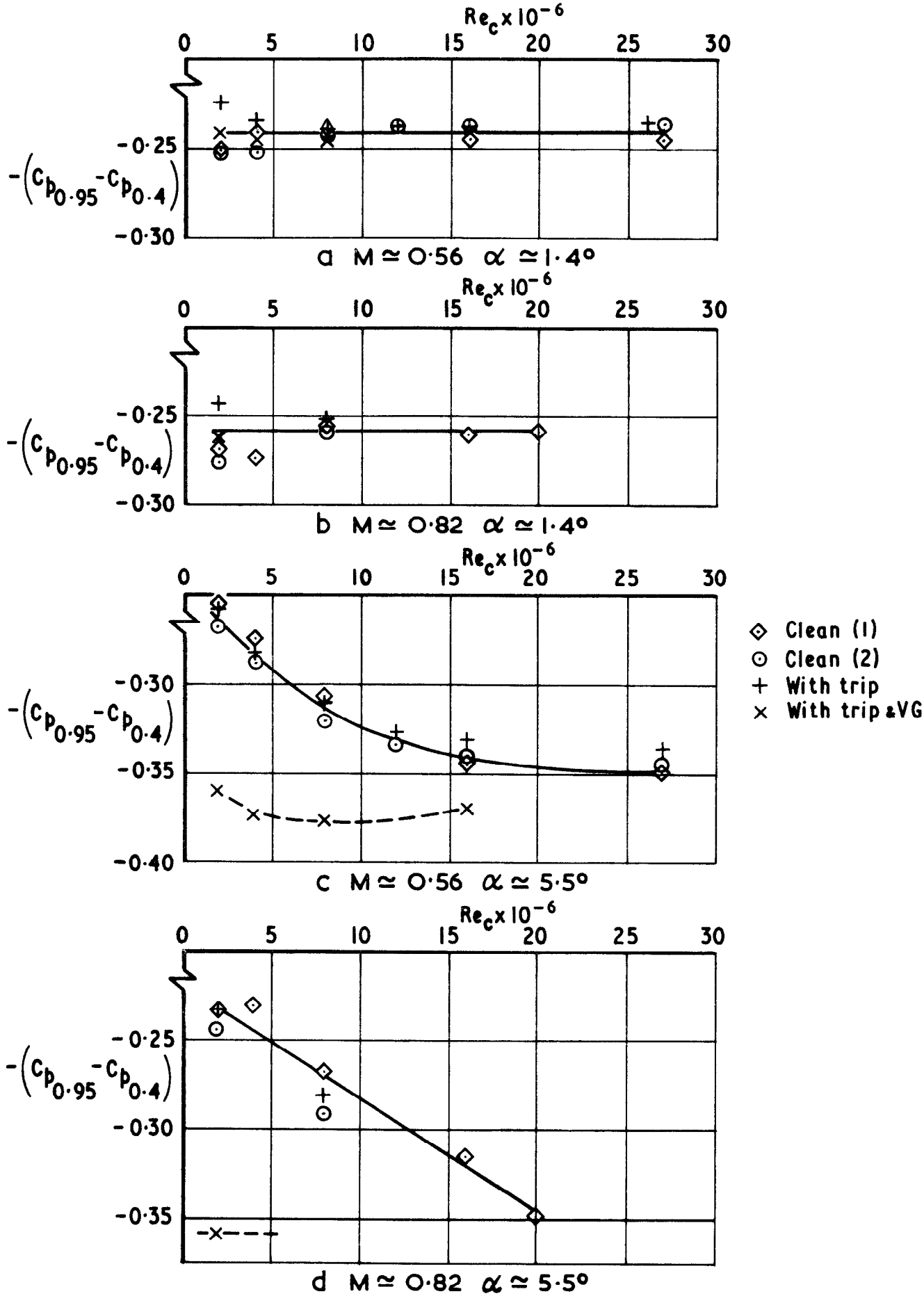
Fig. 18a-d Pressure coefficient on upper surface at $\frac{x}{c} = 0{\cdot}95$ - pressure-plotting station - variation with Reynolds number



TR 74149

Fig.19a-d Pressure recovery from $\frac{x}{c} = 0{\cdot}4$ to $\frac{x}{c} = 0{\cdot}95$ - variation with Reynolds number

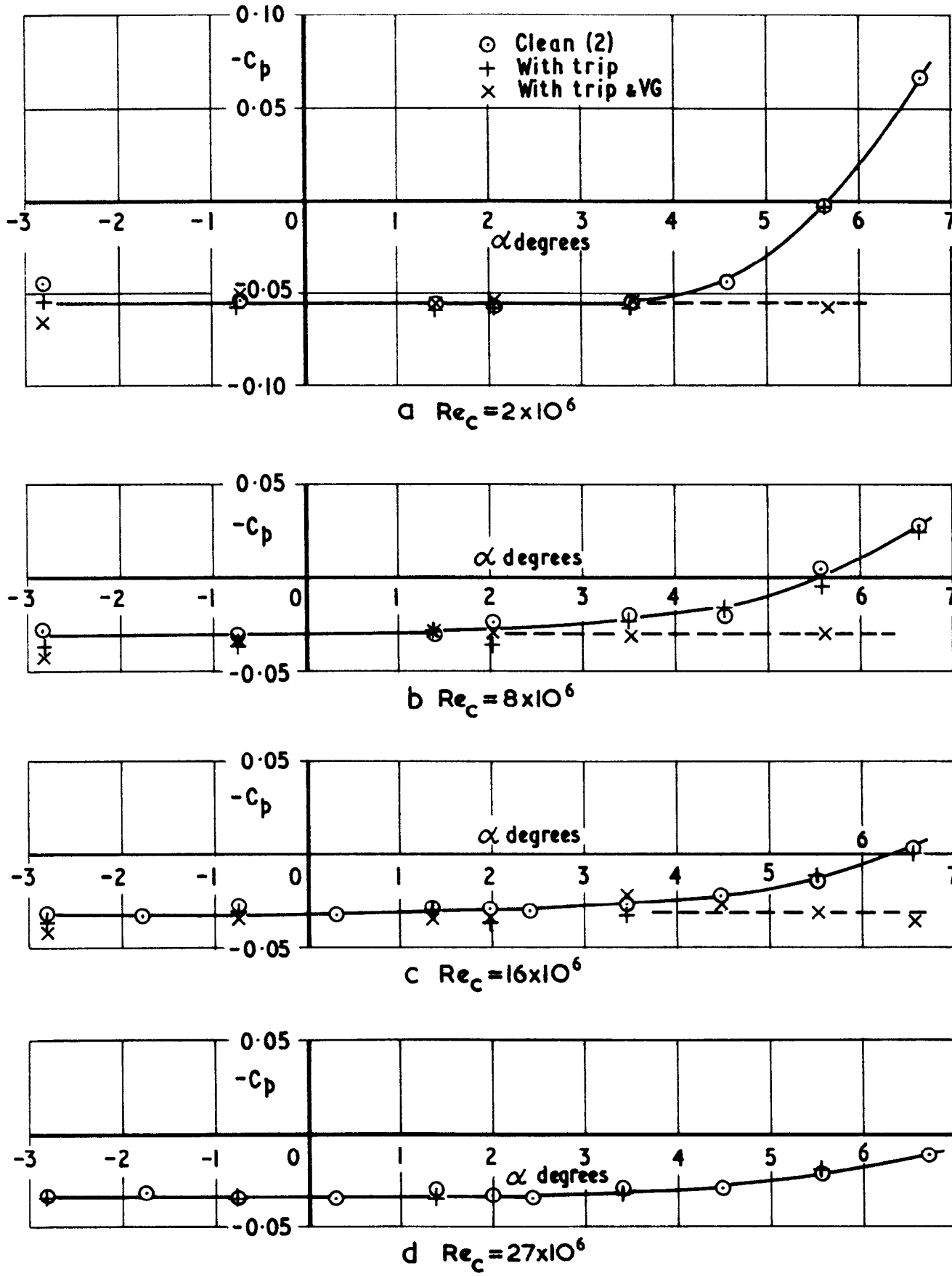


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Fig.20a-d Pressure coefficient on upper surface at $\frac{x}{c}$=0·95 - pressure-plotting station - variation with angle of incidence - M=0·56

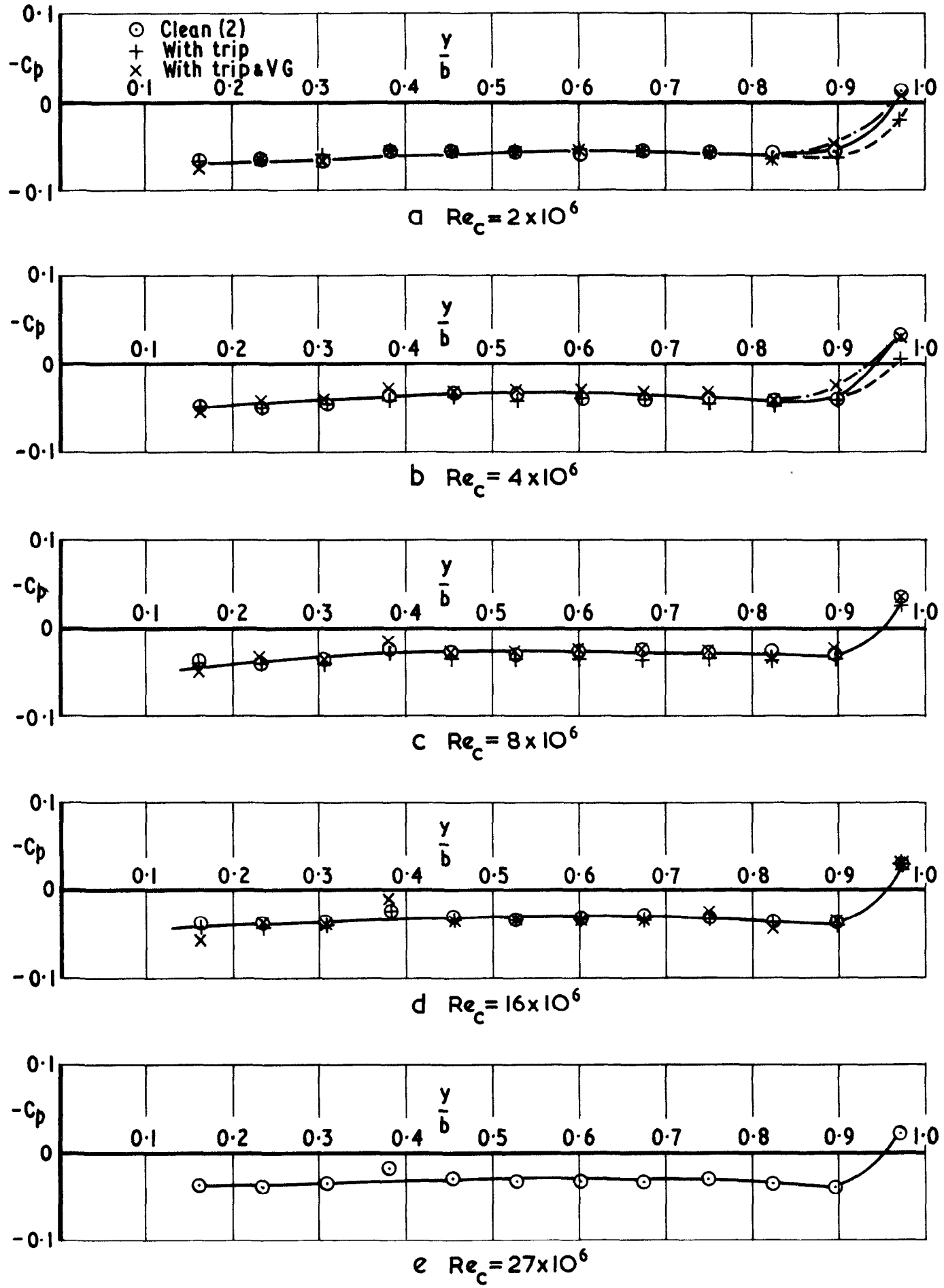

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Fig. 21a-e Spanwise variation of upper-surface pressure at $\frac{x}{c} = 0{\cdot}95$
$\alpha \simeq 2^{\circ}$ $M \simeq 0{\cdot}56$

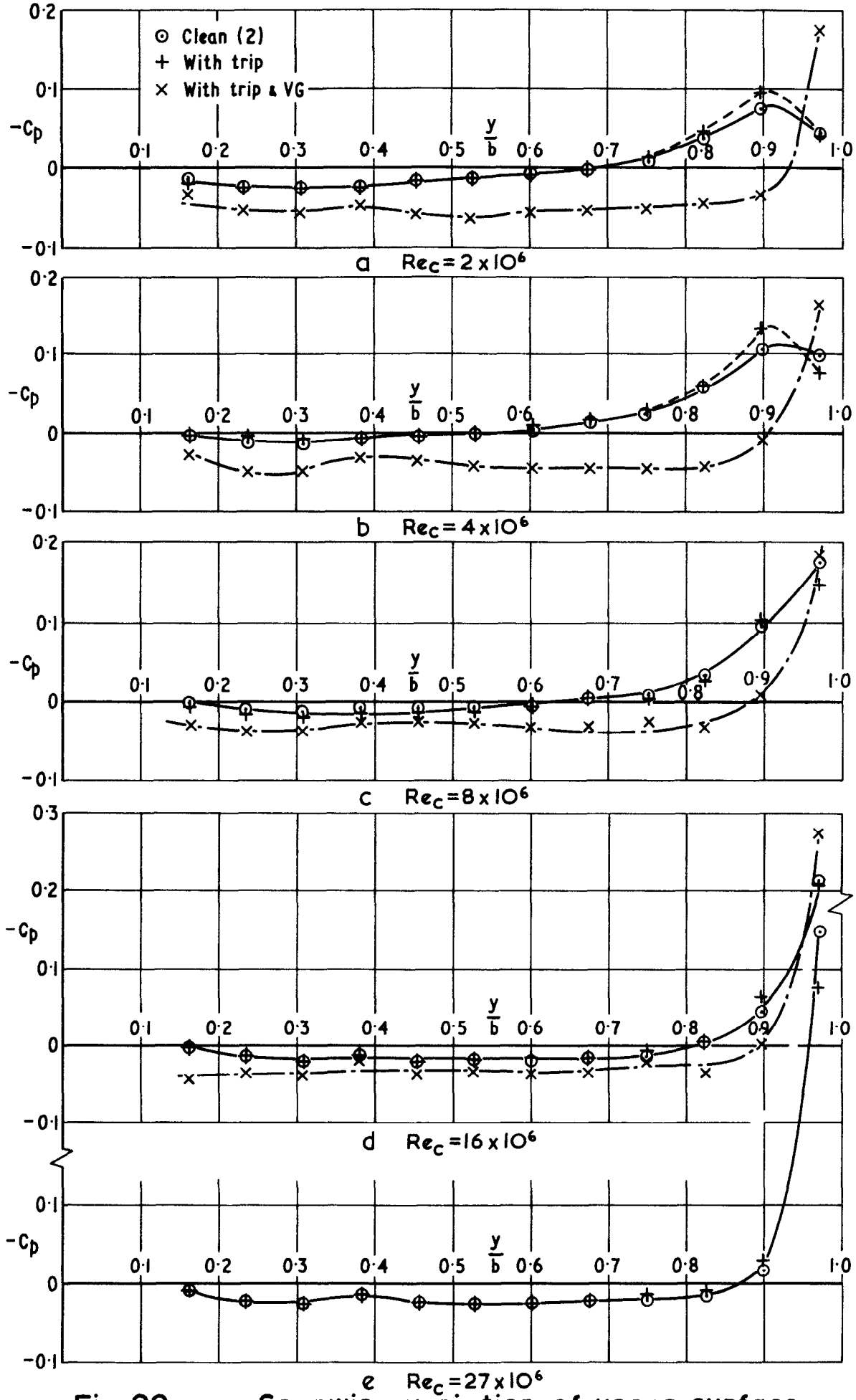
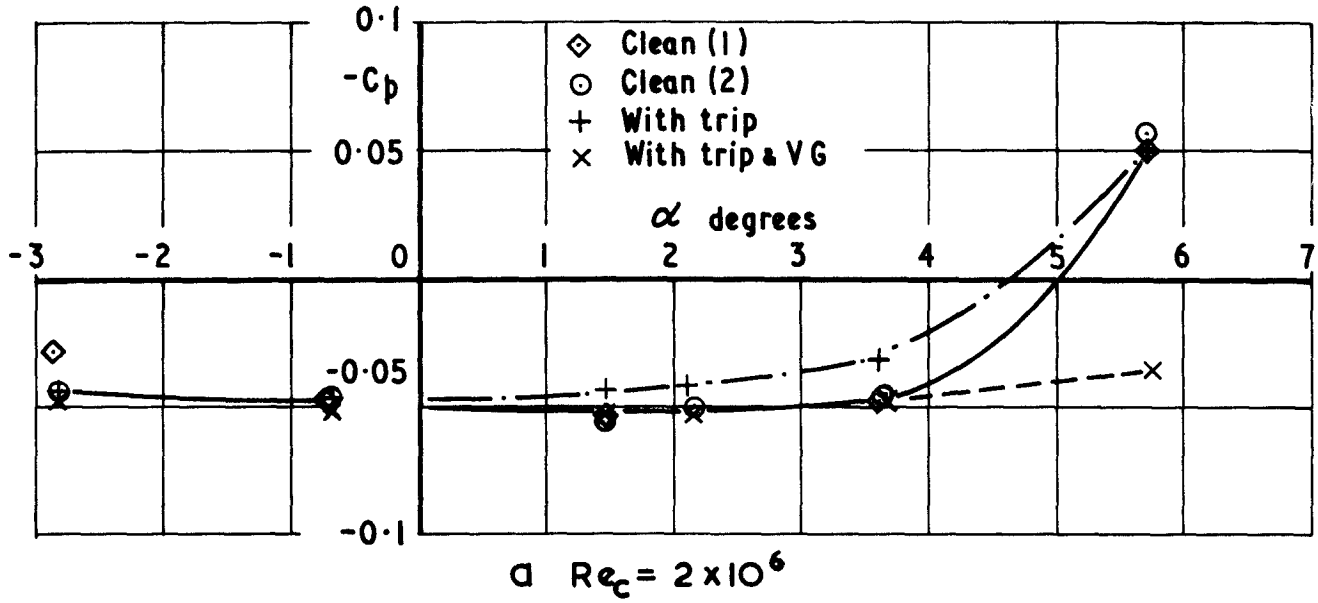
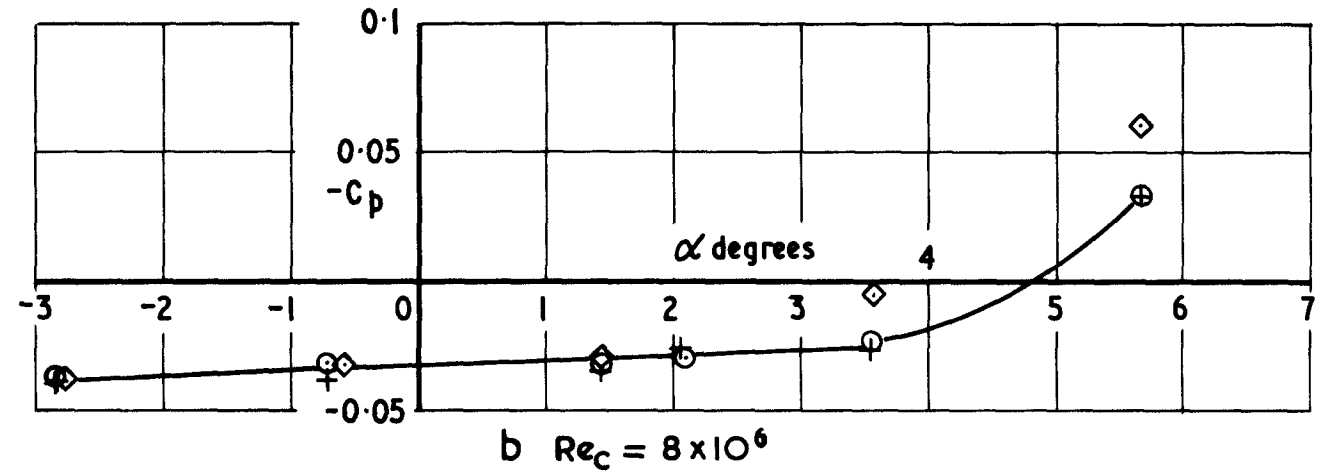


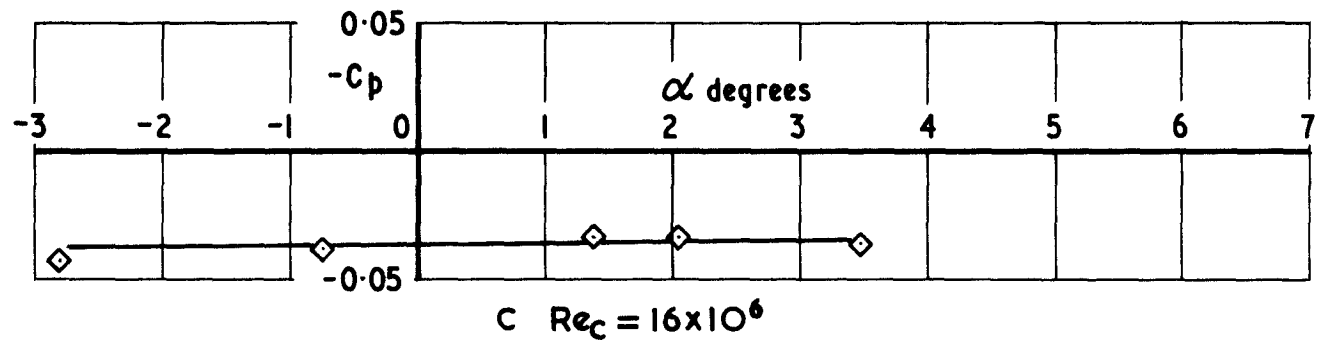
Fig. 22a–e Spanwise variation of upper-surface pressure at $\frac{x}{c} = 0.95$ $\alpha \simeq 5.5$ degrees $M \simeq 0.56$



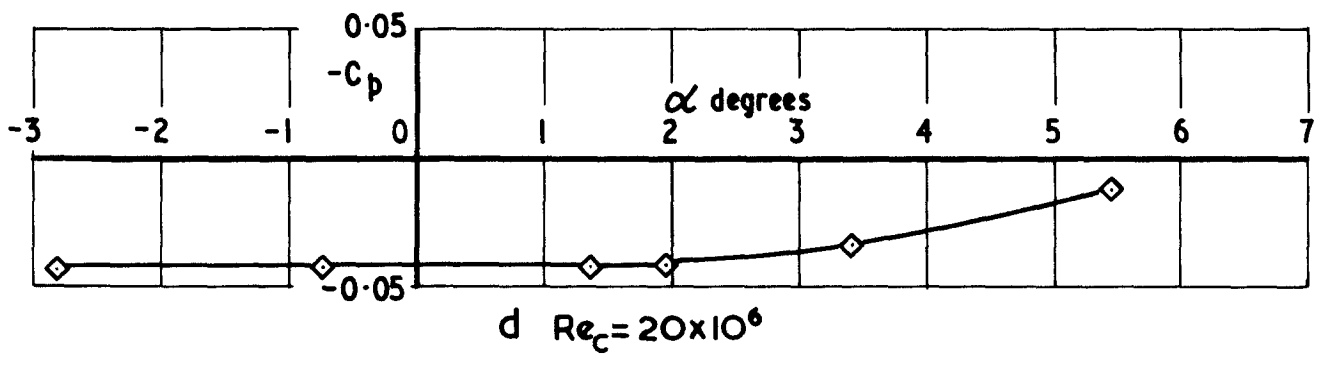
a $Re_c = 2 \times 10^6$



b $Re_c = 8 \times 10^6$



c $Re_c = 16 \times 10^6$



d $Re_c = 20 \times 10^6$

Fig.23a-d Variation with angle of incidence of pressure coefficient at $\frac{x}{c} = 0{\cdot}95$ – pressure-plotting station $M \simeq 0{\cdot}82$

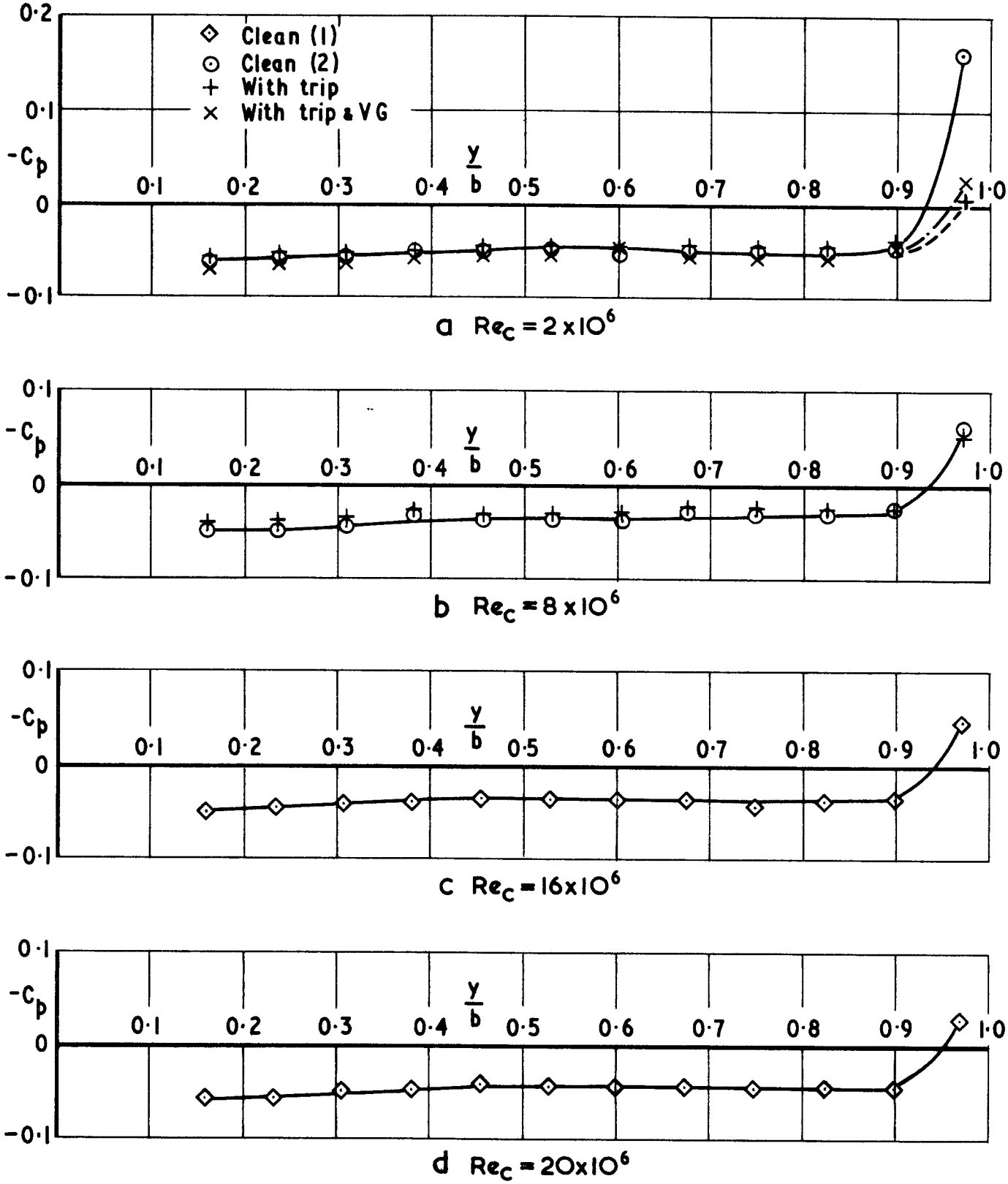


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Fig.24a-d Spanwise variation of upper-surface pressure at $\frac{x}{c}=0{\cdot}95$
$\alpha \simeq 2^{\circ}$ $M \simeq 0{\cdot}82$

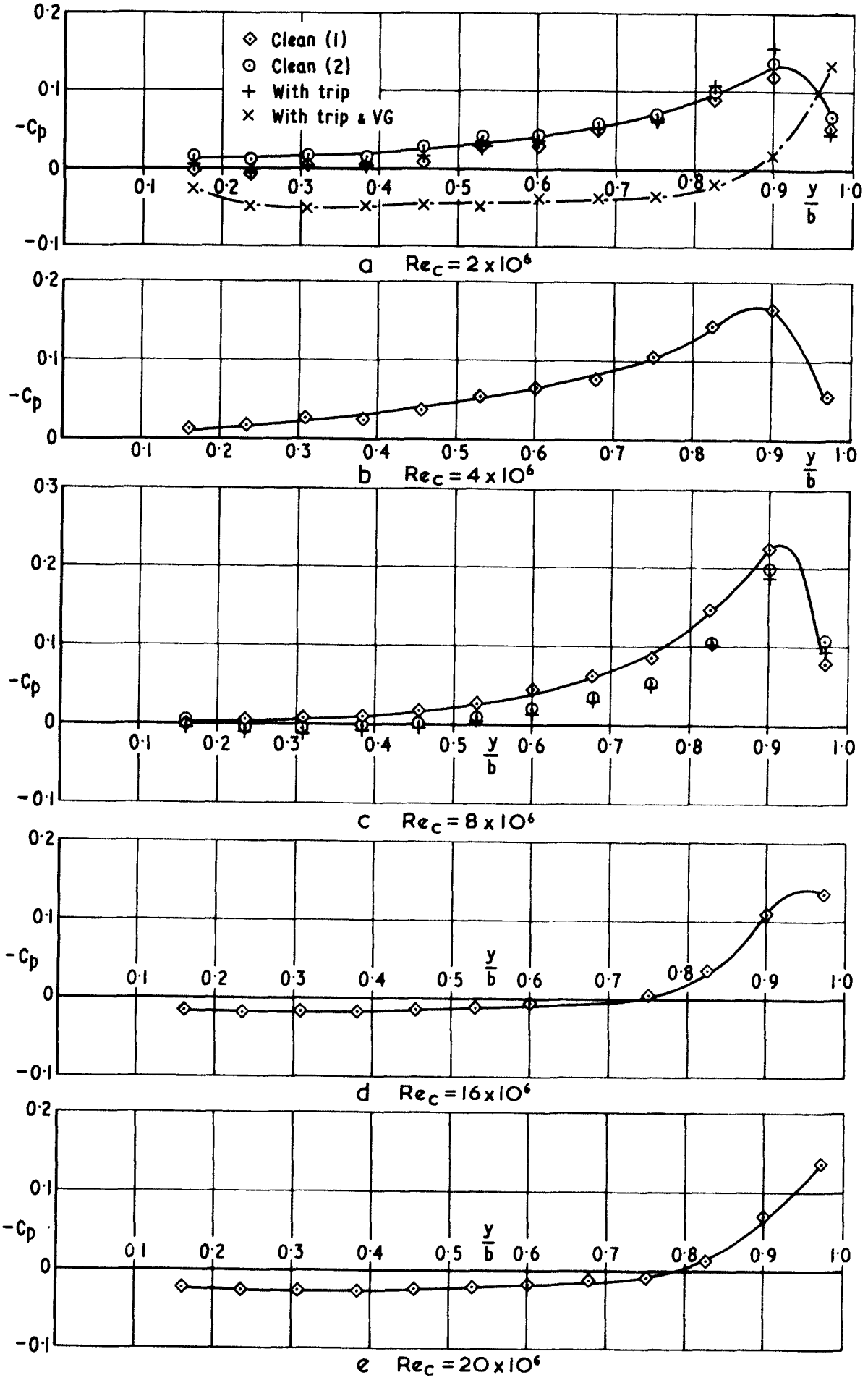
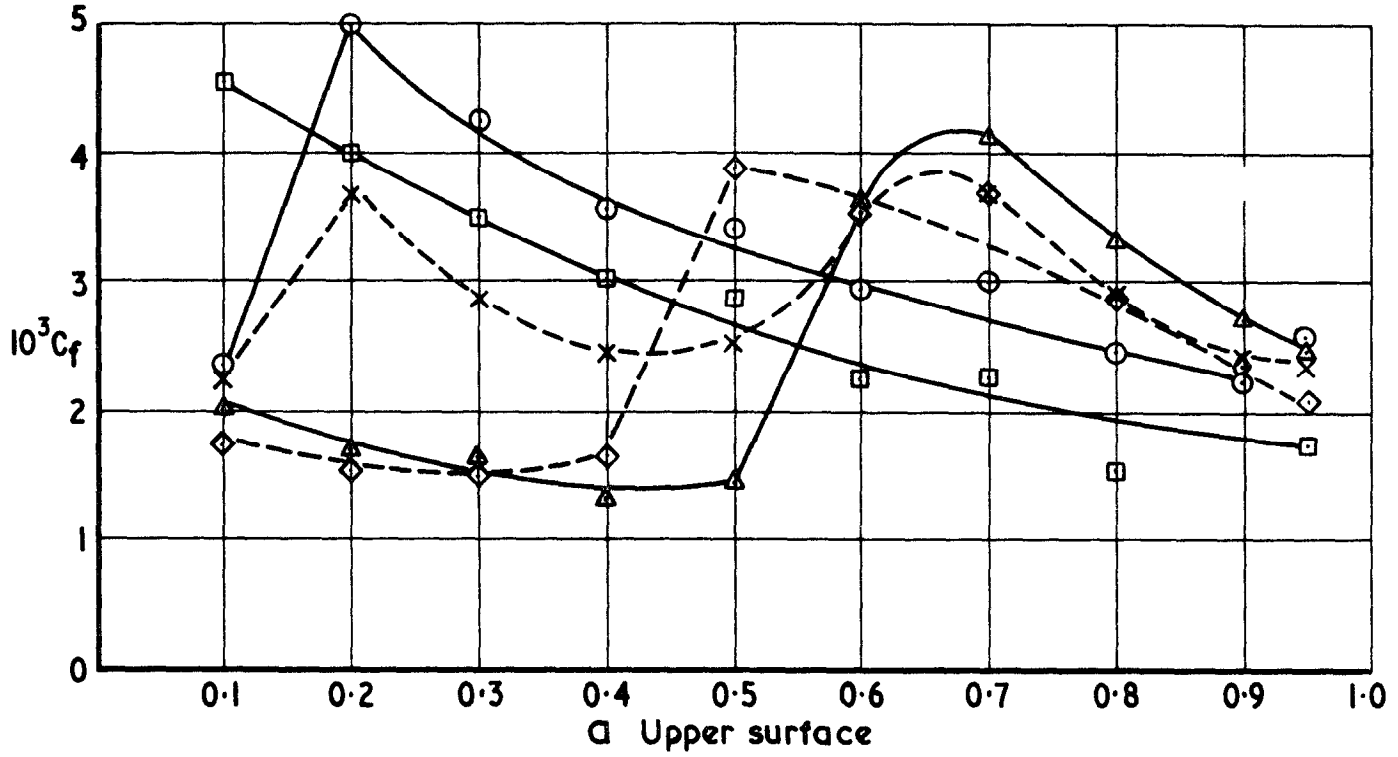


Fig. 25a–e Spanwise variation of upper-surface pressure at $\frac{x}{c} = 0.95$ $\alpha \simeq 5.7$ degrees $M = 0.82$



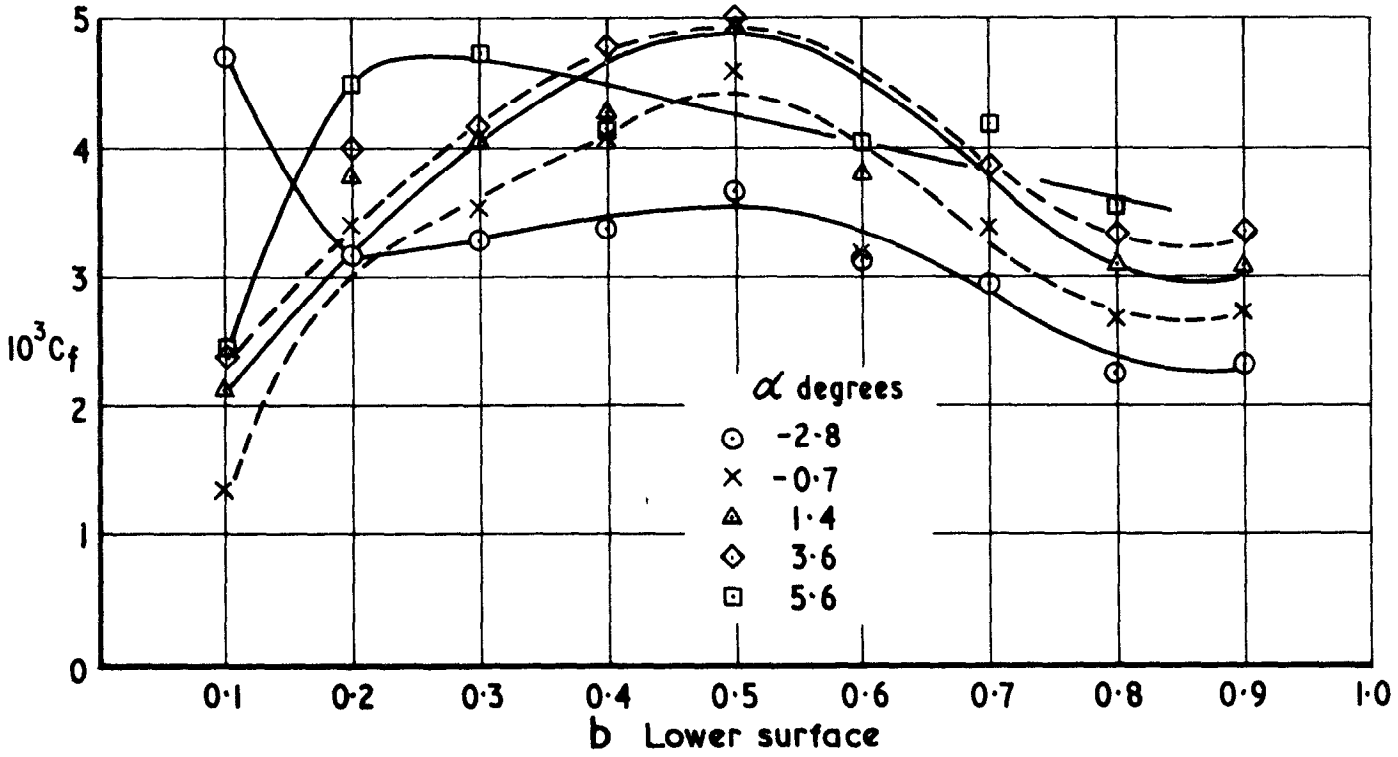


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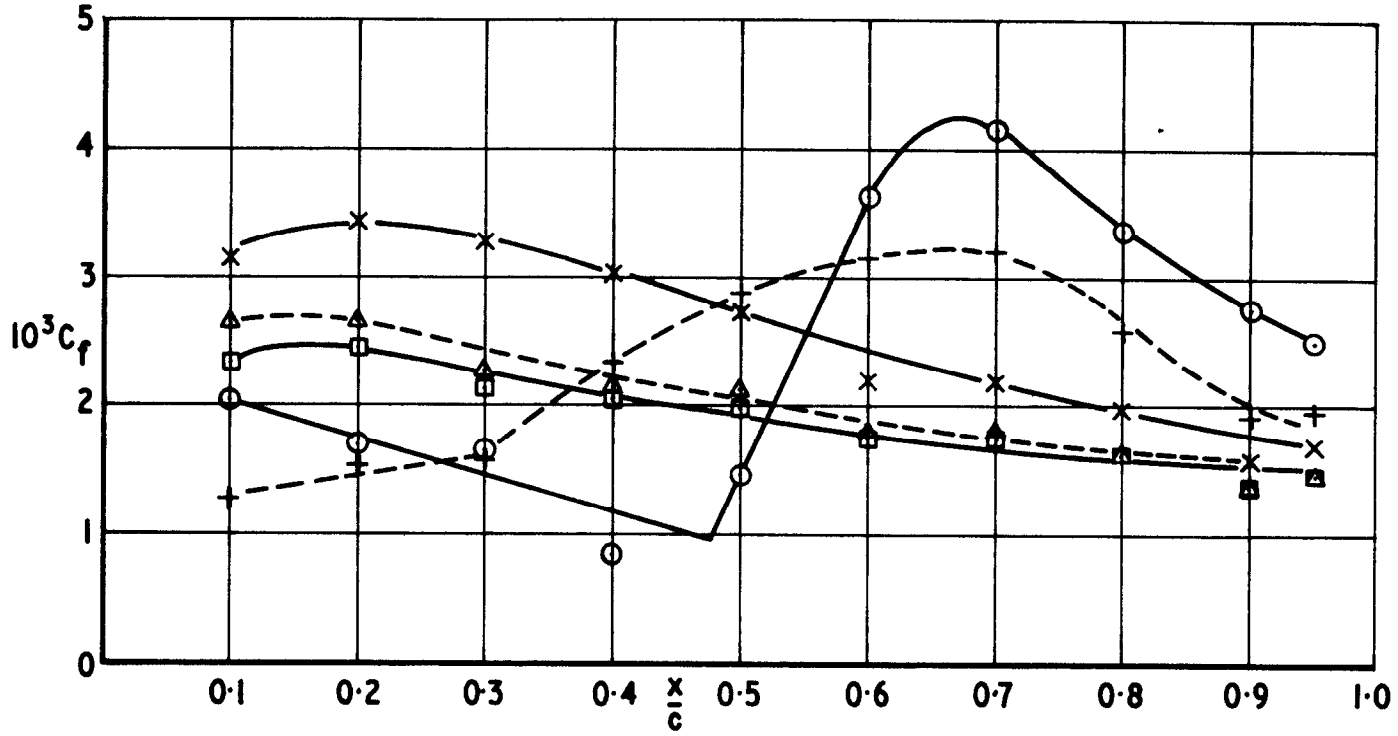
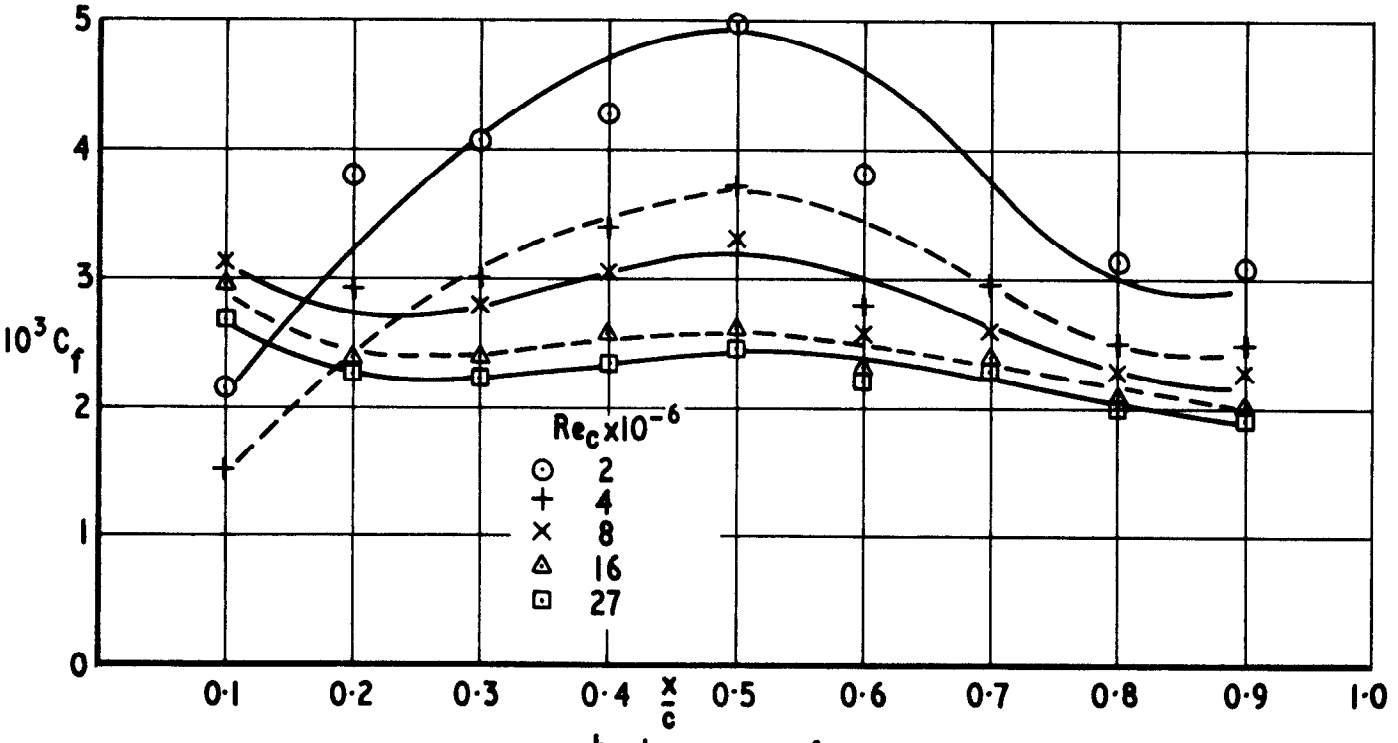
Fig.26a & b Section skin friction distribution $M = 0{\cdot}56$ $Re_c = 2 \times 10^6$

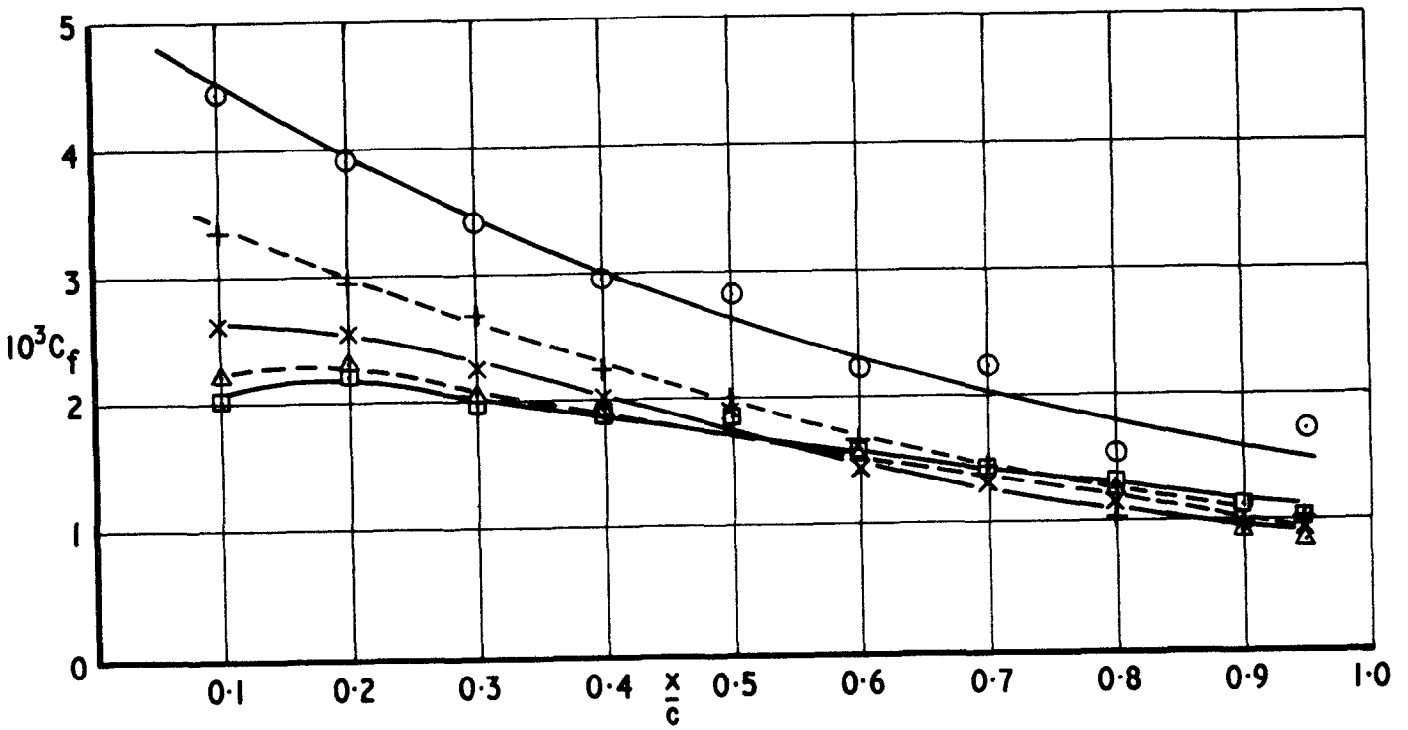


a Upper surface

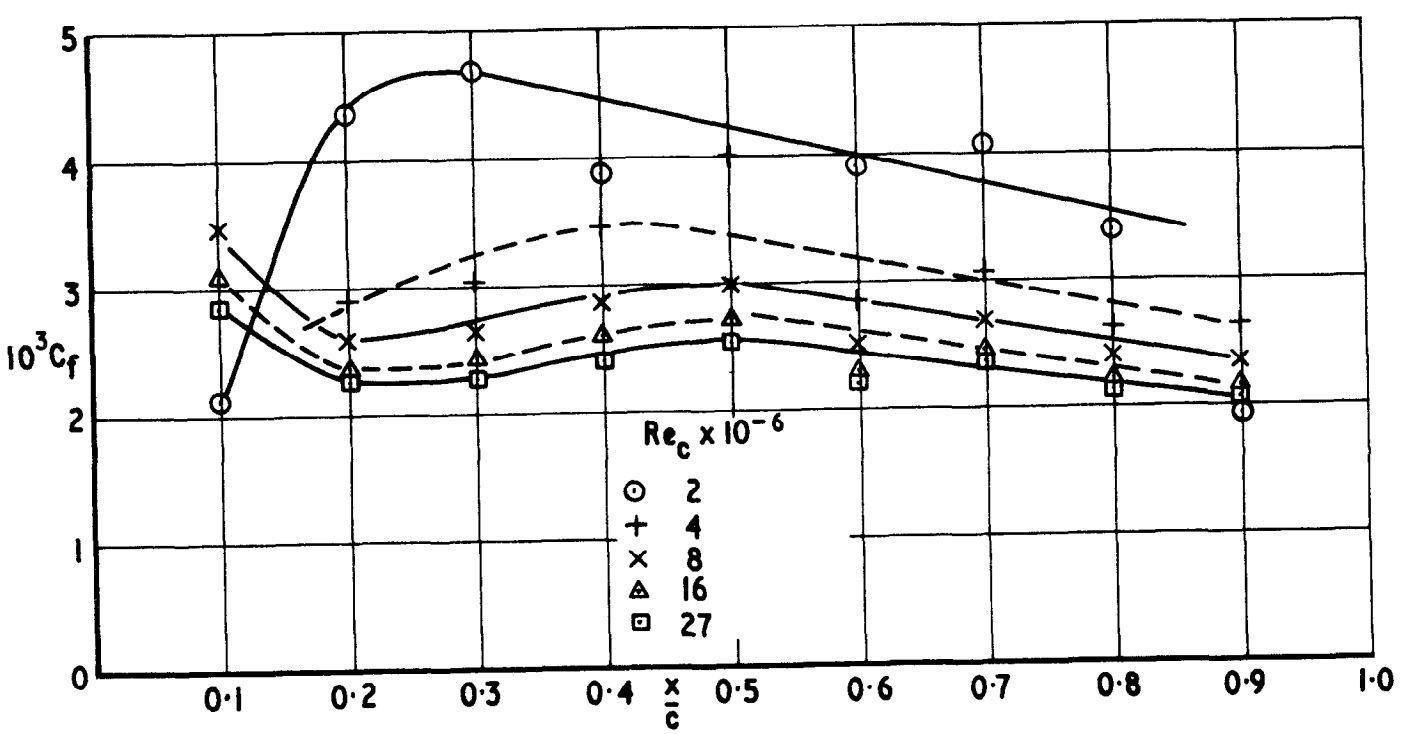


b Lower surface

Fig.27a&b Section skin friction distribution
—variation with Reynolds number $M \simeq 0{\cdot}55$ $\alpha \simeq 1{\cdot}4°$



a Upper surface



b Lower surface

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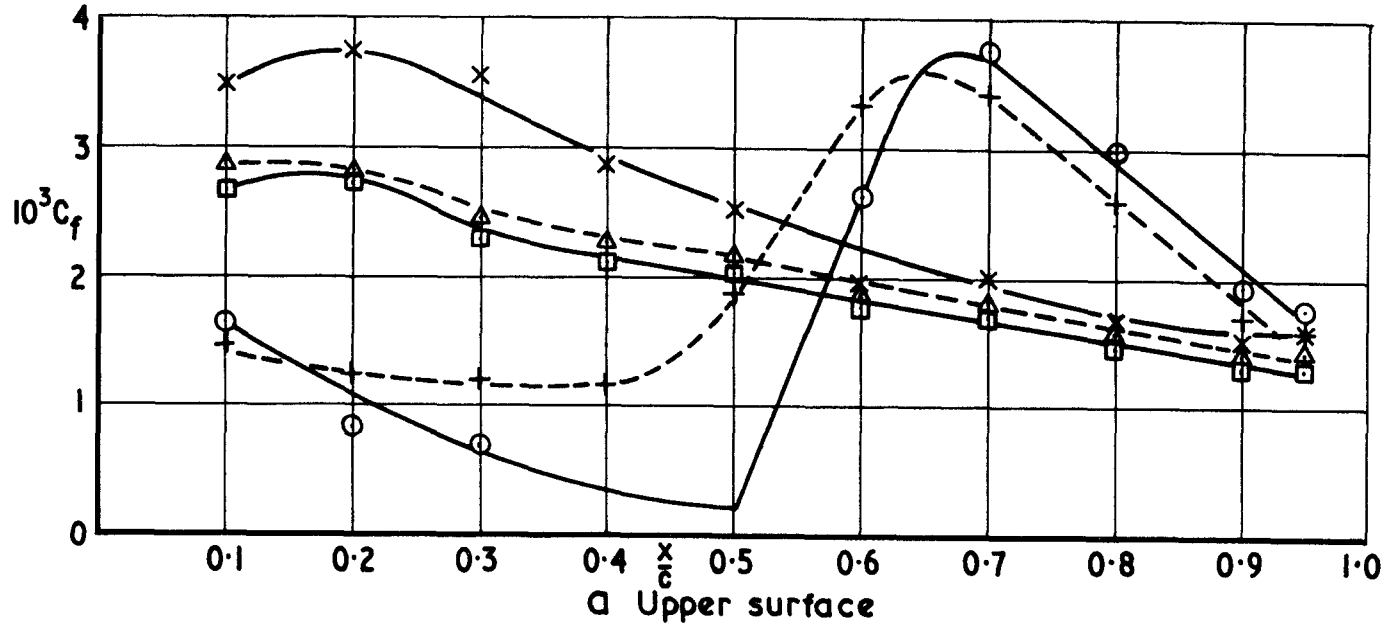
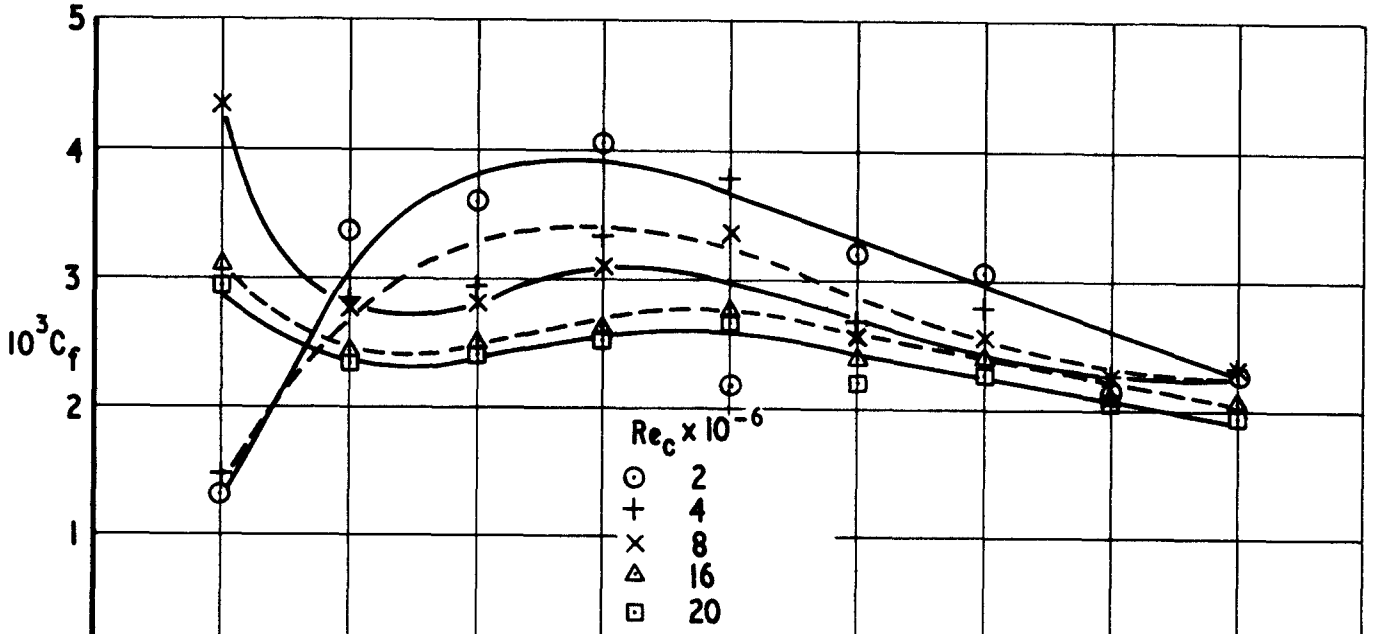
Fig.28 a & b Section skin friction distribution
–variation with Reynolds number $M \simeq 0{\cdot}55$ $\alpha \simeq 5{\cdot}5°$

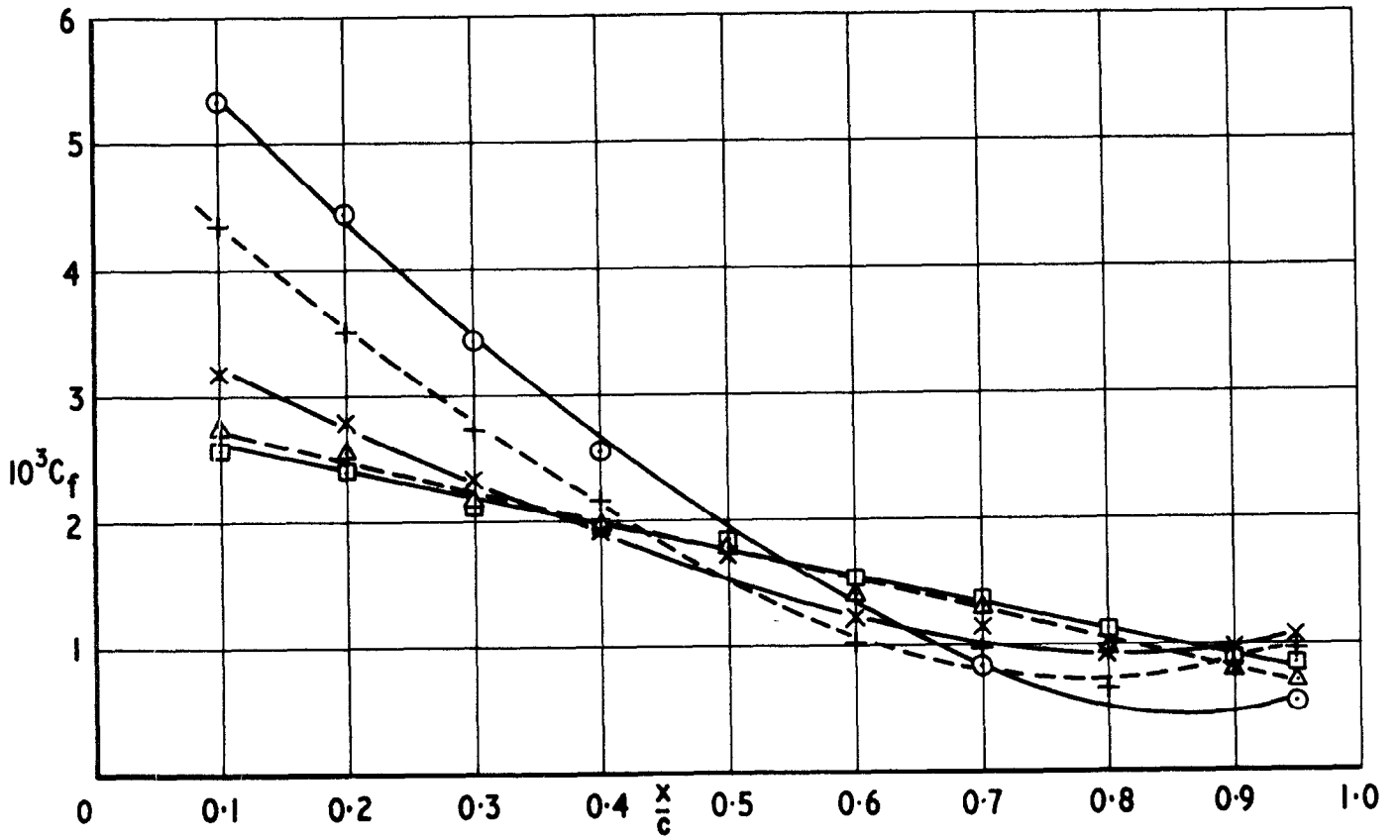


a Upper surface

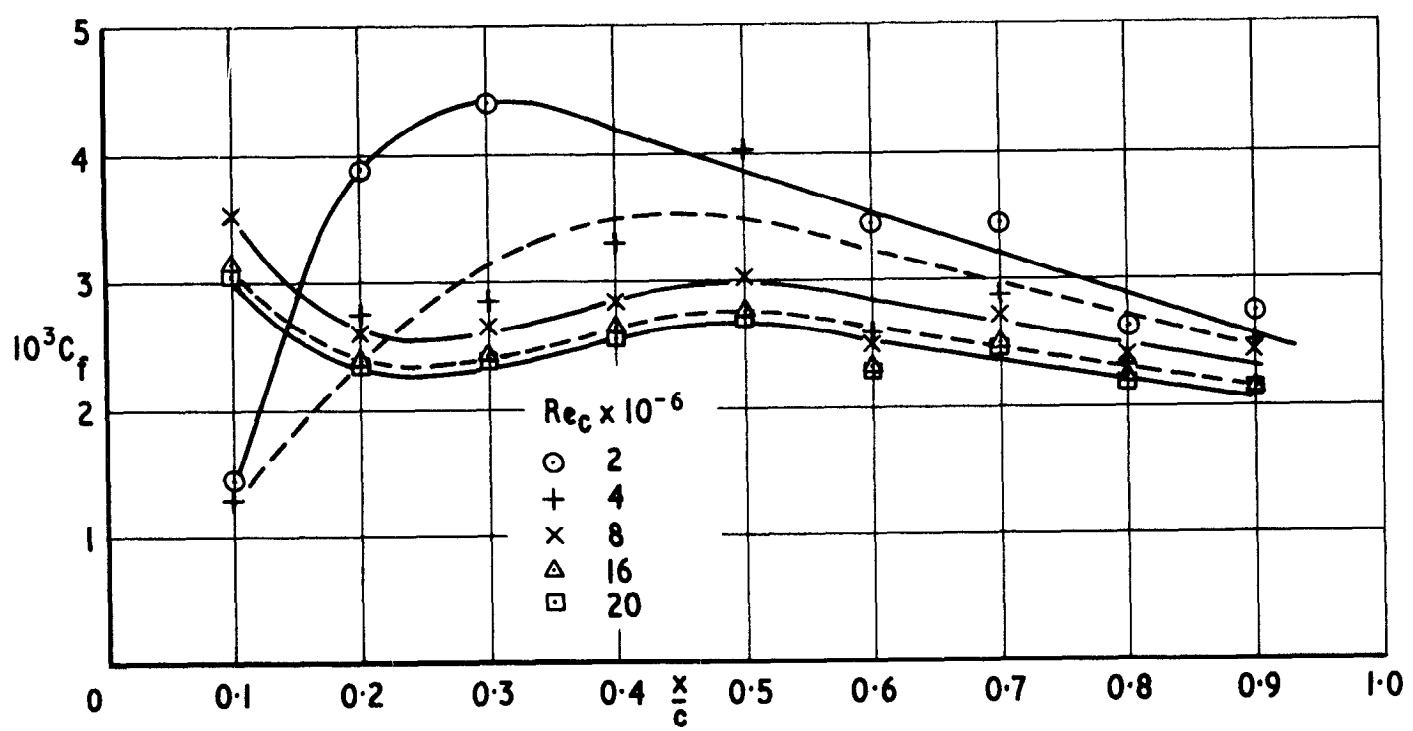


b Lower surface

Fig. 29 a & b Section skin friction distribution -variation with Reynolds number $M \simeq 0{\cdot}82\ \alpha \simeq 1{\cdot}4°$



a Upper surface



b Lower surface

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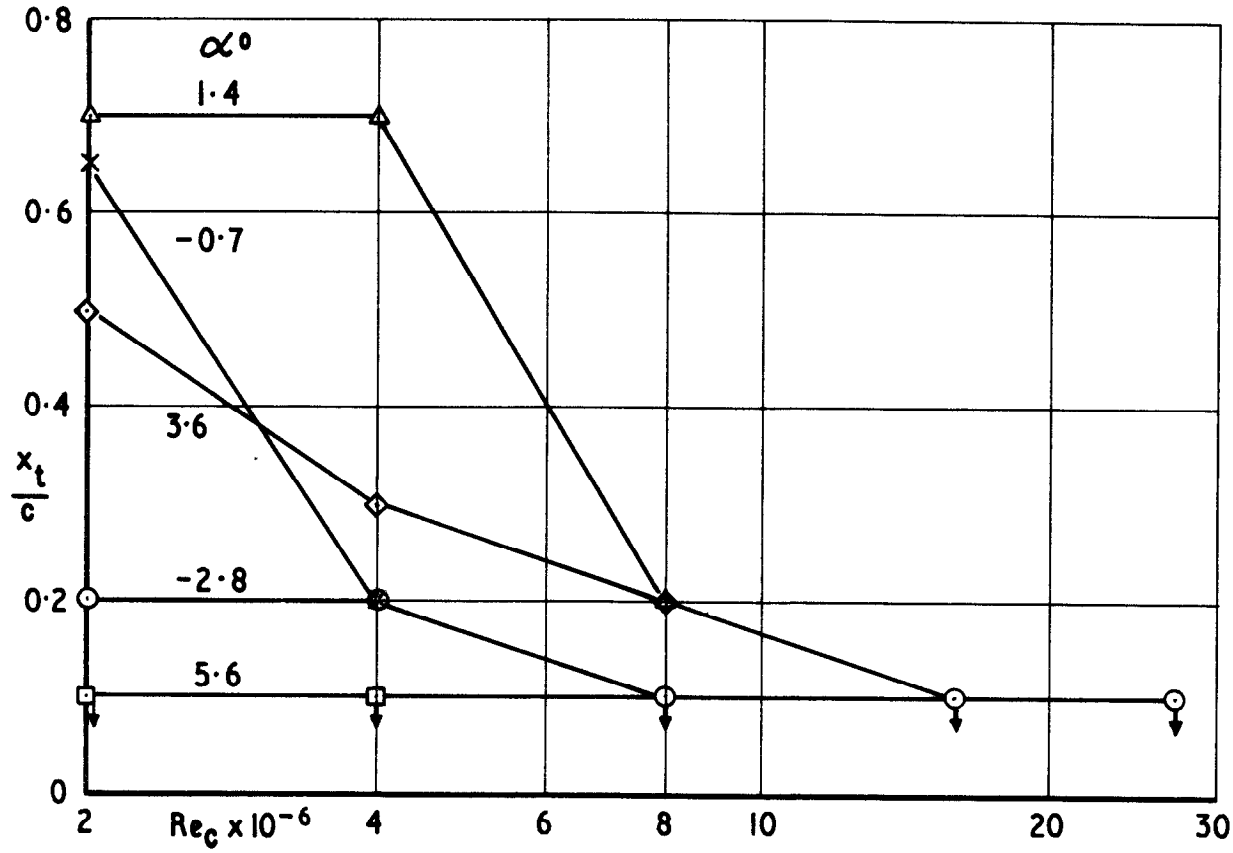
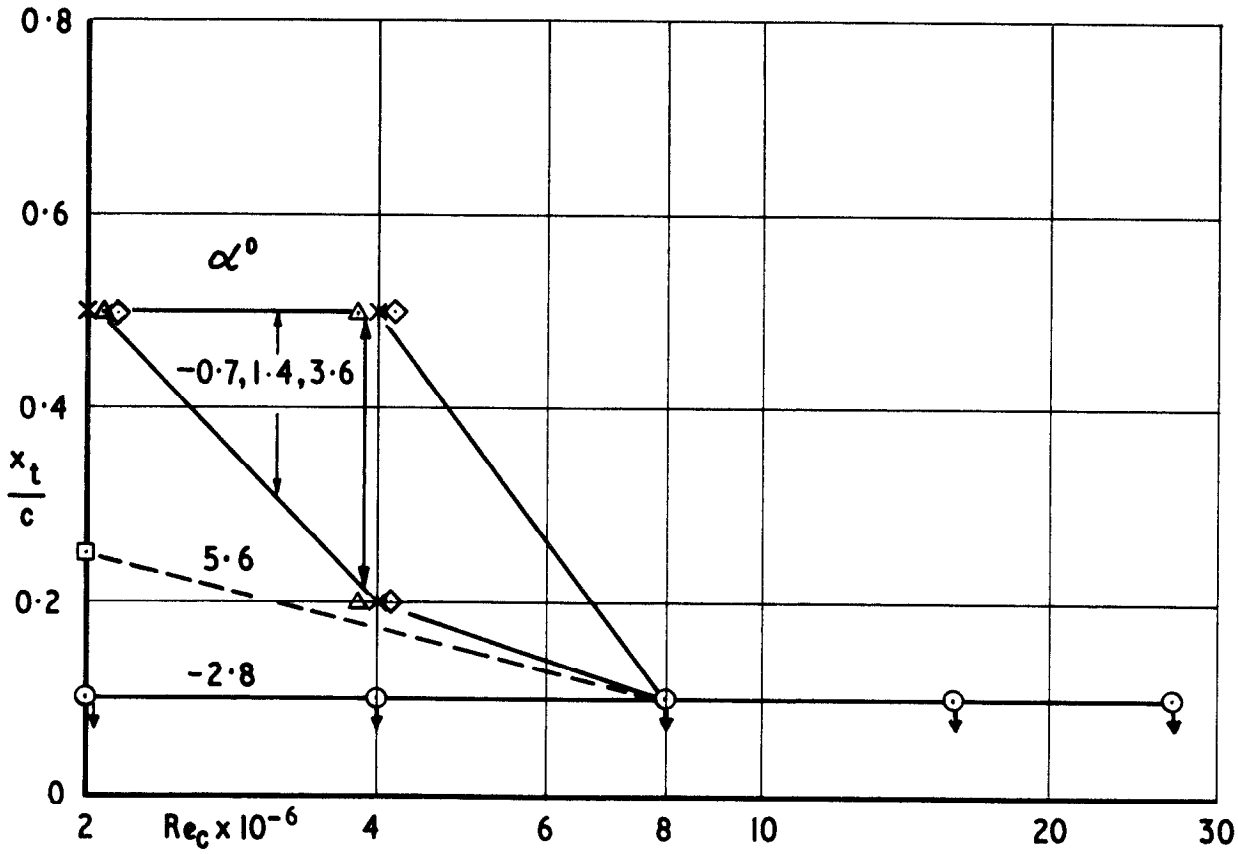
Fig.30a&b Section skin friction distribution– variation with Reynolds number $M \simeq 0{\cdot}82$ $\alpha \simeq 5{\cdot}7°$



a Upper surface



b Lower surface

Fig. 31a&b Transition position M=0·55

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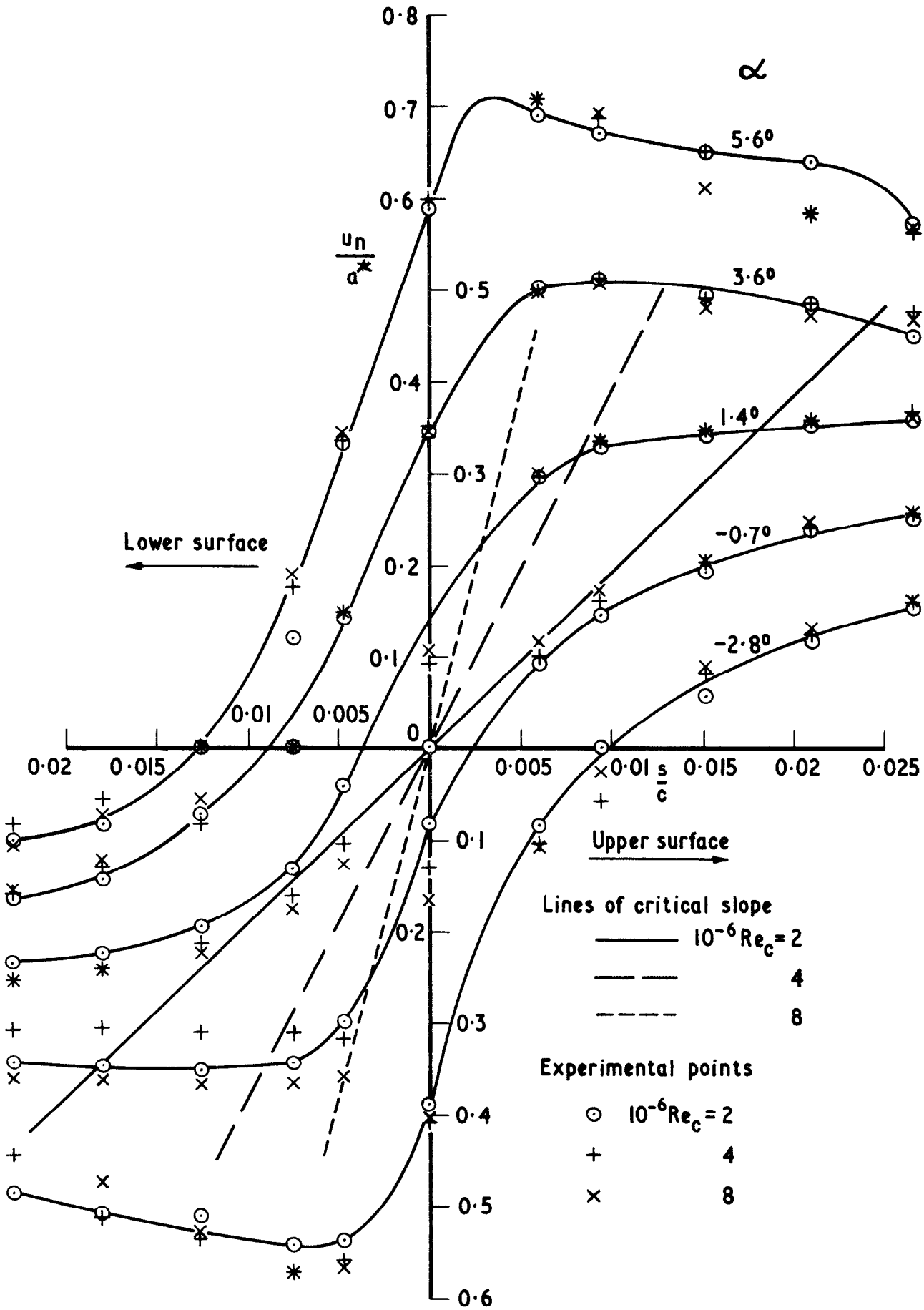

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Fig.32 Velocity distribution round leading edge M = 0·55

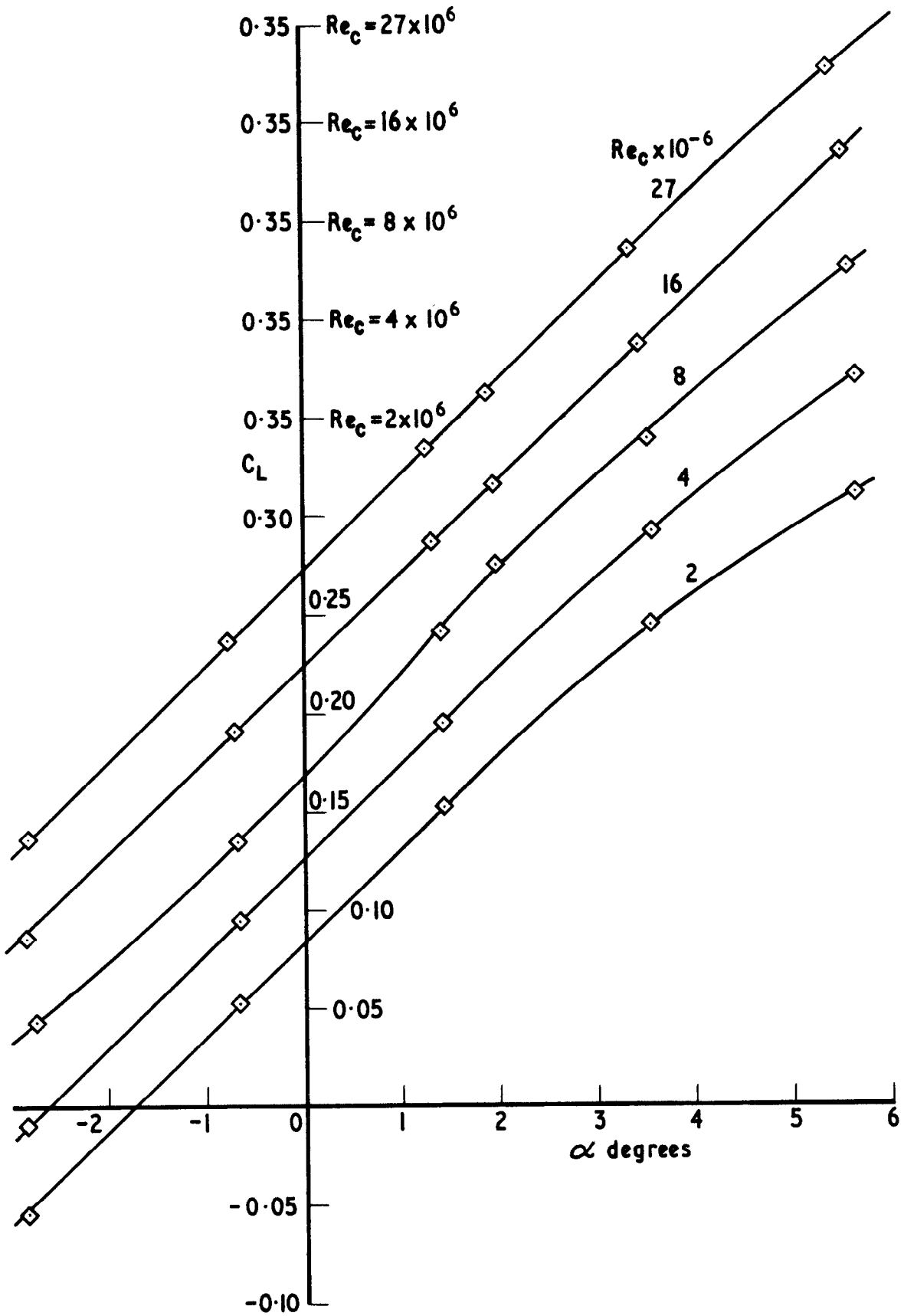

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Fig. 33a Section lift M≃0·56 clean (1)

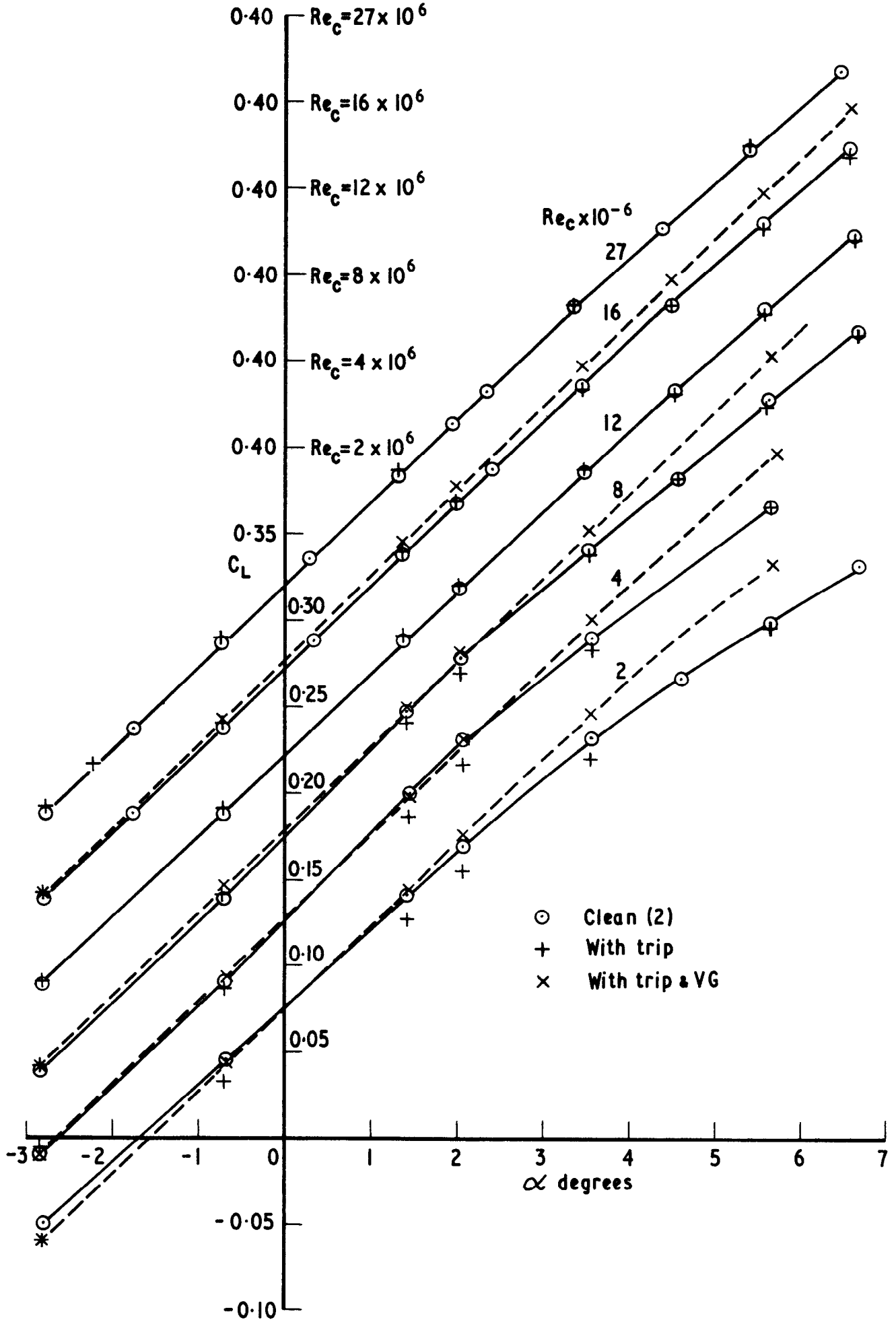

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Fig. 33b Section lift - effect of trip & vortex generators M ≃ 0·56

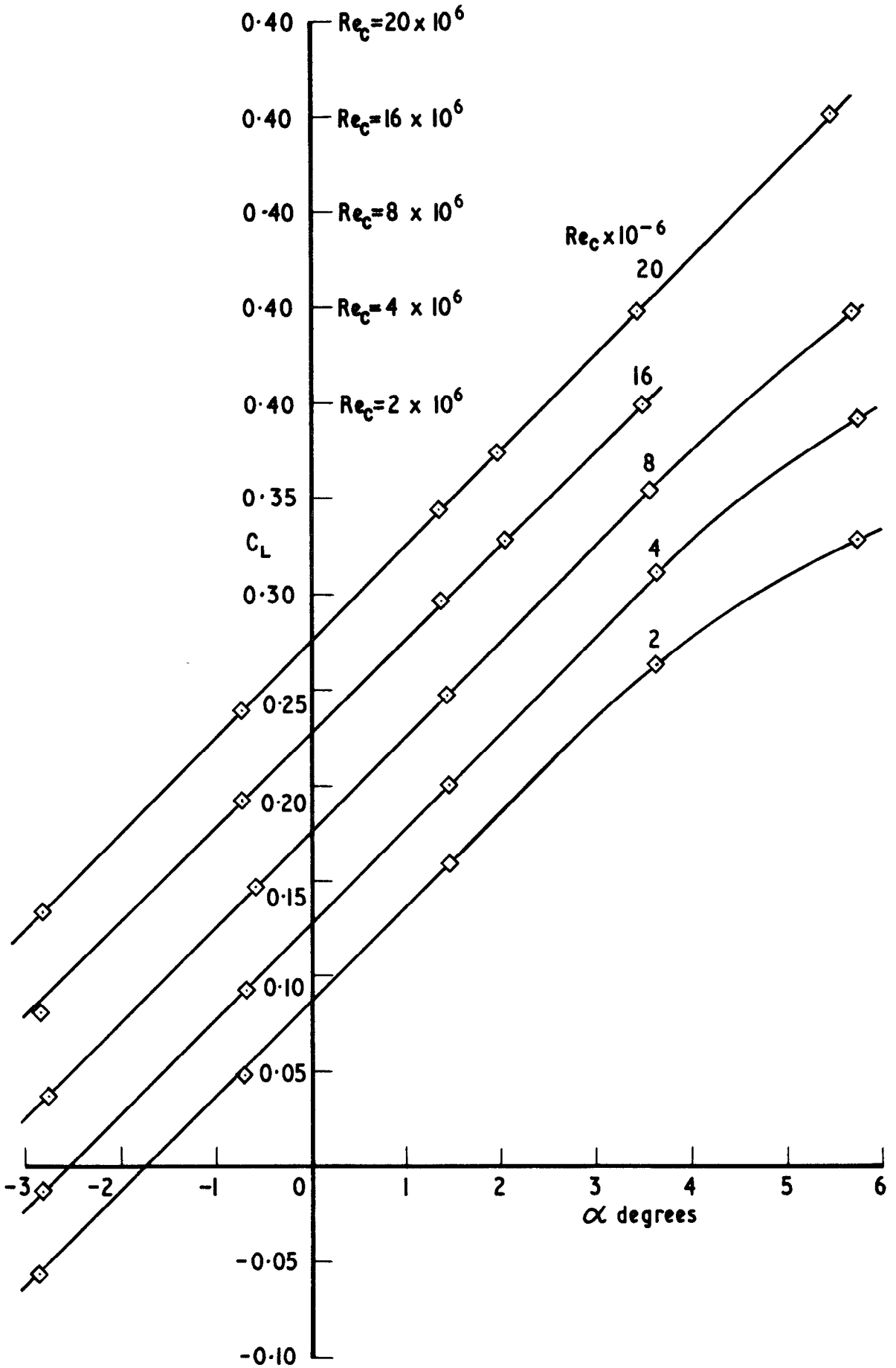

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Fig.34a Section lift M≃0·82 clean (1)

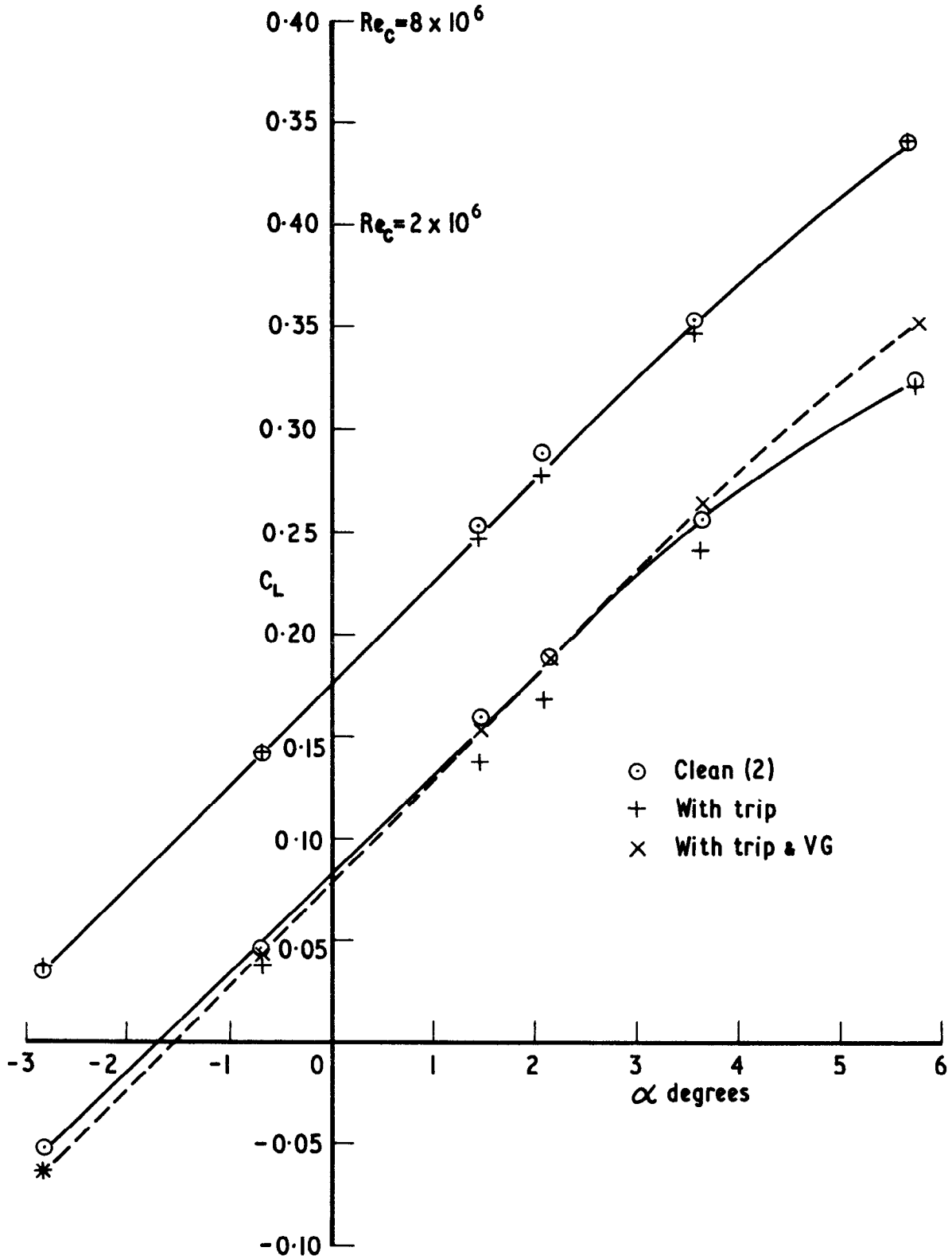

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Fig. 34b Section lift – effect of trip & vortex generators M≃0·82

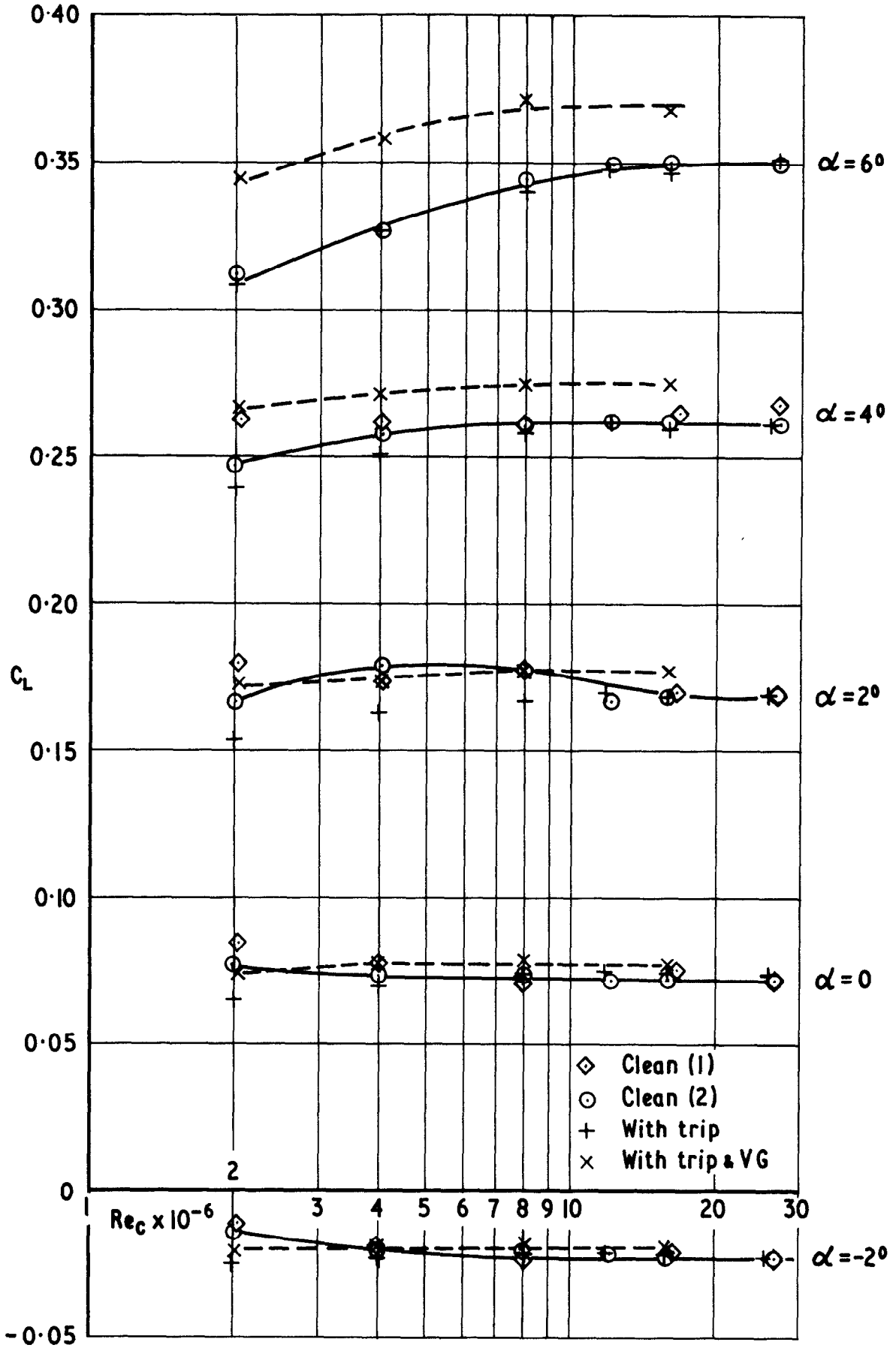

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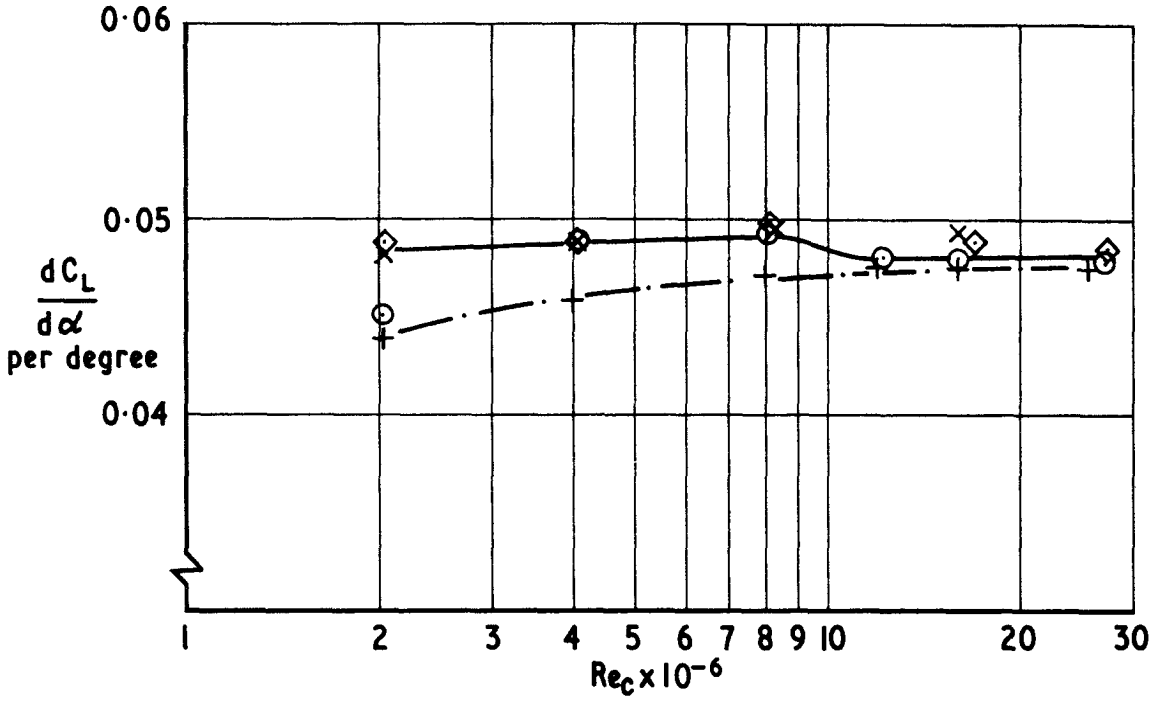
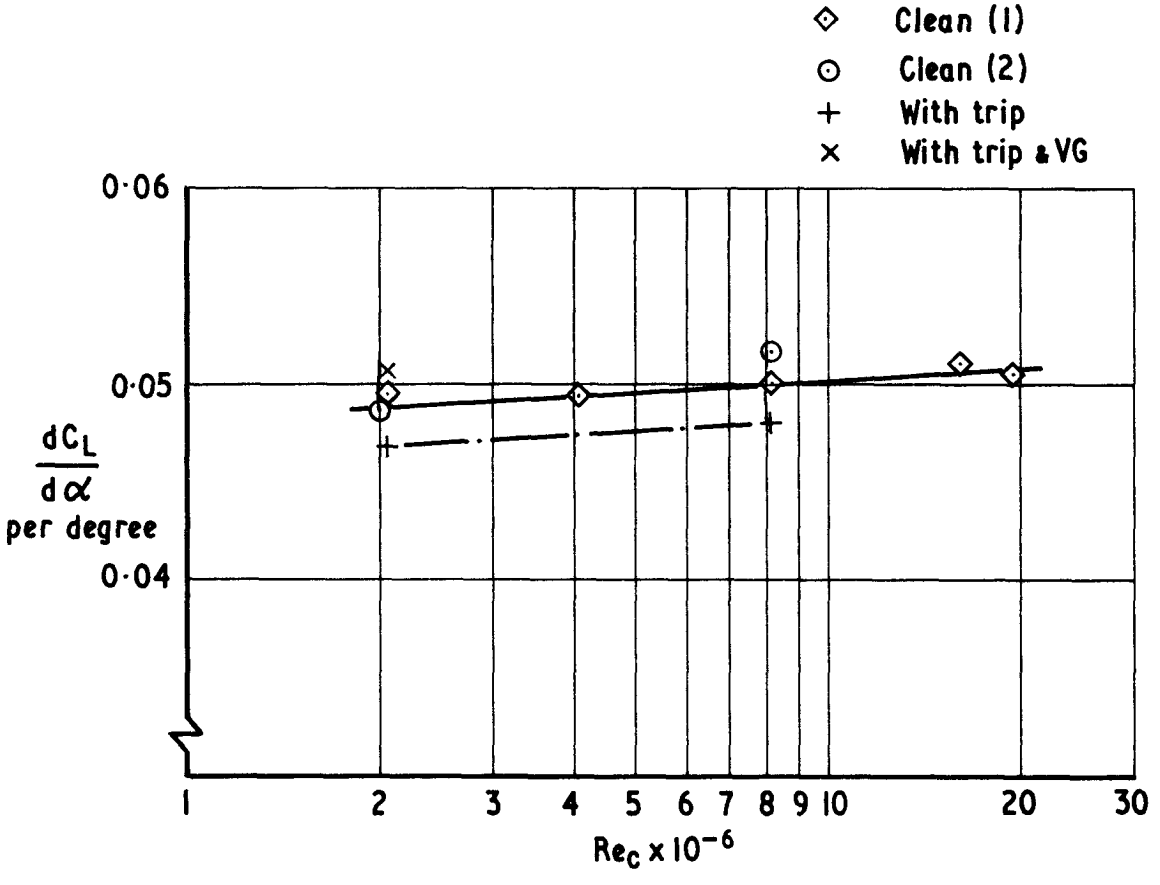
Fig.35 Variation of C_L with Reynolds number $M \simeq 0{\cdot}56$



a M ≃ 0·56



b M ≃ 0·82

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Fig. 36a&b Lift curve slope

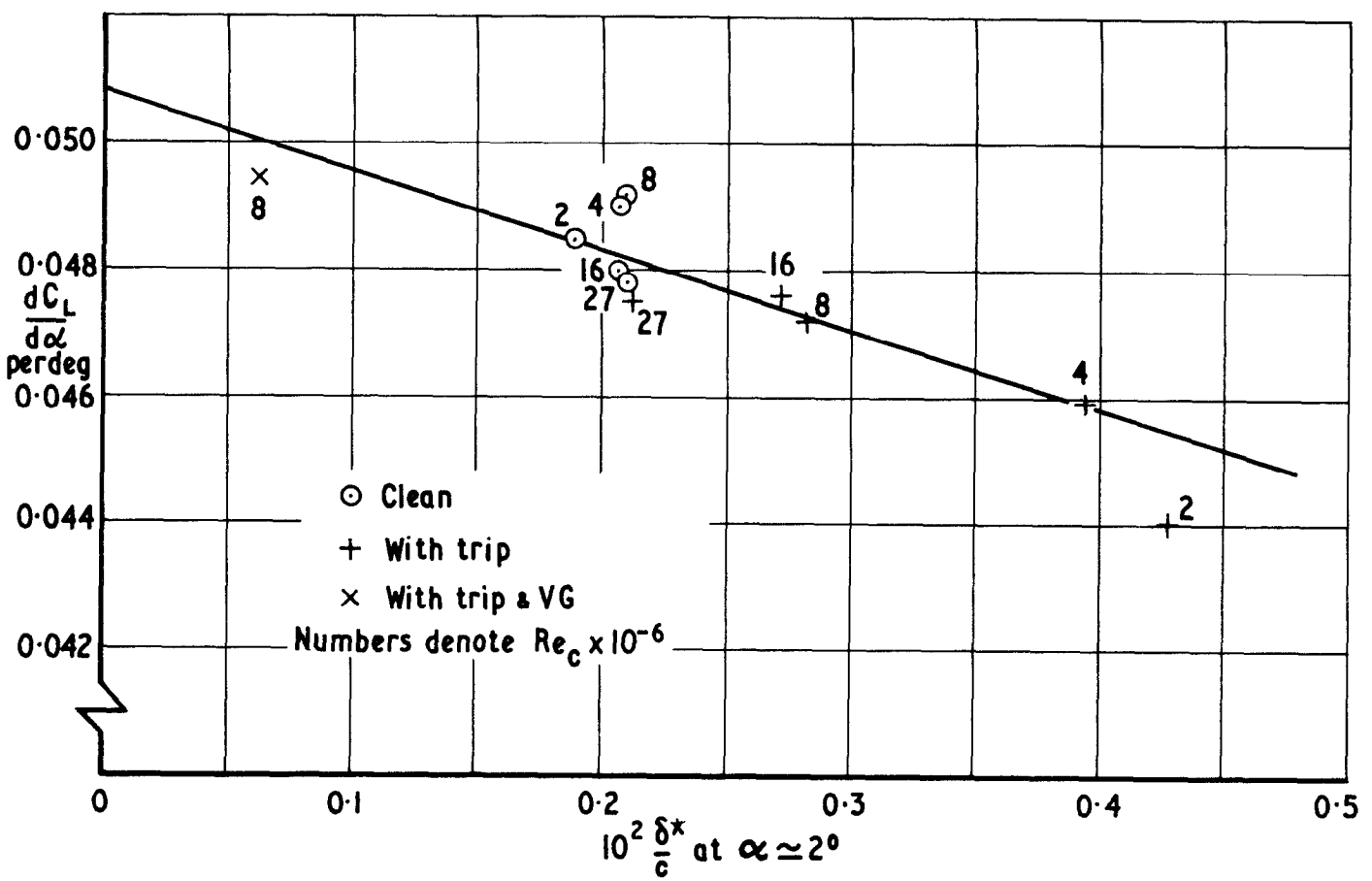

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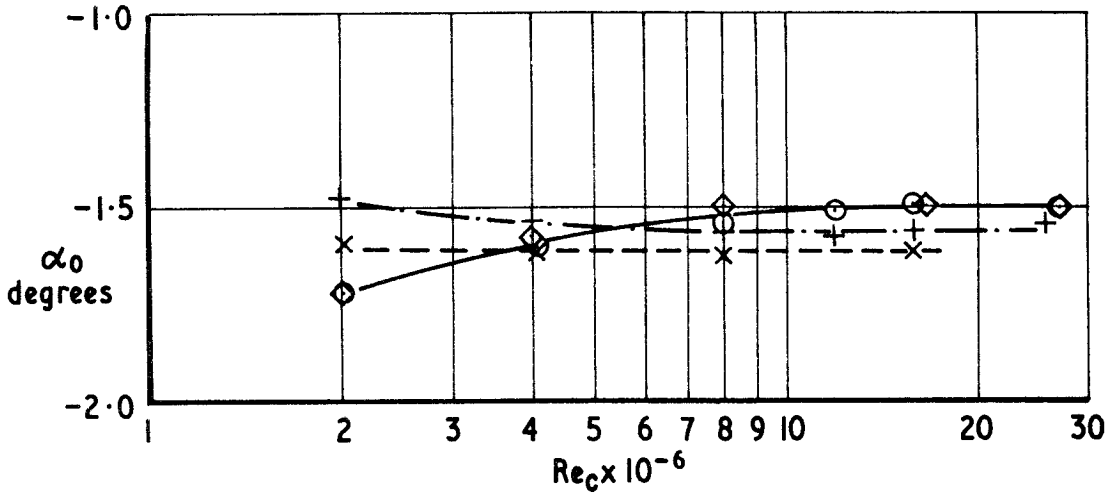
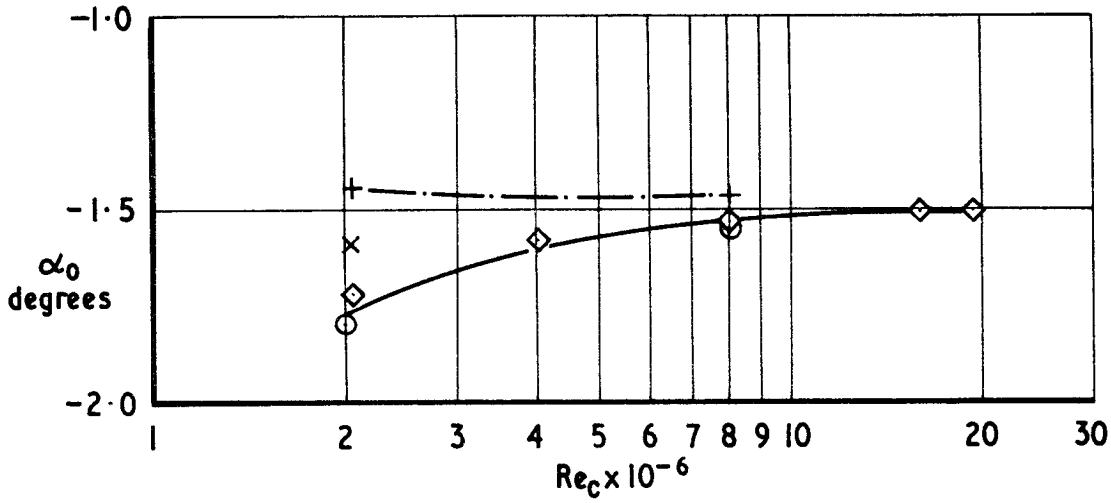
Fig.37 Lift-curve slope as a function of displacement thickness on upper surface ($\frac{x}{c}$=0·95) M≃0·56



a $M \simeq 0{\cdot}56$

◇ Clean (1)
⊙ Clean (2)
\+ With trip
× With trip & VG



b $M \simeq 0{\cdot}82$

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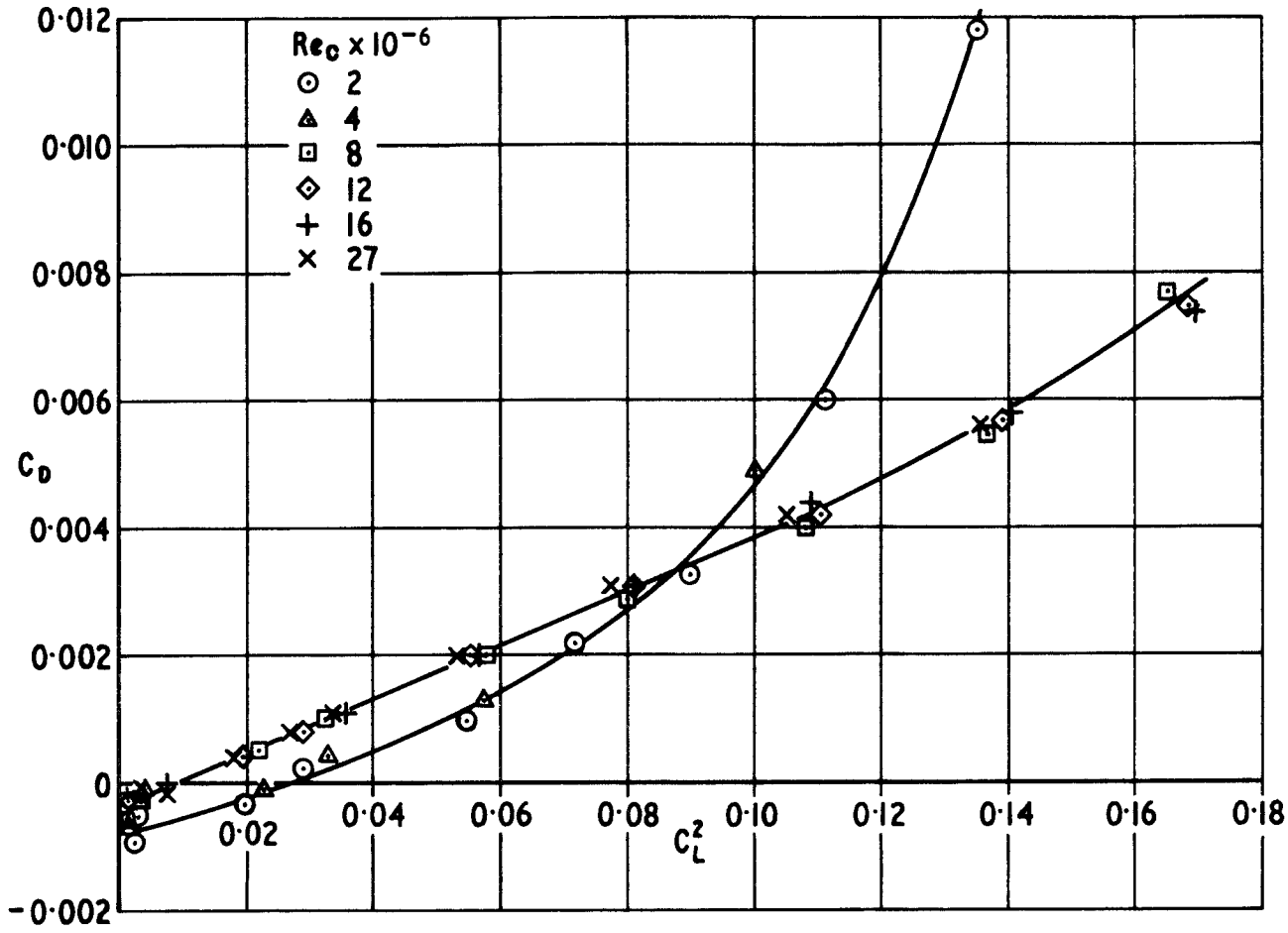
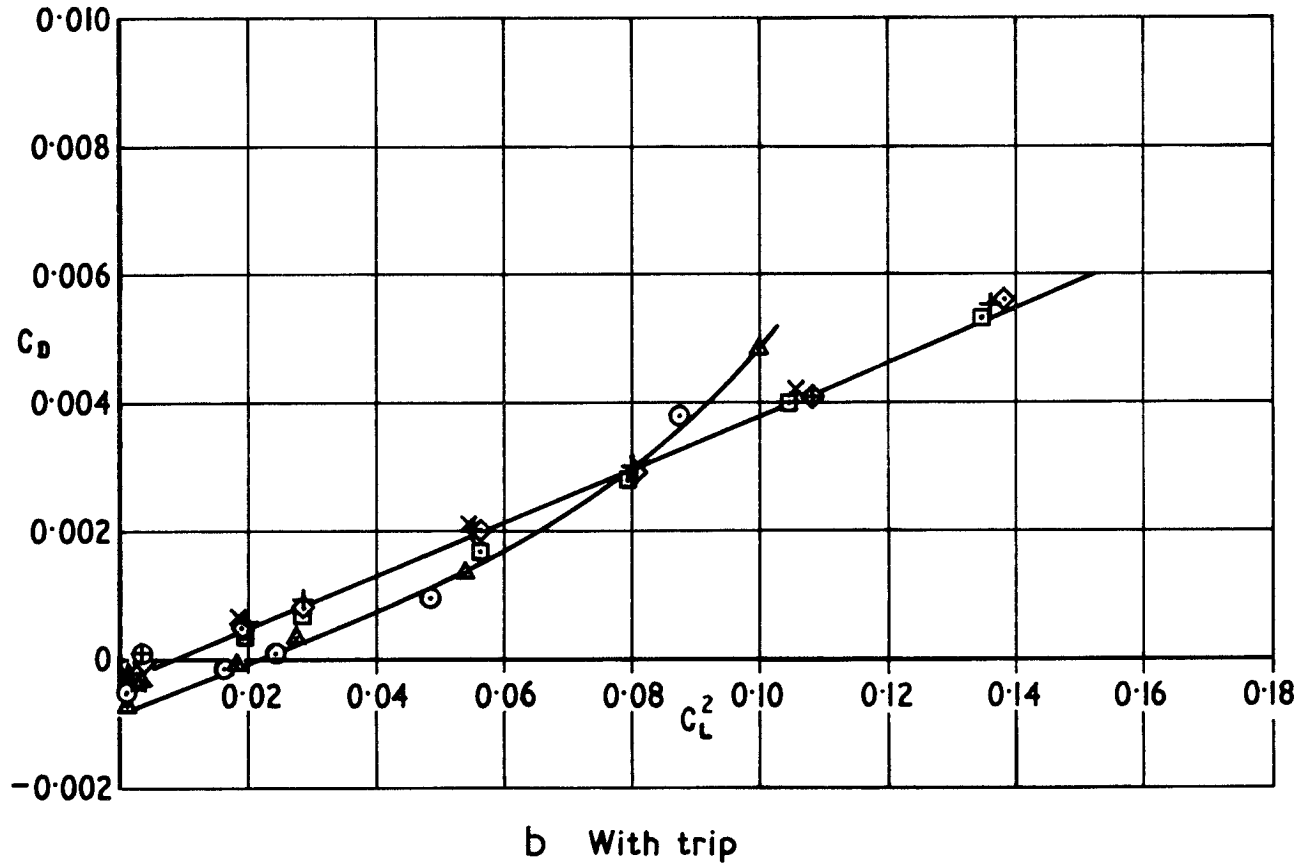
Fig. 38a & b Angle for zero lift

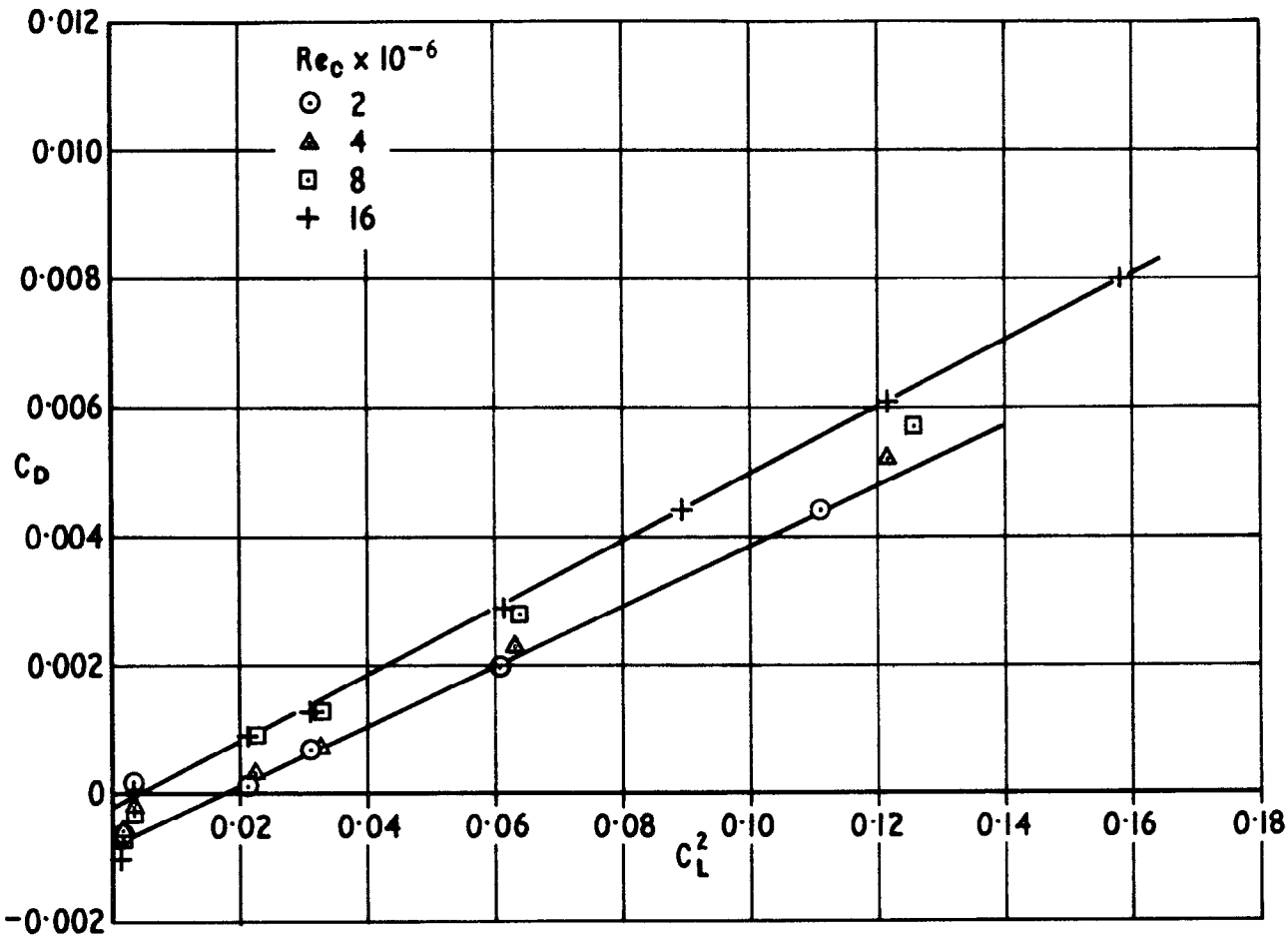


a Clean (2)



b With trip

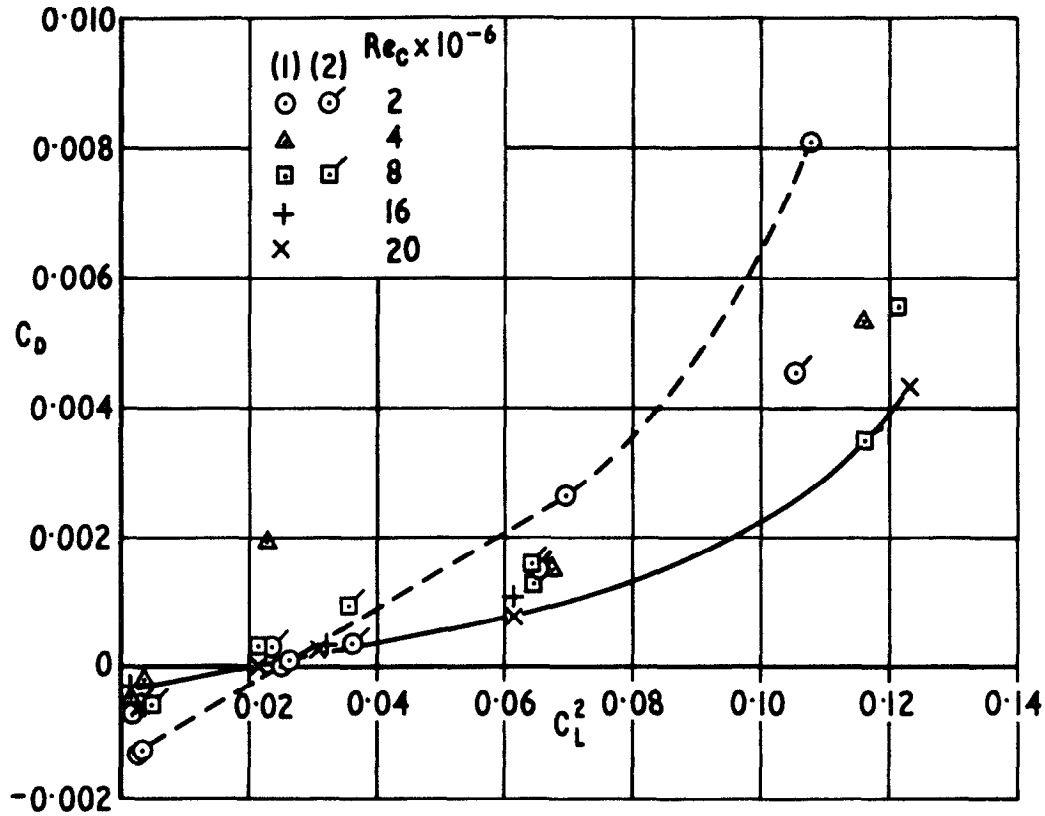
Fig.39a & b Section drag M≃0·56



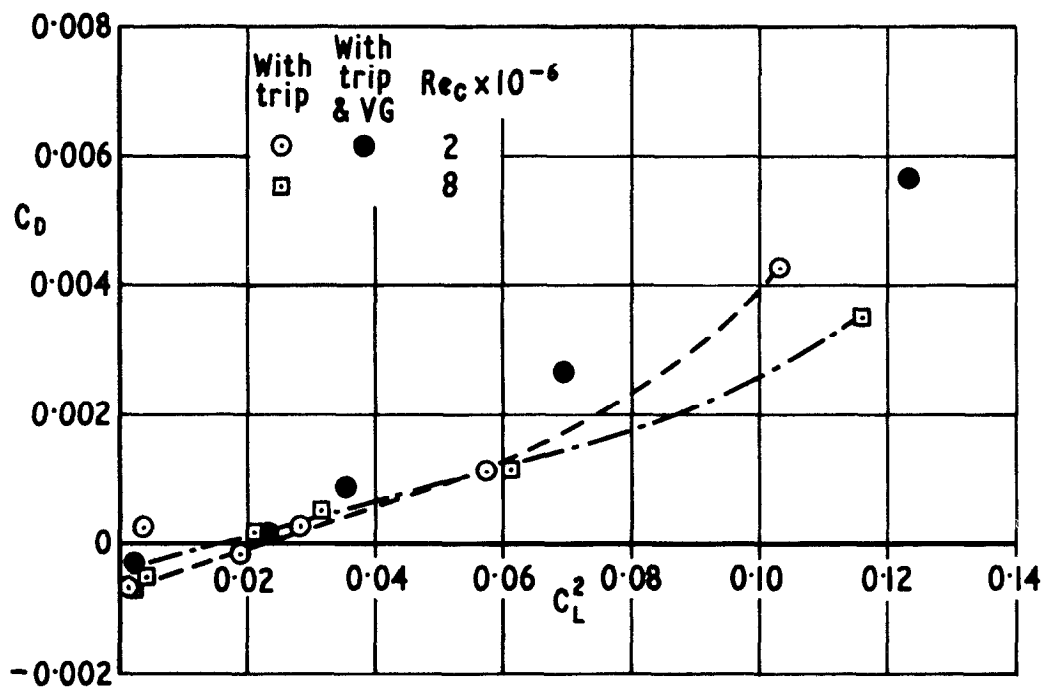
C With trip & vortex generators

TR 74149

Fig. 39 c

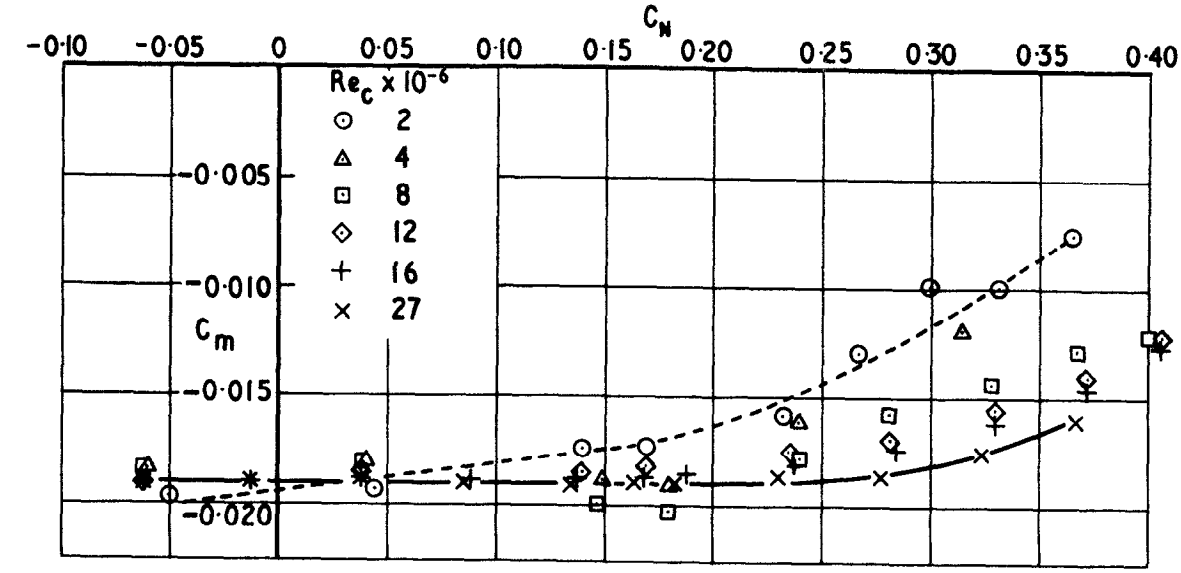


a Clean

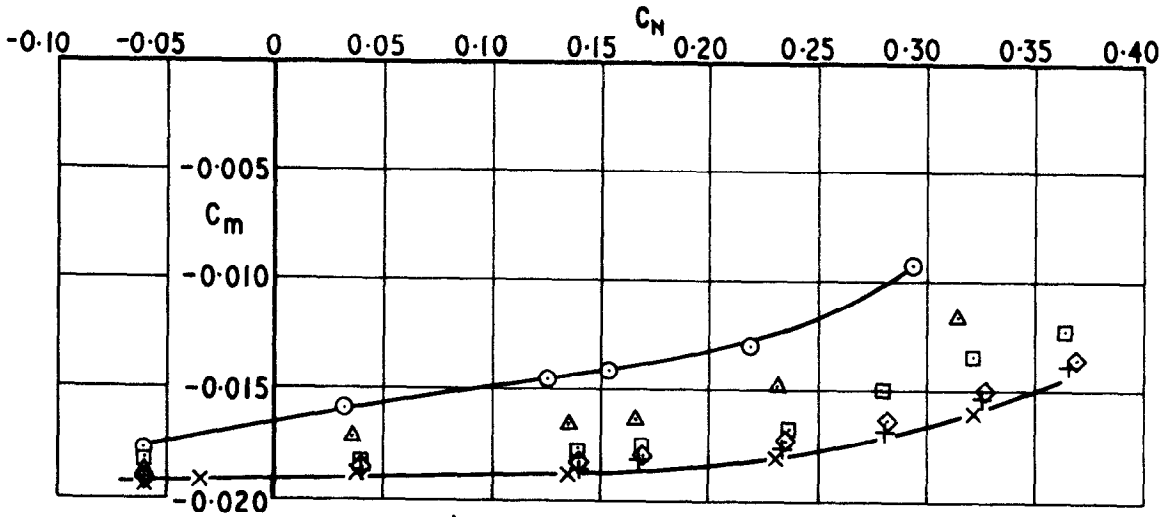


b With trip & with trip & vortex generators

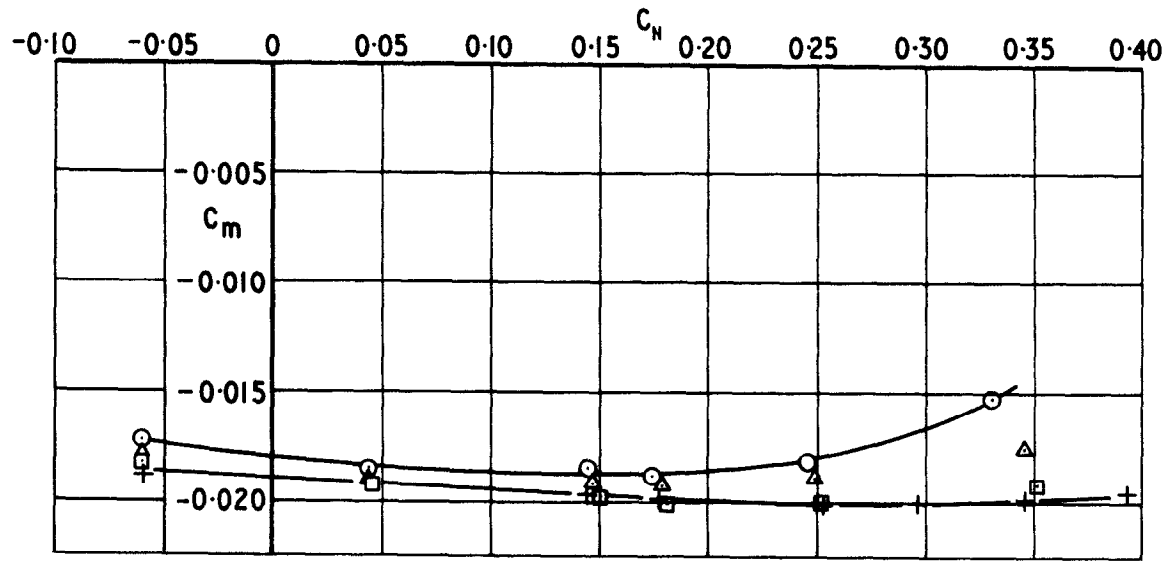
Fig. 40a & b Section drag M≃0·82



a Clean (2)



b With trip



c With trip & VG

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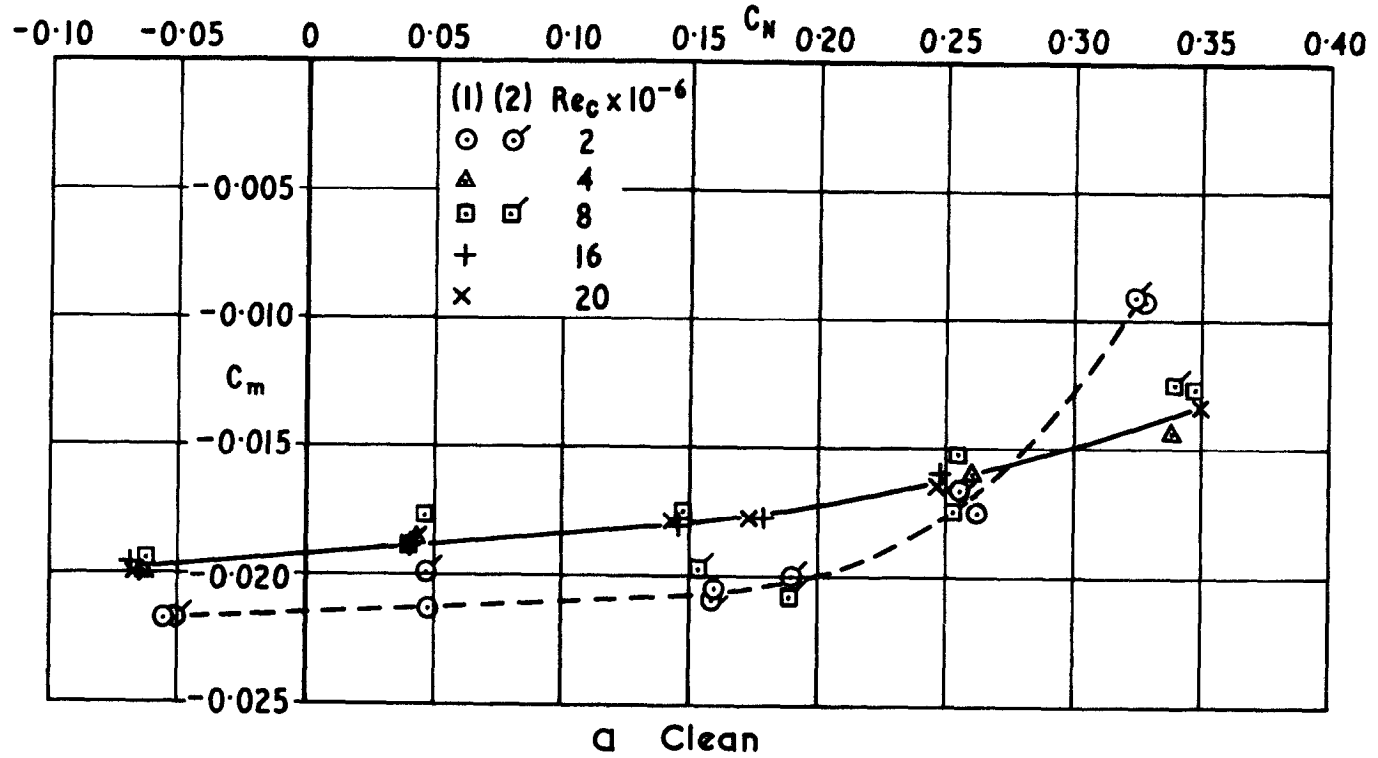
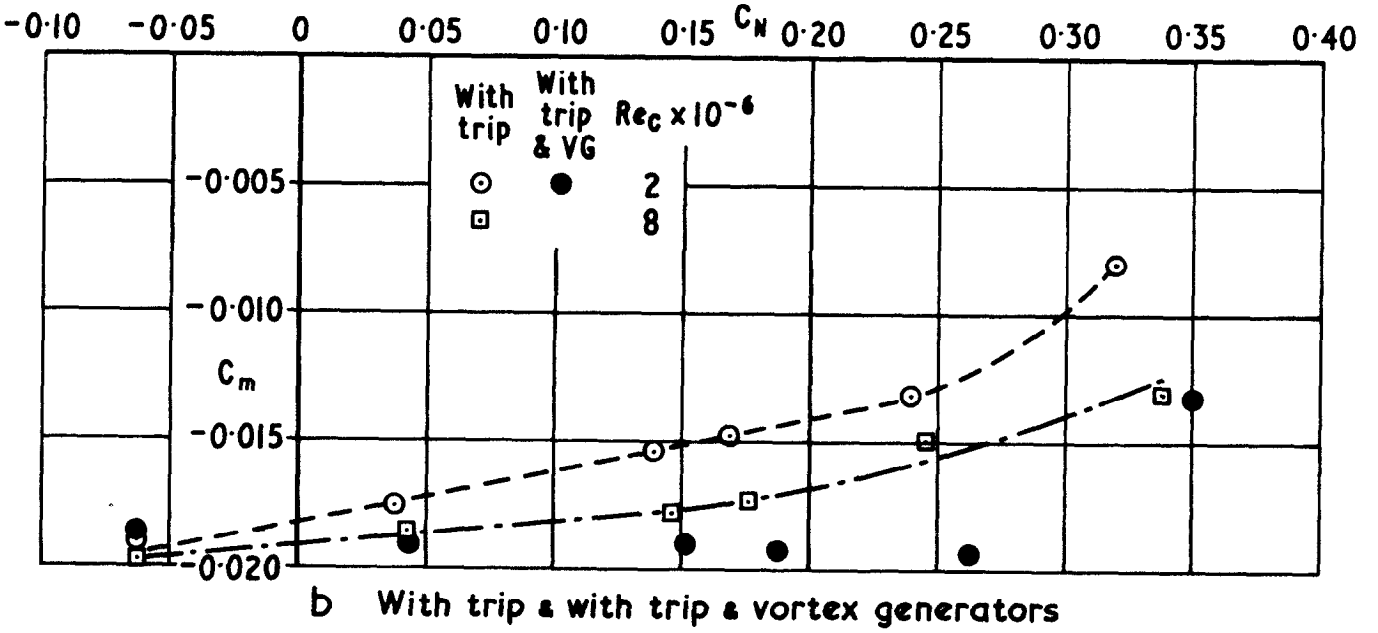
Fig. 41 a-c Section pitching moment M≈0·56



a Clean



b With trip & with trip & vortex generators

Fig. 42a & b Section pitching moment M≃0·82

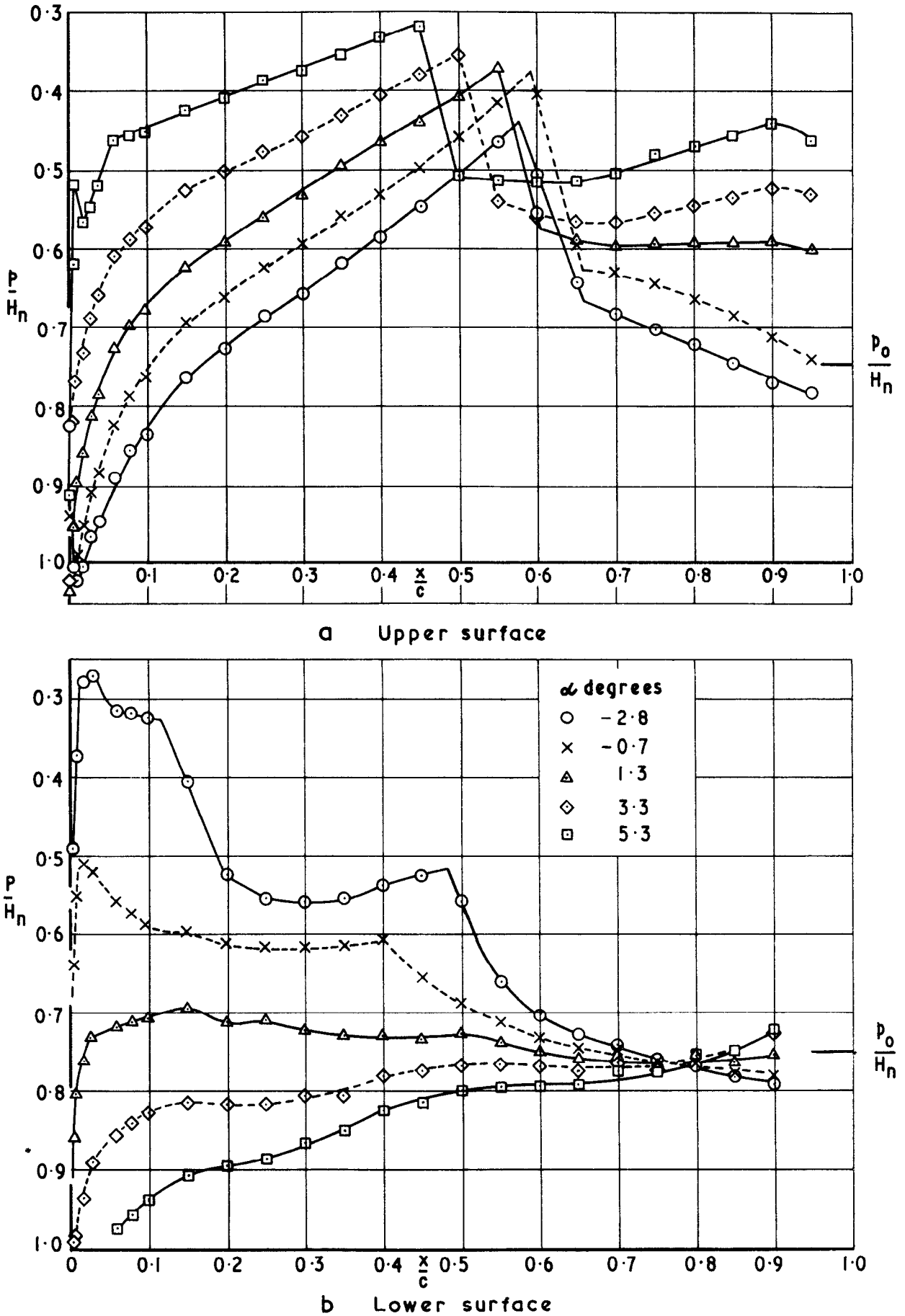
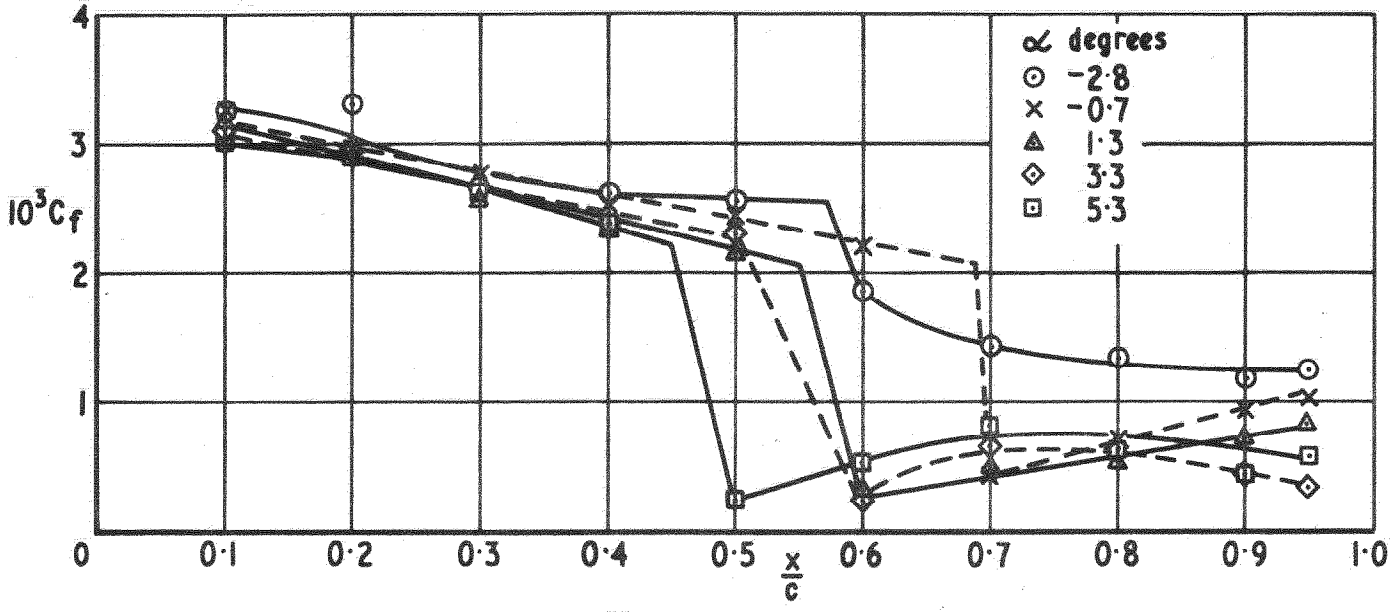
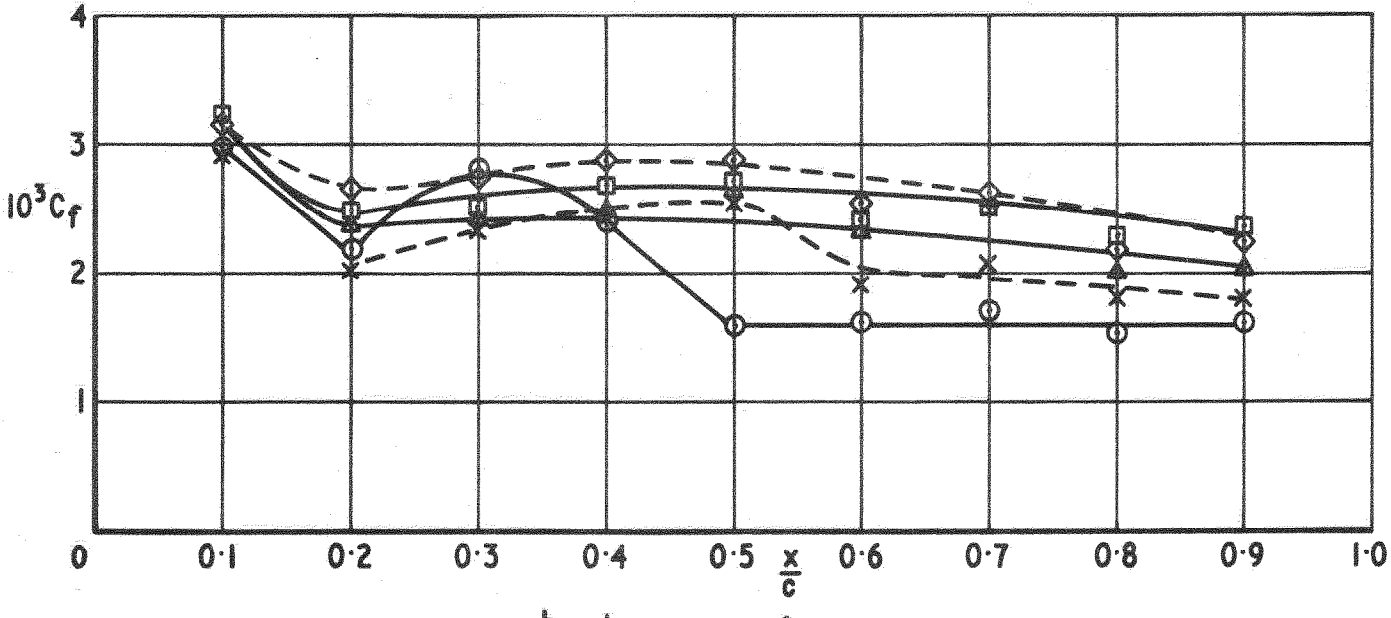


Fig.43 a & b Pressure distribution - variation with angle of incidence $M=1{\cdot}4\ Re_c = 16 \times 10^6$



a Upper surface



b Lower surface

Fig. 44a & b Skin friction distribution $M=1{\cdot}4$ $Re_c = 16 \times 10^6$

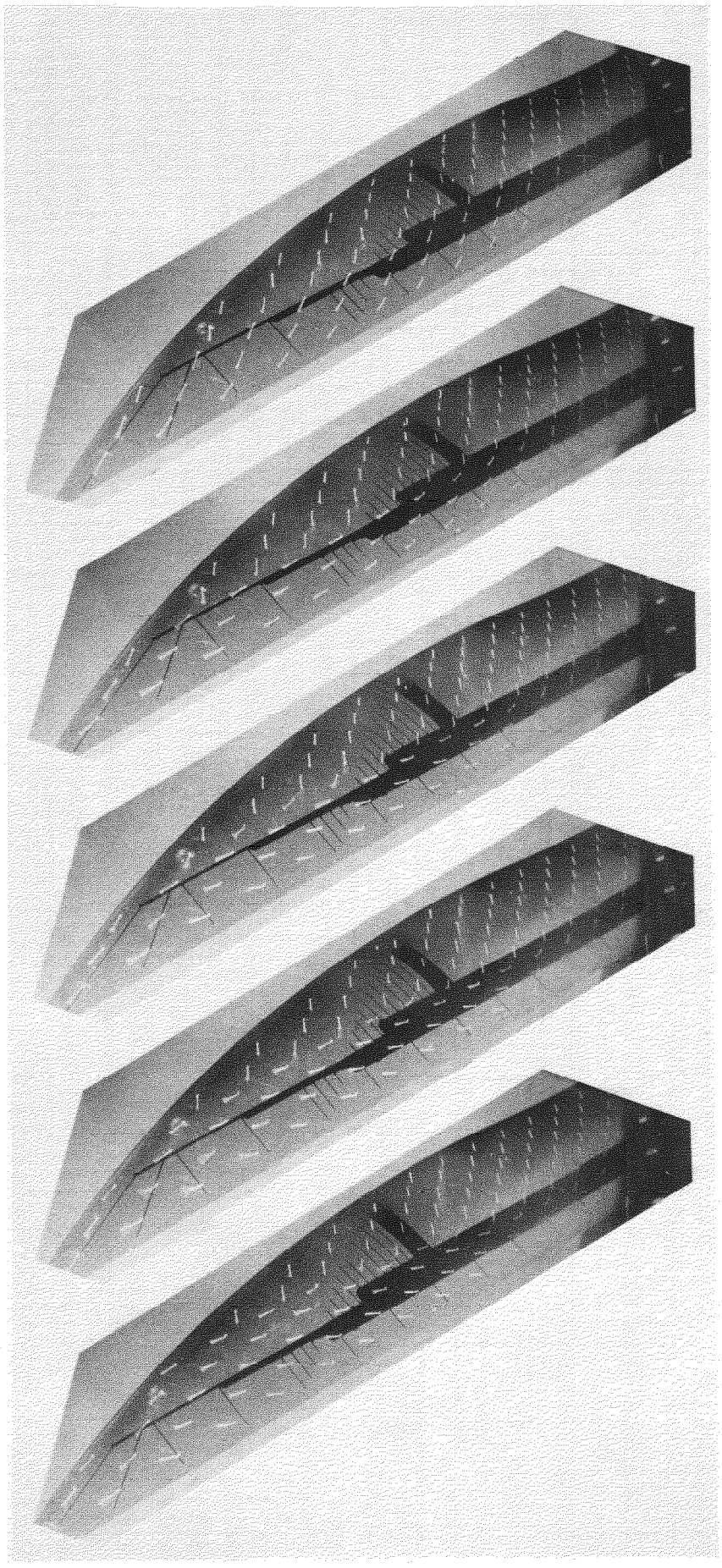
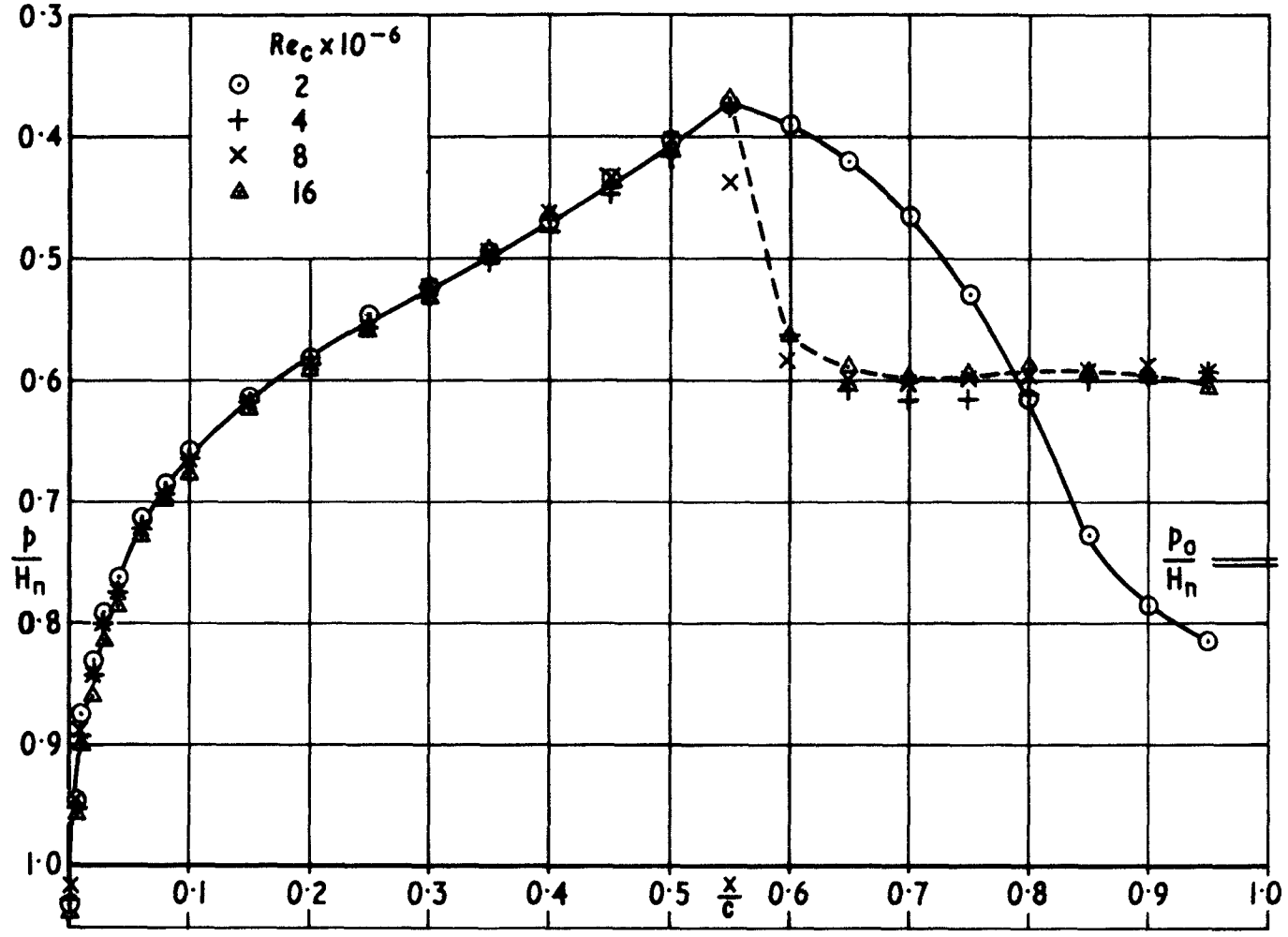
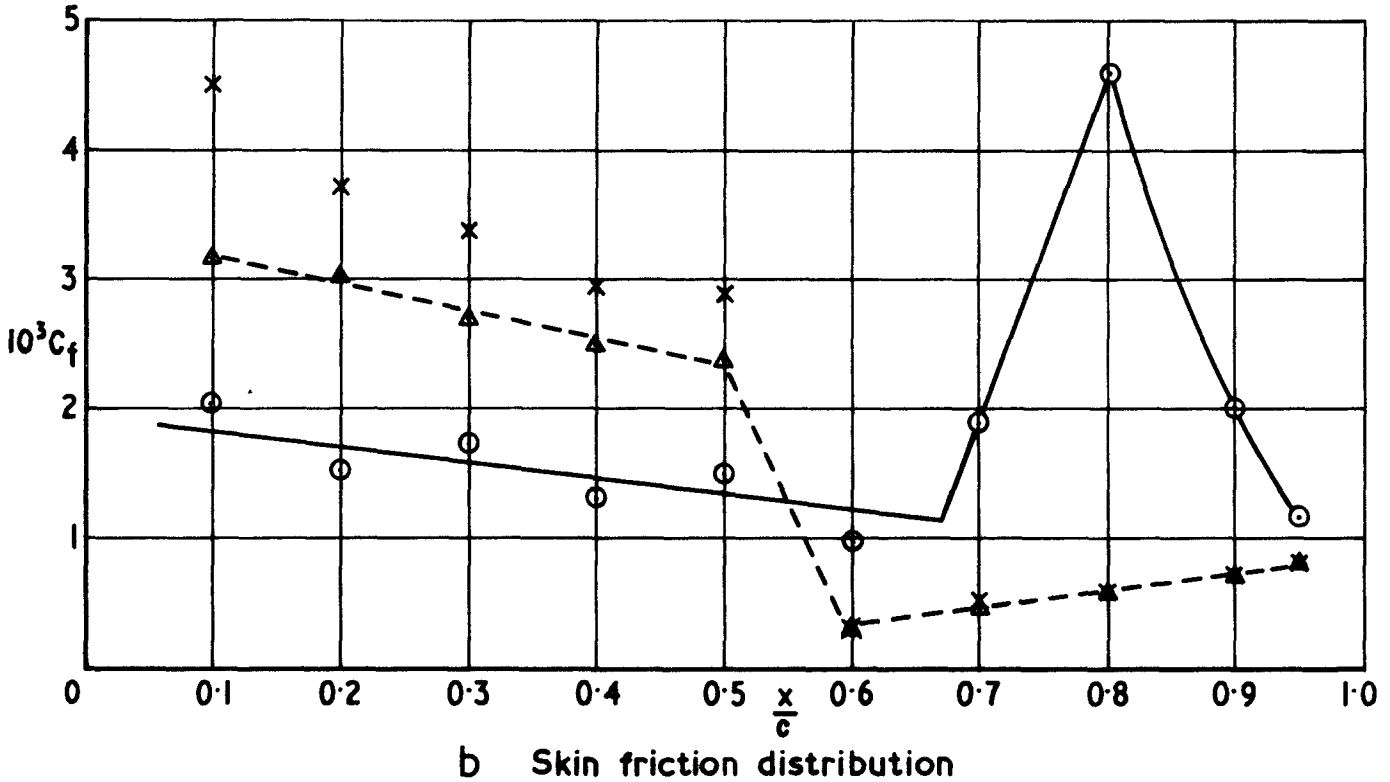


Fig.45 Upper surface tufts. M = 1.4, $Re_c = 16 \times 10^6$

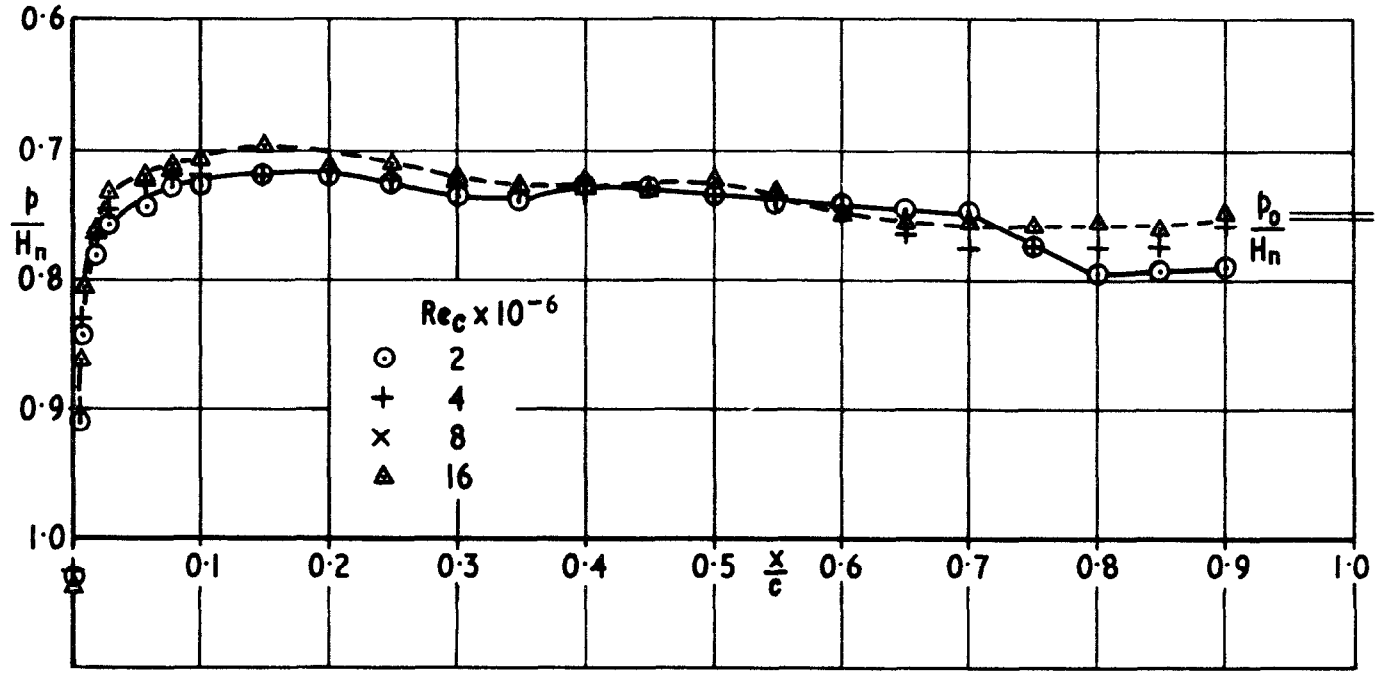


a Pressure distribution

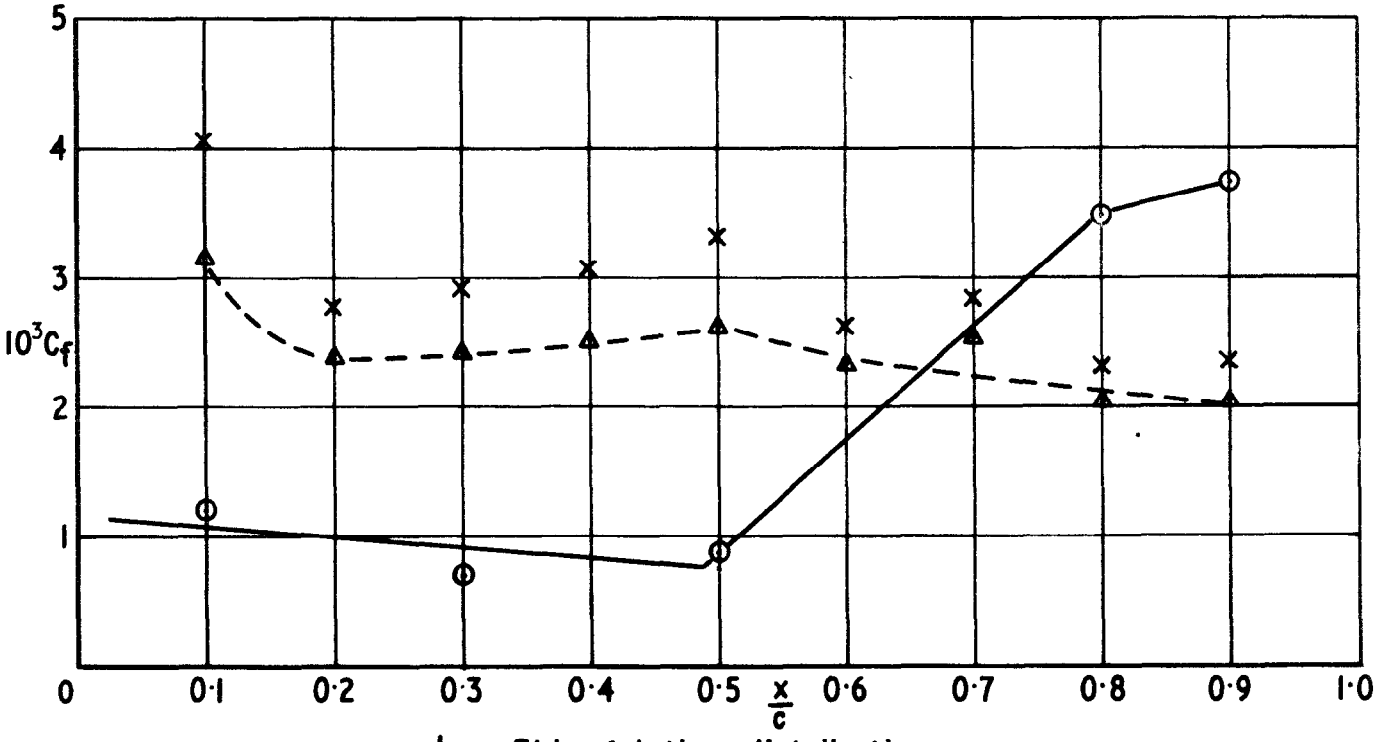


b Skin friction distribution

Fig. 46a & b Effect of Reynolds number upper surface $M = 1{\cdot}4$ $\alpha = 1{\cdot}3^\circ$



a Pressure distribution



b Skin friction distribution

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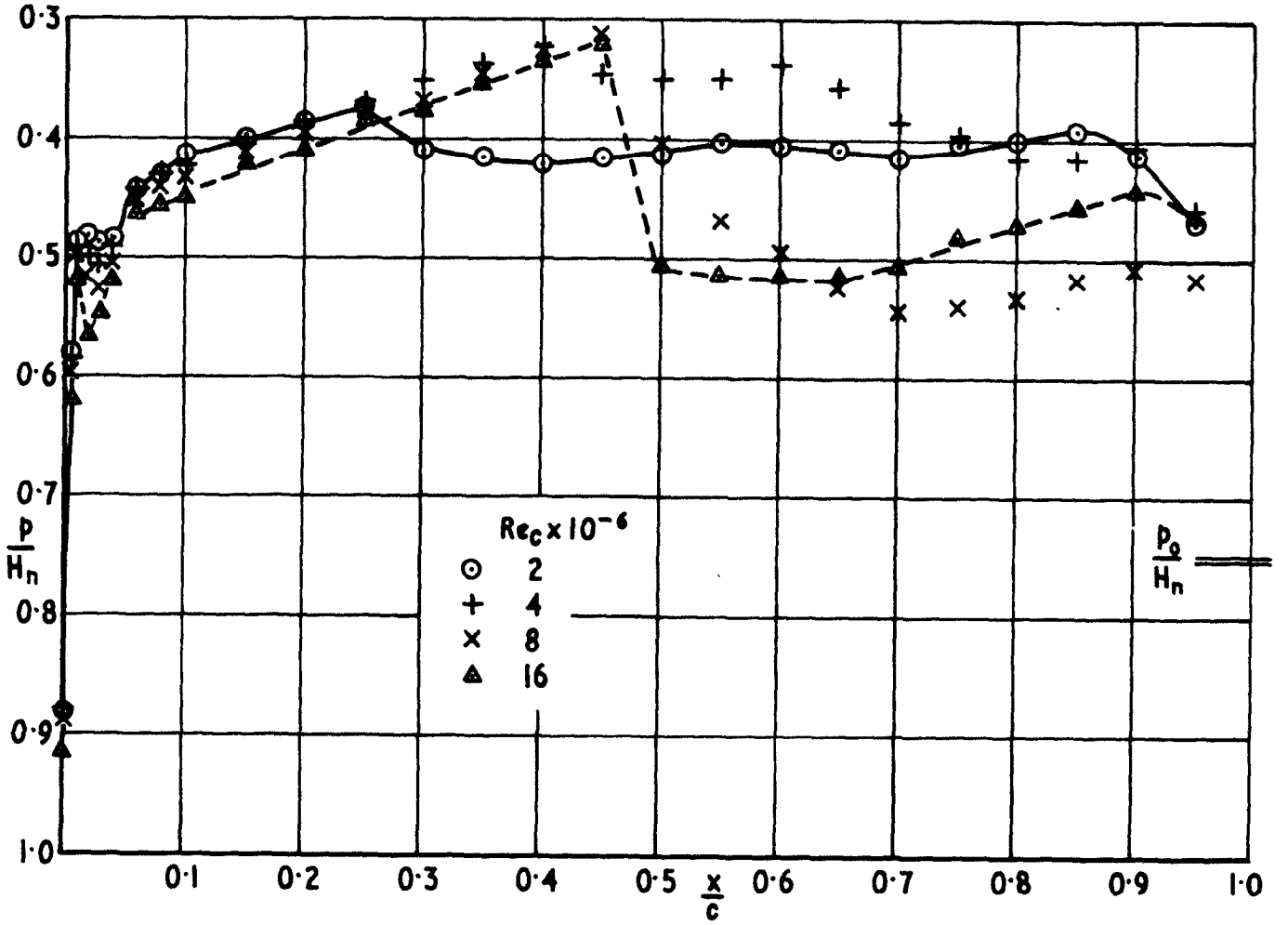
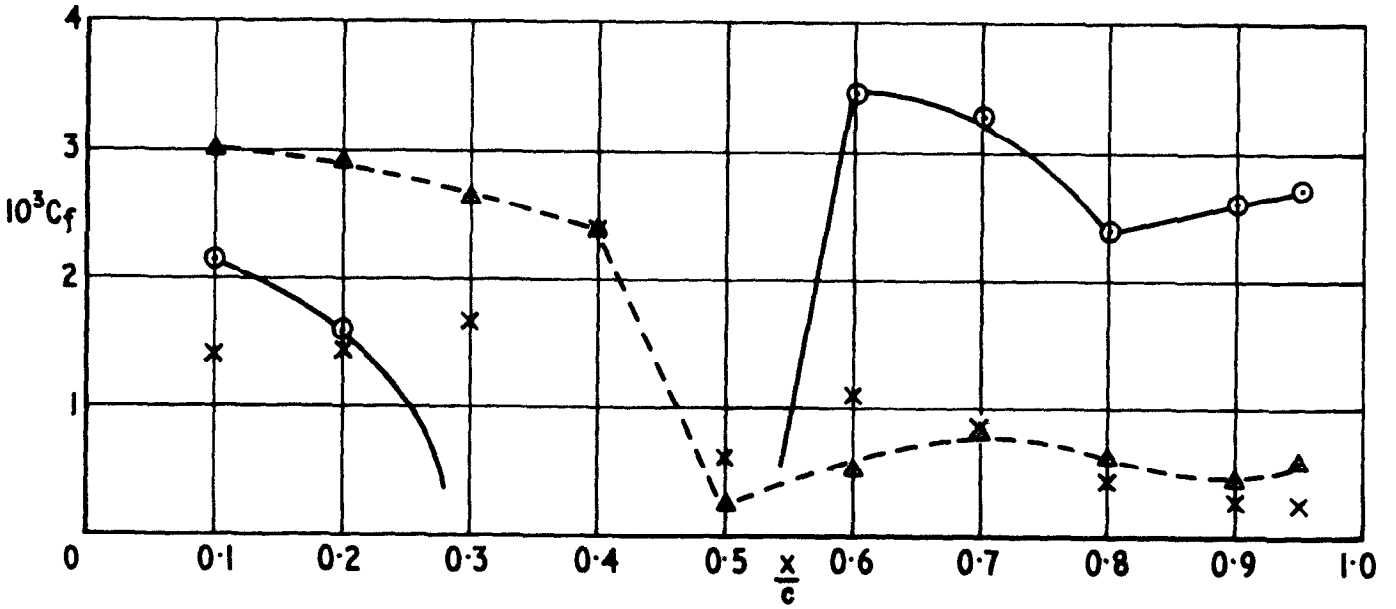
Fig. 47a & b Effect of Reynolds number
lower surface $M=1{\cdot}4$ $\alpha=1{\cdot}3^{\circ}$

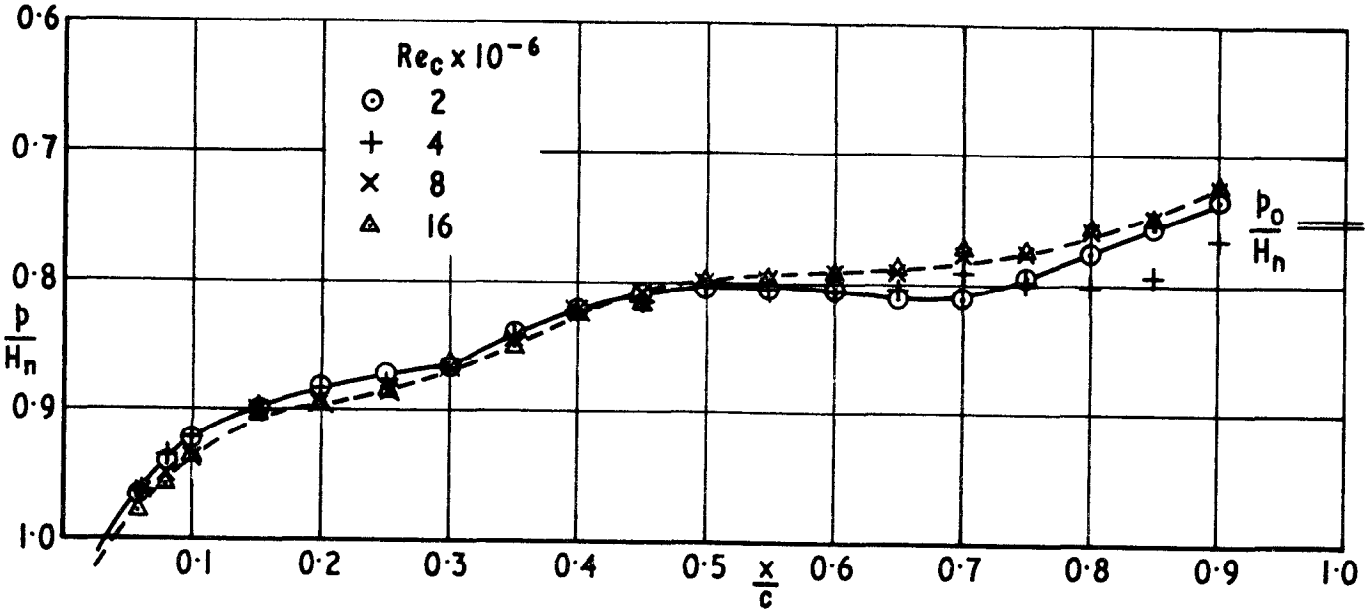


a Pressure distribution

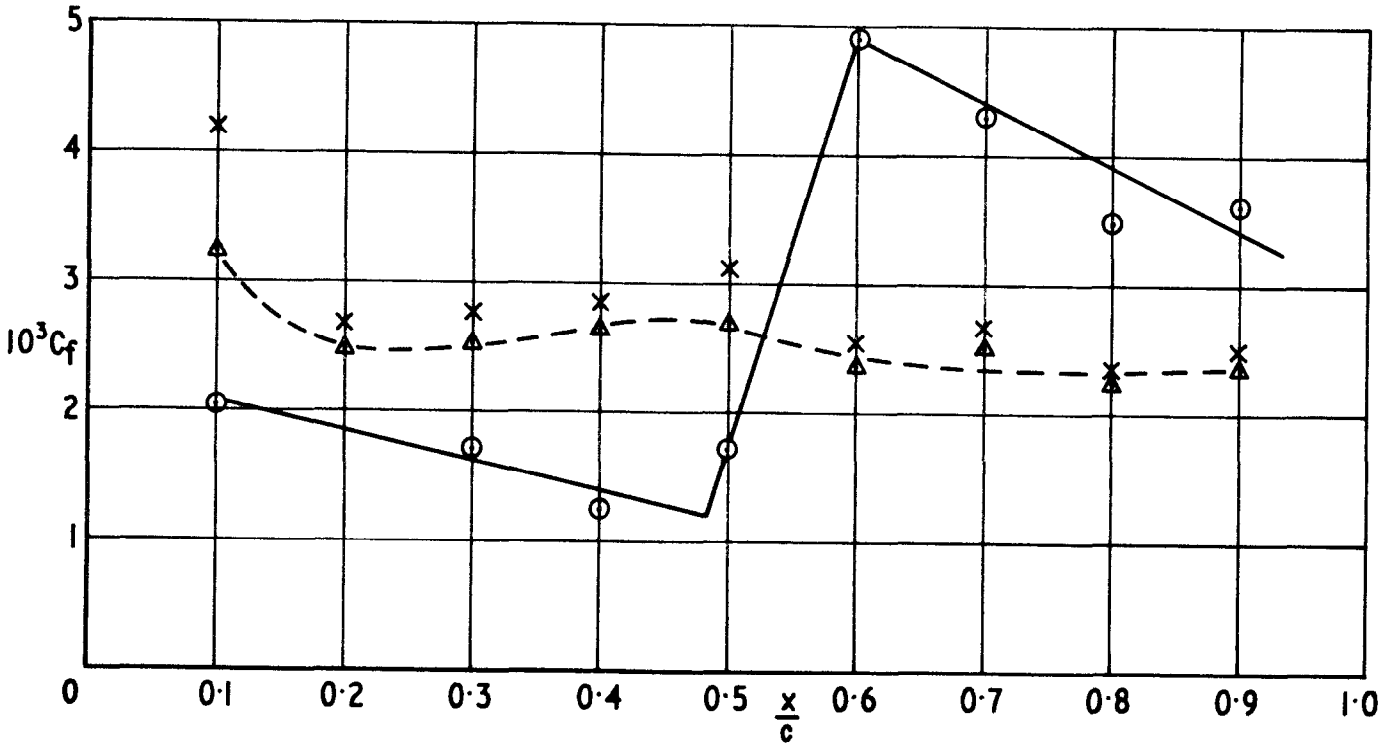


b Skin friction distribution

Fig. 48a & b Effect of Reynolds number upper surface M=1·4 α=5·3°



a Pressure distribution



b Skin friction distribution

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Fig. 49a & b Effect of Reynolds number
lower surface M=1·4 α=5·3°

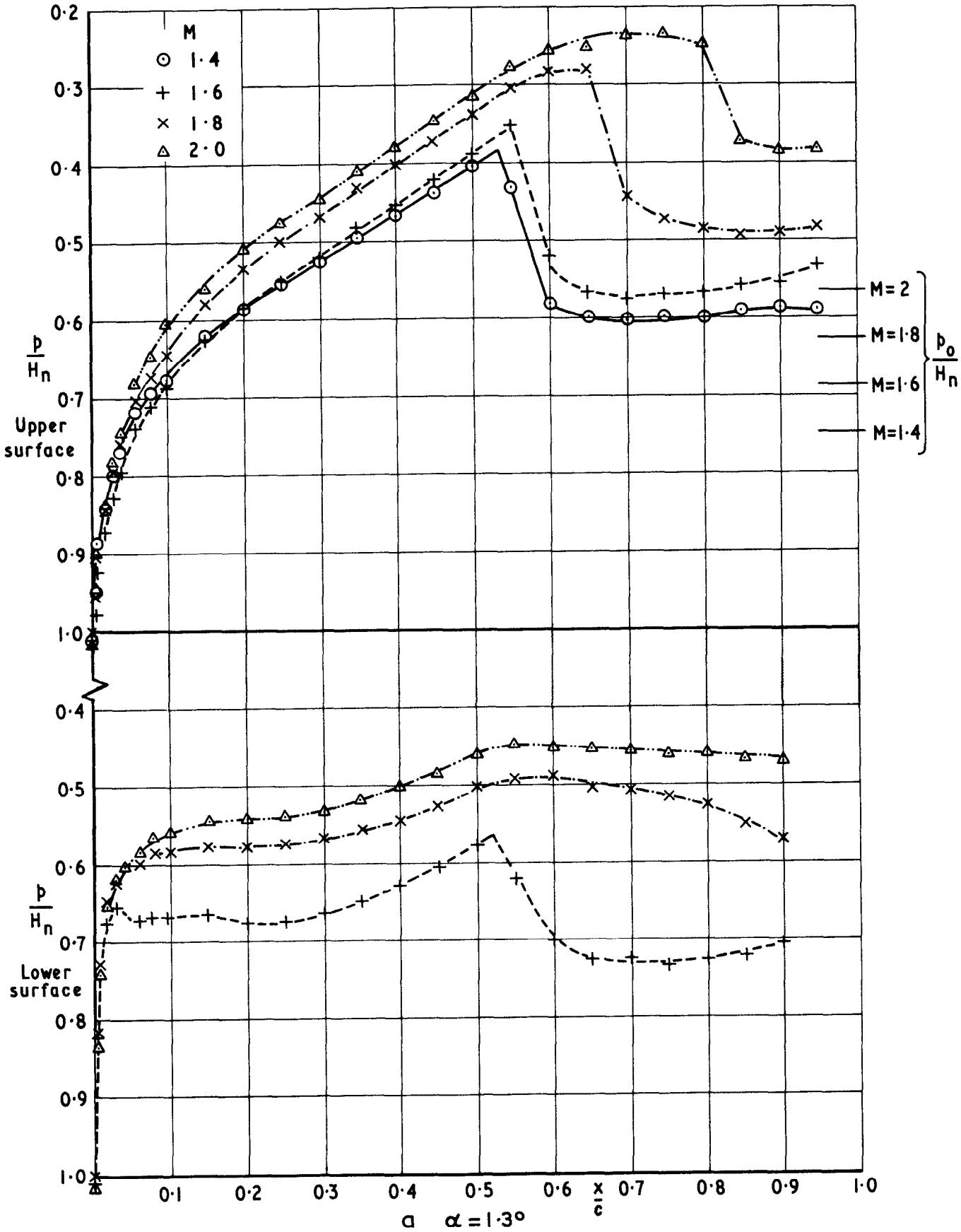

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Fig. 50 Pressure distribution-variation with Mach number at supersonic speed $Re_c = 8 \times 10^6$

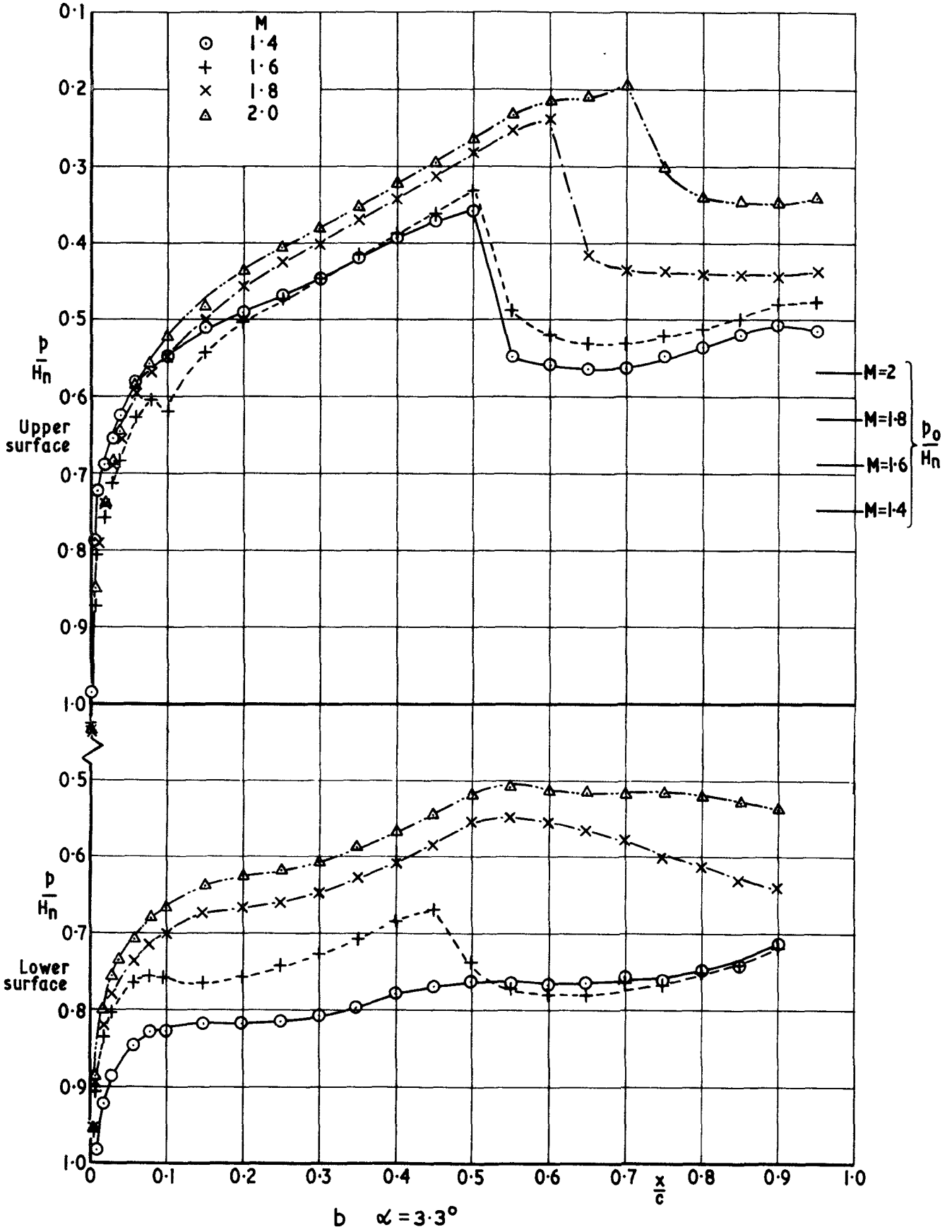


Fig. 50 contd

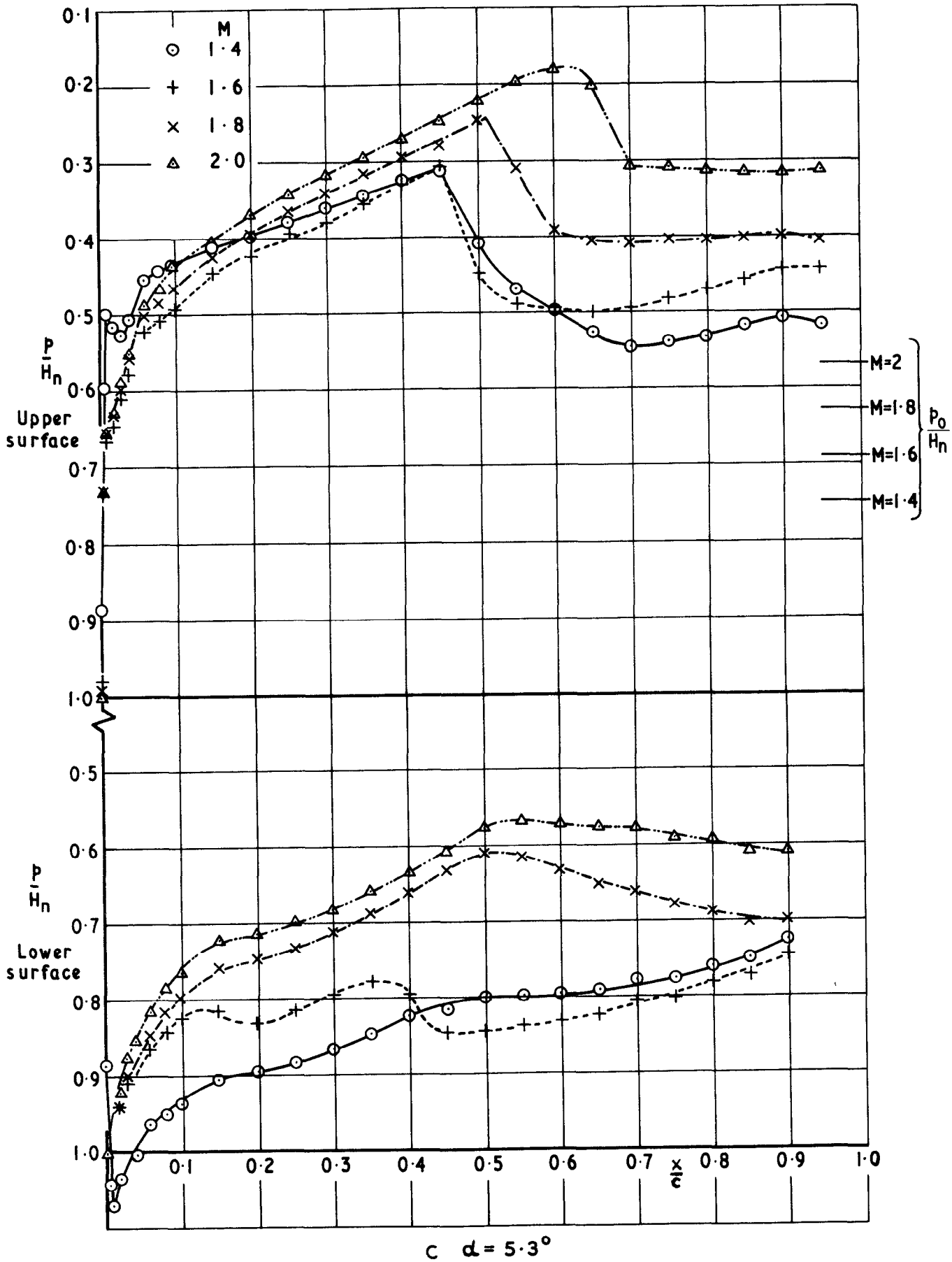
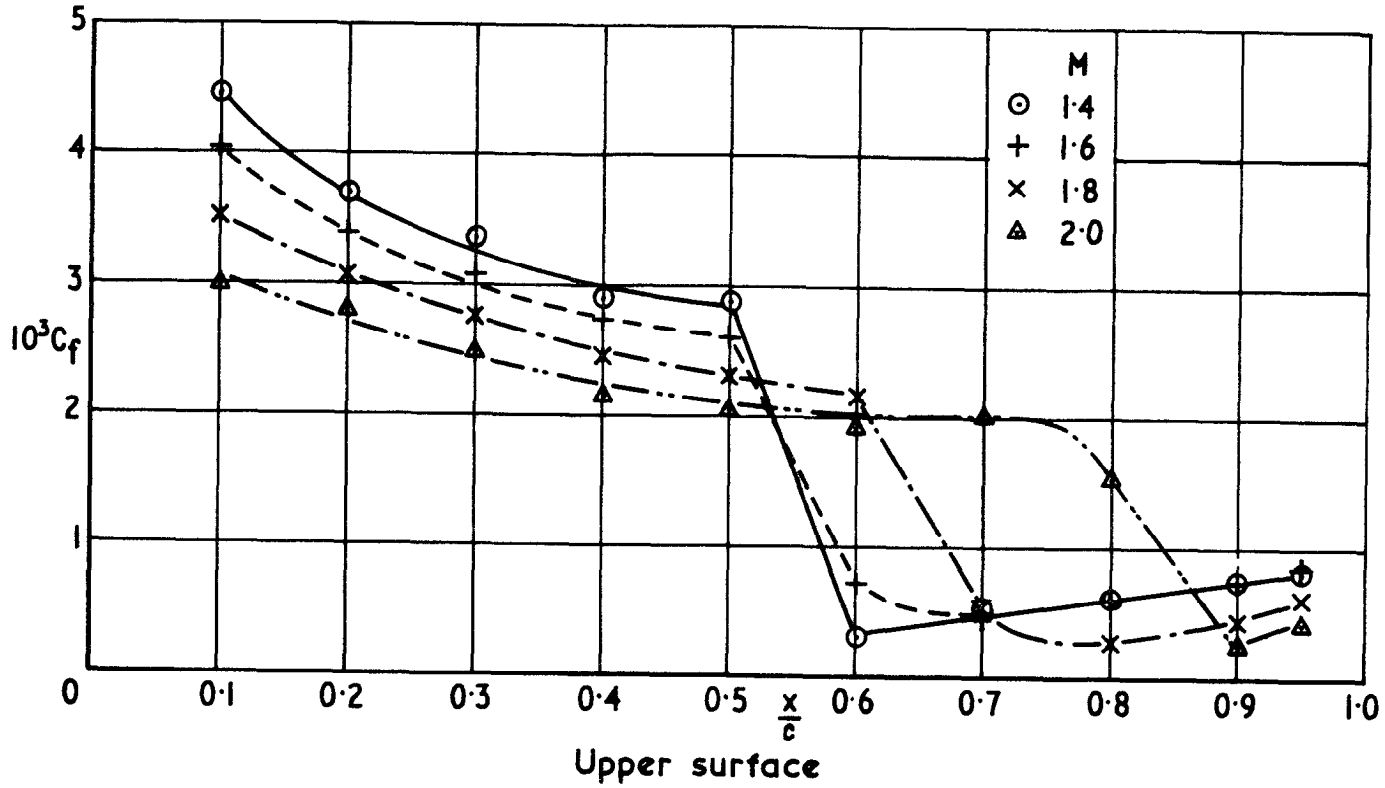
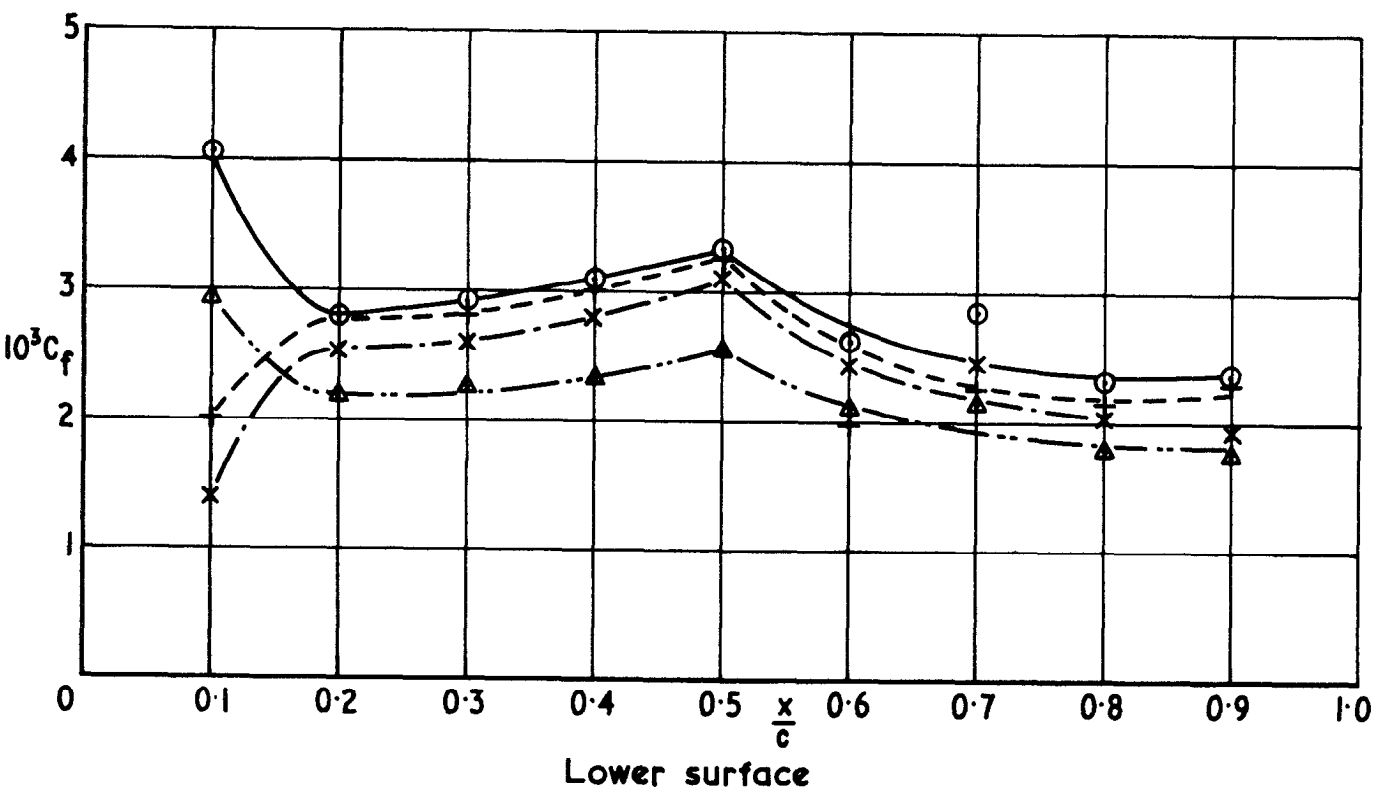


Fig. 50 concld





a $\alpha = 1{\cdot}3^\circ$

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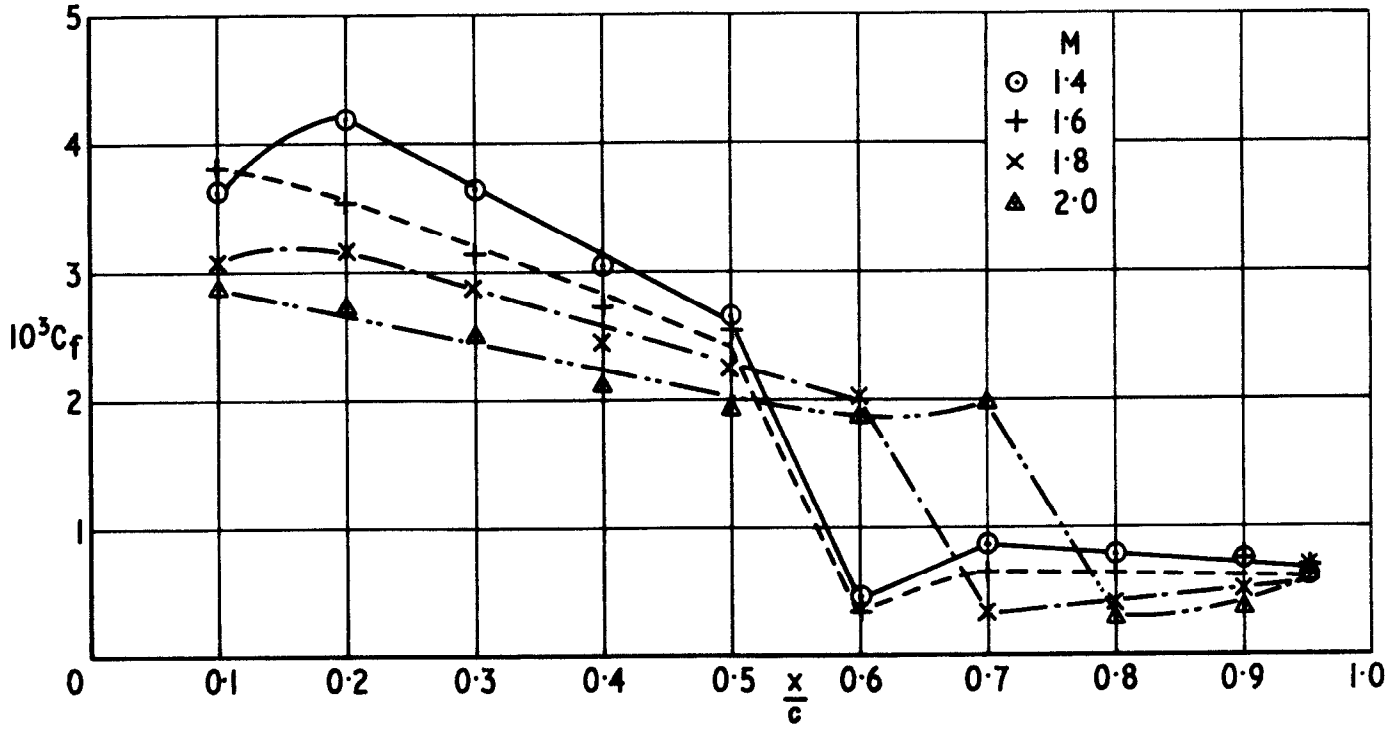
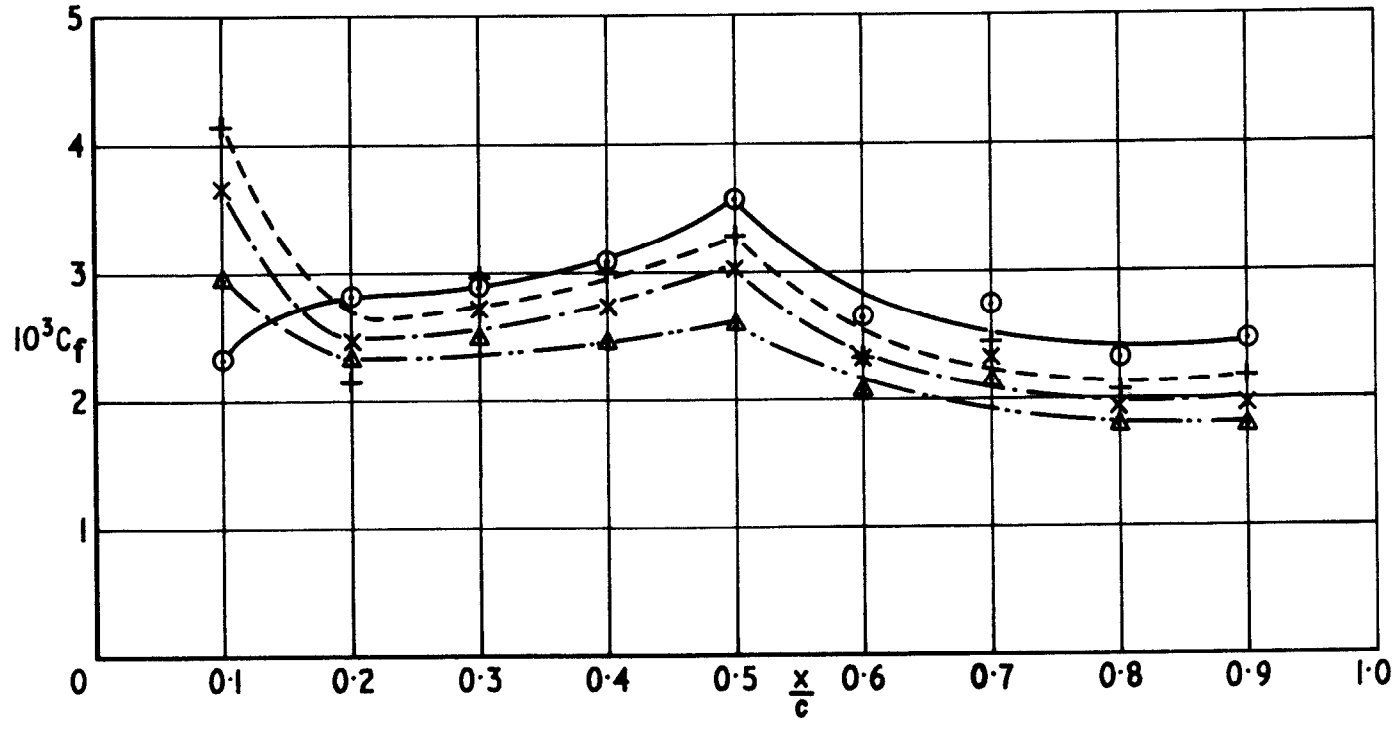
Fig. 51 Skin friction distribution – variation with Mach number at supersonic speed $Re_c = 8 \times 10^6$



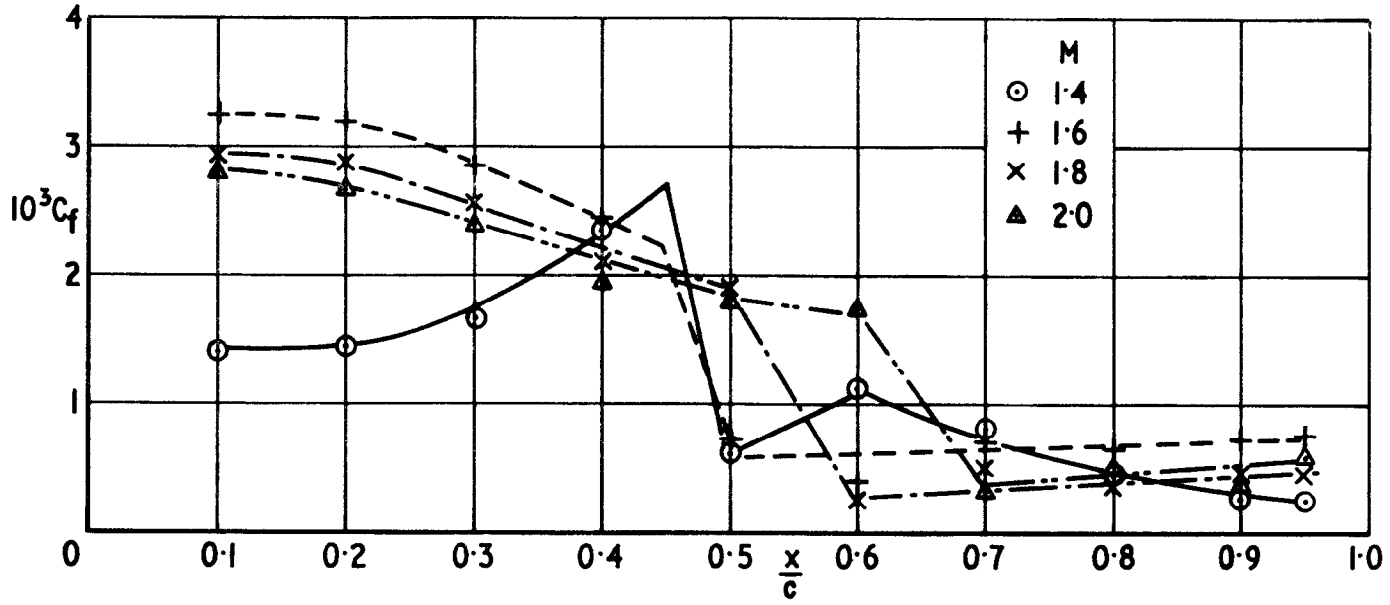
Upper surface



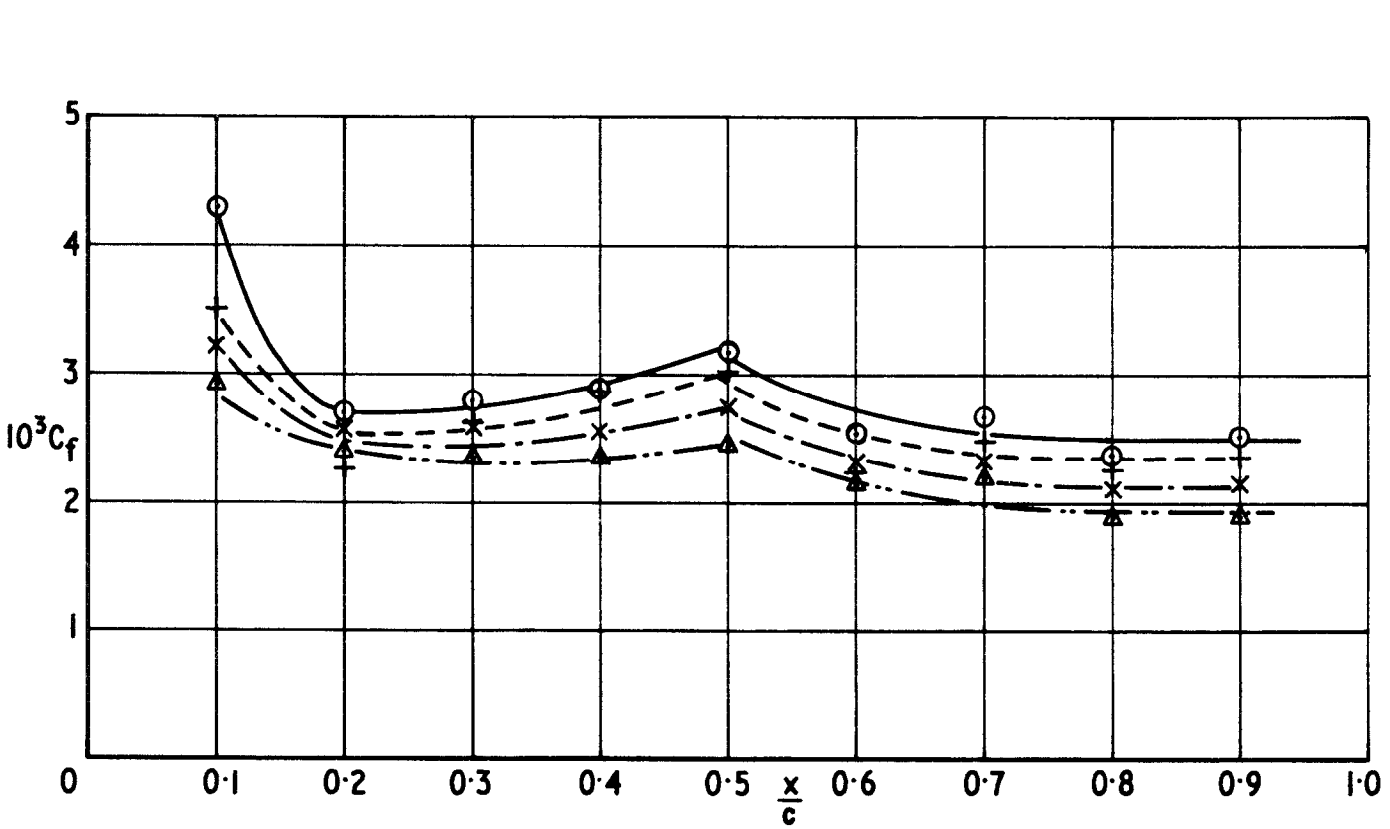
Lower surface

b $\alpha = 3{\cdot}3^\circ$

Fig. 51 contd



Upper surface



Lower surface

c $\alpha = 5{\cdot}3°$

Fig. 51 concld

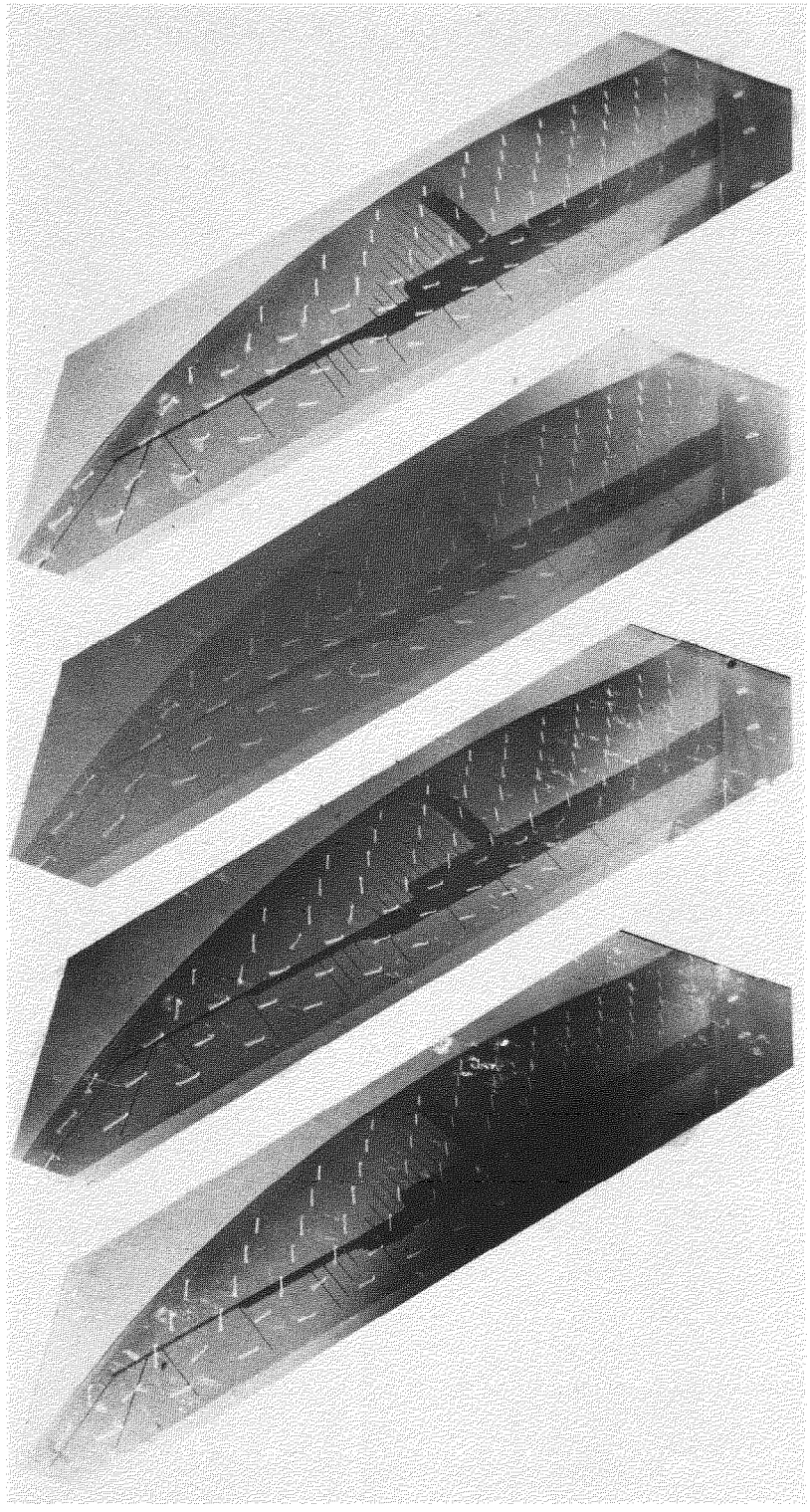


Fig.52 Upper surface tufts. $Re_c = 8 \times 10^6$, $\alpha = 3.3$ degrees

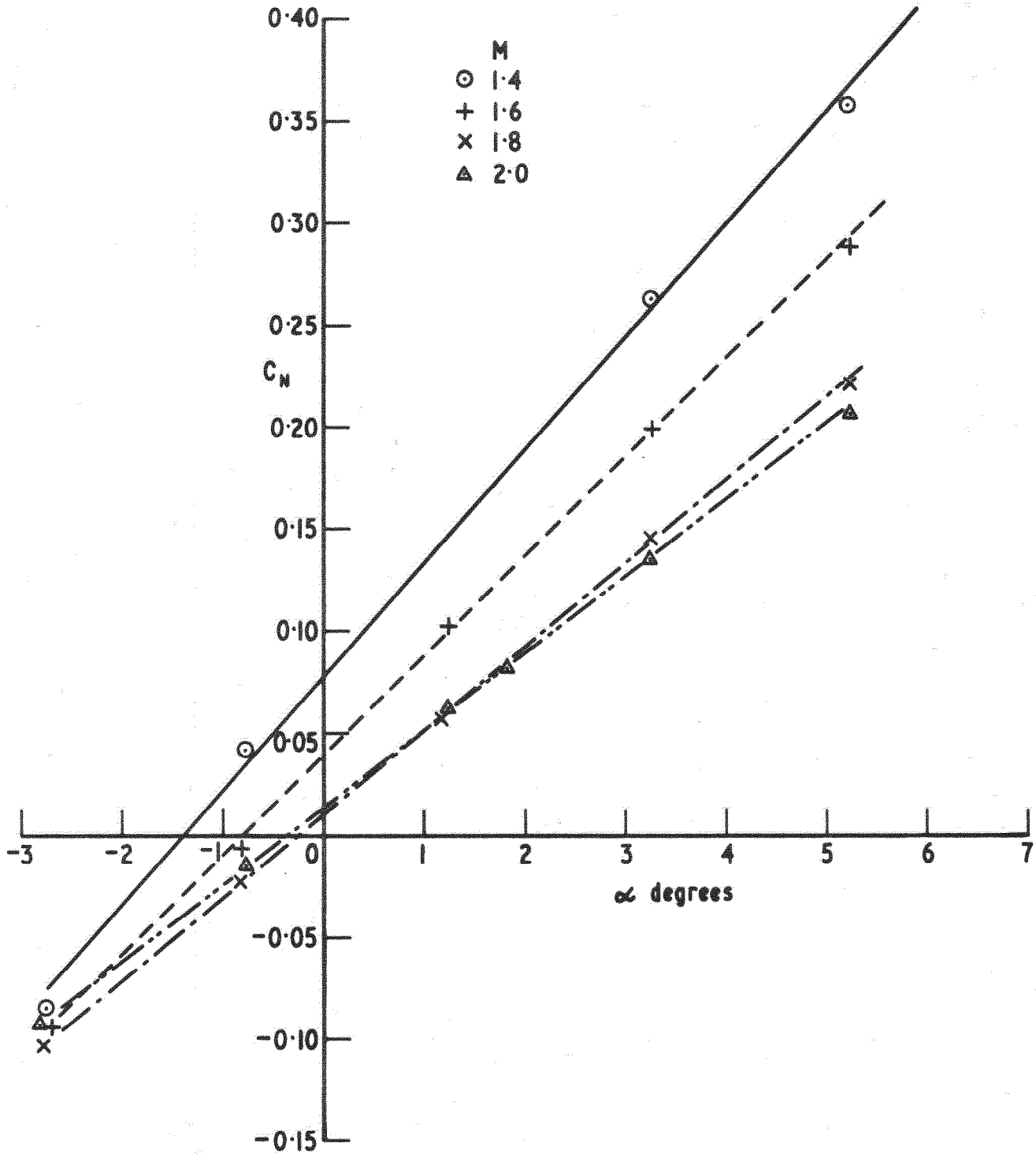


Fig. 53 Section normal force at supersonic speed $Re_c = 8 \times 10^6$

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