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## NACA0012 Airfoil Data Corrected for Sidewall Boundary-Layer Effects in the NAL Two-Dimensional Transonic Wind Tunnel

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## NATIONAL AEROSPACE LABORATORY

CHOFU, TOKYO, JAPAN

TM-630	Sic/AI 複合材の曲げ破壊による AE	1990年12月	祖父江	[靖,	小河	昭紀
TM-631	高圧液酸ターボポンプ試験設備タービン駆動系 Turbine Drive System of the High Pressure LOX Turbopump Test Facility	1991年1月	上條誹	義明, 東二郎, 重二郎,	橋本	<b>敏</b> 亮平 重幸
TM-632	超音速二次元翼列風洞用空気エゼクターの実験 (第一報・二次流量が零の場合の性能) Air Ejector Experiments Using the Two- Dimensional Supersonic-Cascade Tunnel (1st Report, Zero-Secondary-Flow Per- formance)	1991年2月	高森	亚,	坂口	_
TM-633	低騒音 STOL 実験機用 HUD (ヘッド・アップ・ ディスプレイ )の第二次シミュレーション評価 試験 The Second Flight Simulator Test of the Head-Up Display for NAL QSTOL Expe- rimental Aircraft (ASKA)	1991年 2 月	機体打 ム開発	支術開≩ €チー⊿	発室・掛 S	ト推進本部 鼻縦システ 屛析チーム
TM-634	航技研高圧貯気槽設備の更新について ( 第 4 高圧貯気槽設備の計画と構成 ) Replacement of the NAL High Pressure Air Storage System	1991年3月	馬場 鈴木	滋夫, 正光,	末永 戸田	尚史 亘洋
TM-635	突風風洞データ処理装置(処理部)の更新につい て Upgrading the Data Processing Section of the NAL Gust Wind Tunnel Data Proces- sing System	1991年5月	岩崎 藤枝	昭人, 郭俊	藤田	敏美
TM-636	クオータニオンとオイラー角によるキネマティッ クス表現の比較について Quaternion and Euler Angles in Kinematics	1991年6月	山口 岡本	功, 修,	木田 狼	隆 嘉彰
TM-637	実験用航空機ドルニエ機について -現況と装備機器概要- NAL Dornier 228-200 Flight Research Air- plane - Present Status and Outline of the Insta- lled Equipment-	1991年7月	飛行到	尾験部		
TM-638	電子式走査多点圧力センサー (ESP) を用いた 突風風洞圧力計測システム A Pressure Measurement Method Using Electronically Scanner Pressure Sensors (ESP) Installed in a Gust wind Tunnel	1991年7月	藤田 伊藤如	敏美, 帚美子,	岩崎 藤枝	昭人 郭俊
TM-639	二次元風洞における AGARD-B 標準模型の三分 力試験 Force Measurements on AGARD Calibra- tion Model-B at Transonic Speeds in the NAL Two-Dimensional Wind Tunnel	1991年8月	佐藤 須輪	衛, 記和, 等,	馬場	宏 滋夫 巖

## NACA0012 Airfoil Data Corrected for Sidewall Boundary-Layer Effects in the NAL Two-Dimensional Transonic Wind Tunnel\*

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#### ABSTRACT

An experimental study on NACA0012 airfoils at transonic speeds has been conducted in order to acquire aerodynamic data for evaluating sidewall boundary-layer effects. Measurements primarily consisted of static pressure on the airfoil and drag force coefficients determined using the wake rake. The tests were performed at free-stream Mach numbers from approximately 0.65 to 0.8, at angles of attack from  $-2.0^{\circ}$  to  $2.0^{\circ}$ , and at Reynolds numbers (based on airfoil chord) from  $7 \times 10^{6}$  to  $40 \times 10^{6}$ . Mach number corrections for sidewall boundary-layer effects were made, and tests were subsequently performed on two different chord airfoils to confirm the applicability of the correction to different airfoil aspect ratios. This is a supplementary report and presents both uncorrected and corrected data which enables comparative studies to be conducted using computational fluid dynamics and other wind tunnel experimental results.

Keywords: Airfoil Data, Transonic Flow, NACA0012, Wind Tunnel Test, Sidewall Correction

#### 概要

航空宇宙技術研究所二次元風洞の側壁境界層の影響を評価する目的で遷音速域において NACA 0012 翼型に関する実験を行った。測定項目は翼表面圧力分布測定,後流トラバー スによる抵抗測定の二項目である。マッハ数は約0.65から0.8,迎角は-2°から2°,翼弦 長を基準とするレイノルズ数は7×10°から40×10°の範囲で試験を行った。本実験結果に 側壁干渉によるマッハ数修正を施し,修正法に検討を加えるとともに,さらに翼弦長の異 なる模型についても実験を行いアスペクト比の変化に対する本修正法の適用性の確認も行 った。本報告では他風洞及びCFDとの比較研究のための資料として修正前及び修正後の 結果を併せて紹介する。

本報告は、航空宇宙技術研究所報告 TR-1109T を補足するためのデータ集である。

#### Nomenclature

- AR : aspect ratio (= b/c)
- b : width of the tunnel, span of the airfoil
- \* 平成 3 年 7 月25 日受付 (received 25 July 1991)
- \*1 空力性能部 (Aircraft Aerodynamics Division)
- c : airfoil chord
- $C_{d_{wake}}$ : drag coefficient measured by the wake rake
- $C'_d$  : value defined as Equation (1)
- $C_{l_c}$  : corrected lift coefficient
- $C_{l_{\mu}}$  : uncorrected lift coefficient

- $C_p$  : pressure coefficient
- $C_{p,c}$  : corrected pressure coefficient
- $C_p^*$  : critical pressure coefficient
- $l_1$  : distance (see Figure 3)
- $l_2$  : distance (see Figure 3)
- $M_c$  : corrected Mach number
- $M_s$  : setting Mach number (uncorrected)
- *Re* : Reynolds number based on the airfoil chord
- x : streamwise coordinate
- z : normal coordinate
- $\alpha_s$  : setting angle of attack (uncorrected)

subscripts

- c : corrected value
- s : setting value
- *u* : uncorrected value

#### 1. Introduction

Recently, concern about wind tunnel wall interference effects at transonic speeds have increased with emphasis on the need for reliable two-dimensional experimental data. In the NAL Two-Dimensional Transonic Wind Tunnel (2D-TWT), tests on NACA0012 airfoil models were conducted in order to evaluate the effects of the sidewall boundary-layer. Analysis and discussion of these tests are given in Reference 1 in detail.

The objective of this report is to document the results of these tests in order to provide the data for the comparative study with CFD (see, for example, Reference, 2) and other wind tunnels (see, for example, References 3, 4, and 5) for evaluating sidewall boundary-layer effects and improving the accuracy of the measurments. This report is a collection of the measured and corrected data, and supplements the analysis and discussion given in Reference 1. Consequently, results are presented without discussion.

### 2. Apparatus and Techniques

#### Wind Tunnel

The tests were conducted in the NAL Two-Dimensional Transonic Wind Tunnel. The wind tunnel is of the blowdown type operating at Reynolds number based on the airfoil chord length (250 mm) from  $7 \times 10^6$  to  $40 \times 10^6$  according to the variation of the stagnation pressure.<sup>6)</sup> Figure 1 shows a test section schematic of the wind tunnel. The size is 0.3 m wide  $\times 1$  m high. The top and bottom walls each have four full slots and two half-slots at the sides. The total slot width at the position of the model is 3 percent of the width of the upper and lower walls. The sidewalls of the test section are solid (not rigimeshes) with no sidewall removal system activated in this investigation.

#### Models

Sketches of the NACA0012 airfoil models and pressure orifice layout are illustrated in Figure 2(a) and 2(b). The models have chords of 250 mm and 150 mm, and span the width of the tunnel (300 mm) with aspect ratios (span-to-chord ratios) of 1.2 and 2.0, respectively.

The models were constructed of stainless steel. The design and measured (near the position where the pressure orifices located) section coordinates are given in Tables 1 to 4. The deviations between design and measured coordinates are small, never exceeding  $|\Delta z/c| = 0.00029$  for the 250 mm chord model and  $|\Delta z/c| = 0.00042$  for the 150 mm. These small deviations are expected not to noticeably affect the results. The static pressure orifices are 0.5 mm in diameter and located as near as possible to the airfoil midspan. Both the models have 47 pressure orifices on the upper surface and 22 orifices on the lower surface.

### **Surface Pressure Measurements**

Surface pressures were measured with Scanivalve units with a transducer range of  $689 \text{ kN}/\text{m}^2$ . Accuracy of the transducers was within 0.1percent of full scale. Those valves and pressure transducers were placed in the plenum chamber near the model to keep the lag time due to pressure leads small. Pressure signals from the transducers were referenced to the plenum chamber pressure.

### Wake Rake

The airfoil drag force coefficient was determined from the total and static pressures measured across the wake by use of a rake. The rake had a static-pressure tube and two total-pressure tubes, the latter two with a side-by-side arrangement to ascertain the two-dimensionality of the wake. The static tube was located 20 mm to the left of the tunnel midspan (z/(b/2) = -0.133), and the total tubes were located 30 mm and 50 mm to the right (z/(b/2) = 0.2 and 0.533, respectively). The total tubes had an outside diameter of 1.0 mm and an inside diameter of 0.8 mm. The rake was positioned such that the upstream end of the tubes were at a distance of about 500 mm behind the trailing edges of the respective airfoil models.

#### **Data Reduction**

Section lift coefficients were calculated from normal-force and drag coefficients. The normal force coefficients were obtained by numerical integration (based on the trapezoidal method) of the local surface-pressure coefficient measured at each orifice multiplied by an appropriate weighting factor (incremental area), and the drag coefficients were determined by the wake rake.

Section drag coefficients were obtained by numerical integration across the wake, using the procedure of Reference 6. The integration is performed between upper and lower limits according to Reference 7. The definition of the integration limits is shown in Figure 3. The  $C'_d$  value is defined as

$$C_{d_{wake}} = \int C_d' d(z/c) \tag{1}$$

The first stage is to detect the positions in the wake where the  $C'_d$  value falls below a test cutoff level ( $C'_d = 0.005$ ), and to calculate distances between these positions and the peak pressure deficit location  $(l_1 \text{ and } l_2)$ . The second stage is the extension of these two distances by a specified percentage (50%), and the final integration limits are determined. This method improves the repeatability and the accuracy of the drag measurement drastically compared with the traditional method<sup>6</sup>) which was used in the NAL 2D-TWT.

#### **Sidewall Correction**

The present data were corrected by the Murthy method<sup>8)</sup> for sidewall boundary-layer effects on test section Mach number. This method is based on the wavy flow model by considering the compressible flow between a straight wall and a wavy wall so that it includes the effects of the model aspect ratio. Applying this method to the present data gave a good agreement with the CFD data and other wind tunnel's data on the aerodynamic characteristics of the NACA0012 airfoil (See Reference 1).

#### 3. Test Conditions

The tests were conducted at Mach numbers from approximately 0.65 to 0.8, at angles of attack from  $-2.0^{\circ}$  to  $2.0^{\circ}$ , and at Reynolds numbers based on the airfoil chord from  $7 \times 10^{6}$  to  $40 \times 10^{6}$ . No attempt was made to fix the transition. These test conditions were shown in Tables 5 and 6, and in Figures 4 to 8.

#### 4. Presentation of Data

Tables 5 and 6 summarize the test conditions and the derived force coefficients while Figure 9 to 58 give the corresponding surface pressure data in plotted as well as tabular forms. As to the freestream Mach number, pressure coefficient, and lift coefficient, both uncorrected and corrected values for only sidewall effects by the Murthy method are presented. As to the Reynolds number and drag force coefficient, however, only uncorrected values are presented for reasons that the correction values for Reynolds number are negligibly small, and that this correction applies only to the component of pressure drag in the drag coefficient so that it is difficult to estimate the correction values. Also as to the angle of attack, uncorrected (setting) values are presented because of difficulty in estimating the correction values.

In Figures 59 to 68, the lift coefficients (corrected) are plotted versus the drag force coefficients for a wide range of Mach numbers and Reynolds numbers as summed up in Table 7.

In addition to the airfoil surface pressures, static pressure distributions on the top and bottom walls were measured with rails to enable a quantitative evaluation of wall interference effect.<sup>9)</sup> In this paper, however, these data were not used in processing the data because the values of the correction to Mach number for top and bottom walls were negligibly small compared to the correction due to the sidewall boundary-layer (the correction values are about 0.002 or less). An example of the wall pressure data at zero angle of attack (zero lift) is shown in Figure 69 and one in lifting condition is shown in Figure 70 for the sake of illustrations.

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x/c Design	z/c n Measure	
m/a Dooig	Moogura	
x/c Design	I Ivieasure	$d \Delta(z/c)$
.0001 .0017	7 .0020	6 .00029
.0002 .0025	0 .0027	6 .00026
.0004 .0035	3 .0037	8 .00025
.0006 .0043	2 .0045	2 .00020
.0008 .0049	8 .0051	7 .00019
.0012 .0060	8 .0062	4 .00016
.0016 .0070	0 .0071	3 .00013
.0024 .0085	4 .0087	6 .00022
.0032 .0098	3 .0099	.00012
.0040 .0109	6 .0110	.00011
.0060 .0133	4 .0134	.00011
.0080 .0153	2 .0154	1 .00009
.0100 .0170	4 .0171	.00009
.0200 .0236	0 .0236	80000. 88
.0400 .0322	8 .0323	6 .00008
.0600 .0383	8 .0384	.00008
.0800 .0430	7 .0431	.00009
.1000 .0468	3 .0469	.00009
.1200 .0498	8 .0499	95 .00007
.1400 .0523	8 .0524	46 .00008
.1600 .0544	2 .054	50 .00008
.1800 .0560	.056	.00009
.2000 .0575	.057	48 .00010
.2200 .0583	.058	48 .00009
.2400 .0591	.059	21 .00008
.2600 .059	64 .059	71 .00007
.2800 .059	.059	99 .00007
.3000 .060	.060	09 .00007
.3200 .059	93 .059	99 .00006
.3400 .059	67 .059	74 .00007
.3600 .059	26 .059	33 .00007
.3800 .058	71 .058	78 .00007
.4000 .058	03 .058	<b>00000. 00</b>
.4200 .057	22 .057	28 .00006
.4400 .056	31 .056	36 .00005
.4600 .055	28 .055	33 .00005
.4800 .054	16 .054	20 .00004
.5000 .052	94 .052	.00004
.5200 .051	64 .051	.67 .00003
.5400 .050	25 .050	.00004

Table 1. Section coordinates of NACA0012 airfoil [c = 250 mm (AR = 1.2), upper surface].

		]	
x/c	Design	z/c Measured	$\Delta(z/c)$
.5600	.04878	.04882	.00004
.5800	.04724	.04727	.00003
.6000	.04563	.04567	.00004
.6200	.04396	.04398	.00002
.6400	.04222	.04225	.00003
.6600	.04042	.04044	.00002
.6800	.03856	.03860	.00004
.7000	.03664	.03667	.00003
.7200	.03466	.03469	.00003
.7400	.03264	.03266	.00002
.7600	.03056	.03057	.00001
.7800	.02842	.02844	.00002
.8000	.02623	.02625	.00002
.8200	.02399	.02400	.00001
.8400	.02169	.02170	.00001
.8600	.01934	.01932	00002
.8800	.01694	.01690	00004
.9000	.01448	.01443	00005
.9200	.01196	.01192	00004
.9400	.00938	.00935	00003
.9600	.00674	.00676	.00002
.9800	.00403	.00413	.00010
1.0000	.00126	.00138	.00012

				[° 250 m
			z/c	
	x/c	Design	Measured	$\Delta(z/c)$
	.0001	00177	00202	00025
	.0002	00250	00268	00018
	.0004	00353	00373	00020
Ì	.0006	00432	00449	00017
	.0008	00498	00515	00017
	.0012	00608	00622	00014
	.0016	00700	00717	00017
	.0024	00854	00872	00018
	.0032	00983	00998	00015
	.0040	01096	01108	00012
	.0060	01334	01344	00010
	.0080	01532	01542	00010
	<b>.01</b> 00	01704	01712	00008
	.0200	02360	02364	00004
ĺ	.0400	03228	03233	00005
	.0600	03838	03843	00005
	.0800	04307	04313	00006
	.1000	04683	04689	00006
	.1200	04988	04996	00008
	.1400	05238	05247	00009
	.1600	05442	05452	00010
	.1800	05607	05617	00010
	.2000	05738	05748	00010
	.2200	05839	05849	<b>00</b> 010
	.2400	05913	059 <b>23</b>	00010
	.2600	05964	059 <b>73</b>	00009
	.2800	05992	06002	00010
	.3000	06002	06011	00009
	.3200	05993	06001	00008
	<b>.340</b> 0	05967	05977	00010
	<b>.360</b> 0	05926	05934	00008
	.3800	05871	05879	00008
	.4000	05803	05810	00007
	<b>.42</b> 00	05722	05729	00007
	.4400	05631	05636	00005
	.4600	05528	05534	00006
	.4800	05416	05422	00006
	.5000	05294	05300	00006
	.5200	05164	05169	00005

.5400 -.05025

-.05030 | -.00005

Table 2. Section coordinates of NACA0012 airfoil [c = 250 mm (AR = 1.2), lower surface].

x/c	Design	Measured	$\Delta(z/c)$
.5600	04878	04883	00005
.5800	04724	04729	00005
.6000	04563	04568	00005
.6200	04396	04401	00005
.6400	04222	04227	00005
.6600	04042	04046	00004
.6800	03856	03860	00004
.7000	03664	03667	00003
.7200	03466	03468	00002
.7400	03264	03264	.00000
.7600	03056	03054	.00002
.7800	02842	02841	.00001
<b>.8</b> 000	02623	02620	.00003
.8200	02399	02397	.00002
.8400	02169	02169	.00000
.8600	01934	01935	00001
.8800	01694	01696	00002
.9000	01448	01450	00002
.9200	01196	01198	00002
.9400	00938	00940	00002
.9600	00674	00678	.00004
.9800	00403	00414	.00011
1.0000	00126	00140	.00014

		z/c	
x/c	Design	Measured	$\Delta(z/c)$
.0001	.00177	.00219	.00042
.0002	.00250	.00283	.00033
.0003	.00307	.00337	.00030
.0004	.00353	.00388	.00035
.0006	.00431	.00465	.00034
.0008	.00497	.00531	.00034
.0010	.00555	.00585	.00030
.0012	.00608	.00633	.00025
.0014	.00656	.00680	.00024
.0016	.00700	.00725	.00025
.0018	.00742	.00763	.00021
.0020	.00781	.00803	.00022
.0024	.00854	.00877	.00023
.0028	.00921	.00943	.00022
.0032	.00983	.01001	.00018
.0036	.01041	.01061	.00020
.0042	.01122	.01136	.00014
.0048	.01197	.01214	.00017
.0058	.01312	.01326	.00014
.0064	.01376	.01389	.00013
.0074	.01475	.01488	.00013
.0087	.01594	.01602	.00008
.0100	.01703	.01714	.00011
.0150	.02063	.02069	.00006
.0200	.02360	.02363	.00003
.0250	.02615	.02619	.00004
.0300	.02840	.02845	.00005
.0400	.03227	.03235	.00008
.0450	.03397	.03405	.00008
.0500	.03555	.03562	.00007
.0550	.03701	.03707	.00006
.0600	.03837	.03839	.00002
.0650	.03965	.03970	.00002
.0650	.03965	.03970	.00003
.0700	.04080	.04030	.00004
	.04200	.04200	.00008
.0800		.04513	.00008
.0900		.04313	.00008
	1	.04851	.00008
.1100	.04843	.04031	.00000

.00005

.04993

.1200

.04988

Table 3. Section coordinates of NACA0012 airfoil [c = 150 mm (AR = 2.0), upper surface].

[		· · · · · · ·					
		z/c					
x/c	Design	Measured	$\Delta(z/c)$				
.0001	00177	00216	00039				
	00250	00287	00037				
.0003	00307	00344	00037				
.0004	00353	00391	00038				
.0006	00431	00465	00034				
.0008	00497	00523	00026				
.0010	00555	00586	00031				
.0012	00608	00637	00029				
.0014	00656	00681	00025				
.0016	00700	00727	00027				
.0018	00742	00769	00027				
.0020	00781	00802	00021				
.0024	00854	00881	00027				
.0028	00921	00951	00030				
.0032	00983	01007	00024				
.0036	01041	01057	00016				
.0042	01122	01137	00015				
.0048	01197	01207	00010				
.0058	01312	01321	00009				
.0064	01376	01385	00009				
.0074	01475	01483	00008				
.0087	01594	01604	00010				
.0100	01703	01713	00010				
<b>.015</b> 0	02063	02071	00008				
<b>.02</b> 00	02360	02371	00011				
.0250	02615	02622	00007				
<b>.03</b> 00	02840	02847	00007				
.0400	03227	03237	00010				
.0450	03397	03402	00005				
.0500	03555	03559	00004				
.0550	03701	.03705	00004				
.0600	03837	.03844	00007				
.0650	03965	.03972	00007				
.0700	04086	.04092	00006				
.0750	04200	.04206	00006				
.0800	04307	.04313	00006				
.0900	04505	.04509	00004				
.1000	04683	.04685	00002				
.1100	04843	.04846	00003				
.1200	04988	.04992	00004				

Table 4.	Section coordinates of NACA0012 airfoil
	[c = 150  mm (AR = 2.0),  lower surface].

	z/c			
x/c	Design	Measured	$\Delta(z/c)$	
.1400	05238	05241	00003	
.1600	05441	05445	00004	
.1900	05676	05677	00001	
.2200	05839	05841	00002	
.2400	05913	05913	.000002	
.2700	05981	05980	.00001	
.3000	06001	06001	.00000	
.3300	05982	05985	00003	
.3600	05926	05929	00003	
.3900	05839	05842	00003	
.4200	05722	05726	00003	
.4500	05581	05584	00004	
.4800	05415	05418	00003	
.5100	05229	05233	00003	
.5400	05025	05025	.00000	
.5700	04802	04803	00001	
.6000	04563	04564		
.6300	04309	04312	00001 00003	
.6600	04041	04041	00003	
.6800	03855	03855	.00000	
.7000	03663	03661	.00002	
.7200	03467	03463	00002	
.7400	03263	03260	00003	
.7600	03055	03051	00004	
.7800	02842	02839	00003	
.8000	02623	02621	- 00002	
.8200	02399	02397	00002	
.8400	02169	02167	00002	
.8600	01934	01933	00001	
.8800	01694	01693	00001	
.9000	01447	01445	.00002	
.9200	01195	01192	.00003	
.9400	00937	00935	.00002	
.9600	00673	00673	.00002	
.9800	00403	00407	00004	
.9900	00265	00267	- 00002	
1.0000	00126	00116	.00010	

.

Run	Scan	Ms	Mc	$lpha_{ extsf{s}}$	Re	C <sub>lu</sub>	C <sub>lc</sub>	C <sub>d</sub> wake	Figure
6917	1	0.800	0.777	-2.01	$7.0 \times 10^{6}$	-0.291	-0.297	0.0185	9
6917	2	0.800	0.777	-1.00	$7.0 \times 10^{6}$	-0.145	-0.148	0.0106	10
6916	7	0.800	0.777	0.01	$7.0 \times 10^{6}$	0.002	0.002	0.0084	11
6916	2	0.800	0.777	0.51	$7.1 \times 10^{6}$	0.069	0.070	0.0089	12
6916	3	0.799	0.776	1.01	$7.1 \times 10^{6}$	0.142	0.144	0.0109	13
6916	4	0.799	0.776	1.51	$7.1 \times 10^{6}$	0.216	0.220	0.0137	14
6916	5	0.800	0.777	2.01	$7.1 \times 10^{6}$	0.295	<b>0.3</b> 01	0.0185	15
6915	7	0.822	0.799	0.01	$7.0 \times 10^{6}$	0.006	0.006	0.0122	16
6915	2	0.822	0.799	0.51	$7.0 \times 10^{6}$	0.072	0.073	0.0128	17
6915	3	0.822	0.799	1.01	7.0×10 <sup>6</sup>	0.160	0.163	0.0155	18
6915	4	0.822	0.799	1.51	$7.0 \times 10^{6}$	0.244	0.249	0.0198	19
6915	5	0.822	0.799	2.01	$7.0 \times 10^{6}$	0.316	0.322	0.0257	20
6925	1	0.822	0.799	0.00	$14.8 \times 10^{6}$	-0.005	-0.006	0.0130	21
6925	2	0.822	0.799	1.01	$14.9 \times 10^{6}$	0.148	0.151	0.0159	22
6925	3	0.822	0.799	2.01	$15.0 \times 10^{6}$	<b>0.3</b> 05	0.310	0.0260	23
6932	1	0.651	0.631	0.01	$20.7 \times 10^{6}$	-0.006	-0.006	0.0068	24
6920	2	0.699	0.678	1.01	$21.0 \times 10^{6}$	0.113	0.116	0.0070	25
6920	3	0.700	0.679	2.01	$21.1 \times 10^{6}$	0.238	0.242	0.0070	26
6919	1	0.750	0.728	0.00	$20.8 \times 10^{6}$	-0.008	-0.008	0.0071	27
6919	2	0.750	0.728	1.00	21.0×10 <sup>6</sup>	0.121	0.123	0.0071	28
6919	3	0.750	0.728	2.01	$21.1 \times 10^{6}$	0.263	0.268	0.0090	29
6941	1	0.775	0.753	0.00	$20.3 \times 10^{6}$	-0.006	-0.006	0.0071	30
6941	2	0.775	0.753	0.52	$20.4 \times 10^{6}$	0.057	0.058	0.0074	31
6941	- 3	0.775	0.753	1.01	$20.5 \times 10^{6}$	0.125	0.127	0.0078	32
6908	1	0.801	0.778	-1.10	$20.5 \times 10^{6}$	-0.163	-0.167	0.0127	33
6910	1	0.801	0.778	0.00	$20.2 \times 10^{6}$	-0.007	-0.007	0.0089	34
6908	3	0.801	0.778	0.41	$20.8 \times 10^{6}$	0.051	0.052	0.0093	35
6909	1	0.801	0.778	0.91	$20.6 \times 10^{6}$	0.132	0.134	0.0109	36
6909	2	0.801	0.778	1.41	$20.6 \times 10^{6}$	0.204	0.208	0.0139	37
6910	2	0.801	0.778	1.91	$20.3 \times 10^{6}$	0.285	0.290	0.0187	38
6918	2	0.823	0.800	0.00	$20.8 \times 10^{6}$	-0.004	-0.004	0.0126	39
6936	2	0.822	0.7.99	0.51	$20.5 \times 10^{6}$	0.065	0.067	0.0130	40
6918	3	0.822	0.799	1.01	$20.9 \times 10^{6}$	0.152	0.155	0.0156	41
6940	1	0.822	0.799	0.01	$29.1 \times 10^{6}$	0.000	0.000	0.0133	42
6939	1	0.699	0.678	0.01	38.8×10 <sup>6</sup>	-0.008	-0.008	0.0066	43
6938	1	0.799	0.776	0.01	39.5×10 <sup>6</sup>	0.002	0.002	0.0083	44
6930	1	0.800	0.777	1.42	$39.5 \times 10^{6}$	0.212	0.216	0.0149	45
6913	1	0.822	0.799	0.00	$38.3 \times 10^{6}$	-0.013	-0.013	0.0136	46

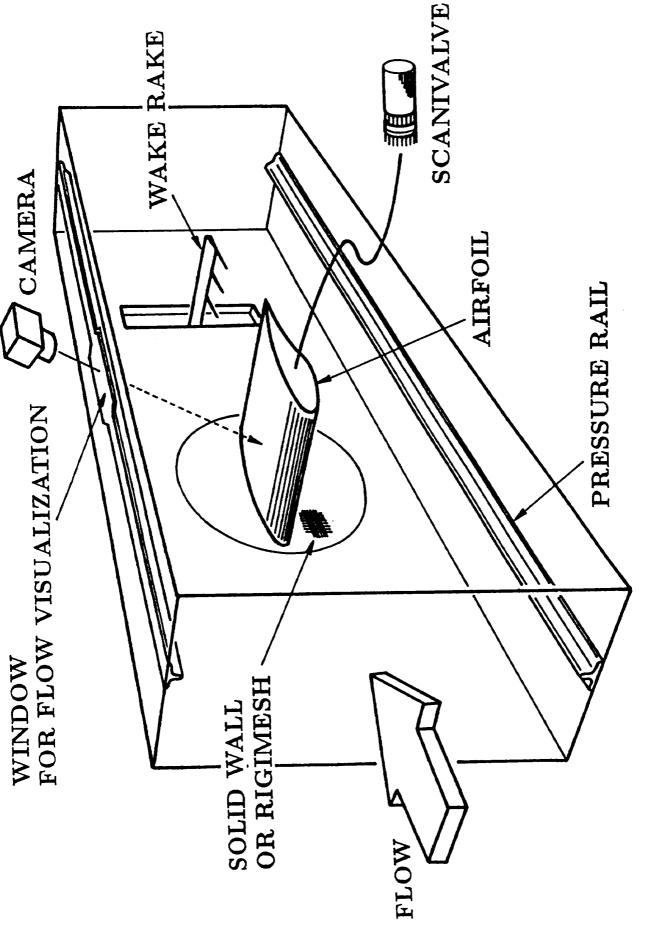
Table 5. Test condition [c = 250 mm (AR = 1.2)].

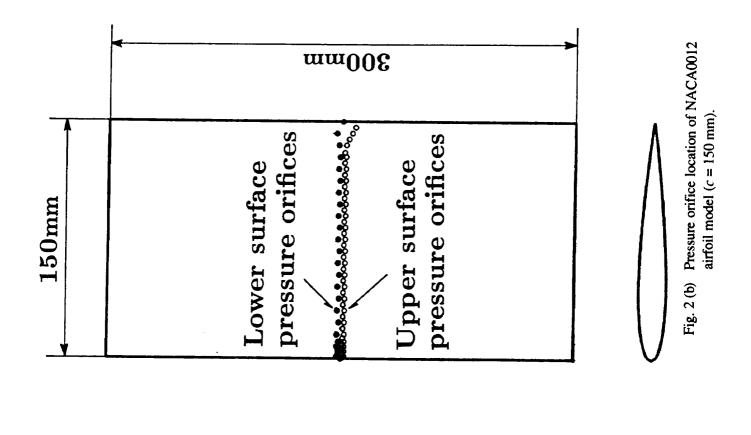
Run	Scan	Ms	Mc	$lpha_{ extsf{s}}$	Re	Clu	Clc	C <sub>d</sub> wake	Figure
6946	1	0.793	0.777	0.01	$7.1 \times 10^{6}$	0.005	0.005	0.0102	47
6946	2	0.792	0.776	0.51	$7.1 \times 10^{6}$	0.087	0.088	0.0110	48
6946	3	0.792	0.776	1.01	$7.1 \times 10^{6}$	0.168	0.171	0.0144	49
6946	4	0.792	0.776	1.51	7.1×10 <sup>6</sup>	0.249	0.252	0.0185	50
6946	5	0.792	0.776	2.01	$7.1 \times 10^{6}$	0.320	0.324	0.0248	51
6946	6	0.792	0.776	2.51	$7.2 \times 10^{6}$	0.381	0.386	0.0327	52
6952	1	0.799	0.782	0.01	7.0×10 <sup>6</sup>	0.009	0.010	0.0109	53
6945	1	0.817	0.800	0.01	$7.1 \times 10^{6}$	0.001	0.001	0.0159	54
6950	1	0.649	0.638	0.01	$20.8 \times 10^{6}$	0.002	0.003	0.0068	55
6949	1	0.792	0.776	0.01	$20.9 \times 10^{6}$	0.007	0.007	0.0094	56
6947	1	0.801	0.784	0.00	$21.0 \times 10^{6}$	0.002	0.002	0.0109	57
6948	1	0.818	0.801	0.00	$20.9 \times 10^{6}$	0.009	0.009	0.0160	58

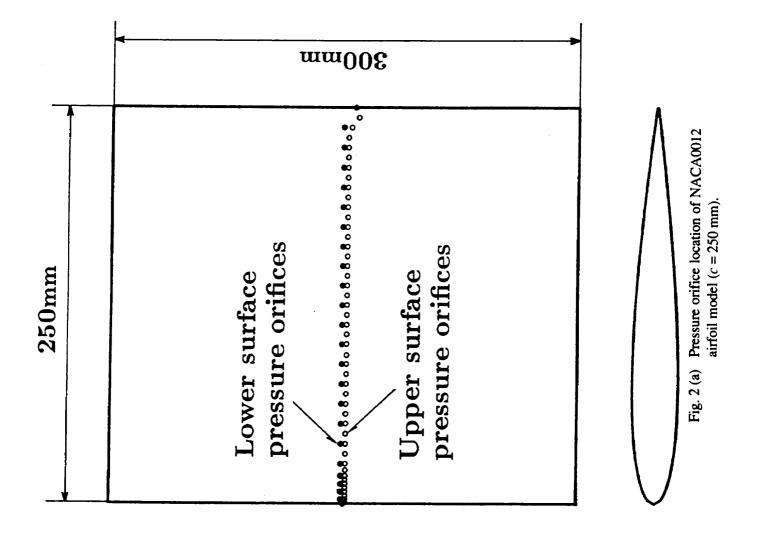
Table 6. Test condition [c = 150 mm (AR = 2.0)].

Table 7. Lift and drag force characteristics.

Ms	Mc	Re	AR	Figure
0.800	0.777	7×10 <sup>6</sup>	1.2	59
0.822	0.799	7×10 <sup>6</sup>	1.2	60
0.822	0.799	$15 \times 10^{6}$	1.2	61
0.700	0.679	$21 \times 10^{6}$	1.2	62
0.750	0.728	$21 \times 10^{6}$	1.2	63
0.775	0.753	$21 \times 10^{6}$	1.2	64
0.801	0.778	$21 \times 10^{6}$	1.2	65
0.823	0.800	$21 \times 10^{6}$	1.2	66
0.800	0.777	40×10 <sup>6</sup>	1.2	67
0.792	0.776	7×10 <sup>6</sup>	2.0	68







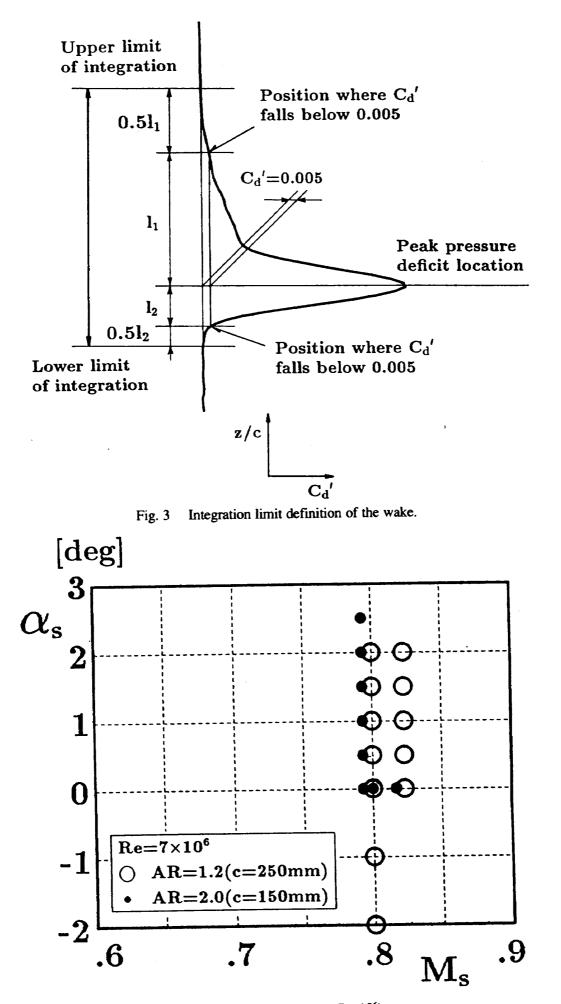


Fig. 4 Test condition ( $Re = 7 \times 10^6$ ).

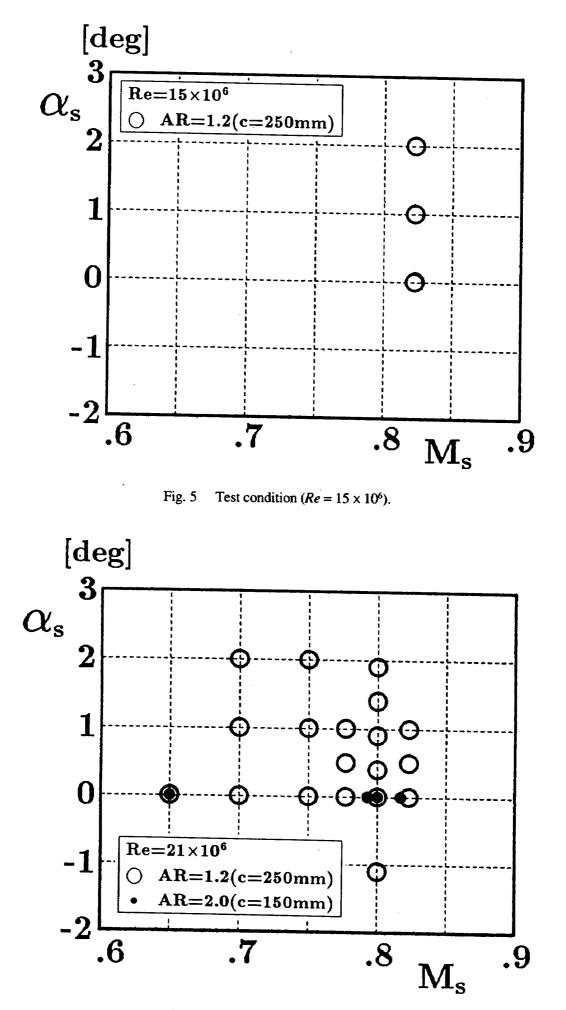


Fig. 6 Test condition ( $Re = 21 \times 10^6$ ).

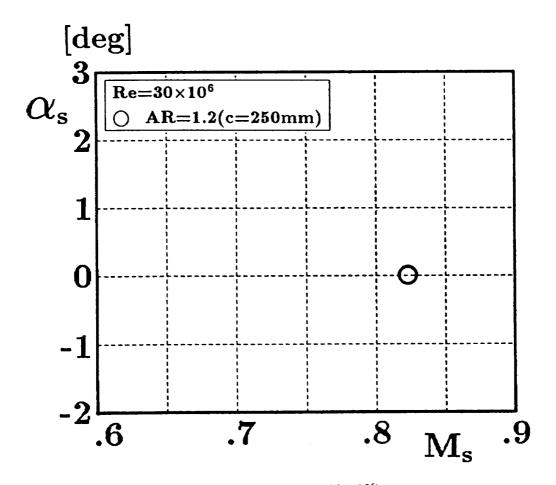


Fig. 7 Test condition ( $Re = 30 \times 10^6$ ).

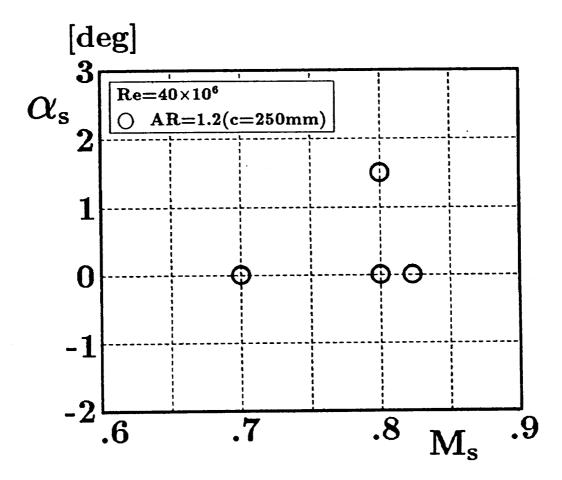
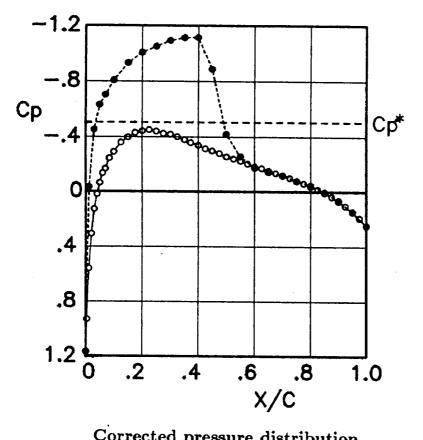


Fig. 8 Test condition ( $Re = 40 \times 10^6$ ).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cduraka
6917	1	0.800	0.777	-2.01	$7.0 \times 10^{6}$	-0.291	-0.297	0.0185



#### Lower surface

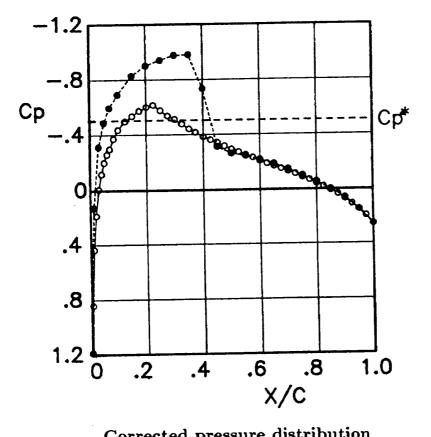
x/c	Cp	Cpc
0.950	0.145	0.148
0.900	0.064	0.065
0.850	0.003	0.003
0.800	-0.046	-0.047
0.750	-0.078	-0.080
0.700	-0.119	-0.121
0.650	-0.141	-0.143
0.600	-0.172	-0.175
0.550	-0.254	-0.259
0.500	-0.413	-0.421
0.450	-0.871	-0.888
0.400	-1.094	-1.115
0.350	-1.092	-1.113
0.300	-1.071	-1.092
0.250	-1.030	-1.050
0.200	-0.988	-1.007
0.150	-0.915	-0,932
0.100	-0.792	-0.807
0.070	-0.689	-0.703
0.050	-0.618	-0.630
0.030	-0.442	-0.451
0.011	-0.030	-0.030

#### Upper surface

x/c	Cp	Cpc
0.000	1.144	1.167
0.004	0.912	0.929
0.011	0.548	0.559
0.020	0.302	0.307
0.030	0.125	0.128
0.040	0.019	0.019
0.050	-0.064	-0.065
0.060	-0.132	-0.135
0.070	-0.166	-0.169
0.084	-0.241	-0.245
0.100	-0.287	-0.293
0.125	-0.353	-0.360
0.150	-0.390	-0.398
0.175	-0.422	-0.431
0.201	-0.435	-0.443
0.225	-0:443	-0.451
0.250	-0.432	-0.441
0.275	-0.416	-0.424
0.300	-0.411	-0.419
0.325	-0.393	-0.401
0.350	-0.373	-0.380
0.373	-0.351	-0.358
0.401	-0.333	-0.339
0.426	-0.308	-0.314
0.450	-0.294	-0.299
0.475	-0.275	-0.281
0.501	-0.252	-0.257
0.525	-0.236	-0.241
0.550	-0.221	-0.225
0.575	-0.201	-0.205
0.600	-0.181	-0.184
0.625	-0.169	-0.173
0.650	-0.151	-0.154
0.675	-0.133	-0.136
0.700	-0.115	-0.117
0.725	-0.099	-0.101
0.750	-0.077	-0.079
0.775	-0.060	-0.061
0.800	-0.035	-0.036
0.825	-0.015	-0.015
0.850	0.011	0.011
0.875	0.038	0.039
0.900	0.070	0.071
0.925	0.104	0.106
0.950	0.144	0.147
0.975	0.190	0.194
1.000	0.244	0.248
······		

Pressure distribution (c = 250 mm). Fig. 9

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	C <sub>dwake</sub>
6917	2	0.800	0.777	-1.00	$7.0 \times 10^{6}$	-0.145	-0.148	0.0106



#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.147	0.150
0.900	0.061	0.062
0.850	0.000	0.000
0.800	-0.055	-0.056
0.750	-0.099	-0.101
0.700	-0.145	-0.148
0.650	-0.183	-0.187
0.600	-0.213	-0.217
0.550	-0.241	-0.245
0.500	-0.258	-0.263
0.450	-0.306	-0.312
0.400	-0.719	-0.733
0.350	-0.961	-0.980
0.300	-0.957	-0.976
0.250	-0.922	-0.940
0.200	-0.884	-0.902
0.150	-0.811	-0.827
0.100	-0.678	-0.691
0.070	-0.583	-0.595
0.050	-0.477	-0.487
0.030	-0.307	-0.313
0.011	0.129	0.132

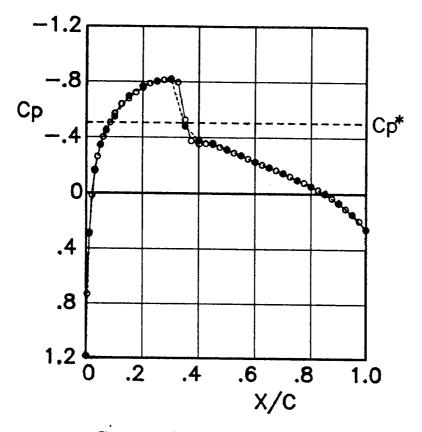
#### Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.165	1.188
0.004	0.827	0.843
0.011	0.428	0.436
0.020	0.184	0.188
0.030	-0.007	-0.007
0.040	-0.116	-0.118
0.050	-0.198	-0.202
0.060	-0.255	-0.260
0.070	-0.293	-0.298
0.084	-0.365	-0.372
0.100	-0.427	-0.436
0.125	-0.488	-0.497
0.150	-0.525	-0.535
0.175	-0.562	-0.573
0.201	-0.589	-0.601
0.225	-0.604	-0.615
0.250	-0.565	-0.576
0.275	-0.526	-0.537
0.300	-0.501	-0.511
0.325	-0.467	-0.476
0.350	-0.433	-0.441
0.373	-0.408	-0.416
0.401	-0.375	-0.383
0.426	-0.354	-0.361
0.450	-0.335	-0.342
0.475	-0.310	-0.316
0.501	-0.287	-0.293
0.525	-0.268	-0.273
0.550	-0.248	-0.253
0.575	-0.228	-0.232
0.600	-0.204	-0.208
0.625	-0.185	-0.189
0.650	-0.166	-0.169
0.675	-0.148	-0.151
0.700		-0.131
0.725	-0.111	-0.113
0.750		-0.087
0.775		-0.068
0.800		-0.042
0.825		-0.020
0.850		0.008
0.875		0.038
0.900		0.072
0.925		0.110
0.950		0.149
0.975		0.197
1.000		0.256
1.000		

Fig. 10 Pressure distribution (c = 250 mm).

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Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$lpha_{s}(\deg)$	Re	C <sub>lu</sub>	C <sub>lc</sub>	Cduraka
6916	7	0.800	0.777	0.01	$7.1 \times 10^{6}$	0.002	0.002	0.0084



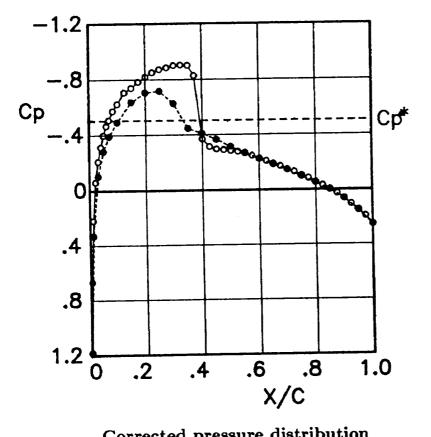
#### Lower surface

x/c	Cp	Cpc
0.950	0.147	0.150
0.900	0.064	0.065
0.850	-0.001	-0.001
0.800	-0.053	-0.054
0.750	-0.095	-0.097
0.700	-0.145	-0.148
0.650	-0.185	-0.189
0.600	-0.224	-0.228
0.550	-0.269	-0.274
0.500	-0.312	-0.318
0.450	-0.354	-0.360
0.400	-0.375	-0.382
0.350	-0.471	-0.480
0.300	-0.807	-0.822
0.250	-0.787	-0.802
0.200	-0.755	-0.769
0.150	-0.683	-0.696
0.100	-0.538	-0.548
0.070	-0.445	-0.453
0.050	-0.337	-0.344
0.030	-0.164	-0.167
0.011	0.282	0.287

x/c	Cp	C <sub>Pc</sub>
0.000	1.163	1.186
0.004	0.715	0.728
0.011	0.288	0.293
0.020	0.016	0.017
0.030	-0.157	-0.160
0.040	-0.259	-0.264
0.050	-0.341	-0.348
0.060	-0.395	-0.403
0.070	-0.439	-0.447
0.084	-0.496	-0.506
0.100	-0.560	-0.570
0.125	-0.627	-0.639
0.150	-0.666	-0.679
0.175	-0.709	-0.723
0.201		-0.757
0.225	-0.773	-0.788
0.250	-0.790	-0.805
0.275	-0.798	-0.813
0.300	-0.802	-0.817
0.325	-0.782	-0.797
0.350	-0.518	-0.528
0.373	-0.369	-0.376
0.401	-0.347	-0.353
0.426	-0.350	-0.357
0.450	-0.343	-0.350
0.475	-0.325	-0.331
0.501	-0.305	-0.311
0.525	-0.286	-0.292
0.550	-0.268	-0.273
0.575	-0.245	-0.249
0.600	-0.222	-0.226
0.625	-0.203	-0.206
0.650	-0.182	-0.186
0.675	-0.164	-0.167
0.700	-0.142	-0.144
0.725	-0.121	-0.123
0.750	0.050	-0.098
0.775	-0.076	-0.078
0.800	-0.050	-0.051
0.825	-0.026	-0.027
0.850	0.003	0.003
0.875	0.033	0.034
0.900	0.069	0.070
0.925	0.108	0.110
0.950	0.146	0.149
0.975	0.193	0.196
1.000	0.252	0.257

Fig. 11 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6916	2	0.800	0.777	0.51	$7.1 \times 10^{6}$	0.069	0.070	0.0089



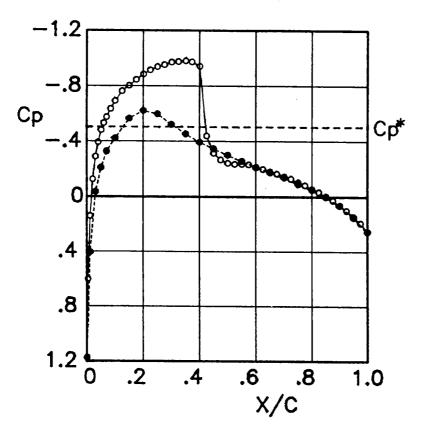
#### Lower surface

x/c	Ср	C <sub>Pc</sub>
0.950	0.149	0.152
0.900	0.064	0.065
0.850	0.001	0.001
0.800	-0.049	-0.050
0.750	-0.094	-0.096
0.700	-0.140	-0.143
0.650	-0.179	-0.182
0.600	-0.219	-0.224
0.550	-0.263	-0.268
0.500	-0.308	-0.314
0.450	-0.358	-0.365
0.400	-0.403	-0.411
0.350	-0.438	-0.447
0.300	-0.616	-0.628
0.250	-0.704	-0.718
0.200	-0.693	-0.706
0.150	-0.625	-0.638
0.100	-0.482	-0.492
0.070	-0.382	-0.389
0.050	-0.276	-0.281
0.030	-0.099	-0.101
0.011	0.327	0.333

x/c	Cp	Cpc
0.000	1.159	1.182
0.004	0.654	0.667
0.004	0.215	0.220
0.020	-0.060	-0.061
0.020	-0.205	-0.209
0.040	-0.308	-0.313
0.010	-0.391	-0.399
0.060	-0.458	-0.466
0.000	-0.499	-0.509
0.084	-0.564	-0.575
0.100	-0.613	-0.625
0.125	-0.694	-0.708
0.150	-0.726	-0.740
0.175	-0.769	-0.784
0.201	-0.804	-0.819
0.225	-0.834	-0.850
0.250	-0.855	-0.871
0.275	-0.867	-0.884
0.300	-0.882	-0.899
0.325	-0.886	-0.903
0.350	-0.882	-0.899
0.373	-0.811	-0.827
0.401	-0.361	-0.368
0.426	-0.307	-0.313
0.450	-0.289	-0.295
0.475	-0.284	-0.290
0.501	-0.278	-0.283
0.525	-0.271	-0.277
0.550	-0.259	-0.264
0.575	-0.241	-0.245
0.600	-0.220	-0.224
0.625	-0.203	-0.207
0.650	-0.184	-0.188
0.675	-0.165	-0.169
0.700	-0.142	-0.145
0.725	-0.125	-0.127
0.750	-0.099	-0.101
0.775	-0.079	-0.081
0.800	-0.052	-0.053
0.825	-0.028	-0.028
0.850	-0.001	-0.001
0.875	0.030	0.031
0.900	0.065	0.066
0.925	0.105	0.107
0.950	0.146	0.149
0.975	0.192	0.196
1.000	0.252	0.256

Fig. 12 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	C <sub>lu</sub>	C <sub>lc</sub>	Cduraka
<b>6916</b>	3	0.799	0.776	1.01	$7.1 \times 10^{6}$	0.142	0.144	0.0109



#### Lower surface

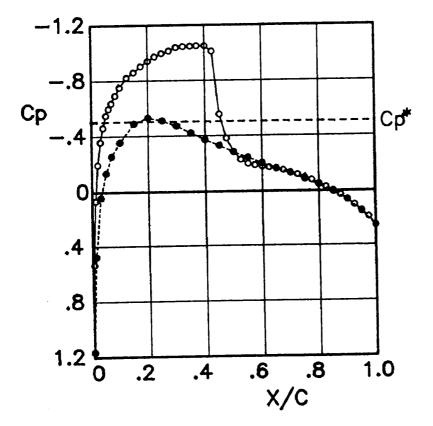
x/c	C <sub>P</sub>	Cpc_
0.950	0.150	0.153
0.900	0.065	0.066
0.850	0.005	0.005
0.800	-0.047	-0.048
0.750	-0.087	-0.089
0.700	-0.134	-0.137
0.650	-0.170	-0.174
0.600	-0.209	-0.213
0.550	-0.251	-0.256
0.500	-0.295	-0.300
0.450	-0.340	-0.346
0.400	-0.386	-0.394
0.350	-0.445	-0.453
0.300	-0.511	-0.521
0.250	-0.587	-0.599
0.200	-0.610	-0.622
0.150	-0.554	-0.565
0.100	-0.413	-0.422
0.070	-0.319	-0.326
0.050	-0.204	-0.208
0.030	-0.032	-0.032
0.011	0.400	0.407

#### **Upper surface**

x/c	Cp	C <sub>Pc</sub>
0.000	1.154	1.176
0.004	0.592	0.604
0.011	0.140	0.143
0.020	-0.122	-0.124
0.030	-0.284	-0.289
0.040	-0.385	-0.393
0.050	-0.472	-0.481
0.060	-0.522	-0.532
0.070	-0.565	-0.576
0.084	-0.623	-0.635
0.100	-0.680	-0.693
0.125	-0.748	-0.763
0.150	-0.787	-0.802
0.175	-0.829	-0.845
0.201	-0.868	-0.885
0.225	-0.897	-0.915
0.250	-0.921	-0.939
0.275	-0.934	-0.953
0.300	-0.953	-0.972
0.325	-0.957	-0.975
0.350	-0.962	-0.981
0.373	-0.955	-0.974
0.401	-0.924	-0.942
0.426	-0.430	-0.438
0.450	-0.307	-0.312
0.475	-0.260	-0.265
0.501	-0.235	-0.240
0.525	-0.229	-0.233
0.550	-0.229	-0.233
0.575	-0.225	-0.230
0.600	-0.205	-0.209
0.625	-0.193	-0.196
0.650	-0.176	-0.179
0.675	-0.160	-0.163
0.700	-0.140	-0.143
0.725	-0.124	-0.127
0.750	-0.099	-0.101
0.775	-0.079	-0.080
0.800	-0.052	-0.053
0.825	-0.029	-0.030
0.850	0.000	0.000
0.875	0.030	0.030
0.900	0.066	0.067
0.925	0.103	0.105
0.950	0.145	0.148
0.975	0.191	0.148
1.000	0.252	0.155
	V.101	V.201

Fig. 13 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	C <sub>lc</sub>	C <sub>dwake</sub>
6916	4	0.799	0.776	1.51	$7.1 \times 10^{6}$	0.216	0.220	0.0137



#### Lower surface

	~~~	
x/c	Cp	Cpc
0.950	0.149	0.152
0.900	0.064	0.065
0.850	0.007	0.007
0.800	-0.044	-0.045
0.750	-0.083	-0.085
0.700	-0.126	-0.128
0.650	-0.160	-0.164
0.600	-0.198	-0.202
0.550	-0.238	-0.242
0.500	-0.277	-0.282
0.450	-0.323	-0.329
0.400	-0.364	-0.371
0.350	-0.413	-0.422
0.300	-0.463	-0.472
0.250	-0.501	-0.511
0.200	-0.522	-0.533
0.150	-0.481	-0.490
0.100	-0.348	-0.355
0.070	-0.250	-0.255
0.050	-0.132	-0.134
0.030	0.043	0.044
0.011	0.469	0.478

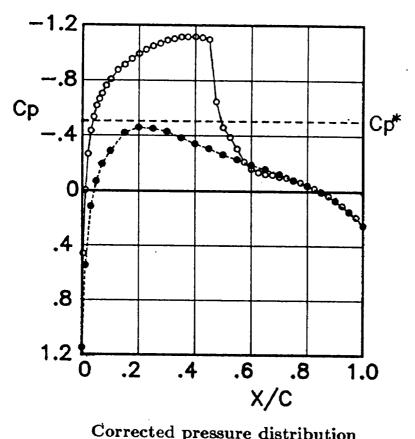
## Upper surface

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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	359
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	462
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	550
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	599
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	638
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	973
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0.373 -1.029 -1. 0.401 -1.029 -1. 0.426 -0.991 -1.	045
0.401 -1.029 -1 0.426 -0.991 -1	.047
0.426 -0.991 -1	.049
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	.282
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	).105 ).105
	0.108 0.148
	0.190 0.193
	0.192
1.000 0.251	

21

Fig. 14 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$lpha_{s}(\deg)$	Re	Clu	Clc	Cd
6916	5	0.800	0.777	2.01	$7.1 \times 10^{6}$	0.295	0.301	0.0185



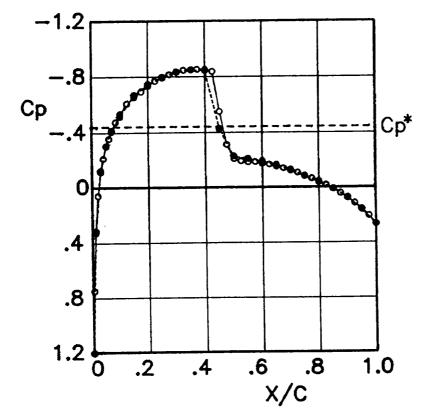
#### Lower surface

x/c	Ср	Cpc
0.950	0.145	0.148
0.900	0.065	0.067
0.850	0.007	0.007
0.800	-0.041	-0.042
0.750	-0.079	
0.700		-0.080
	-0.121	-0.123
0.650	-0.156	-0.159
0.600	-0.186	-0.190
0.550	-0.225	-0.230
0.500	-0.259	-0.264
0.450	-0.301	-0.307
0.400	-0.335	-0.342
0.350	-0.377	-0.384
0.300	-0.420	-0.429
0.250	-0.442	-0.450
0.200	-0.450	-0.459
0.150	-0.410	-0.418
0.100	-0.282	-0.288
0.070	-0.189	-0.193
0.050	-0.066	-0.068
0.030	0.114	0.116
0.011	0.536	0.546

x/c	Cp	C <sub>Pc</sub>
0.000	1.127	1.149
0.004	0.451	0.460
0.011	-0.005	-0.005
0.020	-0.262	-0.267
0.030	-0.425	-0.433
0.040	-0.524	-0.534
0.050	-0.605	-0.616
0.060	-0.652	-0.664
0.070	-0.692	-0.705
0.084	-0.748	-0.762
0.100	-0.792	-0.807
0.125	-0.859	-0.875
0.150	-0.897	-0.914
0.175	-0.938	-0.956
0.201	-0.973	-0.992
0.225	-1.004	-1.023
0.250	-1.029	-1.049
0.275	-1.047	-1.067
0.300	-1.070	-1.091
0.325	-1.080	-1.101
0.350	-1.093	-1.114
0.373	-1.094	-1.116
0.401	-1.095	-1.117
0.426	-1.089	-1.110
0.450	-1.076	-1.097
0.475	-0.634	-0.646
0.501	-0.450	-0.459
0.525	-0.380	-0.388
0.550	-0.299	-0.305
0.575	-0.207	-0.211
0.600	-0.156	-0.159
0.625	-0.132	-0.135
0.650	-0.120	-0.122
0.675	-0.115	-0.117
0.700	-0.100	-0.102
0.725	-0.094	-0.096
0.750	-0.074	-0.076
0.775	-0.062	-0.063
0.800	-0.037	-0.038
0.825	-0.019	-0.019
0.850	0.006	0.006
0.875	0.035	0.035
0.900	0.069	0.071
0.925	0.104	0.106
0.950	0.146	0.149
0.975	0.187	0.190
1.000	0.246	0.250

Fig. 15 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	C <sub>dwake</sub>
6915	7	0.822	0.799	0.01	$7.0 \times 10^{6}$	0.006	0.006	0.0122



#### Lower surface

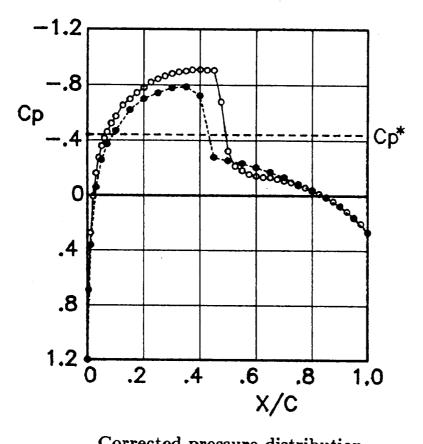
x/c	Cp	C <sub>Pc</sub>
0.950	0.161	0.164
0.900	0.073	0.075
0.850	0.011	0.011
0.800	-0.041	-0.042
0.750	-0.082	-0.084
0.700	-0.126	-0.129
0.650	-0.161	-0.164
0.600	-0.188	-0.191
0.550	-0.206	-0.210
0.500	-0.225	-0.230
0.450	-0.420	-0.428
0.400	-0.830	-0.846
0.350	-0.834	-0.850
0.300	-0.818	-0.834
0.250	-0.778	-0.793
0.200	-0.732	-0.746
0.150	-0.657	-0.669
0.100	-0.505	-0.514
0.070	-0.409	-0.417
0.050	-0.299	-0.304
0.030	-0.121	-0.124
0.011	0.310	0.316

### Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.179	1.202
0.004	0.733	0.747
0.011	0.319	0.325
0.020	0.057	0.058
0.030	-0.113	-0.116
0.040	-0.211	-0.215
0.050	-0.297	-0.303
0.060	-0.351	-0.358
0.070	-0.400	-0.408
0.084	-0.467	-0.476
0.100	-0.524	-0.534
0.125	-0.597	-0.609
0.150	-0.642	-0.654
0.175	-0.680	-0.694
0.201	-0.722	-0.736
0.225	-0.755	-0.770
0.250	-0.782	-0.797
0.275	-0.800	-0.815
0.300	-0.820	-0.836
0.325	-0.830	-0.846
0.350	-0.834	-0.850
0.373	-0.837	-0.853
0.401	-0.835	-0.852
0.426	-0.821	-0.837
0.450	-0.540	-0.550
0.475	-0.307	-0.313
0.501	-0.205	-0.209
0.525	-0.189	-0.192
0.550	-0.181 -0.183	-0.185 -0.186
0.600	-0.185	-0.174
0.625	-0.164	-0.167
0.650	-0.164	-0.157
0.675	-0.143	-0.132
0.700	-0.119	-0.121
0.725	-0.104	-0.106
0.750	-0.080	-0.082
0.775	-0.062	-0.063
0.800	-0.037	-0.038
0.825	-0.014	-0.015
0.850	0.014	0.014
0.875	0.045	0.046
0.900	0.078	0.079
0.925	0.116	0.119
0.950	0.158	0.161
0.975	0.205	0.209
1.000	0.263	0.268

Fig. 16 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6915	2	0.822	0.799	0.51	$7.0 \times 10^{6}$	0.072	0.073	0.0128



#### Lower surface

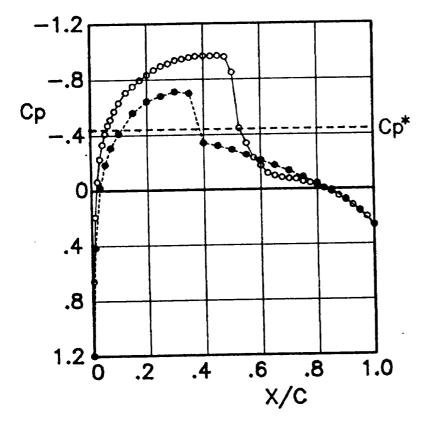
x/c	Cp	Cpc_
0.950	0.161	0.164
0.900	0.076	0.078
0.850	0.011	0.011
0.800	-0.040	-0.041
0.750	-0.083	-0.085
0.700	-0.132	-0.134
0.650	-0.170	-0.173
0.600	-0.202	-0.206
0.550	-0.231	-0.236
0.500	-0.251	-0.256
0.450	-0.275	<b>-0.28</b> 0
0.400	-0.710	-0.724
0.350	-0.773	-0.787
0.300	-0.764	-0.779
0.250	-0.728	-0.742
0.200	-0.687	-0.701
0.150	-0.608	-0.620
0.100	~0.459	-0.468
0.070	-0.366	-0.373
0.050	-0.252	-0.257
0.030	-0.056	-0.057
0.011	0.359	0.365

### Upper surface

x/c	Ċp	C <sub>Pc</sub>
0.000	1.176	1.199
0.004	0.675	0.688
0.011	0.267	0.272
0.020	0.008	0.008
0.030	-0.159	-0.162
0.040	-0.270	-0.275
0.050	-0.351	-0.358
0.060	-0.405	-0.413
0.070	-0.452	-0.460
0.084	-0.512	-0.522
0.100	-0.563	-0.574
0.125	-0.641	-0.654
0.150	-0.685	
0.175	-0.729	-0.698
0.175		
0.201	-0.764	-0.779
	-0.804	-0.820
0.250	-0.828	-0.844
0.275	-0.848	-0.864
	-0.866	-0.883
0.325	-0.878	-0.895
0.350	-0.885	-0.902
0.373	-0.893	-0.910
0.401	-0.895	-0.912
0.426	-0.891	-0.908
0.450	-0.890	-0.907
0.475	-0.666	-0.679
0.501	-0.317	-0.323
0.525	-0.210	-0.214
0.550	-0.178	-0.182
0.575	-0.152	-0.154
0.600	-0.139	-0.141
0.625	-0.130	-0.133
0.650	-0.129	-0.131
0.675	-0.117	-0.119
0.700	-0.105	-0.107
0.725	-0.094	-0.096
0.750	-0.073	-0.074
0.775	-0.057	-0.058
0.800	-0.033	-0.033
0.825	-0.012	-0.013
0.850	0.015	0.015
0.875	0.043	0.044
0.900	0.077	0.079
0.925	0.115	0.117
0.950	0.157	0.160
0.975	0.202	0.206
1.000	0.263	0.268

Fig. 17 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	C <sub>lu</sub>	Clc	Cdwake_
6915	3	0.822	0.799	1.01	$7.0 \times 10^{6}$	0.160	0.163	0.0155



#### Lower surface

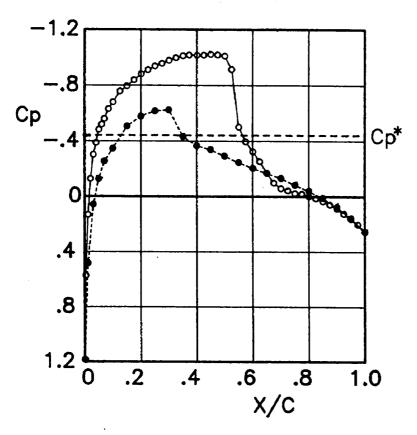
x/c	Cp	Cpc
0.950	0.159	0.163
0.900	0.074	0.075
0.850	0.009	0.010
0.800	-0.041	-0.042
0.750	-0.086	-0.088
0.700	-0.131	-0.134
0.650	-0.171	-0.174
0.600	-0.208	-0.212
0.550	-0.249	-0.254
0.500	-0.286	-0.292
0.450	-0.314	-0.320
0.400	-0.335	-0.342
0.350	-0.686	-0.699
0.300	-0.698	-0.712
0.250	-0.668	-0.681
0.200	-0.631	-0.643
0.150	-0.551	-0.561
0.100	-0.403	-0.411
0.070	-0.304	-0.310
0.050	-0.182	-0.186
0.030	-0.018	-0.019
0.011	0.408	0.416

## Upper surface

x/c	Cp	Cna
	<u> </u>	<u> </u>
0.000	0.643	0.656
0.004	0.189	0.192
0.011	-0.064	-0.065
0.020	-0.225	-0.229
0.040	-0.329	-0.335
0.050	-0.406	-0.414
0.060	-0.464	-0.473
0.070	-0.505	-0.514
0.084	-0.563	-0.574
0.100	-0.622	-0.634
0.125	-0.694	-0.708
0.150	-0.737	-0.751
0.175	-0.780	-0.795
0.201	-0.818	-0.834
0.225	-0.852	-0.869
0.250	-0.880	-0.897
0.275	-0.897	-0.914
0.300	-0.920	-0.938
0.325	-0.929	-0.947
0.350	-0.940	-0.958
0.373	-0.947	-0.965
0.401	-0.950	-0.968
0.426	-0.949	-0.967
0.450	-0.951	-0.970
0.475	-0.943	-0.962
0.501	-0.833	-0.849
0.525	-0.438	-0.446
0.550	-0.331	-0.337
0.575	-0.226	-0.231
0.600	-0.168	-0.171
0.625	-0.114	-0.116
0.650	-0.095	-0.096
0.675	-0.082	-0.083
0.700	-0.073	-0.075
0.725	-0.070	-0.071
0.750	-0.052	-0.053
0.775	-0.043	-0.044
0.800	-0.020	-0.021
0.825	-0.003	-0.004
0.850	0.021	0.022
0.875	0.051 0.081	0.082
0.900	0.081	0.083
0.925	0.117	0.120
0.950	0.100	0.205
1.000	0.201	0.265
1.000	V.20V	0.200

Fig. 18 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\mathrm{deg})$	Re	C <sub>Iu</sub>	C <sub>lc</sub>	Cdwake
6915	4	0.822	0.799	1.51	$7.0 \times 10^{6}$	0.244	0.249	0.0198



#### Lower surface

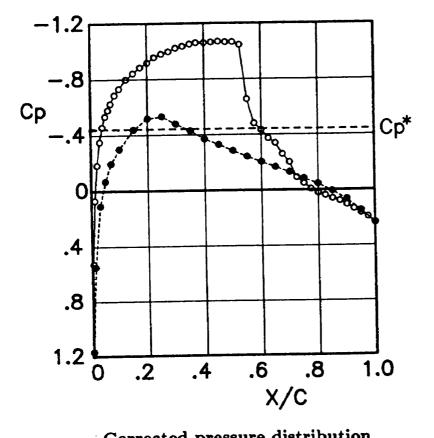
x/c	Cp	C <sub>Pc</sub>
0.950	0.154	0.157
0.900	0.073	0.075
0.850	0.010	0.011
0.800	-0.040	-0.041
0.750	-0.082	-0.084
0.700	-0.130	-0.133
0.650	-0.166	-0.169
0.600	-0.202	-0.206
0.550	-0.242	-0.247
0.500	-0.288	-0.294
0.450	-0.333	-0.339
0.400	-0.361	-0.368
0.350	-0.424	-0.432
0.300	-0.613	-0.624
0.250	-0.605	-0.617
0.200	-0.567	-0.578
0.150	-0.496	-0.506
0.100	-0.340	-0.347
0.070	-0.250	-0.255
0.050	-0.124	-0.127
0.030	0.059	0.060
0.011	0.474	0.483

### Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.162	1.184
0.004	0.560	0.571
0.011	0.128	0.131
0.020	-0.127	-0.129
0.030	-0.298	-0.303
0.040	-0.381	-0.389
0.050	-0.474	-0.483
0.060	-0.510	-0.520
0.070	-0.549	-0.520
0.084	-0.620	-0.632
0.100	-0.620	
0.125		-0.680
0.120	-0.743	-0.757
	-0.780	-0.795
0.175	-0.823	-0.839
0.201	-0.865	-0.881
0.225	-0.894	-0.911
0.250	-0.921	-0.939
0.275	-0.939	-0.957
0.300	-0.961	-0.979
0.325	-0.980	-0.998
0.350	-0.993	-1.012
0.373	-0.999	-1.018
0.401	-0.998	-1.017
0.426	-0.998	~1.017
0.450	-1.005	-1.024
0.475	-1.000	-1.019
0.501	-0.992	-1.011
0.525	-0.897	-0.914
0.550	-0.491	-0.500
0.575	-0.388	-0.395
0.600	-0.318	-0.324
0.625	-0.248	-0.253
0.650	-0.167	-0.170
0.675	-0.096	-0.098
0. <b>700</b>	-0.056	-0.057
0.725	-0.042	-0.043
0.750	-0.022	-0.022
0.775	-0.018	-0.018
0.800	0.001	0.001
0.825	0.015	0.016
0.850	0.036	0.036
0.875	0.059	0.060
0.900	0.086	0.088
0.925	0.123	0.125
0.950	0.160	0.163
0.975	0.199	0.203
1.000	0.251	0.256
2.000	V.4V1	.200

Fig. 19 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6915	5	0.822	0.799	2.01	$7.0 \times 10^{6}$	0.316	0.322	0.0257



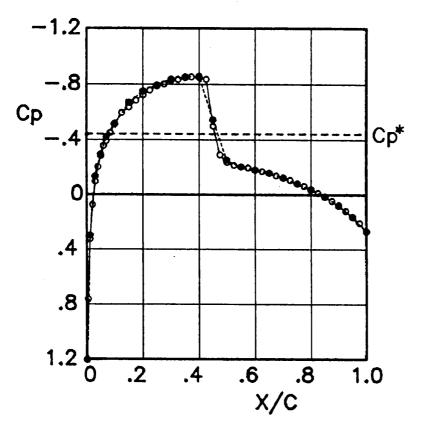
#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.148	0.151
0.900	0.065	0.067
0.850	0.008	0.008
0.800	-0.043	-0.044
0.750	-0.083	-0.084
0.700	-0.127	-0.129
0.650	-0.164	-0.167
0.600	-0.200	-0.204
0.550	-0.238	-0.242
0.500	-0.280	-0.285
0.450	-0.323	-0.329
0.400	-0.363	-0.370
0.350	-0.422	-0.430
0.300	-0.469	-0.478
0.250	-0.523	-0.533
0.200	-0.509	-0.519
0.150	-0.431	-0.439
0.100	-0.293	-0.299
0.070	-0.192	-0.196
0.050	-0.067	-0.068
0.030	0.108	0.110
0.011	0.538	0.548

_	x/c	Сp	Cpc
	0.000	1.147	1,169
	0.004	0.515	0.525
	0.011	0.066	0.068
	0.020	-0.182	-0.185
	0.020	-0.346	-0.352
	0.040	-0.450	-0.459
	0.050	-0.526	-0.536
	0.060	-0.571	-0.581
	0.070	-0.615	-0.626
	0.084	-0.675	-0.688
ł	0.100	-0.719	-0.732
	0.125	-0.784	-0.799
l	0.125	-0.827	-0.842
		-0.868	-0.884
	0.175	-0.901	-0.918
	0.201	-0.939	-0.918
		-0.939	-0.987
	0.250	-0.980	-0.999
	0.275		-0.999
	0.300	-1.005 -1.018	-1.024
I	0.325	-1.018	-1.057
I	0.350	-1.033	-1.053
ł	0.373	-1.042	-1.061
	0.401 0.426	-1.042	-1.065
	0.420	-1.050	-1.070
	0.475	-1.046	-1.066
	0.501	-1.047	-1.067
	0.525	-1.026	-1.046
	0.550	-0.642	-0.654
	0.575	-0.471	-0.480
	0.600	-0.425	-0.433
	0.625	-0.364	-0.371
	0.620	-0.331	-0.337
	0.675	-0.351	-0.258
	0.700	-0.196	-0.199
	0.725	-0.088	-0.090
	0.750	-0.046	-0.047
	0.775	-0.005	-0.005
	0.800	0.024	0.024
	0.825	0.040	0.041
	0.820	0.062	0.063
	0.875	0.079	0.080
	0.900	0.106	0.108
	0.925	0.135	0.138
	0.920	0.165	0.168
	0.975	0.193	0.196
	1.000	0.133	0.238
	1.000		

Fig. 20 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{\scriptscriptstyle B}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6925	1	0.822	0.799	0.00	$14.8 \times 10^{6}$	-0.005	-0.006	0.0130



#### Lower surface

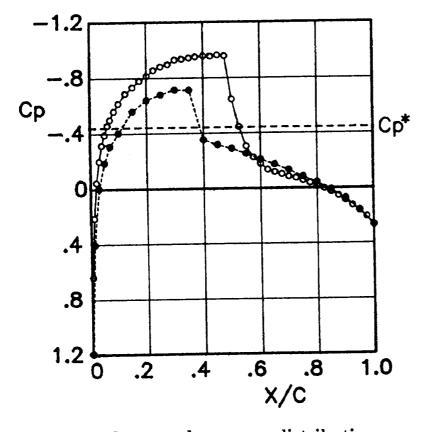
x/c	Cp	Cpc
0.950	0.161	0.164
0.900	0.076	0.077
0.850	0.013	0.013
0.800	-0.039	-0.040
0.750	-0.080	-0.081
0.700	-0.123	-0.125
0.650	-0.156	-0.159
0.600	-0.178	-0.182
0.550	-0.200	-0.204
0.500	-0.248	-0.253
0.450	-0.536	-0.547
0.400	-0.841	-0.857
0.350	-0.837	-0.853
0.300	-0.822	-0.838
0.250	-0.780	-0.795
0.200	-0.737	-0.751
0.150	-0.655	-0.668
0.100	-0.502	-0.512
0.070	-0.411	-0.419
0.050	-0.289	-0.295
0.030	-0.130	-0.133
0.011	0.294	0.300

### Upper surface

x/c	Cp	Cpc
0.000	1.180	1.203
0.004	0.749	0.763
0.011	0.320	0.326
0.020	0.072	0.073
0.030	-0.094	-0.096
0.040	-0.199	-0.203
0.050	-0.278	-0.284
0.060	-0.350	-0.356
0.070	-0.384	-0.392
0.084	-0.443	-0.452
0.100	-0.510	-0.520
0.125	-0.584	-0.595
0.150	-0.623	-0.635
0.175	-0.671	-0.684
0.201	-0.709	-0.723
0.225	-0.743	-0.758
0.250	-0.772	-0.787
0.275	-0.786	-0.801
0.300	-0.813	-0.828
0.325	-0.820	-0.836
0.350	-0.832	-0.848
0.373	-0.838	-0.854
0.401	-0.832	-0.848
0.426	-0.821	-0.837
0.450	-0.490	-0.499
0.475	-0.286	-0.291
0.501	-0.231	-0.235
0.525	-0.211	-0.215
0.550	-0.199	-0.203
0.575	-0.192	-0.195
0.600	-0.177	-0.180
0.625	-0.166	-0.170
0.650	-0.155	-0.158
0.675	-0.136 -0.119	-0.139
0.700	-0.119	-0.121
0.725	-0.104	-0.106 -0.079
0.775		•••••
0.800	-0.061 -0.034	-0.062
0.800	-0.034	-0.034 -0.012
0.820	0.012	0.012
0.875	0.018	0.017
0.900	0.047	0.047
0.925	0.118	0.121
0.950	0.118	0.121
0.975	0.204	0.208
1.000	0.265	0.270
L		

Fig. 21 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwake
6925	2	0.822	0.799	1.01	$14.9 \times 10^{6}$	0.148	0.151	0.0159



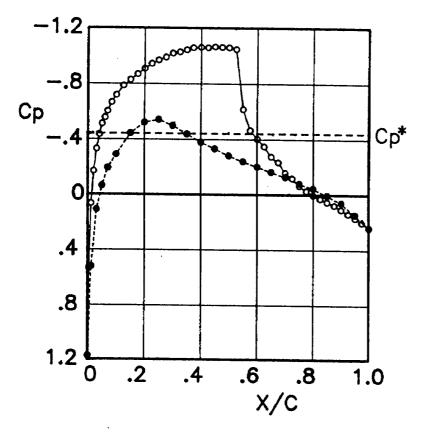
#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.156	0.159
0.900	0.071	0.072
0.850	0.009	0.009
0.800	-0.042	-0.043
0.750	-0.083	-0.085
0.700	-0.130	-0.132
0.650	-0.170	-0.173
0.600	-0.206	-0.210
0.550	-0.247	-0.251
0.500	-0.285	-0.290
0.450	-0.311	-0.317
0.400	-0.347	-0.354
0.350	-0.700	-0.714
0.300	-0.702	-0.715
0.250	-0.668	-0.680
0.200	-0.629	-0.642
0.150	-0.550	-0.560
0.100	-0.396	-0.403
0.070	-0.303	-0.308
0.050	-0.184	-0.187
0.030	-0.002	-0.002
0.011	0.399	0.406

x/c	Cp	C <sub>Pc</sub>
0.000	1.170	1.192
0.004	0.625	0.637
0.011	0.205	0.209
0.020	-0.046	-0.047
0.030	-0.198	-0.202
0.040	-0.311	-0.317
0.050	-0.385	-0.392
0.060	-0.450	-0.458
0.070	-0.491	-0.501
0.084	-0.551	-0.562
0.100	-0.605	-0.617
0.125	-0.676	-0.689
0.150	-0.721	-0.735
0.175	-0.766	-0.781
0.201	-0.800	-0.815
0.225	-0.840	-0.856
0.250	-0.866	-0.883
0.275	-0.881	-0.898
0.300	-0.914	-0.932
0.325	-0.920	-0.938
0.350	-0.928	-0.946
0.373	-0.935	-0.953
0.401	-0.942	-0.960
0.426	-0.939	-0.957
0.450	-0.948	-0.966 -0.959
0.475	-0.941	-0.645
0.501	-0.633 -0.437	-0.445
0.525	-0.299	-0.305
0.575	-0.233	-0.224
0.600	-0.173	-0.176
0.600	-0.173	-0.178
0.650	-0.131	-0.116
0.675	-0.099	-0.101
0.700	•••••	-0.083
0.725	-0.072	-0.073
0.750		-0.054
0.775		-0.038
0.800		-0.018
0.825		0.003
0.850		0.027
0.875		0.055
0.900		0.088
0.925		0.126
0.950		0.165
0.975	0.204	0.208
1.000	0.262	0.267

Fig. 22 Préssure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\mathrm{deg})$	Re	Clu	C <sub>lc</sub>	Cduraka
6925	3	0.822	0.799	2.01	$15.0 \times 10^{6}$	0.305	0.310	0.0260



#### Lower surface

x/c	Cp	Cpc
0.950	0.144	0.147
0.900	0.059	0.060
0.850	0.005	0.005
0.800	-0.046	-0.047
0.750	-0.081	-0.082
0.700	-0.126	-0.128
0.650	-0.162	-0.165
0.600	-0.199	-0.203
0.550	-0.237	-0.241
0.500	-0.278	-0.283
0.450	-0.327	-0.334
0.400	-0.374	-0.381
0.350	-0.430	-0.439
0.300	-0.490	-0.499
0.250	-0.531	-0.542
0.200	-0.512	-0.522
0.150	-0.435	-0.443
0.100	<del>-</del> 0.285	-0.291
0.070	-0.190	-0.193
0.050	-0.061	-0.062
0.030	0.110	0.112
0.011	0.511	0.520

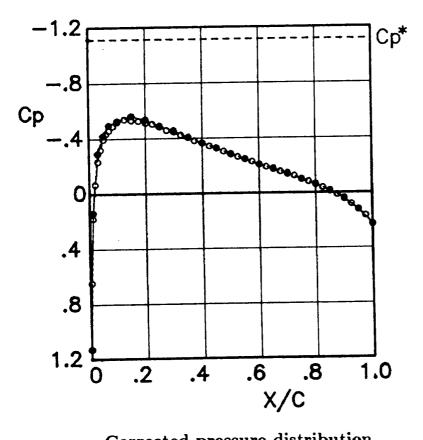
### Upper surface

x/c	Cp	<u> </u>
0.000	1.150	<u> </u>
0.004	0.520	1.172
0.011	0.065	0.530
0.020	-0.167	0.066
0.030		-0.170
0.030	-0.325	-0.332
0.050	-0.427 -0.502	-0.435
0.060	-0.547	-0.512
0.070	-0.592	-0.558
0.084	-0.654	-0.603
0.100	-0.705	-0.666
0.125		-0.719
	-0.771	-0.786
0.150	-0.814	-0.829
0.175	-0.853	-0.869
0.201	-0.892	-0.909
0.225	-0.927	-0.944
0.250	-0.951	-0.969
0.275	-0.972	-0.990
0.300	-1.000	-1.019
	-1.009	-1.028
0.350	-1.024	-1.044
0.401	-1.039	-1.059
0.401	-1.042 -1.039	-1.061
	-1.039	-1.059
0.450	-1.048	-1.066
0.501		-1.063
0.525	-1.041	-1.060
0.550	-1.029	-1.048
0.575	-0.605	-0.616
0.600	-0.457	-0.465
0.625	-0.396	-0.403
0.625	-0.343	-0.350
0.675	-0.271	-0.276
0.700	-0.231	-0.235
0.725	-0.155	-0.158
	-0.116	-0.118
0.750	-0.063	-0.064
0.800	-0.026	-0.027
0.825	0.004 0.030	0.004
0.825	0.054	0.030
0.875	0.034	0.055
0.900	0.108	0.078
0.925	0.108	0.110
0.925	0.139	
0.980	0.169	0.173
1.000		0.205
L	0.238	0.242

Fig. 23 Pressure distribution (c = 250 mm).

30

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	C <sub>dwake</sub>
6932	1	0.651	0.631	0.01	$20.7 \times 10^{6}$	-0.006	-0.006	0.0068



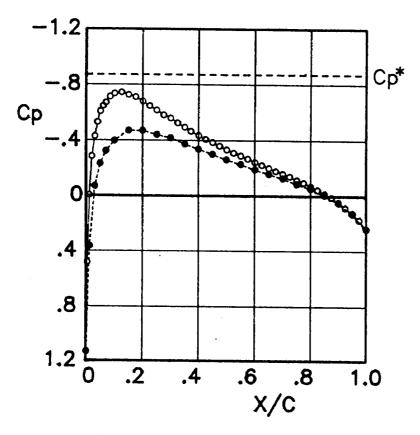
#### Lower surface

x/c	Ср	C <sub>Pc</sub>
0.950	0.121	0.123
0.900	0.040	0.040
0.850	-0.015	-0.015
0.800	-0.062	-0.063
0.750	-0.096	-0.098
0.700	-0.141	-0.144
0.650	-0.174	-0.177
0.600	-0.203	-0.207
0.550	-0.243	-0.248
0.500	-0.280	-0.286
0.450	-0.322	-0.329
0.400	-0.358	-0.365
0.350	-0.400	-0.408
0.300	-0.447	-0.456
0.250	-0.481	-0.491
0.200	-0.526	-0.537
0.150	-0.551	-0.562
0.100	-0.516	-0.526
0.070	-0.486	-0.496
0.050	-0.412	-0.420
0.030	-0.286	-0.292
0.011	0.137	0.140

Γ	x/c	Cp	C <sub>Pc</sub>
Ē	0.000	1.106	1.129
ļ	0.004	0.634	0.647
	0.011	0.176	0.179
	0.020	-0.068	-0.069
	0.030	-0.230	-0.235
	0.040	-0.314	-0.321
	0.050	-0.387	-0.395
İ	0.060	-0.427	-0.435
	0.070	-0.450	-0.459
	0.084	-0.480	-0.490
l	0.100	-0.510	-0.520
	0.125	-0.528	-0.538
1	0.150	-0.521	-0.531
l	0.175	-0.517	-0.527
	0.201	-0.502	-0.513
	0.225	-0.495	-0.505
I	0.250	-0.474	-0.483
1	0.275	-0.450	-0.459
	0.300	-0.438	-0.447
	0.325	-0.416	-0.424
	0.350	-0.398	-0.406
	0.373	-0.374	-0.382
	0.401	-0.357	-0.364
	0.426	-0.336	-0.343
	0.450	-0.320	-0.327
	0.475	-0.298	-0.304
	0.501	-0.276	-0.282
	0.525	-0.259	-0.265
	0.550	-0.242	-0.247
	0.575	-0.224	-0.229 -0.207
	0.600	-0.203	
	0.625	-0.186	-0.190 -0.173
	0.650	-0.169	-0.175
	0.675	-0.152 -0.134	-0.135
	0.700	-0.134	-0.136
		-0.121	-0.099
	0.750	-0.080	-0.081
	0.800	-0.057	-0.058
	0.825	-0.037	-0.038
	0.850	-0.012	-0.012
	0.875	0.015	0.015
	0.900	0.045	0.046
	0.925	0.081	0.083
	0.950	0.121	0.124
	0.975	0.165	0.168
	1.000	0.227	0.231
	L		

Fig. 24 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	C <sub>lu</sub>	Clc	Cduraka
6920	2	0.699	0.678	1.01	$21.0 \times 10^{6}$	0.113	0.116	0.0070



#### Lower surface

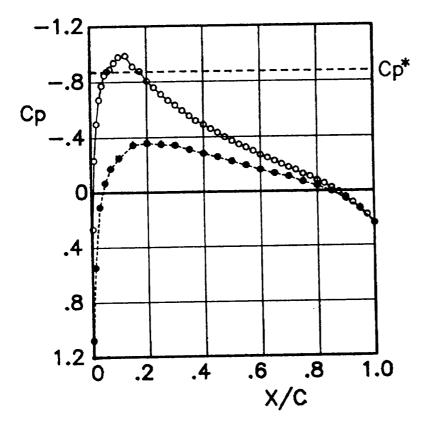
x/c	<u> </u>	
<u></u>	<u> </u>	C <sub>Pc</sub>
0.950	0.129	0.132
0.900	0.051	0.052
0.850	-0.005	-0.005
0.800	-0.052	-0.053
0.750	-0.086	-0.088
0.700	-0.125	-0.127
0.650	-0.156	-0.159
0.600	-0.188	-0.192
0.550	-0.226	-0.231
0.500	-0.258	-0.263
0.450	-0.297	-0.302
0.400	-0.331	-0.338
0.350	-0.368	-0.375
0.300	-0.410	-0.418
0.250	-0.432	-0.440
0.200	-0.460	-0.470
0.150	-0.461	-0.470
0.100	-0.391	-0.398
0.070	-0.318	-0.324
0.050	-0.228	-0.233
0.030	-0.068	-0.069
0.011	0.359	0.366

## Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.109	1.131
0.004	0.471	0.480
0.011	-0.005	-0.005
0.020	-0.281	-0.286
0.030	-0.422	-0.430
0.040	-0.520	-0.531
0.050	-0.596	-0.608
0.060	-0.635	-0.647
0.070	-0.657	-0.670
0.084	-0.699	-0.713
0.100	-0.721	-0.735
0.125	-0.729	-0.743
0.150	-0.711	-0.725
0.175	-0.696	-0.710
0.201	-0.667	-0.680
0.225	-0.634	-0.647
0.250	-0.604	-0.616
0.275	-0.570	-0.581
0.300	-0.548	-0.559
0.325	-0.514	-0.524
0.350	-0.484	-0.494
0.373	-0.456	-0.465
0.401	-0.426	-0.435
0.426	-0.400	-0.408
0.450	-0.379	-0.386
0.475	-0.354	-0.361
0.501	-0.327	-0.333
0.525	-0.305	-0.311
0.550	-0.285	-0.291
0.575	-0.264	-0.269
0.600	-0.239	-0.244
0.625	-0.219	-0.223
0.650	-0.198	-0.202
0.675	-0.177	-0.180
0.700	-0.157	-0.161
0.725	-0.139	-0.141
0.750	-0.113	-0.115
0.775	-0.094	-0.096
0.800	-0.068	-0.069
0.825	-0.043	-0.044
0.850	-0.014	-0.015
0.875	0.013	0.013
0.900	0.047	0.048
0.925	0.087	0.088
0.950	0.125	0.128
0.975	0.173	0.177
1.000	0.237	0.242
L		

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Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake_
6920	3	0.700	0.679	2.01	$21.1 \times 10^{6}$	0.238	0.242	0.0070



#### Lower surface

	~~~	
x/c	C <sub>P</sub>	C <sub>Pc</sub>
0.950	0.130	0.133
0.900	0.055	0.057
0.850	0.003	0.003
0.800	-0.038	-0.039
0.750	-0.068	-0.069
0.700	-0.107	-0.109
0.650	-0.130	-0.132
0.600	-0.158	-0.161
0.550	-0.189	-0.193
0.500	-0.218	-0.223
0.450	-0.250	-0.255
0.400	-0.276	-0.281
0.350	-0.304	-0.310
0.300	-0.335	-0.342
0.250	-0.342	-0.349
0.200	-0.352	-0.359
0.150	-0.338	-0.345
0.100	-0.245	-0.250
0.070	-0.170	-0.174
0.050	-0.066	-0.068
0.030	0.107	0.110
0.011	0.535	0.546

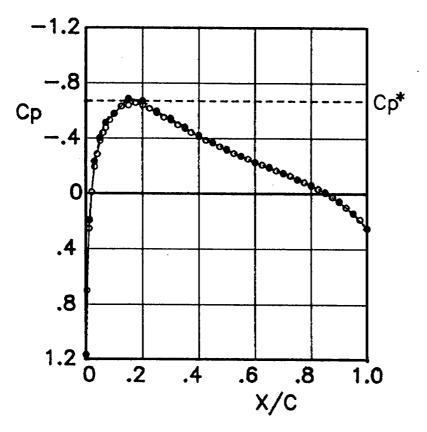
### Upper surface

Γ	x/c	Cp	C <sub>pc</sub>
Ē	0.000	1.057	1.078
	0.004	0.262	0.267
	0.011	-0.231	-0.236
	0.020	-0.489	-0.499
	0.030	-0.660	-0.673
	0.040	-0.758	-0.773
l	0.050	-0.832	-0.848
	0.060	-0.859	-0.876
I	0.070	-0.873	-0.890
I	0.084	-0.918	-0.937
l	0.100	-0.959	-0.978
ł	0.125	-0.967	-0.987
ł	0.150	-0.892	-0.910
ł	0.175	-0.858	-0.876
	0.201	-0.790	-0.806
	0.225	-0.743	-0.758
1	0.250	-0.696	-0.710
	0.275	-0.652	-0.665
	0.300	-0.619	-0.631
I	0.325	-0.580	-0.591
	0.350	-0.542	-0.553
	0.373	-0.507	-0.518
	0.401	-0.480	-0.490
	0.426	-0.449	-0.458
	0.450	-0.423	-0.431
l	0.475	-0.391	-0.399
	0.501	-0.363	-0.370
	0.525	-0.338	-0.344
	0.550	-0.316	-0.322
	0.575	-0.291	-0.297
	0.600	-0.263	-0.268
	0.625	-0.242	-0.247
	0.650	-0.219	-0.199
	0.675	-0.195 -0.172	-0.135
	0.700	-0.172	-0.176
	0.725	-0.183	-0.135
	0.750		-0.125
	0.775	-0.104	-0.108
	0.800	-0.052	-0.053
	0.825	-0.032	-0.023
	0.875	0.022	0.009
	0.875	0.045	0.046
	0.900	0.045	0.048
	0.928	0.126	0.129
	0.950	0.128	0.125
	1.000	0.173	0.238
	1.000	0.200	

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Fig. 26 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6919	1	0.750	0.728	0.00	$20.8 \times 10^{6}$	-0.008	-0.008	0.0071



#### Lower surface

x/c	Cp	Cpc
0.950	0.140	0.143
0.900	0.054	0.055
0.850	-0.007	-0.007
0.800	-0.060	-0.061
0.750	-0.098	-0.100
0.700	-0.146	-0.149
0.650	-0.187	-0.191
0.600	-0.223	-0.227
0.550	-0.268	-0.273
0.500	-0.316	-0.322
0.450	-0.363	-0.370
0.400	-0.414	-0.422
0.350	-0.472	-0.481
0.300	-0.534	-0.545
0.250	-0.586	-0.598
0.200	-0.659	-0.672
0.150	-0.675	-0.689
0.100	-0.568	-0.579
0.070	-0.502	-0.512
0.050	-0.396	-0.404
0.030	-0.228	-0.232
0.011	0.192	0.196

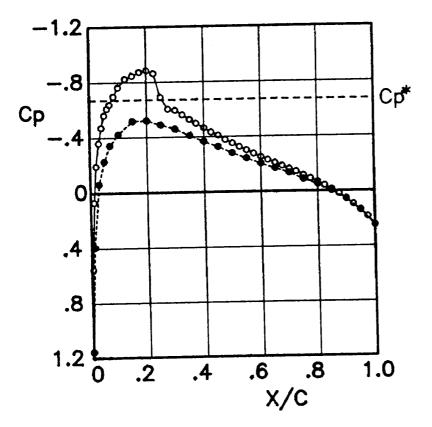
## Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.144	1.167
0.004	0.684	0.698
0.011	0.248	0.253
0.020	-0.010	-0.010
0.030	-0.190	-0.193
0.040	-0.280	-0.286
0.050	-0.375	-0.383
0.060	-0.431	-0.440
0.070	-0.467	-0.477
0.084	-0.522	-0.533
0.100	-0.568	-0.580
0.125	-0.620	-0.632
0.150	-0.628	-0.640
0.175	-0.645	-0.658
0.201	-0.628	-0.640
0.225	-0.605	-0.617
0.250	-0.574	-0.586
0.275	-0.542	-0.552
0.300	-0.521	-0.531
0.325	-0.489	-0.498
0.350	-0.463	-0.472
0.373	-0.434	-0.443
0.401	-0.405	-0.413
0.426	-0.380	-0.387
0.450	-0.361	-0.368
0.475	-0.334	-0.341
0.501	-0.309	-0.315
0.525	-0.287	-0.292
0.550	-0.267	-0.272
0.575	-0.246	-0.251
0.600	-0.221	-0.225
0.625	-0.204	-0.208
0.650	-0.183	-0.187
0.675	-0.162	-0.165
0.700	-0.142	-0.145
0.725	-0.125	-0.127
0.750	-0.100	-0.102
0.775	-0.079	-0.081
0.800	-0.054	-0.055
0.825	-0.032	-0.032
0.850	-0.004	-0.005
0.900	0.025	0.026
0.925	0.059 0.098	0.060
0.925	0.139	0.100 0.141
0.975	0.139	0.141
1.000	0.247	0.187
L		

Fig. 27 Pressure distribution (c = 250 mm).

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Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwake_
6919	2	0.750	0.728	1.00	$21.0 \times 10^{6}$	0.121	0.123	0.0071



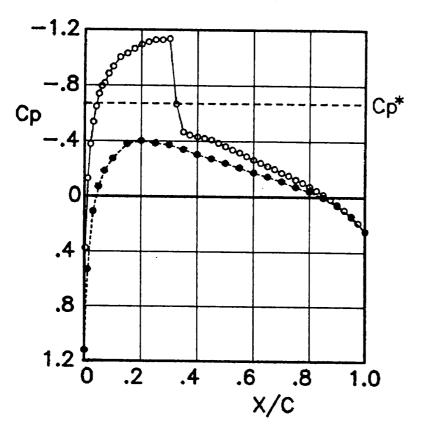
#### Lower surface

·····		
x/c	<u> </u>	<u> </u>
0.950	0.138	0.141
0.900	0.059	0.060
0.850	-0.001	-0.001
0.800	-0.049	-0.050
0.750	-0.085	-0.087
0.700	-0.131	-0.134
0.650	-0.165	-0.168
0.600	-0.199	-0.203
0.550	-0.237	-0.242
0.500	-0.276	-0.281
0.450	-0.321	-0.327
0.400	-0.359	-0.366
0.350	-0.402	-0.410
0.300	-0.450	-0.459
0.250	-0.480	-0.489
0.200	-0.512	-0.522
0.150	-0.508	-0.518
0.100	-0.414	-0.423
0.070	-0.336	-0.343
0.050	-0.223	-0.228
0.030	-0.061	-0.062
0.011	0.386	0.394

Γ	x/c	Cp	Cpc
Ē	0.000	1.133	1.155
	0.004	0.542	0.553
,	0.011	0.066	0.068
	0.020	-0.190	-0.194
	0.030	-0.353	-0.360
	0.040	-0.464	-0.473
	0.050	-0.551	-0.562
l	0.060	-0.599	-0.611
	0.070	-0.627	-0.639
	0.084	-0.685	-0.699
	0.100	-0.748	-0.763
	0.125	-0.809	-0.825
	0.150	-0.830	-0.846
	0.175	-0.856	-0.873
	0.201	-0.869	-0.886
	0.225	-0.847	-0.863
	0.250	-0.676	-0.690
	0.275	-0.592	-0.603
	0.300	-0.583	-0.595
	0.325	-0.550	-0.561
	0.350	-0.516	-0.526
	0.373	-0.488	-0.498
	0.401	-0.456	-0.465
	0.426	-0.424	-0.433
ł	0.450	-0.401	-0.409
	0.475	-0.369	-0.377
	0.501	-0.345	-0.352
	0.525	-0.318	-0.324
	0.550	-0.293	-0.299
	0.575	-0.270	-0.275
	0.600	-0.246	-0.251
	0.625	-0.224	-0.228
	0.650	-0.203	-0.207
	0.675	-0.181	-0.184
	0.700	-0.158	-0.162
	0.725	-0.139	-0.142
	0.750	-0.112	-0.114
	0.775	-0.089	-0.091
	0.800	-0.064	-0.065
	0.825	-0.039	-0.039
	0.850	-0.010	-0.010
	0.875	0.022	0.022
	0.900	0.057	0.058
	0.925	0.095	0.097
	0.950	0.140	0.142
	0.975	0.184	0.188
	1.000	0.246	0.251

Fig. 28 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwaka
6919	3	0.750	0.728	2.01	$21.1 \times 10^{6}$	0.263	0.268	0.0090



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# Corrected pressure distribution

## Lower surface

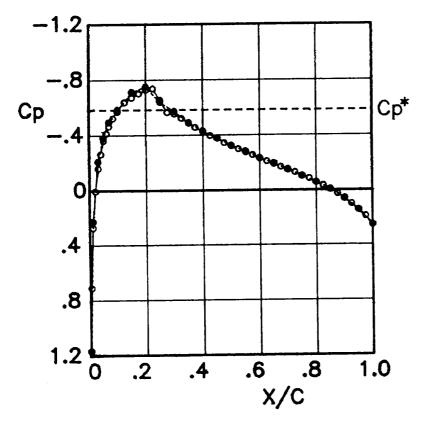
x/c	Cp	C <sub>Pc</sub>
0.950	0.141	0.144
0.900	0.061	0.063
0.850	0.005	0.006
0.800	-0.039	-0.040
0.750	-0.070	-0.071
0.700	-0.109	-0.111
0.650	-0.142	-0.145
0.600	-0.171	-0.174
0.550	-0.205	-0.209
0.500	-0.237	-0.242
0.450	-0.269	-0.274
0.400	-0.299	-0.305
0.350	-0.334	-0.340
0.300	-0.367	-0.374
0.250	-0.377	-0.385
0.200	-0.394	-0.402
0.150	-0.371	-0.379
0.100	-0.268	-0.273
0.070	-0.180	-0.183
0.050	-0.067	-0.069
0.030	0.108	0.110
0.011	0.520	0.531

## Upper surface

x/c	Cp	Cpc
0.000	1.100	1.122
0.004	0.367	0.374
0.011	-0.126	-0.128
0.020	-0.370	-0.378
0.030	-0.526	-0.537
0.040	-0.636	-0.648
0.050	-0.725	-0.740
0.060	-0.780	-0.795
0.070	-0.802	-0.817
0.084	-0.867	-0.884
0.100	-0.918	-0.936
0.125	-0.983	-1.002
0.150	-1.009	-1.029
0.175	-1.043	-1.063
0.201	-1.074	-1.095
0.225	-1.091	-1.113
0.250	-1.105	-1.127
0.275	-1.106	-1.128
0.300	-1.114	-1.136
0.325	-0.653	-0.666
0.350	-0.456	-0.465
0.373	-0.434	-0.443
0.401	-0.422	-0.431
0.426	-0.412	-0.420
0.450	-0.401	-0.409
0.475	-0.378	-0.386
0.501	-0.354	-0.361
0.525	-0.331	-0.338
0.550	-0.311	-0.317
0.575	-0.286	-0.291
0.600	-0.260	-0.266
0.625	-0.238	-0.243
0.650	-0.215	-0.219
0.675	-0.195	-0.199
0.700	-0.168	-0.172
0.725	-0.149	-0.152
0.750	-0.120	-0.122
0.775	-0.098	-0.100
0.800	-0.072	-0.073
0.825	-0.043	-0.044
0.850	-0.014	-0.014
0.875	0.019	0.019
0.900	0.056	0.057
0.925	0.094	0.096
0.950	0.136	0.139
0.975	0.185	0.189
1.000	0.244	0.249

Fig. 29 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6941	1	0.775	0.753	0.00	$20.3 \times 10^{6}$	-0.006	-0.006	0.0071



#### Lower surface

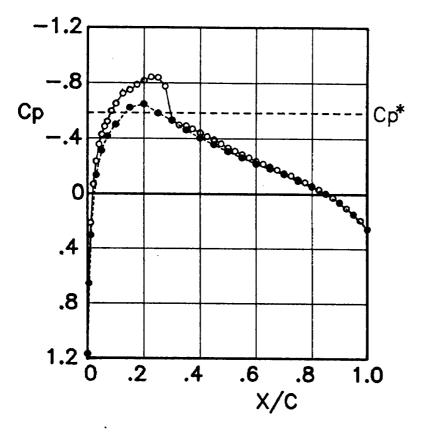
x/c	Ср	C <sub>Pc</sub>
0.950	0.143	0.146
0.900	0.059	0.060
0.850	-0.005	-0.006
0.800	-0.056	-0.057
0.750	-0.100	-0.102
0.700	-0.147	-0.150
0.650	-0.189	-0.193
0.600	-0.228	-0.233
0.550	-0.278	-0.283
0.500	-0.319	-0.326
0.450	-0.372	-0.379
0.400	-0.422	-0.430
0.350	-0.483	-0.492
0.300	-0.563	-0.573
0.250	-0.629	-0.641
0.200	-0.736	-0.750
0.150	-0.699	-0.712
0.100	-0.560	-0.571
0.070	-0.485	-0.494
0.050	-0.373	-0.380
0.030	-0.204	-0.207
0.011	0.224	0.228

## Upper surface

Г	x/c	Cp	C <sub>Pc</sub>
Ē	0.000	1.147	1.169
(	0.004	0.697	0.710
(	0.011	0.266	0.271
	0.020	0.005	0.005
	0.030	-0.158	-0.161
	0.040	-0.259	-0.264
	0.050	-0.354	-0.361
	0.060	-0.406	-0.413
	0.070	-0.457	-0.465
	0.084	-0.513	-0.523
	0.100	-0.574	-0.585
	0.125	-0.627	-0.639
	0.150	-0.658	-0.671
	0.175	-0.689	-0.702
	0.201	-0.715	-0.728
	0.225	-0.724	-0.737
	0.250	-0.643	-0.655
	0.275	-0.555	-0.566
	0.300	-0.545	-0.585
	0.325	-0.513	-0.523
	0.350	-0.477	-0.487
	0.373	-0.448	-0.456
	0.401	-0.418	-0.426
	0.426	-0.389	-0.396
	0.450	-0.369	-0.376
	0.475	-0.337	-0.343
	0.501	-0.313	-0.319
	0.525	-0.292	-0.297
	0.550	-0.269	-0.274 -0.254
	0,575	-0.249	-0.228
	0.600	-0.224	-0.228
	0.625 0.650	-0.204 -0.184	-0.187
	0.675	-0.164	-0.167
	0.700	-0.144	-0.146
	0.700	-0.125	-0.127
	0.750	-0.098	-0.100
	0.775	-0.081	-0.083
	0.800	-0.053	-0.054
	0.825	-0.030	-0.031
	0.850	-0.001	-0.001
	0.875	0.029	0.030
	0.900	0.063	0.065
	0.925	0.100	0.102
	0.950	0.142	0.145
	0.975	0.189	
	1.000	0.251	0.256

Fig. 30 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6941	2	0.775	0.753	0.52	$20.4 \times 10^{6}$	0.057	0.058	0.0074



#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.144	0.147
0.900	0.059	0.060
0.850	-0.003	-0.003
0.800	-0.052	-0.053
0.750	-0.092	-0.094
0.700	-0.140	-0.142
0.650	-0.179	-0.182
0.600	-0.212	-0.217
0.550	-0.258	-0.263
0.500	-0.301	-0.307
0.450	-0.350	-0.357
0.400	-0.397	-0.404
0.350	-0.452	-0.461
0.300	-0.520	-0.530
0.250	-0.572	-0.583
0.200	-0.635	-0.647
0.150	-0.610	-0.622
0.100	-0.490	-0.499
0.070	-0.409	-0.417
0.050	-0.305	-0.311
0.030	-0.131	-0.134
0.011	0.300	0.306

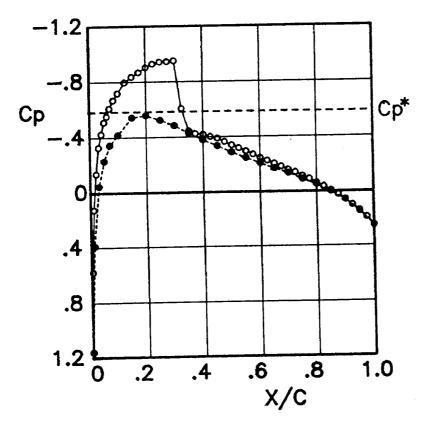
## Upper surface

x/c	Cp	Cpc
0.000	1.146	1.168
0.004	0.643	0.655
0.011	0.209	0.213
0.020	-0.066	-0.067
0.030	-0.230	-0.234
0.040	-0.350	-0.356
0.050	-0.420	-0.428
0.060	-0.476	-0.485
0.070	-0.512	-0.522
0.084	-0.585	-0.596
0.100	-0.638	-0.651
0.125	-0.710	-0.723
0.150	-0.735	-0.749
0.175	-0.772	-0.787
0.201	-0.802	-0.817
0.225	-0.827	-0.843
0.250	-0.824	-0.839
0.275	-0.761	-0.775
0.300	-0.524	-0.534
0.325	-0.487	-0.496
0.350	-0.482	-0.491
0.373	-0.460	-0.469
0.401	-0.433	-0.441
0.426	-0.407	-0.414
0.450	-0.384	-0.391
0.475	-0.356	-0.363
0.501	-0.328	-0.334
0.525	-0.305	-0.311
0.550	-0.281	-0.286
0.575	-0.258	-0.263
0.600	-0.233	-0.237
0.625	-0.213	-0.217
0.650	-0.193	-0.197
0.675	-0.171	-0.174
0.700	-0.146	-0.149
0.725	-0.130	-0.133
0.750	-0.103	-0.105
0.775	-0.083	-0.084
0.800	-0.056	-0.057
0.825	-0.032	-0.033
0.850	-0.002	-0.002
0.875	0.027	0.027
0.900	0.061	0.063
0.925	0.101	0.103
0.950	0.144	0.146
0.975	0.189	0.192
1.000	0.251	0.256
<u> </u>		

Fig. 31 Pressure distribution (c = 250 mm).

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Run	Scan	Ms	Mc	$\alpha_s(\deg)$	Re	Clu	C <sub>lc</sub>	Cdwake
6941	3	0.775	0.753	1.01	$20.5 \times 10^{6}$	0.125	0.127	0.0078



### Lower surface

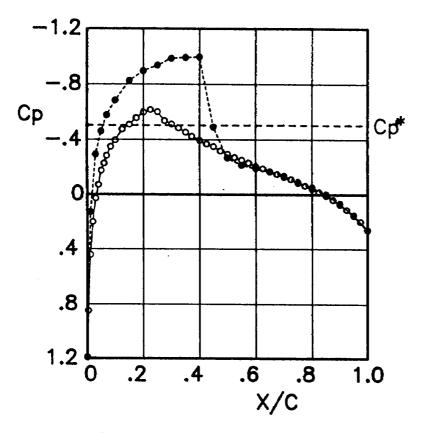
x/c	Cp	Cpc
0.950	0.144	0.147
0.900	0.060	0.061
0.850	0.002	0.002
0.800	-0.049	-0.050
0.750	-0.087	-0.088
0.700	-0.130	-0.133
0.650	-0.165	-0.168
0.600	-0.203	-0.207
0.550	-0.242	-0.247
0.500	-0.282	-0.288
0.450	-0.328	-0.334
0.400	-0.371	-0.378
0.350	-0.419	-0.427
0.300	-0.474	-0.484
0.250	-0.513	-0.523
0.200	-0.547	-0.558
0.150	-0.532	-0.542
0.100	-0.409	-0.417
0.070	-0.337	-0.344
0.050	-0.224	-0.229
0.030	-0.044	-0.045
0.011	0.385	0.392

	x/c		C <sub>Pc</sub>
	0.000	1.138	1.160
	0.004	0.566	0.577
	0.011	0.121	0.124
	0.020	-0.135	-0.138
	0.030	-0.323	-0.329
	0.040	-0.417	-0.425
	0.050	-0.500	-0.510
ł	0.060	-0.542	-0.552
	0.070	-0.598	-0.609
Į	0.084	-0.655	-0.668
l	0.100	-0.705	-0.719
l	0.125	-0.781	-0.796
۱	0.150	-0.819	-0.835
	0.175	-0.851	-0.868
	0.201	-0.886	-0.903
ł	0.225	-0.911	-0.929
ļ	0.250	-0.925	-0.943
	0.275	-0.927	-0.945
	0.300	-0.932	-0.950
	0.325	-0.594	-0.605
	0.350	-0.435	-0.443
	0.373	-0.414	-0.422
	0.401	-0.409	-0.417
	0.426	-0.393	-0.401
	0.450	-0.381	-0.389
	0.475	-0.356	-0.363
	0.501	-0.332	-0.338
	0.525	-0.310	-0.316
	0.550	-0.288	-0.294
	0.575	-0.265	-0.270
	0.600	-0.239	-0.244
	0.625	-0.219	-0.224
	0.650	-0.198	-0.202
	0.675	-0.177	-0.181
	0.700	-0.153	-0.156
	0.725	-0.135	-0.137
	0.750	-0.107	-0.109
	0.775	-0.087	-0.089
	0.800	-0.059	-0.061
	0.825	-0.033	
	0.850	-0.003	
	0.875	0.025	0.026
	0.900	0.061	0.062
	0.925	0.100	
	0.950	0.140	
	0.975	0.189	
	1.000	0.249	0.254

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Fig. 32 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\text{deg})$	Re	Clu	C <sub>lc</sub>	Cdwake
6908	1	0.801	0.778	-1.10	$20.5 \times 10^{6}$	-0.163	-0.167	0.0127



#### Lower surface

x/c	Ср	Cp <sub>c</sub>
		_
0.950	0.150	0.153
0.900	0.066	0.067
0.850	0.000	0.000
0.800	-0.051	-0.052
0.750	-0.089	-0.091
0.700	-0.134	-0.137
0.650	-0.164	-0.168
0.600	-0.189	-0.193
0.550	-0.211	-0.215
0.500	-0.264	-0.269
0.450	-0.482	-0.491
0.400	-0.977	-0.996
0.350	-0.972	-0.992
0.300	-0.966	-0.985
0.250	-0.917	-0.936
0.200	-0.877	-0.894
0.150	-0.808	-0.824
0.100	-0.669	-0.683
0.070	-0.565	-0.576
0.050	-0.451	-0.460
0.030	-0.287	-0.292
0.011	0.129	0.131

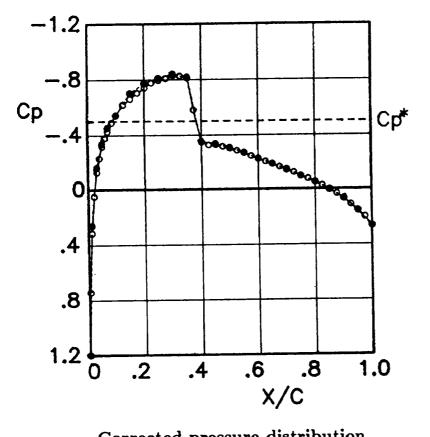
### Upper surface

x/c	Cp	C <sub>pc</sub>
0.000	1.167	1.191
0.004	0.831	0.848
0.011	0.433	0.441
0.020	0.197	0.201
0.030	0.029	0.029
0.040	-0.069	-0.071
0.050	-0.172	-0.175
0.060	-0.224	-0.229
0.070	-0.279	-0.285
0.084	-0.342	-0.349
0.100	-0.389	-0.397
0.125	-0.466	-0.475
0.150	-0.500	-0.510
0.175	-0.546	-0.557
0.201	-0.586	-0.597
0.225	-0.604	-0.616
0.250	-0.589	-0.601
0.275	-0.526	-0.537
0.300	-0.502	-0.512
0.325	-0.475	-0.485
0.350	-0.445	-0.454
0.373	-0.416	-0.424
0.401	-0.388	-0.395
0.426	-0.362	-0.369
0.450	-0.344	-0.351
0.475	-0.313	-0.320
0.501	-0.290	-0.296
0.525	-0.267	-0.272
0.550	-0.248	-0.253
0.575	-0.227	-0.232
0.600	-0.203	-0.207
0.625	-0.186	-0.190
0.650	-0.166	-0.169
0.675	-0.146	-0.149
0.700	-0.124	-0.127
0.725	-0.109	-0.112
0.750	-0.082	-0.084
0.775	-0.062	-0.063
0.800	-0.039	-0.039
0.825	-0.016	-0.016
0.850	0.012	0.012
0.875	0.040	0.041
0.900	0.074	0.076
0.925	0.111	0.114
0.950	0.153	0.157
0.975	0.197	0.201
1.000	0.257	0.262
L		

Fig. 33 Pressure distribution (c = 250 mm).

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Run	Scan	Ms	Mc	$\alpha_{s}(\text{deg})$	Re	C <sub>lu</sub>	Clc	C <sub>dwake</sub>
6910	1	0.801	0.778	0.00	$20.2 \times 10^{6}$	-0.007	-0.007	0.0089



#### Lower surface

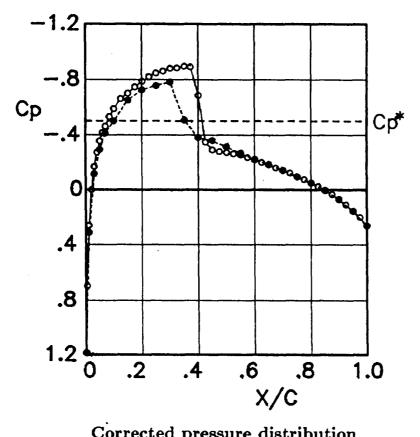
x/c	Cp	C <sub>Pc</sub>
0.950	0.155	0.158
0.900	0.066	0.068
0.850	0.003	0.003
0.800	-0.052	-0.053
0.750	-0.093	-0.095
0.700	-0.144	-0.147
0.650	-0.184	-0.187
0.600	-0.223	-0.227
0.550	-0.266	-0.271
0.500	-0.303	-0.309
0.450	-0.330	-0.337
0.400	-0.346	-0.353
0.350	-0.797	-0.813
0.300	-0.825	-0.841
0.250	-0.795	-0.811
0.200	-0.760	-0.775
0.150	-0.689	-0.703
0.100	-0.533	-0.543
0.070	-0.446	-0.455
0.050	-0.328	-0.335
0.030	-0.157	-0.160
0.011	0.257	0.262

## Upper surface

x/c	Cp	Cpc
0.000	1.174	1.197
0.004	0.727	0.741
0.011	0.307	0.313
0.020	0.048	0.049
0.030	-0.124	-0.127
0.040	-0.227	-0.231
0.050	-0.312	-0.318
0.060	-0.373	-0.380
0.070	-0.420	-0.428
0.084	-0.482	-0.492
0.100	-0.536	-0.547
0.125	-0.608	-0.619
0.150	-0.649	-0.662
0.175	-0.691	-0.705
0.201	-0.728	-0.742
0.225	-0.762	-0.777
0.250	-0.780	-0.795
0.275	-0.793	-0.809
0.300	-0.814	-0.830
0.325	-0.812	-0.828
0.350	-0.806	-0.822
0.373	-0.571	-0.583
0.401	-0.342	-0.349
0.426	-0.320	-0.327
0.450	-0.321	-0.328
0.475	-0.310	-0.316
0.501	-0.295	-0.301
0.525	-0.280	-0.285
0.550	-0.261	-0.267
0.575	-0.240	-0.245
0.600	-0.218	-0.223
0.625	-0.199	-0.203
0.650	-0.180	-0.184
0.675	-0.160	-0.163
0.700	-0.136	-0.139
0.725	-0.119	-0.122
0.750	-0.093	-0.095
0.775	-0.073	-0.075
0.800	-0.048	-0.049
0.825	-0.024	-0.024
0.850	0.007	0.007
0.875	0.036	0.036
0.900	0.070	0.071
0.925	0.111	0.113
0.950	0.153	0.156
0.975	0.199	0.203
1.000	0.262	0.267
L		

Fig. 34 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\text{deg})$	Re	C <sub>lu</sub>	Clc	C <sub>dwake</sub>
6908	3	0.801	0.778	0.41	$20.8 \times 10^{6}$	0.051	0.052	0.0093



#### Lower surface

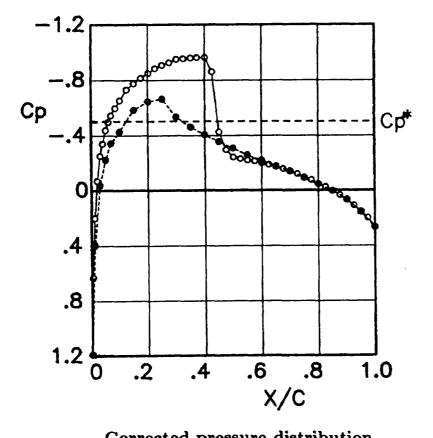
x/c	Cp	Cn
~/~	<u> </u>	C <sub>Pc</sub>
0.950	0.154	0.157
0.900	0.068	0.069
0.850	0.004	0.004
0.800	-0.050	-0.051
0.750	-0.092	-0.094
0.700	-0.141	-0.144
0.650	-0.183	-0.186
0.600	-0.221	-0.225
0.550	-0.266	-0.271
0.500	-0.310	-0.316
0.450	-0.353	-0.360
0.400	-0.375	-0.383
0.350	-0.499	-0.509
0.300	-0.768	-0.783
0.250	-0.742	-0.756
0.200	-0.714	-0.727
0.150	-0.640	-0.652
0.100	-0.492	-0.501
0.070	-0.405	-0.413
0.050	-0.289	-0.294
0.030	-0.112	-0.114
0.011	0.309	0.315

### Upper surface

x/c	Cp	C <sub>pc</sub>
0.000	1.163	1.186
0.004	0.682	0.695
0.011	0.257	0.262
0.020	0.001	0.001
0.030	-0.166	-0.169
0.040	-0.269	-0.275
0.050	-0.350	-0.356
0.060	-0.410	-0.418
0.070	-0.455	-0.464
0.084	-0.523	-0.533
0.100	-0.579	-0.590
0.125	-0.650	-0.662
0.150	-0.689	-0.702
0.175	-0.734	-0.748
0.201	-0.774	-0.789
0.225	-0.807	-0.822
0.250	-0.831	-0.847
0.275	-0.845	-0.861
0.300	-0.865	-0.882
0.325	-0.868	-0.885
0.350	-0.879	-0.896
0.373	-0.875	-0.892
0.401	-0.674	-0.687
0.426	-0.342	-0.349
0.450	-0.287	-0.292
0.475	-0.274	-0.280
0.501	-0.268	-0.273
0.525	-0.259	-0.264
0.550	-0.250	-0.254
0.575	-0.232	-0.237
0.600	-0.214	-0.218
0.625	-0.197	-0.201
0.650	-0.179	-0.182
0.675	-0.157	-0.160
0.700	-0.137	-0.140
0.725	-0.120	-0.122
0.750	-0.094	-0.095
0.775	-0.072	-0.073
0.800	-0.046	-0.047
0.825	-0.022	-0.023
0.850	0.007	0.008
0.875	0.035	0.036
0.900	0.072	0.074
0.925	0.110	0.112
0.950	0.153	0.156
0.975	0.200	0.203
1.000	0.260	0.265
L		

Fig. 35 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	C <sub>lc</sub>	Cdwake
6909	1	0.801	0.778	0.91	$20.6 \times 10^{6}$	0.132	0.134	0.0109



#### Lower surface

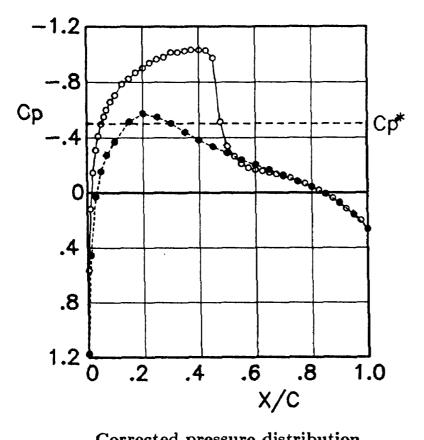
x/c	Cp	Cpc
0.950	0.156	0.159
0.900	0.067	0.069
0.850	0.005	0.005
0.800	-0.044	-0.045
0.750	-0.088	-0.089
0.700	-0.137	-0.140
0.650	-0.172	-0.176
0.600	-0.215	-0.219
0.550	-0.254	-0.259
0.500	-0.303	-0.309
0.450	-0.350	-0.357
0.400	-0.399	-0.406
0.350	-0.453	-0.462
0.300	-0.524	-0.534
0.250	-0.652	-0.665
0.200	-0.633	-0.645
0.150	-0.574	-0.585
0.100	-0.420	-0.428
0.070	-0.338	-0.344
0.050	-0.217	-0.222
0.030	-0.034	-0.035
0.011	0.392	0.400

#### Upper surface

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	x/c	Cp	C <sub>Pc</sub>
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.000	1.166	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.004	0.617	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.011	0.197	0.200
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.020	-0.067	-0.069
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.030	-0.247	-0.252
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.040	-0.335	-0.341
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.050	-0.431	-0.440
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.060	-0.488	-0.498
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.070	-0.535	-0.545
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.084	-0.587	-0.599
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.100	-0.642	-0.654
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.125	-0.717	-0.731
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.150	-0.761	-0.776
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.175	-0.799	-0.815
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.201	-0.835	-0.851
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.225	-0.868	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-0.892	-0.909
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.275		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.300		-0.952
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-0.939	-0.958
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-0.944	-0.962
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-0.965
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Į		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	•	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3		
0.750 -0.091 -0.093   0.775 -0.071 -0.073   0.800 -0.044 -0.045   0.825 -0.022 -0.023   0.850 0.006 0.006   0.875 0.038 0.038   0.900 0.072 0.074	1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4		
0.800 -0.044 -0.045 0.825 -0.022 -0.023 0.850 0.006 0.006 0.875 0.038 0.038 0.900 0.072 0.074	3		
0.825 -0.022 -0.023 0.850 0.006 0.006 0.875 0.038 0.038 0.900 0.072 0.074			
0.850 0.006 0.006 0.875 0.038 0.038 0.900 0.072 0.074	1		
0.875 0.038 0.038 0.900 0.072 0.074			0.005
0.900 0.072 0.074			0.038
	1		0.074
0.925 0.110 0.112	0.925	0.110	0.112
			0.157
			0.203
	1	0.265	0.270

Fig. 36 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\deg)$	Re	C <sub>lu</sub>	Cic	Cdwake
6909	2	0.801	0.778	1.41	$20.6 \times 10^{6}$	0.204	0.208	0.0139



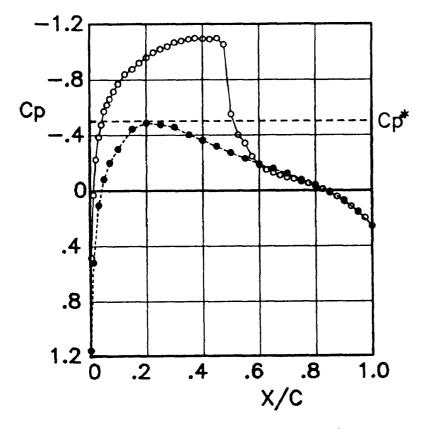
#### Lower surface

x/c	Cp	Cpc
0.950	0.154	0.157
0.900	0.069	0.070
0.850	0.008	0.008
0.800	-0.043	-0.044
0.750	-0.080	-0.082
0.700	-0.127	-0.129
0.650	-0.164	-0.167
0.600	-0.201	-0.205
0.550	-0.237	-0.241
0.500	-0.285	-0.290
0.450	-0.330	-0.336
0.400	-0.375	-0.382
0.350	-0.432	-0.441
0.300	-0.495	-0.505
0.250	-0.538	-0.549
0.200	-0.565	-0.576
0.150	-0.506	-0.516
0.100	-0.364	-0.371
0.070	-0.271	-0.276
0.050	-0.152	-0.155
0.030	0.030	0.030
0.011	0.446	0,454

x/c	Cp	C <sub>Pc</sub>
0.000	1.151	1.173
0.004	0.551	0.562
0.011	0.115	0.117
0.020	-0.145	-0.147
0.030	-0.305	-0.311
0.040	-0.404	-0.412
0.050	-0.489	-0.499
0.060	-0.542	-0.553
0.070	-0.591	-0.602
0.084	-0.648	-0.660
0.100	-0.694	-0.708
0.125	-0.771	-0.786
0.150	-0.809	-0.825
0.175	-0.852	-0.869
0.201	-0.886	-0.903
0.225	-0.922	-0.940
0.250	-0.947	-0.965
0.275	-0.962	-0.980
0.300	-0.996	-1.015
0.325	-0.996	-1.015
0.350	-1.006	-1.026
0.373	-1.012	-1.032
0.401	-1.012	-1.031
0.426	-1.009	-1.028
0.450	-0.956	-0.974
0.475	-0.505	-0.515
0.501	-0.331	-0.338
0.525	-0.259	-0.264
0.550	-0.205	-0.209
0.575	-0.177	-0.181
0.600	-0.162	-0.165
0.625	-0.153	-0.156
0.650	-0.141	-0.144
0.675	-0.132	-0.134
0.700	-0.117	-0.119
0.725	-0.105	-0.107
0.750	-0.081	-0.083
0.775	-0.066	-0.067
0.800	-0.040	-0.040
0,825	-0.017	-0.017
0.850	0.009	0.010
0.875	0.040	0.040
0.900	0.076	0.077
0.925	0.114	0.117
0.950	0.154	0.157
0.975	0.197	0.201
1.000	0.260	0.265

Fig. 37 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6910	2	0.801	0.778	1.91	$20.3 \times 10^{6}$	0.285	0.290	0.0187



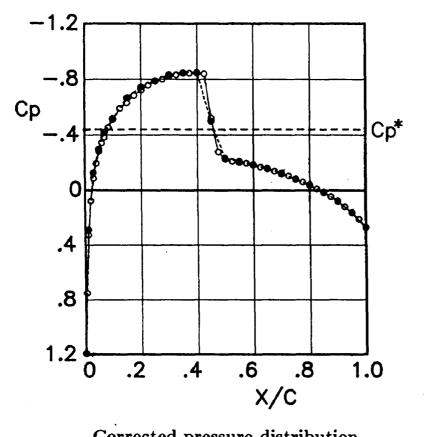
#### Lower surface

x/c	Cp	C <sub>pc</sub>
0.950	0.151	0.154
0.900	0.070	0.071
0.850	0.010	0.010
0.800	-0.040	-0.041
0.750	-0.075	-0.076
0.700	-0.121	-0.123
0.650	-0.155	-0.158
0.600	-0.187	-0.191
0.550	-0.227	-0.232
0.500	-0.268	-0.273
0.450	-0.314	-0.320
0.400	-0.353	-0.360
0.350	-0.395	-0.402
0.300	-0.449	-0.458
0.250	-0.467	-0.476
0.200	-0.480	-0.489
0.150	-0.436	-0.444
0.100	-0.294	-0.300
0.070	-0.195	-0.199
0.050	-0.079	-0.080
0.030	0.104	0.106
0.011	0.511	0.520

x/c	Cp	C <sub>Pc</sub>
0.000	1.136	1.158
0.004	0.474	0.484
0.011	0.030	0.030
0.020	-0.220	-0.224
0.030	-0.379	-0.386
0.040	-0.466	-0.475
0.050	-0.562	-0.573
0.0,60	-0.608	-0.620
0.070	-0.650	-0.662
0.084	-0.703	-0.716
0.100	-0.755	-0.770
0.125	-0.824	-0.840
0.150	-0.860	-0.876
0.175	-0.903	-0.920
0.201	-0.942	-0.960
0.225	-0.977	-0.996
0.250	-1.000	-1.020
0.275	-1.018	-1.038
0.300	-1.047	-1.067
0.325	-1.058	-1.079
0.350	-1.070	-1.090
0.373	-1.077	-1.098
0.401	-1.072	-1.093
0.426	-1.070	-1.091 -1.099
0.450	-1.078 -1.033	-1.053
0.501	-0.540	-0.550
0.525	-0.393	-0.400
0.550	-0.334	-0.340
0.575	-0.240	-0.245
0.600	-0.179	-0.182
0.625	-0.145	-0.148
0.650	-0.123	-0.126
0.675	-0.106	-0.108
0.700	-0.091	-0.093
0.725	-0.081	-0.083
0.750	-0.062	-0.063
0.775	-0.050	-0.050
0.800	-0.029	-0.029
0.825	-0.009	-0.009
0.850	0.017	0.018
0.875	0.045	0.046
0.900	0.078	0.080
0.925	0.114	0.116
0.950	0.154	0.157
0.975	0.195	0.199
1.000	0.255	0.259

Fig. 38 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\text{deg})$	Re	$C_{l_u}$	Clc	Cdwake
6918	2	0.823	0.800	0.00	$20.8 \times 10^{6}$	-0.004	-0.004	0.0126



#### Lower surface

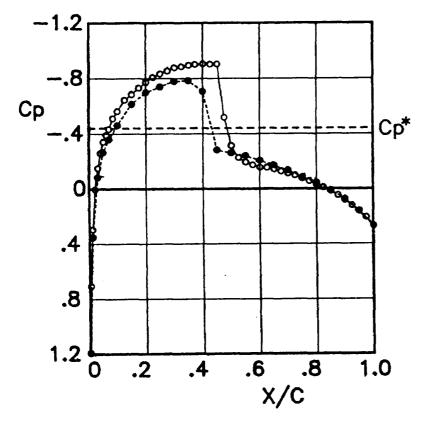
<u>x/c</u>	Cp	C <sub>Pc</sub>
0.950	0.160	0.163
0.900	0.076	0.077
0.850	0.013	0.013
0.800	-0.039	-0.039
0.750	-0.081	-0.082
0.700	-0.124	-0.126
0.650	-0.156	-0.159
0.600	-0.184	-0.188
0.550	-0.207	-0.210
0.500	-0.230	-0.234
0.450	-0.490	-0.499
0.400	-0.835	-0.851
0.350	-0.833	-0.848
0.300	-0.817	-0.833
0.250	-0.776	-0.790
0.200	-0.732	-0.745
0.150	-0.654	-0.666
0.100	-0.506	-0.515
0.070	-0.410	-0.418
0.050	-0.291	-0.296
0.030	-0.123	-0.126
0.011	0.284	0.289

### Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.170	1.192
0.004	0.737	0.751
0.011	0.320	0.326
0.020	0.075	0.076
0.030	-0.085	-0.087
0.040	-0.192	-0.195
0.050	-0.279	-0.284
0.060	-0.337	-0.343
0.070	-0.377	-0.384
0.084	-0.445	-0.454
0.100	-0.501	-0.511
0.125	-0.580	-0.591
0.150	-0.618	-0.630
0.175	-0.671	-0.684
0.201	-0.709	-0.723
0.225	-0.744	-0.758
0.250	-0.772 <sup>·</sup>	-0.787
0.275	-0.785	-0.800
0.300	-0.810	-0.825
0.325	-0.818	-0.833
0.350	-0.830	-0.845
0.373	-0.830	-0.846
0.401	-0.828	-0.843
0.426	-0.825	-0.840
0.450	-0.511	-0.521
0.475	-0.273	-0.278
0.501	-0.221	-0.225
0.525	-0.205	-0.209
0.550	-0.197	-0.201
0.600	-0.192 -0.178	-0.196 -0.182
0.625	-0.165	-0.182
0.650	-0.152	-0.155
0.675	-0.135	-0.138
0.700	-0.115	-0.117
0.725	-0.103	-0.105
0.750	-0.076	-0.078
0.775	-0.058	-0.059
0.800	-0.033	-0.034
0.825	-0.009	-0.009
0.850	0.018	0.018
0.875	0.048	0.049
0.900	0.081	0.083
0.925	0.119	0.122
0.950	0.161	0.164
0.975	0.208	0.212
1.000	0.268	0.273
·		

Fig. 39 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cd <sub>wake</sub>
6936	2	0.822	0.799	0.51	$20.5 \times 10^{6}$	0.065	0.067	0.0130

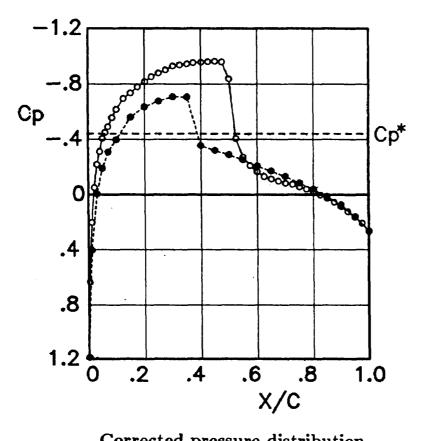


#### Lower surface

x/c	Cp	Cpc
0.950	0.160	0.163
0.900	0.075	0.077
0.850	0.012	0.012
0.800	-0.042	-0.043
0.750	-0.082	-0.084
0.700	-0.130	-0.133
0.650	-0.168	-0.171
0.600	-0.202	-0.206
0.550	-0.236	-0.240
0.500	-0.255	-0.260
0.450	-0.278	-0.283
0.400	-0.694	-0.707
0.350	-0.770	-0.784
0.300	-0.763	-0.778
0.250	-0.725	-0.739
0.200	-0.686	-0.699
0.150	-0.605	-0.616
0.100	-0.454	-0.463
0.070	-0.353	-0.359
0.050	-0.259	-0.264
0.030	-0.078	-0.079
0.011	0.346	0.353

x/c	Cp	C <sub>Pc</sub>
0.000	1.170	1.192
0.004	0.693	0.706
0.011	0.289	0.295
0.020	0.004	0.004
0.030	-0.147	-0.149
0.040	-0.256	-0.261
0.050	-0.335	-0.342
0.060	-0.383	-0.391
0.070	-0.428	-0.436
0.084	-0.503	-0.513
0.100	-0.555	-0.565
0.125	-0.634	-0.646
0.150	-0.672	-0.685
0.175	-0.718	-0.732
0.201	-0.758	-0.772
0.225	-0.793	-0.808
0.250	-0.818	-0.834
0.275	-0.838	-0.854
0.300	-0.862	-0.879
0.325	-0.869	-0.886
0.350	-0.879	-0.896
0.373	-0.886	-0.903
0.401	-0.889	-0.906
0.426	-0.887	-0.904
0.450	-0.888	-0.905
0.475	-0.509	-0.519
0.501	-0.306	-0.312
0.525	-0.220	-0.224
0.550	-0.188	-0.192
0.575	-0.167	-0.170
0.600	-0.151	-0.154
0.625	-0.149	-0.152
0.650	-0.136	-0.139
0.675	-0.123	-0.125
0.700	-0.107	-0.109
0.725	-0.094	-0.096
0.750	-0.071	-0.073
0.775	-0.053	-0.054
0.800	-0.029	-0.030
0.825	-0.007	-0.007
0.850	0.019	0.019
0.875	0.049	0.050
0.900	0.083	0.084
0.925	0.121	0.124
0.950	0.160	0.163
0.975	0.206 0.266	0.210
[	0.200	0.411

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	C <sub>lu</sub>	Clc	Cdwake
6918	3	0.822	0.799	1.01	$20.9 \times 10^{6}$	0.152	0.155	0.0156



#### Lower surface

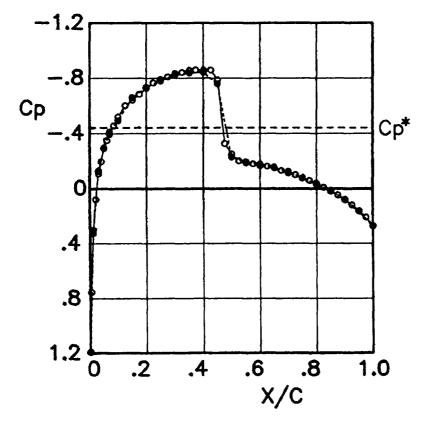
x/c	Cp	Cpc
0.950	0.159	0.162
0.900	0.072	0.073
0.850	0.013	0.013
0.800	-0.040	-0.041
0.750	-0.083	-0.085
0.700	-0.130	-0.132
0.650	-0.168	-0.171
0.600	-0.203	-0.207
0.550	-0.248	-0.253
0.500	-0.284	-0.289
0.450	-0.315	-0.321
0.400	-0.348	-0.355
0.350	-0.694	-0.707
0.300	-0.695	-0.708
0.250	-0.664	-0.677
0.200	-0.623	-0.635
0.150	-0.550	-0.561
0.100	-0.390	-0.398
0.070	-0.301	-0.307
0.050	-0.186	-0.189
0.030	-0.003	-0.003
0.011	0.398	0.406

## Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.165	1.188
0.004	0.622	0.634
0.011	0.201	0.205
0.020	-0.050	-0.051
0.030	-0.215	-0.219
0.040	-0.306	-0.312
0.050	-0.400	-0.408
0.060	-0.442	-0.450
0.070	-0.483	-0.492
0.084	-0.547	-0.558
0.100	-0.605	-0.617
0.125	-0.681	-0.694
0.150	-0.722	-0.736
0.175	-0.764	-0.779
0.201	-0.803	-0.819
0.225	-0.838	-0.854
0.250	-0.863	-0.880
0.275	-0.886	-0.903
0.300	-0.914	-0.932
0.325	-0.921	-0.939
0.350	-0.929	-0.947
0.373	-0.937	-0.955
0.401	-0.941	-0.959
0.426	-0.944	-0.963
0.450	-0.948	-0,966
0.475	-0.943	-0.961
0.501	-0.823	-0.839
0.525	-0.398	-0.406
0.550	-0.266	-0.271
0.575	-0.206	-0.210
0.600	-0.161	-0.164
0.625	-0.126	-0.129
0.650	-0.110	-0.112
0.675	-0.095	-0.097
0.700	-0.081	-0.082
0.725	-0.072	-0.073
0.750	-0.053	-0.054
0.775	-0.039	-0.039
0.800	-0.017	-0.017
0.825	0.004	0.004
0.850	0.028	0.028
0.875	0.056	0.057
0.900	0.088	0.090
0.925	0.125	0.127
0.950	0.165	0.168
0.975	0.208	0.212
1.000	0.264	0.269
L		

Fig. 41 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\deg)$	Re	Clu	Clc	C <sub>d</sub> wake_
6940	1	0.822	0.799	0.01	$29.1 \times 10^{6}$	0.000	0.000	0.0133



#### Lower surface

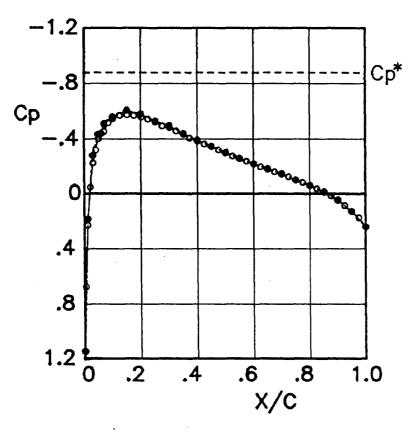
x/c	Ср	C <sub>Pc</sub>
0.950	0.163	0.166
0.900	0.078	0.080
0.850	0.015	0.015
0.800	-0.038	~0.038
0.750	-0.076	-0.078
0.700	-0.121	-0.124
0.650	-0.152	-0.155
0.600	-0.175	-0.179
0.550	-0.190	-0.193
0.500	-0.224	-0.228
0.450	-0.747	-0.761
0.400	-0.827	-0.843
0.350	-0.822	-0.838
0.300	-0.806	-0.821
0.250	-0.765	-0.779
0.200	-0.721	-0.735
0.150	-0.646	-0.658
0.100	-0.483	-0.493
0.070	-0.402	-0.410
0.050	-0.288	-0.294
0.030	-0.123	-0.126
0.011	0.300	0.306

## **Upper surface**

x/c	Ср	C <sub>pc</sub>
0.000	1.169	1.192
0.004	0.740	0.754
0.011	0.319	0.325
0.020	0.078	0.079
0.030	-0.106	-0.108
0.040	-0.194	-0.197
0.050	-0.288	-0.293
0.060	-0.343	-0.350
0.070	-0.388	-0.395
0.084	-0.448	-0.456
0.100	-0.511	-0.521
0.125	-0.592	-0.603
0.150	-0.630	-0.642
0.175	-0.671	-0.684
0.201	-0.715	-0.729
0.225	-0.751	-0.766
0.250	-0.777	-0.792
0.275	-0.794	-0.809
0.300	-0.818	-0.834
0.325	-0.826	-0.842
0.350	-0.840	-0.856
0.373	-0.843	-0.859
0.401	-0.843	-0.859
0.426	-0.844	-0.860
0.450	-0.773	-0.788
0.475	-0.320	-0.326
0.501	-0.245	-0.250
0.525	-0.196	-0.199
0.550	-0.182	-0.186
0.575	-0.176	-0.179
0.600	-0.161	-0.164
0.625	-0.159	-0.162
0.650	-0.145	-0.148
0.675	-0.129	-0.131
0.700	-0.111	-0.113
0.725	-0.098	-0.100
0.750	-0.074	-0.075
0.775	-0.057	-0.058
0.800	-0.032	-0.033
0.825	-0.008	-0.008
0.850	0.020	0.021
0.875	0.049	0.050
0.900	0.083	0.084
0.925	0.120	0.122
0.950	0.162	0.165
0.975	0.207	0.211
1.000	0.270	0.276

Fig. 42 Pressure distribution (c = 250 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	C <sub>dwake</sub>
6939	1	0.699	0.678	0.01	$38.8 \times 10^{6}$	-0.008	-0.008	0.0066



#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.129	0.132
0.900	0.046	0.047
0.850	-0.014	-0.014
0.800	-0.062	-0.063
0.750	-0.100	-0.102
0.700	-0.146	-0.149
0.650	-0.181	-0.185
0.600	-0.215	-0.219
0.550	-0.254	-0.260
0.500	-0.298	-0.305
0.450	-0.341	-0.348
0.400	-0.383	-0.391
0.350	-0.431	-0.440
0.300	-0.486	-0.496
0.250	-0.518	-0.529
0.200	-0.569	-0.581
0.150	-0.595	-0.607
0.100	-0.548	-0.560
0.070	-0.500	-0.510
0.050	-0.424	-0.433
0.030	-0.275	-0.280
0.011	0.182	0.186

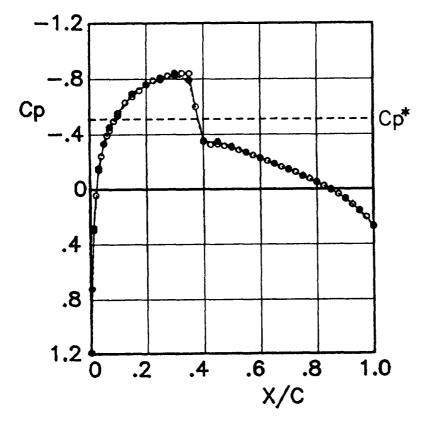
### Upper surface

x/c	Cp	C <sub>Pc</sub>
0.000	1.124	1.148
0.004	0.661	0.675
0.011	0.225	0.229
0.020	-0.047	-0.048
0.030	-0.222	-0.226
0.040	-0.315	-0.321
0.050	-0.394	-0.403
0.060	-0.431	-0.440
0.070	-0.445	-0.454
0.084	-0.506	-0.516
0.100	-0.535	-0.546
0.125	-0.559	-0.571
0.150	-0.563	-0.574
0.175	-0.558	-0.570
0.201	-0.546	-0.558
0.225	-0.532	-0.544
0.250	-0.512	-0.522
0.275	-0.483	-0.493
0.300	-0.473	-0.483
0.325	-0.449	-0.458
0.350	-0.425	-0.434
0.373	-0.398	-0.406
0.401	-0.377	-0.385
0.426	-0.356	-0.363
0.450	-0.339	-0.346
0.475	-0.315	-0.321
0.501	-0.292	-0.298
0.525	-0.271	-0.276
0.550	-0.252	-0.257
0.575	-0.234	-0.239
0.600	-0.214	-0.219
0.625	-0.193	-0.197
0.650	-0.176	-0.179
0.675	-0.158	-0.162
0.700	-0.141	-0.143
0.725	-0.123	-0.125
0.750	-0.099	-0.101
0.775	-0.081	-0.083
0.800	-0.058	-0.059
0.825	-0.035	-0.036
0.850	-0.010	-0.010
0.875	0.018	0.019
0.900	0.051	0.052
0.925	0.087	0.089
0.950	0.129	0.132
0.975	0.173	0.177
1.000	0.239	0.244

Fig. 43 Pressure distribution (c = 250 mm).

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Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	C <sub>dwake</sub>
6938	1	0.799	0.776	0.01	$39.5 \times 10^{6}$	0.002	0.002	0.0083



#### Lower surface

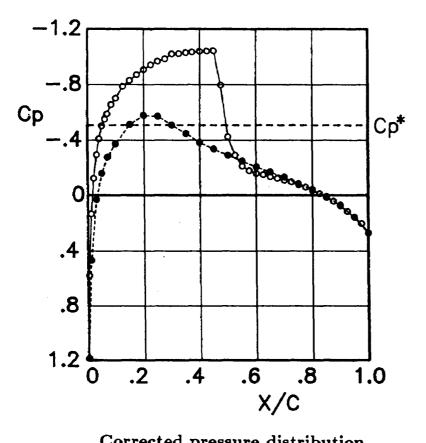
x/c	Cp	Cpc
0.950	0.156	0.159
0.900	0.067	0.068
0.850	0.003	0.003
0.800	-0.052	-0.053
0.750	-0.093	-0.094
0.700	-0.143	-0.146
0.650	-0.181	-0.185
0.600	-0.223	-0.228
0.550	-0.265	-0.270
0.500	-0.306	-0.312
0.450	-0.342	-0.348
0.400	-0.342	-0.349
0.350	-0.777	-0.793
0.300	-0.812	-0.828
0.250	-0.780	-0.795
0.200	-0.748	-0.763
0.150	-0.680	-0.694
0.100	-0.527	-0.537
0.070	-0.443	-0.452
0.050	-0.324	-0.331
0.030	-0.149	-0.152
0.011	0.276	0.282

### Upper surface

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	x/c	Cp	Cpc
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.000		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.004	0.706	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.011	0.292	0.298
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.020	0.042	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.030	-0.138	-0.141
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.040	-0.238	-0.243
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.050	-0.328	-0.335
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.060	-0.384	-0.392
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.070	-0.423	-0.432
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.084	-0.486	-0.496
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.100	-0.545	-0.556
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.125	-0.618	-0.630
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.150	-0.660	-0.674
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-0.717
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-0.790
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
0.725 -0.120 -0.123 0.750 -0.092 -0.094 0.775 -0.072 -0.074 0.800 -0.048 -0.049 0.825 -0.022 -0.023 0.850 0.007 0.007 0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205			
0.750 -0.092 -0.094 0.775 -0.072 -0.074 0.800 -0.048 -0.049 0.825 -0.022 -0.023 0.850 0.007 0.007 0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.118 0.950 0.153 0.156 0.975 0.201 0.208			-0.123
0.775 -0.072 -0.074 0.800 -0.048 -0.049 0.825 -0.022 -0.023 0.850 0.007 0.007 0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205	F		
0.800 -0.048 -0.049 0.825 -0.022 -0.023 0.850 0.007 0.007 0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.118 0.950 0.153 0.156 0.975 0.201 0.208	1	-0.072	-0.074
0.850 0.007 0.007 0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205	1	-0.048	-0.049
0.875 0.037 0.038 0.900 0.071 0.072 0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205	0.825	-0.022	-0,023
0.900 0.071 0.072 0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205	0.850	0.007	0.007
0.925 0.112 0.115 0.950 0.153 0.156 0.975 0.201 0.205	0.875	0.037	0.038
0.950 0.163 0.156 0.975 0.201 0.208	0.900	0.071	0.072
0.975 0.201 0.208	0.925	0.112	0.115
	0.950	0.153	0.156
	0.975		0.205
1.000 0.267 0.273	1.000	0.267	0.273

Fig. 44 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\deg)$	Re	$C_{l_u}$	Clc	Cdwake
6930	1	0.800	0.777	1.42	$39.5 \times 10^{6}$	0.212	0.216	0.0149



#### Lower surface

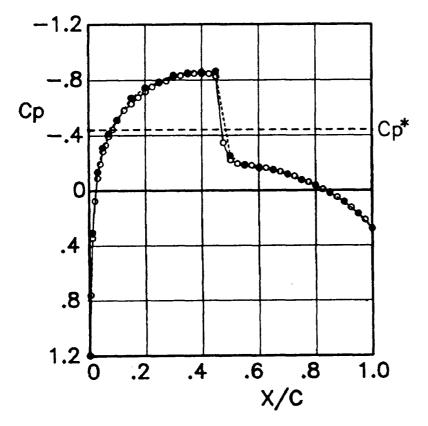
x/c	Cp	C <sub>Pc</sub>
0.950	0.156	0.159
0.900	0.069	0.071
0.850	0.009	0.010
0.800	-0.041	-0.042
0.750	-0.081	-0.082
0.700	-0.129	-0.131
0.650	-0.165	-0.168
0.600	-0.201	-0.205
0.550	-0.244	-0.249
0.500	-0.286	-0.291
0.450	-0.330	-0.337
0.400	-0.377	-0.384
0.350	-0.440	-0.449
0.300	-0.499	-0.508
0.250	-0.561	-0.572
0.200	-0.568	-0.578
0.150	-0.504	-0.513
0.100	-0.366	-0.373
0.070	-0.272	-0.278
0.050	-0.154	-0.157
0.030	0.032	0.032
0.011	0.458	0.467

#### **Upper surface**

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	x/c	Cp	C <sub>Pc</sub>
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.000	1.162	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.004	0.566	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.011		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.020	-0.120	-0.123
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.030	-0.290	-0.295
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.040	-0.403	-0.411
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.050	-0.494	-0.503
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.060	-0.541	-0.551
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.070	-0.579	-0.590
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.084	-0.644	-0.656
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.100	-0.690	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.125	-0.772	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.250		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	-0.968	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.300	-1.002	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.325	-1.005	-1.025
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	-1.012	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.373	-1.016	-1.035
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.401	-1.020	-1.040
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.426	-1.023	-1.042
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.450	-1.025	-1.045
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.475	-0.782	-0.797
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.501	-0.416	-0.424
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.525	-0.285	-0.290
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.550	-0.206	-0.210
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.575	-0.173	-0.176
0.650 -0.130 -0.132 0.675 -0.118 -0.121 0.700 -0.105 -0.107 0.725 -0.093 -0.095 0.750 -0.072 -0.074 0.775 -0.056 -0.057 0.800 -0.033 -0.034 0.825 -0.011 -0.011 0.850 0.017 0.017 0.875 0.044 0.044 0.900 0.076 0.078	0.600	-0.152	-0.155
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.625	-0.144	-0.147
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.650	-0.130	-0.132
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.675	-0.118	-0.121
0.750 -0.072 -0.074 0.775 -0.056 -0.057 0.800 -0.033 -0.034 0.825 -0.011 -0.011 0.850 0.017 0.017 0.875 0.044 0.044 0.900 0.076 0.078	0.700	-0.105	-0.107
0.775 -0.056 -0.057 0.800 -0.033 -0.034 0.825 -0.011 -0.011 0.850 0.017 0.017 0.875 0.044 0.044 0.900 0.076 0.078	0.725	-0.093	-0.095
0.800 -0.033 -0.034   0.825 -0.011 -0.011   0.850 0.017 0.017   0.875 0.044 0.044   0.900 0.076 0.078	0.750	-0.072	-0.074
0.825 -0.011 -0.011 0.850 0.017 0.017 0.875 0.044 0.044 0.900 0.076 0.078	0.775	-0.056	-0.057
0.850 0.017 0.017 0.875 0.044 0.044 0.900 0.076 0.078	0.800	-0.033	-0.034
0.875 0.044 0.044 0.900 0.076 0.078	0.825	-0.011	-0.011
0.900 0.076 0.078	1	0.017	0.017
	0.875		0.044
0.925 0.115 0.117	1	0.076	
	0.925	0.115	0.117
0.950 0.155 0.158	0.950	0.155	0.158
0.975 0.202 0.206	0.975	0.202	0.206
1.000 0.267 0.272	1.000	0.267	0.272

Fig. 45 Pressure distribution (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Ciu	Clc	Cdwake
6913	1	0.822	0.799	0.00	$38.3 \times 10^{6}$	-0.013	-0.013	0.0136



#### Lower surface

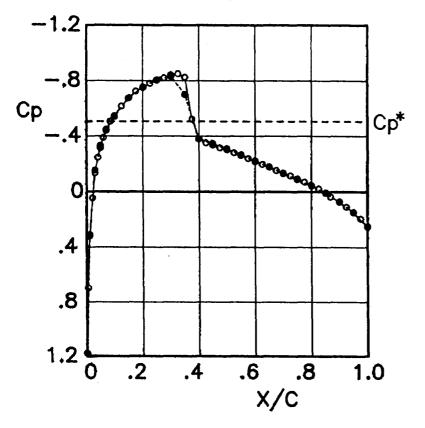
x/c	Ср	Cpc
0.950	0.167	0.170
0.900	0.082	0.083
0.850	0.018	0.018
0.800	-0.034	-0.035
0.750	-0.072	-0.074
0.700	-0.114	-0.116
0.650	-0.143	-0.146
0.600	-0.158	-0.161
0.550	-0.177	-0.181
0.500	-0.248	-0.253
0.450	-0.846	-0.863
0.400	-0.842	-0.859
0.350	-0.836	-0.853
0.300	-0.821	-0.837
0.250	-0.773	-0.789
0.200	-0.733	-0.747
0.150	-0.660	-0.673
0.100	-0.503	-0.613
0.070	-0.405	-0.413
0.050	-0.305	-0.311
0.030	-0.130	-0.132
0.011	0.300	0.306

## Upper surface

x/c	Cp	Cpc
0.000	1.173	1.196
0.004	0.744	0.759
0.011	0.337	0.344
0.020	0.073	0.074
0.030	-0.088	-0.090
0.040	-0.190	-0.193
0.050	-0.279	-0.284
0.060	-0.324	-0.330
0.070	-0.386	-0.393
0.084	-0.435	-0.444
0.100	-0.500	-0.510
0.125	-0.573	-0.584
0.150	-0.618	-0.630
0.175	-0.663	-0.676
0.201	-0.702	-0.715
0.225	-0.738	-0.753
0.250	-0.766	-0.781
0.275	-0.780	-0.795
0.300	-0.809	-0.825
0.325	-0.817	-0.833
0.350	-0.828	-0.845
0.373	-0.832	-0.848
0.401	-0.831	-0.847
0.426	-0.830	-0.846
0.450	-0.810	-0.826
0.475	-0.340	-0.347
0.501	-0.215	-0.219
0.525	-0.189	-0.192
0.550	-0.182	-0.186
0.575	-0.175	-0.179
0.625	-0.158	-0.169 -0.161
0.650	-0.158	-0.161
0.675	-0.148	-0.149
0.700	-0.131	-0.135
0.725	-0.099	-0.101
0.750	-0.033	-0.101
0.775	-0.056	-0.058
0.800	-0.030	-0.031
0.825	-0.006	-0.007
0.850	0.021	0.021
0.875	0.050	0.051
0.900	0.083	0.085
0.925	0.124	0.127
0.950	0.165	0.169
0.975	0.210	0.214
1.000	0.275	0.280

Fig. 46 Pressure distribution (c = 250 mm).

Run	Scan	M <sub>s</sub>	Mc	$\alpha_{\scriptscriptstyle B}(\deg)$	Re	Clu	Clc	Cdwake
6946	1	0.793	0.777	0.01	$7.1 \times 10^{6}$	0.005		
	(AR=2.0)							



#### Lower surface

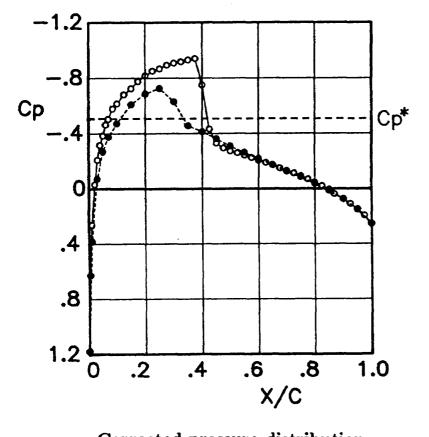
x/c	Ср	Cpc
0.950	0.148	0.150
0.900	0.072	0.073
0.850	0.010	0.010
0.800	-0.041	-0.041
0.750	-0.086	-0.087
0.700	-0.131	-0.133
0.650	-0.176	-0.178
0.600	-0.219	-0.222
0.550	-0.262	-0.266
0.500	-0.306	-0.310
0.450	-0.342	-0.346
0.400	-0.374	-0.379
0.350	-0.690	-0.700
0.300	-0.819	-0.830
0.250	-0.795	-0.806
0.201	-0.743	-0.753
0.151	-0.665	-0.674
0.100	-0.532	-0.539
0.071	-0.441	-0.447
0.051	-0.310	-0.314
0.030	-0.150	-0.152
0.011	0.318	0.322

## Upper surface

x/c	Cp	Cpc
0.000	1.164	1.180
0.004	0.689	0.698
0.011	0.306	0.310
0.021	0.046	0.046
0.031	-0.132	-0.134
0.041	-0.242	-0.245
0.051	-0.327	-0.332
0.060	-0.383	-0.388
0.070	-0.434	-0.440
0.085	-0.498	-0.505
0.101	-0.538	
0.125	-0.608	-0.546
0.150	-0.666	-0.616
0.130		-0.675
-	-0.714	-0.724
0.200	-0.738	-0.748
0.225	-0.770	-0.780
0.250	-0.791	-0.802
0.276	-0.809	-0.819
0.300	-0.830	-0.842
0.325	-0.838	-0.850
0.350	-0.814	-0.825
0.375	-0.515	-0.521
0.400	-0.374	-0.379
0.425	-0.345	-0.349
0.450	-0.329	-0.334
0.476	-0.311	-0.315
0.500	-0.297	-0.301
0.525	-0.276	-0.280
0.550	-0.257	-0.260
0.575	-0.234	-0.238
0.600	-0.213	-0.215
0.626	-0.193	-0.196
0.650	-0.174	-0.176
0.675	-0.150	-0.152
0.700	-0.129	-0.131
0.725	-0.112	-0.113
0.750	-0.090	-0.092
0.775	-0.068	-0.069
0.800	-0.045	-0.045
0.825	-0.019	-0.020
0.850	0.009	0.010
0.869	0.039	0.040
0.900	0.075	0.076
0.925	0.110	0.112
0.950	0.149	0.151
0.975	0.194	0.197
1.000	0.252	0.255
•		

Fig. 47 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Ciu	C <sub>lc</sub>	Cdwake
6946	2	0.792	0.776	0.51	7.1×10 <sup>6</sup>	0.087	0.088	0.0110
•	(AR=2.0)							



#### Lower surface

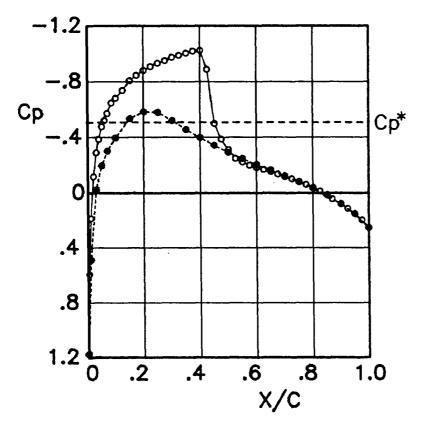
x/c	Ср	C <sub>Pc</sub>
0.950	0.149	0.151
0.900	0.075	0.076
0.850	0.014	0.014
0.800	-0.035	-0.036
0.750	-0.084	-0.085
0.700	-0.124	-0.126
0.650	-0.170	-0.173
0.600	-0.214	-0.217
0.550	-0.259	-0.262
0.500	-0.304	-0.308
0.450	-0.357	-0.362
0.400	-0.407	-0.412
0.350	-0.450	-0.457
0.300	▶0.622	-0.630
0.250	-0.716	-0.726
0.201	-0.679	~0.688
0.151	-0.602	-0.610
0.100	-0.466	-0.473
0.071	-0.370	-0.375
0.051	-0,263	-0.267
0.030	-0.069	-0.070
0.011	0.379	0.385

**Upper surface** 

x/c	Cp	C <sub>Pc</sub>
0.000	1.163	1.179
0.004	0.618	0.627
0.011	0.258	0.261
0.021	-0.031	-0.032
0.031	-0.206	-0.209
0.041	-0.312	-0.317
0.051	-0.379	-0.384
0.060	-0.457	-0.464
0.070	-0.497	-0.504
0.085	-0.573	-0.581
0.101	-0.609	-0.618
0.125	-0.673	-0.682
0.150	-0.715	-0.725
0.175	-0.765	-0.776
0.200	-0.807	-0.818
0.225	-0.840	-0.852
0.250	-0.856	-0.868
0.276	-0.882	-0.894
0.300	-0.896	-0.908
0.325	-0.906	-0.919
0.350	-0.919	-0.932
0.375	-0.928	-0.941
0.400	-0.740	-0.750
0.425	-0.425	-0.431
0.450	-0.325	-0.330
0.476	-0.289	-0.293
0.500	-0.267	-0.271
0.525	-0.254	-0.257
0.550	-0.236	-0.239
0.575	-0.219	-0.222
0.600	-0.201	-0.204
0.626	-0.184	-0.187
0.650	-0.167	-0.170
0.675	-0.146	-0.148
0.700	-0.126	-0.128
0.725	-0.109	-0.110
0.750	-0.089	-0.091
0.775	-0.066	-0.067
0.800	-0.044	-0.045
0.825	-0.018	-0.018
0.850	0.009	0.009
0.869	0.040	0.041
0.900	0.075	0.076
0.925	0.111	0.112
0.950	0.148	0.150
0.975	0.194	0.196
1.000	.0.252	0.256
L		

## Fig. 48 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6946	3	0.792	0.776	1.01	$7.1 \times 10^{6}$	0.168	0.171	0.0144
(AR=2.0)								



#### Lower surface

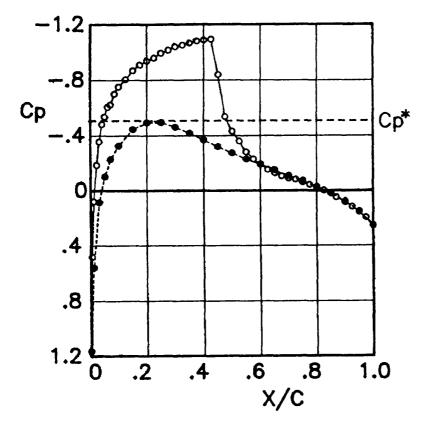
x/c	Cp	Cpc
0.950	0.151	0.153
0.900	0.076	0.077
0.850	0.015	0.015
0.800	-0.033	-0.034
0.750	-0.077	-0.078
0.700	-0.120	-0.121
0.650	-0.161	-0.163
0.600	-0.201	-0.204
0.550	-0.243	-0.247
0.500	-0.288	-0.292
0.450	-0.339	-0.343
0.400	-0.393	-0.399
0.350	-0.450	-0.457
0.300	-0.514	-0.521
0.250	-0.573	-0.581
0.201	-0.577	-0.585
0.151	-0.528	-0.535
0.100	-0.390	-0.396
0.071	-0.296	-0.300
0.051	-0.193	-0.195
0.030	-0.022	-0.022
0.011	0.484	0.491

#### Upper surface

x/c	Cp	Cpc
0.000	1.159	1.176
0.004	0.585	0.593
0.011	0.182	0.184
0.021	-0.116	-0.117
0.031	-0.286	-0.290
0.041	-0.380	-0.385
0.051	-0.470	-0.477
0.060	-0.514	-0.521
0.070	-0.565	-0.573
0.085	-0.639	-0.648
0.101	-0.673	-0.683
0.125	-0.728	-0.738
0.150	-0.796	-0.807
0.175	-0.834	-0.846
0.200	-0.870	-0.883
0.225	-0.896	-0.909
0.250	-0.922	-0.935
0.276	-0.938	-0.951
0.300	-0.962	-0.976
0.325	-0.976	-0.990
0.350	-0.992	-1.006
0.375	-1.006	-1.020
0.400	-1.011	-1.025
0.425	-0.876	-0.889
0.450	-0.492	-0.499
0.476	-0.381	-0.386
0.500	-0.305	-0.310
0.525	-0.243	-0.246
0.550	-0.217	-0.220
0.575	-0.194	-0.197
0.600	-0.176	-0.179
0.626	-0.164	-0.166
0.650	-0.148	-0.150
0.675	-0.132	-0.134
0.700	-0.113 -0.098	-0.115 -0.099
0.725	-0.098	-0.099
0.775	-0.058	-0.078
0.800	-0.037	-0.059
0.825	-0.012	-0.037
0.850	0.012	0.012
0.869	0.014	0.014
0.900	0.043	0.048
0.925	0.113	0.114
0.950	0.149	0.152
0.975	0.195	0.198
1.000	0.252	0.255

Fig. 49 Pressure distribution (c = 150 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6946	4	0.792	0.776	1.51	$7.1 \times 10^{6}$	0.249	0.252	0.0185
(AR=2.0)								



#### Lower surface

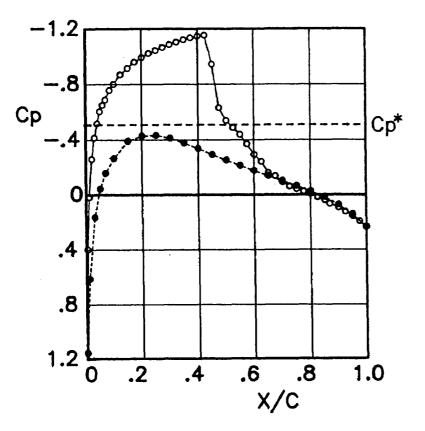
	_	
x/c	Cp	C <sub>Pc</sub>
0.950	0.149	0.151
0.900	0.077	0.078
0.850	0.018	0.019
0.800	-0.029	-0.029
0.750	-0.071	-0.072
0.700	-0.108	-0.109
0.650	-0.150	-0.152
0.600	-0.191	-0.194
0.550	-0.227	-0.230
0.500	-0.271	-0.275
0.450	-0.317	-0.322
0.400	-0.364	-0.369
0.350	-0.413	-0.419
0.300	-0.456	-0.463
0.250	-0.489	-0.496
0.201	-0.488	-0.495
0.151	-0.440	-0.446
0.100	-0.323	-0.328
0.071	-0.227	-0.230
0.051	-0.101	-0.103
0.030	0.085	0.086
0.011	0.551	0.558

Upper surface

x/c	Cp	Cpc
0.000	1.148	1.163
0.004	0.473	0.480
0.011	0.076	0.077
0.021	-0.184	-0.187
0.031	-0.353	-0.358
0.041	-0.476	-0.483
0.051	-0.531	-0.539
0.060	-0.600	-0.608
0.070	-0.618	-0.626
0.085	-0.693	-0.703
0.101	-0.743	-0.753
0.125	-0.795	-0.806
0.150	-0.858	-0.870
		-0.911
0.175	-0.899	
0.200	-0.927	-0.940
0.225	-0.948	-0.961
0.250	-0.982	-0.996
0.276	-1.003	-1.017
0.300	-1.027	-1.041
0.325	-1.038	-1.053
0.350	-1.052	-1.067
0.375	-1.067	-1.082
0.400	-1.073	-1.087
0.425	-1.080	-1.095
0.450	-0.828	-0.840
0.476	-0.530	-0.538
0.500	-0.425	-0.431
0.525	-0.354	-0.359
0.550	-0.278	-0.282
0.575	-0.226	-0.229
0.600	-0.186	-0.188
0.626	-0.150	-0.152
0.650	-0.125	-0.127
0.675	-0.104	-0.105
0.700	-0.088	-0.089
0.725	-0.080	-0.081
0.750	-0.059	-0.060
0.775	-0.042	-0.043
0.800	-0.025	-0.025
0.825	0.000	0.000
0.850	0.022	0.023
0.869	0.051	0.051
0.900	0.084	0.085
0.925	0.117	0.118
0.950	0.152	0.155
0.975	0.194	0.197
1.000	0.250	0.254
L		

Fig. 50. Pressure distribution (c = 150 mm).

Run	Scan	Ms	Mc	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwake
6946	5	0.792	0.776	2.01	7.1×10 <sup>6</sup>	0.320	· · · · · · · · · · · · · · · · · · ·	0.0248
(AR=2.0)								



#### Lower surface

x/c	Cp	C <sub>Pc</sub>
0.950	0.141	0.143
0.900	0.072	0.073
0.850	0.017	0.017
0.800	-0.025	-0.026
0.750	-0.066	-0.067
0.700	-0.103	-0.104
0.650	-0.138	-0.140
0.600	-0.175	-0.177
0.550	-0.211	-0.214
0.500	-0.251	-0.255
0.450	-0.290	-0.294
0.400	-0.334	-0.339
0.350	-0.373	-0.378
0.300	-0.408	-0.413
0.250	-0.428	-0.434
0.201	-0.422	-0.428
0.151	-0.386	-0.392
0.100	-0.263	-0.267
0.071	-0.157	-0.159
0.051	-0.043	-0.043
0.030	0.162	0.165
0.011	0.603	0.612

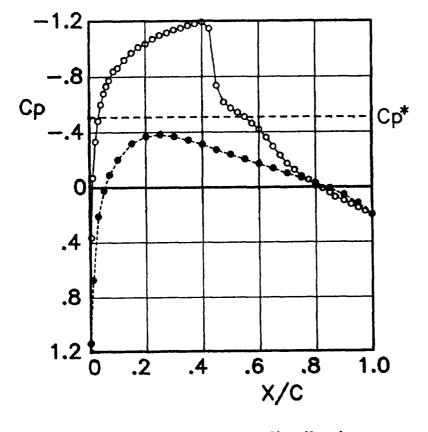
#### Upper surface

x/c	Cp	Cpc
0.000	1.139	1.154
0.004	0.391	0.397
0.011	0.017	0.017
0.021	-0.259	-0.262
0.031	-0.411	-0.417
0.041	-0.511	-0.518
0.051		-0.604
0.060	-0.596	-0.650
	-0.641	
0.070	-0.679	-0.688
0.085	-0.746	-0.757
0.101	-0.790	-0.801
0.125	-0.858	-0.870
0.150	-0.904	-0.916
0.175	-0.947	-0.960
0.200	-0.979	-0.993
0.225	-1.009	-1.023
0.250	-1.030	-1.044
0.276	-1.051	-1.066
0.300	-1.072	-1.087
0.325	-1.090	-1.105
0.350	-1.106	-1.122
0.375	-1.121	-1.136
0.400	-1.132	-1.148
0.425	-1.138	-1.154
0.450	-0.931	-0.944
0.476	-0.622	-0.630
0.500	-0.532	-0.539
0.525	-0.481	-0.487
0.550	-0.431	-0.437
0.575	-0.364	-0.369
0.600	-0.288	-0.292
0.626	-0.238	-0.242
0.650	-0.158	-0.160
0.675	-0.134	-0.136
0.700	-0.091	-0.092
0.725	-0.060	-0.061
0.750	-0.040	-0.041
0.775	-0.022	-0.023
0.800	-0.005	-0.005
0.825	0.019	0.019
0.850	0.041	0.042
0.869	0.041	0.068
0.900	0.095	0.097
0.925	0.124	0.126
0.950	0.156	0.158
0.975	0.193	0.195
1.000	0.234	0.237
		0.201

Fig. 51 Pressure distribution (c = 150 mm).

58

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwake
6946	6	0.792	0.776	2.51	7.2×10 <sup>6</sup>	0.381	0.386	0.0327
L	(AR=2.0)							



#### Lower surface

x/c	Cp	Cpc
0.950	0.114	0.116
0.900	0.055	0.056
0.850	0.008	0.008
0.800	-0.031	-0.031
0.750	-0.068	-0.069
0.700	-0.099	-0.101
0.650	-0.135	-0.137
0.600	-0.168	-0.171
0.550	-0.201	-0.204
0.500	-0.235	-0.238
0.450	-0.269	-0.273
0.400	-0.309	-0.313
0.350	-0.338	-0.343
0.300	-0.362	-0.367
0.250	-0.377	-0.383
0.201	-0.364	-0.369
0.151	-0.314	-0.318
0.100	-0.199	-0.202
0.071	-0.090	-0.091
0.051	0.025	0.025
0.030	0.208	0.211
0.011	0.662	0.672

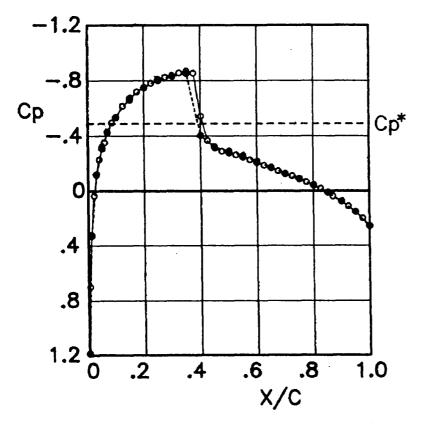
Upper	surface
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x/c	Cp	C <sub>Pc</sub>
0.000	1.122	1.138
0.004	0.357	0.362
0.011	-0.070	-0.071
0.021	-0.330	-0.335
0.031	-0.476	-0.483
0.041	-0.593	-0.602
0.051	-0.671	-0.680
0.060	-0.721	-0.731
0.070	-0.762	-0.773
0.085	-0.828	-0.840
0.101	-0.851	-0.863
0.125	-0.908	-0.920
0.150	-0.957	-0.971
0.175	-0.998	-1.012
0.200	-1.022	-1.036
0.225	-1.056	-1.071
0.250	-1.083	-1.098
0.276	-1.100	-1.116
0.300	-1.120	-1.136
0.325	-1.134	-1.150
0.350	-1.151	-1.167
0.375	-1.164	-1.180
0.400	-1.176	-1.193
0.425	-1.130	-1.146
0.450	-0.726	-0.736
0.476	-0.607	-0.616
0.500	-0.564	-0.572
0.525	-0.534	-0.541
0.550	-0.500	-0.507
0.575	-0.455	-0.461
0.600	-0.412 -0.354	-0.417
0.626		-0.359
0.650	-0.289	-0.293
0.675	-0.226 -0.168	-0.170
0.725	-0.100	-0.175
0.750	-0.123	-0.080
0.775	-0.051	-0.052
0.800	-0.010	-0.010
0.800	0.009	0.009
0.850	0.042	0.042
0.850	0.042	0.042
0.900	0.073	0.100
0.900	0.124	0.126
0.928	0.149	0.151
0.975	0.149	0.131
1.000	0.198	0.201
1.000		

#### 1.000

Fig. 52 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6952	1	0.799	0.782	0.01	$7.0 \times 10^{6}$	0.009		
(AR=2.0)								



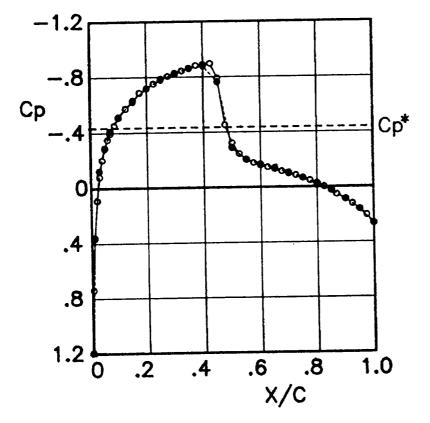
#### Lower surface

<u>x/c</u>	Cp	Cpc
0.950	0.152	0.154
0.900	0.076	0.077
0.850	0.014	0.014
0.800	-0.037	-0.037
0.750	-0.085	-0.086
0.700	-0.127	-0.128
0.650	-0.171	-0.173
0.600	-0.213	-0.216
0.550	-0.253	-0.257
0.500	-0.287	-0.291
0.450	-0.318	-0.322
0.400	-0.398	-0.404
0.350	-0.840	-0.852
0.300	-0.819	-0.831
0.250	-0.799	-0.810
0.201	-0.737	-0.748
0.151	-0.666	-0.676
0.100	-0.528	-0.535
0.071	-0.418	-0.424
0.051	-0.303	-0.308
0.030	-0.120	-0.122
0.011	0.328	0.333

x/c	Cp	C <sub>Pc</sub>
0.000	1.171	1.188
0.004	0.688	0.698
0.011	0.317	0.321
0.021	0.036	0.036
0.031	-0.117	-0.118
0.041	-0.227	-0.230
0.051	-0.318	-0.323
0.060	-0.348	-0.353
0.070	-0.425	-0.431
0.085	-0.488	-0.495
0.101	-0.524	-0.532
0.125	-0.607	-0.616
0.150	-0.651	-0.661
0.175	-0.651 -0.708	-0.881
0.200	-0.742	-0.752
0.225	-0.742	-0.782
0.223	-0.788	-0.800
0.230	-0.814	-0.826
0.300	-0.826	-0.838
0.325	-0.843	-0.856
0.350	-0.857	
0.375	-0.842	-0.869
0.400	-0.535	-0.854 -0.543
0.400	-0.361	
0.420	-0.309	-0.367 -0.313
0.476	-0.286	-0.313
0.500	-0.272	-0.230
0.525	-0.259	-0.262
0.550	-0.241	-0.244
0.575	-0.223	-0.226
0.600	-0.202	-0.205
0.626	-0.184	-0.187
0.650	-0.164	-0.167
0.675	-0.144	-0.146
0.700	-0.122	-0.148
0.725	-0.109	-0.110
0.750	-0.088	-0.089
0.775	-0.063	-0.064
0.800	-0.083	-0.043
0.825	-0.042	-0.043
0.850	0.014	
0.869	0.013	0.013
0.900	0.042	
0.900	0.078	0.080
0.950	0.153	0.155
0.975	0.200	0.202
1.000	0.257	0.261

Fig. 53 Pressure distribution (c = 150 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	Clc	Cdwake
6945	1	0.817	0.800	0.01	$7.1 \times 10^{6}$	0.001	0.001	0.0159
	(AR=2.0)							



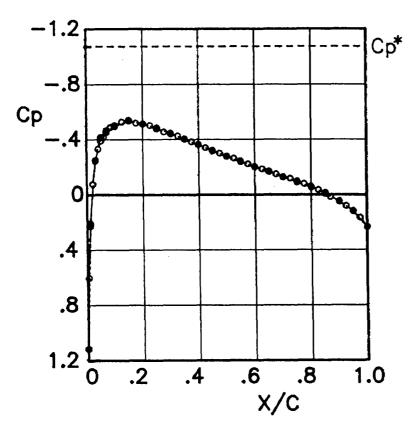
#### Lower surface

x/c	Ср	C <sub>Pc</sub>
0.950	0.161	0.163
0.900	0.087	0.089
0.850	0.027	0.027
0.800	-0.021	-0.021
0.750	-0.063	-0.064
0.700	-0.101	-0.102
0.650	-0.135	-0.137
0.600	-0.164	-0.166
0.550	-0.196	-0.199
0.500	-0.284	-0.288
0.450	-0.752	-0.763
0.400	-0.867	-0.879
0.350	-0.851	-0.862
0.300	-0.812	-0.823
0.250	-0.776	-0.786
0.201	-0.709	-0.719
0.151	-0.624	-0.633
0.100	-0.507	-0.514
0.071	-0.406	-0.411
0.051	-0.286	-0.290
0.030	-0.119	-0.121
0.011	0.354	0.359

_	x/c	Ср	Cpc
	0.000	1.177	1.193
	0.004	0.727	0.737
	0.011	0.359	0.364
	0.021	0.089	0.090
	0.031	-0.079	-0.081
	0.041	-0.201	-0.203
	0.051	-0.284	-0.288
	0.051	-0.347	-0.351
	0.070	-0.389	-0.395
	0.085	-0.447	-0.453
		-0.503	-0.510
	0.101		-0.575
	0.125	-0.567	-0.623
l	0.150	-0.615	
	0.175	-0.679	-0.689
	0.200	-0.711	-0.721
	0.225	-0.743	-0.753
	0.250	-0.770	-0.780
	0.276	-0.796	-0.807
1	0.300	-0.818	-0.830
	0.325	-0.834	-0.845
	0.350	-0.851	-0.863
	0.375	-0.871	-0.884
l	0.400	-0.878	-0.890
I	0.425	-0.885	-0.897
l	0.450	-0.780	-0.791
	0.476	-0.446	-0.452
	0.500	-0.318	-0.322
	0.525	-0.239	-0.242
l	0.550	-0.199	-0.202
	0.575	-0.173	-0.175
	0.600	-0.154	-0.156
	0.626	-0.141	-0.143
	0.650	-0.127	-0.128
	0.675	-0.110	-0.112
	0.700	-0.094	-0.096
	0.725	-0.082	-0.083
	0.750	-0.063	-0.064
	0.775	-0.044	-0.045
	0.800	-0.024	-0.024
	0.825	0.002	0.002
	0.850	0.026	0.026
	0.869	0.056	0.057
	0.900	0.090	0.092
	0.925	0.123	0.125
	0.950	0.161	0.164
	0.975	0.205	0.208
	1.000	0.262	0.266

Fig. 54 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwake
6950	1	0.649	0.638	0.01	$20.8 \times 10^{6}$	0.002	0.003	0.0068
(AR=2.0)								



#### Lower surface

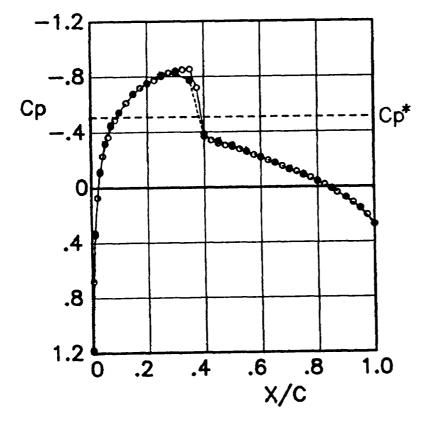
x/c	Cp	Cpc
0.950	0.119	0.120
0.900	0.048	0.049
0.850	-0.007	-0.007
0.800	-0.052	-0.052
0.750	-0.089	-0.090
0.700	-0.126	-0.128
0.650	-0.165	-0.166
0.600	-0.198	-0.200
0.550	-0.236	-0.239
0.500	-0.276	-0.279
0.450	-0.314	-0.318
0.400	-0.358	-0.363
0.350	-0.400	-0.405
0.300	-0.437	-0.442
0.250	-0.480	-0.486
0.201	-0.508	-0.514
0.151	-0.529	-0.535
0.100	-0.489	-0.495
0.071	-0.460	-0.465
0.051	-0.410	-0.415
0.030	-0.248	-0.250
0.011	0.208	0.210

#### **Upper surface**

x/c	Cp	C <sub>Pc</sub>
0.000	1.103	1.116
0.004	0.595	0.602
0.011	0.225	0.228
0.021	-0.075	-0.076
0.031	-0.243	-0.245
0.041	-0.328	-0.332
0.051	-0.385	-0.390
0.060	-0.412	-0.417
0.070	-0.446	-0.452
0.085	-0.483	-0.489
0.101	-0.497	-0.503
0.125	-0.522	-0.528
0.150	-0.535	-0.542
0.175	-0.513	-0.520
0.200	-0.508	-0.514
0.225	-0.496	-0.502
0.250	-0.471	-0.477
0.276	-0.450	-0.455
0.300	-0.441	-0.447
0.325	-0.422	-0.427
0.350	-0.398	-0.403
0.375	-0.379	-0.384
0.400	-0.359	-0.364
0.425	-0.337	-0.341
0.450	-0.318	-0.322
0.476	-0.297	-0.301
0.500	-0.277	-0.281
0.525	-0.261	-0.264
0.550	-0.240	-0.243
0.575	-0.219	-0.222
002.0	-0.201	-0.203
0.626	-0.184	-0.186
0.650	-0.167	-0.169
0.675	-0.147	-0.149
0.700	-0.125	-0.127
0.725	-0.116	-0.118
0.750	-0.096	-0.097
0.775	-0.077	-0.078
0.800	-0.059	-0.059
0.825	-0.033	-0.034
0.850	-0.012	-0.012
0.869	0.016	0.016
0.900	0.050	0.051
0.925	0.082	0.083
0.950	0.119	0.121
0.975	0.167	0.169
1.000	0.234	0.237
«		

Fig. 55 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	C <sub>dwake</sub>
6949	1	0.792	0.776	0.01	$20.9 \times 10^{6}$	0.007	0.007	0.0094
		•	•	·	(AR=2.0)			



#### Lower surface

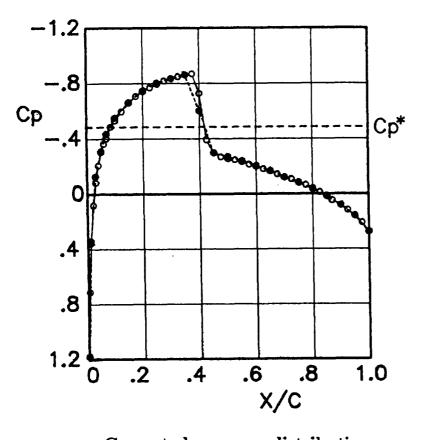
x/c	Cp	Cpc_
0.950	0.153	0.155
0.900	0.078	0.079
0.850	0.014	0.014
0.800	-0.038	-0.039
0.750	-0.084	-0.085
0.700	-0.127	-0.129
0.650	-0.171	-0.174
0.600	-0.214	-0.217
0.550	-0.256	-0.260
0.500	-0.299	-0.303
0.450	-0.329	-0.334
0.400	-0.362	-0.368
0.350	-0.761	-0.772
0.300	-0.814	-0.825
0.250	-0.801	-0.813
0.201	-0.741	-0.752
0.151	-0.667	-0.677
0.100	-0.535	-0.542
0.071	-0.445	-0.451
0.051	-0.314	-0.318
0.030	-0.113	-0.114
0.011	0.338	0.343

Upper surface

x/c	Ср	C <sub>Pc</sub>
0.000	1.162	1.179
0.004	0.670	0.680
0.011	0.322	0.326
0.021	0.070	0.071
0.031	-0.107	-0.108
		-0.228
0.041	-0.225	
0.051	-0.312	-0.316
0.060	-0.359	-0.364
0.070	-0.437	-0.443
0.085	-0.482	-0.488
0.101	-0.537	-0.544
0.125	-0.603	-0.611
0.150	-0.664	-0.673
0.175	-0.708	-0.718
0.200	-0.740	-0.750
0.225	-0.762	-0.772
0.250	-0.790	-0.801
0.276	-0.816	-0.827
0.300	-0.829	-0.841
0.325	-0.838	-0.850
0.350	-0.843	-0.855
0.375	-0.709	-0.719
0.400	-0.382	-0.388
0.425	-0.335	-0.339
0.450	-0.312	-0.317
0.476	-0.298	-0.303
0.500	-0.285	-0.289
0.525	-0.270	-0.274
0.550	-0.249	-0.253
0.575	-0.229	-0.232
0.600	-0.209	-0.211
0.626	-0.189	-0.191
0.650	-0.169	-0.171
0.675	-0.147	-0.149
0.700	-0.122	-0.124
0.725	-0.109	-0.110
0.750	-0.088	-0.089
0.775	-0.064	-0.065
0.800	-0.043	-0.085
0.800		-0.015
0.828	-0.015	
1	0.012	0.012
0.869	0.042	0.043
0.900	0.078	0.079
0.925	0.113	0.115
0.950	0.155	0.157
0.975	0.203	0.206
1.000	0.270	0.273

Fig. 56 Pressure distribution (c = 150 mm).

Run	Scan	M <sub>s</sub>	M <sub>c</sub>	$\alpha_{s}(\deg)$	Re	Clu	Clc	Cdwske
6947	1	0.801	0.784	0.00	$21.0 \times 10^{6}$	0.002	0.002	0.0109
			•		(AR=2.0)			



#### Lower surface

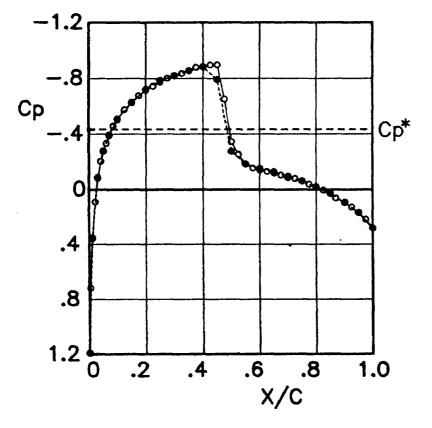
x/c	Cp	Cpc_
0.950	0.156	0.158
0.900	0.080	0.081
0.850	0.018	0.018
0.800	-0.033	-0.033
0.750	-0.078	-0.079
0.700	-0.119	-0.121
0.650	-0.164	-0.166
0.600	-0.202	-0.205
0.550	-0.237	-0.240
0.500	-0.268	-0.271
0.450	-0.293	-0.297
0.400	-0.594	-0.602
0.350	-0.849	-0.861
0.300	-0.823	-0.835
0.250	-0.793	-0.804
0.201	-0.737	-0.747
0.151	-0.655	-0.664
0.100	-0.544	-0.551
0.071	-0.428	-0.434
0.051	-0.306	-0.310
0.030	-0.125	-0.127
0.011	0.351	0.356

Upper surface

x/c	Cp	Cpc
0.000	1.164	1.180
0.004	0.701	0.711
0.011	0.333	0.338
0.021	0.079	0.080
0.031	-0.083	-0.084
0.041	-0.205	-0.208
0.051	-0.300	-0.305
0.060	-0.358	-0.363
0.070	-0.396	-0.402
0.085	-0.480	-0.486
0.101	-0.523	-0.531
0.125	-0.589	-0.597
0.150	-0.651	-0.660
0.175	-0.696	-0.706
0.200	-0.730	-0.741
0.225	-0.758	-0.769
0.250	-0.783	-0.794
0.276	-0.808	-0.820
0.300	-0.822	-0.834
0.325	-0.836	-0.848
0.350	-0.851	-0.863
0.375	-0.858	-0.870
0.400	-0.716	-0.727
0.425	-0.384	-0.390
0.450	-0.294	-0.298
0.476	-0.264	-0.268
0.500	-0.250	-0.253
0.525	-0.242	-0.246
0.550	-0.228	-0.231
0.575	-0.209	-0.212
0.600	-0.193	-0.196
0.626	-0.177	-0.180
0.650	-0.159	-0.161
0.675	-0.138	-0.140
0.700	-0.115	-0.116
0.725	-0.103	-0.104
0.750	-0.081	-0.083
0.775	-0.061	-0.062
0.800	-0.039	-0.039
0.825	-0.011	-0.011
0.850	0.015	0.015
0.869	0.047	0.048
0.900	0.081	0.082
0,925	0.116	0.118
0.950	0.157	0.159
0.975	0.206	0.209
1.000	0.273	0.276

Fig. 57 Pressure distribution (c = 150 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	C <sub>lu</sub>	Clc	Cdwake
6948	1	0.818	0.801	0.00	$20.9 \times 10^{6}$	0.009	0.009	0.0160
(AR=2.0)								



#### Lower surface

x/c	Ср	C <sub>Pc</sub>
0.950	0.166	0.168
0.900	0.091	0.092
0.850	0.031	0.031
0.800	-0.015	-0.015
0.750	-0.059	-0.060
0.700	-0.094	-0.095
0.650	-0.126	-0.127
0.600	-0.149	-0.151
0.550	-0.181	-0.184
0.500	-0.271	-0.275
0.450	-0.782	-0.793
0.400	-0.869	-0.881
0.350	-0.843	-0.855
0.300	-0.808	-0.819
0.250	-0.775	~0.786
0.201	-0.712	-0.722
0.151	-0.616	-0.625
0.100	-0.502	-0.509
0.071	-0.389	-0.394
0.051	-0.271	~0.274
0.030	-0.086	-0.087
0.011	0.348	0.353

**Upper surface** 

x/c	Ċp	C <sub>Pc</sub>
0.000	1.174	1.191
0.004	0.708	0.718
0.011	0.353	0.358
0.021	0.087	0.088
0.031	-0.081	-0.082
0.041	-0.201	-0.204
0.051	-0.276	-0.280
0.060	-0.329	-0.334
0.070	-0.383	-0.388
0.085	-0.452	-0.459
0.101	-0.495	-0.502
0.125	-0.569	-0.577
0.150	-0.621	-0.630
0.175	-0.667	-0.676
0.200	-0.707	-0.716
0.225	-0.734	-0.744
0.250	-0.763	-0.774
0.276	-0.791	-0.802
0.300	-0.809	-0.821
0.325	-0.824	-0.836
0.350	-0.844	-0.856
0.375	-0.867	-0.879
0.400	-0.873	-0.885
0.425	-0.884	-0.897
0.450	-0.885 -0.644	-0.898
0.500	-0.339	-0.653 -0.344
0.525	-0.333	-0.253
0.550	-0.181	-0.184
0.575	-0.151	-0.153
0.600	-0.136	-0.138
0.626	-0.126	-0.128
0.650	-0.114	-0.116
0.675	-0.102	-0.103
0.700	-0.083	-0.084
0.725	-0.076	-0.077
0.750	-0.060	-0.061
0.775	-0.037	-0.037
0.800	-0.020	-0.020
0.825	0.006	0.006
0.850	0.031	0.031
0.869	0.063	0.064
0.900	0.095	0.096
0.925	0.127	0.129
0.950	0.167	0.169
0.976	0.215	0.218
1.000	0.279	0.283

Fig. 58 Pressure distribution (c = 150 mm).

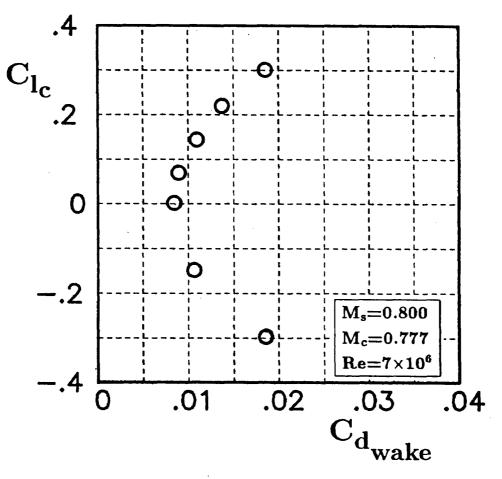


Fig. 59 Drag polar curve ( $M_s = 0.800$ ,  $M_c = 0.777$ ,  $Re = 7 \times 10^6$ , c = 250 mm).

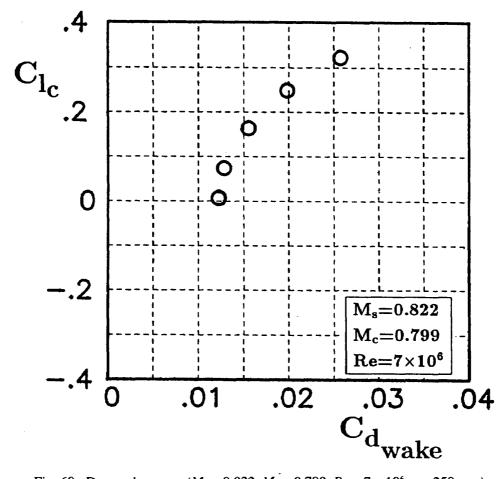


Fig. 60 Drag polar curve ( $M_s = 0.822$ ,  $M_c = 0.799$ ,  $Re = 7 \times 10^6$ , c = 250 mm).

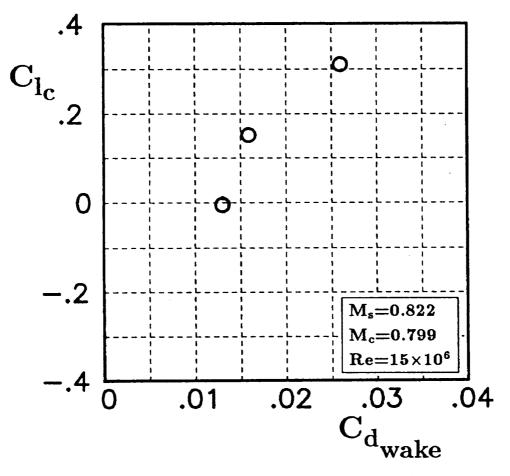


Fig. 61 Drag polar curve ( $M_s = 0.822$ ,  $M_c = 0.799$ ,  $Re = 15 \times 10^6$ , c = 250 mm).

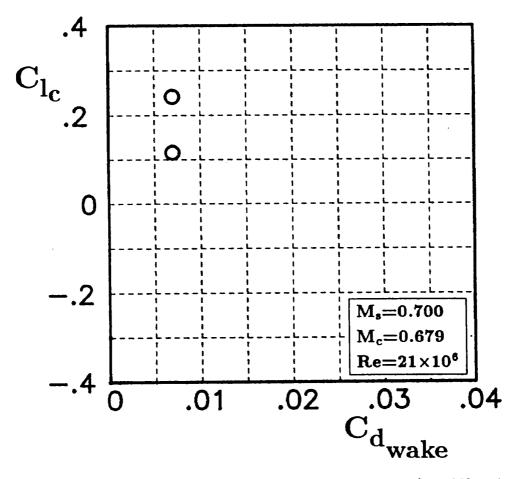


Fig. 62 Drag polar curve ( $M_s = 0.700, M_c = 0.679, Re = 21 \times 10^6, c = 250 \text{ mm}$ ).

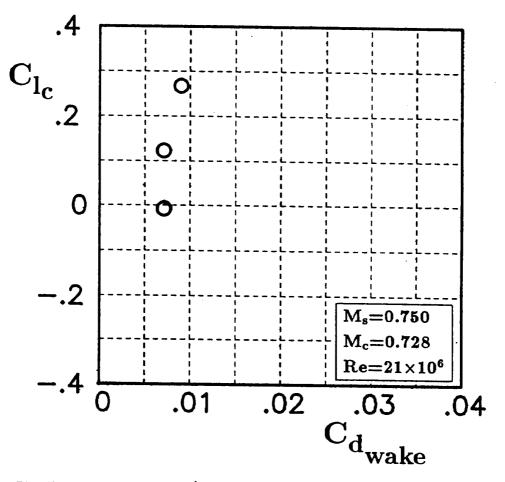


Fig. 63 Drag polar curve ( $M_s = 0.750$ ,  $M_c = 0.728$ ,  $Re = 21 \times 10^6$ , c = 250 mm).

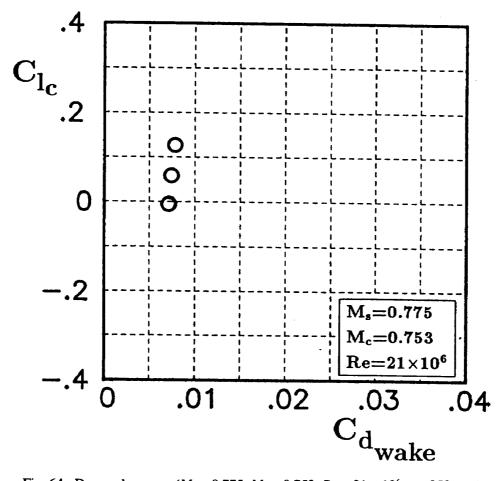
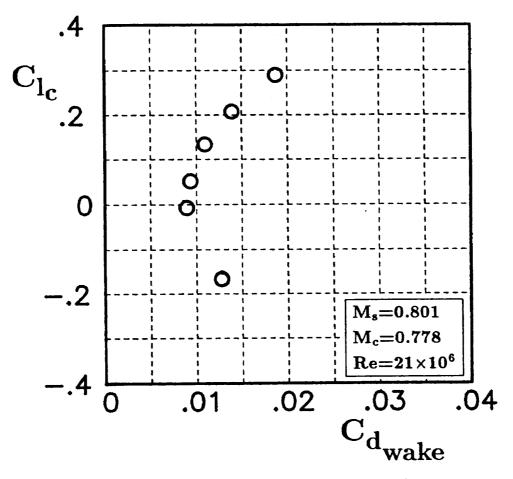
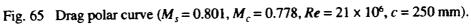


Fig. 64 Drag polar curve ( $M_s = 0.775$ ,  $M_c = 0.753$ ,  $Re = 21 \times 10^6$ , c = 250 mm).





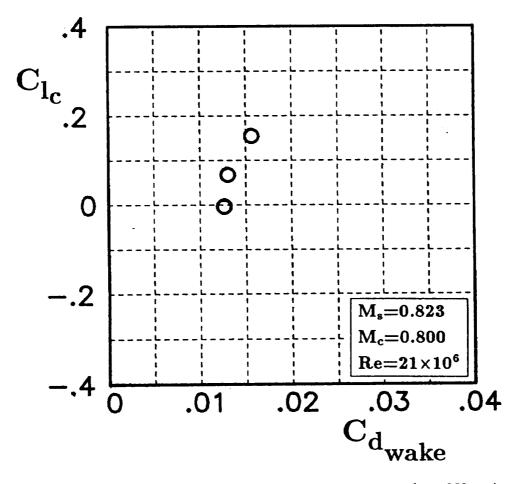


Fig. 66 Drag polar curve ( $M_s = 0.823$ ,  $M_c = 0.800$ ,  $Re = 21 \times 10^6$ , c = 250 mm).

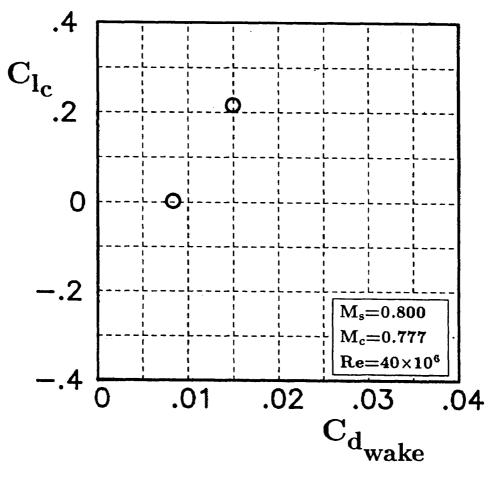


Fig. 67 Drag polar curve ( $M_s = 0.800$ ,  $M_c = 0.777$ ,  $Re = 40 \times 10^6$ , c = 250 mm).

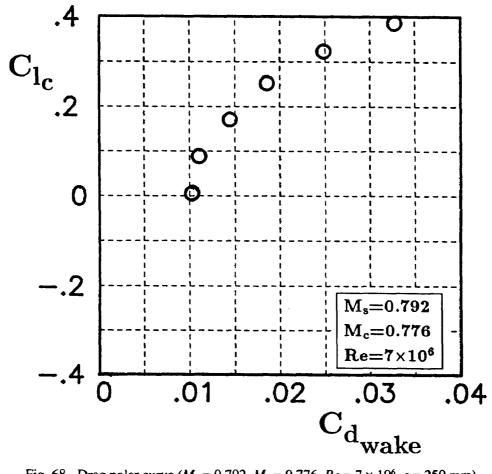
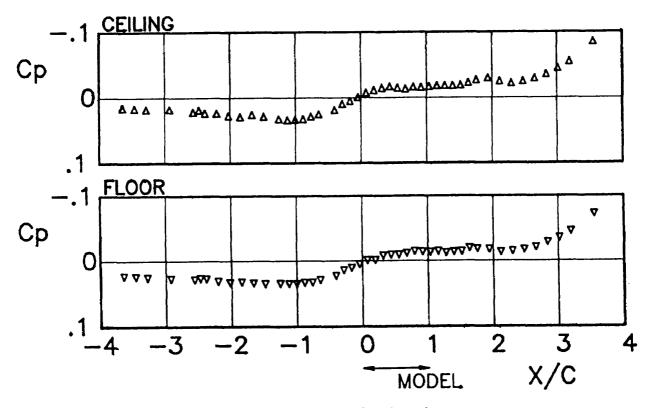


Fig. 68 Drag polar curve ( $M_s = 0.792$ ,  $M_c = 0.776$ ,  $Re = 7 \times 10^6$ , c = 250 mm).

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Run	Scan	M <sub>s</sub>	Mc	$\alpha_{s}(\deg)$	Re	Clu	C <sub>lc</sub>	C <sub>dwake</sub>
6910	1	0.801	0.778	0.00	$20.2 \times 10^{6}$	-0.007	-0.007	0.0089

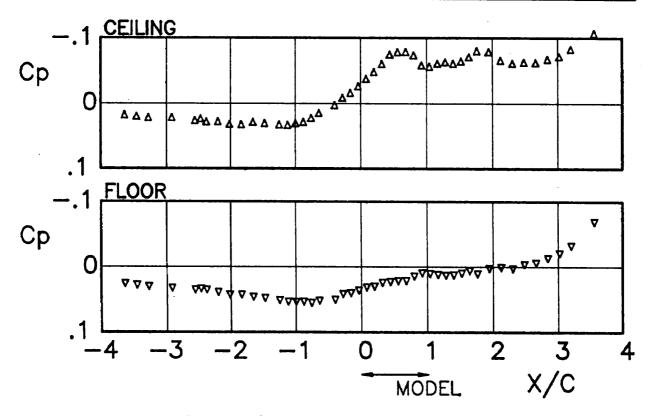


Corrected pressure distribution

x/c	Ceil	ing	Flo		x/c	Cei	ling	Flo	
	Cp	C <sub>Pc</sub>	Cp	Cpc		Cp	Cpc	Cp	C <sub>Pc</sub>
-3.6400	0.0172	0.0175	0.0208	0.0212	0.2000	-0.0090	-0.0092	-0.0029	-0.0030
-3.4600	0.0182	0.0185	0.0218	0.0223	0.3200	-0.0122	-0.0124	-0.0096	-0.0097
-3.2800	0.0194	0.0197	0.0232	0.0236	0.4400	-0.0146	-0.0149	-0.0107	-0.0109
-2.9200	0.0191	0.0195	0.0247	0.0252	0.5600	-0.0124	-0.0127	-0.0108	-0.0110
-2.5600	0.0234	0.0238	0.0262	0.0267	0.6800	-0.0112	-0.0114	-0.0129	-0.0131
-2.4700	0.0203	0.0207	0.0242	0.0247	0.8000	-0.0140	-0.0143	-0.0159	-0.0163
-2.3800	0.0249	0.0254	0.0249	0.0254	0.9200	-0.0132	-0.0134	-0.0150	-0.0153
-2.2000	0.0252	0.0257	0.0282	0.0287	1.0400	-0.0147	-0.0150	-0.0147	-0.0150
-2.0200	0.0291	0.0296	0.0307	0.0313	1.1600	-0.0159	-0.0162	-0.0161	-0.0164
-1.8400	0.0305	0.0311	0.0297	0.0303	1.2800	-0.0160	-0.0163	-0.0136	-0.0139
-1.6600	0.0273	0.0279	0.0315	0.0321	1.4000	-0.0159	-0.0162	-0.0148	-0.0151
-1.4800	0.0302	0.0308	0.0324	0.0331	1.5200	-0.0166	-0.0170	-0.0155	-0.0158
-1.2520	0.0338	0.0345	0.0322	0.0328	1.6400	-0.0202	-0.0206	-0.0208	-0.0212
-1.1200	0.0353	0.0360	0.0325	0.0332	1.7600	-0.0245	-0.0249	-0.0193	-0.0197
-1.0000	0.0348	0.0355	0.0327	0.0334	1.9400	-0.0272	-0.0278	-0.0187	-0.0190
-0.8800	0.0340	0.0346	0.0307	0.0313	2.1200	-0.0223	-0.0228	-0.0146	-0.0149
-0.7600	0.0301	0.0307	0.0304	0.0310	2.3000	-0.0194	-0.0198	-0.0161	-0.0164
-0.6400	0.0269	0.0274	0.0263	0.0269	2.4800	-0.0224	-0.0228	-0.0184	-0.0187
-0.4000	0.0203	0.0207	0.0207	0.0211	2.6600	-0.0268	-0.0273	-0.0220	-0.0224
-0.2800	0.0112	0.0114	0.0122	0.0125	2.8400	-0.0328	-0.0335	-0.0295	-0.0301
-0.1600	0.0071	0.0072	0.0089	0.0091	3.0200	-0.0421	-0.0429	-0.0364	-0.0371
-0.0400	0.0013	0.0014	0.0035	0.0036	3.2000	-0.0519	-0.0529	-0.0461	-0.0470
0.0800	-0.0054	-0.0056	-0.0026	-0.0027	3.5600	-0.0821	-0.0837	-0.0725	-0.0739

Fig. 69 Wall pressure distributions at zero angle of attack (c = 250 mm).

Run	Scan	Ms	M <sub>c</sub>	$\alpha_{s}(\text{deg})$	Re	Clu	C <sub>lc</sub>	Cdwake
6910	2	0.801	0.778	1.91	$20.3 \times 10^{6}$	0.285	0.290	0.0187



x/c	Ceiling		Floor		x/c	Ceiling		Floor	
L	Cp	CPc	Cp	C <sub>Pc</sub>		Cp	C <sub>Pc</sub>	Cp	C <sub>Pc</sub>
-3.6400	0.0195	0.0199	0.0236	0.0240	0.2000	-0.0454	-0.0463	0.0277	0.0282
-3.4600	0.0214	0.0218	0.0256	0.0260	0.3200	-0.0575	-0.0586	0.0219	0.0223
-3.2800	0.0233	0.0237	0.0278	0.0283	0.4400	-0.0719	-0.0733	0.0207	0.0211
-2.9200	0.0231	0.0236	0.0301	0.0307	0.5600	-0.0755	-0.0769	0.0194	0.0198
-2.5600	0.0276	0.0282	0.0326	0.0332	0.6800	-0.0759	-0.0773	0.0191	0.0195
-2.4700	0.0249	0.0253	0.0311	0.0317	0.8000	-0.0710	-0.0724	0.0123	0.0125
-2.3800	0.0296	0.0302	0.0326	0.0332	0.9200	-0.0557	-0.0567	0.0075	0.0077
-2.2000	0.0292	0.0298	0.0361	0.0368	1.0400	-0.0537	-0.0548	0.0086	0.0087
-2.0200	0.0333	0.0339	0.0399	0.0407	1.1600	-0.0583	-0.0594	0.0098	0.0100
-1.8400	0.0337	0.0344	0.0398	0.0406	1.2800	-0.0605	-0.0617	0.0110	0.0112
-1.6600	0.0301	0.0306	0.0432	0.0440	1.4000	-0.0582	-0.0594	0.0105	0.0107
-1.4800	0.0318	0.0324	0.0449	0.0458	1.5200	-0.0618	-0.0630	0.0078	0.0079
-1.2520	0.0339	0.0346	0.0482	0.0492	1.6400	-0.0683	-0.0696	0.0039	0.0040
-1.1200	0.0344	0.0351	0.0503	0.0513	1.7600	-0.0773	-0.0788	0.0087	0.0089
-1.0000	0.0318	0.0324	0.0508	0.0517	1.9400	-0.0761	-0.0776	0.0004	0.0004
-0.8800	0.0299	0.0305	0.0503	0.0513	2.1200	-0.0629	-0.0642	-0.0010	-0.0010
-0.7600	0.0238	0.0243	0.0521	0.0531	2.3000	-0.0586	-0.0597	0.0009	0.0009
-0.6400	0.0163	0.0166	0.0488	0.0497	2.4800	-0.0601	-0.0613	-0.0056	-0.0057
-0.4000	0.0044	0.0045	0.0472	0.0481	2.6600	-0.0596	-0.0608	-0.0078	-0.0079
-0.2800	-0.0069	-0.0071	0.0388	0.0396	2.8400	-0.0647	-0.0660	-0.0149	-0.0152
-0.1600	-0.0141	-0.0143	0.0374	0.0381	3.0200	-0.0690	-0.0704	-0.0222	-0.0226
-0.0400	-0.0241	-0.0246	0.0334	0.0340	3.2000	-0.0799	-0.0814	-0.0336	-0.0342
0.0800	-0.0353	-0.0360	0.0288	0.0294	3.5600	-0.1037	-0.1057	-0.0697	-0.0710

Fig. 70 Wall pressure distributions in lifting condition (c = 250 mm).

### TECHNICAL MEMORANDUM OF NATIONAL AEROSPACE LABORATORY TM-640T

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