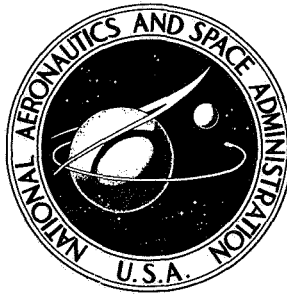


NASA TECHNICAL NOTE



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THE STAGNATION-POINT BOUNDARY LAYER  
WITH SUCTION AND INJECTION  
IN EQUILIBRIUM DISSOCIATING AIR

*by Kenneth C. Weston*

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THE STAGNATION-POINT BOUNDARY LAYER WITH SUCTION  
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Houston, Texas

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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## ABSTRACT

Calculations for the compressible, equilibrium dissociating stagnation-point boundary layer with suction and injection have been performed using a digital computer. Results are shown which reproduce both the perfect gas, linear viscosity-temperature relation calculations of Cohen and Reshotko, and the dissociating-air results of Fay and Riddell. Calculations for the dissociated-air boundary layer with air injection indicate significantly higher heating rates than those obtained for the perfect gas, linear viscosity-temperature relation model. A procedure is indicated which allows application of the results for air injection to engineering calculations for cases of foreign-gas injection.

## CONTENTS

Section	Page
SUMMARY . . . . .	1
INTRODUCTION . . . . .	1
SYMBOLS . . . . .	2
ANALYSIS . . . . .	4
Boundary-Layer Equations . . . . .	4
Boundary Conditions . . . . .	7
Method of Solution . . . . .	8
Correlations of $\frac{\rho_S}{\rho}$ and $\ell$ . . . . .	9
RESULTS AND DISCUSSION . . . . .	10
Comparison With Results of Fay and Riddell . . . . .	10
Comparison With Results of Cohen and Reshotko . . . . .	11
Equilibrium Real-Air Solutions With Wall Mass Transfer . . . . .	12
Injectants Other Than Air . . . . .	14
CONCLUDING REMARKS . . . . .	15
REFERENCES . . . . .	16
APPENDIX . . . . .	79

## TABLES

Table		Page
I	COMPARISON OF PRESENT WORK WITH REFERENCE 1 . . . . .	10
II	COMPARISON OF PRESENT WORK WITH REFERENCE 5 . . . . .	11
III	TABULATIONS OF REAL-AIR STAGNATION-POINT SOLUTIONS, $V_{\infty} = 19\ 700\ \text{FT/SEC}$	
	(a) $f(0) = 0$ . . . . .	17
	(b) $f(0) = 0.2$ . . . . .	19
	(c) $f(0) = 0.4$ . . . . .	21
	(d) $f(0) = 0.6$ . . . . .	22
	(e) $f(0) = 0.7$ . . . . .	24
	(f) $f(0) = -0.2$ . . . . .	25
	(g) $f(0) = -0.4$ . . . . .	28
	(h) $f(0) = -0.6$ . . . . .	30
	(i) $f(0) = -0.7$ . . . . .	33
	(j) $f(0) = -0.75$ . . . . .	37
IV	TABULATIONS OF REAL-AIR STAGNATION-POINT SOLUTIONS, $V_{\infty} = 25\ 000\ \text{FT/SEC}$	
	(a) $f(0) = 0$ . . . . .	41
	(b) $f(0) = 0.2$ . . . . .	43
	(c) $f(0) = 0.4$ . . . . .	44
	(d) $f(0) = 0.6$ . . . . .	46
	(e) $f(0) = 0.8$ . . . . .	47
	(f) $f(0) = 0.9$ . . . . .	49
	(g) $f(0) = -0.2$ . . . . .	50
	(h) $f(0) = -0.4$ . . . . .	52
	(i) $f(0) = -0.6$ . . . . .	54
	(j) $f(0) = -0.7$ . . . . .	57
V	TABULATIONS OF REAL-AIR STAGNATION-POINT SOLUTIONS, $V_{\infty} = 30\ 000\ \text{FT/SEC}$	
	(a) $f(0) = 0$ . . . . .	61
	(b) $f(0) = 0.2$ . . . . .	63
	(c) $f(0) = 0.4$ . . . . .	64
	(d) $f(0) = 0.6$ . . . . .	66
	(e) $f(0) = 0.7$ . . . . .	67
	(f) $f(0) = -0.2$ . . . . .	68
	(g) $f(0) = -0.4$ . . . . .	70
	(h) $f(0) = -0.6$ . . . . .	72
	(i) $f(0) = -0.65$ . . . . .	75

## FIGURES

Figure		Page
1	Density-viscosity and density ratio correlations	
	(a) $V_\infty = 25\ 000$ ft/sec . . . . .	9
	(b) $V_\infty = 30\ 000$ ft/sec . . . . .	9
2	Equilibrium air boundary-layer functions . . . . .	10
3	Effect of wall mass injection on stagnation-point heating rate . . . . .	12
4	Equilibrium real-air $f_\eta$ profiles . . . . .	12
5	Effect of wall mass transfer on stagnation-point heating rate for equilibrium real air . . . . .	13

# THE STAGNATION-POINT BOUNDARY LAYER WITH SUCTION AND INJECTION IN EQUILIBRIUM DISSOCIATING AIR

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## SUMMARY

Calculations for the compressible, equilibrium dissociating stagnation-point boundary layer with suction and injection have been performed using a digital computer. Results are shown which reproduce both the perfect gas, linear viscosity-temperature relation calculations of Cohen and Reshotko, and the dissociating air results of Fay and Riddell. Calculations for the dissociated-air boundary layer with air injection indicate significantly higher heating rates than those obtained for the perfect gas, linear viscosity-temperature relation model. A procedure is indicated which allows application of the results for air injection to engineering calculations for cases of foreign-gas injection.

## INTRODUCTION

Transpiration cooling has been long considered as a means for cooling the surfaces of high-speed flight vehicles. Practical engineering considerations, however, have tended to limit its application. The emergence of the ablation heat shield for the protection of nose cones and manned spacecraft during reentry has provided a passive means of transpiring gases into the surrounding flow to alleviate aerodynamic heating. Thus, the calculation of the effects of gas injection into the boundary layer is now a problem of practical interest to the spacecraft designer.

At orbital and superorbital flight speeds, the kinetic energy of reentry vehicles is sufficient to produce marked differences between the surrounding air-species composition and the free-stream composition. The theory of stagnation-point heat transfer was extended in reference 1 to account for such composition differences resulting from dissociation of air molecules. It was shown there that significant quantities of energy may be transported through the boundary layer by the diffusion of atoms which release their dissociation energy upon recombination. Clearly, such a mechanism should be considered when sizable concentrations of atoms are present in the boundary layer. Concentrations of atoms and molecules on a stagnation streamline are readily estimated by solution of the normal-shock equations together with equilibrium air properties (refs. 2 and 3). At still higher flight speeds, appreciable ionization occurs in the stagnation region. Such effects are not considered here.

Calculations of the effects of mass injection into an undissociated-air stagnation-point boundary layer have been made by Reshotko and Cohen in reference 4. They found, as have other investigators, that large decreases in heat transferred to a surface may be obtained by mass transport through the surface. The present work considers the effects of suction and injection on the dissociating-equilibrium-air boundary layer. In essence, the equations of Fay and Riddell (ref. 1) are solved subject to the boundary conditions relevant to mass transfer at the wall. An engineering method of adapting the present results for air to the prediction of stagnation-point heat transfer with foreign-gas injection is also given.

This document replaces the original NASA TN D-3889 issued in March 1967. As a result of an erroneous input to the computer program, the solutions, discussed under the heading "Equilibrium Real-Air Solutions" and tabulated in table I of the former report, were in error. The present document provides the corrected solutions as well as some additional results. The computer program as listed in the appendix, as well as the comparisons with the work of Fay and Riddell and of Cohen and Reshotko, remain unchanged.

#### SYMBOLS

B'	mass-transfer coefficient, $\frac{(\rho v)_w}{\rho_e u_e N_{St}}$
C	species mass fraction
$c_p$	specific heat at constant pressure
$\bar{c}_p$	mean specific heat, $\sum_i C_i c_{p,i}$
$c_p^*$	ratio of specific heat of injected specie to that of air
D	diffusion coefficient
d	function defined in equation (12)
f	function defined in equation (7)
g	dimensionless enthalpy defined in equation (8)
h	enthalpy
$h^0$	dissociation energy
k	thermal conductivity



L	Lewis number, $\frac{\rho \bar{c}_p D}{k}$
$\ell$	density-viscosity ratio defined in equation (13)
$N_{St}$	Stanton number in the absence of wall mass transfer, $\frac{q_0}{\rho_e u_e (h_S - h_w)}$
Nu	Nusselt number, $\frac{q \bar{c}_p}{k(h_S - h_w)}$
p	static pressure
q	heat-transfer rate
$q_0$	heat-transfer rate at zero-mass transfer
R	Reynolds number, $\frac{u_e x \rho}{\mu}$
r	cylindrical coordinate of surface normal to body axis
S	dimensionless mass fraction defined in equation (9)
T	temperature
u	velocity parallel to body surface
$V_\infty$	free-stream velocity
v	velocity normal to body surface
x	coordinate measured along body surface
y	coordinate normal to body surface
$\alpha_1, \alpha_2, \alpha_3$	coefficients defined in equation (18)
$\gamma_1, \gamma_2$	coefficients defined in equation (19)
$\eta$	similarity variable defined by equation (6)
$\mu$	viscosity
$\xi$	similarity variable defined in equation (5)

$\rho$	density
$\sigma$	Prandtl number, $\frac{\mu c_p}{k}$
$\omega_i$	rate of generation of specie i

Subscripts:

e	denoting boundary-layer edge conditions
i	pertaining to the ith specie
P	denotes constant pressure
S	denotes stagnation point in external flow
w	denotes wall conditions
x	partial derivative with respect to x coordinate
y	partial derivative with respect to y coordinate
$\eta$	partial derivative with respect to $\eta$ coordinate
$\xi$	partial derivative with respect to $\xi$ coordinate

## ANALYSIS

### Boundary-Layer Equations

The present analysis employs the axisymmetric laminar compressible boundary-layer equations in the form derived in reference 1 for a mixture of thermally perfect gases. The boundary-layer equations for this case are

$$(\rho u)_x + (\rho v)_y = 0 \quad (1)$$

$$\rho u C_{i,x} + \rho v C_{i,y} = \left( D_i \rho C_{i,y} \right)_y + \omega_i \quad i = 1, 2, \dots, n \quad (2)$$

$$\rho u u_x + \rho v u_y = -p_x + (\mu u_y)_y \quad (3)$$

$$\rho u \left( h + \frac{u^2}{2} \right)_x + \rho v \left( h + \frac{u^2}{2} \right)_y = \left[ \frac{k}{\bar{c}_p} \left( h + \frac{u^2}{2} \right) \right]_y + \left[ \frac{1}{2} \left( \mu - \frac{k}{\bar{c}_p} \right) (u^2) \right]_y + \left[ \sum_i \left( \rho D_i - \frac{k}{\bar{c}_p} \right) (h_i - h_i^0) C_{i,y} \right]_y \quad (4)$$

Subscripts  $x$  and  $y$  here indicate partial differentiation with respect to  $x$  and  $y$ . Terms given in reference 1 for thermal diffusion in the boundary-layer equations and subsequently neglected have been omitted from equations (2) and (4) since effects of thermal diffusion are negligible for stagnation temperatures less than  $10\,000^\circ$  K for an equilibrium boundary layer.

In the case of equilibrium at a given flight condition, thermodynamic properties and species-mass-fraction distributions through the boundary layer may be considered to be functions of enthalpy only for a specified boundary-layer-edge pressure. The species-conservation equation (2) is then not required and it is necessary only to work with equations (1), (3), and (4).

These equations are transformed using the  $(\xi, \eta)$  similarity variables

$$\xi = \int_0^x \rho_w \mu_w u_e r^2 dx \quad (5)$$

and

$$\eta = \frac{r u_e}{\sqrt{2\xi}} \int_0^y \rho dy \quad (6)$$

In addition a stream function  $f$ , dimensionless enthalpy  $g$ , and mass fraction  $S_i$  are defined where

$$\frac{u}{u_e} = \frac{\partial f}{\partial \eta} \quad (7)$$

$$g = \frac{h + \frac{u^2}{2}}{h_S} \quad (8)$$

and

$$S_i = C_i / C_{i,e} \quad (9)$$

The transformed boundary-layer equations for the stagnation point become

$$\left( \ell f_{\eta\eta} \right)_{\eta} + ff_{\eta\eta} + \frac{1}{2} \left( \frac{\rho_S}{\rho} - f_{\eta}^2 \right) = 0 \quad (10)$$

$$\left[ \frac{\ell}{\sigma} (1 + d) g_{\eta} \right]_{\eta} + fg_{\eta} = 0 \quad (11)$$

where

$$d = \sum_i \frac{C_{i,S} (h_i - h_i^0)}{h_S} (L - 1) \left( \frac{\partial S_i}{\partial g} \right)_P \quad (12)$$

and

$$\ell = \frac{\rho \mu}{\rho_w \mu_w} \quad (13)$$

Equations (10) and (11) may be considered as simultaneous nonlinear ordinary differential equations for  $f$  and  $g$  in terms of a single independent variable  $\eta$  if the functions  $\ell$ ,  $\sigma$ ,  $\frac{\rho_S}{\rho}$ , and  $d$  are constants or functions of  $\eta$  only. In the present work, the Prandtl number  $\sigma$  is taken to be a constant and the Lewis number  $L$  is taken to be unity. The functions  $\ell$  and  $\frac{\rho_S}{\rho}$  are correlated as functions of  $g(\eta)$ . These correlations are described in a later section.

## Boundary Conditions

The boundary conditions relevant to the solution of equations (10) and (11) with suction and injection are

$$\begin{aligned} f(0) &= f_w & f_\eta(\infty) &= 1 & g(0) &= g_w \\ f_\eta(0) &= 0 & & & g(\infty) &= 1 \end{aligned}$$

The rate of mass transfer at the wall is related to  $f_w$ . The desired relation may be obtained by considering the transformed continuity equation given in reference 1 as

$$\rho v = -\frac{1}{r} \left[ \left( \sqrt{2\xi} f_\xi + \frac{f}{\sqrt{2\xi}} \right) \xi_x + \sqrt{2\xi} f_\eta \eta_x \right] \quad (14)$$

Noting that  $\frac{\sqrt{\xi} f_\xi}{r}$  vanishes at a stagnation point and that  $f_\eta(0) = 0$ , the mass flow rate through the wall becomes

$$(\rho v)_w = -\frac{1}{r} \xi_x \frac{f_w}{\sqrt{2\xi}} \quad (15)$$

For the axisymmetric stagnation point,  $\xi$  may be evaluated as

$$\xi = \int_0^x \rho_w \mu_w u_e r^2 dx = \rho_w \mu_w \left( \frac{du_e}{dx} \right)_s \frac{x^4}{4} \quad (16)$$

where  $r$  is replaced by  $x$  and  $u_e = \left( \frac{du_e}{dx} \right)_s x$ .

The wall-boundary condition on the stream function  $f$  is expressed in terms of the suction or injection mass flow rate using equations (15) and (16) as

$$f_w = f(0) = - \frac{(\rho v)_w}{\left[ 2\rho_w \mu_w \left( \frac{du_e}{dx} \right)_s \right]^{1/2}} \quad (17)$$

Equation (17) may be used to obtain  $f(0)$  for given free-stream conditions and wall temperature when the injected mass flux  $(\rho v)_w$  is specified.

#### Method of Solution

The transformed boundary-layer equations (10) and (11) were solved subject to the listed constant conditions. Equation (17) was then used to relate the wall mass flux to the boundary-layer solutions. Equations (10) and (11) with the listed boundary conditions constitute a two-point boundary value problem. The solution was obtained by treating the problem as an initial value problem as follows: values of  $f_{\eta\eta}(0)$  and  $g_\eta(0)$  were assumed; the transformed boundary-layer equations were integrated from the wall to the boundary-layer edge on a digital computer<sup>1</sup> using a fourth order Runge-Kutta scheme with an integration step size of 0.01; the values  $f_{\eta\eta}(0)$  and  $g_\eta(0)$  were automatically iterated until the following conditions were satisfied.

$$\begin{aligned} f_\eta(\infty) &= 1 & g(\infty) &= 1 \\ f_{\eta\eta}(\infty) &= 0 & g_\eta(\infty) &= 0 \end{aligned}$$

For all calculations presented in this work, the above conditions were satisfied within tolerances of  $5 \times 10^{-4}$ . A listing of the boundary-layer program is given in the appendix.

---

<sup>1</sup>The present problem was programed for digital computation by Mr. Herman Hines of the Computation and Analysis Division of NASA Manned Spacecraft Center.

## Correlations of $\frac{\rho_S}{\rho}$ and $\ell$

It has been pointed out that  $\frac{\rho_S}{\rho}$  and  $\ell$  must be functions of  $\eta$  or constants in order to treat equations (10) and (11) as simultaneous ordinary nonlinear differential equations. Calculations have been made of the quantities  $\frac{\rho_S}{\rho}$  and  $\ell$  as a function of  $g$  (using the equilibrium air properties of ref. 3 and Sutherland's viscosity law) for higher altitudes and velocities than were considered in reference 1. Velocities to 30 000 feet per second and altitudes to 220 000 feet were considered to conform more closely to flight conditions experienced by manned spacecraft. The calculations shown in figures 1(a) and 1(b) indicate that for a given flight velocity a single curve can be used to represent each of these functions over a wide altitude range with little error.

It is stated in reference 1 that moderate changes in the distribution of  $\ell$  and  $\frac{\rho_S}{\rho}$  for fixed end values resulted in negligible changes in heat transfer. The correlations of figures 1(a) and 1(b) were fitted to equations of the form

$$\ell = \frac{\alpha_1}{\sqrt{g}} - \frac{\alpha_2}{g} + \alpha_3 \quad (18)$$

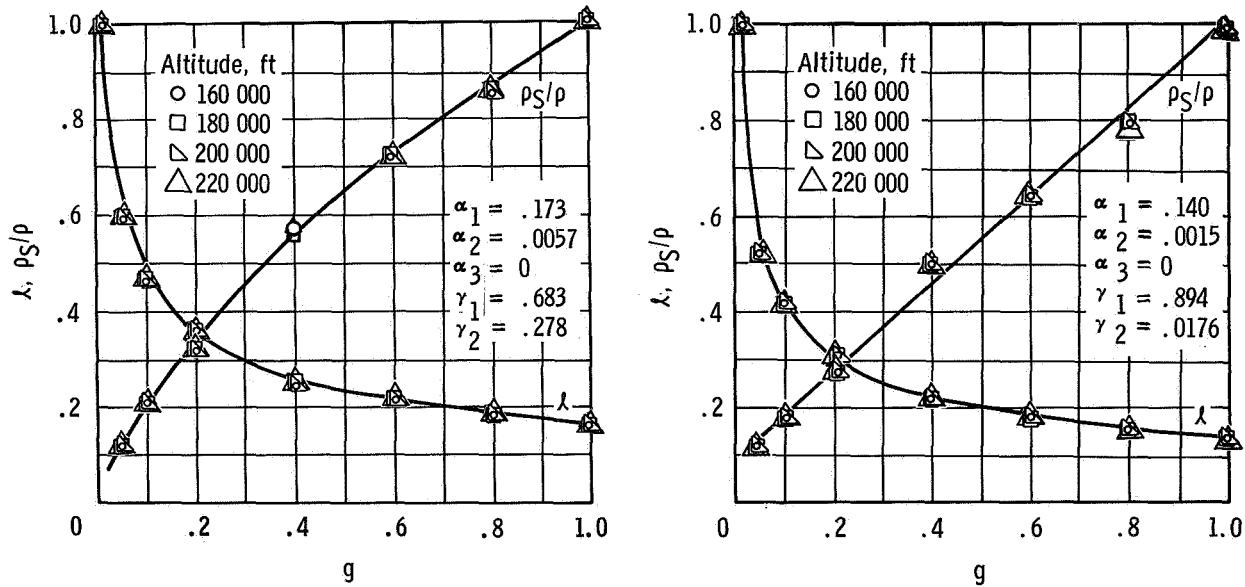


Figure 1. - Density-viscosity and density ratio correlations.

$$\frac{\rho_S}{\rho} = 1 - \gamma_1(1 - g) - \gamma_2(1 - g)^4 \quad (19)$$

These are identical in form to the equations used in reference 1 when  $\alpha_3 = 0$ . Values of  $\alpha$  and  $\gamma$  used to fit the correlations are tabulated in figures 1(a) and 1(b). The solid lines represent these curve fits.

## RESULTS AND DISCUSSION

Solutions of the stagnation-point boundary-layer equations have been obtained for dissociated-equilibrium air for a range of suction and injection conditions. The method employed can also easily provide solutions similar to those of Reshotko and Cohen (ref. 4). Solutions of both types are discussed in the following pages.

### Comparison With Results of Fay and Riddell

A solution has been obtained for comparison with the results of Fay and Riddell (ref. 1). This solution corresponds to that listed on the first line of table I of the reference. The resulting boundary-layer functions are shown in figure 2 together with the input data used. It is evident that the functions vary smoothly and satisfy all the required conditions quite well. A comparison of heat transfer and shear parameters for this case for  $L = 1.0$  and  $\sigma = 0.7$  is given in table I.

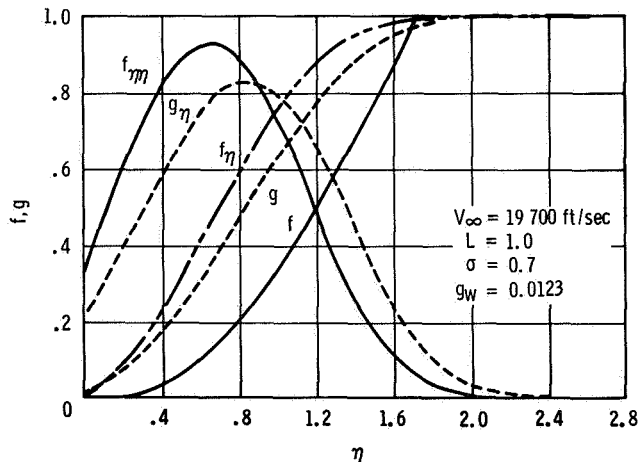


Figure 2. - Equilibrium air boundary-layer functions.

TABLE I. - COMPARISON OF PRESENT WORK WITH REFERENCE 1

	Present work	Reference 1
$g_{\eta}(0)$	0.2191	0.220
$f_{\eta\eta}(0)$	.3258	.326
$\frac{Nu}{\sqrt{R}}$	.3137	.314

The present program may, therefore, be considered capable of duplicating the equilibrium boundary-layer calculations of Fay and Riddell.

Calculations also were made for the case shown in figure 2 using an integration step size of 0.001 to evaluate the adequacy of the selected 0.01 step size. No differences observable on the scale of figure 2 were found.



### Comparison With Results of Cohen and Reshotko

In references 4 and 5, Cohen and Reshotko presented similar solutions for the compressible laminar boundary layer under the assumption of linear viscosity-temperature relation. These solutions may be computed for the stagnation-point cases using the present computer program by taking

$$\begin{aligned} \alpha_1 = \alpha_2 = 0 & & \alpha_3 = 1.0 \\ \gamma_1 = 1.0 & & \gamma_2 = 0 \end{aligned}$$

Comparison of a cold-wall ( $g_w = 0$ ) stagnation-point solution with one of the solutions tabulated in reference 5 indicated close agreement in the boundary-layer functions  $f$ ,  $f_\eta$ ,  $f_{\eta\eta}$ , and  $g_\eta$ . A few values for this case are listed in the following table to demonstrate this agreement. The stagnation-point boundary-layer solutions in table II were computed using the following conditions:

$$g(0) = 0, \quad f(0) = 0, \quad \sigma = 1.0$$

TABLE II. - COMPARISON OF PRESENT WORK WITH REFERENCE 5

Cohen and Reshotko (ref. 5)					Present work				
$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g_\eta$	$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g_\eta$
0	0	0	0.5806	0.4948	0	0	0	0.5812	0.4943
1.0211	0.2913	0.550	.4576	.4479	1.02	0.2913	0.5500	.4577	.4471
2.5059	1.4738	.950	.1005	.1303	2.51	1.478	.9507	.0995	.1287
3.9916	2.9384	.999	.0032	.0049	3.99	2.937	.9990	.0032	.0049

The Cohen-Reshotko type solutions have also been generated for a series of cases in which varying rates of mass injection and suction have been employed. These solutions may be used to show the effect of suction or injection on the heat-transfer rate at the stagnation point. Convenient parameters for expressing these results are the ratio

of the heating rate with wall mass transfer to the heating rate without mass transfer

$\frac{q}{q_0}$  and the mass-transfer parameter  $B' = \frac{(\rho v)_w}{\rho_e u_e N_{St}}$ . Negative values of  $B'$  indicate

mass injection into the boundary layer. Figure 3 shows a comparison of the present calculations and results from reference 4 (for  $\sigma = 0.7$  and  $g_w = 0$ ). The close agreement of the calculations indicates that the present program accurately represents the solutions of Cohen and Reshotko with mass injection.

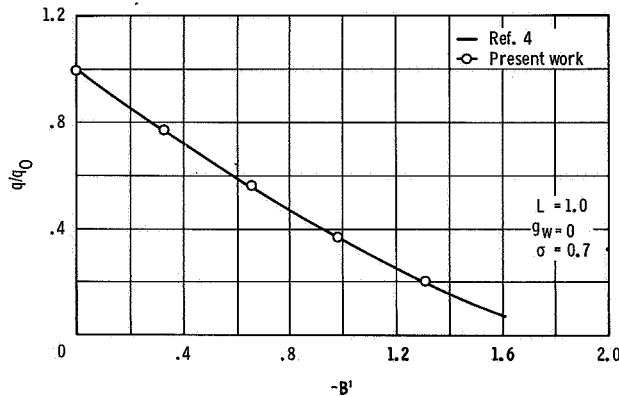


Figure 3. - Effect of wall mass injection on stagnation-point heating rate.

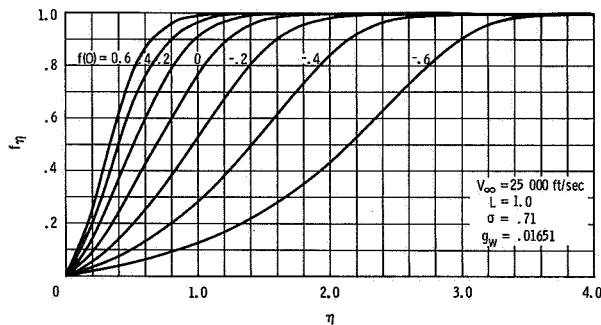


Figure 4. - Equilibrium real-air  $f_\eta$  profiles.

### Equilibrium Real-Air Solutions With Wall Mass Transfer

It has been shown that the present program accurately reproduces the equilibrium real-air stagnation-point results of Fay and Riddell and the solutions of Cohen and Reshotko for stagnation-point mass injection. In the present work, solutions have been obtained for equilibrium real air including the effects of dissociation, variable properties, and mass transfer for flight velocities of 19 700, 25 000, and 30 000 feet per second. The two sets of solutions for 25 000 and 30 000 feet per second were obtained using the density-viscosity ratio functions shown in figure 1. The three families of solutions are tabulated in tables III, IV, and V.

Distributions of  $f_\eta$  obtained for a range of values of  $f(0)$  between  $-0.6$  and  $+0.6$  for the  $V_\infty = 25\ 000$  feet per second case are shown in figure 4. It is seen that the boundary layer becomes thinner for increasing suction ( $f(0)$  positive) and thickens for increasing injection ( $f(0)$  negative) as expected.

The effect of mass transfer on the stagnation-point heat transfer rate for dissociated air is presented in figure 5. It is evident that the calculations for the three flight velocities show negligible differences when presented in terms of the mass transfer parameter  $B'$ . The independence of

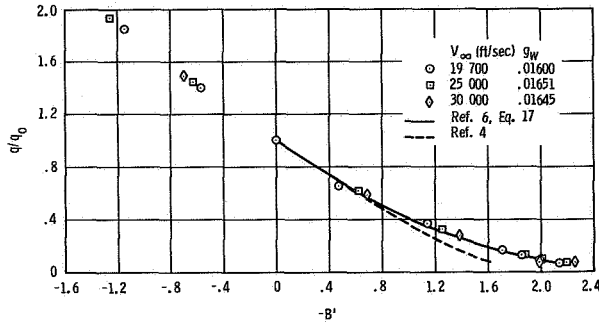


Figure 5. - Effect of wall mass transfer on stagnation-point heating rate for equilibrium real air.

flight velocity was indicated in reference 6. The correlation curve

$$\frac{q}{q_0} = 1 + 0.72B' + 0.13(B')^2 \quad (20)$$

presented in reference 6 is seen to be an excellent representation of the calculations in figure 5. Care must be taken, however, in applying this relation for values of  $B'$  greater than those for which boundary-layer solutions are available.

For comparison purposes, the Cohen and Reshotko solutions of figure 3 are reproduced on figure 5. It is evident that a significant difference exists between the present solutions and the solutions of Marvin and Pope on the one hand and the Cohen and Reshotko solutions on the other. This is attributable to differences between these two classes of solutions in property variation across the boundary layer. It appears that the major effect is due to the variation of the density-viscosity ratio  $\ell$ . Examination of equations (10) and (11) reveals that terms involving  $\ell$  and  $\frac{d\ell}{dg}$  appear in both equations. The term  $\frac{d\ell}{dg}$  is important in determining the character of the solutions particularly in the no-injection case. Equations (10) and (11), respectively, may be rewritten for the case  $d = 0$  as

$$f_{\eta\eta\eta} = -\frac{1}{\ell} \left[ ff_{\eta\eta} + \frac{1}{2} \left( \frac{\rho_S}{\rho} - f_{\eta}^2 \right) + f_{\eta\eta} \frac{d\ell}{dg} g_{\eta} \right] \quad (21)$$

and

$$g_{\eta\eta} = -\frac{\sigma}{\ell} \left( fg_{\eta} + \frac{1}{\sigma} g_{\eta}^2 \frac{d\ell}{dg} \right) \quad (22)$$

It is evident from figure 1 that  $\frac{d\ell}{dg}$  is large and negative in the vicinity of the wall for the real air case. On the other hand,  $\frac{d\ell}{dg}$  vanishes in the solutions of references 4 and 5. The importance of this term is particularly evident for the no mass injection case at the wall in which  $g_{\eta\eta}(0)$  vanishes with  $\frac{d\ell}{dg}$ . The difference in character of the no-injection solutions is readily apparent in comparing the monotone-decreasing values of  $f_{\eta\eta}$  and  $g_{\eta}$  of reference 5 (see table II) with the corresponding curves of

figure 2 which exhibit maximums in the boundary layer. For cases with mass injection, the constant  $\ell$  solutions exhibit maximums in the boundary layer, but the maximums are much flatter than for the varying  $\ell$  solutions. Further comparison of the table and figure 2 shows that the boundary-layer thickness in terms of  $\eta$  is much larger for the constant  $\ell$  solutions than for the variable  $\ell$  solutions. Thus, in view of these fundamental differences in the variable property solutions of this report and in the constant  $\ell$  solutions of references 4 and 5, the difference between the blowing curves of figure 5 is not surprising.

### Injectants Other Than Air

The present solutions of the boundary-layer equations have been obtained for air and apply strictly to the injection of air into an air boundary layer. It is likely that these results will also be quite accurate for injectants whose diffusion and thermal properties are similar to air. Theoretical and experimental studies have shown that greater reductions in heat transfer at a given value of the mass-transfer parameter are obtained when the injected gas has a low molecular weight or a high-heat capacity. Stewart (ref. 7) examined the experimental and theoretical information available on the injection of foreign species into a flat-plate laminar-air boundary layer in the absence of dissociation effects. Foreign species considered were gaseous water, helium, hydrogen, and carbon dioxide. It was found that the results for the above species could be approximately correlated in terms of the parameters  $\frac{q}{q_0}$  and  $B' (c_p^*)^{0.4}$  where  $c_p^*$  is the ratio of the specific heat of the injected species to that of air. The specific heat-ratio values of  $c_p^*$ , as obtained from reference 7, are given in the following tabulation.

Air . . . . .	1.0
Helium . . . . .	5.26
Hydrogen . . . . .	14.3
Water vapor . . . . .	1.975
Carbon dioxide . . . . .	0.854

If it is assumed that a similar correlating parameter  $B' (c_p^*)^{0.4}$  applies to the stagnation-point boundary layer, the preceding table may be used to estimate the reduction in heat transfer in a real-air boundary layer as a consequence of the injection of an arbitrary foreign gas. This is obviously accomplished by simply interpreting the abscissa of figure 5 as  $B' (c_p^*)^{0.4}$ . This approach is probably most accurate at low and moderate injection rates and low wall temperatures where real-gas effects

involving the injected species may be neglected. More recent studies (for instance, refs. 8 to 10) suggest that simple correlations, such as that given in reference 7, are inadequate to describe fully the effects of foreign-gas injection. Therefore, caution should be exercised in the use of the suggested approximation.

### CONCLUDING REMARKS

The equilibrium-air stagnation-point boundary layer with suction and injection has been examined with the use of a computer program. The program inputs allow calculations for a range of assumptions regarding the property variations through the boundary layer. It has been shown, for instance, that the solutions of Reshotko and Cohen and of Fay and Riddell may be generated. Solutions may also be obtained for those gases other than air whose properties may be expressed in terms of the selected property-fit parameters.

Calculations of the real-air boundary layer with mass injection have been found to be in good agreement with the correlation equation of Marvin and Pope. The real-air mass-injection curve of the present report is found to exceed the corresponding curve obtained from the low-temperature solutions of Cohen and Reshotko. The differences are attributable to the different forms of variation of the density-viscosity ratio across the boundary layers.

The effects of foreign-gas injection on stagnation-point heating may be estimated from the present results by the use of a modified mass transfer parameter involving the specific heat of the foreign gas.

Manned Spacecraft Center  
National Aeronautics and Space Administration  
Houston, Texas, March 26, 1968  
124-07-01-01-72

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TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$

(a)  $f(0) = 0$

$[\sigma = 0.71; \epsilon_{\text{sp}} = 0.01600; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.50000000E-01	0.48080717E-03	0.19633399E-01	0.37004036E 00	0.16000000E-01	0.24488417E 00	0.19678158E 02
0.09999999E-01	0.20063024E-02	0.41824709E-01	0.41753397E 00	0.28991529E-01	0.27703427E 00	0.13874578E 02
0.15000000E 00	0.47067588E-02	0.66621692E-01	0.47009256E 00	0.43760574E-01	0.31364300E 00	0.10453666E 02
0.20000000E 00	0.87103465E-02	0.93930077E-01	0.52145290E 00	0.60364169E-01	0.35045375E 00	0.82305480E 01
0.25000000E 00	0.14139415E-01	0.12361671E 00	0.61651237E 00	0.78799303E-01	0.38685425E 00	0.66950846E 01
0.30000000E 00	0.21109076E-01	0.15552627E 00	0.65928782E 00	0.99040308E-01	0.42268147E 00	0.55866359E 01
0.34999999E 00	0.29726188E-01	0.18948404E 00	0.69837607E 00	0.12105606E 00	0.45784158E 00	0.47586834E 01
0.40000000E 00	0.40088388E-01	0.22529377E 00	0.73337836E 00	0.14481121E 00	0.49222385E 00	0.41231560E 01
0.45000000E 00	0.52283097E-01	0.26274688E 00	0.76388182E 00	0.17026293E 00	0.52567455E 00	0.36243232E 01
0.50000000E 00	0.66338648E-01	0.30160195E 00	0.78946799E 00	0.19735971E 00	0.55798690E 00	0.32254300E 01
0.55000000E 00	0.82462429E-01	0.34160481E 00	0.80972563E 00	0.25623066E 00	0.58889687E 00	0.29013911E 01
0.59999999E 00	0.10056149E 00	0.38247918E 00	0.82426673E 00	0.32623066E 00	0.61808208E 00	0.26345820E 01
0.65000000E 00	0.12071996E 00	0.42393037E 00	0.83274511E 00	0.42878114E 00	0.64516375E 00	0.24123088E 01
0.70000000E 00	0.14295897E 00	0.46564784E 00	0.83487721E 00	0.52069480E 00	0.66971213E 00	0.22252295E 01
0.75000000E 00	0.16728380E 00	0.50730892E 00	0.83046435E 00	0.65473253E 00	0.69125579E 00	0.20663391E 01
0.80000000E 00	0.19368342E 00	0.54858356E 00	0.81941520E 00	0.83976195E 00	0.70929563E 00	0.19302991E 01
0.84999999E 00	0.22213018E 00	0.58914031E 00	0.80176725E 00	0.42559518E 00	0.72332372E 00	0.18129836E 01
0.90000000E 00	0.25258003E 00	0.62865320E 00	0.77770515E 00	0.46201918E 00	0.73284684E 00	0.17111669E 01
0.95000000E 00	0.28497287E 00	0.66680949E 00	0.74757373E 00	0.4987919E 00	0.73741414E 00	0.16223022E 01
0.10000000E 01	0.31923348E 00	0.70331777E 00	0.71188373E 00	0.53557158E 00	0.73664747E 00	0.15443633E 01
0.10500000E 01	0.35527277E 00	0.73791628E 00	0.67130802E 00	0.57235633E 00	0.73027241E 00	0.14757285E 01
0.11000000E 01	0.39298949E 00	0.77038068E 00	0.62666700E 00	0.60962285E 00	0.71814741E 00	0.14150929E 01
0.11500000E 01	0.43227222E 00	0.80055081E 00	0.57890297E 00	0.64608734E 00	0.70028801E 00	0.13614017E 01
0.12000000E 01	0.47300177E 00	0.82823597E 00	0.52904417E 00	0.67853907E 00	0.67688317E 00	0.13132949E 01
0.12500000E 01	0.51505371E 00	0.85341807E 00	0.47816057E 00	0.71168920E 00	0.64830124E 00	0.127115748E 01
0.13000000E 01	0.55830106E 00	0.87605261E 00	0.42731512E 00	0.74323917E 00	0.61508374E 00	0.12341521E 01
0.13500000E 01	0.60261691E 00	0.89616698E 00	0.37751427E 00	0.77313179E 00	0.57792650E 00	0.12010375E 01
0.14000000E 01	0.64787694E 00	0.91383653E 00	0.32966253E 00	0.80103231E 00	0.53764931E 00	0.11718095E 01
0.14500000E 01	0.693996171E 00	0.92917849E 00	0.28452520E 00	0.8268970E 00	0.49515623E 00	0.11460985E 01
0.15000000E 01	0.74075848E 00	0.94234432E 00	0.24270221E 00	0.85352666E 00	0.45133018E 00	0.11235743E 01
0.15500000E 01	0.78816278E 00	0.95351101E 00	0.20461504E 00	0.87199305E 00	0.40728603E 00	0.11039393E 01
0.16000000E 01	0.83607945E 00	0.96287216E 00	0.1730672E 00	0.89124432E 00	0.36372630E 00	0.10869027E 01
0.16500000E 01	0.88442323E 00	0.97062927E 00	0.14245355E 00	0.90838796E 00	0.32150318E 00	0.10722157E 01
0.17000000E 01	0.93311896E 00	0.97698364E 00	0.11438621E 00	0.92344915E 00	0.28128967E 00	0.10596294E 01
0.17500000E 01				0.93655936E 00	0.24362112E 00	0.10489138E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19 \text{ 700 FT/SEC}$  - Continued

(a)  $f(0) = 0$  - Concluded

$[\sigma = 0.71, g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.98210146E 00	0.98213118E 00	0.92116773E-01	0.96785919E 00	0.29888773E 00	0.10398526E 01
0.18000000E 01	0.10313150E 01	0.98625427E 00	0.73368773E-01	0.95750117E 00	0.17733668E 00	0.10322444E 01
0.18500000E 01	0.10807126E 01	0.98952108E 00	0.57806998E-01	0.95564778E 00	0.14908253E 00	0.10259032E 01
0.19000000E 01	0.11302553E 01	0.99208188E 00	0.45064857E-01	0.97246431E 00	0.12412353E 00	0.10206570E 01
0.19500000E 01	0.11799111E 01	0.99406823E 00	0.34767651E-01	0.97811339E 00	0.10236163E 00	0.10163498E 01
0.20000000E 01	0.12296543E 01	0.99559321E 00	0.26550964E-01	0.98275383E 00	0.83623921E-01	0.10128410E 01
0.20500000E 01	0.12794642E 01	0.9967222E 00	0.20073995E-01	0.98552237E 00	0.67683965E-01	0.10100052E 01
0.21000000E 01	0.13293246E 01	0.99762437E 00	0.15028177E-01	0.98956146E 00	0.54281355E-01	0.10077317E 01
0.21500000E 01	0.13792229E 01	0.99827426E 00	0.11141728E-01	0.99198810E 00	0.43138835E-01	0.10059236E 01
0.22000000E 01	0.14291492E 01	0.99875388E 00	0.81809817E-02	0.99390327E 00	0.33976412E-01	0.10044976E 01
0.22500000E 01	0.14790961E 01	0.99910441E 00	0.59493037E-02	0.99541413E 00	0.26522335E-01	0.10033820E 01
0.23000000E 01	0.15290580E 01	0.99935816E 00	0.42944026E-02	0.99658464E 00	0.20521080E-01	0.10025166E 01
0.23500000E 01	0.15790306E 01	0.99954002E 00	0.30546840E-02	0.99748646E 00	0.15736659E-01	0.10018509E 01
0.24000000E 01	0.16290110E 01	0.99966905E 00	0.21551650E-02	0.99817523E 00	0.11965616E-01	0.10013430E 01
0.24500000E 01	0.16789968E 01	0.99975958E 00	0.15333617E-02	0.99869670E 00	0.90181910E-02	0.10009589E 01
0.25000000E 01	0.17289864E 01	0.99982233E 00	0.10353710E-02	0.99908809E 00	0.67380613E-02	0.10006707E 01
0.25500000E 01	0.17789786E 01	0.99986526E 00	0.70235068E-03	0.99937931E 00	0.49916262E-02	0.10004564E 01
0.26000000E 01	0.18289726E 01	0.99989412E 00	0.46743813E-03	0.99959413E 00	0.36652425E-02	0.10002984E 01
0.26499999E 01	0.18789678E 01	0.99991310E 00	0.30314050E-03	0.99975123E 00	0.26685247E-02	0.10001829E 01
0.27000000E 01	0.19289637E 01	0.99992519E 00	0.18918447E-03	0.99986514E 00	0.19262124E-02	0.10000991E 01
0.27500000E 01	0.19789601E 01	0.99993253E 00	0.11078941E-03	0.99994702E 00	0.13784972E-02	0.10000389E 01
0.28000000E 01	0.20289568E 01	0.99993622E-04	0.57290622E-04	0.10000954E 01	0.97809196E-03	0.99999670E 00
0.28500000E 01	0.20789536E 01	0.99993847E 00	0.21069307E-04	0.10000466E 01	0.68806281E-03	0.99996579E 00
0.28999999E 01	0.21289505E 01	0.99993885E 00	-0.132621887E-05	0.10000754E 01	0.47990242E-03	0.99994463E 00



TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.2000000E 00	0.50615761E 00	3.15000000E-01	0.34369007E 00	0.19678155E 02	
0.09999999E 00	0.20066713E 00	0.59516529E 00	3.3490334E-01	0.40473300E 00	0.12309415E 02	
0.15000000E 00	0.20282208E 00	0.59526836E-01	0.56871784E-01	0.47372328E 00	0.86299144E 01	
0.20000000E 00	0.20669327E 00	0.96017775E-01	0.8203393E-01	0.53728418E 00	0.64883872E 01	
0.25000000E 00	0.21248937E 00	0.13643828E 00	0.11336870E 00	0.596565684E 00	0.51239323E 01	
0.30000000E 00	0.22039373E 00	0.18025732E 00	0.14158390E 00	0.65125360E 00	0.41980872E 01	
0.35000000E 00	0.23056233E 00	0.22690918E 00	0.17541245E 00	0.70104381E 00	0.35397238E 01	
0.40000000E 00	0.24312200E 00	0.27580021E 00	0.21160056E 00	0.74556880E 00	0.30542264E 01	
0.45000000E 00	0.25816942E 00	0.32631544E 00	0.24987437E 00	0.78439526E 00	0.26856259E 01	
0.50000000E 00	0.27577012E 00	0.37782621E 00	0.10359515E 01	0.81704108E 00	0.23990027E 01	
0.55000000E 00	0.29595807E 00	0.42970021E 00	0.10369223E 01	0.84300169E 00	0.21716092E 01	
0.60000000E 00	0.31873576E 00	0.48131273E 00	0.10255612E 01	0.86178320E 00	0.19880931E 01	
0.65000000E 00	0.34407488E 00	0.53205970E 00	0.10024150E 01	0.87294167E 00	0.18377849E 01	
0.70000000E 00	0.37191773E 00	0.58137142E 00	0.96831195E 00	0.87612632E 00	0.17130888E 01	
0.75000000E 00	0.40217935E 00	0.62872641E 00	0.92435238E 00	0.87112362E 00	0.16084900E 01	
0.80000000E 00	0.43475005E 00	0.67366479E 00	0.87189312E 00	0.85789839E 00	0.15199191E 01	
0.85000000E 00	0.46949904E 00	0.71580008E 00	0.81250609E 00	0.83662721E 00	0.14443341E 01	
0.90000000E 00	0.50627821E 00	0.75482866E 00	0.74792237E 00	0.80771942E 00	0.13794341E 01	
0.95000000E 00	0.54492647E 00	0.79053594E 00	0.67996106E 00	0.77182216E 00	0.13234584E 01	
1.00000000E 00	0.58527432E 00	0.82279887E 00	0.61044861E 00	0.72980677E 00	0.12750426E 01	
1.05000000E 01	0.62714832E 00	0.85158413E 00	0.54113512E 00	0.68273678E 00	0.12331123E 01	
1.10000000E 01	0.67037553E 00	0.87694232E 00	0.47361557E 00	0.63181945E 00	0.11968056E 01	
1.15000000E 01	0.71478744E 00	0.8989854E 00	0.40926310E 00	0.57834533E 00	0.11654152E 01	
1.20000000E 01	0.76022340E 00	0.91793989E 00	0.34918067E 00	0.52362188E 00	0.11383471E 01	
1.25000000E 01	0.80653338E 00	0.93400130E 00	0.29417463E 00	0.46890772E 00	0.11150905E 01	
1.30000000E 01	0.85357996E 00	0.94745048E 00	0.24475111E 00	0.41535375E 00	0.10951971E 01	
1.35000000E 01	0.90123963E 00	0.95857324E 00	0.20113324E 00	0.36395624E 00	0.10782675E 01	
1.40000000E 01	0.94940332E 00	0.96766017E 00	0.16329519E 00	0.3152491E 00	0.10639417E 01	
1.45000000E 01	0.99797641E 00	0.97499527E 00	0.13100734E 00	0.27066721E 00	0.10518935E 01	
1.50000000E 01	0.10468781E 01	0.98084702E 00	0.10388688E 00	0.22978767E 00	0.10418267E 01	
1.55000000E 01	0.10960404E 01	0.98546195E 00	0.81448361E-01	0.19310028E 00	0.103344728E 01	
1.60000000E 01	0.11454073E 01	0.9896079E 00	0.63150028E-01	0.16065035E 00	0.10265896E 01	
1.65000000E 01	0.11949327E 01	0.99183656E 00	0.48433057E-01	0.13234259E 00	0.10209597E 01	
1.70000000E 01	0.12445799E 01	0.99395441E 00	0.36752285E-01	0.97806098E 00	0.10163895E 01	
1.75000000E 01	0.12943195E 01	0.99555381E 00	0.27598231E-01	0.87253596E-01	0.10127081E 01	

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$  - Concluded

$$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.13441285E 01	0.99674877E 00	0.20511067E-01	0.98684157E 00	0.69852483E-01	0.10097659E 01
0.18000000E 01	0.13939891E 01	0.99763253E 00	0.15087792E-01	0.9899147E 00	0.55406883E-01	0.10074332E 01
0.18500000E 01	0.14438878E 01	0.99827944E 00	0.10984062E-01	0.99242530E 00	0.43549103E-01	0.10055986E 01
0.19000000E 01	0.14938140E 01	0.99874803E 00	0.79121545E-02	0.99435344E 00	0.33921380E-01	0.10041675E 01
0.19500000E 01	0.15437603E 01	0.99908383E 00	0.56364320E-02	0.99584888E 00	0.26186936E-01	0.10030604E 01
0.20000000E 01	0.15937207E 01	0.99932171E 00	0.39673827E-02	0.99599844E 00	0.20037574E-01	0.10022110E 01
0.20500000E 01	0.16436912E 01	0.99948812E 00	0.27521051E-02	0.99787435E 00	0.1519787E-01	0.10015648E 01
0.21000000E 01	0.16936686E 01	0.99960281E 00	0.18828306E-02	0.99853594E 00	0.11426621E-01	0.10010773E 01
0.21500000E 01	0.17436508E 01	0.99968047E 00	0.12608927E-02	0.99903128E 00	0.85166884E-02	0.10007125E 01
0.22000000E 01	0.17936361E 01	0.99973185E 00	0.82135671E-03	0.99939895E 00	0.62929682E-02	0.10004420E 01
0.22500000E 01	0.18436235E 01	0.99976473E 00	0.51339207E-03	0.99965951E 00	0.46098194E-02	0.10002430E 01
0.23000000E 01	0.18936123E 01	0.99978469E 00	0.29941623E-03	0.99986688E 00	0.33478432E-02	0.10000979E 01
0.23500000E 01	0.19436018E 01	0.99979571E 00	0.15195749E-03	0.10000096E 01	0.24104956E-02	0.99999294E 00
0.24000000E 01	0.19935917E 01	0.99980059E 00	0.51149008E-04	0.10001120E 01	0.17297316E-02	0.99991773E 00
0.24500000E 01	0.20435816E 01	0.99980129E 00	-0.17228606E-04	0.10001847E 01	0.121178386E-02	0.999866430E 00
0.25000000E 01	0.20935716E 01	0.99979916E 00	-0.63254593E-04	0.10002359E 01	0.85455363E-03	0.99982662E 00
0.25500000E 01	0.21435614E 01	0.99979513E 00	-0.94001704E-04	0.10002717E 01	0.59451704E-03	0.99980035E 00
0.25800000E 01	0.21735552E 01	0.99979219E 00	-0.10723234E-03	0.10002877E 01	0.47624699E-03	0.99978862E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(c)  $f(0) = 0.4$

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.40000000E 00	0.36449017E-01	0.56568204E 00	0.16000000E-01	0.45224332E 00	0.19678155E 02
0.99999999E 00	0.40000000E 00	0.36449017E-01	0.56568204E 00	0.16000000E-01	0.45224332E 00	0.19678155E 02
0.99999999E 00	0.40000000E 00	0.36449017E-01	0.56568204E 00	0.16000000E-01	0.45224332E 00	0.19678155E 02
0.15000000E 00	0.40902814E 00	0.13087537E 00	0.10665125E 01	0.10773702E 00	0.66730830E 00	0.71896995E 01
0.20000000E 00	0.41694611E 00	0.18661048E 00	0.11584610E 01	0.14798174E 00	0.76263615E 00	0.52237283E 01
0.25000000E 00	0.4275468E 00	0.24627617E 00	0.12237140E 01	0.19200728E 00	0.84494412E 00	0.40524552E 01
0.30000000E 00	0.44161700E 00	0.30853967E 00	0.12624579E 01	0.23913173E 00	0.91380334E 00	0.32958999E 01
0.34999999E 00	0.45863010E 00	0.37209373E 00	0.12755321E 01	0.28865611E 00	0.96884420E 00	0.27778477E 01
0.40000000E 00	0.47882699E 00	0.43568975E 00	0.1264424E 01	0.33986850E 00	0.10097561E 01	0.24029989E 01
0.45000000E 00	0.50218040E 00	0.49817068E 00	0.12313373E 01	0.39208161E 00	0.10363459E 01	0.21320244E 01
0.50000000E 00	0.52860812E 00	0.55850164E 00	0.11789405E 01	0.44449337E 00	0.10467535E 01	0.17582322E 01
0.55000000E 00	0.55797984E 00	0.61579613E 00	0.1104427E 01	0.49650043E 00	0.10313275E 01	0.16275004E 01
0.59999999E 00	0.59012503E 00	0.66933598E 00	0.10293597E 01	0.54741389E 00	0.10031767E 01	0.15215200E 01
0.65000000E 00	0.62484176E 00	0.71858352E 00	0.93936672E 00	0.59662563E 00	0.96349224E 00	0.14344333E 01
0.70000000E 00	0.66190581E 00	0.766318509E 00	0.84411865E 00	0.64359574E 00	0.91378423E 00	0.13621115E 01
0.75000000E 00	0.70107979E 00	0.80296559E 00	0.74707511E 00	0.68786642E 00	0.85582971E 00	0.13015847E 01
0.80000000E 00	0.74212172E 00	0.83791465E 00	0.65134271E 00	0.72907398E 00	0.79159788E 00	0.12506708E 01
0.84999999E 00	0.78479285E 00	0.86816576E 00	0.55955052E 00	0.76695590E 00	0.72315240E 00	0.1207269E 01
0.90000000E 00	0.82886411E 00	0.89397012E 00	0.47376855E 00	0.80135317E 00	0.65254615E 00	0.11714824E 01
0.95000000E 00	0.874212135E 00	0.91566765E 00	0.39547431E 00	0.83220688E 00	0.58171856E 00	0.114092260E 01
0.10000000E 01	0.92036902E 00	0.93365753E 00	0.32556593E 00	0.85985037E 00	0.51240676E 00	0.11152304E 01
0.10500000E 01	0.96743245E 00	0.94837037E 00	0.26441498E 00	0.88349736E 00	0.44607797E 00	0.10937016E 01
0.11000000E 01	0.10151587E 01	0.96024388E 00	0.21194791E 00	0.9042727E 00	0.38388908E 00	0.10757488E 01
0.11500000E 01	0.10634166E 01	0.96970294E 01	0.16774374E 00	0.92196825E 00	0.32667246E 00	0.10608521E 01
0.12000000E 01	0.11120953E 01	0.97714485E 00	0.13113566E 00	0.93698612E 00	0.27494631E 00	0.10485687E 01
0.12500000E 01	0.11611034E 01	0.98292945E 00	0.10130654E 00	0.94955934E 00	0.22894397E 00	0.10385029E 01
0.13000000E 01	0.12103659E 01	0.98737366E 00	0.77371234E-01	0.95997579E 00	0.18865629E 00	0.10303101E 01
0.13500000E 01	0.12598229E 01	0.99074990E 00	0.58442117E-01	0.96851684E 00	0.15388054E 00	0.10236885E 01
0.14000000E 01	0.13094268E 01	0.99328715E 00	0.43676636E-01	0.97544993E 00	0.12427071E 00	0.10183759E 01
0.14500000E 01	0.13591407E 01	0.99517406E 00	0.32308263E-01	0.98102261E 00	0.99384877E-01	0.10141457E 01
0.15000000E 01	0.14089359E 01	0.9966323E 00	0.23663243E-01	0.98545881E 00	0.78726781E-01	0.10108032E 01
0.15500000E 01	0.14587907E 01	0.99757605E 00	0.17166274E-01	0.9895705E 00	0.6178028E-01	0.10081830E 01
0.16000000E 01	0.15086887E 01	0.9980756E 00	0.12338238E-01	0.993169011E 00	0.4806053E-01	0.10061453E 01
0.16500000E 01	0.15586179E 01	0.99883108E 00	0.87887736E-02	0.99380589E 00	0.37010958E-01	0.10045735E 01
0.17000000E 01	0.16085693E 01	0.99920245E 00	0.62060037E-02	0.99542903E 00	0.28260894E-01	0.10033710E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(c)  $f(0) = 0.4$  - Concluded

$$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.16585363E 01	0.99946360E 00	0.43451145E-02	0.998666316E 00	0.21388147E-01	0.10024586E-01
0.18000000E 01	0.17085143E 01	0.99964573E 00	0.30170112E-02	0.99759332E 00	0.16044433E-01	0.10017721E 01
0.18500000E 01	0.17584998E 01	0.99977169E 00	0.20777844E-02	0.99828801E 00	0.11930694E-01	0.10012599E 01
0.19000000E 01	0.18084907E 01	0.99985810E 00	0.14194057E-02	0.99880251E 00	0.87946422E-02	0.10008809E 01
0.19500000E 01	0.18584851E 01	0.99991690E 00	0.96182256E-03	0.99913018E 00	0.64268549E-02	0.10006029E 01
0.20000000E 01	0.19084821E 01	0.99995659E 00	0.64641715E-03	0.99945503E 00	0.46560728E-02	0.10004007E 01
0.20500000E 01	0.19584805E 01	0.99998314E 00	0.43075359E-03	0.99965334E 00	0.33441992E-02	0.10002548E 01
0.21000000E 01	0.20084801E 01	0.10000007E 01	0.28443752E-03	0.99979518E 00	0.23813510E-02	0.10001506E 01
0.21500000E 01	0.20584804E 01	0.10000123E 01	0.18591774E-03	0.99989577E 00	0.16812005E-02	0.10000766E 01
0.22000000E 01	0.21084811E 01	0.10000197E 01	0.12006828E-03	0.99996649E 00	0.111767519E-02	0.10000246E 01
0.22500000E 01	0.21584822E 01	0.10000245E 01	0.76374097E-04	0.10000158E 01	0.81662535E-03	0.99998844E 00
0.23000000E 01	0.22084834E 01	0.10000275E 01	0.47589402E-04	0.10000498E 01	0.56187000E-03	0.99996343E 00
0.23200000E 01	0.22284839E 01	0.10000283E 01	0.39079883E-04	0.10000602E 01	0.48265684E-03	0.99995517E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(d)  $f(0) = 0.6$

$$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.60000000E 00	0.	0.81859921E 00	0.16000000E-01	0.56778493E 00	0.19678155E 02
0.09999999E 00	0.60111458E 00	0.46531511E-01	0.10471200E-01	0.48471963E-01	0.73537026E 00	0.97026232E 01
0.15000000E 00	0.60483876E 00	0.10410714E 00	0.12474778E 01	0.89249643E-01	0.89129233E 00	0.60684370E 01
0.20000000E 00	0.61167064E 00	0.17046094E 00	0.13953768E 01	0.13713448E 00	0.10193451E 01	0.43066494E 01
0.25000000E 00	0.62197988E 00	0.24276069E 00	0.14903048E 01	0.19070634E 00	0.11187500E 01	0.33135847E 01
0.25000000E 00	0.63600430E 00	0.31858411E 00	0.15344609E 01	0.24853378E 00	0.11896310E 01	0.26967233E 01
0.30000000E 00	0.65385144E 00	0.39542871E 00	0.15319906E 01	0.30920446E 00	0.12326336E 01	0.22863145E 01
0.34999999E 00	0.67552743E 00	0.47110202E 00	0.14866942E 01	0.37135245E 00	0.12489775E 01	0.19987832E 01
0.40000000E 00	0.70091441E 00	0.54373463E 00	0.14116152E 01	0.43368801E 00	0.12404919E 01	0.17889959E 01
0.45000000E 00	0.72982501E 00	0.61183004E 00	0.13085373E 01	0.49502796E 00	0.12096055E 01	0.16308560E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19$  700 FT/SEC - Continued

(d)  $f(0) = 0.6$  - Concluded

$$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
C.5000000E 00	0.76200320E 00	0.67428830E 00	0.11874497E 01	0.55432440E 00	0.11592875E 01	0.15084768E 01
C.5500000E 00	0.79714786E 00	0.73040322E 00	0.10560394E 01	0.61068929E 00	0.10929390E 01	0.14117902E 01
C.5999999E 00	0.83493194E 00	0.77983657E 00	0.92125658E 00	0.66344234E 00	0.10142411E 01	0.13341964E 01
C.6500000E 00	0.87501969E 00	0.82257154E 00	0.78898919E 00	0.71197053E 00	0.92697231E 00	0.12712301E 01
C.7000000E 00	0.91708142E 00	0.85885524E 00	0.66386673E 00	0.75602818E 00	0.83481516E 00	0.12197697E 01
C.7500000E 00	0.96080500E 00	0.88913304E 00	0.54919569E 00	0.79542749E 00	0.74117462E 00	0.11775551E 01
C.8000000E 00	0.10059042E 01	0.91398351E 00	0.44701400E 00	0.83017077E 00	0.64902847E 00	0.11428897E 01
C.8499999E 00	0.10521237E 01	0.93405830E 00	0.35623793E 00	0.86039628E 00	0.56082375E 00	0.11144548E 01
C.9000000E 00	0.10992416E 01	0.95003104E 00	0.28286830E 00	0.88635016E 00	0.47842571E 00	0.10911942E 01
C.9500000E 00	0.11470693E 01	0.96255736E 00	0.22022191E 00	0.90835723E 00	0.40311739E 00	0.10722417E 01
C.1000000E 01	0.11954500E 01	0.97224635E 00	0.16915871E 00	0.92679263E 00	0.33564116E 00	0.10568750E 01
C.1050000E 01	0.12442556E 01	0.97964299E 00	0.12828320E 00	0.94205657E 00	0.27627044E 00	0.10444858E 01
C.1100000E 01	0.12933839E 01	0.98521957E 00	0.96107722E -01	0.95455306E 00	0.22489839E 00	0.10345590E 01
C.1150000E 01	0.13427539E 01	0.98937430E 00	0.71173240E -01	0.96461320E 00	0.18113159E 00	0.10266457E 01
C.1200000E 01	0.13923030E 01	0.99243492E 00	0.52129827E -01	0.97278313E 00	0.14437957E 00	0.10204129E 01
C.1250000E 01	0.14419835E 01	0.99466540E 00	0.37782588E -01	0.97921622E 00	0.11393377E 00	0.10155131E 01
C.1300000E 01	0.14917591E 01	0.99627428E 00	0.27110756E -01	0.98426884E 00	0.8903714E -01	0.10116977E 01
C.1350000E 01	0.15416032E 01	0.99742346E 00	0.19267671E -01	0.98819905E 00	0.68912270E -01	0.10087496E 01
C.1400000E 01	0.15914958E 01	0.99823663E 00	0.13568544E -01	0.99122744E 00	0.52841828E -01	0.10064897E 01
C.1450000E 01	0.16414228E 01	0.99880688E 00	0.94715222E -02	0.99353938E 00	0.40148037E -01	0.10047712E 01
C.1500000E 01	0.16913736E 01	0.99920333E 00	0.65560758E -02	0.99528836E 00	0.30228366E -01	0.10034751E 01
C.1550000E 01	0.17413410E 01	0.99947670E 00	0.45014471E -02	0.99659957E 00	0.22556765E -01	0.10025058E 01
C.1600000E 01	0.17913198E 01	0.99966370E 00	0.30667983E -02	0.99757389E 00	0.16683585E -01	0.10017864E 01
C.1650000E 01	0.18413063E 01	0.99979064E 00	0.20738753E -02	0.99829151E 00	0.12231600E -01	0.10012573E 01
C.1700000E 01	0.18912980E 01	0.99987617E 00	0.13924742E -02	0.99881544E 00	0.88896099E -02	0.10008714E 01
C.1750000E 01	0.19412934E 01	0.99993341E 00	0.92865450E -03	0.99919464E 00	0.64048160E -02	0.10005923E 01
C.1800000E 01	0.19912910E 01	0.99997146E 00	0.61541101E -03	0.99946673E 00	0.45747746E -02	0.10003921E 01
C.1850000E 01	0.20412901E 01	0.99999658E 00	0.40545874E -03	0.99966027E 00	0.32395372E -02	0.10002498E 01
C.1900000E 01	0.20912904E 01	0.10000130E 01	0.2576300E -03	0.99979676E 00	0.2274371E -02	0.10001494E 01
C.1950000E 01	0.21412912E 01	0.10000238E 01	0.17347207E -03	0.99989218E 00	0.15830388E -02	0.10000792E 01
C.2000000E 01	0.21912925E 01	0.10000308E 01	0.11292013E -03	0.99995832E 00	0.10924404E -02	0.10000306E 01
C.2050000E 01	0.22412941E 01	0.10000353E 01	0.73456265E -04	0.10000038E 01	0.74744086E -03	0.9999724E 00
C.2100000E 01	0.22912959E 01	0.10000382E 01	0.47910582E -04	0.10000347E 01	0.50702714E -03	0.99997453E 00
C.2150000E 01	0.23012963E 01	0.10000386E 01	0.44017827E -04	0.10000395E 01	0.46866787E -03	0.99997098E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_{\infty} = 19$  700 FT/SEC - Continued(e)  $f(0) = 0.7$  $[\sigma = 0.71; g_w = 0.01600; L = 1.0]$ 

$\eta$	$f$	$f'\eta$	$f''\eta\eta$	$g$	$g\eta$	$\rho/\rho_s$
0.50000000E-01	0.70000000E 00	0.51936213E-01	0.90269918E 00	0.15000000E-01	0.62754437E 00	0.19678155E 02
0.09999999E 00	0.70123962E 00	0.51936213E-01	0.11782184E-01	0.52357172E-01	0.83079825E-00	0.91633591E-01
0.15000000E 00	0.70541267E 00	0.11690903E 00	0.14088390E 01	0.98617493E-01	0.10132535E 01	0.56056964E 01
0.20000000E 00	0.71309271E 00	0.19161338E 00	0.15672803E 01	0.15302625E 00	0.11564767E 01	0.39445070E 01
	0.72467618E 00	0.27245619E 00	0.16549878E 01	0.21360592E 00	0.12601807E 01	0.30318389E 01
0.25000000E 00	0.74038345E 00	0.35602006E 00	0.16772674E-01	0.27840251E 00	0.13254106E-01	0.24733139E-01
0.30000000E 00	0.76027194E 00	0.43922754E 00	0.16422961E 01	0.34553315E 00	0.13542062E 01	0.21063337E 01
0.34999999E 00	0.78425638E 00	0.51946600E 00	0.15603449E 01	0.41326565E 00	0.13495846E 01	0.18512052E 01
0.40000000E 00	0.81213427E 00	0.59466934E 00	0.14422820E 01	0.48000520E 00	0.13154445E 01	0.16661570E 01
0.45000000E 00	0.84361428E 00	0.666335168E 00	0.13014106E 01	0.54439465E 00	0.12563963E 01	0.15273100E-01
0.50000000E 00	0.87834512E 00	0.72459482E 00	0.11470042E 01	0.60531435E 00	0.11775296E 01	0.14203378E 01
0.55000000E 00	0.91594278E 00	0.77799688E 00	0.98222869E 00	0.66190554E 00	0.10841409E 01	0.13362703E-01
0.59999999E 00	0.95601447E 00	0.82359280E 00	0.83589698E 00	0.71357346E 00	0.99144581E 00	0.12692700E 01
0.65000000E 00	0.99817805E 00	0.86175862E 00	0.69282642E 00	0.75997633E 00	0.87430791E 00	0.12153877E 01
0.70000000E 00	0.10420766E 01	0.89311138E 00	0.56385775E 00	0.80100197E 00	0.76701266E 00	0.11718404E 01
0.75000000E 00	0.10873882E 01	0.91841446E 00	0.45104785E 00	0.83673452E 00	0.66310969E 00	0.11365850E 01
0.80000000E 00	0.11338310E 01	0.93849570E 00	0.35497645E 00	0.86741541E 00	0.5653257E 00	0.11080629E 01
0.84999999E 00	0.11811645E 01	0.95418245E 00	0.27510519E 00	0.89340211E 00	0.47559413E 00	0.10850466E 01
0.90000000E 00	0.12291889E 01	0.96425475E 00	0.21013598E 00	0.91512327E 00	0.39504496E 00	0.10665452E 01
0.95000000E 00	0.12777414E 01	0.97541548E 00	0.15933050E-00	0.93306815E 00	0.32417621E-00	0.10517456E 01
0.10000000E 01	0.13266921E 01	0.98227511E 00	0.11776858E 00	0.94770668E 00	0.26294715E 00	0.10399739E 01
0.10500000E 01	0.13759391E 01	0.98734771E 00	0.86538617E-01	0.95951627E 00	0.21091910E 00	0.10306688E 01
0.11000000E 01	0.14254041E 01	0.99105468E 00	0.62863272E-01	0.96894012E 00	0.15738214E 00	0.10233626E 01
0.11500000E 01	0.14750274E 01	0.99373353E 00	0.45170738E-01	0.97638146E 00	0.13146546E-00	0.10176664E 01
0.12000000E 01	0.15247646E 01	0.99564899E 00	0.32124274E-01	0.98219790E 00	0.10222695E 00	0.10132581E 01
0.12500000E 01	0.15745829E 01	0.99700485E 00	0.22622730E-01	0.98669961E 00	0.78721220E-01	0.10098723E 01
0.13000000E 01	0.16244583E 01	0.99795544E 00	0.15782889E-01	0.99015044E 00	0.60047295E-01	0.10072922E 01
0.13500000E 01	0.16743736E 01	0.99861580E 00	0.10912918E-01	0.99277098E 00	0.45378974E-01	0.10053417E 01
0.14000000E 01	0.17243164E 01	0.99907054E 00	0.74808698E-02	0.99474274E 00	0.33981783E-01	0.10038791E 01
0.14500000E 01	0.17742782E 01	0.99938104E 00	0.50856984E-02	0.99621294E 00	0.25218796E-01	0.10027912E 01
0.15000000E 01	0.18242528E 01	0.99959131E 00	0.34295412E-02	0.99729940E 00	0.18549602E-01	0.10019889E 01
0.15500000E 01	0.18742360E 01	0.99973258E 00	0.22944190E-02	0.99809181E 00	0.13524240E-01	0.10014020E 01
0.16000000E 01	0.19242251E 01	0.99982672E 00	0.15229183E-02	0.99867296E 00	0.97743352E-02	0.10009763E 01
0.16500000E 01	0.19742181E 01	0.99988898E 00	0.10027546E-02	0.99908881E 00	0.70029249E-02	0.10006702E 01
0.17000000E 01	0.20242136E 01	0.99992979E 00	0.65474076E-03	0.99938855E 00	0.49740050E-02	0.10004518E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(e)  $f(0) = 0.7$  - Concluded

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_S$
0.17500000E-01	0.20742107E-01	0.99995632E-00	0.42362494E-03	0.99995940E-00	0.35025156E-02	0.10002975E-01
0.18000000E-01	0.21242088E-01	0.99997339E-00	0.27123469E-03	0.99974257E-00	0.24451780E-02	0.10001892E-01
0.18500000E-01	0.21742077E-01	0.99998424E-00	0.17144765E-03	0.99984491E-00	0.16924056E-02	0.10001140E-01
0.19000000E-01	0.22242071E-01	0.99999104E-00	0.10654254E-03	0.99991544E-00	0.11613606E-02	0.10000622E-01
0.19500000E-01	0.22742067E-01	0.99999920E-00	0.64601284E-04	0.99996363E-00	0.79013655E-03	0.10000257E-01
0.20000000E-01	0.23242064E-01	0.99999768E-00	0.37675029E-04	0.99999627E-00	0.53298170E-03	0.1000028E-01
0.20100000E-01	0.23342064E-01	0.99999803E-00	0.33591729E-04	0.10000014E-01	0.49211604E-03	0.99999899E-00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(f)  $f(0) = -0.2$

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_S$
0.50000000E-01	-0.20000000E-00	0.	0.25266960E-00	0.16000000E-01	0.15822207E-00	0.19678155E-02
0.50999999E-01	-0.19967561E-00	0.13161289E-01	0.27481853E-00	0.24252009E-01	0.17254981E-00	0.15533822E-02
0.51999998E-01	-0.19866354E-00	0.27534760E-01	0.30038737E-00	0.33292924E-01	0.18930805E-00	0.12698678E-02
0.53000000E-01	-0.19690031E-00	0.43215829E-01	0.32693445E-00	0.43198592E-01	0.20703959E-00	0.10551541E-02
0.54000000E-01	-0.19431968E-00	0.60233196E-01	0.35379191E-00	0.54007289E-01	0.22540257E-00	0.89533106E-01
0.25000000E-01	-0.19085456E-00	0.78595432E-01	0.38068973E-00	0.65747861E-01	0.24430867E-00	0.77086519E-01
0.30000000E-01	-0.18643775E-00	0.98300205E-01	0.40747104E-00	0.78446955E-01	0.26374388E-00	0.67186659E-01
0.34999999E-01	-0.18100231E-00	0.11933384E-00	0.43400907E-00	0.92131178E-01	0.28371546E-00	0.59173864E-01
0.40000000E-01	-0.17448192E-00	0.14169494E-00	0.46017741E-00	0.10682757E-00	0.30423196E-00	0.52592279E-01
0.45000000E-01	-0.16681120E-00	0.16534773E-00	0.48583751E-00	0.12256345E-00	0.32529356E-00	0.47117746E-01
0.50000000E-01	-0.15792602E-00	0.19026761E-00	0.51083257E-00	0.13936578E-00	0.34688631E-00	0.42514189E-01
0.55000000E-01	-0.14776393E-00	0.21641694E-00	0.53498439E-00	0.15726038E-00	0.36897744E-00	0.38666103E-01
0.59999999E-01	-0.13626460E-00	0.24374864E-00	0.55809163E-00	0.17627089E-00	0.39151122E-00	0.35260665E-01
0.65000000E-01	-0.12337030E-00	0.27220493E-00	0.57992901E-00	0.19641750E-00	0.41440479E-00	0.32375749E-01
0.70000000E-01	-0.110902651E-00	0.30171620E-00	0.60024762E-00	0.21771547E-00	0.43754408E-00	0.29871711E-01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(f)  $f(0) = -0.2$  - Continued

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho S$
0.7500000E 00	-0.93182473E-01	0.33219983E 00	0.61877612E 00	0.24017352E 00	0.46077986E 00	0.276885638E 01
0.8000000E 00	-0.75791923E-01	0.36555910E 00	0.63522327E 00	0.26379193E 00	0.48392407E 00	0.25767263E 01
0.8499999E 00	-0.56813816E-01	0.39568233E 00	0.64928194E 00	0.28855055E 00	0.506774683E 00	0.24079982E 01
0.9000000E 00	-0.36213070E-01	0.42844217E 00	0.66063497E 00	0.31445667E 00	0.52897451E 00	0.22578682E 01
0.9500000E 00	-0.13961367E-01	0.46169537E 00	0.66896284E 00	0.34144277E 00	0.55028939E 00	0.21248120E 01
0.1000000E 01	0.99620461E-02	0.49528279E 00	0.67395362E 00	0.36946437E 00	0.57033119E 00	0.20061693E 01
0.1050000E 01	0.35569584E-01	0.52903017E 00	0.67531506E 00	0.39844801E 00	0.58870154E 00	0.19000524E 01
0.1100000E 01	0.62864597E-01	0.56274939E 00	0.67278859E 00	0.42829949E 00	0.60497128E 00	0.18048742E 01
0.1150000E 01	0.91840724E-01	0.59624063E 00	0.66616507E 00	0.45890261E 00	0.61869157E 00	0.17192943E 01
0.1200000E 01	0.12248138E 00	0.62929512E 00	0.65530127E 00	0.49011854E 00	0.62940852E 00	0.16421760E 01
0.1250000E 01	0.15475938E 00	0.66169895E 00	0.64013642E 00	0.52178599E 00	0.63668159E 00	0.15725526E 01
0.1300000E 01	0.18863684E 00	0.69323755E 00	0.62070729E 00	0.55372243E 00	0.64010502E 00	0.15096016E 01
0.1350000E 01	0.22406520E 00	0.72370090E 00	0.59716038E 00	0.58572642E 00	0.63933130E 00	0.14526218E 01
0.1400000E 01	0.26098566E 00	0.75288922E 00	0.56975961E 00	0.61758106E 00	0.63409533E 00	0.14010160E 01
0.1450000E 01	0.29932978E 00	0.78061888E 00	0.538888795E 00	0.64905877E 00	0.62423726E 00	0.13542747E 01
0.1500000E 01	0.33902051E 00	0.80672832E 00	0.50504176E 00	0.67992701E 00	0.60972194E 00	0.13119623E 01
0.1550000E 01	0.3797333E 00	0.83108332E 00	0.46881738E 00	0.70995491E 00	0.59065261E 00	0.12737048E 01
0.1600000E 01	0.42209785E 00	0.85358157E 00	0.43088986E 00	0.73892036E 00	0.56727716E 00	0.1239177E 01
0.1650000E 01	0.46529939E 00	0.8741592E 00	0.39198505E 00	0.76661720E 00	0.53998522E 00	0.12080962E 01
0.1700000E 01	0.50948083E 00	0.89277612E 00	0.35284707E 00	0.79286210E 00	0.50929599E 00	0.11802056E 01
0.1750000E 01	0.55454449E 00	0.90944883E 00	0.31420346E 00	0.81750051E 00	0.47583678E 00	0.11552740E 01
0.1800000E 01	0.60039390E 00	0.92421596E 00	0.27673140E 00	0.84041129E 00	0.44031406E 00	0.11330854E 01
0.1850000E 01	0.64693551E 00	0.93715142E 00	0.24010777E 00	0.86150996E 00	0.40347937E 00	0.11134355E 01
0.1900000E 01	0.69408015E 00	0.94835643E 00	0.20758570E 00	0.88074996E 00	0.36609278E 00	0.10961277E 01
0.1950000E 01	0.74174431E 00	0.95795392E 00	0.17677936E 00	0.89812221E 00	0.32868734E 00	0.10809714E 01
0.2000000E 01	0.78985102E 00	0.96608245E 00	0.14685781E 00	0.91365491E 00	0.29253717E 00	0.10677812E 01
0.2050000E 01	0.83833051E 00	0.97288989E 00	0.12394748E 00	0.92739997E 00	0.25763165E 00	0.10563764E 01
0.2100000E 01	0.88712049E 00	0.97852759E 00	0.10206231E 00	0.93944824E 00	0.22465719E 00	0.10465821E 01
0.2150000E 01	0.93616624E 00	0.98314512E 00	0.83119509E-01	0.94990408E 00	0.19398718E 00	0.10382297E 01
0.2200000E 01	0.98542037E 00	0.98688588E 00	0.66958897E-01	0.95688966E 00	0.16587977E 00	0.10311589E 01



TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(f)  $f(0) = -0.2$  - Concluded

$[\sigma = 0.71; \xi_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.22500000E 01	0.10348424E 01	0.98988372E 00	0.53363676E-01	0.96553721E 00	0.14048273E 00	0.10252156E 01
0.23000000E 01	0.10843983E 01	0.99222607E 00	0.42080687E-01	0.972298387E 00	0.11784359E 00	0.10202593E 01
0.23500000E 01	0.11340599E 01	0.99412572E 00	0.32838761E-01	0.97836686E 00	0.97923798E-01	0.10161573E 01
0.24000000E 01	0.11838038E 01	0.99557395E 00	0.25364174E-01	0.98281972E 00	0.80614854E-01	0.10127890E 01
0.24500000E 01	0.12336116E 01	0.99668711E 00	0.19392750E-01	0.98646913E 00	0.65755214E-01	0.10100451E 01
0.25000000E 01	0.12834680E 01	0.99753410E 00	0.14678566E-01	0.98943270E 00	0.53146515E-01	0.10078278E 01
0.25500000E 01	0.13333614E 01	0.99817213E 00	0.1099508E-01	0.99181759E 00	0.42568352E-01	0.10060505E 01
0.26000000E 01	0.13832825E 01	0.99864796E 00	0.81601330E-02	0.99371948E 00	0.33790969E-01	0.10046376E 01
0.26499999E 01	0.14332241E 01	0.9989928E 00	0.59923756E-02	0.99522278E 00	0.26585616E-01	0.10035237E 01
0.27000000E 01	0.14831808E 01	0.99925593E 00	0.43546644E-02	0.99640051E 00	0.20732506E-01	0.10026526E 01
0.27500000E 01	0.15331485E 01	0.99944150E 00	0.31299628E-02	0.99731506E 00	0.16026506E-01	0.10019773E 01
0.28000000E 01	0.15831240E 01	0.99957414E 00	0.22231666E-02	0.99801907E 00	0.12280820E-01	0.10014581E 01
0.28500000E 01	0.16331052E 01	0.99966777E 00	0.15582180E-02	0.99855630E 00	0.93289716E-02	0.10010622E 01
0.28999999E 01	0.16830903E 01	0.99973291E 00	0.10751923E-02	0.99896270E 00	0.70254086E-02	0.10007630E 01
0.29500000E 01	0.17330780E 01	0.99977746E 00	0.72753197E-03	0.99926747E 00	0.52450773E-02	0.10005387E 01
0.30000000E 01	0.17830677E 01	0.99980725E 00	0.47954369E-03	0.99949407E 00	0.38822512E-02	0.10003720E 01
0.30500000E 01	0.18330585E 01	0.99982654E 00	0.30420000E-03	0.99966110E 00	0.28488785E-02	0.10002491E 01
0.31000000E 01	0.18830502E 01	0.99983846E 00	0.18128344E-03	0.99978317E 00	0.20726616E-02	0.10001594E 01
0.31500000E 01	0.19330422E 01	0.99984522E 00	0.9584044E-04	0.99987160E 00	0.14950353E-02	0.10000944E 01
0.32000000E 01	0.19830345E 01	0.99984842E 00	0.36946026E-04	0.99993511E 00	0.10691693E-02	0.10000477E 01
0.32500000E 01	0.20330269E 01	0.99984916E 00	-0.33265232E-05	0.99988034E 00	0.75808175E-03	0.10000144E 01
0.33000000E 01	0.20830193E 01	0.99984823E 00	-0.30644525E-04	0.10000123E 01	0.5322016E-03	0.99999100E 00
0.33100000E 01	0.20930177E 01	0.99984790E 00	-0.34930507E-04	0.10000174E 01	0.49614051E-03	0.99998723E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

$$(\xi) \zeta(\xi) = -0.4$$

$$[\sigma = 0.71; \xi_w = 0.01600; L = 1.0]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	-0.40000000E 00	0.	0.15834769E 00	0.16000000E-01	0.88958800E-01	0.19678155E 02
0.09999999E 00	-0.39979854E 00	0.81321297E-02	0.16725556E 00	0.20574352E-01	0.94211243E-01	0.17137347E 02
0.15000000E 00	-0.39917867E 00	0.16748244E-01	0.17755668E 00	0.25435734E-01	0.10035843E 00	0.15083965E 02
0.20000000E 00	-0.39811473E 00	0.25901274E-01	0.18867625E 00	0.30619950E-01	0.10709658E 00	0.13387771E 02
0.25000000E 00	-0.39657900E 00	0.35625632E-01	0.20938550E 00	0.36153417E-01	0.11431859E 00	0.11964615E 02
0.30000000E 00	-0.39454219E 00	0.45947892E-01	0.21258064E 00	0.42059276E-01	0.12198983E 00	0.10755956E 02
0.34999999E 00	-0.39197384E 00	0.56690922E-01	0.22221037E 00	0.48359826E-01	0.13010741E 00	0.97191794E 01
0.40000000E 00	-0.38884237E 00	0.68475070E-01	0.23824751E 00	0.55077663E-01	0.13868426E 00	0.88222867E 01
0.45000000E 00	-0.38511521E 00	0.80722183E-01	0.25167596E 00	0.62236260E-01	0.14774192E 00	0.80406970E 01
0.50000000E 00	-0.38075878E 00	0.93649620E-01	0.26548410E 00	0.69860303E-01	0.15730693E 00	0.73551875E 01
0.55000000E 00	-0.37573857E 00	0.10727673E 00	0.27966114E 00	0.77975990E-01	0.16740873E 00	0.67505010E 01
0.59999999E 00	-0.37001912E 00	0.12162166E 00	0.29419456E 00	0.86610629E-01	0.17807832E 00	0.62143763E 01
0.65000000E 00	-0.36356413E 00	0.13670185E 00	0.30906841E 00	0.95793700E-01	0.18934719E 00	0.57368565E 01
0.70000000E 00	-0.35633639E 00	0.15253381E 00	0.32426175E 00	0.10555584E 00	0.20124635E 00	0.53097761E 01
0.75000000E 00	-0.34829794E 00	0.16913288E 00	0.33974731E 00	0.11592932E 00	0.21380338E 00	0.492663629E 01
0.80000000E 00	-0.33941007E 00	0.18651282E 00	0.35549007E 00	0.12694782E 00	0.22705129E 00	0.45810490E 01
0.84999999E 00	-0.32963343E 00	0.20468543E 00	0.37144589E 00	0.13864827E 00	0.24100722E 00	0.42690517E 01
0.90000000E 00	-0.31892814E 00	0.22366004E 00	0.38756002E 00	0.15106066E 00	0.25569100E 00	0.39864009E 01
0.95000000E 00	-0.30725393E 00	0.24344295E 00	0.40376557E 00	0.16422767E 00	0.27111338E 00	0.37297049E 01
1.00000000E 01	-0.29457030E 00	0.26403676E 00	0.41998192E 00	0.17818432E 00	0.28727600E 00	0.34960649E 01
0.10000000E 01	-0.28083675E 00	0.28543959E 00	0.43611311E 00	0.19296744E 00	0.30416904E 00	0.32829899E 01
0.10500000E 01	-0.26601295E 00	0.30764474E 00	0.45204630E 00	0.20861299E 00	0.32176858E 00	0.30883270E 01
0.11000000E 01	-0.25005911E 00	0.33063881E 00	0.46765028E 00	0.22515538E 00	0.34003363E 00	0.29102078E 01
0.11500000E 01	-0.23293623E 00	0.35440174E 00	0.48277429E 00	0.24262642E 00	0.35890292E 00	0.27470017E 01
0.12000000E 01	-0.21460657E 00	0.37890536E 00	0.49724714E 00	0.26105431E 00	0.37829145E 00	0.25972794E 01
0.12500000E 01	-0.19503397E 00	0.40411238E 00	0.51087677E 00	0.28046233E 00	0.39808698E 00	0.24597824E 01
0.13000000E 01	-0.17418439E 00	0.42997541E 00	0.52345059E 00	0.30036739E 00	0.41814657E 00	0.23333971E 01
0.13500000E 01	-0.15202645E 00	0.45643595E 00	0.53473719E 00	0.32227843E 00	0.43829337E 00	0.22171341E 01
0.14000000E 01	-0.12853199E 00	0.48342349E 00	0.54448780E 00	0.34669461E 00	0.45831408E 00	0.21101110E 01
0.14500000E 01	-0.10367669E 00	0.51085474E 00	0.55244104E 00	0.36810353E 00	0.47795721E 00	0.20115371E 01
0.15000000E 01	-0.77440725E-01	0.53863310E 00	0.55832797E 00	0.39247919E 00	0.49693372E 00	0.19207022E 01
0.15500000E 01	-0.49809424E-01	0.5664854E 00	0.56187933E 00	0.41778020E 00	0.51491338E 00	0.18369664E 01
0.16000000E 01	-0.20773967E-01	0.59477769E 00	0.56283462E 00	0.44394791E 00	0.53153850E 00	0.17597519E 01
0.16500000E 01	0.96679812E-02	0.62288463E 00	0.56095301E 00	0.47093496E 00	0.54642019E 00	0.16885370E 01
0.17000000E 01	0.441511675E-01	0.65682213E 00	0.55602574E 00	0.49855407E 00	0.55915260E 00	0.162288503E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(c)  $t(\eta) = -0.4$  - Continued

$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.74746762E-01	0.67843362E 00	0.54789866E 00	0.52677748E 00	0.56932442E 00	0.15622668E 01
0.18000000E 01	0.10934687E 00	0.70555579E 00	0.5364410E 00	0.55543706E 00	0.57653435E 00	0.15064035E 01
0.18500000E 01	0.14528940E 00	0.73202189E 00	0.52164922E 00	0.58437523E 00	0.58040932E 00	0.14549174E 01
0.19000000E 01	0.18253535E 00	0.75766573E 00	0.50356750E 00	0.61341688E 00	0.58062444E 00	0.14075014E 01
0.19500000E 01	0.22103956E 00	0.78232611E 00	0.48234229E 00	0.64237228E 00	0.57692375E 00	0.13638817E 01
0.20000000E 01	0.26074903E 00	0.80585150E 00	0.45821685E 00	0.67104106E 00	0.56914009E 00	0.13238142E 01
0.20500000E 01	0.30160349E 00	0.82810498E 00	0.43153010E 00	0.69921707E 00	0.55721234E 00	0.12810808E 01
0.21000000E 01	0.34353633E 00	0.84896882E 00	0.40270908E 00	0.72669405E 00	0.5411987E 00	0.1253485E 01
0.21500000E 01	0.38647561E 00	0.86834856E 00	0.37275510E 00	0.75327172E 00	0.52128126E 00	0.12228502E 01
0.22000000E 01	0.43034528E 00	0.88617629E 00	0.34072404E 00	0.77876214E 00	0.49776974E 00	0.11950104E 01
0.22500000E 01	0.47506667E 00	0.90241271E 00	0.30870200E 00	0.80299573E 00	0.47108853E 00	0.11698111E 01
0.23000000E 01	0.5205983E 00	0.91704805E 00	0.27677819E 00	0.82582680E 00	0.44176255E 00	0.11471035E 01
0.23500000E 01	0.56674508E 00	0.93010153E 00	0.24551727E 00	0.84713785E 00	0.41039371E 00	0.11267419E 01
0.24000000E 01	0.61354434E 00	0.94161939E 00	0.21543355E 00	0.86684288E 00	0.37763269E 00	0.11085814E 01
0.24500000E 01	0.66088253E 00	0.95167188E 00	0.18656934E 00	0.88488899E 00	0.34414814E 00	0.10924770E 01
0.25000000E 01	0.70868856E 00	0.96034922E 00	0.16047903E 00	0.90125652E 00	0.31059571E 00	0.10782827E 01
0.25500000E 01	0.75689624E 00	0.96775696E 00	0.13622007E 00	0.91595761E 00	0.27758936E 00	0.10658517E 01
0.26000000E 01	0.80544497E 00	0.97401109E 00	0.11435098E 00	0.92903365E 00	0.24867724E 00	0.10550375E 01
0.26499999E 01	0.85428009E 00	0.97923295E 00	0.94937255E-01	0.94055130E 00	0.21522353E 00	0.10456946E 01
0.27000000E 01	0.90335307E 00	0.98354515E 00	0.77953768E-01	0.95059811E 00	0.18689700E 00	0.10376800E 01
0.27500000E 01	0.95262141E 00	0.98706730E 00	0.63313471E-01	0.95927759E 00	0.16066667E 00	0.10308552E 01
0.28000000E 01	0.10020485E 01	0.98991300E 00	0.50867951E-01	0.96670417E 00	0.13680243E 00	0.10250867E 01
0.28500000E 01	0.10516031E 01	0.99218750E 00	0.40431308E-01	0.97299856E 00	0.11538398E 00	0.10202480E 01
0.28999999E 01	0.11012592E 01	0.99398604E 00	0.31794081E-01	0.97828326E 00	0.96409502E-01	0.10162208E 01
0.29500000E 01	0.11509952E 01	0.99539317E 00	0.24736910E-01	0.98267904E 00	0.79809912E-01	0.10128951E 01
0.30000000E 01	0.12007932E 01	0.99648237E 00	0.19041805E-01	0.98630175E 00	0.65462979E-01	0.10101706E 01
0.30500000E 01	0.12506391E 01	0.99731649E 00	0.14500790E-01	0.98926013E 00	0.53207656E-01	0.10079566E 01
0.31000000E 01	0.13005214E 01	0.99794839E 00	0.10921954E-01	0.99155419E 00	0.42857513E-01	0.10061720E 01
0.31500000E 01	0.13504312E 01	0.99842177E 00	0.81331475E-02	0.99357422E 00	0.34212618E-01	0.10047453E 01
0.32000000E 01	0.14003614E 01	0.99877228E 00	0.59837147E-02	0.99510041E 00	0.27069545E-01	0.10036142E 01
0.32500000E 01	0.14503067E 01	0.99902856E 00	0.43466627E-02	0.99630281E 00	0.21229333E-01	0.10027268E 01
0.33000000E 01	0.15002630E 01	0.99921336E 00	0.31077187E-02	0.99724182E 00	0.16503444E-01	0.10020314E 01
0.33500000E 01	0.15502271E 01	0.99934448E 00	0.21836318E-02	0.99796874E 00	0.12717878E-01	0.10014952E 01
0.34000000E 01	0.16001967E 01	0.99943565E 00	0.150000466E-02	0.99852658E 00	0.97156664E-02	0.10010841E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(g)  $f(0) = -0.4$  - Concluded

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho S$
0.34500000E 01	0.16501701E 01	0.99949744E 00	0.99921168E-03	0.99895096E 00	0.73580337E-02	0.10007716E 01
0.35000000E 01	0.17001460E 01	0.99953777E 00	0.63570526E-03	0.99927103E 00	0.55245032E-02	0.10005361E 01
0.35500000E 01	0.17501235E 01	0.99956262E 00	0.37428299E-03	0.99951039E 00	0.41122162E-02	0.10003600E 01
0.36000000E 01	0.18001020E 01	0.99957638E 00	0.18796077E-03	0.99968775E 00	0.30347095E-02	0.10002295E 01
0.36500000E 01	0.18500810E 01	0.99958226E 00	0.56328430E-04	0.99981813E 00	0.22203556E-02	0.10001337E 01
0.37000000E 01	0.19000601E 01	0.99958260E 00	-0.35867055E-04	0.99991312E 00	0.16106333E-02	0.10000638E 01
0.37500000E 01	0.19500391E 01	0.99957906E 00	-0.99896102E-04	0.99998173E 00	0.11583588E-02	0.10000134E 01
0.38000000E 01	0.20000179E 01	0.99957286E 00	-0.14399472E-03	0.10000308E 01	0.82597048E-03	0.99997734E 00
0.38500000E 01	0.20499962E 01	-0.99956482E 00	-0.17411923E-03	0.10000657E 01	0.58393300E-03	0.99995172E 00
0.38800000E 01	0.20799830E 01	0.99955937E 00	-0.18731491E-03	0.10000814E 01	0.47229765E-03	0.99994014E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.6$

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho S$
0.50000000E-01	-0.60000000E 00	0.	0.99267961E-01	0.16000000E-01	0.40357382E-01	0.19678159E 02
0.09999999E 00	-0.59988587E 00	0.45907147E-02	0.93419461E-01	0.18058180E-01	0.42002806E-01	0.18445087E 02
0.09999999E 00	-0.59953813E 00	0.93472421E-02	0.98889989E-01	0.20203348E-01	0.43832931E-01	0.17318059E 02
0.15000000E 00	-0.59899481E 00	0.14284220E-01	0.10063162E 00	0.22444264E-01	0.45830917E-01	0.16282601E 02
0.20000000E 00	-0.59810644E 00	0.19414469E-01	0.10461765E 00	0.24789115E-01	0.47989749E-01	0.15327375E 02
0.25000000E 00	-0.59700318E 00	0.24749810E-01	0.10883362E 00	0.27245897E-01	0.50308345E-01	0.14443199E 02
0.30000000E 00	-0.59562781E 00	0.30301546E-01	0.11327275E 00	0.29822655E-01	0.52789521E-01	0.13622491E 02
0.34999999E 00	-0.59396921E 00	0.36080770E-01	0.11793324E 00	0.32527648E-01	0.55436863E-01	0.12858843E 02
0.40000000E 00	-0.59201573E 00	0.42098581E-01	0.12281670E 00	0.35369468E-01	0.58264084E-01	0.12146820E 02
0.45000000E 00	-0.58975516E 00	0.48366218E-01	0.12792718E 00	0.38357140E-01	0.61274651E-01	0.11481685E 02
0.50000000E 00	-0.58717472E 00	0.54895176E-01	0.13327058E 00	0.41500201E-01	0.64481562E-01	0.10859338E 02
0.55000000E 00	-0.58426106E 00	0.61697276E-01	0.13885418E 00	0.44808711E-01	0.67897219E-01	0.10276165E 02
0.59999999E 00	-0.58100021E 00	0.68784731E-01	0.14468633E 00	0.48293627E-01	0.71535368E-01	0.97289813E 01
0.65000000E 00	-0.57737760E 00	0.76170200E-01	0.15097633E 00	0.51966263E-01	0.75411074E-01	0.92149499E 01
0.70000000E 00	-0.57337797E 00	0.83866819E-01	0.15713499E 00	0.55838963E-01	0.79540712E-01	0.87315431E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19 \text{ 700 FT/SEC}$  - Continued

(h)  $f(0) = -0.6$  - Continued

$[\sigma = 0.71; g_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho_s$
0.7500000E 00	-0.5689854E 00	0.91888237E-01	0.16377011E 00	0.59924857E-01	0.83941982E-01	0.82764935E 01
0.8000000E 00	-0.56418346E 00	0.10024863E 00	0.17069528E 00	0.56237999E-01	0.88633933E-01	0.78477623E 01
0.8499999E 00	-0.55895466E 00	0.10896276E 00	0.17792074E 00	0.68793427E-01	0.93636980E-01	0.74435085E 01
0.9000000E 00	-0.55328099E 00	0.11804589E 00	0.18545769E 00	0.73607236E-01	0.98972921E-01	0.70620667E 01
0.9500000E 00	-0.54714362E 00	0.12751389E 00	0.19331729E 00	0.78896644E-01	0.10466649E 00	0.67019239E 01
0.1000000E 01	-0.54052288E 00	0.13738316E 00	0.20151038E 00	0.84380066E-01	0.11073763E 00	0.63617048E 01
0.1050000E 01	-0.53339830E 00	0.14767065E 00	0.21004730E 00	0.89777175E-01	0.11721691E 00	0.60401555E 01
0.1100000E 01	-0.52574852E 00	0.15839377E 00	0.21893754E 00	0.95808980E-01	0.12413003E 00	0.57361286E 01
0.1150000E 01	-0.51755133E 00	0.16957042E 00	0.22818951E 00	0.10219787E 00	0.13150539E 00	0.54485736E 01
0.1200000E 01	-0.50878358E 00	0.18121885E 00	0.23781007E 00	0.10896770E 00	0.13937253E 00	0.51765270E 01
0.1250000E 01	-0.49942122E 00	0.19335763E 00	0.24780499E 00	0.11614382E 00	0.14776178E 00	0.49191012E 01
0.1300000E 01	-0.48945929E 00	0.20600531E 00	0.25817397E 00	0.12375309E 00	0.15670608E 00	0.46754801E 01
0.1350000E 01	-0.47881185E 00	0.21918126E 00	0.26891897E 00	0.13182395E 00	0.16623057E 00	0.44449089E 01
0.1400000E 01	-0.46751203E 00	0.23290356E 00	0.28003450E 00	0.14038638E 00	0.17637215E 00	0.42266893E 01
0.1450000E 01	-0.45551206E 00	0.24719072E 00	0.29151132E 00	0.14947189E 00	0.18715881E 00	0.40201745E 01
0.1500000E 01	-0.44278324E 00	0.26206046E 00	0.30333462E 00	0.15911347E 00	0.19861894E 00	0.38247633E 01
0.1550000E 01	-0.42929600E 00	0.27752957E 00	0.31548292E 00	0.16934842E 00	0.21077836E 00	0.36398956E 01
0.1600000E 01	-0.41502000E 00	0.29361365E 00	0.32792697E 00	0.18020330E 00	0.22365915E 00	0.34650500E 01
0.1650000E 01	-0.39982413E 00	0.31032654E 00	0.34062839E 00	0.19172363E 00	0.23727836E 00	0.32997365E 01
0.1700000E 01	-0.38397665E 00	0.32767993E 00	0.35353833E 00	0.20394361E 00	0.25164631E 00	0.31434970E 01
0.1750000E 01	-0.36714529E 00	0.34568280E 00	0.36659599E 00	0.21690075E 00	0.26676469E 00	0.29959001E 01
0.1800000E 01	-0.34939743E 00	0.36434072E 00	0.37972703E 00	0.23063242E 00	0.28262441E 00	0.28565389E 01
0.1850000E 01	-0.33070026E 00	0.38365521E 00	0.39284208E 00	0.24517517E 00	0.29920305E 00	0.27250285E 01
0.1900000E 01	-0.31102101E 00	0.40362287E 00	0.40583523E 00	0.26056405E 00	0.31646216E 00	0.26010032E 01
0.1950000E 01	-0.29032721E 00	0.42423460E 00	0.41858266E 00	0.27683175E 00	0.33434411E 00	0.24844131E 01
0.2000000E 01	-0.2688705E 00	0.44547463E 00	0.43094161E 00	0.29400750E 00	0.35276901E 00	0.23740315E 01
0.2050000E 01	-0.24576964E 00	0.46731956E 00	0.44274968E 00	0.31211592E 00	0.37163129E 00	0.2270339E 01
0.2100000E 01	-0.22184552E 00	0.48973735E 00	0.45382468E 00	0.33117566E 00	0.39079654E 00	0.21730159E 01
0.2150000E 01	-0.19678704E 00	0.51268642E 00	0.46396536E 00	0.35119785E 00	0.41009851E 00	0.20814831E 01
0.2200000E 01	-0.17056888E 00	0.53611461E 00	0.47295302E 00	0.37218443E 00	0.42933661E 00	0.19955509E 01
0.2250000E 01	-0.14316864E 00	0.55995855E 00	0.48055438E 00	0.39412448E 00	0.44827436E 00	0.19149447E 01
0.2300000E 01	-0.11456734E 00	0.58414282E 00	0.48652584E 00	0.41700231E 00	0.46663892E 00	0.18393994E 01
0.2350000E 01	-0.84750131E-01	0.60857975E 00	0.49061938E 00	0.44007567E 00	0.48412233E 00	0.17686592E 01
0.2400000E 01	-0.53706814E-01	0.63316931E 00	0.49259010E 00	0.46539415E 00	0.50038473E 00	0.17024784E 01
0.2450000E 01	-0.21432516E-01	0.65779943E 00	0.49220555E 00	0.49078766E 00	0.51506006E 00	0.16408210E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_{\infty} = 19 \text{ FT/SEC}$  - Continued

(h)  $f(0) = -0.6$  - Continued

$$[\sigma = 0.71; g_W = 0.01600; L = 1.0]$$

$\eta$	f	$f_{\eta}$	$f_{\eta\eta}$	g	$g_{\eta}$	$\rho/\eta_s$
0.25000000E 01	0.12071759E-01	0.68234703E 00	0.48925647E 00	0.51686727E 00	0.52776446E 00	0.15828623E 01
0.25500000E 01	0.46798601E-01	0.70667934E 00	0.48356885E 00	0.54352468E 00	0.53810754E 00	0.15289890E 01
0.26000000E 01	0.82733764E-01	0.73065406E 00	0.47501649E 00	0.57063220E 00	0.54570656E 00	0.14788006E 01
0.26499999E 01	0.11985585E 00	0.75413202E 00	0.46353349E 00	0.59804352E 00	0.55020305E 00	0.14321091E 01
0.27000000E 01	0.15813617E 00	0.77696053E 00	0.44912545E 00	0.62559541E 00	0.55128115E 00	0.13887404E 01
0.27500000E 01	0.19753870E 00	0.79899712E 00	0.43187848E 00	0.65311030E 00	0.54868697E 00	0.13485332E 01
0.28000000E 01	0.23802036E 00	0.82010379E 00	0.41196457E 00	0.68039989E 00	0.54224698E 00	0.13113387E 01
0.28500000E 01	0.27953143E 00	0.84015332E 00	0.38964252E 00	0.70726952E 00	0.53188463E 00	0.12770194E 01
0.28999999E 01	0.32201618E 00	0.85903349E 00	0.36525346E 00	0.73352340E 00	0.51763283E 00	0.12454471E 01
0.29500000E 01	0.36541371E 00	0.87665099E 00	0.33921078E 00	0.75897034E 00	0.49964127E 00	0.12165009E 01
0.30000000E 01	0.40865902E 00	0.89293474E 00	0.31198455E 00	0.78342951E 00	0.47817700E 00	0.11900644E 01
0.30500000E 01	0.45468415E 00	0.90783809E 00	0.28408144E 00	0.80673632E 00	0.45361786E 00	0.11660244E 01
0.31000000E 01	0.50041945E 00	0.92134020E 00	0.25602148E 00	0.82874752E 00	0.42643867E 00	0.11442667E 01
0.31500000E 01	0.54679485E 00	0.93344604E 00	0.22831359E 00	0.84934562E 00	0.39719093E 00	0.11246761E 01
0.32000000E 01	0.59374122E 00	0.94418529E 00	0.20143194E 00	0.8684410E 00	0.36647764E 00	0.11071344E 01
0.32500000E 01	0.64119143E 00	0.95360995E 00	0.17579519E 00	0.88597932E 00	0.33492503E 00	0.10915195E 01
0.33000000E 01	0.68908146E 00	0.96179130E 00	0.15175033E 00	0.90193091E 00	0.30315383E 00	0.10777059E 01
0.33500000E 01	0.73735125E 00	0.96881592E 00	0.12956221E 00	0.91630083E 00	0.27175198E 00	0.10655650E 01
0.34000000E 01	0.78594536E 00	0.97478142E 00	0.10940914E 00	0.92912110E 00	0.24125122E 00	0.10549659E 01
0.34500000E 01	0.83481345E 00	0.97979227E 00	0.91384512E-01	0.94044854E 00	0.21210877E 00	0.10457772E 01
0.35000000E 01	0.88391043E 00	0.98395557E 00	0.75503500E-01	0.95036076E 00	0.18469511E 00	0.10378680E 01
0.35500000E 01	0.93319661E 00	0.98737743E 00	0.61713638E-01	0.95895149E 00	0.15928813E 00	0.10311000E 01
0.36000000E 01	0.98263749E 00	0.99015994E 00	0.49907847E-01	0.96632607E 00	0.13607314E 00	0.10253788E 01
0.36500000E 01	0.10322035E 01	0.99239876E 00	0.39938524E-01	0.97259694E 00	0.11514798E 00	0.10205554E 01
0.37000000E 01	0.10818697E 01	0.99418144E 00	0.31631587E-01	0.97787933E 00	0.96532064E-01	0.10165275E 01
0.37500000E 01	0.11316153E 01	0.99558640E 00	0.24798133E-01	0.98228780E 00	0.80178075E-01	0.10131902E 01
0.38000000E 01	0.11814231E 01	0.99668255E 00	0.19247212E-01	0.98593310E 00	0.65985045E-01	0.10104472E 01
0.38500000E 01	0.12312793E 01	0.99752931E 00	0.14792424E-01	0.98891990E 00	0.53811740E-01	0.10082107E 01
0.38999999E 01	0.12811727E 01	0.99817706E 00	0.11259200E-01	0.99134504E 00	0.43489439E-01	0.10064021E 01
0.39500000E 01	0.13310943E 01	0.99866784E 00	0.84887772E-02	0.99329653E 00	0.34833477E-01	0.100449514E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.6$  - Concluded

$[\sigma = 0.71; \xi_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.4000000E 01	0.13810373E 01	0.99903622E 00	0.63404884E-02	0.99485292E 00	0.27653120E-01	0.10037975E 01
0.4050000E 01	0.14309963E 01	0.99931016E 00	0.46925400E-02	0.99608321E 00	0.21759586E-01	0.10028671E-01
0.4100000E 01	0.14809671E 01	0.99951202E 00	0.34416347E-02	0.99704722E 00	0.16972198E-01	0.10021750E 01
0.4150000E 01	0.15309465E 01	0.99965983E 00	0.25017971E-02	0.99779598E-00	0.13122163E-01	0.10016224E-01
0.4200000E 01	0.15809323E 01	0.99976614E 00	0.18026962E-02	0.99837251E 00	0.10058383E-01	0.10011977E 01
0.4250000E 01	0.16309226E 01	0.99984270E 00	0.12877189E-02	0.99881256E 00	0.76429335E-02	0.10008735E-01
0.4300000E 01	0.16809161E 01	0.99989716E 00	0.91197214E-03	0.99914555E 00	0.57574755E-02	0.10006284E 01
0.4350000E 01	0.17309119E 01	0.99993557E 00	0.64035950E-03	0.99939336E 00	0.42998493E-02	0.10004446E-01
0.4400000E 01	0.17809094E 01	0.99996240E 00	0.44580212E-03	0.99958114E 00	0.31836902E-02	0.10003079E 01
0.4450000E 01	0.18309079E 01	0.99998100E 00	0.30768104E-03	0.99971814E 00	0.23370641E-02	0.10002072E-01
0.4500000E 01	0.18809073E 01	0.99999377E 00	0.21048074E-03	0.99981827E 00	0.17008941E-02	0.10001336E 01
0.4550000E 01	0.19309072E 01	0.10000025E 01	0.14266333E-03	0.99989085E 00	0.12273102E-02	0.10000802E-01
0.4600000E 01	0.19809074E 01	0.10000083E 01	0.95738540E-04	0.99994299E 00	0.8780042E-03	0.10000419E 01
0.4650000E 01	0.20309079E 01	0.10000121E 01	0.63538125E-04	0.99998012E 00	0.62277358E-03	0.10000144E 01
0.4690000E 01	0.20709084E 01	0.10000142E 01	0.45349025E-04	0.10000018E 01	0.47022957E-03	0.99999867E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.7$

$[\sigma = 0.71; \xi_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.5000000E-01	-0.7000000E 00	0.	0.66336880E-01	0.16000000E-01	0.24253761E-01	0.19678155E 02
0.0999999E 00	-0.69991634E 00	0.33610968E-02	0.68128159E-01	0.17234510E-01	0.25138213E-01	0.18919022E-02
0.1500000E 00	-0.69966232E 00	0.68148711E-02	0.70042883E-01	0.18514968E-01	0.26091663E-01	0.18192623E 02
0.2000000E 00	-0.69923317E 00	0.10367355E-01	0.72075954E-01	0.19844828E-01	0.27114416E-01	0.17496462E-02
0.2500000E 00	-0.69862380E 00	0.14024394E-01	0.74224793E-01	0.21227585E-01	0.28207833E-01	0.16828423E 02
0.3000000E 00	-0.69782885E 00	0.17791750E-01	0.7648683E-01	0.22666823E-01	0.29374114E-01	0.161866683E-02
0.3500000E 00	-0.69684266E 00	0.21675189E-01	0.7886832E-01	0.24166256E-01	0.30616167E-01	0.15569649E 02
0.3999999E 00	-0.69565926E 00	0.25680540E-01	0.81365581E-01	0.25729759E-01	0.31937526E-01	0.14975909E 02
0.4000000E 00	-0.69427244E 00	0.29813751E-01	0.83983201E-01	0.27361396E-01	0.33342300E-01	0.14404220E 02
0.4500000E 00	-0.69267563E 00	0.34080924E-01	0.86724755E-01	0.29065453E-01	0.34835149E-01	0.13859458E 02

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700$  FT/SEC - Continued(i)  $\kappa(0) = -0.7$  - Continued $[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$ 

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.5000000E 00	-0.69086198E 00	0.38488358E-01	0.89594579E-01	0.30846463E-01	0.36421272E-01	0.13322611E 02
0.5500000E 00	-0.68882431E 00	0.43042587E-01	0.92597354E-01	0.32709227E-01	0.38106414E-01	0.12810758E 02
0.5999999E 00	-0.68655512E 00	0.47750398E-01	0.95738761E-01	0.34658864E-01	0.39896880E-01	0.12317059E 02
0.6500000E 00	-0.68404655E 00	0.52618868E-01	0.99024758E-01	0.36703780E-01	0.41799551E-01	0.11840741E 02
0.7000000E 00	-0.68129040E 00	0.57655388E-01	0.10246190E 00	0.38840799E-01	0.43821915E-01	0.11381093E 02
0.7500000E 00	-0.67827806E 00	0.62867690E-01	0.10605725E 00	0.41085096E-01	0.45972096E-01	0.10937456E 02
0.8000000E 00	-0.67500054E 00	0.68263868E-01	0.10981838E 00	0.43440279E-01	0.48258896E-01	0.10509221E 02
0.8499999E 00	-0.67144843E 00	0.73852415E-01	0.11375338E 00	0.45913415E-01	0.50691833E-01	0.10095819E 02
0.9000000E 00	-0.66761190E 00	0.79642236E-01	0.11787081E 00	0.48512064E-01	0.53281189E-01	0.96967162E 01
0.9500000E 00	-0.66348066E 00	0.85642678E-01	0.12217971E 00	0.51244321E-01	0.56038056E-01	0.93114197E 01
0.1000000E 01	-0.65904392E 00	0.91863547E-01	0.12668964E 00	0.54118856E-01	0.58974392E-01	0.89399461E 01
0.1050000E 01	-0.65429042E 00	0.98315148E-01	0.13141060E 00	0.57144061E-01	0.62103075E-01	0.85804036E 01
0.1100000E 01	-0.64970834E 00	0.10500829E 00	0.13633305E 00	0.60332595E-01	0.65437955E-01	0.82338325E 01
0.1150000E 01	-0.64537854E 00	0.11195432E 00	0.14152789E 00	0.63923366E-01	0.68993320E-01	0.78993592E 01
0.1200000E 01	-0.63800846E 00	0.11916513E 00	0.14694644E 00	0.67235932E-01	0.72786951E-01	0.75766158E 01
0.1250000E 01	-0.63186417E 00	0.12665320E 00	0.15262035E 00	0.70975959E-01	0.76834173E-01	0.72652520E 01
0.1300000E 01	-0.62533828E 00	0.13443160E 00	0.15856162E 00	0.74923882E-01	0.81153921E-01	0.69649377E 01
0.1350000E 01	-0.61841591E 00	0.14251401E 00	0.16478248E 00	0.79095609E-01	0.85765782E-01	0.66753584E 01
0.1400000E 01	-0.61108154E 00	0.15091470E 00	0.17129529E 00	0.83505667E-01	0.90690642E-01	0.63962128E 01
0.1450000E 01	-0.60331886E 00	0.15964859E 00	0.17811246E 00	0.88170252E-01	0.95950714E-01	0.61272155E 01
0.1500000E 01	-0.59511083E 00	0.16873121E 00	0.18524633E 00	0.93106707E-01	0.10156956E 00	0.58680935E 01
0.1550000E 01	-0.58643982E 00	0.17817858E 00	0.19270895E 00	0.98333591E-01	0.10757210E 00	0.56185844E 01
0.1600000E 01	-0.57728657E 00	0.18800776E 00	0.20051187E 00	0.10387073E 00	0.11398458E 00	0.53784376E 01
0.1650000E 01	-0.56763217E 00	0.19823571E 00	0.20866592E 00	0.10973933E 00	0.12083448E 00	0.51474118E 01
0.1700000E 01	-0.55745602E 00	0.20888034E 00	0.21718087E 00	0.11596194E 00	0.12815049E 00	0.49252740E 01
0.1750000E 01	-0.54673684E 00	0.2195993E 00	0.22606507E 00	0.12256262E 00	0.13596231E 00	0.47118001E 01
0.1800000E 01	-0.53545243E 00	0.23149309E 00	0.23532502E 00	0.12956693E 00	0.14430045E 00	0.45067725E 01
0.1850000E 01	-0.52357962E 00	0.24349874E 00	0.24496483E 00	0.13700195E 00	0.15319959E 00	0.43099816E 01
0.1900000E 01	-0.51109432E 00	0.25599591E 00	0.25498566E 00	0.14489631E 00	0.16267997E 00	0.41212213E 01
0.1950000E 01	-0.49797148E 00	0.26900358E 00	0.26538496E 00	0.15328025E 00	0.17278337E 00	0.394022930E 01
0.2000000E 01	-0.48418511E 00	0.28254056E 00	0.27615573E 00	0.16218546E 00	0.18353600E 00	0.37670010E 01
0.2050000E 01	-0.46970828E 00	0.29662511E 00	0.28728553E 00	0.17164512E 00	0.19496599E 00	0.36011544E 01
0.2100000E 01	-0.45451316E 00	0.31127475E 00	0.29875549E 00	0.18169376E 00	0.20709874E 00	0.34425653E 01
0.2150000E 01	-0.43857109E 00	0.32650585E 00	0.31053911E 00	0.19236705E 00	0.21995579E 00	0.32910482E 01
0.2200000E 01	-0.42185262E 00	0.34233327E 00	0.32260104E 00	0.20370165E 00	0.23346420E 00	0.31464201E 01



TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.7$  - Continued  
 $[\sigma = 0.71; \xi_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_S$
0.22500000E 01	-0.40432759E 00	0.3567880F 00	0.33489561F 00	0.21573488E 00	0.26790009E 00	0.30084993E 01
0.23000000E 01	-0.38596530E 00	0.37582572E 00	0.34736543E 00	0.22850425E 00	0.26299890E 00	0.28771049E 01
0.23500000E 01	-0.36673456E 00	0.39350806E 00	0.35993978E 00	0.24204709E 00	0.27883665E 00	0.27520570E 01
0.24000000E 01	-0.34660397E 00	0.41181999E 00	0.37253311F 00	0.25639983F 00	0.29539003E 00	0.26331756E 01
0.24500000E 01	-0.32554207E 00	0.43075996E 00	0.38504355E 00	0.27159732E 00	0.31261849E 00	0.25202798E 01
0.25000000E 01	-0.30351761F 00	0.45032093E 00	0.39735150E 00	0.28767191E 00	0.33046208E 00	0.24131885E 01
0.25500000E 01	-0.28049983E 00	0.47048941E 00	0.40931860E 00	0.30465238E 00	0.34883824E 00	0.23117194E 01
0.26000000E 01	-0.25645887E 00	0.49124445E 00	0.42078701E 00	0.32256278E 00	0.36763854E 00	0.22156885E 01
0.26499999E 01	-0.23136608F 00	0.51255679F 00	0.43157927E 00	0.34142099E 00	0.38672555E 00	0.21249112E 01
0.27000000E 01	-0.20519453E 00	0.53438777E 00	0.44149893E 00	0.36123727E 00	0.40592991E 00	0.20392013E 01
0.27500000E 01	-0.17791947E 00	0.55668850E 00	0.45033220E 00	0.38201253E 00	0.42504804E 00	0.19583713E 01
0.28000000E 01	-0.14951864E 00	0.57939900E 00	0.45785073E 00	0.40373664E 00	0.44384069E 00	0.18822337E 01
0.28500000E 01	-0.11997392E 00	0.60244761E 00	0.46381582E 00	0.42638657E 00	0.46203279E 00	0.18106006E 01
0.28999999E 01	-0.89269836E-01	0.62575058E 00	0.46798418E 00	0.44992472E 00	0.47931485E 00	0.17432852E 01
0.29500000E 01	-0.57396214E-01	0.64921200E 00	0.47011550E 00	0.47429720E 00	0.49534655E 00	0.16801029E 01
0.30000000E 01	-0.24347780E-01	0.67272427E 00	0.46998142E 00	0.49943243E 00	0.50976267E 00	0.16208721E 01
0.30500000E 01	0.98750897E-02	0.69616885E 00	0.46737625E 00	0.52524014E 00	0.52218178E 00	0.15654161E 01
0.31000000E 01	0.45265846E-01	0.71941775E 00	0.46212875E 00	0.55161082E 00	0.53221781E 00	0.15135641E 01
0.31500000E 01	0.81811346E-01	0.74233550E 00	0.45411441E 00	0.57841585E 00	0.53949430E 00	0.14651528E 01
0.32000000E 01	0.11949153E 00	0.76478186E 00	0.44326764E 00	0.60550833E 00	0.54366105E 00	0.14200271E 01
0.32500000E 01	0.15827930E 00	0.78661501E 00	0.42959268E 00	0.63272493E 00	0.54441243E 00	0.13780412E 01
0.33000000E 01	0.19814047E 00	0.80769524E 00	0.41317219E 00	0.65988851E 00	0.54150625E 00	0.13390587E 01
0.33500000E 01	0.23903403E 00	0.82788911E 00	0.39417247E 00	0.68681180E 00	0.53478192E 00	0.13029520E 01
0.34000000E 01	0.28091253E 00	0.84707356E 00	0.37284406E 00	0.71330187E 00	0.52417614E 00	0.12696016E 01
0.34500000E 01	0.32372273E 00	0.86514011E 00	0.34951729E 00	0.73916534E 00	0.50973476E 00	0.12388949E 01
0.35000000E 01	0.36740638E 00	0.88199858E 00	0.32459225E 00	0.76421397E 00	0.49161912E 00	0.12107235E 01
0.35500000E 01	0.41190127E 00	0.89758019E 00	0.29852346E 00	0.78827049E 00	0.47010580E 00	0.11849823E 01
0.36000000E 01	0.45714233E 00	0.91183993E 00	0.27180033E 00	0.81117420E 00	0.44557931E 00	0.11615661E 01
0.36500000E 01	0.50306287E 00	0.92475761E 00	0.24492455E 00	0.83278606E 00	0.41851768E 00	0.11403687E 01
0.37000000E 01	0.54995957E 00	0.93623397E 00	0.21838643E 00	0.85299281E 00	0.389947189E 00	0.11212809E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19 \text{ 700 FT./SEC}$  - Continued

(i)  $f(0) = -0.7$  - Concluded

$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.37500000E 01	0.59667479E 00	0.94660944E 00	0.19264213E 00	0.87171007E 00	0.35904060E 00	0.11041895E 01
0.38000000E 01	0.64423568E 00	0.95562220E 00	0.16809379E 00	0.8888402E 00	0.32784230E 00	0.10889770E 01
0.38500000E 01	0.69221712E 00	0.96344427E 00	0.1450744E 00	0.90449163E 00	0.29648700E 00	0.10755218E 01
0.38999999E 01	0.74056161E 00	0.97015917E 00	0.12383652E 00	0.91853965E 00	0.26554988E 00	0.10636985E 01
0.39500000E 01	0.78921609E 00	0.97586045E 00	0.10455105E 00	0.93106218E 00	0.23554860E 00	0.10533798E 01
0.40000000E 01	0.83813239E 00	0.98064826E 00	0.87306200E-01	0.94211745E 00	0.20692596E 00	0.10444370E 01
0.40500000E 01	0.88726737E 00	0.98462528E 00	0.72115478E-01	0.95178367E 00	0.18003851E 00	0.10367425E 01
0.41000000E 01	0.93658306E 00	0.98789316E 00	0.58927665E-01	0.96015462E 00	0.15515140E 00	0.10301706E 01
0.41499999E 01	0.98604646E 00	0.99054966E 00	0.47639394E-01	0.96733503E 00	0.13243890E 00	0.1024597E 01
0.42000000E 01	0.10356293E 01	0.99268634E 00	0.38108679E-01	0.97343620E 00	0.11198987E 00	0.10199133E 01
0.42500000E 01	0.10853077E 01	0.99438696E 00	0.30168197E-01	0.97857192E 00	0.93816966E-01	0.10160017E 01
0.43000000E 01	0.11350619E 01	0.99572658E 00	0.23637389E-01	0.98285493E 00	0.77868235E-01	0.10127625E 01
0.43500000E 01	0.11848754E 01	0.99677105E 00	0.18332750E-01	0.98399403E 00	0.64040116E-01	0.10101014E 01
0.44000000E 01	0.12347350E 01	0.99757722E 00	0.14076017E-01	0.9829193E 00	0.52190545E-01	0.10079329E 01
0.44500000E 01	0.12846299E 01	0.99819326E 00	0.10700156E-01	0.99164318E 00	0.42151446E-01	0.10061802E 01
0.45000000E 01	0.13345517E 01	0.99865931E 00	0.80533092E-02	0.99353404E 00	0.33739946E-01	0.10047752E 01
0.45499999E 01	0.13844938E 01	0.99900839E 00	0.6009705E-02	0.99504108E 00	0.26767939E-01	0.10036581E 01
0.46000000E 01	0.14344510E 01	0.99926729E 00	0.44267107E-02	0.99623165E 00	0.21049823E-01	0.10027774E 01
0.46500000E 01	0.14844193E 01	0.99945731E 00	0.32317988E-02	0.99716394E 00	0.16408398E-01	0.10020889E 01
0.47000000E 01	0.15343958E 01	0.99959534E 00	0.23340727E-02	0.99788760E 00	0.12679040E-01	0.10015550E 01
0.47500000E 01	0.15843781E 01	0.99969447E 00	0.16663310E-02	0.99844447E 00	0.97123558E-02	0.10011446E 01
0.47999999E 01	0.16343647E 01	0.99976482E 00	0.11744791E-02	0.99886925E 00	0.73755391E-02	0.10008318E 01
0.48499999E 01	0.16843542E 01	0.99981407E 00	0.81562702E-03	0.99919049E 00	0.55527063E-02	0.10005953E 01
0.49000000E 01	0.17343457E 01	0.99984798E 00	0.55624335E-03	0.99943133E 00	0.41444427E-02	0.10004181E 01
0.49500000E 01	0.17843387E 01	0.99987084E 00	0.37046125E-03	0.99961036E 00	0.30667979E-02	0.10002865E 01
0.50000000E 01	0.18343326E 01	0.99988583E 00	0.23858006E-03	0.99974228E 00	0.22499218E-02	0.10001895E 01
0.50500000E 01	0.18843271E 01	0.99989529E 00	0.14578067E-03	0.99983866E 00	0.16365051E-02	0.10001186E 01
0.50999999E 01	0.19343220E 01	0.99990081E 00	0.81042135E-04	0.99990847E 00	0.11801534E-02	0.10000673E 01
0.51500000E 01	0.19843171E 01	0.99990363E 00	0.36258404E-04	0.99995859E 00	0.84378810E-03	0.10000304E 01
0.52000000E 01	0.20343122E 01	0.99990460E 00	0.55366871E-05	0.99999426E 00	0.59814190E-03	0.10000042E 01
0.52300000E 01	0.20643094E 01	0.99990452E 00	-0.79662850E-05	0.10000104E 01	0.48457368E-03	0.99999236E 00

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_{\infty} = 19\ 700\ \text{FT/SEC}$  - Continued

(j)  $f(0) = -0.75$

$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_{\eta}$	$f_{\eta\eta}$	$g$	$g_{\eta}$	$\rho/\rho_S$
0.50000000E-01	-0.75000000E 00	0.28723943E-02	0.58789455E-01	0.16000000E-01	0.18142619E-01	0.19678155E 02
0.09999999E-01	-0.74992845E 00	0.58131213E-02	0.58118796E-01	0.15922999E-01	0.18784191E-01	0.19104854E 02
0.15000000E 00	-0.74871159E 00	0.88259038E-02	0.59522691E-01	0.17879107E-01	0.19467175E-01	0.18546037E 02
0.20000000E 00	-0.74934590E 00	0.11914479E-01	0.61001073E-01	0.18870428E-01	0.20192992E-01	0.18001022E 02
0.25000000E 00	-0.74882770E 00	0.15082632E-01	0.62554576E-01	0.19899146E-01	0.20963381E-01	0.17469188E 02
0.30000000E 00	-0.74815311E 00	0.18334200E-01	0.64184419E-01	0.20967540E-01	0.21780367E-01	0.16950019E 02
0.34999999E 00	-0.74731801E 00	0.21673201E-01	0.65892332E-01	0.22077996E-01	0.22646256E-01	0.16443038E 02
0.40000000E 00	-0.74631819E 00	0.25103648E-01	0.67680496E-01	0.23233021E-01	0.23563630E-01	0.15947837E 02
0.45000000E 00	-0.74514914E 00	0.28629778E-01	0.69551500E-01	0.24435262E-01	0.24533945E-01	0.15464046E 02
0.50000000E 00	-0.74380620E 00	0.32255963E-01	0.71508320E-01	0.25687512E-01	0.25564540E-01	0.14991336E 02
0.55000000E 00	-0.74228446E 00	0.35866751E-01	0.73554294E-01	0.26992729E-01	0.26654645E-01	0.14529411E 02
0.59999999E 00	-0.74057882E 00	0.39826885E-01	0.75693114E-01	0.28354051E-01	0.27809393E-01	0.14077992E 02
0.65000000E 00	-0.73868393E 00	0.43781316E-01	0.77928822E-01	0.29774810E-01	0.29032839E-01	0.13636845E 02
0.70000000E 00	-0.73659420E 00	0.47855228E-01	0.80265809E-01	0.31258550E-01	0.30329377E-01	0.13203744E 02
0.75000000E 00	-0.73430377E 00	0.52054045E-01	0.82708812E-01	0.32809041E-01	0.31703762E-01	0.12784485E 02
0.80000000E 00	-0.73180655E 00	0.56383459E-01	0.85262925E-01	0.34430305E-01	0.33161135E-01	0.12337287E 02
0.84999999E 00	-0.72909615E 00	0.60849441E-01	0.87933602E-01	0.36126626E-01	0.34707051E-01	0.11970748E 02
0.90000000E 00	-0.72300879E 00	0.65458263E-01	0.90726669E-01	0.37902582E-01	0.36347503E-01	0.11577939E 02
0.95000000E 00	-0.71961754E 00	0.70216521E-01	0.93648334E-01	0.39763056E-01	0.38089644E-01	0.11194300E 02
1.00000000E 01	-0.71598449E 00	0.75131144E-01	0.96705197E-01	0.41713274E-01	0.39938413E-01	0.10819492E 02
1.05000000E 01	-0.71210166E 00	0.80209429E-01	0.99904262E-01	0.43758818E-01	0.41903378E-01	0.10453987E 02
1.10000000E 01	-0.70796066E 00	0.85459054E-01	0.10325295E 00	0.45905667E-01	0.43991975E-01	0.10097059E 02
1.15000000E 01	-0.7035272E 00	0.90888094E-01	0.10675911E 00	0.48160217E-01	0.46212952E-01	0.97487987E 01
1.20000000E 01	-0.69886868E 00	0.96505056E-01	0.11043102E 00	0.50529320E-01	0.48575734E-01	0.94097922E 01
1.25000000E 01	-0.69389890E 00	0.10231889E 00	0.11427743E 00	0.53020318E-01	0.51090477E-01	0.90778383E 01
1.30000000E 01	-0.6886332E 00	0.10833902E 00	0.11830752E 00	0.55641078E-01	0.53768111E-01	0.87549386E 01
1.35000000E 01	-0.68306137E 00	0.11457536E 00	0.12253092E 00	0.58400035E-01	0.56628407E-01	0.84402995E 01
1.40000000E 01	-0.67717198E 00	0.12103835E 00	0.12695775E 00	0.61306236E-01	0.59660021E-01	0.81338304E 01
1.45000000E 01	-0.67095353E 00	0.12773895E 00	0.131646430E 00	0.64369380E-01	0.62900561E-01	0.78354447E 01
1.50000000E 01	-0.66439389E 00	0.13468871E 00	0.13646430E 00	0.67599876E-01	0.66356642E-01	0.75450565E 01
1.55000000E 01	-0.65748027E 00	0.14189971E 00	0.14156642E 00	0.71008888E-01	0.70043949E-01	0.72625842E 01
1.60000000E 01	-0.65019932E 00	0.14938469E 00	0.14691670E 00	0.74608395E-01	0.73979292E-01	0.69879476E 01
1.65000000E 01	-0.64252658E 00	0.15715697E 00	0.15252728E 00	0.78411242E-01	0.78180667E-01	0.67210684E 01
1.70000000E 01	-0.63447857E 00	0.16523649E 00	0.15841059E 00	0.82431207E-01	0.82667308E-01	0.64618673E 01
1.75000000E 01	-0.62594787E 00	0.17380620E 00	0.16457923E 00	0.86683060E-01	0.87459733E-01	0.62102682E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19\ 700\ \text{FT/SEC}$  - Continued

(j)  $f(0) = -0.75$  - Continued

$[\sigma = 0.71; \xi_{\text{WT}} = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	-0.62600864E 00	0.17361984E 00	0.17104596E 00	0.91182631E -01	3.92579776E -01	0.59661943E 01
0.18000000E 01	-0.61711103E 00	0.18234025E 00	0.17782351E 00	0.95946874E -01	0.98050622E -01	0.57295685E 01
0.18500000E 01	-0.60776880E 00	0.19140757E 00	0.18492440E 00	0.10093932E 00	0.10389680E 00	0.55003142E 01
0.19000000E 01	-0.59795418E 00	0.20083827E 00	0.19236088E 00	0.10634322E 00	0.11014439E 00	0.52783534E 01
0.19500000E 01	-0.58767858E 00	0.21064942E 00	0.20014442E 00	0.11201549E 00	0.11681996E 00	0.50636607E 01
0.20000000E 01	-0.57689255E 00	0.22085866E 00	0.20828583E 00	0.11903282E 00	0.12395246E 00	0.48559977E 01
0.20500000E 01	-0.56558574E 00	0.23148411E 00	0.21679455E 00	0.12441882E 00	0.13157114E 00	0.46554421E 01
0.21000000E 01	-0.55373686E 00	0.24254435E 00	0.22567843E 00	0.13119853E 00	0.13970637E 00	0.444618582E 01
0.21500000E 01	-0.54132371E 00	0.25405828E 00	0.23494320E 00	0.13898957E 00	0.14838908E 00	0.42751611E 01
0.22000000E 01	-0.52832311E 00	0.26604503E 00	0.24459191E 00	0.14604706E 00	0.15755054E 00	0.40952636E 01
0.22500000E 01	-0.51471096E 00	0.27852388E 00	0.25462426E 00	0.15417376E 00	0.16752183E 00	0.39220758E 01
0.23000000E 01	-0.50046217E 00	0.29151375E 00	0.26503585E 00	0.16280990E 00	0.17803328E 00	0.37525056E 01
0.23500000E 01	-0.48555073E 00	0.30503355E 00	0.27581731E 00	0.17198822E 00	0.18921373E 00	0.35954566E 01
0.24000000E 01	-0.46994967E 00	0.31910136E 00	0.28695329E 00	0.18174285E 00	0.20108969E 00	0.34418305E 01
0.24500000E 01	-0.45363116E 00	0.33373438E 00	0.29842134E 00	0.19210915E 00	0.21368416E 00	0.32945241E 01
0.25000000E 01	-0.43666553E 00	0.34894848E 00	0.31019071E 00	0.20312353E 00	0.22701538E 00	0.31534313E 01
0.25500000E 01	-0.41872637E 00	0.3647577E 00	0.32222095E 00	0.21482316E 00	0.24109522E 00	0.30184412E 01
0.26000000E 01	-0.4008061E 00	0.38117404E 00	0.33446052E 00	0.22724558E 00	0.25527236E 00	0.28894390E 01
0.26499999E 01	-0.38059868E 00	0.39820620E 00	0.34684519E 00	0.24042831E 00	0.27150519E 00	0.27663047E 01
0.27000000E 01	-0.36024962E 00	0.41588563E 00	0.35929656E 00	0.25440819E 00	0.28780936E 00	0.26489144E 01
0.27500000E 01	-0.33900232E 00	0.43413538E 00	0.37172047E 00	0.26922075E 00	0.30480509E 00	0.25371386E 01
0.28000000E 01	-0.31682575E 00	0.45302934E 00	0.38400563E 00	0.28489931E 00	0.32243923E 00	0.24308429E 01
0.28500000E 01	-0.29368923E 00	0.47253145E 00	0.39602236E 00	0.30147403E 00	0.34063713E 00	0.23298879E 01
0.28999999E 01	-0.26956274E 00	0.49262460E 00	0.40762173E 00	0.31897074E 00	0.35929936E 00	0.22341291E 01
0.29500000E 01	-0.24441731E 00	0.51328381E 00	0.41863520E 00	0.33740958E 00	0.37829854E 00	0.21434170E 01
0.30000000E 01	-0.21822546E 00	0.53447516E 00	0.42887492E 00	0.35680356E 00	0.39747634E 00	0.20575974E 01
0.30500000E 01	-0.19096164E 00	0.55615491E 00	0.43813489E 00	0.37715697E 00	0.41664091E 00	0.19765122E 01
0.31000000E 01	-0.16260273E 00	0.57826855E 00	0.44619337E 00	0.39846363E 00	0.43556526E 00	0.18999991E 01
0.31500000E 01	-0.13312864E 00	0.60075024E 00	0.45281643E 00	0.42070509E 00	0.45398645E 00	0.18278933E 01
0.32000000E 01	-0.10252285E 00	0.62352218E 00	0.45776312E 00	0.44384890E 00	0.47160663E 00	0.17600282E 01
0.32500000E 01	-0.70773070E -01	0.64649450E 00	0.46079229E 00	0.46784689E 00	0.48809578E 00	0.16962342E 01
0.33000000E 01	-0.37871753E -01	0.6695647E 00	0.46167102E 00	0.49233366E 00	0.50309683E 00	0.16363511E 01
0.33500000E 01	-0.38167555E -02	0.69262210E 00	0.46018470E 00	0.51812549E 00	0.51623343E 00	0.15820284E 01
0.34000000E 01	0.31388170E -01	0.71554135E 00	0.45614828E 00	0.54421944E 00	0.52712053E 00	0.15276479E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_{\infty} = 19\ 700\ \text{FT/SEC}$  - Continued

(j)  $f(0) = -0.75$  - Continued

$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$

$\eta$	$f$	$f_{\eta}$	$f_{\eta\eta}$	$g$	$g_{\eta}$	$\rho/\rho_s$
0.34500000E 01	0.67732902E-01	0.73819193E 00	0.44941850E 00	0.57079360E 00	0.53537773E 00	0.14785142E 01
0.35000000E 01	0.10520060E 00	0.76043671E 00	0.43980604E 00	0.59770729E 00	0.54064514E 00	0.14326594E 01
0.35500000E 01	0.14376747E 00	0.78213564E 00	0.42758699E 00	0.62480281E 00	0.54260122E 00	0.13899426E 01
0.36000000E 01	0.18340272E 00	0.80314936E 00	0.41251234E 00	0.65190770E 00	0.54498146E 00	0.13502313E 01
0.36500000E 01	0.22406872E 00	0.82334302E 00	0.39481451E 00	0.67883807E 00	0.53559690E 00	0.13134011E 01
0.37000000E 01	0.26572125E 00	0.84259057E 00	0.37470971E 00	0.70540289E 00	0.52635069E 00	0.12793353E 01
0.37500000E 01	0.30831010E 00	0.86077873E 00	0.35249546E 00	0.73140880E 00	0.51325138E 00	0.12479234E 01
0.38000000E 01	0.35177983E 00	0.87781104E 00	0.32854262E 00	0.7566572E 00	0.49642114E 00	0.12190597E 01
0.38500000E 01	0.39607063E 00	0.89361110E 00	0.30328212E 00	0.7809287E 00	0.47609784E 00	0.11926413E 01
0.38999999E 01	0.44111947E 00	0.90812529E 00	0.27718697E 00	0.80422296E 00	0.45263001E 00	0.11685658E 01
0.39500000E 01	0.48686120E 00	0.92132404E 00	0.25075079E 00	0.82621049E 00	0.42846489E 00	0.11467300E 01
0.40000000E 01	0.53322984E 00	0.93320276E 00	0.22446461E 00	0.84683318E 00	0.39812978E 00	0.11270275E 01
0.40500000E 01	0.58015975E 00	0.94378071E 00	0.19879380E 00	0.86599696E 00	0.36820828E 00	0.11093484E 01
0.41000000E 01	0.62758686E 00	0.95309933E 00	0.17415717E 00	0.88363773E 00	0.33731319E 00	0.10935779E 01
0.41499999E 01	0.67544966E 00	0.96121953E 00	0.15091002E 00	0.89972222E 00	0.30605819E 00	0.10795971E 01
0.42000000E 01	0.72369009E 00	0.96821813E 00	0.12933225E 00	0.91424729E 00	0.27503075E 00	0.10672829E 01
0.42500000E 01	0.7725424E 00	0.97418386E 00	0.10962237E 00	0.92723801E 00	0.24476816E 00	0.10565093E 01
0.43000000E 01	0.82109284E 00	0.97921349E 00	0.91897132E-01	0.93874463E 00	0.21573830E 00	0.10471490E 01
0.43500000E 01	0.87016161E 00	0.98340729E 00	0.76196491E-01	0.94883879E 00	0.18832634E 00	0.10390745E 01
0.44000000E 01	0.91942128E 00	0.9868630E 00	0.62492487E-01	0.95760913E 00	0.16282750E 00	0.10321601E 01
0.44500000E 01	0.96883758E 00	0.98988837E 00	0.50700998E-01	0.96515679E 00	0.13944571E 00	0.10262832E 01
0.45000000E 01	0.10183810E 01	0.99196609E 00	0.40694883E-01	0.97159091E 00	0.11829756E 00	0.10213261E 01
0.45499999E 01	0.10680265E 01	0.99378492E 00	0.32317277E-01	0.97702438E 00	0.99420287E-01	0.10171772E 01
0.46000000E 01	0.1117531E 01	0.99522198E 00	0.25394036E-01	0.98157023E 00	0.82782676E-01	0.10137319E 01
0.46500000E 01	0.11675434E 01	0.99634548E 00	0.19744583E-01	0.98533849E 00	0.68297694E-01	0.10108936E 01
0.47000000E 01	0.12173833E 01	0.99721461E 00	0.15190759E-01	0.98843365E 00	0.55835392E-01	0.10085762E 01
0.47500000E 01	0.12672614E 01	0.99787990E 00	0.11563504E-01	0.99095301E 00	0.45226029E-01	0.10066940E 01
0.47999999E 01	0.13171685E 01	0.99836374E 00	0.87074789E-02	0.99298526E 00	0.36521325E-01	0.10051825E 01
0.48499999E 01	0.13670976E 01	0.99876110E 00	0.64838013E-02	0.99461003E 00	0.28904771E-01	0.10039774E 01
0.49000000E 01	0.14170429E 01	0.99904054E 00	0.47712579E-02	0.99589733E 00	0.22799921E-01	0.10030244E 01
0.49500000E 01	0.14670003E 01	0.99924493E 00	0.34662944E-02	0.99690881E 00	0.17826878E-01	0.10022772E 01

TABLE III. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 19$  700 FT/SEC - Concluded.

(j)  $\epsilon(0) = -0.75$  - Concluded

$[\sigma = 0.71; \epsilon_w = 0.01600; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.5000000E 01	0.15169664E 01	0.99939243E 00	0.24821477E-02	0.99769619E 00	0.13817027E-01	0.10016962E 01
0.50500000E 01	0.15669388E 01	0.99949722E 00	0.17473994E-02	0.99830392E .00	0.10616167E-01	0.10012482E 01
0.50999999E 01	0.16169156E 01	0.99957028E 00	0.12042216E-02	0.99876892E 00	0.80862734E-02	0.10009057E 01
0.51500000E 01	0.16668953E 01	0.99961999E 00	0.80651466E-03	0.99912163E 00	0.61061596E-02	0.10006460E 01
0.52000000E 01	0.17168772E 01	0.99965268E 00	0.51804667E-03	0.99938686E 00	0.45712643E-02	0.10004509E 01
0.52500000E 01	0.17668603E 01	0.99967306E 00	0.31072902E-03	0.99958461E 00	0.33928180E-02	0.10003054E 01
0.52999999E 01	0.18168443E 01	0.99968467E 00	0.16307290E-03	0.99973077E 00	0.24965886E-02	0.10001979E 01
0.53500000E 01	0.18668286E 01	0.99969031E 00	0.5883979E-04	0.99983786E 00	0.18213793E-02	0.10001192E 01
0.54000000E 01	0.19168131E 01	0.99969098E 00	-0.14118566E-04	0.99991565E 00	0.13174211E-02	0.10000620E 01
0.54500000E 01	0.19667976E 01	0.99968890E 00	-0.64739677E-04	0.99997170E 00	0.94476243E-03	0.10000208E 01
0.55000000E 01	0.20167819E 01	0.99968470E 00	-0.99571796E-04	0.10000117E 01	0.67173289E-03	0.99999142E 00
0.55499999E 01	0.20667659E 01	0.99967905E 00	-0.12334170E-03	0.10000400E 01	0.47353094E-03	0.99997061E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$

(a)  $f(0) = 0$

$[\sigma = 0.71; \epsilon_{\text{W}} = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.	0.	0.	0.34578513E 00	0.16910000E-01	0.222326810E 00	0.14728511E 02
0.50000000E-01	0.46325152E-03	0.19145388E-01	0.4195237E 00	0.28856501E-01	0.27136465E 00	0.11216819E 02
0.09999999E 00	0.19748154E-02	0.41906164E-01	0.49026847E 00	0.43630021E-01	0.31940949E 00	0.877522280E 01
0.15000000E 00	0.47113129E-02	0.68113241E-01	0.55740467E 00	0.60781888E-01	0.36652089E 00	0.70461525E 01
0.20000000E 00	0.88405282E-02	0.97583101E-01	0.62072509E 00	0.80268458E-01	0.41281050E 00	0.57923002E 01
0.25000000E 00	0.14520681E-01	0.13011570E 00	0.67983931E 00	0.10204982E 00	0.45830996E 00	0.48610786E 01
0.30000000E 00	0.21899452E-01	0.16548862E 00	0.73424660E 00	0.1250857E 00	0.50295572E 00	0.41540035E 01
0.34999999E 00	0.31112736E-01	0.20345218E 00	0.78336222E 00	0.15232855E 00	0.54858874E 00	0.36063934E 01
0.40000000E 00	0.42283189E-01	0.24372594E 00	0.82654404E 00	0.18072301E 00	0.58995162E 00	0.31748271E 01
0.45000000E 00	0.55518626E-01	0.28599644E 00	0.86311901E 00	0.21119660E 00	0.62968528E 00	0.28294614E 01
0.50000000E 00	0.70910341E-01	0.32991642E 00	0.89241181E 00	0.24365671E 00	0.668932686E 00	0.25493369E 01
0.55000000E 00	0.88531432E-01	0.37510542E 00	0.91377680E 00	0.27798502E 00	0.70431113E 00	0.23194158E 01
0.59999999E 00	0.10843518E 00	0.42115232E 00	0.92663448E 00	0.31403253E 00	0.73697764E 00	0.21286989E 01
0.65000000E 00	0.13065366E 00	0.46761908E 00	0.93051215E 00	0.35161513E 00	0.76558591E 00	0.19689983E 01
0.70000000E 00	0.15519647E 00	0.51404824E 00	0.92508753E 00	0.39051019E 00	0.78934035E 00	0.18341222E 01
0.75000000E 00	0.18205002E 00	0.55997047E 00	0.91023295E 00	0.43045464E 00	0.80742602E 00	0.17193240E 01
0.80000000E 00	0.2111721E 00	0.60491594E 00	0.88605658E 00	0.47114511E 00	0.81905506E 00	0.16209243E 01
0.84999999E 00	0.24251768E 00	0.64842681E 00	0.85293581E 00	0.51224067E 00	0.82352234E 00	0.15360460E 01
0.90000000E 00	0.27598875E 00	0.69007131E 00	0.81153771E 00	0.55336845E 00	0.82026652E 00	0.14624263F 01
0.95000000E 00	0.31148714E 00	0.72945836E 00	0.76202118E 00	0.59413244E 00	0.80893136E 00	0.13982789E 01
0.10000000E 01	0.34889130E 00	0.76625175E 00	0.70801678E 00	0.63412508E 00	0.78942030E 00	0.13421904E 01
0.10500000E 01	0.38806455E 00	0.80018270E 00	0.64858235E 00	0.67294134E 00	0.76193662E 00	0.12930397E 01
0.11000000E 01	0.42885862E 00	0.83105965E 00	0.58613538E 00	0.71019432E 00	0.72700235E 00	0.12499327E 01
0.11500000E 01	0.47111773E 00	0.85877413E 00	0.52236706E 00	0.74553107E 00	0.68545091E 00	0.12121495E 01
0.12000000E 01	0.51468284E 00	0.88330211E 00	0.45894594E 00	0.77864741E 00	0.63839104E 00	0.11791003E 01
0.12500000E 01	0.55939571E 00	0.90470038E 00	0.39742156E 00	0.80930027E 00	0.58714624E 00	0.11502898E 01
0.13000000E 01	0.60510281E 00	0.92309839E 00	0.33913892E 00	0.83731645E 00	0.53317260E 00	0.11252900E 01
0.13500000E 01	0.65165865E 00	0.93868632E 00	0.28517346E 00	0.86259696E 00	0.47796717E 00	0.11037197E 01
0.14000000E 01	0.69892850E 00	0.95170058E 00	0.23629292E 00	0.88911675E 00	0.42297585E 00	0.10852304E 01
0.14500000E 01	0.74679023E 00	0.956240797E 00	0.19294819E 00	0.90492003E 00	0.36951116E 00	0.10694974E 01
0.15000000E 01	0.79513551E 00	0.97109026E 00	0.15529131E 00	0.92211195E 00	0.31868810E 00	0.10562153E 01
0.15500000E 01	0.84387017E 00	0.97803015E 00	0.12321450E 00	0.9384754E 00	0.27138261E 00	0.10450961E 01
0.16000000E 01	0.89291398E 00	0.98349954E 00	0.96405606E-01	0.94931923E 00	0.22821410E 00	0.10358689E 01
0.16500000E 01	0.94219980E 00	0.98775079E 00	0.74403387E-01	0.95974407E 00	0.18954990E 00	0.10282814E 01
0.17000000E 01	0.99167252E 00	0.99101080E 00	0.56659554E-01	0.96835162E 00	0.15552741E 00	0.10221003E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(a)  $f(0) = 0$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.10412877E 01	0.99347787E 00	0.42588085E-01	0.97537324E 00	0.12608860E 00	0.10171130E 01
0.18000000E 01	0.10910098E 01	0.99532101E 00	0.31607071E-01	0.98103333E 00	0.10102095E 00	0.10131282E 01
0.18500000E 01	0.11408116E 01	0.99668085E 00	0.23169006E-01	0.98554275E 00	0.60000178E-01	0.10099757E 01
0.19000000E 01	0.11906718E 01	0.99767195E 00	0.16780320E-01	0.98909415E 00	0.62630406E-01	0.10075068E 01
0.19500000E 01	0.12405742E 01	0.99838576E 00	0.12011592E-01	0.99185936E 00	0.48479492E-01	0.10055928E 01
0.20000000E 01	0.12905068E 01	0.99889395E 00	0.85004135E-02	0.99398834E 00	0.37107830E-01	0.10041241E 01
0.20500000E 01	0.13404610E 01	0.99925169E 00	0.59489922E-02	0.99560931E 00	0.28090279E-01	0.10030087E 01
0.21000000E 01	0.13904301E 01	0.99950076E 00	0.41183856E-02	0.99682993E 00	0.21031509E-01	0.10021705E 01
0.21500000E 01	0.14404097E 01	0.99967232E 00	0.28209741E-02	0.99773908E 00	0.1575524E-01	0.10015471E 01
0.22000000E 01	0.14903964E 01	0.99978924E 00	0.19123080E-02	0.99840891E 00	0.11410392E-01	0.10010882E 01
0.22500000E 01	0.15403879E 01	0.99986810E 00	0.12831828E-02	0.99889710E 00	0.82692559E-02	0.10007541E 01
0.23000000E 01	0.15903827E 01	0.99992079E 00	0.85243808E-03	0.99924909E 00	0.59286798E-02	0.10005133E 01
0.23500000E 01	0.16403796E 01	0.99995559E 00	0.56070261E-03	0.99950016E 00	0.42052235E-02	0.10003416E 01
0.24000000E 01	0.16903780E 01	0.99997837E 00	0.36518784E-03	0.99967735E 00	0.29510076E-02	0.10002209E 01
0.24500000E 01	0.17403772E 01	0.99999313E 00	0.23550017E-03	0.99980105E 00	0.20488484E-02	0.10001359E 01
0.25000000E 01	0.17903771E 01	0.10000026E 01	0.15033808E-03	0.99988651E 00	0.14073872E-02	0.10000776E 01
0.25500000E 01	0.18403773E 01	0.10000098E 01	0.94952741E-04	0.99994490E 00	0.95650252E-03	0.10000376E 01
0.26000000E 01	0.18903778E 01	0.10000122E 01	0.59273576E-04	0.99998437E 00	0.64317723E-03	0.10000107E 01
0.26500000E 01	0.19303783E 01	0.10000142E 01	0.40268035E-04	0.10000063E 01	0.46463908E-03	0.99999571E 00



TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$

$[\sigma = 0.71; g_w = 0.01851; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.	0.20000000E 00	C.	0.48102269E 00	0.16510000E-01	0.32145511E 00	0.14728511E 02
0.50000000E-01	0.20066171E 00	0.	0.62300292E 00	0.58059951E-01	0.41955803E 00	0.10035110E 02
0.09999999E 00	0.20287803E 00	0.	0.75123764E 00	0.35357523E-01	0.51125654E 00	0.72452187E 01
0.15000000E 00	0.20696934E 00	0.	0.86461394E 00	0.86077600E-01	0.58646536E 00	0.55068536E 01
0.20000000E 00	0.21321890E 00	0.	0.96215522E 00	0.11789424E 00	0.67507654E 00	0.43674219E 01
0.25000000E 00	0.22187030E 00	0.	0.10427525E 01	0.15346907E 00	0.74671104E 00	0.35863428E 01
0.30000000E 00	0.23312484E 00	0.	0.11953648E 01	0.13243947E 00	0.81078947E 00	0.30303270E 01
0.34999999E 00	0.24713888E 00	0.	0.11491769E 01	0.23441007E 00	0.86658966E 00	0.26218585E 01
0.40000000E 00	0.26402184E 00	0.	0.11737193E 01	0.27894677E 00	0.91329258E 00	0.23137330E 01
0.45000000E 00	0.28383505E 00	0.	0.11789549E 01	0.32557342E 00	0.950004430E 00	0.20759991E 01
0.50000000E 00	0.30659173E 00	0.	0.11653579E 01	0.37377144E 00	0.97601604E 00	0.18889618E 01
0.55000000E 00	0.33225808E 00	0.	0.11339452E 01	0.42298322E 00	0.99048759E 00	0.17392712E 01
0.59999999E 00	0.36075591E 00	0.	0.10862917E 01	0.47261962E 00	0.99293523E 00	0.16176494E 01
0.65000000E 00	0.39196650E 00	0.	0.10245001E 01	0.52207213E 00	0.98312125E 00	0.15175192E 01
0.70000000E 00	0.42573593E 00	0.	0.95113006E 00	0.57072320E 00	0.96117290E 00	0.14341465E 01
0.75000000E 00	0.46188138E 00	0.	0.86908454E 00	0.61799599E 00	0.92763849E 00	0.13640838E 01
0.80000000E 00	0.50019837E 00	0.	0.78145976E 00	0.66337615E 00	0.88350915E 00	0.13047947E 01
0.84999999E 00	0.54046848E 00	0.	0.69137141E 00	0.70619361E 00	0.83019854E 00	0.12543916E 01
0.90000000E 00	0.58246713E 00	0.	0.60177453E 00	0.74621230E 00	0.76947891E 00	0.12114478E 01
0.95000000E 00	0.62597088E 00	0.	0.51529325E 00	0.78305168E 00	0.70337855E 00	0.11748605E 01
1.00000000E 01	0.67076398E 00	0.	0.43411237E 00	0.81649634E 00	0.63405274E 00	0.11437526E 01
1.05000000E 01	0.71664379E 00	0.	0.35984392E 00	0.84643892E 00	0.56364418E 00	0.11174028E 01
1.10000000E 01	0.76342488E 00	0.	0.29354650E 00	0.87287608E 00	0.49415054E 00	0.10951987E 01
1.15000000E 01	0.81094162E 00	0.	0.23572283E 00	0.89589839E 00	0.42731435E 00	0.10766057E 01
1.20000000E 01	0.85904944E 00	0.	0.18639043E 00	0.91567545E 00	0.36454580E 00	0.10611483E 01
1.25000000E 01	0.90762492E 00	0.	0.14517614E 00	0.93243819E 00	0.30688311E 00	0.10489983E 01
1.30000000E 01	0.95656490E 00	0.	0.11142398E 00	0.94646002E 00	0.25498901E 00	0.10378698E 01
1.35000000E 01	0.10057848E 01	0.	0.84301885E-01	0.95803856E 00	0.20917732E 00	0.10295151E 01
1.40000000E 01	0.10552166E 01	0.	0.62896461E-01	0.96747939E 00	0.16946117E 00	0.10227233E 01
1.45000000E 01	0.11048067E 01	0.	0.46289422E-01	0.97508249E 00	0.13561337E 00	0.10173186E 01
1.50000000E 01	0.11545133E 01	0.	0.33613048E-01	0.98113180E 00	0.10723069E 00	0.10130591E 01
1.55000000E 01	0.12043047E 01	0.	0.24085625E 00	0.98588797E 00	0.83795089E-01	0.10097352E 01
1.60000000E 01	0.12541566E 01	0.	0.17029825E-01	0.98958403E 00	0.64727535E-01	0.10071672E 01
1.65000000E 01	0.13040517E 01	0.	0.11877449E-01	0.99242350E 00	0.49431959E-01	0.10052032E 01
1.70000000E 01	0.13539767E 01	0.	0.81653235E-02	0.99458034E 00	0.37328552E-01	0.10037165E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$  - Concluded

$[\sigma = 0.71; \xi_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.1750000E 01	0.14039222E 01	0.99907145E 00	0.55251102E-02	0.99620044E 00	0.27876925E-01	0.10026026E-01
0.1800000E 01	0.14538819E 01	0.999929854E 00	0.36703776E-02	0.99740400E 00	0.20590424E-01	0.10017767E 01
0.1850000E 01	0.15038508E 01	0.99944784E 00	0.23828544E-02	0.99828835E 00	0.15043193E-01	0.10011708E 01
0.1900000E 01	0.15538257E 01	0.99954346E 00	0.14922665E-02	0.99893113E 00	0.10871748E-01	0.10007308E 01
0.1950000E 01	0.16038044E 01	0.99960241E 00	0.89956327E-03	0.99939330E 00	0.77726150E-02	0.10004147E 01
0.2000000E 01	0.16537854E 01	0.99963661E 00	0.49687045E-03	0.99972203E 00	0.54974583E-02	0.10001899E 01
0.2050000E 01	0.17037677E 01	0.99965426E 00	0.22925814E-03	0.99995334E 00	0.38467858E-02	0.10000319E 01
0.2100000E 01	0.17537506E 01	0.99966098E 00	0.53200095E-04	0.10001144E 01	0.26630918E-02	0.99992186E 00
0.2150000E 01	0.18037336E 01	0.99966054E 00	-0.61495402E-04	0.10002253E 01	0.18240403E-02	0.99984612E 00
0.2200000E 01	0.18537169E 01	0.99965543E 00	-0.13590515E-03	0.10003008E 01	0.12360863E-02	0.99979451E 00
0.2250000E 01	0.19036990E 01	0.99964736E 00	-0.18281583E-03	0.10003518E 01	0.82876931E-03	0.99975973E 00
0.2300000E 01	0.19536811E 01	0.99963739E 00	-0.21278117E-03	0.10003857E 01	0.54978400E-03	0.99973555E 00
0.2350000E 01	0.19736738E 01	0.99963303E 00	-0.22137735E-03	0.10003958E 01	0.46515812E-03	0.99972966E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(c)  $f(0) = 0.4$

$[\sigma = 0.71; \xi_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.4000000E 00	0.4000000E 00	0.37782367E-01	0.63229536E 00	0.16510000E-01	0.43074831E 00	0.14728511E 02
0.40089435E 00	0.40089435E 00	0.86664410E-01	0.87305047E 00	0.42383731E-01	0.60108542E 00	0.89373007E-01
0.40396331E 00	0.40396331E 00	0.10756375E 01	0.10756375E 01	0.76288235E-01	0.75177166E 00	0.60075732E 01
0.40971291E 00	0.40971291E 00	0.14467135E 00	0.12377388E 01	0.11722592E 00	0.88233634E 00	0.43859537E 01
0.41854808E 00	0.41854808E 00	0.20973540E 00	0.13577000E 01	0.16417485E 00	0.99207515E 00	0.34101947E 01
0.43076854E 00	0.43076854E 00	0.27972592E 00	0.14347855E 01	0.21607120E 00	0.10860847E 01	0.27824827E 01
0.44656716E 00	0.44656716E 00	0.35251009E 00	0.14656997E 01	0.27180789E 00	0.11455800E 01	0.23568058E 01
0.46603171E 00	0.46603171E 00	0.42603065E 00	0.14647340E 01	0.33024575E 00	0.11880850E 01	0.20556429E 01
0.48915056E 00	0.48915056E 00	0.49838233E 00	0.14237497E 01	0.39023246E 00	0.12075752E 01	0.18349964E 01
0.51582236E 00	0.51582236E 00	0.56789038E 00	0.13519240E 01	0.45062897E 00	0.112045960E 01	0.16685089E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(c)  $f(0) = 0.4$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f''$	$f'''$	$f''''$	$g$	$g''$	$\rho/\rho_s$
0.5000000E 00	0.54586881E 00	0.63316329E 00	0.12554359E 01	0.51033717E 00	0.11803489E 01	0.15397062E 01	0.15397062E 01
0.55000000E 00	0.57905011E 00	0.69313349E 00	0.11410472E 01	0.56833997E 00	0.11367300E 01	0.14379499E 01	0.14379499E 01
0.59999999E 00	0.61508173E 00	0.74708456E 00	0.10156443E 01	0.62372962E 00	0.10763014E 01	0.13561940E 01	0.13561940E 01
0.65000000E 00	0.65365157E 00	0.79462598E 00	0.88578517E 00	0.67574175E 00	0.10021887E 01	0.12896697E 01	0.12896697E 01
0.70000000E 00	0.69443615E 00	0.83568649E 00	0.75730121E 00	0.72377887E 00	0.91790999E 00	0.12350759E 01	0.12350759E 01
0.75000000E 00	0.73711528E 00	0.87045967E 00	0.63499434E 00	0.76742476E 00	0.82715548E 00	0.11900641E 01	0.11900641E 01
0.80000000E 00	0.78138395E 00	0.89934946E 00	0.52244603E 00	0.80644695E 00	0.73354746E 00	0.11529049E 01	0.11529049E 01
0.84999999E 00	0.82696129E 00	0.92290828E 00	0.42204548E 00	0.84078763E 00	0.64041507E 00	0.11222747E 01	0.11222747E 01
0.90000000E 00	0.87359653E 00	0.94177607E 00	0.33492481E 00	0.87054421E 00	0.55061204E 00	0.10971196E 01	0.10971196E 01
0.95000000E 00	0.92107190E 00	0.95662560E 00	0.26127257E 00	0.89594226E 00	0.46639728E 00	0.10745710E 01	0.10745710E 01
0.10000000E 01	0.96920313E 00	0.96811800E 00	0.20048731E 00	0.91730425E 00	0.38938473E 00	0.10598955E 01	0.10598955E 01
0.10500000E 01	0.10178380E 01	0.97686995E 00	0.15143301E 00	0.93501738E 00	0.32055727E 00	0.10464641E 01	0.10464641E 01
0.11000000E 01	0.10688536E 01	0.98343274E 00	0.11266494E 00	0.94950352E 00	0.26033092E 00	0.10357338E 01	0.10357338E 01
0.11500000E 01	0.11161527E 01	0.98828174E 00	0.82619084E 01	0.96119307E 00	0.20865160E 00	0.10272358E 01	0.10272358E 01
0.12000000E 01	0.11656598E 01	0.99181422E 00	0.59755042E 01	0.97050431E 00	0.16510655E 00	0.10205661E 01	0.10205661E 01
0.12500000E 01	0.12153175E 01	0.99435309E 00	0.42651894E 01	0.9782829E 00	0.12903553E 00	0.10153807E 01	0.10153807E 01
0.13000000E 01	0.12650828E 01	0.99615444E 00	0.30624849E 01	0.98351895E 00	0.99631324E 01	0.10113881E 01	0.10113881E 01
0.13500000E 01	0.13149239E 01	0.99741685E 00	0.20935050E 01	0.98788797E 00	0.76023077E 01	0.10083440E 01	0.10083440E 01
0.14000000E 01	0.13648180E 01	0.99829117E 00	0.14411619E 01	0.99120326E 00	0.57340562E 01	0.10060463E 01	0.10060463E 01
0.14500000E 01	0.14147484E 01	0.99888992E 00	0.98120396E 02	0.99369027E 00	0.42759520E 01	0.10043295E 01	0.10043295E 01
0.15000000E 01	0.14647036E 01	0.99929553E 00	0.66103888E 02	0.99553495E 00	0.31530458E 01	0.10030598E 01	0.10030598E 01
0.15500000E 01	0.15146756E 01	0.99956749E 00	0.44089163E 02	0.99688804E 00	0.22993917E 01	0.10021306E 01	0.10021306E 01
0.16000000E 01	0.15646588E 01	0.99974806E 00	0.29127541E 02	0.99786968E 00	0.16585469E 01	0.10014575E 01	0.10014575E 01
0.16500000E 01	0.16146494E 01	0.99986684E 00	0.19072373E 02	0.99857408E 00	0.11833457E 01	0.10009751E 01	0.10009751E 01
0.17000000E 01	0.16646447E 01	0.99994428E 00	0.12386690E 02	0.99907409E 00	0.83520523E 02	0.10006330E 01	0.10006330E 01
0.17500000E 01	0.17146433E 01	0.99999440E 00	0.79869617E 03	0.99942520E 00	0.58316897E 02	0.10003929E 01	0.10003929E 01
0.18000000E 01	0.17646438E 01	0.10000265E 01	0.51200789E 03	0.99968912E 00	0.4028324E 02	0.10002261E 01	0.10002261E 01
0.18500000E 01	0.18146457E 01	0.10000471E 01	0.32698295E 03	0.99983675E 00	0.27530722E 02	0.1000115E 01	0.1000115E 01
0.19000000E 01	0.18646483E 01	0.10000632E 01	0.20867699E 03	0.99995072E 00	0.18614909E 02	0.10000337E 01	0.10000337E 01
0.19500000E 01	0.19146516E 01	0.10000686E 01	0.13371248E 03	0.10000274E 01	0.12452837E 02	0.999998130E 00	0.999998130E 00
0.20000000E 01	0.19646551E 01	0.10000739E 01	0.86626554E 04	0.10000784E 01	0.82422236E 03	0.99994646E 00	0.99994646E 00
0.20500000E 01	0.20146589E 01	0.10000775E 01	0.57305713E 04	0.10001120E 01	0.53974984E 03	0.99992353E 00	0.99992353E 00
0.20600000E 01	0.20246596E 01	0.10000780E 01	0.52949643E 04	0.10001171E 01	0.49529850E 03	0.99992001E 00	0.99992001E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(d)  $f(0) = 0.6$

$[c = 0.71; \epsilon_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.60000000E 00	0.	0.79527987E 00	0.16510000E-01	0.54739659E 00	0.14728511E 02
0.509999999E-01	0.60115705E 00	0.49379780E-01	0.11665881E 01	0.50734998E-01	0.81434228E 00	0.79587311E 01
0.519999999E-01	0.60521293E 00	0.11525013E 00	0.14538244E 01	0.97187262E-01	0.10361113E 01	0.50391729E 01
0.530000000E 00	0.6128512E 00	0.19330299E 00	0.16536080E 01	0.15357307E 00	0.12114869E 01	0.35845273E 01
0.540000000E 00	0.62467313E 00	0.27915557E 00	0.17666238E 01	0.21754595E 00	0.133949958E 01	0.276866493E 01
0.550000000E 00	0.64085957E 00	0.36855609E 00	0.17967893E 01	0.28673428E 00	0.14202566E 01	0.22690258E 01
0.560000000E 00	0.66152290E 00	0.45762788E 00	0.17550680E 01	0.35881219E 00	0.14555117E 01	0.19419900E 01
0.570000000E 00	0.68656161E 00	0.54308087E 00	0.16544971E 01	0.43158314E 00	0.14486820E 01	0.17163665E 01
0.580000000E 00	0.71572752E 00	0.62235439E 00	0.15105514E 01	0.50306082E 00	0.14047219E 01	0.15539252E 01
0.590000000E 00	0.74866408E 00	0.69367835E 00	0.13391136E 01	0.57153925E 00	0.13298291E 01	0.14328663E 01
0.600000000E 00	0.78494582E 00	0.75605584E 00	0.11550098E 01	0.63564511E 00	0.12310348E 01	0.13401743E 01
0.610000000E 00	0.82411510E 00	0.80918064E 00	0.97089142E 00	0.69436730E 00	0.11157127E 01	0.12678045E 01
0.620000000E 00	0.86571369E 00	0.85330977E 00	0.79656147E 00	0.74706125E 00	0.99106491E 00	0.12105747E 01
0.630000000E 00	0.90930714E 00	0.88911361E 00	0.63874845E 00	0.79342817E 00	0.863650005E 00	0.11650073E 01
0.640000000E 00	0.95450173E 00	0.91752481E 00	0.50126921E 00	0.83347326E 00	0.73901879E 00	0.112864490E 01
0.650000000E 00	1.0009540E 01	0.93960283E 00	0.38546962E 00	0.86744913E 00	0.62149331E 00	0.10996800E 01
0.660000000E 00	1.0483744E 01	0.95642479E 00	0.29081366E 00	0.89579208E 00	0.51410041E 00	0.10766901E 01
0.670000000E 00	1.0965258E 01	0.96900690E 00	0.21550168E 00	0.91905855E 00	0.41863914E 00	0.10585496E 01
0.680000000E 00	1.1452199E 01	0.97825567E 00	0.15702830E 00	0.93786752E 00	0.33584579E 00	0.10443352E 01
0.690000000E 00	1.1943087E 01	0.98494418E 00	0.11262844E 00	0.95285273E 00	0.26561309E 00	0.10332836E 01
0.700000000E 01	1.2436818E 01	0.98970772E 00	0.79594229E-01	0.96462636E 00	0.207222391E 00	0.10247662E 01
0.710000000E 01	1.2932558E 01	0.99305184E 00	0.55471194E-01	0.97375409E 00	0.15956971E 00	0.10182587E 01
0.720000000E 01	1.3429699E 01	0.99536800E 00	0.38156181E-01	0.98074029E 00	0.12133567E 00	0.10133337E 01
0.730000000E 01	1.3927803E 01	0.99695191E 00	0.25924240E-01	0.98602159E 00	0.911444376E-01	0.10096421E 01
0.740000000E 01	1.4426565E 01	0.99802214E 00	0.17410119E-01	0.98996635E 00	0.67658339E-01	0.10069023E 01
0.750000000E 01	1.4925766E 01	0.99873718E 00	0.11565093E-01	0.99287850E 00	0.49645870E-01	0.10048892E 01
0.760000000E 01	1.5425261E 01	0.99920987E 00	0.76040105E-02	0.99500383E 00	0.36017392E-01	0.10034251E 01
0.770000000E 01	1.5924948E 01	0.99951924E 01	0.49521093E-02	0.99653757E 00	0.25839595E-01	0.10023711E 01
0.780000000E 01	1.6424761E 01	0.99971987E 00	0.31969592E-02	0.99763218E 00	0.18334270E-01	0.10016203E 01
0.790000000E 01	1.6924656E 01	0.99984890E 00	0.20478772E-02	0.99850484E 00	0.12867447E-01	0.10010910E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(d)  $f(0) = 0.6$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho S$
0.15000000E 01	0.17424602E 01	0.99993129E 00	0.13033128E-02	0.99894433E 00	0.89332035E-02	0.10007217E 01
0.15500000E 01	0.17924581E 01	0.99998359E 00	0.82558312E-03	0.99931697E 00	0.61352814E-02	0.10004669E 01
0.16000000E 01	0.18424581E 01	0.10000166E 01	0.52192618E-03	0.99957159E 00	0.41686632E-02	0.10002928E 01
0.16500000E 01	0.18924595E 01	0.10000375E 01	0.33063503E-03	0.99974374E 00	0.28021987E-02	0.10001751E 01
0.17000000E 01	0.19424617E 01	0.10000507E 01	0.21116803E-03	0.99985887E 00	0.18636336E-02	0.10000964E 01
0.17500000E 01	0.19924644E 01	0.10000592E 01	0.13717196E-03	0.99993505E 00	0.12262690E-02	0.10000444E 01
0.18000000E 01	0.20424674E 01	0.10000648E 01	0.91711880E-04	0.99998490E 00	0.79832493E-03	0.10000103E 01
0.18500000E 01	0.20924706E 01	0.10000685E 01	0.64000219E-04	0.10000172E 01	0.51421631E-03	0.9999829E 00
0.18600000E 01	0.21024713E 01	0.10000691E 01	0.59937477E-04	0.10000221E 01	0.47030975E-03	0.99998493E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(e)  $f(0) = 0.8$

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho S$
0.50000000E-01	0.80000000E 00	0.	0.96681584E 00	0.16510000E-01	0.66929663E 00	0.14728511E 02
0.09999999E 00	0.80144641E 00	0.62301335E-01	0.14996178E-01	0.60024776E-01	0.10570573E-01	0.71070406E-01
0.09999999E 00	0.80660839E 00	0.14728977E 00	0.18726977E 01	0.12074506E 00	0.13568971E 01	0.42903384E 01
0.15000000E 00	0.81641830E 00	0.24687057E 00	0.20841915E 01	0.19421797E 00	0.15670463E 01	0.30097731E 01
0.20000000E 00	0.83140711E 00	0.35318410E 00	0.21447879E 01	0.27597450E 00	0.16888569E 01	0.23314146E 01
0.25000000E 00	0.85173123E 00	0.45921835E 00	0.20777864E 01	0.36173233E 00	0.17285421E 01	0.19313177E 01
0.30000000E 00	0.87722979E 00	0.55936267E 00	0.19148732E 01	0.44763681E 00	0.16968216E 01	0.16757790E 01
0.34999999E 00	0.90750276E 00	0.64868249E 00	0.16904918E 01	0.53045493E 00	0.16075814E 01	0.15022032E 01
0.40000000E 00	0.94199593E 00	0.72792722E 00	0.14368397E 01	0.60769351E 00	0.14762563E 01	0.13785707E 01
0.45000000E 00	0.98008068E 00	0.79332454E 00	0.11804254E 01	0.67763664E 00	0.13182535E 01	0.12874020E 01
0.50000000E 00	0.10211200E 01	0.84624743E 00	0.94042490E 00	0.73930965E 00	0.11476244E 01	0.12186028E 01
0.55000000E 00	0.10645163E 01	0.88784020E 00	0.72860610E 00	0.79238599E 00	0.97612023E 00	0.11659884E 01
0.59999999E 00	0.11097412E 01	0.91966992E 00	0.55034351E 00	0.83705790E 00	0.81269725E 00	0.11255159E 01
0.65000000E 00	0.11563490E 01	0.94344467E 00	0.40618740E 00	0.87389325E 00	0.66344234E 00	0.10943631E 01
0.70000000E 00	0.12039789E 01	0.96061450E 00	0.29353099E 00	0.90369735E 00	0.53183160E 00	0.10704551E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued

(e)  $f(0) = 0.8$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.7500000E 00	0.12523483E 01	0.97325128E 00	0.20807088E 00	0.92739344E 00	0.41919404E 00	0.10522024E 01
0.8000000E 00	0.13012425E 01	0.98199314E 00	0.14491376E 00	0.94592895E 00	0.32525794E 00	0.10383609E 01
0.8499999E 00	0.13505027E 01	0.98803475E 00	0.99307258E-01	0.96020884E 00	0.24868248E 00	0.10279458E 01
0.9000000E 00	0.14000138E 01	0.99214580E 00	0.67047661E-01	0.97105404E 00	0.18751408E 00	0.10201750E 01
0.9500000E 00	0.14496947E 01	0.99490336E 00	0.44648662E-01	0.97918008E 00	0.13954032E 00	0.10144295E-01
0.1000000E 01	0.14994886E 01	0.99672865E 00	0.29355242E-01	0.98519079E 00	0.10254007E 00	0.10102211E 01
0.1050000E 01	0.15493570E 01	0.99792201E 00	0.19071790E-01	0.98958223E 00	0.74441960E-01	0.10071684E 01
0.1100000E 01	0.15992738E 01	0.99869327E 00	0.12253316E-01	0.99275254E 00	0.53411254E-01	0.10049761E 01
0.1150000E 01	0.16492217E 01	0.99918636E 00	0.77903201E-02	0.99501488E 00	0.37884712E-01	0.10034175E-01
0.1200000E 01	0.16991894E 01	0.99949836E 00	0.49038253E-02	0.99661101E 00	0.26571009E-01	0.10023207E 01
0.1250000E 01	0.17491695E 01	0.99969388E 00	0.30576167E-02	0.99772466E 00	0.18430549E-01	0.10015569E 01
0.1300000E 01	0.17991574E 01	0.99981526E 00	0.18889948E-02	0.99849313E 00	0.12644729E-01	0.10010306E 01
0.1350000E 01	0.18491502E 01	0.99989936E 00	0.11564536E-02	0.99901768E 00	0.85814808E-02	0.10006716E 01
0.1400000E 01	0.18991459E 01	0.99993544E 00	0.70145971E-03	0.99937186E 00	0.57613726E-02	0.10004294E 01
0.1450000E 01	0.19491433E 01	0.99996290E 00	0.42129307E-03	0.99960843E 00	0.38266777E-02	0.10002676E 01
0.1500000E 01	0.19991419E 01	0.99997929E 00	0.25018614E-03	0.99976479E 00	0.25145775E-02	0.10001607E 01
0.1550000E 01	0.20491410E 01	0.99998896E 00	0.14650190E-03	0.99986701E 00	0.16348050E-02	0.10000909E 01
0.1600000E 01	0.20991406E 01	0.99999355E 00	0.84142926E-04	0.99993312E 00	0.10515549E-02	0.10000457E 01
0.1650000E 01	0.21491404E 01	0.99999769E 00	0.46906988E-04	0.99997542E 00	0.66921861E-03	0.10000168E 01
0.1690000E 01	0.21891402E 01	0.99999914E 00	0.28363302E-04	0.99999779E 00	0.446262128E-03	0.10000015E-01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(k)  $k(0) = 0.9$

$[\sigma = 0.71; \epsilon_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.50000000E-01	0.90000000E 00	0.50362560E 00	0.21775012E 01	0.39971811E 00	0.18608818E 01	0.14728511E 02
0.99999999E 00	0.90160021E 00	0.69218296E-01	0.10550672E 01	0.16510000E-01	0.73174739E 00	0.67267376E-01
0.99999999E 00	0.90735509E 00	0.16442046E 00	0.20928160E 01	0.64937340E-01	0.11886909E-01	0.39822218E 01
0.15000000E 00	0.91829804E 00	0.27498921E 00	0.22961159E 01	0.13341708E 00	0.15282890E 01	0.27846480E 01
0.20000000E 00	0.93494188E 00	0.39088511E 00	0.23112152E 01	0.21584200E 00	0.17490506E 01	0.21655052E 01
0.25000000E 00	0.95733266E 00	0.50362560E 00	0.21775012E 01	0.39971811E 00	0.18608818E 01	0.18057781E-01
0.30000000E 00	0.98514624E 00	0.60692784E 00	0.19431153E 01	0.49112230E 00	0.17832578E 01	0.15780691E 01
0.34999999E 00	0.10178066E 01	0.69705527E 00	0.16555579E 01	0.57702795E 00	0.16446864E 01	0.14242432E-01
0.40000000E 00	0.10546032E 01	0.77230039E 00	0.13548307E 01	0.65494484E 00	0.14672815E 01	0.13152426E 01
0.45000000E 00	0.10947903E 01	0.83280955E 00	0.110699936E 01	0.72344504E 00	0.12710947E 01	0.12354359E-01
0.50000000E 00	0.11376595E 01	0.87986503E 00	0.81875159E 00	0.78201793E 00	0.10725842E 01	0.11758525E 01
0.55000000E 00	0.11825843E 01	0.91538147E 00	0.60908189E 00	0.83086992E 00	0.88392261E 00	0.11309361E-01
0.59999999E 00	0.12290407E 01	0.94148230E 00	0.44181644E 00	0.87070829E 00	0.71302683E 00	0.10969841E 01
0.65000000E 00	0.12766096E 01	0.96021030E 00	0.31331627E 00	0.90254023E 00	0.56409561E 00	0.10713631E-01
0.70000000E 00	0.13249688E 01	0.97336249E 00	0.21771675E 00	0.92750639E 00	0.43861297E 00	0.10521169E 01
0.75000000E 00	0.13738778E 01	0.98242198E 00	0.14853738E 00	0.94675683E 00	0.33521138E 00	0.10377513E-01
0.80000000E 00	0.14231623E 01	0.9885419E 00	0.99670937E-01	0.96136852E 00	0.25245308E 00	0.10271092E 01
0.84999999E 00	0.14726991E 01	0.99263965E 00	0.65878395E-01	0.9729819E 00	0.18745677E 00	0.10192912E 01
0.90000000E 00	0.15224029E 01	0.9953244E 00	0.42946111E-01	0.98036223E 00	0.13735107E 00	0.10135990E 01
0.95000000E 00	0.15722157E 01	0.99706089E 00	0.27642948E-01	0.98623514E 00	0.99370063E-01	0.10094935E-01
0.10000000E 01	0.16220986E 01	0.99817378E 00	0.17587212E-01	0.99045951E 00	0.71022218E-01	0.10065608E 01
0.10500000E 01	0.16720263E 01	0.99887822E 00	0.11068447E-01	0.99346197E 00	0.5016734E-01	0.10044868E 01
0.11000000E 01	0.17219820E 01	0.99931945E 00	0.68959919E-02	0.99557132E 00	0.35032293E-01	0.10030349E 01
0.11500000E 01	0.17719553E 01	0.99959313E 00	0.42561514E-02	0.99703649E 00	0.24190042E-01	0.10020288E-01
0.12000000E 01	0.18219395E 01	0.99976134E 00	0.26037802E-02	0.99804296E 00	0.16519604E-01	0.10013388E 01
0.12500000E 01	0.18719303F 01	0.99986383E 00	0.15797369E-02	0.99872676E 00	0.11158664E-01	0.10008706E 01
0.13000000E 01	0.19219251E 01	0.99992578E 00	0.95094117E-03	0.99918630E 00	0.74561357E-02	0.10005562E 01
0.13500000E 01	0.19719224E 01	0.99996293E 00	0.56816646E-03	0.99949181E 00	0.49287042E-02	0.10003473E-01
0.14000000E 01	0.20219211E 01	0.99998502E 00	0.33703642F-03	0.99969274E 00	0.32232128E-02	0.10002099E 01
0.14500000E 01	0.20719206E 01	0.99999809E 00	0.198553918E-03	0.99982348E 00	0.20854336E-02	0.10001206E 01
0.15000000E 01	0.21219206E 01	0.10000057E 01	0.11614312E-03	0.99990764E 00	0.13349484E-02	0.10000631E 01
0.15500000E 01	0.21719209E 01	0.10000101E 01	0.67451353E-04	0.99996122E 00	0.84547319E-03	0.10000265E 01
0.16000000E 01	0.22219215E 01	0.10000126E 01	0.38870636E-04	0.99999499E 00	0.52797371E-03	0.10000034E 01
0.16100000E 01	0.22319216E 01	0.10000130E 01	0.34778701E-04	0.10000000E 01	0.48189570E-03	0.99999999E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(g)  $f(0) = -0.2$

[ $\sigma = 0.71$ ;  $g_w = 0.01651$ ;  $L = 1.0$ ]

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	-0.20000000E 00	0.	0.23150995E 00	0.16510000E-01	0.13789375E 00	0.14728511E 02
0.12393304E 02	-0.19889705E 00	0.12388683E-01	0.26460933E 00	0.23905936E-01	0.15805848E 00	0.12393304E 02
0.09999999E 00	-0.19873393E 00	0.26407831E-01	0.29669435E 00	0.32322642E-01	0.17863830E 00	0.10522712E 02
0.15000000E 00	-0.19702908E 00	0.42057504E-01	0.32928424E 00	0.41778155E-01	0.19966288E 00	0.90183734E 01
0.20000000E 00	-0.19450104E 00	0.59335220E-01	0.36181181E 00	0.52297726E-01	0.22121543E 00	0.78003644E 01
0.25000000E 00	-0.19106849E 00	0.78237057E-01	0.39424113E 00	0.63909946E-01	0.24338284E 00	0.68060968E 01
0.30000000E 00	-0.18665036E 00	0.98756643E-01	0.42650851E 00	0.76647559E-01	0.26624313E 00	0.59874177E 01
0.34999999E 00	-0.18116602E 00	0.12088360E 00	0.45851711E 00	0.90546879E-01	0.28986061E 00	0.53074979E 01
0.40000000E 00	-0.17453546E 00	0.14460184E 00	0.49013471E 00	0.10564702E 00	0.31428235E 00	0.47381435E 01
0.45000000E 00	-0.16667969E 00	0.16988774E 00	0.52119196E 00	0.12198895E 00	0.33953443E 00	0.42576699E 01
0.50000000E 00	-0.15752109E 00	0.19670823E 00	0.55148078E 00	0.13961432E 00	0.36561729E 00	0.38492853E 01
0.55000000E 00	-0.14698401E 00	0.22501887E 00	0.58075272E 00	0.15856403E 00	0.39250027E 00	0.34998843E 01
0.59999999E 00	-0.13499532E 00	0.25476173E 00	0.60871781E 00	0.17887655E 00	0.42011520E 00	0.31991509E 01
0.65000000E 00	-0.12148517E 00	0.28586344E 00	0.63504403E 00	0.20058587E 00	0.44834927E 00	0.29388959E 01
0.70000000E 00	-0.10638784E 00	0.31823259E 00	0.65935814E 00	0.22371906E 00	0.47703733E 00	0.27125612E 01
0.75000000E 00	-0.89642621E-01	0.35175873E 00	0.68124831E 00	0.24829344E 00	0.50955419E 00	0.25148508E 01
0.80000000E 00	-0.71194876E-01	0.38630958E 00	0.70026913E 00	0.27431343E 00	0.53480734E 00	0.23414512E 01
0.84999999E 00	-0.50997155E-01	0.42172993E 00	0.71594980E 00	0.30176703E 00	0.56323092E 00	0.21888203E 01
0.90000000E 00	-0.29010357E-01	0.45784078E 00	0.72780602E 00	0.33062200E 00	0.59078205E 00	0.20540270E 01
0.95000000E 00	-0.52049439E-02	0.49443874E 00	0.73535617E 00	0.36082203E 00	0.61694065E 00	0.19346272E 01
0.10000000E 01	0.20437865E-01	0.53129690E 00	0.73814185E 00	0.39228297E 00	0.64111403E 00	0.18285692E 01
0.10500000E 01	0.47924947E-01	0.56816659E 00	0.73752294E 00	0.42488942E 00	0.66264781E 00	0.17341206E 01
0.11000000E 01	0.77250259E-01	0.60478024E 00	0.72785620E 00	0.45849210E 00	0.68084420E 00	0.16498123E 01
0.11500000E 01	0.10839401E 00	0.64085649E 00	0.71422622E 00	0.49290626E 00	0.69498835E 00	0.15743947E 01
0.12000000E 01	0.14132212E 00	0.67610575E 00	0.69477637E 00	0.52791169E 00	0.70438281E 00	0.15068046E 01
0.12500000E 01	0.17598596E 00	0.71023829E 00	0.66958688E 00	0.56325442E 00	0.70838898E 00	0.14461377E 01
0.13000000E 01	0.21232264E 00	0.74297307E 00	0.63892656E 00	0.59865174E 00	0.70647319E 00	0.13916276E 01
0.13500000E 01	0.25025557E 00	0.77484738E 00	0.60326423E 00	0.63375668E 00	0.69825389E 00	0.13426270E 01
0.14000000E 01	0.28969576E 00	0.80322704E 00	0.56326681E 00	0.66836874E 00	0.68354502E 00	0.12985903E 01
0.14500000E 01	0.33054338E 00	0.83031575E 00	0.51978131E 00	0.70204352E 00	0.666239023E 00	0.12590585E 01
0.15000000E 01	0.37268994E 00	0.85516345E 00	0.47380045E 00	0.73450501E 00	0.63508292E 00	0.12236426E 01
0.15500000E 01	0.41602070E 00	0.87767228E 00	0.42641345E 00	0.76545815E 00	0.60216770E 00	0.11520036E 01
0.16000000E 01	0.46041743E 00	0.89780006E 00	0.37874573E 00	0.79464108E 00	0.56442139E 00	0.11638677E 01
0.16500000E 01	0.50576121E 00	0.91556042E 00	0.33189374E 00	0.82183578E 00	0.52281372E 00	0.11389548E 01
0.17000000E 01	0.55193508E 00	0.93101978E 00	0.28668162E 00	0.84667643E 00	0.47845148E 00	0.11170275E 01



TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25,000$  FT/SEC - Continued

(g)  $f(0) = -0.3$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.59882666E 00	0.94429124E 00	0.24450687E 00	0.86965455E 00	0.43251128E 00	0.10978543E 01
0.18000000E 01	0.64633020E 00	0.95552631E 00	0.20550063E 00	0.99012080E 00	0.38616846E 00	0.10812097E 01
0.18500000E 01	0.69434489E 00	0.96490488E 00	0.17030610E 00	0.90828313E 00	0.34052956E 00	0.10668722E 01
0.19000000E 01	0.74279299E 00	0.97262470E 00	0.13917589E 00	0.92420186E 00	0.29657518E 00	0.10546237E 01
0.19500000E 01	0.79158650E 00	0.97889117E 00	0.11216640E 00	0.93798230E 00	0.25511771E 00	0.10442497E 01
0.20000000E 01	0.84066125E 00	0.98390815E 00	0.89165484E -01	0.94976560E 00	0.21677662E 00	0.10355418E 01
0.20500000E 01	0.8895971E 00	0.98787042E 00	0.69928331E -01	0.95971891E 00	0.18197118E 00	0.10282996E 01
0.21000000E 01	0.93943369E 00	0.99095803E 00	0.54116735E -01	0.96802545E 00	0.15092858E 00	0.10223332E 01
0.21500000E 01	0.98904360E 00	0.99333256E 00	0.41337009E -01	0.97487541E 00	0.12370402E 00	0.10174650E 01
0.22000000E 01	0.10387574E 01	0.99513526E 00	0.31173485E -01	0.98045800E 00	0.10020868E 00	0.10135318E 01
0.22500000E 01	0.10885495E 01	0.99648660E 00	0.23215527E -01	0.98495506E 00	0.80241792E -01	0.10103855E 01
0.23000000E 01	0.11384001E 01	0.99748707E 00	0.17077334E -01	0.98853626E 00	0.63522934E -01	0.10078939E 01
0.23500000E 01	0.11882937E 01	0.99821878E 00	0.12410786E -01	0.99135593E 00	0.49722313E -01	0.10059407E 01
0.24000000E 01	0.12382186E 01	0.99874752E 00	0.89122339E -02	0.99351118E 00	0.38486944E -01	0.10044253E 01
0.24500000E 01	0.12881659E 01	0.99912509E 00	0.63244659E -02	0.99524138E 00	0.29461934E -01	0.10032617E 01
0.25000000E 01	0.13381291E 01	0.99939150E 00	0.44351696E -02	0.99652845E 00	0.22306584E -01	0.10023774E 01
0.25500000E 01	0.13881036E 01	0.99957728E 00	0.30731213E -02	0.99749785E 00	0.16705568E -01	0.10017124E 01
0.26000000E 01	0.14380859E 01	0.99970296E 00	0.21031294E -02	0.99822009E 00	0.12375783E -01	0.10012175E 01
0.26499999E 01	0.14880734E 01	0.99979229E 00	0.14205005E -02	0.99875239E 00	0.9066263E -02	0.10008531E 01
0.27000000E 01	0.15380646E 01	0.99985068E 00	0.94562030E -03	0.99914049E 00	0.65755050E -02	0.10005876E 01
0.27500000E 01	0.15880580E 01	0.9998924E 00	0.61895687E -03	0.99942043E 00	0.47163482E -02	0.10003961E 01
0.28000000E 01	0.16380532E 01	0.99991423E 00	0.39669734E -03	0.99962021E 00	0.33468065E -02	0.10002595E 01
0.28500000E 01	0.16880493E 01	0.99993004E 00	0.24708329E -03	0.99976124E 00	0.23496967E -02	0.10001631E 01
0.28999999E 01	0.17380460E 01	0.99993970E 00	0.14747693E -03	0.99989976E 00	0.16321343E -02	0.10000958E 01
0.29500000E 01	0.17880431E 01	0.99994528E 00	0.81699832E -04	0.99992783E 00	0.11216766E -02	0.10000493E 01
0.30000000E 01	0.18380404E 01	0.99994818E 00	0.38800460E -04	0.99997435E 00	0.76269457E -03	0.10000175E 01
0.30500000E 01	0.18880378E 01	0.99994934E 00	0.11071705E -04	0.10000058E 01	0.51310648E -03	0.99999604E 00
0.30600000E 01	0.18980373E 01	0.99994943E 00	0.68553103E -05	0.10000107E 01	0.47339526E -03	0.99999268E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued(h)  $f(0) = -0.4$  $[\bar{\sigma} = 0.71; \bar{g}_w = 0.01651; L = 1.0]$ 

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.5000000E-01	-0.4000000E 00	0.	0.14315503E 00	0.16510000E-01	0.72743347E-01	0.14728511E 02
0.0999999E 00	-0.39981620E 00	0.74494914E-02	0.15488815E 00	0.20307435E-01	0.79207431E-01	0.13425486E 02
0.1500000E 00	-0.39924510E 00	0.15494985E-01	0.16892263E 00	0.24436151E-01	0.85996784E-01	0.12255302E 02
0.2000000E 00	-0.39825644E 00	0.24154882E-01	0.17946587E 00	0.28912873E-01	0.93132152E-01	0.11204458E 02
0.2500000E 00	-0.39681904E 00	0.33447909E-01	0.19231962E 00	0.33755637E-01	0.10064415E 00	0.10261379E 02
0.3000000E 00	-0.39490075E 00	0.43393477E-01	0.20557100E 00	0.38984161E-01	0.10856894E 00	0.94135935E 01
0.3499999E 00	-0.39246845E 00	0.54011940E-01	0.21923847E 00	0.44620070E-01	0.11694644E 00	0.86508609E 01
0.3999999E 00	-0.38948796E 00	0.65324511E-01	0.23333983E 00	0.50687059E-01	0.12581950E 00	0.79636993E 01
0.4000000E 00	-0.38592403E 00	0.77353412E-01	0.24789093E 00	0.57211030E-01	0.13523349E 00	0.73436553E 01
0.4500000E 00	-0.38174029E 00	0.90121348E-01	0.26290473E 00	0.64220211E-01	0.14523604E 00	0.67832470E 01
0.5000000E 00	-0.37689918E 00	0.10365174E 00	0.27839039E 00	0.71745262E-01	0.15387673E 00	0.62758750E 01
0.5500000E 00	-0.37136199E 00	0.11796831E 00	0.29435232E 00	0.79819364E-01	0.16720677E 00	0.58157386E 01
0.5999999E 00	-0.36508883E 00	0.1309488E 00	0.31078908E 00	0.88478290E-01	0.17927855E 00	0.53977433E 01
0.6500000E 00	-0.35803859E 00	0.14905498E 00	0.32769213E 00	0.97760451E-01	0.19214493E 00	0.50174201E 01
0.7000000E 00	-0.35016903E 00	0.16587155E 00	0.34504436E 00	0.10770689E 00	0.20585842E 00	0.46708464E 01
0.7500000E 00	-0.34143678E 00	0.18356644E 00	0.36281840E 00	0.11836125E 00	0.22046998E 00	0.43545779E 01
0.8000000E 00	-0.33179740E 00	0.20215976E 00	0.38097467E 00	0.12976965E 00	0.23602750E 00	0.40655858E 01
0.8499999E 00	-0.32120551E 00	0.22166937E 00	0.39945920E 00	0.14198047E 00	0.25257390E 00	0.38012038E 01
0.9000000E 00	-0.30961493E 00	0.24210997E 00	0.41820121E 00	0.15504410E 00	0.27014466E 00	0.35590793E 01
0.9500000E 00	-0.29697881E 00	0.26349226E 00	0.43711040E 00	0.16901242E 00	0.28876489E 00	0.33371328E 01
1.0000000E 01	-0.28324989E 00	0.28582191E 00	0.45607417E 00	0.18393826E 00	0.30844569E 00	0.31335219E 01
1.0500000E 01	-0.26838082E 00	0.30909828E 00	0.47495486E 00	0.19987454E 00	0.32917985E 00	0.29466097E 01
1.1000000E 01	-0.25232440E 00	0.33331320E 00	0.49358587E 00	0.21687359E 00	0.35093690E 00	0.27749376E 01
1.1500000E 01	-0.23503412E 00	0.35844941E 00	0.51177100E 00	0.23498429E 00	0.37365734E 00	0.26172018E 01
1.2000000E 01	-0.21646456E 00	0.38447902E 00	0.52928023E 00	0.25425351E 00	0.39774640E 00	0.24722328E 01
1.2500000E 01	-0.19657199E 00	0.41136175E 00	0.54684929E 00	0.27472112E 00	0.42156722E 00	0.23389773E 01
1.3000000E 01	-0.17531506E 00	0.43904327E 00	0.56117914E 00	0.29641932E 00	0.44643386E 00	0.22164483E 01
1.3500000E 01	-0.1526550E 00	0.46745344E 00	0.57493735E 00	0.31936958E 00	0.47160462E 00	0.21038861E 01
1.4000000E 01	-0.12855901E 00	0.49650474E 00	0.58676158E 00	0.34357979E 00	0.49677601E 00	0.20003978E 01
1.4500000E 01	-0.10299610E 00	0.52609089E 00	0.59626577E 00	0.36904103E 00	0.52157840E 00	0.19052972E 01
1.5000000E 01	-0.75943097E-01	0.55608591E 00	0.60304952E 00	0.39572418E 00	0.54557419E 00	0.18179220E 01
1.5500000E 01	-0.47383119E-01	0.58634371E 00	0.60671108E 00	0.42357659E 00	0.56825946E 00	0.17376632E 01
1.6000000E 01	-0.17307098E-01	0.61669843E 00	0.60866426E 00	0.45251887E 00	0.58907042E 00	0.16639600E 01
1.6500000E 01	0.14285275E-01	0.64696571E 00	0.60315882E 00	0.48244219E 00	0.60739566E 00	0.15962961E 01
1.7000000E 01	0.47384678E-01	0.67694502E 00	0.595930407E 00	0.51320628E 00	0.62259444E 00	0.15341985E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.4$  - Continued

$[\sigma = 0.71; \epsilon_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.81971429E-01	0.70642339E 00	0.58309431E-00	0.54463872E 00	0.63402347E 00	0.14722356E-01
0.18000000E 01	0.11801498E 00	0.73518013E 00	0.56843421E 00	0.57533543E 00	0.64106808E 00	0.14250164E-01
0.18500000E 01	0.15547370E 00	0.76299311E 00	0.54536185E 00	0.60866319E 00	0.64318023E 00	0.13771898E-01
0.19000000E 01	0.19429494E 00	0.78964578E 00	0.52006844E 00	0.64076375E 00	0.63991867E 00	0.13334430E-01
0.19500000E 01	0.23441553E 00	0.81493504E 00	0.49089772E 00	0.67256040E 00	0.63098874E 00	0.12934497E-01
0.20000000E 01	0.27576266E 00	0.83867932E 00	0.45836446E 00	0.70376607E 00	0.61627728E 00	0.12571162E-01
0.20500000E 01	0.31825513E 00	0.86072617E 00	0.422312028E 00	0.73409315E 00	0.59587850E 00	0.12240770E-01
0.21000000E 01	0.36180500E 00	0.88095891E 00	0.38593630E 00	0.76326418E 00	0.57010645E 00	0.11941887E-01
0.21500000E 01	0.40631948E 00	0.89930156E 00	0.34766234E 00	0.79102290E 00	0.53949133E 00	0.11672746E-01
0.22000000E 01	0.45170307E 00	0.91572160E 00	0.30917935E 00	0.81714453E 00	0.50475935E 00	0.11431678E-01
0.22500000E 01	0.49785975E 00	0.93023032E 00	0.27134817E 00	0.84144469E 00	0.46679029E 00	0.11217060E-01
0.23000000E 01	0.54469508E 00	0.94288046E 00	0.23495986E 00	0.86378603E 00	0.42657681E 00	0.11027269E-01
0.23500000E 01	0.59211825E 00	0.95376167E 00	0.20069292E 00	0.88408218E 00	0.38515583E 00	0.10860455E-01
0.24000000E 01	0.64004371E 00	0.96299403E 00	0.16908179E 00	0.90229895E 00	0.34355288E 00	0.10715329E-01
0.24500000E 01	0.68899251E 00	0.97072034E 00	0.14049947E-00	0.91845037E 00	0.30272462E 00	0.10590158E-01
0.25000000E 01	0.73709322E 00	0.97709796E 00	0.11515454E 00	0.93259796E 00	0.26351181E 00	0.10482783E-01
0.25500000E 01	0.78608250E 00	0.98229066E 00	0.93101510E-01	0.94484003E 00	0.22860543E 00	0.10391639E-01
0.26000000E 01	0.83530521E 00	0.98646163E 00	0.74261473E-01	0.95330567E 00	0.19252750E 00	0.10314981E-01
0.26499999E 01	0.88471422E 00	0.98976725E 00	0.58449470E-01	0.96414574E 00	0.16162656E 00	0.10251112E-01
0.27000000E 01	0.93426991E 00	0.99235265E 00	0.45404571E-01	0.97152434E 00	0.13408577E 00	0.10198407E-01
0.27500000E 01	0.98369636E 00	0.99434864E 00	0.34819402E-01	0.97761091E 00	0.10994087E 00	0.10155339E-01
0.28000000E 01	0.10336968E 01	0.99587075E 00	0.26366475E-01	0.98257354E 00	0.89104543E-01	0.10120492E-01
0.28500000E 01	0.10835203E 01	0.99701530E 00	0.19719713E-01	0.98557343E 00	0.71393914E-01	0.10092580E-01
0.28999999E 01	0.11333934E 01	0.99786689E 00	0.14570531E-01	0.98976082E 00	0.56558358E-01	0.10070447E-01
0.29500000E 01	0.11833032E 01	0.99849255E 00	0.10638551E-01	0.99227225E 00	0.44305341E-01	0.10053076E-01
0.30000000E 01	0.12332397E 01	0.99894684E 00	0.76775623E-02	0.99422912E 00	0.34322867E-01	0.10039958E-01
0.30500000E 01	0.12831957E 01	0.99927250E 00	0.54776332E-02	0.99573708E 00	0.26297737E-01	0.10029209E-01
0.31000000E 01	0.13331654E 01	0.99950428E 00	0.38643498E-02	0.99688642E 00	0.19929407E-01	0.10021317E-01
0.31500000E 01	0.13831449E 01	0.99966666E 00	0.26961744E-02	0.99775290E 00	0.14939842E-01	0.10015376E-01
0.32000000E 01	0.14331311E 01	0.99977935E 00	0.18606348E-02	0.99839911E 00	0.11078466E-01	0.10010949E-01
0.32500000E 01	0.14831221E 01	0.99985672E 00	0.12701280E-02	0.99887583E 00	0.81270376E-02	0.10007486E-01
0.33000000E 01	0.15331163E 01	0.99990925E 00	0.85762681E-03	0.99922375E 00	0.58981227E-02	0.10005306E-01
0.33500000E 01	0.15831126E 01	0.99994453E 00	0.5727264E-03	0.99947437E 00	0.42348374E-02	0.10003588E-01
0.34000000E 01	0.16331105E 01	0.99996795E 00	0.37812597E-03	0.99965443E 00	0.30082286E-02	0.10002361E-01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.4$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.3450000E 01	0.16831092E 01	0.99998331E 00	0.24663407E-03	0.99978124E 00	0.21141880E-02	0.10001495E 01
0.3500000E 01	0.17331086E 01	0.9999326E 00	0.15872336E-03	0.99986990E 00	0.14700795E-02	0.10000889E 01
0.3550000E 01	0.17831084E 01	0.9998991E 00	0.10955506E-03	0.99993125E 00	0.10113622E-02	0.10000470E 01
0.3600000E 01	0.18331085E 01	0.9998655E 01	0.62448815E-04	0.99997323E 00	0.68840584E-03	0.10000183E 01
0.3650000E 01	0.18831086E 01	0.9998320E 01	0.37729046E-04	0.10000016E 01	0.46361403E-03	0.99999890E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.6$

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.5000000E-01	-0.6000000E 00	0.	0.835533350E-01	0.16510000E-01	0.30410769E-01	0.14728511E 02
0.5050000E-01	-0.59989414E 00	0.42623367E-02	0.86963613E-01	0.18070544E-01	0.32027017E-01	0.14162471E 02
0.5099999E 00	-0.59957083E 00	0.86887599E-02	0.90517618E-01	0.19714348E-01	0.33742350E-01	0.13613022E 02
0.5100000E 00	-0.5992120E 00	0.13316599E-01	0.94221708E-01	0.21446531E-01	0.35563378E-01	0.13079959E 02
0.5150000E 00	-0.598823597E 00	0.18123549E-01	0.98083247E-01	0.23272577E-01	0.37498126E-01	0.12563058E 02
0.5200000E 00	-0.59720550E 00	0.23127682E-01	0.10211049E-00	0.25198377E-01	0.39555039E-01	0.12062084E-02
0.5300000E 00	-0.59591974E 00	0.28337508E-01	0.10631252E 00	0.27230271E-01	0.41743510E-01	0.1157678E 02
0.5400000E 00	-0.59436815E 00	0.33762008E-01	0.11066991E 00	0.29375089E-01	0.44073823E-01	0.11106905E 02
0.5500000E 00	-0.59253977E 00	0.39410675E-01	0.11528106E 00	0.31640201E-01	0.4657210E-01	0.10652161E 02
0.5600000E 00	-0.59042315E 00	0.45293551E-01	0.12006947E 00	0.340333561E-01	0.49205916E-01	0.10212267E 02
0.5700000E 00	-0.58800631E 00	0.51421261E-01	0.12507646E 00	0.36563765E-01	0.52033277E-01	0.97869353E 01
0.5800000E 00	-0.58527672E 00	0.57805049E-01	0.13031479E 00	0.39240103E-01	0.55053805E-01	0.93758662E-01
0.5900000E 00	-0.5822130E 00	0.64456817E-01	0.13579798E 00	0.42072624E-01	0.58283282E-01	0.89787575E 01
0.6000000E 00	-0.57882632E 00	0.71389157E-01	0.14154024E 00	0.45072195E-01	0.61738858E-01	0.85953046E-01
0.6100000E 00	-0.57507744E 00	0.78615398E-01	0.14755652E 00	0.48250383E-01	0.65439161E-01	0.82252049E 01
0.7500000E 00	-0.57095962E 00	0.86149628E-01	0.15386245E 00	0.51620522E-01	0.69404407E-01	0.78681555E 01
0.8000000E 00	-0.56645706E 00	0.94006734E-01	0.16047434E 00	0.55195799E-01	0.73656524E-01	0.75238576E 01
0.8499999E 00	-0.56155326E 00	0.10220243E 00	0.16740911E 00	0.58991345E-01	0.78219261E-01	0.71920106E 01
0.9000000E 00	-0.55623087E 00	0.11075331E 00	0.17468426E 00	0.6302324E-01	0.83118321E-01	0.68723235E 01
0.9500000E 00	-0.55047169E 00	0.11967482E 00	0.18231773E 00	0.67309237E-01	0.88381472E-01	0.65645077E-01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued

(i)  $f(0) = -0.6$  - Continued

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.1000000E 01	-0.54425664E 00	0.12899134E 00	0.19032781E 00	0.71868028E-01	0.94038663E-01	0.62682794E 01
0.1050000E 01	-0.53755589E 00	0.13871617E 00	0.19873293E 00	0.76720197E-01	0.10012212E 00	0.59833613E 01
0.1100000E 01	-0.53037781E 00	0.14887191E 00	0.20755149E 00	0.81887912E-01	0.10666645E 00	0.57094610E 01
0.1150000E 01	-0.52267098E 00	0.15947849E 00	0.21680157E 00	0.87395131E-01	0.11370867E 00	0.54466313E-01
0.1200000E 01	-0.51442203E 00	0.17055913E 00	0.22650056E 00	0.93267724E-01	0.12128822E 00	0.51937778E 01
0.1250000E 01	-0.50560676E 00	0.18213628E 00	0.23666475E 00	0.99533595E-01	0.12944696E 00	0.49514405E 01
0.1300000E 01	-0.49619970E 00	0.19423358E 00	0.24730878E 00	0.10822279E 00	0.13822905E 00	0.47191128E 01
0.1350000E 01	-0.48617429E 00	0.20687535E 00	0.25844499E 00	0.11336765E 00	0.14768076E 00	0.44965524E-01
0.1400000E 01	-0.47550266E 00	0.22008643E 00	0.27008266E 00	0.12100282E 00	0.15785013E 00	0.4283214E 01
0.1450000E 01	-0.46415572E 00	0.23389205E 00	0.28222699E 00	0.12916543E 00	0.16878656E 00	0.40797875E 01
0.1500000E 01	-0.45210310E 00	0.24831755E 00	0.29487805E 00	0.13789508E 00	0.18054011E 00	0.38851223E 01
0.1550000E 01	-0.43931320E 00	0.26338816E 00	0.30802940E 00	0.14723387E 00	0.19316065E 00	0.36993012E-01
0.1600000E 01	-0.42575311E 00	0.27912857E 00	0.32166653E 00	0.15722639E 00	0.20669670E 00	0.35221032E 01
0.1650000E 01	-0.41138876E 00	0.2956248F 00	0.33576514E 00	0.16791955E 00	0.22119395E 00	0.33533102E 01
0.1700000E 01	-0.39618491E 00	0.31271214E 00	0.35028901E 00	0.17936624E 00	0.23669332E 00	0.31927061E 01
0.1750000E 01	-0.38010526E 00	0.33059760E 00	0.36518776E 00	0.19160613E 00	0.25322859E-00	0.30400766E-01
0.1800000E 01	-0.36311258E 00	0.34923601E 00	0.38039433E 00	0.20470298E 00	0.27082355E 00	0.28952076E 01
0.1850000E 01	-0.34516887E 00	0.36864070E 00	0.39582226E 00	0.21870631E 00	0.28948846E 00	0.27578852E 01
0.1900000E 01	-0.32623558E 00	0.3888209E 00	0.41136279E 00	0.23366953E 00	0.30921592E 00	0.26278951E 01
0.1950000E 01	-0.30627389E 00	0.40977659E 00	0.42688820E 00	0.24964511E 00	0.32997605E 00	0.25050206E-01
0.2000000E 01	-0.28524503E 00	0.43150521E 00	0.44221815E 00	0.26668338E 00	0.35171106E 00	0.23890437E 01
0.2050000E 01	-0.26311071E 00	0.45399213E 00	0.45717903E 00	0.28483092E 00	0.37432917E 00	0.22797426E 01
0.2100000E 01	-0.23983356E 00	0.47721310E 00	0.47154031E 00	0.30412879E 00	0.39769824E 00	0.21768922E 01
0.2150000E 01	-0.21537775E 00	0.50113185E 00	0.48504461E 00	0.32461026E 00	0.42163908E 00	0.20802633E 01
0.2200000E 01	-0.18970957E 00	0.52569841E 00	0.49740199E 00	0.34629834E 00	0.44591913E 00	0.19896224E 01
0.2250000E 01	-0.16279818E 00	0.55084753E 00	0.50829227E 00	0.36920297E 00	0.47024693E 00	0.19047315E 01
0.2300000E 01	-0.13461644E 00	0.57649736F 00	0.51736976F 00	0.39331793E 00	0.49426798E 00	0.18253488E 01
0.2350000E 01	-0.10514174E 00	0.60254817E 00	0.52427081E 00	0.41861767E 00	0.51756313E 00	0.17512297E 01
0.2400000E 01	-0.74356903E-01	0.62888189E 00	0.52862456E 00	0.44505409E 00	0.53965025E 00	0.16821274E 01
0.2450000E 01	-0.42251107E-01	0.655936200E 00	0.53006736E 00	0.47255356E 00	0.55999033E 00	0.1617757E-01
0.2500000E 01	-0.88208229E-02	0.68183436E 00	0.52826048E 00	0.50101425E 00	0.57799902E 00	0.15579909E 01
0.2550000E 01	0.25929371E-01	0.70812889E 00	0.52291097E 00	0.53030434E 00	0.59306429E 00	0.15024746E 01
0.2600000E 01	0.61986054E-01	0.73406255E 00	0.51379457E 00	0.56026127E 00	0.60457049E 00	0.14510170E 01
0.2649999E 01	0.899326407E-01	0.75944333E 00	0.50077908E 00	0.59069216E 00	0.61192857E 00	0.14033397E-01
0.2700000E 01	0.13791788E 00	0.78407502E 00	0.48384629E 00	0.62137607E 00	0.61461110E 00	0.13594180E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued(i)  $f(0) = -0.6$  - Continued $[\sigma = 0.71; \xi_w = 0.01651; L = 1.0]$ 

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.27500000E 01	0.17771818F 00	0.80776431E 00	0.46310966E 00	0.65206806E 00	0.61218996E 00	0.13188829E 01
0.28000000E 01	0.21867552E 00	0.83032671E 00	0.43889536E 00	0.68250499E 00	0.60437363E 00	0.12816215E 01
0.28500000E 01	0.26072825E 00	0.85159425E 00	0.41139395E 00	0.71241329E 00	0.59104031E 00	0.12474762E 01
0.28999999E 01	0.30381092E 00	0.87142244E 00	0.38135093E 00	0.74151808E 00	0.57226247E 00	0.12163028E 01
0.29500000E 01	0.34784555E 00	0.88969651E 00	0.34934572E 00	0.76959326E 00	0.54831959E 00	0.11879666E 01
0.30000000E 01	0.39275329E 00	0.90633640E 00	0.31610957E 00	0.79627185E 00	0.51969566E 00	0.11623395E 01
0.30500000E 01	0.43845120E 00	0.92129978E 00	0.28241519E 00	0.82145582E 00	0.48706077E 00	0.11392847E 01
0.31000000E 01	0.48485522E 00	0.93458307E 00	0.24903180E 00	0.84492465E 00	0.45123741E 00	0.11187038E 01
0.31500000E 01	0.53188203E 00	0.94622013E 00	0.21668024E 00	0.86654179E 00	0.41315398E 00	0.11004331E 01
0.32000000E 01	0.57945088E 00	0.95627881E 00	0.18599305E 00	0.88621863E 00	0.37379063E 00	0.10843423E 01
0.32500000E 01	0.62748517E 00	0.96485572E 00	0.15748355E 00	0.90391572E 00	0.33412243E 00	0.10702839E 01
0.33000000E 01	0.67591370E 00	0.97206971E 00	0.13152682E 00	0.91964106E 00	0.29506598E 00	0.10581034E 01
0.33500000E 01	0.72467162E 00	0.97805479E 00	0.10835330E 00	0.93344605E 00	0.25743401E 00	0.10476416E 01
0.34000000E 01	0.77370103E 00	0.98295294E 00	0.88054551E-01	0.94541946E 00	0.22190201E 00	0.10387365E 01
0.34500000E 01	0.82295115E 00	0.98690760E 00	0.70598847E-01	0.95567991E 00	0.18898834E 00	0.10312261E 01
0.35000000E 01	0.87237834E 00	0.99005798E 00	0.55859574E-01	0.96436786E 00	0.15904796E 00	0.10249518E 01
0.35500000E 01	0.92194568E 00	0.99253464E 00	0.43611013E-01	0.97163755E 00	0.13227843E 00	0.10197603E 01
0.36000000E 01	0.97162253E 00	0.99445646E 00	0.33614488E-01	0.97764948E 00	0.10873533E 00	0.10155067E 01
0.36500000E 01	0.10213838E 01	0.99592874E 00	0.25582356E-01	0.98354379E 00	0.88354244E-01	0.10120560E 01
0.37000000E 01	0.10712094E 01	0.99704256E 00	0.18228210E-01	0.98653494E 00	0.70976248E-01	0.10092848E 01
0.37500000E 01	0.11210833E 01	0.99787486E 00	0.14276474E-01	0.98970763E 00	0.56374006E-01	0.10070815E 01
0.38000000E 01	0.11709932E 01	0.99848927E 00	0.10473270E-01	0.99221401E 00	0.44276432E-01	0.10053479E 01
0.38500000E 01	0.12209294E 01	0.99893747E 00	0.75929536E-02	0.99417205E 00	0.34304046E-01	0.10039976E 01
0.38999999E 01	0.12708848E 01	0.99926062E 00	0.54410553E-02	0.99584488E 00	0.26418673E-01	0.10029568E 01
0.39500000E 01	0.13208639E 01	0.99949090E 00	0.38544269E-02	0.99684095E 00	0.20073672E-01	0.10021630E 01
0.40000000E 01	0.13708327E 01	0.99965315E 00	0.26994610E-02	0.99771480E 00	0.15087347E-01	0.10015637E 01
0.40500000E 01	0.14208183E 01	0.99976617E 00	0.18691132E-02	0.99836819E 00	0.11217412E-01	0.10011161E 01
0.41000000E 01	0.14708086E 01	0.99984399E 00	0.12793277E-02	0.99885149E 00	0.82505993E-02	0.10007859E 01
0.41499999E 01	0.15208022E 01	0.99989696E 00	0.86532238E-03	0.99920515E 00	0.6003341E-02	0.10005433E 01
0.42000000E 01	0.15707980E 01	0.99993256E 00	0.57802849E-03	0.99946117E 00	0.43218487E-02	0.10003683E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued

(i)  $f(0) = -0.6$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.42500000E 01	0.16207952E 01	0.99995618E 00	0.38088272E-03	0.99964454E 00	0.30781021E-02	0.10002429E 01
0.43000000E 01	0.16707934E 01	0.99997163E 00	0.24709185E-03	0.99977447E 00	0.21689767E-02	0.10001541E 01
0.43500000E 01	0.17207922E 01	0.99998154E 00	0.15725222E-03	0.99986556E 00	0.15121364E-02	0.10000919E 01
0.44000000E 01	0.17707914E 01	0.99998777E 00	0.9759908E-04	0.99992874E 00	0.10430271E-02	0.10000487E 01
0.44500000E 01	0.18207908E 01	0.99999157E 00	0.58305386E-04	0.99997209E 00	0.71182290E-03	0.10000191E 01
0.45000000E 01	0.18707905E 01	0.99999376E 00	0.32751689E-04	0.10000015E 01	0.48064281E-03	0.99999899E 00

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued

(i)  $f(0) = -0.7$

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.45000000E-01	-0.70000000E 00	0.64143490E-01	0.65851427E-01	0.15510000E-01	0.17621741E-01	0.14728511E 02
0.45500000E-01	-0.69991910E 00	0.32495834E-02	0.67630342E-01	0.17410117E-01	0.18390173E-01	0.14338423E 02
0.46000000E 00	-0.69967355E 00	0.65863284E-02	0.69484463E-01	0.18349757E-01	0.19203126E-01	0.14065916E 02
0.46500000E 00	-0.69925892E 00	0.10013883E-01	0.71417095E-01	0.19331219E-01	0.20063605E-01	0.13737092E 02
0.47000000E 00	-0.69867054E 00	0.13536085E-01	0.73432647E-01	0.20356691E-01	0.20974869E-01	0.13410067E 02
0.47500000E 00	-0.69790363E 00	0.17156973E-01	0.75535634E-01	0.21429609E-01	0.21940449E-01	0.13084954E 02
0.48000000E 00	-0.69695310E 00	0.20880805E-01	0.77730899E-01	0.22551973E-01	0.22964165E-01	0.12761875E 02
0.48500000E 00	-0.69581372E 00	0.24712072E-01	0.80223828E-01	0.23727061E-01	0.24050161E-01	0.12440949E 02
0.49000000E 00	-0.69447999E 00	0.2865517E-01	0.82419366E-01	0.24958099E-01	0.25202925E-01	0.12122302E 02
0.49500000E 00	-0.69294619E 00	0.32716149E-01	0.84924039E-01	0.26248545E-01	0.26427318E-01	0.11806061E 02
0.50000000E 00	-0.69120631E 00	0.36899265E-01	0.87543984E-01	0.27602111E-01	0.27728613E-01	0.11492359E 02
0.50500000E 00	-0.68925409E 00	0.41210469E-01	0.9028956E-01	0.29022781E-01	0.29112527E-01	0.11181327E 02
0.51000000E 00	-0.68708298E 00	0.45655692E-01	0.93157172E-01	0.30514841E-01	0.30585261E-01	0.10873099E 02
0.51500000E 00	-0.68468614E 00	0.50241215E-01	0.96165323E-01	0.32082896E-01	0.32153546E-01	0.10567808E 02
0.52000000E 00	-0.68205637E 00	0.54973688E-01	0.99616532E-01	0.33731905E-01	0.33824686E-01	0.10265596E 02

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Continued(j)  $f(0) = -0.7$  - Continued $[\sigma = 0.71; E_w = 0.01651; L = 1.0]$ 

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.7500000E 00	-0.67918617E 00	0.59860161E-01	0.99318639E-01	0.35467206E-01	0.356066613E-01	0.996665976E 01
0.8000000E 00	-0.67606764E 00	0.64908106E-01	0.10262576E 00	0.37294551E-01	0.37507945E-01	0.96709520E 01
0.8499999E 00	-0.67269251E 00	0.70128448E-01	0.10609610E 00	0.39220141E-01	0.39538040E-01	0.93787967E 01
0.9000000E 00	-0.66905209E 00	0.75520591E-01	0.10973949E 00	0.41250664E-01	0.41707072E-01	0.90902775E 01
0.9500000E 00	-0.66513729E 00	0.81102446E-01	0.11355664E 00	0.43393342E-01	0.444026097E-01	0.88035248E-01
0.1000000E 01	-0.66093854E 00	0.86880472E-01	0.11758821E 00	0.45559709E-01	0.46507135E-01	0.85246848E 01
0.1050000E 01	-0.65644578E 00	0.92864700E-01	0.12181657E 00	0.48046969E-01	0.49163249E-01	0.82478942E 01
0.1100000E 01	-0.65164842E 00	0.99065771E-01	0.12628439E 00	0.50575444E-01	0.52008643E-01	0.79752891E 01
0.1150000E 01	-0.64653535E 00	0.10549497E 00	0.13094405E 00	0.53251240E-01	0.55058751E-01	0.77010019E-01
0.1200000E 01	-0.64109489E 00	0.11216427E 00	0.13587048E 00	0.56085005E-01	0.58330348E-01	0.74441836E 01
0.1250000E 01	-0.63531469E 00	0.11908636E 00	0.14105814E 00	0.59088263E-01	0.61841652E-01	0.71839447E 01
0.1300000E 01	-0.62918178E 00	0.12627468E 00	0.14652256E 00	0.62273488E-01	0.65612443E-01	0.69294334E 01
0.1350000E 01	-0.62268250E 00	0.13374349E 00	0.15228000E 00	0.65654182E-01	0.69664179E-01	0.66737650E 01
0.1400000E 01	-0.61580247E 00	0.14150783E 00	0.15834742E 00	0.69244967E-01	0.74020119E-01	0.64350681E 01
0.1450000E 01	-0.60852648E 00	0.14958367E 00	0.16474245E 00	0.73061674E-01	0.78705450E-01	0.61954618E 01
0.1500000E 01	-0.60083859E 00	0.15798783F 00	0.17148330F 00	0.77121445E-01	0.83747398E-01	0.59610619E 01
0.1550000E 01	-0.59272190E 00	0.16673807E 00	0.17858870E 00	0.81442838E-01	0.89175356E-01	0.57319812E 01
0.1600000E 01	-0.58415867E 00	0.17585307E 00	0.18607717E 00	0.86045932E-01	0.95020982E-01	0.55083255E 01
0.1650000E 01	-0.57513015E 00	0.18535253E 00	0.19396955E 00	0.90952454E-01	0.10131828E 00	0.52901956E 01
0.1700000E 01	-0.56561663E 00	0.19525705E 00	0.20228339E 00	0.96185887E-01	0.10810371E 00	0.50776867E 01
0.1750000E 01	-0.55559731F 00	0.20558819F 00	0.21103801E 00	0.10177159E 00	0.11541615E 00	0.48708878E-01
0.1800000E 01	-0.54505029E 00	0.21638847E 00	0.22023145E 00	0.10773696E 00	0.12329692E 00	0.46698800E 01
0.1850000E 01	-0.5339254E 00	0.22762124E 00	0.22994050E 00	0.11411148E 00	0.13178968E 00	0.44747377E-01
0.1900000E 01	-0.52227984E 00	0.23937067E 00	0.24012014E 00	0.12092689E 00	0.14094029E 00	0.42855273E 01
0.1950000E 01	-0.51000675E 00	0.25164162E 00	0.25080278E 00	0.12821726E 00	0.15079650E 00	0.41023066E-01
0.2000000E 01	-0.49710654E 00	0.26445946E 00	0.26199745E 00	0.13601910E 00	0.16140756E 00	0.39251244E 01
0.2050000E 01	-0.48355124E 00	0.27784994E 00	0.27370871E 00	0.14437141E 00	0.17282360E 00	0.37540205E 01
0.2100000E 01	-0.46931155E 00	0.29183889E 00	0.28593545E 00	0.15331569E 00	0.18509483E 00	0.35890241E 01
0.2150000E 01	-0.45435692E 00	0.30645190E 00	0.29866939E 00	0.16289595E 00	0.19827047E 00	0.34301550E 01
0.2200000E 01	-0.43865553E 00	0.32171395E 00	0.31189347E 00	0.17315858E 00	0.21239733E 00	0.32774210E 01
0.2250000E 01	-0.42217430E 00	0.33764892E 00	0.32557985E 00	0.18415223E 00	0.22751804E 00	0.31308192E-01
0.2300000E 01	-0.40487903E 00	0.35427894E 00	0.33968776E 00	0.19592754E 00	0.24366883E 00	0.29903348E 01
0.2350000E 01	-0.38673447E 00	0.37162376E 00	0.35416106E 00	0.20853672E 00	0.26037675E 00	0.28559405E 01
0.2400000E 01	-0.36770445E 00	0.38969988E 00	0.36892598E 00	0.22203508E 00	0.27915656E 00	0.27275962E 01
0.2450000E 01	-0.34775207E 00	0.40851958E 00	0.38388634E 00	0.23647019E 00	0.29850581E 00	0.26052486E-01



TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25\ 000\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.7$  - Continued

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.2500000E 01	-0.32683996E 00	0.42808980E 00	0.39892457E 00	0.25190109E 00	0.31890217E 00	0.24888311E 01
0.2500000E 01	-0.30493055E 00	0.444841088E 00	0.41389436E 00	0.28837701E 00	0.34029621E 00	0.23782627E 01
0.2600000E 01	-0.28198646E 00	0.46947523E 00	0.42862228E 00	0.28594596E 00	0.36260651E 00	0.22734483E 01
0.2649999E 01	-0.25797090E 00	0.49126570E 00	0.44290280E 00	0.30465093E 00	0.38571320E 00	0.21742785E 01
0.2700000E 01	-0.23284823E 00	0.51375404E 00	0.45649590E 00	0.32452780E 00	0.40945134F 00	0.20806296E 01
0.2750000E 01	-0.20658453E 00	0.53689927E 00	0.46913099E 00	0.34560297E 00	0.43360455E 00	0.19923636E 01
0.2800000E 01	-0.17914826F 00	0.56664606E 00	0.48350550E 00	0.36789061E 00	0.45789924E 00	0.19093290E 01
0.2850000E 01	-0.15051107E 00	0.58492333E 00	0.49028922E 00	0.39138967E 00	0.48200008E 00	0.18313615E 01
0.2899999E 01	-0.12064856E 00	0.60964253E 00	0.49813059E 00	0.41608074E 00	0.50550762E 00	0.17582854E 01
0.2950000E 01	-0.89541202E-01	0.63469779F 00	0.50366610E 00	0.44192283E 00	0.52795905E 00	0.16899152E 01
0.3000000E 01	-0.57175240E-01	0.65996458E 00	0.50553304E 00	0.46885034F 00	0.54883301E 00	0.16260582E 01
0.3050000E 01	-0.23343576E-01	0.68530077E 00	0.50838584E 00	0.49677031E 00	0.56755949E 00	0.15665172E 01
0.3100000E 01	0.11333357E-01	0.71054768E 00	0.50291541E 00	0.52356039E 00	0.58353560E 00	0.15110935E 01
0.3150000E 01	0.47506829E-01	0.73553261E 00	0.49587111E 00	0.55506772E 00	0.59614785E 00	0.14595908E 01
0.3200000E 01	0.84899196E-01	0.7607227F 00	0.48508372E 00	0.58510908E 00	0.60480040E 00	0.14118184E 01
0.3250000E 01	0.12350347E 00	0.78397737F 00	0.47048770E 00	0.61547258E 00	0.60894863E 00	0.13675947E 01
0.3300000E 01	0.16328318E 00	0.80705836E 00	0.45214034E 00	0.64592113E 00	0.60813604E 00	0.13267489E 01
0.3350000E 01	0.20419250E 00	0.82913195E 00	0.43023521E 00	0.67619781E 00	0.60203159E 00	0.12891229E 01
0.3400000E 01	0.24617673E 00	0.85002802E 00	0.40510728E 00	0.70803304E 00	0.59046368E 00	0.12545714E 01
0.3450000E 01	0.28917315E 00	0.86959668E 00	0.3722776E 00	0.73515323E 00	0.57344835E 00	0.12229598E 01
0.3500000E 01	0.33311218E 00	0.88771465E 00	0.34718752E 00	0.76329055E 00	0.55120327E 00	0.11941624E 01
0.3550000E 01	0.37791888E 00	0.90429069E 00	0.31566956E 00	0.79019329E 00	0.52415182E 00	0.11680589E 01
0.3600000E 01	0.4231458E 00	0.91926920E 00	0.28341220E 00	0.81563571E 00	0.49290822F 00	0.11445301E 01
0.3650000E 01	0.46981882E 00	0.93253206E 00	0.25116646E 00	0.83942703E 00	0.45924847E 00	0.11234546E 01
0.3700000E 01	0.51675113E 00	0.944439801E 00	0.21965198E 00	0.86414843E 00	0.42106765E 00	0.11047057E 01
0.3750000E 01	0.56423285E 00	0.95462020E 00	0.18951603E 00	0.88150775E 00	0.38232798E 00	0.10881496E 01
0.3800000E 01	0.61218876E 00	0.96338160E 00	0.16130018E 00	0.89964162E 00	0.34300287E 00	0.10736447E 01
0.3850000E 01	0.66054840E 00	0.97078911E 00	0.13541754E 00	0.91581375E 00	0.30402253E 00	0.10610418E 01
0.3899999E 01	0.70924713E 00	0.97696684E 00	0.11214231E 00	0.93006342E 00	0.26622646E 00	0.10501856E 01
0.3950000E 01	0.75822679E 00	0.98204909E 00	0.91611314E-01	0.94246803E 00	0.23032665E 00	0.10409173E 01

TABLE IV. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 25$  000 FT/SEC - Concluded

(i)  $f(0) = -0.7$  - Concluded

$[\sigma = 0.71; g_w = 0.01651; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.4000000E 01	0.80743606E 00	0.98617387E 00	0.73836016E -01	0.95313708E 00	0.19688398E 00	0.10330771E 01
0.40500000E 01	0.85683046E 00	0.98947701E 00	0.58722191E -01	0.96220407E 00	0.16629815E 00	0.10265072E 01
0.41000000E 01	0.90637218E 00	0.99208748E 00	0.46093967E -01	0.96981853E 00	0.13881023E 00	0.10210543E 01
0.41499999E 01	0.95602961E 00	0.99412393E 00	0.35719235E -01	0.97613831E 00	0.11445153E 00	0.10165726E 01
0.42000000E 01	0.10057767E 01	0.99569248E 00	0.27333728E -01	0.98132278E 00	0.93383099E -01	0.10129259E 01
0.42500000E 01	0.10555925E 01	0.95688576E 00	0.20661929E -01	0.98552710E 00	0.75281528E -01	0.10099867E 01
0.43000000E 01	0.11054603E 01	0.99778264E 00	0.15433750E -01	0.98889793E 00	0.60034419E -01	0.10076429E 01
0.43500000E 01	0.11553669E 01	0.99844889E 00	0.11396609E -01	0.99157017E 00	0.47291099E -01	0.10057928E 01
0.44000000E 01	0.12053022E 01	0.99893827E 00	0.83231824E -02	0.99366499E 00	0.36858931E -01	0.10043469E 01
0.44500000E 01	0.12552584E 01	0.99929388E 00	0.60154055E -02	0.99528908E 00	0.28442225E -01	0.10032289E 01
0.45000000E 01	0.13052299E 01	0.99954969E 00	0.43055019E -02	0.99653442E 00	0.21662132E -01	0.10023733E 01
0.45499999E 01	0.13552121E 01	0.99973200E 00	0.30548768E -02	0.99747897E 00	0.16336533E -01	0.10017253E 01
0.46000000E 01	0.14052020E 01	0.99986088E 00	0.21516000E -02	0.99818760E 00	0.12187255E -01	0.10012398E 01
0.46500000E 01	0.14551974E 01	0.99995138E 00	0.15071318E -02	0.99871354E 00	0.89941393E -02	0.10008797E 01
0.47000000E 01	0.15051966E 01	0.10000147E 01	0.10527619E -02	0.99909969E 00	0.65665537E -02	0.10006155E 01
0.47500000E 01	0.15551985E 01	0.10000588E 01	0.73611220E -03	0.99938017E 00	0.47429966E -02	0.10004236E 01
0.47999999E 01	0.16052022E 01	0.10000898E 01	0.51792380E -03	0.99958173E 00	0.33893464E -02	0.10002859E 01
0.48499999E 01	0.16552072E 01	0.10001116E 01	0.36923567E -03	0.99972504E 00	0.23962660E -02	0.10001879E 01
0.49000000E 01	0.17052132E 01	0.10001273E 01	0.26899424E -03	0.99982583E 00	0.16761629E -02	0.10001190E 01
0.49500000E 01	0.17552199E 01	0.10001389E 01	0.20214107E -03	0.99989597E 00	0.11600166E -02	0.10000711E 01
0.50000000E 01	0.18052270E 01	0.10001478E 01	0.15800547E -03	0.99994425E 00	0.79429620E -03	0.10000381E 01
0.50500000E 01	0.18552345E 01	0.10001549E 01	0.12916509E -03	0.99997716E 00	0.53811313E -03	0.10000156E 01
0.50600000E 01	0.18652361E 01	0.10001561E 01	0.12474983E -03	0.99998233E 00	0.49716062E -03	0.10000121E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$

(a)  $f(0) = 0$

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.5000000E-01	0.41116379E-03	0.17110854E-01	0.30209602E 00	0.16450000E-01	0.201125488E 00	0.95936029E 01
0.09999999E 00	0.17761933E-02	0.381128930E-01	0.338179834E 00	0.27902275E-01	0.25667629E 00	0.86784256E 01
0.15000000E 00	0.42865631E-02	0.62999147E-01	0.45839390E 00	0.42104855E-01	0.3112203E 00	0.77625334E 01
0.20000000E 00	0.81260265E-02	0.91264511E-01	0.53191276E 00	0.59225306E-01	0.36541272E 00	0.68979611E 01
0.25000000E 00	0.13470016E-01	0.12304919E 00	0.60212038E 00	0.786338005E-01	0.41901278E 00	0.61117581E 01
0.30000000E 00	0.20484626E-01	0.15805368E 00	0.66860424E 00	0.10091765E 00	0.47207405E 00	0.54135971E 01
0.35000000E 00	0.29325228E-01	0.19604760E 00	0.73080974E 00	0.12583393E 00	0.52444352E 00	0.48024582E 01
0.40000000E 00	0.40134781E-01	0.23676386E 00	0.78805876E 00	0.15334613E 00	0.57585717E 00	0.42726287E 01
0.45000000E 00	0.53041864E-01	0.27989367E 00	0.83956425E 00	0.18339733E 00	0.62592854E 00	0.38148873E 01
0.50000000E 00	0.68158490E-01	0.32508254E 00	0.92176565E 00	0.25076894E 00	0.67413673E 00	0.34203315E 01
0.55000000E 00	0.8557749E-01	0.37192786E 00	0.95958376E 00	0.2878420E 00	0.76216206E 00	0.30803208E 01
0.59999999E 00	0.10537139E 00	0.41997862E 00	0.98982905E 00	0.32691381E 00	0.82216206E 00	0.27870952E 01
0.65000000E 00	0.12758743E 00	0.46873795E 00	0.97876765E 00	0.36776765E 00	0.89022449E 00	0.25339000E 01
0.70000000E 00	0.15224805E 00	0.51766927E 00	0.97666868E 00	0.41010060E 00	0.93294656E 00	0.23149635E 01
0.75000000E 00	0.17934779E 00	0.56620846E 00	0.96293773E 00	0.45356055E 00	0.95919829E 00	0.21254042E 01
0.80000000E 00	0.20885244E 00	0.61376858E 00	0.93761677E 00	0.49773966E 00	0.87783894E 00	0.19611159E 01
0.84999999E 00	0.24069875E 00	0.65977848E 00	0.90093555E 00	0.54218020E 00	0.88779694E 00	0.18186473E 01
0.90000000E 00	0.27479520E 00	0.70368508E 00	0.85365149E 00	0.58638532E 00	0.88816474E 00	0.16950994E 01
0.95000000E 00	0.31102382E 00	0.74498730E 00	0.79700736E 00	0.62983476E 00	0.87830056E 00	0.15880241E 01
0.10000000E 01	0.34924332E 00	0.78325792E 00	0.73270492E 00	0.67200498E 00	0.85792510E 00	0.14953453E 01
0.10500000E 01	0.38929344E 00	0.81816453E 00	0.65281895E 00	0.71233249E 00	0.82719884E 00	0.14152904E 01
0.11000000E 01	0.43099993E 00	0.84948536E 00	0.58967344E 00	0.75053810E 00	0.78676514E 00	0.13463327E 01
0.11500000E 01	0.47418042E 00	0.87711766E 00	0.51567544E 00	0.78604981E 00	0.7374791E 00	0.12871456E 01
0.12000000E 01	0.51865040E 00	0.90107733E 00	0.44313812E 00	0.81862183E 00	0.68169829E 00	0.12365652E 01
0.12500000E 01	0.56422894E 00	0.92149017E 00	0.37411447E 00	0.84804760E 00	0.62049368E 00	0.11935612E 01
0.13000000E 01	0.61074387E 00	0.93857521E 00	0.31926511E 00	0.8742541E 00	0.55620053E 00	0.11572130E 01
0.13500000E 01	0.65803579E 00	0.95262288E 00	0.2527766CE 00	0.89715617E 00	0.49091931E 00	0.11266931E 01
0.14000000E 01	0.70596112E 00	0.96397053E 00	0.20233689E 00	0.91693427E 00	0.42663255E 00	0.11012541E 01
0.14500000E 01	0.75439380E 00	0.97297785E 00	0.15916394E 00	0.93373265E 00	0.36507574E 00	0.10802187E 01
0.15000000E 01	0.80322587E 00	0.98000512E 00	0.12307554E 00	0.94778445E 00	0.30764478E 00	0.10629741E 01
0.15500000E 01	0.85236701E 00	0.98539541E 00	0.9358308E-01	0.95936327E 00	0.25534726E 00	0.10489666E 01
0.16000000E 01	0.90174334E 00	0.98946191E 00	0.69997635E-01	0.96876407E 00	0.20879614E 00	0.10376989E 01
0.16500000E 01	0.95129572E 00	0.99248022E 00	0.51518929E-01	0.97628616E 00	0.16823939E 00	0.10287271E 01
0.17000000E 01	0.10009778E 01	0.99468508E 00	0.37323305E-01	0.98221939E 00	0.13361481E 00	0.10216593E 01
					0.17461859E 00	0.10161526E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(a)  $f(0) = 0$  - Concluded

$[\sigma = 0.71; \xi_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.10507539E 01	0.95627065E 00	0.26620579E-01	0.98683392E 00	0.80777478E-01	0.10119107E 01
0.18000000E 01	0.11005671E 01	0.95739329E 00	0.18694593E-01	0.99337342E 00	0.61516223E-01	0.10086809E 01
0.18500000E 01	0.11504875E 01	0.95817595E 00	0.12924730E-01	0.99305148E 00	0.46215512E-01	0.10062508E 01
0.19000000E 01	0.12004105E 01	0.95871295E 00	0.87929546E-02	0.99505059E 00	0.34257368E-01	0.10044444E 01
0.19500000E 01	0.12503358E 01	0.95937541E 00	0.58805823E-02	0.99652309E 00	0.25058034E-01	0.10031180E 01
0.20000000E 01	0.13003160E 01	0.95931571E 00	0.38587281E-02	0.99759346E 00	0.19089023E-01	0.10021561E 01
0.20500000E 01	0.13502859E 01	0.95947179E 00	0.24755558E-02	0.99836136E 00	0.12888352E-01	0.10014671E 01
0.21000000E 01	0.14002622E 01	0.95957369E 00	0.15426553E-02	0.99893511E 00	0.90641010E-02	0.10009798E 01
0.21500000E 01	0.14502423E 01	0.95963114E 00	0.92205278E-03	0.99928519E 00	0.62924711E-02	0.10006395E 01
0.22000000E 01	0.15002247E 01	0.95966631E 00	0.51468379E-03	0.99954744E 00	0.43122630E-02	0.10004048E 01
0.22500000E 01	0.15502086E 01	0.95968493E 00	0.25074150E-03	0.99972607E 00	0.29173638E-02	0.10002449E 01
0.23000000E 01	0.16001930E 01	0.95969289E 00	0.81887563E-04	0.99984618E 00	0.19484418E-02	0.10001375E 01
0.23500000E 01	0.16501776E 01	0.95969408E 00	-0.24806499E-04	0.99992592E 00	0.12847045E-02	0.10000662E 01
0.24000000E 01	0.17001622E 01	0.95969100E 00	-0.91409576E-04	0.99997817E 00	0.83626382E-03	0.10000195E 01
0.24500000E 01	0.17501466E 01	0.95968529E 00	-0.13249395E-03	0.10000119E 01	0.53741698E-03	0.99998933E 00
0.24599999E 01	0.17601434E 01	0.95968392E 00	-0.13855063E-03	0.10000170E 01	0.49117539E-03	0.99998476E 00

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.20000000E-00	0.26115617E-01	0.43721654E-00	0.16450000E-01	0.30159486E-00	0.95936029E-01
0.50000000E-01	0.20061794E-00	0.26049528E-01	0.43649528E-00	0.34556239E-01	0.42148311E-00	0.82234931E-01
0.50000000E-01	0.20274515E-00	0.25768558E-01	0.43482625E-00	0.58484235E-01	0.53448345E-00	0.69225763E-01
0.50000000E-01	0.20676318E-00	0.25161127E-00	0.43202910E-00	0.87384467E-01	0.64026231E-00	0.58009046E-01
0.50000000E-01	0.21301246E-00	0.24193438E-00	0.42812055E-00	0.12237638E-00	0.73798930E-00	0.48789196E-01
0.25000000E-00	0.22178765E-00	0.20247870E-00	0.11098015E-01	0.16153152E-00	0.82659949E-00	0.41371826E-01
0.30000000E-00	0.23332775E-00	0.25995639E-00	0.11853028E-01	0.20486416E-00	0.90487677E-00	0.35446745E-01
0.34000000E-00	0.24783671E-00	0.32033792E-00	0.12377610E-01	0.25182503E-00	0.97150321E-00	0.30710942E-01
0.40000000E-00	0.26542999E-00	0.38232669E-00	0.12656956E-01	0.30179758E-00	0.10251183E-01	0.26908881E-01
0.45000000E-00	0.28618239E-00	0.44675789E-00	0.12690825E-01	0.35409793E-00	0.10644048E-01	0.23837883E-01
0.50000000E-00	0.31010249E-00	0.50983459E-00	0.12484797E-01	0.40797976E-00	0.10882048E-01	0.21341442E-01
0.55000000E-00	0.33713908E-00	0.57126929E-00	0.12053164E-01	0.46264571E-00	0.10956599E-01	0.19299883E-01
0.59999999E-00	0.36718474E-00	0.63002851E-00	0.11419226E-01	0.51726615E-00	0.10863615E-01	0.17621760E-01
0.65000000E-00	0.40008163E-00	0.68517689E-00	0.10614782E-01	0.57100515E-00	0.10604871E-01	0.16236863E-01
0.70000000E-00	0.43562947E-00	0.73595556E-00	0.96786896E-00	0.62305246E-00	0.10186975E-01	0.15090841E-01
0.75000000E-00	0.47359515E-00	0.78181683E-00	0.86545204E-00	0.67265882E-00	0.96316981E-00	0.14141173E-01
0.80000000E-00	0.51372357E-00	0.82243042E-00	0.75875229E-00	0.71917085E-00	0.89554942E-00	0.13354179E-01
0.84999999E-00	0.55574888E-00	0.85769355E-00	0.65212888E-00	0.76206168E-00	0.81881958E-00	0.12702821E-01
0.90000000E-00	0.59940534E-00	0.88770957E-00	0.54945990E-00	0.80009289E-00	0.73610137E-00	0.12165091E-01
0.95000000E-00	0.64443653E-00	0.91275833E-00	0.45389137E-00	0.83562566E-00	0.65061309E-00	0.11722828E-01
0.10000000E-01	0.69060522E-00	0.93325526E-00	0.36768752E-00	0.86601932E-00	0.56542505E-00	0.11360893E-01
0.10500000E-01	0.73769496E-00	0.94976585E-00	0.29218531E-00	0.89221852E-00	0.48324571E-00	0.11066342E-01
0.11000000E-01	0.78551750E-00	0.96266044E-00	0.22786207E-00	0.91443083E-00	0.40626066E-00	0.10828368E-01
0.11500000E-01	0.83391198E-00	0.97267450E-00	0.17447301E-00	0.93295856E-00	0.33607638E-00	0.10637567E-01
0.12000000E-01	0.88274475E-00	0.98027702E-00	0.13123497E-00	0.94816817E-00	0.27365454E-00	0.10485889E-01
0.12500000E-01	0.93190750E-00	0.98594839E-00	0.97019481E-01	0.96046056E-00	0.21941421E-00	0.10366436E-01
0.13000000E-01	0.98131439E-00	0.99010766E-00	0.7052398E-01	0.97024505E-00	0.17329432E-00	0.10273279E-01
0.13500000E-01	0.10308989E-01	0.99210774E-00	0.50435858E-01	0.9791831E-00	0.13486982E-00	0.10201386E-01
0.14000000E-01	0.10806106E-01	0.99523687E-00	0.35489833E-01	0.98344909E-00	0.10346609E-00	0.10146505E-01
0.14500000E-01	0.11304119E-01	0.99672376E-00	0.24574727E-01	0.98836823E-00	0.78253893E-01	0.10105081E-01
0.15000000E-01	0.11802752E-01	0.9974552E-00	0.16741233E-01	0.99176411E-00	0.58387009E-01	0.10074175E-01
0.15500000E-01	0.12301809E-01	0.99843610E-00	0.11211779E-01	0.99428115E-00	0.42969187E-01	0.10051390E-01
0.16000000E-01	0.12801149E-01	0.99889465E-00	0.73699079E-02	0.99612172E-00	0.31200608E-01	0.10034792E-01
0.16500000E-01	0.13300676E-01	0.99919315E-00	0.47406259E-02	0.99744980E-00	0.2236215E-01	0.10022851E-01
0.17000000E-01	0.13800323E-01	0.99938285E-00	0.29671164E-02	0.99839551E-00	0.15809356E-01	0.10014365E-01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(b)  $f(0) = 0.2$  - Concluded

$$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E-01	0.143000046E-01	0.95849985E-00	0.17874191E-02	0.99906015E 00	0.11034458E-01	0.10008409E 01
0.18000000E 01	0.14799814E 01	0.9956825E 00	0.10132048E-02	0.99952121E 00	0.76022089E-02	0.10004282E 01
0.18500000E 01	0.15299609E 01	0.99960541E 00	0.511167249E-03	0.99983692E 00	0.51701599E-02	0.10001458E 01
0.19000000E 01	0.15799416E 01	0.99962233E 00	0.19086176E-03	0.10000503E 01	0.34710511E-02	0.99995501E 00
0.19500000E 01	0.16299228E 01	0.99962638E 00	-0.11836737E-04	0.10001927E 01	0.23005075E-02	0.99982778E 00
0.20000000E 01	0.16799040E 01	0.99962234E 00	-0.13837892E-03	0.10002864E 01	0.15052241E-02	0.99974400E 00
0.20500000E 01	0.17298848E 01	0.99961339E 00	-0.21645573E-03	0.10003474E 01	0.97229945E-03	0.99968955E 00
0.21000000E 01	0.17798652E 01	0.99960115E 00	-0.26407448E-03	0.10003865E 01	0.62004743E-03	0.99965462E 00
0.21500000E 01	0.18098531E 01	0.99959291E 00	-0.28303136E-03	0.1000427E 01	0.47046321E-03	0.99964011E 00

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(c)  $f(0) = 0.4$

$$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.44000000E 00	0.37234203E-01	0.59072682E 00	0.16450000E-01	0.41258539E 00	0.95936029E 01
0.79999999E 00	0.40395553E 00	0.88386768E-01	0.89143330E 00	0.42618738E-01	0.63036989E 00	0.77330489E 01
0.15000000E 00	0.40989871E 00	0.15104074E 00	0.11466164E 01	0.79097811E-01	0.82468898E 00	0.60955016E 01
0.20000000E 00	0.41920654E 00	0.22250590E 00	0.13505384E 01	0.12465066E 00	0.99276877E 00	0.48284823E 01
0.25000000E 00	0.43224838E 00	0.29991635E 00	0.14984668E 01	0.17788734E 00	0.11315603E 01	0.38911774E 01
0.30000000E 00	0.44924884E 00	0.38037198E 00	0.15882333E 01	0.23727536E 00	0.12384850E 01	0.32034055E 01
0.34999999E 00	0.47028978E 00	0.4610870E 00	0.16066671E 01	0.30117681E 00	0.13119044E 01	0.26950207E 01
0.40000000E 00	0.49531990E 00	0.53954685E 00	0.15985920E 01	0.36789659E 00	0.13512133E 01	0.23143336E 01
0.45000000E 00	0.52417084E 00	0.61360381E 00	0.1531537E 01	0.43373870E 00	0.13570012E 01	0.20252499E 01
0.50000000E 00	0.55657884E 00	0.68159404E 00	0.14251750E 01	0.50306866E 00	0.13311520E 01	0.18028733E 01
0.55000000E 00	0.5920973E 00	0.74237344E 00	0.12906211E 01	0.56837910E 00	0.12768593E 01	0.16299385E 01
0.59999999E 00	0.63068599E 00	0.79532425E 00	0.11385107E 01	0.63035309E 00	0.11985131E 01	0.14843058E 01
0.65000000E 00	0.67160922E 00	0.84031560E 00	0.97911274E 00	0.68791795E 00	0.11014414E 01	0.13872864E 01
0.70000000E 00	0.71458875E 00	0.87762807E 00	0.82151173E 00	0.74028301E 00	0.99152395E 00	0.13025363E 01
			0.67300272E 00	0.78695585E 00	0.87472957E 00	0.123533270E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\,000$  FT/SEC - Continued

(c)  $f(0) = 0.4$  - Concluded

$[\sigma = 0.71; \xi_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho S$
0.75000000E 00	0.75925378E 00	0.90785489E 00	0.53876746E 00	0.82773495E 00	0.75665303E 00	0.11820617E 01
0.80000000E 00	0.80526935E 00	0.93179438E 00	0.42184582E 00	0.86268080E 00	0.64212398E 00	0.11399514E 01
0.84999999E 00	0.85234339E 00	0.95034748E 00	0.32335778E 00	0.89207041E 00	0.53494301E 00	0.11067964E 01
0.90000000E 00	0.90022959E 00	0.96443104E 00	0.24289221E 00	0.91634241E 00	0.43776707E 00	0.10808366E 01
0.95000000E 00	0.94872648E 00	0.97491262E 00	0.17836641E 00	0.93603939E 00	0.35213514E 00	0.10606485E 01
0.10000000E 01	0.99767379E 00	0.98256826E 00	0.12947213E 00	0.95175792E 00	0.27860156E 00	0.10450724E 01
0.10500000E 01	0.10469473E 01	0.98806096E 00	0.92051128E-01	0.96409815E 00	0.21693396E 00	0.10331606E 01
0.11000000E 01	0.10964529E 01	0.99193555E 00	0.64373150E-01	0.97363590E 00	0.16633414E 00	0.10241384E 01
0.11500000E 01	0.11461210E 01	0.99462498E 00	0.44314369E-01	0.98089682E 00	0.12564897E 00	0.10173750E 01
0.12000000E 01	0.11959012E 01	0.99646330E 00	0.30080392E-01	0.98634385E 00	0.93550429E-01	0.10123595E 01
0.12500000E 01	0.12457573E 01	0.99770143E 00	0.20085219E-01	0.99037213E 00	0.68675078E-01	0.10086821E 01
0.13000000E 01	0.12956643E 01	0.99852356E 00	0.13238008E-01	0.99330991E 00	0.49722086E-01	0.10060169E 01
0.13500000E 01	0.13456049E 01	0.99906193E 00	0.86062581E-02	0.99542326E 00	0.35514193E-01	0.10041084E 01
0.14000000E 01	0.13955673E 01	0.99940973E 00	0.55192059E-02	0.99692320E 00	0.25028852E-01	0.10027582E 01
0.14500000E 01	0.14455437E 01	0.99963132E 00	0.34904482E-02	0.99797371E 00	0.17407314E-01	0.10018148E 01
0.15000000E 01	0.14955290E 01	0.99977051E 00	0.21746759E-02	0.99869982E 00	0.11946808E-01	0.10011637E 01
0.15500000E 01	0.15455198E 01	0.99985660E 00	0.13329154E-02	0.99919520E 00	0.80957506E-02	0.10007200E 01
0.16000000E 01	0.15955140E 01	0.99990889E 00	0.80353070E-03	0.99952880E 00	0.54144863E-02	0.10004215E 01
0.16500000E 01	0.16455103E 01	0.99993991E 00	0.46733371E-03	0.99975055E 00	0.35747468E-02	0.10002231E 01
0.17000000E 01	0.16955077E 01	0.99995773E 00	0.26234643E-03	0.99989606E 00	0.23298918E-02	0.10000929E 01
0.17500000E 01	0.17455059E 01	0.99996743E 00	0.13713439E-03	0.99999033E 00	0.14931285E-02	0.10000086E 01
0.18000000E 01	0.17955045E 01	0.99997219E 00	0.61398158E-04	0.10000506E 01	0.95227364E-03	0.99995477E 00
0.18500000E 01	0.18455030E 01	0.99997400E 00	0.16151861E-04	0.10000886E 01	0.59718556E-03	0.99992080E 00
0.18700000E 01	0.18655024E 01	0.99997417E 00	0.37302247E-05	0.10000995E 01	0.499372825E-03	0.99991111E 00

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(d)  $f(0) = 0.6$

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$p/\rho s$
0.50000000E-01	0.60000000E 00	0.	0.75690665E 00	0.16450000E-01	0.53097231E 00	0.95936029E 01
0.09999999E 00	0.60115674E 00	0.50275674E-01	0.12374510E 01	0.51999706E-01	0.98193683E 00	0.72320823E 01
0.09999999E 00	0.60539474E 00	0.12195605E 00	0.16105578E 01	0.10368231E 00	0.11750331E 01	0.53381032E 01
0.19000000E 00	0.61361390E 00	0.20931522E 00	0.18630501E 01	0.16840233E 00	0.14022389E 01	0.40300628E 01
0.20000000E 00	0.62647469E 00	0.30618527E 00	0.19913916E 01	0.24271789E 00	0.15933047E 01	0.31525691E 01
0.25000000E 00	0.64428966E 00	0.40551337E 00	0.20036000E 01	0.32303446E 00	0.16425891E 01	0.25569143E 01
0.30000000E 00	0.66709304E 00	0.50490023E 00	0.17173137E 01	0.42584341E 00	0.16590033E 01	0.21430227E 01
0.34999999E 00	0.69467415E 00	0.59700608E 00	0.17564426E 01	0.48793233E 00	0.16153754E 01	0.18484239E 01
0.40000000E 00	0.72663632E 00	0.67674385E 00	0.15473134E 01	0.56655909E 00	0.15224971E 01	0.16343005E 01
0.45000000E 00	0.76244703E 00	0.75131035E 00	0.13152045E 01	0.63957066E 00	0.13929536E 01	0.14760602E 01
0.50000000E 00	0.80157549E 00	0.81123975E 00	0.10816249E 01	0.70546213E 00	0.12398526E 01	0.13576798E 01
0.55000000E 00	0.84339614E 00	0.85976150E 00	0.85273137E 00	0.76337112E 00	0.10756094E 01	0.12683939E 01
0.59999999E 00	0.88737899E 00	0.89793321E 00	0.6688194E 00	0.81301759E 00	0.91059931E 00	0.12007452E 01
0.65000000E 00	0.93304015E 00	0.92715351E 00	0.50512454E 00	0.8540194E 00	0.75492038E 00	0.11494170E 01
0.70000000E 00	0.97997070E 00	0.94686247E 00	0.37228358E 00	0.88868205E 00	0.61155278E 00	0.11105200E 01
0.75000000E 00	0.10278380E 01	0.96486317E 00	0.26827206E 00	0.91604639E 00	0.48606972E 00	0.10811458E 01
0.80000000E 00	0.10763811E 01	0.97620797E 00	0.18934218E 00	0.93760095E 00	0.37919877E 00	0.10590818E 01
0.84999999E 00	0.11254020E 01	0.98414191E 00	0.13109089E 00	0.95427252E 00	0.29067176E 00	0.10426229E 01
0.90000000E 00	0.11747539E 01	0.98958371E 00	0.89158905E-01	0.96695068E 00	0.21913565E 00	0.10304457E 01
0.95000000E 00	0.12243314E 01	0.99328642E 00	0.59647562E-01	0.97643632E 00	0.16260967E 00	0.10215193E 01
0.10000000E 01	0.12740598E 01	0.99579565E 00	0.39294787E-01	0.98342432E 00	0.11884885E 00	0.10150415E 01
0.10500000E 01	0.13238878E 01	0.99730305E 00	0.25517206E-01	0.98849633E 00	0.85604941E-01	0.10103911E 01
0.11000000E 01	0.13737806E 01	0.99833381E 00	0.16348407E-01	0.99212519E 00	0.60792565E-01	0.10070900E 01
0.11500000E 01	0.14237149E 01	0.99892030E 00	0.10342154E-01	0.99469533E 00	0.42579614E-01	0.10047740E 01
0.12000000E 01	0.14736755E 01	0.99940328E 00	0.64648907E-02	0.99646713E 00	0.29421844E-01	0.10031684E 01
0.12500000E 01	0.15236525E 01	0.99966007E 00	0.39966844E-02	0.99769061E 00	0.20060604E-01	0.10020689E 01
0.13000000E 01	0.15736398E 01	0.99981802E 00	0.2442794E-02	0.99851967E 00	0.1348654E-01	0.10013252E 01
0.13500000E 01	0.16236332E 01	0.99991417E 00	0.14807240E-02	0.99907412E 00	0.89651580E-02	0.10008284E 01
0.14000000E 01	0.16736305E 01	0.99997217E 00	0.88935194E-03	0.99944012E 00	0.58773503E-02	0.10005008E 01
0.14500000E 01	0.17236300E 01	0.10000069E 01	0.53042521E-03	0.99967861E 00	0.38035249E-02	0.10092874E 01
0.15000000E 01	0.17736309E 01	0.10000275E 01	0.31489396E-03	0.99983203E 00	0.24299056E-02	0.10001502E 01
0.15500000E 01	0.18236325E 01	0.10000397E 01	0.18480521E-03	0.99993049E 00	0.15325087E-02	0.10000631E 01
0.16000000E 01	0.18736346E 01	0.10000469E 01	0.11144136E-03	0.99999049E 00	0.95419039E-03	0.10000085E 01
0.16500000E 01	0.19236370E 01	0.10000512E 01	0.67534612E-04	0.10000282E 01	0.58653115E-03	0.99997477E 00
0.17000000E 01	0.19736381E 01	0.10000524E 01	0.45696765E-04	0.10000388E 01	0.48105310E-03	0.999986530E 00



TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30,000$  FT/SEC - Continued

(e)  $f(0) = 0.7$

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	0.70000000E 00	0.57457746E-01	0.84342715E 00	0.16450000E-01	0.59216743E 00	0.95936029E 01
0.09999999E 00	0.70131396E 00	0.14052651E 00	0.14310448E 01	0.57153068E-01	0.10228580E 01	0.69839017E 01
0.15000000E 00	0.70617329E 00	0.24098983E 00	0.18640601E 01	0.11733242E 00	0.13691624E 01	0.49947056E 01
0.20000000E 00	0.71565674E 00	0.35023432E 00	0.21254240E 01	0.19246509E 00	0.16194777E 01	0.36957731E 01
0.25000000E 00	0.73041825E 00	0.46025584E 00	0.22173647E 01	0.27759570E 00	0.17690210E 01	0.28622353E 01
0.30000000E 00	0.75069228E 00	0.56448299E 00	0.21614091E 01	0.36774929E 00	0.18216822E 01	0.23150581E 01
0.34999999E 00	0.77634616E 00	0.65824280E 00	0.19920710E 01	0.45833466E 00	0.17887654E 01	0.19444320E 01
0.40000000E 00	0.80696457E 00	0.73885489E 00	0.17494639E 01	0.54547235E 00	0.16866219E 01	0.16866219E 01
0.45000000E 00	0.84195029E 00	0.80542039E 00	0.14721642E 01	0.62618347E 00	0.15350025E 01	0.15027101E 01
0.50000000E 00	0.88061555E 00	0.85842039E 00	0.11922269E 01	0.69846853E 00	0.13529101E 01	0.13693277E 01
0.55000000E 00	0.92226572E 00	0.89842186E 00	0.93263178E 00	0.76126695E 00	0.11582607E 01	0.12714308E 01
0.59999999E 00	0.96625461E 00	0.89925394E 00	0.70699214E 00	0.81432988E 00	0.96560010E 00	0.11990551E 01
0.65000000E 00	0.10120193E 01	0.92578307E 00	0.52087928E 00	0.85803972E 00	0.78557705E 00	0.11453699E 01
0.70000000E 00	0.10590944E 01	0.95199703E 00	0.37396060E 00	0.89321221E 00	0.67492047E 00	0.11055472E 01
0.75000000E 00	0.11071116E 01	0.96776682E 00	0.26225258E 00	0.92091075E 00	0.48691747E 00	0.10769863E 01
0.80000000E 00	0.11557907E 01	0.97871384E 00	0.18003236E 00	0.94229248E 00	0.37216823E 00	0.10543971E 01
0.84999999E 00	0.12049248E 01	0.98615968E 00	0.12121173E 00	0.95849465E 00	0.27941184E 00	0.10385357E 01
0.90000000E 00	0.12543655E 01	0.99113079E 00	0.80172784E-01	0.97056089E 00	0.20627774E 00	0.10270299E 01
0.95000000E 00	0.13040094E 01	0.99439362E 00	0.52170736E-01	0.97940142E 00	0.14988562E 00	0.10187606E 01
1.00000000E 00	0.13537857E 01	0.99650185E 00	0.33441568E-01	0.98577894E 00	0.10727301E 00	0.10128774E 01
0.10000000E 01	0.14036468E 01	0.99784438E 00	0.21138222E-01	0.99031189E 00	0.75665962E-01	0.10087368E 01
0.10500000E 01	0.14535617E 01	0.99868780E 00	0.13187494E-01	0.99348801E 00	0.52624792E-01	0.10058558E 01
0.11000000E 01	0.15035102E 01	0.99921095E 00	0.81262416E-02	0.99563269E 00	0.36100497E-01	0.10038746E 01
0.11500000E 01	0.15534794E 01	0.99953155E 00	0.49488387E-02	0.99717873E 00	0.24433410E-01	0.10025286E 01
0.12000000E 01	0.16034612E 01	0.99972576E 00	0.29797320E-02	0.99818499E 00	0.16318797E-01	0.10016252E 01
0.12500000E 01	0.16534506E 01	0.99984268E 00	0.17741294E-02	0.99885293E 00	0.10756901E-01	0.10010265E 01
0.13000000E 01	0.17034445E 01	0.99991097E 00	0.10443743E-02	0.99929055E 00	0.69988273E-02	0.10006347E 01
0.13500000E 01	0.17534412E 01	0.99995130E 00	0.60741211E-03	0.99957357E 00	0.44950397E-02	0.10003814E 01
0.14000000E 01	0.18034393E 01	0.99997459E 00	0.34846508E-03	0.99975424E 00	0.28499249E-02	0.10002198E 01
0.14500000E 01	0.18534383E 01	0.99998784E 00	0.19653138E-03	0.99986810E 00	0.17837730E-02	0.10001179E 01
0.15000000E 01	0.19034379E 01	0.99999523E 00	0.10824294E-03	0.99993893E 00	0.11022037E-02	0.10000546E 01
0.15500000E 01	0.19534377E 01	0.99999922E 00	0.57422323E-04	0.99998242E 00	0.67236758E-03	0.10000157E 01
0.15800000E 01	0.19834377E 01	0.10000000E 01	0.35108289E-04	0.99999981E 00	0.44675060E-03	0.10000002E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

$f(\eta) = -0.2$

$[\sigma = 0.71; g_\infty = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_S$
0.5000000E-01	-0.7000000E 00	0.10410092E-01	0.19296923E 00	0.16450000E-01	0.11706804E 00	0.95936029E 01
0.09999999E 00	-0.19974688E 00	0.22340301E-01	0.22341163E 00	0.22800233E-01	0.13700412E 00	0.90633494E 01
0.09999999E 00	-0.19933365E 00	0.22340301E-01	0.25380044E 00	0.30157897E-01	0.15738866E 00	0.85186013E 01
0.15000000E 00	-0.19748670E 00	0.35791486E-01	0.28426919E 00	0.38548759E-01	0.17835258E 00	0.79729876E 01
0.20000000E 00	-0.19532903E 00	0.50770120E-01	0.31491108E 00	0.48004763E-01	0.20001289E 00	0.74371476E 01
0.25000000E 00	-0.19238405E 00	0.67286493E-01	0.3478629E 00	0.58563437E-01	0.22247642E 00	0.69189620E 01
0.30000000E 00	-0.18857454E 00	0.85353144E-01	0.37692465E 00	0.70267415E-01	0.24584054E 00	0.64239073E 01
0.34999999E 00	-0.18382266E 00	0.10498334E 00	0.40832525E 00	0.83163945E-01	0.27019205E 00	0.59554785E 01
0.40000000E 00	-0.17804993E 00	0.12618949E 00	0.43995415E 00	0.97304302E-01	0.29560448E 00	0.55156064E 01
0.45000000E 00	-0.17117728E 00	0.14898138E 00	0.47174057E 00	0.11274301E 00	0.32213409E 00	0.51050325E 01
0.50000000E 00	-0.16312526E 00	0.17336430E 00	0.50357188E 00	0.12953689E 00	0.34981440E 00	0.47236320E 01
0.55000000E 00	-0.15381434E 00	0.19932666E 00	0.5328762E 00	0.14774370E 00	0.37864932E 00	0.43706745E 01
0.59999999E 00	-0.14316527E 00	0.22888756E 00	0.56667290E 00	0.16742051E 00	0.40860488E 00	0.40450289E 01
0.65000000E 00	-0.13109964E 00	0.25999386E 00	0.59745139E 00	0.18862152E 00	0.43959936E 00	0.37455223E 01
0.70000000E 00	-0.11754058E 00	0.28861687E 00	0.62727869E 00	0.21139544E 00	0.47149228E 00	0.34700458E 01
0.75000000E 00	-0.10241362E 00	0.31869991E 00	0.65573670E 00	0.23578223E 00	0.50407231E 00	0.32176466E 01
0.80000000E 00	-0.85647702E-01	0.35215946E 00	0.68233007E 00	0.26180924E 00	0.53704477E 00	0.29865789E 01
0.84999999E 00	-0.67176466E-01	0.38689130E 00	0.70848617E 00	0.28948678E 00	0.57001981E 00	0.27753433E 01
0.90000000E 00	-0.46939658E-01	0.42275670E 00	0.72755995E 00	0.31880305E 00	0.60250227E 00	0.25825096E 01
0.95000000E 00	-0.24884740E-01	0.45958414E 00	0.74484577E 00	0.34971870E 00	0.633888535E 00	0.24067308E 01
0.10000000E 01	-0.68665371E-03	0.49716569E 00	0.75759781E 00	0.38216129E 00	0.66345011E 00	0.22467485E 01
0.10500000E 01	0.24840323E-01	0.53525571E 00	0.76506054E 00	0.41601970E 00	0.69037338E 00	0.21013935E 01
0.11000000E 01	0.52560695E-01	0.57357141E 00	0.76650996E 00	0.45113945E 00	0.71374653E 00	0.19699838E 01
0.11500000E 01	0.82195953E-01	0.61179566E 00	0.761330518E 00	0.48731911E 00	0.73260740E 00	0.18503189E 01
0.12000000E 01	0.11373297E 00	0.64458235E 00	0.74894796E 00	0.52430874E 00	0.74598625E 00	0.17426738E 01
0.12500000E 01	0.14714082E 00	0.68656616E 00	0.72914544E 00	0.56181093E 00	0.75296546E 00	0.16457922E 01
0.13000000E 01	0.18236995E 00	0.7237220E 00	0.70186973E 00	0.59948519E 00	0.75275000E 00	0.15588783E 01
0.13500000E 01	0.21935227E 00	0.75663305E 00	0.66440532E 00	0.6369585E 00	0.74474319E 00	0.14611901E-01
0.14000000E 01	0.27800171E 00	0.78900315E 00	0.62637547E 00	0.67382396E 00	0.72861954E 00	0.14120317E 01
0.14500000E 01	0.29821593E 00	0.81917691E 00	0.57973903E 00	0.70968235E 00	0.70438495E 00	0.13507471E 01
0.15000000E 01	0.33987857E 00	0.84690435E 00	0.52875319E 00	0.74413232E 00	0.67241391E 00	0.12967146E 01
0.15500000E 01	0.3828251E 00	0.87200432E 00	0.47490167E 00	0.77680700E 00	0.63345528E 00	0.12493413E-01
0.16000000E 01	0.42703342E 00	0.89437350E 00	0.41979473E 00	0.80738029E 00	0.58860199E 00	0.12080596E 01
0.16500000E 01	0.47225391E 00	0.91398983E 00	0.36505234E 00	0.83559164E 00	0.53922532E 00	0.11723246E 01
0.17000000E 01	0.51838741E 00	0.93091003E 00	0.31218584E 00	0.86125324E 00	0.48688032E 00	0.11416126E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

$f(\eta) = -0.2$  - Concluded

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.17500000E-01	0.56530204E 00	0.94526141E 00	0.26249389E 00	0.88425727E 00	0.43319373E 00	0.11154205E -01
0.18000000E 01	0.61287376E 00	0.95722928E 00	0.21698619E 00	0.90457665E 00	0.37974875E 00	0.10932266E 01
0.18500000E 01	0.66039898E 00	0.96704122E 00	0.17634264E 00	0.92226015E 00	0.32798099E 00	0.10748911E 01
0.19000000E 01	0.70954613E 00	0.97495048E 00	0.14090967E 00	0.93742289E 00	0.27909695E 00	0.10592594E 01
0.19500000E 01	0.75845666E 00	0.98121980E 00	0.11072898E 00	0.95023344E 00	0.23402242E 00	0.10465663E 01
0.20000000E 01	0.80764506E 00	0.98610743E 00	0.85589901E -01	0.96089913E 00	0.19338240E 00	0.10362224E 01
0.20500000E 01	0.85704841E 00	0.98985616E 00	0.65094484E -01	0.96965121E 00	0.15750981E 00	0.10278885E 01
0.21000000E 01	0.90661534E 00	0.99268561E 00	0.44872517E -01	0.97673082E 00	0.12647670E 00	0.10212446E 01
0.21500000E 01	0.95630482E 00	0.99478779E 00	0.35906683E -01	0.98237717E 00	0.10014027E 00	0.10160070E 01
0.22000000E 01	0.10060847E 01	0.99632564E 00	0.26056899E -01	0.98681803E 00	0.78195813E -01	0.10119252E 01
0.22500000E 01	0.10559302E 01	0.99743364E 00	0.18624485E -01	0.99026302E 00	0.60229713E -01	0.10087813E 01
0.23000000E 01	0.11058226E 01	0.99822000E 00	0.13113172E -01	0.99289934E 00	0.45767771E -01	0.10063885E 01
0.23500000E 01	0.11557482E 01	0.99876973E 00	0.90944429E -02	0.99488989E 00	0.34315584E -01	0.10045894E 01
0.24000000E 01	0.12056967E 01	0.99914828E 00	0.62111070E -02	0.99637282E 00	0.25389735E -01	0.10032551E 01
0.24500000E 01	0.12556609E 01	0.99940485E 00	0.41744547E -02	0.99746335E 00	0.18539760E -01	0.10022729E -01
0.25000000E 01	0.13056357E 01	0.99957592E 00	0.27574347E -02	0.99825466E 00	0.13361816E -01	0.10015627E 01
0.25500000E 01	0.13556175E 01	0.99968791E 00	0.17858585E -02	0.99882145E 00	0.95054243E -02	0.10010548E 01
0.26000000E 01	0.14056037E 01	0.99975965E 00	0.11291023E -02	0.99922219E 00	0.66749067E -02	0.10006959E 01
0.26499999E 01	0.14555928E 01	0.99980437E 00	0.69124872E -03	0.99950188E 00	0.46270530E -02	0.10004455E -01
0.27000000E 01	0.15055838E 01	0.99983118E 00	0.40323678E -03	0.99969458E 00	0.31663797E -02	0.10002731E 01
0.27500000E 01	0.15555757E 01	0.99984629E 00	0.21626107E -03	0.99982563E 00	0.21390993E -02	0.10001559E 01
0.28000000E 01	0.16055682E 01	0.99985385E 00	0.96425169E -04	0.99991365E 00	0.14266449E -02	0.10000772E 01
0.28500000E 01	0.16555610E 01	0.99985659E 00	0.20577762E -04	0.99997199E 00	0.93934103E -03	0.10000250E 01
0.28999999E 01	0.17055538E 01	0.99985639E 00	-0.26846704E -04	0.10000101E 01	0.61060039E -03	0.99999036E 00
0.29500000E 01	0.17555494E 01	0.99985517E 00	-0.46094371E -04	0.10000262E 01	0.46864414E -03	0.99997661E 00

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

$(g) \quad f(0) = -0.4$

$[\sigma = 0.71; \epsilon_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.50000000E-01	-0.40000000E+00	0.0	0.11750442E+00	0.16450000E-01	0.55632276E-01	0.95936029E+01
0.60000000E-01	-0.39984932E+00	0.61005431E-02	0.12645432E+00	0.19360185E-01	0.60815549E-01	0.93430032E+01
0.70000000E-01	-0.39935246E+00	0.12648455E-01	0.13549555E+00	0.22535849E-01	0.66856620E-01	0.90842240E+01
0.80000000E-01	-0.39857683E+00	0.19653768E-01	0.14475662E+00	0.25990667E-01	0.71987119E-01	0.88187073E+01
0.90000000E-01	-0.39740925E+00	0.27128404E-01	0.15427489E+00	0.29739939E-01	0.78040531E-01	0.85477647E+01
0.95000000E-01	-0.39585592E+00	0.35086168E-01	0.16408796E+00	0.33800682E-01	0.84452500E-01	0.82727047E+01
0.99999999E-01	-0.39389230E+00	0.43542737E-01	0.17423345E+00	0.38191794E-01	0.91261095E-01	0.79947534E+01
0.34000000E+00	-0.39149303E+00	0.52515680E-01	0.18474927E+00	0.42934085E-01	0.98507062E-01	0.77150671E+01
0.40000000E+00	-0.38863179E+00	0.62024465E-01	0.19567369E+00	0.48050512E-01	0.10623403E+00	0.74347327E+01
0.45000000E+00	-0.38528128E+00	0.72090495E-01	0.20704535E+00	0.53566278E-01	0.11448874E+00	0.71547648E+01
0.50000000E+00	-0.38141305E+00	0.82737097E-01	0.21890314E+00	0.59509007E-01	0.12323112E+00	0.68761061E+01
0.55000000E+00	-0.37699745E+00	0.93989552E-01	0.23128597E+00	0.65908898E-01	0.13278442E+00	0.65996298E+01
0.59999999E+00	-0.37200353E+00	0.10587507E+00	0.2423240E+00	0.72798898E-01	0.14293525E+00	0.63261397E+01
0.65000000E+00	-0.36639889E+00	0.11842280E+00	0.25778009E+00	0.80214886E-01	0.15383339E+00	0.60563719E+01
0.70000000E+00	-0.36014967E+00	0.13166369E+00	0.27196595E+00	0.88195728E-01	0.16554166E+00	0.57909981E+01
0.75000000E+00	-0.35322040E+00	0.14563047E+00	0.28682084E+00	0.96783615E-01	0.17812540E+00	0.55306294E+01
0.80000000E+00	-0.34557393E+00	0.16035744E+00	0.30237687E+00	0.10602397E+00	0.19165191E+00	0.52758157E+01
0.84999999E+00	-0.33717138E+00	0.17588022E+00	0.31865715E+00	0.11596584E+00	0.20618939E+00	0.50270512E+01
0.90000000E+00	-0.32797202E+00	0.19223548E+00	0.33567807E+00	0.12666088E+00	0.22180567E+00	0.47847772E+01
0.95000000E+00	-0.31793331E+00	0.20944046E+00	0.35344585E+00	0.13816527E+00	0.23856663E+00	0.45493835E+01
0.10000000E+01	-0.30701084E+00	0.22759239E+00	0.37195343E+00	0.15053759E+00	0.25553227E+00	0.43212125E+01
0.10500000E+01	-0.29515833E+00	0.24666773E+00	0.39117675E+00	0.16383947E+00	0.27575669E+00	0.41005609E+01
0.11000000E+01	-0.2823775E+00	0.26672122E+00	0.41107026E+00	0.17813492E+00	0.29628100E+00	0.38876826E+01
0.11500000E+01	-0.26846934E+00	0.28778470E+00	0.43156186E+00	0.19348964E+00	0.31812997E+00	0.36827903E+01
0.12000000E+01	-0.2535196E+00	0.30989562E+00	0.45254701E+00	0.20997003E+00	0.34130575E+00	0.34860390E+01
0.12500000E+01	-0.23746313E+00	0.33304523E+00	0.47388228E+00	0.22764187E+00	0.36578058E+00	0.32976227E+01
0.13000000E+01	-0.22020956E+00	0.3527653E+00	0.49537850E+00	0.24656865E+00	0.39146857E+00	0.31175857E+01
0.13500000E+01	-0.20171758E+00	0.38258173E+00	0.51679378E+00	0.26680939E+00	0.41831686E+00	0.29460152E+01
0.14000000E+01	-0.18193366E+00	0.40894953E+00	0.53782701E+00	0.28841604E+00	0.44609131E+00	0.27829459E+01
0.14500000E+01	-0.16080534E+00	0.43635196E+00	0.55811229E+00	0.31143031E+00	0.47457352E+00	0.26283815E+01
0.15000000E+01	-0.13828200E+00	0.46474107E+00	0.57721569E+00	0.33587985E+00	0.50344213E+00	0.248222958E+01
0.15500000E+01	-0.11431594E+00	0.49404547E+00	0.59463516E+00	0.36177415E+00	0.53228723E+00	0.23446333E+01
0.16000000E+01	-0.88683814E-01	0.52416708E+00	0.60980522E+00	0.38909722E+00	0.56060266E+00	0.22153108E+01
0.16500000E+01	-0.61887747E-01	0.55497816E+00	0.62210801E+00	0.41781551E+00	0.58778302E+00	0.20942180E+01
0.17000000E+01	-0.33357146E-01	0.58631917E+00	0.63089197E+00	0.44784748E+00	0.61312730E+00	0.19812189E+01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(c)  $f(0) = -0.4$  - Continued

[ $\sigma = 0.71$ ;  $g_w = 0.01645$ ;  $L = 1.0$ ]

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.17500000E 01	0.32501870E-02	0.61799757E 00	0.63549946E 00	0.47908456E 00	0.63585074E 00	0.18761526E 01
0.18000000E 01	0.28444516E-01	0.64578934E 00	0.63530362E 00	0.51137474E 00	0.65510695E 00	0.17788348E 01
0.18500000E 01	0.61726359E-01	0.68143365E 00	0.62975346E 00	0.54422283E 00	0.67002185E 00	0.16890582E 01
0.19000000E 01	0.96581376E-01	0.71266782E 00	0.61842503E 00	0.57822019E 00	0.67973938E 00	0.16065940E 01
0.19500000E 01	0.13298120E 00	0.74318060E 00	0.60107410E 00	0.61233969E 00	0.68347783E 00	0.15311928E 01
0.20000000E 01	0.17088244E 00	0.77267440E 00	0.57768455E 00	0.64652742E 00	0.69059318E 00	0.14625854E 01
0.20500000E 01	0.21022266E 00	0.80085234E 00	0.54850506E 00	0.68033833E 00	0.67064380E 00	0.14004843E 01
0.21000000E 01	0.25099410E 00	0.82743704E 00	0.51406673E 00	0.71347078E 00	0.65346903E 00	0.13445843E 01
0.21500000E 01	0.29293972E 00	0.85218460E 00	0.47517559E 00	0.74556428E 00	0.62913318E 00	0.12945642E 01
0.22000000E 01	0.33612558E 00	0.87489764E 00	0.43287684E 00	0.77627268E 00	0.59814689E 00	0.12500880E 01
0.22500000E 01	0.38039318E 00	0.89543574E 00	0.38839186E 00	0.80528039E 00	0.56126010E 00	0.12108071E 01
0.23000000E 01	0.42563158E 00	0.91372271E 00	0.34303939E 00	0.83231766E 00	0.51952431E 00	0.11763625E 01
0.23500000E 01	0.47172764E 00	0.92974639E 00	0.29911255E 00	0.85717297E 00	0.47420660E 00	0.11463878E 01
0.24000000E 01	0.51856934E 00	0.94355097E 00	0.25483926E 00	0.87970177E 00	0.42670251E 00	0.11205113E 01
0.24500000E 01	0.56604867E 00	0.95527504E 00	0.21424547E 00	0.89983048E 00	0.37843798E 00	0.10983620E 01
0.25000000E 01	0.61406434E 00	0.96504350E 00	0.17712551E 00	0.91755554E 00	0.33077276E 00	0.10795711E 01
0.25500000E 01	0.66252367E 00	0.97305435E 00	0.14400680E 00	0.93293794E 00	0.28491629E 00	0.10637776E 01
0.26000000E 01	0.71134391E 00	0.97951526E 00	0.11514989E 00	0.94609399E 00	0.24186474E 00	0.10505322E 01
0.26500000E 01	0.76045292E 00	0.98464072E 00	0.90573316E-01	0.95718367E 00	0.20236406E 00	0.10398014E 01
0.27000000E 01	0.80978920E 00	0.98864094E 00	0.70096356E-01	0.96653773E 00	0.16689913E 00	0.10309708E 01
0.27500000E 01	0.85930151E 00	0.99171320E 00	0.53391128E-01	0.97394483E 00	0.13570626E 00	0.10238489E 01
0.28000000E 01	0.90894801E 00	0.99403585E 00	0.40036212E-01	0.98009886E 00	0.10880326E 00	0.10181686E 01
0.28500000E 01	0.95869520E 00	0.99576483E 00	0.29565467E-01	0.98483999E 00	0.86030555E-01	0.10136894E 01
0.29000000E 01	0.10085168E 01	0.99703253E 00	0.21508157E-01	0.98870689E 00	0.87096951E-01	0.10101990E 01
0.29500000E 01	0.10583926E 01	0.997994833E 00	0.15418561E-01	0.99166135E 00	0.51624773E-01	0.10075108E 01
0.30000000E 01	0.11083072E 01	0.99860039E 00	0.10899197E-01	0.99391994E 00	0.39190303E-01	0.10054653E 01
0.30500000E 01	0.11582493E 01	0.99905807E 00	0.75909079E-02	0.99568366E 00	0.29357350E-01	0.10039278E 01
0.31000000E 01	0.12082106E 01	0.99937484E 00	0.52157858E-02	0.99689189E 00	0.21702914E-01	0.10027864E 01
0.31500000E 01	0.12581850E 01	0.99959110E 00	0.35349937E-02	0.99782363E 00	0.15835076E-01	0.10019495E 01
0.32000000E 01	0.13081684F 01	0.99973673E 00	0.23634159E-02	0.99849924E 00	0.11403923E-01	0.10013435E 01
0.32500000E 01	0.13581578E 01	0.99983347E 00	0.15586663E-02	0.99898281E 00	0.81067254E-02	0.10009102E 01
0.33000000E 01	0.14081511E 01	0.99989685E 00	0.10137724E-02	0.99932447E 00	0.56887060E-02	0.10006043E 01
0.33500000E 01	0.14581470E 01	0.99993777E 00	0.64387972E-03	0.99956276E 00	0.39407024E-02	0.10003910E 01
0.34000000E 01	0.15081445E 01	0.99996382E 00	0.41014592E-03	0.99972682E 00	0.26948690E-02	0.10002443E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(g)  $f(0) = -0.4$  - Concluded

$$\left[ \sigma = 0.71; \varepsilon_w = 0.01645; L = 1.0 \right]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.3450000E 01	0.15581432E 01	0.99999011E 00	0.25428748E-03	0.99983831E 00	0.18193413E-02	0.10001446E 01
0.3500000E 01	0.16081424E 01	0.99999011E 00	0.15426332E-03	0.99991312E 00	0.12125779E-02	0.1000077E 01
0.3550000E 01	0.16581420E 01	0.9999967E 00	0.90878338E-04	0.99996268E 00	0.79786373E-03	0.10000334E 01
0.3600000E 01	0.17081419E 01	0.9999952E 00	0.51205956E-04	0.99999508E 00	0.51829224E-03	0.10000044E 01
0.3610000E 01	0.17181419E 01	0.9999998E 00	0.45533875E-04	0.10000000E 01	0.47471762E-03	0.99999999E 00

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.6$

$$\left[ \sigma = 0.71; \varepsilon_w = 0.01645; L = 1.0 \right]$$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.3700000E 01	-0.46000000E 00	0.39078568E-02	0.77178428E-01	0.16450000E-01	0.20899577E-01	0.95936029E 01
0.3750000E 01	-0.5990270E 00	0.79156699E-02	0.79146047E-01	0.17521691E-01	0.21978368E-01	0.94997544E 01
0.3800000E 01	-0.59910937E 00	0.12026779E-01	0.81177670E-01	0.18548904E-01	0.23121264E-01	0.94030264E 01
0.3850000E 01	-0.59840303E 00	0.16244821E-01	0.83278935E-01	0.19834967E-01	0.24333270E-01	0.93033770E 01
0.3900000E 01	-0.59748303E 00	0.20573745E-01	0.87715374E-01	0.21083471E-01	0.25619815E-01	0.92007639E 01
0.3950000E 01	-0.59634371E 00	0.25011784E-01	0.90364049E-01	0.22398287E-01	0.26986796E-01	0.90951481E 01
0.4000000E 01	-0.59497921E 00	0.29581760E-01	0.92509433E-01	0.23783595E-01	0.28440622E-01	0.89864922E 01
0.4050000E 01	-0.59338342E 00	0.34270528E-01	0.95059488E-01	0.25243310E-01	0.29988264E-01	0.88747630E 01
0.4100000E 01	-0.59154994E 00	0.39689591E-01	0.97722757E-01	0.25784109E-01	0.31637309E-01	0.87599276E 01
0.4150000E 01	-0.58947214E 00	0.44046838E-01	0.10050860E 00	0.28409466E-01	0.33396019E-01	0.86419611E 01
0.4200000E 01	-0.58714304E 00	0.49142629E-01	0.10342629E 00	0.30125686E-01	0.35273400E-01	0.85208418E 01
0.4250000E 01	-0.5845535E 00	0.54389942E-01	0.10648701E 00	0.31938944E-01	0.37279268E-01	0.83965537E 01
0.4300000E 01	-0.58170141E 00	0.59793897E-01	0.10970196E 00	0.33855929E-01	0.39424336E-01	0.82690871E 01
0.4350000E 01	-0.57857318E 00	0.65362808E-01	0.113008344E 00	0.35883988E-01	0.41720294E-01	0.81384394E 01
0.4400000E 01	-0.57518080E 00	0.71000000E 00	0.11600000E 00	0.38030581E-01	0.44179908E-01	0.80046170E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(b)  $f(\eta) = -0.6$  - Continued

$[\sigma = 0.71; \xi_{\text{WT}} = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$p/\rho s$
0.7500000E 01	-0.57516221E 00	0.71105228E-01	0.11664468E 00	0.40304833E-01	0.46817119E-01	0.78676343E 01
0.8000000E 01	-0.57145958E 00	0.77030499E-01	0.12039994E 00	0.42715600E-01	0.49647160E-01	0.77275165E 01
0.8459999E 01	-0.56745590E 00	0.83148702E-01	0.12436458E 00	0.45273034E-01	0.52686675E-01	0.75842992E 01
0.9000000E 01	-0.56314128E 00	0.89470714E-01	0.12855518E 00	0.47988056E-01	0.55953853E-01	0.74380300E 01
0.9550000E 01	-0.55850521E 00	0.96008273E-01	0.13298955E 00	0.50872538E-01	0.594668370E-01	0.72887711E-01
0.1000000E 01	-0.55353661E 00	0.10277464E 00	0.13768690E 00	0.53939394E-01	0.63252541E-01	0.71365961E 01
0.1050000E 01	-0.54822373E 00	0.10978168E 00	0.14266787E 00	0.57202669E-01	0.67329483E-01	0.69815964E 01
0.1100000E 01	-0.54255413E 00	0.11704582E 00	0.14795463E 00	0.60877650E-01	0.71725288E-01	0.68238782E 01
0.1150000E 01	-0.53651457E 00	0.12458263E 00	0.15353056E 00	0.64380915E-01	0.76468199E-01	0.66635654E-01
0.1200000E 01	-0.53009100E 00	0.13240891E 00	0.15954223E 00	0.68330758E-01	0.81588999E-01	0.65008003E 01
0.1250000E 01	-0.52326850E 00	0.14054321E 00	0.16585589E 00	0.72546721E-01	0.87441194E-01	0.63357426E 01
0.1300000E 01	-0.51603118E 00	0.14900594E 00	0.17266057E 00	0.77050330E-01	0.93101203E-01	0.61685746E 01
0.1350000E 01	-0.50836211E 00	0.15781651E 00	0.17986201E 00	0.81864952E-01	0.99568526E-01	0.59994956E-01
0.1400000E 01	-0.50024327E 00	0.16699992E 00	0.18754756E 00	0.87016006E-01	0.10656591F 00	0.58287272E 01
0.1450000E 01	-0.49165547E 00	0.17657982E 00	0.19573613E 00	0.92531134E-01	0.11413948E 00	0.56565124E 01
0.1500000E 01	-0.48257822E 00	0.18658257E 00	0.20446803E 00	0.98440372E-01	0.12233883E 00	0.54831147E 01
0.1550000E 01	-0.47298968E 00	0.19703627E 00	0.21377966E 00	0.10477632E 00	0.13121703E 00	0.53088176E 01
0.1600000E 01	-0.46286656E 00	0.20797081E 00	0.22370811E 00	0.1157432E 00	0.14083057E 00	0.51339250E 01
0.1650000E 01	-0.45218404E 00	0.21941796F 00	0.23429058E 00	0.11887262E 00	0.15123919E 00	0.49587604E 01
0.1700000E 01	-0.44091564E 00	0.23141135E 00	0.24556352E 00	0.12671252E 00	0.16250554E 00	0.47836649E 01
0.1750000E 01	-0.42903319E 00	0.24398640E 00	0.25756206E 00	0.13513853E 00	0.17469457E 00	0.46089962E 01
0.1800000E 01	-0.41650667E 00	0.25718016E 00	0.27031776E 00	0.14419845E 00	0.18787281E 00	0.44351265E 01
0.1850000E 01	-0.40390419E 00	0.27103122E 00	0.28385781E 00	0.15394340E 00	0.20210714E 00	0.42624399E 01
0.1900000E 01	-0.39139191E 00	0.28579337E 00	0.29820254E 00	0.16442785E 00	0.21746320E 00	0.40913303E 01
0.1950000E 01	-0.37473395E 00	0.30086505E 00	0.31336273E 00	0.17570945E 00	0.23400336E 00	0.39221983E 01
0.2000000E 01	-0.35929241E 00	0.31692915E 00	0.32933655E 00	0.18784884E 00	0.25178389E 00	0.37554475E 01
0.2050000E 01	-0.34302737E 00	0.333941193E 00	0.34610525E 00	0.20090927E 00	0.27085152E 00	0.35914810E 01
0.2100000E 01	-0.32589690E 00	0.3515227E 00	0.36363022E 00	0.21495999E 00	0.29123905E 00	0.34306981E 01
0.2150000E 01	-0.30785722E 00	0.37018643E 00	0.38184460E 00	0.23005540E 00	0.31296000E 00	0.32734897E 01
0.2200000E 01	-0.288886280E 00	0.38974658E 00	0.40065034E 00	0.24627401E 00	0.33600214E 00	0.31202345E 01
0.2250000E 01	-0.26886667E 00	0.41025902E 00	0.41991019E 00	0.26367687E 00	0.36031991E 00	0.29712949E 01
0.2300000E 01	-0.24782070E 00	0.43174269E 00	0.43944098E 00	0.28232580E 00	0.38582569E 00	0.28270126E 01
0.2350000E 01	-0.22567613E 00	0.45420373E 00	0.45900680E 00	0.30227692E 00	0.41238017E 00	0.26877058E 01
0.2400000E 01	-0.20238499E 00	0.47763845E 00	0.47831257E 00	0.32357793E 00	0.43978196E 00	0.25536643E 01
0.2450000E 01	-0.17789640E 00	0.50202464E 00	0.49699902E 00	0.34626468E 00	0.46775718E 00	0.24251473E 01

TABLE V. - REAL-AIRSTAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.6$  - Continued

$[\sigma = 0.71; \epsilon_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.2500000E 01	-0.15216644E 00	0.52732091E 00	0.51464006E 00	0.37035728E 00	0.49594969E 00	0.23023799E 01
0.2550000E 01	-0.12515020E 00	0.53346297E 00	0.53374366E 00	0.39585584E 00	0.52391312E 00	0.21855511E 01
0.2600000E 01	-0.09680753E-01	0.54036040E 00	0.54475791E 00	0.42273578E 00	0.55110625E 00	0.20748119E 01
0.2650000E 01	-0.67103536E-01	0.66789392E 00	0.55608349E 00	0.45094306E 00	0.57689349E 00	0.19702741E 01
0.2700000E 01	-0.36010024E-01	0.65591342E 00	0.58409398E 00	0.48038966E 00	0.60055233E 00	0.18720094E 01
0.2750000E 01	-0.35070998E-02	0.64423754E 00	0.56816495E 00	0.51094958E 00	0.62128984E 00	0.17800494E 01
0.2800000E 01	0.30415291E-01	0.69265440E 00	0.56771144E 00	0.54245598E 00	0.63826979E 00	0.16943860E 01
0.2850000E 01	0.65755809E-01	0.72092480E 00	0.56223299E 00	0.57469986E 00	0.65065098E 00	0.16149719E 01
0.2899999E 01	0.1025098E 00	0.74878766E 00	0.55136283E 00	0.60743103E 00	0.65763636E 00	0.15417220E 01
0.2950000E 01	0.14062329E 00	0.77596796E 00	0.53491685E 00	0.64036180E 00	0.65853065E 00	0.14745152E 01
0.3000000E 01	0.18008174E 00	0.80218688E 00	0.51293604E 00	0.67317351E 00	0.65280195E 00	0.14131952E 01
0.3050000E 01	0.22082143E 00	0.82717402E 00	0.48571564E 00	0.70552623E 00	0.64014117E 00	0.13575740E 01
0.3100000E 01	0.26277443E 00	0.8568022E 00	0.45381422E 00	0.73707124E 00	0.62051170E 00	0.13074329E 01
0.3150000E 01	0.30586115E 00	0.87249066E 00	0.41803797E 00	0.76746547E 00	0.59418134E 00	0.12625263E 01
0.3200000E 01	0.34999236E 00	0.89243315E 00	0.37939892E 00	0.79638711E 00	0.56172974E 00	0.12225838E 01
0.3250000E 01	0.39507172E 00	0.91040184E 00	0.33904941E 00	0.82355072E 00	0.52402768E 00	0.11873138E 01
0.3300000E 01	0.44099858E 00	0.92633270E 00	0.29819983E 00	0.84872074E 00	0.48218790E 00	0.11564074E 01
0.3350000E 01	0.48767109E 00	0.94023325E 00	0.2580291E 00	0.87172179E 00	0.43749199E 00	0.11295421E 01
0.3400000E 01	0.53498804E 00	0.95716479E 00	0.21960488E 00	0.89244497E 00	0.39130162E 00	0.11063863E 01
0.3450000E 01	0.58295655E 00	0.96223375E 00	0.18380743E 00	0.91084950E 00	0.34496484E 00	0.10866041E 01
0.3500000E 01	0.63118425E 00	0.97060032E 00	0.15129294E 00	0.92695981E 00	0.29972857E 00	0.10698602E 01
0.3550000E 01	0.67989096E 00	0.97742847E 00	0.12247151E 00	0.94085862E 00	0.25666715E 00	0.10558242E 01
0.3600000E 01	0.72890466E 00	0.98291193E 00	0.97515536E-01	0.95267702E 00	0.21663315E 00	0.10441757E 01
0.3650000E 01	0.77816293E 00	0.98724385E 00	0.76388057E-01	0.96258256E 00	0.18023327E 00	0.10346089E 01
0.3700000E 01	0.82761293E 00	0.99061114E 00	0.58884905E-01	0.97076697E 00	0.14782812E 00	0.10268357E 01
0.3750000E 01	0.87721083E 00	0.99318732E 00	0.44682876E-01	0.97743422E 00	0.11955185E 00	0.10205892E 01
0.3800000E 01	0.92692104E 00	0.99512781E 00	0.33387384E-01	0.98279000E 00	0.95345816E-01	0.10156262E 01
0.3850000E 01	0.97671523E 00	0.99556736E 00	0.2574474E-01	0.98703312E 00	0.75000121E-01	0.10117283E 01
0.3899999E 01	0.10265713E 01	0.99761954E 00	0.17824335E-01	0.99034903E 00	0.58197363E-01	0.10087031E 01
0.3950000E 01	0.10764722E 01	0.99837755E 00	0.12745260E-01	0.99290547E 00	0.44553991E-01	0.10063890E 01



TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(h)  $f(0) = -0.6$  - Concluded

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.4000000E-01	0.11264053F 01	0.95891599E 00	0.89884944F-02	0.99485012E 00	0.33656310E-01	0.10046253E 01
0.4050000E-01	0.11763611E 01	0.95929335E 00	0.62553750E-02	0.99630986E 00	0.25089418E-01	0.10033099E 01
0.4100000E-01	0.12263226E 01	0.95955437E 00	0.42985342E-02	0.99739122E 00	0.18458626E-01	0.10023377E 01
0.4149999E-01	0.12763150E-01	0.95973273E 00	0.29190280E-02	0.99818188E 00	0.13403757E-01	0.10016260E 01
0.4200000E-01	0.13263049E 01	0.95985323E 00	0.19610274E-02	0.99875248E 00	0.96072610E-02	0.10011165E 01
0.4250000E-01	0.13762996F 01	0.95993376E 00	0.13053881E-02	0.99915896E 00	0.67973632E-02	0.10007524E 01
0.4300000E-01	0.14262977E 01	0.95998720E 00	0.86301022E-03	0.99944481E 00	0.47475134E-02	0.10004966E 01
0.4350000E-01	0.14762980E 01	0.10000224E 01	0.56863197E-03	0.99973922E 00	0.32733328E-02	0.10003191E 01
0.4400000E-01	0.15262997F 01	0.10000454F 01	0.37536115E-03	0.9997919E 00	0.22280365E-02	0.10001974E 01
0.4450000E-01	0.15763023E 01	0.10000629E 01	0.25013140E-03	0.99987117E 00	0.14971663E-02	0.10001152E 01
0.4500000E-01	0.16263056E 01	0.10000712E 01	0.17002927E-03	0.99993259E 00	0.99932049E-03	0.10000603E 01
0.4549999E-01	0.16763093E 01	0.10000783E 01	0.11943260E-03	0.99997310E 00	0.65047800E-03	0.10000241E 01
0.4599999E-01	0.17263125E 01	0.10000825E 01	0.8329651E-04	0.99999506E 00	0.45938358E-03	0.10000044E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.65$

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	f	$f_\eta$	$f_{\eta\eta}$	g	$g_\eta$	$\rho/\rho_s$
0.4500000E-01	0.16500000E 00	C.	0.71296737E-01	0.15450000E-01	0.15880381E-01	0.95936029E 01
0.4550000E-01	0.16999999E-01	0.35970819E-02	0.72593938E-01	0.17262223E-01	0.16615471E-01	0.95222050E 01
0.4600000E-01	0.17499998E 00	0.72601696E-02	0.73937540E-01	0.18112259E-01	0.17393434E-01	0.94488265E 01
0.4650000E-01	0.17999997E 00	0.10991665E-01	0.75330912E-01	0.19002330E-01	0.18217388E-01	0.93731070E 01
0.4700000E-01	0.18499996E 00	0.114794152E-01	0.76777838F-01	0.199330061E-01	0.19090704E-01	0.92950855E 01
0.4750000E-01	0.18999995E 00	0.18670407E-01	0.78282319E-01	0.20912282E-01	0.20017037E-01	0.92146982E 01
0.4800000E-01	0.19499994E 00	0.22823413E-01	0.79848643E-01	0.21937469E-01	0.21000347E-01	0.91318846E 01
0.4850000E-01	0.19999993E 00	0.26656376E-01	0.81481411E-01	0.23013336E-01	0.22044930E-01	0.90468510E 01
0.4900000E-01	0.20499992E 00	0.30772741E-01	0.83185556E-01	0.24143059E-01	0.23155450E-01	0.89587262E 01
0.4950000E-01	0.20999991E 00	0.34976207E-01	0.84966384E-01	0.25330061E-01	0.243366970E-01	0.88682594E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.65$  - Continued

$[\sigma = 0.71; \epsilon_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.5000000E 00	-0.64050415E 00	0.39270748E-01	0.86829596E-01	0.26578028E-01	0.25594998E-01	0.87751185E 01
0.5500000E 00	-0.63843125E 00	0.43660637E-01	0.88781334E-01	0.27890933E-01	0.26935522E-01	0.86792449E 01
0.5999999E 00	-0.63614638E 00	0.48150462E-01	0.90828239E-01	0.29273061E-01	0.28365056E-01	0.85805824E 01
0.6500000E 00	-0.63361441E 00	0.52745157E-01	0.92977350E-01	0.30729038E-01	0.29890698E-01	0.84790739E 01
0.7000000E 00	-0.63085998E 00	0.57450025E-01	0.95236442E-01	0.32263885E-01	0.31520179E-01	0.83746669E 01
0.7500000E 00	-0.62786744E 00	0.62270768E-01	0.97613784E-01	0.33882921E-01	0.33261928E-01	0.82673206E 01
0.8000000E 00	-0.62463084E 00	0.67213519E-01	0.10011833E 00	0.35592069E-01	0.35125137E-01	0.81569812E 01
0.8499999E 00	-0.62114391E 00	0.72284875E-01	0.10275976E 00	0.37397620E-01	0.37119842E-01	0.80436138E 01
0.9000000E 00	-0.61740007E 00	0.77491939E-01	0.10554853E 00	0.39306420E-01	0.39256994E-01	0.79271834E 01
0.9500000E 00	-0.61333230E 00	0.82842359E-01	0.10849594E 00	0.41325886E-01	0.41548558E-01	0.78076650E 01
0.1000000E 01	-0.60911327E 00	0.88344370E-01	0.11161421E 00	0.43464061E-01	0.44007602E-01	0.76850380E 01
0.1050000E 01	-0.60455515E 00	0.94006838E-01	0.11491654E 00	0.45729670E-01	0.46648411E-01	0.75592914E 01
0.1100000E 01	-0.59970971E 00	0.99839321E-01	0.11841720E 00	0.48132186E-01	0.49486598E-01	0.74304253E 01
0.1150000E 01	-0.59456818E 00	0.10585211E 00	0.12213163E 00	0.50681898E-01	0.52539228E-01	0.72984479E 01
0.1200000E 01	-0.58917127E 00	0.11205631E 00	0.12607647E 00	0.53389987E-01	0.55582496E-01	0.71633818E 01
0.1250000E 01	-0.58335911E 00	0.11846389E 00	0.13026973E 00	0.56268612E-01	0.59364194E-01	0.70252604E 01
0.1300000E 01	-0.57727125E 00	0.12508774E 00	0.13473080E 00	0.59330997E-01	0.63179208E-01	0.68841328E 01
0.1350000E 01	-0.57084648E 00	0.13194177E 00	0.13948059E 00	0.62591523E-01	0.67294351E-01	0.67400631E 01
0.1400000E 01	-0.56407295E 00	0.13904097E 00	0.14454158E 00	0.66065867E-01	0.71736203E-01	0.65931320E 01
0.1450000E 01	-0.55693799E 00	0.14640149E 00	0.14993795E 00	0.69771065E-01	0.76533755E-01	0.64434379E 01
0.1500000E 01	-0.54942813E 00	0.15404076E 00	0.15569558E 00	0.73725687E-01	0.81718607E-01	0.62910977E 01
0.1550000E 01	-0.54152893E 00	0.16197751E 00	0.16184215E 00	0.77949944E-01	0.87325142E-01	0.61362499E 01
0.1600000E 01	-0.53322504E 00	0.17023193E 00	0.16840714E 00	0.82465841E-01	0.93390719E-01	0.59790522E 01
0.1650000E 01	-0.52450005E 00	0.17882571E 00	0.17542183E 00	0.87297332E-01	0.99955847E-01	0.58196849E 01
0.1700000E 01	-0.51533639E 00	0.18778215E 00	0.18291926E 00	0.92470472E-01	0.10706433E 00	0.56583505E 01
0.1750000E 01	-0.50571533E 00	0.19712624E 00	0.19093406E 00	0.98013597E-01	0.11476341E 00	0.54952747E 01
0.1800000E 01	-0.49561682E 00	0.20688476E 00	0.19950230E 00	0.10395749E 00	0.12310379E 00	0.53307058E 01
0.1850000E 01	-0.48501945E 00	0.21708629E 00	0.20866117E 00	0.11033555E 00	0.13213969E 00	0.51649156E 01
0.1900000E 01	-0.47390029E 00	0.22778133E 00	0.21844853E 00	0.11719400E 00	0.14192872E 00	0.49981976E 01
0.1950000E 01	-0.46223486E 00	0.23894224E 00	0.22890230E 00	0.12454198E 00	0.15253168E 00	0.48300862E 01
0.2000000E 01	-0.44999705E 00	0.25066327E 00	0.24005969E 00	0.13245178E 00	0.16401213E 00	0.46632638E 01
0.2050000E 01	-0.43715892E 00	0.26296049E 00	0.25195601E 00	0.14095890E 00	0.17643597E 00	0.44957399E 01
0.2100000E 01	-0.42369074E 00	0.27587169E 00	0.26462337E 00	0.15011217E 00	0.18986963E 00	0.43286701E 01
0.2150000E 01	-0.40956084E 00	0.28943609E 00	0.2780887E 00	0.15996379E 00	0.20438058E 00	0.41624418E 01
0.2200000E 01	-0.39473556E 00	0.30369417E 00	0.29237373E 00	0.17056926E 00	0.22003382E 00	0.39974552E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Continued

(i)  $f(0) = -0.65$  - Continued

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.22500000E 01	-0.37917917E 00	0.31868710E 00	0.30748335E 00	0.18198722E 00	0.23689052E 00	0.38341190E 01
0.23000000E 01	-0.36285390E 00	0.33445624E 00	0.32341895E 00	0.19627925E 00	0.25500482E 00	0.36728479E 01
0.23500000E 01	-0.34571991E 00	0.35104235E 00	0.34315747E 00	0.20750938E 00	0.27442016E 00	0.35140575E 01
0.24000000E 01	-0.3277358E 00	0.36848463E 00	0.35765591E 00	0.22174342E 00	0.29516465E 00	0.33581609E 01
0.24500000E 01	-0.30885656E 00	0.38681941E 00	0.37584335E 00	0.23704811E 00	0.31724531E 00	0.32055646E 01
0.25000000E 01	-0.28903801E 00	0.40607869E 00	0.39461510E 00	0.25348987E 00	0.34064136E 00	0.30566632E 01
0.25500000E 01	-0.2682283E 00	0.42628822E 00	0.41382589E 00	0.27113322E 00	0.36529627E 00	0.29118956E 01
0.26000000E 01	-0.24639303E 00	0.44746537E 00	0.43328294E 00	0.29003878E 00	0.39110876E 00	0.27714404E 01
0.26499999E 01	-0.22347004E 00	0.46961650E 00	0.45373906E 00	0.31026079E 00	0.41792296E 00	0.26358118E 01
0.27000000E 01	-0.19941526E 00	0.49273413E 00	0.47188647E 00	0.33184409E 00	0.44551790E 00	0.25052552E 01
0.27500000E 01	-0.17418090E 00	0.51679378E 00	0.49035224E 00	0.35482067E 00	0.47359726E 00	0.23800449E 01
0.28000000E 01	-0.1472990E 00	0.54175064E 00	0.50769629E 00	0.37920556E 00	0.50177997E 00	0.22604193E 01
0.28500000E 01	-0.11989200E 00	0.56753626E 00	0.52341348E 00	0.40499252E 00	0.52959310E 00	0.21465799E 01
0.28999999E 01	-0.90955045E -01	0.59405546E 00	0.53894095E 00	0.43214925E 00	0.55646866E 00	0.20388684E 01
0.29500000E 01	-0.60576294E -01	0.62118371E 00	0.554767250E 00	0.46061274E 00	0.58174536E 00	0.19368658E 01
0.30000000E 01	-0.28829086E -01	0.64876556E 00	0.55498087E 00	0.49028475E 00	0.60467952E 00	0.18411915E 01
0.30500000E 01	0.43047282E -02	0.67661434E 00	0.55824903E 00	0.52102815E 00	0.62446349E 00	0.17517035E 01
0.31000000E 01	0.38832011E -01	0.70451355E 00	0.55990950E 00	0.55266450E 00	0.64029635E 00	0.16689882E 01
0.31500000E 01	0.74752886E -01	0.73222048E 00	0.55049067E 00	0.58497328E 00	0.65122539E 00	0.15912319E 01
0.32000000E 01	0.11204766E 00	0.75947233E 00	0.53866620E 00	0.61769361E 00	0.65659779E 00	0.15201216E 01
0.32500000E 01	0.15068785E 00	0.78599457E 00	0.52130274E 00	0.65052870E 00	0.65571974E 00	0.14549473E 01
0.33000000E 01	0.19063035E 00	0.81151173E 00	0.49849949E 00	0.68315332E 00	0.64811803E 00	0.13955532E 01
0.33500000E 01	0.23181795E 00	0.83575958E 00	0.47061248E 00	0.71522429E 00	0.63355724E 00	0.13417510E 01
0.34000000E 01	0.27418113E 00	0.85849830E 00	0.43825772E 00	0.74639361E 00	0.61208493E 00	0.12933213E 01
0.34500000E 01	0.31763919E 00	0.87952493E 00	0.40228891E 00	0.77632329E 00	0.58405708E 00	0.12500172E 01
0.35000000E 01	0.36210245E 00	0.89868421E 00	0.36374942E 00	0.80470091E 00	0.55013774E 00	0.12115676E 01
0.35500000E 01	0.4074747E 00	0.91597632E 00	0.3238020E 00	0.83125440E 00	0.51127001E 00	0.11776799E 01
0.36000000E 01	0.45365656E 00	0.93106089E 00	0.28364556E 00	0.85576472E 00	0.46861970E 00	0.11480449E 01
0.36500000E 01	0.500054766E 00	0.94425458E 00	0.2442538E 00	0.87807506E 00	0.42349698E 00	0.11223405E 01
0.37000000E 01	0.54805022E 00	0.95553596E 00	0.20715529E 00	0.89809588E 00	0.37726539E 00	0.11002361E 01

TABLE V. - REAL-AIR STAGNATION-POINT SOLUTIONS,  $V_\infty = 30\ 000\ \text{FT/SEC}$  - Concluded

(i)  $f(0) = -0.65$  - Concluded

$[\sigma = 0.71; g_w = 0.01645; L = 1.0]$

$\eta$	$f$	$f_\eta$	$f_{\eta\eta}$	$g$	$g_\eta$	$\rho/\rho_s$
0.37500000E 01	0.59607124E 00	0.96501822E 00	0.17265463E 00	0.91580519E 00	0.33124913E 00	0.10813980E 01
0.38000000E 01	0.64452461E 00	0.97285745E 00	0.14151091E 00	0.93124446E 00	0.28664959E 00	0.10654936E 01
0.38500000E 01	0.69333252E 00	0.97923107E 00	0.11406884E 00	0.94451073E 00	0.24447981E 00	0.10521970E 01
0.38999999E 01	0.74242639E 00	0.98432799E 00	0.90443735E-01	0.9574605E 00	0.20522249E 00	0.10411928E 01
0.39500000E 01	0.79174715E 00	0.98833771E 00	0.70553681E-01	0.96512550E 00	0.17031295E 00	0.10321812E 01
0.40000000E 01	0.84124503E 00	0.99144167E 00	0.54163482E-01	0.97284476E 00	0.13914489E 00	0.10248808E 01
0.40500000E 01	0.89087898E 00	0.99380668E 00	0.40932666E-01	0.97910865E 00	0.11209457E 00	0.10190323E 01
0.41000000E 01	0.94061583E 00	0.99558987E 00	0.30461497E-01	0.98412111E 00	0.89057146E-01	0.10144002E 01
0.41499999E 01	0.99042931E 00	0.99689174E 00	0.22330453E-01	0.98807717E 00	0.69789155E-01	0.10107739E 01
0.42000000E 01	0.10402990E 01	0.99784601E 00	0.16131019E-01	0.99115715E 00	0.53951899E-01	0.10079685E 01
0.42500000E 01	0.1092094E 01	0.99853068E 00	0.11486844E-01	0.99352291E 00	0.441151367E-01	0.10058242E 01
0.43000000E 01	0.11401487E 01	0.99901499E 00	0.80663468E-02	0.99531591E 00	0.30972273E-01	0.10042052E 01
0.43500000E 01	0.11901084E 01	0.99935291E 00	0.55883923E-02	0.99565692E 00	0.23004812E-01	0.10029977E 01
0.44000000E 01	0.12400822E 01	0.99958554E 00	0.38207923E-02	0.99764673E 00	0.16863960E-01	0.10021083E 01
0.44500000E 01	0.12900656E 01	0.99974368E 00	0.25797217E-02	0.99836786E 00	0.12201902E-01	0.10014613E 01
0.45000000E 01	0.13400556E 01	0.99984983E 00	0.17210999E-02	0.99888642E 00	0.87146173E-02	0.10009965E 01
0.45499999E 01	0.13900499E 01	0.99992026E 00	0.11356277E-02	0.99925451E 00	0.61438759E-02	0.10006669E 01
0.46000000E 01	0.14400471E 01	0.99996649E 00	0.74200720E-03	0.99951243E 00	0.42758833E-02	0.10004361E 01
0.46500000E 01	0.14900463E 01	0.99999658E 00	0.48099116E-03	0.99969083E 00	0.29377224E-02	0.10002765E 01
0.47000000E 01	0.15400466E 01	0.10000160E 01	0.31021517E-03	0.99981266E 00	0.19925369E-02	0.10001675E 01
0.47500000E 01	0.15900477E 01	0.10000284E 01	0.19933521E-03	0.99989478E 00	0.13341957E-02	0.10000941E 01
0.48000000E 01	0.16400492E 01	0.10000369E 01	0.12962515E-03	0.99994943E 00	0.88197277E-03	0.10000452E 01
0.48499999E 01	0.16900512E 01	0.10000417E 01	0.85356648E-04	0.99998532E 00	0.57559478E-03	0.10000131E 01
0.49000000E 01	0.17400520E 01	0.10000433E 01	0.72737856E-04	0.99999587E 00	0.48352774E-03	0.10000037E 01

APPENDIX

COMPUTER LISTING OF THE BOUNDARY-LAYER PROGRAM

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$IBJOB COBLP 60
$IBFTC COBLP
  DIMENSION F(3),Y(3),YP(2),FK(3),AY(3),AYP(3),SUM1(2),SUM2(3),GOG(4
.000),AFO(25),AGPO(25),AFDPO(25),FNCT(1000),FP(1000),FDP(1000),G(10
.00),GP(1000),ETA(1000),RB(1000)
.,XX(12),YY(12)
  READ(5,200) IPRINT
200 FORMAT(I3)
  INDX=0
  99 READ(5,100) NOFV,IPSION
100 FORMAT(2I3)
  ISDT=0
  IF(NOFV.EQ.0) GO TO 40
  ICTR=0
  READ(5,101) NP,SIG,ALPH1,ALPH2,BETA1,BETA2,GAMA1,GAMA2,B ,FPO,FDPO
.,GPO,EF,EG,DELF,DELG,ENN,TW,PS,RHOS,HS,RFT,PINF,R,LWN,ALPH3
101 FORMAT(I4/(7F10.0))
  KK=0
  IF(IPSION.NE.0) GO TO 500
  READ(5,102) GO
  GO TO 501
500 READ(5,102) (XX(I),I=1,IPSION),(YY(I),I=1,IPSION)
  GO=XX(1)
501 CONTINUE
  INDX=INDX+1
  GSAVE=GPO
  FSAVE=FDPO
  READ(5,102) (AFO(I),I=1,NOFV)
102 FORMAT(7F10.0)
111 ICTR=ICTR+1
  ISDT=0
  FO=AFO(ICTR)
  IF(FO.NE.0.) GO TO 103
  GPO=GSAVE
  FDPO=FSAVE
  GO TO 104
103 GPO=AGPO(IFG)
  FDPO=AFDPO(IFG)
  GO TO 104
40 READ(5,1) NP,SIG,ALPH1,ALPH2,BETA1,BETA2,GAMA1,GAMA2,B ,FPO,FDPO,
.GPO,EF,EG,DELF,DELG,ENN,TW,PS,RHOS,HS,RFT,PINF,R,LWN,ALPH3
  KK=0
  1 FORMAT(I4/(7F10.0))
  READ(5,6) FO
  6 FORMAT(F10.0)
  IF(IPSION .NE. 0) GO TO 502
  READ(5,102) GO
  GO TO 503
502 READ(5,102) (XX(I),I=1,IPSION),(YY(J),J=1,IPSION)
  GO=XX(1)
503 CONTINUE
  INDX=INDX+1
6 104 WRITE(6,90) ALPH1,ALPH2,BETA1,BETA2,GAMA1,GAMA2,B ,GPO,FO,FPO,FDPO
.,DELF,DELG,EF,EG,ENN,TW,PS,RHOS,HS,RFT,PINF,SIG,R,LWN,ALPH3
5 90 FORMAT(1H1,

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      2X,18H ALPHA-SUB-1      ,18H ALPHA-SUB-2      ,18H BETA-S
      ,18H BETA-SUB-2      ,18H GAMMA-SUB-1      ,18H GAMMA-
SUB-2      /6E18.8//2X,18H B      ,18H G1      ,1
      8H F      ,18H F1      ,18H F2      /5
      E18.8//2X,18H DELTA F2      ,18H DELTA G1      ,18H TOLERANC
      E ON F1 ,18H TOLERANCE ON G ,18H TOLERANCE ON G1 /5E18.8//2X,1
      8H WALL TEMPERATURE ,18H P-SUB-S      ,18H RHO-SUB-S      ,1
      8H H-SUB-S      ,18H RADIUS      /5E18.8//2X,18H P-SUB-IN
      FINITY ,18H PRANDTL NUMBER 18H GAS CONSTANT      ,18H LEWIS N
      UMBER ,18H ALPHA-SUB-3      /5E18.8)
      IF(IPSION.NE. 0) GO TO 505
      WRITE(6,506) GO
506 FORMAT(/2X,18H      G      /E18.8)
      GO TO 507
505 WRITE(6,508) (XX(I),YY(I),I=1,IPSION)
508 FORMAT(/2X,18H      G      ,18H      0      /2E18.P)
507 CONTINUE
      IFG=0
      WRITE(6,115)
115 FORMAT(2X,/)
      CALL CLOCK(TIME)
      WRITE(6,2000) TIME
2000 FORMAT(12H CLOCK READ F7.2,39H WHEN INPUT PARAMETERS WERE INITIALI
      ZED//)
      ITIME=0
      GO TO 2004
      50 CALL CLOCK(TIME)
      ITIME =ITIME+1
      WRITE(6,2002) TIME,ITIME
2002 FORMAT(12H CLOCK READ F7.2,28H AT END OF ITERATION NUMBER I4//)
2004 IST=0
      IFG=IFG+1
      AFDPO(IFG)=FDPO
      AGPO(IFG)=GPO
      ISDT=ISDT+1
      INDU=J
      ICT=0
      INDI=0
      II=0
      IFP=0
      IG=0
      12 X=0.
      NEQ=3
      NSO=2
      H=.01
      YP(2)=GPO
      Y(2)=G0
      YP(1)=FDPO
      Y(1)=FP0
      Y(3)=F0
      DO B I=1,NP
      IF(I.NE.1) GO TO 2
      IND=4
      GO TO 4
      2 IND=1
      5 CALL RUNKUT(NEQ,NSO,H,X,F,Y,YP,FK,AY,AYP,SUM1,SUM2,IND)
      4 IF(Y(2).GE.0.) GO TO 175
      WRITE(6,176)
176 FORMAT(39H G IS NEGATIVE. CASE WILL NOT CONVERGE.)
      IF(NOFV.EQ.0) GO TO 99
      IF(ICTR.EQ.NOFV) GO TO 99
      GO TO 111
175 SRG=SQRT(Y(2))
      GINV=1./Y(2)

```

```

GINV2=GINV*GINV
5 FLOG=(ALPH1*SRG-ALPH2)*GINV+ALPH3
GPOG2=YP(2)*GINV2
4 PLOG=-(.5*ALPH1*SRG-ALPH2)*GPOG2
EB2=EXP(-BETA2/Y(2))
3 IF(IPSION .NE. 0) GO TO 510
DOG=BETA1*EB2
2 DPOG=(BETA1*BETA2*EB2)*GPOG2
GO TO 512
510 CONTINUE
DO 900 M=2, IPSION
NEM
IF(Y(2).LT. XX(N)) GO TO 909
900 CONTINUE
909 DPOG=(Y(N)-Y(N-1))/(XX(N)-XX(N-1))
DOG=DPOG*(Y(2)-XX(N))+Y(N)
512 CONTINUE
COG=-1./(FLOG*(1.+DOG))
FF=Y(3)
P=Y(1)
SQP=Y(1)*Y(1)
PP=YP(1)
GM1=1.-Y(2)
GM13=(GM1)**3
RHOB=1.-(GAMA1+GAMA2*GM13)*GM1
F(1)=(-1./FLOG)*((PLOG+FF)*PP+8 *(RHOB+SQP))
F(2)=COG*(PLOG*(1.+DOG)+DPOG*FLOG+SIG*FF)*YP(2)
F(3)=Y(1)
IF(II.EQ.1) GO TO 51
IF(Y(1) .GE..99) GO TO 52
IFP=IFP+1
52 IF(Y(2).GE..99) GO TO 53
IG=IG+1
53 IST=IST+1
GOG(IST)=Y(2)
51 IND=IND+1
IF(IND.LE.4) GO TO 5
IF(INDT.NE.1) GO TO 22
NU=2
GO TO 14
22 IF(INDT.NE.2) GO TO 16
NU=3
GO TO 14
16 NU=1
INDU=INDU+1
ROT2=SQRT(2.)
GWALL=1.-G0
RENU=(ROT2/GWALL)*GPO
RHOB=1./RHOB
ETA(I)=X
FNCT(1)=Y(3)
FP(1)=Y(1)
FDP(I)=YP(1)
G(I)=Y(2)
GP(I)=YP(2)
RB(1)=RHOB
GO TO 3
14 IF(ABS(YP(2)).LE.ENN) GO TO 7
5 IF(ABS(YP(2)).GT. ENN) GO TO 201
FTEST=ABS(1.-Y(1))
GTEST=ABS(1.-Y(2))
IF(FTEST.GT.EF) GO TO (10,15,17) ,NU
IF(GTEST.GT.EG) GO TO(10,15,17) ,NU
ICT=0

```

```

DO 150 J=1,INDU
6   KK=J-1
   ICT=ICT+1
5   IF(J.EQ.1) GO TO 118
   IF(ICT.EQ.1) GO TO 121
4   IF(ICT.EQ.5) GO TO 120
   GO TO 110
3   118 WRITE(6,109)
   109 FORMAT(2X,/)
   WRITE(6,116)
2   116 FORMAT(2X,17H STEP NUMBER ,17H F ,17H F1
   . ,17H F2 ,17H G ,17H G1
   . ,17H RHO/RHO-S/)
   121 WRITE(6,109)
   GO TO 110
   120 ICT=0
   110 WRITE(6,9) KK, FNCT(J), FP(J), FDP(J), G(J), GP(J), RB(J)
   9 FORMAT(2X, I4, 10X, 6E18.8)
150 CONTINUE
   SAVE=FDP(1)
   DO 151 K=2,INDU
   IF(SAVE.GE.FDP(K)) GO TO 151
   SAVE=FDP(K)
151 CONTINUE
   IF(SAVE.LE.1.) GO TO 152
   YT=SAVE+.1
   GO TO 153
152 YT=1.5
153 XL=0.0
   XR=ETA(I)
   YB=0.0
   WRITE(17,180) FNCT(1)
180 FORMAT(1H1,40X,36H THE VALUE OF F(ETA) AT THE WALL IS E18.8)
   CALL GRID(123,1023,24,924,XL,XR,YB,YT)
   CALL PLOT1V(1,1,ETA,FP,INDU,1,1H )
   CALL PLOT1V(1,1,ETA,FDP,INDU,1,1H )
   CALL PLOT1V(1,1,ETA,G,INDU,1,1H )
   CALL PLOT1V(1,1,ETA,GP,INDU,1,1H )
   CALL OUTPUT
   GO TO 75
201 IF(1PRINT .EQ. 0) GO TO 8
   KK=KK+1
   IF(KK.GT. 1) GO TO 203
   WRITE(6,116)
203 WRITE(6,9) KK, FNCT(I), FP(I), FDP(I), G(I), GP(I), RB(I)
   8 CONTINUE
   7 GO TO (10,15,17),NU
10 INDT=1
   II=1
   FREF=Y(1)
   GREF=Y(2)
   FDPS=FDPO
   FDPO=FDPO+DELF
   GO TO 12
15 INDT=2
   FNEW=Y(1)
   GNEW=Y(2)
   DELFN=FNEW-FREF
   DELGN=GNEW-GREF
   A1=DELFN/DELF
   A2=DELGN/DELF
   C1=1.-FREF
   C2=1.-GREF
   GPS=GPO

```



```

GPO=GPO+DELG
FDPO=FDPS
GO TO 12
6 17 FNEW=Y(1)
GNEW=Y(2)
5 DELFN=FNEW-FREF
DELGN=GNEW-GREF
4 B1=DELFN/DELG
B2=DELGN/DELG
3 DELTAF=(C1*B2-C2*B1)/(A1*B2-A2*B1)
DELTA G=(A1*C2-A2*C1)/(A1*B2-A2*B1)
2 INDF=3
FDPNU=FDPS+DELTAF
GPNU=GPS+DELTA G
FDPO=FDPS
GPO=GPNU
GO TO 50
75 GBAR=32.2
RHOW=PS/(R*TW)
SRTW=SQRT(TW)
UW=(2.27*TW*SRTW/(TW+198.6))*(10.)**(-8)
SRGP=SQRT(2.*GBAR*((PS-PINF)/RHOS))
SRGR=SQRT(RHOW*UW*GBAR*SRGP/RFT)
Q=RENU*HS*(1.-G0)*SRGR/SIG
DUQS=SRGP/RFT
IN=0
30 NN=0
H=.01
NEQ=1
NSO=0
YY=0.
X=0.
DO 45 I=1,NP
IF(1.NE.1) GO TO 32
IND=4
GO TO 34
32 IND=1
33 CALL RUNKUT(NQE,NOS,H,X,FF,YY,YPP,FKK,AYY,AIPP,SUMM1,SUMM2,IND)
34 NN=NN+1
GM=1.-G0G(NN)
GM3=(GM)**3
RHOG=1.-(GAMA1+GAMA2*GM3)*GM
RHOUS=SQRT((RHOW*UW*GBAR*RFT)/(2.*SRGP))
FF=(RHOG/RHOS)*RHOUS
IND=IND+1
IF(IN.EQ.1) GO TO 39
IF(NN.NE.IFP) GO TO 31
DELTA=YY
IN=1
GO TO 30
39 IF(NN.NE.IG) GO TO 31
DELTAT=YY
ISDT=ISDT-1
WRITE(6,115)
38 FORMAT( 4X,17H DELTA ,17H DELTA-T ,17H NU-RT
.-RE ,17H Q ,17H L(G) ,17H STEP
.SIZE ,20H NO. ITERATIONS /(2X,6E18.8,10X,I3))
IF(NOFV.EQ.0) GO TO 99
IF(ICTR.EQ.NOFV) GO TO 99
GO TO 111
31 IF(IND.LE.4) GO TO 35
45 CONTINUE
STOP
END

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