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TABLES FOR THE RAPID ESTIMATION OF DOWNWASH AND SIDEWASH BEHIND WINGS PERFORMING VARIOUS MOTIONS AT SUPERSONIC SPEEDS

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SUMMARY

Equations for the downwash and sidewash due to supersonic yawed and unswept horseshoe vortices have been utilized in formulating tables and charts to permit a rapid estimation of the flow velocities behind wings performing various steady motions. Tabulations are presented of the downwash and sidewash in the wing vertical plane of symmetry due to a unit-strength yawed horseshoe vortex located at 20 equally spaced spanwise positions along lifting lines of various sweeps. (The bound portion of the yawed vortex is coincident with the lifting line.) Charts are presented for the purpose of estimating the spanwise variations of the flow-field velocities and give longitudinal variations of the downwash and sidewash at a number of vertical and spanwise locations due to a unit-strength unswept horseshoe vortex. Use of the tables and charts to calculate wing downwash or sidewash requires a knowledge of the wing spanwise distribution of circulation.

Sample computations for the rolling sidewash and angle-of-attack downwash behind a typical swept wing are presented to demonstrate the use of the tables and charts.

INTRODUCTION

The ability of a designer to predict the flow characteristics behind wings of aircraft performing various motions is important in estimating the forces and moments acting on the tail configuration and the associated aircraft stability. Naturally, then, since the advent of supersonic flight, methods for determining theoretically the flow velocity components, downwash and sidewash, behind wings traveling in this speed range have received appreciable attention. Lifting-surface methods utilizing the concepts of conical superposition, doublet distributions, and vortices have been developed and applied in references 1 to 5 and lifting-line and approximate lifting-line (horseshoe vortices) formulas have been derived and utilized in references 6 to 9.

Each of the two types of methods has certain disadvantages when applied to specific wings. In the case of lifting-surface methods the disadvantage is the complexity of the integrals involved and for lifting-line methods it is the difficulty in obtaining accurate values close behind the trailing edge or near the vortex sheet. The lifting-line difficulties in most cases can be minimized or overcome by using more than one lifting line and by determining from previously derived expressions the exact value at the trailing edge or in the plane of the vortex sheet. The difficulty associated with lifting-surface methods, on the other hand, is much more restrictive and has been overcome for only a few simple plan-form shapes. Certainly, for ease of application, lifting-line and horseshoe-vortex methods are to be preferred since they may be applied to wings of any plan form with equal ease and require only numerical calculations in cases where spanwise circulation distributions are available. Some indication of the ability of the lifting-line approach to approximate lifting-surface results can be had by noting the comparisons made in references 4, 7, 8, and 9.

Though the usefulness of the lifting-line methods is clear, it has not been fully exploited. One important reason for this situation is that the use of lifting-line and horseshoe-vortex expressions to calculate the flow velocities at a number of points behind a wing can involve a great deal of computing labor. At subsonic speeds the same situation existed and was eliminated by the preparation and use of tables and charts giving the downwash and sidewash at various points in the flow field contributed by a unit-strength horseshoe vortex (see ref. 10). The purpose of the present paper is to present, for the supersonic speed range, similar tables and charts which will allow a rapid calculation of the flow field behind wings of arbitrary plan form at an angle of attack or performing steady rolling, pitching, and sideslip motions. The tables give tabulations of the downwash and sidewash in the vertical plane of symmetry due to a unit-strength yawed horseshoe vortex located at 20 equally spaced positions along lifting lines of various sweeps. The charts give longitudinal variations at a number of vertical and spanwise locations of the downwash and sidewash due to a unit-strength unswept horseshoe vortex and are used primarily to predict the spanwise variations of the flow-field velocities. In application, the known spanwise distribution of wing circulation strength (see refs. 11 to 13) is used to weight the downwash and sidewash contributed by each unit horseshoe vortex and the total downwash or sidewash at a point is obtained by summing up the contributions of the weighted horseshoe vortices. The tables cover a large range of lifting-line sweep angles, Mach numbers, and longitudinal, spanwise, and vertical distances behind the wing.

Illustrative downwash and sidewash computations, comprising primarily a two-column multiplication plus a summation, are presented to demonstrate the use of the tables and the rapidity with which answers can be obtained.

SYMBOLS

x,y,z	rectangular Cartesian coordinates of field point
x_1,y_1	rectangular Cartesian coordinates of points along a lifting line
x_i,y_i	rectangular Cartesian coordinates of corner of a particular vortex in a distribution of vortices
A	wing aspect ratio, b^2/S
b	wing span
c_r	wing root chord
c_l	lifting-line chord (see fig. 8)
h_1,h_2	limits of y_1 integration
i	variable index used in summations
M	free-stream Mach number, $\frac{V_\infty}{\text{Velocity of sound in free stream}}$
m	slope of lifting line (absolute value)
m_o	slope of leading edge
m_1	slope of trailing edge
n_1,n_2	value of i at left- and right-hand wing tips of a swept wing looking from trailing edge to leading edge
p	angular velocity of roll, radians/sec
q	angular velocity of pitch, radians/sec
S	wing area
u,v,w	perturbation velocities along x-, y-, and z-axes, respectively
V_∞	free-stream velocity

$X = x - x_1$

$X_i = x - x_i$

$X_{i,o} = \frac{mX_i}{b/2} = x_o - x_{i,o} = x_o \pm y_{i,o}$

$\bar{X}_i = \bar{x} \pm \frac{y_{i,o}}{\beta m}$

$x_o = \frac{mx}{b/2} = \frac{x}{c_1}$

$x_{i,o} = \pm \frac{mx_i}{b/2} = \pm y_{i,o}$ (slope of lifting line determines plus or minus sign)

$\bar{x} = \frac{x}{\beta b/2}$ $\left(= \frac{x_o}{\beta m} \text{ for swept lifting line}\right)$

$Y = y - y_1$

$Y_i = y - y_i$

$Y_{i,o} = \frac{Y_i}{b/2} = y_o - y_{i,o}$

$y_o = \frac{y}{b/2}$

$y_{i,o} = \frac{y_i}{b/2}$

$z_o = \frac{z}{b/2}$

α angle of attack, radians

$\beta = \sqrt{M^2 - 1}$

Γ circulation at any spanwise station

Γ_o circulation at $y_i = 0$

λ taper ratio

σ local angle of attack

ϕ perturbation velocity potential

$F_{w,o}$ defined by equations (7) and (11)

$\left[F_w(y_{i,o})\right]_1, \left[F_w(y_{i,o})\right]_2$ defined by equations (7) and (11)

$\left[F_v(y_{i,o})\right]_1, \left[F_v(y_{i,o})\right]_2$ defined by equations (8) and (12)

$\left\{\left[F_w(y_{i,o})\right]_1\right\}_{m=\infty}, \left\{\left[F_w(y_{i,o})\right]_2\right\}_{m=\infty}$ defined by equations (9) and (13)

$\left\{\left[F_v(y_{i,o})\right]_1\right\}_{m=\infty}, \left\{\left[F_v(y_{i,o})\right]_2\right\}_{m=\infty}$ defined by equations (10) and (14)

$F_w(Y_{i,o})$ defined by equations (5) and (15)

$F_v(Y_{i,o})$ defined by equations (6) and (16)

$$F_w(|y_{i,o}|) = \frac{-|y_{i,o}|X_{i,o}^3 + X_{i,o}\left(z_o^2 - y_{i,o}^2\right) + \beta^2 m^2 |y_{i,o}| X_{i,o}\left(|y_{i,o}|^2 + 2z_o^2\right) + \beta^2 m^2 |y_{i,o}|\left(z_o^2 + |y_{i,o}|^2\right)}{4\pi\sqrt{X_{i,o}^2 - \beta^2 m^2\left(|y_{i,o}|^2 + z_o^2\right)}\left[\left(|y_{i,o}|X_{i,o} + z_o^2 + |y_{i,o}|^2\right)^2 + z_o^2\left(X_{i,o}^2 - \beta^2 m^2 |y_{i,o}|^2 - \beta^2 m^2 z_o^2\right)\right]}$$

$$F_v(|y_{i,o}|) = \frac{z_o|y_{i,o}|\left(2X_{i,o} - \beta^2 m^2 |y_{i,o}|^2 - \beta^2 m^2 z_o^2\right) + z_o X_{i,o}\left(X_{i,o}^2 - \beta^2 m^2 z_o^2\right)}{4\pi\sqrt{X_{i,o}^2 - \beta^2 m^2\left(|y_{i,o}|^2 + z_o^2\right)}\left[\left(|y_{i,o}|X_{i,o} + z_o^2 + |y_{i,o}|^2\right)^2 + z_o^2\left(X_{i,o}^2 - \beta^2 m^2 |y_{i,o}|^2 - \beta^2 m^2 z_o^2\right)\right]}$$

$$\left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} = \frac{-\left|y_{i,o}\right|\bar{x}^3 + \left|y_{i,o}\right|\bar{x}\left(\left|y_{i,o}\right|^2 + 2z_o^2\right)}{4\pi\sqrt{\bar{x}^2 - \left|y_{i,o}\right|^2 - z_o^2}\left[\left|y_{i,o}\right|^2\bar{x}^2 + z_o^2\left(\bar{x}^2 - \left|y_{i,o}\right|^2 - z_o^2\right)\right]}$$

$$\left[F_v\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} = \frac{z_o\bar{x}}{4\pi\sqrt{\bar{x}^2 - \left|y_{i,o}\right|^2 - z_o^2}\left(\left|y_{i,o}\right|^2 + z_o^2\right)}$$

Subscripts:

te conditions at trailing edge

y_i value of circulation strength at spanwise station y_i

Plus and minus signs used as exponents indicate positive or negative values, respectively, of a variable.

THEORY

Downwash and Sidewash Equations Used in Preparation of Tables and Charts

Equations for downwash due to distributions of yawed and unswept horseshoe vortices may be found in references 8 and 9. An expression for the sidewash due to yawed horseshoe vortices distributed along a line to approximate a rolling span load distribution is given in reference 4. In this section, expressions for the sidewash due to distributions of yawed and unswept vortices approximating lifting lines with arbitrary span load distributions are presented in addition to the corresponding downwash formulas previously obtained.

The downwash and sidewash due to a swept lifting line with any prescribed lift distribution can be approximated through the use of the equations for the downwash and sidewash due to yawed horseshoe vortices (see fig. 1) of positive and negative slopes plus terms giving the effect of the break in the center of the lifting line. Rectangular horseshoe vortices can be used most easily to approximate the flow field of unswept lifting lines though they may also be used with certain modifications to approximate swept lifting lines. (See fig. 2.) Derivations of the necessary formulas for yawed and unswept horseshoe vortices are given in the appendix.

The lifting line or lines used to represent a wing are, in this paper, composed of two straight lines connecting some point on the wing root chord with the tip chord, for example, a pair of straight lines connecting the midpoint of the root chord with the midpoint of the tip chord. The slopes of the two straight lines are opposite in sign and have the magnitude $\frac{b/2}{c_1}(=m)$ where $b/2$ is the semispan of the wing and c_1 is the longitudinal distance from the intersection of the two straight lines on the wing root chord to the intersections of the straight lines with the wing tips.

The downwash and sidewash due to a swept lifting line approximated by a series of yawed vortices (see fig. 2(a)) are given, respectively, by

$$-w = -\sum_{i=n_1}^{i=0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[Y_{i,o}X_{i,o}^3 - X_{i,o}^2\left(z^2 - Y_{i,o}^2\right) - \beta^2m^2Y_{i,o}X_{i,o}\left(Y_{i,o}^2 + 2z_o^2\right) - \beta^2m^2Y_{i,o}^2\left(z_o^2 + Y_{i,o}^2\right)\right]}{4\pi\sqrt{X_{i,o}^2 - \beta^2m^2\left(Y_{i,o}^2 + z_o^2\right)}\left[\left(Y_{i,o} + X_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(Y_{i,o}^2 + z_o^2\right)} +$$

$$\sum_{i=0}^{i=n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[Y_{i,o}X_{i,o}^3 + X_{i,o}^2\left(z_o^2 - Y_{i,o}^2\right) - \beta^2m^2Y_{i,o}X_{i,o}\left(Y_{i,o}^2 + 2z_o^2\right) + \beta^2m^2Y_{i,o}^2\left(z_o^2 + Y_{i,o}^2\right)\right]}{4\pi\sqrt{X_{i,o}^2 - \beta^2m^2\left(Y_{i,o}^2 + z_o^2\right)}\left[\left(Y_{i,o} - X_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(Y_{i,o}^2 + z_o^2\right)} +$$

$$\frac{\Gamma_o}{b/2}\left\{\frac{-\left(1 - \beta^2m^2\right)y_o\left(y_o + x_o\right) + \left(y_o + x_o\right)^2}{2\pi\sqrt{x_o^2 - \beta^2m^2\left(y_o^2 + z_o^2\right)}\left[\left(y_o + x_o\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]} + \frac{-\left(1 - \beta^2m^2\right)y_o\left(y_o - x_o\right) + \left(y_o - x_o\right)^2}{2\pi\sqrt{x_o^2 - \beta^2m^2\left(y_o^2 + z_o^2\right)}\left[\left(y_o - x_o\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]}\right\} \tag{1}$$

and

$$v = -\sum_{i=n_1}^{i=0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[z_oY_{i,o}\left(2X_{i,o}^2 - \beta^2m^2Y_{i,o}^2 - \beta^2m^2z_o^2\right) + z_oX_{i,o}\left(X_{i,o}^2 - \beta^2m^2z_o^2\right)\right]}{4\pi\sqrt{X_{i,o}^2 - \beta^2m^2\left(Y_{i,o}^2 + z_o^2\right)}\left[\left(Y_{i,o} + X_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(Y_{i,o}^2 + z_o^2\right)} -$$

$$\sum_{i=0}^{i=n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[z_oY_{i,o}\left(2X_{i,o}^2 - \beta^2m^2Y_{i,o}^2 - \beta^2m^2z_o^2\right) - z_oX_{i,o}\left(X_{i,o}^2 - \beta^2m^2z_o^2\right)\right]}{4\pi\sqrt{X_{i,o}^2 - \beta^2m^2\left(Y_{i,o}^2 + z_o^2\right)}\left[\left(Y_{i,o} - X_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(Y_{i,o}^2 + z_o^2\right)} +$$

$$\frac{\Gamma_o}{b/2}\left\{\frac{z_o\left(y_o + x_o\right) - z_oy_o\left(1 - \beta^2m^2\right)}{2\pi\sqrt{x_o^2 - \beta^2m^2\left(y_o^2 + z_o^2\right)}\left[\left(y_o + x_o\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]} + \frac{z_o\left(y_o - x_o\right) - z_oy_o\left(1 - \beta^2m^2\right)}{2\pi\sqrt{x_o^2 - \beta^2m^2\left(y_o^2 + z_o^2\right)}\left[\left(y_o - x_o\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]}\right\} \tag{2}$$

where $X_{i,o}$ in the first summation terms of v and w is equal to $x_o + y_{i,o}$ and in the second terms to $x_c - y_{i,o}$. Values of i from 0 to n_1 are associated with negative values of y_i and values from 0 to n_2, with positive values of y_i. A value of i equal to n_1 corresponds to the vortex at the left wing tip and a value of i equal to n_2, to the right wing tip. Note that with the vortices numbered in this manner the incremental circulation strength $\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}$ is approximately proportional to $d\Gamma/dy$ on the right-hand panel and to $-d\Gamma/dy$ on the left.

When the lifting line is inclined supersonically to the free-stream direction each of the n vortices of equations (1) and (2) may be considered as semi-infinite yawed horseshoe vortices of the type shown in figure 3. When inclined subsonically the bound portion of semi-infinite horseshoe vortices of the type shown in figures 3(a) and 3(b) has an additional contribution not given by these equations. (See ref. 7.) However, this additional contribution is not required in the use of equations (1) and (2) for a practical case since the semi-infinite vortices distributed on swept or yawed lifting lines combine to form finite swept horseshoe vortices of the type shown in figure 4 or finite yawed horseshoe vortices of the type depicted in figure 1(b). The equations of finite swept or yawed horseshoe vortices with bound portions inclined subsonically or supersonically are the same. The last two terms in equations (1) and (2) give the effect of the break in the swept horseshoe vortices formed by these last two terms and the semi-infinite yawed horseshoe vortices of the first two terms. (See eqs. (A9) and (A10) of appendix A.)

The downwash and sidewash behind a wing approximated by an unswept lifting line and semi-infinite unswept horseshoe vortices are, respectively,

$$-w = -\sum_{i=n_1}^{i=0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{Y_{i,o}\bar{x}^3 - Y_{i,o}\bar{x}\left(Y_{i,o}^2 + 2z_o^2\right)}{4\pi\sqrt{\bar{x}^2 - Y_{i,o}^2 - z_o^2}\left(\bar{x}^2 - z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)} +$$

$$\sum_{i=0}^{i=n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{Y_{i,o}\bar{x}^3 - Y_{i,o}\bar{x}\left(Y_{i,o}^2 + 2z_o^2\right)}{4\pi\sqrt{\bar{x}^2 - Y_{i,o}^2 - z_o^2}\left(\bar{x}^2 - z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)} \qquad (3)$$

and

$$v = -\sum_{i=n_1}^{i=0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{x}}{4\pi\sqrt{\bar{x}^2 - Y_{i,o}^2 - z_o^2\left(Y_{i,o}^2 + z_o^2\right)}} +$$

$$\sum_{i=0}^{i=n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{x}}{4\pi\sqrt{\bar{x}^2 - Y_{i,o}^2 - z_o^2\left(Y_{i,o}^2 + z_o^2\right)}} \qquad (4)$$

where $\bar{x} = \frac{x}{\beta \frac{b}{2}}$. Equations (3) and (4) may be written by inspection from equations (A6) and (A7) of appendix A.

As indicated previously the equations for rectangular horseshoe vortices may be used to approximate swept as well as unswept lifting lines. One approach to doing this is to replace $\bar{x}$ in equations (3) and (4) with $\bar{X}_i$ thereby approximating a swept lifting line with semi-infinite unswept horseshoe vortices in the manner shown in figures 2(b) and 2(c). A second method is to use finite unswept horseshoe vortices distributed along the lifting line in much the same way as is done subsonically (see fig. 2(d)). It appears from the limited number of calculations performed to establish which of the two approaches better approximates equations (1) and (2) (see fig. 2(a)) that the first approach is superior. Detailed examination of the calculations to determine the reasons for this superiority indicates that when a practical number of vortices are used to approximate a lifting line, it is more important to approximate accurately the trailing vortex system than the bound vortex system of equations (1) and (2). It can be seen from a comparison of figures 2(a) and 2(b) that the trailing vortex system of the first approach is exactly the same as that obtained using a distribution of yawed vortices. Although the combined bound vortices of the distribution of finite rectangular horseshoe vortices (fig. 2(d)) accurately approximate the bound vortex system of the yawed vortex distribution (coincident with the lifting line), the staggered trailing vortices do not represent a good approximation to the trailing vortex system of the yawed horseshoe vortex distribution. It should be mentioned that although neither method does particularly well in predicting magnitudes, spanwise variations of the flow-field velocities as computed by equations (1) and (2) are better predicted by the semi-infinite unswept horseshoe vortices. In view of the preceding discussion only the equations for the downwash and sidewash due to a distribution of semi-infinite unswept horseshoe

vortices will be given. Equations (3) and (4) with $\bar{x}$ replaced by $\bar{X}_i$ become, respectively,

$$-w = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[Y_{i,o}\bar{X}_i^3 - Y_{i,o}\bar{X}_i\left(Y_{i,o}^2 + 2z_o^2\right)\right]}{4\pi\sqrt{\bar{X}_i^2 - Y_{i,o}^2 - z_o^2\left(\bar{X}_i^2 - z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)}} +$$

$$\sum_{i=0}^{i=n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[Y_{i,o}\bar{X}_i^3 - Y_{i,o}\bar{X}_i\left(Y_{i,o}^2 + 2z_o^2\right)\right]}{4\pi\sqrt{\bar{X}_i^2 - Y_{i,o}^2 - z_o^2\left(\bar{X}_i^2 - z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)}} \qquad (5)$$

and

$$v = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{X}_i}{4\pi\sqrt{\bar{X}_i^2 - \beta^2\left(Y_{i,o}^2 + z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)}} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{X}_i}{4\pi\sqrt{\bar{X}_i^2 - \beta^2\left(Y_{i,o}^2 + z_o^2\right)\left(Y_{i,o}^2 + z_o^2\right)}} \qquad (6)$$

where $\bar{X}_i$ on the left panel is equal to $\bar{x} + \frac{y_{i,o}}{\beta m}$ and on the right, to $\bar{x} - \frac{y_{i,o}}{\beta m}$. Note that the summation terms in the equations for w are singular for points on a line vortex, that is, when $Y_{i,o} = z_o = 0$. In order to avoid this singularity and to obtain more realistic values for downwash, experience indicates that points in the $z = 0$ plane should be chosen midway between the trailing vortices. Another singularity which exists in the equation for w as well as in that for v occurs when the square root in the denominator is zero. Points that give rise to this type of singularity lie on the aftercone from a corner of a horseshoe vortex and should not be used.

It is possible by the use of equations (1) and (2) to prepare tables or charts which would considerably expedite the calculation of downwash

and sidewash, at a large number of points (x, y, and z) in the flow field, due to a swept lifting line approximated by semi-infinite yawed horseshoe vortices. To do this, however, would result, for the range of y values considered necessary, in tables half again as large as the ones contemplated and would not give the simplicity desired for calculations in the plane of symmetry. Equations (5) and (6) may also be used for preparing tables of downwash and sidewash influence functions though the accuracy of the results obtained through their use would not be so good as that obtained using tables based on equations (1) and (2). There is, however, one advantage that equations (5) and (6) have over equations (1) and (2) and that is that they have one less parameter in the summation terms. In preparing downwash and sidewash tables for a given number of field points this advantage would mean a considerable decrease in the size of the tables required. Charts might also be used in lieu of tables in the case of equations (5) and (6) to obviate the need for interpolation between $\bar{X}_i$ values and thus effect an additional time saving.

The computational scheme to be used herein is as follows. For computing downwash and sidewash in the plane of symmetry tables have been prepared that are based on equations (1) to (4) and charts based on equations (5) and (6) are presented for estimating the spanwise variation of these quantities. It is intended that the level of the spanwise variations be adjusted, if necessary, to the values at the plane of symmetry obtained using the tables. This procedure is an attempt to make use of the advantages of both sets of equations and thereby to obtain reasonable accuracy and greater speed from a smaller set of tables than would be required if equations (1) and (2) were used exclusively. The tables for the plane of symmetry are in a form such that no interpolation is required in obtaining downwash and sidewash at the field points and βm values for which tabulations have been presented. In making preliminary estimates of vertical- or horizontal-tail loads, where it is often expedient to restrict the calculations to the plane of symmetry, this is especially convenient.

The necessary equations of the flow velocities for the plane of symmetry are, from equations (1) to (4), respectively,

$$-w = -\sum_{i=n_1}^{0} \frac{\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)}{b/2} \frac{\left[-y_{i,o}x_{i,o}^3 - x_{i,o}^2\left(z_o^2 - y_{i,o}^2\right) + \beta^2m^2y_{i,o}x_{i,o}\left(y_{i,o}^2 + 2z_o^2\right) - \beta^2m^2y_{i,o}^2\left(z_o^2 + y_{i,o}^2\right)\right]}{4\pi\sqrt{x_{i,o}^2 - \beta^2m^2\left(y_{i,o}^2 + z_o^2\right)}\left[\left(-y_{i,o} + x_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(y_{i,o}^2 + z_o^2\right)} +$$

$$\sum_{i=0}^{n_2} \frac{\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)}{b/2} \frac{\left[-y_{i,o}x_{i,o}^3 + x_{i,o}^2\left(z_o^2 - y_{i,o}^2\right) + \beta^2m^2y_{i,o}x_{i,o}\left(y_{i,o}^2 + 2z_o^2\right) + \beta^2m^2y_{i,o}^2\left(z_o^2 + y_{i,o}^2\right)\right]}{4\pi\sqrt{x_{i,o}^2 - \beta^2m^2\left(y_{i,o}^2 + z_o^2\right)}\left[\left(y_{i,o} + x_{i,o}\right)^2 + z_o^2\left(1 - \beta^2m^2\right)\right]\left(y_{i,o}^2 + z_o^2\right)} +$$

$$\frac{\Gamma_o}{b/2} \frac{x_o^2}{\pi\sqrt{x_o^2 - \beta^2m^2z_o^2}\left[x_o^2 + z_o^2\left(1 - \beta^2m^2\right)\right]} \tag{7}$$

$$v = \sum_{i=n_1}^{0} \frac{\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)}{b/2} \frac{\left[z_o y_{i,o}\left(2x_{i,o}^2 - \beta^2 m^2 y_{i,o}^2 - \beta^2 m^2 z_o^2\right) - z_o x_{i,o}\left(x_{i,o}^2 - \beta^2 m^2 z_o^2\right)\right]}{4\pi\sqrt{x_{i,o}^2 - \beta^2 m^2 y_{i,o}^2 - \beta^2 m^2 z_o^2}\left[\left(-y_{i,o} + x_{i,o}\right)^2 + z^2\left(1 - \beta^2 m^2\right)\right]\left(y_{i,o}^2 + z_o^2\right)} -$$

$$\sum_{i=0}^{n_2} \frac{\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)}{b/2} \frac{\left[-z_o y_{i,o}\left(2x_{i,o}^2 - \beta^2 m^2 y_{i,o}^2 - \beta^2 m^2 z_o^2\right) - z_o x_{i,o}\left(x_{i,o}^2 - \beta^2 m^2 z_o^2\right)\right]}{4\pi\sqrt{x_{i,o}^2 - \beta^2 m^2 y_{i,o}^2 - \beta^2 m^2 z_o^2}\left[\left(y_{i,o} + x_{i,o}\right)^2 + z^2\left(1 - \beta^2 m^2\right)\right]\left(y_{i,o}^2 + z_o^2\right)} \tag{8}$$

$$-w = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[-y_{i,o}\bar{x}^3 + y_{i,o}\bar{x}\left(y_{i,o}^2 + 2z_o^2\right)\right]}{4\pi\sqrt{\bar{x}^2 - y_{i,o}^2 - z_o^2}\left[\left(\bar{x}^2 - z_o^2\right)\left(y_{i,o}^2 + z_o^2\right)\right]} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{\left[-y_{i,o}\bar{x}^3 + y_{i,o}\bar{x}\left(y_{i,o}^2 + 2z_o^2\right)\right]}{4\pi\sqrt{\bar{x}^2 - y_{i,o}^2 - z_o^2}\left[\left(\bar{x}^2 - z_o^2\right)\left(y_{i,o}^2 + z_o^2\right)\right]} \tag{9}$$

and

$$v = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{x}}{4\pi\sqrt{\bar{x}^2 - y_{i,o}^2 - z_o^2}\left(y_{i,o}^2 + z_o^2\right)} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \frac{z_o\bar{x}}{4\pi\sqrt{\bar{x}^2 - y_{i,o}^2 - z_o^2}\left(y_{i,o}^2 + z_o^2\right)} \tag{10}$$

For purposes of identifying the functions tabulated or plotted and of facilitating some of the simplifications possible, it is convenient to write equations (7), (8), (9), (10), (5), and (6), respectively, in the following functional forms:

$$-w = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_w\left(y_i, o\right) \right]_1 +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_w\left(y_i, o\right) \right]_2 + \frac{\Gamma_o}{b/2} F_{w,o} \tag{11}$$

$$v = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_v\left(y_i, o\right) \right]_1 +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_v\left(y_i, o\right) \right]_2 \tag{12}$$

$$-w = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left\{ \left[F_w\left(y_i, o\right) \right]_1 \right\}_{m=\infty} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left\{ \left[F_w\left(y_i, o\right) \right]_2 \right\}_{m=\infty} \tag{13}$$

$$v = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left\{ \left[F_v\left(y_i, o\right) \right]_1 \right\}_{m=\infty} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left\{ \left[F_v\left(y_i, o\right) \right]_2 \right\}_{m=\infty} \tag{14}$$

$$-w = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_w\left(Y_{i,o}\right) +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_w\left(Y_{i,o}\right) \tag{15}$$

$$v = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_v\left(Y_{i,o}\right) +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_v\left(Y_{i,o}\right) \tag{16}$$

It is evident from equations (5), (6), (15), and (16) that $F_w\left(Y_{i,o}^{-}\right) = -F_w\left(Y_{i,o}^{+}\right)$ and that $F_v\left(Y_{i,o}^{-}\right) = F_v\left(Y_{i,o}^{+}\right)$; hence, it is only necessary to plot the functions $F_w\left(Y_{i,o}\right)$ and $F_v\left(Y_{i,o}\right)$ for positive values of $Y_{i,o}$. The equations for the plane of symmetry may be put in forms comparable to equations (15) and (16) through further simplifications. By noting that $y_{i,o}$ values in $\left[F_w\left(y_{i,o}\right)\right]_1$, $\left[F_v\left(y_{i,o}\right)\right]_1$, $\left\{\left[F_w\left(y_{i,o}\right)\right]_1\right\}_{m=\infty}$, and $\left\{\left[F_v\left(y_{i,o}\right)\right]_1\right\}_{m=\infty}$ are negative, the following relationships may be established:

$$\left[F_w\left(y_{i,o}\right)\right]_1 = \left[F_w\left(y_{i,o}\right)\right]_2 \equiv F_w\left(\left|y_{i,o}\right|\right) \tag{17}$$

$$\left\{\left[F_w\left(y_{i,o}\right)\right]_1\right\}_{m=\infty} = \left\{\left[F_w\left(y_{i,o}\right)\right]_2\right\}_{m=\infty} \equiv \left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} \tag{18}$$

$$-\left[F_v\left(y_{i,o}\right)\right]_1 = \left[F_v\left(y_{i,o}\right)\right]_2 \equiv F_v\left(\left|y_{i,o}\right|\right) \tag{19}$$

$$-\left\{\left[F_v\left(y_{i,o}\right)\right]_1\right\}_{m=\infty} = \left\{\left[F_v\left(y_{i,o}\right)\right]_2\right\}_{m=\infty} \equiv \left[F_v\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} \tag{20}$$

The identities given in equations (17) to (20), together with equations (11) to (14), yield the final or computational form of the equations for the downwash and sidewash in the vertical plane of symmetry ($y = 0$). These equations are

$$-w = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_w\left(\left|y_{i,o}\right|\right) +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_w\left(\left|y_{i,o}\right|\right) + \frac{\Gamma_o}{b/2} F_{w,o} \tag{21}$$

$$v = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_v\left(\left|y_{i,o}\right|\right) +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_v\left(\left|y_{i,o}\right|\right) \tag{22}$$

$$-w = \sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} \left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} \tag{23}$$

$$v = -\sum_{i=n_1}^{0} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2}\left[F_v\left(|y_{i,o}|\right)\right]_{m=\infty} +$$

$$\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2}\left[F_v\left(|y_{i,o}|\right)\right]_{m=\infty} \tag{24}$$

Obviously only the functions $F_w\left(|y_{i,o}|\right)$, $F_v\left(|y_{i,o}|\right.$, $\left[F_w\left(|y_{i,o}|\right)\right]_{m=\infty}$, $\left[F_v\left(|y_{i,o}|\right)\right]_{m=\infty}$, and $F_{w,0}$ need to be tabulated to determine the downwash and sidewash.

Wings that are at an angle of attack or performing a pitching motion have symmetrical spanwise distributions of circulation and rolling wings have asymmetrical distributions of circulation. Formulas for the plane of symmetry when applied to these motions may be further reduced. For the angle of attack and pitching motions

$$\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)_{\text{Left panel}} = \left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)_{\text{Right panel}}$$

so that

$$-w = 2\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_w\left(|y_{i,o}|\right) + \frac{\Gamma_o}{b/2} F_{w,0} \tag{25}$$

and

$$(-w)_{m=\infty} = 2\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2}\left[F_w\left(|y_{i,o}|\right)\right]_{m=\infty} \tag{26}$$

The relationship of the incremental circulation strengths on the left-hand panel and on the right-hand panel of a rolling wing is

$$-\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)_{\text{Left panel}} = \left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)_{\text{Right panel}}$$

Hence,

$$v = 2\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2} F_v\left(\left|y_{i,o}\right|\right) \tag{27}$$

and

$$(v)_{m=\infty} = 2\sum_{i=0}^{n_2} \frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{b/2}\left[F_v\left(\left|y_{i,o}\right|\right)\right]_{m=\infty} \tag{28}$$

To obtain the downwash and sidewash in the plane of symmetry behind a sideslipping wing requires the use of equations (21) and (22) or equations (23) and (24).

Sidewash and Downwash at Trailing Edge and Vortex Sheet

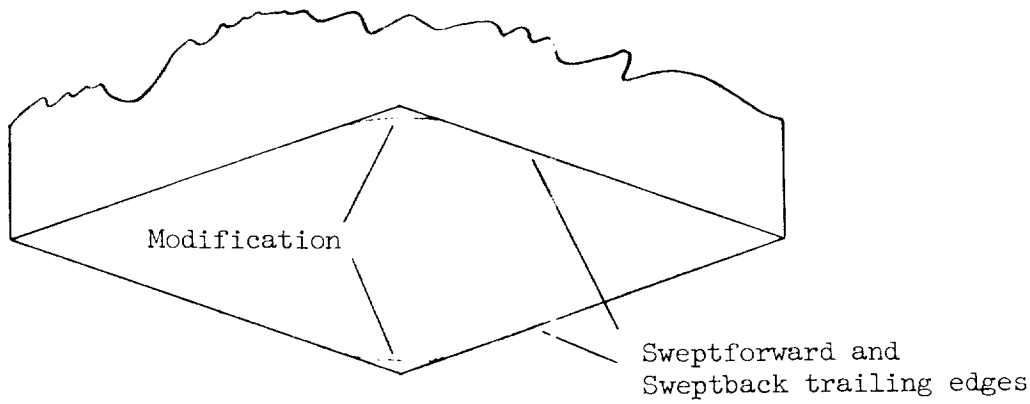
Lifting-line methods do not yield accurate approximations of lifting-surface downwash values in the vicinity of the wing trailing edge nor of lifting-surface sidewash values near the vortex sheet or wing trailing edge. These inadequacies may be minimized to some extent by the use of simple exact expressions, previously derived, for the downwash at the trailing edge and the sidewash at the vortex sheet. For a wing with trailing-edge slope m_1 references 1 and 8 give the downwash at the trailing edge as

$$-w_{te} = \sigma_{te} V_\infty - \frac{u_{te}\sqrt{\beta^2 m_1^2 - 1}}{m_1} \tag{29}$$

where σ_{te} is the local angle of attack at the wing trailing edge. When the trailing edge is unswept, equation (29) becomes

$$-w_{te} = \sigma_{te} V_\infty - \beta u_{te} \tag{30}$$

This equation may also be used to determine w at the trailing edge of the root chord of wings having swept trailing edges if the trailing-edge shape is modified as shown in the following sketch:



By considering the properties of vortex sheets, the sidewash at the vortex sheet has been determined in reference 14 to be

$$(v)_{z=0} = \frac{d\phi_{te}(y_1)}{dy_1} = \frac{1}{2}\frac{d\Gamma(y_1)}{dy_1} \tag{31}$$

Distortion, Rotation, and Displacement of Vortex Sheet

The effects of vortex-sheet distortion, rotation, and displacement have been discussed in most of the flow-field papers published to date so that no further discussion of these effects will be given other than pointing out several of these papers.

The method of accounting for the vertical displacement of the vortex sheet with longitudinal distance behind the trailing edge may be found in a number of papers. (See, e.g., ref. 9) Information regarding the distortion or rolling up of the vortex sheet may be obtained from references 9 and 15 to 18. The rotation of the vortex sheet which occurs in the rolling motion may be taken into account or neglected in accordance with the equations and discussion of references 4 or 19.

Comparisons of Lifting-Line and Lifting-Surface Downwash and Sidewash

Comparisons of lifting-line and lifting-surface downwash at angle of attack have been made for triangular wings in references 7 and 8 and for rectangular wings in reference 9. Downwash variations computed by the two methods for a pitching rectangular wing are compared in reference 8. Lifting-line and lifting-surface sidewash have been determined and compared for a rolling triangular wing in reference 4. In addition, it is possible, by use of the lifting-surface results of reference 5 and the downwash tables presented herein, to make one other comparison, that of triangular-wing downwash due to pitching. This comparison has been made for βm_o values of 0.5 and 1.0 and the results are given in figure 5. It can be seen in this figure that the agreement is very good.

Downwash and Sidewash Due to Flaps and Ailerons

The computation of downwash and sidewash due to flaps and ailerons is made with the same equations and tables as were used for calculating wing downwash and sidewash. It may well be that some shortening of the computing procedure may be effected in cases where a near-constant or constant value of the circulation exists across the span of the aileron or flap. Instead of using, say, 10 or 15 vortices across the span only one or two may be required.

PRESENTATION AND USE OF TABLES

A tabulation of the values of $y_{i,o}$, z_o, x_o, $\bar{x}$, and βm for which the plane-of-symmetry functions $F_v\left(\left|y_{i,o}\right|\right)$, $F_w\left(\left|y_{i,o}\right|\right)$, $\left[F_v\left(\left|y_{i,o}\right|\right)\right]_{m=\infty}$, $\left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty}$, and $F_{w,0}$ have been calculated is given in table I. Values of $F_w\left(\left|y_{i,o}\right|\right)$ and $\left[F_w\left(\left|y_{i,o}\right|\right)\right]_{m=\infty}$ are tabulated in table II; $F_{w,0}$ is tabulated in table III; and $F_v\left(\left|y_{i,o}\right|\right)$ and $\left[F_v\left(\left|y_{i,o}\right|\right)\right]_{m=\infty}$ are tabulated in table IV. Note in table I that no values of the F_w functions are given for $y_{i,o} = z_o = 0$. This is done to avoid the singularity, pointed out previously, which occurs for this condition. Plots of the variations of the $F_w(Y_{i,o})$ and $F_v(Y_{i,o})$ functions with longitudinal distance are given in figures 6 and 7,

respectively, for values of $Y_{i,o}$ from 0.05 to 1.45 and values of z_o from 0 to 0.8 in the case of the downwash function and 0.2 to 0.8 for sidewash functions.

The usefulness of the tables can best be demonstrated by illustrative calculations for a particular wing. The wing chosen for this purpose is shown in figure 8 and has an aspect ratio of 3.57, a taper ratio of 0.565, and a leading-edge sweep of 38.8°. The lifting line used to represent the wing connects the midpoints of the root and tip chords and has a sweep of 33°. Calculations have been made for three Mach numbers, 1.35, 1.64, and 2.19. Values of βA, βm_o, and βm corresponding to each Mach number are listed in figure 8. It should be mentioned here that in order to avoid interpolation between βm values the Mach numbers were chosen to yield βm values identical to those given in tables II, III, and IV. The flow-field velocities computed are the angle-of-attack downwash and rolling and angle-of-attack sidewash. Angle-of-attack downwash has been determined in the plane of symmetry for a z_o value of zero and a range of x_o values extending from 1.0 to 5.0; rolling sidewash in the plane of symmetry has been calculated at an x_o value of 2 and for z_o values from 0 to 0.8. The spanwise variation of angle-of-attack downwash has been calculated using the charts of figure 6 at a x_o value of 2.2 and a z_o value of zero. The spanwise variation of rolling and angle-of-attack sidewash has been determined using the charts of figure 7 for an x_o value of 2.0 and a z_o value of 0.2. In order to give some indication of the ability of the charts based on equations (5) and (6) to approximate results based on equations (1) and (2), spanwise variations of the flow-field velocities using equations (1) and (2) have also been calculated for comparison.

The wing spanwise distribution of circulation for the angle-of-attack and rolling motions and for the Mach numbers previously listed were obtained by interpolation from the charts of reference 12 and are given in figures 9 and 10. These so-called circulation distributions are actually spanwise variations of a nondimensional circulation parameter. It is convenient in determining the angle-of-attack downwash and rolling sidewash to alter equations (13), (16), (25), and (27) so that the circulation strengths appear in the same nondimensional forms. Consider the downwash equations first. If both sides of equations (15) and (25) are divided by $V_\infty \alpha$, the incremental circulation on the right-hand side can be grouped with $V_\infty \alpha b/2$ to form the same nondimensional parameter $\frac{\Gamma}{V_\infty \alpha b/2}$ as is plotted in figure 9 and given in references 11 and 12. The left-hand side becomes equal to $\frac{-w}{V_\infty \alpha} = \frac{d\epsilon}{d\alpha}$. For the rolling sidewash, both sides of equations (16) and (27) are nondimensionalized

by $pb/2$. When this is done, the circulation on the right-hand side of the equations may be grouped with $p(b/2)^2$ to form the same nondimensional parameter $\frac{\Gamma}{p(b/2)^2}$ as is plotted in figure 10 and given in references 11 and 12. The left-hand side becomes equal to $\frac{v}{pb/2} = \frac{v/V_\infty}{pb/2V_\infty}$ and can be thought of as the induced lateral angularity per unit wing-tip helix angle $pb/2V_\infty$.

To illustrate the calculation procedure for each motion it is only necessary to show calculations for one Mach number and two points in the flow field, one in and one off the plane of symmetry. The points for which the downwash calculations are presented are both located at longitudinal and vertical coordinates of $x_o = 2.2$ and $z_o = 0$. Rolling sidewash calculations are presented for points located longitudinally and vertically at $x_o = 2.0$ and $z_o = 0.2$. Calculations for both motions are at spanwise locations of $y_o = 0$ and $y_o = 0.15$ and at a Mach number of 1.64. Tables V and VI show the downwash and sidewash computations, respectively, for the points in the plane of symmetry. Tables VII and VIII give the downwash and sidewash computations, respectively, for the points at $y_o = 0.15$.

In table V the first column gives the spanwise location of the trailing vortices. The second column gives the strength of the circulation as determined from figure 4 at the spanwise location of column (1). Column (3) gives the incremental circulation strength. Column (4) gives the $F_w(|y_{i,o}|)$ function from table II corresponding to $\beta m = 2.0$, $x_o = 2.2$, $z_o = 0$, and the $|y_{i,o}|$ values of column (1). Note that no $F_w(|y_{i,o}|)$ values are given for $|y_{i,o}|$ values beyond 0.7. This indicates that the forecone from the field point at which the downwash is being determined intersects the lifting line between $|y_{i,o}| = 0.7$ and $|y_{i,o}| = 0.75$. Those horseshoes outside the forecone obviously do not contribute to the downwash. Twice the summation of the products of columns (3) and (4) gives the first term of equation (25) (when nondimensionalized as previously indicated) and, for the example calculation, is equivalent to -0.238. The last term in equation (25), that is, the product of the nondimensional circulation parameter $\frac{\Gamma_o}{V_\infty \alpha b/2}$ and $F_{w,o}$, is determined from column (2) and the value of $F_{w,o}$ given in table III.

The second term for the example calculation is equal to 0.126. Summing up the contributions of the two terms in equation (25) gives $-\frac{w}{V_\infty \alpha} = -0.112$. To determine the downwash for any other point in the plane of symmetry at this same Mach number requires that the $F_w\left(|y_{i,o}|\right)$ and $F_{w,o}$ functions appropriate to the point being considered be obtained from tables II and III and used in the same manner as the numbers in columns (4) and (5) for the calculation just outlined. The calculating procedure for determining the rolling sidewash in the plane of symmetry (see table VI) follows closely that just outlined for determining angle-of-attack downwash and need not be discussed.

Calculations for the point off the plane of symmetry are slightly more lengthy than those for the plane of symmetry since the value of $Y_{i,o}$ for each value of $y_{i,o}$ and the value of $\bar{X}_i$ for either the positive or negative $y_{i,o}$ values ($\bar{X}_i$ is the same for positive and negative $y_{i,o}$ values) must be calculated. In table VII, which illustrates the angle-of-attack downwash calculation, columns (1) and (7) give the $y_{i,o}$ values of the vortices located on the left and right panels, respectively; columns (2) and (8) give the corresponding $Y_{i,o}$ values and column (3) gives the values of $\bar{X}_i$. The $F_w(Y_{i,o})$ functions corresponding to the $Y_{i,o}$ values of columns (2) and (8) and the $\bar{X}_i$ values of column (3) are given in columns (4) and (9). (Note that $F_w(Y_{i,o}^-) = -F_w(Y_{i,o}^+)$). The sum of the products of the values of $F_w(Y_{i,o})$ and the incremental circulation strengths $\left(\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}\right)$ of column (5) are given in columns (6) and (10). Substitution of the values of columns (6) and (10) into equation (15), nondimensionalized by $V_\infty \alpha$, yields 0.003 for $d\epsilon/d\alpha$.

The calculation procedure for rolling sidewash (table VIII) is essentially the same as that just outlined for angle-of-attack downwash with one exception. For the rolling motion the spanwise distribution of circulation is asymmetric; hence, the incremental circulation strengths on the right wing panel are of opposite sign to those on the left wing panel given in column (5). This difference accounts for the negative sign in the heading of column (10) in table VIII.

The results of the calculations for the wing of figure 8 and for the Mach numbers and points mentioned previously are presented in figures 11 to 13. Figure 11 gives the longitudinal variation of angle-of-attack downwash behind the wing along the x-axis. The inaccuracies in

the lifting-line method near the trailing edge are not too apparent in this figure except for the $M = 2.19$ curve. As pointed out previously, these inaccuracies may be minimized by determining the exact value at the trailing edge. By use of equation (30), in conjunction with the pressure expression given in reference 20, exact values of the downwash at the trailing edge have been obtained and are shown in figure 11 as the circled point. It is felt that the dashed-line curves connecting the exact trailing-edge values with the troughs of the lifting-line curves give a reasonable approximation of lifting-surface results.

Variations with vertical height of lifting-line sidewash (in nondimensional form) in the vertical plane of symmetry for the rolling motion are shown in figure 12. Values of the sidewash at $z_o = 0$ were obtained by use of equation (31) and the spanwise distributions of circulation given in figure 10.

The spanwise variations of downwash and sidewash due to angle of attack and of sidewash due to rolling as calculated by use of the charts (eqs. (15) and (16)) and equations (1), (2), (25), and (27) are presented in figure 13. Figure 13(a), giving the spanwise variation of angle-of-attack downwash at $x_o = 2.2$ and $z_o = 0$, shows that the magnitude of the downwash computed by use of the charts does not agree well with the more exact values computed using equations (1) and (25). It further indicates that if the curve determined by use of the charts is translated so that the value at $y_o = 0$ is made to coincide with that computed by the tables and equation (25) (as suggested earlier in outlining the proposed computing procedure), reasonably good agreement is obtained between the translated curve and the values computed from equation (1). For x_o values greater than 2.2 and a Mach number of 1.64 it is expected that the agreement between a translated chart-computed downwash curve and a curve computed from equation (2) would be as good as, if not better than, that shown in figure 13(a). On the other hand for x_o values less than 2.2 the agreement will probably deteriorate from that shown in figure 13(a), with the worst agreement being at the outboard stations. It should be remarked here that an increase in βm will have a similar effect on the flow-velocity variations at a particular longitudinal station as a decrease in x_o for a particular value of βm.

The spanwise variations of sidewash due to rolling and angle of attack as computed from the charts, tables, and equation (2) are given in figure 13(b). It is evident from this figure that the chart-computed curves are in good agreement with the values computed using the tables (in conjunction with eq. (27)) and equation (2). Whereas the chart-computed curve of angle-of-attack downwash (fig. 13(a)) required a translation to obtain good agreement with the points computed from the yawed vortex equations, the rolling sidewash computed from the charts is in good agreement at $y = 0$ and requires no translation. This situation will not necessarily be true for all x_o values. The sidewash due to

angle of attack whether computed from the charts or from the tables and equation (27) is zero at $y_o = 0$ because of the symmetry of the circulation distribution. Obviously no translation is necessary for this case. Increases or decreases in longitudinal distance will have an effect on the spanwise variation of sidewash similar to that mentioned in connection with downwash.

Langley Research Center,
National Aeronautics and Space Administration,
Langley Field, Va., December 1, 1958.

APPENDIX A

Derivation of Downwash and Sidewash Equations

The equation for the potential in space of a yawed lifting line with a variable circulation strength $\Gamma(y_1)$ and constant slope m may be obtained from reference 7 or 8 and is given by

$$\phi = \frac{\Gamma(y_1)}{2\pi} \tan^{-1} \frac{z\sqrt{X^2 - \beta^2(Y^2 + z^2)}}{YX - \frac{z^2}{m} - \frac{Y^2}{m}} \Bigg|_{h_1}^{h_2} -$$

$$\frac{1}{2\pi} \int_{h_1}^{h_2} \frac{d\Gamma(y_1)}{dy_1} \tan^{-1} \frac{z\sqrt{X^2 - \beta^2(Y^2 + z^2)}}{YX - \frac{z^2}{m} - \frac{Y^2}{m}} dy_1 \qquad (A1)$$

where the equation for the lifting line is

$$y_1 = mx_1 \qquad (A2)$$

(See fig. 1(a) for pertinent symbols, lifting-line geometry, etc.) For the potential in space of a yawed lifting line of constant circulation strength, $\frac{d\Gamma(y_1)}{dy_1}$ is zero and equation (A1) reduces to

$$\phi = \frac{\Gamma}{2\pi} \tan^{-1} \frac{z\sqrt{X^2 - \beta^2(Y^2 + z^2)}}{YX - \frac{z^2}{m} - \frac{Y^2}{m}} \Bigg|_{h_1}^{h_2} \qquad (A3)$$

By definition this is also the potential for a yawed horseshoe vortex of the type depicted in figure 1(b). A distribution of a number of these constant-strength horseshoes along a line can be used to approximate the potential of a lifting line with any prescribed circulation distribution. This approach, of course, represents an approximate numerical solution to equation (A1).

Partial differentiation of equation (A3) with respect to z and y yields the downwash and sidewash, respectively, due to a yawed constant-strength horseshoe vortex as

$$-w = -\frac{\Gamma}{2\pi}\left\{\frac{Ym^3X^3 + m^2X^2(z^2 - Y^2) - \beta^2m^2YmX(Y^2 + 2z^2) + \beta^2m^2Y^2(z^2 + Y^2)}{m\sqrt{X^2 - \beta^2(Y^2 + z^2)}\left[(Y - mX)^2 + z^2(1 - \beta^2m^2)\right](Y^2 + z^2)}\right\}_{h_1}^{h_2} \tag{A4}$$

and

$$v = \frac{\Gamma}{2\pi}\left\{\frac{zY\left[2m^2X^2 - \beta^2m^2(Y^2 + z^2)\right] - zmX(m^2X^2 - \beta^2m^2z^2)}{m\sqrt{X^2 - \beta^2(Y^2 + z^2)}\left[(Y - mX)^2 + z^2(1 - \beta^2m^2)\right](Y^2 + z^2)}\right\}_{h_1}^{h_2} \tag{A5}$$

When m is set equal to infinity in equations (A4) and (A5), respectively, the following expressions result:

$$-w = -\frac{\Gamma}{2\pi}\left[\frac{Yx^3 - \beta^2Yx(Y^2 + 2z^2)}{\sqrt{x^2 - \beta^2(Y^2 + z^2)}\,(x^2 - \beta^2z^2)(Y^2 + z^2)}\right]_{h_1}^{h_2} \tag{A6}$$

$$v = \frac{\Gamma}{2\pi}\left[\frac{-zx}{\sqrt{x^2 - \beta^2(Y^2 + z^2)}\,(Y^2 + z^2)}\right]_{h_1}^{h_2} \tag{A7}$$

Equation (A6) gives the downwash and equation (A7) the sidewash due to a rectangular horseshoe vortex; these equations agree with the expressions given for these quantities in references 6, 9, and 21.

It should be noted that equations (A4) to (A7) give the total contributions of the bound and trailing vortices. The separate contributions of the two components for the rectangular horseshoe vortex may be easily obtained. (See ref. 7.) Equation (A6) written in the following form

$$-w = -\frac{\Gamma}{2\pi}\left[\frac{-\beta^2 xY}{\sqrt{x^2 - \beta^2Y^2 - \beta^2z^2}\,(x^2 - \beta^2z^2)} + \frac{Yx}{\sqrt{x^2 - \beta^2Y^2 - \beta^2z^2}\,(Y^2 + z^2)}\right]_{h_1}^{h_2} \tag{A8}$$

gives the contributions at the bound and trailing vortices as the first and second terms, respectively. The sidewash due to a rectangular horseshoe vortex equation (A7), results solely from the trailing vortices. Since the contributions of the trailing vortices are the same for both yawed and rectangular horseshoe vortices, the trailing-vortex contributions for the latter (with x replaced by X to account for the displacement of the origin of the trailing vortices from $x = 0$) may be subtracted from equations (A4) and (A5) to obtain the bound-vortex contributions of a yawed horseshoe vortex.

With m, the slope of the bound vortex, defined as an absolute magnitude, expressions for the downwash and sidewash due to a yawed horseshoe vortex of negative slope are obtained by replacing m with $-m$ in equations (A4) and (A5).

A swept horseshoe vortex of the form given in figure 4 may be obtained by combining yawed horseshoe vortices of opposite slope in such a way that two of these trailing vortices coincide along the x-axis. The effects of the two coinciding trailing vortices cancel leaving the effects of the two outboard trailing vortices and the two bound vortices, that is, a swept horseshoe vortex. Expressions for the downwash and sidewash due to a swept horseshoe vortex are, respectively,

$$-w = \frac{\Gamma}{2\pi}\left\{\frac{-(y - h_2)(mx - h_2)^3 - (mx - h_2)^2\left[z^2 - (y - h_2)^2\right] + \beta^2m^2(y - h_2)(mx - h_2)\left[(y - h_2)^2 + 2z^2\right] - \beta^2m^2(y - h_2)^2\left[z^2 + (y - h_2)^2\right]}{\sqrt{(mx - h_2)^2 - \beta^2m^2\left[(y - h_2)^2 + z^2\right]}\left[(y - mx)^2 + z^2(1 - \beta^2m^2)\right]\left[(y - h_2)^2 + z^2\right]} + \right.$$

$$\frac{(y - h_1)(mx + h_1)^3 - (mx + h_1)^2\left[z^2 - (y - h_1)^2\right] - \beta^2m^2(y - h_1)(mx + h_1)\left[(y - h_1)^2 + 2z^2\right] - \beta^2m^2(y - h_1)^2\left[z^2 + (y - h_1)^2\right]}{\sqrt{(mx + h_1)^2 - \beta^2m^2\left[(y - h_1)^2 + z^2\right]}\left[(y + mx)^2 + z^2(1 - \beta^2m^2)\right]\left[(y - h_1)^2 + z^2\right]} +$$

$$\left.\frac{-(1 - \beta^2m)y(y - mx) + (y - mx)^2}{\sqrt{m^2x^2 - \beta^2m^2(y^2 + z^2)}\left[(y - mx)^2 + z^2(1 - \beta^2m^2)\right]} + \frac{-(1 - \beta^2m)y(y + mx) + (y + mx)^2}{\sqrt{m^2x^2 - \beta^2m^2(y^2 + z^2)}\left[(y + mx)^2 + z^2(1 - \beta^2m^2)\right]}\right\} \tag{A9}$$

and

$$v = \frac{\Gamma}{2\pi}\left(\frac{z(y - h_2)\left\{2(mx - h_2)^2 - \beta^2m^2\left[(y - h_2)^2 + z^2\right]\right\} - z(mx - h_2)\left[(mx - h_2)^2 - \beta^2m^2z^2\right]}{\sqrt{(mx - h_2)^2 - \beta^2m^2\left[(y - h_2)^2 + z^2\right]}\left[(y - mx)^2 + z^2(1 - \beta^2m^2)\right]\left[(y - h_2)^2 + z^2\right]} + \right.$$

$$\frac{z(y - h_1)\left\{2(mx + h_1)^2 - \beta^2m^2\left[(y - h_1)^2 + z^2\right]\right\} + z(mx + h_1)\left[(mx + h_1)^2 - \beta^2m^2z^2\right]}{\sqrt{(mx + h_1)^2 - \beta^2m^2\left[(y - h_1)^2 + z^2\right]}\left[(y + mx)^2 + z^2(1 - \beta^2m^2)\right]\left[(y - h_1)^2 + z^2\right]} -$$

$$\left.\frac{z_o\left[-(y - mx) + y(1 - \beta^2m^2)\right]}{\sqrt{m^2x^2 - \beta^2m^2(y^2 + z^2)}\left[(y - mx)^2 + z^2(1 - \beta^2m^2)\right]} - \frac{z_o\left[-(y + mx) + y(1 - \beta^2m^2)\right]}{\sqrt{m^2x^2 - \beta^2m^2(y^2 + z^2)}\left[(y + mx) + z^2(1 - \beta^2m^2)\right]}\right)$$

(A10)

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TABLE I.- VALUES OF βm, x_o, $\bar{x}$, z_o, AND $y_{i,o}$ FOR WHICH PLANE-OF-SYMMETRY FUNCTIONS ARE TABULATED

βm	x_o or $\bar{x}$	z_o	$\lvert y_{i,o} \rvert$
			0
0.2	0.6	[a] 0	.05
.4	.8	.2	.10
.6	1.2	.4	.15
.8	1.4	.6	.20
1.0	1.6	.8	.25
1.2	1.8		.30
1.4	2.0		.35
1.6	2.2		.40
1.8	2.6		.45
2.0	3.0		.50
2.5	3.5		.55
3.0	4.0		.60
3.5	5.0		.65
4.0			.70
4.5			.75
5.0			.80
∞			.85
			.90
			.95
			1.00

[a]Values of $F_v(\lvert y_{i,o} \rvert)$ and $\left[F_v(\lvert y_{i,o} \rvert)\right]_{\beta m=\infty}$ for $z_o = 0$ are zero; hence, no tabulation of these functions for $z_o = 0$ is necessary. F_w functions are singular at $y_{i,o} = z_o = 0$ and have been dropped from the computation procedure.

TABLE II. - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.120113	.093802	.069063	.050842
.6	.05	-1.458679	.026736	.069569	.058354	.044938
.6	.10	-.662615	-.038505	.047549	.048149	.039247
.6	.15	-.397002	-.069976	.029331	.038860	.033935
.6	.20	-.263929	-.077480	.015642	.030814	.029171
.6	.25	-.183776	-.072037	.006446	.024249	.025154
.6	.30	-.129949	-.060783	.001262	.019368	.022214
.6	.35	-.090946	-.047372	-.000465	.016518	.021267
.6	.40	-.060778	-.033230	.001127	.017130	.029365
.6	.45	-.035368	-.017822	.008946	.000000	.000000
.8	.00		.093959	.080623	.065331	.051797
.8	.05	-1.491945	.000472	.056274	.054495	.045751
.8	.10	-.696019	-.064910	.034105	.044125	.039870
.8	.15	-.430585	-.096564	.015690	.034614	.034295
.8	.20	-.297752	-.104316	.001731	.026255	.029145
.8	.25	-.217932	-.099219	-.007851	.019224	.024521
.8	.30	-.164588	-.088472	-.013624	.013589	.020500
.8	.35	-.126336	-.075864	-.016339	.009333	.017146
.8	.40	-.097462	-.063159	-.016727	.006392	.014526
.8	.45	-.074765	-.051066	-.015380	.004706	.012751
.8	.50	-.056270	-.039755	-.012693	.004300	.012127
.8	.55	-.040602	-.029072	-.008765	.005550	.013937
.8	.60	-.026526	-.018415	-.002850	.011393	.000000
.8	.65	-.011452	-.004106	.000000	.000000	.000000
1.0	.00		.076696	.069204	.059569	.049936
1.0	.05	-1.511888	-.016840	.054803	.048680	.043832
1.0	.10	-.716020	-.082281	.032573	.038245	.037882
1.0	.15	-.450658	-.114008	.016083	.028655	.032219
1.0	.20	-.317912	-.121848	.003968	.020196	.026959
1.0	.25	-.238201	-.116662	-.003667	.013038	.022192
1.0	.30	-.184997	-.106257	-.007591	.007235	.017978
1.0	.35	-.146927	-.093837	-.008508	.002752	.014354
1.0	.40	-.118300	-.081386	-.009174	-.000512	.011333
1.0	.45	-.095950	-.069653	-.008231	-.002689	.008912
1.0	.50	-.077970	-.058885	-.006178	-.003919	.007081
1.0	.55	-.063134	-.049097	-.003372	-.004327	.005836
1.0	.60	-.050608	-.040196	-.000048	-.004006	.005200
1.0	.65	-.039784	-.032028	-.002327	-.002979	.005285
1.0	.70	-.030163	-.024379	-.002189	-.001110	.006516
1.0	.75	-.021221	-.016876	-.001292	.002404	.011614
1.0	.80	-.011937	-.008351	.000987	.000000	.000000
1.2	.00		.064628	.050056	.053749	.046901
1.2	.05	-1.525177	-.028935	.035629	.042832	.040768
1.2	.10	-.729340	-.094406	.023368	.032365	.034784
1.2	.15	-.464012	-.126188	.015158	.022737	.029082
1.2	.20	-.331307	-.134049	.009252	.014233	.023774
1.2	.25	-.251646	-.129113	.005003	.007021	.018949
1.2	.30	-.198501	-.118568	.004988	.001154	.014666
1.2	.35	-.160503	-.106221	.003980	-.003410	.010954
1.2	.40	-.131964	-.093859	.003740	-.006775	.007821
1.2	.45	-.109726	-.082239	.003917	-.009082	.005253
1.2	.50	-.091888	-.071618	.003019	-.010484	.003223
1.2	.55	-.077241	-.062024	.003422	-.011129	.001695
1.2	.60	-.064975	-.053390	.003391	-.011151	.000631
1.2	.65	-.054522	-.045610	.003108	-.010662	-.000003
1.2	.70	-.045473	-.038564	.003686	-.009747	-.000233
1.2	.75	-.037513	-.032134	.003184	-.008462	-.000059
1.2	.80	-.030389	-.026191	.003615	-.006818	.000564
1.2	.85	-.023869	-.020589	.002923	-.004740	.001816
1.2	.90	-.017684	-.015105	.002911	-.001900	.004473
1.2	.95	-.011342	-.009208	.003749	.003944	.040102

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o=0$	$z_o=0.2$	$z_o=0.4$	$z_o=0.6$	$z_o=0.8$
1.4	.00		.055772	.052797	.048499	.043561
1.4	.05	-1.534666	-.037807	.028354	.037566	.037412
1.4	.10	-.738846	-.103296	.006074	.027081	.031409
1.4	.15	-.473539	-.135078	-.012472	.017431	.025684
1.4	.20	-.340857	-.142982	-.026590	.008904	.020352
1.4	.25	-.261222	-.138072	-.036367	.001664	.015498
1.4	.30	-.208107	-.127558	-.042383	-.004235	.011180
1.4	.35	-.170144	-.115246	-.045412	-.008837	.007429
1.4	.40	-.141647	-.102927	-.046215	-.012248	.004248
1.4	.45	-.119458	-.091357	-.045443	-.014609	.001622
1.4	.50	-.101680	-.080795	-.043608	-.016077	-.000480
1.4	.55	-.087107	-.071276	-.041088	-.016804	-.002098
1.4	.60	-.074931	-.062734	-.038154	-.016929	-.003277
1.4	.65	-.064593	-.055070	-.034994	-.016574	-.004063
1.4	.70	-.055693	-.048177	-.031734	-.015840	-.004502
1.4	.75	-.047933	-.041951	-.028454	-.014808	-.004631
1.4	.80	-.041087	-.036297	-.025202	-.013538	-.004483
1.4	.85	-.034979	-.031125	-.022002	-.012075	-.004080
1.4	.90	-.029461	-.026353	-.018854	-.010441	-.003425
1.4	.95	-.024407	-.021897	-.015739	-.008632	-.002495
1.4	1.00	-.019690	-.017662	-.012604	-.006598	-.001197
1.6	**.00**		**.049016**	**.046979**	**.043944**	**.040312**
1.6	.05	-1.541781	-.044572	.022526	.033000	.034152
1.6	.10	-.745972	-.110072	.000236	.022504	.028137
1.6	.15	-.480678	-.141867	-.018323	.012841	.022400
1.6	.20	-.348009	-.149785	-.032455	.004299	.017052
1.6	.25	-.268390	-.144891	-.042248	-.002956	.012182
1.6	.30	-.215293	-.134394	-.048282	-.008874	.007845
1.6	.35	-.177350	-.122102	-.051331	-.013497	.004071
1.6	.40	-.148876	-.109806	-.052158	-.016932	.000865
1.6	.45	-.126713	-.098263	-.051413	-.019321	-.001790
1.6	.50	-.108966	-.087732	-.049609	-.020822	-.003926
1.6	.55	-.094428	-.078249	-.047126	-.021587	-.005584
1.6	.60	-.082294	-.069750	-.044236	-.021758	-.006812
1.6	.65	-.072007	-.062137	-.041128	-.021459	-.007658
1.6	.70	-.063168	-.055305	-.037932	-.020792	-.008170
1.6	.75	-.055483	-.049156	-.034731	-.019844	-.008391
1.6	.80	-.048731	-.043596	-.031580	-.018682	-.008363
1.6	.85	-.042742	-.038547	-.028508	-.017361	-.008120
1.6	.90	-.037383	-.033936	-.025533	-.015919	-.007690
1.6	.95	-.032544	-.029701	-.022658	-.014385	-.007094
1.6	1.00	-.028135	-.025785	-.019878	-.012776	-.006347
1.8	**.00**		**.043703**	**.042250**	**.040038**	**.037310**
1.8	.05	-1.547314	-.049893	.017790	.029087	.031143
1.8	.10	-.751513	-.115400	-.004508	.018583	.025121
1.8	.15	-.486226	-.147203	-.023075	.008912	.019375
1.8	.20	-.353567	-.155130	-.037216	.000361	.014018
1.8	.25	-.273958	-.150246	-.047019	-.006905	.009137
1.8	.30	-.220872	-.139761	-.053065	-.012835	.004788
1.8	.35	-.182941	-.127481	-.056126	-.017471	.001001
1.8	.40	-.154481	-.115199	-.056967	-.020920	-.002220
1.8	.45	-.132334	-.103671	-.056239	-.023325	-.004892
1.8	.50	-.114605	-.093159	-.054452	-.024844	-.007047
1.8	.55	-.100087	-.083696	-.051990	-.025631	-.008727
1.8	.60	-.087976	-.075220	-.049123	-.025827	-.009980
1.8	.65	-.077716	-.067634	-.046043	-.025555	-.010856
1.8	.70	-.068907	-.060834	-.042879	-.024922	-.011402
1.8	.75	-.061259	-.054720	-.039716	-.024012	-.011665
1.8	.80	-.054550	-.049204	-.036609	-.022898	-.011687
1.8	.85	-.048613	-.044207	-.033591	-.021633	-.011505
1.8	.90	-.043316	-.039660	-.030682	-.020261	-.011150
1.8	.95	-.038555	-.035504	-.027889	-.018815	-.010651
1.8	1.00	-.034245	-.031687	-.025213	-.017319	-.010030

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00		.039418	.038348	.036690	.034602
2.0	.05	-1.551740	-.054182	-.013883	.025735	.028430
2.0	.10	-.755944	-.119695	-.008420	.015225	.022402
2.0	.15	-.490663	-.151503	-.026993	.005549	.016650
2.0	.20	-.358010	-.159437	-.041141	-.003009	.011287
2.0	.25	-.278407	-.154559	-.050951	-.010282	.006398
2.0	.30	-.225329	-.144081	-.057004	-.016219	.002042
2.0	.35	-.187407	-.131810	-.060074	-.020864	-.001754
2.0	.40	-.158956	-.119537	-.060924	-.024322	-.004984
2.0	.45	-.136819	-.108020	-.060205	-.026738	-.007667
2.0	.50	-.119101	-.097518	-.058431	-.028268	-.009834
2.0	.55	-.104595	-.088068	-.055981	-.029068	-.011527
2.0	.60	-.092499	-.079606	-.053129	-.029278	-.012796
2.0	.65	-.082254	-.072036	-.050065	-.029023	-.013688
2.0	.70	-.073464	-.065254	-.046918	-.028408	-.014254
2.0	.75	-.065835	-.059161	-.043776	-.027521	-.014539
2.0	.80	-.059150	-.053669	-.040693	-.026431	-.014587
2.0	.85	-.053240	-.048699	-.037703	-.025194	-.014435
2.0	.90	-.047975	-.044183	-.034826	-.023856	-.014116
2.0	.95	-.043251	-.040065	-.032072	-.022450	-.013659
2.0	1.00	-.038985	-.036293	-.029442	-.021003	-.013089
2.2	.00		.035893	.035082	.033811	.032182
2.2	.05	-1.555361	-.057711	.010614	.022852	.026007
2.2	.10	-.759569	-.123228	-.011694	.012338	.019975
2.2	.15	-.494292	-.155040	-.030271	.002658	.014218
2.2	.20	-.361643	-.162978	-.044423	-.005905	.008850
2.2	.25	-.282046	-.158106	-.054238	-.013183	.003957
2.2	.30	-.228972	-.147633	-.060296	-.019125	-.000405
2.2	.35	-.191056	-.135368	-.063372	-.023775	-.004206
2.2	.40	-.162611	-.123101	-.064228	-.027240	-.007443
2.2	.45	-.140481	-.111590	-.063517	-.029663	-.010133
2.2	.50	-.122770	-.101097	-.061750	-.031201	-.012308
2.2	.55	-.108273	-.091654	-.059308	-.032009	-.014010
2.2	.60	-.096186	-.083201	-.056465	-.032229	-.015288
2.2	.65	-.085951	-.075642	-.053411	-.031985	-.016191
2.2	.70	-.077172	-.068871	-.050277	-.031381	-.016769
2.2	.75	-.069557	-.062791	-.047147	-.030507	-.017068
2.2	.80	-.062886	-.057312	-.044078	-.029431	-.017130
2.2	.85	-.056992	-.052359	-.041105	-.028212	-.016995
2.2	.90	-.051745	-.047862	-.038247	-.026893	-.016696
2.2	.95	-.047041	-.043764	-.035513	-.025508	-.016262
2.2	1.00	-.042799	-.040016	-.032908	-.024086	-.015718
2.6	.00		.030437	.029941	.029149	.028110
2.6	.05	-1.560931	-.063171	.005468	.018185	.021929
2.6	.10	-.765144	-.128693	-.016845	.007666	.015892
2.6	.15	-.499872	-.160511	-.035428	-.002020	.010130
2.6	.20	-.367230	-.168455	-.049585	-.010588	.004756
2.6	.25	-.287638	-.163589	-.059407	-.017873	-.000144
2.6	.30	-.234572	-.153123	-.065472	-.023822	-.004512
2.6	.35	-.196662	-.140865	-.068555	-.028480	-.008321
2.6	.40	-.168226	-.128606	-.069419	-.031952	-.011566
2.6	.45	-.146104	-.117104	-.068716	-.034384	-.014265
2.6	.50	-.128402	-.106619	-.066959	-.035932	-.016449
2.6	.55	-.113915	-.097187	-.064527	-.036750	-.018162
2.6	.60	-.101839	-.088745	-.061695	-.036980	-.019451
2.6	.65	-.091616	-.081197	-.058653	-.036748	-.020366
2.6	.70	-.082850	-.074439	-.055531	-.036158	-.020957
2.6	.75	-.075248	-.068373	-.052416	-.035298	-.021271
2.6	.80	-.068593	-.062910	-.049363	-.034238	-.021350
2.6	.85	-.062716	-.057974	-.046407	-.033036	-.021233
2.6	.90	-.057488	-.053496	-.043568	-.031737	-.020953
2.6	.95	-.052805	-.049419	-.040856	-.030374	-.020542
2.6	1.00	-.048587	-.045695	-.038275	-.028976	-.020023

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00		.026415	.026090	.025565	.024866
3.0	.05	-1.565015	-.067196	.001614	.014598	.018682
3.0	.10	-.769231	-.132721	-.020702	.004076	.012642
3.0	.15	-.503963	-.164543	-.039288	-.005613	.006877
3.0	.20	-.371324	-.172490	-.053450	-.014185	.001499
3.0	.25	-.291736	-.167628	-.063275	-.021473	-.003405
3.0	.30	-.238673	-.157166	-.069344	-.027427	-.007778
3.0	.35	-.200768	-.144912	-.072431	-.032089	-.011591
3.0	.40	-.172336	-.132658	-.073300	-.035566	-.014840
3.0	.45	-.150219	-.121160	-.072602	-.038003	-.017544
3.0	.50	-.132523	-.110681	-.070849	-.039555	-.019733
3.0	.55	-.118041	-.101254	-.068423	-.040379	-.021452
3.0	.60	-.105971	-.092818	-.065597	-.040616	-.022747
3.0	.65	-.095754	-.085276	-.062562	-.040390	-.023669
3.0	.70	-.086995	-.078525	-.059447	-.039807	-.024267
3.0	.75	-.079400	-.072466	-.056339	-.038954	-.024588
3.0	.80	-.072753	-.067012	-.053294	-.037902	-.024675
3.0	.85	-.066885	-.062084	-.050346	-.036709	-.024567
3.0	.90	-.061666	-.057615	-.047516	-.035419	-.024297
3.0	.95	-.056994	-.053549	-.044815	-.034067	-.023896
3.0	1.00	-.052786	-.049835	-.042245	-.032680	-.023388
3.5	.00		.022667	.022461	.022126	.021673
3.5	.05	-1.568806	-.070947	-.002018	.011156	.015487
3.5	.10	-.773025	-.136475	-.024336	.000632	.009444
3.5	.15	-.507760	-.168299	-.042925	-.009061	.003676
3.5	.20	-.375123	-.176249	-.057089	-.017636	-.001704
3.5	.25	-.295538	-.171390	-.066917	-.024927	-.006611
3.5	.30	-.242479	-.160931	-.072990	-.030883	-.010987
3.5	.35	-.204577	-.148680	-.076080	-.035548	-.014803
3.5	.40	-.176149	-.136429	-.076952	-.039029	-.018057
3.5	.45	-.154035	-.124936	-.076258	-.041469	-.020764
3.5	.50	-.136343	-.114460	-.074509	-.043026	-.022957
3.5	.55	-.121865	-.105037	-.072087	-.043854	-.024679
3.5	.60	-.109799	-.096605	-.069265	-.044095	-.025979
3.5	.65	-.099587	-.089068	-.066234	-.043873	-.026905
3.5	.70	-.090832	-.082322	-.063124	-.043295	-.027508
3.5	.75	-.083243	-.076268	-.060021	-.042447	-.027834
3.5	.80	-.076601	-.070819	-.056982	-.041401	-.027927
3.5	.85	-.070738	-.065896	-.054040	-.040214	-.027825
3.5	.90	-.065525	-.061434	-.051216	-.038930	-.027561
3.5	.95	-.060860	-.057374	-.048521	-.037584	-.027166
3.5	1.00	-.056659	-.053668	-.045958	-.036204	-.026666
4.0	.00		.019848	.019709	.019483	.019174
4.0	.05	-1.571650	-.073768	-.004771	.008511	.012986
4.0	.10	-.775870	-.139297	-.027091	-.002015	.006942
4.0	.15	-.510607	-.171123	-.045681	-.011709	.001172
4.0	.20	-.377972	-.179075	-.059847	-.020285	-.004210
4.0	.25	-.298389	-.174217	-.069677	-.027578	-.009119
4.0	.30	-.245332	-.163760	-.075752	-.033537	-.013497
4.0	.35	-.207432	-.151512	-.078844	-.038204	-.017315
4.0	.40	-.179005	-.139263	-.079718	-.041687	-.020570
4.0	.45	-.156894	-.127771	-.079.026	-.044129	-.023280
4.0	.50	-.139204	-.117298	-.077280	-.045688	-.025475
4.0	.55	-.124728	-.107877	-.074860	-.046518	-.027200
4.0	.60	-.112665	-.099448	-.072041	-.046762	-.028502
4.0	.65	-.102455	-.091914	-.069012	-.046543	-.029431
4.0	.70	-.093703	-.085170	-.065905	-.045967	-.030037
4.0	.75	-.086117	-.079119	-.062805	-.045123	-.030366
4.0	.80	-.079478	-.073673	-.059769	-.044080	-.030462
4.0	.85	-.073619	-.068754	-.056830	-.042896	-.030363
4.0	.90	-.068409	-.064295	-.054010	-.041615	-.030103
4.0	.95	-.063747	-.060239	-.051318	-.040273	-.029712
4.0	1.00	-.059550	-.056536	-.048759	-.038897	-.029215

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00		.015892	.015820	.015703	.015542
5.0	.05	-1.575631	-.077726	-.008662	.004730	.009352
5.0	.10	-.779853	-.143257	-.030983	-.005798	.003306
5.0	.15	-.514591	-.175084	-.049576	-.015494	-.002466
5.0	.20	-.381959	-.183039	-.063744	-.024072	-.007850
5.0	.25	-.302378	-.178183	-.073576	-.031367	-.012761
5.0	.30	-.249322	-.167726	-.079652	-.037328	-.017141
5.0	.35	-.211425	-.155482	-.082747	-.041998	-.020962
5.0	.40	-.183001	-.143236	-.083624	-.045483	-.024219
5.0	.45	-.160892	-.131746	-.082934	-.047927	-.026931
5.0	.50	-.143204	-.121276	-.081190	-.049489	-.029129
5.0	.55	-.128731	-.111858	-.078773	-.050322	-.030857
5.0	.60	-.116670	-.103431	-.075956	-.050568	-.032161
5.0	.65	-.106464	-.095899	-.072931	-.050352	-.033093
5.0	.70	-.097715	-.089159	-.069827	-.049779	-.033702
5.0	.75	-.090132	-.083111	-.066730	-.048938	-.034034
5.0	.80	-.083496	-.077668	-.063696	-.047898	-.034133
5.0	.85	-.077640	-.072752	-.060761	-.046717	-.034038
5.0	.90	-.072434	-.068297	-.057944	-.045440	-.033781
5.0	.95	-.067776	-.064244	-.055257	-.044102	-.033394
5.0	1.00	-.063582	-.060546	-.052701	-.042730	-.032901

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.122400	.100203	.078647	.062884
.6	.05	-1.457955	.029788	.076872	.069133	.058799
.6	.10	-.661020	-.034523	.055988	.060530	.055814
.6	.15	-.394335	-.064830	.039260	.053534	.055066
.6	.20	-.259899	-.070824	.027641	.049134	.060182
.6	.25	-.177941	-.063311	.021607	.049640	.107799
.6	.30	-.121557	-.048952	.022182	.068340	.000000
.6	.35	-.078487	-.029989	.037284	.000000	.000000
.6	.40	-.039789	.002170	.000000	.000000	.000000
.8	.00		.094986	.083903	.070815	.058985
.8	.05	-1.491547	.001909	.060003	.060501	.053588
.8	.10	-.695165	-.063001	.038357	.050754	.048508
.8	.15	-.429204	-.094107	.020561	.042001	.043950
.8	.20	-.295751	-.101209	.007349	.034592	.040150
.8	.25	-.215190	-.095328	-.001305	.028800	.037431
.8	.30	-.160941	-.083611	-.005884	.024871	.036370
.8	.35	-.121546	-.069758	-.006981	.023182	.038479
.8	.40	-.091167	-.055369	-.004985	.024751	.051255
.8	.45	-.066351	-.040791	.000460	.034534	.000000
.8	.50	-.044485	-.025128	.013606	.000000	.000000
.8	.55	-.021476	-.000031	.000000	.000000	.000000
1.0	.00		.077238	.071065	.062940	.054627
1.0	.05	-1.511637	-.016042	.046936	.052349	.048864
1.0	.10	-.715490	-.081198	.025010	.042253	.043307
1.0	.15	-.449814	-.112603	.006864	.033050	.038104
1.0	.20	-.316714	-.120080	-.006794	.025041	.033390
1.0	.25	-.236601	-.114679	-.016038	.018414	.029284
1.0	.30	-.182932	-.103593	-.021426	.013251	.025896
1.0	.35	-.144318	-.090606	-.023702	.009557	.023342
1.0	.40	-.115044	-.077476	-.023581	.007304	.021782
1.0	.45	-.091905	-.064906	-.021638	.006487	.021523
1.0	.50	-.072934	-.053071	-.018248	.007236	.023365
1.0	.55	-.056797	-.041851	-.013514	.010118	.030552
1.0	.60	-.042441	-.030852	-.006979	.017859	.000000
1.2	.00		.064947	.061200	.055936	.050102
1.2	.05	-1.525004	-.028440	.036955	.045213	.044182
1.2	.10	-.728978	-.093720	.014894	.034961	.038436
1.2	.15	-.463443	-.125272	-.003412	.025571	.033000
1.2	.20	-.330510	-.132921	-.017261	.017334	.027994
1.2	.25	-.250595	-.127726	-.026738	.010424	.023514
1.2	.30	-.197167	-.116892	-.032415	.004900	.019630
1.2	.35	-.158850	-.104218	-.035056	.000732	.016389
1.2	.40	-.129949	-.091485	-.035412	-.002170	.013821
1.2	.45	-.107294	-.079435	-.034116	-.003923	.011948
1.2	.50	-.088970	-.068309	-.031655	-.004647	.010804
1.2	.55	-.073746	-.058112	-.028372	-.004436	.010458
1.2	.60	-.060778	-.048740	-.024476	-.003323	.011091
1.2	.65	-.049447	-.040020	-.020048	-.001220	.013199
1.2	.70	-.039244	-.031719	-.014995	.002292	.018642
1.2	.75	-.029657	-.023452	-.008821	.009071	.051634
1.2	.80	-.019894	-.014286	.001085	.000000	.000000
1.4	.00		.055975	.053544	.049983	.045819
1.4	.05	-1.534540	-.037476	.029233	.039188	.039817
1.4	.10	-.738584	-.102828	.007095	.028852	.033974
1.4	.15	-.473129	-.134461	-.011297	.019365	.028426
1.4	.20	-.340288	-.142204	-.025248	.011015	.023288
1.4	.25	-.260478	-.137117	-.034841	.003972	.018648
1.4	.30	-.207173	-.126410	-.040656	-.001711	.014571
1.4	.35	-.169001	-.113885	-.043461	-.006071	.011089
1.4	.40	-.140272	-.101330	-.044016	-.009210	.008216
1.4	.45	-.117824	-.089496	-.042964	-.011263	.005944
1.4	.50	-.099756	-.078638	-.040811	-.012376	.004257
1.4	.55	-.084852	-.068780	-.037927	-.012691	.003132
1.4	.60	-.072297	-.059848	-.034569	-.012326	.002555
1.4	.65	-.061519	-.051729	-.030905	-.011376	.002525
1.4	.70	-.052096	-.044293	-.027034	-.009897	.003081
1.4	.75	-.043702	-.037402	-.022988	-.007888	.004348
1.4	.80	-.036062	-.030905	-.018730	-.005250	.006680
1.4	.85	-.028910	-.024607	-.014105	-.001630	.011336
1.4	.90	-.021915	-.018187	-.008642	.004414	.030037
1.4	.95	-.014422	-.010789	.000024	.120683	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	.00		.049153	.047493	.044991	.041952
1.6	.05	-1.541685	-.044338	.023139	.034150	.035900
1.6	.10	-.745773	-.109735	.000955	.023763	.030001
1.6	.15	-.480369	-.141418	-.017491	.014219	.024390
1.6	.20	-.347583	-.149218	-.031501	.005805	.019178
1.6	.25	-.267836	-.144195	-.041162	-.001312	.014455
1.6	.30	-.214602	-.133561	-.047053	-.007080	.010280
1.6	.35	-.176511	-.121119	-.049947	-.011539	.006684
1.6	.40	-.147876	-.108659	-.050604	-.014793	.003675
1.6	.45	-.125536	-.096937	-.049674	-.016984	.001238
1.6	.50	-.107595	-.086210	-.047664	-.018263	-.000653
1.6	.55	-.092843	-.076508	-.044952	-.018780	-.002033
1.6	.60	-.080470	-.067766	-.041806	-.018671	-.002942
1.6	.65	-.069916	-.059880	-.038408	-.018050	-.003417
1.6	.70	-.060773	-.052738	-.034879	-.017011	-.003491
1.6	.75	-.052740	-.046232	-.031292	-.015623	-.003182
1.6	.80	-.045584	-.040255	-.027684	-.013930	-.002492
1.6	.85	-.039116	-.034710	-.024061	-.011946	-.001389
1.6	.90	-.033176	-.029493	-.020395	-.009644	.000230
1.6	.95	-.027609	-.024490	-.016617	-.006917	.002645
1.6	1.00	-.022243	-.019547	-.012564	-.003450	.006803
1.8	.00		.043799	.042618	.040800	.038532
1.8	.05	-1.547239	-.049720	.018235	.029929	.032448
1.8	.10	-.751357	-.115147	-.003981	.019510	.026514
1.8	.15	-.485985	-.146864	-.022461	.009929	.020862
1.8	.20	-.353235	-.154700	-.036509	.001474	.015607
1.8	.25	-.273529	-.149718	-.046212	-.005689	.010834
1.8	.30	-.220340	-.139129	-.052151	-.011508	.006602
1.8	.35	-.182299	-.126738	-.055099	-.016024	.002942
1.8	.40	-.153720	-.114336	-.055816	-.019344	-.000142
1.8	.45	-.131445	-.102679	-.054955	-.021610	-.002664
1.8	.50	-.113577	-.092026	-.053024	-.022977	-.004655
1.8	.55	-.098908	-.082410	-.050403	-.023596	-.006155
1.8	.60	-.086633	-.073768	-.047364	-.023608	-.007207
1.8	.65	-.076192	-.065999	-.044093	-.023132	-.007858
1.8	.70	-.067184	-.058996	-.040717	-.022270	-.008150
1.8	.75	-.059314	-.052657	-.037317	-.021104	-.008124
1.8	.80	-.052356	-.046888	-.033942	-.019695	-.007810
1.8	.85	-.046138	-.041603	-.030618	-.018090	-.007232
1.8	.90	-.040519	-.036726	-.027354	-.016317	-.006402
1.8	.95	-.035383	-.032185	-.024142	-.014390	-.005314
1.8	1.00	-.030629	-.027911	-.020962	-.012297	-.003933
2.0	.00		.039489	.038619	.037261	.035532
2.0	.05	-1.551679	-.054050	.014217	.026370	.029426
2.0	.10	-.755818	-.119498	-.008021	.015927	.023468
2.0	.15	-.490470	-.151238	-.026525	.006322	.017790
2.0	.20	-.357745	-.159100	-.040599	-.002160	.012505
2.0	.25	-.278066	-.154146	-.050331	-.009353	.007700
2.0	.30	-.224907	-.143587	-.056302	-.015206	.003432
2.0	.35	-.186899	-.131229	-.059284	-.019759	-.000268
2.0	.40	-.158357	-.118865	-.060040	-.023120	-.003397
2.0	.45	-.136123	-.107249	-.059222	-.025432	-.005970
2.0	.50	-.118300	-.096643	-.057339	-.026851	-.008019
2.0	.55	-.103683	-.087079	-.054774	-.027530	-.009585
2.0	.60	-.091466	-.078495	-.051796	-.027609	-.010713
2.0	.65	-.081091	-.070794	-.048597	-.027212	-.011453
2.0	.70	-.072159	-.063869	-.045303	-.026441	-.011851
2.0	.75	-.064376	-.057620	-.041999	-.025382	-.011951
2.0	.80	-.057522	-.051956	-.038738	-.024102	-.011790
2.0	.85	-.051425	-.046796	-.035550	-.022654	-.011404
2.0	.90	-.045953	-.042071	-.032453	-.021078	-.010819
2.0	.95	-.040996	-.037716	-.029449	-.019400	-.010055
2.0	1.00	-.036467	-.033676	-.026536	-.017639	-.009124

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	**.00**		**.035946**	**.035288**	**.034249**	**.032905**
2.2	.05	-1.555311	-.057607	.010870	.023342	.026783
2.2	.10	-.759465	-.123071	-.011383	.012883	.020808
2.2	.15	-.494133	-.154827	-.029904	.003260	.015111
2.2	.20	-.361426	-.162707	-.043996	-.005242	.009806
2.2	.25	-.281767	-.157773	-.053749	-.012456	.004978
2.2	.30	-.228629	-.147235	-.059741	-.018531	.000686
2.2	.35	-.190644	-.134901	-.062748	-.022909	-.003041
2.2	.40	-.162128	-.122562	-.063530	-.026298	-.006199
2.2	.45	-.139921	-.110975	-.062741	-.028641	-.008805
2.2	.50	-.122129	-.100399	-.060890	-.030093	-.010891
2.2	.55	-.107546	-.090870	-.058360	-.030810	-.012497
2.2	.60	-.095366	-.082324	-.055422	-.030931	-.013672
2.2	.65	-.085033	-.074665	-.052267	-.030581	-.014464
2.2	.70	-.076148	-.067788	-.049023	-.029865	-.014922
2.2	.75	-.068419	-.061593	-.045776	-.028867	-.015090
2.2	.80	-.061625	-.055990	-.042579	-.027658	-.015010
2.2	.85	-.055597	-.050901	-.039467	-.026292	-.014718
2.2	.90	-.050205	-.046258	-.036456	-.024812	-.014245
2.2	.95	-.045342	-.041998	-.033556	-.023251	-.013618
2.2	1.00	-.040923	-.038072	-.030765	-.021630	-.012857
2.6	**.00**		**.030470**	**.030067**	**.029422**	**.028569**
2.6	.05	-1.560895	-.063103	.005630	.018495	.022426
2.6	.10	-.765070	-.128587	-.016644	.008014	.016428
2.6	.15	-.499760	-.160366	-.035188	-.001632	.010707
2.6	.20	-.367077	-.168269	-.049304	-.010159	.005376
2.6	.25	-.287443	-.163360	-.059083	-.017399	.000521
2.6	.30	-.234332	-.152850	-.065103	-.023303	-.003802
2.6	.35	-.196376	-.140546	-.068139	-.027913	-.007561
2.6	.40	-.167891	-.128238	-.068954	-.031335	-.010755
2.6	.45	-.145719	-.116685	-.068200	-.033715	-.013400
2.6	.50	-.127964	-.106147	-.066388	-.035207	-.015527
2.6	.55	-.113421	-.096658	-.063899	-.035967	-.017180
2.6	.60	-.101285	-.088157	-.061007	-.036136	-.018405
2.6	.65	-.091000	-.080547	-.057902	-.035839	-.019254
2.6	.70	-.082168	-.073723	-.054714	-.035180	-.019774
2.6	.75	-.074497	-.067587	-.051527	-.034247	-.020012
2.6	.80	-.067768	-.062050	-.048399	-.033110	-.020011
2.6	.85	-.061813	-.057035	-.045363	-.031826	-.019807
2.6	.90	-.056502	-.052473	-.042438	-.030436	-.019436
2.6	.95	-.051730	-.048307	-.039634	-.028981	-.018925
2.6	1.00	-.047416	-.044486	-.036955	-.027481	-.018299
3.0	**.00**		**.026437**	**.026173**	**.025746**	**.025174**
3.0	.05	-1.564988	-.067148	.001724	.014806	.019018
3.0	.10	-.769176	-.132645	-.020564	.004313	.013007
3.0	.15	-.503879	-.164437	-.039121	-.005547	.007272
3.0	.20	-.371210	-.172355	-.053252	-.013889	.001925
3.0	.25	-.291591	-.167462	-.063046	-.021145	-.002947
3.0	.30	-.238497	-.156967	-.069083	-.027066	-.007286
3.0	.35	-.200558	-.144680	-.072136	-.031693	-.011064
3.0	.40	-.172091	-.132391	-.072970	-.035135	-.014278
3.0	.45	-.149938	-.120857	-.072235	-.037534	-.016943
3.0	.50	-.132204	-.110340	-.070444	-.039049	-.019094
3.0	.55	-.117683	-.100874	-.067979	-.039832	-.020771
3.0	.60	-.105571	-.092397	-.065111	-.040027	-.022023
3.0	.65	-.095312	-.084812	-.062032	-.039757	-.022900
3.0	.70	-.086508	-.078016	-.058872	-.039127	-.023450
3.0	.75	-.078867	-.071910	-.055717	-.038226	-.023722
3.0	.80	-.072170	-.066406	-.052622	-.037124	-.023757
3.0	.85	-.066250	-.061427	-.049622	-.035877	-.023594
3.0	.90	-.060977	-.056903	-.046737	-.034531	-.023266
3.0	.95	-.056248	-.052780	-.043977	-.033119	-.022804
3.0	1.00	-.051980	-.049006	-.041346	-.031670	-.022251

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.022680	.022513	.022241	.021872
3.5	.05	-1.568787	-.070914	-.071946	.011291	.015706
3.5	.10	-.772985	-.136421	-.134243	.000788	.009684
3.5	.15	-.507699	-.168224	-.142811	-.008883	.003938
3.5	.20	-.375041	-.176153	-.156953	-.017436	-.001420
3.5	.25	-.295434	-.171271	-.156759	-.024705	-.006304
3.5	.30	-.242351	-.160789	-.172808	-.030638	-.010657
3.5	.35	-.204426	-.148515	-.175875	-.035279	-.014449
3.5	.40	-.175972	-.136240	-.176723	-.038735	-.017677
3.5	.45	-.153834	-.124720	-.176003	-.041149	-.020358
3.5	.50	-.136115	-.114218	-.174227	-.042679	-.022524
3.5	.55	-.121610	-.104768	-.171778	-.043479	-.024218
3.5	.60	-.109516	-.096309	-.168928	-.043692	-.025489
3.5	.65	-.099275	-.088742	-.165868	-.043440	-.026385
3.5	.70	-.090490	-.081966	-.162727	-.042831	-.026957
3.5	.75	-.082869	-.075881	-.159593	-.041952	-.027250
3.5	.80	-.076195	-.070399	-.156520	-.040872	-.027309
3.5	.85	-.070298	-.065442	-.153544	-.039650	-.027171
3.5	.90	-.065050	-.060945	-.150685	-.038330	-.026871
3.5	.95	-.060348	-.056848	-.147952	-.036947	-.026438
3.5	1.00	-.056109	-.053103	-.145351	-.035528	-.025898
4.0	.00		.019857	.019744	.019561	.019310
4.0	.05	-1.571635	-.073744	-.034721	.008605	.013137
4.0	.10	-.775840	-.139257	-.027025	-.001906	.007108
4.0	.15	-.510560	-.171067	-.045599	-.011584	.001355
4.0	.20	-.377909	-.179003	-.059749	-.020144	-.004011
4.0	.25	-.298309	-.174129	-.069562	-.027420	-.008902
4.0	.30	-.245235	-.163654	-.075619	-.033361	-.013262
4.0	.35	-.207317	-.151388	-.078694	-.038010	-.017063
4.0	.40	-.178872	-.139121	-.079550	-.041474	-.020299
4.0	.45	-.156743	-.127611	-.078839	-.043898	-.022990
4.0	.50	-.139033	-.117118	-.077073	-.045437	-.025166
4.0	.55	-.124538	-.107678	-.074633	-.046247	-.026870
4.0	.60	-.112454	-.099228	-.071793	-.046470	-.028151
4.0	.65	-.102223	-.091672	-.068744	-.046230	-.029058
4.0	.70	-.093450	-.084907	-.065615	-.045632	-.029642
4.0	.75	-.085841	-.078834	-.062492	-.044765	-.029948
4.0	.80	-.079179	-.073365	-.059432	-.043698	-.030020
4.0	.85	-.073295	-.068421	-.056470	-.042490	-.029896
4.0	.90	-.068061	-.063938	-.053624	-.041184	-.029611
4.0	.95	-.063374	-.059856	-.050907	-.039816	-.029193
4.0	1.00	-.059150	-.056127	-.048321	-.038413	-.028670
5.0	.00		.015896	.015839	.015743	.015612
5.0	.05	-1.575621	-.077712	-.008634	.004780	.009453
5.0	.10	-.779833	-.143233	-.030946	-.005738	.003396
5.0	.15	-.514562	-.175050	-.049528	-.015424	-.002365
5.0	.20	-.381919	-.182994	-.063686	-.023992	-.007739
5.0	.25	-.302327	-.178128	-.073507	-.031276	-.012639
5.0	.30	-.249261	-.167663	-.079573	-.037226	-.017009
5.0	.35	-.211353	-.155406	-.082657	-.041885	-.020818
5.0	.40	-.182917	-.143148	-.083522	-.045359	-.024064
5.0	.45	-.160797	-.131647	-.082821	-.047792	-.026765
5.0	.50	-.143098	-.121165	-.081065	-.049342	-.028951
5.0	.55	-.128613	-.111735	-.078636	-.050162	-.030666
5.0	.60	-.116540	-.103296	-.075807	-.050396	-.031958
5.0	.65	-.106321	-.095752	-.072769	-.050168	-.032878
5.0	.70	-.097559	-.088999	-.069652	-.049582	-.033474
5.0	.75	-.089963	-.082938	-.066542	-.048727	-.033793
5.0	.80	-.083313	-.077481	-.063495	-.047674	-.033878
5.0	.85	-.077444	-.072552	-.060546	-.046479	-.033768
5.0	.90	-.072224	-.068082	-.057715	-.045188	-.033497
5.0	.95	-.067551	-.064015	-.055013	-.043835	-.033095
5.0	1.00	-.063343	-.060301	-.052443	-.042448	-.032588

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.126377	.112664	.101089	.103401
.6	.05	-1.456748	.035156	.091471	.096203	.119299
.6	.10	-.658354	-.027421	.073510	.095369	.214501
.6	.15	-.389848	-.055476	.061128	.104951	.000000
.6	.20	-.253040	-.058343	.056993	.175948	.000000
.6	.25	-.167764	-.045969	.068665	.000000	.000000
.6	.30	-.106103	-.021997	.000000	.000000	.000000
.6	.35	-.051402	.058634	.000000	.000000	.000000
.8	.00		.096741	.089892	.081902	.075817
.8	.05	-1.490883	.004381	.066898	.072939	.072871
.8	.10	-.693740	-.059697	.046342	.064917	.071292
.8	.15	-.426893	-.089818	.029892	.058476	.072243
.8	.20	-.292386	-.095729	.018408	.054389	.078713
.8	.25	-.210542	-.088359	.012095	.053923	.104362
.8	.30	-.154671	-.074687	.010976	.060489	.000000
.8	.35	-.113112	-.058072	.015833	.095184	.000000
.8	.40	-.079577	-.039207	.032411	.000000	.000000
.8	.45	-.049230	-.014463	.000000	.000000	.000000
1.0	.00		.078156	.074359	.069324	.064352
1.0	.05	-1.511218	-.014684	.050740	.059386	.059522
1.0	.10	-.714604	-.079347	.029395	.050056	.055106
1.0	.15	-.448404	-.110195	.011920	.041769	.051343
1.0	.20	-.314709	-.117033	-.000950	.034882	.048523
1.0	.25	-.233909	-.110888	-.009249	.029678	.047054
1.0	.30	-.179437	-.098920	-.013470	.026404	.047671
1.0	.35	-.139861	-.084859	-.014245	.025396	.052158
1.0	.40	-.109401	-.070371	-.012080	.027402	.067561
1.0	.45	-.084735	-.055990	-.007079	.034897	.000000
1.0	.50	-.063662	-.041510	.001761	.065189	.000000
1.0	.55	-.044265	-.025676	.022092	.000000	.000000
1.0	.60	-.023125	.000393	.000000	.000000	.000000
1.2	.00		.065484	.063189	.059928	.056332
1.2	.05	-1.524716	-.027605	.039274	.049597	.050910
1.2	.10	-.728374	-.092557	.017578	.039785	.045736
1.2	.15	-.462494	-.123748	-.000320	.030895	.040968
1.2	.20	-.329177	-.130996	-.013711	.023233	.036755
1.2	.25	-.248834	-.125352	-.022665	.016994	.033240
1.2	.30	-.194924	-.114008	-.027738	.012272	.030564
1.2	.35	-.156057	-.100748	-.029669	.009084	.028897
1.2	.40	-.126520	-.087329	-.029171	.007424	.028496
1.2	.45	-.103114	-.074461	-.026817	.007317	.029870
1.2	.50	-.083882	-.062329	-.022985	.008939	.034333
1.2	.55	-.067520	-.050842	-.017807	.012907	.047138
1.2	.60	-.053052	-.039703	-.010998	.021607	.000000
1.2	.65	-.039566	-.028279	-.000986	.058680	.000000
1.2	.70	-.025701	-.014606	.029317	.000000	.000000
1.4	.00		.056315	.054831	.052632	.050049
1.4	.05	-1.534329	-.036920	.030751	.042099	.044360
1.4	.10	-.738146	-.102038	.008866	.032052	.038866
1.4	.15	-.472446	-.133418	-.009250	.022884	.033708
1.4	.20	-.339337	-.140885	-.022897	.014889	.029012
1.4	.25	-.259235	-.135496	-.032155	.008244	.024881
1.4	.30	-.205608	-.124454	-.037596	.003013	.021394
1.4	.35	-.167078	-.111556	-.039979	-.000827	.018613
1.4	.40	-.137949	-.098582	-.040052	-.003358	.016588
1.4	.45	-.115049	-.086272	-.038443	-.004685	.015376
1.4	.50	-.096462	-.074864	-.035633	-.004911	.015065
1.4	.55	-.080955	-.064359	-.031953	-.004098	.015832
1.4	.60	-.067681	-.054648	-.027601	-.002229	.018087
1.4	.65	-.056021	-.045557	-.022635	.000889	.022984
1.4	.70	-.045473	-.036850	-.016925	.005937	.035542
1.4	.75	-.035548	-.028161	-.009918	.015765	.000000
1.4	.80	-.025578	-.018704	.000828	.000000	.000000
1.4	.85	-.013770	-.004551	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	.00		.049383	.048370	.046830	.044946
1.6	.05	-1.541525	-.043945	.024189	.036179	.039111
1.6	.10	-.745442	-.109167	.002190	.025998	.033449
1.6	.15	-.479854	-.140663	-.016055	.016677	.028097
1.6	.20	-.346870	-.148261	-.029848	.008506	.023171
1.6	.25	-.266911	-.143020	-.039274	.001655	.018765
1.6	.30	-.213446	-.132148	-.044909	-.003819	.014946
1.6	.35	-.175104	-.119448	-.047521	-.007951	.011752
1.6	.40	-.146193	-.106704	-.047865	-.010838	.009204
1.6	.45	-.123550	-.094667	-.046584	-.012610	.007303
1.6	.50	-.105271	-.083588	-.044179	-.013409	.006048
1.6	.55	-.090139	-.073491	-.041015	-.013364	.005436
1.6	.60	-.077335	-.064295	-.037344	-.012582	.005488
1.6	.65	-.066283	-.055883	-.033323	-.011134	.006263
1.6	.70	-.056556	-.048118	-.029036	-.009038	.007916
1.6	.75	-.047820	-.040851	-.024491	-.006222	.010840
1.6	.80	-.039789	-.033913	-.019603	-.002428	.016206
1.6	.85	-.032177	-.027077	-.014116	.003176	.029976
1.6	.90	-.024615	-.019945	-.007232	.014773	.000000
1.6	.95	-.016356	-.011397	.005959	.000000	.000000
1.8	.00		.043961	.043241	.042126	.040723
1.8	.05	-1.547112	-.049430	.018993	.031399	.034799
1.8	.10	-.751097	-.114721	-.003080	.021134	.029037
1.8	.15	-.485583	-.146293	-.021408	.011719	.023571
1.8	.20	-.352682	-.153975	-.035294	.003441	.018517
1.8	.25	-.272814	-.148829	-.044823	-.003530	.013963
1.8	.30	-.219451	-.138062	-.050574	-.009140	.009971
1.8	.35	-.181223	-.125481	-.053318	-.013430	.006575
1.8	.40	-.152443	-.112873	-.053814	-.016501	.003785
1.8	.45	-.129949	-.100991	-.052710	-.018492	.001592
1.8	.50	-.111843	-.090093	-.050513	-.019552	-.000027
1.8	.55	-.096912	-.080207	-.047596	-.019828	-.001100
1.8	.60	-.084347	-.071265	-.044226	-.019448	-.001656
1.8	.65	-.073582	-.063160	-.040579	-.018520	-.001718
1.8	.70	-.064209	-.055777	-.036772	-.017127	-.001297
1.8	.75	-.055921	-.049001	-.032869	-.015323	-.000375
1.8	.80	-.048480	-.042720	-.028893	-.013125	.001111
1.8	.85	-.041687	-.036824	-.024830	-.010502	.003323
1.8	.90	-.035368	-.031192	-.020619	-.007332	.006682
1.8	.95	-.029344	-.025676	-.016113	-.003281	.012533
1.8	1.00	-.023394	-.020048	-.010961	.002755	.030126
2.0	.00		.039607	.039078	.038246	.037179
2.0	.05	-1.551577	-.053828	.014782	.027468	.031197
2.0	.10	-.755609	-.119168	-.007342	.017146	.025370
2.0	.15	-.490147	-.150793	-.025726	.007669	.019832
2.0	.20	-.357302	-.158533	-.039673	-.000677	.014698
2.0	.25	-.277496	-.153450	-.049271	-.007725	.010054
2.0	.30	-.224202	-.142754	-.055097	-.013421	.005960
2.0	.35	-.186050	-.130250	-.057926	-.017807	.002448
2.0	.40	-.157354	-.117728	-.058516	-.020988	-.000475
2.0	.45	-.134955	-.105944	-.057519	-.023103	-.002823
2.0	.50	-.116955	-.095156	-.055444	-.024308	-.004624
2.0	.55	-.102145	-.085396	-.052668	-.024751	-.005915
2.0	.60	-.089718	-.076598	-.049460	-.024571	-.006735
2.0	.65	-.079115	-.068662	-.046006	-.023883	-.007125
2.0	.70	-.069931	-.061477	-.042430	-.022786	-.007123
2.0	.75	-.061868	-.054939	-.038808	-.021354	-.006755
2.0	.80	-.054700	-.048951	-.035186	-.019643	-.006040
2.0	.85	-.048249	-.043422	-.031582	-.017686	-.004978
2.0	.90	-.042368	-.038269	-.027995	-.015495	-.003540
2.0	.95	-.036933	-.033410	-.024402	-.013049	-.001649
2.0	1.00	-.031831	-.028761	-.020755	-.010284	.000880

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00		.036035	.035635	.035000	.034173
2.2	.05	-1.555226	-.057433	.011305	.024185	.028149
2.2	.10	-.759293	-.122808	-.010856	.013823	.022277
2.2	.15	-.493868	-.154471	-.029281	.004302	.016691
2.2	.20	-.361064	-.162252	-.043271	-.004092	.011502
2.2	.25	-.281302	-.157214	-.052916	-.011192	.006799
2.2	.30	-.228056	-.146567	-.058795	-.016946	.002640
2.2	.35	-.189957	-.134117	-.061680	-.021395	-.000945
2.2	.40	-.161319	-.121654	-.062334	-.024646	-.003951
2.2	.45	-.138983	-.109936	-.061407	-.026840	-.006393
2.2	.50	-.121053	-.099220	-.059410	-.028134	-.008300
2.2	.55	-.106322	-.089541	-.056722	-.028678	-.009712
2.2	.60	-.093984	-.080834	-.053613	-.028613	-.010674
2.2	.65	-.083480	-.073000	-.050273	-.028058	-.011232
2.2	.70	-.074410	-.065934	-.046828	-.027117	-.011428
2.2	.75	-.066479	-.059532	-.043359	-.025871	-.011304
2.2	.80	-.059463	-.053703	-.039918	-.024384	-.010892
2.2	.85	-.053192	-.048363	-.036532	-.022705	-.010219
2.2	.90	-.047527	-.043438	-.033214	-.020866	-.009301
2.2	.95	-.042358	-.038862	-.029962	-.018888	-.008142
2.2	1.00	-.037591	-.034573	-.026765	-.016773	-.006729
2.6	.00		.030524	.030279	.029886	.029363
2.6	.05	-1.560835	-.062988	.005904	.019023	.023287
2.6	.10	-.764948	-.128410	-.016306	.008609	.017359
2.6	.15	-.499572	-.160123	-.034782	-.000968	.011712
2.6	.20	-.366821	-.167958	-.048829	-.009421	.006457
2.6	.25	-.287116	-.162978	-.058534	-.016586	.001683
2.6	.30	-.233932	-.152393	-.064478	-.022410	-.002554
2.6	.35	-.195899	-.140010	-.067434	-.026935	-.006224
2.6	.40	-.167332	-.127621	-.068164	-.030269	-.009323
2.6	.45	-.145074	-.115981	-.067321	-.032555	-.011868
2.6	.50	-.127230	-.105352	-.065415	-.033949	-.013889
2.6	.55	-.112592	-.095768	-.062828	-.034604	-.015428
2.6	.60	-.100356	-.087165	-.059831	-.034662	-.016533
2.6	.65	-.089965	-.079447	-.056614	-.034246	-.017252
2.6	.70	-.081020	-.072509	-.053307	-.033460	-.017633
2.6	.75	-.073229	-.066251	-.049993	-.032391	-.017721
2.6	.80	-.066371	-.060584	-.046729	-.031107	-.017557
2.6	.85	-.060279	-.055429	-.043545	-.029664	-.017176
2.6	.90	-.054819	-.050716	-.040462	-.028103	-.016609
2.6	.95	-.049886	-.046386	-.037485	-.026456	-.015883
2.6	1.00	-.045397	-.042387	-.034617	-.024747	-.015017
3.0	.00		.026472	.026312	.026052	.025702
3.0	.05	-1.564943	-.067068	.001908	.015159	.019595
3.0	.10	-.769084	-.132518	-.020431	.004715	.013634
3.0	.15	-.503739	-.164262	-.038839	-.004895	.007952
3.0	.20	-.371020	-.172129	-.052919	-.013383	.002660
3.0	.25	-.291350	-.167184	-.062660	-.020585	-.002154
3.0	.30	-.238201	-.156635	-.068641	-.026449	-.006434
3.0	.35	-.200207	-.144292	-.071638	-.031017	-.010150
3.0	.40	-.171682	-.131944	-.072411	-.034397	-.013299
3.0	.45	-.149468	-.120349	-.071614	-.036732	-.015896
3.0	.50	-.131671	-.109768	-.069759	-.038178	-.017975
3.0	.55	-.117084	-.100235	-.067225	-.038891	-.019578
3.0	.60	-.104903	-.091688	-.064286	-.039011	-.020751
3.0	.65	-.094571	-.084031	-.061132	-.038663	-.021545
3.0	.70	-.085691	-.077158	-.057893	-.037951	-.022008
3.0	.75	-.077970	-.070971	-.054654	-.036963	-.022187
3.0	.80	-.071189	-.065382	-.051472	-.035768	-.022123
3.0	.85	-.065180	-.060312	-.048379	-.034424	-.021855
3.0	.90	-.059812	-.055694	-.045395	-.032973	-.021415
3.0	.95	-.054983	-.051469	-.042530	-.031451	-.020832
3.0	1.00	-.050608	-.047587	-.039787	-.029882	-.020130

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.022702	.022601	.022436	.022211
3.5	.05	-1.568754	-.070859	-.061824	.011520	.016080
3.5	.10	-.772918	-.136332	-.024087	.001052	.010094
3.5	.15	-.507597	-.168100	-.042620	-.008583	.004385
3.5	.20	-.374903	-.175993	-.056725	-.017099	-.000935
3.5	.25	-.295258	-.171073	-.066493	-.024328	-.005779
3.5	.30	-.242138	-.160553	-.072503	-.030222	-.010090
3.5	.35	-.204173	-.148239	-.075530	-.034821	-.013839
3.5	.40	-.175678	-.135922	-.076335	-.038234	-.017023
3.5	.45	-.153497	-.124360	-.075572	-.040604	-.019658
3.5	.50	-.135735	-.113814	-.073752	-.042088	-.021777
3.5	.55	-.121184	-.104316	-.071256	-.042841	-.023421
3.5	.60	-.109043	-.095811	-.068358	-.043004	-.024640
3.5	.65	-.098753	-.088195	-.065247	-.042701	-.025483
3.5	.70	-.089917	-.081368	-.062055	-.042038	-.025998
3.5	.75	-.082243	-.075239	-.058866	-.041102	-.026234
3.5	.80	-.075513	-.069692	-.055736	-.039964	-.026231
3.5	.85	-.069559	-.064677	-.052701	-.038681	-.026029
3.5	.90	-.064251	-.060119	-.049780	-.037296	-.025661
3.5	.95	-.059485	-.055958	-.046982	-.035846	-.025157
3.5	1.00	-.055180	-.052147	-.044312	-.034356	-.024542
4.0	.00		.019872	.019804	.019692	.019539
4.0	.05	-1.571610	-.073704	-.060436	.008762	.013393
4.0	.10	-.775789	-.139141	-.026914	-.001722	.007391
4.0	.15	-.510483	-.170975	-.045462	-.011373	.001666
4.0	.20	-.377804	-.178883	-.059584	-.019905	-.003671
4.0	.25	-.298177	-.173981	-.069368	-.027152	-.008533
4.0	.30	-.245073	-.163476	-.075196	-.033063	-.012863
4.0	.35	-.207126	-.151182	-.078441	-.037682	-.016632
4.0	.40	-.178651	-.138884	-.079266	-.041115	-.019837
4.0	.45	-.156490	-.127342	-.078524	-.043506	-.022494
4.0	.50	-.138748	-.116617	-.076725	-.045012	-.024635
4.0	.55	-.124220	-.107344	-.074251	-.045788	-.026304
4.0	.60	-.112101	-.098659	-.071377	-.045975	-.027549
4.0	.65	-.101835	-.091268	-.068291	-.045698	-.028418
4.0	.70	-.093025	-.084466	-.065125	-.045062	-.028963
4.0	.75	-.085379	-.078355	-.061964	-.044156	-.029228
4.0	.80	-.078677	-.072846	-.058864	-.043048	-.029258
4.0	.85	-.072753	-.067862	-.055860	-.041798	-.029091
4.0	.90	-.067477	-.063336	-.052972	-.040448	-.028760
4.0	.95	-.062746	-.059211	-.050210	-.039035	-.028295
4.0	1.00	-.058477	-.055436	-.047578	-.037584	-.027722
5.0	.00		.015904	.015869	.015811	.015732
5.0	.05	-1.575605	-.077688	-.060587	.004864	.009568
5.0	.10	-.779801	-.143193	-.030883	-.005637	.003549
5.0	.15	-.514512	-.174993	-.049448	-.015306	-.002195
5.0	.20	-.381852	-.182920	-.063589	-.023857	-.007552
5.0	.25	-.302244	-.178037	-.073392	-.031123	-.012434
5.0	.30	-.249160	-.167553	-.079440	-.037055	-.016784
5.0	.35	-.211233	-.155278	-.082506	-.041895	-.020575
5.0	.40	-.182779	-.143002	-.083352	-.045150	-.023802
5.0	.45	-.160640	-.131482	-.082632	-.047564	-.026483
5.0	.50	-.142921	-.120980	-.080856	-.049093	-.028649
5.0	.55	-.128416	-.111530	-.078407	-.049894	-.030343
5.0	.60	-.116322	-.103071	-.075558	-.050107	-.031614
5.0	.65	-.106082	-.095505	-.072499	-.049857	-.032512
5.0	.70	-.097299	-.088730	-.069360	-.049249	-.033085
5.0	.75	-.089681	-.082648	-.066227	-.048372	-.033381
5.0	.80	-.083009	-.077168	-.063158	-.047296	-.033443
5.0	.85	-.077116	-.072216	-.060185	-.046077	-.033309
5.0	.90	-.071872	-.067722	-.057330	-.044761	-.033013
5.0	.95	-.067175	-.063650	-.054603	-.043384	-.032586
5.0	1.00	-.062942	-.059892	-.052007	-.041971	-.032052

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.132319	.135163	.162536	.000000
.6	.05	-1.455057	.043321	.119130	.191025	.000000
.6	.10	-.654602	-.016388	.109324	.385133	.000000
.6	.15	-.383479	-.040469	.112707	.000000	.000000
.6	.20	-.243113	-.037116	.159533	.000000	.000000
.6	.25	-.152379	-.012127	.000000	.000000	.000000
.6	.30	-.079577	.092790	.000000	.000000	.000000
.8	.00		.099289	.099571	.103401	.121902
.8	.05	-1.489954	.008009	.078272	.098202	.135104
.8	.10	-.691741	-.054797	.059853	.095677	.173915
.8	.15	-.423635	-.083380	.046238	.098270	.000000
.8	.20	-.287610	-.087357	.038802	.112709	.000000
.8	.25	-.203857	-.077414	.039029	.183261	.000000
.8	.30	-.145439	-.059989	.051348	.000000	.000000
.8	.35	-.100119	-.036834	.116368	.000000	.000000
.8	.40	-.059683	.000870	.000000	.000000	.000000
1.0	.00		.079472	.079420	.080303	.084173
1.0	.05	-1.510631	-.012723	.056657	.071750	.082218
1.0	.10	-.713362	-.076658	.036310	.064132	.081774
1.0	.15	-.446423	-.106673	.020025	.058044	.083955
1.0	.20	-.311879	-.112540	.008614	.054132	.091251
1.0	.25	-.230088	-.105235	.002178	.053272	.111950
1.0	.30	-.174426	-.091834	.000474	.057188	.230462
1.0	.35	-.133372	-.075918	.003414	.071324	.000000
1.0	.40	-.100972	-.058841	.011995	.142944	.000000
1.0	.45	-.073532	-.040331	.032848	.000000	.000000
1.0	.50	-.047746	-.016842	.000000	.000000	.000000
1.0	.55	-.013650	.000000	.000000	.000000	.000000
1.2	.00		.066250	.066160	.066381	.067582
1.2	.05	-1.524312	-.026409	.042769	.056776	.063324
1.2	.10	-.727528	-.090887	.021660	.047803	.059565
1.2	.15	-.461160	-.121550	.004429	.039902	.056568
1.2	.20	-.327301	-.128207	-.008194	.033433	.054662
1.2	.25	-.246348	-.121889	-.016246	.028676	.054315
1.2	.30	-.191740	-.109765	-.020234	.025868	.056353
1.2	.35	-.152061	-.095583	-.020816	.025304	.062674
1.2	.40	-.121557	-.081042	-.018558	.027560	.079766
1.2	.45	-.096959	-.066749	-.013746	.034232	.179909
1.2	.50	-.076190	-.052690	-.006063	.051955	.000000
1.2	.55	-.057686	-.038310	.006692	.000000	.000000
1.2	.60	-.039789	-.021744	.046395	.000000	.000000
1.2	.65	-.018279	.023745	.000000	.000000	.000000
1.4	.00		.056799	.056720	.056756	.057187
1.4	.05	-1.534035	-.036127	.032997	.046675	.052131
1.4	.10	-.737533	-.100910	.011503	.037133	.047364
1.4	.15	-.471488	-.131925	-.006183	.028534	.043054
1.4	.20	-.338001	-.138992	-.019349	.021190	.039364
1.4	.25	-.257484	-.133159	-.028066	.015300	.036458
1.4	.30	-.203396	-.121621	-.032888	.010963	.034507
1.4	.35	-.164348	-.108161	-.034553	.008209	.033735
1.4	.40	-.134631	-.094541	-.033774	.007041	.034491
1.4	.45	-.111048	-.081472	-.031125	.007503	.037476
1.4	.50	-.091653	-.069150	-.026993	.009788	.044495
1.4	.55	-.075160	-.057504	-.021537	.014516	.062782
1.4	.60	-.060630	-.046289	-.014574	.023798	.000000
1.4	.65	-.047262	-.035034	-.005085	.050682	.000000
1.4	.70	-.034105	-.022646	.012504	.000000	.000000
1.4	.75	-.018947	-.003261	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	.00		.049707	.049645	.049625	.049786
1.6	.05	-1.541300	-.043568	.025723	.039285	.044352
1.6	.10	-.744977	-.108360	.004005	.029444	.039136
1.6	.15	-.479131	-.139588	-.013937	.020497	.034284
1.6	.20	-.345870	-.146895	-.027399	.012740	.029927
1.6	.25	-.265610	-.141339	-.036460	.006353	.026175
1.6	.30	-.211818	-.130121	-.041690	.001405	.023119
1.6	.35	-.173115	-.117039	-.043848	-.002123	.020836
1.6	.40	-.143805	-.103870	-.043679	-.004305	.019401
1.6	.45	-.120715	-.091353	-.041806	-.005236	.018909
1.6	.50	-.101928	-.079726	-.038707	-.005002	.019515
1.6	.55	-.086212	-.068989	-.034707	-.003639	.021529
1.6	.60	-.072720	-.059030	-.029995	-.001085	.025674
1.6	.65	-.060834	-.049677	-.024615	.002947	.034092
1.6	.70	-.050060	-.040695	-.018417	.009370	.058184
1.6	.75	-.039927	-.031738	-.010828	.021925	.000000
1.6	.80	-.029842	-.022115	.000435	.000000	.000000
1.6	.85	-.018513	-.009283	.000000	.000000	.000000
1.8	.00		.044189	.044141	.044106	.044160
1.8	.05	-1.545935	-.049020	.020090	.033609	.038515
1.8	.10	-.750732	-.114117	-.001771	.023589	.033057
1.8	.15	-.485019	-.145484	-.019872	.014440	.027925
1.8	.20	-.351905	-.152946	-.033514	.006452	.023239
1.8	.25	-.271809	-.147562	-.042779	-.000202	.019095
1.8	.30	-.218201	-.136541	-.048242	-.005463	.015565
1.8	.35	-.179707	-.123682	-.050671	-.009363	.012694
1.8	.40	-.150638	-.110771	-.050820	-.011997	.010510
1.8	.45	-.127826	-.098556	-.049328	-.013490	.009028
1.8	.50	-.109369	-.087287	-.046694	-.013974	.008263
1.8	.55	-.094046	-.076984	-.043277	-.013571	.008244
1.8	.60	-.081038	-.067567	-.039525	-.012372	.009037
1.8	.65	-.069764	-.058913	-.034987	-.010423	.010793
1.8	.70	-.059796	-.050879	-.030332	-.007699	.013856
1.8	.75	-.050793	-.043510	-.025345	-.004042	.019127
1.8	.80	-.042462	-.036021	-.019898	.001020	.029800
1.8	.85	-.034504	-.028761	-.013627	.009057	.083037
1.8	.90	-.026526	-.021072	-.005374	.030930	.000000
1.8	.95	-.017714	-.011600	.013839	.000000	.000000
2.0	.00		.039773	.039736	.039700	.039710
2.0	.05	-1.551434	-.053516	.015597	.029098	.033934
2.0	.10	-.755316	-.118701	-.000362	.018963	.028328
2.0	.15	-.489694	-.150163	-.024570	.009686	.023030
2.0	.20	-.356681	-.157730	-.038329	.001555	.018155
2.0	.25	-.276996	-.152462	-.047726	-.005261	.013795
2.0	.30	-.223211	-.141569	-.053337	-.010706	.010013
2.0	.35	-.184855	-.128854	-.055932	-.014818	.006846
2.0	.40	-.155939	-.116105	-.056270	-.017697	.004307
2.0	.45	-.133302	-.104075	-.054997	-.019480	.002393
2.0	.50	-.115044	-.093018	-.052617	-.020312	.001089
2.0	.55	-.099951	-.082962	-.049504	-.020334	.000375
2.0	.60	-.087213	-.073836	-.045917	-.019671	.000237
2.0	.65	-.076262	-.065533	-.042033	-.018420	.000672
2.0	.70	-.066686	-.057933	-.037959	-.016652	.001707
2.0	.75	-.058176	-.050916	-.033752	-.014399	.003420
2.0	.80	-.050486	-.044364	-.029421	-.011643	.005997
2.0	.85	-.043413	-.038155	-.024928	-.008282	.009893
2.0	.90	-.036766	-.032150	-.020166	-.004037	.016424
2.0	.95	-.030344	-.026165	-.014886	.001889	.032147
2.0	1.00	-.023873	-.019882	-.008421	.013036	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00		.036160	.036130	.036098	.036089
2.2	.05	-1.555109	-.057188	.011928	.025423	.030225
2.2	.10	-.759052	-.122437	-.010100	.015208	.024523
2.2	.15	-.493497	-.153967	-.028383	.005844	.019117
2.2	.20	-.360556	-.161609	-.042225	-.002383	.014123
2.2	.25	-.280650	-.156423	-.051711	-.009305	.009629
2.2	.30	-.227252	-.145619	-.057421	-.014869	.005695
2.2	.35	-.188990	-.133003	-.060127	-.019113	.002356
2.2	.40	-.160179	-.120363	-.060588	-.022143	-.000382
2.2	.45	-.137659	-.108454	-.059453	-.024097	-.002527
2.2	.50	-.119531	-.097534	-.057231	-.025127	-.004106
2.2	.55	-.104585	-.087633	-.054297	-.025381	-.005150
2.2	.60	-.092015	-.078684	-.050920	-.024992	-.005695
2.2	.65	-.081256	-.070586	-.047282	-.024075	-.005773
2.2	.70	-.071906	-.063227	-.043503	-.022721	-.005409
2.2	.75	-.063664	-.056500	-.039658	-.020998	-.004615
2.2	.80	-.056299	-.050302	-.035786	-.018949	-.003383
2.2	.85	-.049629	-.044539	-.031896	-.016590	-.001666
2.2	.90	-.043503	-.039121	-.027974	-.013904	.000646
2.2	.95	-.037787	-.033954	-.023976	-.010817	.003810
2.2	1.00	-.032353	-.028934	-.019813	-.007149	.008489
2.6	.00		.030600	.030581	.030556	.030538
2.6	.05	-1.560751	-.062827	.006294	.019788	.024566
2.6	.10	-.764776	-.128160	-.015824	.009474	.018748
2.6	.15	-.499310	-.159781	-.034203	.000001	.013215
2.6	.20	-.366464	-.167519	-.048149	-.008344	.008083
2.6	.25	-.286659	-.162438	-.057748	-.015393	.003437
2.6	.30	-.233371	-.151747	-.063580	-.021096	-.000664
2.6	.35	-.195228	-.139253	-.066419	-.025494	-.004190
2.6	.40	-.166547	-.126747	-.067026	-.028692	-.007135
2.6	.45	-.144168	-.114983	-.066051	-.030833	-.009514
2.6	.50	-.126195	-.104224	-.064007	-.032073	-.011357
2.6	.55	-.111421	-.094500	-.061271	-.032563	-.012705
2.6	.60	-.099041	-.085750	-.058115	-.032444	-.013601
2.6	.65	-.088495	-.077874	-.054728	-.031836	-.014093
2.6	.70	-.079385	-.070766	-.051237	-.030841	-.014223
2.6	.75	-.071416	-.064325	-.047725	-.029543	-.014033
2.6	.80	-.064365	-.058459	-.044243	-.028007	-.013558
2.6	.85	-.058062	-.053087	-.040821	-.026283	-.012824
2.6	.90	-.052371	-.048135	-.037472	-.024406	-.011853
2.6	.95	-.047184	-.043540	-.034198	-.022399	-.010654
2.6	1.00	-.042410	-.039243	-.030991	-.020273	-.009225
3.0	.00		.026521	.026508	.026491	.026473
3.0	.05	-1.564880	-.066955	.002171	.015667	.020440
3.0	.10	-.768956	-.132339	-.020001	.005294	.014556
3.0	.15	-.503544	-.164015	-.038439	-.004241	.008954
3.0	.20	-.370755	-.171811	-.052445	-.012652	.003746
3.0	.25	-.291011	-.166792	-.062110	-.019773	-.000980
3.0	.30	-.237787	-.156167	-.068012	-.025553	-.005169
3.0	.35	-.199714	-.143744	-.070925	-.030033	-.008788
3.0	.40	-.171107	-.131313	-.071613	-.033320	-.011835
3.0	.45	-.148808	-.119631	-.070725	-.035558	-.014326
3.0	.50	-.130920	-.108959	-.068774	-.036902	-.016292
3.0	.55	-.116239	-.099331	-.066140	-.037507	-.017775
3.0	.60	-.103960	-.090683	-.063096	-.037513	-.018821
3.0	.65	-.093524	-.082920	-.059831	-.037044	-.019479
3.0	.70	-.084533	-.075935	-.056474	-.036204	-.019797
3.0	.75	-.076696	-.069630	-.053110	-.035078	-.019820
3.0	.80	-.069791	-.063915	-.049794	-.033737	-.019587
3.0	.85	-.063651	-.058710	-.046558	-.032234	-.019136
3.0	.90	-.058142	-.053948	-.043420	-.030611	-.018496
3.0	.95	-.053161	-.049568	-.040389	-.028902	-.017693
3.0	1.00	-.048623	-.045518	-.037465	-.027128	-.016747

TABLE II. - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.022733	.022725	.022713	.022699
3.5	.05	-1.568708	-.070781	-.001653	.011847	.016621
3.5	.10	-.772824	-.136206	-.023867	.001429	.010688
3.5	.15	-.507454	-.167925	-.042349	-.008153	.005035
3.5	.20	-.374710	-.175767	-.056402	-.016614	-.000227
3.5	.25	-.295013	-.170795	-.066116	-.023788	-.005012
3.5	.30	-.241839	-.160220	-.072070	-.029623	-.009261
3.5	.35	-.203818	-.147850	-.075039	-.034162	-.012946
3.5	.40	-.175266	-.135475	-.075785	-.037512	-.016063
3.5	.45	-.153025	-.123853	-.074960	-.039817	-.018628
3.5	.50	-.135200	-.113244	-.073075	-.041233	-.020674
3.5	.55	-.120586	-.103683	-.070512	-.041915	-.022243
3.5	.60	-.108377	-.095108	-.067544	-.042004	-.023382
3.5	.65	-.098017	-.087422	-.064360	-.041624	-.024141
3.5	.70	-.089108	-.080520	-.061091	-.040880	-.024569
3.5	.75	-.081358	-.074305	-.057822	-.039859	-.024712
3.5	.80	-.074549	-.068686	-.054609	-.038632	-.024611
3.5	.85	-.068511	-.063587	-.051485	-.037254	-.024306
3.5	.90	-.063114	-.058939	-.048471	-.035770	-.023828
3.5	.95	-.058256	-.054684	-.045575	-.034214	-.023207
3.5	1.00	-.053852	-.050773	-.042800	-.032611	-.022466
4.0	.00		.019892	.019887	.019878	.019868
4.0	.05	-1.571574	-.073647	-.004517	.008985	.013761
4.0	.10	-.775717	-.139099	-.026758	-.001460	.007798
4.0	.15	-.510374	-.170845	-.045268	-.011072	.002114
4.0	.20	-.377658	-.178715	-.059350	-.019564	-.003181
4.0	.25	-.297991	-.173773	-.069095	-.026769	-.008000
4.0	.30	-.244847	-.163229	-.075081	-.032638	-.012285
4.0	.35	-.206858	-.150891	-.078084	-.037213	-.016008
4.0	.40	-.178341	-.138551	-.078865	-.040600	-.019165
4.0	.45	-.156135	-.126965	-.078077	-.042944	-.021772
4.0	.50	-.138348	-.116394	-.076231	-.044402	-.023863
4.0	.55	-.123773	-.106873	-.073709	-.045127	-.025479
4.0	.60	-.111606	-.098340	-.070785	-.045262	-.026668
4.0	.65	-.101290	-.090698	-.067647	-.044932	-.027481
4.0	.70	-.092427	-.083844	-.064427	-.044240	-.027966
4.0	.75	-.084727	-.077678	-.061210	-.043275	-.028170
4.0	.80	-.077970	-.072113	-.058053	-.042107	-.028135
4.0	.85	-.071988	-.067070	-.054988	-.040793	-.027900
4.0	.90	-.066651	-.062483	-.052037	-.039377	-.027498
4.0	.95	-.061857	-.058294	-.049210	-.037895	-.026960
4.0	1.00	-.057522	-.054452	-.046509	-.036372	-.026309
5.0	.00		.015914	.015912	.015907	.015901
5.0	.05	-1.575582	-.077655	-.008522	.004983	.009762
5.0	.10	-.779755	-.143136	-.030794	-.005494	.003766
5.0	.15	-.514443	-.174914	-.049336	-.015139	-.001953
5.0	.20	-.381760	-.182816	-.063452	-.023665	-.007284
5.0	.25	-.302126	-.177908	-.073231	-.030906	-.012140
5.0	.30	-.249017	-.167400	-.079253	-.036812	-.016464
5.0	.35	-.211065	-.155099	-.082293	-.041425	-.020227
5.0	.40	-.182585	-.142796	-.083112	-.044853	-.023426
5.0	.45	-.160419	-.131249	-.082365	-.047239	-.026078
5.0	.50	-.142672	-.120720	-.080561	-.048740	-.028214
5.0	.55	-.128140	-.111241	-.078083	-.049511	-.029879
5.0	.60	-.116017	-.102753	-.075205	-.049694	-.031119
5.0	.65	-.105748	-.095158	-.072115	-.049413	-.031984
5.0	.70	-.096934	-.088353	-.068946	-.048774	-.032525
5.0	.75	-.089285	-.082239	-.065782	-.047864	-.032787
5.0	.80	-.082581	-.076728	-.062679	-.046754	-.032814
5.0	.85	-.076655	-.071742	-.059673	-.045501	-.032644
5.0	.90	-.071377	-.067214	-.056783	-.044150	-.032312
5.0	.95	-.066645	-.063087	-.054021	-.042736	-.031846
5.0	1.00	-.062376	-.059312	-.051388	-.041285	-.031273

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.140674	.177941	.000000	.000000
.6	.05	-1.452879	.055082	.176688	.000000	.000000
.6	.10	-.649747	.000000	.198599	.000000	.000000
.6	.15	-.375132	-.017014	.354577	.000000	.000000
.6	.20	-.229720	.000000	.000000	.000000	.000000
.6	.25	-.129949	.082346	.000000	.000000	.000000
.8	.00		.102734	.114860	.150387	.000000
.8	.05	-1.488758	.012983	.096787	.159533	.000000
.8	.10	-.689161	-.047987	.082750	.186260	.000000
.8	.15	-.419410	-.074272	.075656	.296465	.000000
.8	.20	-.281349	-.075194	.079577	.000000	.000000
.8	.25	-.194924	-.060760	.107482	.000000	.000000
.8	.30	-.132629	-.035342	.000000	.000000	.000000
.8	.35	-.080385	.012243	.000000	.000000	.000000
1.0	.00		.081218	.086826	.099472	.132629
1.0	.05	-1.509876	-.010095	.065466	.094101	.144526
1.0	.10	-.711763	-.073025	.046810	.090786	.171398
1.0	.15	-.443862	-.101871	.032636	.090983	.262351
1.0	.20	-.308202	-.106340	.023994	.097462	.000000
1.0	.25	-.225079	-.097299	.021468	.118295	.000000
1.0	.30	-.167764	-.081618	.025990	.212207	.000000
1.0	.35	-.124533	-.062426	.041407	.000000	.000000
1.0	.40	-.088970	-.039789	.099472	.000000	.000000
1.0	.45	-.055921	-.006698	.000000	.000000	.000000
1.2	.00		.067255	.070337	.076573	.088970
1.2	.05	-1.523793	-.024825	.047742	.068335	.087866
1.2	.10	-.726440	-.088663	.027541	.061013	.088344
1.2	.15	-.459441	-.118609	.011365	.055166	.091447
1.2	.20	-.324874	-.124448	.000000	.051367	.099300
1.2	.25	-.243113	-.117180	-.006506	.050294	.117783
1.2	.30	-.187566	-.103925	-.008507	.053052	.177288
1.2	.35	-.146763	-.088344	-.006370	.062281	.000000
1.2	.40	-.114860	-.071981	.000000	.088354	.000000
1.2	.45	-.088419	-.055110	.012272	.000000	.000000
1.2	.50	-.064975	-.036815	.041173	.000000	.000000
1.2	.55	-.041767	-.012322	.000000	.000000	.000000
1.4	.00		.057430	.059314	.062912	.069263
1.4	.05	-1.533655	-.035086	.036108	.053595	.065561
1.4	.10	-.736744	-.099423	.015187	.044928	.062426
1.4	.15	-.470253	-.129949	-.001856	.037347	.060142
1.4	.20	-.336276	-.136474	-.014293	.031213	.059065
1.4	.25	-.255216	-.130034	-.022165	.026803	.059703
1.4	.30	-.200516	-.117805	-.025990	.024342	.062937
1.4	.35	-.160771	-.103544	-.026441	.024088	.070698
1.4	.40	-.130239	-.088970	-.024125	.026506	.088970
1.4	.45	-.105681	-.074727	-.019418	.032754	.160027
1.4	.50	-.085072	-.060885	-.012275	.046673	.000000
1.4	.55	-.066977	-.047114	-.001687	.095623	.000000
1.4	.60	-.050129	-.032487	.017671	.000000	.000000
1.4	.65	-.032720	-.013602	.000000	.000000	.000000
1.6	.00		.050129	.051367	.053651	.057430
1.6	.05	-1.541011	-.042659	.027812	.043804	.052748
1.6	.10	-.744379	-.107302	.006491	.034509	.048393
1.6	.15	-.478201	-.138174	-.011014	.026175	.044543
1.6	.20	-.344581	-.145095	-.023994	.019114	.041375
1.6	.25	-.263929	-.139114	-.032516	.013531	.039069
1.6	.30	-.209705	-.127426	-.037136	.009528	.037828
1.6	.35	-.170523	-.113817	-.038592	.007142	.037922
1.6	.40	-.140674	-.100048	-.037597	.006382	.039789
1.6	.45	-.116968	-.086856	-.034728	.007303	.044308
1.6	.50	-.097462	-.074383	-.030380	.010105	.053741
1.6	.55	-.080882	-.062631	-.024734	.015392	.077045
1.6	.60	-.066315	-.051367	-.017671	.025065	.000000
1.6	.65	-.053012	-.040205	-.008453	.048439	.000000
1.6	.70	-.040193	-.028375	.006121	.000000	.000000
1.6	.75	-.026526	-.013345	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.8	.00		.044485	.045343	.046891	.049352
1.8	.05	-1.546708	-.048485	.021567	.036739	.044188
1.8	.10	-.750264	-.113329	.000000	.027097	.039264
1.8	.15	-.484293	-.144425	-.017784	.018361	.034731
1.8	.20	-.350904	-.151595	-.031080	.010829	.030726
1.8	.25	-.270511	-.145897	-.039968	.004685	.027367
1.8	.30	-.216582	-.134533	-.045016	.000000	.024757
1.8	.35	-.177739	-.121298	-.046981	-.003239	.022990
1.8	.40	-.148284	-.107971	-.046605	-.005101	.022166
1.8	.45	-.125044	-.095289	-.044511	-.005671	.022422
1.8	.50	-.106103	-.083489	-.041173	-.005021	.023992
1.8	.55	-.090228	-.072572	-.035912	-.003165	.027343
1.8	.60	-.076573	-.062426	-.031910	.000000	.033591
1.8	.65	-.064525	-.052878	-.026204	.004344	.046268
1.8	.70	-.053590	-.043899	-.019632	.012483	.089633
1.8	.75	-.043316	-.034556	-.011614	.027449	.000000
1.8	.80	-.033157	-.024825	.000000	.000000	.000000
1.8	.85	-.022067	-.012552	.047821	.000000	.000000
2.0	.00		.039989	.040609	.041710	.043413
2.0	.05	-1.551251	-.053109	.016684	.031365	.037973
2.0	.10	-.754938	-.118093	-.005048	.021507	.032733
2.0	.15	-.489112	-.149341	-.023013	.012529	.027836
2.0	.20	-.355881	-.156680	-.036513	.004722	.023405
2.0	.25	-.275664	-.151170	-.045629	-.001739	.019540
2.0	.30	-.221931	-.140015	-.050936	-.006793	.016318
2.0	.35	-.183307	-.127018	-.053198	-.010469	.013791
2.0	.40	-.154101	-.113961	-.053170	-.012857	.011997
2.0	.45	-.131147	-.101193	-.051489	-.014080	.010965
2.0	.50	-.112540	-.090162	-.048649	-.014262	.010734
2.0	.55	-.097059	-.079686	-.045009	-.013513	.011367
2.0	.60	-.083882	-.070084	-.040809	-.011910	.012995
2.0	.65	-.072429	-.061229	-.036191	-.009474	.015894
2.0	.70	-.062266	-.052975	-.031213	-.006129	.020703
2.0	.75	-.053052	-.045159	-.025838	-.001617	.029228
2.0	.80	-.044485	-.037587	-.019894	.004799	.049756
2.0	.85	-.036259	-.029984	-.012914	.015756	.000000
2.0	.90	-.027961	-.021845	-.003349	.061213	.000000
2.0	.95	-.018731	-.011609	.024341	.000000	.000000
2.2	.00		.036322	.036785	.037597	.038830
2.2	.05	-1.554957	-.056870	.012754	.027122	.033215
2.2	.10	-.758741	-.121954	-.009093	.017121	.027780
2.2	.15	-.493020	-.153312	-.027185	.007983	.022664
2.2	.20	-.359903	-.160771	-.040822	.000000	.017983
2.2	.25	-.279810	-.155391	-.050092	-.006659	.013833
2.2	.30	-.226213	-.144381	-.055569	-.011938	.010278
2.2	.35	-.187740	-.131544	-.058023	-.015871	.007359
2.2	.40	-.158702	-.118066	-.058211	-.018558	.005094
2.2	.45	-.135937	-.106500	-.056779	-.020132	.003487
2.2	.50	-.117544	-.095300	-.054229	-.020735	.002529
2.2	.55	-.102309	-.085092	-.050931	-.020504	.002215
2.2	.60	-.089419	-.075804	-.047144	-.019555	.002549
2.2	.65	-.078304	-.067325	-.043038	-.017978	.003559
2.2	.70	-.068553	-.059532	-.038715	-.015825	.005323
2.2	.75	-.059850	-.052303	-.034222	-.013103	.008022
2.2	.80	-.051947	-.045512	-.029554	-.009746	.012063
2.2	.85	-.044632	-.039025	-.024647	-.005555	.018515
2.2	.90	-.037702	-.032687	-.019337	.000000	.031367
2.2	.95	-.030933	-.026271	-.013240	.008631	.129503
2.2	1.00	-.023994	-.019357	-.005186	.033100	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00		.030698	.030975	.031456	.032167
2.6	.05	-1.560643	-.062619	.006807	.020819	.026350
2.6	.10	-.764556	-.127836	-.015187	.010643	.020694
2.6	.15	-.498972	-.159337	-.033438	.001316	.015334
2.6	.20	-.366003	-.166950	-.047248	-.006874	.010384
2.6	.25	-.286071	-.161737	-.056704	-.013761	.005934
2.6	.30	-.232647	-.150907	-.062386	-.019292	.002042
2.6	.35	-.194362	-.138267	-.065065	-.023505	-.001258
2.6	.40	-.165531	-.125606	-.065503	-.026506	-.003959
2.6	.45	-.142993	-.113679	-.064348	-.028435	-.006073
2.6	.50	-.124851	-.102744	-.062109	-.029446	-.007625
2.6	.55	-.109897	-.092834	-.059165	-.029686	-.008651
2.6	.60	-.097323	-.083882	-.055784	-.029293	-.009189
2.6	.65	-.086569	-.075788	-.052150	-.028382	-.009276
2.6	.70	-.077232	-.068443	-.048388	-.027049	-.008944
2.6	.75	-.069014	-.061742	-.044575	-.025369	-.008217
2.6	.80	-.061690	-.055587	-.040755	-.023395	-.007105
2.6	.85	-.055082	-.049891	-.036949	-.021158	-.005599
2.6	.90	-.049046	-.044572	-.033156	-.018670	-.003659
2.6	.95	-.043464	-.039553	-.029356	-.015910	-.001187
2.6	1.00	-.038228	-.034755	-.025511	-.012820	.002024
3.0	.00		.026585	.026765	.027073	.027522
3.0	.05	-1.564799	-.066808	.002514	.016343	.021595
3.0	.10	-.768791	-.132108	-.019569	.006068	.015822
3.0	.15	-.503292	-.163695	-.037913	-.003365	.010335
3.0	.20	-.370413	-.171400	-.051822	-.011670	.005248
3.0	.25	-.290576	-.166285	-.061385	-.018679	.000649
3.0	.30	-.237254	-.155560	-.067182	-.024342	-.003405
3.0	.35	-.199079	-.143033	-.069984	-.028699	-.006883
3.0	.40	-.170365	-.130493	-.070555	-.031856	-.009779
3.0	.45	-.147954	-.118697	-.069545	-.033957	-.012109
3.0	.50	-.129949	-.107905	-.067465	-.035156	-.013903
3.0	.55	-.115145	-.098149	-.064694	-.035606	-.015202
3.0	.60	-.102734	-.089368	-.061505	-.035447	-.016049
3.0	.65	-.092160	-.081462	-.058085	-.034799	-.016491
3.0	.70	-.083022	-.074325	-.054562	-.033767	-.016573
3.0	.75	-.075026	-.067857	-.051019	-.032433	-.016336
3.0	.80	-.067952	-.061967	-.047510	-.030863	-.015816
3.0	.85	-.061629	-.056573	-.044063	-.029108	-.015042
3.0	.90	-.055921	-.051604	-.040694	-.027206	-.014036
3.0	.95	-.050723	-.046997	-.037406	-.025181	-.012811
3.0	1.00	-.045944	-.042696	-.034194	-.023048	-.011371
3.5	.00		.022774	.022886	.023078	.023355
3.5	.05	-1.568648	-.070681	-.001429	.012278	.017348
3.5	.10	-.772704	-.136044	-.023579	.001929	.011490
3.5	.15	-.507271	-.167699	-.041995	-.007583	.005914
3.5	.20	-.374461	-.175475	-.055980	-.015970	.000732
3.5	.25	-.294698	-.170435	-.065622	-.023068	-.003968
3.5	.30	-.241454	-.159790	-.071503	-.028824	-.008130
3.5	.35	-.203361	-.147346	-.074396	-.033281	-.011724
3.5	.40	-.174734	-.134896	-.075062	-.036546	-.014746
3.5	.45	-.152416	-.123195	-.074154	-.038761	-.017211
3.5	.50	-.134510	-.112504	-.072183	-.040084	-.019152
3.5	.55	-.119812	-.102858	-.069530	-.040667	-.020610
3.5	.60	-.107515	-.094193	-.066467	-.040653	-.021633
3.5	.65	-.097063	-.086413	-.063185	-.040164	-.022268
3.5	.70	-.088058	-.079413	-.059811	-.039306	-.022565
3.5	.75	-.080207	-.073094	-.056432	-.038163	-.022567
3.5	.80	-.073290	-.067366	-.053103	-.036806	-.022316
3.5	.85	-.067139	-.062151	-.049855	-.035290	-.021849
3.5	.90	-.061622	-.057380	-.046709	-.033658	-.021197
3.5	.95	-.056636	-.052995	-.043672	-.031941	-.020385
3.5	1.00	-.052096	-.048943	-.040745	-.030165	-.019435

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00		.019919	.019995	.020122	.020305
4.0	.05	-1.571529	-.073575	-.004362	.009278	.014250
4.0	.10	-.775625	-.138979	-.025555	-.001117	.008342
4.0	.15	-.510234	-.170677	-.045015	-.010676	.002713
4.0	.20	-.377469	-.178497	-.059046	-.019114	-.002524
4.0	.25	-.297752	-.173504	-.063738	-.026264	-.007283
4.0	.30	-.244556	-.162908	-.074670	-.032076	-.011507
4.0	.35	-.206514	-.150516	-.077617	-.036591	-.015166
4.0	.40	-.177941	-.138120	-.078340	-.039918	-.018256
4.0	.45	-.155678	-.126476	-.077492	-.042198	-.020795
4.0	.50	-.137832	-.115846	-.075585	-.043590	-.022814
4.0	.55	-.123196	-.106263	-.072999	-.044247	-.024356
4.0	.60	-.110965	-.097666	-.070008	-.044312	-.025468
4.0	.65	-.100584	-.089957	-.066801	-.043907	-.026199
4.0	.70	-.091653	-.083034	-.063509	-.043138	-.026599
4.0	.75	-.083882	-.076796	-.060217	-.042092	-.026714
4.0	.80	-.077051	-.071156	-.055981	-.040839	-.026585
4.0	.85	-.070991	-.066035	-.053834	-.039436	-.026251
4.0	.90	-.065574	-.061365	-.050796	-.037927	-.025744
4.0	.95	-.060694	-.057089	-.047878	-.036345	-.025094
4.0	1.00	-.056270	-.053156	-.045081	-.034717	-.024325
5.0	.00		.015928	.015967	.016031	.016123
5.0	.05	-1.575554	-.077612	-.003437	.005138	.010016
5.0	.10	-.779697	-.143064	-.030679	-.005308	.004053
5.0	.15	-.514355	-.174811	-.049190	-.014921	-.001633
5.0	.20	-.381640	-.182682	-.063274	-.023414	-.006930
5.0	.25	-.301975	-.177742	-.073021	-.030622	-.011751
5.0	.30	-.248834	-.167202	-.079010	-.036494	-.016039
5.0	.35	-.210849	-.154867	-.082016	-.041072	-.019766
5.0	.40	-.182335	-.142531	-.082801	-.044464	-.022927
5.0	.45	-.160134	-.130949	-.082018	-.046813	-.025540
5.0	.50	-.142353	-.120384	-.080178	-.048276	-.027637
5.0	.55	-.127783	-.110869	-.077662	-.049009	-.029260
5.0	.60	-.115623	-.102343	-.074745	-.049151	-.030458
5.0	.65	-.105316	-.094710	-.071616	-.048829	-.031280
5.0	.70	-.096462	-.087864	-.068406	-.048148	-.031776
5.0	.75	-.088772	-.081709	-.065200	-.047194	-.031992
5.0	.80	-.082027	-.076156	-.062054	-.046039	-.031971
5.0	.85	-.076058	-.071126	-.059003	-.044739	-.031751
5.0	.90	-.070736	-.066554	-.055067	-.043340	-.031367
5.0	.95	-.065957	-.062381	-.053257	-.041875	-.030848
5.0	1.00	-.061640	-.058558	-.050575	-.040372	-.030219

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.152149	.274784	.000000	.000000
.6	.05	-1.450213	.071748	.340367	.000000	.000000
.6	.10	-.643764	.024238	1.147833	.000000	.000000
.6	.15	-.364670	.020654	.000000	.000000	.000000
.6	.20	-.212207	.077302	.000000	.000000	.000000
.6	.25	-.095640	.000000	.000000	.000000	.000000
.8	.00		.107223	.139708	.303261	.000000
.8	.05	-1.487295	.019579	.128252	.499025	.000000
.8	.10	-.685995	-.038792	.124326	.000000	.000000
.8	.15	-.414187	-.061673	.135816	.000000	.000000
.8	.20	-.273502	-.057678	.191936	.000000	.000000
.8	.25	-.183417	-.034736	.000000	.000000	.000000
.8	.30	-.115051	.014003	.000000	.000000	.000000
.8	.35	-.045915	.000000	.000000	.000000	.000000
1.0	.00		.083442	.097580	.136251	.395609
1.0	.05	-1.508953	-.006710	.078553	.139756	.000000
1.0	.10	-.709802	-.068297	.062838	.150729	.000000
1.0	.15	-.440712	-.095547	.052593	.179237	.000000
1.0	.20	-.303648	-.098040	.049680	.280829	.000000
1.0	.25	-.218802	-.086404	.056827	.000000	.000000
1.0	.30	-.159243	-.066972	.083368	.000000	.000000
1.0	.35	-.112792	-.041300	.276956	.000000	.000000
1.0	.40	-.071620	-.000869	.000000	.000000	.000000
1.0	.45	-.018463	.000000	.000000	.000000	.000000
1.2	.00		.068519	.076074	.093138	.137392
1.2	.05	-1.523158	-.022816	.054676	.087659	.148519
1.2	.10	-.725107	-.085824	.035874	.083888	.170183
1.2	.15	-.457330	-.114827	.021382	.082884	.221728
1.2	.20	-.321882	-.119572	.012119	.086279	.573917
1.2	.25	-.239101	-.110997	.008382	.097502	.000000
1.2	.30	-.182335	-.096116	.010327	.127957	.000000
1.2	.35	-.140016	-.078387	.018870	.311366	.000000
1.2	.40	-.106103	-.058902	.038651	.000000	.000000
1.2	.45	-.076701	-.036587	.116195	.000000	.000000
1.2	.50	-.047820	-.002638	.000000	.000000	.000000
1.4	.00		.058218	.062763	.072105	.091194
1.4	.05	-1.533192	-.033777	.040293	.064115	.090819
1.4	.10	-.735779	-.097546	.020199	.057017	.092055
1.4	.15	-.468739	-.127444	.004101	.051347	.095874
1.4	.20	-.334156	-.133264	-.007232	.047626	.104127
1.4	.25	-.252415	-.126021	-.013783	.046419	.121351
1.4	.30	-.196940	-.112856	-.015963	.048528	.164913
1.4	.35	-.156287	-.097471	-.014266	.055577	.965942
1.4	.40	-.124662	-.081490	-.008924	.072315	.000000
1.4	.45	-.098727	-.065378	.000599	.126059	.000000
1.4	.50	-.076260	-.048794	.017439	.000000	.000000
1.4	.55	-.055356	-.030159	.068880	.000000	.000000
1.4	.60	-.033035	-.000207	.000000	.000000	.000000
1.6	.00		.050653	.053612	.059367	.069854
1.6	.05	-1.540658	-.041749	.030559	.050302	.066678
1.6	.10	-.743648	-.105976	.009790	.041893	.064126
1.6	.15	-.477062	-.136397	-.007104	.034580	.062496
1.6	.20	-.342998	-.142822	-.019396	.028720	.062163
1.6	.25	-.261859	-.136292	-.027133	.024586	.063663
1.6	.30	-.207094	-.123986	-.030836	.022392	.067908
1.6	.35	-.167301	-.109670	-.031195	.022367	.076825
1.6	.40	-.136751	-.095073	-.028839	.024899	.095968
1.6	.45	-.112219	-.080863	-.024198	.030887	.156071
1.6	.50	-.091709	-.067152	-.017368	.042962	.000000
1.6	.55	-.073848	-.053717	-.007810	.073409	.000000
1.6	.60	-.057526	-.039955	.007002	.000000	.000000
1.6	.65	-.041496	-.024255	.047924	.000000	.000000
1.6	.70	-.022957	.004442	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.8	.00		.044852	.046890	.050716	.057238
1.8	.05	-1.546430	-.047821	.023480	.041083	.052929
1.8	.10	-.749690	-.112347	.003309	.032013	.048982
1.8	.15	-.483404	-.143101	-.015043	.023916	.045583
1.8	.20	-.349676	-.149903	-.027866	.017107	.042921
1.8	.25	-.268917	-.143803	-.036227	.011793	.041194
1.8	.30	-.214588	-.131998	-.040682	.008079	.040633
1.8	.35	-.175303	-.118272	-.041970	.006006	.041550
1.8	.40	-.145355	-.104389	-.040805	.005588	.044465
1.8	.45	-.121557	-.091070	-.037766	.006885	.050422
1.8	.50	-.101970	-.078521	-.033255	.010099	.062100
1.8	.55	-.085329	-.066694	-.027470	.015814	.090095
1.8	.60	-.070736	-.055397	-.020338	.025767	.000000
1.8	.65	-.057476	-.044294	-.011286	.047343	.000000
1.8	.70	-.044855	-.032777	.001901	.000000	.000000
1.8	.75	-.031880	-.019253	.033209	.000000	.000000
1.8	.80	-.015473	.014133	.000000	.000000	.000000
2.0	.00		.040255	.041721	.044407	.048790
2.0	.05	-1.551026	-.052605	.013077	.034434	.043902
2.0	.10	-.754477	-.117337	-.003355	.024979	.039276
2.0	.15	-.488399	-.148318	-.020998	.016441	.035068
2.0	.20	-.354901	-.155372	-.034149	.009120	.031419
2.0	.25	-.274398	-.149554	-.043885	.003200	.028457
2.0	.30	-.220356	-.138067	-.047774	-.001243	.026296
2.0	.35	-.181397	-.124705	-.049572	-.004218	.025048
2.0	.40	-.151824	-.111247	-.049020	-.005789	.024840
2.0	.45	-.128464	-.098431	-.046740	-.006034	.025856
2.0	.50	-.109401	-.086493	-.043202	-.005010	.028413
2.0	.55	-.093401	-.075433	-.033724	-.002714	.033160
2.0	.60	-.079622	-.065140	-.033486	.000995	.041684
2.0	.65	-.067449	-.055442	-.027517	.006557	.059397
2.0	.70	-.056396	-.046115	-.020650	.015270	.138478
2.0	.75	-.046021	-.036836	-.013302	.032364	.000000
2.0	.80	-.035810	-.027029	-.006435	.000000	.000000
2.0	.85	-.024862	-.015069	.035214	.000000	.000000
2.0	.90	-.009231	.000000	.000000	.000000	.000000
2.2	.00		.036522	.037612	.039575	.042684
2.2	.05	-1.554772	-.056476	.013803	.029380	.037457
2.2	.10	-.758362	-.121357	-.007808	.019679	.032445
2.2	.15	-.492436	-.152499	-.025648	.010866	.027793
2.2	.20	-.359102	-.159729	-.039017	.003233	.023626
2.2	.25	-.278779	-.154106	-.047998	-.003042	.020050
2.2	.30	-.224937	-.142835	-.053162	-.007898	.017146
2.2	.35	-.186200	-.129717	-.055275	-.011360	.014976
2.2	.40	-.156878	-.116534	-.055088	-.013516	.013587
2.2	.45	-.133803	-.104034	-.053238	-.014481	.013027
2.2	.50	-.115069	-.092464	-.050216	-.014376	.013359
2.2	.55	-.099455	-.081843	-.045379	-.013300	.014691
2.2	.60	-.086139	-.072084	-.041960	-.011312	.017234
2.2	.65	-.074538	-.063061	-.037097	-.008406	.021432
2.2	.70	-.064217	-.054623	-.031834	-.004456	.028357
2.2	.75	-.054830	-.046603	-.025116	.000909	.041379
2.2	.80	-.046074	-.038796	-.019731	.008745	.083047
2.2	.85	-.037634	-.030913	-.013108	.023174	.000000
2.2	.90	-.029082	-.022401	-.001289	.242696	.000000
2.2	.95	-.019523	-.011522	.039691	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00		.030818	.031470	.032617	.034365
2.6	.05	-1.560511	-.062362	.007452	.022158	.028771
2.6	.10	-.764286	-.127437	-.014384	.012169	.023354
2.6	.15	-.498559	-.158789	-.032469	.003040	.018248
2.6	.20	-.365440	-.166246	-.046105	-.004940	.013572
2.6	.25	-.285349	-.160868	-.055376	-.011603	.009416
2.6	.30	-.231759	-.149866	-.060862	-.016892	.005846
2.6	.35	-.193299	-.137042	-.063333	-.020846	.002897
2.6	.40	-.164281	-.124185	-.063546	-.023566	.000584
2.6	.45	-.141545	-.112050	-.062149	-.025188	-.001096
2.6	.50	-.123190	-.100890	-.059649	-.025859	-.002160
2.6	.55	-.108006	-.090737	-.056418	-.025722	-.002628
2.6	.60	-.095182	-.081520	-.052720	-.024903	-.002516
2.6	.65	-.084155	-.073135	-.048734	-.023506	-.001831
2.6	.70	-.074516	-.065466	-.044573	-.021607	-.000560
2.6	.75	-.065960	-.058400	-.040301	-.019252	.001350
2.6	.80	-.058253	-.051829	-.035943	-.016452	.004022
2.6	.85	-.051203	-.045647	-.031489	-.013163	.007724
2.6	.90	-.044647	-.039747	-.026888	-.009259	.013082
2.6	.95	-.038431	-.034007	-.022030	-.004432	.021919
2.6	1.00	-.032391	-.028271	-.016686	.002136	.043672
3.0	.00		.026663	.027084	.027814	.028902
3.0	.05	-1.564700	-.066629	.002942	.017208	.023122
3.0	.10	-.768590	-.131823	-.019027	.007062	.017502
3.0	.15	-.502984	-.163301	-.037253	-.002237	.012178
3.0	.20	-.369995	-.170892	-.051039	-.010400	.007263
3.0	.25	-.290043	-.165659	-.060473	-.017260	.002845
3.0	.30	-.236601	-.154811	-.066134	-.022766	-.001015
3.0	.35	-.198300	-.142153	-.068794	-.026957	-.004286
3.0	.40	-.169454	-.129477	-.069215	-.029937	-.006961
3.0	.45	-.146904	-.117537	-.068045	-.031849	-.009051
3.0	.50	-.128753	-.106593	-.065796	-.032846	-.010585
3.0	.55	-.113792	-.096676	-.062844	-.033077	-.011598
3.0	.60	-.101216	-.087722	-.059460	-.032680	-.012131
3.0	.65	-.090464	-.079631	-.055830	-.031773	-.012224
3.0	.70	-.081136	-.072295	-.052078	-.030455	-.011912
3.0	.75	-.072934	-.065610	-.048285	-.028801	-.011226
3.0	.80	-.065635	-.059482	-.044498	-.026872	-.010186
3.0	.85	-.059063	-.053826	-.040741	-.024705	-.008796
3.0	.90	-.053081	-.048565	-.037020	-.022324	-.007044
3.0	.95	-.047573	-.043626	-.033326	-.019729	-.004886
3.0	1.00	-.042441	-.038944	-.029637	-.016896	-.002226
3.5	.00		.022823	.023086	.023538	.024199
3.5	.05	-1.568576	-.070558	-.001152	.012823	.018289
3.5	.10	-.772557	-.135845	-.023221	.002562	.012532
3.5	.15	-.507047	-.167421	-.041553	-.006858	.007061
3.5	.20	-.374157	-.175116	-.055452	-.015150	.001989
3.5	.25	-.294312	-.169992	-.065006	-.022149	-.002598
3.5	.30	-.240982	-.159260	-.070794	-.027802	-.006640
3.5	.35	-.202801	-.146726	-.073589	-.032151	-.010108
3.5	.40	-.174082	-.134181	-.074155	-.035303	-.012997
3.5	.45	-.151668	-.122382	-.073141	-.037399	-.015323
3.5	.50	-.133662	-.111588	-.071060	-.038597	-.017115
3.5	.55	-.118859	-.101834	-.068291	-.039048	-.018415
3.5	.60	-.106452	-.093057	-.065105	-.038894	-.019269
3.5	.65	-.095884	-.085157	-.061693	-.038256	-.019723
3.5	.70	-.086757	-.078032	-.058182	-.037238	-.019823
3.5	.75	-.078776	-.071579	-.054656	-.035924	-.019613
3.5	.80	-.071721	-.065709	-.051169	-.034382	-.019130
3.5	.85	-.065423	-.060341	-.047753	-.032665	-.018406
3.5	.90	-.059748	-.055406	-.044423	-.030812	-.017468
3.5	.95	-.054591	-.050843	-.041186	-.028852	-.016335
3.5	1.00	-.049865	-.046597	-.038039	-.026804	-.015020

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00		.019952	.020128	.020427	.020860
4.0	.05	-1.571474	-.073486	-.004170	.009646	.014875
4.0	.10	-.775513	-.138832	-.026303	-.000684	.009038
4.0	.15	-.510064	-.170471	-.044701	-.010177	.003483
4.0	.20	-.377238	-.178230	-.058669	-.018546	-.001677
4.0	.25	-.297459	-.173174	-.068295	-.025625	-.006357
4.0	.30	-.244200	-.162514	-.074159	-.031364	-.010499
4.0	.35	-.206092	-.150055	-.077035	-.035803	-.014073
4.0	.40	-.177451	-.137589	-.077686	-.039050	-.017074
4.0	.45	-.155118	-.125874	-.076763	-.041249	-.019520
4.0	.50	-.137199	-.115169	-.074777	-.042555	-.021442
4.0	.55	-.122487	-.105509	-.072110	-.043123	-.022882
4.0	.60	-.110178	-.096832	-.069033	-.043093	-.023887
4.0	.65	-.099715	-.089040	-.065738	-.042590	-.024505
4.0	.70	-.090698	-.082029	-.062353	-.041718	-.024786
4.0	.75	-.082837	-.075700	-.058963	-.040563	-.024774
4.0	.80	-.075912	-.069964	-.055624	-.039195	-.024510
4.0	.85	-.069754	-.064741	-.052368	-.037670	-.024032
4.0	.90	-.064232	-.059965	-.049216	-.036030	-.023370
4.0	.95	-.059242	-.055575	-.046174	-.034309	-.022553
4.0	1.00	-.054700	-.051522	-.043247	-.032531	-.021601
5.0	.00		.015945	.016034	.016186	.016402
5.0	.05	-1.575518	-.077559	-.008333	.005331	.010335
5.0	.10	-.779625	-.142975	-.030537	-.005076	.004414
5.0	.15	-.514246	-.174684	-.049009	-.014649	-.001229
5.0	.20	-.381494	-.182518	-.063055	-.023101	-.006482
5.0	.25	-.301791	-.177539	-.072761	-.030267	-.011258
5.0	.30	-.248610	-.166959	-.078710	-.036096	-.015500
5.0	.35	-.210534	-.154583	-.081673	-.040630	-.019179
5.0	.40	-.182029	-.142205	-.082415	-.043976	-.022292
5.0	.45	-.159786	-.130581	-.081587	-.046278	-.024854
5.0	.50	-.141960	-.119971	-.079702	-.047694	-.026899
5.0	.55	-.127347	-.110411	-.077140	-.048376	-.028469
5.0	.60	-.115140	-.101838	-.074174	-.048468	-.029611
5.0	.65	-.104785	-.094157	-.070996	-.048093	-.030376
5.0	.70	-.095883	-.087262	-.067734	-.047357	-.030813
5.0	.75	-.088142	-.081056	-.064475	-.046347	-.030967
5.0	.80	-.081344	-.075449	-.061274	-.045133	-.030882
5.0	.85	-.075321	-.070365	-.058166	-.043773	-.030596
5.0	.90	-.069943	-.065736	-.055171	-.042310	-.030142
5.0	.95	-.065107	-.061504	-.052299	-.040779	-.029550
5.0	1.00	-.060730	-.057619	-.049553	-.039208	-.028845

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.167865	.644353	.000000	.000000
.6	.05	-1.447056	.095505	.000000	.000000	.000000
.6	.10	-.636620	.060929	.000000	.000000	.000000
.6	.15	-.351905	.086672	.000000	.000000	.000000
.6	.20	-.189432	.671878	.000000	.000000	.000000
.8	.00		.112966	.183274	.000000	.000000
.8	.05	-1.485565	.028199	.187515	.000000	.000000
.8	.10	-.682235	-.026502	.213407	.000000	.000000
.8	.15	-.407929	-.044266	.318357	.000000	.000000
.8	.20	-.263929	-.031926	.000000	.000000	.000000
.8	.25	-.168809	.010365	.000000	.000000	.000000
.8	.30	-.089953	.000000	.000000	.000000	.000000
1.0	.00		.086203	.113482	.224119	.000000
1.0	.05	-1.507862	-.002444	.098496	.267045	.000000
1.0	.10	-.707479	-.062265	.088218	.391206	.000000
1.0	.15	-.436960	-.087356	.086032	.000000	.000000
1.0	.20	-.298177	-.087050	.097206	.000000	.000000
1.0	.25	-.211143	-.071428	.139296	.000000	.000000
1.0	.30	-.148545	-.045280	.000000	.000000	.000000
1.0	.35	-.097103	-.002628	.000000	.000000	.000000
1.0	.40	-.042854	.000000	.000000	.000000	.000000
1.2	.00		.070065	.083933	.122183	.322177
1.2	.05	-1.522407	-.020334	.064356	.123063	.545864
1.2	.10	-.723528	-.082286	.047753	.128434	.000000
1.2	.15	-.454823	-.110073	.036027	.142271	.000000
1.2	.20	-.318310	-.113372	.030464	.175729	.000000
1.2	.25	-.234270	-.103004	.032145	.296652	.000000
1.2	.30	-.175952	-.085754	.043336	.000000	.000000
1.2	.35	-.131597	-.064565	.073551	.000000	.000000
1.2	.40	-.094716	-.038964	.335939	.000000	.000000
1.2	.45	-.059969	.001484	.000000	.000000	.000000
1.4	.00		.059172	.067292	.086262	.137991
1.4	.05	-1.532644	-.032179	.045866	.080708	.148609
1.4	.10	-.734636	-.095239	.026967	.076639	.167362
1.4	.15	-.466943	-.124347	.012270	.074917	.204965
1.4	.20	-.331632	-.129268	.002630	.076692	.316794
1.4	.25	-.249065	-.120978	-.001783	.083945	.000000
1.4	.30	-.192627	-.106553	-.001103	.101501	.000000
1.4	.35	-.150816	-.089582	.004786	.149475	.000000
1.4	.40	-.117731	-.071465	.017287	.000000	.000000
1.4	.45	-.089816	-.052130	.043683	.000000	.000000
1.4	.50	-.064308	-.029471	.357582	.000000	.000000
1.4	.55	-.037205	.013962	.000000	.000000	.000000
1.6	.00		.051285	.056483	.067557	.091637
1.6	.05	-1.540240	-.040646	.034112	.059768	.091890
1.6	.10	-.742782	-.104362	.014100	.052846	.093758
1.6	.15	-.475712	-.134224	-.001940	.047311	.098148
1.6	.20	-.341117	-.140030	-.013251	.043647	.106704
1.6	.25	-.259391	-.132804	-.019833	.042348	.123113
1.6	.30	-.203964	-.119701	-.022133	.044043	.159179
1.6	.35	-.163412	-.104445	-.020714	.049863	.310761
1.6	.40	-.131964	-.088703	-.015963	.062619	.000000
1.6	.45	-.106333	-.073028	-.007784	.093009	.000000
1.6	.50	-.084405	-.057299	.005182	.398717	.000000
1.6	.55	-.064554	-.040704	.029882	.000000	.000000
1.6	.60	-.044977	-.020425	.000000	.000000	.000000
1.6	.65	-.020871	.000000	.000000	.000000	.000000
1.8	.00		.045291	.048833	.055955	.069688
1.8	.05	-1.546101	-.047019	.025908	.047108	.067008
1.8	.10	-.749012	-.111158	.005263	.038922	.064996
1.8	.15	-.482352	-.141494	-.011510	.031835	.063961
1.8	.20	-.348220	-.147842	-.023686	.026202	.064295
1.8	.25	-.267021	-.141242	-.031316	.022292	.066551
1.8	.30	-.212207	-.128879	-.034927	.020310	.071657
1.8	.35	-.172380	-.114521	-.035216	.020461	.081520
1.8	.40	-.141816	-.099908	-.032830	.023078	.101332
1.8	.45	-.117302	-.085720	-.028235	.028891	.155610
1.8	.50	-.096859	-.072098	-.021609	.039876	.000000
1.8	.55	-.079150	-.058876	-.012654	.063504	.000000
1.8	.60	-.063144	-.045605	.000132	.223959	.000000
1.8	.65	-.047824	-.031264	.024409	.000000	.000000
1.8	.70	-.031553	-.012121	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00		.040574	.043102	.047989	.056741
2.0	.05	-1.550761	-.052000	.019820	.038552	.052798
2.0	.10	-.753931	-.116427	-.001222	.029686	.049248
2.0	.15	-.487556	-.147083	-.018443	.021801	.046285
2.0	.20	-.353740	-.153788	-.031133	.015216	.044109
2.0	.25	-.272894	-.147591	-.039359	.010137	.042934
2.0	.30	-.218480	-.135690	-.043678	.006675	.043016
2.0	.35	-.179113	-.121871	-.044828	.004870	.044708
2.0	.40	-.149088	-.107899	-.043525	.004741	.048603
2.0	.45	-.125219	-.094497	-.040351	.006351	.055895
2.0	.50	-.105571	-.081874	-.035714	.009901	.069648
2.0	.55	-.088885	-.069991	-.029823	.015954	.101955
2.0	.60	-.074272	-.058670	-.022640	.026118	.000000
2.0	.65	-.061042	-.047608	-.013700	.046596	.000000
2.0	.70	-.048552	-.036293	-.001314	.201235	.000000
2.0	.75	-.035981	-.023553	.024278	.000000	.000000
2.0	.80	-.021427	-.003488	.000000	.000000	.000000
2.2	.00		.036760	.038630	.042146	.048136
2.2	.05	-1.554553	-.056005	.015104	.032342	.043526
2.2	.10	-.757913	-.120639	-.006206	.023063	.039199
2.2	.15	-.491744	-.151521	-.023724	.014709	.035313
2.2	.20	-.358153	-.158474	-.036745	.007583	.032019
2.2	.25	-.277556	-.152553	-.045348	.001870	.029451
2.2	.30	-.223419	-.140961	-.050099	-.002351	.027736
2.2	.35	-.184364	-.127494	-.051753	-.005087	.027002
2.2	.40	-.154694	-.113927	-.051050	-.006395	.027406
2.2	.45	-.131236	-.101000	-.048611	-.006346	.029180
2.2	.50	-.112074	-.088949	-.044904	-.004988	.032732
2.2	.55	-.095974	-.077773	-.040245	-.002298	.038910
2.2	.60	-.082095	-.067362	-.034810	.001894	.049855
2.2	.65	-.069825	-.057545	-.028625	.008094	.073438
2.2	.70	-.058681	-.048102	-.021518	.017759	.240095
2.2	.75	-.048229	-.038719	-.012911	.036735	.000000
2.2	.80	-.037980	-.028856	-.000851	.000000	.000000
2.2	.85	-.027128	-.017097	.030187	.000000	.000000
2.2	.90	-.012861	.014072	.000000	.000000	.000000
2.6	.00		.030962	.032071	.034084	.037305
2.6	.05	-1.560354	-.062055	.008241	.023860	.032037
2.6	.10	-.763967	-.126959	-.013399	.014122	.026968
2.6	.15	-.498070	-.158132	-.031276	.005259	.022241
2.6	.20	-.364773	-.165401	-.044691	-.002436	.017977
2.6	.25	-.284494	-.159826	-.053729	-.008792	.014274
2.6	.30	-.230706	-.148613	-.058965	-.013748	.011205
2.6	.35	-.192035	-.135565	-.061166	-.017337	.008819
2.6	.40	-.162792	-.122468	-.061088	-.019654	.007146
2.6	.45	-.139813	-.110073	-.059373	-.020826	.006203
2.6	.50	-.121196	-.098632	-.056521	-.020989	.006008
2.6	.55	-.105726	-.088169	-.052897	-.020266	.006589
2.6	.60	-.092588	-.078608	-.048754	-.018760	.008004
2.6	.65	-.081209	-.069837	-.044254	-.016536	.010377
2.6	.70	-.071172	-.061726	-.039489	-.013609	.013965
2.6	.75	-.062158	-.054144	-.034483	-.009917	.019329
2.6	.80	-.053910	-.046954	-.029202	-.005263	.027908
2.6	.85	-.046203	-.040003	-.023516	.000862	.044924
2.6	.90	-.038810	-.033093	-.017129	.009930	.149040
2.6	.95	-.031461	-.025914	-.009263	.029077	.000000
2.6	1.00	-.023708	-.017785	.003235	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00		.026756	.027469	.028734	.030688
3.0	.05	-1.564583	-.066415	.003461	.018288	.025110
3.0	.10	-.768352	-.131483	-.018368	.008308	.019705
3.0	.15	-.502621	-.162831	-.036447	-.000815	.014607
3.0	.20	-.369500	-.170286	-.050081	-.008793	.009934
3.0	.25	-.289411	-.164910	-.059355	-.015458	.005775
3.0	.30	-.235826	-.153913	-.064847	-.020755	.002193
3.0	.35	-.197375	-.141099	-.067328	-.024723	-.000776
3.0	.40	-.168371	-.128257	-.067558	-.027465	-.003121
3.0	.45	-.145653	-.116141	-.066186	-.029119	-.004849
3.0	.50	-.127324	-.105009	-.063718	-.029834	-.005980
3.0	.55	-.112173	-.094891	-.060530	-.029756	-.006541
3.0	.60	-.099392	-.085720	-.056888	-.029017	-.006559
3.0	.65	-.088419	-.077394	-.052975	-.027725	-.006056
3.0	.70	-.078849	-.069799	-.048909	-.025969	-.005042
3.0	.75	-.070381	-.062829	-.044762	-.023809	-.003506
3.0	.80	-.062786	-.056381	-.040570	-.021281	-.001406
3.0	.85	-.055880	-.050361	-.036342	-.018389	.001362
3.0	.90	-.049515	-.044677	-.032058	-.015093	.005015
3.0	.95	-.043558	-.039239	-.027671	-.011290	.010038
3.0	1.00	-.037886	-.033944	-.023008	-.006743	.017705
3.5	.00		.022881	.023326	.024101	.025266
3.5	.05	-1.568490	-.070412	-.000817	.013494	.019484
3.5	.10	-.772383	-.135608	-.022789	.003344	.013860
3.5	.15	-.506781	-.167091	-.041019	-.005960	.008529
3.5	.20	-.373798	-.174689	-.054813	-.014131	.003603
3.5	.25	-.293854	-.169464	-.064257	-.021003	-.000829
3.5	.30	-.240424	-.158627	-.069931	-.026524	-.004709
3.5	.35	-.202137	-.145985	-.072607	-.030734	-.008005
3.5	.40	-.173308	-.133326	-.073048	-.033739	-.010711
3.5	.45	-.150779	-.121408	-.071903	-.035681	-.012841
3.5	.50	-.132653	-.110490	-.069683	-.036714	-.014423
3.5	.55	-.117722	-.100604	-.066767	-.036989	-.015496
3.5	.60	-.105182	-.091687	-.063425	-.036646	-.016103
3.5	.65	-.094472	-.083640	-.059846	-.035805	-.016288
3.5	.70	-.085193	-.076357	-.056156	-.034565	-.016091
3.5	.75	-.077051	-.069735	-.052437	-.033009	-.015549
3.5	.80	-.069822	-.063682	-.048739	-.031200	-.014691
3.5	.85	-.063335	-.058116	-.045091	-.029185	-.013540
3.5	.90	-.057455	-.052964	-.041505	-.026995	-.012105
3.5	.95	-.052071	-.048160	-.037981	-.024648	-.010383
3.5	1.00	-.047092	-.043645	-.034507	-.022149	-.008350
4.0	.00		.019991	.020287	.020797	.021551
4.0	.05	-1.571408	-.073380	-.003940	.010094	.015654
4.0	.10	-.775380	-.138658	-.026000	-.000156	.009910
4.0	.15	-.509862	-.170226	-.044323	-.009566	.004451
4.0	.20	-.376965	-.177913	-.058214	-.017849	-.000611
4.0	.25	-.297113	-.172782	-.067760	-.024839	-.005188
4.0	.30	-.243778	-.162044	-.073542	-.030485	-.009222
4.0	.35	-.205592	-.149505	-.076332	-.034828	-.012683
4.0	.40	-.176870	-.136957	-.076894	-.037975	-.015566
4.0	.45	-.154453	-.125155	-.075878	-.040069	-.017888
4.0	.50	-.136447	-.114361	-.073796	-.041266	-.019680
4.0	.55	-.121644	-.104608	-.071027	-.041719	-.020981
4.0	.60	-.109240	-.095833	-.067845	-.041568	-.021839
4.0	.65	-.098677	-.087939	-.064438	-.040936	-.022301
4.0	.70	-.089557	-.080820	-.060935	-.039928	-.022414
4.0	.75	-.081586	-.074378	-.057421	-.038628	-.022222
4.0	.80	-.074544	-.068521	-.053950	-.037104	-.021762
4.0	.85	-.068263	-.063171	-.050553	-.035411	-.021071
4.0	.90	-.062609	-.058259	-.047248	-.033590	-.020176
4.0	.95	-.057479	-.053723	-.044043	-.031670	-.019099
4.0	1.00	-.052786	-.049512	-.040937	-.029674	-.017857

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00		.015965	.016115	.016371	.016742
5.0	.05	-1.575476	-.077497	-.008208	.005563	.010726
5.0	.10	-.779541	-.142869	-.030367	-.004796	.004857
5.0	.15	-.514118	-.174535	-.043794	-.014320	-.000732
5.0	.20	-.381321	-.182323	-.061792	-.022722	-.005930
5.0	.25	-.301572	-.177298	-.072451	-.029836	-.010650
5.0	.30	-.248345	-.166670	-.078349	-.035612	-.014834
5.0	.35	-.210271	-.154246	-.081262	-.040092	-.018453
5.0	.40	-.181667	-.141818	-.081952	-.043382	-.021503
5.0	.45	-.159373	-.130142	-.081071	-.045627	-.024002
5.0	.50	-.141496	-.119480	-.079130	-.046982	-.025981
5.0	.55	-.126828	-.109866	-.076511	-.047603	-.027482
5.0	.60	-.114567	-.101237	-.073487	-.047631	-.028553
5.0	.65	-.104155	-.093497	-.070247	-.047190	-.029244
5.0	.70	-.095194	-.086543	-.066922	-.046386	-.029603
5.0	.75	-.087392	-.080274	-.063597	-.045304	-.029676
5.0	.80	-.080531	-.074603	-.060329	-.044016	-.029507
5.0	.85	-.074442	-.069452	-.057150	-.042577	-.029132
5.0	.90	-.068995	-.064753	-.054081	-.041033	-.028584
5.0	.95	-.064087	-.060448	-.051131	-.039416	-.027894
5.0	1.00	-.059635	-.056487	-.048304	-.037754	-.027084

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.189665	.000000	.000000	.000000
.6	.05	-1.443405	.130162	.000000	.000000	.000000
.6	.10	-.628276	.119427	.000000	.000000	.000000
.6	.15	-.336575	.232165	.000000	.000000	.000000
.6	.20	-.159155	.000000	.000000	.000000	.000000
.8	.00		.120258	.271781	.000000	.000000
.8	.05	-1.483565	.039426	.326085	.000000	.000000
.8	.10	-.677870	-.010039	.525970	.000000	.000000
.8	.15	-.400586	-.019860	.000000	.000000	.000000
.8	.20	-.252431	.008113	.000000	.000000	.000000
.8	.25	-.150199	.121894	.000000	.000000	.000000
.8	.30	-.046420	.000000	.000000	.000000	.000000
1.0	.00		.089584	.138014	.648278	.000000
1.0	.05	-1.506601	.002867	.130549	.000000	.000000
1.0	.10	-.704789	-.054643	.131427	.000000	.000000
1.0	.15	-.432591	-.076805	.148962	.000000	.000000
1.0	.20	-.291736	-.072459	.210949	.000000	.000000
1.0	.25	-.201945	-.050372	.000000	.000000	.000000
1.0	.30	-.135152	-.009972	.000000	.000000	.000000
1.0	.35	-.075030	.245664	.000000	.000000	.000000
1.2	.00		.071923	.094832	.181187	.000000
1.2	.05	-1.521540	-.017314	.078103	.201104	.000000
1.2	.10	-.721702	-.077942	.065081	.241409	.000000
1.2	.15	-.451913	-.104172	.058161	.350647	.000000
1.2	.20	-.314138	-.105563	.059713	.000000	.000000
1.2	.25	-.228569	-.092706	.073844	.000000	.000000
1.2	.30	-.168287	-.071878	.116082	.000000	.000000
1.2	.35	-.121157	-.044539	.000000	.000000	.000000
1.2	.40	-.079577	-.002480	.000000	.000000	.000000
1.2	.45	-.030947	.000000	.000000	.000000	.000000
1.4	.00		.060307	.073236	.109454	.286018
1.4	.05	-1.532011	-.030261	.053303	.108833	.386381
1.4	.10	-.733316	-.092453	.036153	.111392	1.019309
1.4	.15	-.464863	-.120580	.023577	.119373	.000000
1.4	.20	-.328697	-.124367	.016630	.137440	.000000
1.4	.25	-.245142	-.114717	.015868	.180223	.000000
1.4	.30	-.187528	-.098585	.022029	.375631	.000000
1.4	.35	-.144246	-.079316	.037724	.000000	.000000
1.4	.40	-.109188	-.057726	.076112	.000000	.000000
1.4	.45	-.078284	-.031799	.000000	.000000	.000000
1.4	.50	-.046872	.017331	.000000	.000000	.000000
1.6	.00		.052030	.060129	.079641	.135890
1.6	.05	-1.539759	-.039333	.038683	.074033	.146148
1.6	.10	-.741783	-.102432	.019713	.069755	.163043
1.6	.15	-.474149	-.131614	.004873	.067556	.193560
1.6	.20	-.338935	-.136658	-.005019	.068338	.262985
1.6	.25	-.256514	-.128560	-.009863	.073448	.798896
1.6	.30	-.200293	-.114429	-.009930	.085607	.000000
1.6	.45	-.099109	-.062635	.021107	.000000	.000000
1.6	.50	-.075100	-.043278	.060947	.000000	.000000
1.6	.55	-.051798	-.018677	.000000	.000000	.000000
1.6	.60	-.023210	.000000	.000000	.000000	.000000
1.8	.00		.045808	.051249	.063222	.090887
1.8	.05	-1.545722	-.046071	.028956	.055597	.091686
1.8	.10	-.748229	-.109747	.009009	.048817	.094086
1.8	.15	-.481135	-.139581	-.006986	.043587	.098942
1.8	.20	-.346532	-.145377	-.018280	.039768	.107734
1.8	.25	-.264816	-.138164	-.024884	.038401	.123575
1.8	.30	-.209425	-.125105	-.027271	.039809	.155280
1.8	.35	-.168944	-.109940	-.026042	.044843	.249897
1.8	.40	-.137619	-.094362	-.021676	.055406	.000000
1.8	.55	-.071358	-.048207	.014672	.000000	.000000
1.8	.60	-.053052	-.030864	.063270	.000000	.000000
1.8	.65	-.033383	-.004743	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00		.040947	.044792	.052763	.069007
2.0	.05	-1.550454	-.051287	.021974	.044108	.066789
2.0	.10	-.753301	-.115353	.001433	.036114	.065274
2.0	.15	-.486581	-.145622	-.015239	.029220	.064782
2.0	.20	-.352394	-.151907	-.027321	.023778	.065713
2.0	.25	-.271148	-.145252	-.034865	.020054	.068634
2.0	.30	-.216295	-.132844	-.038403	.018243	.074481
2.0	.35	-.176442	-.118454	-.038537	.018533	.085132
2.0	.40	-.145868	-.103829	-.036229	.021215	.105474
2.0	.45	-.121367	-.089657	-.031668	.026902	.156123
2.0	.50	-.100972	-.076099	-.025186	.037168	.000000
2.0	.65	-.052690	-.036491	.013944	.000000	.000000
2.0	.70	-.037515	-.020194	.122832	.000000	.000000
2.0	.75	-.018568	.030367	.000000	.000000	.000000
2.2	.00		.037038	.039862	.045478	.056032
2.2	.05	-1.554301	-.055451	.016592	.036219	.052445
2.2	.10	-.757395	-.119795	-.004337	.027536	.049278
2.2	.15	-.490945	-.150368	-.021545	.019842	.046733
2.2	.20	-.357056	-.156991	-.033221	.013456	.045020
2.2	.25	-.276139	-.150714	-.042033	.008585	.044367
2.2	.30	-.221656	-.138734	-.046237	.005342	.045054
2.2	.35	-.182223	-.124839	-.047272	.003769	.047471
2.2	.40	-.152136	-.110795	-.045156	.003889	.052278
2.2	.45	-.128210	-.097326	-.042072	.005763	.060806
2.2	.50	-.108515	-.084645	-.037133	.009591	.076471
2.2	.55	-.091793	-.072719	-.031159	.015917	.112735
2.2	.60	-.077166	-.061379	-.024037	.026246	.000000
2.6	.00		.031129	.032789	.035918	.041256
2.6	.05	-1.560174	-.061696	.009189	.026006	.036468
2.6	.10	-.763599	-.126401	-.012109	.016600	.031923
2.6	.15	-.497505	-.157364	-.029829	.008094	.027769
2.6	.20	-.364001	-.164411	-.042972	.000785	.024142
2.6	.25	-.283505	-.158600	-.051117	-.005148	.021153
2.6	.30	-.229485	-.147137	-.056038	-.009640	.018899
2.6	.35	-.190566	-.133820	-.058095	-.012711	.017457
2.6	.40	-.161057	-.120432	-.058039	-.014442	.016901
2.6	.45	-.137789	-.107719	-.055503	-.014940	.017317
2.6	.50	-.118855	-.095928	-.052576	-.014312	.018831
2.6	.55	-.103034	-.085073	-.048407	-.012636	.021663
2.6	.60	-.089501	-.075067	-.043624	-.009940	.026239
2.6	.65	-.077671	-.065779	-.038151	-.006162	.033495
2.6	.70	-.067107	-.057054	-.032613	-.001066	.045956
2.6	.75	-.057460	-.048715	-.026321	.005973	.074262
2.6	.80	-.048418	-.040546	-.019188	.016800	.000000
3.0	.00		.026864	.027925	.029861	.032989
3.0	.05	-1.564448	-.066165	.004080	.019618	.027691
3.0	.10	-.768077	-.131087	-.017580	.009853	.022584
3.0	.15	-.502200	-.162282	-.035483	.000956	.017806
3.0	.20	-.368928	-.169578	-.048931	-.006783	.013476
3.0	.25	-.288681	-.164035	-.058008	-.013192	.009690
3.0	.30	-.234930	-.152861	-.063292	-.018214	.006516
3.0	.35	-.196303	-.139861	-.065552	-.021886	.003997
3.0	.40	-.167113	-.126821	-.065544	-.024304	.002153
3.0	.45	-.144197	-.114494	-.063914	-.025602	.000991
3.0	.50	-.125655	-.103134	-.061167	-.025922	.000508
3.0	.55	-.110275	-.092770	-.057671	-.025400	.000704
3.0	.60	-.097245	-.083329	-.053688	-.024153	.001588
3.0	.65	-.085999	-.074705	-.049390	-.022271	.003199
3.0	.70	-.076125	-.066777	-.044884	-.019812	.005624
3.0	.75	-.067315	-.059428	-.040222	-.016791	.009045
3.0	.80	-.059328	-.052541	-.035414	-.013163	.013855
3.0	.85	-.051966	-.046001	-.030421	-.008788	.020967
3.0	.90	-.045051	-.039680	-.025143	-.003324	.033120
3.0	.95	-.038408	-.033423	-.019367	.004108	.066017
3.0	1.00	-.031831	-.027004	-.012604	.016642	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.022949	.023607	.024779	.026596
3.5	.05	-1.568391	-.070242	-.000422	.014306	.020983
3.5	.10	-.772182	-.135333	-.022277	.004295	.015537
3.5	.15	-.506475	-.166706	-.040386	-.004864	.010391
3.5	.20	-.373383	-.174191	-.054053	-.012883	.005662
3.5	.25	-.293326	-.168849	-.063365	-.019596	.001437
3.5	.30	-.239778	-.157890	-.068901	-.024949	-.002221
3.5	.35	-.201368	-.145119	-.071433	-.028982	-.005280
3.5	.40	-.172411	-.132327	-.071721	-.031798	-.007731
3.5	.45	-.149747	-.120267	-.070415	-.033538	-.009585
3.5	.50	-.131479	-.109200	-.068023	-.034354	-.010867
3.5	.55	-.116398	-.099156	-.064924	-.034395	-.011609
3.5	.60	-.103697	-.090071	-.061385	-.033797	-.011848
3.5	.65	-.092816	-.081843	-.057593	-.032675	-.011619
3.5	.70	-.083353	-.074364	-.053670	-.031125	-.010951
3.5	.75	-.075011	-.067530	-.049695	-.029219	-.009864
3.5	.80	-.067564	-.061244	-.045713	-.027012	-.008364
3.5	.85	-.060837	-.055419	-.041744	-.024536	-.006434
3.5	.90	-.054689	-.049977	-.037790	-.021800	-.004026
3.5	.95	-.049002	-.044842	-.033837	-.018789	-.001034
3.5	1.00	-.043675	-.039943	-.029850	-.015451	.002756
4.0	.00		.020036	.020473	.021239	.022396
4.0	.05	-1.571333	-.073257	-.003670	.010631	.016613
4.0	.10	-.775227	-.138456	-.025644	.000479	.010987
4.0	.15	-.509629	-.169941	-.043878	-.008829	.005650
4.0	.20	-.376650	-.177544	-.057677	-.017007	.000717
4.0	.25	-.296713	-.172326	-.067128	-.023887	-.003726
4.0	.30	-.243290	-.161498	-.072811	-.029419	-.007620
4.0	.35	-.205013	-.148865	-.075499	-.033643	-.010933
4.0	.40	-.176197	-.136220	-.075953	-.036665	-.013661
4.0	.45	-.153683	-.124317	-.074826	-.038627	-.015817
4.0	.50	-.135574	-.113417	-.072626	-.039685	-.017433
4.0	.55	-.120664	-.103552	-.069734	-.039990	-.018546
4.0	.60	-.108148	-.094661	-.066422	-.039683	-.019201
4.0	.65	-.097466	-.086644	-.062877	-.038884	-.019444
4.0	.70	-.088221	-.079395	-.059227	-.037696	-.019319
4.0	.75	-.080117	-.072814	-.055556	-.036201	-.018864
4.0	.80	-.072934	-.066809	-.051914	-.034466	-.018115
4.0	.85	-.066501	-.061300	-.048334	-.032540	-.017098
4.0	.90	-.060683	-.056215	-.044829	-.030460	-.015834
4.0	.95	-.055375	-.051491	-.041402	-.028251	-.014332
4.0	1.00	-.050486	-.047073	-.038050	-.025925	-.012593
5.0	.00		.015988	.016209	.016590	.017149
5.0	.05	-1.575428	-.077425	-.008062	.005838	.011196
5.0	.10	-.779443	-.142747	-.030169	-.004465	.005391
5.0	.15	-.513971	-.174361	-.048542	-.013930	-.000132
5.0	.20	-.381122	-.182098	-.062485	-.022271	-.005262
5.0	.25	-.301320	-.177019	-.072087	-.029324	-.009911
5.0	.30	-.248039	-.166336	-.077927	-.035036	-.014023
5.0	.35	-.209910	-.153855	-.080780	-.039450	-.017567
5.0	.40	-.181248	-.141369	-.081409	-.042672	-.020540
5.0	.45	-.158896	-.129633	-.080464	-.044846	-.022958
5.0	.50	-.140958	-.118909	-.078457	-.046129	-.024853
5.0	.55	-.126228	-.109231	-.075770	-.046675	-.026267
5.0	.60	-.113902	-.100536	-.072675	-.046625	-.027247
5.0	.65	-.103423	-.092728	-.069363	-.046102	-.027842
5.0	.70	-.094392	-.085702	-.065961	-.045212	-.028101
5.0	.75	-.086518	-.079360	-.062557	-.044040	-.028069
5.0	.80	-.079581	-.073612	-.059205	-.042658	-.027788
5.0	.85	-.073414	-.068380	-.055940	-.041121	-.027295
5.0	.90	-.067885	-.063596	-.052779	-.039472	-.026622
5.0	.95	-.062890	-.059202	-.049732	-.037745	-.025797
5.0	1.00	-.058347	-.055147	-.046803	-.035964	-.024843

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.220722	.000000	.000000	.000000
.6	.05	-1.439255	.182857	.000000	.000000	.000000
.6	.10	-.618683	.222224	.000000	.000000	.000000
.6	.15	-.318310	.000000	.000000	.000000	.000000
.6	.20	-.115623	.000000	.000000	.000000	.000000
.8	.00		.129520	.513646	.000000	.000000
.8	.05	-1.481296	.054116	.980866	.000000	.000000
.8	.10	-.672889	.012279	.000000	.000000	.000000
.8	.15	-.392098	.015467	.000000	.000000	.000000
.8	.20	-.238732	.078691	.000000	.000000	.000000
.8	.25	-.125823	.000000	.000000	.000000	.000000
1.0	.00		.093691	.178724	.000000	.000000
1.0	.05	-1.505172	.009445	.185990	.000000	.000000
1.0	.10	-.701727	-.045032	.215438	.000000	.000000
1.0	.15	-.427584	-.063179	.305986	.000000	.000000
1.0	.20	-.284260	-.052806	.000000	.000000	.000000
1.0	.25	-.190986	-.019187	.000000	.000000	.000000
1.0	.30	-.118152	.067100	.000000	.000000	.000000
1.0	.35	-.036378	.000000	.000000	.000000	.000000
1.2	.00		.074129	.110361	.345764	.000000
1.2	.05	-1.520557	-.013676	.098271	.481184	.000000
1.2	.10	-.719628	-.072650	.091428	1.804401	.000000
1.2	.15	-.448592	-.096890	.095617	.000000	.000000
1.2	.20	-.309342	-.095743	.111112	.000000	.000000
1.2	.25	-.221931	-.079350	.161309	.000000	.000000
1.2	.30	-.159155	-.052761	.000000	.000000	.000000
1.2	.35	-.108114	-.012175	.000000	.000000	.000000
1.2	.40	-.057812	.000000	.000000	.000000	.000000
1.4	.00		.061637	.085109	.151771	.000000
1.4	.05	-1.531294	-.027987	.065351	.162988	.000000
1.4	.10	-.731816	-.089125	.048826	.183886	.000000
1.4	.15	-.462494	-.116044	.039574	.226286	.000000
1.4	.20	-.325337	-.118399	.037143	.344486	.000000
1.4	.25	-.240620	-.106974	.042209	.000000	.000000
1.4	.30	-.181575	-.088485	.060803	.000000	.000000
1.4	.35	-.136419	-.065722	.111863	.000000	.000000
1.4	.40	-.098616	-.037749	.000000	.000000	.000000
1.4	.45	-.062700	.009199	.000000	.000000	.000000
1.6	.00		.052896	.060760	.098408	.259323
1.6	.05	-1.539212	-.037793	.045578	.096819	.324720
1.6	.10	-.740648	-.100155	.027058	.097704	.494933
1.6	.15	-.472372	-.128517	.011930	.102593	.000000
1.6	.20	-.336444	-.132629	.000140	.114124	.000000
1.6	.25	-.253214	-.123440	.000012	.138477	.000000
1.6	.30	-.196049	-.107984	.000733	.199302	.000000
1.6	.35	-.153418	-.089774	.011189	.000000	.000000
1.6	.40	-.119366	-.070052	.035346	.000000	.000000
1.6	.45	-.090225	-.048322	.096758	.000000	.000000
1.6	.50	-.062912	-.020643	.000000	.000000	.000000
1.6	.55	-.031637	.000000	.000000	.000000	.000000
1.8	.00		.046405	.050236	.073574	.132159
1.8	.05	-1.545292	-.044967	.033775	.067924	.142147
1.8	.10	-.747340	-.108096	.011751	.063491	.157754
1.8	.15	-.479752	-.137333	-.001194	.060952	.184000
1.8	.20	-.344609	-.142467	-.011267	.061064	.235730
1.8	.25	-.262294	-.134506	-.018409	.064842	.402901
1.8	.30	-.206228	-.120581	-.018967	.074075	.000000
1.8	.35	-.164964	-.104382	-.011318	.093138	.000000
1.8	.40	-.132703	-.087511	-.005461	.139127	.000000
1.8	.45	-.106103	-.070399	.001727	.000000	.000000
1.8	.50	-.082945	-.052640	.033578	.000000	.000000
1.8	.55	-.061343	-.032515	.128170	.000000	.000000
1.8	.60	-.038541	-.000767	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00		.041376	.046846	.059211	.089362
2.0	.05	-1.550107	-.050461	.024618	.051723	.090639
2.0	.10	-.752586	-.114104	.004722	.045061	.093495
2.0	.15	-.485473	-.143916	-.011237	.039716	.098738
2.0	.20	-.350864	-.149704	-.022516	.036132	.107719
2.0	.25	-.269155	-.142501	-.029139	.034714	.123140
2.0	.30	-.213792	-.129475	-.031590	.035911	.151993
2.0	.35	-.173364	-.114378	-.030500	.040400	.223865
2.0	.40	-.142130	-.098918	-.026403	.049579	.000000
2.0	.45	-.116848	-.083726	-.019541	.067267	.000000
2.0	.50	-.095493	-.068854	-.009594	.110207	.000000
2.0	.55	-.076643	-.053944	.005193	.000000	.000000
2.0	.60	-.059076	-.038056	.033550	.000000	.000000
2.0	.65	-.041227	-.018133	.000000	.000000	.000000
2.0	.70	-.018189	.000000	.000000	.000000	.000000
2.2	.00		.037357	.041341	.049819	.067980
2.2	.05	-1.554015	-.054812	.018614	.041332	.066192
2.2	.10	-.756808	-.118818	-.001838	.033507	.065137
2.2	.15	-.490038	-.149030	-.018426	.026778	.065139
2.2	.20	-.355808	-.155264	-.030430	.021500	.066606
2.2	.25	-.274523	-.148565	-.037904	.017931	.070116
2.2	.30	-.219640	-.136120	-.041381	.016262	.076606
2.2	.35	-.179765	-.121705	-.041573	.016666	.087922
2.2	.40	-.149183	-.107070	-.039147	.019399	.108695
2.2	.45	-.124692	-.092911	-.034611	.024991	.156861
2.2	.50	-.104335	-.079402	-.028236	.034746	1.182862
2.2	.55	-.086812	-.066434	-.019953	.052643	.000000
2.2	.60	-.071168	-.053702	-.009052	.100108	.000000
2.2	.65	-.056576	-.040611	.007218	.000000	.000000
2.2	.70	-.042056	-.025740	.049136	.000000	.000000
2.2	.75	-.025520	-.001658	.000000	.000000	.000000
2.6	.00		.031320	.033636	.038204	.046653
2.6	.05	-1.559970	-.061285	.010315	.028705	.042593
2.6	.10	-.763182	-.125758	-.010788	.019743	.038852
2.6	.15	-.496865	-.156477	-.028094	.011719	.035599
2.6	.20	-.363125	-.163267	-.040900	.004938	.032994
2.6	.25	-.282379	-.157182	-.049281	-.000411	.031190
2.6	.30	-.228093	-.145424	-.053804	-.004245	.030337
2.6	.35	-.188887	-.131788	-.055223	-.006564	.030599
2.6	.40	-.159067	-.118051	-.054275	-.007417	.032191
2.6	.45	-.135457	-.104952	-.051580	-.006865	.035446
2.6	.50	-.116144	-.092726	-.047603	-.004935	.040971
2.6	.55	-.099895	-.081373	-.042658	-.001577	.050059
2.6	.60	-.085869	-.070785	-.036915	.003434	.066198
2.6	.65	-.073456	-.060793	-.030397	.010709	.104370
2.6	.70	-.062180	-.051179	-.022927	.021976	.000000
2.6	.75	-.051620	-.041648	-.013934	.044117	.000000
2.6	.80	-.041319	-.031708	-.001601	.000000	.000000
2.6	.85	-.030588	-.020193	.025375	.000000	.000000
2.6	.90	-.017526	-.000166	.000000	.000000	.000000
3.0	.00		.026988	.028458	.031230	.035966
3.0	.05	-1.564295	-.065880	.004805	.021246	.031060
3.0	.10	-.767766	-.130633	-.016652	.011754	.026374
3.0	.15	-.501724	-.161652	-.034343	.003148	.022051
3.0	.20	-.368279	-.168764	-.047566	-.004279	.018219
3.0	.25	-.287851	-.163027	-.056406	-.010352	.014981
3.0	.30	-.233909	-.151649	-.061435	-.015011	.012419
3.0	.35	-.195080	-.138430	-.063421	-.018283	.010590
3.0	.40	-.165675	-.125157	-.063117	-.020259	.009539
3.0	.45	-.142528	-.112578	-.061163	-.021060	.009305
3.0	.50	-.123737	-.100945	-.058056	-.020813	.009934
3.0	.55	-.108084	-.090280	-.054158	-.019633	.011504
3.0	.60	-.094753	-.080505	-.049715	-.017602	.014154
3.0	.65	-.083170	-.071502	-.044884	-.014759	.018159
3.0	.70	-.072914	-.063140	-.039740	-.011073	.024092
3.0	.75	-.063662	-.055280	-.034293	-.006396	.033323
3.0	.80	-.055149	-.047773	-.028471	-.000343	.050191
3.0	.85	-.047138	-.040447	-.022076	.008088	.105232
3.0	.90	-.039384	-.033066	-.014641	.022367	.000000
3.0	.95	-.031570	-.025228	-.004812	.079655	.000000
3.0	1.00	-.023125	-.015921	.015375	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.023026	.023934	.025587	.028252
3.5	.05	-1.568279	-.070047	.000037	.015279	.022861
3.5	.10	-.771954	-.135018	-.021679	.005440	.017649
3.5	.15	-.506128	-.166266	-.039645	-.003538	.012752
3.5	.20	-.372912	-.173621	-.053163	-.011369	.008287
3.5	.25	-.292726	-.168144	-.062318	-.017882	.004345
3.5	.30	-.239044	-.157043	-.067689	-.023022	.000990
3.5	.35	-.200493	-.144124	-.070047	-.026828	-.001740
3.5	.40	-.171389	-.131175	-.070151	-.029401	-.003831
3.5	.45	-.148569	-.118951	-.068648	-.030878	-.005288
3.5	.50	-.130135	-.107708	-.066045	-.031408	-.006128
3.5	.55	-.114878	-.097476	-.062717	-.031135	-.006371
3.5	.60	-.101988	-.088188	-.058930	-.030187	-.006039
3.5	.65	-.090903	-.079740	-.054865	-.028671	-.005144
3.5	.70	-.081217	-.072020	-.050638	-.026671	-.003682
3.5	.75	-.072630	-.064919	-.046319	-.024242	-.001622
3.5	.80	-.064911	-.058335	-.041943	-.021410	.001118
3.5	.85	-.057876	-.052170	-.037514	-.018167	.004702
3.5	.90	-.051375	-.046332	-.033007	-.014452	.009481
3.5	.95	-.045273	-.040727	-.028366	-.010120	.016258
3.5	1.00	-.039446	-.035249	-.023480	-.004845	.027382
4.0	.00		.020088	.020688	.021758	.023423
4.0	.05	-1.571247	-.073117	-.003358	.011266	.017785
4.0	.10	-.775054	-.138225	-.025230	.001233	.012309
4.0	.15	-.509365	-.169617	-.043361	-.007952	.007130
4.0	.20	-.376293	-.177123	-.057052	-.016001	.002361
4.0	.25	-.296259	-.171804	-.066391	-.022747	-.001908
4.0	.30	-.242737	-.160872	-.071958	-.028138	-.005618
4.0	.35	-.204356	-.148132	-.074524	-.032214	-.008737
4.0	.40	-.175432	-.135374	-.074852	-.035081	-.011258
4.0	.45	-.152805	-.123354	-.073591	-.036878	-.013193
4.0	.50	-.134578	-.112330	-.071250	-.037760	-.014569
4.0	.55	-.119544	-.102336	-.068209	-.037878	-.015423
4.0	.60	-.106896	-.093307	-.064738	-.037368	-.015795
4.0	.65	-.096076	-.085143	-.061023	-.036350	-.015725
4.0	.70	-.086682	-.077738	-.057189	-.034923	-.015250
4.0	.75	-.078420	-.070989	-.053318	-.033164	-.014402
4.0	.80	-.071065	-.064802	-.049459	-.031135	-.013202
4.0	.85	-.064445	-.059094	-.045638	-.028877	-.011660
4.0	.90	-.058424	-.053790	-.041863	-.026417	-.009770
4.0	.95	-.052889	-.048822	-.038131	-.023763	-.007505
4.0	1.00	-.047746	-.044129	-.034427	-.020907	-.004797
5.0	.00		.016014	.016317	.016844	.017631
5.0	.05	-1.575373	-.077343	-.007895	.006157	.011754
5.0	.10	-.779333	-.142608	-.029941	-.004077	.006028
5.0	.15	-.513803	-.174164	-.048251	-.013473	.000585
5.0	.20	-.380896	-.181840	-.063131	-.021743	-.004461
5.0	.25	-.301034	-.176700	-.071667	-.028722	-.009024
5.0	.30	-.247692	-.165954	-.077440	-.034358	-.013046
5.0	.35	-.209499	-.153409	-.080223	-.038693	-.016497
5.0	.40	-.180772	-.140856	-.080780	-.041834	-.019374
5.0	.45	-.158353	-.129051	-.079760	-.043924	-.021691
5.0	.50	-.140345	-.118256	-.077677	-.045119	-.023481
5.0	.55	-.125544	-.108504	-.074910	-.045573	-.024784
5.0	.60	-.113143	-.099732	-.071731	-.045427	-.025648
5.0	.65	-.102586	-.091845	-.058332	-.044804	-.026120
5.0	.70	-.093475	-.084736	-.054839	-.043808	-.026249
5.0	.75	-.085517	-.078306	-.051340	-.042525	-.026079
5.0	.80	-.078492	-.072467	-.057887	-.041025	-.025649
5.0	.85	-.072231	-.067139	-.054515	-.039362	-.024997
5.0	.90	-.066604	-.062253	-.051241	-.037578	-.024152
5.0	.95	-.061506	-.057751	-.048075	-.035706	-.023140
5.0	1.00	-.056852	-.053581	-.045016	-.033769	-.021980

TABLE II. - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.266911	.000000	.000000	.000000
.6	.05	-1.434603	.268448	.000000	.000000	.000000
.6	.10	-.607783	.444852	.000000	.000000	.000000
.6	.15	-.296568	.000000	.000000	.000000	.000000
.8	.00		.141366	.000000	.000000	.000000
.8	.05	-1.478755	.073568	.000000	.000000	.000000
.8	.10	-.667277	.043195	.000000	.000000	.000000
.8	.15	-.382388	.069566	.000000	.000000	.000000
.8	.20	-.222426	.260157	.000000	.000000	.000000
.8	.25	-.091167	.000000	.000000	.000000	.000000
1.0	.00		.098666	.255056	.000000	.000000
1.0	.05	-1.503572	.017589	.303939	.000000	.000000
1.0	.10	-.698289	-.032882	.434925	.000000	.000000
1.0	.15	-.421919	-.045413	.000000	.000000	.000000
1.0	.20	-.275664	-.025577	.000000	.000000	.000000
1.0	.25	-.177941	.032476	.000000	.000000	.000000
1.0	.30	-.095640	.000000	.000000	.000000	.000000
1.2	.00		.076732	.133455	.000000	.000000
1.2	.05	-1.519457	-.009315	.129416	.000000	.000000
1.2	.10	-.717302	-.066225	.134224	.000000	.000000
1.2	.15	-.444852	-.087911	.156395	.000000	.000000
1.2	.20	-.303891	-.083343	.222426	.000000	.000000
1.2	.25	-.214269	-.061725	.975175	.000000	.000000
1.2	.30	-.148284	-.024801	.000000	.000000	.000000
1.2	.35	-.091359	.063449	.000000	.000000	.000000
1.4	.00		.063182	.091727	.245789	.000000
1.4	.05	-1.530492	-.025312	.077227	.297239	.000000
1.4	.10	-.730137	-.085175	.066783	.408638	.000000
1.4	.15	-.459831	-.110609	.063023	1.082788	.000000
1.4	.20	-.321542	-.111156	.068824	.000000	.000000
1.4	.25	-.235462	-.097385	.089742	.000000	.000000
1.4	.30	-.174683	-.075535	.148590	.000000	.000000
1.4	.35	-.127100	-.047013	.000000	.000000	.000000
1.4	.40	-.085262	-.003868	.000000	.000000	.000000
1.4	.45	-.038417	.000000	.000000	.000000	.000000
1.6	.00		.053893	.070683	.130065	.000000
1.6	.05	-1.538601	-.036003	.052251	.136828	.000000
1.6	.10	-.739378	-.097492	.036784	.149511	.000000
1.6	.15	-.470378	-.124870	.026161	.173281	.000000
1.6	.20	-.333639	-.127845	.021597	.222602	.000000
1.6	.25	-.249474	-.117289	.023967	.380769	.000000
1.6	.30	-.191194	-.100103	.034783	.000000	.000000
1.6	.35	-.147164	-.079524	.059266	.000000	.000000
1.6	.40	-.111213	-.056096	.130079	.000000	.000000
1.6	.45	-.079123	-.026752	.000000	.000000	.000000
1.6	.50	-.045584	.048484	.000000	.000000	.000000
1.8	.00		.047087	.057935	.088970	.236868
1.8	.05	-1.544811	-.043694	.037569	.086708	.286080
1.8	.10	-.746346	-.106182	.019783	.086487	.384516
1.8	.15	-.478201	-.134715	.006270	.089483	.796370
1.8	.20	-.342447	-.139060	-.002086	.097462	.000000
1.8	.25	-.259447	-.130190	-.005081	.113869	.000000
1.8	.30	-.202594	-.115186	-.002785	.148284	.000000
1.8	.35	-.160398	-.097646	.005022	.253523	.000000
1.8	.40	-.126983	-.079001	.019930	.000000	.000000
1.8	.45	-.098856	-.059284	.049349	.000000	.000000
1.8	.50	-.073447	-.036895	.201716	.000000	.000000
1.8	.55	-.047724	-.003068	.000000	.000000	.000000
2.0	.00		.041865	.049333	.068131	.127528
2.0	.05	-1.549719	-.049514	.027859	.062448	.137307
2.0	.10	-.751786	-.112665	.008795	.057897	.151970
2.0	.15	-.484233	-.141946	-.006232	.055103	.175367
2.0	.20	-.349145	-.147149	-.016441	.054734	.217462
2.0	.25	-.266911	-.139291	-.021801	.057605	.320128
2.0	.30	-.210960	-.125518	-.022706	.065014	.000000
2.0	.35	-.169859	-.109541	-.019630	.079750	.000000
2.0	.40	-.137832	-.093006	-.012789	.110382	.000000
2.0	.45	-.111580	-.076427	-.001690	.214887	.000000
2.0	.50	-.088970	-.059611	.016238	.000000	.000000
2.0	.55	-.068344	-.041564	.055355	.000000	.000000
2.0	.60	-.047820	-.018732	.000000	.000000	.000000
2.0	.65	-.022282	.000000	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00		.037720	.043105	.055553	.087354
2.2	.05	-1.553695	-.054083	.020931	.048182	.089052
2.2	.10	-.756150	-.117699	.001078	.041617	.092302
2.2	.15	-.489023	-.147493	-.014851	.036343	.097871
2.2	.20	-.354408	-.153275	-.025120	.032787	.107008
2.2	.25	-.272706	-.146079	-.033756	.031329	.122105
2.2	.30	-.217364	-.133080	-.035257	.032364	.148949
2.2	.35	-.176978	-.118036	-.034274	.036453	.208544
2.2	.40	-.145812	-.102666	-.030376	.044682	.661147
2.2	.45	-.120639	-.087621	-.023884	.059779	.000000
2.2	.50	-.099455	-.072993	-.014676	.091515	.000000
2.2	.55	-.080882	-.058514	-.001661	.260920	.000000
2.2	.60	-.063801	-.043500	.019778	.000000	.000000
2.2	.65	-.046973	-.026128	.107703	.000000	.000000
2.2	.70	-.027827	.005100	.000000	.000000	.000000
2.6	.00		.031535	.034626	.041061	.054233
2.6	.05	-1.559742	-.060817	.011642	.032113	.051318
2.6	.10	-.762716	-.125026	-.009102	.023749	.048869
2.6	.15	-.496148	-.155467	-.025025	.016381	.047100
2.6	.20	-.362144	-.161960	-.033417	.010331	.046240
2.6	.25	-.281116	-.155558	-.036146	.005809	.046544
2.6	.30	-.226526	-.143456	-.035367	.002930	.048329
2.6	.35	-.186993	-.129445	-.033223	.001738	.052054
2.6	.40	-.156813	-.115292	-.029631	.002257	.058493
2.6	.45	-.132803	-.101723	-.024179	.004552	.069223
2.6	.50	-.113038	-.088957	-.017288	.008813	.088274
2.6	.55	-.096266	-.076968	-.009191	.015554	.131503
2.6	.60	-.081618	-.065601	-.000913	.026124	.000000
2.6	.65	-.068439	-.054610	-.009163	.044923	.000000
2.6	.70	-.056164	-.043618	-.007942	.101882	.000000
2.6	.75	-.044189	-.031935	.009547	.000000	.000000
2.6	.80	-.031549	-.017636	.107455	.000000	.000000
2.6	.85	-.014955	.046796	.000000	.000000	.000000
3.0	.00		.027126	.029073	.032889	.039862
3.0	.05	-1.564124	-.065557	.000650	.023234	.035514
3.0	.10	-.767417	-.130119	-.011568	.014093	.031435
3.0	.15	-.501191	-.160938	-.023005	.005863	.027778
3.0	.20	-.367553	-.167839	-.029959	-.001158	.024685
3.0	.25	-.286921	-.161880	-.032511	-.006790	.022279
3.0	.30	-.232763	-.150266	-.032232	-.010961	.020669
3.0	.35	-.193705	-.136795	-.030881	-.013689	.019951
3.0	.40	-.164053	-.123249	-.028207	-.015048	.020230
3.0	.45	-.140640	-.110373	-.025842	-.015138	.021636
3.0	.50	-.121557	-.098412	-.023270	-.014050	.024371
3.0	.55	-.105581	-.087380	-.020837	-.011848	.028794
3.0	.60	-.091888	-.077189	-.018763	-.008526	.035624
3.0	.65	-.079891	-.067703	-.017164	-.003965	.046546
3.0	.70	-.069150	-.058764	-.016049	.002182	.066767
3.0	.75	-.059314	-.050189	-.015296	.010825	.130057
3.0	.80	-.050066	-.041751	-.014554	.024785	.000000
3.0	.85	-.041076	-.033106	-.013877	.060923	.000000
3.0	.90	-.031880	-.023585	.000404	.000000	.000000
3.0	.95	-.021493	-.010886	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.023113	.024307	.026544	.030315
3.5	.05	-1.568154	-.069829	.000566	.016438	.025221
3.5	.10	-.771700	-.134662	-.020989	.006812	.020322
3.5	.15	-.505740	-.165769	-.038787	-.001944	.015760
3.5	.20	-.372385	-.172976	-.052128	-.009538	.011653
3.5	.25	-.292055	-.167345	-.061099	-.015799	.008100
3.5	.30	-.238221	-.156083	-.066275	-.020671	.005169
3.5	.35	-.199511	-.142994	-.068425	-.024187	.002906
3.5	.40	-.170239	-.129865	-.068306	-.026445	.001334
3.5	.45	-.147241	-.117449	-.066564	-.027577	.000464
3.5	.50	-.128617	-.106000	-.063702	-.027724	.000297
3.5	.55	-.113155	-.095546	-.060090	-.027021	.000840
3.5	.60	-.100043	-.086016	-.055987	-.025582	.002112
3.5	.65	-.088715	-.077301	-.051567	-.023496	.004167
3.5	.70	-.078761	-.069284	-.046935	-.020816	.007113
3.5	.75	-.069873	-.061846	-.042145	-.017553	.011177
3.5	.80	-.061811	-.054872	-.037206	-.013657	.016829
3.5	.85	-.054376	-.048248	-.032079	-.008978	.025171
3.5	.90	-.047397	-.041850	-.026667	-.003161	.039544
3.5	.95	-.040704	-.035530	-.020770	.004681	.080181
3.5	1.00	-.034105	-.029082	-.013941	.017549	.000000
4.0	.00		.020146	.020933	.022365	.024667
4.0	.05	-1.571151	-.072959	-.003000	.012010	.019213
4.0	.10	-.774859	-.137964	-.024757	.002121	.013930
4.0	.15	-.509070	-.169251	-.042767	-.006914	.008953
4.0	.20	-.375893	-.176647	-.056333	-.014807	.004397
4.0	.25	-.295751	-.171216	-.065542	-.021390	.000354
4.0	.30	-.242116	-.160166	-.070973	-.026609	-.003116
4.0	.35	-.203619	-.147303	-.073397	-.030503	-.005978
4.0	.40	-.174572	-.134416	-.073575	-.033176	-.008221
4.0	.45	-.151817	-.122261	-.072155	-.034766	-.009854
4.0	.50	-.133455	-.111094	-.069646	-.035426	-.010900
4.0	.55	-.118279	-.100949	-.066424	-.035302	-.011389
4.0	.60	-.105480	-.091759	-.062759	-.034529	-.011353
4.0	.65	-.094497	-.083422	-.058834	-.033221	-.010821
4.0	.70	-.084929	-.075830	-.054770	-.031469	-.009815
4.0	.75	-.076478	-.068877	-.050646	-.029344	-.008343
4.0	.80	-.068916	-.062467	-.046503	-.026893	-.006394
4.0	.85	-.062068	-.056509	-.042360	-.024141	-.003926
4.0	.90	-.055790	-.050924	-.038213	-.021087	-.000845
4.0	.95	-.049964	-.045634	-.034043	-.017697	.003038
4.0	1.00	-.044485	-.040562	-.029806	-.013885	.008119
5.0	.00		.016044	.016439	.017135	.018196
5.0	.05	-1.575312	-.077251	-.007706	.006526	.012412
5.0	.10	-.779209	-.142452	-.029682	-.003629	.006782
5.0	.15	-.513616	-.173942	-.047921	-.012943	.001438
5.0	.20	-.380643	-.181551	-.061727	-.021129	-.003506
5.0	.25	-.300714	-.176342	-.071188	-.028021	-.007963
5.0	.30	-.247303	-.165525	-.076883	-.033567	-.011875
5.0	.35	-.209039	-.152906	-.079586	-.037809	-.015211
5.0	.40	-.180239	-.140277	-.080060	-.040853	-.017967
5.0	.45	-.157744	-.128395	-.078954	-.042842	-.020158
5.0	.50	-.139658	-.117518	-.076781	-.043932	-.021815
5.0	.55	-.124775	-.107682	-.073921	-.044275	-.022978
5.0	.60	-.112289	-.098823	-.070645	-.044013	-.023693
5.0	.65	-.101644	-.090843	-.067142	-.043266	-.024006
5.0	.70	-.092440	-.083637	-.063542	-.042140	-.023965
5.0	.75	-.084384	-.077106	-.059928	-.040718	-.023611
5.0	.80	-.077256	-.071159	-.056354	-.039068	-.022982
5.0	.85	-.070886	-.065717	-.052852	-.037244	-.022112
5.0	.90	-.065143	-.060710	-.049439	-.035285	-.021026
5.0	.95	-.059920	-.056078	-.046122	-.033222	-.019745
5.0	1.00	-.055133	-.051768	-.042899	-.031074	-.018284

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.575844	.000000	.000000	.000000
.6	.05	-1.420742	1.161551	.000000	.000000	.000000
.6	.10	-.574301	.000000	.000000	.000000	.000000
.6	.15	-.219941	.000000	.000000	.000000	.000000
.8	.00		.189657	.000000	.000000	.000000
.8	.05	-1.471208	.159836	.000000	.000000	.000000
.8	.10	-.650382	.201181	.000000	.000000	.000000
.8	.15	-.352077	.621110	.000000	.000000	.000000
.8	.20	-.164955	.000000	.000000	.000000	.000000
1.0	.00		.116314	.000000	.000000	.000000
1.0	.05	-1.498826	.047909	.000000	.000000	.000000
1.0	.10	-.688012	.014710	.000000	.000000	.000000
1.0	.15	-.404682	.030757	.000000	.000000	.000000
1.0	.20	-.248481	.126531	.000000	.000000	.000000
1.0	.25	-.131964	.000000	.000000	.000000	.000000
1.2	.00		.085403	.287922	.000000	.000000
1.2	.05	-1.516198	.005719	.369349	.000000	.000000
1.2	.10	-.710371	-.043434	.580775	.000000	.000000
1.2	.15	-.433588	-.054796	.000000	.000000	.000000
1.2	.20	-.287150	-.034311	.000000	.000000	.000000
1.2	.25	-.189780	.020860	.000000	.000000	.000000
1.2	.30	-.109970	.000000	.000000	.000000	.000000
1.4	.00		.068157	.142132	.000000	.000000
1.4	.05	-1.528115	-.016469	.147303	.000000	.000000
1.4	.10	-.725141	-.071870	.161906	.000000	.000000
1.4	.15	-.451858	-.091888	.201135	.000000	.000000
1.4	.20	-.310031	-.085361	.340024	.000000	.000000
1.4	.25	-.219483	-.061183	.000000	.000000	.000000
1.4	.30	-.152462	-.020001	.000000	.000000	.000000
1.4	.35	-.094260	.088680	.000000	.000000	.000000
1.6	.00		.057037	.098829	.546103	.000000
1.6	.05	-1.536792	-.030237	.088847	.910701	.000000
1.6	.10	-.735604	-.088796	.079918	.000000	.000000
1.6	.15	-.464424	-.112791	.088504	.000000	.000000
1.6	.20	-.325191	-.111680	.100591	.000000	.000000
1.6	.25	-.238058	-.095869	.142395	.000000	.000000
1.6	.30	-.176038	-.071214	.311555	.000000	.000000
1.6	.35	-.126852	-.037865	.000000	.000000	.000000
1.6	.40	-.082478	.021752	.000000	.000000	.000000
1.6	.45	-.026358	.000000	.000000	.000000	.000000
1.8	.00		.049210	.077779	.191948	.000000
1.8	.05	-1.543387	-.039664	.058090	.223630	.000000
1.8	.10	-.743394	-.100066	.044781	.276508	.000000
1.8	.15	-.473581	-.126261	.036979	.387184	.000000
1.8	.20	-.335965	-.127906	.033371	.974621	.000000
1.8	.25	-.250829	-.115796	.046896	.000000	.000000
1.8	.30	-.191434	-.096677	.076181	.000000	.000000
1.8	.35	-.146048	-.073445	.127737	.000000	.000000
1.8	.40	-.108291	-.045631	.000000	.000000	.000000
1.8	.45	-.073314	-.004652	.000000	.000000	.000000
1.8	.50	-.031572	.000000	.000000	.000000	.000000
2.0	.00		.043371	.058157	.114038	.000000
2.0	.05	-1.548569	-.046553	.039658	.120395	.000000
2.0	.10	-.749413	-.108134	.029954	.131329	.000000
2.0	.15	-.480540	-.135690	.021838	.150151	.000000
2.0	.20	-.344006	-.138959	.007355	.184181	.000000
2.0	.25	-.260153	-.128873	.008015	.257815	.000000
2.0	.30	-.202341	-.112437	.015378	.644677	.000000
2.0	.35	-.159028	-.093118	.033283	.000000	.000000
2.0	.40	-.124240	-.072059	.061265	.000000	.000000
2.0	.45	-.094277	-.048518	.180020	.000000	.000000
2.0	.50	-.065982	-.017514	.000000	.000000	.000000
2.0	.55	-.033299	.000000	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00		.038828	.049137	.081127	.283945
2.2	.05	-1.552747	-.051823	.029031	.079820	.356828
2.2	.10	-.754201	-.114210	.011459	.080476	.503201
2.2	.15	-.486004	-.142674	-.001901	.084188	1.272209
2.2	.20	-.350230	-.146992	-.010197	.092506	.000000
2.2	.25	-.267254	-.138155	-.013278	.108203	.000000
2.2	.30	-.210484	-.123269	-.011331	.137994	.000000
2.2	.35	-.168455	-.105980	-.004415	.208223	.000000
2.2	.40	-.135342	-.087821	.008218	.000000	.000000
2.2	.45	-.107749	-.069069	.030038	.000000	.000000
2.2	.50	-.083352	-.048939	.080732	.000000	.000000
2.2	.55	-.059984	-.024229	.000000	.000000	.000000
2.2	.60	-.033566	.046170	.000000	.000000	.000000
2.6	.00		.032189	.037862	.052014	.095236
2.6	.05	-1.559066	-.059387	.016054	.045484	.100446
2.6	.10	-.761333	-.122779	-.003428	.039811	.107882
2.6	.15	-.494019	-.152351	-.018981	.035496	.118723
2.6	.20	-.359222	-.157913	-.029863	.032997	.135042
2.6	.25	-.277341	-.150499	-.036100	.032733	.161236
2.6	.30	-.221825	-.137283	-.038183	.035169	.209682
2.6	.35	-.181270	-.122024	-.036758	.040992	.344766
2.6	.40	-.149942	-.106441	-.032384	.051556	.000000
2.6	.45	-.124615	-.091190	-.025373	.070297	.000000
2.6	.50	-.103295	-.076366	-.015586	.109972	.000000
2.6	.55	-.084613	-.061722	-.001931	.392785	.000000
2.6	.60	-.067481	-.046623	.019999	.000000	.000000
2.6	.65	-.050756	-.029492	.091904	.000000	.000000
2.6	.70	-.032353	-.002713	.000000	.000000	.000000
3.0	.00		.027545	.031031	.038771	.056790
3.0	.05	-1.563618	-.064577	.008374	.030415	.055350
3.0	.10	-.766385	-.128553	-.012034	.022673	.054533
3.0	.15	-.499609	-.158757	-.028611	.015970	.054608
3.0	.20	-.365393	-.165008	-.040641	.010636	.055890
3.0	.25	-.284148	-.158356	-.048189	.006901	.058767
3.0	.30	-.229337	-.145996	-.051806	.004903	.063793
3.0	.35	-.189574	-.131715	-.052224	.004725	.071868
3.0	.40	-.159155	-.117277	-.050152	.006452	.084743
3.0	.45	-.134894	-.103404	-.046161	.010252	.106641
3.0	.50	-.114860	-.090306	-.040643	.016527	.152361
3.0	.55	-.097797	-.077948	-.033787	.026256	.404519
3.0	.60	-.082827	-.066156	-.025526	.042177	.000000
3.0	.65	-.069278	-.054651	-.015360	.075444	.000000
3.0	.70	-.056556	-.042984	-.001643	.000000	.000000
3.0	.75	-.043988	-.030263	.023126	.000000	.000000
3.0	.80	-.030389	-.013561	.000000	.000000	.000000
3.0	.85	-.010202	.000000	.000000	.000000	.000000
3.5	.00		.023373	.025472	.029755	.038177
3.5	.05	-1.567783	-.069168	.002233	.020386	.034366
3.5	.10	-.770946	-.133588	-.018798	.011537	.030852
3.5	.15	-.504589	-.164263	-.036045	.003608	.027795
3.5	.20	-.370820	-.171020	-.048807	-.003100	.025346
3.5	.25	-.290056	-.164916	-.057163	-.008404	.023643
3.5	.30	-.235767	-.153154	-.061680	-.012229	.022809
3.5	.35	-.196575	-.139534	-.063120	-.014588	.022970
3.5	.40	-.166788	-.125835	-.062229	-.015548	.024266
3.5	.45	-.143236	-.112802	-.059634	-.015198	.026893
3.5	.50	-.124013	-.100680	-.055819	-.013618	.031162
3.5	.55	-.107893	-.089480	-.051123	-.010846	.037646
3.5	.60	-.094051	-.079113	-.045762	-.006843	.047546
3.5	.65	-.081898	-.069440	-.039839	-.001421	.063928
3.5	.70	-.070994	-.060301	-.033347	.005912	.098397
3.5	.75	-.060985	-.051505	-.026133	.016438	.445831
3.5	.80	-.051550	-.042816	-.017776	.034440	.000000
3.5	.85	-.042352	-.033870	-.007126	.095651	.000000
3.5	.90	-.032914	-.023940	.010542	.000000	.000000
3.5	.95	-.022219	-.010478	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00		.020318	.021685	.024335	.029079
4.0	.05	-1.570868	-.072488	-.001870	.014455	.024348
4.0	.10	-.774285	-.137182	-.023276	.005066	.019889
4.0	.15	-.508194	-.168149	-.040902	-.003444	.015654
4.0	.20	-.374707	-.175214	-.054067	-.010787	.011977
4.0	.25	-.294242	-.169437	-.063856	-.016766	.008870
4.0	.30	-.240270	-.158027	-.067845	-.021583	.006417
4.0	.35	-.201420	-.144785	-.067801	-.024609	.004576
4.0	.40	-.172003	-.131499	-.067480	-.026556	.003277
4.0	.45	-.148855	-.118919	-.067535	-.027357	.002446
4.0	.50	-.130076	-.107300	-.064436	-.027142	.004007
4.0	.55	-.114452	-.096667	-.060583	-.026039	.005398
4.0	.60	-.101170	-.086947	-.056219	-.024151	.007689
4.0	.65	-.089662	-.078029	-.051512	-.021549	.011016
4.0	.70	-.079514	-.069792	-.046559	-.018359	.015642
4.0	.75	-.070415	-.062112	-.041402	-.014746	.022104
4.0	.80	-.062120	-.054866	-.036029	-.010937	.031633
4.0	.85	-.054423	-.047928	-.030369	-.006334	.047827
4.0	.90	-.047138	-.041154	-.024259	.004662	.070010
4.0	.95	-.040074	-.034358	-.017549	.016930	.099000
4.0	1.00	-.032991	-.027246	-.008757	.046856	.000000
5.0	.00		.016131	.016808	.018048	.020061
5.0	.05	-1.575131	-.076975	-.003126	.007692	.014605
5.0	.10	-.778844	-.141984	-.024887	-.008203	.009314
5.0	.15	-.513060	-.173278	-.046905	-.011249	.004325
5.0	.20	-.379894	-.180685	-.061483	-.019157	-.000855
5.0	.25	-.299765	-.175268	-.069709	-.025761	-.004329
5.0	.30	-.246148	-.164236	-.073161	-.031007	-.007837
5.0	.35	-.207671	-.151395	-.073611	-.034936	-.010749
5.0	.40	-.178651	-.138536	-.071822	-.037651	-.013056
5.0	.45	-.155927	-.126413	-.068441	-.039294	-.014768
5.0	.50	-.137602	-.115287	-.064979	-.040017	-.015912
5.0	.55	-.122470	-.105188	-.061614	-.039971	-.016588
5.0	.60	-.109722	-.096053	-.058216	-.039292	-.016635
5.0	.65	-.098800	-.087781	-.054571	-.038097	-.015891
5.0	.70	-.089304	-.080266	-.050404	-.036484	-.015521
5.0	.75	-.080936	-.073405	-.045395	-.034530	-.014351
5.0	.80	-.073475	-.067102	-.051392	-.032292	-.012797
5.0	.85	-.066745	-.061275	-.047420	-.029811	-.010859
5.0	.90	-.060611	-.055848	-.043486	-.027107	-.008515
5.0	.95	-.054959	-.050753	-.039586	-.024184	-.005713
5.0	1.00	-.049696	-.045925	-.035699	-.021024	-.002347

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.000000	.000000	.000000	.000000
.6	.05	-1.403615	.000000	.000000	.000000	.000000
.6	.10	-.530516	.000000	.000000	.000000	.000000
.8	.00		.300775	.000000	.000000	.000000
.8	.05	-1.461932	.397198	.000000	.000000	.000000
.8	.10	-.629115	1.034507	.000000	.000000	.000000
.8	.15	-.311043	.000000	.000000	.000000	.000000
1.0	.00		.146282	.000000	.000000	.000000
1.0	.05	-1.493006	.103863	.000000	.000000	.000000
1.0	.10	-.675237	.112345	.000000	.000000	.000000
1.0	.15	-.382561	.237796	.000000	.000000	.000000
1.0	.20	-.210542	.000000	.000000	.000000	.000000
1.2	.00		.098452	.000000	.000000	.000000
1.2	.05	-1.512205	.029658	.000000	.000000	.000000
1.2	.10	-.701807	-.005216	.000000	.000000	.000000
1.2	.15	-.419410	.005569	.000000	.000000	.000000
1.2	.20	-.265258	.075194	.000000	.000000	.000000
1.2	.25	-.154671	.000000	.000000	.000000	.000000
1.4	.00		.075187	.318079	.000000	.000000
1.4	.05	-1.525205	-.003425	.436416	.000000	.000000
1.4	.10	-.718989	-.051593	.748964	.000000	.000000
1.4	.15	-.441917	-.062109	.000000	.000000	.000000
1.4	.20	-.295355	-.041173	.000000	.000000	.000000
1.4	.25	-.198212	.012275	.000000	.000000	.000000
1.4	.30	-.119831	.280686	.000000	.000000	.000000
1.6	.00		.061316	.150387	.000000	.000000
1.6	.05	-1.534577	-.022114	.166050	.000000	.000000
1.6	.10	-.730966	-.076260	.198599	.000000	.000000
1.6	.15	-.457042	-.094906	.270825	.000000	.000000
1.6	.20	-.314558	-.086776	.517254	.000000	.000000
1.6	.25	-.223314	-.060500	.000000	.000000	.000000
1.6	.30	-.155521	-.015765	.000000	.000000	.000000
1.6	.35	-.096379	.113379	.000000	.000000	.000000
1.8	.00		.052030	.098049	.000000	.000000
1.8	.05	-1.541645	-.034156	.093232	.000000	.000000
1.8	.10	-.739770	-.091560	.094696	.000000	.000000
1.8	.15	-.467872	-.114284	.107121	.000000	.000000
1.8	.20	-.327868	-.111705	.138972	.000000	.000000
1.8	.25	-.239876	-.094064	.219967	.000000	.000000
1.8	.30	-.176839	-.066810	.000000	.000000	.000000
1.8	.35	-.126313	-.028594	.000000	.000000	.000000
1.8	.40	-.079700	.056140	.000000	.000000	.000000
2.0	.00		.045337	.073141	.326006	.000000
2.0	.05	-1.547163	-.042590	.060590	.434979	.000000
2.0	.10	-.746503	-.101988	.051931	.674711	.000000
2.0	.15	-.475989	-.127090	.049649	.000000	.000000
2.0	.20	-.337619	-.127502	.056172	.000000	.000000
2.0	.25	-.251646	-.113930	.075351	.000000	.000000
2.0	.30	-.191280	-.092944	.118898	.000000	.000000
2.0	.35	-.144694	-.067005	.278566	.000000	.000000
2.0	.40	-.105271	-.034131	.000000	.000000	.000000
2.0	.45	-.067338	.028365	.000000	.000000	.000000
2.2	.00		.040259	.058674	.155353	.000000
2.2	.05	-1.551588	-.048846	.042313	.178905	.000000
2.2	.10	-.751812	-.109563	.029009	.214389	.000000
2.2	.15	-.482288	-.136188	.020700	.274977	.000000
2.2	.20	-.345055	-.138428	.018687	.410851	.000000
2.2	.25	-.260435	-.127163	.023992	.000000	.000000
2.2	.30	-.201755	-.109310	.038397	.000000	.000000
2.2	.35	-.157414	-.088160	.067682	.000000	.000000
2.2	.40	-.121323	-.064437	.144178	.000000	.000000
2.2	.45	-.089509	-.036003	.000000	.000000	.000000
2.2	.50	-.057875	.013033	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00		.033019	.042560	.073898	.328014
2.6	.05	-1.558240	-.057541	.022641	.073326	.427430
2.6	.10	-.759639	-.119857	.005221	.074635	.629823
2.6	.15	-.491405	-.148274	-.008033	.078862	2.176314
2.6	.20	-.355618	-.152575	-.016288	.087414	.000000
2.6	.25	-.272658	-.143759	-.019425	.102662	.000000
2.6	.30	-.215941	-.128948	-.017697	.129861	.000000
2.6	.35	-.174019	-.111816	-.011307	.186293	.000000
2.6	.40	-.141090	-.093946	.000104	.436540	.000000
2.6	.45	-.113811	-.075733	.018604	.000000	.000000
2.6	.50	-.089965	-.056709	.033495	.000000	.000000
2.6	.55	-.067699	-.035032	.031466	.000000	.000000
2.6	.60	-.044471	-.001563	.000000	.000000	.000000
3.0	.00		.028071	.033741	.048761	.102548
3.0	.05	-1.562999	-.063329	.022231	.042982	.111733
3.0	.10	-.765122	-.126548	.006954	.038095	.123941
3.0	.15	-.497669	-.155951	-.002206	.034621	.140894
3.0	.20	-.362735	-.161346	-.012782	.033039	.165841
3.0	.25	-.280723	-.153768	-.018705	.033806	.206336
3.0	.30	-.225079	-.140391	-.020464	.037448	.287507
3.0	.35	-.184400	-.124973	-.018698	.044763	.650176
3.0	.40	-.152955	-.109236	-.013963	.057341	.000000
3.0	.45	-.127520	-.093835	-.006559	.079265	.000000
3.0	.50	-.106103	-.078873	-.016342	.126169	.000000
3.0	.55	-.087346	-.064112	-.002221	.634029	.000000
3.0	.60	-.070181	-.048956	.020051	.000000	.000000
3.0	.65	-.053520	-.031976	.034850	.000000	.000000
3.0	.70	-.035548	-.007216	.000000	.000000	.000000
3.5	.00		.023697	.027028	.034660	.053668
3.5	.05	-1.567330	-.068336	.004501	.026556	.052946
3.5	.10	-.770023	-.132228	-.015782	.019064	.052875
3.5	.15	-.503178	-.162353	-.032238	.012607	.053735
3.5	.20	-.368898	-.168530	-.044153	.007516	.055853
3.5	.25	-.287595	-.161810	-.051594	.004020	.059642
3.5	.30	-.232732	-.149389	-.055111	.002255	.065679
3.5	.35	-.192925	-.135055	-.055440	.002300	.074909
3.5	.40	-.162470	-.120574	-.053293	.004231	.089138
3.5	.45	-.138185	-.106671	-.049247	.008196	.112629
3.5	.50	-.118142	-.093562	-.043707	.014547	.159656
3.5	.55	-.101090	-.081218	-.036884	.024126	.365870
3.5	.60	-.086162	-.069483	-.028761	.039160	.000000
3.5	.65	-.072703	-.058105	-.018968	.067562	.000000
3.5	.70	-.060155	-.046706	-.006319	.199590	.000000
3.5	.75	-.047933	-.034605	.013628	.000000	.000000
3.5	.80	-.035154	-.020013	.121651	.000000	.000000
3.5	.85	-.019289	.013468	.000000	.000000	.000000
4.0	.00		.020533	.022668	.027168	.036571
4.0	.05	-1.570521	-.071894	-.000418	.018046	.033273
4.0	.10	-.773581	-.136200	-.021295	.009451	.030295
4.0	.15	-.507122	-.166762	-.033389	.001782	.027806
4.0	.20	-.373251	-.173406	-.039994	-.004657	.025966
4.0	.25	-.292386	-.167188	-.039190	-.009681	.024924
4.0	.30	-.237994	-.155311	-.036545	-.013211	.024824
4.0	.35	-.198700	-.141574	-.032817	-.015256	.025817
4.0	.40	-.168809	-.127758	-.028751	-.015877	.028086
4.0	.45	-.145153	-.114605	-.024974	-.015155	.031894
4.0	.50	-.125823	-.102358	-.021965	-.013156	.037676
4.0	.55	-.109595	-.091031	-.019061	-.009899	.046257
4.0	.60	-.095640	-.080530	-.016472	-.005310	.059449
4.0	.65	-.083372	-.070716	-.014293	.000861	.082328
4.0	.70	-.072347	-.061424	-.012502	.009248	.139283
4.0	.75	-.062209	-.052461	-.010920	.021518	.000000
4.0	.80	-.052636	-.043582	-.009066	.043645	.000000
4.0	.85	-.043284	-.034408	-.006611	.153662	.000000
4.0	.90	-.033669	-.024169	.011183	.000000	.000000
4.0	.95	-.022748	-.010114	.001000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00		.016239	.017279	.019280	.022815
5.0	.05	-1.574910	-.076634	-.006379	.009287	.017895
5.0	.10	-.778396	-.141403	-.027857	-.000233	.013163
5.0	.15	-.512381	-.172451	-.045583	-.008888	.008759
5.0	.20	-.378976	-.179605	-.058859	-.016591	.004802
5.0	.25	-.298601	-.173926	-.067770	-.022569	.001386
5.0	.30	-.244729	-.162822	-.073694	-.027360	-.001421
5.0	.35	-.205987	-.149499	-.075001	-.030820	-.003576
5.0	.40	-.176691	-.136344	-.074350	-.033029	-.005061
5.0	.45	-.153677	-.123911	-.073086	-.034128	-.005872
5.0	.50	-.135047	-.112456	-.070216	-.034263	-.006016
5.0	.55	-.119592	-.102009	-.066613	-.033574	-.005502
5.0	.60	-.106500	-.092501	-.062540	-.032184	-.004338
5.0	.65	-.095210	-.083828	-.058177	-.030194	-.002491
5.0	.70	-.085315	-.075876	-.053638	-.027678	.000063
5.0	.75	-.076512	-.068535	-.048988	-.024679	.003427
5.0	.80	-.068571	-.061700	-.044257	-.021202	.007791
5.0	.85	-.061305	-.055273	-.039440	-.017207	.013536
5.0	.90	-.054563	-.049156	-.034503	-.012580	.021487
5.0	.95	-.048207	-.043251	-.029368	-.007069	.033821
5.0	1.00	-.042108	-.037443	-.023893	-.000109	.059356

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 3.5$

x_o	$\|y_{i,o}\|$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.000000	.000000	.000000	.000000
.6	.05	-1.383100	.000000	.000000	.000000	.000000
.6	.10	-.473581	.000000	.000000	.000000	.000000
.8	.00		.692103	.000000	.000000	.000000
.8	.05	-1.450891	1.887801	.000000	.000000	.000000
.8	.10	-.603016	.000000	.000000	.000000	.000000
.8	.15	-.254146	.000000	.000000	.000000	.000000
1.0	.00		.202601	.000000	.000000	.000000
1.0	.05	-1.486097	.221912	.000000	.000000	.000000
1.0	.10	-.659822	.369522	.000000	.000000	.000000
1.0	.15	-.354643	.000000	.000000	.000000	.000000
1.0	.20	-.154101	.000000	.000000	.000000	.000000
1.2	.00		.118756	.000000	.000000	.000000
1.2	.05	-1.507472	.069620	.000000	.000000	.000000
1.2	.10	-.691550	.063641	.000000	.000000	.000000
1.2	.15	-.402011	.134364	.000000	.000000	.000000
1.2	.20	-.236790	.946355	.000000	.000000	.000000
1.2	.25	-.098137	.000000	.000000	.000000	.000000
1.4	.00		.085194	.000000	.000000	.000000
1.4	.05	-1.521759	.016132	.000000	.000000	.000000
1.4	.10	-.711649	-.019851	.000000	.000000	.000000
1.4	.15	-.429872	-.012250	.000000	.000000	.000000
1.4	.20	-.277009	.045067	.000000	.000000	.000000
1.4	.25	-.169668	.338725	.000000	.000000	.000000
1.4	.30	-.062122	.000000	.000000	.000000	.000000
1.6	.00		.067106	.346052	.000000	.000000
1.6	.05	-1.531955	-.010657	.505371	.000000	.000000
1.6	.10	-.725446	-.058061	.943901	.000000	.000000
1.6	.15	-.448160	-.067938	.000000	.000000	.000000
1.6	.20	-.301508	-.046669	.000000	.000000	.000000
1.6	.25	-.204523	.005632	.000000	.000000	.000000
1.6	.30	-.127073	.196876	.000000	.000000	.000000
1.6	.35	-.035348	.000000	.000000	.000000	.000000
1.8	.00		.055727	.153259	.000000	.000000
1.8	.05	-1.539584	-.026685	.185599	.000000	.000000
1.8	.10	-.735464	-.079776	.235227	.000000	.000000
1.8	.15	-.461033	-.097276	.343505	.000000	.000000
1.8	.20	-.318033	-.087815	.830775	.000000	.000000
1.8	.25	-.226248	-.059794	.000000	.000000	.000000
1.8	.30	-.157860	-.012054	.000000	.000000	.000000
1.8	.35	-.097995	.137643	.000000	.000000	.000000
2.0	.00		.047860	.101301	.000000	.000000
2.0	.05	-1.545499	-.037358	.103249	.000000	.000000
2.0	.10	-.743049	-.093739	.110956	.000000	.000000
2.0	.15	-.470553	-.115341	.133797	.000000	.000000
2.0	.20	-.329911	-.111460	.184761	.000000	.000000
2.0	.25	-.241206	-.092177	.330248	.000000	.000000
2.0	.30	-.177322	-.062519	.000000	.000000	.000000
2.0	.35	-.125662	-.019420	.000000	.000000	.000000
2.0	.40	-.077051	.110843	.000000	.000000	.000000
2.2	.00		.042066	.074656	.743488	.000000
2.2	.05	-1.550217	-.044989	.065614	1.380159	.000000
2.2	.10	-.748979	-.103466	.061078	.000000	.000000
2.2	.15	-.477859	-.127565	.064027	.000000	.000000
2.2	.20	-.338837	-.126840	.073005	.000000	.000000
2.2	.25	-.252140	-.111902	.110154	.000000	.000000
2.2	.30	-.190927	-.089123	.183695	.000000	.000000
2.2	.35	-.143272	-.060442	.000000	.000000	.000000
2.2	.40	-.102309	-.021700	.000000	.000000	.000000
2.2	.45	-.061315	.102941	.000000	.000000	.000000
2.6	.00		.034047	.049503	.129489	.000000
2.6	.05	-1.557263	-.055212	.033711	.148657	.000000
2.6	.10	-.757632	-.116136	.013790	.175978	.000000
2.6	.15	-.488297	-.143038	.009585	.218624	.000000
2.6	.20	-.351311	-.145649	.005226	.296316	.000000
2.6	.25	-.267016	-.134894	.009362	.513744	.000000
2.6	.30	-.208772	-.117769	.019838	.000000	.000000
2.6	.35	-.165040	-.097727	.040196	.000000	.000000
2.6	.40	-.129853	-.075898	.080623	.000000	.000000
2.6	.45	-.099541	-.051539	.251470	.000000	.000000
2.6	.50	-.071058	-.019905	.000000	.000000	.000000
2.6	.55	-.039226	.315629	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 3.5$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00		.028715	.037490	.067534	.369429
3.0	.05	-1.562267	-.061778	.017714	.067542	.498012
3.0	.10	-.763626	-.124041	.000407	.069356	.764763
3.0	.15	-.495366	-.152423	-.012770	.073971	.878668
3.0	.20	-.359569	-.156711	-.020994	.082695	.000000
3.0	.25	-.276620	-.147911	-.024171	.097634	.000000
3.0	.30	-.219941	-.133152	-.022593	.123174	.000000
3.0	.35	-.178092	-.116128	-.016552	.172238	.000000
3.0	.40	-.145288	-.098450	-.005903	.324357	.000000
3.0	.45	-.118214	-.080580	.010743	.000000	.000000
3.0	.50	-.094716	-.062213	.039143	.000000	.000000
3.0	.55	-.073093	-.042069	.125399	.000000	.000000
3.0	.60	-.051367	-.015356	.000000	.000000	.000000
3.0	.65	-.024035	.000000	.000000	.000000	.000000
3.5	.00		.024090	.029081	.042457	.091921
3.5	.05	-1.566793	-.067315	.007560	.036652	.100945
3.5	.10	-.768931	-.130553	-.011657	.031675	.112540
3.5	.15	-.501506	-.159990	-.026969	.028026	.128073
3.5	.20	-.366614	-.165436	-.037641	.026150	.149932
3.5	.25	-.284660	-.157930	-.043704	.026444	.183084
3.5	.30	-.229094	-.144653	-.045665	.029320	.241006
3.5	.35	-.188520	-.129370	-.044191	.035342	.386909
3.5	.40	-.157215	-.113817	-.039885	.045537	.000000
3.5	.45	-.131966	-.098671	-.033145	.062243	.000000
3.5	.50	-.110804	-.084073	-.024033	.092447	.000000
3.5	.55	-.092408	-.069864	-.012032	.175120	.000000
3.5	.60	-.075788	-.055632	.004839	.000000	.000000
3.5	.65	-.060047	-.040529	.035339	.000000	.000000
3.5	.70	-.044029	-.022223	.000000	.000000	.000000
3.5	.75	-.024849	.021934	.000000	.000000	.000000
4.0	.00		.020791	.023930	.031297	.050650
4.0	.05	-1.570112	-.071174	.001506	.023399	.050554
4.0	.10	-.772750	-.135001	-.018679	.016108	.051124
4.0	.15	-.505852	-.165066	-.035042	.009847	.052653
4.0	.20	-.371524	-.171187	-.046870	.004948	.055478
4.0	.25	-.290178	-.164416	-.054228	.001639	.060026
4.0	.30	-.235277	-.151949	-.057670	.000054	.066899
4.0	.35	-.195436	-.137576	-.057933	.000270	.077068
4.0	.40	-.164955	-.123064	-.055730	.002355	.092380
4.0	.45	-.140653	-.109139	-.051644	.006442	.117116
4.0	.50	-.120603	-.096022	-.046088	.012848	.165124
4.0	.55	-.103560	-.083689	-.039288	.022323	.348663
4.0	.60	-.088661	-.071993	-.031260	.036777	.000000
4.0	.65	-.075263	-.060701	-.021712	.062439	.000000
4.0	.70	-.062831	-.049477	-.009710	.144785	.000000
4.0	.75	-.050829	-.037754	.007896	.000000	.000000
4.0	.80	-.038525	-.024221	.055422	.000000	.000000
4.0	.85	-.024232	-.002371	.000000	.000000	.000000
5.0	.00		.016368	.017865	.020928	.026981
5.0	.05	-1.574649	-.076222	-.005439	.011456	.022972
5.0	.10	-.777867	-.140702	-.026550	.002479	.019203
5.0	.15	-.511577	-.171452	-.043896	-.005609	.015822
5.0	.20	-.377888	-.178297	-.056777	-.012513	.012963
5.0	.25	-.297219	-.172298	-.065275	-.018056	.010738
5.0	.30	-.243041	-.160660	-.069963	-.022174	.009240
5.0	.35	-.203979	-.147185	-.071608	-.024894	.008540
5.0	.40	-.174346	-.133659	-.070962	-.026303	.008701
5.0	.45	-.150975	-.120831	-.068665	-.026518	.009787
5.0	.50	-.131964	-.108953	-.065215	-.025662	.011881
5.0	.55	-.116099	-.098047	-.060971	-.023843	.015114
5.0	.60	-.102563	-.088038	-.056183	-.021138	.019714
5.0	.65	-.090784	-.078810	-.051005	-.017576	.026109
5.0	.70	-.080345	-.070234	-.045520	-.013115	.035173
5.0	.75	-.070929	-.062178	-.039741	-.007597	.048995
5.0	.80	-.062279	-.054504	-.033615	-.000641	.074324
5.0	.85	-.054177	-.047062	-.026986	.008671	.163847
5.0	.90	-.046410	-.039665	-.019517	.023051	.000000
5.0	.95	-.038739	-.032036	-.010389	.057263	.000000
5.0	1.00	-.030820	-.023649	.003205	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 4.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.000000	.000000	.000000	.000000
.6	.05	-1.359044	.000000	.000000	.000000	.000000
.6	.10	-.397887	.000000	.000000	.000000	.000000
.8	.00		.000000	.000000	.000000	.000000
.8	.05	-1.438048	.000000	.000000	.000000	.000000
.8	.10	-.571422	.000000	.000000	.000000	.000000
.8	.15	-.165786	.000000	.000000	.000000	.000000
1.0	.00		.331573	.000000	.000000	.000000
1.0	.05	-1.478086	.549528	.000000	.000000	.000000
1.0	.10	-.641574	3.541197	.000000	.000000	.000000
1.0	.15	-.319413	.000000	.000000	.000000	.000000
1.2	.00		.152521	.000000	.000000	.000000
1.2	.05	-1.501992	.142243	.000000	.000000	.000000
1.2	.10	-.679522	.205948	.000000	.000000	.000000
1.2	.15	-.380948	.598670	.000000	.000000	.000000
1.2	.20	-.198944	.000000	.000000	.000000	.000000
1.4	.00		.099821	.000000	.000000	.000000
1.4	.05	1.517773	.046531	.000000	.000000	.000000
1.4	.10	-.703085	.032500	.000000	.000000	.000000
1.4	.15	-.415541	.080358	.000000	.000000	.000000
1.4	.20	-.254201	.304267	.000000	.000000	.000000
1.4	.25	-.129118	.000000	.000000	.000000	.000000
1.6	.00		.075011	.000000	.000000	.000000
1.6	.05	-1.528925	.005750	.000000	.000000	.000000
1.6	.10	-.719024	-.031020	.000000	.000000	.000000
1.6	.15	-.437689	-.025551	.000000	.000000	.000000
1.6	.20	-.285711	.024618	.000000	.000000	.000000
1.6	.25	-.180426	.200185	.000000	.000000	.000000
1.6	.30	-.082893	.000000	.000000	.000000	.000000
1.8	.00		.060568	.372221	.000000	.000000
1.8	.05	-1.537201	-.016507	.576386	.000000	.000000
1.8	.10	-.730464	-.063302	1.171808	.000000	.000000
1.8	.15	-.453015	-.072677	.000000	.000000	.000000
1.8	.20	-.306294	-.051154	.000000	.000000	.000000
1.8	.25	-.209425	.000328	.000000	.000000	.000000
1.8	.30	-.132629	.160949	.000000	.000000	.000000
1.8	.35	-.047682	.000000	.000000	.000000	.000000
2.0	.00		.051074	.165786	.000000	.000000
2.0	.05	-1.543577	-.030464	.205913	.000000	.000000
2.0	.10	-.739043	-.082657	.274754	.000000	.000000
2.0	.15	-.464202	-.099188	.425682	.000000	.000000
2.0	.20	-.320787	-.088605	1.770599	.000000	.000000
2.0	.25	-.228569	-.059111	.000000	.000000	.000000
2.0	.30	-.159707	-.008802	.000000	.000000	.000000
2.0	.35	-.099269	.161624	.000000	.000000	.000000
2.2	.00		.044325	.104539	.000000	.000000
2.2	.05	-1.548634	-.040028	.111817	.000000	.000000
2.2	.10	-.745696	-.095501	.128595	.000000	.000000
2.2	.15	-.472697	-.116107	.163541	.000000	.000000
2.2	.20	-.331518	-.111068	.239199	.000000	.000000
2.2	.25	-.242215	-.090308	.512858	.000000	.000000
2.2	.30	-.177614	-.058429	.000000	.000000	.000000
2.2	.35	-.124982	-.010446	.000000	.000000	.000000
2.2	.40	-.074570	.260504	.000000	.000000	.000000
2.6	.00		.035300	.060204	.395547	.000000
2.6	.05	-1.556134	-.052306	.048857	.574666	.000000
2.6	.10	-.755310	-.111448	.041259	.992205	.000000
2.6	.15	-.484687	-.136372	.039818	.000000	.000000
2.6	.20	-.346276	-.136716	.046734	.000000	.000000
2.6	.25	-.260355	-.123239	.065112	.000000	.000000
2.6	.30	-.200182	-.102642	.103271	.000000	.000000
2.6	.35	-.154030	-.077732	.204535	.000000	.000000
2.6	.40	-.115538	-.047856	.000000	.000000	.000000
2.6	.45	-.079972	-.003995	.000000	.000000	.000000
2.6	.50	-.039196	.000000	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 4.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00		.029488	.042761	.110524	.000000
3.0	.05	-1.561423	-.059880	.025669	.126961	.000000
3.0	.10	-.761896	-.120951	.011328	.149587	.000000
3.0	.15	-.492695	-.148045	.001532	.183176	.000000
3.0	.20	-.355881	-.150910	-.002687	.238732	.000000
3.0	.25	-.271809	-.140496	-.000863	.355129	.000000
3.0	.30	-.213858	-.123842	.007418	1.180399	.000000
3.0	.35	-.170523	-.104487	.023483	.000000	.000000
3.0	.40	-.135904	-.083749	.052254	.000000	.000000
3.0	.45	-.106471	-.061416	.120228	.000000	.000000
3.0	.50	-.079577	-.035142	.000000	.000000	.000000
3.0	.55	-.052000	.009198	.000000	.000000	.000000
3.5	.00		.024558	.031793	.055862	.259467
3.5	.05	-1.566175	-.066085	.011705	.054623	.333905
3.5	.10	-.767670	-.128524	-.005978	.054814	.449277
3.5	.15	-.499569	-.157114	-.019616	.057220	.689466
3.5	.20	-.363960	-.161650	-.028420	.062761	6.059281
3.5	.25	-.281234	-.153150	-.032344	.072693	.000000
3.5	.30	-.224824	-.138764	-.031772	.089194	.000000
3.5	.35	-.183307	-.122214	-.027167	.117206	.000000
3.5	.40	-.150923	-.105166	-.018754	.173016	.000000
3.5	.45	-.124404	-.088181	-.006126	.404720	.000000
3.5	.50	-.101680	-.071179	.012741	.000000	.000000
3.5	.55	-.081244	-.053514	.046509	.000000	.000000
3.5	.60	-.061687	-.033377	.290583	.000000	.000000
3.5	.65	-.040830	-.002314	.000000	.000000	.000000
4.0	.00		.021096	.025537	.037537	.082893
4.0	.05	-1.569639	-.070314	.004009	.031711	.091798
4.0	.10	-.771789	-.133566	-.015232	.026668	.102956
4.0	.15	-.504383	-.163027	-.030589	.022894	.117517
4.0	.20	-.369521	-.168510	-.041329	.020810	.137382
4.0	.25	-.287610	-.161057	-.047492	.020778	.166221
4.0	.30	-.232101	-.147851	-.049594	.023143	.212841
4.0	.35	-.191602	-.132663	-.048320	.028338	.308389
4.0	.40	-.160394	-.117238	-.044303	.037104	.885299
4.0	.45	-.135274	-.102266	-.037990	.051008	.000000
4.0	.50	-.114284	-.087910	-.029555	.074171	.000000
4.0	.55	-.096127	-.074053	-.018742	.122614	.000000
4.0	.60	-.079853	-.060373	-.004401	.824553	.000000
4.0	.65	-.064656	-.046265	.017650	.000000	.000000
4.0	.70	-.049634	-.030359	.080812	.000000	.000000
4.0	.75	-.033157	-.007010	.000000	.000000	.000000
5.0	.00		.016520	.018583	.023140	.033625
5.0	.05	-1.574347	-.075737	-.004267	.014428	.031265
5.0	.10	-.777256	-.139873	-.024909	.006246	.029261
5.0	.15	-.510648	-.170268	-.041767	-.001001	.027799
5.0	.20	-.376629	-.176745	-.054135	-.007007	.027057
5.0	.25	-.295617	-.170361	-.062090	-.011581	.027209
5.0	.30	-.241079	-.158317	-.066200	-.014639	.028435
5.0	.35	-.201638	-.144413	-.067221	-.016183	.030941
5.0	.40	-.171600	-.130426	-.065895	-.016264	.034993
5.0	.45	-.147795	-.117101	-.062846	-.014947	.041001
5.0	.50	-.128315	-.104678	-.058550	-.012279	.049676
5.0	.55	-.111933	-.093168	-.053338	-.008243	.062440
5.0	.60	-.097822	-.082476	-.047411	-.002707	.082722
5.0	.65	-.085392	-.072462	-.040852	.004697	.122119
5.0	.70	-.074199	-.062956	-.033617	.014859	.294386
5.0	.75	-.063883	-.053758	-.025485	.030220	.000000
5.0	.80	-.054119	-.044611	-.015877	.060694	.000000
5.0	.85	-.044556	-.035115	-.003170	.000000	.000000
5.0	.90	-.034698	-.024437	.020234	.000000	.000000
5.0	.95	-.023469	-.009519	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 4.5$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.000000	.000000	.000000	.000000
.6	.05	-1.331255	.000000	.000000	.000000	.000000
.6	.10	-.289058	.000000	.000000	.000000	.000000
.8	.00		.000000	.000000	.000000	.000000
.8	.05	-1.423351	.000000	.000000	.000000	.000000
.8	.10	-.533358	.000000	.000000	.000000	.000000
1.0	.00		.793753	.000000	.000000	.000000
1.0	.05	-1.468954	2.883511	.000000	.000000	.000000
1.0	.10	-.620245	.000000	.000000	.000000	.000000
1.0	.15	-.274065	.000000	.000000	.000000	.000000
1.2	.00		.215480	.000000	.000000	.000000
1.2	.05	-1.495757	.295095	.000000	.000000	.000000
1.2	.10	-.665628	.608281	.000000	.000000	.000000
1.2	.15	-.355572	.000000	.000000	.000000	.000000
1.2	.20	-.144529	.000000	.000000	.000000	.000000
1.4	.00		.122222	.000000	.000000	.000000
1.4	.05	-1.513243	.096651	.000000	.000000	.000000
1.4	.10	-.693251	.126821	.000000	.000000	.000000
1.4	.15	-.398676	.298545	.000000	.000000	.000000
1.4	.20	-.225581	.000000	.000000	.000000	.000000
1.4	.25	-.054223	.000000	.000000	.000000	.000000
1.6	.00		.086032	.000000	.000000	.000000
1.6	.05	-1.525483	.029927	.000000	.000000	.000000
1.6	.10	-.711676	.010790	.000000	.000000	.000000
1.6	.15	-.425509	.046206	.000000	.000000	.000000
1.6	.20	-.266679	.187176	.000000	.000000	.000000
1.6	.25	-.148460	.000000	.000000	.000000	.000000
1.8	.00		.066963	.000000	.000000	.000000
1.8	.05	-1.534497	-.002449	.000000	.000000	.000000
1.8	.10	-.724756	-.039807	.000000	.000000	.000000
1.8	.15	-.443752	-.035866	.000000	.000000	.000000
1.8	.20	-.292420	.009637	.000000	.000000	.000000
1.8	.25	-.188553	.144523	.000000	.000000	.000000
1.8	.30	-.096353	.000000	.000000	.000000	.000000
2.0	.00		.055176	.396877	.000000	.000000
2.0	.05	-1.541396	-.021331	.649587	.000000	.000000
2.0	.10	-.734477	-.067628	1.441756	.000000	.000000
2.0	.15	-.456897	-.076600	.000000	.000000	.000000
2.0	.20	-.310123	-.054876	.000000	.000000	.000000
2.0	.25	-.213343	-.004007	.000000	.000000	.000000
2.0	.30	-.137032	.139752	.000000	.000000	.000000
2.0	.35	-.055910	.000000	.000000	.000000	.000000
2.2	.00		.047140	.173007	.000000	.000000
2.2	.05	-1.546837	-.033642	.226968	.000000	.000000
2.2	.10	-.741958	-.085062	.317217	.000000	.000000
2.2	.15	-.466778	-.100764	.522480	.000000	.000000
2.2	.20	-.323023	-.089224	.000000	.000000	.000000
2.2	.25	-.230450	-.058471	.000000	.000000	.000000
2.2	.30	-.161202	-.005940	.000000	.000000	.000000
2.2	.35	-.100299	.185489	.000000	.000000	.000000
2.6	.00		.036817	.077914	.000000	.000000
2.6	.05	-1.554855	-.048702	.076922	.000000	.000000
2.6	.10	-.752670	-.105564	.081993	.000000	.000000
2.6	.15	-.480562	-.127902	.097627	.000000	.000000
2.6	.20	-.340478	-.125166	.131267	.000000	.000000
2.6	.25	-.252594	-.107768	.204913	.000000	.000000
2.6	.30	-.189978	-.031642	.526733	.000000	.000000
2.6	.35	-.140513	-.047416	.000000	.000000	.000000
2.6	.40	-.096787	.006337	.000000	.000000	.000000
2.6	.45	-.049135	.000000	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 4.5$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00		.030408	.050408	.264584	.000000
3.0	.05	-1.560465	-.057578	.037639	.363853	.000000
3.0	.10	-.759931	-.117171	.028203	.527870	.000000
3.0	.15	-.489651	-.142646	.024246	.961170	.000000
3.0	.20	-.351655	-.143681	.027440	.000000	.000000
3.0	.25	-.266251	-.131117	.039559	.000000	.000000
3.0	.30	-.206748	-.111804	.064345	.000000	.000000
3.0	.35	-.161517	-.088902	.115172	.000000	.000000
3.0	.40	-.124417	-.062824	.326686	.000000	.000000
3.0	.45	-.091355	-.030321	.000000	.000000	.000000
3.0	.50	-.057812	.037783	.000000	.000000	.000000
3.5	.00		.025106	.035416	.082276	.000000
3.5	.05	-1.565473	-.064619	.017401	.091654	.000000
3.5	.10	-.766238	-.126092	.001972	.104568	.000000
3.5	.15	-.497366	-.153649	-.009150	.123276	.000000
3.5	.20	-.360929	-.157059	-.015051	.151764	.000000
3.5	.25	-.277300	-.147302	-.015487	.199172	.000000
3.5	.30	-.219883	-.131473	-.010489	.297422	.000000
3.5	.35	-.177213	-.113203	.000186	.908717	.000000
3.5	.40	-.143460	-.094002	.017983	.000000	.000000
3.5	.45	-.115236	-.074111	.048631	.000000	.000000
3.5	.50	-.090232	-.052687	.128729	.000000	.000000
3.5	.55	-.066360	-.026477	.000000	.000000	.000000
3.5	.60	-.040103	.034075	.000000	.000000	.000000
4.0	.00		.021450	.027588	.047566	.198438
4.0	.05	-1.569103	-.069301	.007280	.045507	.251428
4.0	.10	-.770698	-.131867	-.010665	.044657	.324793
4.0	.15	-.502713	-.160606	-.024620	.045699	.443786
4.0	.20	-.367238	-.165317	-.033814	.049365	.720878
4.0	.25	-.284670	-.157027	-.038230	.056546	.000000
4.0	.30	-.228449	-.142896	-.038300	.068595	.000000
4.0	.35	-.187161	-.126664	-.034572	.088152	.000000
4.0	.40	-.155061	-.110027	-.027438	.122040	.000000
4.0	.45	-.128907	-.093595	-.016881	.198381	.000000
4.0	.50	-.106672	-.077392	-.002004	.000000	.000000
4.0	.55	-.086939	-.061019	.020662	.000000	.000000
4.0	.60	-.068516	-.043464	.069876	.000000	.000000
4.0	.65	-.049983	-.021682	.000000	.000000	.000000
4.0	.70	-.027955	.046346	.000000	.000000	.000000
5.0	.00		.016694	.019456	.026162	.045217
5.0	.05	-1.574005	-.075172	-.002817	.018577	.046149
5.0	.10	-.776564	-.138908	-.022859	.011588	.047763
5.0	.15	-.509593	-.168886	-.039088	.005620	.050365
5.0	.20	-.375197	-.174929	-.050790	.001005	.054312
5.0	.25	-.293791	-.168087	-.058032	-.002031	.060052
5.0	.30	-.238836	-.155557	-.061368	-.003355	.068217
5.0	.35	-.198950	-.141129	-.061538	-.002896	.079820
5.0	.40	-.168434	-.126574	-.059258	-.000594	.096756
5.0	.45	-.144107	-.112620	-.055118	.003662	.123311
5.0	.50	-.124049	-.099492	-.049540	.010144	.172693
5.0	.55	-.107017	-.087173	-.042770	.019483	.333624
5.0	.60	-.092156	-.075527	-.034863	.033222	.000000
5.0	.65	-.078837	-.064346	-.025619	.055906	.000000
5.0	.70	-.066550	-.053337	-.014362	.110600	.000000
5.0	.75	-.054813	-.042052	.000944	.000000	.000000
5.0	.80	-.043038	-.029591	.030059	.000000	.000000
5.0	.85	-.030145	-.012993	.000000	.000000	.000000
5.0	.90	-.011289	.000000	.000000	.000000	.000000

TABLE II - TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 5.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00		.000000	.000000	.000000	.000000
.6	.05	-1.299495	.000000	.000000	.000000	.000000
.8	.00		.000000	.000000	.000000	.000000
.8	.05	-1.406744	.000000	.000000	.000000	.000000
.8	.10	-.487311	.000000	.000000	.000000	.000000
1.0	.00		.000000	.000000	.000000	.000000
1.0	.05	-1.458679	.000000	.000000	.000000	.000000
1.0	.10	-.595503	.000000	.000000	.000000	.000000
1.0	.15	-.212207	.000000	.000000	.000000	.000000
1.2	.00		.359903	.000000	.000000	.000000
1.2	.05	-1.488756	.725240	.000000	.000000	.000000
1.2	.10	-.649747	.000000	.000000	.000000	.000000
1.2	.15	-.324874	.000000	.000000	.000000	.000000
1.4	.00		.159188	.000000	.000000	.000000
1.4	.05	-1.508164	.187288	.000000	.000000	.000000
1.4	.10	-.682093	.326512	.000000	.000000	.000000
1.4	.15	-.378940	.000000	.000000	.000000	.000000
1.4	.20	-.188520	.000000	.000000	.000000	.000000
1.6	.00		.101941	.000000	.000000	.000000
1.6	.05	-1.521627	.067127	.000000	.000000	.000000
1.6	.10	-.703372	.079577	.000000	.000000	.000000
1.6	.15	-.411471	.186261	.000000	.000000	.000000
1.6	.20	-.243655	.000000	.000000	.000000	.000000
1.6	.25	-.101442	.000000	.000000	.000000	.000000
1.8	.00		.075557	.000000	.000000	.000000
1.8	.05	-1.531469	.017421	.000000	.000000	.000000
1.8	.10	-.718323	-.005235	.000000	.000000	.000000
1.8	.15	-.433165	.022399	.000000	.000000	.000000
1.8	.20	-.276090	.128727	.000000	.000000	.000000
1.8	.25	-.162075	.000000	.000000	.000000	.000000
2.0	.00		.060453	.000000	.000000	.000000
2.0	.05	-1.538955	-.009079	.000000	.000000	.000000
2.0	.10	-.729340	-.046893	.000000	.000000	.000000
2.0	.15	-.448592	-.044100	.000000	.000000	.000000
2.0	.20	-.297752	-.001881	.000000	.000000	.000000
2.0	.25	-.194924	.111962	.000000	.000000	.000000
2.0	.30	-.106103	.000000	.000000	.000000	.000000
2.2	.00		.050657	.420239	.000000	.000000
2.2	.05	-1.544827	-.025372	.725074	.000000	.000000
2.2	.10	-.737758	-.071355	1.757556	.000000	.000000
2.2	.15	-.460073	-.079897	.000000	.000000	.000000
2.2	.20	-.313255	-.058010	.000000	.000000	.000000
2.2	.25	-.216547	-.007619	.000000	.000000	.000000
2.2	.30	-.140610	.125372	.000000	.000000	.000000
2.2	.35	-.062008	.000000	.000000	.000000	.000000
2.6	.00		.038645	.108892	.000000	.000000
2.6	.05	-1.553423	-.044236	.132401	.000000	.000000
2.6	.10	-.749708	-.098174	.157766	.000000	.000000
2.6	.15	-.475910	-.117100	.232555	.000000	.000000
2.6	.20	-.333880	-.110098	.332382	.000000	.000000
2.6	.25	-.243626	-.086796	.000000	.000000	.000000
2.6	.30	-.177882	-.050957	.000000	.000000	.000000
2.6	.35	-.123670	.006755	.000000	.000000	.000000
2.6	.40	-.070129	.000000	.000000	.000000	.000000
3.0	.00		.031494	.052072	.000000	.000000
3.0	.05	-1.559394	-.054800	.056677	.000000	.000000
3.0	.10	-.757729	-.112566	.055935	.000000	.000000
3.0	.15	-.486226	-.136002	.053042	.000000	.000000
3.0	.20	-.346870	-.134666	.081922	.000000	.000000
3.0	.25	-.259899	-.119188	.120568	.000000	.000000
3.0	.30	-.198501	-.096001	.219925	.000000	.000000
3.0	.35	-.150816	-.067251	.000000	.000000	.000000
3.0	.40	-.110170	-.029902	.000000	.000000	.000000
3.0	.45	-.070736	.050062	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$\beta m = 5.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00		.025743	.040356	.149788	.000000
3.5	.05	-1.566089	-.062885	.025421	.192703	.000000
3.5	.10	-.766634	-.123147	.013404	.251387	.000000
3.5	.15	-.494891	-.149498	.006210	.344022	.000000
3.5	.20	-.357512	-.151514	.005057	.559607	.000000
3.5	.25	-.272837	-.140161	.010746	.000000	.000000
3.5	.30	-.214227	-.122428	.024422	.000000	.000000
3.5	.35	-.170144	-.101759	.049198	.000000	.000000
3.5	.40	-.134631	-.079273	.098899	.000000	.000000
3.5	.45	-.104038	-.054251	.351683	.000000	.000000
3.5	.50	-.075408	-.022093	.000000	.000000	.000000
3.5	.55	-.044138	.093562	.000000	.000000	.000000
4.0	.00		.021858	.030226	.065386	.000000
4.0	.05	-1.568504	-.068119	.011599	.070987	.000000
4.0	.10	-.769478	-.129875	-.004540	.079020	.000000
4.0	.15	-.500840	-.157753	-.016506	.090929	.000000
4.0	.20	-.364670	-.161535	-.023447	.108864	.000000
4.0	.25	-.281349	-.152219	-.025221	.136789	.000000
4.0	.30	-.224296	-.136929	-.022050	.184433	.000000
4.0	.35	-.182069	-.119343	-.014095	.290057	.000000
4.0	.40	-.148876	-.101060	-.000940	.000000	.000000
4.0	.45	-.121396	-.082506	.019520	.000000	.000000
4.0	.50	-.097462	-.063317	.055981	.000000	.000000
4.0	.55	-.075355	-.042048	.212244	.000000	.000000
4.0	.60	-.053052	-.013149	.000000	.000000	.000000
4.0	.65	-.024865	.000000	.000000	.000000	.000000
5.0	.00		.016892	.020517	.030401	.068791
5.0	.05	-1.573623	-.074524	-.001022	.024548	.077534
5.0	.10	-.775789	-.137794	-.020297	.019414	.088109
5.0	.15	-.508411	-.167289	-.035713	.015471	.101425
5.0	.20	-.373591	-.172823	-.046545	.013114	.118873
5.0	.25	-.291736	-.165441	-.052841	.012662	.142886
5.0	.30	-.236303	-.152329	-.055129	.014388	.178530
5.0	.35	-.195903	-.137268	-.054113	.018590	.239517
5.0	.40	-.164823	-.122008	-.050455	.025731	.359571
5.0	.45	-.139870	-.107257	-.044662	.036714	.000000
5.0	.50	-.119101	-.093202	-.037012	.053634	.000000
5.0	.55	-.101239	-.079768	-.027482	.082584	.000000
5.0	.60	-.085379	-.066719	-.015550	.154582	.000000
5.0	.65	-.070796	-.053649	.000518	.000000	.000000
5.0	.70	-.056796	-.039809	.027673	.000000	.000000
5.0	.75	-.042441	-.023283	.000000	.000000	.000000
5.0	.80	-.025477	.009161	.000000	.000000	.000000

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{1,o}|)$ - Continued

$m = \infty$

$\bar{x}$	$\lvert y_{1,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
0.6	0		0	0	0	0
.6	.05	-1.586014	-.086449	-.006198	0	0
.6	.10	-.784636	-.144711	-.009665	0	0
.6	.15	-.513673	-.169058	-.008150	0	0
.6	.20	-.375132	-.169186	0	0	0
.6	.25	-.289363	-.155983	.016276	0	0
.6	.30	-.229721	-.136414	.043199	0	0
.6	.35	-.184673	-.113895	.087652	0	0
.6	.40	-.148284	-.089525	.179049	0	0
.6	.45	-.116968	-.062600	0	0	0
.6	.50	-.087976	-.029170	0	0	0
.6	.55	-.057824	.040753	0	0	0
.8	0		0	0	0	0
.8	.05	-1.588488	-.090030	-.018750	.004904	0
.8	.10	-.789536	-.151948	-.035273	.010643	0
.8	.15	-.521108	-.180112	-.047947	.018010	0
.8	.20	-.385253	-.184322	-.055985	.027846	0
.8	.25	-.302368	-.175610	-.059383	.041107	0
.8	.30	-.245901	-.161146	-.058615	.059116	0
.8	.35	-.204450	-.144689	-.054277	.084155	0
.8	.40	-.172290	-.127965	-.046891	.121171	0
.8	.45	-.146210	-.111645	-.036724	.184578	0
.8	.50	-.121240	-.095858	-.023603	.355072	0
.8	.55	-.105069	-.080439	-.006551	0	0
.8	.60	-.087726	-.064975	.017672	0	0
.8	.65	-.071370	-.048667	.063263	0	0
.8	.70	-.055036	-.026623	0	0	0
.8	.75	-.036922	.001705	0	0	0
1.0	0		0	0	0	0
1.0	.05	-1.589540	-.091440	-.021580	-.005961	.008128
1.0	.10	-.791785	-.154785	-.040982	-.011431	.016670
1.0	.15	-.524515	-.184408	-.056623	-.015985	.026060
1.0	.20	-.389849	-.190129	-.067787	-.019263	.036778
1.0	.25	-.310335	-.183000	-.074545	-.021057	.049397
1.0	.30	-.253040	-.170221	-.077443	-.021237	.064685
1.0	.35	-.212980	-.155587	-.077243	-.019747	.083801
1.0	.40	-.182335	-.140870	-.074673	-.016566	.108742
1.0	.45	-.157922	-.126809	-.070333	-.011655	.143545
1.0	.50	-.137832	-.113641	-.064673	-.004896	.198448
1.0	.55	-.120837	-.101370	-.058006	.003998	.313352
1.0	.60	-.106103	-.089892	-.050483	.015665	0
1.0	.65	-.093036	-.079054	-.042123	.031559	0
1.0	.70	-.081204	-.068669	-.032763	.055522	0
1.0	.75	-.070181	-.058510	-.021933	.102582	0
1.0	.80	-.059683	-.048271	-.008473	0	0
1.0	.85	-.049318	-.037448	.011313	0	0
1.0	.90	-.038541	-.024928	.065973	0	0
1.0	.95	-.026156	-.006098	0	0	0
1.2	0		0	0	0	0
1.2	.05	-1.590155	-.092149	-.022690	-.008430	-.001638
1.2	.10	-.793005	-.156207	-.043222	-.016403	-.003099
1.2	.15	-.526356	-.186553	-.060013	-.023519	-.004214
1.2	.20	-.392322	-.193014	-.072350	-.029479	-.004833
1.2	.25	-.311326	-.186647	-.080337	-.034103	-.004823
1.2	.30	-.256835	-.174658	-.084520	-.037323	-.004075
1.2	.35	-.217478	-.160851	-.085697	-.039164	-.002496
1.2	.40	-.187566	-.147009	-.084593	-.039710	0
1.2	.45	-.163934	-.133884	-.081858	-.039077	.003505
1.2	.50	-.144681	-.121728	-.077993	-.037389	.008138
1.2	.55	-.128594	-.110567	-.073353	-.034756	.014073
1.2	.60	-.114860	-.100327	-.068203	-.031261	.021594
1.2	.65	-.102911	-.090899	-.062703	-.026947	.031199
1.2	.70	-.092336	-.082161	-.056943	-.021804	.043826
1.2	.75	-.082827	-.073992	-.050973	-.015739	.061488
1.2	.80	-.074142	-.066275	-.044763	-.008531	.089525
1.2	.85	-.066085	-.058891	-.038253	.000290	.150465
1.2	.90	-.058484	-.051713	-.031303	.012492	0
1.2	.95	-.051177	-.044594	-.023613	.028821	0
1.2	1.00	-.043988	-.037332	-.014585	.064361	0

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$m = \infty$

$\bar{x}$	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.4	0		0	0	0	0
1.4	.05	-1.590540	-.092557	-.023260	-.009403	-.003877
1.4	.10	-.793741	-.157026	-.044357	-.018357	-.007601
1.4	.15	-.527462	-.187787	-.061718	-.026469	-.011030
1.4	.20	-.393807	-.194669	-.074646	-.033449	-.014042
1.4	.25	-.313194	-.188731	-.083227	-.039126	-.016534
1.4	.30	-.259097	-.177183	-.088036	-.043443	-.018452
1.4	.35	-.220144	-.163830	-.089845	-.046436	-.019737
1.4	.40	-.190651	-.150459	-.089412	-.048206	-.020375
1.4	.45	-.167455	-.137827	-.087385	-.048888	-.020363
1.4	.50	-.148659	-.126188	-.084272	-.048630	-.019711
1.4	.55	-.133053	-.115576	-.080446	-.047577	-.018432
1.4	.60	-.119831	-.105923	-.076177	-.045855	-.016539
1.4	.65	-.108432	-.097128	-.071645	-.043575	-.014034
1.4	.70	-.098452	-.089081	-.066972	-.040820	-.010904
1.4	.75	-.089594	-.081677	-.062232	-.037654	-.007107
1.4	.80	-.081632	-.074819	-.057467	-.034112	-.002559
1.4	.85	-.074390	-.068419	-.052692	-.030205	.002895
1.4	.90	-.067760	-.062397	-.047905	-.025913	.009536
1.4	.95	-.061529	-.056677	-.043081	-.021173	.017900
1.4	1.00	-.055693	-.051188	-.038179	-.015863	.029112
1.6	0		0	0	0	0
1.6	.05	-1.590769	-.092815	-.023588	-.009895	-.004761
1.6	.10	-.794219	-.157543	-.045015	-.019343	-.009375
1.6	.15	-.528180	-.188565	-.062709	-.027954	-.013707
1.6	.20	-.394767	-.195710	-.075974	-.035441	-.017639
1.6	.25	-.314400	-.190040	-.084897	-.041635	-.021082
1.6	.30	-.260554	-.178765	-.090056	-.046483	-.023973
1.6	.35	-.221858	-.165690	-.092224	-.050025	-.026280
1.6	.40	-.192626	-.152606	-.092161	-.052365	-.027992
1.6	.45	-.169701	-.140268	-.090518	-.053643	-.029122
1.6	.50	-.151184	-.128936	-.087805	-.054014	-.029694
1.6	.55	-.135869	-.118642	-.084400	-.053628	-.029743
1.6	.60	-.122950	-.109323	-.080573	-.052621	-.029308
1.6	.65	-.111869	-.100879	-.076513	-.051113	-.028428
1.6	.70	-.102225	-.093204	-.072344	-.049204	-.027139
1.6	.75	-.093724	-.086198	-.068151	-.046973	-.025470
1.6	.80	-.086145	-.079843	-.063983	-.044483	-.023461
1.6	.85	-.079317	-.073833	-.059869	-.041779	-.021077
1.6	.90	-.073105	-.068321	-.055822	-.038860	-.018362
1.6	.95	-.067402	-.063168	-.051845	-.035842	-.015285
1.6	1.00	-.062120	-.058320	-.047929	-.032632	-.011804
1.8	0		0	0	0	0
1.8	.05	-1.590926	-.092989	-.023798	-.010181	-.005207
1.8	.10	-.794547	-.157891	-.045435	-.019916	-.010270
1.8	.15	-.528671	-.189088	-.063340	-.028817	-.015053
1.8	.20	-.395424	-.196410	-.076819	-.036596	-.019444
1.8	.25	-.315225	-.190919	-.085958	-.043087	-.023354
1.8	.30	-.261548	-.179824	-.091336	-.048237	-.026723
1.8	.35	-.223025	-.166934	-.093728	-.052088	-.029822
1.8	.40	-.193969	-.153784	-.093894	-.054746	-.031742
1.8	.45	-.171223	-.141892	-.092486	-.056353	-.033400
1.8	.50	-.152891	-.130758	-.090015	-.057063	-.034525
1.8	.55	-.137767	-.120667	-.086861	-.057031	-.035156
1.8	.60	-.125044	-.111559	-.083294	-.056395	-.035338
1.8	.65	-.114166	-.103334	-.079506	-.055278	-.035116
1.8	.70	-.104734	-.095887	-.075623	-.053783	-.034537
1.8	.75	-.096454	-.089120	-.071730	-.051994	-.033641
1.8	.80	-.089108	-.082942	-.067882	-.049980	-.032465
1.8	.85	-.082525	-.077273	-.064109	-.047792	-.031040
1.8	.90	-.076573	-.072045	-.060430	-.045471	-.029392
1.8	.95	-.071149	-.067198	-.056851	-.043048	-.027540
1.8	1.00	-.066167	-.062679	-.053365	-.040541	-.025495

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$m = \infty$

$\bar{x}$	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	0		0	0	0	0
2.0	.05	-1.591051	-.093112	-.023941	-.010364	-.005467
2.0	.10	-.794779	-.158137	-.045720	-.020282	-.010790
2.0	.15	-.529023	-.189458	-.063769	-.029367	-.015836
2.0	.20	-.395893	-.196904	-.077392	-.037332	-.020491
2.0	.25	-.315813	-.191538	-.086677	-.044011	-.024669
2.0	.30	-.262257	-.180570	-.092204	-.049352	-.028311
2.0	.35	-.223856	-.167808	-.094745	-.053397	-.031388
2.0	.40	-.194924	-.155043	-.095064	-.056252	-.033893
2.0	.45	-.172304	-.143030	-.093812	-.058061	-.035844
2.0	.50	-.154101	-.132031	-.091500	-.058980	-.037272
2.0	.55	-.139108	-.122080	-.088505	-.059161	-.038216
2.0	.60	-.126520	-.113114	-.085111	-.058747	-.038724
2.0	.65	-.115781	-.105035	-.081496	-.057860	-.038845
2.0	.70	-.106492	-.097741	-.077793	-.056604	-.038625
2.0	.75	-.098360	-.091131	-.074088	-.055066	-.038109
2.0	.80	-.091167	-.085116	-.070435	-.053315	-.037337
2.0	.85	-.084745	-.079618	-.066867	-.051407	-.036346
2.0	.90	-.078961	-.074568	-.063405	-.049383	-.035166
2.0	.95	-.073805	-.069909	-.060055	-.047277	-.033823
2.0	1.00	-.068916	-.065593	-.056821	-.045114	-.032338
2.2	0		0	0	0	0
2.2	.05	-1.591759	-.093202	-.024042	-.010488	-.005633
2.2	.10	-.794953	-.158328	-.045924	-.020532	-.011122
2.2	.15	-.529282	-.189728	-.064075	-.029742	-.016335
2.2	.20	-.396240	-.197265	-.077801	-.037833	-.021158
2.2	.25	-.316248	-.191991	-.087190	-.044639	-.025506
2.2	.30	-.262780	-.181116	-.092821	-.050109	-.029320
2.2	.35	-.224468	-.168447	-.095468	-.054284	-.032571
2.2	.40	-.195628	-.155776	-.095895	-.057272	-.035255
2.2	.45	-.173100	-.143859	-.094751	-.059216	-.037388
2.2	.50	-.154990	-.132958	-.092551	-.060272	-.039001
2.2	.55	-.140092	-.123106	-.089673	-.060594	-.040136
2.2	.60	-.127601	-.114242	-.086391	-.060324	-.040841
2.2	.65	-.116961	-.106267	-.082895	-.059586	-.041165
2.2	.70	-.107774	-.099079	-.079314	-.058484	-.041156
2.2	.75	-.099747	-.092579	-.075735	-.057104	-.040860
2.2	.80	-.092662	-.086677	-.072212	-.055519	-.040318
2.2	.85	-.086351	-.081295	-.068779	-.053782	-.039568
2.2	.90	-.080682	-.076367	-.065457	-.051938	-.038643
2.2	.95	-.075553	-.071833	-.062254	-.050021	-.037570
2.2	1.00	.070882	-.067645	-.059174	-.048057	-.036373
2.6	0		0	0	0	0
2.6	.05	-1.591253	-.093388	-.024175	-.010644	-.005827
2.6	.10	-.795186	-.158558	-.046189	-.020842	-.011510
2.6	.15	-.529240	-.190090	-.064474	-.030209	-.016917
2.6	.20	-.396708	-.197749	-.078334	-.038459	-.021937
2.6	.25	-.316835	-.192597	-.087857	-.045421	-.026482
2.6	.30	-.263487	-.181845	-.093623	-.051050	-.030496
2.6	.35	-.225295	-.169300	-.096407	-.055386	-.033948
2.6	.40	-.196575	-.156754	-.096972	-.058536	-.036836
2.6	.45	-.174170	-.144965	-.095969	-.060645	-.039175
2.6	.50	-.156184	-.134192	-.093909	-.061868	-.040999
2.6	.55	-.141412	-.124470	-.091175	-.062360	-.042349
2.6	.60	-.129049	-.115737	-.088040	-.062263	-.043274
2.6	.65	-.118539	-.107898	-.084693	-.061702	-.043822
2.6	.70	-.109484	-.100847	-.081264	-.060780	-.044043
2.6	.75	-.101593	-.094487	-.077841	-.059586	-.043984
2.6	.80	-.094646	-.088728	-.074477	-.058191	-.043686
2.6	.85	-.088476	-.083493	-.071209	-.056650	-.043189
2.6	.90	-.082953	-.078716	-.068055	-.055009	-.042526
2.6	.95	-.077974	-.074398	-.065026	-.053490	-.041726
2.6	1.00	-.073456	-.070309	-.062125	-.051556	-.040814

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Continued

$m = \infty$

$\bar{x}$	$\lvert y_{i,o} \rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	0		0	0	0	0
3.0	.05	-1.590768	-.093988	-.024255	-.010734	-.005933
3.0	.10	-.795333	-.158708	-.046350	-.021023	-.011722
3.0	.15	-.529853	-.190316	-.064715	-.030480	-.017236
3.0	.20	-.397002	-.198050	-.078656	-.038819	-.022363
3.0	.25	-.317203	-.192973	-.088260	-.045874	-.027015
3.0	.30	-.263923	-.182297	-.094109	-.051595	-.031137
3.0	.35	-.225812	-.169829	-.096975	-.056023	-.034698
3.0	.40	-.197167	-.157361	-.097622	-.059267	-.037696
3.0	.45	-.174838	-.145649	-.096702	-.061469	-.040146
3.0	.50	-.156929	-.134954	-.094728	-.062787	-.042082
3.0	.55	-.142234	-.125311	-.092079	-.063376	-.043546
3.0	.60	-.129949	-.116659	-.089029	-.063376	-.044585
3.0	.65	-.119519	-.108901	-.085770	-.062913	-.045250
3.0	.70	-.110544	-.101932	-.082430	-.062092	-.045591
3.0	.75	-.102734	-.095655	-.079096	-.061000	-.045653
3.0	.80	-.095870	-.089933	-.075824	-.059708	-.045479
3.0	.85	-.089784	-.084833	-.072649	-.058274	-.045108
3.0	.90	-.084347	-.080144	-.069590	-.056741	-.044574
3.0	.95	-.079455	-.075855	-.066658	-.055144	-.043907
3.0	1.00	-.075026	-.071918	-.063856	-.053511	-.043131
3.5	0		0	0	0	0
3.5	.05	-1.591387	-.093474	-.024317	-.010800	-.006010
3.5	.10	-.795450	-.158828	-.046521	-.021160	-.011877
3.5	.15	-.530029	-.190495	-.064904	-.030686	-.017468
3.5	.20	-.397237	-.198452	-.078908	-.039113	-.022673
3.5	.25	-.317497	-.193272	-.088575	-.046218	-.027403
3.5	.30	-.264282	-.182657	-.094487	-.052008	-.031603
3.5	.35	-.226225	-.170250	-.097418	-.056506	-.035243
3.5	.40	-.197640	-.157842	-.098129	-.059820	-.038319
3.5	.45	-.175371	-.146191	-.097274	-.062092	-.040850
3.5	.50	-.157523	-.135558	-.095364	-.063482	-.042866
3.5	.55	-.146025	-.125978	-.092781	-.064142	-.044411
3.5	.60	-.130666	-.117388	-.089797	-.064215	-.045532
3.5	.65	-.120297	-.109693	-.086605	-.063829	-.046280
3.5	.70	-.111385	-.102788	-.083332	-.063077	-.046704
3.5	.75	-.103639	-.096576	-.080067	-.062061	-.046851
3.5	.80	-.096839	-.090967	-.076864	-.060844	-.046763
3.5	.85	-.090818	-.085885	-.073759	-.059486	-.046480
3.5	.90	-.085446	-.081263	-.070771	-.058031	-.046034
3.5	.95	-.080621	-.077042	-.067911	-.056513	-.045457
3.5	1.00	-.076260	-.073174	-.065182	-.054961	-.044773

TABLE II.- TABULATION OF THE DOWNWASH FUNCTION $F_w(|y_{i,o}|)$ - Concluded

$m = \infty$

$\bar{x}$	$\lvert y_{i,o}\rvert$	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	0		0	0	0	0
4.0	.05	-1.591424	-.093496	-.024358	-.010845	-.006057
4.0	.10	-.795526	-.158905	-.046556	-.021246	-.011970
4.0	.15	-.530143	-.190611	-.065024	-.030630	-.017609
4.0	.20	-.397390	-.198443	-.079068	-.039265	-.022859
4.0	.25	-.317688	-.193466	-.088776	-.046432	-.027638
4.0	.30	-.264511	-.182889	-.094729	-.052265	-.031885
4.0	.35	-.226492	-.170521	-.097700	-.056807	-.035572
4.0	.40	-.197946	-.158152	-.098452	-.060164	-.038696
4.0	.45	-.175716	-.146541	-.097637	-.062480	-.041274
4.0	.50	-.157907	-.135947	-.095769	-.063914	-.043339
4.0	.55	-.143312	-.126407	-.093227	-.064618	-.044932
4.0	.60	-.131129	-.117857	-.090285	-.064735	-.046102
4.0	.65	-.120800	-.110202	-.087134	-.064390	-.046899
4.0	.70	-.111928	-.103338	-.083904	-.063688	-.047373
4.0	.75	-.104222	-.097167	-.080681	-.062716	-.047569
4.0	.80	-.097462	-.091599	-.077521	-.061546	-.047532
4.0	.85	-.091482	-.086559	-.075256	-.060234	-.049462
4.0	.90	-.086152	-.081978	-.071515	-.058826	-.046906
4.0	.95	-.081369	-.078849	-.068699	-.057356	-.046381
4.0	1.00	-.077051	-.073975	-.066016	-.055851	-.047884
5.0	0		0	0	0	0
5.0	.05	-1.591470	-.093541	-.024405	-.010939	-.006108
5.0	.10	-.795615	-.158995	-.046574	-.021343	-.012074
5.0	.15	-.530278	-.190746	-.065164	-.030960	-.017764
5.0	.20	-.397569	-.198624	-.079254	.039460	-.023068
5.0	.25	-.317912	-.193692	-.089007	-.046676	-.027897
5.0	.30	-.264780	-.183161	-.095008	-.052558	-.032197
5.0	.35	-.226806	-.170838	-.098026	-.057148	-.035936
5.0	.40	-.198306	-.158515	-.098825	-.060555	-.039116
5.0	.45	-.176121	-.146949	-.098058	-.062894	-.041744
5.0	.50	-.158357	-.136402	-.096236	-.064403	-.043861
5.0	.55	-.143808	-.126907	-.093742	-.065157	-.045507
5.0	.60	-.131671	-.118404	-.090848	-.065324	-.046731
5.0	.65	-.121391	-.110796	-.087745	-.065029	-.047581
5.0	.70	-.112563	-.103979	-.084563	-.064378	-.048109
5.0	.75	-.104903	-.097854	-.081388	-.063457	-.048360
5.0	.80	-.098190	-.092334	-.078277	-.062338	-.048377
5.0	.85	-.092258	-.087342	-.075264	-.061078	-.048200
5.0	.90	-.086975	-.082809	-.072369	-.059721	-.047862
5.0	.95	-.082240	-.078679	-.069603	-.058303	-.047392
5.0	1.00	-.077970	-.074903	-.066970	-.056851	-.046818

TABLE III.- TABULATION OF THE DOWNWASH FUNCTION $F_{\mu,0}$

x_0	$z_0 = 0$	$z_0 = 0.2$	$z_0 = 0.4$	$z_0 = 0.6$	$z_0 = 0.8$	x_0	$z_0 = 0$	$z_0 = 0.2$	$z_0 = 0.4$	$z_0 = 0.6$	$z_0 = 0.8$
$\beta m = 0$						$\beta m = 1.0$					
0.6	0.530517	0.477465	0.367281	0.265258	0.190986	0.6	0.530517	0.562698	0.711763	0	0
.8	.397887	.374482	.318310	.254648	.198944	.8	.397887	.410936	.459441	.601550	0
1.0	.318310	.306067	.274405	.234051	.194091	1.0	.318310	.324874	.347305	.397887	.530516
1.2	.265258	.258089	.238732	.212207	.183640	1.2	.265258	.269021	.281349	.306294	.355881
1.4	.227364	.222817	.210205	.192083	.171398	1.4	.227364	.229720	.237245	.251646	.277053
1.6	.198944	.196883	.187241	.174416	.159155	1.6	.198944	.200516	.205468	.214605	.229720
1.8	.176839	.174682	.168517	.159155	.147670	1.8	.176839	.177941	.181374	.187566	.197407
2.0	.159155	.157579	.153034	.146014	.137202	2.0	.159155	.159977	.162437	.166840	.173652
2.2	.144686	.143500	.140056	.134670	.127789	2.2	.144686	.145288	.147139	.150387	.155319
2.6	.122427	.121707	.119996	.116257	.111839	2.6	.122427	.122791	.123902	.125823	.128669
3.0	.106103	.105634	.104250	.102022	.099059	3.0	.106103	.106340	.107059	.108291	.110076
3.5	.090946	.090650	.089773	.088349	.086430	3.5	.090946	.091095	.091546	.092312	.093419
4.0	.079577	.079379	.078790	.077826	.076517	4.0	.079577	.079677	.079978	.080488	.081218
5.0	.0636620	.063560	.063257	.062758	.062073	5.0	.0636620	.063713	.063867	.064125	.064493
$\beta m = 0.2$						$\beta m = 1.2$					
0.6	0.530517	0.480451	0.375208	0.276253	0.203368	0.6	0.530517	0.608599	1.099136	0	0
.8	.397887	.375836	.322493	.261325	.207190	.8	.397887	.428894	.558830	1.215045	0
1.0	.318310	.306784	.276815	.238278	.199742	1.0	.318310	.333768	.390321	.545006	1.584540
1.2	.265258	.258512	.240226	.214996	.187604	1.2	.265258	.274078	.304297	.372554	.549568
1.4	.227364	.223086	.211186	.193997	.174244	1.4	.227364	.232872	.251052	.288420	.364778
1.6	.198944	.196065	.187918	.175776	.161247	1.6	.198944	.202613	.214447	.237467	.279415
1.8	.176839	.174811	.169007	.160150	.149241	1.8	.176839	.179407	.187558	.202865	.228952
2.0	.159155	.157673	.153392	.146762	.138341	2.0	.159155	.161022	.166884	.177627	.195160
2.2	.144686	.143571	.140329	.135245	.128729	2.2	.144686	.146086	.150446	.158299	.170737
2.6	.122427	.121750	.119764	.116597	.112899	2.6	.122427	.123275	.125879	.130467	.137462
3.0	.106103	.105662	.104360	.102261	.099464	3.0	.106103	.106653	.108335	.111256	.115623
3.5	.090946	.090667	.089843	.088502	.086692	3.5	.090946	.091291	.092344	.094151	.096798
4.0	.079577	.079391	.078837	.077930	.077066	4.0	.079577	.079809	.080511	.081708	.083447
5.0	.0636620	.063566	.063281	.062812	.062167	5.0	.0636620	.063780	.064138	.064743	.065611
$\beta m = 0.4$						$\beta m = 1.4$					
0.6	0.530517	0.489000	0.400812	0.314587	0.251534	0.6	0.530517	0.671460	2.577412	0	0
.8	.397887	.379449	.335613	.283259	.235941	.8	.397887	.451865	.733097	0	0
1.0	.318310	.308993	.284260	.251761	.218507	1.0	.318310	.344814	.453927	.896475	0
1.2	.265258	.259788	.244800	.223742	.200406	1.2	.265258	.280262	.335730	.488731	1.288706
1.4	.227364	.223898	.214177	.199934	.183277	1.4	.227364	.236690	.269169	.345046	.519164
1.6	.198944	.196612	.189572	.179962	.167807	1.6	.198944	.205139	.229932	.270229	.366548
1.8	.176839	.175197	.170470	.163200	.154188	1.8	.176839	.181165	.195333	.223820	.278704
2.0	.159155	.157966	.154476	.149046	.142130	2.0	.159155	.162296	.172407	.191958	.226977
2.2	.144686	.143784	.141151	.136996	.131622	2.2	.144686	.147039	.154518	.168584	.192535
2.6	.122427	.121879	.120268	.117687	.114277	2.6	.122427	.123847	.128284	.136334	.151357
3.0	.106103	.105746	.104691	.102984	.100697	3.0	.106103	.107025	.109877	.114958	.122753
3.5	.090946	.090721	.090053	.088966	.087489	3.5	.090946	.091525	.093303	.096404	.101062
4.0	.079577	.079427	.078978	.078242	.077258	4.0	.079577	.079965	.081148	.083189	.086203
5.0	.0636620	.063589	.063354	.062974	.062450	5.0	.0636620	.063860	.064461	.065485	.066968
$\beta m = 0.6$						$\beta m = 1.6$					
0.6	0.530517	0.505509	0.450655	0.404357	0.413604	0.6	0.530517	0.758659	0	0	0
.8	.397887	.386962	.359668	.327609	.303268	.8	.397887	.481031	1.087125	0	0
1.0	.318310	.312624	.297436	.277296	.257408	1.0	.318310	.358337	.552057	3.526118	0
1.2	.265258	.261938	.252754	.239712	.225327	1.2	.265258	.287691	.379330	.751306	0
1.4	.227364	.225262	.219522	.210528	.200197	1.4	.227364	.241227	.292945	.445609	1.144073
1.6	.198944	.197550	.193481	.187520	.179784	1.6	.198944	.208119	.240516	.322123	.543562
1.8	.176839	.175844	.172965	.168903	.162890	1.8	.176839	.183230	.204994	.254873	.363547
2.0	.159155	.158428	.156312	.152986	.148718	2.0	.159155	.163787	.179168	.212298	.276029
2.2	.144686	.144140	.142539	.139999	.136697	2.2	.144686	.148152	.159450	.182753	.224130
2.6	.122427	.122086	.121117	.119543	.117452	2.6	.122427	.124514	.131156	.144116	.165029
3.0	.106103	.105887	.105247	.104208	.102809	3.0	.106103	.107457	.111701	.119713	.131956
3.5	.090946	.090809	.090405	.089243	.088843	3.5	.090946	.091796	.094429	.099275	.106385
4.0	.079577	.079486	.079214	.078767	.078156	4.0	.079577	.080146	.081894	.085057	.089584
5.0	.0636620	.063615	.063475	.063245	.062928	5.0	.0636620	.063952	.064837	.066409	.068596
$\beta m = 0.8$						$\beta m = 1.8$					
0.6	0.530517	0.529278	0.540653	0.690142	0	0.6	0.530517	0.882886	0	0	0
.8	.397887	.397105	.398285	.413604	.487607	.8	.397887	.518079	2.074581	0	0
1.0	.318310	.317887	.317678	.321213	.336690	1.0	.318310	.374764	.714895	0	0
1.2	.265258	.264998	.264659	.265523	.270327	1.2	.265258	.296516	.441443	1.383055	0
1.4	.227364	.227196	.226879	.227023	.228750	1.4	.227364	.246965	.324457	.607086	0
1.6	.198944	.198828	.198578	.198501	.199143	1.6	.198944	.211585	.259040	.393632	1.037291
1.8	.176839	.176756	.176562	.176426	.176641	1.8	.176839	.185619	.216945	.293949	.528637
2.0	.159155	.159094	.158943	.158801	.158839	2.0	.159155	.165205	.187382	.236843	.357448
2.2	.144686	.144640	.144522	.144392	.144355	2.2	.144686	.149430	.165364	.199277	.271921
2.6	.122427	.122399	.122323	.122225	.122150	2.6	.122427	.125278	.134543	.152817	.186614
3.0	.106103	.106085	.106033	.105962	.105896	3.0	.106103	.107950	.113831	.124921	.143863
3.5	.090946	.090934	.090901	.090852	.090798	3.5	.090946	.092104	.095734	.102349	.113007
4.0	.079577	.079570	.079547	.079513	.079472	4.0	.079577	.080352	.082753	.087033	.093689
5.0	.0636620	.063658	.063646	.063628	.063604	5.0	.0636620	.064057	.065268	.067374	.070522

TABLE III.- TABULATION OF THE DOWNWASH FUNCTION $F_{w,0}$ - Concluded

x_o	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
			$\beta m = 2.0$		
0.6	0.530517	1.067644	0	0	0
.8	.397887	.565466	0	0	0
1.0	.318310	.394664	1.020224	0	0
1.2	.265258	.306926	.533822	0	0
1.4	.227364	.252727	.366908	.983154	0
1.6	.198944	.215573	.282733	.520259	0
1.8	.176839	.188350	.231739	.355881	.947473
2.0	.159155	.167461	.197332	.272526	.510112
2.2	.144686	.150880	.172419	.222012	.349418
2.6	.122427	.126141	.138504	.164245	.216701
3.0	.106103	.108506	.116292	.131555	.159447
3.5	.090946	.092451	.097229	.106174	.121262
4.0	.079577	.080583	.083730	.089458	.098666
5.0	.063662	.064175	.065755	.068540	.072785
			$\beta m = 2.5$		
0.6	0.530517	2.303378	0	0	0
.8	.397887	.758629	0	0	0
1.0	.318310	.465256	0	0	0
1.2	.265258	.341613	1.151689	0	0
1.4	.227364	.272628	.568529	0	0
1.6	.198944	.228148	.379345	2.188412	0
1.8	.176839	.196842	.287118	.767792	0
2.0	.159155	.173482	.232628	.456151	0
2.2	.144686	.155313	.196549	.324507	1.135780
2.6	.122427	.128755	.151448	.208056	.380946
3.0	.106103	.110179	.124124	.155085	.227158
3.5	.090946	.093491	.101888	.119022	.152706
4.0	.079577	.081273	.086741	.097340	.116314
5.0	.063662	.064525	.067234	.072194	.080246
			$\beta m = 3.0$		
0.6	0.530517	0	0	0	0
.8	.397887	1.203098	0	0	0
1.0	.318310	.585128	0	0	0
1.2	.265258	.393806	0	0	0
1.4	.227364	.300748	1.272318	0	0
1.6	.198944	.245262	.601549	0	0
1.8	.176839	.208121	.392196	0	0
2.0	.159155	.181348	.292564	1.304023	0
2.2	.144686	.161034	.234696	.621412	0
2.6	.122427	.132075	.170240	.295593	1.312058
3.0	.106103	.112284	.134962	.195043	.410193
3.5	.090946	.094788	.108110	.138639	.214671
4.0	.079577	.082131	.090674	.108670	.146282
5.0	.063662	.064957	.069118	.077122	.091258
			$\beta m = 3.5$		
0.6	0.530517	0	0	0	0
.8	.397887	2.768413	0	0	0
1.0	.318310	.810405	0	0	0
1.2	.265258	.475024	0	0	0
1.4	.227364	.340777	0	0	0
1.6	.198944	.268425	1.384207	0	0
1.8	.176839	.222907	.633035	0	0
2.0	.159155	.191438	.405203	0	0
2.2	.144686	.168262	.298625	2.973954	0
2.6	.122427	.136186	.198013	.517957	0
3.0	.106103	.114858	.149959	.270135	1.477717
3.5	.090946	.096361	.116322	.169830	.367685
4.0	.079577	.083164	.095719	.125187	.202601
5.0	.063662	.065474	.071460	.083710	.107922

x_o	$z_o = 0$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
			$\beta m = 4.0$		
0.6	0.530517	0	0	0	0
.8	.397887	0	0	0	0
1.0	.318310	1.326291	0	0	0
1.2	.265258	.610082	0	0	0
1.4	.227364	.399283	0	0	0
1.6	.198944	.300043	0	0	0
1.8	.176839	.242273	1.488886	0	0
2.0	.159155	.204297	.658430	0	0
2.2	.144686	.177298	.418156	0	0
2.6	.122427	.141202	.240816	1.582187	0
3.0	.106103	.117953	.171043	.442089	0
3.5	.090946	.098230	.127171	.224101	1.037868
4.0	.079577	.083863	.102148	.150146	.331573
5.0	.063662	.066079	.074331	.092562	.134501
			$\beta m = 4.5$		
0.6	0.530517	0	0	0	0
.8	.397887	0	0	0	0
1.0	.318310	3.175013	0	0	0
1.2	.265258	.861921	0	0	0
1.4	.227364	.488889	0	0	0
1.6	.198944	.344126	0	0	0
1.8	.176839	.267852	0	0	0
2.0	.159155	.220705	1.587507	0	0
2.2	.144686	.188560	.692027	0	0
2.6	.122427	.147269	.311658	0	0
3.0	.106103	.121633	.201632	1.058338	0
3.5	.090946	.100423	.141662	.529104	0
4.0	.079577	.085801	.110353	.190263	.793793
5.0	.063662	.066776	.077825	.104646	.180866
			$\beta m = 5.0$		
0.6	0.530517	0	0	0	0
.8	.397887	0	0	0	0
1.0	.318310	0	0	0	0
1.2	.265258	1.43911	0	0	0
1.4	.227364	.636752	0	0	0
1.6	.198944	.407763	0	0	0
1.8	.176839	.302229	0	0	0
2.0	.159155	.241811	0	0	0
2.2	.144686	.202627	1.680954	0	0
2.6	.122427	.154582	.443567	0	0
3.0	.106103	.125977	.248289	0	0
3.5	.090946	.102971	.161422	.599152	0
4.0	.079577	.087433	.120906	.261543	0
5.0	.063662	.067569	.082066	.121604	.275164

TABLE IV. - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.358737	.138201	.066301	.035420
.6	.05	.335332	.135141	.065387	.035034
.6	.10	.279161	.126501	.062720	.033895
.6	.15	.215501	.113682	.058511	.032059
.6	.20	.159802	.098432	.053068	.029614
.6	.25	.116143	.082362	.046753	.026680
.6	.30	.083323	.066682	.039946	.023433
.6	.35	.058903	.052181	.033076	.020261
.6	.40	.040733	.039458	.027047	.020161
.6	.45	.027695	.030851	.000000	.000000
.8	.00	.374896	.159634	.085148	.049726
.8	.05	.351491	.156574	.084234	.049339
.8	.10	.295319	.147932	.081565	.048197
.8	.15	.231657	.135109	.077350	.046351
.8	.20	.175954	.119850	.071892	.043883
.8	.25	.132286	.103760	.065542	.040894
.8	.30	.099443	.088030	.058647	.037497
.8	.35	.074964	.073396	.051522	.033811
.8	.40	.056612	.060217	.044427	.029959
.8	.45	.042689	.048604	.037573	.026077
.8	.50	.031989	.038541	.031156	.022375
.8	.55	.023702	.030016	.025513	.019572
.8	.60	.017445	.023514	.022786	.000000
.8	.65	.016329	.000000	.000000	.000000
1.0	.00	.382867	.171902	.097853	.060822
1.0	.05	.359462	.168841	.096938	.060435
1.0	.10	.303289	.160200	.094269	.059292
1.0	.15	.239628	.147375	.090052	.057445
1.0	.20	.183924	.132115	.084592	.054973
1.0	.25	.140254	.116021	.078237	.051977
1.0	.30	.107409	.100287	.071334	.048568
1.0	.35	.082925	.085642	.064192	.044857
1.0	.40	.064563	.072443	.057064	.040955
1.0	.45	.050621	.060789	.050139	.036958
1.0	.50	.039877	.050629	.043550	.032956
1.0	.55	.031476	.041839	.037384	.029025
1.0	.60	.024816	.034270	.031696	.025244
1.0	.65	.019477	.027785	.026539	.021722
1.0	.70	.015179	.022297	.022030	.018743
1.0	.75	.011800	.017939	.018775	.016382
1.0	.80	.009945	.017399	.000000	.000000
1.2	.00	.387337	.179368	.106423	.069101
1.2	.05	.363932	.176306	.105508	.068714
1.2	.10	.307760	.167666	.102838	.067571
1.2	.15	.244098	.154841	.098622	.065723
1.2	.20	.188394	.139580	.093161	.063251
1.2	.25	.144724	.123486	.086805	.060253
1.2	.30	.111878	.107751	.079900	.056841
1.2	.35	.087393	.093104	.072755	.053126
1.2	.40	.069030	.079901	.065621	.049216
1.2	.45	.055084	.068241	.058687	.045206
1.2	.50	.044336	.058072	.052082	.041181
1.2	.55	.035926	.049264	.045888	.037208
1.2	.60	.029250	.041662	.040144	.033341
1.2	.65	.023879	.035106	.034867	.029624
1.2	.70	.019506	.029451	.030053	.026091
1.2	.75	.015909	.024572	.025694	.022775
1.2	.80	.012929	.020367	.021786	.019729
1.2	.85	.010456	.016777	.018369	.017081
1.2	.90	.008452	.013847	.015676	.015426
1.2	.95	.007120	.012283	.016009	.049264

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.4	.00	.390082	.184185	.112334	.075236
1.4	.05	.366677	.181124	.111419	.074849
1.4	.10	.310505	.172482	.108749	.073706
1.4	.15	.246843	.159657	.104532	.071858
1.4	.20	.191139	.144396	.099071	.069385
1.4	.25	.147469	.128302	.092715	.066387
1.4	.30	.114622	.112566	.085809	.062974
1.4	.35	.090137	.097918	.078663	.059258
1.4	.40	.071774	.084715	.071528	.055346
1.4	.45	.057827	.073053	.064592	.051333
1.4	.50	.047078	.062882	.057984	.047303
1.4	.55	.038667	.054071	.051784	.043322
1.4	.60	.031988	.046463	.046032	.039444
1.4	.65	.026613	.039898	.040741	.035706
1.4	.70	.022233	.034229	.035903	.032138
1.4	.75	.018623	.029322	.031500	.028758
1.4	.80	.015618	.025065	.027506	.025577
1.4	.85	.013094	.021363	.023895	.022604
1.4	.90	.010959	.018138	.020641	.019850
1.4	.95	.009145	.015330	.017730	.017335
1.4	1.00	.007606	.012906	.015175	.015123
1.6	**.00**	**.391885**	**.187448**	**.116525**	**.079817**
1.6	.05	.368480	.184387	.115610	.079430
1.6	.10	.312307	.175745	.112940	.078287
1.6	.15	.248645	.162921	.108723	.076439
1.6	.20	.192941	.147659	.103262	.073966
1.6	.25	.149271	.131565	.096905	.070968
1.6	.30	.116424	.115829	.090000	.067554
1.6	.35	.091939	.101181	.082853	.063838
1.6	.40	.073575	.087977	.075717	.059925
1.6	.45	.059629	.076315	.068780	.055911
1.6	.50	.048879	.066143	.062172	.051880
1.6	.55	.040467	.057331	.055970	.047897
1.6	.60	.033788	.049722	.050216	.044015
1.6	.65	.028412	.043155	.044921	.040273
1.6	.70	.024030	.037462	.040079	.036698
1.6	.75	.020418	.032571	.035668	.033307
1.6	.80	.017409	.028306	.031662	.030108
1.6	.85	.014879	.024591	.028031	.027107
1.6	.90	.012734	.021345	.024743	.024302
1.6	.95	.010901	.018498	.021768	.021691
1.6	1.00	.009325	.015995	.019080	.019270
1.8	**.00**	**.393130**	**.189751**	**.119579**	**.083285**
1.8	.05	.369725	.186691	.118664	.082898
1.8	.10	.313552	.178049	.115994	.081755
1.8	.15	.249890	.165224	.111777	.079907
1.8	.20	.194186	.149963	.106316	.077434
1.8	.25	.150516	.133869	.099960	.074435
1.8	.30	.117669	.118132	.093054	.071022
1.8	.35	.093184	.103484	.085907	.067305
1.8	.40	.074820	.090280	.078771	.063392
1.8	.45	.060874	.078618	.071834	.059378
1.8	.50	.050124	.068445	.065224	.055346
1.8	.55	.041712	.059633	.059022	.051362
1.8	.60	.035032	.052023	.053267	.047479
1.8	.65	.029656	.045456	.047972	.043736
1.8	.70	.025273	.039782	.043127	.040158
1.8	.75	.021660	.034869	.038714	.036764
1.8	.80	.018651	.030602	.034705	.033561
1.8	.85	.016119	.026885	.031069	.030553
1.8	.90	.013972	.023634	.027774	.027739
1.8	.95	.012136	.020780	.024790	.025113
1.8	1.00	.010555	.018266	.022085	.022669

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	**.00**	**.394025**	**.191433**	**.121861**	**.085951**
2.0	.05	.370620	.188375	.120947	.085564
2.0	.10	.314448	.179731	.118277	.084421
2.0	.15	.250786	.166906	.114060	.082573
2.0	.20	.195081	.151645	.108599	.080100
2.0	.25	.151411	.135550	.102242	.077101
2.0	.30	.118565	.119814	.095336	.073688
2.0	.35	.094079	.105166	.088189	.069971
2.0	.40	.075715	.091962	.081053	.066057
2.0	.45	.061769	.080300	.074116	.062043
2.0	.50	.051019	.070127	.067506	.058011
2.0	.55	.042607	.061314	.061304	.054027
2.0	.60	.035927	.053704	.055549	.050143
2.0	.65	.030550	.047137	.050252	.046399
2.0	.70	.026168	.041462	.045407	.042821
2.0	.75	.022555	.036549	.040994	.039425
2.0	.80	.019544	.032282	.036983	.036221
2.0	.85	.017013	.028563	.033346	.033212
2.0	.90	.014864	.025310	.030049	.030394
2.0	.95	.013027	.022455	.027061	.027764
2.0	1.00	.011445	.019959	.024353	.025314
2.2	**.00**	**.394690**	**.192697**	**.123606**	**.088033**
2.2	.05	.371285	.189636	.122691	.087646
2.2	.10	.315113	.180994	.120021	.086503
2.2	.15	.251451	.168169	.115804	.084655
2.2	.20	.195747	.152908	.110343	.082182
2.2	.25	.152076	.136814	.103986	.079184
2.2	.30	.119230	.121077	.097080	.075770
2.2	.35	.094744	.106429	.089933	.072053
2.2	.40	.076380	.093225	.082797	.068139
2.2	.45	.062434	.081563	.075860	.064125
2.2	.50	.051634	.071390	.069250	.060093
2.2	.55	.043272	.062577	.063047	.056108
2.2	.60	.036592	.054967	.057292	.052225
2.2	.65	.031215	.048399	.051996	.048480
2.2	.70	.026833	.042725	.047151	.044902
2.2	.75	.023219	.037811	.042736	.041506
2.2	.80	.020209	.033544	.038726	.038301
2.2	.85	.017677	.029824	.035088	.035290
2.2	.90	.015528	.026571	.031790	.032472
2.2	.95	.013691	.023715	.028801	.029841
2.2	1.00	.012108	.021198	.026091	.027389
2.6	**.00**	**.395593**	**.194432**	**.126044**	**.091011**
2.6	.05	.372198	.191371	.125129	.090624
2.6	.10	.316016	.182729	.122459	.089481
2.6	.15	.252354	.169904	.118242	.087633
2.6	.20	.196649	.154643	.112781	.085160
2.6	.25	.152979	.138549	.106424	.082162
2.6	.30	.120133	.122812	.099518	.078748
2.6	.35	.095647	.108164	.092371	.075031
2.6	.40	.077283	.094960	.085235	.071117
2.6	.45	.063337	.083298	.078298	.067103
2.6	.50	.052587	.073125	.071688	.063070
2.6	.55	.044174	.064312	.065485	.059086
2.6	.60	.037495	.056702	.059730	.055202
2.6	.65	.032118	.050134	.054433	.051458
2.6	.70	.027735	.044459	.049588	.047879
2.6	.75	.024122	.039545	.045173	.044482
2.6	.80	.021111	.035277	.041162	.041277
2.6	.85	.018579	.031558	.037524	.038266
2.6	.90	.016430	.028304	.034225	.035447
2.6	.95	.014593	.025448	.031236	.032814
2.6	1.00	.013010	.022930	.028525	.030361

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00	.396162	.195536	.127622	.092983
3.0	.05	.372757	.193475	.126703	.092596
3.0	.10	.316554	.183533	.124038	.091452
3.0	.15	.252932	.171003	.119821	.089604
3.0	.20	.197218	.155747	.114359	.087131
3.0	.25	.153547	.139655	.108003	.084133
3.0	.30	.120701	.123916	.101096	.080719
3.0	.35	.096216	.109268	.093950	.077002
3.0	.40	.077852	.096064	.086813	.073088
3.0	.45	.063905	.084402	.079876	.069074
3.0	.50	.053155	.074229	.073266	.065041
3.0	.55	.044743	.065416	.067064	.061057
3.0	.60	.039063	.057806	.061308	.057173
3.0	.65	.032586	.051233	.056011	.053428
3.0	.70	.028304	.045565	.051166	.049849
3.0	.75	.024690	.040649	.046751	.046453
3.0	.80	.021680	.036381	.042740	.043247
3.0	.85	.019147	.032662	.039101	.040236
3.0	.90	.016999	.029408	.035803	.037417
3.0	.95	.015161	.026551	.032813	.034784
3.0	1.00	.013578	.024035	.030102	.032331
3.5	.00	.396618	.196429	.128914	.094622
3.5	.05	.373213	.193368	.128000	.094235
3.5	.10	.317041	.184726	.125330	.093092
3.5	.15	.253379	.171901	.121112	.091244
3.5	.20	.197674	.155640	.115651	.088771
3.5	.25	.154024	.140546	.109295	.085772
3.5	.30	.121158	.124309	.102388	.082358
3.5	.35	.096672	.110161	.095242	.078641
3.5	.40	.079308	.096957	.088105	.074728
3.5	.45	.064362	.085295	.081168	.070713
3.5	.50	.053012	.075122	.074558	.066681
3.5	.55	.045199	.066309	.068355	.062696
3.5	.60	.037850	.058699	.062600	.058812
3.5	.65	.033143	.052131	.057303	.055068
3.5	.70	.028760	.046456	.052458	.051488
3.5	.75	.025147	.041542	.048043	.048092
3.5	.80	.022156	.037274	.044032	.044886
3.5	.85	.019604	.033554	.040393	.041875
3.5	.90	.017455	.030301	.037094	.039056
3.5	.95	.015617	.027444	.034104	.036423
3.5	1.00	.014034	.024926	.031393	.033969
4.0	.00	.396915	.197013	.129766	.095717
4.0	.05	.373510	.193958	.128852	.095350
4.0	.10	.317337	.185310	.126180	.094186
4.0	.15	.253075	.172485	.121965	.092358
4.0	.20	.197971	.157224	.116504	.089865
4.0	.25	.154301	.141130	.110147	.086367
4.0	.30	.121454	.125393	.103241	.083453
4.0	.35	.096969	.110745	.096094	.079736
4.0	.40	.078605	.097541	.088958	.075882
4.0	.45	.064658	.085679	.082020	.071808
4.0	.50	.053909	.075705	.075410	.067775
4.0	.55	.045496	.066593	.069208	.063791
4.0	.60	.038815	.059082	.063452	.059907
4.0	.65	.033439	.052714	.058155	.056152
4.0	.70	.029057	.047040	.053310	.052583
4.0	.75	.025443	.042126	.048895	.049186
4.0	.80	.022433	.037859	.044884	.045981
4.0	.85	.019900	.034135	.041245	.042959
4.0	.90	.017752	.030884	.037946	.040150
4.0	.95	.015916	.028027	.034957	.037517
4.0	1.00	.014331	.025510	.032245	.035063

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.2$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00	.397264	.197704	.130783	.097036
5.0	.05	.373859	.194643	.129868	.096649
5.0	.10	.317687	.186001	.127198	.095506
5.0	.15	.254025	.173176	.122981	.093658
5.0	.20	.198321	.157915	.117520	.091185
5.0	.25	.154650	.141820	.111163	.088186
5.0	.30	.121804	.126084	.104257	.084772
5.0	.35	.097319	.111436	.097110	.081055
5.0	.40	.078955	.098232	.089974	.077142
5.0	.45	.065008	.086569	.083037	.073127
5.0	.50	.054258	.076396	.076427	.069095
5.0	.55	.045846	.067584	.070224	.065110
5.0	.60	.039166	.059973	.064468	.061226
5.0	.65	.033789	.053405	.059172	.057481
5.0	.70	.029406	.047731	.054326	.053902
5.0	.75	.025793	.042817	.049912	.050506
5.0	.80	.022782	.038549	.045900	.047300
5.0	.85	.020250	.034829	.042262	.044289
5.0	.90	.018101	.031575	.038963	.041469
5.0	.95	.016264	.028718	.035973	.038836
5.0	1.00	.014690	.026200	.033262	.036383

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.360672	.139616	.066063	.033747
.6	.05	.337271	.136564	.065164	.033389
.6	.10	.281115	.127959	.062554	.032383
.6	.15	.217494	.115291	.058542	.030980
.6	.20	.161883	.100200	.053600	.030091
.6	.25	.118428	.084677	.048832	.040370
.6	.30	.086127	.070625	.050288	.000000
.6	.35	.063397	.064379	.000000	.000000
.6	.40	.058590	.000000	.000000	.000000
.8	.00	.376145	.161094	.085922	.049548
.8	.05	.352741	.158033	.085011	.049167
.8	.10	.296573	.149403	.082357	.048048
.8	.15	.232921	.136599	.078175	.046258
.8	.20	.177235	.121379	.072785	.043907
.8	.25	.133599	.105561	.066568	.041161
.8	.30	.100816	.089768	.059937	.038302
.8	.35	.076450	.075403	.053576	.036008
.8	.40	.058327	.062806	.047702	.037716
.8	.45	.044935	.052715	.046198	.000000
.8	.50	.035851	.049111	.000000	.000000
.8	.55	.041380	.000000	.000000	.000000
1.0	.00	.383719	.173114	.098858	.061291
1.0	.05	.360314	.170054	.097945	.060906
1.0	.10	.304144	.161416	.095280	.059771
1.0	.15	.240485	.148598	.091075	.057940
1.0	.20	.184787	.133349	.085634	.055498
1.0	.25	.141126	.117276	.079312	.052553
1.0	.30	.108296	.101574	.072464	.049232
1.0	.35	.083837	.086985	.065415	.045676
1.0	.40	.065516	.073874	.058446	.042051
1.0	.45	.051643	.062374	.051809	.038599
1.0	.50	.041021	.052496	.045784	.035824
1.0	.55	.032855	.044284	.040709	.033714
1.0	.60	.026717	.038133	.039414	.000000
1.2	.00	.387950	.180336	.107396	.069805
1.2	.05	.364545	.177270	.106482	.069422
1.2	.10	.308373	.168655	.103815	.068282
1.2	.15	.244713	.155814	.099602	.066441
1.2	.20	.189011	.140557	.094149	.063980
1.2	.25	.145345	.124471	.087805	.061000
1.2	.30	.112594	.108747	.080919	.057615
1.2	.35	.088028	.094118	.073803	.053944
1.2	.40	.069677	.080942	.066712	.050100
1.2	.45	.055751	.069328	.059845	.046195
1.2	.50	.045031	.059214	.053346	.042339
1.2	.55	.036606	.050504	.047322	.038652
1.2	.60	.030063	.043063	.041871	.035312
1.2	.65	.024817	.036793	.037140	.032695
1.2	.70	.020679	.031699	.033514	.032190
1.2	.75	.017594	.028160	.032741	**.054473**
1.2	.80	.016173	.029295	.000000	.000000
1.4	.00	.390542	.184957	.113201	.075994
1.4	.05	.367137	.181897	.112266	.075608
1.4	.10	.310965	.173256	.109617	.074466
1.4	.15	.247304	.160433	.105403	.072621
1.4	.20	.191601	.145174	.099945	.070154
1.4	.25	.147932	.129083	.093594	.067164
1.4	.30	.115089	.113352	.086697	.063762
1.4	.35	.090607	.098712	.079563	.060063
1.4	.40	.072249	.085519	.072444	.056175
1.4	.45	.058310	.073675	.065532	.052198
1.4	.50	.047571	.063722	.058959	.048219
1.4	.55	.039174	.054942	.052808	.044313
1.4	.60	.032516	.047378	.047130	.040546
1.4	.65	.027172	.040880	.041949	.036983
1.4	.70	.022839	.035311	.037285	.033700
1.4	.75	.019303	.030568	.033172	.030822
1.4	.80	.016423	.026593	.029704	.028646
1.4	.85	.014131	.023435	.027203	.028253
1.4	.90	.012501	.021501	.027188	.041273
1.4	.95	.012283	.024050	.192916	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	**.00**	**.392242**	**.188073**	**.117275**	**.080547**
1.6	.05	.368836	.185012	.116361	.080160
1.6	.10	.312664	.176371	.113692	.079018
1.6	.15	.249003	.163547	.109476	.077172
1.6	.20	.193299	.148287	.104017	.074702
1.6	.25	.149630	.132194	.097663	.071707
1.6	.30	.116785	.116460	.090761	.068300
1.6	.35	.092301	.101817	.083621	.064591
1.6	.40	.073940	.088618	.076493	.060689
1.6	.45	.059997	.076963	.069567	.056691
1.6	.50	.049252	.066800	.062972	.052680
1.6	.55	.040846	.058000	.056791	.048726
1.6	.60	.034175	.050408	.051064	.044884
1.6	.65	.028810	.043865	.045807	.041198
1.6	.70	.024444	.038225	.041018	.037701
1.6	.75	.020854	.033360	.036683	.034426
1.6	.80	.017877	.029164	.032790	.031403
1.6	.85	.015395	.025551	.029333	.028681
1.6	.90	.013324	.022467	.026329	.026357
1.6	.95	.011616	.019898	.023861	.024678
1.6	1.00	.010269	.017925	.022227	.024556
1.8	**.00**	**.393414**	**.190264**	**.120224**	**.083957**
1.8	.05	.370009	.187203	.119309	.083570
1.8	.10	.313837	.178562	.116640	.082427
1.8	.15	.250175	.165737	.112424	.080580
1.8	.20	.194471	.150477	.106964	.078109
1.8	.25	.150801	.134383	.100609	.075113
1.8	.30	.117956	.118648	.093705	.071702
1.8	.35	.093472	.104003	.086561	.067990
1.8	.40	.075109	.090801	.079430	.064082
1.8	.45	.061164	.079143	.072498	.060076
1.8	.50	.050417	.068975	.065896	.056054
1.8	.55	.042008	.060169	.059703	.052084
1.8	.60	.035332	.052567	.053961	.048219
1.8	.65	.029961	.046010	.048682	.044499
1.8	.70	.025585	.040350	.043860	.040953
1.8	.75	.021981	.035456	.039476	.037601
1.8	.80	.018983	.031214	.035507	.034457
1.8	.85	.016469	.027531	.031926	.031530
1.8	.90	.014344	.024328	.028709	.028833
1.8	.95	.012541	.021543	.025837	.026381
1.8	1.00	.011008	.019132	.023305	.024209
2.0	**.00**	**.394257**	**.191860**	**.122416**	**.086557**
2.0	.05	.370852	.188799	.121501	.086170
2.0	.10	.314680	.180157	.118832	.085027
2.0	.15	.251018	.167333	.114615	.083180
2.0	.20	.195314	.152072	.109155	.080708
2.0	.25	.151644	.135978	.102799	.077711
2.0	.30	.118798	.120243	.095894	.074299
2.0	.35	.094313	.105596	.088750	.070585
2.0	.40	.075950	.092393	.081616	.066675
2.0	.45	.062005	.080733	.074682	.062665
2.0	.50	.051256	.070563	.068076	.058638
2.0	.55	.042845	.061754	.061879	.054661
2.0	.60	.036158	.054148	.056130	.050787
2.0	.65	.030794	.047586	.050843	.047055
2.0	.70	.026415	.041919	.046009	.043492
2.0	.75	.022806	.037014	.041609	.040116
2.0	.80	.019801	.032758	.037616	.036937
2.0	.85	.017277	.029054	.034002	.033960
2.0	.90	.015138	.025821	.030736	.031187
2.0	.95	.013314	.022992	.027789	.028617
2.0	1.00	.011748	.020511	.025137	.026249

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00	.394883	.193056	.124085	.088575
2.2	.05	.371478	.189995	.123170	.088515
2.2	.10	.315305	.181354	.120533	.087645
2.2	.15	.251644	.168828	.116254	.086192
2.2	.20	.195440	.153069	.110833	.082726
2.2	.25	.152369	.137174	.104467	.079722
2.2	.30	.119433	.121437	.097568	.076315
2.2	.35	.094938	.106791	.090415	.072600
2.2	.40	.076575	.093588	.083831	.068689
2.2	.45	.062039	.081927	.076346	.064677
2.2	.50	.051890	.071756	.069739	.060648
2.2	.55	.043468	.062945	.063539	.056658
2.2	.60	.035772	.055337	.057788	.052790
2.2	.65	.031415	.048775	.052496	.049052
2.2	.70	.027034	.043108	.047657	.045481
2.2	.75	.023433	.038195	.043250	.042096
2.2	.80	.020416	.033931	.039249	.038904
2.2	.85	.017817	.030220	.035622	.035909
2.2	.90	.015743	.026976	.032339	.033112
2.2	.95	.013917	.024151	.029369	.030507
2.2	1.00	.012337	.021650	.026683	.028089
2.6	.00	.395732	.194696	.126408	.091443
2.6	.05	.373327	.191335	.125493	.091056
2.6	.10	.316155	.182995	.122834	.089913
2.6	.15	.252493	.170165	.118607	.088055
2.6	.20	.196788	.154907	.113146	.085523
2.6	.25	.153118	.139515	.106789	.082595
2.6	.30	.120272	.123077	.099684	.079181
2.6	.35	.095787	.108429	.092737	.075455
2.6	.40	.077423	.095226	.085602	.071552
2.6	.45	.063477	.083564	.078665	.067535
2.6	.50	.052727	.073398	.072057	.063508
2.6	.55	.044315	.064500	.065855	.059525
2.6	.60	.037636	.056970	.060101	.055644
2.6	.65	.032260	.050404	.054806	.051902
2.6	.70	.027878	.044731	.049963	.048326
2.6	.75	.024265	.039319	.045552	.044933
2.6	.80	.021256	.035555	.041544	.041732
2.6	.85	.018725	.031636	.037909	.038727
2.6	.90	.016578	.028586	.034616	.035914
2.6	.95	.014742	.025733	.031632	.033289
2.6	1.00	.013161	.023219	.028928	.030846
3.0	.00	.396266	.195738	.127906	.093329
3.0	.05	.373861	.192677	.126993	.092942
3.0	.10	.316689	.184035	.124302	.091799
3.0	.15	.253027	.171210	.120105	.089951
3.0	.20	.197323	.155947	.114644	.087479
3.0	.25	.153650	.139855	.108287	.084480
3.0	.30	.120806	.124113	.101351	.081067
3.0	.35	.096321	.109471	.094235	.077350
3.0	.40	.077957	.096267	.087099	.073437
3.0	.45	.064011	.084505	.080162	.069423
3.0	.50	.053261	.074438	.073553	.065391
3.0	.55	.044849	.065520	.067350	.061406
3.0	.60	.038169	.058010	.061596	.057585
3.0	.65	.032793	.051442	.056300	.053781
3.0	.70	.028410	.045768	.051455	.050204
3.0	.75	.024797	.040855	.047042	.046809
3.0	.80	.021787	.036588	.043032	.043605
3.0	.85	.019255	.032870	.039395	.040596
3.0	.90	.017107	.029618	.036099	.037779
3.0	.95	.015271	.026762	.033111	.035150
3.0	1.00	.013698	.024246	.030403	.032700

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.4$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	**.00**	**.396695**	**.196579**	**.129129**	**.094891**
3.5	.05	.373290	.193518	.128215	.094504
3.5	.10	.317118	.184876	.125545	.093361
3.5	.15	.253456	.172052	.121328	.091513
3.5	.20	.197752	.156790	.115867	.089040
3.5	.25	.154081	.140696	.109510	.086041
3.5	.30	.121235	.124959	.102604	.082628
3.5	.35	.096750	.110312	.095457	.078911
3.5	.40	.078386	.097108	.088321	.074997
3.5	.45	.064439	.085445	.081384	.070983
3.5	.50	.053689	.075273	.074774	.066951
3.5	.55	.045277	.066460	.068572	.062967
3.5	.60	.038597	.058850	.062817	.059083
3.5	.65	.033221	.052282	.057520	.055339
3.5	.70	.028838	.046608	.052675	.051761
3.5	.75	.025225	.041694	.048261	.048365
3.5	.80	.022214	.037427	.044251	.045160
3.5	.85	.019682	.033708	.040613	.042150
3.5	.90	.017534	.030454	.037315	.039331
3.5	.95	.015697	.027598	.034326	.036700
3.5	1.00	.014114	.025081	.031616	.034248
4.0	**.00**	**.396974**	**.197129**	**.129934**	**.095930**
4.0	.05	.373559	.194068	.129020	.094399
4.0	.10	.317397	.185426	.126350	.092552
4.0	.15	.253735	.172601	.122133	.090079
4.0	.20	.198030	.157340	.116672	.087080
4.0	.25	.154360	.141246	.110315	.083666
4.0	.30	.121514	.125509	.103409	.079949
4.0	.35	.097028	.110861	.096262	.076036
4.0	.40	.078664	.097657	.089126	.072022
4.0	.45	.064718	.085995	.082188	.067989
4.0	.50	.053958	.075822	.075579	.064005
4.0	.55	.045556	.067009	.069376	.060121
4.0	.60	.038876	.059399	.063621	.056377
4.0	.65	.033499	.052831	.058324	.052798
4.0	.70	.029116	.047157	.053479	.049402
4.0	.75	.025503	.042243	.049065	.046197
4.0	.80	.022493	.037975	.045054	.043186
4.0	.85	.019950	.034256	.041415	.040367
4.0	.90	.017812	.031002	.038117	.037734
4.0	.95	.015974	.028146	.035128	.035282
4.0	1.00	.014391	.025628	.032417	.032998
5.0	**.00**	**.397302**	**.197779**	**.130893**	**.097178**
5.0	.05	.373897	.194718	.129978	.096791
5.0	.10	.317725	.186076	.127308	.095648
5.0	.15	.254063	.173251	.123091	.093800
5.0	.20	.198359	.157990	.117630	.091327
5.0	.25	.154688	.141896	.111273	.088328
5.0	.30	.121842	.126159	.104367	.084915
5.0	.35	.097357	.111511	.097220	.081198
5.0	.40	.078993	.098307	.090084	.077284
5.0	.45	.065046	.086645	.083147	.073270
5.0	.50	.054296	.076472	.076537	.069237
5.0	.55	.045884	.067659	.070334	.065253
5.0	.60	.039204	.060049	.064579	.061369
5.0	.65	.033827	.053481	.059282	.057624
5.0	.70	.029445	.047806	.054437	.054045
5.0	.75	.025831	.042892	.050022	.050649
5.0	.80	.022820	.038624	.046011	.047443
5.0	.85	.020288	.034905	.042372	.044432
5.0	.90	.018140	.031651	.039074	.041613
5.0	.95	.016302	.028794	.036084	.038980
5.0	1.00	.014719	.026276	.033373	.036526

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.363966	.141956	.064697	.027918
.6	.05	.340582	.138948	.063916	.028149
.6	.10	.284497	.130544	.061959	.036622
.6	.15	.221063	.118402	.060549	.000000
.6	.20	.165912	.105075	.075698	.000000
.6	.25	.123677	.096071	.000000	.000000
.6	.30	.095686	.000000	.000000	.000000
.6	.35	.141767	.000000	.000000	.000000
.8	.00	.378255	.163604	.087089	.048523
.8	.05	.354856	.160556	.086200	.048187
.8	.10	.298706	.151967	.083635	.047272
.8	.15	.235095	.139264	.079674	.046067
.8	.20	.179492	.124252	.074784	.045411
.8	.25	.136014	.108659	.069743	.049498
.8	.30	.103544	.093984	.066406	.000000
.8	.35	.079849	.081917	.076211	.000000
.8	.40	.063453	.077787	.000000	.000000
.8	.45	.057181	.000000	.000000	.000000
1.0	.00	.385152	.175190	.100566	.061907
1.0	.05	.361749	.172134	.099660	.061534
1.0	.10	.305585	.163510	.097022	.060445
1.0	.15	.241941	.150724	.092874	.058721
1.0	.20	.186268	.135533	.087543	.056493
1.0	.25	.142651	.119561	.081421	.053969
1.0	.30	.109894	.104033	.074937	.051513
1.0	.35	.085559	.089749	.068582	.049967
1.0	.40	.067456	.077208	.063077	.052716
1.0	.45	.053995	.066879	.060260	.000000
1.0	.50	.044259	.059949	.073118	.000000
1.0	.55	.038572	.064617	.000000	.000000
1.0	.60	.050251	.000000	.000000	.000000
1.2	.00	.388978	.181983	.109069	.070978
1.2	.05	.365574	.178925	.108158	.070597
1.2	.10	.309405	.170291	.105501	.069474
1.2	.15	.245751	.157482	.101311	.067669
1.2	.20	.190059	.142248	.095897	.065272
1.2	.25	.146409	.126199	.089618	.062402
1.2	.30	.113595	.110532	.082834	.059201
1.2	.35	.089158	.095992	.075883	.055838
1.2	.40	.070869	.082956	.069063	.052537
1.2	.45	.057039	.071563	.062656	.049658
1.2	.50	.046477	.061838	.056995	.048035
1.2	.55	.038384	.053828	.052702	.051023
1.2	.60	.032301	.047843	.051858	.000000
1.2	.65	.028236	.045548	.077312	.000000
1.2	.70	.028147	.070883	.000000	.000000
1.4	.00	.391312	.186267	.114688	.077290
1.4	.05	.367907	.183208	.113775	.076906
1.4	.10	.311737	.174570	.111111	.075773
1.4	.15	.248079	.161753	.106907	.073944
1.4	.20	.192381	.146505	.101467	.071503
1.4	.25	.148720	.130430	.095144	.068556
1.4	.30	.115888	.114724	.088287	.065220
1.4	.35	.091423	.100119	.081214	.061620
1.4	.40	.073088	.086979	.074187	.057884
1.4	.45	.059184	.075409	.067410	.054142
1.4	.50	.048495	.065371	.061043	.050538
1.4	.55	.040174	.056763	.055218	.047265
1.4	.60	.033634	.049472	.050082	.044663
1.4	.65	.028479	.043432	.045884	.043609
1.4	.70	.024479	.038711	.043289	.048051
1.4	.75	.021604	.035826	.045194	.000000
1.4	.80	.020404	.037893	.000000	.000000
1.4	.85	.027603	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	.00	.392838	.189128	.118558	.081802
1.6	.05	.369434	.186068	.117644	.081416
1.6	.10	.313262	.177428	.114978	.080278
1.6	.15	.249602	.164608	.110768	.078440
1.6	.20	.193902	.149353	.105318	.075983
1.6	.25	.150236	.133269	.098978	.073010
1.6	.30	.117397	.117548	.092096	.069632
1.6	.35	.092922	.102921	.084984	.065966
1.6	.40	.074572	.089746	.077895	.062126
1.6	.45	.060644	.078124	.071025	.058215
1.6	.50	.049920	.068007	.064509	.054330
1.6	.55	.041544	.059272	.058438	.050559
1.6	.60	.034915	.051772	.052873	.046992
1.6	.65	.029611	.045363	.047858	.043736
1.6	.70	.025334	.039925	.043446	.040958
1.6	.75	.021882	.035379	.039739	.039004
1.6	.80	.019131	.031726	.037004	.038893
1.6	.85	.017058	.029158	.036112	.046230
1.6	.90	.015861	.028591	.042107	.000000
1.6	.95	.016884	.038065	.000000	.000000
1.8	.00	.393890	.191127	.121322	.085110
1.8	.05	.370485	.188067	.120408	.084724
1.8	.10	.314313	.179426	.117740	.083584
1.8	.15	.250653	.166604	.113527	.081742
1.8	.20	.194950	.151346	.108072	.079278
1.8	.25	.151283	.135258	.101725	.076293
1.8	.30	.118441	.119530	.094832	.072898
1.8	.35	.093961	.104893	.087704	.069208
1.8	.40	.075604	.091705	.080592	.065330
1.8	.45	.061667	.080063	.073688	.061365
1.8	.50	.050931	.069917	.067122	.057398
1.8	.55	.042536	.061141	.060979	.053504
1.8	.60	.035879	.053580	.055304	.049743
1.8	.65	.030533	.047078	.050117	.046169
1.8	.70	.026193	.041493	.045424	.042834
1.8	.75	.022637	.036705	.041226	.039794
1.8	.80	.019709	.032617	.037532	.037135
1.8	.85	.017298	.029167	.034383	.035021
1.8	.90	.015334	.026336	.031895	.033846
1.8	.95	.013802	.024203	.030417	.034944
1.8	1.00	.012786	.023124	.031269	.048584
2.0	.00	.394645	.192576	.123357	.087595
2.0	.05	.371240	.189516	.122443	.087208
2.0	.10	.315068	.180875	.119775	.086067
2.0	.15	.251407	.168052	.115560	.084283
2.0	.20	.195704	.152793	.110103	.081755
2.0	.25	.152035	.136702	.103752	.078765
2.0	.30	.119191	.120970	.096853	.075362
2.0	.35	.094709	.106329	.089717	.071660
2.0	.40	.076349	.093134	.082595	.067767
2.0	.45	.062408	.081483	.075676	.063779
2.0	.50	.051666	.071326	.069090	.059780
2.0	.55	.043263	.062532	.062918	.055841
2.0	.60	.036595	.054947	.057203	.052017
2.0	.65	.031234	.048412	.051959	.048350
2.0	.70	.026872	.042780	.047183	.044874
2.0	.75	.023285	.037922	.042860	.041618
2.0	.80	.020309	.033728	.038973	.038604
2.0	.85	.017825	.030110	.035504	.035864
2.0	.90	.015741	.026997	.032447	.033440
2.0	.95	.013996	.024343	.029813	.031416
2.0	1.00	.012550	.022129	.027656	.029975

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	z_o=0.2	z_o=0.4	z_o=0.6	z_o=0.8
2.2	.00	.395205	.193659	.124896	.089501
	.05	.371800	.190599	.123982	.089114
	.10	.315528	.181957	.121313	.087972
	.15	.251966	.169134	.117097	.086127
	.20	.196253	.153674	.111638	.083657
	.25	.152593	.137782	.105285	.080654
	.30	.119749	.122048	.098384	.077257
	.35	.095255	.107405	.091244	.073549
	.40	.076904	.094206	.084116	.069648
	.45	.062951	.082551	.077190	.065649
	.50	.052215	.072387	.070594	.061636
	.55	.043809	.063586	.064409	.057677
	.60	.037136	.055990	.058676	.053826
	.65	.031769	.049440	.053408	.050122
	.70	.027396	.043788	.048599	.046596
	.75	.023797	.038903	.044231	.043267
	.80	.020804	.034672	.040279	.040150
	.85	.018294	.031000	.036718	.037254
	.90	.016175	.027809	.033521	.034589
	.95	.014377	.025035	.030669	.032168
	1.00	.012847	.022630	.028145	.030013
2.6	.00	.395964	.195138	.127022	.092177
	.05	.372559	.192078	.126108	.091790
	.10	.316387	.183436	.123438	.090647
	.15	.252725	.170612	.119282	.088800
	.20	.197021	.155351	.113762	.086329
	.25	.153351	.139258	.107407	.083333
	.30	.120505	.123525	.100503	.079922
	.35	.096021	.108877	.093359	.076209
	.40	.077658	.095675	.086227	.072301
	.45	.063713	.084016	.079294	.068293
	.50	.052965	.073847	.072690	.064268
	.55	.044555	.065039	.066495	.060294
	.60	.037878	.057434	.060748	.056422
	.65	.032505	.050875	.055462	.052693
	.70	.028126	.045207	.050629	.049132
	.75	.024518	.040303	.046231	.045758
	.80	.021513	.036048	.042239	.042580
	.85	.018988	.032343	.038624	.039602
	.90	.016849	.029108	.035355	.036824
	.95	.015022	.026274	.032401	.034243
	1.00	.013453	.023785	.029735	.031855
3.0	.00	.396441	.196075	.128384	.093916
3.0	.05	.373036	.193015	.127469	.093529
3.0	.10	.316854	.184373	.124800	.092386
3.0	.15	.253202	.171548	.120583	.090539
3.0	.20	.197498	.156287	.115123	.088067
3.0	.25	.153828	.140194	.108767	.085069
3.0	.30	.120982	.124458	.101862	.081657
3.0	.35	.096497	.109811	.094716	.077942
3.0	.40	.078134	.096608	.087582	.074031
3.0	.45	.064188	.084947	.080647	.070020
3.0	.50	.053439	.074776	.074040	.065991
3.0	.55	.045028	.065965	.067841	.062012
3.0	.60	.038349	.058358	.062089	.058133
3.0	.65	.032974	.051793	.056798	.054395
3.0	.70	.028593	.046122	.051958	.050824
3.0	.75	.024982	.041215	.047550	.047437
3.0	.80	.021974	.036950	.043547	.044243
3.0	.85	.019445	.033237	.039918	.041245
3.0	.90	.017300	.029991	.036631	.038442
3.0	.95	.015456	.027145	.033655	.035829
3.0	1.00	.013889	.024635	.030960	.033398

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00	.396824	.196830	.129490	.095344
3.5	.05	.373419	.193769	.128576	.094957
3.5	.10	.317247	.185128	.125906	.093814
3.5	.15	.253585	.172303	.121689	.091966
3.5	.20	.197881	.157042	.116228	.089494
3.5	.25	.154210	.140948	.109872	.086496
3.5	.30	.121364	.125212	.102966	.083083
3.5	.35	.096879	.110564	.095820	.079367
3.5	.40	.078515	.097361	.088685	.075454
3.5	.45	.064569	.085699	.081748	.071442
3.5	.50	.053820	.075527	.075140	.067411
3.5	.55	.045408	.066715	.068939	.063428
3.5	.60	.038729	.059106	.063185	.059547
3.5	.65	.033353	.052540	.057891	.055805
3.5	.70	.028971	.046867	.053048	.052230
3.5	.75	.025358	.041955	.048636	.048837
3.5	.80	.022349	.037689	.044629	.045637
3.5	.85	.019818	.033972	.040994	.042631
3.5	.90	.017671	.030721	.037700	.039818
3.5	.95	.015835	.027868	.034715	.037192
3.5	1.00	.014254	.025354	.032010	.034747
4.0	**.00**	**.397073**	**.197322**	**.130216**	**.096288**
4.0	.05	.373668	.194262	.129301	.095901
4.0	.10	.317496	.185620	.126631	.094758
4.0	.15	.253834	.172795	.122414	.092910
4.0	.20	.198129	.157534	.116953	.090437
4.0	.25	.154459	.141440	.110597	.087439
4.0	.30	.121613	.125703	.103691	.084026
4.0	.35	.097128	.111056	.096545	.080309
4.0	.40	.078764	.097852	.089409	.076396
4.0	.45	.064817	.086190	.082472	.072383
4.0	.50	.054058	.076017	.075863	.068351
4.0	.55	.045656	.067205	.069661	.064368
4.0	.60	.038976	.059596	.063906	.060485
4.0	.65	.033600	.053028	.058611	.056742
4.0	.70	.029217	.047355	.053767	.053165
4.0	.75	.025604	.042442	.049354	.049770
4.0	.80	.022594	.038175	.045344	.046567
4.0	.85	.020063	.034456	.041707	.043558
4.0	.90	.017915	.031204	.038411	.040742
4.0	.95	.016078	.028349	.035424	.038112
4.0	1.00	.014496	.025833	.032715	.035663
5.0	**.00**	**.397366**	**.197904**	**.131077**	**.097416**
5.0	.05	.373961	.194843	.130162	.097029
5.0	.10	.317788	.186201	.127492	.095886
5.0	.15	.254126	.173377	.123275	.094038
5.0	.20	.198422	.158115	.117814	.091565
5.0	.25	.154752	.142021	.111457	.088567
5.0	.30	.121906	.126284	.104551	.085153
5.0	.35	.097420	.111637	.097405	.081436
5.0	.40	.079056	.098432	.090269	.077523
5.0	.45	.065110	.086770	.083331	.073509
5.0	.50	.054360	.076597	.076722	.069476
5.0	.55	.045948	.067785	.070519	.065492
5.0	.60	.039268	.060175	.064764	.061609
5.0	.65	.033891	.053607	.059468	.057865
5.0	.70	.029509	.047933	.054623	.054286
5.0	.75	.025895	.043019	.050209	.050890
5.0	.80	.022885	.038751	.046198	.047686
5.0	.85	.020353	.035032	.042560	.044675
5.0	.90	.018204	.031779	.039262	.041856
5.0	.95	.016367	.028923	.036273	.039225
5.0	1.00	.014784	.026405	.033562	.036772

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.368730	.145075	.058513	.000000
.6	.05	.345394	.142242	.059075	.000000
.6	.10	.289523	.134739	.082863	.000000
.6	.15	.226690	.125943	.000000	.000000
.6	.20	.173208	.130899	.000000	.000000
.6	.25	.136942	.000000	.000000	.000000
.6	.30	.191767	.000000	.000000	.000000
.8	.00	.381270	.167280	.088236	.043885
.8	.05	.357884	.164268	.087443	.044006
.8	.10	.301786	.155824	.085320	.046610
.8	.15	.238296	.143482	.082685	.000000
.8	.20	.182942	.129291	.082031	.000000
.8	.25	.139982	.115680	.101060	.000000
.8	.30	.108673	.106955	.000000	.000000
.8	.35	.088201	.135430	.000000	.000000
.8	.40	.088753	.000000	.000000	.000000
1.0	.00	.387186	.178217	.103002	.062119
1.0	.05	.363788	.175174	.102121	.061805
1.0	.10	.307643	.166595	.099582	.060968
1.0	.15	.244038	.153908	.095662	.059911
1.0	.20	.188438	.138907	.090802	.059399
1.0	.25	.144951	.123284	.085654	.062149
1.0	.30	.112422	.108415	.081365	.098630
1.0	.35	.088506	.095467	.081197	.000000
1.0	.40	.071245	.086101	.114660	.000000
1.0	.45	.059795	.086901	.000000	.000000
1.0	.50	.057434	.000000	.000000	.000000
1.2	.00	.390430	.184365	.111520	.072538
1.2	.05	.367029	.181312	.110619	.072175
1.2	.10	.310868	.172697	.107998	.071121
1.2	.15	.247231	.159927	.103883	.069469
1.2	.20	.191569	.144762	.098606	.067370
1.2	.25	.147966	.128826	.092565	.065064
1.2	.30	.115228	.113345	.086194	.062972
1.2	.35	.090912	.099113	.079979	.062024
1.2	.40	.072821	.086604	.074574	.065449
1.2	.45	.059330	.076179	.071303	.112107
1.2	.50	.049399	.068471	.075296	.000000
1.2	.55	.042671	.065899	.000000	.000000
1.2	.60	.040638	.095883	.000000	.000000
1.2	.65	.103638	.000000	.000000	.000000
1.4	.00	.392397	.188148	.116863	.079164
1.4	.05	.368994	.185091	.115955	.078787
1.4	.10	.312828	.176462	.113308	.077682
1.4	.15	.249178	.163664	.109136	.075910
1.4	.20	.193494	.148447	.103753	.073571
1.4	.25	.149855	.132421	.097520	.070793
1.4	.30	.117055	.116789	.090805	.067735
1.4	.35	.092638	.102297	.083953	.064598
1.4	.40	.074376	.089327	.077276	.061659
1.4	.45	.060581	.078022	.071076	.059401
1.4	.50	.050062	.068413	.065717	.058982
1.4	.55	.042018	.060540	.061855	.065081
1.4	.60	.035965	.054652	.061414	.000000
1.4	.65	.031788	.051863	.076977	.000000
1.4	.70	.030300	.059434	.000000	.000000
1.4	.75	.041966	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.6	.00	.393678	.190635	.120424	.083640
1.6	.05	.370274	.187576	.119513	.083258
1.6	.10	.314106	.178942	.116855	.082134
1.6	.15	.250450	.166131	.112661	.080323
1.6	.20	.194757	.150893	.107239	.077912
1.6	.25	.151103	.134834	.100942	.075010
1.6	.30	.118280	.119148	.094123	.071741
1.6	.35	.093828	.104573	.087104	.068239
1.6	.40	.075510	.091471	.080150	.064646
1.6	.45	.061629	.079955	.073478	.061116
1.6	.50	.050972	.069991	.067260	.057840
1.6	.55	.042693	.061484	.061654	.055104
1.6	.60	.036209	.054337	.056850	.053478
1.6	.65	.031134	.048505	.053199	.054604
1.6	.70	.027243	.044100	.051624	.067715
1.6	.75	.024518	.041716	.056083	.000000
1.6	.80	.023452	.044376	.000000	.000000
1.6	.85	.028045	.000000	.000000	.000000
1.8	.00	.394559	.192355	.122910	.086799
1.8	.05	.371154	.189296	.121998	.086416
1.8	.10	.314984	.180658	.119335	.085283
1.8	.15	.251326	.167842	.115131	.083455
1.8	.20	.195628	.152594	.109692	.081016
1.8	.25	.151967	.136519	.103368	.078067
1.8	.30	.119134	.120810	.096508	.074725
1.8	.35	.094667	.106201	.089425	.071109
1.8	.40	.076327	.093049	.082378	.067338
1.8	.45	.062414	.081459	.075563	.063525
1.8	.50	.051709	.071383	.069123	.059775
1.8	.55	.043357	.062704	.063156	.056200
1.8	.60	.036761	.055279	.057736	.052924
1.8	.65	.031501	.048974	.052931	.050124
1.8	.70	.027285	.043684	.048836	.048122
1.8	.75	.023921	.039360	.045647	.047700
1.8	.80	.021304	.036065	.043870	.051738
1.8	.85	.019451	.034149	.045275	.097238
1.8	.90	.018678	.035143	.063922	.000000
1.8	.95	.020913	.055255	.000000	.000000
2.0	.00	.395189	.193593	.124712	.089109
2.0	.05	.371785	.190533	.123799	.088724
2.0	.10	.315614	.181894	.121133	.087587
2.0	.15	.251954	.169075	.116925	.085751
2.0	.20	.196254	.153821	.111477	.083298
2.0	.25	.152589	.137739	.105139	.080328
2.0	.30	.119751	.122019	.098260	.076954
2.0	.35	.095276	.107394	.091150	.073292
2.0	.40	.076926	.094219	.084062	.069453
2.0	.45	.062998	.082596	.077190	.065540
2.0	.50	.052273	.072475	.070667	.061642
2.0	.55	.043893	.063731	.064579	.057841
2.0	.60	.037255	.056211	.058978	.054208
2.0	.65	.031934	.049764	.053891	.050812
2.0	.70	.027626	.044253	.049335	.047733
2.0	.75	.024115	.039566	.045332	.045081
2.0	.80	.021248	.035623	.041928	.043050
2.0	.85	.018924	.032386	.039239	.042075
2.0	.90	.017096	.029898	.037566	.043450
2.0	.95	.015790	.028384	.037850	.054143
2.0	1.00	.015220	.028717	.044850	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00	.395657	.194513	.126058	.090845
2.2	.05	.372252	.191453	.125145	.090459
2.2	.10	.316080	.182813	.122478	.089320
2.2	.15	.252420	.169992	.118266	.087480
2.2	.20	.196718	.154736	.112813	.085020
2.2	.25	.153051	.138649	.106469	.082039
2.2	.30	.120210	.122923	.099579	.078649
2.2	.35	.095732	.108289	.092455	.074965
2.2	.40	.077376	.095103	.085348	.071095
2.2	.45	.063441	.083464	.078449	.067137
2.2	.50	.052706	.073322	.071888	.063179
2.2	.55	.044312	.064548	.065749	.059291
2.2	.60	.037656	.056987	.060076	.055533
2.2	.65	.032309	.050484	.054886	.051955
2.2	.70	.027966	.044892	.050180	.048597
2.2	.75	.024403	.040087	.045952	.045502
2.2	.80	.021459	.035965	.042192	.042716
2.2	.85	.019017	.032443	.038902	.040308
2.2	.90	.016993	.029465	.036105	.038402
2.2	.95	.015332	.027009	.033873	.037261
2.2	1.00	.014013	.025107	.032398	.037578
2.6	.00	.396289	.195763	.127897	.093234
2.6	.05	.372884	.192703	.126983	.092847
2.6	.10	.316712	.184062	.124315	.091706
2.6	.15	.253051	.171239	.120100	.089862
2.6	.20	.197348	.155980	.114643	.087394
2.6	.25	.153679	.139889	.108292	.084404
2.6	.30	.120835	.124157	.101393	.081000
2.6	.35	.096353	.109516	.094256	.077297
2.6	.40	.077993	.096319	.087132	.073402
2.6	.45	.064051	.084667	.080211	.069410
2.6	.50	.053307	.074507	.073621	.065405
2.6	.55	.044903	.065709	.067443	.061456
2.6	.60	.038232	.058118	.061717	.057616
2.6	.65	.032866	.051574	.056458	.053926
2.6	.70	.028498	.045928	.051659	.050416
2.6	.75	.024902	.041050	.047302	.047104
2.6	.80	.021912	.036827	.043363	.044006
2.6	.85	.019406	.033162	.039815	.041132
2.6	.90	.017291	.029979	.036631	.038488
2.6	.95	.015495	.027211	.033789	.036085
2.6	1.00	.013966	.024808	.031272	.033938
3.0	.00	.396686	.196551	.129062	.094756
3.0	.05	.373281	.193490	.128148	.094369
3.0	.10	.317109	.184849	.125478	.093227
3.0	.15	.253448	.172025	.121263	.091381
3.0	.20	.197744	.156765	.115804	.088911
3.0	.25	.154075	.140673	.109450	.085917
3.0	.30	.121230	.124938	.102548	.082508
3.0	.35	.096746	.110294	.095406	.078798
3.0	.40	.078384	.097094	.088276	.074893
3.0	.45	.064440	.085436	.081346	.070890
3.0	.50	.053693	.075269	.074746	.066870
3.0	.55	.045284	.066464	.068555	.062902
3.0	.60	.038608	.058863	.062813	.059038
3.0	.65	.033237	.052305	.057533	.055317
3.0	.70	.028860	.046643	.052707	.051766
3.0	.75	.025254	.041745	.048317	.048404
3.0	.80	.022253	.037495	.044335	.045240
3.0	.85	.019731	.033798	.040731	.042278
3.0	.90	.017595	.030571	.037474	.039519
3.0	.95	.015773	.027746	.034535	.036961
3.0	1.00	.014209	.025267	.031886	.034598

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 0.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00	.397005	.197183	.130001	.095989
3.5	.05	.373600	.194123	.129086	.095602
3.5	.10	.317437	.185481	.126417	.094460
3.5	.15	.253756	.172657	.122200	.092613
3.5	.20	.198062	.157396	.116740	.090141
3.5	.25	.154392	.141303	.110385	.087145
3.5	.30	.121546	.125567	.103481	.083734
3.5	.35	.097062	.110921	.096336	.080020
3.5	.40	.078698	.097719	.089203	.076111
3.5	.45	.064753	.086059	.082269	.072101
3.5	.50	.054005	.075889	.075664	.068075
3.5	.55	.045594	.067080	.069466	.064098
3.5	.60	.038916	.059473	.063717	.060222
3.5	.65	.033542	.052910	.058428	.056488
3.5	.70	.029162	.047241	.053591	.052921
3.5	.75	.025551	.042334	.049187	.049538
3.5	.80	.022545	.038073	.045187	.046349
3.5	.85	.020017	.034363	.041562	.043357
3.5	.90	.017873	.031120	.038280	.040561
3.5	.95	.016041	.028275	.035309	.037954
3.5	1.00	.014465	.025771	.032620	.035532
4.0	.00	.397211	.197595	.130613	.096796
4.0	.05	.373806	.194534	.129698	.096410
4.0	.10	.317634	.185892	.127029	.095267
4.0	.15	.253972	.173068	.122812	.093419
4.0	.20	.198268	.157807	.117351	.090947
4.0	.25	.154598	.141713	.110995	.087950
4.0	.30	.121752	.125977	.104090	.084537
4.0	.35	.097267	.111330	.096945	.080822
4.0	.40	.078904	.098127	.089810	.076911
4.0	.45	.064958	.086466	.082875	.072899
4.0	.50	.054209	.076295	.076267	.068870
4.0	.55	.045797	.067484	.070067	.064889
4.0	.60	.039118	.059875	.064315	.061009
4.0	.65	.033743	.053310	.059022	.057270
4.0	.70	.029361	.047638	.054181	.053697
4.0	.75	.025750	.042727	.049771	.050307
4.0	.80	.022741	.038463	.045766	.047110
4.0	.85	.020211	.034748	.042134	.044107
4.0	.90	.018064	.031499	.038843	.041298
4.0	.95	.016230	.028648	.035862	.038677
4.0	1.00	.014650	.026136	.033160	.036238
5.0	.00	.397455	.198079	.131336	.097753
5.0	.05	.374050	.195019	.130421	.097366
5.0	.10	.317877	.186377	.127751	.096223
5.0	.15	.254215	.173552	.123534	.094375
5.0	.20	.198511	.158291	.118073	.091902
5.0	.25	.154841	.142197	.111717	.088904
5.0	.30	.121995	.126461	.104811	.085491
5.0	.35	.097509	.111813	.097665	.081774
5.0	.40	.079146	.098609	.090529	.077862
5.0	.45	.065199	.086947	.083592	.073848
5.0	.50	.054450	.076775	.076983	.069817
5.0	.55	.046038	.067963	.070782	.065833
5.0	.60	.039358	.060353	.065027	.061951
5.0	.65	.033982	.053786	.059732	.058208
5.0	.70	.029599	.048112	.054888	.054631
5.0	.75	.025987	.043199	.050475	.051237
5.0	.80	.022977	.038933	.046466	.048034
5.0	.85	.020445	.035215	.042829	.045025
5.0	.90	.018297	.031962	.039533	.042209
5.0	.95	.016460	.029107	.036545	.039579
5.0	1.00	.014878	.026591	.033837	.037130

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.375132	.148284	.000000	.000000
.6	.05	.351910	.146149	.000000	.000000
.6	.10	.296568	.143433	.000000	.000000
.6	.15	.235366	.179858	.000000	.000000
.6	.20	.187566	.000000	.000000	.000000
.6	.25	.196715	.000000	.000000	.000000
.8	.00	.385253	.172290	.087726	.000000
.8	.05	.361897	.169377	.087436	.000000
.8	.10	.305917	.161362	.088473	.000000
.8	.15	.242711	.150198	.107274	.000000
.8	.20	.187984	.139261	.000000	.000000
.8	.25	.146476	.137513	.000000	.000000
.8	.30	.119278	.000000	.000000	.000000
.8	.35	.120897	.000000	.000000	.000000
1.0	.00	.389848	.182335	.106103	.059683
1.0	.05	.366462	.179321	.105304	.059754
1.0	.10	.310358	.170858	.103107	.061213
1.0	.15	.246842	.158432	.100081	.073556
1.0	.20	.191412	.143961	.097462	.000000
1.0	.25	.148237	.129421	.098915	.000000
1.0	.30	.116306	.116955	.132629	.000000
1.0	.35	.093639	.110669	.000000	.000000
1.0	.40	.079577	.139261	.000000	.000000
1.0	.45	.082391	.000000	.000000	.000000
1.2	.00	.392322	.187566	.114860	.074142
1.2	.05	.368926	.184525	.113986	.073847
1.2	.10	.312783	.175955	.111466	.073075
1.2	.15	.249183	.163279	.107575	.072131
1.2	.20	.193586	.148284	.102734	.071716
1.2	.25	.150092	.132645	.097529	.073878
1.2	.30	.117534	.117683	.092840	.089929
1.2	.35	.093525	.104397	.090476	.000000
1.2	.40	.075979	.093783	.097189	.000000
1.2	.45	.063569	.087948	.000000	.000000
1.2	.50	.056246	.098358	.000000	.000000
1.2	.55	.059898	.000000	.000000	.000000
1.4	.00	.393806	.190651	.119831	.081632
1.4	.05	.370406	.187600	.118935	.081279
1.4	.10	.314249	.178993	.116330	.080262
1.4	.15	.250617	.166237	.112245	.078682
1.4	.20	.194963	.151093	.107015	.076707
1.4	.25	.151372	.135185	.101041	.074603
1.4	.30	.118647	.119739	.094759	.072827
1.4	.35	.094344	.105543	.088646	.072360
1.4	.40	.076260	.093055	.083305	.076260
1.4	.45	.062753	.082579	.079805	.107419
1.4	.50	.052731	.074529	.081261	.000000
1.4	.55	.045633	.070139	.110860	.000000
1.4	.60	.041769	.075732	.000000	.000000
1.4	.65	.045666	.000000	.000000	.000000
1.6	.00	.394767	.192626	.122950	.086145
1.6	.05	.371364	.189571	.122045	.085774
1.6	.10	.315200	.180948	.119409	.084689
1.6	.15	.251555	.168160	.115257	.082956
1.6	.20	.195878	.152959	.109905	.080681
1.6	.25	.152248	.136956	.103718	.078003
1.6	.30	.119462	.121356	.097070	.075099
1.6	.35	.095053	.106906	.090311	.072197
1.6	.40	.076822	.093992	.083763	.069630
1.6	.45	.063055	.082759	.077742	.067996
1.6	.50	.052568	.073238	.072630	.068757
1.6	.55	.044558	.065463	.069095	.077836
1.6	.60	.038525	.059639	.068928	.000000
1.6	.65	.034288	.056602	.081191	.000000
1.6	.70	.032277	.060448	.000000	.000000
1.6	.75	.036102	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\|y_{i,o}\|$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.8	.00	.395424	.193969	.125044	.089108
1.8	.05	.372020	.190912	.124135	.088729
1.8	.10	.315853	.182281	.121484	.087617
1.8	.15	.252201	.169478	.117303	.085828
1.8	.20	.196512	.154250	.111901	.083453
1.8	.25	.152865	.138207	.105633	.080605
1.8	.30	.120052	.122543	.098856	.077416
1.8	.35	.095613	.107997	.091893	.074029
1.8	.40	.077312	.094935	.085019	.070602
1.8	.45	.063453	.083472	.078455	.067319
1.8	.50	.052825	.073578	.072389	.064423
1.8	.55	.044583	.065165	.067000	.062312
1.8	.60	.038149	.058147	.062522	.061850
1.8	.65	.033139	.052496	.059393	.065771
1.8	.70	.029335	.048353	.058773	.094060
1.8	.75	.026721	.046356	.065572	.000000
1.8	.80	.025744	.049428	.000000	.000000
1.8	.85	.029365	.117251	.000000	.000000
2.0	.00	.395893	.194924	.126520	.091167
2.0	.05	.372489	.191866	.125609	.090786
2.0	.10	.316320	.183231	.122951	.089661
2.0	.15	.252664	.170419	.118756	.087847
2.0	.20	.196970	.155179	.113329	.085429
2.0	.25	.153313	.139115	.107024	.082512
2.0	.30	.120487	.123421	.100190	.079216
2.0	.35	.096029	.108831	.093144	.075664
2.0	.40	.077701	.095706	.086145	.071981
2.0	.45	.063803	.084149	.079394	.068288
2.0	.50	.053117	.074119	.073039	.064710
2.0	.55	.044791	.065498	.067190	.061382
2.0	.60	.038228	.058153	.061934	.058477
2.0	.65	.033012	.051956	.057365	.056272
2.0	.70	.028857	.046819	.053628	.055334
2.0	.75	.025579	.042722	.051030	.057243
2.0	.80	.023089	.039789	.050386	.069630
2.0	.85	.021442	.038539	.054808	.000000
2.0	.90	.021065	.041195	.105083	.000000
2.0	.95	.024433	.077705	.000000	.000000
2.2	.00	.396240	.195628	.127601	.092662
2.2	.05	.372835	.192568	.126689	.092279
2.2	.10	.316665	.183931	.124027	.091147
2.2	.15	.253007	.171115	.119824	.089320
2.2	.20	.197310	.155867	.114385	.086881
2.2	.25	.153648	.139792	.108060	.083931
2.2	.30	.120815	.124082	.101198	.080586
2.2	.35	.096346	.109470	.094111	.076962
2.2	.40	.078004	.096314	.087054	.073174
2.2	.45	.064087	.084713	.080222	.069329
2.2	.50	.053374	.074621	.073751	.065524
2.2	.55	.045011	.065914	.067731	.061846
2.2	.60	.038394	.058443	.062221	.058384
2.2	.65	.033101	.052059	.057256	.055231
2.2	.70	.028830	.046634	.052869	.052509
2.2	.75	.025367	.042064	.049109	.050415
2.2	.80	.022568	.038286	.046073	.049348
2.2	.85	.020343	.035300	.043991	.050338
2.2	.90	.018665	.033224	.043473	.057438
2.2	.95	.017620	.032498	.046686	.160179
2.2	1.00	.017598	.034886	.072218	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00	.396708	.196575	.129049	.094646
2.6	.05	.373304	.193515	.128136	.094261
2.6	.10	.317132	.184876	.125469	.093123
2.6	.15	.253472	.172055	.121259	.091284
2.6	.20	.197771	.156800	.115808	.088826
2.6	.25	.154105	.140715	.109466	.085849
2.6	.30	.121265	.124990	.102579	.082463
2.6	.35	.096787	.110358	.095457	.078784
2.6	.40	.078433	.097174	.088354	.074919
2.6	.45	.064498	.085538	.081458	.070967
2.6	.50	.053764	.075397	.074901	.067013
2.6	.55	.045371	.066625	.068765	.063130
2.6	.60	.038715	.059065	.063092	.059374
2.6	.65	.033368	.052560	.057901	.055793
2.6	.70	.029022	.046965	.053189	.052424
2.6	.75	.025456	.042152	.048944	.049301
2.6	.80	.022505	.038012	.045154	.046457
2.6	.85	.020049	.034459	.041805	.043934
2.6	.90	.018000	.031425	.038896	.041794
2.6	.95	.016296	.028864	.036446	.040149
2.6	1.00	.014895	.026759	.034514	.039226
3.0	.00	.397002	.197167	.129949	.095870
3.0	.05	.373597	.194107	.129035	.095484
3.0	.10	.317426	.185466	.126367	.094343
3.0	.15	.253765	.172644	.122154	.092500
3.0	.20	.198062	.157386	.116698	.090035
3.0	.25	.154394	.141296	.110349	.087047
3.0	.30	.121551	.125566	.103453	.083647
3.0	.35	.097069	.110926	.096318	.079948
3.0	.40	.078710	.097732	.089198	.076058
3.0	.45	.064770	.086083	.082281	.072072
3.0	.50	.054027	.075925	.075695	.068075
3.0	.55	.045624	.067131	.069523	.064134
3.0	.60	.038955	.059544	.063804	.060304
3.0	.65	.033592	.053004	.058552	.056625
3.0	.70	.029225	.047363	.053761	.053126
3.0	.75	.025631	.042490	.049412	.049828
3.0	.80	.022645	.038272	.045482	.046745
3.0	.85	.020141	.034613	.041943	.043885
3.0	.90	.018028	.031434	.038769	.041256
3.0	.95	.016234	.028671	.035934	.038865
3.0	1.00	.014706	.026270	.033419	.036724
3.5	.00	.397237	.197640	.130666	.096839
3.5	.05	.373832	.194580	.129751	.096452
3.5	.10	.317660	.185938	.127083	.095310
3.5	.15	.253999	.173115	.122867	.093465
3.5	.20	.198295	.157855	.117409	.090995
3.5	.25	.154626	.141763	.111056	.088002
3.5	.30	.121781	.126030	.104154	.084595
3.5	.35	.097298	.111386	.097014	.080887
3.5	.40	.078936	.098187	.089885	.076984
3.5	.45	.064993	.086531	.082957	.072983
3.5	.50	.054246	.076365	.076359	.068966
3.5	.55	.045838	.067561	.070170	.065001
3.5	.60	.039163	.059961	.064430	.061140
3.5	.65	.033793	.053405	.059153	.057422
3.5	.70	.029417	.047745	.054330	.053876
3.5	.75	.025812	.042848	.049942	.050517
3.5	.80	.022811	.038600	.045963	.047357
3.5	.85	.020290	.034904	.042361	.044400
3.5	.90	.018155	.031678	.039107	.041645
3.5	.95	.016333	.028855	.036170	.039089
3.5	1.00	.014769	.026376	.033522	.036727

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00	.397390	.197946	.131129	.097462
4.0	.05	.373985	.194886	.130214	.097075
4.0	.10	.317812	.186244	.127545	.095933
4.0	.15	.254151	.173420	.123529	.094086
4.0	.20	.195447	.158160	.117869	.091615
4.0	.25	.154777	.142067	.111514	.088620
4.0	.30	.121932	.126332	.104611	.085210
4.0	.35	.097446	.111686	.097467	.081497
4.0	.40	.079085	.098465	.090535	.077589
4.0	.45	.065140	.086826	.083403	.073582
4.0	.50	.054392	.076657	.076799	.069557
4.0	.55	.045982	.067848	.070603	.065583
4.0	.60	.039304	.060243	.064856	.061710
4.0	.65	.033931	.053682	.059569	.057979
4.0	.70	.029552	.048014	.054735	.054416
4.0	.75	.025942	.043109	.050333	.051037
4.0	.80	.022936	.038850	.046337	.047853
4.0	.85	.020410	.035142	.042716	.044866
4.0	.90	.018267	.031901	.039437	.042075
4.0	.95	.016437	.029059	.036470	.039475
4.0	1.00	.014862	.026558	.033786	.037059
5.0	.00	.397569	.198306	.131671	.098190
5.0	.05	.374154	.195245	.130756	.097803
5.0	.10	.317992	.186604	.128086	.096660
5.0	.15	.254330	.173779	.123870	.094813
5.0	.20	.198626	.158518	.118409	.092341
5.0	.25	.154955	.142424	.112053	.089343
5.0	.30	.122109	.126688	.105148	.085931
5.0	.35	.097624	.112041	.098002	.082216
5.0	.40	.079251	.098538	.090868	.078304
5.0	.45	.065315	.086717	.083932	.074292
5.0	.50	.054566	.077005	.077324	.070262
5.0	.55	.046154	.068194	.071124	.066281
5.0	.60	.039475	.060586	.065371	.062401
5.0	.65	.034099	.054020	.060078	.058661
5.0	.70	.029718	.048348	.055236	.055087
5.0	.75	.026106	.043436	.050826	.051696
5.0	.80	.023097	.039172	.046819	.048497
5.0	.85	.020566	.035455	.043186	.045493
5.0	.90	.018419	.032206	.039893	.042682
5.0	.95	.016584	.029355	.036910	.040058
5.0	1.00	.015003	.026840	.034206	.037615

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.383414	.148383	.000000	.000000
.6	.05	.360434	.150423	.000000	.000000
.6	.10	.306282	.316681	.000000	.000000
.6	.15	.249350	.000000	.000000	.000000
.6	.20	.224878	.000000	.000000	.000000
.8	.00	.390293	.178826	.076826	.000000
.8	.05	.366996	.176178	.085923	.000000
.8	.10	.311254	.169441	.000000	.000000
.8	.15	.248646	.162592	.000000	.000000
.8	.20	.195360	.170943	.000000	.000000
.8	.25	.157862	.000000	.000000	.000000
.8	.30	.149167	.000000	.000000	.000000
1.0	.00	.393178	.187744	.109365	.038770
1.0	.05	.369813	.184798	.108856	.000000
1.0	.10	.313788	.176602	.108093	.000000
1.0	.15	.250448	.164824	.110110	.000000
1.0	.20	.195365	.151811	.133478	.000000
1.0	.25	.152877	.140817	.000000	.000000
1.0	.30	.122412	.139688	.000000	.000000
1.0	.35	.103570	.269152	.000000	.000000
1.0	.40	.106938	.000000	.000000	.000000
1.2	.00	.394672	.191707	.119217	.074192
1.2	.05	.371285	.188692	.118414	.074233
1.2	.10	.315177	.180217	.116175	.075211
1.2	.15	.251647	.167746	.112961	.081283
1.2	.20	.196177	.153141	.109623	.158340
1.2	.25	.152905	.138228	.107972	.000000
1.2	.30	.120734	.124675	.113962	.000000
1.2	.35	.097435	.114450	.202299	.000000
1.2	.40	.081352	.112439	.000000	.000000
1.2	.45	.072710	.165798	.000000	.000000
1.2	.50	.083725	.000000	.000000	.000000
1.4	.00	.395549	.193848	.123746	.084550
1.4	.05	.372153	.190809	.122877	.084272
1.4	.10	.316013	.182245	.120373	.083554
1.4	.15	.252416	.169577	.116502	.082700
1.4	.20	.196820	.154587	.111675	.082355
1.4	.25	.153323	.138937	.106435	.084186
1.4	.30	.120748	.123921	.101528	.094907
1.4	.35	.096687	.110459	.098228	.428165
1.4	.40	.079005	.099310	.099866	.000000
1.4	.45	.066218	.091595	.125890	.000000
1.4	.50	.057660	.090871	.000000	.000000
1.4	.55	.054389	.129745	.000000	.000000
1.4	.60	.071928	.000000	.000000	.000000
1.6	.00	.396109	.195147	.126254	.089413
1.6	.05	.372709	.192098	.125362	.089071
1.6	.10	.316555	.183498	.122772	.088089
1.6	.15	.252928	.170754	.118713	.086579
1.6	.20	.197281	.155627	.113524	.084721
1.6	.25	.153699	.139742	.107605	.082798
1.6	.30	.120984	.124323	.101393	.081296
1.6	.35	.096691	.110154	.095356	.081219
1.6	.40	.078612	.097680	.090061	.085471
1.6	.45	.065095	.087171	.086422	.110884
1.6	.50	.055019	.078931	.086684	.000000
1.6	.55	.047735	.073733	.101342	.000000
1.6	.60	.043185	.074583	.000000	.000000
1.6	.65	.042945	.110146	.000000	.000000
1.6	.70	.069717	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.8	.00	.396488	.195998	.127805	.092153
1.8	.05	.373087	.192945	.126903	.091789
1.8	.10	.316925	.184327	.124277	.090724
1.8	.15	.253284	.171549	.120145	.089032
1.8	.20	.197613	.156362	.114823	.086825
1.8	.25	.153992	.140381	.108680	.084251
1.8	.30	.121218	.124809	.102094	.081503
1.8	.35	.096833	.110396	.095419	.078837
1.8	.40	.078611	.097529	.088985	.076636
1.8	.45	.064866	.086354	.083117	.075605
1.8	.50	.054404	.076903	.078208	.077490
1.8	.55	.046419	.069202	.074928	.089363
1.8	.60	.040400	.063422	.074959	.000000
1.8	.65	.036126	.060236	.085560	.000000
1.8	.70	.033841	.062466	.000000	.000000
1.8	.75	.035522	.099795	.000000	.000000
1.8	.80	.088588	.000000	.000000	.000000
2.0	.00	.396758	.196589	.128839	.093872
2.0	.05	.373355	.193533	.127932	.093498
2.0	.10	.317190	.184906	.125288	.092399
2.0	.15	.253541	.172110	.121121	.090635
2.0	.20	.197857	.156894	.115740	.088301
2.0	.25	.154217	.140866	.109502	.085514
2.0	.30	.121413	.125224	.102768	.082412
2.0	.35	.096986	.110707	.095863	.079151
2.0	.40	.078701	.097683	.089067	.075906
2.0	.45	.064863	.086268	.082610	.072891
2.0	.50	.054260	.076438	.076691	.070409
2.0	.55	.046051	.068111	.071510	.068987
2.0	.60	.039659	.061206	.067339	.069844
2.0	.65	.034703	.055710	.064696	.077196
2.0	.70	.030969	.051785	.064951	.134576
2.0	.75	.028440	.050095	.073863	.000000
2.0	.80	.027528	.053469	.000000	.000000
2.0	.85	.030637	.097852	.000000	.000000
2.2	.00	.396956	.197016	.129566	.095031
2.2	.05	.373552	.193959	.128656	.094652
2.2	.10	.317385	.185327	.126003	.093536
2.2	.15	.253731	.172521	.121817	.091738
2.2	.20	.198041	.157288	.116406	.089346
2.2	.25	.154390	.141236	.110121	.086467
2.2	.30	.121570	.125558	.103317	.083224
2.2	.35	.097121	.110989	.096309	.079746
2.2	.40	.078805	.097890	.089362	.076164
2.2	.45	.064922	.086369	.082679	.072613
2.2	.50	.054256	.076384	.076417	.069234
2.2	.55	.045954	.067823	.070693	.066195
2.2	.60	.039424	.060557	.065609	.063732
2.2	.65	.034250	.054467	.061289	.062257
2.2	.70	.030153	.049480	.057932	.062699
2.2	.75	.026954	.045603	.055972	.068030
2.2	.80	.024582	.043023	.056604	.099454
2.2	.85	.023125	.042429	.064835	.000000
2.2	.90	.023107	.046789	.368538	.000000
2.2	.95	.027517	.110809	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00	.397223	.197582	.130500	.096461
2.6	.05	.373818	.194523	.129588	.096070
2.6	.10	.317648	.185885	.126926	.094946
2.6	.15	.253991	.173070	.122723	.093120
2.6	.20	.198293	.157822	.117284	.090681
2.6	.25	.154631	.141747	.110959	.087731
2.6	.30	.121797	.126036	.104096	.084384
2.6	.35	.097328	.111422	.097006	.080755
2.6	.40	.078985	.098262	.089944	.076958
2.6	.45	.065065	.086657	.083102	.073095
2.6	.50	.054348	.076555	.076614	.069260
2.6	.55	.045978	.067834	.070568	.065533
2.6	.60	.039352	.060340	.065014	.061987
2.6	.65	.034043	.053920	.059979	.058693
2.6	.70	.029747	.048438	.055478	.055724
2.6	.75	.026247	.043775	.051524	.053177
2.6	.80	.023385	.039843	.048145	.051204
2.6	.85	.021052	.036584	.045405	.050086
2.6	.90	.019182	.033987	.043456	.050469
2.6	.95	.017749	.032116	.042662	.054294
2.6	1.00	.016793	.031213	.044074	.072371
3.0	.00	.397389	.197929	.131059	.097285
3.0	.05	.373984	.194869	.130146	.096900
3.0	.10	.317813	.186230	.127480	.095763
3.0	.15	.254154	.173410	.123271	.093926
3.0	.20	.198453	.158156	.117821	.091470
3.0	.25	.154787	.142071	.111481	.088495
3.0	.30	.121947	.126348	.104596	.085113
3.0	.35	.097470	.111718	.097477	.081437
3.0	.40	.079117	.098535	.090376	.077576
3.0	.45	.065183	.086900	.083483	.073628
3.0	.50	.054449	.076761	.076928	.069679
3.0	.55	.046057	.067989	.070793	.065798
3.0	.60	.039401	.060430	.065122	.062043
3.0	.65	.034054	.053925	.059929	.058460
3.0	.70	.029707	.048327	.055213	.055084
3.0	.75	.026138	.043509	.050959	.051944
3.0	.80	.023183	.039359	.047150	.049068
3.0	.85	.020720	.035789	.043769	.046484
3.0	.90	.018658	.032726	.040804	.044233
3.0	.95	.016932	.030115	.038254	.042377
3.0	1.00	.015495	.027923	.036140	.041029
3.5	.00	.397522	.198203	.131493	.097908
3.5	.05	.374117	.195143	.130579	.097522
3.5	.10	.317945	.186502	.127911	.096381
3.5	.15	.254285	.173680	.123698	.094539
3.5	.20	.198582	.158422	.118242	.092074
3.5	.25	.154914	.142333	.111894	.089087
3.5	.30	.122071	.126603	.104998	.085688
3.5	.35	.097590	.111964	.097864	.081990
3.5	.40	.079231	.098770	.090745	.078101
3.5	.45	.065291	.087121	.083828	.074116
3.5	.50	.054548	.076963	.077243	.070119
3.5	.55	.046145	.068169	.071070	.066178
3.5	.60	.039476	.060581	.065350	.062346
3.5	.65	.034112	.054040	.060096	.058664
3.5	.70	.029745	.048397	.055302	.055161
3.5	.75	.026149	.043521	.050949	.051855
3.5	.80	.023160	.039299	.047011	.048760
3.5	.85	.020654	.035633	.043461	.045882
3.5	.90	.018536	.032445	.040269	.043225
3.5	.95	.016736	.029667	.037409	.040792
3.5	1.00	.015198	.027245	.034857	.038586

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.2$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00	.397608	.198379	.131767	.098295
4.0	.05	.374203	.195319	.130853	.097908
4.0	.10	.318031	.186677	.128184	.096767
4.0	.15	.254370	.173854	.123969	.094922
4.0	.20	.198666	.158595	.118512	.092453
4.0	.25	.154997	.142503	.112159	.089461
4.0	.30	.122153	.126770	.105259	.086055
4.0	.35	.097670	.112127	.098119	.082348
4.0	.40	.079308	.098929	.090992	.078447
4.0	.45	.065365	.087273	.084065	.074448
4.0	.50	.054619	.077108	.077468	.070433
4.0	.55	.046212	.068305	.071281	.066470
4.0	.60	.039537	.060706	.065543	.062612
4.0	.65	.034167	.054152	.060267	.058897
4.0	.70	.029792	.048493	.055447	.055353
4.0	.75	.026188	.043597	.051061	.051998
4.0	.80	.023187	.039351	.047083	.048841
4.0	.85	.020667	.035656	.043484	.045887
4.0	.90	.018532	.032431	.040231	.043134
4.0	.95	.016711	.029608	.037295	.040580
4.0	1.00	.015147	.027130	.034648	.038219
5.0	.00	.397709	.198584	.132084	.098733
5.0	.05	.374304	.195523	.131169	.098346
5.0	.10	.318131	.186882	.128500	.097204
5.0	.15	.254470	.174058	.124283	.095357
5.0	.20	.198766	.158797	.118824	.092886
5.0	.25	.155096	.142704	.112468	.089890
5.0	.30	.122250	.126969	.105564	.086479
5.0	.35	.097766	.112322	.098420	.082765
5.0	.40	.079403	.099120	.091287	.078856
5.0	.45	.065458	.087461	.084354	.074847
5.0	.50	.054709	.077290	.077748	.070820
5.0	.55	.046298	.068481	.071551	.066843
5.0	.60	.039620	.060875	.065801	.062968
5.0	.65	.034246	.054311	.060512	.059233
5.0	.70	.029866	.048642	.055674	.055665
5.0	.75	.026255	.043734	.051269	.052281
5.0	.80	.023248	.039472	.047268	.049089
5.0	.85	.020719	.035760	.043640	.046094
5.0	.90	.018575	.032515	.040355	.043293
5.0	.95	.016742	.029668	.037380	.040681
5.0	1.00	.015164	.027161	.034686	.038251

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.393923	.124575	.000000	.000000
.6	.05	.371425	.000000	.000000	.000000
.6	.10	.319877	.000000	.000000	.000000
.6	.15	.274966	.000000	.000000	.000000
.6	.20	.713870	.000000	.000000	.000000
.8	.00	.396512	.186940	.000000	.000000
.8	.05	.373319	.185069	.000000	.000000
.8	.10	.318622	.182920	.000000	.000000
.8	.15	.256603	.202678	.000000	.000000
.8	.20	.206582	.000000	.000000	.000000
.8	.25	.161607	.000000	.000000	.000000
1.0	.00	.397225	.194735	.109968	.000000
1.0	.05	.373897	.191935	.111061	.000000
1.0	.10	.318012	.184356	.124220	.000000
1.0	.15	.254992	.174227	.000000	.000000
1.0	.20	.200577	.165656	.000000	.000000
1.0	.25	.159532	.170626	.000000	.000000
1.0	.30	.132752	.000000	.000000	.000000
1.0	.35	.128840	.000000	.000000	.000000
1.2	.00	.397505	.196962	.124625	.062287
1.2	.05	.374134	.193997	.124023	.070464
1.2	.10	.318084	.185712	.122663	.000000
1.2	.15	.254679	.173671	.121947	.000000
1.2	.20	.199440	.159938	.126165	.000000
1.2	.25	.156585	.146831	.163272	.000000
1.2	.30	.125199	.137483	.000000	.000000
1.2	.35	.103536	.140604	.000000	.000000
1.2	.40	.091718	.156935	.000000	.000000
1.2	.45	.103934	.000000	.000000	.000000
1.4	.00	.397639	.197839	.128817	.086934
1.4	.05	.374251	.194823	.128011	.086956
1.4	.10	.318141	.186340	.125746	.087671
1.4	.15	.254602	.173841	.122422	.091607
1.4	.20	.199108	.159158	.118719	.113084
1.4	.25	.155781	.144049	.115848	.000000
1.4	.30	.123487	.130004	.116621	.000000
1.4	.35	.099906	.118410	.132738	.000000
1.4	.40	.083106	.111429	.000000	.000000
1.4	.45	.072178	.116704	.000000	.000000
1.4	.50	.068810	.459312	.000000	.000000
1.4	.55	.103988	.000000	.000000	.000000
1.6	.00	.397713	.198256	.130498	.093470
1.6	.05	.374318	.195219	.129634	.093207
1.6	.10	.318180	.186660	.127142	.092535
1.6	.15	.254584	.173997	.123288	.091752
1.6	.20	.198990	.159011	.118471	.091460
1.6	.25	.155491	.143354	.113206	.093079
1.6	.30	.122904	.128302	.108162	.101339
1.6	.35	.098810	.114733	.104349	.157289
1.6	.40	.081048	.103291	.103910	.000000
1.6	.45	.068066	.094723	.114705	.000000
1.6	.50	.058977	.090803	.343764	.000000
1.6	.55	.053850	.099649	.000000	.000000
1.6	.60	.056060	.000000	.000000	.000000
1.8	.00	.397758	.198480	.131308	.096093
1.8	.05	.374359	.195434	.130420	.095761
1.8	.10	.318207	.186839	.127843	.094814
1.8	.15	.254585	.174106	.123808	.093369
1.8	.20	.198944	.158993	.118654	.091618
1.8	.25	.155368	.143127	.112781	.089858
1.8	.30	.122661	.127729	.106626	.088593
1.8	.35	.098376	.113580	.100647	.088839
1.8	.40	.080300	.101117	.095387	.093362
1.8	.45	.066776	.090586	.091655	.115747
1.8	.50	.056665	.082224	.091225	.000000
1.8	.55	.049270	.076574	.100591	.000000
1.8	.60	.044368	.075462	.237957	.000000
1.8	.65	.042674	.088999	.000000	.000000
1.8	.70	.050134	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00	.397788	.198613	.131747	.097367
2.0	.05	.374386	.195561	.130848	.097010
2.0	.10	.318227	.186948	.128233	.095967
2.0	.15	.254590	.174179	.124119	.094317
2.0	.20	.198925	.159006	.118826	.092178
2.0	.25	.155311	.143044	.112725	.089708
2.0	.30	.122547	.127496	.106195	.087114
2.0	.35	.098175	.113116	.099595	.084677
2.0	.40	.079968	.100288	.093261	.082828
2.0	.45	.066241	.089162	.087524	.082371
2.0	.50	.055799	.079766	.082785	.085313
2.0	.55	.047833	.072122	.079709	.099779
2.0	.60	.041824	.066376	.079891	.000000
2.0	.65	.037525	.063091	.089487	.000000
2.0	.70	.035074	.064420	.246019	.000000
2.0	.75	.035763	.085101	.000000	.000000
2.0	.80	.051818	.000000	.000000	.000000
2.2	.00	.397808	.198696	.132007	.098065
2.2	.05	.374405	.195642	.131102	.097696
2.2	.10	.318242	.187019	.128466	.096611
2.2	.15	.254596	.174230	.124313	.094875
2.2	.20	.198917	.159025	.118953	.092584
2.2	.25	.155283	.143012	.112746	.089861
2.2	.30	.122488	.127391	.106053	.086852
2.2	.35	.098073	.112901	.099205	.083723
2.2	.40	.079802	.099911	.092485	.080669
2.2	.45	.065982	.088542	.086131	.077935
2.2	.50	.055402	.078770	.080352	.075888
2.2	.55	.047222	.070519	.075365	.075200
2.2	.60	.040866	.063713	.071479	.077507
2.2	.65	.035956	.058351	.069281	.088964
2.2	.70	.032279	.054608	.070332	.219800
2.2	.75	.029817	.053168	.081145	.000000
2.2	.80	.028955	.056772	.000000	.000000
2.2	.85	.031746	.092597	.000000	.000000
2.2	.90	.091566	.000000	.000000	.000000
2.6	.00	.397833	.198791	.132279	.098744
2.6	.05	.374429	.195733	.131369	.098365
2.6	.10	.318261	.187101	.128715	.097246
2.6	.15	.254607	.174293	.124526	.095443
2.6	.20	.198915	.159057	.119109	.093041
2.6	.25	.155252	.143000	.112815	.090145
2.6	.30	.122439	.127314	.105996	.086874
2.6	.35	.097984	.112732	.098964	.083350
2.6	.40	.079660	.099615	.091980	.079696
2.6	.45	.065764	.088065	.085242	.076029
2.6	.50	.055080	.078037	.078894	.072463
2.6	.55	.046752	.069412	.073035	.069114
2.6	.60	.040181	.062047	.067738	.066110
2.6	.65	.034946	.055802	.063061	.063623
2.6	.70	.030750	.050562	.059079	.061927
2.6	.75	.027390	.046248	.055910	.061563
2.6	.80	.024731	.042838	.053805	.063894
2.6	.85	.022711	.040419	.053365	.074080
2.6	.90	.021358	.039317	.056426	.176891
2.6	.95	.020894	.040638	.072810	.000000
2.6	1.00	.022231	.049988	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00	.397848	.198840	.132408	.099041
3.0	.05	.374444	.195781	.131496	.098658
3.0	.10	.318274	.187144	.128835	.097527
3.0	.15	.254616	.174329	.124632	.095701
3.0	.20	.198918	.159081	.119193	.093262
3.0	.25	.155257	.143006	.112868	.090312
3.0	.30	.122423	.127295	.106004	.086963
3.0	.35	.097953	.112680	.098912	.083331
3.0	.40	.079609	.099518	.091846	.079527
3.0	.45	.065687	.087908	.084997	.075654
3.0	.50	.054968	.077802	.078500	.071800
3.0	.55	.046594	.069071	.072438	.068044
3.0	.60	.039962	.061564	.066859	.064452
3.0	.65	.034644	.055124	.061786	.061083
3.0	.70	.030335	.049611	.057225	.057994
3.0	.75	.026814	.044902	.053177	.055248
3.0	.80	.023922	.040897	.049647	.052929
3.0	.85	.021542	.037522	.046654	.051167
3.0	.90	.019594	.034730	.044251	.050204
3.0	.95	.018030	.032513	.042560	.050564
3.0	1.00	.016832	.030924	.041871	.053673
3.5	.00	.397859	.198874	.132491	.099218
3.5	.05	.374455	.195814	.131577	.098832
3.5	.10	.318283	.187175	.128912	.097695
3.5	.15	.254624	.174355	.124702	.095858
3.5	.20	.198923	.159101	.119252	.093401
3.5	.25	.155257	.143016	.112910	.090425
3.5	.30	.122417	.127292	.106024	.087041
3.5	.35	.097939	.112660	.098903	.083362
3.5	.40	.079585	.099476	.091799	.079497
3.5	.45	.065650	.087838	.084902	.075542
3.5	.50	.054914	.077695	.078341	.071582
3.5	.55	.046519	.068919	.072197	.067687
3.5	.60	.039860	.061353	.066514	.063913
3.5	.65	.034509	.054838	.061304	.060302
3.5	.70	.030156	.049227	.056565	.056886
3.5	.75	.026579	.044390	.052279	.053691
3.5	.80	.023612	.040216	.048425	.050734
3.5	.85	.021133	.036610	.044979	.048034
3.5	.90	.019050	.033497	.041921	.045608
3.5	.95	.017293	.030815	.039234	.043481
3.5	1.00	.015810	.028517	.036911	.041694
4.0	.00	.397866	.198894	.132534	.099306
4.0	.05	.374461	.195834	.131620	.098920
4.0	.10	.318290	.187193	.128953	.097780
4.0	.15	.254629	.174371	.124740	.095938
4.0	.20	.198927	.159114	.119285	.093474
4.0	.25	.155259	.143025	.112937	.090488
4.0	.30	.122416	.127295	.106041	.087089
4.0	.35	.097935	.112656	.098908	.083392
4.0	.40	.079576	.099462	.091789	.079503
4.0	.45	.065636	.087813	.084872	.075519
4.0	.50	.054893	.077656	.078287	.071522
4.0	.55	.046490	.068862	.072114	.067581
4.0	.60	.039821	.061273	.066394	.063748
4.0	.65	.034456	.054731	.061139	.060064
4.0	.70	.030089	.049087	.056343	.056558
4.0	.75	.026492	.044210	.051986	.053247
4.0	.80	.023502	.039984	.048044	.050144
4.0	.85	.020994	.036315	.044486	.047255
4.0	.90	.018873	.033120	.041284	.044581
4.0	.95	.017069	.030334	.038410	.042124
4.0	1.00	.015526	.027900	.035837	.039883

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.4$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00	.397874	.198914	.132577	.099387
5.0	.05	.374459	.195854	.131662	.099000
5.0	.10	.318297	.187212	.128993	.097858
5.0	.15	.254636	.174389	.124978	.096012
5.0	.20	.198932	.159129	.119319	.093543
5.0	.25	.155263	.143036	.112965	.090548
5.0	.30	.122418	.127302	.106063	.087140
5.0	.35	.097934	.112658	.098922	.083430
5.0	.40	.079572	.099457	.091791	.079525
5.0	.45	.065627	.087800	.084861	.075521
5.0	.50	.054880	.077632	.078260	.071500
5.0	.55	.046471	.068826	.072067	.067530
5.0	.60	.039795	.061223	.066323	.063662
5.0	.65	.034422	.054664	.061040	.059936
5.0	.70	.030044	.049099	.056210	.056379
5.0	.75	.026436	.044096	.051813	.053007
5.0	.80	.023432	.039841	.047822	.049830
5.0	.85	.020907	.036136	.044206	.046851
5.0	.90	.018766	.032899	.040933	.044069
5.0	.95	.016938	.030062	.037973	.041478
5.0	1.00	.015365	.027565	.035296	.039073

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.407147	.000000	.000000	.000000
.6	.05	.385576	.000000	.000000	.000000
.6	.10	.339907	.000000	.000000	.000000
.6	.15	.339500	.000000	.000000	.000000
.8	.00	.404066	.195682	.000000	.000000
.8	.05	.381056	.196795	.000000	.000000
.8	.10	.326550	.225926	.000000	.000000
.8	.15	.267455	.000000	.000000	.000000
.8	.20	.255218	.000000	.000000	.000000
.8	.25	.262723	.000000	.000000	.000000
1.0	.00	.402054	.203709	.084708	.000000
1.0	.05	.378785	.201236	.000000	.000000
1.0	.10	.323136	.195164	.000000	.000000
1.0	.15	.260672	.189817	.000000	.000000
1.0	.20	.207495	.200525	.000000	.000000
1.0	.25	.169510	.000000	.000000	.000000
1.0	.30	.153297	.000000	.000000	.000000
1.0	.35	.164126	.000000	.000000	.000000
1.2	.00	.400850	.203574	.130455	.000000
1.2	.05	.377505	.200705	.130561	.000000
1.2	.10	.321551	.192798	.133119	.000000
1.2	.15	.258351	.181659	.151284	.000000
1.2	.20	.203507	.169954	.000000	.000000
1.2	.25	.161413	.161864	.000000	.000000
1.2	.30	.131607	.159750	.000000	.000000
1.2	.35	.113938	.000000	.000000	.000000
1.2	.40	.119040	.000000	.000000	.000000
1.4	.00	.400092	.202760	.135306	.082128
1.4	.05	.376718	.199784	.134651	.085198
1.4	.10	.320653	.191448	.133004	.150765
1.4	.15	.257209	.179264	.131255	.000000
1.4	.20	.201885	.165183	.131454	.000000
1.4	.25	.158847	.151213	.140264	.000000
1.4	.30	.127059	.139463	.219793	.000000
1.4	.35	.104420	.133297	.000000	.000000
1.4	.40	.089814	.145352	.000000	.000000
1.4	.45	.084257	.000000	.000000	.000000
1.4	.50	.119650	.000000	.000000	.000000
1.6	.00	.399588	.202033	.135921	.097841
1.6	.05	.376201	.199017	.135113	.097850
1.6	.10	.320088	.190528	.132829	.098399
1.6	.15	.256543	.178009	.129433	.101273
1.6	.20	.201034	.163276	.125513	.113463
1.6	.25	.157671	.148043	.122006	.265477
1.6	.30	.125303	.133727	.120691	.000000
1.6	.45	.072590	.110280	.000000	.000000
1.6	.50	.066104	.131362	.000000	.000000
1.6	.55	.069733	.000000	.000000	.000000
1.8	.00	.399238	.201464	.135716	.101086
1.8	.05	.375844	.198429	.134855	.100836
1.8	.10	.319707	.189875	.132373	.100203
1.8	.15	.256113	.177216	.128532	.099479
1.8	.20	.200520	.162452	.123723	.099229
1.8	.25	.157019	.146570	.118441	.100700
1.8	.30	.124424	.131492	.113302	.107546
1.8	.35	.100308	.117851	.109167	.140317
1.8	.40	.082494	.106226	.107617	.000000
1.8	.55	.054069	.093647	.000000	.000000
1.8	.60	.052781	.134404	.000000	.000000
1.8	.65	.068464	.000000	.000000	.000000
2.0	.00	.398986	.201027	.135355	.101855
2.0	.05	.375587	.197982	.134471	.101533
2.0	.10	.319438	.189393	.131905	.100618
2.0	.15	.255818	.176668	.127892	.099235
2.0	.20	.200182	.161568	.122767	.097582
2.0	.25	.156613	.145717	.116934	.095957
2.0	.30	.123912	.130356	.110825	.094908
2.0	.35	.099632	.116203	.104894	.095424
2.0	.40	.081559	.103748	.099660	.100163
2.0	.45	.068030	.093200	.095862	.120673
2.0	.50	.057894	.084755	.094981	.000000
2.0	.65	.042892	.063724	.000000	.000000
2.0	.70	.045978	.232063	.000000	.000000
2.0	.75	.142528	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00	.398797	.200689	.135000	.101428
2.2	.05	.375397	.197639	.134105	.101577
2.2	.10	.319240	.189031	.131499	.100557
2.2	.15	.255606	.176270	.127403	.098950
2.2	.20	.199945	.161109	.122137	.096877
2.2	.25	.156339	.145164	.116073	.094509
2.2	.30	.123583	.129655	.109594	.092064
2.2	.35	.099222	.115285	.103052	.089847
2.2	.40	.081038	.102492	.096816	.088153
2.2	.45	.067315	.091406	.091192	.088416
2.2	.50	.056890	.083056	.086596	.092344
2.2	.55	.048938	.078457	.083687	.109207
2.2	.60	.042958	.076737	.083486	.000000
2.6	.00	.398541	.200215	.134425	.101586
2.6	.05	.375138	.197159	.133519	.101213
2.6	.10	.318973	.188534	.130877	.100118
2.6	.15	.255325	.175739	.126712	.098359
2.6	.20	.199642	.160525	.121332	.096027
2.6	.25	.156001	.144494	.115093	.093235
2.6	.30	.123195	.128847	.108349	.090114
2.6	.35	.098764	.114320	.101423	.086805
2.6	.40	.080470	.101875	.094588	.083455
2.6	.45	.066616	.091821	.088642	.080226
2.6	.50	.055986	.079924	.081967	.077306
2.6	.55	.047730	.071476	.076495	.074944
2.6	.60	.041258	.064358	.071763	.073545
2.6	.65	.036161	.058468	.067949	.073917
2.6	.70	.032165	.053759	.065376	.078226
2.6	.75	.029107	.050291	.064768	.095952
2.6	.80	.026940	.048366	.068277	.000000
3.0	.00	.398379	.199908	.134018	.101188
3.0	.05	.374976	.196850	.133108	.100808
3.0	.10	.318807	.188217	.130453	.099688
3.0	.15	.255153	.175408	.126262	.097882
3.0	.20	.199460	.160170	.120841	.095474
3.0	.25	.155805	.144110	.114541	.092567
3.0	.30	.122980	.128418	.107712	.089278
3.0	.35	.098521	.113829	.100666	.085727
3.0	.40	.080192	.100700	.093661	.082032
3.0	.45	.066289	.089134	.086891	.078303
3.0	.50	.055595	.079082	.080495	.074641
3.0	.55	.047252	.070422	.074567	.071144
3.0	.60	.040659	.063006	.069165	.067906
3.0	.65	.035393	.056686	.064329	.065033
3.0	.70	.031151	.051332	.060093	.062653
3.0	.75	.027721	.046840	.056503	.061012
3.0	.80	.024952	.043139	.053648	.060483
3.0	.85	.022747	.040208	.051707	.062001
3.0	.90	.021051	.038104	.051099	.066419
3.0	.95	.019910	.037050	.052956	.077180
3.0	1.00	.019443	.037724	.061686	.000000
3.5	.00	.398249	.199658	.133671	.100796
3.5	.05	.374845	.196598	.132758	.100413
3.5	.10	.318675	.187961	.130096	.099280
3.5	.15	.255017	.175144	.125892	.097452
3.5	.20	.199318	.159895	.120450	.095009
3.5	.25	.155656	.143817	.114121	.092052
3.5	.30	.122820	.128105	.107251	.088693
3.5	.35	.098348	.113483	.100150	.085047
3.5	.40	.080001	.100314	.093072	.081223
3.5	.45	.066075	.088696	.086207	.077322
3.5	.50	.055350	.078576	.079688	.073430
3.5	.55	.046968	.069829	.073595	.069620
3.5	.60	.040326	.062299	.067975	.065954
3.5	.65	.034995	.055829	.062845	.062480
3.5	.70	.030667	.050274	.058206	.059241
3.5	.75	.027121	.045507	.054047	.056275
3.5	.80	.024194	.041421	.050357	.053623
3.5	.85	.021765	.037930	.047128	.051356
3.5	.90	.019747	.034967	.044359	.049492
3.5	.95	.018076	.032485	.042073	.048219
3.5	1.00	.016710	.030466	.040328	.047765

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.6$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00	.398165	.199493	.133436	.100513
4.0	.05	.374760	.196455	.132523	.100128
4.0	.10	.318589	.187794	.129857	.098991
4.0	.15	.254929	.174973	.125647	.097154
4.0	.20	.199228	.159719	.120197	.094696
4.0	.25	.155502	.143654	.113855	.091719
4.0	.30	.122722	.127909	.106968	.088334
4.0	.35	.098244	.113276	.099846	.084653
4.0	.40	.079889	.100091	.092740	.080784
4.0	.45	.065953	.088452	.085839	.076825
4.0	.50	.055217	.078306	.079274	.072858
4.0	.55	.046820	.069527	.073125	.068955
4.0	.60	.040159	.061956	.067434	.065168
4.0	.65	.034804	.055435	.062214	.061540
4.0	.70	.030448	.049816	.057461	.058101
4.0	.75	.026856	.044968	.053156	.054874
4.0	.80	.023893	.040780	.049276	.051874
4.0	.85	.021405	.037155	.045796	.049112
4.0	.90	.019310	.034015	.042690	.046600
4.0	.95	.017536	.031296	.039935	.044349
4.0	1.00	.016031	.028947	.037515	.042378
5.0	.00	.398065	.199297	.133153	.100157
5.0	.05	.374650	.196257	.132239	.099771
5.0	.10	.318488	.187596	.129570	.098630
5.0	.15	.254827	.174775	.125356	.096786
5.0	.20	.199124	.159514	.119899	.094318
5.0	.25	.155456	.143423	.113547	.091328
5.0	.30	.122611	.127691	.106648	.087924
5.0	.35	.098129	.113049	.099510	.084219
5.0	.40	.079758	.099851	.092385	.080320
5.0	.45	.065826	.088197	.085460	.076324
5.0	.50	.055080	.078054	.078865	.072313
5.0	.55	.046673	.069252	.072680	.068354
5.0	.60	.040000	.061635	.066945	.064499
5.0	.65	.034630	.055082	.061672	.060789
5.0	.70	.030256	.049425	.056855	.057249
5.0	.75	.026653	.044531	.052472	.053898
5.0	.80	.023653	.040286	.048497	.050745
5.0	.85	.021134	.036593	.044900	.047795
5.0	.90	.019000	.033370	.041650	.045045
5.0	.95	.017179	.030548	.038715	.042493
5.0	1.00	.015615	.028070	.036068	.040134

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.425785	.000000	.000000	.000000
.6	.05	.404127	.000000	.000000	.000000
.6	.10	.373018	.000000	.000000	.000000
.8	.00	.413168	.197085	.000000	.000000
.8	.05	.390462	.230969	.000000	.000000
.8	.10	.337354	.000000	.000000	.000000
.8	.15	.282858	.000000	.000000	.000000
.8	.20	.262303	.000000	.000000	.000000
1.0	.00	.407744	.215184	.000000	.000000
1.0	.05	.384571	.213508	.000000	.000000
1.0	.10	.329300	.211724	.000000	.000000
1.0	.15	.267775	.226309	.000000	.000000
1.0	.20	.216891	.000000	.000000	.000000
1.0	.25	.185798	.000000	.000000	.000000
1.0	.30	.215287	.000000	.000000	.000000
1.2	.00	.404744	.211893	.131390	.000000
1.2	.05	.381440	.209209	.136734	.000000
1.2	.10	.325634	.202063	.327317	.000000
1.2	.15	.262761	.192919	.000000	.000000
1.2	.20	.208576	.186509	.000000	.000000
1.2	.25	.167847	.197378	.000000	.000000
1.2	.30	.141325	.000000	.000000	.000000
1.2	.35	.135227	.000000	.000000	.000000
1.4	.00	.402927	.208798	.143388	.000000
1.4	.05	.379573	.205892	.143151	.000000
1.4	.10	.323579	.197818	.143456	.000000
1.4	.15	.260282	.186220	.148077	.000000
1.4	.20	.205226	.173334	.175908	.000000
1.4	.25	.162669	.161889	.000000	.000000
1.4	.30	.131779	.156337	.000000	.000000
1.4	.35	.111015	.173122	.000000	.000000
1.4	.40	.101198	.000000	.000000	.000000
1.4	.45	.122482	.000000	.000000	.000000
1.6	.00	.401746	.206584	.142856	.098543
1.6	.05	.378370	.203601	.142168	.100324
1.6	.10	.322295	.195231	.140355	.115484
1.6	.15	.258826	.182959	.138079	.000000
1.6	.20	.203449	.168677	.136649	.000000
1.6	.25	.160305	.154256	.139200	.000000
1.6	.30	.128299	.141429	.157938	.000000
1.6	.35	.105191	.132229	.000000	.000000
1.6	.40	.089233	.131152	.000000	.000000
1.6	.45	.080082	.164474	.000000	.000000
1.6	.50	.082395	.000000	.000000	.000000
1.8	.00	.400936	.205013	.141262	.107049
1.8	.05	.377548	.201996	.140452	.107047
1.8	.10	.321434	.193503	.138155	.107483
1.8	.15	.257884	.180971	.134709	.109726
1.8	.20	.202364	.166202	.130645	.118139
1.8	.25	.158977	.150894	.126750	.161146
1.8	.30	.126561	.136400	.124339	.000000
1.8	.35	.102726	.123750	.126364	.000000
1.8	.40	.085373	.113943	.144213	.000000
1.8	.45	.073083	.108729	.000000	.000000
1.8	.50	.065331	.114200	.000000	.000000
1.8	.55	.063558	.207672	.000000	.000000
1.8	.60	.083967	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	.00	.400356	.203872	.139816	.107592
2.0	.05	.376962	.200838	.138959	.107353
2.0	.10	.320827	.192285	.136485	.106754
2.0	.15	.257235	.179632	.132655	.106078
2.0	.20	.201642	.164650	.127851	.105862
2.0	.25	.158140	.148984	.122556	.107224
2.0	.30	.125538	.133887	.117349	.113154
2.0	.35	.101406	.120195	.112993	.136855
2.0	.40	.083556	.108445	.110757	.000000
2.0	.45	.070376	.099095	.113707	.000000
2.0	.50	.060821	.092899	.135285	.000000
2.0	.55	.054421	.092056	.000000	.000000
2.0	.60	.051658	.107643	.000000	.000000
2.0	.65	.056903	.000000	.000000	.000000
2.2	.00	.399928	.203021	.138648	.106852
2.2	.05	.376530	.199978	.137768	.106540
2.2	.10	.320382	.191394	.135214	.105656
2.2	.15	.256766	.178676	.131217	.104330
2.2	.20	.201134	.163587	.126119	.102766
2.2	.25	.157569	.147749	.120319	.101282
2.2	.30	.124873	.132382	.114249	.100404
2.2	.35	.100598	.118261	.108357	.101148
2.2	.40	.082528	.105813	.103144	.106062
2.2	.45	.068994	.095253	.099296	.125295
2.2	.50	.058840	.086746	.098098	.744428
2.2	.55	.051320	.080611	.103157	.000000
2.2	.60	.046064	.077785	.134589	.000000
2.2	.65	.043216	.081827	.000000	.000000
2.2	.70	.044415	.123048	.000000	.000000
2.2	.75	.065246	.000000	.000000	.000000
2.6	.00	.399348	.201866	.136987	.105114
2.6	.05	.375947	.198613	.136087	.104754
2.6	.10	.319786	.190199	.133466	.103700
2.6	.15	.256146	.177423	.129340	.102022
2.6	.20	.200476	.162238	.124021	.099822
2.6	.25	.156854	.146254	.117873	.097233
2.6	.30	.124075	.130670	.111460	.094416
2.6	.35	.099679	.116228	.104518	.091560
2.6	.40	.081433	.103301	.097939	.088897
2.6	.45	.067643	.092009	.091771	.086741
2.6	.50	.057101	.082338	.086243	.085596
2.6	.55	.048968	.074213	.081605	.086459
2.6	.60	.042671	.067572	.078221	.091978
2.6	.65	.037832	.062425	.076803	.113934
2.6	.70	.034243	.058970	.079227	.000000
2.6	.75	.031880	.057907	.093286	.000000
2.6	.80	.031083	.061841	.000000	.000000
2.6	.85	.033507	.090345	.000000	.000000
2.6	.90	.056449	.000000	.000000	.000000
3.0	.00	.398984	.201139	.135915	.103797
3.0	.05	.375581	.198083	.135008	.103423
3.0	.10	.319416	.189455	.132363	.102321
3.0	.15	.255765	.176656	.128190	.100548
3.0	.20	.200079	.161454	.122798	.098192
3.0	.25	.156434	.145396	.116539	.095362
3.0	.30	.123622	.129734	.109767	.092181
3.0	.35	.099181	.115185	.102797	.088779
3.0	.40	.080875	.102108	.095893	.085288
3.0	.45	.067002	.090610	.089258	.081840
3.0	.50	.056345	.080648	.083044	.078571
3.0	.55	.048052	.072107	.077361	.075635
3.0	.60	.041525	.064849	.072297	.073224
3.0	.65	.036345	.058744	.067941	.071635
3.0	.70	.032223	.053692	.064413	.071415
3.0	.75	.028961	.049638	.061933	.073835
3.0	.80	.026439	.046610	.060967	.083019
3.0	.85	.024620	.044798	.062739	.129796
3.0	.90	.023593	.044804	.071762	.000000
3.0	.95	.023752	.048781	.142371	.000000
3.0	1.00	.026760	.072386	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 1.8$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00	.398693	.200556	.135047	.102679
3.5	.05	.375289	.197498	.134136	.102298
3.5	.10	.319120	.188864	.131478	.101174
3.5	.15	.255465	.176052	.127283	.099360
3.5	.20	.199770	.160810	.121855	.096939
3.5	.25	.156112	.144743	.115544	.094013
3.5	.30	.123283	.129043	.108699	.090696
3.5	.35	.098819	.114442	.101631	.087105
3.5	.40	.080482	.101296	.094595	.083354
3.5	.45	.066570	.089707	.087783	.079546
3.5	.50	.055862	.079625	.081330	.075774
3.5	.55	.047501	.070925	.075324	.072120
3.5	.60	.040885	.063453	.069812	.068657
3.5	.65	.035586	.057057	.064823	.065452
3.5	.70	.031300	.051597	.060365	.062576
3.5	.75	.027807	.046953	.056449	.060112
3.5	.80	.024948	.043029	.053087	.058179
3.5	.85	.022610	.039756	.050317	.056977
3.5	.90	.020716	.037097	.048219	.056886
3.5	.95	.019221	.035060	.046976	.058791
3.5	1.00	.018116	.033727	.047003	.065375
4.0	.00	.398504	.200178	.134481	.101936
4.0	.05	.375100	.197119	.133569	.101552
4.0	.10	.318929	.188481	.130906	.100419
4.0	.15	.255271	.175664	.126700	.098589
4.0	.20	.199572	.160414	.121257	.096143
4.0	.25	.155909	.144334	.114925	.093181
4.0	.30	.123072	.128617	.108051	.089816
4.0	.35	.098598	.113994	.100945	.086161
4.0	.40	.080249	.100821	.093859	.082325
4.0	.45	.066320	.089197	.086985	.078407
4.0	.50	.055592	.079070	.080451	.074492
4.0	.55	.047206	.070313	.074341	.070652
4.0	.60	.040557	.062769	.068697	.066944
4.0	.65	.035218	.056281	.063535	.063414
4.0	.70	.030881	.050703	.058853	.060098
4.0	.75	.027321	.045905	.054637	.057025
4.0	.80	.024375	.041778	.050869	.054223
4.0	.85	.021922	.038230	.047530	.051718
4.0	.90	.019870	.035188	.044606	.049547
4.0	.95	.018151	.032595	.042090	.047762
4.0	1.00	.016718	.030410	.039992	.046450
5.0	.00	.398282	.199734	.133815	.101052
5.0	.05	.374877	.196673	.132901	.100666
5.0	.10	.318706	.188033	.130233	.099527
5.0	.15	.255045	.175211	.126021	.097685
5.0	.20	.199343	.159954	.120566	.095222
5.0	.25	.155675	.143866	.114218	.092236
5.0	.30	.122833	.128136	.107324	.088839
5.0	.35	.098352	.113497	.100191	.085142
5.0	.40	.079993	.100304	.093073	.081254
5.0	.45	.066053	.088655	.086156	.077270
5.0	.50	.055311	.078498	.079572	.073274
5.0	.55	.046907	.069704	.073398	.069332
5.0	.60	.040238	.062115	.067677	.065499
5.0	.65	.034873	.055572	.062421	.061813
5.0	.70	.030504	.049927	.057622	.058302
5.0	.75	.026907	.045047	.053262	.054985
5.0	.80	.023915	.040818	.049313	.051873
5.0	.85	.021404	.037143	.045747	.048970
5.0	.90	.019281	.033942	.042534	.046278
5.0	.95	.017472	.031146	.039643	.043794
5.0	1.00	.015923	.028698	.037047	.041516

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.444852	.000000	.000000	.000000
.6	.05	.429195	.000000	.000000	.000000
.6	.10	.444852	.000000	.000000	.000000
.8	.00	.424099	.000000	.000000	.000000
.8	.05	.401893	.000000	.000000	.000000
.8	.10	.351242	.000000	.000000	.000000
.8	.15	.306413	.000000	.000000	.000000
.8	.20	.382584	.000000	.000000	.000000
1.0	.00	.414397	.229550	.000000	.000000
1.0	.05	.391371	.230238	.000000	.000000
1.0	.10	.336695	.246674	.000000	.000000
1.0	.15	.276739	.000000	.000000	.000000
1.0	.20	.230195	.000000	.000000	.000000
1.0	.25	.217163	.000000	.000000	.000000
1.2	.00	.409235	.222426	.000000	.000000
1.2	.05	.385990	.220109	.000000	.000000
1.2	.10	.330407	.214597	.000000	.000000
1.2	.15	.268042	.210424	.000000	.000000
1.2	.20	.214936	.222426	.000000	.000000
1.2	.25	.176690	.637287	.000000	.000000
1.2	.30	.157589	.000000	.000000	.000000
1.2	.35	.208430	.000000	.000000	.000000
1.4	.00	.406169	.216214	.152155	.000000
1.4	.05	.382844	.213429	.153550	.000000
1.4	.10	.326954	.205824	.164799	.000000
1.4	.15	.263876	.195341	.308736	.000000
1.4	.20	.209234	.184964	.000000	.000000
1.4	.25	.167461	.179851	.000000	.000000
1.4	.30	.138173	.197682	.000000	.000000
1.4	.35	.121375	.000000	.000000	.000000
1.4	.40	.127653	.000000	.000000	.000000
1.6	.00	.404200	.212050	.151742	.000000
1.6	.05	.380839	.209120	.151338	.000000
1.6	.10	.324820	.200947	.150736	.000000
1.6	.15	.261463	.189095	.151809	.000000
1.6	.20	.206283	.175621	.160230	.000000
1.6	.25	.163477	.162758	.210846	.000000
1.6	.30	.132063	.153206	.000000	.000000
1.6	.35	.110067	.152500	.000000	.000000
1.6	.40	.096537	.191292	.000000	.000000
1.6	.45	.094714	.000000	.000000	.000000
1.6	.50	.179550	.000000	.000000	.000000
1.8	.00	.402859	.209209	.148284	.111854
1.8	.05	.379481	.206220	.147574	.113072
1.8	.10	.323399	.197827	.145655	.121111
1.8	.15	.259913	.185495	.143065	.185843
1.8	.20	.204500	.171084	.140779	.000000
1.8	.25	.161286	.156391	.140739	.000000
1.8	.30	.129148	.142971	.148284	.000000
1.8	.35	.105773	.132344	.193792	.000000
1.8	.40	.089231	.126921	.000000	.000000
1.8	.45	.078558	.134705	.000000	.000000
1.8	.50	.074877	.281158	.000000	.000000
1.8	.55	.092278	.000000	.000000	.000000
2.0	.00	.401906	.207199	.145347	.114775
2.0	.05	.378518	.204181	.144536	.114766
2.0	.10	.322402	.195685	.142229	.115119
2.0	.15	.258849	.183142	.138745	.116947
2.0	.20	.203320	.168348	.134579	.123337
2.0	.25	.159916	.153983	.130427	.148101
2.0	.30	.127465	.138369	.127349	.000000
2.0	.35	.103564	.125460	.127390	.000000
2.0	.40	.086080	.115097	.136525	.000000
2.0	.45	.073514	.108417	.196640	.000000
2.0	.50	.065098	.108581	.000000	.000000
2.0	.55	.061233	.132913	.000000	.000000
2.0	.60	.066861	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{1,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.2	.00	.401203	.205727	.143091	.113164
2.2	.05	.377809	.202694	.142236	.112935
2.2	.10	.321675	.194144	.139770	.112365
2.2	.15	.258083	.181494	.135948	.111731
2.2	.20	.202491	.166513	.131150	.111542
2.2	.25	.158988	.150844	.125844	.112821
2.2	.30	.126381	.135733	.120585	.118110
2.2	.35	.102237	.122002	.116069	.136979
2.2	.40	.084360	.110162	.113368	.345562
2.2	.45	.071124	.100603	.114784	.000000
2.2	.50	.061448	.093888	.128320	.000000
2.2	.55	.054766	.091482	.260072	.000000
2.2	.60	.051209	.099216	.000000	.000000
2.2	.65	.052933	.202046	.000000	.000000
2.2	.70	.084715	.000000	.000000	.000000
2.6	.00	.400256	.203760	.140030	.109510
2.6	.05	.376856	.200713	.139140	.109172
2.6	.10	.320702	.192113	.136552	.108197
2.6	.15	.257074	.179367	.132488	.106670
2.6	.20	.201423	.164228	.127269	.104728
2.6	.25	.157828	.148311	.121272	.102551
2.6	.30	.125086	.132822	.114881	.100386
2.6	.35	.100743	.118515	.108464	.098578
2.6	.40	.082569	.105776	.102365	.097677
2.6	.45	.068879	.094753	.096926	.098740
2.6	.50	.058478	.085473	.092556	.104436
2.6	.55	.050549	.077942	.089903	.125550
2.6	.60	.044559	.072259	.090374	.000000
2.6	.65	.040218	.068808	.098453	.000000
2.6	.70	.037513	.068878	.146684	.000000
2.6	.75	.037014	.078005	.000000	.000000
2.6	.80	.041803	.231383	.000000	.000000
2.6	.85	.216302	.000000	.000000	.000000
3.0	.00	.399664	.202542	.138132	.106962
3.0	.05	.376262	.199488	.137230	.106597
3.0	.10	.320099	.190869	.134601	.105525
3.0	.15	.256456	.178085	.130457	.103809
3.0	.20	.200780	.162886	.125109	.101544
3.0	.25	.157148	.146879	.118915	.098848
3.0	.30	.124355	.131262	.112232	.095861
3.0	.35	.099940	.116773	.105385	.092737
3.0	.40	.081667	.103777	.098650	.089642
3.0	.45	.067837	.092386	.092246	.086769
3.0	.50	.057239	.082567	.086353	.084361
3.0	.55	.049023	.074221	.081125	.082773
3.0	.60	.042601	.067235	.076732	.082635
3.0	.65	.037569	.061521	.073411	.085365
3.0	.70	.033658	.057056	.071612	.095407
3.0	.75	.030716	.053946	.072388	.143108
3.0	.80	.028717	.052600	.079091	.000000
3.0	.85	.027854	.054355	.113478	.000000
3.0	.90	.028960	.065407	.000000	.000000
3.0	.95	.036695	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00	.399191	.201576	.136636	.104913
3.5	.05	.375787	.198518	.135728	.104536
3.5	.10	.319620	.189888	.133078	.103424
3.5	.15	.255968	.177084	.128895	.101633
3.5	.20	.200278	.161853	.123487	.099247
3.5	.25	.156627	.145802	.117204	.096371
3.5	.30	.123807	.130122	.110397	.093123
3.5	.35	.099356	.115548	.103379	.089625
3.5	.40	.081034	.102437	.096408	.085996
3.5	.45	.067141	.090893	.089681	.082350
3.5	.50	.056458	.080867	.083337	.078794
3.5	.55	.048128	.072239	.077471	.075429
3.5	.60	.041552	.064860	.072146	.072360
3.5	.65	.036304	.058585	.067403	.069708
3.5	.70	.032084	.053284	.063283	.067634
3.5	.75	.028679	.048855	.059839	.066394
3.5	.80	.025940	.045231	.057169	.066477
3.5	.85	.023769	.042391	.055473	.069007
3.5	.90	.022121	.040395	.055194	.077509
3.5	.95	.021009	.039459	.057497	.114648
3.5	1.00	.020565	.040211	.066650	.000000
4.0	.00	.398885	.200953	.135678	.103599
4.0	.05	.375480	.197894	.134767	.103218
4.0	.10	.319311	.189259	.132108	.102091
4.0	.15	.255655	.176446	.127910	.100272
4.0	.20	.199958	.161201	.122477	.097843
4.0	.25	.156299	.145130	.116159	.094905
4.0	.30	.123467	.129424	.109304	.091571
4.0	.35	.099000	.114816	.102223	.087957
4.0	.40	.080659	.101660	.095168	.084174
4.0	.45	.066740	.090058	.088332	.080322
4.0	.50	.056025	.079958	.081848	.076492
4.0	.55	.047654	.071235	.075798	.072758
4.0	.60	.041024	.063733	.070229	.069185
4.0	.65	.035707	.057296	.065162	.065827
4.0	.70	.031398	.051782	.060599	.062734
4.0	.75	.027874	.047065	.056536	.059956
4.0	.80	.024973	.043040	.052965	.057549
4.0	.85	.022576	.039624	.049888	.055591
4.0	.90	.020598	.036757	.047320	.054209
4.0	.95	.018978	.034400	.045305	.053623
4.0	1.00	.017679	.032549	.043949	.054291
5.0	.00	.398525	.200225	.134566	.102081
5.0	.05	.375120	.197165	.133653	.101696
5.0	.10	.318949	.188526	.130987	.100559
5.0	.15	.255289	.175706	.126777	.098721
5.0	.20	.199588	.160451	.121326	.096263
5.0	.25	.155922	.144365	.114983	.093285
5.0	.30	.123081	.128640	.108095	.089898
5.0	.35	.098603	.114006	.100971	.086214
5.0	.40	.080247	.100819	.093862	.082341
5.0	.45	.066310	.089178	.086958	.078376
5.0	.50	.055572	.079029	.080388	.074402
5.0	.55	.047174	.070246	.074233	.070488
5.0	.60	.040510	.062669	.068532	.066686
5.0	.65	.035152	.056141	.063301	.063039
5.0	.70	.030792	.050513	.058531	.059575
5.0	.75	.027204	.045654	.054205	.056313
5.0	.80	.024224	.041449	.050298	.053267
5.0	.85	.021726	.037803	.046782	.050445
5.0	.90	.019619	.034637	.043628	.047849
5.0	.95	.017829	.031882	.040808	.045485
5.0	1.00	.016303	.029485	.038301	.043355

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.6	.00	.527857	.000000	.000000	.000000
.6	.05	.596011	.000000	.000000	.000000
.8	.00	.462289	.000000	.000000	.000000
.8	.05	.443297	.000000	.000000	.000000
.8	.10	.412466	.000000	.000000	.000000
.8	.15	.597994	.000000	.000000	.000000
1.0	.00	.436178	.000000	.000000	.000000
1.0	.05	.413916	.000000	.000000	.000000
1.0	.10	.362601	.000000	.000000	.000000
1.0	.15	.313216	.000000	.000000	.000000
1.0	.20	.314981	.000000	.000000	.000000
1.2	.00	.423457	.263929	.000000	.000000
1.2	.05	.400499	.266584	.000000	.000000
1.2	.10	.346034	.298005	.000000	.000000
1.2	.15	.286423	.000000	.000000	.000000
1.2	.20	.240176	.000000	.000000	.000000
1.2	.25	.224723	.000000	.000000	.000000
1.4	.00	.416244	.243655	.000000	.000000
1.4	.05	.393053	.241792	.000000	.000000
1.4	.10	.337655	.238218	.000000	.000000
1.4	.15	.275664	.239948	.000000	.000000
1.4	.20	.223252	.278409	.000000	.000000
1.4	.25	.186368	.000000	.000000	.000000
1.4	.30	.170686	.000000	.000000	.000000
1.4	.35	.249011	.000000	.000000	.000000
1.6	.00	.411735	.231145	.176346	.000000
1.6	.05	.388447	.228548	.193070	.000000
1.6	.10	.332682	.221648	.000000	.000000
1.6	.15	.269851	.212816	.000000	.000000
1.6	.20	.215652	.206233	.000000	.000000
1.6	.25	.174673	.211865	.000000	.000000
1.6	.30	.146947	.298997	.000000	.000000
1.6	.35	.134070	.000000	.000000	.000000
1.6	.40	.161588	.000000	.000000	.000000
1.8	.00	.408720	.223314	.175952	.000000
1.8	.05	.385384	.220481	.176496	.000000
1.8	.10	.329447	.212652	.180470	.000000
1.8	.15	.266251	.201530	.198670	.000000
1.8	.20	.211347	.189462	.368190	.000000
1.8	.25	.169001	.179401	.000000	.000000
1.8	.30	.138381	.176352	.000000	.000000
1.8	.35	.117894	.198371	.000000	.000000
1.8	.40	.107906	.000000	.000000	.000000
1.8	.45	.120473	.000000	.000000	.000000
2.0	.00	.406599	.218089	.166305	.000000
2.0	.05	.383238	.215157	.165882	.000000
2.0	.10	.327212	.206958	.165087	.000000
2.0	.15	.263833	.195018	.165240	.000000
2.0	.20	.208598	.181301	.169538	.000000
2.0	.25	.165667	.167817	.189077	.000000
2.0	.30	.133980	.156608	.357356	.000000
2.0	.35	.111360	.150542	.000000	.000000
2.0	.40	.096201	.157491	.000000	.000000
2.0	.45	.088568	.249107	.000000	.000000
2.0	.50	.095095	.000000	.000000	.000000
2.2	.00	.405050	.214417	.159180	.135519
2.2	.05	.381673	.211435	.158499	.137491
2.2	.10	.325597	.203060	.156661	.150064
2.2	.15	.262117	.190751	.154185	.275320
2.2	.20	.206708	.176352	.151975	.000000
2.2	.25	.163488	.161631	.151700	.000000
2.2	.30	.131315	.148070	.157326	.000000
2.2	.35	.107846	.136981	.184555	.000000
2.2	.40	.091062	.130062	.000000	.000000
2.2	.45	.079736	.131469	.000000	.000000
2.2	.50	.073902	.163535	.000000	.000000
2.2	.55	.077588	.000000	.000000	.000000
2.2	.60	.184820	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.6	.00	.402979	.209697	.150374	.126371
2.6	.05	.379588	.206672	.149540	.126234
2.6	.10	.323463	.198146	.147141	.125989
2.6	.15	.259887	.185538	.143445	.126054
2.6	.20	.204318	.170622	.138846	.127233
2.6	.25	.160844	.155043	.133843	.131313
2.6	.30	.128278	.140053	.129037	.143511
2.6	.35	.104184	.126484	.125216	.192281
2.6	.40	.086371	.114861	.123656	.000000
2.6	.45	.073213	.105593	.127219	.000000
2.6	.50	.063632	.099279	.146376	.000000
2.6	.55	.057055	.097421	.377666	.000000
2.6	.60	.053567	.105667	.000000	.000000
2.6	.65	.054972	.184498	.000000	.000000
2.6	.70	.076651	.000000	.000000	.000000
3.0	.00	.401695	.206874	.145393	.118312
3.0	.05	.378298	.203832	.144515	.118006
3.0	.10	.322151	.195250	.141966	.117139
3.0	.15	.258535	.182533	.137972	.115820
3.0	.20	.202901	.167440	.132864	.114224
3.0	.25	.159332	.151568	.127028	.112597
3.0	.30	.126624	.136188	.120867	.111305
3.0	.35	.102324	.122000	.114776	.110929
3.0	.40	.084209	.109423	.109145	.112565
3.0	.45	.070596	.098620	.104405	.118830
3.0	.50	.060297	.089648	.101142	.139097
3.0	.55	.052509	.082567	.100428	.296079
3.0	.60	.046721	.077588	.104994	.000000
3.0	.65	.042691	.075377	.126216	.000000
3.0	.70	.040520	.078159	.000000	.000000
3.0	.75	.041161	.097450	.000000	.000000
3.0	.80	.050064	.000000	.000000	.000000
3.5	.00	.400675	.204686	.141693	.112485
3.5	.05	.377274	.201635	.140795	.112129
3.5	.10	.321115	.193023	.138180	.111089
3.5	.15	.257477	.180251	.134062	.109429
3.5	.20	.201808	.165071	.128753	.107250
3.5	.25	.158188	.149090	.122612	.104680
3.5	.30	.125409	.133507	.116000	.101867
3.5	.35	.101011	.119060	.109248	.098982
3.5	.40	.082759	.106118	.102634	.096218
3.5	.45	.068957	.094795	.096389	.093812
3.5	.50	.058392	.085062	.090705	.092085
3.5	.55	.050218	.076826	.085759	.091551
3.5	.60	.043848	.069981	.081757	.093216
3.5	.65	.038882	.064456	.079012	.099614
3.5	.70	.035059	.060251	.078132	.120629
3.5	.75	.032235	.057523	.080610	.426446
3.5	.80	.030406	.056796	.091614	.000000
3.5	.85	.029813	.059769	.158216	.000000
3.5	.90	.031427	.074685	.000000	.000000
3.5	.95	.040706	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 2.5$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00	.400017	.203300	.139419	.109044
4.0	.05	.376614	.200244	.138514	.108673
4.0	.10	.320449	.191619	.135873	.107578
4.0	.15	.256801	.178884	.131707	.105818
4.0	.20	.201117	.163605	.126324	.103479
4.0	.25	.157474	.147573	.120075	.100669
4.0	.30	.124604	.131916	.113513	.097509
4.0	.35	.100225	.117572	.106553	.094127
4.0	.40	.081920	.104299	.099455	.090650
4.0	.45	.068047	.092801	.092821	.087203
4.0	.50	.057389	.083234	.086595	.083906
4.0	.55	.049089	.074278	.080881	.080894
4.0	.60	.042550	.066990	.075751	.078304
4.0	.65	.037349	.060831	.071265	.076331
4.0	.70	.033189	.055680	.067493	.075271
4.0	.75	.029851	.051450	.064540	.075069
4.0	.80	.027225	.048100	.062599	.075745
4.0	.85	.025197	.045659	.062081	.078153
4.0	.90	.023758	.044284	.063984	.124553
4.0	.95	.022979	.044439	.071481	.000000
4.0	1.00	.023139	.047548	.104883	.000000
5.0	.00	.399247	.201701	.136867	.105323
5.0	.05	.375842	.198643	.135956	.104941
5.0	.10	.319673	.190007	.133297	.103814
5.0	.15	.256016	.177194	.129098	.101994
5.0	.20	.200320	.161949	.123664	.099563
5.0	.25	.156660	.145877	.117344	.096622
5.0	.30	.123827	.130169	.110486	.093283
5.0	.35	.099359	.115557	.103399	.089660
5.0	.40	.081016	.102398	.096338	.085864
5.0	.45	.067095	.090790	.089491	.081994
5.0	.50	.056375	.080682	.082992	.078137
5.0	.55	.047999	.071947	.076921	.074366
5.0	.60	.041362	.064429	.071324	.070741
5.0	.65	.036037	.057972	.066218	.067310
5.0	.70	.031715	.052429	.061601	.064113
5.0	.75	.028174	.047675	.057463	.061186
5.0	.80	.025250	.043595	.053787	.058562
5.0	.85	.022822	.040105	.050560	.056280
5.0	.90	.020799	.037132	.047772	.054393
5.0	.95	.019116	.034622	.045426	.052981
5.0	1.00	.017725	.032541	.043545	.052178

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.8	.00	.526355	.000000	.000000	.000000
.8	.05	.521323	.000000	.000000	.000000
.8	.10	.716197	.000000	.000000	.000000
1.0	.00	.468103	.000000	.000000	.000000
1.0	.05	.447908	.000000	.000000	.000000
1.0	.10	.407249	.000000	.000000	.000000
1.0	.15	.412399	.000000	.000000	.000000
1.2	.00	.443032	.000000	.000000	.000000
1.2	.05	.420735	.000000	.000000	.000000
1.2	.10	.369039	.000000	.000000	.000000
1.2	.15	.317448	.000000	.000000	.000000
1.2	.20	.300775	.000000	.000000	.000000
1.4	.00	.429640	.295359	.000000	.000000
1.4	.05	.406736	.300306	.000000	.000000
1.4	.10	.352433	.351077	.000000	.000000
1.4	.15	.293078	.000000	.000000	.000000
1.4	.20	.247038	.000000	.000000	.000000
1.4	.25	.230164	.000000	.000000	.000000
1.4	.30	.488951	.000000	.000000	.000000
1.6	.00	.421545	.263178	.000000	.000000
1.6	.05	.398403	.261860	.000000	.000000
1.6	.10	.343171	.260661	.000000	.000000
1.6	.15	.281510	.270222	.000000	.000000
1.6	.20	.229701	.358099	.000000	.000000
1.6	.25	.193995	.000000	.000000	.000000
1.6	.30	.181296	.000000	.000000	.000000
1.6	.35	.288287	.000000	.000000	.000000
1.8	.00	.416242	.245122	.000000	.000000
1.8	.05	.392990	.242757	.000000	.000000
1.8	.10	.337349	.236741	.000000	.000000
1.8	.15	.274763	.230041	.000000	.000000
1.8	.20	.220999	.228763	.000000	.000000
1.8	.25	.180807	.253031	.000000	.000000
1.8	.30	.154680	.000000	.000000	.000000
1.8	.35	.146179	.000000	.000000	.000000
1.8	.40	.210390	.000000	.000000	.000000
2.0	.00	.412566	.234051	.206470	.000000
2.0	.05	.389256	.231342	.210288	.000000
2.0	.10	.333408	.223954	.237774	.000000
2.0	.15	.270383	.213785	.000000	.000000
2.0	.20	.215773	.203625	.000000	.000000
2.0	.25	.173924	.197701	.000000	.000000
2.0	.30	.144185	.206199	.000000	.000000
2.0	.35	.125474	.305808	.000000	.000000
2.0	.40	.120254	.000000	.000000	.000000
2.0	.45	.165249	.000000	.000000	.000000
2.2	.00	.409905	.226695	.188307	.000000
2.2	.05	.386593	.223837	.188519	.000000
2.2	.10	.330601	.215893	.190441	.000000
2.2	.15	.267342	.204471	.198526	.000000
2.2	.20	.212309	.191697	.231104	.000000
2.2	.25	.169702	.179940	.000000	.000000
2.2	.30	.138545	.172172	.000000	.000000
2.2	.35	.116847	.174552	.000000	.000000
2.2	.40	.103521	.217944	.000000	.000000
2.2	.45	.100664	.000000	.000000	.000000
2.2	.50	.135059	.000000	.000000	.000000
2.6	.00	.406385	.217710	.166745	.157699
2.6	.05	.383010	.214734	.166086	.160527
2.6	.10	.326938	.206371	.164309	.178466
2.6	.15	.263453	.194078	.161916	.439599
2.6	.20	.208056	.179689	.159757	.000000
2.6	.25	.164831	.164950	.159335	.000000
2.6	.30	.132638	.151301	.163898	.000000
2.6	.35	.109111	.139944	.184084	.000000
2.6	.40	.092189	.132249	.326577	.000000
2.6	.45	.080525	.131006	.000000	.000000
2.6	.50	.073745	.146961	.000000	.000000
2.6	.55	.073666	.502143	.000000	.000000
2.6	.60	.096907	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00	.404221	.212567	.156034	.138440
3.0	.05	.380832	.209548	.155220	.138409
3.0	.10	.324714	.201043	.152884	.138551
3.0	.15	.261151	.188471	.149303	.139454
3.0	.20	.205599	.173608	.144885	.142328
3.0	.25	.162151	.158103	.140153	.150125
3.0	.30	.129616	.143212	.135750	.173077
3.0	.35	.105561	.129775	.132544	.315217
3.0	.40	.087797	.118320	.131992	.000000
3.0	.45	.074698	.109279	.137466	.000000
3.0	.50	.065186	.103268	.161819	.000000
3.0	.55	.058684	.101814	.594196	.000000
3.0	.60	.055243	.110420	.000000	.000000
3.0	.65	.056451	.178790	.000000	.000000
3.0	.70	.073912	.000000	.000000	.000000
3.5	.00	.402512	.208691	.148706	.124394
3.5	.05	.379116	.205651	.147834	.124106
3.5	.10	.322971	.197076	.145301	.123289
3.5	.15	.259360	.184371	.141335	.122063
3.5	.20	.203732	.169293	.136267	.120608
3.5	.25	.160170	.153461	.130482	.119183
3.5	.30	.127470	.138084	.124385	.118173
3.5	.35	.103180	.123922	.118368	.118189
3.5	.40	.085074	.111371	.112820	.120372
3.5	.45	.071469	.100591	.108159	.127392
3.5	.50	.061174	.091630	.104938	.148369
3.5	.55	.053379	.084528	.104121	.274439
3.5	.60	.047563	.079446	.107985	.000000
3.5	.65	.043452	.076895	.124677	.000000
3.5	.70	.041059	.078482	.254449	.000000
3.5	.75	.040994	.090903	.000000	.000000
3.5	.80	.046213	.262345	.000000	.000000
3.5	.85	.103930	.000000	.000000	.000000
4.0	.00	.401414	.206283	.144441	.117026
4.0	.05	.378014	.203234	.143548	.116680
4.0	.10	.321858	.194628	.140946	.115671
4.0	.15	.258224	.181868	.136852	.114069
4.0	.20	.202562	.166704	.131579	.111977
4.0	.25	.158951	.150746	.125487	.109551
4.0	.30	.126184	.135191	.118941	.106891
4.0	.35	.101801	.120782	.112273	.104245
4.0	.40	.083568	.107887	.105769	.101812
4.0	.45	.069788	.096622	.099667	.099878
4.0	.50	.059251	.086962	.094170	.098851
4.0	.55	.051111	.078818	.089476	.099432
4.0	.60	.044783	.072092	.085827	.103100
4.0	.65	.039872	.066724	.083604	.114009
4.0	.70	.036119	.062737	.083573	.152904
4.0	.75	.033390	.060329	.087686	.000000
4.0	.80	.031698	.060127	.103220	.000000
4.0	.85	.031320	.064147	.234843	.000000
4.0	.90	.033340	.082625	.000000	.000000
4.0	.95	.043874	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 3.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00	.400134	.203551	.139847	.109738
5.0	.05	.376731	.200495	.138940	.109363
5.0	.10	.320555	.191867	.136294	.108259
5.0	.15	.256914	.179066	.132118	.106480
5.0	.20	.201226	.165840	.126718	.104110
5.0	.25	.157578	.147794	.120446	.101253
5.0	.30	.124760	.132120	.113650	.098027
5.0	.35	.100312	.117552	.106644	.094552
5.0	.40	.081993	.104447	.099684	.090945
5.0	.45	.068102	.092907	.092965	.087316
5.0	.50	.057419	.082884	.086625	.083767
5.0	.55	.049089	.074255	.080754	.080391
5.0	.60	.042508	.066865	.075408	.077277
5.0	.65	.037251	.060568	.070621	.074516
5.0	.70	.033015	.055228	.066413	.072218
5.0	.75	.029582	.050729	.062811	.070529
5.0	.80	.026796	.046985	.059852	.069682
5.0	.85	.024548	.043939	.057615	.070099
5.0	.90	.022766	.041575	.056258	.072685
5.0	.95	.021414	.039927	.056111	.079878
5.0	1.00	.020502	.039151	.057950	.102054

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 3.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
.8	.00	.648847	.000000	.000000	.000000
.8	.05	.814776	.000000	.000000	.000000
1.0	.00	.516633	.000000	.000000	.000000
1.0	.05	.502530	.000000	.000000	.000000
1.0	.10	.506261	.000000	.000000	.000000
1.2	.00	.470076	.000000	.000000	.000000
1.2	.05	.449281	.000000	.000000	.000000
1.2	.10	.404620	.000000	.000000	.000000
1.2	.15	1.380697	.000000	.000000	.000000
1.2	.20	.014561	.000000	.000000	.000000
1.4	.00	.447270	.000000	.000000	.000000
1.4	.05	.424949	.000000	.000000	.000000
1.4	.10	.373005	.000000	.000000	.000000
1.4	.15	.320124	.000000	.000000	.000000
1.4	.20	.295269	.000000	.000000	.000000
1.4	.25	.518805	.000000	.000000	.000000
1.6	.00	.434093	.324423	.000000	.000000
1.6	.05	.411233	.331965	.000000	.000000
1.6	.10	.357059	.407388	.000000	.000000
1.6	.15	.297900	.000000	.000000	.000000
1.6	.20	.252014	.000000	.000000	.000000
1.6	.25	.234205	.000000	.000000	.000000
1.6	.30	.389525	.000000	.000000	.000000
1.8	.00	.425691	.281349	.000000	.000000
1.8	.05	.402595	.280661	.000000	.000000
1.8	.10	.347510	.282273	.000000	.000000
1.8	.15	.286139	.301959	.000000	.000000
1.8	.20	.234854	.497865	.000000	.000000
1.8	.25	.200165	.000000	.000000	.000000
1.8	.30	.190068	.000000	.000000	.000000
1.8	.35	.326736	.000000	.000000	.000000
2.0	.00	.419967	.258317	.000000	.000000
2.0	.05	.396751	.256226	.000000	.000000
2.0	.10	.341228	.251265	.000000	.000000
2.0	.15	.278877	.247207	.000000	.000000
2.0	.20	.225529	.253130	.000000	.000000
2.0	.25	.186098	.311376	.000000	.000000
2.0	.30	.161559	.000000	.000000	.000000
2.0	.35	.157785	.000000	.000000	.000000
2.0	.40	.296033	.000000	.000000	.000000
2.2	.00	.415875	.244329	.242197	.000000
2.2	.05	.392593	.241769	.272528	.000000
2.2	.10	.336835	.234916	.000000	.000000
2.2	.15	.273984	.225925	.000000	.000000
2.2	.20	.219675	.218247	.000000	.000000
2.2	.25	.178339	.218250	.000000	.000000
2.2	.30	.149536	.248051	.000000	.000000
2.2	.35	.132826	.000000	.000000	.000000
2.2	.40	.133828	.000000	.000000	.000000
2.2	.45	.292056	.000000	.000000	.000000
2.6	.00	.410523	.228477	.195064	.000000
2.6	.05	.387177	.225602	.195103	.000000
2.6	.10	.331199	.217590	.196089	.000000
2.6	.15	.267902	.205995	.200677	.000000
2.6	.20	.212792	.192843	.216775	.000000
2.6	.25	.170039	.180256	.289003	.000000
2.6	.30	.138599	.170522	.000000	.000000
2.6	.35	.116324	.167160	.000000	.000000
2.6	.40	.101660	.180650	.000000	.000000
2.6	.45	.094751	.327378	.000000	.000000
2.6	.50	.102055	.000000	.000000	.000000
2.6	.55	.881574	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 3.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.0	.00	.407268	.219941	.172211	.178557
3.0	.05	.383895	.216968	.171570	.182335
3.0	.10	.327826	.208616	.169841	.206499
3.0	.15	.264354	.196334	.167510	.303496
3.0	.20	.208949	.181951	.165390	.000000
3.0	.25	.165720	.167199	.164866	.000000
3.0	.30	.133512	.153491	.168754	.000000
3.0	.35	.109947	.141961	.185230	.000000
3.0	.40	.092936	.133792	.266436	.000000
3.0	.45	.081067	.131115	.000000	.000000
3.0	.50	.073762	.140768	.000000	.000000
3.0	.55	.071973	.220535	.000000	.000000
3.0	.60	.083402	.000000	.000000	.000000
3.5	.00	.404716	.213742	.158508	.144776
3.5	.05	.381327	.210723	.157693	.144739
3.5	.10	.325208	.202216	.155349	.144828
3.5	.15	.261642	.189636	.151743	.145531
3.5	.20	.206085	.174756	.147267	.147788
3.5	.25	.162625	.159217	.142408	.153654
3.5	.30	.130070	.144264	.137746	.168906
3.5	.35	.105982	.130713	.134004	.221861
3.5	.40	.088160	.119057	.132256	.000000
3.5	.45	.074961	.109633	.134599	.000000
3.5	.50	.065268	.102847	.147005	.000000
3.5	.55	.058417	.099573	.203895	.000000
3.5	.60	.054210	.102429	.000000	.000000
3.5	.65	.053265	.123618	.000000	.000000
3.5	.70	.059216	.000000	.000000	.000000
3.5	.75	.132583	.000000	.000000	.000000
4.0	.00	.403084	.209984	.151138	.129158
4.0	.05	.379688	.206946	.150270	.128884
4.0	.10	.323546	.198376	.147751	.128113
4.0	.15	.259938	.185680	.143808	.126967
4.0	.20	.204315	.170614	.138771	.125633
4.0	.25	.160759	.154797	.133027	.124379
4.0	.30	.128066	.139438	.126980	.123604
4.0	.35	.103783	.125296	.121021	.123941
4.0	.40	.085684	.112765	.115535	.126565
4.0	.45	.072084	.102002	.110933	.134178
4.0	.50	.061791	.093049	.107743	.155688
4.0	.55	.053992	.085932	.106854	.266716
4.0	.60	.048157	.080779	.110263	.000000
4.0	.65	.043992	.078009	.124441	.000000
4.0	.70	.041460	.078892	.199594	.000000
4.0	.75	.040992	.088127	.000000	.000000
4.0	.80	.044566	.148016	.000000	.000000
4.0	.85	.067996	.000000	.000000	.000000
5.0	.00	.401190	.205804	.143633	.115747
5.0	.05	.377789	.202752	.142733	.115387
5.0	.10	.321628	.194136	.140112	.114352
5.0	.15	.257987	.181358	.135980	.112641
5.0	.20	.202314	.166166	.130646	.110407
5.0	.25	.158686	.150166	.124465	.107742
5.0	.30	.125895	.134554	.117793	.104780
5.0	.35	.101479	.120066	.110948	.101659
5.0	.40	.083204	.107063	.104198	.098526
5.0	.45	.069367	.095652	.097750	.095535
5.0	.50	.058752	.085793	.091763	.092853
5.0	.55	.050507	.077373	.086355	.090680
5.0	.60	.044036	.070257	.081627	.089290
5.0	.65	.038921	.064317	.077682	.089122
5.0	.70	.034870	.059455	.074663	.091013
5.0	.75	.031685	.055617	.072815	.096936
5.0	.80	.029242	.052823	.072633	.113443
5.0	.85	.027491	.051224	.075288	.194465
5.0	.90	.026475	.051262	.084400	.000000
5.0	.95	.026418	.054234	.121305	.000000
5.0	1.00	.028068	.065376	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 4.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.0	.00	.596831	.000000	.000000	.000000
1.0	.05	.606590	.000000	.000000	.000000
1.0	.10	1.870071	.000000	.000000	.000000
1.2	.00	.508402	.000000	.000000	.000000
1.2	.05	.491176	.000000	.000000	.000000
1.2	.10	.466934	.000000	.000000	.000000
1.2	.15	.630983	.000000	.000000	.000000
1.4	.00	.470583	.000000	.000000	.000000
1.4	.05	.449434	.000000	.000000	.000000
1.4	.10	.402657	.000000	.000000	.000000
1.4	.15	.367461	.000000	.000000	.000000
1.4	.20	.468103	.000000	.000000	.000000
1.6	.00	.450064	.000000	.000000	.000000
1.6	.05	.427726	.000000	.000000	.000000
1.6	.10	.375608	.000000	.000000	.000000
1.6	.15	.321883	.000000	.000000	.000000
1.6	.20	.292460	.000000	.000000	.000000
1.6	.25	.388988	.000000	.000000	.000000
1.8	.00	.437437	.351542	.000000	.000000
1.8	.05	.414614	.361969	.000000	.000000
1.8	.10	.360544	.468723	.000000	.000000
1.8	.15	.301540	.000000	.000000	.000000
1.8	.20	.255772	.000000	.000000	.000000
1.8	.25	.237301	.000000	.000000	.000000
1.8	.30	.353278	.000000	.000000	.000000
2.0	.00	.429023	.298416	.000000	.000000
2.0	.05	.405967	.298438	.000000	.000000
2.0	.10	.351013	.303295	.000000	.000000
2.0	.15	.289895	.335913	.000000	.000000
2.0	.20	.239067	.935035	.000000	.000000
2.0	.25	.205261	.000000	.000000	.000000
2.0	.30	.197443	.000000	.000000	.000000
2.0	.35	.364760	.000000	.000000	.000000
2.2	.00	.423099	.270851	.000000	.000000
2.2	.05	.399917	.269075	.000000	.000000
2.2	.10	.344506	.265337	.000000	.000000
2.2	.15	.282375	.264466	.000000	.000000
2.2	.20	.229420	.280038	.000000	.000000
2.2	.25	.190711	.408875	.000000	.000000
2.2	.30	.167723	.000000	.000000	.000000
2.2	.35	.168954	.000000	.000000	.000000
2.2	.40	.562297	.000000	.000000	.000000
2.6	.00	.415459	.243132	.253556	.000000
2.6	.05	.392159	.240471	.260407	.000000
2.6	.10	.336335	.233214	.311024	.000000
2.6	.15	.273339	.223222	.000000	.000000
2.6	.20	.218745	.213180	.000000	.000000
2.6	.25	.176860	.206892	.000000	.000000
2.6	.30	.146925	.212198	.000000	.000000
2.6	.35	.127506	.266393	.000000	.000000
2.6	.40	.119356	.000000	.000000	.000000
2.6	.45	.135721	.000000	.000000	.000000
3.0	.00	.410871	.229483	.198944	.000000
3.0	.05	.387522	.226597	.198877	.000000
3.0	.10	.331532	.218539	.199335	.000000
3.0	.15	.268210	.206834	.202197	.000000
3.0	.20	.213050	.193447	.212207	.000000
3.0	.25	.170204	.180375	.246981	.000000
3.0	.30	.138592	.169587	.623357	.000000
3.0	.35	.115985	.163600	.000000	.000000
3.0	.40	.100620	.168059	.000000	.000000
3.0	.45	.091938	.211049	.000000	.000000
3.0	.50	.092452	.000000	.000000	.000000
3.0	.55	.128012	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 4.0$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
3.5	.00	.407304	.220051	.172639	.186260
3.5	.05	.383928	.217070	.171958	.188215
3.5	.10	.327848	.208684	.170073	.197658
3.5	.15	.264356	.196332	.167381	.232930
3.5	.20	.208914	.181821	.164515	1.527958
3.5	.25	.165626	.166848	.162434	.000000
3.5	.30	.133320	.152756	.162752	.000000
3.5	.35	.109594	.140537	.168941	.000000
3.5	.40	.092311	.131037	.192312	.000000
3.5	.45	.079949	.125405	.340812	.000000
3.5	.50	.071653	.126348	.000000	.000000
3.5	.55	.067421	.144627	.000000	.000000
3.5	.60	.069343	.457081	.000000	.000000
3.5	.65	.094085	.000000	.000000	.000000
4.0	.00	.405037	.214512	.160156	.149208
4.0	.05	.381649	.211493	.159340	.149167
4.0	.10	.325529	.202983	.156991	.149219
4.0	.15	.261961	.190399	.153367	.149786
4.0	.20	.206400	.175507	.148849	.151647
4.0	.25	.162932	.159944	.143905	.156391
4.0	.30	.130364	.144948	.139073	.167956
4.0	.35	.106253	.131322	.134994	.200788
4.0	.40	.088392	.119533	.132544	.467518
4.0	.45	.075127	.109872	.133250	.000000
4.0	.50	.065322	.102631	.140785	.000000
4.0	.55	.058264	.098388	.169516	.000000
4.0	.60	.053640	.098722	.834562	.000000
4.0	.65	.051695	.109388	.000000	.000000
4.0	.70	.054181	.182380	.000000	.000000
4.0	.75	.072976	.000000	.000000	.000000
5.0	.00	.402419	.208499	.148407	.124077
5.0	.05	.379021	.205453	.147522	.123751
5.0	.10	.322869	.196858	.144945	.122803
5.0	.15	.259243	.184117	.140893	.121310
5.0	.20	.203593	.168981	.135680	.119384
5.0	.25	.159996	.153059	.129673	.117176
5.0	.30	.127247	.137552	.123237	.114865
5.0	.35	.102888	.123203	.116713	.112673
5.0	.40	.084683	.110381	.110395	.110876
5.0	.45	.070939	.099209	.104532	.109858
5.0	.50	.060444	.089665	.099350	.110222
5.0	.55	.052356	.081666	.095081	.113111
5.0	.60	.046094	.075127	.092028	.121241
5.0	.65	.041264	.070006	.090699	.144002
5.0	.70	.037617	.066359	.092154	.278268
5.0	.75	.035032	.064452	.099261	.000000
5.0	.80	.033543	.065077	.124254	.000000
5.0	.85	.033486	.070789	.000000	.000000
5.0	.90	.036113	.095517	.000000	.000000
5.0	.95	.048551	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 4.5$

x_o	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.0	.00	.754066	.000000	.000000	.000000
1.0	.05	1.074883	.000000	.000000	.000000
1.2	.00	.565636	.000000	.000000	.000000
1.2	.05	.558090	.000000	.000000	.000000
1.2	.10	.620842	.000000	.000000	.000000
1.4	.00	.501984	.000000	.000000	.000000
1.4	.05	.483256	.000000	.000000	.000000
1.4	.10	.448708	.000000	.000000	.000000
1.4	.15	.478950	.000000	.000000	.000000
1.6	.00	.470485	.000000	.000000	.000000
1.6	.05	.449105	.000000	.000000	.000000
1.6	.10	.401035	.000000	.000000	.000000
1.6	.15	.360009	.000000	.000000	.000000
1.6	.20	.394555	.000000	.000000	.000000
1.8	.00	.452000	.000000	.000000	.000000
1.8	.05	.429649	.000000	.000000	.000000
1.8	.10	.377403	.000000	.000000	.000000
1.8	.15	.323083	.000000	.000000	.000000
1.8	.20	.290752	.000000	.000000	.000000
1.8	.25	.346432	.000000	.000000	.000000
2.0	.00	.440051	.377033	.000000	.000000
2.0	.05	.417238	.390625	.000000	.000000
2.0	.10	.363255	.537444	.000000	.000000
2.0	.15	.304376	.000000	.000000	.000000
2.0	.20	.258702	.000000	.000000	.000000
2.0	.25	.239739	.000000	.000000	.000000
2.0	.30	.334648	.000000	.000000	.000000
2.2	.00	.431759	.314558	.000000	.000000
2.2	.05	.408738	.315364	.000000	.000000
2.2	.10	.353900	.323909	.000000	.000000
2.2	.15	.293006	.372978	.000000	.000000
2.2	.20	.242577	.000000	.000000	.000000
2.2	.25	.209542	.000000	.000000	.000000
2.2	.30	.203730	.000000	.000000	.000000
2.2	.35	.402709	.000000	.000000	.000000
2.6	.00	.421274	.263710	.000000	.000000
2.6	.05	.398046	.261519	.000000	.000000
2.6	.10	.342455	.256012	.000000	.000000
2.6	.15	.279956	.250095	.000000	.000000
2.6	.20	.226238	.249437	.000000	.000000
2.6	.25	.185932	.269809	.000000	.000000
2.6	.30	.159080	.452092	.000000	.000000
2.6	.35	.146913	.000000	.000000	.000000
2.6	.40	.166179	.000000	.000000	.000000
3.0	.00	.415072	.241959	.251355	.000000
3.0	.05	.391750	.239238	.254636	.000000
3.0	.10	.335893	.231748	.272095	.000000
3.0	.15	.272806	.221211	.358294	.000000
3.0	.20	.218042	.209988	.000000	.000000
3.0	.25	.175842	.200990	.000000	.000000
3.0	.30	.145304	.198725	.000000	.000000
3.0	.35	.124606	.215805	.000000	.000000
3.0	.40	.113114	.360035	.000000	.000000
3.0	.45	.114771	.000000	.000000	.000000
3.0	.50	.183571	.000000	.000000	.000000
3.5	.00	.410298	.227925	.194328	.000000
3.5	.05	.386941	.225007	.194004	.000000
3.5	.10	.330922	.216035	.193406	.000000
3.5	.15	.267542	.204891	.193520	.000000
3.5	.20	.212281	.191084	.196334	.000000
3.5	.25	.169257	.177196	.206599	.000000
3.5	.30	.137376	.164911	.241353	.000000
3.5	.35	.114289	.155813	.564090	.000000
3.5	.40	.098035	.152322	.000000	.000000
3.5	.45	.087472	.161066	.000000	.000000
3.5	.50	.082810	.224327	.000000	.000000
3.5	.55	.088436	.000000	.000000	.000000
3.5	.60	.169757	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 4.5$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
4.0	.00	.407286	.220015	.172624	.188516
4.0	.05	.383908	.217027	.171917	.189782
4.0	.10	.327821	.208619	.169934	.195311
4.0	.15	.264314	.196221	.167026	.211455
4.0	.20	.208849	.181627	.163732	.268721
4.0	.25	.165520	.166514	.160821	.000000
4.0	.30	.133151	.152188	.159441	.000000
4.0	.35	.109325	.139569	.161657	.000000
4.0	.40	.091878	.129351	.172539	.000000
4.0	.45	.079237	.122294	.213176	.000000
4.0	.50	.070423	.119869	.000000	.000000
4.0	.55	.065094	.126512	.000000	.000000
4.0	.60	.063992	.167324	.000000	.000000
4.0	.65	.071935	.000000	.000000	.000000
4.0	.70	.203685	.000000	.000000	.000000
5.0	.00	.403826	.211684	.154440	.136102
5.0	.05	.380432	.208649	.153579	.135852
5.0	.10	.324293	.200088	.151081	.135157
5.0	.15	.260690	.187405	.147173	.134141
5.0	.20	.205074	.172358	.142184	.133002
5.0	.25	.161525	.156563	.136501	.132020
5.0	.30	.128842	.141230	.130527	.131613
5.0	.35	.104569	.127115	.124652	.132445
5.0	.40	.086479	.114612	.119255	.135734
5.0	.45	.072887	.103872	.114734	.144216
5.0	.50	.062598	.094930	.111586	.166474
5.0	.55	.054793	.087795	.110606	.262577
5.0	.60	.048933	.082552	.113457	.000000
5.0	.65	.044701	.079516	.124938	.000000
5.0	.70	.042004	.079608	.170513	.000000
5.0	.75	.041096	.085837	.000000	.000000
5.0	.80	.043158	.114574	.000000	.000000
5.0	.85	.054380	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 5.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
1.2	.00	.659822	.000000	.000000	.000000
1.2	.05	.688519	.000000	.000000	.000000
1.4	.00	.545788	.000000	.000000	.000000
1.4	.05	.532440	.000000	.000000	.000000
1.4	.10	.532656	.000000	.000000	.000000
1.6	.00	.496961	.000000	.000000	.000000
1.6	.05	.477370	.000000	.000000	.000000
1.6	.10	.437676	.000000	.000000	.000000
1.6	.15	.432082	.000000	.000000	.000000
1.8	.00	.470134	.000000	.000000	.000000
1.8	.05	.448590	.000000	.000000	.000000
1.8	.10	.399656	.000000	.000000	.000000
1.8	.15	.355119	.000000	.000000	.000000
1.8	.20	.363794	.000000	.000000	.000000
2.0	.00	.453395	.000000	.000000	.000000
2.0	.05	.431033	.000000	.000000	.000000
2.0	.10	.378689	.000000	.000000	.000000
2.0	.15	.323929	.000000	.000000	.000000
2.0	.20	.289612	.000000	.000000	.000000
2.0	.25	.325050	.000000	.000000	.000000
2.2	.00	.442096	.401137	.000000	.000000
2.2	.05	.419330	.418161	.000000	.000000
2.2	.10	.365418	.516959	.000000	.000000
2.2	.15	.306644	.000000	.000000	.000000
2.2	.20	.261045	.000000	.000000	.000000
2.2	.25	.241701	.000000	.000000	.000000
2.2	.30	.323422	.000000	.000000	.000000
2.6	.00	.428072	.294290	.000000	.000000
2.6	.05	.404952	.293254	.000000	.000000
2.6	.10	.349745	.292458	.000000	.000000
2.6	.15	.288010	.299778	.000000	.000000
2.6	.20	.235762	.345620	.000000	.000000
2.6	.25	.198373	.000000	.000000	.000000
2.6	.30	.178319	.000000	.000000	.000000
2.6	.35	.190184	.000000	.000000	.000000
3.0	.00	.419924	.258635	.000000	.000000
3.0	.05	.396667	.256234	.000000	.000000
3.0	.10	.340983	.249895	.000000	.000000
3.0	.15	.278255	.241677	.000000	.000000
3.0	.20	.224116	.235683	.000000	.000000
3.0	.25	.182993	.238930	.000000	.000000
3.0	.30	.154411	.275399	.000000	.000000
3.0	.35	.137741	.000000	.000000	.000000
3.0	.40	.137157	.000000	.000000	.000000
3.0	.45	.211120	.000000	.000000	.000000
3.5	.00	.413724	.237809	.231815	.000000
3.5	.05	.390394	.235003	.232759	.000000
3.5	.10	.334464	.227203	.237334	.000000
3.5	.15	.271251	.215997	.251679	.000000
3.5	.20	.216264	.203465	.301179	.000000
3.5	.25	.173682	.191850	.000000	.000000
3.5	.30	.142474	.183699	.000000	.000000
3.5	.35	.120517	.183241	.000000	.000000
3.5	.40	.106294	.203948	.000000	.000000
3.5	.45	.100009	.436204	.000000	.000000
3.5	.50	.107941	.000000	.000000	.000000
3.5	.55	.303449	.000000	.000000	.000000
4.0	.00	.409843	.226698	.190709	.000000
4.0	.05	.386480	.223760	.190251	.000000
4.0	.10	.330443	.215517	.189142	.000000
4.0	.15	.267025	.203429	.188048	.000000
4.0	.20	.211700	.189345	.186172	.000000
4.0	.25	.168583	.175032	.191647	.000000
4.0	.30	.136526	.161965	.204811	.000000
4.0	.35	.113155	.151402	.250111	.000000
4.0	.40	.096439	.144806	.000000	.000000
4.0	.45	.084982	.145089	.000000	.000000
4.0	.50	.078330	.162525	.000000	.000000
4.0	.55	.077762	.329994	.000000	.000000
4.0	.60	.092723	.000000	.000000	.000000

TABLE IV - TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$\beta m = 5.0$

x_o	$\lvert y_{i,o} \rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
5.0	.00	.405416	.215424	.162138	.154780
5.0	.05	.382028	.212405	.161321	.154733
5.0	.10	.325907	.203695	.158964	.154736
5.0	.15	.262337	.191301	.155517	.155130
5.0	.20	.206770	.176395	.150746	.155516
5.0	.25	.163292	.160799	.145692	.156018
5.0	.30	.130706	.145748	.140651	.156851
5.0	.35	.106555	.132028	.136174	.157338
5.0	.40	.088655	.120079	.132944	.250353
5.0	.45	.075312	.110139	.131986	.000000
5.0	.50	.065374	.102392	.135333	.000000
5.0	.55	.058085	.097155	.148664	.000000
5.0	.60	.053025	.095228	.201653	.000000
5.0	.65	.050150	.099001	.000000	.000000
5.0	.70	.050104	.118785	.000000	.000000
5.0	.75	.056026	.000000	.000000	.000000
5.0	.80	.102850	.000000	.000000	.000000

TABLE IV.- TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{i,o}|)$ - Continued

$m = \infty$

$\bar{x}$	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$	$\bar{x}$	$\lvert y_{i,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
0.6	0	0.422023	0.266911	0	0	1.4	0	0.402011	0.207597	0.146794	0.121211
.6	.05	.398759	.264463	0	0	1.4	.05	.378610	.204546	.145895	.120854
.6	.10	.343021	.257736	0	0	1.4	.10	.322450	.195931	.143275	.119801
.6	.15	.280123	.248393	0	0	1.4	.15	.258808	.183152	.139140	.118105
.6	.20	.225581	.238752	0	0	1.4	.20	.203132	.167955	.133797	.115850
.6	.25	.183594	.231483	0	0	1.4	.25	.159500	.151945	.127395	.113098
.6	.30	.153167	.230393	0	0	1.4	.30	.126701	.136314	.120884	.110086
.6	.35	.132231	.242847	0	0	1.4	.35	.102273	.121795	.113975	.106815
.6	.40	.119366	.298415	0	0	1.4	.40	.083977	.108744	.107124	.103440
.6	.45	.114879	0	0	0	1.4	.45	.070112	.097263	.100524	.100072
.6	.50	.124458	0	0	0	1.4	.50	.059455	.087303	.094313	.096811
.6	.55	.210762	0	0	0	1.4	.55	.051152	.078230	.088579	.093747
						1.4	.60	.044599	.071416	.083373	.090965
.8	0	.410936	.229720	.200516	0	1.4	.65	.039369	.065183	.078724	.088545
.8	.05	.387572	.226778	.199727	0	1.4	.70	.035156	.059900	.074643	.086575
.8	.10	.331523	.218495	.198677	0	1.4	.75	.031741	.055446	.071139	.085159
.8	.15	.268074	.206292	.196794	0	1.4	.80	.028962	.051720	.068223	.084439
.8	.20	.212680	.191948	.194924	0	1.4	.85	.026704	.048647	.065920	.084657
.8	.25	.169433	.177126	.193854	0	1.4	.90	.024881	.046173	.064279	.086071
.8	.30	.137146	.163105	.194734	0	1.4	.95	.023437	.044272	.063397	.089424
.8	.35	.113389	.150759	.199477	0	1.4	1.00	.022337	.042951	.063453	.096070
.8	.40	.095974	.140674	.212050	0						
.8	.45	.083278	.133352	.243926	0	1.6	0	.401033	.205468	.143070	.114860
.8	.50	.074213	.129507	.361527	0	1.6	.05	.377630	.202413	.142164	.114488
.8	.55	.068156	.130686	0	0	1.6	.10	.321465	.193786	.139520	.113389
.8	.60	.064975	.141366	0	0	1.6	.15	.257815	.180987	.135348	.111615
.8	.65	.065343	.182310	0	0	1.6	.20	.202127	.165762	.129949	.109248
.8	.70	.075969	0	0	0	1.6	.25	.158478	.149715	.123675	.106387
.8	.75	.109128	0	0	0	1.6	.30	.125659	.134037	.116871	.103146
						1.6	.35	.101206	.119460	.109848	.099638
1.0	0	.406092	.217065	.165786	0.165786	1.6	.40	.082881	.106340	.102859	.095974
1.0	.05	.382703	.214045	.164966	.165718	1.6	.45	.068979	.094776	.096094	.092253
1.0	.10	.326579	.205524	.162581	.165551	1.6	.50	.058281	.084716	.089684	.088563
1.0	.15	.262999	.192905	.158852	.165408	1.6	.55	.049928	.076034	.083712	.084976
1.0	.20	.207413	.177941	.154101	.165499	1.6	.60	.042738	.068573	.078220	.081553
1.0	.25	.163900	.162244	.148709	.166146	1.6	.65	.038017	.062175	.073227	.078341
1.0	.30	.131255	.147021	.143070	.167832	1.6	.70	.033722	.056694	.068730	.075380
1.0	.35	.107022	.133021	.137559	.171320	1.6	.75	.030209	.052002	.064715	.072702
1.0	.40	.088970	.120627	.132531	.177941	1.6	.80	.027312	.047987	.061164	.070337
1.0	.45	.075408	.109977	.128330	.190401	1.6	.85	.024910	.044558	.058059	.068317
1.0	.50	.065132	.101074	.125337	.215672	1.6	.90	.022910	.041639	.055335	.066676
1.0	.55	.057308	.093875	.124056	.281686	1.6	.95	.021244	.039170	.053122	.065465
1.0	.60	.051367	.088354	.125323	0	1.6	1.00	.019860	.037106	.051278	.064753
1.0	.65	.046937	.084604	.130836	0						
1.0	.70	.043802	.082776	.145036	0	1.8	0	.400366	.204046	.140674	.111042
1.0	.75	.041898	.083634	.185919	0	1.8	.05	.376963	.200988	.139765	.110663
1.0	.80	.041375	.088970	0	0	1.8	.10	.320795	.192355	.137111	.109544
1.0	.85	.042830	.105224	0	0	1.8	.15	.257140	.179546	.132920	.107738
1.0	.90	.048345	.189460	0	0	1.8	.20	.201446	.164307	.127495	.105323
1.0	.95	.070421	0	0	0	1.8	.25	.157789	.148241	.121187	.102401
						1.8	.30	.124959	.132540	.114340	.099082
1.2	0	.403531	.211012	.153147	.133455	1.8	.35	.100494	.117935	.107265	.095479
1.2	.05	.380134	.207968	.152267	.133144	1.8	.40	.082153	.104781	.100213	.091700
1.2	.10	.323984	.199380	.149702	.132231	1.8	.45	.068234	.093177	.093374	.087842
1.2	.15	.260361	.186644	.145664	.130775	1.8	.50	.057515	.083070	.086877	.083990
1.2	.20	.204711	.171510	.140458	.128868	1.8	.55	.049138	.074333	.080803	.080213
1.2	.25	.161113	.155585	.134440	.126629	1.8	.60	.042498	.066809	.075194	.076565
1.2	.30	.128358	.140061	.127965	.124197	1.8	.65	.037167	.060338	.070062	.073088
1.2	.35	.103984	.125676	.121355	.121721	1.8	.70	.032835	.054772	.065403	.069812
1.2	.40	.085755	.112790	.114875	.119366	1.8	.75	.029278	.049980	.061198	.066760
1.2	.45	.071970	.101511	.108737	.117307	1.8	.80	.026335	.045850	.057424	.063946
1.2	.50	.061412	.091797	.103099	.115742	1.8	.85	.023870	.042285	.054052	.061380
1.2	.55	.053228	.083534	.098081	.114917	1.8	.90	.021801	.039205	.051056	.059069
1.2	.60	.046819	.076583	.093783	.115169	1.8	.95	.020053	.036544	.048409	.057019
1.2	.65	.041767	.070814	.090301	.117024	1.8	1.00	.018572	.034248	.046089	.055239
1.2	.70	.037775	.066116	.087756	.121423						
1.2	.75	.034638	.062414	.086338	.130360						
1.2	.80	.032217	.059683	.086377	.149208						
1.2	.85	.030430	.057969	.088523	.201407						
1.2	.90	.029252	.057440	.094244	0						
1.2	.95	.028729	.058512	.107719	0						
1.2	1.00	.029036	.062229	.148919	0						

TABLE IV.- TABULATION OF THE SIDEWASH FUNCTION $F_v(|y_{1,o}|)$ - Concluded

$m = \infty$

$\bar{x}$	$\lvert y_{1,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$	$\bar{x}$	$\lvert y_{1,o}\rvert$	$z_o = 0.2$	$z_o = 0.4$	$z_o = 0.6$	$z_o = 0.8$
2.0	0	0.399892	0.205046	0.139033	0.108553	3.5	0	0.398539	0.200256	0.134622	0.102177
2.0	.05	.376488	.199987	.138122	.108151	3.5	.05	.375210	.197195	.133708	.101790
2.0	.10	.320318	.191351	.135462	.107022	3.5	.10	.318962	.188554	.131039	.100648
2.0	.15	.256661	.178537	.131261	.105199	3.5	.15	.255300	.175750	.126823	.098802
2.0	.20	.200963	.163290	.125823	.102762	3.5	.20	.199596	.160470	.121364	.096332
2.0	.25	.157302	.147214	.119496	.099809	3.5	.25	.155927	.144378	.115010	.093358
2.0	.30	.124466	.131500	.112628	.096452	3.5	.30	.123082	.128643	.108108	.089929
2.0	.35	.099994	.116879	.105529	.092804	3.5	.35	.098598	.113998	.100965	.086218
2.0	.40	.081645	.103707	.098442	.088970	3.5	.40	.080235	.100797	.093853	.082311
2.0	.45	.067716	.092081	.091565	.085049	3.5	.45	.066290	.089138	.086901	.078304
2.0	.50	.056986	.081950	.085024	.081122	3.5	.50	.055542	.078969	.080298	.074280
2.0	.55	.048596	.073185	.078900	.077258	3.5	.55	.047132	.070161	.074102	.070305
2.0	.60	.041941	.065628	.073232	.073511	3.5	.60	.040455	.062556	.068354	.066431
2.0	.65	.036592	.059119	.068034	.069919	3.5	.65	.035080	.055993	.063065	.062698
2.0	.70	.032241	.053511	.063299	.066511	3.5	.70	.030701	.050324	.058229	.059131
2.0	.75	.028662	.048671	.059007	.063305	3.5	.75	.027090	.045416	.053825	.055748
2.0	.80	.025690	.044485	.055133	.060314	3.5	.80	.024083	.041155	.049823	.052558
2.0	.85	.023201	.040837	.051646	.057541	3.5	.85	.021554	.037443	.046196	.049562
2.0	.90	.021100	.037704	.048517	.054989	3.5	.90	.019410	.034197	.042910	.046759
2.0	.95	.019315	.034959	.045715	.052655	3.5	.95	.017576	.031349	.039933	.044145
2.0	1.00	.017790	.032566	.043215	.050537	3.5	1.00	.015997	.028840	.037235	.041711
2.2	0	.399542	.202316	.137854	.106782	4.0	0	.398386	.199946	.134147	.101523
2.2	.05	.376137	.199257	.136943	.106398	4.0	.05	.374981	.196885	.133232	.101136
2.2	.10	.319967	.190619	.134279	.105265	4.0	.10	.318808	.188244	.130563	.099994
2.2	.15	.256308	.177801	.130073	.103433	4.0	.15	.255147	.175420	.126347	.098147
2.2	.20	.200608	.162849	.124627	.100983	4.0	.20	.199443	.160159	.120887	.095672
2.2	.25	.156944	.146860	.118290	.098014	4.0	.25	.155773	.144066	.114532	.092679
2.2	.30	.124105	.130745	.111409	.094637	4.0	.30	.122927	.128330	.107628	.089268
2.2	.35	.099628	.116116	.104291	.090963	4.0	.35	.098443	.113684	.100483	.085555
2.2	.40	.081274	.102953	.097189	.087101	4.0	.40	.080080	.100482	.093350	.081645
2.2	.45	.067340	.091299	.090291	.083145	4.0	.45	.066134	.088822	.086415	.077655
2.2	.50	.056603	.081150	.083727	.079180	4.0	.50	.055385	.078651	.079809	.073607
2.2	.55	.048206	.072368	.077575	.075271	4.0	.55	.046974	.069841	.073610	.069627
2.2	.60	.041542	.064793	.071876	.071472	4.0	.60	.040296	.062233	.067859	.065790
2.2	.65	.036184	.058264	.066642	.067822	4.0	.65	.034921	.055668	.062567	.062011
2.2	.70	.031822	.052632	.061867	.064348	4.0	.70	.030539	.049997	.057727	.058439
2.2	.75	.028231	.047766	.057530	.061068	4.0	.75	.026928	.045086	.053318	.055050
2.2	.80	.025246	.043550	.053604	.057992	4.0	.80	.023919	.040822	.049312	.051853
2.2	.85	.022741	.039888	.050060	.055123	4.0	.85	.021389	.037107	.045680	.048851
2.2	.90	.020622	.036698	.046865	.052461	4.0	.90	.019242	.033858	.042388	.046041
2.2	.95	.018818	.033911	.043989	.050002	4.0	.95	.017407	.031006	.039406	.043437
2.2	1.00	.017271	.031470	.041403	.047740	4.0	1.00	.015826	.028493	.036702	.040975
2.4	0	.399070	.201341	.136308	.104544	5.0	0	.398206	.199583	.133594	.100770
2.4	.05	.375665	.198381	.135396	.104158	5.0	.05	.374801	.196523	.132680	.100383
2.4	.10	.319494	.189641	.132728	.103122	5.0	.10	.318629	.187581	.130010	.099240
2.4	.15	.255833	.176830	.128516	.101179	5.0	.15	.254967	.175056	.125793	.097393
2.4	.20	.200131	.161563	.123068	.098717	5.0	.20	.199263	.159795	.120333	.094920
2.4	.25	.156464	.145475	.116716	.095733	5.0	.25	.155592	.143702	.113977	.091923
2.4	.30	.123821	.129746	.109822	.092330	5.0	.30	.122746	.127965	.107071	.088510
2.4	.35	.099140	.115107	.102689	.088640	5.0	.35	.098261	.113318	.099925	.084794
2.4	.40	.080781	.101913	.095569	.084750	5.0	.40	.079898	.100115	.092790	.080889
2.4	.45	.066841	.090263	.088651	.080763	5.0	.45	.065952	.088453	.085854	.076870
2.4	.50	.056097	.080104	.082063	.076762	5.0	.50	.055202	.078281	.079246	.072839
2.4	.55	.047692	.071306	.075884	.072812	5.0	.55	.046790	.069469	.073045	.068856
2.4	.60	.041021	.063713	.070156	.068967	5.0	.60	.040111	.061860	.067291	.064975
2.4	.65	.035653	.057164	.064889	.065265	5.0	.65	.034735	.055293	.061996	.061252
2.4	.70	.031280	.051510	.060076	.061735	5.0	.70	.030353	.049620	.057152	.057656
2.4	.75	.027678	.046618	.055697	.058389	5.0	.75	.026740	.044707	.052740	.054262
2.4	.80	.024679	.042375	.051725	.055240	5.0	.80	.023730	.040441	.048731	.051060
2.4	.85	.022160	.038682	.048129	.052290	5.0	.85	.021199	.036723	.045095	.048052
2.4	.90	.020025	.035458	.044877	.049538	5.0	.90	.019051	.033471	.041799	.045236
2.4	.95	.018187	.032633	.042108	.046978	5.0	.95	.017214	.030616	.038812	.042607
2.4	1.00	.016637	.030149	.039281	.044604	5.0	1.00	.015632	.028100	.036103	.040158
3.0	0	.398774	.200736	.135564	.103209						
3.0	.05	.375370	.197676	.134450	.102823						
3.0	.10	.319198	.189035	.131782	.101682						
3.0	.15	.255537	.176212	.127568	.099838						
3.0	.20	.199834	.160953	.122111	.097371						
3.0	.25	.156165	.144862	.115759	.094380						
3.0	.30	.123521	.129130	.108860	.090976						
3.0	.35	.098838	.114487	.101721	.087270						
3.0	.40	.080477	.101288	.094594	.083369						
3.0	.45	.066533	.089633	.087666	.079369						
3.0	.50	.055787	.079468	.081068	.075353						
3.0	.55	.047379	.070663	.074879	.071387						
3.0	.60	.040704	.063062	.069138	.067524						
3.0	.65	.035332	.056505	.063857	.063801						
3.0	.70	.030955	.050841	.059029	.060247						
3.0	.75	.027547	.045939	.054633	.056877						
3.0	.80	.024357	.041684	.050643	.053701						
3.0	.85	.021817	.037979	.047026	.050721						
3.0	.90	.019676	.034741	.043752	.047936						
3.0	.95	.017847	.031901	.040788	.045340						
3.0	1.00	.016272	.029401	.038105	.042926						

TABLE V.- ILLUSTRATION OF USE OF TABLES TO CALCULATE ANGLE-OF-ATTACK DOWNWASH IN PLANE OF SYMMETRY BEHIND WING OF FIGURE 8

$\left[M = 1.64;\ x_o = 2.2;\ y_o = 0;\ z_o = 0;\ \beta_m = 2.0\right]$

①	②	③	④	⑤	⑥
$y_{i,o}$	$\frac{\Gamma_{y_i}}{V_\infty \alpha b/2}$	$\frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{V_\infty \alpha b/2}$	$F_w(\lvert y_{i,o} \rvert)$ from table II	$F_{w,o}$ from table III	$-\frac{w}{V_\infty \alpha}$ (eq. (25) nondimensionalized by $V_\infty \alpha$)
0	0.868	0	--------	0.144686	-0.238 + 0.126 = -0.112
.05	.890	.043	-1.553695		
.10	.911	.034	-.756150		
.15	.924	.023	-.489023		
.20	.934	.018	-.354408		
.25	.942	.020	-.272706		
.30	.954	.018	-.217364		
.35	.960	.012	-.176978		
.40	.966	.010	-.145812		
.45	.970	.003	-.120639		
.50	.969	-.002	-.099455		
.55	.968	-.012	-.080882		
.60	.957	-.018	-.063801		
.65	.950	-.020	-.046973		
.70	.937	-.048	-.027827		
.75	.902	-.075			
.80	.862	-.102			
.85	.800	-.179			
.90	.683	-.345			
.95	.455	-.683			
1.00	0	-.455			

TABLE VI.- ILLUSTRATION OF USE OF TABLES TO CALCULATE ROLLING SIDEWASH IN PLANE OF SYMMETRY BEHIND WING OF FIGURE 8

$\left[M = 1.64;\ x_o = 2.0;\ y_o = 0;\ z_c = 0.2;\ \beta_m = 2.0\right]$

(1)	(2)	(3)	(4)	(5)
$y_{i,o}$	$\frac{\Gamma_{y_i}}{p(b/2)^2}$	$\frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{p(b/2)^2}$	$F_v(\lvert y_{i,o} \rvert)$ from table IV	$\frac{v/V_\infty}{pb/2V_\infty}$ (eq. (27) nondimensionalized by pb/2)
0	0	0.035	0.401906	0.294
.05	.035	.064	.378518	
.10	.064	.063	.322402	
.15	.098	.069	.258849	
.20	.133	.074	.203320	
.25	.172	.075	.159916	
.30	.208	.073	.127465	
.35	.245	.076	.103564	
.40	.283	.075	.086080	
.45	.320	.077	.073514	
.50	.360	.075	.065098	
.55	.395	.072	.061233	
.60	.432	.072	.066861	
.65	.467	.072		
.70	.504	.076		
.75	.543	.052		
.80	.556	-.016		
.85	.527	-.092		
.90	.464	-.169		
.95	.358	-.464		
1.00	0	-.358		

TABLE VII.- ILLUSTRATION OF USE OF CHARTS TO CALCULATE ANGLE-OF-ATTACK DOWNWASH OFF PLANE OF SYMMETRY BEHIND WING OF FIGURE 8

$[M = 1.64;\ x_o = 2.2;\ y_o = 0.15;\ z_o = 0;\ \beta m = 2.0]$

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
$y_{i,o}$	$Y_{i,o} = 0.15 - ①$	$\bar{X}_i = 1.1 + \frac{①}{2}$	$F_w(Y_{i,o})$ from figure 6	$\frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{V_\infty \alpha b/2}$	$\sum_{i=n_1}^{0} ④ ⑤$	$y_{i,o}$	$Y_{i,o} = 0.15 - ⑦$	$F_w(Y_{i,o})$ from figure 6	$\sum_{i=0}^{n_2} ⑨ ⑤$	$\frac{d\epsilon}{d\alpha} = -\sum_{i=n_1}^{0} ④ ⑤ + \sum_{i=0}^{n_2} ⑨ ⑤$ (a)
-1.0	1.15	0.6	0	-0.455	0.045	1.0	-0.85	0	0.048	0.003
-.95	1.10	.625	0	-.683		.95	-.80	0		
-.90	1.05	.650	0	-.345		.90	-.75	0		
-.85	1.00	.675	0	-.179		.85	-.70	0		
-.80	.95	.700	0	-.102		.80	-.65	-.045		
-.75	.90	.725	0	-.075		.75	-.60	-.074		
-.70	.85	.750	0	-.048		.70	-.55	-.098		
-.65	.80	.775	0	-.020		.65	-.50	-.118		
-.60	.75	.800	.036	-.018		.60	-.45	-.146		
-.55	.70	.825	.060	-.012		.55	-.40	-.173		
-.50	.65	.850	.078	-.002		.50	-.35	-.207		
-.45	.60	.875	.097	.003		.45	-.30	-.248		
-.40	.55	.900	.114	.010		.40	-.25	-.307		
-.35	.50	.925	.133	.012		.35	-.20	-.388		
-.30	.45	.950	.156	.018		.30	-.15	-.523		
-.25	.40	.975	.181	.020		.25	-.10	-.793		
-.20	.35	1.000	.213	.018		.20	-.05	-1.590		
-.15	.30	1.025	.254	.023		.15	0	------		
-.10	.25	1.050	.312	.034		.10	.05	1.591		
-.05	.20	1.075	.391	.043		.05	.10	.794		
0	.15	1.100	.526	0		0	.15	.526		

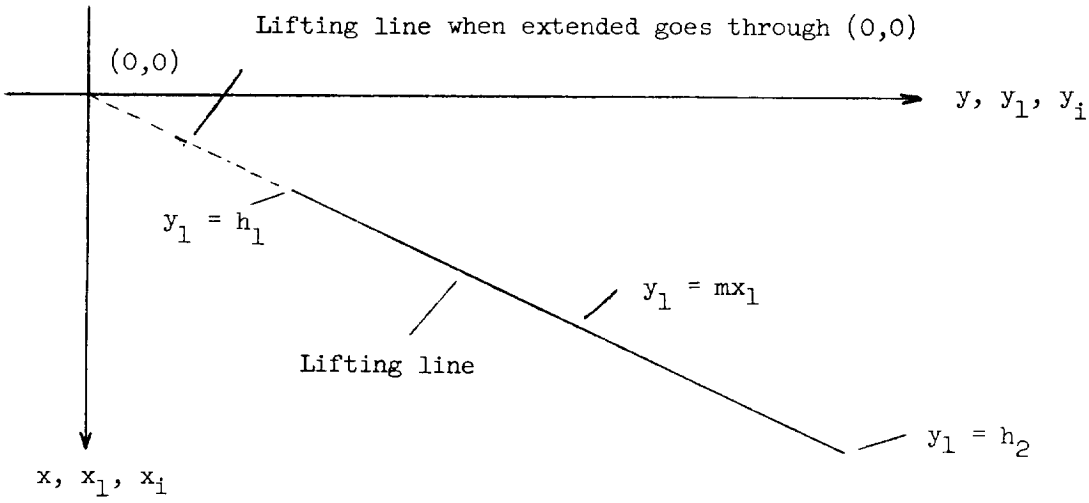
[a] Equation (15) nondimensionalized by $V_\infty \alpha$.

TABLE VIII.- ILLUSTRATION OF USE OF CHARTS TO CALCULATE ROLLING SIDEWASH OFF PLANE OF SYMMETRY BEHIND WING OF FIGURE 8

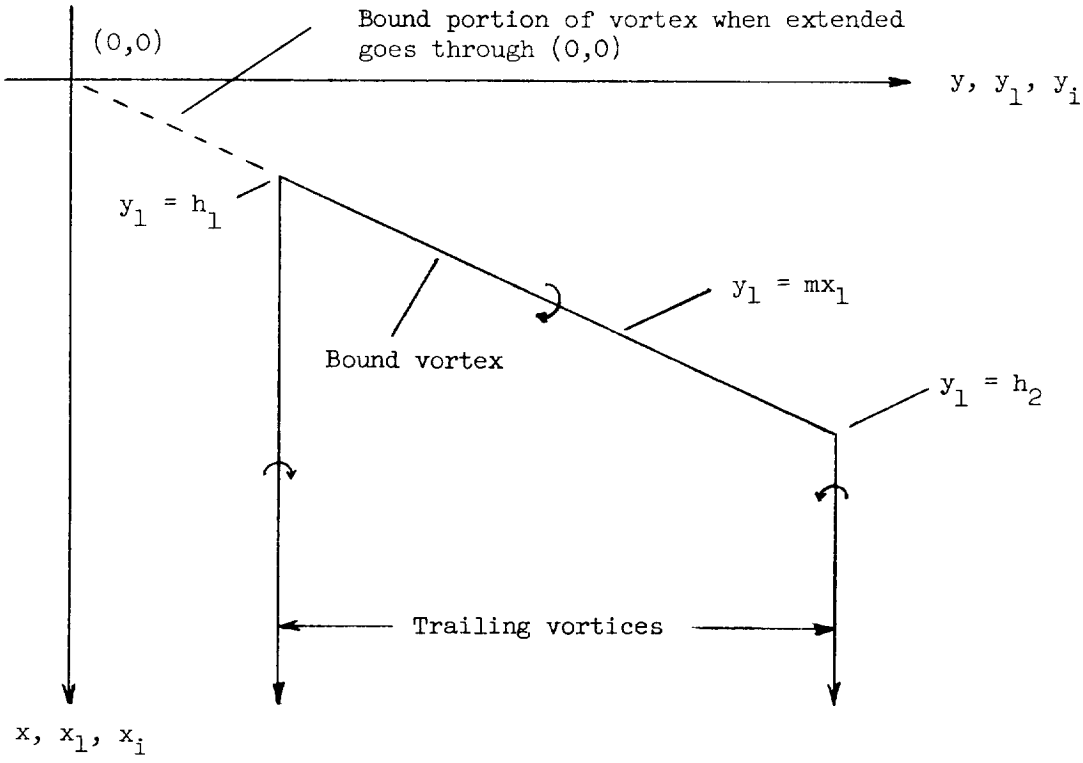
$[M = 1.64;\ x_o = 2.0;\ y_o = 0.15;\ z_o = 0.20;\ \beta m = 2.0]$

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
$y_{i,o}$	$Y_{i,o} = 0.15 - ①$	$\bar{X}_i$	$F_v(Y_{i,o})$ from figure 7	$\frac{\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}}{p(b/2)^2}$	$\sum_{i=n_1}^{0} ④ ⑤$	$y_{i,o}$	$Y_{i,o} = 0.15 - ⑦$	$F_v(Y_{i,o})$ from figure 7	$\sum_{i=0}^{h_2} ⑨ (-⑤)$	$\frac{v}{V_\infty}\Big/\frac{pb}{2V_\infty} = -\sum_{i=n_1}^{0} ④ ⑤ + \sum_{i=0}^{n_2} ⑨(-⑤)$ (a)
-1.0	1.15	0.500	0	0.358	-0.085	1.0	-0.85	0	0.224	0.309
-.95	1.10	.525	0	.464		.95	-.80	0		
-.90	1.05	.550	0	.169		.90	-.75	0		
-.85	1.00	.575	0	.092		.85	-.70	0		
-.80	.95	.600	0	.016		.80	-.65	0		
-.75	.90	.625	0	-.052		.75	-.60	0		
-.70	.85	.650	0	-.076		.70	-.55	0		
-.65	.80	.675	0	-.072		.65	-.50	.091		
-.60	.75	.700	0	-.072		.60	-.45	.095		
-.55	.70	.725	0	-.072		.55	-.40	.100		
-.50	.65	.750	.082	-.075		.50	-.35	.116		
-.45	.60	.775	.069	-.077		.45	-.30	.138		
-.40	.55	.800	.068	-.075		.40	-.25	.169		
-.35	.50	.825	.073	-.076		.35	-.20	.210		
-.30	.45	.850	.080	-.073		.30	-.15	.266		
-.25	.40	.875	.092	-.075		.25	-.10	.329		
-.20	.35	.900	.109	-.074		.20	-.05	.385		
-.15	.30	.925	.133	-.069		.15	0	.408		
-.10	.25	.950	.165	-.063		.10	.05	.384		
-.05	.20	.975	.208	-.064		.05	.10	.327		
0	.15	1.000	.263	-.035		0	.15	.263		

[a] Equation (16) nondimensionalized by $pb/2$.

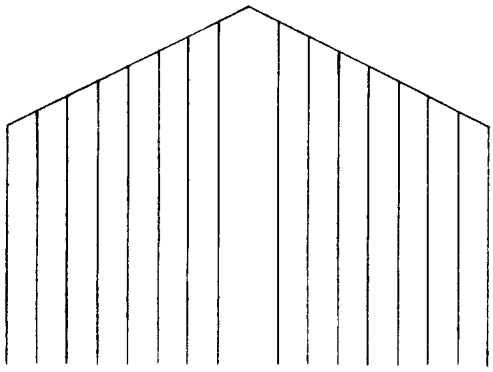


(a) Lifting line.

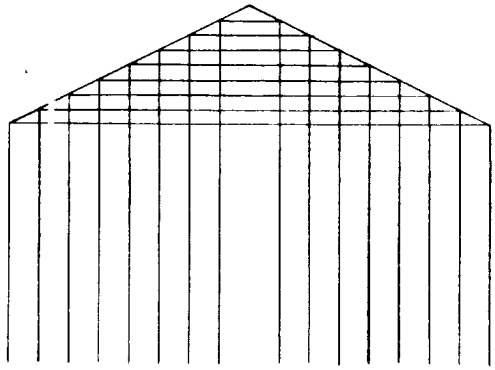


(b) Yawed horseshoe vortex.

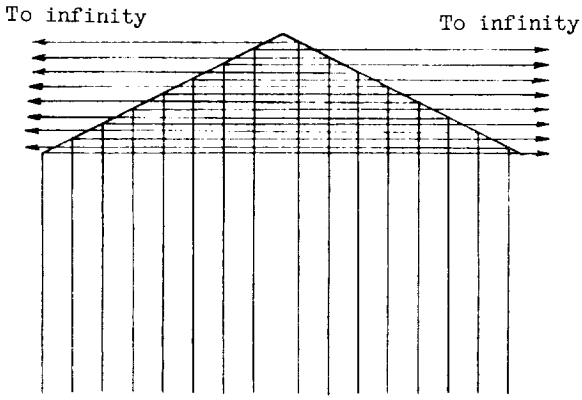
Figure 1.- Sketch of lifting line and yawed horseshoe vortex showing symbol notation and axis system used in text.



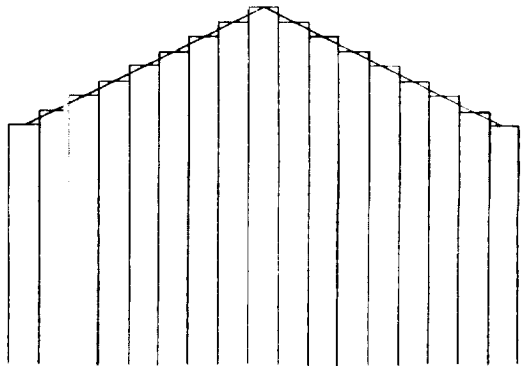
(a) Swept lifting line approximated by a series of semi-infinite yawed horseshoe vortices.



(b) Swept lifting line approximated by a series of semi-infinite unswept horseshoe vortices. Symmetrical loading and symmetrically distributed points.

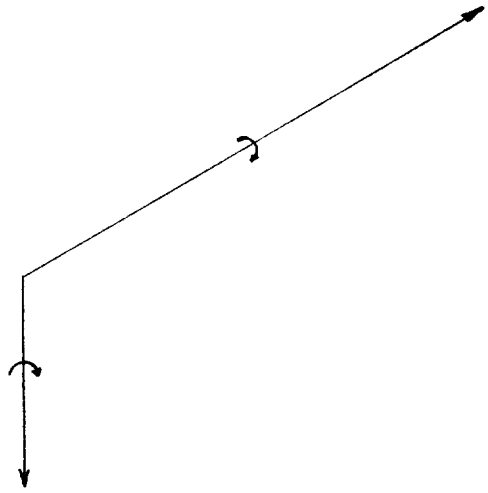


(c) Swept lifting line approximated by a series of semi-infinite unswept horseshoe vortices. Unsymmetrical loading and/or unsymmetrically distributed points.

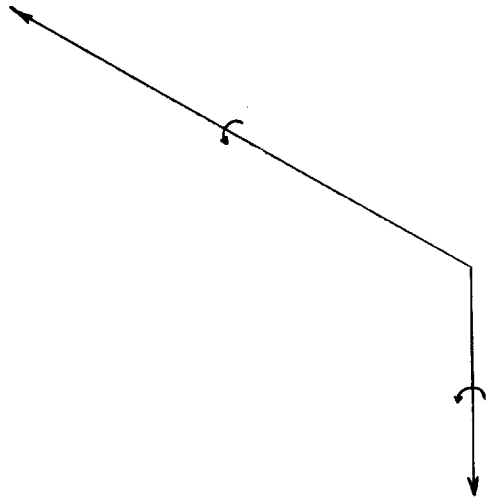


(d) Swept lifting line approximated by a series of finite rectangular horseshoe vortices.

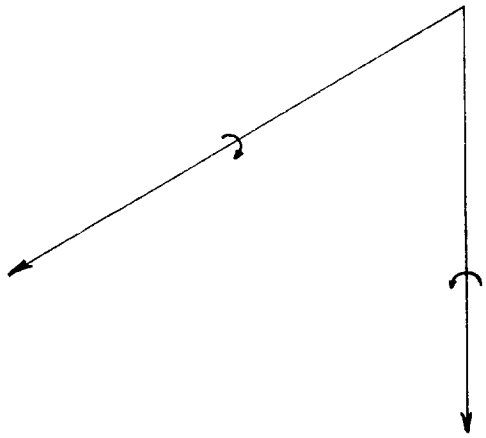
Figure 2.- Swept lifting line approximated by distributions of various types of vortices.



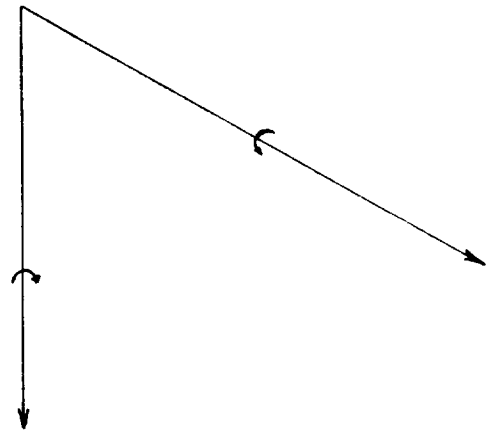
(a) Type of semi-infinite yawed horseshoe vortex described by first terms of equations (1) and (2) with $\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}$ negative.



(b) Type of semi-infinite yawed horseshoe vortex described by second terms of equations (1) and (2) with $\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}$ negative.



(c) Type of semi-infinite yawed horseshoe vortex described by first terms of equations (1) and (2) with $\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}$ positive.



(d) Type of semi-infinite yawed horseshoe vortex described by second terms of equations (1) and (2) with $\Gamma_{y_{i+1}} - \Gamma_{y_{i-1}}$ positive.

Figure 3.- Types of semi-infinite yawed horseshoe vortices represented in equations (1) and (2).

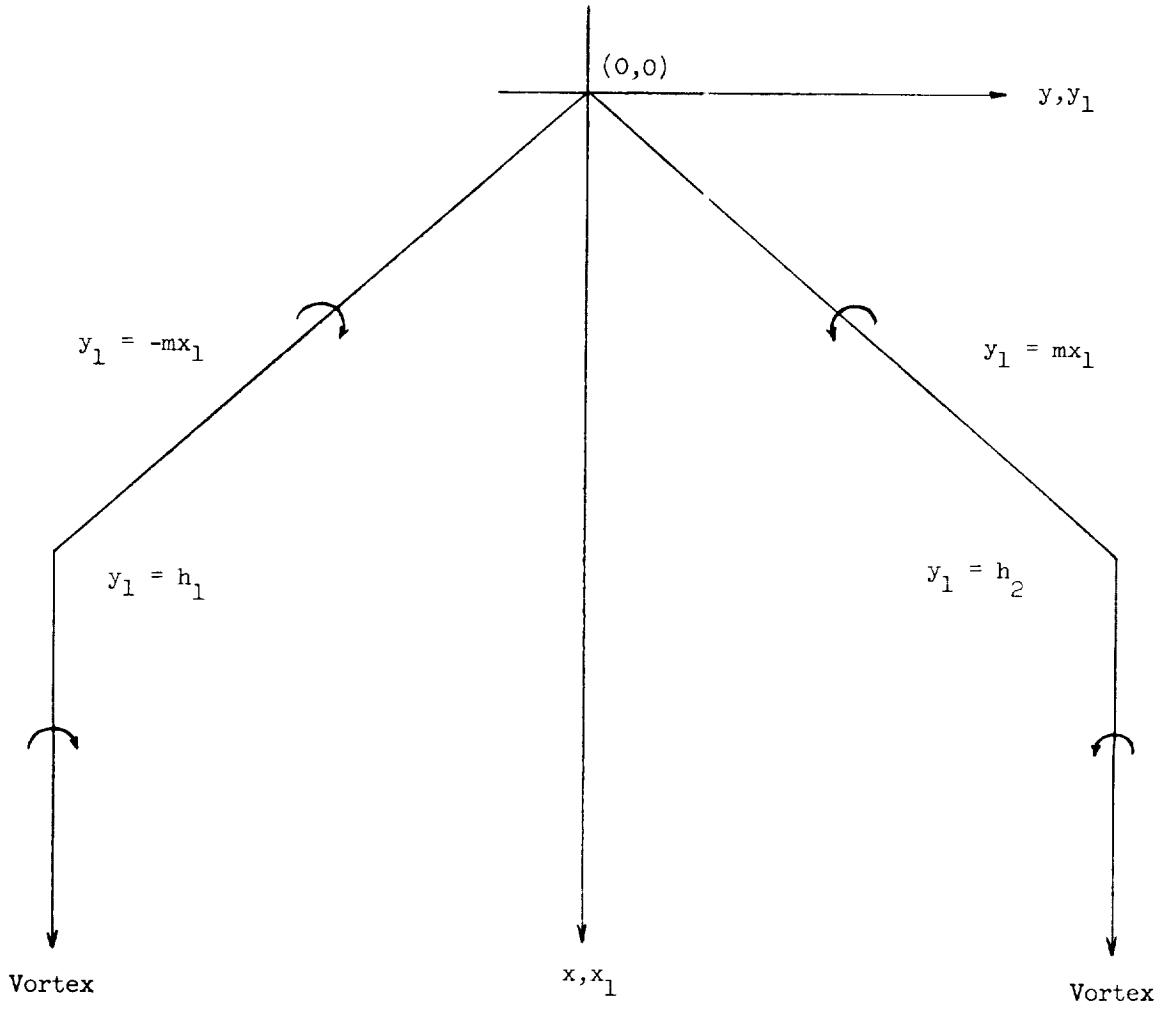


Figure 4.- Swept horseshoe vortex.

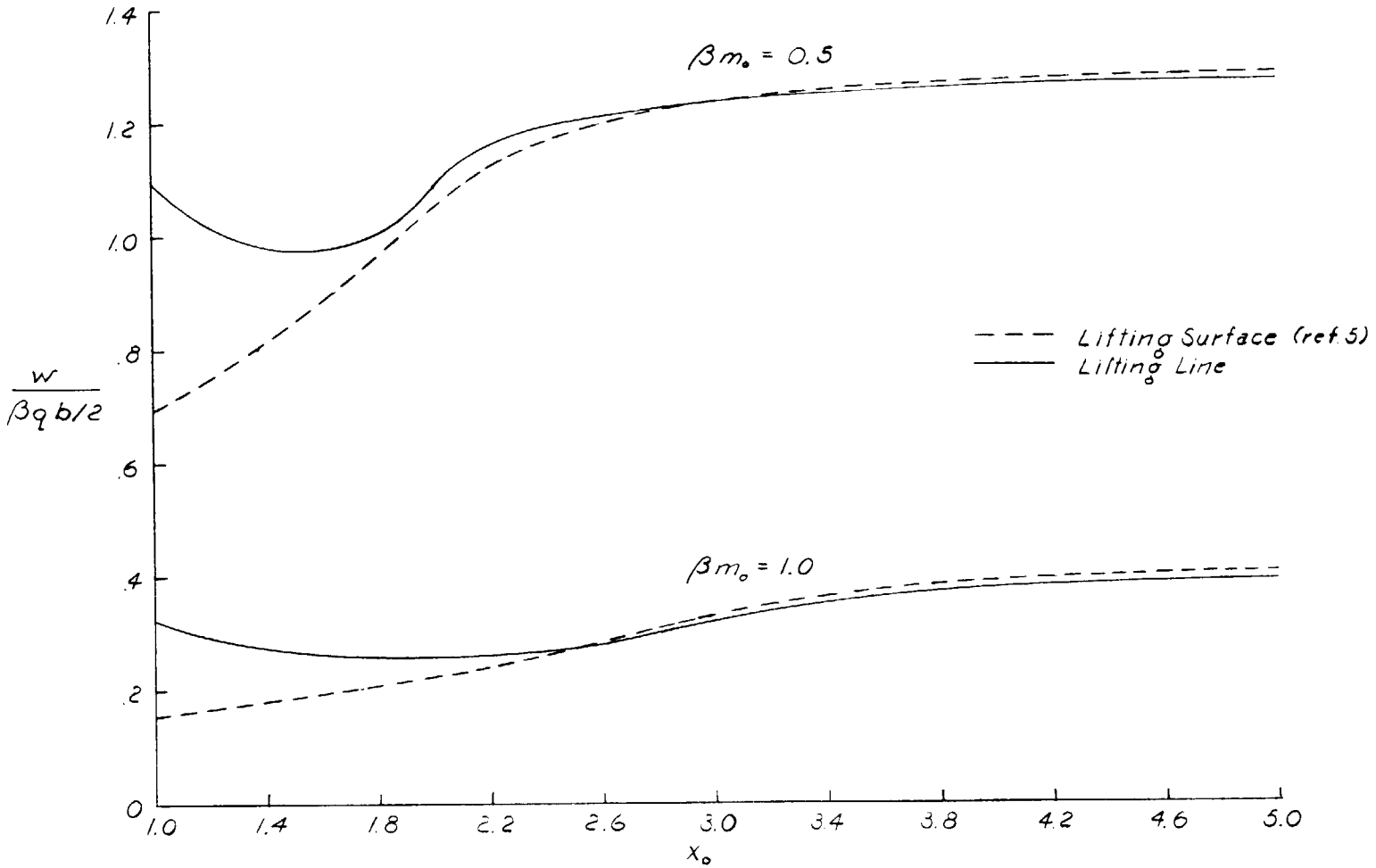
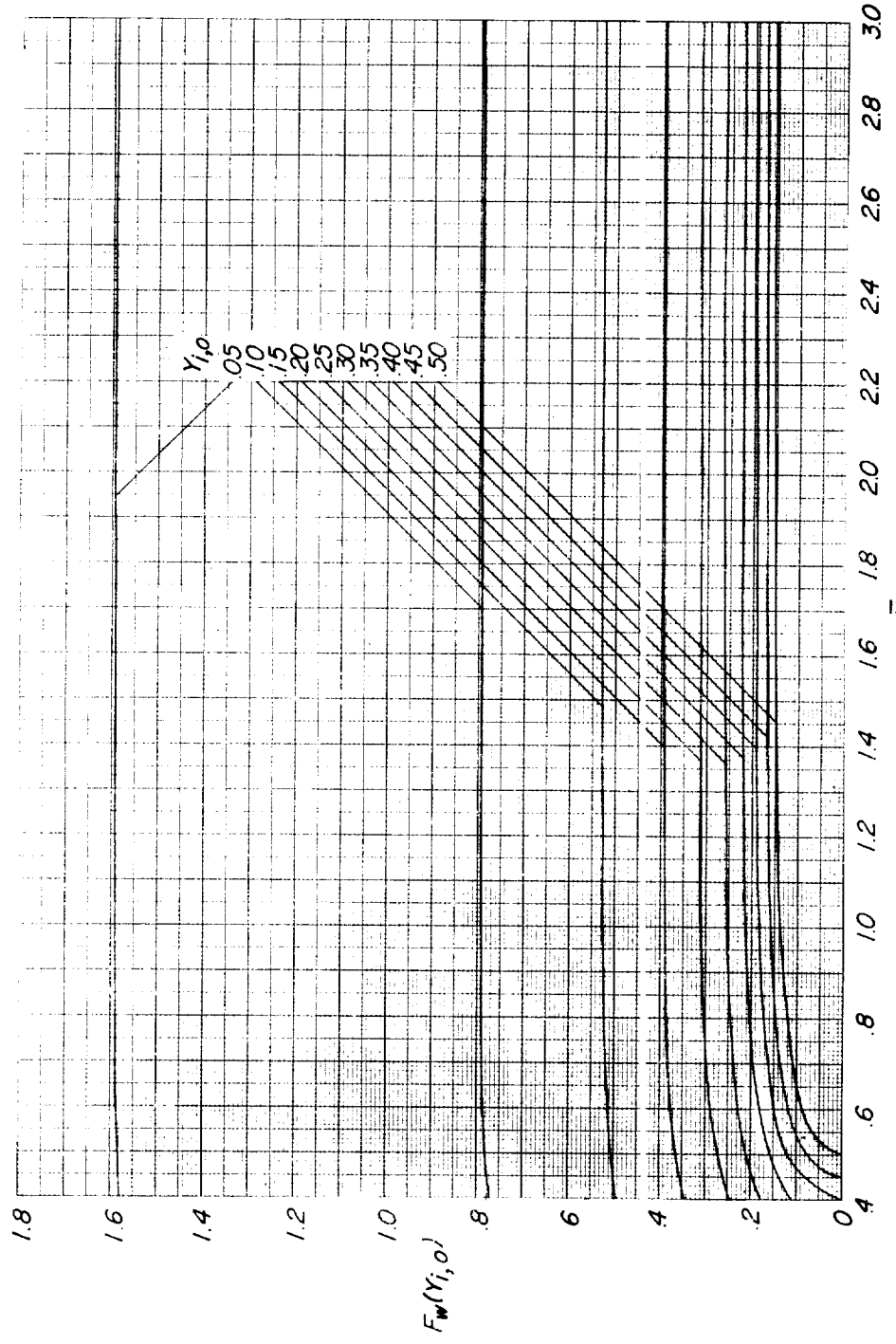
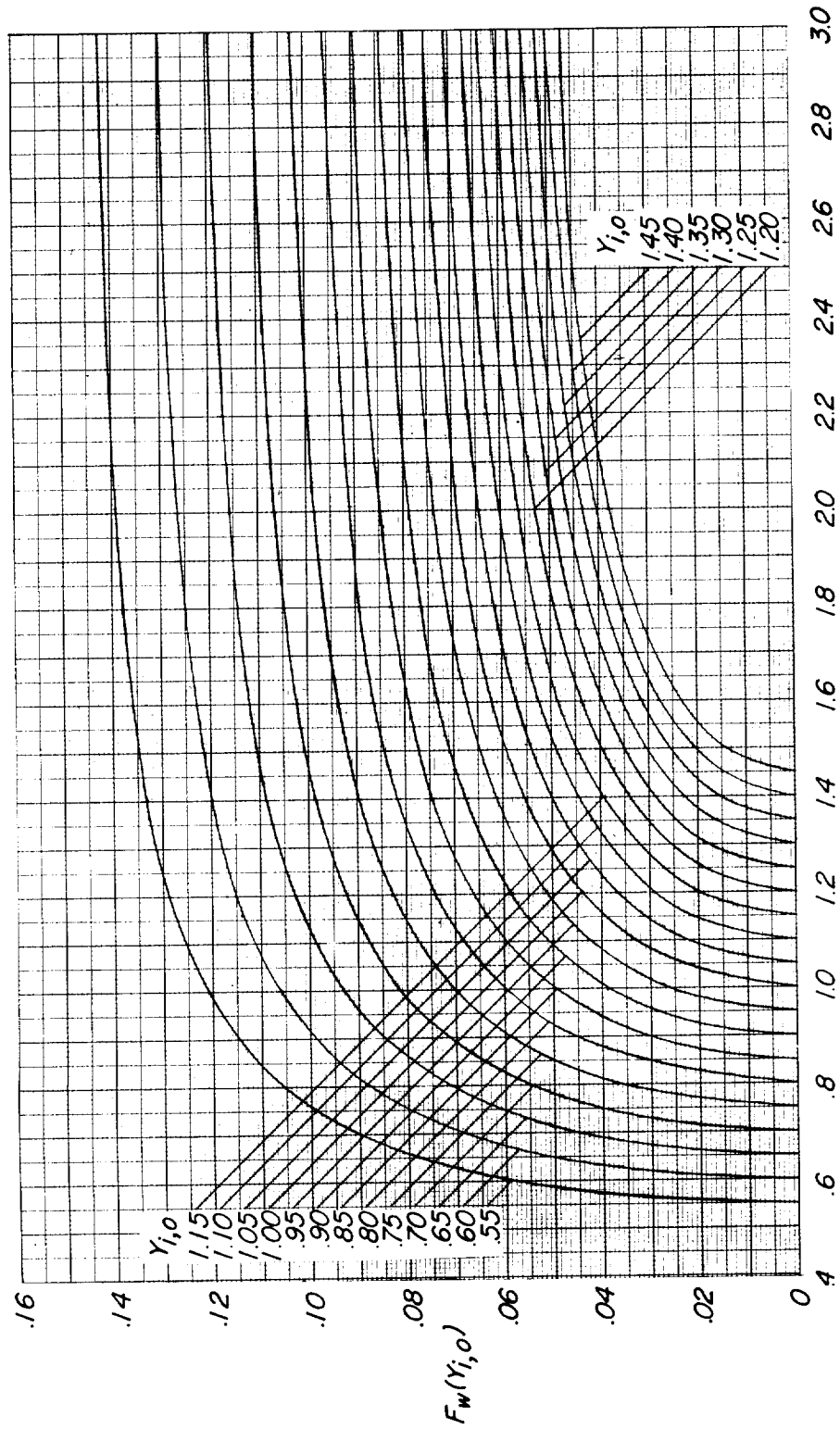


Figure 5.- Variation along longitudinal axis of downwash due to pitching behind triangular wings with βm_0 values of 1.0 and 0.5. Pitch axis is located at the apexes of the triangular wings and the lifting lines are the midchord lines. x_0 is measured from the point of intersection of lifting line with root chord.



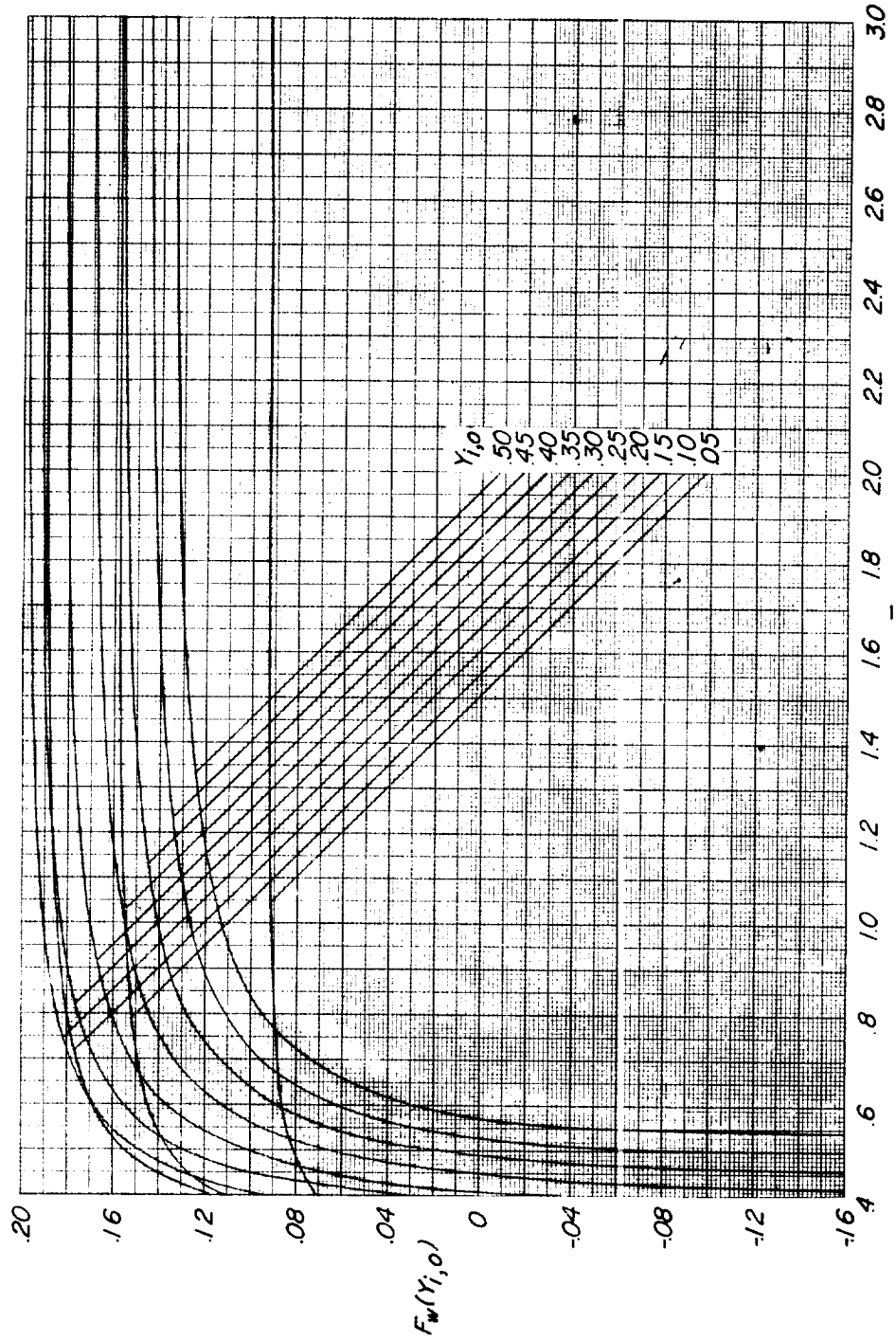
(a) $z_o = 0$; $Y_{i,o}$ values from 0.05 to 0.50.

Figure 6.- Variation of $F_w(Y_{i,o})$ function with $\bar{X}_i$ for $Y_{i,o}$ values from 0.05 to 1.45 and z_o values from 0 to 0.8.



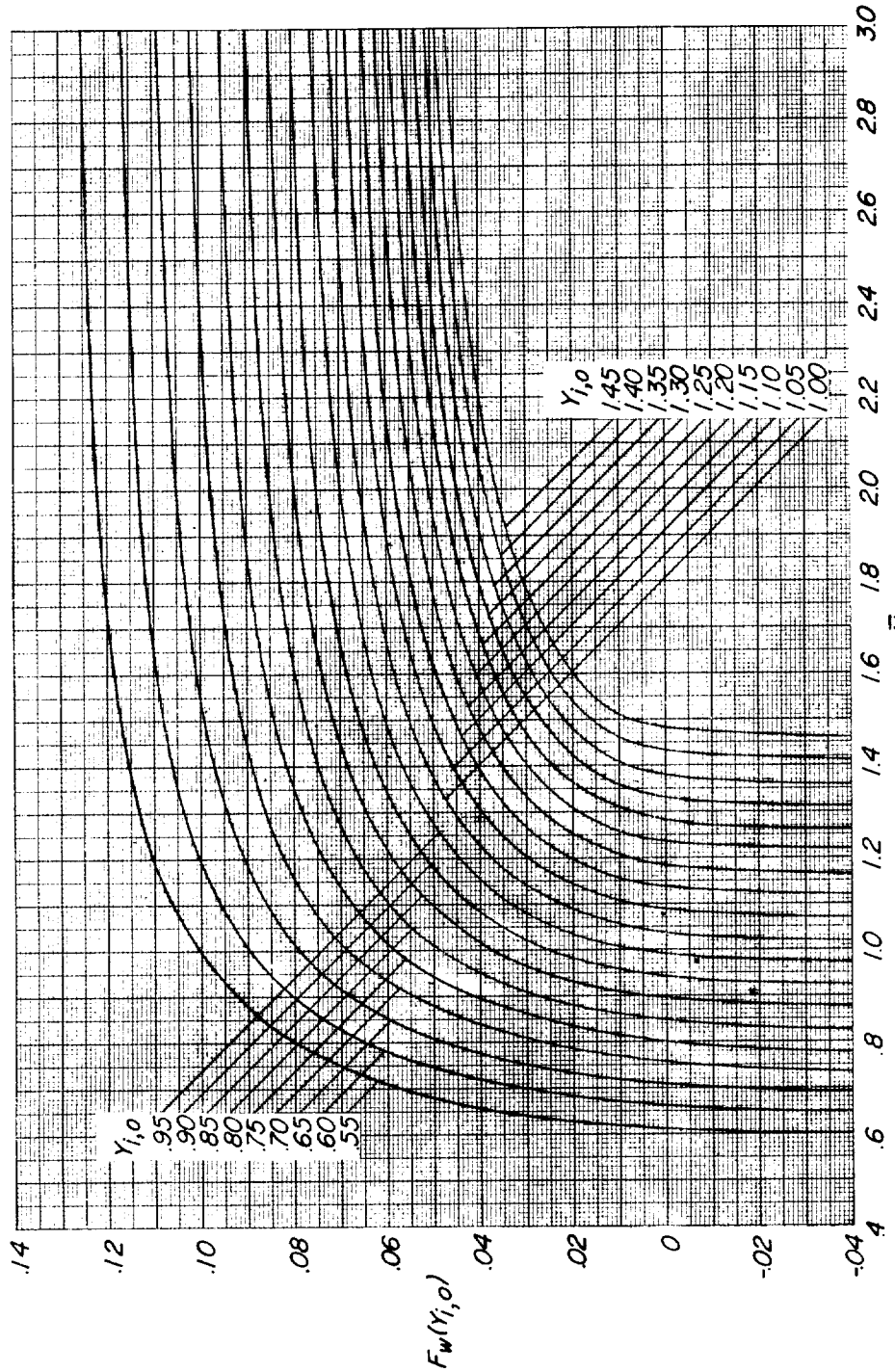
(b) $z_o = 0$; $Y_{i,o}$ values from 0.55 to 1.45.

Figure 6.- Continued.



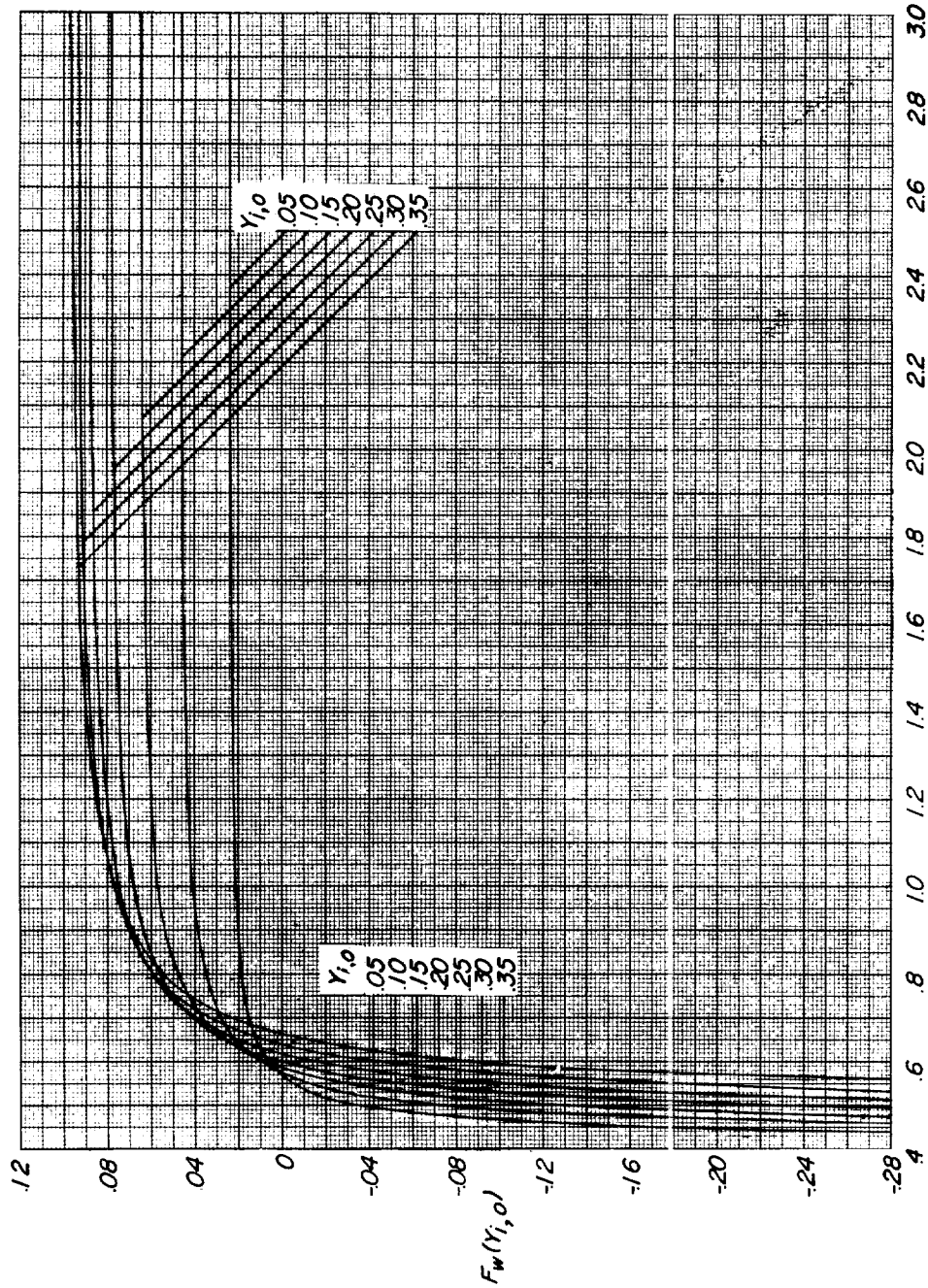
(c) $z_o = 0.2$; $Y_{i,o}$ values from 0.05 to 0.50.

Figure 6.- Continued.



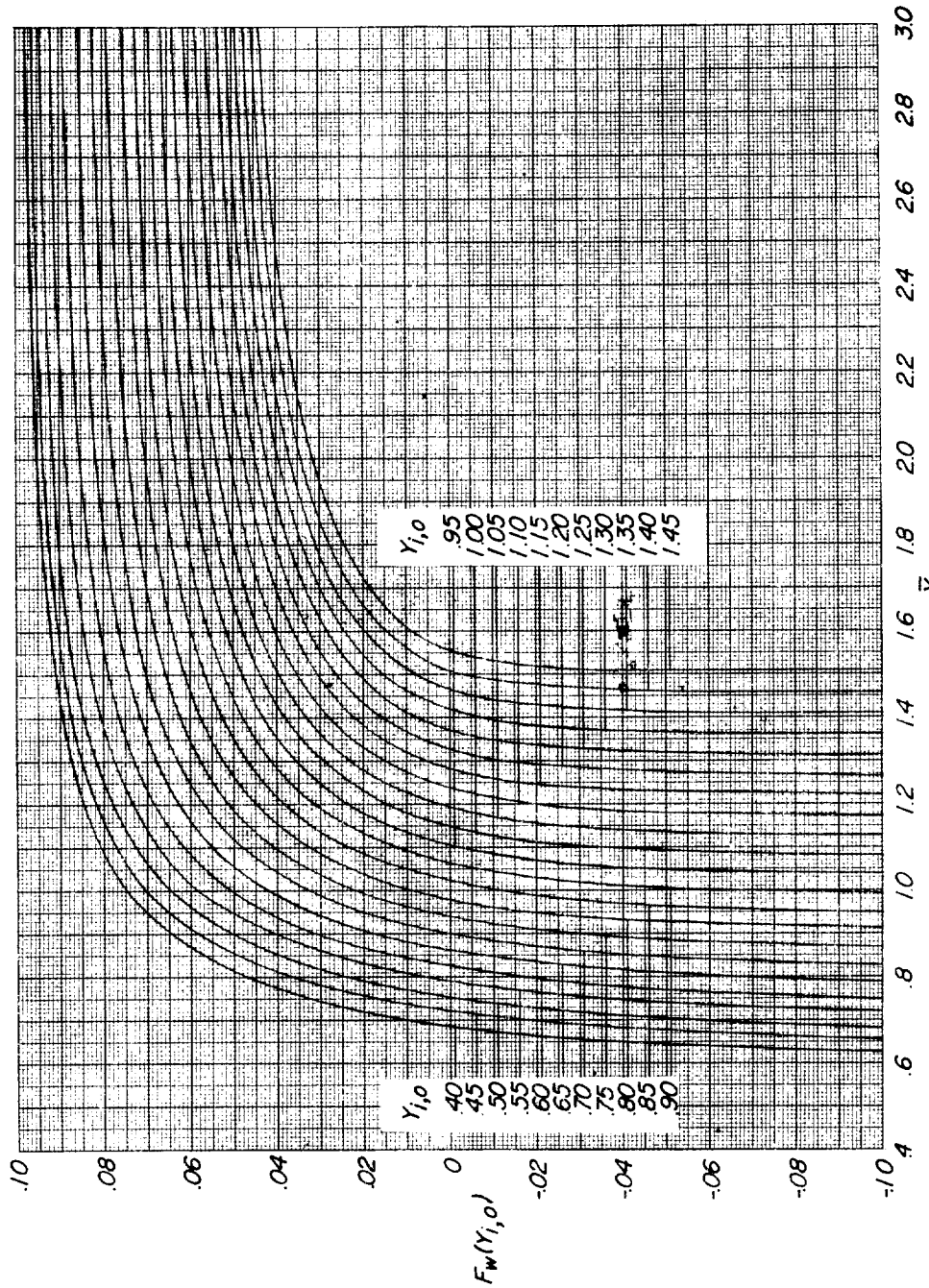
(d) $z_o = 0.2$; $Y_{i,o}$ values from 0.55 to 1.45.

Figure 6.- Continued.



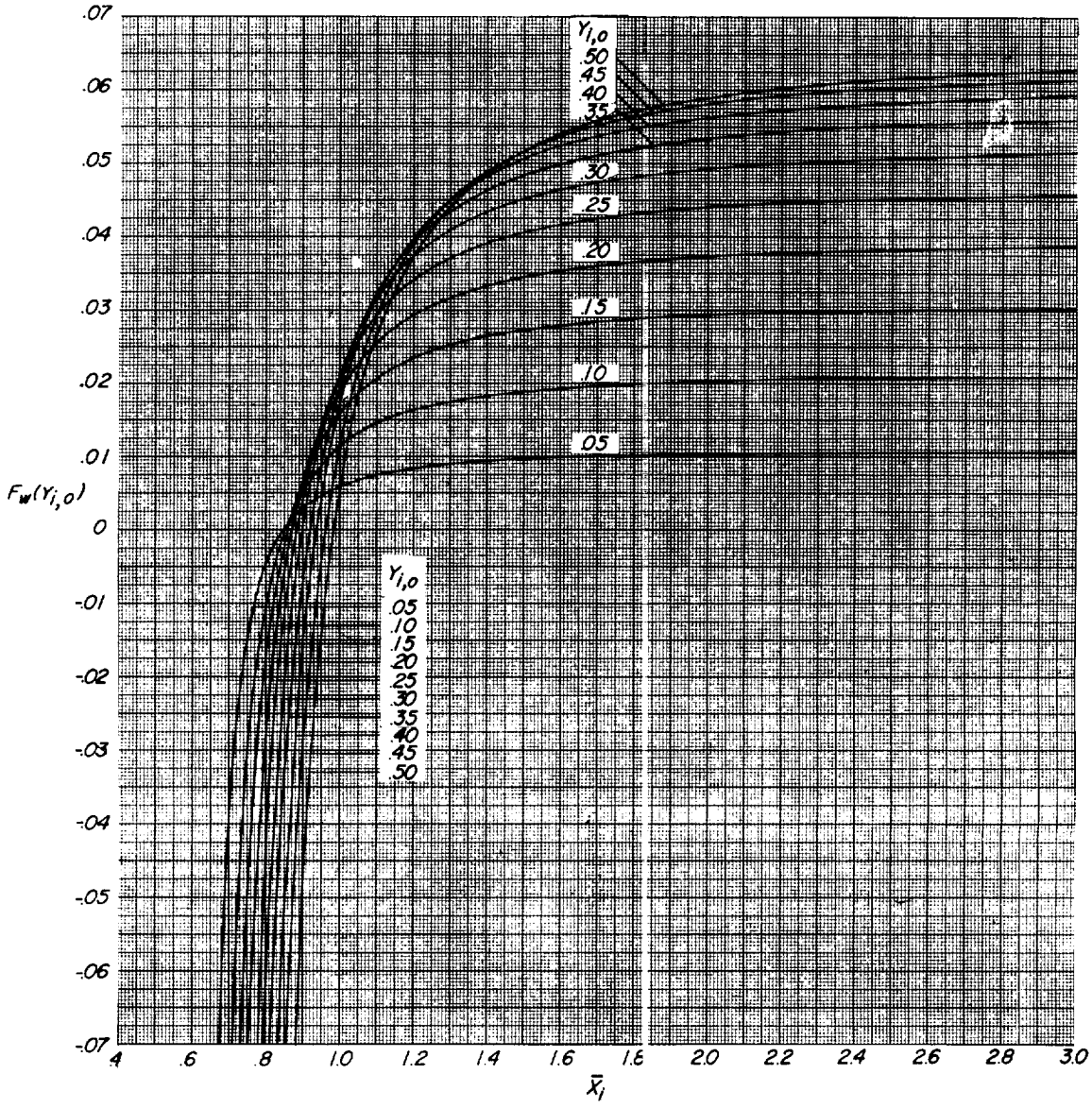
(e) $z_o = 0.4$; $Y_{i,o}$ values from 0.05 to 0.35.

Figure 6.- Continued.



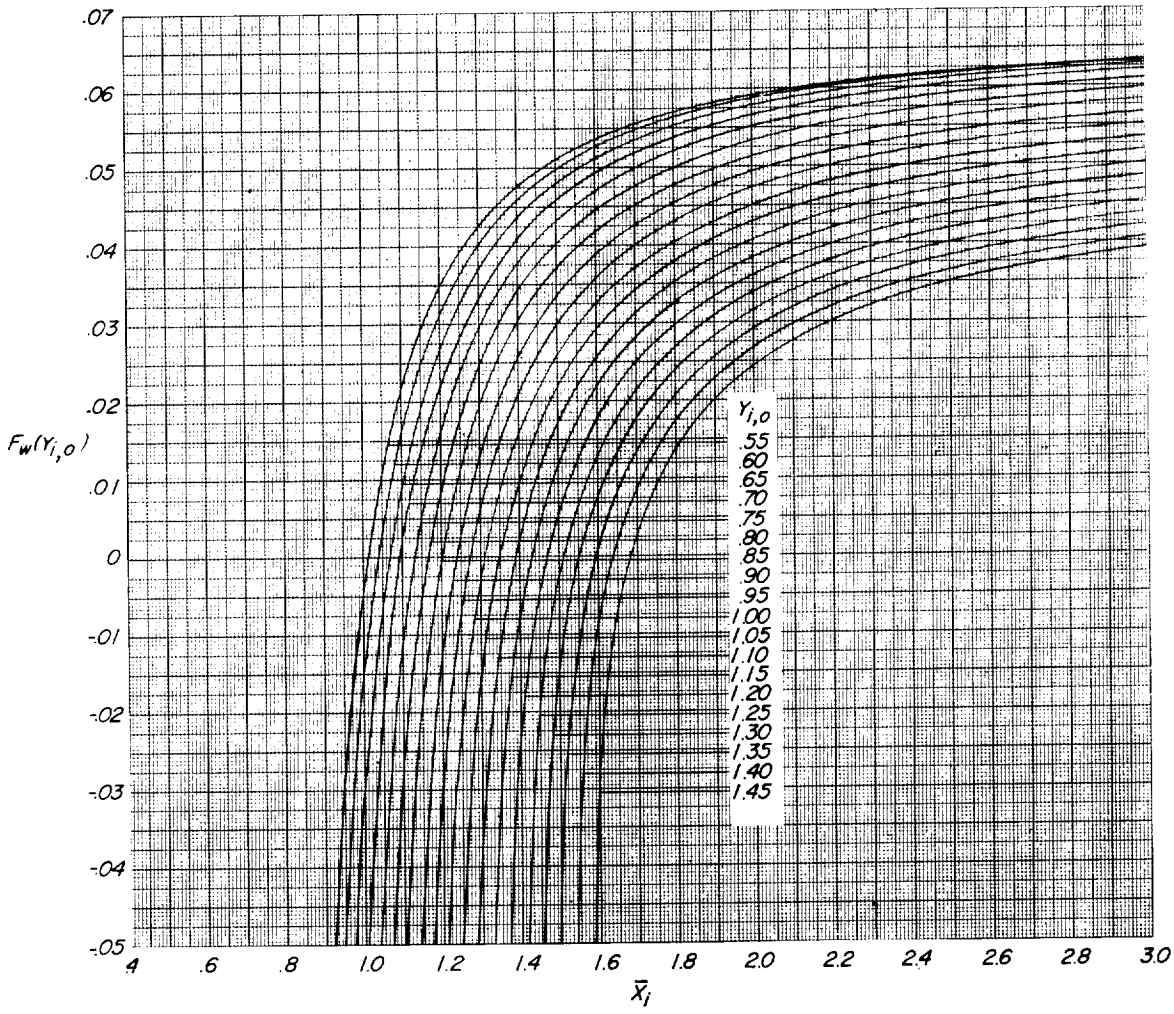
(f) $z_o = 0.4$; $Y_{i,o}$ values from 0.40 to 1.45.

Figure 6.- Continued.



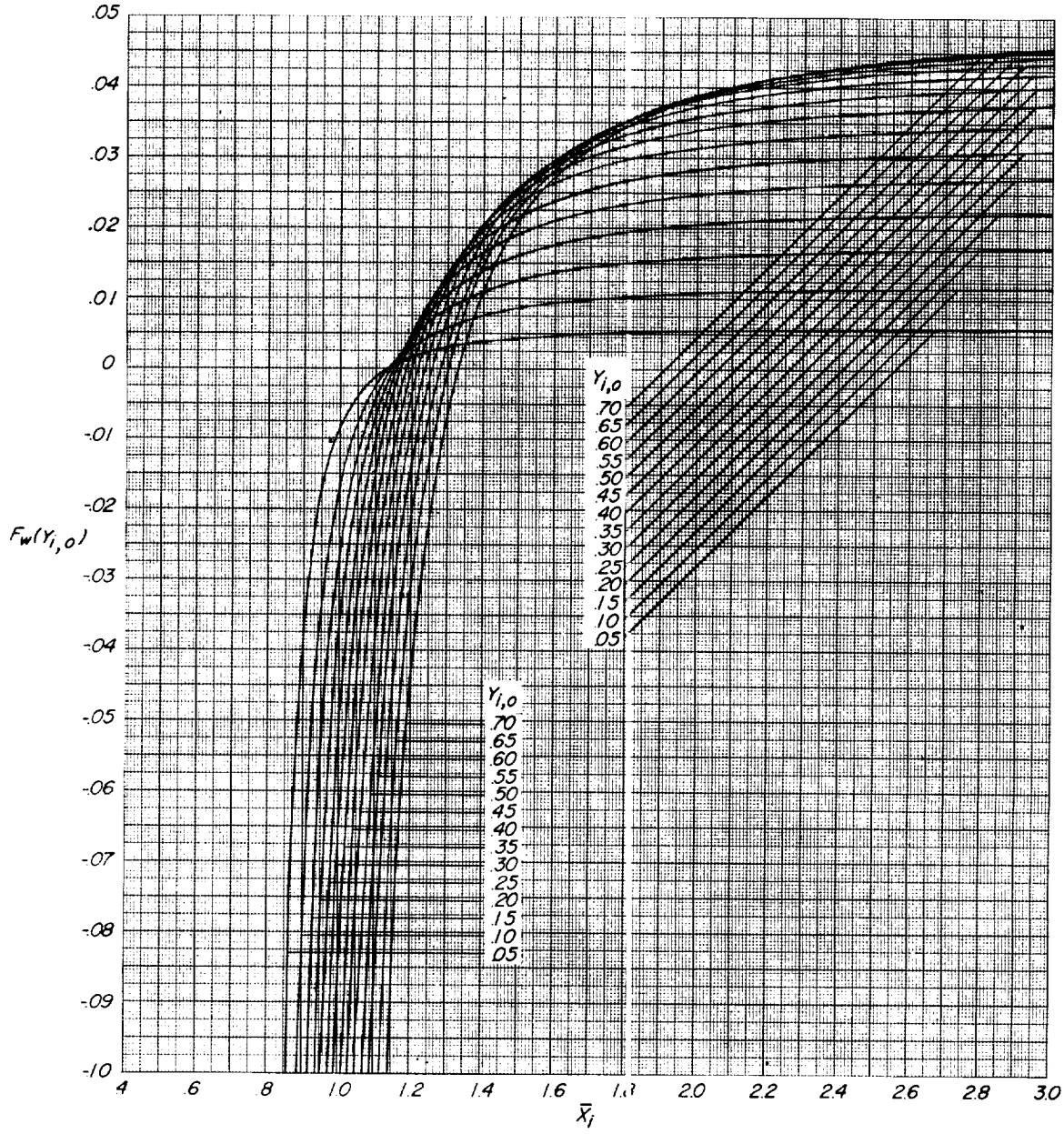
(g) $z_o = 0.6$; $Y_{i,o}$ values from 0.05 to 0.50.

Figure 6.- Continued.



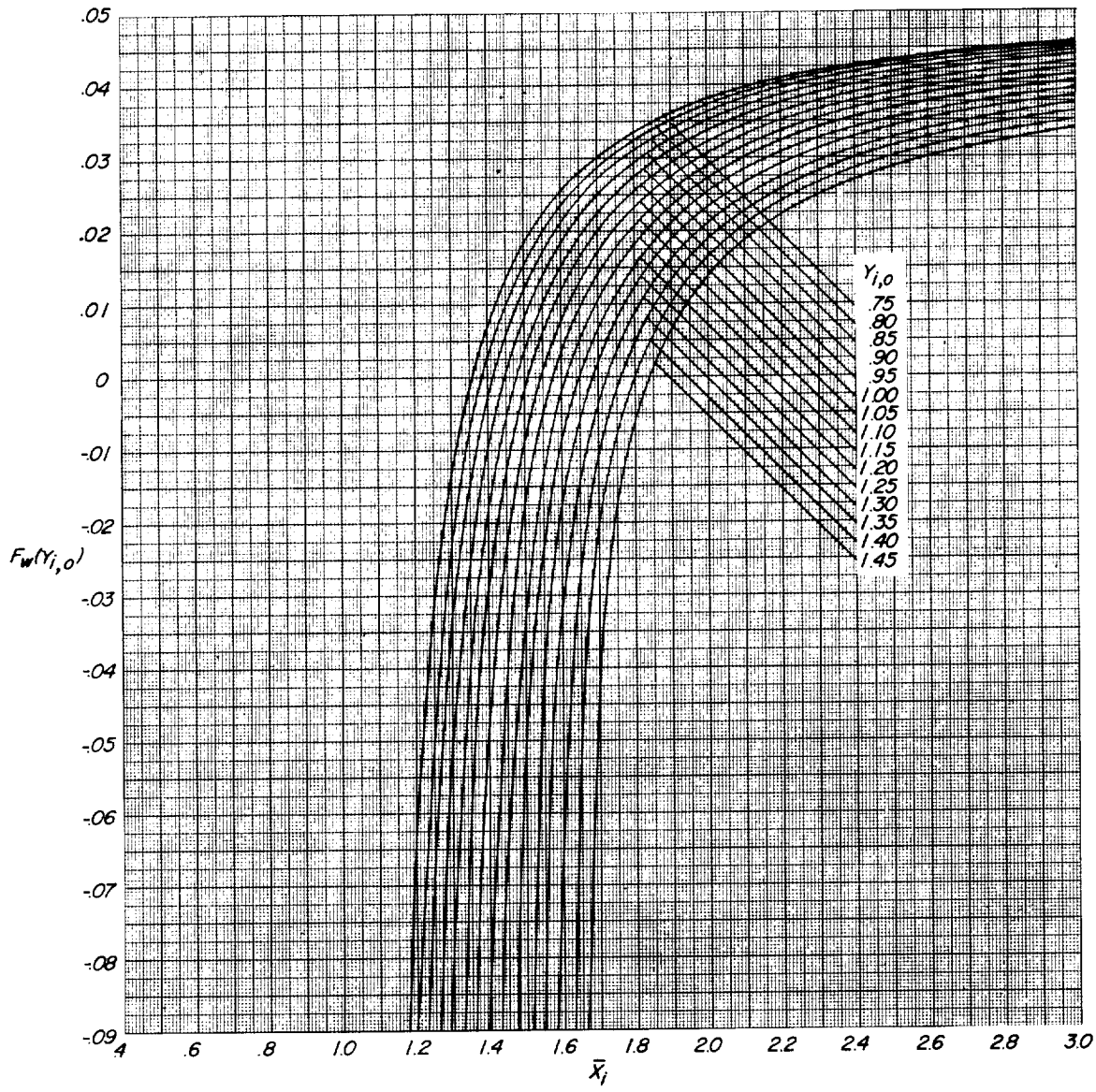
(h) $z_o = 0.6$; $Y_{i,o}$ values from 0.55 to 1.45.

Figure 6.- Continued.



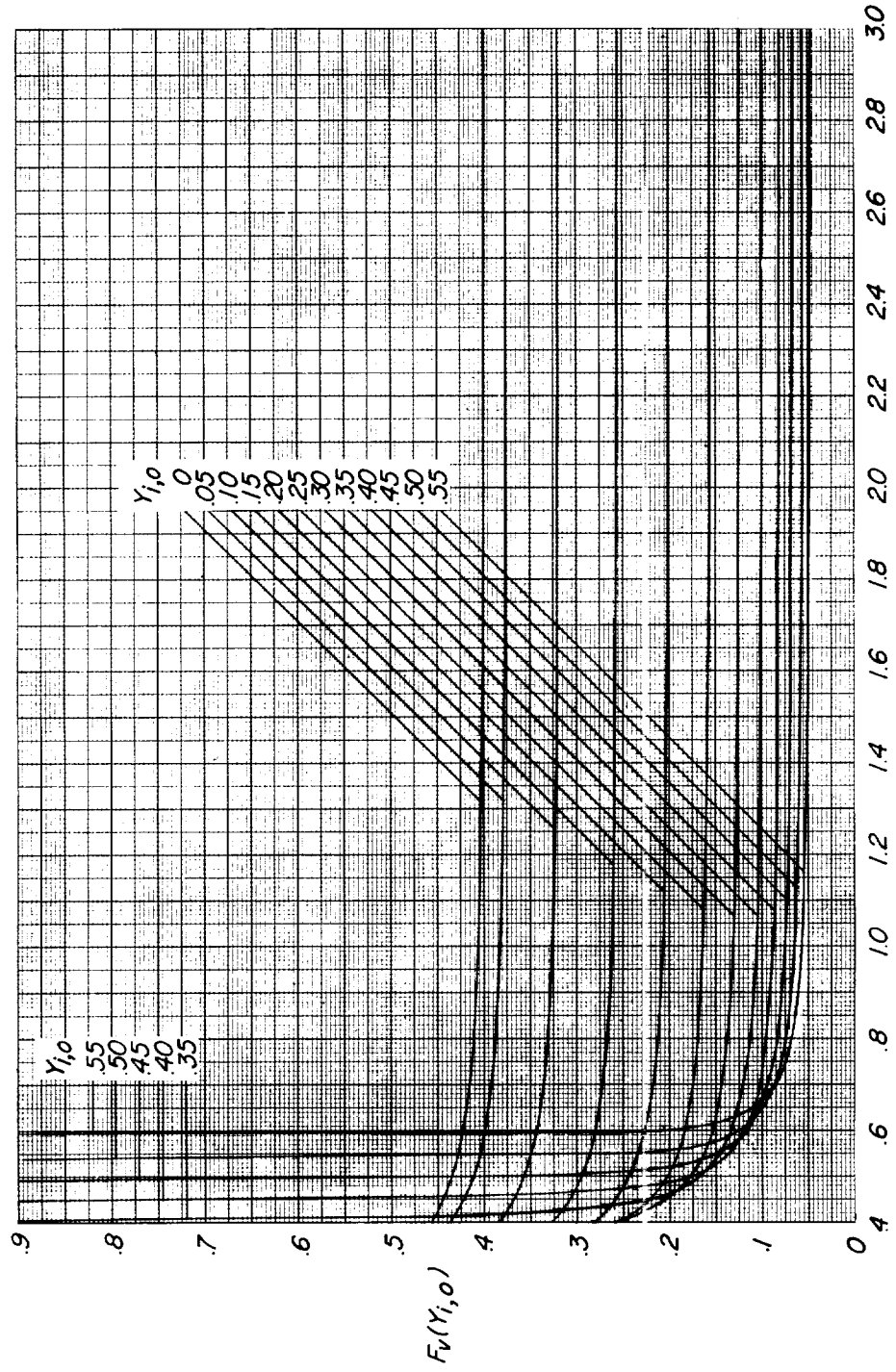
(i) $z_o = 0.8$; $Y_{i,o}$ values from 0.05 to 0.70.

Figure 6.- Continued.



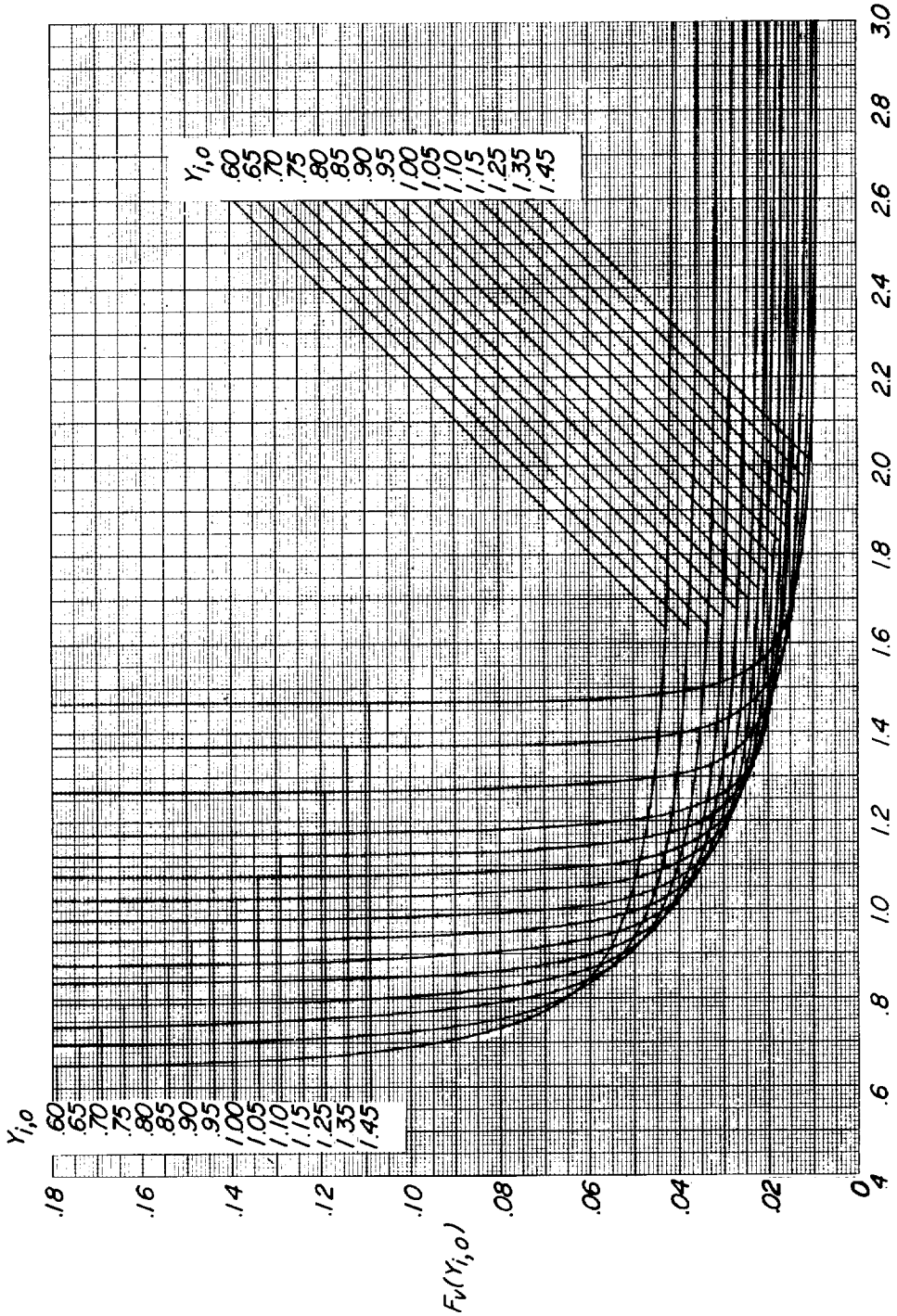
(j) $z_o = 0.8$; $Y_{i,o}$ values from 0.75 to 1.45.

Figure 6.- Concluded.



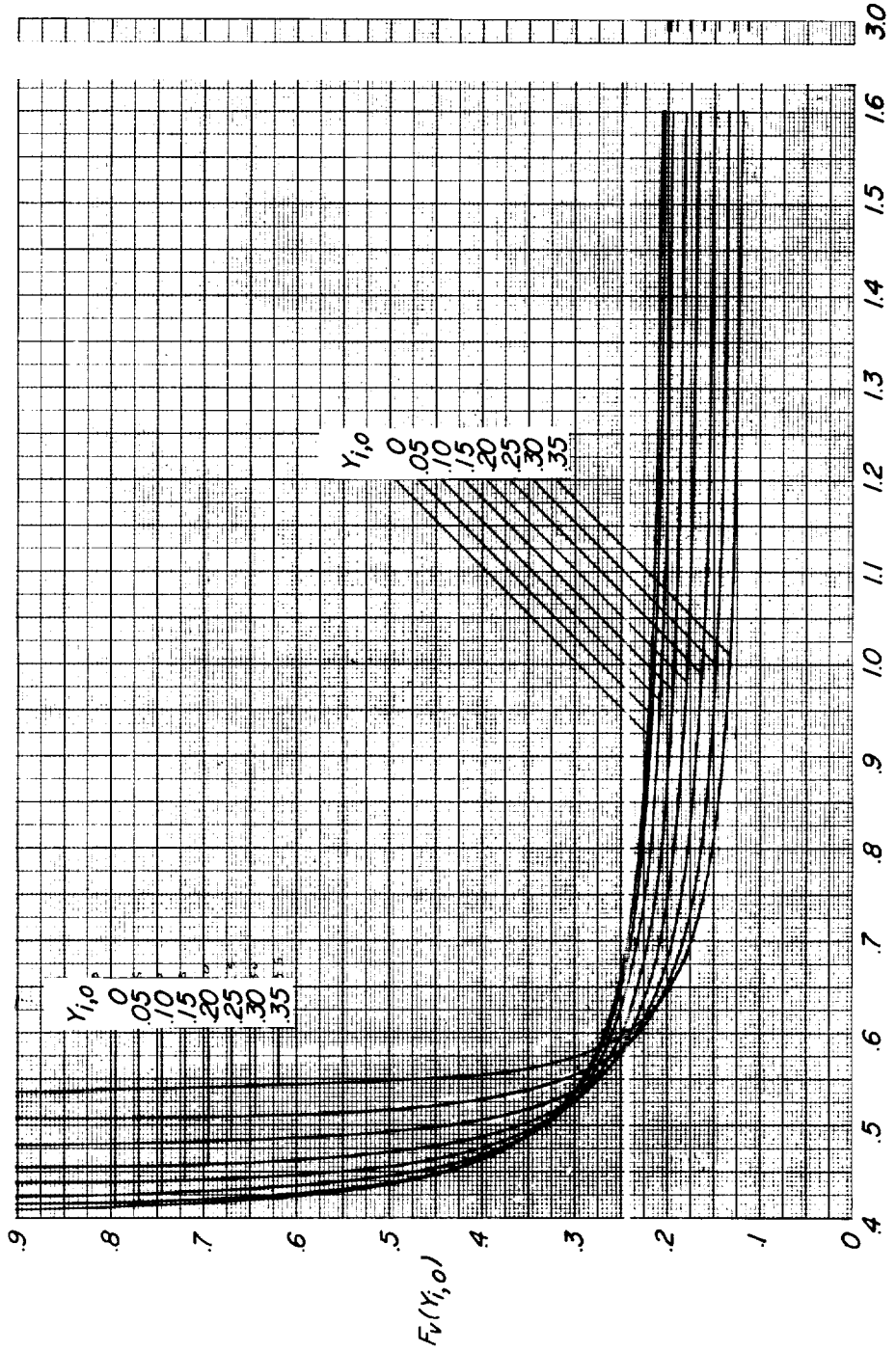
(a) $z_o = 0.2$; $Y_{i,o}$ values from 0 to 0.55.

Figure 7.- Variation of $F_v(Y_{i,o})$ function with $\bar{X}_i$ for $Y_{i,o}$ values from 0 to 1.45 and z_o values from 0.2 to 0.8.



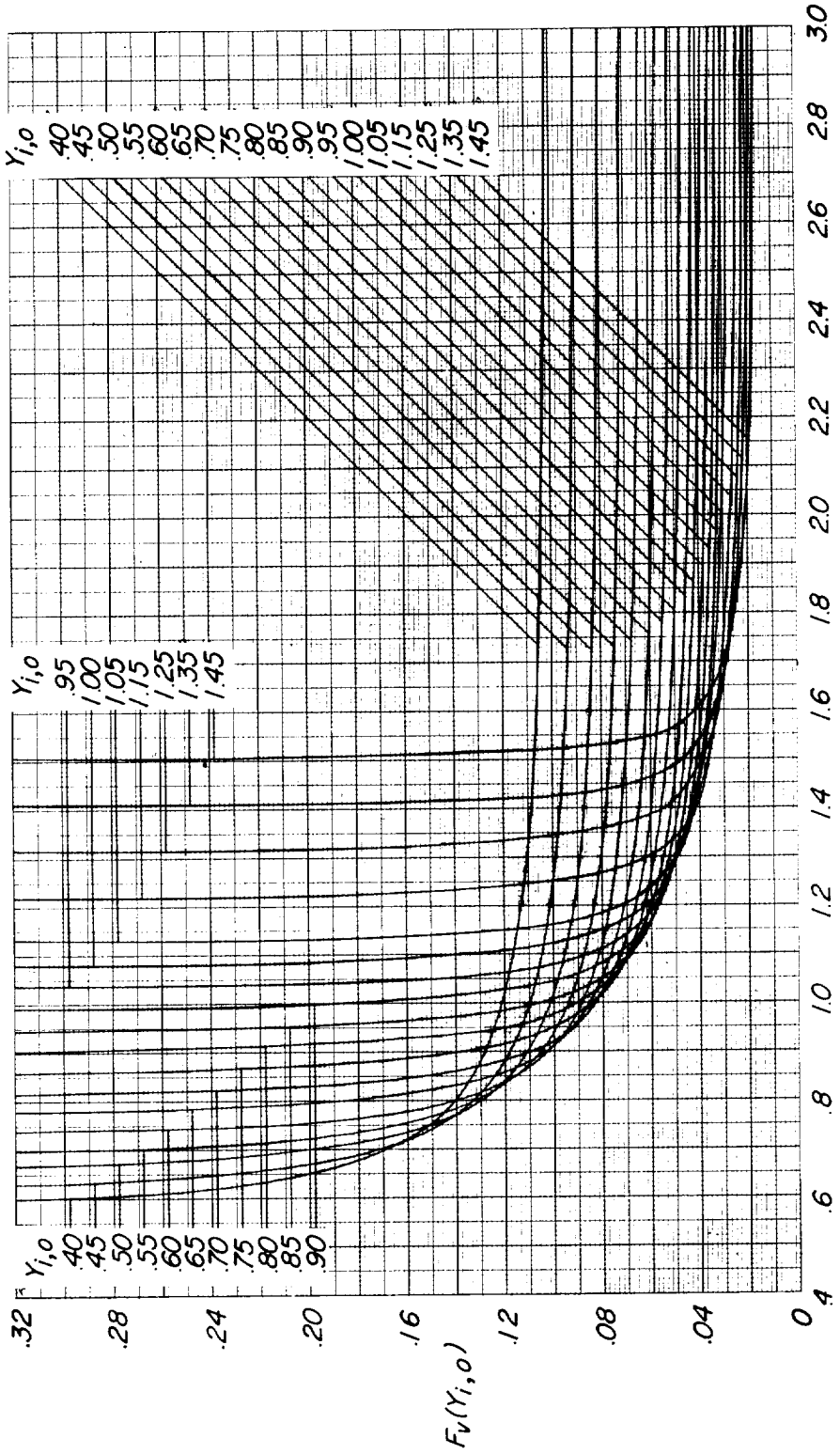
(b) $z_o = 0.2$; $Y_{i,o}$ values from 0.60 to 1.45.

Figure 7.- Continued.



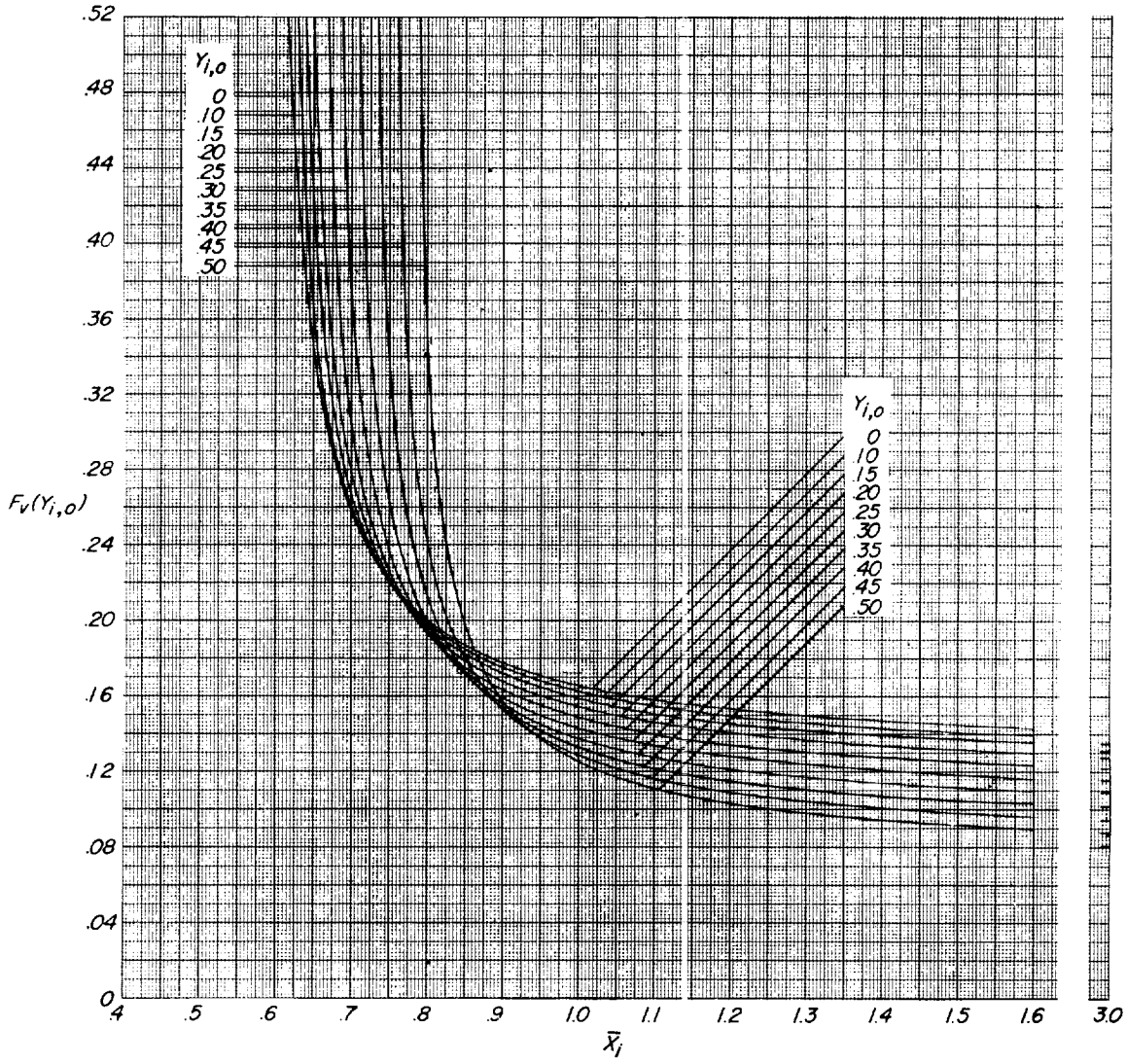
(c) $z_o = 0.4$; $Y_{i,o}$ values from 0 to 0.35.

Figure 7.- Continued.



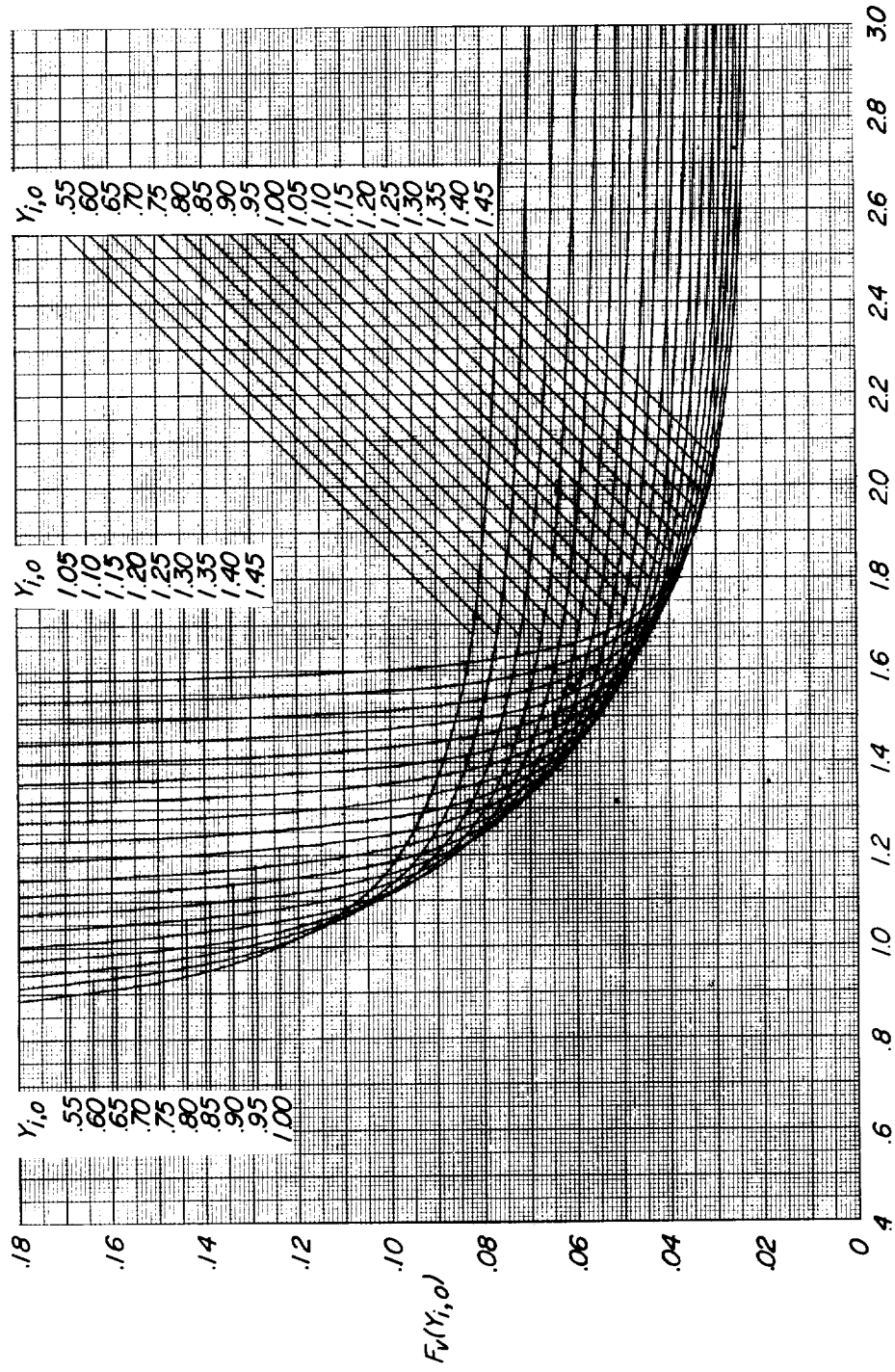
(d) $z_o = 0.4$; $Y_{i,o}$ values from 0.40 to 1.45.

Figure 7.- Continued.



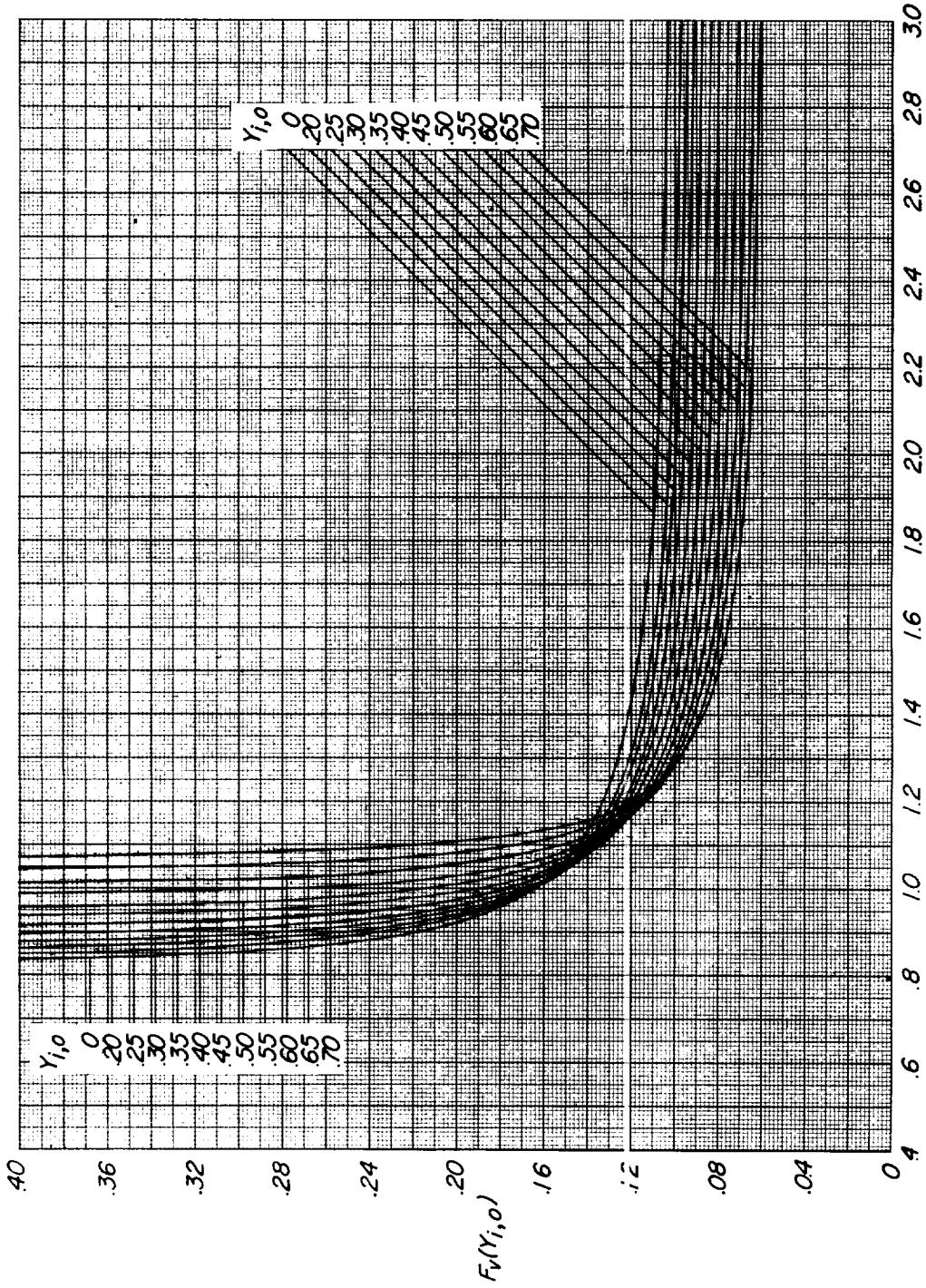
(e) $z_o = 0.6$; $Y_{i,o}$ values from 0 to 0.50.

Figure 7.- Continued.



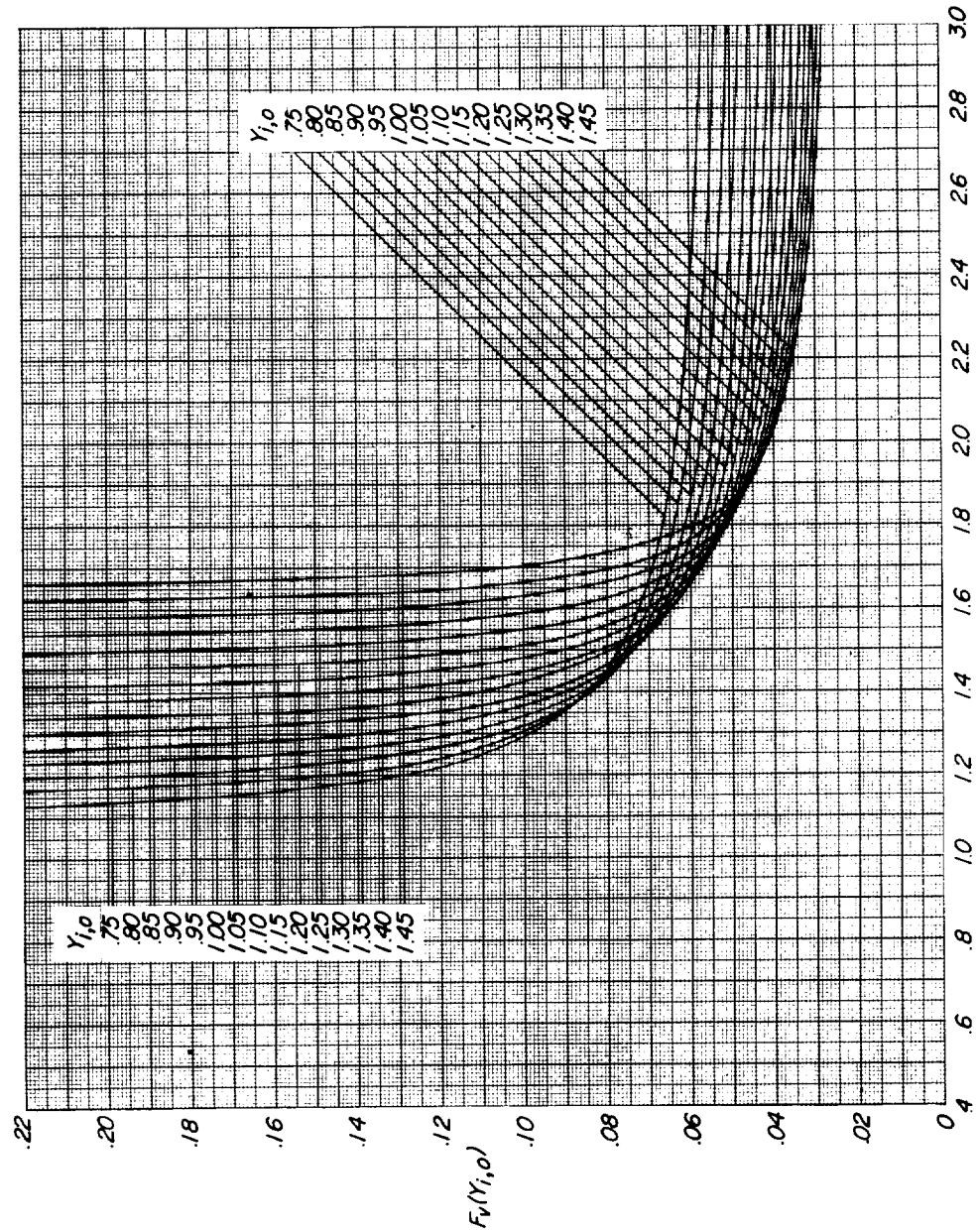
(f) $z_o = 0.6$; $Y_{i,o}$ values from 0.55 to 1.45.

Figure 7.- Continued.



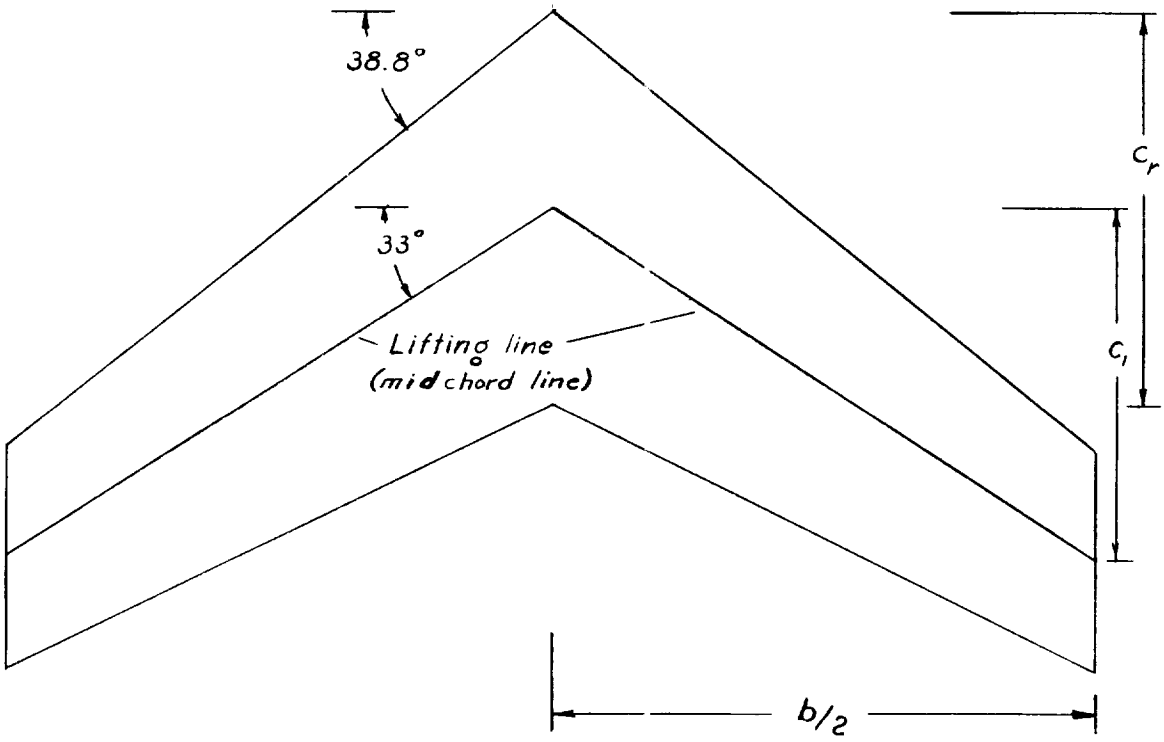
(g) $z_o = 0.8$; $Y_{i,o}$ values from 0 to 0.70.

Figure 7.- Continued.



(h) $z_o = 0.8$; $Y_{i,o}$ values from 0.75 to 1.45.

Figure 7.- Concluded.



$A = 3.57$
$\lambda = 0.565$
$m_o = 1.244$
$m = 1.54$

M	β	βA	βm_o	βm
1.35	0.91	3.24	1.13	1.4
1.64	1.30	4.64	1.62	2.0
2.19	1.95	6.96	2.43	3.0

Figure 8.- Wing plan form, Mach numbers and geometric quantities used to illustrate computing procedure. $A = 3.57$; $\lambda = 0.565$; $m_o = 1.244$; $m = 1.54$.

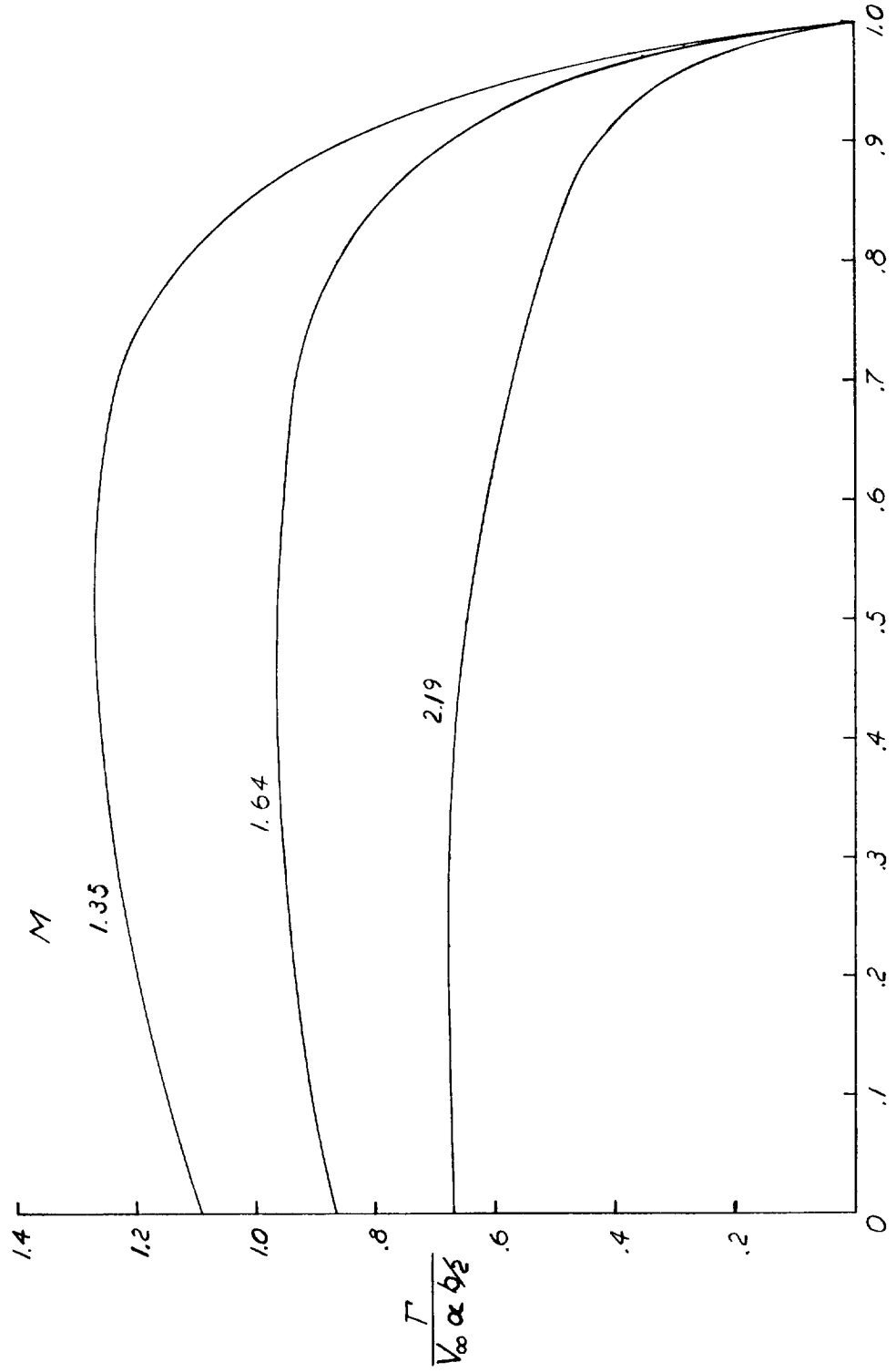


Figure 9.- Nondimensional spanwise distributions of circulation due to angle of attack for wing and Mach numbers given in figure 8.

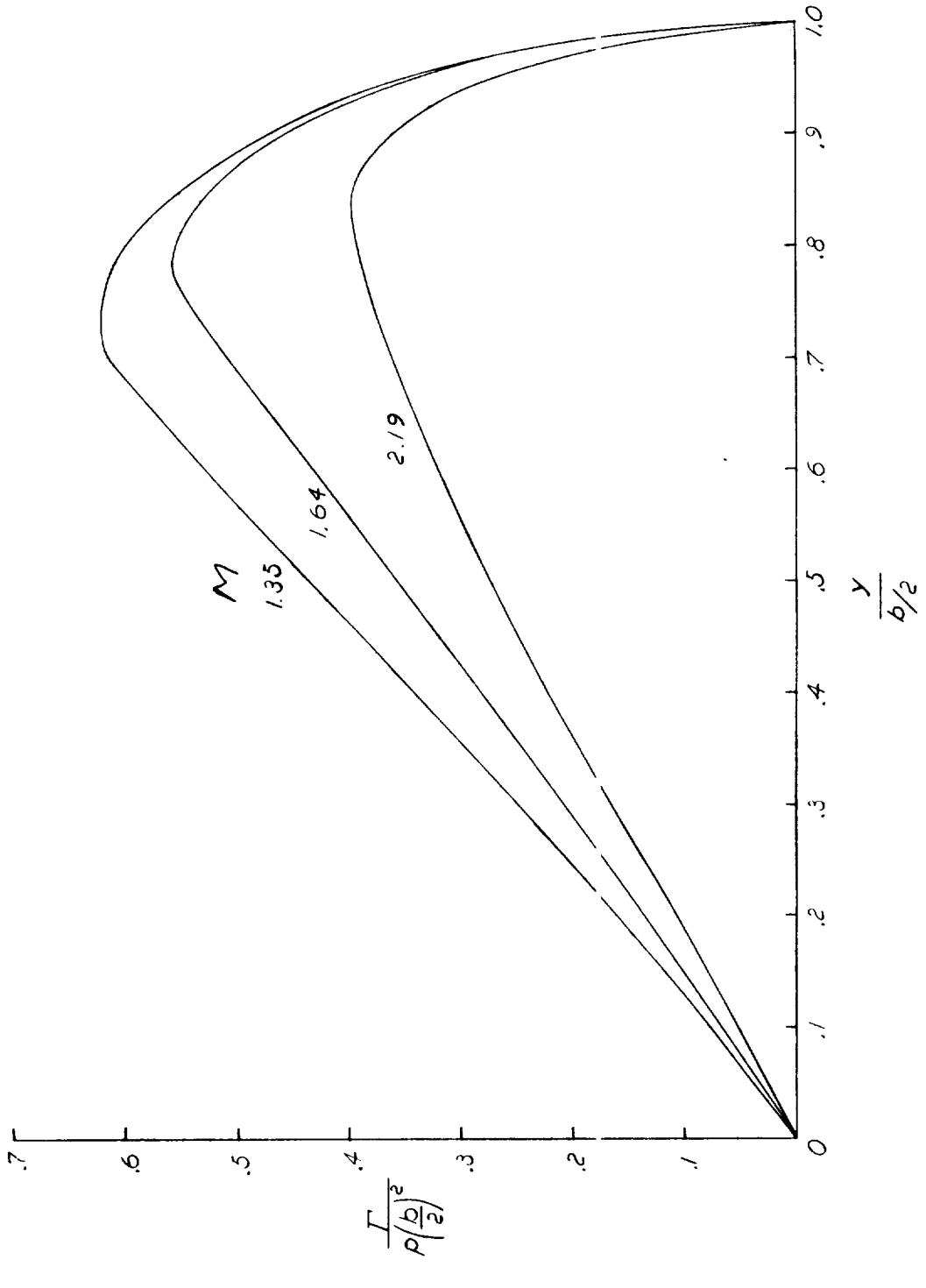


Figure 10.- Nondimensional spanwise distributions of circulation due to steady rolling for wing and Mach numbers given in figure 8.

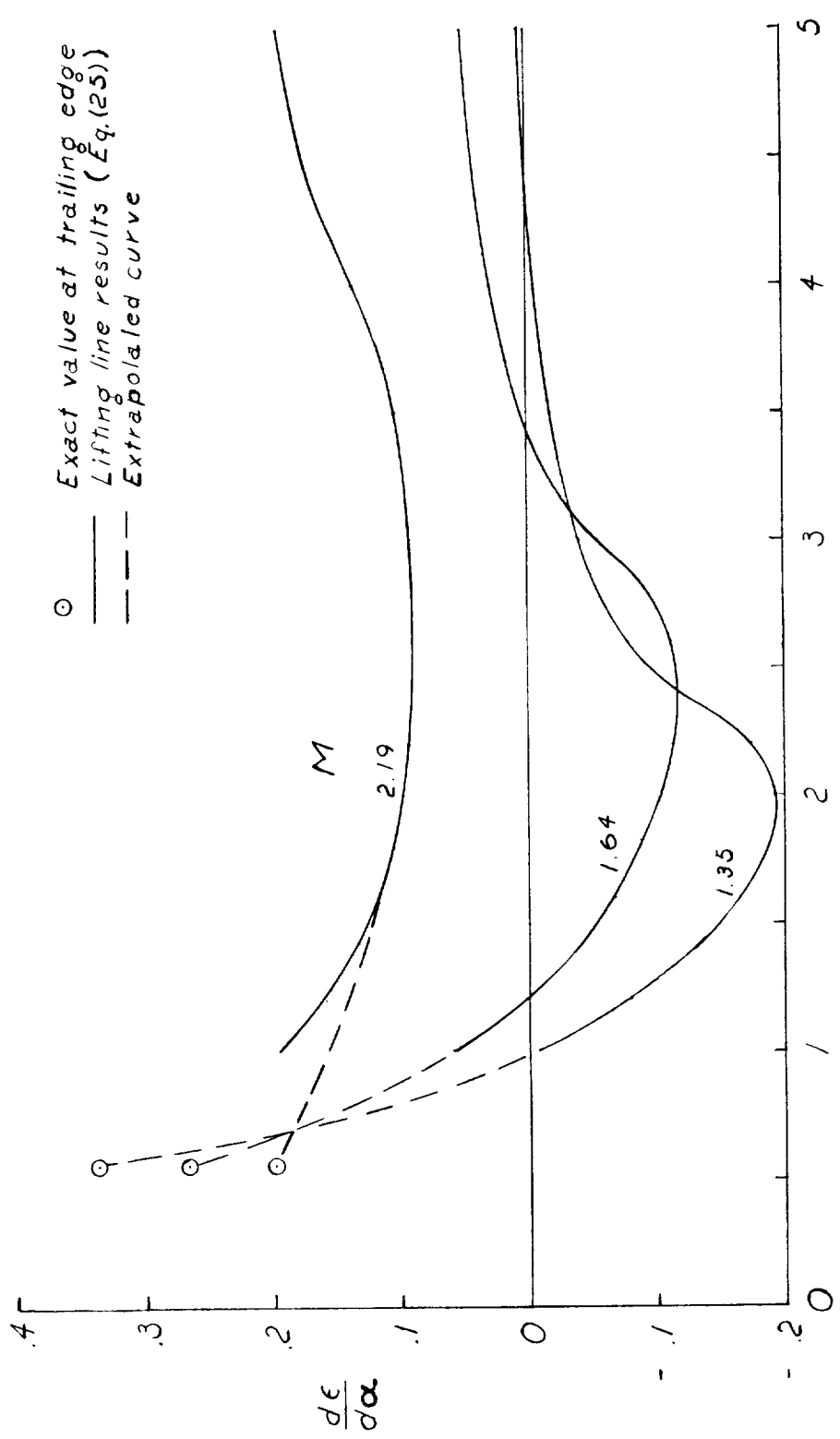


Figure 11.- Variation at three Mach numbers of the change in downwash angle with angle of attack $d\epsilon/d\alpha$ along the longitudinal axis for wing in figure 8.

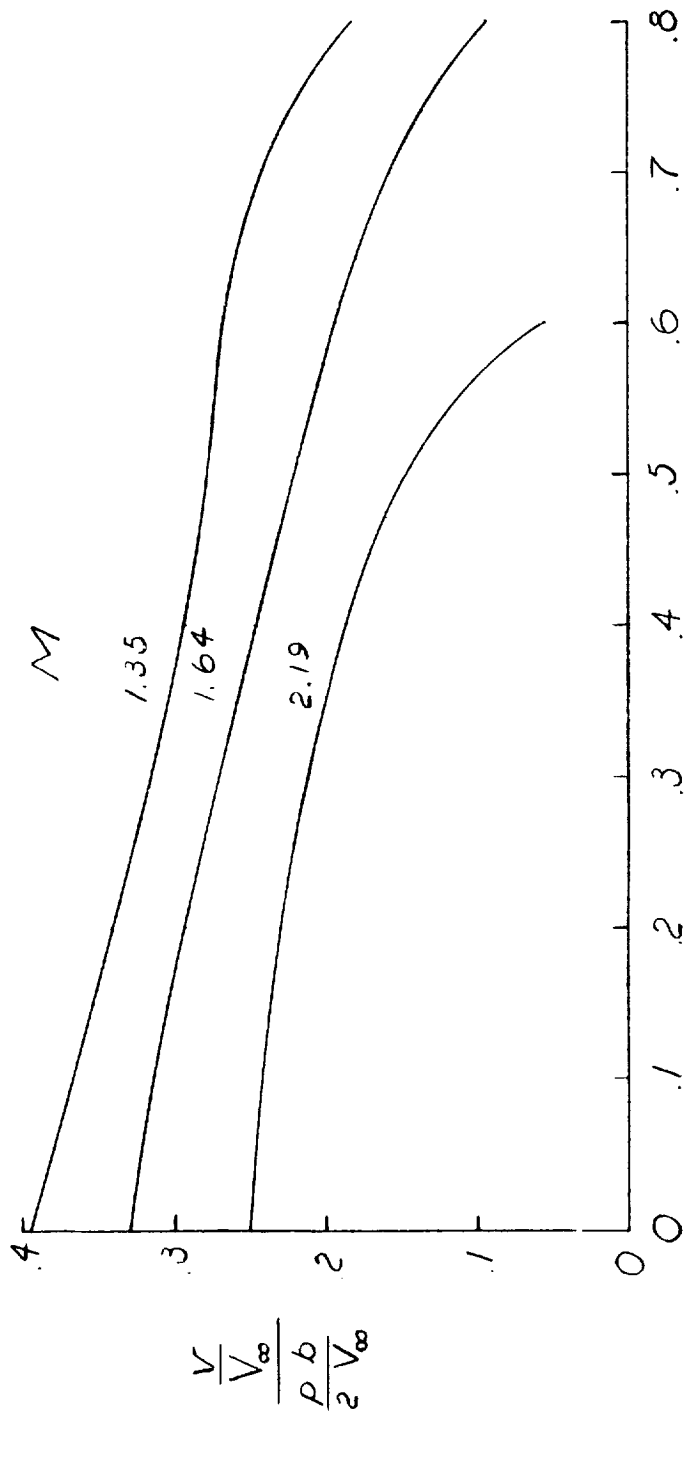
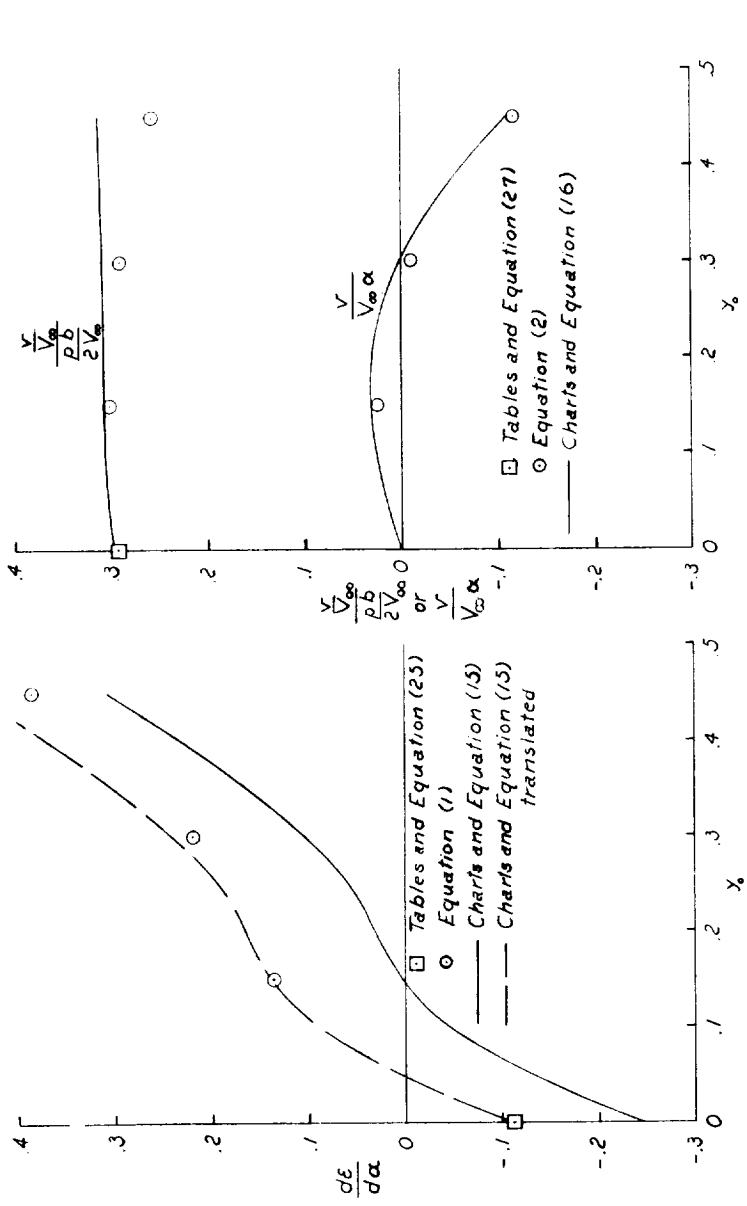


Figure 12.- Variation at three Mach numbers of the nondimensional sidewash parameter $\frac{v}{V_\infty} \Big/ \frac{pb}{2V_\infty}$ with vertical height for wing in figure 8. Nondimensional longitudinal distance behind lifting-line apex for which variations are shown is $x_o = 2.0$.



(a) Spanwise variation of angle-of-attack downwash at $x_o = 2.2$ and $z_o = 0$.

(b) Spanwise variations of sidewash due to rolling and angle of attack at $x_o = 2.0$ and $z_o = 0.2$.

Figure 13.- Spanwise variations of downwash and sidewash due to angle of attack and sidewash due to rolling for wing of figure 8. M = 1.64.