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WIND-TUNNEL INVESTIGATION OF THE WAKE NEAR THE TRAILING EDGE OF A DISTRIBUTED UPPER-SURFACE-BLOWN FLAP

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and

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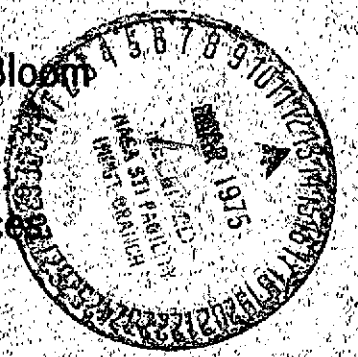
Hampton, Va. 23665



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Long P. Yip: Langley Research Center

16. Abstract

An investigation of the flow field near the trailing edge of a distributed upper-surface-blown propulsive-lift transport was conducted in the Langley V/STOL tunnel. This model used blowing slots across the entire wing span to produce a thin jet efflux near the leading edge and at the knee of the flap. Velocity surveys of the flow field were taken near the trailing edge of the model, and are presented as plots of the individual velocity vectors. The test conditions include an angle-of-attack range from 4° to 16° and a thrust coefficient range from 0 to 1.3 at a free-stream dynamic pressure of 814 N/m^2 (17 lbf/ft^2).

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SUMMARY

An investigation of the flow field near the trailing edge of a distributed upper-surface-blown propulsive-lift transport was conducted in the Langley V/STOL tunnel. This model used blowing slots across the entire wing span to produce a thin jet efflux near the leading edge and at the knee of the flap. Velocity surveys of the flow field were taken near the trailing edge of the model and are presented as plots of the individual velocity vectors. The test conditions include an angle-of-attack range from 4° to 16° and a thrust coefficient range from 0 to 1.3 at a free-stream dynamic pressure of 814 N/m^2 (17 lbf/ft^2).

INTRODUCTION

Several propulsive-lift concepts have been investigated recently in efforts aimed at developing a quiet short take-off and landing (STOL) aircraft. The upper-surface blown (USB) jet-flap concept appears to offer an attractive solution for a quiet STOL aircraft. Although most USB configurations use engine nacelles mounted on the inboard portion of the wing, one version of the USB concept, which was used in the present investigation, uses a slot nozzle near the wing leading edge. This slot nozzle is beneficial in two aspects. First, it improves the aerodynamic performance by distributing the propulsive efflux in the spanwise direction. For a given momentum coefficient, this distribution

of the propulsive efflux can improve the lift and can reduce the induced drag when compared to a discrete USB nacelle. Second, this arrangement can provide beneficial noise reduction characteristics by using a very high aspect-ratio nozzle and by using the wing to shield the nozzle noise from the ground.

The present investigation was made to determine the behavior of the flow near the trailing edge of a distributed USB jet flap. A general research model of a swept-wing propulsive-lift transport was tested in the Langley V/STOL tunnel. This model uses blowing slots across the entire wing span to produce a thin jet efflux near the leading edge and at the knee of the trailing flap. Velocity surveys of the flow field were taken near the trailing edge of the model and are presented as plots of the individual velocity vectors. A similar investigation on an externally blown flap model is reported in reference 1. The velocity measurements of the present investigation were used in reference 2 to determine the spanwise distributions of jet-momentum and jet-turning angles. The test conditions include a tunnel free-stream dynamic pressure of 814 N/m^2 (17 lbf/ft^2) with an angle-of-attack range of 4° to 16° and a thrust coefficient range from 0 to 1.3.

SYMBOLS

The measurements of this investigation are presented in the International System of Units (SI) with the U.S. Customary Units being indicated in parentheses. The measurements and calculations were made in the U.S. Customary Units. Factors relating the two systems are given in reference 3.

b wing span, m (ft)

c local chord of wing with flaps undeflected, m (ft)

C_μ total engine gross thrust coefficient, $\frac{\text{Thrust}}{q_\infty S}$

q_∞ free-stream dynamic pressure, N/m^2 (lbf/ft^2)

S wing area, m^2 (ft^2)

u,v,w velocity components in the x,y,z direction, respectively, m/sec (in/sec)

V velocity, m/sec (in/sec)

X,Y,Z rectangular Cartesian axes

α angle of attack of wing chordline (also fuselage centerline), deg

δ_F flap deflection, deg

η spanwise station, $\frac{y}{b/2}$

Subscripts:

L local

∞ free stream

MODEL AND APPARATUS

This investigation was conducted with a general research model of a swept-wing propulsive-lift transport (fig. 1). The aspect ratio 6.8 wing had double-hinged plain flaps and no mechanical leading-edge devices. For propulsive lift, the wing had full-span slots near the leading edge and full-span blowing holes at the knee of the trailing-edge flap (fig. 2). High pressure air was blown from the forward slot alone (leading-edge blowing), from the rear blowing holes alone

(knee of flap blowing), or from both simultaneously (combined blowing). Although the knee of flap blowing was produced by blowing holes, the row of holes will sometimes be referred to as a blowing slot. The forward slot was located at the 19-percent chord station, and the rear blowing holes were located at the 70-percent-chord station. The forward slot was 1.020 mm (0.040 in.) high at the root and tapered to a height of 0.254 mm (0.010 in.) at the tip. The hole diameter of the blowing holes varied from 2.490 mm (0.098 in.) at the root to 0.508 mm (0.020 in.) at the tip. The amount of blowing could be controlled by valves located inside the fuselage of the model. Figures 3 and 4 show photographs of the model and blowing slots.

The test apparatus used in the investigation is shown in figure 5. The distributed USB model, traverse mechanism, and total vector anemometer are shown in figure 5. At each spanwise station, total velocity measurements were taken with the anemometer mounted on the traverse mechanism. The anemometer consisted of three split-film sensors (fig. 6) which were mutually orthogonal (fig. 7), and the anemometer was oriented in such a way that two sensors were in the
(See fig. 8.) This anemometer orientation was chosen (based on calibration studies) to minimize the flow interference between the sensors. Details of the split-film vector anemometer can be found in reference 4.

TEST PROCEDURE

The tests were conducted in the Langley V/STOL tunnel at a free-stream dynamic pressure of 814 N/m^2 (17 lbf/ft^2) and were made over an angle-of-attack range of 4° to 16° and a total thrust coefficient range of 0 to 1.3.

For the near-wake survey, the traverse mechanism was positioned so that the anemometer's lateral movement was always parallel to the flap trailing edge. The anemometer was moved laterally to a specified

spanwise station (fig. 9) and then was traversed vertically through the wake near the flap trailing edge. The distance between the anemometer and the flap trailing edge varied as the model angle of attack was varied (fig. 10). The minimum distance of 2.54 cm (1.0 in.) occurred at 4° angle of attack. The maximum distance of 15.24 cm (6.0 in.) occurred at 16° angle of attack.

DATA REDUCTION

The data obtained in the near-wake investigation were recorded in digital form on magnetic tape. The recorded voltage outputs from the anemometer were converted to velocity components in a manner similar to that given in reference 4. The velocity measurements of every five points of data were averaged to obtain velocity vectors. This also reduced the number of data points. The averaged velocity vector data showed a large random sinnal. A smoothing algorithm was incorporated into the data reduction procedure to smooth the data. The algorithm (refs. 5, 6, and 7) combines some of the advantages of a least square polynomial with the segmented curve of the theory of splines. More accuracy was obtained by segmenting the curve than by using the method of least squares, random fluctuations in the data could be smoothed.

PRESENTATION OF DATA

Three basic configurations were tested. The first configuration used blowing from the forward slot only (leading-edge blowing) and a flap deflection of 45°-15°. A 45°-15° flap deflection (fig. 1) designates that the forward flap element was deflected 45° with respect to the airfoil chordline, and the rear flap element was deflected 15° relative to the forward flap. The total flap deflection of the rear element was 60°. The second configuration used blowing from the forward slot and

the rear slot (combined blowing) in a ratio of 70 percent to 30 percent, respectively. The flap deflection was again 45°-15°. The third configuration involved blowing from the forward slot with a flap deflection of 15°-15°.

Wake-survey measurements were made for all three model configurations, and the data are presented in figures 11 to 320. For the first model configuration, velocity data were not taken at η = 0.24 and 0.38. Each figure presents data for a single spanwise location and the figure is divided into three parts. Part (a) shows the magnitude and deflection of the streamwise velocity vectors relative to the chordlines of the wing and flap elements. The small arrows on the vectors indicate the number of units of free-stream velocity in the magnitude of the local streamwise velocity vector. A free-stream velocity vector relative to the wing and flap element is shown below the wing chordline. Part (b) shows the downwash angle plotted against the anemometer elevation. The downwash angle is defined as the angle that the local streamwise velocity vector makes with the free-stream velocity vector. The anemometer elevation has been nondimensionalized by the reference chord ($\bar{c}$ = 0.313 m (12.314 in.)). The zero anemometer elevation is defined as the height of the flap trailing edge from the tunnel floor and is denoted in part (a) by a small circle at the origin of the arrows. A positive anemometer elevation is defined as a location below the flap trailing edge. Part (c) shows the local streamwise velocity plotted against anemometer elevation. The local streamwise velocity has been nondimensionalized in terms of the magnitude of the free-stream velocity. The magnitude of the free-stream vector is given in the figure title. For parts (b) and (c), results from all of the velocity vectors measured are included in the plots; however, in part (a), only every other measured velocity vector is plotted so that the vectors could be more clearly seen.

The data are presented as described in the following table:

Flap Deflection, deg	Blowing	C_μ	α, deg	Figure Number
45-15	Leading edge	0	4	11-18
			6	19-26
			8	27-34
			12	35-42
			16	43-50
		.5	4	51-58
			6	59-66
			8	67-74
			12	75-82
			16	83-90
		1.0	4	91-98
			6	99-106
			8	107-114
			12	115-122
			16	123-130
	Combined	.6	4	131-140
			6	141-150
			8	151-160
			12	161-170
			16	171-180
		1.3	4	181-190
			6	191-200
			8	201-210
			12	211-220
			16	221-230
15-15	Leading edge	0	4	231-240
			6	241-250
			16	251-260
		.5	4	261-270
			6	271-280
			16	281-290
		1.0	4	291-300
			6	301-310
			16	311-320

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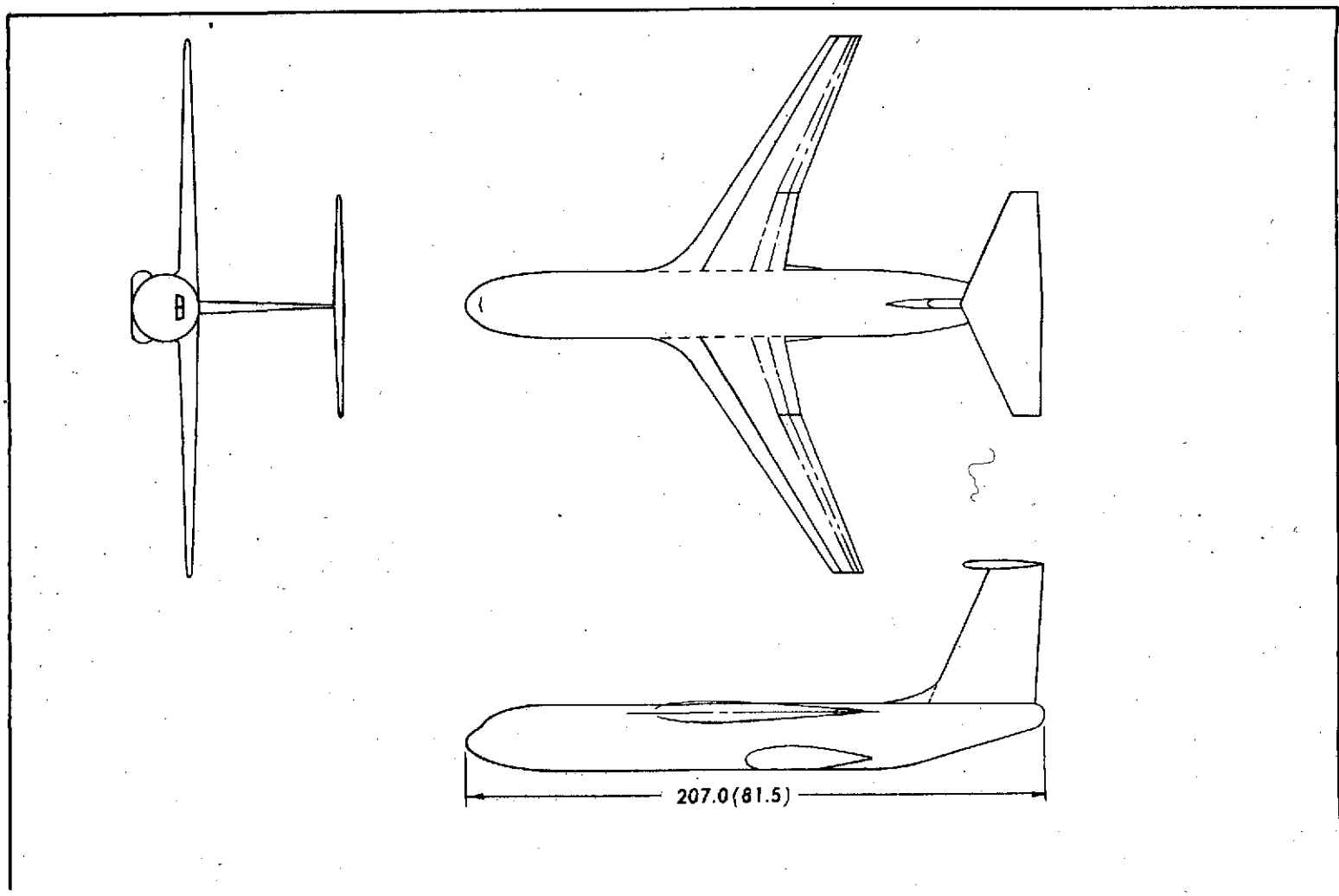
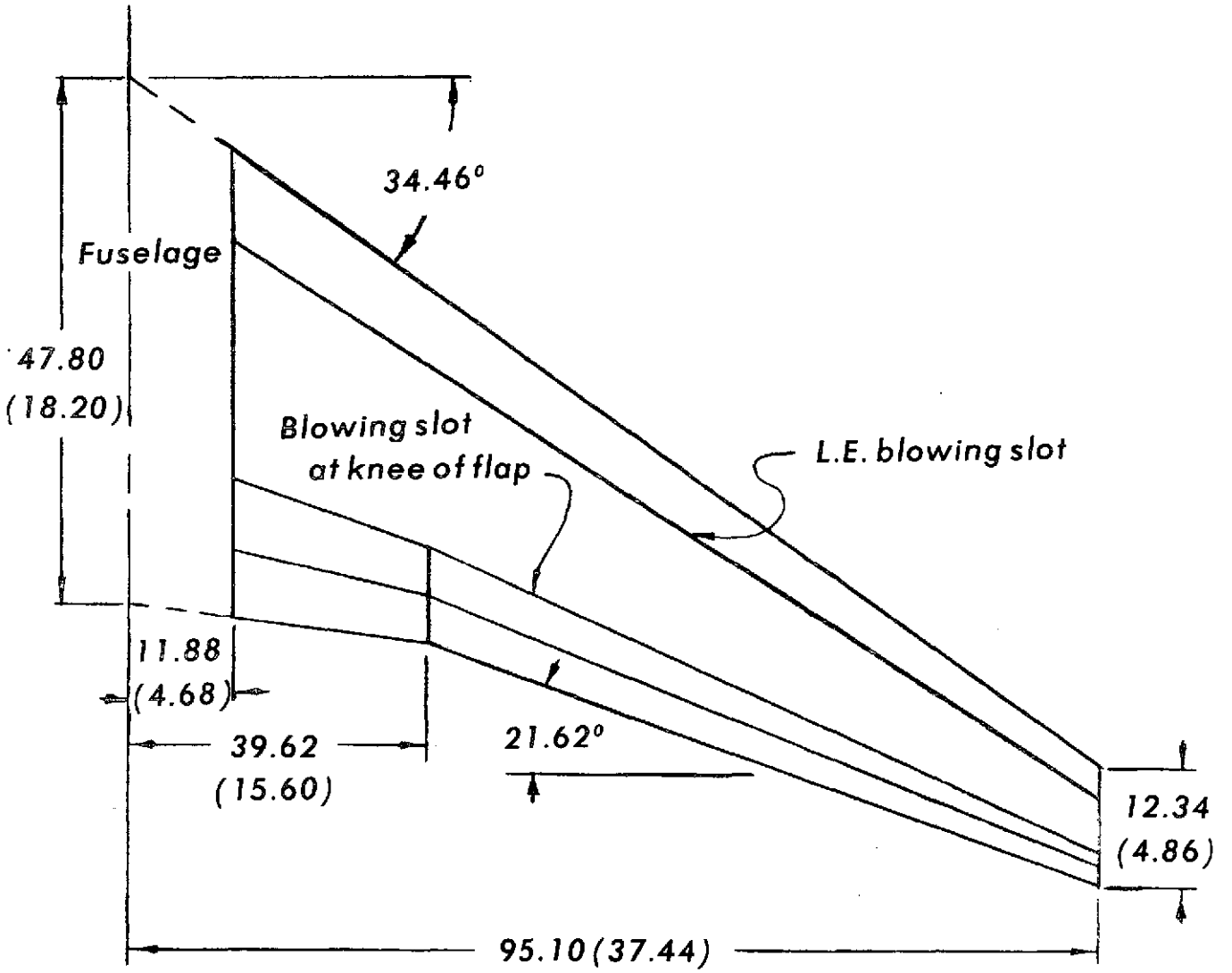


(a) Three view of model

Figure 1. - Drawings of model. All dimensions in centimeters (In.).

Wing area	= 0.531 m² (5.725)
Span	= 1.902 m (6.240)
Aspect ratio	= 6.813



(b) Wing planform

Figure 1. - Concluded.

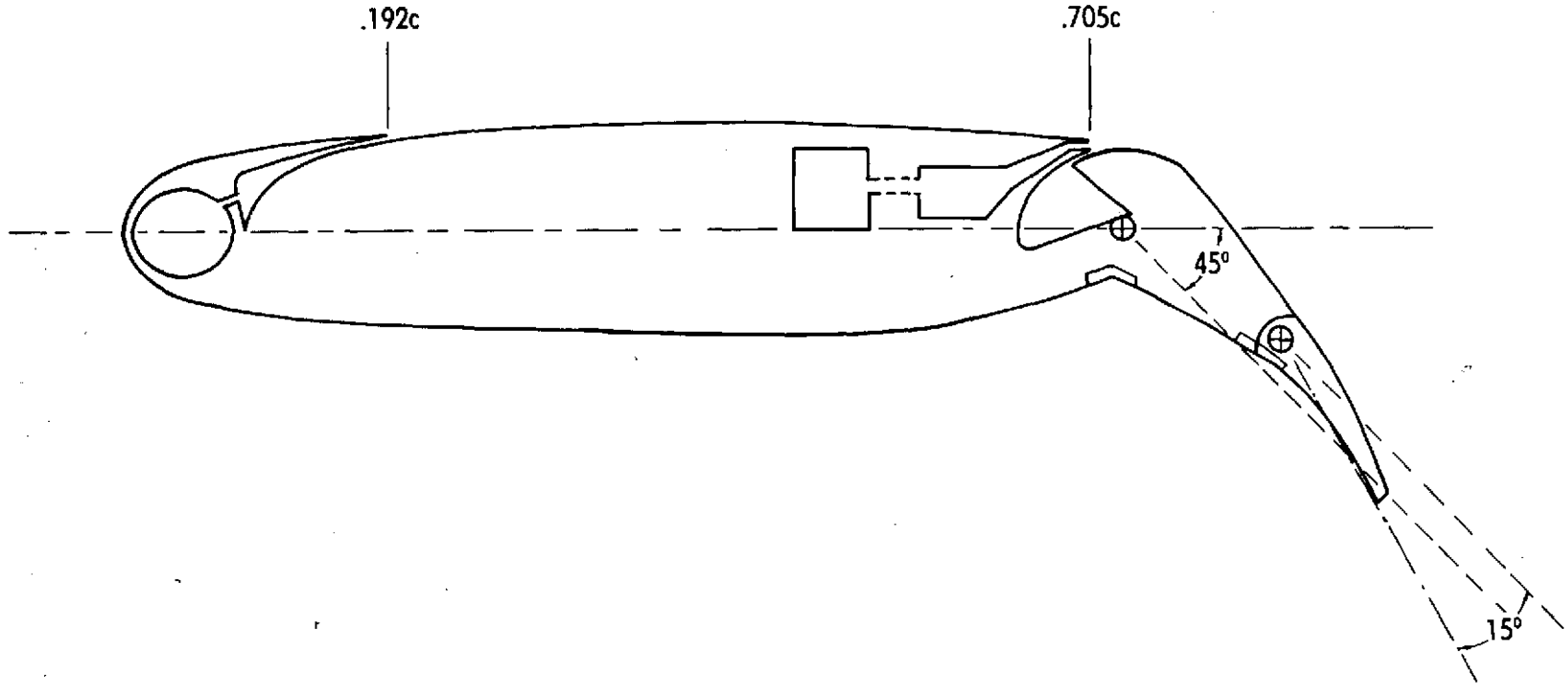


FIGURE 2. — TYPICAL AIRFOIL CROSS SECTION, $\delta_F = 45°\text{-}15°$.

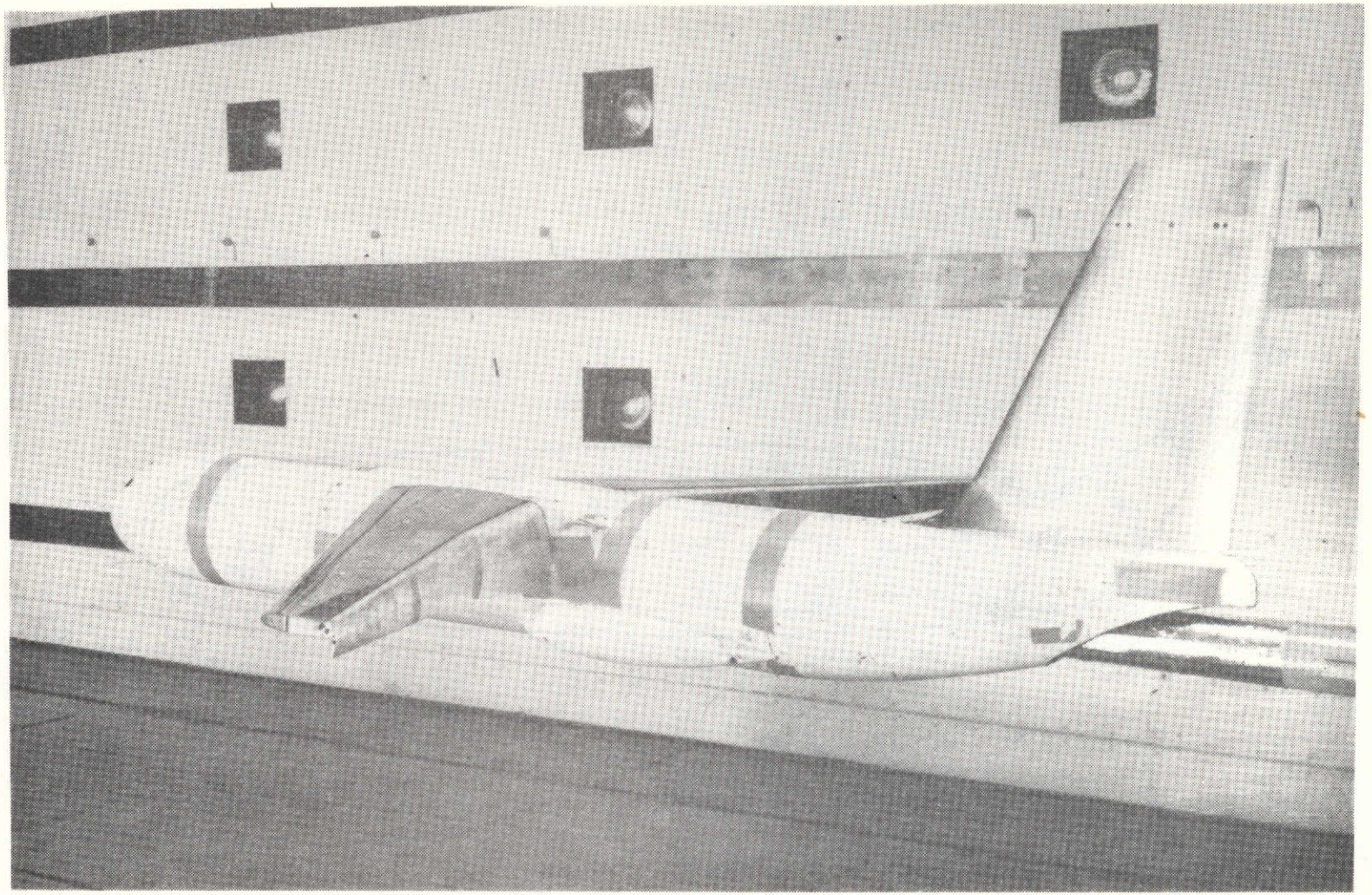


Figure 3. - Photograph of the model in the NASA Langley V/STOL tunnel.

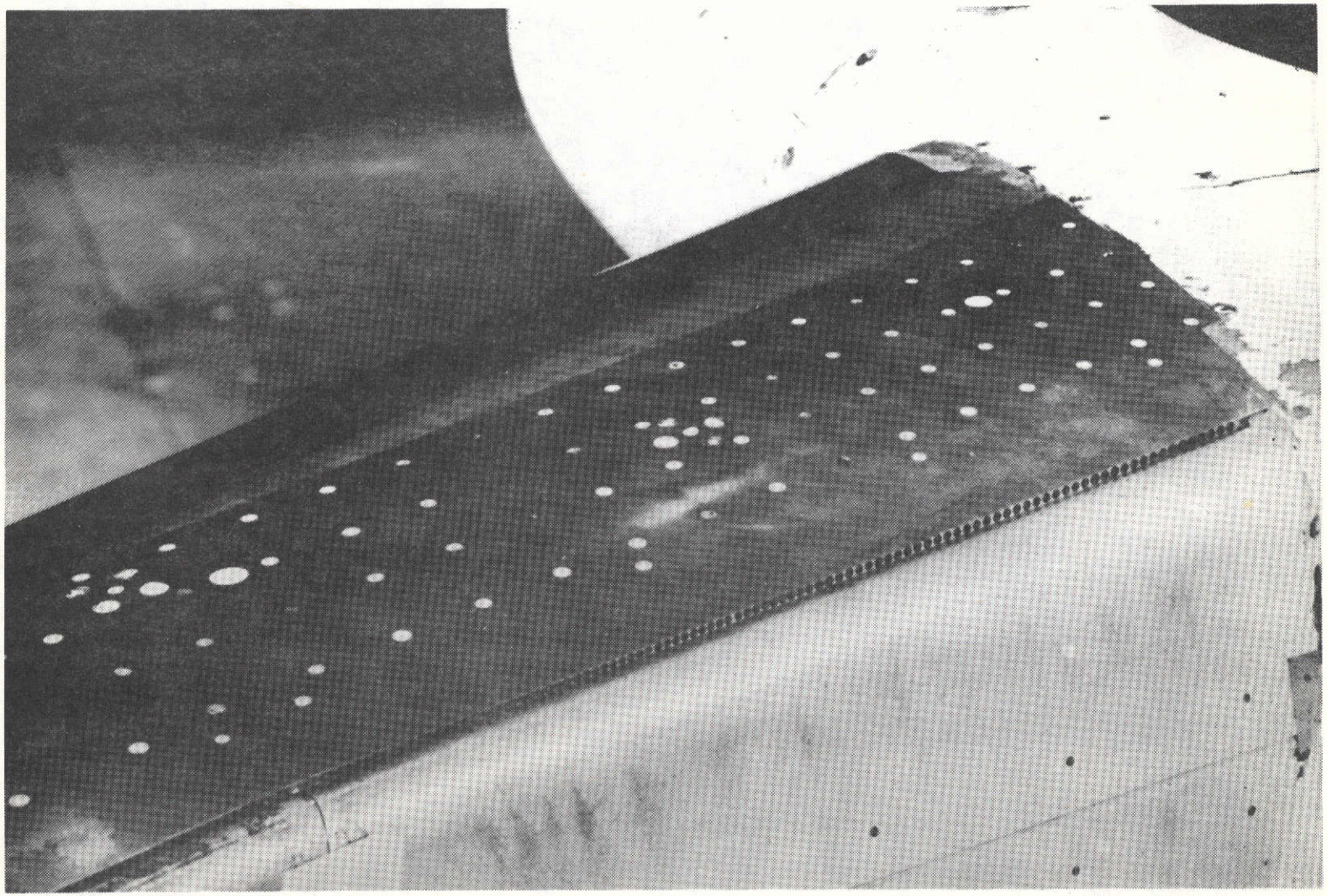


Figure 4. - Closeup photograph of upper surface of wing showing forward and rear slots.

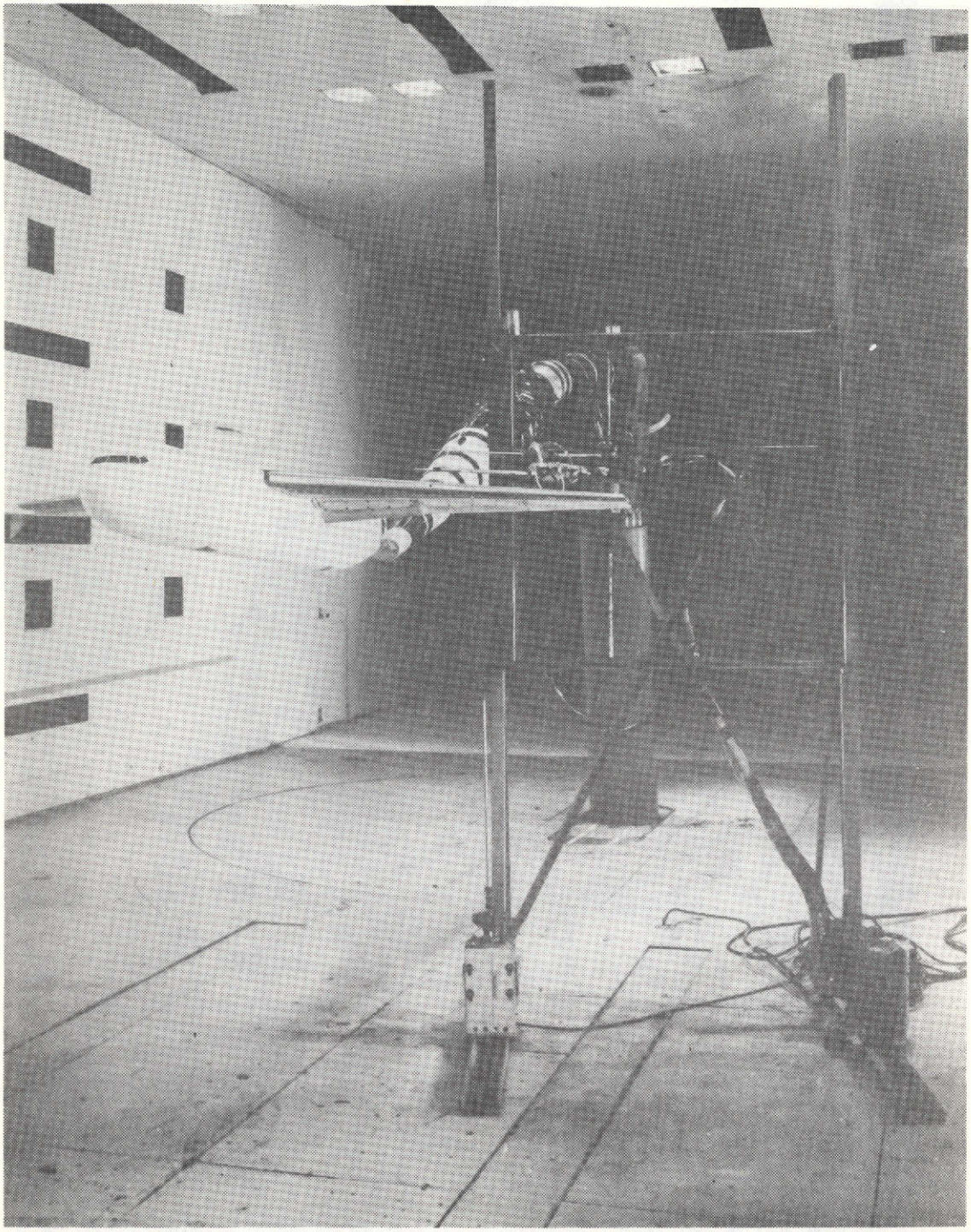
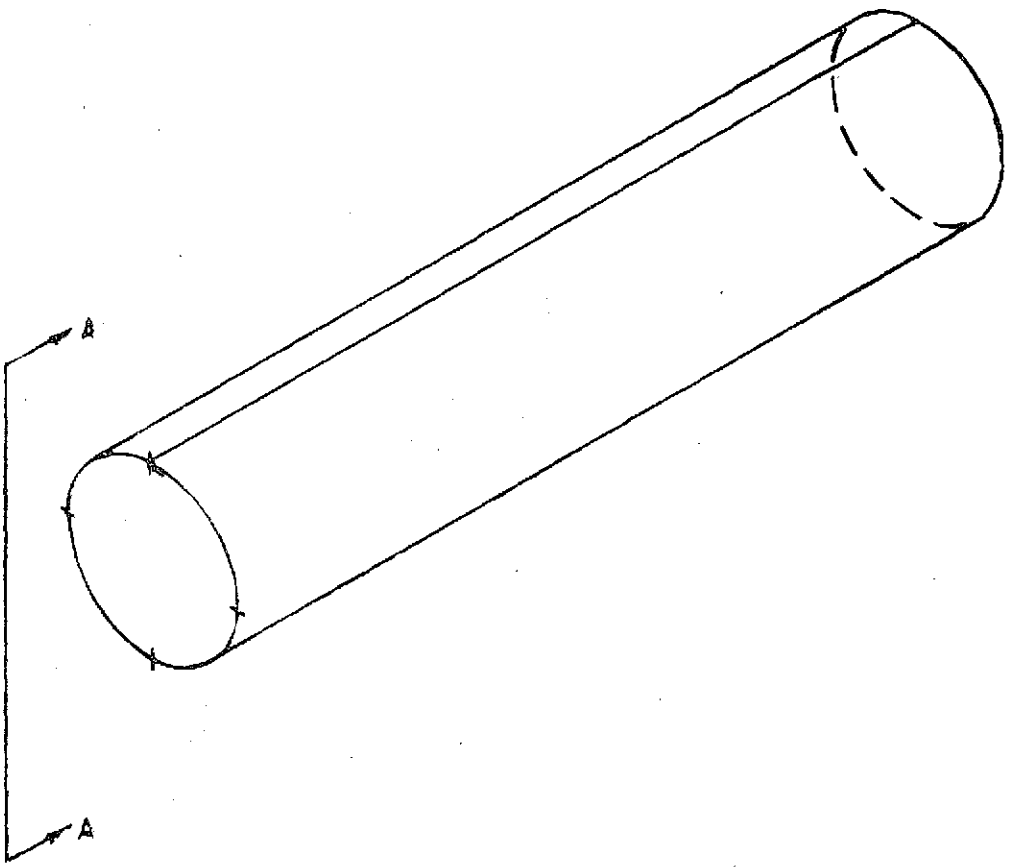


Figure 5. - Photograph of the test apparatus used in wake-survey investigation.



VIEW A-A

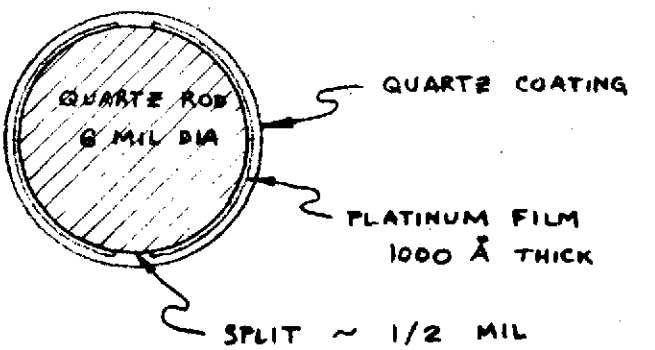


FIG. 6 - TYPICAL CYLINDRICAL SPLIT-FILM ANEMOMETER SENSOR

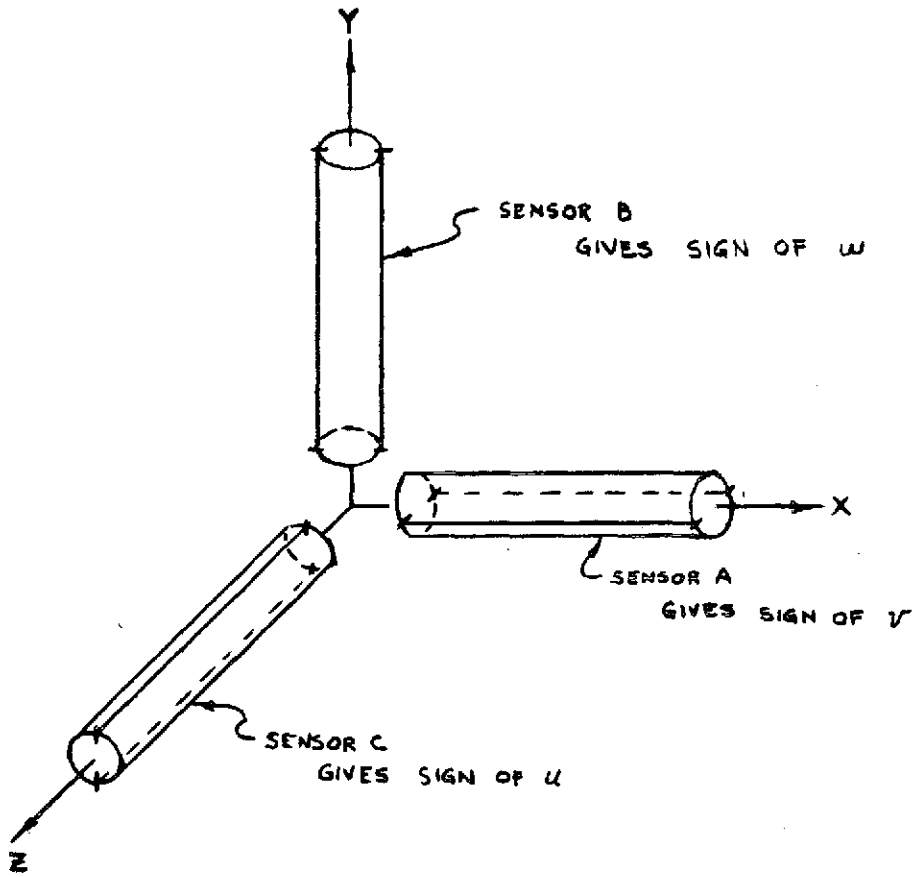


FIG. 7 - THREE ORTHOGONAL SPLIT-FILM SENSORS FOR TOTAL VECTOR MEASUREMENT

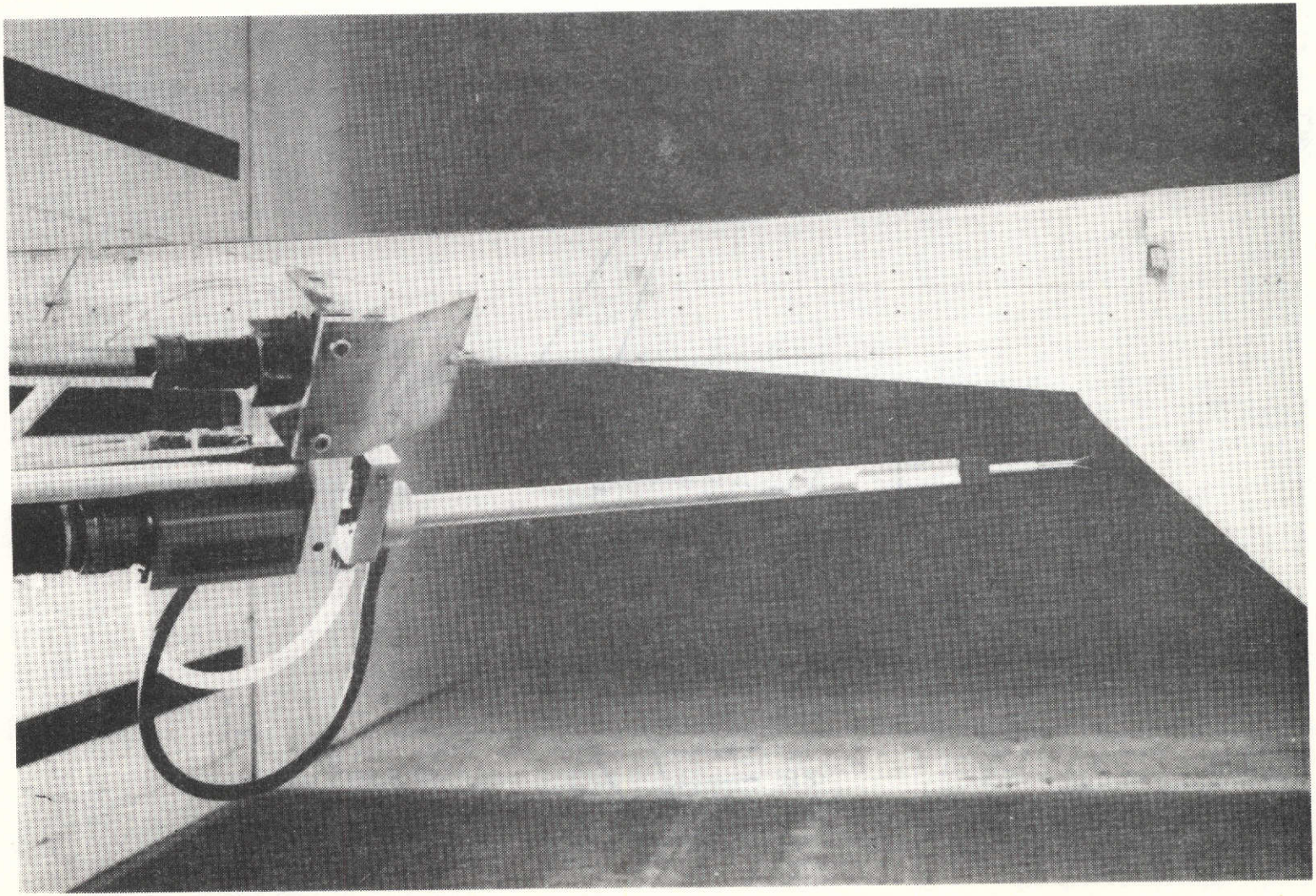


Figure 8. - Closeup photograph of the velocity probe.

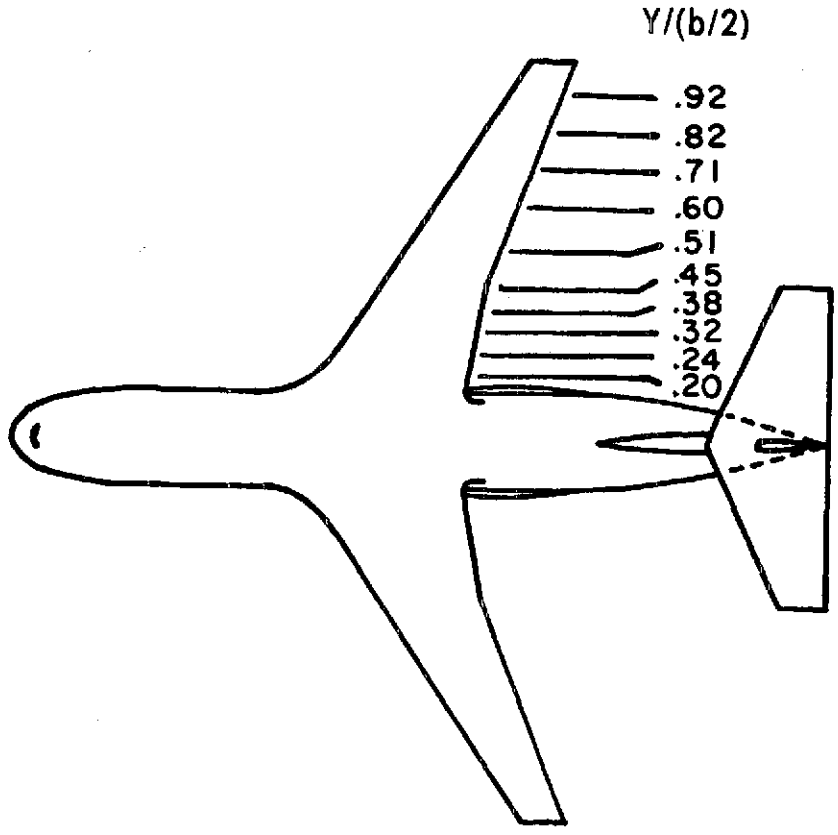


FIGURE 9. — NEAR - WAKE SURVEY LOCATIONS

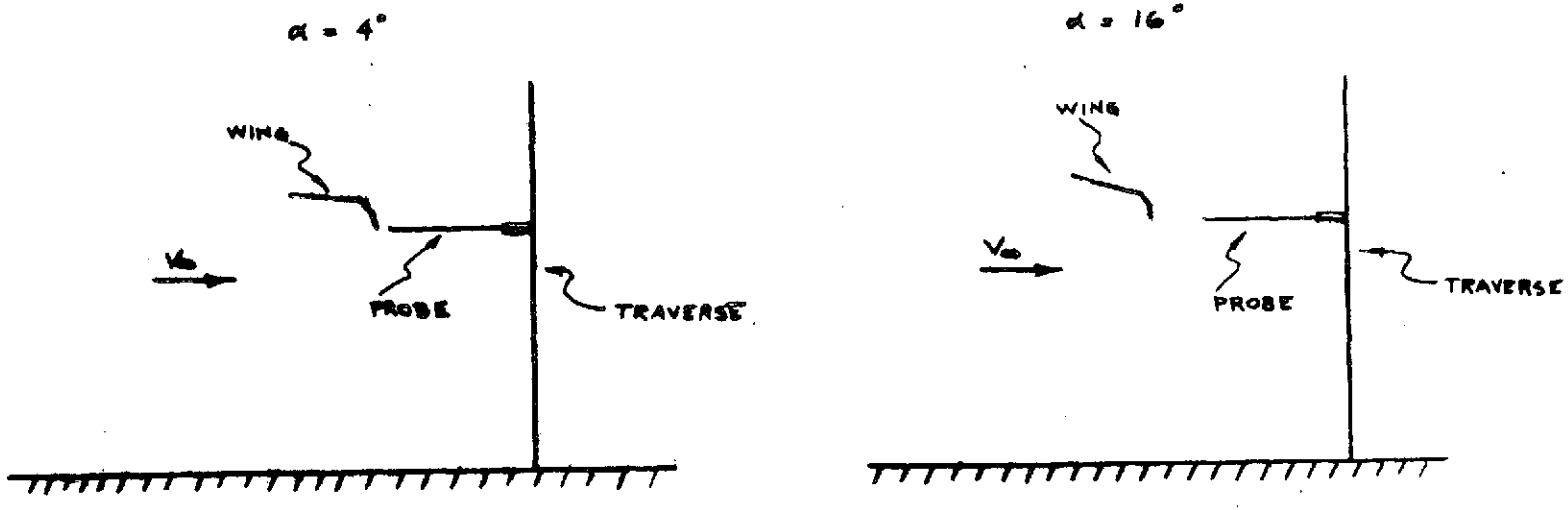
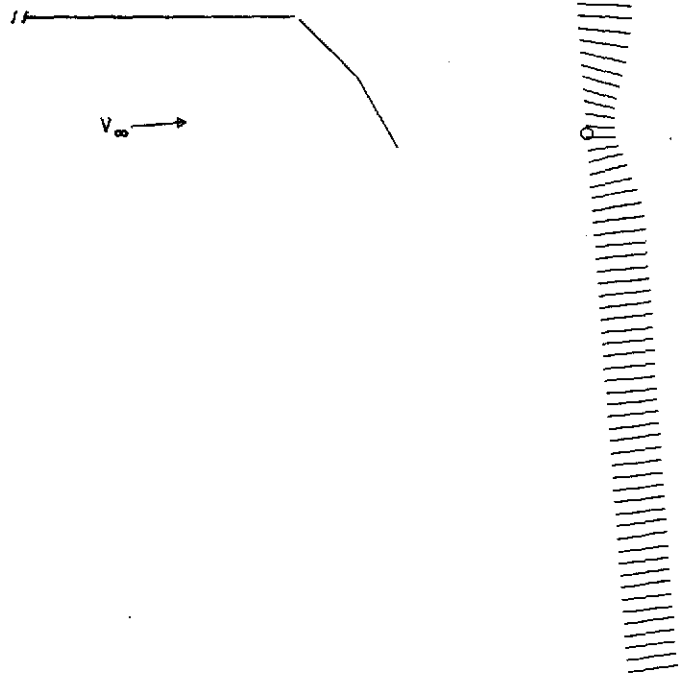
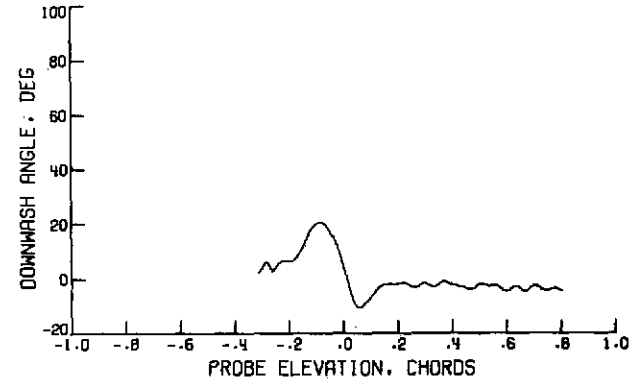


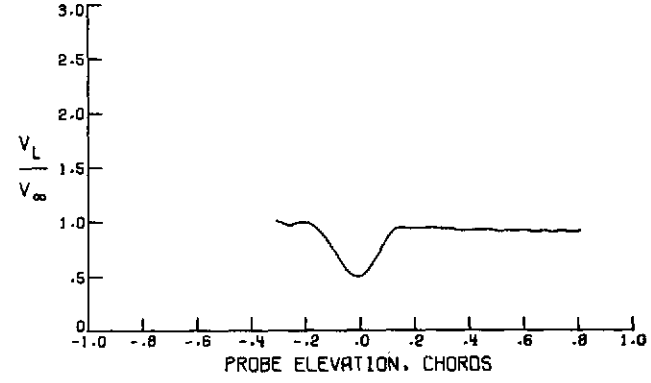
FIG. 10 - Position of Split-Film Probe Relative to Wing Trailing Edge at α = 4°, 16°



(A) - VELOCITY PROFILE

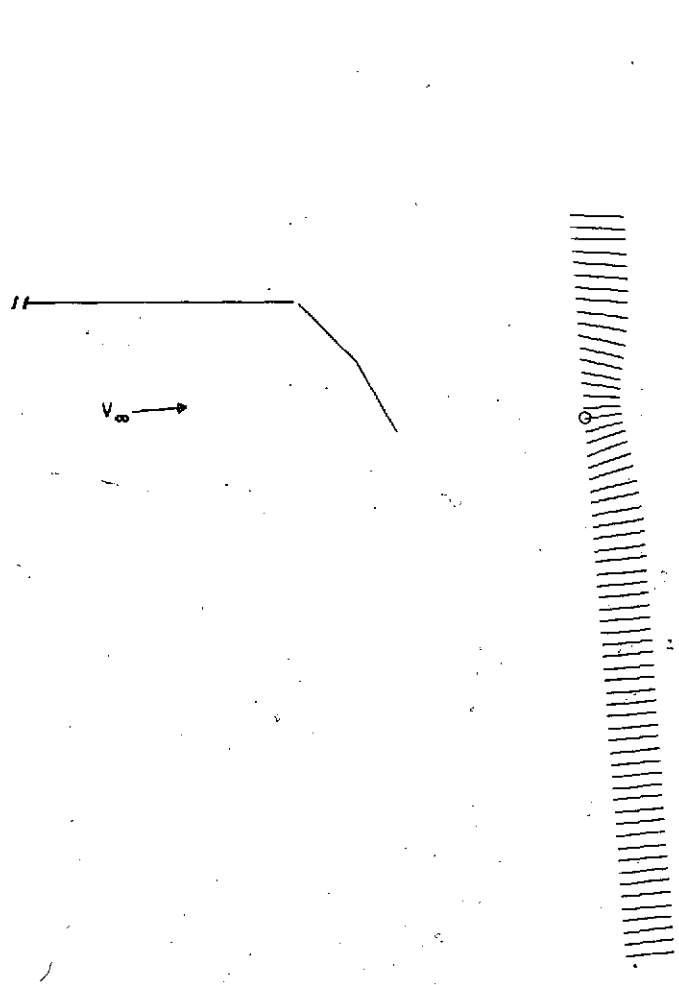


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 11. - WAKE SURVEY RESULTS FOR $\eta = .923$, $\alpha = 4.17$ DEG, $C_\mu = 0.00$, $V_\infty = 36.43$ M/SEC, $\delta_F = 60.0$ DEG



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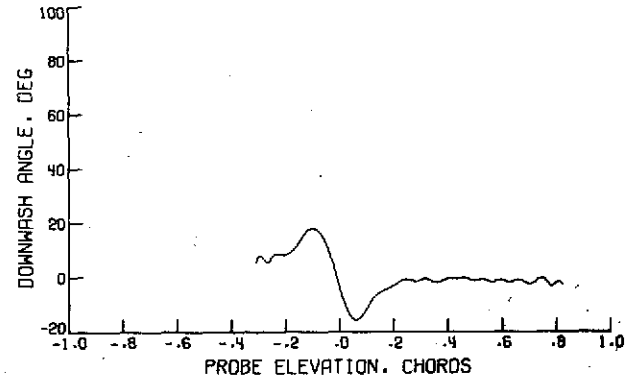

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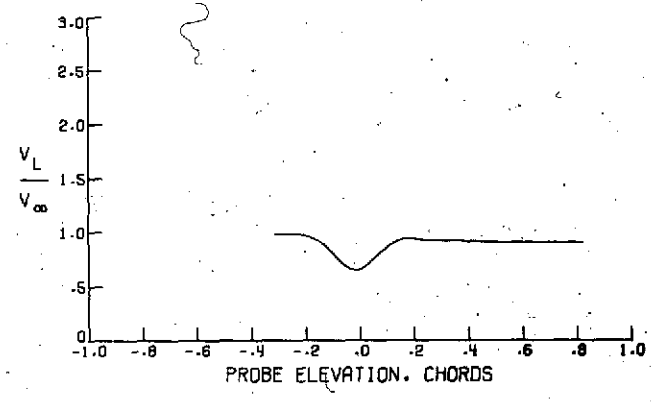
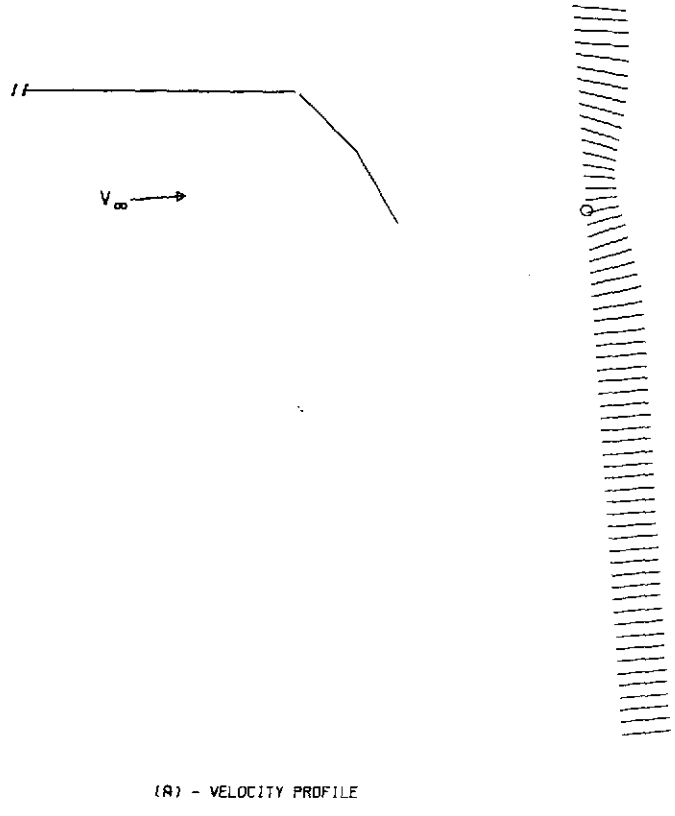


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 12. - WAKE SURVEY RESULTS FOR η = .821 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



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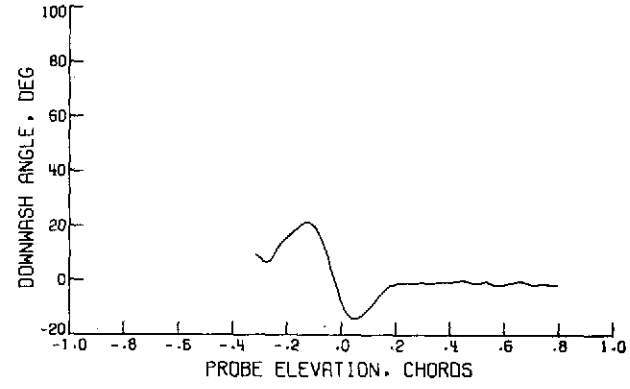

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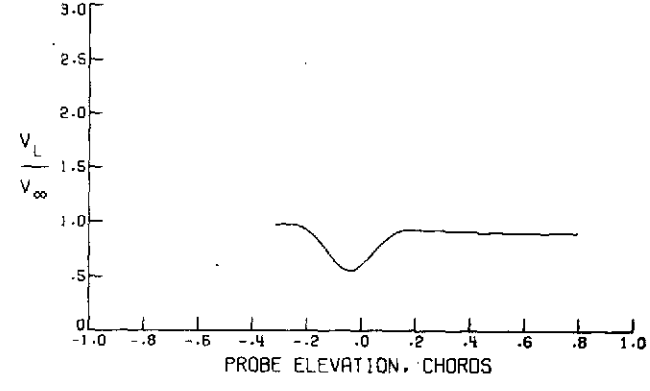
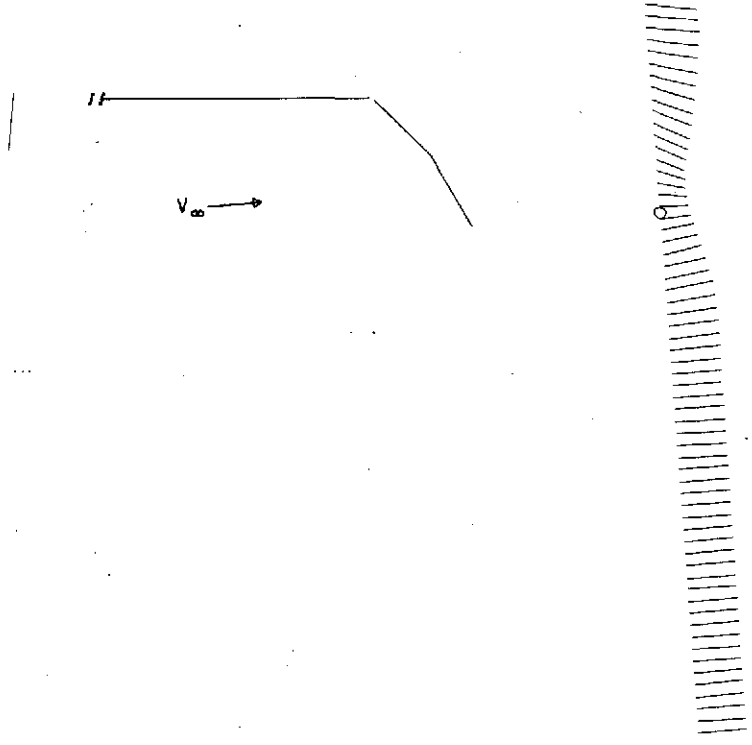
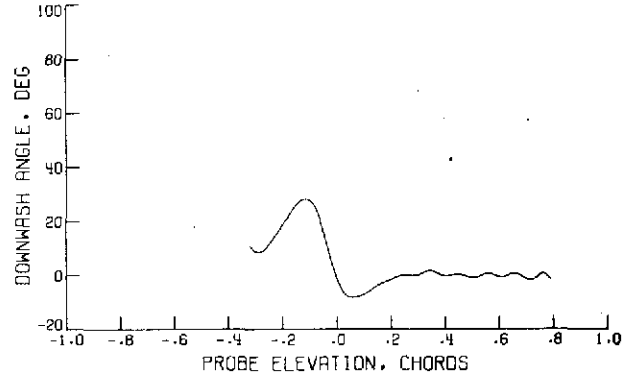


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 13. - WAKE SURVEY RESULTS FOR η = .714 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



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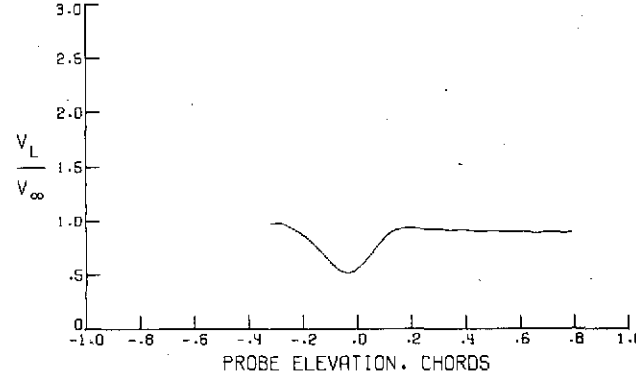
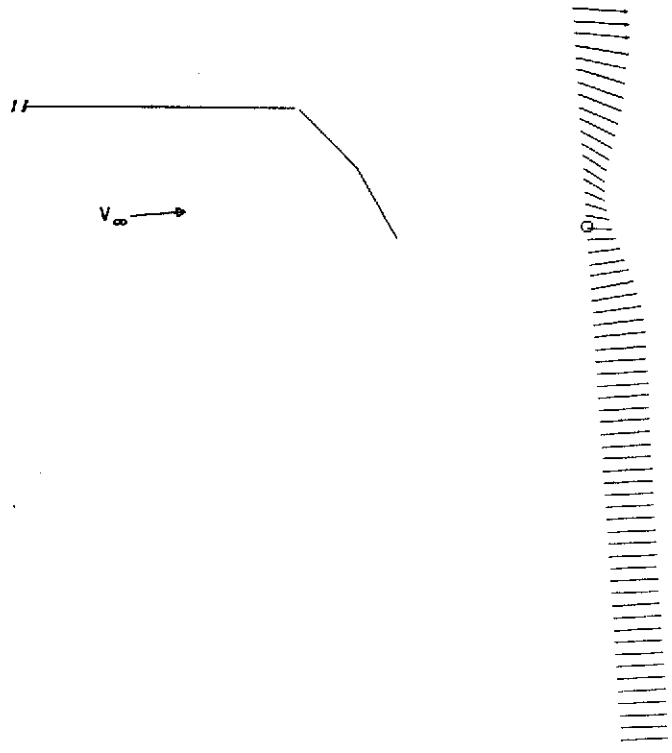


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 14. - WAKE SURVEY RESULTS FOR η = .600 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



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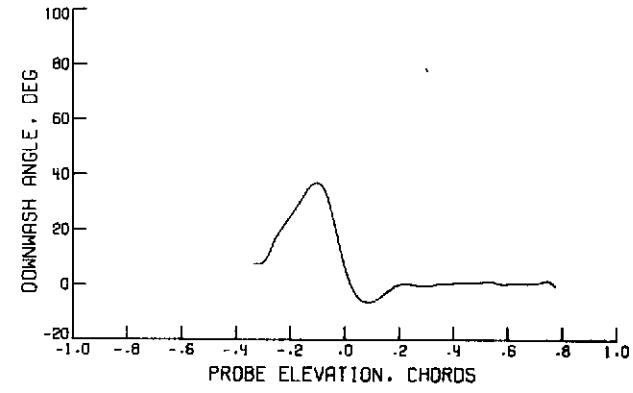

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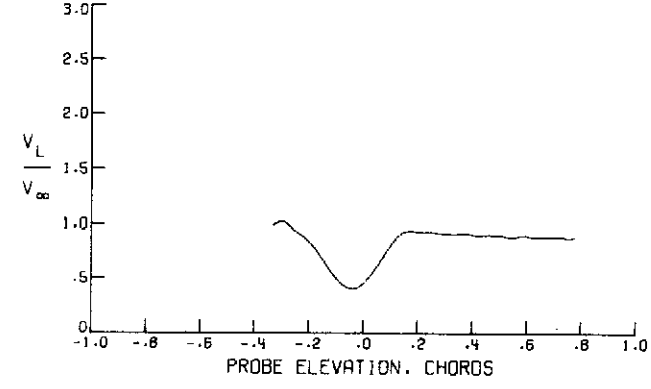
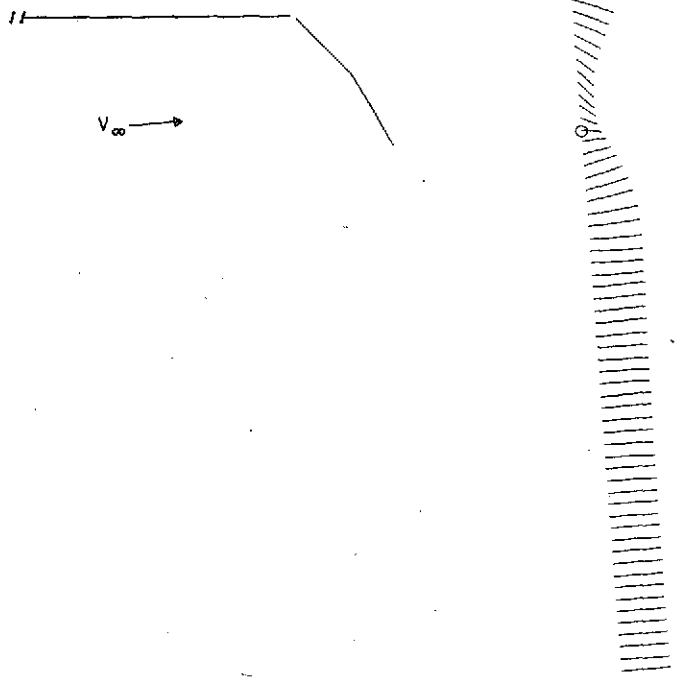
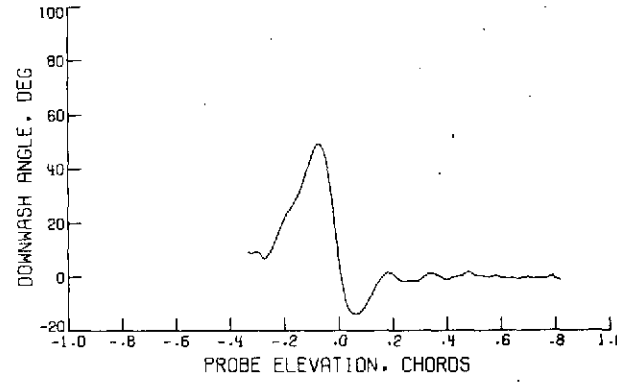


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

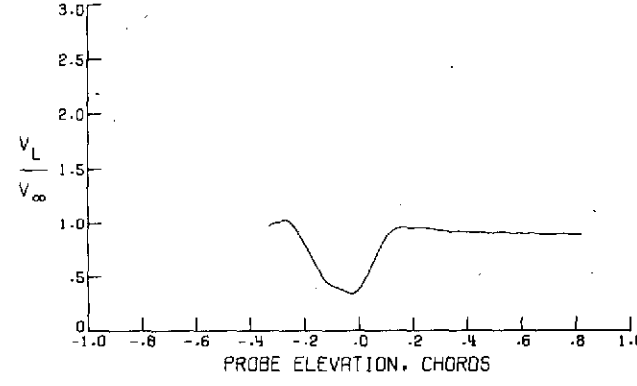
FIGURE 15. - WAKE SURVEY RESULTS FOR η = .511 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

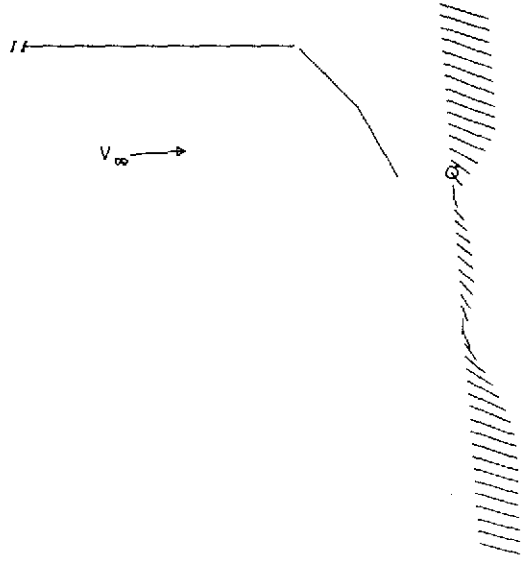


(B) - DOWNWASH ANGLE

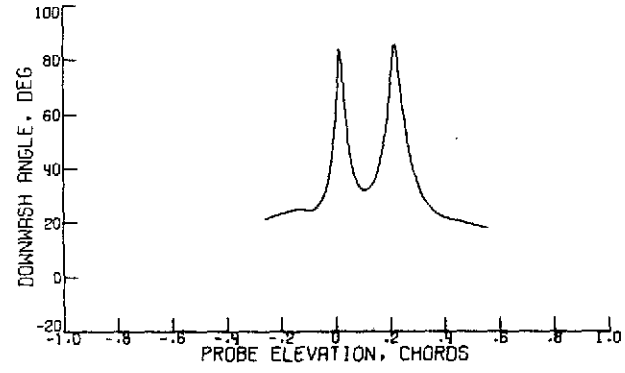


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

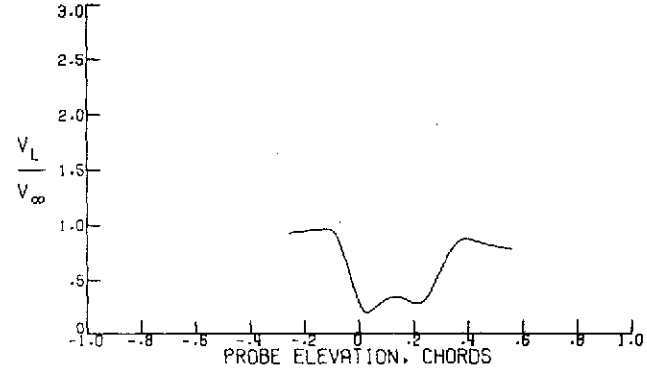
FIGURE 16. - WAKE SURVEY RESULTS FOR η = .452 , α = 4.15 DEG, C_μ = 0.00 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

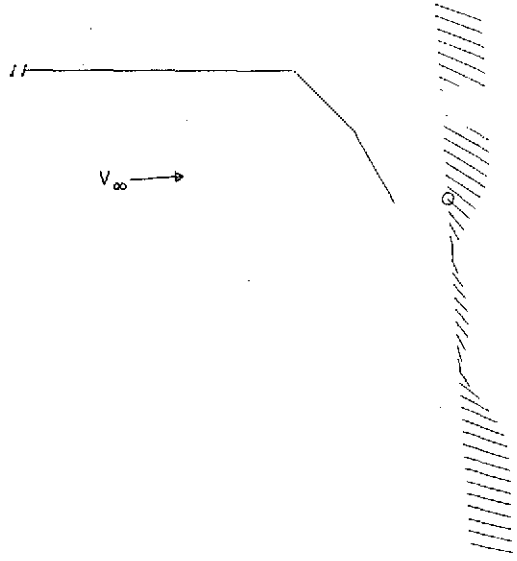


(B) - DOWNWASH ANGLE

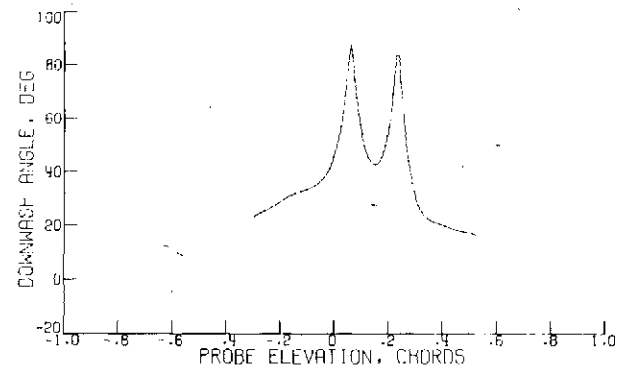


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

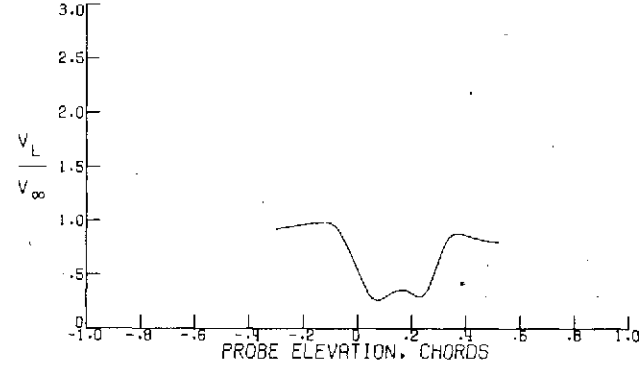
FIGURE 17. - WAKE SURVEY RESULTS FOR η = .321 , α = 4.14 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

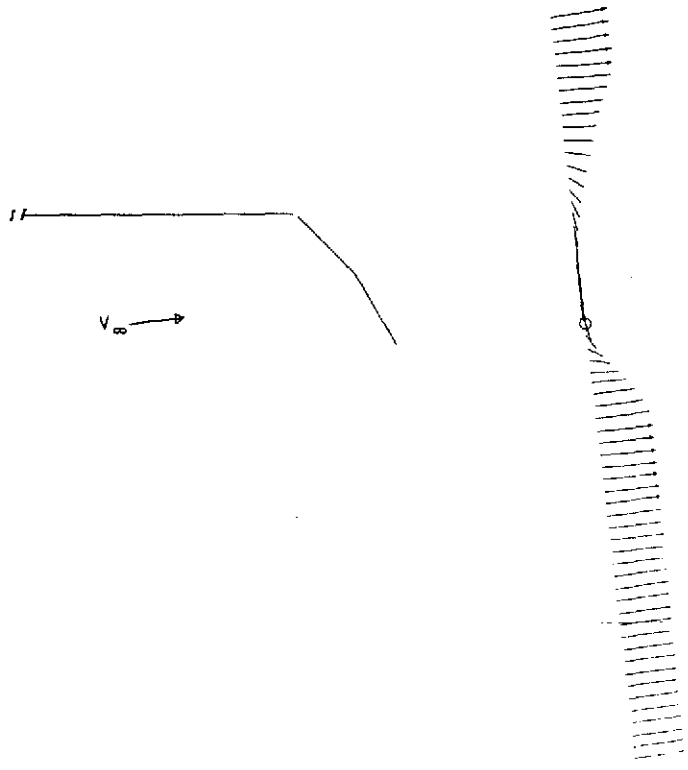


(B) - DOWNWASH ANGLE

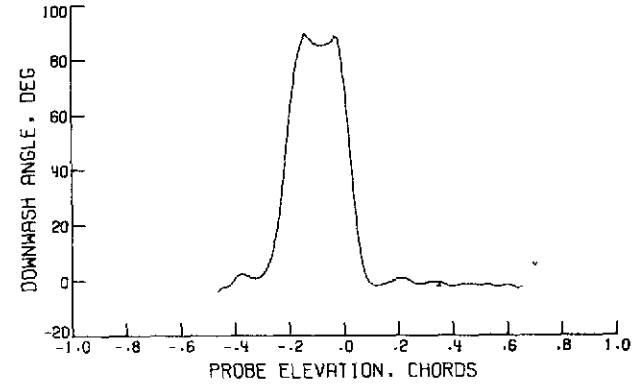


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

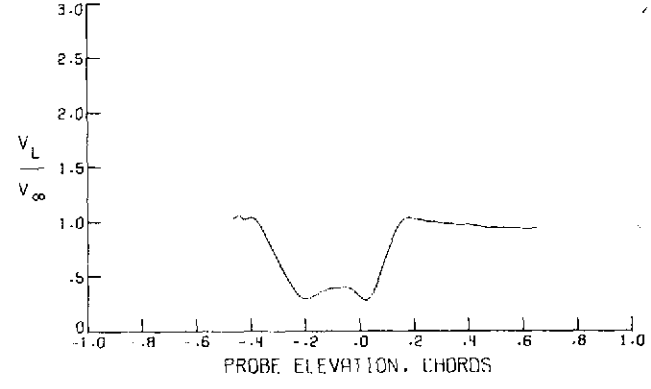
FIGURE 18. - WAKE SURVEY RESULTS FOR η = .200 , α = 4.14 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

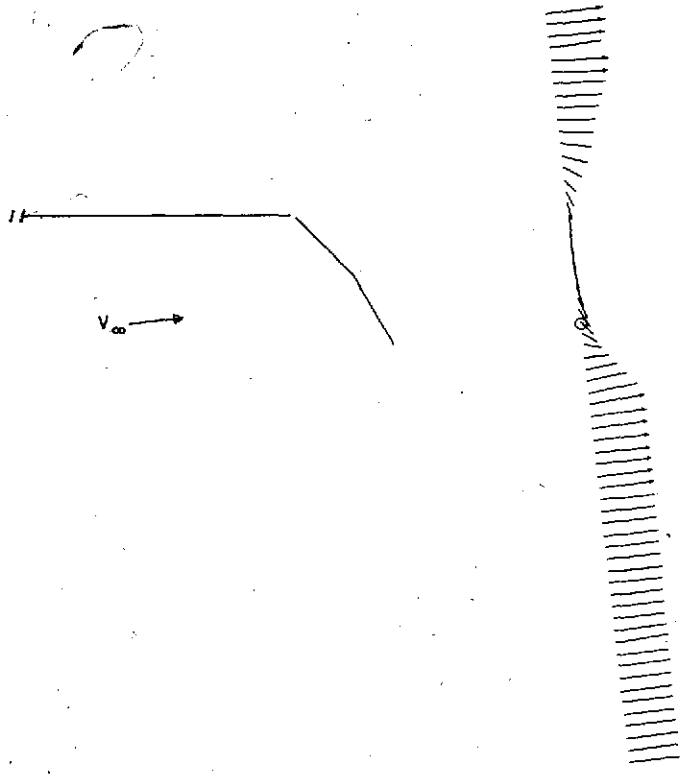


(B) - DOWNWASH ANGLE

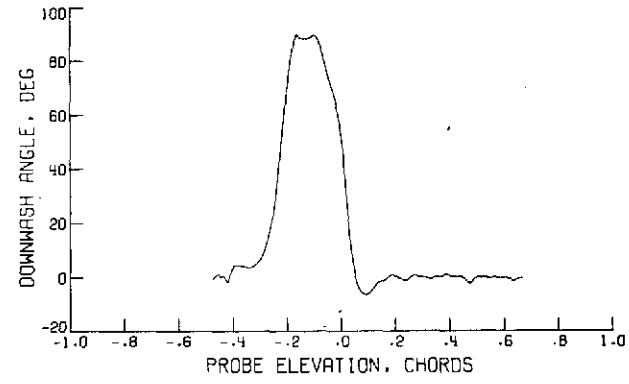


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

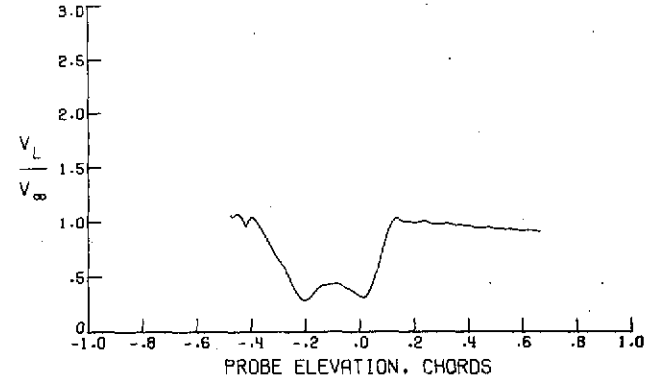
FIGURE 19. - WAKE SURVEY RESULTS FOR n = .923, α = 6.30 DEG, C_μ = 0.00, V_∞ = 36.50 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

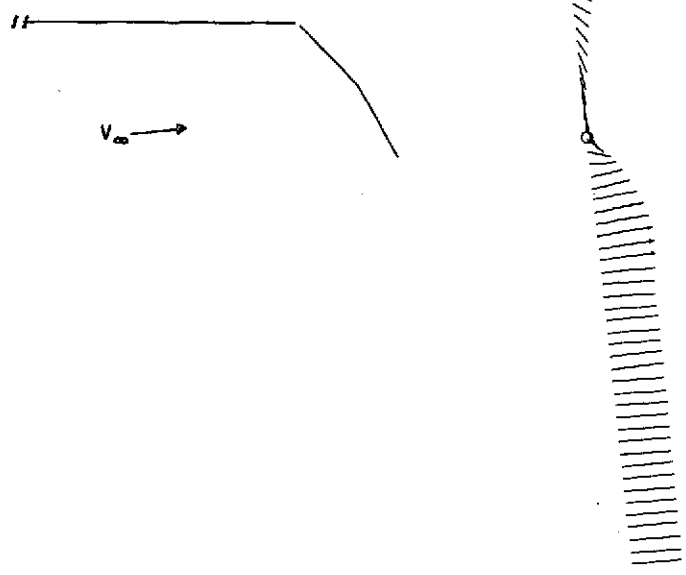


(B) - DOWNWASH ANGLE

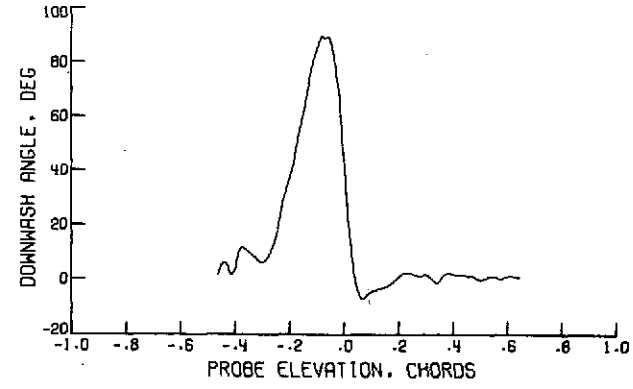


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

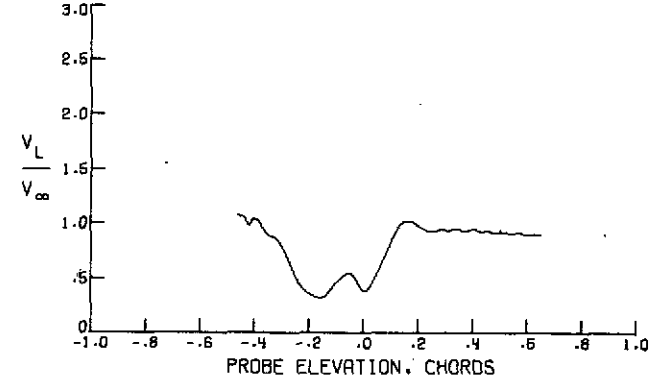
FIGURE 20. - WAKE SURVEY RESULTS FOR η = .821 , α = 6.30 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

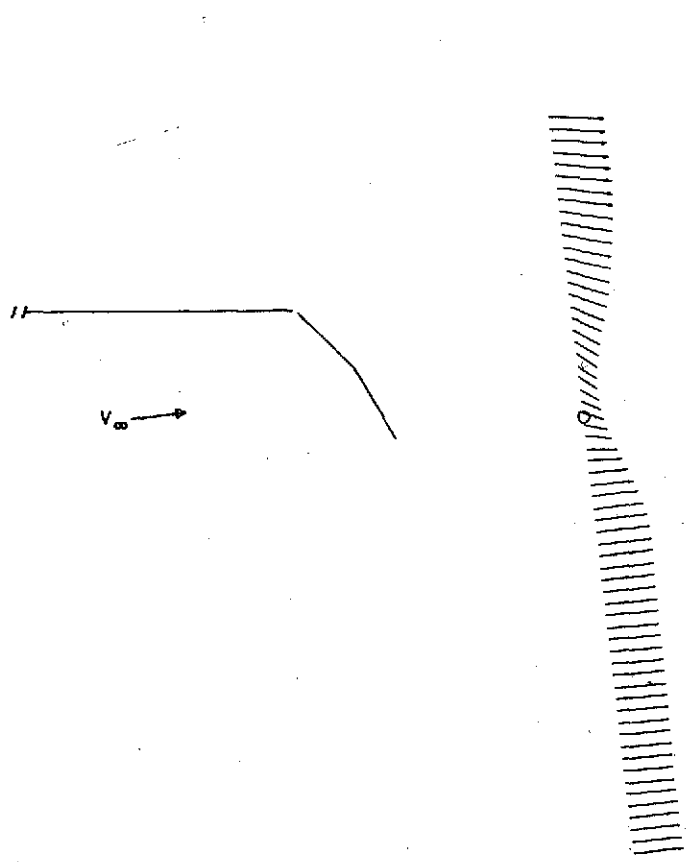


(B) - DOWNWASH ANGLE

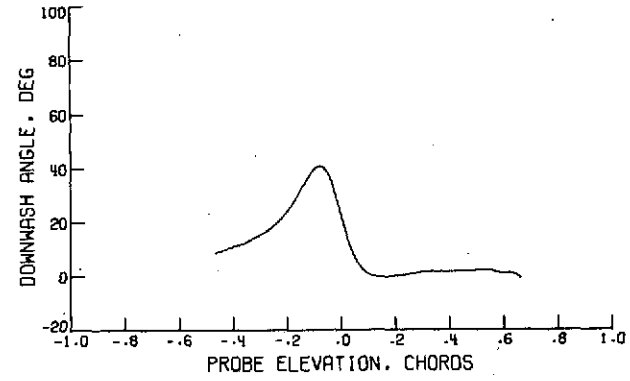


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

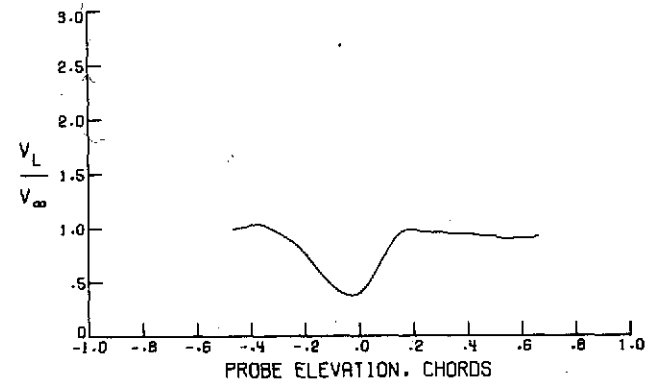
FIGURE 21. - WAKE SURVEY RESULTS FOR η = .713 , α = 6.31 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

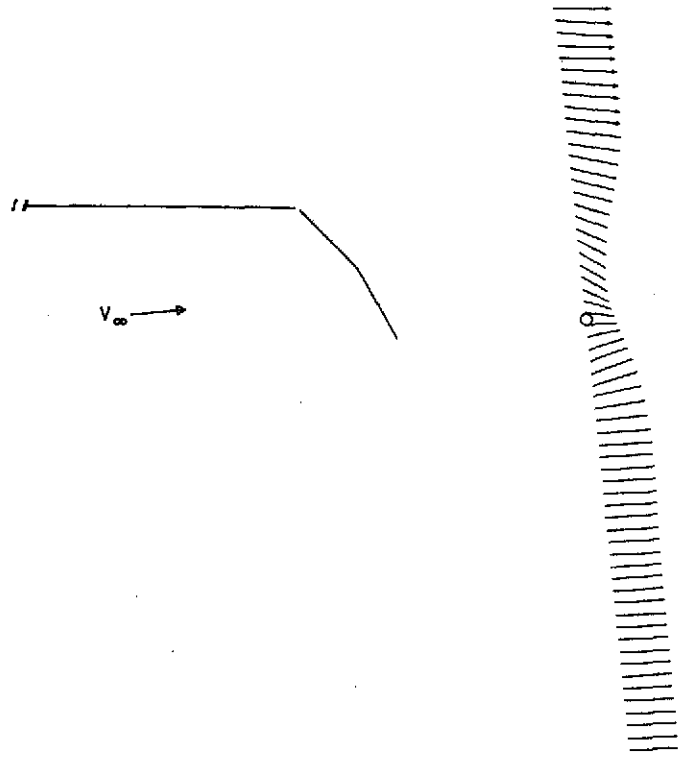


(B) - DOWNWASH ANGLE

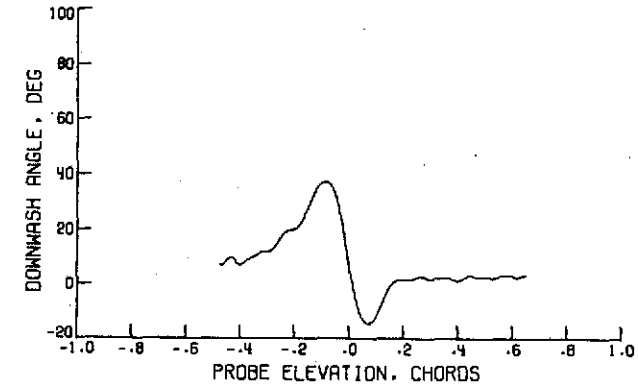


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

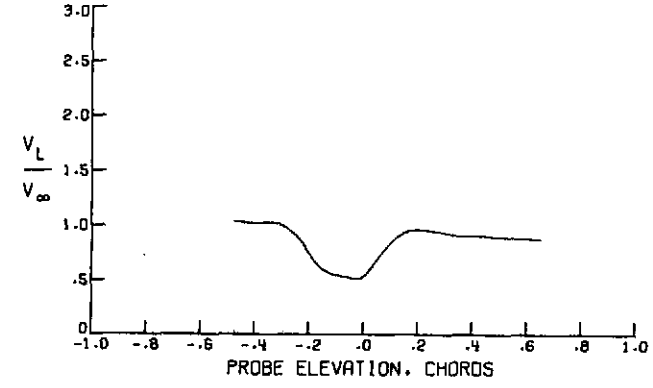
FIGURE 22. - WAKE SURVEY RESULTS FOR η = .599 , α = 6.30 DEG, C_μ = 0.00 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

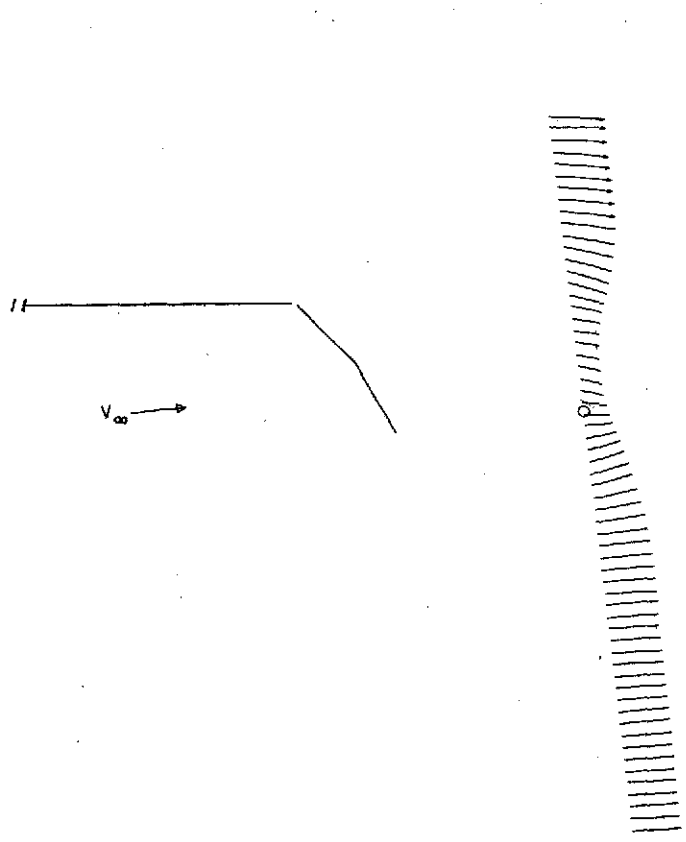


(B) - DOWNWASH ANGLE

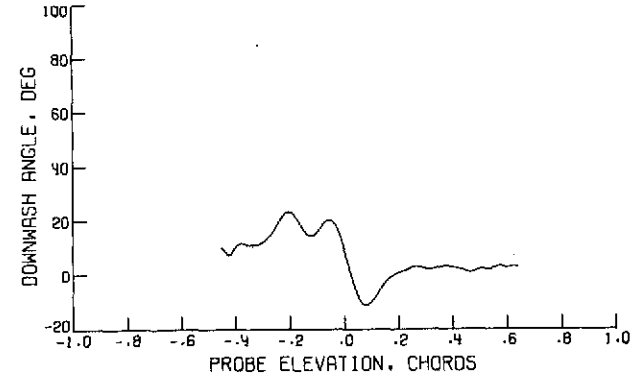


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

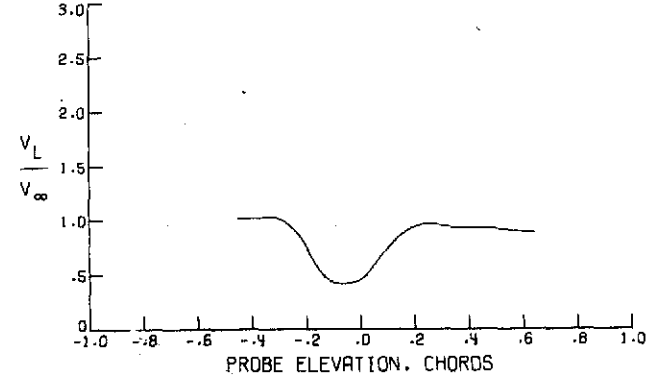
FIGURE 23. - WAKE SURVEY RESULTS FOR η = .510 , α = 6.30 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

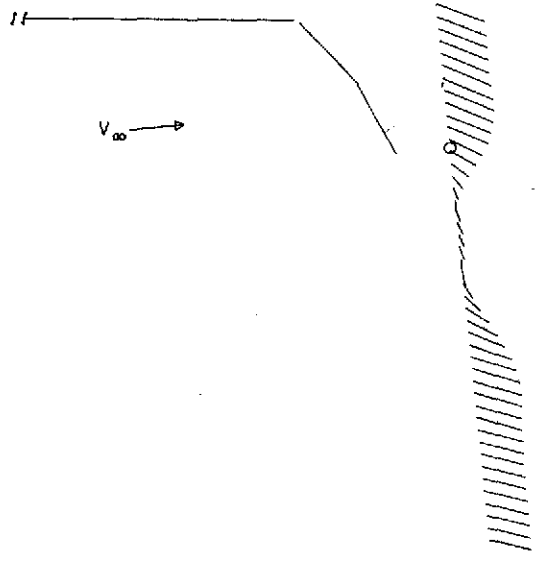


(B) - DOWNWASH ANGLE

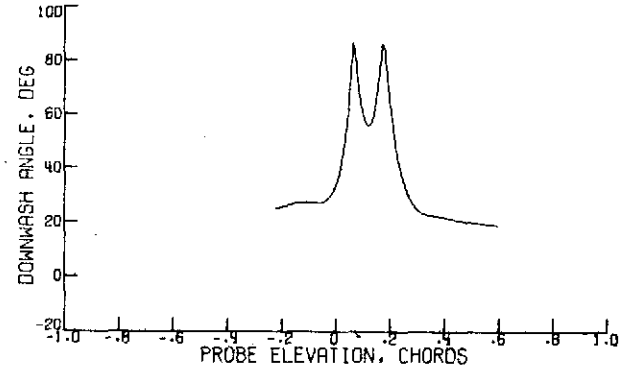


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

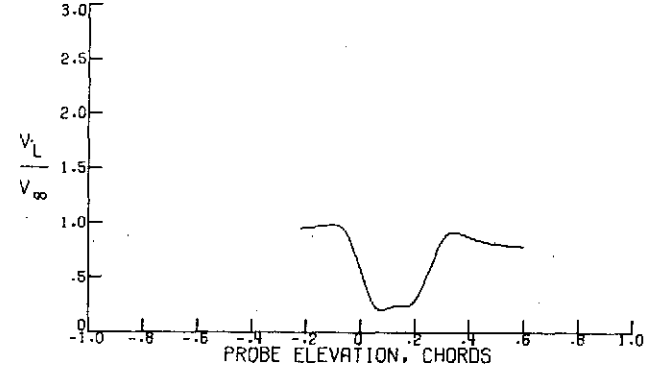
FIGURE 24. - WAKE SURVEY RESULTS FOR η = .451 , α = 6.29 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

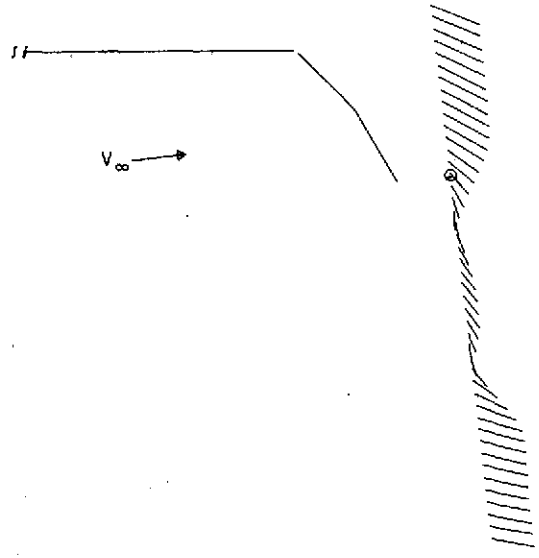


(B) - DOWNWASH ANGLE

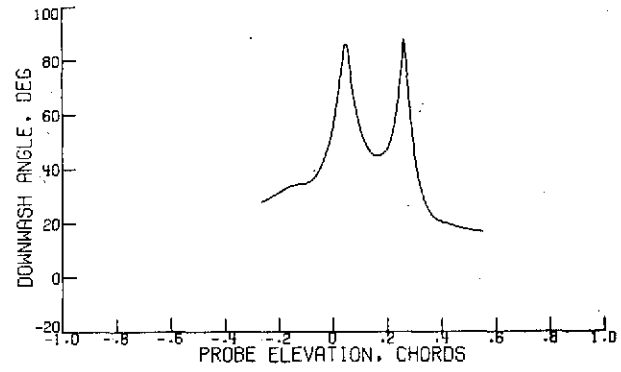


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

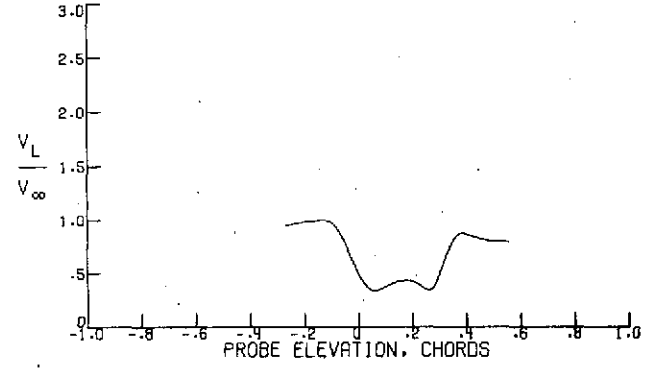
FIGURE 25. - WAKE SURVEY RESULTS FOR η = .321 , α = 6.27 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

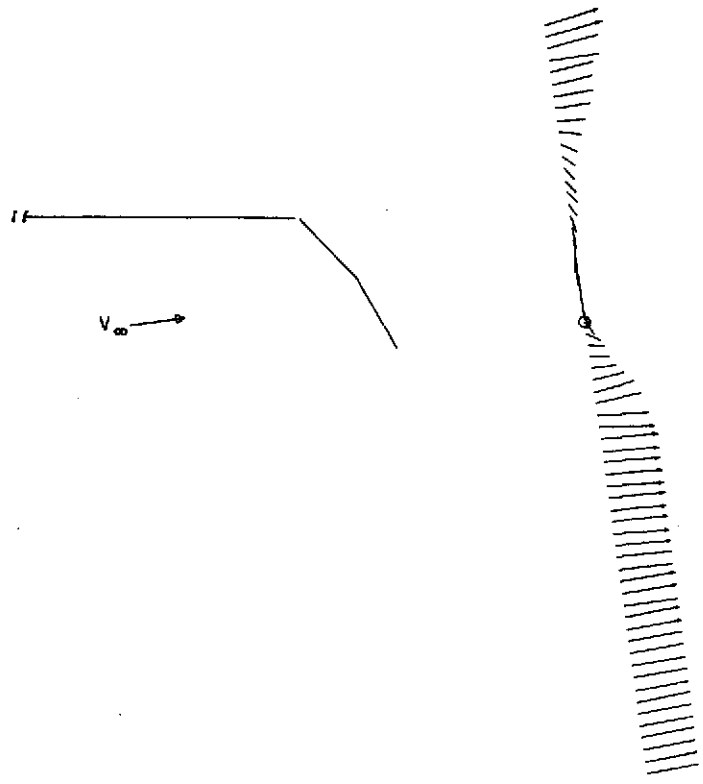


(B) - DOWNWASH ANGLE

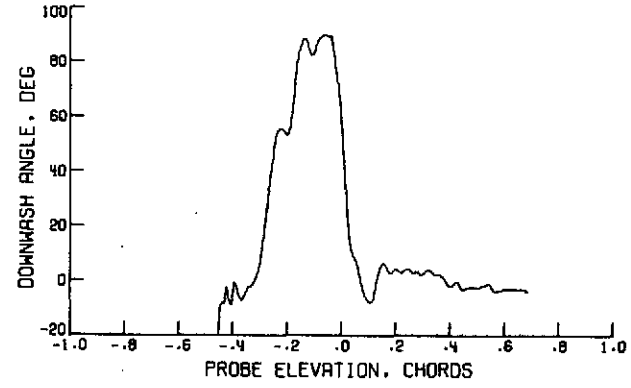


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

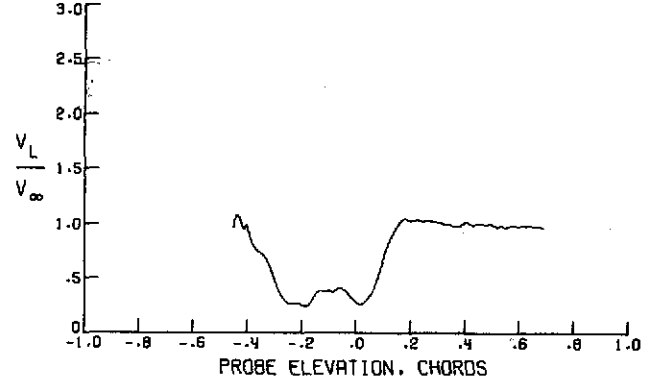
FIGURE 26. - WAKE SURVEY RESULTS FOR η = .202 , α = 6.27 DEG, C_μ = 0.00 , V_∞ = 38.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

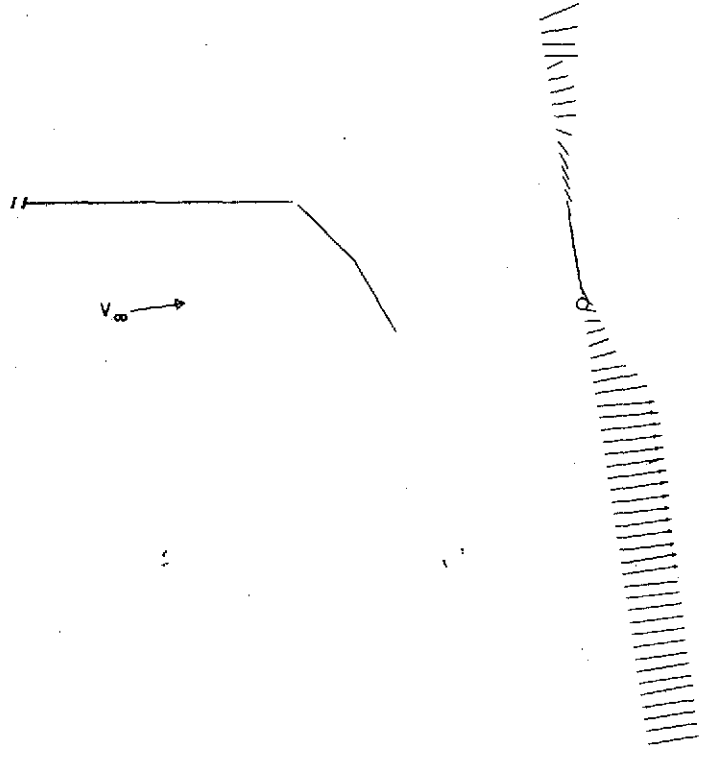


(B) - DOWNWASH ANGLE

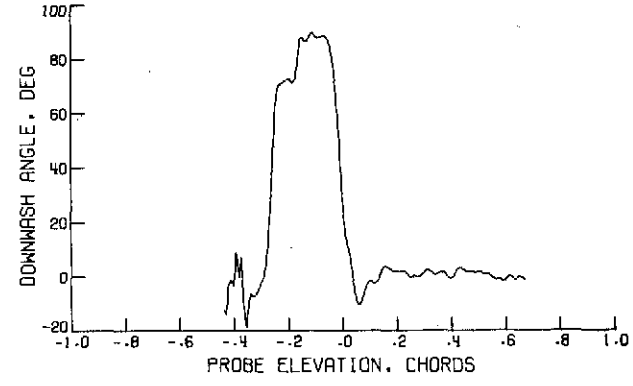


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

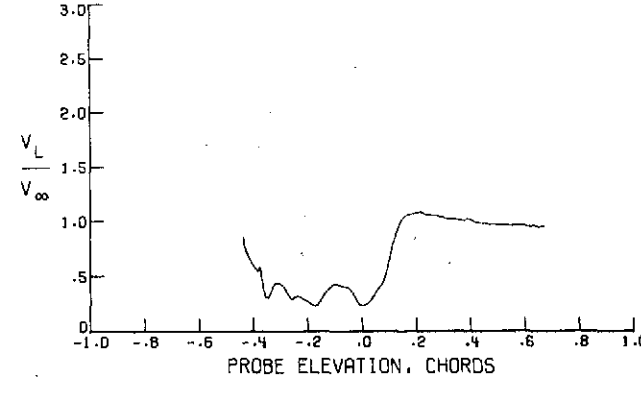
FIGURE 27. - WAKE SURVEY RESULTS FOR η = .924 , α = 8.33 DEG, C_μ = 0.00 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

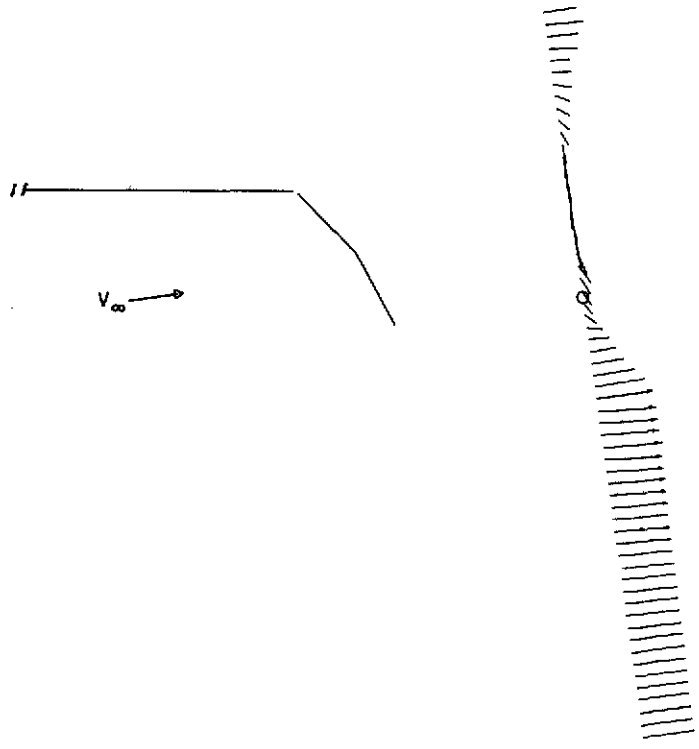


(B) - DOWNWASH ANGLE

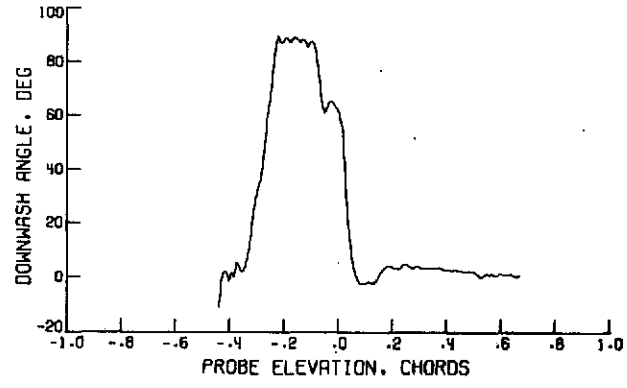


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

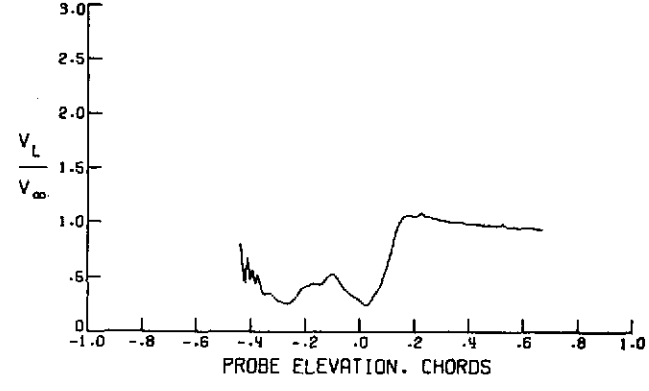
FIGURE 28. - WAKE SURVEY RESULTS FOR η = .819 , α = 8.33 DEG, C_μ = 0.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

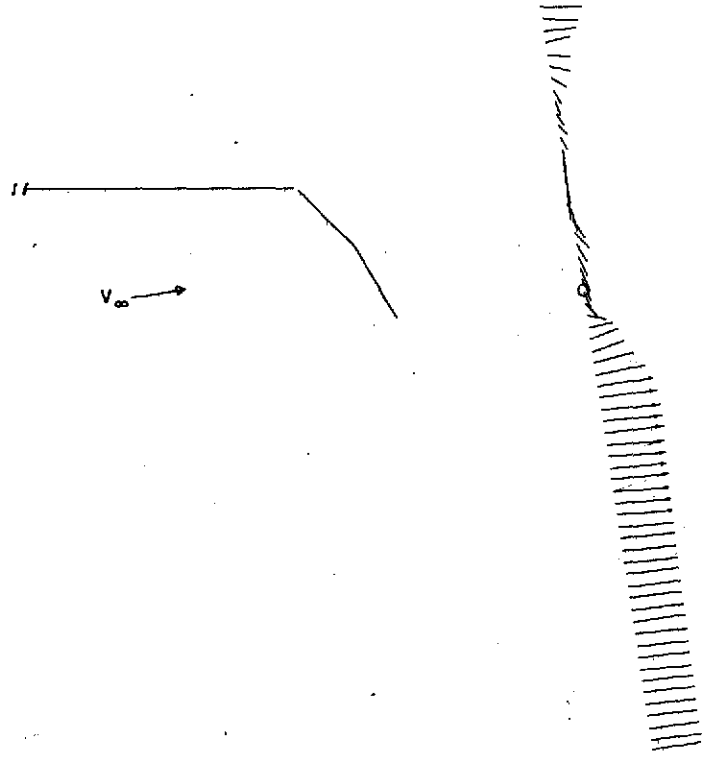


(B) - DOWNWASH ANGLE

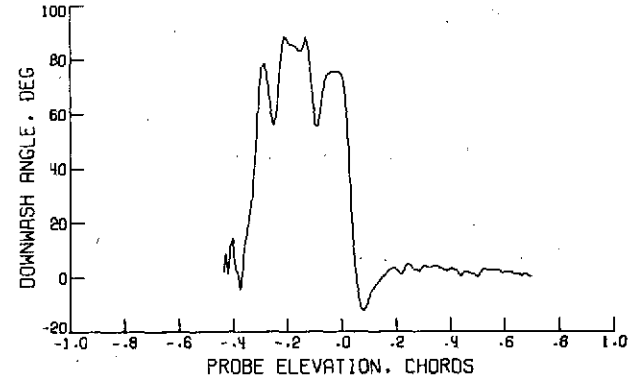


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

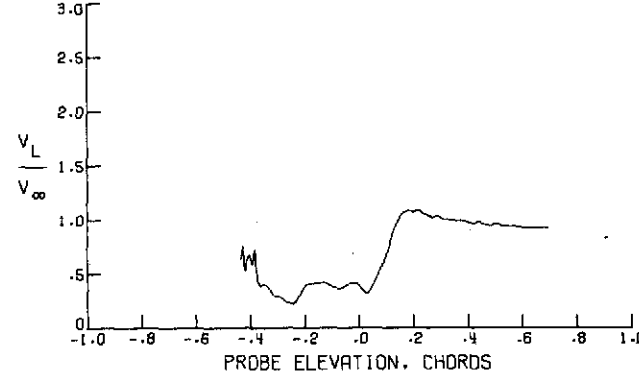
FIGURE 29. - WAKE SURVEY RESULTS FOR $\eta = .714$, $\alpha = 8.37$ DEG, $C_\mu = 0.00$, $V_\infty = 36.42$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

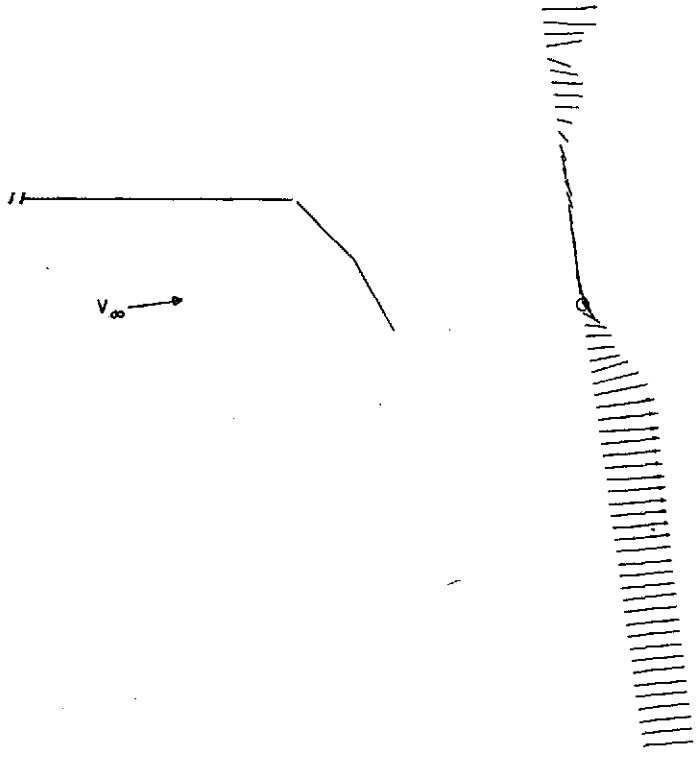


(B) - DOWNWASH ANGLE

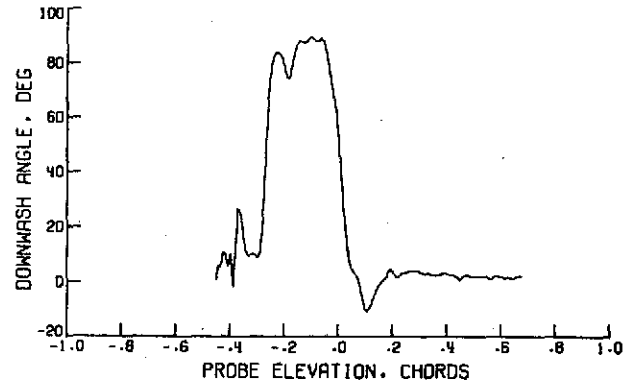


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

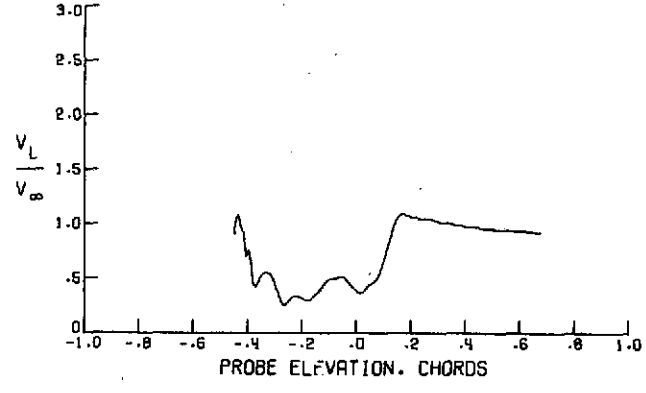
FIGURE 30. - WAKE SURVEY RESULTS FOR η = .601 , α = 8.37 DEG, C_μ = 0.00 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

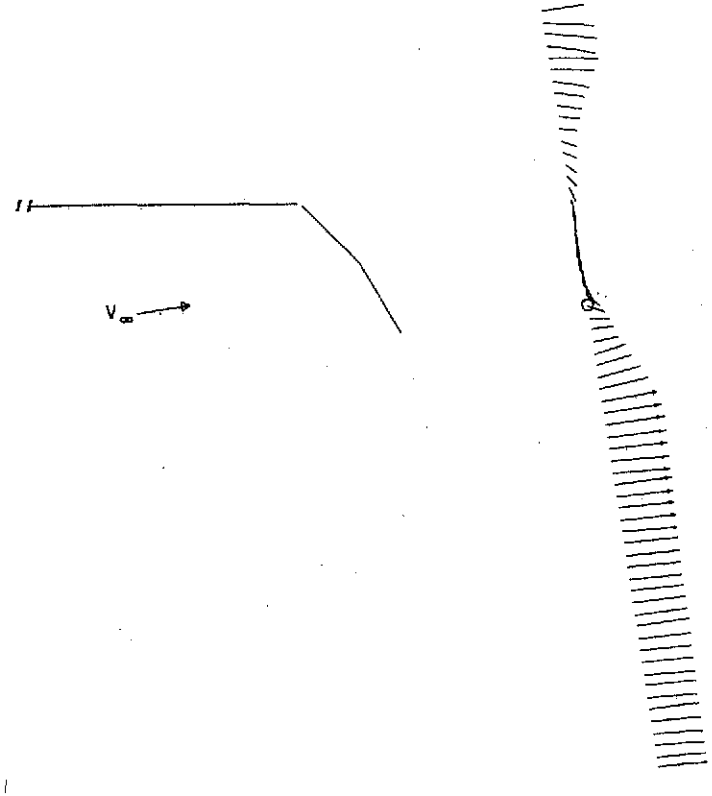


(B) - DOWNWASH ANGLE

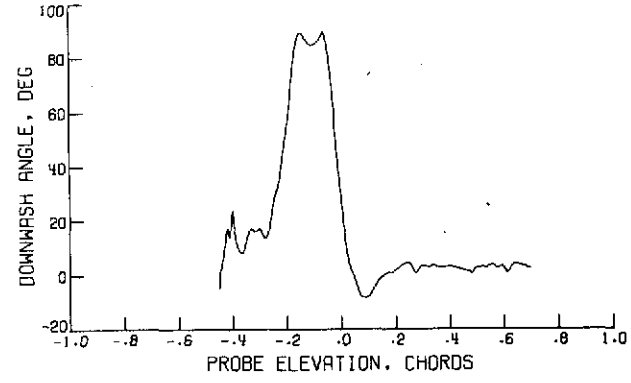


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

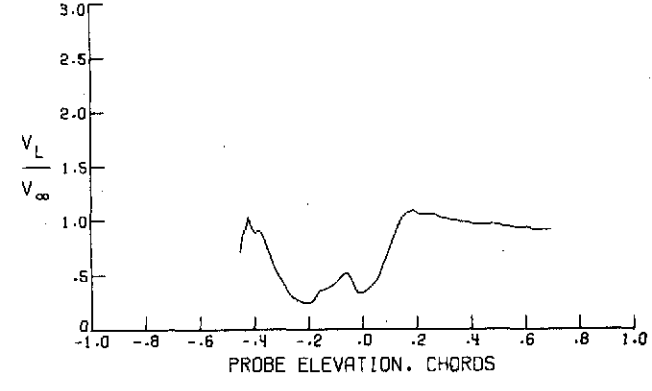
FIGURE 31. - WAKE SURVEY RESULTS FOR η = .511 , α = 8.36 DEG, C_μ = 0.00 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

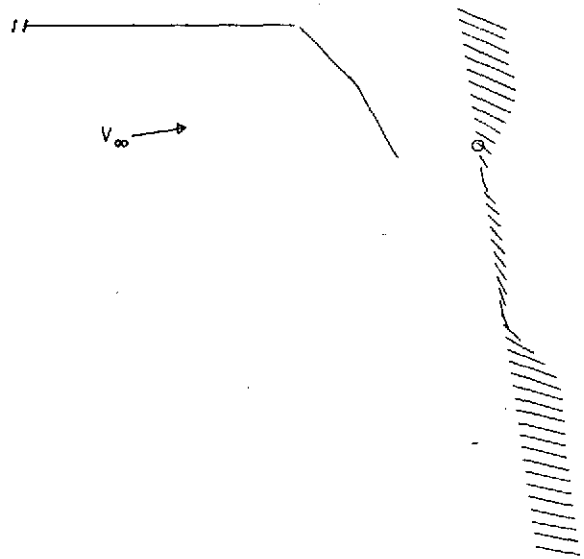


(B) - DOWNWASH ANGLE

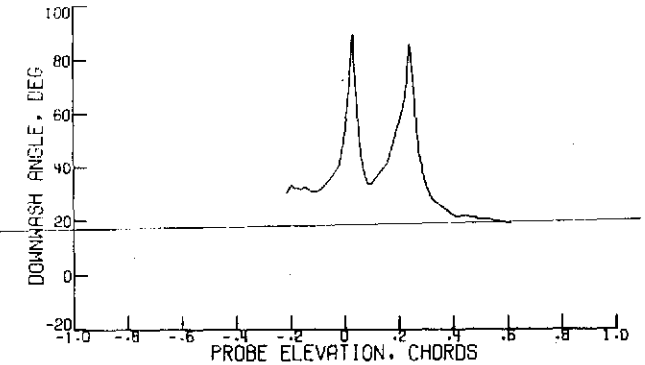


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

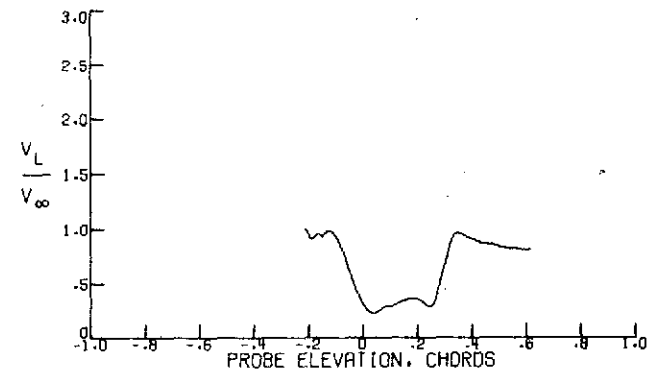
FIGURE 32. - WAKE SURVEY RESULTS FOR η = .452 , α = 8.37 DEG, C_μ = 0.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

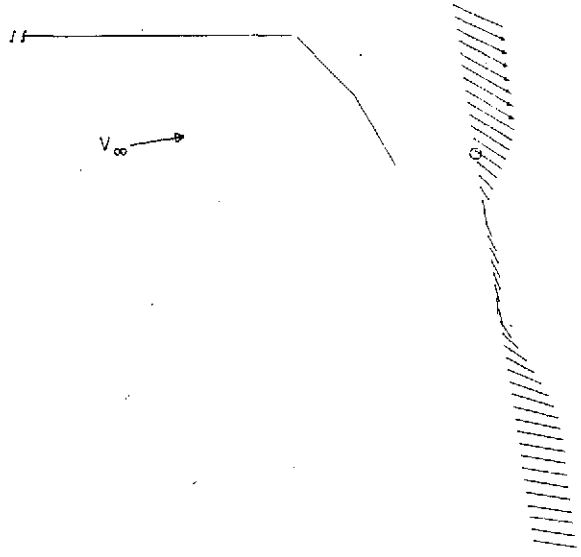


(B) - DOWNWASH ANGLE

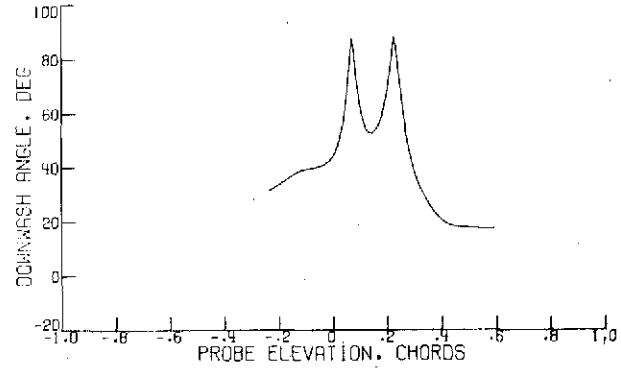


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

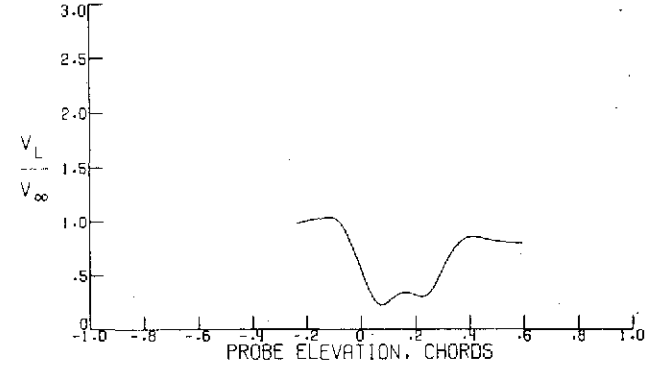
FIGURE 33. - WAKE SURVEY RESULTS FOR η = .321 , α = 8.34 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



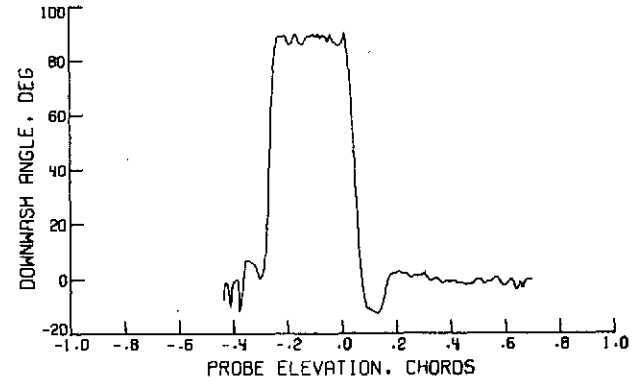
(B) - DOWNWASH ANGLE



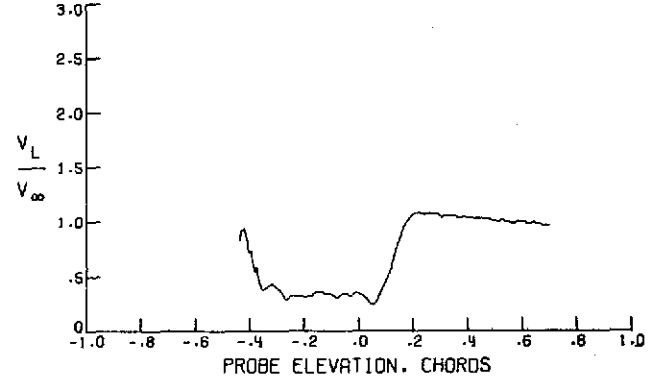
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 34. - WAKE SURVEY RESULTS FOR η = .201 , α = 8.34 DEG, C_μ = 0.00 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

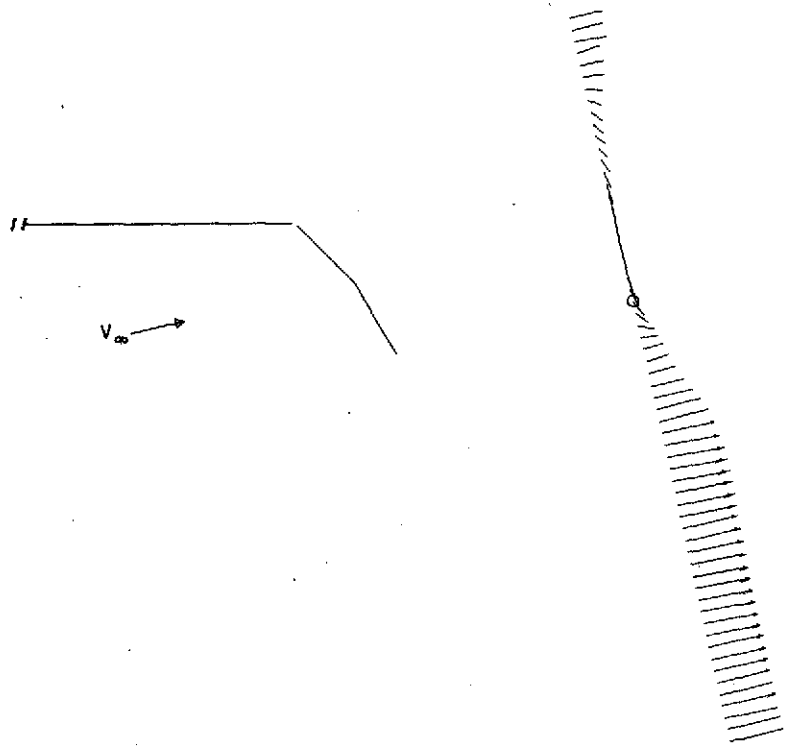


(B) - DOWNWASH ANGLE

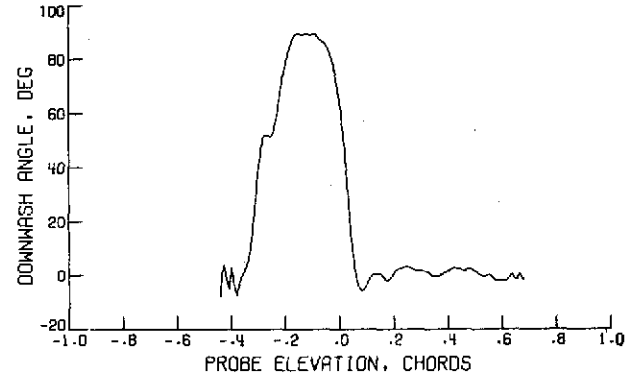


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

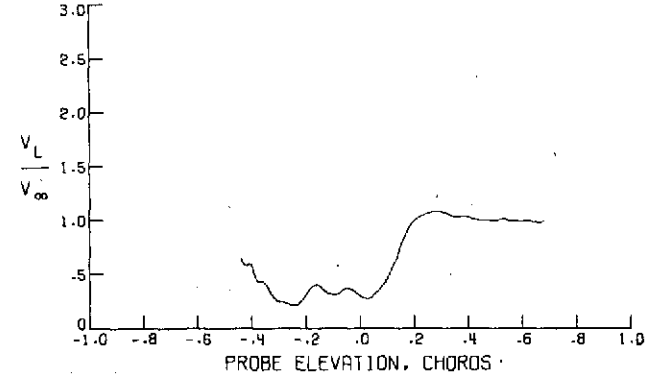
FIGURE 35. - WAKE SURVEY RESULTS FOR η = .923 , α = 12.40DEG, C_μ = 0.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



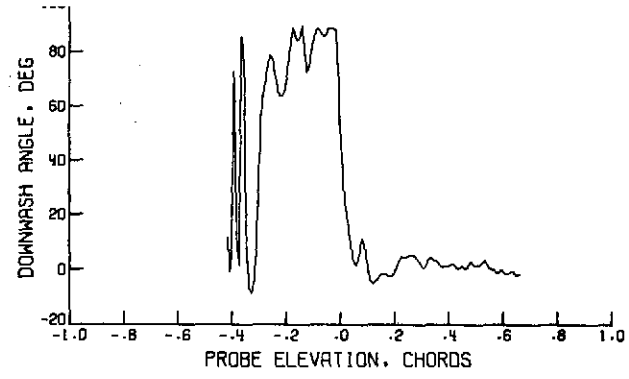
(B) - DOWNWASH ANGLE



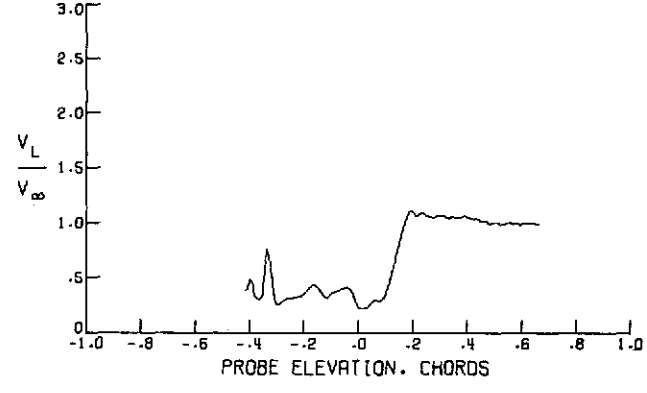
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 36. - WAKE SURVEY RESULTS FOR η = .815 , α = 12.40DEG, C_μ =0.00 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

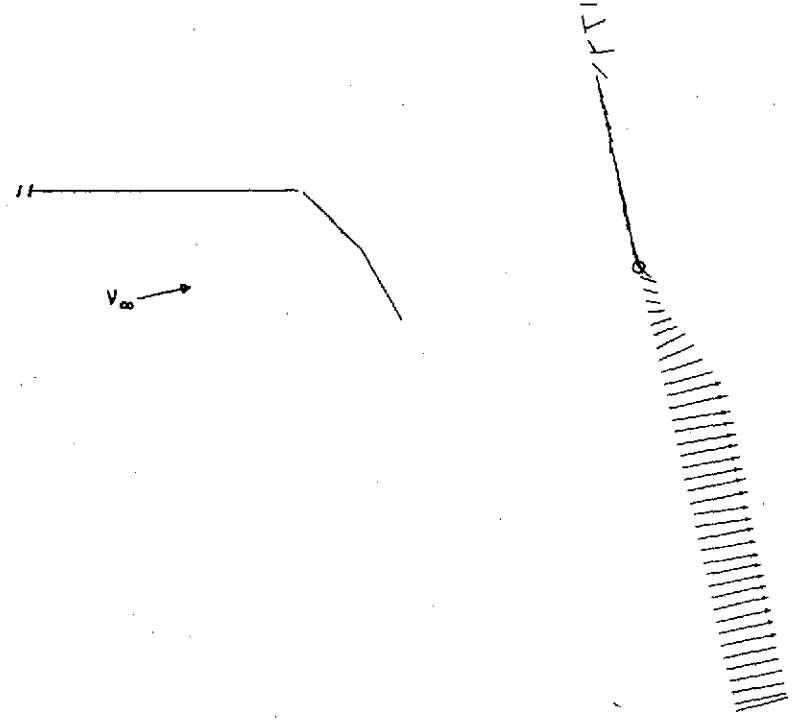


(B) - DOWNWASH ANGLE

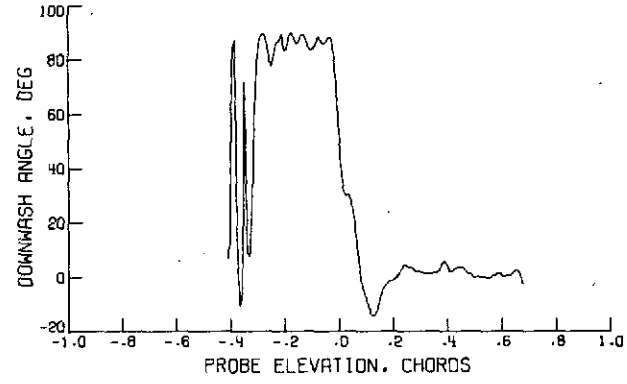


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

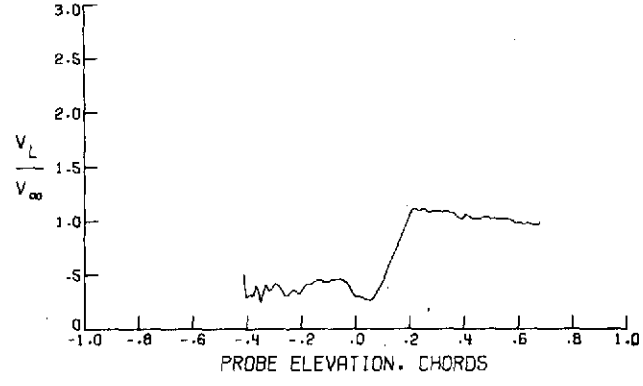
FIGURE 37. - WAKE SURVEY RESULTS FOR η = .714 , α = 12.39DEG, C_μ = 0.00 , V_∞ = 36.53 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

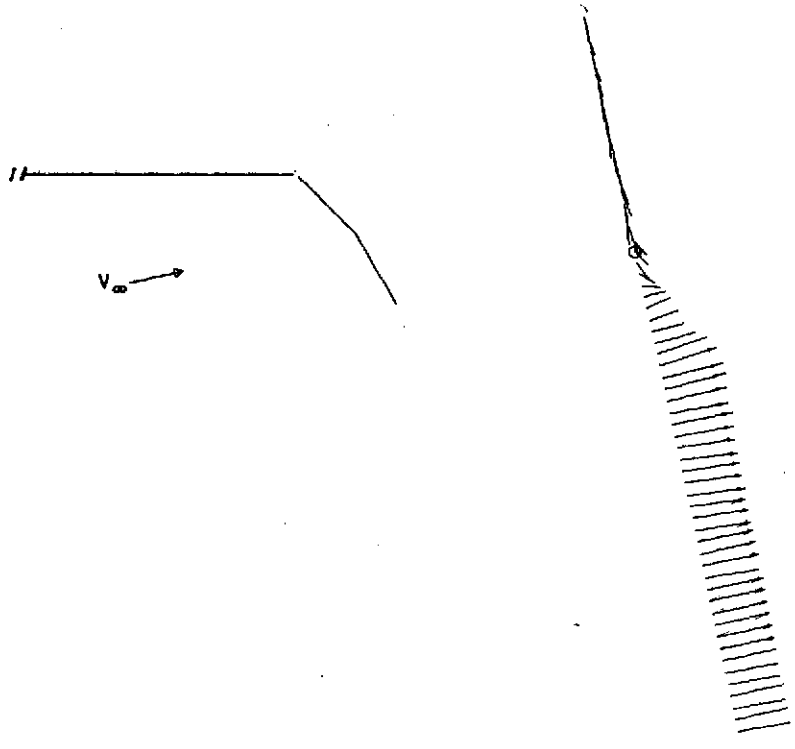


(B) - DOWNWASH ANGLE

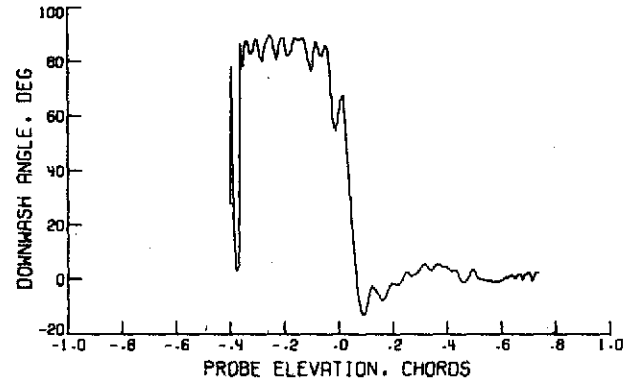


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

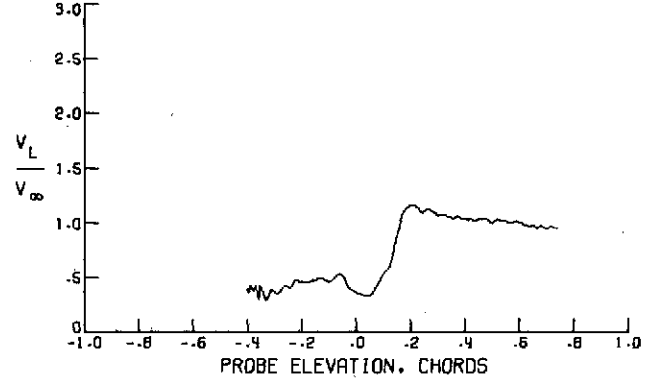
FIGURE 38. - WAKE SURVEY RESULTS FOR η = .599 , α = 12.39DEG, C_μ = 0.00 , V_∞ = 36.54 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

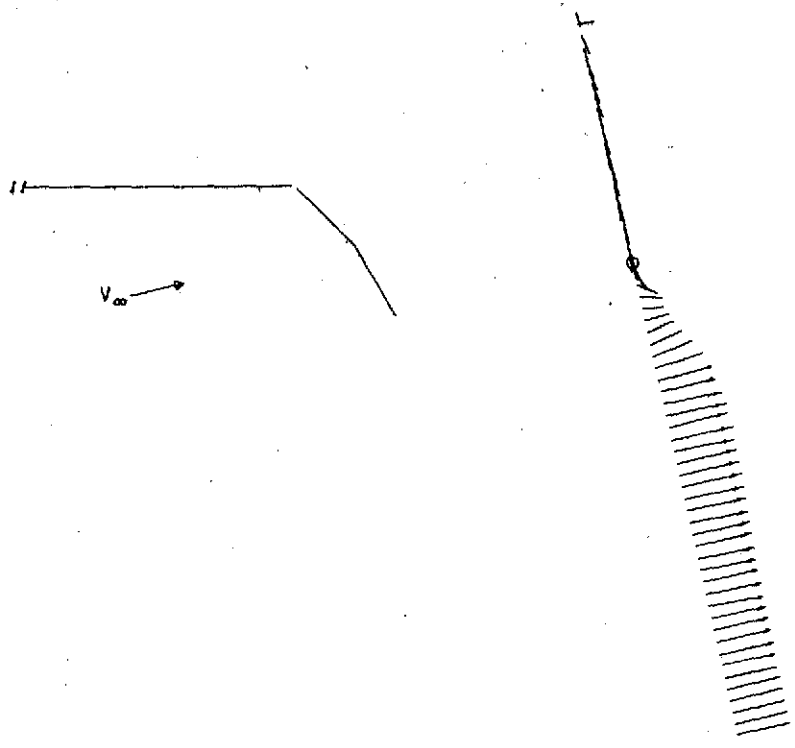


(B) - DOWNWASH ANGLE

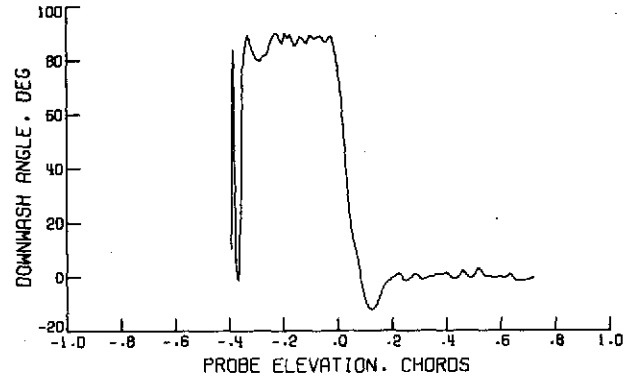


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

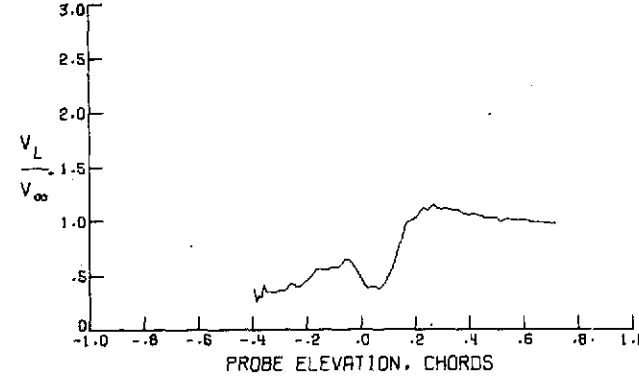
FIGURE 39. - WAKE SURVEY RESULTS FOR η = .510 , α = 12.38DEG, C_μ = 0.00 , V_∞ = 36.57 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

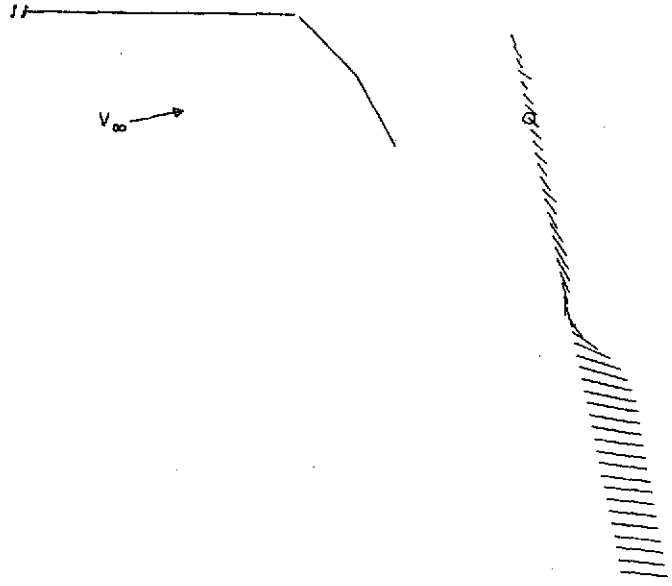


(B) - DOWNWASH ANGLE

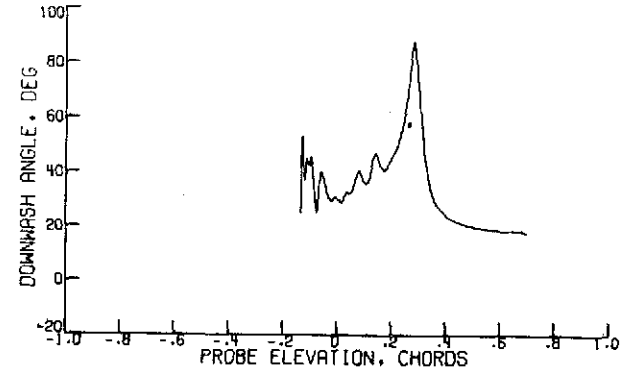


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

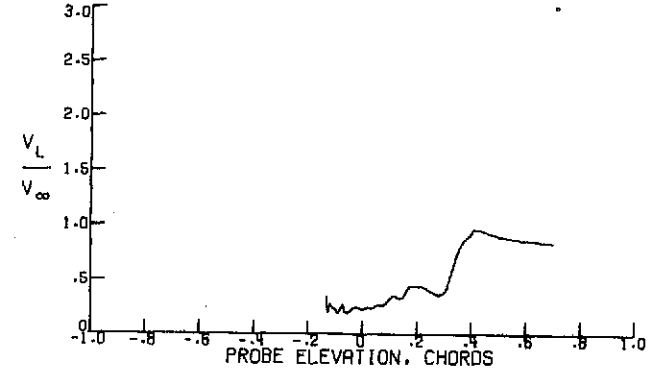
FIGURE 40. - WAKE SURVEY RESULTS FOR η = .450 , α = 12.39DEG, C_μ = 0.00 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

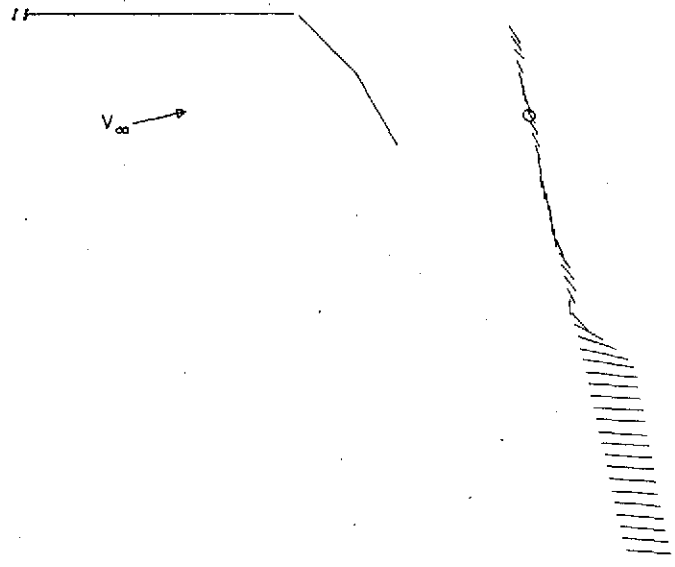


(B) - DOWNWASH ANGLE

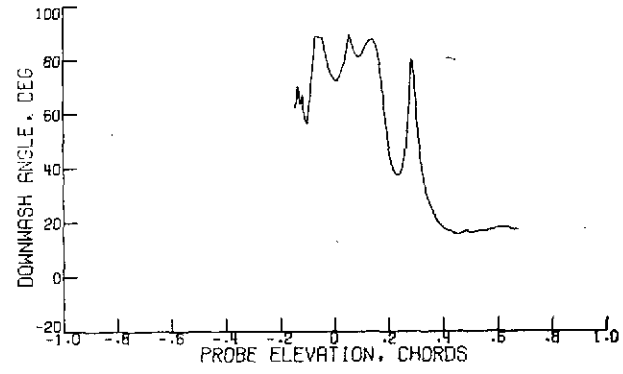


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

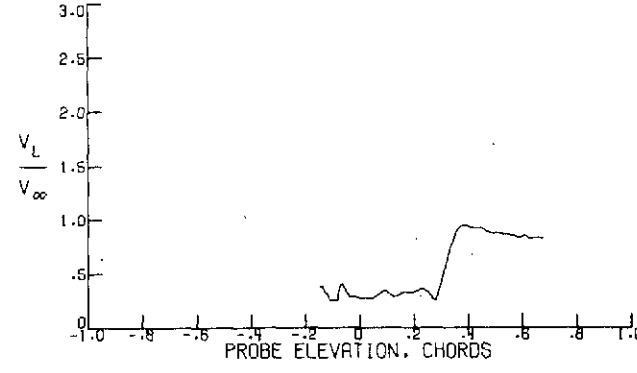
FIGURE 41. - WAKE SURVEY RESULTS FOR η = .321 , α = 12.40DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

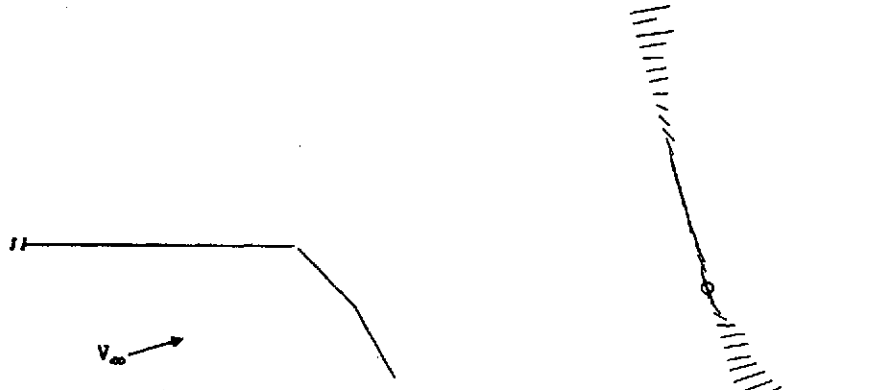


(B) - DOWNWASH ANGLE

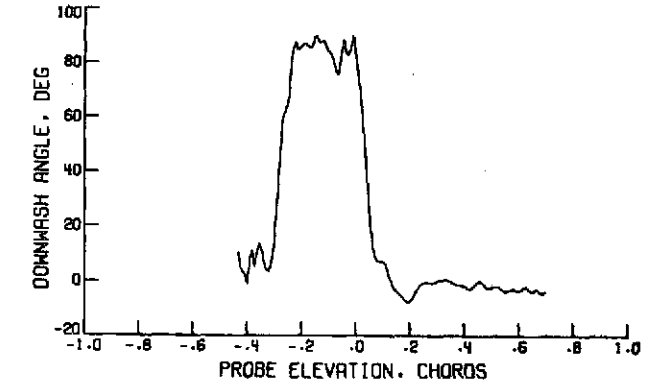


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

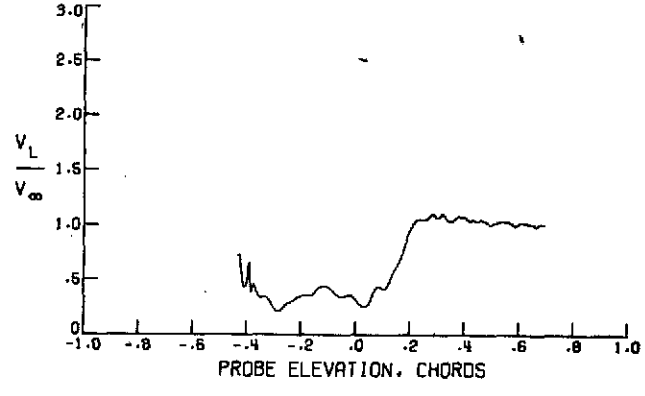
FIGURE 42. - WAKE SURVEY RESULTS FOR η = .202 , α = 12.41DEG, C_μ = 0.00 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

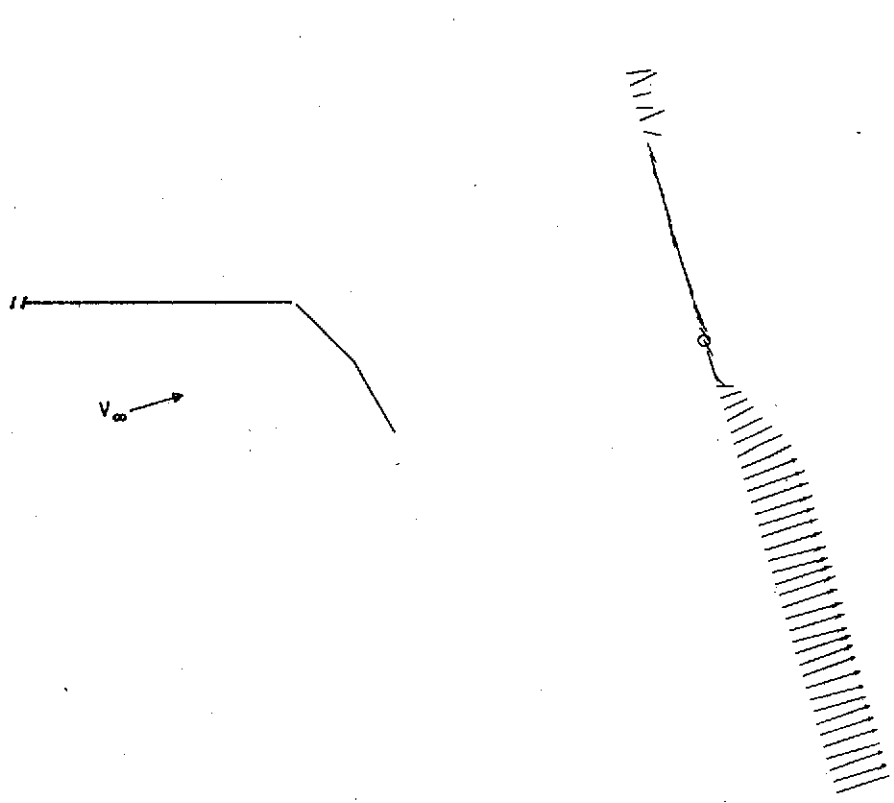


(B) - DOWNWASH ANGLE

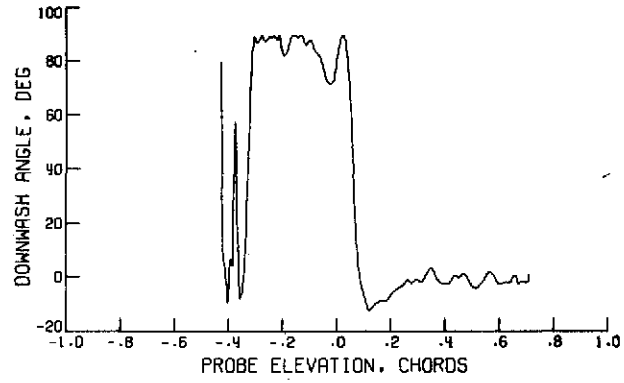


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

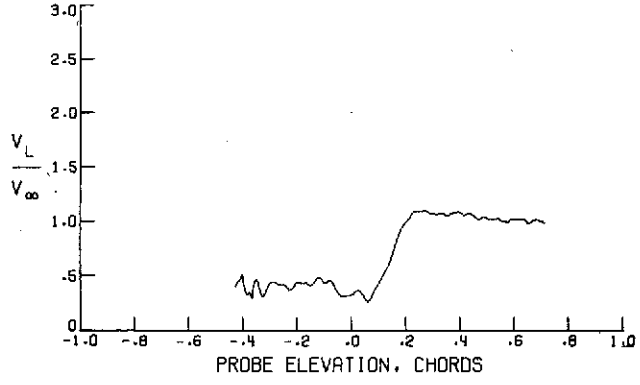
FIGURE 43. - WAKE SURVEY RESULTS FOR η = .923 , α = 16.40DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



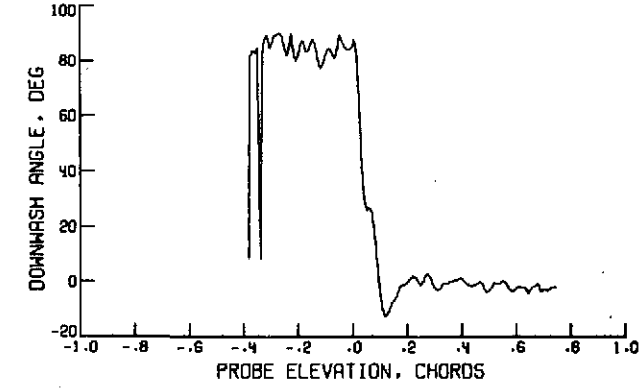
(B) - DOWNWASH ANGLE



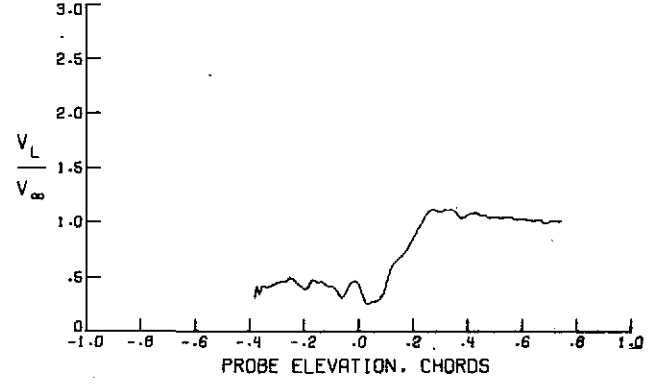
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 44. - WAKE SURVEY RESULTS FOR η = .819 , α = 16.41DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

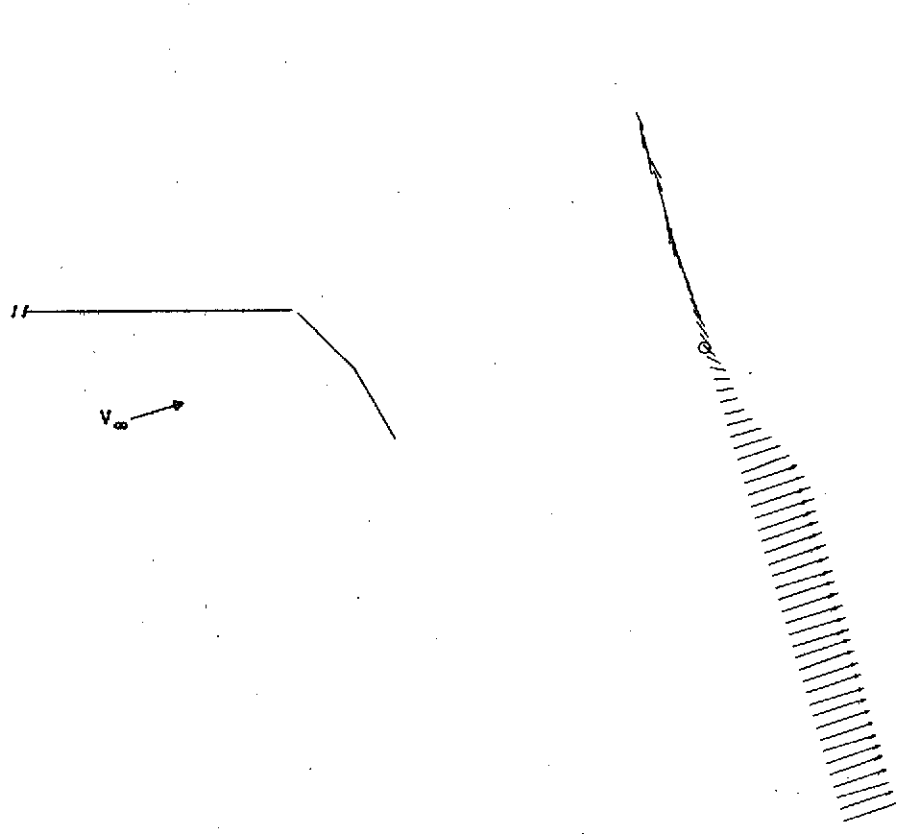


(B) - DOWNWASH ANGLE

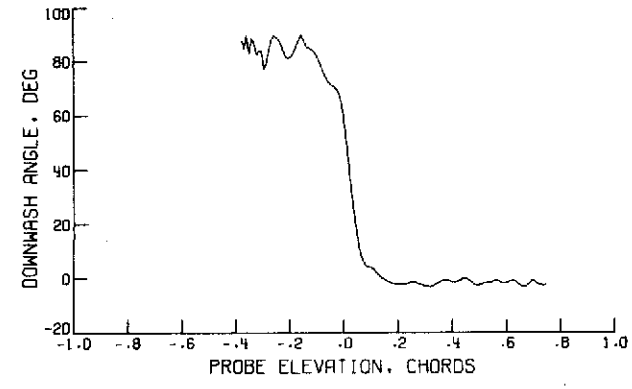


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

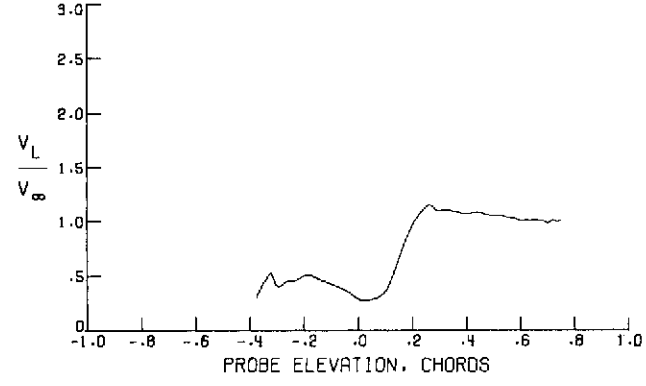
FIGURE 45. - WAKE SURVEY RESULTS FOR η = .714 , α = 16.41DEG, C_μ = 0.00 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

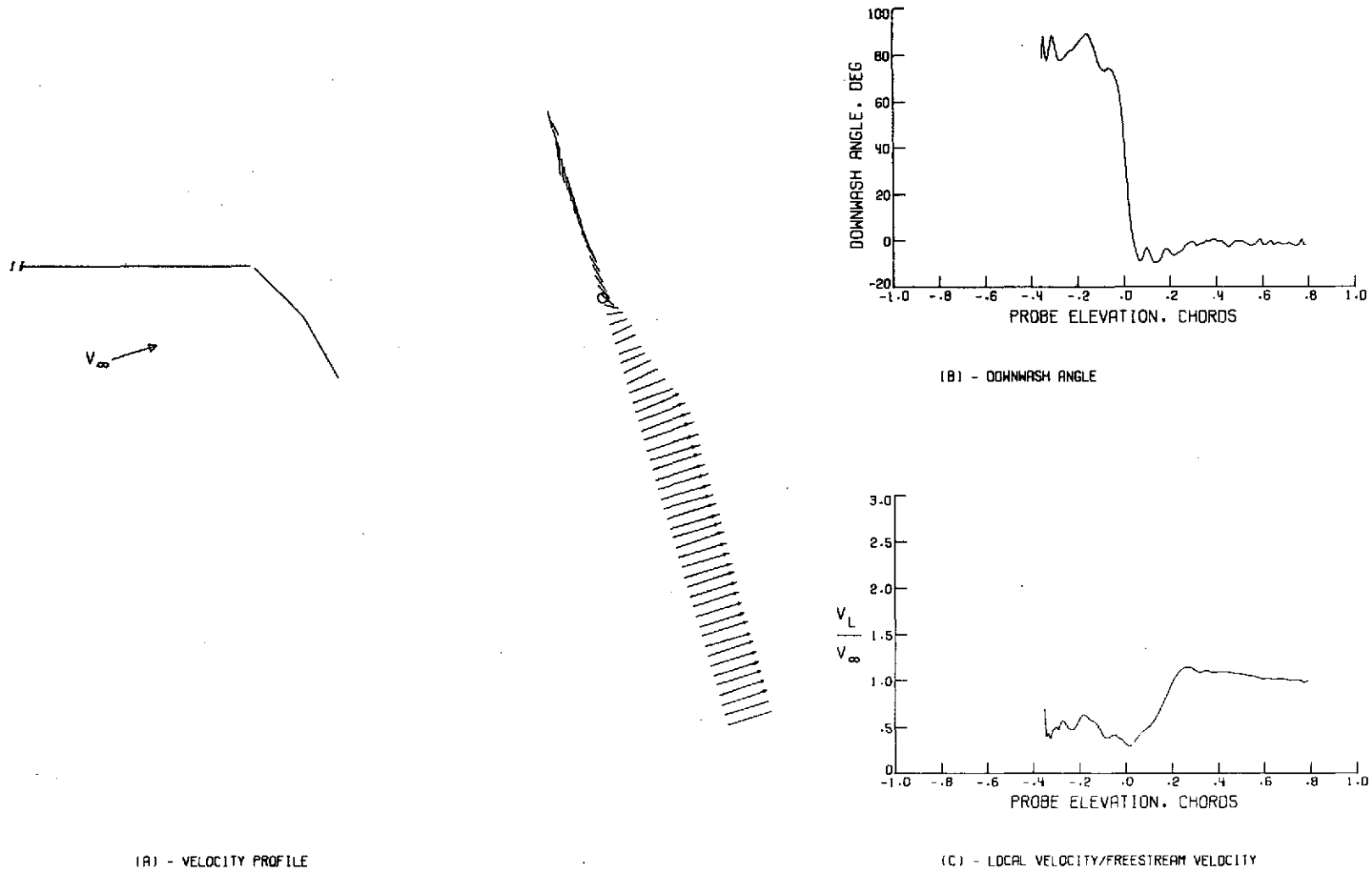


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 46. - WAKE SURVEY RESULTS FOR η = .601 , α = 16.40DEG, C_μ = 0.00 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG

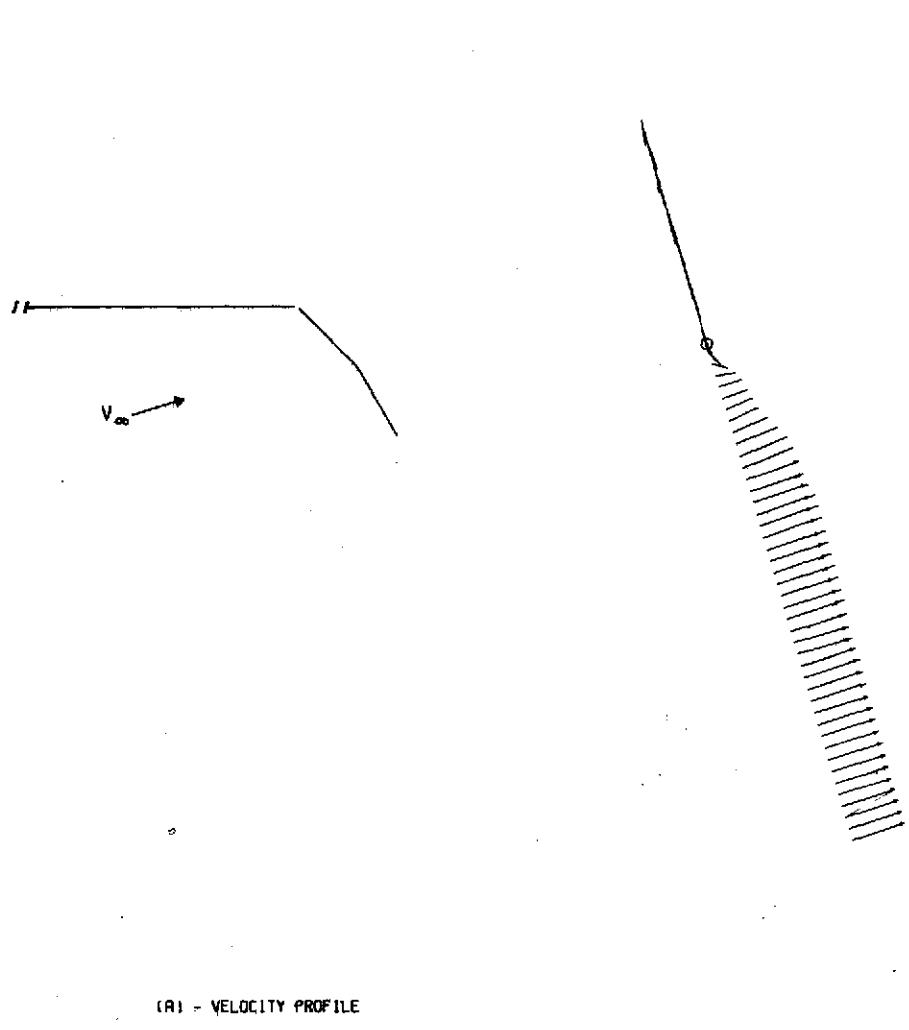


(A) - VELOCITY PROFILE

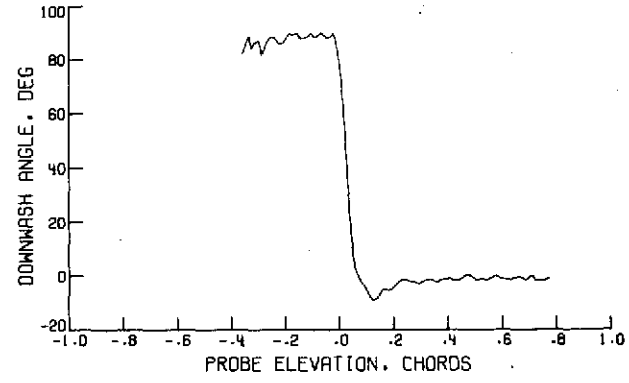
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

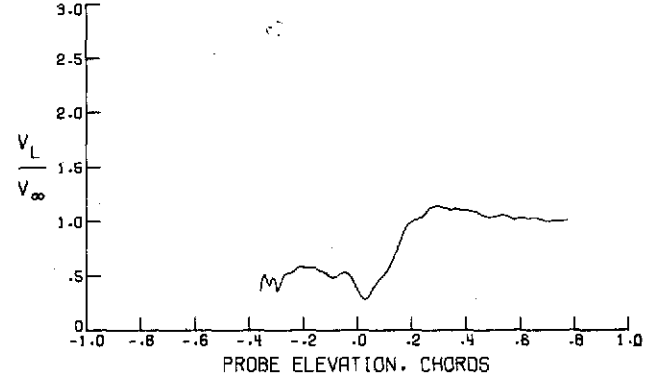
FIGURE 47. - WAKE SURVEY RESULTS FOR $\eta = .509$, $\alpha = 16.39$DEG, $C_\mu = 0.00$, $V_\infty = 36.43$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE



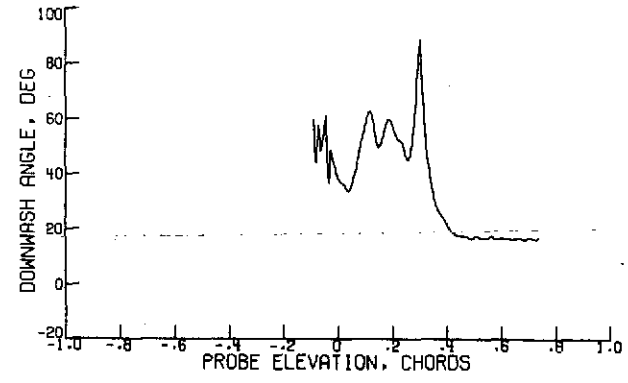
(B) - DOWNWASH ANGLE



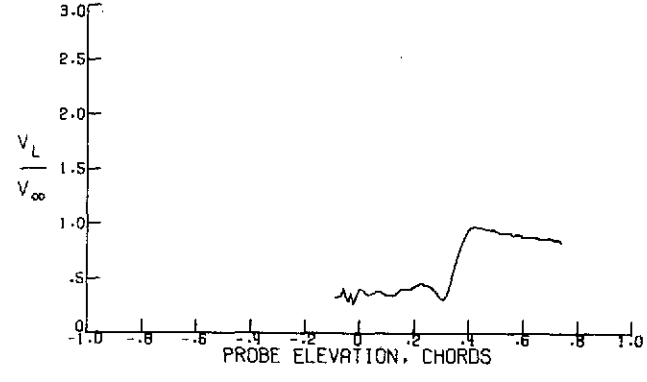
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 48. - WAKE SURVEY RESULTS FOR η = .451 , α = 16.40DEG, C_μ = 0.00 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

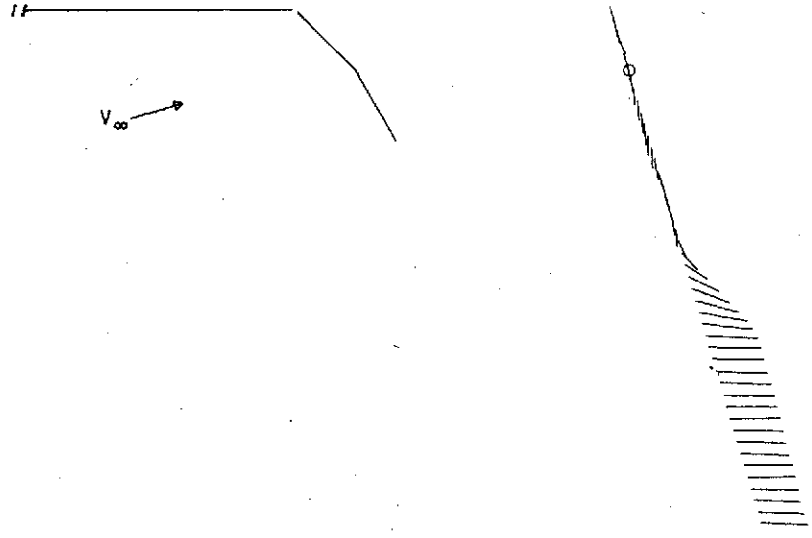


(B) - DOWNWASH ANGLE

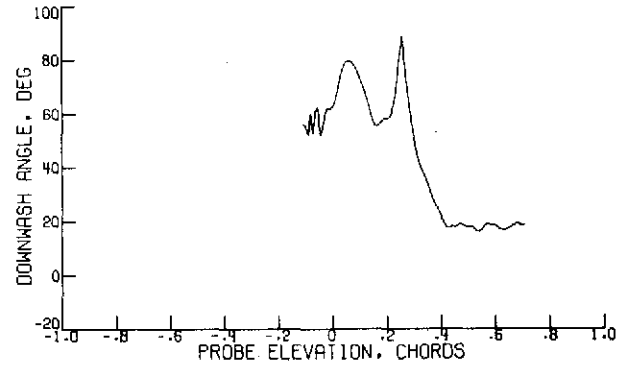


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

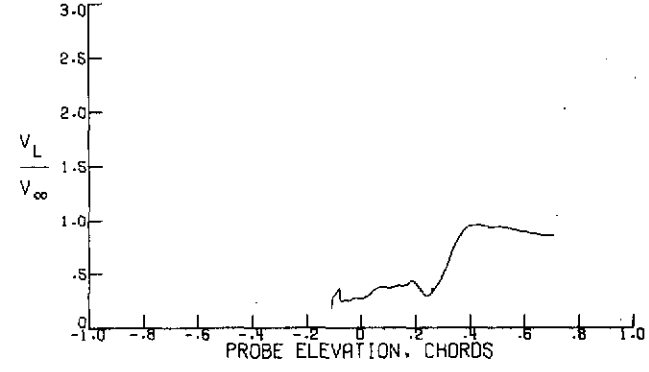
FIGURE 49. - WAKE SURVEY RESULTS FOR η = .321 , α = 16.40DEG, C_μ =0.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

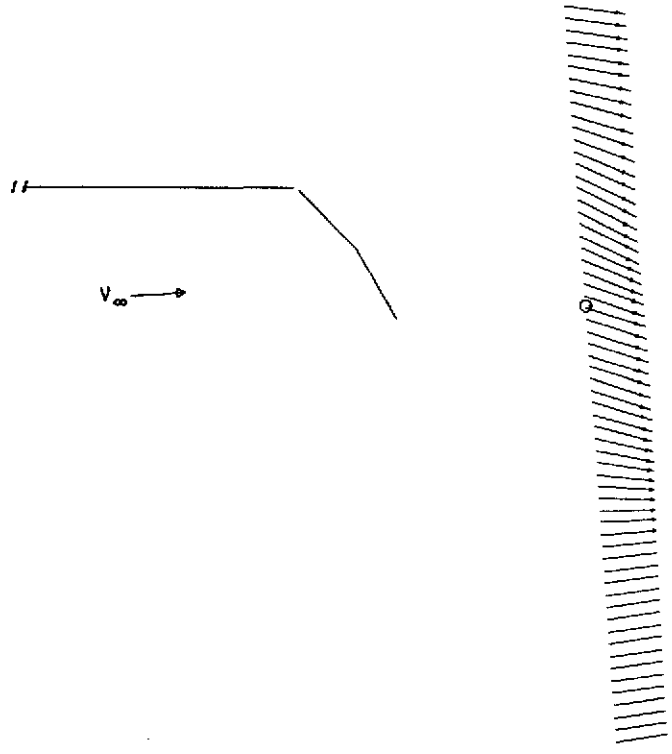


(B) - DOWNWASH ANGLE

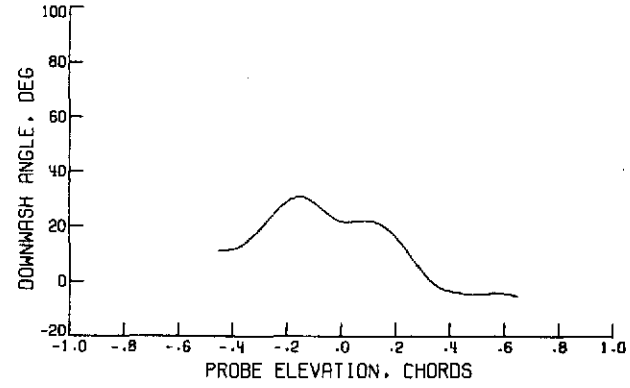


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

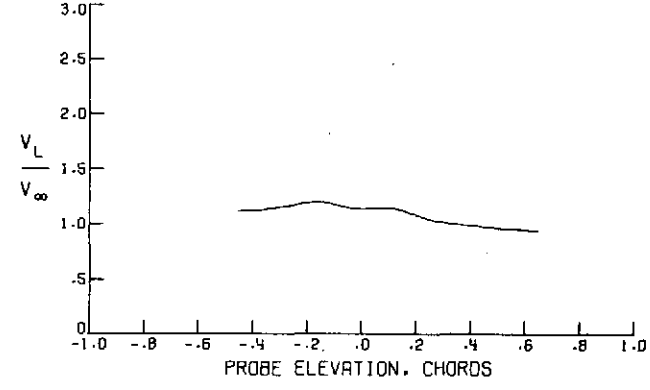
FIGURE 50. - WAKE SURVEY RESULTS FOR η = .202 , α = 16.40DEG, C_μ = 0.00 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

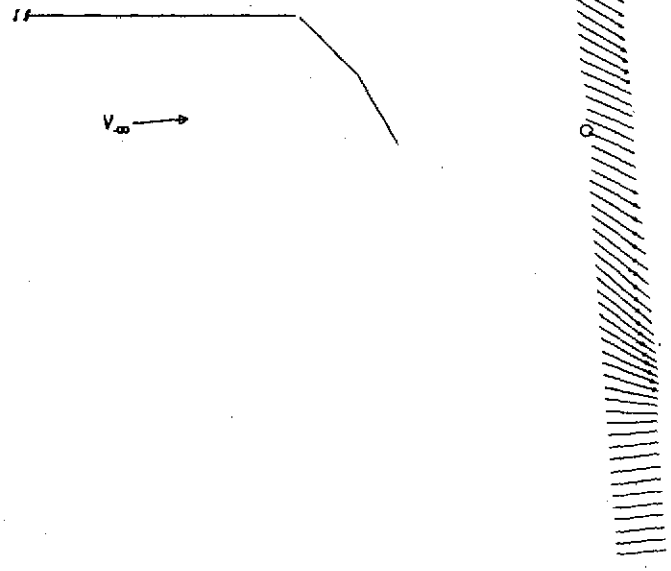


(B) - DOWNWASH ANGLE

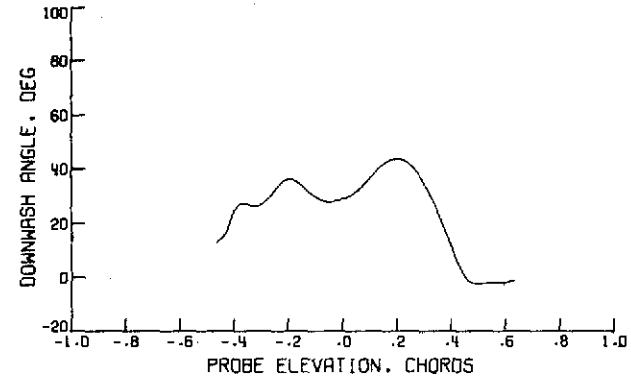


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

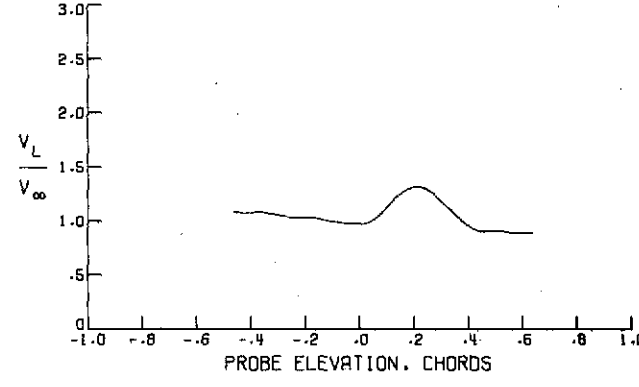
FIGURE 51. - WAKE SURVEY RESULTS FOR $\eta = .925$, $\alpha = 4.31$ DEG, $C_\mu = .50$, $V_\infty = 36.33$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

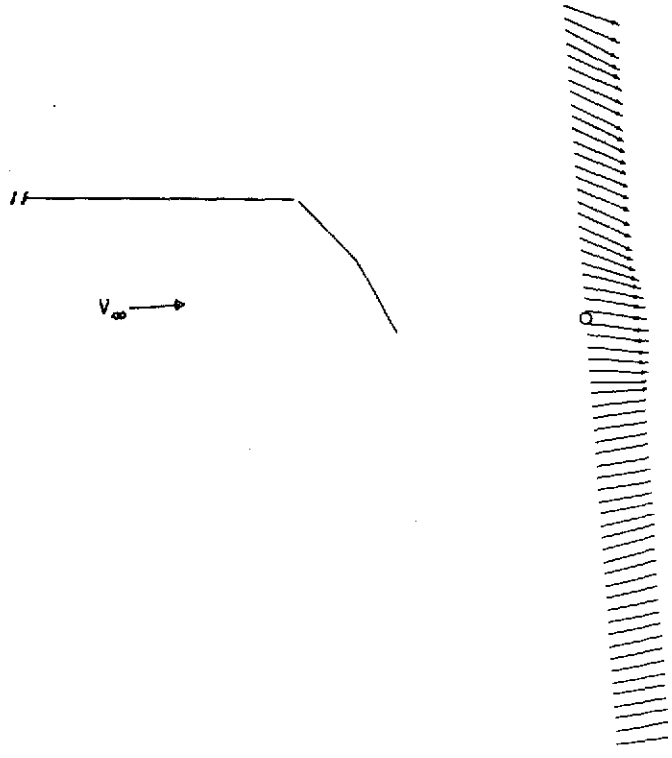


(B) - DOWNWASH ANGLE

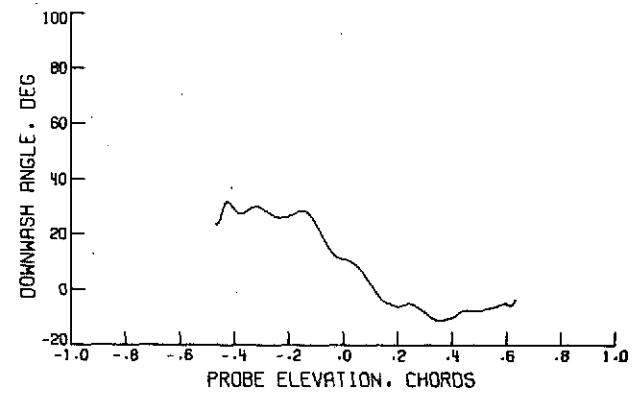


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

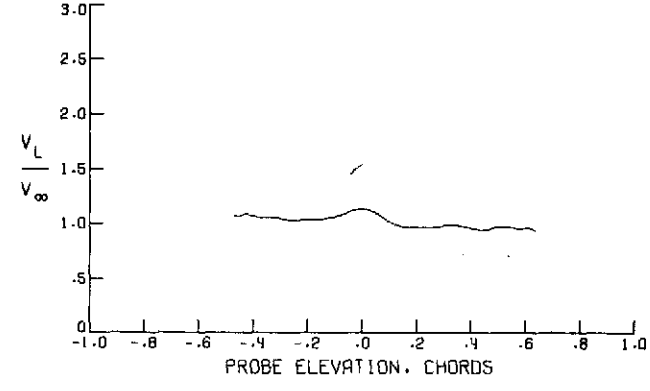
FIGURE 52. - WAKE SURVEY RESULTS FOR η = .821 , α = 4.32 DEG, C_μ = .50 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

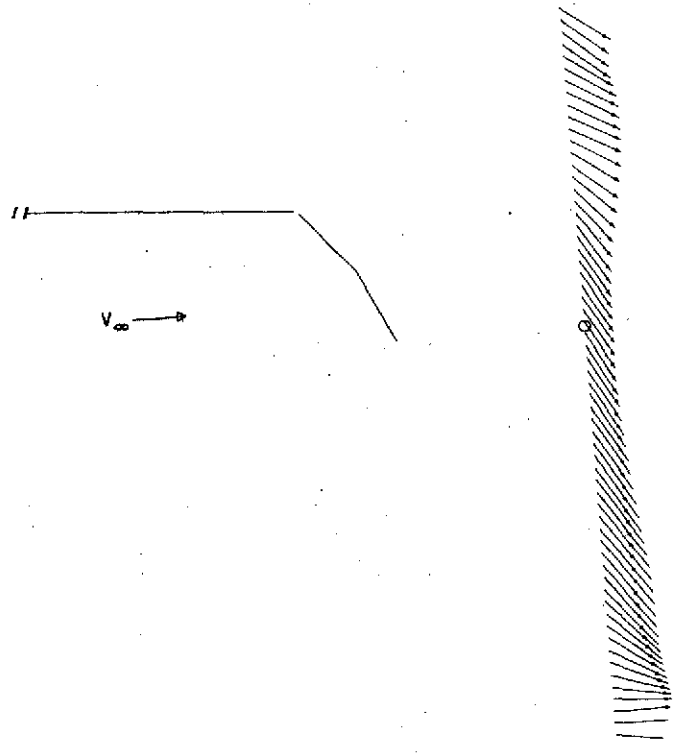


(B) - DOWNWASH ANGLE



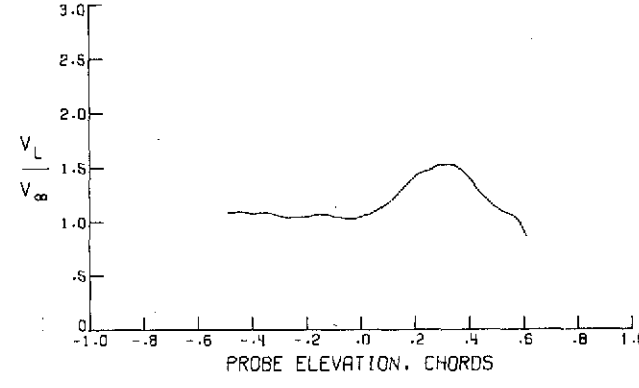
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 53. - WAKE SURVEY RESULTS FOR η = .716 , α = 4.32 DEG, C_μ = .50 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



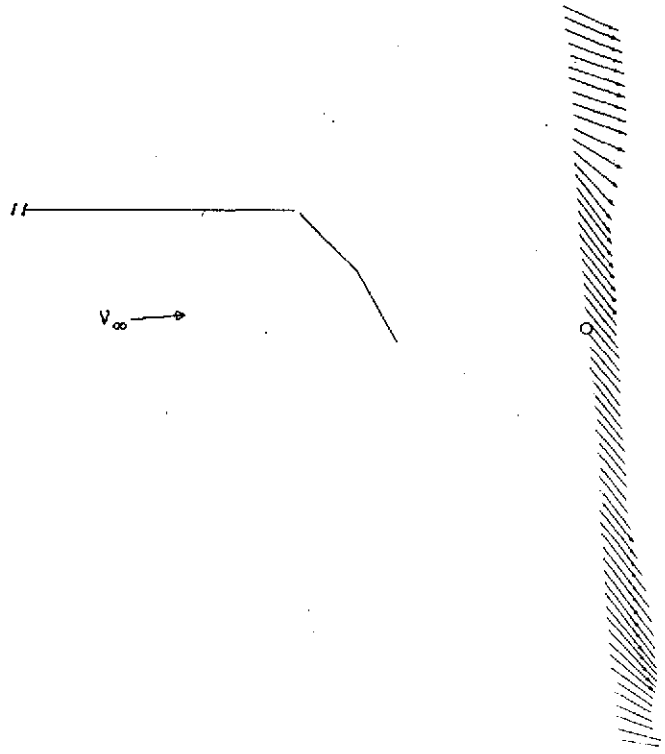
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

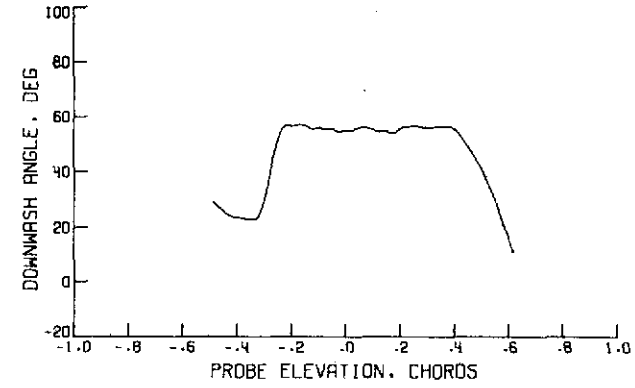


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

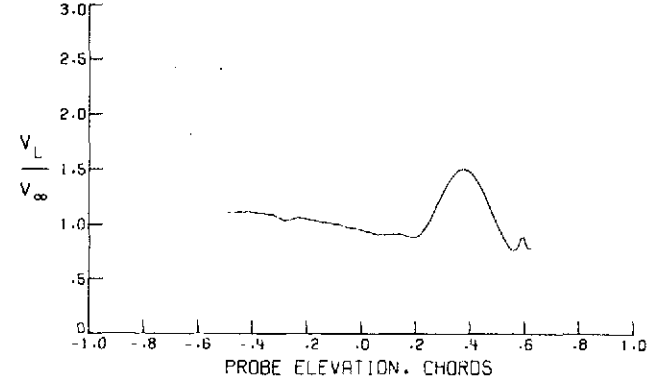
FIGURE 54. - WAKE SURVEY RESULTS FOR η = .604 , α = 4.32 DEG, C_μ = .50 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

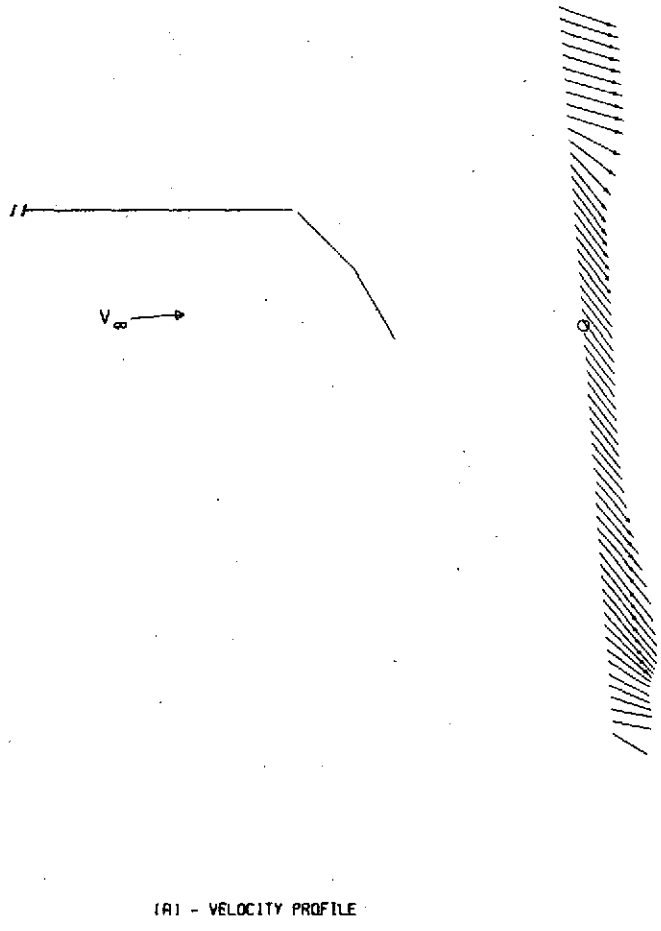


(B) - DOWNWASH ANGLE

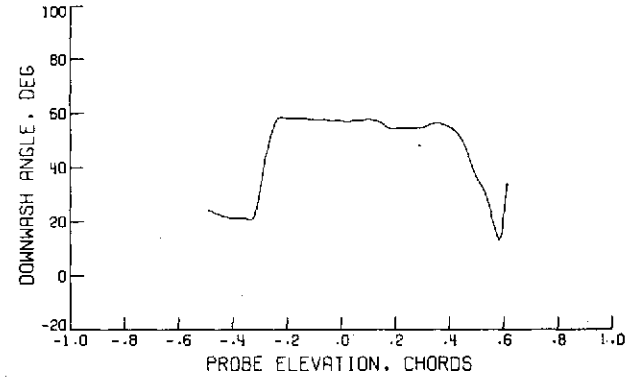


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

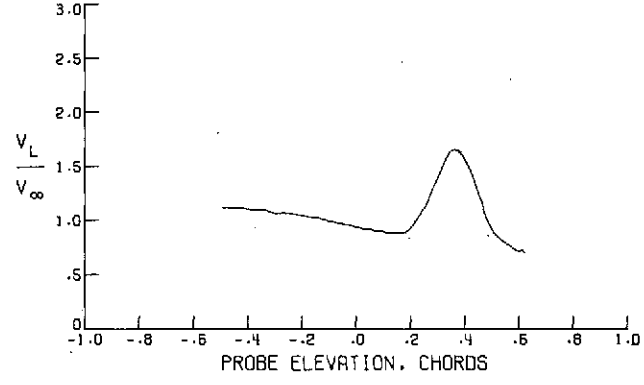
FIGURE 55. - WAKE SURVEY RESULTS FOR η = .514 , α = 4.32 DEG, C_μ = .50 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

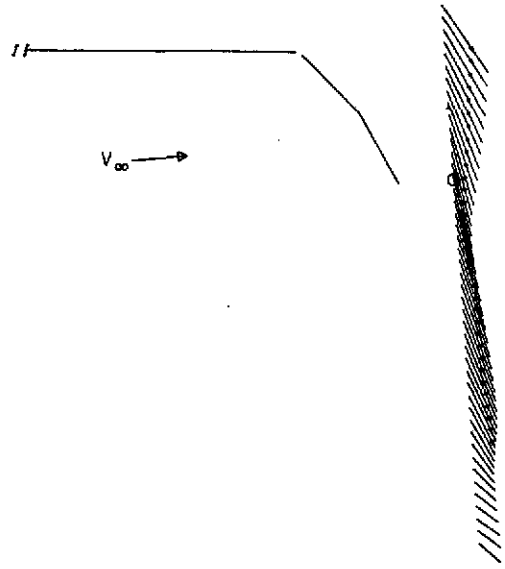


(B) - DOWNWASH ANGLE

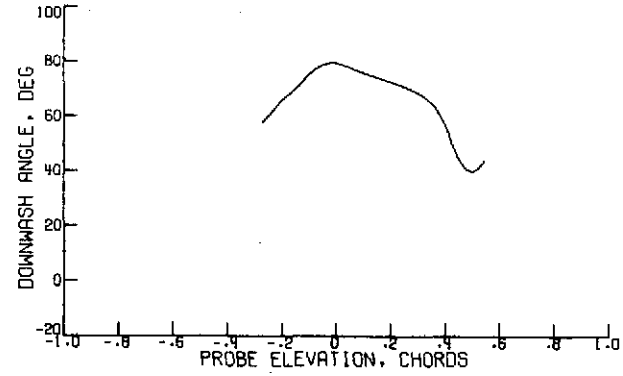


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

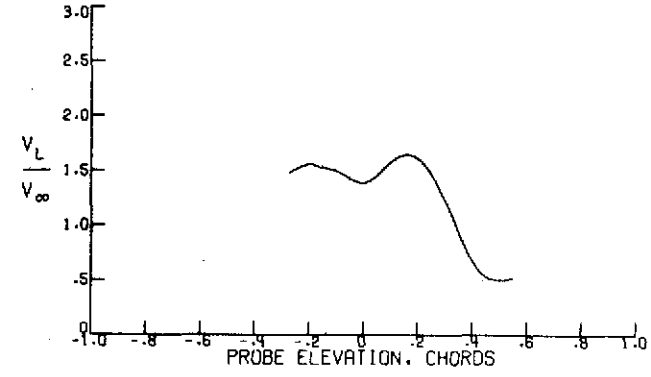
FIGURE 56. - WAKE SURVEY RESULTS FOR η = .452 , α = 4.31 DEG, C_μ = .50 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

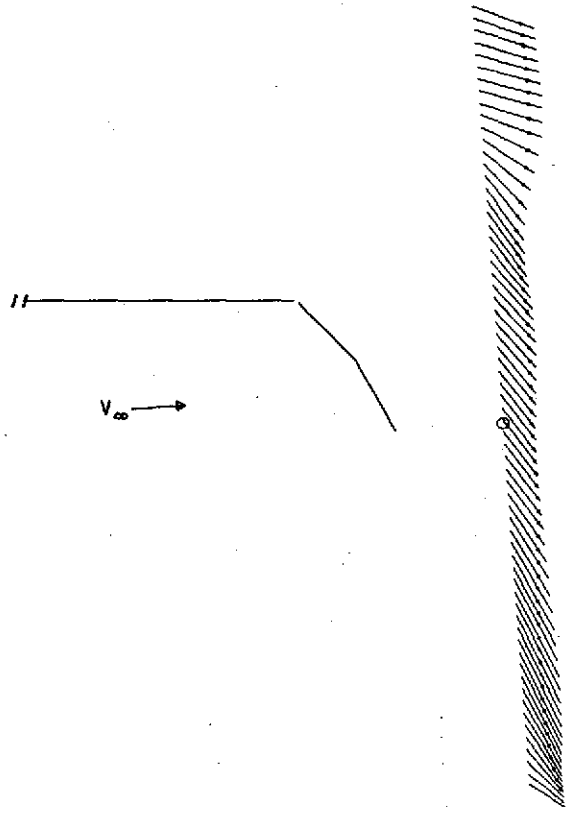


(B) - DOWNWASH ANGLE

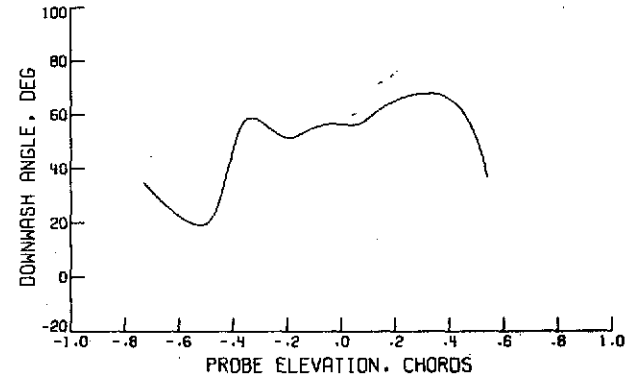


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

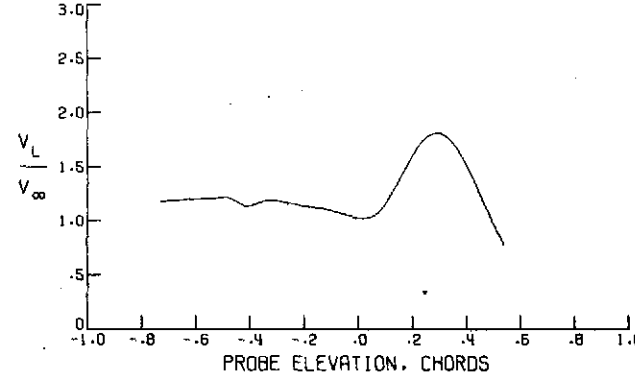
FIGURE 7. - WAKE SURVEY RESULTS FOR η = .322 , α = 4.27 DEG, C_μ = .50 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

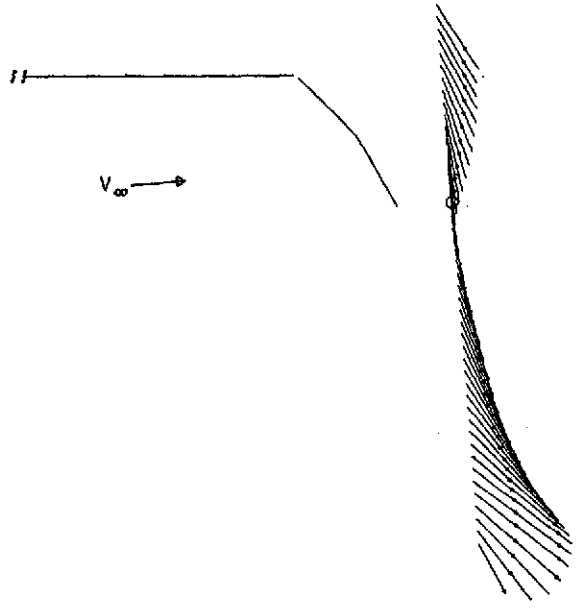


(B) - DOWNWASH ANGLE

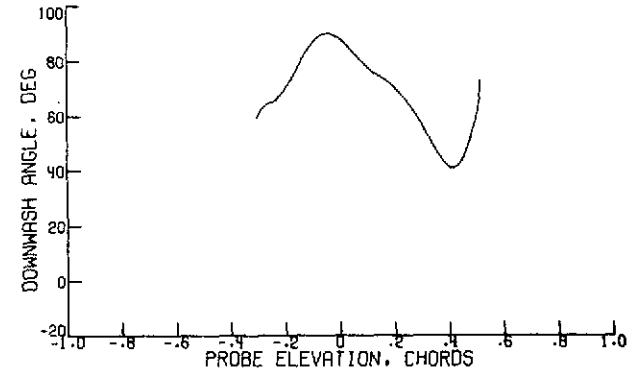


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

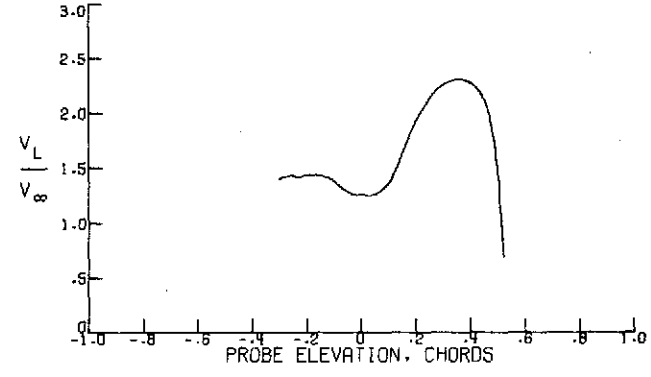
FIGURE 57A.- WAKE SURVEY RESULTS FOR η = .242 , α = 4.33 DEG, C_μ = .50 , V_∞ = 36.08 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

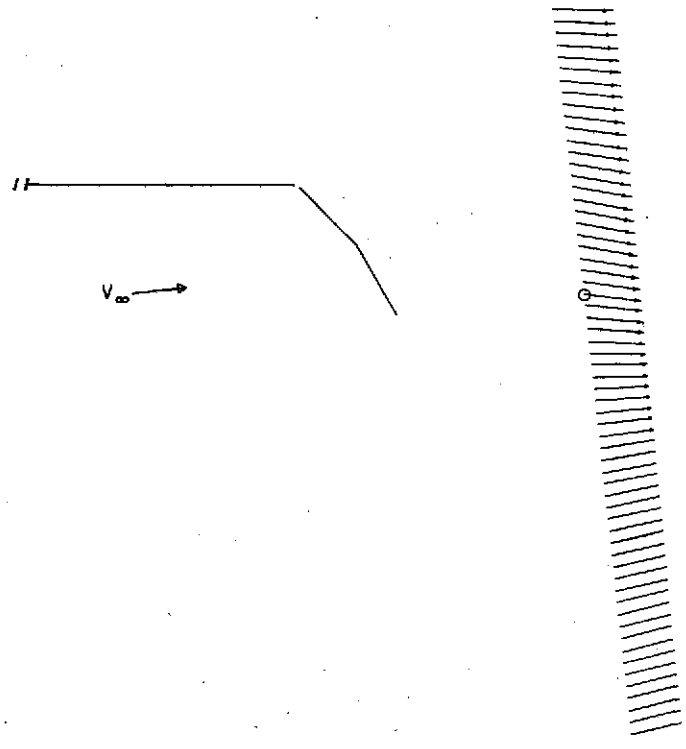


(B) - DOWNWASH ANGLE

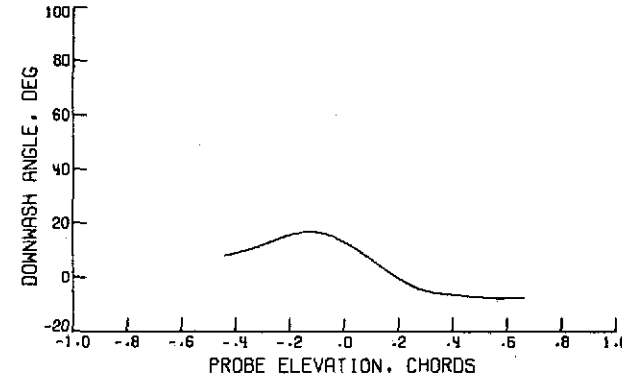


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

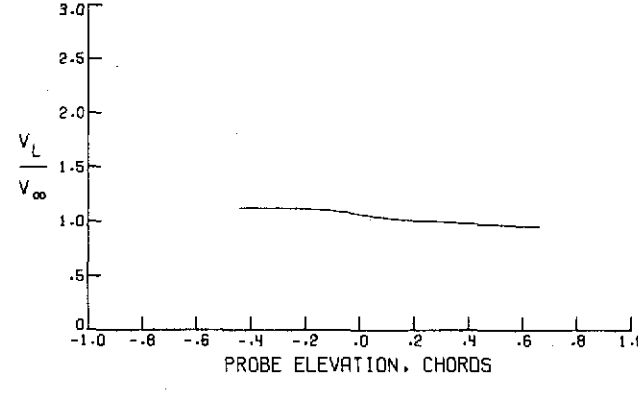
FIGURE 58. - WAKE SURVEY RESULTS FOR η = .201 , α = 4.27 DEG, C_μ = .50 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

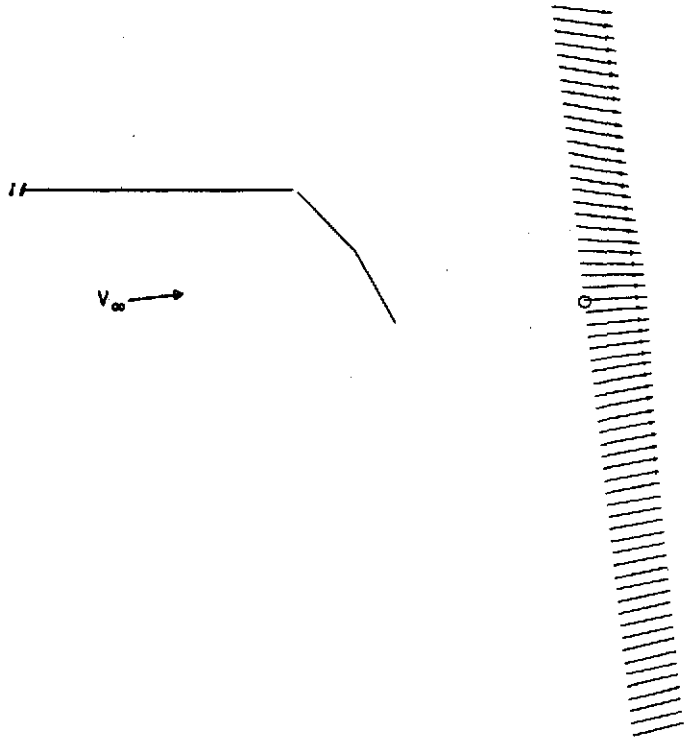


(B) - DOWNWASH ANGLE

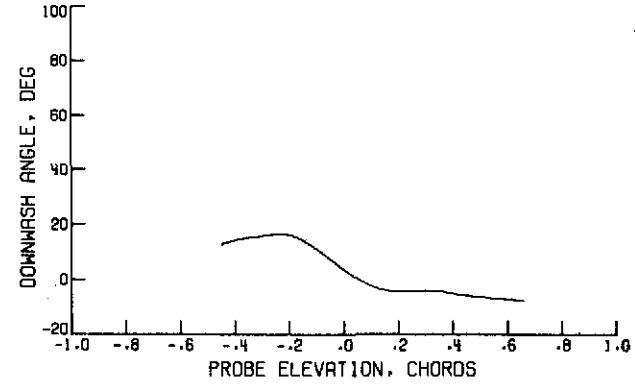


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

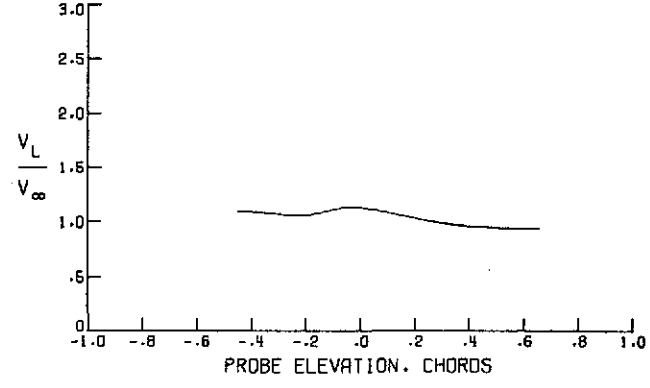
FIGURE 59. - WAKE SURVEY RESULTS FOR η = .925 , α = 6.44 DEG, C_μ = .50 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

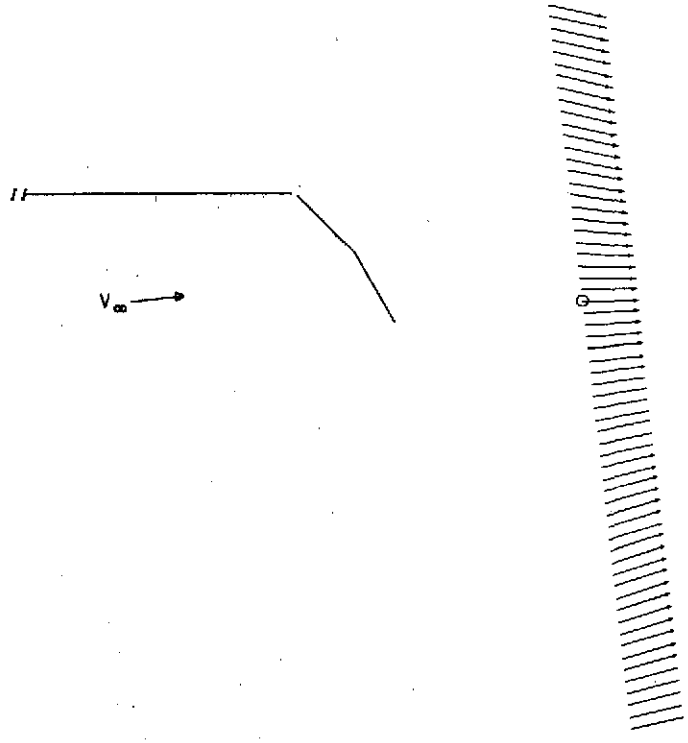


(B) - DOWNWASH ANGLE

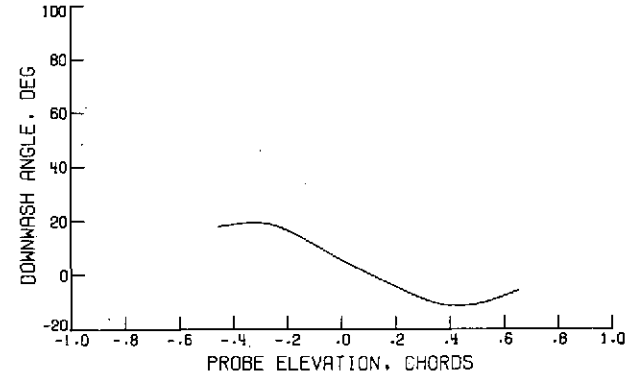


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

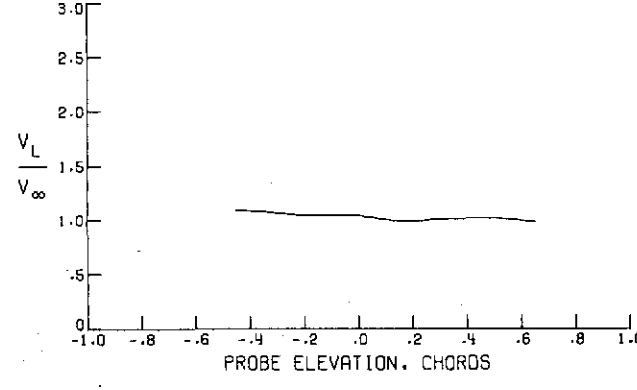
FIGURE 60. - WAKE SURVEY RESULTS FOR η = .823 , α = 6.44 DEG, C_μ = .50 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

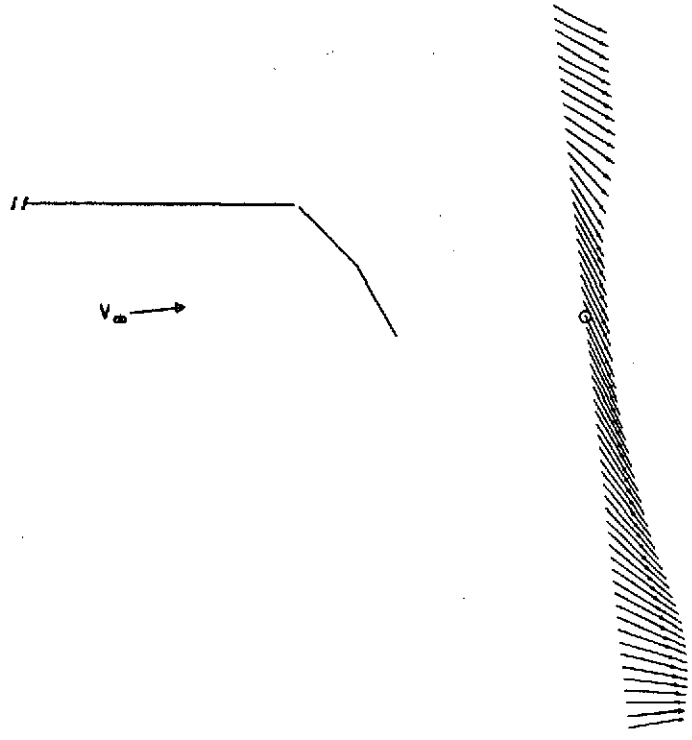


(B) - DOWNWASH ANGLE

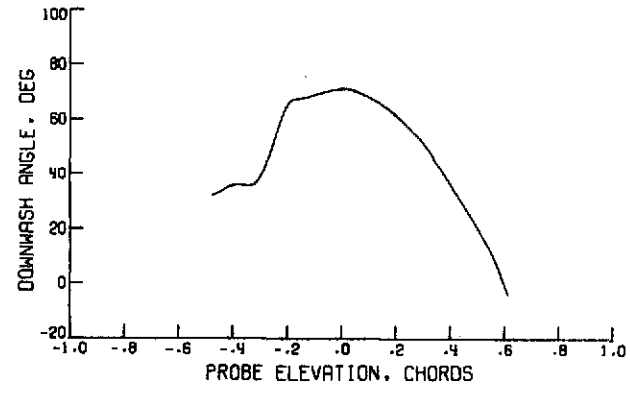


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

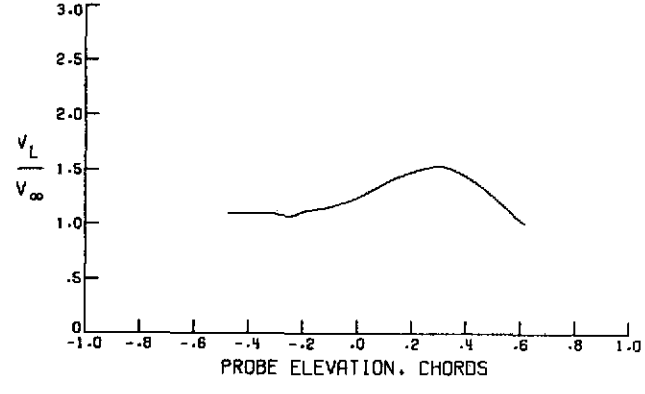
FIGURE 61. - WAKE SURVEY RESULTS FOR η = .715 , α = 6.43 DEG, C_μ = .50 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG.



(A) - VELOCITY PROFILE

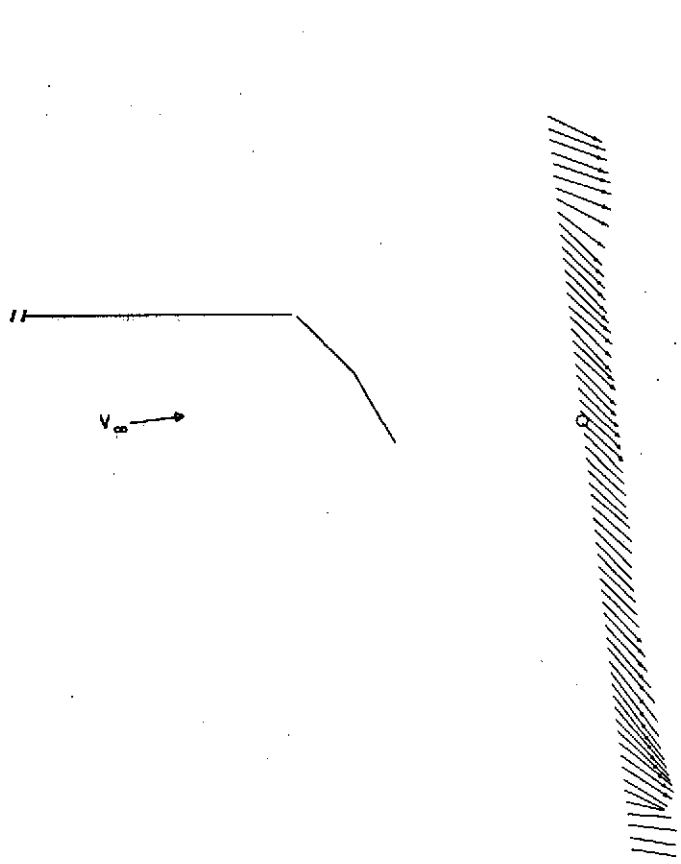


(B) - DOWNWASH ANGLE

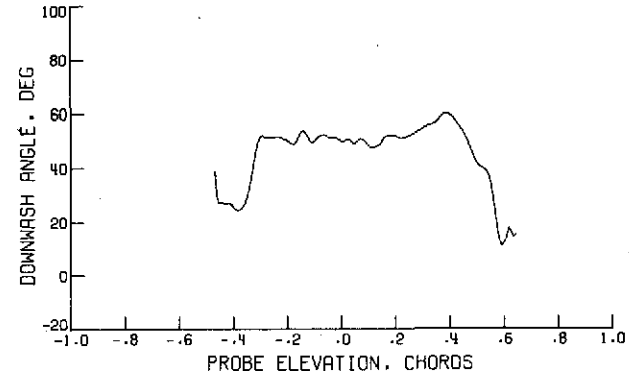


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

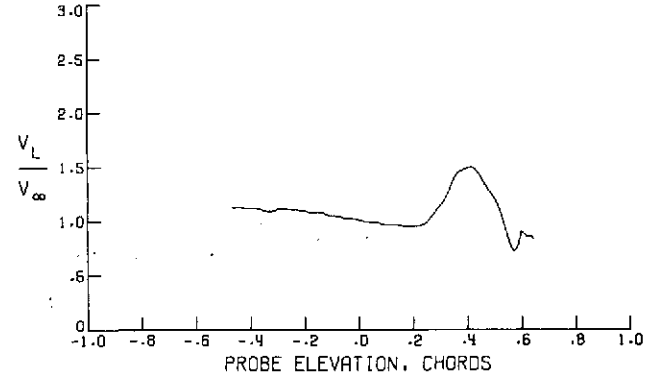
FIGURE 62. - WAKE SURVEY RESULTS FOR η = .604 , α = 6.43 DEG, C_μ = .50 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

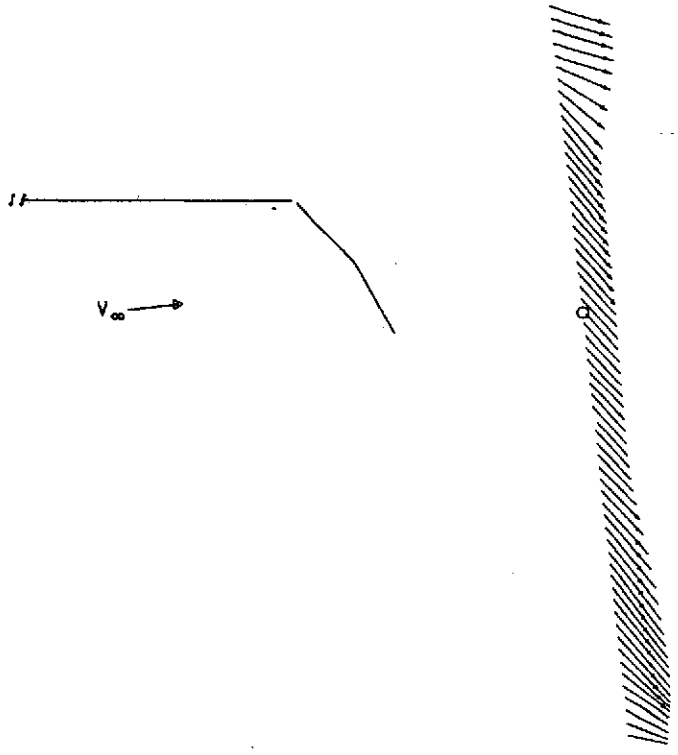


(B) - DOWNWASH ANGLE

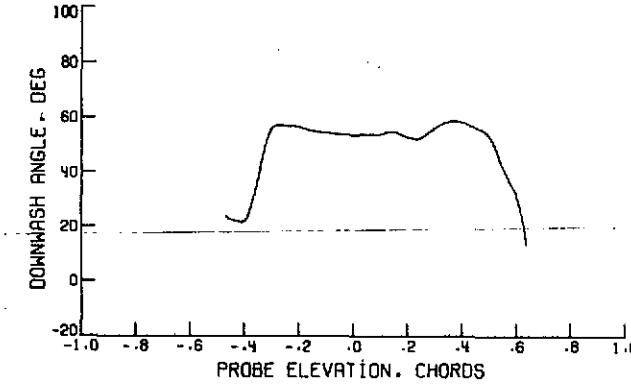


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

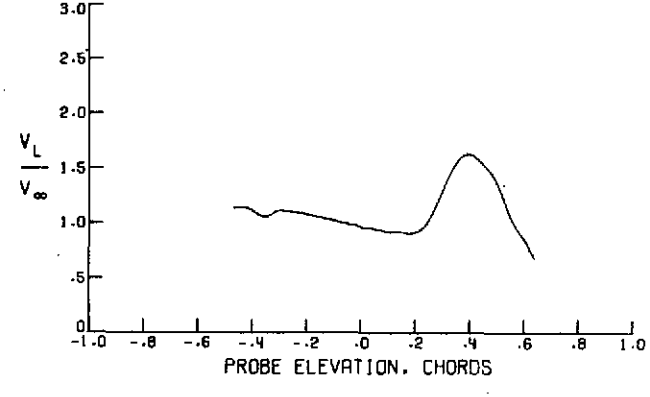
FIGURE 63. - WAKE SURVEY RESULTS FOR η = .514 , α = 6.44 DEG, C_μ = .50 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

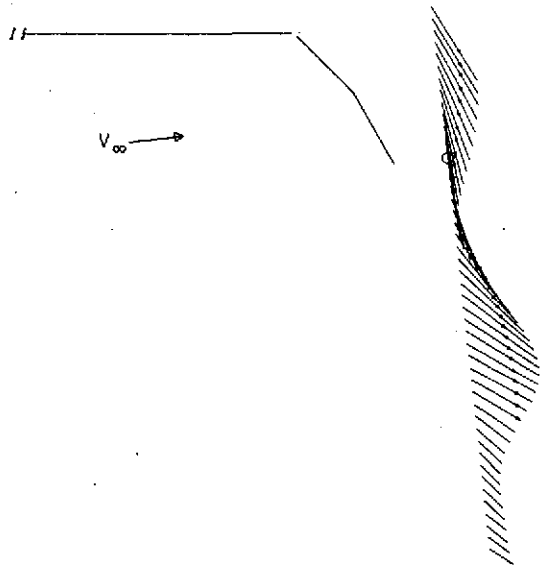


(B) - DOWNWASH ANGLE

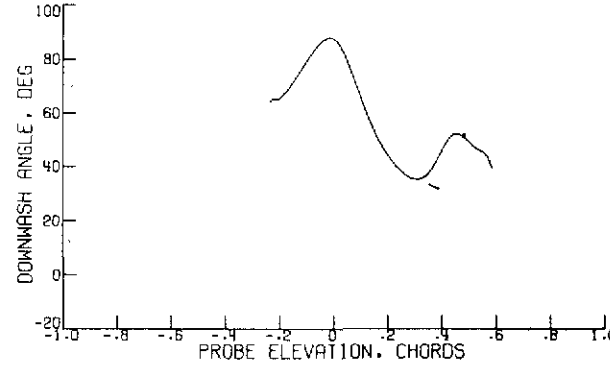


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 64. - WAKE SURVEY RESULTS FOR η = .450 , α = 6.44 DEG, C_μ = .50 , V_∞ = 36.27 M/SEC, δ_F = 60.0 DEG



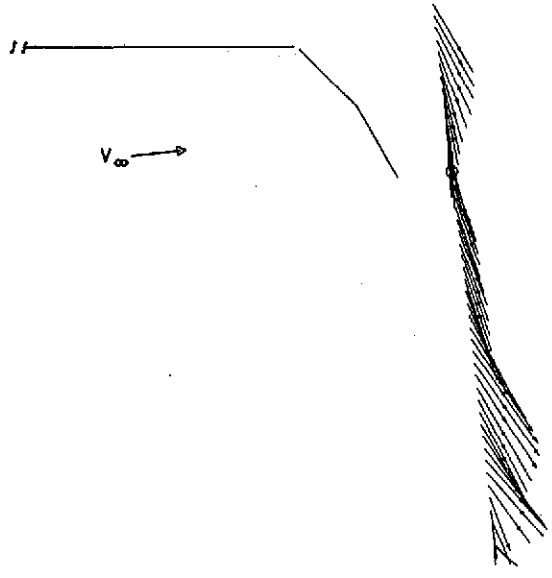
(A) - VELOCITY PROFILE



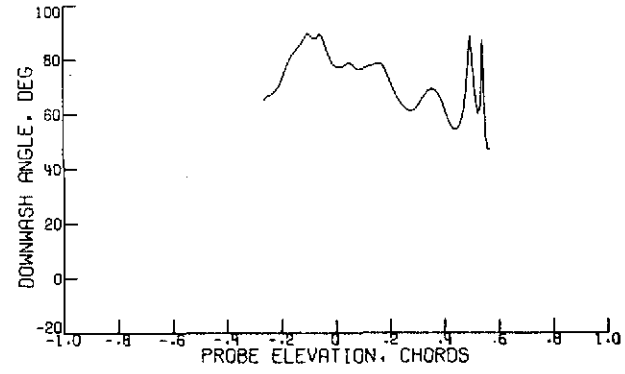
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

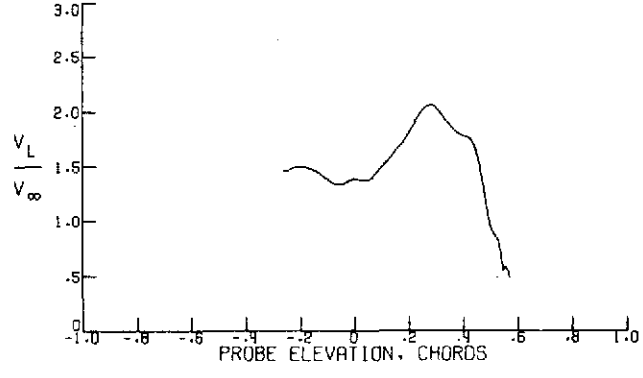
FIGURE 65. - WAKE SURVEY RESULTS FOR η = .321 , α = 6.38 DEG, C_μ = .50 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

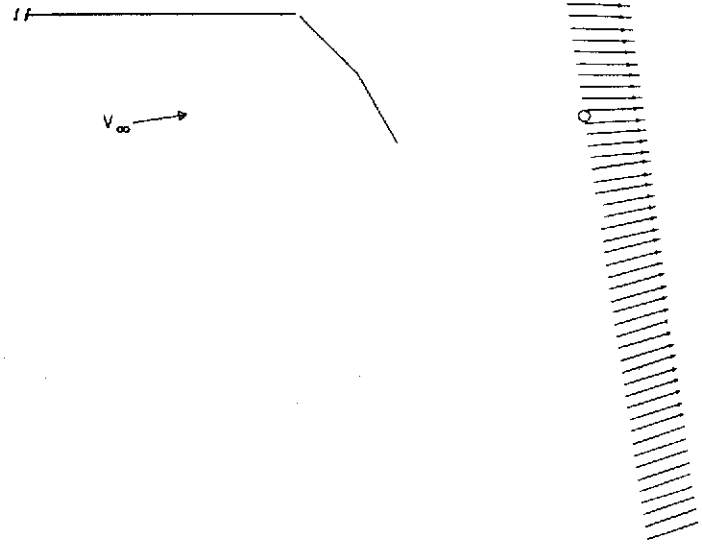


(B) - DOWNWASH ANGLE

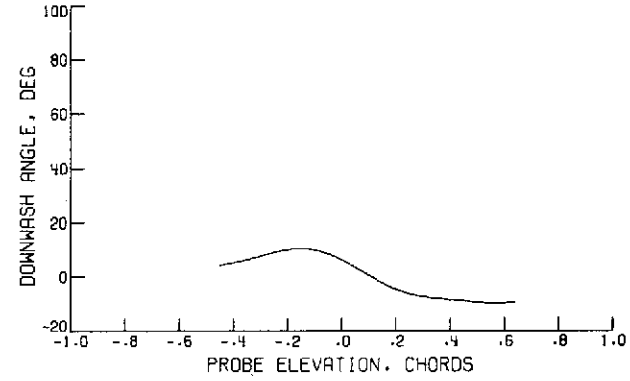


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

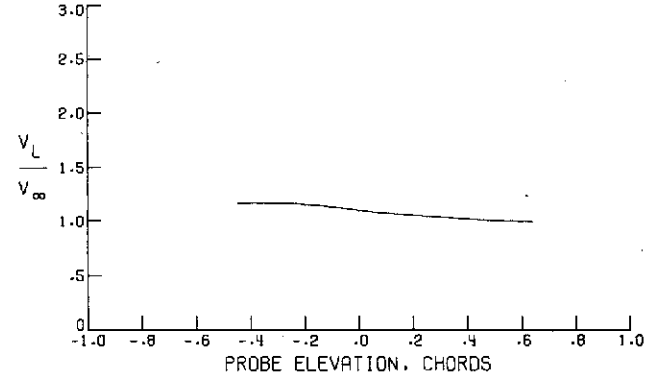
FIGURE 66. - WAKE SURVEY RESULTS FOR η = .201 , α = 6.39 DEG, C_μ = .50 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

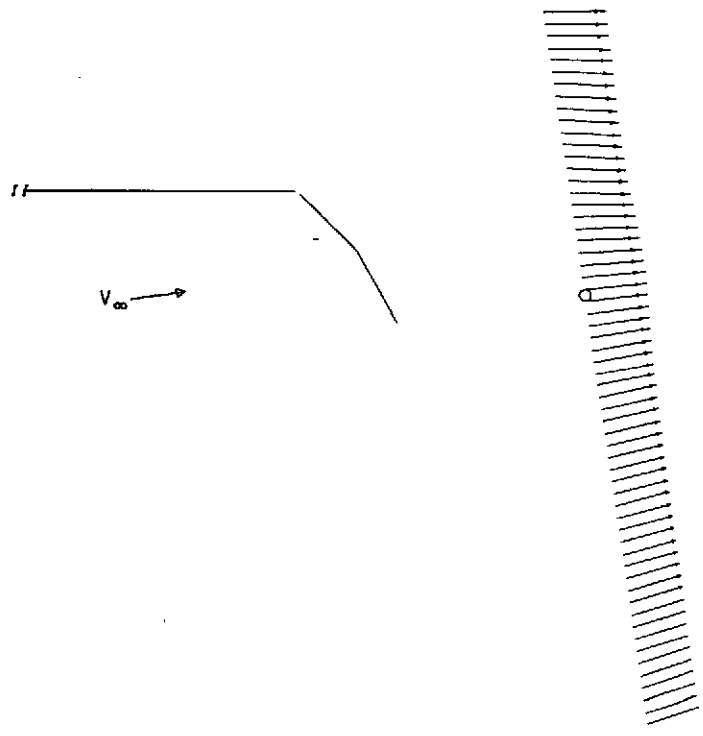


(B) - DOWNWASH ANGLE

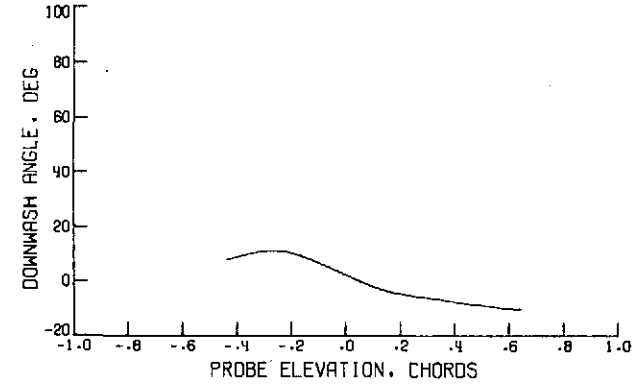


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

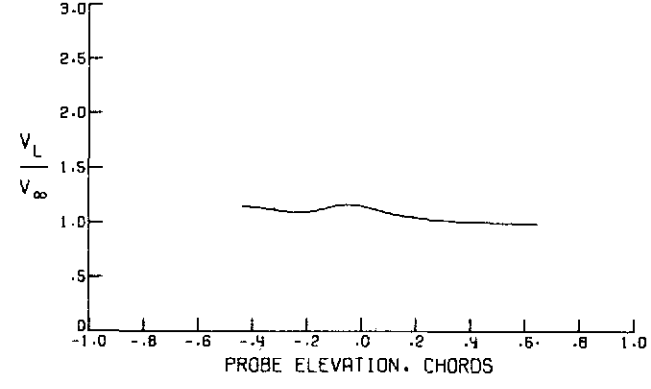
FIGURE 67. - WAKE SURVEY RESULTS FOR η = .924 , α = 8.54 DEG, C_μ = .50 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

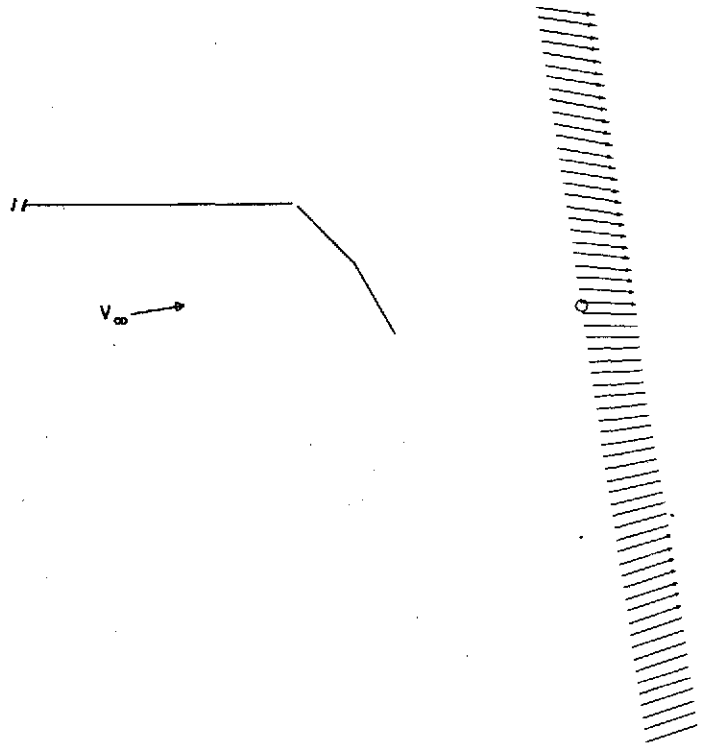


(B) - DOWNWASH ANGLE

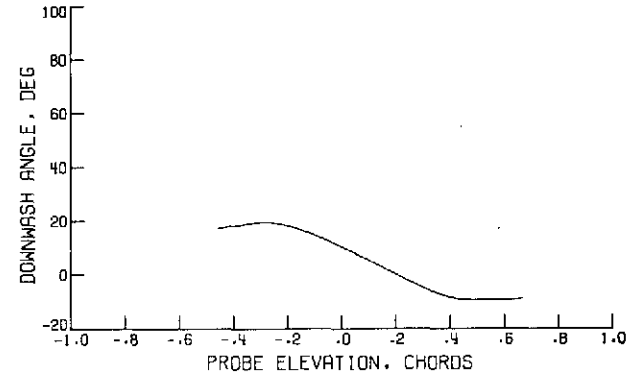


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

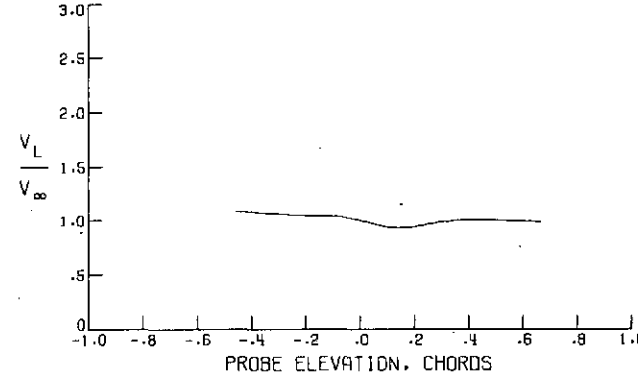
FIGURE 68. - WAKE SURVEY RESULTS FOR η = .819 , α = 8.54 DEG, C_μ = .50 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

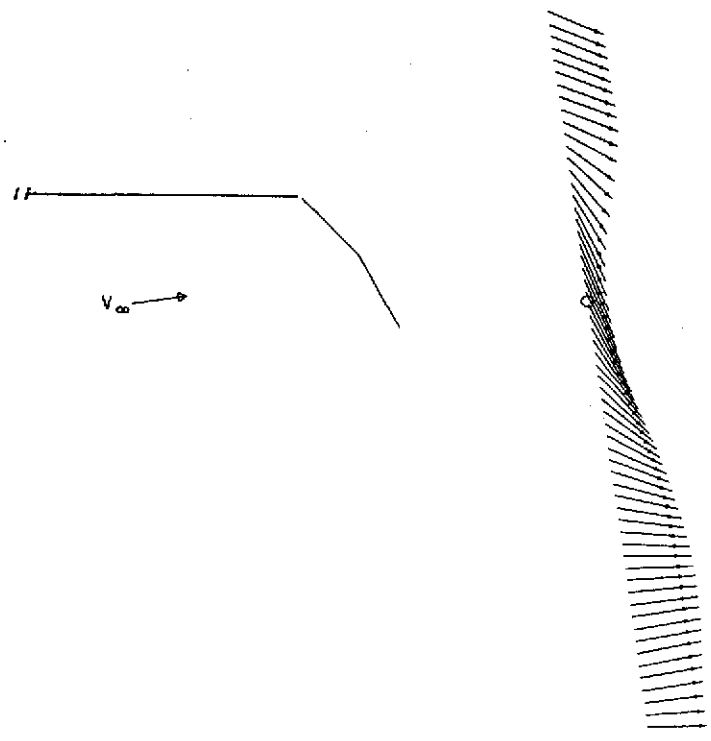


(B) - DOWNWASH ANGLE

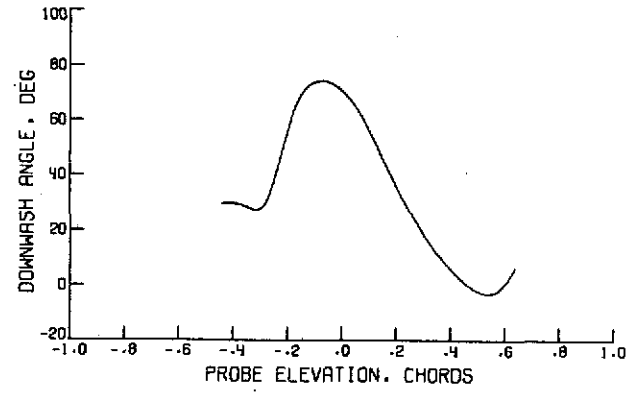


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

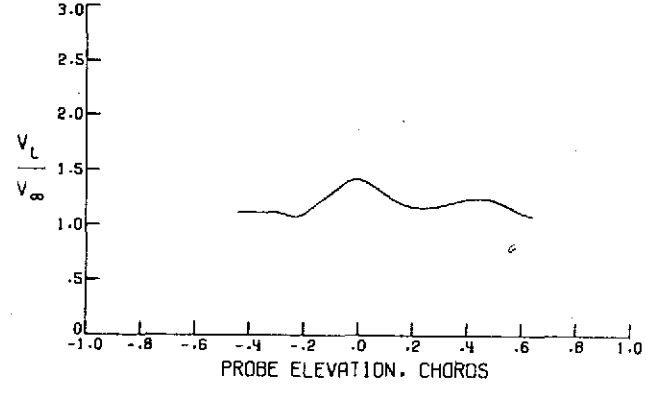
FIGURE 69. - WAKE SURVEY RESULTS FOR η = .716 , α = 8.53 DEG, C_μ = .50 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

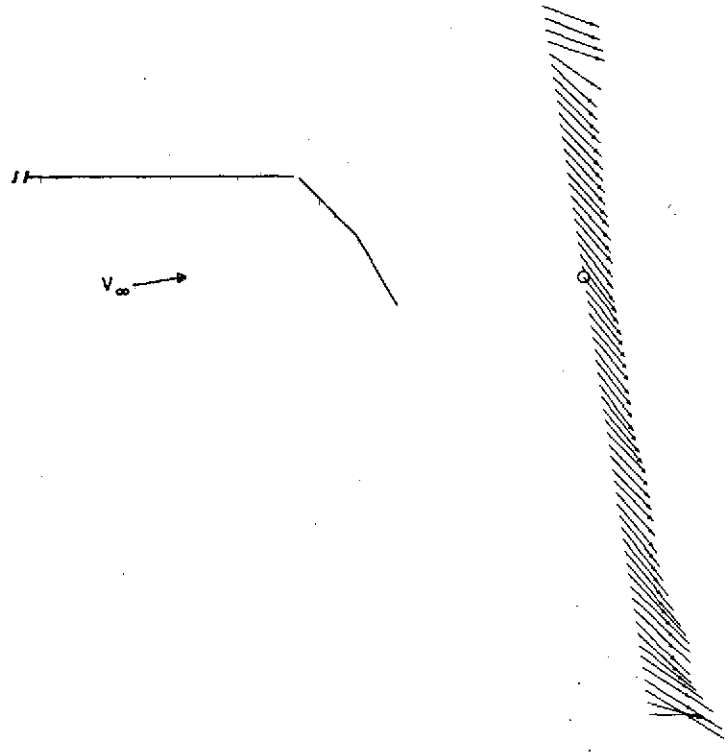


(B) - DOWNWASH ANGLE

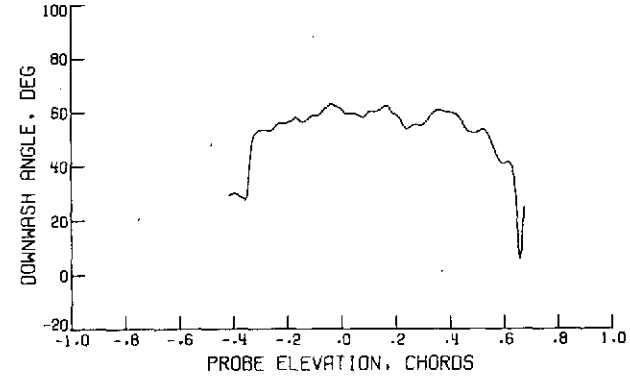


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

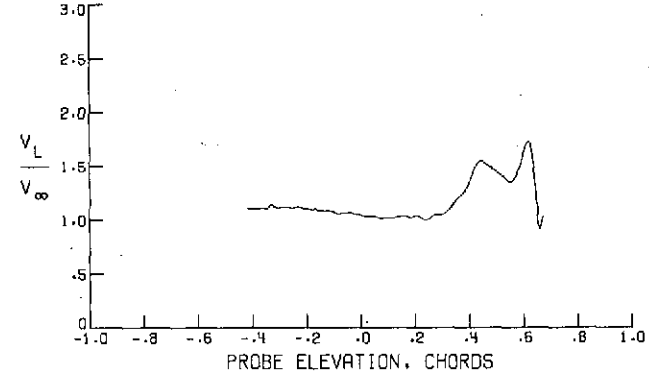
FIGURE 70. - WAKE SURVEY RESULTS FOR η = .603 , α = 8.54 DEG, C_μ = .50 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

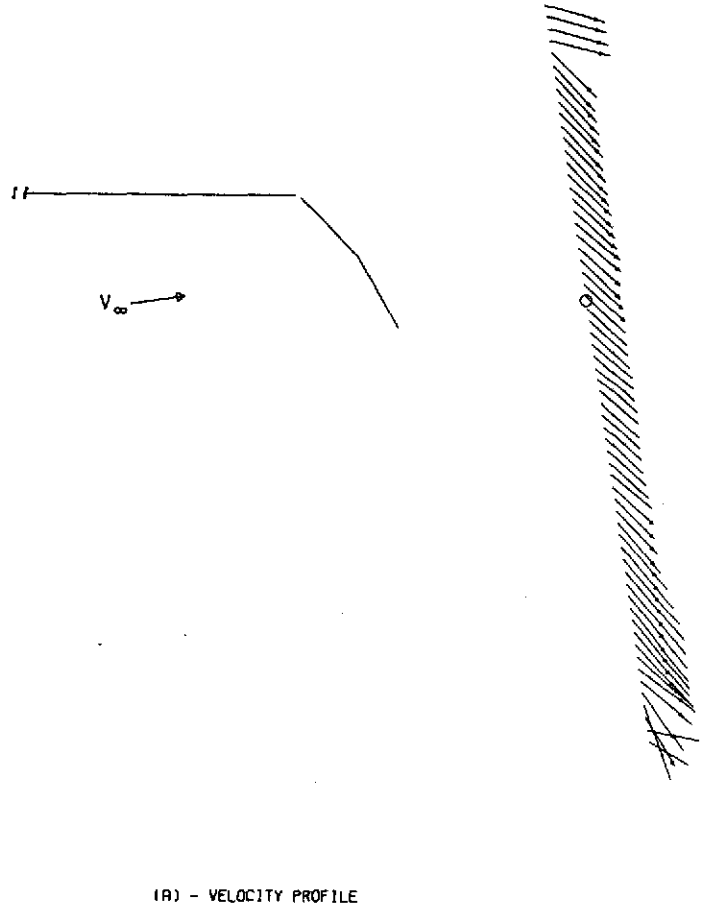


(B) - DOWNWASH ANGLE

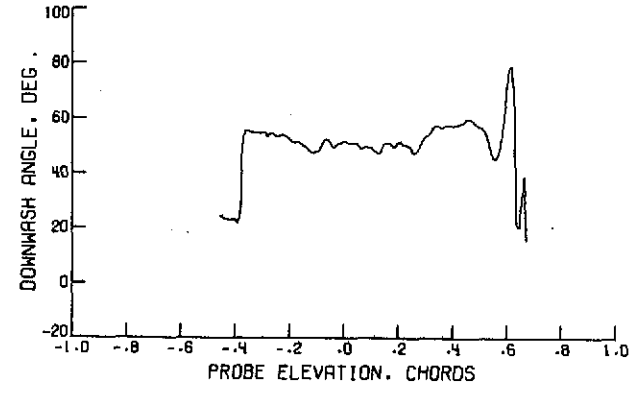


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

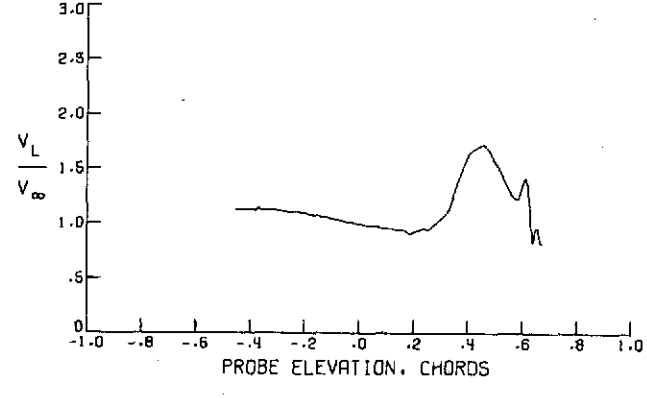
FIGURE 71. - WAKE SURVEY RESULTS FOR η = .514 , α = 8.53 DEG, C_μ = .50 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

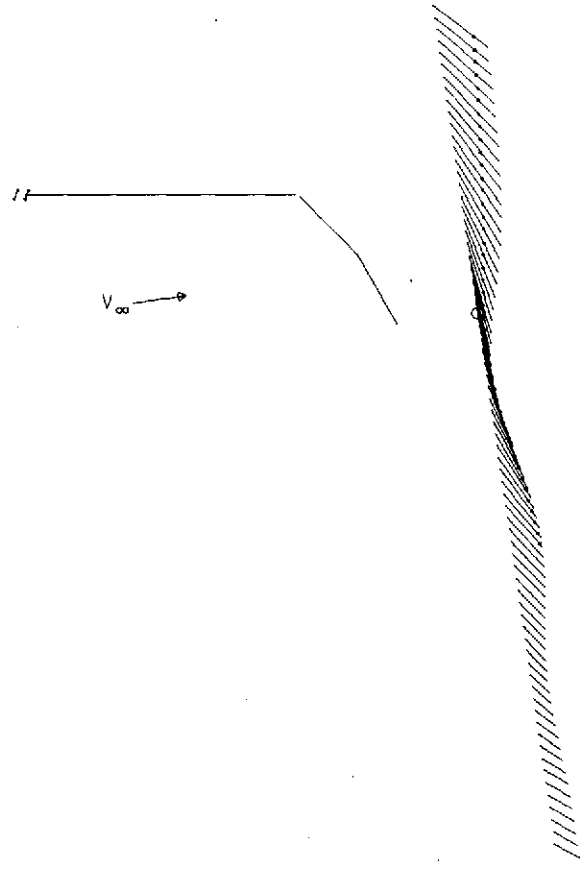


(B) - DOWNWASH ANGLE

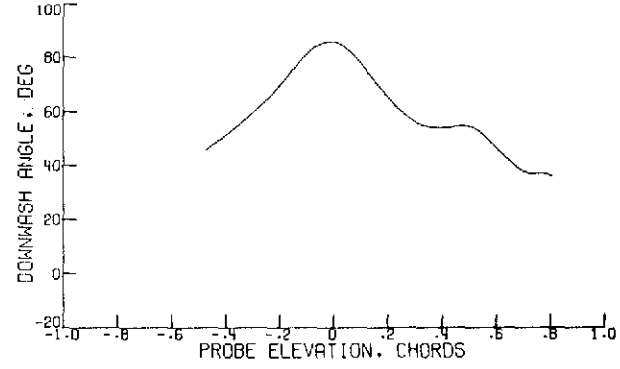


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

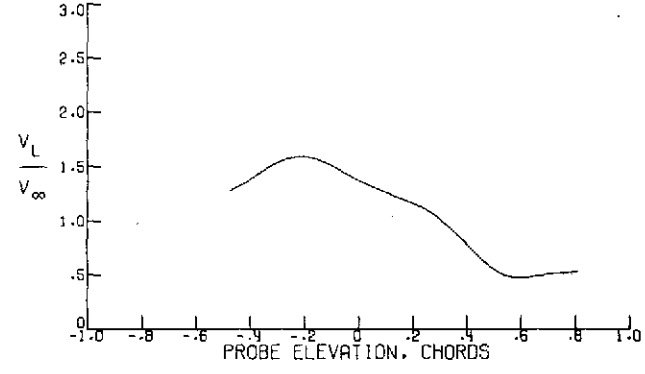
FIGURE 72. - WAKE SURVEY RESULTS FOR η = .450 , α = 8.53 DEG, C_μ = .50 , V_∞ = 36.27 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

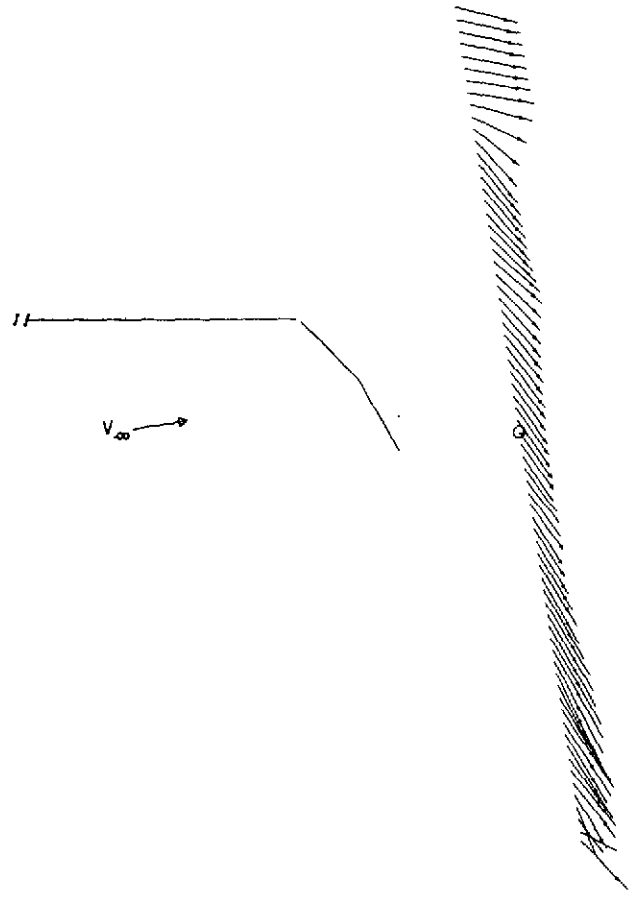


(B) - DOWNWASH ANGLE

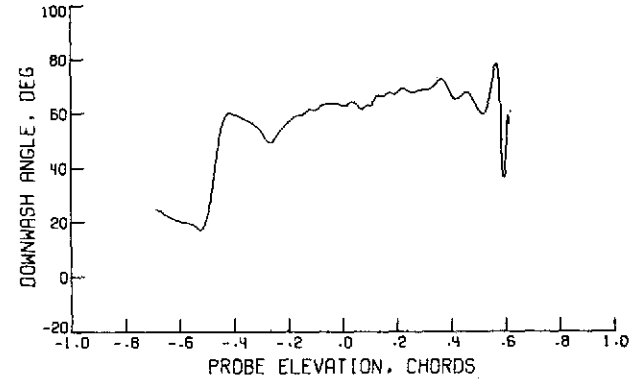


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

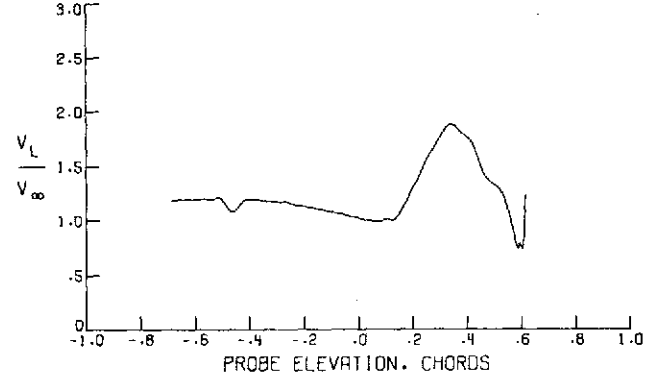
FIGURE 73. - WAKE SURVEY RESULTS FOR η = .321 , α = 8.45 DEG, C_μ = .50 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

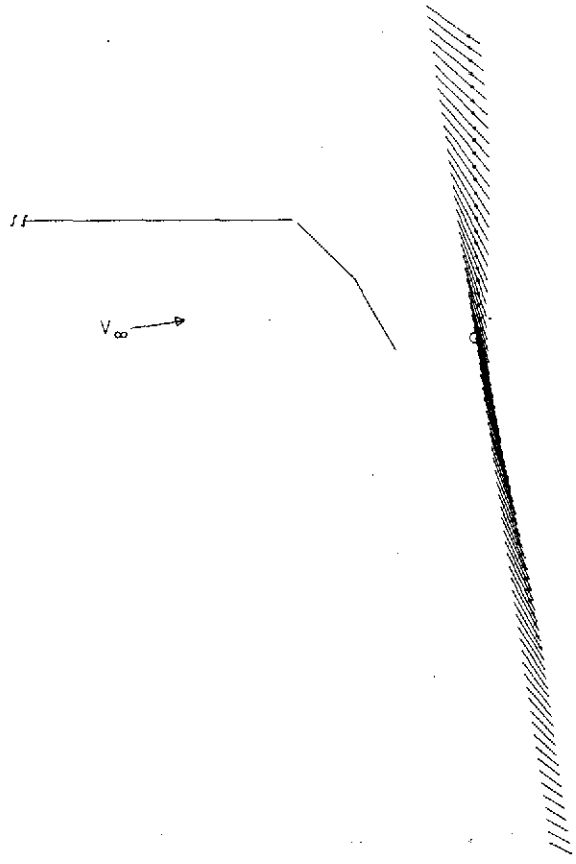


(B) - DOWNWASH ANGLE

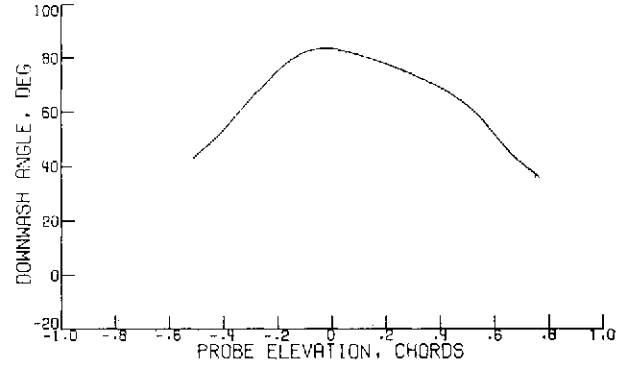


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

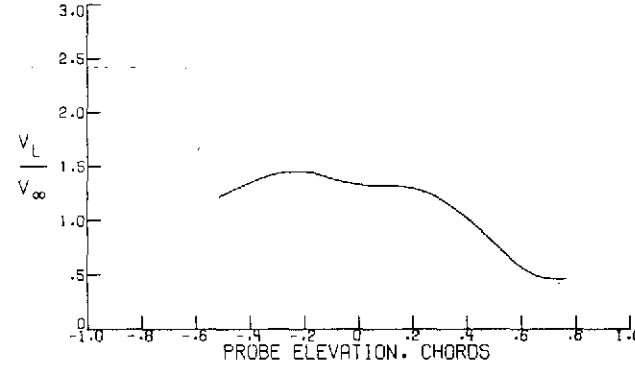
FIGURE 73A. - WAKE SURVEY RESULTS FOR η = .241 , α = 8.52 DEG, C_μ = .50 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

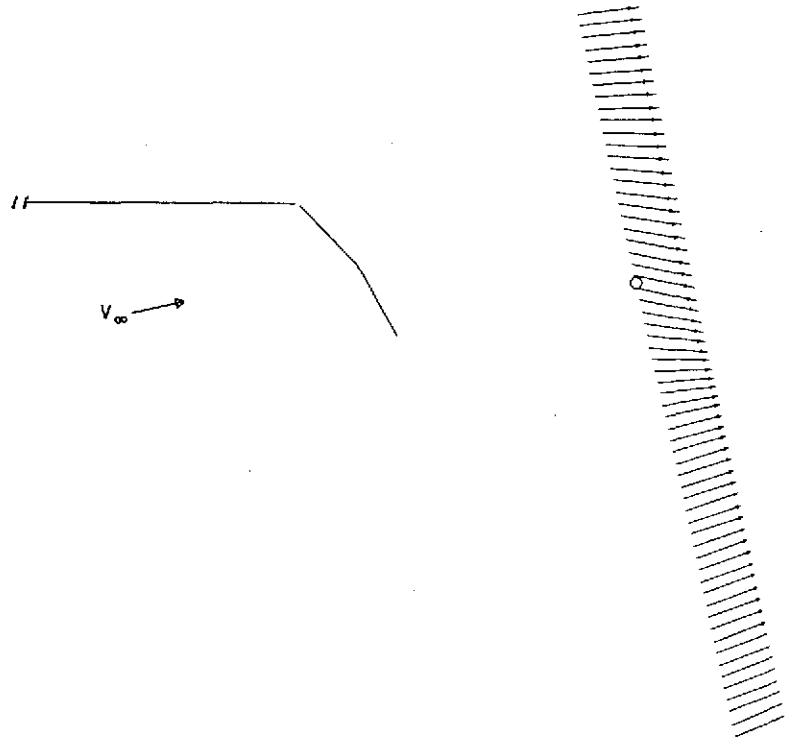


(B) - DOWNWASH ANGLE

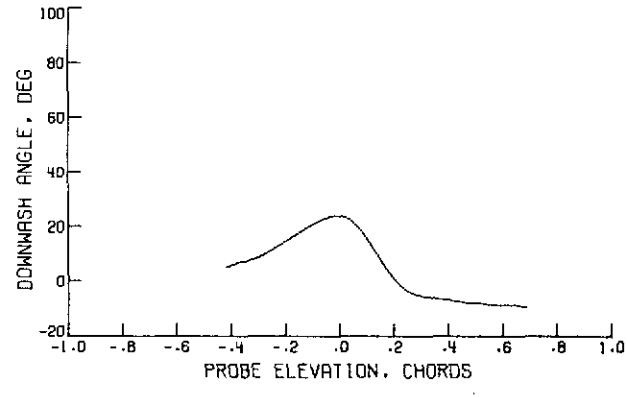


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

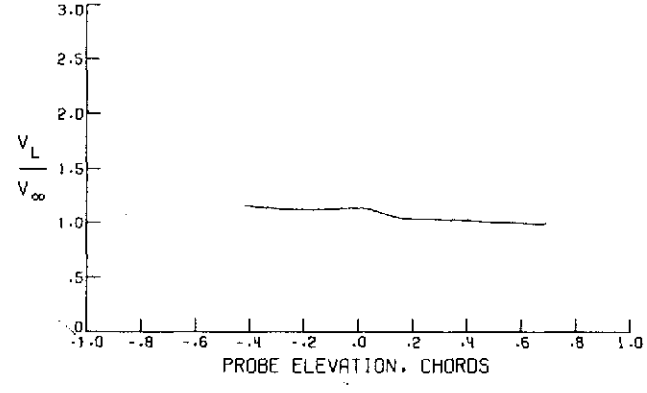
FIGURE 74. - WAKE SURVEY RESULTS FOR η = .200, α = 8.45 DEG, C_μ = .50, V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

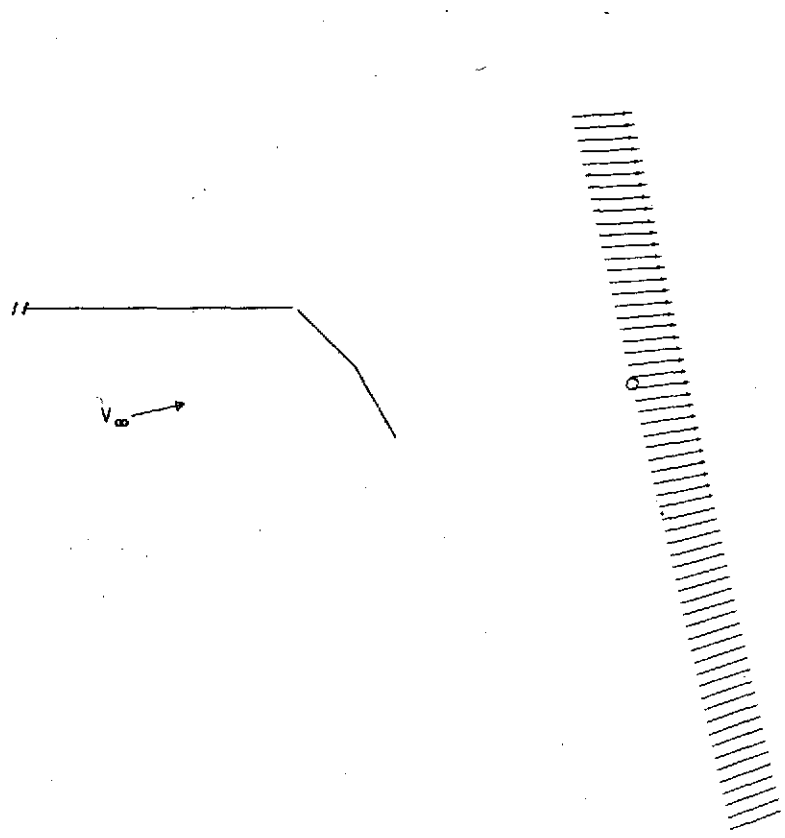


(B) - DOWNWASH ANGLE

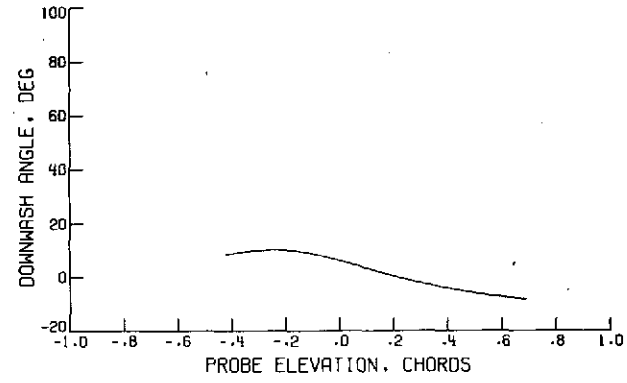


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

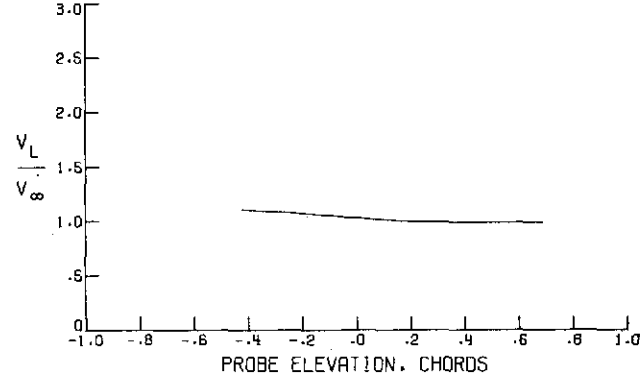
FIGURE 75. - WAKE SURVEY RESULTS FOR η = .922 , α = 12.59DEG, C_μ = .50 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

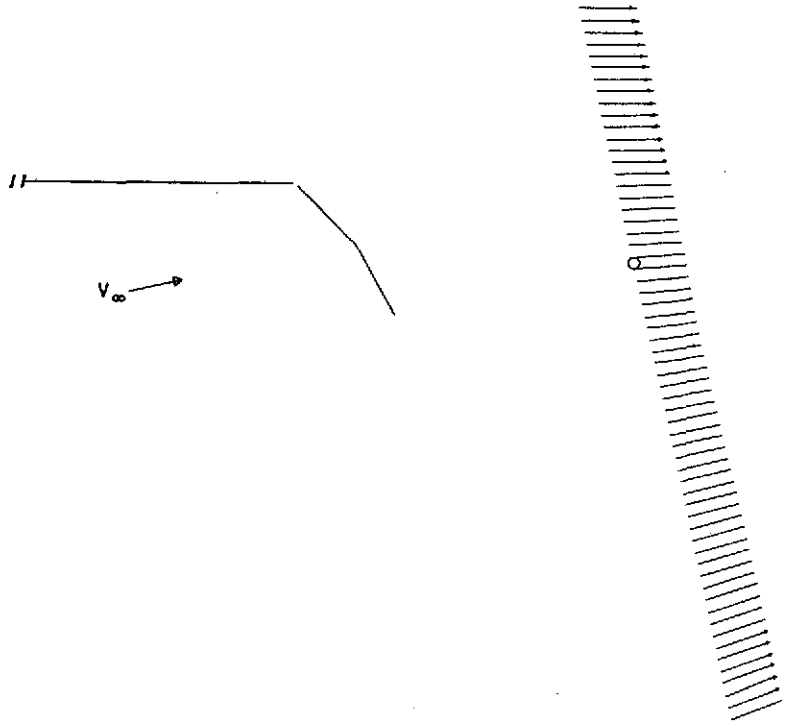


(B) - DOWNWASH ANGLE

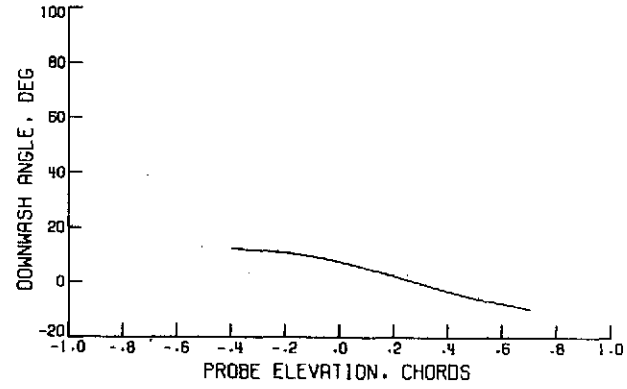


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

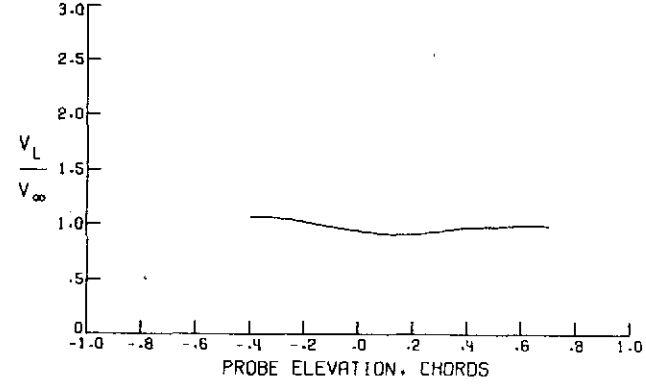
FIGURE 76. - WAKE SURVEY RESULTS FOR η = .823 , α = 12.59DEG, C_μ = .50 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

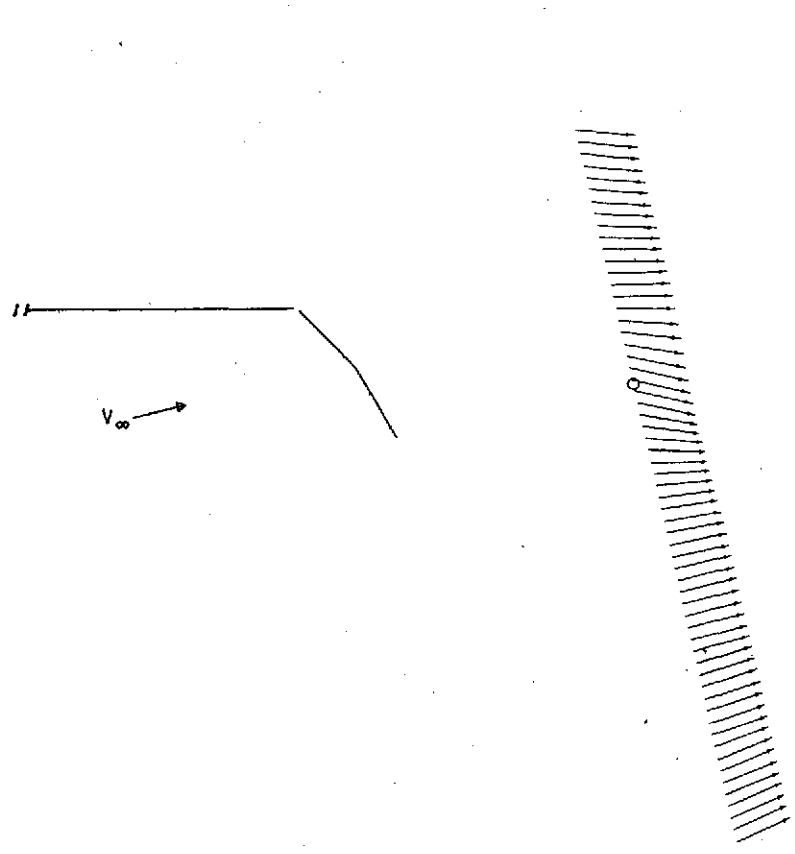


(B) - DOWNWASH ANGLE

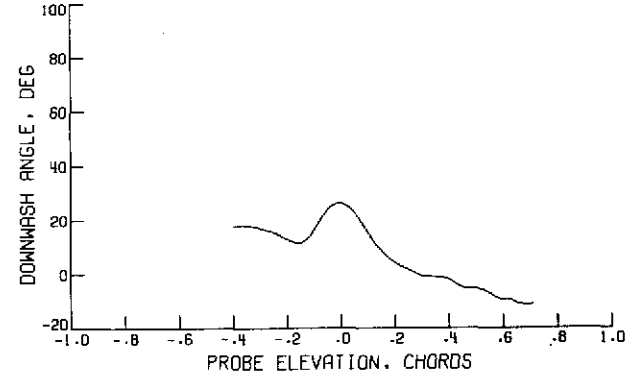


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

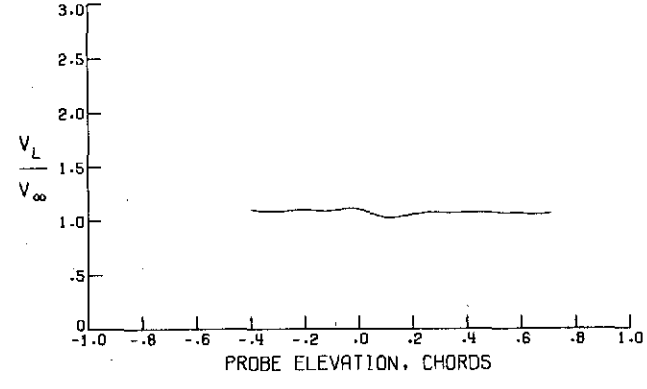
FIGURE 77. - WAKE SURVEY RESULTS FOR η = .714 , α = 12.60DEG, C_μ = .50 , V_∞ = 36.30 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

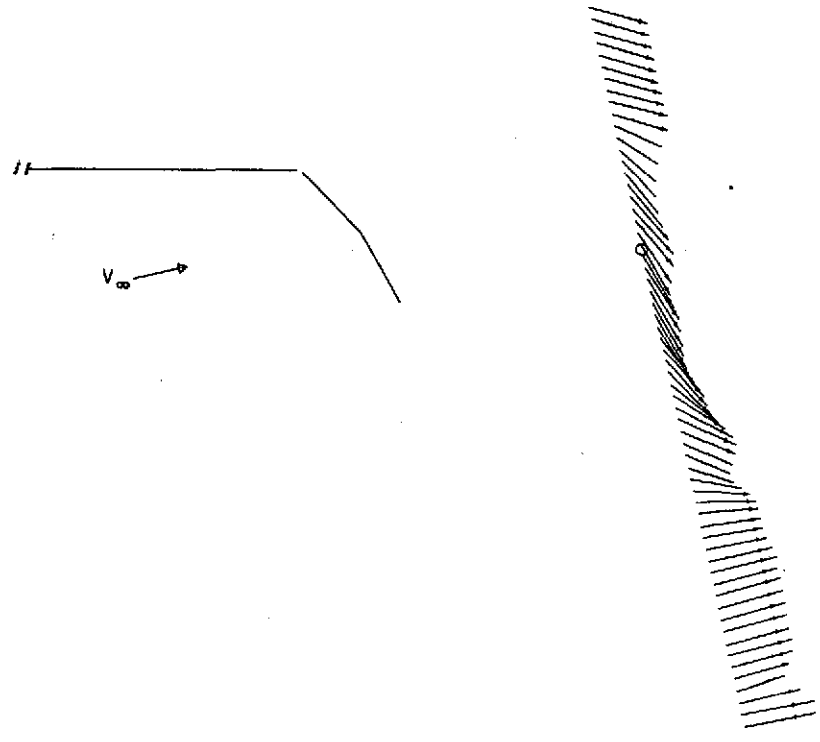


(B) - DOWNWASH ANGLE

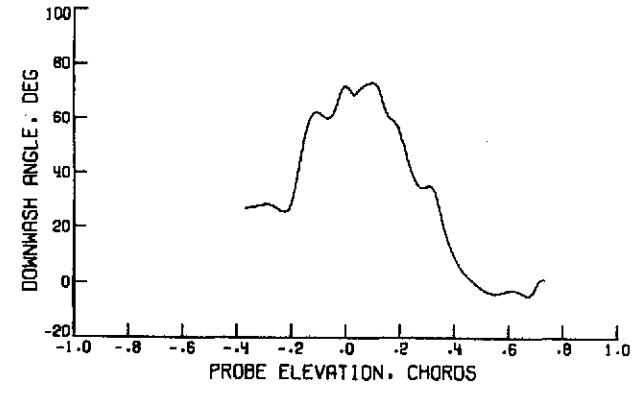


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

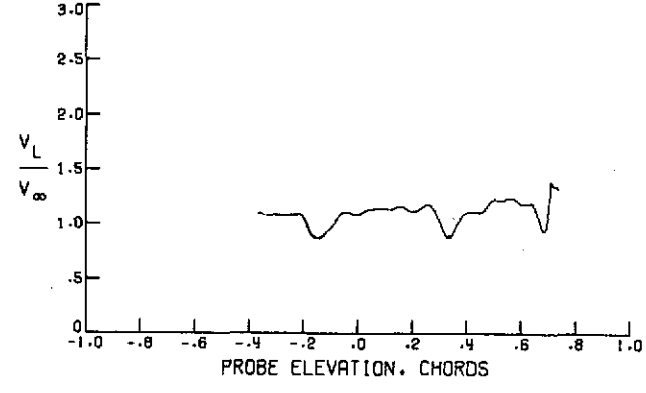
FIGURE 78. - WAKE SURVEY RESULTS FOR η = .603 , α = 12.61DEG, C_μ = .50 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

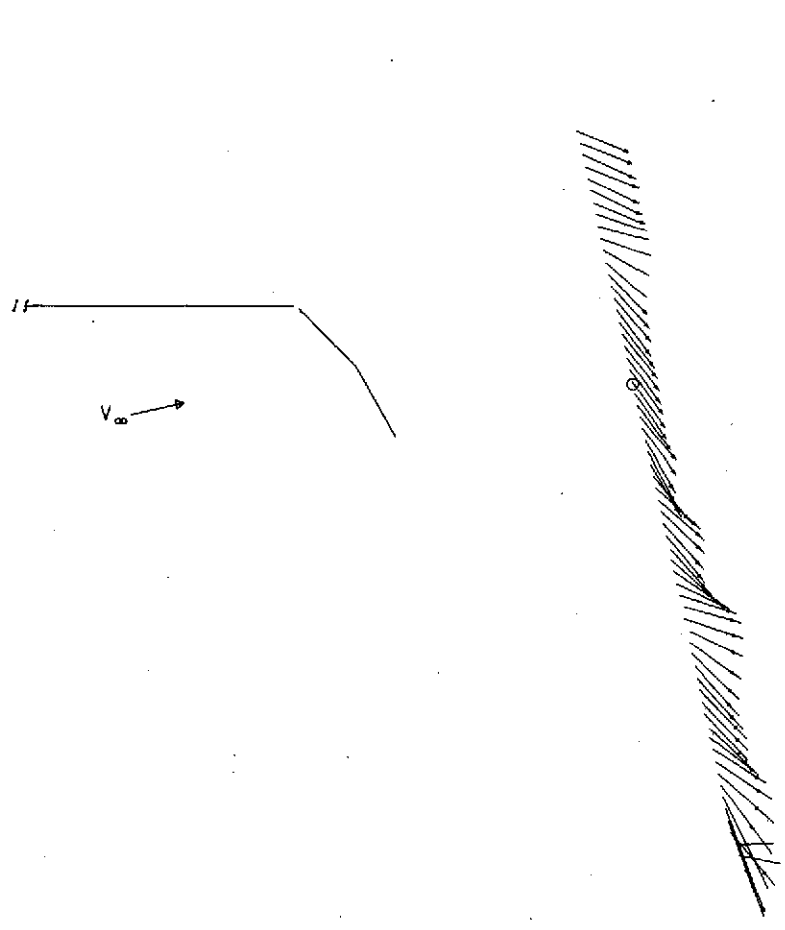


(B) - DOWNWASH ANGLE



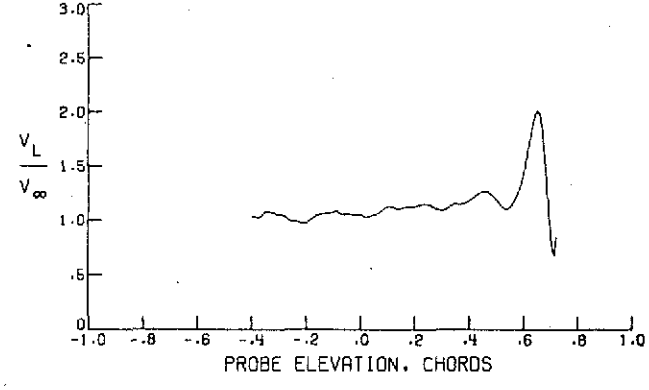
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 79. - WAKE SURVEY RESULTS FOR η = .513 , α = 12.59DEG, C_μ = .50 , V_∞ = 36.30 M/SEC, δ_F = 60.0 DEG



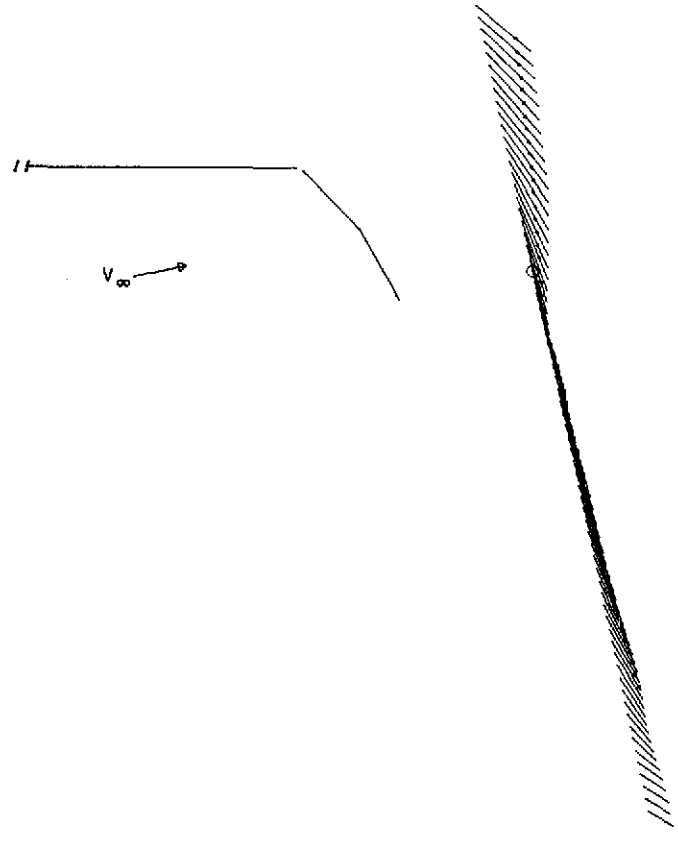
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

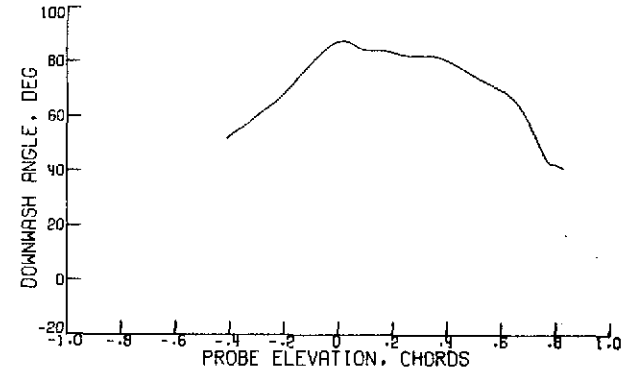


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

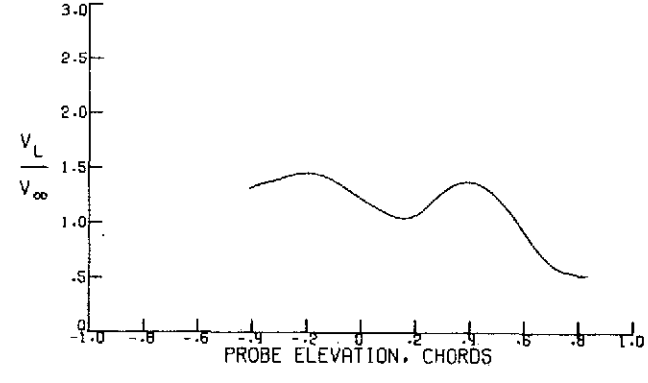
FIGURE 80. - WAKE SURVEY RESULTS FOR η = .451 , α = 12.60DEG, C_μ = .50 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

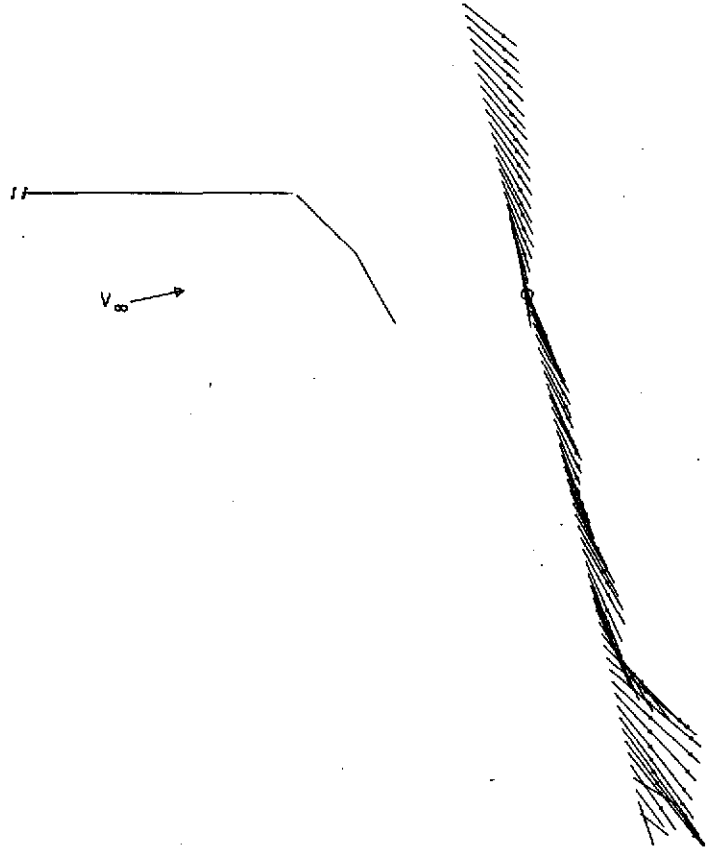


(B) - DOWNWASH ANGLE

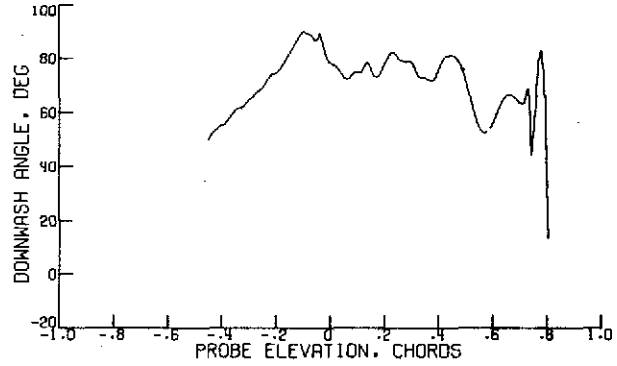


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

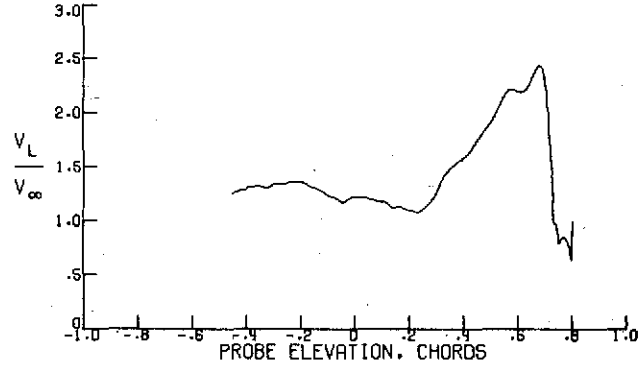
FIGURE 81. - WAKE SURVEY RESULTS FOR η = .321 , α = 12.52DEG, C_μ = .50 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



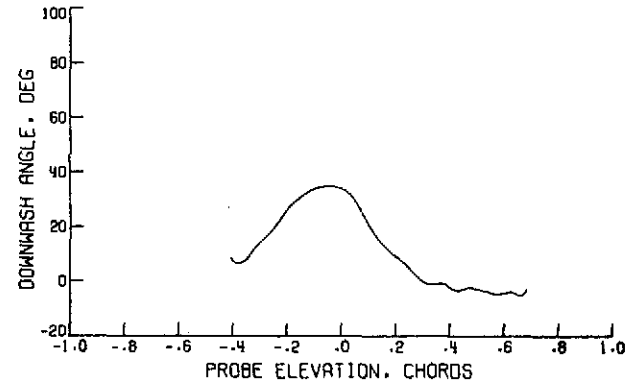
(B) - DOWNWASH ANGLE



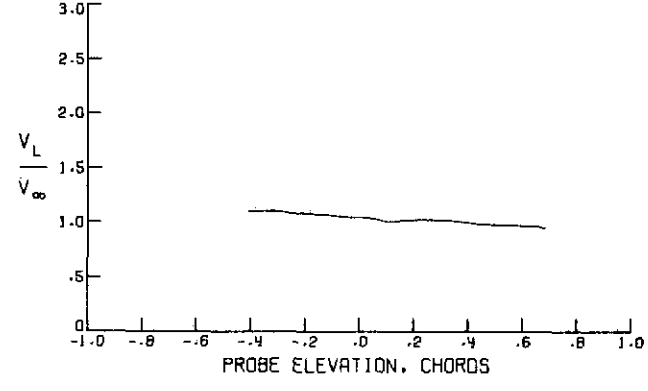
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 82. - WAKE SURVEY RESULTS FOR η = .201 , α = 12.52DEG, C_μ = .50 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

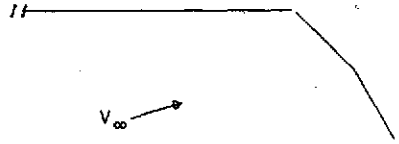


(B) - DOWNWASH ANGLE

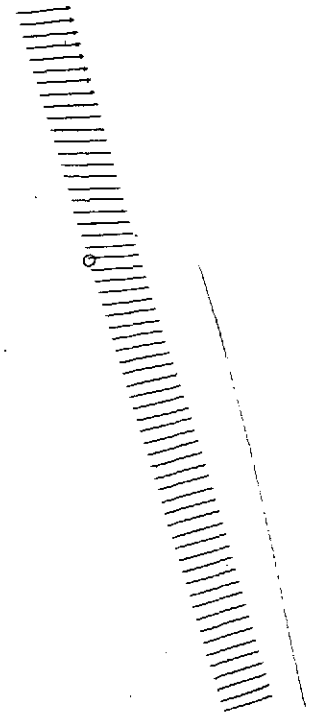


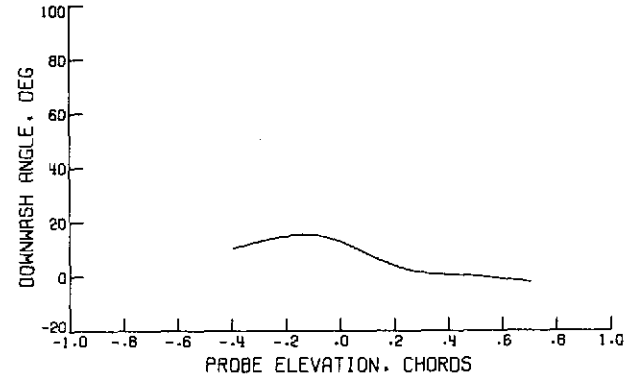
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 83. - WAKE SURVEY RESULTS FOR η = .925 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG

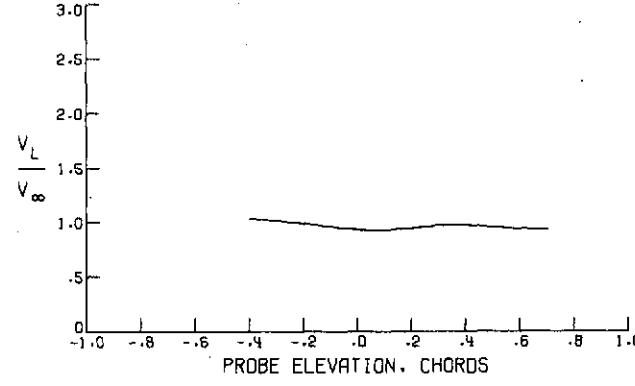


(A) - VELOCITY PROFILE



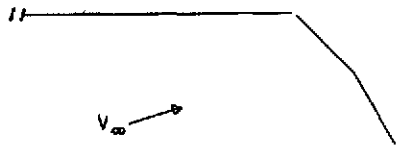


(B) - DOWNWASH ANGLE

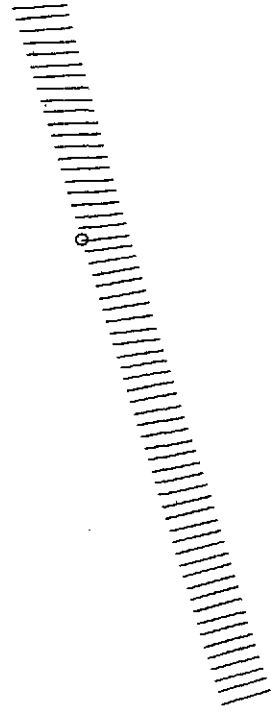


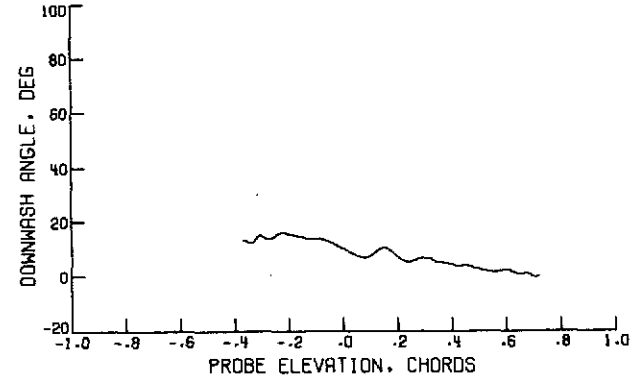
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 84. - WAKE SURVEY RESULTS FOR η = .820 , α = 16.56DEG, C_μ = .50 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG

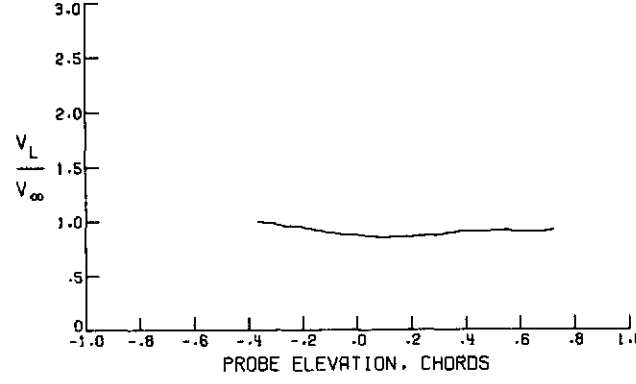


(A) - VELOCITY PROFILE



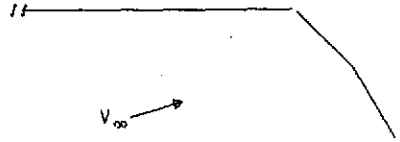


(B) - DOWNWASH ANGLE

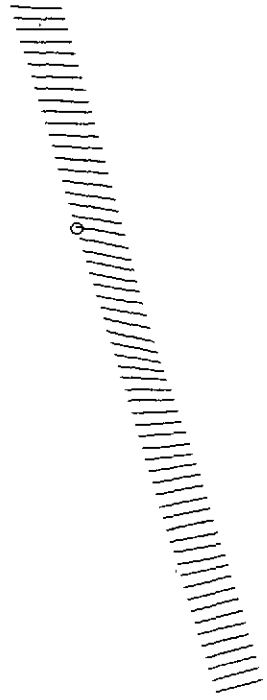


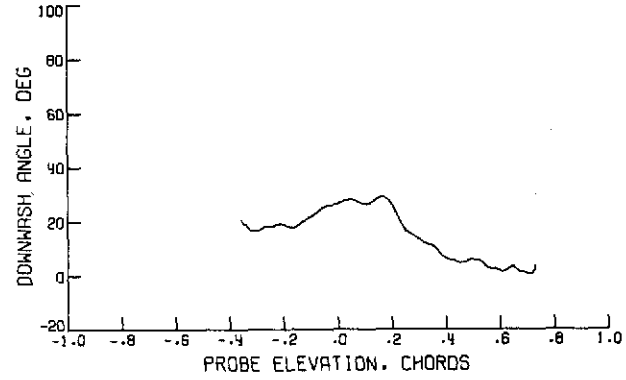
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 85. - WAKE SURVEY RESULTS FOR η = .714 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG

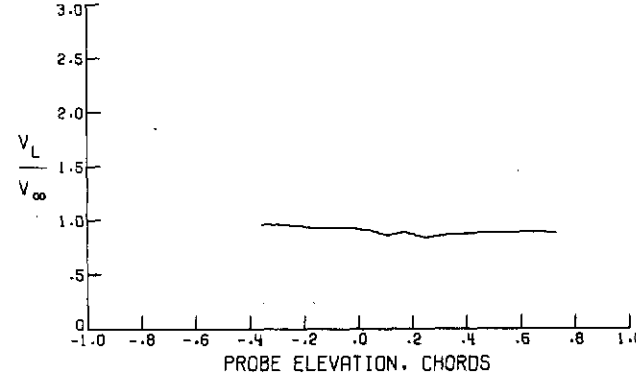


(A) - VELOCITY PROFILE



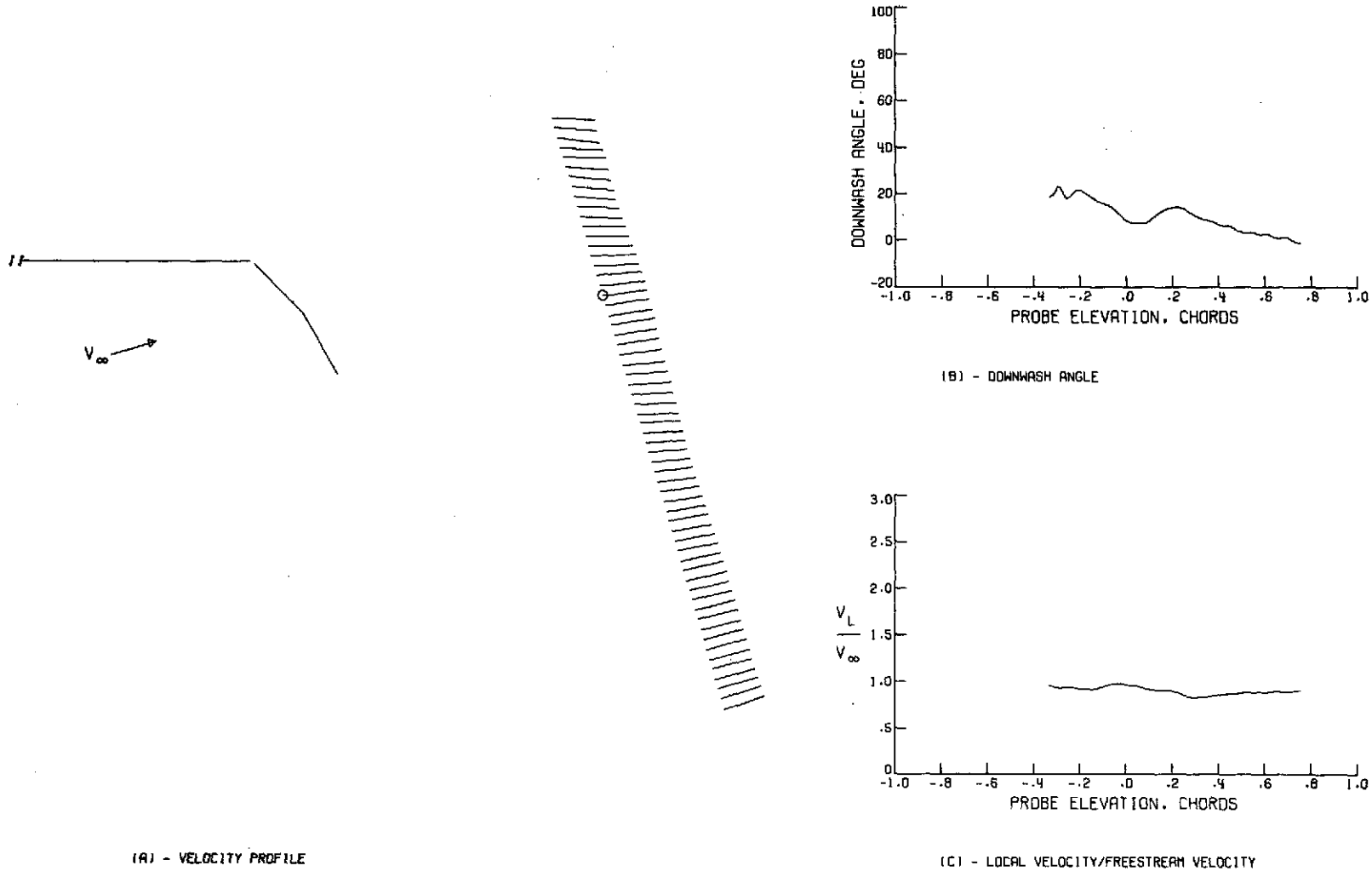


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 86. - WAKE SURVEY RESULTS FOR η = .603 , α = 16.56DEG, C_μ = .50 , V_∞ = 36.32 M/SEC, δ_F = 60.0 DEG

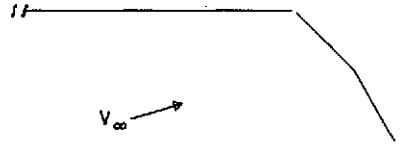


(A) - VELOCITY PROFILE

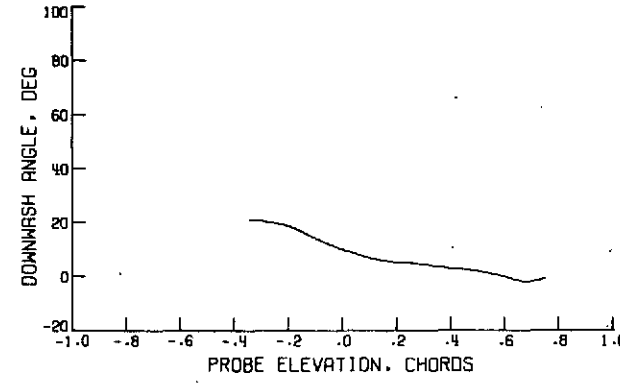
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

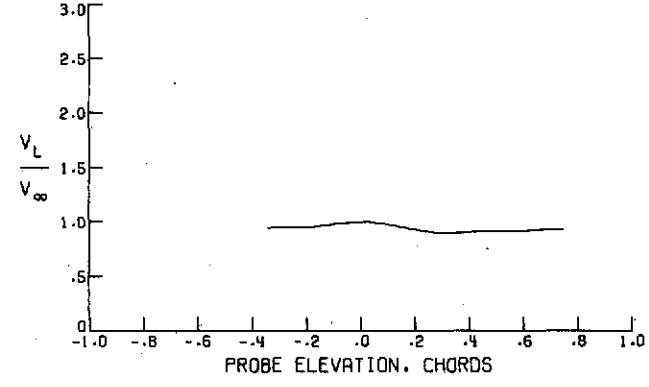
FIGURE 87. - WAKE SURVEY RESULTS FOR η = .511 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

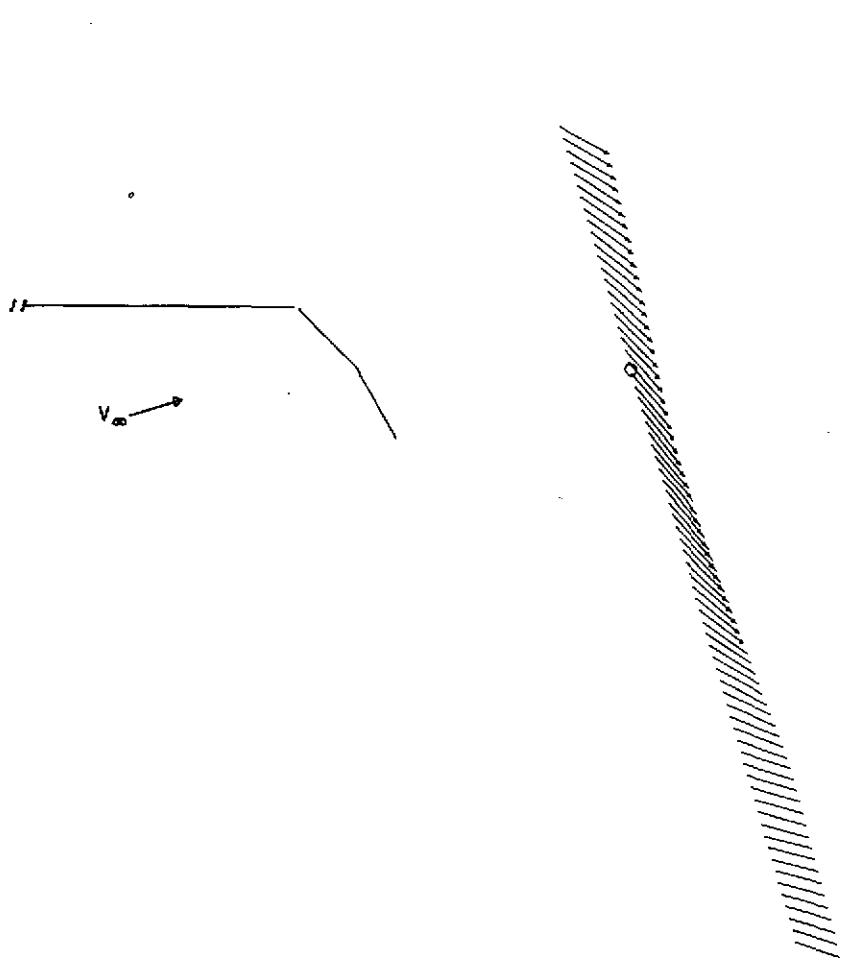


(B) - DOWNWASH ANGLE

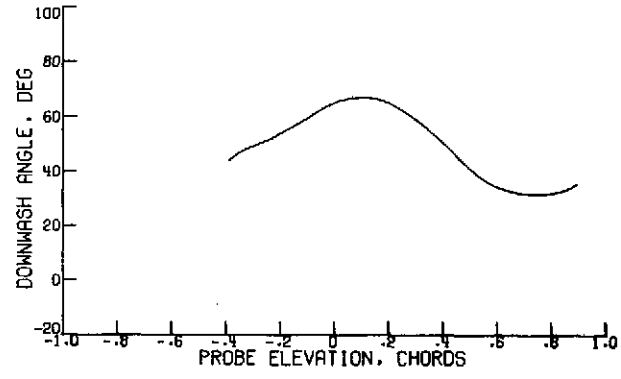


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

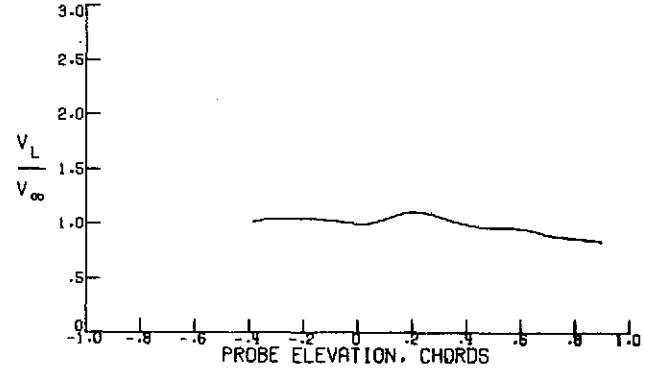
FIGURE 88. - WAKE SURVEY RESULTS FOR η = .450 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

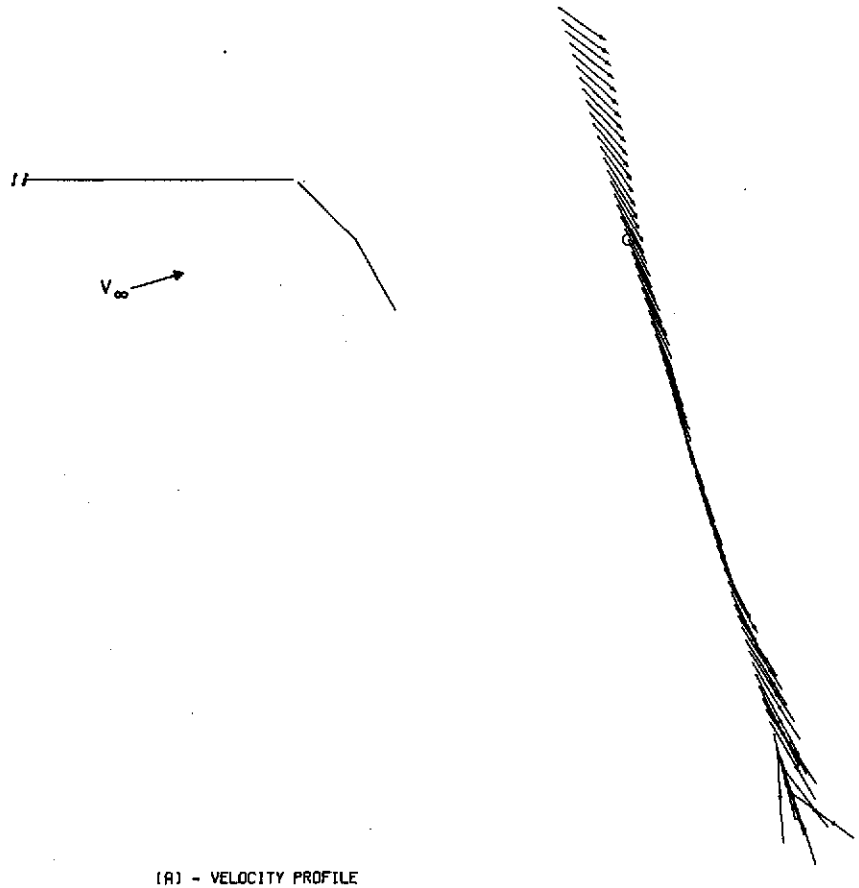


(B) - DOWNWASH ANGLE

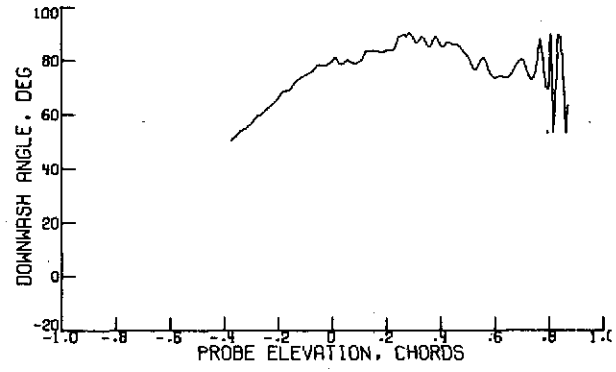


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

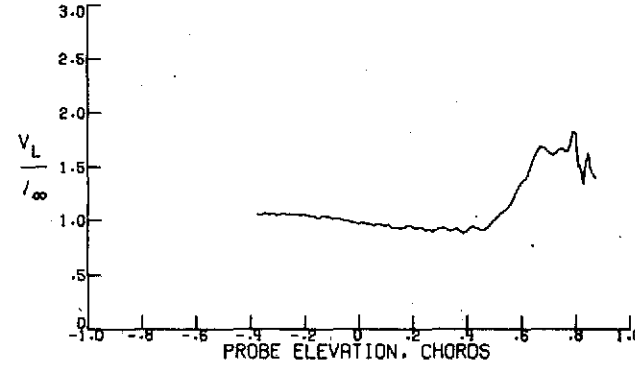
FIGURE 89. - WAKE SURVEY RESULTS FOR η = .322 , α = 16.53DEG, C_μ = .50 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

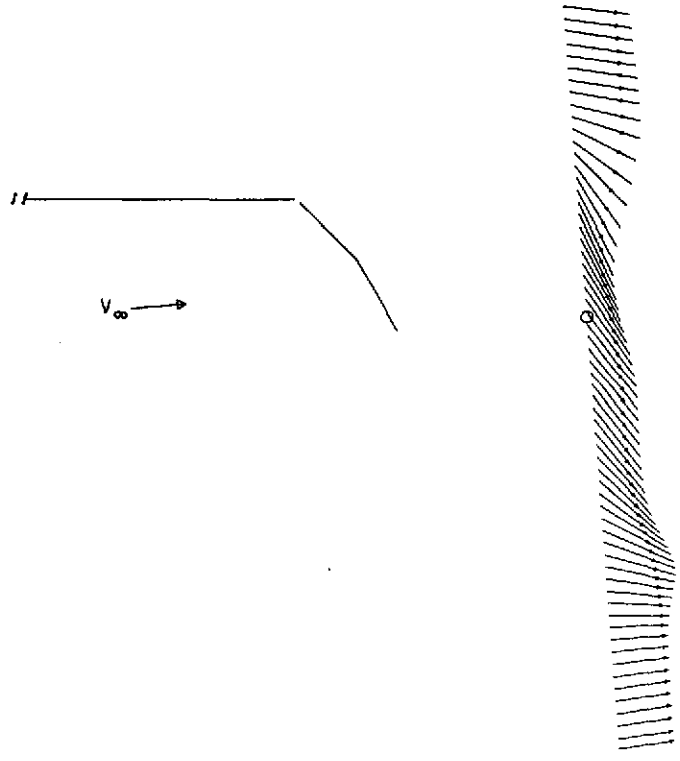


(B) - DOWNWASH ANGLE

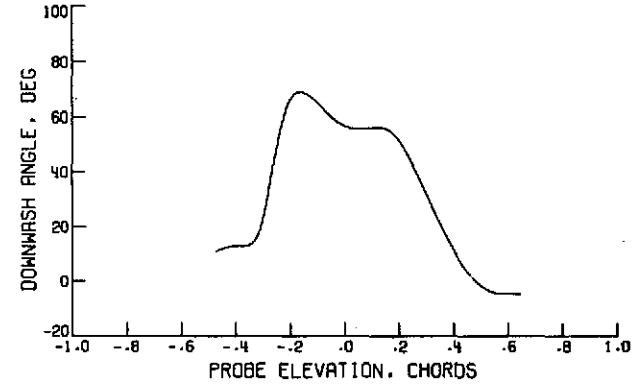


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

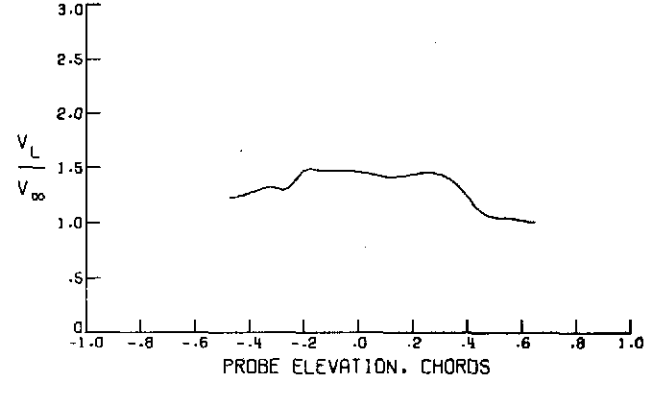
FIGURE 90. - WAKE SURVEY RESULTS FOR η = .201 , α = 16.51DEG, C_μ = .50 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

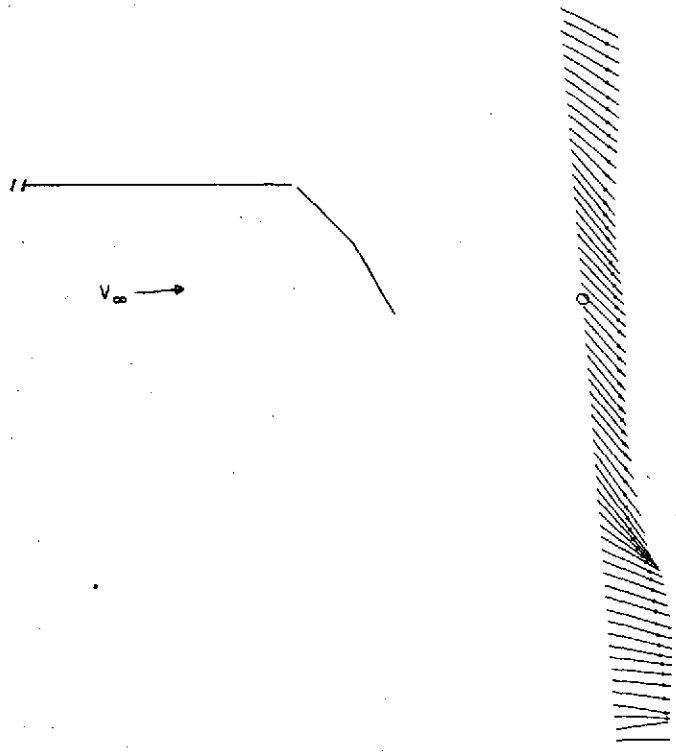


(B) - DOWNWASH ANGLE

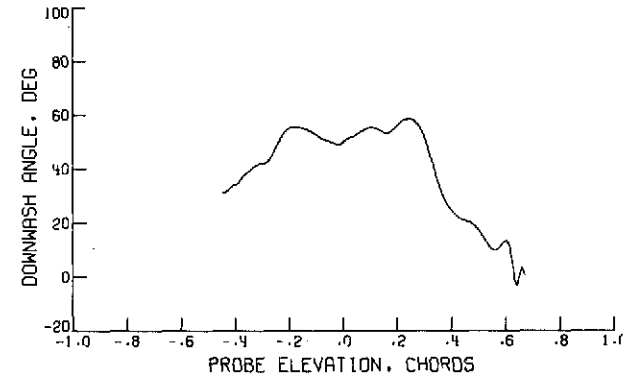


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

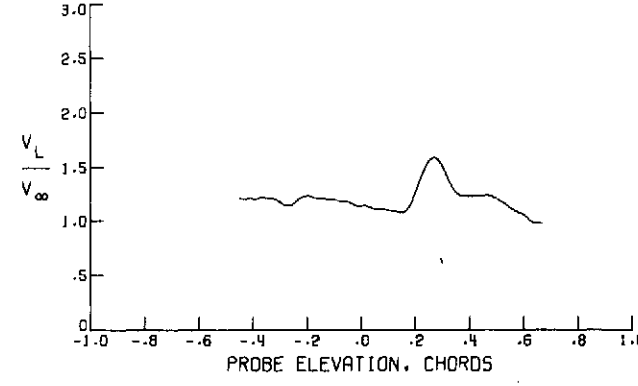
FIGURE 91. - WAKE SURVEY RESULTS FOR η = .923 , α = 4.41 DEG, C_μ = 1.00 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

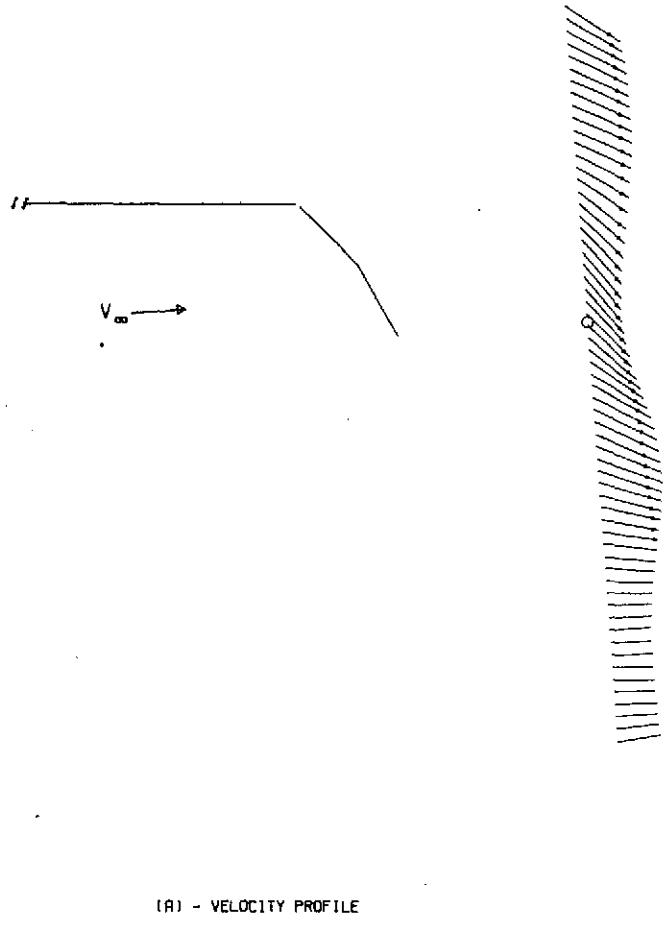


(B) - DOWNWASH ANGLE

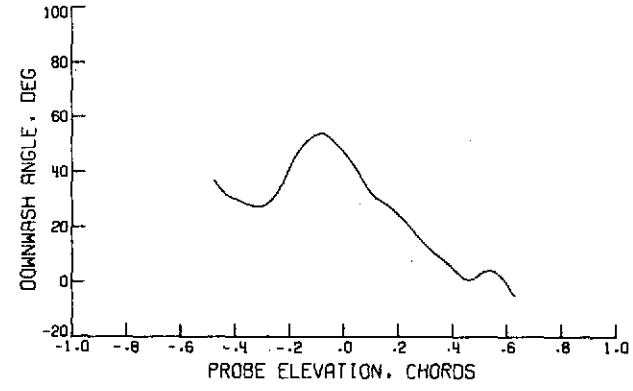


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

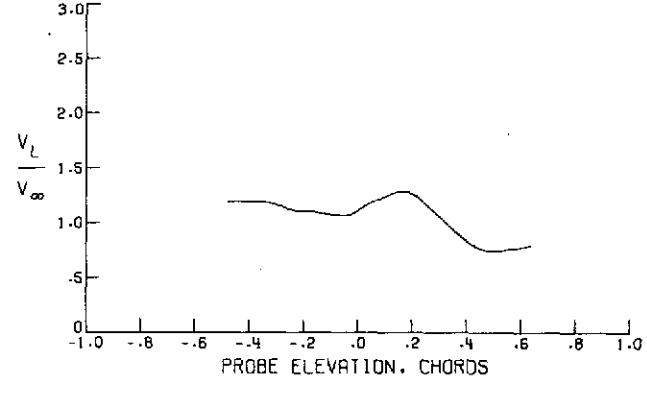
FIGURE 92. - WAKE SURVEY RESULTS FOR η = .819 , α = 4.40 DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

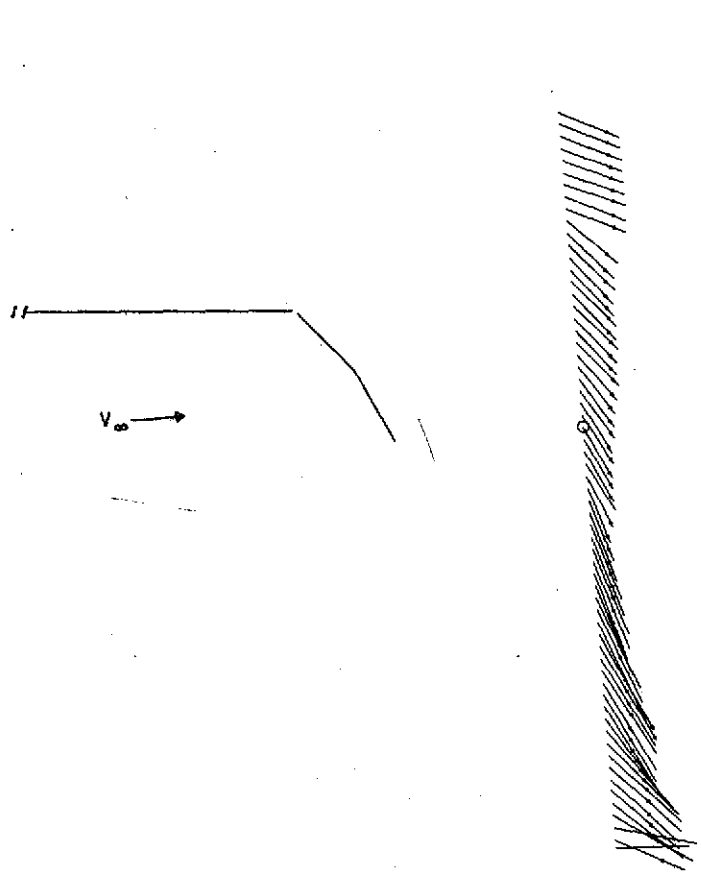


(B) - DOWNWASH ANGLE

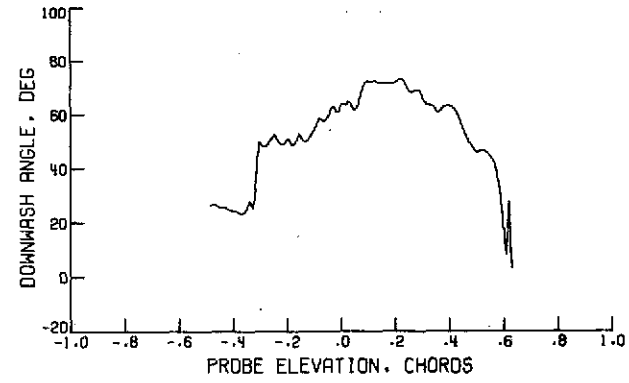


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

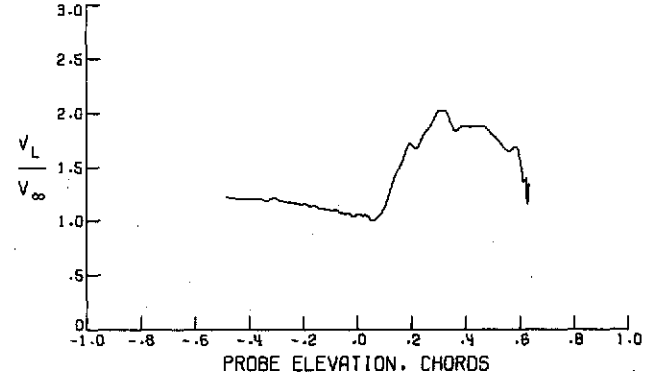
FIGURE 93. - WAKE SURVEY RESULTS FOR η = .713 , α = 4.39 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

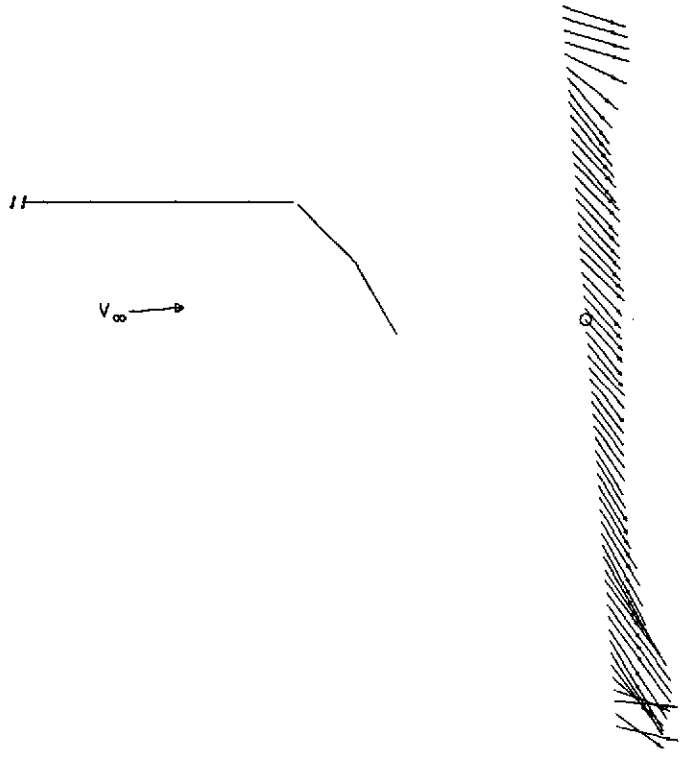


(B) - DOWNWASH ANGLE

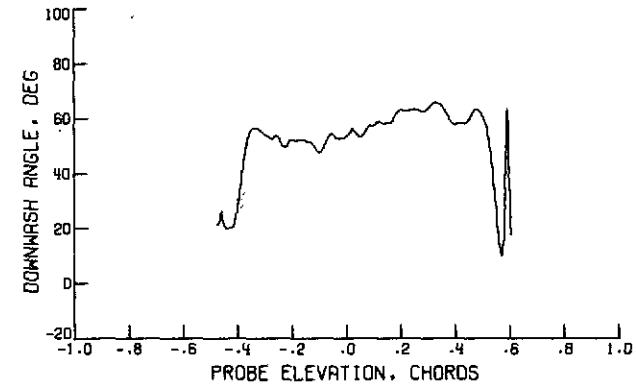


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

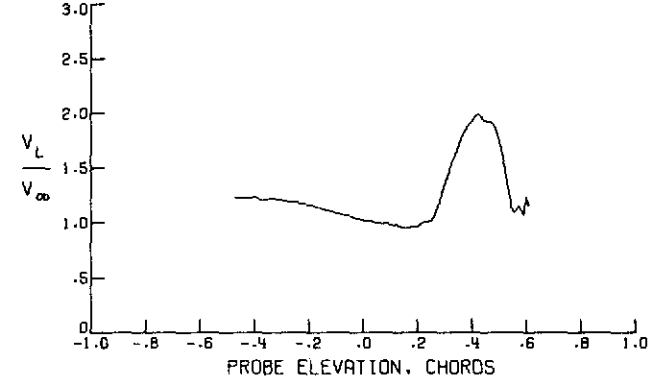
FIGURE 94. - WAKE SURVEY RESULTS FOR η = .602 , α = 4.40 DEG, C_μ = 1.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

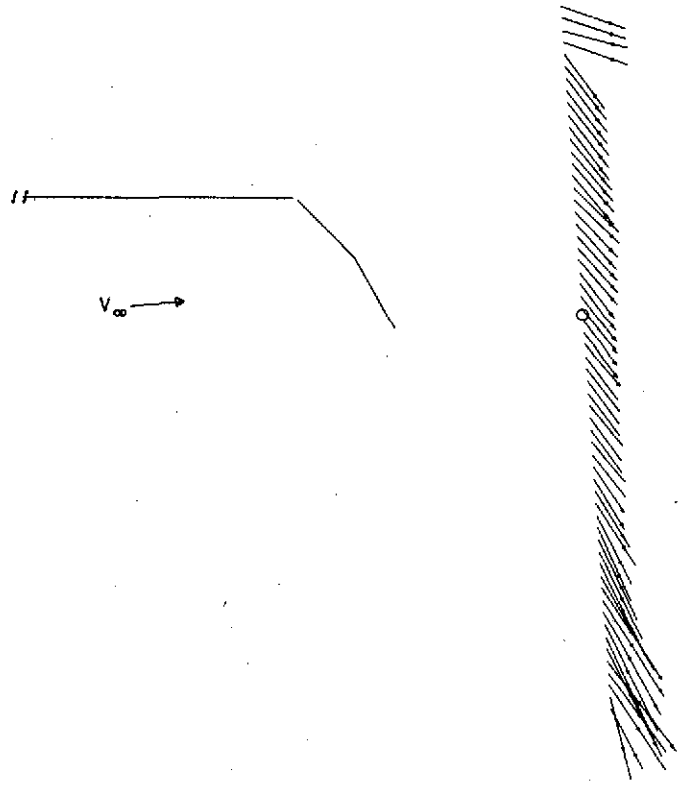


(B) - DOWNWASH ANGLE

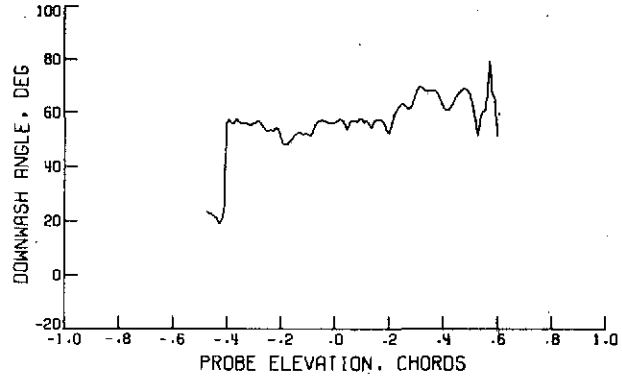


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

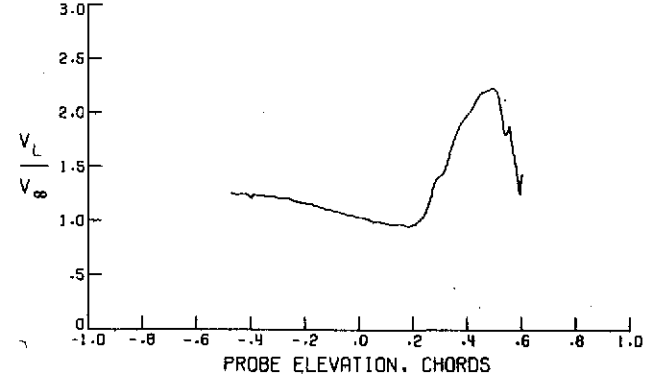
FIGURE 95. - WAKE SURVEY RESULTS FOR η = .511 , α = 4.39 DEG, C_μ = 1.00 ; V_∞ = 36.46 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

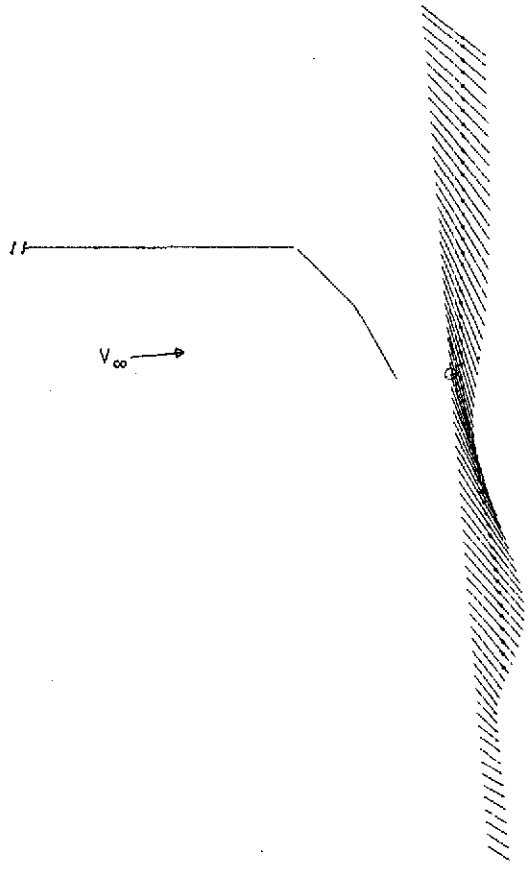


(B) - DOWNWASH ANGLE

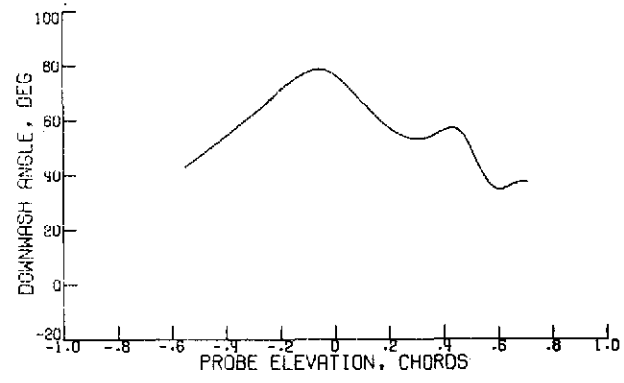


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

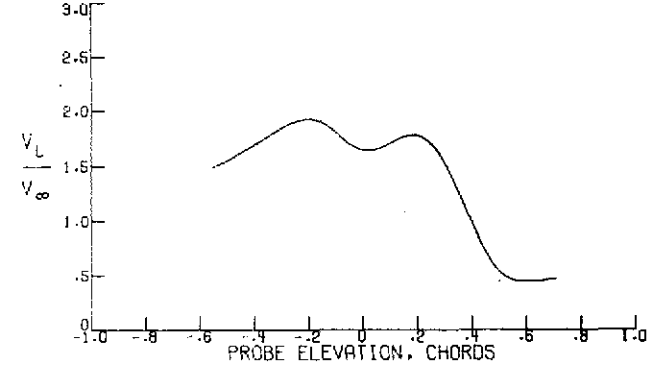
FIGURE 96. - WAKE SURVEY RESULTS FOR η = .450 , α = 4.40 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

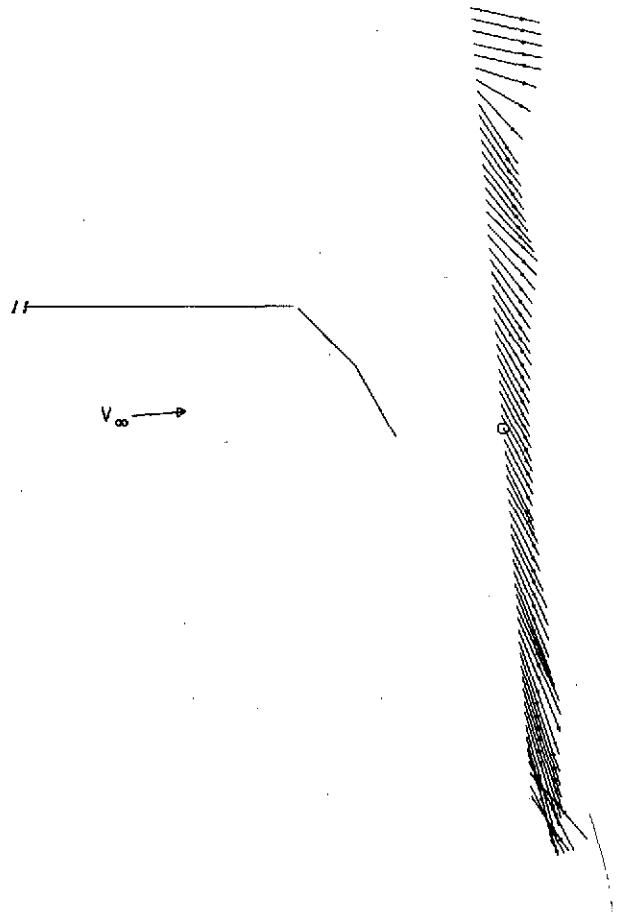


(B) - DOWNWASH ANGLE

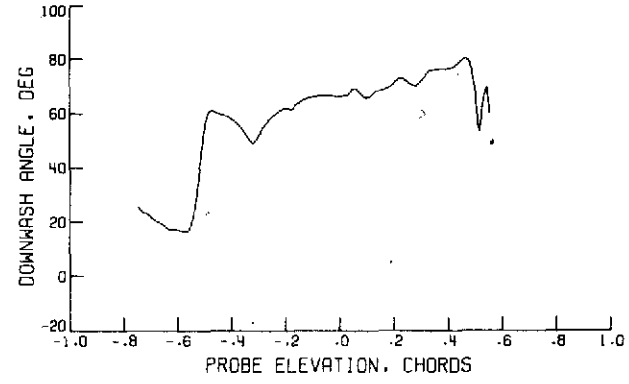


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

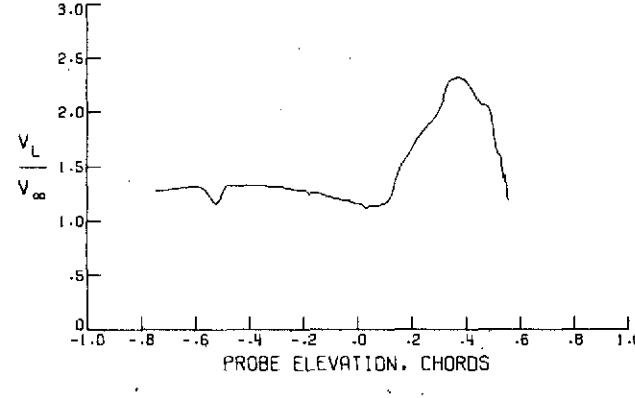
FIGURE 97. - WAKE SURVEY RESULTS FOR η = .320 , α = 4.38 DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

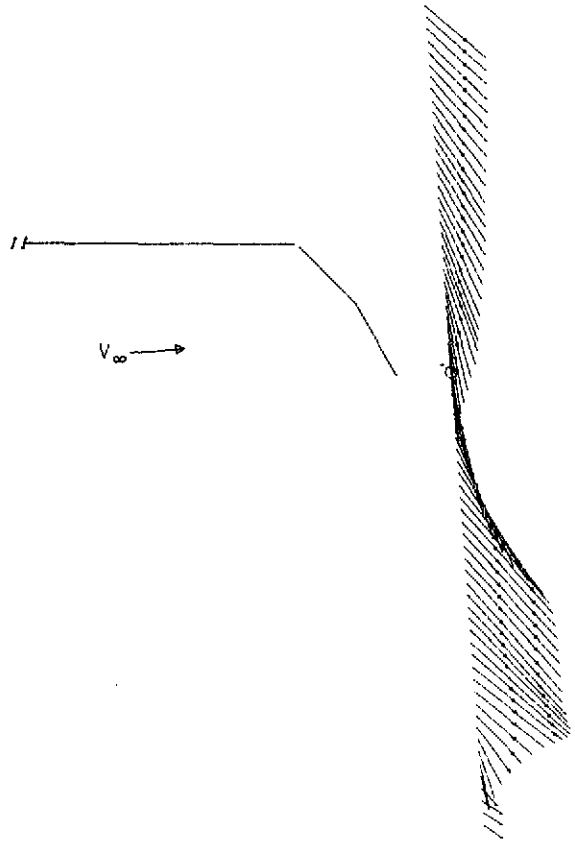


(B) - DOWNWASH ANGLE

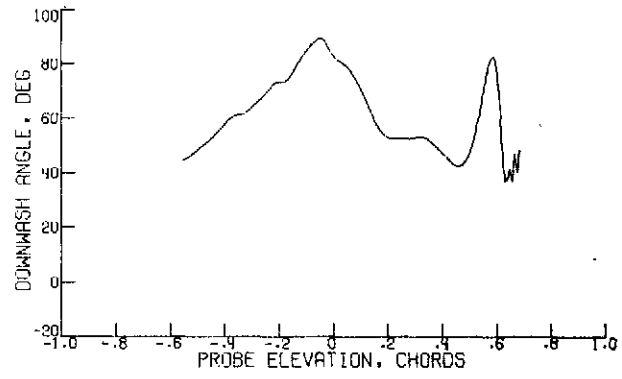


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

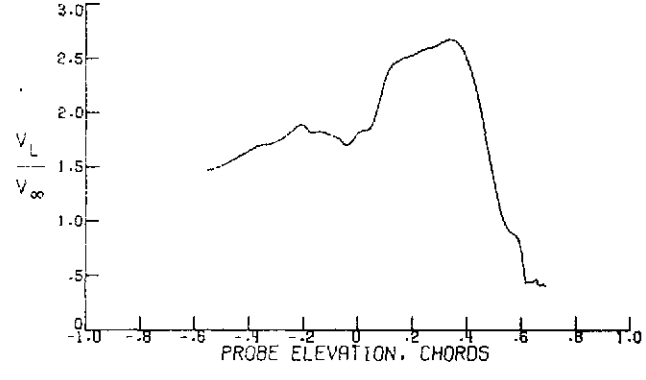
FIGURE 97A. - WAKE SURVEY RESULTS FOR η = .242 , α = 4.40 DEG, C_μ = 1.00 , V_∞ = 36.05 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

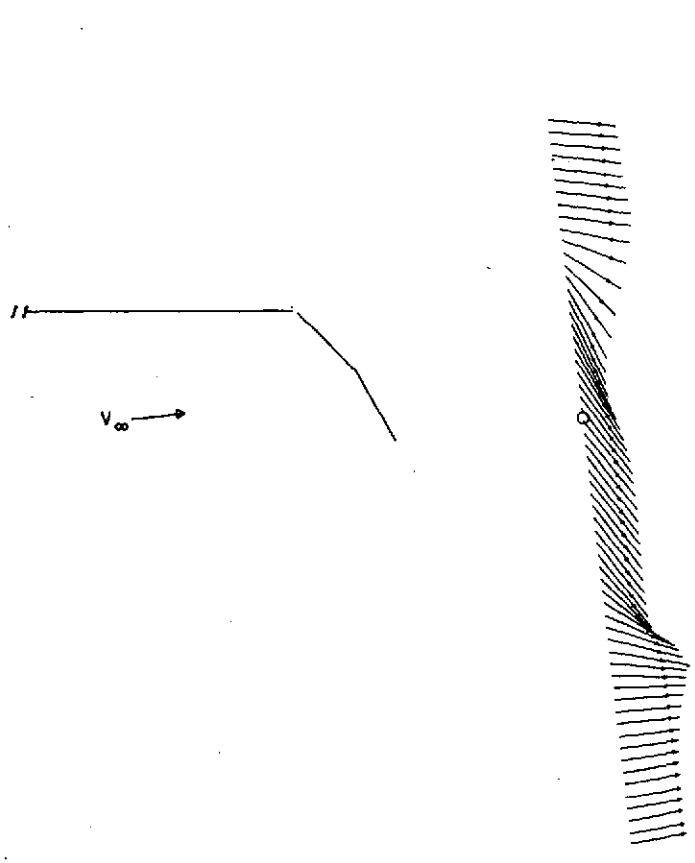


(B) - DOWNWASH ANGLE

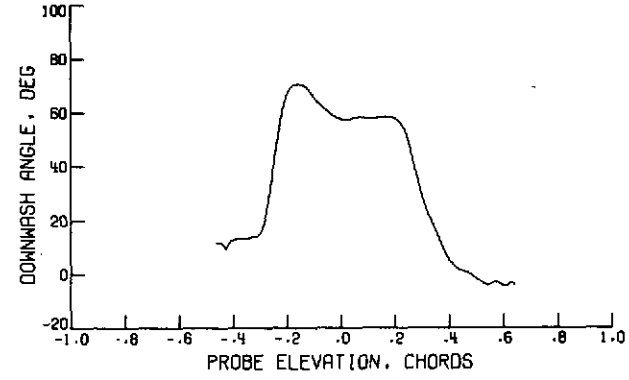


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

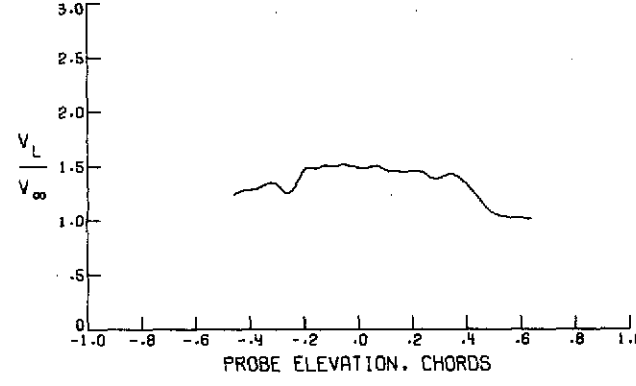
FIGURE 98. - WAKE SURVEY RESULTS FOR η = .201 , α = 4.38 DEG, C_μ = 1.00 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

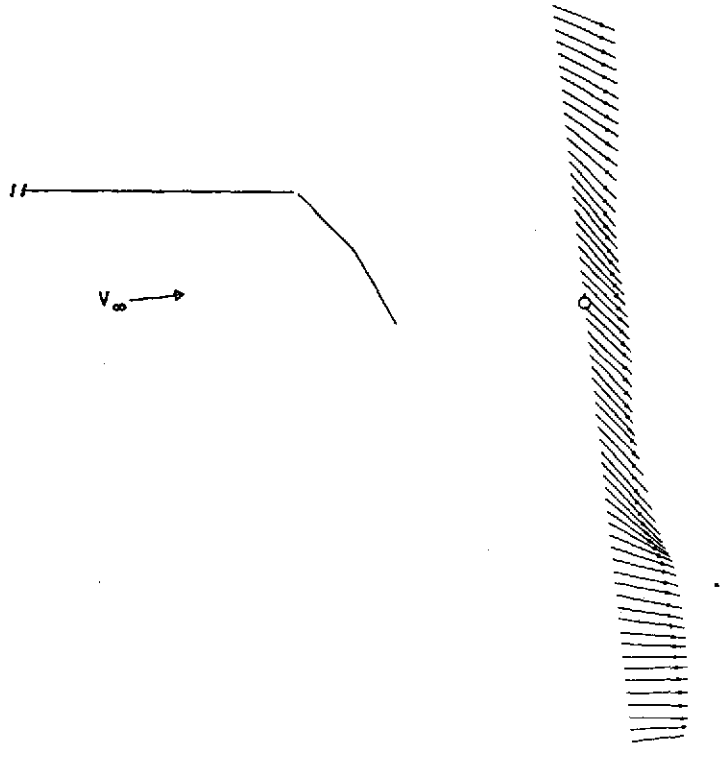


(B) - DOWNWASH ANGLE

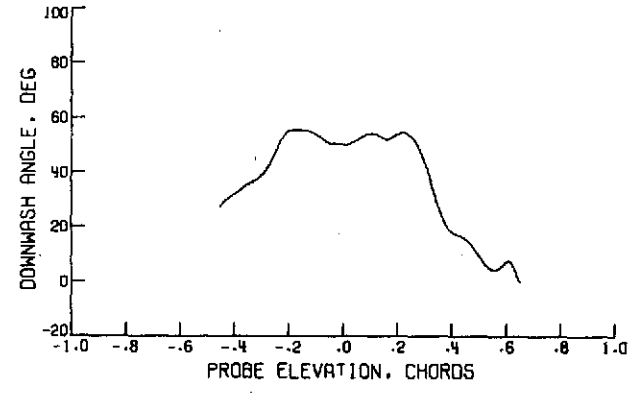


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

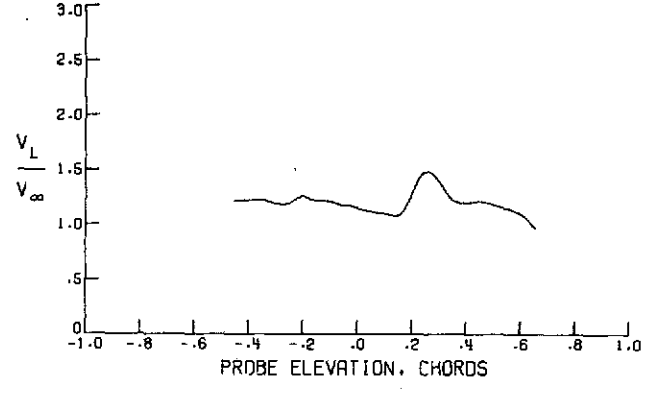
FIGURE 99. - WAKE SURVEY RESULTS FOR η = .922 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

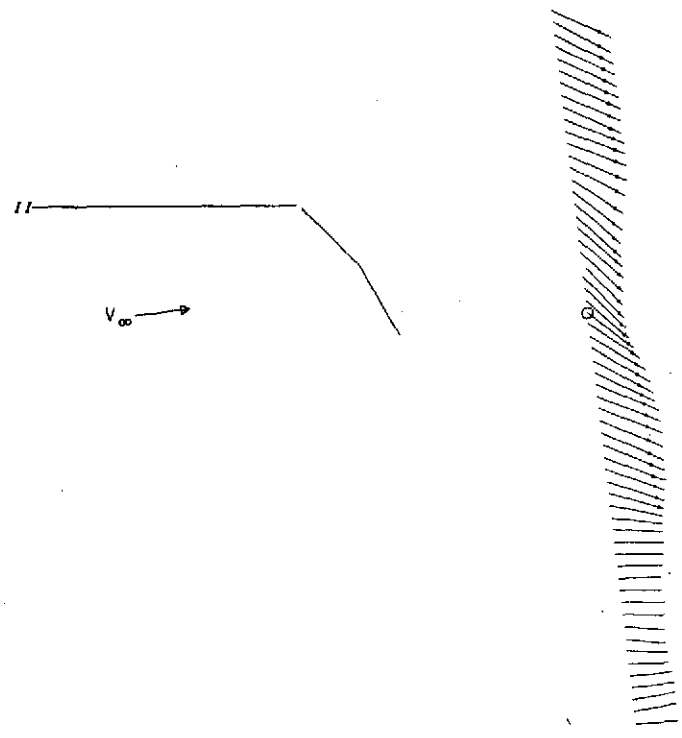


(B) - DOWNWASH ANGLE

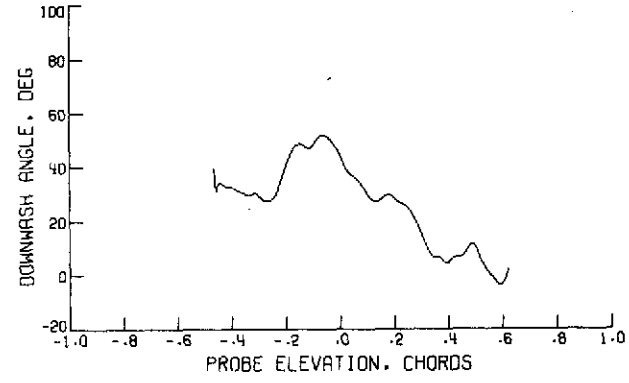


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

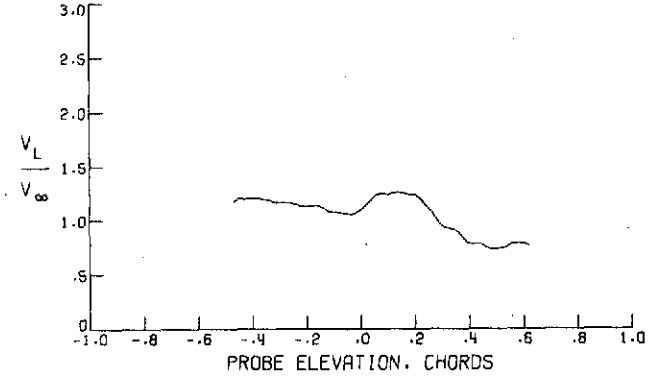
FIGURE 100.- WAKE SURVEY RESULTS FOR η = .820 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

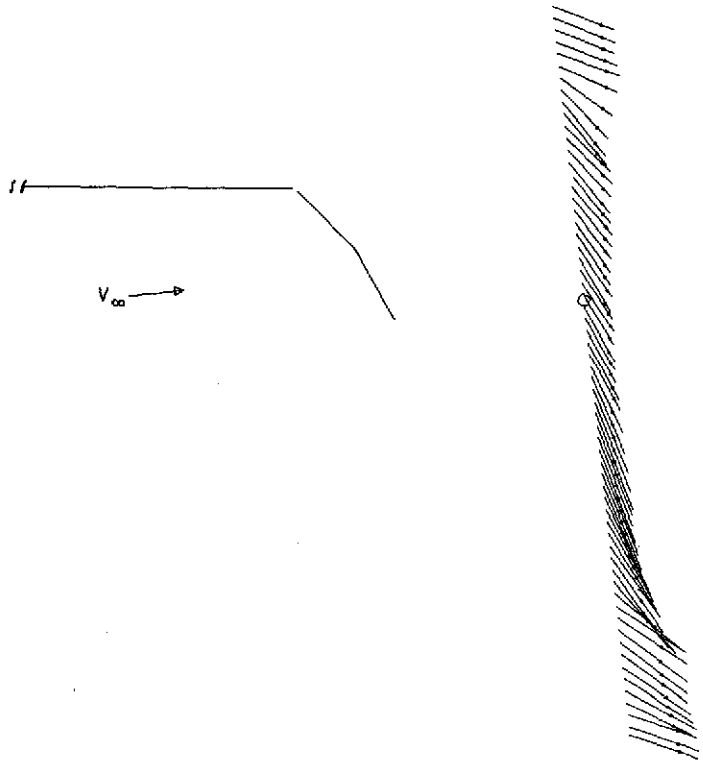


(B) - DOWNWASH ANGLE

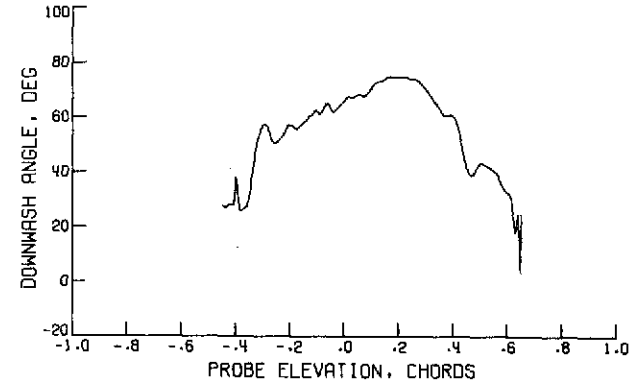


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

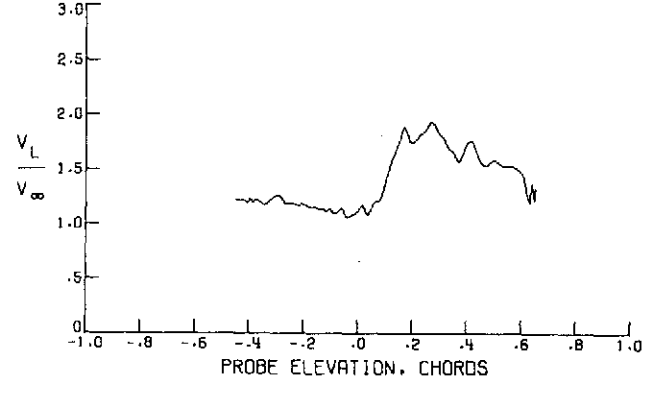
FIGURE 101. - WAKE SURVEY RESULTS FOR η = .714 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

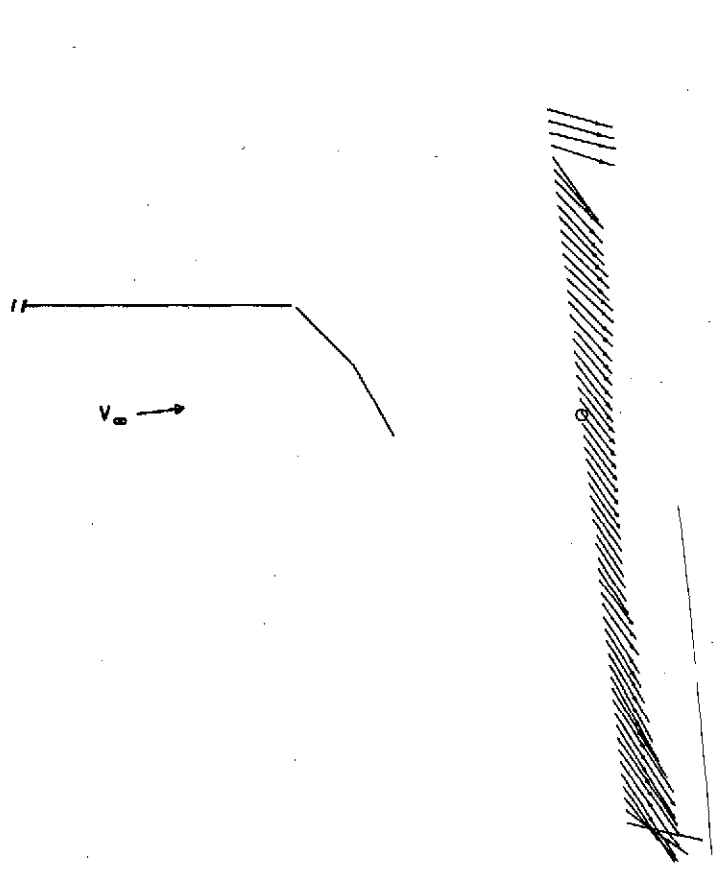


(B) - DOWNWASH ANGLE

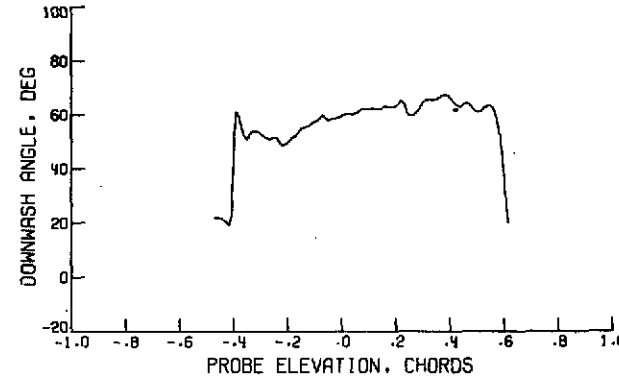


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

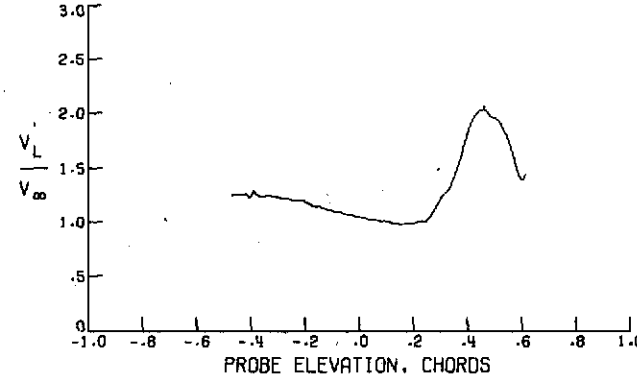
FIGURE 102.- WAKE SURVEY RESULTS FOR η = .601 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

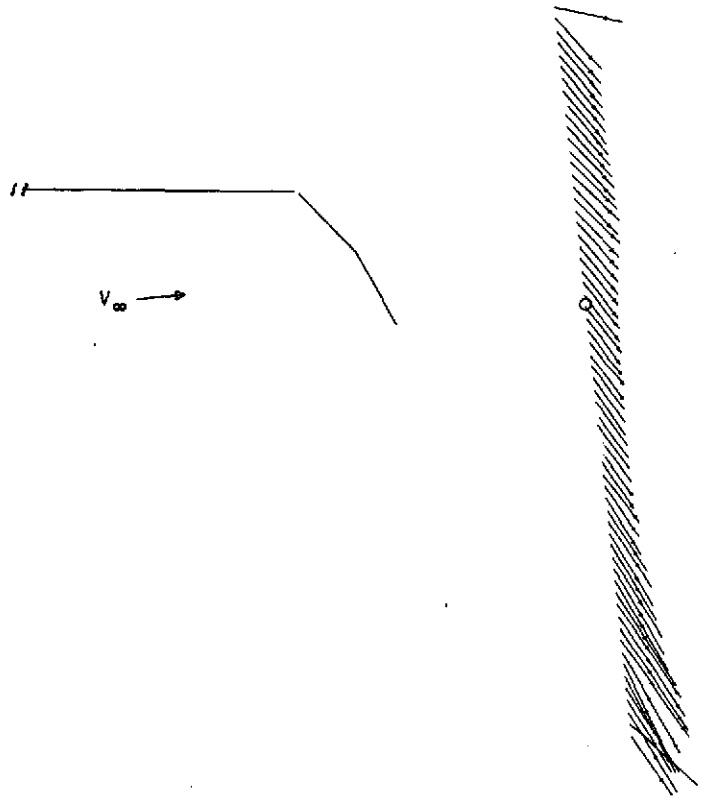


(B) - DOWNWASH ANGLE

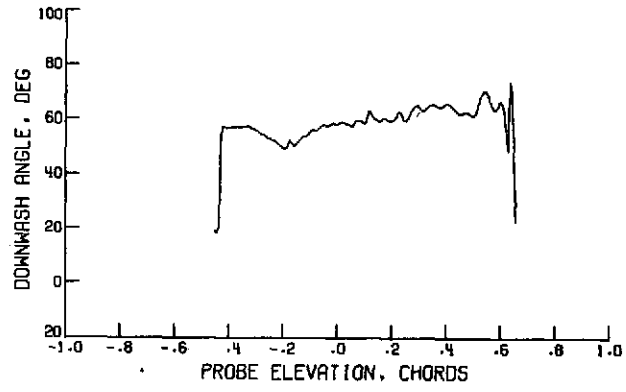


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

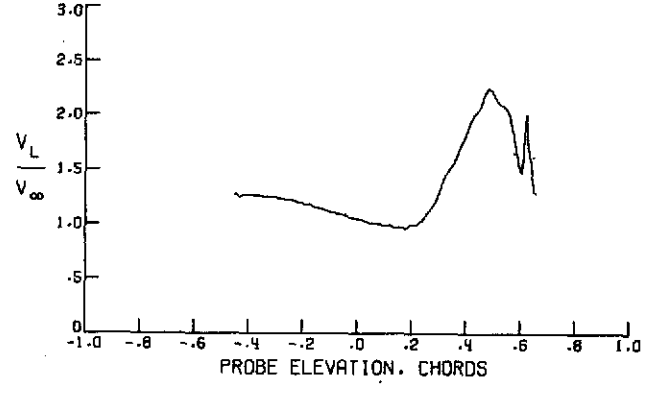
FIGURE 103. - WAKE SURVEY RESULTS FOR η = .510 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

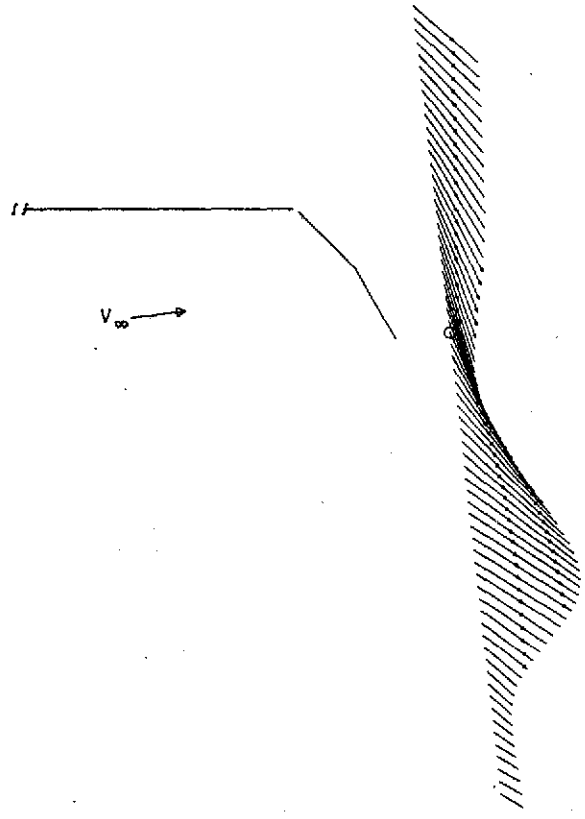


(B) - DOWNWASH ANGLE

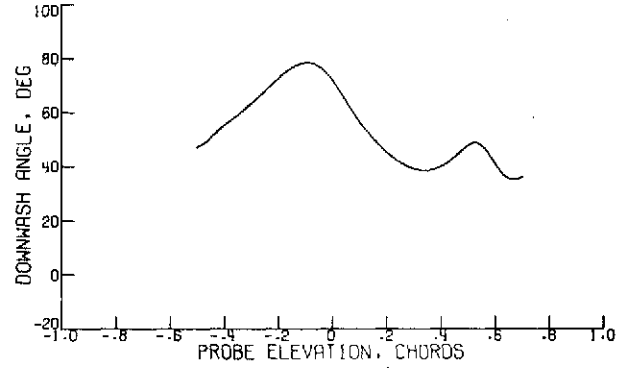


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

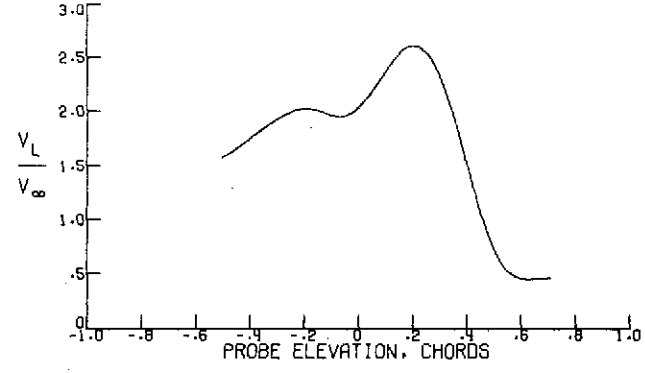
FIGURE 104.- WAKE SURVEY RESULTS FOR η = .452 , α = 6.48 DEG, C_μ = 1.00 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

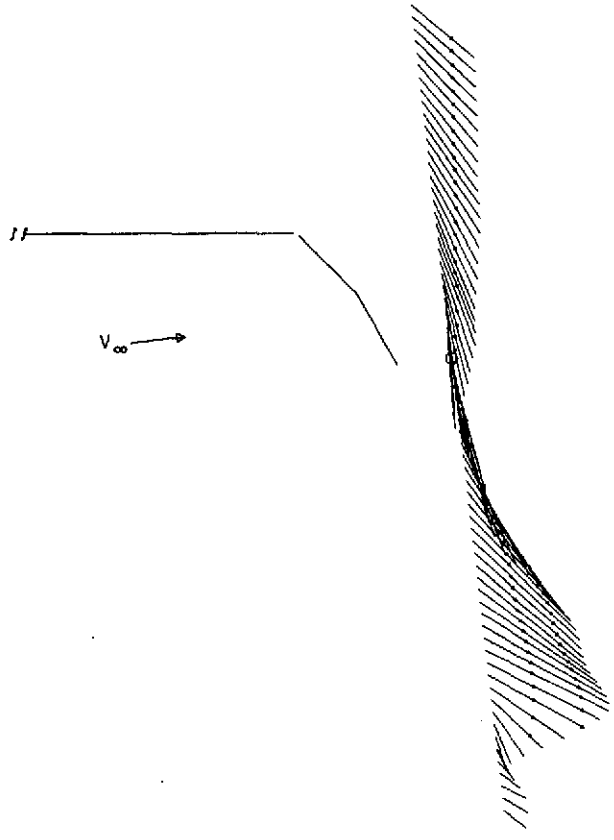


(B) - DOWNWASH ANGLE

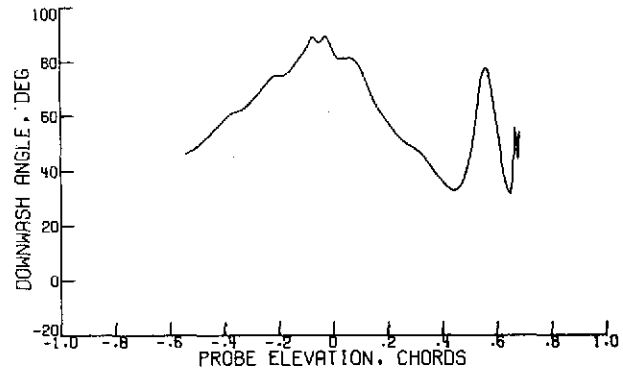


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

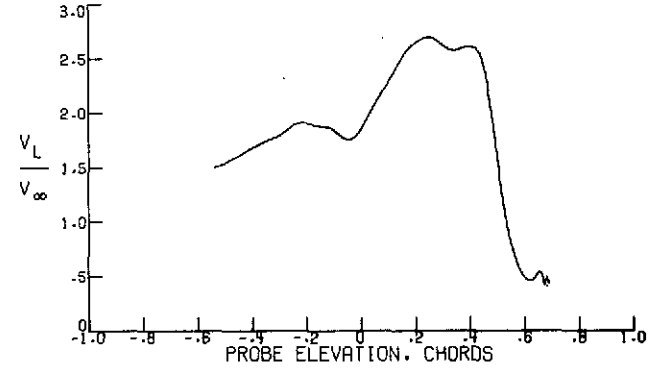
FIGURE 105. - WAKE SURVEY RESULTS FOR η = .320 , α = 6.47 DEG, C_μ = 1.00 , V_∞ = 36.20 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

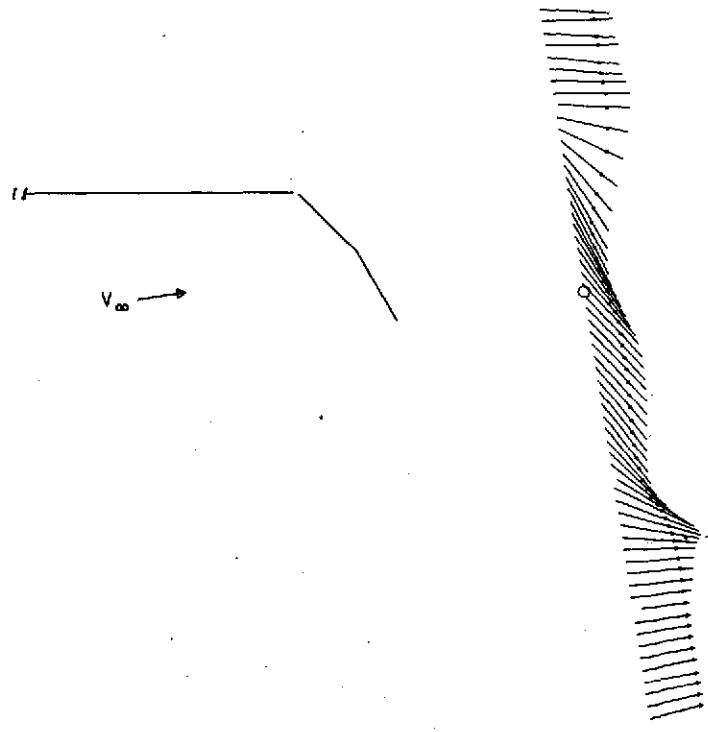


(B) - DOWNWASH ANGLE

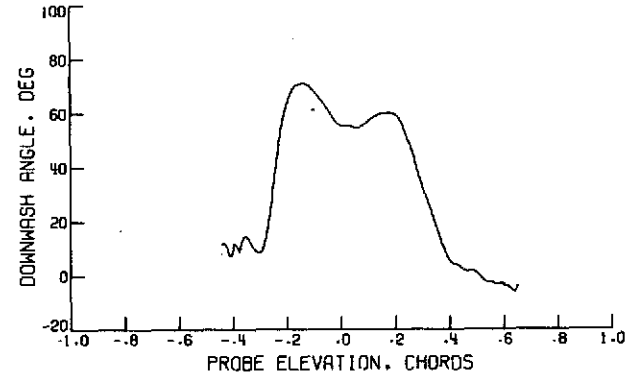


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

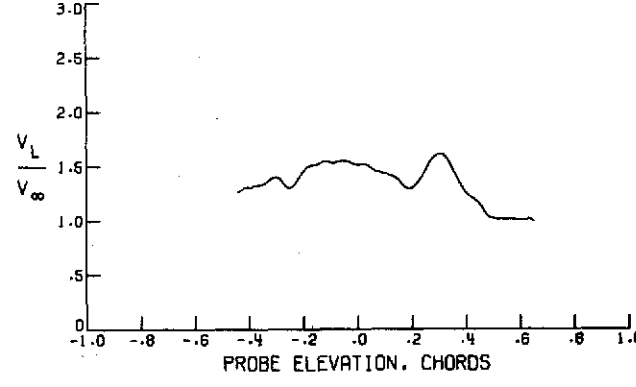
FIGURE 106.- WAKE SURVEY RESULTS FOR η = .201 , α = 6.46 DEG, C_μ = 1.00 , V_∞ = 36.29 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

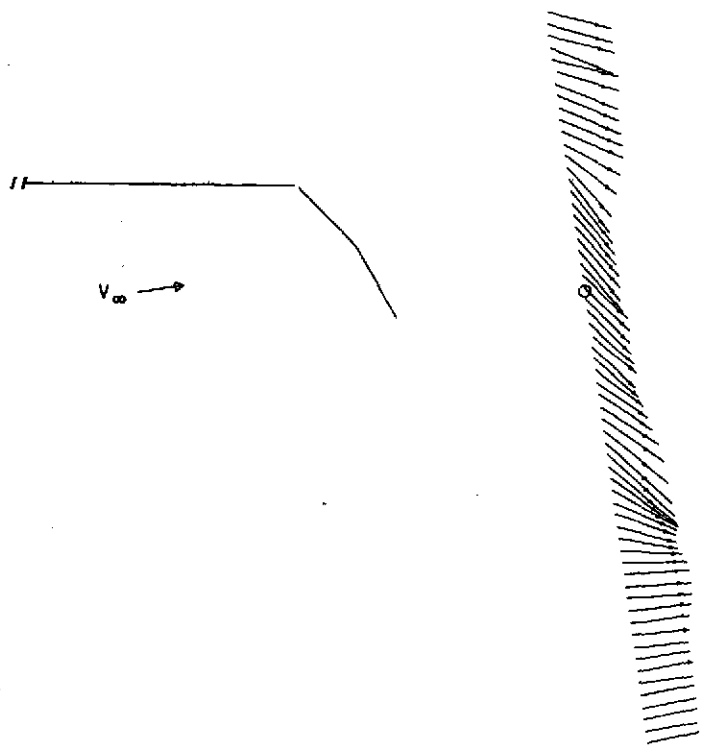


(B) - DOWNWASH ANGLE

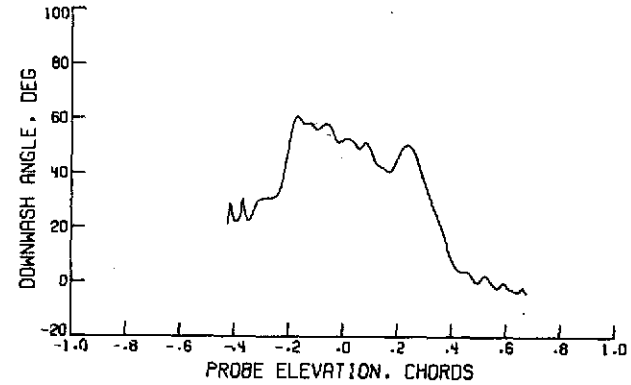


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

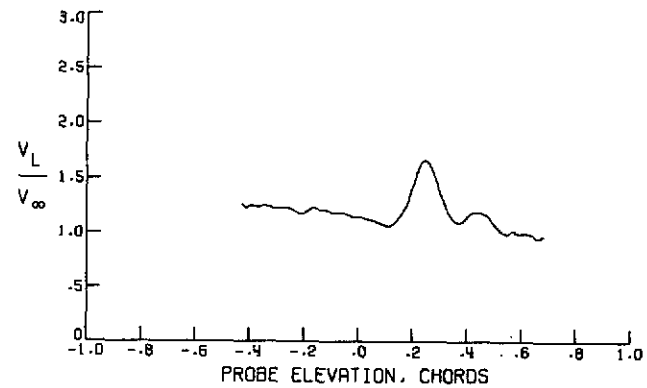
FIGURE 107 - WAKE SURVEY RESULTS FOR η = .924 , α = 8.55 DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

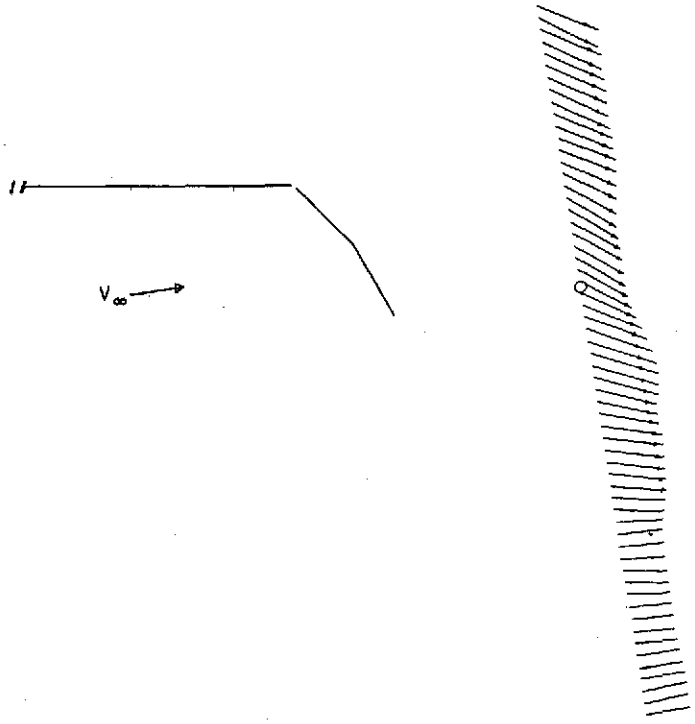


(B) - DOWNWASH ANGLE

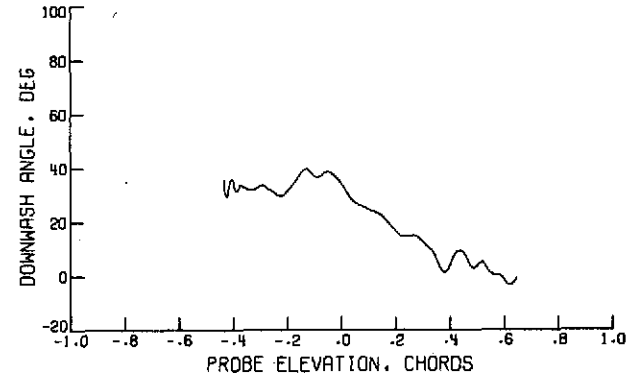


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

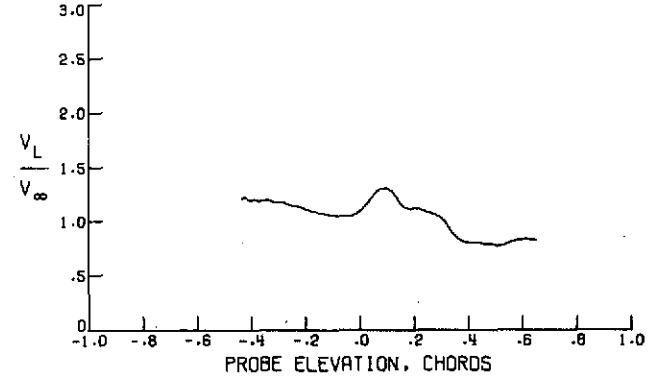
FIGURE 108. - WAKE SURVEY RESULTS FOR η = .820 , α = 8.56 DEG, C_μ = 1.00 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

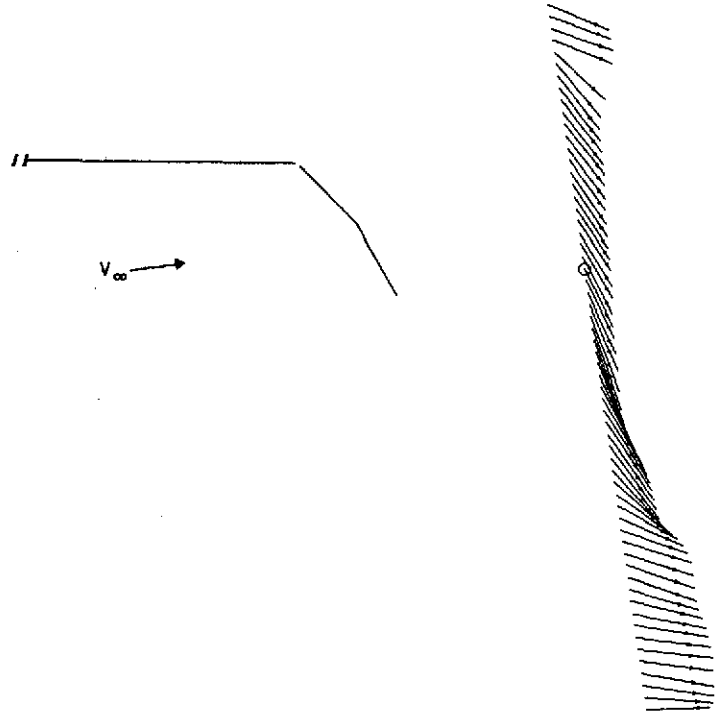


(B) - DOWNWASH ANGLE

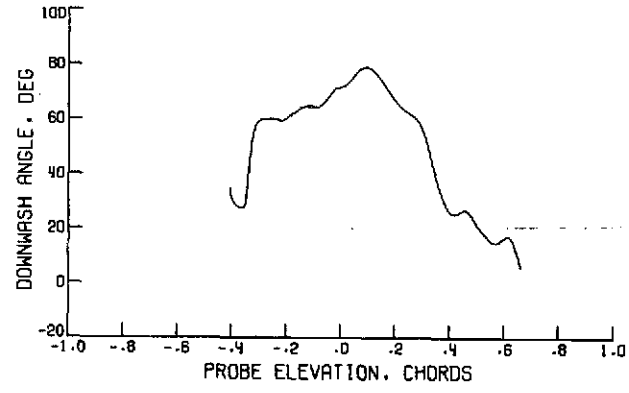


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

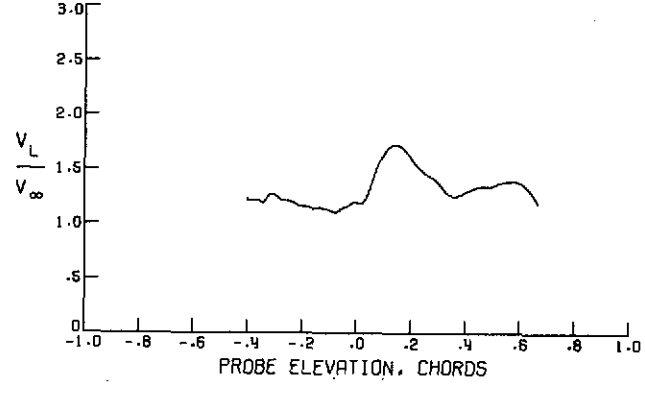
FIGURE 109. - WAKE SURVEY RESULTS FOR η = .708 , α = 8.55 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

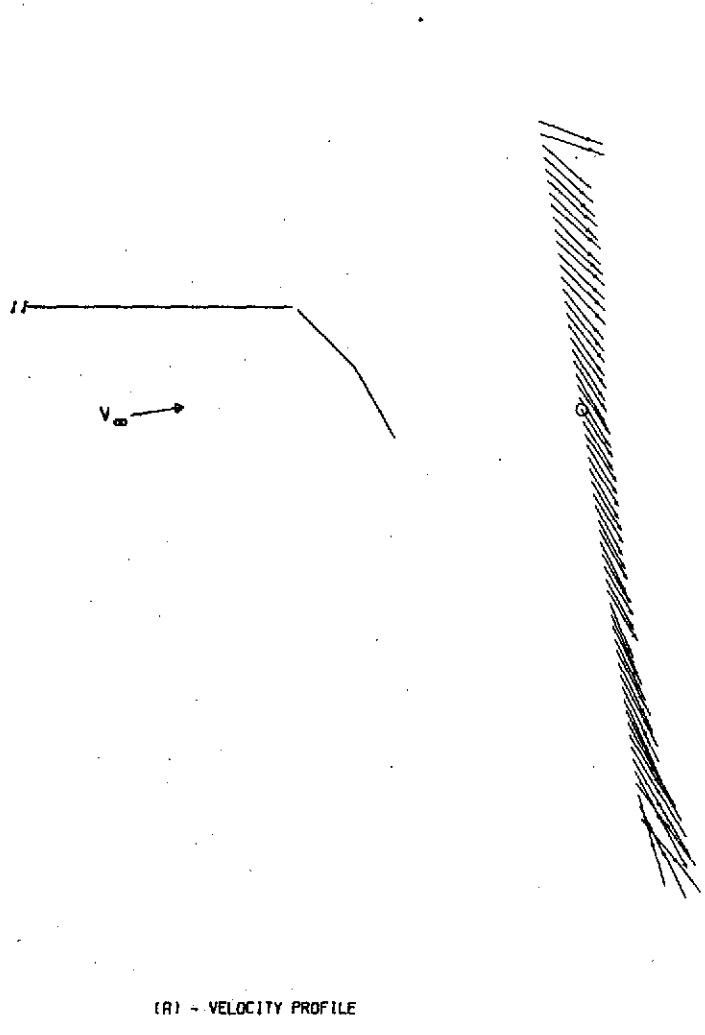


(B) - DOWNWASH ANGLE

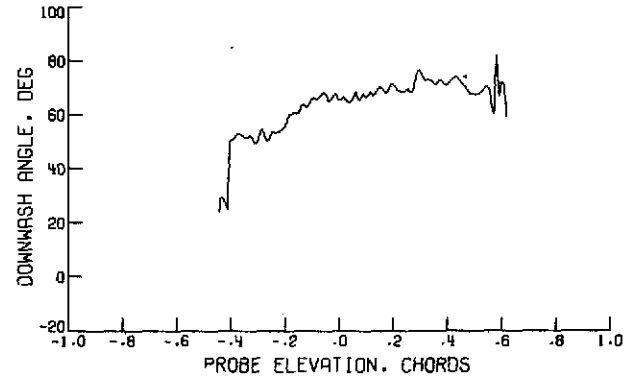


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

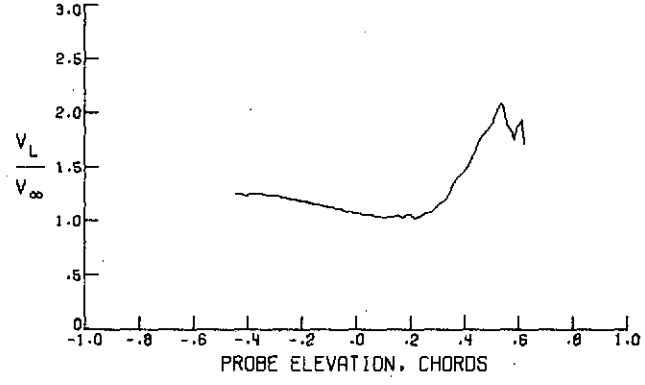
FIGURE 110. - WAKE SURVEY RESULTS FOR η = .601 , α = 8.56 DEG, C_μ = 1.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

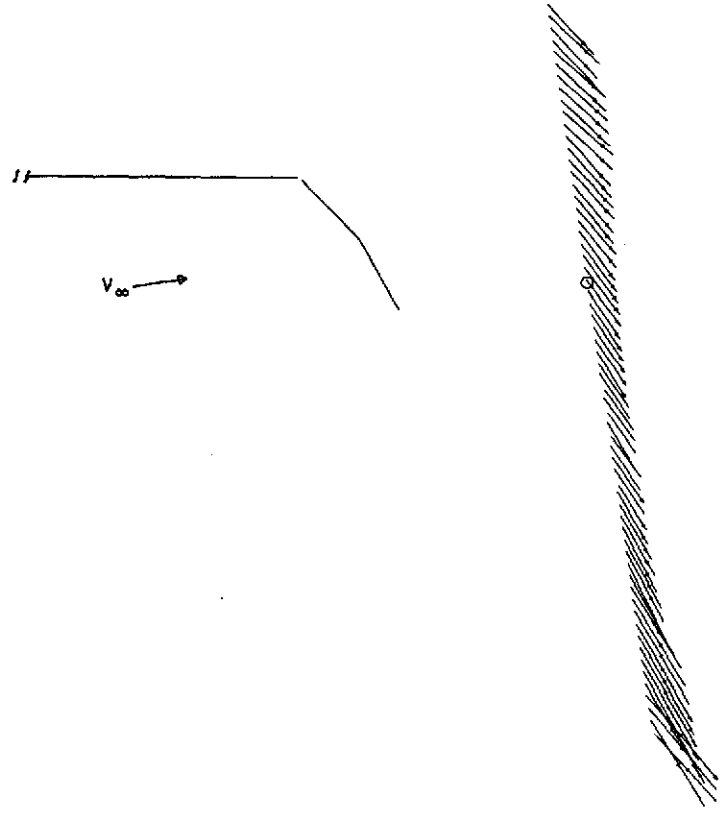


(B) - DOWNWASH ANGLE

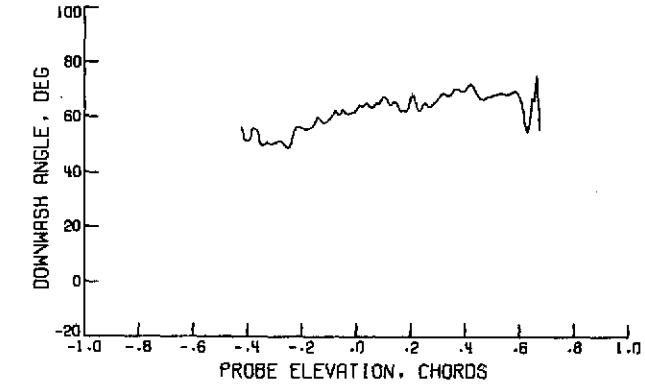


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

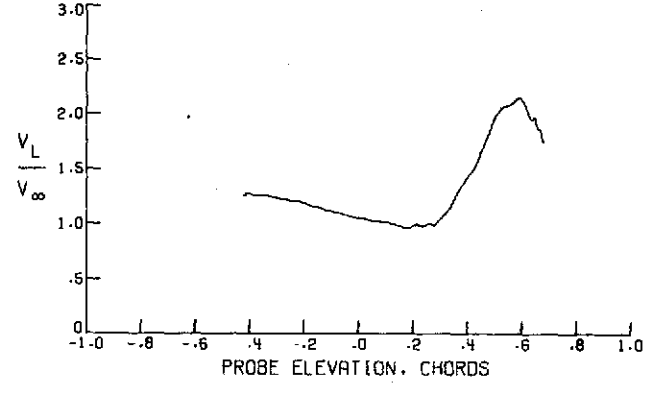
FIGURE III. - WAKE SURVEY RESULTS FOR η = .510 , α = 8.56 DEG, C_μ = 1.00 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

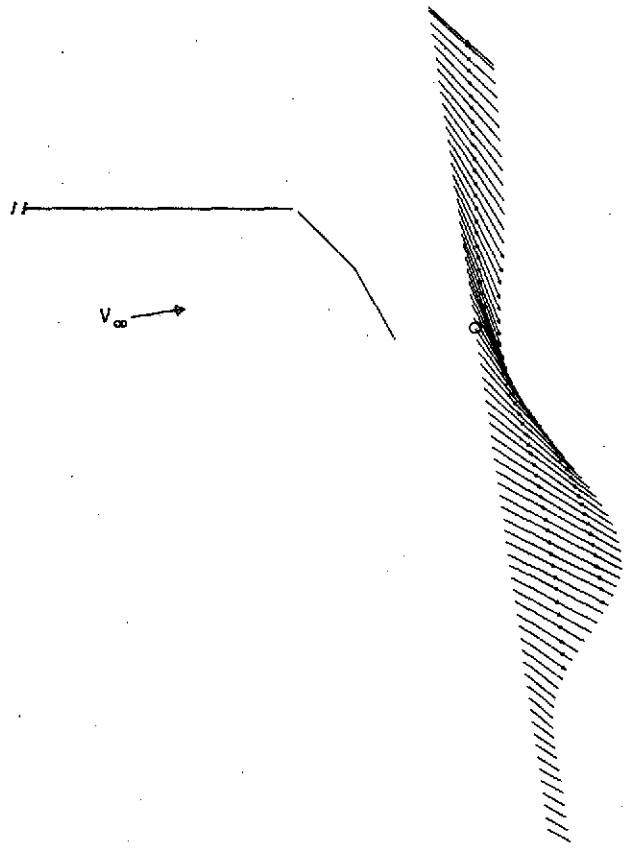


(B) - DOWNWASH ANGLE

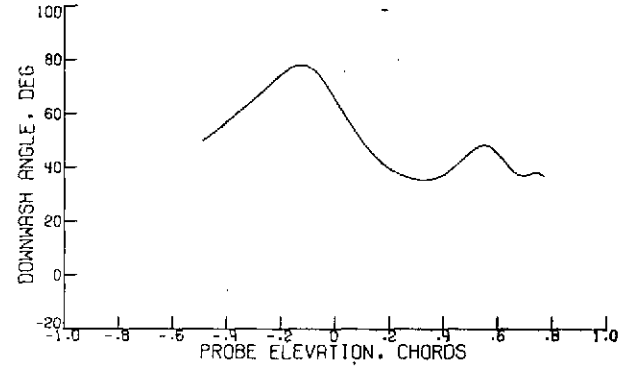


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

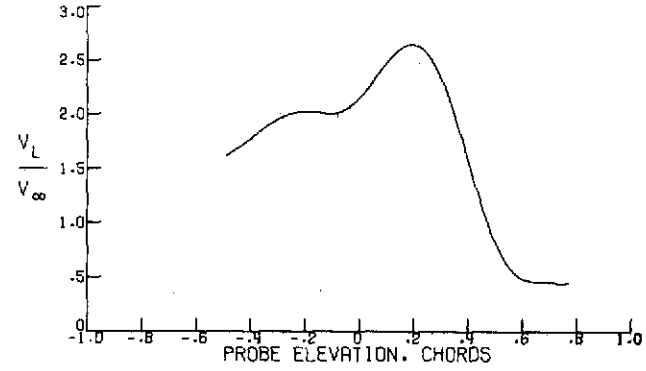
FIGURE 112. - WAKE SURVEY RESULTS FOR η = .451 , α = 8.55 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

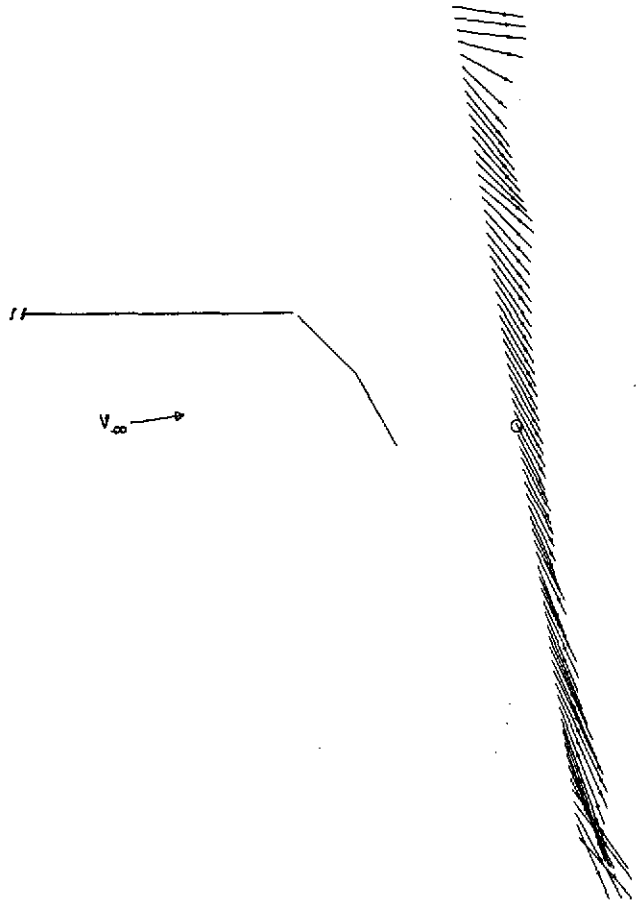


(B) - DOWNWASH ANGLE

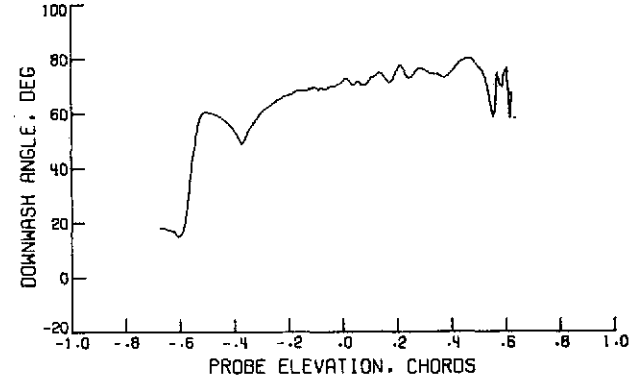


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

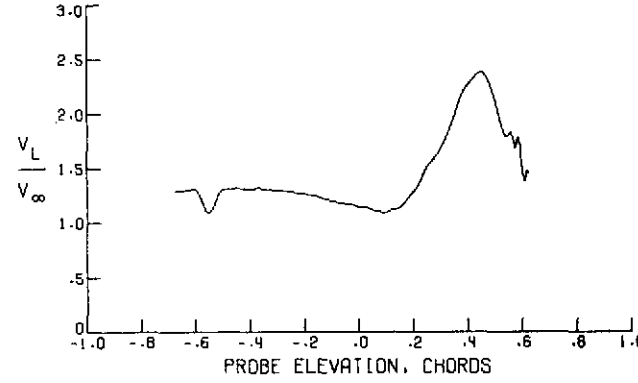
FIGURE 113. - WAKE SURVEY RESULTS FOR η = .322 , α = 8.54 DEG, C_μ = 1.00 , V_∞ = 36.22 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

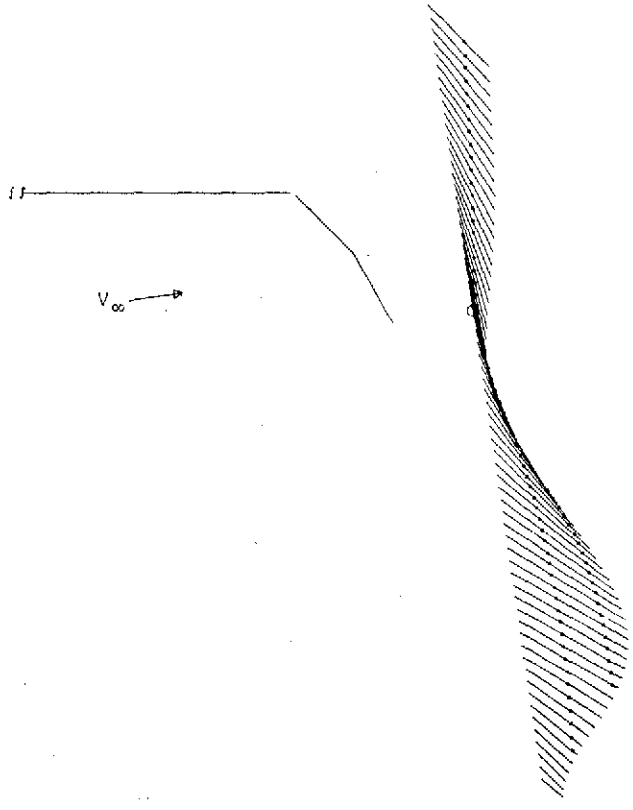


(B) - DOWNWASH ANGLE

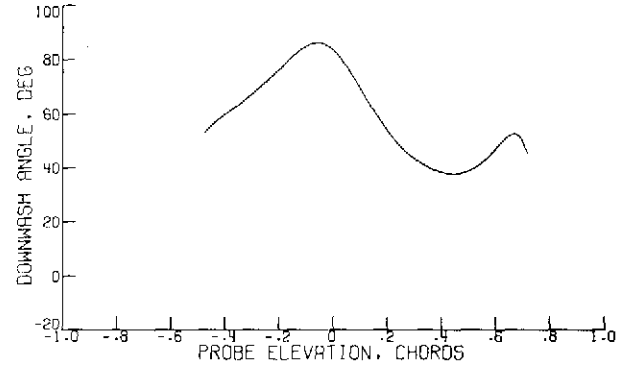


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 113A. - WAKE SURVEY RESULTS FOR η = .241 , α = 8.55 DEG, C_μ = 1.00 , V_∞ = 36.07 M/SEC, δ_F = 60.0 DEG



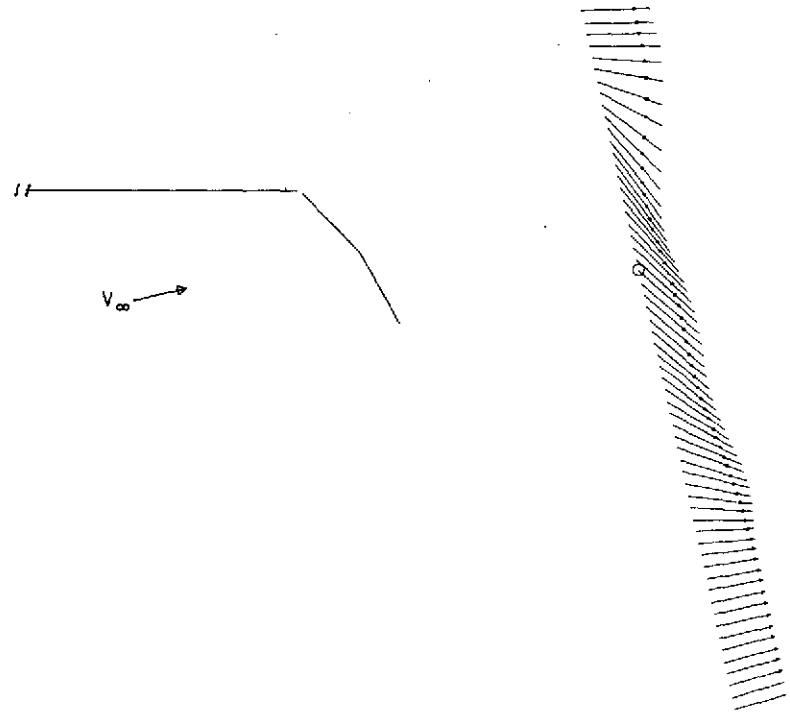
(A) - VELOCITY PROFILE



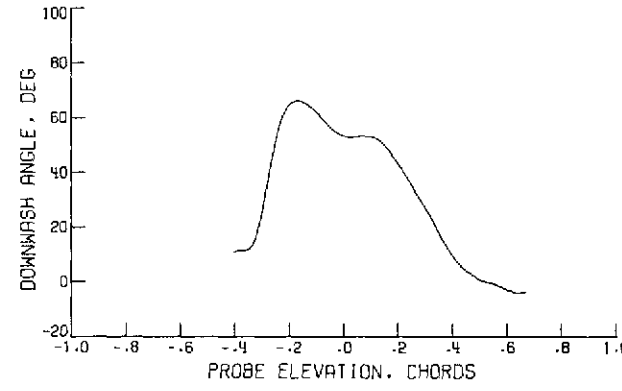
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

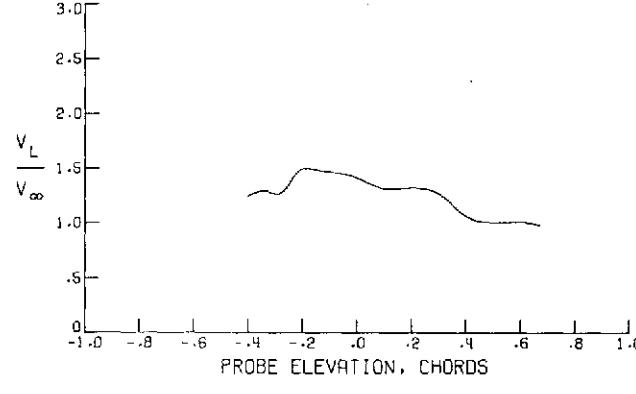
FIGURE 114. - WAKE SURVEY RESULTS FOR η = .203 , α = 8.54 DEG, C_μ = 1.00 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

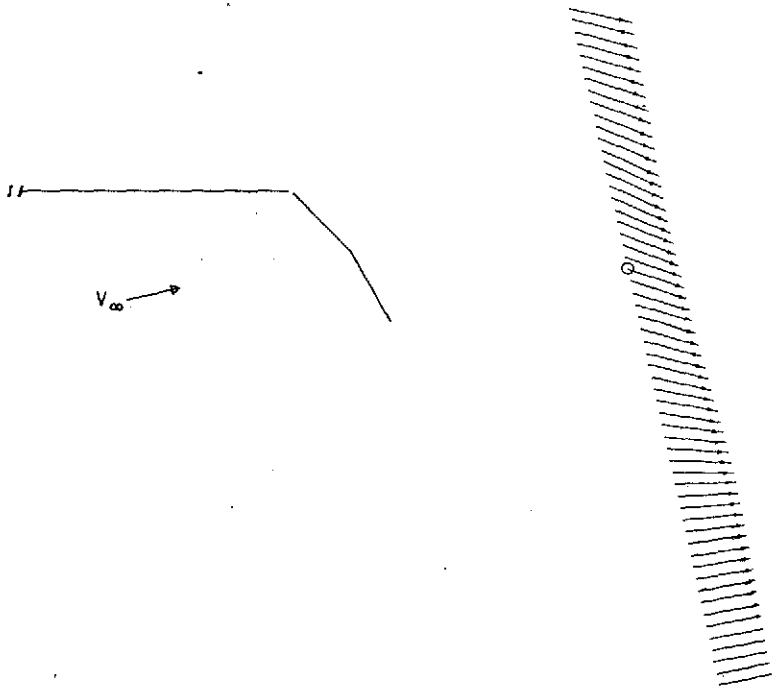


(B) - DOWNWASH ANGLE

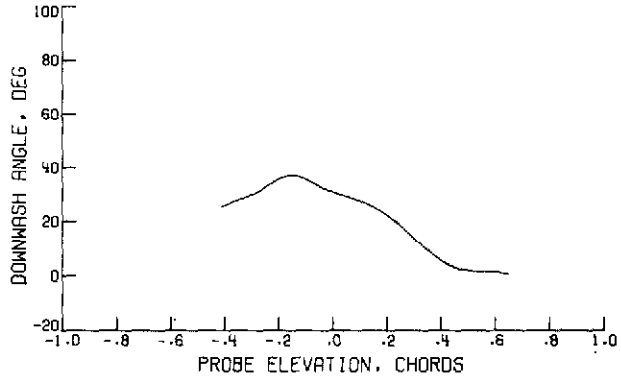


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

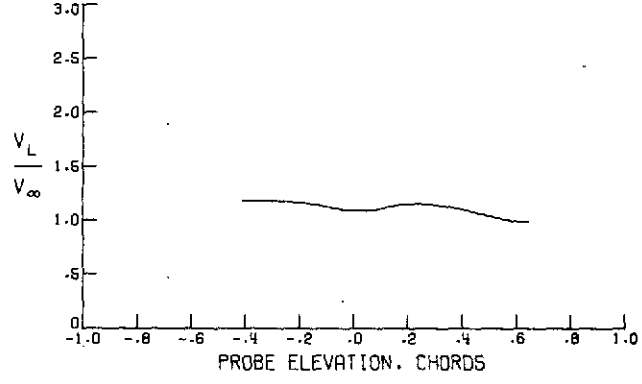
FIGURE 115. - WAKE SURVEY RESULTS FOR η = .921 , α = 12.65DEG, C_μ = 1.00 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

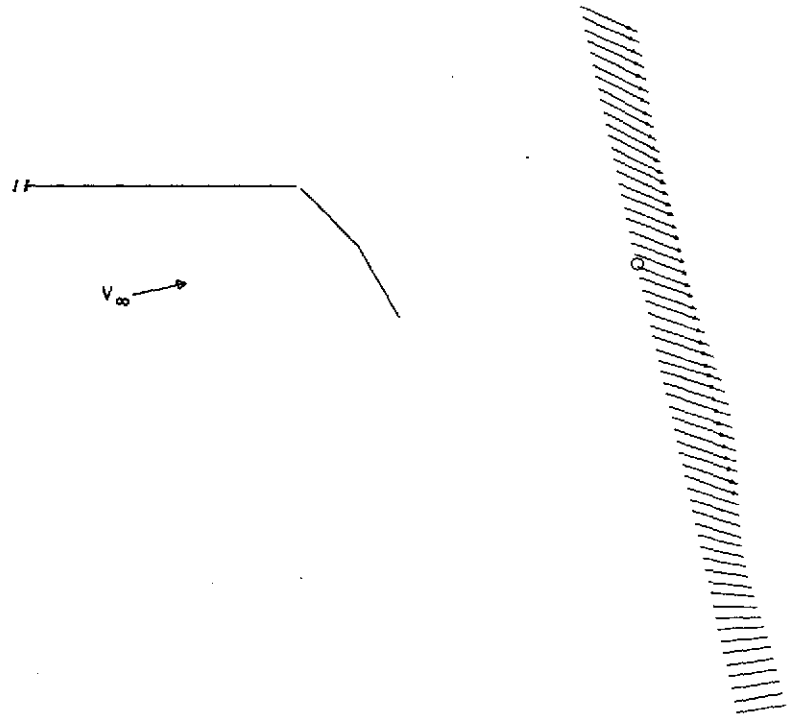


(B) - DOWNWASH ANGLE

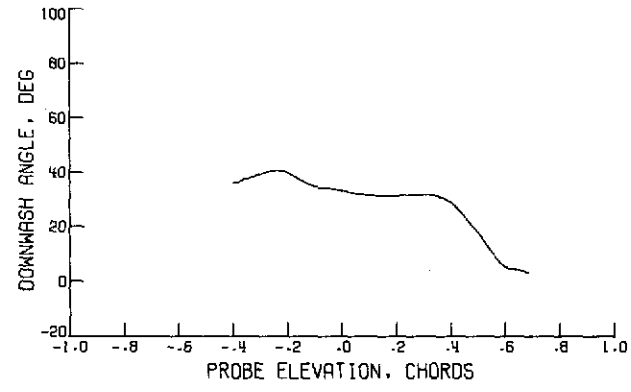


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

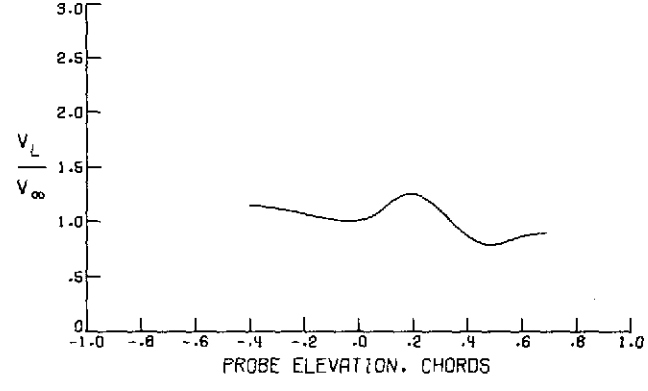
FIGURE 116. - WAKE SURVEY RESULTS FOR η = .822 , α = 12.65DEG, C_μ = 1.00 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

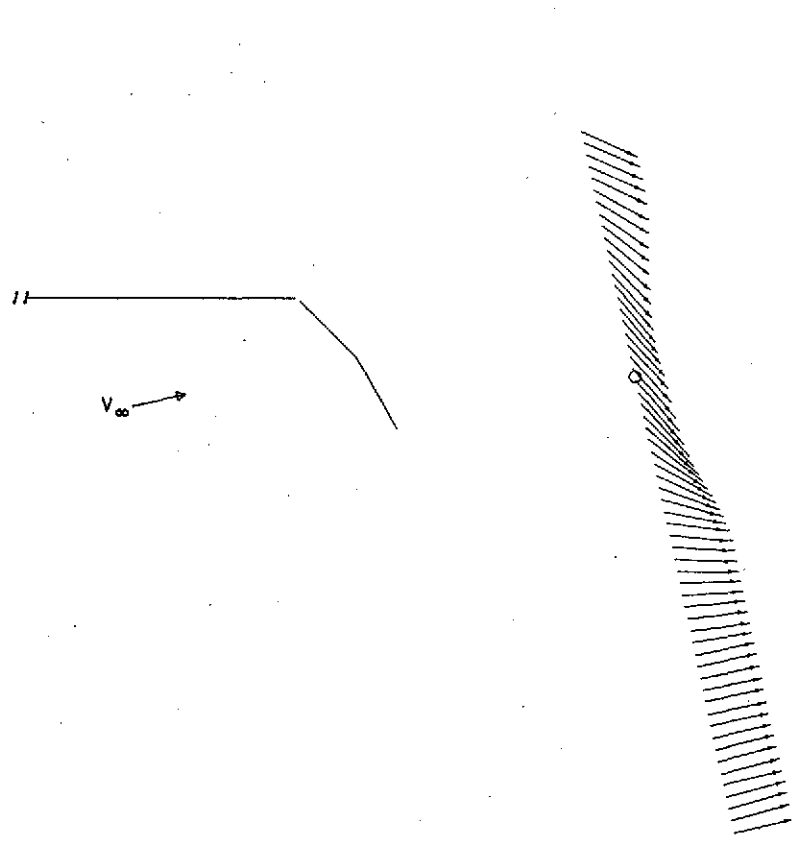


(B) - DOWNWASH ANGLE

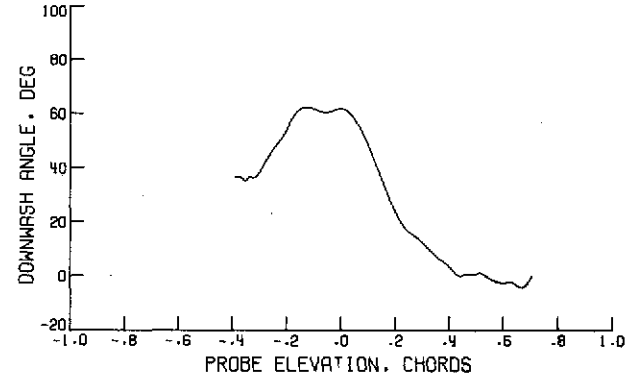


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

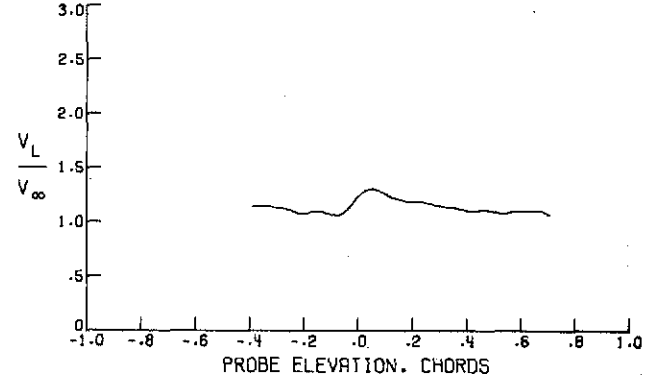
FIGURE 117. - WAKE SURVEY RESULTS FOR η = .715 , α = 12.65DEG, C_μ = 1.00 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

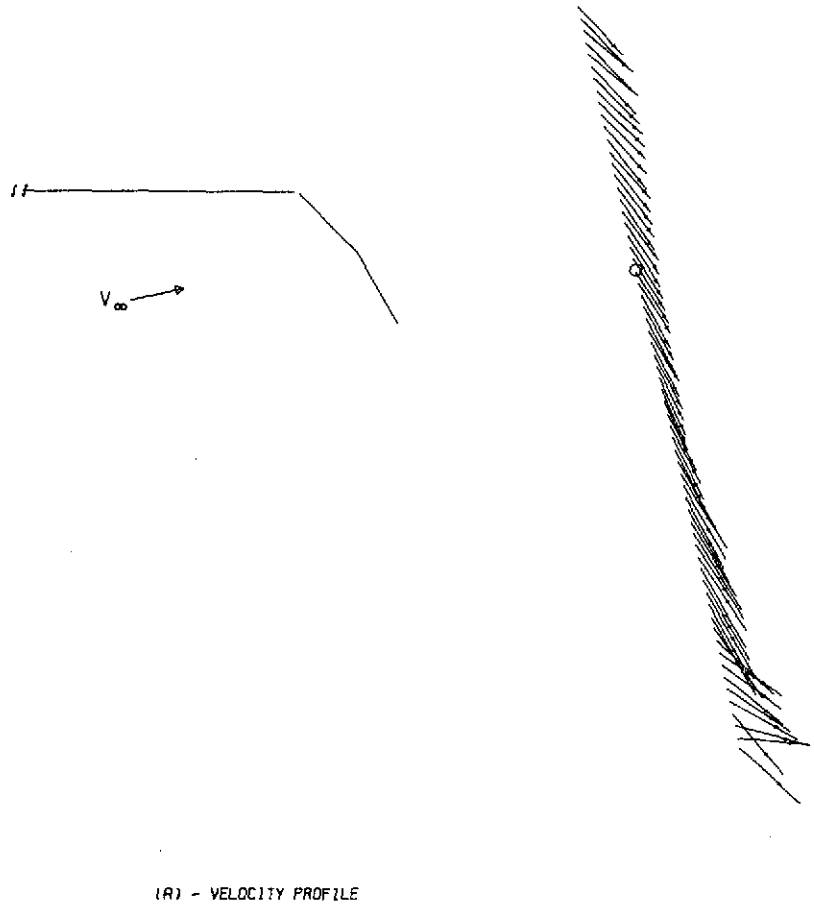


(B) - DOWNWASH ANGLE

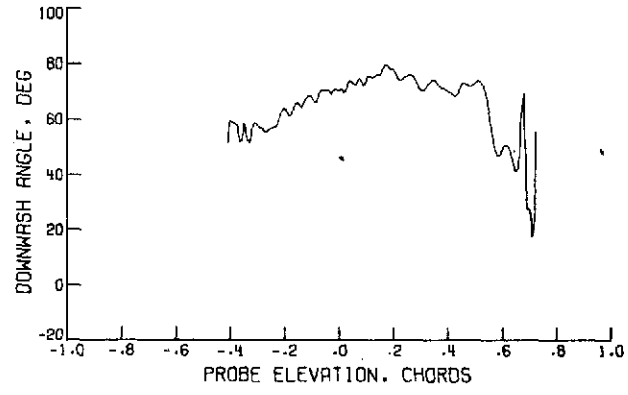


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

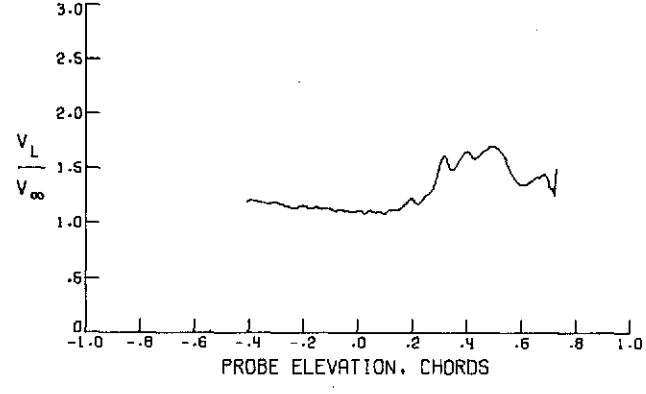
FIGURE 118. - WAKE SURVEY RESULTS FOR η = .601 , α = 12.63DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

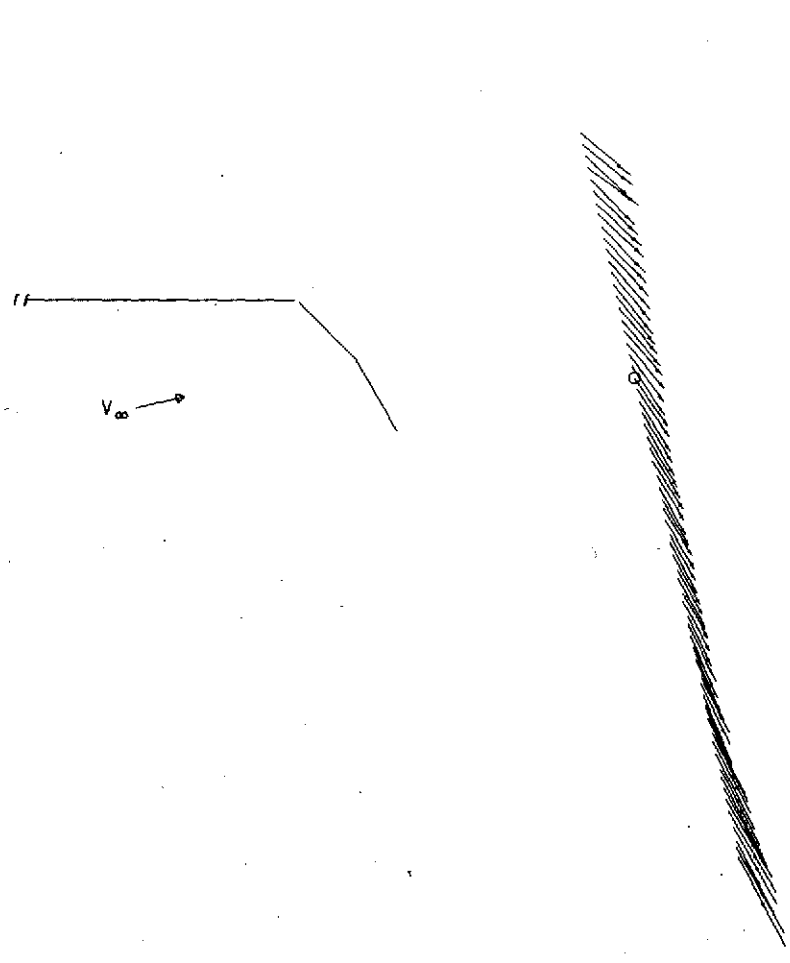


(B) - DOWNWASH ANGLE

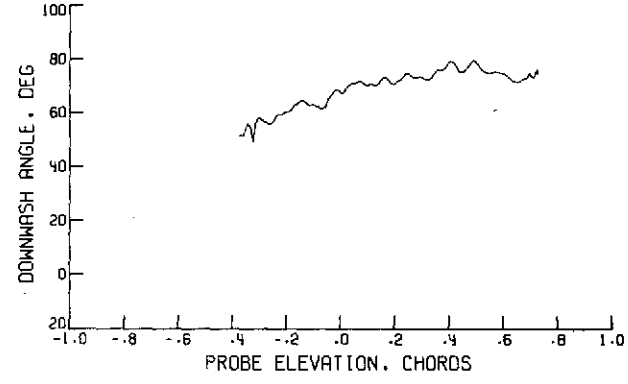


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

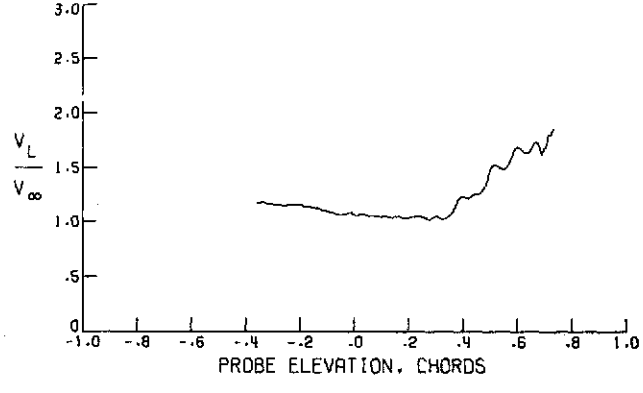
FIGURE 119. - WAKE SURVEY RESULTS FOR $\eta = .511$, $\alpha = 12.65$DEG, $C_\mu = 1.00$, $V_\infty = 36.39$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

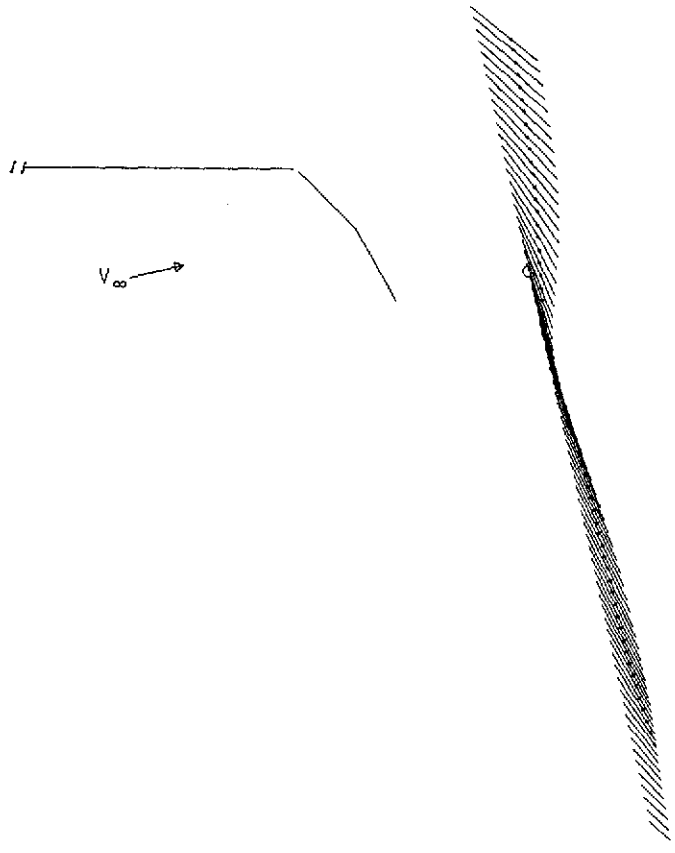


(B) - DOWNWASH ANGLE

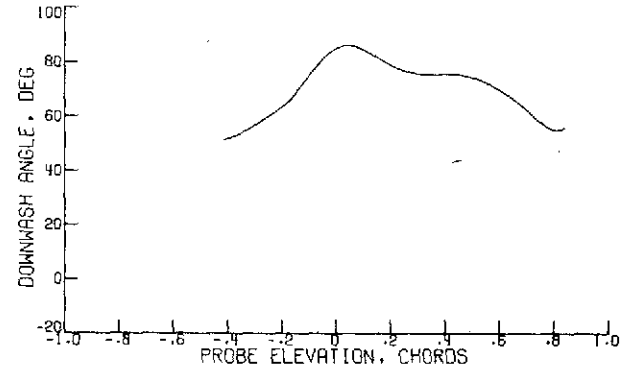


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

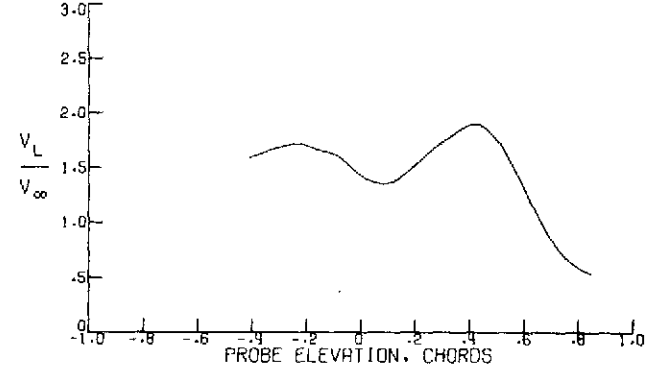
FIGURE 120.- WAKE SURVEY RESULTS FOR η = .451 , α = 12.65DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

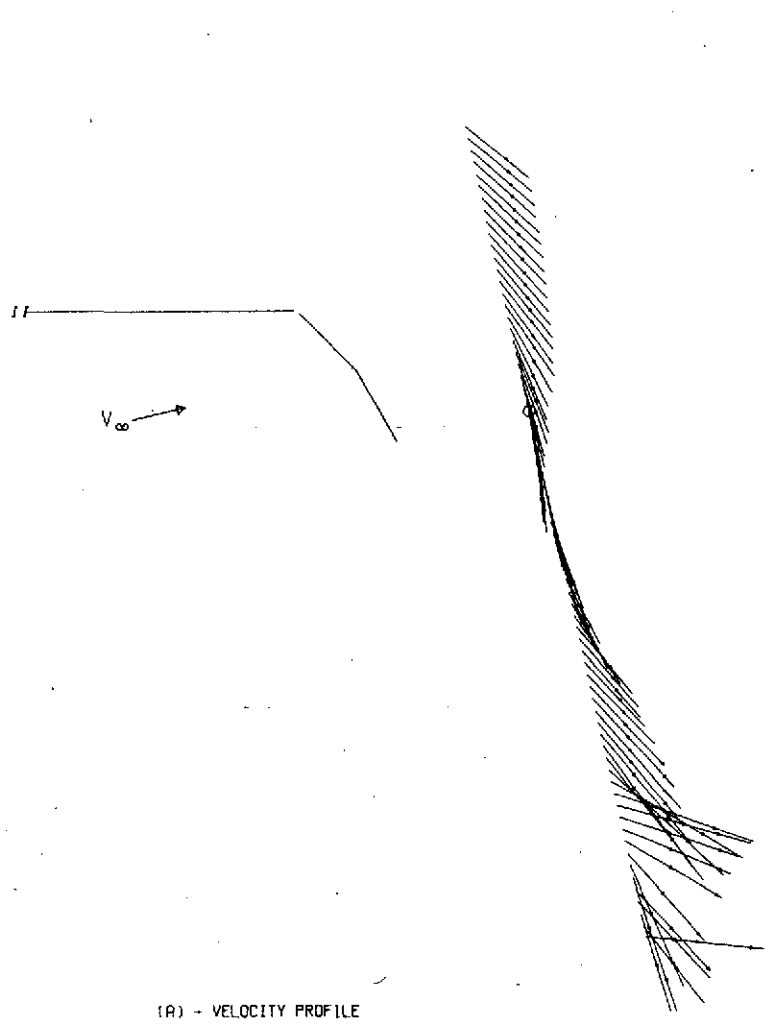


(B) - DOWNWASH ANGLE

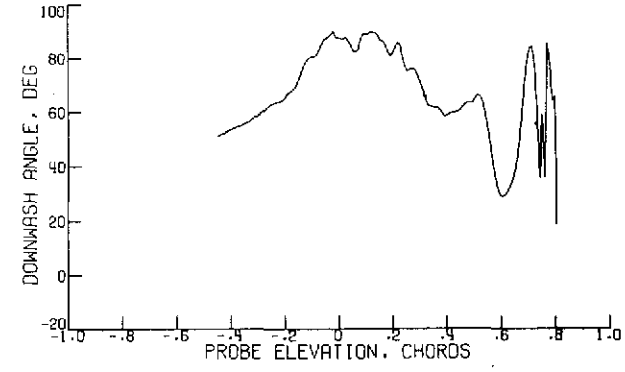


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

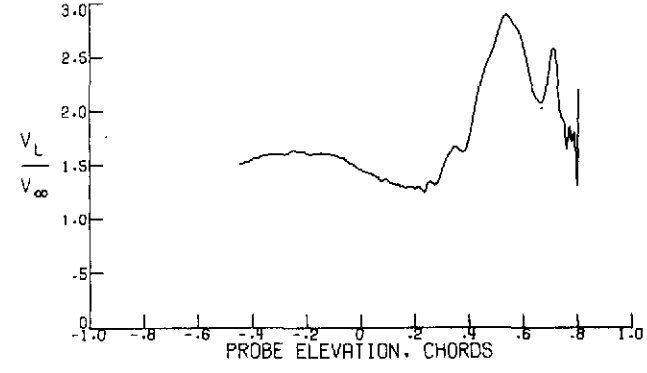
FIGURE 121.- WAKE SURVEY RESULTS FOR η = .321 , α = 12.61DEG, C_μ = 1.00 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



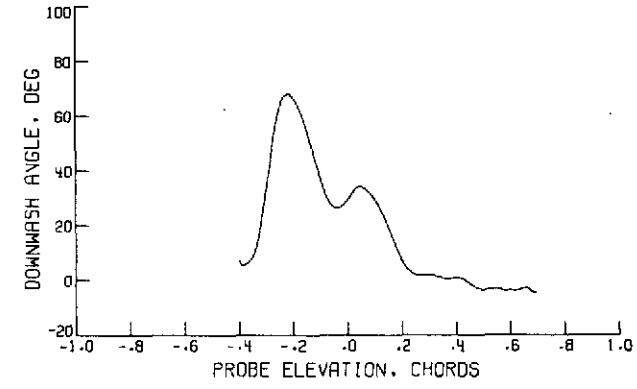
(B) - DOWNWASH ANGLE



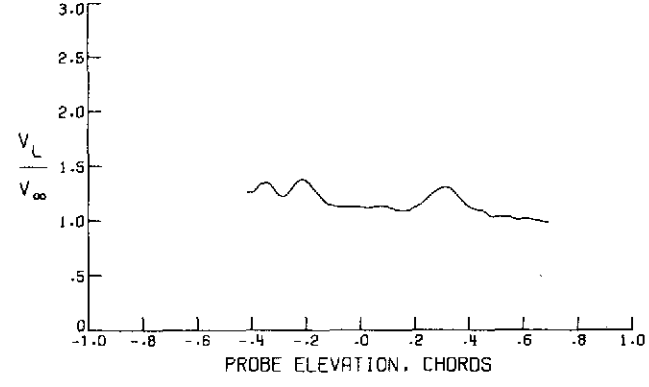
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 122.- WAKE SURVEY RESULTS FOR η = .202 , α = 12.61DEG, C_μ = 1.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

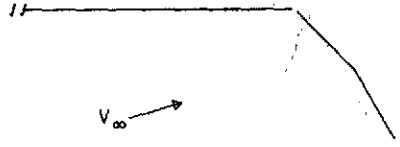


(B) - DOWNWASH ANGLE

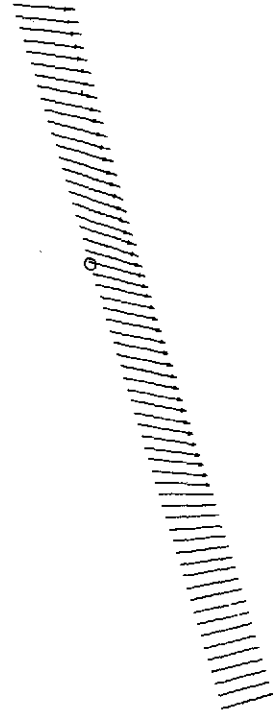


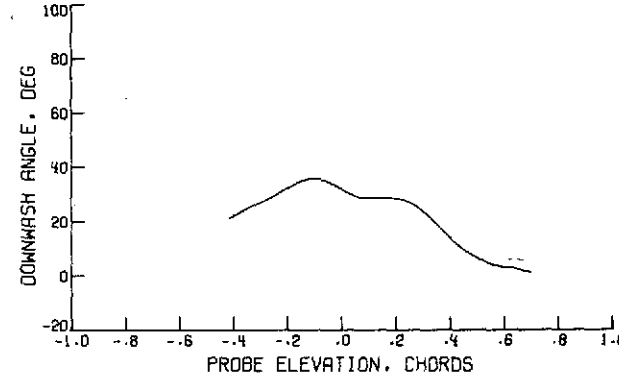
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 123. - WAKE SURVEY RESULTS FOR η = .923 , α = 16.70DEG, C_μ = 1.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG

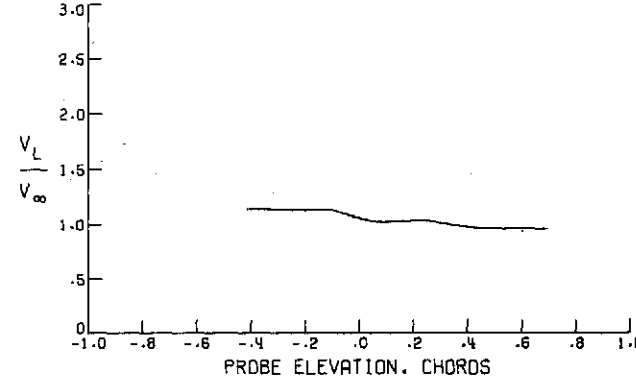


(A) - VELOCITY PROFILE



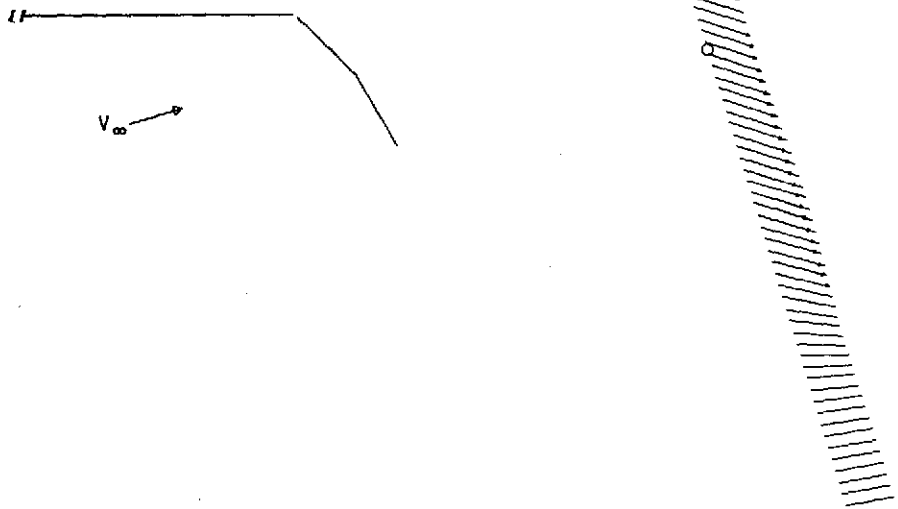


(B) - DOWNWASH ANGLE

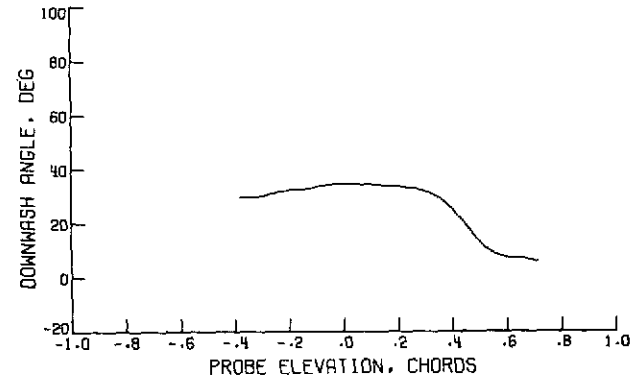


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

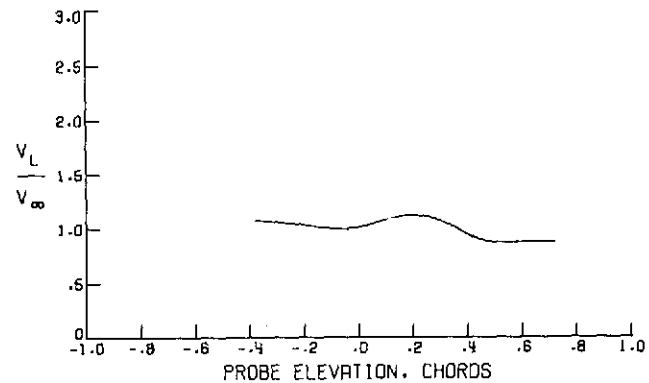
FIGURE 124. - WAKE SURVEY RESULTS FOR η = .820 , α = 16.70DEG, C_μ = 1.00 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

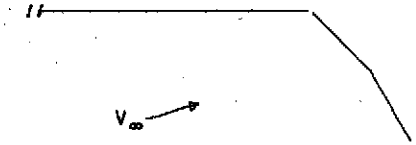


(B) - DOWNWASH ANGLE

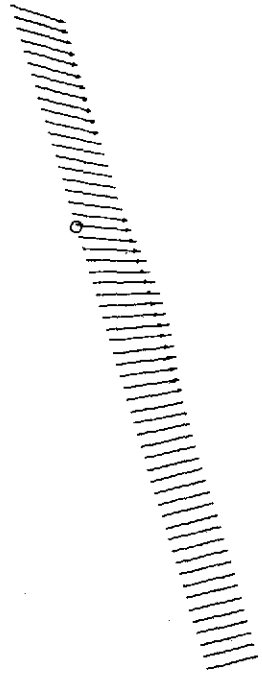


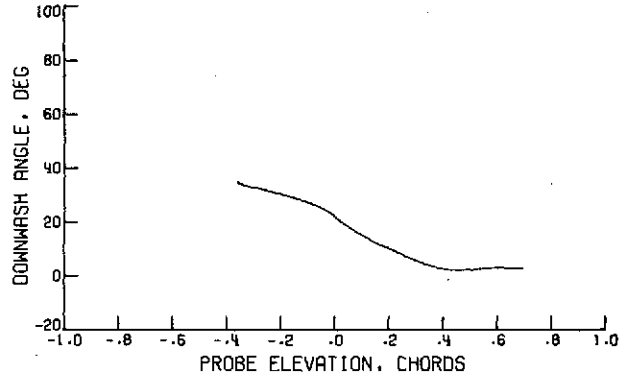
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 125. - WAKE SURVEY RESULTS FOR η = .713 , α = 16.70DEG, C_μ = 1.00 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG

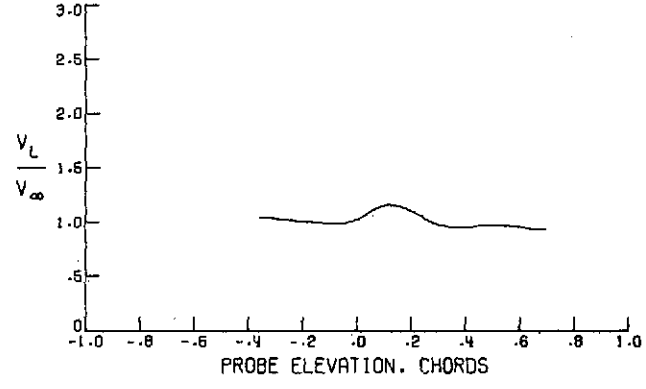


(A) - VELOCITY PROFILE



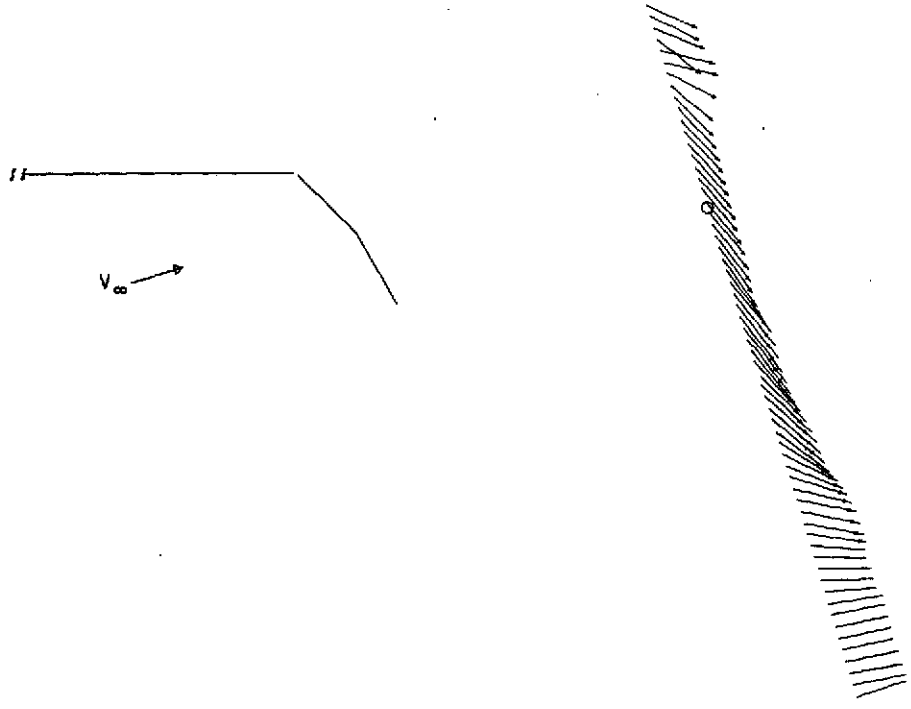


(B) - DOWNWASH ANGLE

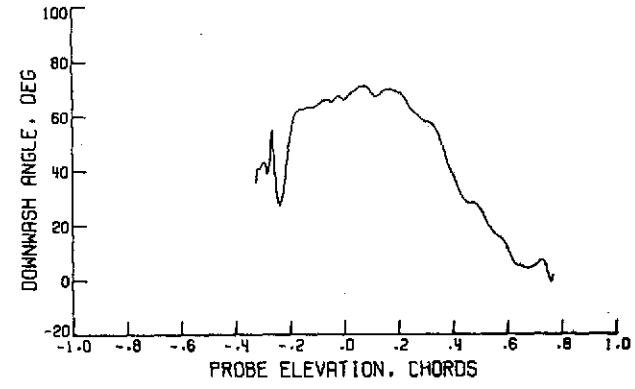


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

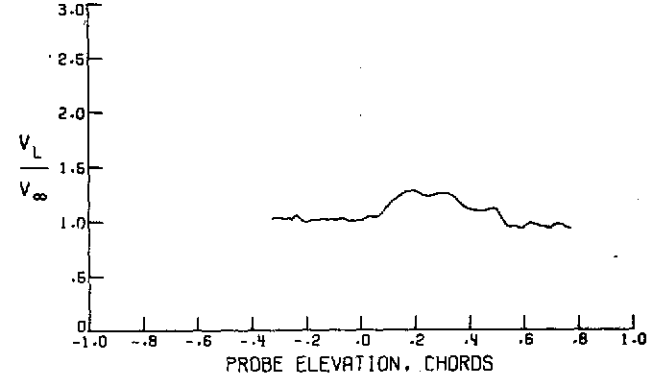
FIGURE 126. - WAKE SURVEY RESULTS FOR $\eta = .601$, $\alpha = 16.70$DEG, $C_\mu = 1.00$, $V_\infty = 36.44$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

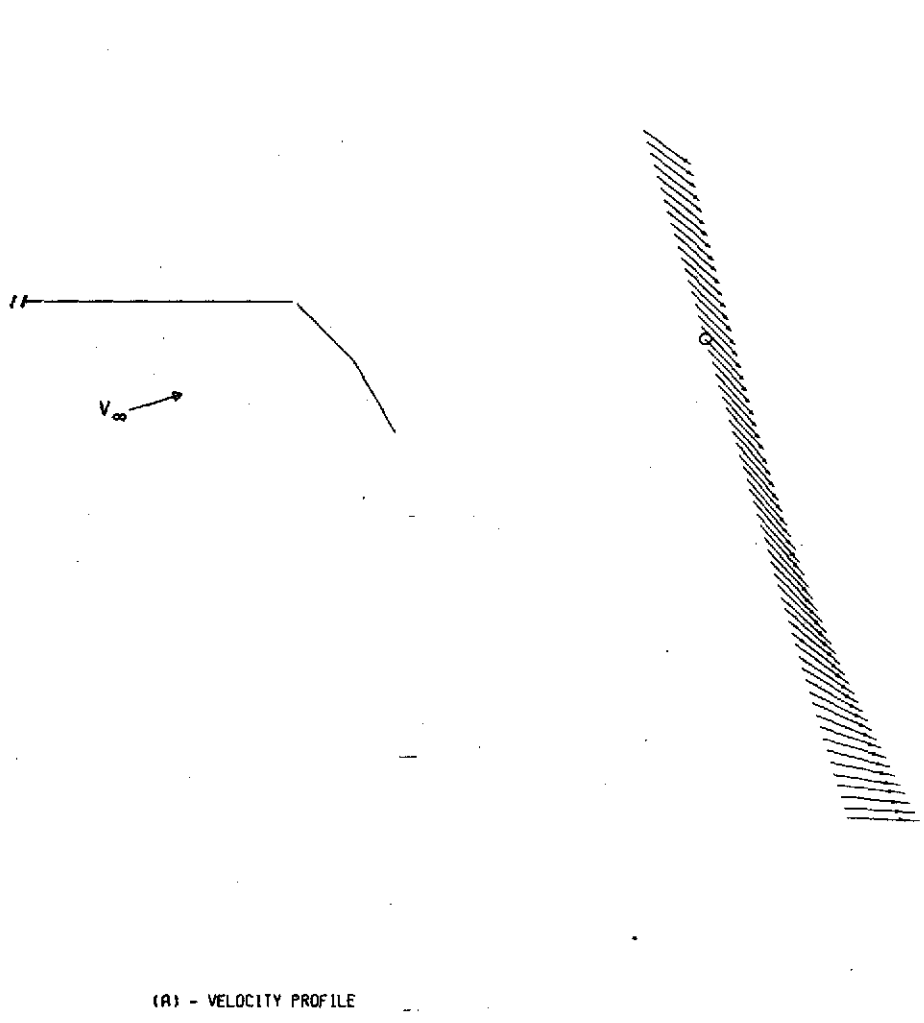


(B) - DOWNWASH ANGLE

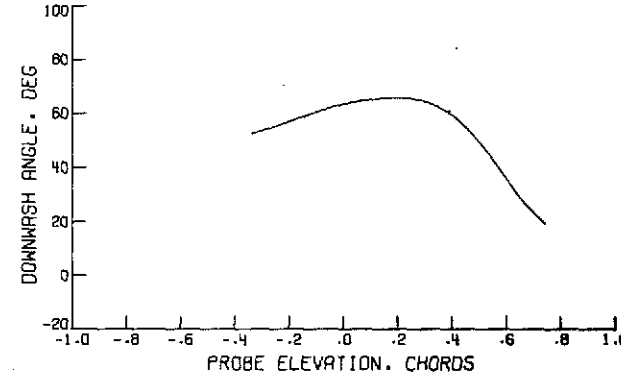


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

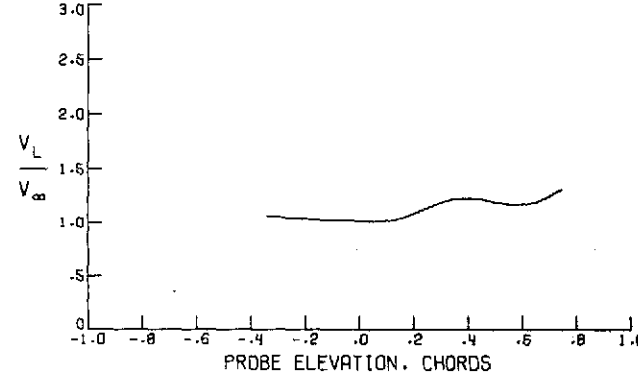
FIGURE 127. - WAKE SURVEY RESULTS FOR η = .511 , α = 16.69DEG, C_μ = 1.00 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

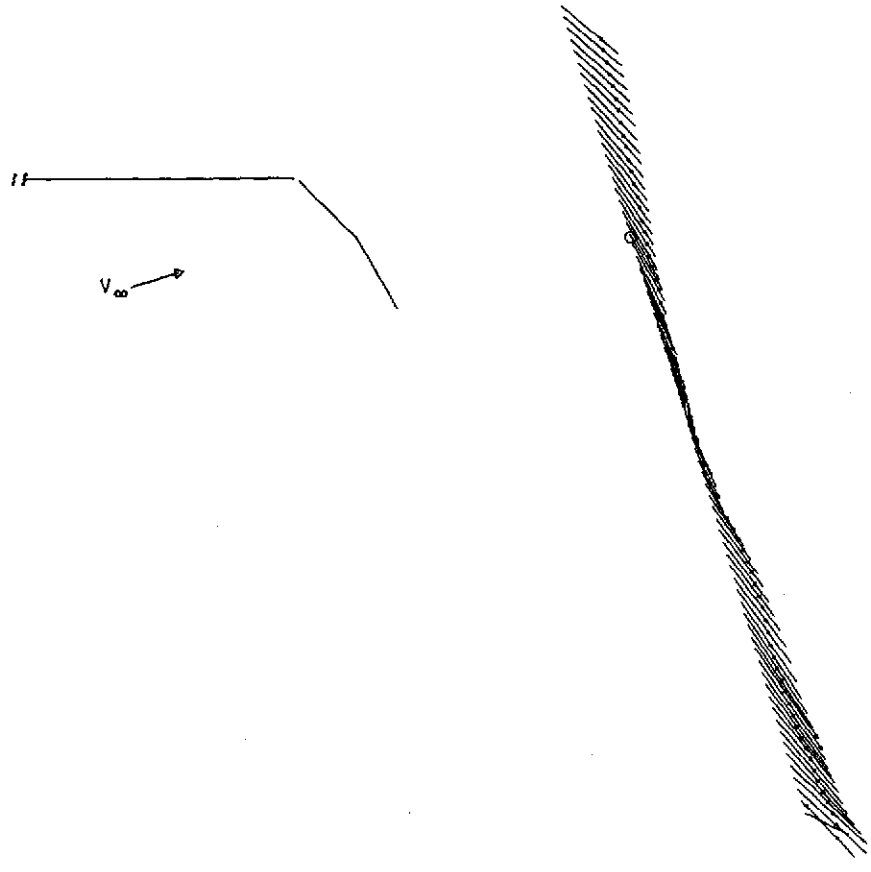


(B) - DOWNWASH ANGLE

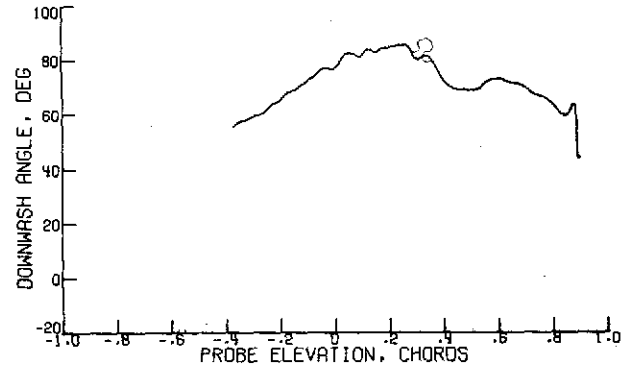


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

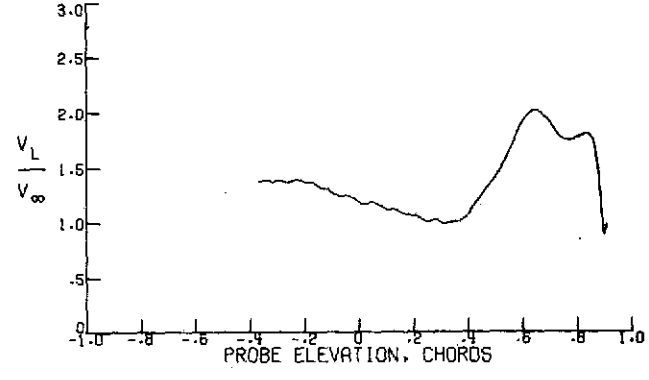
FIGURE 128. - WAKE SURVEY RESULTS FOR η = .452 , α = 16.69DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

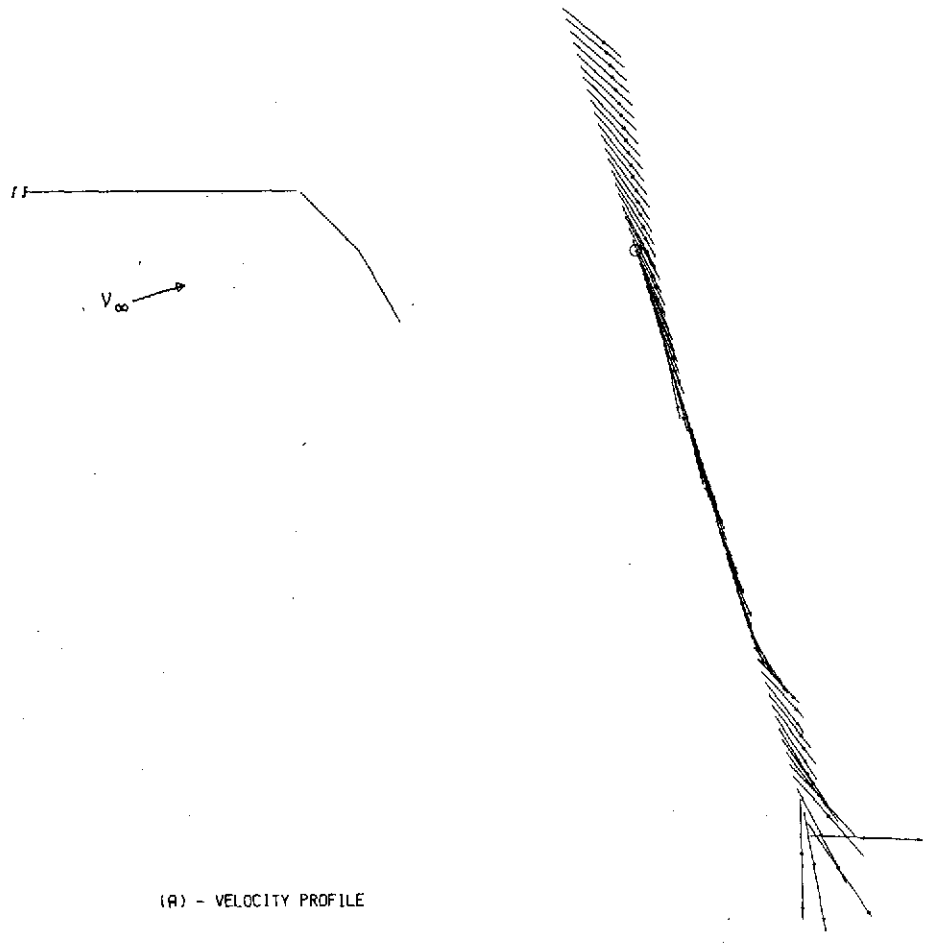


(B) - DOWNWASH ANGLE

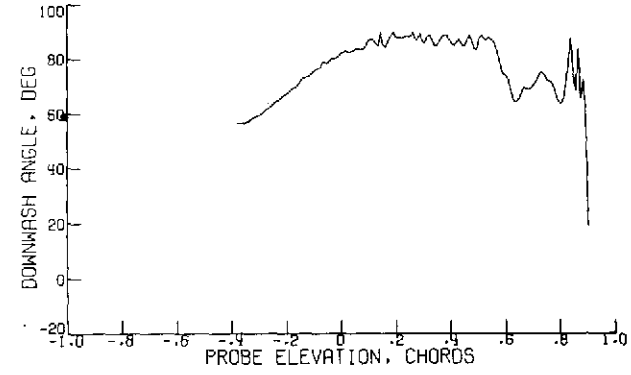


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

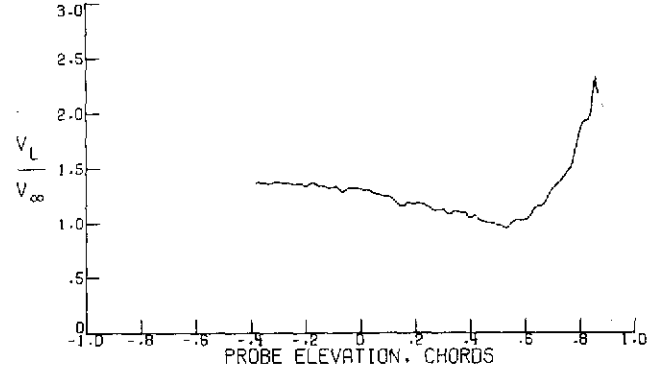
FIGURE 129.- WAKE SURVEY RESULTS FOR η = .323 , α = 16.61DEG, C_μ = 1.00 , V_∞ = 36.29 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

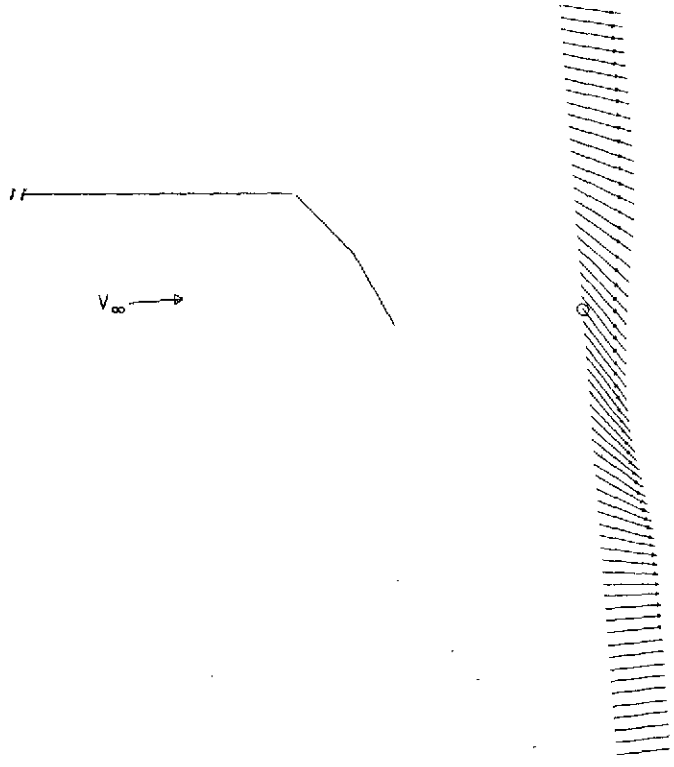


(B) - DOWNWASH ANGLE

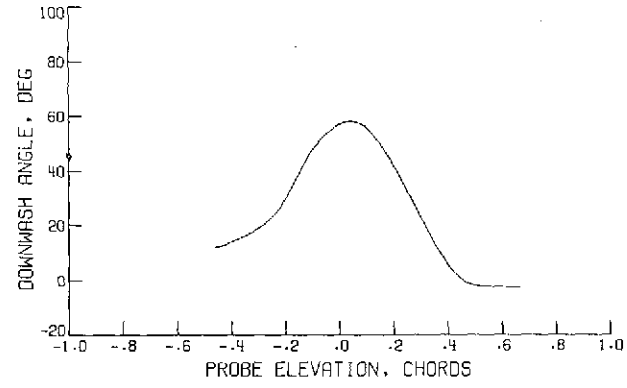


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

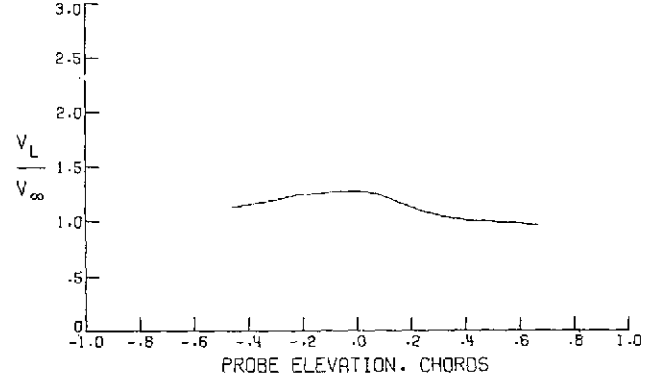
FIGURE 130. - WAKE SURVEY RESULTS FOR η = .201 , α = 16.60DEG, C_μ = 1.00 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

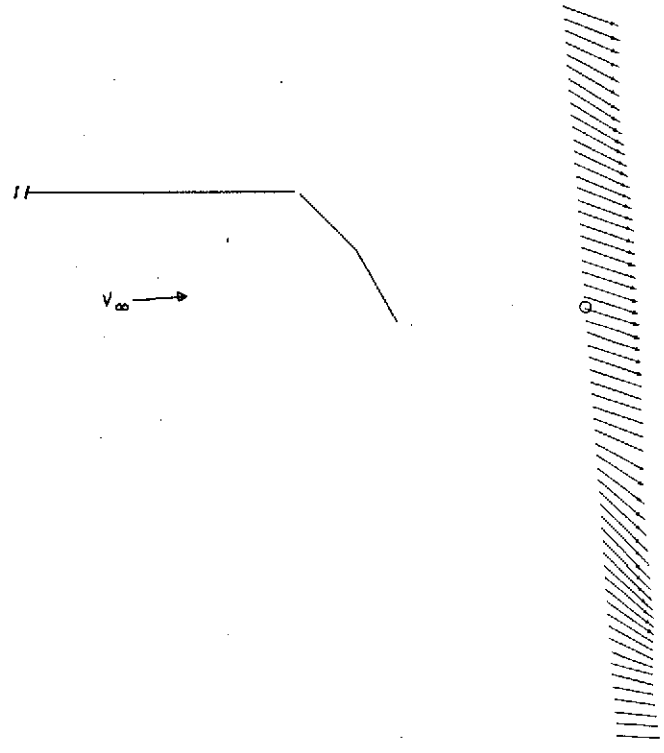


(B) - DOWNWASH ANGLE

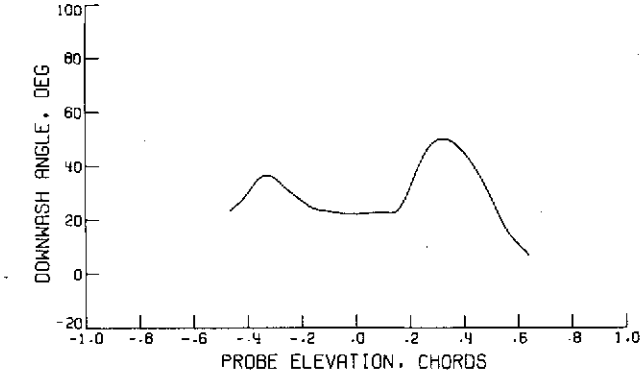


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

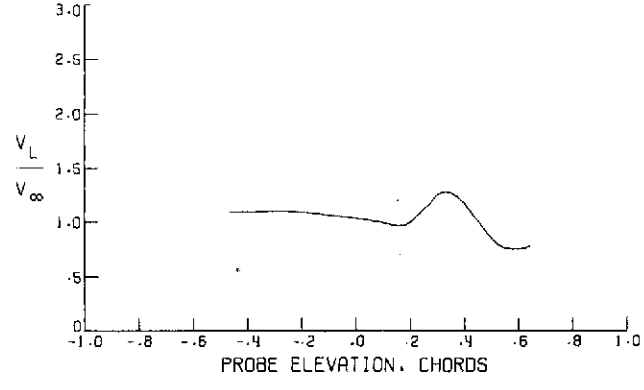
FIGURE 131. - WAKE SURVEY RESULTS FOR η = .921 , α = 4.28 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

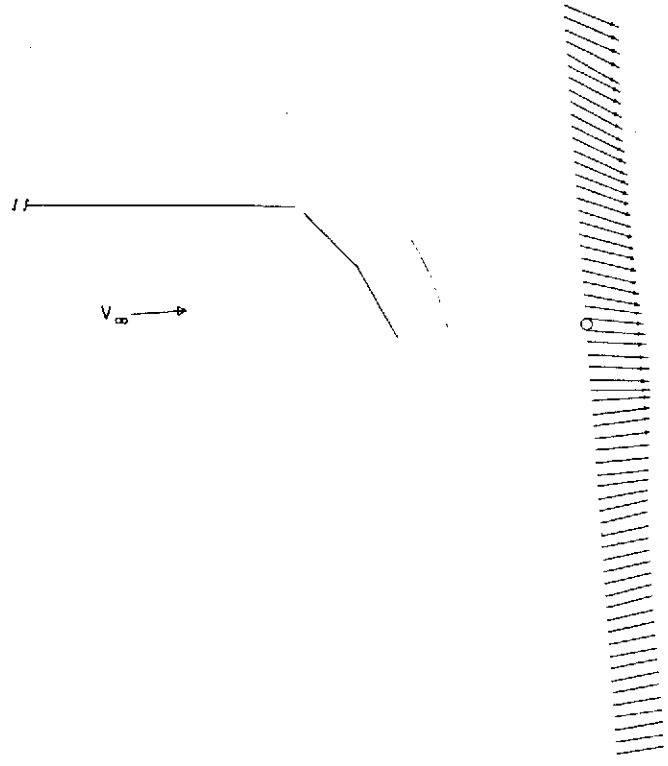


(B) - DOWNWASH ANGLE

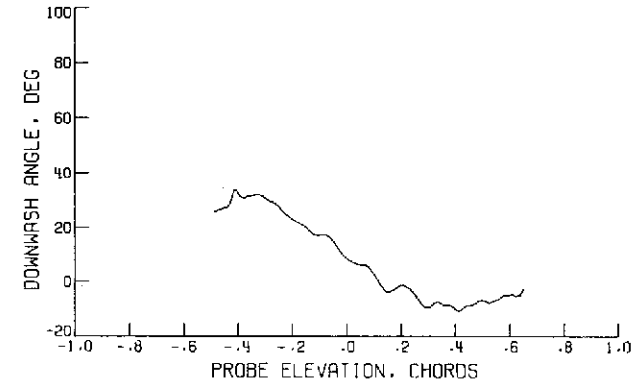


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

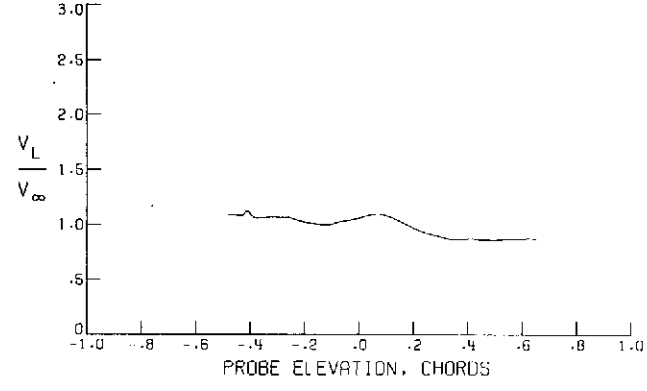
FIGURE 132. - WAKE SURVEY RESULTS FOR η = .819 , α = 4.27 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

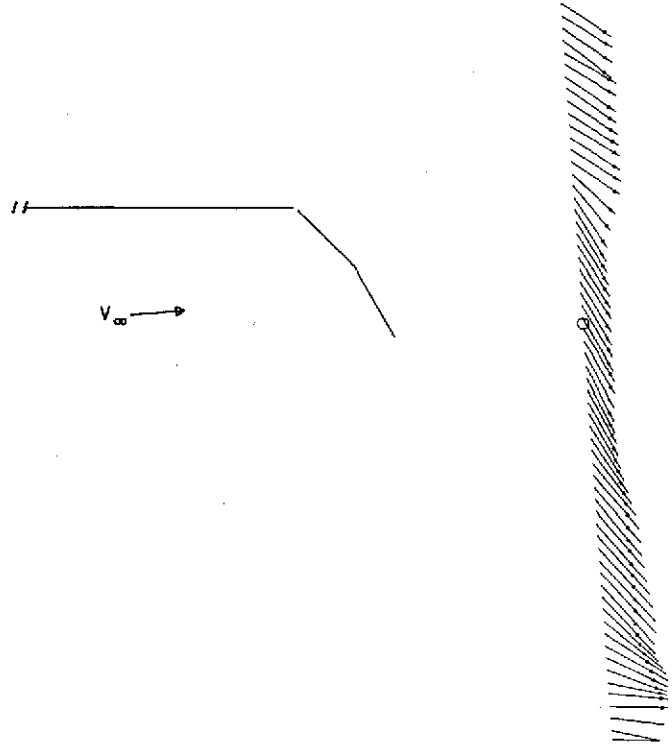


(B) - DOWNWASH ANGLE

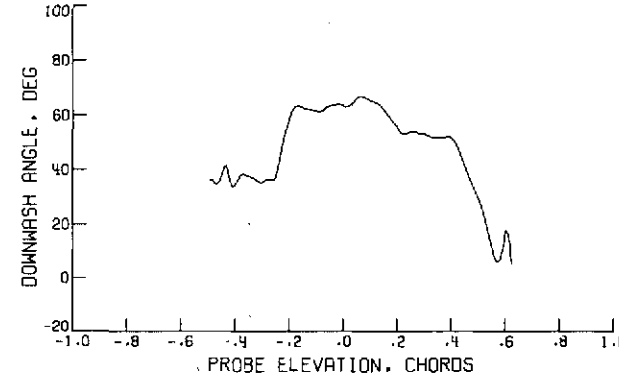


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

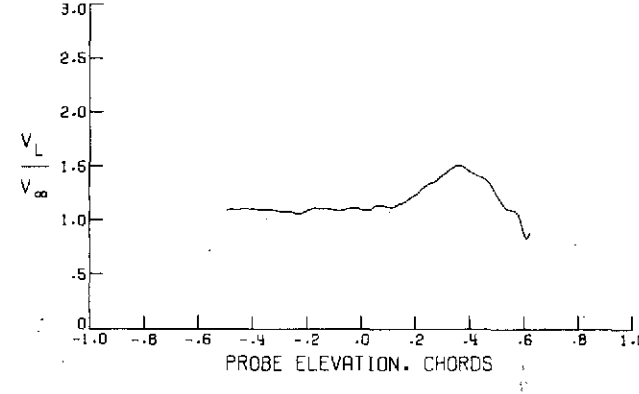
FIGURE 123.- WAKE SURVEY RESULTS FOR η = .716 , α = 4.28 DEG, C_μ = .60 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

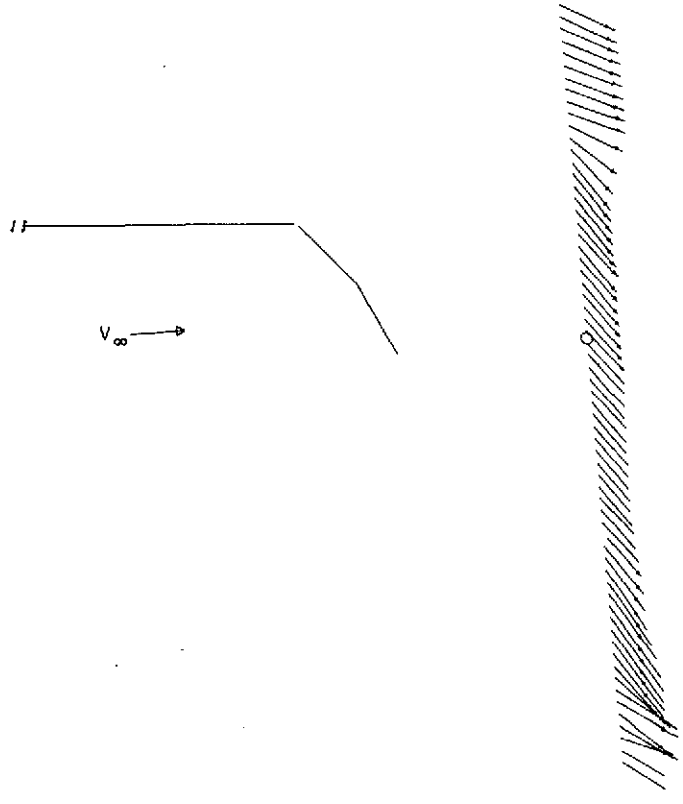


(B) - DOWNWASH ANGLE

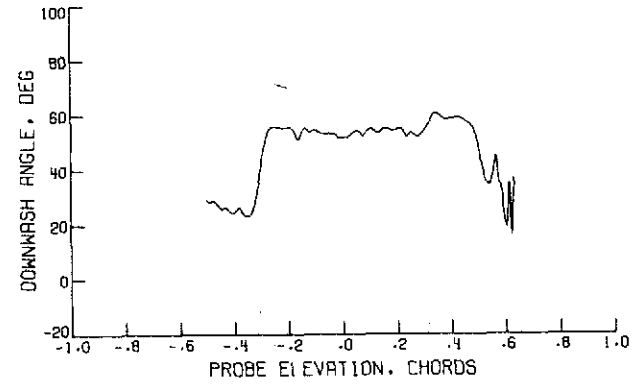


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

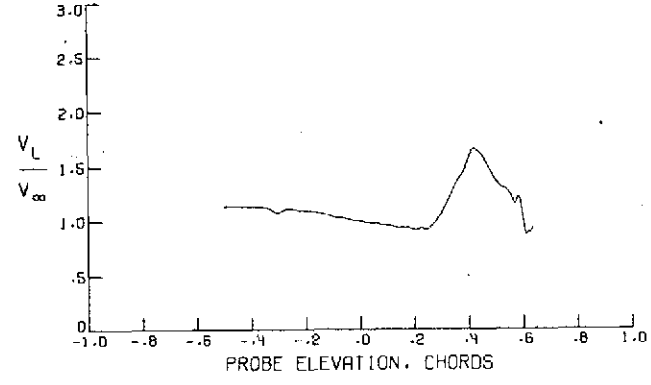
FIGURE 17 - WAKE SURVEY RESULTS FOR η = .602 , α = 4.28 DEG, C_μ = .60 , V_∞ = 36.46 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

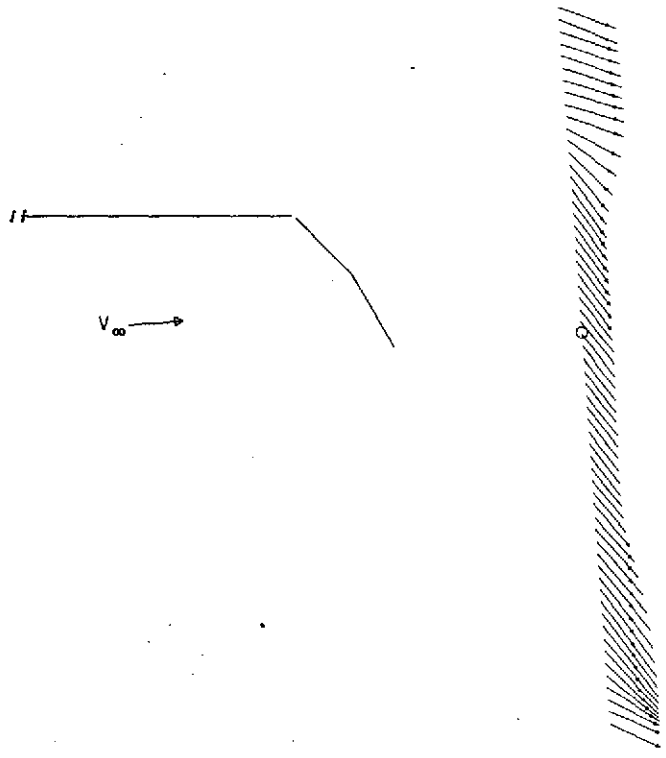


(B) - DOWNWASH ANGLE

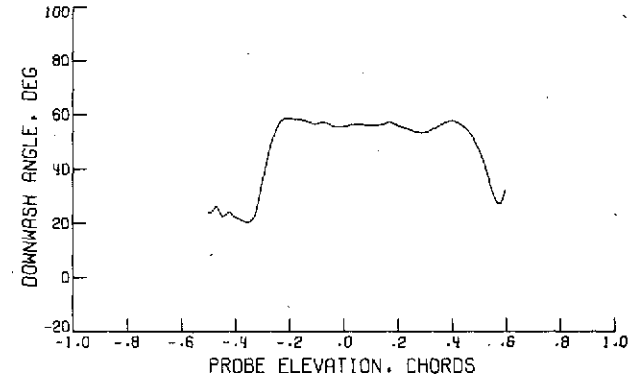


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

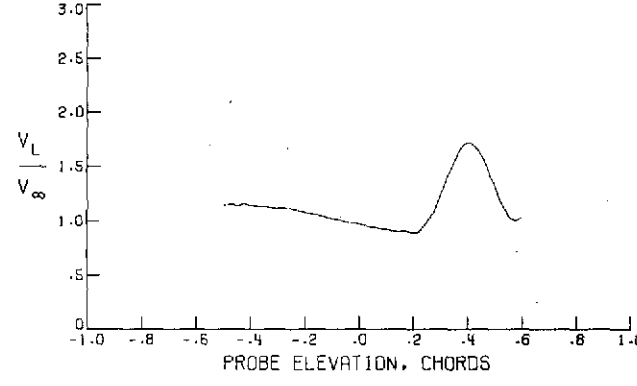
FIGURE 135. - WAKE SURVEY RESULTS FOR η = .511 , α = 4.28 DEG, C_μ = .60 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

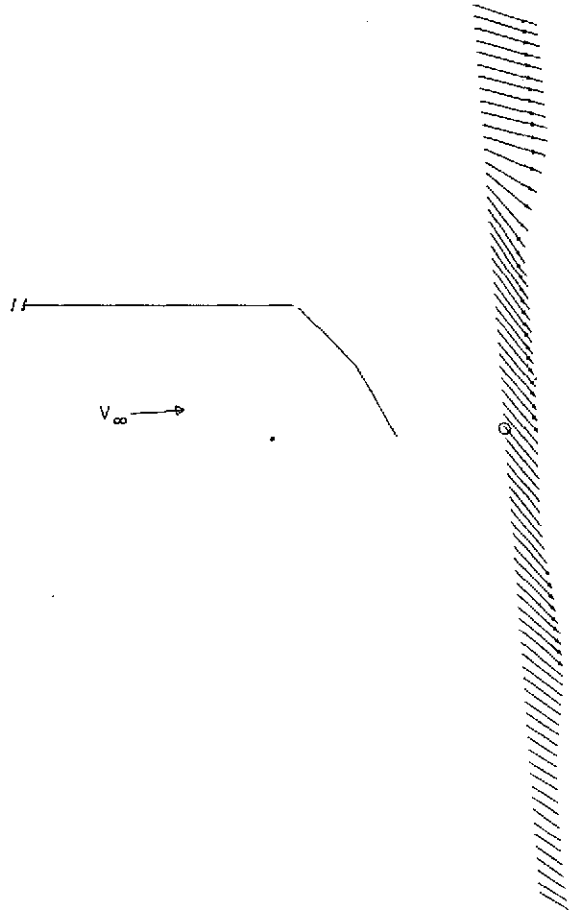


(B) - DOWNWASH ANGLE



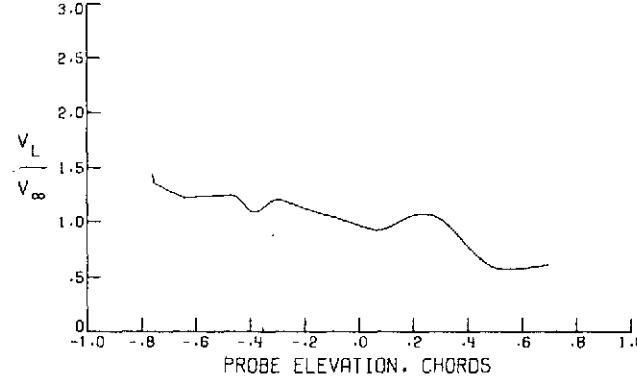
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 136. - WAKE SURVEY RESULTS FOR η = .445 , α = 4.28 DEG, C_μ = .60 , V_∞ = 36.46 M/SEC; δ_F = 60.0 DEG



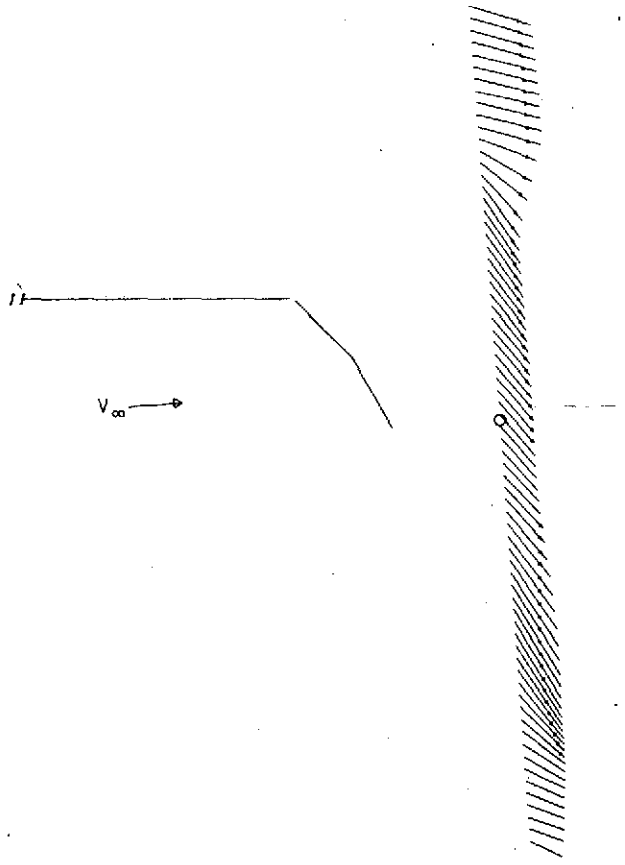
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

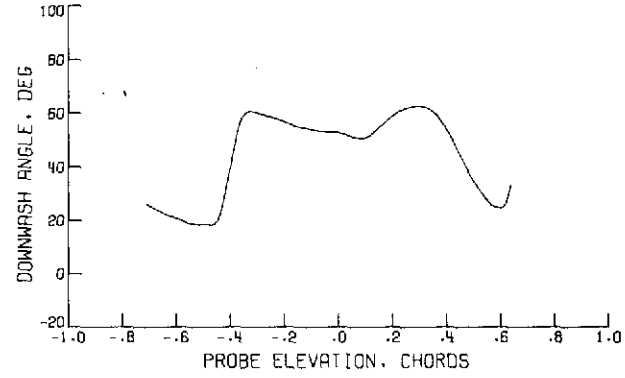


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

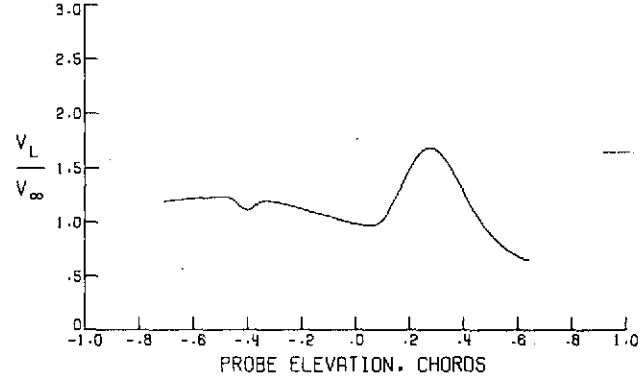
FIGURE 37. - WAKE SURVEY RESULTS FOR η = .374 , α = 4.34 DEG, C_μ = .60 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

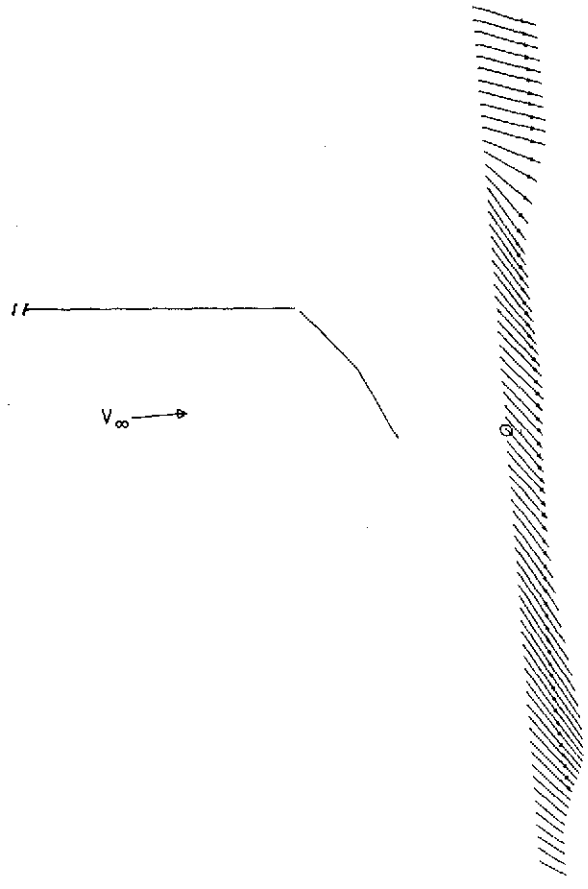


(B) - DOWNWASH ANGLE

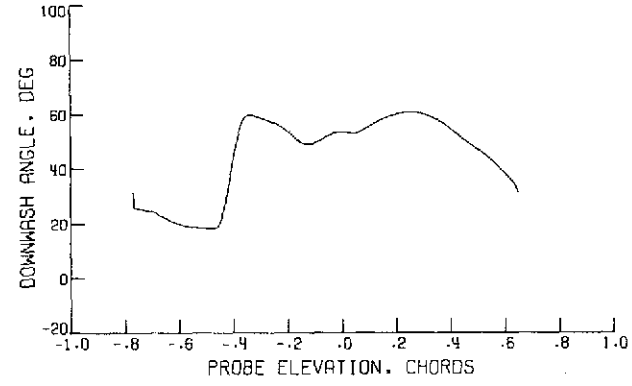


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

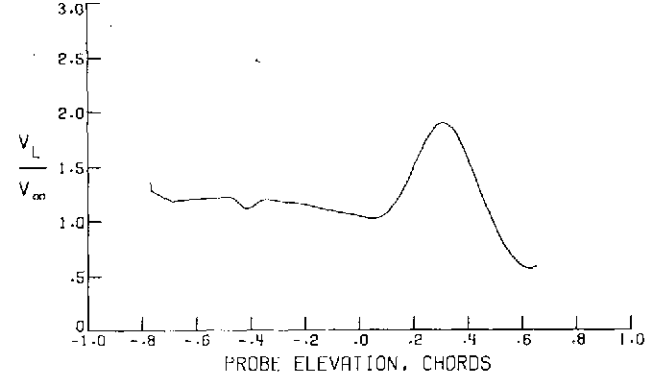
FIGURE 138. - WAKE SURVEY RESULTS FOR η = .319 , α = 4.34 DEG, C_μ = .60 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

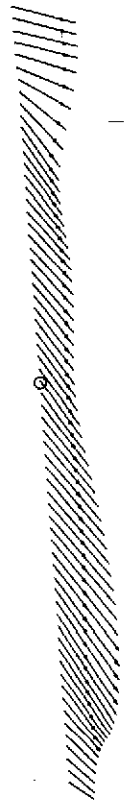


(B) - DOWNWASH ANGLE

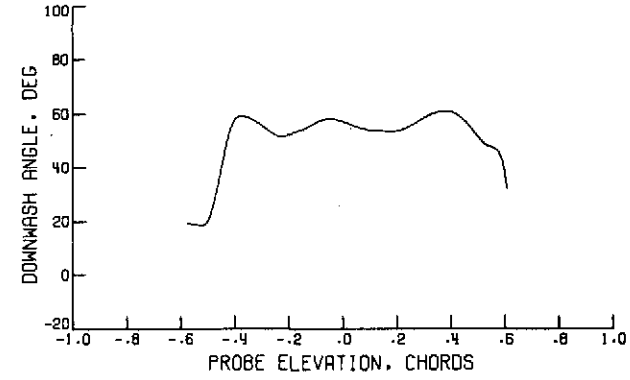


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

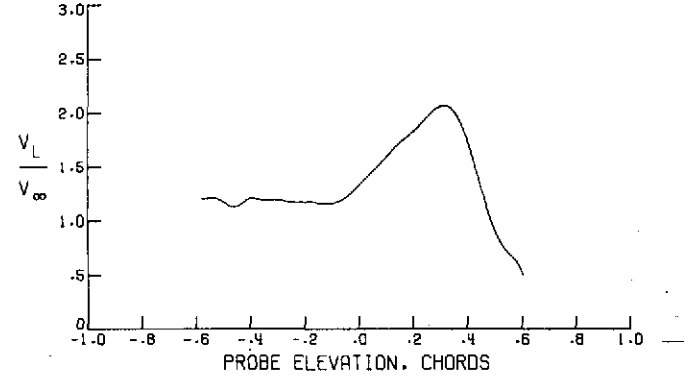
FIGURE 139. - WAKE SURVEY RESULTS FOR η = .240 , α = 4.34 DEG, C_μ = .60 , V_∞ = 36.43 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

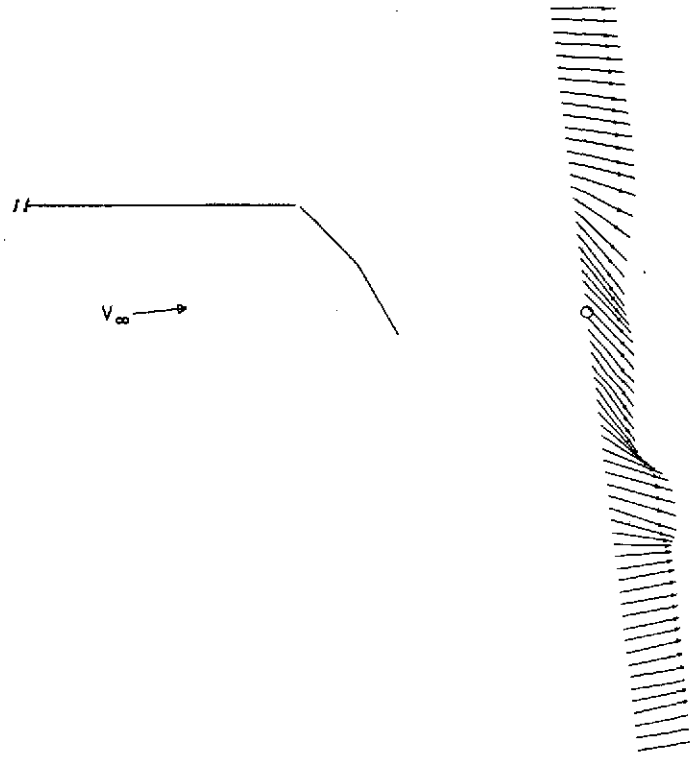


(B) - DOWNWASH ANGLE

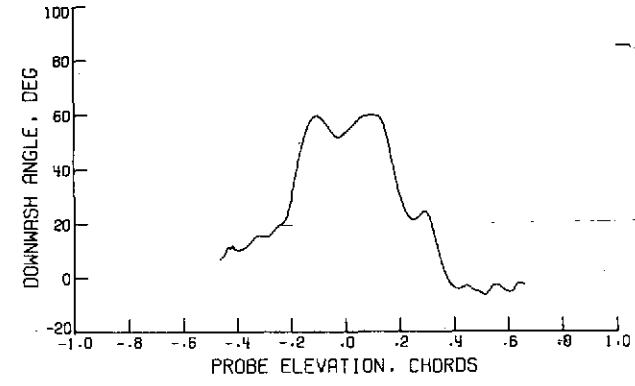


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

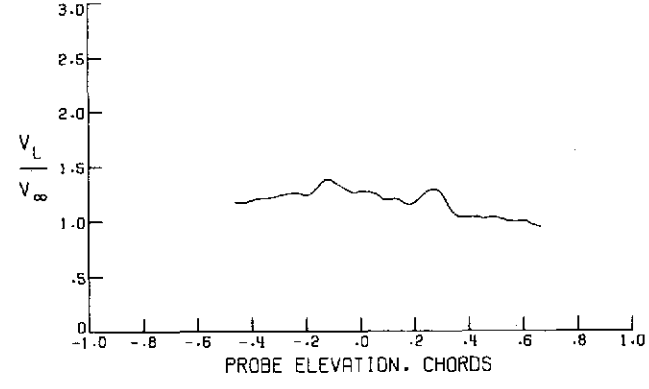
FIGURE 140. - WAKE SURVEY RESULTS FOR η = .208 , α = 4.34 DEG, C_μ = .60 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

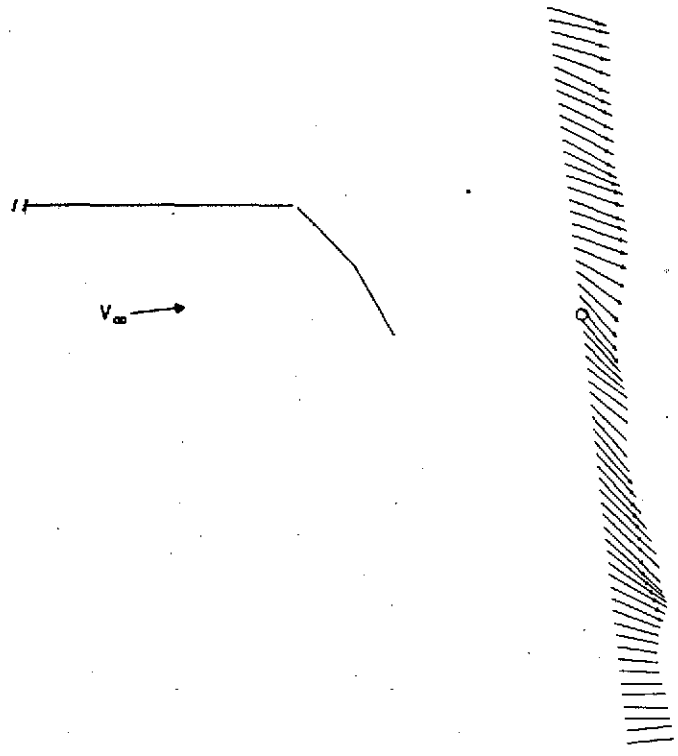


(B) - DOWNWASH ANGLE

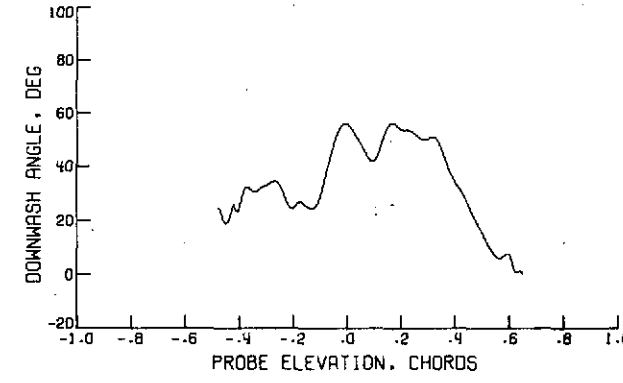


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

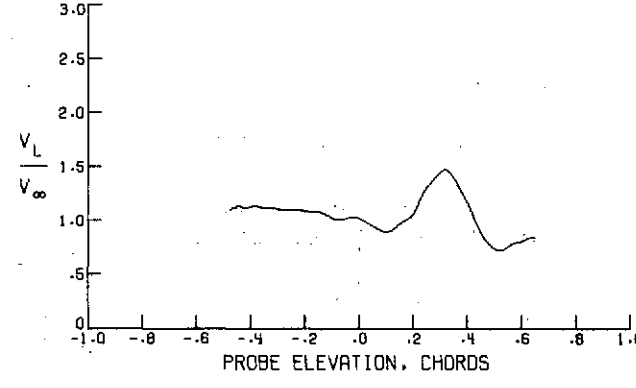
FIGURE 141. - WAKE SURVEY RESULTS FOR η = .923 , α = 6.43 DEG, C_μ = .60 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

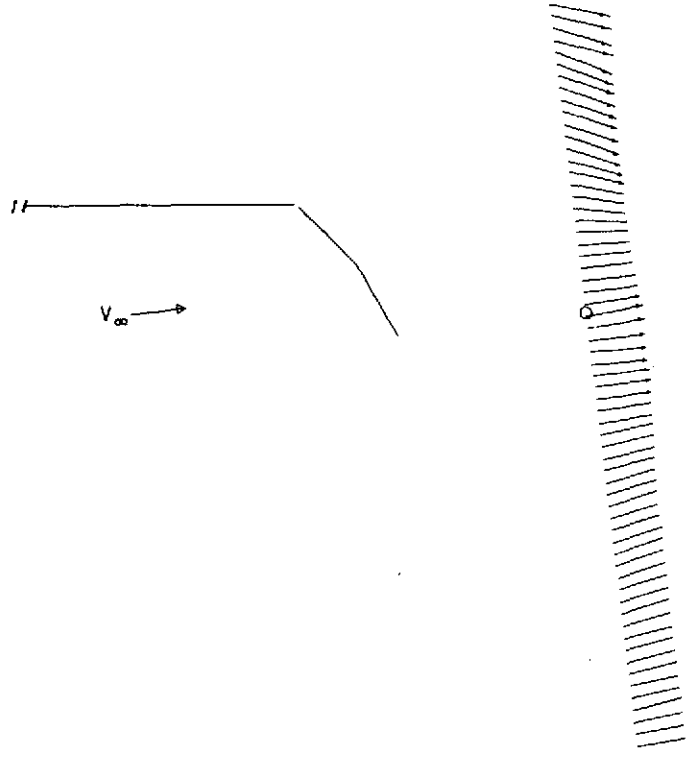


(B) - DOWNWASH ANGLE

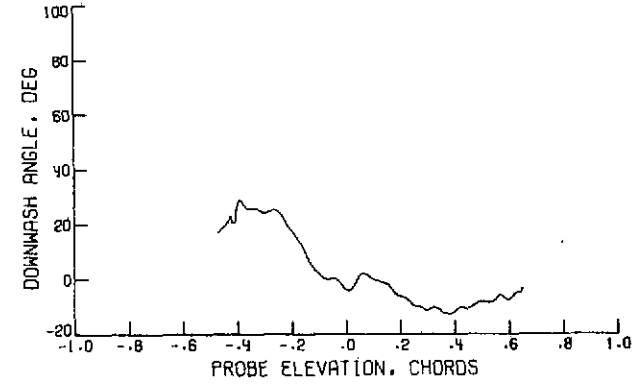


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

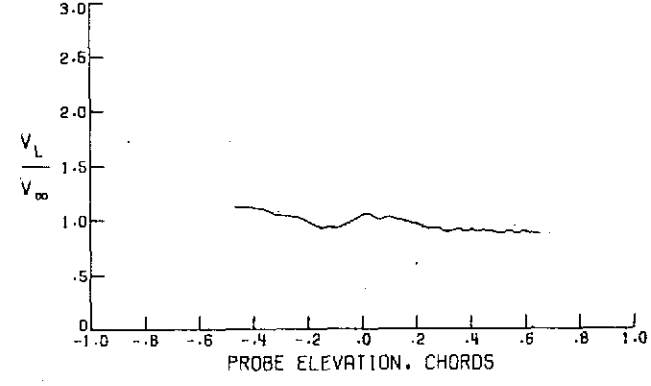
FIGURE 142. - WAKE SURVEY RESULTS FOR η = .818 , α = 6.43 DEG, C_μ = .60 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

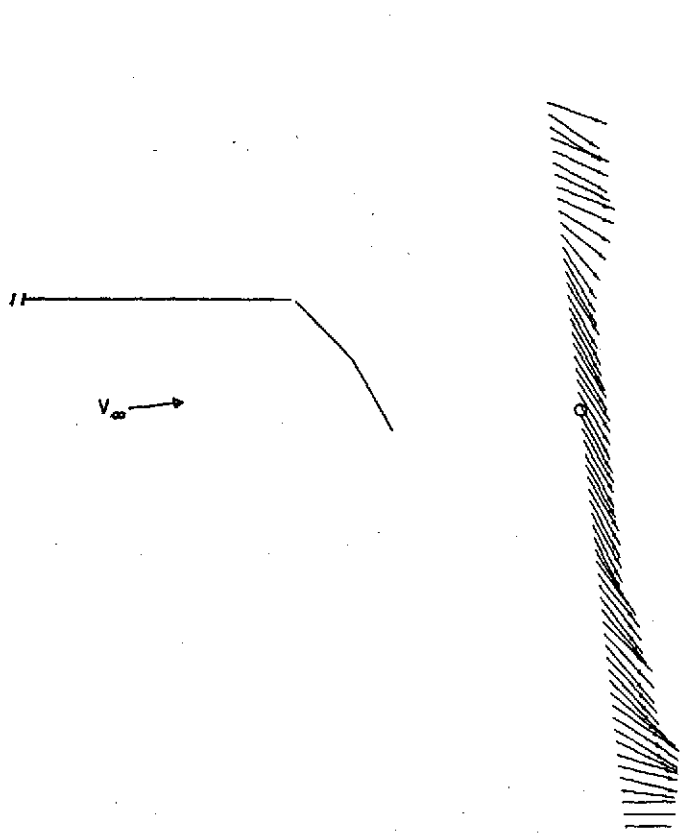


(B) - DOWNWASH ANGLE

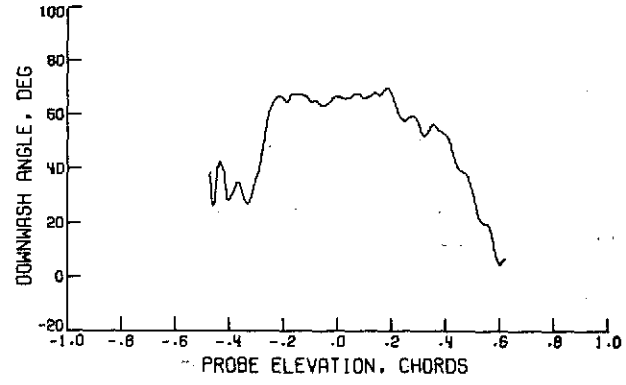


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

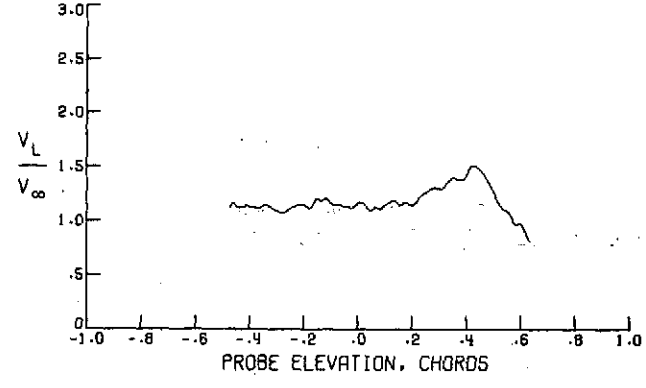
FIGURE 143. - WAKE SURVEY RESULTS FOR η = .712 , α = 6.43 DEG, C_μ = .60 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

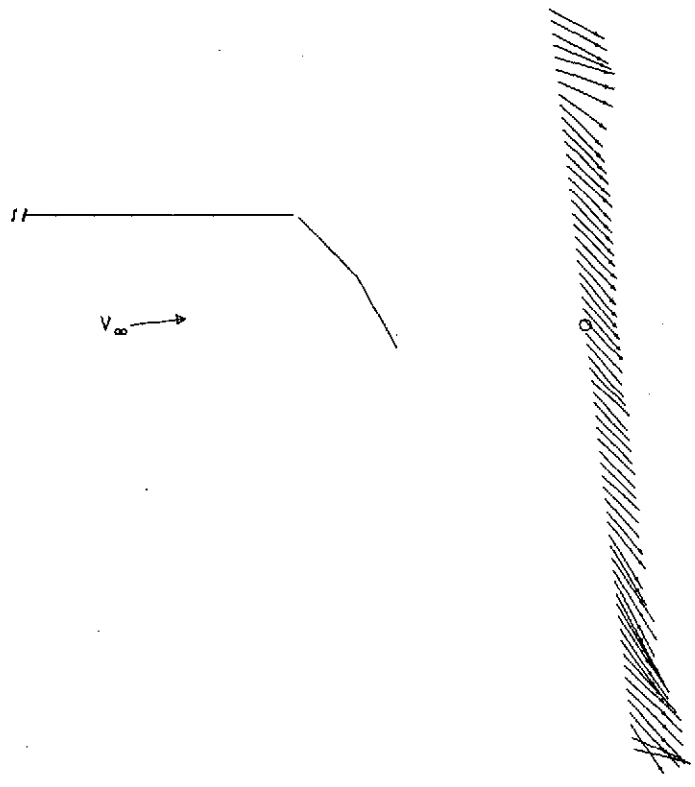


(B) - DOWNWASH ANGLE

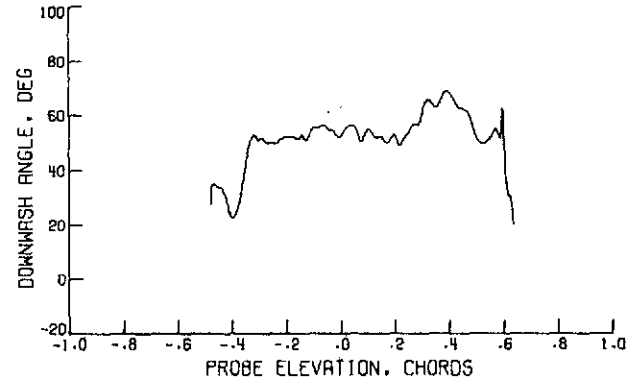


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

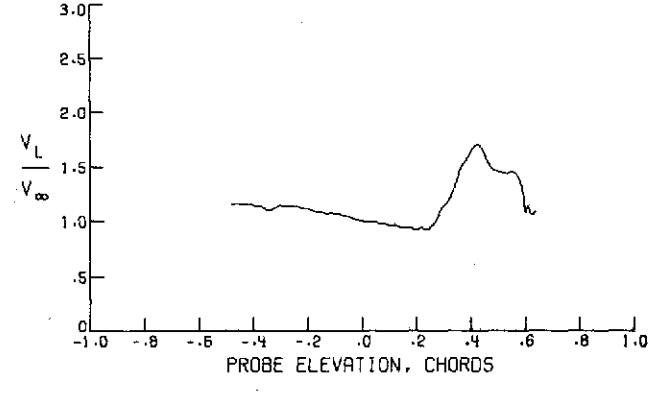
FIGURE 144. - WAKE SURVEY RESULTS FOR η = .599 , α = 6.44 DEG, C_μ = .60 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

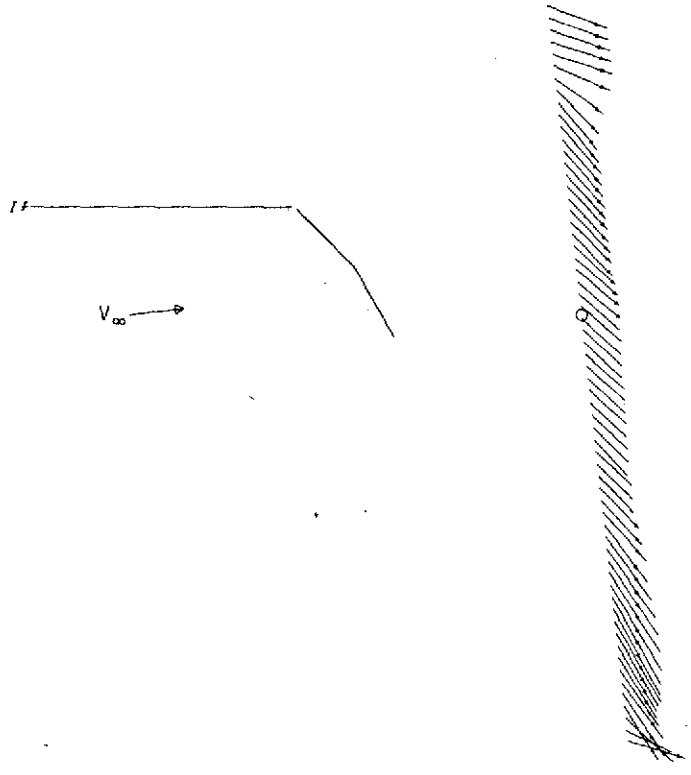


(B) - DOWNWASH ANGLE

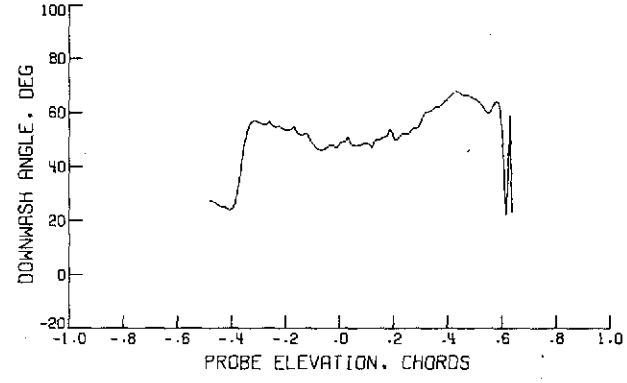


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

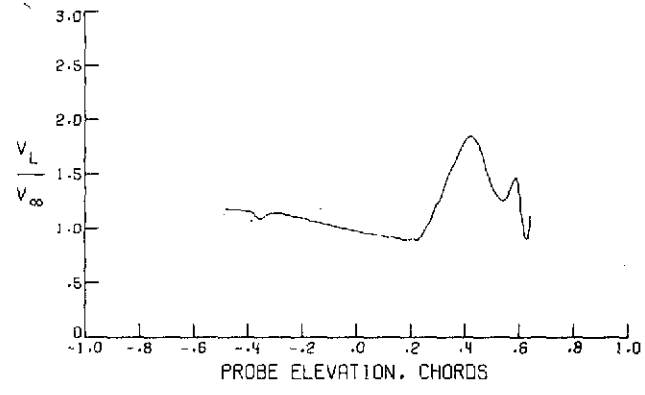
FIGURE 145. - WAKE SURVEY RESULTS FOR η = .510 , α = 6.43 DEG, C_μ = .60 , V_∞ = 36.36 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

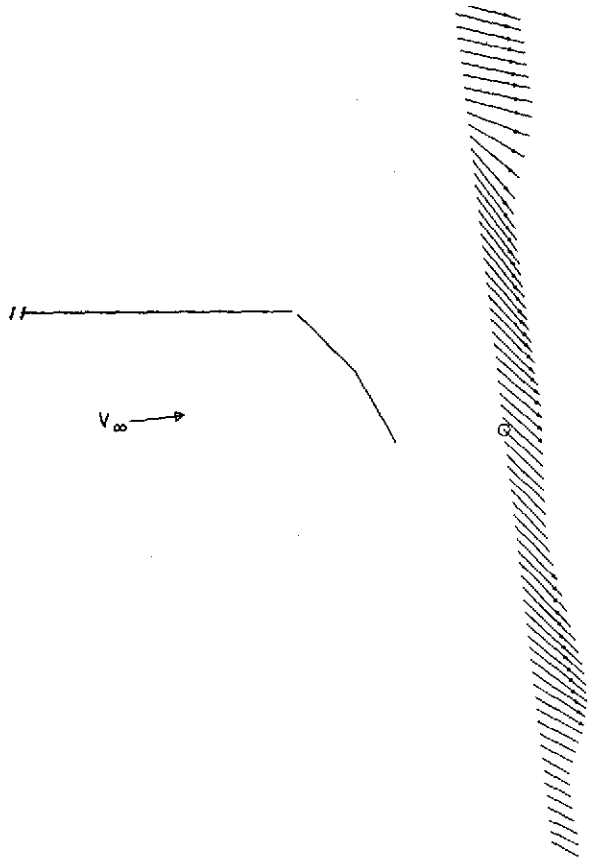


(B) - DOWNWASH ANGLE

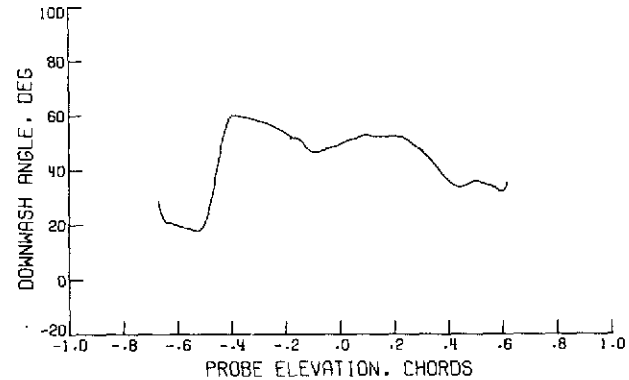


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

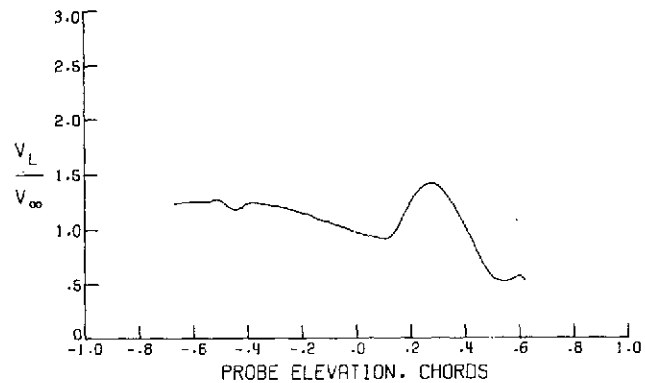
FIGURE 146. - WAKE SURVEY RESULTS FOR $\eta = .446$, $\alpha = 6.43$ DEG, $C_\mu = .60$, $V_\infty = 36.39$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

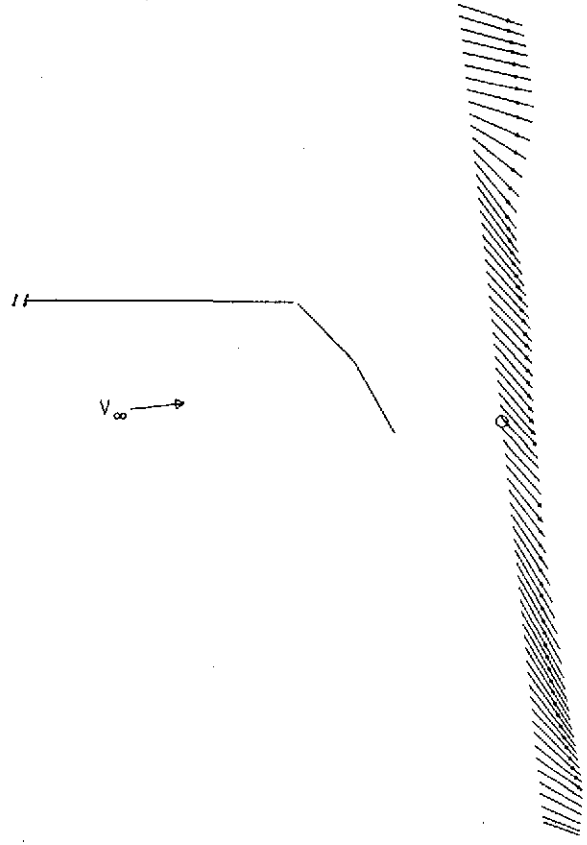


(B) - DOWNWASH ANGLE

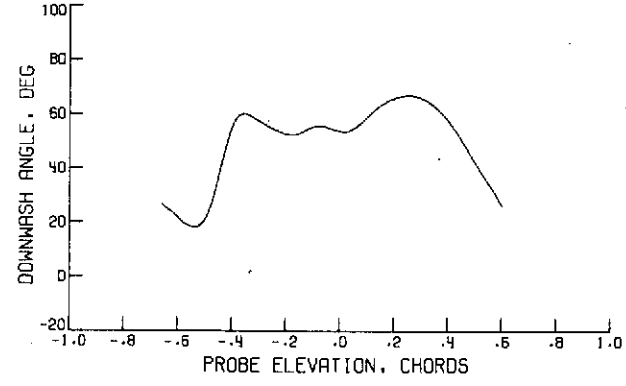


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

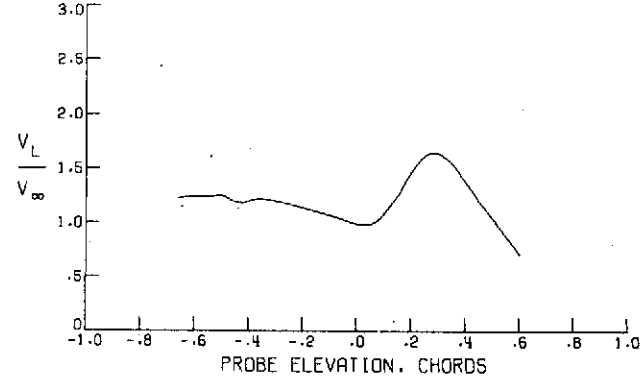
FIGURE 147. - WAKE SURVEY RESULTS FOR η = .374 , α = 6.45 DEG, C_μ = .60 , V_∞ = 36.50 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

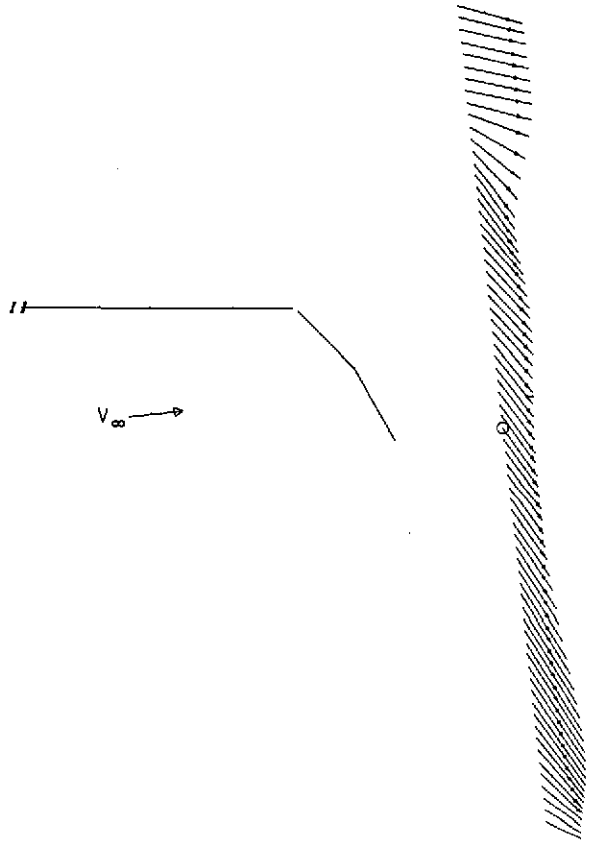


(B) - DOWNWASH ANGLE

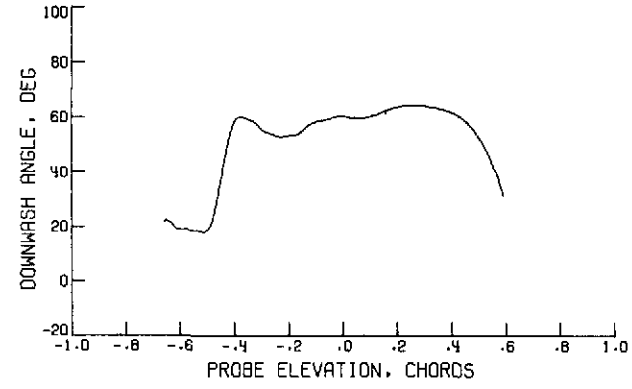


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

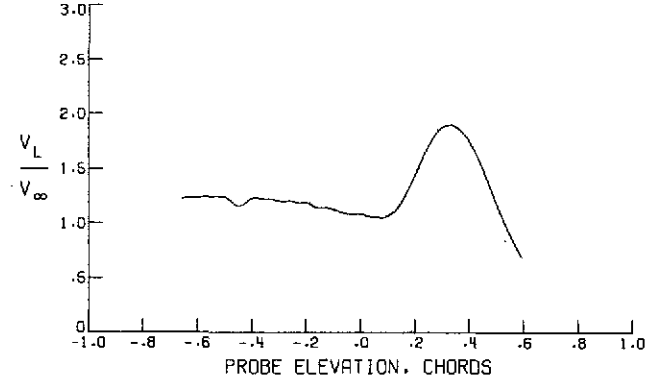
FIGURE 148. - WAKE SURVEY RESULTS FOR η = .319, α = 6.45 DEG, C_μ = .60 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

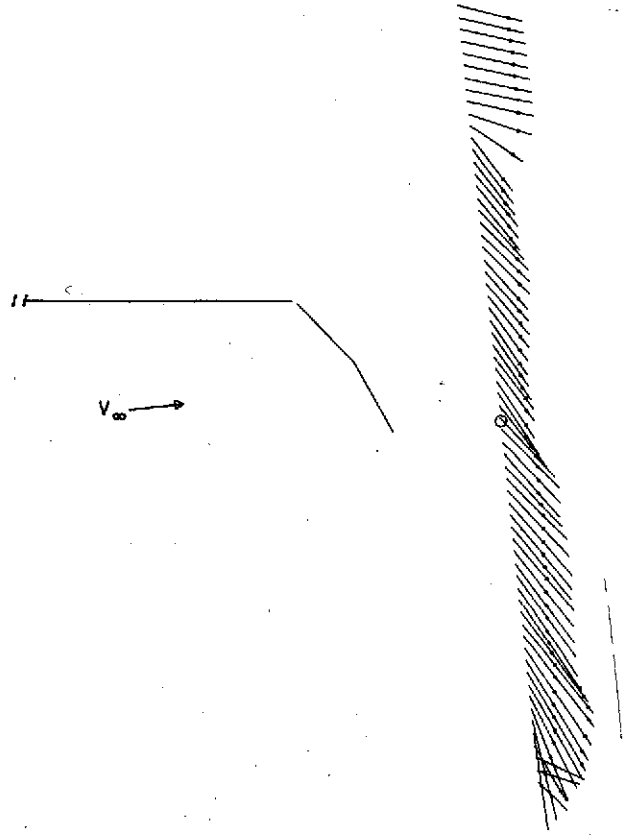


(B) - DOWNWASH ANGLE

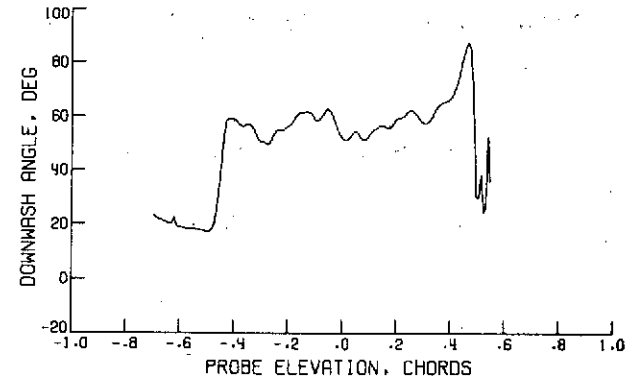


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

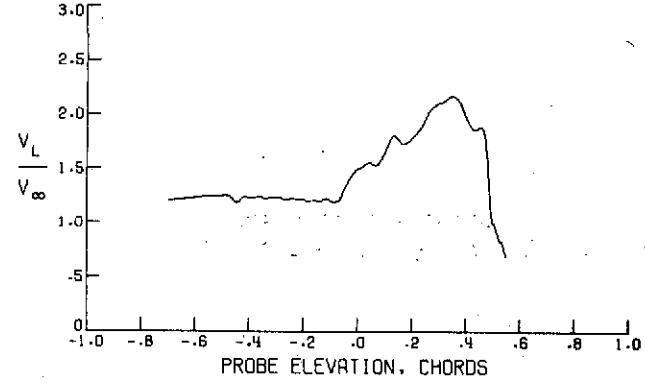
FIGURE 149. - WAKE SURVEY RESULTS FOR η = .241 , α = 6.46 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

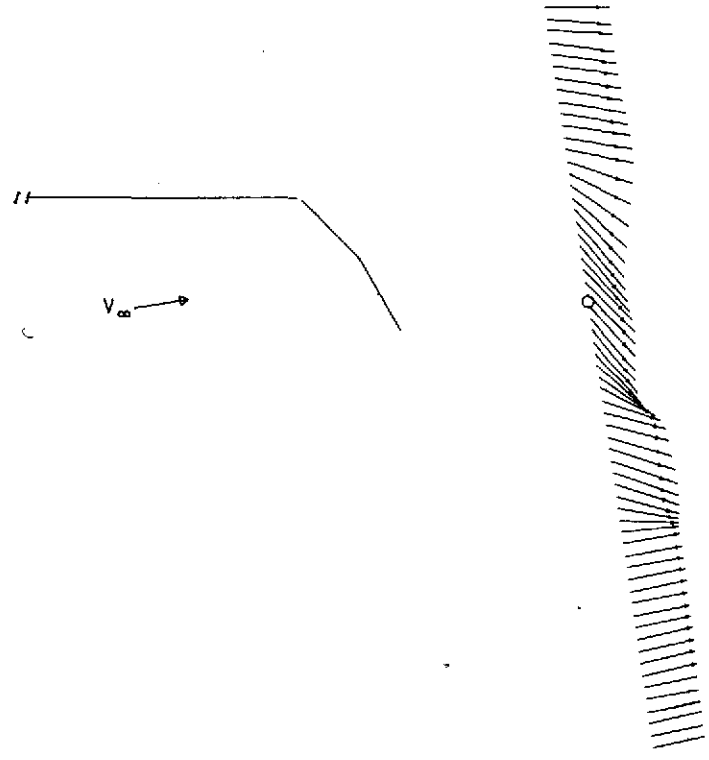


(B) - DOWNWASH ANGLE

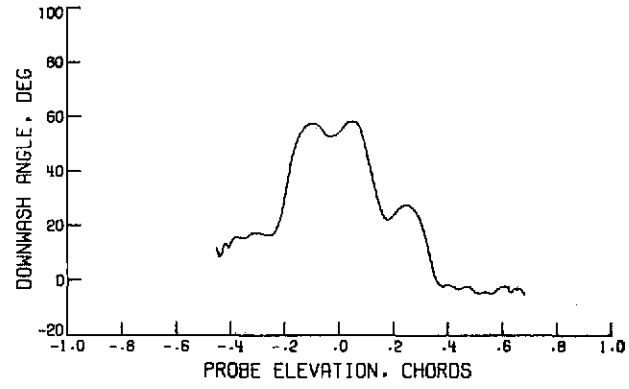


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

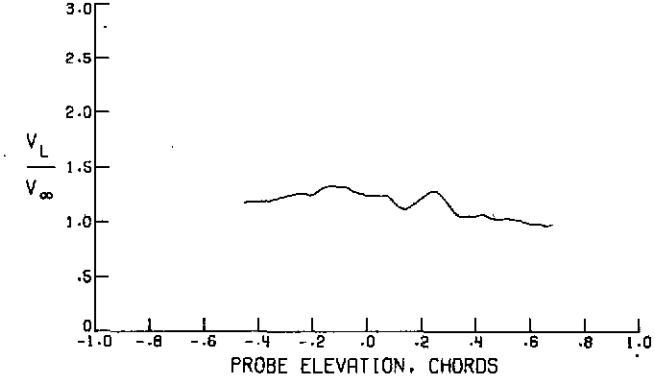
FIGURE 150. - WAKE SURVEY RESULTS FOR η = .206 , α = 6.45 DEG, C_μ = .60 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

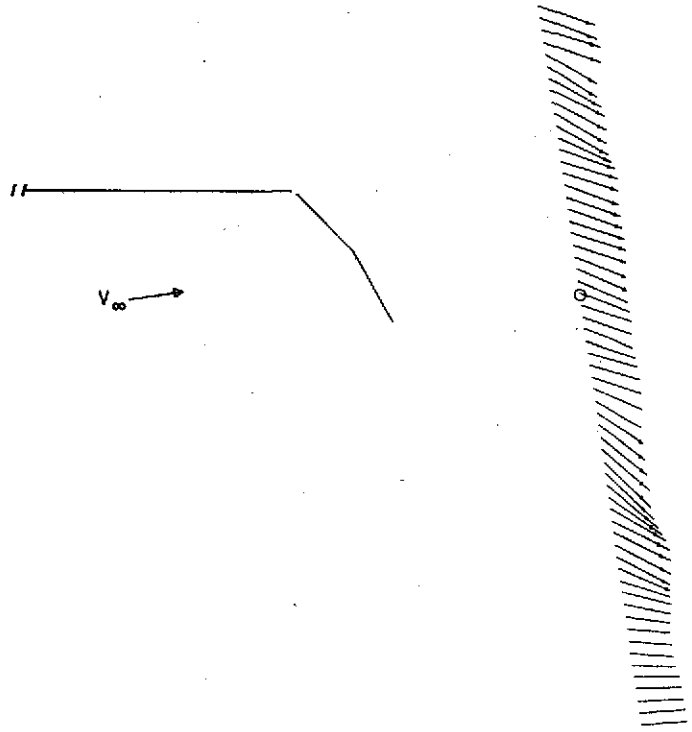


(B) - DOWNWASH ANGLE

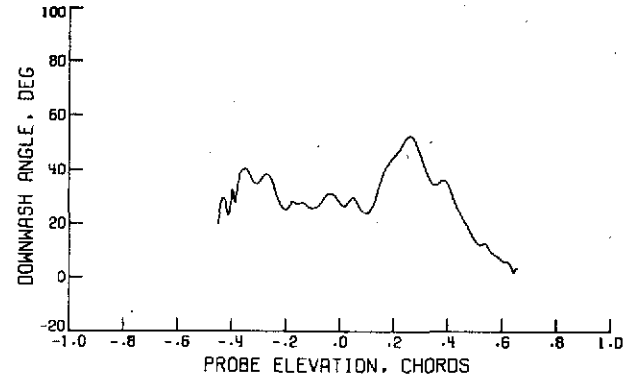


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

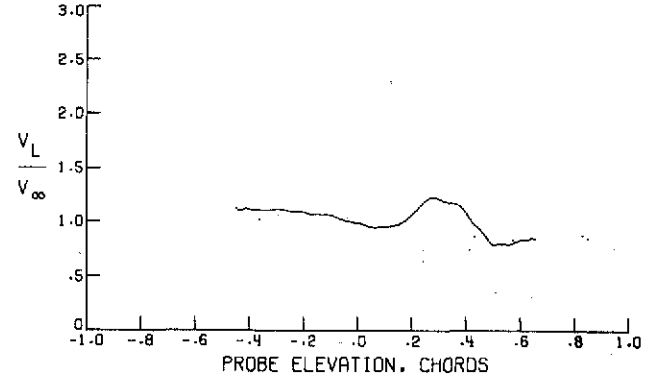
FIGURE 151. - WAKE SURVEY RESULTS FOR η = .921 , α = 8.49 DEG, C_μ = .60 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

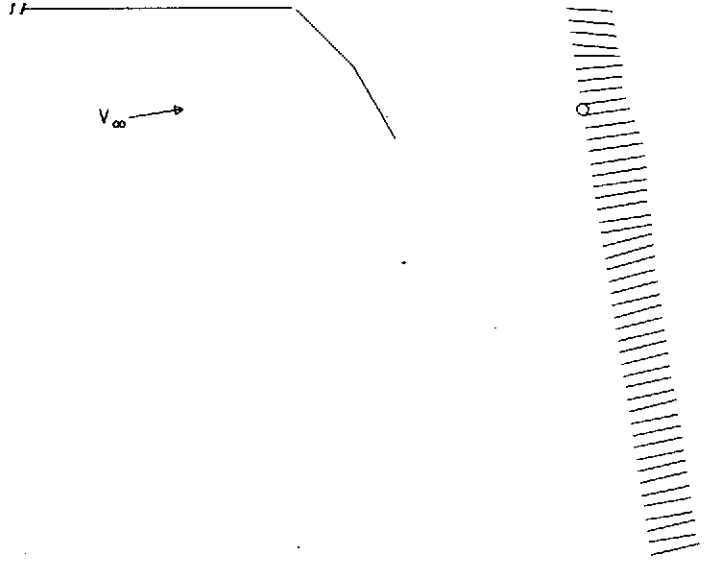


(B) - DOWNWASH ANGLE

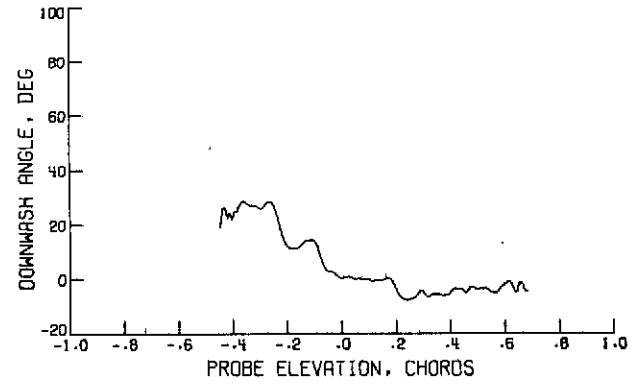


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

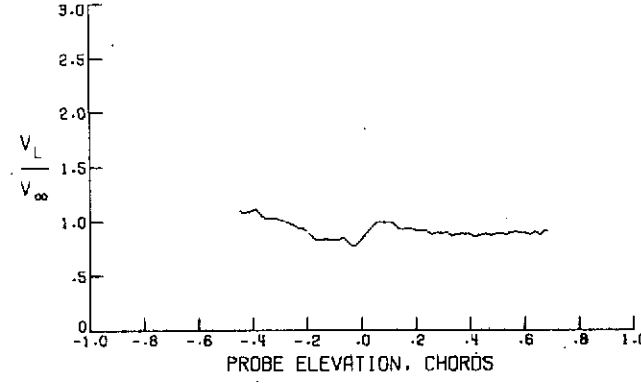
FIGURE 152. - WAKE SURVEY RESULTS FOR η = .820 , α = 8.50 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

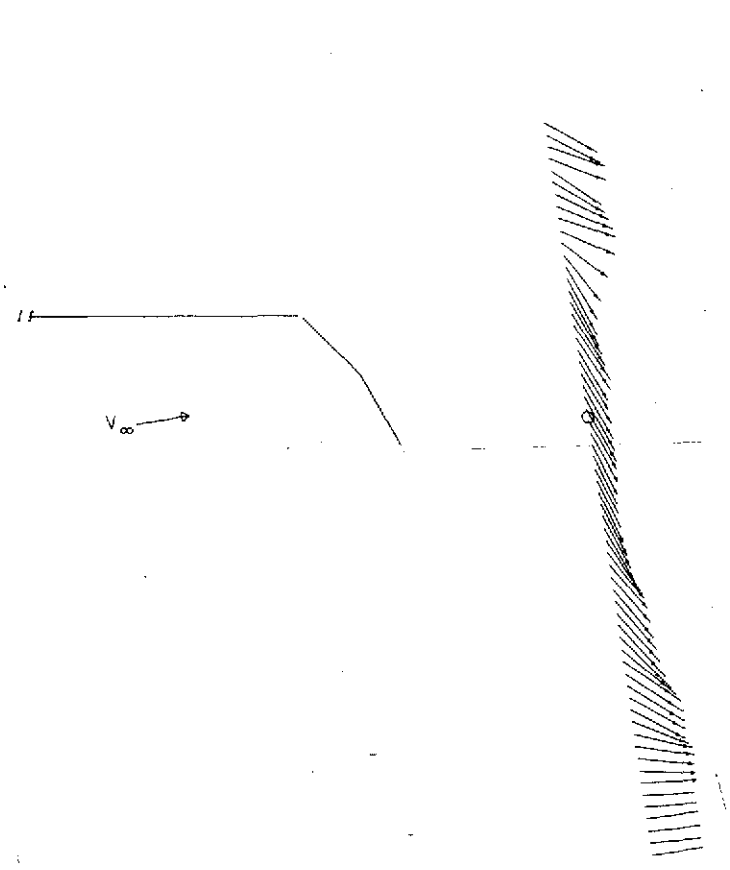


(B) - DOWNWASH ANGLE

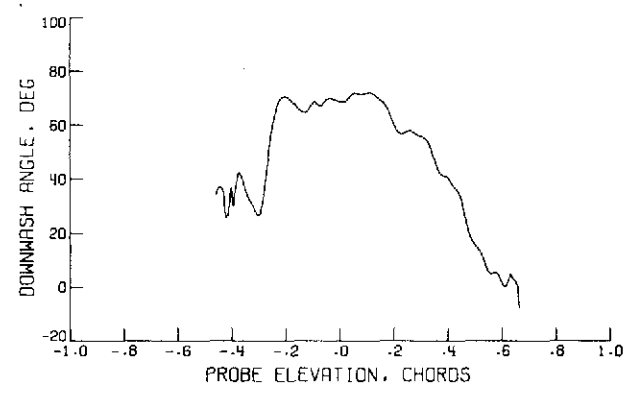


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

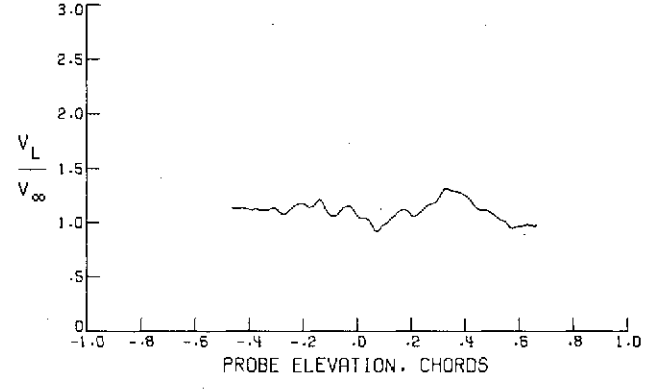
FIGURE 153. - WAKE SURVEY RESULTS FOR η = .713 , α = 8.50 DEG, C_μ = .60 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

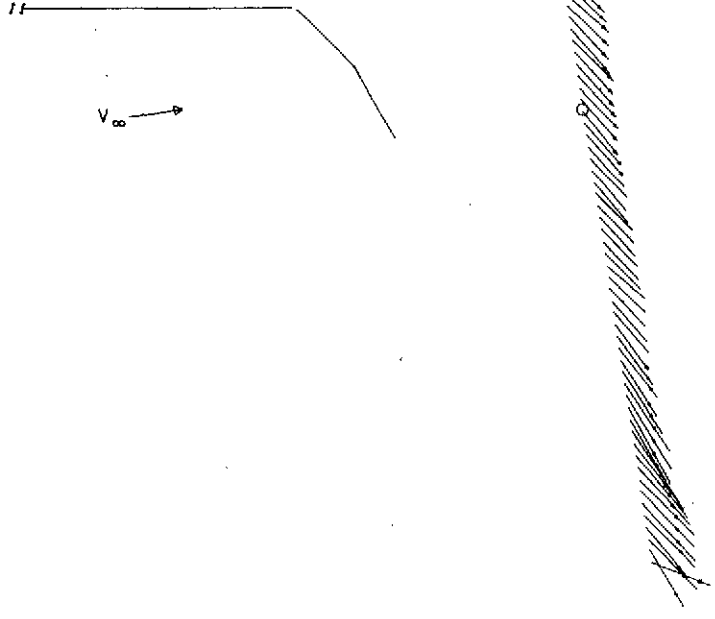


(B) - DOWNWASH ANGLE



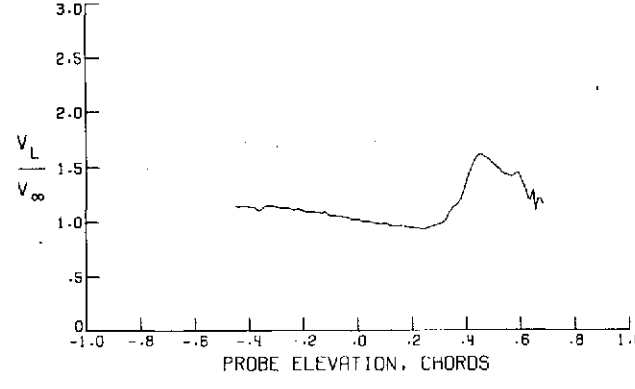
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 54. - WAKE SURVEY RESULTS FOR η = .600 , α = 8.49 DEG, C_μ = .60 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



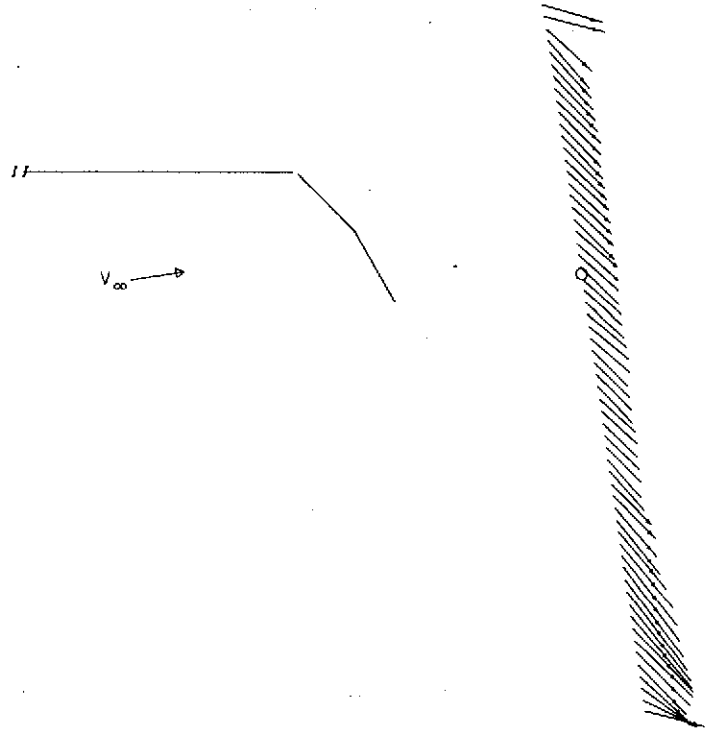
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

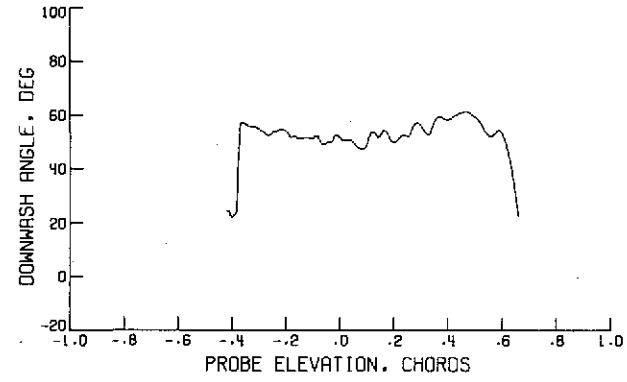


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

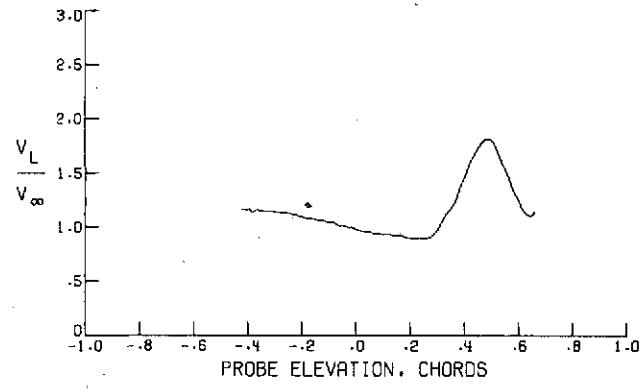
FIGURE 155.- WAKE SURVEY RESULTS FOR η = .509 , α = 8.49 DEG, C_μ = .60 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

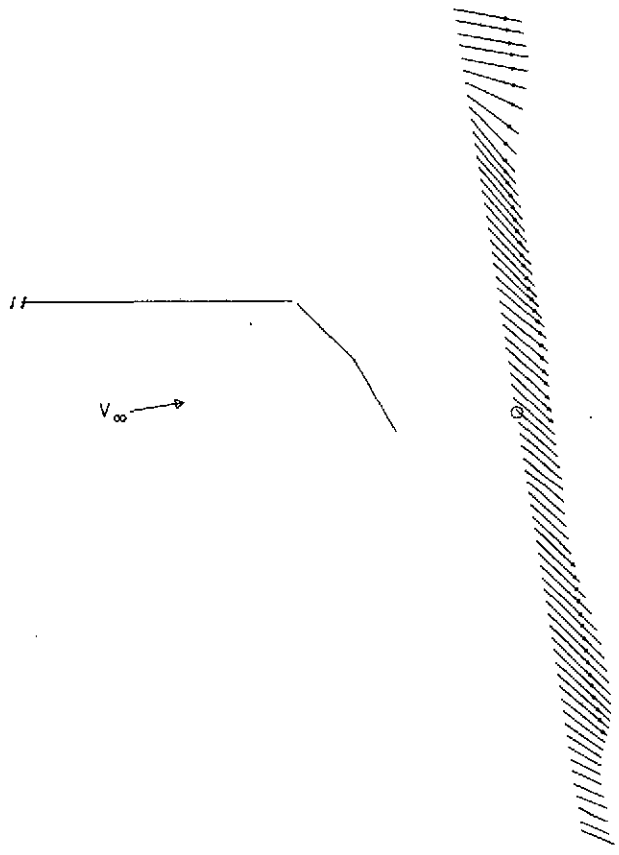


(B) - DOWNWASH ANGLE

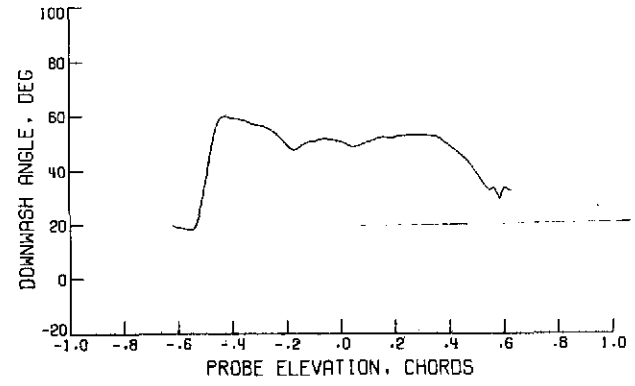


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

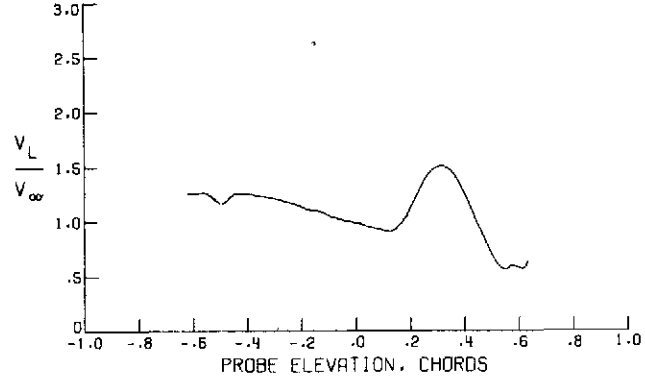
FIGURE 156. - WAKE SURVEY RESULTS FOR η = .450 , α = 8.49 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

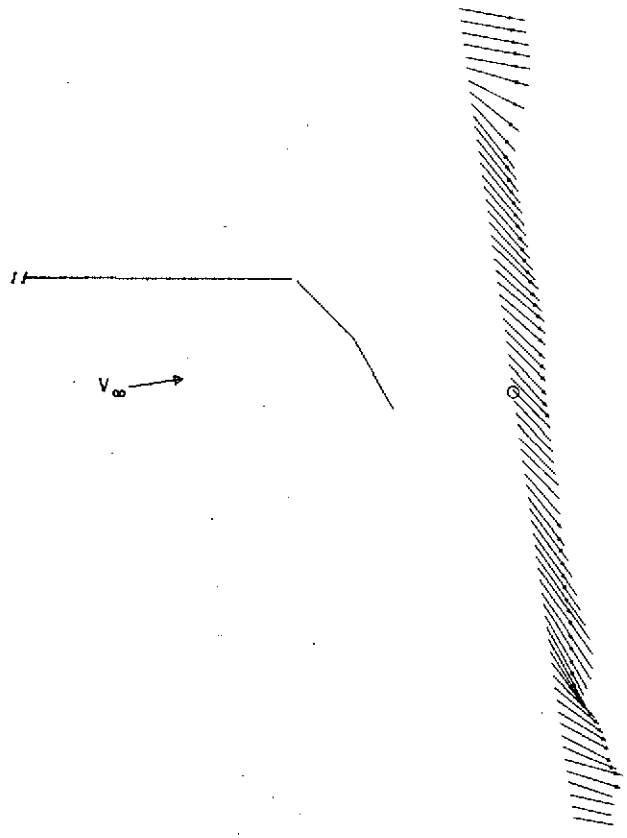


(B) - DOWNWASH ANGLE

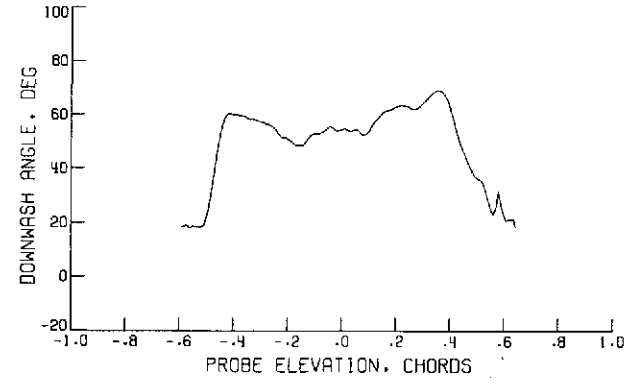


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

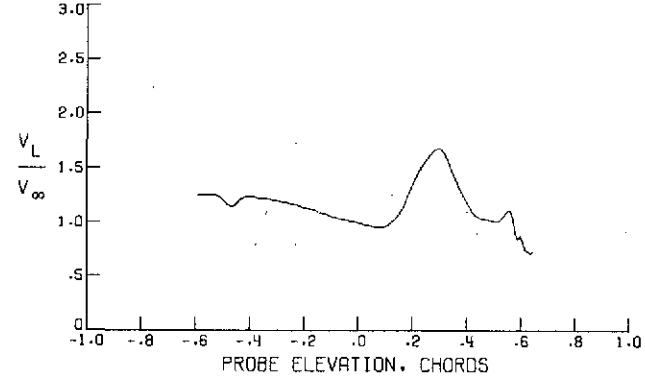
FIGURE 157. - WAKE SURVEY RESULTS FOR η = .374 , α = 8.53 DEG, C_μ = .60 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

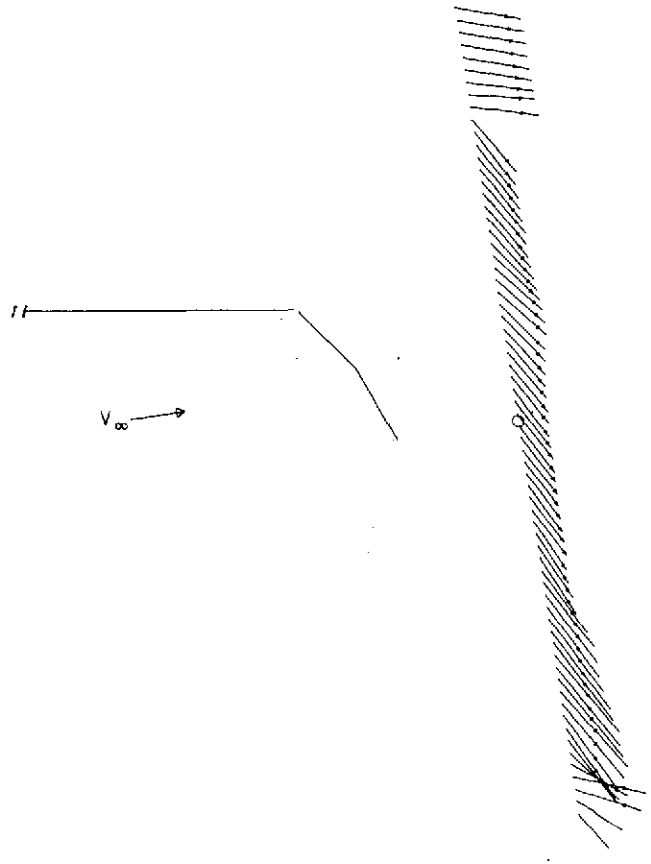


(B) - DOWNWASH ANGLE

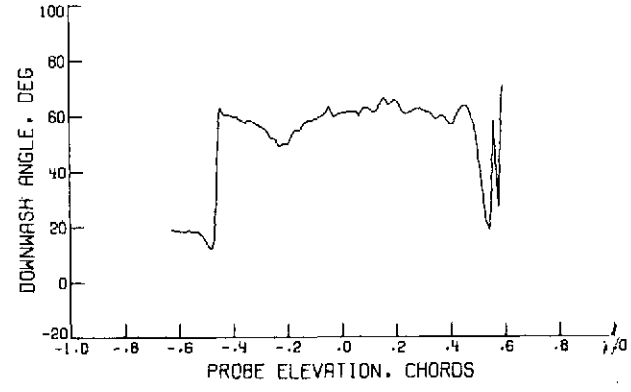


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

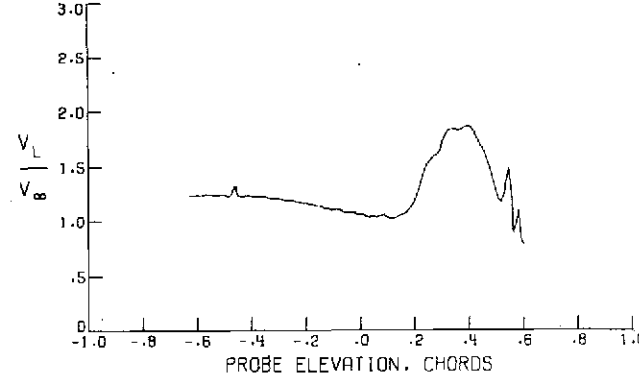
FIGURE 158. - WAKE SURVEY RESULTS FOR η = .320 , α = 8.53 DEG, C_μ = .60 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

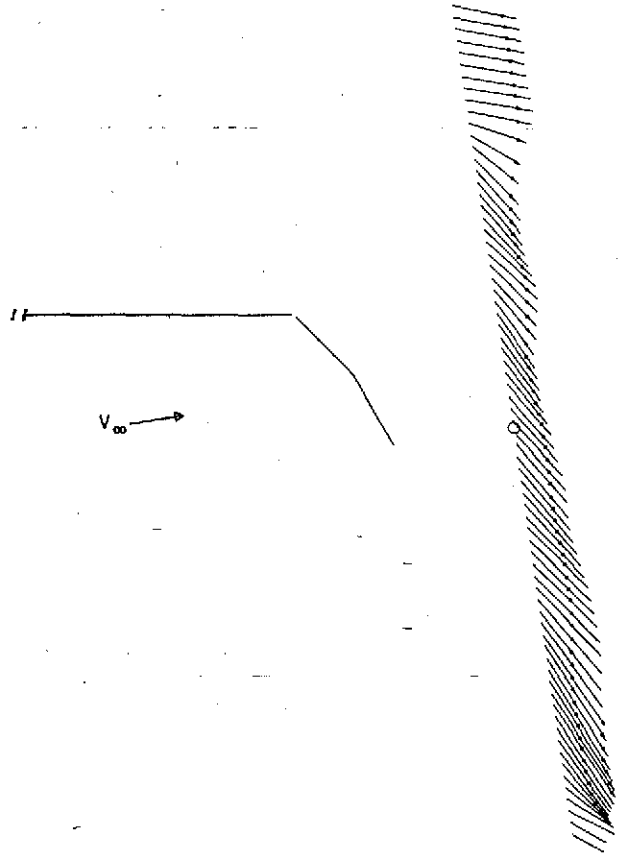


(B) - DOWNWASH ANGLE

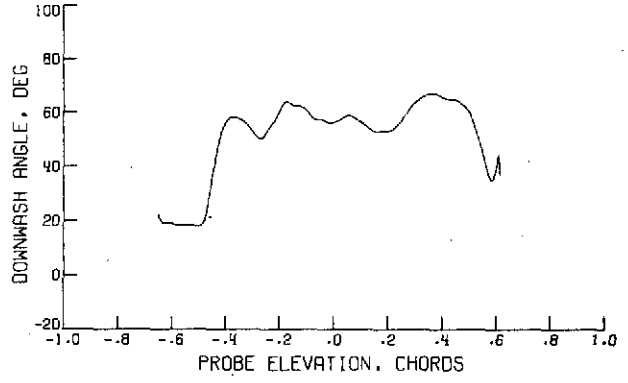


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

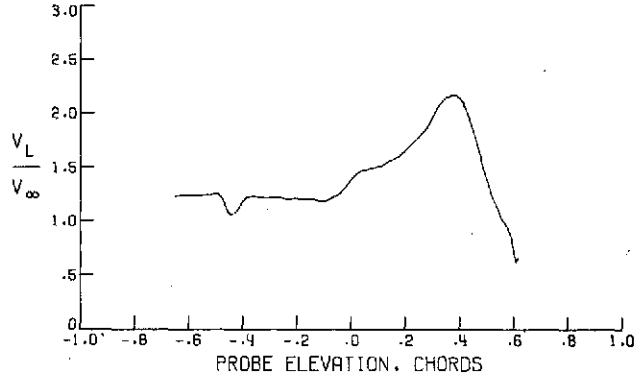
FIGURE 159.- WAKE SURVEY RESULTS FOR η = .241 , α = 8.53 DEG, C_μ = .60 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

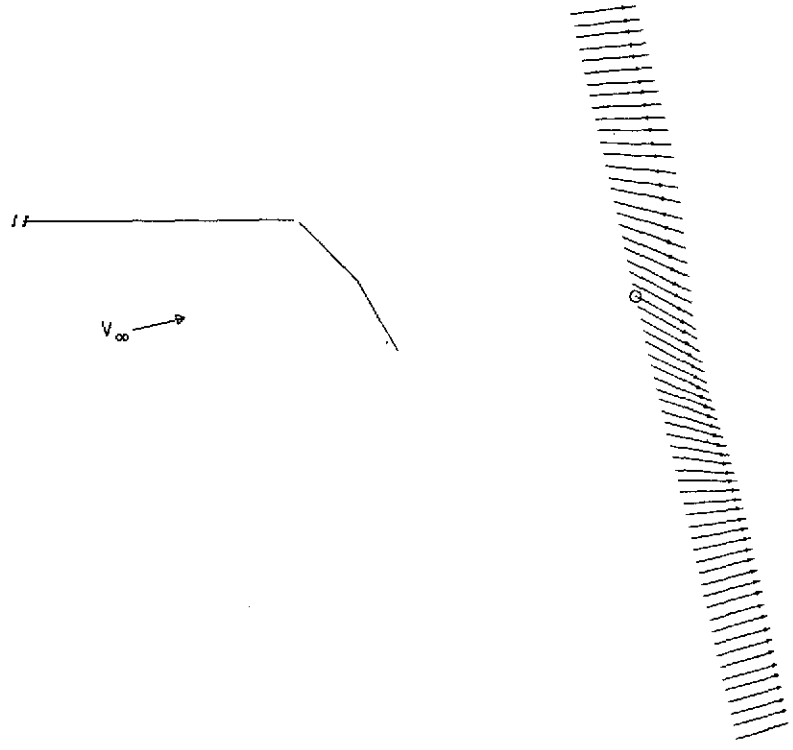


(B) - DOWNWASH ANGLE

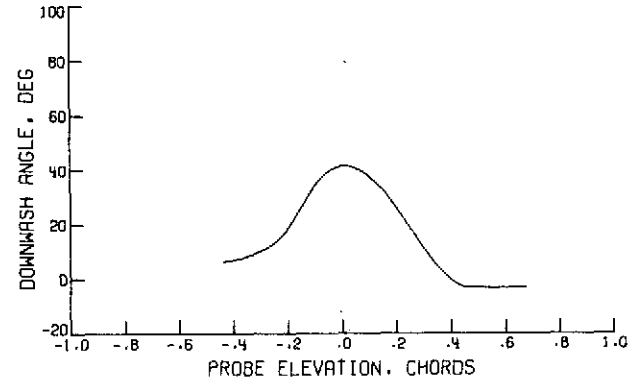


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

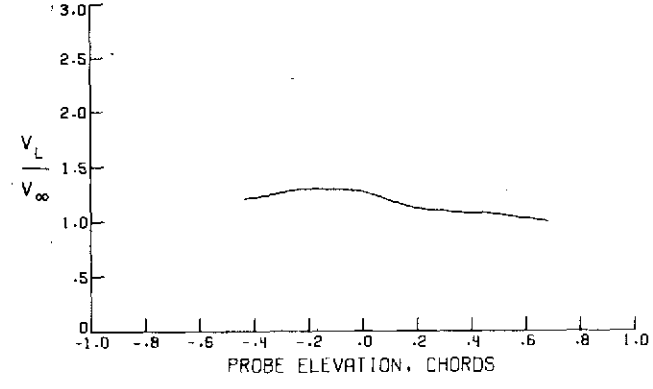
FIGURE 160. - WAKE SURVEY RESULTS FOR η = .206 , α = 8.53 DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

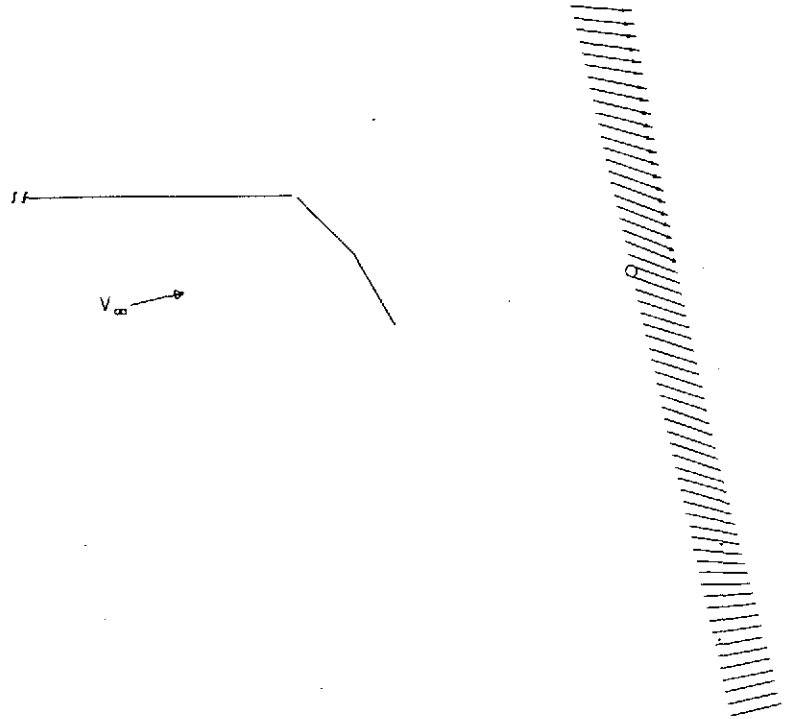


(B) - DOWNWASH ANGLE

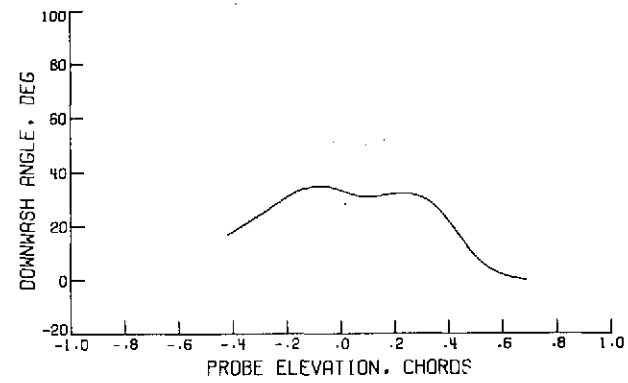


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

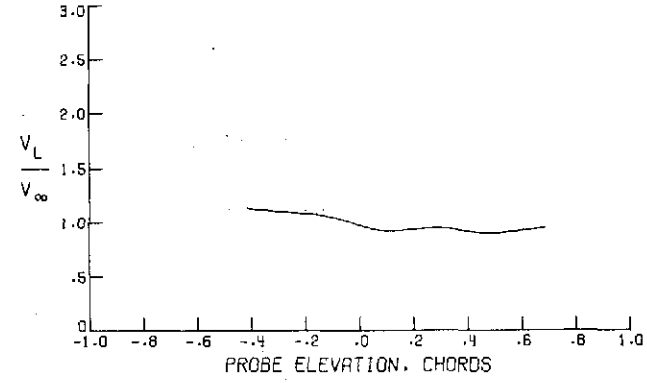
FIGURE 161. - WAKE SURVEY RESULTS FOR η = .924 , α = 12.60DEG, C_μ = .60 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

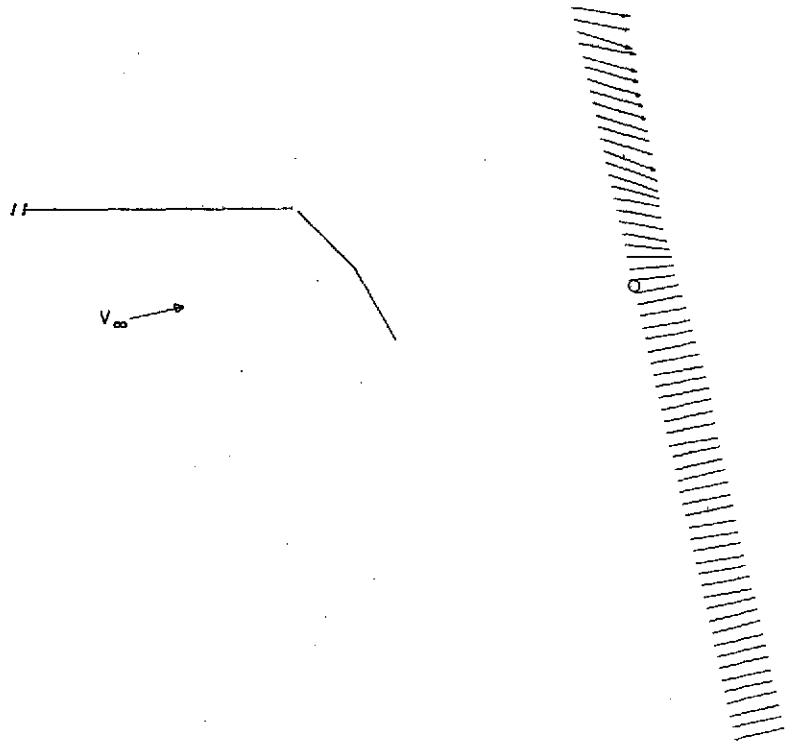


(B) - DOWNWASH ANGLE

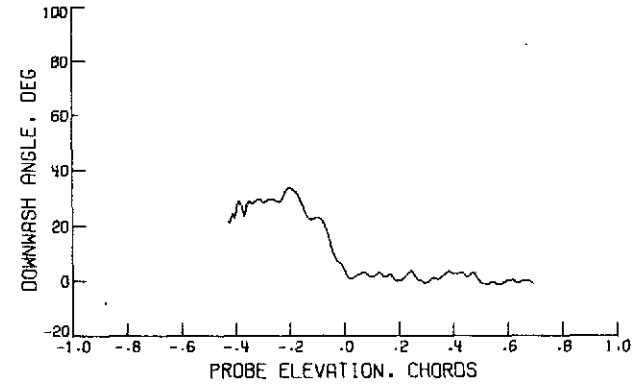


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

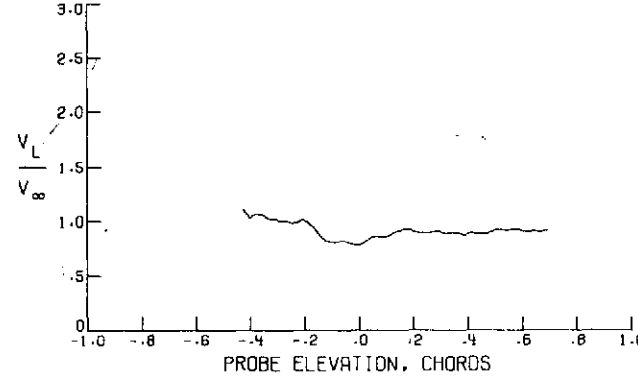
FIGURE 162. - WAKE SURVEY RESULTS FOR η = .821 , α = 12.59DEG, C_μ = .60 , V_∞ = 36.29 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

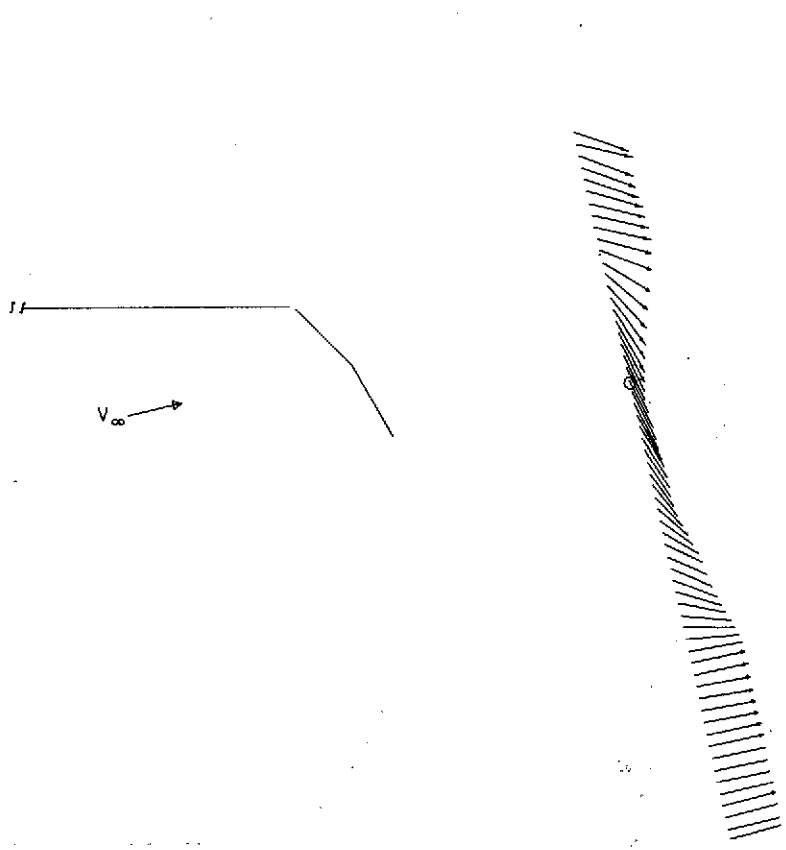


(B) - DOWNWASH ANGLE

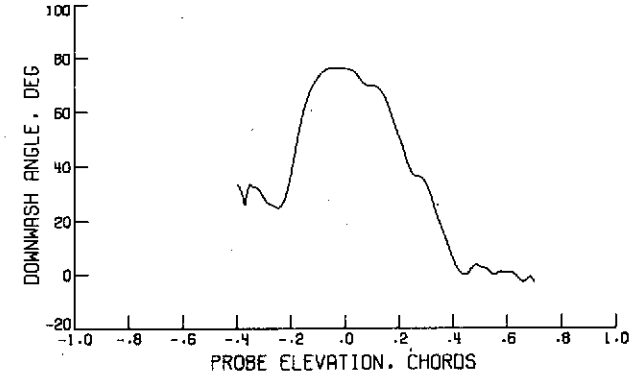


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

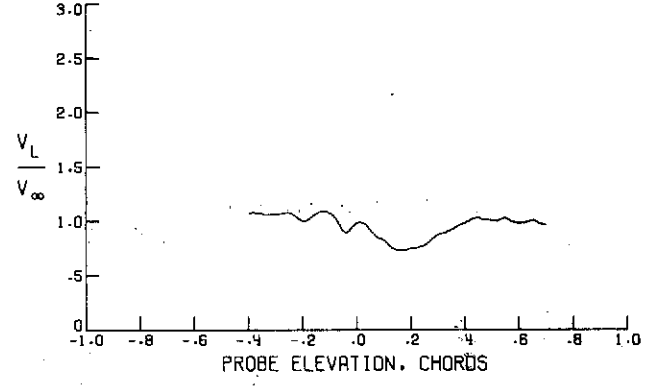
FIGURE 163. - WAKE SURVEY RESULTS FOR η = .714 , α = 12.59DEG, C_μ = .60 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

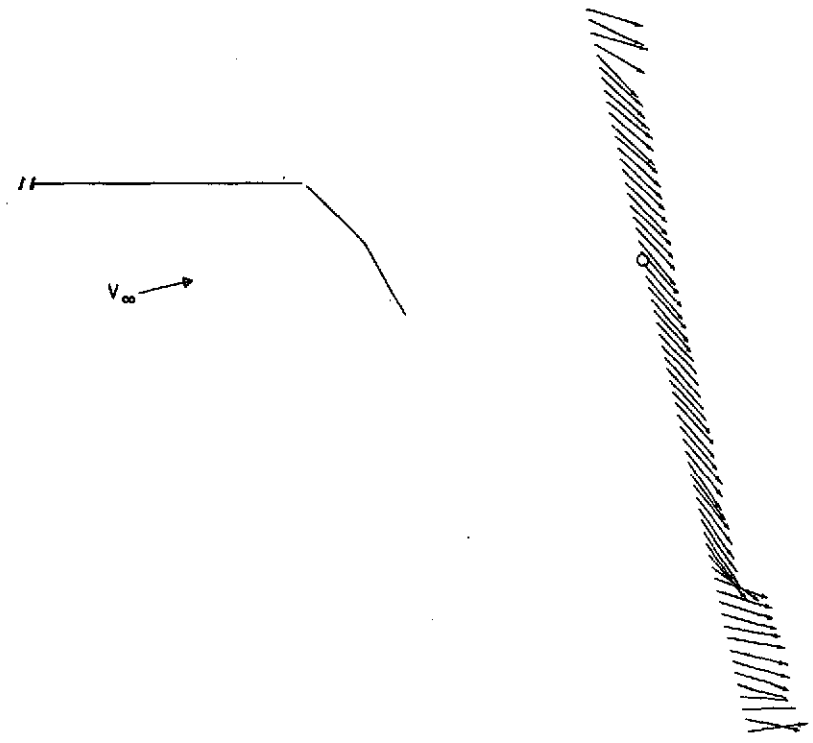


(B) - DOWNWASH ANGLE

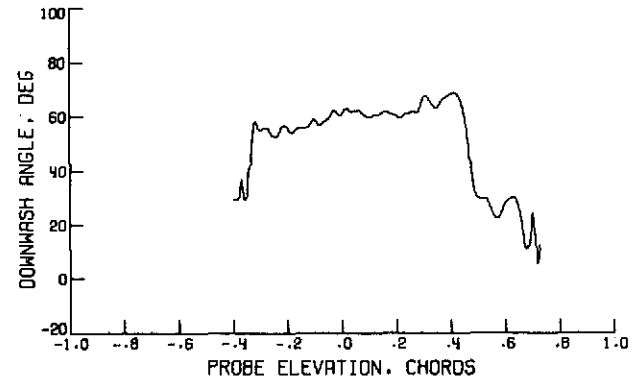


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

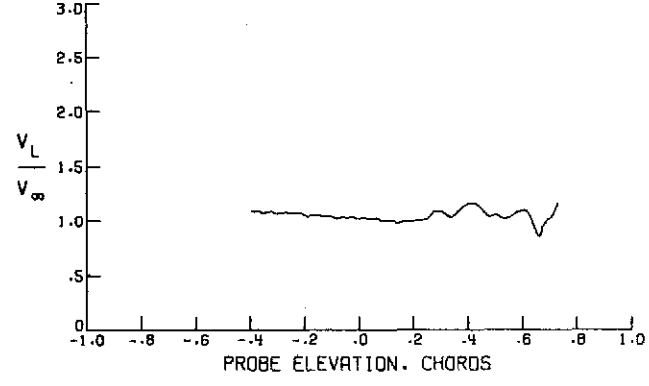
FIGURE 164. - WAKE SURVEY RESULTS FOR η = .601 , α = 12.58DEG, C_μ = .60 , V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

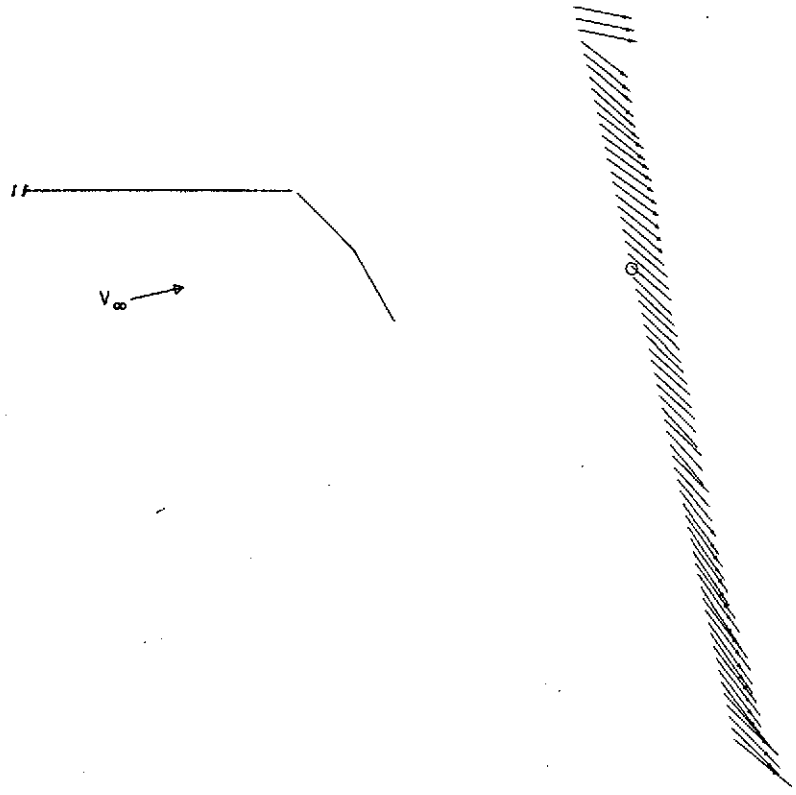


(B) - DOWNWASH ANGLE

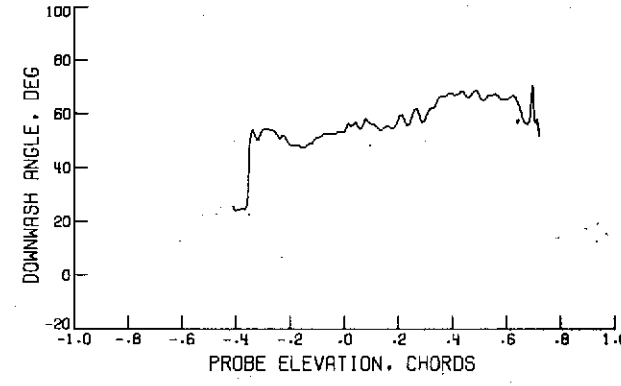


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

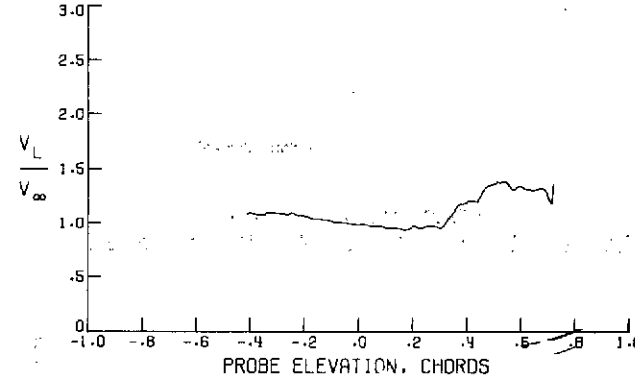
FIGURE 165. - WAKE SURVEY RESULTS FOR η = .508 , α = 12.58DEG, C_μ = .60 , V_∞ = 36.48 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

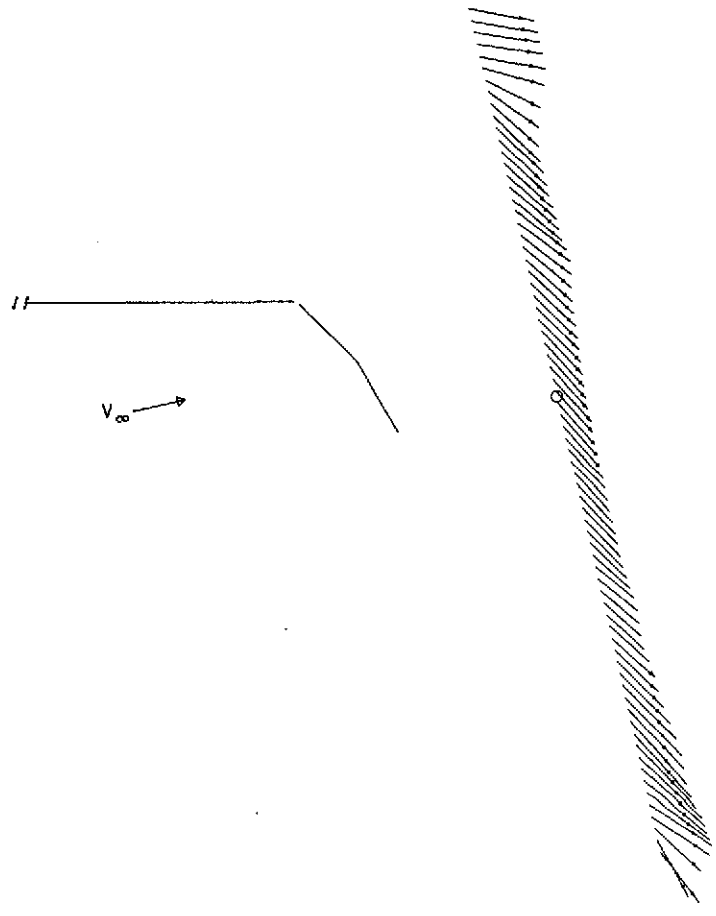


(B) - DOWNWASH ANGLE

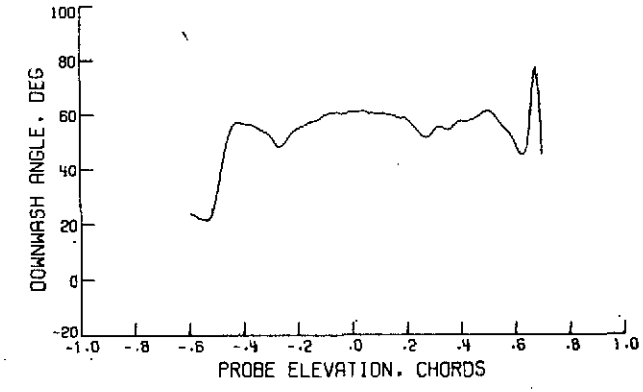


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

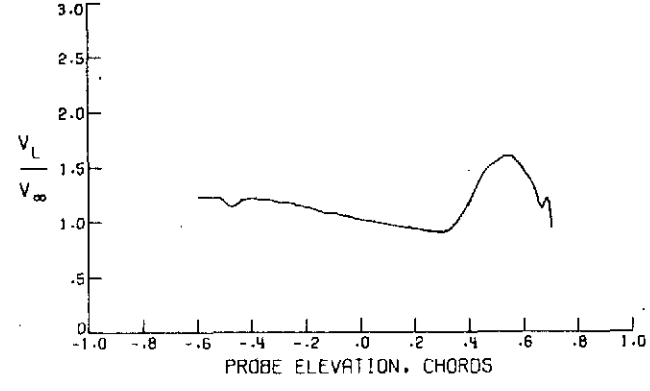
FIGURE 166.- WAKE SURVEY RESULTS FOR η = .451 , α = 12.58DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

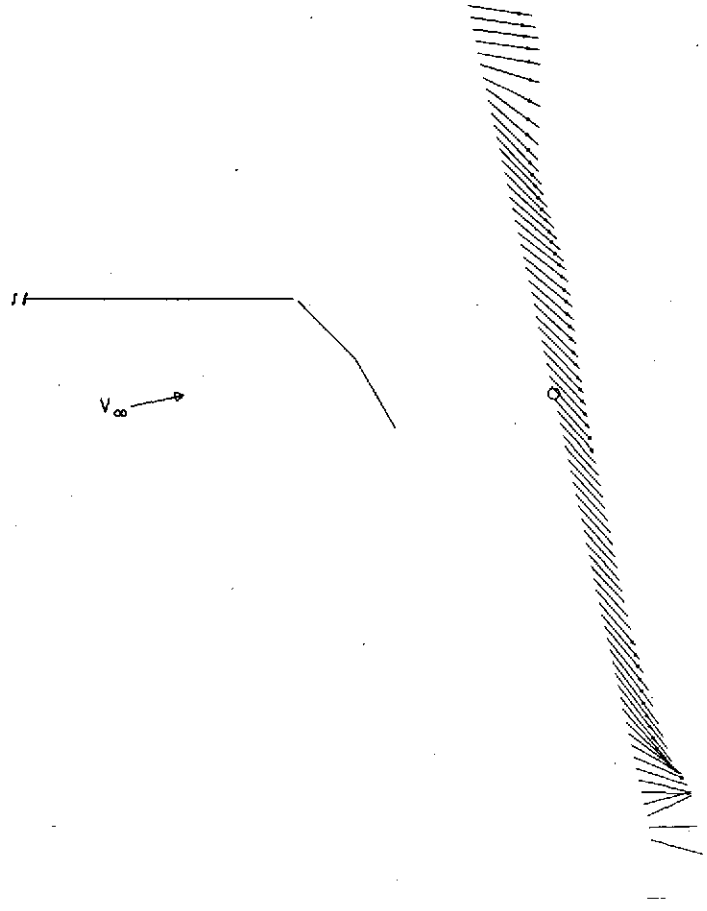


(B) - DOWNWASH ANGLE

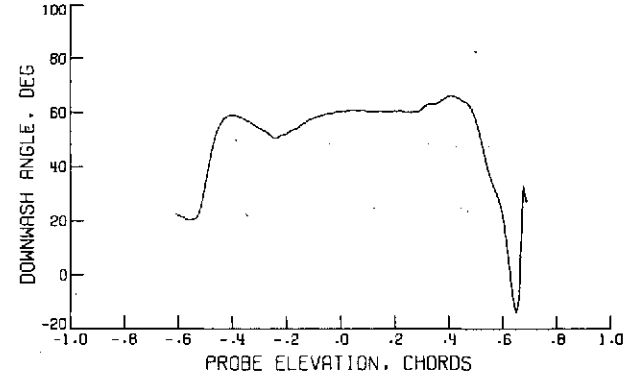


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

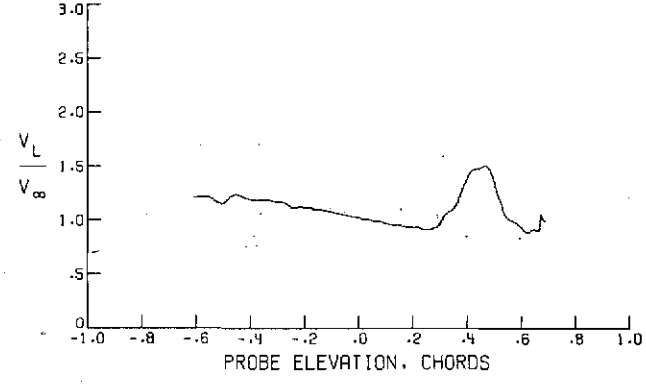
FIGURE 167 - WAKE SURVEY RESULTS FOR η = .373 , α = 12.62DEG, C_μ = .60 , V_∞ = 36.21 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

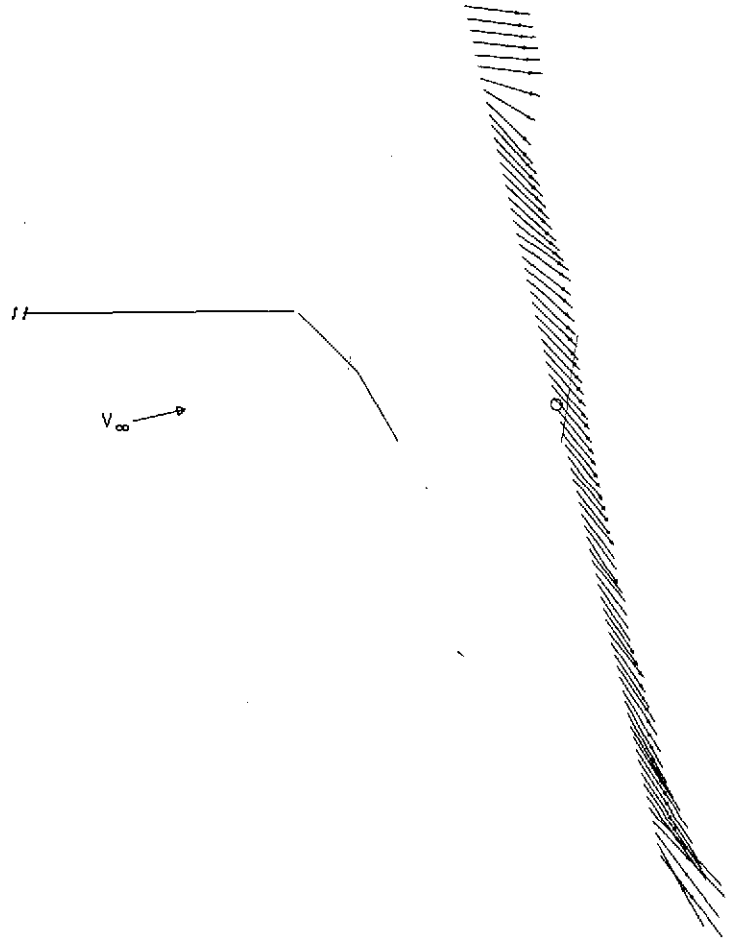


(B) - DOWNWASH ANGLE

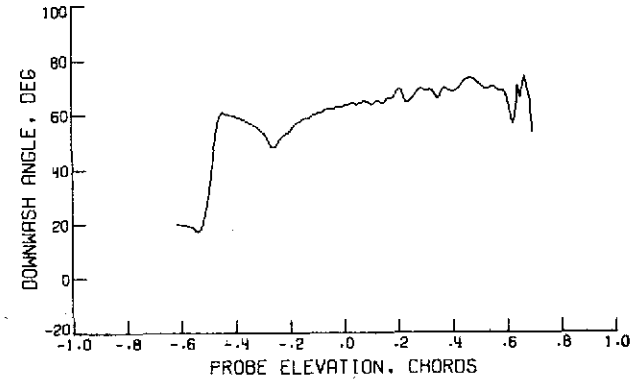


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

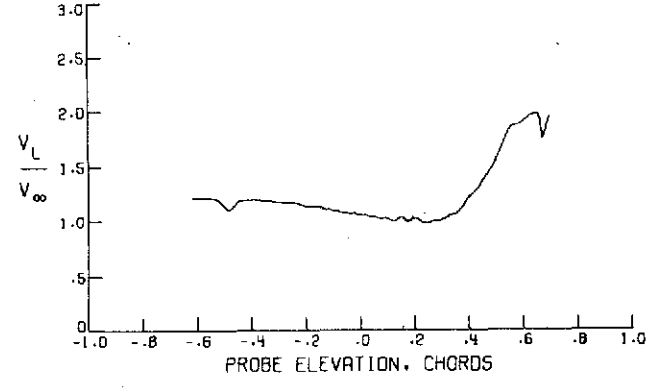
FIGURE 168. - WAKE SURVEY RESULTS FOR η = .318 , α = 12.62DEG, C_μ = .60 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

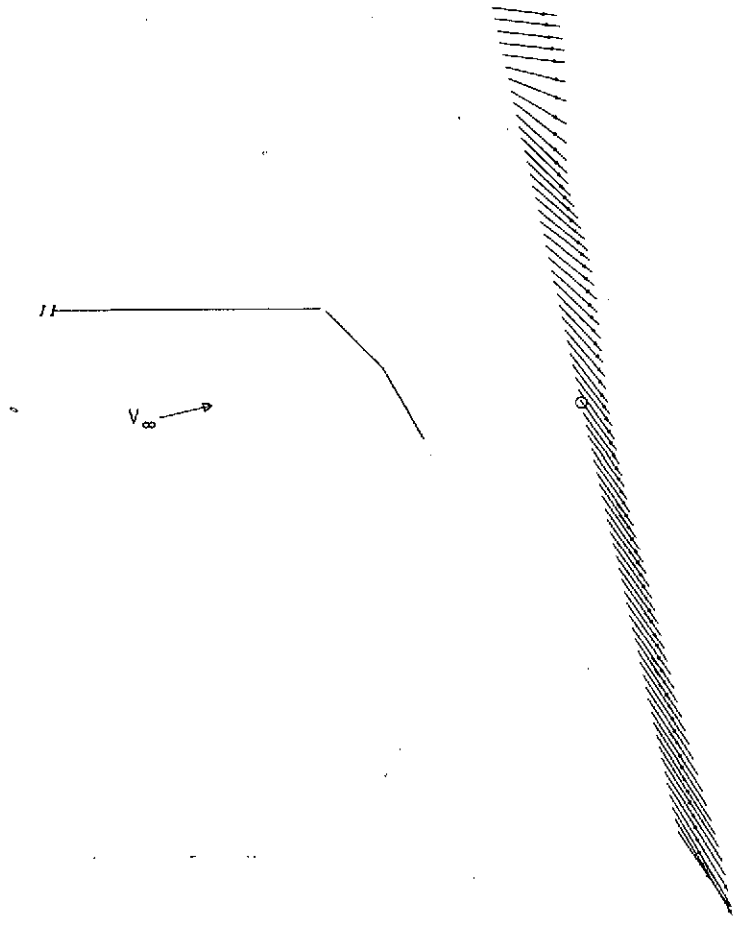


(B) - DOWNWASH ANGLE

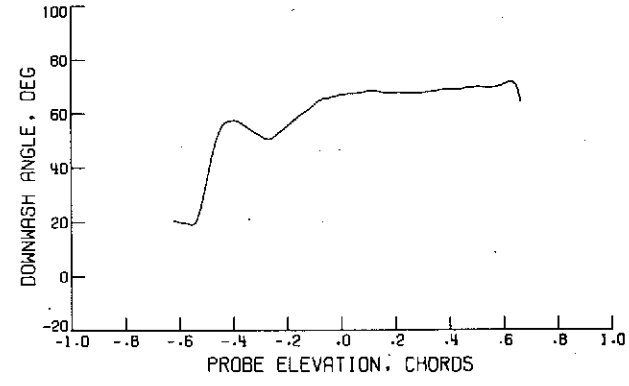


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

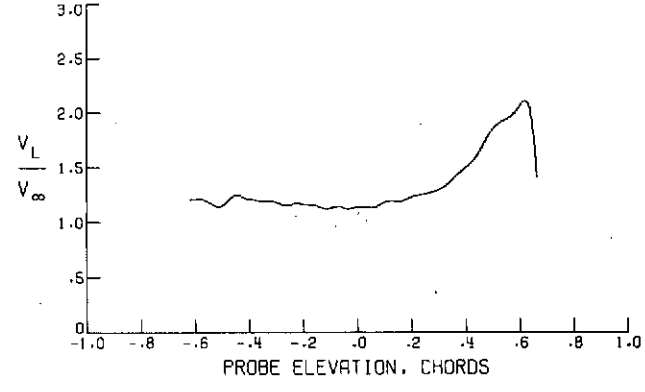
FIGURE 169. - WAKE SURVEY RESULTS FOR η = .241 , α = 12.62DEG, C_μ = .60 , V_∞ = 36.28 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



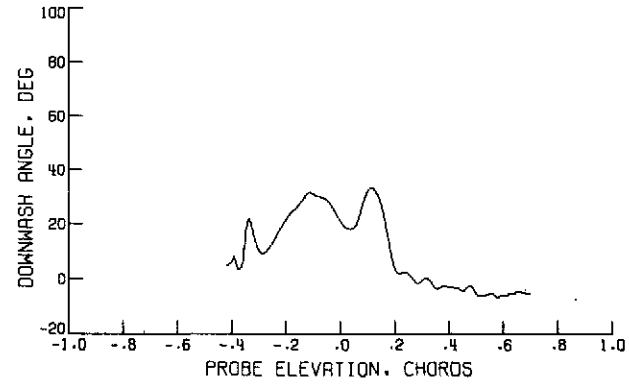
(B) - DOWNWASH ANGLE



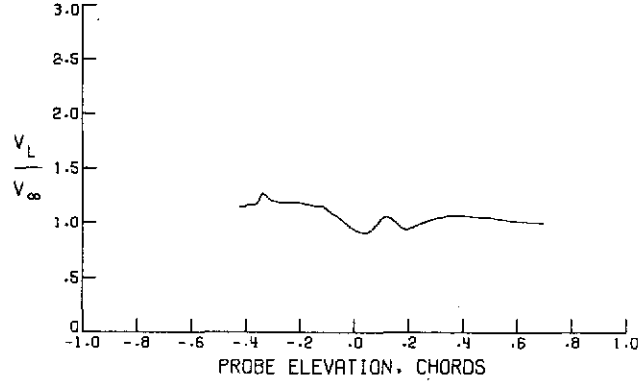
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 170. - WAKE SURVEY RESULTS FOR η = .210 , α = 12.62DEG, C_μ = .60 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG

(A) - VELOCITY PROFILE

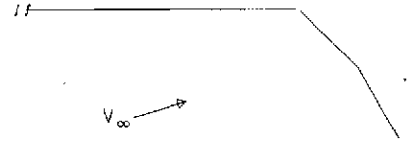


(B) - DOWNWASH ANGLE

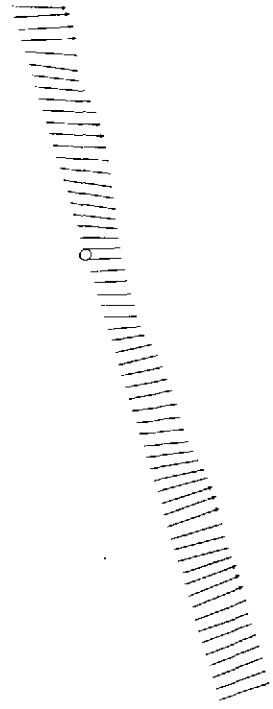


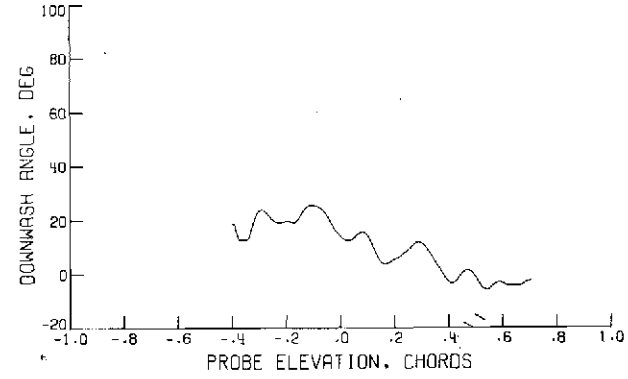
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 171. - WAKE SURVEY RESULTS FOR η = .924 , α = 16.59DEG, C_μ = .60 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG

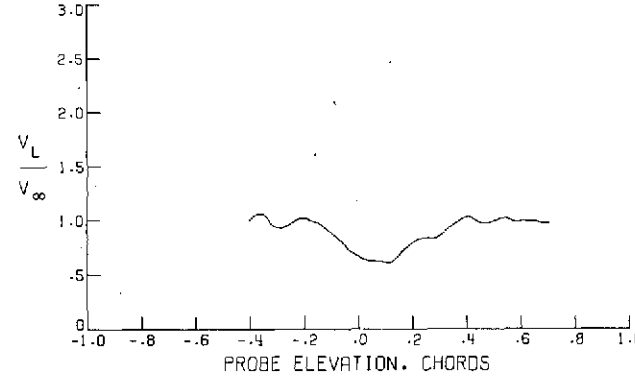


(A) - VELOCITY PROFILE



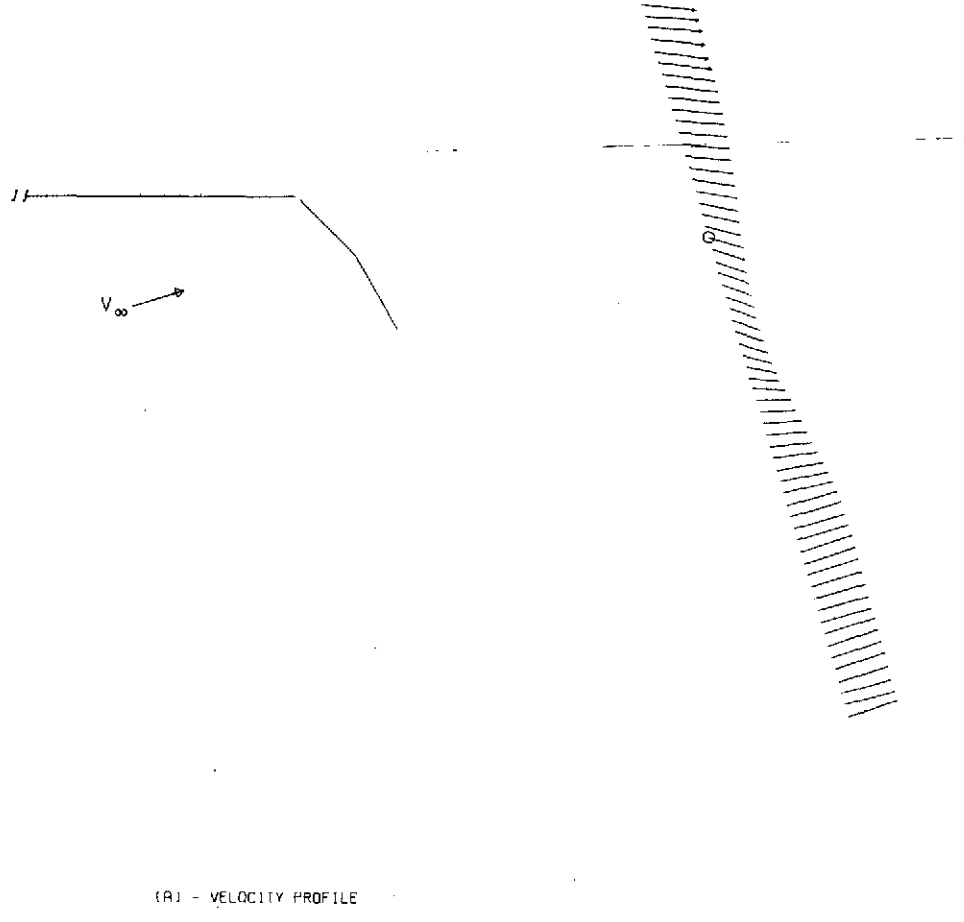


(B) - DOWNWASH ANGLE

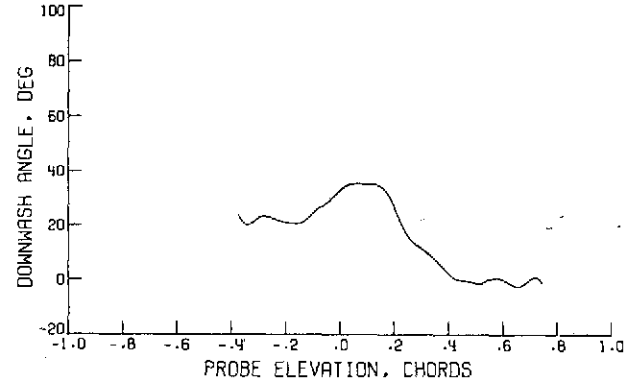


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

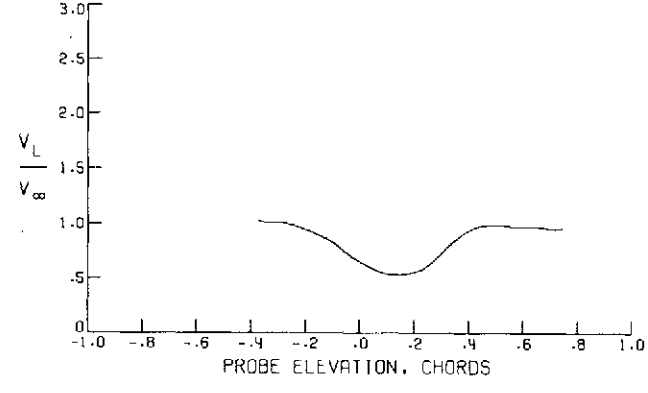
FIGURE 172. - WAKE SURVEY RESULTS FOR η = .821 , α = 16.59DEG, C_μ = .60 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

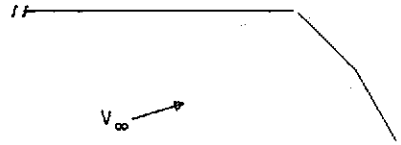


(B) - DOWNWASH ANGLE

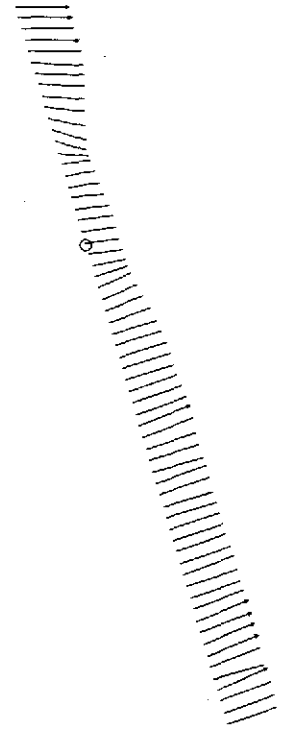


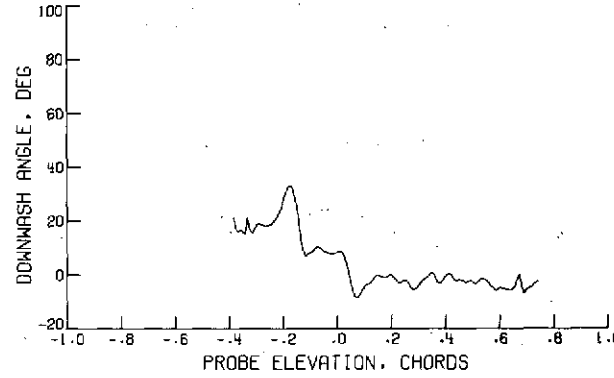
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 173. WAKE SURVEY RESULTS FOR η = .603 , α = 16.59DEG, C_μ = .60 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG

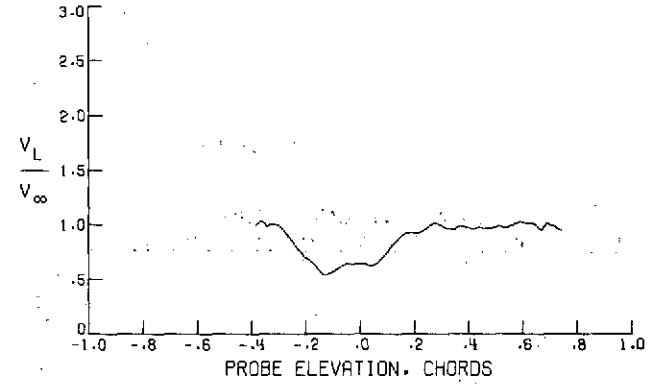


(A) - VELOCITY PROFILE



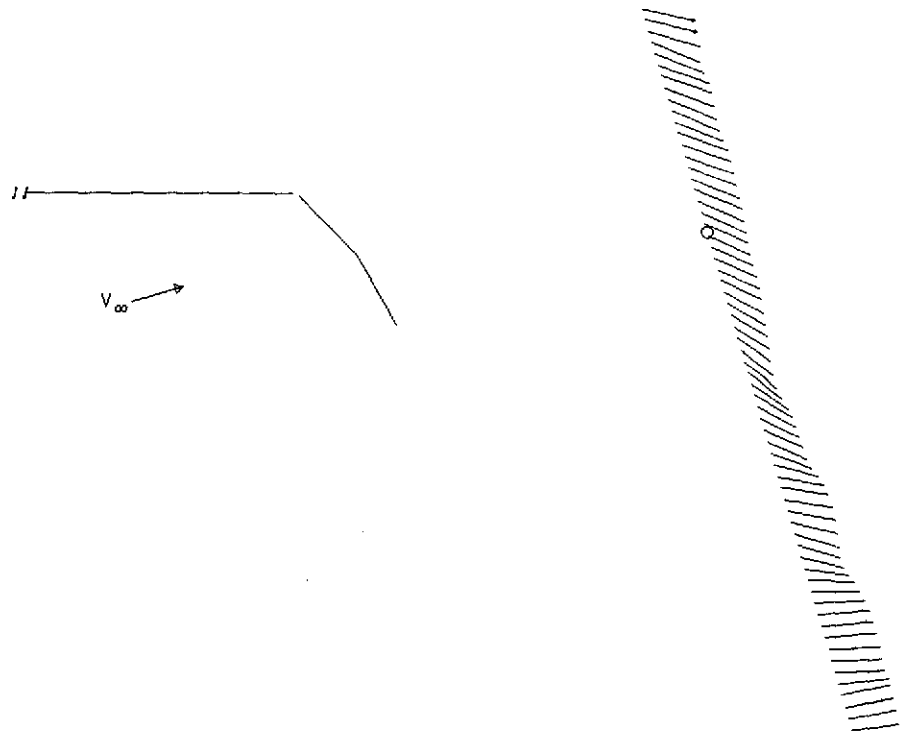


(B) - DOWNWASH ANGLE

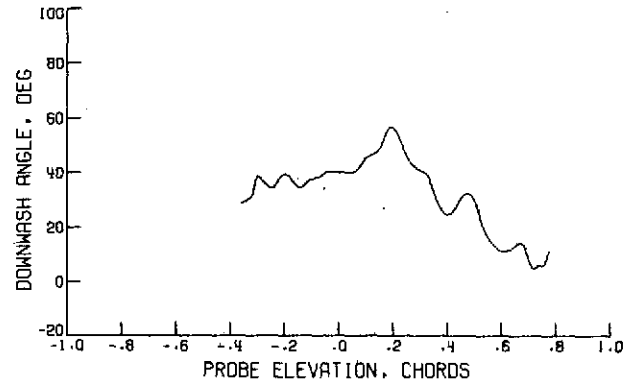


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

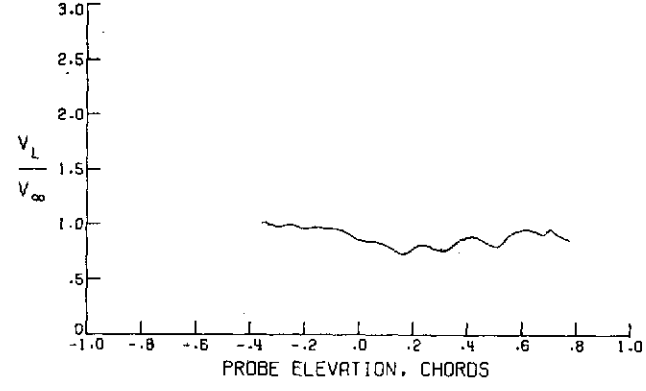
FIGURE 174.- WAKE SURVEY RESULTS FOR η = .715 , α = 16.59DEG, C_μ = .60 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

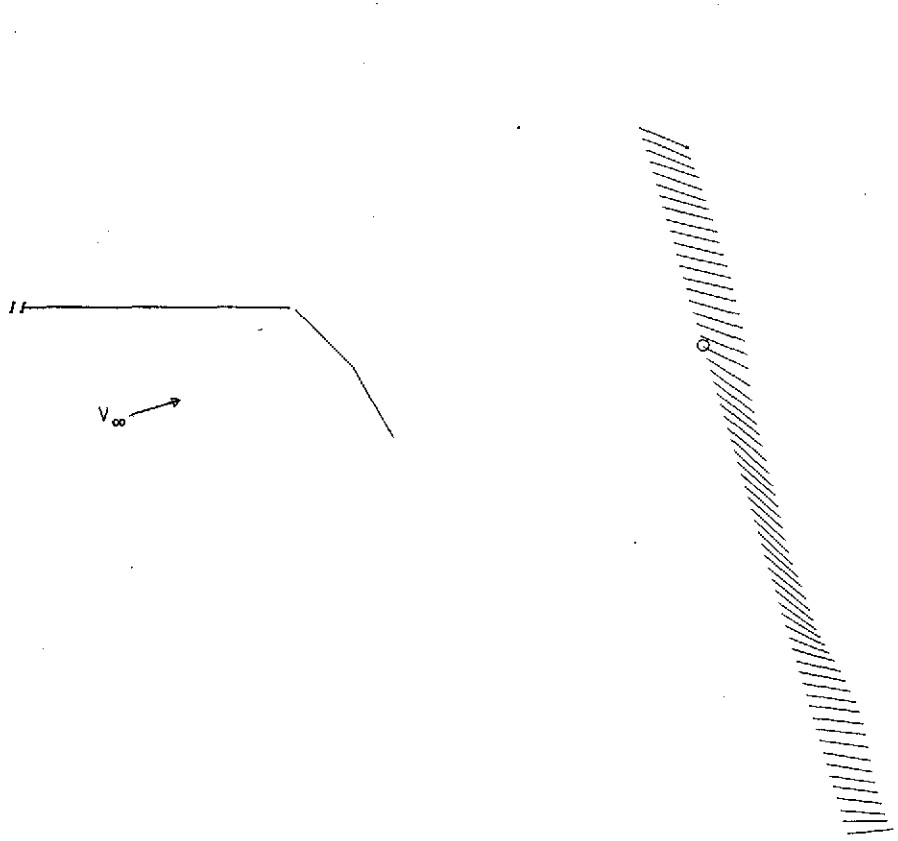


(B) - DOWNWASH ANGLE

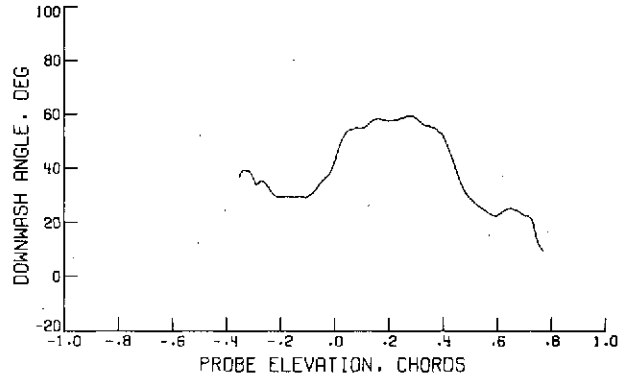


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

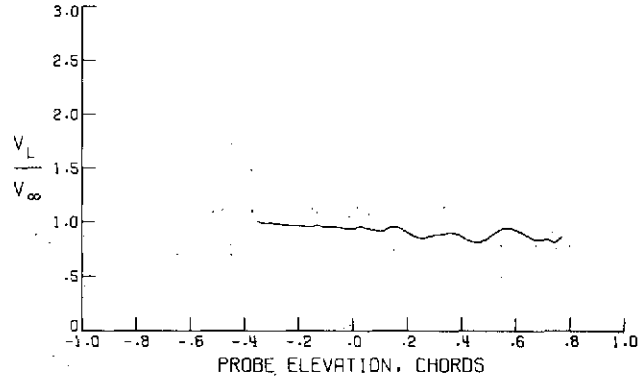
FIGURE 175.- WAKE SURVEY RESULTS FOR η = .512 , α = 16.58DEG, C_μ = .60 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

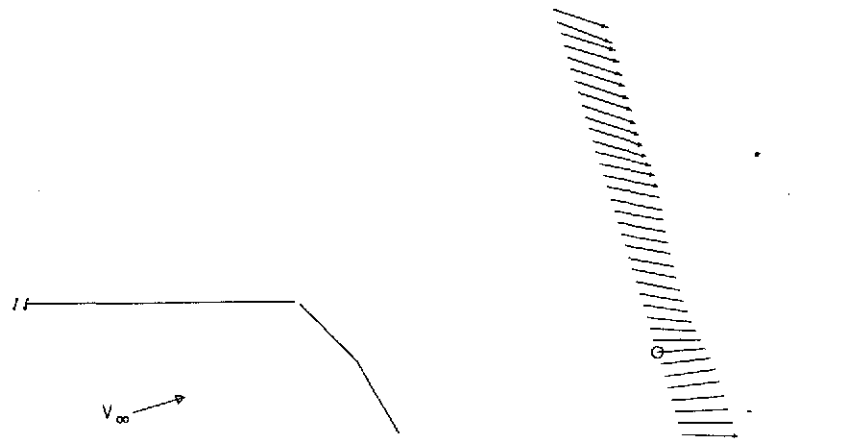


(B) - DOWNWASH ANGLE

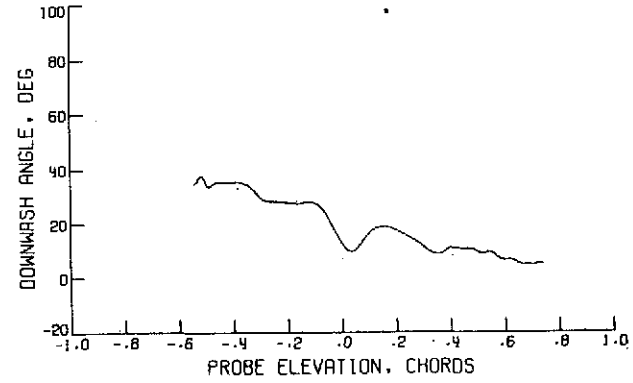


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

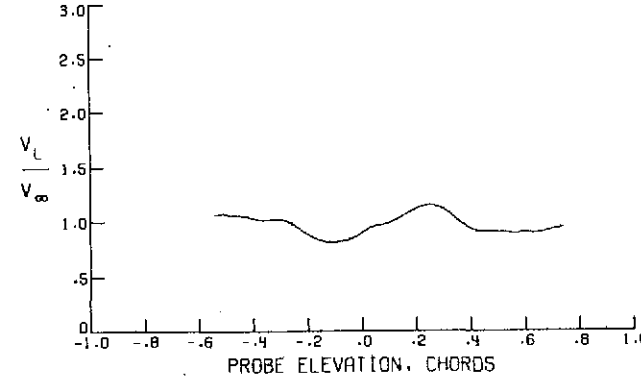
FIGURE 176. - WAKE SURVEY RESULTS FOR η = .450 , α = 16.58DEG, C_μ = .60 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

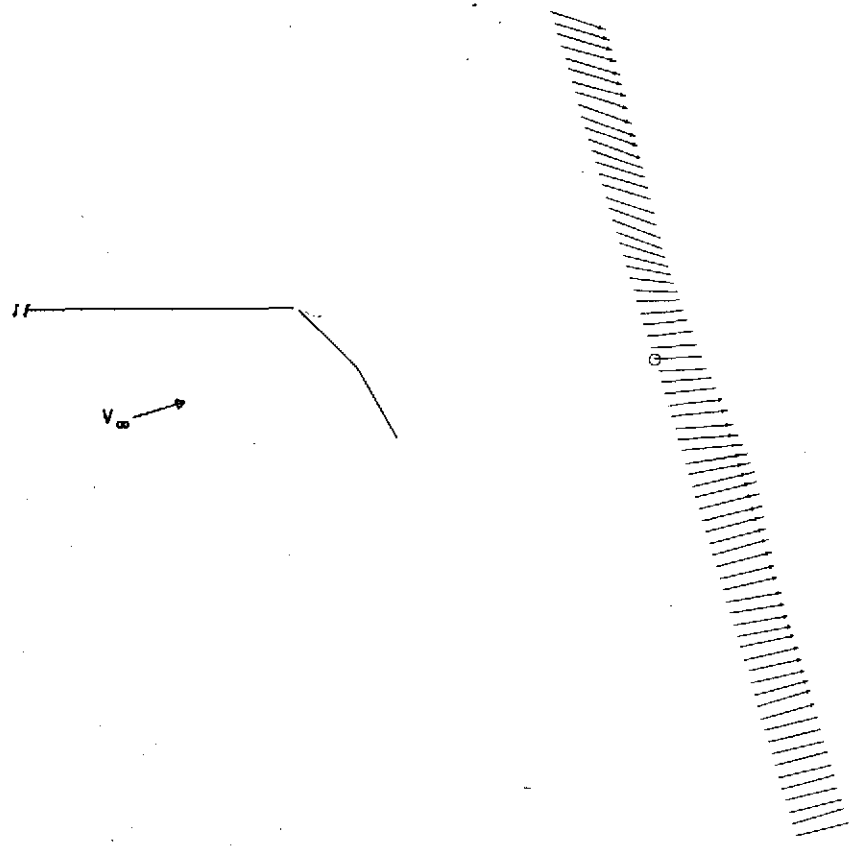


(B) - DOWNWASH ANGLE

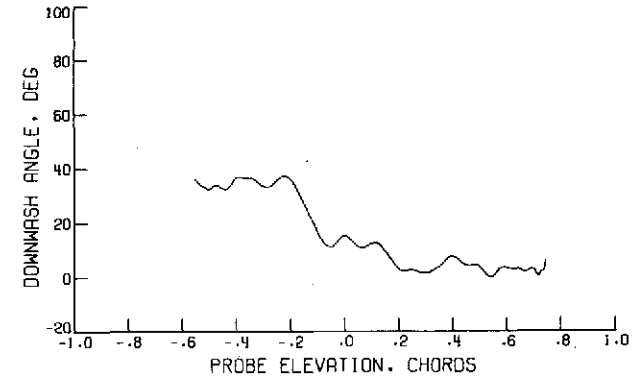


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

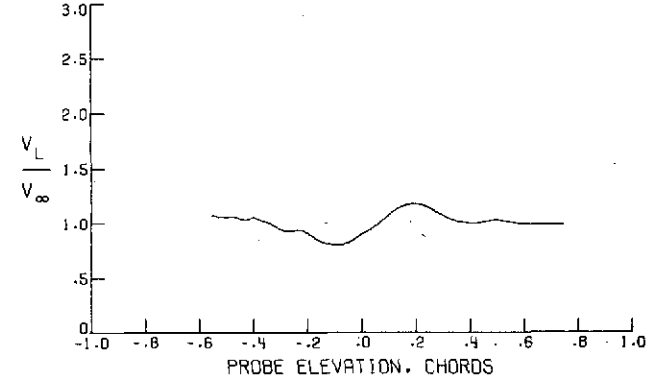
FIGURE 177. - WAKE SURVEY RESULTS FOR η = .374 , α = 16.61DEG, C_μ = .60 , V_∞ = 36.58 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

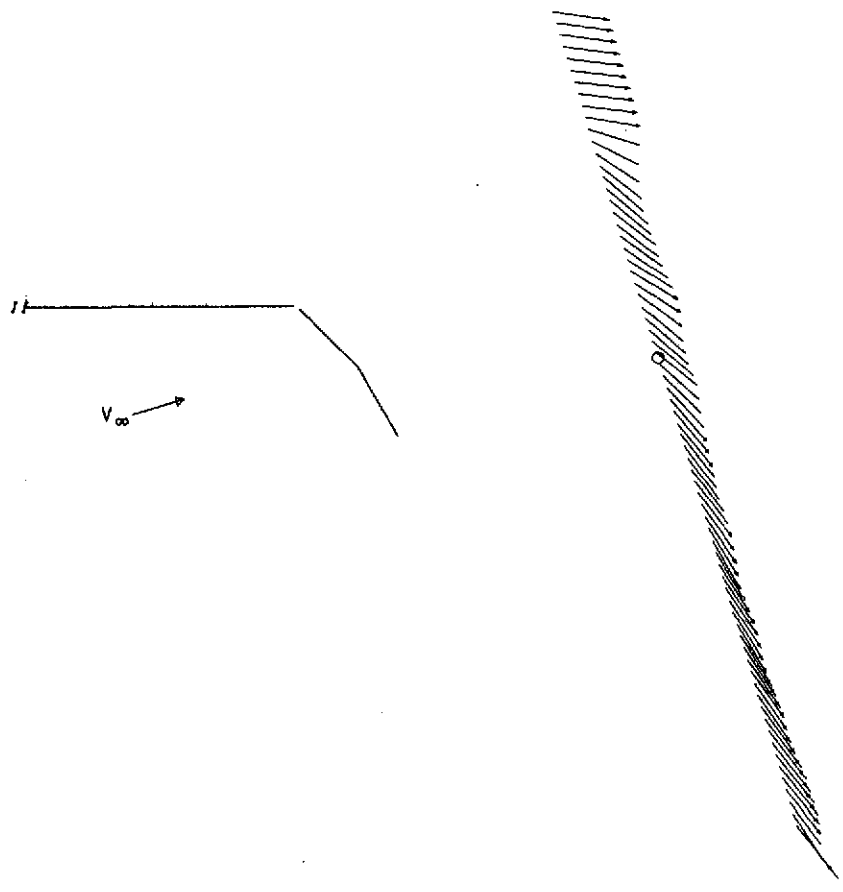


(B) - DOWNWASH ANGLE

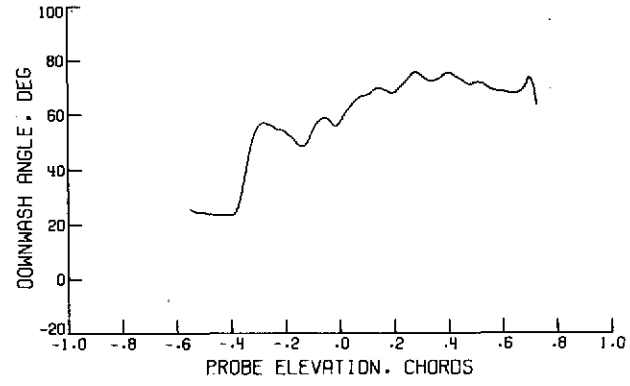


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

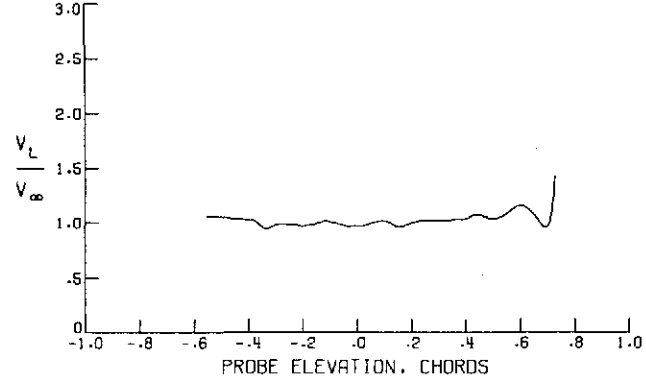
FIGURE 178, - WAKE SURVEY RESULTS FOR η = .351 , α = 16.62DEG, C_μ = .60 , V_∞ = 36.58 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

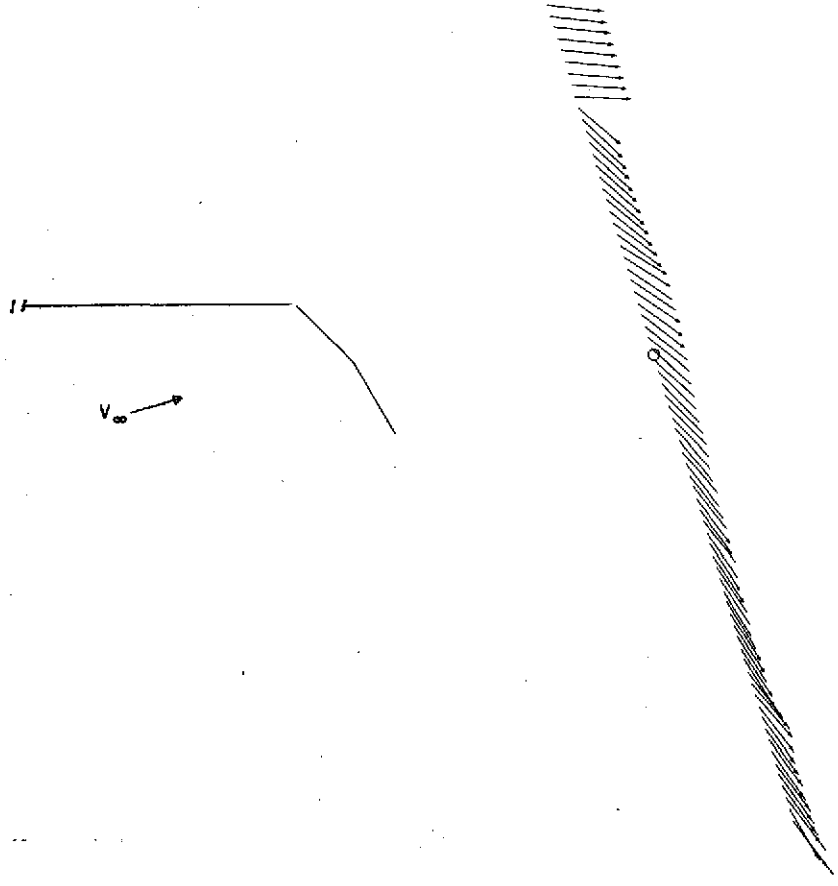


(B) - DOWNWASH ANGLE

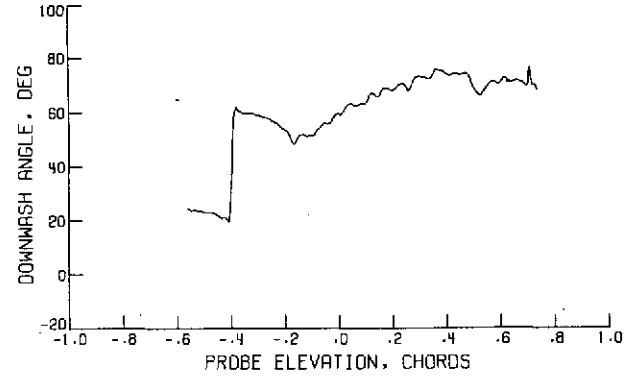


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

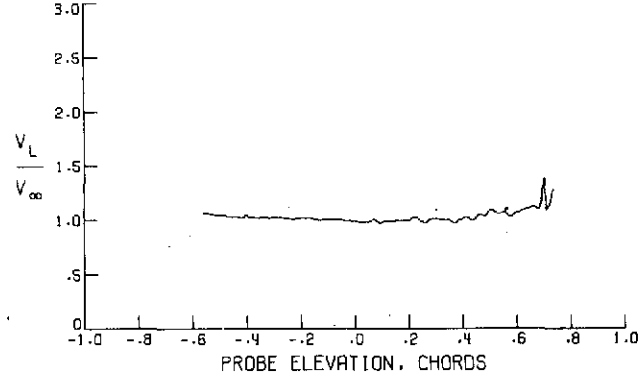
FIGURE 179. - WAKE SURVEY RESULTS FOR η = .241 , α = 16.61DEG, C_μ = .60 , V_∞ = 36.50 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

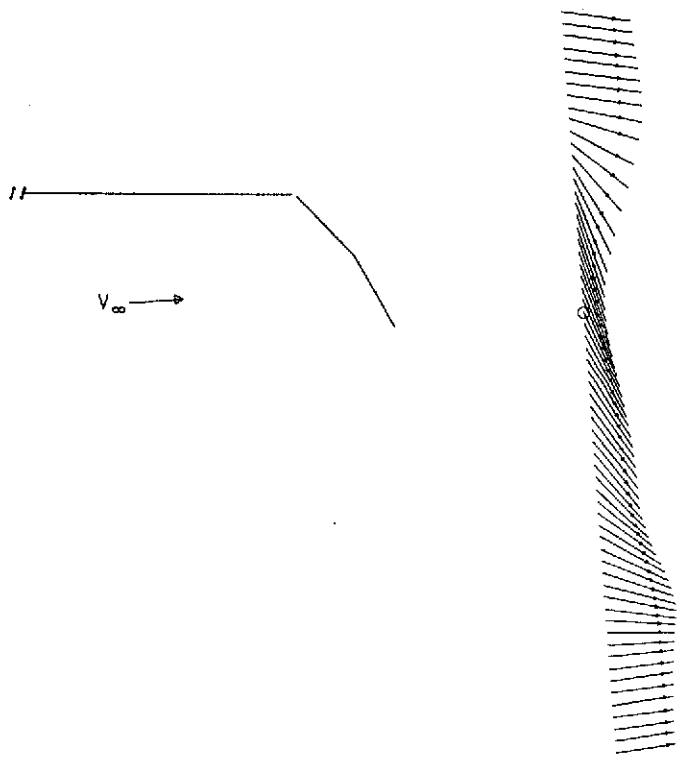


(B) - DOWNWASH ANGLE

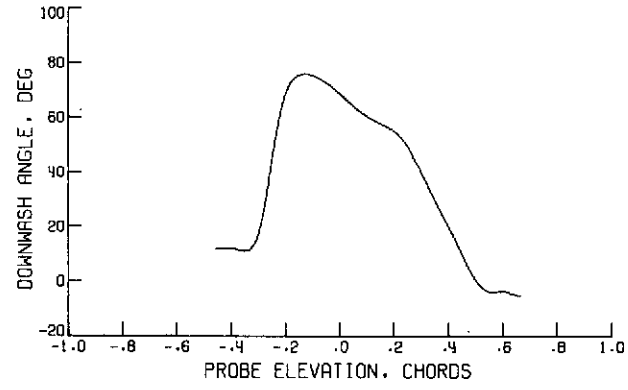


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 180. - WAKE SURVEY RESULTS FOR η = .209 , α = 16.61DEG, C_μ = .60 , V_∞ = 36.58 M/SEC, δ_F = 60.0 DEG



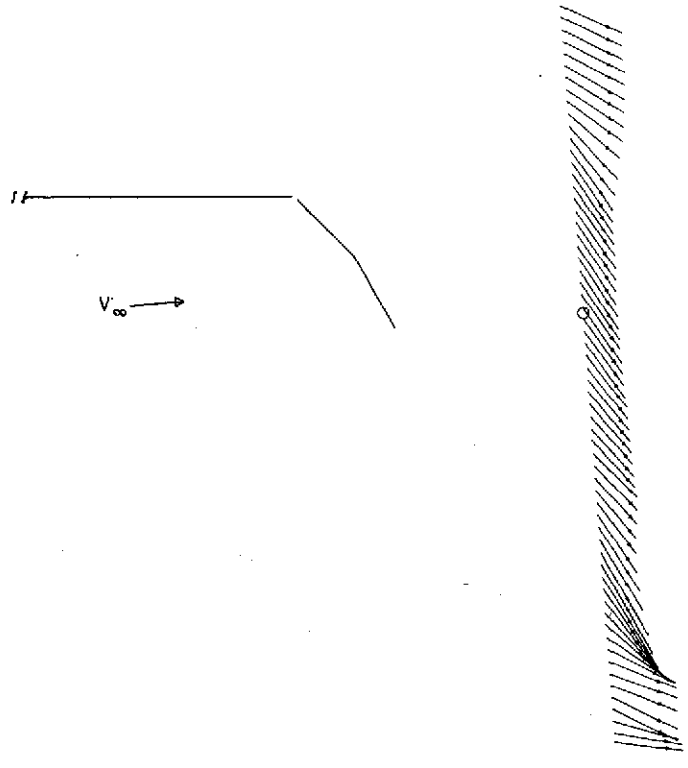
(A) - VELOCITY PROFILE



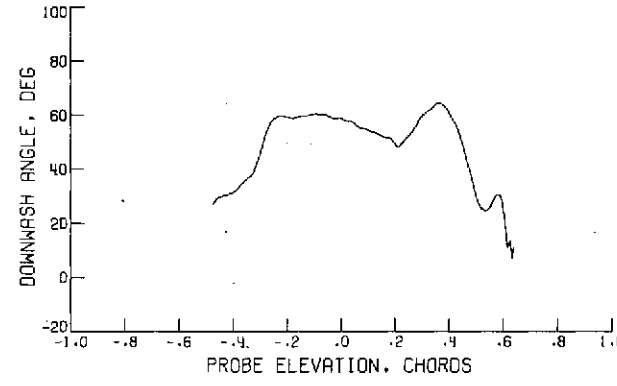
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

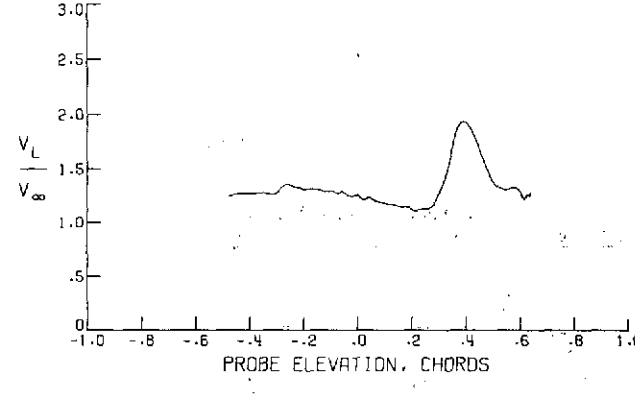
FIGURE 181. - WAKE SURVEY RESULTS FOR η = .924 , α = 4.40 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

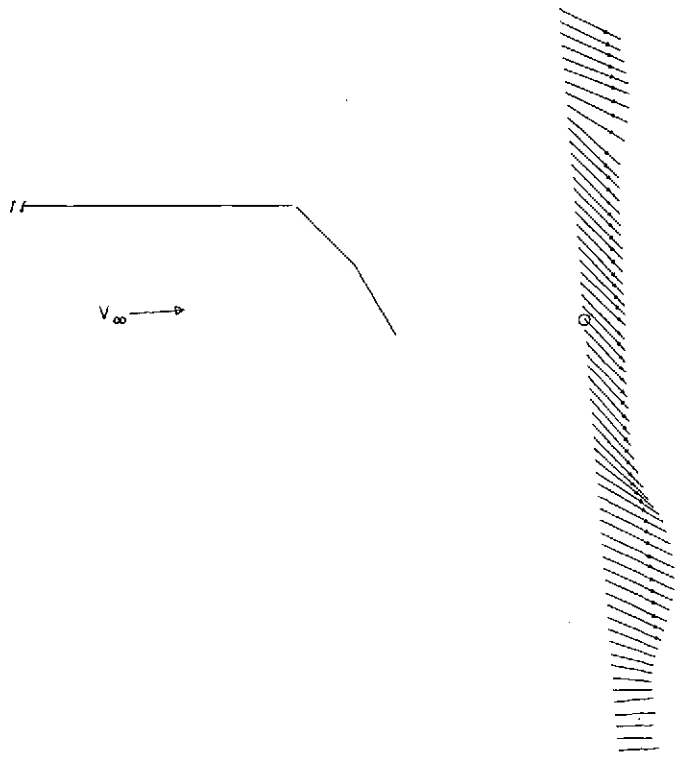


(B) - DOWNWASH ANGLE

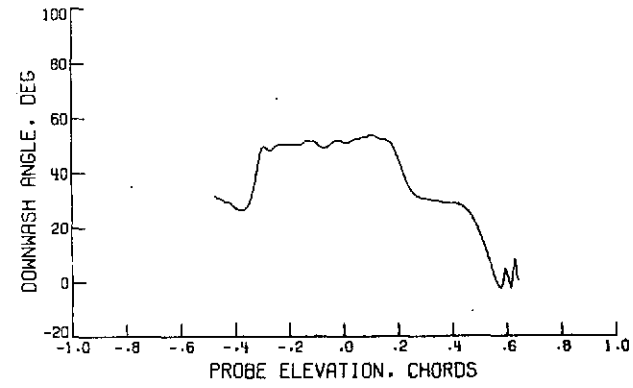


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

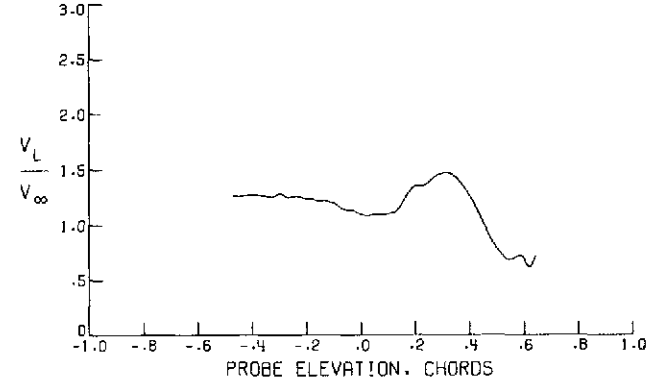
FIGURE 182. - WAKE SURVEY RESULTS FOR η = .821 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

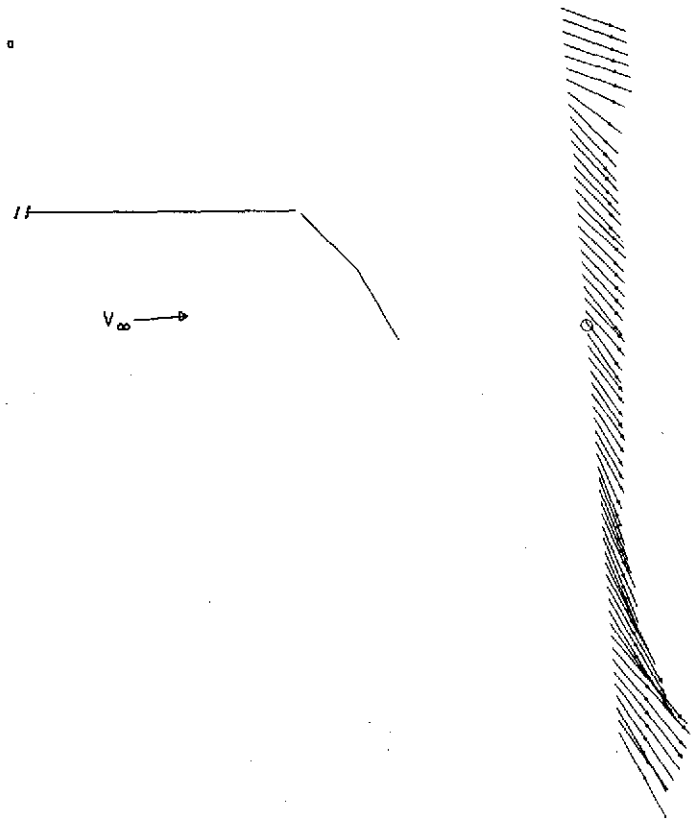


(B) - DOWNWASH ANGLE

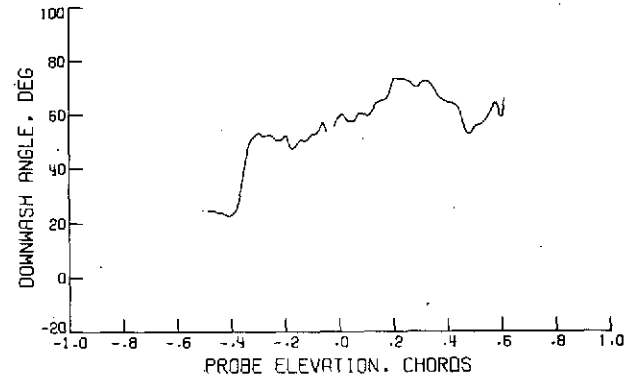


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

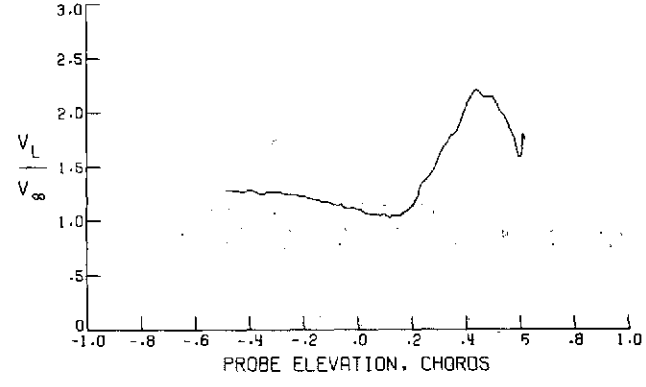
FIGURE 183. - WAKE SURVEY RESULTS FOR η = .714 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

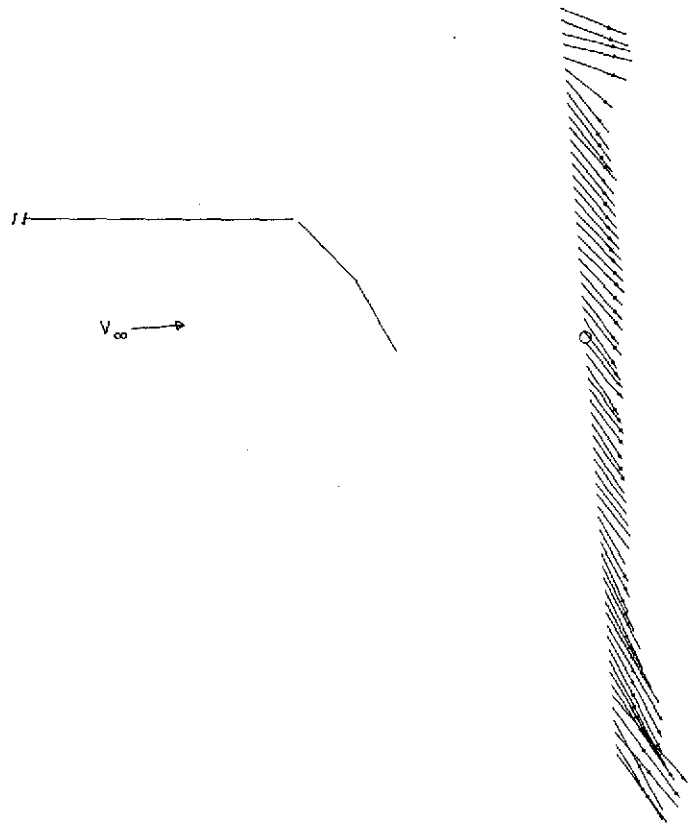


(B) - DOWNWASH ANGLE

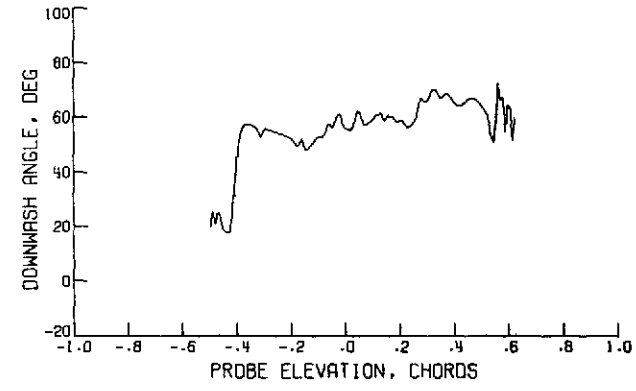


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

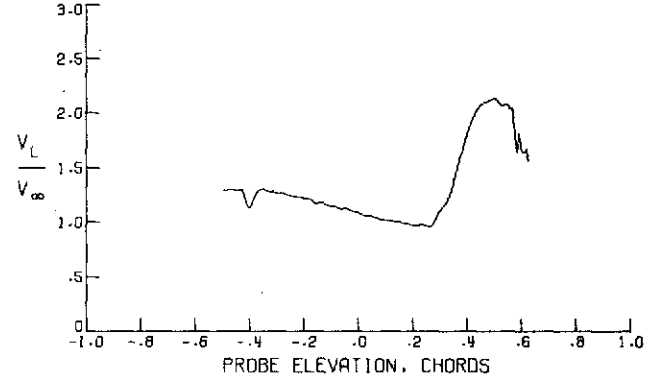
FIGURE 184. - WAKE SURVEY RESULTS FOR η = .602 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

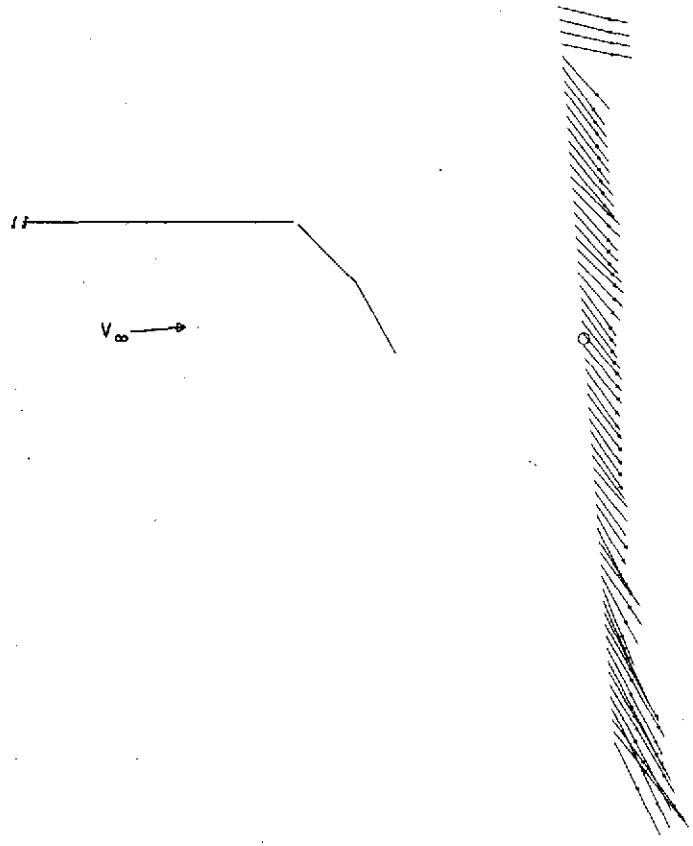


(B) - DOWNWASH ANGLE

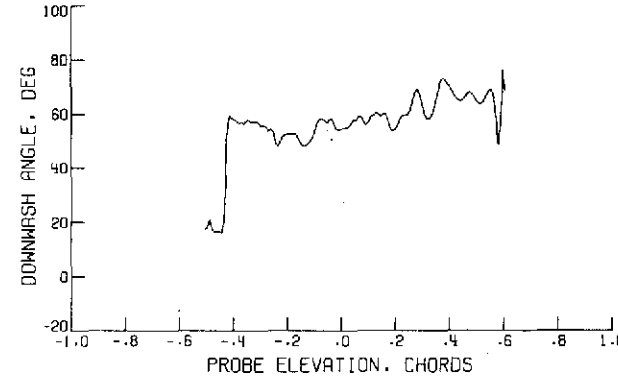


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

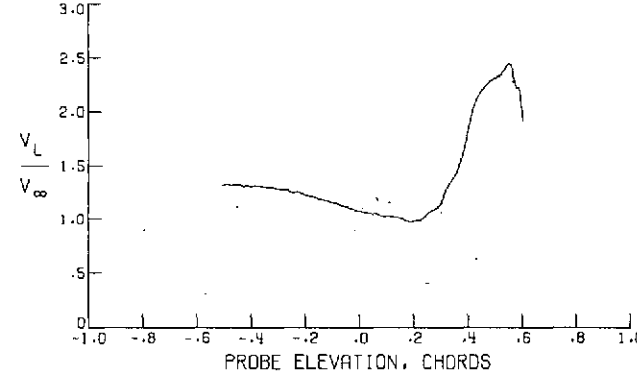
FIGURE 185. - WAKE SURVEY RESULTS FOR η = .513 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

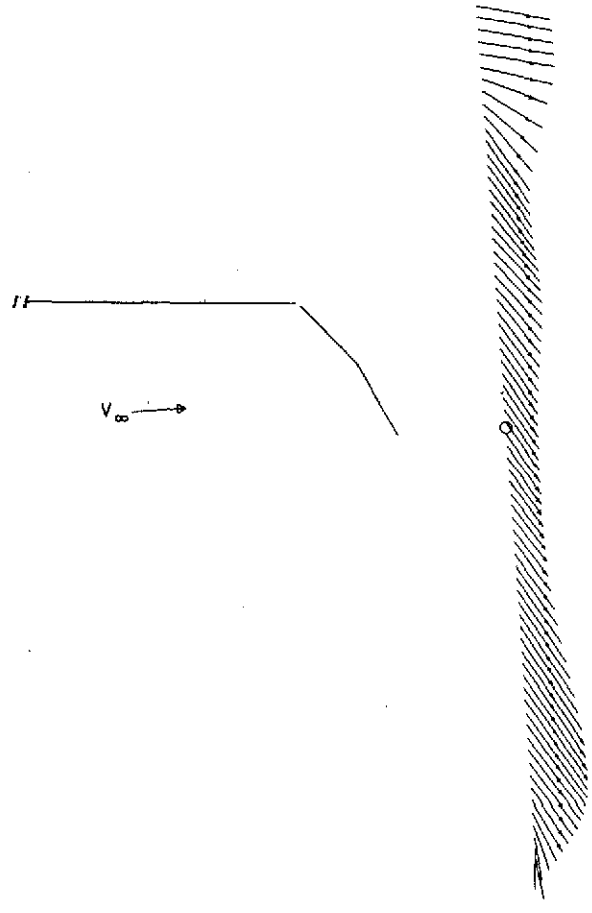


(B) - DOWNWASH ANGLE

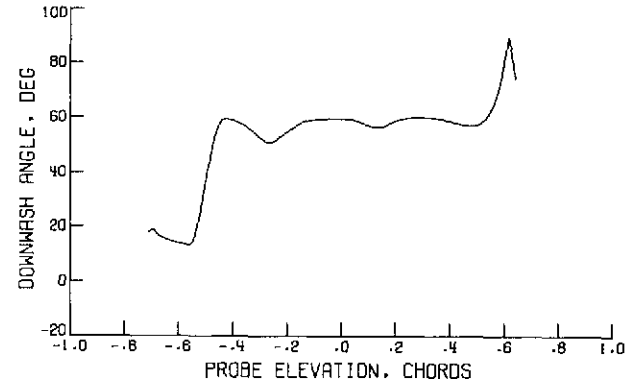


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

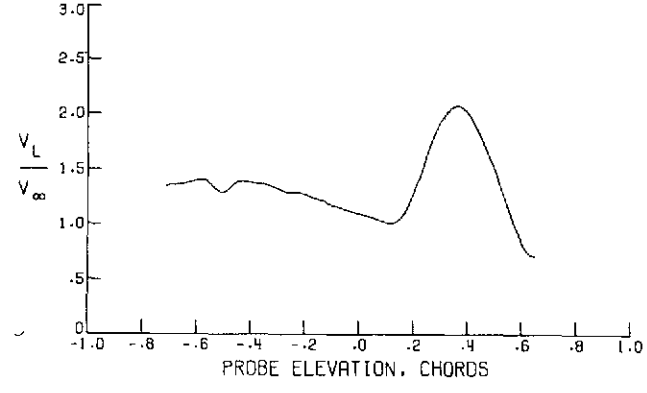
FIGURE 186. - WAKE SURVEY RESULTS FOR η = .452 , α = 4.40 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

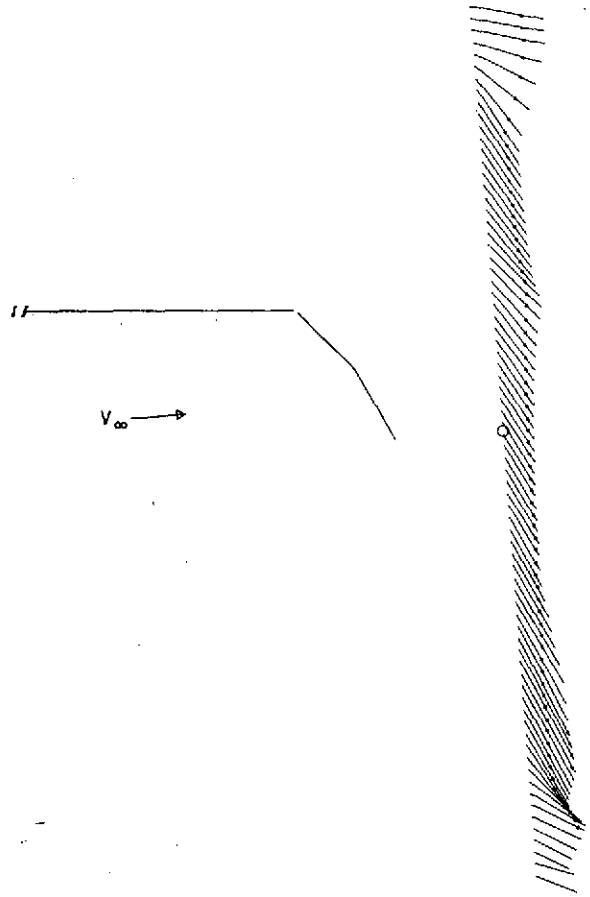


(B) - DOWNWASH ANGLE

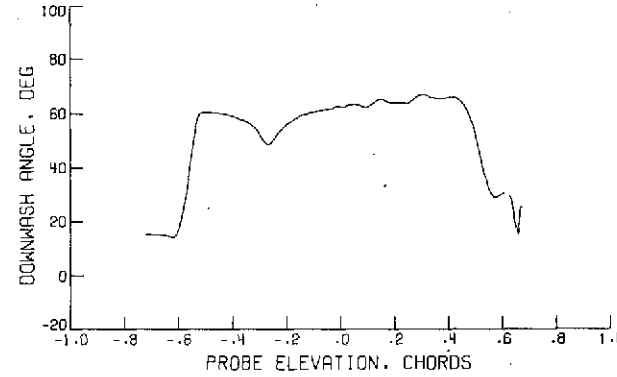


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

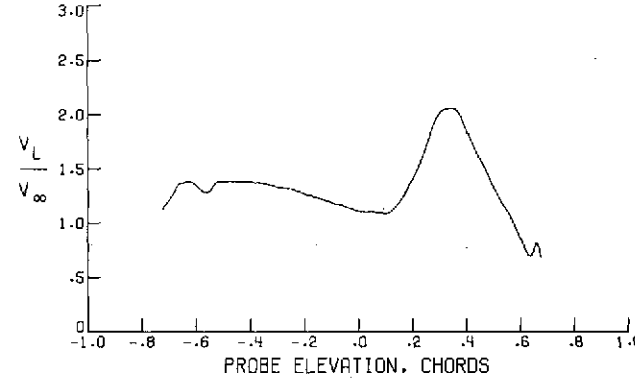
FIGURE 187. - WAKE SURVEY RESULTS FOR η = .374 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

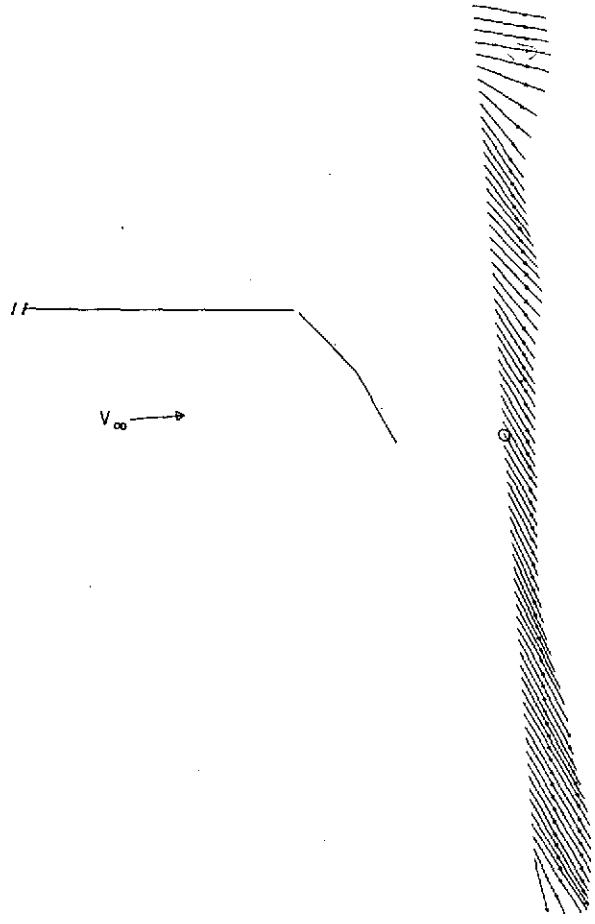


(B) - DOWNWASH ANGLE

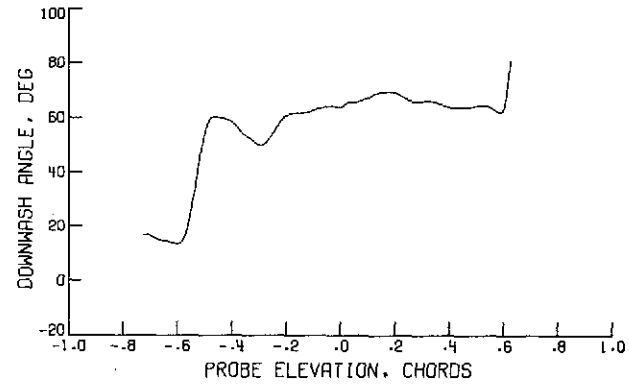


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

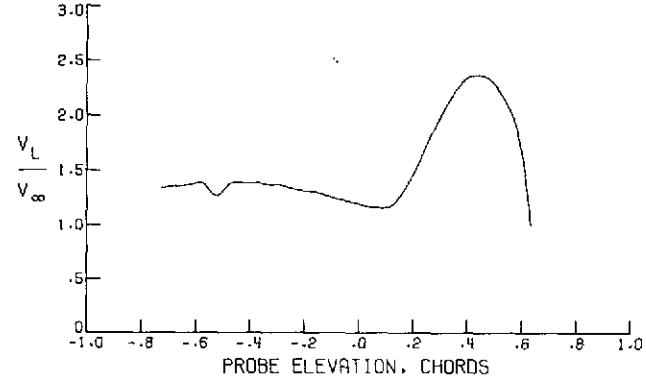
FIGURE 188. - WAKE SURVEY RESULTS FOR η = .320 , α = 4.40 DEG, C_μ = 1.30 , V_∞ = 36.30 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

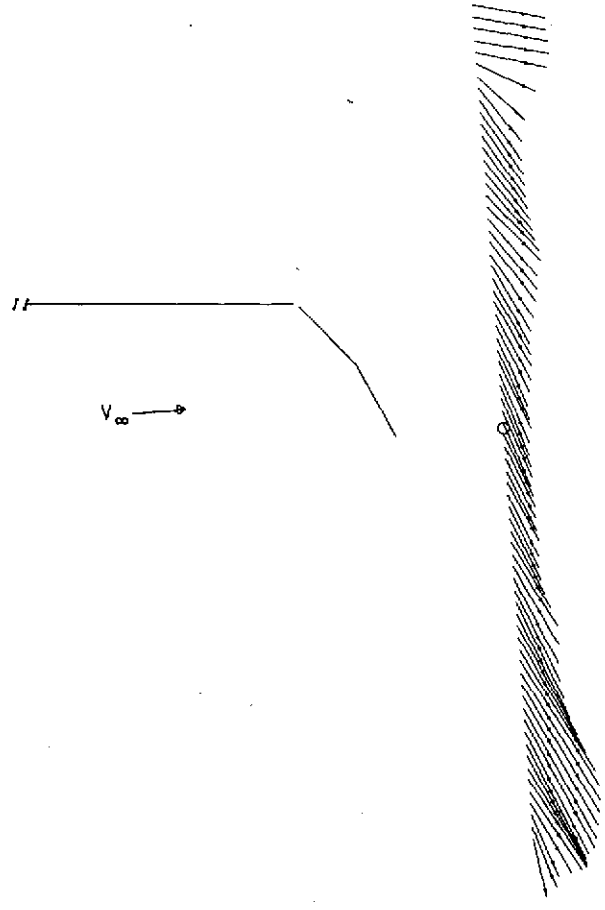


(B) - DOWNWASH ANGLE

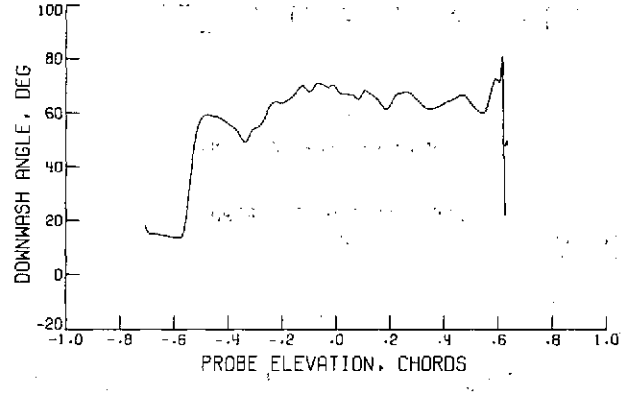


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

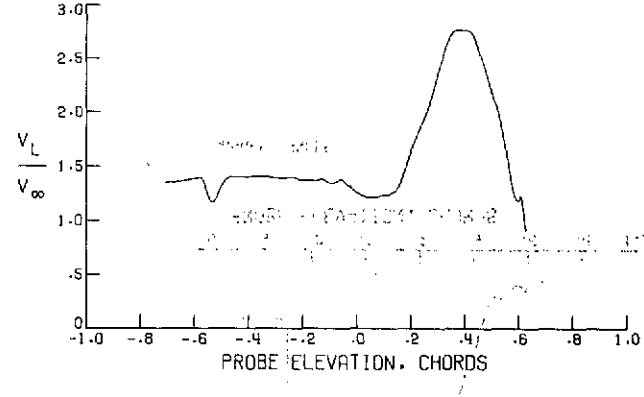
FIGURE 189. - WAKE SURVEY RESULTS FOR η = .240 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

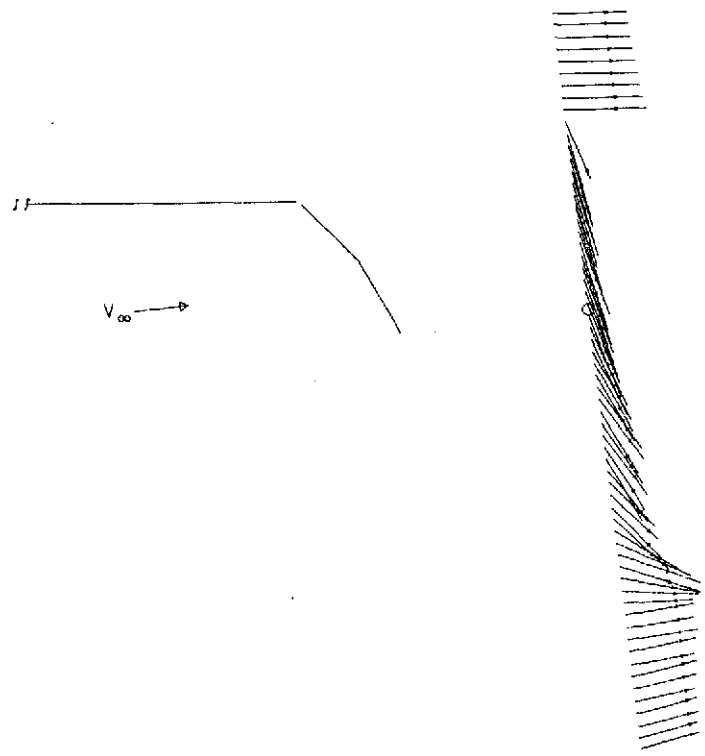


(B) - DOWNWASH ANGLE

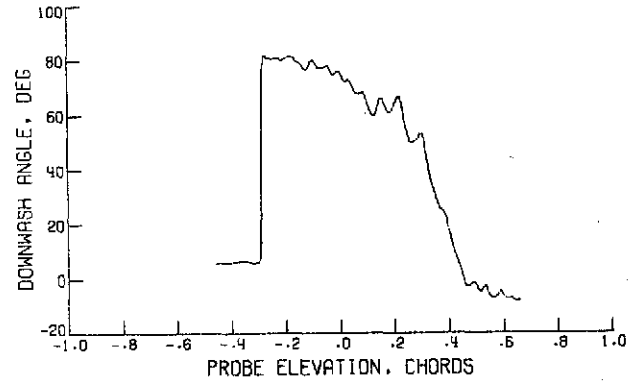


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

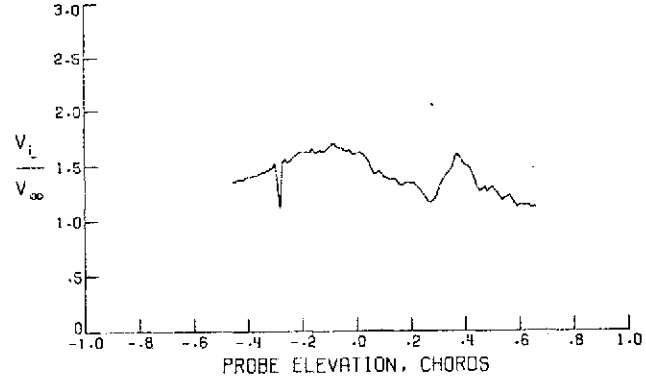
FIGURE 190. - WAKE SURVEY RESULTS FOR η = .205 , α = 4.41 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

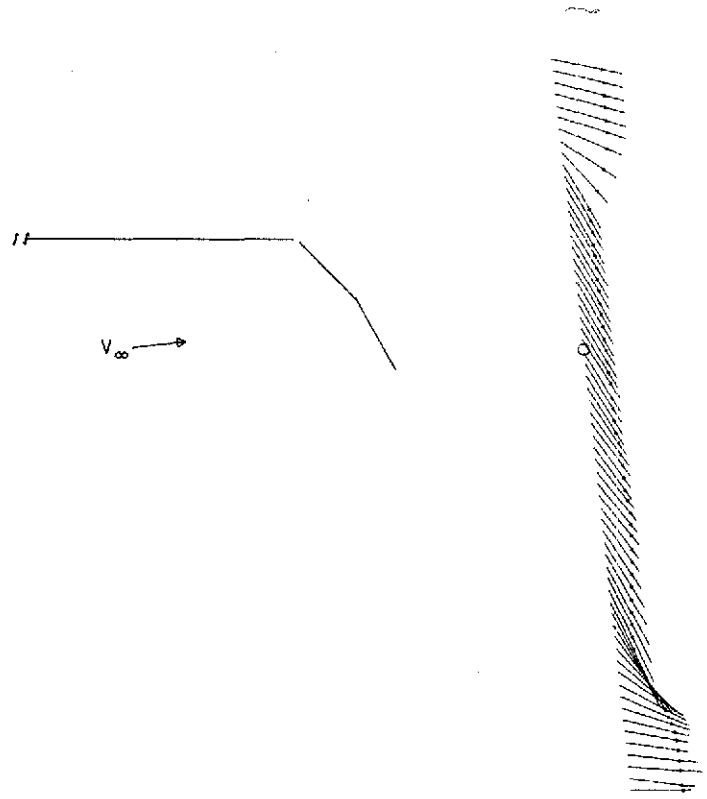


(B) - DOWNWASH ANGLE

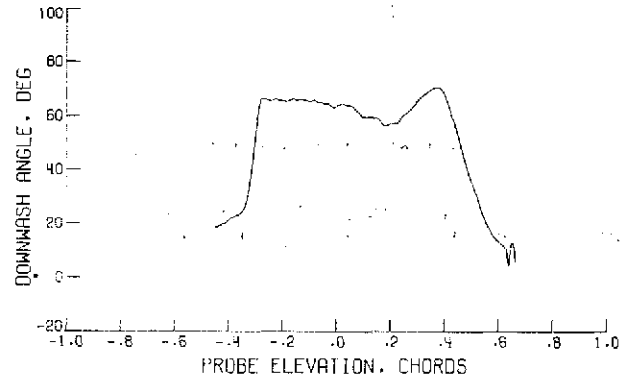


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

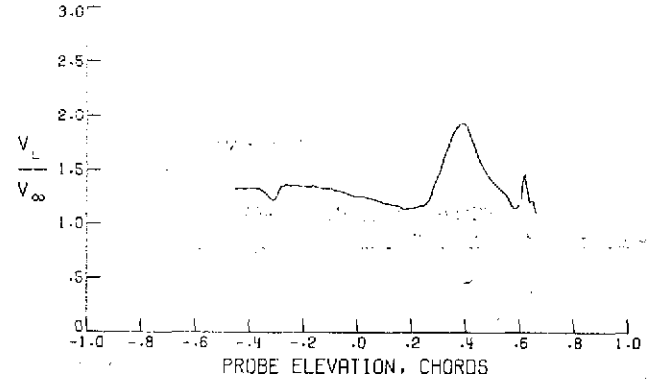
FIGURE 191. - WAKE SURVEY RESULTS FOR $\eta = .925$, $\alpha = 6.48$ DEG, $C_\mu = 1.30$, $V_\infty = 36.34$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

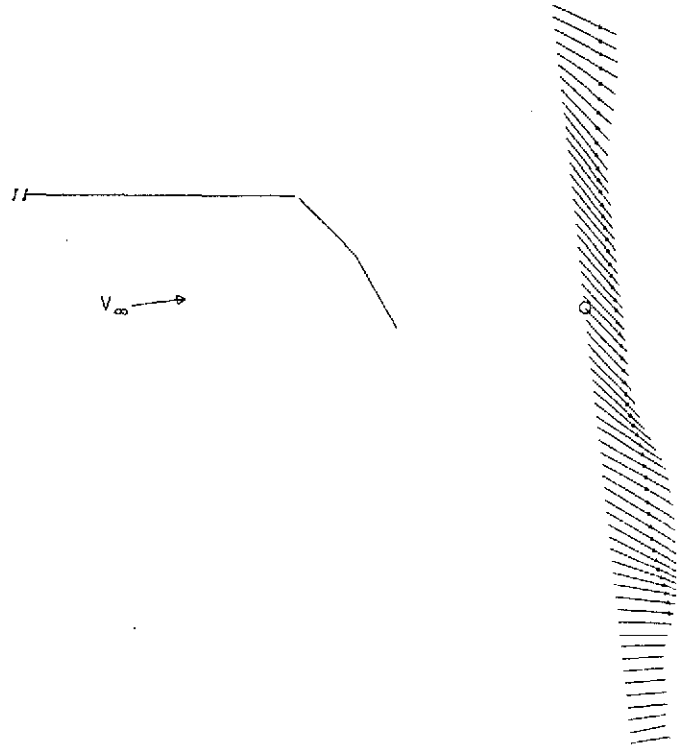


(B) - DOWNWASH ANGLE

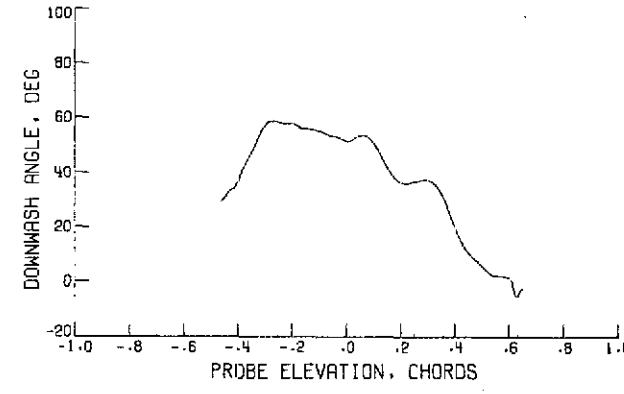


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

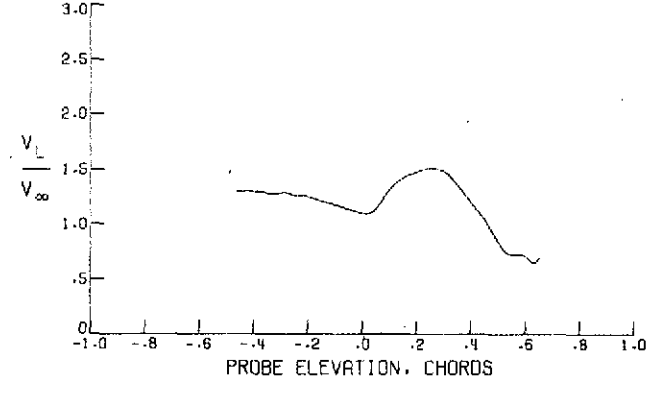
FIGURE 192. - WAKE SURVEY RESULTS FOR η = .820 , α = 6.49 DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

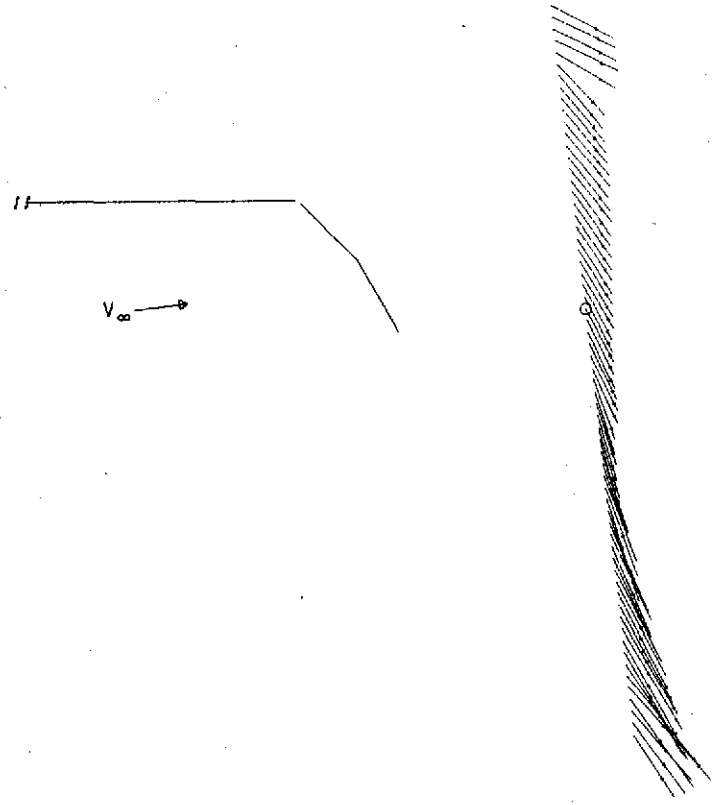


(B) - DOWNWASH ANGLE

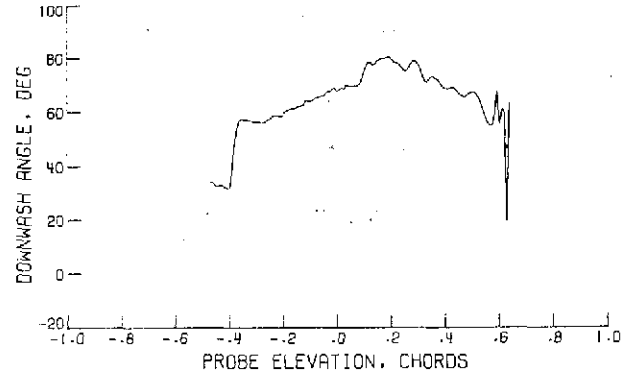


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

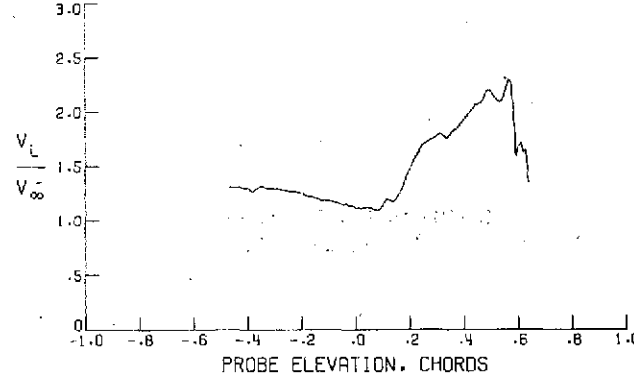
FIGURE 193. - WAKE SURVEY RESULTS FOR η = .714 , α = 6.49 DEG, C_μ = 1.30 , V_∞ = 36.46 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

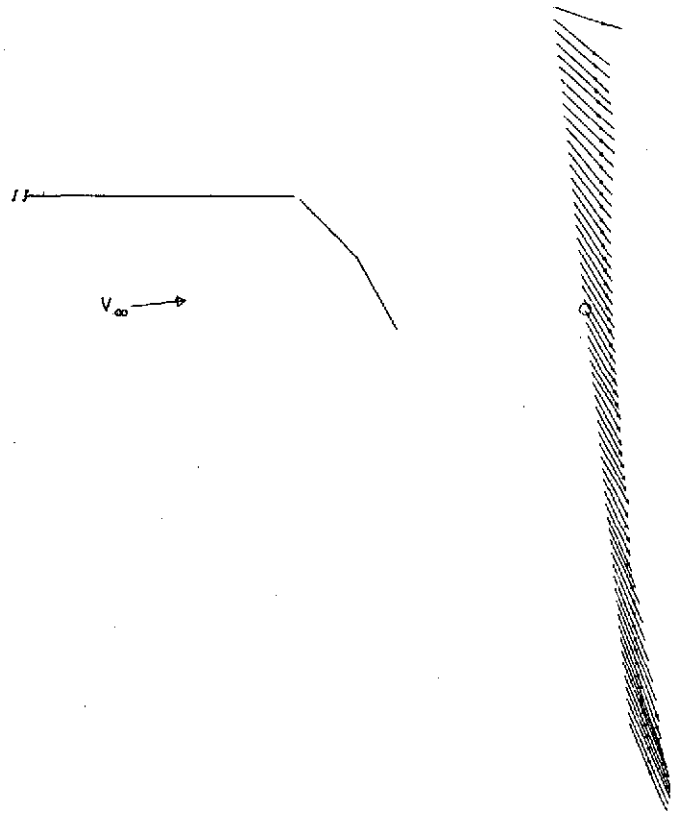


(B) - DOWNWASH ANGLE

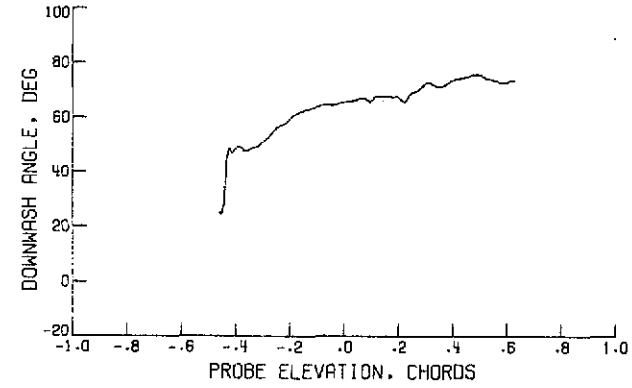


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

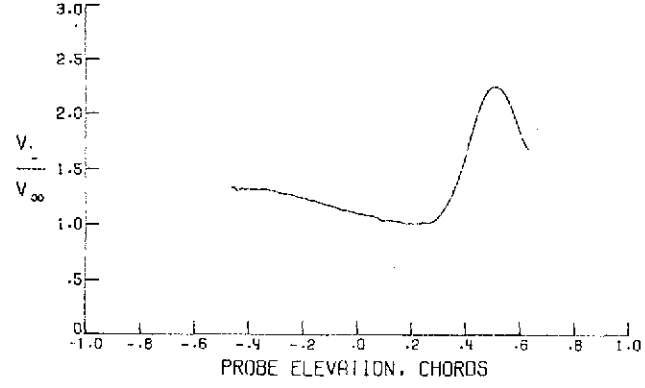
FIGURE 194. - WAKE SURVEY RESULTS FOR η = .601 , α = 6.48 DEG, C_μ = 1.30 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

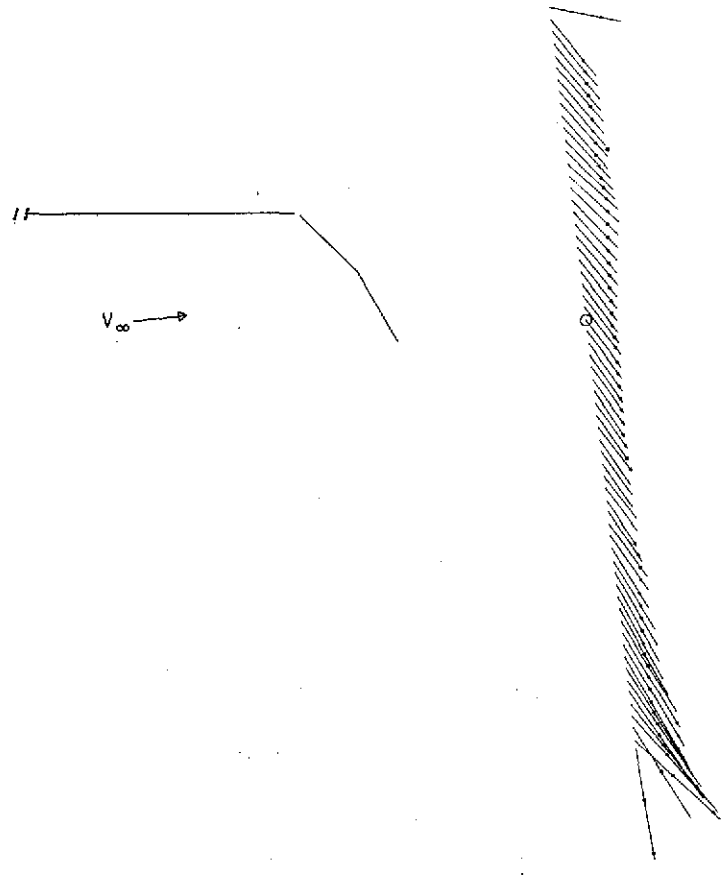


(B) - DOWNWASH ANGLE

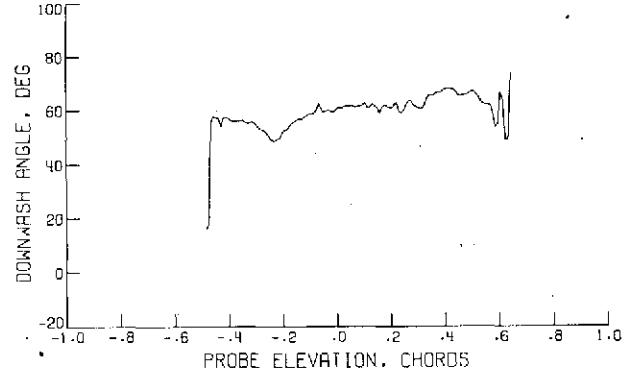


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

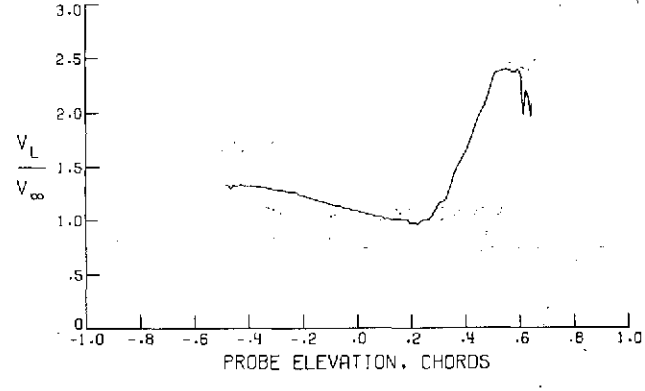
FIGURE 195. - WAKE SURVEY RESULTS FOR η = .510 , α = 6.49 DEG, C_μ = 1.30 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

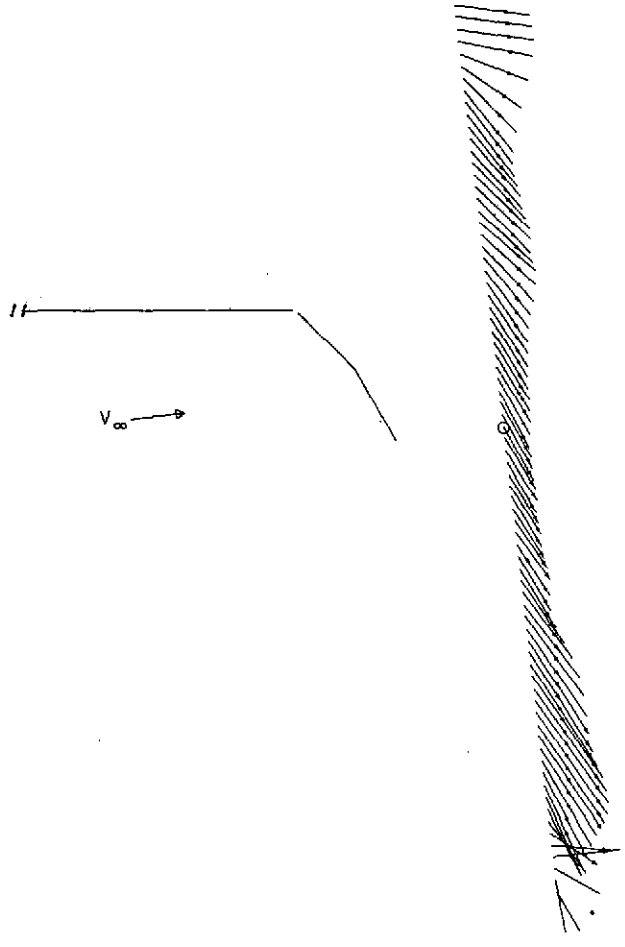


(B) - DOWNWASH ANGLE

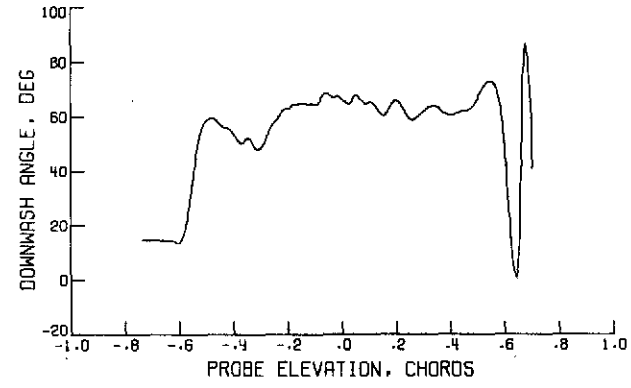


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

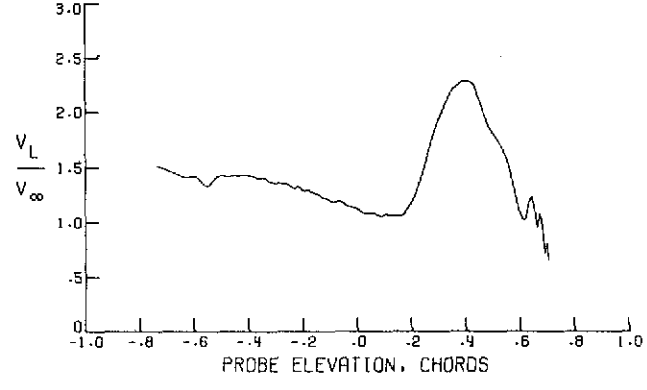
FIGURE 196. - WAKE SURVEY RESULTS FOR η = .452 , α = 6.50 DEG, C_μ = 1.30 , V_∞ = 36.46 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

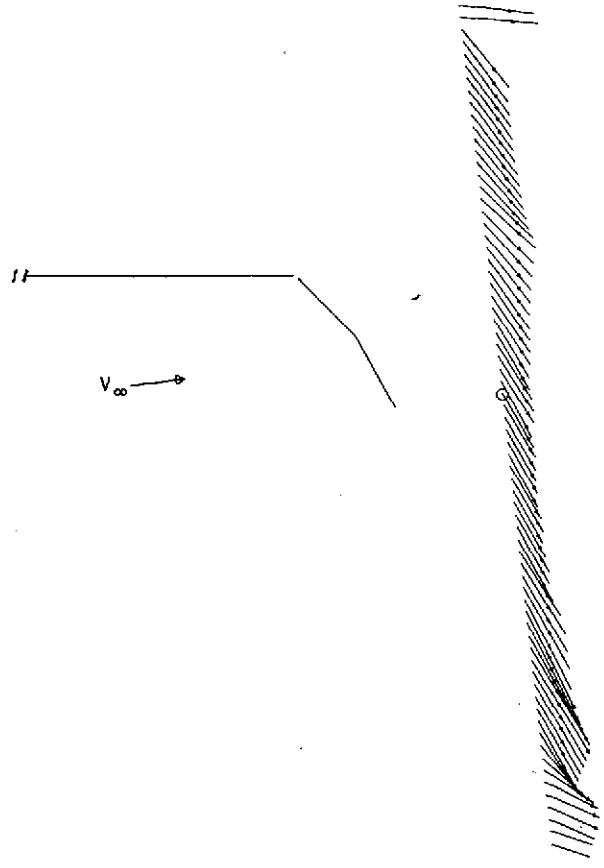


(B) - DOWNWASH ANGLE

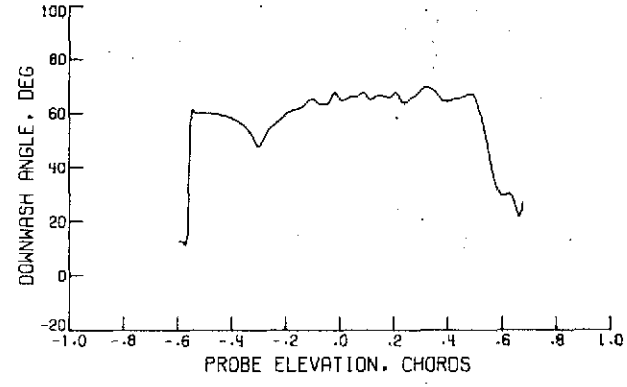


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

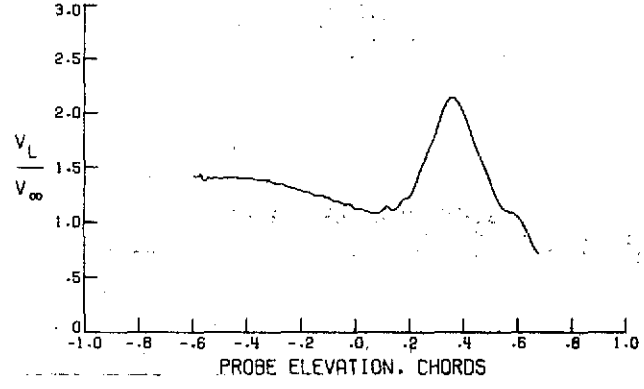
FIGURE 197. - WAKE SURVEY RESULTS FOR η = .374 , α = 6.50 DEG, C_μ = 1.30 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

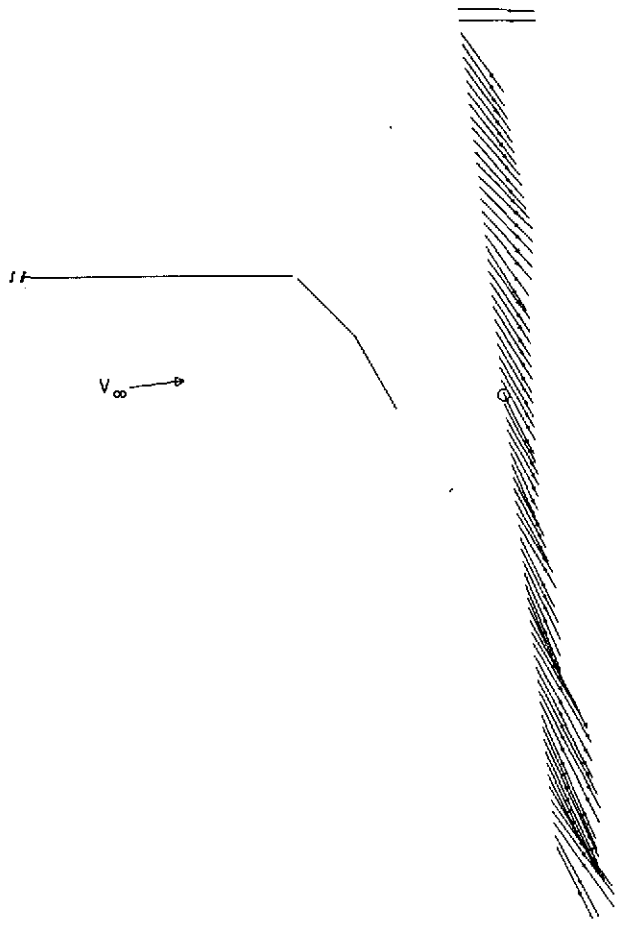


(B) - DOWNWASH ANGLE

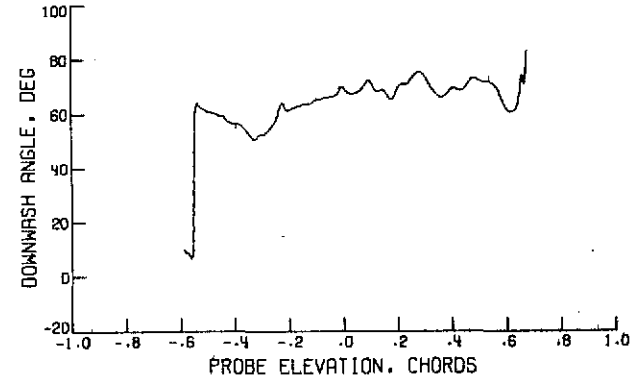


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

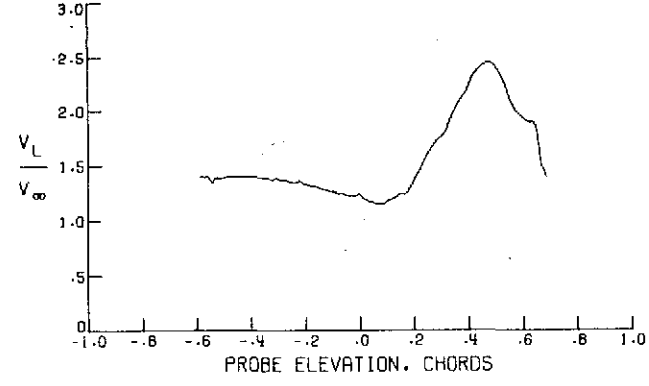
FIGURE 198. - WAKE SURVEY RESULTS FOR η = .319 , α = 6.49 DEG, C_μ = 1.30 , V_∞ = 36.44 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

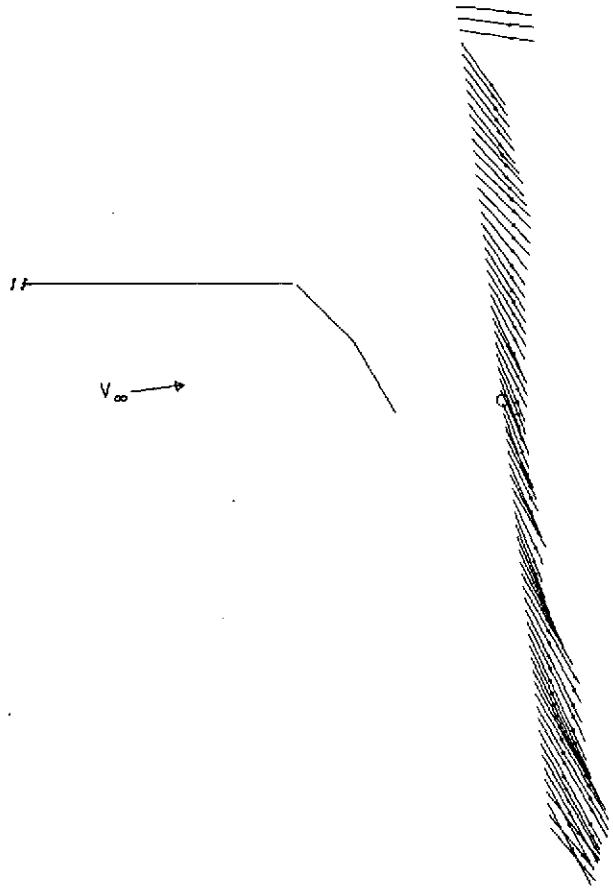


(B) - DOWNWASH ANGLE

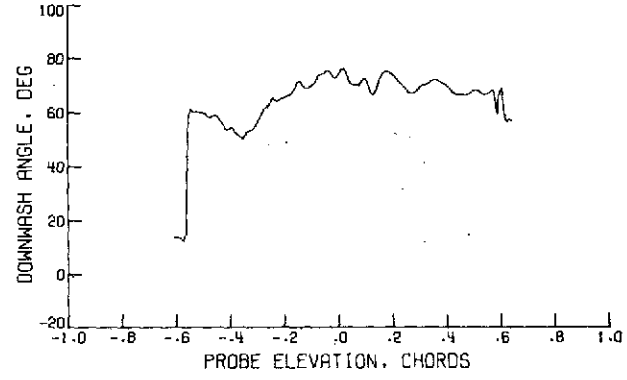


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

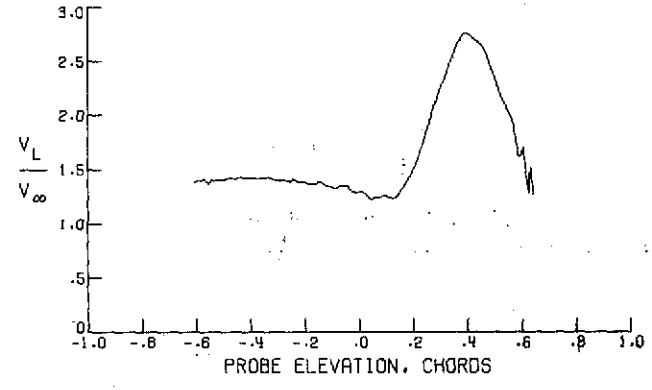
FIGURE 199.- WAKE SURVEY RESULTS FOR η = .240 , α = 6.50 DEG, C_μ = 1.30 , V_∞ = 36.41 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

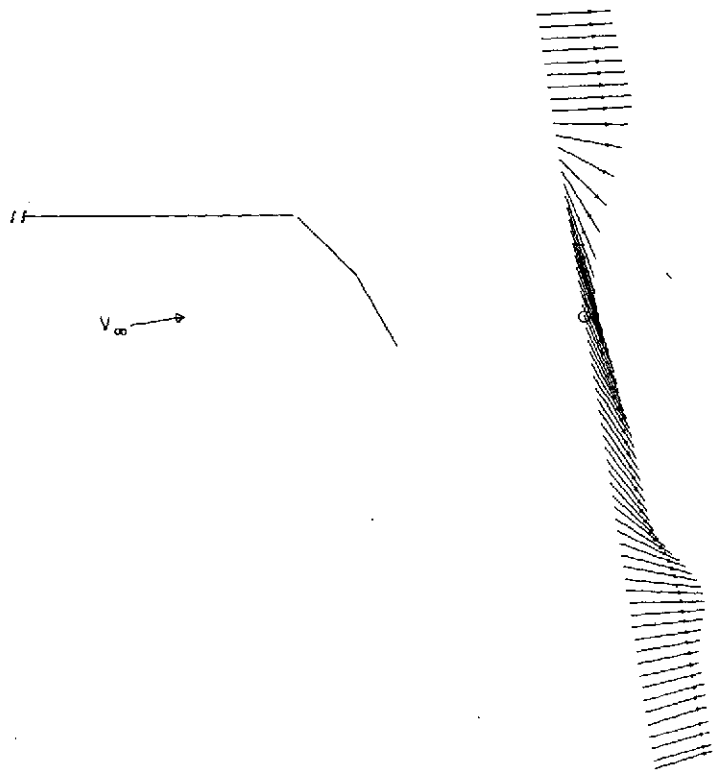


(B) - DOWNWASH ANGLE

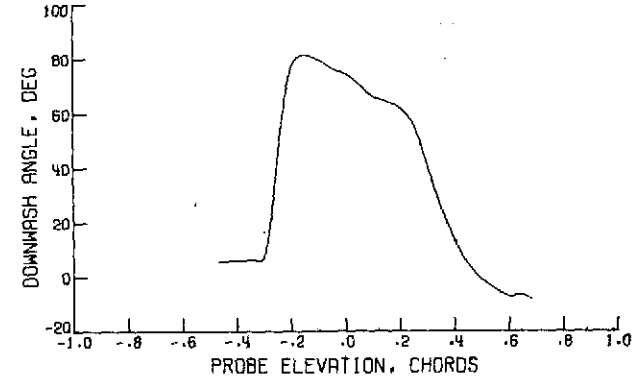


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

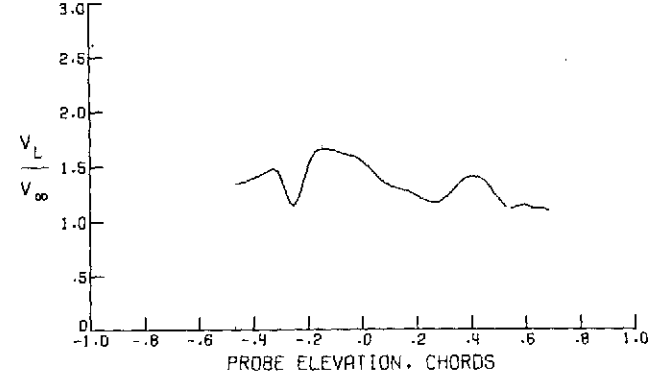
FIGURE 200. - WAKE SURVEY RESULTS FOR η = .205 , α = 6.49 DEG, C_μ = 1.30 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

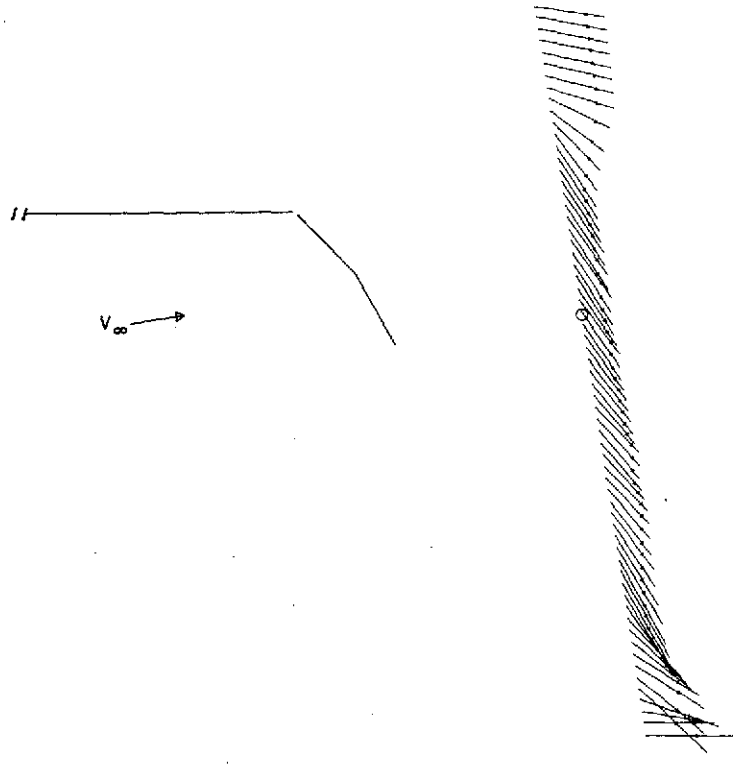


(B) - DOWNWASH ANGLE

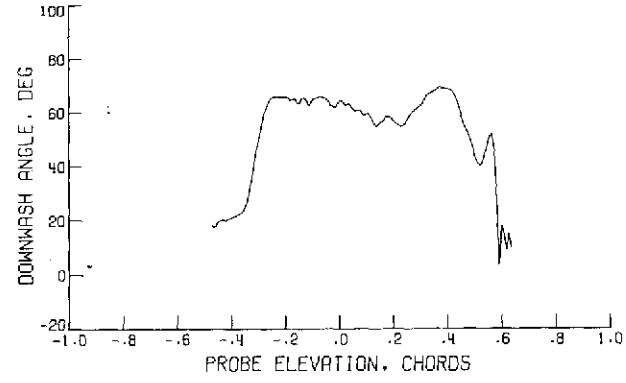


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

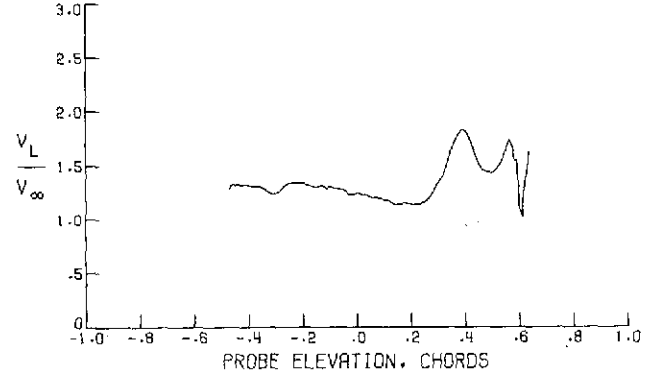
FIGURE 201. - WAKE SURVEY RESULTS FOR η = .922 , α = 8.56 DEG, C_μ = 1.30 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

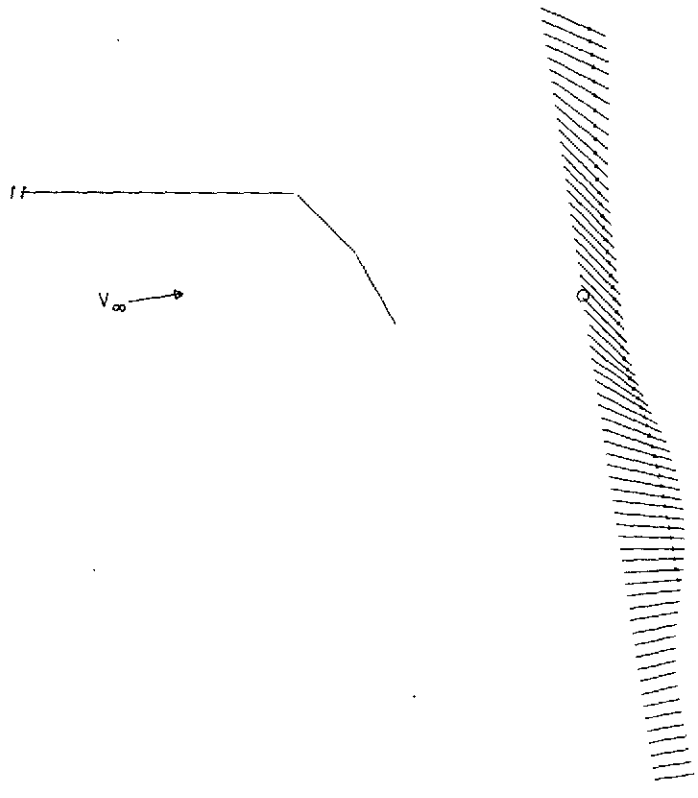


(B) - DOWNWASH ANGLE

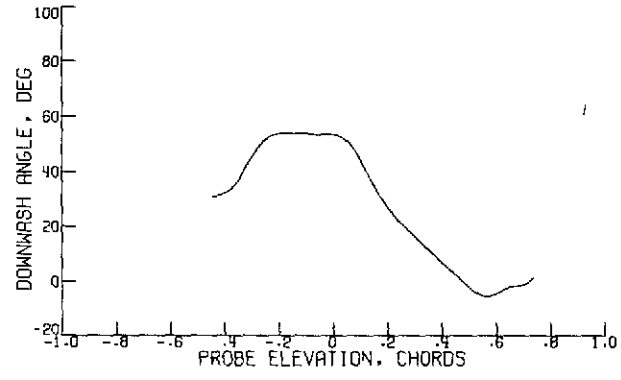


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

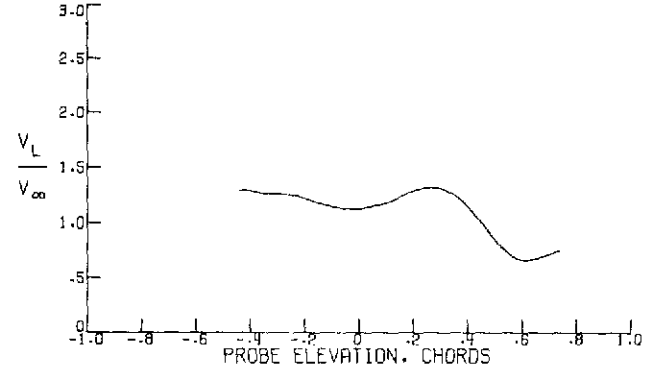
FIGURE 202.- WAKE SURVEY RESULTS FOR η = .821 , α = 8.56 DEG.
C_μ = 1.30 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE



(B) - DOWNWASH ANGLE

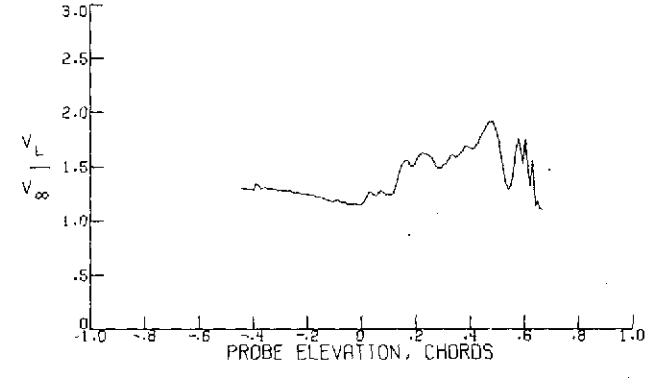


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 203. - WAKE SURVEY RESULTS FOR n = .713 , α = 8.57 DEG, C_μ = 1.30 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG

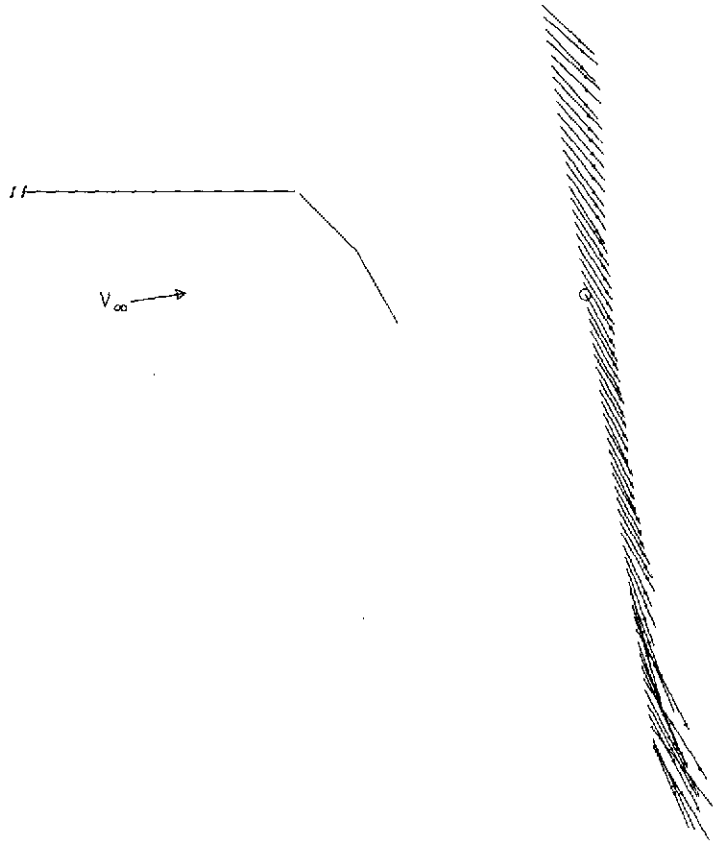
(A) - VELOCITY PROFILE

(B) DOWNWASH ANGLE

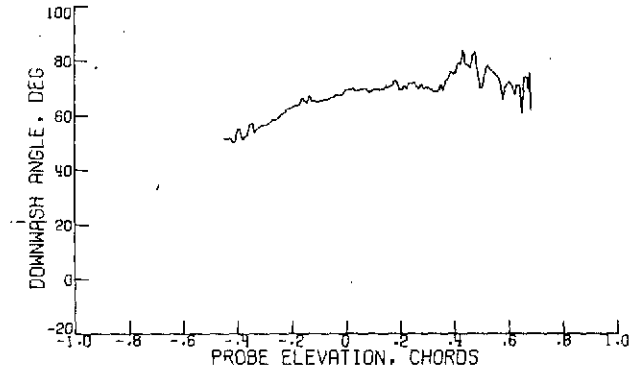


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

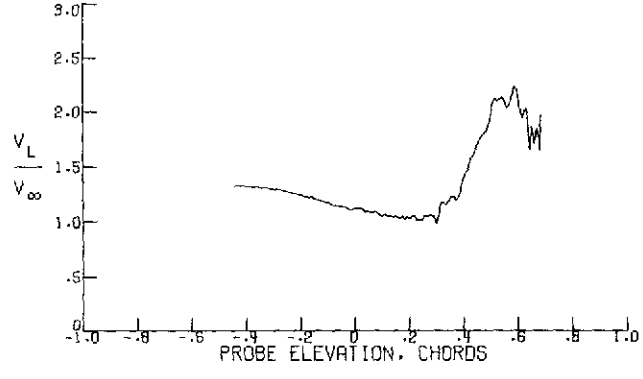
FIGURE 204. - WAKE SURVEY RESULTS FOR η = .602 , α = 8.56 DEG, C_μ = 1.30 , V_∞ = 36.31 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

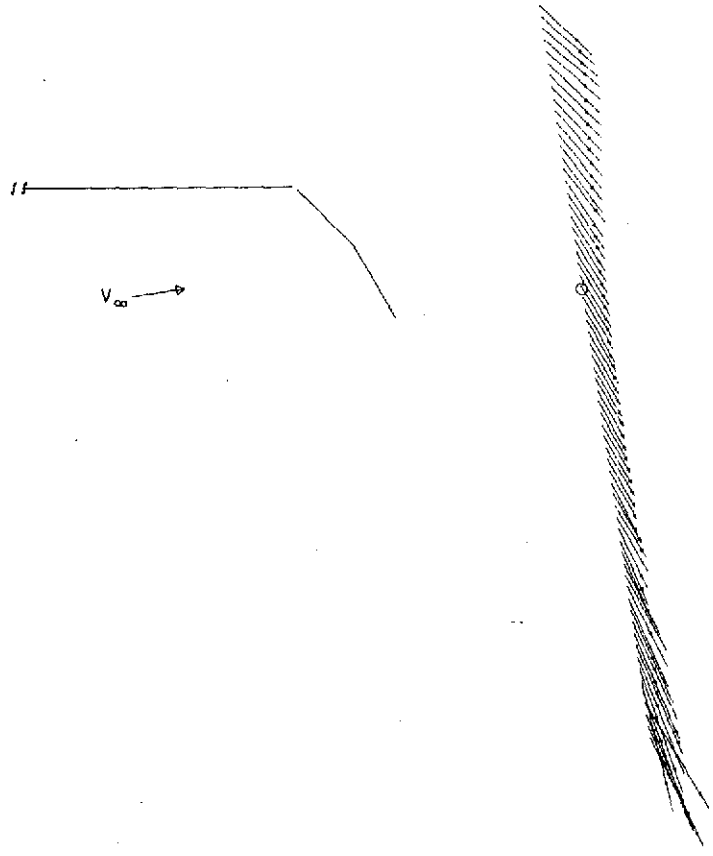


(B) - DOWNWASH ANGLE

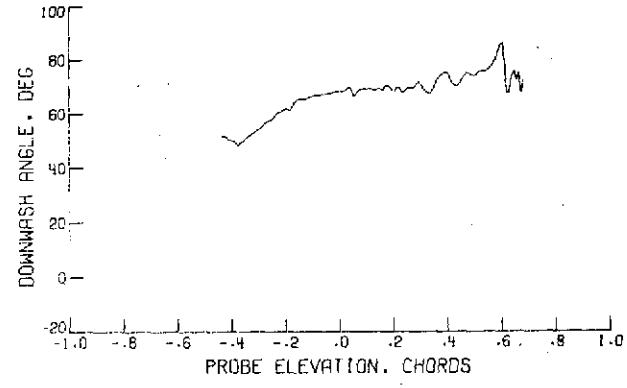


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

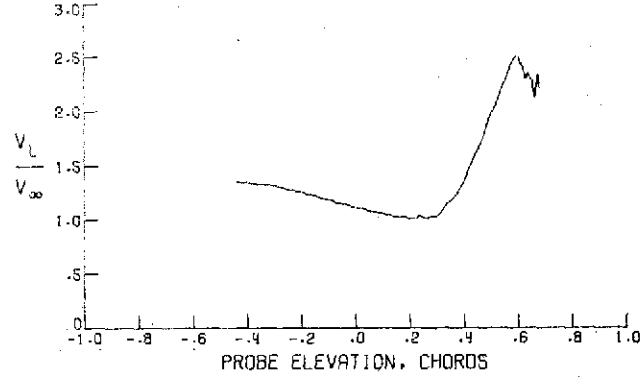
FIGURE 205. - WAKE SURVEY RESULTS FOR η = .511 , α = 8.55 DEG, C_μ = 1.30 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

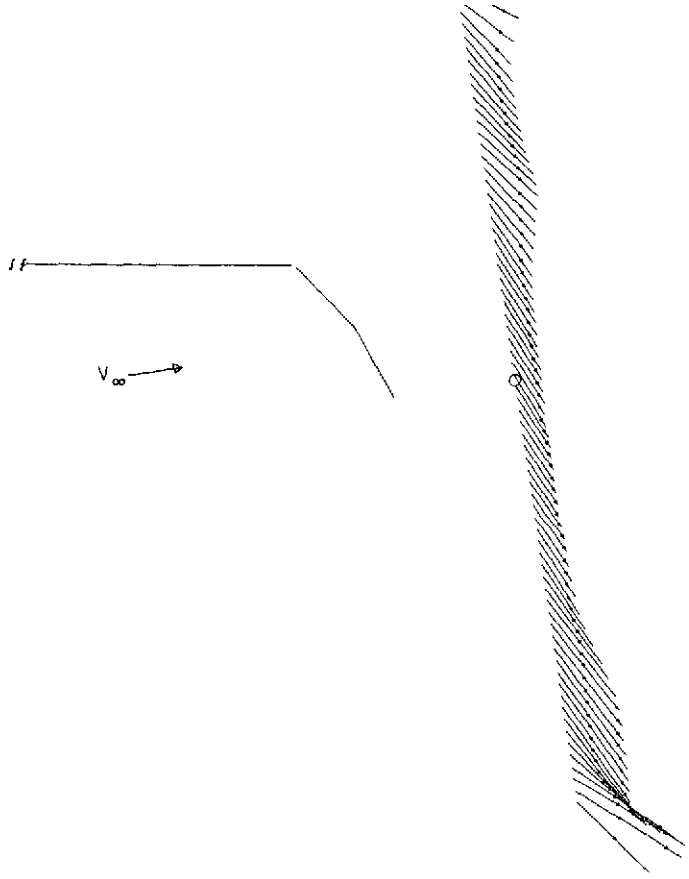


(B) - DOWNWASH ANGLE



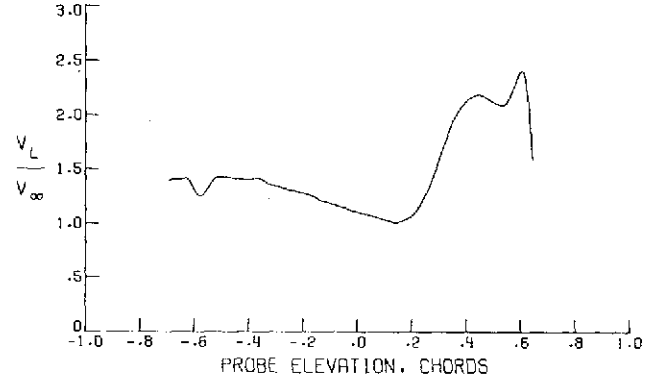
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 206. - WAKE SURVEY RESULTS FOR η = .449 , α = 8.56 DEG, C_μ = 1.30 , V_∞ = 36.30 M/SEC, δ_F = 60.0 DEG



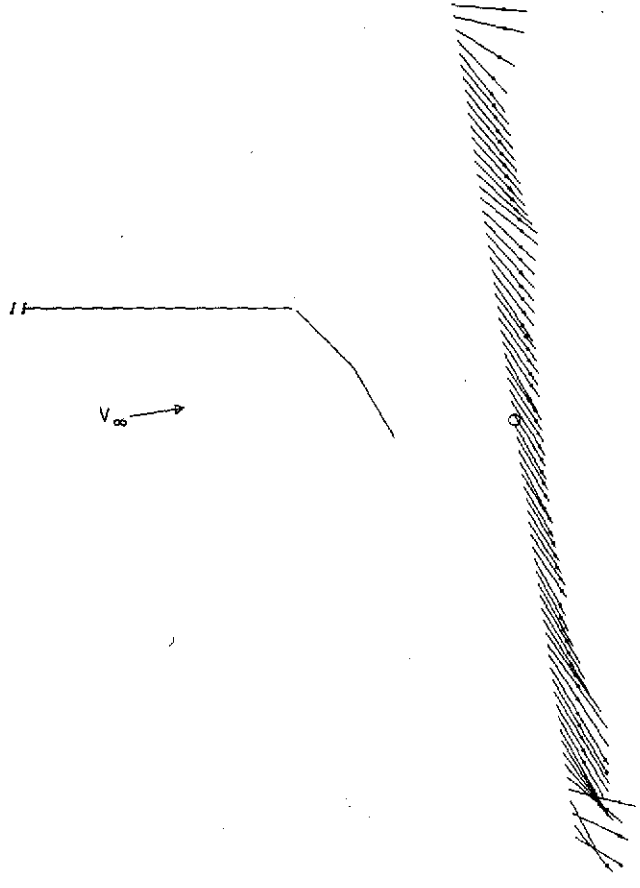
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

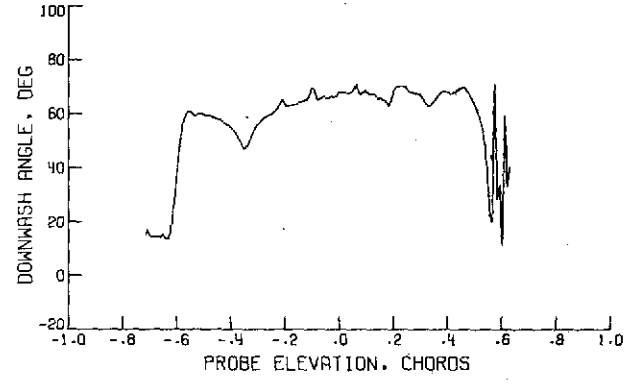


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

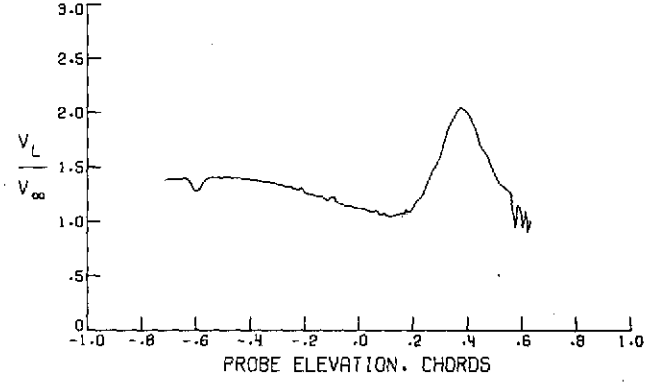
FIGURE 207. - WAKE SURVEY RESULTS FOR η = .374 , α = 8.63 DEG, C_μ = 1.30 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

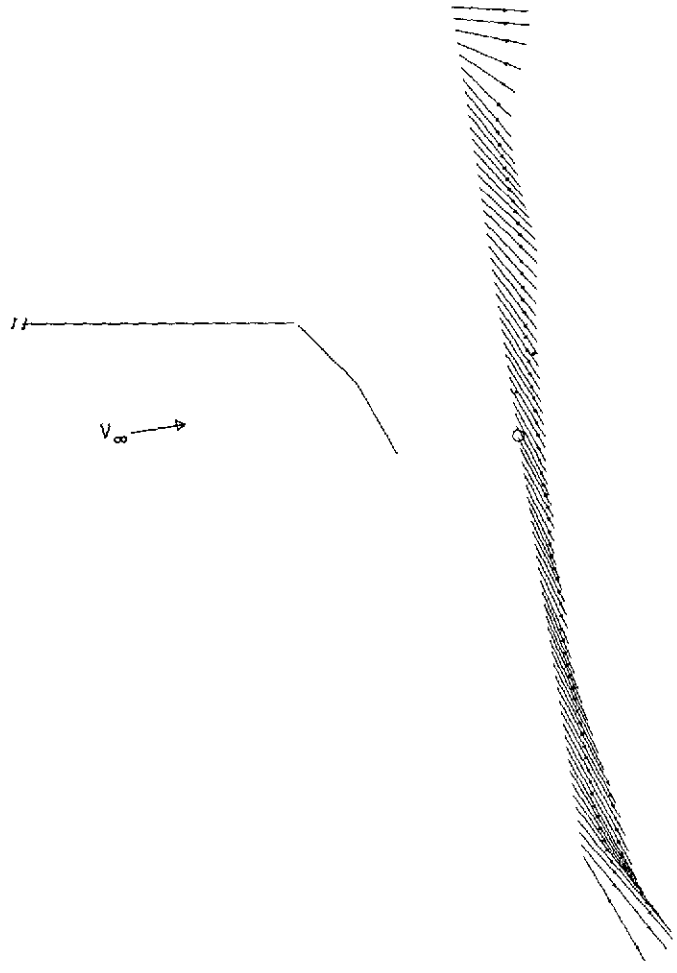


(B) - DOWNWASH ANGLE



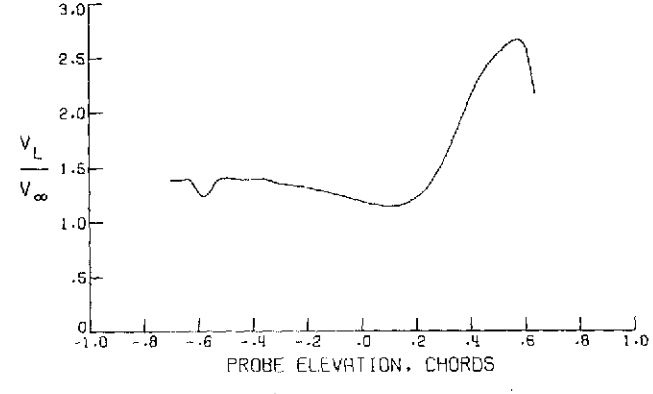
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 208. - WAKE SURVEY RESULTS FOR η = .319 , α = 8.65 DEG, C_μ = 1.30 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

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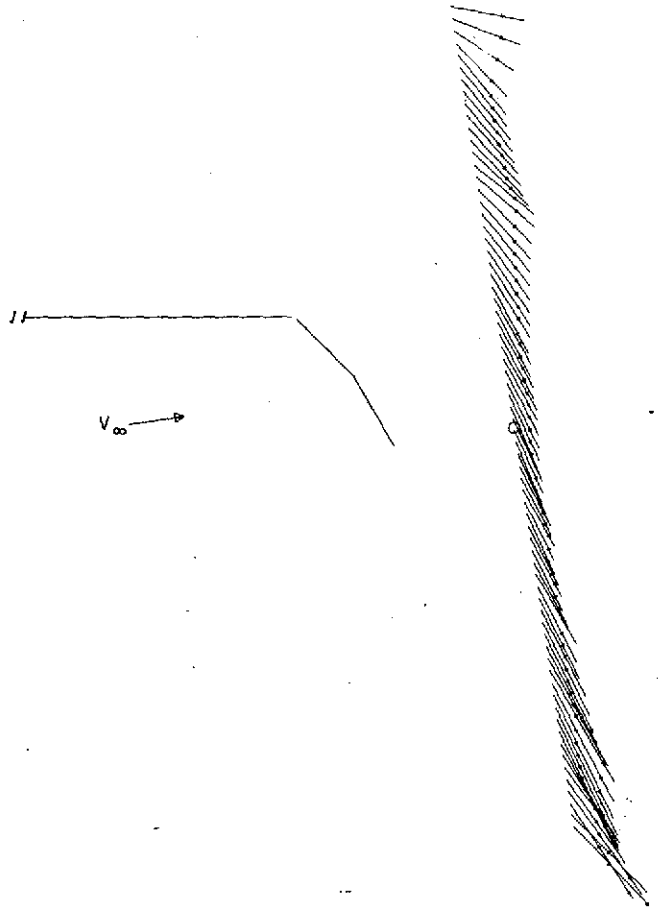
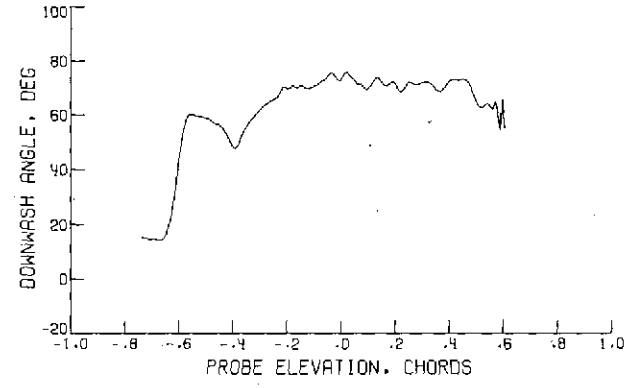
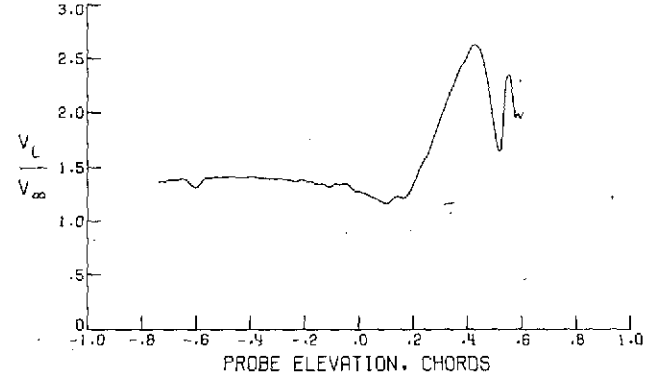
FIGURE 209 - WAKE SURVEY RESULTS FOR η = .241 , α = 8.66 DEG, C_μ = 1.30 , V_∞ = 36.40 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

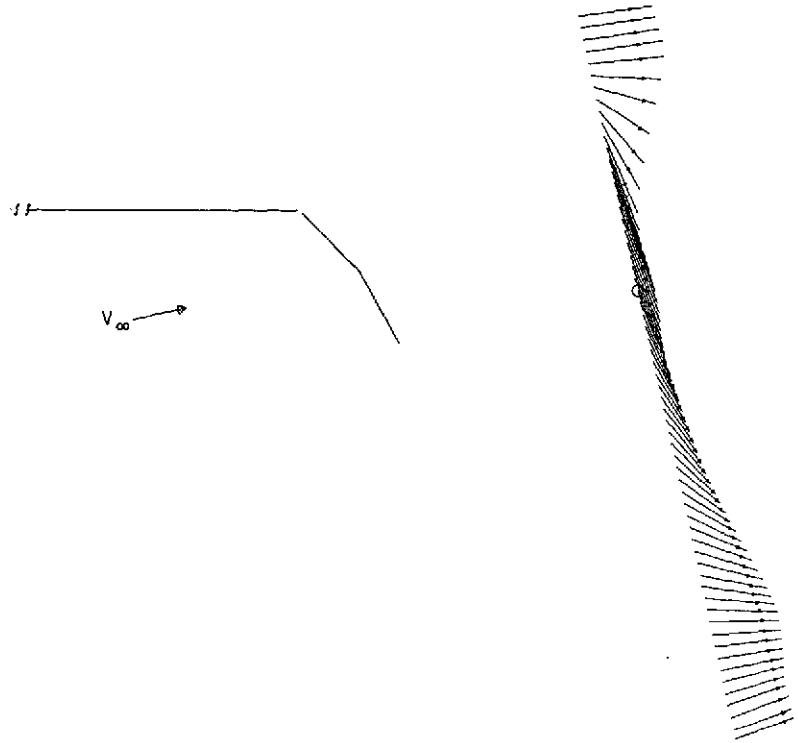


(B) - DOWNWASH ANGLE

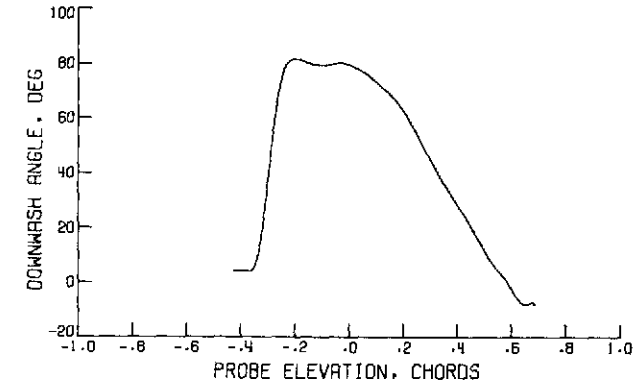


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

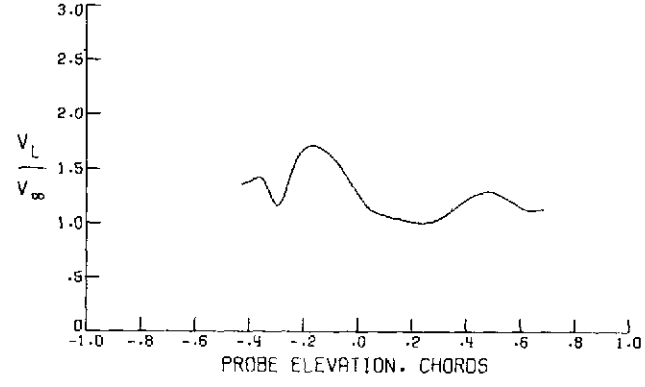
FIGURE 210. - WAKE SURVEY RESULTS FOR η = .206 , α = 8.67 DEG, C_μ = 1.30 , V_∞ = 36.35 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

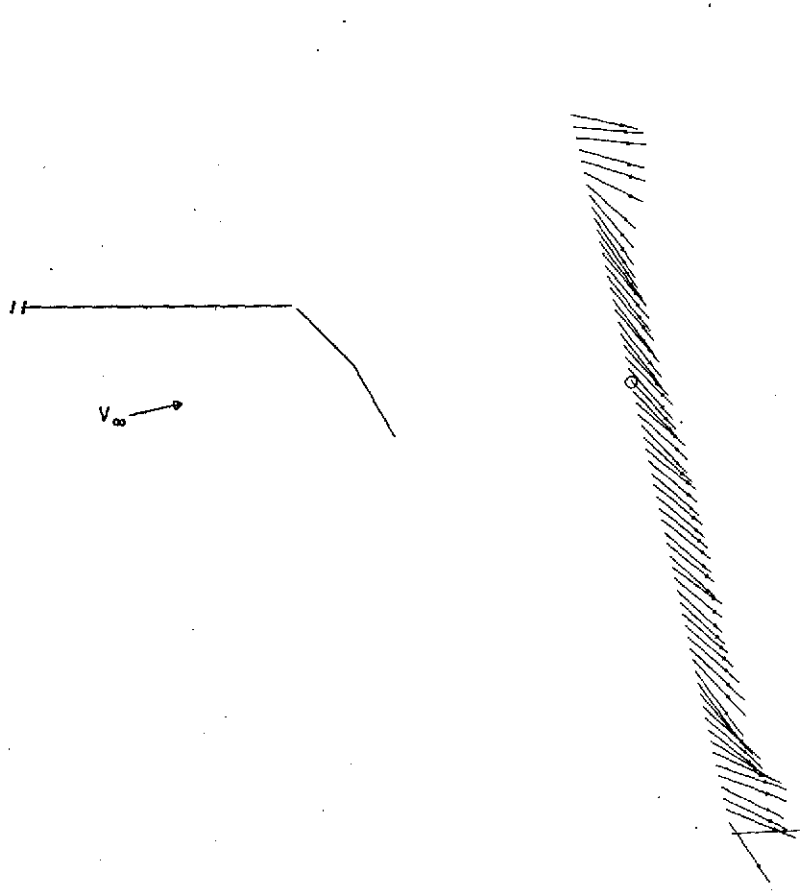


(B) - DOWNWASH ANGLE

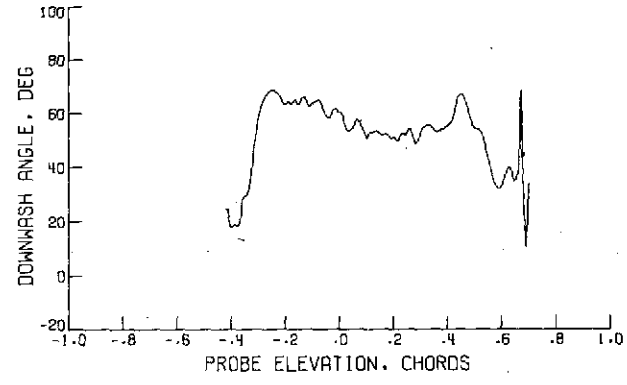


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

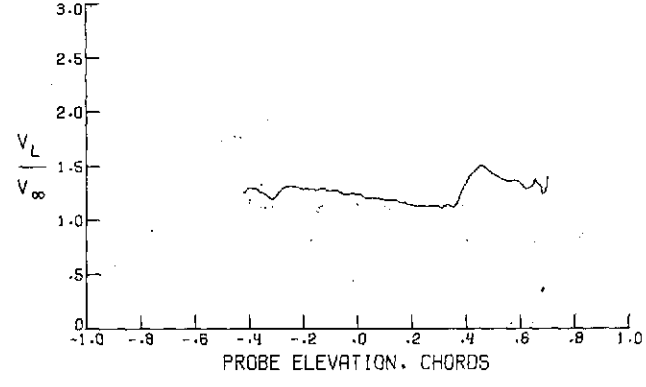
FIGURE 211. - WAKE SURVEY RESULTS FOR $\eta = .923$, $\alpha = 12.66$DEG, $C_\mu = 1.30$, $V_\infty = 36.43$ M/SEC, $\delta_F = 60.0$ DEG



(A) - VELOCITY PROFILE

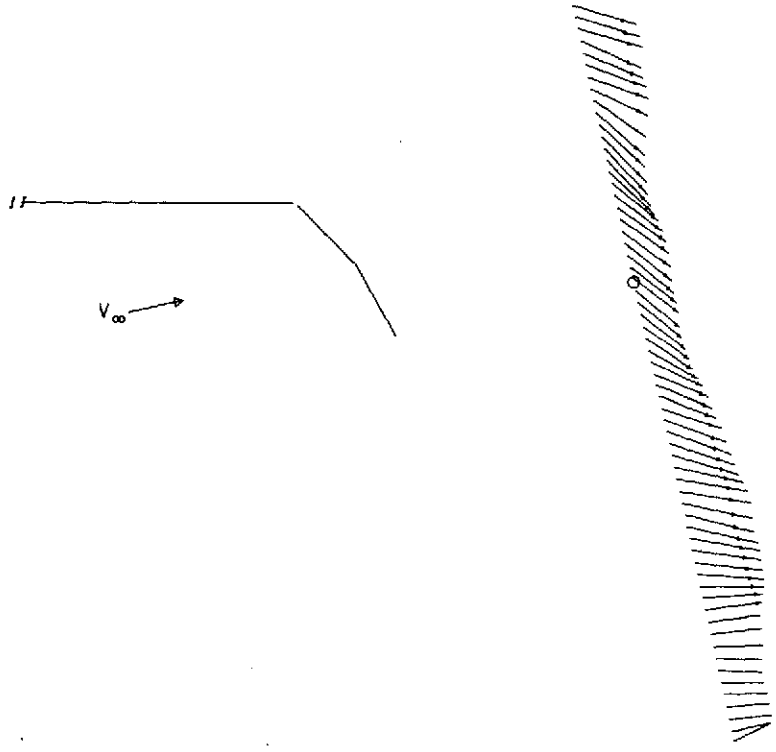


(B) - DOWNWASH ANGLE

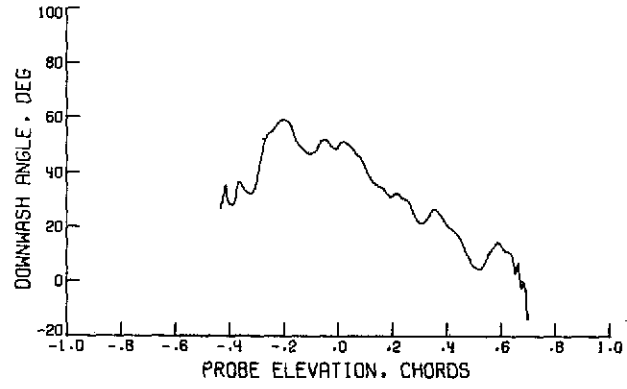


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

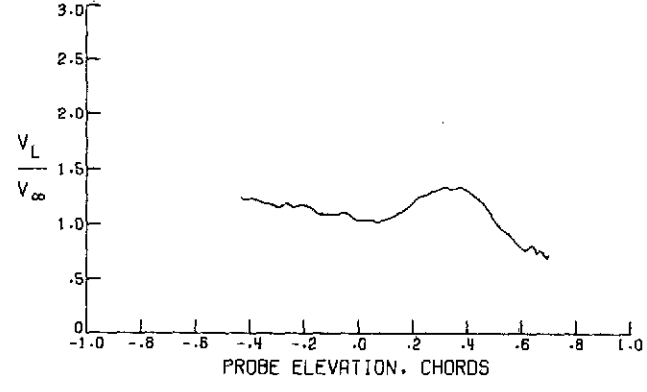
FIGURE 212. - WAKE SURVEY RESULTS FOR η = .820 , α = 12.69DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

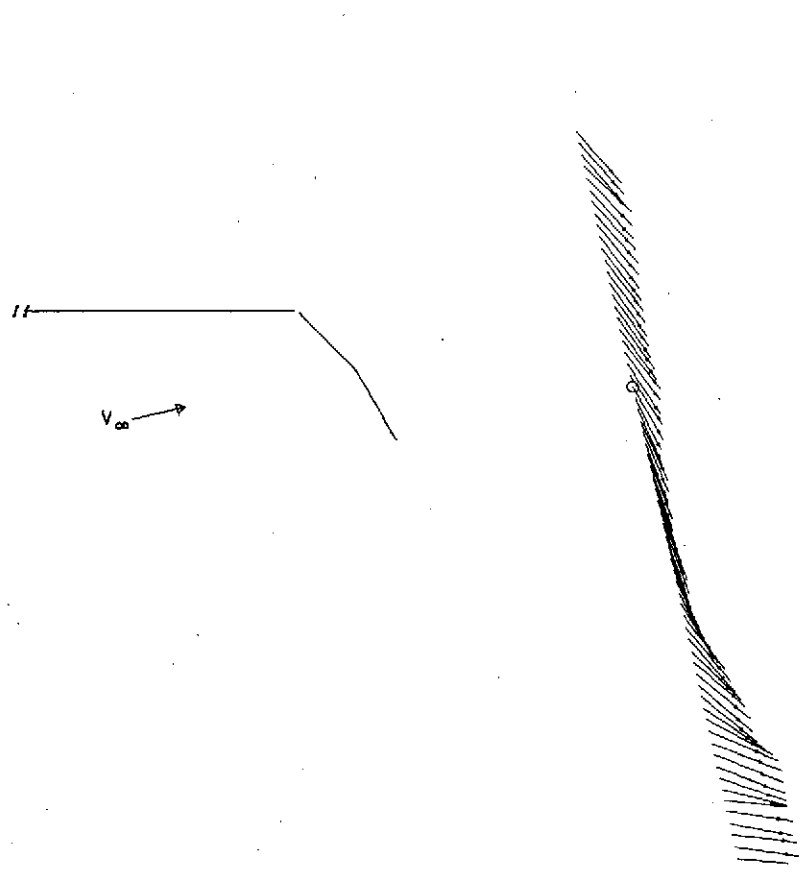


(B) - DOWNWASH ANGLE

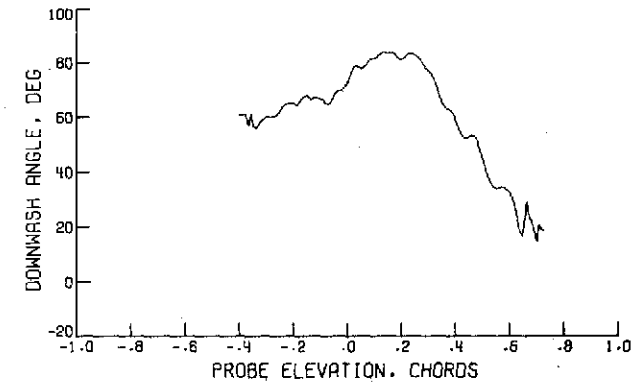


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

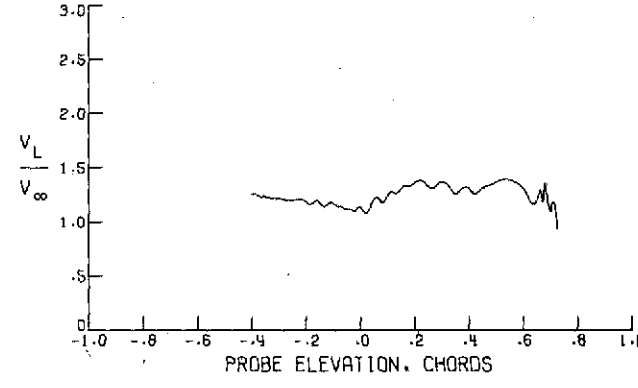
FIGURE 213. - WAKE SURVEY RESULTS FOR η = .715 , α = 12.69DEG, C_μ = 1.30 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

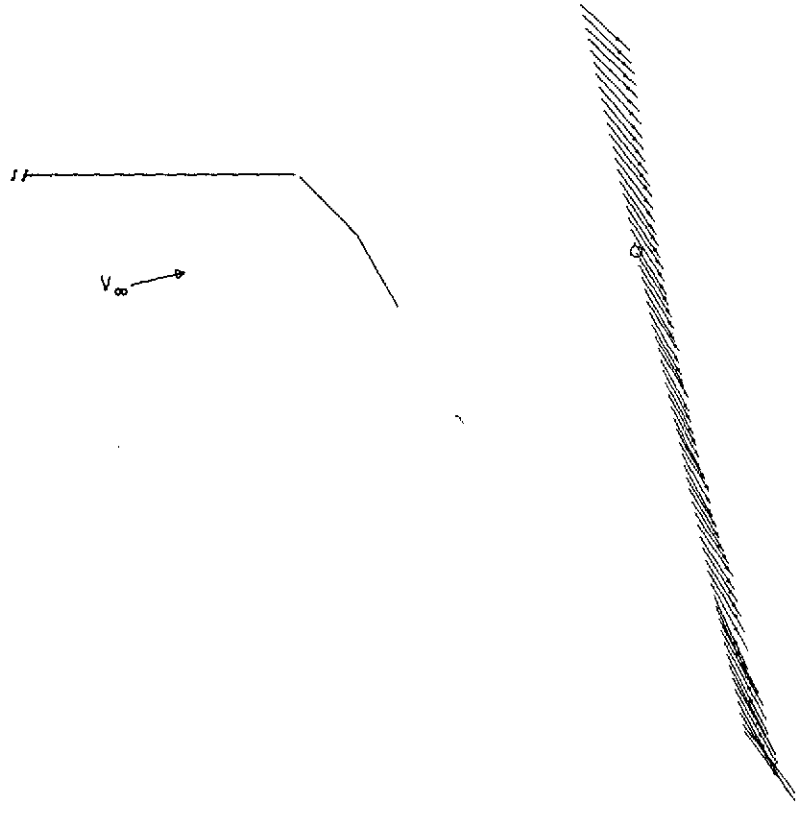


(B) - DOWNWASH ANGLE

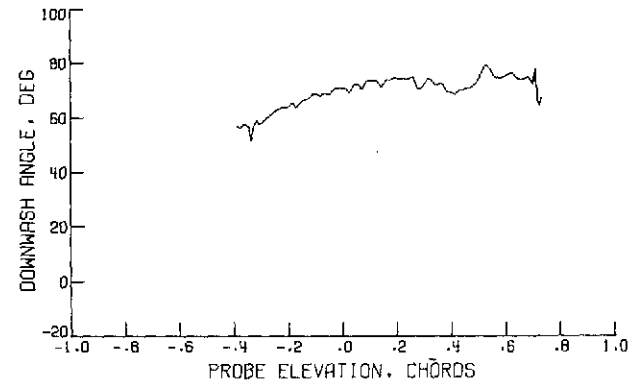


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

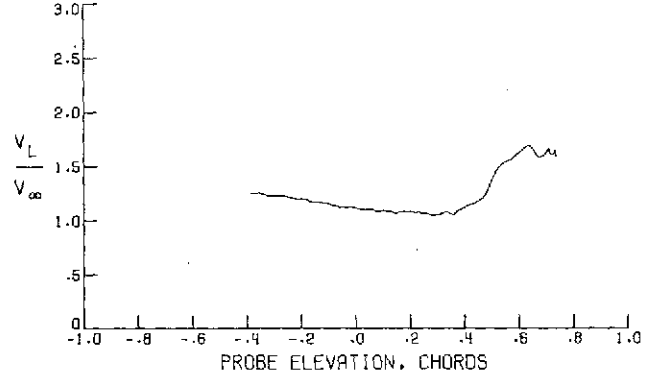
FIGURE 214. - WAKE SURVEY RESULTS FOR η = .600 , α = 12.69DEG, C_μ = 1.30 , V_∞ = 36.37 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

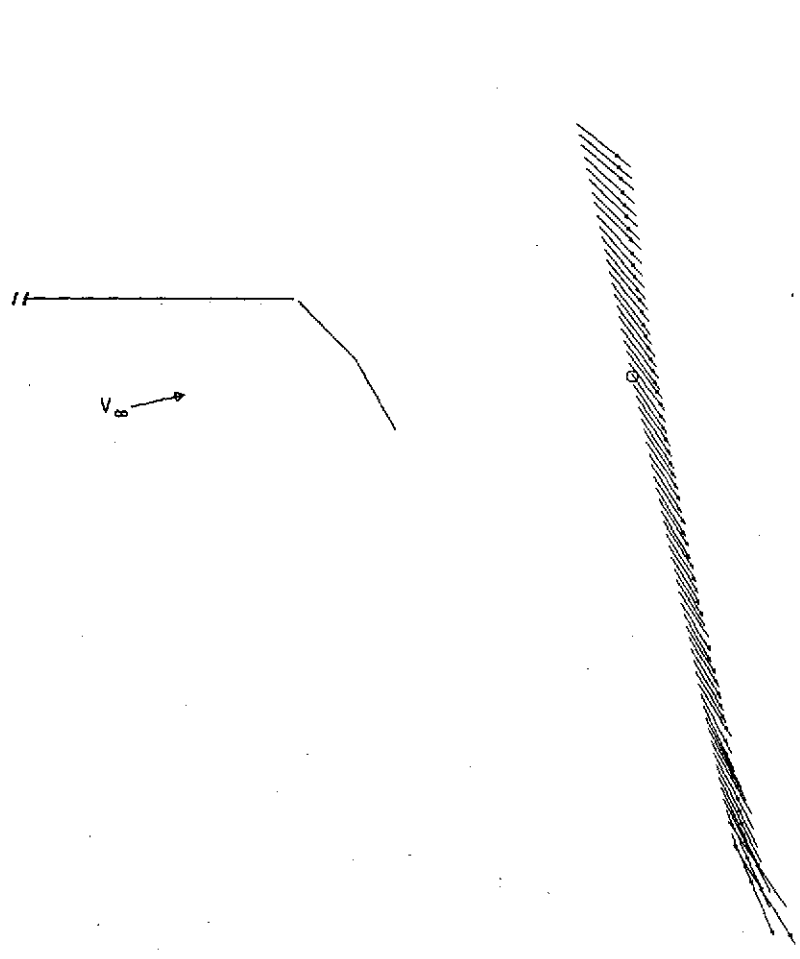


(B) - DOWNWASH ANGLE

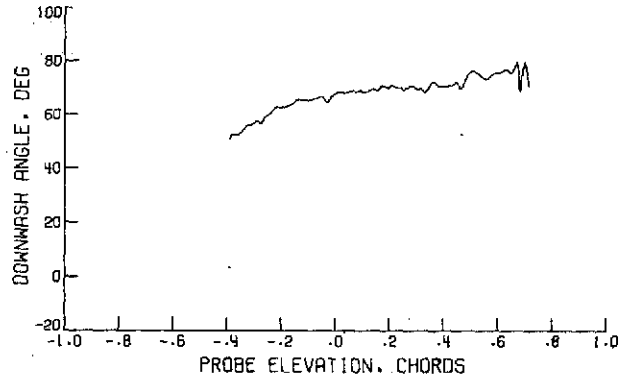


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

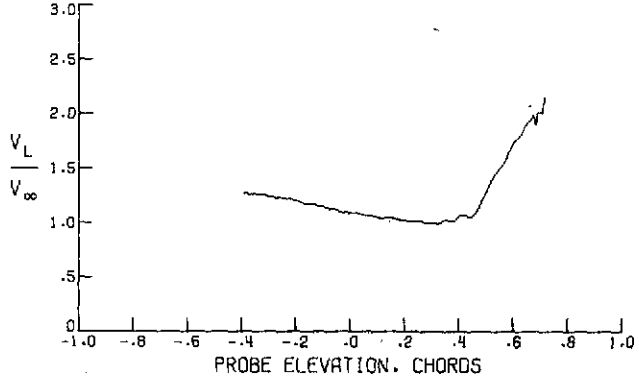
FIGURE 215. - WAKE SURVEY RESULTS FOR η = .511 , α = 12.68DEG, C_μ = 1.30 , V_∞ = 36.39 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

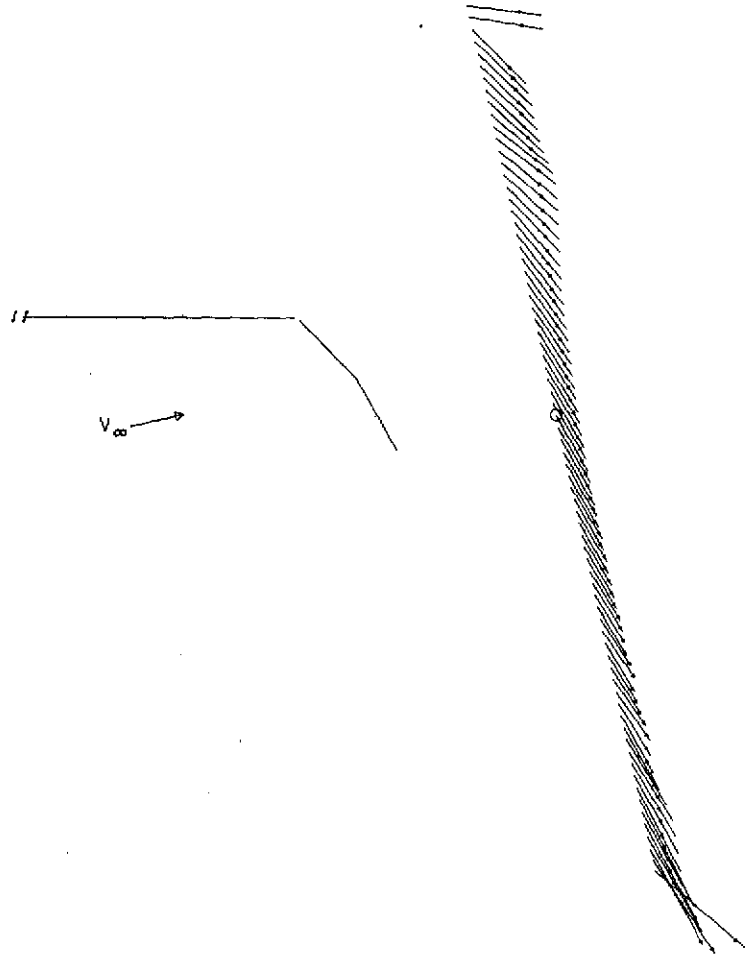


(B) - DOWNWASH ANGLE



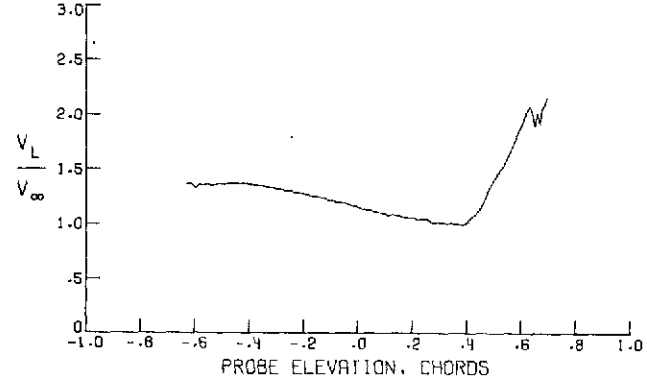
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 216. - WAKE SURVEY RESULTS FOR η = .448 , α = 12.68DEG, C_μ = 1.30 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



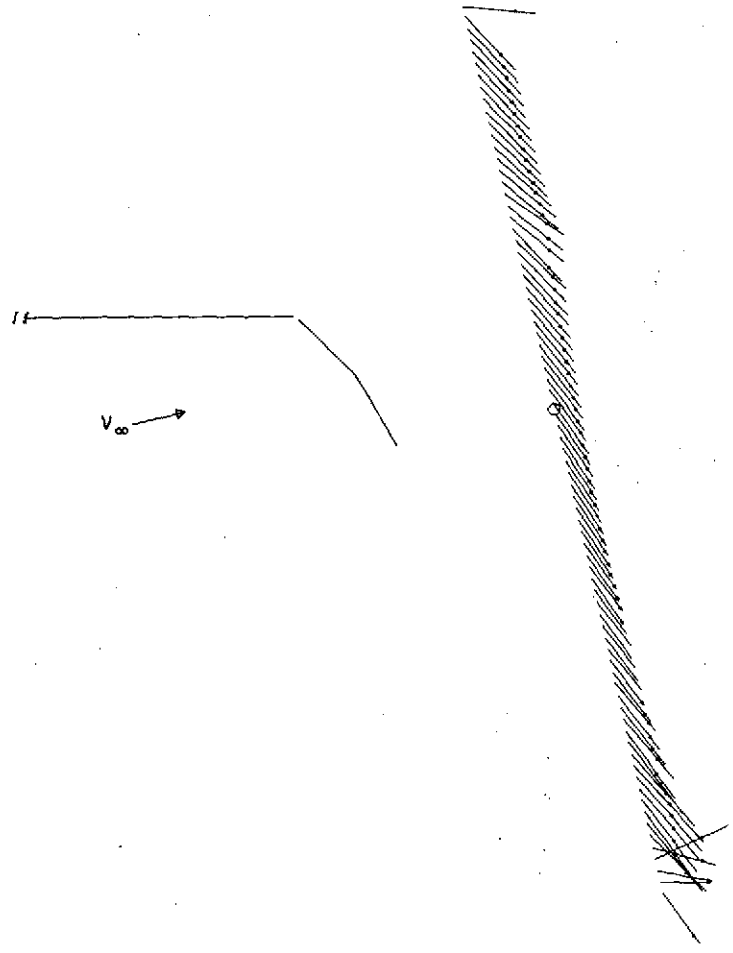
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

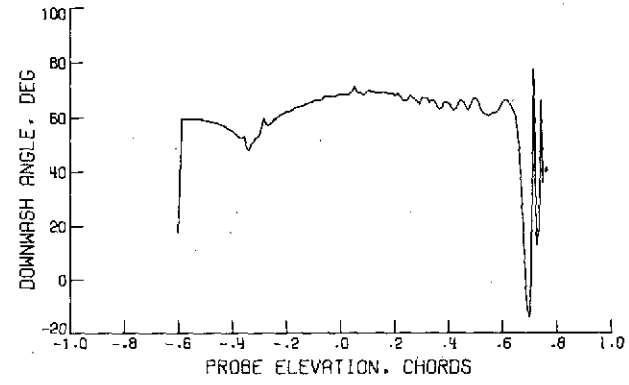


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

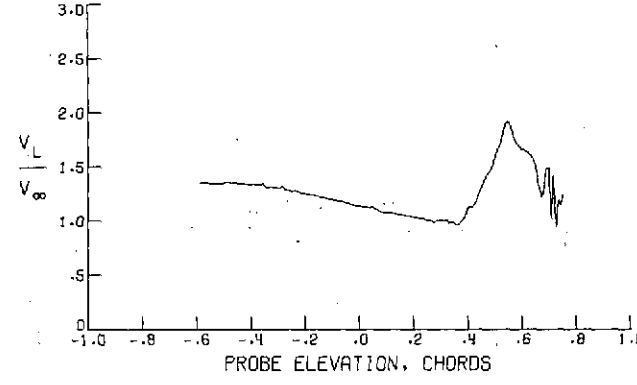
FIGURE 217. - WAKE SURVEY RESULTS FOR η = .374, α = 12.66DEG, C_μ = 1.30, V_∞ = 36.49 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

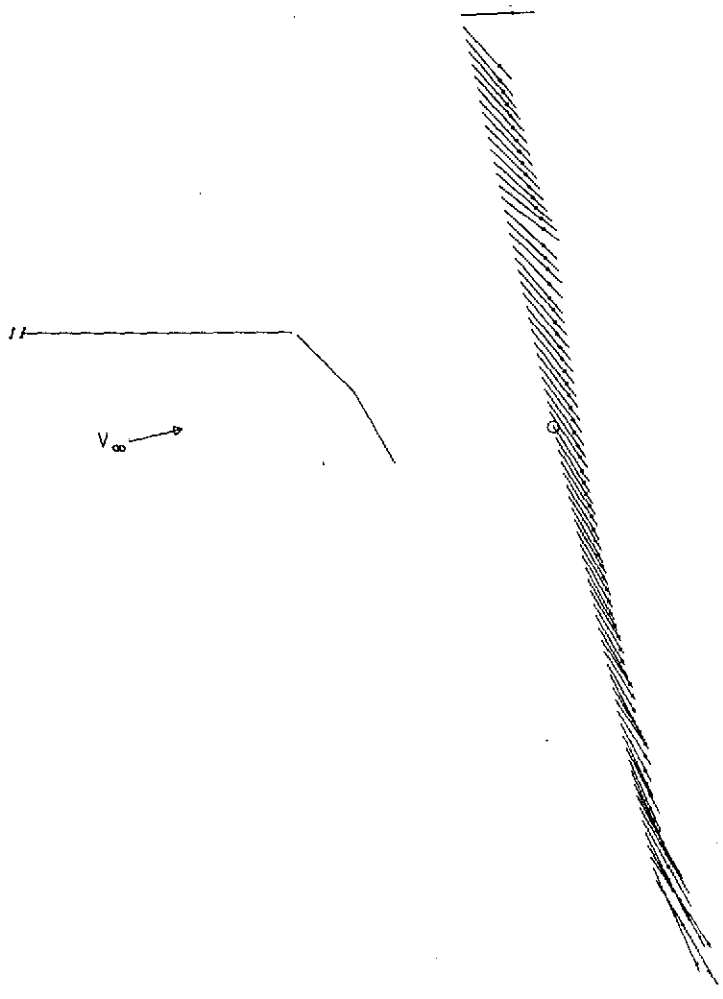


(B) - DOWNWASH ANGLE

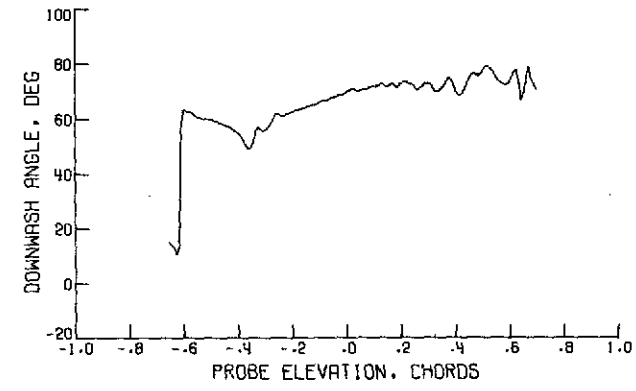


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

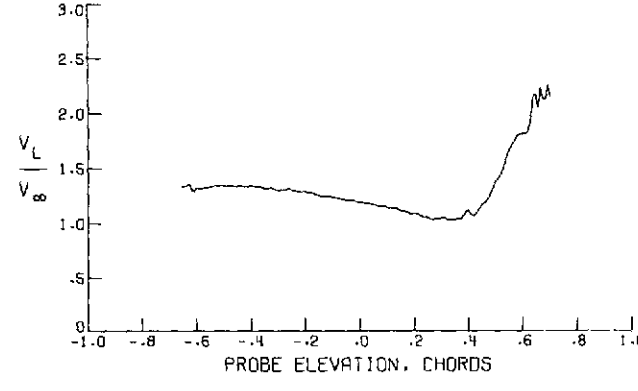
FIGURE 218. - WAKE SURVEY RESULTS FOR η = .319 , α = 12.72DEG, C_μ = 1.30 , V_∞ = 36.38 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

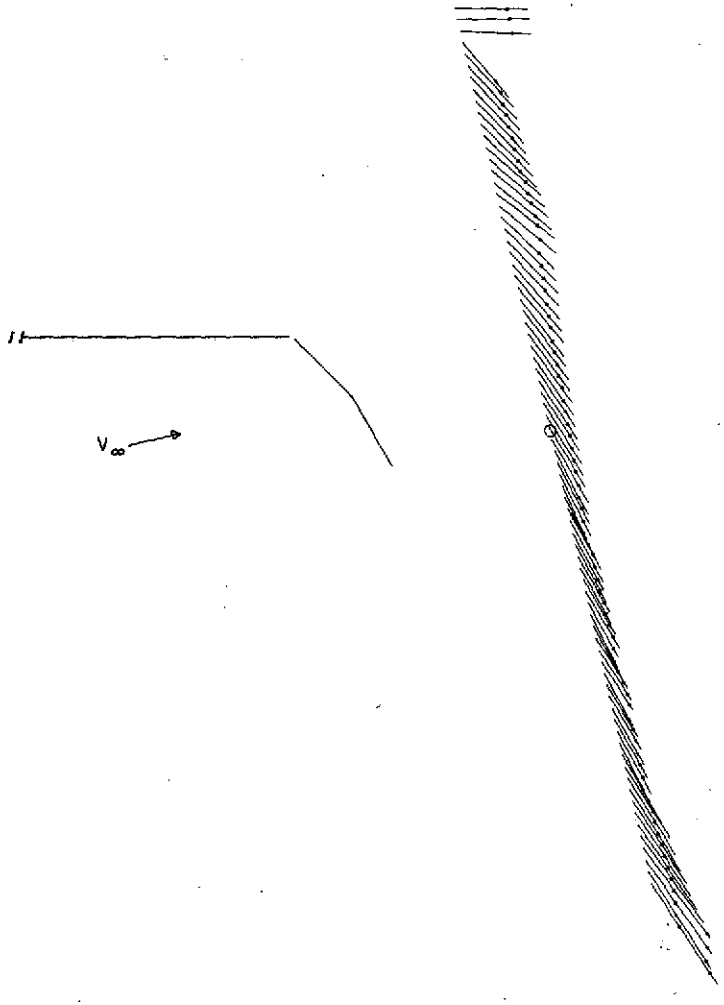


(B) - DOWNWASH ANGLE

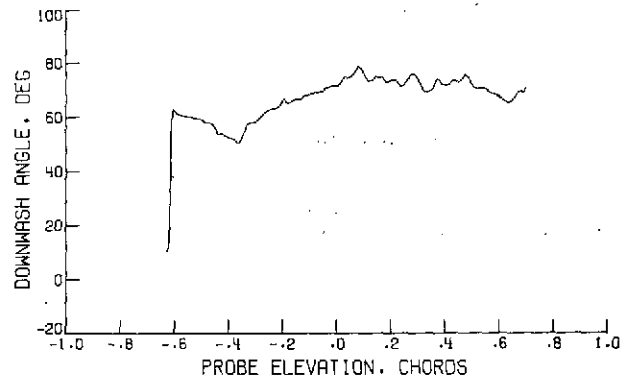


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

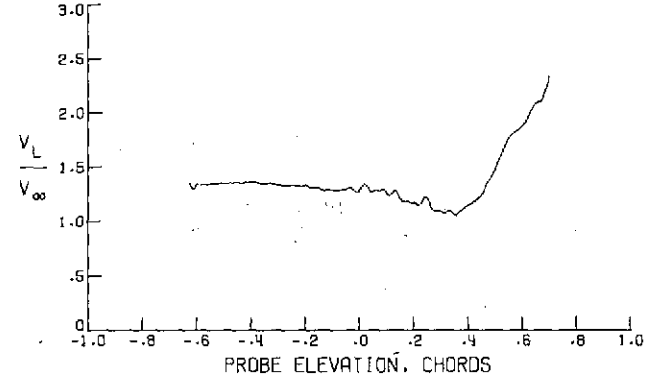
FIGURE 219. - WAKE SURVEY RESULTS FOR η = .241 , α = 12.71DEG, C_μ = 1.30 , V_∞ = 36.42 M/SEC, δ_F = 60.0 DFG



(A) - VELOCITY PROFILE

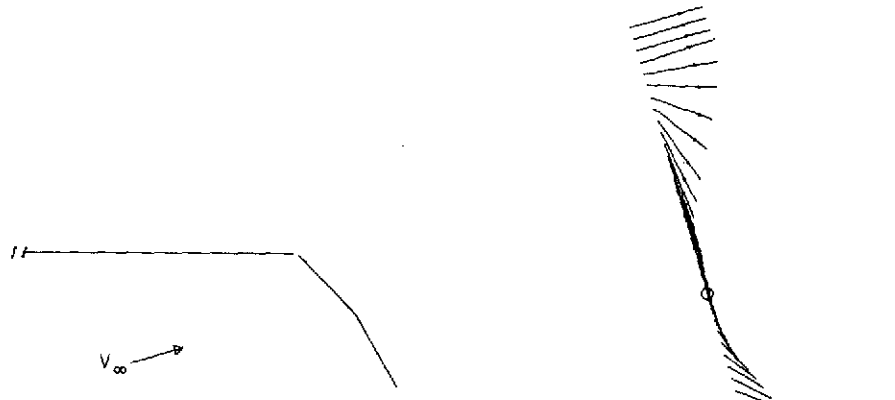


(B) - DOWNWASH ANGLE

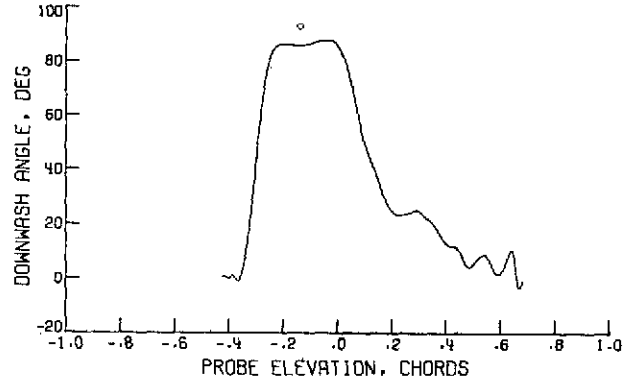


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

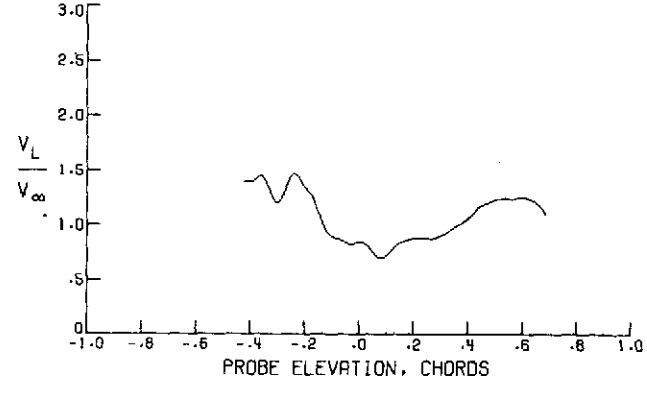
FIGURE 220. - WAKE SURVEY RESULTS FOR η = .206 , $\mathring{\alpha}$ = 12.71DEG, C_μ = 1.30 , V_∞ = 36.33 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

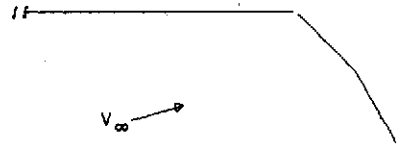


(B) - DOWNWASH ANGLE

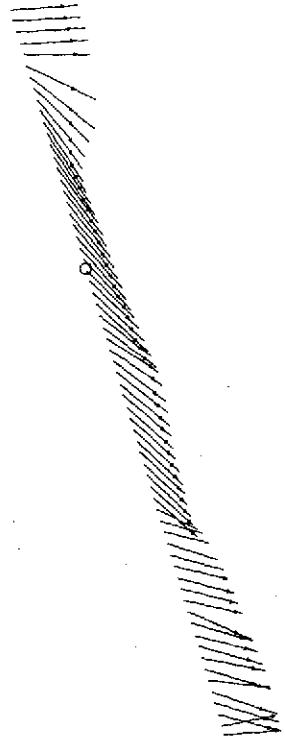


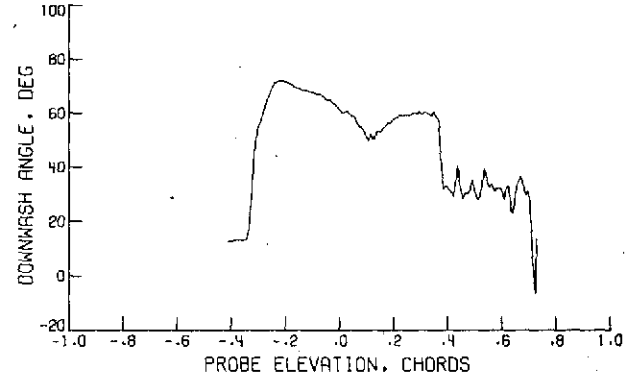
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 221. - WAKE SURVEY RESULTS FOR η = .923 , α = 16.69DEG, C_μ = 1.30 , V_∞ = 36.52 M/SEC, δ_F = 60.0 DEG

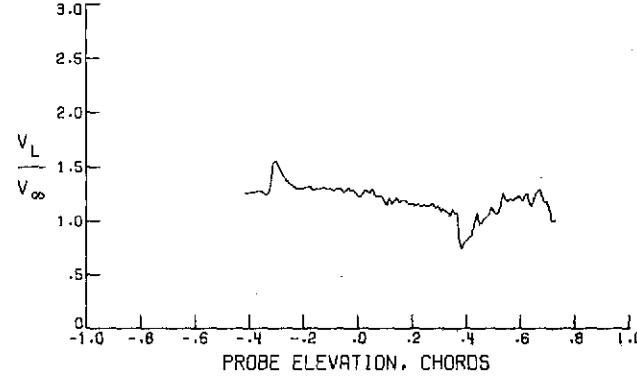


(A) - VELOCITY PROFILE



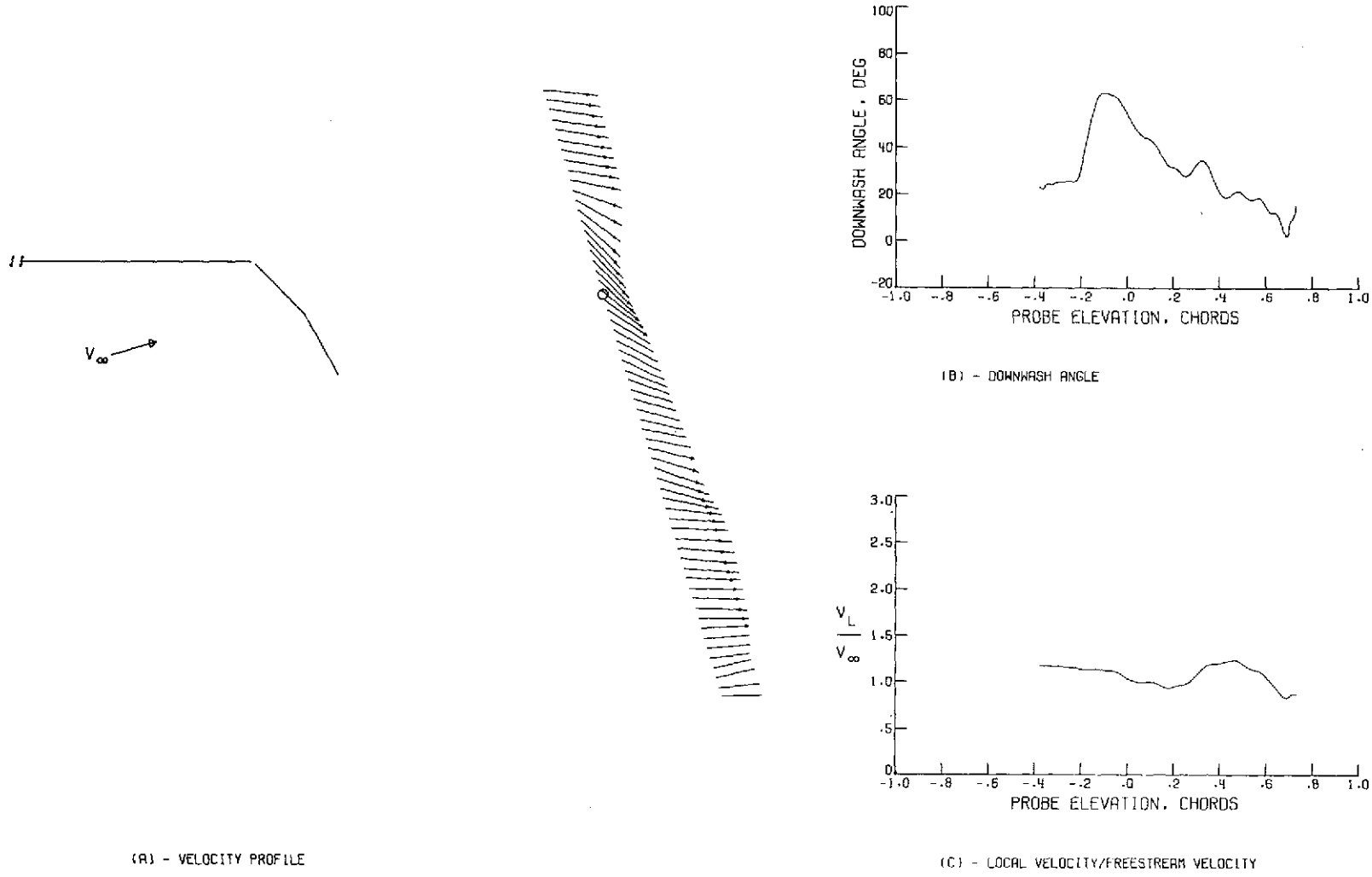


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 222.- WAKE SURVEY RESULTS FOR η = .820 , α = 16.70DEG, C_μ = 1.30 , V_∞ = 36.46 M/SEC, δ_F = 60.0 DEG

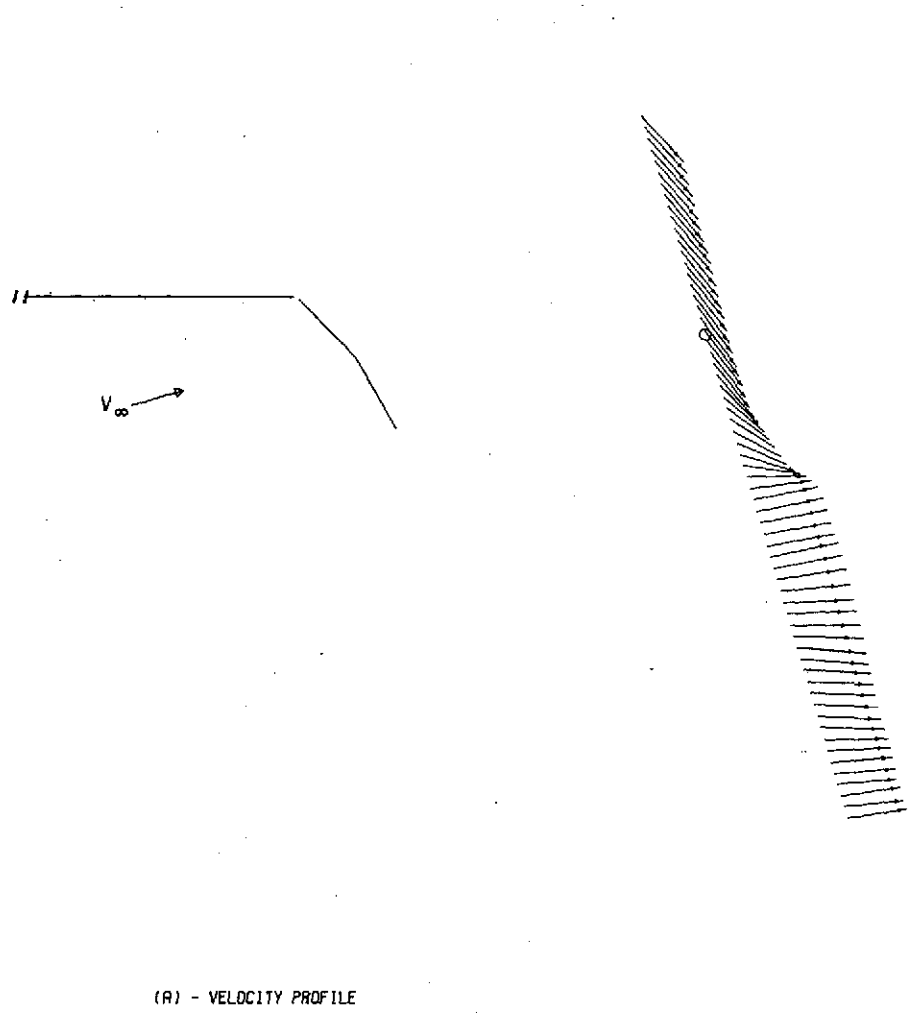


(A) - VELOCITY PROFILE

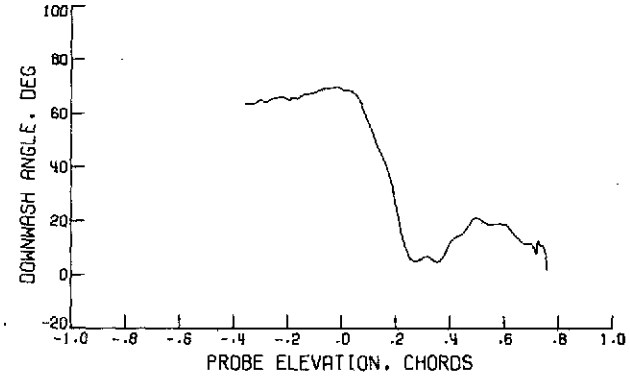
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

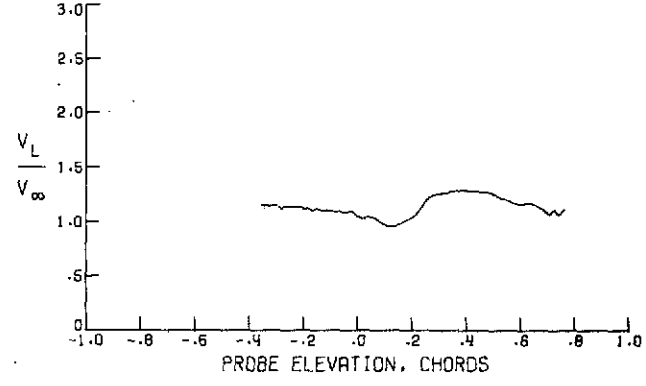
FIGURE 223. - WAKE SURVEY RESULTS FOR η = .715 , α = 16.70DEG, C_μ = 1.30 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

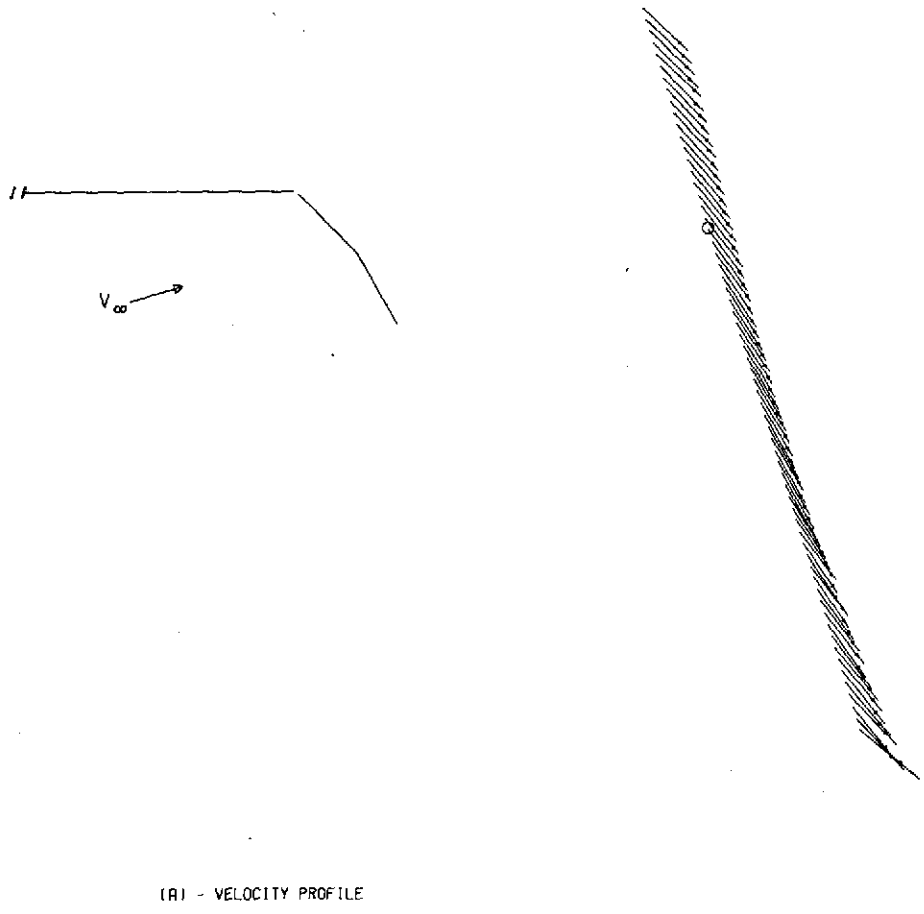


(B) - DOWNWASH ANGLE

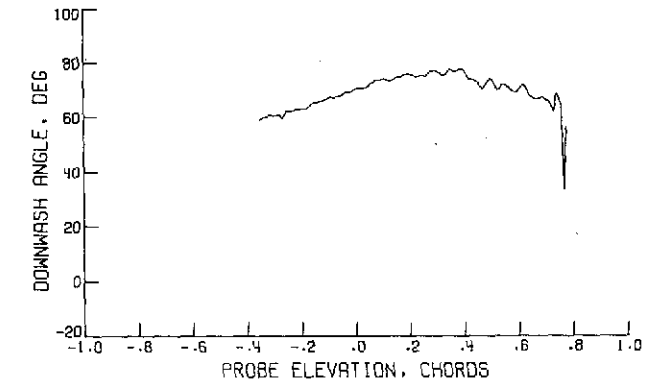


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

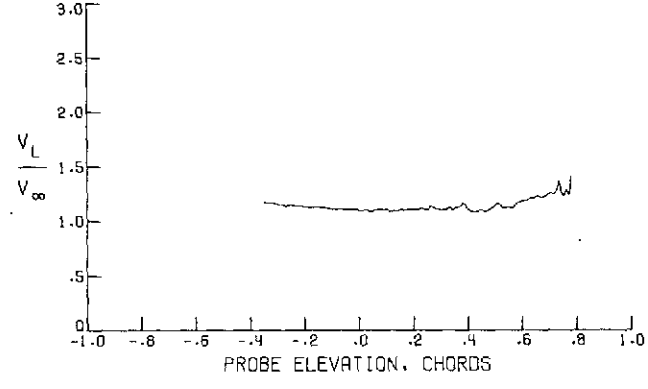
FIGURE 224.- WAKE SURVEY RESULTS FOR η = .601 , α = 16.69DEG, C_μ = 1.30 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

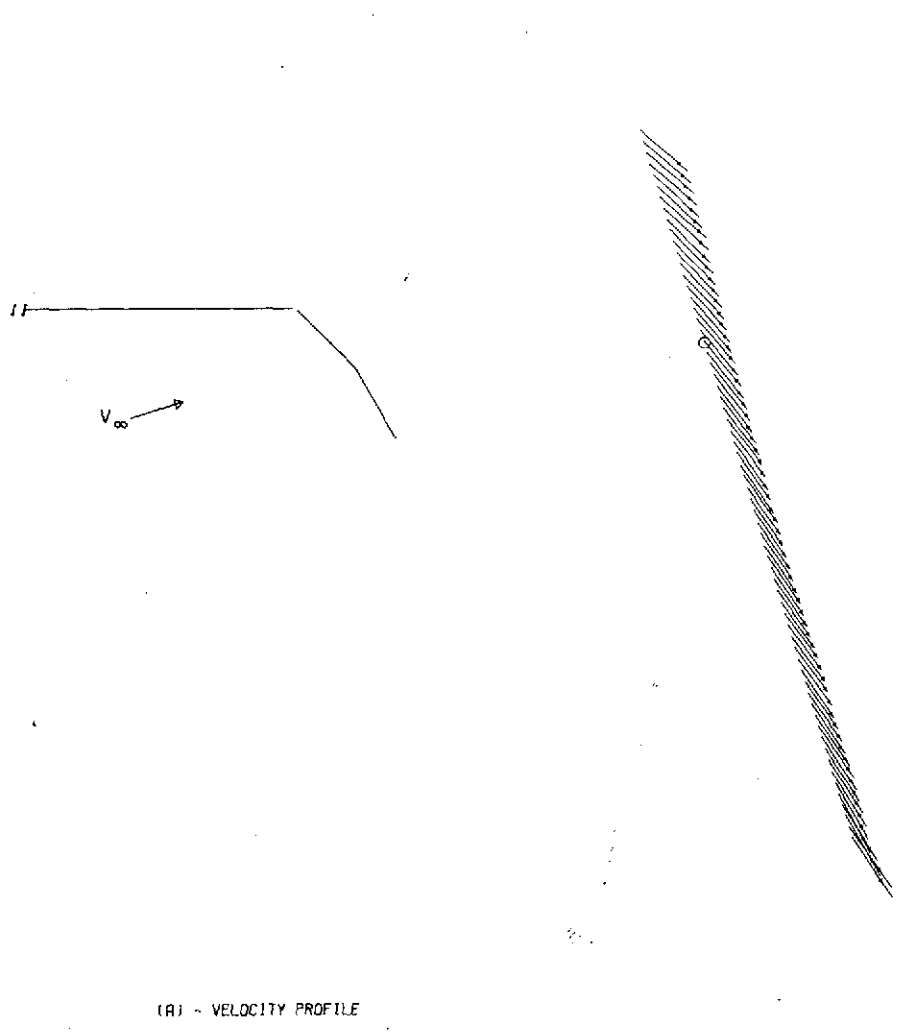


(B) - DOWNWASH ANGLE

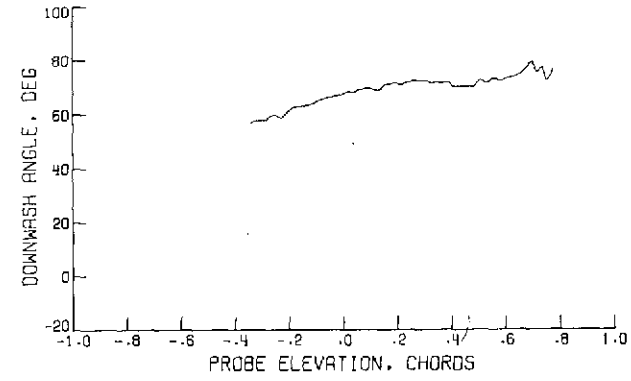


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

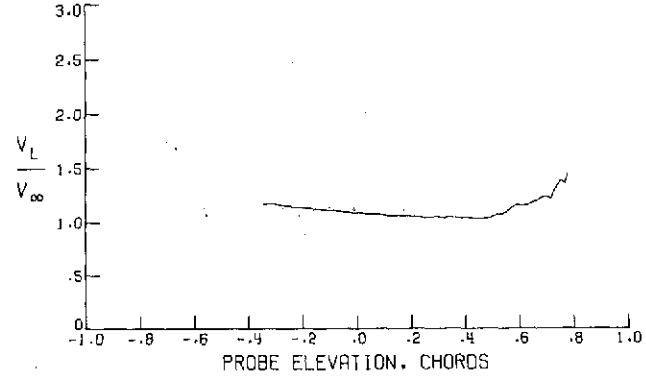
FIGURE 225. - WAKE SURVEY RESULTS FOR η = .511 , α = 16.68DEG, C_μ = 1.30 , V_∞ = 36.47 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

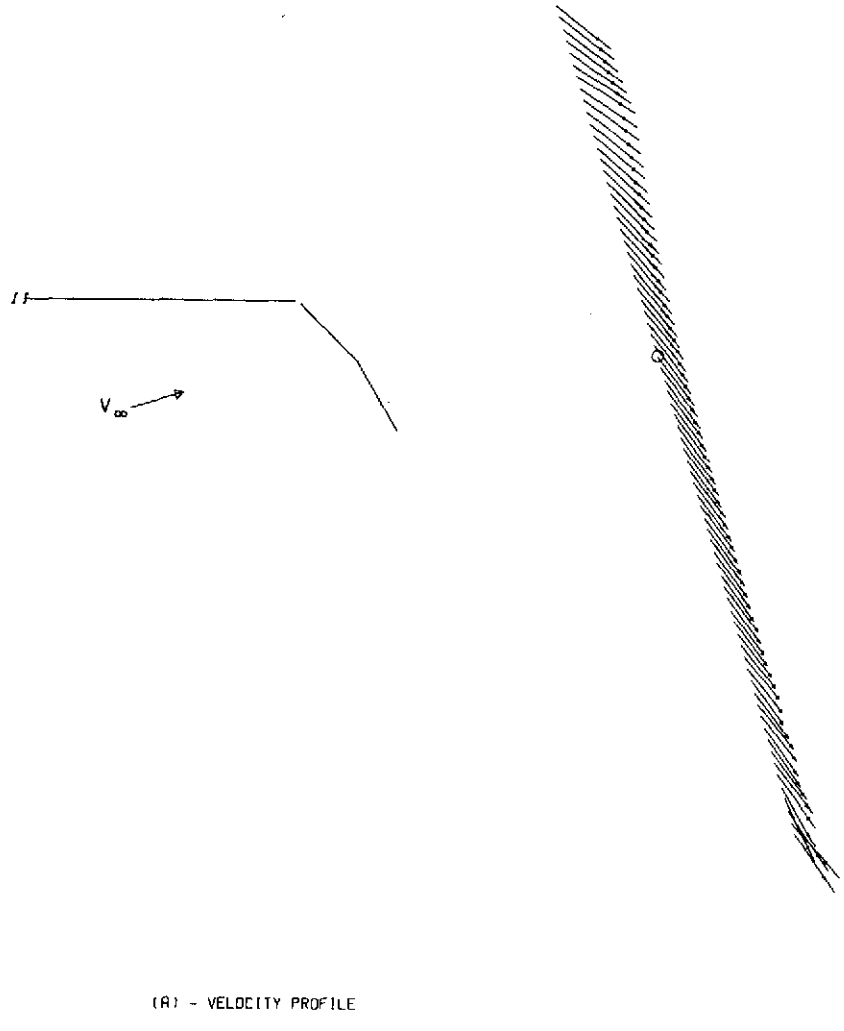


(B) - DOWNWASH ANGLE

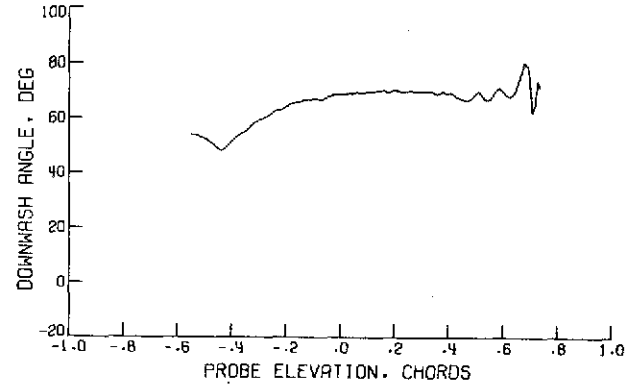


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

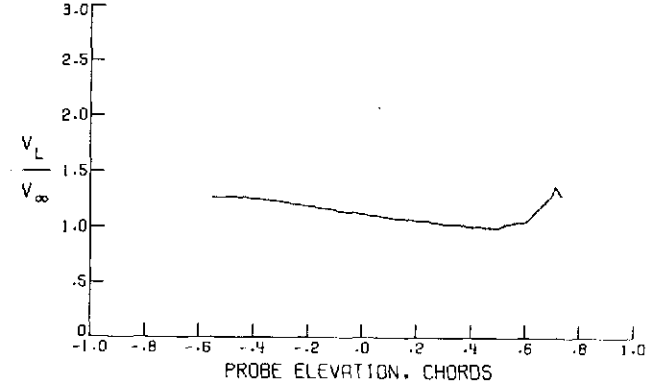
FIGURE 226. - WAKE SURVEY RESULTS FOR η = .451 , α = 16.69DEG, C_μ = 1.30 , V_∞ = 36.45 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

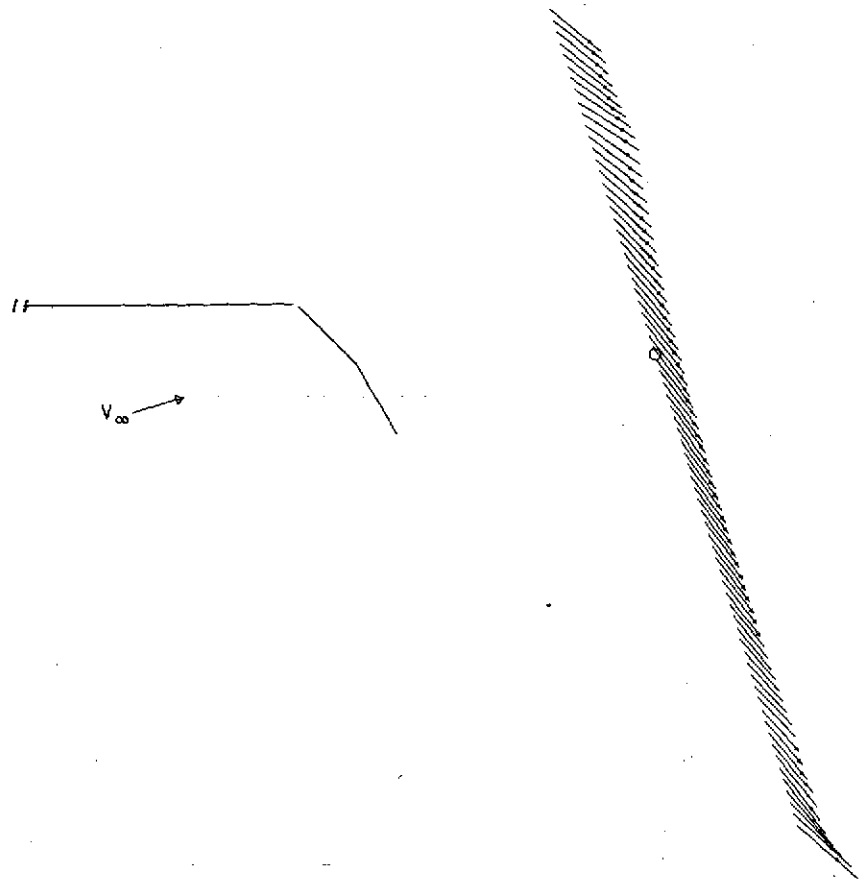


(B) - DOWNWASH ANGLE

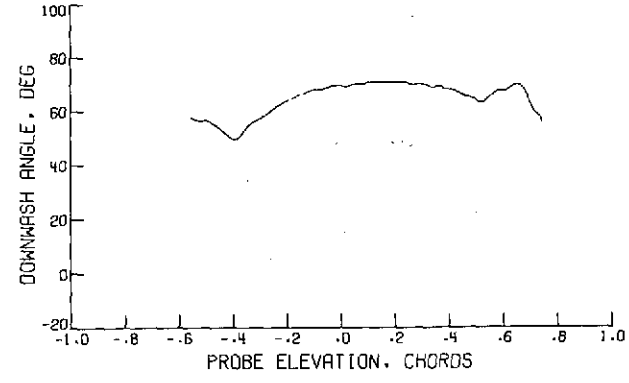


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

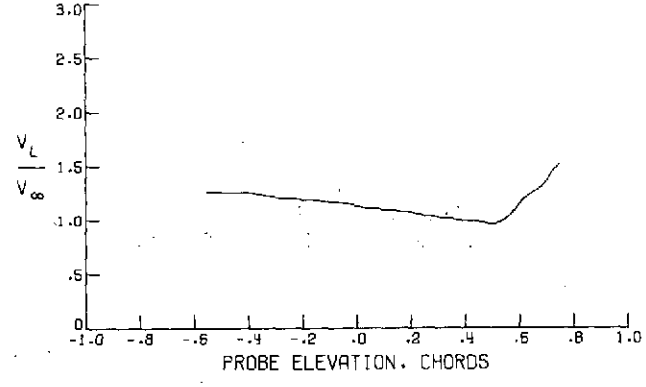
FIGURE 227. - WAKE SURVEY RESULTS FOR η = .374 , α = 16.71DEG, C_μ = 1.30 , V_∞ = 36.24 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

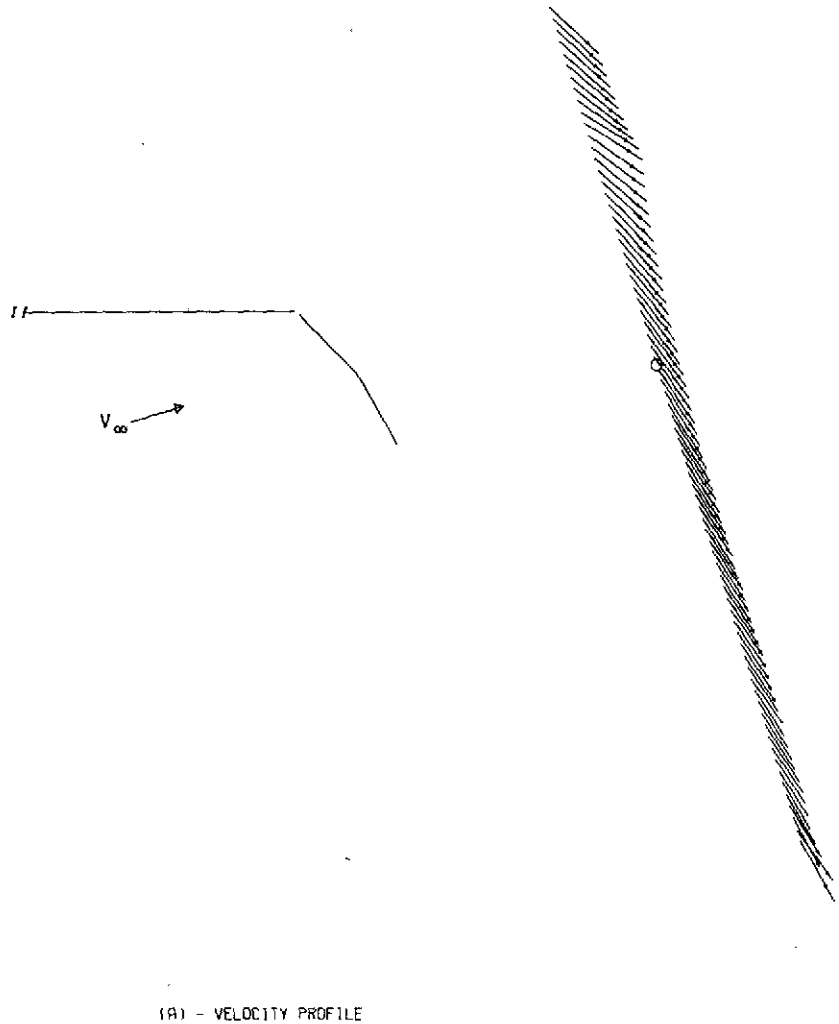


(B) - DOWNWASH ANGLE

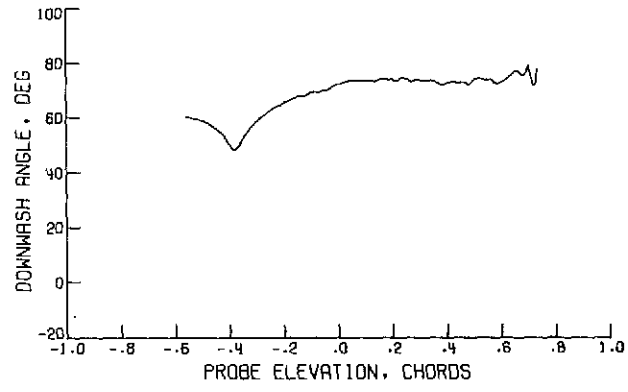


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

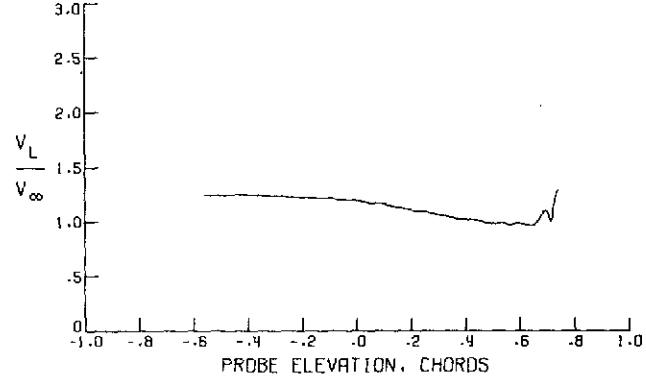
FIGURE 228. - WAKE SURVEY RESULTS FOR η = .319 , α = 16.71DEG, C_μ = 1.30 , V_∞ = 36.34 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

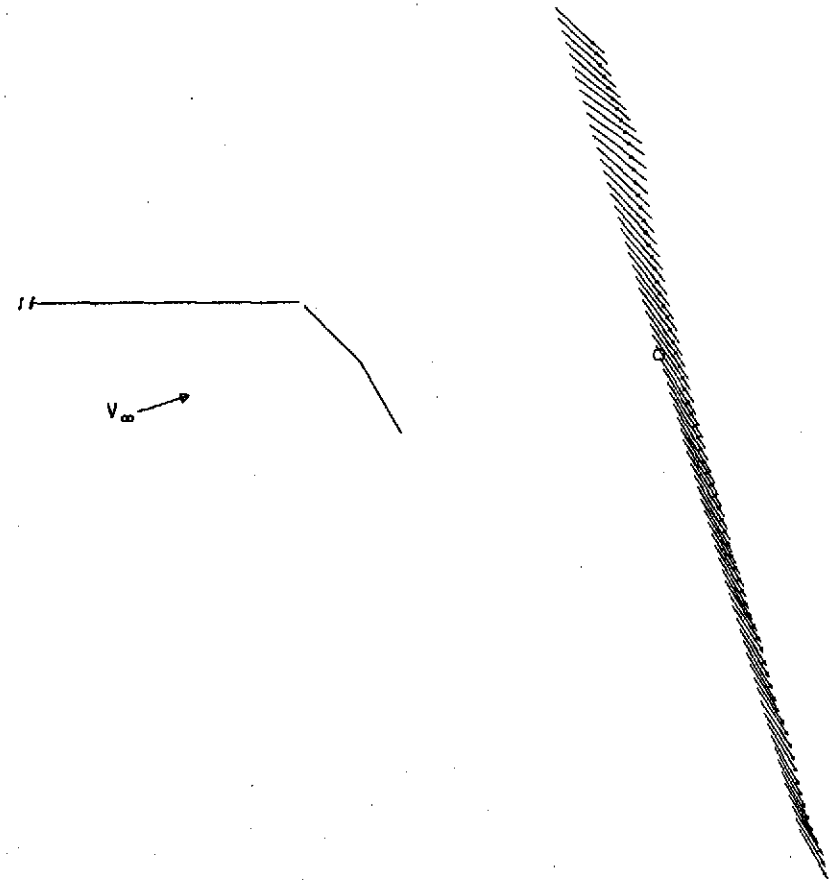


(B) - DOWNWASH ANGLE

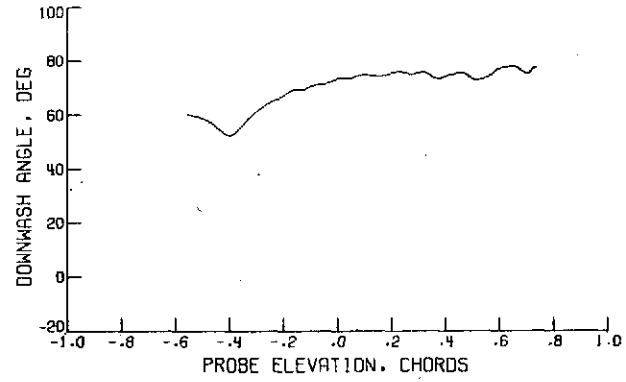


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

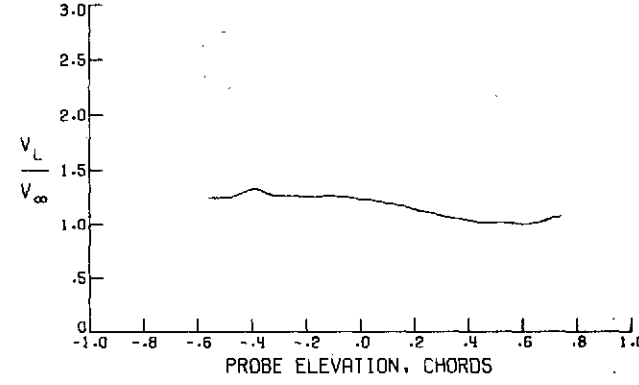
FIGURE 229. - WAKE SURVEY RESULTS FOR η = .241 , α = 16.72DEG, C_μ = 1.30 , V_∞ = 36.24 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

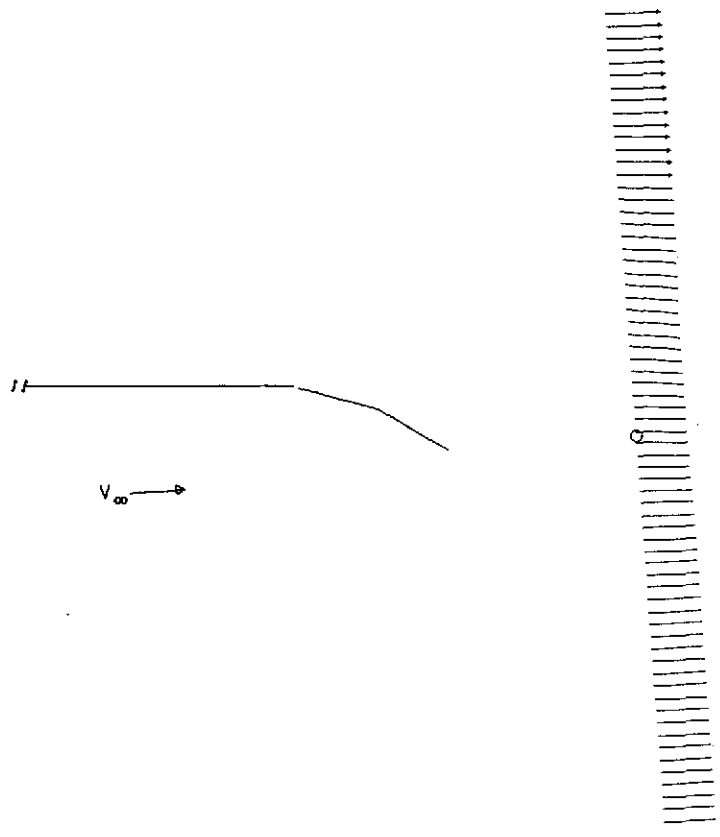


(B) - DOWNWASH ANGLE

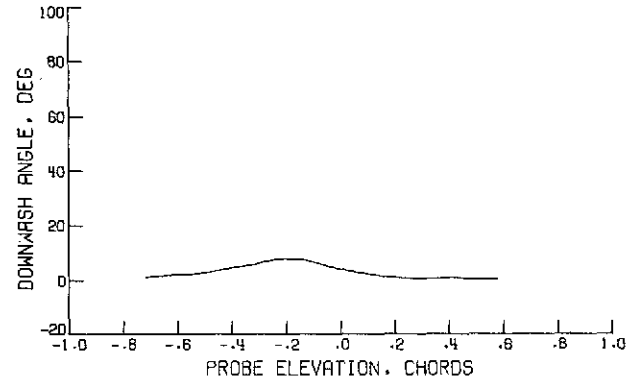


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

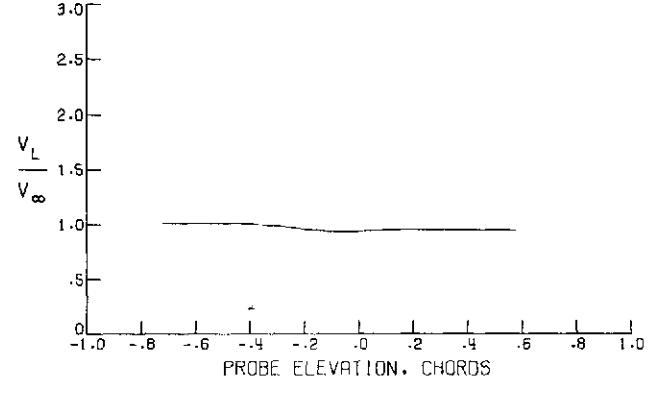
FIGURE 230. - WAKE SURVEY RESULTS FOR η = .206 , α = 16.71DEG, C_μ = 1.30 , V_∞ = 36.23 M/SEC, δ_F = 60.0 DEG



(A) - VELOCITY PROFILE

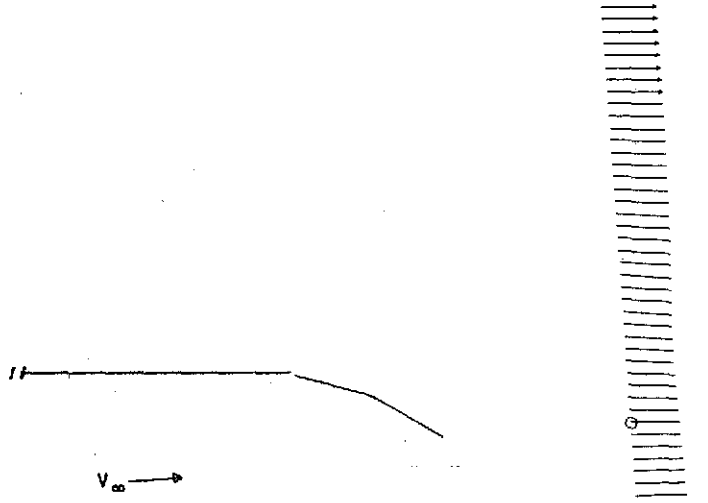


(B) - DOWNWASH ANGLE

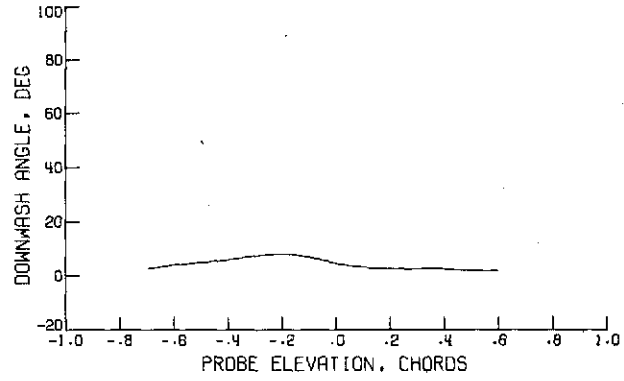


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

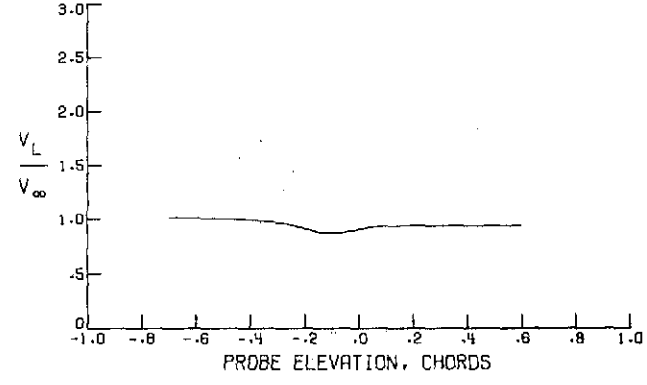
FIGURE 231. - WAKE SURVEY RESULTS FOR η = .909 , α = 4.12 DEG, C_μ = 0.00 , V_∞ = 36.47 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



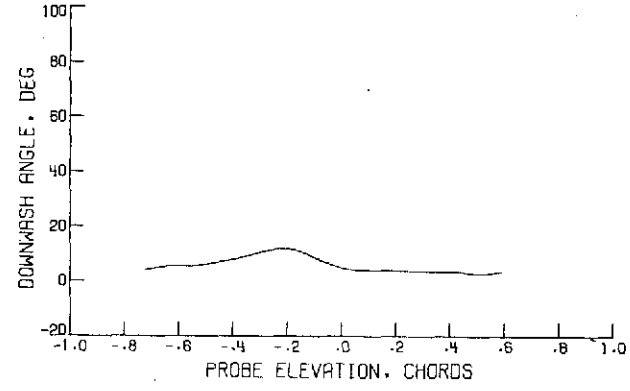
(B) - DOWNWASH ANGLE



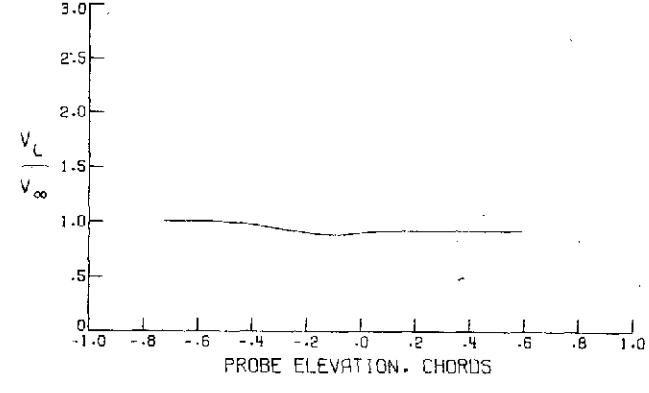
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 232 - WAKE SURVEY RESULTS FOR η = .805 , α = 4.11 DEG, C_μ = 0.00 , V_∞ = 36.41 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

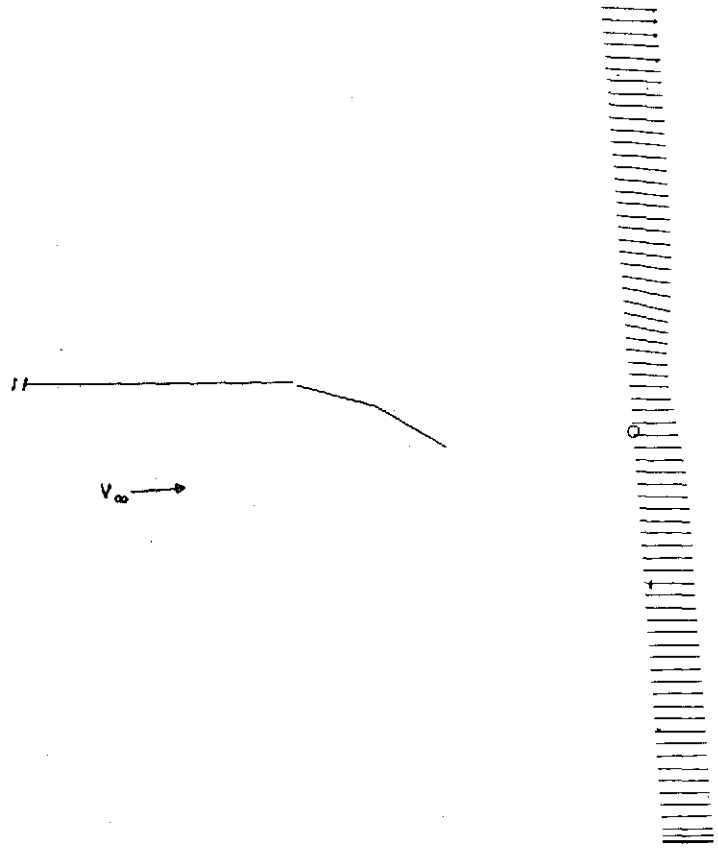


(B) - DOWNWASH ANGLE

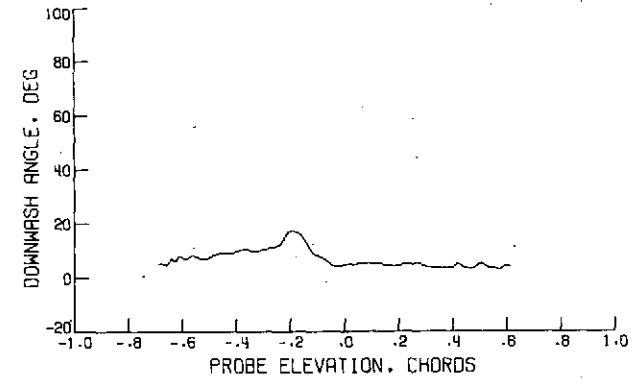


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

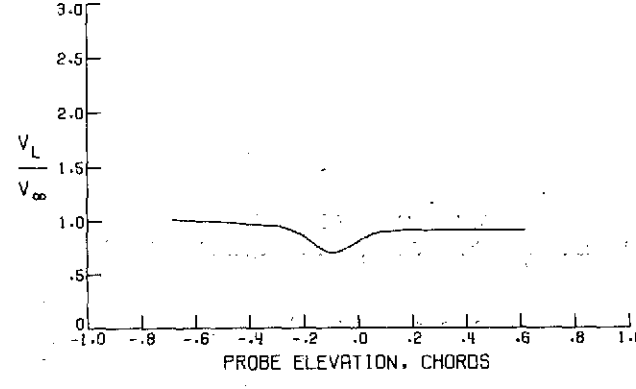
FIGURE 233. - WAKE SURVEY RESULTS FOR η = .688 , α = 4.11 DEG, C_μ = 0.00 , V_∞ = 36.38 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

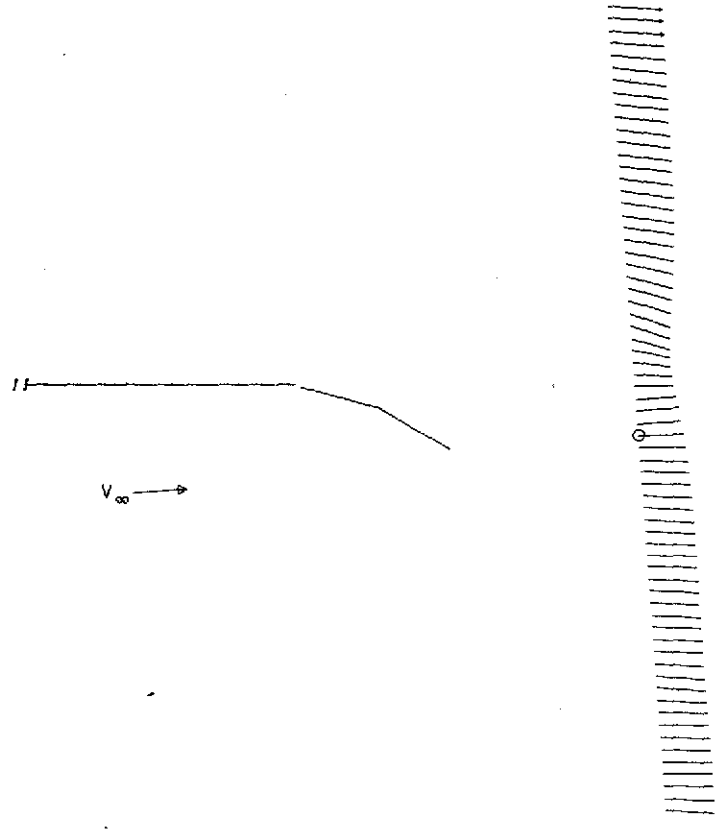


(B) - DOWNWASH ANGLE

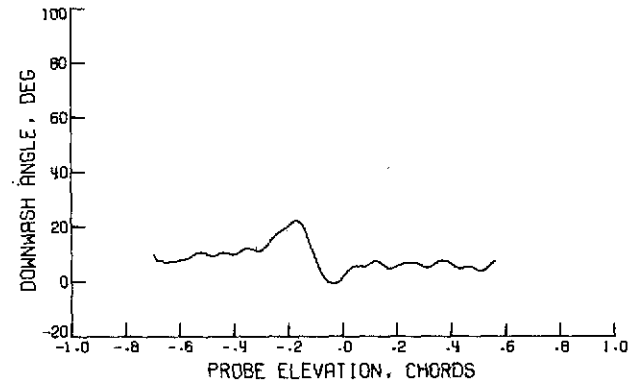


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

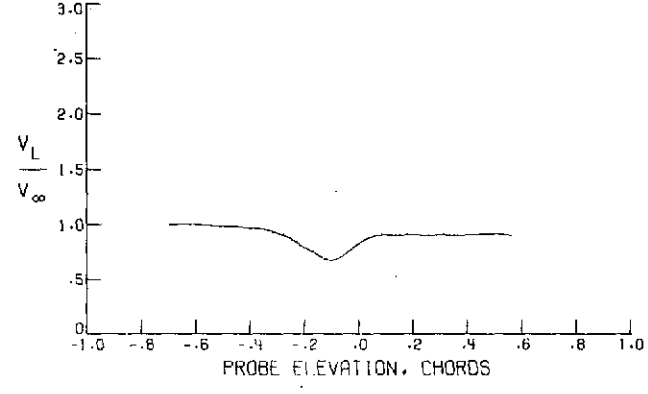
FIGURE 234. - WAKE SURVEY RESULTS FOR η = .598 , α = 4.11 DEG, C_μ = 0.00 , V_∞ = 36.36 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

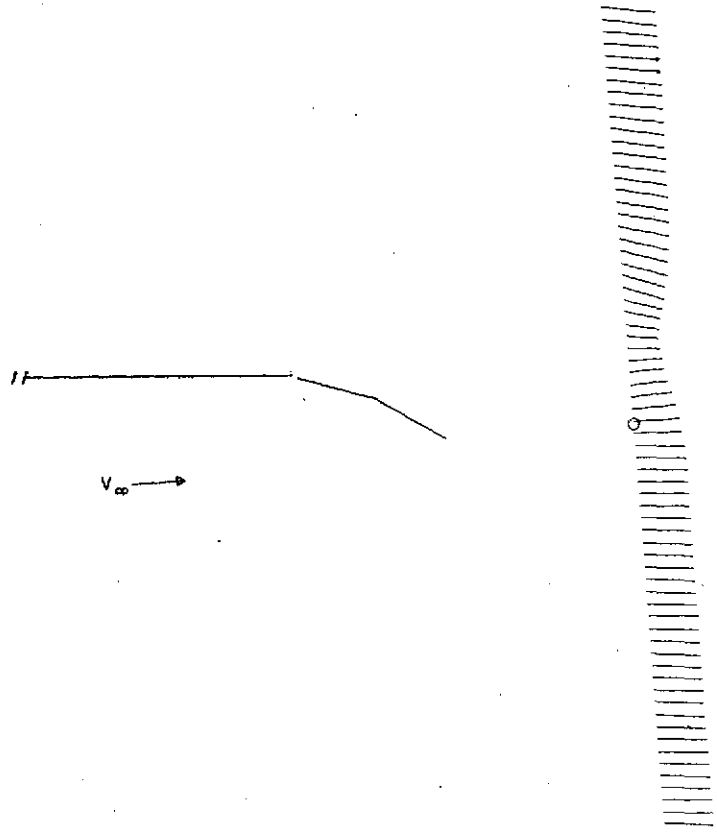


(B) - DOWNWASH ANGLE

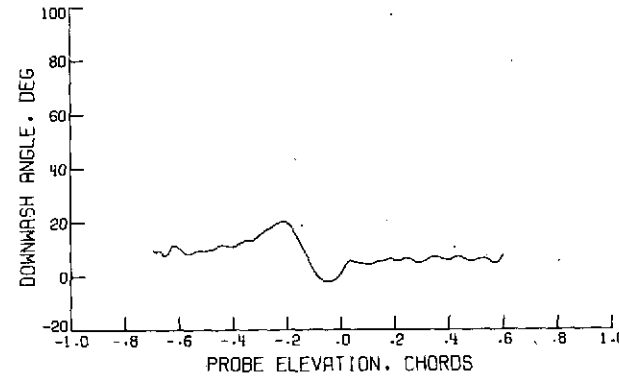


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

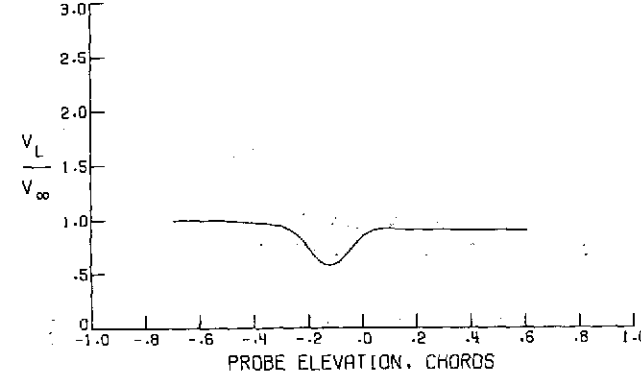
FIGURE 235. - WAKE SURVEY RESULTS FOR η = .503 , α = 4.11 DEG, C = 0.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

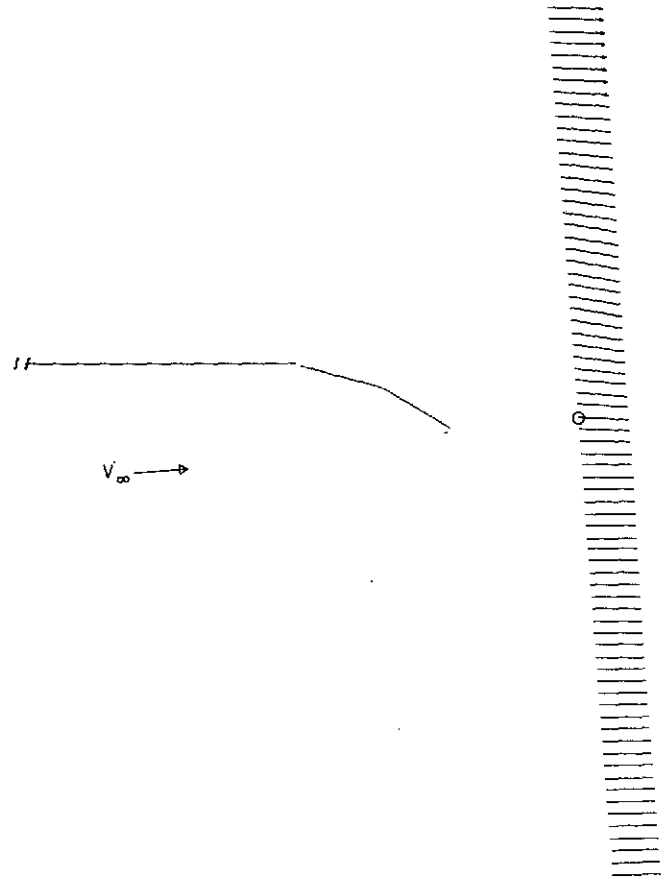


(B) - DOWNWASH ANGLE

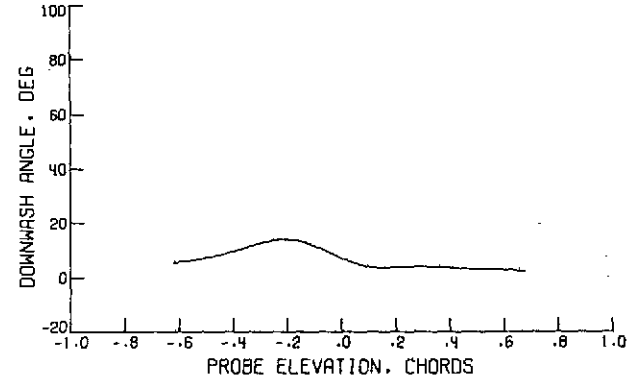


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

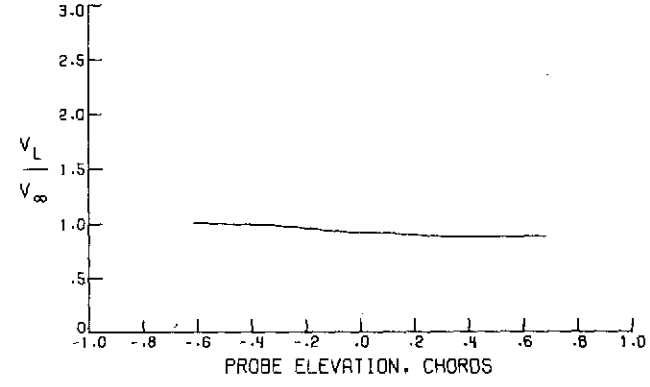
FIGURE 236. - WAKE SURVEY RESULTS FOR η = .434 , α = 4.12 DEG, C_μ = 0.00 , V_∞ = 36.38 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

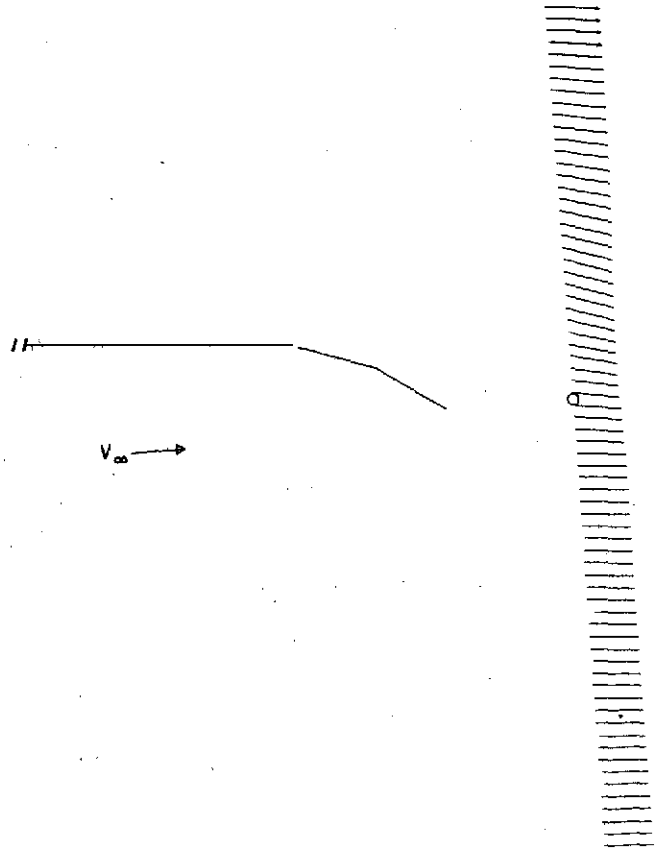


(B) - DOWNWASH ANGLE

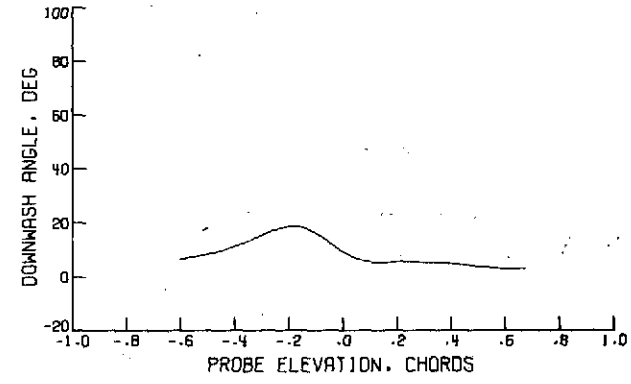


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

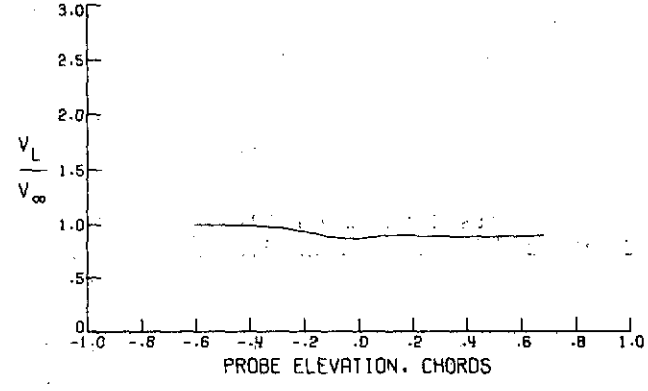
FIGURE 237. - WAKE SURVEY RESULTS FOR η = .374 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

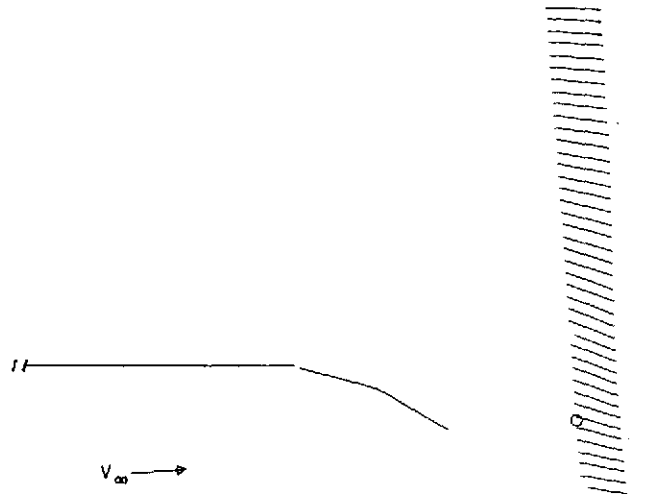


(B) - DOWNWASH ANGLE

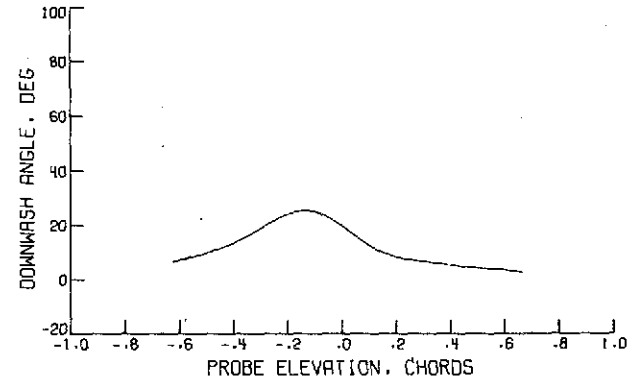


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

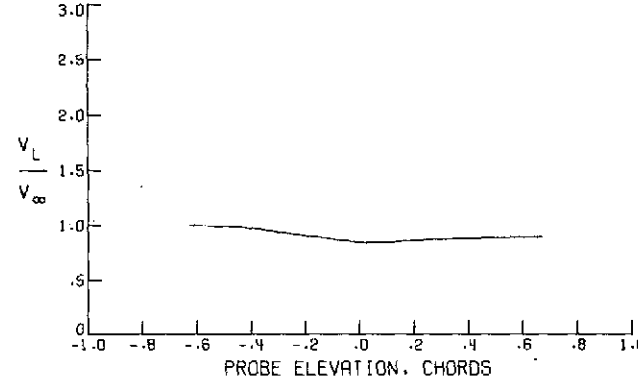
FIGURE 238. - WAKE SURVEY RESULTS FOR η = .320 , α = 4.17 DEG, C_μ = 0.00 , V_∞ = 36.23 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

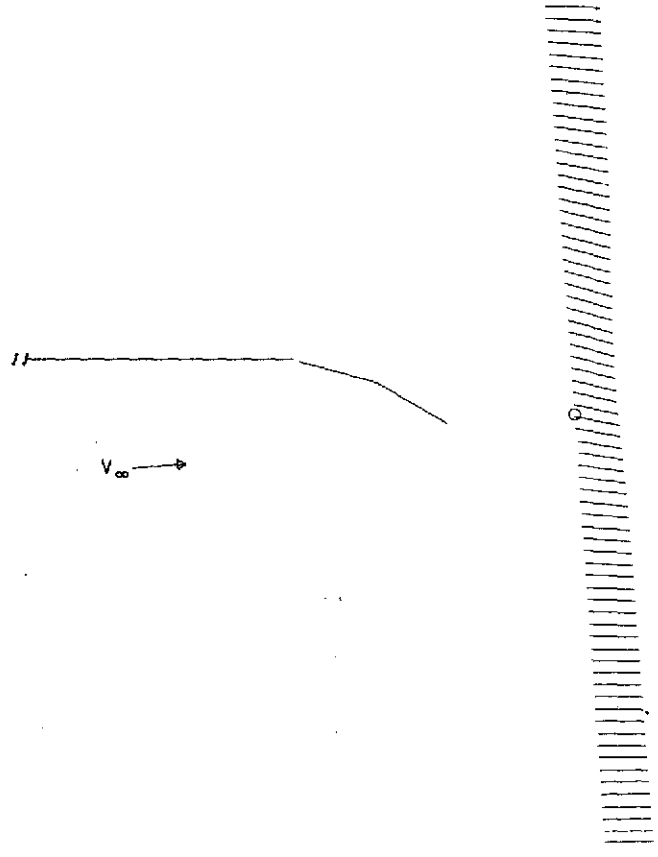


(B) - DOWNWASH ANGLE

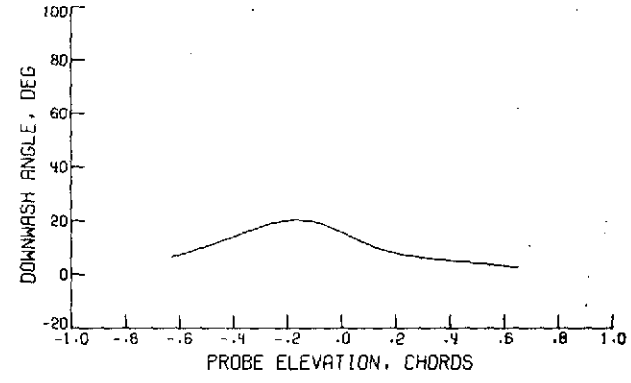


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

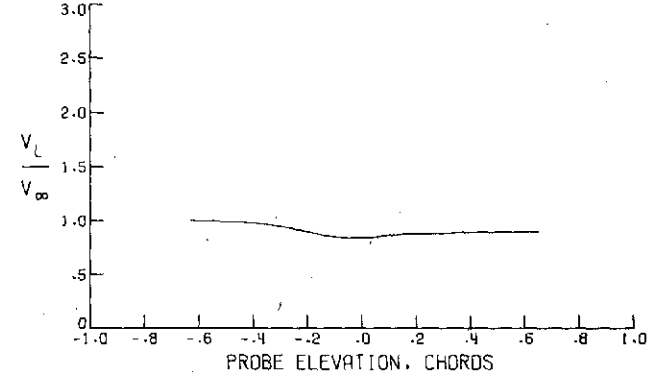
FIGURE 239. - WAKE SURVEY RESULTS FOR η = .241 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.18 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

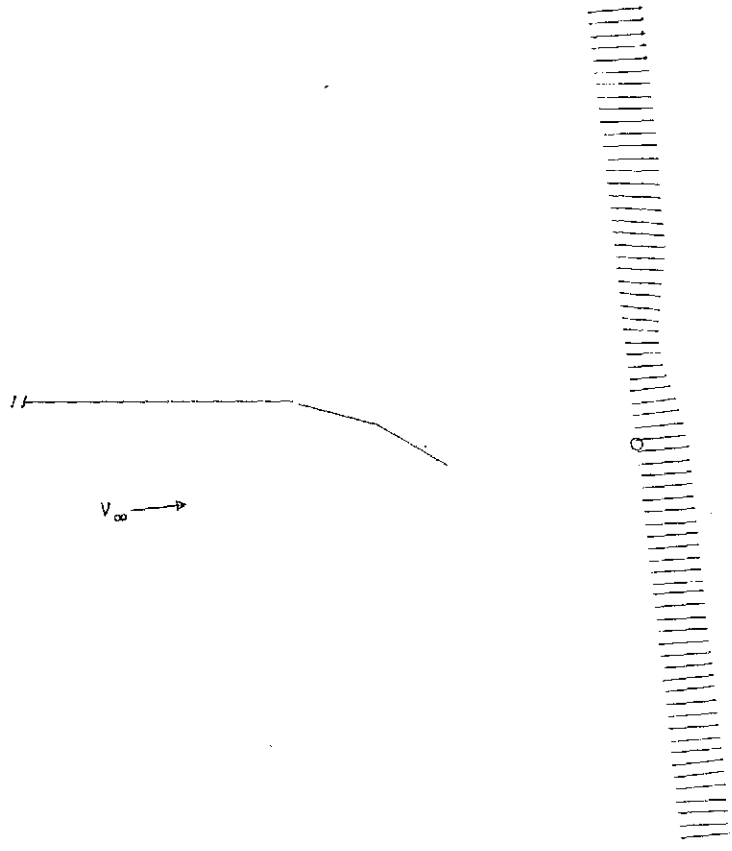


(B) - DOWNWASH ANGLE

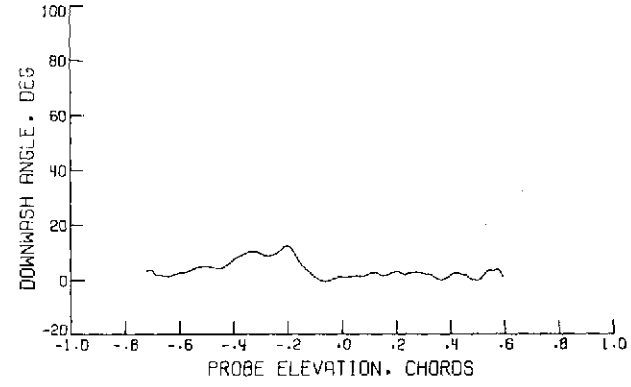


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

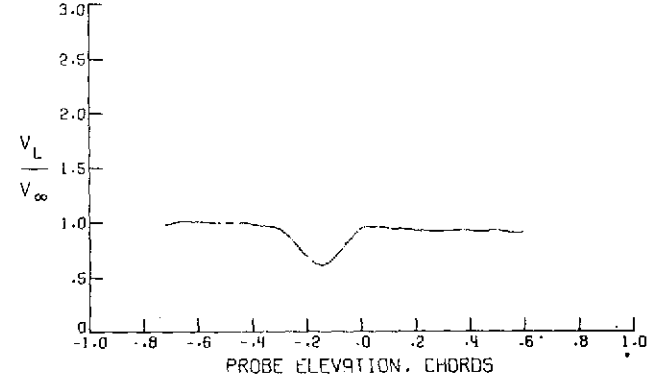
FIGURE 240. - WAKE SURVEY RESULTS FOR η = .207 , α = 4.16 DEG, C_μ = 0.00 , V_∞ = 36.20 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

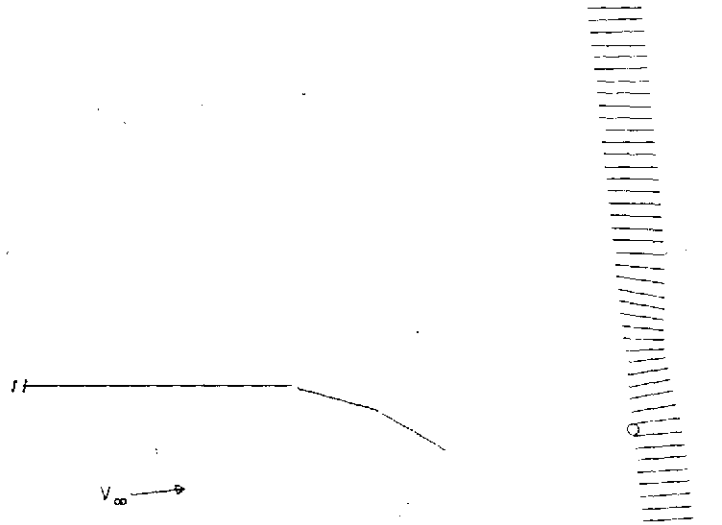


(B) - DOWNWASH ANGLE

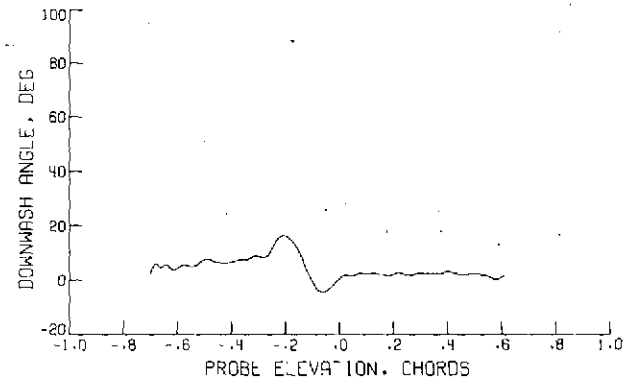


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

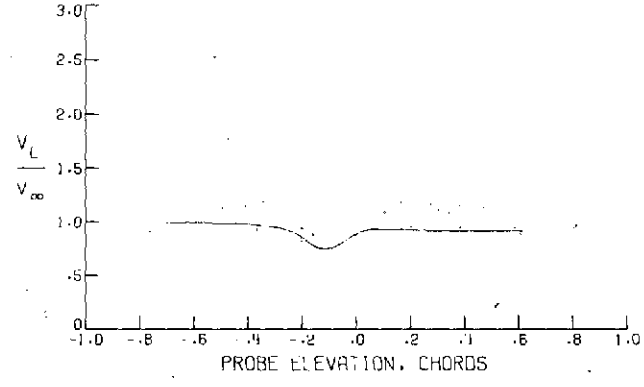
FIGURE 241. - WAKE SURVEY RESULTS FOR η = .908 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.40 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

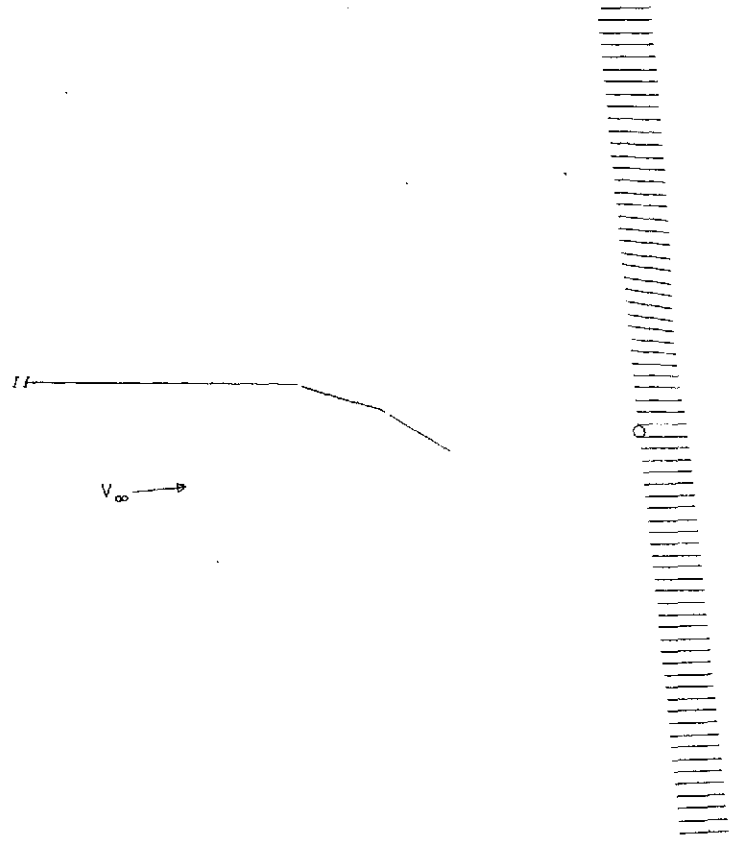


(B) - DOWNWASH ANGLE

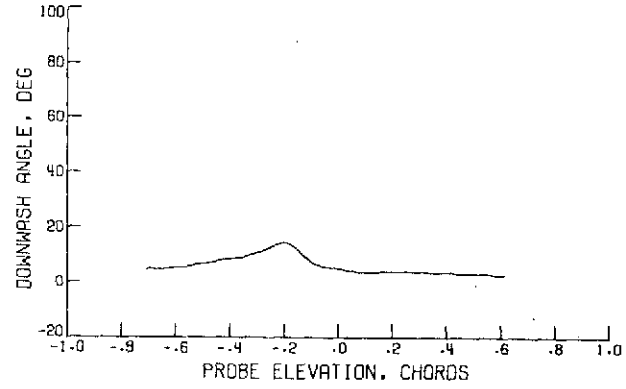


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

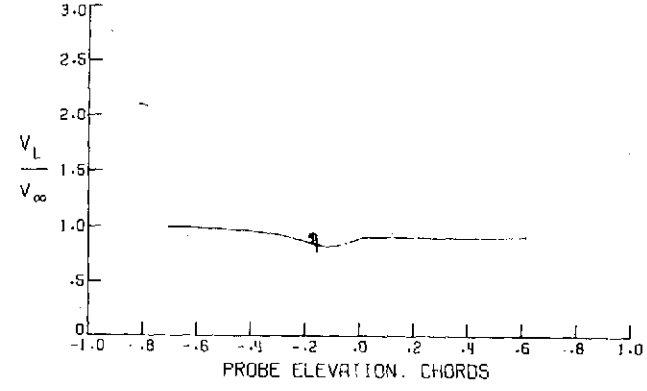
FIGURE 242. - WAKE SURVEY RESULTS FOR η = .805 , α = 6.29 DEG, C_μ = 0.00 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

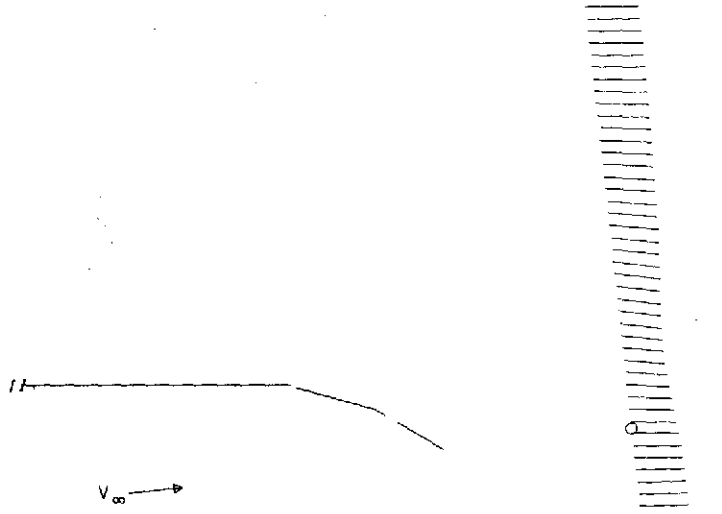


(B) - DOWNWASH ANGLE

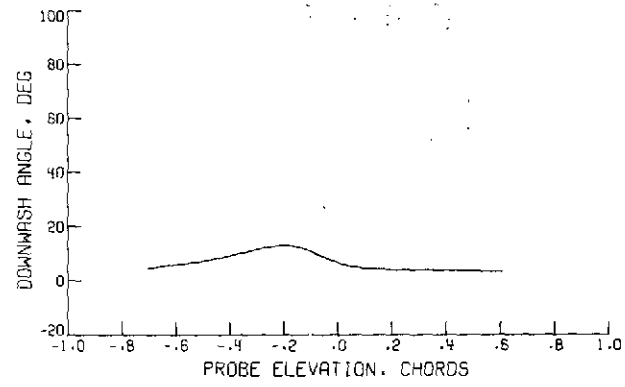


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

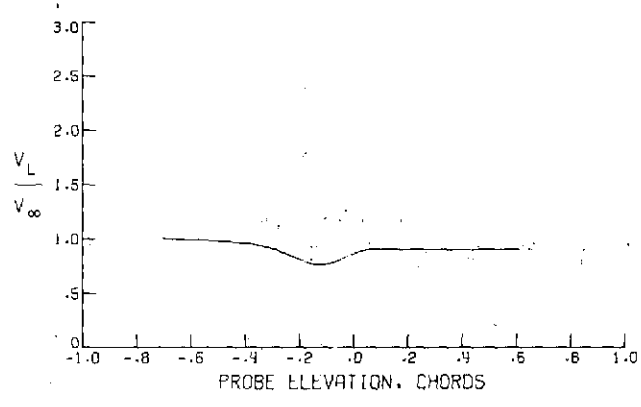
FIGURE 243. - WAKE SURVEY RESULTS FOR η = .685 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.41 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

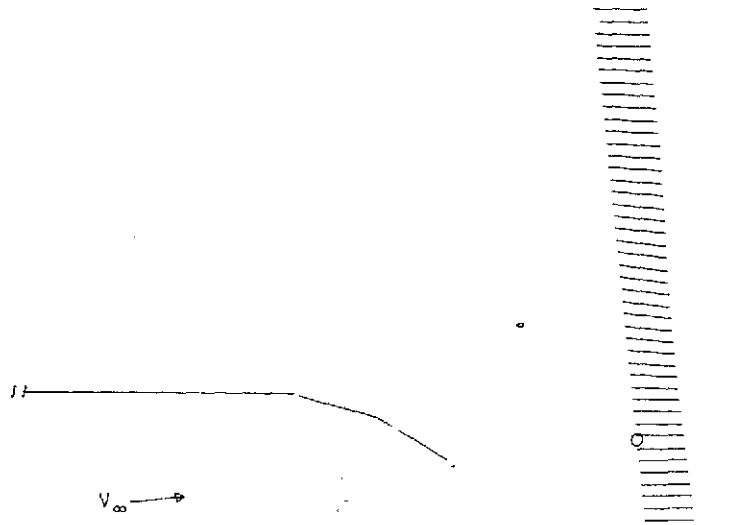


(B) - DOWNWASH ANGLE

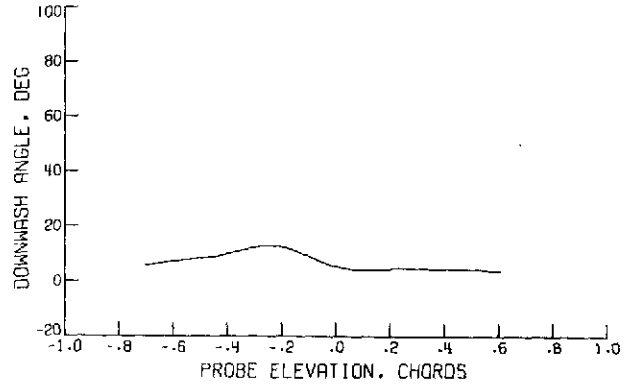


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

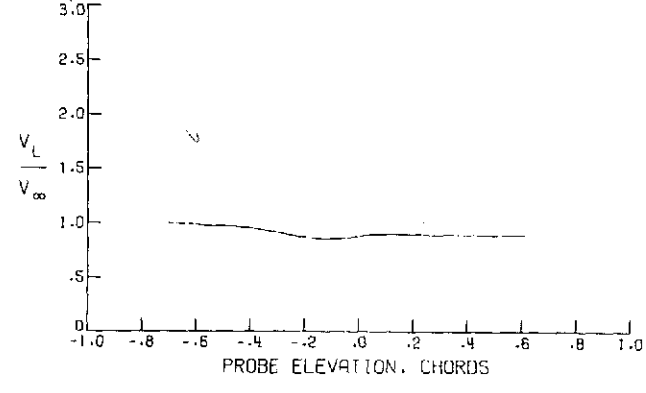
FIGURE 24.- WAKE SURVEY RESULTS FOR η = .596 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.45 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

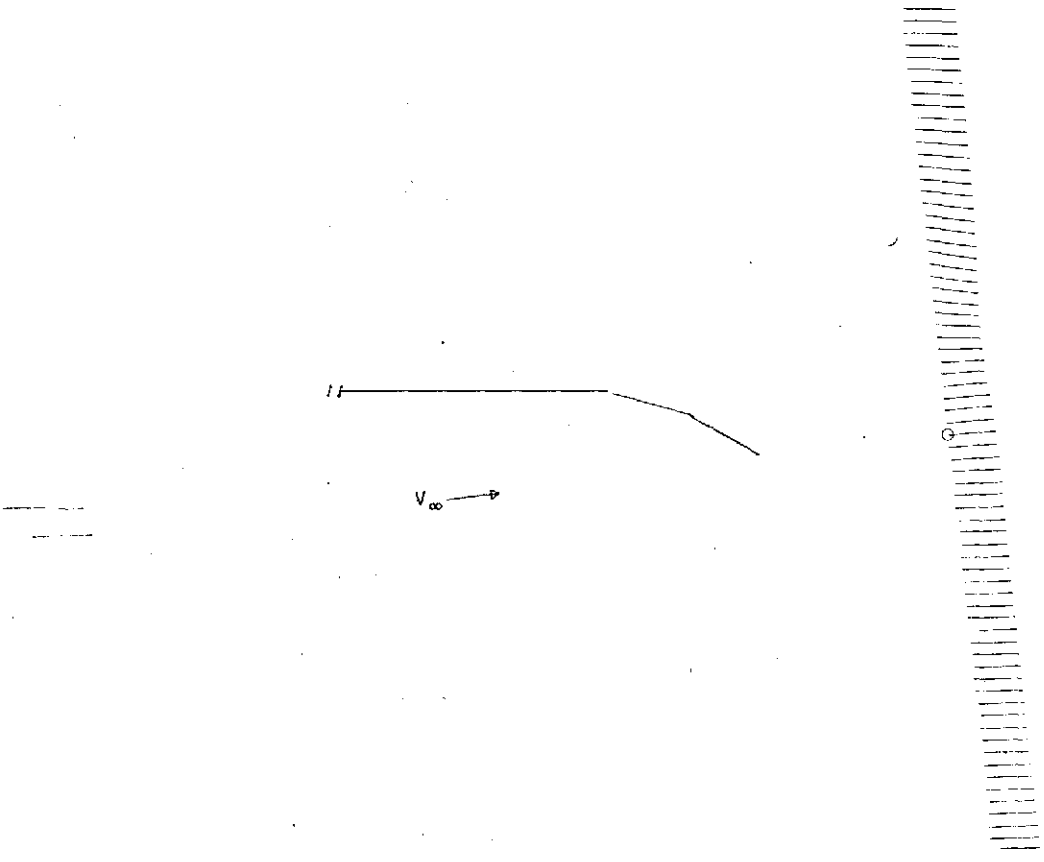


(B) - DOWNWASH ANGLE

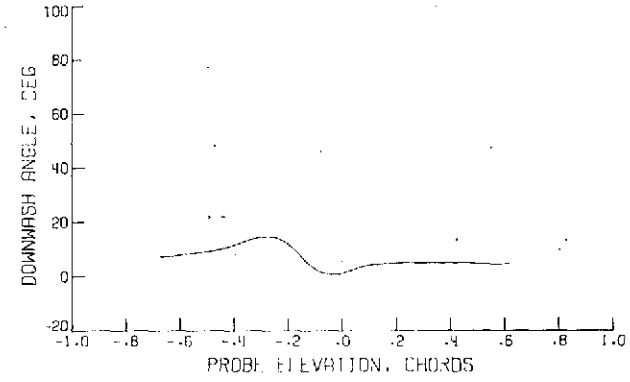


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

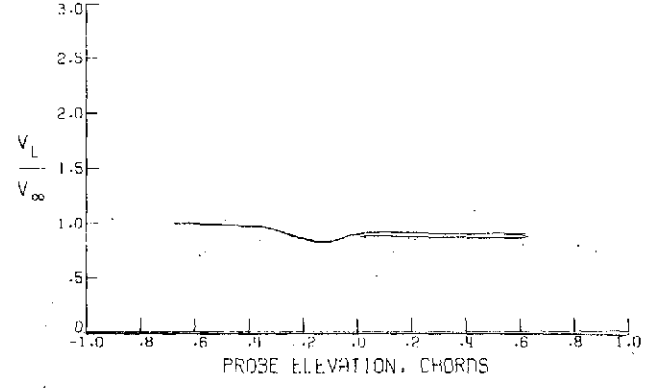
FIGURE 245. - WAKE SURVEY RESULTS FOR η = .501 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

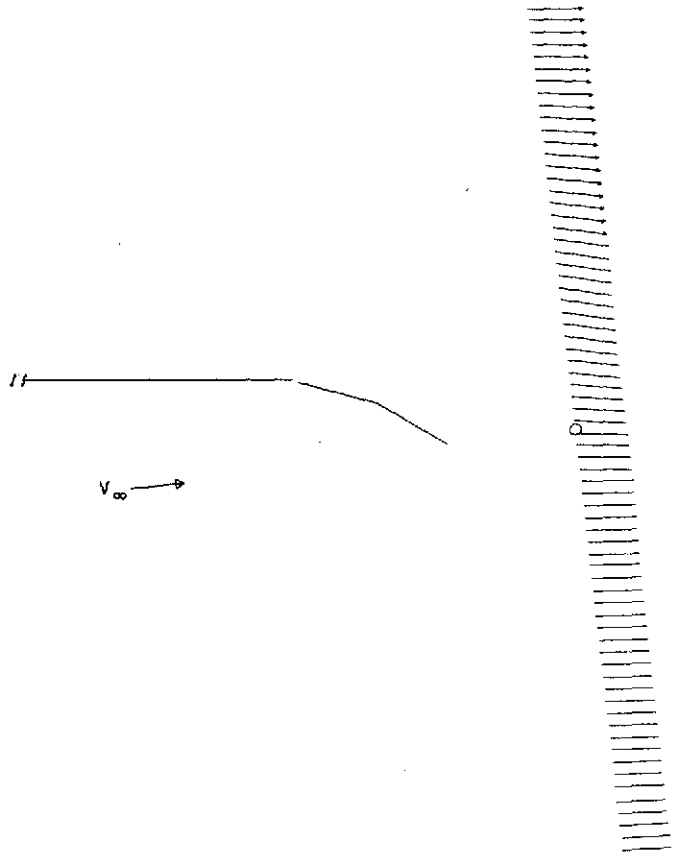


(B) - DOWNWASH ANGLE

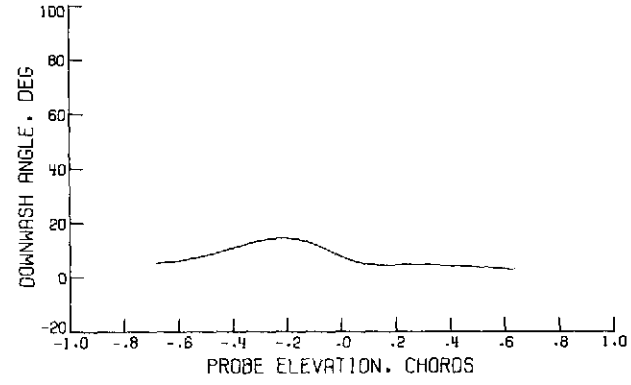


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

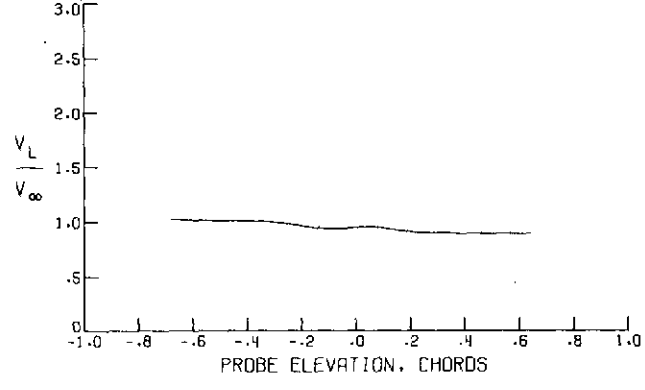
FIGURE 246. - WAKE SURVEY RESULTS FOR η = .432 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

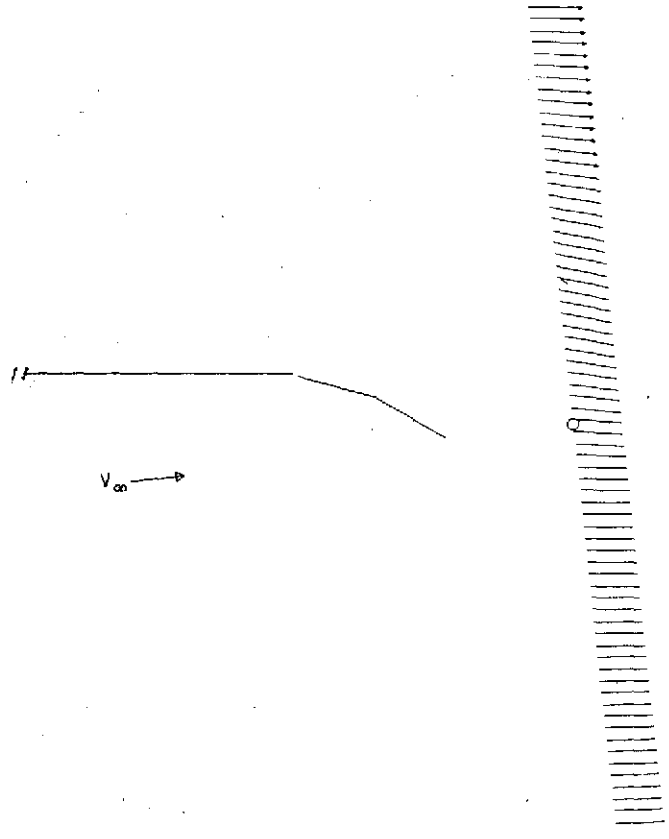


(B) - DOWNWASH ANGLE

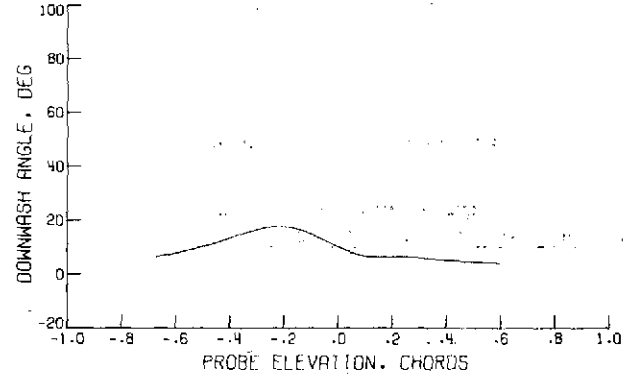


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

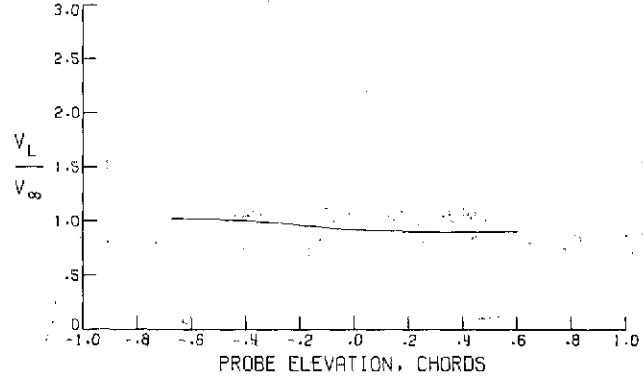
FIGURE 247. - WAKE SURVEY RESULTS FOR η = .375 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.50 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

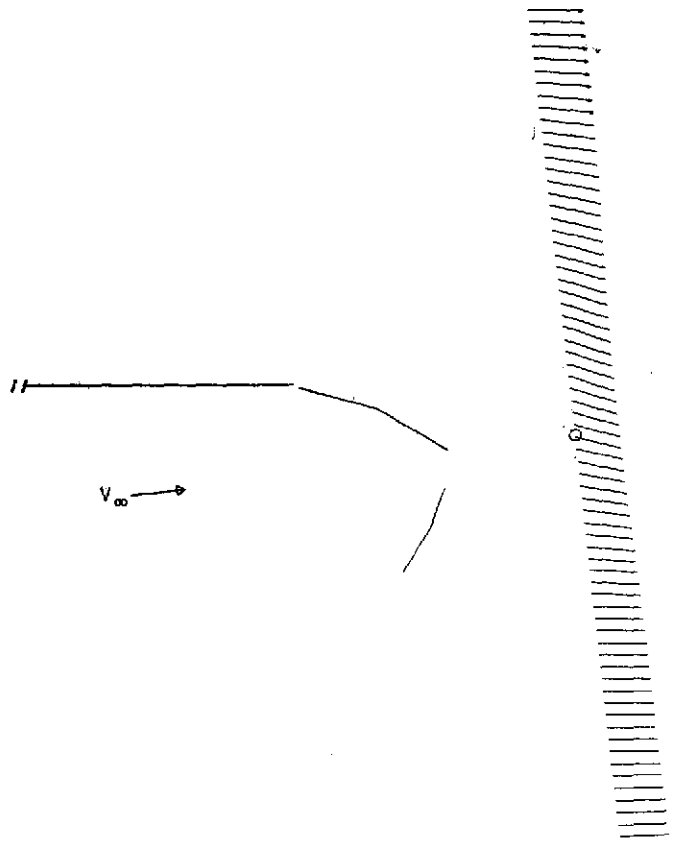


(B) - DOWNWASH ANGLE

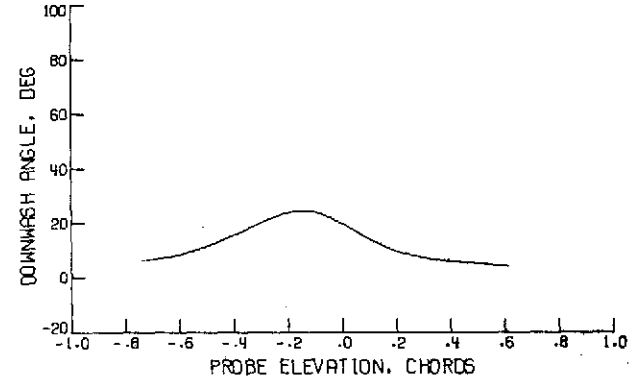


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

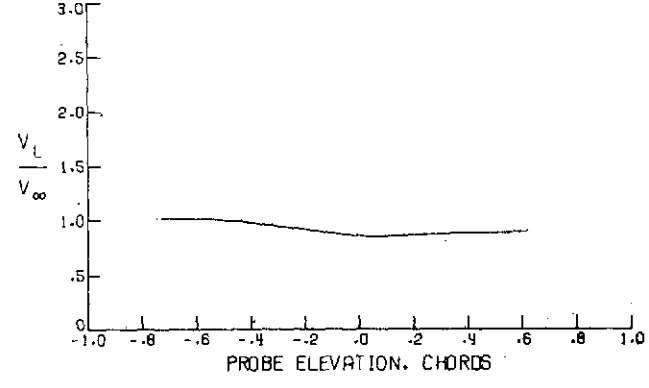
FIGURE 248.- WAKE SURVEY RESULTS FOR η = .320 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

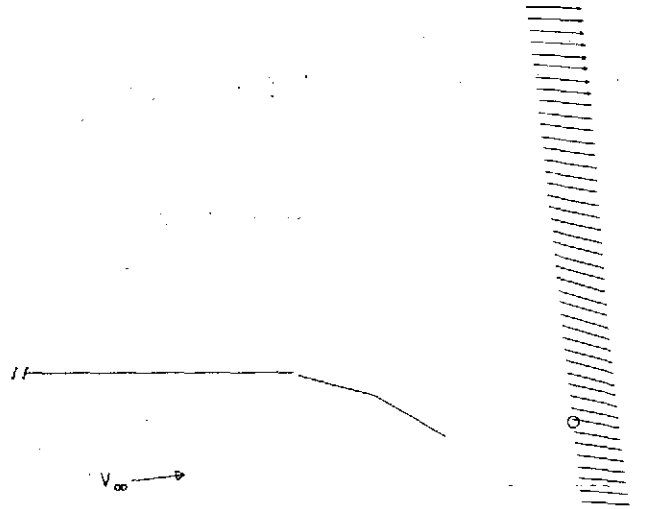


(B) - DOWNWASH ANGLE

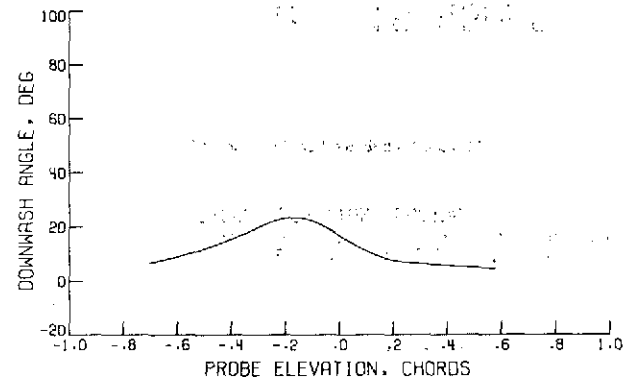


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

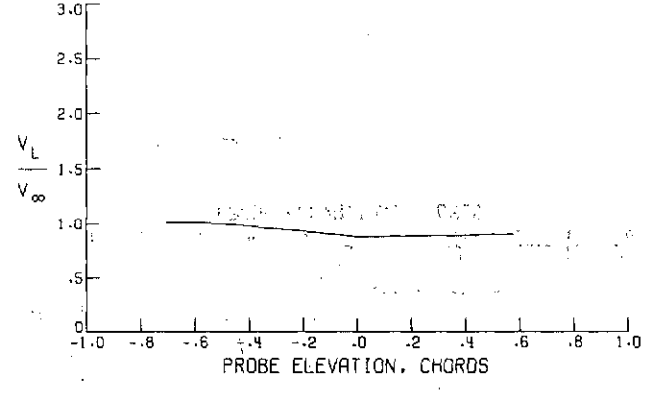
FIGURE 249. - WAKE SURVEY RESULTS FOR η = .242 , α = 6.28 DEG, C_μ = 0.00 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



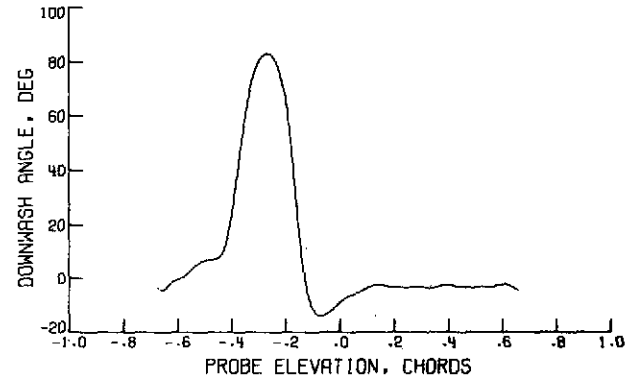
(B) - DOWNWASH ANGLE



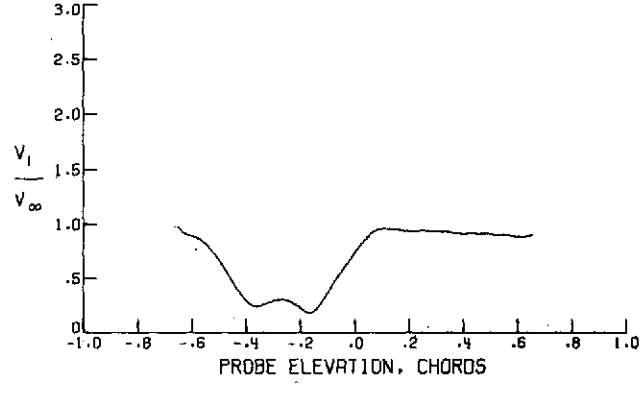
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 250. - WAKE SURVEY RESULTS FOR η = .207 , α = 6.32 DEG, C_μ = 0.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

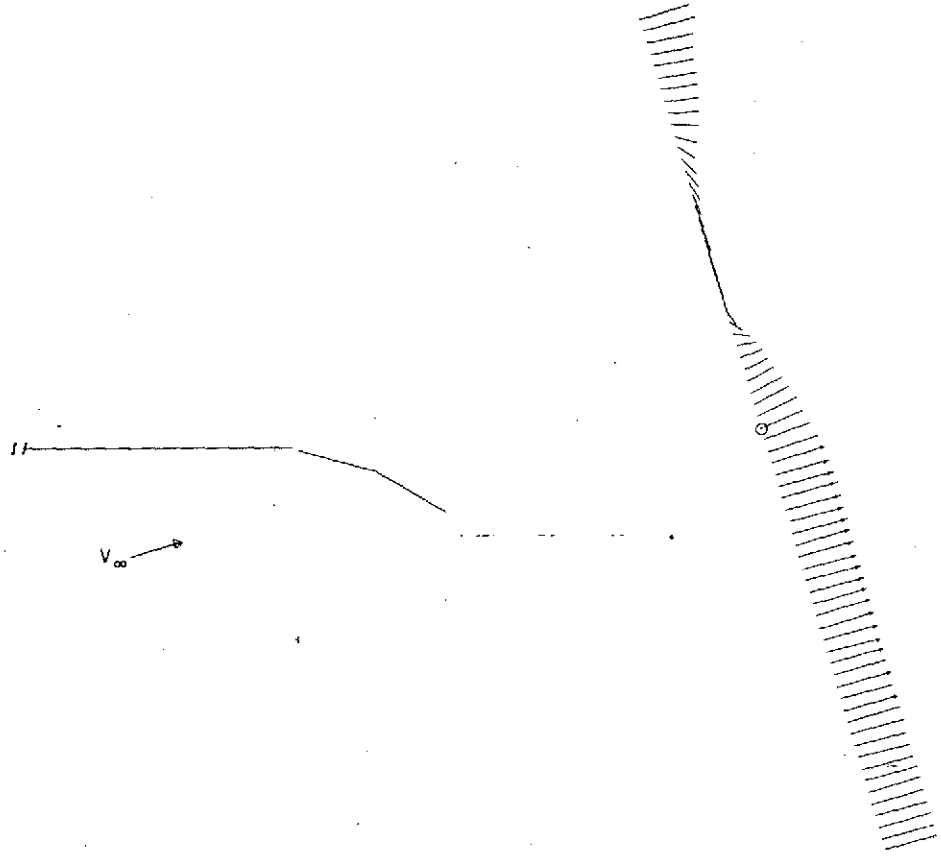


(B) - DOWNWASH ANGLE

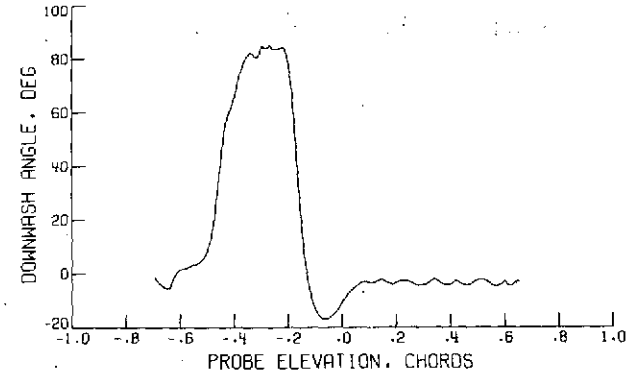


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

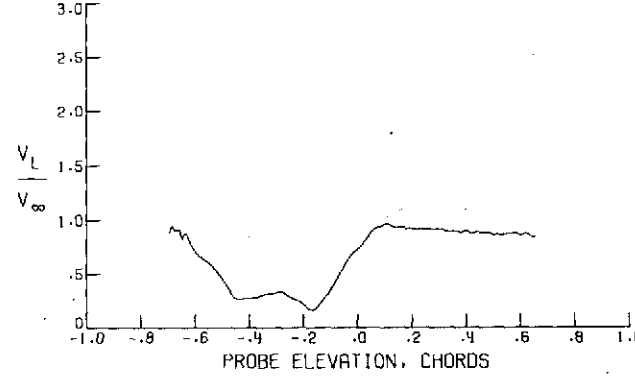
FIGURE 251. - WAKE SURVEY RESULTS FOR η = .910 , α = 16.45DEG, C_μ = 0.00 , V_∞ = 36.24 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



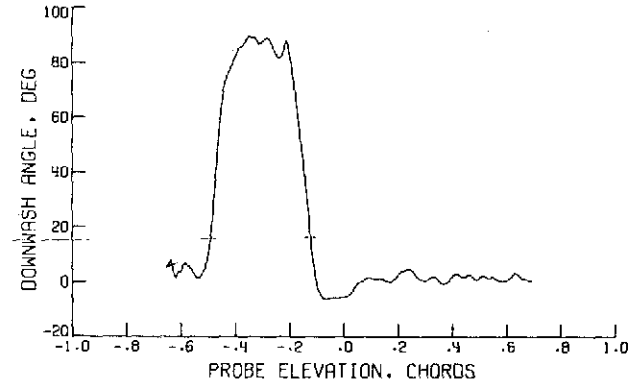
(B) - DOWNWASH ANGLE



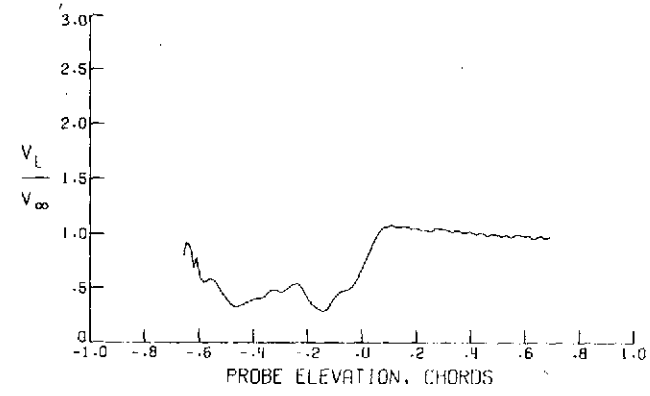
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 252. - WAKE SURVEY RESULTS FOR η = .807 , α = 16.450EG, C_μ =0.00 , V_∞ = 36.33 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE



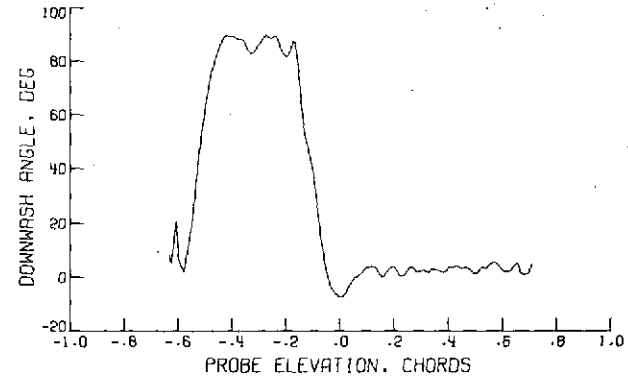
(B) - DOWNWASH ANGLE



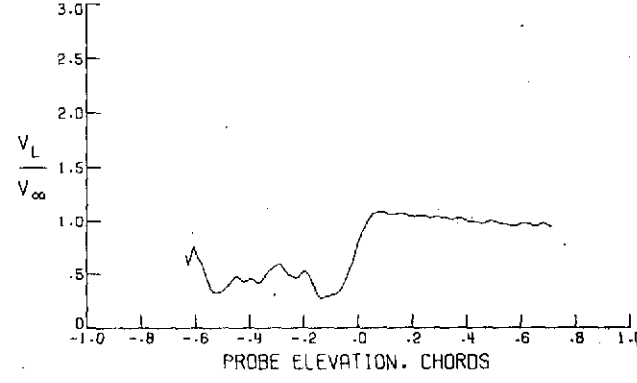
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 253. - WAKE SURVEY RESULTS FOR η = .687 , α 16.45DEG. C_μ = 0.00 , V_∞ = 36.33 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

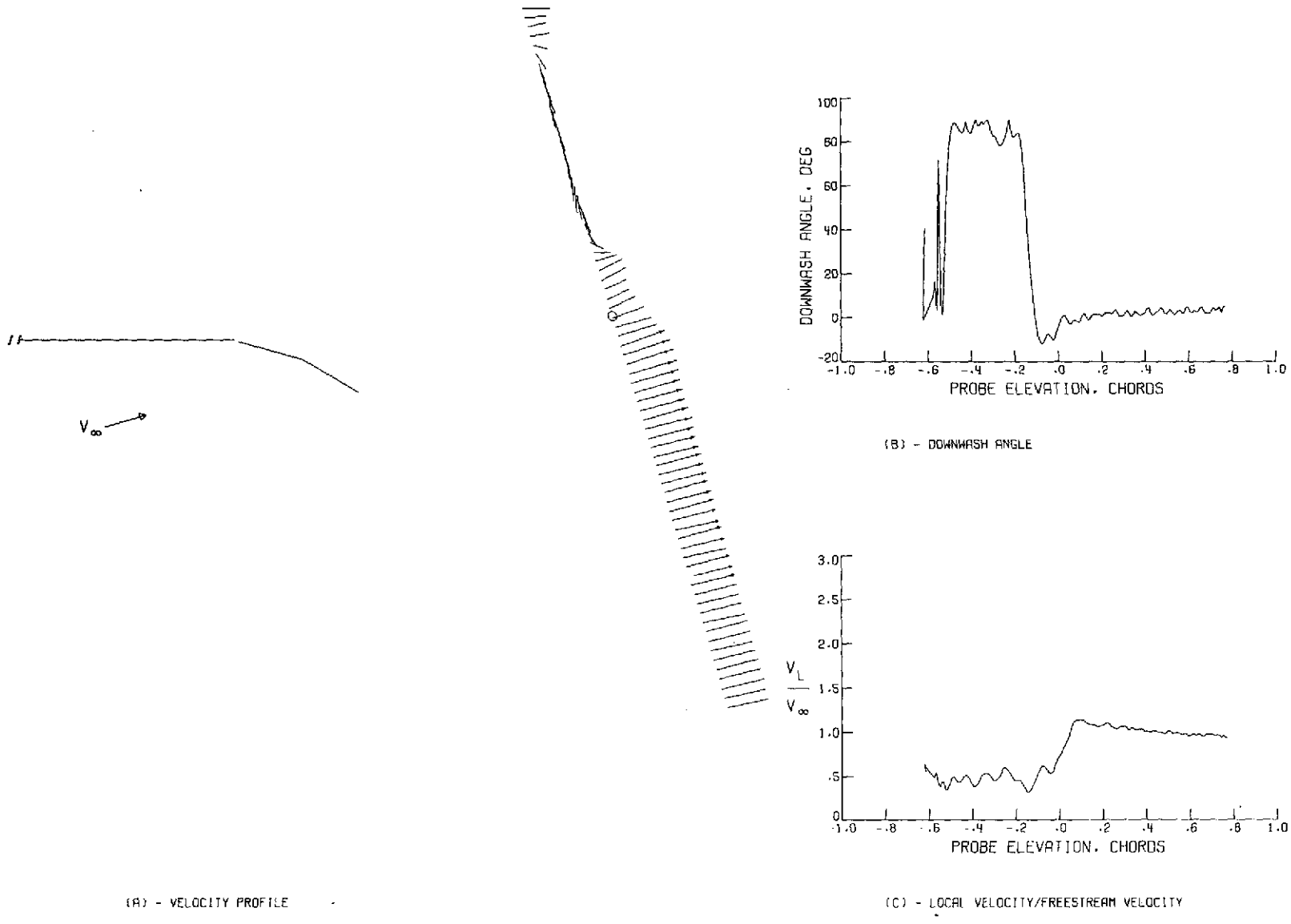


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 254. - WAKE SURVEY RESULTS FOR η = .598 , α = 16.44DEG, C_μ = 0.00 , V_∞ = 36.29 M/SEC, δ_F = 30.0 DEG



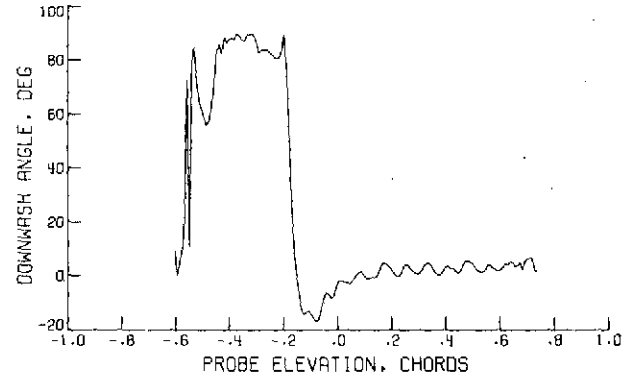
(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

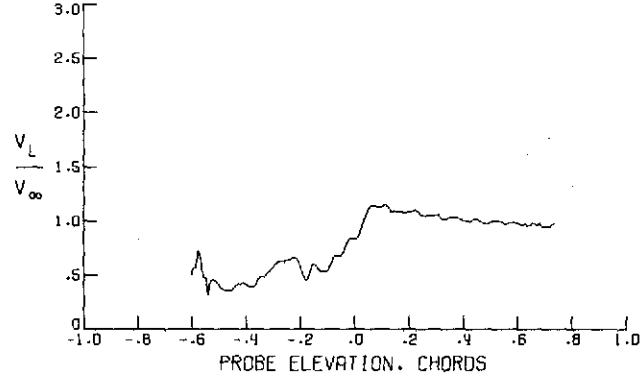
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 255.- WAKE SURVEY RESULTS FOR $\eta = .501$, $\alpha = 16.450$EG, $C_\mu = 0.00$, $V_\infty = 36.25$ M/SEC, $\delta_F = 30.0$ DEG

(A) - VELOCITY PROFILE



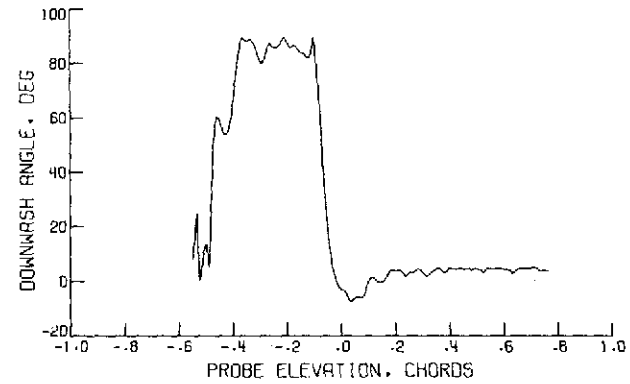
(B) - DOWNWASH ANGLE



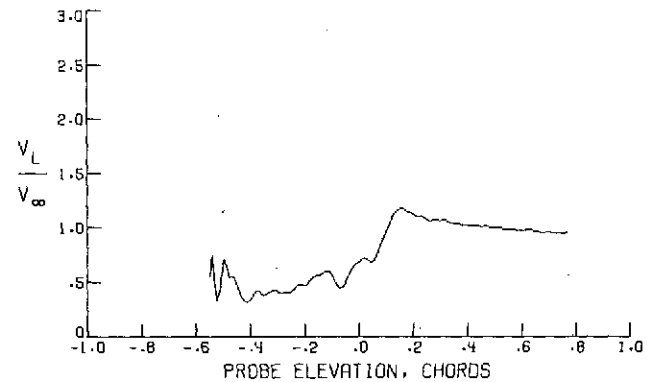
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 256. - WAKE SURVEY RESULTS FOR η = .434 , α = 16.44DEG, C_μ = 0.00 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE



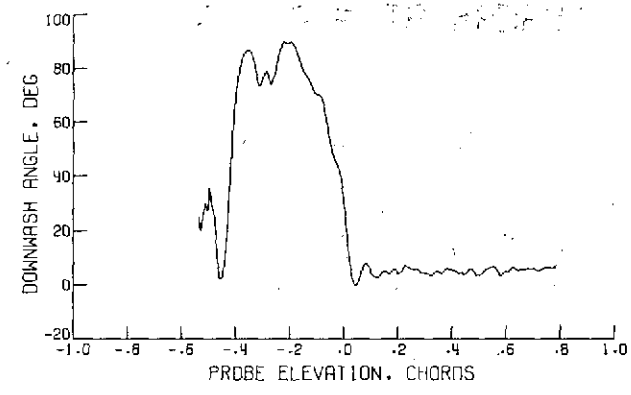
(B) - DOWNWASH ANGLE



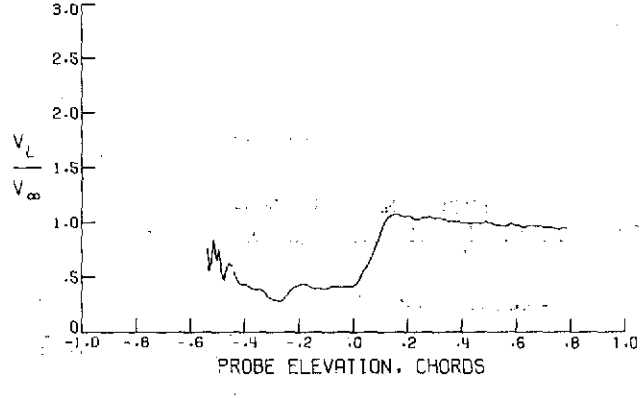
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 257. - WAKE SURVEY RESULTS FOR η = .375 , α = 16.46DEG, C_μ = 0.00 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE



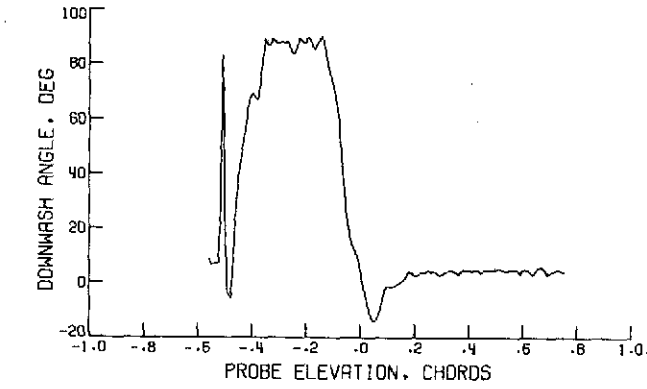
(B) - DOWNWASH ANGLE



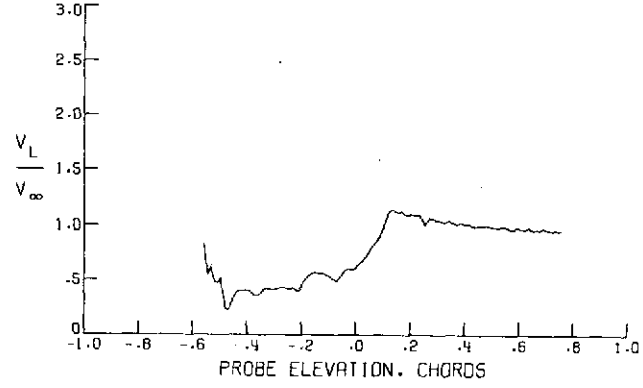
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 258. - WAKE SURVEY RESULTS FOR η = .242 , α = 16.46DEG, C_μ = 0.00 , V_∞ = 36.29 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE



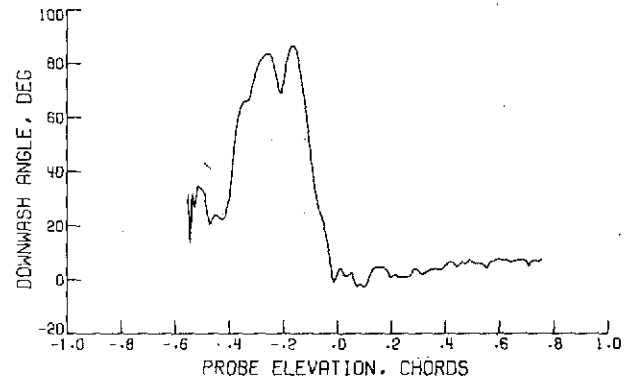
(B) - DOWNWASH ANGLE



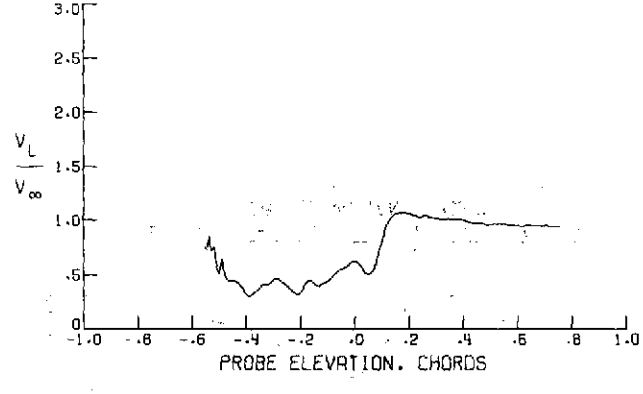
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 259. – WAKE SURVEY RESULTS FOR η = .319 , α = 16.46DEG, C_μ = 0.00 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

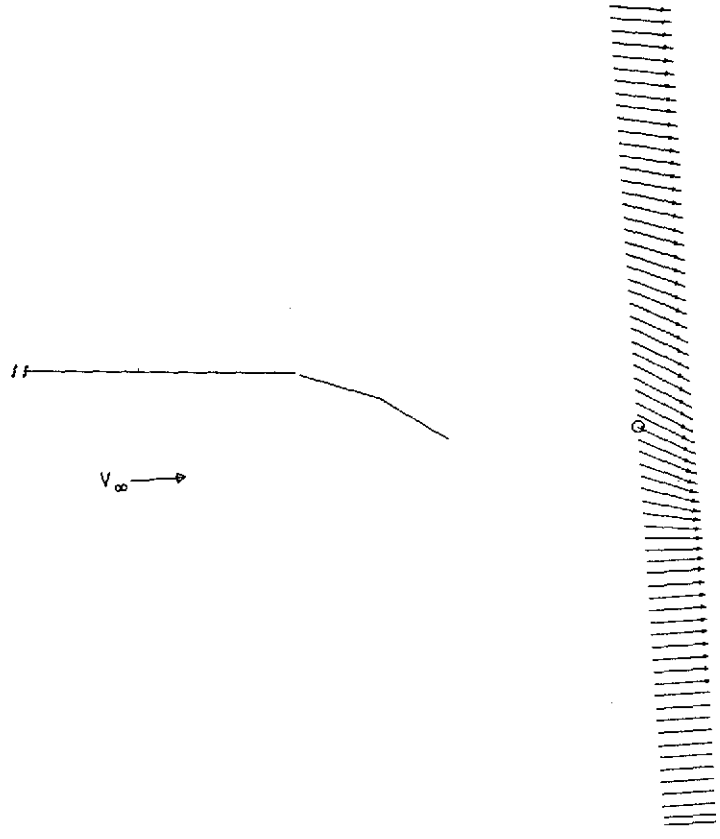


(B) - DOWNWASH ANGLE

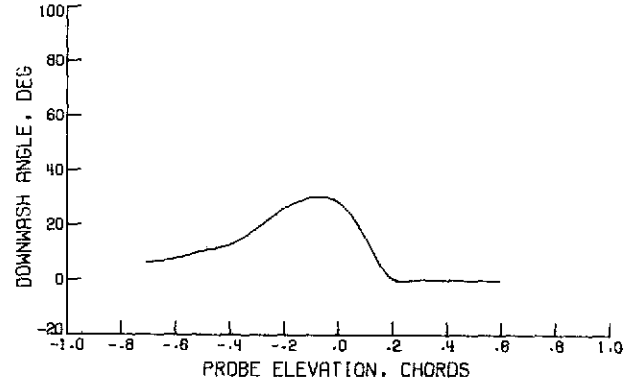


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

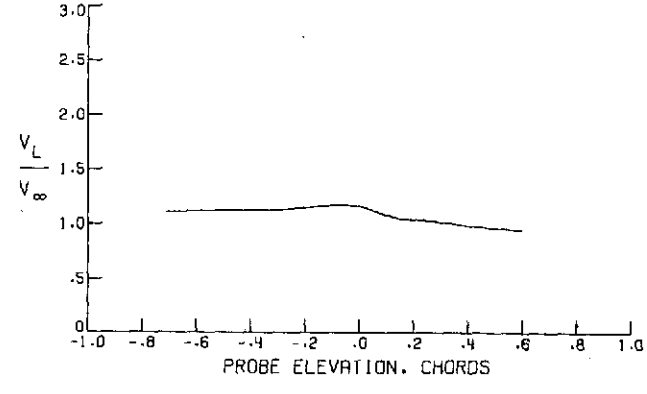
FIGURE 260. - WAKE SURVEY RESULTS FOR η = .207 , α = 16.46DEG, C_μ = 0.00 , V_∞ = 36.29 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



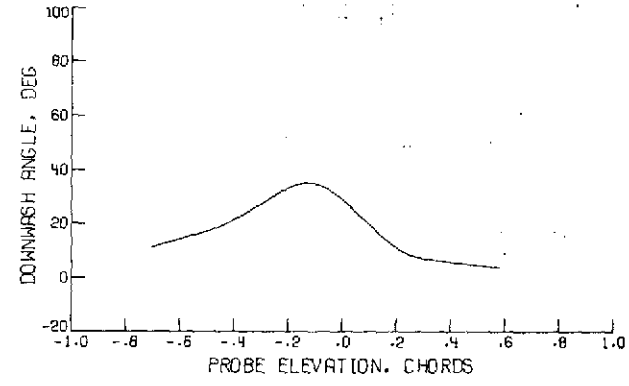
(B) - DOWNWASH ANGLE



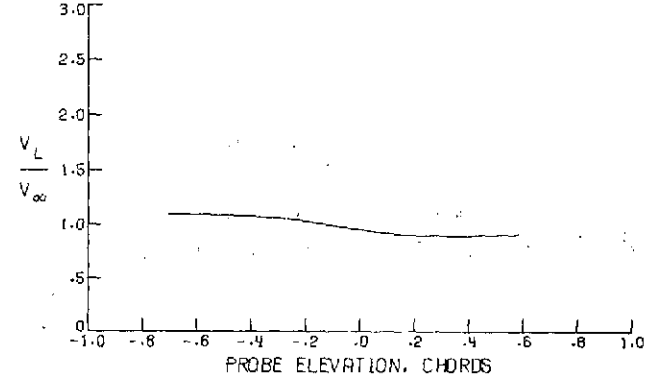
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 261. - WAKE SURVEY RESULTS FOR η = .909 , α = 4.16 DEG, C_μ = .50 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE



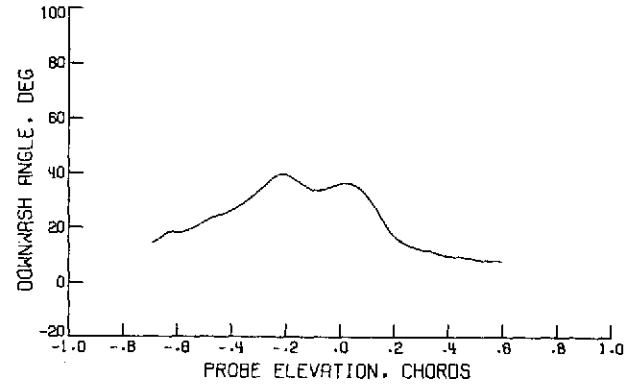
(B) - DOWNWASH ANGLE



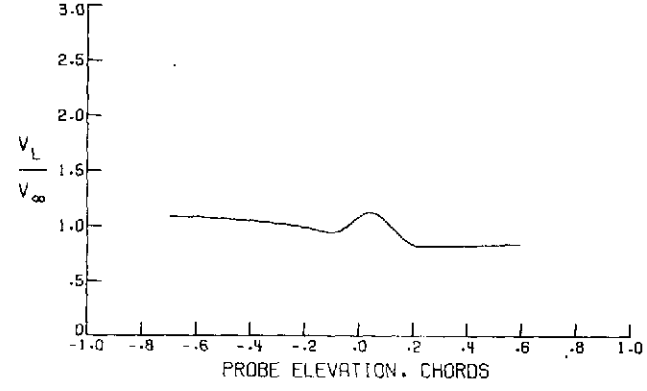
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 262. - WAKE SURVEY RESULTS FOR η = .806 , α = 4.16 DEG, C_μ = .50 , V_∞ = 36.38 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

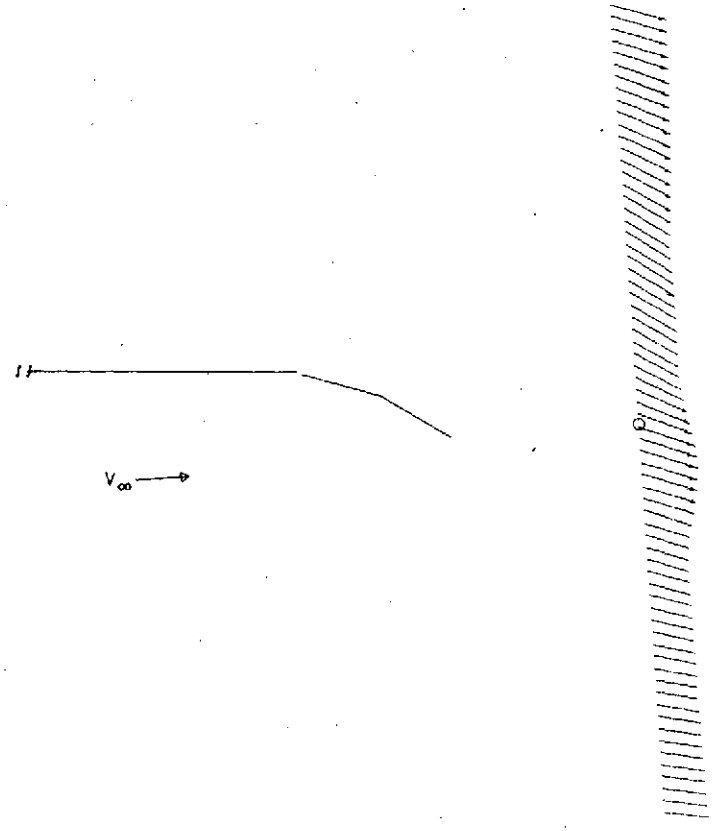


(B) - DOWNWASH ANGLE

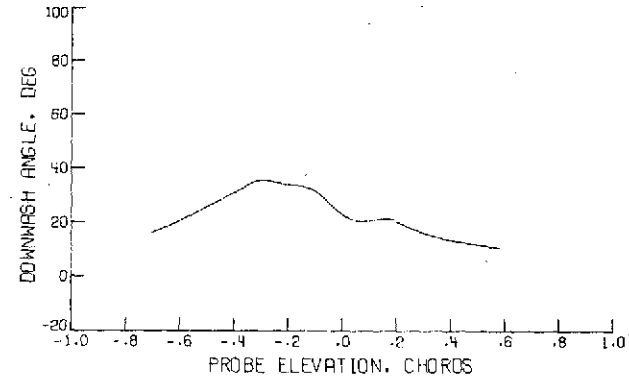


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

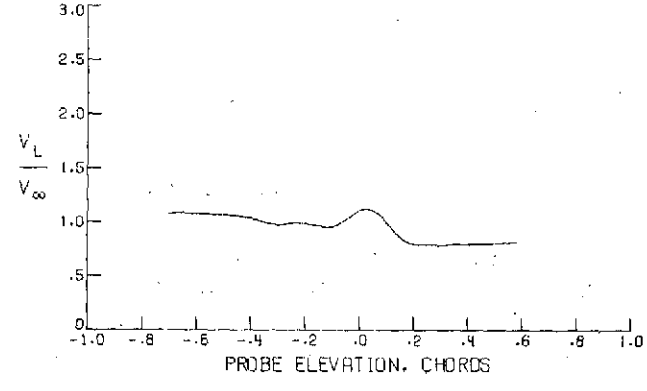
FIGURE 263. - WAKE SURVEY RESULTS FOR η = .687 , α = 4.17 DEG, C_μ = .50 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

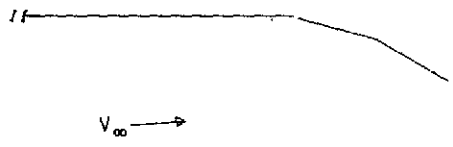


(B) - DOWNWASH ANGLE

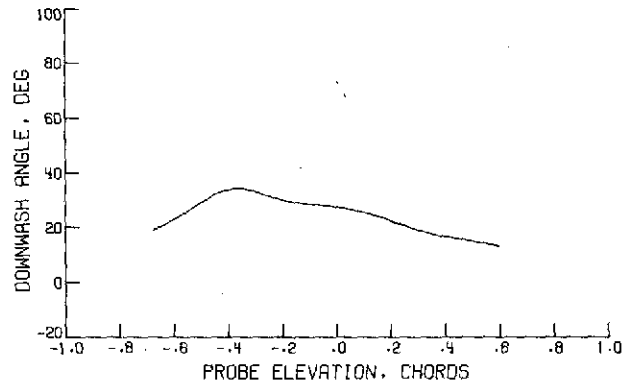


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

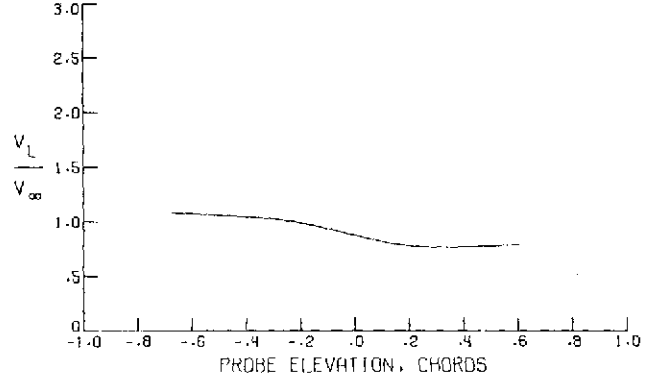
FIGURE 264. - WAKE SURVEY RESULTS FOR η = .599 , α = 4.17 DEG, C_μ = .50 , V_∞ = 36.36 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

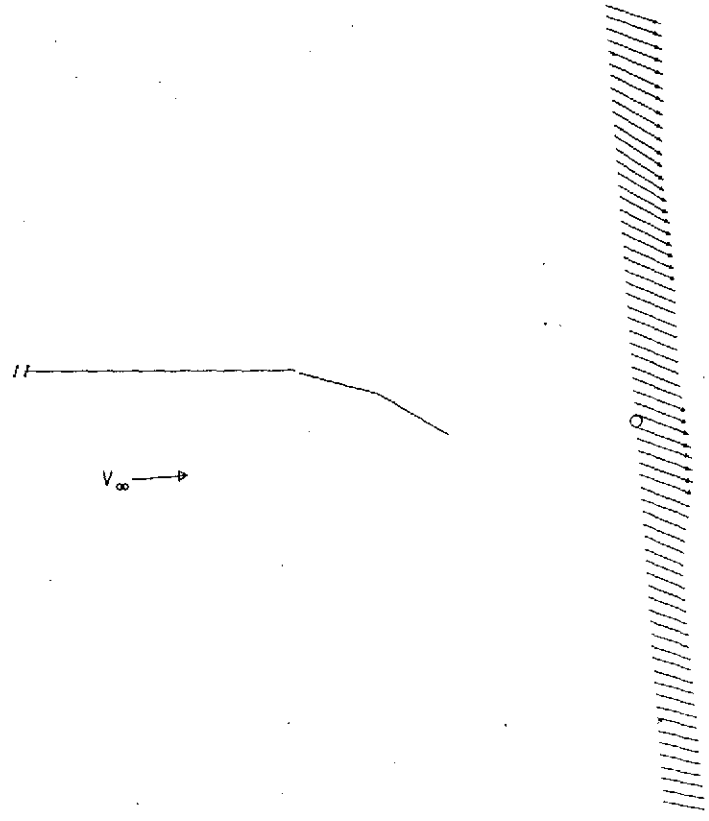


(B) - DOWNWASH ANGLE

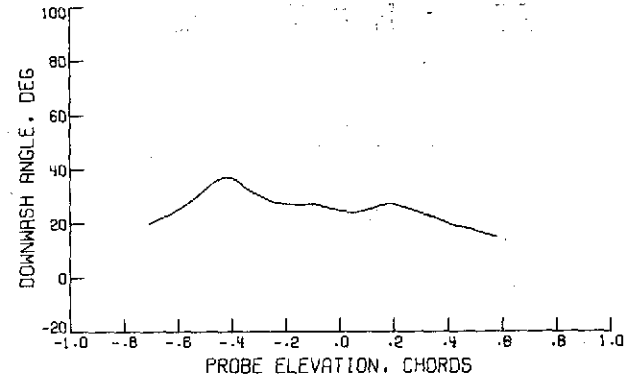


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

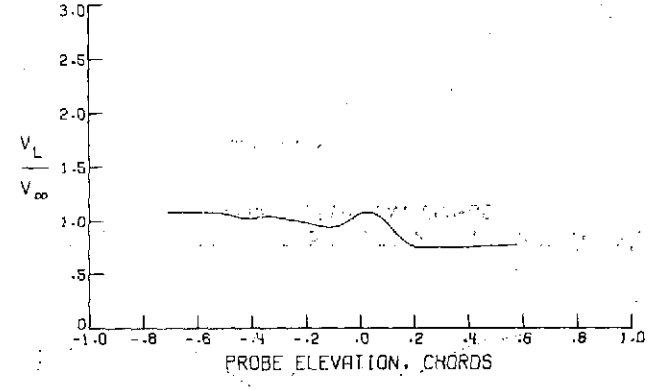
FIGURE 265. - WAKE SURVEY RESULTS FOR $\eta = .502$, $\alpha = 4.16$ DEG, $C_\mu = .50$, $V_\infty = 36.36$ M/SEC, $\delta_F = 30.0$ DEG



(A) - VELOCITY PROFILE

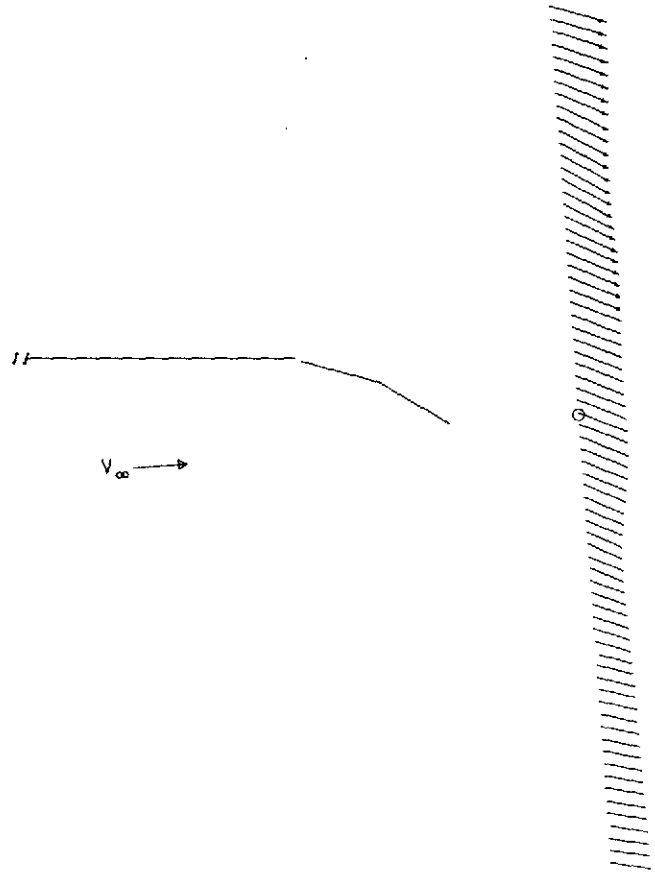


(B) - DOWNWASH ANGLE

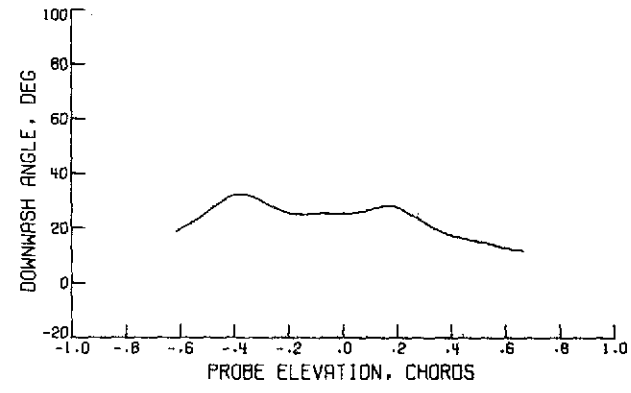


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

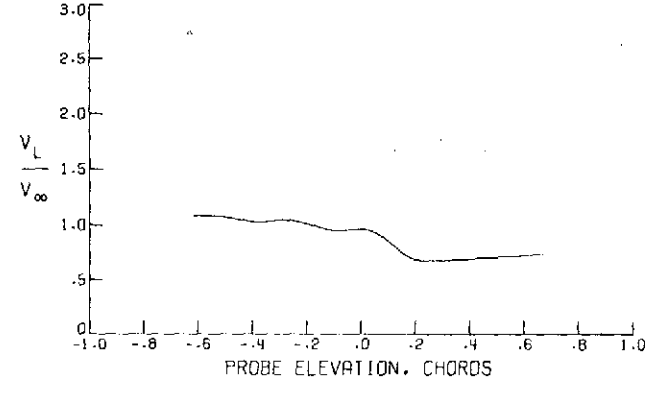
FIGURE 266. - WAKE SURVEY RESULTS FOR η = .434 , α = 4.16 DEG, C_μ = .50 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

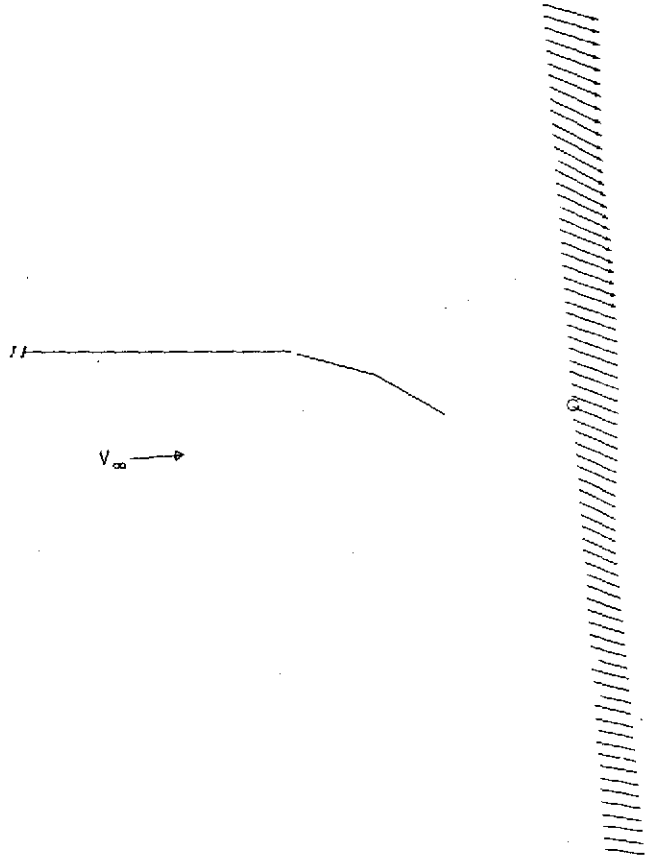


(B) - DOWNWASH ANGLE

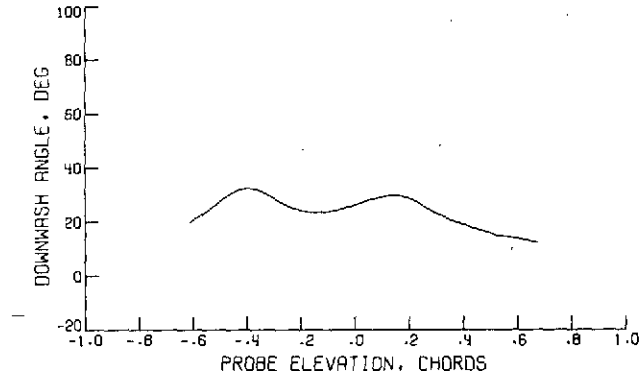


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

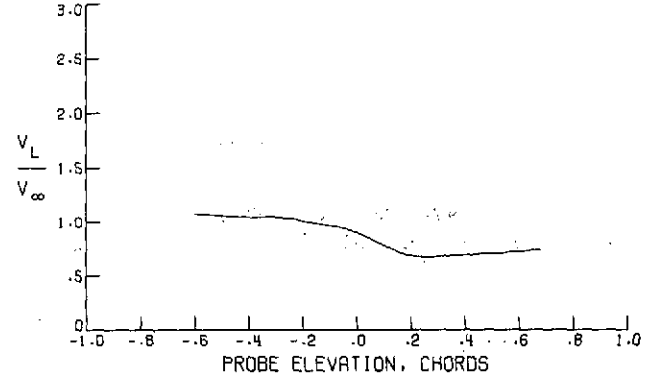
FIGURE 267. - WAKE SURVEY RESULTS FOR η = .374 , α = 4.21 DEG, C_μ = .50 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

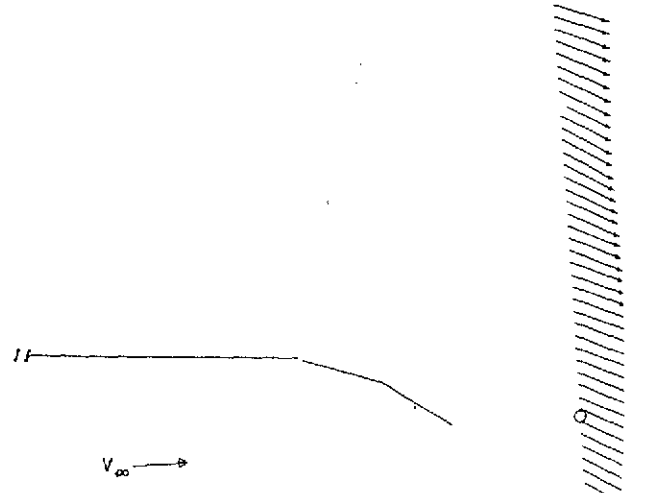


(B) - DOWNWASH ANGLE

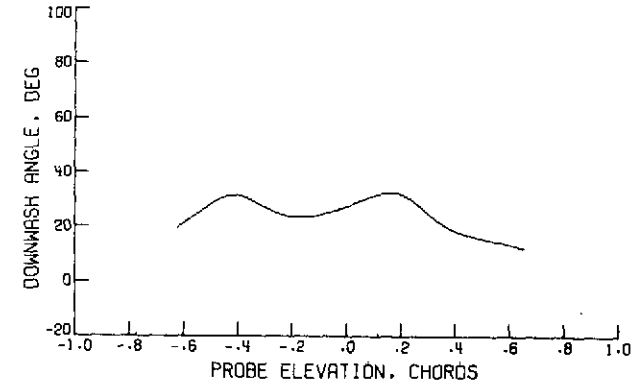


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

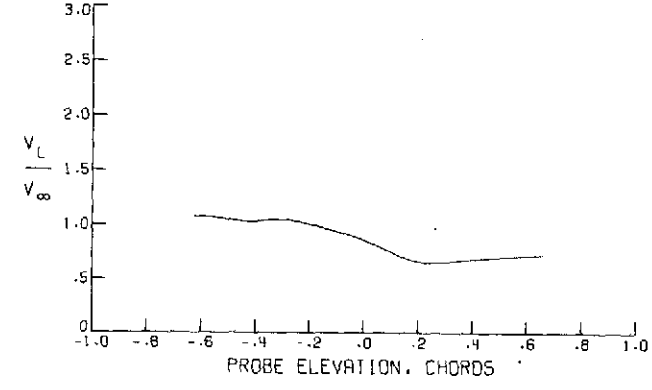
FIGURE 268. - WAKE SURVEY RESULTS FOR η = .320 , α = 4.21 DEG, C_μ = .50 , V_∞ = 36.32 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

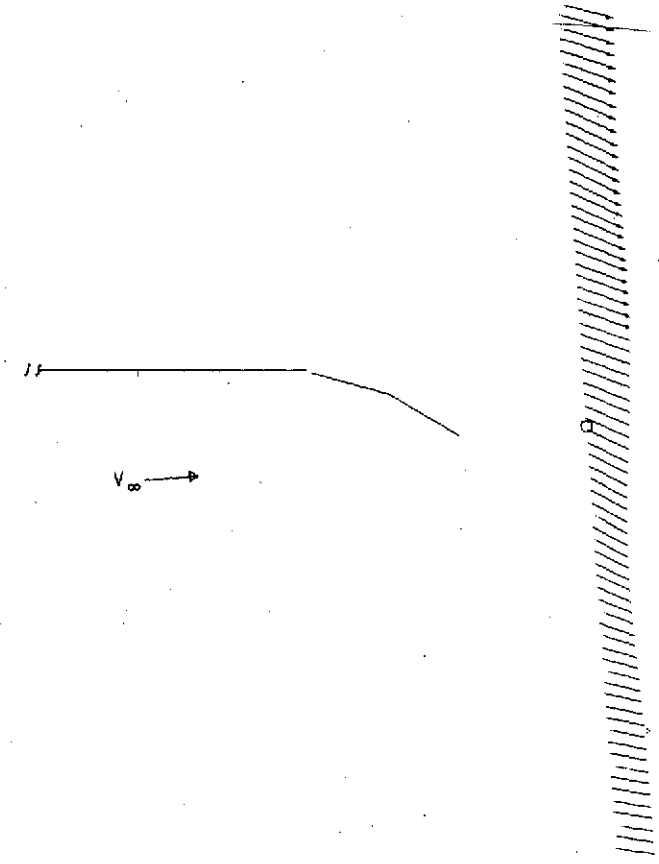


(B) - DOWNWASH ANGLE

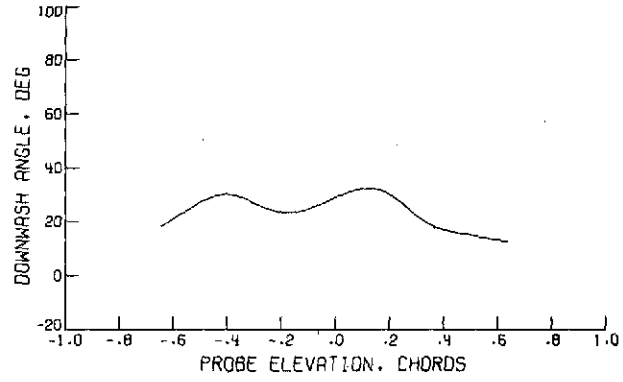


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

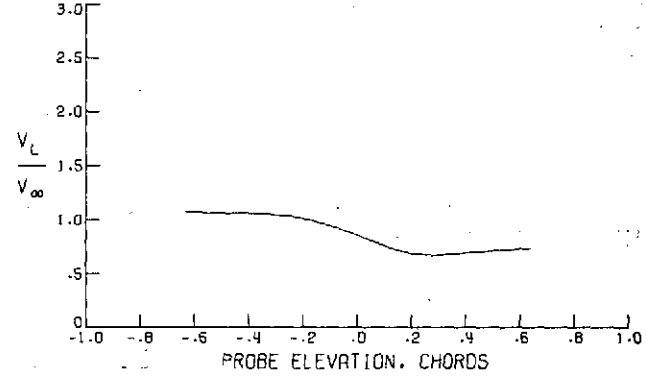
FIGURE 269. - WAKE SURVEY RESULTS FOR η = .241 , α = 4.22 DEG, C_μ = .50 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



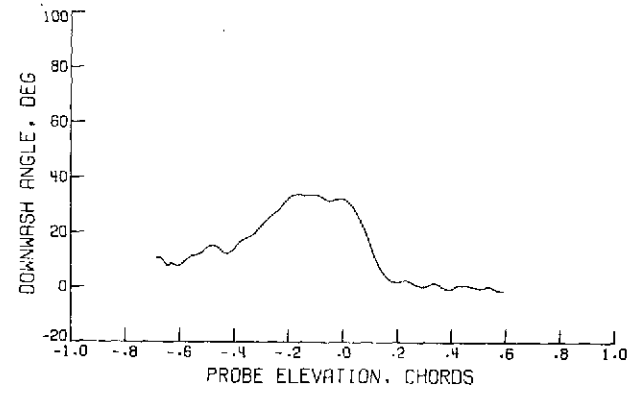
(B) - DOWNWASH ANGLE



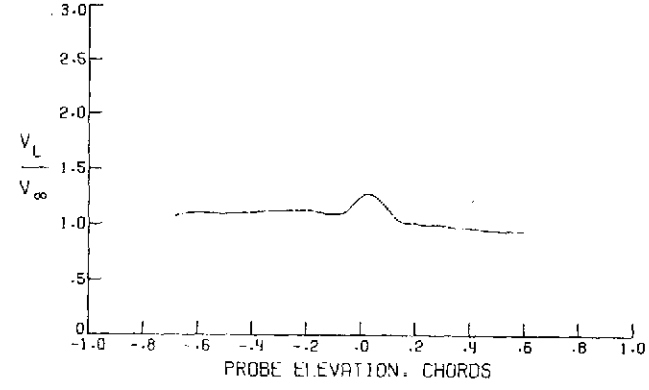
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 270. - WAKE SURVEY RESULTS FOR η = .207 , α = 4.21 DEG, C_μ = .50 , V_∞ = 36.31 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

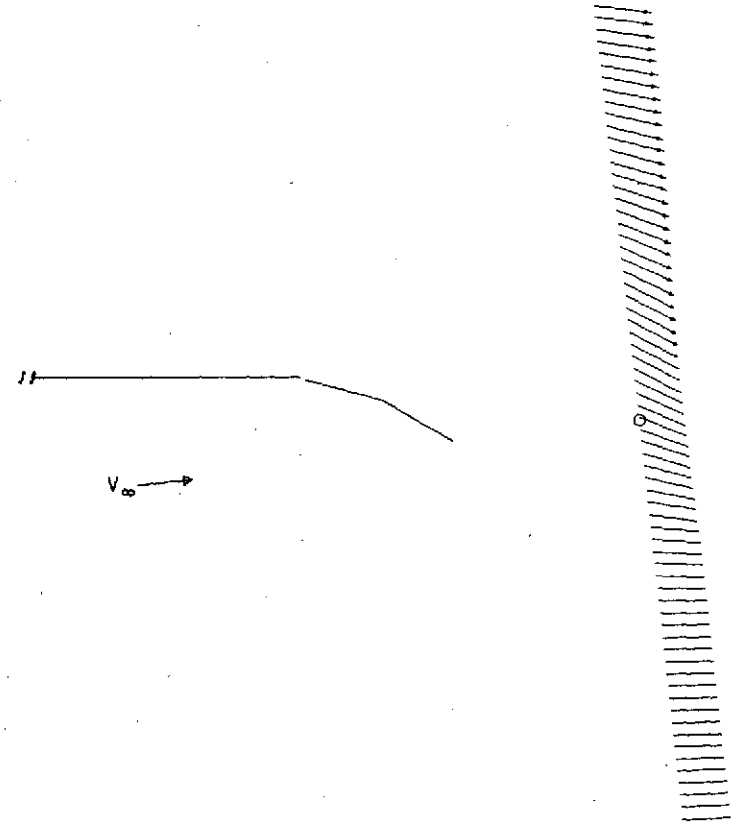


(B) - DOWNWASH ANGLE

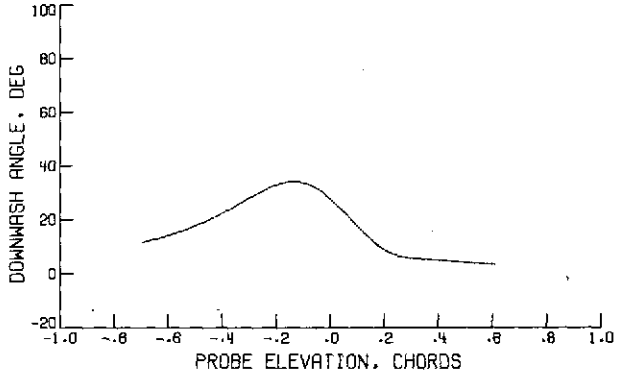


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

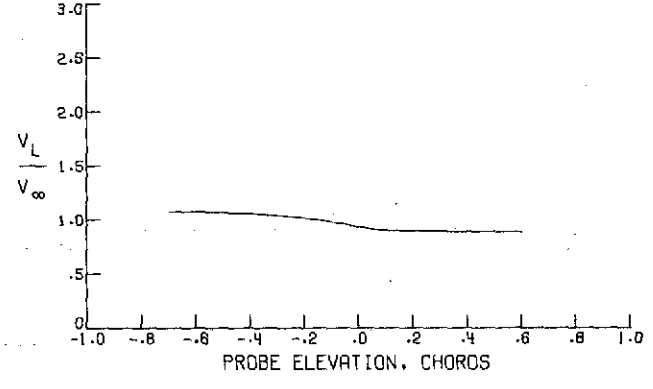
FIGURE 271. - WAKE SURVEY RESULTS FOR η = .908 , α = 6.33 DEG, C_M = .50 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

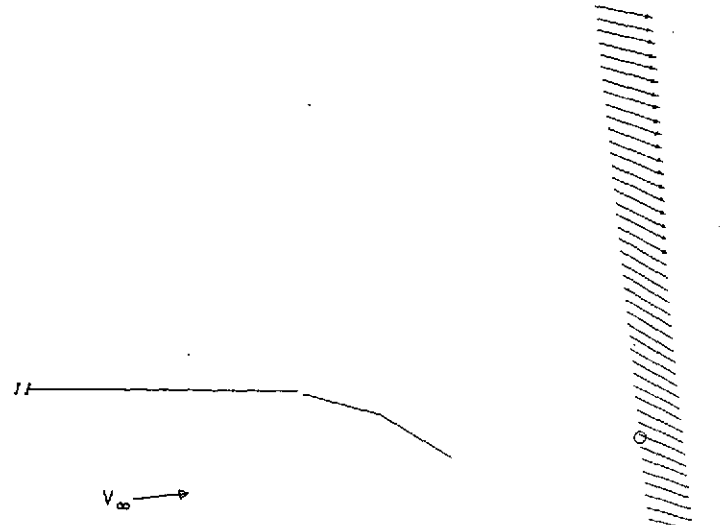


(B) - DOWNWASH ANGLE

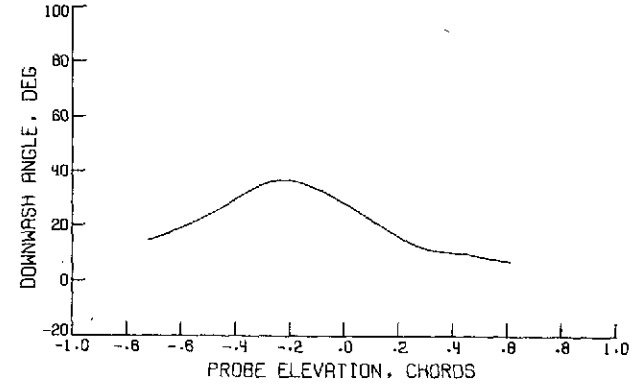


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

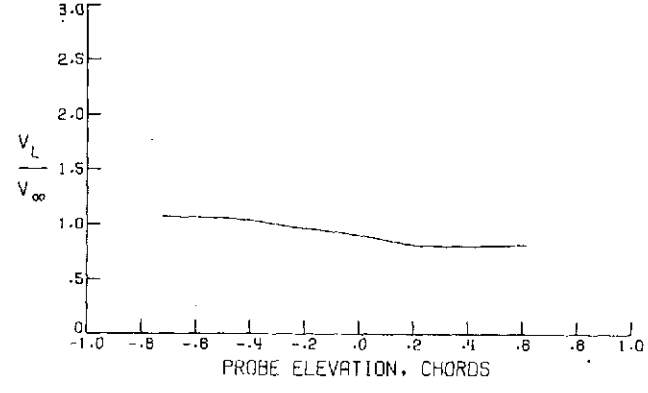
FIGURE 272. - WAKE SURVEY RESULTS FOR η = .805 , α = 6.32 DEG, C_μ = .50 , V_∞ = 36.59 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

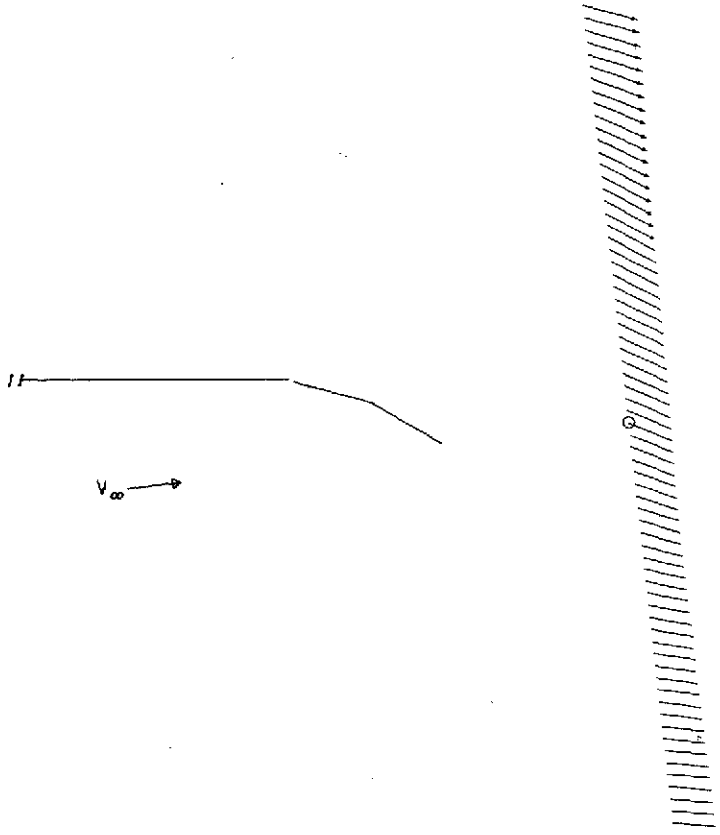


(B) - DOWNWASH ANGLE

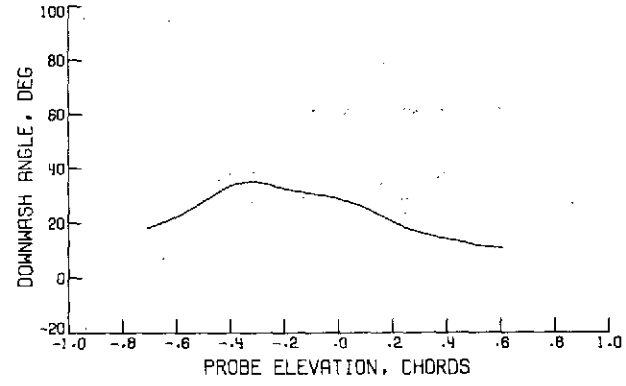


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

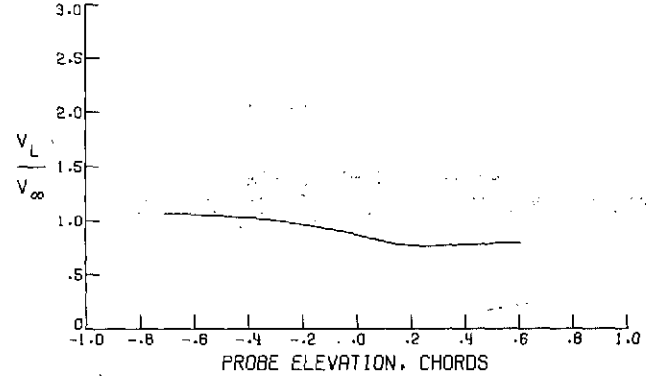
FIGURE 273. - WAKE SURVEY RESULTS FOR η = .686 , α = 6.32 DEG, C_μ = .50 , V_∞ = 36.67 M/SEC, δ_F = 30.0 DEG



(A) – VELOCITY PROFILE

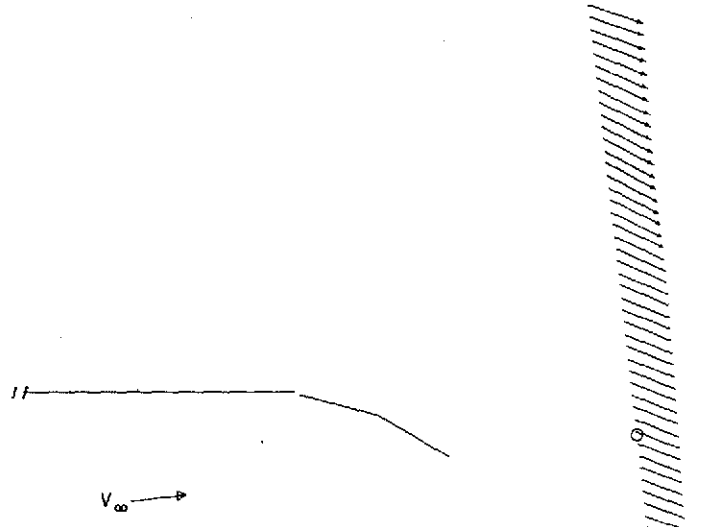


(B) – DOWNWASH ANGLE

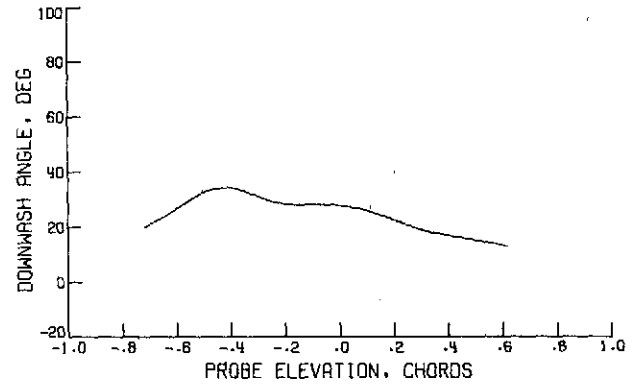


(C) – LOCAL VELOCITY/FREESTREAM VELOCITY

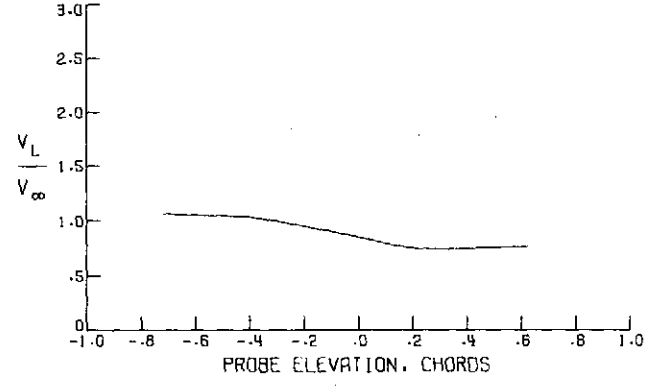
FIGURE 274. – WAKE SURVEY RESULTS FOR η = .597 , α = 6.31 DEG, C_μ = .50 , V_∞ = 36.57 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

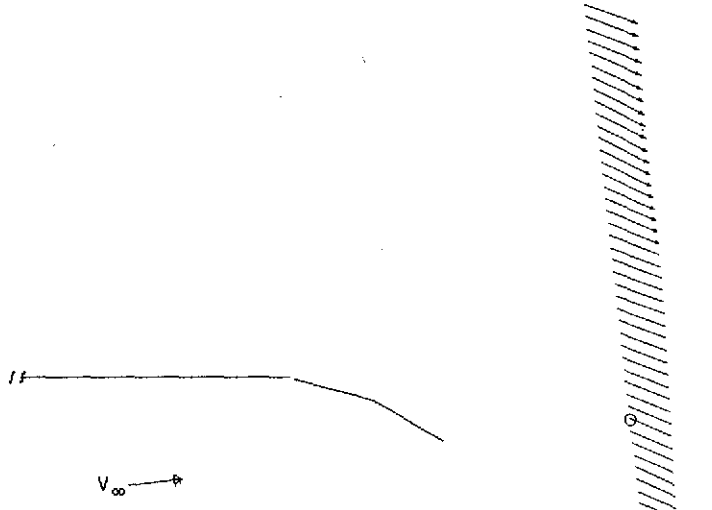


(B) - DOWNWASH ANGLE

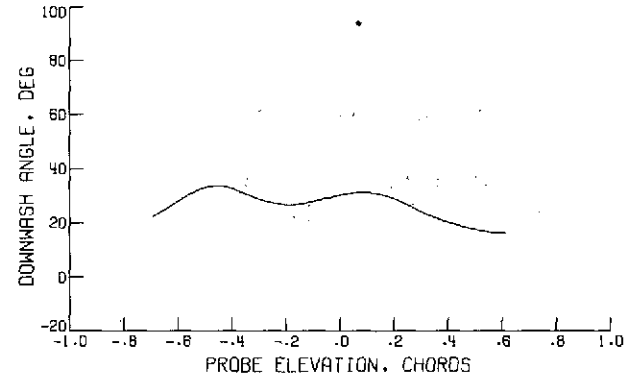


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

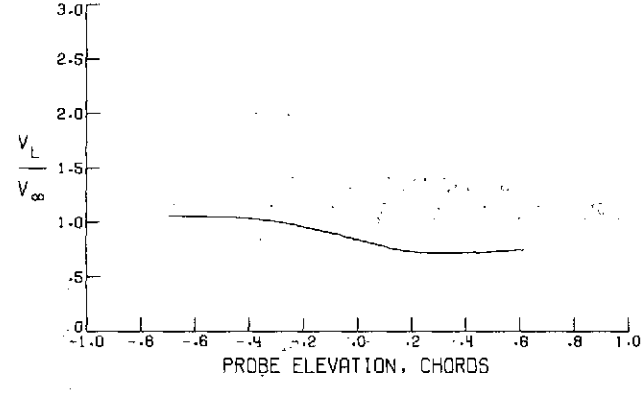
FIGURE 275. - WAKE SURVEY RESULTS FOR η = .500 , α = 6.33 DEG, C_μ = .50 , V_∞ = 36.57 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



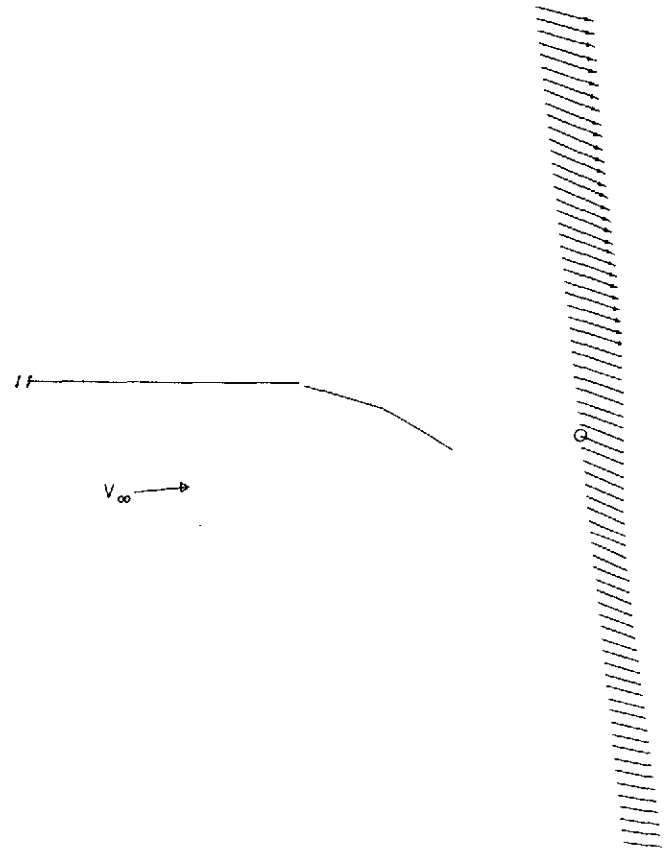
(B) - DOWNWASH ANGLE



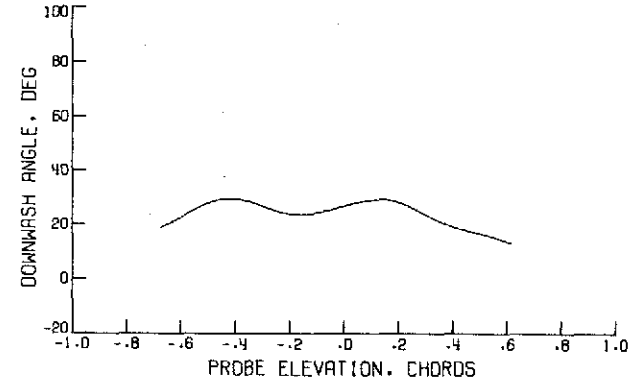
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 276. - WAKE SURVEY RESULTS FOR η = .433 , α = 6.33 DEG, C_μ = .50 , V_∞ = 36.54 M/SEC, δ_F = 30.0 DEG

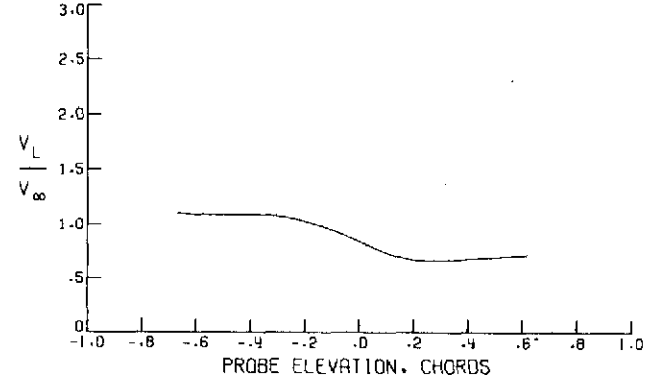
C-4



(A) - VELOCITY PROFILE

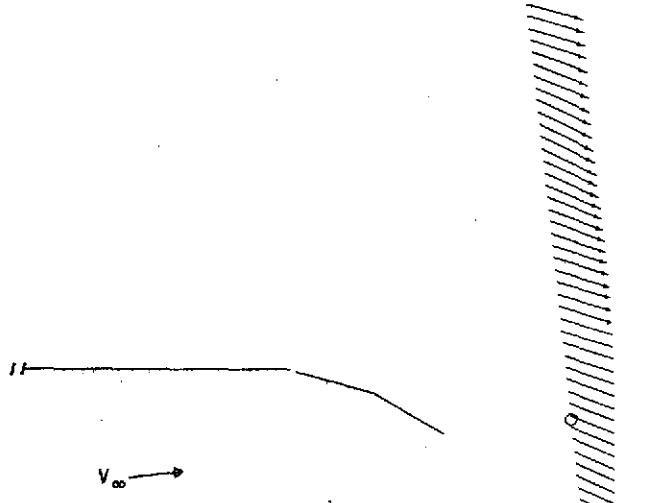


(B) - DOWNWASH ANGLE

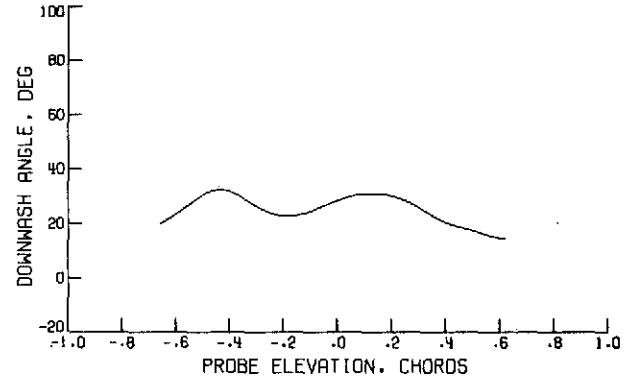


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

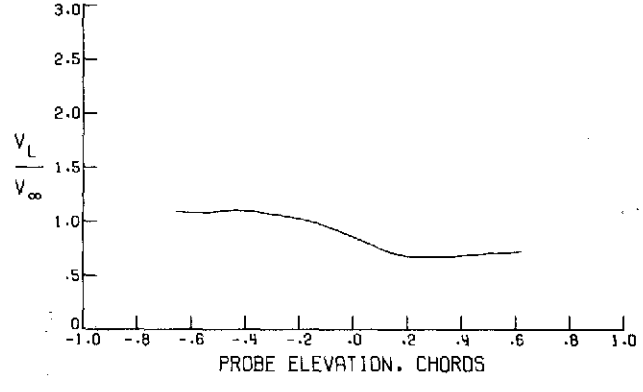
FIGURE 277. - WAKE SURVEY RESULTS FOR η = .375 , α = 6.32 DEG, C_μ = .50 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

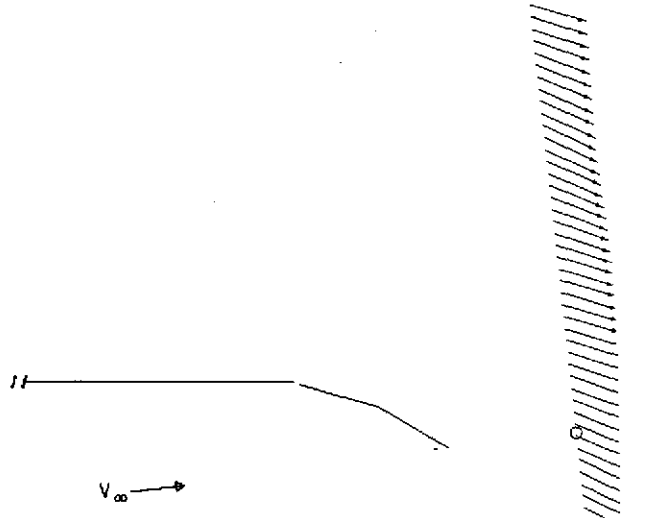


(B) - DOWNWASH ANGLE

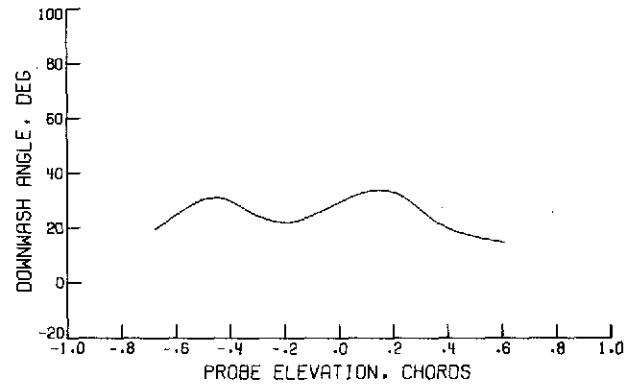


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

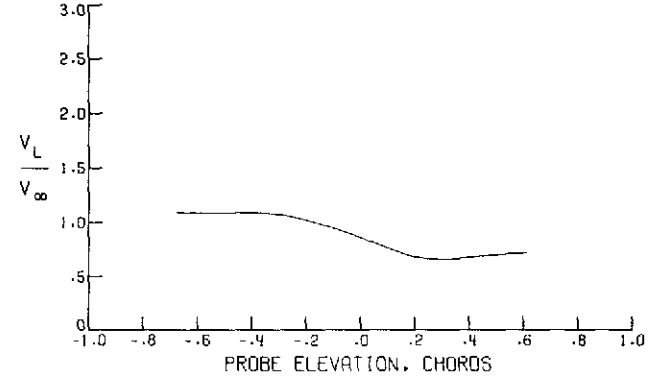
FIGURE 278. - WAKE SURVEY RESULTS FOR η = .320 , α = 6.32 DEG, C_μ = .50 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

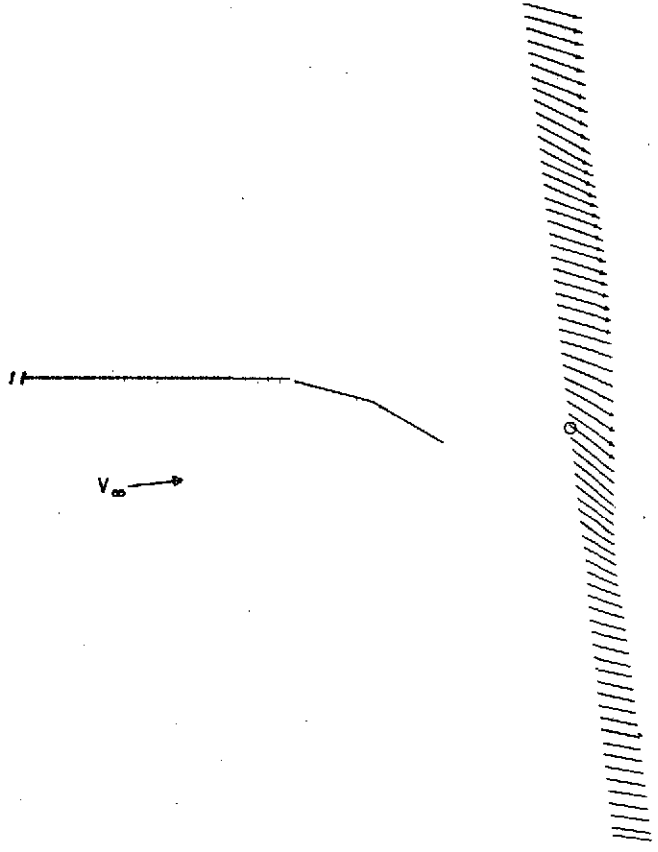


(B) - DOWNWASH ANGLE

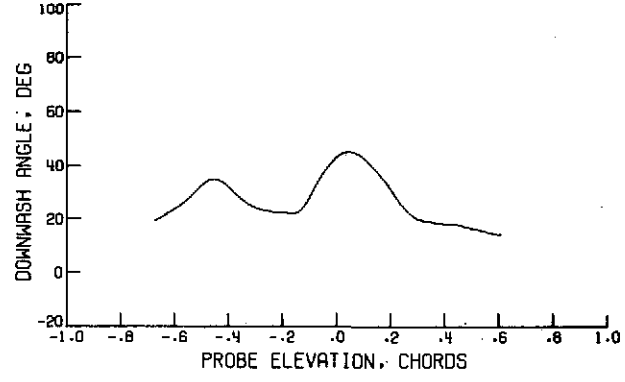


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

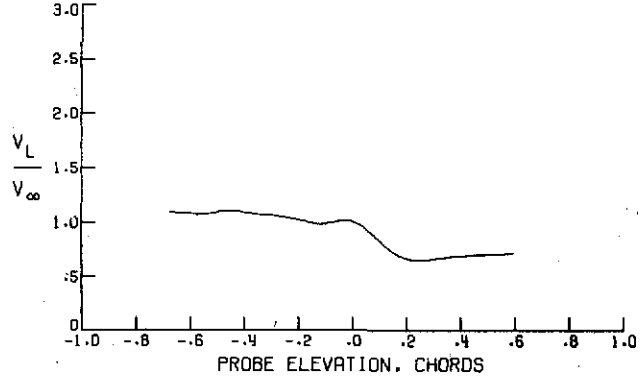
FIGURE 279. - WAKE SURVEY RESULTS FOR $\eta = .241$, $\alpha = 6.32$ DEG, $C_\mu = .50$, $V_\infty = 36.35$ M/SEC, $\delta_F = 30.0$ DEG



(A) - VELOCITY PROFILE

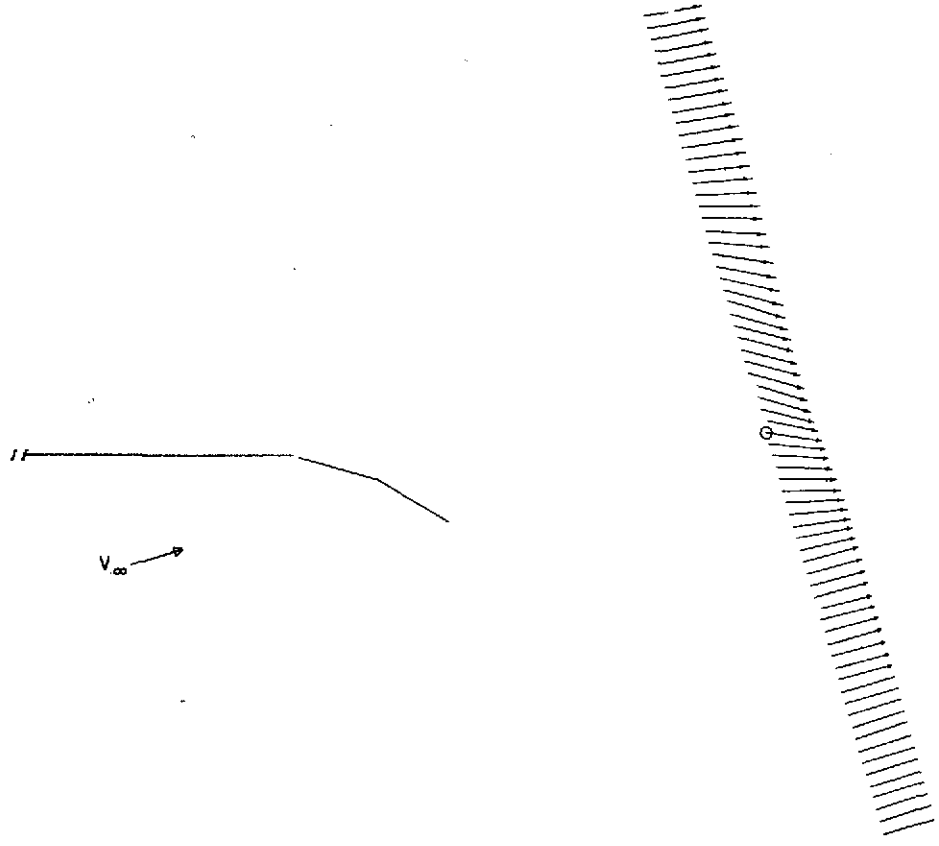


(B) - DOWNWASH ANGLE

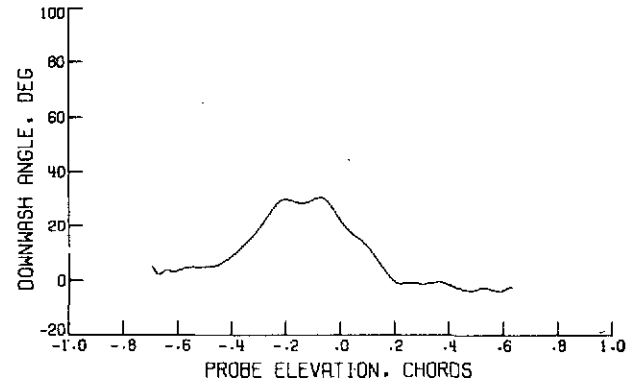


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

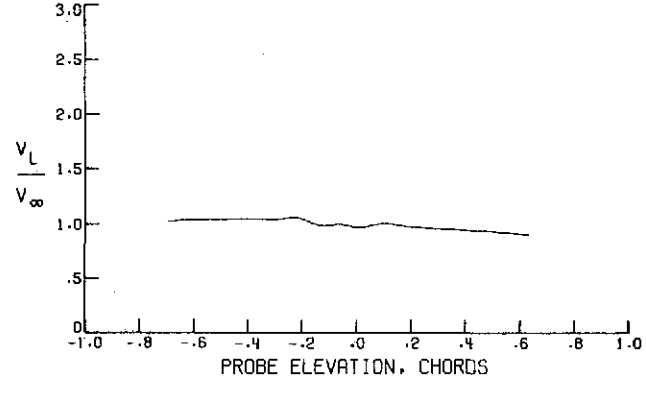
FIGURE 280. - WAKE SURVEY RESULTS FOR η = .207 , α = 6.32 DEG, C_μ = .50 , V_∞ = 36.36 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

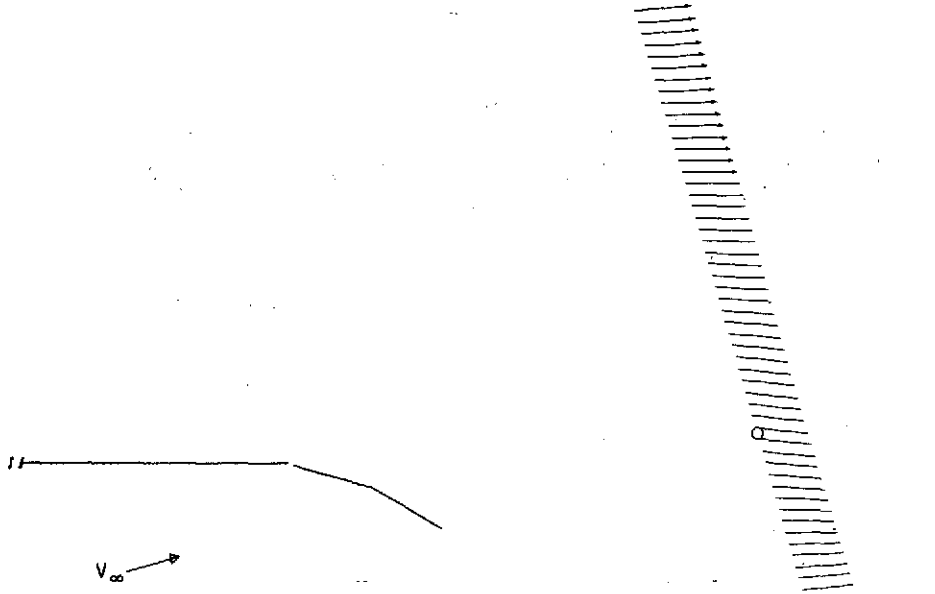


(B) - DOWNWASH ANGLE

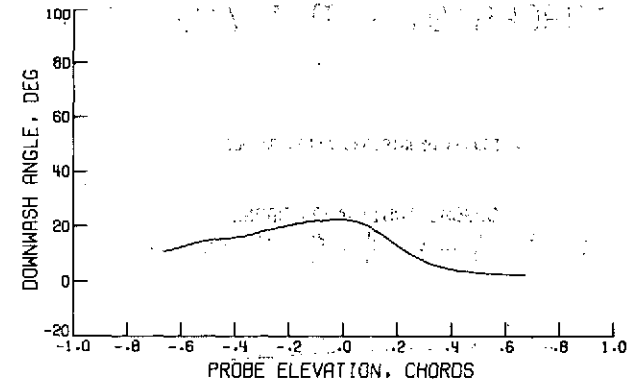


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

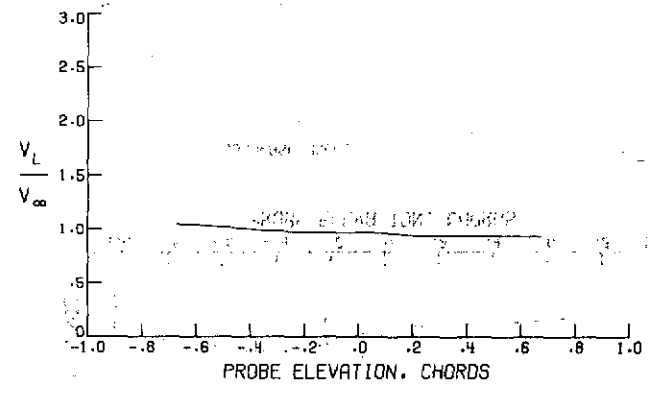
FIGURE 281. WAKE SURVEY RESULTS FOR η = .910 , α = 16.53DEG, C_μ = .50 , V_∞ = 36.41 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

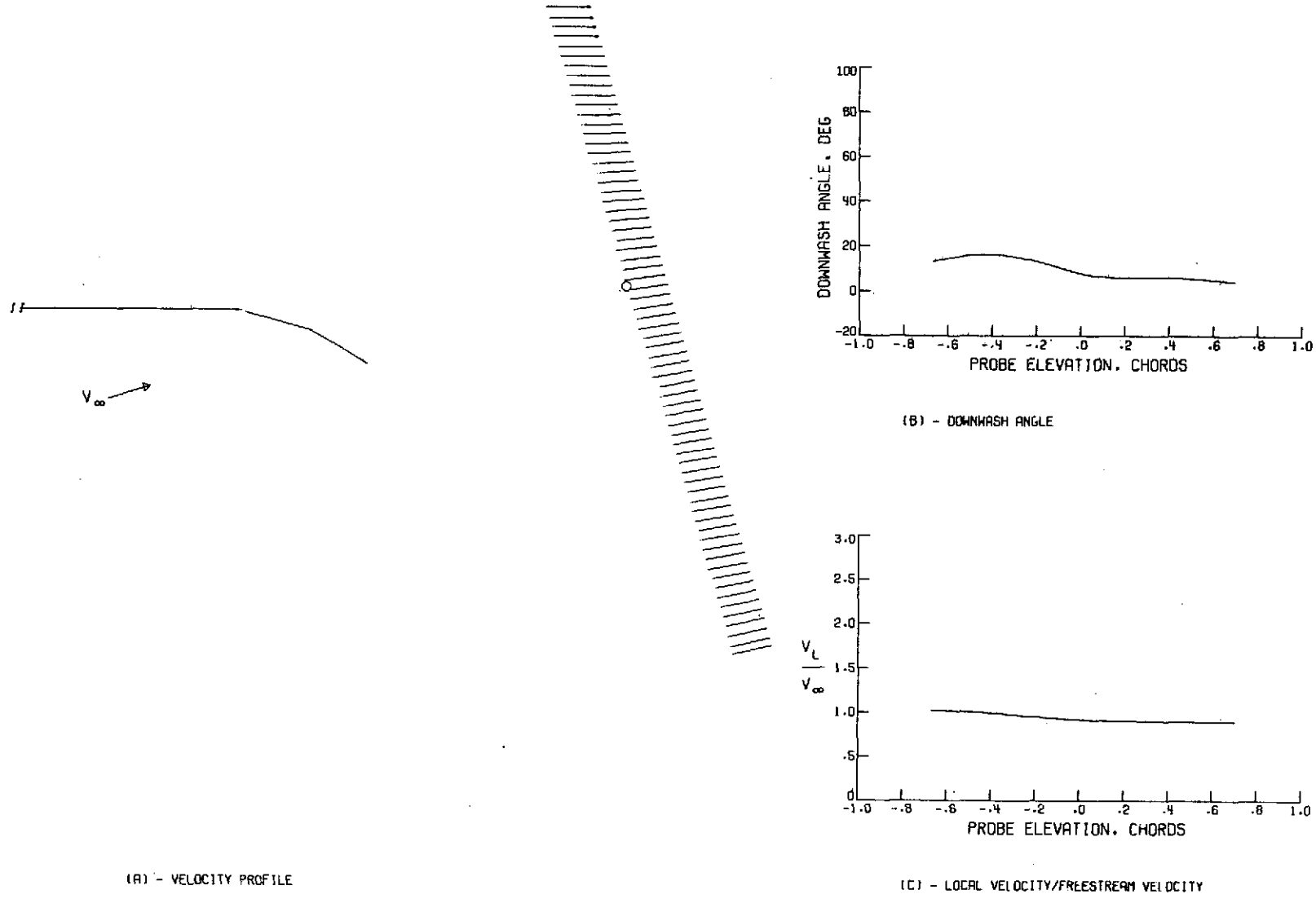


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 282. - WAKE SURVEY RESULTS FOR η = .807 , α = 16.52DEG, C_μ = .50 , V_∞ = 36.45 M/SEC, δ_F = 30.0 DEG

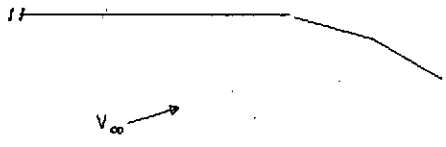


(A) - VELOCITY PROFILE

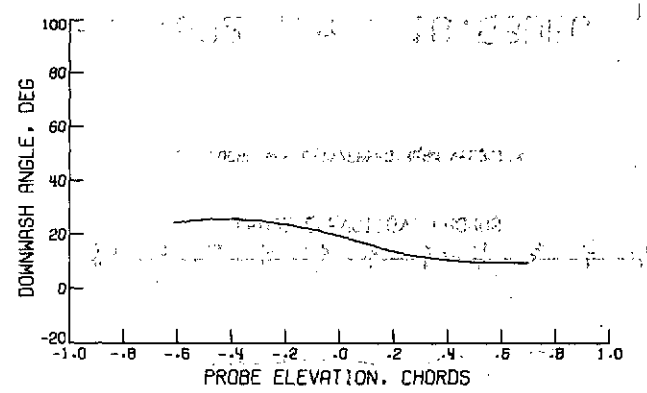
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

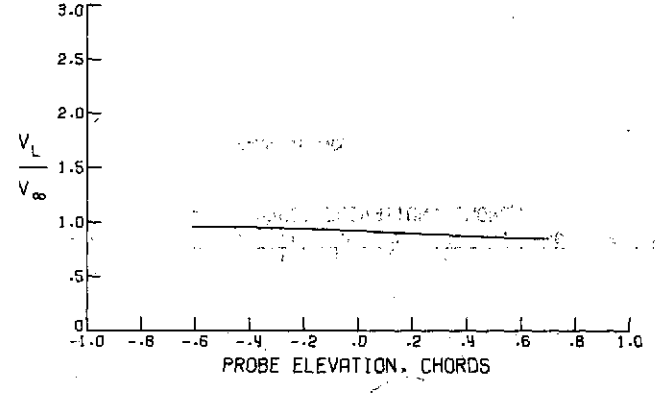
FIGURE 283. - WAKE SURVEY RESULTS FOR η = .687 , α = 16.53DEG, C_μ = .50 , V_∞ = 36.49 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

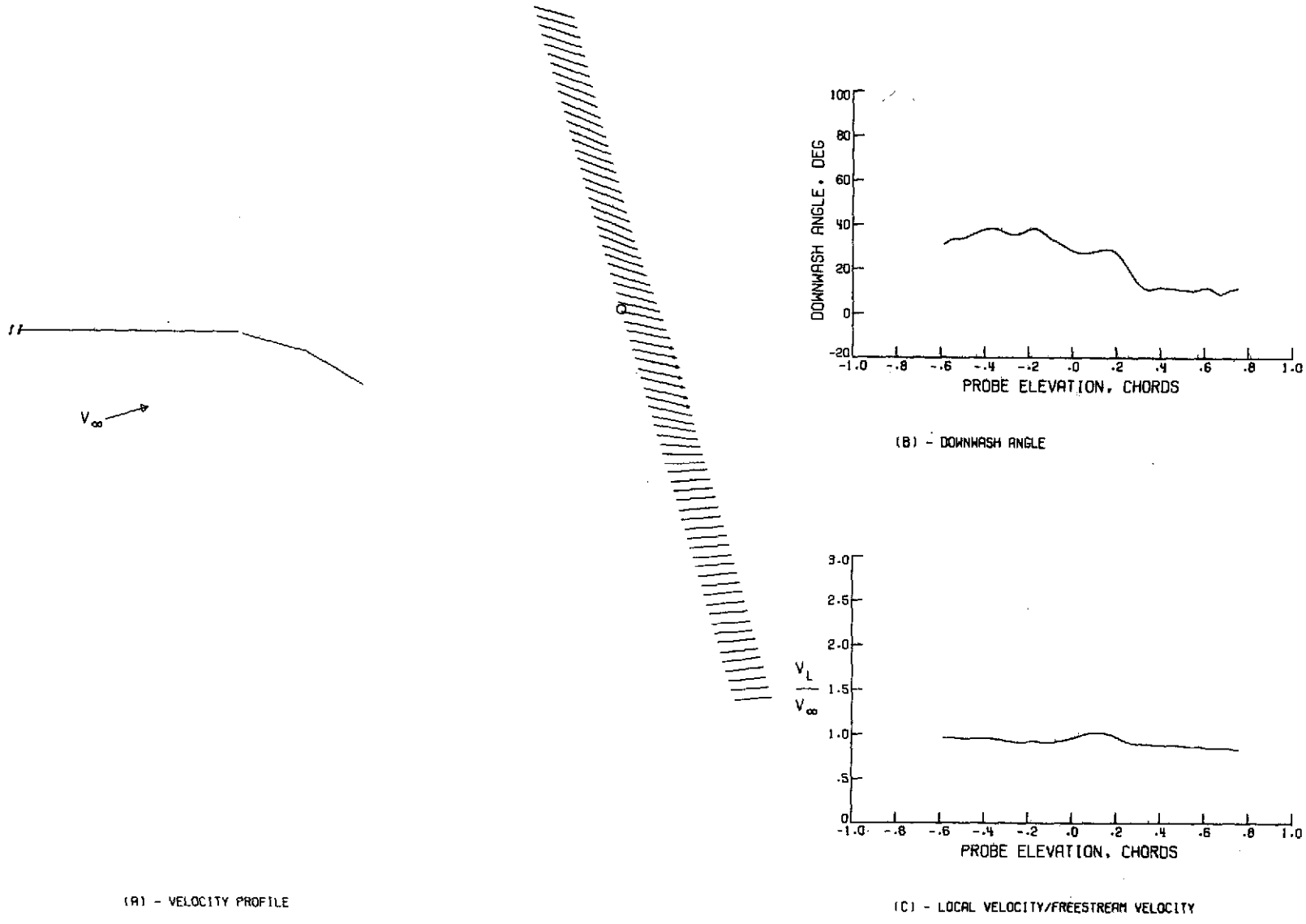


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 284. - WAKE SURVEY RESULTS FOR η = .599 , α = 16.53DEG, C_μ = .50 , V_∞ = 36.31 M/SEC, δ_F = 30.0 DEG

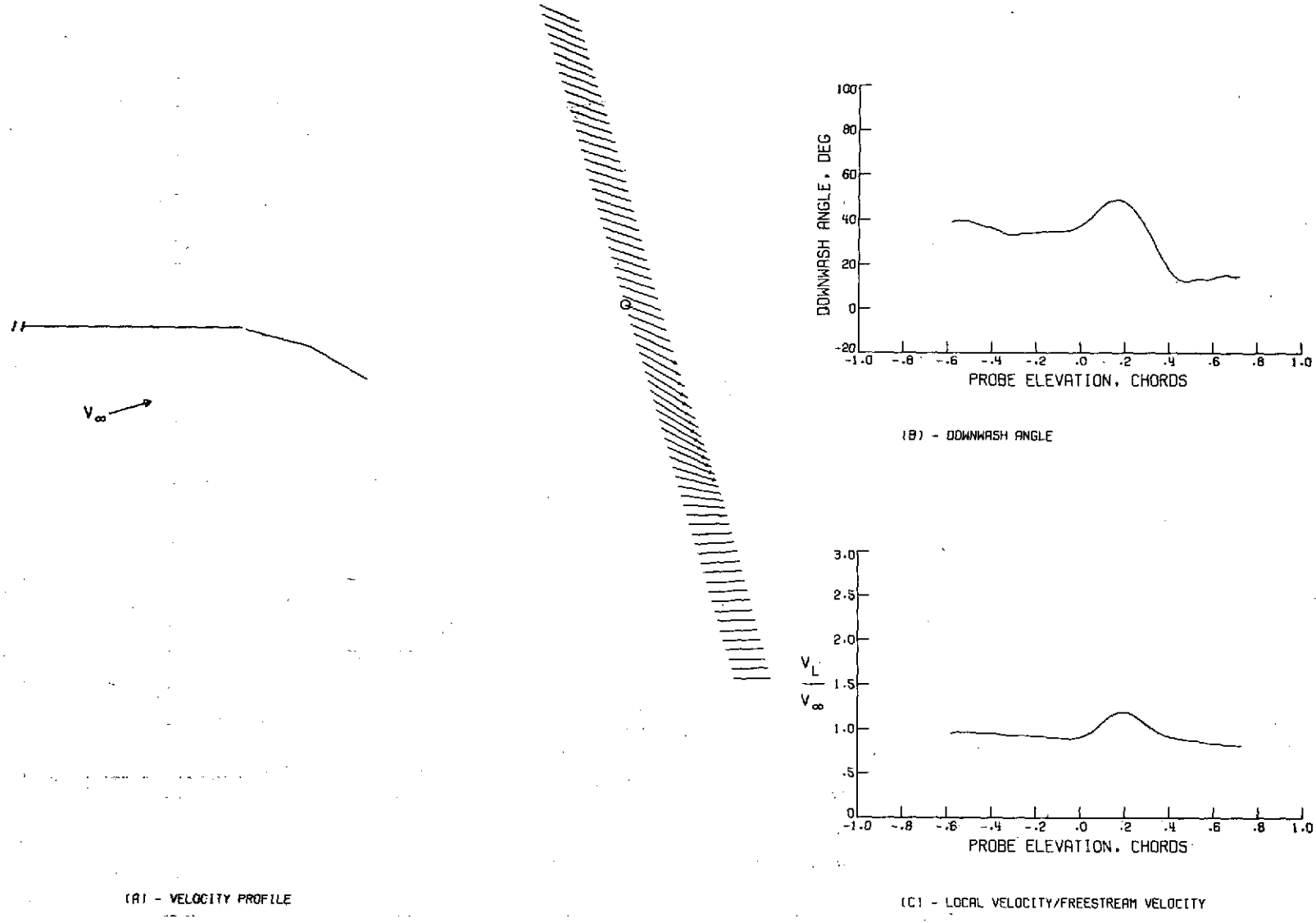


(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 285. - WAKE SURVEY RESULTS FOR η = .502 , α = 16.53DEG, C_μ = .50 , V_∞ = 36.33 M/SEC, δ_F = 30.0 DEG

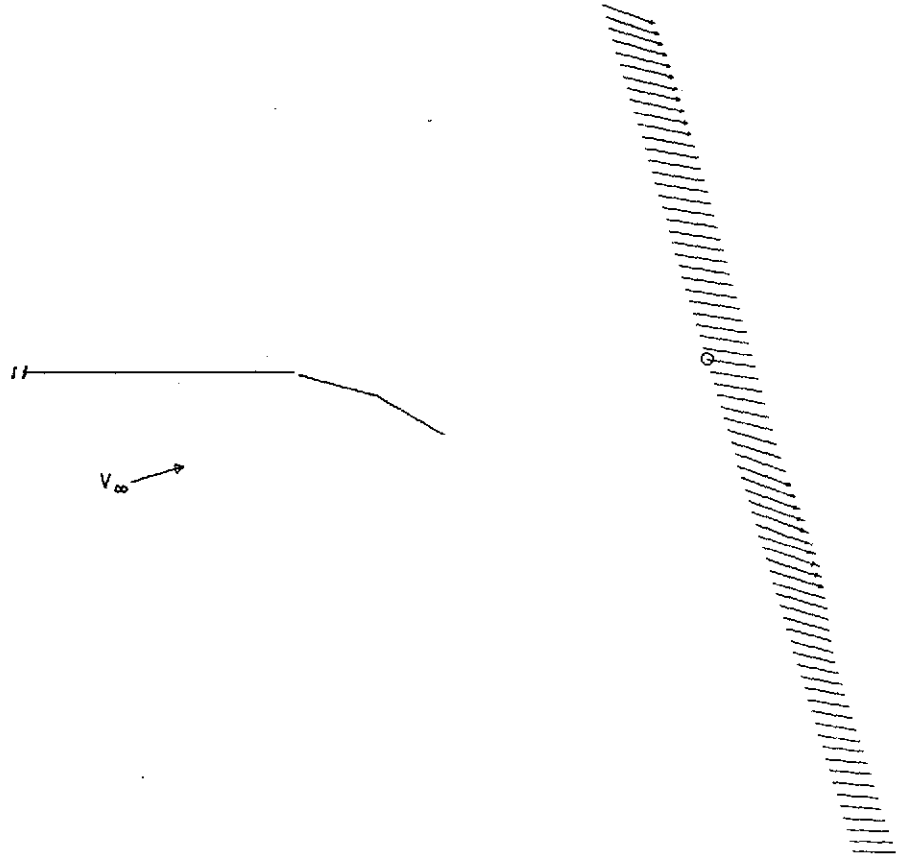


(A) - VELOCITY PROFILE

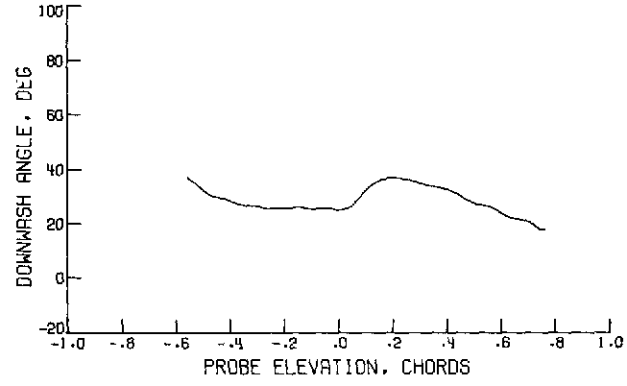
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

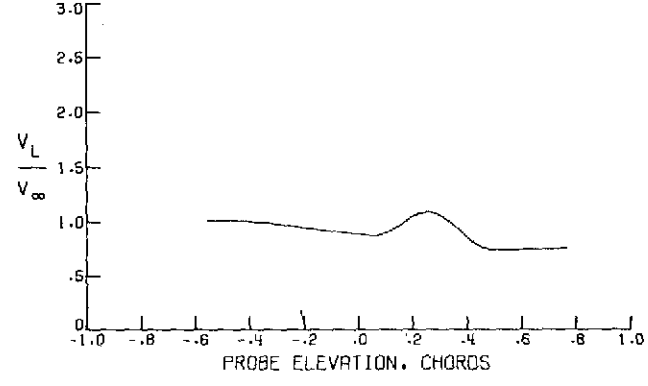
FIGURE 286. - WAKE SURVEY RESULTS FOR η = .435 , α = 16.54DEG, C_μ = .50 , V_∞ = 36.33 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

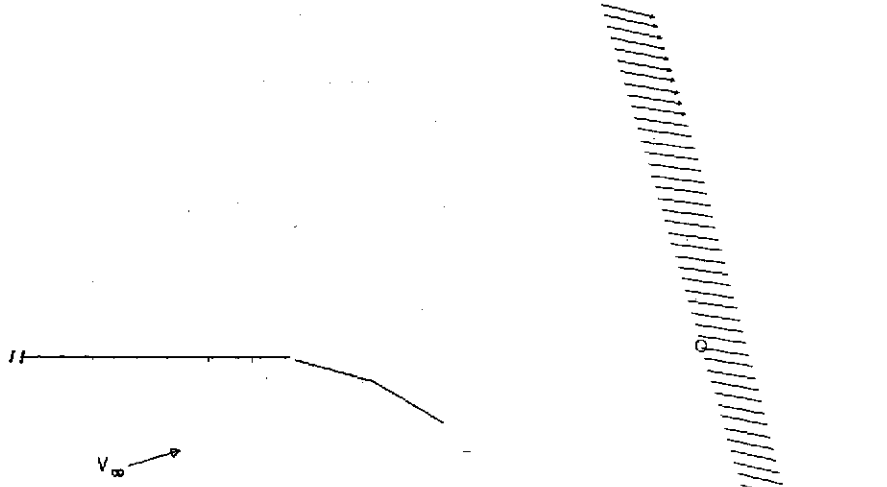


(B) - DOWNWASH ANGLE

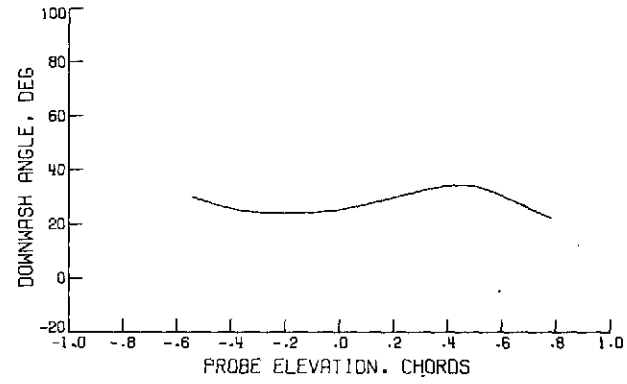


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

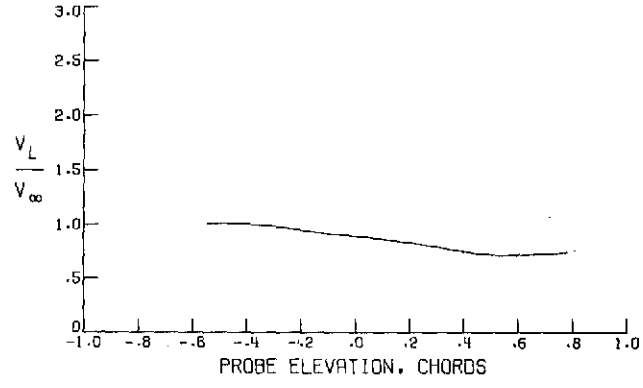
FIGURE 287. - WAKE SURVEY RESULTS FOR $\eta = .375$, $\alpha = 16.55$DEG, $C_\mu = .50$, $V_\infty = 36.49$ M/SEC, $\delta_F = 30.0$ DEG



(A) - VELOCITY PROFILE

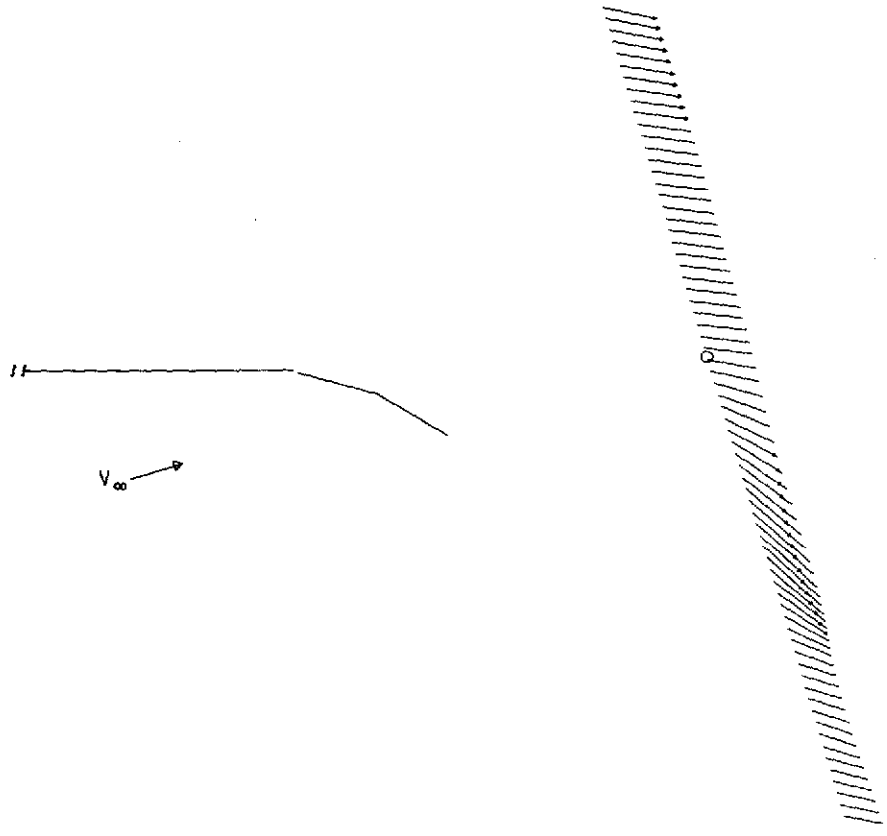


(B) - DOWNWASH ANGLE

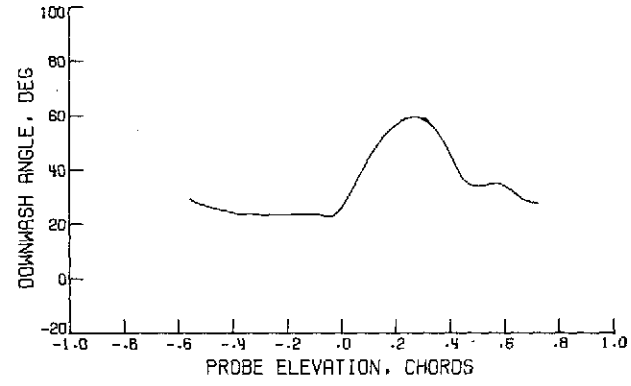


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

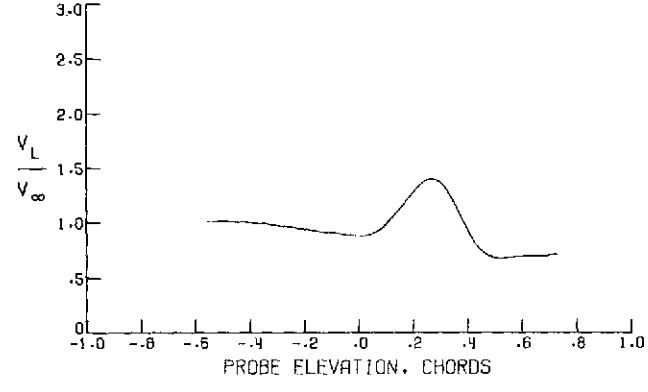
FIGURE 28. - WAKE SURVEY RESULTS FOR η = .319 , α = 16.54DEG, C_μ = .50 , V_∞ = 36.19 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

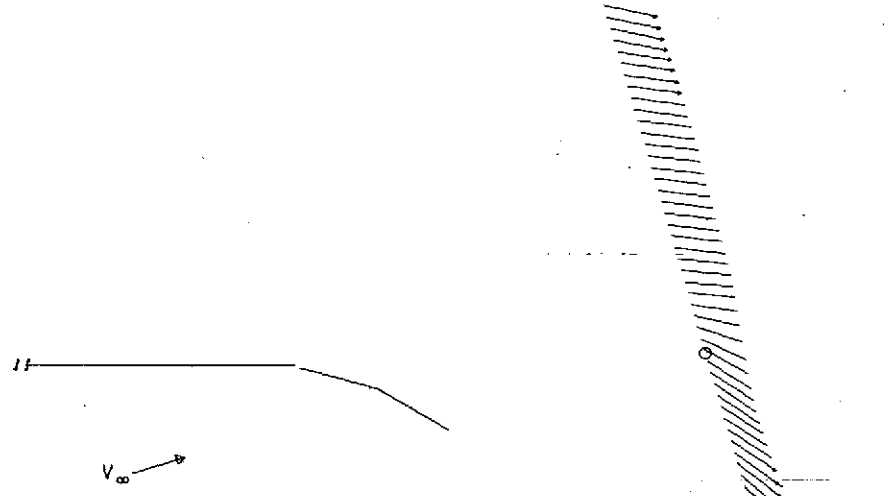


(B) - DOWNWASH ANGLE

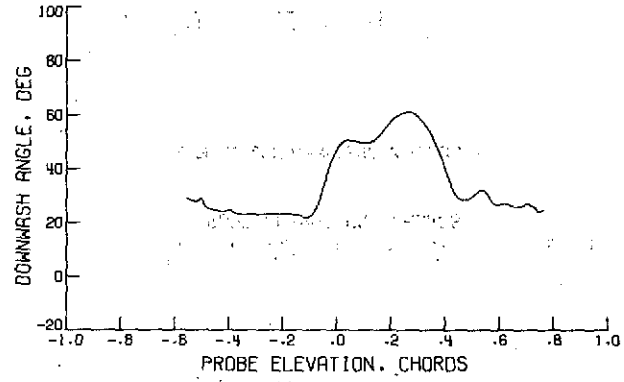


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

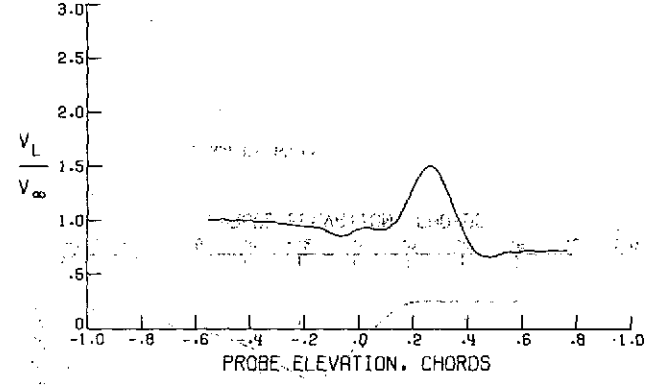
FIGURE 289. - WAKE SURVEY RESULTS FOR η = .242 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.19 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

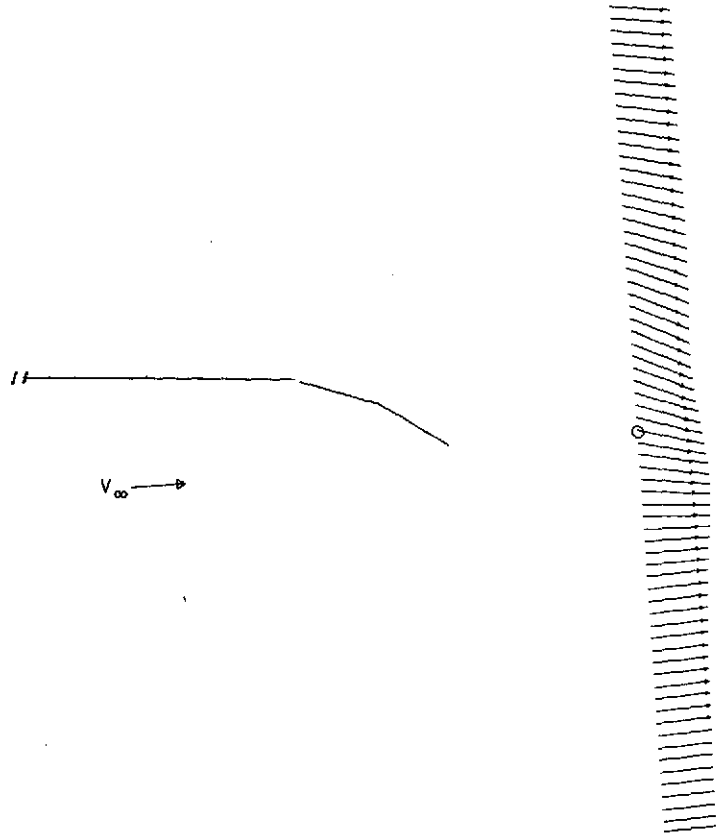


(B) - DOWNWASH ANGLE

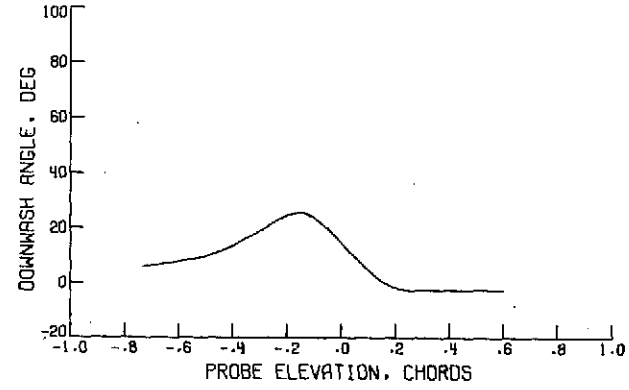


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

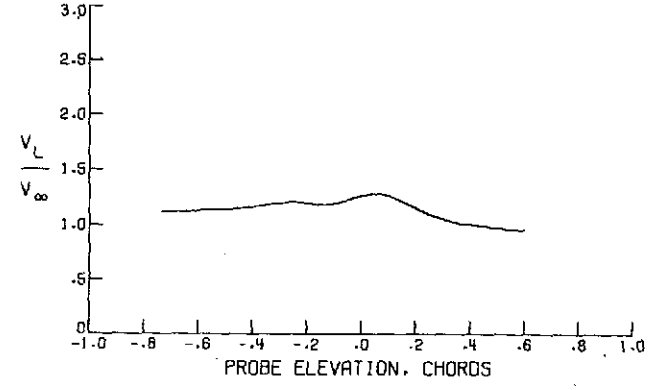
FIGURE 290. - WAKE SURVEY RESULTS FOR η = .207 , α = 16.55DEG, C_μ = .50 , V_∞ = 36.53 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

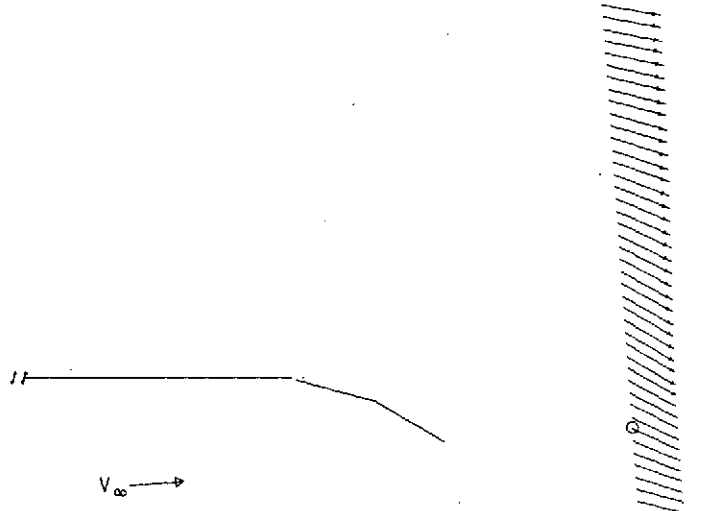


(B) - DOWNWASH ANGLE

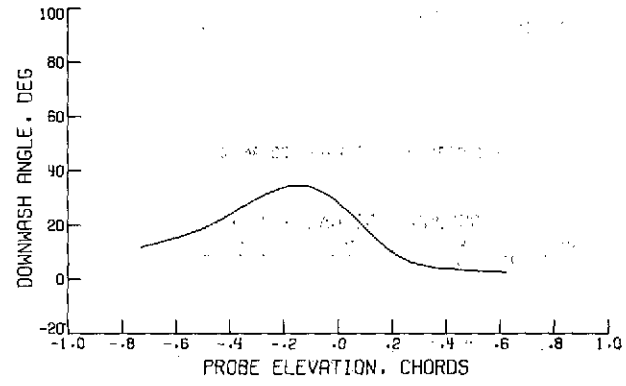


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

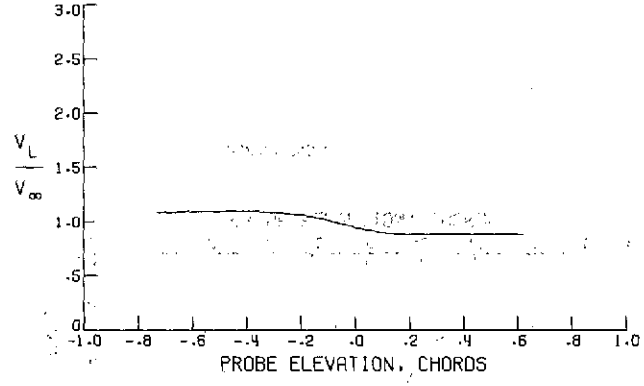
FIGURE 291. - WAKE SURVEY RESULTS FOR η = .909 , α = 4.21 DEG, C_μ = 1.00 , V_∞ = 36.36 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

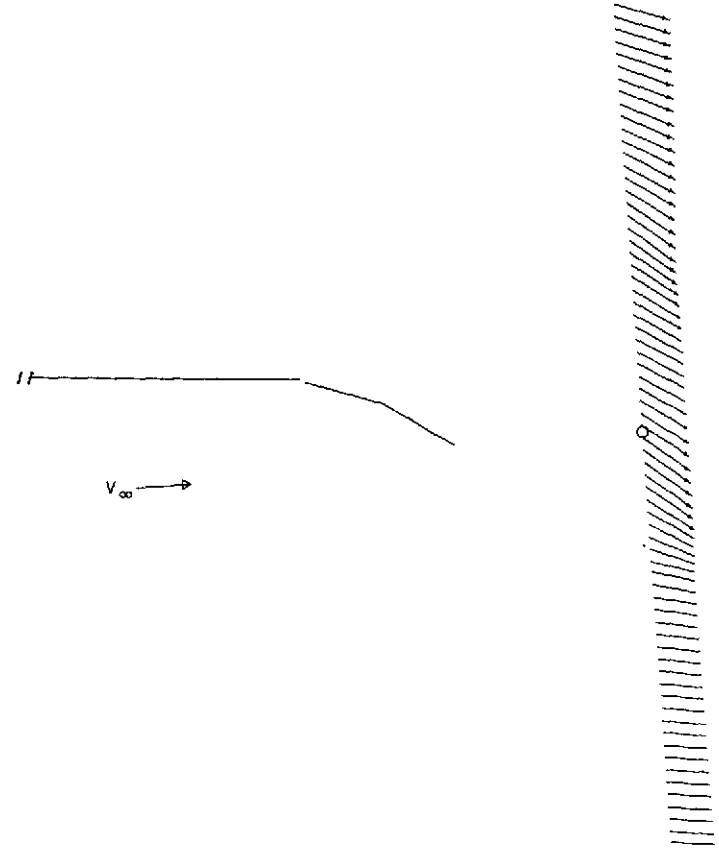


(B) - DOWNWASH ANGLE

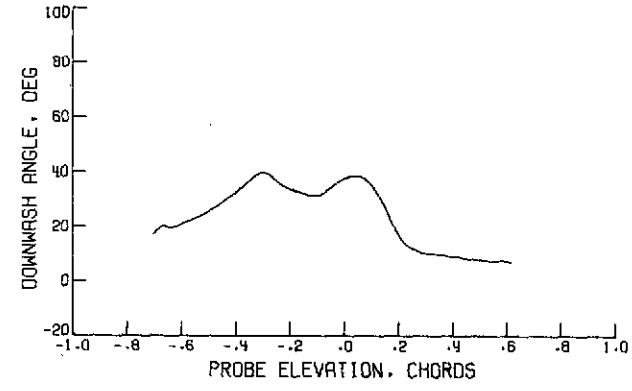


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

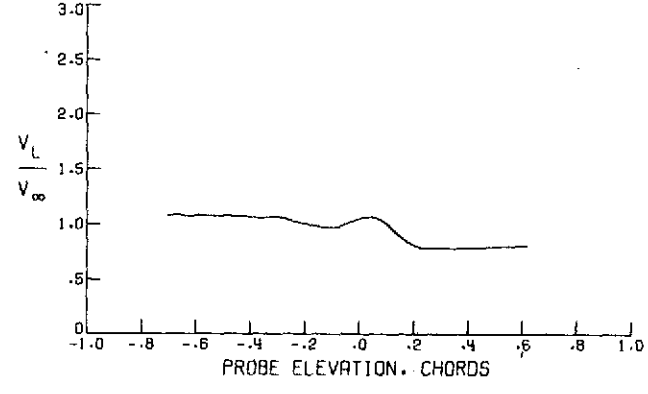
FIGURE 292. - WAKE SURVEY RESULTS FOR η = .805, α = 4.21 DEG, C_μ = 1.00, V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

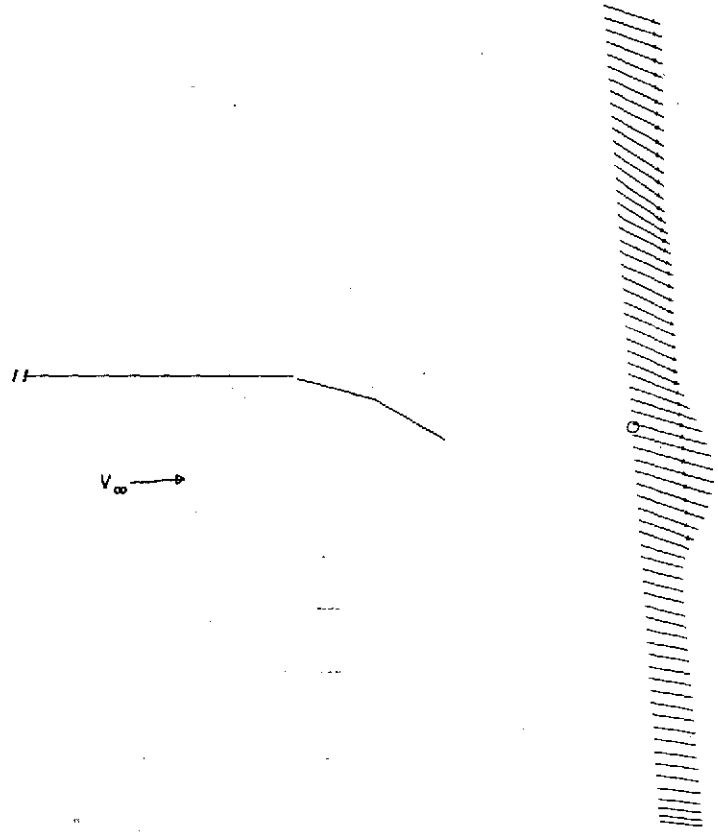


(B) - DOWNWASH ANGLE

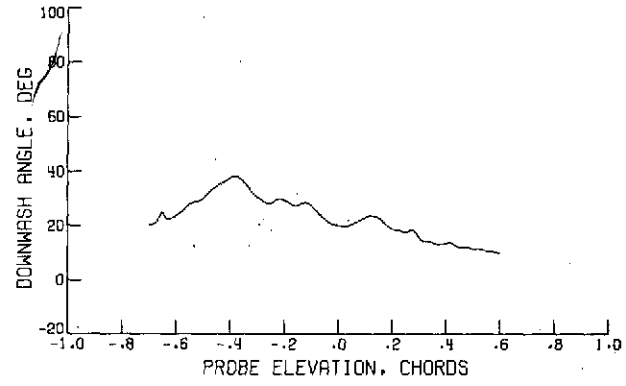


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

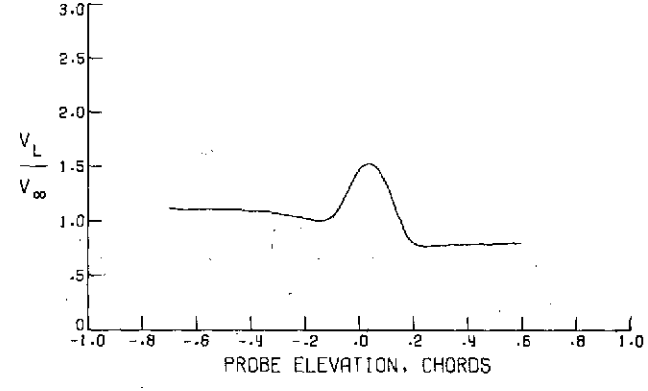
FIGURE 293. - WAKE SURVEY RESULTS FOR η = .685 , α = 4.21 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



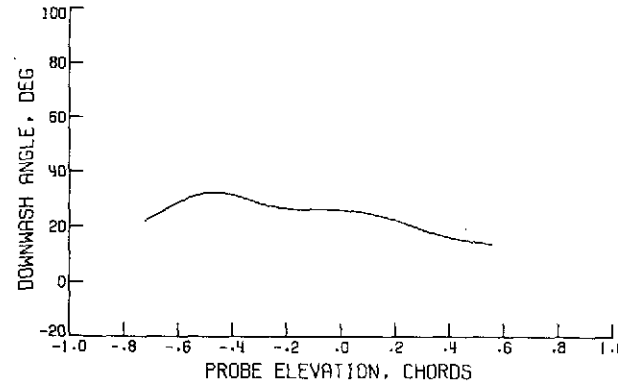
(B) - DOWNWASH ANGLE



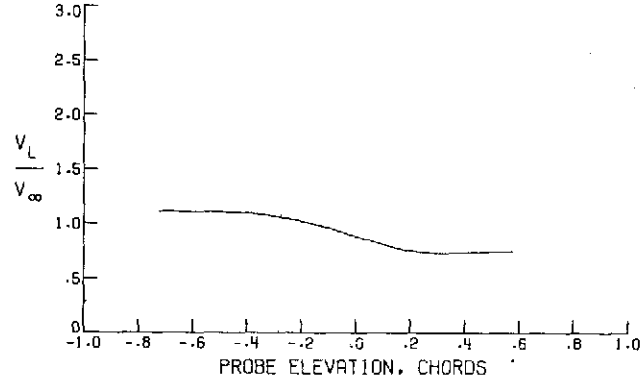
(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 294. - WAKE SURVEY RESULTS FOR η = .599 , α = 4.18 DEG, C_μ = 1.00 , V_∞ = 36.40 M/SEC, δ_F = 30.0 DEG

(A) - VELOCITY PROFILE

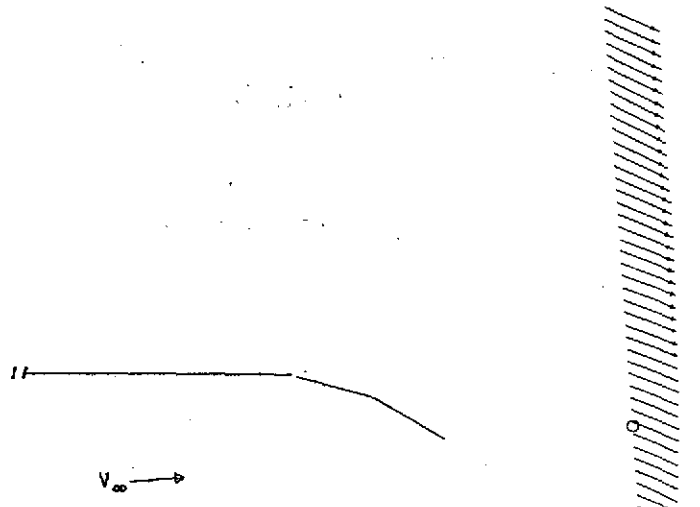


(B) - DOWNWASH ANGLE

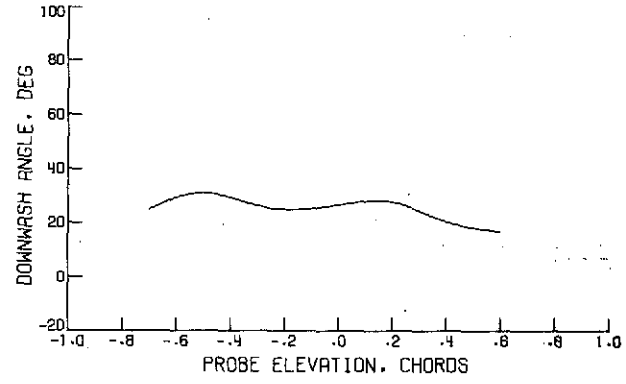


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

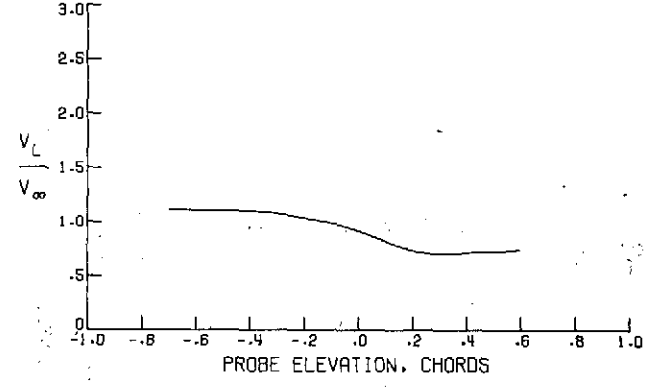
FIGURE 295 - WAKE SURVEY RESULTS FOR η = .503 , α = 4.17 DEG, C_μ = 1.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

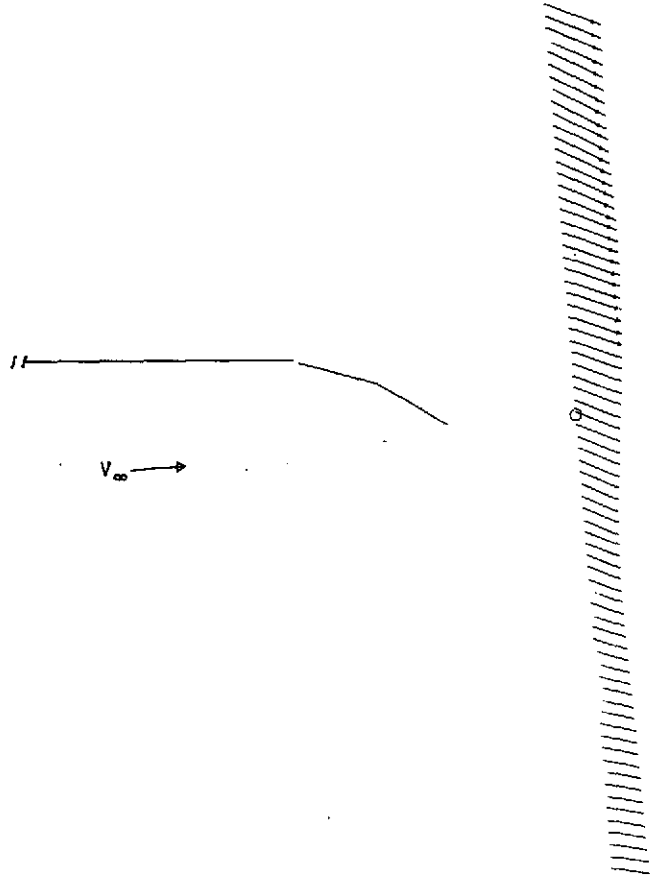


(B) - DOWNWASH ANGLE

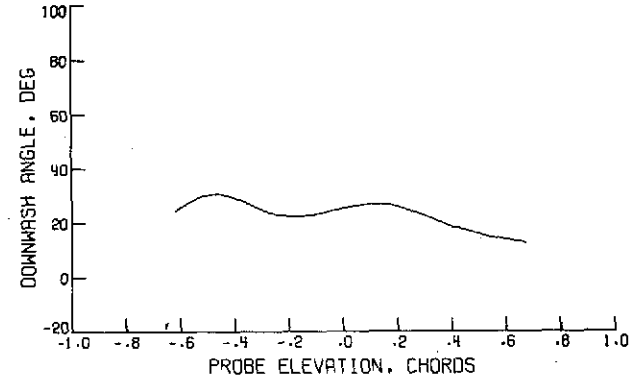


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

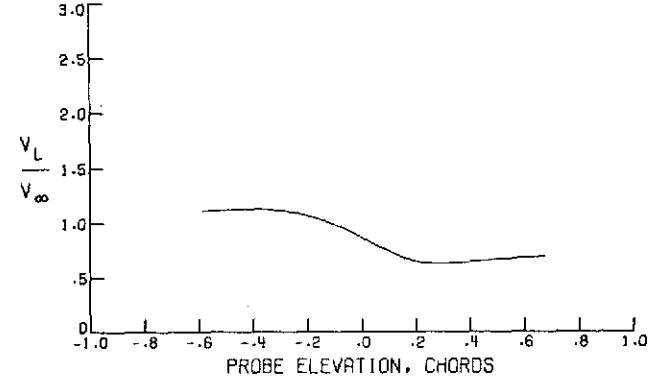
FIGURE 296. - WAKE SURVEY RESULTS FOR η = .434 , α = 4.17 DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

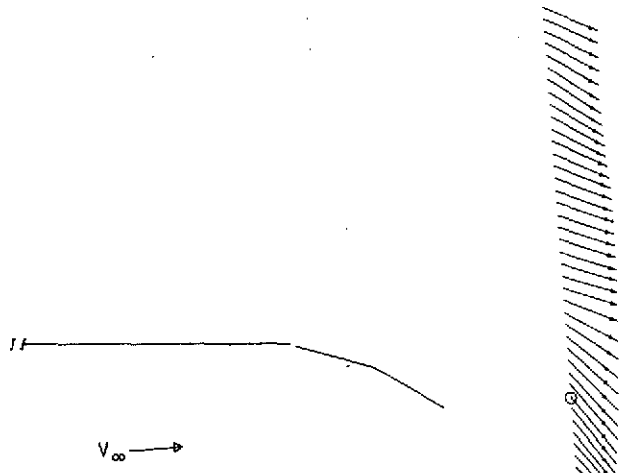


(B) - DOWNWASH ANGLE

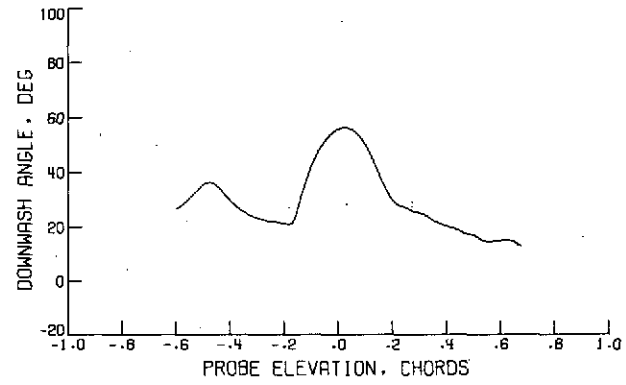


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

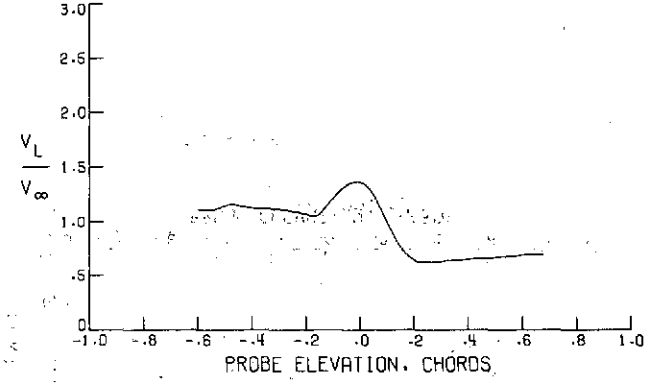
FIGURE 297. - WAKE SURVEY RESULTS FOR η = .375 , α = 4.22 DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

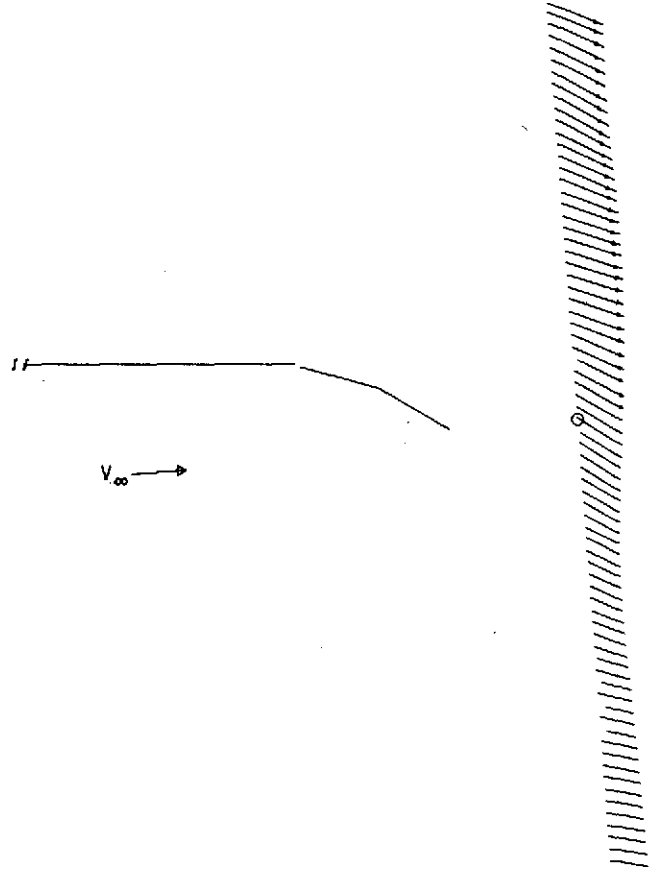


(B) - DOWNWASH ANGLE

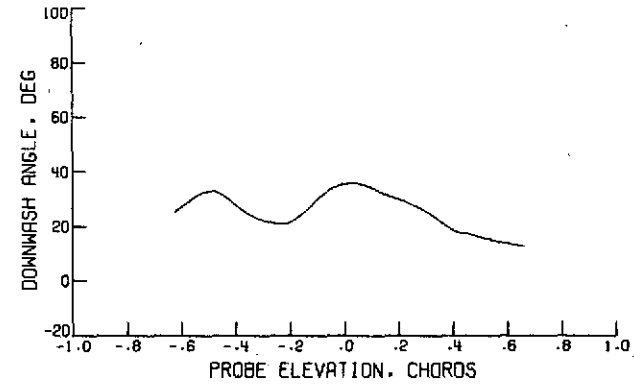


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

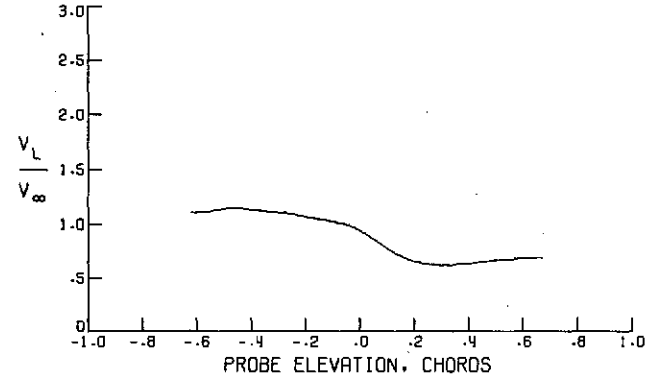
FIGURE 298. - WAKE SURVEY RESULTS FOR η = .321 , α = 4.23 DEG, C_μ = 1.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

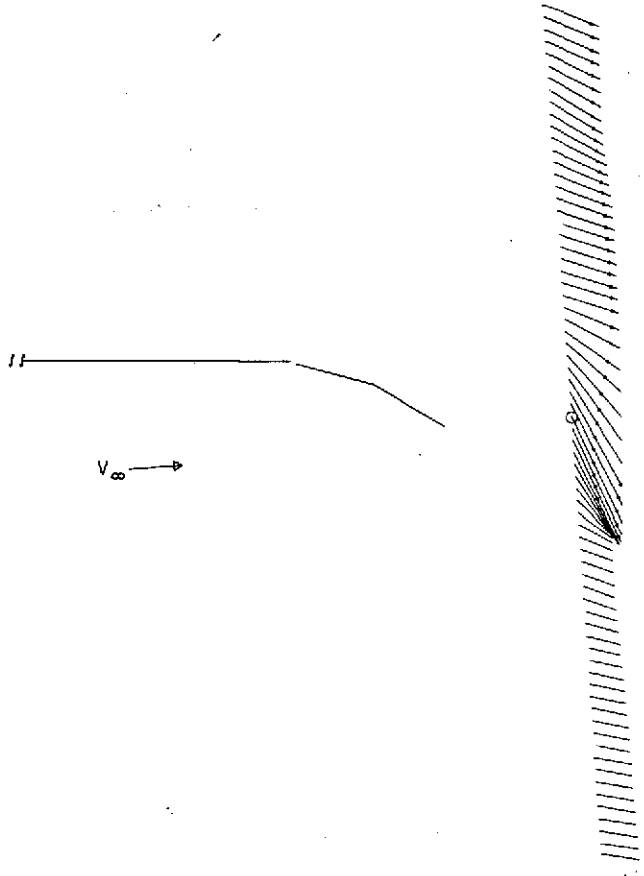


(B) - DOWNWASH ANGLE

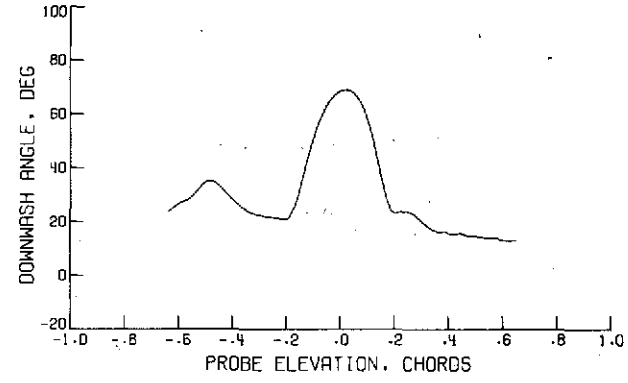


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

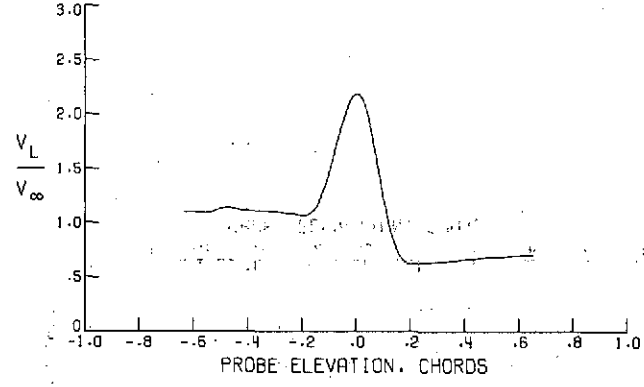
FIGURE 299.- WAKE SURVEY RESULTS FOR η = .241 , α = 4.22 DEG, C_μ = 1.00 , V_∞ = 36.36 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

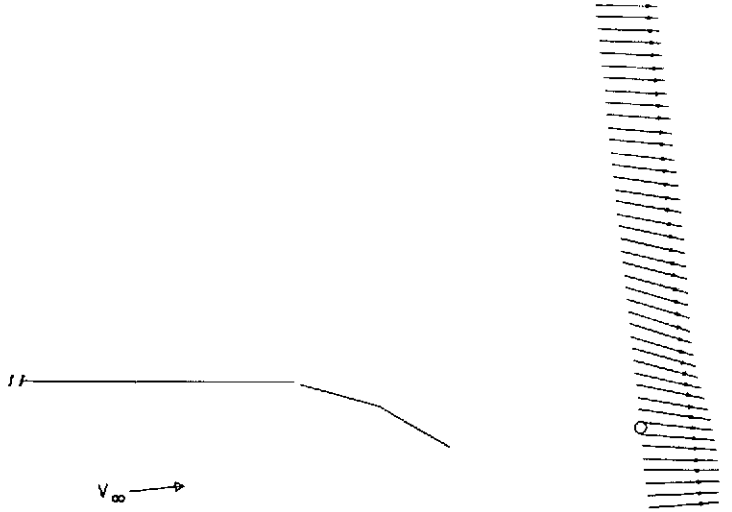


(B) - DOWNWASH ANGLE

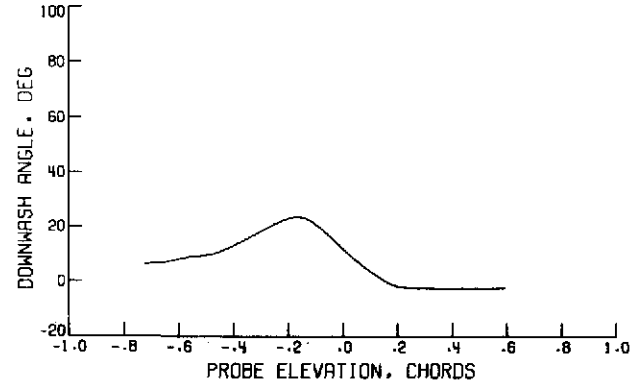


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

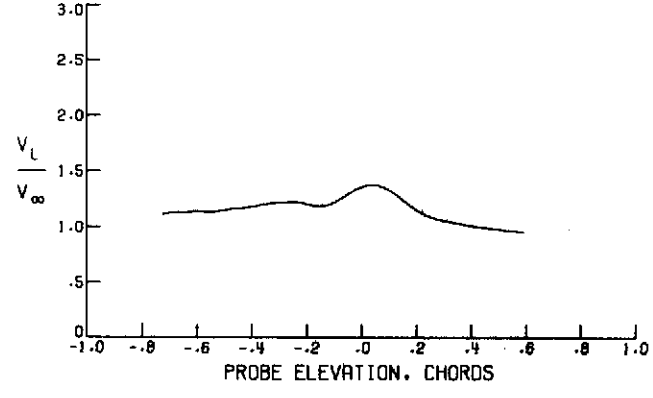
FIGURE 300. - WAKE SURVEY RESULTS FOR η = .207 , α = 4.23 DEG, C_μ = 1.00 , V_∞ = 36.20 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

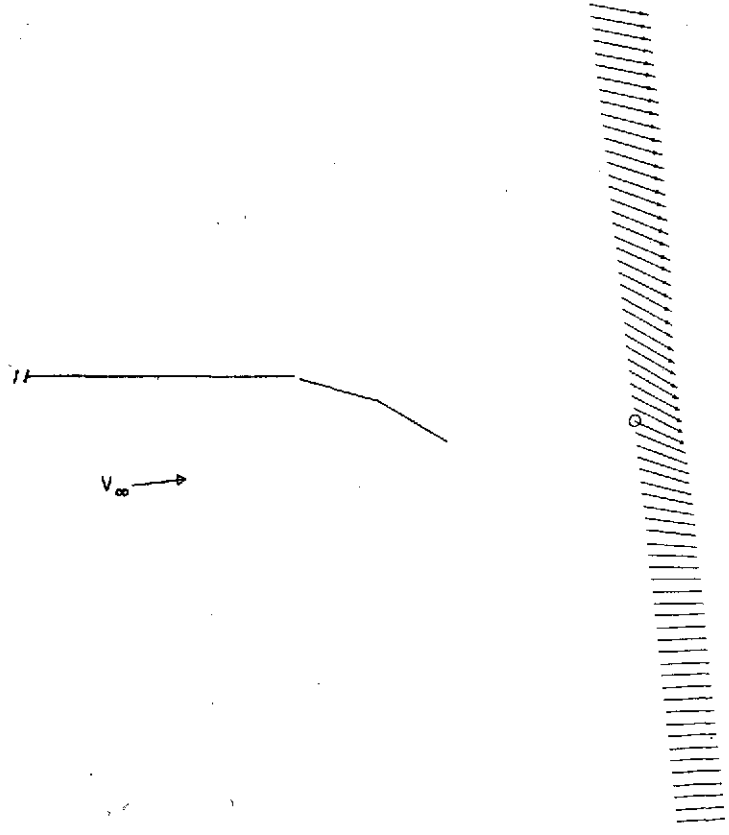


(B) - DOWNWASH ANGLE

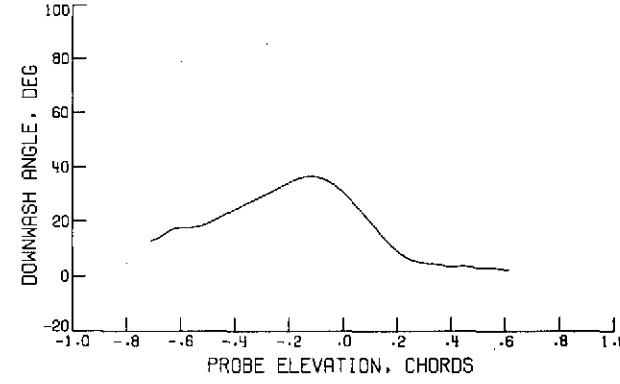


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

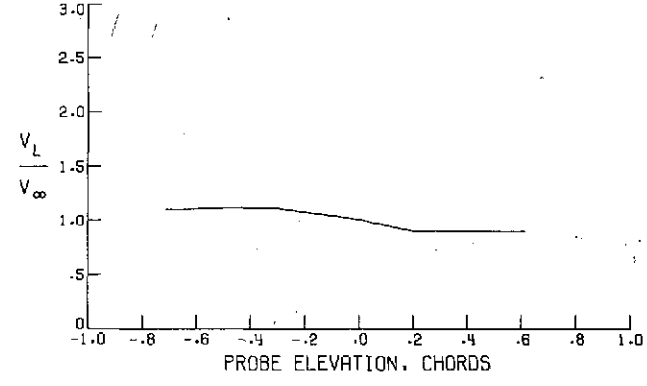
FIGURE 301. - WAKE SURVEY RESULTS FOR η = .910 , α = 6.32 DEG, C_μ = 1.00 , V_∞ = 36.27 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

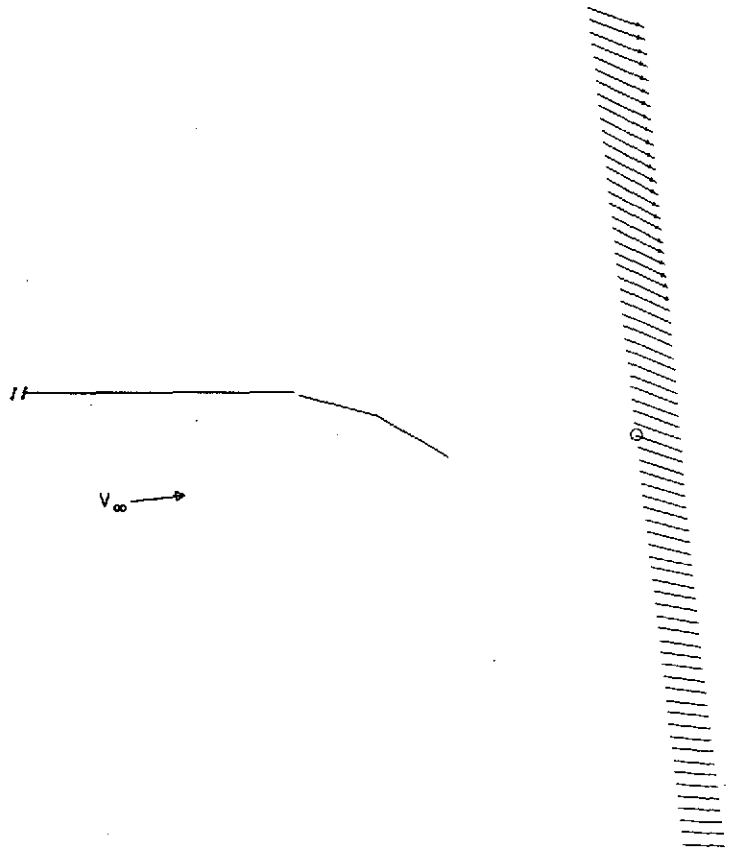


(B) - DOWNWASH ANGLE

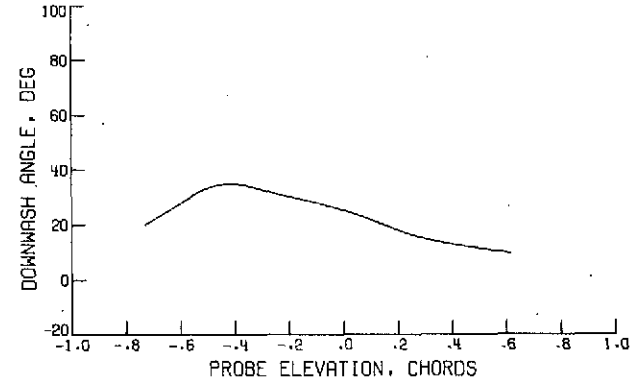


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

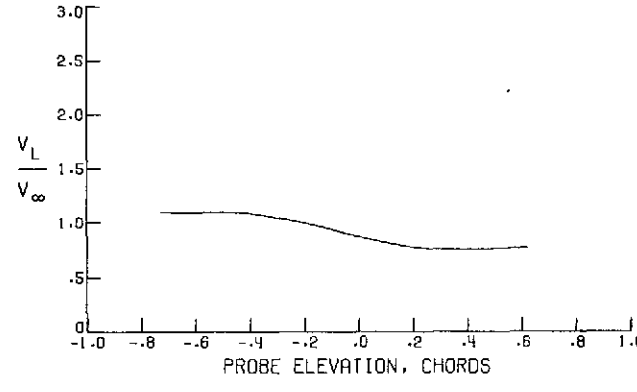
FIGURE 302. - WAKE SURVEY RESULTS FOR η = .805 , α = 6.32 DEG, C_μ = 1.00 , V_∞ = 36.35 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

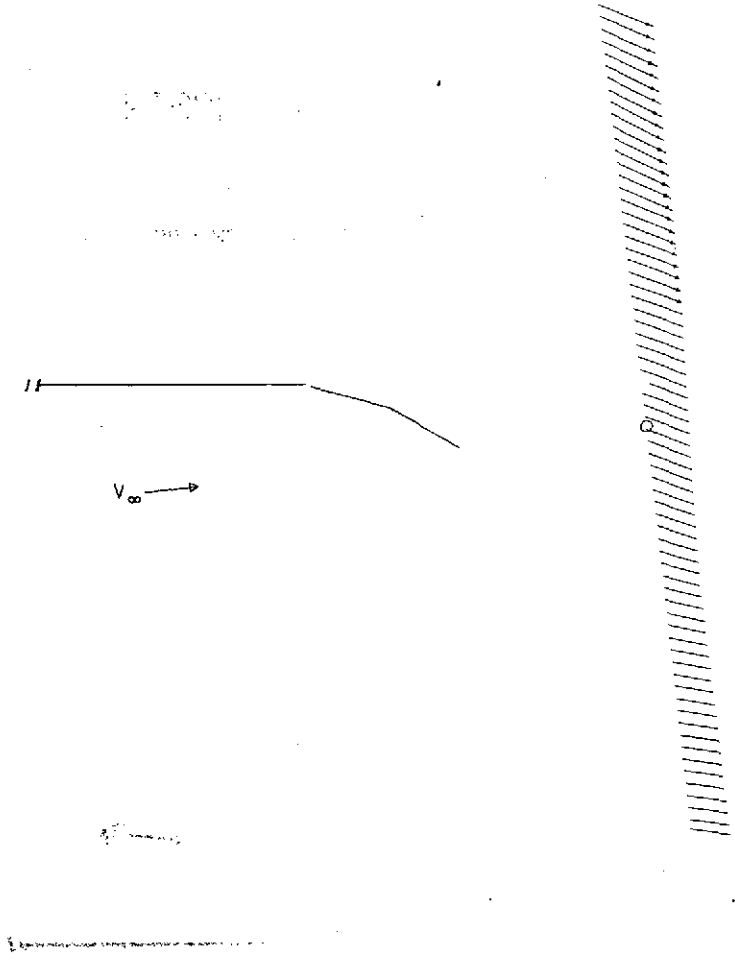


(B) - DOWNWASH ANGLE

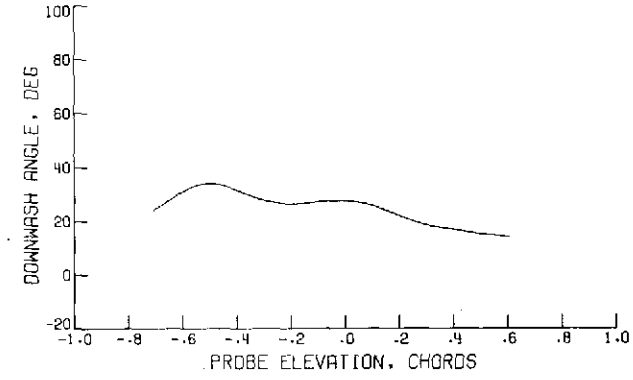


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

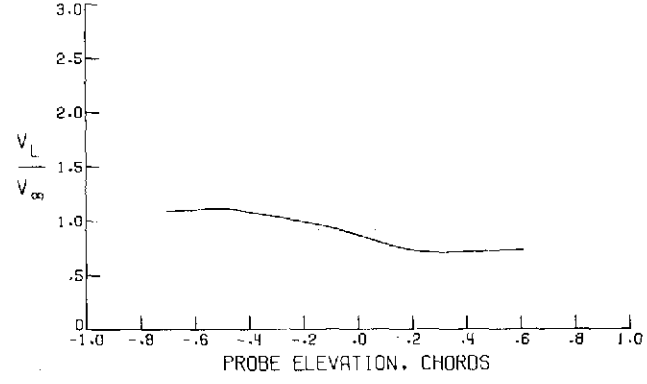
FIGURE 303. - WAKE SURVEY RESULTS FOR η = .597 , α = 6.32 DEG, C_μ = 1.00 , V_∞ = 36.48 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

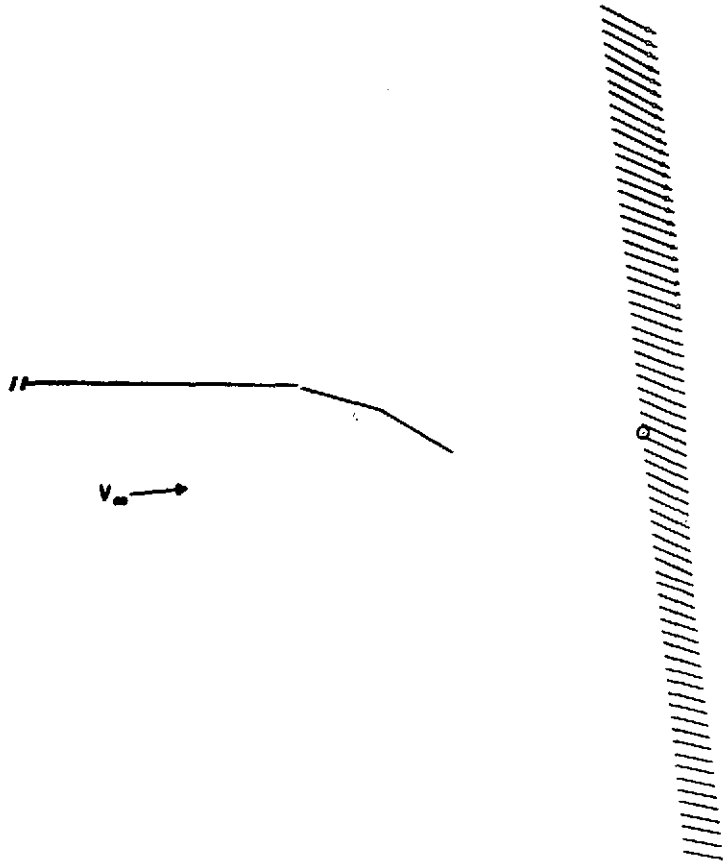


(B) - DOWNWASH ANGLE

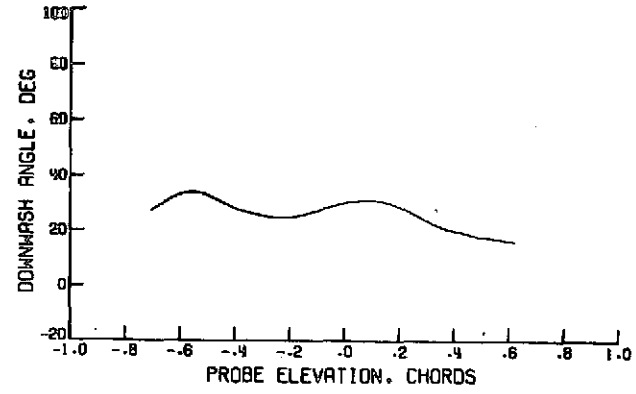


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

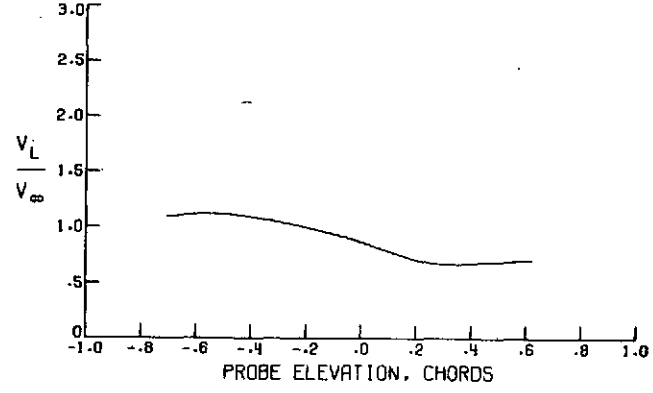
FIGURE 304. - WAKE SURVEY RESULTS FOR η = .501 , α = 6.33 DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

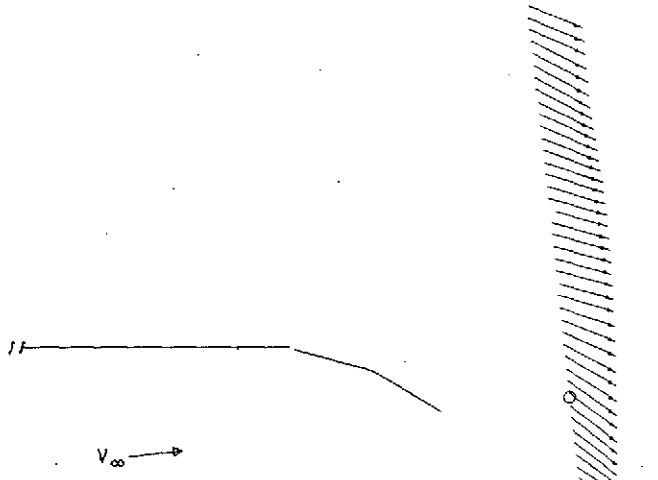


(B) - DOWNWASH ANGLE

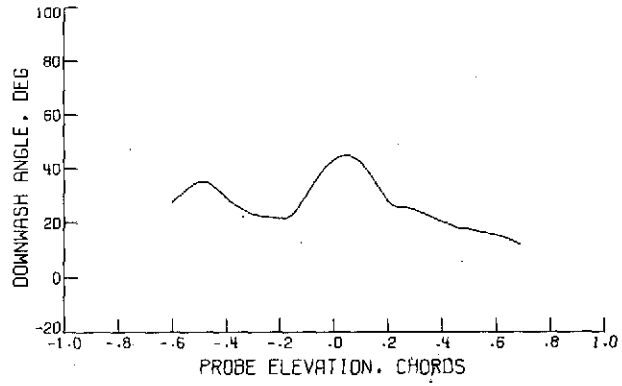


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

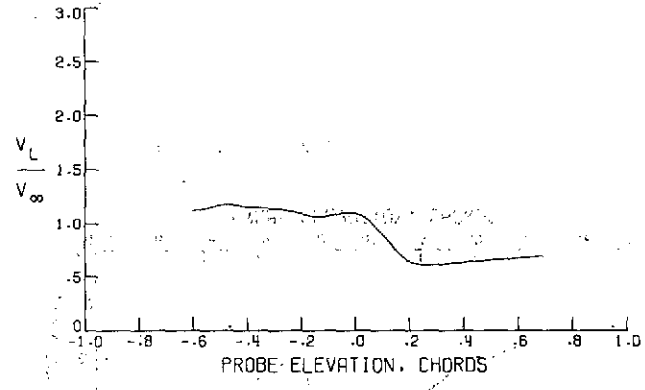
FIGURE 305. - WAKE SURVEY RESULTS FOR η = .433 , α = 6.32 DEG, C_μ = 1.00 , V_∞ = 36.41 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

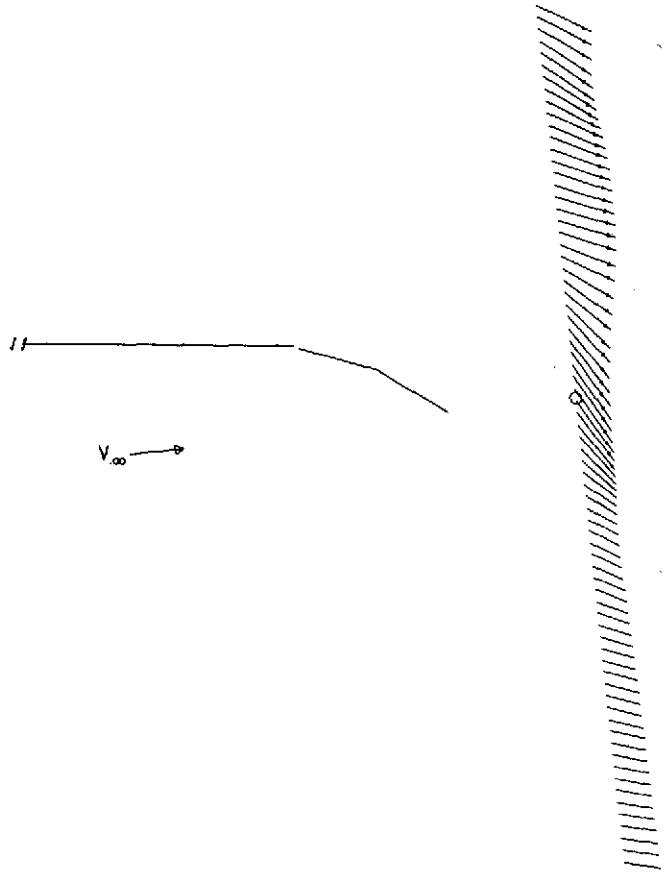


(B) - DOWNWASH ANGLE

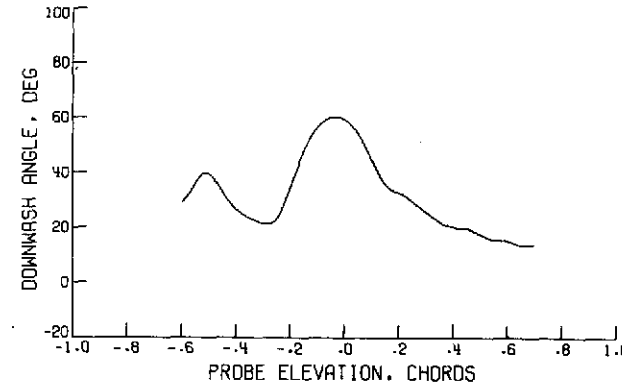


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

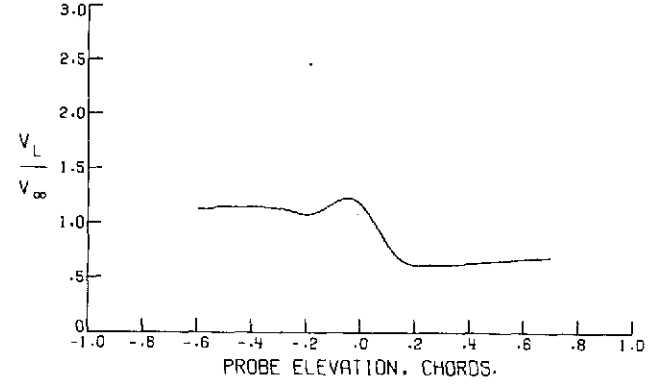
FIGURE 306. - WAKE SURVEY RESULTS FOR η = .375 , α = 6.32 DEG, C_μ = 1.00 , V_∞ = 36.30 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

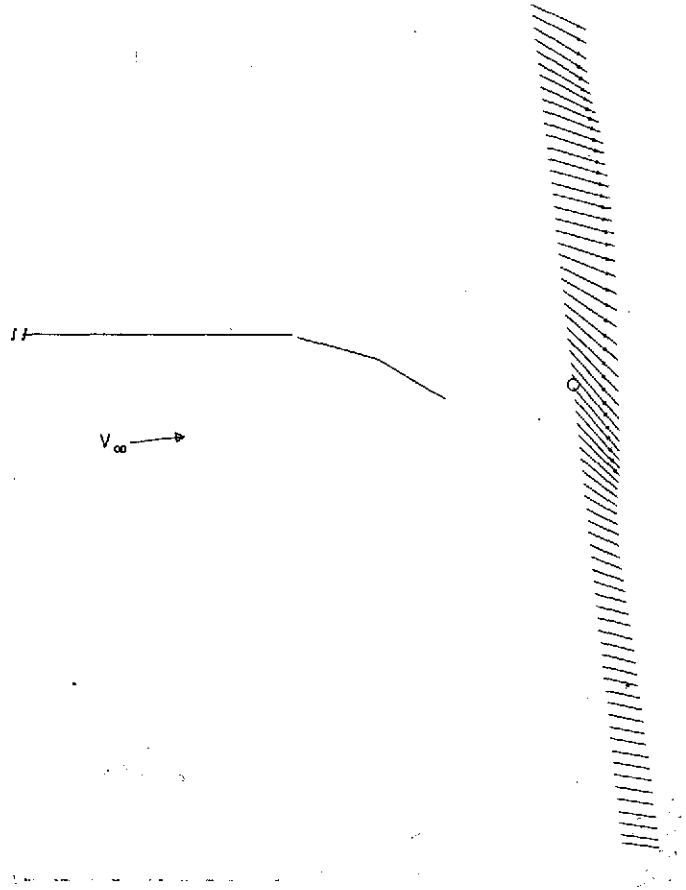


(B) - DOWNWASH ANGLE

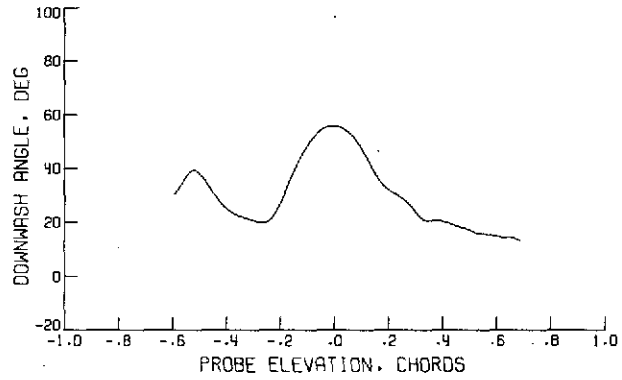


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

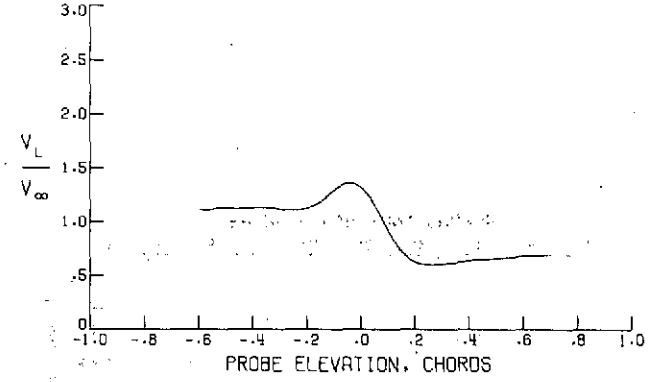
FIGURE 307. - WAKE SURVEY RESULTS FOR η = .320 , α = 6.33 DEG, C_μ = 1.00 , V_∞ = 36.22 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

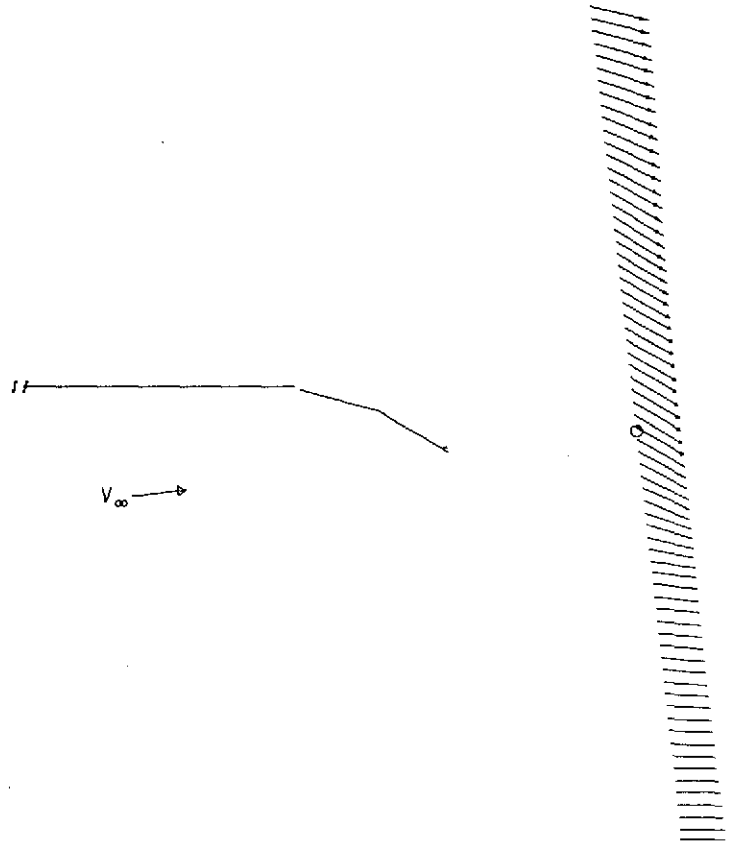


(B) - DOWNWASH ANGLE

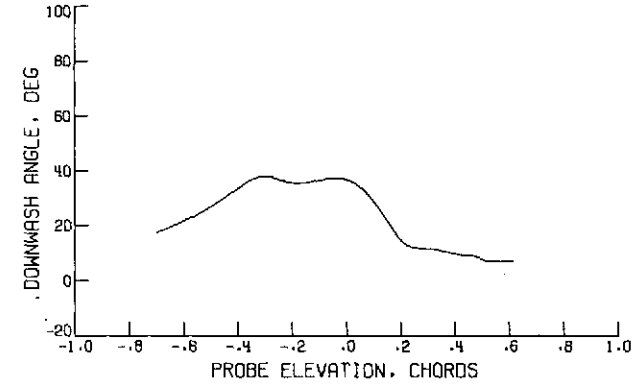


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

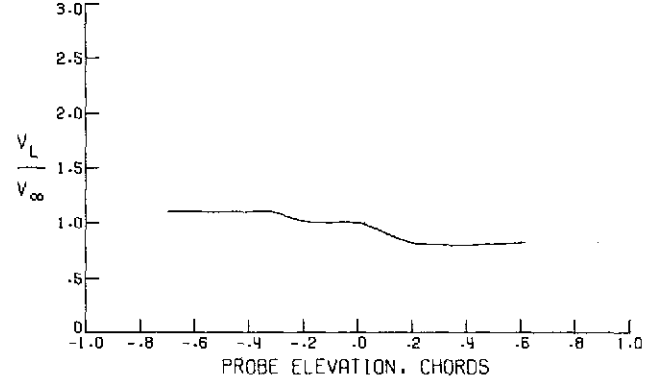
FIGURE 308. - WAKE SURVEY RESULTS FOR η = .241 , α = 6.33 DEG, C_μ = 1.00 , V_∞ = 36.28 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

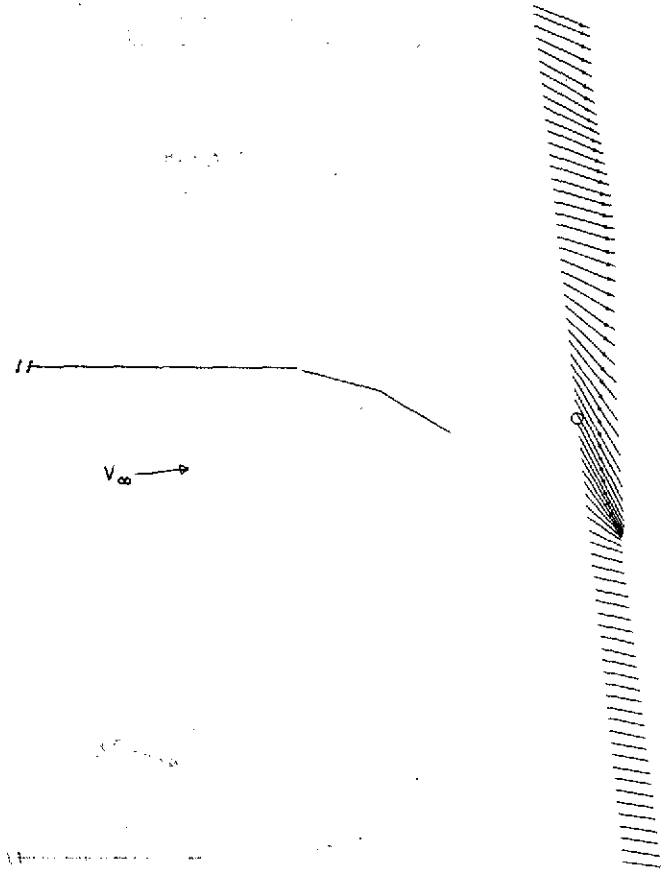


(B) - DOWNWASH ANGLE

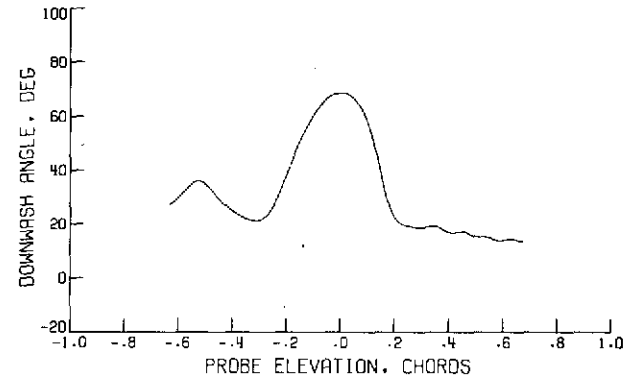


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

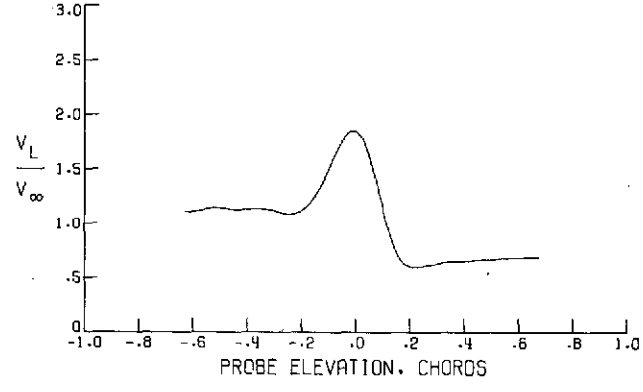
FIGURE 309. - WAKE SURVEY RESULTS FOR η = .685 , α = 6.33 DEG, C_μ = 1.00 , V_∞ = 36.40 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

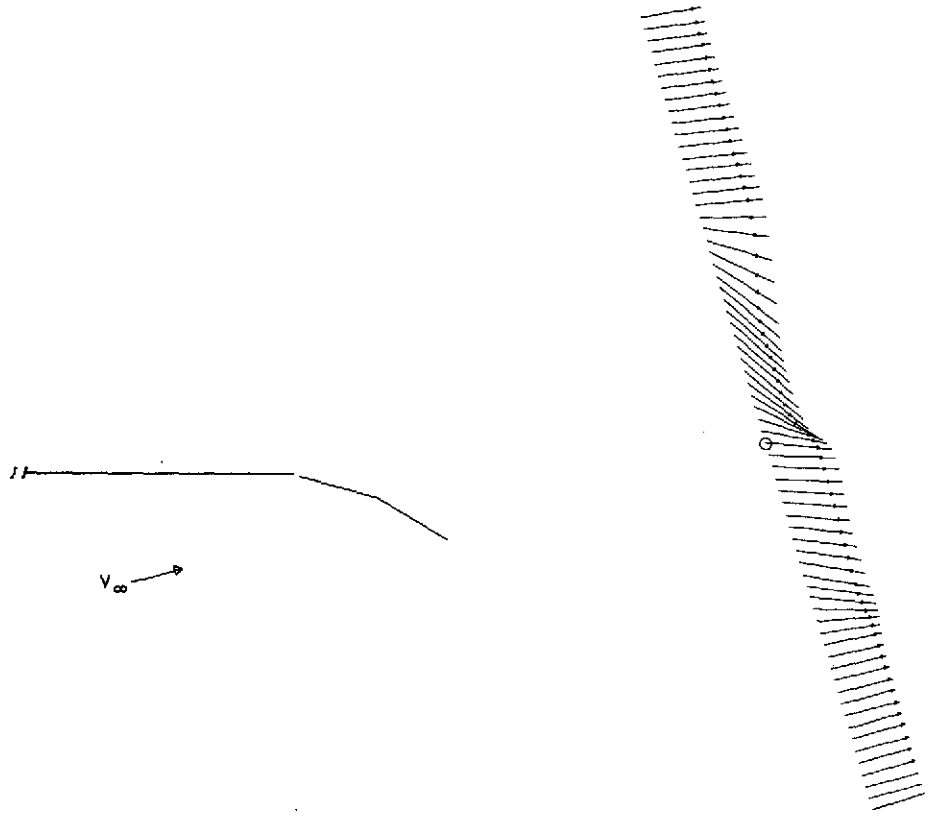


(B) - DOWNWASH ANGLE

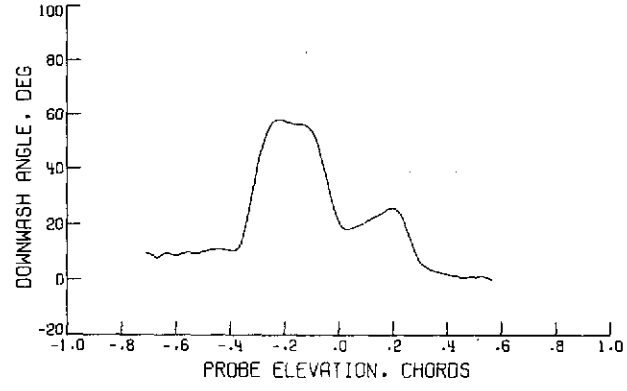


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

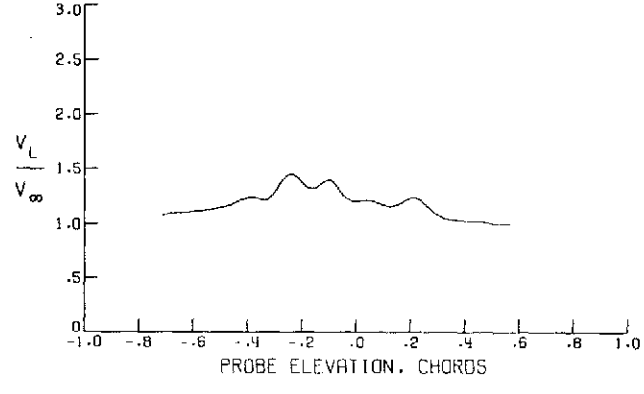
FIGURE 310. - WAKE SURVEY RESULTS FOR η = .208 , α = 6.33 DEG, C_μ = 1.00 , V_∞ = 36.30 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

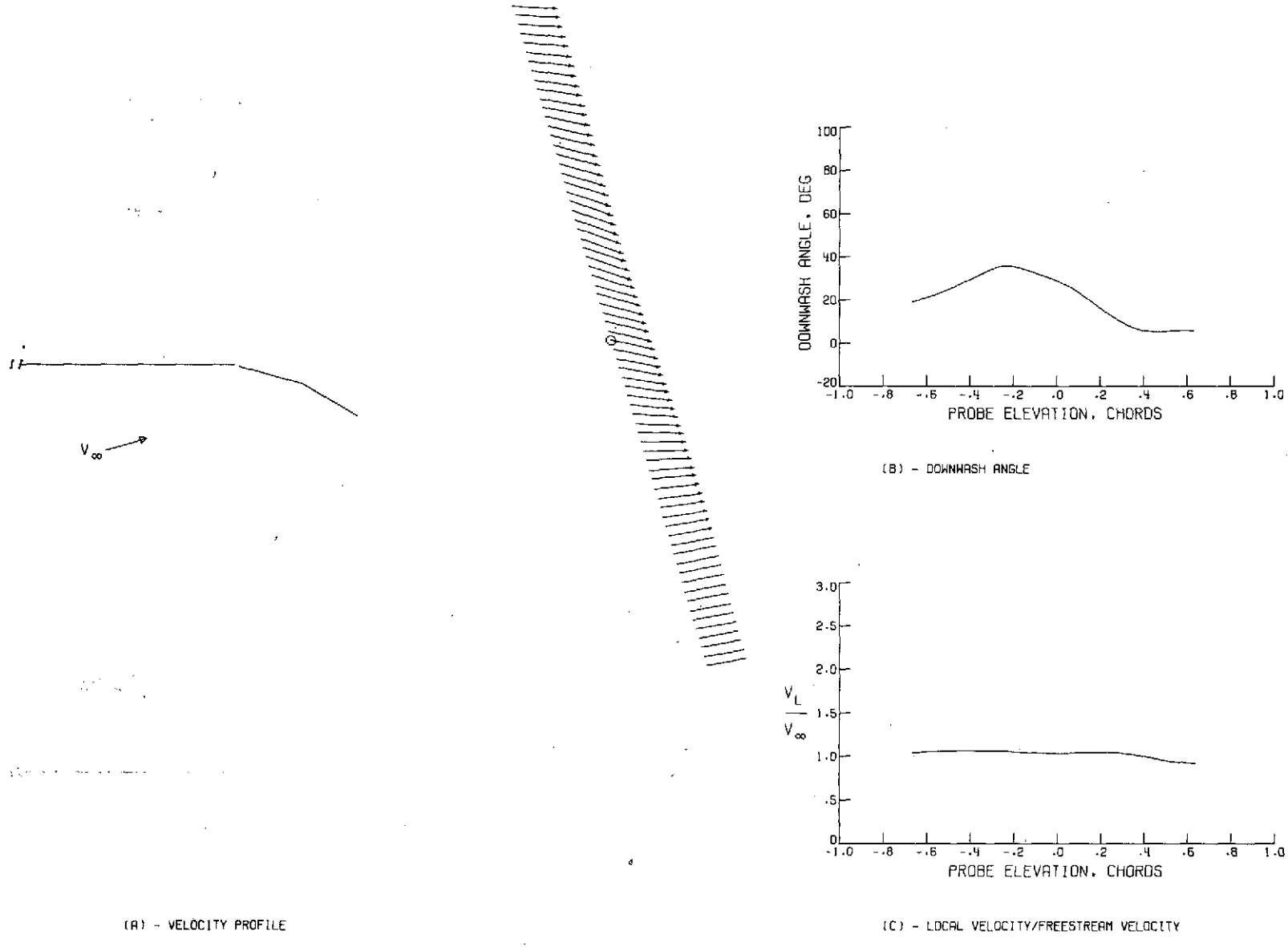


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 311. - WAKE SURVEY RESULTS FOR η = .910 , α = 16.56DEG, C_μ = 1.00 , V_∞ = 36.43 M/SEC, δ_F = 30.0 DEG

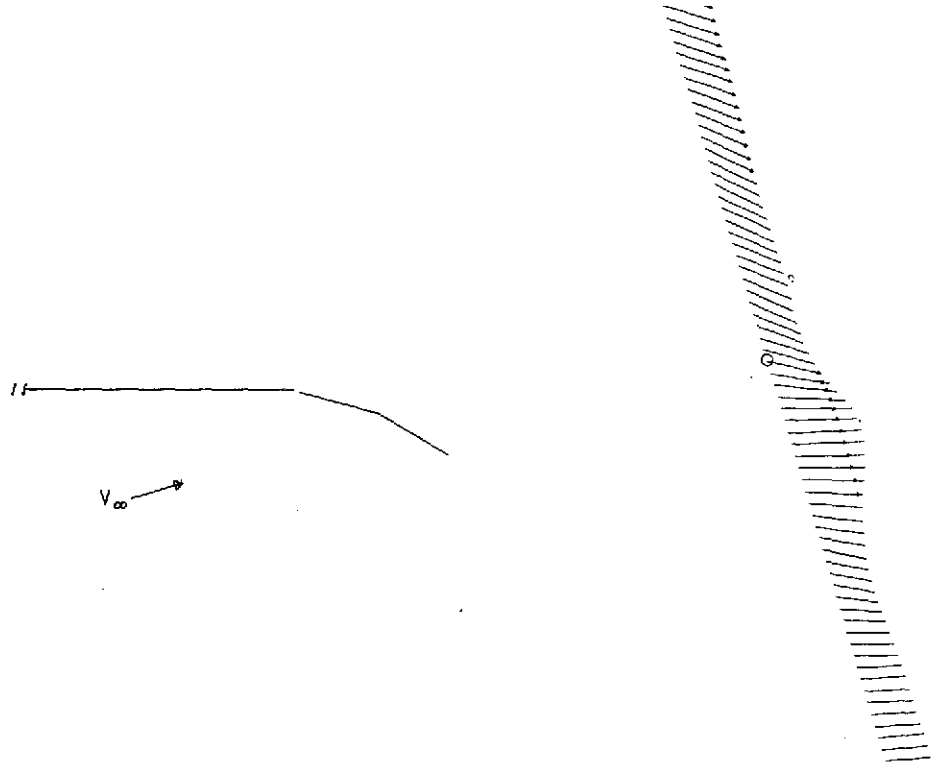


(A) - VELOCITY PROFILE

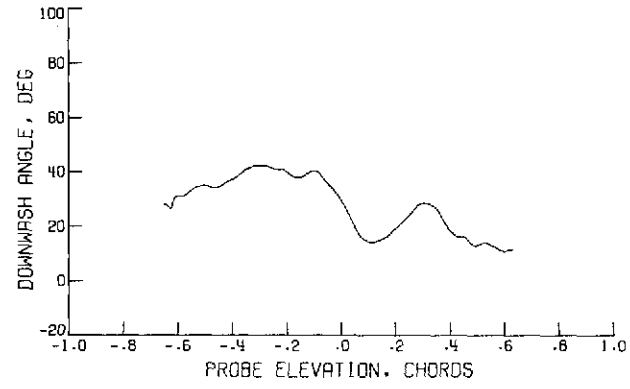
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

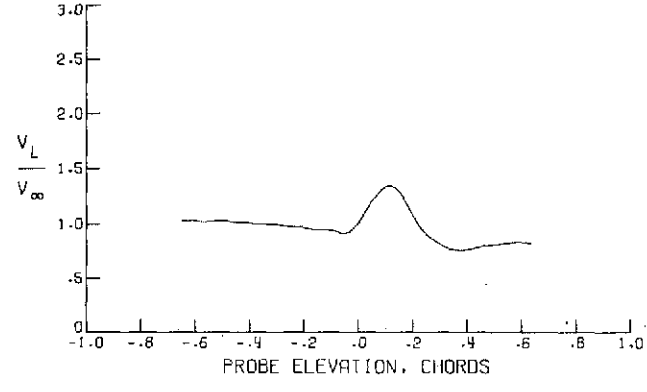
FIGURE 312. - WAKE SURVEY RESULTS FOR η = .807 , α = 16.56DEG, C_μ = 1.00 , V_∞ = 36.25 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

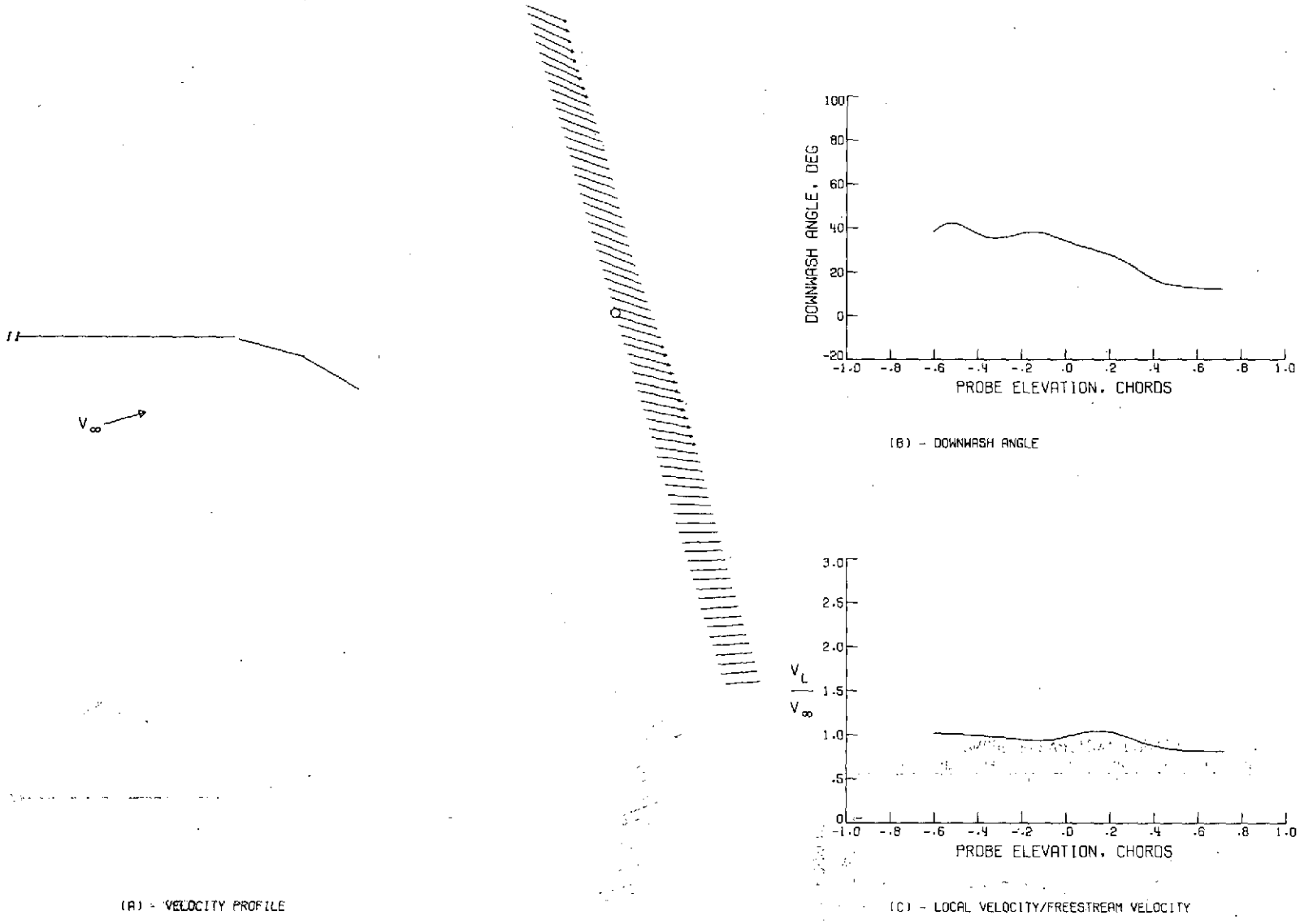


(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 313. - WAKE SURVEY RESULTS FOR η = .687 , α = 16.56DEG, C_μ = 1.00 , V_∞ = 36.30 M/SEC, δ_F = 30.0 DEG

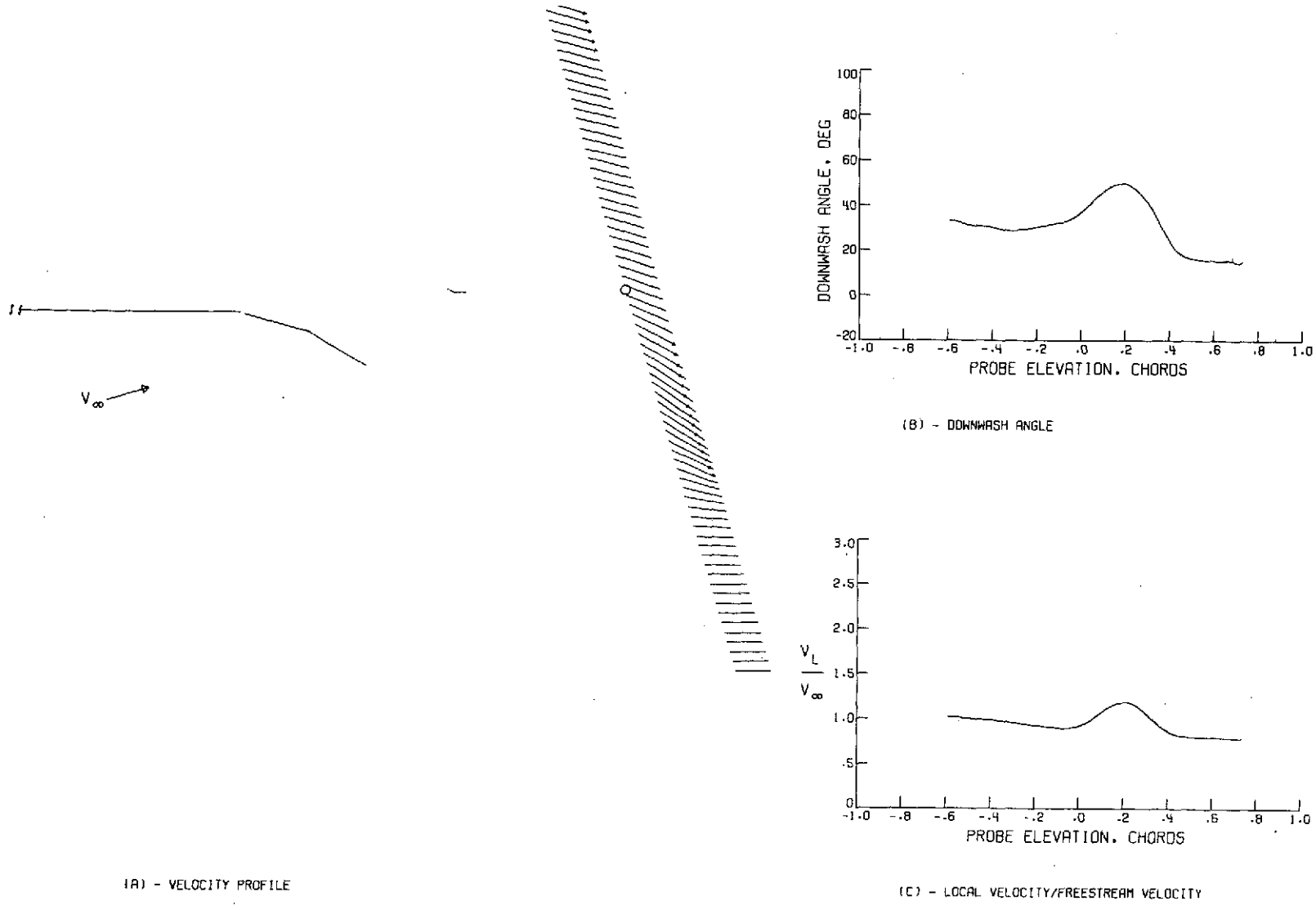


(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 314.- WAKE SURVEY RESULTS FOR η = .598 , α = 16.55DEG, C_μ = 1.00 , V_∞ = 36.25 M/SEC, δ_F = 30.0 DEG

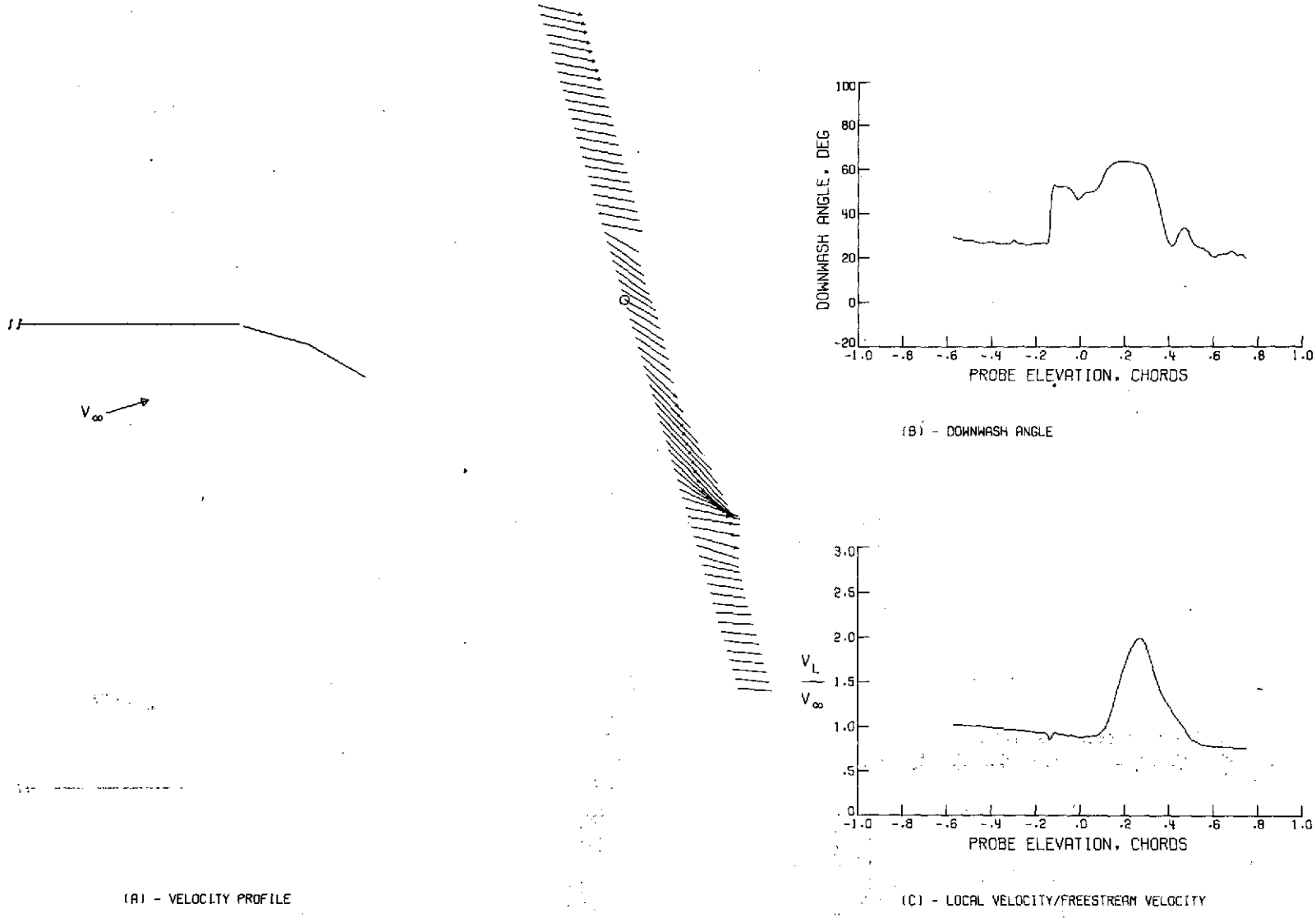


(A) - VELOCITY PROFILE

(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 315. - WAKE SURVEY RESULTS FOR η = .502 , α = 16.56DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG

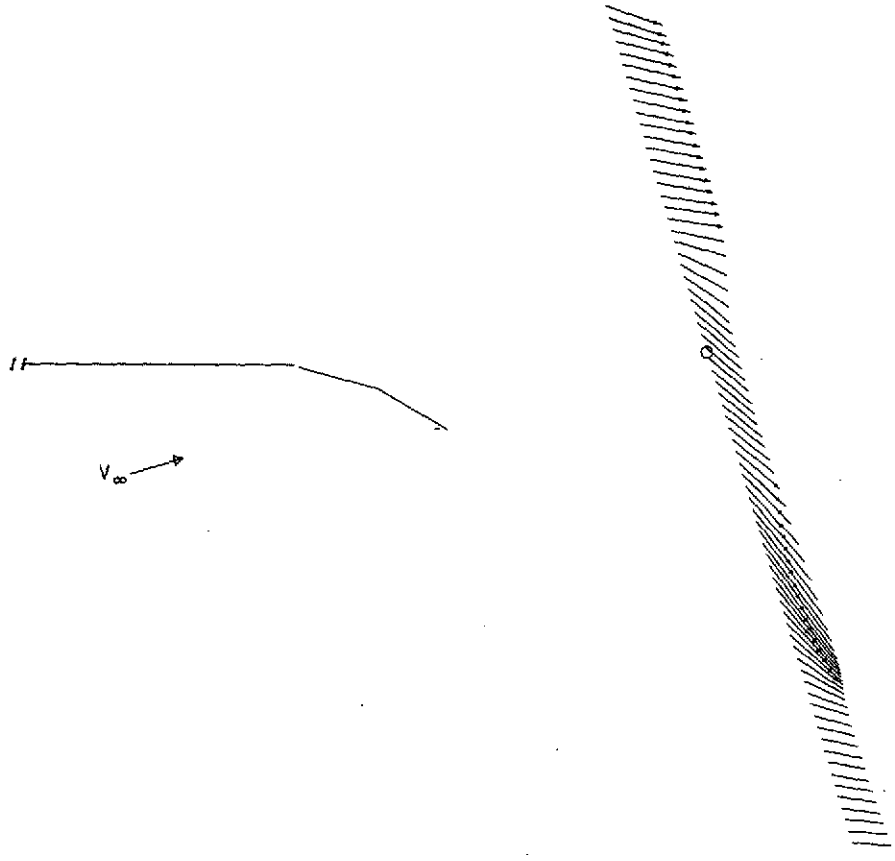


(A) - VELOCITY PROFILE

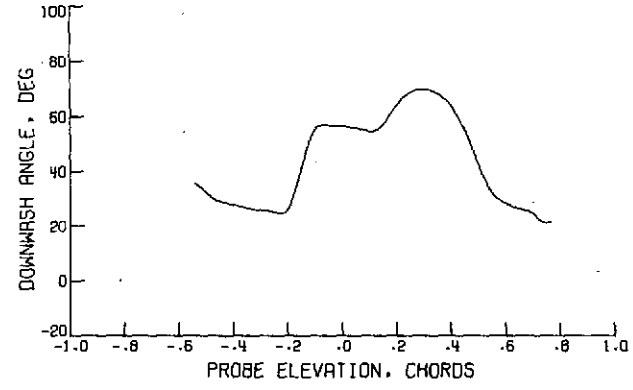
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

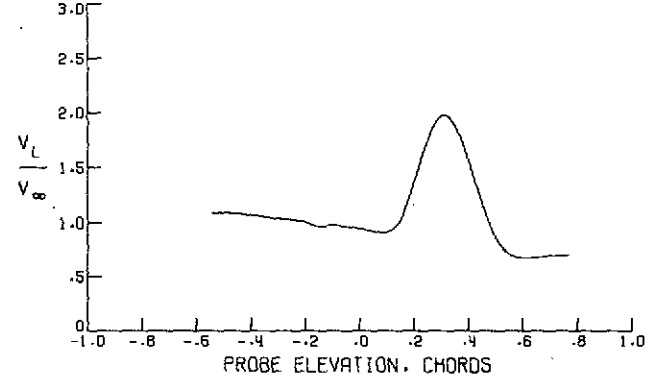
FIGURE 316. - WAKE SURVEY RESULTS FOR η = .435 , α = 16.55DEG, C_μ = 1.00 , V_∞ = 36.27 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

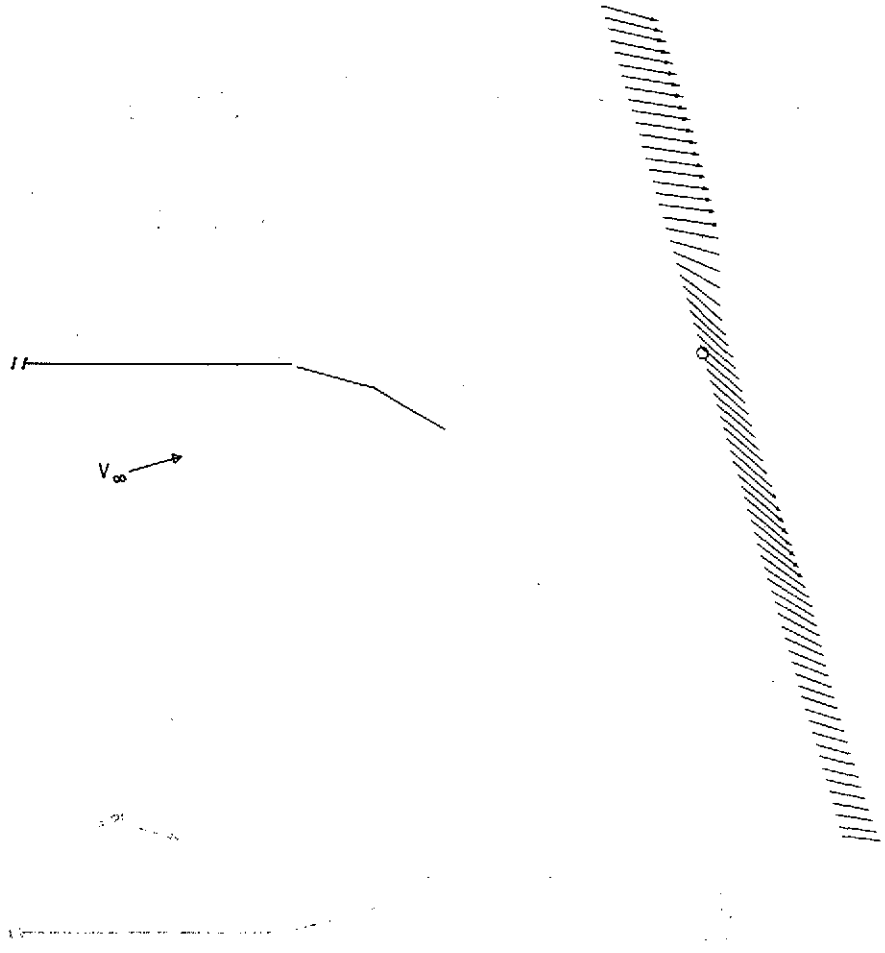


(B) - DOWNWASH ANGLE

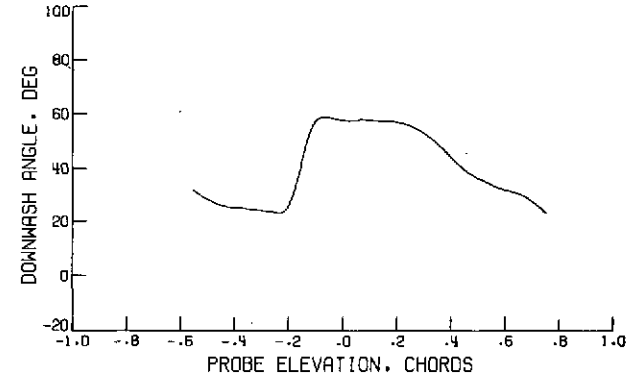


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

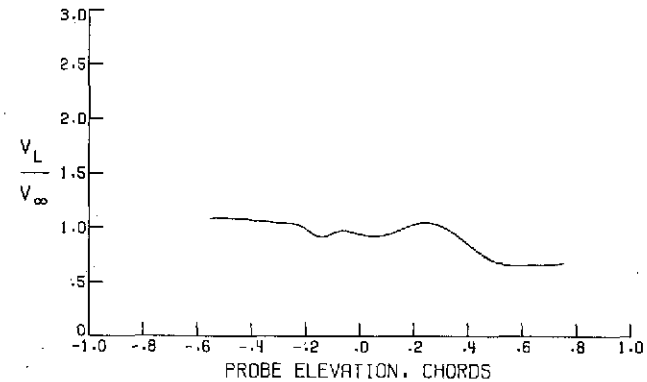
FIGURE 317. - WAKE SURVEY RESULTS FOR η = .375 , α = 16.54DEG, C_μ = 1.00 , V_∞ = 36.42 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE

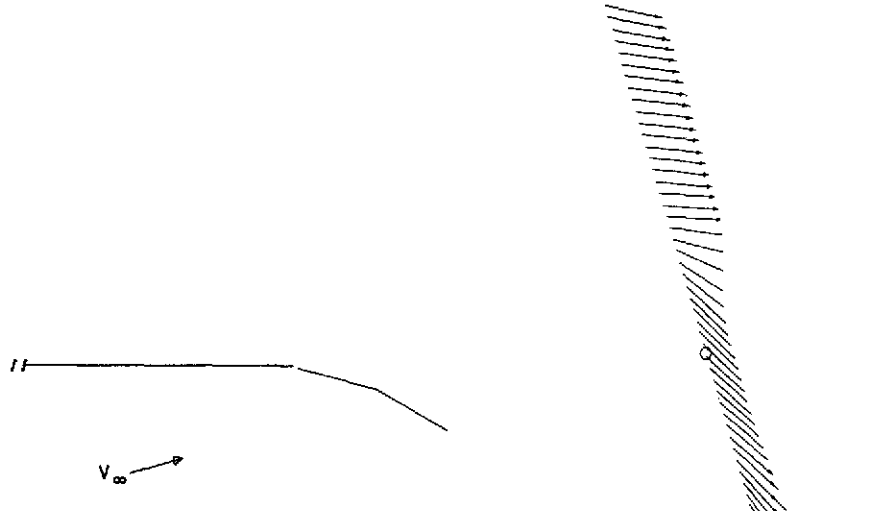


(B) - DOWNWASH ANGLE

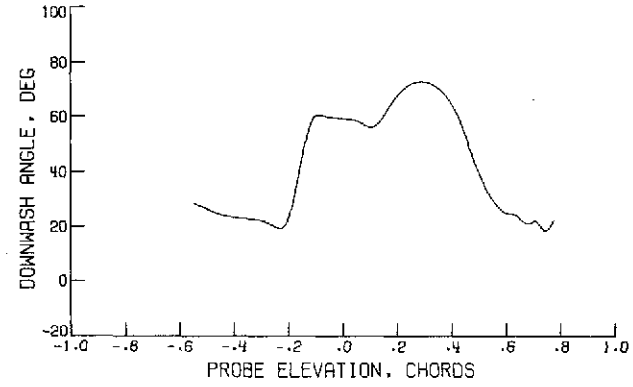


(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 318. - WAKE SURVEY RESULTS FOR η = .318 , α = 16.54DEG, C_μ = 1.00 , V_∞ = 36.37 M/SEC, δ_F = 30.0 DEG



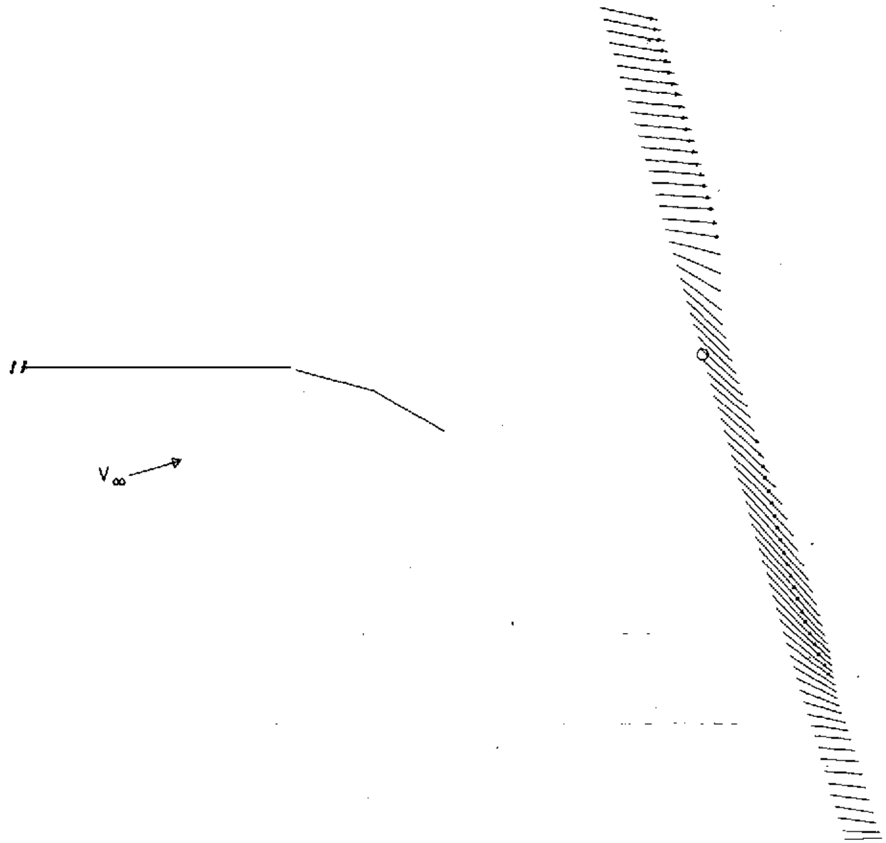
(A) - VELOCITY PROFILE



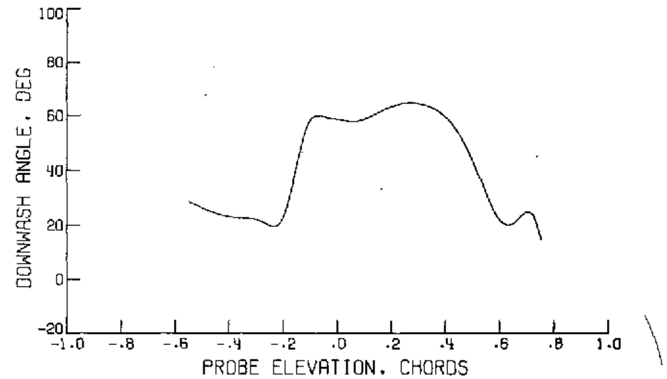
(B) - DOWNWASH ANGLE

(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

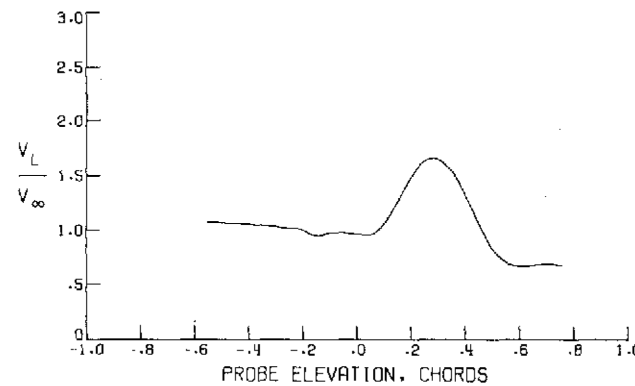
FIGURE 319. - WAKE SURVEY RESULTS FOR η = .241 , α = 16.53DEG, C_μ = 1.00 , V_∞ = 36.34 M/SEC, δ_F = 30.0 DEG



(A) - VELOCITY PROFILE



(B) - DOWNWASH ANGLE



(C) - LOCAL VELOCITY/FREESTREAM VELOCITY

FIGURE 320. - WAKE SURVEY RESULTS FOR η = .206 , α = 16.53DEG, C_{μ} = 1.00 , V_{∞} = 36.47 M/SEC, δ_F = 30.0 DEG

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