July 1971

(Final Report)

Design Study Of Large Sculpted Mirror Substrates

Volume II Deflection Maps

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INTRODUCTION

This is Volume II of Design Study of Large Sculpted Mirror Substrates. It consists of 147 deflection maps resulting from calculations described in Volume I. Map codings appear in Section 7.0 of Volume I.

Accepted for the Air Force
Joseph R.Waterman, Lt. Col., USAF
Chief, Lincoln Laboratory Project Office

4 4 -1 -2 -16

-12 -5 1 5 3 -4 -11 -18 -23 -26

-20 -11 -4 3 8 -1 -8 -14 -19 -22 -25

-39 -28 -19 -11 -5 -0 -0 -6 -11 -16 -19 -21 -22 -23

-49 -36 -25 -18 -12 -8 -6 -7 -10 -13 -15 -17 -17 -17 -17

-58 -44 -31 -25 -19 -14 -12 -11 -12 -12 -13 -13 -13 -12 -12 -12

-64 -51 -41 -32 -26 -21 -18 -16 -14 -13 -12 -11 -10 -8 -6 -7 -9

-68 -56 -46 -38 -31 -26 -23 -20 -17 -15 -12 -10 -8 -6 -3 -1 -6 -10

-58 -49 -41 -35 -29 -24 -21 -18 -16 -13 -11 -7 -5 -4 -3 -6 -11

-57 -49 -42 -35 -29 -24 -20 -18 -16 -14 -12 -9 -5 -4 -6 -9 -14 -19

-52 -47 -40 -34 -28 -21 -17 -15 -14 -14 -13 -12 -8 -3 -7 -13 -18 -23 -27

-42 -37 -31 -25 -18 -13 -9 -9 -11 -14 -15 -15 -13 -14 -19 -23 -29 -35

-32 -27 -21 -14 -8 -4 -3 -7 -12 -17 -21 -23 -24 -27 -31 -36 -43

-26 -23 -18 -11 -5 -0 5 1 -9 -18 -25 -31 -35 -39 -42 -44 -53 -58

-19 -15 -9 -3 -1 3 9 -5 -18 -30 -39 -46 -52 -56 -60 -66 -73

-14 -10 -2 -3 -3 -2 -9 -21 -34 -46 -56 -64 -70 -76 -81 -90

-11 -10 -9 -11 -13 -19 -28 -40 -53 -65 -75 -84 -91 -97 -104

-15 -17 -19 -23 -29 -37 -48 -61 -74 -86 -96 -105 -112 -119

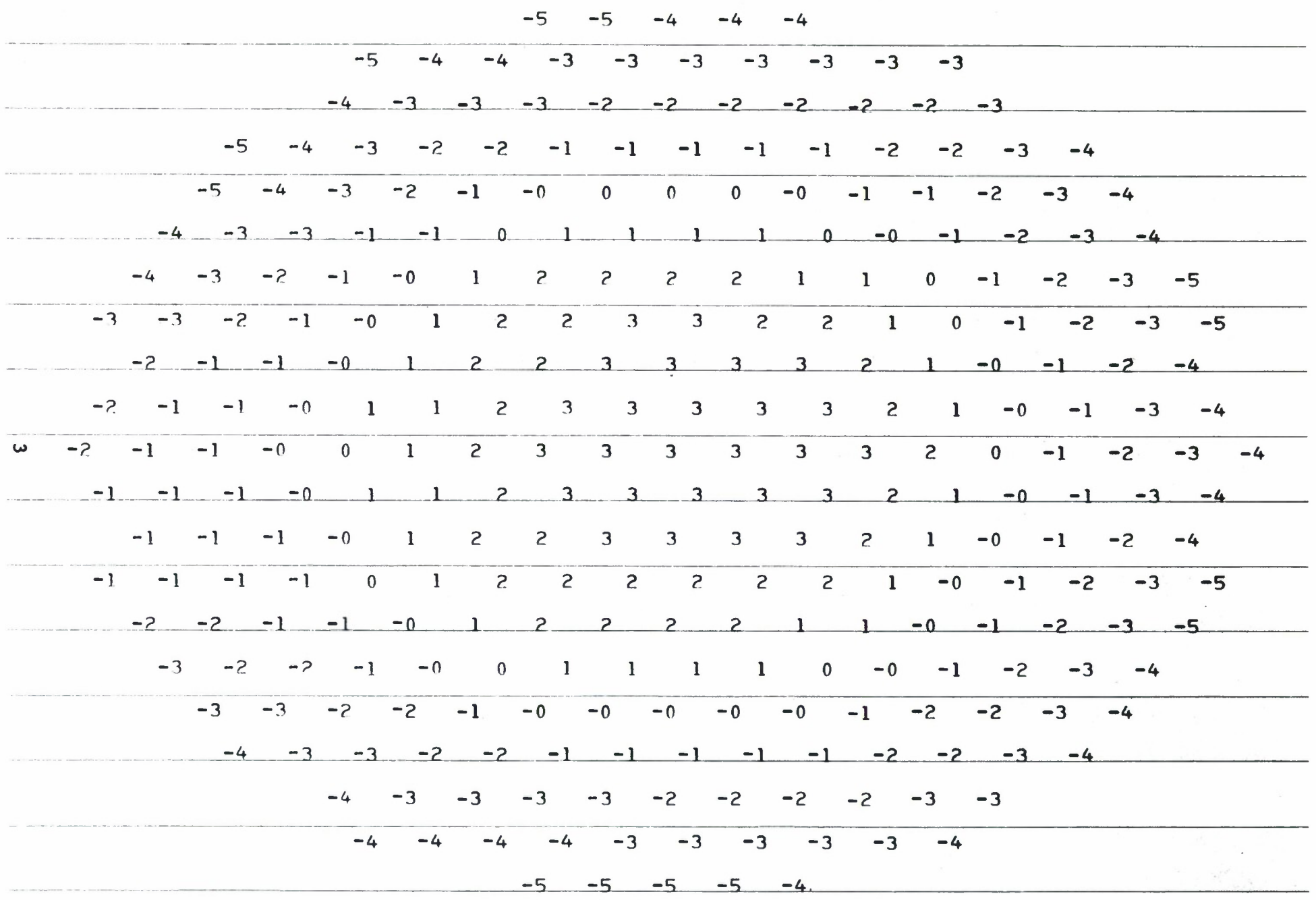
-28 -33 -39 -47 -57 -70 -84 -97 -108 -118 -126

-40 -49 -58 -68 -80 -93 -107 -119 -130 -135

-77 -91 -106 -118 -130

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF111 COLUMN 01

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF111 COLUMN 03

7 6 2 -5 -14

-9 -2 3 7 4 -2 -10 -16 -21 -24

-17 -9 -2 4 9 1 -7 -13 -18 -21 -23

-36 -26 -17 -10 -4 0 0 -6 -11 -15 -18 -19 -20 -20

-47 -33 -23 -17 -12 -8 -6 -7 -10 -13 -15 -16 -16 -15 -14

-55 -42 -30 -24 -19 -14 -12 -12 -12 -13 -13 -13 -12 -11 -10 -9

-62 -49 -39 -31 -26 -21 -19 -17 -15 -14 -13 -12 -10 -7 -5 -5 -6

-66 -55 -45 -38 -31 -26 -24 -21 -19 -16 -14 -11 -9 -6 -2 1 -4 -7

-57 -48 -41 -34 -29 -25 -23 -20 -18 -15 -12 -9 -6 -4 -3 -4 -9

-56 -48 -41 -35 -29 -25 -22 -19 -18 -16 -14 -10 -6 -4 -5 -8 -12 -16

-51 -46 -40 -33 -28 -22 -18 -16 -16 -16 -15 -14 -10 -4 -8 -12 -17 -21 -25

-41 -36 -31 -24 -18 -14 -11 -11 -13 -16 -17 -16 -14 -15 -18 -22 -27 -32

-32 -27 -21 -14 -9 -5 -4 -8 -14 -19 -22 -24 -25 -27 -30 -35 -41

-25 -22 -17 -10 -5 -1 3 -1 -10 -19 -27 -32 -36 -39 -41 -43 -50 -56

-18 -14 -8 -2 -1 3 8 -6 -19 -31 -39 -46 -51 -55 -59 -64 -70

-12 -8 -1 -2 -3 -2 -10 -22 -35 -46 -56 -64 -70 -75 -80 -87

-9 -8 -8 -10 -13 -18 -28 -40 -53 -65 -75 -83 -90 -95 -101

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-26 -31 -38 -46 -55 -69 -82 -95 -106 -116 -124

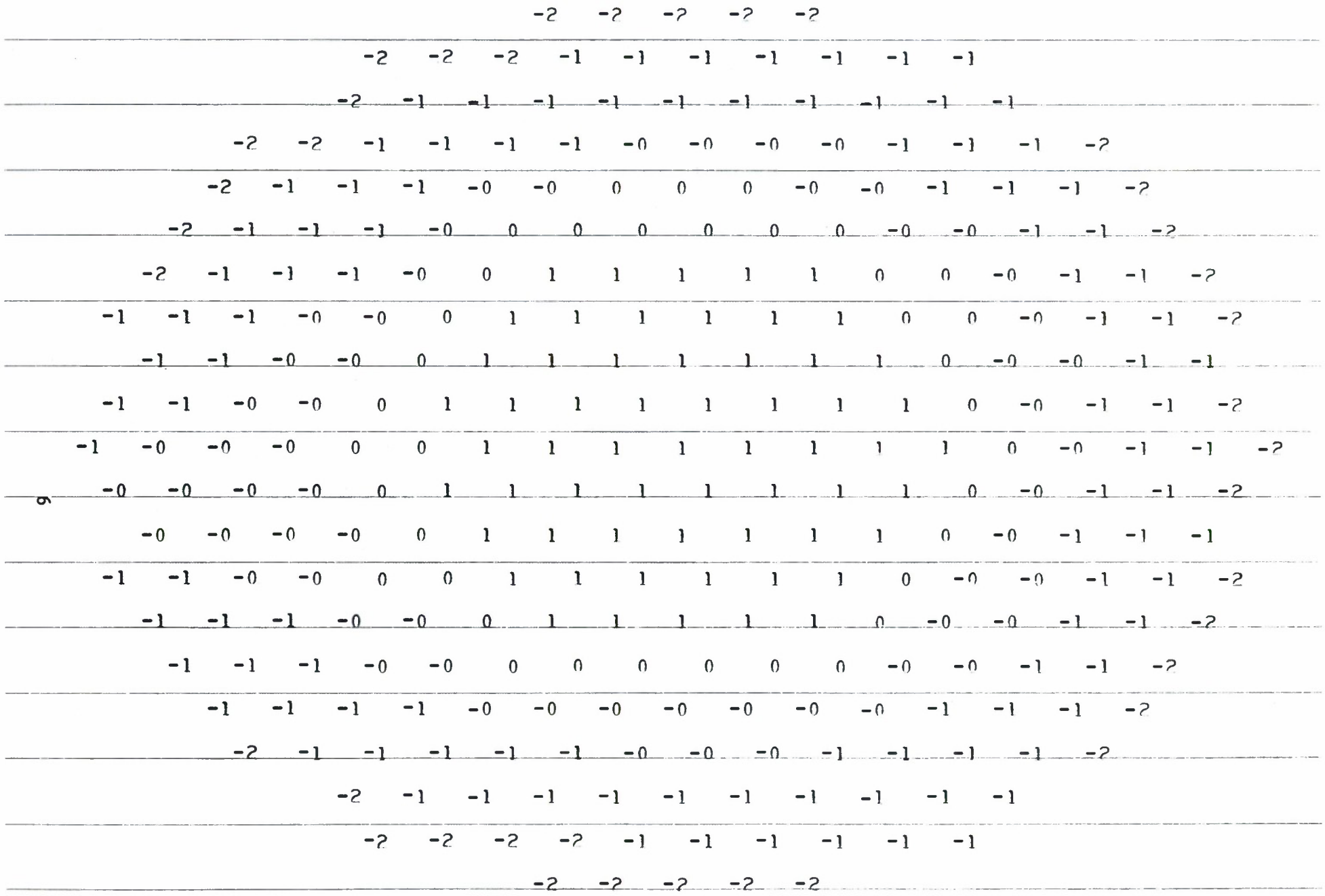
-37 -47 -55 -66 -78 -91 -105 -117 -128 -133

-74 -88 -103 -115 -127

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF112 COLUMN 01

								-11	-10	-5	2	11										
						5	-1	-6	-10	-7	0	8	14	19	22							
					14	7	0	-6	-11	-2	6	11	16	19	21							
				32	22	14	8	3	-1	-1	5	10	14	16	18	18	17					
			43	30	21	16	11	7	6	8	11	13	14	15	14	13	11					
		52	39	28	23	19	15	13	13	13	14	14	13	11	9	7	6					
	58	47	38	30	25	22	20	19	17	16	14	12	10	6	3	3	3					
63	53	44	37	31	27	25	23	21	18	16	13	9	6	1	-2	1	4					
	55	47	40	34	30	27	25	22	20	18	14	10	7	4	2	3	6					
	54	47	41	35	30	26	23	22	20	19	16	12	7	5	5	7	10	13				
49	45	39	33	28	23	20	18	18	18	18	16	12	6	8	11	15	19	21				
	40	35	30	24	19	15	13	13	16	18	19	18	16	16	18	21	25	29				
	31	26	20	14	10	6	6	11	16	21	24	25	26	27	29	33	38					
24	21	16	10	5	2	-2	3	12	21	28	33	37	39	40	41	48	52					
	16	13	7	1	1	-2	-6	7	21	32	40	47	51	55	57	61	67					
	10	6	-1	2	2	3	10	23	35	47	56	63	69	73	77	83						
		6	6	6	8	12	18	28	40	53	65	74	82	88	93	98						
		9	12	16	20	27	35	46	60	73	84	94	101	108	114							
			22	28	35	44	53	67	81	93	104	114	122									
				34	43	52	63	75	89	102	114	125	130									
							70	84	99	112	124											

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF112 COLUMN 2



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF112 COLUMN 03

14 13 8 0 -9

-3 4 8 12 9 2 -6 -12 -17 -20

-11 -5 2 8 12 3 -4 -10 -15 -18 -19

-29 -20 -13 -7 -2 2 2 -4 -10 -13 -15 -16 -16 -15

-40 -28 -19 -15 -10 -7 -6 -8 -11 -13 -14 -14 -13 -11 -8

-49 -37 -26 -22 -18 -15 -14 -13 -14 -14 -14 -13 -11 -8 -6 -3

-56 -46 -36 -29 -25 -23 -21 -20 -18 -17 -15 -13 -10 -6 -2 -1 0

-61 -51 -43 -36 -31 -28 -26 -24 -22 -20 -17 -14 -10 -6 -1 4 1 -1

-54 -46 -40 -34 -30 -28 -26 -24 -22 -19 -16 -11 -7 -4 -1 -1 -4

-53 -46 -40 -35 -30 -27 -25 -23 -22 -21 -18 -14 -9 -5 -5 -6 -8 -10

-49 -44 -39 -33 -28 -24 -21 -20 -20 -20 -20 -18 -13 -7 -8 -11 -14 -17 -18

-39 -35 -30 -24 -19 -16 -14 -15 -18 -20 -21 -20 -17 -16 -18 -20 -24 -27

-30 -25 -20 -14 -10 -7 -7 -12 -18 -23 -26 -26 -26 -27 -28 -31 -36

-23 -20 -16 -9 -5 -2 1 -4 -14 -23 -30 -34 -37 -39 -39 -40 -46 -49

-15 -12 -6 -1 -1 2 5 -9 -22 -33 -41 -47 -51 -54 -56 -60 -64

-8 -5 2 -1 -2 -3 -11 -23 -36 -47 -56 -63 -68 -72 -75 -81

-4 -4 -4 -7 -11 -18 -28 -40 -53 -64 -74 -81 -87 -91 -95

-7 -10 -14 -19 -26 -34 -45 -59 -72 -83 -92 -100 -106 -111

-20 -27 -34 -42 -51 -66 -79 -92 -103 -112 -120

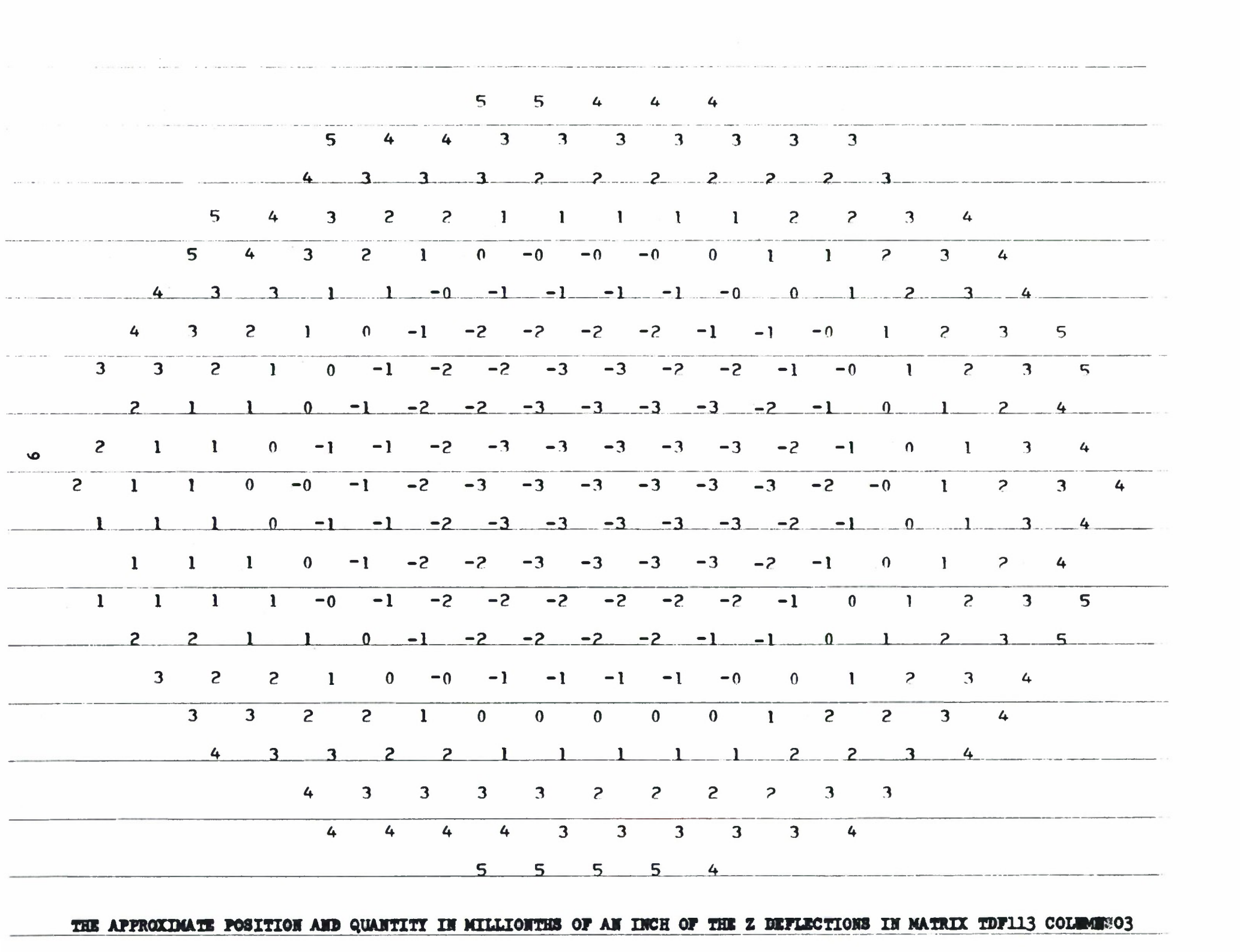
-31 -41 -50 -60 -73 -87 -100 -113 -123 -128

-67 -81 -96 -109 -121

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF113 COLUMN 01

							-4	-4	1	8	16							
					12	5	-1	-5	-3	4	11	18	23	26				
				20	11	4	-3	-8	1	8	14	19	22	25				
			39	28	19	11	5	0	0	6	11	16	19	21	22	23		
		49	36	25	18	12	8	6	7	10	13	15	17	17	17	17		
	58	44	31	25	19	14	12	11	12	12	13	13	13	12	12	12		
64	51	41	32	26	21	18	16	14	13	12	11	10	8	6	7	9		
68	56	46	38	31	26	23	20	17	15	12	10	8	6	3	1	6	10	
58	49	41	35	29	24	21	18	16	13	11	7	5	4	3	6	11		
57	49	42	35	29	24	20	18	16	14	12	9	5	4	6	9	14	19	
52	47	40	34	28	21	17	15	14	14	13	12	8	3	7	13	18	23	27
42	37	31	25	18	13	9	9	11	14	15	15	13	14	19	23	29	35	
32	27	21	14	8	4	3	7	12	17	21	23	24	27	31	36	43		
26	23	18	11	5	0	-5	-1	9	18	25	31	35	39	42	44	53	58	
19	15	9	3	1	-3	-9	5	18	30	39	46	52	56	60	66	73		
14	10	2	3	3	2	9	21	34	46	56	64	70	76	81	90			
11	10	9	11	13	19	28	40	53	65	75	84	91	97	104				
15	17	19	23	29	37	48	61	74	86	96	105	112	119					
28	33	39	47	57	70	84	97	108	118	126								
40	49	58	68	80	93	107	119	130	135									
77	91	106	118	130														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF113 COLUMN 02



6

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF113 COLUMN 03

| | | |

| | | |

									-9	-9	-8	-8	-8											
							-9	-8	-7	-7	-6	-6	-6	-5	-6	-6								
						-8	-7	-6	-5	-5	-4	-4	-4	-4	-5	-6								
					-10	-8	-6	-5	-3	-2	-2	-2	-2	-2	-3	-4	-6	-8						
				-9	-7	-5	-4	-2	-1	0	0	0	-0	-1	-3	-4	-6	-8						
			-9	-6	-5	-3	-1	1	2	2	2	2	1	-0	-2	-4	-6	-9						
		-8	-6	-4	-3	-1	2	3	4	4	4	3	2	0	-2	-4	-6	-9						
	-7	-5	-3	-2	-0	2	3	5	5	5	4	3	2	0	-2	-4	-7	-9						
		-4	-3	-2	-1	1	3	5	6	6	6	5	4	2	-0	-2	-5	-7						
	-4	-3	-1	-1	1	3	4	6	6	6	6	5	4	2	-1	-3	-5	-8						
	-3	-2	-2	-1	0	2	4	5	6	6	6	6	5	4	1	-2	-4	-7	-9					
12	-2	-2	-1	-1	1	3	4	6	6	6	6	5	4	2	-1	-3	-5	-8						
		-2	-2	-1	-0	2	3	5	5	6	6	5	4	2	-0	-2	-5	-7						
	-3	-3	-2	-2	0	2	4	5	5	5	4	3	2	-0	-2	-4	-7	-9						
		-4	-3	-3	-2	-0	2	3	4	4	3	3	1	-0	-2	-4	-6	-9						
		-6	-4	-4	-2	-1	1	2	2	2	1	1	-1	-2	-4	-6	-9							
			-7	-6	-4	-3	-2	-1	-0	-0	-0	-1	-2	-3	-4	-6	-8							
				-8	-6	-5	-4	-3	-3	-2	-2	-2	-3	-4	-5	-6	-8							
						-7	-6	-6	-5	-5	-4	-4	-4	-5	-5	-6								
							-8	-8	-8	-7	-7	-6	-6	-6	-7	-7								
									-10	-10	-9	-9	-9											

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 121 COLUMN 03

5 5 -0 -7 -16

-11 -4 2 6 3 -3 -11 -17 -22 -25

-19 -11 -4 3 8 -0 -8 -14 -18 -22 -24

-38 -27 -18 -11 -5 -0 -0 -6 -11 -15 -18 -20 -21 -22

-48 -35 -24 -18 -12 -8 -6 -7 -10 -13 -15 -16 -17 -16 -16

-57 -43 -31 -25 -19 -14 -12 -11 -12 -13 -13 -13 -12 -12 -11 -11

-63 -51 -40 -32 -26 -21 -18 -16 -15 -13 -13 -11 -10 -8 -6 -6 -8

-67 -56 -46 -38 -31 -26 -23 -20 -18 -15 -13 -11 -8 -6 -3 -0 -5 -9

-58 -49 -41 -35 -29 -25 -22 -19 -17 -14 -11 -8 -5 -4 -3 -5 -10

-56 -49 -42 -35 -29 -24 -21 -18 -16 -15 -13 -9 -5 -4 -6 -8 -13 -18

-51 -46 -40 -34 -28 -22 -17 -15 -14 -14 -14 -13 -9 -4 -8 -12 -17 -23 -26

-42 -37 -31 -25 -18 -13 -10 -10 -12 -14 -16 -15 -13 -14 -18 -23 -28 -34

-32 -27 -21 -14 -9 -4 -3 -7 -13 -18 -21 -23 -24 -27 -30 -35 -42

-25 -23 -18 -11 -5 -0 4 0 -9 -18 -26 -31 -35 -39 -41 -44 -52 -57

-18 -15 -9 -3 -1 3 8 -5 -19 -30 -39 -46 -52 -56 -60 -65 -72

-14 -9 -2 -3 -3 -2 -9 -21 -34 -46 -56 -64 -70 -76 -81 -89

-11 -9 -9 -10 -13 -18 -28 -40 -53 -65 -75 -84 -90 -97 -103

-14 -16 -19 -23 -29 -37 -47 -61 -74 -86 -96 -104 -112 -119

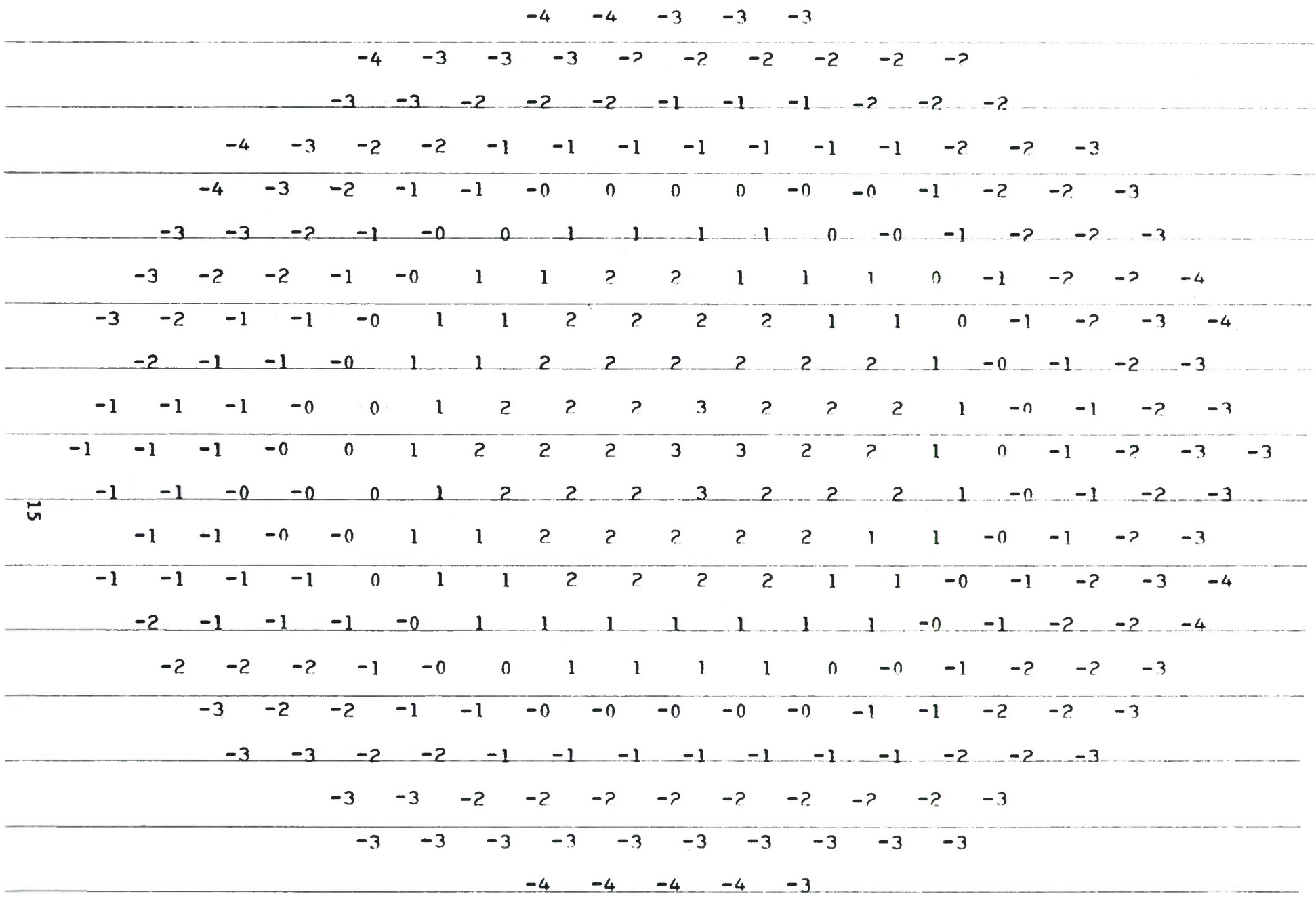
-27 -32 -39 -47 -56 -70 -83 -96 -107 -117 -125

-39 -48 -57 -67 -79 -93 -106 -118 -129 -135

-76 -90 -105 -117 -129

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 122 COLUMN 01

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF122 COLUMN 03

18 17 12 4 -5

2 8 12 15 12 4 -3 -10 -14 -17

-7 -1 4 10 15 5 -3 -9 -13 -15 -16

-24 -16 -10 -5 0 3 2 -4 -9 -12 -14 -14 -13 -11

-35 -25 -17 -13 -9 -7 -6 -8 -11 -13 -13 -13 -11 -8 -4

-45 -34 -24 -20 -18 -15 -15 -15 -15 -15 -14 -13 -10 -6 -3 1

-52 -43 -34 -28 -25 -23 -23 -22 -20 -18 -16 -14 -10 -5 -0 2 4

-58 -49 -41 -35 -31 -28 -28 -27 -25 -22 -19 -16 -11 -6 0 6 4 4

-52 -45 -39 -34 -31 -29 -28 -27 -25 -22 -18 -13 -8 -3 0 1 -0

-51 -45 -40 -34 -30 -28 -27 -26 -25 -24 -21 -16 -11 -6 -5 -5 -5 -7

-47 -43 -38 -32 -28 -25 -23 -22 -23 -23 -23 -21 -16 -9 -9 -10 -12 -13 -14

-38 -34 -29 -24 -20 -17 -16 -18 -21 -23 -24 -22 -19 -17 -17 -19 -21 -23

-29 -25 -19 -14 -11 -9 -10 -15 -21 -25 -28 -28 -27 -27 -27 -29 -32

-22 -19 -15 -9 -5 -3 -1 -6 -16 -25 -32 -36 -38 -39 -38 -38 -42 -45

-12 -10 -5 0 -0 1 4 -10 -24 -35 -42 -48 -51 -53 -54 -57 -60

-6 -3 4 0 -2 -3 -12 -24 -37 -48 -56 -63 -67 -70 -72 -76

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-3 -7 -11 -17 -24 -33 -44 -58 -71 -82 -91 -98 -103 -107

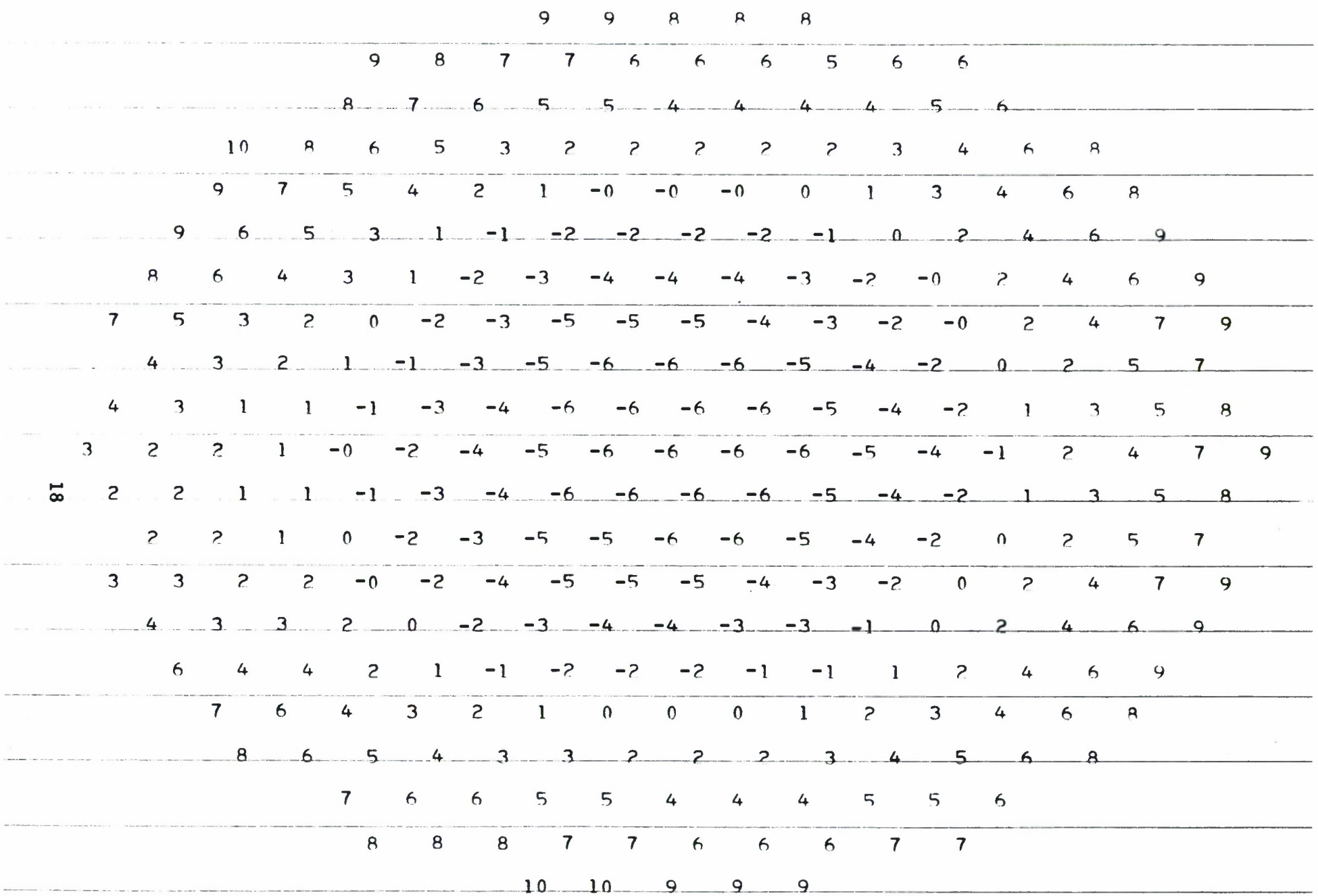
-17 -23 -31 -39 -49 -63 -77 -90 -101 -110 -116

-27 -37 -46 -57 -70 -84 -97 -109 -120 -125

-62 -76 -92 -104 -117

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF123 COLUMN 01

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 123 COLUMN 03

-9 -9 -13 -19 -27

-24 -16 -9 -5 -6 -12 -19 -26 -31 -35

-32 -21 -12 -4 1 -6 -13 -19 -24 -29 -33

-53 -39 -27 -18 -10 -4 -3 -8 -14 -19 -23 -26 -30 -33

-63 -46 -33 -24 -15 -9 -6 -7 -10 -13 -17 -20 -23 -25 -28

-70 -53 -38 -29 -21 -13 -9 -8 -9 -10 -12 -14 -15 -17 -19 -24

-75 -59 -46 -36 -26 -19 -13 -11 -9 -8 -8 -9 -10 -11 -12 -15 -21

-77 -63 -51 -41 -32 -24 -18 -13 -10 -8 -6 -5 -5 -6 -6 -7 -15 -23

-64 -53 -44 -35 -27 -20 -15 -11 -8 -6 -4 -2 -2 -4 -7 -12 -21

-62 -53 -44 -36 -27 -20 -14 -10 -7 -5 -4 -1 1 -1 -7 -13 -21 -30

-56 -50 -42 -35 -27 -19 -12 -7 -5 -5 -4 -4 -2 2 -6 -15 -23 -33 -39

-45 -39 -33 -25 -17 -9 -3 -1 -3 -5 -7 -8 -7 -12 -20 -27 -37 -46

-36 -29 -23 -15 -6 1 4 1 -4 -9 -14 -17 -21 -28 -34 -42 -53

-30 -27 -21 -13 -5 2 10 7 -2 -11 -19 -26 -33 -39 -45 -50 -62 -71

-25 -20 -13 -6 -1 6 13 0 -13 -25 -35 -44 -52 -59 -66 -74 -85

-22 -16 -8 -6 -4 -1 -7 -19 -32 -44 -55 -65 -74 -82 -90 -102

-21 -18 -15 -15 -16 -20 -28 -40 -53 -66 -78 -88 -97 -106 -116

-26 -26 -27 -29 -34 -41 -51 -64 -77 -90 -102 -111 -121 -131

-38 -42 -47 -55 -64 -76 -90 -103 -114 -125 -135

-52 -60 -68 -78 -90 -102 -116 -128 -139 -145

-91 -105 -119 -131 -142

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF131 COLUMN 01

-27 -25 -19 -12 -2

-10 -15 -19 -21 -17 -10 -2 5 9 11

-1 -5 -10 -15 -19 -9 -1 5 9 11 11

15 9 4 0 -3 -6 -4 2 7 10 11 11 8 4

27 18 12 10 7 6 6 8 11 13 12 11 8 3 -3

37 28 19 18 17 16 16 17 17 17 15 12 8 3 -2 -9

45 38 31 26 24 25 26 25 23 22 19 15 10 3 -3 -8 -12

52 45 38 33 30 30 31 31 29 27 23 19 13 6 -3 -10 -10 -12

48 42 37 33 32 32 33 32 30 27 23 17 10 3 -2 -5 -6

48 43 38 34 31 31 31 31 31 29 26 21 14 8 4 2 1 -1

44 41 36 32 28 27 26 27 29 29 29 26 20 12 9 9 9 7 6

36 32 28 23 21 20 20 23 26 29 29 27 22 19 17 17 16 15

27 23 18 14 12 12 14 20 26 30 32 32 29 26 25 25 25

19 16 13 7 5 5 4 10 20 29 36 39 40 38 36 34 36 36

8 7 2 -2 0 0 -1 14 27 37 45 49 51 51 50 51 51

0 -1 -7 -2 1 4 13 26 39 49 57 62 65 66 67 68

-5 -4 -2 3 9 17 27 40 53 63 71 77 80 83 83

-4 1 7 13 21 30 42 56 69 79 87 93 98 100

10 18 26 34 44 59 73 86 96 105 110

20 30 39 50 64 78 91 104 114 118

53 68 83 96 109

02

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 131 COLUMN 02

-18 -17 -16 -16 -15

-17 -16 -14 -13 -12 -11 -11 -10 -11 -12

-16 -13 -11 -10 -9 -7 -7 -7 -8 -9 -11

-19 -15 -11 -9 -6 -5 -4 -3 -3 -4 -6 -8 -11 -15

-18 -14 -10 -7 -4 -1 0 / 1 1 -0 -2 -5 -7 -11 -16

-17 -12 -10 -6 -2 1 3 4 4 3 2 -1 -4 -7 -11 -16

-15 -11 -8 -5 -1 3 6 7 7 7 5 3 0 -4 -7 -11 -17

-12 -9 -6 -4 -1 3 7 9 10 9 8 7 4 0 -4 -8 -13 -17

-8 -5 -3 -1 3 6 9 11 11 11 10 7 4 -1 -5 -9 -14

-7 -5 -3 -1 2 5 8 11 12 12 11 10 8 3 -1 -5 -10 -15

-6 -5 -3 -2 0 4 7 10 12 12 12 11 9 7 2 -3 -7 -13 -17

-5 -4 -2 -1 2 5 9 11 12 12 11 10 7 3 -2 -5 -10 -15

-4 -3 -2 -0 3 6 9 11 11 11 9 7 4 -1 -5 -9 -14

-5 -5 -4 -3 0 4 7 9 9 9 8 6 4 -0 -5 -8 -13 -18

-8 -6 -5 -4 -0 3 6 7 / 6 5 3 -0 -4 -8 -12 -17

-11 -9 -7 -4 -1 1 3 4 3 3 1 -1 -4 -8 -11 -17

-13 -11 -9 -6 -3 -2 -1 -0 -0 -1 -3 -6 -8 -12 -16

-15 -12 -10 -8 -7 -5 -5 -4 -4 -6 -7 -9 -12 -16

-14 -12 -11 -10 -10 -8 -8 -8 -9 -10 -12

-16 -15 -14 -14 -13 -12 -12 -12 -13 -13

-19 -19 -18 -17 -17

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF131 COLUMN 03

						1	1	-3	-10	-18							
				-14	-7	-1	3	1	-5	-13	-19	-24	-28				
			-22	-13	-6	1	7	-1	-9	-15	-20	-24	-26				
		-42	-30	-20	-13	-6	-1	-1	-6	-12	-16	-19	-22	-23	-25		
	-52	-37	-26	-19	-13	-8	-6	-7	-10	-13	-16	-17	-18	-18	-19		
-60	-46	-32	-26	-19	-14	-11	-11	-11	-12	-13	-13	-13	-13	-13	-14		
-66	-53	-42	-33	-26	-21	-17	-15	-13	-12	-12	-11	-10	-8	-7	-8	-11	
-69	-58	-47	-39	-31	-26	-22	-18	-16	-14	-11	-9	-8	-6	-4	-2	-8	-12
-59	-50	-42	-35	-28	-23	-20	-17	-14	-12	-9	-6	-4	-4	-4	-7	-13	
-58	-50	-42	-35	-29	-23	-19	-16	-14	-13	-10	-7	-4	-3	-6	-9	-15	-21
-52	-47	-40	-34	-27	-21	-16	-13	-12	-12	-12	-10	-7	-2	-7	-13	-19	-25	-29
-43	-37	-31	-25	-18	-12	-8	-8	-10	-12	-13	-13	-12	-14	-19	-24	-30	-37	
-33	-27	-21	-14	-8	-3	-1	-5	-10	-16	-19	-22	-24	-27	-31	-37	-45		
-27	-23	-18	-11	-5	0	5	2	-7	-17	-24	-30	-35	-39	-42	-45	-54	-61	
-20	-16	-10	-3	-1	4	10	-4	-17	-29	-38	-45	-52	-57	-61	-67	-75		
-16	-11	-3	-4	-3	-2	-9	-21	-34	-45	-56	-64	-71	-77	-83	-92			
-13	-11	-10	-12	-14	-19	-28	-40	-53	-65	-76	-85	-92	-99	-106				
-17	-19	-21	-24	-30	-38	-48	-62	-75	-87	-97	-106	-114	-122					
-30	-35	-41	-49	-58	-71	-85	-98	-109	-119	-128								
-42	-51	-60	-70	-82	-95	-108	-121	-131	-137									
-80	-94	-108	-121	-132														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z REFLECTIONS IN MATRIX TDF132 COLUMN 01

-16 -15 -10 -2 7

0 -6 -10 -14 -10 -3 4 11 16 18

9 3 -3 -9 -14 -4 4 9 14 17 17

27 18 11 6 1 -3 -2 4 9 13 15 15 15 13

37 26 18 14 10 7 6 8 11 13 14 13 12 10 6

47 36 25 21 18 15 14 14 14 15 14 13 10 7 4 1

54 44 35 29 25 23 22 21 19 18 16 13 10 5 1 -1 -2

59 50 42 35 31 28 27 26 23 21 18 15 11 6 0 -5 -2 -1

53 45 39 34 30 28 27 25 23 21 17 12 8 3 0 -0 2

52 46 40 34 30 27 26 25 24 22 19 15 10 6 5 5 7 8

48 44 38 33 28 24 22 21 22 22 21 19 15 8 8 11 13 15 16

39 34 30 24 19 16 15 16 19 22 22 21 18 16 18 20 22 25

30 25 20 14 11 8 9 14 19 24 27 27 27 27 28 30 34

22 19 15 9 5 3 -0 5 15 24 31 35 38 39 39 39 44 47

13 11 5 0 1 -1 -4 10 23 34 42 47 51 53 55 58 62

7 4 -3 0 2 3 11 24 36 47 56 63 67 71 74 78

3 2 3 7 11 17 28 40 53 64 73 80 85 90 93

5 9 13 18 25 33 45 58 71 82 91 99 105 109

18 25 32 41 50 64 78 91 102 111 118

29 39 48 58 71 85 99 111 121 126

65 79 94 107 119

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF132 COLUMN 02

-7 -7 -6 -6 -6

-7 -6 -6 -5 -5 -4 -4 -4 -4 -5

-6 -5 -4 -4 -3 -3 -3 -3 -3 -4 -4

-8 -6 -5 -4 -3 -2 -1 -1 -1 -2 -2 -3 -4 -6

-7 -6 -4 -3 -1 -1 0 0 0 -0 -1 -2 -3 -4 -6

-7 -5 -4 -2 -1 1 1 2 2 1 1 -0 -1 -3 -4 -7

-6 -4 -3 -2 -0 1 3 3 3 3 2 1 0 -2 -3 -5 -7

-5 -4 -2 -2 -0 1 3 4 4 4 3 3 2 0 -2 -3 -5 -7

-3 -2 -1 -0 1 3 4 4 4 4 4 3 2 -0 -2 -3 -5

-3 -2 -1 -1 1 2 3 4 5 5 5 4 3 1 -1 -2 -4 -6

-2 -2 -1 -1 0 2 3 4 5 5 5 4 4 3 1 -1 -3 -5 -7

-2 -1 -1 -0 1 2 3 4 5 5 5 4 3 1 -1 -2 -4 -6

-2 -1 -1 -0 1 3 4 4 4 4 4 3 2 -0 -2 -4 -5

-2 -2 -1 -1 0 1 3 3 4 4 3 3 1 -0 -2 -3 -5 -7

-3 -3 -2 -1 -0 1 3 3 3 2 2 1 -0 -2 -3 -5 -7

-4 -3 -3 -2 -1 1 1 1 1 1 0 -1 -2 -3 -5 -7

-5 -4 -3 -2 -1 -1 -0 -0 -0 -1 -1 -2 -3 -5 -6

-6 -5 -4 -3 -3 -2 -2 -2 -2 -2 -3 -4 -5 -6

-6 -5 -4 -4 -4 -3 -3 -3 -4 -4 -5

-6 -6 -6 -6 -5 -5 -5 -5 -5 -5

-8 -7 -7 -7 -7

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF132 COLUMN 03

27 25 19 12 2

10 15 19 21 17 10 2 -5 -9 -11

1 5 10 15 19 9 1 -5 -9 -11 -11

-15 -9 -4 -0 3 6 4 -2 -7 -10 -11 -11 -8 -4

-27 -18 -12 -10 -7 -6 -6 -8 -11 -13 -12 -11 -8 -3 3

-37 -28 -19 -18 -17 -16 -16 -17 -17 -17 -15 -12 -8 -3 2 9

-45 -38 -31 -26 -24 -25 -26 -25 -23 -22 -19 -15 -10 -3 3 8 12

-52 -45 -38 -33 -30 -30 -31 -31 -29 -27 -23 -19 -13 -6 3 10 10 12

-48 -42 -37 -33 -32 -32 -33 -32 -30 -27 -23 -17 -10 -3 2 5 6

-48 -43 -38 -34 -31 -31 -31 -31 -31 -29 -26 -21 -14 -8 -4 -2 -1 1

-44 -41 -36 -32 -28 -27 -26 -27 -29 -29 -29 -26 -20 -12 -9 -9 -9 -7 -6

-36 -32 -28 -23 -21 -20 -20 -23 -26 -29 -29 -27 -22 -19 -17 -17 -16 -15

-27 -23 -18 -14 -12 -12 -14 -20 -26 -30 -32 -32 -29 -26 -25 -25 -25

-19 -16 -13 -7 -5 -5 -4 -10 -20 -29 -36 -39 -40 -38 -36 -34 -36 -36

-8 -7 -2 2 -0 -0 1 -14 -27 -37 -45 -49 -51 -51 -50 -51 -51

-0 1 7 2 -1 -4 -13 -26 -39 -49 -57 -62 -65 -66 -67 -68

5 4 2 -3 -9 -17 -27 -40 -53 -63 -71 -77 -80 -83 -83

4 -1 -7 -13 -21 -30 -42 -56 -69 -79 -87 -93 -98 -100

-10 -18 -26 -34 -44 -59 -73 -86 -96 -105 -110

-20 -30 -39 -50 -64 -78 -91 -104 -114 -118

-53 -68 -83 -96 -109

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF133 COLUMN 01

								9	9	13	19	27							
						24	16	9	5	6	12	19	26	31	35				
					32	21	12	4	-1	6	13	19	24	29	33				
				53	39	27	18	10	4	3	8	14	19	23	26	30	33		
			63	46	33	24	15	9	6	7	10	13	17	20	23	25	28		
		70	53	38	29	21	13	9	8	9	10	12	14	15	17	19	24		
	75	59	46	36	26	19	13	11	9	8	8	9	10	11	12	15	21		
77	63	51	41	32	24	18	13	10	8	6	5	5	6	6	7	15	23		
	64	53	44	35	27	20	15	11	8	6	4	2	2	4	7	12	21		
62	53	44	36	27	20	14	10	7	5	4	1	-1	1	7	13	21	30		
56	50	42	35	27	19	12	7	5	5	4	4	2	-2	6	15	23	33	39	
45	39	33	25	17	9	3	1	3	5	7	8	7	12	20	27	37	46		
26	36	29	23	15	6	-1	-4	-1	4	9	14	17	21	28	34	42	53		
30	27	21	13	5	-2	-10	-7	2	11	19	26	33	39	45	50	62	71		
25	20	13	6	1	-6	-13	-0	13	25	35	44	52	59	66	74	85			
22	16	8	6	4	1	7	19	32	44	55	65	74	82	90	102				
	21	18	15	15	16	20	28	40	53	66	78	88	97	106	116				
	26	26	27	29	34	41	51	64	77	90	102	111	121	131					
		38	42	47	55	64	76	90	103	114	125	135							
		52	60	68	78	90	102	116	128	139	145								
			91	105	119	131	142												

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 133 COLUMN 02

							18	17	16	16	15							
						17	16	14	13	12	11	11	10	11	12			
					16	13	11	10	9	7	7	7	8	9	11			
				19	15	11	9	6	5	4	3	3	4	6	8	11	15	
			18	14	10	7	4	1	-0	-1	-1	0	2	5	7	11	16	
		17	12	10	6	2	-1	-3	-4	-4	-3	-2	1	4	7	11	16	
	15	11	8	5	1	-3	-6	-7	-7	-7	-5	-3	-0	4	7	11	17	
12	9	6	4	1	-3	-7	-9	-10	-9	-8	-7	-4	-0	4	8	13	17	
	8	5	3	1	-3	-6	-9	-11	-11	-11	-10	-7	-4	1	5	9	14	
7	5	3	1	-2	-5	-8	-11	-12	-12	-11	-10	-8	-3	1	5	10	15	
6	5	3	2	-0	-4	-7	-10	-12	-12	-12	-11	-9	-7	-2	3	7	13	17
5	4	2	1	-2	-5	-9	-11	-12	-12	-11	-10	-7	-3	2	5	10	15	
	4	3	2	0	-3	-6	-9	-11	-11	-11	-9	-7	-4	1	5	9	14	
5	5	4	3	-0	-4	-7	-9	-9	-9	-8	-6	-4	0	5	8	13	18	
	8	6	5	4	0	-3	-6	-7	-7	-6	-5	-3	0	4	8	12	17	
	11	9	7	4	1	-1	-3	-4	-3	-3	-1	1	4	8	11	17		
		13	11	9	6	3	2	1	0	0	1	3	6	8	12	16		
			15	12	10	8	7	5	5	4	4	6	7	9	12	16		
				14	12	11	10	10	8	8	8	9	10	12				
					16	15	14	14	13	12	12	12	13	13				
							19	19	18	17	17							

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF133 COLUMN 03

-17 -17 -20 -26 -34

-32 -23 -16 -11 -11 -17 -24 -30 -36 -40

-39 -27 -17 -9 -2 -9 -16 -22 -28 -33 -38

-61 -45 -32 -22 -12 -6 -5 -10 -15 -21 -26 -30 -34 -40

-71 -52 -37 -27 -17 -9 -6 -7 -10 -14 -18 -22 -26 -30 -35

-77 -58 -42 -31 -21 -12 -8 -6 -7 -8 -11 -14 -17 -21 -24 -31

-81 -64 -50 -38 -27 -18 -11 -7 -6 -5 -6 -7 -9 -12 -15 -20 -29

-82 -67 -54 -43 -32 -22 -15 -9 -6 -4 -2 -2 -3 -6 -8 -10 -21 -31

-68 -55 -45 -36 -25 -17 -11 -6 -3 -1 1 1 -0 -5 -9 -16 -27

-65 -55 -45 -37 -27 -17 -10 -5 -2 0 2 3 4 0 -7 -15 -26 -37

-58 -52 -44 -36 -27 -17 -8 -3 -0 1 1 1 3 5 -6 -16 -26 -38 -47

-47 -41 -34 -26 -16 -6 1 3 3 1 -2 -3 -4 -10 -20 -30 -41 -53

-38 -31 -24 -15 -5 4 8 6 1 -5 -10 -14 -20 -28 -36 -46 -59

-32 -29 -22 -14 -5 4 13 11 2 -7 -16 -24 -31 -39 -47 -54 -67 -79

-29 -23 -15 -7 -1 7 16 3 -10 -22 -33 -43 -52 -61 -69 -80 -93

-27 -20 -11 -8 -5 -0 -5 -17 -30 -43 -55 -66 -75 -85 -95 -109

-27 -22 -19 -18 -17 -20 -29 -40 -54 -67 -79 -91 -101 -111 -123

-32 -31 -31 -33 -37 -43 -53 -66 -79 -93 -105 -115 -126 -138

-45 -47 -52 -59 -68 -80 -93 -107 -118 -130 -141

-59 -67 -75 -84 -95 -108 -121 -133 -145 -151

-100 -113 -127 -139 -150

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF141 COLUMN 01

							-35	-33	-27	-19	-9								
						-18	-22	-25	-27	-23	-14	-7	0	4	6				
						-8	-11	-15	-19	-23	-12	-4	2	6	7	6			
				7	3	-1	-3	-6	-8	-6	1	6	8	8	7	3	-3		
			19	12	7	6	6	6	6	9	11	12	11	8	4	-2	-10		
		29	23	15	15	16	17	18	18	19	18	16	12	6	-0	-7	-16		
	39	33	27	23	24	26	29	28	27	25	21	16	10	1	-7	-13	-20		
46	40	36	31	30	31	34	35	33	31	27	22	15	6	-4	-14	-15	-20		
	44	40	36	33	33	35	37	37	35	32	27	20	12	3	-4	-9	-12		
45	41	37	33	32	33	35	36	36	35	31	26	18	10	3	-0	-4	-8		
42	39	35	31	28	28	29	32	34	35	34	31	25	15	10	8	5	2	-1	
34	31	27	23	22	22	24	28	31	34	34	32	26	20	16	14	11	8		
	25	22	17	14	14	15	18	25	31	35	37	35	31	26	23	21	19		
17	14	11	6	5	6	7	14	25	33	39	42	41	38	34	30	31	28		
	5	4	-0	-3	0	2	2	17	30	40	47	50	51	49	47	46	44		
	-4	-5	-11	-4	1	5	14	27	40	50	57	61	63	63	62	61			
		-11	-9	-6	0	7	16	27	40	52	63	70	74	77	77	76			
			-11	-4	2	9	18	28	40	54	67	77	84	89	92	93			
				3	12	21	30	40	56	70	82	92	100	105					
				12	23	33	44	58	72	86	98	108	112						
							45	59	75	88	101								

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF141 COLUMN 02

				-26	-25	-23	-22	-21						
			-25	-23	-20	-19	-17	-15	-15	-15	-16	-17		
		-23	-19	-16	-14	-13	-10	-10	-10	-11	-13	-16		
	-27	-21	-17	-13	-9	-7	-5	-4	-5	-6	-9	-11	-15	-21
	-26	-20	-15	-10	-5	-2	0	1	1	-1	-3	-7	-11	-16	-23
-24	-18	-14	-8	-3	2	5	6	6	5	2	-1	-5	-10	-16	-24
-21	-15	-11	-7	-1	4	9	10	11	10	8	5	0	-6	-11	-17	-24
-18	-14	-9	-6	-1	5	10	13	14	14	12	10	6	0	-6	-12	-18	-25
-12	-8	-5	-1	4	9	13	15	16	16	14	11	6	-1	-7	-13	-20	
-10	-7	-4	-2	3	8	12	15	17	17	16	14	11	5	-2	-8	-15	-22	
-8	-7	-4	-2	1	6	11	14	17	18	18	16	14	10	2	-4	-11	-18	-24
-7	-5	-3	-1	3	8	12	15	17	17	16	14	11	5	-2	-8	-15	-22	
-6	-4	-3	-1	4	9	13	15	16	15	13	10	6	-1	-7	-13	-20		
-8	-7	-5	-4	0	5	10	13	13	13	12	9	5	-0	-7	-12	-18	-25	
-12	-9	-8	-5	-0	5	9	10	10	9	7	4	-1	-6	-11	-17	-25		
-16	-12	-11	-6	-2	2	5	5	5	4	1	-2	-6	-11	-16	-24			
-19	-16	-12	-9	-5	-2	-1	-0	-1	-2	-5	-8	-12	-17	-23				
-22	-18	-15	-12	-9	-8	-7	-6	-6	-8	-10	-13	-17	-23					
	-21	-18	-16	-15	-14	-12	-12	-12	-13	-15	-18							
	-23	-22	-21	-20	-19	-18	-18	-18	-18	-19								
				-28	-27	-26	-25	-24						

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF141 COLUMN 03

-2 -2 -6 -13 -21

-17 -9 -3 1 -1 -7 -15 -21 -26 -30

-25 -16 -8 -0 5 -3 -10 -16 -21 -25 -28

-45 -32 -22 -14 -7 -2 -2 -7 -12 -17 -20 -23 -25 -27

-55 -40 -28 -21 -13 -8 -6 -7 -10 -13 -16 -18 -19 -20 -21

-63 -48 -34 -27 -20 -14 -11 -10 -10 -11 -13 -13 -14 -14 -15 -17

-68 -54 -43 -34 -26 -20 -16 -14 -12 -11 -11 -10 -10 -9 -9 -10 -14

-71 -59 -48 -40 -31 -25 -21 -17 -14 -12 -10 -8 -7 -6 -4 -3 -10 -16

-61 -51 -42 -35 -28 -22 -18 -15 -12 -10 -8 -5 -4 -4 -5 -8 -16

-59 -51 -43 -36 -28 -22 -18 -14 -12 -10 -8 -6 -2 -3 -6 -10 -17 -23

-53 -48 -41 -34 -27 -20 -15 -11 -10 -10 -9 -8 -6 -1 -7 -14 -20 -27 -32

-43 -38 -32 -25 -17 -11 -7 -6 -8 -10 -11 -12 -11 -13 -19 -25 -32 -40

-34 -28 -22 -14 -8 -2 0 -3 -9 -14 -18 -20 -23 -27 -32 -39 -47

-27 -24 -19 -12 -5 1 7 3 -6 -15 -23 -29 -34 -39 -43 -47 -56 -64

-22 -17 -11 -4 -1 4 11 -3 -16 -28 -37 -45 -52 -57 -63 -70 -78

-17 -12 -5 -5 -3 -2 -8 -20 -33 -45 -55 -64 -72 -78 -85 -95

-15 -13 -12 -13 -14 -19 -28 -40 -53 -65 -76 -86 -94 -101 -109

-19 -21 -23 -26 -31 -39 -49 -62 -76 -88 -98 -108 -116 -124

-32 -37 -43 -51 -60 -73 -86 -99 -111 -121 -130

-45 -54 -62 -72 -84 -97 -111 -123 -134 -139

-83 -97 -111 -124 -135

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 142 COLUMN 01

							-19	-18	-13	-5	4								
					-3	-9	-13	-16	-12	-5	3	9	14	16					
				6	0	-5	-11	-15	-6	2	8	12	15	15					
			23	15	9	4	-0	-4	-3	3	8	12	14	14	13	10			
		34	24	16	12	9	7	6	8	11	13	13	13	11	8	3			
	44	34	23	20	18	15	15	15	15	15	15	13	10	6	2	-2			
52	42	34	28	25	23	23	22	20	19	17	14	10	5	-0	-3	-5			
57	48	41	35	31	29	28	27	25	23	20	16	11	6	-1	-6	-5	-5		
	51	45	39	34	31	30	29	27	25	23	19	14	8	3	-0	-2	-0		
	51	45	39	34	30	28	27	27	26	24	22	17	11	7	4	4	5	6	
47	43	38	32	28	25	23	23	24	24	24	21	16	9	9	10	12	13	13	
	38	34	29	24	20	17	17	18	21	24	24	23	19	17	17	19	20	22	
32		29	24	19	14	11	9	10	16	21	26	29	29	28	27	27	29	31	
	21	19	15	8	5	3	1	7	17	26	32	36	38	39	38	37	42	44	
		12	10	4	-0	0	-1	-3	11	24	35	43	48	51	53	54	56	59	
		5	2	-4	-1	2	3	12	24	37	48	57	63	67	69	72	75		
			0	0	2	6	10	17	28	40	53	64	73	79	84	87	90		
				2	7	11	16	23	32	44	58	70	81	90	97	103	106		
					16	23	30	39	48	63	77	89	100	109	116				
						26	36	46	56	69	83	96	109	119	124				
								61	75	91	103	116							

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF142 COLUMN 02

-10 -10 -9 -9 -8

-10 -9 -8 -8 -7 -6 -6 -6 -6 -7

-9 -8 -6 -6 -5 -4 -4 -4 -4 -5 -6

-11 -9 -7 -5 -4 -3 -2 -2 -2 -3 -3 -5 -6 -9

-10 -8 -6 -4 -2 -1 0 0 0 -0 -1 -3 -4 -6 -9

-10 -7 -6 -3 -1 1 2 2 2 2 1 -0 -2 -4 -6 -9

-8 -6 -5 -3 -1 2 4 4 4 4 3 2 0 -2 -4 -7 -10

-7 -5 -4 -2 -0 2 4 5 6 5 5 4 2 0 -3 -5 -7 -10

-5 -3 -2 -1 2 4 5 6 6 6 6 4 2 -0 -3 -5 -8

-4 -3 -2 -1 1 3 5 6 7 7 7 6 4 2 -1 -3 -6 -9

-3 -3 -2 -1 0 2 4 6 7 7 7 6 5 4 1 -2 -4 -7 -10

-3 -2 -1 -1 1 3 5 6 7 7 7 6 4 2 -1 -3 -6 -9

-3 -2 -1 -0 2 4 5 6 6 6 5 4 2 -0 -3 -5 -8

-3 -3 -2 -2 0 2 4 5 5 5 5 4 2 -0 -3 -5 -7 -10

-5 -4 -3 -2 -0 2 4 4 4 4 3 2 -0 -2 -5 -7 -10

-6 -5 -4 -3 -1 1 2 2 2 1 1 -1 -3 -4 -7 -10

-8 -6 -5 -4 -2 -1 -0 -0 -0 -1 -2 -3 -5 -7 -9

-9 -7 -6 -5 -4 -3 -3 -2 -3 -3 -4 -5 -7 -9

-8 -7 -6 -6 -6 -5 -5 -5 -5 -6 -7

-9 -9 -8 -8 -7 -7 -7 -7 -7 -8

-11 -11 -10 -10 -10

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 142 COLUMN 03

35 33 27 19 9

18 22 25 27 23 14 7 -0 -4 -6

8 11 15 19 23 12 4 -2 -6 -7 -6

-7 -3 1 3 6 8 6 -1 -6 -8 -8 -7 -3 3

-19 -12 -7 -6 -6 -6 -6 -9 -11 -12 -11 -8 -4 2 10

-29 -23 -15 -15 -16 -17 -18 -18 -19 -18 -16 -12 -6 0 7 16

-39 -33 -27 -23 -24 -26 -29 -28 -27 -25 -21 -16 -10 -1 7 13 20

-46 -40 -36 -31 -30 -31 -34 -35 -33 -31 -27 -22 -15 -6 4 14 15 20

-44 -40 -36 -33 -33 -35 -37 -37 -35 -32 -27 -20 -12 -3 4 9 12

-45 -41 -37 -33 -32 -33 -35 -36 -36 -35 -31 -26 -18 -10 -3 0 4 8

-42 -39 -35 -31 -28 -28 -29 -32 -34 -35 -34 -31 -25 -15 -10 -8 -5 -2 1

-34 -31 -27 -23 -22 -22 -24 -28 -31 -34 -34 -32 -26 -20 -16 -14 -11 -8

-25 -22 -17 -14 -14 -15 -18 -25 -31 -35 -37 -35 -31 -26 -23 -21 -19

-17 -14 -11 -6 -5 -6 -7 -14 -25 -33 -39 -42 -41 -38 -34 -30 -31 -28

-5 -4 0 3 -0 -2 -2 -17 -30 -40 -47 -50 -51 -49 -47 -46 -44

4 5 11 4 -1 -5 -14 -27 -40 -50 -57 -61 -63 -63 -62 -61

11 9 6 -0 -7 -16 -27 -40 -52 -63 -70 -74 -77 -77 -76

11 4 -2 -9 -18 -28 -40 -54 -67 -77 -84 -89 -92 -93

-3 -12 -21 -30 -40 -56 -70 -82 -92 -100 -105

-12 -23 -33 -44 -58 -72 -86 -98 -108 -112

-45 -59 -75 -88 -101

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF143 COLUMN 01

| | | |

| | | |

8 7 3 -4 -13

-8 -1 4 8 5 -2 -9 -16 -21 -23

-16 -9 -2 5 10 1 -7 -13 -17 -20 -22

-35 -25 -16 -9 -4 1 0 -5 -11 -15 -17 -19 -19 -19

-45 -32 -23 -17 -11 -7 -6 -7 -10 -13 -15 -16 -15 -15 -13

-54 -41 -29 -24 -19 -14 -13 -12 -12 -13 -13 -13 -12 -10 -9 -8

-61 -49 -39 -31 -25 -22 -19 -17 -16 -15 -13 -12 -10 -7 -5 -4 -5

-65 -54 -45 -37 -31 -27 -24 -22 -19 -17 -14 -12 -9 -6 -2 1 -3 -6

-56 -48 -40 -34 -29 -26 -23 -21 -18 -16 -13 -9 -6 -4 -2 -4 -8

-55 -48 -41 -35 -29 -25 -22 -20 -18 -17 -14 -11 -6 -4 -5 -8 -11 -15

-50 -46 -39 -33 -27 -22 -19 -17 -16 -16 -16 -14 -10 -5 -8 -12 -16 -21 -24

-41 -36 -30 -24 -18 -14 -11 -12 -14 -16 -17 -17 -15 -15 -18 -22 -27 -31

-31 -26 -20 -14 -9 -5 -5 -9 -14 -19 -23 -24 -25 -27 -30 -34 -40

-25 -22 -17 -10 -5 -1 3 -1 -11 -20 -27 -32 -36 -39 -40 -42 -50 -54

-17 -13 -8 -2 -1 3 7 -6 -20 -31 -40 -46 -51 -55 -59 -63 -69

-12 -8 -1 -2 -3 -2 -10 -22 -35 -46 -56 -63 -69 -74 -79 -86

-8 -7 -7 -9 -12 -18 -28 -40 -53 -65 -74 -83 -89 -95 -100

-11 -14 -17 -21 -28 -36 -47 -60 -73 -85 -95 -103 -110 -116

-25 -30 -37 -45 -55 -68 -82 -95 -106 -115 -123

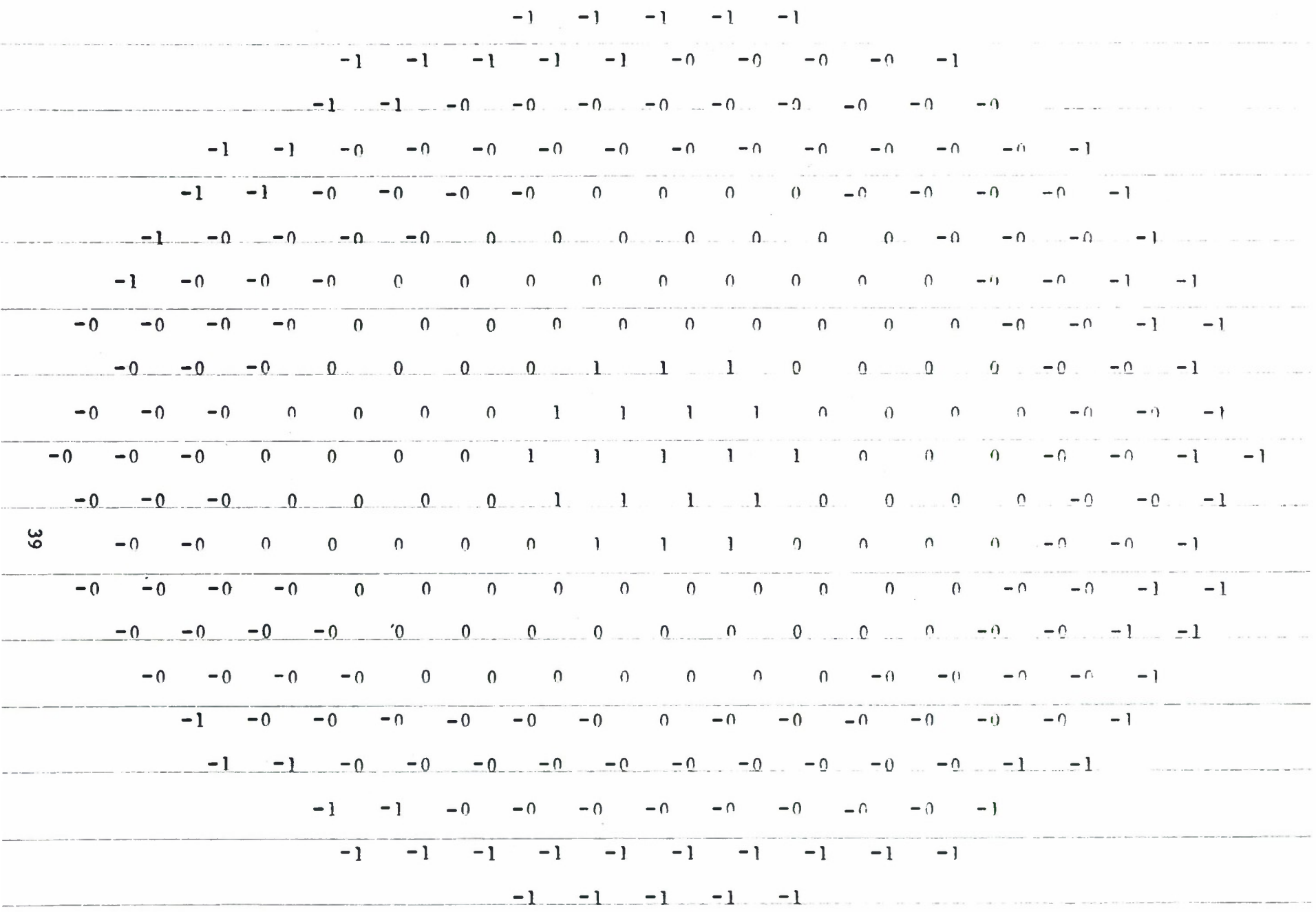
-36 -46 -55 -65 -77 -91 -104 -116 -127 -132

-73 -87 -102 -114 -126

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF211 COLUMN 01

								-9	-9	-4	3	12										
						6	-0	-5	-9	-6	1	8	15	20	22							
					15	7	1	-6	-10	-2	6	12	17	20	21							
				33	23	15	9	3	-1	-1	5	10	14	17	18	18	18					
			44	31	22	16	11	7	6	8	11	13	15	15	15	14	12					
		53	40	28	23	19	15	13	13	13	13	14	13	12	10	8	7					
	59	48	38	30	26	22	20	18	16	15	14	12	10	7	4	3	4					
64	54	45	37	31	27	25	22	20	18	15	12	9	6	2	-2	2	5					
	56	47	40	34	29	26	24	22	19	17	14	10	6	4	2	3	7					
55	48	41	35	30	26	23	21	19	18	15	12	7	5	5	7	10	14					
50	45	39	33	28	23	19	18	17	17	17	15	11	5	8	12	15	19	22				
41	36	30	24	19	15	12	13	15	17	18	18	15	15	18	22	26	30					
31	26	21	14	10	6	5	10	15	20	24	25	26	27	29	33	39						
24	21	17	10	5	1	-2	2	12	21	28	33	36	39	40	42	49	53					
	16	13	7	2	1	-2	-7	7	21	32	40	47	51	55	58	62	68					
	11	7	0	2	3	3	10	22	35	47	56	63	69	74	78	84						
		7	6	6	9	12	18	28	40	53	65	74	82	88	94	99						
			10	13	16	21	27	35	46	60	73	84	94	102	109	115						
				23	29	36	44	54	67	81	94	105	114	122								
					35	44	53	63	76	90	103	115	126	131								
								71	85	100	113	125										

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF211 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF211 COLUMN 03

8 8 3 -4 -13

-8 -1 4 8 6 -1 -9 -15 -20 -23

-16 -8 -1 5 10 1 -6 -12 -17 -20 -22

-34 -24 -16 -9 -3 1 1 -5 -10 -14 -17 -19 -19 -19

-45 -32 -22 -17 -11 -7 -6 -8 -10 -13 -15 -15 -15 -14 -13

-54 -41 -29 -23 -19 -14 -13 -12 -13 -13 -13 -13 -12 -10 -9 -8

-60 -49 -39 -31 -25 -22 -20 -18 -16 -15 -14 -12 -10 -7 -4 -4 -5

-64 -54 -45 -37 -31 -27 -24 -22 -19 -17 -15 -12 -9 -6 -2 1 -3 -6

-56 -48 -40 -34 -29 -26 -23 -21 -19 -16 -13 -9 -6 -4 -2 -4 -8

-55 -48 -41 -35 -29 -25 -22 -20 -19 -17 -15 -11 -6 -4 -5 -7 -11 -15

-50 -46 -39 -33 -28 -22 -19 -17 -17 -17 -16 -15 -11 -5 -8 -12 -16 -20 -23

-41 -36 -30 -24 -19 -14 -12 -12 -14 -17 -18 -17 -15 -15 -18 -22 -27 -31

-31 -26 -20 -14 -9 -5 -5 -9 -15 -20 -23 -24 -25 -27 -30 -34 -39

-24 -22 -17 -10 -5 -1 3 -2 -11 -20 -27 -33 -36 -39 -40 -42 -49 -54

-17 -13 -7 -2 -1 3 7 -7 -20 -31 -40 -46 -51 -55 -58 -63 -69

-11 -7 -0 -2 -3 -2 -10 -22 -35 -46 -56 -63 -69 -74 -78 -85

-8 -7 -7 -9 -12 -18 -28 -40 -53 -65 -74 -82 -89 -94 -100

-11 -14 -17 -21 -27 -36 -46 -60 -73 -85 -94 -103 -110 -116

-24 -30 -37 -45 -54 -68 -82 -94 -105 -115 -123

-36 -45 -54 -64 -77 -90 -104 -116 -126 -132

-73 -87 -101 -114 -126

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF212 COLUMN 01

-9 -9 -4 4 12

7 0 -5 -9 -6 1 8 15 20 23

15 8 1 -5 -10 -1 6 12 17 20 22

34 24 15 9 3 -1 -1 5 10 14 17 18 19 18

44 32 22 16 11 7 6 8 10 13 15 15 15 14 12

53 40 28 23 19 15 13 12 13 13 14 13 12 10 8 7

60 48 38 31 25 22 20 18 16 15 14 12 10 7 4 4 4

64 54 45 37 31 27 25 22 20 17 15 12 9 6 2 -2 3 5

56 48 40 34 29 26 24 21 19 17 13 10 6 4 2 3 7

55 48 41 35 29 25 23 21 19 18 15 11 7 5 5 7 11 14

50 45 39 33 28 23 19 17 17 17 17 15 11 5 8 12 16 20 23

41 36 30 24 19 14 12 12 15 17 18 18 15 15 18 22 26 30

31 26 20 14 9 6 5 10 15 20 23 25 25 27 29 33 39

24 21 17 10 5 1 -3 2 11 20 28 33 36 39 40 42 49 53

17 13 7 2 1 -3 -7 7 20 31 40 47 51 55 58 63 68

11 7 0 2 3 3 10 22 35 46 56 63 69 74 78 85

8 7 7 9 12 18 28 40 53 65 74 82 89 94 99

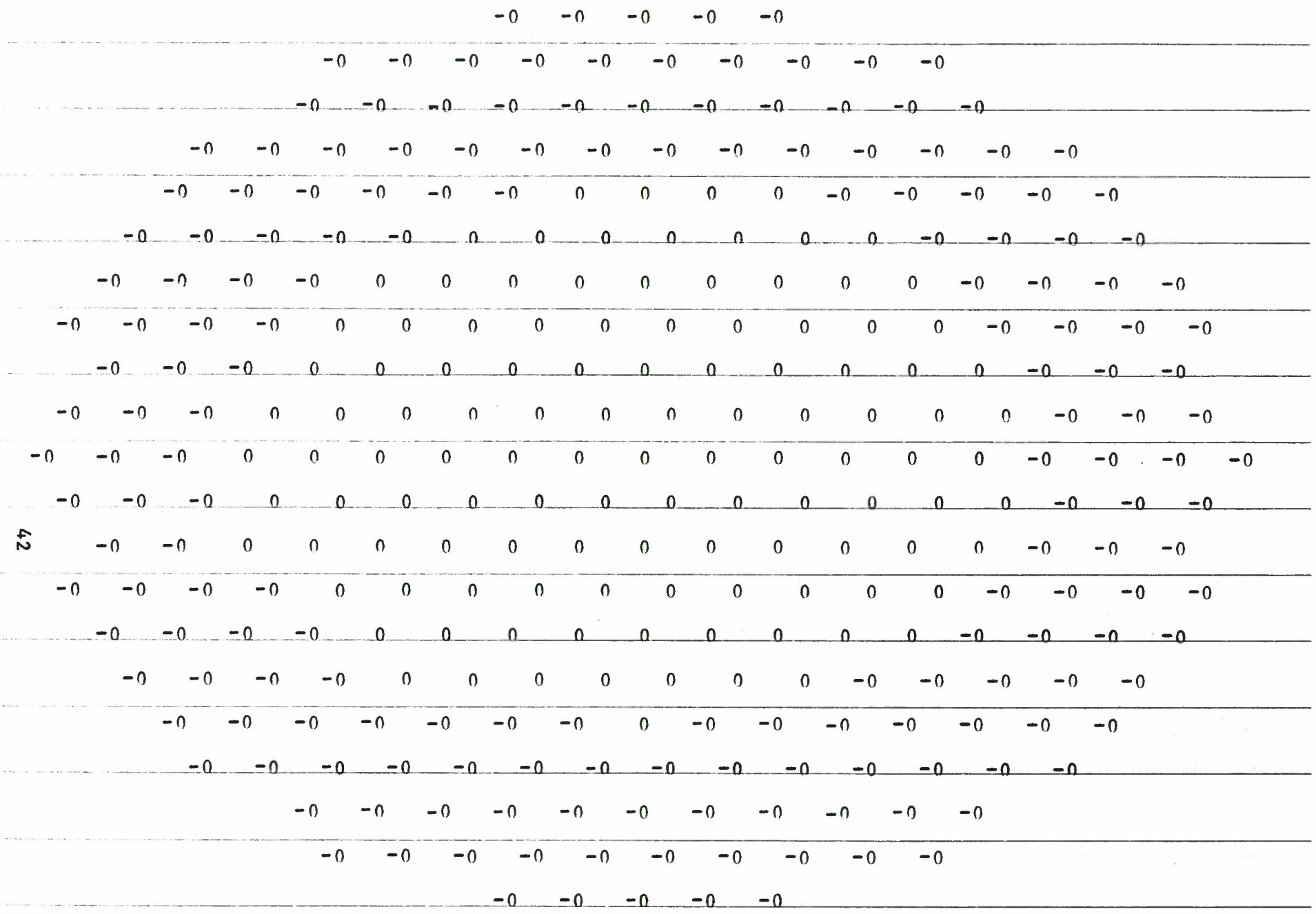
11 13 17 21 27 35 46 60 73 85 94 102 109 115

24 30 36 44 54 68 81 94 105 115 123

35 45 54 64 76 90 103 116 126 131

72 86 101 113 125

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF212 COLUMN 02

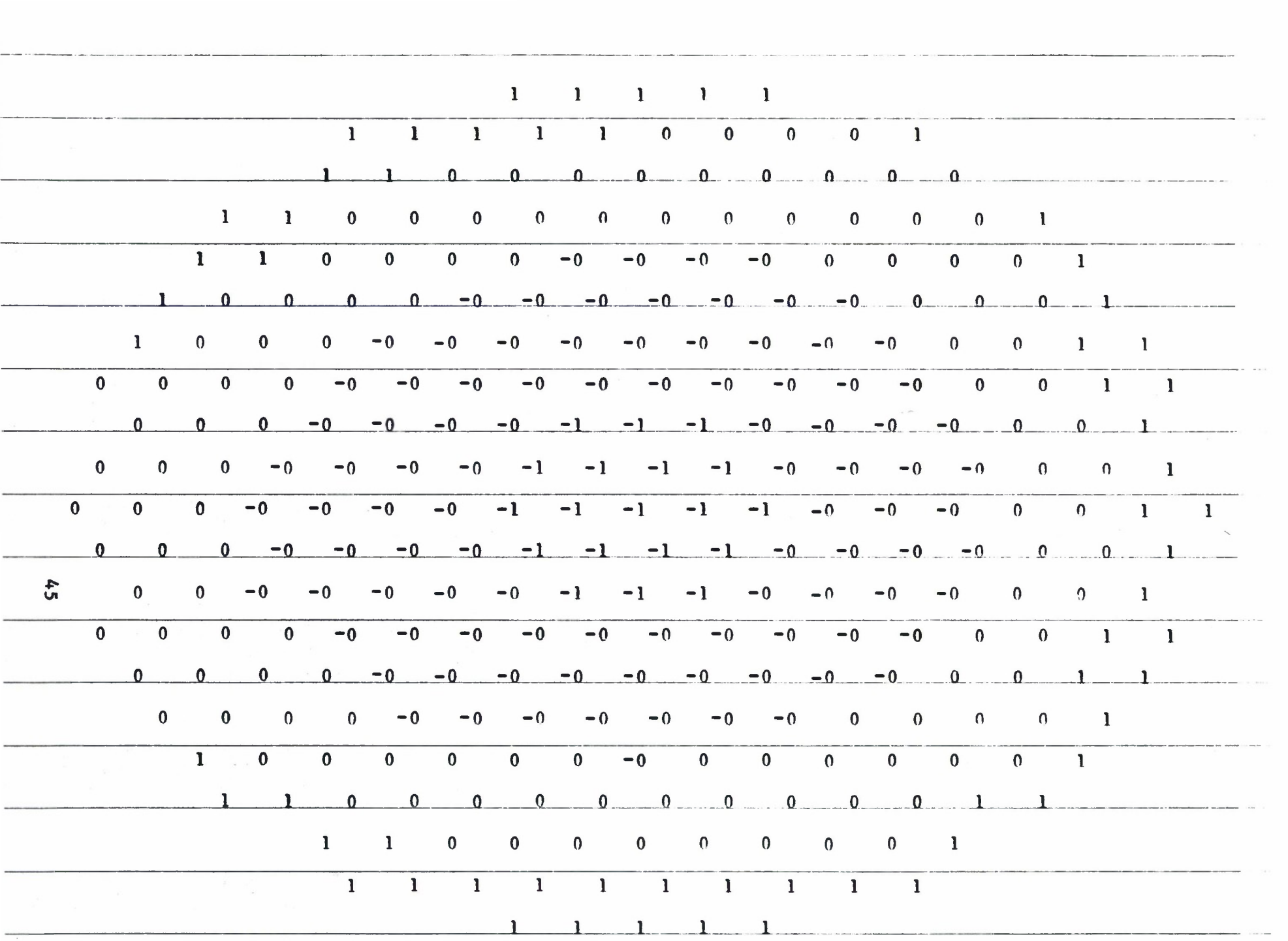


THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF212 COLUMN 03

| | | |

									-8	-7	-3	4	13										
							8	1	-4	-8	-5	2	9	16	21	23							
						16	9	2	-5	-10	-1	7	13	17	20	22							
					35	25	16	9	4	-1	-0	5	11	15	17	19	19	19					
				45	32	23	17	11	7	6	7	10	13	15	16	15	15	13					
			54	41	29	24	19	14	13	12	12	13	13	13	12	10	9	8					
		61	49	39	31	25	22	19	17	16	15	13	12	10	7	5	4	5					
	65	54	45	37	31	27	24	22	19	17	14	12	9	6	2	-1	3	6					
		56	48	40	34	29	26	23	21	18	16	13	9	6	4	2	4	8					
	55	48	41	35	29	25	22	20	18	17	14	11	6	4	5	8	11	15					
50	46	39	33	27	22	19	17	16	16	16	14	10	5	8	12	16	21	24					
	41	36	30	24	18	14	11	12	14	16	17	17	15	15	18	22	27	31					
44	31	26	20	14	9	5	5	9	14	19	23	24	25	27	30	34	40						
25	22	17	10	5	1	-3	1	11	20	27	32	36	39	40	42	50	54						
	17	13	8	2	1	-3	-7	6	20	31	40	46	51	55	59	63	69						
	12	8	1	2	3	2	10	22	35	46	56	63	69	74	79	86							
		8	7	7	9	12	18	28	40	53	65	74	83	89	95	100							
		11	14	17	21	28	36	47	60	73	85	95	103	110	116								
			25	30	37	45	55	68	82	95	106	115	123										
				36	46	55	65	77	91	104	116	127	132										
							73	87	102	114	126												

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF213 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF213 COLUMN 03

						7	7	2	-5	-14							
				-9	-2	3	7	5	-2	-10	-16	-21	-24				
			-17	-9	-2	4	9	1	-7	-13	-17	-21	-23				
		-36	-25	-17	-10	-4	1	0	-5	-11	-15	-17	-19	-20	-20		
	-46	-33	-23	-17	-11	-7	-6	-7	-10	-13	-15	-16	-16	-15	-14		
-55	-42	-29	-24	-19	-14	-12	-12	-12	-13	-13	-13	-12	-11	-10	-9		
-61	-49	-39	-31	-25	-21	-19	-17	-15	-14	-13	-12	-9	-7	-5	-5	-6	
-65	-55	-45	-37	-31	-26	-24	-21	-19	-16	-14	-11	-9	-6	-2	1	-4	-7
-56	-48	-40	-34	-29	-25	-23	-20	-18	-15	-12	-9	-6	-4	-2	-4	-9	
-55	-48	-41	-35	-29	-25	-22	-19	-18	-16	-14	-10	-6	-4	-5	-8	-12	-16
-50	-46	-39	-33	-27	-22	-18	-16	-16	-16	-15	-14	-10	-4	-8	-12	-16	-21	-24
-41	-36	-30	-24	-18	-14	-11	-11	-13	-16	-17	-16	-14	-15	-18	-22	-27	-32
-31	-26	-20	-14	-9	-5	-4	-9	-14	-19	-22	-24	-25	-27	-30	-34	-40	
-25	-22	-17	-10	-5	-1	3	-1	-10	-19	-27	-32	-36	-39	-41	-43	-50	-55
-17	-14	-8	-2	-1	3	8	-6	-20	-31	-39	-46	-51	-55	-59	-64	-70	
-12	-8	-1	-2	-3	-2	-10	-22	-35	-46	-56	-63	-69	-75	-79	-87		
-9	-8	-7	-10	-12	-18	-28	-40	-53	-65	-75	-83	-89	-95	-101			
-12	-15	-18	-22	-28	-36	-47	-60	-73	-85	-95	-103	-110	-117				
-25	-31	-37	-46	-55	-69	-82	-95	-106	-116	-124							
-37	-46	-55	-65	-78	-91	-105	-117	-127	-133								
-74	-88	-103	-115	-127													

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF221 COLUMN 01

-10 -10 -5 2 11

6 -1 -6 -9 -7 0 8 14 19 22

14 7 0 -6 -11 -2 6 12 16 19 21

33 23 15 8 3 -1 -1 5 10 14 17 18 18 17

43 31 21 16 11 7 6 8 11 13 15 15 15 13 11

52 40 28 23 19 15 13 13 13 14 14 13 11 10 8 6

59 48 38 30 26 22 20 19 17 16 14 12 10 7 4 3 3

63 53 44 37 31 27 25 23 20 18 16 13 10 6 2 -2 2 4

55 47 40 35 30 27 25 22 20 17 14 10 7 4 2 3 6

54 48 41 35 30 26 23 21 20 19 16 12 7 5 5 7 10 13

50 45 39 33 28 23 20 18 18 18 18 16 12 6 8 12 15 19 21

40 36 30 25 19 15 13 13 15 18 19 18 16 16 18 21 25 29

31 26 21 14 10 6 6 11 16 21 24 25 26 27 29 33 38

24 21 17 10 5 2 -2 3 12 21 28 33 37 39 40 41 48 52

16 13 7 2 1 -2 -6 7 21 32 40 47 52 55 58 62 67

10 7 -0 2 3 3 10 23 35 47 56 63 69 73 77 84

7 6 6 9 12 18 28 40 53 65 74 82 88 93 98

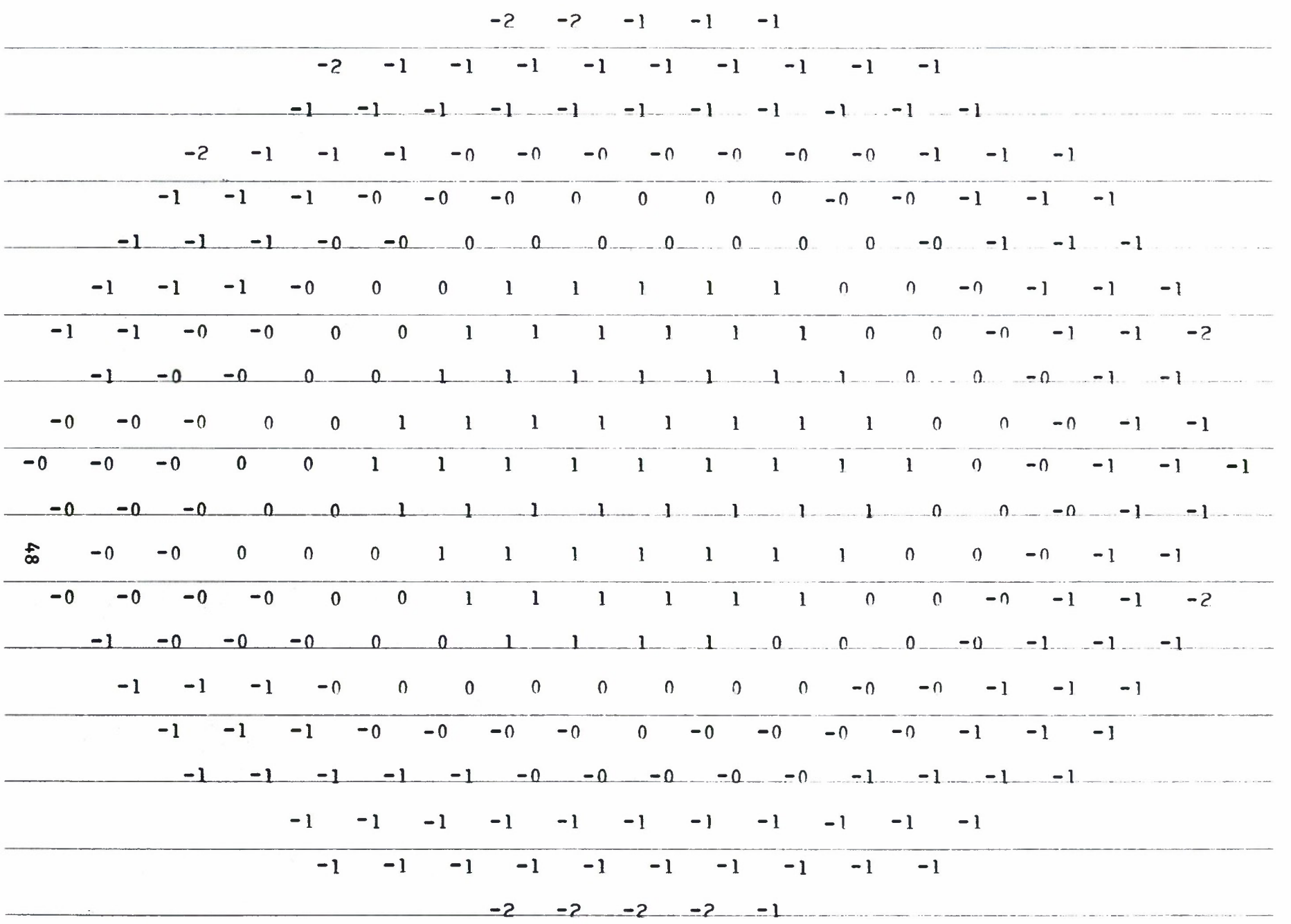
10 13 16 21 27 35 46 60 73 84 94 102 108 114

23 29 36 44 53 67 81 94 105 114 122

34 44 53 63 76 89 102 115 125 131

70 85 99 112 124

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF221 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFELCTIONS IN MATRIX TDF221 COLUMN 03

8 8 3 -4 -13

-8 -1 4 8 5 -2 -9 -16 -20 -23

-16 -8 -2 5 10 1 -6 -12 -17 -20 -22

-35 -24 -16 -9 -3 1 0 -5 -10 -15 -17 -19 -19 -19

-45 -32 -23 -17 -11 -7 -6 -7 -10 -13 -15 -15 -15 -14 -13

-54 -41 -29 -23 -19 -14 -13 -12 -13 -13 -13 -13 -12 -10 -9 -8

-60 -49 -39 -31 -25 -22 -19 -18 -16 -15 -13 -12 -10 -7 -4 -4 -5

-65 -54 -45 -37 -31 -27 -24 -22 -19 -17 -14 -12 -9 -6 -2 1 -3 -6

-56 -48 -40 -34 -29 -26 -23 -21 -18 -16 -13 -9 -6 -4 -2 -4 -8

-55 -48 -41 -35 -29 -25 -22 -20 -18 -17 -15 -11 -6 -4 -5 -8 -11 -15

-50 -46 -39 -33 -28 -22 -19 -17 -16 -16 -16 -14 -11 -5 -8 -12 -16 -20 -23

-41 -36 -30 -24 -18 -14 -11 -12 -14 -16 -18 -17 -15 -15 -18 -22 -27 -31

-31 -26 -20 -14 -9 -5 -5 -9 -14 -19 -23 -24 -25 -27 -30 -34 -40

-24 -22 -17 -10 -5 -1 3 -1 -11 -20 -27 -33 -36 -39 -40 -42 -50 -54

-17 -13 -7 -2 -1 3 7 -6 -20 -31 -40 -46 -51 -55 -58 -63 -69

-12 -8 -0 -2 -3 -2 -10 -22 -35 -46 -56 -63 -69 -74 -79 -86

-8 -7 -7 -9 -12 -18 -28 -40 -53 -65 -74 -83 -89 -95 -100

-11 -14 -17 -21 -27 -36 -47 -60 -73 -85 -95 -103 -110 -116

-24 -30 -37 -45 -54 -68 -82 -95 -106 -115 -123

-36 -46 -54 -65 -77 -91 -104 -116 -127 -132

-73 -87 -102 -114 -126

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF222 COLUMN 01

						-9	-9	-4	3	12								
					7	-0	-5	-9	-6	1	8	15	20	22				
				15	8	1	-5	-10	-2	6	12	17	20	21				
			33	23	15	9	3	-1	-1	5	10	14	17	18	19	18		
		44	31	22	16	11	7	6	8	11	13	15	15	15	14	12		
	53	40	28	23	19	15	13	12	13	13	14	13	12	10	8	7		
60	48	38	31	26	22	20	18	16	15	14	12	10	7	4	3	4		
64	54	45	37	31	27	25	22	20	18	15	12	9	6	2	-2	2	5	
56	47	40	34	29	26	24	22	19	17	14	10	6	4	2	3	7		
55	48	41	35	30	25	23	21	19	18	15	12	7	5	5	7	10	14	
50	45	39	33	28	23	19	18	17	17	17	15	11	5	8	12	16	20	22
41	36	30	24	19	15	12	13	15	17	18	18	15	15	18	22	26	30	
31	26	20	14	10	6	5	10	15	20	23	25	25	27	29	33	39		
24	21	17	10	5	1	-2	2	11	21	28	33	36	39	40	42	49	53	
17	13	7	2	1	-2	-7	7	20	32	40	47	51	55	58	62	68		
11	7	0	2	3	3	10	22	35	47	56	63	69	74	78	85			
7	6	7	9	12	18	28	40	53	65	74	82	88	94	99				
10	13	16	21	27	35	46	60	73	85	94	102	109	115					
24	29	36	44	54	67	81	94	105	115	122								
35	44	53	64	76	90	103	115	126	131									
72	86	100	113	125														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF222 COLUMN 02

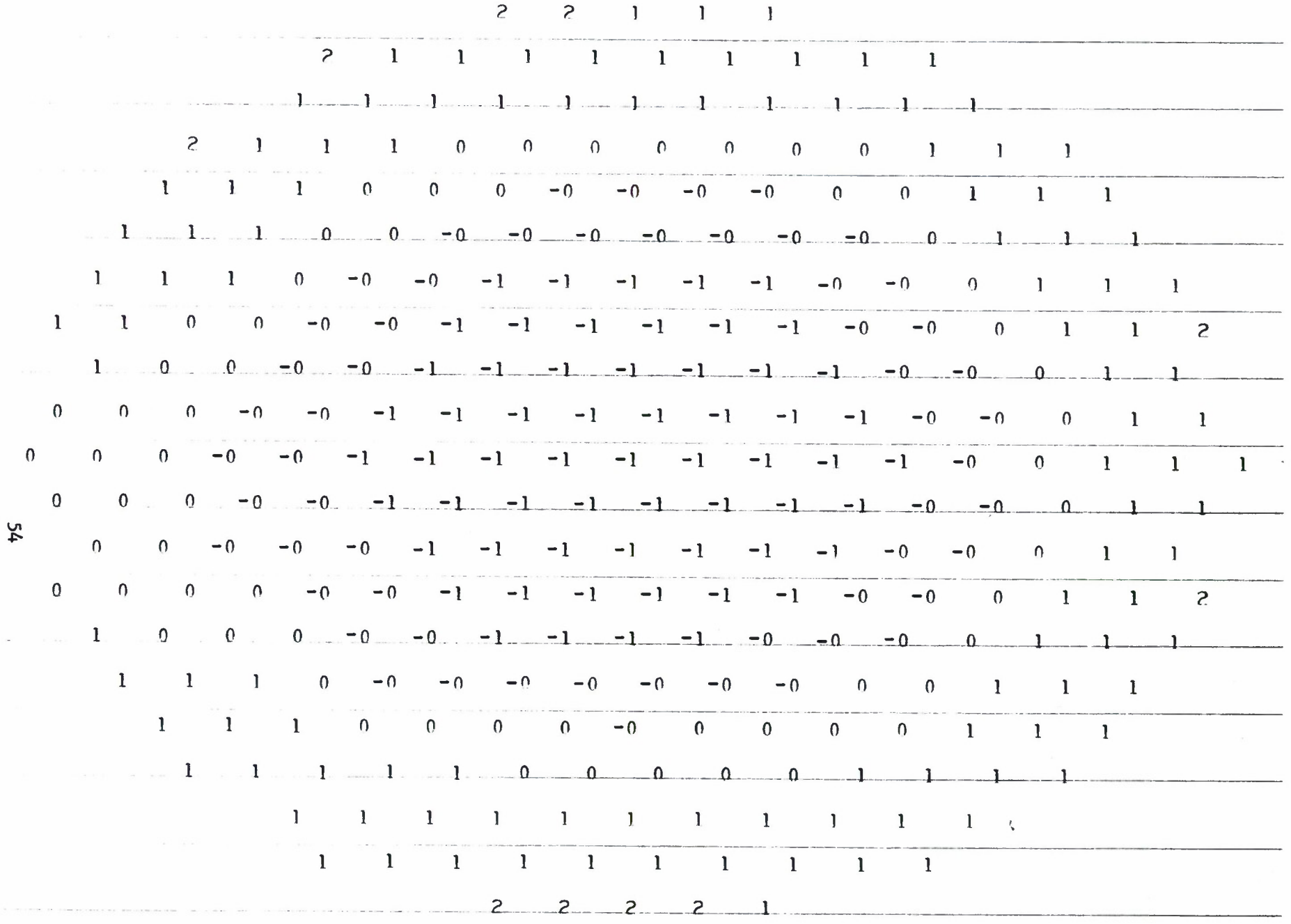


THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF222 COLUMN 03

						10	10	5	-2	-11						
				-6	1	6	9	7	-0	-8	-14	-19	-22			
			-14	-7	-0	6	11	2	-6	-12	-16	-19	-21			
		-33	-23	-15	-8	-3	1	1	-5	-10	-14	-17	-18	-18	-17	
	-43	-31	-21	-16	-11	-7	-6	-8	-11	-13	-15	-15	-15	-13	-11	
-52	-40	-28	-23	-19	-15	-13	-13	-13	-14	-14	-13	-11	-10	-8	-6	
-59	-48	-38	-30	-26	-22	-20	-19	-17	-16	-14	-12	-10	-7	-4	-3	-3
-63	-53	-44	-37	-31	-27	-25	-23	-20	-18	-16	-13	-10	-6	-2	2	-2	-4
-55	-47	-40	-35	-30	-27	-25	-22	-20	-17	-14	-10	-7	-4	-2	-3	-6	
-54	-48	-41	-35	-30	-26	-23	-21	-20	-19	-16	-12	-7	-5	-5	-7	-10	-13
-50	-45	-39	-33	-28	-23	-20	-18	-18	-18	-18	-16	-12	-6	-8	-12	-15	-19	-21
-40	-36	-30	-25	-19	-15	-13	-13	-15	-18	-19	-18	-16	-16	-18	-21	-25	-29	
-31	-26	-21	-14	-10	-6	-6	-11	-16	-21	-24	-25	-26	-27	-29	-33	-38		
-24	-21	-17	-10	-5	-2	2	-3	-12	-21	-28	-33	-37	-39	-40	-41	-48	-52	
-16	-13	-7	-2	-1	2	6	-7	-21	-32	-40	-47	-52	-55	-58	-62	-67		
-10	-7	0	-2	-3	-3	-10	-23	-35	-47	-56	-63	-69	-73	-77	-84			
-7	-6	-6	-9	-12	-18	-28	-40	-53	-65	-74	-82	-88	-93	-98				
-10	-13	-16	-21	-27	-35	-46	-60	-73	-84	-94	-102	-108	-114					
-23	-29	-36	-44	-53	-67	-81	-94	-105	-114	-122								
-34	-44	-53	-63	-76	-89	-102	-115	-125	-131									
-70	-85	-99	-112	-124														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF223 COLUMN 01

| | | |



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF223 COLUMN 03

6 5 0 -6 -15

-10 -3 2 6 4 -3 -10 -17 -22 -25

-18 -10 -3 4 9 0 -7 -13 -18 -22 -24

-37 -26 -17 -10 -4 0 -0 -6 -11 -15 -18 -20 -21 -21

-47 -34 -24 -17 -12 -8 -6 -7 -10 -13 -15 -16 -16 -16 -15

-56 -42 -30 -24 -19 -14 -12 -12 -12 -13 -13 -13 -12 -11 -10 -10

-62 -50 -39 -31 -25 -21 -18 -16 -15 -14 -13 -11 -9 -7 -5 -6 -7

-66 -55 -45 -37 -31 -26 -23 -20 -18 -16 -13 -11 -8 -5 -2 0 -5 -8

-57 -48 -41 -34 -28 -25 -22 -19 -17 -14 -11 -8 -5 -3 -3 -5 -10

-56 -48 -41 -35 -29 -24 -21 -18 -17 -15 -13 -9 -5 -4 -5 -8 -13 -17

-51 -46 -39 -33 -27 -21 -17 -15 -15 -15 -14 -13 -9 -4 -7 -12 -17 -22 -26

-41 -36 -30 -24 -18 -13 -10 -10 -12 -15 -16 -15 -13 -14 -18 -23 -28 -33

-32 -26 -20 -14 -8 -4 -3 -8 -13 -18 -21 -23 -24 -27 -30 -35 -42

-25 -22 -17 -10 -5 -0 4 -0 -9 -19 -26 -32 -35 -38 -41 -43 -51 -57

-18 -14 -8 -2 -0 3 8 -5 -19 -30 -39 -46 -51 -55 -59 -65 -71

-13 -9 -1 -2 -3 -2 -9 -21 -34 -46 -56 -63 -70 -75 -80 -88

-10 -8 -8 -10 -13 -18 -28 -40 -53 -65 -75 -83 -90 -96 -102

-13 -16 -18 -22 -28 -36 -47 -61 -74 -85 -95 -104 -111 -118

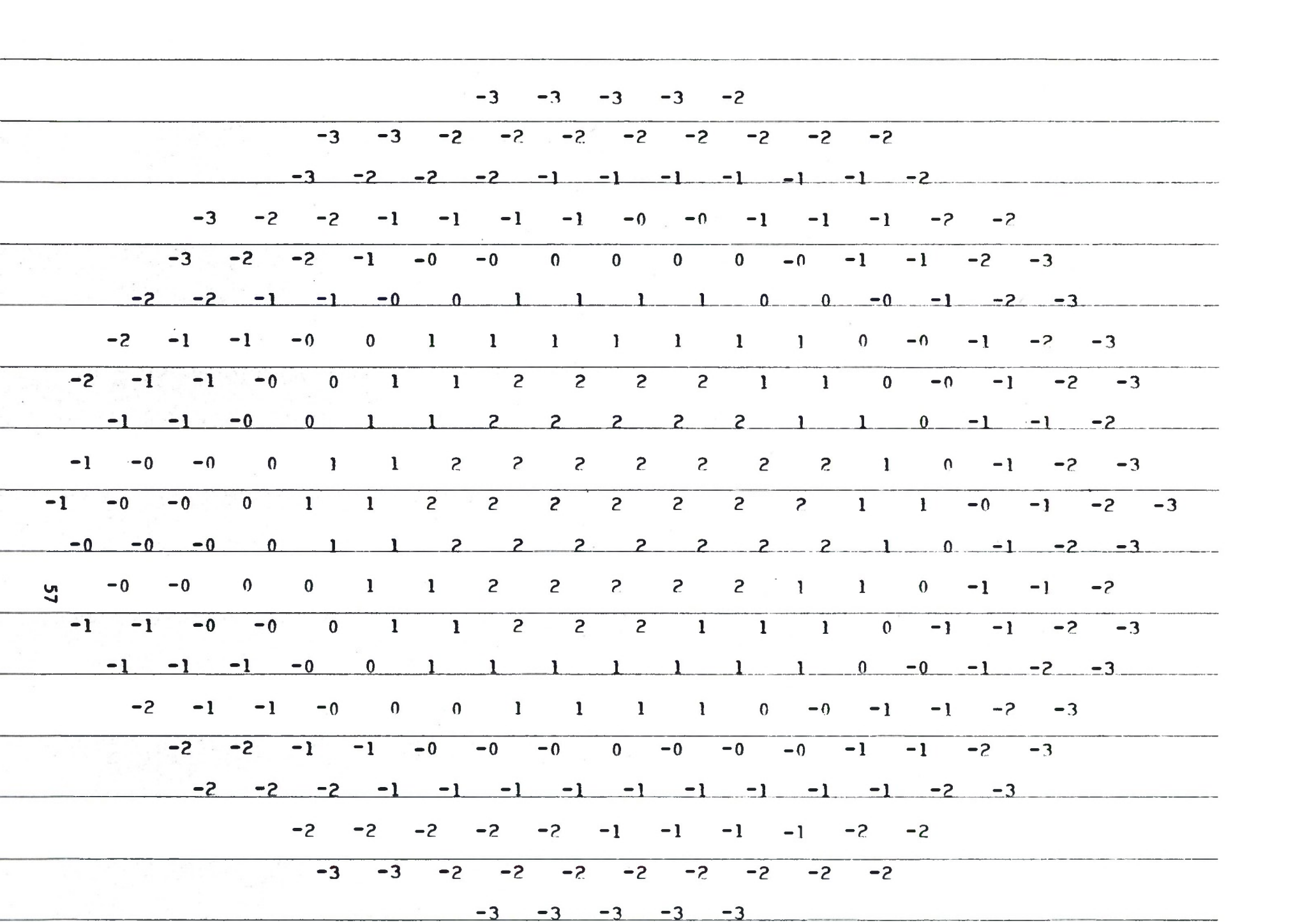
-26 -32 -38 -46 -56 -69 -83 -96 -107 -117 -125

-38 -48 -56 -66 -79 -92 -106 -118 -128 -134

-75 -89 -104 -116 -128

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF231 COLUMN 01

| | | |



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF231 COLUMN 03

7 7 2 -5 -14

-8 -1 4 7 5 -2 -9 -16 -21 -24

-17 -9 -2 5 9 1 -7 -13 -17 -21 -23

-35 -25 -16 -10 -4 1 0 -5 -11 -15 -17 -19 -20 -20

-46 -33 -23 -17 -11 -7 -6 -7 -10 -13 -15 -16 -16 -15 -13

-54 -41 -29 -24 -19 -14 -12 -12 -12 -13 -13 -13 -12 -11 -9 -9

-61 -49 -39 -31 -25 -21 -19 -17 -16 -14 -13 -12 -9 -7 -5 -5 -5

-65 -54 -45 -37 -31 -26 -24 -21 -19 -17 -14 -12 -9 -6 -2 1 -4 -7

-56 -48 -40 -34 -29 -25 -23 -20 -18 -16 -12 -9 -6 -4 -2 -4 -9

-55 -48 -41 -35 -29 -25 -22 -20 -18 -17 -14 -11 -6 -4 -5 -8 -12 -16

-50 -46 -39 -33 -27 -22 -18 -16 -16 -16 -16 -14 -10 -5 -8 -12 -16 -21 -24

-41 -36 -30 -24 -18 -14 -11 -11 -14 -16 -17 -17 -14 -15 -18 -22 -27 -32

-31 -26 -20 -14 -9 -5 -4 -9 -14 -19 -22 -24 -25 -27 -30 -34 -40

-25 -22 -17 -10 -5 -1 3 -1 -10 -20 -27 -32 -36 -39 -41 -43 -50 -55

-17 -14 -8 -2 -1 3 7 -6 -20 -31 -39 -46 -51 -55 -59 -64 -70

-12 -8 -1 -2 -3 -2 -10 -22 -35 -46 -56 -63 -69 -74 -79 -86

-9 -7 -7 -9 -12 -18 -28 -40 -53 -65 -75 -83 -89 -95 -101

-12 -14 -17 -22 -28 -36 -47 -60 -73 -85 -95 -103 -110 -116

-25 -31 -37 -45 -55 -68 -82 -95 -106 -116 -124

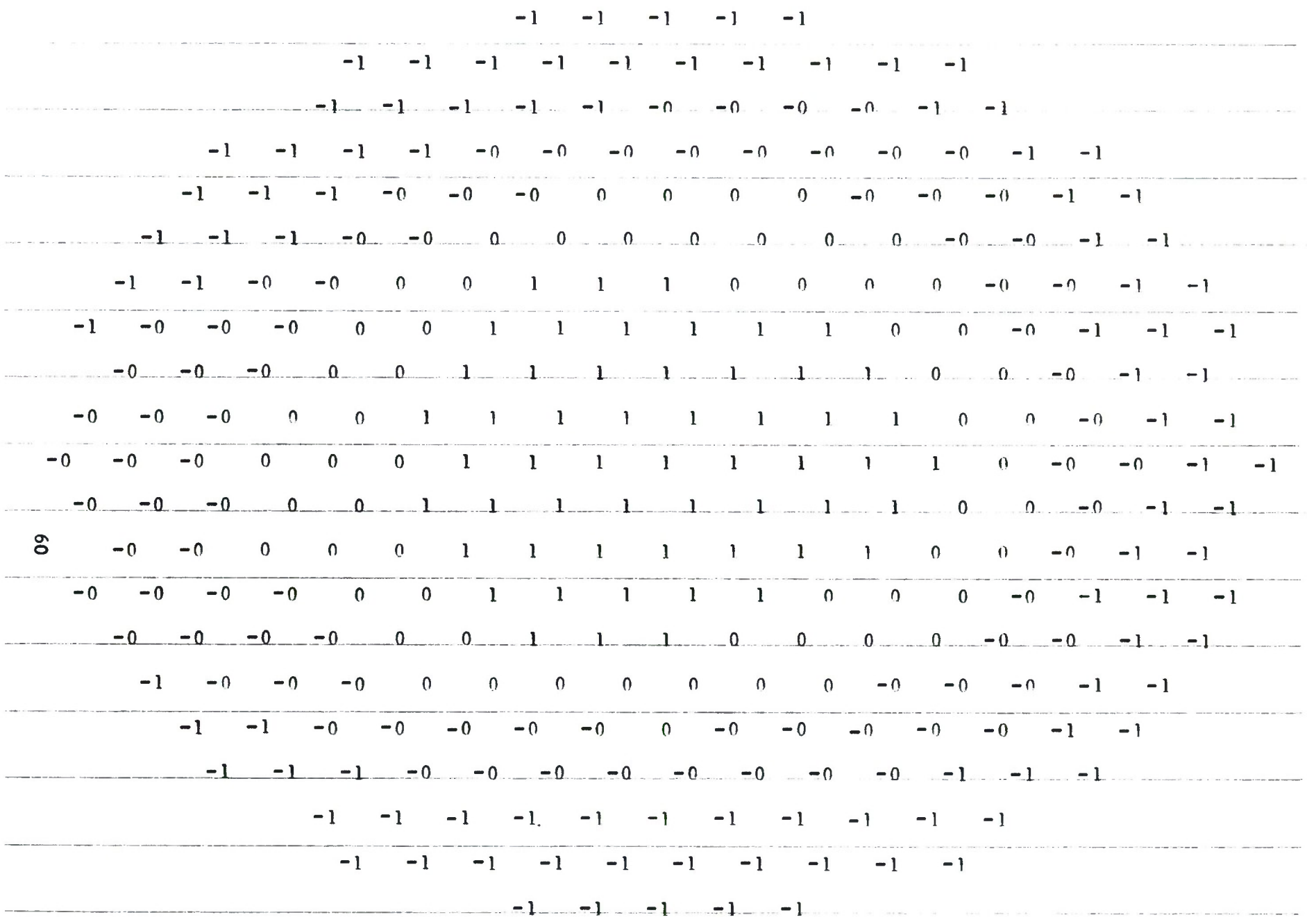
-37 -46 -55 -65 -78 -91 -104 -117 -127 -133

-73 -88 -102 -115 -127

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF232 COLUMN 01

							-10	-9	-4	3	12								
					6	-1	-6	-9	-7	0	8	15	19	22					
				14	7	1	-6	-11	-2	6	12	16	19	21					
			33	23	15	9	3	-1	-1	5	10	14	17	18	18	18			
		44	31	22	16	11	7	6	8	11	13	15	15	15	13	11			
	52	40	28	23	19	15	13	13	13	13	14	13	12	10	8	7			
59	48	38	30	26	22	20	18	17	15	14	12	10	7	4	3	3			
63	53	44	37	31	27	25	23	20	18	15	13	9	6	2	-2	2	4		
56	47	40	34	30	26	24	22	20	17	14	10	6	4	2	3	7			
55	48	41	35	30	26	23	21	20	18	16	12	7	5	5	7	10	14		
50	45	39	33	28	23	20	18	18	18	17	16	12	6	8	12	15	19	22	
41	36	30	25	19	15	12	13	15	18	19	18	16	16	18	22	26	30		
31	26	21	14	10	6	6	10	16	21	24	25	26	27	29	33	38			
24	21	17	10	5	2	-2	2	12	21	28	33	37	39	40	41	48	53		
16	13	7	2	1	-2	-6	7	21	32	40	47	51	55	58	62	67			
11	7	-0	2	3	3	10	22	35	47	56	63	69	74	78	84				
7	6	6	9	12	18	28	40	53	65	74	82	88	93	99					
10	13	16	21	27	35	46	60	73	84	94	102	109	114						
23	29	36	44	53	67	81	94	105	114	122									
35	44	53	63	76	89	103	115	125	131										
71	85	100	112	124															

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF232 COLUMN 02



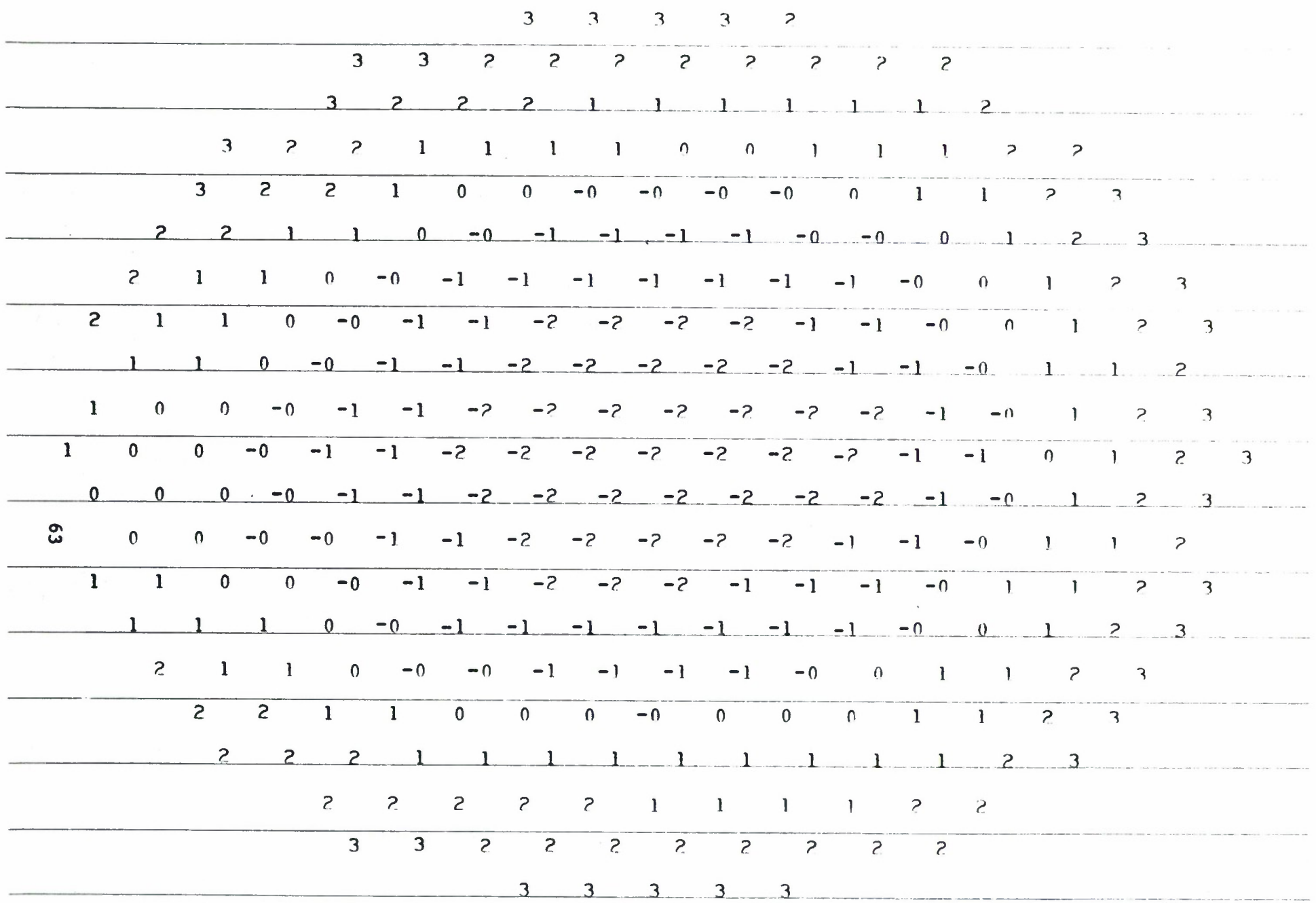
THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF232 COLUMN 03

| | | |

							-6	-5	-0	6	15									
					10	3	-2	-6	-4	3	10	17	22	25						
				18	10	3	-4	-9	-0	7	13	18	22	24						
			37	26	17	10	4	-0	0	6	11	15	18	20	21	21				
		47	34	24	17	12	8	6	7	10	13	15	16	16	16	15				
	56	42	30	24	19	14	12	12	12	13	13	13	12	11	10	10				
62	50	39	31	25	21	18	16	15	14	13	11	9	7	5	6	7				
66	55	45	37	31	26	23	20	18	16	13	11	8	5	2	-0	5	8			
57	48	41	34	28	25	22	19	17	14	11	8	5	3	3	5	10				
56	48	41	35	29	24	21	18	17	15	13	9	5	4	5	8	13	17			
51	46	39	33	27	21	17	15	15	15	14	13	9	4	7	12	17	22	26		
41	36	30	24	18	13	10	10	12	15	16	15	13	14	18	23	28	33			
32	26	20	14	8	4	3	8	13	18	21	23	24	27	30	35	42				
25	22	17	10	5	0	-4	0	9	19	26	32	35	38	41	43	51	57			
18	14	8	2	0	-3	-8	5	19	30	39	46	51	55	59	65	71				
13	9	1	2	3	2	9	21	34	46	56	63	70	75	80	88					
	10	8	8	10	13	18	28	40	53	65	75	83	90	96	102					
	13	16	18	22	28	36	47	61	74	85	95	104	111	118						
		26	32	38	46	56	69	83	96	107	117	125								
			38	48	56	66	79	92	106	118	128	134								
						75	89	104	116	128										

62

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF233 COLUMN 02



63

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF233 COLUMN 03

					4	4	-1	-8	-16							
				-11	-4	1	5	3	-4	-11	-18	-23	-26			
			-19	-11	-4	3	8	-0	-8	-14	-19	-22	-25			
		-38	-27	-18	-11	-5	-0	-0	-6	-11	-15	-18	-20	-21	-22	
	-49	-35	-24	-18	-12	-8	-6	-7	-10	-13	-15	-16	-17	-17	-16	
-57	-43	-31	-24	-19	-14	-12	-11	-12	-12	-13	-13	-12	-12	-11	-12	
-63	-51	-40	-31	-25	-21	-18	-16	-14	-13	-12	-11	-9	-7	-6	-7	-8
-67	-56	-46	-38	-31	-26	-23	-20	-17	-15	-13	-10	-8	-5	-3	-0	-6	-10
-57	-48	-41	-34	-28	-24	-21	-18	-16	-14	-11	-7	-5	-3	-3	-6	-11	
-56	-48	-41	-34	-28	-23	-20	-18	-16	-14	-12	-9	-4	-3	-5	-9	-13	-18
-51	-46	-40	-33	-27	-21	-17	-14	-14	-14	-13	-12	-8	-3	-7	-12	-18	-23	-27
-41	-36	-30	-24	-17	-12	-9	-9	-11	-14	-15	-15	-13	-14	-18	-23	-29	-35	
-32	-26	-20	-14	-8	-3	-2	-7	-12	-17	-21	-22	-24	-27	-30	-36	-43		
-25	-22	-17	-10	-5	0	5	1	-9	-18	-25	-31	-35	-38	-41	-44	-52	-58	
-18	-14	-8	-2	-0	4	9	-5	-18	-30	-39	-46	-51	-56	-60	-66	-73		
-13	-9	-2	-3	-3	-2	-9	-21	-34	-46	-56	-63	-70	-76	-81	-89			
-11	-9	-9	-10	-13	-18	-28	-40	-53	-65	-75	-83	-91	-97	-103				
-14	-16	-19	-23	-29	-37	-48	-61	-74	-86	-96	-104	-112	-119					
-27	-33	-39	-47	-56	-70	-83	-96	-107	-117	-126								
-40	-49	-57	-68	-80	-93	-106	-119	-129	-135									
-77	-91	-105	-118	-130														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF241 COLUMN 01

-13 -13 -7 -0 9

3 -4 -8 -12 -9 -1 6 13 17 20

12 5 -1 -7 -12 -3 5 11 15 18 19

30 21 13 7 2 -2 -1 4 10 14 16 17 16 15

41 29 20 15 11 7 6 8 11 13 14 15 14 12 9

50 38 27 22 19 15 14 13 14 14 14 13 11 9 6 4

57 46 37 30 26 23 22 20 18 17 15 13 10 6 3 1 0

62 52 44 37 31 28 27 24 22 20 17 14 10 6 1 -4 -0 1

55 47 40 35 30 28 26 24 22 19 16 12 7 4 1 1 4

54 47 41 35 30 27 25 23 22 21 18 14 9 6 5 6 8 11

49 45 39 34 28 24 21 20 20 20 20 18 14 7 9 11 14 17 19

40 35 30 25 20 16 14 15 17 20 21 20 17 16 18 21 24 27

31 26 21 15 11 7 8 12 18 23 26 27 27 27 29 31 36

24 21 16 10 6 3 -1 4 14 23 30 35 37 39 40 40 46 49

15 12 7 2 1 -1 -5 9 22 33 41 47 52 54 57 60 64

9 6 -1 1 3 3 11 23 36 47 56 63 68 72 76 81

5 4 5 8 12 18 28 40 53 64 74 81 87 91 96

7 11 14 19 26 34 45 59 72 84 93 100 107 111

21 27 34 42 52 66 80 92 103 112 120

32 41 50 61 73 87 100 113 123 128

67 82 97 109 121

65

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF241 COLUMN 02

-4 -4 -4 -4 -4

-4 -4 -3 -3 -3 -3 -3 -3 -3 -3

-4 -3 -3 -2 -2 -2 -2 -2 -2 -2 -3

-4 -3 -3 -2 -1 -1 -1 -1 -1 -1 -1 -2 -3 -4

-4 -3 -2 -1 -1 -0 0 0 0 0 -0 -1 -2 -3 -4

-4 -3 -2 -1 -0 1 1 1 1 1 1 0 -1 -1 -3 -4

-3 -2 -1 -1 0 1 2 2 2 2 1 1 0 -1 -2 -3 -4

-2 -2 -1 -0 0 1 2 2 3 2 2 2 1 0 -1 -2 -3 -4

-1 -1 -0 0 1 2 3 3 3 3 3 2 1 0 -1 -2 -3

-1 -1 -0 0 1 2 2 3 3 3 3 3 2 1 0 -1 -3 -4

-1 -1 -0 0 1 2 2 3 3 3 3 3 3 2 1 -0 -2 -3 -4

-1 -0 0 1 1 2 2 3 3 3 3 3 2 1 0 -1 -3 -4

-1 -0 0 1 1 2 3 3 3 3 3 2 1 0 -1 -2 -3

-1 -1 -0 -0 1 1 2 2 2 2 2 2 1 0 -1 -2 -3 -4

-2 -1 -1 -0 0 1 2 2 2 2 1 1 0 -1 -2 -3 -4

-2 -2 -1 -1 0 1 1 1 1 1 0 -0 -1 -2 -3 -4

-3 -2 -2 -1 -1 -0 -0 0 -0 -0 -1 -1 -2 -3 -4

-3 -3 -2 -2 -1 -1 -1 -1 -1 -1 -2 -2 -3 -4

-3 -3 -3 -2 -2 -2 -2 -2 -2 -2 -3

-4 -4 -4 -3 -3 -3 -3 -3 -3 -3

-5 -5 -4 -4 -4

POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF241 COLUMN 03

| | | |

-10 -10 -5 2 11

6 -1 -6 -10 -7 0 8 14 19 22

14 7 0 -6 -11 -2 6 12 16 19 21

32 23 15 8 3 -1 -1 5 10 14 17 18 18 17

43 31 21 16 11 7 6 8 11 13 15 15 14 13 11

52 40 28 23 19 15 13 13 13 14 14 13 11 10 8 6

59 48 38 30 26 22 21 19 17 16 14 12 10 7 4 3 3

63 53 44 37 31 27 25 23 21 18 16 13 10 6 2 -2 2 4

55 47 40 35 30 27 25 22 20 17 14 10 7 4 2 3 6

54 48 41 35 30 26 23 22 20 19 16 12 8 5 5 7 10 13

50 45 39 33 28 23 20 18 18 18 18 16 12 6 8 12 15 19 21

40 36 30 25 19 15 13 13 16 18 19 18 16 16 18 21 25 29

31 26 21 14 10 6 6 11 16 21 24 25 26 27 29 33 38

24 21 17 10 5 2 -2 3 12 21 28 33 37 39 40 41 48 52

16 13 7 2 1 -2 -6 8 21 32 40 47 52 55 58 62 67

10 7 -0 2 3 3 10 23 35 47 56 63 69 73 77 83

7 6 6 9 12 18 28 40 53 65 74 82 88 93 98

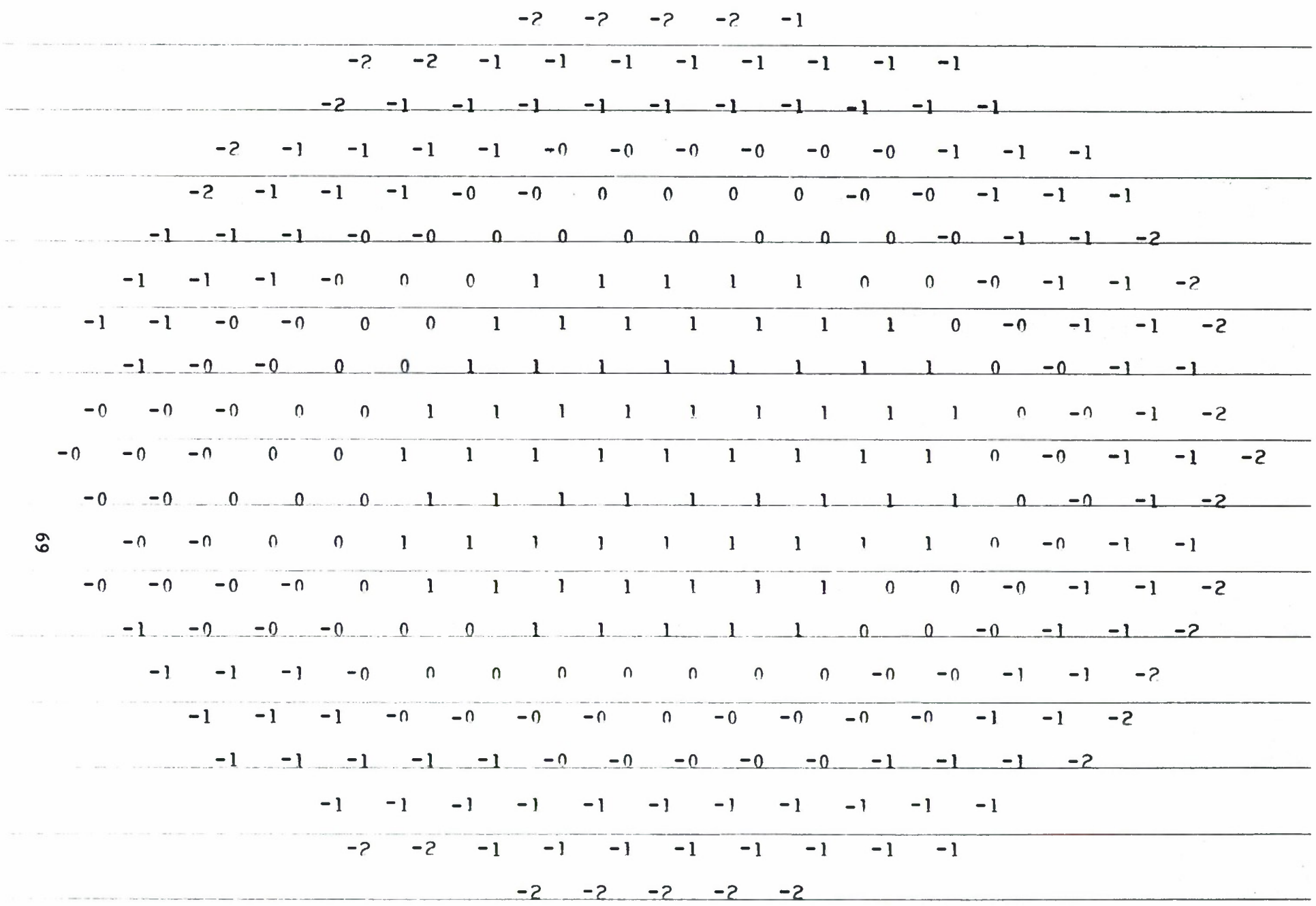
9 13 16 20 27 35 46 60 73 84 94 102 108 114

23 29 35 44 53 67 81 93 104 114 122

34 44 52 63 75 89 102 115 125 130

70 84 99 112 124

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF242 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF242 COLUMN 03

13 13 7 0 -9

-3 4 8 12 9 1 -6 -13 -17 -20

-12 -5 1 7 12 3 -5 -11 -15 -18 -19

-30 -21 -13 -7 -2 2 1 -4 -10 -14 -16 -17 -16 -15

-41 -29 -20 -15 -11 -7 -6 -8 -11 -13 -14 -15 -14 -12 -9

-50 -38 -27 -22 -19 -15 -14 -13 -14 -14 -14 -13 -11 -9 -6 -4

-57 -46 -37 -30 -26 -23 -22 -20 -18 -17 -15 -13 -10 -6 -3 -1 -0

-62 -52 -44 -37 -31 -28 -27 -24 -22 -20 -17 -14 -10 -6 -1 4 0 -1

-55 -47 -40 -35 -30 -28 -26 -24 -22 -19 -16 -12 -7 -4 -1 -1 -4

-54 -47 -41 -35 -30 -27 -25 -23 -22 -21 -18 -14 -9 -6 -5 -6 -8 -11

-49 -45 -39 -34 -28 -24 -21 -20 -20 -20 -20 -18 -14 -7 -9 -11 -14 -17 -19

-40 -35 -30 -25 -20 -16 -14 -15 -17 -20 -21 -20 -17 -16 -18 -21 -24 -27

-31 -26 -21 -15 -11 -7 -8 -12 -18 -23 -26 -27 -27 -27 -29 -31 -36

-24 -21 -16 -10 -6 -3 1 -4 -14 -23 -30 -35 -37 -39 -40 -40 -46 -49

-15 -12 -7 -2 -1 1 5 -9 -22 -33 -41 -47 -52 -54 -57 -60 -64

-9 -6 1 -1 -3 -3 -11 -23 -36 -47 -56 -63 -68 -72 -76 -81

-5 -4 -5 -8 -12 -18 -28 -40 -53 -64 -74 -81 -87 -91 -96

-7 -11 -14 -19 -26 -34 -45 -59 -72 -84 -93 -100 -107 -111

-21 -27 -34 -42 -52 -66 -80 -92 -103 -112 -120

-32 -41 -50 -61 -73 -87 -100 -113 -123 -128

-67 -82 -97 -109 -121

70

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF243 COLUMN 01

-4 -4 1 8 16

11 4 -1 -5 -3 4 11 18 23 26

19 11 4 -3 -8 0 8 14 19 22 25

38 27 18 11 5 0 0 6 11 15 18 20 21 22

49 35 24 18 12 8 6 7 10 13 15 16 17 17 16

57 43 31 24 19 14 12 11 12 12 13 13 12 12 11 12

63 51 40 31 25 21 18 16 14 13 12 11 9 7 6 7 8

67 56 46 38 31 26 23 20 17 15 13 10 8 5 3 0 6 10

57 48 41 34 28 24 21 18 16 14 11 7 5 3 3 6 11

56 48 41 34 28 23 20 18 16 14 12 9 4 3 5 9 13 18

51 46 40 33 27 21 17 14 14 14 13 12 8 3 7 12 18 23 27

41 36 30 24 17 12 9 9 11 14 15 15 13 14 18 23 29 35

32 26 20 14 8 3 2 7 12 17 21 22 24 27 30 36 43

25 22 17 10 5 -0 -5 -1 9 18 25 31 35 38 41 44 52 58

18 14 8 2 0 -4 -9 5 18 30 39 46 51 56 60 66 73

13 9 2 3 3 2 9 21 34 46 56 63 70 76 81 89

11 9 9 10 13 18 28 40 53 65 75 83 91 97 103

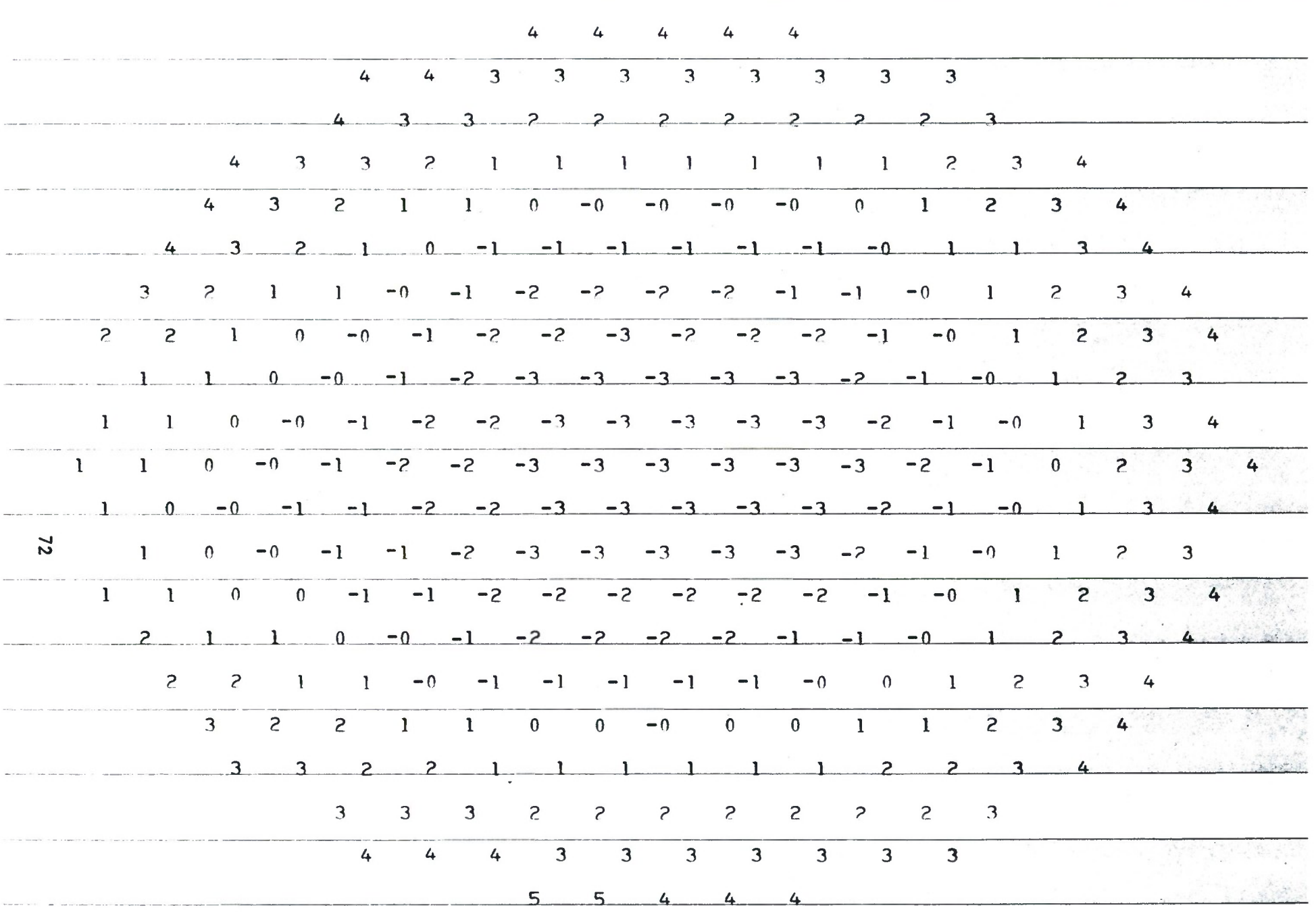
14 16 19 23 29 37 48 61 74 86 96 104 112 119

27 33 39 47 56 70 83 96 107 117 126

40 49 57 68 80 93 106 119 129 135

77 91 105 118 130

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF243 COLUMN 02



72

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF243 COLUMN 03

1 0 -4 -11 -19

-15 -7 -2 2 0 -6 -13 -20 -25 -28

-22 -14 -6 1 6 -2 -9 -15 -20 -24 -27

-42 -30 -20 -13 -6 -1 -1 -6 -12 -16 -19 -22 -24 -25

-52 -37 -26 -19 -12 -8 -6 -7 -10 -13 -15 -17 -18 -19 -19

-60 -45 -32 -25 -19 -13 -11 -10 -11 -12 -12 -13 -13 -13 -13 -15

-65 -52 -41 -32 -25 -20 -16 -14 -13 -12 -11 -10 -9 -8 -7 -9 -12

-69 -57 -47 -38 -30 -25 -21 -18 -15 -13 -11 -9 -7 -5 -3 -2 -8 -13

-59 -49 -41 -34 -27 -22 -19 -16 -14 -11 -9 -6 -4 -3 -4 -7 -14

-57 -49 -41 -34 -27 -22 -18 -15 -13 -12 -9 -6 -3 -2 -5 -10 -15 -21

-52 -47 -40 -33 -26 -20 -15 -12 -11 -11 -11 -9 -6 -1 -6 -13 -19 -26 -30

-42 -36 -30 -24 -17 -11 -7 -7 -9 -11 -12 -12 -11 -13 -18 -24 -31 -38

-32 -27 -20 -13 -7 -2 -0 -4 -10 -15 -19 -21 -23 -27 -31 -37 -45

-26 -23 -18 -10 -4 1 6 3 -7 -16 -24 -30 -34 -38 -42 -46 -55 -62

-20 -15 -9 -3 0 5 10 -3 -17 -28 -37 -45 -51 -56 -61 -68 -76

-15 -10 -3 -3 -3 -1 -8 -20 -33 -45 -55 -63 -71 -77 -83 -92

-13 -11 -10 -11 -13 -18 -28 -40 -53 -65 -75 -84 -92 -99 -107

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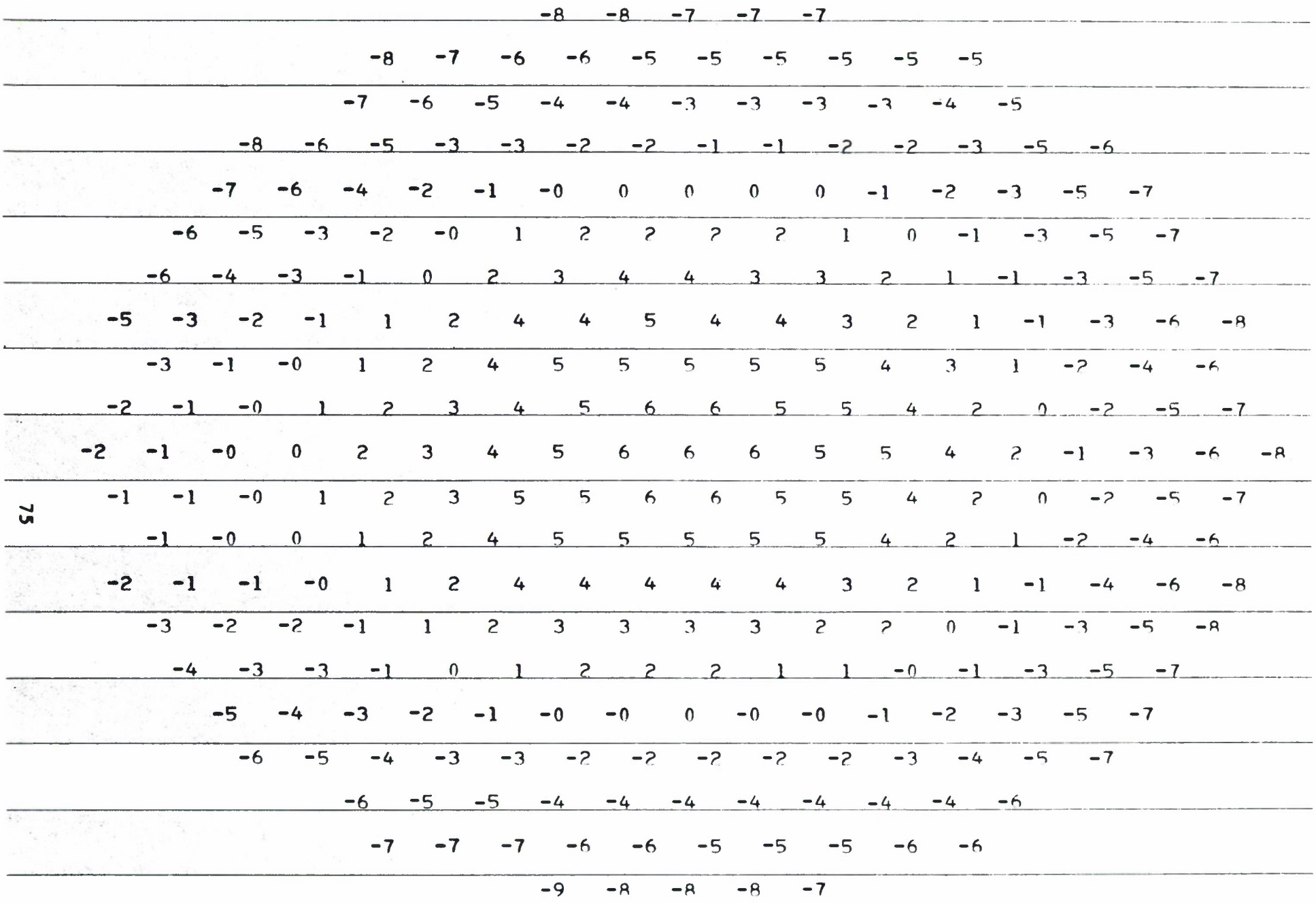
-43 -52 -60 -70 -82 -96 -109 -121 -132 -138

-81 -95 -109 -121 -133

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF311 COLUMN 1

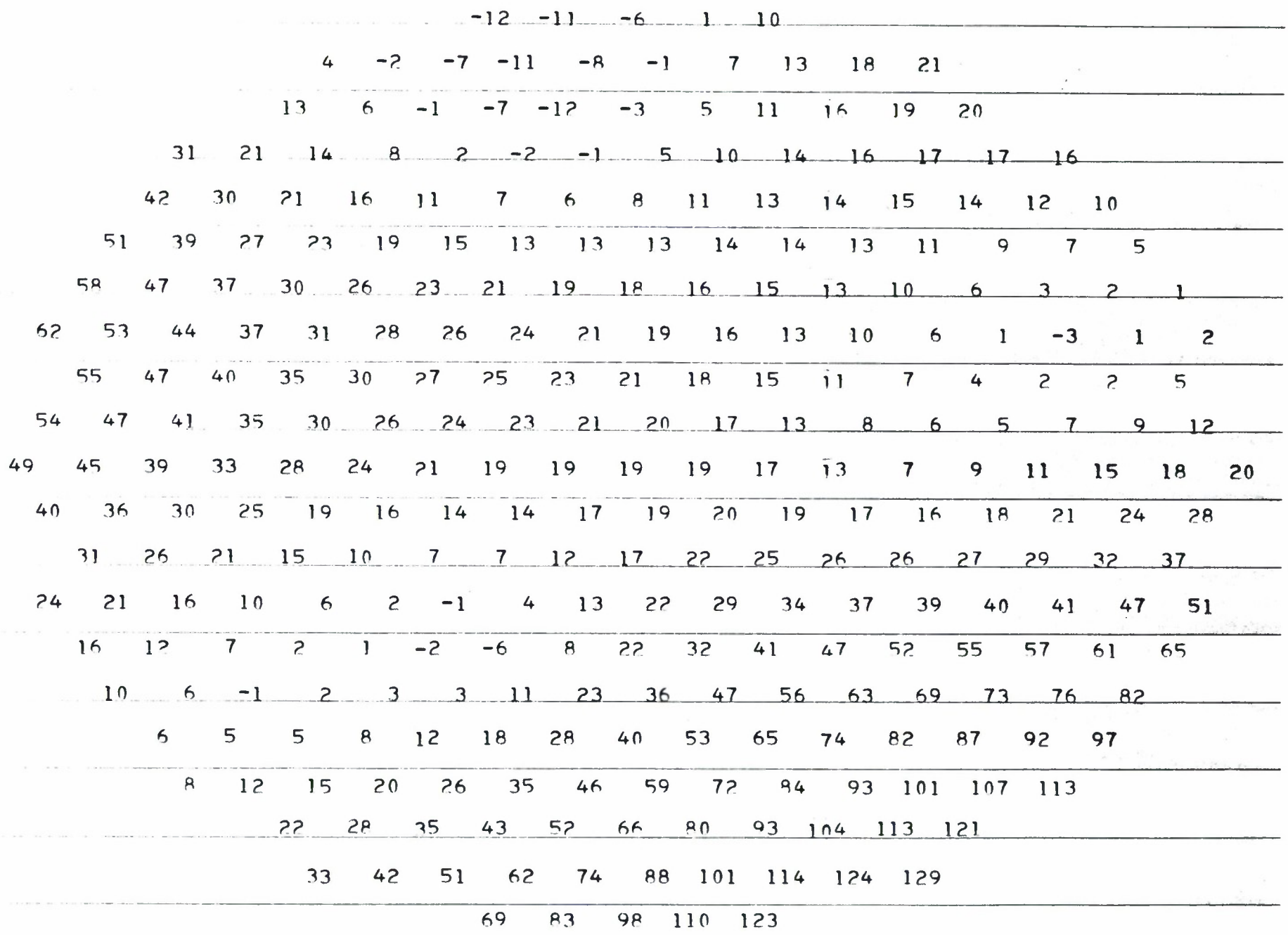
									-17	-16	-11	-3	6										
							-0	-7	-11	-14	-11	-4	4	11	15	17							
						9	2	-3	-9	-14	-5	3	9	14	16	17							
					26	18	11	6	1	-3	-2	4	9	13	15	15	14	12					
				37	26	18	14	10	7	6	8	11	13	14	14	12	9	6					
			47	36	25	22	19	16	15	14	15	15	15	13	11	8	4	1					
		54	45	36	29	26	24	23	21	20	18	16	14	10	6	1	-1	-3					
	60	51	43	36	32	29	28	26	24	22	19	15	11	6	1	-5	-3	-2					
		53	46	40	35	32	30	28	26	24	21	18	13	9	4	1	-0	1					
	53	47	41	36	31	28	27	26	25	23	20	16	11	7	5	5	6	8					
48	44	39	34	29	25	23	22	22	23	22	20	16	9	9	11	13	14	15					
40	35	30	25	21	18	16	17	20	22	23	22	19	17	18	20	22	24						
	30	26	21	15	12	9	10	15	20	25	28	28	28	28	28	30	33						
23	20	16	10	6	4	1	6	16	25	31	36	38	39	39	39	43	46						
	14	11	6	1	1	-1	-4	10	24	34	42	48	52	54	55	58	61						
	7	4	-2	1	3	4	12	24	37	48	57	63	68	71	73	78							
	3	2	4	7	11	18	28	40	53	64	73	80	86	89	93								
	5	9	13	18	25	33	44	58	71	83	92	99	104	108									
		18	24	32	40	50	64	78	91	101	110	117											
		29	38	47	58	71	85	98	110	121	126												
					64	78	93	106	118														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF311 COLUMN 02

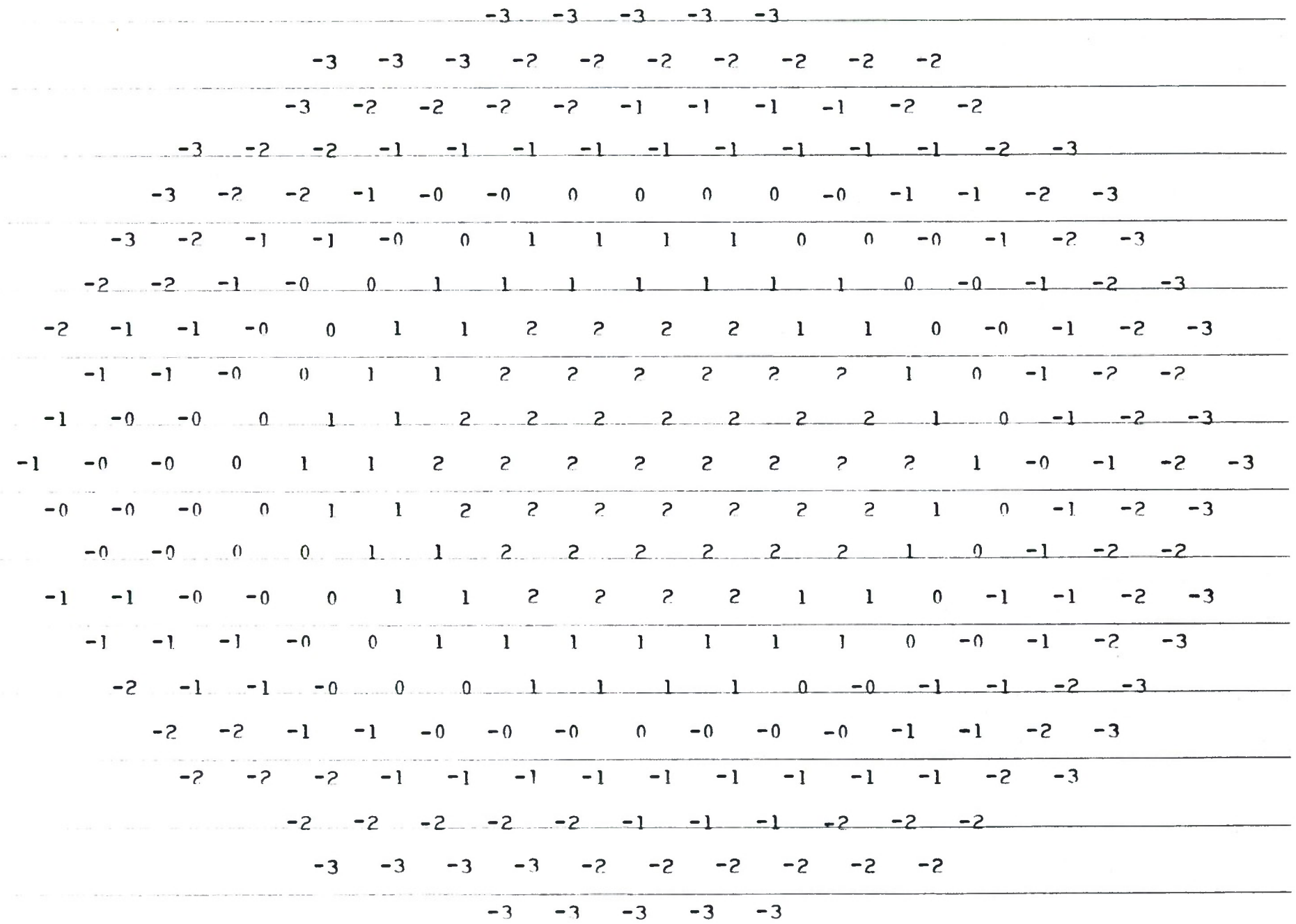


THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF311 COLUMN 03

| | | |



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF312 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF312 COLUMN 03

17 16 11 3 -6

0 7 11 14 11 4 -4 -11 -15 -17

-9 -2 3 9 14 5 -3 -9 -14 -16 -17

-26 -18 -11 -6 -1 3 2 -4 -9 -13 -15 -15 -14 -12

-37 -26 -18 -14 -10 -7 -6 -8 -11 -13 -14 -14 -12 -9 -6

-47 -36 -25 -22 -19 -16 -15 -14 -15 -15 -15 -13 -11 -8 -4 -1

-54 -45 -36 -29 -26 -24 -23 -21 -20 -18 -16 -14 -10 -6 -1 1 3

-60 -51 -43 -36 -32 -29 -28 -26 -24 -22 -19 -15 -11 -6 -1 5 3 2

-53 -46 -40 -35 -32 -30 -28 -26 -24 -21 -18 -13 -9 -4 -1 0 -1

-53 -47 -41 -36 -31 -28 -27 -26 -25 -23 -20 -16 -11 -7 -5 -5 -6 -8

-48 -44 -39 -34 -29 -25 -23 -22 -22 -23 -22 -20 -16 -9 -9 -11 -13 -14 -15

-40 -35 -30 -25 -21 -18 -16 -17 -20 -22 -23 -22 -19 -17 -18 -20 -22 -24

-30 -26 -21 -15 -12 -9 -10 -15 -20 -25 -28 -28 -28 -28 -28 -30 -33

-23 -20 -16 -10 -6 -4 -1 -6 -16 -25 -31 -36 -38 -39 -39 -39 -43 -46

-14 -11 -6 -1 -1 1 4 -10 -24 -34 -42 -48 -52 -54 -55 -58 -61

-7 -4 2 -1 -3 -4 -12 -24 -37 -48 -57 -63 -68 -71 -73 -78

-3 -2 -4 -7 -11 -18 -28 -40 -53 -64 -73 -80 -86 -89 -93

-5 -9 -13 -18 -25 -33 -44 -58 -71 -83 -92 -99 -104 -108

-18 -24 -32 -40 -50 -64 -78 -91 -101 -110 -117

-29 -38 -47 -58 -71 -85 -98 -110 -121 -126

-64 -78 -93 -106 -118

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF313 COLUMN 01

-1 -0 4 11 19

15 7 2 -2 -0 6 13 20 25 28

22 14 6 -1 -6 2 9 15 20 24 27

42 30 20 13 6 1 1 6 12 16 19 22 24 25

52 37 26 19 12 8 6 7 10 13 15 17 18 19 19

60 45 32 25 19 13 11 10 11 12 12 13 13 13 13 15

65 52 41 32 25 20 16 14 13 12 11 10 9 8 7 9 12

69 57 47 38 30 25 21 18 15 13 11 9 7 5 3 2 8 13

59 49 41 34 27 22 19 16 14 11 9 6 4 3 4 7 14

57 49 41 34 27 22 18 15 13 12 9 6 3 2 5 10 15 21

52 47 40 33 26 20 15 12 11 11 11 9 6 1 6 13 19 26 30

42 36 30 24 17 11 7 7 9 11 12 12 11 13 18 24 31 38

80

32 27 20 13 7 2 0 4 10 15 19 21 23 27 31 37 45

26 23 18 10 4 -1 -6 -3 7 16 24 30 34 38 42 46 55 62

20 15 9 3 -0 -5 -10 3 17 28 37 45 51 56 61 68 76

15 10 3 3 3 1 8 20 33 45 55 63 71 77 83 92

13 11 10 11 13 18 28 40 53 65 75 84 92 99 107

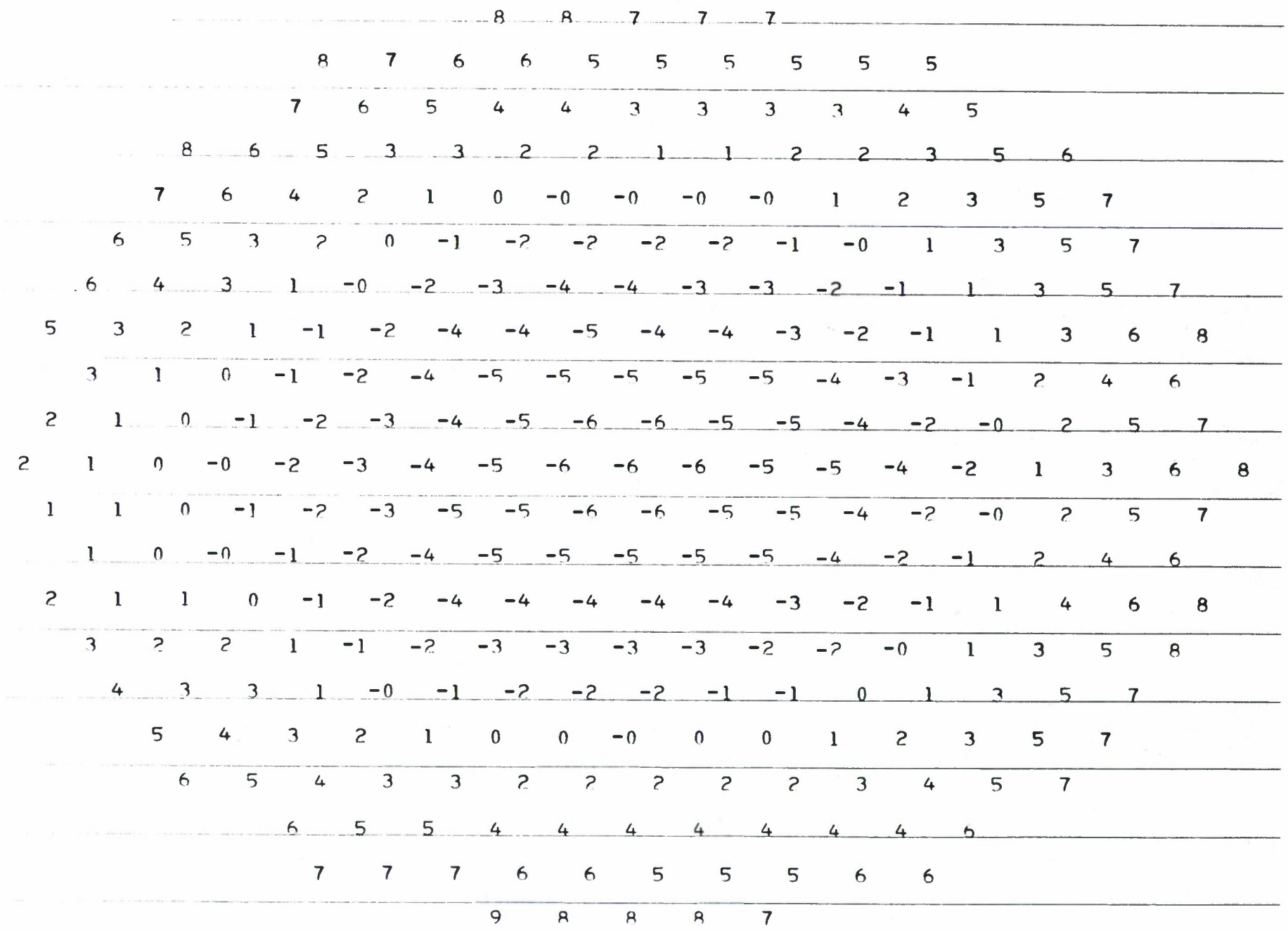
17 19 21 24 30 38 48 62 75 87 97 106 114 122

30 35 41 49 58 72 85 98 109 119 128

43 52 60 70 82 96 109 121 132 138

81 95 109 121 133

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATREX TDF 313 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 313 COLUMN 03

-7 -7 -11 -17 -25

-22 -14 -8 -3 -4 -11 -18 -24 -30 -33

-29 -19 -11 -3 3 -5 -12 -18 -23 -28 -32

-49 -36 -25 -16 -8 -3 -2 -8 -13 -18 -21 -25 -28 -31

-59 -43 -30 -21 -13 -8 -6 -7 -10 -13 -16 -18 -21 -23 -25

-66 -50 -35 -27 -19 -12 -9 -8 -9 -10 -11 -13 -14 -16 -18 -22

-71 -56 -44 -33 -25 -18 -13 -11 -9 -9 -8 -8 -8 -9 -10 -14 -19

-73 -60 -48 -39 -30 -22 -17 -13 -11 -9 -7 -6 -5 -4 -4 -5 -14 -21

-61 -50 -41 -33 -25 -19 -15 -11 -9 -6 -4 -2 -1 -3 -5 -11 -20

-59 -50 -41 -33 -25 -19 -14 -10 -8 -6 -4 -2 1 -0 -5 -12 -20 -28

-53 -48 -40 -32 -25 -17 -11 -7 -6 -6 -5 -4 -1 3 -5 -13 -22 -31 -37

-43 -37 -30 -23 -15 -8 -3 -2 -4 -6 -7 -8 -7 -11 -18 -26 -35 -44

-33 -27 -20 -12 -5 2 4 0 -5 -10 -14 -17 -21 -26 -33 -41 -51

-27 -24 -18 -10 -3 4 10 7 -2 -12 -20 -27 -32 -37 -43 -49 -60 -69

-22 -17 -10 -3 1 7 14 0 -14 -26 -35 -43 -51 -57 -64 -73 -83

-19 -13 -5 -4 -2 -0 -6 -19 -32 -44 -54 -64 -72 -80 -88 -99

-18 -15 -13 -13 -14 -19 -28 -40 -53 -65 -76 -86 -95 -104 -113

-23 -23 -25 -27 -32 -40 -50 -63 -76 -89 -100 -110 -119 -129

-36 -40 -46 -53 -62 -75 -88 -101 -113 -124 -134

-50 -58 -67 -76 -88 -101 -114 -126 -137 -143

-89 -103 -117 -129 -140

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 321 COLUMN 01

| | | |

-16 -15 -14 -13 -13

-15 -14 -12 -11 -10 -9 -9 -9 -10 -10

-14 -11 -9 -8 -7 -6 -6 -6 -6 -8 -10

-15 -12 -9 -7 -5 -4 -3 -2 -2 -3 -4 -6 -9 -13

-14 -11 -8 -5 -2 -1 0 1 1 0 -1 -3 -6 -9 -13

-13 -9 -7 -3 -0 2 4 4 4 3 2 0 -2 -5 -9 -14

-11 -8 -5 -2 1 4 7 7 7 6 5 4 1 -2 -6 -10 -14

-9 -6 -4 -1 1 4 7 9 9 9 8 7 4 1 -2 -7 -11 -15

-5 -3 -1 2 4 7 9 10 10 10 9 8 5 1 -3 -7 -12

-4 -2 -0 1 4 6 9 10 11 11 11 10 8 5 0 -4 -9 -13

-3 -2 -1 1 3 6 8 10 11 11 11 11 9 8 3 -2 -6 -11 -15

-2 -1 -0 2 4 7 9 10 11 11 11 10 8 4 0 -4 -9 -13

-2 -1 0 2 5 7 9 10 10 10 9 7 5 1 -3 -7 -12

-3 -3 -2 -0 2 5 7 9 9 8 8 6 4 1 -3 -7 -11 -15

-5 -4 -3 -1 1 4 7 7 6 6 5 3 1 -2 -6 -10 -15

-8 -6 -5 -2 0 2 3 4 3 3 2 -0 -3 -6 -9 -14

-10 -8 -6 -4 -2 -1 -0 0 -0 -1 -2 -4 -6 -10 -14

-12 -10 -8 -6 -5 -4 -4 -3 -3 -4 -5 -7 -10 -13

-12 -10 -9 -9 -8 -7 -7 -7 -8 -9 -11

-14 -13 -13 -12 -11 -11 -11 -10 -11 -12

-17 -16 -16 -15 -14

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF321 COLUMN 03

2 2 -2 -9 -18

-13 -6 -0 4 2 -5 -12 -19 -24 -27

-21 -12 -5 2 7 -1 -8 -14 -19 -23 -26

-40 -29 -19 -12 -5 -1 -1 -6 -11 -16 -19 -21 -23 -24

-50 -36 -25 -18 -12 -8 -6 -7 -10 -13 -15 -17 -17 -18 -18

-58 -44 -31 -25 -19 -14 -11 -11 -11 -12 -13 -13 -13 -12 -12 -13

-64 -51 -41 -32 -25 -20 -17 -15 -13 -12 -12 -10 -9 -8 -7 -8 -10

-68 -56 -46 -38 -30 -25 -22 -19 -16 -14 -12 -9 -7 -5 -3 -1 -7 -12

-58 -49 -41 -34 -28 -23 -20 -17 -15 -12 -10 -6 -4 -3 -3 -6 -12

-56 -49 -41 -34 -28 -23 -19 -16 -15 -13 -11 -7 -3 -3 -5 -9 -14 -20

-51 -46 -40 -33 -26 -20 -16 -13 -13 -12 -12 -11 -7 -2 -7 -12 -18 -24 -29

-42 -36 -30 -24 -17 -12 -8 -8 -10 -12 -14 -14 -12 -13 -18 -24 -30 -36

-32 -27 -20 -13 -7 -3 -1 -6 -11 -16 -20 -22 -23 -27 -31 -37 -44

-26 -23 -17 -10 -4 1 6 2 -8 -17 -24 -30 -35 -38 -41 -45 -53 -60

-19 -15 -9 -2 -0 4 10 -4 -18 -29 -38 -45 -51 -56 -61 -67 -74

-14 -10 -2 -3 -3 -2 -9 -21 -34 -45 -55 -63 -70 -76 -82 -91

-12 -10 -9 -11 -13 -18 -28 -40 -53 -65 -75 -84 -91 -98 -105

-16 -18 -20 -24 -29 -37 -48 -61 -74 -86 -96 -105 -113 -121

-29 -34 -40 -48 -57 -71 -84 -97 -108 -118 -127

-41 -50 -59 -69 -81 -94 -108 -120 -131 -136

-79 -93 -107 -120 -131

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF322 COLUMN 01

-15 -14 -9 -2 7

1 -5 -10 -13 -10 -3 5 12 16 19

10 4 -2 -8 -13 -4 4 10 14 17 18

28 19 12 6 1 -2 -2 4 9 13 15 16 15 14

39 28 19 15 10 7 6 8 11 13 14 14 13 10 7

48 37 26 22 19 15 14 14 14 15 14 13 11 8 5 2

56 45 37 30 26 23 22 21 19 17 16 13 10 6 2 -0 -1

61 51 43 37 32 29 27 25 23 21 18 15 11 6 1 -4 -2 -1

54 46 40 35 31 29 27 25 23 20 17 12 8 4 1 0 3

53 47 41 35 31 28 26 25 23 22 19 15 10 6 5 6 7 9

49 45 39 34 29 25 22 21 21 21 21 19 15 8 9 11 13 16 17

40 35 30 25 20 17 15 16 19 21 22 21 18 17 18 20 23 25

30 26 21 15 11 8 9 13 19 24 27 27 27 27 28 31 34

23 20 16 10 6 3 0 5 15 24 31 35 38 39 39 39 45 48

15 12 6 1 1 -1 -4 9 23 34 42 48 52 54 56 59 63

8 5 -2 1 3 3 11 24 36 48 57 63 68 72 75 79

4 3 4 7 11 18 28 40 53 64 74 81 86 90 94

6 10 14 19 25 34 45 59 72 83 92 99 105 110

19 26 33 41 51 65 79 91 102 111 119

30 40 49 59 72 86 99 112 122 127

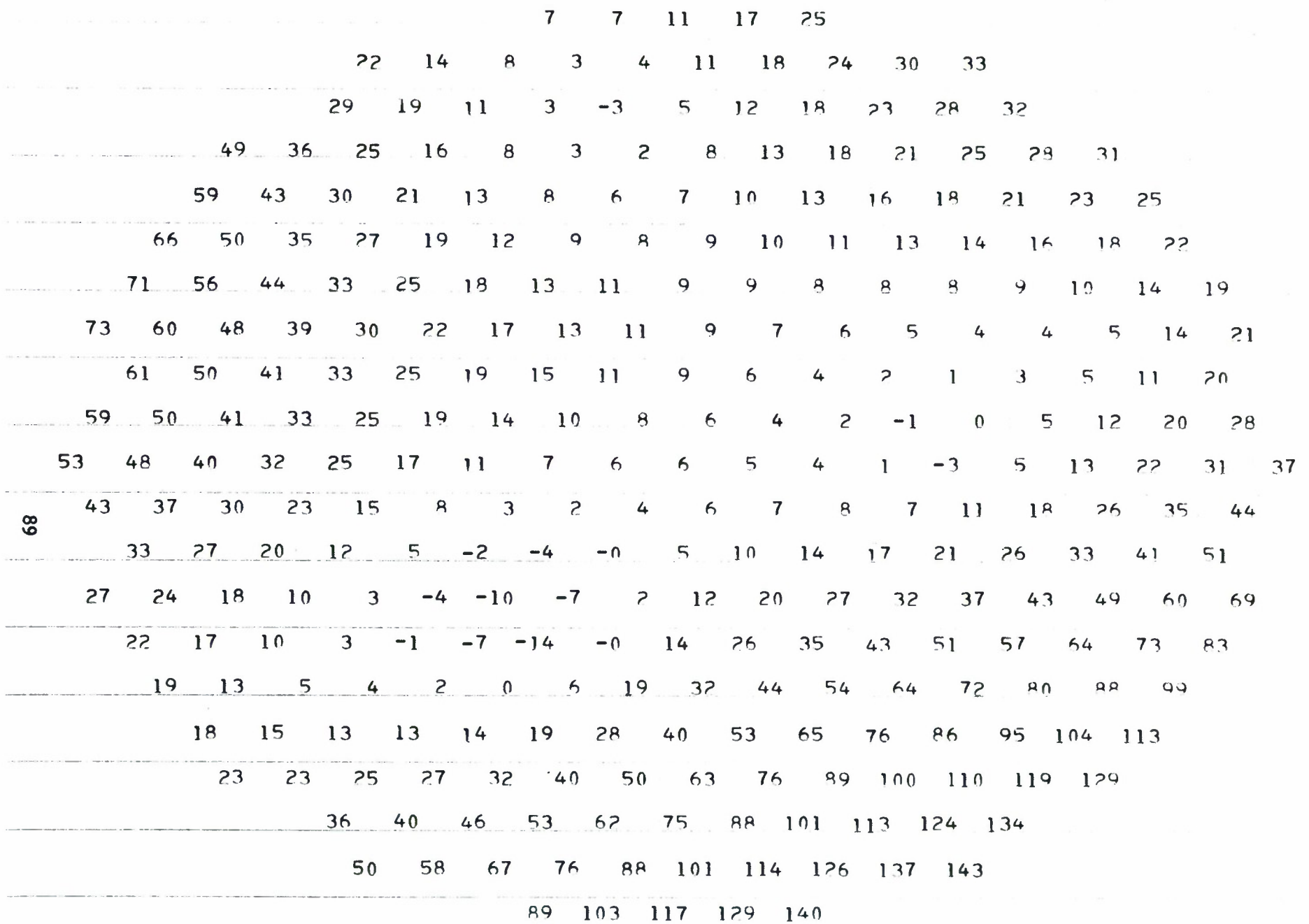
66 80 95 107 120

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 322 COLUMN 02

| | | |

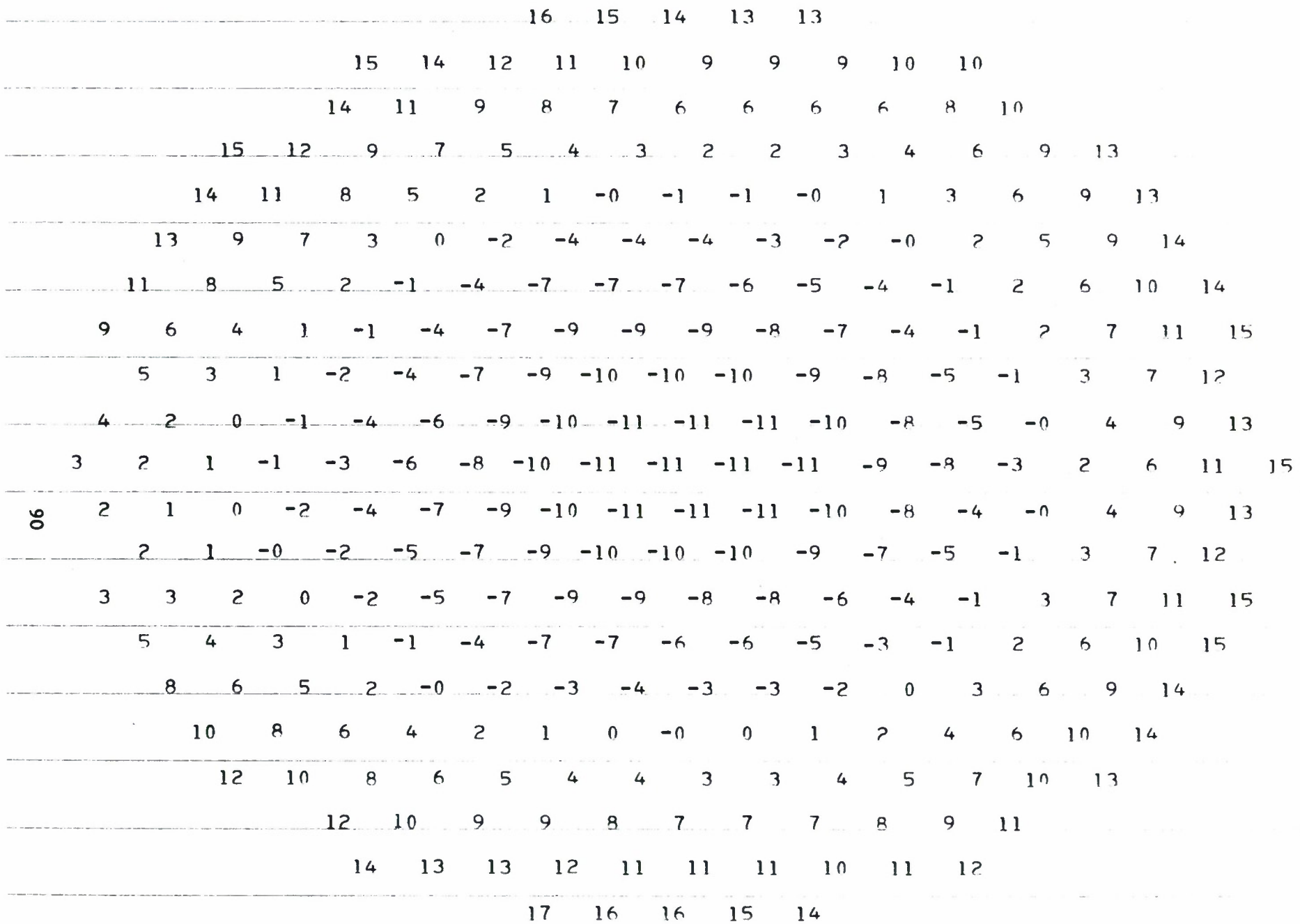
```
                                24  23  17  10   0
                            8  13  17  20  16   8   0  -6 -10 -12
                         -2   3   8  13  18   8  -1  -7 -11 -13 -12
                     -19 -12  -6  -2   2   5   4  -3  -8 -11 -13 -12 -10  -6
                   -31 -21 -15 -12  -9  -7  -6  -8 -11 -13 -14 -12 -10  -5   1
                -41 -32 -22 -20 -18 -17 -16 -16 -17 -17 -16 -13 -10  -5   0   6
             -49 -41 -34 -28 -26 -26 -26 -25 -23 -21 -19 -16 -11  -5   1   6  10
          -55 -48 -41 -36 -32 -31 -32 -31 -28 -26 -23 -19 -14  -7   1   8   8  10
             -51 -45 -40 -36 -34 -33 -33 -31 -29 -26 -22 -17 -11  -5   1   4   4
          -51 -45 -41 -36 -33 -32 -31 -31 -30 -28 -26 -21 -15  -9  -5  -3  -2  -1
       -47 -43 -39 -34 -31 -28 -27 -27 -28 -28 -28 -25 -20 -13 -11 -10 -10  -9  -8
          -39 -35 -30 -26 -23 -21 -20 -22 -25 -28 -28 -27 -23 -20 -18 -18 -17 -17
             -29 -25 -21 -16 -14 -13 -14 -19 -25 -30 -32 -32 -30 -28 -26 -26 -27
          -21 -19 -15 -10  -7  -6  -4 -10 -20 -29 -35 -39 -40 -40 -38 -35 -38 -38
             -11  -9  -4  -1  -2  -1   0 -14 -27 -37 -45 -50 -52 -53 -52 -53 -54
                -4  -1   5   0  -3  -5 -13 -26 -38 -49 -58 -63 -66 -68 -69 -71
                 2   2  -1  -5 -10 -17 -28 -40 -53 -64 -73 -79 -83 -85 -86
                   1  -4  -9 -15 -22 -31 -43 -57 -70 -81 -89 -95 -99 -102
                      -12 -19 -27 -36 -46 -61 -75 -87 -98 -106 -112
                        -22 -32 -41 -52 -65 -79 -93 -105 -115 -120
                                -56 -70 -85 -98 -111
```

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF323 COLUMN 01



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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 323 COLUMN 02



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 323 COLUMN 03

-139 -136 -141 -147 -158

-145 -129 -111 -98 -95 -101 -113 -128 -145 -157

-141 -113 -89 -70 -55 -60 -70 -84 -102 -122 -145

-169 -133 -101 -73 -49 -31 -23 -28 -40 -58 -78 -102 -128 -156

-170 -128 -92 -61 -32 -7 9 14 6 -10 -32 -58 -85 -113 -145

-171 -126 -87 -53 -19 14 41 57 58 43 18 -11 -41 -71 -102 -141

-167 -125 -88 -51 -14 26 64 93 105 99 75 40 4 -29 -61 -96 -135

-160 -125 -90 -54 -15 28 75 115 139 143 128 94 51 12 -24 -58 -99 -139

-122 -90 -58 -20 24 76 125 159 174 167 142 99 52 9 -30 -71 -113

-115 -90 -62 -28 14 65 121 164 189 192 175 140 91 42 -4 -48 -91 -132

-102 -87 -66 -38 -1 47 104 156 188 201 192 164 120 71 20 -29 -74 -117 -150

-82 -67 -47 -16 26 77 133 173 193 192 171 133 82 31 -17 -63 -106 -148

-68 -52 -30 4 46 97 144 170 176 162 130 82 31 -15 -58 -101 -145

-65 -59 -43 -17 16 56 103 135 145 137 112 71 21 -23 -64 -102 -146 -187

-74 -59 -39 -13 15 52 90 101 97 79 45 2 -41 -80 -118 -157 -201

-84 -65 -43 -23 0 26 41 43 30 5 -30 -67 -103 -139 -175 -221

-95 -80 -63 -47 -31 -20 -17 -25 -43 -69 -99 -132 -164 -199 -237

-116 -103 -92 -82 -74 -72 -77 -91 -112 -137 -164 -194 -226 -259

-135 -128 -124 -124 -127 -139 -156 -177 -201 -227 -256

-164 -171 -173 -178 -187 -202 -221 -241 -264 -278

-227 -242 -258 -271 -286

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF331 COLUMN 01

-156 -153 -147 -139 -133

-131 -128 -120 -115 -106 -99 -96 -98 -105 -112

-110 -97 -87 -80 -75 -63 -58 -60 -68 -82 -101

-101 -85 -70 -55 -43 -32 -24 -18 -19 -29 -44 -65 -90 -119

-81 -64 -47 -28 -9 8 22 29 27 16 -3 -27 -54 -85 -121

-64 -44 -29 -6 18 43 67 81 83 70 45 15 -17 -50 -84 -125

-47 -28 -11 10 37 70 103 128 137 129 103 64 23 -15 -53 -88 -127

-32 -17 -0 20 47 82 124 159 178 177 157 118 69 23 -20 -61 -94 -128

-10 5 23 48 82 128 172 201 211 200 168 118 64 17 -26 -64 -97

-5 5 20 42 72 116 166 205 227 227 205 163 104 51 7 -33 -69 -103

-2 4 13 29 55 92 142 190 222 235 225 194 142 81 35 -5 -42 -77 -104

-1 4 13 33 63 106 156 197 222 226 207 168 112 61 19 -19 -54 -87

-6 -0 11 33 65 108 154 189 206 202 176 131 81 39 1 -34 -66

-16 -16 -9 3 26 58 98 138 167 178 167 136 93 54 17 -18 -48 -80

-41 -32 -24 -10 17 47 76 115 138 141 125 94 62 30 -1 -31 -64

-62 -50 -42 -19 6 31 61 87 100 97 82 60 35 9 -18 -50

-80 -66 -49 -29 -7 16 39 56 63 60 50 33 13 -10 -38

-94 -76 -58 -39 -20 -1 16 29 34 33 24 11 -7 -29

-87 -68 -51 -34 -19 -3 7 11 10 3 -10

-93 -81 -65 -50 -34 -21 -14 -10 -12 -15

-83 -69 -56 -44 -34

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF331 COLUMN 02

-148 -145 -144 -143 -145

-138 -129 -116 -107 -100 -100 -105 -113 -125 -135

-125 -105 -88 -75 -65 -61 -64 -72 -85 -102 -123

-135 -109 -85 -64 -46 -32 -23 -23 -30 -43 -61 -83 -109 -138

-125 -96 -70 -45 -20 0 15 22 17 3 -18 -43 -70 -99 -133

-118 -85 -58 -30 -1 29 54 69 70 57 31 2 -29 -61 -93 -133

-107 -77 -50 -21 11 48 84 110 121 114 89 52 14 -22 -57 -92 -131

-96 -71 -45 -17 16 55 100 137 158 160 143 106 60 18 -22 -59 -97 -133

-66 -43 -17 14 53 102 149 180 192 184 155 109 58 13 -28 -67 -105

-60 -43 -21 7 43 90 144 185 208 210 190 152 98 47 1 -40 -80 -118

-52 -42 -27 -5 27 69 123 173 205 218 209 179 131 76 27 -17 -58 -97 -127

-41 -32 -17 8 44 91 144 185 207 209 189 151 97 46 1 -41 -80 -118

-37 -26 -10 18 55 103 149 179 191 182 153 107 56 12 -29 -68 -105

-41 -38 -26 -7 21 57 100 137 156 157 140 103 57 15 -23 -60 -97 -134

-57 -45 -32 -11 16 49 83 108 117 110 85 48 10 -25 -59 -94 -132

-73 -58 -43 -21 3 29 51 65 65 51 26 -3 -34 -65 -96 -136

-88 -73 -56 -38 -19 -2 11 15 10 -5 -25 -49 -76 -104 -137

-105 -89 -75 -60 -47 -36 -30 -31 -39 -52 -70 -92 -116 -144

-111 -98 -88 -79 -73 -71 -74 -83 -96 -112 -133

-129 -126 -119 -114 -110 -111 -117 -126 -138 -146

-155 -156 -157 -158 -160

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF331 COLUMN 03

-50 -50 -54 -61 -71

-62 -52 -42 -34 -34 -41 -51 -60 -70 -77

-66 -50 -37 -25 -16 -23 -32 -41 -51 -61 -71

-88 -67 -50 -35 -22 -12 -9 -14 -22 -32 -42 -52 -62 -74

-95 -70 -50 -34 -19 -7 0 1 -4 -12 -22 -32 -43 -54 -66

-101 -75 -52 -35 -19 -3 9 15 15 9 -1 -12 -23 -34 -46 -61

-103 -79 -58 -39 -21 -3 14 26 32 31 22 9 -4 -16 -27 -41 -57

-103 -82 -63 -44 -25 -5 15 33 44 47 42 30 15 1 -11 -22 -41 -59

-82 -65 -47 -29 -8 15 36 51 58 57 49 34 17 2 -13 -30 -50

-79 -65 -49 -32 -12 11 35 54 64 67 61 49 32 14 -5 -24 -43 -62

-71 -62 -50 -35 -17 5 30 52 65 70 67 57 41 25 3 -19 -39 -59 -74

-57 -48 -37 -21 -1 22 46 62 69 67 58 43 24 3 -18 -38 -58 -78

-46 -37 -24 -7 13 36 54 62 62 53 38 18 -3 -22 -41 -61 -81

-41 -37 -27 -13 3 22 43 53 51 43 28 9 -13 -32 -50 -66 -88 -107

-40 -31 -20 -6 6 22 40 36 27 13 -6 -27 -47 -65 -82 -100 -121

-40 -30 -17 -11 -1 9 11 4 -9 -26 -46 -65 -83 -100 -117 -139

-43 -36 -29 -24 -20 -19 -24 -34 -49 -67 -84 -102 -119 -136 -155

-53 -49 -47 -45 -46 -50 -59 -72 -88 -106 -122 -139 -156 -173

-68 -69 -71 -76 -83 -96 -111 -127 -144 -160 -176

-87 -95 -102 -110 -121 -135 -150 -166 -181 -190

-134 -148 -164 -177 -190

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF332 COLUMN 01

					-68	-66	-61	-53	-46									
				-48	-51	-51	-51	-46	-39	-33	-30	-30	-31					
			-35	-34	-34	-35	-36	-26	-19	-17	-17	-21	-27					
		-20	-20	-19	-17	-15	-14	-10	-4	-2	-3	-8	-15	-25	-37			
		-6	-7	-6	-1	3	8	12	16	17	14	8	-2	-13	-26	-41		
	6	7	5	11	19	26	34	40	41	36	26	14	0	-14	-29	-45		
17	18	19	22	30	41	53	62	64	60	49	33	15	-2	-19	-33	-48		
26	25	27	30	37	49	64	77	83	81	72	55	33	13	-7	-25	-36	-48	
30	30	33	40	50	67	83	93	96	90	75	53	29	9	-9	-23	-34		
31	31	33	38	47	61	80	94	102	101	91	72	46	23	6	-9	-21	-32	
29	29	29	31	38	50	68	86	99	104	100	87	63	36	19	5	-7	-19	-28
24	23	24	28	36	51	69	86	97	100	94	78	54	34	19	6	-6	-16	
16	16	17	22	31	47	65	81	91	93	84	67	48	32	18	7	-3		
8	6	6	7	14	24	37	56	74	83	83	74	59	45	31	18	10	0	
-6	-5	-5	-3	7	17	26	50	67	75	74	66	55	45	34	25	16		
-18	-16	-17	-7	4	14	30	48	61	67	66	62	56	48	40	31			
-27	-22	-16	-6	5	17	32	46	57	63	64	63	58	52	45				
-31	-22	-13	-3	8	21	34	48	58	64	66	66	63	58					
	-20	-9	1	13	25	39	52	61	67	70	70							
	-16	-5	6	18	32	46	57	66	71	73								
		10	24	38	50	62												

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF332 COLUMN 02

-59 -58 -58 -57 -58

-55 -51 -46 -43 -40 -40 -42 -45 -50 -54

-50 -42 -35 -30 -26 -25 -26 -29 -34 -41 -49

-54 -44 -34 -26 -18 -13 -9 -9 -12 -17 -25 -33 -44 -55

-50 -39 -28 -18 -8 0 6 9 7 1 -7 -17 -28 -40 -53

-47 -34 -23 -12 -0 11 22 28 28 23 13 1 -12 -24 -37 -53

-43 -31 -20 -8 5 19 33 44 48 46 36 21 5 -9 -23 -37 -52

-38 -29 -18 -7 6 22 40 55 63 64 57 42 24 7 -9 -24 -39 -53

-26 -17 -7 6 21 41 59 72 77 74 62 43 23 5 -11 -27 -42

-24 -17 -8 3 17 36 58 74 83 84 76 61 39 19 1 -16 -32 -47

-21 -17 -11 -2 11 28 49 69 82 87 84 72 52 30 11 -7 -23 -39 -51

-16 -13 -7 3 18 37 58 74 83 84 76 60 39 18 0 -16 -32 -47

-15 -10 -4 7 22 41 59 72 76 73 61 43 22 5 -12 -27 -42

-16 -15 -11 -3 8 23 40 55 62 63 56 41 23 6 -9 -24 -39 -53

-23 -18 -13 -5 6 20 33 43 47 44 34 19 4 -10 -24 -38 -53

-29 -23 -17 -9 1 11 21 26 26 20 10 -1 -14 -26 -39 -54

-35 -29 -22 -15 -8 -1 4 6 4 -2 -10 -20 -30 -42 -55

-42 -36 -30 -24 -19 -14 -12 -12 -15 -21 -28 -37 -47 -58

-44 -39 -35 -32 -29 -28 -30 -33 -38 -45 -53

-51 -50 -48 -46 -44 -45 -47 -50 -55 -59

-62 -62 -63 -63 -64

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF TEH Z DEFELCTIONS IN MATRIX TDF332 COLUMN 03

156 153 147 139 133

131 128 120 115 106 99 96 98 105 112

110 97 87 80 75 63 58 60 68 82 101

101 85 70 55 43 32 24 18 19 29 44 65 90 119

81 64 47 28 9 -8 -22 -29 -27 -16 3 27 54 85 121

64 44 29 6 -18 -43 -67 -81 -83 -70 -45 -15 17 50 84 125

47 28 11 -10 -37 -70 -103 -128 -137 -129 -103 -64 -23 15 53 88 127

32 17 0 -20 -47 -82 -124 -159 -178 -177 -157 -118 -69 -23 20 61 94 128

10 -5 -23 -48 -82 -128 -172 -201 -211 -200 -168 -118 -64 -17 26 64 97

5 -5 -20 -42 -72 -116 -166 -205 -227 -227 -205 -163 -104 -51 -7 33 69 103

2 -4 -13 -29 -55 -92 -142 -190 -222 -235 -225 -194 -142 -81 -35 5 42 77 104

1 -4 -13 -33 -63 -106 -156 -197 -222 -226 -207 -168 -112 -61 -19 19 54 87

6 0 -11 -33 -65 -108 -154 -189 -206 -202 -176 -131 -81 -39 -1 34 66

16 16 9 -3 -26 -58 -98 -138 -167 -178 -167 -136 -93 -54 -17 18 48 80

41 32 24 10 -17 -47 -76 -115 -138 -141 -125 -94 -62 -30 1 31 64

62 50 42 19 -6 -31 -61 -87 -100 -97 -82 -60 -35 -9 18 50

80 66 49 29 7 -16 -39 -56 -63 -60 -50 -33 -13 10 38

94 76 58 39 20 1 -16 -29 -34 -33 -24 -11 7 29

87 68 51 34 19 3 -7 -11 -10 -3 10

93 81 65 50 34 21 14 10 12 15

83 69 56 44 34

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF333 COLUMN 01

139 136 141 147 158

145 129 111 98 95 101 113 128 145 157

141 113 89 70 55 60 70 84 102 122 145

169 133 101 73 49 31 23 28 40 58 78 102 128 156

170 128 92 61 32 7 -9 -14 -6 10 32 58 85 113 145

171 126 87 53 19 -14 -41 -57 -58 -43 -18 11 41 71 102 141

167 125 88 51 14 -26 -64 -93 -105 -99 -75 -40 -4 29 61 96 135

160 125 90 54 15 -28 -75 -115 -139 -143 -128 -94 -51 -12 24 58 99 139

122 90 58 20 -24 -76 -125 -159 -174 -167 -142 -99 -52 -9 30 71 113

115 90 62 28 -14 -65 -121 -164 -189 -192 -175 -140 -91 -42 4 48 91 132

102 87 66 38 1 -47 -104 -156 -188 -201 -192 -164 -120 -71 -20 29 74 117 150

82 67 47 16 -26 -77 -133 -173 -193 -192 -171 -133 -82 -31 17 63 106 148

68 52 30 -4 -46 -97 -144 -170 -176 -162 -130 -82 -31 15 58 101 145

65 59 43 17 -16 -56 -103 -135 -145 -137 -112 -71 -21 23 64 102 146 187

74 59 39 13 -15 -52 -90 -101 -97 -79 -45 -2 41 80 118 157 201

84 65 43 23 -0 -26 -41 -43 -30 -5 30 67 103 139 175 221

95 80 63 47 31 20 17 25 43 69 99 132 164 199 237

116 103 92 82 74 72 77 91 112 137 164 194 226 259

135 128 124 124 127 139 156 177 201 227 256

164 171 173 178 187 202 221 241 264 278

227 242 258 271 286

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF333 COLUMN 02

148 145 144 143 145

138 129 116 107 100 100 105 113 125 135

125 105 88 75 65 61 64 72 85 102 123

135 109 85 64 46 32 23 23 30 43 61 83 109 138

125 96 70 45 20 -0 -15 -22 -17 -3 18 43 70 99 133

118 85 58 30 1 -29 -54 -69 -70 -57 -31 -2 29 61 93 133

107 77 50 21 -11 -48 -84 -110 -121 -114 -89 -52 -14 22 57 92 131

96 71 45 17 -16 -55 -100 -137 -158 -160 -143 -106 -60 -18 22 59 97 133

66 43 17 -14 -53 -102 -149 -180 -192 -184 -155 -109 -58 -13 28 67 105

60 43 21 -7 -43 -90 -144 -185 -208 -210 -190 -152 -98 -47 -1 40 80 118

52 42 27 5 -27 -69 -123 -173 -205 -218 -209 -179 -131 -76 -27 17 58 97 127

41 32 17 -8 -44 -91 -144 -185 -207 -209 -189 -151 -97 -46 -1 41 80 118

66 37 26 10 -18 -55 -103 -149 -179 -191 -182 -153 -107 -56 -12 29 68 105

41 38 26 7 -21 -57 -100 -137 -156 -157 -140 -103 -57 -15 23 60 97 134

57 45 32 11 -16 -49 -83 -108 -117 -110 -85 -48 -10 25 59 94 132

73 58 43 21 -3 -29 -51 -65 -65 -51 -26 3 34 65 96 136

88 73 56 38 19 2 -11 -15 -10 5 25 49 76 104 137

105 89 75 60 47 36 30 31 39 52 70 92 116 144

111 98 88 79 73 71 74 83 96 112 133

129 126 119 114 110 111 117 126 138 146

155 156 157 158 160

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF333 COLUMN 03

-277 -270 -273 -279 -292

-275 -250 -219 -196 -186 -191 -208 -231 -259 -280

-259 -212 -172 -138 -112 -112 -125 -147 -177 -213 -255

-298 -237 -184 -136 -92 -56 -36 -39 -59 -92 -131 -175 -224 -277

-292 -222 -161 -107 -54 -6 30 43 32 1 -44 -93 -145 -199 -260

-289 -212 -146 -88 -27 33 81 110 114 94 51 -6 -65 -123 -181 -254

-277 -207 -144 -80 -13 57 114 159 180 173 142 87 19 -47 -110 -174 -246

-262 -205 -144 -83 -12 65 136 192 227 235 216 170 103 27 -42 -107 -181 -250

-198 -146 -89 -23 58 139 207 255 277 270 236 177 100 19 -55 -128 -201

-187 -147 -98 -39 37 124 201 262 298 304 282 233 165 80 -6 -84 -159 -230

-168 -143 -108 -60 7 93 177 247 295 315 305 267 206 131 39 -46 -124 -198 -256

-137 -114 -81 -26 50 137 213 270 301 304 277 225 155 68 -19 -99 -174 -247

-119 -93 -56 5 82 161 226 265 279 264 222 159 78 -6 -84 -159 -233

-118 -110 -82 -38 22 95 165 211 232 227 197 144 71 -9 -84 -153 -228 -299

-140 -113 -80 -34 20 84 140 165 169 150 108 44 -30 -101 -168 -236 -312

-163 -127 -89 -51 -5 44 79 92 82 50 -2 -66 -131 -194 -257 -337

-184 -154 -121 -88 -53 -20 -0 -1 -23 -64 -117 -173 -230 -289 -355

-218 -191 -165 -141 -118 -101 -96 -109 -138 -179 -225 -274 -328 -386

-241 -222 -206 -196 -190 -198 -219 -249 -285 -327 -374

-286 -290 -284 -282 -287 -302 -326 -355 -389 -410

-371 -385 -402 -415 -432

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF341 COLUMN 01

-294 -287 -280 -271 -267

-261 -249 -229 -213 -197 -189 -191 -200 -219 -234

-228 -196 -170 -148 -132 -114 -113 -123 -143 -173 -211

-230 -190 -152 -118 -86 -57 -37 -29 -38 -63 -97 -138 -186 -240

-203 -159 -117 -74 -32 9 42 58 53 27 -14 -63 -115 -171 -235

-182 -131 -89 -41 10 62 107 135 140 120 78 20 -41 -102 -164 -239

-157 -110 -67 -19 38 101 154 194 212 203 169 110 38 -34 -101 -167 -237

-134 -97 -55 -8 50 119 185 236 266 270 245 194 121 39 -39 -111 -175 -239

-86 -51 -8 46 116 191 254 298 315 303 262 196 112 27 -51 -121 -186

-77 -51 -16 30 96 175 246 303 336 339 312 256 178 89 5 -69 -137 -201

-68 -53 -29 7 62 138 215 282 329 349 338 296 228 141 55 -22 -93 -158 -210

-56 -42 -20 23 88 165 236 294 330 337 313 260 185 98 17 -55 -122 -185

-57 -41 -15 34 100 172 236 285 309 303 269 208 129 48 -25 -92 -155

-69 -67 -48 -17 33 97 159 214 254 268 252 210 143 68 -3 -69 -130 -192

-107 -87 -65 -31 21 79 126 179 209 212 187 137 73 9 -52 -111 -175

-140 -113 -89 -47 0 49 99 137 152 143 110 61 7 -46 -101 -166

-168 -140 -107 -69 -28 16 55 79 83 65 32 -8 -52 -101 -156

-197 -164 -132 -98 -64 -30 -3 10 8 -9 -36 -70 -109 -155

-193 -162 -133 -106 -82 -63 -56 -61 -75 -97 -128

-215 -200 -176 -154 -133 -121 -119 -123 -136 -147

-227 -212 -200 -188 -181

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF341 COLUMN 02

-285 -278 -277 -275 -279

-268 -249 -224 -205 -191 -190 -200 -215 -239 -257

-244 -204 -171 -143 -122 -113 -119 -135 -160 -193 -233

-264 -214 -168 -127 -89 -57 -36 -34 -49 -78 -114 -157 -205 -258

-247 -190 -139 -91 -43 2 36 50 43 14 -29 -78 -130 -185 -248

-235 -172 -117 -64 -9 47 94 122 127 107 64 7 -53 -113 -173 -247

-217 -159 -106 -50 13 79 134 176 196 188 155 98 28 -41 -106 -170 -242

-198 -151 -100 -45 19 92 161 214 246 252 230 182 112 33 -40 -109 -178 -245

-142 -98 -49 11 87 165 231 277 296 287 249 187 106 23 -53 -124 -193

-132 -99 -57 -4 67 149 224 282 317 322 297 244 171 84 -0 -76 -148 -216

-118 -98 -69 -26 34 115 196 264 312 332 321 281 217 136 47 -34 -108 -178 -233

-97 -78 -50 -2 69 151 225 282 316 320 295 243 170 83 -1 -77 -148 -216

-88 -67 -35 19 91 167 231 275 294 284 246 183 104 21 -54 -125 -194

-94 -88 -65 -27 28 96 162 213 243 247 225 177 107 29 -43 -111 -179 -246

-124 -100 -73 -32 21 81 133 172 189 181 147 91 21 -46 -110 -174 -244

-151 -120 -89 -49 -2 47 89 115 117 97 54 -3 -62 -120 -179 -251

-176 -147 -114 -79 -40 -2 28 39 30 0 -42 -90 -141 -195 -256

-207 -177 -148 -119 -91 -65 -50 -50 -65 -94 -130 -172 -219 -270

-217 -192 -170 -151 -136 -130 -138 -155 -180 -212 -251

-251 -245 -230 -218 -210 -212 -223 -239 -263 -279

-299 -299 -301 -302 -307

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF341 COLUMN 03

-105 -103 -107 -114 -124

-114 -100 -85 -73 -71 -77 -88 -101 -116 -126

-113 -90 -70 -52 -39 -44 -54 -66 -81 -97 -115

-140 -109 -83 -60 -39 -22 -14 -19 -30 -45 -63 -81 -101 -122

-143 -108 -78 -53 -29 -7 8 13 7 -8 -26 -47 -67 -88 -111

-148 -109 -76 -49 -22 4 25 37 38 30 12 -10 -33 -55 -78 -106

-147 -112 -81 -50 -20 10 34 53 62 60 48 27 2 -23 -46 -72 -101

-143 -114 -85 -55 -24 10 40 64 79 84 77 61 36 8 -18 -42 -74 -103

-113 -87 -60 -30 6 40 69 89 100 98 86 65 36 5 -23 -53 -85

-108 -87 -64 -37 -3 35 67 93 108 111 104 86 62 29 -5 -38 -70 -101

-97 -85 -67 -44 -14 23 60 89 108 116 112 98 76 49 11 -25 -59 -91 -116

-79 -67 -50 -25 9 46 78 101 112 111 100 80 53 18 -19 -53 -85 -117

-66 -53 -35 -6 27 61 87 100 103 94 75 49 16 -19 -51 -84 -117

-62 -57 -43 -21 6 37 67 83 86 79 62 38 7 -27 -58 -86 -121 -152

-66 -53 -36 -15 8 35 60 62 56 41 19 -10 -43 -73 -102 -132 -166

-72 -55 -36 -22 -4 16 26 24 12 -8 -34 -64 -94 -122 -150 -186

-78 -65 -52 -41 -28 -19 -17 -25 -41 -65 -91 -119 -145 -172 -202

-94 -85 -76 -69 -64 -62 -66 -80 -99 -122 -146 -171 -197 -223

-111 -107 -104 -105 -108 -120 -137 -156 -177 -200 -223

-136 -143 -146 -151 -161 -175 -193 -211 -231 -243

-192 -206 -221 -234 -248

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF342 COLUMN 01

-123 -120 -114 -106 -99

-100 -99 -94 -90 -82 -75 -71 -71 -76 -80

-82 -74 -67 -62 -59 -47 -41 -42 -47 -57 -71

-71 -61 -52 -42 -32 -24 -15 -8 -9 -17 -29 -44 -63 -85

-54 -44 -33 -20 -6 8 21 28 28 19 3 -16 -37 -60 -87

-41 -28 -18 -2 15 33 50 61 64 56 39 16 -9 -35 -61 -91

-27 -15 -4 11 31 53 73 88 94 90 76 51 21 -9 -38 -64 -92

-15 -6 5 19 38 64 89 108 118 118 107 85 54 19 -14 -45 -68 -92

-1 8 21 39 64 92 116 132 137 131 113 84 49 13 -19 -46 -70

2 8 18 33 56 85 112 133 146 146 134 109 75 38 5 -23 -48 -72

3 6 12 23 41 69 98 123 142 150 145 127 98 60 27 -2 -28 -51 -70

2 5 10 24 46 75 102 125 141 145 136 114 83 48 18 -9 -33 -56

-4 -1 6 22 46 72 97 120 132 133 121 98 67 35 8 -16 -38

-13 -14 -9 -1 16 40 62 87 108 119 117 104 79 50 23 -2 -23 -45

-33 -27 -22 -11 9 30 46 76 96 104 99 83 60 37 14 -7 -29

-49 -41 -35 -18 2 21 46 68 82 85 77 62 44 26 7 -15

-63 -52 -39 -22 -4 17 39 56 65 65 58 46 32 16 -3

-72 -57 -43 -27 -9 9 27 40 47 47 42 34 22 7

-63 -47 -31 -16 -0 16 26 32 33 30 22

-65 -53 -38 -23 -7 6 14 20 21 20

-47 -33 -19 -7 3

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF342 COLUMN 02

				-114	-111	-111	-110	-112		
			-107	-100	-90	-82	-77	-76	-80	-86	-96	-103		
		-98	-82	-68	-57	-49	-45	-47	-54	-64	-77	-93		
	-106	-85	-67	-51	-36	-23	-15	-14	-20	-31	-46	-63	-82	-103
	-99	-76	-56	-36	-17	1	14	20	17	6	-12	-31	-52	-74	-99	
	-94	-69	-47	-26	-3	19	38	49	51	43	26	3	-21	-45	-69	-99
	-87	-63	-42	-20	5	32	54	71	78	75	62	39	11	-16	-42	-68	-97	
-79	-60	-40	-18	7	37	64	86	99	101	92	73	45	13	-16	-44	-71	-98	
	-57	-39	-19	5	35	66	92	111	119	115	100	75	43	9	-21	-50	-77	
-53	-40	-23	-2	27	60	90	113	127	129	119	98	68	34	-0	-31	-59	-86	
-47	-39	-27	-11	14	46	79	106	125	133	129	113	87	54	19	-14	-43	-71	-93
	-39	-31	-20	-1	28	60	90	113	126	128	118	97	68	33	-0	-31	-59	-86	
	-35	-27	-14	8	36	67	92	110	117	113	98	73	41	8	-22	-50	-78	
-38	-35	-26	-11	11	38	65	85	97	99	90	71	43	12	-17	-44	-72	-98	
	-49	-40	-29	-13	8	33	53	69	76	72	59	36	9	-18	-44	-69	-98	
	-61	-48	-36	-20	-1	19	36	46	47	39	22	-1	-25	-48	-72	-101		
	-71	-59	-46	-31	-16	-1	11	15	12	0	-17	-36	-56	-78	-102			
	-83	-71	-59	-48	-36	-26	-20	-20	-26	-38	-52	-69	-87	-108				
		-87	-77	-68	-60	-54	-52	-55	-62	-72	-85	-101						
		-100	-98	-92	-87	-84	-85	-89	-96	-105	-111							
				-120	-119	-120	-121	-123										

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF32 COLUMN 03

				294	287	280	271	267						
			261	249	229	213	197	189	191	200	219	234		
		228	196	170	148	132	114	113	123	143	173	211		
	230	190	152	118	86	57	37	29	38	63	97	138	186	240
203	159	117	74	32	-9	-42	-58	-53	-27	14	63	115	171	235
182	131	89	41	-10	-62	-107	-135	-140	-120	-78	-20	41	102	164	239
157	110	67	19	-38	-101	-154	-194	-212	-203	-169	-110	-38	34	101	167	237
134	97	55	8	-50	-119	-185	-236	-266	-270	-245	-194	-121	-39	39	111	175	239
86	51	8	-46	-116	-191	-254	-298	-315	-303	-262	-196	-112	-27	51	121	186	
77	51	16	-30	-96	-175	-246	-303	-336	-339	-312	-256	-178	-89	-5	69	137	201	
68	53	29	-7	-62	-138	-215	-282	-329	-349	-338	-296	-228	-141	-55	22	93	158	210
56	42	20	-23	-88	-165	-236	-294	-330	-337	-313	-260	-185	-98	-17	55	122	185	
57	41	15	-34	-100	-172	-236	-285	-309	-303	-269	-208	-129	-48	25	92	155		
69	67	48	17	-33	-97	-159	-214	-254	-268	-252	-210	-143	-68	3	69	130	192	
107	87	65	31	-21	-79	-126	-179	-209	-212	-187	-137	-73	-9	52	111	175		
140	113	89	47	-0	-49	-99	-137	-152	-143	-110	-61	-7	46	101	166			
168	140	107	69	28	-16	-55	-79	-83	-65	-32	8	52	101	156				
197	164	132	98	64	30	3	-10	-8	9	36	70	109	155					
		193	162	133	106	82	63	56	61	75	97	128						
		215	200	176	154	133	121	119	123	136	147							
			227	212	200	188	181							

POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF343 COLUMN 01

277 270 273 279 292

275 250 219 196 186 191 208 231 259 280

259 212 172 138 112 112 125 147 177 213 255

298 237 184 136 92 56 36 39 59 92 131 175 224 277

292 222 161 107 54 6 -30 -43 -32 -1 44 93 145 199 260

289 212 146 88 27 -33 -81 -110 -114 -94 -51 6 65 123 181 254

277 207 144 80 13 -57 -114 -159 -180 -173 -142 -87 -19 47 110 174 246

262 205 144 83 12 -65 -136 -192 -227 -235 -216 -170 -103 -27 42 107 181 250

198 146 89 23 -58 -139 -207 -255 -277 -270 -236 -177 -100 -19 55 128 201

187 147 98 39 -37 -124 -201 -262 -298 -304 -282 -233 -165 -80 6 84 159 230

168 143 108 60 -7 -93 -177 -247 -295 -315 -305 -267 -206 -131 -39 46 124 198 256

137 114 81 26 -50 -137 -213 -270 -301 -304 -277 -225 -155 -68 19 99 174 247

107 119 93 56 -5 -82 -161 -226 -265 -279 -264 -222 -159 -78 6 84 159 233

118 110 82 38 -22 -95 -165 -211 -232 -227 -197 -144 -71 9 84 153 228 299

140 113 80 34 -20 -84 -140 -165 -169 -150 -108 -44 30 101 168 236 312

163 127 89 51 5 -44 -79 -92 -82 -50 2 66 131 194 257 337

184 154 121 88 53 20 0 1 23 64 117 173 230 289 355

218 191 165 141 118 101 96 109 138 179 225 274 328 386

241 222 206 196 190 198 219 249 285 327 374

286 290 284 282 287 302 326 355 389 410

371 385 402 415 432

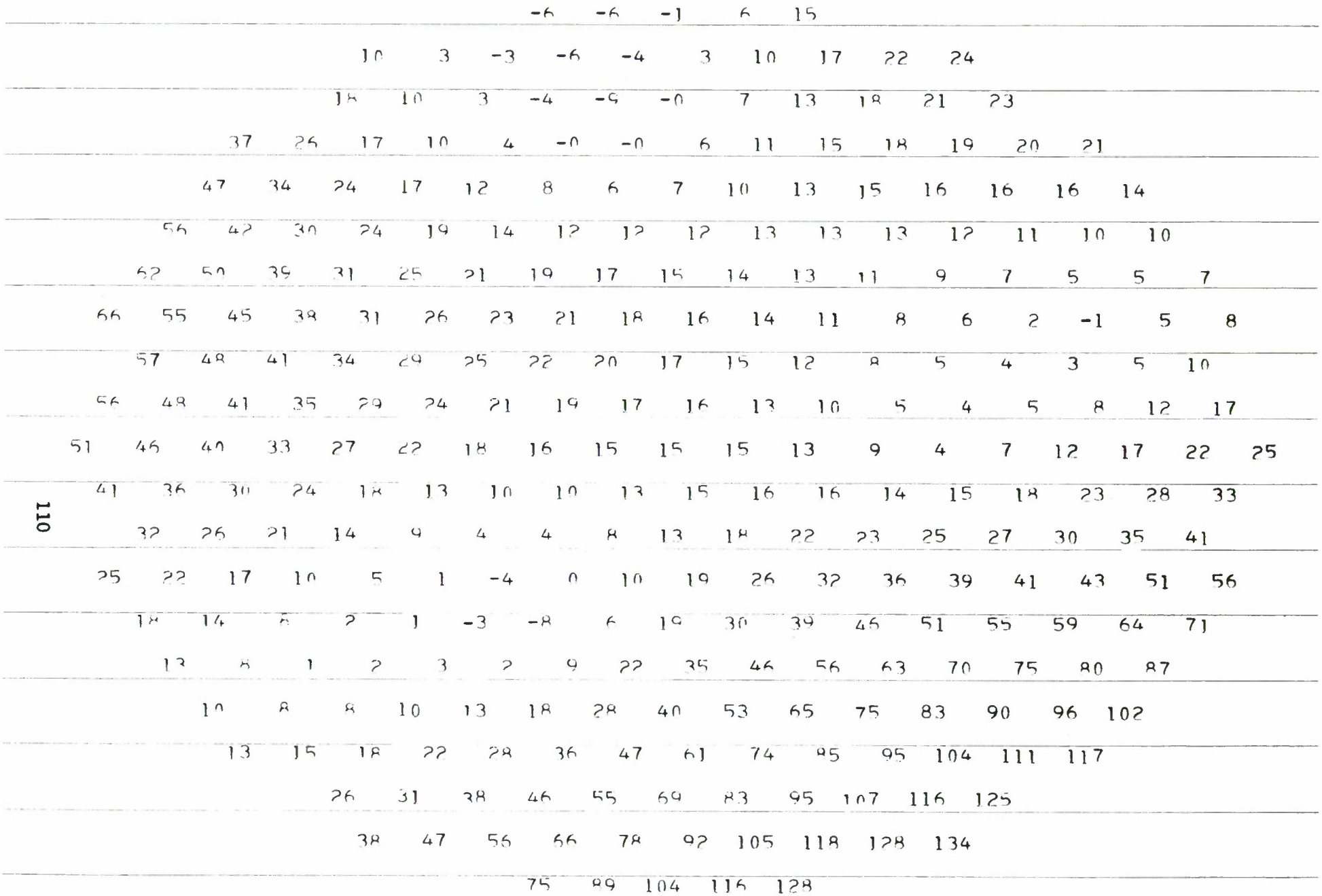
THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF343 COLUMN 02

					285	278	277	275	279						
				268	249	224	205	191	190	200	215	239	257		
			244	204	171	143	122	113	119	135	160	193	233		
		264	214	168	127	89	57	36	34	49	78	114	157	205	258
		247	190	139	91	43	-2	-36	-50	-43	-14	29	78	130	185	248
	235	172	117	64	9	-47	-94	-122	-127	-107	-64	-7	53	113	173	247
	217	159	106	50	-13	-79	-134	-176	-196	-188	-155	-98	-28	41	106	170	242
198	151	100	45	-19	-92	-161	-214	-246	-252	-230	-182	-112	-33	40	109	178	245
	142	98	49	-11	-87	-165	-231	-277	-296	-287	-249	-187	-106	-23	53	124	193
	132	99	57	4	-67	-149	-224	-282	-317	-322	-297	-244	-171	-84	0	76	148	216
118	98	69	26	-34	-115	-196	-264	-312	-332	-321	-281	-217	-136	-47	34	108	178	233
	97	78	50	2	-69	-151	-225	-282	-316	-320	-295	-243	-170	-83	1	77	148	216
108		88	67	35	-19	-91	-167	-231	-275	-294	-284	-246	-183	-104	-21	54	125	194
	94	88	65	27	-28	-96	-162	-213	-243	-247	-225	-177	-107	-29	43	111	179	246
		124	100	73	32	-21	-81	-133	-172	-189	-181	-147	-91	-21	46	110	174	244
		151	120	89	49	2	-47	-89	-115	-117	-97	-54	3	62	120	179	251	
			176	147	114	79	40	2	-28	-39	-30	-0	42	90	141	195	256	
			207	177	148	119	91	65	50	50	65	94	130	172	219	270		
				217	192	170	151	136	130	138	155	180	212	251				
					251	245	230	218	210	212	223	239	263	279				
						299	299	301	302	307								

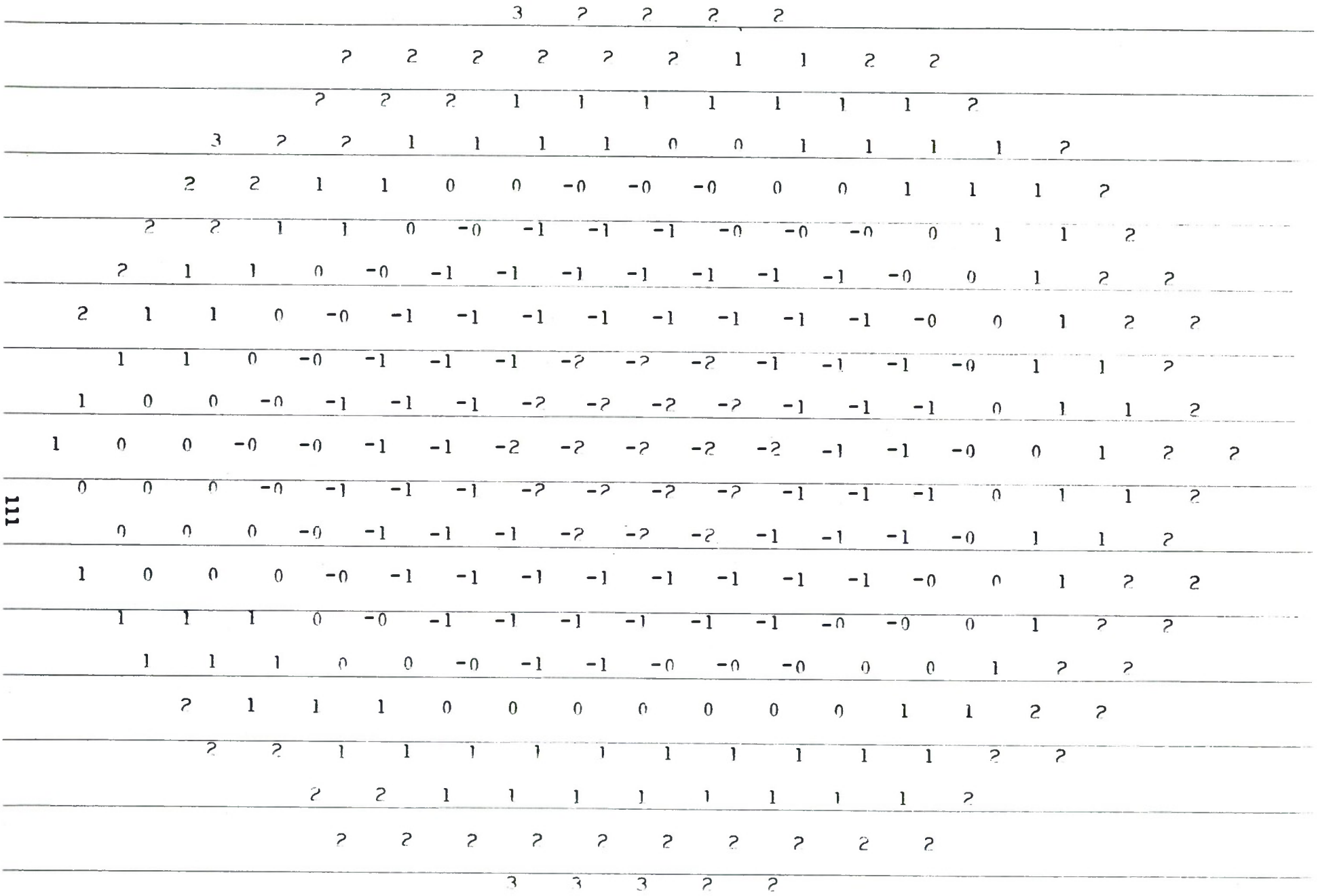
THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF343 COLUMN 03

				11	11	6	-2	-10		
			-5	2	7	10	7	0	-7	-14	-18	-21
		-13	-6	0	6	11	2	-5	-11	-16	-19	-20
	-32	-22	-14	-8	-2	2	1	-5	-10	-14	-16	-17	-17	-17
	-42	-30	-21	-16	-11	-7	-6	-8	-11	-13	-14	-15	-14	-13	-10	
-51	-39	-27	-23	-19	-15	-13	-13	-13	-14	-14	-13	-11	-9	-7	-5	
-58	-47	-38	-30	-26	-22	-21	-19	-17	-16	-14	-12	-10	-6	-3	-2	-2
-63	-53	-44	-37	-31	-27	-26	-23	-21	-19	-16	-13	-10	-6	-1	3	-1	-3
-55	-47	-40	-35	-30	-27	-25	-23	-20	-18	-15	-11	-7	-4	-2	-2	-6	
-54	-47	-41	-35	-30	-26	-24	-22	-21	-19	-17	-13	-8	-5	-5	-7	-9	-12	
-49	-45	-39	-33	-28	-23	-20	-19	-19	-19	-18	-17	-12	-6	-8	-12	-15	-18	-20
-40	-36	-30	-25	-19	-15	-13	-14	-16	-19	-20	-19	-16	-16	-18	-21	-25	-29	
-31	-26	-20	-14	-10	-7	-6	-11	-16	-21	-25	-26	-26	-27	-29	-32	-37		
-24	-21	-16	-10	-5	-2	2	-3	-12	-22	-29	-34	-37	-39	-40	-41	-47	-51	
-16	-13	-7	-2	-1	2	6	-8	-21	-32	-41	-47	-51	-55	-57	-61	-66		
-10	-6	1	-2	-3	-3	-10	-23	-36	-47	-56	-63	-69	-73	-77	-83			
-6	-5	-6	-8	-12	-18	-28	-40	-53	-65	-74	-82	-88	-93	-97				
-9	-12	-15	-20	-26	-35	-46	-59	-72	-84	-93	-101	-108	-113					
-22	-28	-35	-43	-53	-67	-80	-93	-104	-113	-121								
-33	-43	-52	-62	-75	-88	-102	-114	-124	-130									
-69	-84	-98	-111	-123														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF411 COLUMN 01



THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TBF$11 COLUMN 02

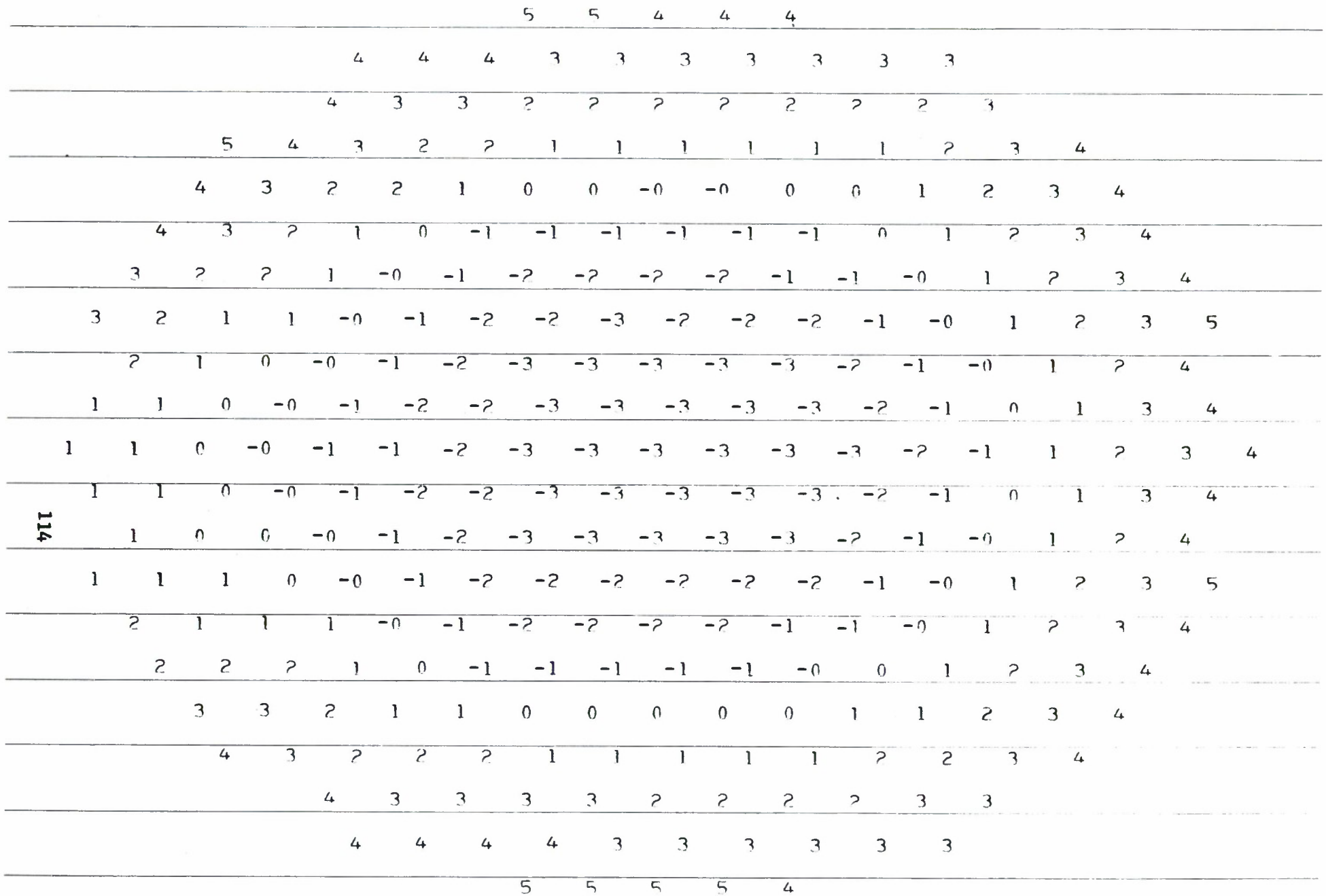


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THE APPROXIMATE POSITION AND QUANTITY IN THE MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF411 COLUMN 03

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF412 COLUMN 03

16 15 9 2 -7

-1 6 10 13 10 3 -5 -11 -16 -18

-10 -3 3 9 13 4 -4 -10 -14 -17 -18

-27 -19 -11 -6 -1 3 2 -4 -9 -13 -15 -16 -15 -13

-38 -27 -19 -14 -10 -7 -6 -8 -11 -13 -14 -14 -13 -10 -7

-48 -36 -25 -22 -18 -15 -14 -14 -14 -14 -14 -13 -11 -8 -5 -2

-55 -45 -36 -29 -25 -23 -22 -21 -19 -17 -16 -13 -10 -6 -2 0 2

-60 -51 -43 -36 -31 -28 -27 -26 -23 -21 -18 -15 -11 -6 -1 5 2 1

-53 -46 -40 -35 -31 -29 -27 -25 -23 -21 -17 -12 -8 -4 -1 -0 -2

-53 -46 -40 -35 -31 -27 -26 -25 -24 -22 -19 -15 -10 -6 -5 -6 -7 -9

-48 -44 -39 -33 -28 -24 -22 -21 -21 -22 -21 -19 -15 -8 -9 -11 -13 -15 -17

-39 -35 -30 -25 -20 -17 -15 -16 -19 -21 -22 -21 -18 -17 -18 -20 -22 -25

-30 -25 -20 -15 -11 -8 -9 -14 -19 -24 -27 -27 -27 -27 -28 -30 -34

-23 -20 -16 -10 -6 -3 -0 -5 -15 -24 -31 -35 -38 -39 -39 -39 -44 -47

-14 -11 -6 -1 -1 1 4 -9 -23 -34 -42 -48 -51 -54 -55 -58 -62

-8 -4 2 -1 -2 -3 -11 -24 -36 -47 -56 -63 -68 -71 -74 -79

-3 -3 -4 -7 -11 -18 -28 -40 -53 -64 -73 -81 -86 -90 -94

-5 -9 -13 -18 -25 -33 -45 -58 -71 -83 -92 -99 -105 -109

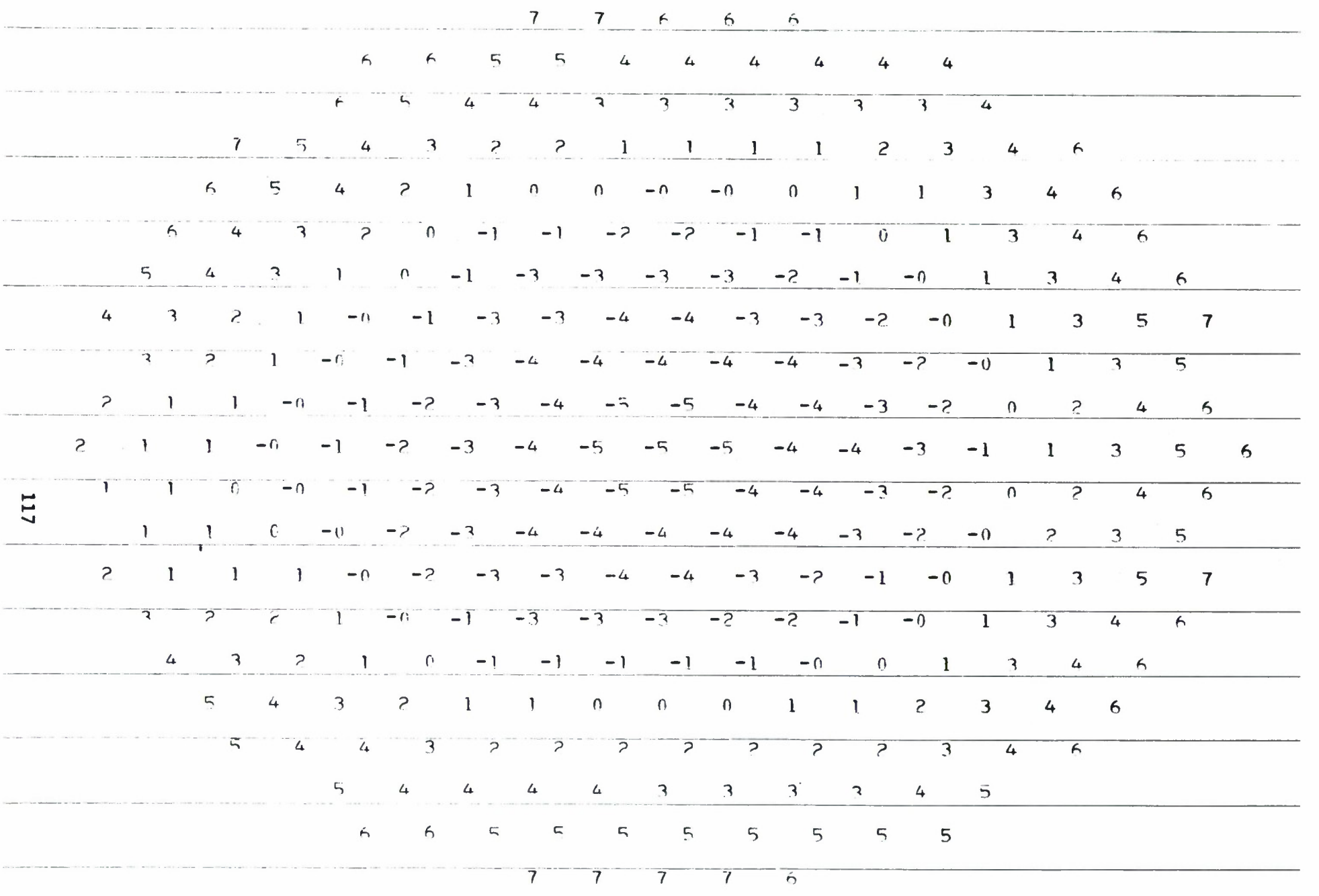
-19 -25 -32 -41 -50 -65 -78 -91 -102 -111 -118

-30 -39 -48 -59 -72 -86 -99 -111 -121 -127

-65 -79 -94 -107 -119

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF413 COLUMN 01

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF413 COLUMN 03

13 13 7 0 -9

-3 4 8 12 9 2 -6 -13 -17 -20

-12 -5 1 8 12 3 -5 -11 -15 -18 -19

-30 -20 -13 -7 -2 2 2 -4 -10 -13 -16 -17 -16 -15

-40 -29 -20 -15 -10 -7 -6 -8 -11 -13 -14 -14 -13 -11 -8

-50 -38 -27 -22 -19 -15 -14 -14 -14 -14 -14 -13 -11 -9 -6 -4

-57 -46 -37 -30 -26 -23 -22 -20 -18 -17 -15 -13 -10 -6 -3 -1 -0

-62 -52 -44 -37 -31 -28 -27 -24 -22 -20 -17 -14 -10 -6 -1 4 0 -1

-54 -47 -40 -35 -30 -28 -26 -24 -22 -19 -16 -12 -7 -4 -1 -1 -4

-54 -47 -41 -35 -30 -27 -25 -23 -22 -21 -18 -14 -9 -6 -5 -6 -8 -11

-49 -45 -39 -34 -29 -24 -21 -20 -20 -20 -20 -18 -14 -7 -9 -11 -14 -17 -19

-40 -35 -30 -25 -20 -16 -14 -15 -18 -20 -21 -20 -17 -16 -18 -21 -24 -27

-31 -26 -21 -15 -11 -7 -8 -12 -18 -23 -26 -27 -27 -27 -29 -31 -36

-24 -21 -16 -10 -6 -3 1 -4 -14 -23 -30 -35 -37 -39 -40 -40 -46 -49

-15 -12 -7 -2 -1 1 5 -9 -22 -33 -41 -47 -52 -54 -56 -60 -64

-9 -6 1 -1 -3 -3 -11 -23 -36 -47 -56 -63 -68 -72 -75 -81

-5 -4 -5 -8 -12 -18 -28 -40 -53 -64 -74 -81 -87 -91 -96

-7 -11 -14 -19 -26 -34 -45 -59 -72 -83 -93 -100 -106 -111

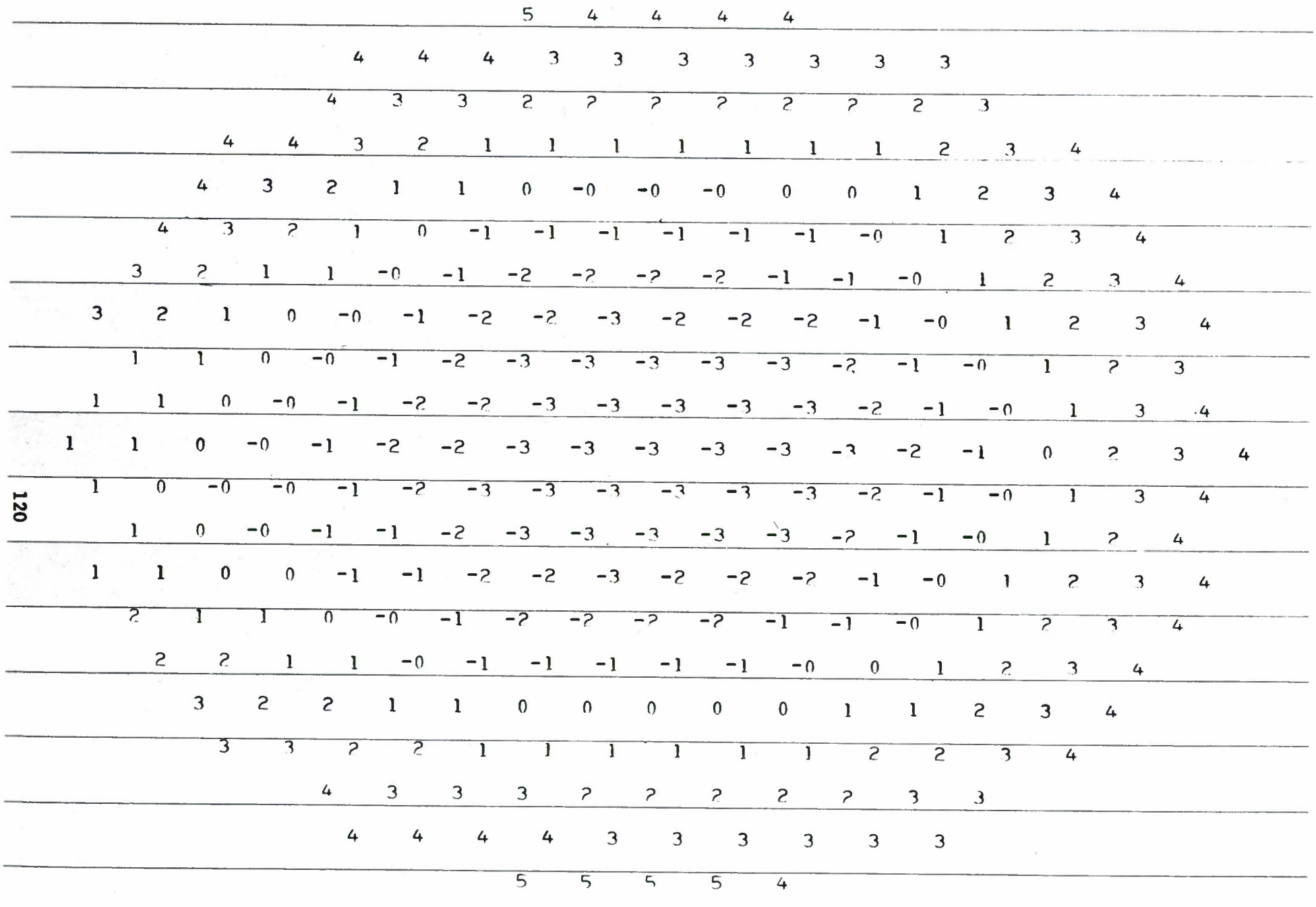
-20 -27 -34 -42 -52 -66 -79 -92 -103 -112 -120

-32 -41 -50 -60 -73 -87 -100 -113 -123 -128

-67 -81 -96 -109 -121

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF421 COLUMN 01

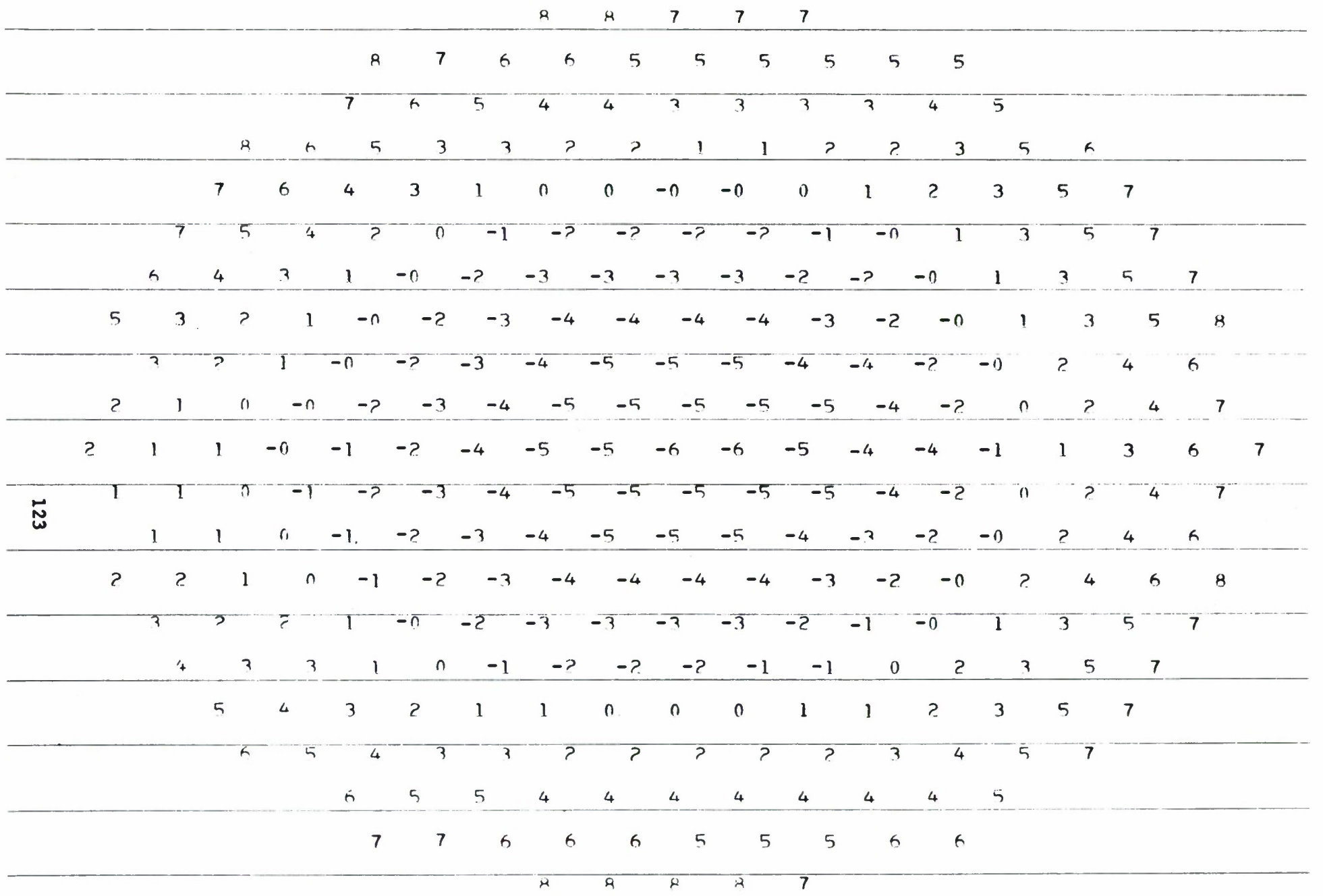
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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF 421 COLUMN 03

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF422 COLUMN 03

20 19 14 6 -3

3 10 13 17 13 6 -2 -9 -13 -15

-6 0 5 11 15 6 -2 -8 -12 -15 -15

-23 -15 -9 -4 0 4 3 -3 -8 -12 -14 -14 -12 -9

-34 -24 -16 -13 -9 -7 -6 -8 -11 -13 -14 -13 -11 -7 -3

-44 -34 -23 -21 -18 -16 -15 -15 -15 -15 -15 -13 -10 -6 -2 2

-52 -43 -35 -28 -26 -24 -24 -23 -21 -19 -17 -14 -10 -5 0 3 6

-57 -49 -42 -36 -31 -29 -29 -28 -26 -23 -20 -16 -12 -6 0 7 5 5

-52 -45 -39 -35 -32 -30 -30 -28 -26 -23 -19 -14 -9 -4 0 2 1

-52 -46 -40 -35 -32 -29 -28 -28 -27 -25 -22 -18 -12 -7 -5 -4 -5 -5

-47 -44 -38 -33 -29 -26 -24 -24 -24 -25 -24 -22 -17 -10 -10 -10 -11 -12 -12

-39 -34 -30 -25 -21 -18 -18 -19 -22 -24 -25 -24 -20 -18 -18 -19 -20 -21

-29 -25 -20 -15 -12 -10 -11 -16 -22 -27 -29 -29 -28 -27 -27 -28 -31

-22 -19 -15 -9 -6 -4 -2 -8 -17 -26 -33 -37 -39 -39 -38 -37 -41 -43

-12 -10 -5 -1 -1 0 3 -11 -25 -35 -43 -48 -52 -53 -54 -56 -58

-5 -3 4 0 -2 -4 -12 -25 -37 -48 -57 -63 -67 -70 -71 -75

-0 -1 -2 -6 -10 -17 -27 -40 -53 -64 -73 -79 -84 -87 -90

-2 -6 -11 -17 -23 -32 -43 -57 -70 -82 -90 -97 -102 -106

-15 -22 -30 -38 -48 -62 -77 -89 -100 -109 -115

-26 -35 -45 -55 -68 -82 -96 -108 -118 -123

-60 -74 -90 -102 -115

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF423 COLUMN 01

| | | |

| | | |

17 16 11 4 -6

1 7 11 15 11 4 -4 -10 -15 -17

-8 -2 4 10 14 5 -3 -9 -13 -16 -17

-26 -17 -11 -5 -1 3 2 -4 -9 -13 -15 -15 -14 -12

-37 -26 -18 -14 -10 -7 -6 -8 -11 -13 -14 -14 -12 -9 -5

-47 -36 -25 -21 -18 -16 -15 -14 -15 -15 -15 -13 -10 -7 -4 -0

-54 -44 -36 -29 -26 -24 -23 -22 -20 -18 -16 -14 -10 -6 -1 1 3

-59 -50 -43 -36 -32 -29 -28 -27 -24 -22 -19 -16 -11 -6 -0 5 3 3

-53 -46 -40 -35 -32 -30 -28 -26 -24 -22 -18 -13 -9 -4 -0 1 -1

-53 -46 -41 -36 -31 -29 -27 -26 -25 -23 -21 -16 -11 -7 -5 -5 -6 -7

-48 -44 -39 -34 -29 -25 -23 -22 -23 -23 -22 -20 -16 -9 -9 -11 -12 -14 -15

-39 -35 -30 -25 -21 -18 -16 -18 -20 -23 -24 -22 -19 -17 -18 -20 -22 -23

-30 -26 -20 -15 -12 -9 -10 -15 -20 -25 -28 -28 -28 -28 -28 -30 -33

-23 -20 -16 -10 -6 -4 -1 -6 -16 -25 -32 -36 -38 -39 -39 -38 -43 -46

-14 -11 -6 -1 -1 1 3 -10 -24 -34 -42 -48 -52 -54 -55 -57 -61

-7 -4 2 -1 -3 -4 -12 -24 -37 -48 -57 -63 -68 -71 -73 -77

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-4 -8 -12 -18 -25 -33 -44 -58 -71 -82 -91 -98 -104 -108

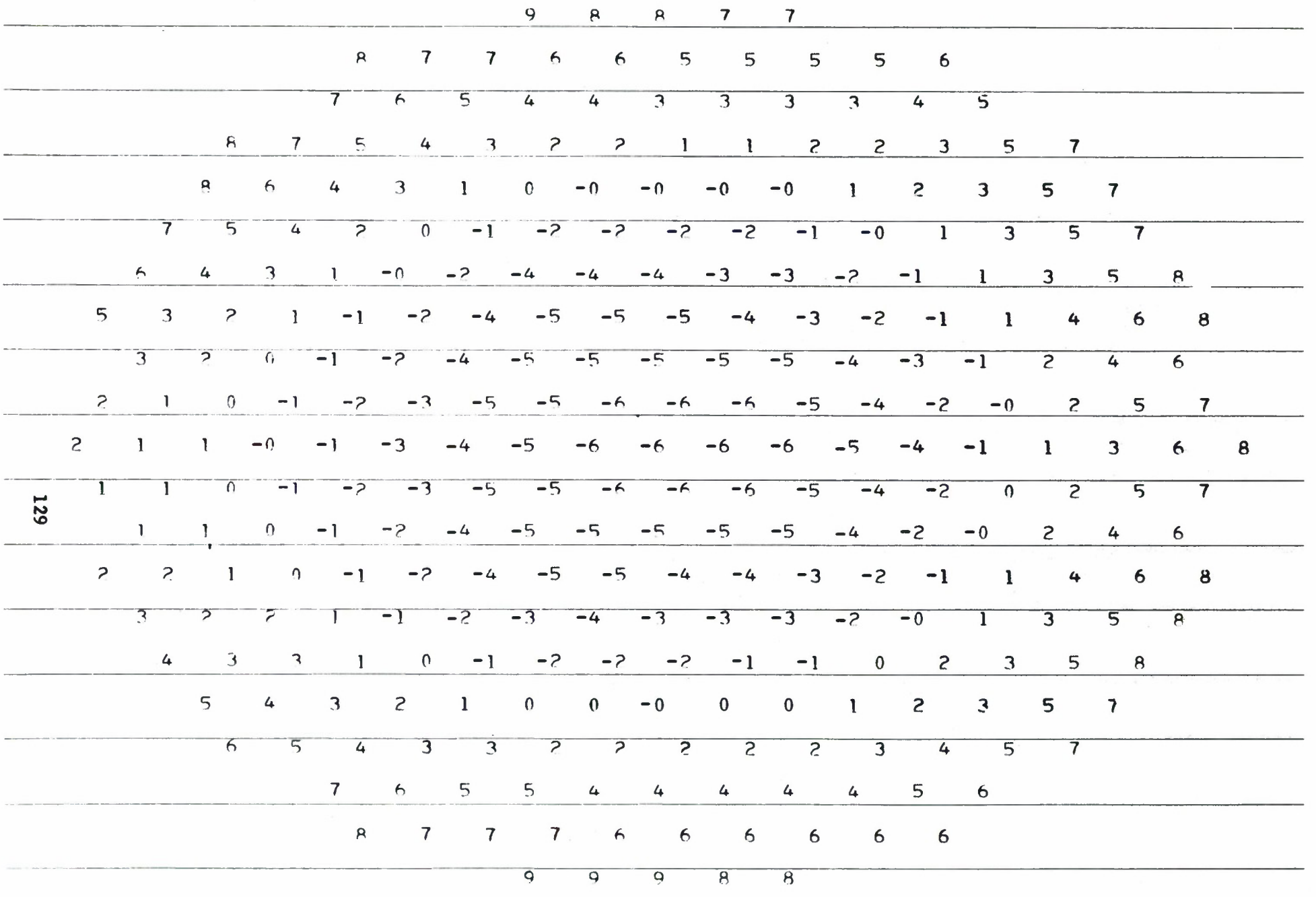
-17 -24 -31 -40 -50 -64 -78 -91 -101 -110 -117

-28 -38 -47 -57 -71 -84 -98 -110 -120 -125

-63 -77 -92 -105 -118

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF431 COLUMN 01

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THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF431 COLUMN 03

| | | |

| | | |

| | | |

28 26 20 12 3

10 16 19 22 18 10 2 -4 -8 -11

1 9 10 15 19 9 1 -5 -9 -11 -10

-16 -9 -4 -1 3 6 4 -2 -7 -10 -12 -11 -8 -4

-27 -19 -13 -10 -8 -7 -6 -8 -11 -13 -13 -11 -8 -3 3

-38 -29 -20 -19 -18 -17 -17 -17 -17 -17 -16 -13 -9 -4 2 9

-47 -39 -32 -27 -26 -26 -27 -26 -24 -22 -19 -16 -10 -4 3 8 13

-53 -46 -40 -35 -32 -31 -32 -32 -30 -27 -24 -19 -14 -7 2 10 10 12

-49 -44 -39 -35 -33 -33 -34 -32 -31 -28 -23 -18 -11 -4 2 5 6

-49 -44 -40 -35 -33 -32 -32 -32 -32 -30 -27 -22 -15 -9 -5 -2 -0 1

-46 -42 -38 -33 -30 -28 -28 -28 -29 -30 -29 -27 -21 -13 -11 -9 -8 -7 -6

-37 -33 -29 -25 -22 -21 -21 -24 -27 -29 -30 -28 -23 -20 -18 -17 -16 -15

-28 -24 -20 -16 -14 -13 -15 -21 -26 -31 -33 -32 -30 -27 -25 -25 -25

-20 -17 -14 -9 -7 -6 -5 -11 -21 -30 -36 -40 -40 -39 -37 -34 -36 -36

-10 -8 -3 0 -1 -1 -0 -14 -27 -38 -45 -50 -52 -52 -51 -51 -51

-1 0 6 2 -2 -5 -14 -26 -39 -49 -57 -63 -65 -67 -67 -68

4 4 1 -4 -9 -17 -28 -40 -53 -64 -72 -77 -81 -83 -83

4 -2 -7 -13 -21 -30 -42 -56 -69 -80 -88 -94 -98 -99

-10 -17 -25 -34 -44 -59 -73 -86 -96 -104 -110

-19 -29 -39 -49 -63 -77 -91 -103 -113 -118

-52 -67 -82 -95 -108

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF433 COLUMN 01

10 10 14 20 28

25 17 10 5 6 12 20 26 32 35

32 21 12 5 -1 6 13 19 24 29 33

53 38 27 17 9 4 3 8 13 18 22 26 30 34

62 45 32 23 14 8 6 7 10 13 16 19 22 25 28

69 52 37 28 20 12 9 8 8 10 11 13 15 17 19 24

73 58 45 34 25 18 13 10 8 8 8 8 9 10 11 15 21

75 62 50 40 30 23 17 12 9 7 6 5 5 5 5 6 16 23

63 52 42 34 25 18 14 10 7 5 3 1 1 3 6 12 22

60 51 42 34 26 18 13 9 6 5 3 1 -2 0 6 13 21 30

54 49 41 33 25 17 10 6 4 4 4 3 1 -3 5 14 23 33 40

44 38 31 24 15 7 2 1 2 4 6 7 6 11 19 27 37 46

35 28 21 13 5 -2 -5 -2 3 9 13 17 20 27 34 42 53

29 25 19 11 4 -3 -11 -8 1 11 19 26 32 38 44 50 62 71

24 19 12 4 -0 -7 -14 -1 13 25 35 43 51 58 66 74 86

21 15 7 6 3 0 6 18 31 44 55 64 73 81 90 102

20 17 15 14 15 19 28 40 53 66 77 87 96 106 116

25 26 27 29 33 41 51 64 77 90 101 111 121 131

38 42 48 55 64 76 90 103 114 125 136

52 61 69 79 90 103 116 128 139 146

92 106 120 132 143

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF433 COLUMN 02

								19	18	17	16	15							
							18	16	15	14	12	11	11	11	12	12			
						16	13	11	10	9	7	7	7	8	9	11			
					18	15	11	8	6	5	4	3	3	4	5	8	11	15	
				17	13	10	6	3	1	-0	-1	-1	0	2	4	7	11	16	
			16	11	9	5	1	-2	-4	-4	-4	-4	-2	0	3	7	11	16	
		13	10	7	4	-0	-4	-7	-8	-8	-7	-6	-4	-1	3	7	12	17	
	11	8	5	3	-1	-4	-8	-10	-10	-10	-9	-7	-5	-1	3	8	13	18	
		7	4	2	-1	-4	-7	-10	-11	-12	-11	-10	-8	-5	-1	4	9	14	
	6	4	1	-1	-4	-7	-10	-12	-13	-13	-12	-11	-9	-5	0	5	10	16	
4	3	2	-0	-2	-6	-9	-11	-12	-13	-13	-12	-10	-8	-3	2	7	13	17	
	3	2	1	-1	-4	-7	-10	-12	-13	-13	-12	-11	-9	-4	0	5	10	16	
		3	2	1	-1	-5	-8	-10	-11	-12	-11	-10	-8	-5	-0	4	9	14	
	4	4	3	1	-1	-5	-8	-9	-10	-10	-9	-7	-4	-1	4	8	13	18	
		7	6	4	2	-1	-4	-7	-8	-7	-6	-5	-3	-0	3	7	12	17	
		10	8	7	4	1	-2	-4	-4	-4	-3	-1	1	4	7	11	17		
			12	10	8	5	3	1	0	0	0	1	3	5	8	11	16		
			15	12	10	8	6	5	5	4	4	5	7	9	12	16			
				14	12	11	10	10	9	8	8	9	10	13					
					17	16	15	15	13	13	13	13	13	14					
								20	20	19	18	17							

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF433 COLUMN 03

				21	20	15	7	-2		
			5	11	14	17	14	6	-1	-8	-12	-14
		-5	1	6	12	16	6	-2	-8	-12	-14	-14
	-22	-14	-8	-4	1	4	3	-3	-8	-12	-14	-13	-12	-9
-33	-23	-16	-13	-9	-7	-6	-8	-11	-13	-14	-13	-11	-7	-2
-43	-33	-23	-21	-19	-16	-16	-16	-16	-16	-15	-13	-10	-6	-1	3
-51	-42	-35	-29	-26	-25	-25	-23	-22	-20	-18	-15	-11	-5	0	4	7
-57	-49	-42	-36	-32	-30	-30	-29	-27	-24	-21	-17	-13	-7	0	7	6	7
-52	-45	-40	-36	-33	-32	-31	-29	-27	-24	-20	-15	-10	-5	0	2	2
-52	-46	-41	-36	-33	-30	-29	-29	-28	-26	-23	-19	-13	-8	-5	-4	-4	-4
-48	-44	-39	-34	-30	-27	-25	-25	-26	-26	-25	-23	-18	-11	-10	-10	-11	-11	-11
-39	-35	-30	-26	-22	-20	-19	-20	-23	-25	-26	-25	-21	-19	-18	-19	-19	-20
-30	-25	-21	-16	-13	-11	-12	-17	-23	-28	-30	-30	-29	-28	-27	-28	-30
-22	-19	-16	-10	-7	-5	-3	-9	-18	-27	-34	-38	-40	-40	-38	-37	-40	-42
-12	-10	-5	-1	-2	-1	2	-12	-25	-36	-44	-49	-52	-53	-53	-55	-57
-5	-3	4	-0	-3	-4	-13	-25	-38	-49	-57	-63	-67	-69	-71	-74
-0	-0	-2	-6	-11	-18	-28	-40	-53	-64	-73	-79	-84	-87	-89
-1	-6	-10	-16	-23	-32	-43	-57	-70	-81	-90	-97	-101	-105
-14	-22	-29	-38	-47	-62	-76	-89	-99	-108	-114
-25	-34	-44	-54	-68	-82	-95	-107	-117	-122
-59	-73	-88	-101	-114

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF441 COLUMN 01

| | | |

| | | |

28 27 21 13 3

11 17 20 23 18 11 3 -4 -8 -10

1 6 10 15 19 9 1 -5 -9 -11 -10

-15 -9 -4 -1 3 6 4 -2 -7 -11 -12 -10 -8 -3

-27 -18 -12 -10 -8 -7 -7 -9 -11 -13 -13 -11 -8 -3 4

-38 -29 -20 -19 -18 -17 -17 -17 -18 -17 -16 -13 -9 -3 3 10

-46 -39 -32 -27 -26 -26 -28 -26 -25 -23 -20 -16 -11 -4 3 9 14

-53 -46 -40 -35 -32 -32 -33 -32 -30 -28 -24 -20 -14 -7 1 10 11 13

-49 -44 -39 -36 -34 -34 -34 -33 -31 -28 -24 -18 -12 -5 2 6 7

-49 -44 -40 -36 -34 -33 -33 -33 -32 -31 -28 -23 -16 -10 -5 -2 0 2

-46 -42 -38 -34 -31 -29 -28 -29 -30 -31 -30 -28 -22 -14 -11 -10 -8 -6 -5

-38 -34 -30 -26 -23 -22 -22 -25 -28 -30 -31 -29 -24 -20 -18 -17 -15 -14

-28 -25 -20 -16 -15 -14 -16 -22 -27 -32 -34 -33 -31 -28 -25 -24 -24

-20 -18 -15 -9 -7 -7 -6 -12 -22 -30 -37 -40 -41 -40 -37 -33 -35 -35

-10 -8 -3 0 -2 -2 -1 -15 -28 -38 -46 -50 -52 -52 -51 -50 -50

-1 0 6 1 -3 -5 -14 -27 -39 -50 -58 -63 -66 -67 -67 -67

5 4 1 -4 -10 -17 -28 -40 -53 -64 -72 -77 -81 -82 -83

4 -1 -7 -13 -21 -30 -42 -56 -69 -80 -88 -93 -97 -99

-9 -17 -25 -34 -44 -59 -73 -86 -96 -104 -109

-18 -28 -38 -49 -62 -77 -90 -103 -112 -117

-51 -66 -81 -95 -108

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIC TDF442 COLUMN 01

| | | |

						20	19	18	17	16								
					19	17	15	14	13	12	11	11	12	13				
				17	14	12	10	9	8	7	7	8	9	12				
			19	15	12	8	6	5	4	3	3	4	5	8	11	16		
		18	14	10	6	3	1	-0	-1	-1	-0	1	4	7	11	16		
		16	12	9	4	1	-3	-5	-5	-5	-4	-3	-0	3	7	11	17	
	14	10	7	3	-1	-5	-8	-9	-8	-8	-6	-4	-1	3	7	12	18	
11	8	5	2	-1	-5	-9	-10	-11	-11	-10	-8	-5	-2	3	8	13	19	
	7	4	1	-2	-5	-8	-11	-12	-13	-12	-11	-9	-6	-1	4	9	15	
5	3	1	-1	-4	-8	-10	-12	-13	-13	-13	-12	-10	-5	-0	5	11	17	
4	3	1	-1	-3	-6	-9	-12	-13	-14	-14	-13	-11	-9	-3	2	8	14	18
3	2	0	-2	-5	-8	-11	-12	-13	-13	-13	-12	-9	-5	0	5	11	17	
	3	2	0	-2	-5	-9	-11	-12	-12	-12	-11	-9	-6	-1	4	9	15	
4	4	2	1	-2	-6	-9	-10	-11	-10	-9	-8	-5	-1	4	9	14	19	
	7	5	4	2	-1	-5	-8	-8	-8	-7	-6	-4	-1	3	8	12	18	
	10	8	6	3	0	-3	-4	-5	-4	-3	-2	0	4	7	12	18		
		12	10	8	5	3	1	0	-0	0	1	2	5	8	12	17		
			15	12	10	8	6	5	5	4	4	5	7	9	12	17		
				15	13	11	11	10	9	8	9	9	11	13				
					17	17	16	15	14	13	13	13	14	15				
						21	20	20	19	18								

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF442 COLUMN 03

34 33 26 18 8

17 22 24 27 22 14 6 -1 -5 -6

7 10 14 18 22 11 3 -3 -7 -8 -6

-9 -4 -0 2 5 7 6 -1 -6 -9 -10 -8 -4 2

-21 -14 -9 -8 -7 -6 -6 -9 -11 -13 -13 -10 -6 0 9

-32 -25 -17 -17 -18 -18 -18 -19 -19 -18 -17 -13 -8 -1 6 15

-42 -35 -29 -26 -26 -27 -30 -29 -27 -25 -22 -17 -11 -3 5 12 19

-49 -43 -38 -34 -32 -33 -35 -35 -34 -31 -27 -22 -16 -7 3 13 15 19

-47 -42 -38 -36 -35 -36 -37 -37 -35 -32 -27 -21 -13 -5 3 9 11

-47 -43 -39 -36 -34 -34 -36 -36 -36 -35 -32 -26 -19 -11 -5 -0 3 7

-44 -41 -37 -34 -31 -30 -31 -32 -34 -35 -34 -31 -25 -16 -12 -9 -6 -2 1

-36 -33 -29 -26 -24 -24 -25 -28 -32 -34 -35 -32 -27 -22 -18 -15 -12 -9

-27 -24 -20 -16 -16 -16 -19 -25 -31 -35 -37 -36 -32 -28 -24 -22 -20

-19 -16 -13 -9 -7 -8 -8 -15 -25 -33 -40 -42 -42 -40 -35 -31 -32 -29

-7 -6 -2 1 -2 -3 -3 -17 -30 -40 -47 -51 -52 -51 -48 -47 -45

2 3 9 3 -2 -6 -15 -28 -40 -51 -58 -63 -64 -64 -63 -62

9 7 4 -2 -8 -17 -27 -40 -53 -63 -71 -76 -78 -79 -78

9 3 -4 -11 -19 -28 -40 -54 -67 -78 -86 -91 -93 -94

-4 -13 -22 -31 -41 -56 -71 -83 -93 -101 -106

-13 -23 -34 -44 -58 -73 -87 -99 -109 -113

-45 -60 -76 -89 -102

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF443 COLUMN 01

							17	16	20	26	33							
					31	22	15	10	11	16	23	30	35	39				
				38	26	16	8	2	9	15	21	27	32	37				
			59	44	31	20	11	5	4	9	14	19	24	29	33	39		
		68	50	35	25	15	9	6	6	9	13	17	21	24	29	34		
	75	56	40	30	20	11	7	6	7	8	10	13	16	19	23	30		
78	61	48	36	25	16	10	7	5	5	6	7	8	11	14	19	28		
79	65	52	41	30	21	14	9	6	4	2	2	2	4	6	9	20	30	
65	53	43	33	23	16	10	6	3	1	-1	-2	-1	3	8	15	27		
63	53	43	34	24	16	9	4	2	-0	-2	-4	-5	-2	6	14	25	36	
56	50	42	33	24	15	7	2	-0	-1	-1	-2	-3	-6	4	15	26	38	46
45	39	31	23	13	5	-2	-4	-3	-1	1	3	3	9	18	29	41	52	
36	29	21	12	3	-5	-9	-6	-1	5	9	13	18	26	35	46	58		
30	27	20	12	3	-5	-14	-11	-3	7	16	23	30	37	45	53	67	78	
26	21	13	5	-1	-8	-17	-4	10	22	32	42	51	59	68	79	92		
25	18	9	7	3	-1	5	17	30	42	54	64	74	84	94	108			
24	21	17	16	16	20	28	40	53	66	78	89	99	110	122				
31	30	30	32	35	42	53	66	79	91	103	114	125	137					
44	47	51	58	67	79	92	105	117	129	140								
58	67	74	84	95	107	120	133	144	150									
99	113	126	138	149														

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF443 COLUMN 02

										26	24	23	22	21										
								24	22	20	18	16	15	15	14	15	17							
							22	18	15	13	12	10	9	9	10	12	15							
						25	20	15	11	8	6	5	4	4	5	7	10	15	20					
					23	18	13	8	4	1	-0	-1	-1	-0	2	5	9	15	21					
				21	15	12	6	1	-3	-6	-6	-6	-5	-3	-0	4	9	15	22					
			18	13	9	5	-0	-5	-10	-11	-11	-10	-8	-5	-1	4	10	16	23					
		15	11	7	4	-1	-6	-11	-13	-14	-14	-12	-10	-7	-2	5	11	17	24					
		9	5	2	-1	-6	-10	-14	-16	-16	-16	-14	-11	-7	-1	5	12	19						
		8	5	2	-1	-5	-9	-13	-16	-17	-18	-17	-15	-12	-7	0	7	14	22					
	6	5	2	-0	-4	-8	-12	-15	-17	-18	-18	-16	-14	-11	-4	3	10	18	23					
	4	3	1	-1	-5	-9	-13	-16	-17	-17	-17	-15	-12	-6	0	7	14	22						
144																								
		4	3	1	-2	-6	-11	-14	-15	-16	-15	-14	-11	-7	-1	6	12	19						
		6	5	3	2	-2	-7	-11	-13	-14	-13	-12	-10	-6	-1	5	11	18	24					
		10	7	6	3	-1	-6	-10	-10	-10	-9	-7	-5	-1	4	10	16	23						
		13	11	9	5	1	-3	-5	-6	-5	-4	-2	1	5	10	15	23							
		17	14	11	7	4	2	0	-0	0	1	3	7	10	16	22								
		20	16	13	10	8	7	6	6	6	7	9	12	16	21									
			20	17	15	14	13	12	11	11	12	14	17											
			22	22	20	20	18	17	17	17	18	19												
										27	26	25	24	23										

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF443 COLUMN 03

-1270-1228-1218-1223-1259

-1211-1107 -968 -863 -797 -795 -853 -946-1078-1176

-1103 -895 -720 -579 -480 -449 -476 -556 -685 -857-1064

-1212 -963 -730 -523 -352 -223 -152 -144 -198 -311 -477 -686 -925-1182

-1139 -862 -605 -374 -172 -10 100 145 123 34 -117 -321 -564 -832-1124

-1091 -786 -521 -272 -44 148 294 383 400 343 214 22 -217 -490 -774-1113

-1009 -734 -478 -218 32 253 425 560 623 604 505 334 104 -166 -458 -759-1084

-927 -701 -458 -204 57 303 514 681 785 808 745 601 389 127 -166 -471 -792-1098

-665 -456 -221 35 296 536 737 883 947 923 812 626 379 88 -228 -552 -869

-622 -462 -262 -24 235 494 724 905 1013 1032, 960 804 580 303 -11 -343 -668 -980

-553 -457 -314 -115 130 395 646 855 1000 1063 1033 915 721 468 165 -164 -497 -816-1067

-446 -355 -219 -1 256 512 737 912 1013 1026 950 791 566 288 -27 -359 -685 -997

-395 -293 -139 92 335 565 756 887 939 905 787 596 347 56 -261 -585 -903

-413 -384 -273 -95 124 347 546 694 777 783 708 556 339 76 -217 -522 -845-1151

-542 -431 -296 -111 94 290 448 551 589 553 443 265 32 -239 -531 -833-1159

-667 -519 -362 -180 0 159 276 338 334 262 124 -73 -315 -589 -872-1213

-780 -639 -476 -311 -160 -39 38 60 21 -78 -237 -444 -689 -956-1248

-932 -788 -641 -502 -384 -299 -258 -269 -335 -457 -628 -839-1078-1333

-987 -860 -750 -664 -609 -597 -638 -728 -864-1039-1246

-1161-1130-1053 -998 -964 -982-1053-1154-1291-1384

-1413-1414-1433-1454-1497

POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF453 COLUMN 01

-1288-1244-1225-1215-1234

-1196-1106 -977 -879 -808 -793 -836 -915-1038-1131

-1071 -879 -717 -589 -500 -451 -463 -531 -652 -817-1020

-1144 -915 -698 -505 -345 -225 -153 -134 -177 -283 -443 -649 -888-1145

-1050 -798 -561 -341 -150 5 112 160 144 60 -88 -290 -534 -804-1099

-984 -705 -464 -225 -7 177 320 407 426 369 241 48 -193 -470 -757-1098

-890 -637 -401 -156 83 297 465 595 655 634 533 358 123 -152 -449 -751-1076

-799 -594 -368 -129 119 356 563 725 824 842 774 625 407 138 -162 -475 -786-1087

-553 -361 -140 104 354 598 785 925 985 956 839 645 391 96 -224 -545 -854

-512 -366 -180 46 294 544 769 946 1051 1067 990 827 594 312 -1 -328 -646 -951

-453 -366 -236 -49 185 441 684 889 1034 1096 1066 945 743 478 181 -140 -466 -776-1021

-365 -283 -158 48 294 541 761 936 1042 1060 986 826 596 318 9 -315 -632 -935

-332 -240 -98 120 353 576 766 906 969 945 833 645 398 110 -202 -518 -825

-364 -341 -240 -74 134 350 540 698 799 823 763 622 412 153 -137 -438 -746-1043

-509 -405 -281 -107 95 284 434 564 630 616 523 358 134 -129 -415 -707-1022

-644 -504 -362 -176 5 164 296 382 404 355 236 54 -176 -441 -716-1043

-764 -625 -462 -292 -136 -3 94 140 127 51 -88 -279 -512 -768-1048

-910 -761 -608 -460 -330 -228 -166 -149 -189 -288 -439 -634 -860-1103

-939 -800 -677 -575 -501 -461 -475 -540 -654 -809-1001

-1090-1040 -946 -870 -811 -802 -846 -922-1038-1121

-1269-1242-1231-1227-1246

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF453 COLUMN 02

-1279-1236-1222-1219-1247

-1203-1106 -972 -871 -802 -794 -844 -931-1058-1154

-1087 -887 -718 -584 -490 -456 -470 -543 -668 -837-1042

-1178 -939 -714 -514 -349 -224 -152 -139 -187 -297 -460 -667 -907-1163

-1094 -830 -583 -357 -161 -3 106 153 134 47 -102 -305 -549 -818-1112

-1038 -745 -492 -249 -25 162 307 395 413 356 227 35 -205 -480 -766-1106

-950 -686 -440 -187 57 275 445 577 639 619 519 346 113 -159 -453 -755-1080

-863 -648 -413 -166 88 329 538 703 804 825 760 613 398 133 -164 -473 -789-1092

-609 -409 -180 70 325 562 761 904 966 940 826 635 385 92 -226 -549 -861

-567 -414 -221 11 265 519 746 926 1032 1050 975 816 587 308 -6 -335 -657 -965

-503 -411 -275 -82 158 418 665 872 1017 1079 1050 930 732 473 173 -152 -481 -796-1044

-406 -319 -188 24 275 526 749 924 1027 1043 968 808 581 303 -9 -337 -658 -966

-363 -267 -119 106 344 570 761 897 954 925 810 621 372 83 -231 -552 -864

-388 -363 -257 -84 129 348 543 696 788 803 735 589 376 114 -177 -480 -796-1097

-526 -418 -288 -109 94 287 441 558 610 585 483 312 83 -184 -473 -770-1091

-655 -511 -362 -178 3 162 286 360 369 309 180 -9 -245 -515 -794-1128

-772 -632 -469 -301 -148 -21 66 100 74 -14 -162 -362 -600 -862-1148

-921 -775 -625 -481 -357 -264 -212 -209 -262 -372 -533 -736 -969-1218

-963 -830 -714 -620 -555 -529 -557 -634 -759 -924-1124

-1125-1085-1000 -934 -887 -892 -950-1038-1165-1252

-1341-1328-1332-1340-1372

THE APPROXIMATE POSITION AND QUANTITY IN MILLIONTHS OF AN INCH OF THE Z DEFLECTIONS IN MATRIX TDF453 COLUMN 03

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Advanced Research Projects Agency, Department of Defense

13. ABSTRACT

This is Volume II of Design Study of Large Sculpted Mirror Substrates. It consists of 147 deflection maps resulting from calculations described in Volume I. Map codings appear in Section 7.0 of Volume I.

14. KEY WORDS

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thermal analysis
finite element analysis
mechanical analysis
deformations

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
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HEADQUARTERS ELECTRONIC SYSTEMS DIVISION (AFSC)
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REPLY TO ATTN OF: TML (Lincoln Lab) 8 January 1974

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