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Volume 4

AD-A141 902

Damage Tolerant Design Handbook

A Compilation of Fracture and Crack-Growth Data for High-Strength Alloys

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Metals and Ceramics Information Center
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Prepared by

University of Dayton Research Institute

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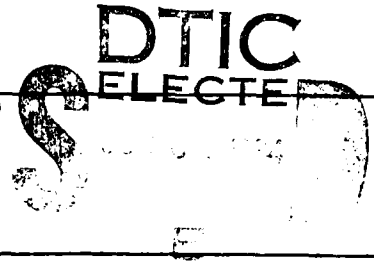

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This edition entirely revamps the 1975 edition. This edition is arranged by alloy rather than by property as in the previous addition. The data are presented in eight chapters and four volumes. Plane-strain fracture toughness (K_{IC}), critical plane stress fracture toughness, apparent fracture toughness, R-curve, fatigue crack growth rates, sustained-load crack growth rate and threshold stress intensity (K_{ISCC}) data are presented for stainless steels, titanium alloys, nickel-base alloys, alloy steels, 2000-, 6000- and 7000-series aluminum alloys.

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Volume 4

Damage Tolerant Design Handbook

A Compilation of Fracture and Crack Growth Data for High-Strength Alloys

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Sponsored by

Materials Laboratory

Air Force Wright Aeronautical Laboratories

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This document was published by the Metals and Ceramics Information Center (MCIC), Battelle's Columbus Laboratories, 505 King Avenue, Columbus, Ohio 43201-2693. MCIC's objective is to provide a comprehensive current resource of technical information on the development and utilization of advanced metal- or ceramic-base metals.

MCIC is publishing this revised and expanded edition of the Damage Tolerant Design Handbook to increase the availability of information to the technical community. The loose leaf format was selected to facilitate updating the handbook as new information becomes available. This edition is a completely revised and expanded version of the original handbook first published by MCIC in 1972 and revised in 1973 and 1975.

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TABLE 1.4

ABBREVIATIONS FOR MATERIAL SYSTEMS

Abbreviation	Materials
ALUM	Aluminum Alloys
TITAN.	Titanium Alloys
NICKEL	Nickel-Base Alloys
STAIN. STEEL	Stainless Steel Alloys
ALLOY STEEL	Steel Alloys

TABLE 1.5

ABBREVIATIONS FOR ALLOY CONDITIONING AND HEAT TREATMENTS

Abbreviation	Condition/Heat Treatment
OQ	Oil Quenched
ABQ	Aus-Bay Quench
AC	Air Cool
WC	Water Quench
MA	Mill Anneal
BA	Beta Anneal
DA	Duplex Anneal
RA	Recrystallize Anneal
ST	Solution Treated
STA	Solution Treated And Aged

TABLE 1.6

ABBREVIATIONS FOR PRODUCT FORMS

Abbreviations	Product Form
S	Sheet
P	Plate
E	Extrusion
F	Forging
FB	Forged Bar
BT	Billet
BR	Round Bar
RB	Rolled Bar
C	Casting
W	Weldment
D	Disk
EB	Extruded Bar
B	Bar

TABLE 1.7

ABBREVIATIONS FOR ENVIRONMENTAL SYSTEMS

Abbreviations	Environmental System
R. T.	Room Temperature (65°F-80°F)
L. H. A.	Low Humidity Air (< 10% RH)
Dry Air	Low Humidity Air (< 10% RH)
H. H. A.	High Humidity Air (> 80% RH)
Lab. Air	Laboratory Air (% RH unspecified)
Dist. H_2O	Distilled Water
Dist. Water	Distilled Water
3.5 PCT Nacl	3.5% Salt Water Solution
JP.4	JP-4 Aircraft Fuel
JP.4 - Fuel	JP-4 Aircraft Fuel
S. T. W.	Sump Tank Water
S. S. W.	Simulated Sea Water
S. C. S.	Shop Cleaning Solvent
F. C. S.	Field Cleaning Solvent
Salt Fog	Salt Fog
Temp.	Temperature

TABLE 1.8

ABBREVIATIONS FOR SPECIMEN DESIGNS

Abbreviations	Specimen Design*
CT	Compact Tension
NB	3Pt. Notched Bend
WOL	Wedge Open Load
CCP	Center Cracked Panel
BWOL	Bolt Loaded-Wedge Open Load
CANT	Cantilever Beam
TDCB	Tapered Double Cantilever Beam
CHAR	Charpy
PTSC	Part Through Surface Crack
SENT	Single Edge Notch Tension
K_BBAR	K_B Bar
4-NB	4 Pt. Notched Bend
MCT	Modified Compact Tension
CNT	Center Notched Tension
DCB	Double Cantilever Beam
BDCB	Bolt Loaded Double Cantilever Beam

*Also note that when "SG" is used in conjunction with a specimen design, the specimen is side-grooved along the path of the crack.

Volume 4

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CHAPTER 8

7000 SERIES ALUMINUM ALLOY SECTIONS

TABLE 8.9.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7075 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD (KSI SQRT(IN)) DEVIATION		(NUMBER OF SPECIMENS)
PLATE			
CONDITION/HT	L-T	T-L	S-L
T651	26.5 ± 2.0 (63)	22.5 ± 2.0 (75)	17.6 ± 2.7 (11)
T7351	29.4 ± 2.2 (47)	26.2 ± 3.2 (36)	18.5 ± 0.4 (7)
T7651	28.5 ± 1.5 (25)	23.1 ± 2.0 (45)	17.8 ± 1.5 (16)
FORGING			
CONDITION/HT	L-T	T-L	S-L
T6	24.3 ± 0.1 (2)	20.9 ± 1.7 (2)	16.8 ± 0.4 (4)
T73	-----	-----	19.1 ± 0.5 (4)
T7352	33.6 ± 3.1 (14)	26.6 ± 2.8 (13)	21.7 ± 3.2 (8)
T73652	35.0 ± 1.8 (3)	26.6 ± 2.7 (3)	-----
EXTRUSION			
CONDITION/HT	L-T	T-L	S-L
T6	-----	19.9 ± 0.2 (3)	18.5 ± 0.2 (3)
T651	31.1 ± 0.5 (4)	20.2 ± 0.2 (5)	-----
T6510	27.5 ± 2.1 (12)	23.3 ± 1.6 (16)	20.0 ± 1.3 (3)
T6511	27.9 ± 1.4 (2)	26.9 ± 1.8 (4)	-----
T73510	-----	24.6 ± 2.3 (9)	20.3 ± 0.8 (2)
T73511	39.6 ± 3.1 (4)	26.8 ± 1.1 (3)	21.9 ± 1.1 (2)
T76511	35.7 ± 4.4 (6)	23.6 ± 2.8 (4)	-----

TABLE 8.9.1.1 (con't)

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7075 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD DEVIATION (KSI SQRT(IN))		(NUMBER OF SPECIMENS)
FORGED BAR			
CONDITION/HT	L-T	T-L	S-L
T6510	29.2 ± 3.4 (13)	21.4 ± 1.8 (13)	18.7 ± 0.9 (7)
EXTRUDED BAR			
CONDITION/HT	L-T	T-L	S-L
T73511-HIGH/ PURITY	43.0 ± 1.7 (2)	30.0 ± 0.1 (2)	-----
T73511-LOW/ PURITY	27.3 ± 0.2 (2)	21.7 ± 1.7 (2)	-----
T73511-MEDIUM/ PURITY	30.6 ± 0.2 (2)	21.9 ± 0.3 (2)	-----
ROLLED BAR			
CONDITION/HT	L-T	T-L	S-L
T651	34.1 ± 0.5 (2)	-----	-----

TABLE 8.9.1.2

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 70/5

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT DRY AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T73	FORGED BAR	0.10	4.00				2.04	26.3		
T73	FORGED BAR	0.30	4.00				1.98	42.3		
T73	FORGED BAR	0.50	4.00				9.84	71.0		
T651	PLATE	0.02	1.00-10.00				6.01	32.1		

TABLE 8.9.1.3

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT L H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2 5	5	10	20	50	100
T6	PLATE	-1 00	10 00				5 52	87 9		
T6	PLATE	0 00	10 00				6 20	51 7		
T6	PLATE	0 50	10 00			1 33	13 9	476		
T6510	EXTRUSION	0 33	5 20				16 1			
T7351	PLATE	0 08	1 00			0 39	7 00			
T7351	PLATE	0 08	6 00			0 33	5 76			
T7351	PLATE	0 30	6 00				8 07			
T7351	PLATE	0 50	6 00			1 51	12 6			
T73511	EXTRUSION	0 08	0 10				6 61			
T73511	EXTRUSION	0 08	1 00			0 73	7 27			
T73511	EXTRUSION	0 70	6 00		0 16	1 73	19 0			
T73511	EXTRUSION	0 08	6 00				4 13	37 8		
T73511	EXTRUSION	0 08	6 00				7 08	42 3		

TABLE 8.9.1.3 (con't)

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: L. H. A. AT R. T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7352	FORGING	0.08	6.00				8.49			
T76	SHEET	0.08	1.00			0.56	5.69			
T76	SHEET	0.08	6.00			0.61	5.87	43.8		
T76	SHEET	0.30	6.00			0.78	10.1			
T7651	PLATE	0.08	1.00			0.91	8.57			
T7651	PLATE	0.08	1.00			0.38	9.90	53.0		
T7651	PLATE	0.08	6.00				5.20			
T7651	PLATE	0.08	6.00				5.63			
T7651	PLATE	0.30	6.00			0.66	8.75			
T76511	EXTRUSION	0.08	6.00			0.73	5.67			
T76511	EXTRUSION	0.30	6.00			0.50	7.97	72.6		

TABLE 8.9.1.4

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: L. H. A. AT 265 F

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T73511	EXTRUSION	0.08	6.00			1.75	8.31			
T7651	PLATE	0.08	1.00			1.18	7.61	62.2		
T7651	PLATE	0.08	6.00			1.20	8.03			

TABLE 8.9.1.5

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	SHEET	0.02	1.00					103		
T6	SHEET	0.02	3.00					92.8		
T6	SHEET	0.02	10.00				14.0	60.0	5416.	
T6	SHEET	0.02	0.10-30.00				11.2	54.5	20650.	
T6	SHEET	0.50	1.00				40.6	1703.		
T6	SHEET	0.50	3.00				45.6			
T6	SHEET	0.50	10.00			5.90	30.3	284.		
T651	PLATE	0.02	0.10-30.00				8.32	58.5		
T651	PLATE	0.02	1.00-30.00			1.64	17.8	66.6		
T651	PLATE	0.33	7.50				14.9			
T651	PLATE	0.50	0.10-30.00			3.04	21.2	665		
T6510	EXTRUSION	0.33	5.20				25.0			
T6510	EXTRUDED BAR	0.33	5.20				18.0			

TABLE 8.9.1.5 (con't)

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T6511	EXTRUSION	-1.00	----			1.03	15.1			
T6511	EXTRUSION	-0.50	----			0.64	13.6	52.2		
T6511	EXTRUSION	0.01	----			0.97	13.2	72.1		
T6511	EXTRUSION	0.40	3.00- 5.00		0.14	2.93	28.2			
T6511	EXTRUSION	0.60	3.00- 5.00		0.17	4.73	34.3			
T6511	EXTRUSION	0.80	3.00- 5.00		0.40	6.29	118			
T73	PLATE	-1.00	20.00			0.61	9.81			
T73	PLATE	-0.50	20.00			0.53	8.52			
T73	PLATE	0.05	20.00		0.05	0.56	11.2			
T7351	PLATE	-1.00	10.00				5.00	52.0		
T7351	PLATE	0.02	0.10-20.00			0.29	5.65	59.4		
T7351	PLATE	0.02	1.00				5.04	44.0		
T7351	PLATE	0.02	10.00				5.09	46.0	1567	
T7351	PLATE	0.02	10.00				3.95	41.4		
T7351	PLATE	0.50	10.00				11.7	126.0		

TABLE 8.9.1.5 (con't)

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7352	BILLET	0.02	1.00-30.00					32.5		
T7352	FORGING	0.33	5.17				13.6			
T73510	EXTRUSION	0.33	5.20				12.8			
T73510	EXTRUSION	0.33	5.20				13.5	93.2		
T73511-HIGH PURITY	EXTRUSION	0.10	30.00				6.39	31.3		
T73511-LOW PURITY	EXTRUSION	0.10	30.00				8.26			
T73511-MEDIUM PURITY	EXTRUSION	0.10	30.00				7.79			

TABLE 8.9.1.6

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT: H. H. A. AT R. T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	SHEET	0.00	9.00				16.8			
T6	SHEET	0.05	9.00			0.45	14.9			
T6	SHEET	0.50	9.00		0.13					
T6	SHEET	0.70	9.00			6.30	69.7			
T651	PLATE	0.33	13.30			1.35				
T651	PLATE	0.33	20.00			1.05	24.5			
T651	PLATE	0.33	25.00		0.06	4.29	27.8			
T651	PLATE	0.80	25.00		0.43					
T6511	EXTRUSION	0.05	9.00				14.2	51.4	2654	
T6511	EXTRUSION	0.50	9.00			3.07	24.2	176		
T73	FORGED BAR	0.10	1.00				1.93	28.0		
T73	FORGED BAR	0.30	1.00					46.2		
T73	FORGED BAR	0.50	1.00				13.7			

TABLE 8.9.1.6 (con't)

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: H.H.A. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	0.10	12.00-30.00			0.62	10.8			
T7351	PLATE	0.25	12.00-30.00		0.08					
T7351	PLATE	0.33	25.00		0.10	1.63	11.5	85.9		
T7351	PLATE	0.33	25.00		0.07	1.25	12.2	94.3		
T7351	PLATE	0.33	25.00-50.00		0.10	0.89	13.2			
T7351	PLATE	0.33	200.00		0.12					
T7351	PLATE	0.50	12.00-30.00		0.16					
T7351	PLATE	0.50	12.00-30.00				13.4			
T73511-LOW PURITY	EXTRUSION	0.10	30.00				12.7			
T73511-MEDIUM PURITY	EXTRUSION	0.10	30.00				14.9			

TABLE 8.9.1.7

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: S.C.S. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T73511	EXTRUSION	0.08	1.00				9.43			
T7651	PLATE	0.08	1.00			1.09	9.51			

TABLE 8.9.1.8

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: 3.5% NACL AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T6	PLATE	-1.00	0.10				22.9	130		
T6	PLATE	0.00	0.10				24.3	164		
T6	PLATE	0.00	1.00				29.8	177		
T6	PLATE	0.00	10.00				22.0	109		
T6	PLATE	0.50	0.10			5.62	41.0	540		
T651	PLATE	0.02	1.00-10.00				14.8	99.4		
T7351	PLATE	0.02	0.10					93.8		

TABLE 8.9.1.9

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: S.T.W. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6511	EXTRUSION	0.80	0.50- 1.00		.427	18.8	100			
T73	FORGED BAR	0.10	0.10- 1.00					29.2		
T73	FORGED BAR	0.30	0.10- 1.00				4.89	63.5		
T73	FORGED BAR	0.50	0.10- 1.00				18.4	164		
T7351	PLATE	0.08	6.00			0.47	9.33			
T73511	EXTRUSION	0.08	0.10			0.54	20.1			
T73511	EXTRUSION	0.08	1.00			0.85	18.8			
T73511	EXTRUSION	0.30	1.00				23.3			
T73511	EXTRUSION	0.50	1.00		0.20	5.24	28.0			
T7651	PLATE	0.08	1.00			0.86	13.9			
T7651	PLATE	0.08	1.00			1.16	9.40			
T7651	PLATE	0.30	1.00			2.17	12.8			
T7651	PLATE	0.50	1.00			3.04	15.3			

TABLE 8.9.1.10

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: DRY AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T651	PLATE	0.10	1.00				10.0			
T651	PLATE	0.50	0.10				39.7			
T651	PLATE	0.50	1.00			2.16	35.6			
T73	FORGED BAR	0.10	4.00			0.54	5.20			
T73	FORGED BAR	0.30	4.00			0.15	9.50			
T73	FORGED BAR	0.50	4.00			1.22	34.7			

TABLE 8.9.1.11

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: L.H.A. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	0.08	6.00			0.44	4.10			
T73511	EXTRUSION	0.08	6.00			0.63	5.45	65.9		
T76	SHEET	0.08	6.00				11.2	58.2		
T7651	PLATE	0.08	6.00				4.31			
T76511	EXTRUSION	0.08	6.00				4.39			

TABLE 8.9.1.12

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT LAB AIR AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	SHEET	0.00	13.30				5.95	42.6		
T6	SHEET	0.33	13.30				11.2	174		
T73510	EXTRUSION	0.33	5.20				14.1			
T73511-HIGH PURITY	EXTRUSION	0.10	30.00				4.66	36.1		
T73511-LOW PURITY	EXTRUSION	0.10	30.00				8.56			
T7352	PLATE	0.02	----			0.47	6.28	66.2	4094	
T7352	PLATE	0.02	----			1.08	10.2			
T7352	FORGING	0.02	----			1.86	14.4	126		
T7352	FORGING	0.02	----					27.5		
T7352	FORGING	0.33	5.17				11.2	68.5		

TABLE 8.9.1.13

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION [illegible]

ENVIRONMENT: H. H. A AT R. T.

[illegible]	[illegible]	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
[illegible]	RAW	[illegible]	1.00			0.54	11.3			
[illegible]	RAW	[illegible] 50	1.00			1.44	16.4			

TABLE 8.9.1.14

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: WATER SATURATED JP-4 FUEL AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.10	0.10				10.8	146		
T651	PLATE	0.50	0.10			3.88	26.7			
T651	PLATE	0.50	1.00			3.39	43.6			

TABLE 8.9.1.15

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: ALT. JP-4 FUEL AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.10	1.00				12.5			
T651	PLATE	0.50	1.00			2.52				

TABLE 8.9.1.16

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: DIST. WATER AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T651	PLATE	0.10	0.10				11.9			
T651	PLATE	0.10	1.00				17.3			
T651	PLATE	0.50	0.10			3.21	38.8			
T651	PLATE	0.50	1.00				36.6			

TABLE 8.9.1.17

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: S.C.S. AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T73511	EXTRUSION	0.08	6.00				9.50			
T7651	PLATE	0.08	1.00			0.76	9.79			

TABLE 8.9.1.18

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: 3.5% NACL AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.10	0.10				35.1			
T651	PLATE	0.10	1.00				22.7			
T651	PLATE	0.50	0.10				60.2			
T651	PLATE	0.50	1.00			6.03				

TABLE 8.9.1.19

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS:

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: S.T.W. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.00	15.00			0.92				
T651	PLATE	0.10	0.10				44.1			
T651	PLATE	0.10	1.00				30.3			
T651	PLATE	0.50	1.00			8.63	75.9			
T73	FORGED BAR	0.10	1.00			1.26	19.7			
T73	FORGED BAR	0.30	1.00			2.38	25.5			
T73	FORGED BAR	0.50	1.00			4.83	39.9			
T7351	PLATE	0.08	1.00				18.0			
T73511	EXTRUSION	0.08	1.00				20.5			

TABLE 8.9.1.20

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: S-T

ENVIRONMENT: 3.5% NACL AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.50	0.20			39.5				
T7351	PLATE	0.50	0.13- 0.20			7.87				

TABLE 8.9.1.21

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075

TEST CONDITIONS

SPECIMEN ORIENTATION: S-T

ENVIRONMENT: NITROGEN GAS AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T651	PLATE	0.50	20.00			1.86				
T7351	PLATE	0.50	10.00-20.00			1.44	12.0			

TABLE 8.9.2.1

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T6	F	0.50	R.T.	L-T	79.0	1.000	0.500	CT	0.534	0.23	24.20			1973	86213
		0.50			79.0	1.000	0.500	CT	0.523	0.24	24.40	24.3/	0.1	1973	86213
T6	F	0.75	82	L-T	69.9	2.000	0.500	CT	1.025	0.44	29.20			1973	86213
T6	F	0.89	R.T.	T-L	67.2	0.500	0.249	NB	0.265	0.21	19.70			1973	86213
		0.89			70.0	0.500	0.249	NB	0.273	0.25	22.10	20.9/	1.7	1973	86213
T6	F	0.89	82	T-L	57.4	1.500	0.749	CT	0.785	0.32	20.40			1973	86213
		0.89			57.4	1.500	0.749	CT	0.762	0.32	20.40			1973	86213
		0.75			67.6	1.000	0.500	CT	0.511	0.17	17.50	19.4/	1.7	1973	86213
T6	F	0.89	84	T-L	68.0	1.500	0.750	CT	0.792	0.24	21.20			1973	86213
		0.89			68.0	1.500	0.750	CT	0.798	0.22	20.00	20.6/	0.8	1973	86213
T6	F	0.50	R.T.	S-L	65.4	1.000	0.499	CT	0.493	0.17	17.00			1973	86213
		0.50			65.4	1.000	0.500	CT	0.505	0.17	17.20			1973	86213
		0.50			65.4	1.000	0.500	CT	0.496	0.16	16.40			1973	86213
		0.50			65.4	1.000	0.500	CT	0.510	0.16	16.70	16.8/	0.4	1973	86213
T6	E	2.00	R.T.	T-L	72.0	1.500	0.750	CT	0.797	0.19	20.00			1973	86213
		2.00			73.6	1.500	0.749	CT	0.798	0.18	19.70			1973	86213
		2.00			73.6	1.500	0.748	CT	0.791	0.19	20.10	19.9/	0.2	1973	86213
T6	E	2.00	R.T.	S-L	67.0	1.500	0.748	CT	0.791	0.19	18.50			1973	86213
		2.00			67.0	1.500	0.750	CT	0.798	0.19	18.30			1973	86213
		2.00			67.2	1.500	0.749	CT	0.808	0.19	18.70	18.5/	0.2	1973	86213
T6	FB	----	R.T.	C-L	68.6	1.500	0.750	CT	0.750	0.20	19.60			1972	82879
		----			68.6	1.500	0.750	CT	0.750	0.20	19.30	19.5/	0.2	1972	82879
T6	RB	4.50	82	T-L	62.9	1.500	0.749	CT	0.788	0.40	25.30			1973	86213
		4.50			62.9	1.500	0.750	CT	0.789	0.35	23.60			1973	86213
		4.50			62.9	1.500	0.749	CT	0.796	0.41	25.40			1973	86213
		4.50			62.9	1.500	0.749	CT	0.778	0.33	23.00	24.3/	1.2	1973	86213
T651	P	1.37	R.T.	L-S	75.4	1.010	0.499	CT	0.525	0.32	27.50			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	5.00	R.T.	L-T	56.0	2.006	0.999	CT	1.003	0.70	30.00			1978	MPC01
		4.00			61.0	4.016	1.998	CT	1.968	0.48	27.30			1978	MPC01
		4.00			61.0	3.982	1.998	CT	1.991	0.50	27.60			1978	MPC01
		3.00			66.8	2.002	0.999	CT	1.001	0.42	27.80			1978	MPC01
		2.50			69.7	2.000	0.999	CT	1.000	0.28	24.10			1978	MPC01
		2.00			70.0	2.000	0.828	CT	1.037	0.42	28.70			1972	84306
		3.00			70.2	2.500	1.250	CT	1.273	0.48	30.60			1971	84360
		3.00			70.2	2.490	1.250	CT	1.329	0.44	29.40			1971	84360
		2.00			72.2	1.996	0.999	CT	1.038	0.44	30.50			1978	MPC01
		2.00			72.2	1.994	0.999	CT	1.037	0.42	30.10			1978	MPC01
		2.00			73.3	1.989	0.999	CT	1.034	0.32	26.80			1978	MPC01
		2.00			73.9	3.007	1.000	CT	1.654	0.36	28.80			1978	MPC01
		2.50			74.6	2.490	1.246	CT	1.228	0.27	24.50			1971	84360
		2.50			74.6	2.500	1.250	CT	1.252	0.31	26.20			1971	84360
		1.37			75.4	3.008	1.388	NB	1.534	0.30	26.70			1978	MPC01
		1.37			75.4	3.029	1.387	NB	1.454	0.34	28.10			1978	MPC01
		1.37			75.4	2.973	1.384	NB	1.516	0.28	26.20			1978	MPC01
		1.37			75.4	2.978	1.386	NB	1.489	0.30	26.60			1978	MPC01
		1.37			75.4	3.013	1.385	NB	1.627	0.38	29.60			1978	MPC01
		1.37			75.4	1.989	0.997	CT	1.054	0.34	28.30			1978	MPC01
		1.37			75.4	1.983	0.997	CT	1.051	0.32	27.70			1978	MPC01
		1.37			75.4	3.000	1.388	NB	1.509	0.30	26.00			1973	86213
		1.37			75.4	3.000	1.386	NB	1.472	0.30	26.10			1973	86213
		1.37			75.4	3.014	1.388	NB	1.477	0.40	30.30			1978	MPC01
		1.37			75.4	3.000	1.384	NB	1.436	0.26	24.10			1973	86213
		2.50			75.5	2.559	1.255	CT	1.324	0.32	27.20			1975	MA012
		2.50			75.5	2.502	1.250	CT	1.248	0.35	28.20			1974	MA011
		2.00			75.7	2.500	1.248	CT	1.269	0.28	25.20			1971	84360
		2.00			75.7	2.490	1.251	CT	1.271	0.29	25.80			1971	84360
		1.75			76.1	1.500	0.750	CT	0.765	0.27	25.50			1978	MPC01
		1.75			76.1	1.490	0.748	CT	0.775	0.25	24.50			1978	MPC01
		1.50			76.1	1.514	0.748	CT	0.772	0.28	25.90			1978	MPC01
		1.50			76.1	1.502	0.749	CT	0.766	0.27	25.60			1978	MPC01
		0.62			76.2	1.496	0.642	CT	0.778	0.32	27.80			1978	MPC01
		1.75			77.2	1.500	0.748	CT	0.765	0.27	25.60			1978	MPC01
		2.50			77.2	1.990	1.001	CT	0.978	0.32	27.80			1973	86213
		2.50			77.2	1.990	1.001	CT	0.975	0.32	27.80			1973	86213
		1.75			77.2	1.506	0.747	CT	0.768	0.25	25.10			1978	MPC01
		1.25			78.4	2.006	1.000	CT	1.023	0.24	24.70			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	PRODUCT FORM	PRODUCT THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	SPECIMEN WIDTH (IN) W	SPECIMEN THICK (IN) B	SPECIMEN DESIGN	CRACK LENGTH (IN) A	2.5*(K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	K(IC) STAN DEV	DATE	REFER
T651	P	1.50	R T	L T	78.8	1.498	0.510	CT	0.764	0.28	27.50			1978	MPC01
		1.[illegible]			79.1	3.012	1.386	NB	1.476	0.24	25.20			1978	MPC01
		1.[illegible]			79.1	2.988	1.386	NB	1.494	0.24	25.20			1978	MPC01
		1.[illegible]			79.1	2.980	1.386	NB	1.460	0.25	25.60			1978	MPC01
		1.[illegible]			79.1	3.000	1.375	NB	1.500	0.23	24.00			1973	86213
		1.[illegible]			79.1	3.000	1.375	NB	1.437	0.26	25.60			1973	86213
		1.[illegible]			79.1	3.000	1.386	NB	1.465	0.26	25.70			1973	86213
		1.[illegible]			79.1	3.000	1.386	NB	1.476	0.24	24.70			1973	86213
		1.[illegible]			79.1	3.014	1.387	NB	1.507	0.15	20.10			1978	MPC01
		1.[illegible]			79.2	1.574	0.643	CT	0.772	0.28	27.60			1978	MPC01
		1.[illegible]			80.6	1.500	0.752	CT	0.747	0.27	26.30			1973	86213
		1.[illegible]			80.6	3.000	1.371	NB	1.563	0.25	25.40			1973	86213
		1.[illegible]			80.6	3.029	1.371	NB	1.484	0.19	23.30			1978	MPC01
		1.[illegible]			80.6	3.000	1.373	NB	1.550	0.25	25.60			1973	86213
		1.[illegible]			80.6	1.500	0.752	CT	0.772	0.28	27.10			1973	86213
		1.[illegible]			81.1	2.043	0.606	CT	1.042	0.27	26.80			1978	MPC01
		1.62			81.2	1.490	0.750	CT	0.775	0.19	22.80			1978	MPC01
		1.62			81.2	1.496	0.749	CT	0.778	0.19	22.80			1978	MPC01
		1.[illegible]			81.5	2.000	1.001	CT	1.053	0.28	27.40			1973	86213
		1.[illegible]			81.5	2.021	1.000	CT	1.051	0.27	26.90			1978	MPC01
		1.[illegible]			81.5	2.010	1.000	CT	1.058	0.28	27.20			1973	86213
		1.[illegible]			81.5	1.990	1.002	CT	1.039	0.26	26.30			1973	86213
		1.[illegible]			81.5	1.985	1.002	CT	1.032	0.24	26.00			1978	MPC01
		1.[illegible]			81.5	1.991	1.001	CT	1.055	0.27	27.50	26.5/	2.0	1978	MPC01
T651	P	2.00	83	L T	76.8	2.000	1.000	CT	1.010	0.36	29.00			1973	86213
		2.00			76.8	2.000	1.000	CT	0.998	0.36	29.10	29.1/	0.1	1973	86213
T651	P	2.50	84	L T	72.3	0.990	0.503	CT	0.518	0.32	25.70			1973	86213
		2.50			72.3	0.990	0.503	CT	0.504	0.28	24.00	24.9/	1.2	1973	86213
T651	P	2.50	85	L-T	72.8	2.000	1.000	CT	1.020	0.32	25.90			1973	86213
		2.50			72.8	2.000	1.001	CT	1.058	0.32	25.90	25.9/	0.0	1973	86213
T651	P	1.37	88	T-S	73.4	1.000	0.500	CT	0.519	0.32	26.10			1973	86213
		1.37			73.4	1.000	0.500	CT	0.496	0.34	27.20	26.7/	0.8	1973	86213
T651	P	1.38	320	T-L	92.0	3.000	1.390	NB	1.580	0.19	25.10			1971	84288

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.38	- 112	T-L	82.8	3.000	1.390	NB	1.520	0.19	22.60			1971	84288
		1.37			82.8	2.990	1.388	NB	1.517	0.19	22.60	22.6/	0.0	1973	86213
T651	P	0.62	- 65	T-L	80.8	1.250	0.630	CT	0.600	0.18	21.80			1973	88140
		0.62			80.8	1.250	0.630	CT	0.600	0.17	21.00	21.4/	0.6	1973	88140
T651	P	5.00	R.T.	T-L	51.3	2.018	0.999	CT	0.989	0.50	23.50			1978	MPC01
		4.00			59.6	4.000	1.998	CT	2.080	0.34	22.30			1978	MPC01
		4.00			59.6	3.973	1.999	CT	2.066	0.34	22.20			1978	MPC01
		2.50			60.9	2.018	0.999	CT	1.009	0.34	22.80			1978	MPC01
		2.00			68.2	1.010	0.499	CT	0.495	0.25	22.30			1978	MPC01
		2.00			68.2	3.002	0.499	CT	0.501	0.25	21.90			1978	MPC01
		3.00			68.6	1.990	0.999	CT	1.035	0.25	22.10			1978	MPC01
		1.75			69.5	1.513	0.748	CT	0.726	0.19	20.00			1978	MPC01
		1.75			69.5	1.496	0.749	CT	0.733	0.19	19.90			1978	MPC01
		2.50			69.8	1.994	1.001	CT	1.037	0.24	21.90			1978	MPC01
		2.00			70.4	1.992	0.999	CT	1.036	0.25	23.10			1978	MPC01
		2.00			70.6	1.992	0.999	CT	1.016	0.28	24.30			1978	MPC01
		1.75			70.6	1.512	0.750	CT	0.756	0.21	20.80			1978	MPC01
		2.00			70.6	2.002	0.999	CT	1.021	0.28	24.30			1978	MPC01
		1.75			70.6	1.504	0.748	CT	0.722	0.19	20.30			1978	MPC01
		0.50			72.6	3.000	0.499	NB	1.500	0.34	26.90			1978	MPC01
		0.50			72.6	3.018	0.499	NB	1.479	0.30	25.60			1978	MPC01
		0.50			72.6	2.996	0.499	NB	1.438	0.30	25.60			1978	MPC01
		0.50			72.6	3.027	0.499	NB	1.453	0.28	25.00			1978	MPC01
		0.50			72.6	2.996	0.499	NB	1.438	0.28	25.00			1978	MPC01
		0.50			72.6	2.973	0.499	NB	1.516	0.32	26.60			1978	MPC01
		2.00			73.1	3.015	1.001	CT	1.628	0.24	23.00			1978	MPC01
		1.75			73.3	1.489	0.748	CT	0.774	0.22	22.70			1978	MPC01
		1.75			73.3	1.494	0.748	CT	0.777	0.22	22.30			1978	MPC01
		1.37			73.4	3.002	1.392	NB	1.501	0.21	22.00			1978	MPC01
		1.37			73.4	1.998	1.000	CT	1.079	0.25	24.00			1978	MPC01
		1.37			73.4	3.000	1.392	NB	1.530	0.24	22.70			1973	86213
		1.37			73.4	3.000	1.392	NB	1.593	0.18	19.70			1973	86213
		1.37			73.4	3.022	1.391	NB	1.511	0.27	24.40			1978	MPC01
		1.37			73.4	2.998	1.391	NB	1.499	0.21	21.40			1978	MPC01
		1.37			73.4	3.024	1.392	NB	1.542	0.15	18.60			1978	MPC01
		1.37			73.4	3.000	1.391	NB	1.576	0.25	23.30			1973	86213
		1.37			73.4	3.002	1.391	NB	1.441	0.25	24.00			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.75	R.T.	T-L	74.4	2.002	1.002	CT	1.021	0.19	21.30			1978	MPC01
		1.75			74.4	2.000	1.002	CT	1.033	0.21	21.70			1973	86213
		1.75			74.4	1.992	1.002	CT	1.036	0.22	23.00			1978	MPC01
		1.75			74.4	2.000	1.002	CT	1.030	0.23	22.40			1973	86213
		1.75			74.4	1.990	1.003	CT	1.034	0.24	22.90			1973	86213
		1.50			74.5	1.502	0.748	CT	0.796	0.25	24.10			1978	MPC01
		1.75			74.5	1.493	0.748	CT	0.821	0.19	21.50			1978	MPC01
		1.50			74.5	1.504	0.750	CT	0.782	0.24	23.60			1978	MPC01
		1.00			74.9	1.986	0.980	CT	1.092	0.22	22.50			1978	MPC01
		1.00			74.9	1.987	0.979	CT	1.093	0.21	22.30			1978	MPC01
		1.62			75.6	1.494	0.748	CT	0.762	0.18	20.90			1978	MPC01
		1.62			75.6	1.502	0.749	CT	0.766	0.18	21.10			1978	MPC01
		0.50			75.9	1.498	0.509	CT	0.764	0.25	24.80			1978	MPC01
		0.50			75.9	1.508	0.509	CT	0.754	0.24	24.20			1978	MPC01
		0.37			76.0	1.496	0.379	CT	0.763	0.21	22.50			1978	MPC01
		0.62			76.2	1.516	0.643	CT	0.773	0.27	25.80			1978	MPC01
		0.62			76.2	1.510	0.642	CT	0.770	0.25	25.10			1978	MPC01
		0.[illegible]			76.5	1.998	0.606	CT	0.979	0.19	21.80			1978	MPC01
		1.37			77.3	2.994	1.369	NB	1.527	0.16	20.30			1978	MPC01
		1.37			77.7	3.000	1.375	NB	1.484	0.16	19.80			1973	86213
		1.38			77.7	3.000	1.387	NB	1.484	0.33	19.70			1971	84288
		1.37			77.7	3.002	1.386	NB	1.534	0.21	22.90			1978	MPC01
		1.37			77.7	2.996	1.375	NB	1.468	0.18	21.00			1978	MPC01
		1.38			77.7	3.000	1.385	NB	1.676	0.34	19.30			1971	84288
		1.38			77.7	3.000	1.385	NB	1.566	0.36	21.10			1971	84288
		1.37			77.7	3.000	1.375	NB	1.469	0.18	21.00			1973	86213
		1.38			77.7	3.000	1.385	NB	1.575	0.36	21.30			1971	84288
		1.37			77.7	3.016	1.385	NB	1.508	0.15	19.80			1978	MPC01
		1.38			77.7	3.000	1.387	NB	1.469	0.35	20.80			1971	84288
		1.37			77.7	3.000	1.375	NB	1.484	0.17	20.20			1973	86213
		1.37			77.7	3.000	1.386	NB	1.519	0.21	22.60			1973	86213
		1.37			77.7	3.000	1.375	NB	1.500	0.15	19.60			1978	MPC01
		1.38			77.7	3.000	1.385	NB	1.584	0.33	19.50			1971	84288
		1.38			77.7	3.000	1.387	NB	1.484	0.33	20.00			1971	84288
		1.38			77.7	3.000	1.386	NB	1.519	0.38	22.60			1971	84288
		1.25			78.9	2.006	0.999	CT	1.023	0.16	20.70			1978	MPC01
		1.37			79.3	1.496	0.751	CT	0.778	0.27	26.40			1978	MPC01
		1.37			79.3	1.506	0.752	CT	0.768	0.27	26.20			1978	MPC01
		1.37			79.3	1.498	0.752	CT	0.764	0.27	26.70			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	SPECIMEN WIDTH (IN) W	SPECIMEN THICK (IN) B	SPECIMEN DESIGN	CRACK LENGTH (IN) A	2.5*(K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	K(IC) STAN DEV	DATE	REFER
		T-L	80.6	1.250	0.630	CT	0.600	0.19	22.40			1973	88140
			80.6	1.250	0.630	CT	0.600	0.20	23.10			1973	88140
			80.7	1.994	0.504	CT	0.977	0.21	23.90	22.5/	2.0	1978	MPC01
		T-L	67.2	1.000	0.500	CT	0.494	0.33	24.50			1973	86213
			67.2	1.000	0.499	CT	0.502	0.31	23.50			1973	86213
			67.4	4.000	1.997	CT	2.190	0.25	21.40			1973	86213
			67.4	1.000	0.500	CT	0.481	0.22	20.20			1973	86213
			67.4	1.000	0.500	CT	0.481	0.25	21.30			1973	86213
			67.4	1.000	0.500	CT	0.479	0.22	20.10			1973	86213
			67.4	1.000	0.500	CT	0.476	0.22	20.00			1973	86213
			68.2	1.000	0.499	CT	0.501	0.26	21.90			1973	86213
			68.2	1.000	0.500	CT	0.495	0.27	22.30	21.7/	1.6	1973	86213
		T-L	67.4	3.000	1.500	CT	1.654	0.27	22.20			1973	86213
			74.1	2.000	1.001	CT	0.963	0.25	23.30			1973	86213
			74.1	2.000	1.000	CT	0.981	0.26	24.00	23.2/	0.9	1973	86213
		T-L	69.5	1.500	0.749	CT	0.733	0.20	19.90			1973	86213
			69.5	1.500	0.748	CT	0.726	0.21	20.00			1973	86213
			70.6	1.500	0.750	CT	0.756	0.22	20.80			1973	86213
			70.6	1.500	0.748	CT	0.722	0.21	20.30	20.3/	0.4	1973	86213
		T-L	74.8	1.250	0.630	CT	0.600	0.26	24.00			1973	88140
			74.8	1.250	0.630	CT	0.600	0.27	24.40	24.2/	0.3	1973	88140
	RR	S-T	67.3	1.000	0.500	CT	0.491	0.20	19.10			1973	86213
			67.3	1.000	0.500	CT	0.492	0.20	18.80	19.0/	0.2	1973	86213
4.00	R-T	S-L	56.8	2.983	1.499	CT	1.551	0.36	21.60			1978	MPC01
4.00			56.8	3.031	1.500	CT	1.546	0.38	22.50			1978	MPC01
2.50			65.2	1.996	0.999	CT	0.998	0.18	18.00			1978	MPC01
2.50			65.8	2.006	1.002	CT	1.043	0.19	18.70			1978	MPC01
2.50			65.8	1.994	1.001	CT	1.057	0.18	18.00			1978	MPC01
2.50			65.8	2.010	1.002	CT	1.036	0.20	18.50			1973	86213
2.50			65.8	2.000	1.001	CT	1.046	0.18	17.60			1973	86213
1.75			70.2	0.992	0.500	CT	0.496	0.10	14.60			1978	MPC01
1.75			70.2	1.000	0.500	CT	0.497	0.11	14.70			1973	86213
1.75			70.2	1.000	0.500	CT	0.503	0.11	14.80			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.75	R.T.	S-L	70.2	1.000	0.500	CT	0.496	0.11	15.00	17.6/	2.7	1973	86213
T651	P	2.00	82	S-L	64.1	1.000	0.500	CT	0.492	0.14	15.30			1973	86213
		2.00			64.1	1.000	0.498	CT	0.493	0.14	15.40			1973	86213
		2.00			64.1	1.000	0.500	CT	0.485	0.14	15.20	15.3/	0.1	1973	86213
T651	P	2.00	84	S-L	64.7	1.500	0.750	CT	0.727	0.22	19.10			1973	86213
		2.00			64.7	1.490	0.750	CT	0.731	0.21	18.70			1973	86213
		2.50			65.2	2.000	0.999	CT	0.998	0.19	18.00			1973	86213
		2.50			65.8	0.990	0.502	CT	0.509	0.20	18.40			1973	86213
		2.50			65.8	0.990	0.502	CT	0.505	0.18	17.80			1973	86213
		2.50			66.6	1.490	0.746	CT	0.707	0.16	17.10			1973	86213
		2.50			66.6	1.490	0.749	CT	0.715	0.20	18.90	18.3/	0.7	1973	86213
T651	P	2.50	85	S-L	64.2	2.000	1.001	CT	1.004	0.21	18.60			1973	86213
		2.50			64.2	2.000	1.001	CT	0.991	0.23	19.40	19.0/	0.6	1973	86213
T651	P	1.75	88	S-L	61.8	1.000	0.500	CT	0.493	0.20	17.50			1973	86213
		1.75			61.8	1.000	0.500	CT	0.485	0.21	17.70			1973	86213
		1.75			61.8	1.000	0.500	CT	0.496	0.19	17.10			1973	86213
		1.37			67.3	1.000	0.500	CT	0.486	0.22	20.00			1973	86213
		1.37			67.3	1.000	0.501	CT	0.518	0.21	19.40			1973	86213
		1.37			67.3	1.000	0.501	CT	0.488	0.19	18.70	18.4/	1.2	1973	86213
T651	P	2.50	90	S-L	66.7	1.990	1.002	CT	0.972	0.15	16.40			1973	86213
T651	E	3.00	R.T.	L-T	69.5	2.990	1.498	CT	1.548	0.50	31.20			1973	86213
		3.00			69.5	2.990	1.499	CT	1.550	0.51	31.30			1973	86213
		3.00			77.2	3.000	1.500	CT	1.595	0.39	30.30			1973	86213
		3.00			77.2	3.000	1.499	CT	1.577	0.42	31.50	31.1/	0.5	1973	86213
T651	E	3.50	82	L-T	83.0	2.000	0.999	CT	1.027	0.38	32.20			1973	86213
		3.50			83.0	2.000	0.999	CT	1.032	0.38	32.30	32.3/	0.1	1973	86213
T651	E	5.00	R.T.	T-L	62.6	2.990	1.499	CT	1.540	0.26	20.10			1973	86213
		3.00			64.7	2.990	1.499	CT	1.548	0.25	20.50			1973	86213
		3.00			64.7	2.990	1.500	CT	1.542	0.25	20.30			1973	86213
		3.00			69.5	3.000	1.499	CT	1.566	0.21	20.20			1973	86213
		3.00			69.5	3.000	1.499	CT	1.573	0.20	19.90	20.2/	0.2	1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	E	3.50	82	T-L	68.9	2.000	0.999	CT	0.994	0.17	18.20			1973	86213
		3.50			68.9	2.000	0.999	CT	0.976	0.18	18.30	18.3/	0.1	1973	86213
T651	E	3.00	82	S-L	64.4	2.000	1.000	CT	1.005	0.26	20.70			1973	86213
		3.00			64.4	2.000	1.000	CT	1.014	0.23	19.50	20.1/	0.8	1973	86213
T651	E	5.00	82	L-R	73.6	3.000	1.498	CT	1.548	0.58	35.50			1973	86213
		5.00			73.6	3.000	1.498	CT	1.549	0.53	34.00			1973	86213
		3.50			74.9	2.000	1.000	CT	1.065	0.46	32.30	33.9/	1.6	1973	86213
T651	E	5.00	82	R-L	64.4	3.000	1.499	CT	1.588	0.28	21.70			1973	86213
		5.00			64.4	3.000	1.498	CT	1.585	0.28	21.40			1973	86213
		3.50			68.2	2.000	1.000	CT	1.059	0.20	19.40			1973	86213
		3.50			68.2	2.000	1.000	CT	1.043	0.19	19.00	20.4/	1.4	1973	86213
T651	RB	5.00	R.T.	L-T	72.4	2.990	1.496	CT	1.603	0.56	34.40			1973	86213
		5.00			72.4	2.990	1.496	CT	1.595	0.54	33.70	34.1/	0.5	1973	86213
T651	RB	3.00	82	L-T	78.7	3.000	1.499	CT	1.636	0.38	30.50			1973	86213
		3.00			78.7	3.000	1.500	CT	1.628	0.37	30.40	30.5/	0.1	1973	86213
T651	RB	5.00	R.T.	T-L	62.6	2.990	1.495	CT	1.523	0.22	18.60			1973	86213
T651	RB	3.00	82	S-L	66.0	1.990	1.002	CT	0.962	0.18	17.80			1973	86213
		3.00			66.0	1.990	1.001	CT	0.964	0.18	17.80	17.8/	0.0	1973	86213
T651	RB	3.50	82	L-R	76.9	2.000	1.000	CT	1.063	0.49	34.20			1973	86213
		3.50			76.9	2.000	1.000	CT	1.044	0.48	33.60	33.9/	0.4	1973	86213
T6510	E	3.50	R.T.	L-S	73.6	1.990	1.000	NB	1.063	0.64	37.20			1973	86213
		3.50			75.3	1.990	1.000	NB	0.989	0.72	40.40	38.8/	2.3	1973	86213
T6510	E	3.50	R.T.	L-T	75.7	2.000	1.000	CT	1.035	0.44	31.80			1973	86213
		3.50			75.7	2.000	1.000	CT	0.995	0.44	31.80			1973	86213
		0.84			80.4	1.000	0.500	NB	0.502	0.26	26.10			1973	86213
		0.84			80.4	1.000	0.499	NB	0.471	0.29	27.50			1973	86213
		0.84			80.6	0.990	0.500	NB	0.476	0.26	26.00			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T6510	E	0.84	R.T.	L-T	81.2	1.000	0.500	NB	0.505	0.30	28.20			1973	86213
		0.84			81.2	1.000	0.499	NB	0.505	0.27	26.70			1973	86213
		0.68			81.8	1.500	0.657	NB	0.765	0.26	26.60			1973	86213
		0.68			82.4	1.500	0.659	NB	0.722	0.28	27.60			1973	86213
		0.68			86.4	1.490	0.664	NB	0.729	0.22	25.80			1973	86213
		0.68			86.4	1.490	0.667	NB	0.740	0.22	25.60			1973	86213
		0.68			86.4	1.490	0.623	NB	0.696	0.24	26.50	27.5/	2.1	1973	86213
T6510	E	3.50	R.T.	T-L	66.7	1.000	0.500	NB	0.500	0.26	21.50			1973	86213
		3.50			67.2	1.990	1.000	CT	1.003	0.27	21.90			1973	86213
		3.50			67.2	0.990	0.500	NB	0.469	0.25	21.10			1973	86213
		3.50			67.2	0.990	0.500	NB	0.495	0.24	20.90			1973	86213
		3.50			67.2	1.990	1.000	CT	0.974	0.27	22.10			1973	86213
		0.84			77.0	1.000	0.500	NB	0.461	0.26	24.70			1973	86213
		0.84			77.0	0.990	0.501	NB	0.467	0.23	23.60			1973	86213
		0.84			77.6	1.000	0.500	NB	0.461	0.19	21.40			1973	86213
		0.84			77.6	1.000	0.500	NB	0.475	0.25	24.40			1973	86213
		0.84			77.6	1.000	0.500	NB	0.482	0.23	23.70			1973	86213
		0.84			77.8	1.000	0.500	NB	0.512	0.29	26.50			1973	86213
		0.84			78.0	1.000	0.500	NB	0.467	0.24	24.20			1973	86213
		0.84			78.0	1.000	0.499	NB	0.488	0.24	24.00			1973	86213
		0.68			78.7	1.490	0.664	NB	0.684	0.23	24.00			1973	86213
		0.68			78.8	1.490	0.660	NB	0.691	0.22	23.20			1973	86213
		0.68			78.8	1.490	0.660	NB	0.700	0.25	24.80	23.3/	1.6	1973	86213
T6510	E	3.50	R.T.	S-L	61.7	1.990	1.000	CT	0.941	0.24	19.20			1973	86213
		3.50			61.7	2.000	1.001	CT	0.965	0.24	19.20			1973	86213
		3.50			72.5	0.500	0.251	NB	0.274	0.22	21.50	20.0/	1.3	1973	86213
T6510	FB	3.50	R.T.	L-S	73.6	1.995	0.999	NB	1.097	0.70	39.50			1978	MPC01
		3.50			75.3	1.992	1.000	NB	0.976	0.67	39.60	39.6/	0.1	1978	MPC01
T6510	FB	3.50	R.T.	L-T	74.6	2.006	0.998	NB	1.063	0.46	32.40			1978	MPC01
		3.50			75.7	1.994	1.000	CT	1.037	0.44	31.90			1978	MPC01
		3.50			75.7	2.004	1.000	CT	1.002	0.44	32.10			1978	MPC01
		5.00			77.4	4.036	1.987	CT	2.018	0.52	35.70			1978	MPC01
		3.09			78.2	3.007	1.499	CT	1.563	0.34	29.30			1978	MPC01
		1.18			78.9	2.518	1.104	CT	1.284	0.22	24.30			1978	MPC01
		0.68			81.8	1.506	0.657	NB	0.783	0.27	27.70			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T6510	FB	0.68	R.T.	L-T	82.4	1.492	0.659	NB	0.716	0.27	27.20			1978	MPC01
		2.75			83.0	1.991	0.999	CT	1.075	0.30	29.50			1978	MPC01
		2.81			83.6	2.976	1.499	CT	1.577	0.34	31.40			1978	MPC01
		0.68			86.4	1.502	0.623	NB	0.691	0.22	26.20			1978	MPC01
		0.68			86.4	1.500	0.667	NB	0.735	0.21	25.40			1978	MPC01
		0.68			86.4	1.498	0.664	NB	0.734	0.22	26.10	29.2/	3.4	1978	MPC01
T6510	FB	5.00	R.T	T-L	61.0	5.024	2.500	CT	2.562	0.27	20.70			1978	MPC01
		3.50			66.7	0.998	0.500	NB	0.509	0.27	22.10			1978	MPC01
		3.50			67.2	1.984	1.000	CT	0.972	0.25	22.00			1978	MPC01
		3.50			67.2	2.012	1.000	CT	1.006	0.25	22.00			1978	MPC01
		3.50			67.2	0.990	0.500	NB	0.495	0.24	20.90			1978	MPC01
		3.50			67.2	1.000	0.500	NB	0.470	0.24	21.20			1978	MPC01
		3.09			68.0	3.970	2.001	CT	2.144	0.22	20.80			1978	MPC01
		2.81			68.4	2.987	1.498	CT	1.553	0.18	18.80			1978	MPC01
		2.75			68.6	2.508	1.250	CT	1.279	0.15	17.60			1978	MPC01
		1.18			74.5	2.487	1.104	CT	1.293	0.22	22.80			1978	MPC01
		0.68			78.7	1.482	0.664	NB	0.667	0.21	23.20			1978	MPC01
		0.68			78.8	1.502	0.660	NB	0.676	0.19	22.50			1978	MPC01
		0.68			78.8	1.491	0.660	NB	0.686	0.22	24.10	21.4/	1.8	1978	MPC01
T6510	FB	5.00	R.T.	S-L	59.3	3.000	1.500	CT	1.530	0.28	20.30			1978	MPC01
		3.50			61.7	2.015	1.001	CT	0.967	0.24	19.30			1978	MPC01
		3.50			61.7	2.015	1.000	CT	0.927	0.22	18.80			1978	MPC01
		3.50			61.8	0.500	0.249	NB	0.275	0.22	19.10			1978	MPC01
		3.09			62.6	2.481	1.250	CT	1.290	0.21	18.20			1978	MPC01
		2.81			65.9	2.018	0.999	CT	0.989	0.16	17.70			1978	MPC01
		2.75			67.5	2.010	0.998	CT	0.985	0.16	17.80	18.7/	0.9	1978	MPC01
T6511	E	1.25	R.T.	L-T	79.2	3.011	1.217	NB	1.596	0.32	28.90			1978	MPC01
		1.25			79.4	3.029	1.219	NB	1.575	0.27	26.90	27.9/	1.4	1978	MPC01
T6511	E	1.25	83	L-T	79.2	3.000	1.217	NB	1.547	0.30	27.40			1973	86213
		1.25			79.4	3.000	1.219	NB	1.525	0.26	25.40	26.4/	1.4	1973	86213
T6511	E	1.25	R.T.	T-L	75.4	3.014	1.170	NB	1.567	0.27	25.50			1978	MPC01
		1.25			75.4	3.016	1.170	NB	1.538	0.28	25.20			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T6511	E	1.25	R.T.	T-L	75.8	2.996	1.166	NB	1.498	0.34	28.30			1978	MPC01
		1.25			75.8	2.977	1.168	NB	1.518	0.34	28.50	26.9/	1.8	1978	MPC01
T6511	E	1.25	83	T-L	75.4	3.000	1.170	NB	1.515	0.27	24.60			1973	86213
		1.25			75.4	3.000	1.170	NB	1.535	0.27	24.60			1973	86213
		1.25			75.8	3.000	1.168	NB	1.495	0.34	27.80			1973	86213
		1.25			75.8	3.000	1.166	NB	1.480	0.34	27.80	26.2/	1.8	1973	86213
T73	F	4.00	82	L-T	57.0	2.990	1.503	CT	1.605	1.19	39.30			1973	86213
		4.00			59.5	3.000	1.503	CT	1.589	1.06	38.80	39.1/	0.4	1973	86213
T73	F	1.00	R.T.	T-L	61.3	1.000	0.498	CT	0.509	0.43	25.30			1973	86213
T73	F	4.00	82	T-L	53.8	3.000	1.500	CT	1.622	0.54	24.90			1973	86213
		4.00			54.7	3.000	1.500	CT	1.587	0.53	25.20			1973	86213
		4.00			55.6	3.000	1.500	CT	1.593	0.60	27.30			1973	86213
		4.00			56.8	3.000	1.500	CT	1.592	0.38	22.20			1973	86213
		0.75			60.8	1.000	0.500	CT	0.495	0.25	19.20			1973	86213
		0.75			60.8	1.000	0.500	CT	0.513	0.24	18.70			1973	86213
		0.89			64.4	1.500	0.749	CT	0.805	0.29	21.90	22.8/	3.2	1973	86213
T73	F	0.89	85	T-L	64.3	1.500	0.751	CT	0.816	0.23	19.60			1973	86213
		0.89			64.3	1.500	0.751	CT	0.827	0.24	19.90	19.8/	0.2	1973	86213
T73	F	1.00	R.T.	S-L	57.0	1.000	0.499	CT	0.512	0.29	19.50			1973	86213
		1.00			57.0	1.000	0.499	CT	0.498	0.29	19.40			1973	86213
		1.00			57.0	1.000	0.499	CT	0.501	0.28	19.00			1973	86213
		1.00			57.0	1.000	0.499	CT	0.509	0.26	18.30	19.1/	0.5	1973	86213
T73	F	4.00	82	S-L	54.7	3.000	1.504	CT	1.524	0.41	22.10			1973	86213
T73	F	4.00	84	S-L	53.0	3.000	1.488	CT	1.621	0.71	28.20			1973	86213
		4.00			54.5	3.000	1.499	CT	1.569	0.66	28.00			1973	86213
		4.00			56.4	3.000	1.499	CT	1.636	0.59	27.50	27.9/	0.4	1973	86213
T73	FB	----	R.T.	C-L	64.4	1.500	0.750	CT	0.750	0.26	20.60			1972	82879
		----			64.4	1.500	0.750	CT	0.750	0.29	22.00			1972	82879

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T73	FB	----	R.T.	C-L	64.4	1.500	0.750	CT	0.750	0.27	21.10			1972	82879
		----			64.4	1.500	0.750	CT	0.750	0.29	22.10	21.9/	0.7	1972	82879
T7351	P	4.00	R.T.	L-T	53.2	2.490	1.256	CT	1.271	0.87	31.20			1972	84363
		4.00			53.2	2.490	1.248	CT	1.243	0.86	31.10			1972	84363
		4.00			53.2	2.500	1.258	CT	1.223	0.86	31.00			1972	84363
		1.25			54.5	2.500	1.247	CT	1.286	1.01	34.80			1977	MA005
		1.25			54.5	2.493	1.250	CT	1.281	1.13	36.70			1977	MA005
		3.50			55.1	2.008	0.998	CT	1.004	0.60	27.20			1978	MPC01
		3.00			56.6	2.010	0.998	CT	1.005	0.60	27.90			1978	MPC01
		1.25			57.8	2.493	1.250	CT	1.303	0.74	31.60			1977	MA005
		1.25			57.8	2.502	1.250	CT	1.263	0.59	28.10			1977	MA005
		2.00			58.0	2.990	0.994	CT	1.587	0.69	30.40			1972	84306
		2.00			58.0	2.990	0.996	CT	1.576	0.75	31.70			1972	84306
		2.00			58.0	2.990	0.995	CT	1.575	0.78	32.30			1972	84306
		1.37			59.1	2.002	1.004	NB	1.101	0.55	28.00			1978	MPC01
		1.37			59.1	2.000	1.012	NB	1.100	0.52	27.70			1978	MPC01
		1.37			59.1	2.004	1.002	NB	1.082	0.50	26.60			1978	MPC01
		2.50			59.6	2.000	1.000	CT	0.971	0.59	29.00			1973	86213
		2.50			60.0	2.010	0.999	CT	1.005	0.44	25.70			1978	MPC01
		1.00			61.7	1.028	0.514	WOL	----	0.68	32.20			1980	MR001
		1.00			61.7	1.028	0.514	WOL	----	0.65	31.70			1980	MR001
		1.00			62.0	2.000	1.000	CT	----	0.55	29.00			1982	NC003
		1.00			62.0	2.000	1.000	CT	----	0.55	29.00			1982	NC003
		1.00			62.2	1.983	1.000	CT	1.031	0.46	26.80			1978	MPC01
		1.50			64.2	1.996	0.999	CT	1.018	0.46	27.90			1978	MPC01
		2.00			64.7	2.990	0.805	CT	1.530	0.43	27.00			1972	84306
		2.00			64.7	2.000	0.821	CT	1.074	0.41	26.30			1972	84306
		2.00			64.7	2.000	0.819	CT	1.070	0.40	25.80			1972	84306
		2.00			64.7	3.000	0.827	CT	1.512	0.50	29.10			1972	84306
		2.00			64.7	3.000	0.805	CT	1.547	0.44	27.20			1972	84306
		2.00			64.7	2.000	0.823	CT	1.074	0.44	27.30			1972	84306
		1.00			65.9	1.989	0.976	CT	1.074	0.52	30.40			1978	MPC01
		1.00			65.9	1.994	0.975	CT	1.077	0.50	30.30			1978	MPC01
		1.37			66.3	2.986	1.375	NB	1.493	0.44	28.30			1978	MPC01
		1.37			66.3	3.020	1.374	NB	1.480	0.52	30.60			1978	MPC01
		1.37			66.3	3.022	1.374	NB	1.481	0.48	29.50			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	1.37	R.T.	L-T	66.3	3.012	1.375	NB	1.536	0.48	29.40			1978	MPC01
		1.37			66.3	3.027	1.374	NB	1.483	0.46	29.00			1978	MPC01
		1.37			66.3	2.018	1.001	CT	1.029	0.48	29.60			1978	MPC01
		1.37			66.3	2.022	1.001	CT	1.011	0.46	28.70			1978	MPC01
		1.37			66.3	3.028	1.375	NB	1.514	0.44	28.20			1978	MPC01
		1.37			66.3	2.020	1.002	CT	1.030	0.46	29.10			1978	MPC01
		1.37			66.3	3.000	1.375	NB	1.440	0.41	26.80			1973	86213
		1.37			66.3	3.000	1.375	NB	1.585	0.53	30.60			1973	86213
		1.37			66.3	3.000	1.375	NB	1.545	0.50	29.70			1973	86213
		1.37			66.3	3.000	1.374	NB	1.554	0.56	31.30			1973	86213
		1.37			66.3	3.000	1.374	NB	1.506	0.52	30.30			1973	86213
		1.37			66.3	3.000	1.374	NB	1.485	0.54	30.80			1973	86213
		2.00			67.1	3.007	1.001	CT	1.624	0.52	31.20	29.4/	2.2	1978	MPC01
T7351	P	2.50	82	L-T	64.8	1.490	0.749	CT	0.778	0.43	26.90			1973	86213
		2.50			64.8	1.490	0.748	CT	0.768	0.44	27.20	27.1/	0.2	1973	86213
T7351	P	2.00	83	L-T	57.3	2.000	1.000	CT	0.967	0.66	29.40			1973	86213
		2.00			57.3	2.000	1.000	CT	0.985	0.61	28.40	28.9/	0.7	1973	86213
T7351	P	1.37	- 320	T-L	66.0	3.000	1.385	NB	1.480	0.52	30.10			1973	86213
		1.37			66.0	3.000	1.387	NB	1.522	0.45	28.10			1973	86213
		1.37			66.0	3.000	1.385	NB	1.530	0.50	29.50	29.2/	1.0	1973	86213
T7351	P	1.37	- 112	T-L	59.1	3.000	1.387	NB	1.562	0.57	28.20			1973	86213
T7351	P	3.50	R.T.	T-L	54.9	1.992	0.998	CT	0.976	0.42	22.70			1978	MPC01
		1.38			56.8	1.500	0.750	NB	0.792	0.58	27.30			1972	82880
		1.38			56.8	2.000	1.000	NB	1.015	0.56	27.00			1972	82880
		1.38			56.8	1.500	0.750	NB	0.782	0.55	26.60			1972	82880
		1.38			56.8	3.000	1.380	NB	1.538	0.61	28.10			1972	82880
		1.38			56.8	2.000	1.000	NB	1.035	0.59	27.70			1972	82880
		1.38			56.8	3.000	1.390	NB	1.498	0.59	27.60			1972	82880
		1.38			56.8	2.000	1.000	NB	1.065	0.65	28.90			1972	82880
		1.38			56.8	1.500	0.750	NB	0.763	0.54	26.50			1972	82880
		1.38			56.8	3.000	1.380	NB	1.557	0.65	28.90			1972	82880
		3.00			57.1	1.990	0.999	CT	1.015	0.34	21.60			1978	MPC01
		1.37			58.5	2.000	1.012	NB	1.069	0.80	33.10			1973	86213
		1.37			58.5	1.985	1.012	NB	1.032	0.70	31.10			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	1.37	R.T.	T-L	58.5	2.018	1.011	NB	1.029	0.75	32.30			1978	MPC01
		1.37			58.5	2.000	1.011	NB	1.075	0.79	32.80			1973	86213
		1.37			58.5	2.014	1.011	NB	1.027	0.65	30.20			1978	MPC01
		1.37			58.5	2.000	1.011	NB	1.030	0.76	32.30			1973	86213
		2.00			59.0	2.990	0.995	CT	1.564	0.47	25.60			1972	84306
		2.00			59.0	2.990	0.995	CT	1.551	0.44	24.80			1972	84306
		1.00			61.7	1.028	0.514	WOL	----	0.40	24.90			1980	MR001
		1.00			61.7	1.028	0.514	WOL	----	0.40	24.79			1980	MR001
		1.00			62.2	1.996	0.979	CT	1.038	0.32	22.70			1978	MPC01
		1.00			62.2	2.004	0.978	CT	1.082	0.32	23.00			1978	MPC01
		1.50			64.2	1.994	0.999	CT	1.017	0.30	22.60			1978	MPC01
		1.37			64.6	3.006	1.373	NB	1.503	0.40	25.90			1978	MPC01
		1.37			64.6	2.002	1.000	CT	1.021	0.36	25.10			1978	MPC01
		1.37			64.6	1.992	1.001	CT	1.016	0.36	24.80			1978	MPC01
		1.37			64.6	2.012	1.001	CT	1.026	0.36	24.80			1978	MPC01
		1.37			64.6	3.025	1.375	NB	1.482	0.34	24.20			1978	MPC01
		1.37			64.6	3.025	1.373	NB	1.482	0.36	24.90			1978	MPC01
		1.37			64.6	3.024	1.375	NB	1.542	0.32	23.80			1978	MPC01
		1.37			64.6	3.000	1.375	NB	1.528	0.39	25.40			1973	86213
		2.00			66.0	3.000	0.827	CT	1.515	0.31	23.10			1972	84306
		2.00			66.0	3.000	0.806	CT	1.538	0.28	22.00			1972	84306
		2.00			66.0	3.000	0.827	CT	1.536	0.30	23.00			1972	84306
		2.00			67.6	3.020	1.000	CT	1.631	0.28	23.10	26.2/	3.2	1978	MPC01
T7351	P	2.00	83	T-L	56.5	2.000	0.999	CT	0.961	0.43	23.40			1973	86213
T7351	P	2.00	R.T.	S-L	60.0	1.500	0.499	CT	0.762	0.23	18.20			1972	84306
		1.37			61.2	1.010	0.500	CT	0.485	0.22	18.70			1978	MPC01
		1.37			61.2	0.996	0.500	CT	0.488	0.21	18.00			1978	MPC01
		1.37			61.2	1.000	0.500	CT	0.492	0.22	18.20			1973	86213
		1.37			61.2	1.000	0.501	CT	0.500	0.24	19.00			1978	MPC01
		1.37			61.2	1.000	0.500	CT	0.488	0.24	18.80			1973	86213
		1.37			61.2	1.000	0.501	CT	0.497	0.24	18.80	18.5/	0.4	1973	86213
T7351	P	2.00	84	S-L	54.3	1.490	0.750	CT	0.724	0.32	19.40			1973	86213
		2.00			54.3	1.500	0.750	CT	0.730	0.33	19.60			1973	86213
		2.50			59.8	0.990	0.502	CT	0.509	0.26	19.10			1973	86213
		2.50			59.8	0.990	0.502	CT	0.509	0.23	18.20	19.1/	0.6	1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	1.75	88	S-L	60.2	1.000	0.500	CT	0.502	0.23	18.30			1973	86213
		1.75			60.2	1.000	0.500	CT	0.500	0.25	18.90			1973	86213
		1.75			60.2	1.000	0.500	CT	0.496	0.21	17.50	18.2/	0.7	1973	86213
T7351	E	0.97	84	L-T	65.3	2.000	0.950	CT	0.969	0.65	33.30			1973	86213
		0.97			65.3	2.000	0.949	CT	0.965	0.67	33.70			1973	86213
		0.97			65.7	2.000	0.948	CT	1.035	0.67	33.90			1973	86213
		0.97			65.7	2.000	0.951	CT	1.011	0.67	34.00			1973	86213
		0.97			65.9	2.000	0.953	CT	1.013	0.63	33.20			1973	86213
		0.97			65.9	2.000	0.952	CT	1.004	0.61	32.60	33.5/	0.5	1973	86213
T7351	E	4.50	84	T-L	52.3	2.000	1.000	CT	0.968	0.40	20.80			1973	86213
		7.04			54.4	2.000	0.997	CT	1.007	0.35	20.30			1973	86213
		7.04			54.4	2.000	0.997	CT	1.018	0.34	20.00			1973	86213
		4.65			58.2	2.000	0.999	CT	1.015	0.30	20.10			1973	86213
		4.65			58.2	2.000	0.998	CT	1.017	0.30	20.30			1973	86213
		1.22			59.9	2.000	0.999	CT	1.016	0.28	20.10			1973	86213
		1.22			59.9	2.000	0.997	CT	1.034	0.30	20.60			1973	86213
		0.97			61.4	2.000	0.952	CT	0.997	0.32	21.80			1973	86213
		0.97			61.4	2.000	0.949	CT	0.972	0.28	20.40			1973	86213
		0.97			61.4	2.000	0.949	CT	0.945	0.26	19.70			1973	86213
		0.97			61.4	2.000	0.950	CT	0.941	0.27	20.30			1973	86213
		0.97			61.6	2.000	0.948	CT	0.965	0.28	20.50			1973	86213
		0.97			61.6	2.000	0.951	CT	0.948	0.28	20.50			1973	86213
		1.22			61.8	2.000	0.987	CT	1.031	0.29	21.20			1973	86213
		1.22			61.8	2.000	1.000	CT	1.049	0.31	21.90	20.6/	0.6	1973	86213
T7351	E	7.04	86	T-L	52.5	2.000	0.998	CT	1.005	0.42	21.40			1973	86213
		7.04			52.5	2.000	0.999	CT	1.008	0.44	22.00			1973	86213
		4.65			58.9	2.000	0.999	CT	1.018	0.28	19.80			1973	86213
		4.65			58.9	2.000	1.001	CT	1.024	0.27	19.30	20.6/	1.3	1973	86213
T7351	E	0.97	82	S-L	53.5	1.000	0.458	CT	0.491	0.37	20.50			1973	86213
		0.97			55.6	1.000	0.408	CT	0.515	0.40	22.30			1973	86213
		0.97			55.8	1.000	0.454	CT	0.517	0.35	21.00	21.3/	0.9	1973	86213
T7351	E	7.04	86	S-L	51.8	2.000	0.999	CT	0.954	0.33	18.90			1973	86213
		7.04			51.8	2.000	0.999	CT	0.971	0.38	20.10			1973	86213
		4.65			55.6	2.000	0.997	CT	0.991	0.28	18.70			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	E	4.65	86	S-L	55.6	2.000	0.999	CT	1.008	0.31	19.70	19.4/	0.7	1973	86213
T73510	E	0.68	R.T.	L-T	65.0	1.500	0.620	NB	0.695	0.58	31.30			1969	77140
T73510	E	3.50	R.T.	T-L	56.8	1.000	0.500	NB	0.515	0.39	22.40			1969	77140
		3.50			58.6	0.990	0.500	NB	0.471	0.40	23.50			1969	77140
		3.50			58.6	0.990	0.500	NB	0.485	0.36	22.20			1969	77140
		3.50			58.6	1.990	1.001	CT	0.949	0.42	23.90			1969	77140
		3.50			58.6	1.990	1.001	CT	0.946	0.41	23.80			1969	77140
		3.50			59.8	0.990	0.500	NB	0.470	0.42	24.50			1969	77140
		3.50			59.8	0.990	0.500	NB	0.465	0.42	24.60			1969	77140
		0.68			63.6	1.490	0.660	NB	0.673	0.51	28.60			1973	86213
		0.68			63.6	1.490	0.658	NB	0.678	0.49	28.10	24.6/	2.3	1973	86213
T73510	E	3.50	R.T.	S-L	54.8	2.000	1.001	CT	0.944	0.36	20.80			1969	77140
		3.50			54.8	2.000	1.001	CT	0.929	0.32	19.70	20.3/	0.8	1969	77140
T73511	E	3.50	R.T.	L-T	66.0	4.000	1.629	CT	1.934	0.80	37.20			1973	85836
		3.50			66.0	4.000	1.998	CT	2.009	1.07	43.30			1973	85836
		3.50			66.0	4.000	1.998	CT	1.970	0.95	40.80			1973	85836
		3.50			66.0	4.000	1.998	CT	1.969	0.78	36.90	39.6/	3.1	1973	85836
T73511	E	3.17	82	L-T	64.3	1.500	0.748	CT	0.766	0.72	34.60			1973	86213
		3.17			64.3	1.500	0.749	CT	0.792	0.73	34.80	34.7/	0.1	1973	86213
T73511	E	1.25	83	L-T	63.6	3.000	1.214	NB	1.520	0.76	35.00			1973	86213
		1.25			63.6	3.000	1.213	NB	1.460	0.73	34.30			1973	86213
		1.25			67.6	3.000	1.218	NB	1.485	0.87	39.90			1973	86213
		1.25			67.6	3.000	1.220	NB	1.445	0.80	38.20	36.9/	2.6	1973	86213
T73511	E	3.50	R.T.	T-L	66.0	3.500	1.750	CT	1.840	0.43	27.40			1973	85836
		3.50			66.0	3.500	1.752	CT	1.855	0.37	25.50			1973	85836
		3.50			66.0	3.500	1.747	CT	1.738	0.44	27.50	26.8/	1.1	1973	85836
T73511	E	1.25	83	T-L	62.2	3.000	1.170	NB	1.467	0.61	30.60			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T73511	E	1.25	83	T-L	62.2	3.000	1.168	NB	1.437	0.59	30.20			1973	86213
		1.25			66.3	3.000	1.165	NB	1.487	0.70	35.00			1973	86213
		1.25			66.3	3.000	1.170	NB	1.440	0.68	34.70	32.6/	2.6	1973	86213
T73511	E	3.50	265	T-L	65.0	4.000	2.001	CT	2.065	0.49	28.80			1973	86210
		3.50			65.0	4.000	2.002	CT	2.054	0.50	29.20	29.0/	0.3	1973	86210
T73511	E	3.50	R.T.	S-L	66.0	2.000	1.002	CT	1.009	0.29	22.60			1973	85836
		3.50			66.0	2.000	0.996	CT	0.993	0.25	21.10	21.9/	1.1	1973	85836
T73511-HIGH/ PURITY	EB	1.50	R.T.	L-T	68.6	2.500	1.250	CT	----	1.04	44.20			1980	WA001
		1.50			68.6	2.500	1.250	CT	----	0.93	41.80	43.0/	1.7	1980	WA001
T73511-HIGH/ PURITY	EB	1.50	R.T.	T-L	63.0	2.500	1.250	CT	----	0.57	30.00			1980	WA001
		1.50			63.0	2.500	1.250	CT	----	0.56	29.90	30.0/	0.1	1980	WA001
T73511-LOW/ PURITY	EB	1.50	R.T.	L-T	65.3	2.500	1.250	CT	----	0.43	27.10			1980	WA001
		1.50			65.3	2.500	1.250	CT	----	0.44	27.40	27.3/	0.2	1980	WA001
T73511-LOW/ PURITY	EB	1.50	R.T.	T-L	60.9	2.500	1.250	CT	----	0.28	20.50			1980	WA001
		1.50			60.9	2.500	1.250	CT	----	0.35	22.90	21.7/	1.7	1980	WA001
T73511-MEDIUM/ PURITY	EB	1.50	R.T.	L-T	68.4	2.500	1.250	CT	----	0.49	30.40			1980	WA001
		1.50			68.4	2.500	1.250	CT	----	0.50	30.70	30.6/	0.2	1980	WA001
T73511-MEDIUM/ PURITY	EB	1.50	R.T.	T-L	62.9	2.500	1.250	CT	----	0.30	21.70			1980	WA001
		1.50			62.9	2.500	1.250	CT	----	0.31	22.10	21.9/	0.3	1980	WA001
T7352	F	5.00	R.T.	L-T	52.5	3.000	1.502	NB	1.577	1.12	35.10			1970	77720
		5.00			52.5	3.000	1.503	NB	1.507	1.00	33.20			1970	77720
		5.00			52.5	3.000	1.499	NB	1.607	1.21	36.50			1970	77720

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7352	F	6.00	R.T.	L-T	55.4	3.990	2.002	NB	2.160	1.63	39.30			1970	77720
		6.00			55.4	3.990	2.002	NB	2.138	1.67	39.70			1970	77720
		4.00			59.5	3.000	1.500	NB	1.585	0.69	31.20			1970	77720
		4.00			59.5	3.000	1.498	NB	1.610	0.74	32.40			1970	77720
		4.00			59.5	3.000	1.500	NB	1.677	0.84	34.60			1970	77720
		2.00			65.3	1.490	0.751	NB	0.722	0.61	32.20			1970	77720
		2.00			65.3	1.500	0.754	NB	0.747	0.54	30.30			1970	77720
		2.00			65.3	1.500	0.752	NB	0.748	0.59	31.60			1970	77720
		3.00			66.2	1.990	0.998	NB	0.983	0.63	33.10			1970	77720
		3.00			66.2	2.000	1.000	NB	0.993	0.54	30.60			1970	77720
		3.00			66.2	1.990	0.999	NB	0.955	0.53	30.50	33.6/	3.1	1970	77720
T7352	F	6.00	R.T.	T-L	50.3	4.000	2.002	NB	2.118	0.86	27.80			1970	77720
		6.00			50.3	4.000	2.003	NB	2.173	0.85	27.60			1970	77720
		5.00			50.7	3.000	1.500	NB	1.553	0.78	28.30			1970	77720
		5.00			50.7	3.000	1.501	NB	1.505	0.72	27.10			1970	77720
		5.00			50.7	3.000	1.500	NB	1.537	0.79	28.60			1970	77720
		4.00			55.2	3.000	1.500	NB	1.702	0.65	28.20			1970	77720
		4.00			55.2	3.000	1.499	NB	1.598	0.57	26.30			1970	77720
		4.00			55.2	3.000	1.499	NB	1.732	0.51	24.90			1970	77720
		----			57.0	2.494	1.252	CT	1.387	0.85	33.20			1975	MA012
		3.00			59.3	1.990	1.000	NB	0.968	0.37	22.80			1970	77720
		3.00			59.3	2.000	1.000	NB	0.992	0.39	23.50			1970	77720
		2.00			65.3	1.500	0.751	NB	0.728	0.33	23.70			1970	77720
		2.00			65.3	1.500	0.753	NB	0.750	0.34	24.20	26.6/	2.8	1970	77720
T7352	F	6.00	R.T.	S-T	56.3	1.400	0.700	NB	0.700	0.39	22.00			1972	82675
		6.00			56.3	1.400	0.700	NB	0.700	0.36	21.30	21.7/	0.5	1972	82675
T7352	F	6.00	R.T.	S-L	49.2	2.000	1.000	CT	0.999	0.88	26.50			1970	77720
		6.00			49.2	2.000	1.000	CT	0.997	0.74	24.10			1970	77720
		6.00			49.2	2.000	1.000	CT	1.027	0.79	25.40			1970	77720
		5.00			49.3	1.000	0.500	NB	0.478	0.40	19.60			1970	77720
		5.00			49.3	1.000	0.500	NB	0.493	0.37	19.00			1970	77720
		5.00			49.3	1.000	0.500	NB	0.458	0.34	18.30			1970	77720
		6.00			56.3	1.400	0.700	NB	0.700	0.32	20.10			1972	82675
		6.00			56.3	1.400	0.700	NB	0.700	0.32	20.20	21.7/	3.2	1972	82675
T7352	E	7.04	84	T-L	54.6	2.000	0.997	CT	1.005	0.33	19.70			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7352	E	4.65	84	T-L	58.9	2.000	1.000	CT	1.006	0.28	19.60			1973	86213
		4.65			58.9	2.000	0.999	CT	0.990	0.27	19.30	19.5/	0.2	1973	86213
T7352	E	7.04	84	S-L	48.6	2.000	1.000	CT	0.968	0.37	18.70			1973	86213
		7.04			48.6	2.000	0.999	CT	0.956	0.35	18.30			1973	86213
		4.65			53.5	2.000	0.998	CT	0.934	0.28	18.00			1973	86213
		4.65			53.5	2.000	0.998	CT	1.020	0.38	20.90	19.0/	1.3	1973	86213
T7352	BT	2.35	R.T.	L-T	54.5	2.500	1.251	CT	1.212	0.85	31.80			1974	MA011
T73652	F	6.00	R.T.	L-T	70.0	4.000	2.001	CT	2.075	0.60	34.40			1973	85836
		6.00			70.0	4.000	2.005	CT	1.985	0.57	33.50			1973	85836
		6.00			70.0	4.000	2.005	CT	1.960	0.70	37.00	35.0/	1.8	1973	85836
T73652	F	6.00	R.T.	T-L	67.0	3.500	1.745	CT	1.786	0.43	27.80			1973	85836
		6.00			67.0	3.500	1.745	CT	1.825	0.45	28.50			1973	85836
		6.00			67.0	3.500	1.746	CT	1.764	0.31	23.50	26.6/	2.7	1973	85836
T73652	F	6.00	R.T.	S-L	57.0	2.000	1.003	CT	1.029	0.46	24.60			1973	85836
T7651	P	2.00	R.T.	L-T	62.4	4.000	1.989	CT	2.124	0.53	28.60			1973	86213
		2.00			62.4	3.967	1.981	CT	2.142	0.44	26.40			1978	MPC01
		2.00			62.4	4.000	1.987	CT	2.126	0.48	27.30			1973	86213
		2.00			62.4	4.011	1.987	CT	2.126	0.46	27.30			1978	MPC01
		2.00			62.4	4.008	1.989	CT	2.124	0.50	28.60			1978	MPC01
		2.00			62.4	4.000	1.981	CT	2.142	0.45	26.40			1973	86213
		2.00			62.9	4.000	1.959	CT	2.204	0.55	29.60			1973	86213
		2.00			62.9	4.000	1.961	CT	2.204	0.55	29.50			1973	86213
		2.00			63.0	2.000	0.751	CT	1.027	0.47	27.50			1972	84306
		2.00			63.0	2.000	0.755	CT	1.040	0.48	27.70			1972	84306
		2.00			63.0	2.000	0.753	CT	1.046	0.50	28.40			1972	84306
		2.30			64.0	2.500	1.245	CT	1.293	0.52	29.20			1973	85836
		2.00			64.7	3.000	0.805	CT	1.534	0.41	26.20			1973	86213
		2.00			64.7	2.000	0.827	CT	1.045	0.48	28.40			1973	86213
		2.00			64.7	2.000	0.828	CT	1.028	0.49	28.70			1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7451	P	2.00	R T	L-T	64.7	2.000	0.820	CT	1.020	0.47	28.20			1973	86213
		2.30			65.0	2.500	1.245	CT	1.290	0.53	30.10			1973	85836
		2.30			65.0	2.500	1.244	CT	1.280	0.52	30.00			1973	85836
		2.50			66.0	2.500	1.253	CT	1.280	0.55	30.90			1973	85836
		2.50			66.0	2.500	1.254	CT	1.277	0.56	31.30			1973	85836
		2.50			66.0	2.500	1.257	CT	1.296	0.54	30.70			1973	85836
		2.00			68.2	1.986	0.900	CT	1.112	0.40	27.40			1978	MPC01
		2.00			68.2	1.995	0.901	CT	1.137	0.40	27.40			1978	MPC01
		2.00			68.7	3.004	1.000	CT	1.592	0.48	30.60			1978	MPC01
		2.00			69.2	2.005	0.901	CT	1.123	0.36	26.90	28.5/	1.5	1978	MPC01
T7651	P	0.50	82	L-T	62.2	1.000	0.490	CT	0.514	0.47	26.90			1973	86213
		0.50			62.2	1.000	0.490	CT	0.519	0.46	26.80			1973	86213
		0.50			62.2	1.000	0.492	CT	0.523	0.42	25.60			1973	86213
		0.50			67.2	1.000	0.486	CT	0.522	0.37	25.70			1973	86213
		0.50			67.2	1.000	0.487	CT	0.531	0.38	26.30			1973	86213
		1.00			67.7	2.000	0.993	CT	1.072	0.36	25.80			1973	86213
		1.00			67.7	2.000	0.993	CT	1.036	0.37	26.00			1973	86213
		1.00			67.7	2.000	0.993	CT	1.052	0.37	26.20			1973	86213
		1.00			68.8	2.000	1.001	CT	1.047	0.38	26.90			19 3	86213
		1.00			68.8	2.000	1.001	CT	1.083	0.39	27.10			1973	86213
		1.00			68.8	2.000	1.001	CT	1.045	0.39	27.20			1973	86213
		1.00			68.9	2.000	1.001	CT	1.093	0.38	27.00			1973	86213
		1.00			68.9	2.000	1.001	CT	1.036	0.38	26.80			1973	86213
		1.00			68.9	2.000	1.001	CT	1.104	0.40	27.60	26.6/	0.6	1973	86213
T7651	P	0.50	84	L-T	66.8	1.000	0.496	CT	0.498	0.37	25.60			1973	86213
		0.50			66.8	1.000	0.496	CT	0.506	0.35	25.10			1973	86213
		2.00			67.6	4.000	1.992	CT	2.053	0.35	25.20			1973	86213
		2.00			67.6	4.000	1.992	CT	2.041	0.33	24.40			1973	86213
		2.00			67.6	4.000	1.993	CT	2.082	0.34	24.90			1973	86213
		1.00			68.8	3.000	1.005	CT	1.575	0.43	28.50			1973	86213
		1.00			68.8	3.000	1.005	CT	1.584	0.34	28.30			1973	86213
		2.00			69.0	2.000	0.999	CT	1.034	0.36	26.30			1973	86213
		2.00			69.0	2.000	0.999	CT	1.036	0.38	26.90	26.1/	1.5	1973	86213
T7651	P	1.00	88	L-T	72.2	2.000	0.999	CT	1.023	0.31	25.30			1973	86213
		1.00			72.2	2.000	1.000	CT	1.047	0.31	25.50			1973	86213
		1.00			72.2	2.000	1.000	CT	1.041	0.30	25.20	25.3/	0.2	1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	2.00	R.T.	T-L	61.2	3.017	0.802	CT	1.569	0.34	22.80			1978	MPC01
		2.00			61.3	2.971	0.801	CT	1.545	0.32	22.30			1978	MPC01
		2.60			62.0	1.500	0.500	CT	----	0.51	28.00			1974	90011
		2.00			62.0	4.000	1.992	CT	2.169	0.40	24.80			1973	86213
		2.00			62.0	4.017	1.992	CT	2.169	0.40	24.80			1978	MPC01
		2.60			62.0	1.500	0.500	CT	----	0.44	26.00			1974	90011
		2.00			62.6	2.990	0.798	CT	1.555	0.30	22.40			1978	MPC01
		2.00			62.6	3.026	0.800	CT	1.513	0.30	22.10			1978	MPC01
		2.00			62.8	2.992	0.800	CT	1.526	0.30	22.40			1978	MPC01
		1.75			63.8	4.000	1.755	NB	2.120	0.34	23.40			1973	86213
		1.50			64.0	3.022	1.403	CT	1.632	0.34	23.90			1978	MPC01
		2.00			64.0	2.000	0.754	CT	1.013	0.32	22.80			1972	84306
		2.00			64.0	2.000	0.754	CT	1.023	0.35	24.00			1972	84306
		2.00			64.1	4.035	1.961	CT	2.219	0.38	25.50			1978	MPC01
		2.00			64.1	4.035	1.959	CT	2.219	0.38	25.60			1978	MPC01
		2.00			64.1	4.000	1.959	CT	2.219	0.38	25.00			1973	86213
		2.00			64.1	4.000	1.961	CT	2.219	0.40	25.50			1973	86213
		2.30			65.0	2.500	1.250	CT	----	0.31	23.00			1974	90011
		2.30			65.0	2.500	1.250	CT	----	0.31	23.00			1974	90011
		0.75			65.6	2.992	0.763	CT	1.496	0.25	21.30			1978	MPC01
		2.00			66.0	2.000	0.811	CT	1.054	0.27	21.50			1972	84306
		2.50			66.0	2.500	1.255	CT	1.293	0.34	24.30			1973	85836
		2.00			66.0	3.000	0.803	CT	1.358	0.28	22.00			1972	84306
		2.00			66.0	3.000	0.806	CT	1.349	0.29	22.20			1972	84306
		2.00			66.0	2.000	0.809	CT	1.074	0.27	21.70			1972	84306
		2.50			66.0	2.500	1.255	CT	1.276	0.31	23.30			1973	85836
		2.00			66.0	2.000	0.810	CT	1.047	0.23	19.90			1972	84306
		0.56			67.0	1.490	0.506	CT	0.831	0.42	27.60			1972	84306
		0.56			67.0	1.490	0.507	CT	0.836	0.37	25.70			1972	84306
		2.00			67.2	1.004	0.499	CT	0.502	0.28	23.50			1978	MPC01
		2.00			67.2	1.008	0.500	CT	0.494	0.32	24.60			1978	MPC01
		2.00			67.4	0.998	0.500	CT	0.479	0.21	20.10			1978	MPC01
		2.00			67.4	1.002	0.500	CT	0.481	0.24	21.30			1978	MPC01
		2.00			67.4	1.496	0.750	CT	0.733	0.22	20.80			1978	MPC01
		2.00			67.4	3.007	1.500	CT	1.654	0.25	22.20			1978	MPC01
		2.00			67.4	1.515	0.749	CT	0.727	0.22	20.30			1978	MPC01
		2.00			67.4	1.013	0.500	CT	0.476	0.21	20.00			1978	MPC01
		2.00			67.4	1.002	0.500	CT	0.481	0.21	20.20			1978	MPC01
		2.00			67.4	1.494	0.749	CT	0.717	0.24	21.10			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	2.00	R.T.	T-L	67.4	3.982	1.997	CT	2.190	0.24	21.40			1978	MPC01
		1.00			67.6	3.017	1.004	CT	1.569	0.34	25.40			1978	MPC01
		1.00			67.6	3.021	1.005	CT	1.571	0.34	25.20			1978	MPC01
		2.00			67.6	3.973	1.994	CT	2.066	0.24	21.00			1978	MPC01
		2.00			68.7	3.020	1.000	CT	1.631	0.28	23.80			1978	MPC01
		1.00			70.1	1.994	0.976	CT	1.057	0.22	21.30	23.1/	2.0	1978	MPC01
T7651	P	1.00	82	T-L	65.6	2.000	0.993	CT	1.020	0.28	21.90			1973	86213
		1.00			65.6	2.000	0.992	CT	1.048	0.27	21.60			1973	86213
		1.00			65.6	2.000	0.992	CT	1.053	0.28	21.90			1973	86213
		0.50			66.4	1.000	0.493	CT	0.510	0.39	26.10			1973	86213
		0.50			66.4	1.000	0.493	CT	0.511	0.34	24.50			1973	86213
		0.50			66.4	1.000	0.492	CT	0.504	0.37	25.50			1973	86213
		0.50			67.3	1.000	0.485	CT	0.515	0.34	24.70			1973	86213
		0.50			67.3	1.000	0.487	CT	0.513	0.34	25.00			1973	86213
		0.50			67.3	1.000	0.485	CT	0.502	0.35	25.20			1973	86213
		1.00			67.6	2.000	1.001	CT	1.003	0.31	23.70			1973	86213
		1.00			67.6	2.000	1.000	CT	1.020	0.31	23.80			1973	86213
		1.00			67.6	2.000	1.001	CT	1.013	0.31	23.70			1973	86213
		1.00			68.4	2.000	1.002	CT	0.990	0.27	22.50			1973	86213
		1.00			68.4	2.000	1.001	CT	1.018	0.30	23.70			1973	86213
		1.00			68.4	2.000	1.002	CT	1.001	0.30	23.60	23.8/	1.4	1973	86213
T7651	P	0.50	84	T-L	67.0	1.000	0.496	CT	0.494	0.28	22.60			1973	86213
		0.50			67.0	1.000	0.496	CT	0.492	0.29	22.70			1973	86213
		0.50			67.0	1.000	0.496	CT	0.495	0.28	22.40			1973	86213
		2.00			67.4	2.000	0.999	CT	1.015	0.26	21.70			1973	86213
		1.00			67.6	3.000	1.004	CT	1.569	0.35	25.40			1973	86213
		1.00			67.6	3.000	1.005	CT	1.571	0.35	25.20	23.3/	1.6	1973	86213
T7651	P	1.00	88	T-L	70.0	2.000	1.001	CT	1.000	0.23	21.40			1973	86213
		1.00			70.0	2.000	1.002	CT	1.011	0.23	21.40			1973	86213
		1.00			70.0	2.000	1.004	CT	1.003	0.24	21.70	21.5/	0.2	1973	86213
T7651	P	2.50	265	T-L	66.0	2.500	1.254	CT	1.281	0.37	25.40			1973	85836
		2.50			66.0	2.500	1.255	CT	1.288	0.40	26.50	26.0/	0.8	1973	85836
T7651	P	2.00	R.T.	S-L	59.1	----	0.751	CT	0.730	0.25	19.00			1978	MPC01
		1.75			61.8	1.006	0.500	CT	0.493	0.19	17.50			1978	MPC01

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	1.75	R.T	S-L	61.8	0.992	0.500	CT	0.496	0.18	17.00			1978	MPC01
		1.75			61.8	1.010	0.500	CT	0.485	0.19	17.60			1978	MPC01
		2.00			64.1	1.010	0.500	CT	0.485	0.15	16.20			1978	MPC01
		2.00			64.1	1.004	0.500	CT	0.492	0.15	16.30			1978	MPC01
		2.00			64.1	1.006	0.498	CT	0.493	0.14	15.40			1978	MPC01
		2.00			64.2	1.498	0.749	CT	0.764	0.21	18.80			1978	MPC01
		2.00			64.2	1.506	0.749	CT	0.768	0.19	18.10			1978	MPC01
		2.00			64.2	1.492	0.749	CT	0.776	0.19	18.20			1978	MPC01
		2.00			65.0	1.000	0.378	CT	0.447	0.14	15.20			1972	84306
		2.00			65.0	1.000	0.378	CT	0.450	0.17	17.10			1972	84306
		2.30			70.0	1.490	0.750	CT	0.758	0.19	19.40			1973	86210
		2.30			70.0	1.500	0.751	CT	0.768	0.20	19.90			1973	86210
		2.50			70.0	1.490	0.749	CT	0.774	0.20	19.80			1973	86210
		2.50			70.0	1.500	0.751	CT	0.766	0.20	19.60	17.8/	1.5	1973	86210
T7651	P	2.00	82	S-L	59.1	1.500	0.750	CT	0.737	0.25	19.10			1973	86213
		2.00			59.1	1.500	0.750	CT	0.742	0.28	19.70			1973	86213
		2.00			59.4	1.500	0.751	CT	0.788	0.28	20.00			1973	86213
		2.00			59.4	1.500	0.751	CT	0.794	0.30	20.60			1973	86213
		2.00			59.8	1.500	0.751	CT	0.738	0.25	18.90			1973	86213
		2.00			59.8	1.500	0.751	CT	0.744	0.25	18.90			1973	86213
		2.00			59.8	1.500	0.751	CT	0.732	0.26	19.20			1973	86213
		2.00			60.9	1.500	0.751	CT	0.730	0.24	18.80			1973	86213
		2.00			60.9	1.500	0.751	CT	0.743	0.26	19.50			1973	86213
		2.00			60.9	1.500	0.751	CT	0.731	0.25	19.30	19.4/	0.6	1973	86213
T7651 (SP)	P	2.00	82	L-T	66.0	4.990	2.019	CT	2.757	1.09	43.60			1973	86213
		2.00			66.0	4.990	1.498	CT	2.599	1.05	42.70			1973	86213
		2.00			66.0	4.000	2.019	CT	2.120	0.97	41.20			1973	86213
		2.00			66.0	4.000	2.021	CT	2.122	0.93	40.20			1973	86213
		2.00			66.0	5.000	1.496	CT	2.610	1.09	43.60			1973	86213
		2.00			66.0	2.000	0.999	CT	1.024	0.96	41.00	42.1/	1.4	1973	86213
T7651 (SP)	P	2.00	84	L-T	66.0	3.000	0.998	CT	1.503	0.79	37.20			1973	86213
		2.00			66.0	3.000	1.500	CT	1.578	1.05	42.80			1973	86213
		2.00			66.0	3.000	1.000	CT	1.503	0.71	35.20			1973	86213
		2.00			66.0	3.000	1.500	CT	1.568	0.96	40.80	39.0/	3.4	1973	86213

TABLE 8.9.2.1 (con't)

ALUMINUM 7075 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T76511	E	7.04	R.T.	L-T	70.0	2.490	1.169	CT	1.298	0.54	32.50			1973	86210
		7.04			70.0	2.490	1.254	CT	1.298	0.65	34.80			1973	86210
		1.44			73.0	3.000	1.401	CT	1.556	0.48	32.10			1973	86213
		1.44			73.0	3.000	1.400	CT	1.574	0.49	32.40			1973	86213
		7.04			73.5	4.000	1.502	CT	----	0.79	41.30			1973	91123
		2.50			73.5	----	1.700	CT	1.950	0.79	41.30	35.7/	4.4	1973	86212
T76511	E	1.25	83	L-T	66.5	3.000	1.215	NB	1.477	0.64	33.70			1973	86213
		1.25			66.5	3.000	1.212	NB	1.528	0.59	32.30			1973	86213
		1.25			67.8	3.000	1.220	NB	1.502	0.65	34.70			1973	86213
		1.25			67.8	3.000	1.217	NB	1.495	0.87	39.90	35.2/	3.3	1973	86213
T76511	E	2.00	86	L-T	69.4	4.000	1.961	CT	2.079	0.50	31.10			1973	86213
T76511	E	7.04	R.T.	T-L	70.0	2.500	1.254	CT	1.300	0.23	21.10			1973	86210
		7.04			70.0	2.500	1.253	CT	1.299	0.23	21.20			1973	86210
		1.44			70.7	3.000	1.401	CT	1.565	0.34	26.20			1973	86213
		1.44			70.7	3.000	1.400	CT	1.516	0.33	25.70	23.6/	2.8	1973	86213
T76511	E	1.25	83	T-L	64.4	3.000	1.166	NB	1.450	0.50	28.90			1973	86213
		1.25			64.4	3.000	1.170	NB	1.437	0.54	29.80			1973	86213
		1.25			66.0	3.000	1.170	NB	1.467	0.72	35.50			1973	86213
		1.25			66.0	3.000	1.170	NB	1.485	0.76	36.40	32.7/	3.8	1973	86213
T76511	E	1.44	84	S-L	65.7	2.000	0.822	CT	0.994	0.27	21.70			1973	86213
		1.44			65.7	2.000	0.821	CT	0.991	0.26	21.30	21.5/	0.3	1973	86213

TABLE 8.9.2.2

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T6	S	0.09	R.T.	L-T	75.9	12.000	0.090	1.040	1.460	---	46.60	59.84			71.22			1969	75599
		0.09			75.9	12.000	0.090	2.340	2.860	---	33.70	66.17			74.04			1969	75599
		0.09			75.9	12.000	0.090	1.060	1.560	---	44.80	58.09			70.87			1969	75599
		0.09			75.9	12.000	0.090	1.560	1.880	---	41.20	65.17			71.89			1969	75599
		0.09			75.9	12.000	0.090	4.500	5.460	11.40	22.50	65.60			75.82			1969	75599
		0.09			75.9	12.000	0.090	1.080	1.420	---	46.10	60.35			69.45			1969	75599
		0.09			75.9	12.000	0.090	1.820	1.920	---	40.00	68.61			70.58			1969	75599
		0.09			75.9	12.000	0.090	1.400	1.860	---	43.60	65.20			75.65			1969	75599
		0.09			75.9	12.000	0.090	3.880	4.720	15.30	25.20	66.55			76.00			1969	75599
		0.09			75.9	12.000	0.090	2.800	3.460	---	29.90	64.90			73.51			1969	75599
		0.09			75.9	12.000	0.090	1.100	1.440	---	44.00	58.14			66.77			1969	75599
		0.09			75.9	12.000	0.090	1.960	2.380	---	35.90	64.03			71.15			1969	75599
		0.09			75.9	12.000	0.090	2.020	2.180	---	38.60	69.98			72.92			1969	75599
		0.09			75.9	12.000	0.090	2.440	3.060	---	33.20	66.71			75.85			1969	75599
		0.09			75.9	12.000	0.090	3.520	4.200	17.00	28.00	69.57			77.89			1969	75599
		0.09			75.9	12.000	0.090	3.180	3.600	---	28.20	65.90			71.04			1969	75599
		0.09			75.9	12.000	0.090	3.060	3.580	---	28.20	64.43			70.80			1969	75599
		0.09			75.9	12.000	0.090	2.040	2.320	---	35.60	64.89			69.57			1969	75599
		0.09			75.9	12.000	0.090	2.620	3.500	---	29.60	61.88			73.29			1969	75599
		0.09			75.9	12.000	0.090	2.100	2.300	---	34.90	64.61			67.88			1969	75599
		0.09			75.9	12.000	0.090	4.940	5.620	13.00	21.10	65.79			72.81			1969	75599
		0.09			75.9	12.000	0.090	3.440	3.700	21.70	27.70	67.86			70.99			1969	75599
		0.09			75.9	12.000	0.090	3.800	4.380	14.50	23.20	60.46			66.39			1969	75599
		0.09			75.9	12.000	0.090	3.560	4.260	13.70	25.10	62.80			70.49			1969	75599
		0.09			75.9	12.000	0.090	2.140	2.400	27.80	36.10	67.52			71.87			1969	75599
		0.09			75.9	12.000	0.090	2.240	2.740	27.80	33.30	63.84	64.6/	3.2	71.39	71.9/	2.8	1969	75599
T6	S	0.09	R.T.	L-T	75.9	12.000	0.100	1.980	2.530	---	35.80	64.22			73.39			1969	75599
T6	S	0.10	R.T.	L-T	75.9	1.500	0.100	0.500	0.570	---	44.90	42.76*			46.72*			1962	62306
T6	S	0.10	R.T.	L-T	75.9	3.500	0.100	0.500	0.760	---	53.70	48.20*			60.44*			1962	62306
		0.10			75.9	3.500	0.100	0.770	1.140	---	46.40	52.61			66.49*			1962	62306
T6	S	0.10	R.T.	L-T	75.9	6.000	0.100	2.000	2.450	---	33.50	63.81			73.42			1962	62306

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T6	S	0.10	R.T.	L-T	75.9	24.000	0.100	1.990	2.360	---	37.00	65.70			71.67			1962	62306
		0.10			75.9	24.000	0.100	18.000	18.340	---	8.00	68.76	67.2/	2.2	71.36	71.5/	0.2	1962	62306
T6	S	0.10	R.T.	L-T	75.9	36.000	0.100	18.000	19.100	---	11.50	72.72			76.82			1962	62306
		0.10			75.9	36.000	0.100	1.080	1.580	---	45.80	59.69			72.24			1962	62306
		0.10			75.9	36.000	0.100	9.930	11.180	---	17.50	72.55			78.03			1962	62306
		0.10			75.9	36.000	0.100	0.500	0.770	---	57.00	50.52			62.71			1962	62306
		0.10			75.9	36.000	0.100	4.000	4.630	---	27.30	68.96	64.9/	9.6	74.38	72.8/	6.1	1962	62306
T6	S	0.10	R.T.	L-T	75.9	48.000	0.100	1.960	2.350	---	35.40	62.18			68.11			1962	62306
T6	P	0.25	R.T.	L-T	76.2	15.030	0.246	7.500	8.500	---	16.60	67.70			76.38			1965	62310
		0.25			76.2	15.060	0.246	7.500	8.500	---	16.70	68.06	67.9/	0.3	76.75	76.6/	0.3	1965	62310
T6	S	0.06	R.T.	T-L	75.5	3.030	0.063	0.830	----	---	44.51	53.31*			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	4.500	0.063	1.230	----	---	38.20	55.68			----			1966	86734
		0.06			75.5	4.500	0.063	1.130	----	---	38.20	52.97	54.3/	1.9	----	----/	---	1966	86734
T6	S	0.06	R.T.	T-L	75.5	6.000	0.064	1.700	----	---	33.00	56.76			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	7.000	0.061	3.120	----	---	23.40	59.24			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	8.000	0.061	3.440	----	---	23.90	62.89			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	10.000	0.061	3.260	----	---	28.10	68.11			----			1966	86734
		0.06			75.5	10.000	0.064	2.500	----	---	30.00	61.85	65.0/	4.4	----	----/	---	1966	86734
T6	S	0.06	R.T.	T-L	75.5	12.000	0.061	3.000	----	---	26.60	60.08			----			1966	86734
		0.06			75.5	12.000	0.064	3.500	----	---	25.15	62.27	61.2/	1.5	----	----/	---	1966	86734
T6	S	0.06	R.T.	T-L	75.5	15.000	0.063	4.000	----	---	24.30	63.73			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	16.000	0.061	3.400	----	---	28.00	66.57			----			1966	86734

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T6	S	0.06	R.T.	T-L	75.5	18.000	0.064	5.500	----	---	21.05	65.69			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	20.000	0.061	3.600	----	---	27.10	65.76			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	21.000	0.064	6.250	----	---	20.30	67.32			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	22.000	0.061	3.520	----	---	27.30	65.23			----			1966	86734
T6	S	0.06	R.T.	T-L	75.5	24.000	0.064	8.000	8.640	---	15.90	60.57			63.75			1966	86734
		0.06			75.5	24.000	0.064	6.002	----	---	20.00	----			----			1966	86734
		0.06			75.5	24.000	0.061	8.000	8.680	---	20.10	76.57			80.84			1966	86734
		0.06			75.5	24.000	0.061	8.000	8.660	---	16.80	64.00			67.46			1966	86734
		0.06			75.5	24.000	0.064	8.000	8.700	---	17.60	67.04			70.90			1966	86734
		0.06			75.5	24.000	0.063	8.000	9.200	---	19.70	75.04			82.49			1966	86734
		0.06			75.5	24.000	0.064	6.000	----	---	17.55	----			----			1966	86734
		0.06			75.5	24.000	0.061	8.000	8.500	---	21.90	83.42			86.84			1966	86734
		0.06			75.5	24.000	0.062	8.000	8.360	---	18.40	70.09			72.15			1966	86734
		0.06			75.5	24.000	0.064	8.000	8.900	---	18.90	72.00			77.33			1966	86734
		0.06			75.5	24.000	0.064	8.000	8.620	---	17.30	65.90			69.25			1966	86734
		0.06			75.5	24.000	0.064	8.000	8.540	---	15.80	60.19			62.85			1966	86734
		0.06			75.5	24.000	0.064	6.000	----	---	20.00	----	69.5/ 7.4		----	73.4/ 8.2		1966	86734
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.08	- 320	L-T	85.0	12.000	0.078	1.500	----	---	22.74	35.25			----			1966	86734
		0.08			85.0	12.000	0.078	2.400	----	---	17.45	34.74			----			1966	86734
		0.08			85.0	12.000	0.078	4.000	----	---	12.76	34.37	34.8/ 0.4		----	----/ ---		1966	86734
T6	S	0.04	R.T.	L-T	69.0	6.000	0.039	0.500	----	---	55.10	49.04*			----			1966	86734
		0.04			69.0	6.000	0.039	0.850	----	---	46.40	54.29			----			1966	86734
		0.04			70.0	6.000	0.040	0.820	----	---	46.40	53.28			----			1966	86734
		0.04			70.0	6.000	0.040	0.500	----	---	50.80	45.21			----			1966	86734

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.04	R.T.	L-T	70.0	6.000	0.040	0.740	----	---	50.40	54.85*			----			1966	86734
		0.04			70.0	6.000	0.040	2.560	----	---	17.79	40.30			----			1966	86734
		0.04			70.0	6.000	0.040	0.920	----	---	44.20	53.92	49.4/	6.3	----	----/	---	1966	86734
T6	S	0.06	R.T.	L-T	72.8	2.000	0.065	0.626	0.890	---	43.60	46.05*			58.92*			1973	86213
		0.06			72.8	2.000	0.065	0.626	0.890	---	44.50	47.00*			60.14*			1973	86213
		0.06			73.0	2.000	0.061	0.625	1.060	---	46.30	48.80*			72.83*			1973	86213
		0.06			73.0	2.000	0.061	0.625	1.080	---	46.30	48.80*			74.16*			1973	86213
		0.06			73.0	2.000	0.061	0.625	1.080	---	45.90	48.38*			73.52*			1973	86213
		0.06			73.0	2.000	0.064	0.625	0.800	---	44.20	46.59*			55.79*			1973	86213
		0.06			74.6	2.000	0.064	0.622	0.780	---	48.60	51.12*			59.47*			1973	86213
		0.06			74.6	2.000	0.064	0.622	0.830	---	50.00	52.59*			64.03*			1973	86213
		0.06			74.6	2.000	0.065	0.626	0.820	---	48.30	51.01*			61.30*			1973	86213
		0.06			74.6	2.000	0.064	0.623	0.840	---	47.30	49.75*			61.12*			1973	86213
		0.06			75.2	2.000	0.063	0.621	0.820	---	46.60	48.92*			59.14*			1973	86213
		0.06			75.2	2.000	0.063	0.622	0.750	---	46.70	49.12*			55.59*			1973	86213
		0.06			75.6	2.000	0.062	0.621	0.900	---	43.60	45.77*			59.45*			1973	86213
		0.06			75.6	2.000	0.062	0.618	0.880	---	43.20	45.26*			57.86*			1973	86213
		0.06			75.6	2.000	0.062	0.622	0.870	---	44.40	46.70*			58.94*			1973	86213
		0.06			76.1	2.000	0.064	0.624	0.850	---	43.90	46.27*			57.24*			1973	86213
		0.06			76.1	2.000	0.064	0.624	0.880	---	44.00	46.38*			58.93*			1973	86213
T6	S	0.06	R.T.	L-T	75.7	15.810	0.063	3.010	3.350	---	27.60	61.39			67.28			1973	86213
		0.06			75.7	15.810	0.063	5.980	6.190	---	16.80	56.56			57.96			1973	86213
		0.06			75.7	15.820	0.063	4.010	4.460	---	23.90	62.48			66.55			1973	86213
		0.06			75.7	15.820	0.063	6.000	7.160	---	16.80	56.69			64.72			1973	86213
		0.06			75.7	15.820	0.063	1.000	1.500	---	46.50	58.42	59.1/	2.7	71.78	65.7/	5.0	1973	86213
T6	S	0.08	R.T.	L-T	76.1	29.940	0.078	15.000	----	---	13.10	75.68			----			1966	86734
		0.08			76.1	30.020	0.079	15.000	----	---	12.80	73.87	74.8/	1.3	----	----/	---	1966	86734
T6	S	0.10	R.T.	L-T	74.0	35.000	0.102	1.270	----	---	46.20	65.31			----			1956	84367
		0.10			74.0	35.000	0.102	2.530	----	---	35.60	71.20			----			1956	84367
		0.10			74.0	35.000	0.102	6.000	----	---	22.30	69.73			----			1956	84367
		0.10			74.0	35.000	0.102	8.900	----	---	15.30	59.60			----			1956	84367

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.10	R.T.	L-T	74.0	35.000	0.102	17.900	----	---	9.80	62.36			----			1956	84367
		0.10			74.0	35.000	0.102	18.000	----	---	12.00	76.76	67.5/	6.3	----	----/	---	1956	84367
T6	S	0.12	R.T.	L-T	73.2	3.000	0.123	1.000	1.520	---	40.20	54.14*			74.26*			1973	86213
		0.12			73.2	3.000	0.123	1.060	1.560	---	37.80	52.91			71.52*			1973	86213
		0.12			73.2	3.000	0.123	1.060	1.550	---	37.00	51.79			69.59*			1973	86213
		0.12			76.6	3.000	0.123	1.000	1.490	---	40.60	54.68			73.67*			1973	86213
		0.12			76.6	3.000	0.123	1.000	1.360	---	40.70	54.81			68.37*			1973	86213
		0.12			76.6	3.000	0.123	1.000	1.490	---	40.50	54.54			73.49*			1973	86213
		0.12			76.6	3.000	0.123	1.000	1.530	---	41.00	55.22*			76.19*			1973	86213
		0.12			78.2	3.000	0.129	1.140	1.460	---	34.10	50.18			60.78*			1973	86213
		0.12			78.2	3.000	0.129	1.160	1.460	---	33.60	50.05	52.7/	2.1	59.89*	----/	---	1973	86213
T6	S	0.12	R.T.	L-T	75.8	4.000	0.125	1.607	2.590	---	34.30	60.62			95.41*			1973	86213
		0.12			76.3	4.000	0.125	1.578	2.487	---	35.30	61.60	61.1/	0.7	93.20*	----/	---	1973	86213
T6	S	0.16	R.T.	L-T	78.6	15.000	0.161	7.500	----	---	12.30	50.21			----			1966	86734
		0.16			78.6	15.000	0.163	7.500	----	---	11.10	45.31	47.8/	3.5	----	----/	---	1966	86734
T6	P	0.50	R.T.	L-T	73.5	14.930	0.521	7.500	7.920	---	12.80	52.34			55.06			1965	62310
T6	P	0.50	R.T.	L-T	73.5	15.020	0.518	7.500	9.920	---	13.20	53.85			73.08			1965	62310
T6	F	0.16	R.T.	L-T	62.0	7.500	0.156	2.400	----	---	33.60	69.69			----			1966	86734
		0.16			62.0	7.500	0.157	1.790	----	---	36.80	63.97			----			1966	86734
		0.16			62.0	7.500	0.155	0.750	----	---	38.60	42.16			----			1966	86734
		0.16			62.0	7.500	0.158	2.680	----	---	37.30	83.18*	58.6/	14.5	----	----/	---	1966	86734
T6	E	0.12	R.T.	L-T	80.1	16.000	0.125	4.840	5.140	---	20.10	58.77			61.04			1962	62309
		0.12			80.1	16.010	0.126	4.800	4.980	---	19.70	57.30			58.64			1962	62309
		0.12			80.1	16.010	0.126	4.840	5.100	---	20.20	59.06	58.4/	0.9	61.04	60.2/	1.4	1962	62309
T6	E	0.25	R.T.	L-T	77.2	16.010	0.251	4.800	5.500	---	19.20	55.85			60.93			1962	62309
		0.25			77.2	16.020	0.251	4.790	5.180	---	19.30	56.06	56.0/	0.1	58.90	59.9/	1.4	1962	62309

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.04	R.T.	T-L	68.0	6.000	0.039	0.500	0.650	---	49.00	43.61			49.87*			1966	86734
		0.04			68.0	6.000	0.039	1.180	-----	---	36.70	51.19			-----			1966	86734
		0.04			68.0	6.000	0.039	0.726	-----	---	43.20	46.55			-----			1966	86734
		0.04			68.0	6.000	0.039	0.500	0.590	---	55.50	49.40*			53.75*			1966	86734
		0.04			68.0	6.000	0.039	0.500	0.630	---	50.50	44.95*			50.58*			1966	86734
		0.04			68.0	6.000	0.039	0.500	0.620	---	54.30	48.33*			53.94*			1966	86734
		0.04			69.0	6.000	0.039	0.500	0.810	---	52.20	46.46*			59.55*			1966	86734
		0.04			69.0	6.000	0.040	2.520	-----	---	17.64	39.48			-----			1966	86734
		0.04			69.0	6.000	0.040	0.500	0.650	---	52.40	46.64*	45.2/	4.9	53.33*	-----/	---	1966	86734
T6	S	0.06	R.T.	T-L	69.3	2.000	0.067	0.633	0.940	---	46.20	49.09*			65.28*			1973	86213
		0.06			69.3	2.000	0.067	0.623	1.000	---	43.50	45.76*			64.83*			1973	86213
		0.06			70.9	2.000	0.066	0.625	0.920	---	43.40	45.74*			60.24*			1973	86213
		0.06			70.9	2.000	0.067	0.623	1.010	---	43.40	45.65*			65.27*			1973	86213
		0.06			71.0	2.000	0.067	0.623	0.950	---	44.90	47.23*			64.01*			1973	86213
		0.06			71.0	2.000	0.067	0.624	0.900	---	45.30	47.75*			61.77*			1973	86213
		0.06			71.4	2.000	0.065	0.625	0.870	---	42.30	44.58*			56.15*			1973	86213
		0.06			71.4	2.000	0.065	0.628	0.910	---	41.90	44.34*			57.64*			1973	86213
		0.06			71.8	2.000	0.061	0.625	1.000	---	43.00	45.32*			64.09*			1973	86213
		0.06			71.8	2.000	0.061	0.625	1.040	---	42.80	45.11*			66.12*			1973	86213
		0.06			71.8	2.000	0.061	0.625	1.000	---	44.30	46.69*			66.03*			1973	86213
		0.06			72.2	2.000	0.067	0.632	0.970	---	43.60	46.33*			63.27*			1973	86213
		0.06			72.2	2.000	0.067	0.623	1.210	---	46.00	48.39*			83.17*			1973	86213
		0.06			72.7	2.000	0.065	0.622	0.730	---	50.40	53.01*			58.88*			1973	86213
		0.06			72.7	2.000	0.066	0.621	0.750	---	50.80	53.33*			60.47*			1973	86213
		0.06			73.1	2.000	0.063	0.625	0.880	---	41.10	43.32*			55.05*			1973	86213
		0.06			73.1	2.000	0.063	0.627	0.840	---	40.20	42.46*			51.95*			1973	86213
		0.06			73.1	2.000	0.063	0.622	0.880	---	40.80	42.92*			54.65*			1973	86213
		0.06			73.2	2.000	0.064	0.628	0.850	---	48.40	51.22*			63.11*			1973	86213
		0.06			73.2	2.000	0.064	0.628	0.870	---	47.80	50.59*			63.45*			1973	86213
		0.06			73.5	2.000	0.065	0.625	0.920	---	41.90	44.16*			58.16*			1973	86213
		0.06			73.5	2.000	0.067	0.623	1.080	---	43.20	45.44*			69.19*			1973	86213
		0.06			73.5	2.000	0.065	0.625	0.840	---	41.50	43.74*			53.63*			1973	86213
		0.06			73.5	2.000	0.065	0.625	0.810	---	41.10	43.32*			51.69*			1973	86213
		0.06			73.5	2.000	0.067	0.624	1.090	---	45.20	47.64*			73.06*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	T-L	73.7	2.000	0.066	0.629	0.910	---	43.80	46.35*			60.26*			1973	86213
		0.06			73.7	2.000	0.066	0.627	0.930	---	43.20	45.63*			60.50*			1973	86213
		0.06			74.2	2.000	0.065	0.623	1.090	---	45.10	47.44*			72.89*			1973	86213
		0.06			74.2	2.000	0.066	0.624	1.000	---	45.10	47.54*			67.22*			1973	86213
		0.06			74.2	2.000	0.065	0.621	1.060	---	47.00	49.34*			73.93*			1973	86213
		0.06			74.2	2.000	0.066	0.624	1.040	---	47.00	49.54*			72.61*			1973	86213
		0.06			74.4	2.000	0.065	0.628	0.920	---	47.30	50.06*			65.65*			1973	86213
		0.06			74.4	2.000	0.065	0.628	0.920	---	44.40	46.99*			61.63*			1973	86213
T6	S	0.06	R.T.	T-L	71.8	3.000	0.061	1.050	----	---	35.50	49.37			----			1973	86213
		0.06			71.8	3.000	0.061	1.080	----	---	34.80	49.33			----			1973	86213
		0.06			71.8	3.000	0.061	1.050	----	---	36.50	50.76			----			1973	86213
		0.06			71.8	3.000	0.061	1.060	----	---	35.70	49.97			----			1973	86213
		0.06			71.8	3.000	0.061	1.120	----	---	34.30	49.85			----			1973	86213
		0.06			75.5	3.030	0.063	0.750	0.770	---	45.50	51.34	50.1/	0.8	52.13*	----/	---	1966	86734
T6	S	0.06	R.T.	T-L	70.5	3.990	0.062	1.720	2.050	---	29.30	54.55			63.22*			1973	86213
		0.06			70.5	4.000	0.062	1.720	2.080	---	29.00	53.96	54.3/	0.4	63.36*	----/	---	1973	86213
T6	S	0.06	R.T.	T-L	75.5	4.500	0.063	1.130	1.130	---	40.00	55.46			55.46			1966	86734
		0.06			75.5	4.500	0.063	1.130	1.330	---	40.00	55.46	55.5/	0.0	61.14	58.3/	4.0	1966	86734
T6	S	0.06	R.T.	T-L	75.5	6.000	0.063	1.500	1.770	---	35.20	56.21			62.06			1966	86734
T6	S	0.06	R.T.	T-L	75.5	10.000	0.064	2.250	2.500	---	30.10	58.42			62.06			1966	86734
T6	S	0.06	R.T.	T-L	75.5	12.000	0.063	3.000	3.500	---	24.10	54.43			59.67			1966	86734
T6	S	0.06	R.T.	T-L	75.5	15.000	0.063	3.750	4.250	---	21.80	55.05			59.29			1966	86734
T6	S	0.06	R.T.	T-L	72.9	15.810	0.063	3.010	3.500	---	25.40	56.50			61.42			1973	86213
		0.06			72.9	15.810	0.063	5.980	6.960	---	15.80	53.20			59.52			1973	86213
		0.06			72.9	15.810	0.063	3.010	4.000	---	25.70	57.17			67.09			1973	86213
		0.06			72.9	15.820	0.063	1.000	1.400	---	42.90	53.90			63.93			1973	86213
		0.06			72.9	15.820	0.063	4.000	4.720	---	20.40	53.25	54.8/	1.9	58.81	62.2/	3.4	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	T-L	75.5	18.000	0.064	4.500	5.000	---	19.60	54.21			57.70			1966	86734
T6	S	0.06	R.T.	T-L	75.5	21.000	0.064	5.250	5.250	---	19.60	58.56			58.56			1966	86734
T6	S	0.06	R.T.	T-L	69.0	24.000	0.063	8.000	8.000	---	11.30	43.04			43.04			1966	86734
		0.06			69.0	24.000	0.063	8.000	8.000	---	11.40	43.43			43.43			1966	86734
		0.06			69.0	24.000	0.063	8.000	8.000	---	11.25	42.85			42.85			1966	86734
		0.06			69.0	24.000	0.063	8.000	8.000	---	11.40	43.43			43.43			1966	86734
		0.06			69.0	24.000	0.063	8.000	8.000	---	10.90	41.52			41.52			1966	86734
		0.06			75.5	24.000	0.064	6.000	6.360	---	16.71	53.37			55.23			1966	86734
		0.06			75.5	24.000	0.064	6.000	6.000	---	17.00	54.30	46.0/ 5.4		54.30	46.3/ 5.9		1966	86734
T6	S	0.08	R.T.	T-L	73.3	29.990	0.081	15.000	15.050	---	9.70	56.00			56.17			1966	86734
T6	S	0.12	R.T.	T-L	72.0	2.010	0.125	0.625	1.380	---	42.80	45.08*			91.65*			1973	86213
		0.12			74.2	2.010	0.125	0.624	1.170	---	39.60	41.71			68.72*			1973	86213
		0.12			74.2	2.010	0.125	0.624	1.210	---	40.20	42.34			72.44*			1973	86213
		0.12			72.0	2.020	0.125	0.624	1.000	---	43.40	45.69*	42.0/ 0.4		64.44*	----/	---	1973	86213
T6	S	0.12	R.T.	T-L	72.9	3.000	0.123	1.130	1.420	---	32.50	47.53			56.57*			1973	86213
		0.12			72.9	3.000	0.123	1.050	1.380	---	33.90	47.15			57.63*			1973	86213
		0.12			72.9	3.000	0.123	1.110	1.410	---	32.90	47.52			56.93*			1973	86213
		0.12			72.9	3.000	0.124	1.100	1.240	---	31.00	44.50			48.48			1973	86213
		0.12			72.9	3.000	0.124	1.120	1.340	---	31.80	46.22			52.79			1973	86213
		0.12			72.9	3.000	0.123	1.050	1.350	---	31.30	43.53			52.27			1973	86213
		0.12			72.9	3.000	0.123	1.090	1.380	---	32.60	46.50			55.42*			1973	86213
		0.12			72.9	3.000	0.123	1.070	1.320	---	32.50	45.78			53.31			1973	86213
		0.12			72.9	3.000	0.123	1.100	1.450	---	34.00	48.80			60.25*			1973	86213
		0.12			74.1	3.000	0.123	1.000	1.380	---	35.40	47.68			60.18*			1973	86213
		0.12			74.1	3.000	0.123	1.000	1.240	---	34.10	45.92			53.32			1973	86213
		0.12			74.1	3.000	0.123	1.000	1.250	---	34.50	46.46			54.28			1973	86213
		0.12			74.1	3.000	0.123	1.000	1.360	---	36.70	49.43			61.65*			1973	86213
		0.12			77.0	3.000	0.128	1.210	1.510	---	25.80	39.62			47.38			1973	86213
		0.12			77.0	3.000	0.128	1.110	1.460	---	28.10	40.59	45.8/ 2.8		50.09	51.5/ 2.5		1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.12	R.T.	T-L	74.1	4.000	0.122	1.720	1.960	---	27.90	51.91			57.77			1973	86213
		0.12			74.1	4.000	0.122	1.710	1.890	---	25.30	46.86	49.4/	3.6	50.78	54.3/	4.9	1973	86213
T6	S	0.16	R.T.	T-L	76.5	15.000	0.164	7.500	8.080	---	8.90	36.33			38.94			1966	86734
		0.16			76.5	15.000	0.164	7.500	7.950	---	8.50	34.69	35.5/	1.2	36.61	37.8/	1.6	1966	86734
T6	P	0.25	R.T.	T-L	76.0	15.000	0.247	7.500	8.600	---	11.70	47.76			54.56			1966	86734
		0.25			76.0	15.000	0.246	7.500	8.500	---	13.00	53.06	50.4/	3.7	59.88	57.2/	3.8	1966	86734
T6	P	0.50	R.T.	T-L	73.3	15.000	0.514	7.500	9.450	---	9.40	38.37			48.88			1966	86734
		0.50			73.3	15.000	0.514	7.500	9.500	---	9.50	38.78	38.6/	0.3	49.73	49.3/	0.6	1966	86734
BUCKLING OF CRACK EDGES RESTRAINED																			
T651	S	0.05	R.T.	L-T	78.3	7.990	0.048	1.610	1.950	---	32.20	52.53			58.52			1971	84340
		0.05			78.3	8.000	0.053	1.610	1.850	---	33.40	54.48			58.89			1971	84340
		0.05			78.3	8.000	0.052	1.620	1.790	---	34.00	55.65			58.84			1971	84340
		0.05			78.3	8.000	0.053	1.620	1.880	---	36.30	59.42			64.59			1971	84340
		0.05			78.3	8.000	0.053	1.610	2.110	---	37.50	61.17			71.36			1971	84340
		0.05			78.3	8.000	0.052	1.600	1.920	---	37.90	61.61	57.5/	3.8	68.26	63.4/	5.5	1971	84340
T651	S	0.10	R.T.	L-T	78.3	8.000	0.101	2.440	----	---	28.60	59.44			----			1971	84340
		0.10			78.3	8.000	0.101	0.800	----	---	45.40	51.21			----			1971	84340
		0.10			78.3	8.000	0.103	0.810	----	---	46.50	52.79			----			1971	84340
		0.10			78.3	8.000	0.102	2.420	----	---	29.10	60.17			----			1971	84340
		0.10			78.3	8.000	0.104	1.610	----	---	33.50	54.65			----			1971	84340
		0.10			78.3	8.000	0.103	1.610	----	---	33.10	53.99	55.4/	3.6	----	----/	---	1971	84340
T651	S	0.12	R.T.	L-T	75.4	3.000	0.125	1.160	1.680	22.80	35.90	53.48			73.05*			1965	62310
		0.12			75.4	3.000	0.125	1.170	1.440	20.80	35.20	52.76			62.01*			1965	62310
		0.12			79.1	3.000	0.125	1.170	1.550	20.90	29.50	44.21			55.48			1965	62310
		0.12			79.1	3.000	0.125	1.200	1.460	22.60	33.20	50.68			59.18*			1965	62310

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T651	S	0.12	R.T.	L-T	80.6	3.000	0.125	1.120	1.510	21.30	34.20	49.70			62.80*			1965	62310
		0.12			80.6	3.000	0.125	1.110	1.390	19.70	35.30	50.99	50.3	3.3	60.37*	-----	---	1965	62310
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T651	S	0.12	R.T.	L-T	75.4	3.000	0.124	1.160	1.680	22.80	35.90	53.48			73.05*			1973	86213
		0.12			75.4	3.000	0.122	1.170	1.440	20.50	35.20	52.76			62.01*			1973	86213
		0.12			75.4	3.000	0.125	1.000	1.240	22.10	41.00	55.22*			64.11*			1973	86213
		0.12			75.4	3.000	0.123	1.000	1.640	21.10	40.40	54.41*			80.22*			1973	86213
		0.12			78.5	3.000	0.127	1.000	1.300	21.30	37.50	50.50			60.79*			1973	86213
		0.12			78.5	3.000	0.127	1.110	1.390	18.30	35.30	50.99			60.37*			1973	86213
		0.12			78.5	3.000	0.127	1.000	1.420	18.70	37.40	50.37			65.10*			1973	86213
		0.12			78.5	3.000	0.127	1.120	1.510	19.30	34.20	49.70			62.80*			1973	86213
		0.12			79.1	3.000	0.121	1.200	1.460	20.70	33.20	50.68			59.18*			1973	86213
		0.12			79.1	3.000	0.125	1.000	1.240	---	33.80	45.52			52.85			1973	86213
		0.12			79.1	3.000	0.125	1.170	1.550	18.70	29.50	44.21			55.48			1973	86213
		0.12			79.1	3.000	0.125	1.000	1.200	---	32.50	43.77	49.2	3.5	49.61	52.6	2.9	1973	86213
T651	P	0.25	R.T.	L-T	77.3	3.000	0.252	1.000	1.500	---	36.80	49.56			67.18*			1973	86213
		0.25			77.3	3.000	0.253	1.370	1.510	---	25.20	42.58			46.28			1973	86213
		0.25			77.3	3.000	0.253	1.180	1.180	---	30.70	46.29			46.29			1973	86213
		0.25			77.3	3.000	0.253	1.000	1.490	---	34.70	46.73	46.3	2.9	62.97*	46.3	0.0	1973	86213
T651	P	0.25	R.T.	L-T	78.2	4.000	0.247	1.330	1.980	---	31.00	52.79			71.03*			1973	86213
		0.25			78.2	4.000	0.247	1.390	1.960	---	32.30	51.63			66.88*			1973	86213
		0.25			78.8	4.000	0.248	1.330	1.970	---	35.50	55.12			73.83*			1973	86213
		0.25			78.8	4.000	0.247	1.440	1.980	---	33.80	55.32			70.61*			1973	86213
		0.25			78.8	4.000	0.249	1.330	2.040	---	34.90	54.19			74.89*			1973	86213
		0.25			77.3	4.000	0.251	1.330	1.960	---	31.20	48.44			64.60			1973	86213
		0.25			77.3	4.000	0.253	1.450	2.110	---	26.20	43.09			58.02			1973	86213
		0.25			80.7	4.000	0.250	1.823	2.840	---	24.70	48.10			78.65*			1973	86213
		0.25			81.9	4.000	0.250	1.845	2.856	---	24.20	47.59	50.7	4.1	77.78*	61.3	4.7	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T651	P	0.31	R.T.	L-T	81.2	7.950	0.316	2.310	----	---	28.80	57.90			----			1971	84340
		0.31			81.2	7.970	0.314	0.740	----	---	47.10	51.05			----			1971	84340
		0.31			81.2	8.000	0.313	1.550	----	---	34.90	55.75			----			1971	84340
		0.31			81.2	8.010	0.316	2.360	----	---	29.20	59.43			----			1971	84340
		0.31			81.2	8.010	0.315	0.770	----	---	45.60	50.44			----			1971	84340
		0.31			81.2	8.010	0.316	1.590	----	---	34.00	55.08	54.9/ 3.6		----	----/	---	1971	84340
T651	P	0.50	R.T.	L-T	78.0	4.000	0.499	1.877	2.814	---	21.20	42.29			66.51*			1973	86213
		0.50			79.2	4.000	0.500	1.637	2.786	---	24.90	44.61	43.5/ 1.6		76.89*	----/	---	1973	86213
T651	P	0.75	R.T.	L-T	77.5	8.000	0.763	1.580	3.360	---	23.30	37.62			60.22			1971	84340
T651	P	1.00	R.T.	L-T	76.6	20.000	1.000	7.000	11.100	8.80	17.10	61.41			89.01			1965	62310
		1.00			76.6	20.000	1.000	7.000	10.690	8.50	17.40	62.48			87.25			1965	62310
		1.00			76.6	20.000	1.000	7.000	10.770	8.60	16.60	59.61			83.85			1965	62310
		1.00			76.6	20.000	1.000	7.000	10.590	8.70	18.00	64.64			89.45			1965	62310
		1.00			78.5	20.000	1.000	7.000	10.300	8.90	13.80	49.56			66.81			1965	62310
		1.00			78.5	20.000	1.000	7.000	10.650	8.90	14.20	50.99			70.95			1965	63210
		1.00			78.5	20.000	1.000	7.000	10.600	8.80	13.40	48.12			66.65			1965	62310
		1.00			78.5	20.000	1.000	7.000	10.850	8.80	13.90	49.92			70.72			1965	63210
		1.00			80.3	20.000	1.000	7.000	10.660	8.90	13.40	48.12			67.01			1965	62310
		1.00			80.3	20.000	1.000	7.000	11.320	9.10	13.40	48.12			71.18			1965	62310
		1.00			80.3	20.000	1.000	7.000	10.830	8.60	13.80	49.56			70.09			1965	62310
		1.00			80.3	20.000	1.000	7.000	11.170	8.80	13.70	49.20	53.5/ 6.5		71.78	75.4/	9.1	1965	62310
T651	S	0.12	R.T.	T-L	73.4	3.000	0.124	1.120	1.300	20.20	35.30	51.30			57.22*			1973	86213
		0.12			73.4	3.000	0.122	1.000	1.180	20.50	36.40	49.02			54.89*			1973	86213
		0.12			73.4	3.000	0.125	1.140	1.320	20.50	30.10	44.29			49.38			1973	86213
		0.12			73.4	3.000	0.123	1.000	1.250	---	37.50	50.50			58.99*			1973	86213
		0.12			76.0	3.000	0.127	1.000	1.300	20.20	29.60	39.86			47.98			1973	86213
		0.12			76.0	3.000	0.127	1.100	1.380	17.60	28.70	41.19			48.79			1973	86213
		0.12			76.0	3.000	0.127	1.000	1.350	21.70	30.30	40.81			50.60			1973	86213
		0.12			76.0	3.000	0.127	1.090	1.300	18.40	30.60	43.65			49.60			1973	86213
		0.12			77.7	3.000	0.124	1.160	1.440	14.20	27.00	40.22			47.56			1973	86213
		0.12			77.7	3.000	0.125	1.000	1.290	---	30.00	40.40			48.34			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T651	S	0.12	R.T.	T-L	77.7	3.000	0.124	1.000	1.160	---	33.00	44.44			49.16			1973	86213
		0.12			77.7	3.000	0.123	1.180	1.320	18.40	28.40	42.83	44.0/	4.1	46.59	48.7/	1.2	1973	86213
T651	P	0.25	R.T.	T-L	74.2	3.000	0.253	1.000	1.520	---	24.60	33.13			45.44			1973	86213
		0.25			74.2	3.000	0.253	1.330	1.680	---	21.30	35.15			43.34			1973	86213
		0.25			74.2	3.000	0.253	1.010	1.220	---	25.70	34.84			39.71			1973	86213
		0.25			74.2	3.000	0.253	1.260	1.710	---	20.60	32.60			42.70			1973	86213
		0.25			74.2	3.000	0.253	1.040	1.330	---	24.10	33.31			39.77			1973	86213
		0.25			74.2	3.000	0.254	1.000	1.440	---	25.00	33.67			44.04			1973	86213
		0.25			74.2	3.000	0.253	1.090	1.390	---	23.90	34.09			40.87			1973	86213
		0.25			74.2	3.000	0.254	1.000	1.550	---	25.50	34.34			47.96			1973	86213
		0.25			74.2	3.000	0.252	1.000	1.380	---	25.50	34.34			43.35			1973	86213
		0.25			74.2	3.000	0.254	1.000	1.490	---	26.20	35.29			47.54			1973	86213
		0.25			74.2	3.000	0.253	1.000	1.440	---	26.60	35.82			46.86			1973	86213
		0.25			74.2	3.000	0.253	1.000	1.430	---	24.70	33.27			43.25			1973	86213
		0.25			74.2	3.000	0.253	1.130	1.420	---	22.50	32.90			39.17			1973	86213
		0.25			74.2	3.000	0.253	1.000	1.330	---	25.10	33.80			41.42			1973	86213
		0.25			74.2	3.000	0.253	1.240	1.660	---	23.50	36.75			47.23			1973	86213
		0.25			74.2	3.000	0.254	1.000	1.610	---	25.50	34.34	34.2/	1.1	49.72	43.9/	3.3	1973	86213
T651	P	0.25	R.T.	T-L	74.2	3.990	0.253	1.700	2.060	---	21.10	38.93			45.73			1973	86213
T651	P	0.25	R.T.	T-L	72.0	4.000	0.247	1.330	1.940	---	26.60	41.30			54.59			1973	86213
		0.25			72.0	4.000	0.247	1.460	2.180	---	25.60	42.30			58.52			1973	86213
		0.25			75.4	4.000	0.249	1.330	2.020	---	26.00	40.37			55.29			1973	86213
		0.25			75.4	4.000	0.249	1.440	2.050	---	25.70	42.06			55.40			1973	86213
		0.25			74.2	4.000	0.253	1.430	2.020	---	23.80	38.77			50.62			1973	86213
		0.25			74.2	4.000	0.253	1.330	1.850	---	24.20	37.57			47.71			1973	86213
		0.25			74.2	4.000	0.253	1.710	2.110	---	21.00	38.90			46.50			1973	86213
		0.25			74.2	4.000	0.253	1.420	1.820	---	24.20	39.24			47.08			1973	86213
		0.25			74.2	4.000	0.253	1.330	1.780	---	24.60	38.19			47.02			1973	86213
		0.25			74.2	4.000	0.253	1.390	1.720	---	24.10	38.52			44.84			1973	86213
		0.25			75.4	4.000	0.251	1.330	1.840	---	25.50	39.59	39.7/	1.6	50.05	50.7/	4.6	1973	86213
T651	P	0.50	R.T.	T-L	73.0	4.000	0.500	1.720	2.000	---	17.10	31.82			36.04			1973	86213
		0.50			73.0	4.000	0.500	1.710	1.860	---	17.10	31.67	31.7/	0.1	33.87	35.0/	1.5	1973	86213

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(I)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T651	P	0.50	R.T.	T-L	77.2	14.950	0.514	4.970	6.950	---	13.00	39.02			49.76			1973	86213
		0.50			77.2	14.980	0.514	5.000	6.550	---	12.60	37.95	38.5/	0.8	45.96	47.9/	2.7	1973	86213
T651	P	1.00	R.T.	T-L	73.6	20.000	1.000	7.000	9.150	---	8.80	31.60			38.45			1973	86213
		1.00			73.6	20.000	1.000	7.000	8.150	---	8.70	31.24			34.76			1973	86213
		1.00			73.6	20.000	1.000	7.000	9.000	---	9.40	33.76			40.53			1973	86213
		1.00			73.6	20.000	1.000	7.000	8.330	---	9.10	32.68			36.95			1973	86213
		1.00			76.0	20.000	1.000	7.000	9.070	---	8.70	31.24			37.75			1973	86213
		1.00			76.0	20.000	1.000	7.000	9.030	---	8.40	30.17			36.32			1973	86213
		1.00			76.0	20.000	1.000	7.000	8.670	---	8.10	29.09			33.91			1973	86213
		1.00			76.0	20.000	1.000	7.000	8.580	---	8.60	30.88			35.72			1973	86213
		1.00			77.4	20.000	1.000	7.000	7.650	---	8.00	28.73			30.53			1973	86213
		1.00			77.4	20.000	1.000	7.000	8.250	---	7.70	27.65			31.04			1973	86213
		1.00			77.4	20.000	1.000	7.000	9.250	---	8.10	29.09			35.71			1973	86213
		1.00			77.4	20.000	1.000	7.000	7.470	---	8.10	29.09	30.4/	1.8	30.40	35.2/	3.2	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T73	S	0.06	R.T.	L-T	57.8	2.000	0.066	0.628	1.070	---	39.90	42.22*			63.33*			1973	86213
		0.06			57.8	2.000	0.066	0.626	0.950	---	39.60	41.82*			56.45*			1973	86213
		0.06			60.0	2.000	0.062	0.625	1.240	---	42.00	44.27*			78.18*			1973	86213
		0.06			60.0	2.000	0.062	0.625	1.280	---	41.60	43.85*			80.58*			1973	86213
		0.06			60.0	2.000	0.062	0.625	1.400	---	41.60	43.85*			91.56*			1973	86213
		0.06			62.5	2.000	0.065	0.624	0.940	---	42.30	44.58*			59.77*			1973	86213
		0.06			62.5	2.000	0.065	0.622	0.920	---	42.00	44.18*			58.30*			1973	86213
		0.06			61.0	2.010	0.062	0.623	0.830	---	40.30	42.36*			51.55*			1973	86213
		0.06			61.0	2.010	0.061	0.625	0.800	---	40.60	42.76*			50.54*			1973	86213
T73	S	0.06	88	L-T	60.0	16.000	0.063	4.000	4.800	13.90	29.40	76.67			85.52			1973	86213
		0.06			60.0	16.000	0.063	4.000	4.380	14.20	29.20	76.15	76.4/	0.4	80.34	82.9/	3.7	1973	86213
T73	S	0.06	R.T	T-L	58.3	2.000	0.065	0.627	0.970	---	39.60	41.82*			57.46*			1973	86213
		0.06			58.3	2.000	0.065	0.628	0.980	---	39.00	41.27*			57.10*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T73	S	0.06	R.T.	T-L	59.0	2.000	0.062	0.625	1.210	---	40.10	42.27*			72.50*			1973	86213
		0.06			59.0	2.000	0.062	0.625	1.260	---	40.30	42.48*			76.52*			1973	86213
		0.06			59.0	2.000	0.062	0.625	1.260	---	40.30	42.48*			76.52*			1973	86213
		0.06			60.9	2.000	0.062	0.626	0.820	---	38.60	40.77*			48.99*			1973	86213
		0.06			63.8	2.000	0.066	0.627	0.920	---	40.90	43.20*			56.77*			1973	86213
		0.06			63.8	2.000	0.066	0.626	0.900	---	40.90	43.20*			55.77*			1973	86213
		0.06			60.9	2.010	0.062	0.627	0.860	---	39.20	41.37*			51.50*			1973	86213
		0.06			60.9	2.010	0.061	0.625	0.900	---	37.70	39.71*			51.33*			1973	86213
T73	S	0.06	R.T.	T-L	59.0	3.000	0.062	1.050	----	---	36.20	50.35*			----			1973	86213
		0.06			59.0	3.000	0.062	1.070	----	---	35.30	49.72*			----			1973	86213
		0.06			59.0	3.000	0.062	1.060	----	---	35.70	49.97*			----			1973	86213
		0.06			59.0	3.000	0.062	1.060	----	---	35.80	50.11*			----			1973	86213
		0.06			59.0	3.000	0.062	1.060	----	---	35.80	50.11*			----			1973	86213
		0.06			59.0	3.000	0.062	1.050	----	---	35.80	49.79*			----			1973	86213
BUCKLING OF CRACK EDGES RESTRAINED																			
T7351	S	0.05	R.T.	L-T	69.1	7.990	0.054	1.610	2.110	---	46.10	75.20*			87.73*			1971	84340
		0.05			69.1	7.990	0.054	1.610	2.210	---	46.60	76.02*			91.16*			1971	84340
		0.05			69.1	7.990	0.054	1.610	2.150	---	40.60	66.23			78.13*			1971	84340
		0.05			69.1	7.990	0.055	1.640	2.060	---	42.90	70.70			80.49*			1971	84340
		0.05			69.1	7.990	0.055	1.620	2.160	---	45.20	73.99*			87.22*			1971	84340
		0.05			69.1	8.000	0.053	1.610	2.310	---	42.40	69.16	68.7/ 2.3		85.19*	----/	---	1971	84340
T7351	S	0.06	R.T.	L-T	58.2	8.000	0.061	2.350	3.550	20.50	33.80	68.63*			91.15*			1970	79089
		0.06			58.2	8.000	0.060	3.170	4.200	16.50	27.70	68.58			86.36*			1970	79089
		0.06			58.2	8.000	0.061	3.970	5.000	16.40	23.80	70.47*			89.49*			1970	79089
		0.06			58.2	8.000	0.062	0.780	1.400	30.20	45.90	51.11*			69.38*			1970	79089
		0.06			58.2	8.000	0.061	4.760	5.620	10.30	18.40	65.27			81.45*			1970	79089
		0.06			58.2	8.000	0.060	6.400	6.600	6.00	9.10	51.90			56.24*			1970	79089
		0.06			58.2	8.000	0.061	5.550	6.080	11.30	13.30	57.73			67.74*			1970	79089

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T7351	S	0.06	R.T.	L-T	58.2	8.000	0.062	1.600	1.950	24.20	38.70	62.91*			70.32*			1970	79089
		0.06			58.2	8.010	0.061	7.280	7.380	3.00	4.00	35.81	55.9	13.0	38.79*	----/	---	1970	79089
T7351	S	0.10	R.T.	L-T	62.9	8.000	0.101	0.820	----	---	57.60	65.80*			----			1971	84340
		0.10			62.9	8.000	0.104	2.420	----	---	38.90	80.43*			----			1971	84340
		0.10			62.9	8.000	0.101	2.410	----	---	37.10	76.51*			----			1971	84340
		0.10			62.9	8.010	0.104	1.620	----	---	47.10	77.09*			----			1971	84340
		0.10			62.9	8.010	0.105	1.620	----	---	44.50	72.83*			----			1971	84340
		0.10			62.9	8.010	0.104	0.820	----	---	54.10	61.80*			----			1971	84340
T7351	P	0.25	R.T.	L-T	60.5	8.000	0.253	2.860	3.800	---	30.60	70.50			87.24*			1970	79089
		0.25			60.5	8.020	0.253	6.420	6.600	---	8.50	48.62			52.23			1970	79089
		0.25			60.5	8.020	0.260	6.000	----	---	11.50	56.87			----			1970	79089
		0.25			60.5	8.030	0.256	4.870	5.600	---	17.80	64.67			78.04*			1970	79089
		0.25			60.5	8.030	0.257	3.650	4.900	---	25.20	69.41			92.22*			1970	79089
		0.25			60.5	8.030	0.255	3.230	4.450	---	28.20	70.71			92.87*			1970	79089
		0.25			60.5	8.030	0.255	5.650	6.000	---	13.60	60.47			67.14*			1970	79089
		0.25			60.5	8.030	0.257	6.690	7.000	---	7.40	47.12			54.85*			1970	79089
		0.25			60.5	8.030	0.260	7.270	7.300	---	4.70	41.27*			42.19*			1970	79089
		0.25			60.5	8.040	0.256	4.350	5.100	---	20.80	66.92			79.87*			1970	79089
		0.25			60.5	8.040	0.255	7.660	----	---	1.90	24.20			----			1970	79089
		0.25			60.5	8.040	0.258	1.220	----	---	43.40	60.95*			----			1970	79089
		0.25			60.5	8.040	0.257	1.660	2.900	---	39.30	65.18*			91.32*			1970	79089
		0.25			60.5	8.040	0.254	0.770	----	---	46.80	51.76*			----			1970	79089
		0.25			60.5	8.040	0.258	2.000	3.000	---	36.30	66.91			86.33*			1970	79089
		0.25			60.5	8.040	0.258	2.470	3.400	---	33.70	70.53*			87.77*			1970	79089
		0.25			60.5	8.040	0.259	4.010	5.050	---	23.00	68.58			87.23*			1970	79089
		0.25			60.5	8.050	0.255	5.230	5.850	---	15.50	61.44	59.7	13.2	72.83*	----/	---	1970	79089
T7351	P	0.25	R.T.	L-T	60.5	15.880	0.252	14.500	14.700	---	3.70	47.87			52.10*			1970	79089
		0.25			60.5	15.900	0.252	1.580	----	---	45.30	71.80*			----			1970	79089
		0.25			60.5	15.900	0.251	8.150	10.200	---	19.70	84.67			107.93*			1970	79089
		0.25			60.5	15.910	0.252	4.840	7.000	---	31.30	91.59			118.24*			1970	79089
		0.25			60.5	15.910	0.253	9.560	10.850	---	16.30	82.47			97.22*			1970	79089
		0.25			60.5	15.910	0.252	12.930	----	---	8.00	66.95	74.7	17.5	----	----/	---	1970	79089

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T7351	P	0.25	R.T.	L-T	60.5	15.920	0.248	11.450	13.500	---	11.40	74.00			107.94*			1970	79089
		0.25			60.5	15.950	0.252	3.160	----	---	35.80	81.75			----			1970	79089
		0.25			60.5	16.020	0.252	6.470	8.600	---	24.80	88.09	81.3/	7.1	111.77*	----/	---	1970	79089
T7351	P	0.25	R.T.	L-T	60.5	36.120	0.259	18.000	24.880	10.20	15.00	94.73			136.84			1970	79089
		0.25			60.5	36.120	0.253	28.830	33.100	4.50	7.80	94.01			155.42*			1970	79089
		0.25			60.5	36.120	0.259	7.350	9.250	17.40	25.90	90.32	93.0/	2.4	102.92	119.9/	24.0	1970	79089
T7351	P	0.31	R.T.	L-T	68.7	2.000	0.319	0.430	0.750	---	51.00	43.15*			60.71*			1971	84340
		0.31			68.7	2.000	0.315	0.390	0.670	---	52.80	42.32*			58.25*			1971	84340
T7351	P	0.31	R.T.	L-T	68.7	7.950	0.312	0.760	----	---	51.20	56.26*			----			1971	84340
		0.31			68.7	7.950	0.316	0.770	----	---	50.70	56.08*			----			1971	84340
		0.31			68.7	8.000	0.316	1.590	----	---	42.70	69.17			----			1971	84340
		0.31			68.7	8.000	0.314	1.560	----	---	41.60	66.69			----			1971	84340
		0.31			68.7	8.000	0.317	2.370	----	---	34.30	70.01			----			1971	84340
		0.31			68.7	8.000	0.313	2.370	----	---	33.90	69.19	68.8/	1.4	----	----/	---	1971	84340
T7351	P	0.31	R.T.	L-T	68.7	22.000	0.313	4.430	5.450	---	31.40	84.96			95.51			1971	84340
T7351	P	0.31	R.T.	L-T	68.7	32.000	0.311	6.420	10.180	---	28.60	93.15			122.07			1971	84340
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7351	S	0.20	R.T.	L-T	69.1	7.990	0.201	1.640	2.350	---	39.20	64.60			79.60*			1971	84340
		0.20			69.1	8.000	0.200	1.630	2.400	---	44.20	72.59*			90.92*			1971	84340
T7351	P	0.25	R.T.	L-T	64.6	3.000	0.113	1.000	1.800	19.50	39.40	53.06*			86.41*			1973	86213
		0.25			57.5	3.000	0.125	1.080	2.000	17.80	33.90	48.05*			84.97*			1973	86213
		0.25			57.5	3.000	0.125	1.000	1.670	17.40	37.80	50.91*			76.44*			1973	86213
		0.25			57.5	3.000	0.125	1.070	1.740	18.00	36.00	50.71*			76.02*			1973	86213
		0.25			57.5	3.000	0.125	1.000	2.000	18.60	35.80	48.21*			89.74*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN DEV	DATE	REFER
						BUCKLING OF CRACK EDGES NOT RESTRAINED											
T7351	P	0.25	R.T.	L-T	60.6	3.000	0.125	1.000	1.620	16.60	38.60	51.99*		75.72*		1973	86213
		0.25			60.6	3.000	0.124	1.070	1.960	16.40	35.60	50.15*		86.79*		1973	86213
		0.25			60.6	3.000	0.125	1.140	1.800	18.30	35.10	51.65*		76.98*		1973	86213
		0.25			60.6	3.000	0.126	1.000	1.740	19.20	37.80	50.91*		79.82*		1973	86213
		0.25			64.6	3.000	0.127	1.090	1.810	16.50	38.50	54.92*		84.98*		1973	86213
		0.25			64.6	3.000	0.125	1.000	1.660	19.50	40.30	54.27*		81.00*		1973	86213
		0.25			64.6	3.000	0.125	1.090	1.770	19.50	37.30	53.20*		80.27*		1973	86213
T7351	P	0.50	R.T.	L-T	62.1	7.960	0.501	2.430	3.250	18.60	30.20	62.64		76.23*		1970	79089
T7351	P	0.50	R.T.	L-T	70.6	8.000	0.458	1.630	2.300	---	40.50	66.52		81.16*		1971	84340
		0.50			62.1	8.000	0.502	5.630	5.900	8.10	12.10	53.72		58.19		1970	79089
		0.50			62.1	8.000	0.501	6.900	6.950	5.10	6.20	44.09		45.28		1970	79089
		0.50			62.1	8.000	0.503	5.250	5.420	8.70	14.30	57.27		59.90		1970	79089
		0.50			62.1	8.010	0.502	4.470	4.600	11.70	19.00	62.94		64.86		1970	79089
		0.50			62.1	8.010	0.502	3.140	4.150	16.50	27.30	67.10		84.11*		1970	79089
		0.50			62.1	8.010	0.501	2.860	3.420	15.00	27.20	62.65		71.23		1970	79089
		0.50			62.1	8.010	0.504	1.630	-----	20.30	35.50	58.30		-----		1970	79089
		0.50			62.1	8.020	0.506	3.170	3.850	15.00	27.20	67.30		78.35*		1970	79089
		0.50			62.1	8.020	0.507	0.820	-----	---	46.10	52.66*		-----		1970	79089
		0.50			62.1	8.020	0.507	7.340	-----	2.60	3.90	36.34		-----		1970	79089
		0.50			62.1	8.090	0.508	3.980	4.500	15.60	23.40	69.15		77.65*		1970	79089
		0.50			62.1	8.100	0.507	4.070	5.080	16.10	21.20	63.87		80.55*		1970	79089
		0.50			62.1	8.100	0.508	3.150	5.000	16.80	27.20	66.85		101.36*		1970	79089
		0.50			62.1	8.110	0.506	1.650	2.200	21.30	39.20	64.77		76.37*		1970	79089
		0.50			62.1	8.110	0.508	3.610	4.200	13.40	23.40	63.69		72.52		1970	79089
		0.50			62.1	8.110	0.505	2.400	3.450	16.70	32.20	66.13		84.61*		1970	79089
		0.50			62.1	8.110	0.506	1.220	-----	33.10	43.40	60.93*		-----		1970	79089
		0.50			62.1	8.110	0.507	3.270	3.900	15.40	25.20	63.61		73.10		1970	79089
		0.50			62.1	8.110	0.506	4.840	5.500	9.80	17.70	63.44		74.76*		1970	79089
		0.50			62.1	8.120	0.508	6.450	6.500	5.80	8.00	45.19		46.04		1970	79089
		0.50			62.1	8.120	0.508	6.070	-----	6.90	10.40	51.67		-----		1970	79089
		0.50			62.1	8.130	0.507	4.750	4.950	10.80	16.90	59.22		62.07		1970	79089
		0.50			62.1	8.130	0.507	2.030	-----	24.80	35.00	65.02		-----		1970	79089
		0.50			62.1	8.140	0.508	1.610	2.450	26.00	38.90	63.40	60.1/ 8.5	80.88*	61.5/10.5	1970	79089

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7351	P	0.50	R.T.	L-T	62.1	16.090	0.504	6.350	11.090	15.40	21.50	75.27			131.03*			1970	79089
		0.50			62.1	16.090	0.506	12.900	13.160	5.60	8.30	67.50			71.04			1970	79089
		0.50			62.1	16.090	0.506	14.200	15.570	3.40	5.20	57.34	66.7/	9.0	114.16*	----/	---	1970	79089
T7351	P	0.50	R.T.	L-T	62.1	16.100	0.498	3.100	6.340	18.70	35.50	80.18			124.12*			1970	79089
		0.50			62.1	16.100	0.505	1.580	5.730	22.80	41.00	64.98			133.59*			1970	79089
		0.50			62.1	16.100	0.503	8.250	10.160	11.00	19.90	86.04			107.43*			1970	79089
		0.50			62.1	16.100	0.504	4.800	9.840	15.70	27.40	79.65			142.25*			1970	79089
		0.50			62.1	16.120	0.508	11.200	13.100	7.90	12.50	77.20	77.6/	7.8	105.28*	----/	---	1970	79089
T7351	P	0.50	R.T.	L-T	62.1	36.010	0.486	28.800	----	3.10	3.70	44.74			----			1970	79089
T7351	P	0.50	R.T.	L-T	62.1	36.050	0.479	18.140	26.350	7.20	8.50	54.09			85.38			1970	79089
T7351	P	0.60	R.T.	L-T	66.0	2.000	0.597	0.330	----	---	57.20	41.89*			----			1971	84340
		0.60			66.0	2.000	0.602	0.310	----	---	54.70	38.75*			----			1971	84340
T7351	P	0.60	R.T.	L-T	66.0	7.990	0.599	2.390	----	---	29.50	60.53			----			1971	84340
		0.60			66.0	7.990	0.600	2.420	----	---	29.50	61.00			----			1971	84340
		0.60			66.0	8.000	0.599	1.590	----	---	38.20	61.88			----			1971	84340
		0.60			66.0	8.000	0.605	0.790	----	---	45.60	51.10			----			1971	84340
		0.60			66.0	8.000	0.602	1.610	----	---	36.80	60.03			----			1971	84340
		0.60			66.0	8.000	0.602	0.820	----	---	46.40	53.00	57.9/	4.6	----	----/	---	1971	84340
T7351	P	0.60	R.T.	L-T	66.0	32.000	0.617	6.450	----	---	21.20	69.22			----			1971	84340
		0.60			66.0	32.000	0.615	6.400	----	---	23.60	76.73	73.0/	5.3	----	----/	---	1971	84340
T7351	P	0.75	R.T.	L-T	68.3	9.000	0.764	1.610	2.350	---	28.10	45.59			56.38			1971	84340
T7351	P	1.00	R.T.	L-T	61.1	8.030	1.010	4.010	4.270	14.70	16.40	48.92			51.85			1970	79089
T7351	P	1.00	R.T.	L-T	61.1	8.060	1.009	6.310	6.470	7.10	7.60	41.37			43.88			1970	79089
		1.00			61.1	8.070	1.006	1.500	1.700	21.10	24.90	39.06	40.2/	1.6	41.84	42.9/	1.4	1970	79089
T7351	P	1.00	R.T.	L-T	61.1	16.030	1.007	3.300	4.500	14.60	21.40	50.04			59.83			1970	79089

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7351	P	1.00	R.T.	L-T	61.1	16.030	1.008	1.800	----	19.20	25.90	43.89			----			1970	79089
		1.00			61.1	16.030	1.007	4.730	5.200	12.70	17.30	49.86			52.92			1970	79089
		1.00			61.1	16.030	1.017	6.430	6.600	10.70	15.30	54.09	49.5/ 4.2		55.15	56.0/ 3.5		1970	79089
T7351	P	1.00	R.T.	L-T	61.1	16.050	0.995	8.040	8.090	9.90	14.00	59.21			59.54			1970	79089
		1.00			61.1	16.050	1.004	11.070	11.070	6.80	7.10	43.26			43.26			1970	79089
		1.00			61.1	16.050	1.014	12.750	13.150	4.20	5.30	42.10			45.52			1970	79089
		1.00			61.1	16.050	1.016	14.420	----	2.10	2.50	29.85			----			1970	79089
		1.00			61.1	16.090	1.012	9.600	9.600	9.10	10.50	52.99	45.5/11.2		52.99	50.3/ 7.4		1970	79089
T7351	P	1.00	R.T.	L-T	57.5	20.000	1.000	7.000	10.000	11.00	24.20	86.90			114.06*			----	57210
		1.00			57.5	20.000	1.000	7.000	10.790	11.60	23.70	85.11			119.93*			----	57210
		1.00			57.5	20.000	1.000	7.000	9.950	10.90	23.60	84.75			110.74*			----	57210
		1.00			57.5	20.000	1.000	7.000	10.000	10.70	23.40	84.03			110.29*			----	57210
		1.00			60.6	20.000	1.000	7.000	9.970	10.80	23.80	85.47			111.87			----	57210
		1.00			60.6	20.000	1.000	7.000	9.970	10.80	23.30	83.67			109.52			----	57210
		1.00			60.6	20.000	1.000	7.000	10.250	10.60	23.40	84.03			112.78			----	57210
		1.00			60.6	20.000	1.000	7.000	9.820	11.20	23.80	85.47			110.39			----	57210
		1.00			64.6	20.000	1.000	7.000	9.240	10.20	19.40	69.67			85.46			----	57210
		1.00			64.6	20.000	1.000	7.000	9.240	---	19.40	69.67			85.46			1973	86213
		1.00			64.6	20.000	1.000	7.000	9.800	10.00	19.80	71.10			91.67			----	57210
		1.00			64.6	20.000	1.000	7.000	9.450	10.40	20.30	72.90			91.11			----	57210
		1.00			64.6	20.000	1.000	7.000	9.450	---	20.30	72.90			91.11			1973	86213
		1.00			64.6	20.000	1.000	7.000	9.800	---	19.70	70.74			91.21			1973	86213
		1.00			64.6	20.000	1.000	7.000	9.670	10.40	19.60	70.39			89.70			----	57210
		1.00			64.6	20.000	1.000	7.000	9.670	---	19.60	70.39	77.9/ 7.3		89.70	96.7/10.9		1973	86213
T7351	P	1.00	R.T.	L-T	61.1	36.120	1.026	7.110	9.480	---	17.00	58.21			68.54			1970	79089
T7351	P	1.00	R.T.	L-T	61.1	36.130	1.017	17.000	19.160	7.90	10.20	61.31			68.23			1970	79089
		1.00			61.1	36.190	1.011	28.900	31.160	3.70	4.20	50.73	56.0/ 7.5		63.14	65.7/ 3.6		1970	79089
T7351	S	0.12	R.T.	T-L	63.6	3.000	0.114	1.080	1.460	15.10	34.20	48.48*			60.96*			1973	86213
		0.12			54.0	3.000	0.124	1.000	1.720	17.50	33.60	45.25*			70.08*			1973	86213
		0.12			54.0	3.000	0.125	1.090	1.720	14.90	31.80	45.36*			66.32*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7351	S	0.12	R.T.	T-L	54.0	3.000	0.125	1.000	1.840	16.70	32.90	44.31*			74.04*			1973	86213
		0.12			54.0	3.000	0.125	1.100	1.700	18.00	32.40	46.51*			66.74*			1973	86213
		0.12			55.1	3.000	0.124	1.120	1.630	15.30	32.30	46.94*			63.75*			1973	86213
		0.12			55.1	3.000	0.124	1.000	1.500	17.60	34.70	46.73*			63.34*			1973	86213
		0.12			55.1	3.000	0.125	1.160	1.600	15.10	31.50	46.92*			61.05*			1973	86213
		0.12			55.1	3.000	0.124	1.000	1.590	15.10	35.30	47.54*			68.00*			1973	86213
		0.12			63.6	3.000	0.127	1.000	1.410	17.30	35.30	47.54*			61.09*			1973	86213
		0.12			63.6	3.000	0.127	1.000	1.420	15.80	35.10	47.27*			61.10*			1973	86213
		0.12			63.6	3.000	0.126	1.090	1.480	16.70	34.20	48.78*			61.69*			1973	86213
T7351	P	0.25	R.T.	T-L	59.4	3.000	0.253	1.090	1.600	---	32.10	45.79*			62.21*			1973	86213
		0.25			59.4	3.000	0.253	1.080	1.530	---	32.60	46.21*			60.58*			1973	86213
		0.25			59.4	3.000	0.252	1.170	1.620	---	30.80	46.16*			60.42*			1973	86213
		0.25			59.4	3.000	0.253	1.160	1.570	---	31.00	46.18*			59.00*			1973	86213
		0.25			59.4	3.000	0.253	1.110	1.560	---	31.70	45.79*			59.98*			1973	86213
		0.25			59.4	3.000	0.252	1.110	1.580	---	31.60	45.64*			60.51*			1973	86213
T7351	P	0.25	R.T.	T-L	59.4	3.990	0.251	1.710	2.400	---	26.90	49.86			68.24*			1973	86213
T7351	P	0.25	R.T.	T-L	59.0	4.000	0.248	1.450	1.900	---	34.50	56.73*			69.55*			1973	86213
		0.25			59.0	4.000	0.248	1.480	1.900	---	33.60	56.04*			67.74*			1973	86213
T7351	P	0.50	R.T.	T-L	62.1	36.070	0.497	7.310	----	---	15.10	52.50			----			1970	79089
T7351	P	1.00	R.T.	T-L	63.6	20.000	1.000	7.000	8.650	---	10.70	38.42			44.72			1973	86213
		1.00			63.6	20.000	1.000	7.000	8.790	---	11.20	40.22			47.40			1973	86213
		1.00			63.6	20.000	1.000	7.000	8.920	---	10.90	39.14			46.66			1973	86213
		1.00			63.6	20.000	1.000	7.000	8.910	---	11.00	39.50	39.3/	0.7	47.05	46.5/	1.2	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T76	S	0.06	R.T.	L-T	73.6	3.000	0.064	1.210	2.127	---	37.60	57.74*			103.37*			1973	86213
		0.06			73.6	3.000	0.064	1.170	2.082	---	37.10	55.60*			98.67*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.9.2.2 (con't)

ALUMINUM 7075 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T76	S	0.09	R.T.	L-T	72.5	3.000	0.094	1.180	1.853	---	33.50	50.52			75.98*			1973	86213
		0.09			72.5	3.000	0.094	1.160	2.071	---	35.80	53.33*			94.37*			1973	86213
T76	S	0.12	R.T.	L-T	72.2	3.000	0.127	1.260	2.121	---	33.40	52.86			91.40*			1973	86213
		0.12			72.2	3.000	0.127	1.100	2.027	---	37.10	53.25*			94.73*			1973	86213
T76	S	0.06	R.T.	T-L	71.8	3.000	0.064	1.220	1.937	---	31.30	48.36			75.06*			1973	86213
		0.06			71.8	3.000	0.064	1.180	1.893	---	33.10	49.91	49.1/	1.1	77.07*	----/	---	1973	86213
T76	S	0.09	R.T.	T-L	71.6	3.000	0.093	1.140	1.907	---	33.20	48.85			78.03*			1973	86213
		0.09			71.6	3.000	0.093	1.220	1.987	---	31.20	48.20	48.5/	0.5	77.44*	----/	---	1973	86213
T76	S	0.12	R.T.	T-L	70.8	3.000	0.126	1.150	1.837	---	33.40	49.45			74.97*			1973	86213
		0.12			70.8	3.000	0.126	1.230	1.952	---	31.60	49.12	49.3/	0.2	76.62*	----/	---	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7651	P	0.25	R.T.	L-T	72.0	4.000	0.251	1.563	2.514	---	31.30	54.22			83.79*			1973	86213
		0.25			72.0	4.000	0.250	1.523	2.650	---	31.20	53.06	53.6/	0.8	89.52*	----/	---	1973	86213
T7651	P	0.25	R.T.	T-L	71.1	4.000	0.251	1.553	2.548	---	24.80	42.76			67.53*			1973	86213
		0.25			71.1	4.000	0.251	1.530	2.388	---	24.60	41.99	42.4/	0.5	61.94*	----/	---	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

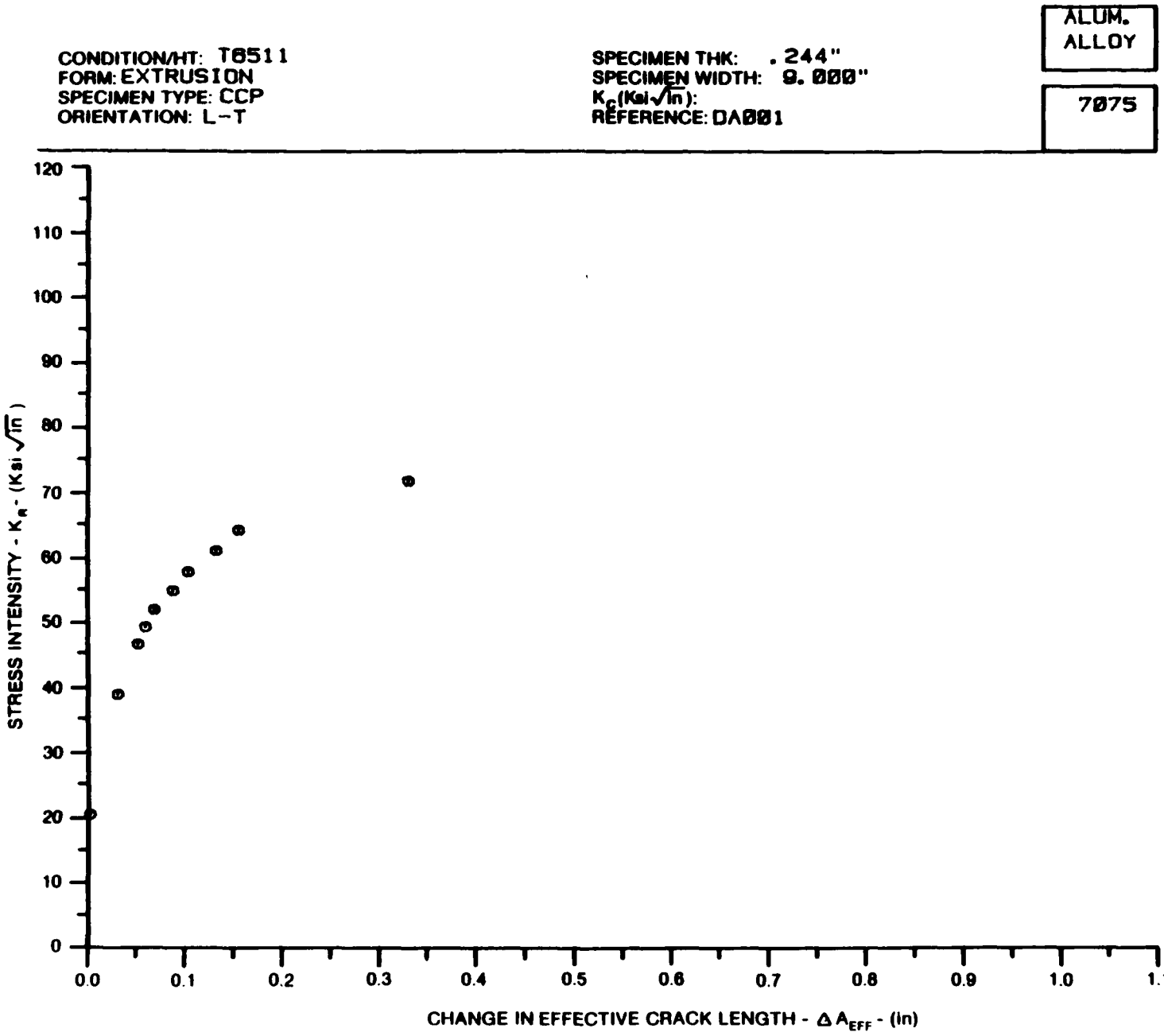
ALUM.
ALLOY
7075
CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
SPECIMEN THK: .244"
SPECIMEN WIDTH: 9.000"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001
STRESS INTENSITY - K_R - (Ksi$\sqrt{in}$)
CHANGE IN EFFECTIVE CRACK LENGTH - ΔA_{EFF} - (in)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1

Figure 8.9.2.3

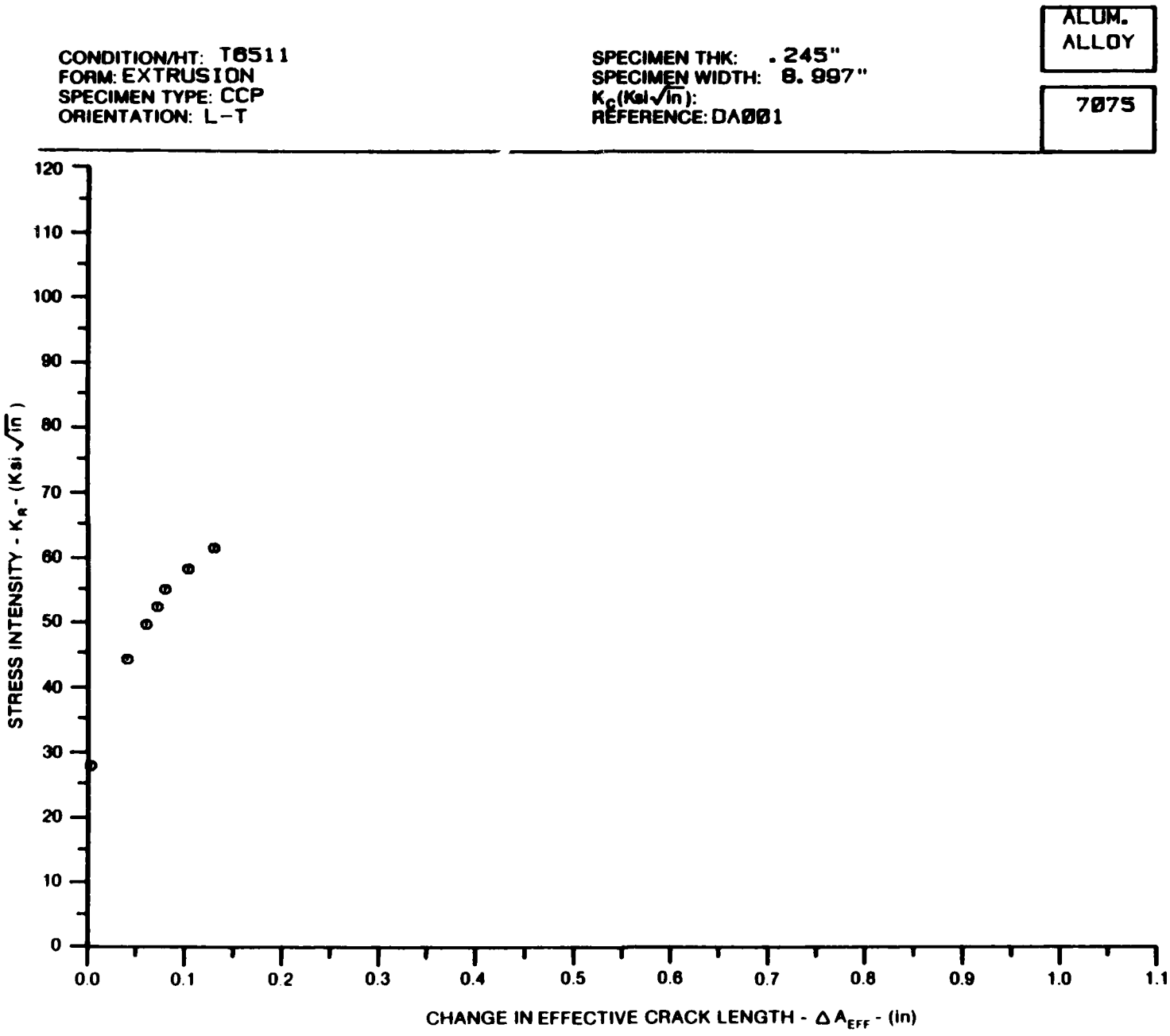
ALUM. ALLOY
7075
CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
SPECIMEN THK: .245"
SPECIMEN WIDTH: 8.997"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001
STRESS INTENSITY - K_R - (Ksi$\sqrt{in}$)
120
110
100
90
80
70
60
50
40
30
20
10
0
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
CHANGE IN EFFECTIVE CRACK LENGTH - ΔA_{EFF} - (in)

Figure 8.9.2.4

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .247"
SPECIMEN WIDTH: 9.000"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY

7075

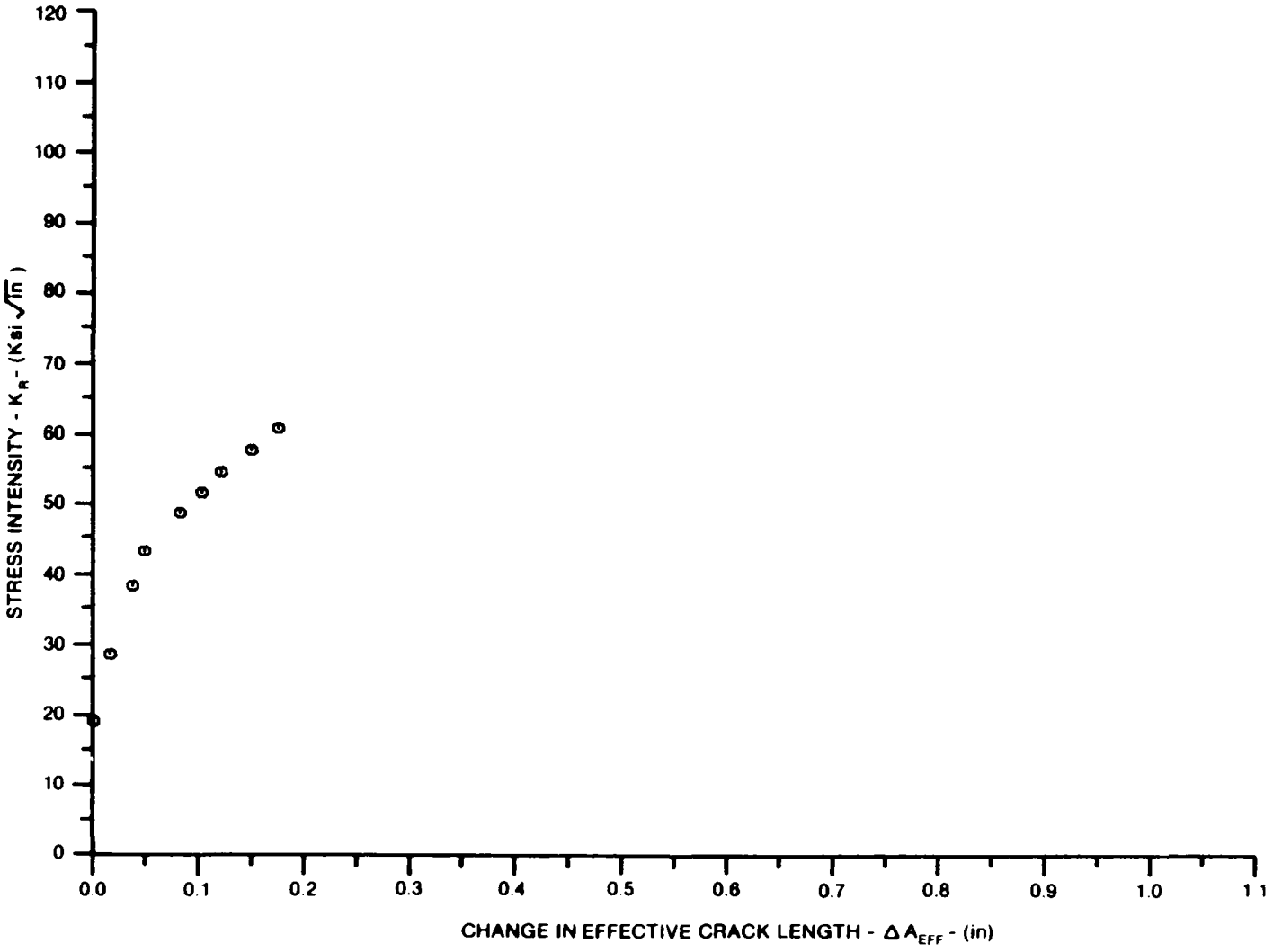

Figure 8.9.2.5

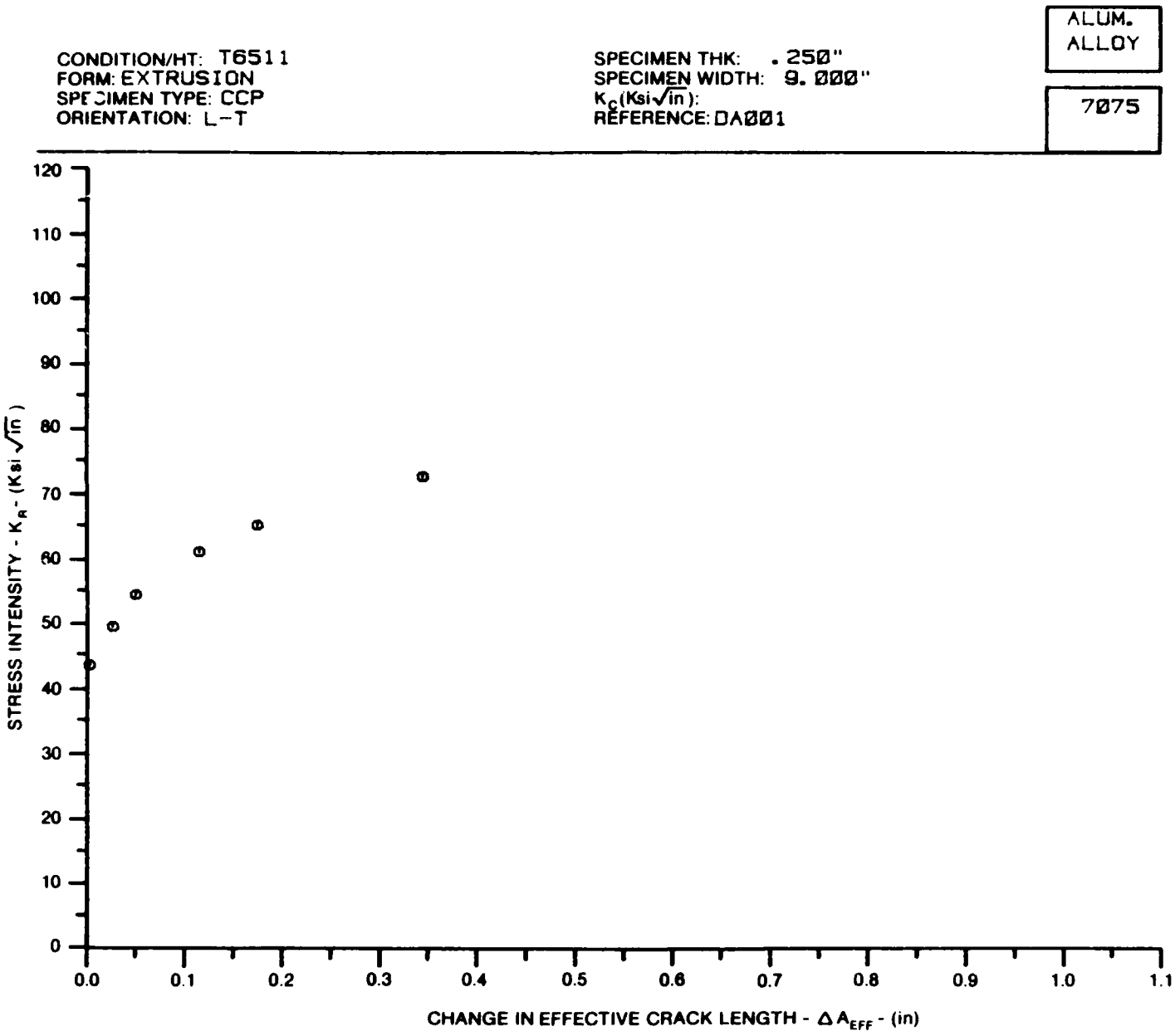
ALUM. ALLOY
7075
CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
SPECIMEN THK: .250"
SPECIMEN WIDTH: 9.000"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001
STRESS INTENSITY - K_R - (Ksi$\sqrt{in}$)
120
110
100
90
80
70
60
50
40
30
20
10
0
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
CHANGE IN EFFECTIVE CRACK LENGTH - ΔA_{EFF} - (in)

Figure 8.9.2.6

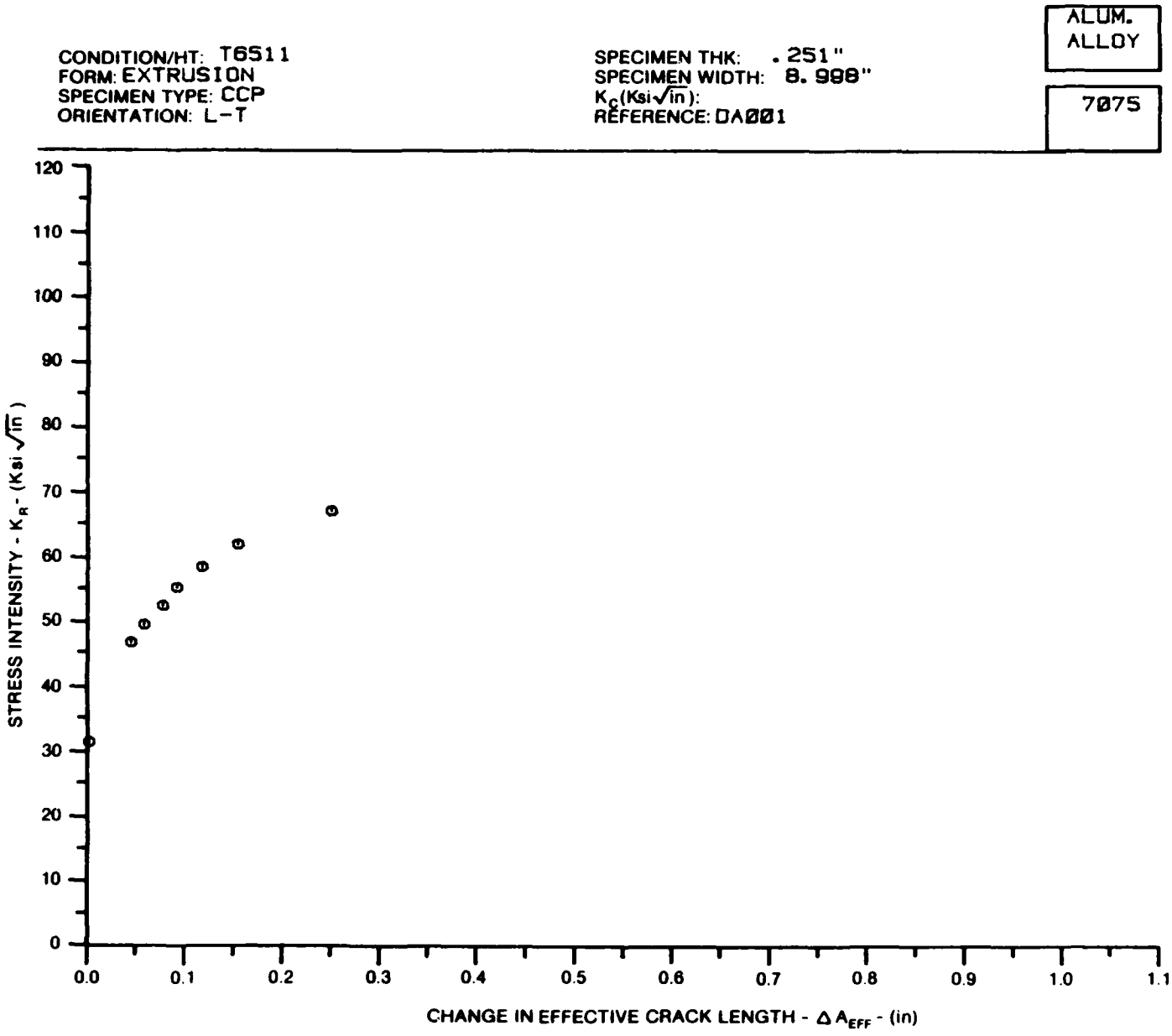
ALUM. ALLOY
7075
CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
SPECIMEN THK: .251"
SPECIMEN WIDTH: 8.998"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001
STRESS INTENSITY - K_R - (Ksi$\sqrt{in}$)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
CHANGE IN EFFECTIVE CRACK LENGTH - ΔA_{EFF} - (in)

Figure 8.9.2.7

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .252"
SPECIMEN WIDTH: 9.000"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7075

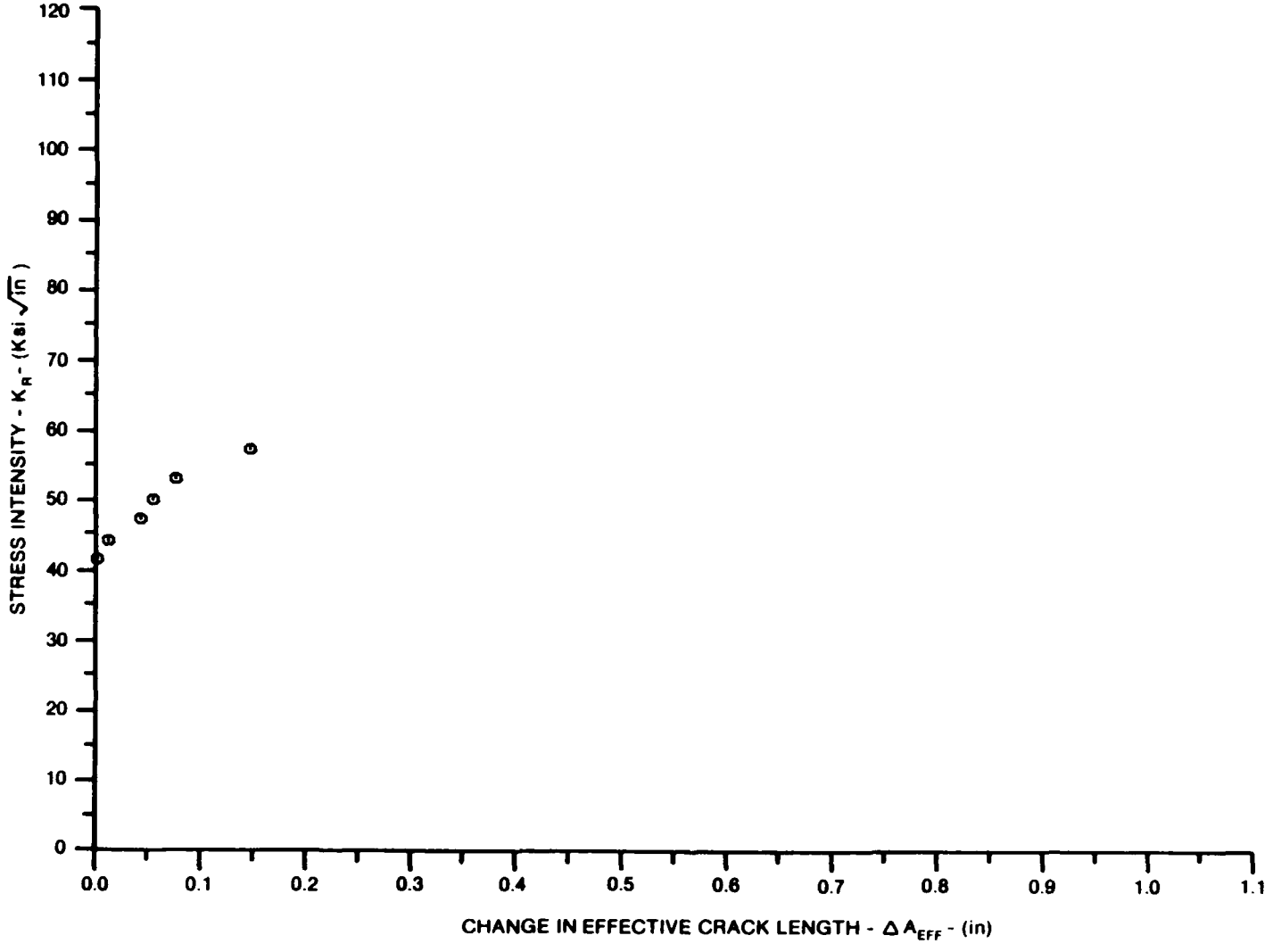

Figure 8.9.2.8

TABLE 8.9.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.1 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.70		
DELTA K MIN	A:	7.37	5.31			
	B:	4.70		5.04		
	C:					
	D:					
		5.00		6.30		
		6.00		11.9		
		7.00		20.0		
		8.00	7.62	31.5		
		9.00	11.9	47.6		
		10.00	16.8	69.7		
		13.00	34.6	198.		
DELTA K MAX	A:	15.07	51.1			
	B:	14.64		336.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.71	10.19		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.163"
SPECIMEN WIDTH: 5.000"
REFERENCES:BW002

ALUM. ALLOY

7075

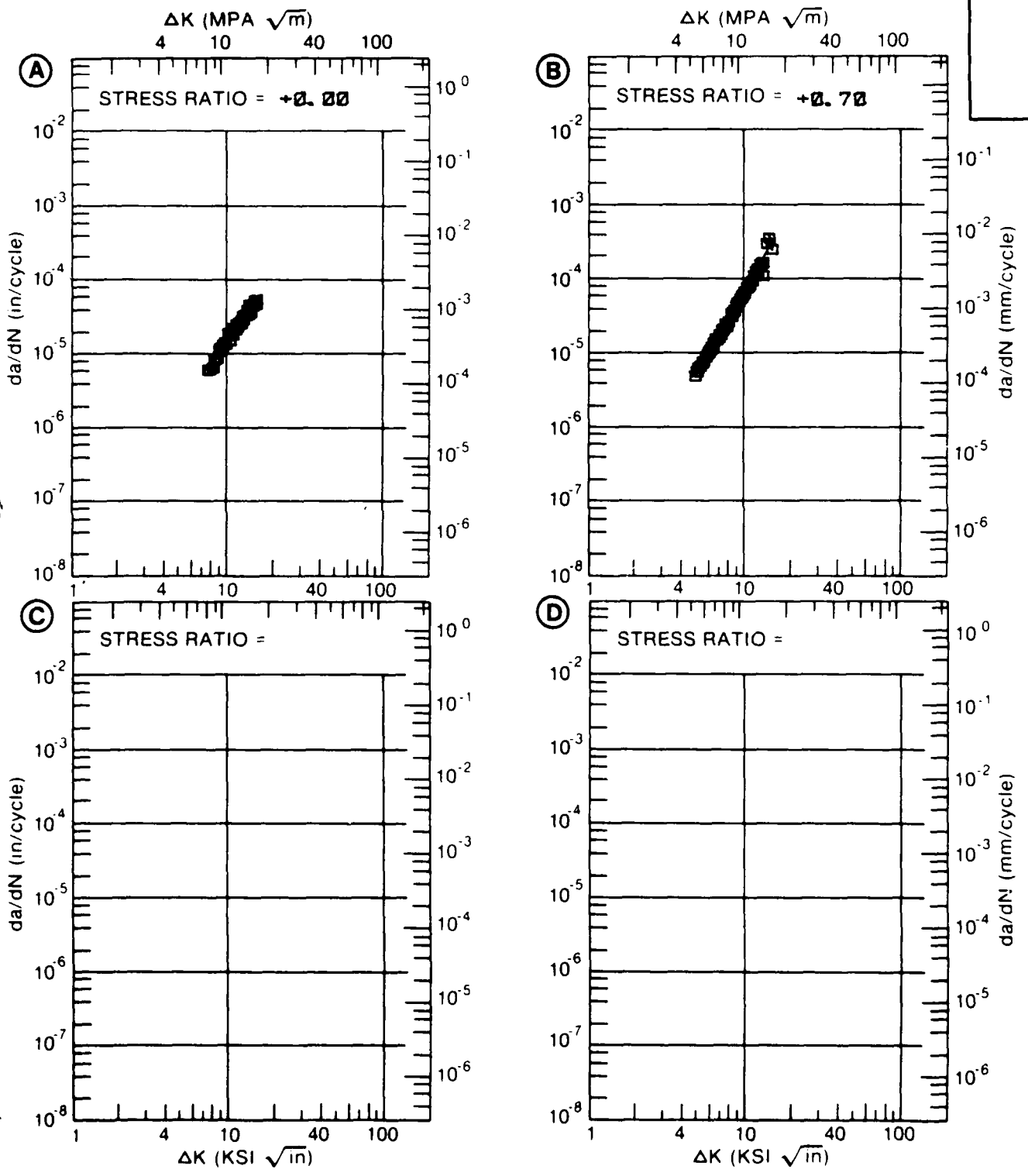

Figure 8.9.3.1

TABLE 8.9.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.2 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T. - LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.00	R=+0.33		
DELTA K MIN A:	8.77	3.93			
DELTA K MIN B:	5.85		2.55		
DELTA K MIN C:					
DELTA K MIN D:					
	6.00		2.74		
	7.00		4.20		
	8.00		6.01		
	9.00	4.14	8.29		
	10.00	5.95	11.2		
	13.00	11.4	26.1		
	16.00	16.3	59.5		
	20.00	42.6	174.		
	25.00	137.	430.		
	30.00	297.			
DELTA K MAX A:	32.86	711.			
DELTA K MAX B:	27.54		503.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		9.30	8.85		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8	1			
	0.8-1.25	1	4		
	1.25-2.0				
	>2.0				

CONDITION/HT: T6
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 13.30 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 71.6 KSI
ULT. STRENGTH: 80.1 KSI
SPECIMEN THK: 0.090"
SPECIMEN WIDTH: 4.000"
REFERENCES:86213

ALUM. ALLOY

7075

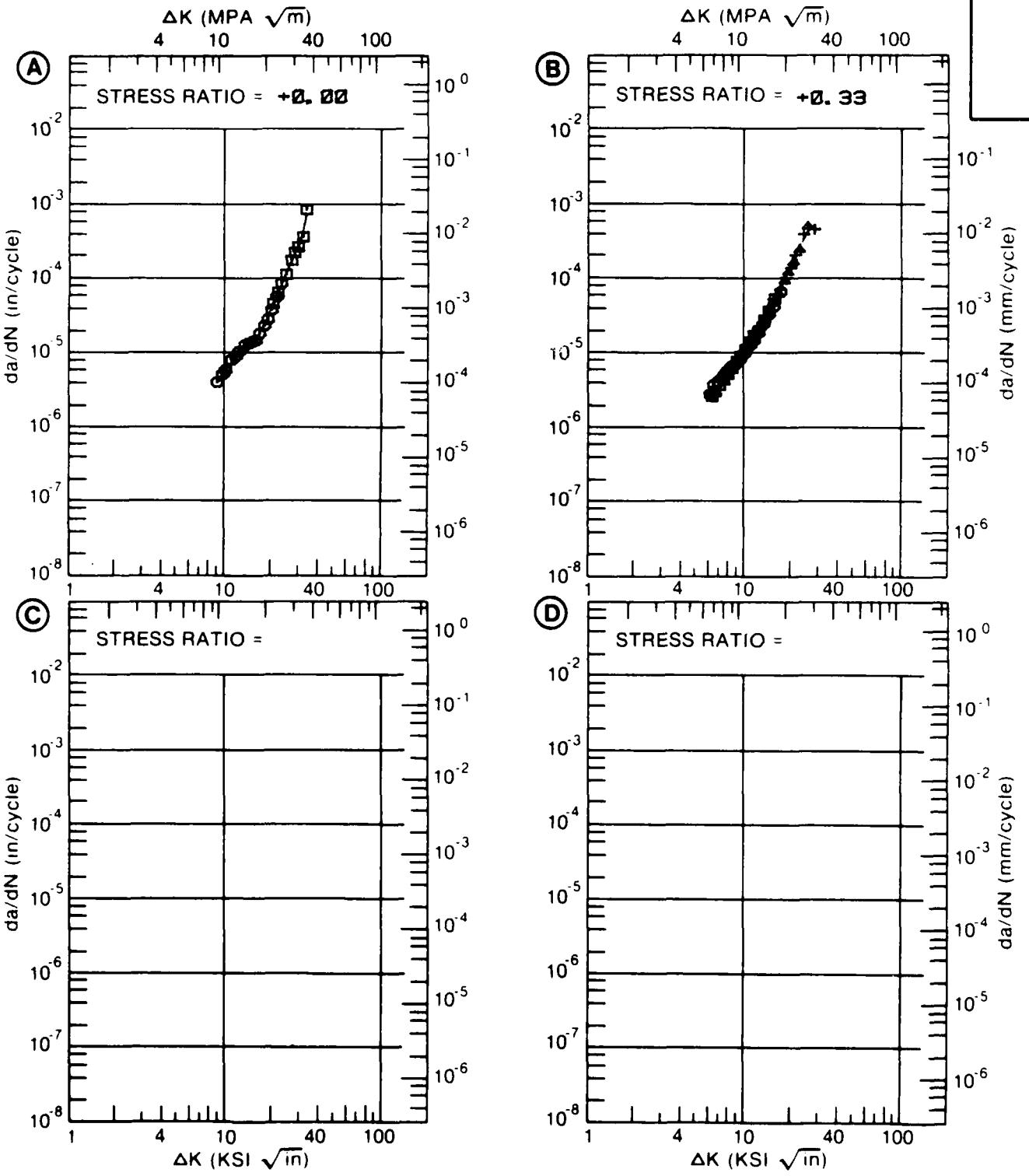

Figure 8.9.3.2

TABLE 8.9.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.3 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T. LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A F(HZ)= 1.00	B F(HZ)= 3.00	C F(HZ)= 10.00	D
DELTA K MIN	A: 5.27	4.93			
	B: 7.52		16.3		
	C: 4.06			2.87	
	D:				
	5.00			5.90	
	6.00	6.32		9.85	
	7.00	11.0		14.3	
	8.00	17.7	19.6	19.1	
	9.00	27.2	29.6	24.4	
	10.00	40.6	45.6	30.3	
	13.00	127.	155.	53.5	
	16.00	383.		99.6	
	20.00	1703.		284.	
DELTA K MAX	A: 21.02	2857.			
	B: 14.69		284.		
	C: 22.64			673.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		50.65	7.76	8.16	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8	3			
	0.8-1.25	7	1		
	1.25-2.0				
	>2.0				

CONDITION/HT: T6
FORM: 0.13- 0.20"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.50
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 74.7- 79.9 KSI
ULT. STRENGTH: 80.0- 86.7 KSI
SPECIMEN THK: 0.040- 0.200"
SPECIMEN WIDTH: 3.900- 11.500"
REFERENCES: 86088, MA009

ALUM. ALLOY

7075

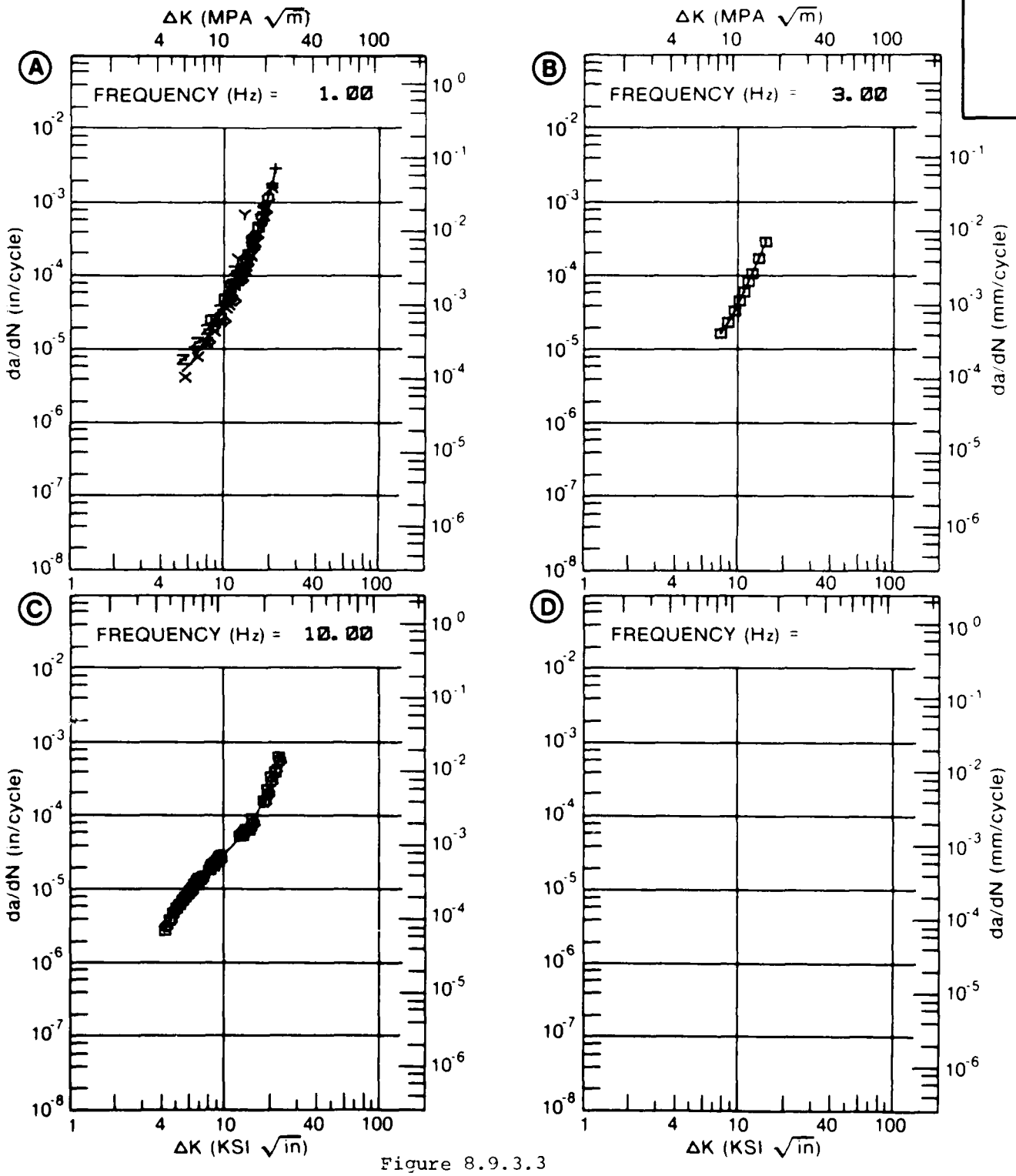

Figure 8.9.3.3

TABLE 8.9.3.4

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.4 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			F(HZ)= 1.00	F(HZ)= 3.00	F(HZ)= 10.00	F(HZ)= 0.10-30.00
	A:	11.06	21.4			
DELTA K	B:	11.06		24.2		
MIN	C:	5.49			2.02	
	D:	8.90				10.2
		6.00			3.13	
		7.00			5.75	
		8.00			8.57	
		9.00			11.4	10.3
		10.00			14.0	11.2
		13.00	31.4	33.6	22.0	16.4
		16.00	52.8	52.8	32.8	26.4
		20.00	103.	92.8	60.0	54.5
		25.00	244.		148.	144.
		30.00	615.		378.	393.
		35.00	1629.		871.	1076.
		40.00			1562.	2926.
		50.00			5417.	20651.
	A:	35.09	1658.			
DELTA K	B:	21.38		112.		
MAX	C:	50.23			9105.	
	D:	53.14				37570.
ROOT MEAN SQUARE PERCENT ERROR			25.28	1.82	13.79	31.11

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
0.0-0.5	
0.5-0.8	
0.8-1.25	
1.25-2.0	
>2.0	

CONDITION/HT: T6
FORM: 0.13- 0.20"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.02
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 74.5- 79.9 KSI
ULT. STRENGTH: 80.0- 86.7 KSI
SPECIMEN THK: 0.020- 0.200"
SPECIMEN WIDTH: 3.900- 11.500"
REFERENCES: 86088, MA009, MA00E

ALUM. ALLOY

7075

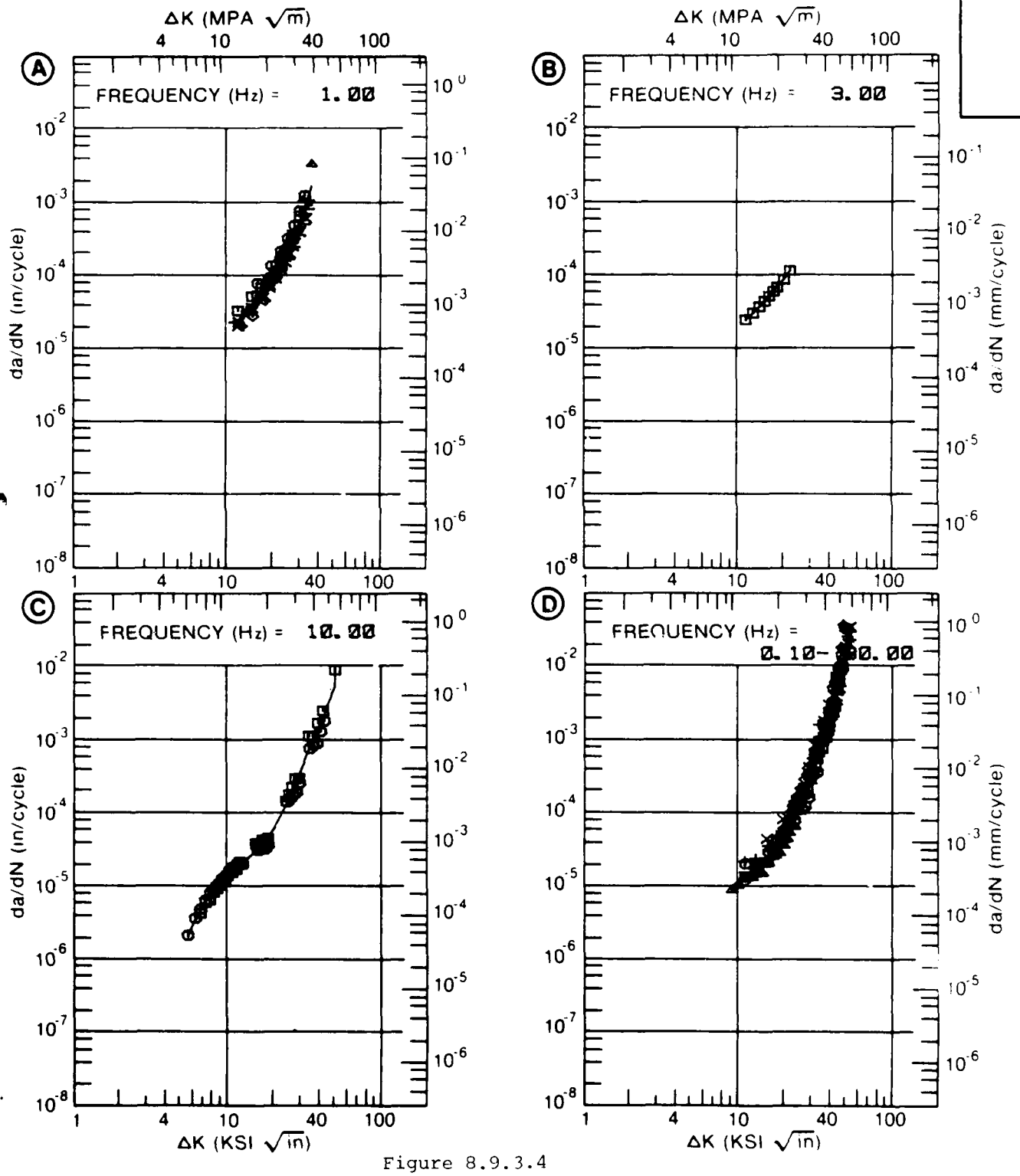

Figure 8.9.3.4

TABLE 8.9.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.5 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.05	R=+0.50		
DELTA K MIN	A: 4.49	.263			
	B: 1.98		.0408		
	C:				
	D:				
	2.00		.0432		
	2.50		.138		
	3.00				
	3.50				
	4.00				
	5.00	.456			
	6.00	1.60			
	7.00	4.52			
	8.00	8.45			
	9.00	11.8			
	10.00	14.9			
	13.00	29.9			
DELTA K MAX	A: 15.95	34.5			
	B: 2.72		.131		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		28.19	32.77		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: 0.20"TH SHEET
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 75.8 KSI
ULT. STRENGTH: 81.2 KSI
SPECIMEN THK: 0.200"
SPECIMEN WIDTH: 3.750"
REFERENCES: BW001

ALUM. ALLOY

7075

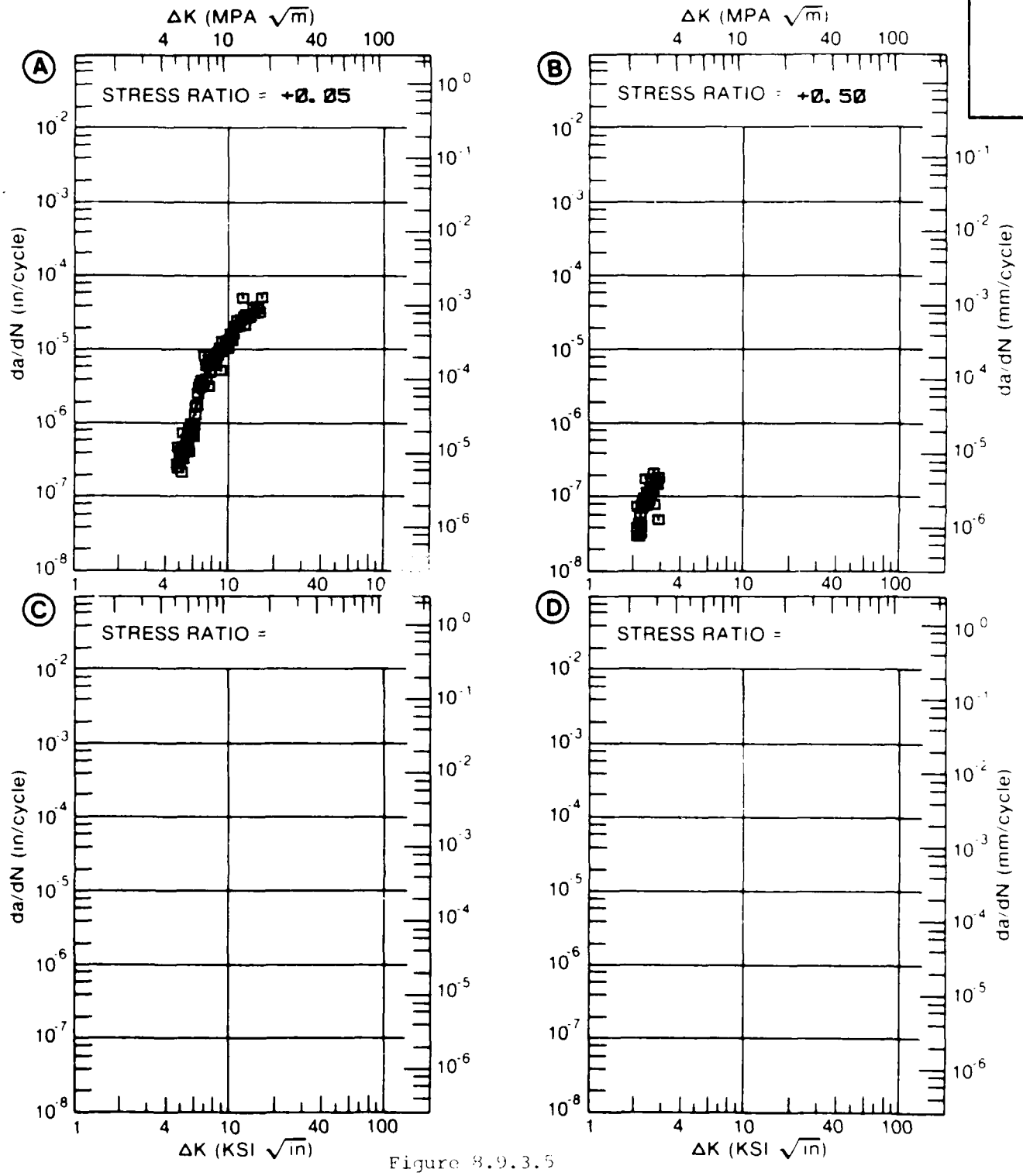

Figure 8.9.3.5

TABLE 8.9.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.6 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T., L.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-1.00	R=+0.00	R=+0.50	
DELTA K MIN	A:	7.21	1.47			
	B:	5.56		.51		
	C:	4.11			.51	
	D:					
		5.00			1.33	
		6.00		.742	2.66	
		7.00		1.49	4.41	
		8.00	2.47	2.61	6.67	
		9.00	3.93	4.18	9.69	
		10.00	5.52	6.20	13.9	
		13.00	12.0	14.8	42.0	
		16.00	27.4	26.2	129.	
		20.00	87.9	51.7	476.	
		25.00	291.	179.	1392.	
		30.00	750.	607.		
		35.00	1954.			
		40.00	5752.			
DELTA K MAX	A:	41.22	7659.			
	B:	32.61		826.		
	C:	25.42			1471.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			29.68	9.93	13.48	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 10.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 80.0 KSI
ULT. STRENGTH: 88.0 KSI
SPECIMEN THK: 0.250"
SPECIMEN WIDTH: 4.000"
REFERENCES:MA007

ALUM. ALLOY

7075

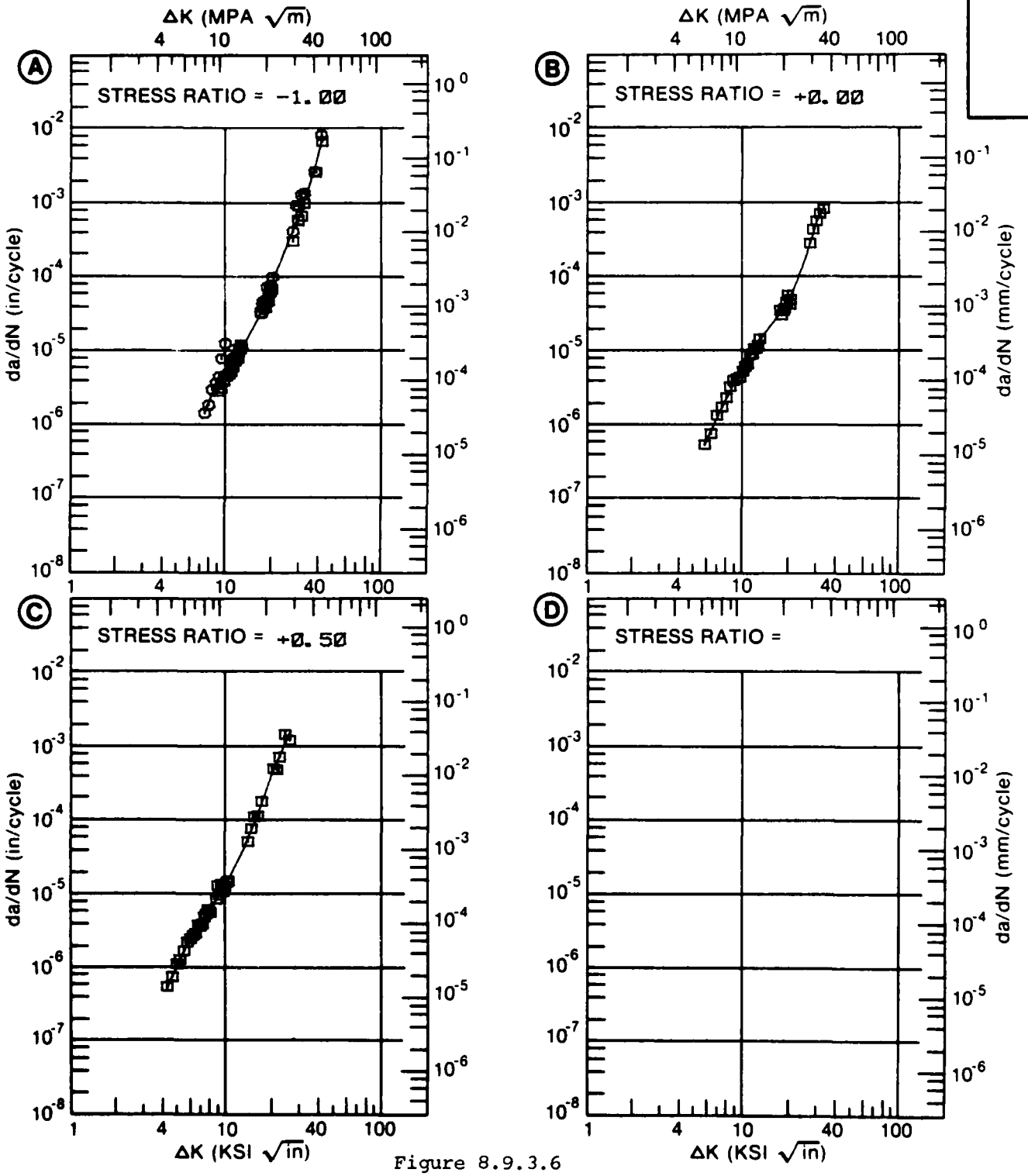

Figure 8.9.3.6

TABLE 8.9.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.7 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-1.00	R=+0.00	R=+0.50	
DELTA K MIN	A:	5.52	4.40			
	B:	5.55		3.68		
	C:	4.03			2.30	
	D:					
		5.00			5.62	
		6.00	4.77	4.85	11.3	
		7.00	6.59	8.16	18.1	
		8.00	9.96	12.5	24.8	
		9.00	15.3	17.8	32.0	
		10.00	22.9	24.3	41.0	
		13.00	58.4	50.6	99.8	
		16.00	94.6	88.9	256.	
		20.00	130.	164.	540.	
		25.00	255.	317.		
		30.00	684.	608.		
		35.00	1842.	1291.		
		40.00	3446.	3088.		
DELTA K MAX	A:	40.00	3446.			
	B:	46.80		7874.		
	C:	24.70			844.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			21.00	24.09	16.59	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 0.10 HZ
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 80.0 KSI
ULT. STRENGTH: 88.0 KSI
SPECIMEN THK: 0.250"
SPECIMEN WIDTH: 4.000"
REFERENCES:MA007

ALUM. ALLOY

7075

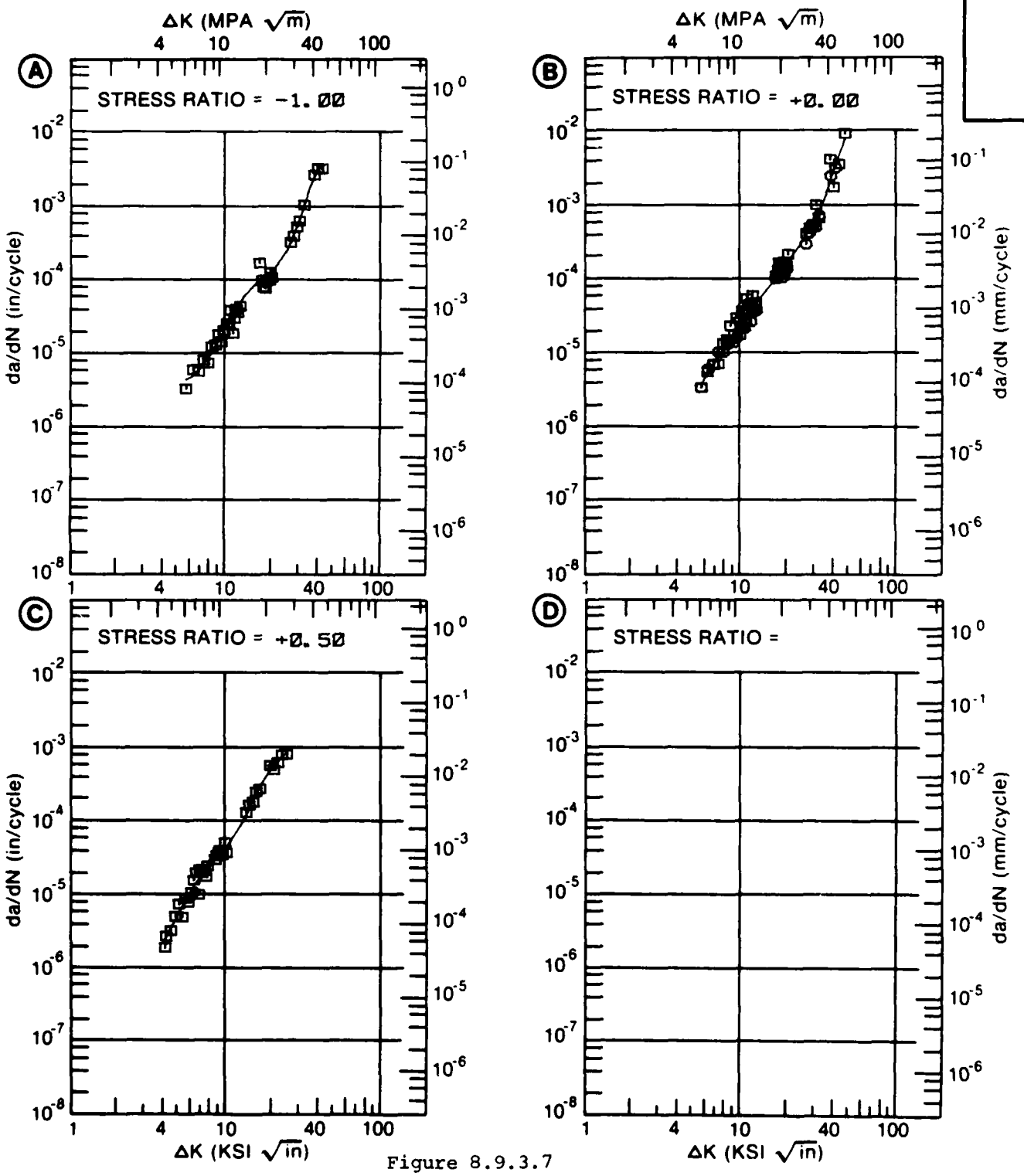

Figure 8.9.3.7

TABLE 8.9.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.8 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T6
ENVIRONMENT: R.T., 3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			F(HZ)= 0.10	F(HZ)= 1.00	F(HZ)= 10.00	
DELTA K MIN	A:	5.55	3.69			
	B:	5.63		4.39		
	C:	5.57			2.62	
	D:					
		6.00	4.86	5.76	3.97	
		7.00	8.15	10.3	7.99	
		8.00	12.5	16.0	12.6	
		9.00	17.8	22.5	17.4	
		10.00	24.3	29.8	22.0	
		13.00	50.7	57.2	36.5	
		16.00	89.0	95.9	57.1	
		20.00	164.	177.	109.	
		25.00	317.	357.	253.	
		30.00	609.	742.	567.	
		35.00	1294.	1741.	1076.	
		40.00	3078.	4702.	1663.	
DELTA K MAX	A:	46.80	7916.			
	B:	40.16		4865.		
	C:	42.38			6275.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			24.10	12.25	18.40	

LIFE PREDICTION RATIO SUMMARY (NP/NA)
0.0-0.5
0.5-0.8
0.8-1.25
1.25-2.0
>2.0

CONDITION/HT: T6
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.00
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 80.0 KSI
ULT. STRENGTH: 88.0 KSI
SPECIMEN THK: 0.250"
SPECIMEN WIDTH: 4.000"
REFERENCES: MA007

ALUM. ALLOY

7075

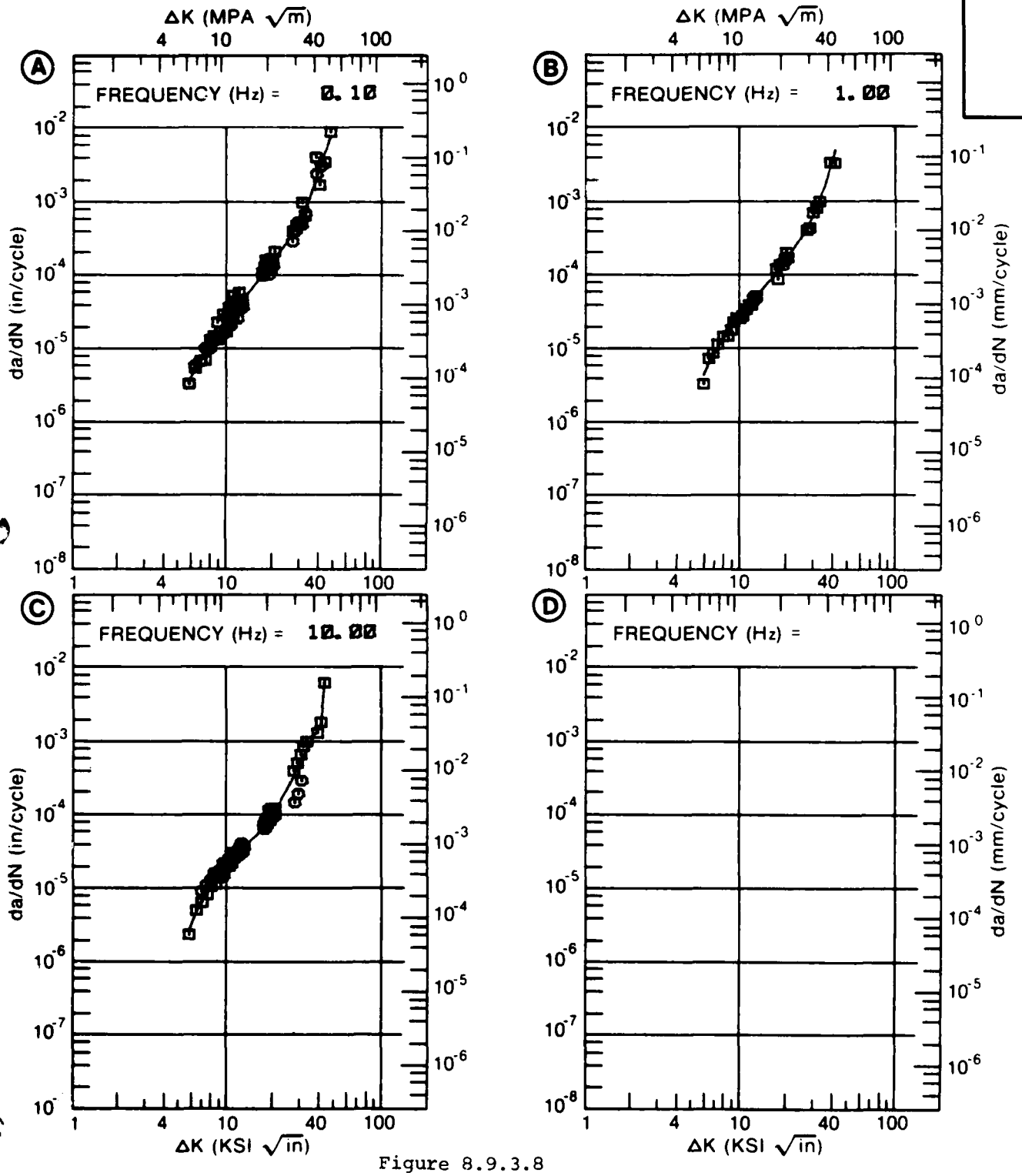

Figure 8.9.3.8

TABLE 8.9.3.9

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.9 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33	R=+0.80		
DELTA K MIN	A:	2.23	00626			
	B:	1.29		.0234		
	C:					
	D:					
		1.30		.0253		
		1.60		.0924		
		2.00		.206		
		2.50	.0678	.433		
		3.00	.227	.965		
		3.50	.593	2.52		
		4.00	1.33	6.76		
		5.00	4.29			
		6.00	8.76			
		7.00	13.8			
		8.00	18.8			
		9.00	23.5			
		10.00	27.8			
		13.00	42.7			
		16.00	76.1			
DELTA K MAX	A:	16.58	87.3			
	B:	4.65		14.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			27.35	25.22		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5	2			
		0.5-0.8	1	1		
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T651
FORM: 0.25- 0.75"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
FREQUENCY: 25.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.248- 0.254"
SPECIMEN WIDTH: 2.548- 2.555"
REFERENCES:AL005

ALUM. ALLOY

7075

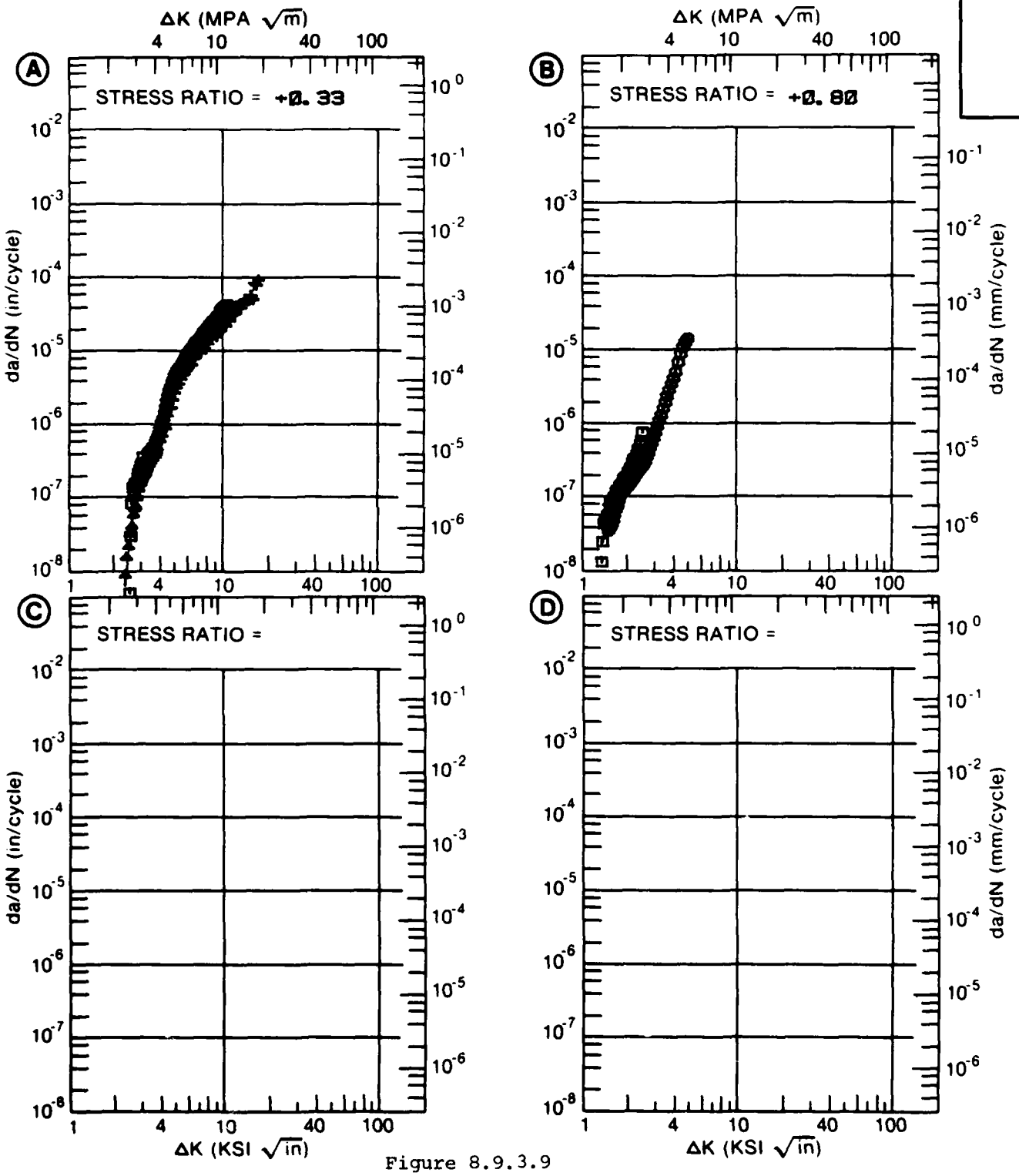

Figure 8.9.3.9

TABLE 8.9.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.10 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.02	R=+0.50		
DELTA K MIN	A:	5.43	.636			
	B:	3.97		1.00		
	C:					
	D:					
		4.00		1.05		
		5.00		3.04		
		6.00	1.09	5.28		
		7.00	2.50	7.65		
		8.00	4.30	10.7		
		9.00	6.28	15.0		
		10.00	8.32	21.2		
		13.00	15.4	61.8		
		16.00	27.1	179.		
		20.00	58.3	665.		
		25.00	152.			
		30.00	388.			
		35.00	958.			
		40.00	2267.			
DELTA K MAX	A:	49.76	7986.			
	B:	22.52		3850.		
	C:					
	D.					
ROOT MEAN SQUARE PERCENT ERROR			39.73	11.82		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.30- 1.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 0.10- 30.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 73.5- 78.5 KSI
ULT. STRENGTH: 84.0- 84.5 KSI
SPECIMEN THK: 0.150- 0.500"
SPECIMEN WIDTH: 3.900"
REFERENCES:MA008, MA009

ALUM. ALLOY

7075

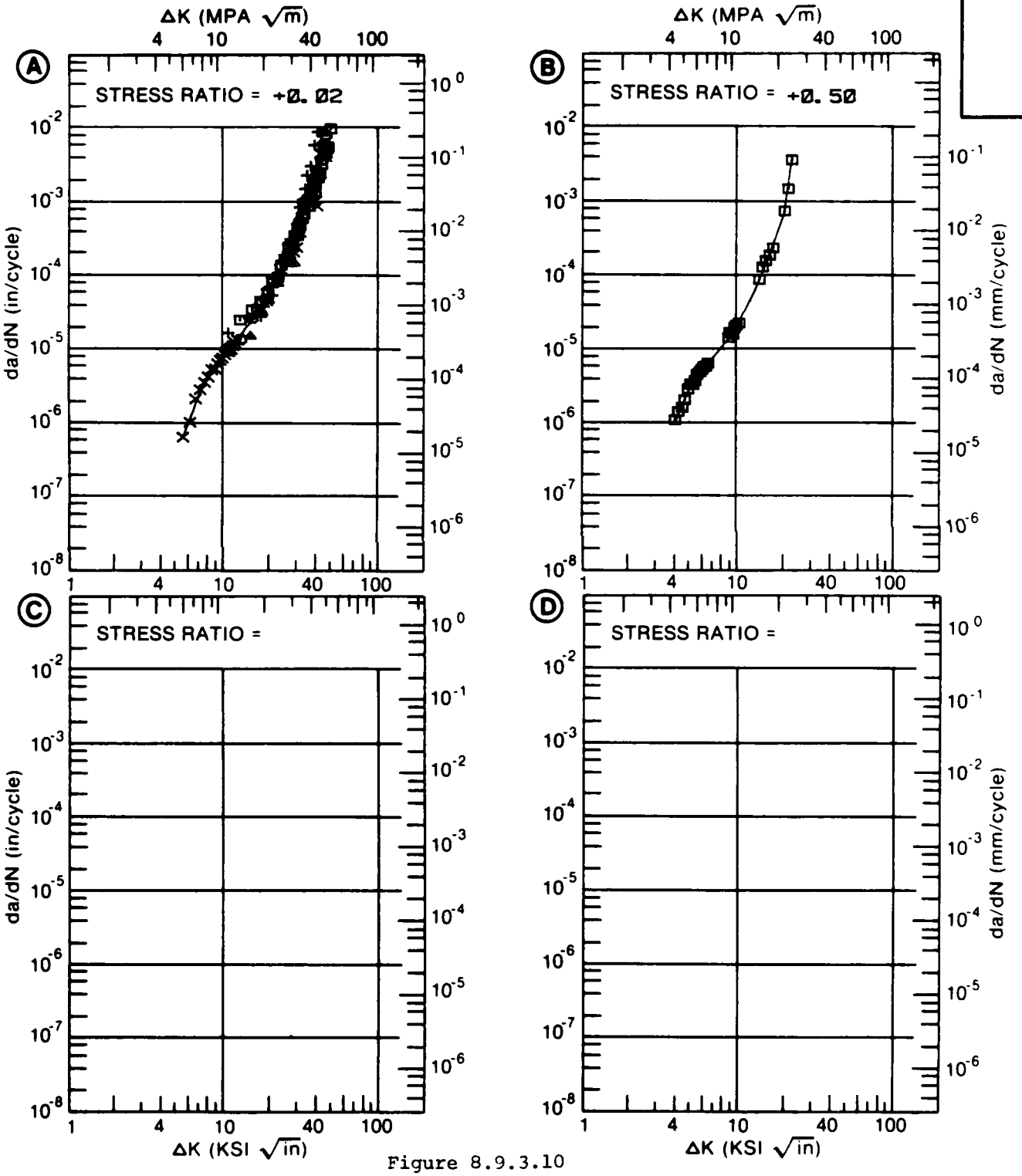

Figure 8.9.3.10

TABLE 8.9.3.11

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.11 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. S.T.W.			
DELTA K MIN	A:	4.29	.197			
	B:					
	C:					
	D:					
		5.00	.925			
		6.00	2.54			
		7.00	5.16			
DELTA K MAX	A:	7.62	8.68			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 18.46

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.00
FREQUENCY: 15.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

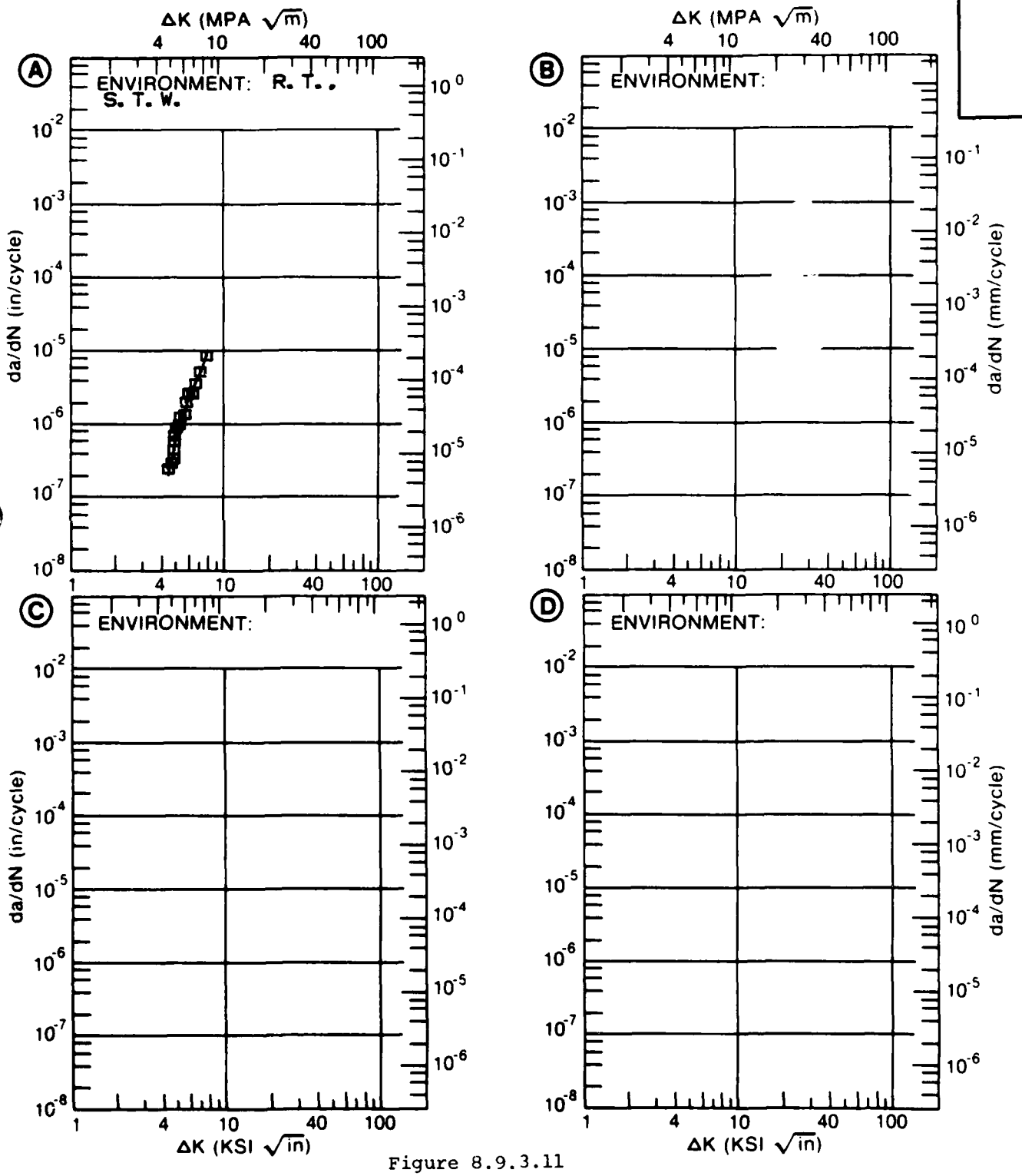

Figure 8.9.3.11

TABLE 8.9.3.12

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.12INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. DIST. WATER	E= R.T S.T.W.	E= R.T. 3.5% NACL
DELTA K MIN	A:	5.81	.785			
	B:	6.49		2.85		
	C:	8.71			22.1	
	D:	6.19				1.89
		6.00	.974			
		7.00	2.37	4.46		6.47
		8.00	4.38	8.31		6.12
		9 00	6.92	12.6	24.1	9.31
		10.00	9.99	17.3	30.3	22.7
		13.00	24.3	38.3	51.4	73.2
		16.00		98.7	105.	94.7
DELTA K MAX	A:	15.70	52.2			
	B:	18.17		232.		
	C:	19.15			321.	
	D:	18.87				270.
ROOT MEAN SQUARE PERCENT ERROR			29.98	17.02	10.39	15.10

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

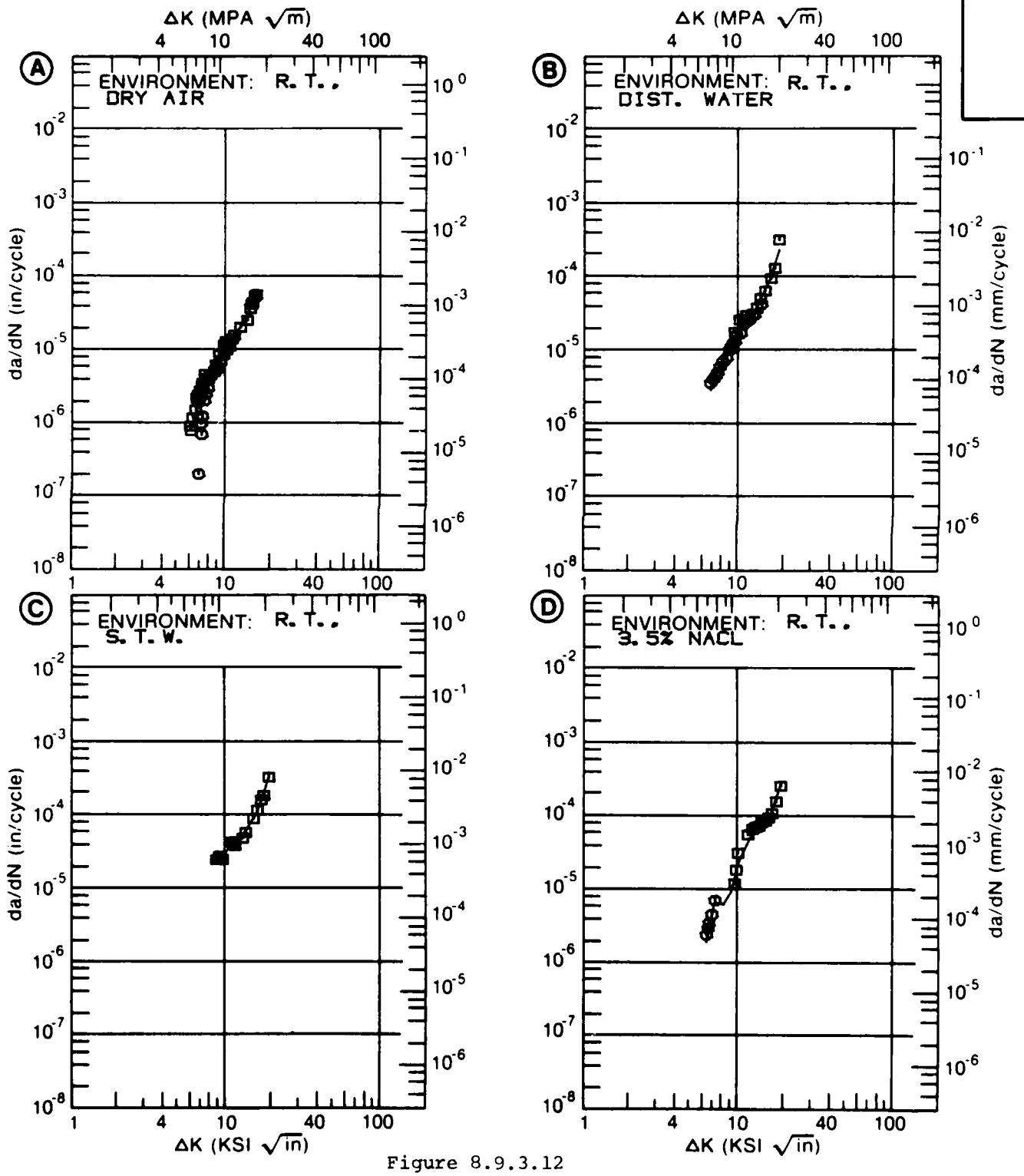

Figure 8.9.3.12

TABLE 8.9.3.13

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.13 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A: E= R.T. WATER SATURATED JP-4 FUEL	DA/DN (10**-6 IN./CYCLE) B: E= R.T. ALT. JP-4 FUEL & DIST. WATER	C	D
DELTA K MIN	A:	11.25	11.4			
	B:	9.25		10.6		
	C:					
	D:					
		10.00		12.5		
		13.00	17.9	26.1		
		16.00	43.7	60.5		
DELTA K MAX	A:	19.59	204.			
	B:	19.37		167.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			14.72	20.29		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

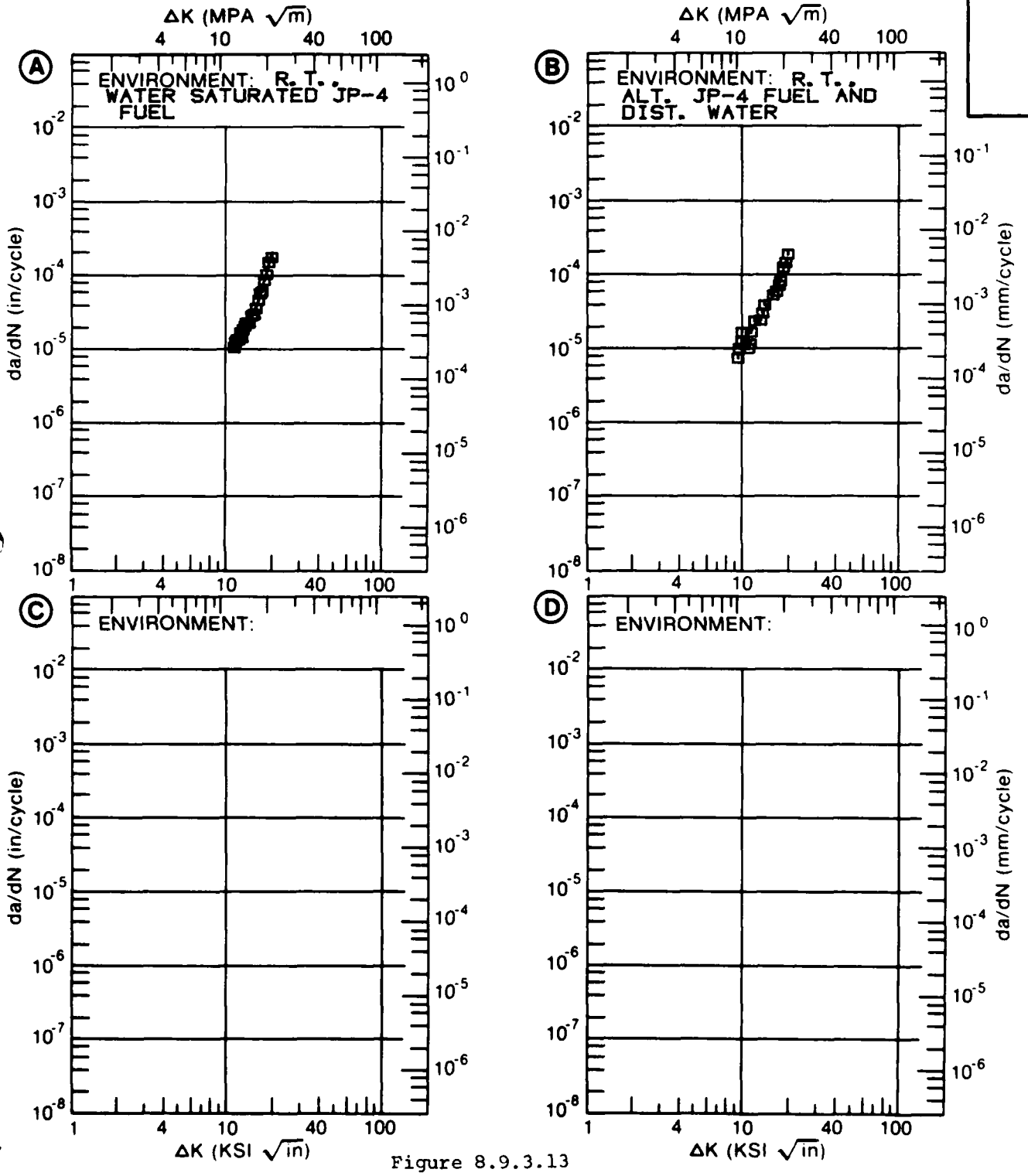

Figure 8.9.3.13

TABLE 8.9.3.14

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.14 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. WATER SATURATED JP-4 FUEL	E= R.T. DIST. WATER	E= R.T. S.T.W.	E= R.T. 3.5% NACL
DELTA K MIN	A: 8.99	6.90			
	B: 9.16		8.04		
	C: 8.86			31.9	
	D: 7.86				18.3
	8.00				19.6
	9.00	6.93		33.5	27.9
	10.00	10.8	11.9	44.1	35.1
	13.00	24.0	27.6	78.1	57.7
	16.00	46.7	54.8		112.
	20.00	146.			
DELTA K MAX	A: 20.08	150.			
	B: 19.65		163.		
	C: 13.91			94.4	
	D: 19.42				353.
ROOT MEAN SQUARE PERCENT ERROR		12.03	11.43	8.50	12.42

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 0.10 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

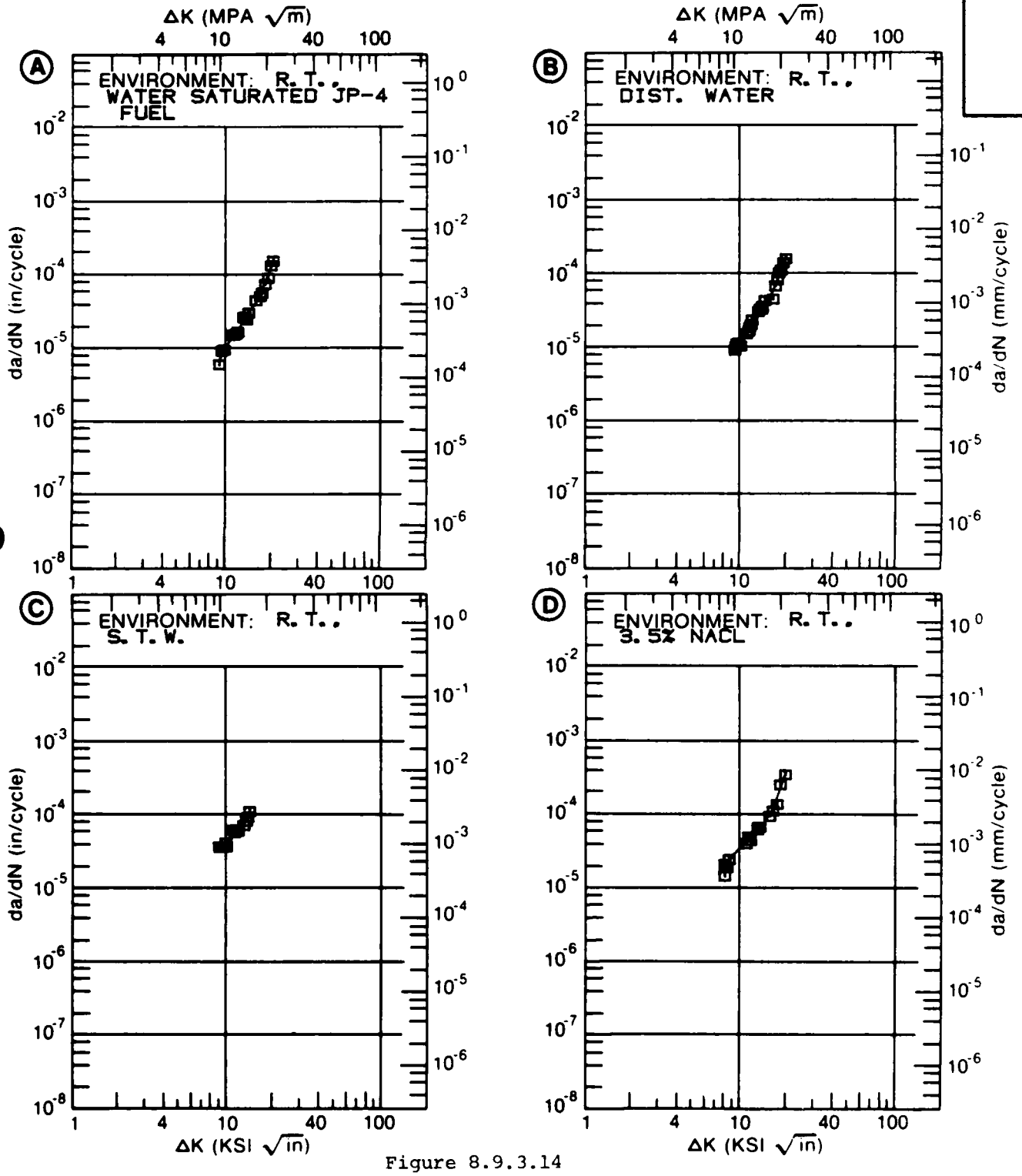

Figure 8.9.3.14

TABLE 8.9.3.15

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.15 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. DIST. WATER	E= R.T. S.T.W.	E= R.T. 3.5% NACL
DELTA K MIN	A:	3.96	.158			
	B:	5.58		8.38		
	C:	3.53			.517	
	D:	3.38				.167
		3.50				.246
		4.00	.187		.982	1.98
		5.00	2.16		8.63	6.03
		6.00	4.88	8.88	18.6	10.3
		7.00	6.84	11.4	23.6	18.4
		8.00	9.54	18.5	29.4	29.6
		9.00	16.1		43.9	41.1
		10.00	35.6		75.9	
DELTA K MAX	A:	10.25	45.4			
	B:	8.82		33.3		
	C:	10.94			139.	
	D:	9.54				45.9
ROOT MEAN SQUARE PERCENT ERROR			18.28	4.22	21.92	21.21

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.50
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES: 88140

ALUM. ALLOY

7075

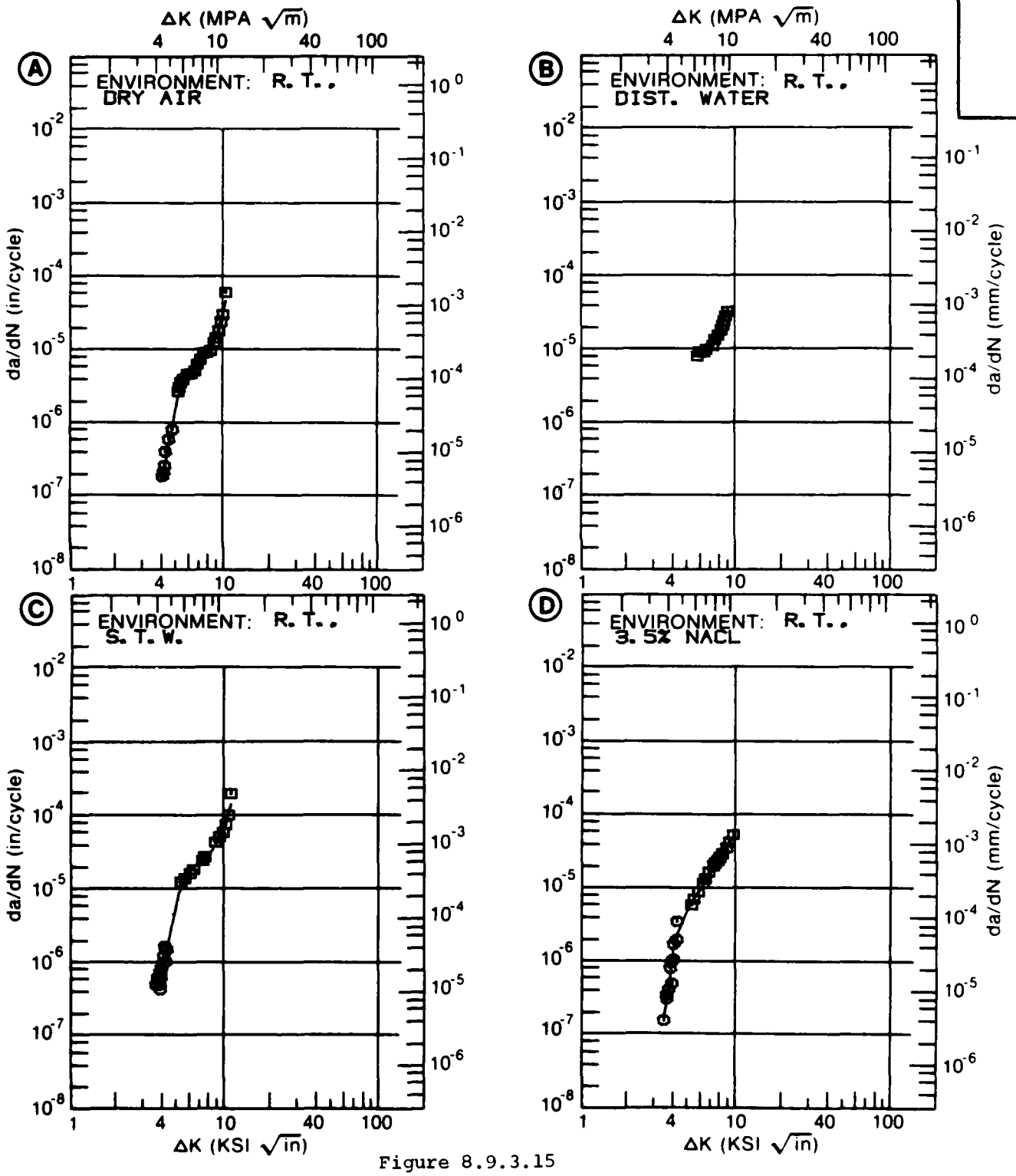

Figure 8.9.3.15

TABLE 8.9.3.16

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.16 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. DIST. WATER	E= R.T. WATER SATURATED JP-4 FUEL	E= R.T. ALT. JP-4 FUEL & DIST. WATER	
DELTA K MIN	A: 6.27	6.51			
	B: 3.50		.444		
	C: 2.88			.597	
	D:				
	3.00			.740	
	3.50		.444	1.13	
	4.00		.851	1.31	
	5.00		3.39	2.52	
	6.00		5.49	9.11	
	7.00	10.1	7.14	14.2	
	8.00	14.9	10.3	14.6	
	9.00	22.0	18.5		
	10.00	36.6	43.6		
DELTA K MAX	A: 11.15	81.4			
	B: 10.23		55.1		
	C: 8.30			20.0	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		6.97	13.51	12.76	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.50
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

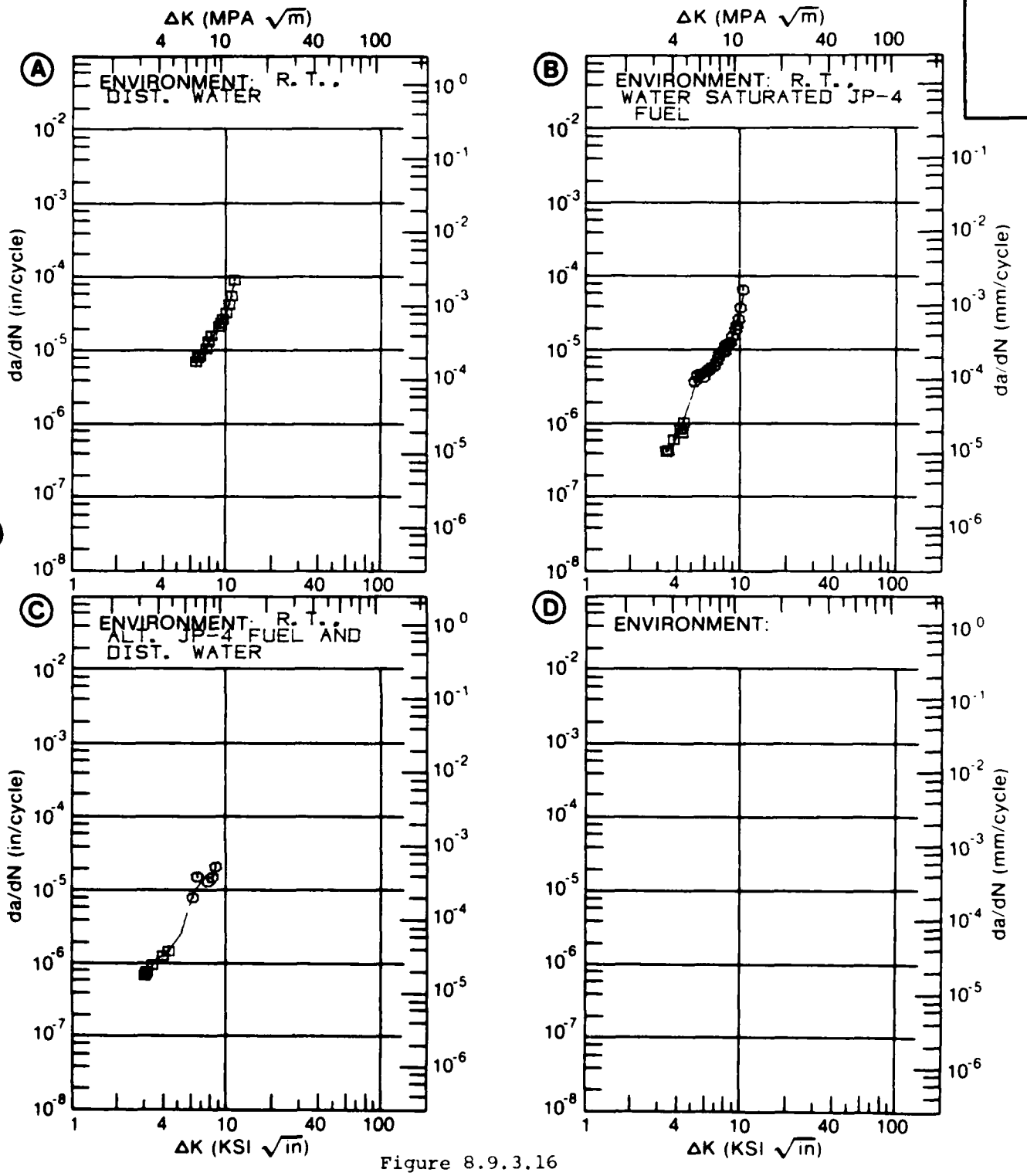

Figure 8.9.3.16

TABLE 8.9.3.17

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.17 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E=+ 175F DRY AIR	E=+ 175F JP-4 FUEL	E=+ 175F DIST. WATER	E=+ 175F 3.5% NACL
DELTA K MIN	A:	5.11	2.62			
	B:	7.10		5.35		
	C:	5.41			2.13	
	D:	5.23				6.06
		6.00	2.88		4.88	12.3
		7.00	4.83		9.55	22.9
		8.00		10.0	13.4	34.2
		9.00		12.1	19.3	44.1
		10.00			33.0	51.5
DELTA K MAX	A:	7.00	4.83			
	B:	9.99		30.2		
	C:	11.51			120.	
	D:	11.40				57.4
ROOT MEAN SQUARE PERCENT ERROR			19.87	12.94	28.74	6.73

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: Ø.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +Ø.5Ø
FREQUENCY: 1.ØØ HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

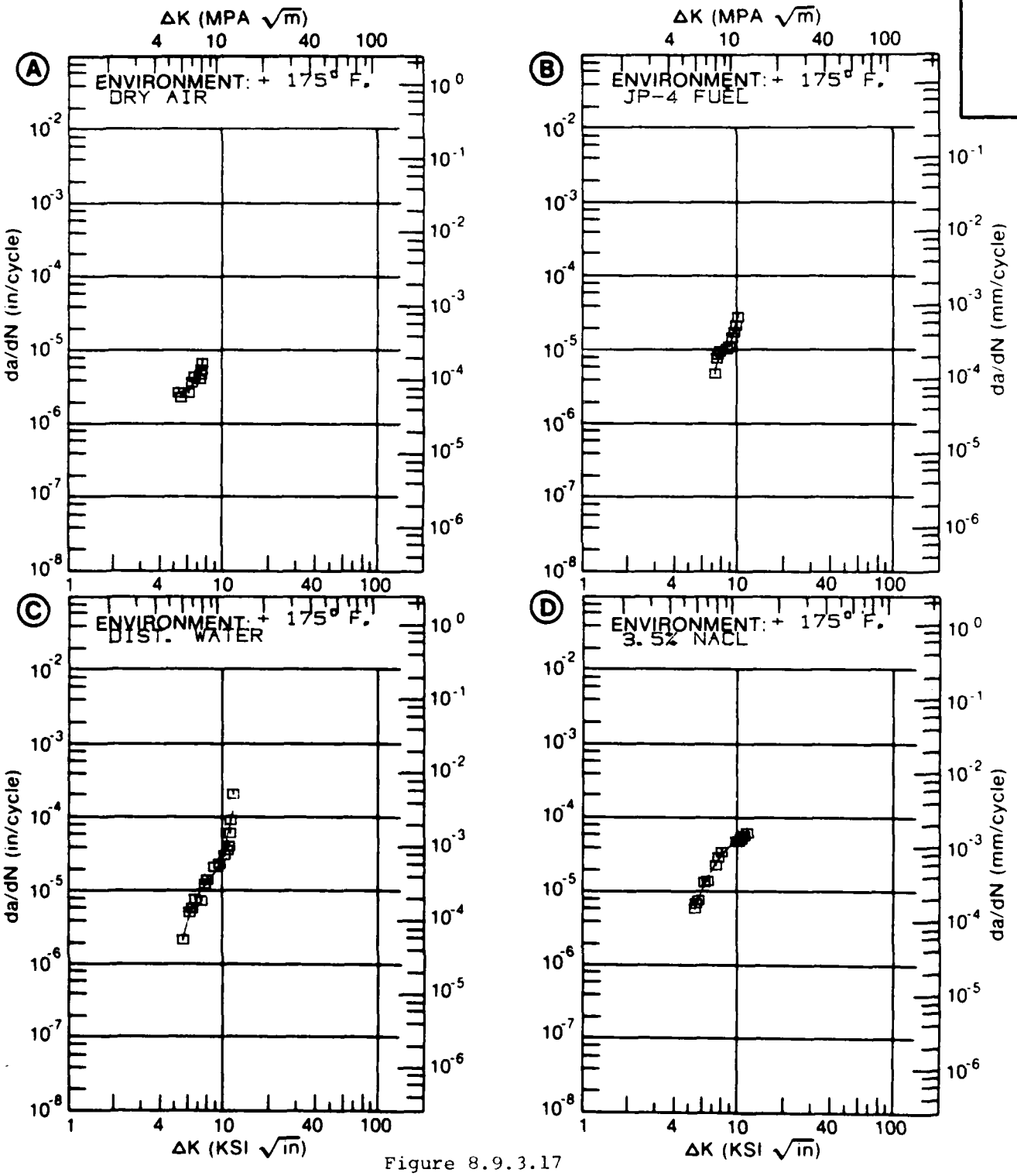

Figure 8.9.3.17

TABLE 8.9.3.18

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.18 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. DIST. WATER	E= R.T. 3.5% NACL	
DELTA K MIN	A:	5.35	2.74			
	B:	4.90		3.16		
	C:	5.19			7.56	
	D:					
		5.00		3.21		
		6.00	7.19	5.34	11.9	
		7.00	10.3	9.90	24.9	
		8.00	15.7	15.5	31.1	
		9.00	24.9	23.7	38.0	
		10.00	39.7	38.8	60.2	
DELTA K MAX	A:	10.31	45.9			
	B:	10.66		57.4		
	C:	11.28			192.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			21.97	9.93	17.22	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: Ø.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +Ø.5Ø
FREQUENCY: Ø.1Ø HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7Ø75

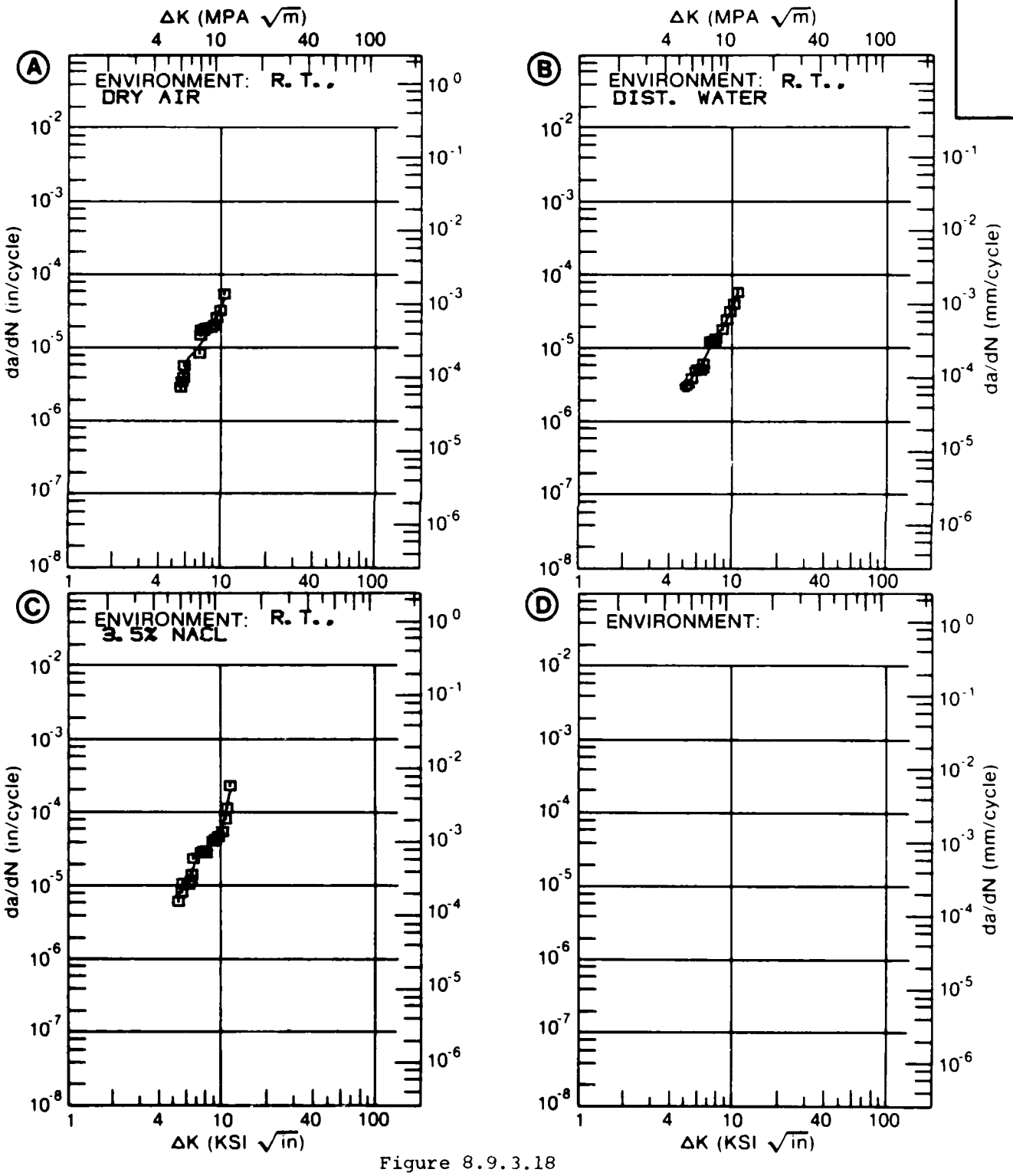

Figure 8.9.3.18

TABLE 8.9.3.19

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.19 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. WATER SATURATED JP-4 FUEL			
DELTA K MIN	A: 4.90	3.86			
	B:				
	C:				
	D:				
	5.00	3.88			
	6.00	5.30			
	7.00	8.64			
	8.00	13.1			
	9.00	17.8			
	10.00	26.7			
DELTA K MAX	A: 11.02	51.9			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 13.01

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.50
FREQUENCY: 0.10 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7075

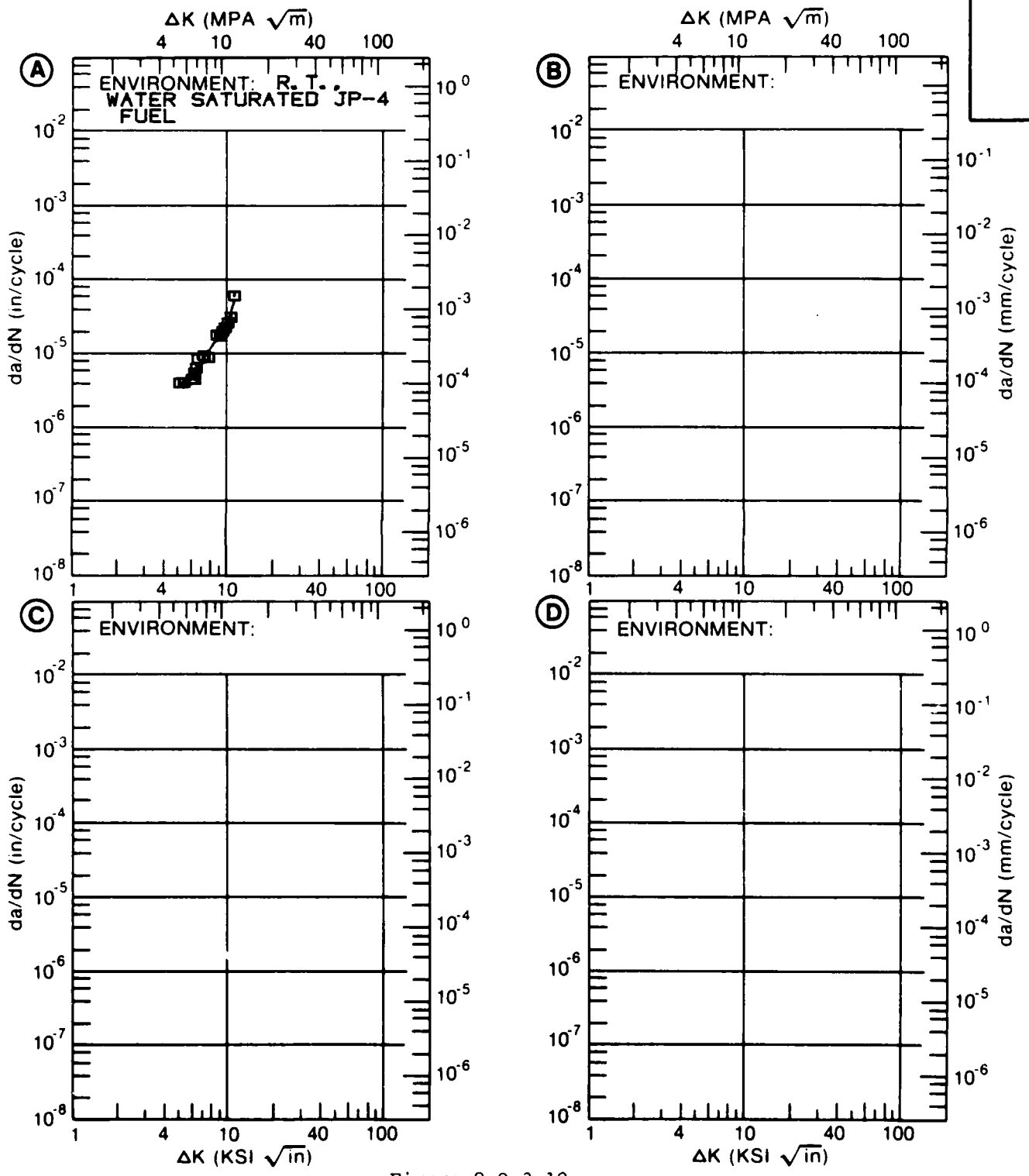

Figure 8.9.3.19

TABLE 8.9.3.20

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.20 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		F(HZ)= 15.00			
DELTA K MIN	A:				
	B:				
	C:				
	D:				
	200.00				
DELTA K MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 0.63"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.50
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY
7075

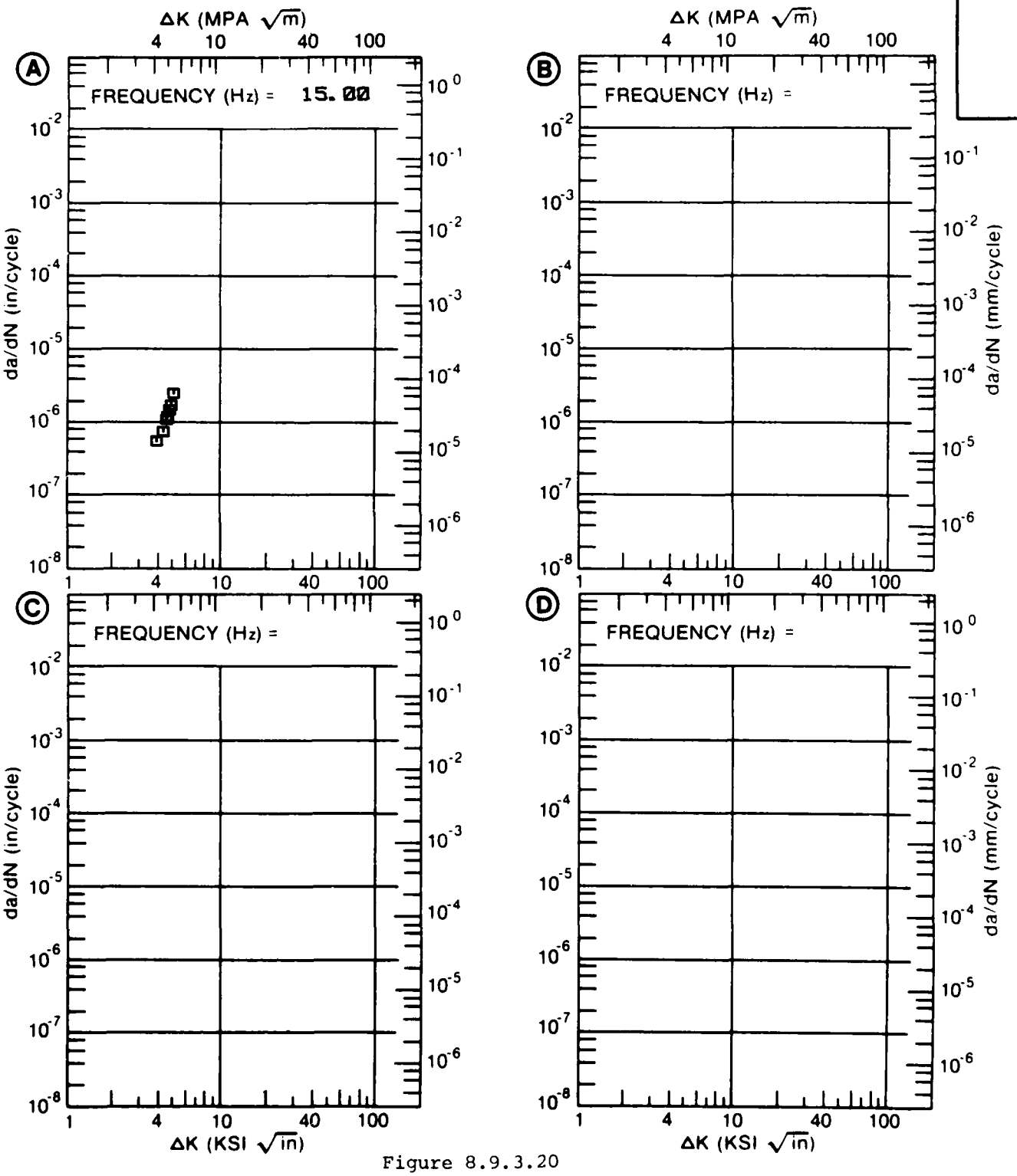

Figure 8.9.3.20

TABLE 8.9.3.21

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.21 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. NITROGEN GAS			
DELTA K MIN	A:	3.78	.138			
	B:					
	C:					
	D:					
		4.00	.215			
		5.00	1.09			
		6.00	3.23			
		7.00	6.29			
		8.00	8.85			
DELTA K MAX	A:	8.80	9.66			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 28.25

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5		
	0.5-0.8		
	0.8-1.25	1	
	1.25-2.0	1	
	>2.0		

CONDITION/HT: T651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.50
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.515"
SPECIMEN WIDTH: 1.031- 1.032"
REFERENCES:MR001

ALUM. ALLOY

7075

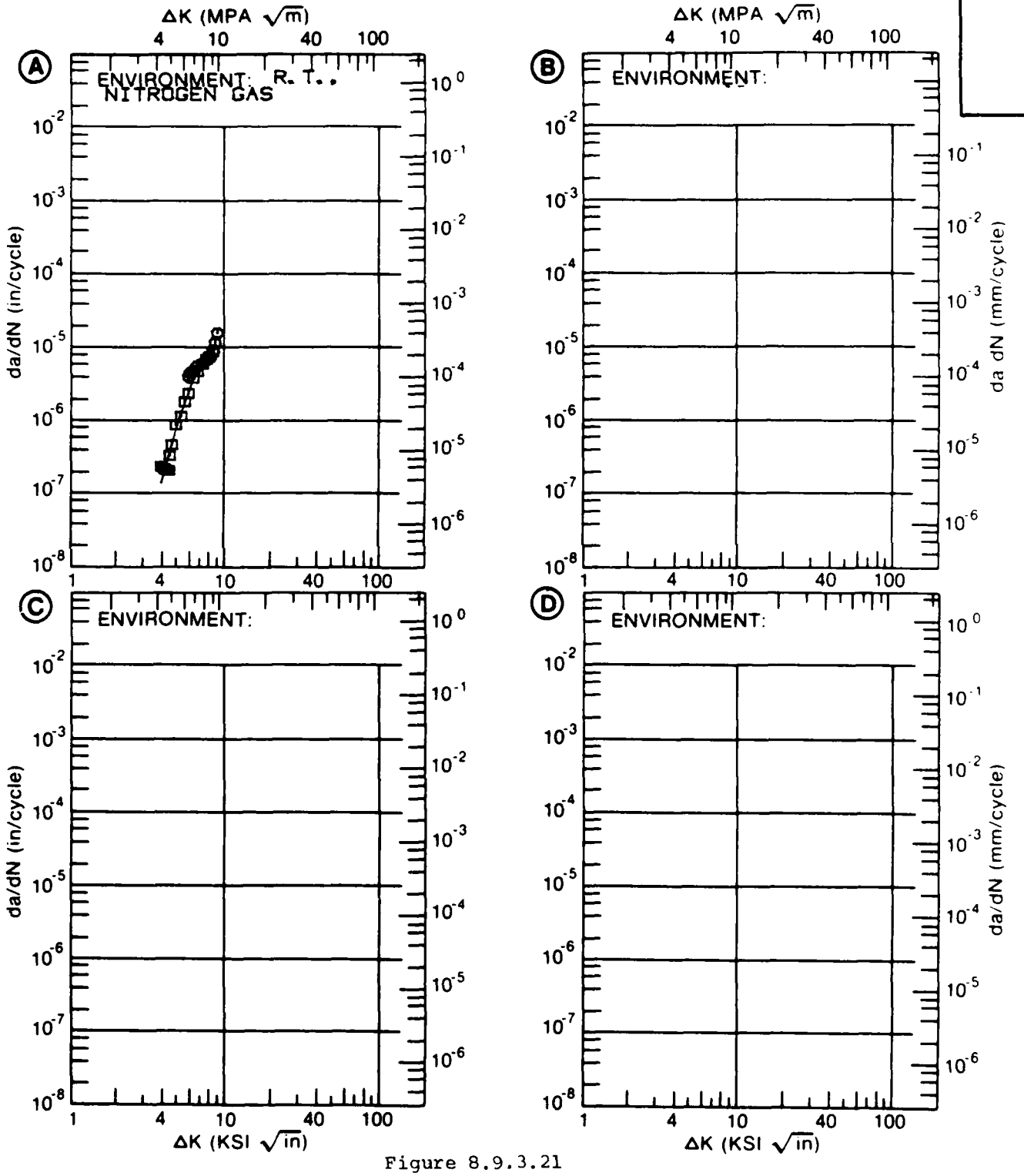

Figure 8.9.3.21

TABLE 8.9.3.22

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.22 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			F(HZ)= 0.20			
DELTA K MIN	A:	3.33	1.81			
	B:					
	C:					
	D:					
		3.50	3.09			
		4.00	5.24			
DELTA K MAX	A:	4.40	11.9			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 24.66

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.50
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.514"
SPECIMEN WIDTH: 1.029"
REFERENCES:MR001

ALUM. ALLOY

7075

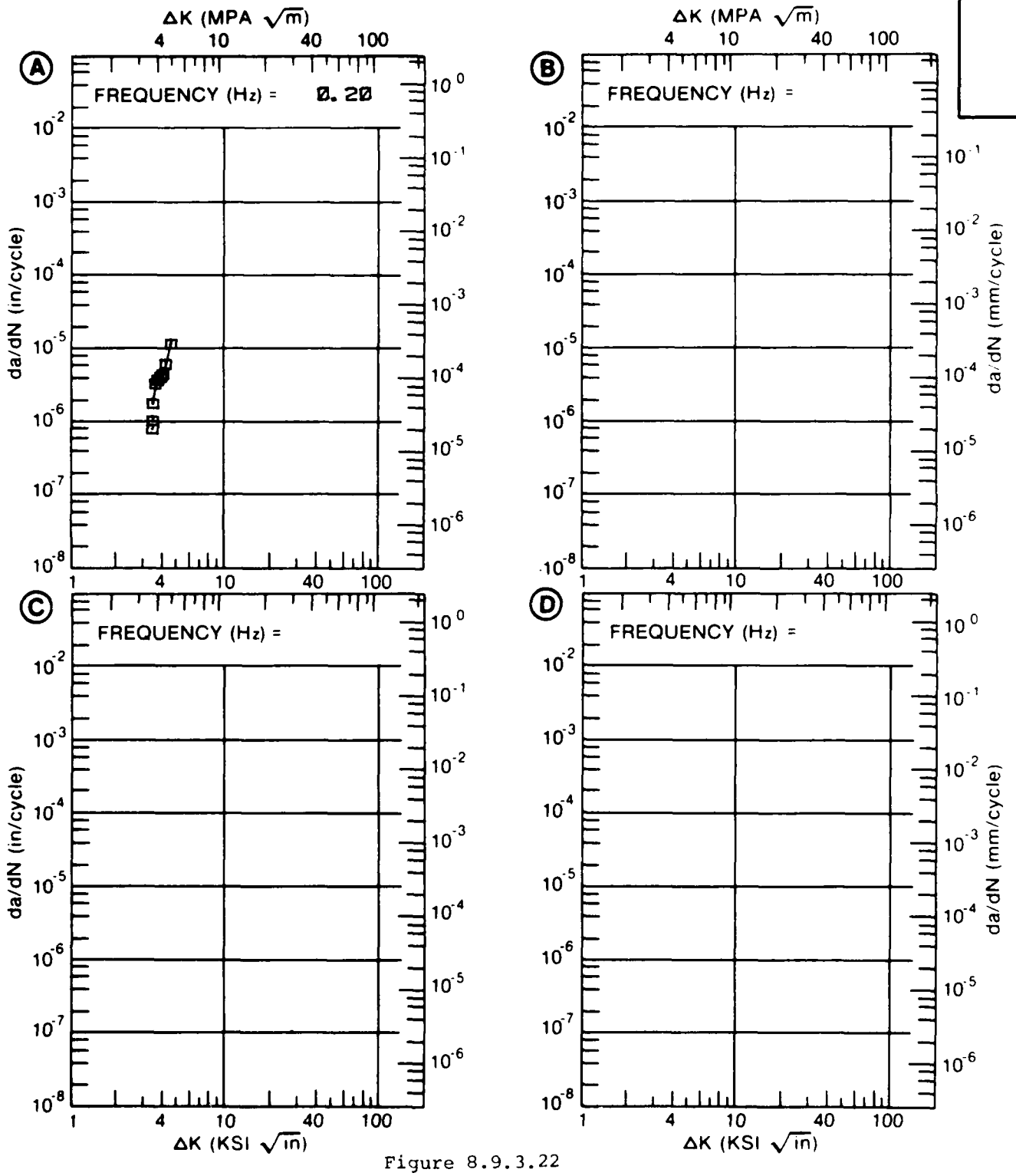

Figure 8.9.3.22

TABLE 8.9.3.23

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.23 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A: E= R.T. 3.5% NACL, .20HZ	DA/DN (10**-6 IN./CYCLE) B: E= R.T. NITROGEN GAS, 20HZ	C	D
DELTA K MIN	A:	3.99	19.3			
	B:	3.41		1.02		
	C:					
	D:					
		3.50		1.04		
		4.00	19.5	1.21		
		5.00	39.5	1.86		
		6.00	58.9	3.03		
		7.00		4.96		
DELTA K MAX	A:	6.92	73.4			
	B:	7.75		7.13		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			15.21	15.46		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	3		
		1.25-2.0				
		>2.0				

CONDITION/HT: T651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-T
STRESS RATIO: +0.50
FREQUENCY:

YIELD STRENGTH: 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.510- 0.512"
SPECIMEN WIDTH: 1.022- 1.029"
REFERENCES:MR001

ALUM. ALLOY

7075

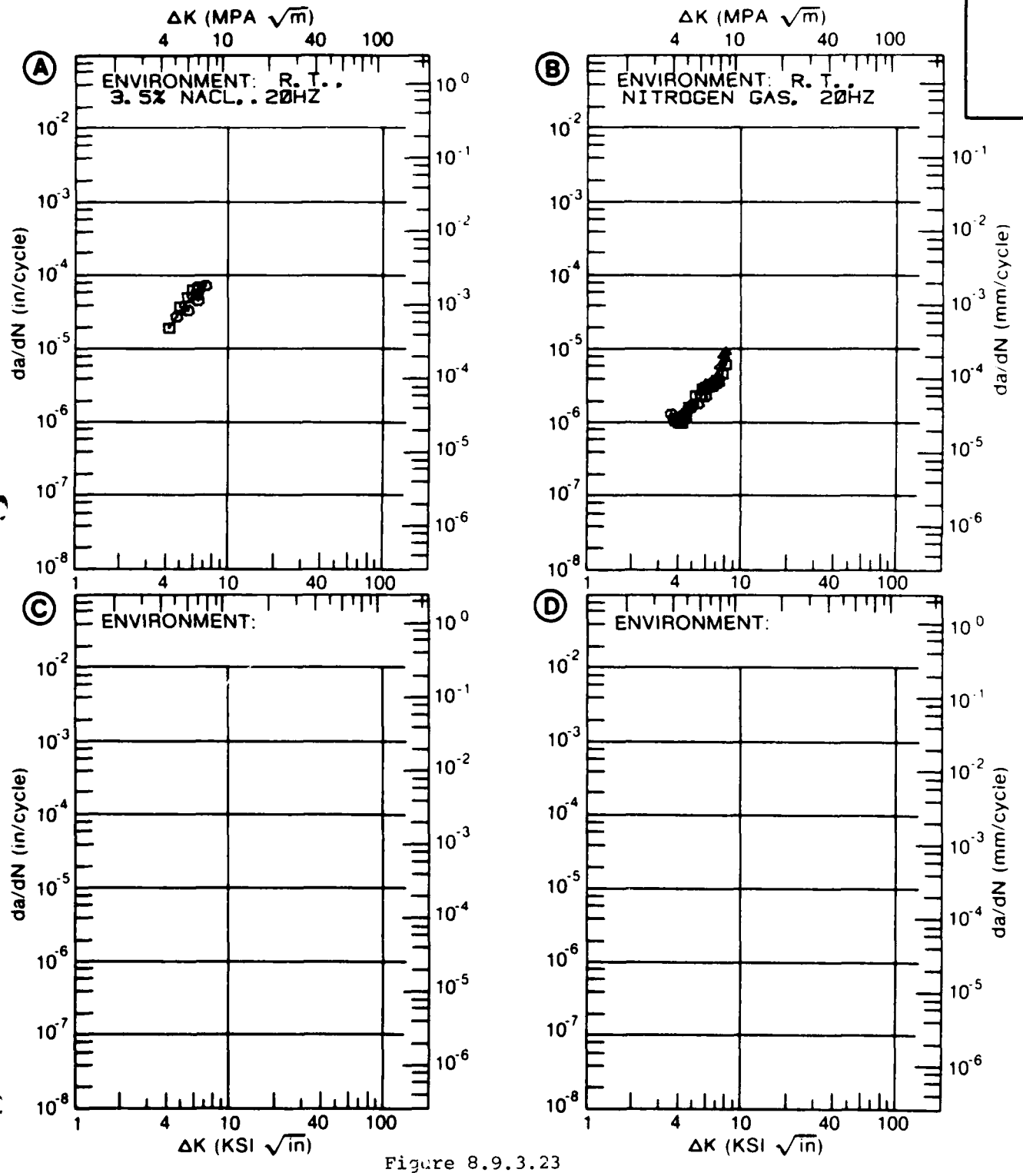

Figure 8.9.3.23

TABLE 8.9.3.24

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.24 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 4.07	.499			
	B:				
	C:				
	D:				
	5.00	1.64			
	6.00	3.46			
	7.00	5.95			
	8.00	9.37			
	9.00	13.5			
	10.00	17.8			
	13.00	26.7			
	16.00	35.6			
	20.00	66.6			
	25.00	207.			
	30.00	852.			
DELTA K MAX	A: 30.45	978.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 72.58

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 2.50"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00- 30.00 HZ

YIELD STRENGTH: 75.5 KSI
ULT. STRENGTH: 85.0- 86.5 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES: MA012, MA011

ALUM. ALLOY

7075

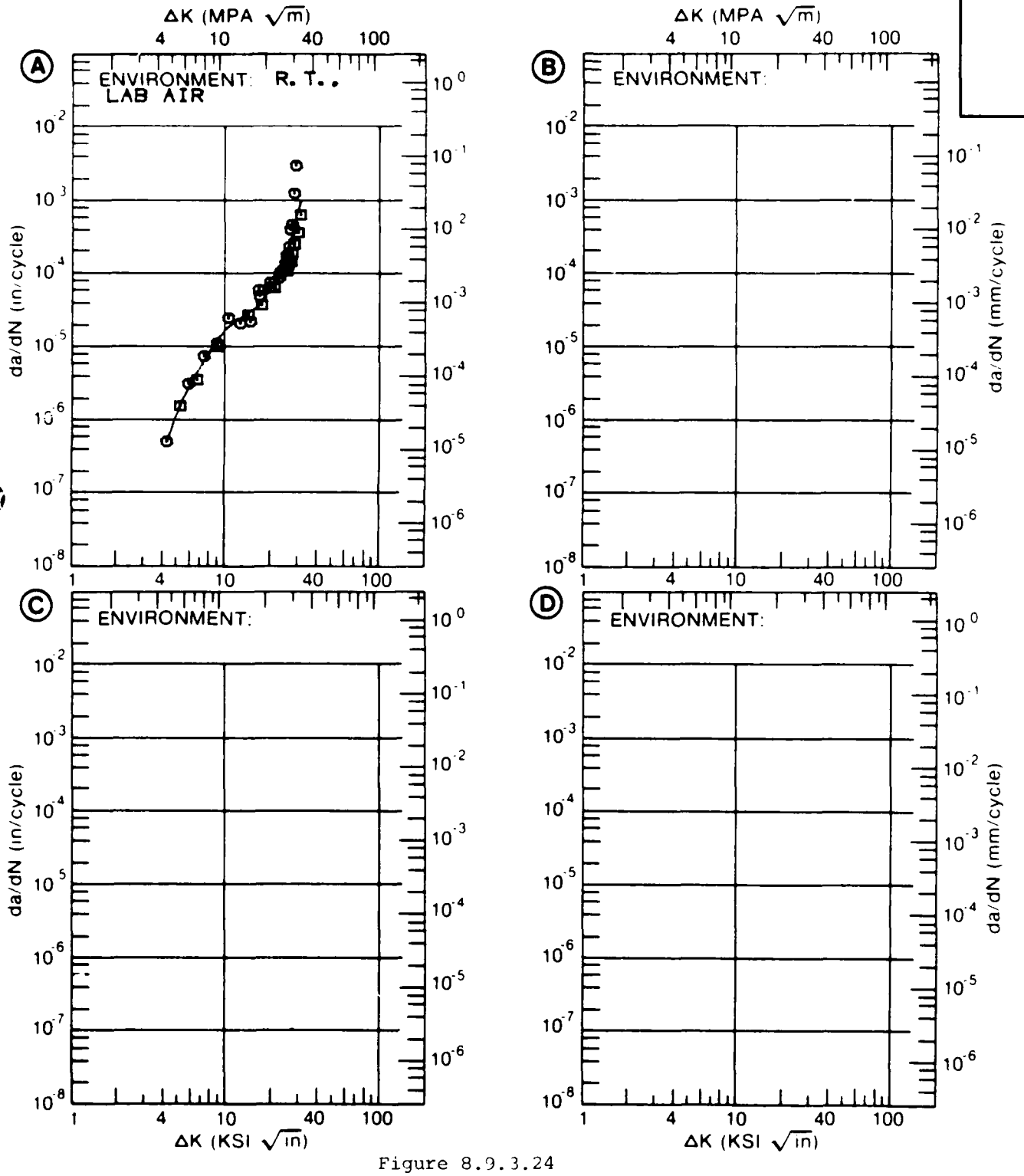

Figure 8.9.3.24

TABLE 8.9.3.25

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.25 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 4.03	222			
	B:				
	C:				
	D:				
	5.00	1.05			
	6.00	3.06			
	7.00	6.53			
	8.00	11.4			
	9.00	17.5			
	10.00	24.5			
	13.00	48.6			
DELTA K MAX	A: 14.95	65.5			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 16.53

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T651
FORM: 2.75"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 20.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 68.8 KSI
ULT. STRENGTH: 79.6 KSI
SPECIMEN THK: 0.247"
SPECIMEN WIDTH: 2.000"
REFERENCES: AL005

ALUM. ALLOY

7075

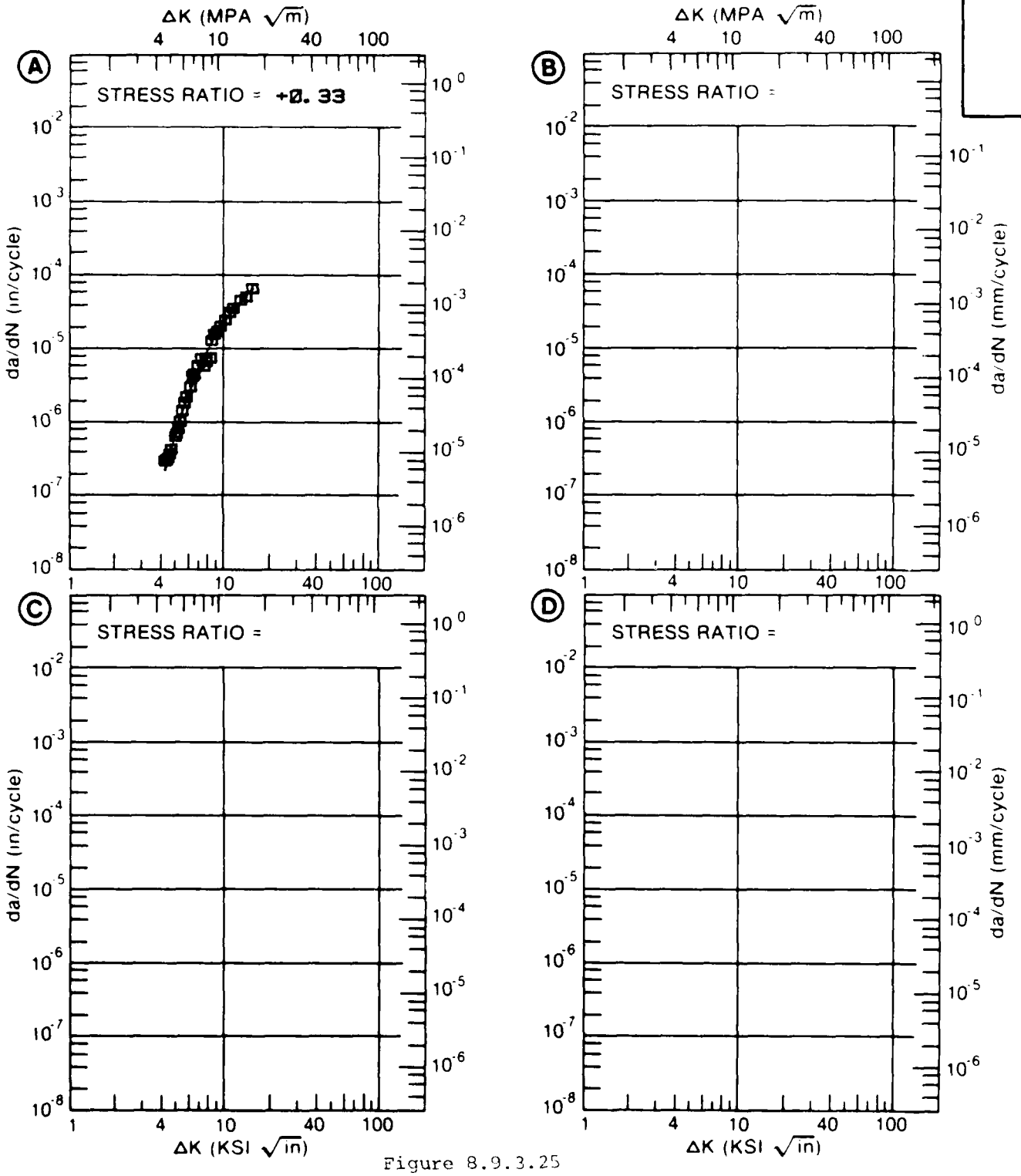

Figure 8.9.3.25

TABLE 8.9.3.26

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.26 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR, 7.5HZ	E= R.T. H.H A., 13.3HZ		
DELTA K MIN A:	5.84	2.54			
DELTA K MIN B:	2.93		.0897		
DELTA K MIN C:					
DELTA K MIN D:					
	3.00		.0968		
	3.50		.177		
	4.00		.342		
	5.00		1.35		
	6.00	2.88	4.36		
	7.00	5.36			
	8.00	8.23			
	9.00	11.4			
	10.00	14.9			
	13.00	29.8			
DELTA K MAX A:	14.61	43.3			
DELTA K MAX B:	6.67		8.75		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		13.54	14.45		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	4	1		
	1.25-2.0				
	>2.0				

CONDITION/HT: T651
FORM: 2.75"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY:

YIELD STRENGTH: 68.8 KSI
ULT. STRENGTH: 79.6 KSI
SPECIMEN THK: 0.250- 0.252"
SPECIMEN WIDTH: 3.999- 4.000"
REFERENCES:AL005

ALUM. ALLOY

7075

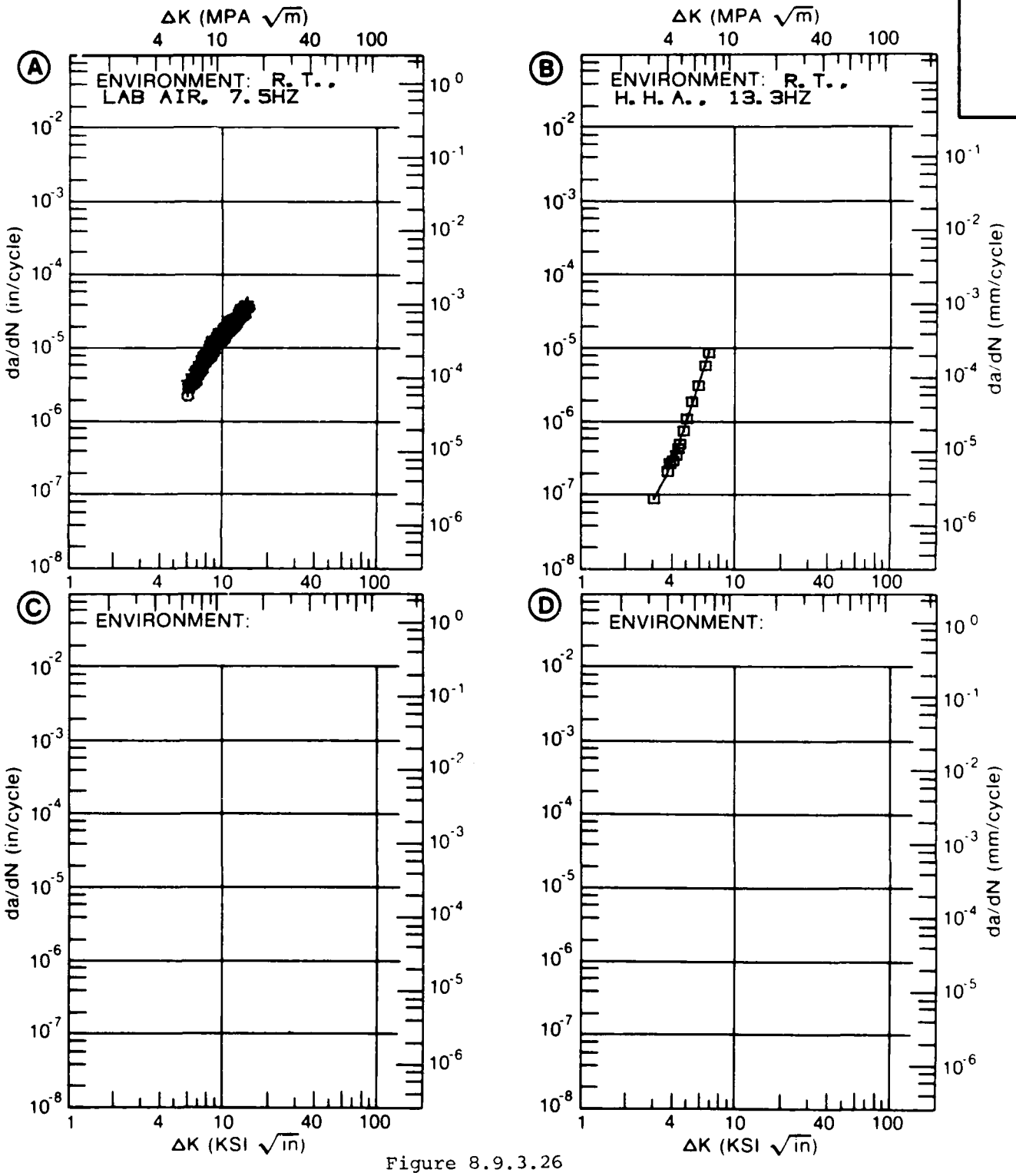

Figure 8.9.3.26

TABLE 8.9.3.27

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.27 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: R.T. ,DRY AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.20	R=+0.40		
DELTA K MIN	A:				
	B:				
	C:				
	D:				
	200.00				
DELTA K MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 3.00"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: L-T
FREQUENCY: 10.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 70.0 KSI
ULT. STRENGTH: 81.0 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 5.500"
REFERENCES:84360

ALUM. ALLOY

7075

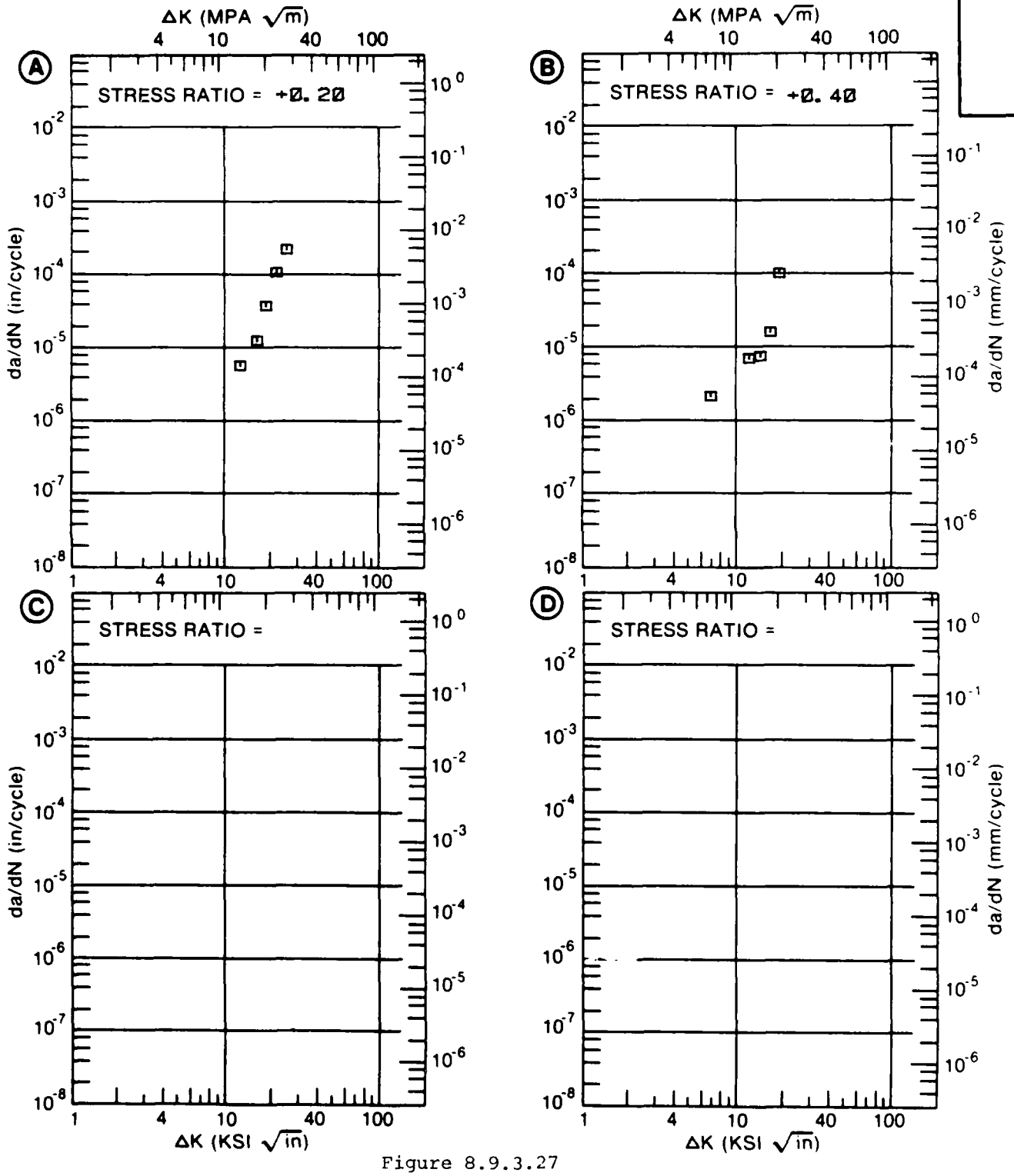

Figure 8.9.3.27

TABLE 8.9.3.28

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.28 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR 1-10HZ	E= R.T. LAB AIR 1HZ	E= R.T. 3.5% NACL 1-10HZ	
DELTA K MIN	A:	8.87	5.32			
	B:					
	C:	6.63			5.42	
	D:					
		7.00			6.28	
		8.00			8.80	
		9.00	5.39		11.6	
		10.00	6.01		14.8	
		13.00	9.14		27.2	
		16.00	15.2		47.6	
		20.00	32.1		99.4	
		25.00	86.9		256.	
		30.00	241.		678.	
		35.00	669.			
DELTA K MAX	A:	39.37	1620.			
	B:					
	C:	30.64			769.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			27.92	0.00	30.24	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 3.00"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 70.2- 75.7 KSI
ULT. STRENGTH: 81.2- 85.0 KSI
SPECIMEN THK: 0.750- 1.000"
SPECIMEN WIDTH: 5.500"
REFERENCES:84360

ALUM. ALLOY

7075

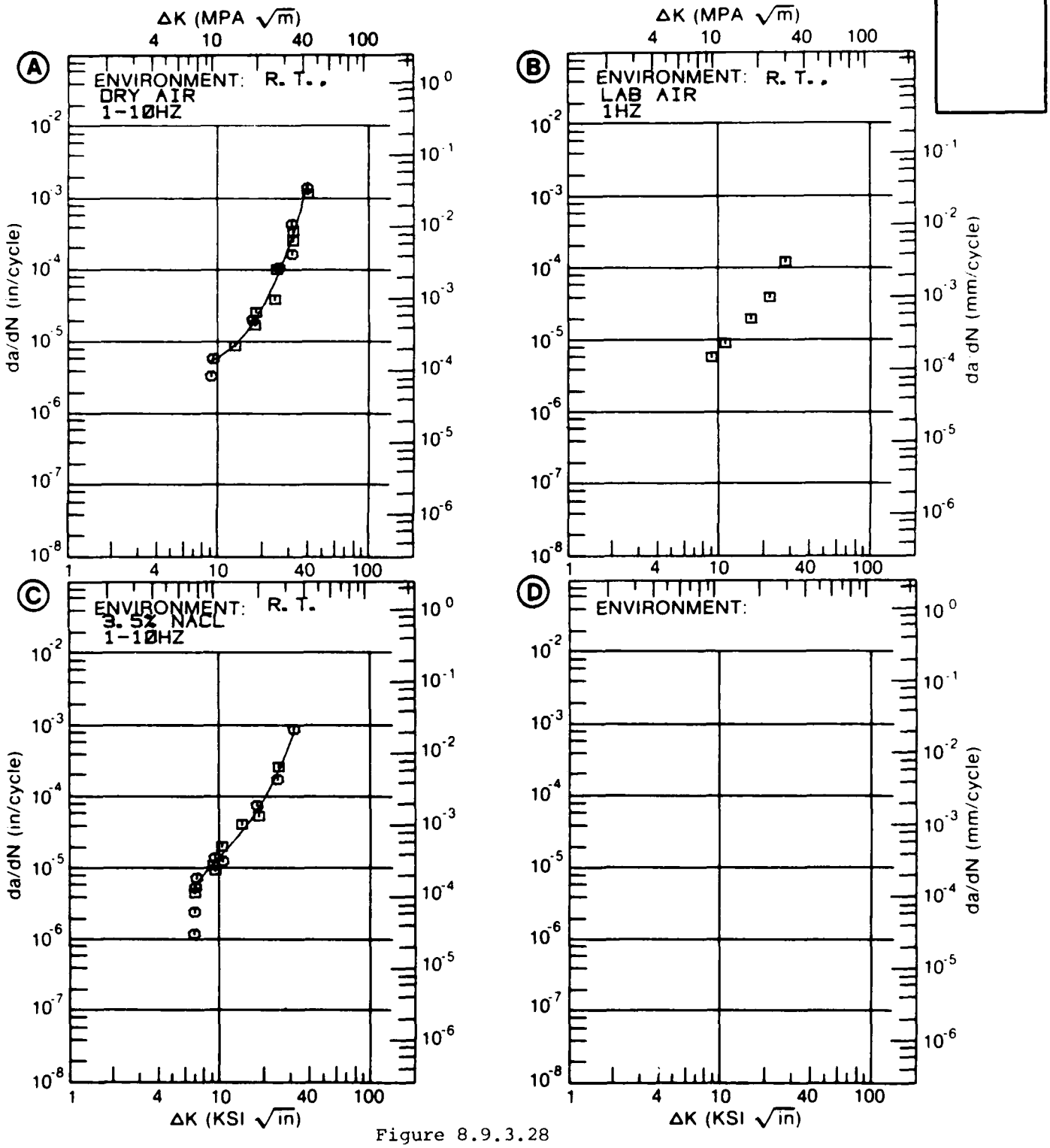

Figure 8.9.3.28

TABLE 8.9.3.29

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.29 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R. T. DIST. WATER			
DELTA K MIN	A:	6.96	2.62			
	B:					
	C:					
	D:					
		7.00	2.68			
		8.00	4.07			
		9.00	5.64			
		10.00	7.41			
		13.00	14.5			
		16.00	26.8			
		20.00	62.6			
		25.00	197.			
DELTA K MAX	A:	29.50	598.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 30.68

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 3.00"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00- 10.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.500"
REFERENCES:84360

ALUM. ALLOY

7075

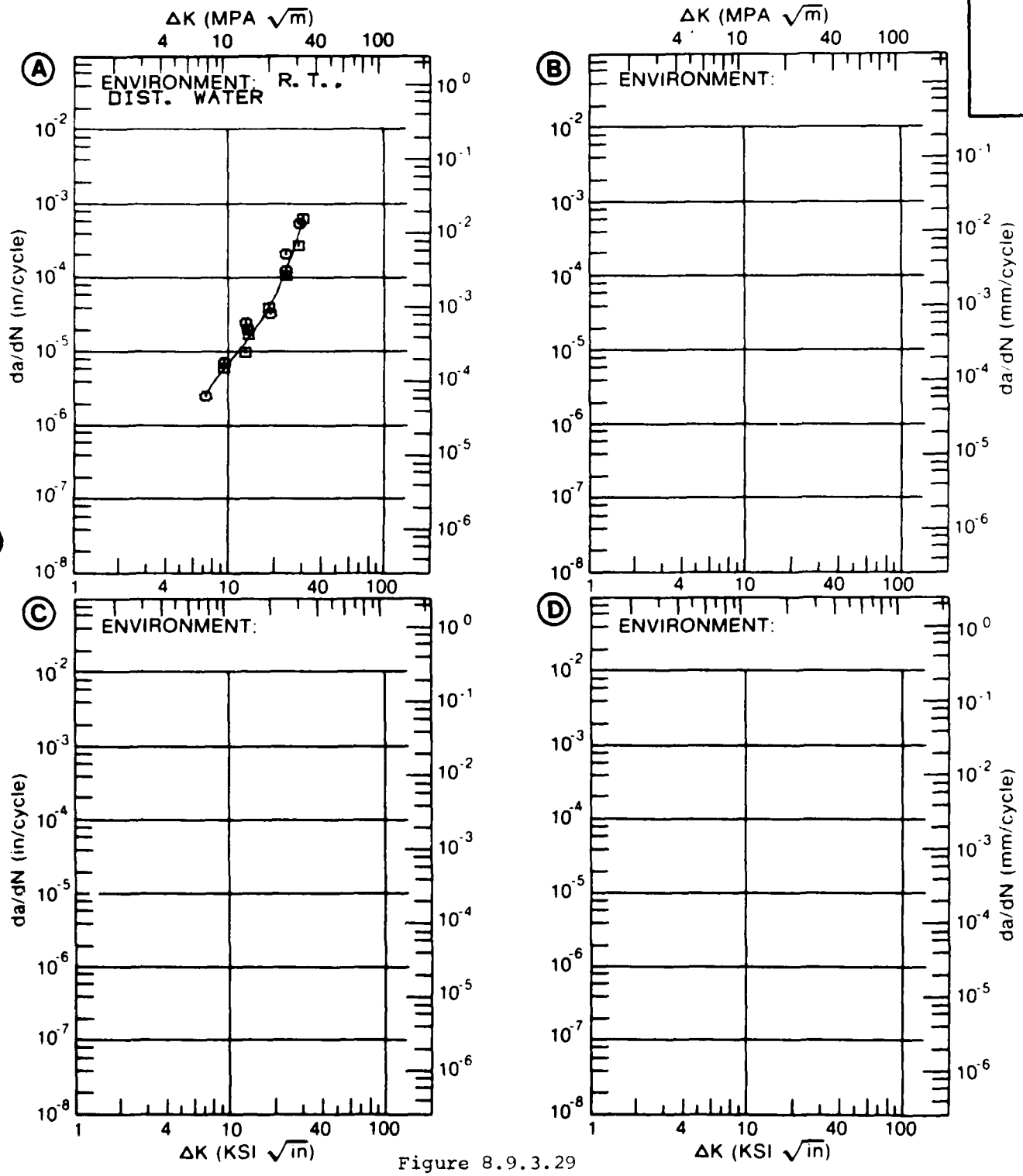

Figure 8.9.3.29

TABLE 8.9.3.30

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.30 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T6510

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. LAB AIR		
DELTA K MIN	A:	5.67	3.60			
	B:	5.11		1.53		
	C:					
	D:					
		6.00	4.59	5.04		
		7.00	7.58	10.3		
		8.00	10.3	15.4		
		9.00	13.0	20.0		
		10.00	16.1	25.0		
		13.00	35.5	56.0		
DELTA K MAX	A:	14.80	67.3			
	B:	14.19		87.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.07	14.31		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8		1		
		0.8-1.25	1	3		
		1.25-2.0				
		>2.0				

CONDITION/HT: T6510
FORM: 0.68"TH EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 5.20 HZ

YIELD STRENGTH: 82.4 KSI
ULT. STRENGTH: 90.4 KSI
SPECIMEN THK: 0.626- 0.666"
SPECIMEN WIDTH: 3.004- 3.006"
REFERENCES:AL005, AL002

ALUM. ALLOY

7075

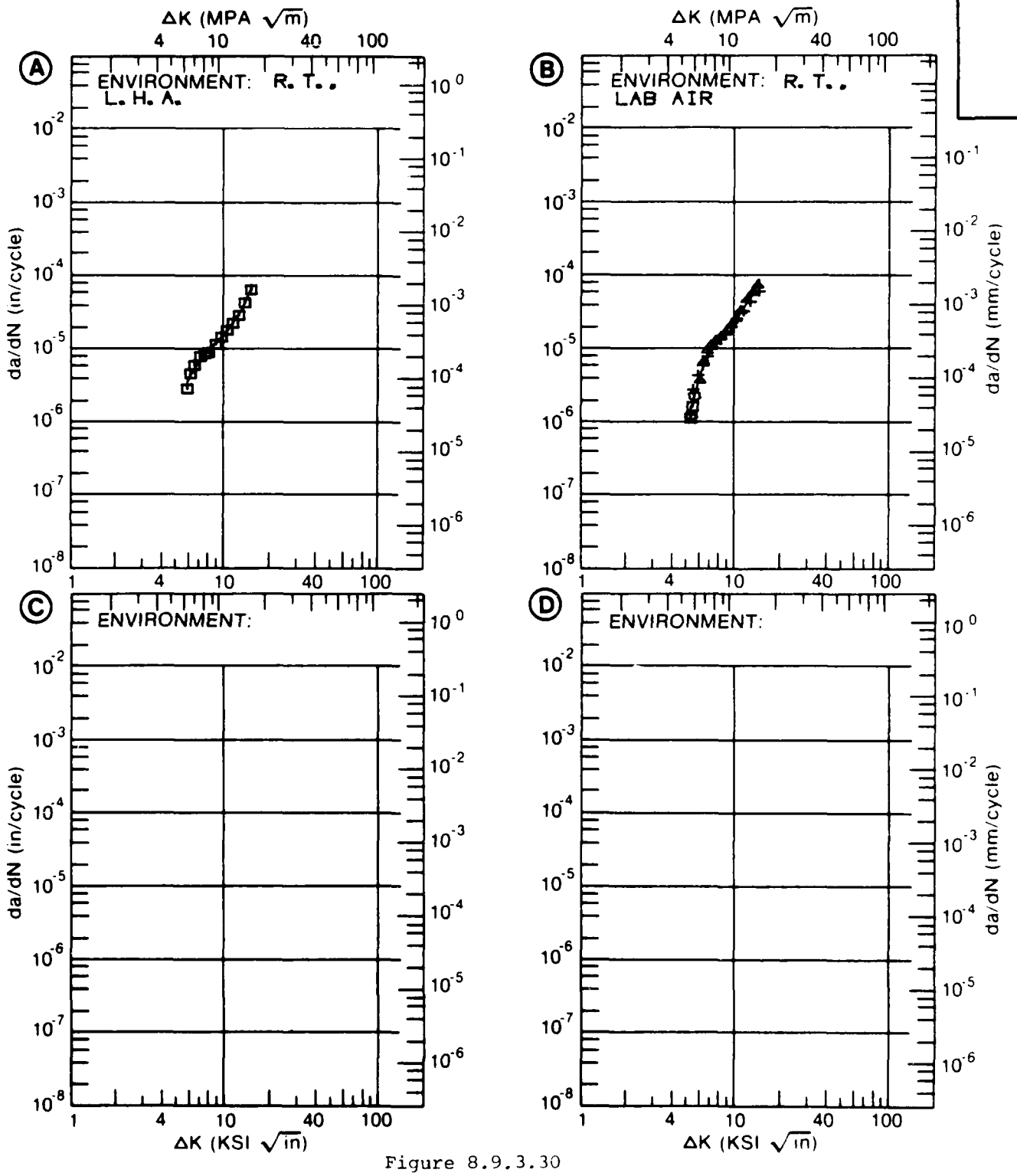

Figure 8.9.3.30

TABLE 8.9.3.31

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.31 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6510
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.73	2.79			
	B:					
	C:					
	D:					
		6.00	3.61			
		7.00	7.10			
		8.00	10.8			
		9.00	14.4			
		10.00	18.0			
		13.00	34.3			
		16.00	78.3			
DELTA K MAX	A:	16.44	90.3			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR		16.27
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T6510
FORM: 3.50"TH EXTRUDED BAR
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 75.7 KSI
ULT. STRENGTH: 85.4 KSI
SPECIMEN THK: 0.751"
SPECIMEN WIDTH: 3.003- 3.005"
REFERENCES:AL005

ALUM. ALLOY
7075

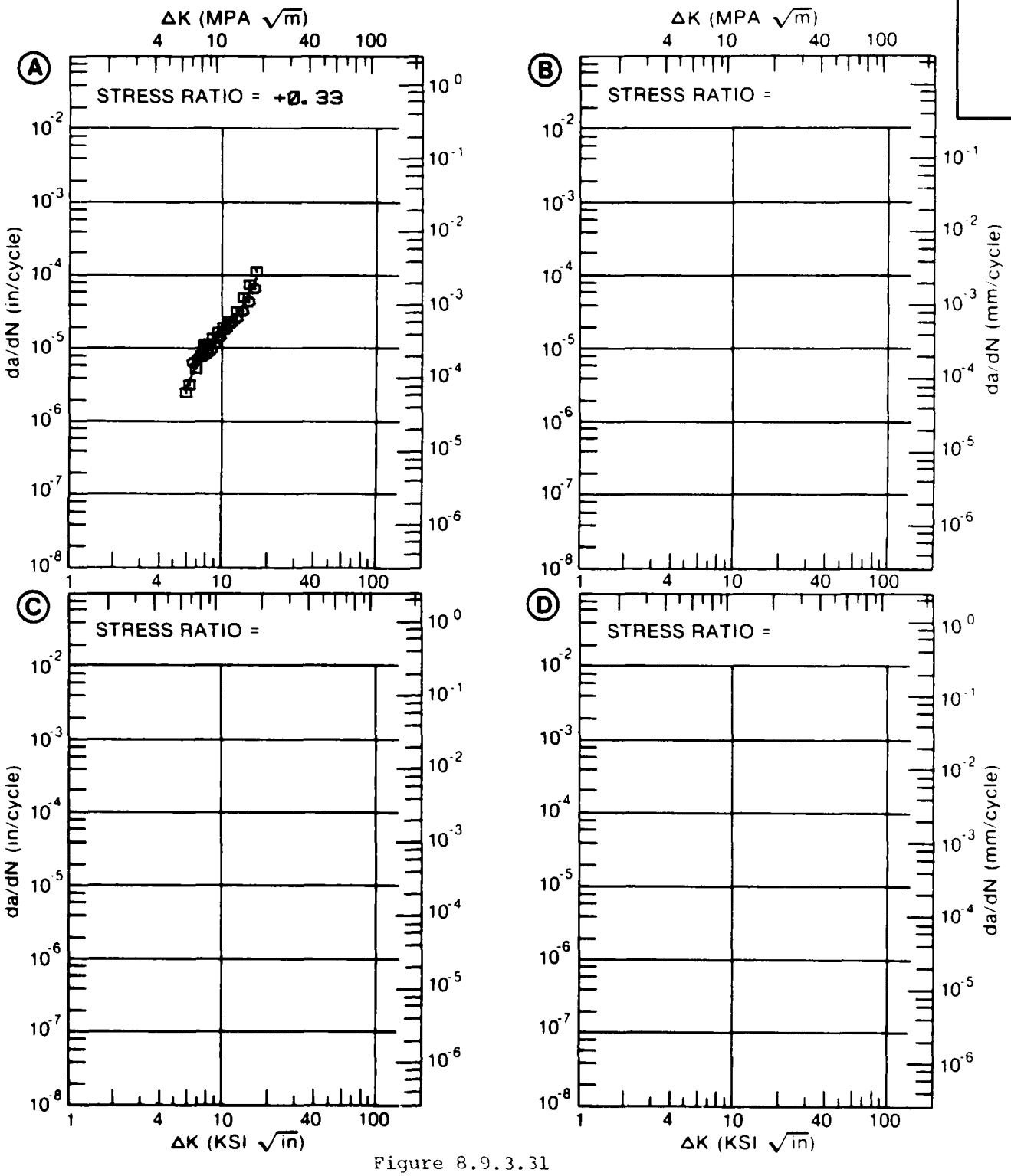

Figure 8.9.3.31

TABLE 8.9.3.32

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.32 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6511
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-1.00	R=-0.50	R=+0.01	
DELTA K MIN	A:	3.32	187			
	B:	3.72		.192		
	C:	3.46			.140	
	D:					
		3.50	.209		.149	
		4.00	.334	.197	.310	
		5.00	1.03	.648	.976	
		6.00	2.66	2.42	2.27	
		7.00	5.12	5.05	4.27	
		8.00	8.13	7.56	6.86	
		9.00	11.5	10.3	9.86	
		10.00	15.1	13.6	13.2	
		13.00	26.4	25.0	24.8	
		16.00	34.5	34.9	40.2	
		20.00		52.2	72.1	
		25.00		126.	150.	
		30.00			355.	
		35.00			1034.	
DELTA K MAX	A:	19.42	34.7			
	B:	26.40		176.		
	C:	35.27			1102.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9.35	10.38	23.40	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY:
ENVIRONMENT: R. T., LAB AIR

YIELD STRENGTH: 79.5 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.244- 0.252"
SPECIMEN WIDTH: 8.997- 9.000"
REFERENCES:DA001

ALUM. ALLOY
7075

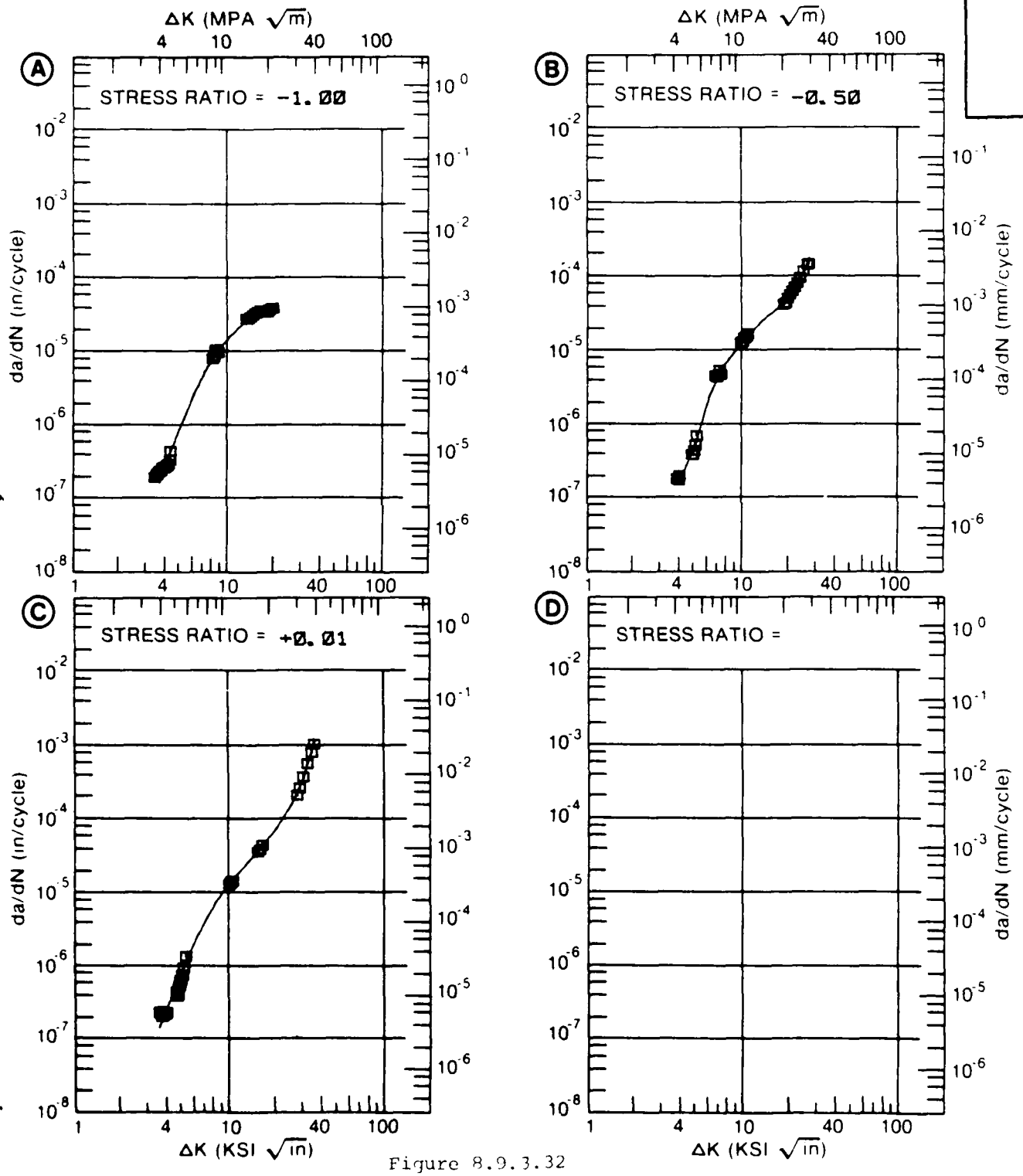

Figure 8.9.3.32

TABLE 8.9.3.33

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.33 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6511
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.40	R=+0.60	R=+0.80	
DELTA K MIN A:	2.50	.142			
DELTA K MIN B:	1.72		.0792		
DELTA K MIN C:	1.55			.0687	
DELTA K MIN D:					
	1.60			.0767	
	2.00		.123	.173	
	2.50	.142	.171	.409	
	3.00	.222	.328	.839	
	3.50	.453	.757	1.55	
	4.00	.927	1.64	2.63	
	5.00	2.93	4.73	6.29	
	6.00	6.66	8.40	12.8	
	7.00	11.9	12.4	23.3	
	8.00	17.7	17.4	39.6	
	9.00	23.2	24.5	66.1	
	10.00	28.2	34.3	118.	
	13.00	46.1	91.9		
	16.00	84.7			
DELTA K MAX A:	17.91	139.			
DELTA K MAX B:	14.99		171.		
DELTA K MAX C:	11.65			398.	
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		9.61	8.98	16.33	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 3.00- 5.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 79.5 KSI
ULT STRENGTH:
SPECIMEN THK: 0.250- 0.251"
SPECIMEN WIDTH: 8.998- 9.000"
REFERENCES DA001

ALUM. ALLOY

7075

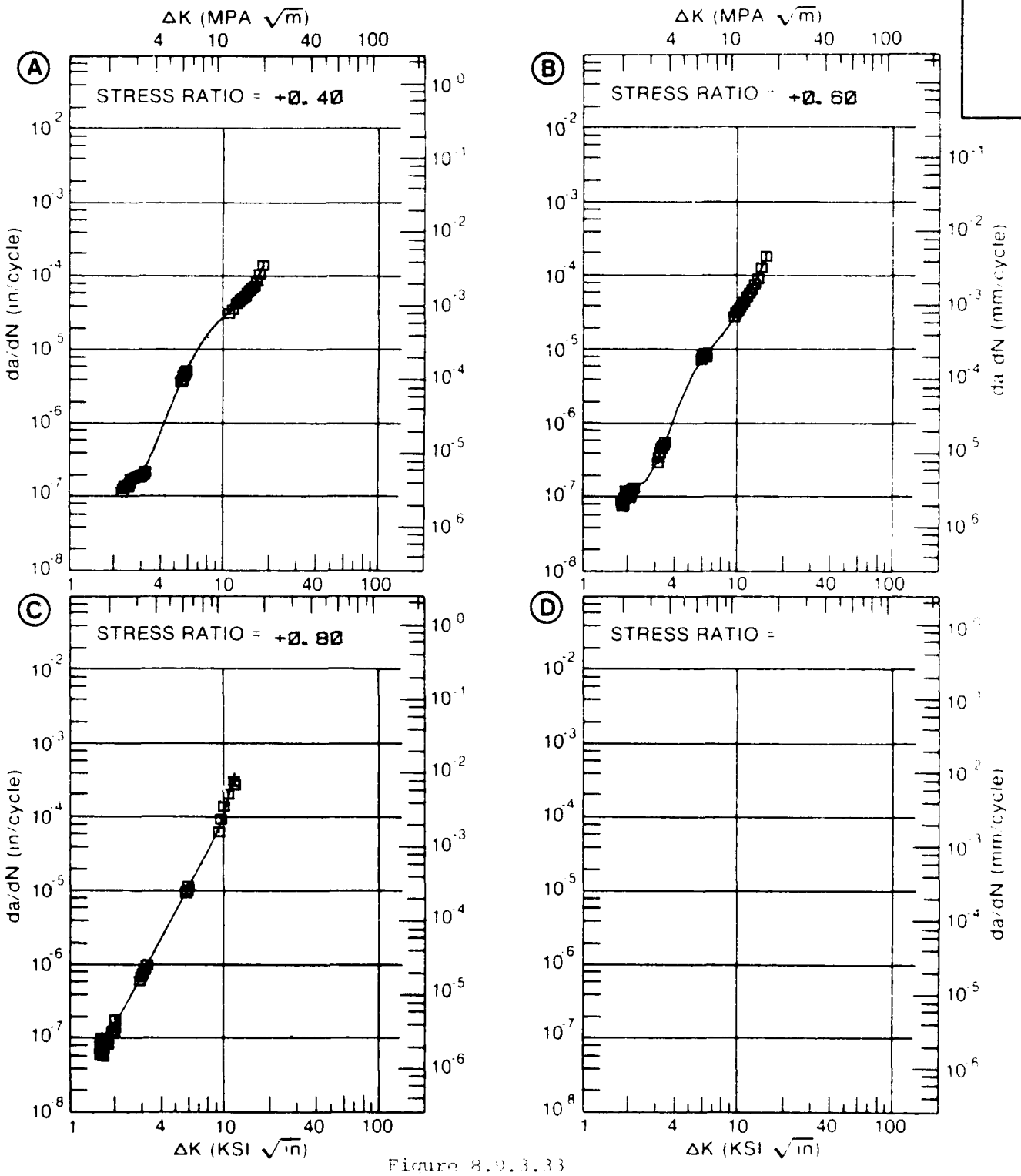

Figure 8.9.3.33

TABLE 8.9.3.34

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.34 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6511
ENVIRONMENT: R T , H. A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.50		
DELTA K MIN	A:	7.39	4.12			
	B:	3.68		.699		
	C:					
	D:					
		4.00		1.10		
		5.00		3.07		
		6.00		5.98		
		7.00		9.64		
		8.00	6.12	13.9		
		9.00	10.00	18.7		
		10.00	14.2	24.2		
		13.00	26.3	46.4		
		16.00	36.7	82.7		
		20.00	51.4	176.		
		25.00	79.9			
		30.00	139.			
		35.00	280.			
		40.00	607.			
		50.00	2654.			
DELTA K MAX	A:	56.72	6148.			
	B:	20.47		192.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			22.39	16.22		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 81.5 KSI
ULT. STRENGTH: 88.6 KSI
SPECIMEN THK: 0.150"
SPECIMEN WIDTH: 5.950"
REFERENCES: BW001

ALUM. ALLOY

7075

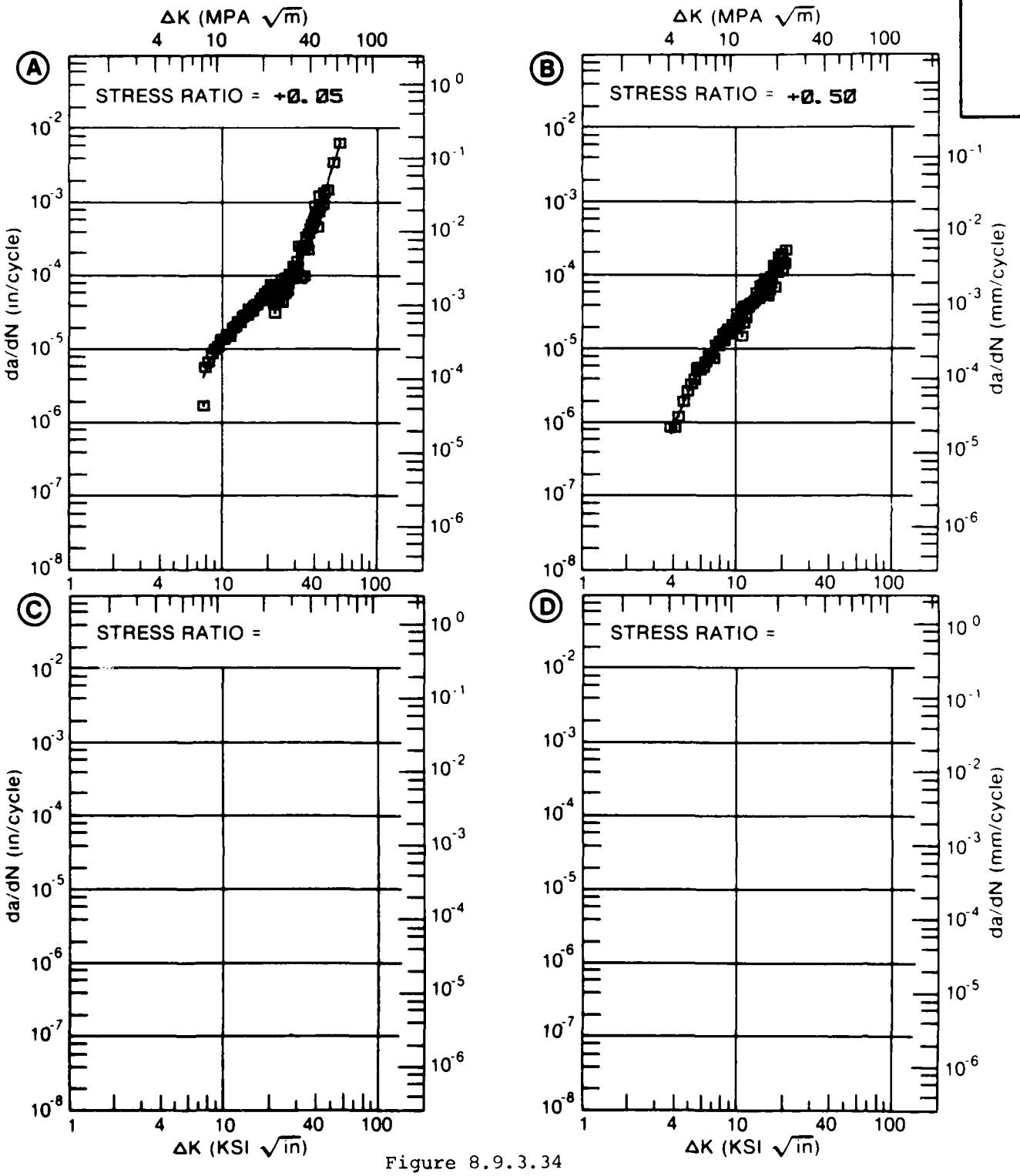

Figure 8.9.3.34

TABLE 8.9.3.35

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.35 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T6511
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.01	R=+0.80		
DELTA K MIN	A:	12.98	40.2			
	B:	1.97		.130		
	C:					
	D:					
		2.00		.138		
		2.50		.427		
		3.00		1.30		
		3.50		3.33		
		4.00		6.96		
		5.00		18.8		
		6.00		36.0		
		7.00		59.0		
		8.00		85.6		
		9.00		103.		
		10.00		100.		
		13.00	40.5			
		16.00	68.3			
DELTA K MAX	A:	17.63	88.9			
	B:	10.00		100.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			1.76	14.91		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T6511
FORM: EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 0.50- 1.00 HZ
ENVIRONMENT: R. T., S. T. W.

YIELD STRENGTH: 79.5 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.246- 0.247"
SPECIMEN WIDTH: 9.000"
REFERENCES:DA001

ALUM. ALLOY

7075

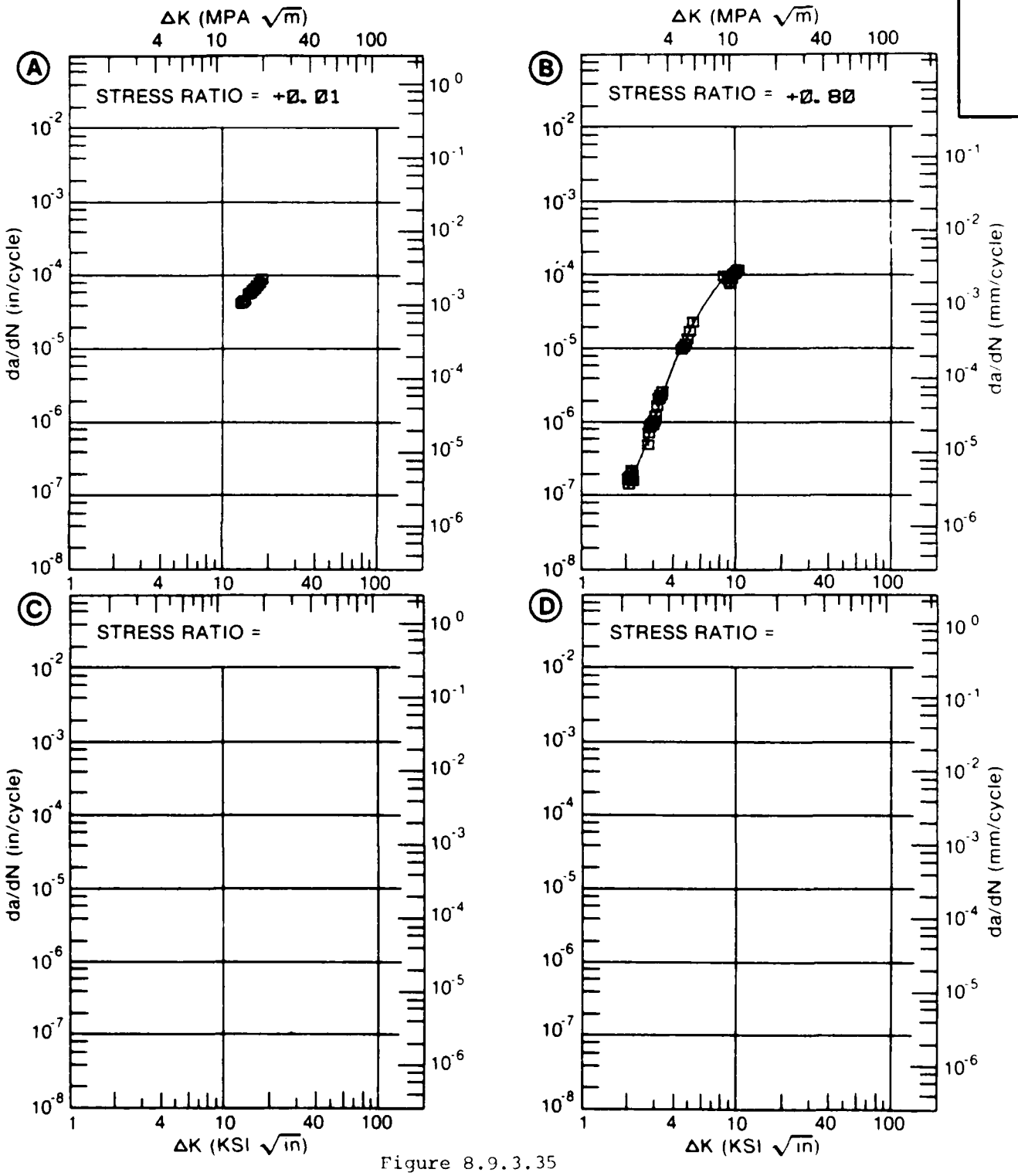

Figure 8.9.3.35

TABLE 8.9.3.36

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.36 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		A	B	C	D
		R=-1.00	R=-0.50	R=+0.05	
DELTA K MIN	A: 2.66	.0792			
	B: 2.60		.0860		
	C: 2.40			.0530	
	D:				
	2.50			.0564	
	3.00	.0715	.120	.0806	
	3.50	.104	.148	.123	
	4.00	.190	.195	.199	
	5.00	.610	.534	.561	
	6.00	1.43	1.41	1.46	
	7.00	2.74	2.75	3.16	
	8.00	4.57	4.43	5.58	
	9.00	6.93	6.37	8.34	
	10.00	9.81	8.52	11.2	
	13.00	21.5	16.5	21.1	
	16.00	37.7	28.5	36.3	
DELTA K MAX	A: 16.08	38.2			
	B: 17.97		40.4		
	C: 16.61			40.8	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		13.96	21.32	21.72	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 20.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 56.0 KSI
ULT. STRENGTH: 67.1 KSI
SPECIMEN THK: 0.500"
SPECIMEN WIDTH: 3.000"
REFERENCES:UD006

ALUM. ALLOY

7075

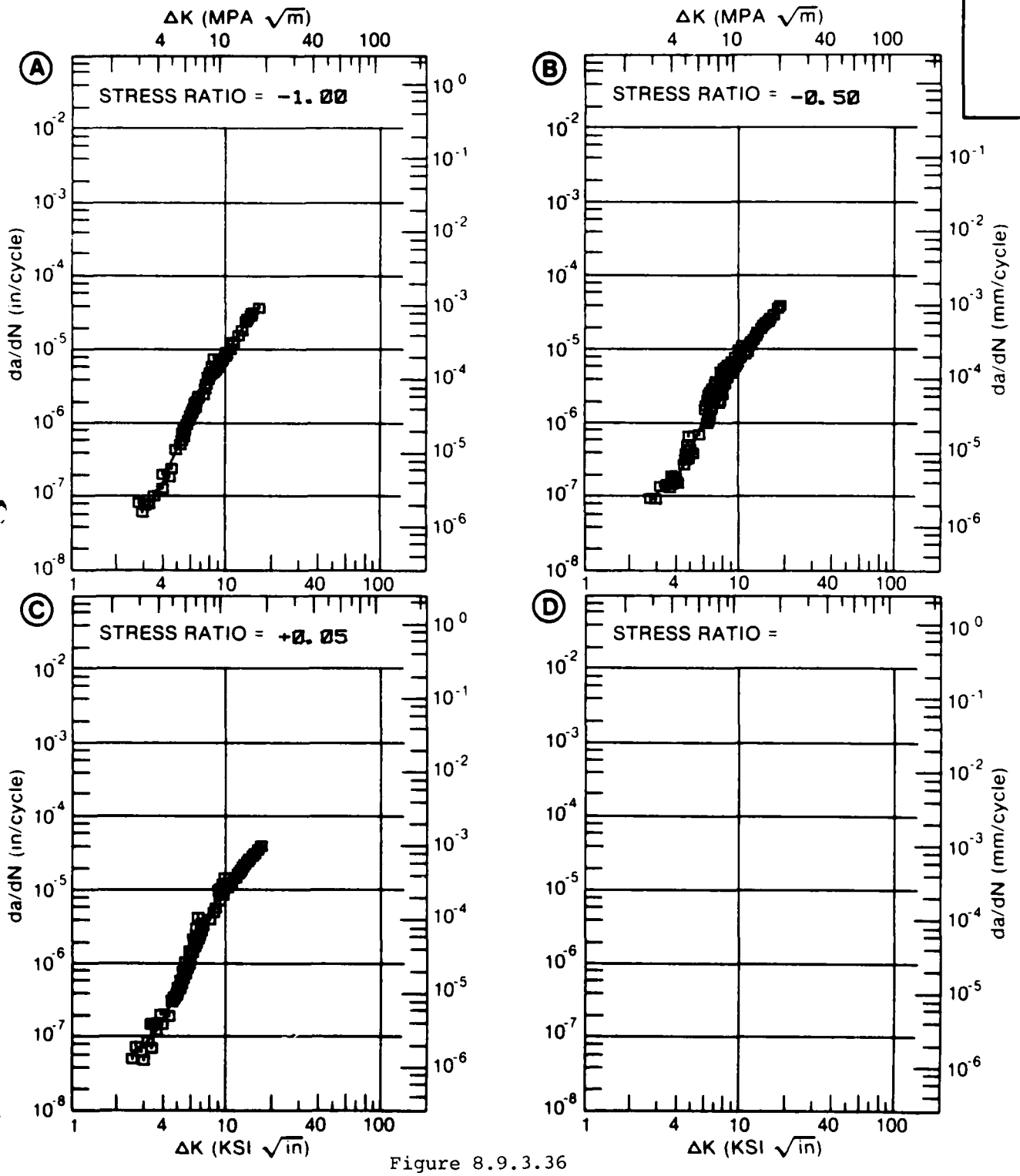

Figure 8.9.3.36

TABLE 8.9.3.37

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.37 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R.T. ,DRY AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	6.63	.140			
	B:	8.11		.346		
	C:	6.18			.650	
	D:					
		7.00	.365		1.97	
		8.00	.490		4.13	
		9.00	.972	.894	6.83	
		10.00	2.04	1.98	9.84	
		13.00	8.14	8.45	19.9	
		16.00	15.6	19.1	33.6	
		20.00	26.3	42.3	71.0	
		25.00	47.2	110.		
		30.00	95.2			
DELTA K MAX	A:	32.74	150.			
	B:	27.74		196.		
	C:	21.19			91.1	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.48	6.21	7.73	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25				
		1.25-2.0	1	1	1	
		>2.0				

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 4.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 62.7 KSI
ULT. STRENGTH: 71.7 KSI
SPECIMEN THK: 0.751- 0.757"
SPECIMEN WIDTH: 4.999- 5.007"
REFERENCES:CD008

ALUM. ALLOY

7075

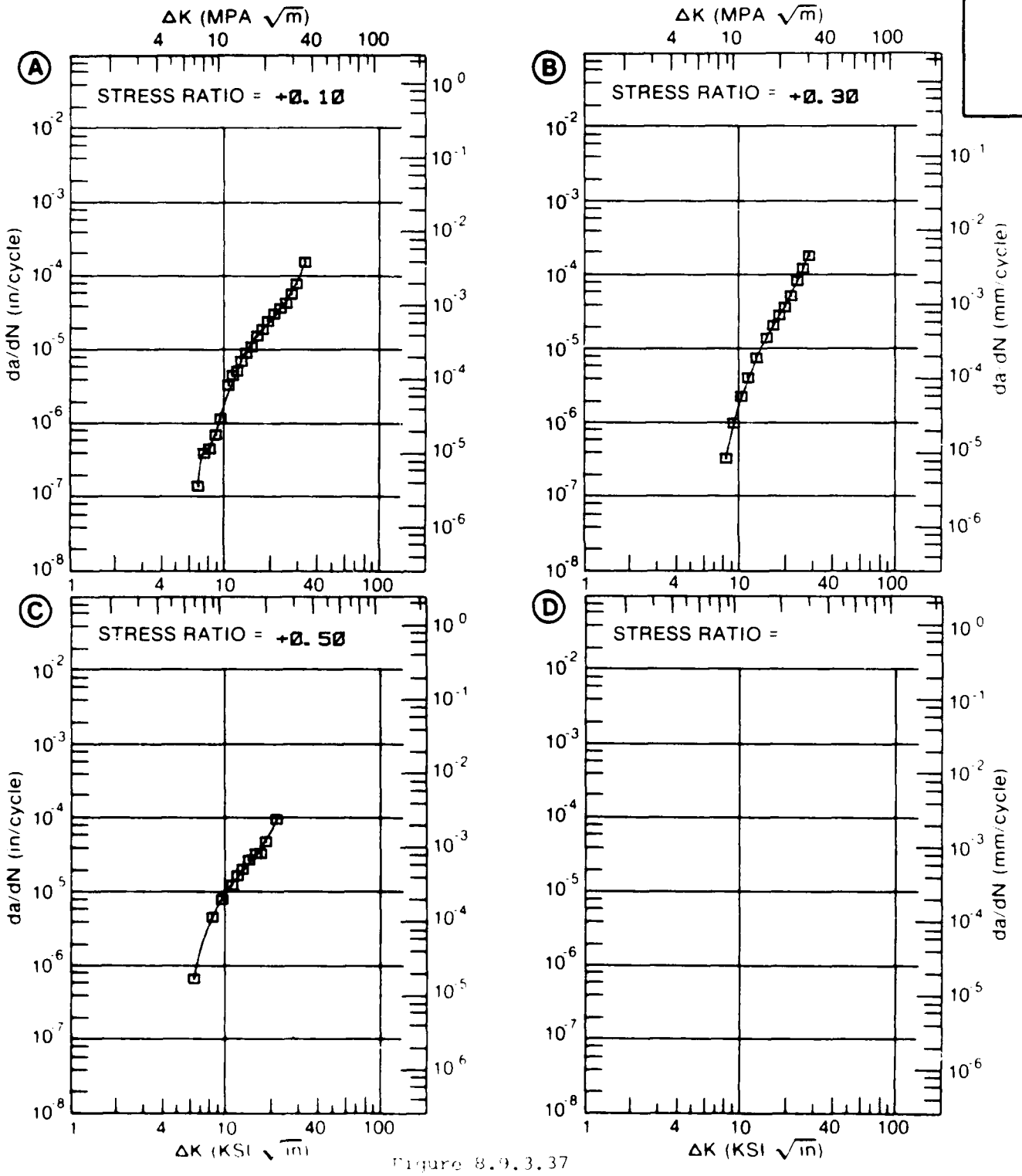

Figure 8.9.3.37

TABLE 8.9.3.38

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.38 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R.T. , H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	6.70	.27			
	B:	11.18		6.94		
	C:	5.25			.62	
	D:					
		6.00			1.85	
		7.00	.268		3.90	
		8.00	.473		6.65	
		9.00	1.05		9.94	
		10.00	1.93		13.7	
		13.00	6.40	11.2	27.4	
		16.00	13.6	20.8	47.0	
		20.00	28.0	46.2		
		25.00	58.7	148.		
		30.00	117.			
DELTA K MAX	A:	32.68	170.			
	B:	28.35		366.		
	C:	19.91			174.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			16.92	22.06	18.69	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1		
		1.25-2.0	1		1	
		>2.0				

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 62.7 KSI
ULT. STRENGTH: 71.7 KSI
SPECIMEN THK: 0.755- 0.757"
SPECIMEN WIDTH: 4.994- 4.999"
REFERENCES:D008

ALUM. ALLOY

7075

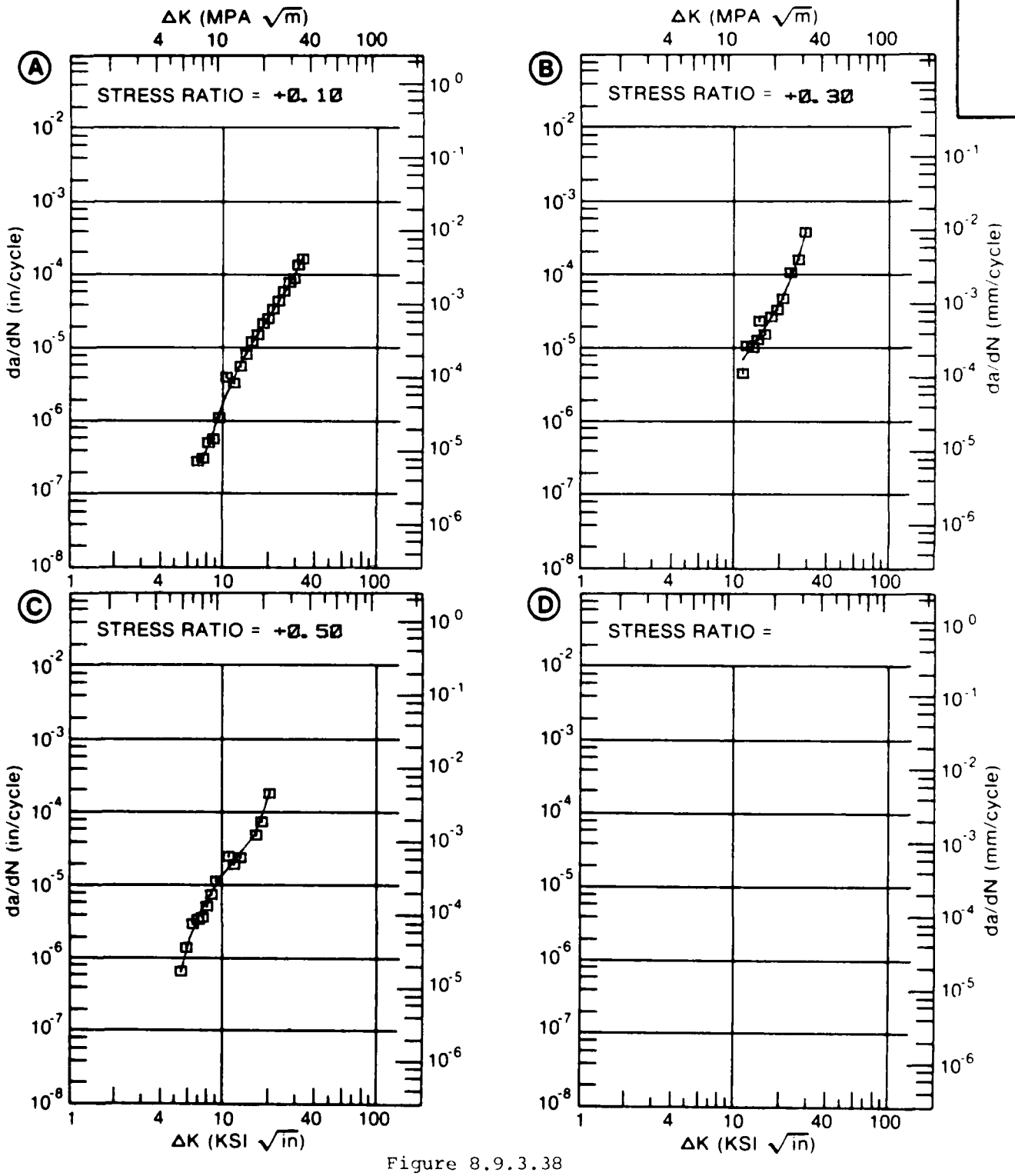

Figure 8.9.3.38

TABLE 8.9.3.39

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.39INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R T. , S. T. W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	12.10	2.84			
	B:	8.68		1.63		
	C:	5.57			.72	
	D:					
		6.00			2.24	
		7.00			6.17	
		8.00			10.6	
		9.00		1.80	14.8	
		10.00		4.89	18.4	
		13.00	6.71	23.5	29.2	
		16.00	15.2	39.1	51.5	
		20.00	29.2	63.5	164.	
		25.00	54.5	152.		
		30.00	99.0			
		35.00	187.			
DELTA K MAX	A:	39.14	330.			
	B:	25.38		165.		
	C:	22.94			619.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			30.83	10.82	9.96	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1		1	
		1.25-2.0	1	1		
		>2.0				

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 0.10- 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 62.7 KSI
ULT. STRENGTH: 71.7 KSI
SPECIMEN THK: 0.755- 0.756"
SPECIMEN WIDTH: 5.000- 5.003"
REFERENCES:GD008

ALUM. ALLOY

7075

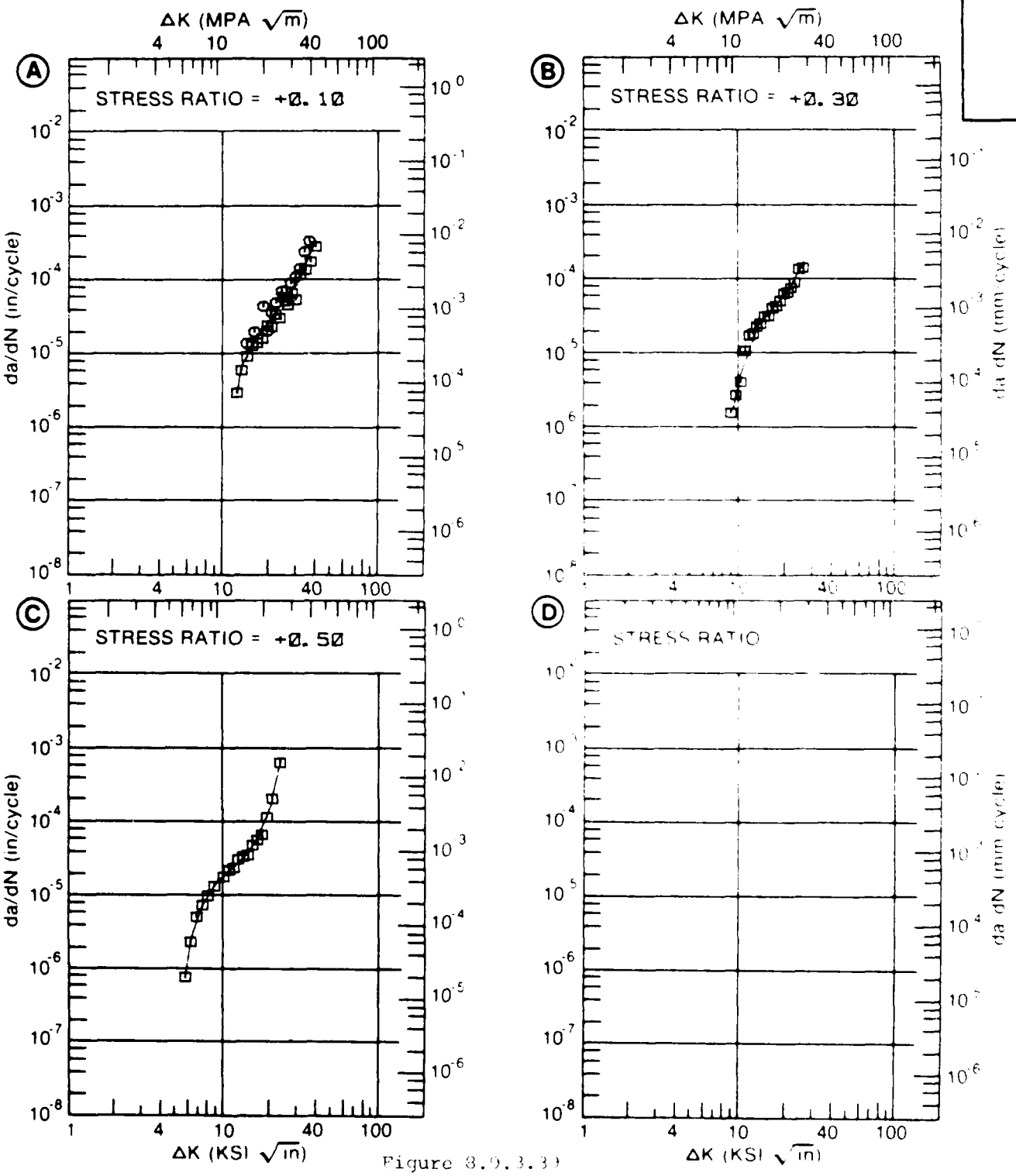

Figure 8.9.3.39

TABLE 8.9.3.40

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.40INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R.T. ,DRY AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	4.28	.209			
	B:	4.93		.143		
	C:	3.30			.112	
	D:					
		3.50			.170	
		4.00			.392	
		5.00	.541	.157	1.22	
		6.00	.594	.434	2.70	
		7.00	1.43	1.00	5.26	
		8.00	2.90	2.40	9.84	
		9.00	4.18	5.29	18.3	
		10.00	5.20	9.50	34.7	
		13.00	9.19	20.7		
		16.00	20.8	57.8		
DELTA K MAX	A:	18.92	63.9			
	B:	16.05		59.3		
	C:	10.81			59.2	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			13.59	10.38	17.10	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0		1		
		>2.0			1	

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 4.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 61.8 KSI
ULT. STRENGTH: 70.7 KSI
SPECIMEN THK: 0.750- 0.752"
SPECIMEN WIDTH: 4.988- 5.001"
REFERENCES:GD008

ALUM. ALLOY

7075

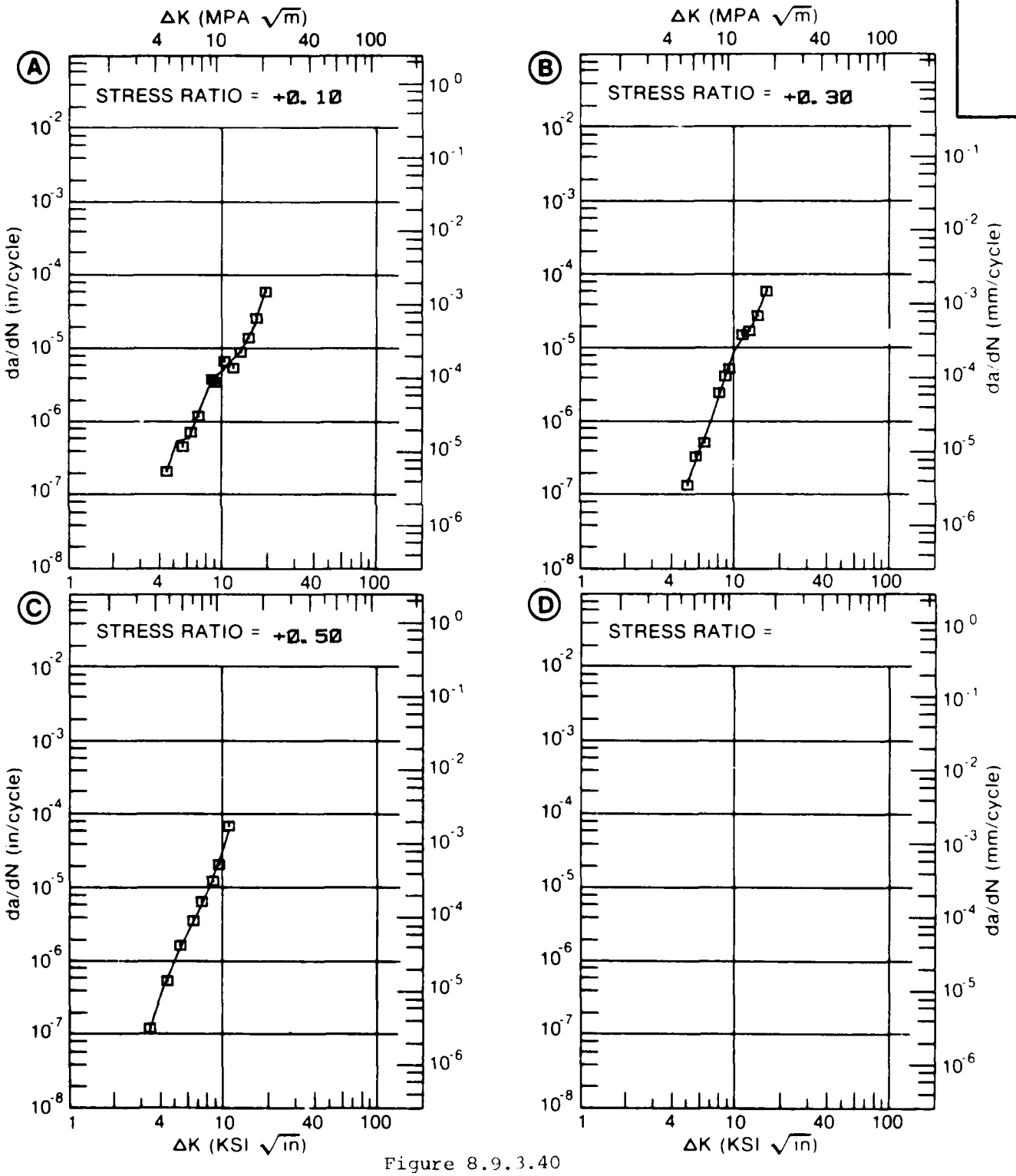

Figure 8.9.3.40

TABLE 8.9.3.41

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.41 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R T ,H H A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:				
	B: 4.55		.333		
	C: 3.59			.295	
	D:				
	4.00			.331	
	5.00		.541	1.44	
	6.00		1.13	2.78	
	7.00		2.53	4.77	
	8.00		4.71	7.74	
	9.00		7.59	11.6	
	10.00		11.3	16.4	
	13.00		30.6	67.6	
	16.00		81.8		
DELTA K MAX	A:				
	B: 18.80		403.		
	C: 13.47			91.9	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	13.53	14.23	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25			1	
	1.25-2.0		1		
	>2.0				

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 1.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 61.8 KSI
ULT. STRENGTH: 70.7 KSI
SPECIMEN THK: 0.750- 0.754"
SPECIMEN WIDTH: 4.999- 5.008"
REFERENCES:GD008

ALUM. ALLOY

7075

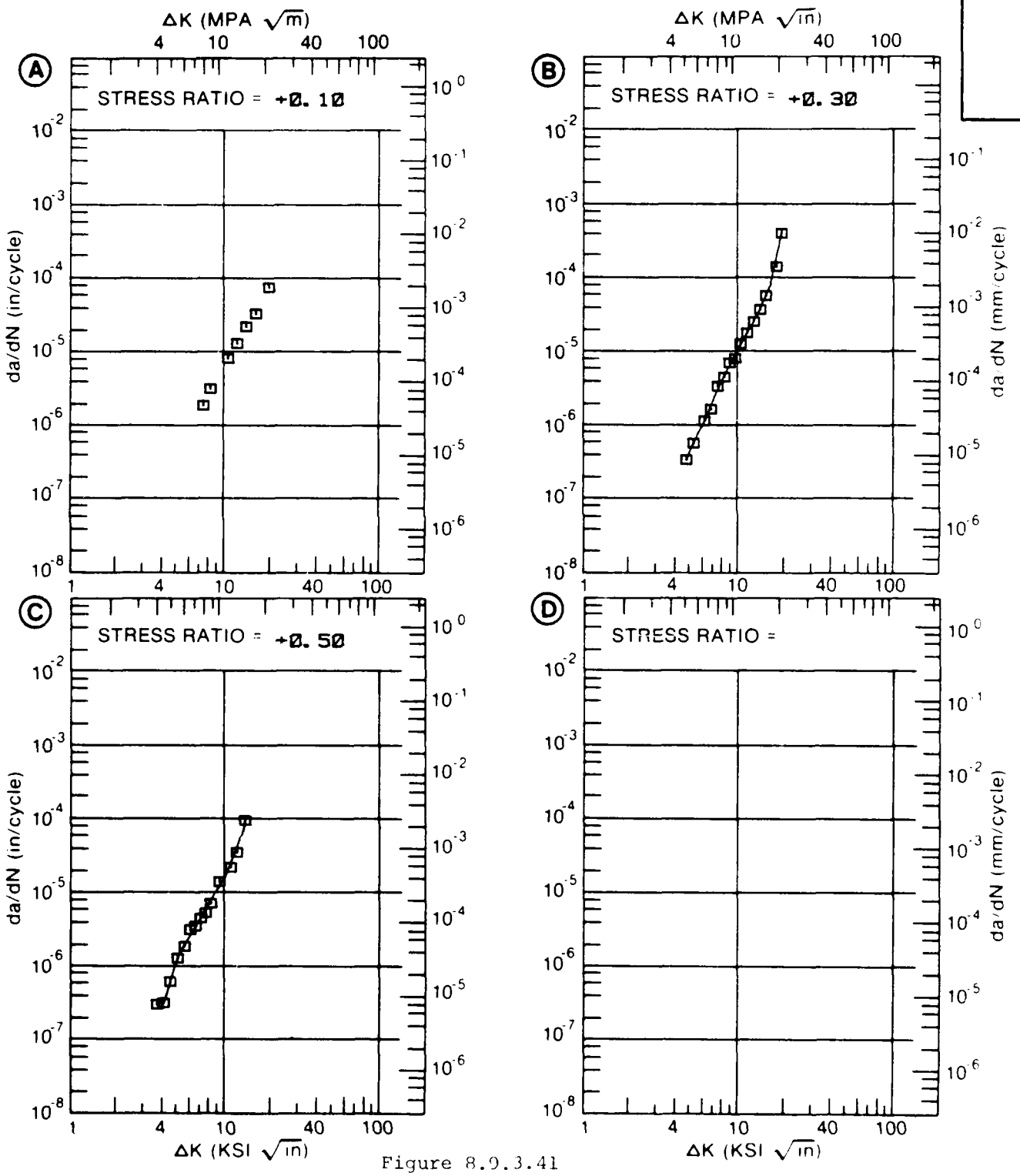

Figure 8.9.3.41

TABLE 8.9.3.42

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.42 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A: 4.18	.295			
	B: 3.24		.301		
	C: 2.74			.196	
	D:				
	3.00			.235	
	3.50		.361	.482	
	4.00		.781	1.14	
	5.00	1.26	2.38	4.83	
	6.00	2.63	5.03	10.8	
	7.00	6.14	9.95	16.9	
	8.00	12.2	16.8	23.1	
	9.00	17.1	22.2	30.2	
	10.00	19.7	25.5	39.9	
	13.00		34.3	105.	
DELTA K MAX	A: 12.40	35.9			
	B: 15.65		60.5		
	C: 14.11			107.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		20.08	12.83	19.75	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25				
	1.25-2.0	1	1	1	
	>2.0				

CONDITION/HT: T73
FORM: 1.50"TH FORGED BAR
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 61.8 KSI
ULT. STRENGTH: 70.7 KSI
SPECIMEN THK: 0.750- 0.752"
SPECIMEN WIDTH: 4.990- 5.010"
REFERENCES:GD008

ALUM. ALLOY

7075

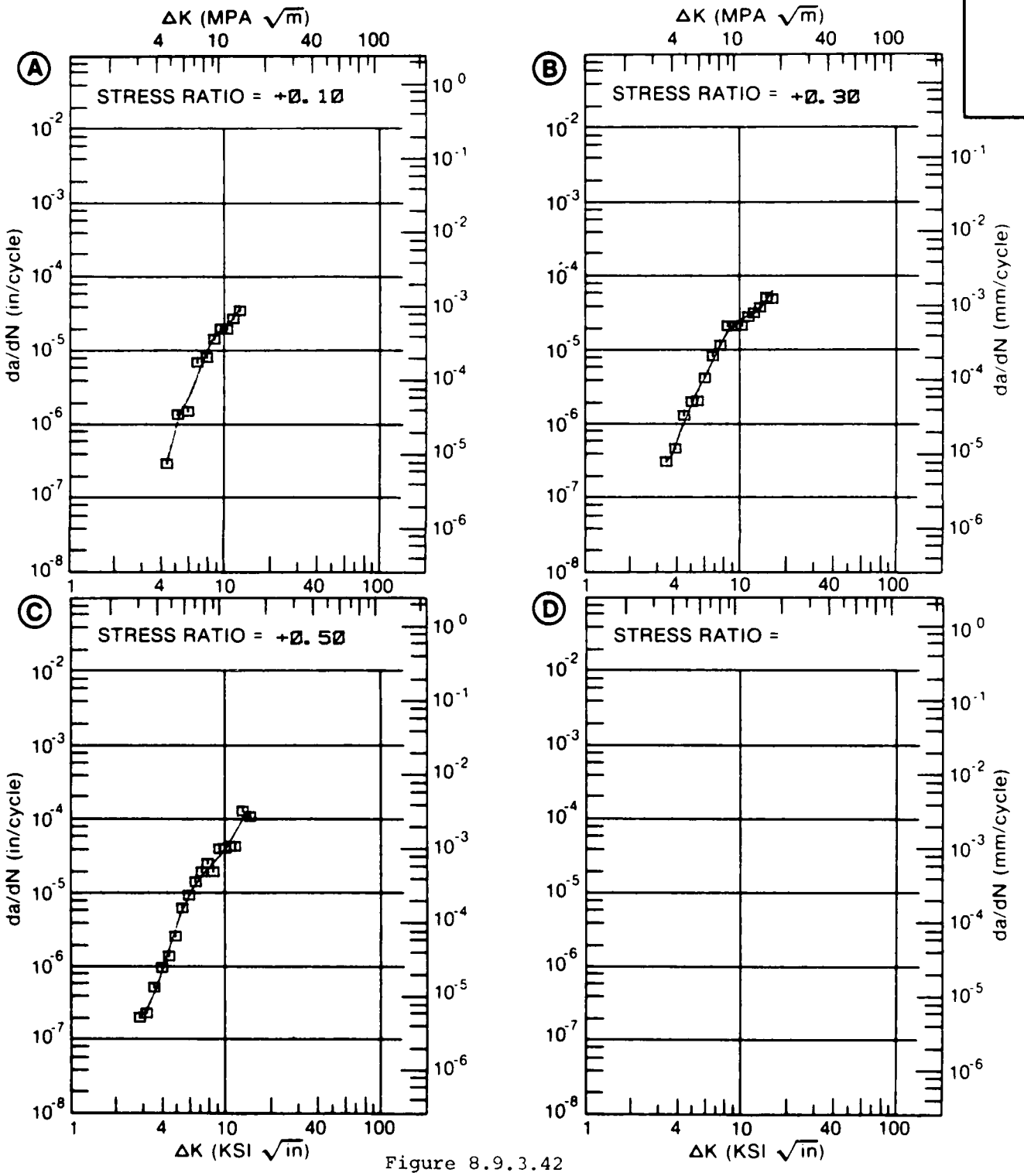

Figure 8.9.3.42

TABLE 8.9.3.43

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.42 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			R=+0.25	R=+0.50		
DELTA K MIN	A:	5.04	1.08			
	B:	9.23		10.6		
	C:					
	D:					
		6.00	2.09			
		7.00	3.82			
		8.00	6.13			
		9.00				
		10.00		13.4		
		13.00		33.9		
DELTA K MAX	A:	8.87	8.30			
	B:	13.99		43.8		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.31	14.58		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	4	4		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 12.00- 30.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 64.5 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.475"
SPECIMEN WIDTH: 4.000"
REFERENCES: BL002

ALUM. ALLOY

7075

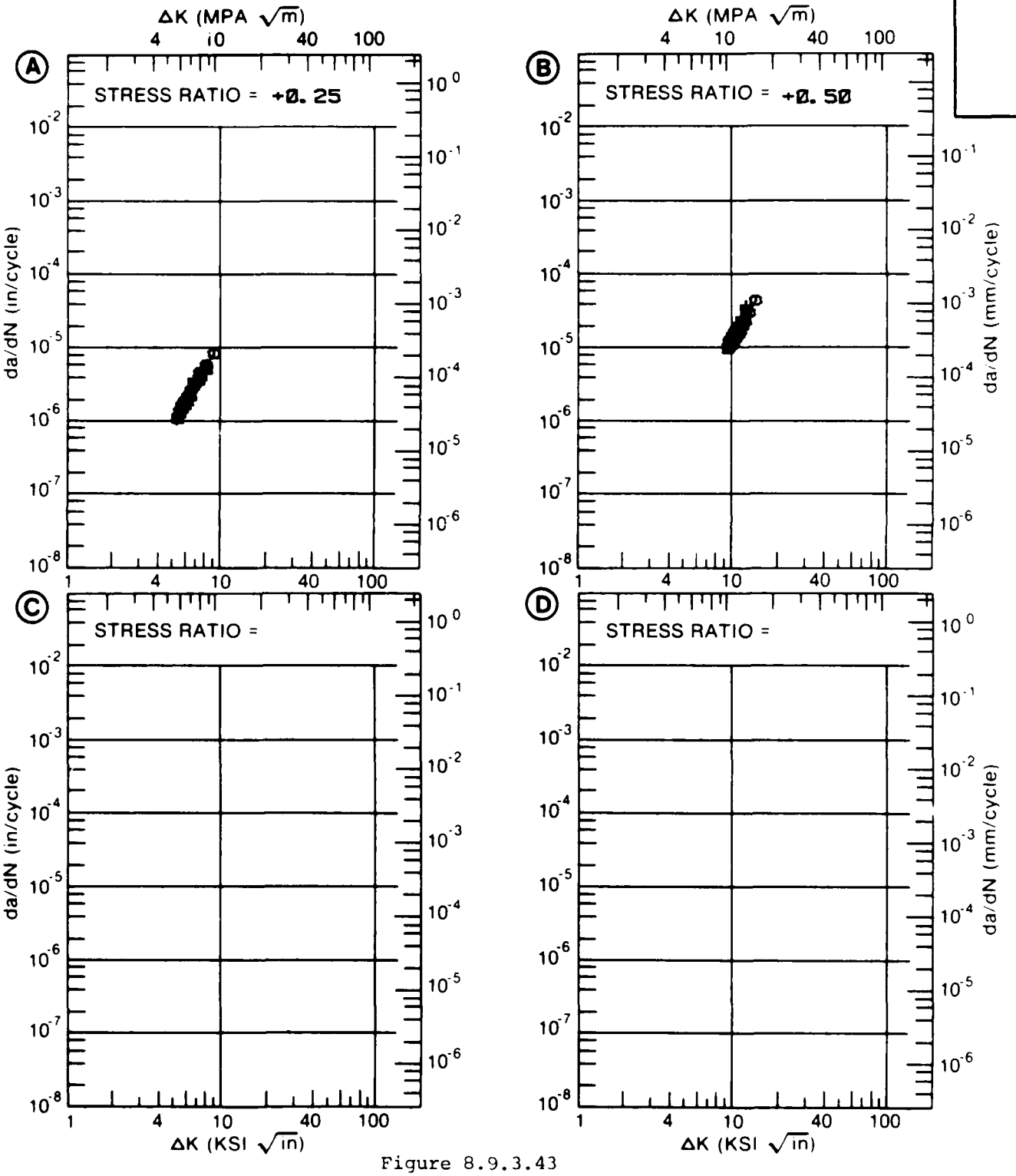

Figure 8.9.3.43

TABLE 8.9.3.44

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.44INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R T , H. H. A

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.25	R=+0.50	
DELTA K MIN	A:	4.07	.274			
	B:	2.07		.0501		
	C:	1.84			.0781	
	D:					
		2.00			.0960	
		2.50		.0834	.161	
		3.00		.146	.293	
		3.50		.227		
		4.00				
		5.00	.629			
		6.00	1.38			
		7.00	2.67			
		8.00	4.66			
		9.00	7.40			
		10.00	10.8			
DELTA K MAX	A:	12.66	21.8			
	B:	3.87		.287		
	C:	3.27			.442	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			19.61	29.47	7.41	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8	1	1		
		0.8-1.25	6	7	4	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 12.00- 30.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 60.5- 64.5 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.475- 0.506"
SPECIMEN WIDTH: 6.000"
REFERENCES: BL002

ALUM. ALLOY

7075

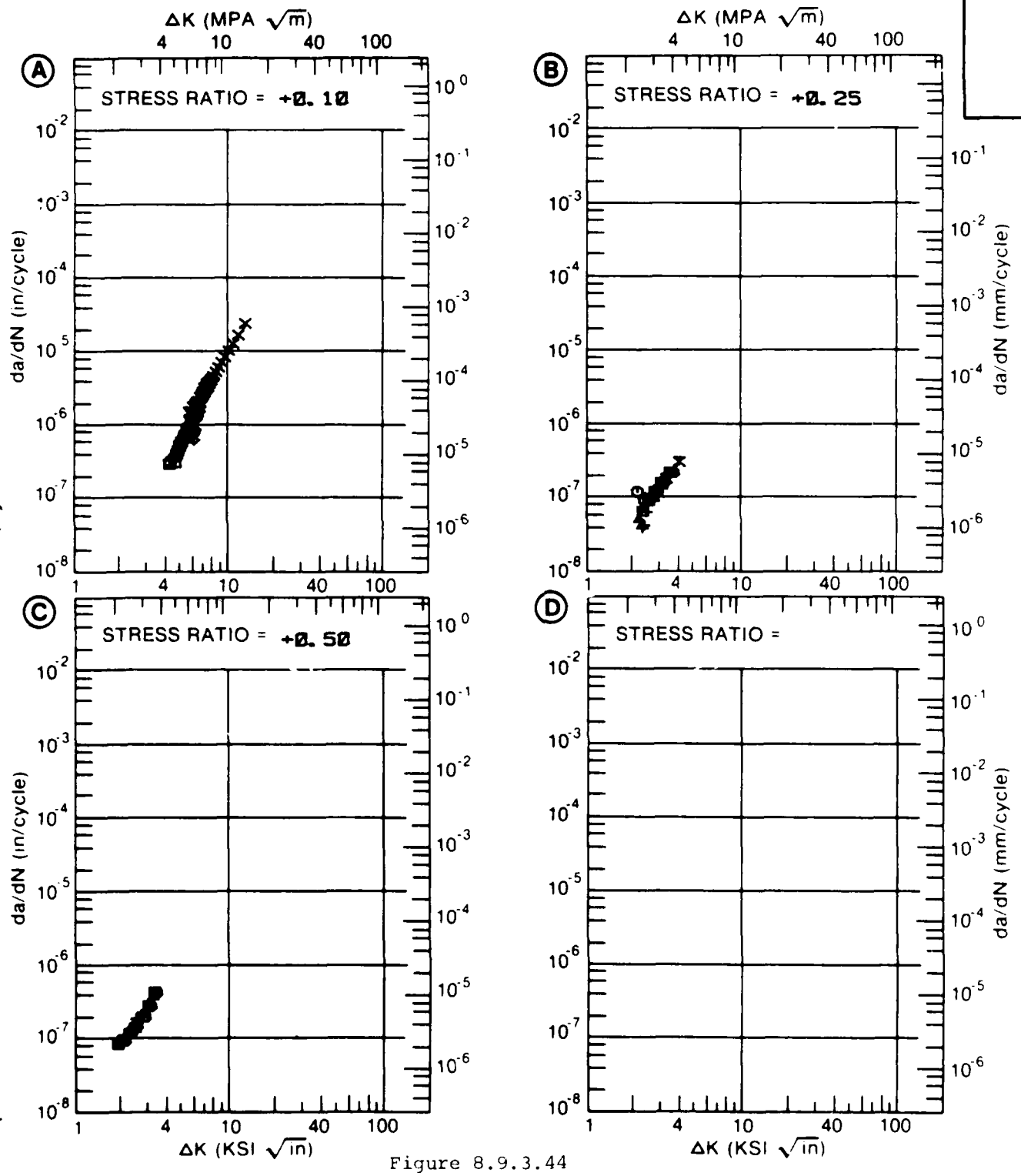

Figure 8.9.3.44

TABLE 8.9.3.45

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.45 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN /CYCLE) A R= -1 00	B R=+0 02	C R=+0 50	D
DELTA K MIN	A:	5 66	2 06			
	B:	5 60		.90		
	C:	4 17			.78	
	D:					
		5.00			1 87	
		6.00	2.15	1.14	3.49	
		7.00	2.53	1.83	5.23	
		8.00	3.11	2.70	7.06	
		9.00	3.92	3.78	9.14	
		10.00	5.00	5.09	11.7	
		13.00	10.6	10.9	25.7	
		16.00	21.9	21.?	57.5	
		20.00	52.0	46.0	126.	
		25.00	121.	104.	257.	
		30.00	239.	206.	600.	
		35.00	482.	360.		
		40.00	1027.	580.		
		50.00		1568.		
DELTA K MAX	A:	47.96	2247.			
	B:	57.77		4085.		
	C:	34.36			1037.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9 11	9 33	7 05	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 10.00 HZ
ENVIRONMENT: R.T.,LAB AIR

YIELD STRENGTH: 67.3 KSI
ULT. STRENGTH: 75.5 KSI
SPECIMEN THK: 0.250"
SPECIMEN WIDTH: 4.000"
REFERENCES:MA006

ALUM. ALLOY

7075

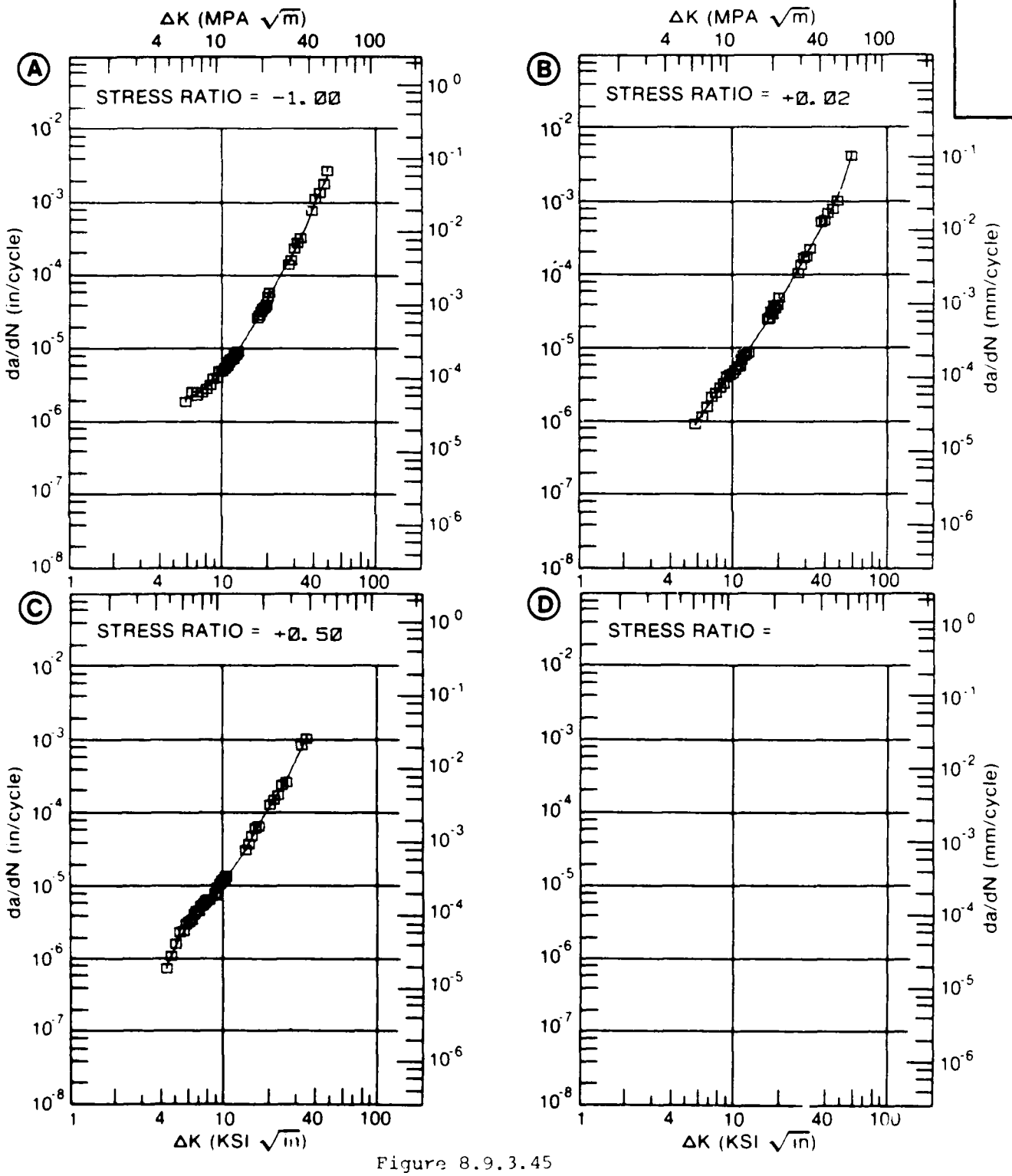

Figure 8.9.3.45

TABLE 8.9.3.46

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.46 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R T ,H H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33	R=+0.80		
DELTA K MIN	A:	1.54	0138			
	B:	1.01		.00641		
	C:					
	D:					
		1.30		.0483		
		1.60	.0137	.0776		
		2.00	.0329	.156		
		2.50	.104			
		3.00	.201			
		3.50	.378			
		4.00	.668			
		5.00	1.63			
		6.00	3.00			
		7.00	4.68			
		8.00	6.66			
		9.00	8.92			
		10.00	11.5			
		13.00	22.3			
		16.00	40.1			
		20.00	85.9			
DELTA K MAX	A:	22.75	145.			
	B:	2.18		.289		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			25.70	28.86		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8	1	1		
		0.8-1.25	1	2		
		1.25-2.0	1			
		>2.0				

CONDITION/HT: T7351
FORM: 1.00"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
FREQUENCY: 25.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 62.0 KSI
ULT. STRENGTH: 73.0 KSI
SPECIMEN THK: 0.250- 0.251"
SPECIMEN WIDTH: 2.550- 2.554"
REFERENCES:AL005

ALUM. ALLOY

7075

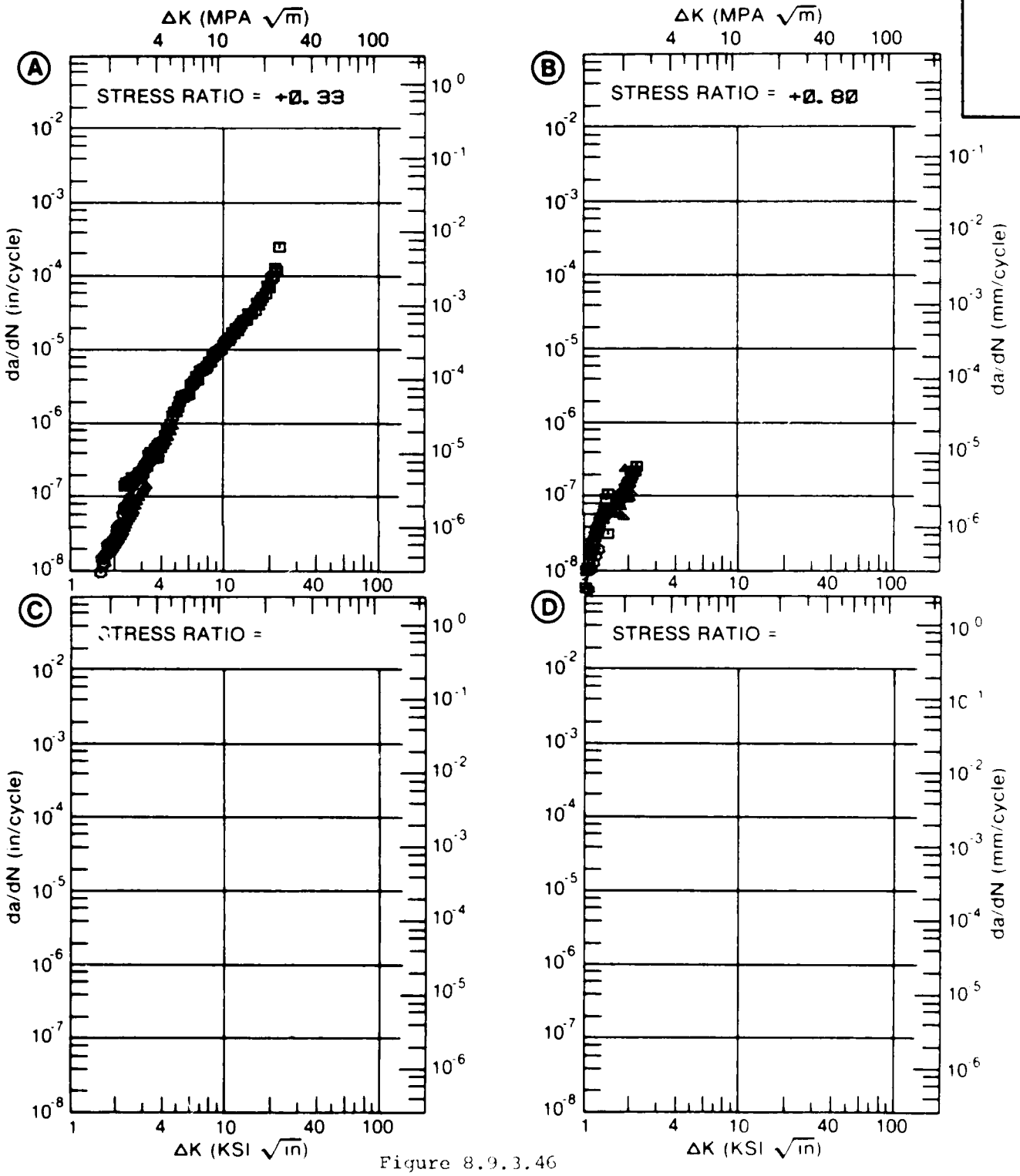

Figure 8.9.3.46

TABLE 8.9.3.17

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.47 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R.T. ,H.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		F(HZ)= 25.00	F(HZ)=200.00		
DELTA K MIN	A: 1.61	00			
	B: 1.86		00		
	C: 18				
	D:				
	2.00	.0275	.0164		
	2.50	.0778	.122		
	3.00	.172	.151		
	3.50	.323	.345		
	4.00	.545			
	5.00	1.25			
	6.00	2.36			
	7.00	3.95			
	8.00	6.08			
	9.00	8.81			
	10.00	12.2			
	13.00	26.8			
	16.00	49.3			
	20.00	94.3			
DELTA K MAX	A: 23.32	147.			
	B: 3.58		44		
	C:				
	D.				
ROOT MEAN SQUARE PERCENT ERROR		19.82	32.14		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5 0.5-0.8 0.8-1.25 1.25-2.0 >2.0

CONDITION/HT: T7351
FORM: 1.00"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.33
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 62.0 KSI
ULT. STRENGTH: 73.0 KSI
SPECIMEN THK: 0.250- 0.251"
SPECIMEN WIDTH: 2.550- 2.551"
REFERENCES: NC003, NC002, AL005

ALUM. ALLOY

7075

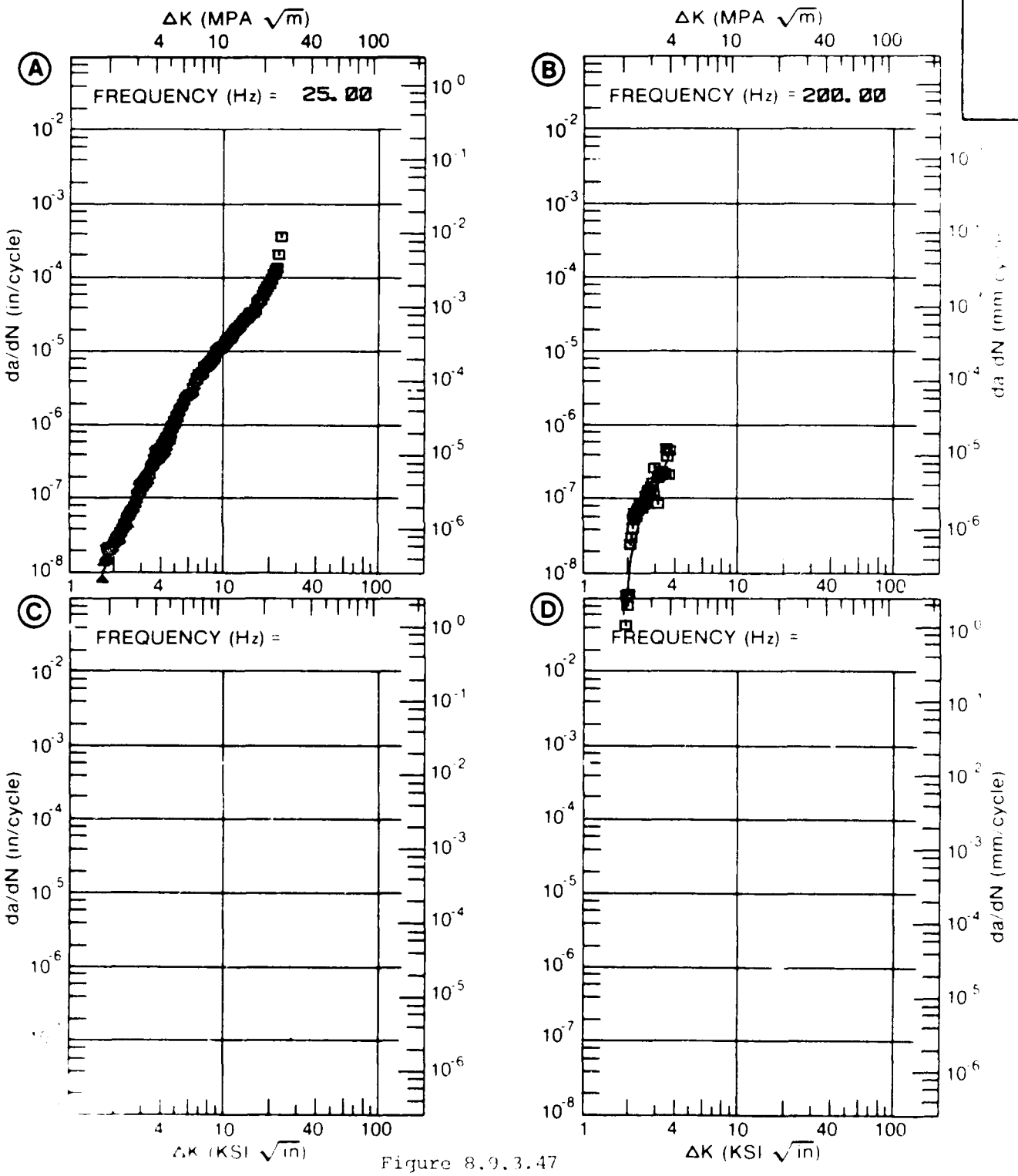

Figure 8.9.3.47

TABLE 8.9.3.48

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.48INDICATING EFFECT

OF ENVIRONMENT

[illegible] ALUMINUM 7075 [illegible] 7451					
	DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)		
			A	B	C	D
			E= R.T. 3.5% NACL 13-20HZ	E= R.T. NITROGEN GAS 10-20HZ		
DELTA K MIN	A	3.66	3.87			
	B	3.39		.785		
	C					
	D					
		3.50		.846		
		4.00	4.53	1.08		
		5.00	7.87	1.44		
		6.00	13.4	1.83		
		7.00	21.1	2.52		
		8.00	30.0	3.83		
		9.00	38.8	6.45		
		10.00		12.0		
DELTA K MAX	A:	9.75	44.3			
	B:	10.81		21.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			27.10	19.81		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8	1			
		0.8-1.25	3	2		
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T7351
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-T
STRESS RATIO: +0.50
FREQUENCY:

YIELD STRENGTH: 60.0- 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.509- 0.512"
SPECIMEN WIDTH: 1.000- 1.027"
REFERENCES:MR001

ALUM. ALLOY

7075

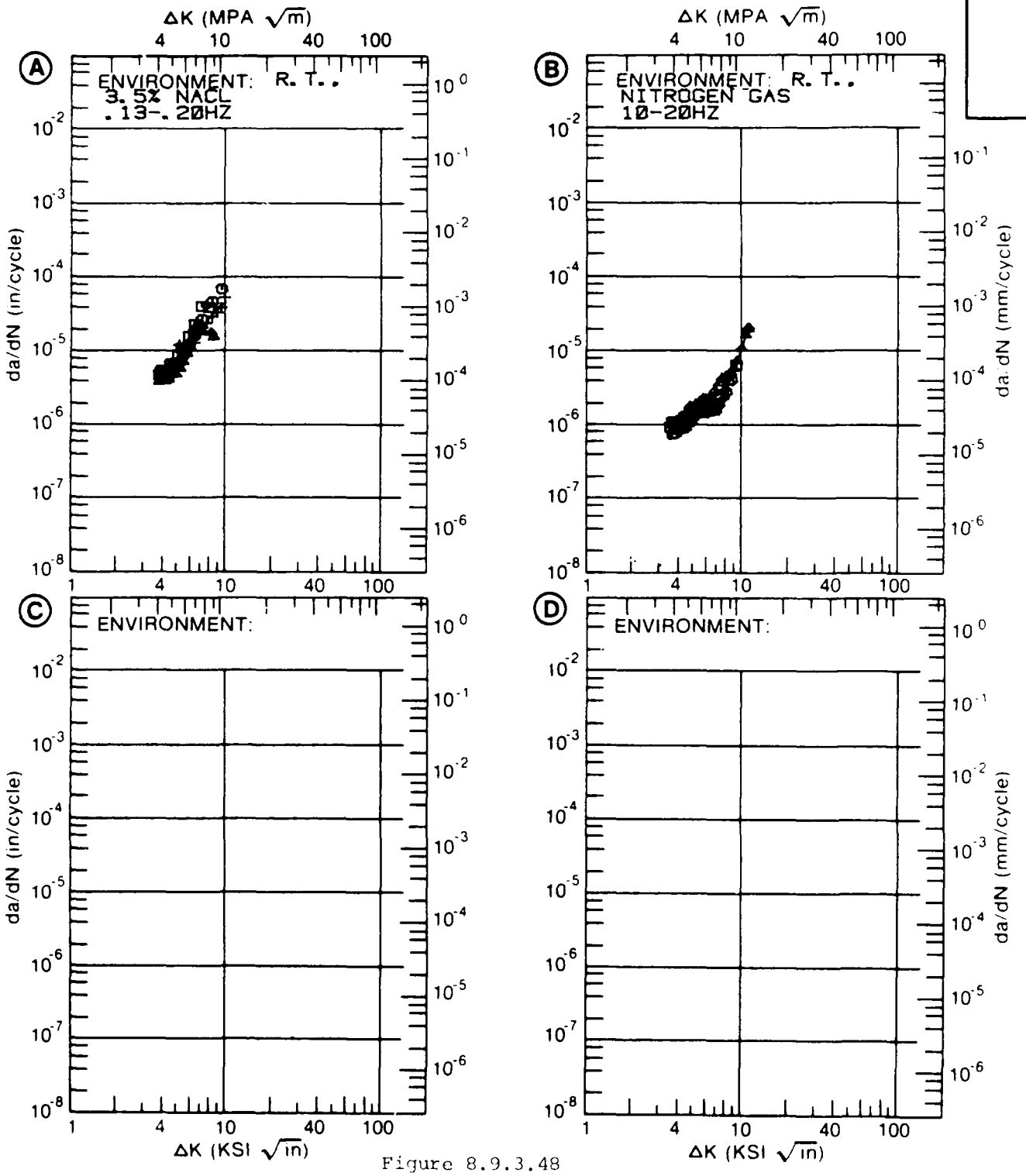

Figure 8.9.3.48

TABLE 8.9.3.49

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.49 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. JP-4 FUEL	E= R.T. SIM SEA WATER	
DELTA K MIN	A:	4.07	.11			
	B:	6.10		1.01		
	C:	4.48			.24	
	D:					
		5.00	.293		.427	
		6.00	.670		1.01	
		7.00	1.31	1.21	1.94	
		8.00	2.31	2.33	3.26	
		9.00	3.73	4.25	4.97	
		10.00	5.65	6.68	7.10	
		13.00	14.9	15.7	16.1	
		16.00	30.1	26.6	29.7	
		20.00	59.4	46.2	56.4	
		25.00	108.	90.7	110.	
		30.00	165.	190.	195.	
		35.00		433.	331.	
		40.00		1057.		
DELTA K MAX	A:	34.27	216.			
	B:	47.98		4953.		
	C:	38.19			455.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			37.86	32.33	32.35	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 1.25"TH PLATE
SPECIMEN TYPE: W'
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 0.10- 20.00 HZ

YIELD STRENGTH: 54.5- 57.8 KSI
ULT. STRENGTH: 68.0- 69.3 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA005

ALUM. ALLOY

7075

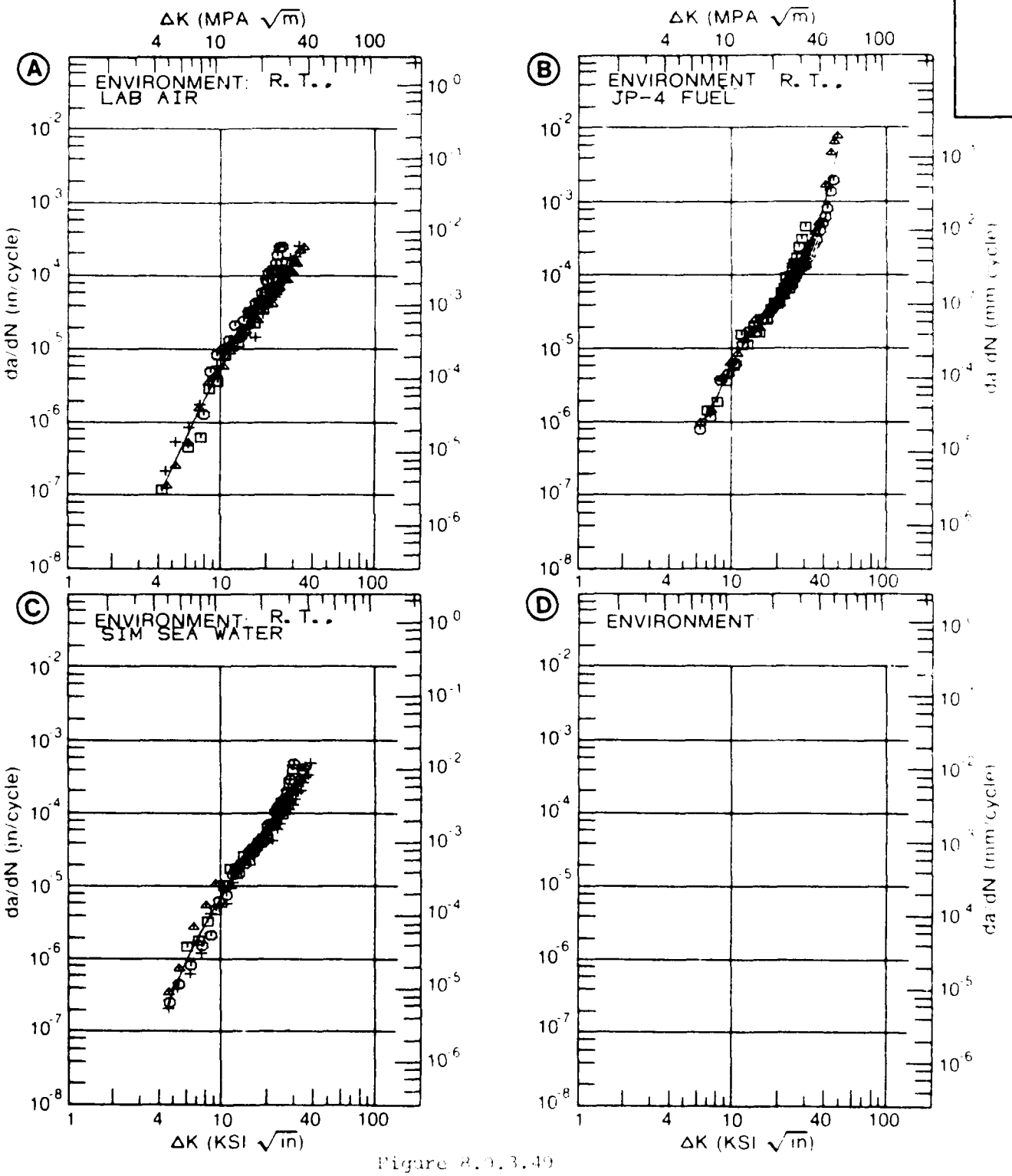

Figure 8.9.3.49

TABLE 8.9.3.50

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.50 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A: E= R.T. LAB AIR	B: E= R.T. DIST WATER	C: E= R.T. 3.5% NACL	D
DELTA K MIN	A:					
	B:	18.10		32.5		
	C:	20.00			93.8	
	D:					
		20.00		46.9		
		25.00		90.8	1/3.	
		30.00		233.	296.	
DELTA K MAX	A:					
	B:	32.70		488.		
	C:	32.13			390.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			0.00	7.52	2.03	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1	1	
		1.25-2	0			
		>2	0			

CONDITION/HT: T7351
FORM: 1.25"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 0.10 HZ

YIELD STRENGTH: 53.2 KSI
ULT. STRENGTH: 65.1 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:84363

ALUM. ALLOY

7075

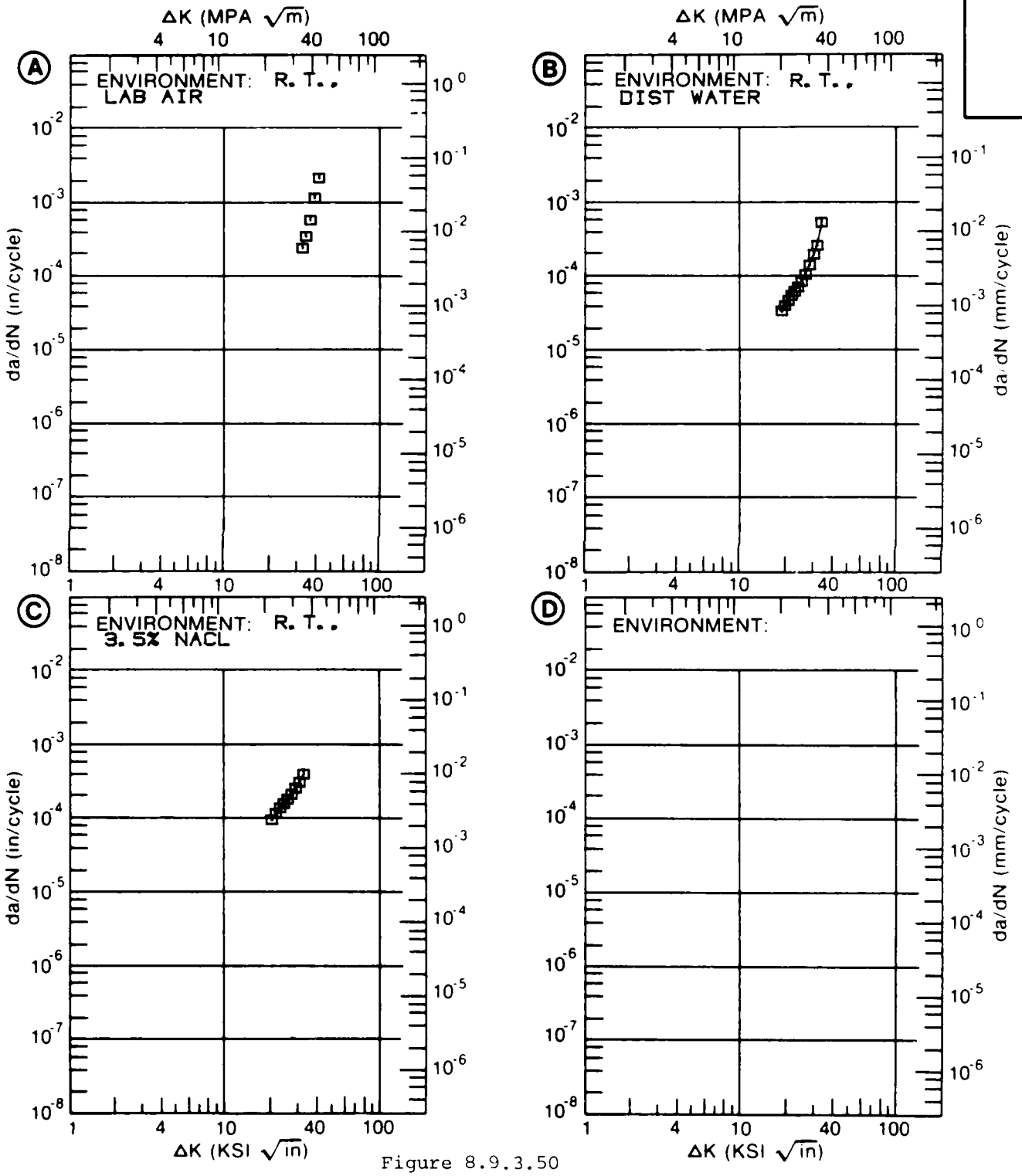

Figure 8.9.3.50

TABLE 8.9.3.51

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.51INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R T ,H H A

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 1.33	.0139			
	B:				
	C:				
	D:				
	1.60	.0282			
	2.00	.0569			
	2.50	.104			
	3.00	.169			
	3.50	.260			
	4.00	.394			
	5.00	.895			
	6.00	1.94			
	7.00	3.76			
	8.00	6.42			
	9.00	9.73			
	10.00	13.2			
	13.00	19.3			
DELTA K MAX	A: 13.43	19.3			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 22.36

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	2
	0.8-1.25	
	1.25-2.0	
	>2.0	

CONDITION/HT: T7351
FORM: 1.38"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 25.00- 50.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 64.8 KSI
ULT. STRENGTH: 74.7 KSI
SPECIMEN THK: 0.247"
SPECIMEN WIDTH: 2.500"
REFERENCES:AL005

ALUM. ALLOY

7075

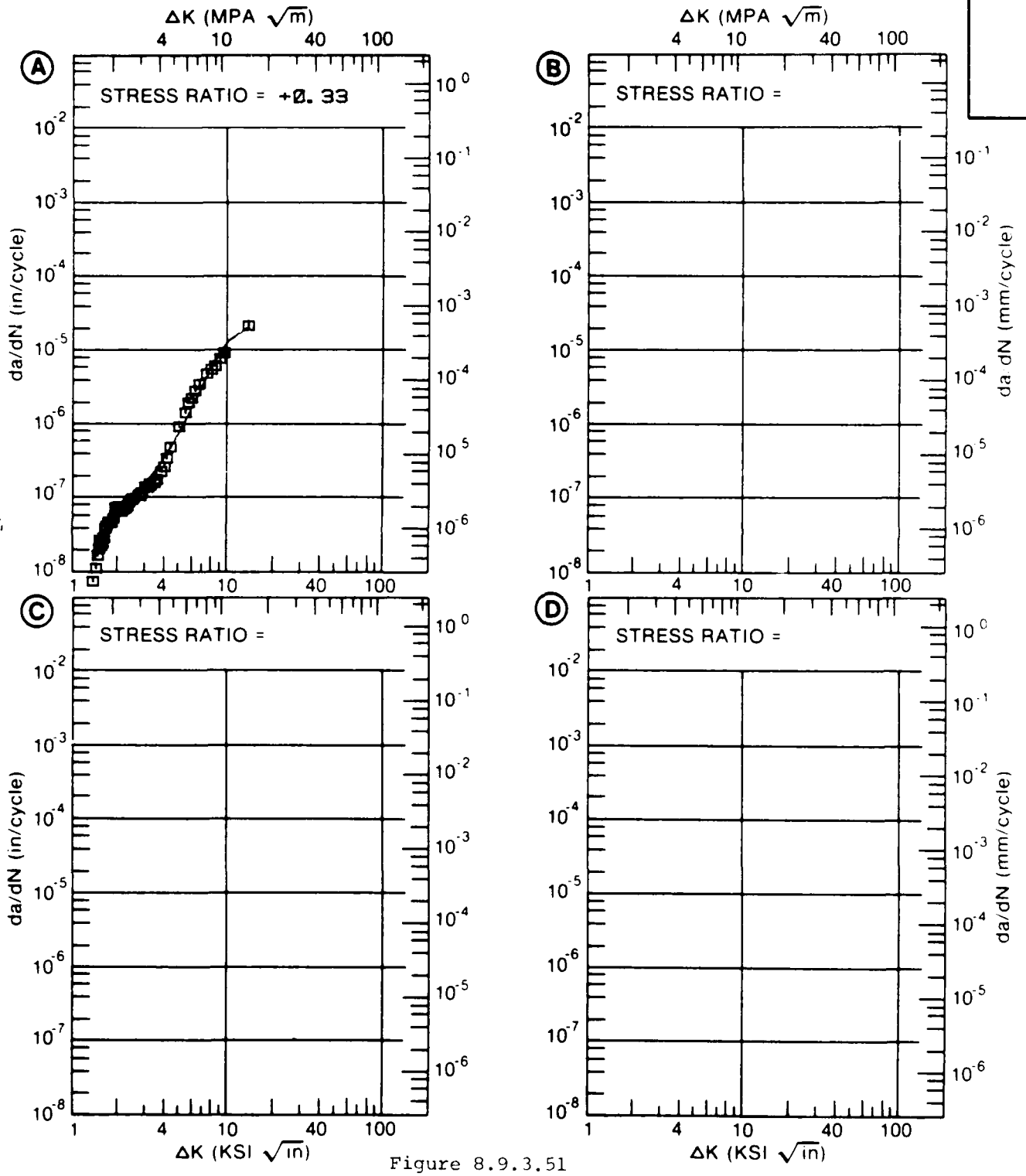

Figure 8.9.3.51

TABLE 8.9.3.52

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.52INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7351
ENVIRONMENT: R.T. ,L.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.08	R=+0.30	R=+0.50	
DELTA K MIN	A:	4.55	.271			
	B:	7.15		.219		
	C:	4.52			1.08	
	D:					
		5.00	.330		1.51	
		6.00	.546		2.87	
		7.00	1.49		4.71	
		8.00	3.05	3.77	6.73	
		9.00	3.95	6.38	9.16	
		10.00	5.76	8.07	12.6	
		13.00		17.5	42.4	
		16.00		31.8	222.	
DELTA K MAX	A:	10.89	11.4			
	B:	19.22		92.6		
	C:	16.33			269.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9.30	16.82	13.90	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 58.0- 65.0 KSI
ULT. STRENGTH: 70.0- 76.0 KSI
SPECIMEN THK: 0.810- 0.994"
SPECIMEN WIDTH: 6.000- 7.400"
REFERENCES: 88579, 85837

ALUM. ALLOY

7075

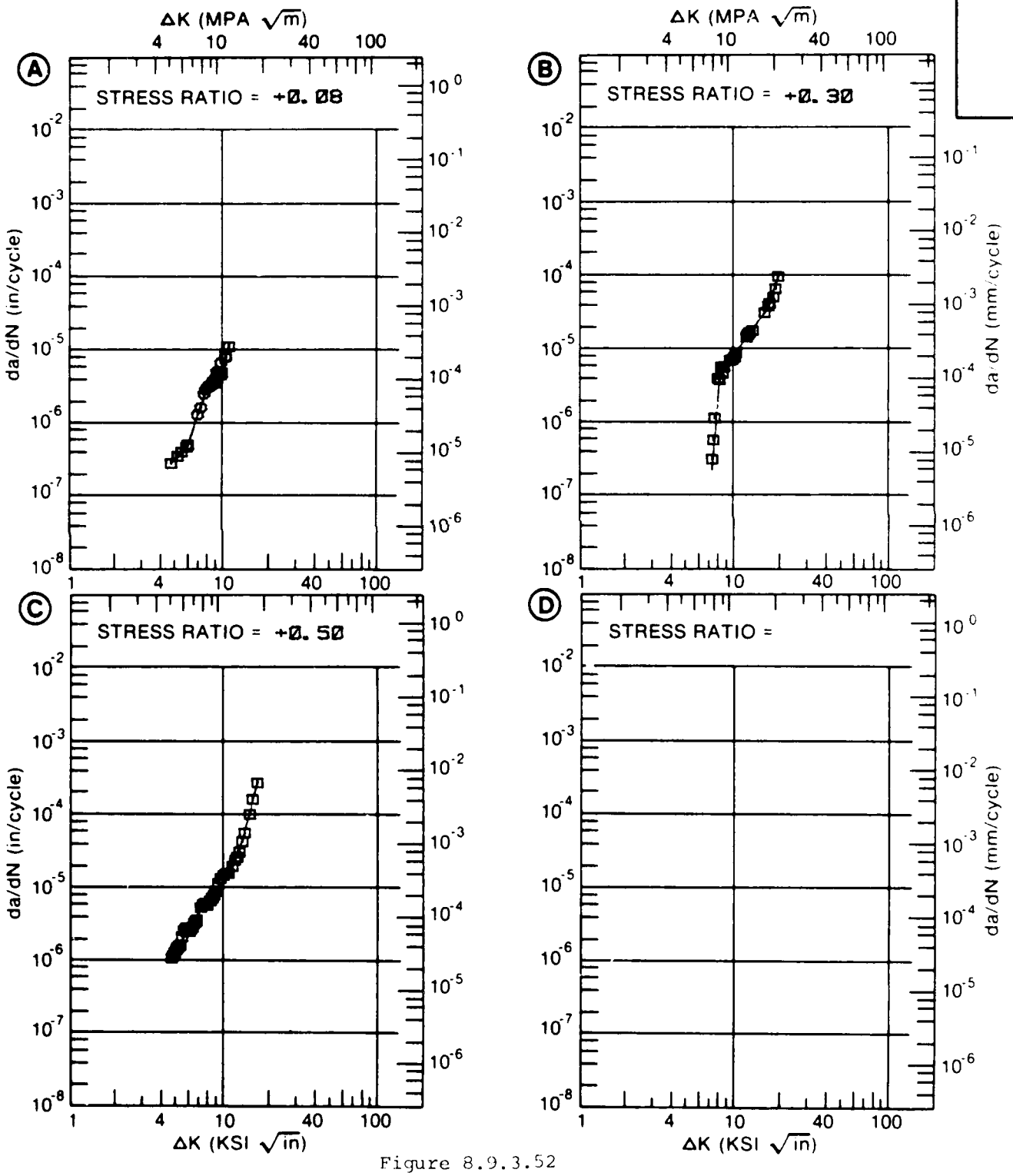

Figure 8.9.3.52

TABLE 8.9.3.53

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.53 INDICATING EFFECT

OF STRESS RATIO

MATERIAL ALUMINUM 7075
CONDITION T7351
ENVIRONMENT R T , L H A

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.08			
DELTA K MIN	A				
	B				
	C				
	D				
200.00					
DELTA K MAX	A				
	B				
	C				
	D				

ROOT MEAN SQUARE PERCENT ERROR 0.00

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 64.7 KSI
ULT. STRENGTH: 75.5 KSI
SPECIMEN THK: 0.817"
SPECIMEN WIDTH: 6.000"
REFERENCES:85837

ALUM. ALLOY

7075

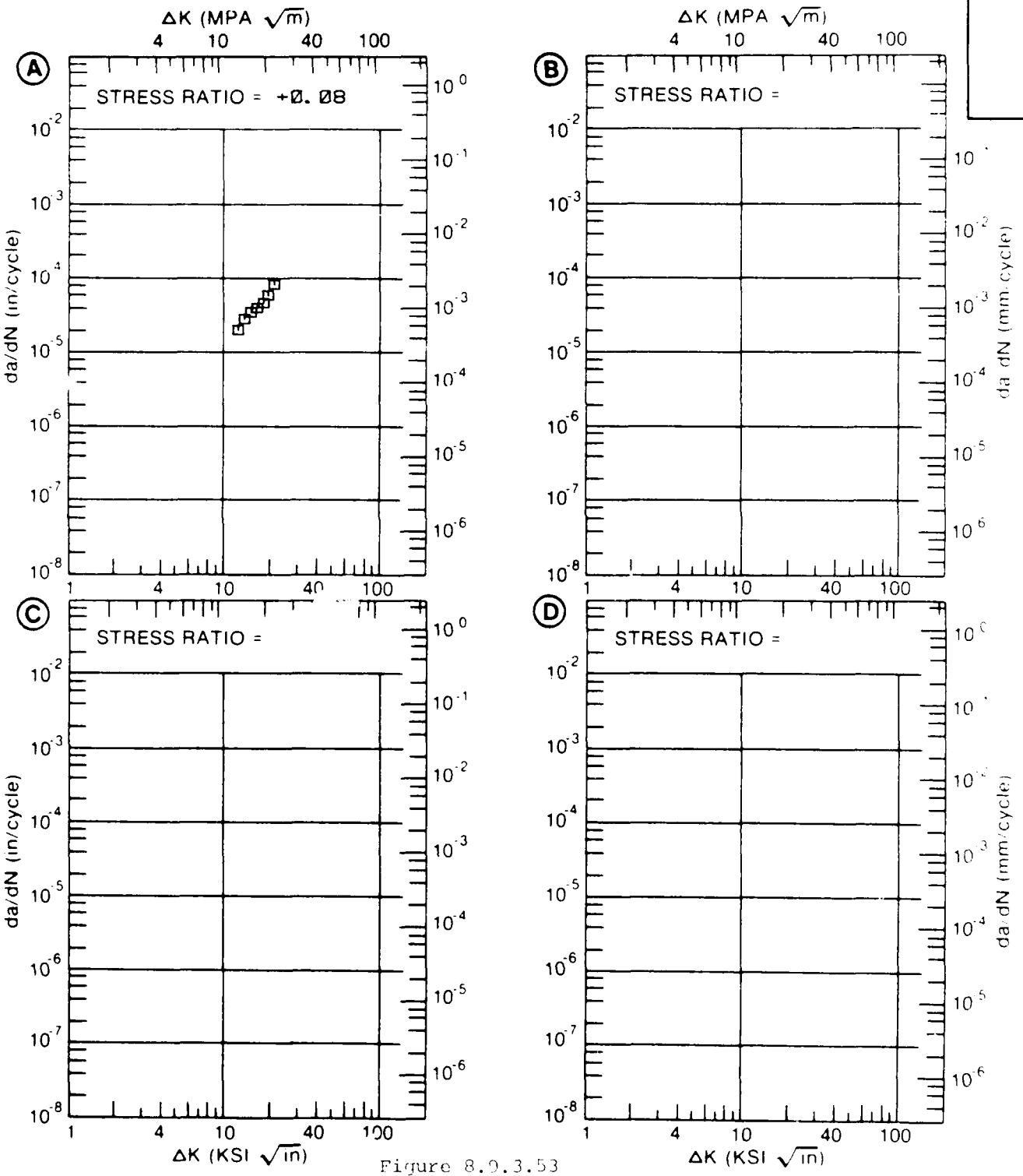

Figure 8.9.3.53

TABLE 8.9.3.54

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.54 INDICATING EFFECT OF ENVIRONMENT

MATERIAL ALUMINUM 7075
CONDITION T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. L.H.A., 1HZ	B E= R.T. S.T.W., 6HZ	C	D
DELTA K MIN	A	3.94	.175			
	B	4.42		.225		
	C					
	D					
		4.00	.179			
		5.00	.399	.470		
		6.00	.974	1.22		
		7.00	1.93	2.45		
		8.00	3.27	4.20		
		9.00	4.97	6.49		
		10.00	7.00	9.33		
		13.00	14.8	21.6		
		16.00	24.8	41.1		
DELTA K MAX	A	18.66	35.6			
	B	19.29		75.0		
	C					
	D					
ROOT MEAN SQUARE PERCENT ERROR			7.25	19.67		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		2.0				

CONDITION/HT: T7351
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY:

YIELD STRENGTH: 58.0- 64.7 KSI
ULT. STRENGTH: 70.0- 75.5 KSI
SPECIMEN THK: 0.816- 1.000"
SPECIMEN WIDTH: 6.000- 7.400"
REFERENCES:88579, 85837

ALUM. ALLOY

7075

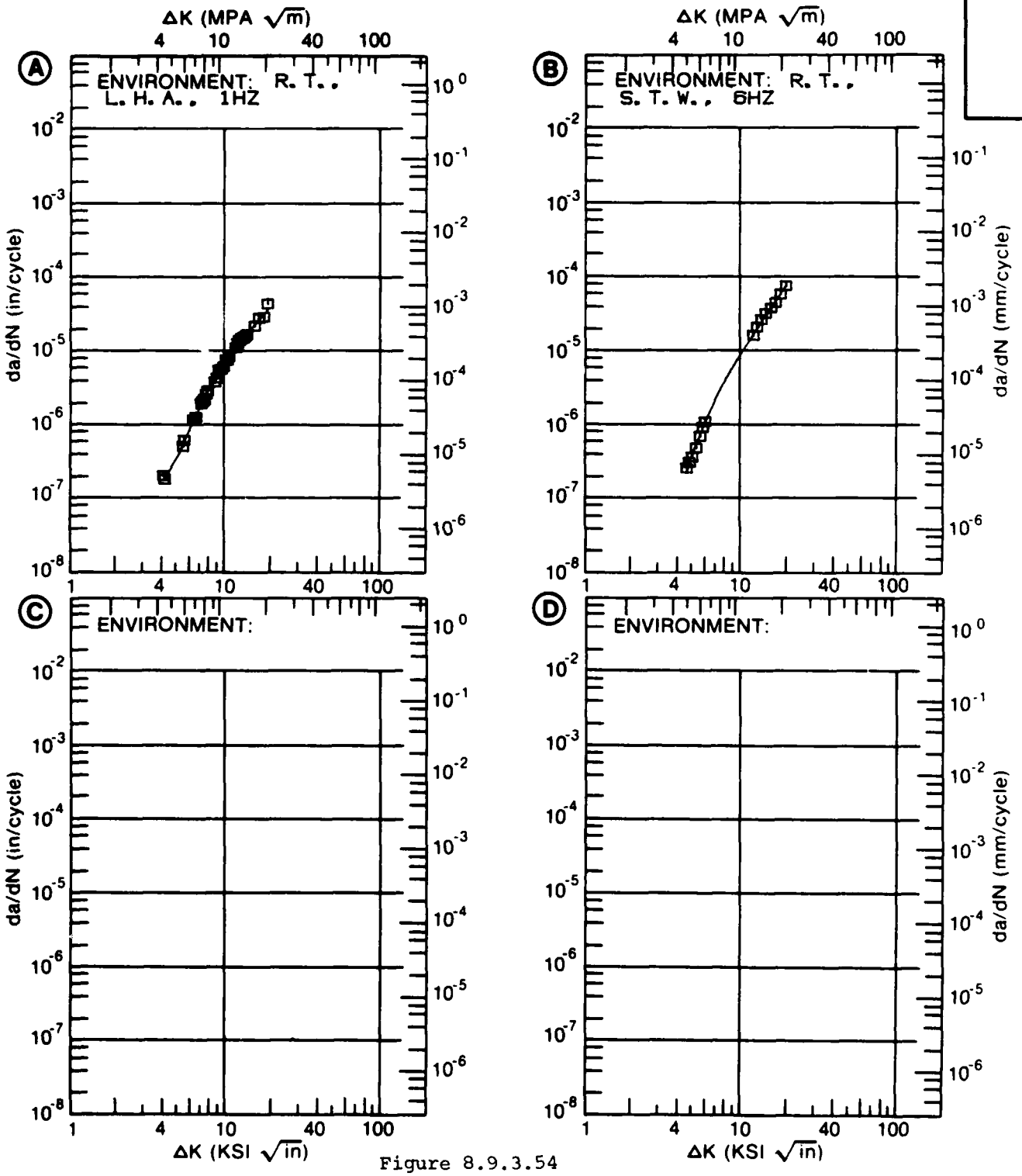

Figure 8.9.3.54

TABLE 8.9.3.55

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.55 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R T. L. H. A. 6HZ	E= R T. S. T. W. 1HZ		
DELTA K MIN	A:	4.09	.368			
	B:	5.44		1.50		
	C:					
	D:					
		5.00	.440			
		6.00	.763	2.23		
		7.00	1.30	4.26		
		8.00	2.01	7.48		
		9.00	2.92	12.1		
		10.00	4.10	18.0		
		13.00	10.6	39.7		
		16.00	27.7			
DELTA K MAX	A:	16.12	28.9			
	B:	15.09		52.1		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			26.12	16.15		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.08
FREQUENCY:

YIELD STRENGTH: 63.0- 66.0 KSI
ULT. STRENGTH: 74.0- 77.0 KSI
SPECIMEN THK: 0.820- 1.000"
SPECIMEN WIDTH: 6.000- 7.400"
REFERENCES:88579, 85837

ALUM. ALLOY

7075

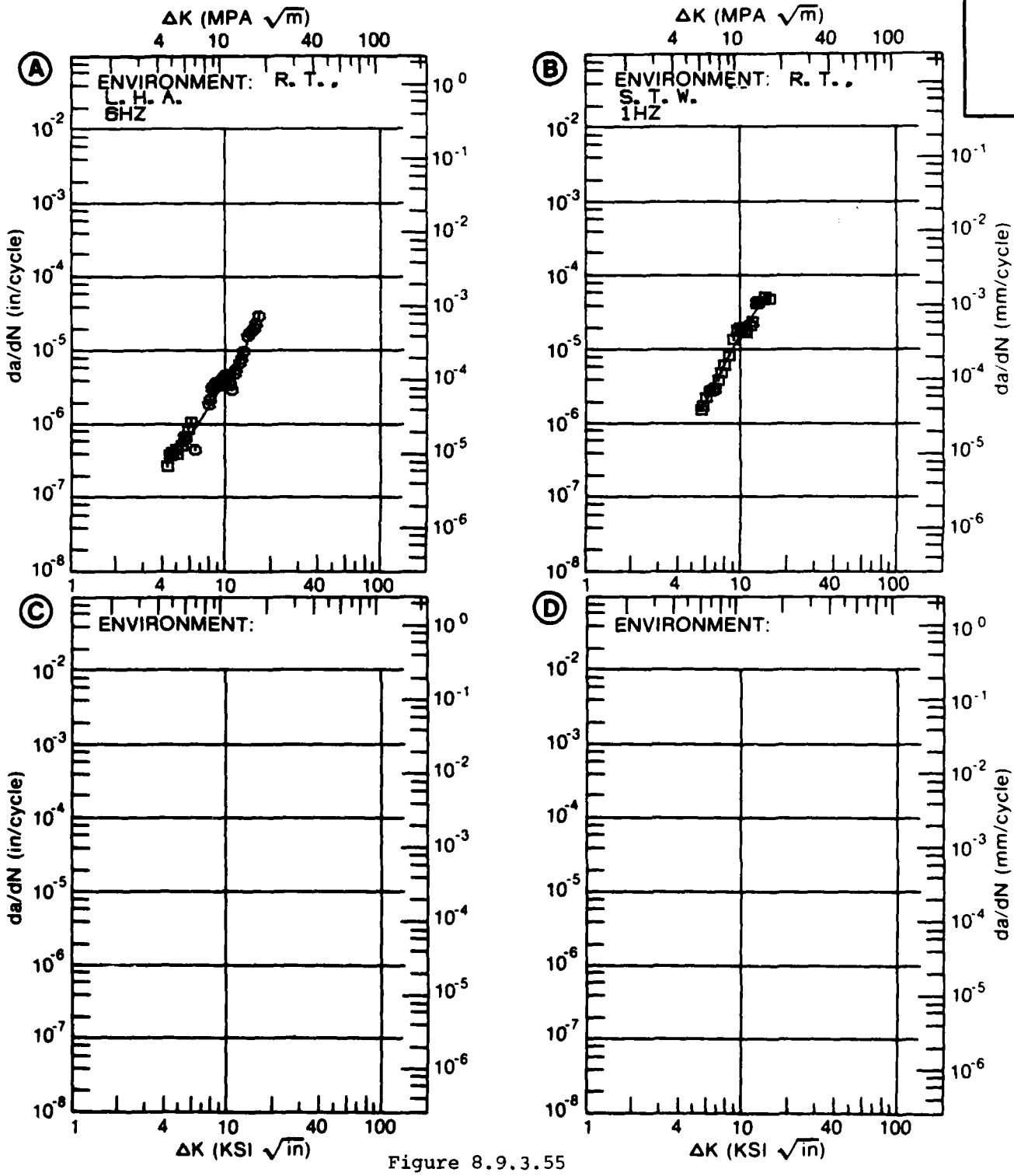

Figure 8.9.3.55

TABLE 8.9.3.56

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.56 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

	DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A E= R.T. LAB AIR	B E= R.T. 3.5% NACL	C	D
A:	9.46	3.14			
DELTA K B:					
MIN C:					
D:					
	10.00	3.95			
	13.00	10.4			
	16.00	20.6			
	20.00	41.4			
	25.00	83.9			
A:	30.00	156.			
DELTA K B:					
MAX C:					
D:					
ROOT MEAN SQUARE PERCENT ERROR		41.64	0.00		

LIFE	0.0-0.5		
PREDICTION	0.5-0.8	1	
RATIO	0.8-1.25	1	
SUMMARY	1.25-2.0	1	
(NP/NA)	>2.0		

CONDITION/HT: T7351
FORM: 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 10.00 HZ

YIELD STRENGTH: 53.2 KSI
ULT. STRENGTH: 65.1 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:84363

ALUM. ALLOY

7075

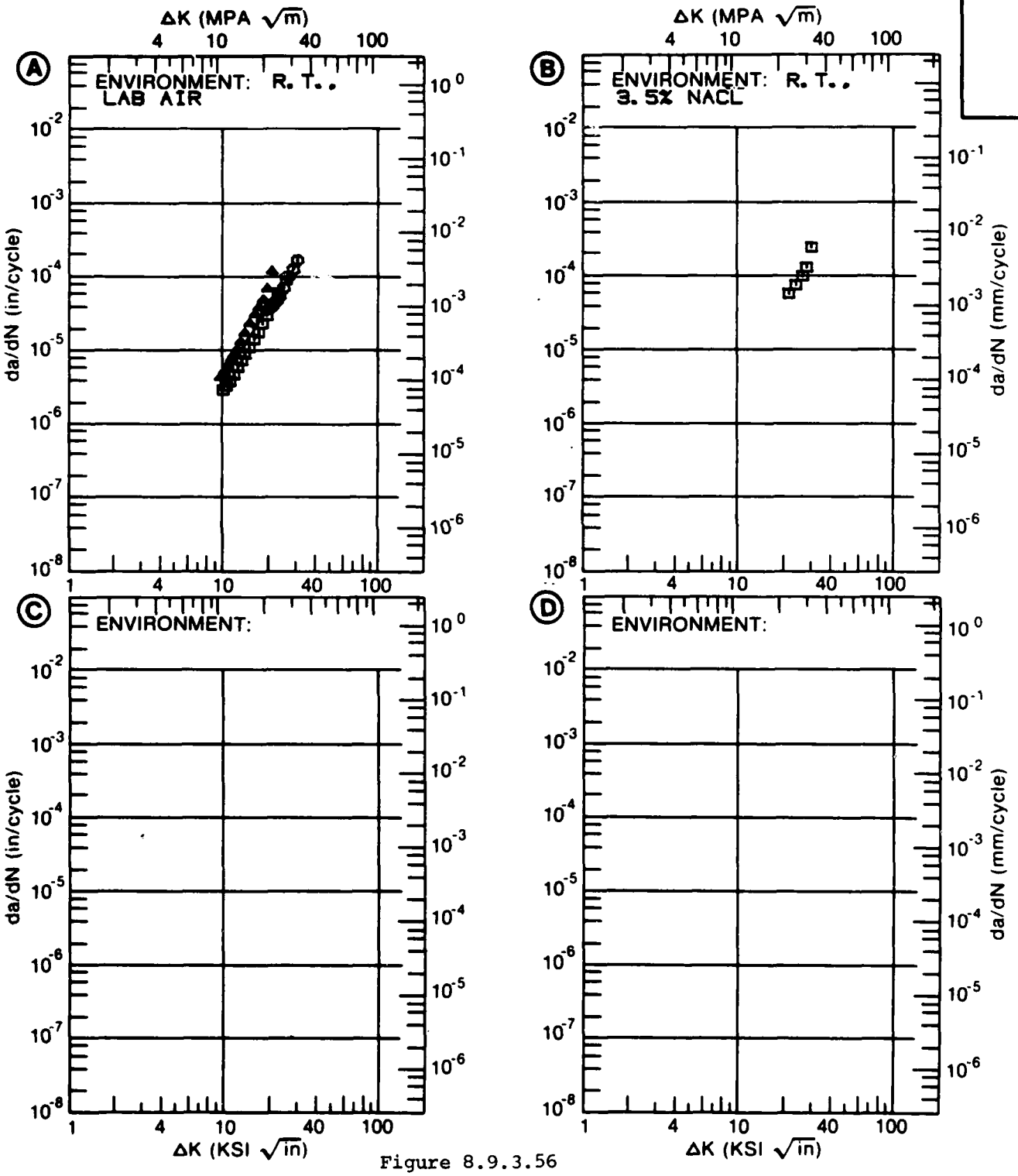

Figure 8.9.3.56

TABLE 8.9.3.57

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.57 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. DIST WATER	E= R.T. 3.5% NACL	
DELTA K MIN	A:	9.36	3.89			
	B:	20.15		42.6		
	C:	20.82			58.0	
	D:					
		10.00	5.04			
		13.00	12.8			
		16.00	24.3			
		20.00	44.0			
		25.00	83.1	90.0	99.5	
		30.00	190.	221.	249.	
		35.00		651.		
DELTA K MAX	A:	34.34	522.			
	B:	37.06		1073.		
	C:	32.93			470.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			18.45	7.51	6.17	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 53.2 KSI
ULT. STRENGTH: 65.1 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:84363

ALUM. ALLOY

7075

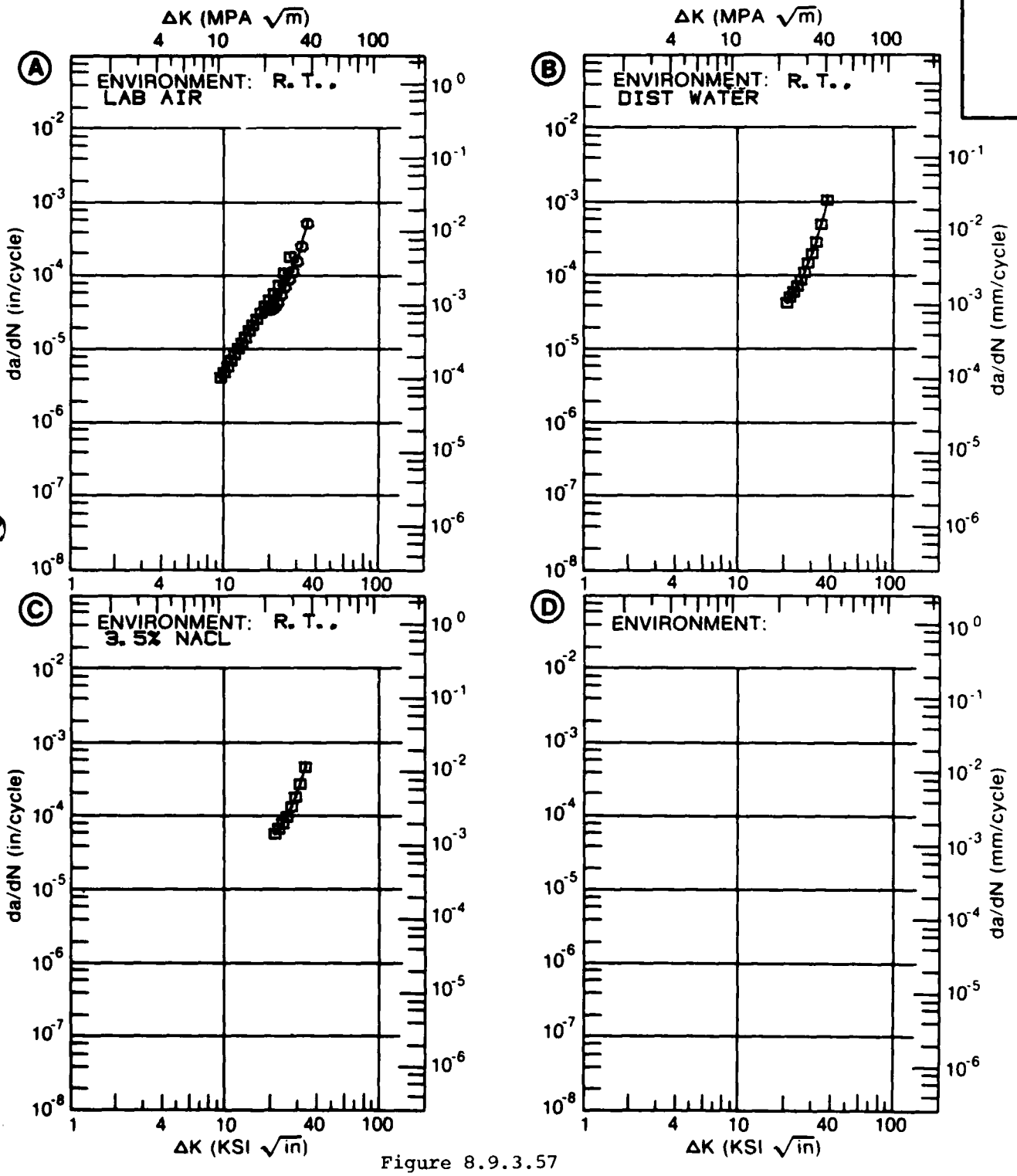

Figure 8.9.3.57

TABLE 8.9.3.58

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.58 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73510
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.42	2.38			
	B:				
	C:				
	D:				
	6.00	3.20			
	7.00	4.92			
	8.00	7.06			
	9.00	9.66			
	10.00	12.8			
	13.00	26.8			
	16.00	51.2			
DELTA K MAX	A: 19.12	95.4			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 11.10

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	4
	1.25-2.0	
	>2.0	

CONDITION/HT: T73510
FORM: 0.68"TH EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 65.0 KSI
ULT. STRENGTH: 75.7 KSI
SPECIMEN THK: 0.620- 0.662"
SPECIMEN WIDTH: 2.999- 3.003"
REFERENCES:AL005

ALUM. ALLOY

7075

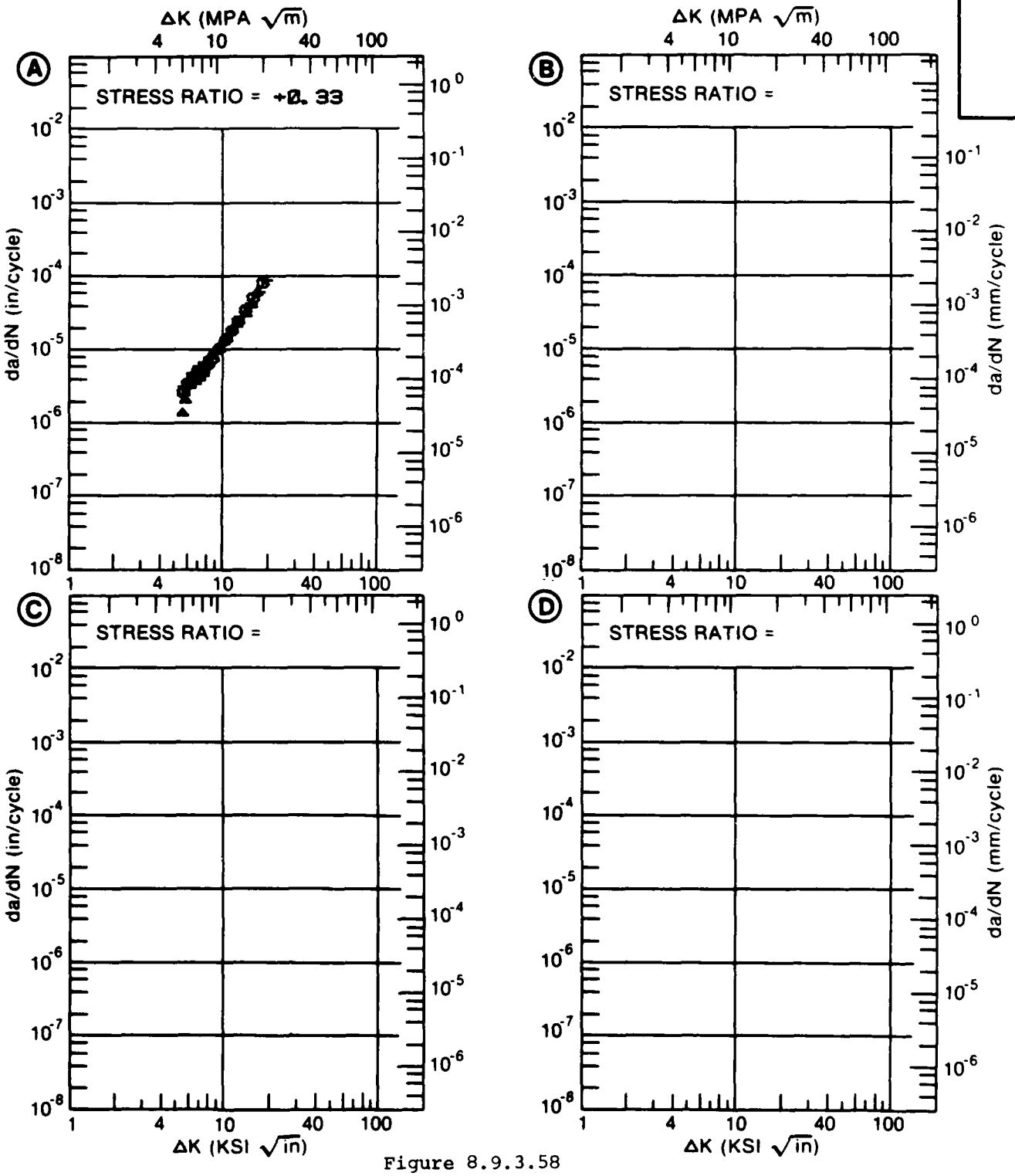

Figure 8.9.3.58

TABLE 8.9.3.59

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.59 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73510
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.66	3.27			
	B:				
	C:				
	D:				
	6.00	3.65			
	7.00	5.13			
	8.00	7.26			
	9.00	10.2			
	10.00	14.1			
	13.00	34.1			
	16.00	70.9			
DELTA K MAX	A: 17.61	99.7			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 5.86

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T73510
FORM: 0.68"TH EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 82.4 KSI
ULT. STRENGTH: 73.1 KSI
SPECIMEN THK: 0.499- 0.502"
SPECIMEN WIDTH: 3.003- 3.004"
REFERENCES:AL005

ALUM. ALLOY

7075

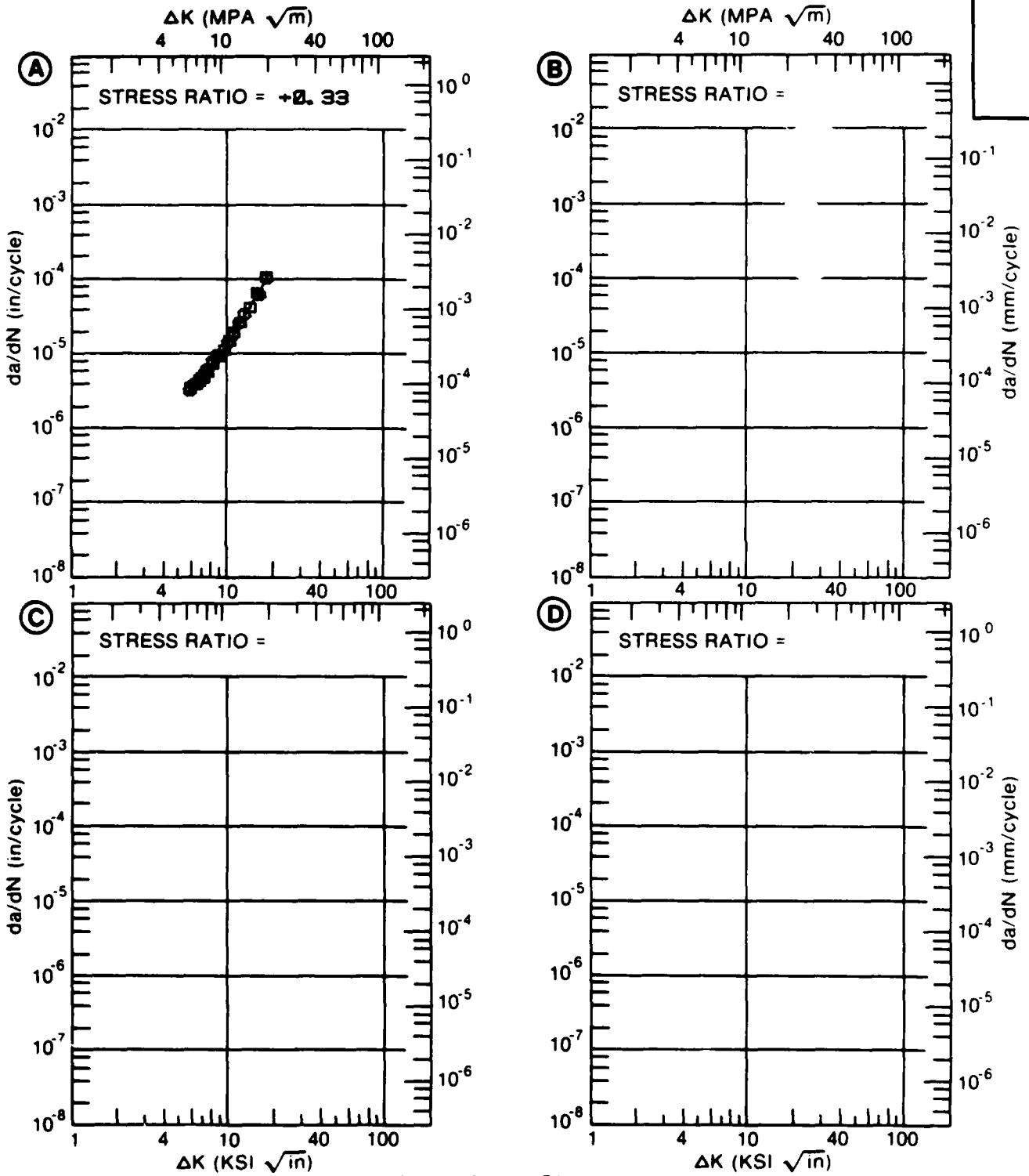

Figure 8.9.3.59

TABLE 8.9.3.60

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.60 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73510
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.42	2.65			
	B:				
	C:				
	D:				
	6.00	3.31			
	7.00	4.86			
	8.00	7.00			
	9.00	9.84			
	10.00	13.5			
	13.00	29.5			
	16.00	53.2			
	20.00	93.2			
DELTA K MAX	A: 21.01	104.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 7.66

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	3
	1.25-2.0	
	>2.0	

CONDITION/HT: T73510
FORM: 3.50"TH EXTRUDED BAR
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 63.8 KSI
ULT. STRENGTH: 73.7 KSI
SPECIMEN THK: 0.750- 0.752"
SPECIMEN WIDTH: 3.002"
REFERENCES:AL005, AL002

ALUM. ALLOY

7075

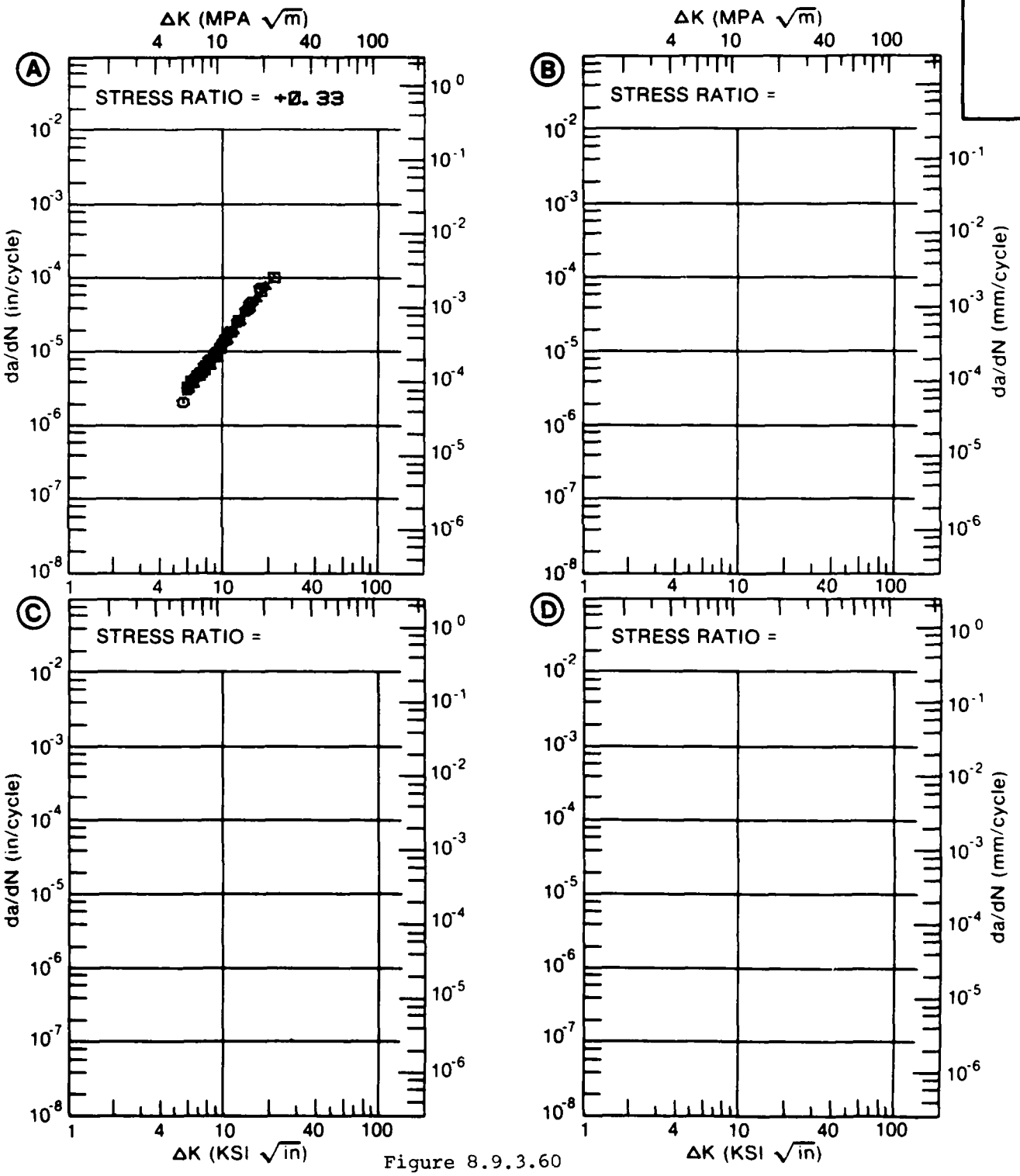

Figure 8.9.3.60

TABLE 8.9.3.61

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.61 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73511
ENVIRONMENT: R.T., L.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.08	R=+0.70		
DELTA K MIN	A:	7.56	1.25			
	B:	2.39		.125		
	C:					
	D:					
		2.50		.160		
		3.00		.366		
		3.50		.637		
		4.00		.955		
		5.00		1.73		
		6.00		2.80		
		7.00		4.42		
		8.00	1.62	7.04		
		9.00	2.69	11.4		
		10.00	4.13	19.0		
		13.00	10.8			
		16.00	20.8			
		20.00	37.8			
DELTA K MAX	A:	20.79	41.4			
	B:	11.70		47.6		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			6.15	8.20		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

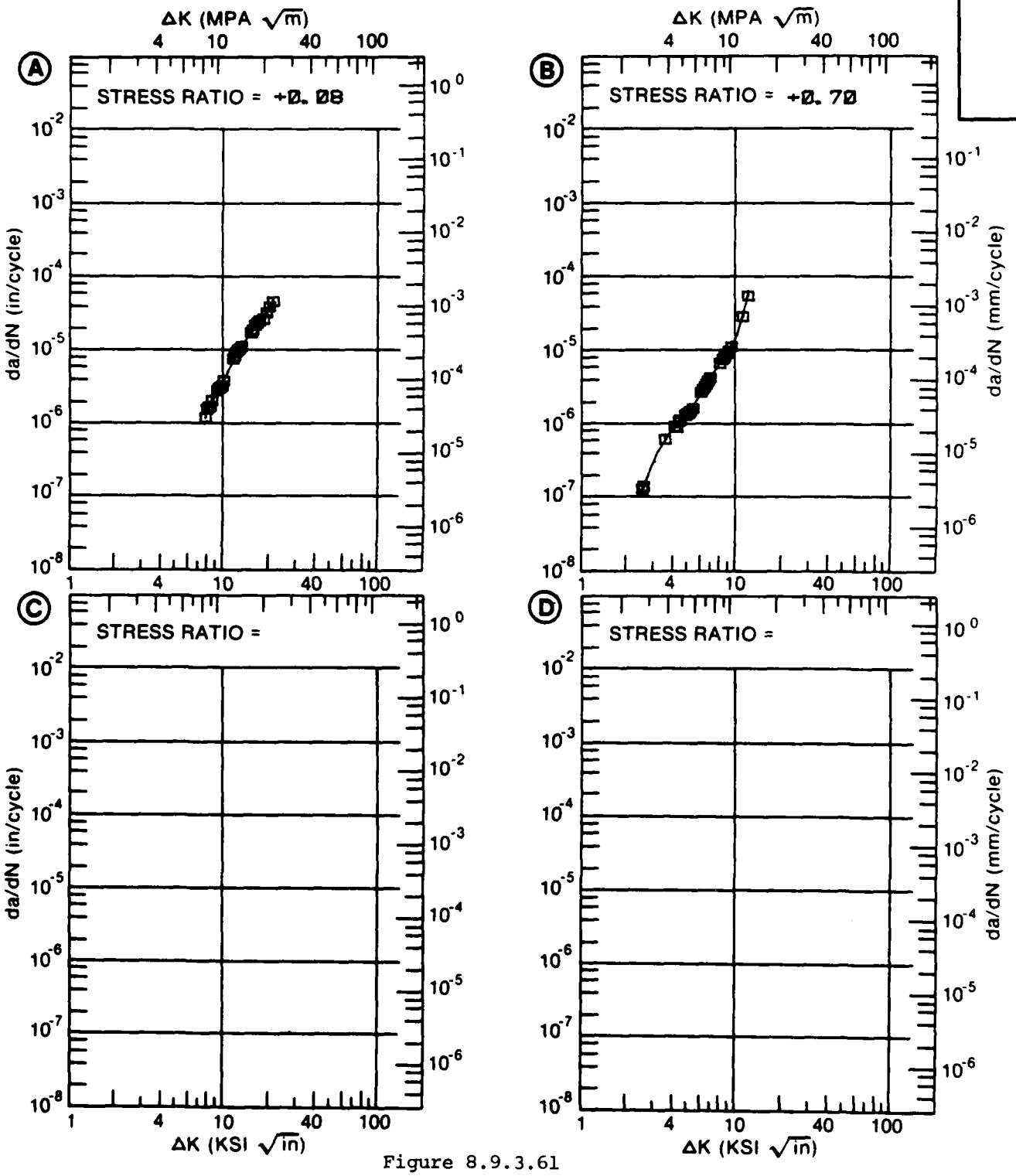

Figure 8.9.3.61

TABLE 8.9.3.62

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.62 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T73511
ENVIRONMENT: R.T., S.T.W.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.30	R=+0.50		
DELTA K MIN A:	5.15	1.73			
DELTA K MIN B:	2.33		.133		
DELTA K MIN C:					
DELTA K MIN D:					
	2.50		.204		
	3.00		.529		
	3.50		1.06		
	4.00		1.88		
	5.00		5.24		
	6.00	6.72	11.7		
	7.00	13.9	16.7		
	8.00	18.7	19.5		
	9.00	21.2	22.4		
	10.00	23.3	28.0		
	13.00	45.4			
DELTA K MAX A:	13.15	48.0			
DELTA K MAX B:	10.49		32.6		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		13.64	16.50		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1		
	1.25-2.0				
	>2.0				

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES: 88579

ALUM. ALLOY

7075

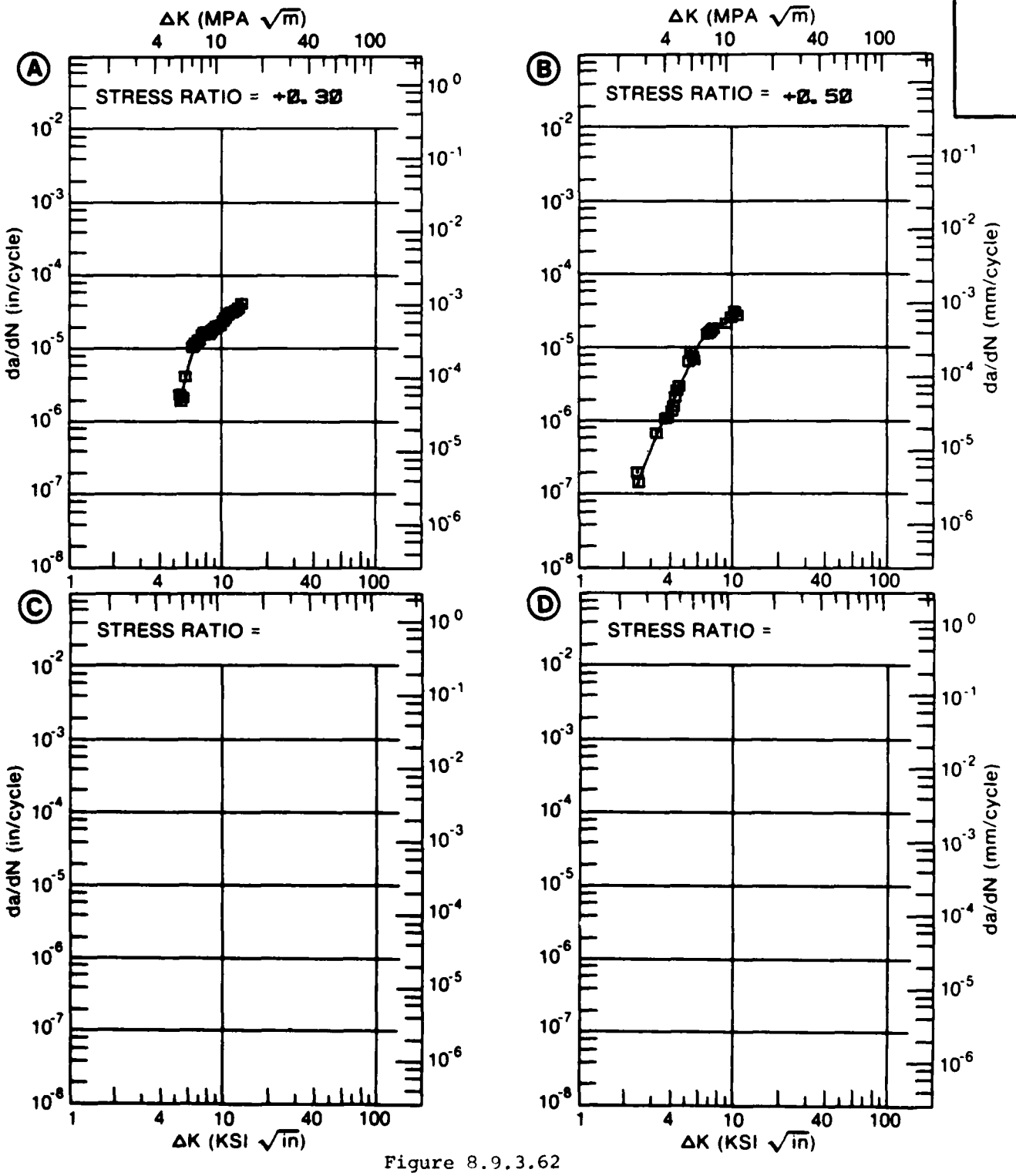

Figure 8.9.3.62

TABLE 8.9.3.63

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.63 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. L.H.A.			
DELTA K MIN	A: 6.38	.720			
	B:				
	C:				
	D:				
	7.00	2.08			
	8.00	3.98			
	9.00	5.28			
	10.00	7.08			
	13.00	14.8			
	16.00	24.4			
	20.00	42.3			
	25.00	81.8			
	30.00	163.			
DELTA K MAX	A: 33.38	267.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 11.65

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	1
	>2.0	

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 8.00 HZ

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.250- 0.500"
SPECIMEN WIDTH: 7.400"
REFERENCES:88578

ALUM. ALLOY

7075

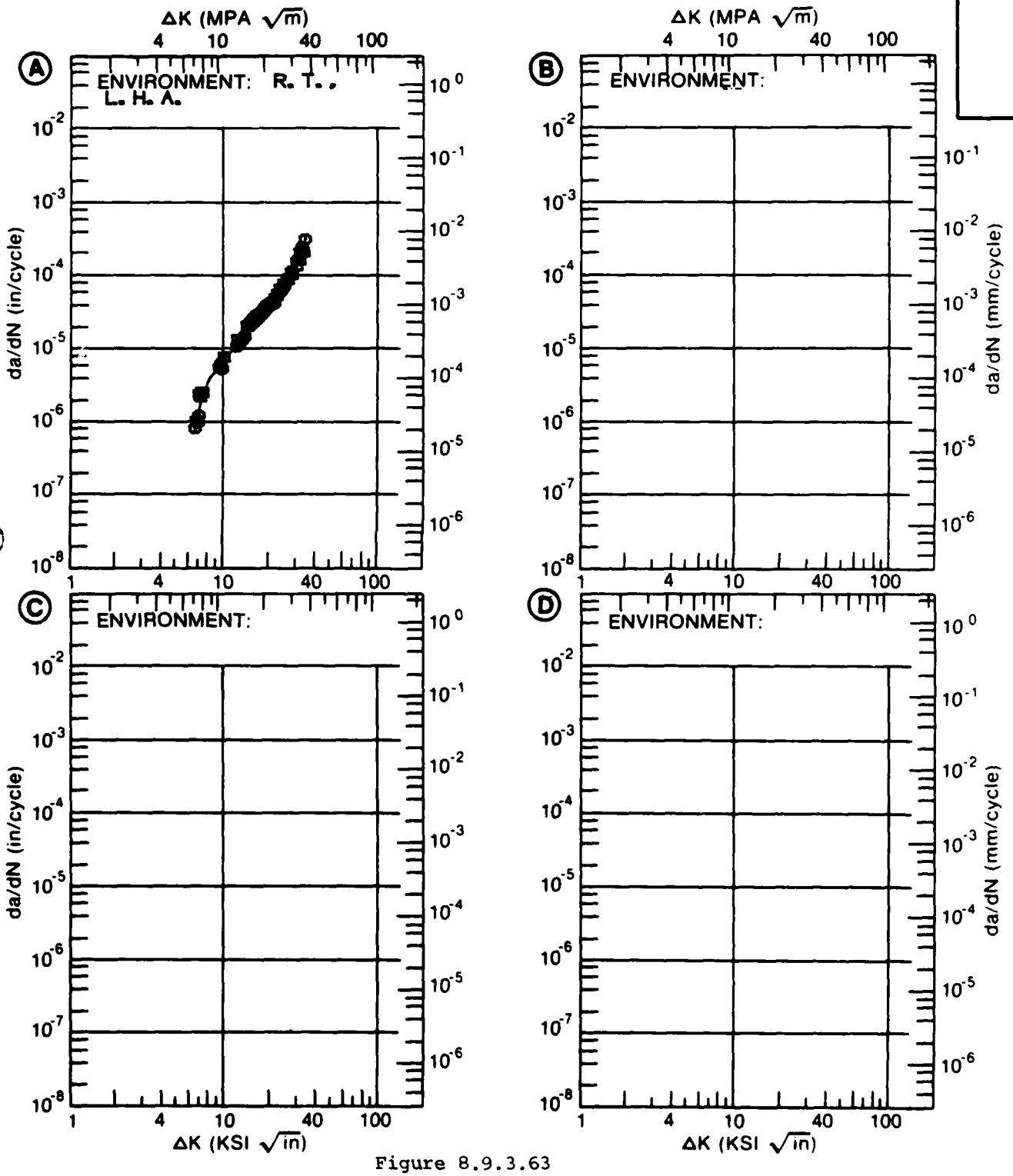

Figure 8.9.3.63

TABLE 8.9.3.64

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.64 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. L.H.A., 1HZ	E=+ 265F L.H.A., 6HZ	E= R.T. S.T.W., 1HZ	E= R.T. S.C.S., 1HZ
DELTA K MIN	A: 3.62	.194			
	B: 3.33		.400		
	C: 3.26			.229	
	D: 6.23				2.69
	3.50		.385	.232	
	4.00	.275	.787	.310	
	5.00	.739	1.75	.851	
	6.00	1.56	2.66	2.41	
	7.00	2.65	4.00	5.54	3.72
	8.00	3.98	5.41	10.1	5.31
	9.00	5.52	6.71	14.9	7.21
	10.00	7.27	8.31	18.8	9.43
	13.00	14.4			18.2
	16.00	27.2			30.6
DELTA K MAX	A: 16.26	28.8			
	B: 11.28		11.7		
	C: 12.95			35.3	
	D: 17.44				38.2
ROOT MEAN SQUARE PERCENT ERROR		7.28	5.00	22.39	4.61
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	1
	1.25-2.0				
	>2.0				

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY:

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

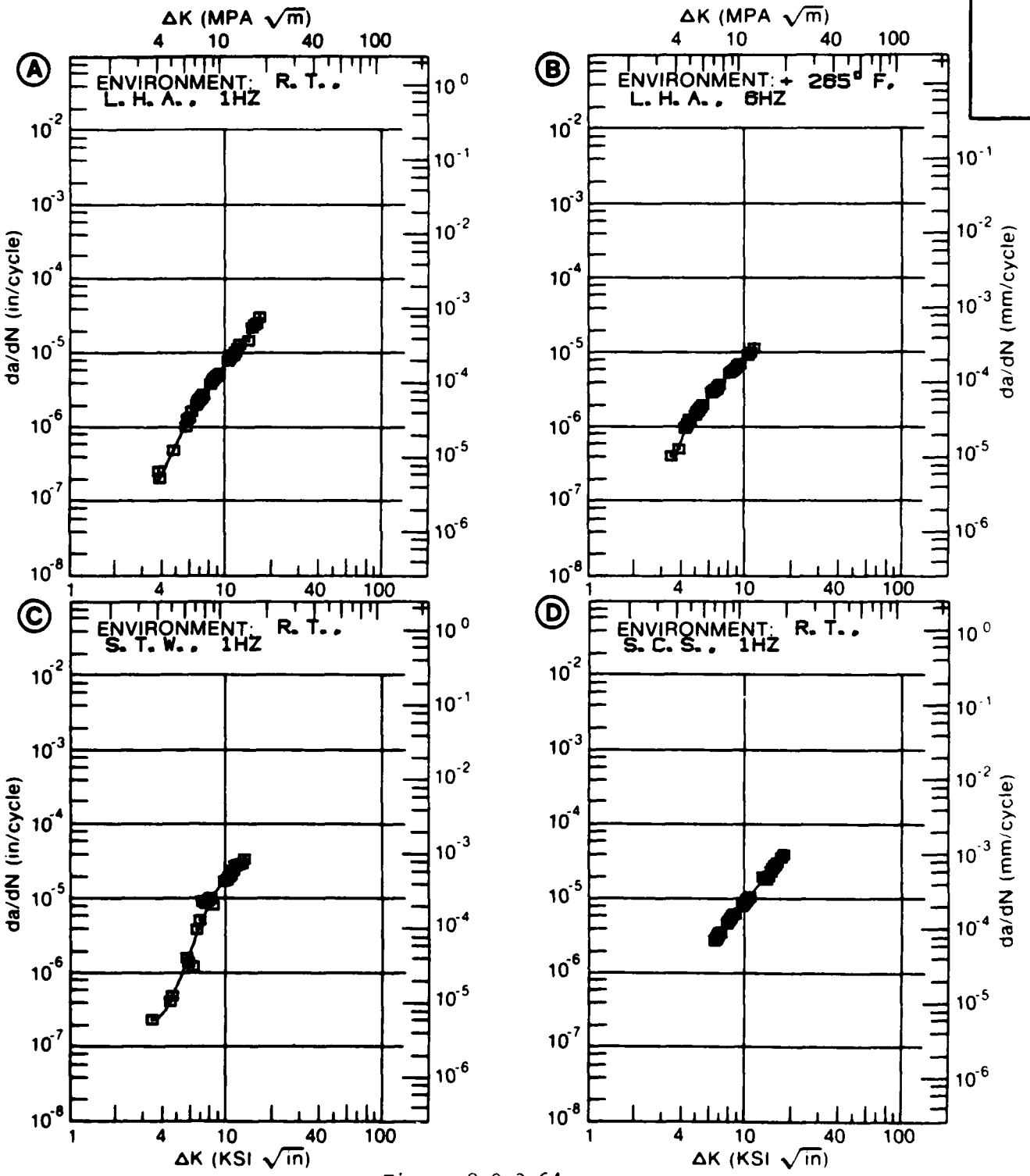

Figure 8.9.3.64

TABLE 8.9.3.65

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.65 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. S.T.W.		
DELTA K MIN	A:	6.27	1.64			
	B:	4.36		.382		
	C:					
	D:					
		5.00		.547		
		6.00		1.19		
		7.00	2.06	2.70		
		8.00	3.21	5.83		
		9.00	4.76	11.4		
		10.00	6.61	20.1		
		13.00	15.9			
		16.00	32.1			
DELTA K MAX	A:	18.23	43.3			
	B:	10.65		27.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			5.25	7.41		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 0.10 HZ

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.990- 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

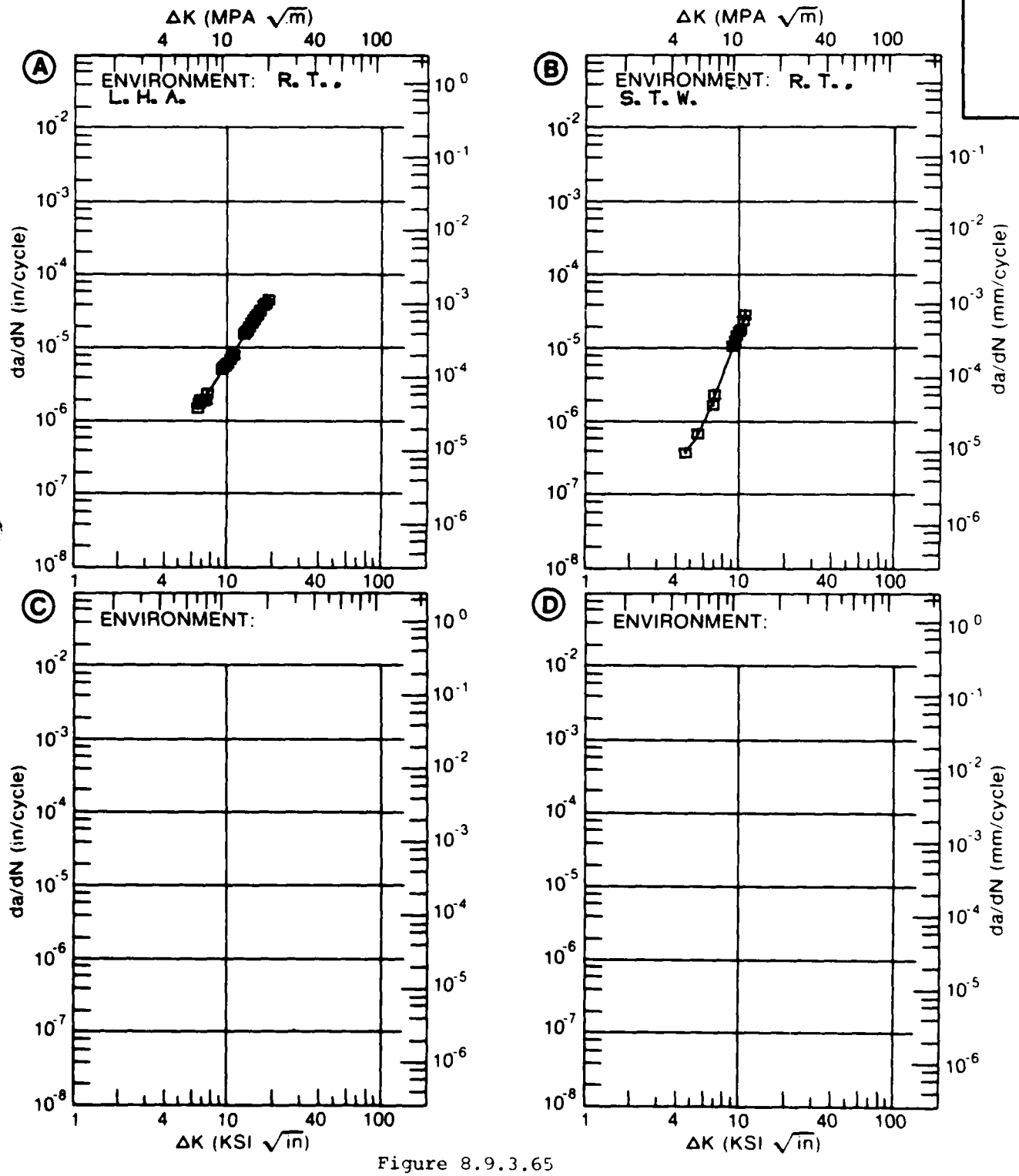

Figure 8.9.3.65

TABLE 8.9.3.66

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.66 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A. 6HZ	E= R.T. S.C.S. 6HZ	E= R.T. S.T.W. 1HZ	
DELTA K MIN	A:	4.29	.278			
	B:	5.40		2.07		
	C:	6.24			3.73	
	D:					
		5.00	.630			
		6.00	1.22	2.80		
		7.00	1.95	4.19	6.74	
		8.00	2.87	5.76	11.3	
		9.00	4.02	7.52	16.0	
		10.00	5.45	9.50	20.5	
		13.00	12.2	17.4	34.6	
		16.00	25.5	30.1	58.2	
		20.00	65.9			
		25.00	251.			
DELTA K MAX	A:	26.97	463.			
	B:	17.13		36.8		
	C:	18.79			105.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			13.93	4.22	24.99	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8			1	
		0.8-1.25	2	1		
		1.25-2.0			1	
		>2.0				

CONDITION/HT: T73511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.08
FREQUENCY:

YIELD STRENGTH: 61.0 KSI
ULT. STRENGTH: 72.0 KSI
SPECIMEN THK: 0.480- 1.000"
SPECIMEN WIDTH: 6.000- 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

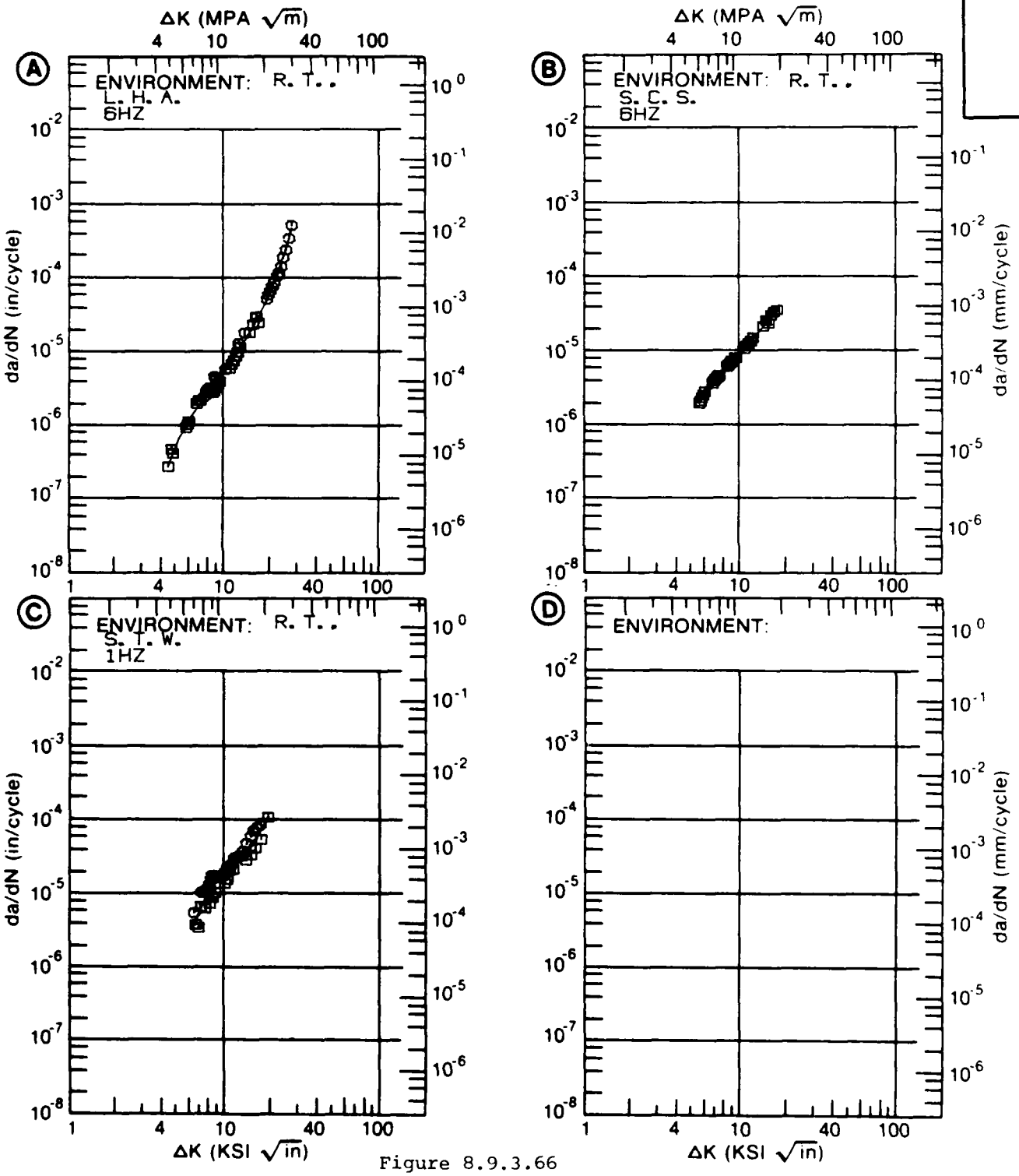

Figure 8.9.3.66

TABLE 8.9.3.67

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.67 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511-HIGH PURITY

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	6.03	270			
	B:					
	C:					
	D:					
		7.00	1.18			
		8.00	2.63			
		9.00	4.36			
		10.00	6.39			
		13.00	12.9			
		16.00	18.4			
		20.00	31.3			
DELTA K MAX	A:	20.26	32.8			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 29.46

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73511-HIGH PURITY
FORM: 1.50"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 30.00 HZ

YIELD STRENGTH: 68.6 KSI
ULT. STRENGTH: 77.7 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 2.550"
REFERENCES:WA001

ALUM. ALLOY

7075

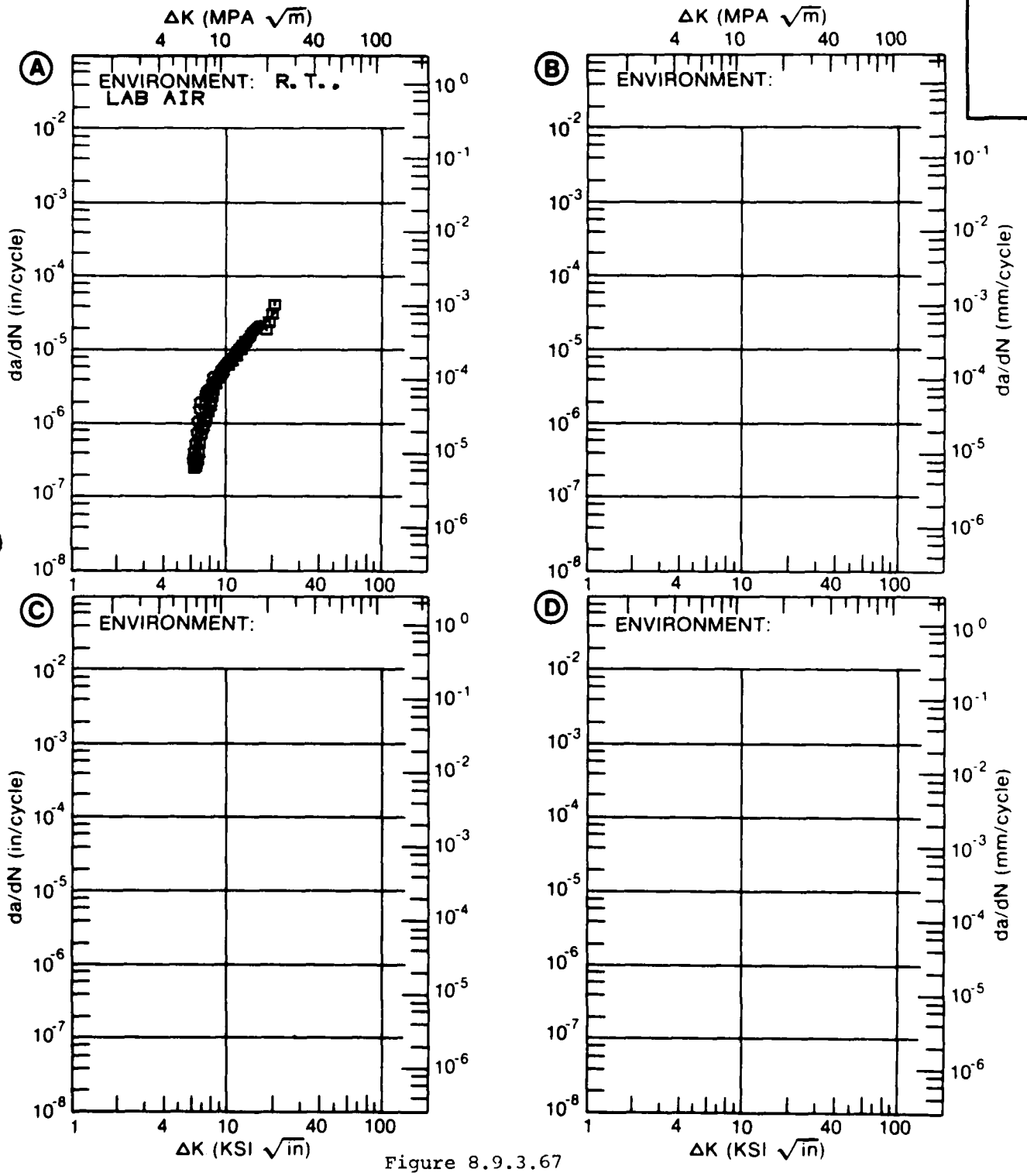

Figure 8.9.3.67

TABLE 8.9.3.68

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.68 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511-HIGH PURITY

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.92	.673			
	B:					
	C:					
	D:					
		6.00	.721			
		7.00	1.46			
		8.00	2.40			
		9.00	3.47			
		10.00	4.66			
		13.00	9.08			
		16.00	16.2			
		20.00	36.1			
DELTA K MAX	A:	20.01	36.2			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 10.36

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73511-HIGH PURITY
FORM: 1.50"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 30.00 HZ

YIELD STRENGTH: 63.0 KSI
ULT. STRENGTH: 73.1 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 2.550"
REFERENCES:WA001

ALUM. ALLOY

7075

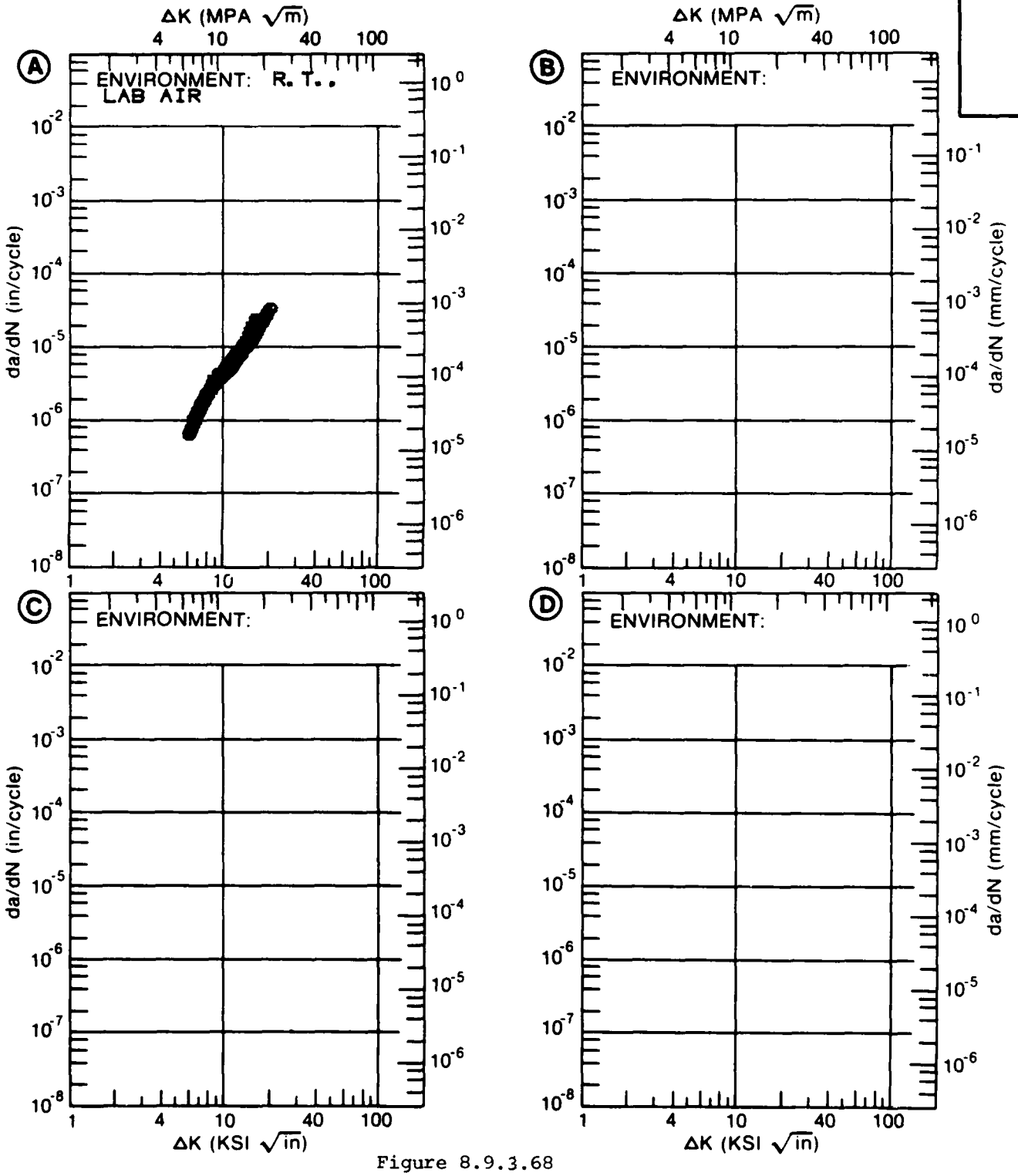

Figure 8.9.3.68

TABLE 8.9.3.69

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.69 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511-LOW PURITY

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. H.H.A.		
DELTA K MIN	A:	5.97	1.24			
	B:	5.93		1.33		
	C:					
	D:					
		6.00	1.28	1.43		
		7.00	2.65	3.37		
		8.00	4.39	6.10		
		9.00	6.30	9.31		
		10.00	8.26	12.7		
		13.00	13.8	22.6		
		16.00	18.9	31.4		
DELTA K MAX	A:	18.14	22.7			
	B:	17.59		36.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9.34	3.20		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73511-LOW PURITY
FORM: 1.50"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 30.00 HZ

YIELD STRENGTH: 65.3 KSI
ULT. STRENGTH: 73.9 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 2.550"
REFERENCES:WA001

ALUM. ALLOY

7075

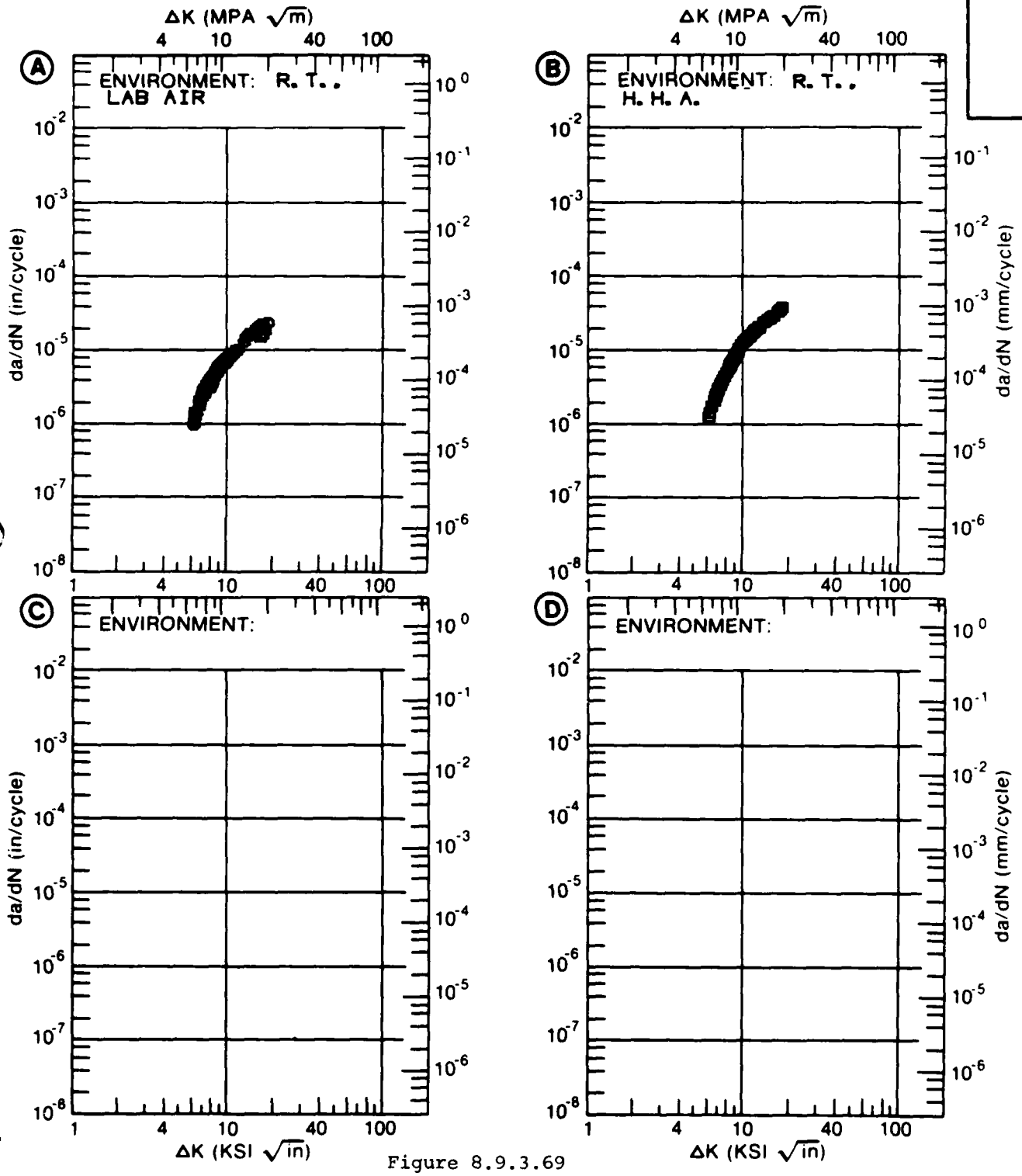

Figure 8.9.3.69

TABLE 8.9.3.70

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.70 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511-LOW PURITY

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	6.02	1.96			
	B:					
	C:					
	D:					
		7.00	3.52			
		8.00	5.13			
		9.00	6.76			
		10.00	8.56			
		13.00	18.4			
DELTA K MAX	A:	15.36	40.3			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 7.49

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73511-LOW PURITY
FORM: 1.50"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 30.00 HZ

YIELD STRENGTH: 60.9 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 2.550"
REFERENCES:WA001

ALUM. ALLOY

7075

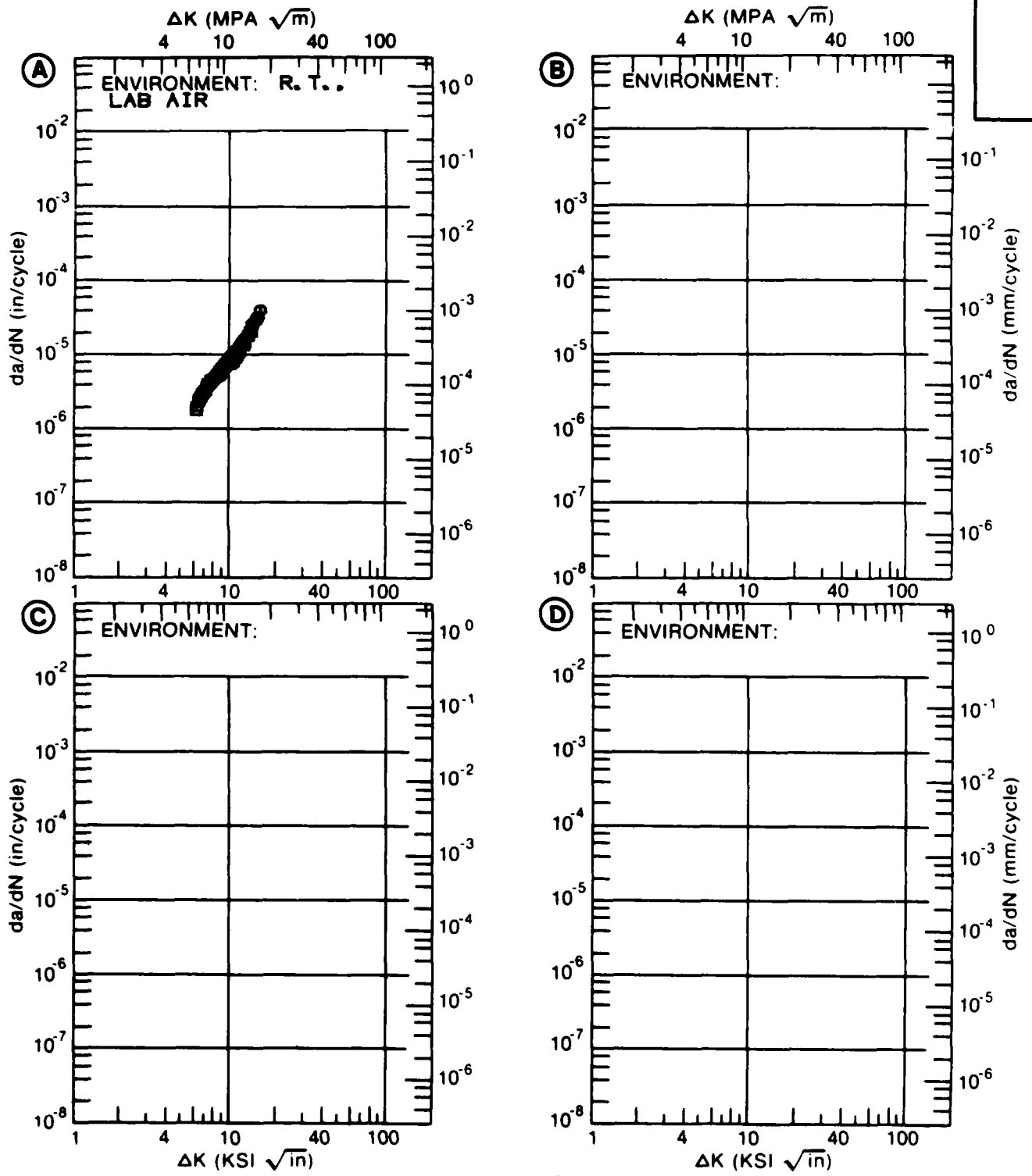

Figure 8.9.3.70

TABLE 8.9.3.71

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.71INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T73511-MEDIUM PURITY

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. LAB AIR	E= R.T. H.H.A.		
DELTA K MIN	A: 6.01	1.22			
	B: 6.06		2.18		
	C:				
	D:				
	7.00	2.74	4.36		
	8.00	4.52	7.43		
	9.00	6.25	11.0		
	10.00	7.79	14.9		
	13.00	11.8	26.7		
	16.00	17.4	37.9		
DELTA K MAX	A: 18.26	24.8			
	B: 18.09		45.6		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		8.82	2.65		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73511-MEDIUM PURITY
FORM: 1.50"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 30.00 HZ

YIELD STRENGTH: 68.4 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.625"
SPECIMEN WIDTH: 2.550"
REFERENCES: WA001

ALUM. ALLOY

7075

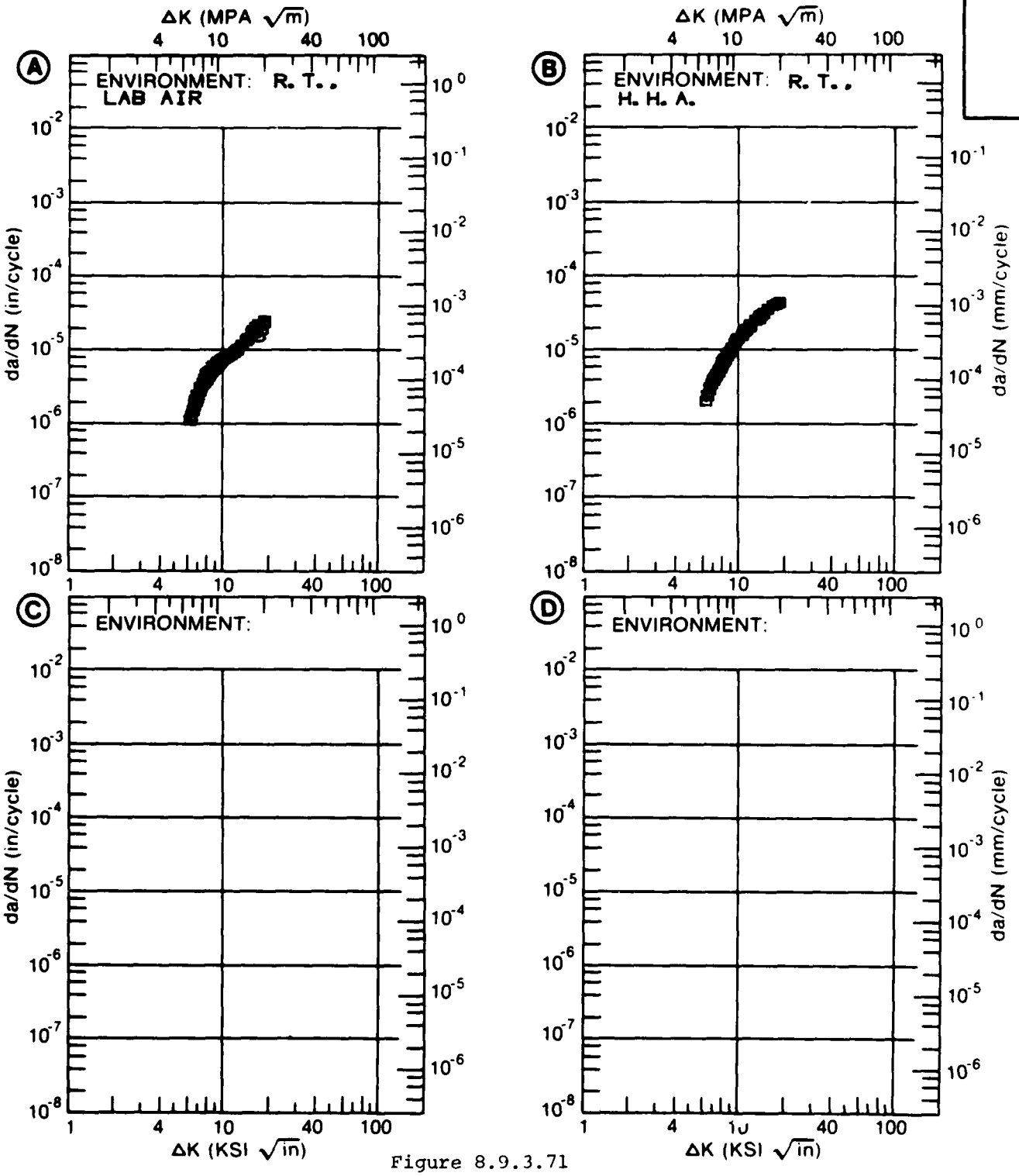

Figure 8.9.3.71

TABLE 8.9.3.72

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.72INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 4.00	172			
	B:				
	C:				
	D:				
	5.00	.474			
	6.00	1.00			
	7.00	1.80			
	8.00	2.91			
	9.00	4.39			
	10.00	6.28			
	13.00	15.1			
	16.00	30.3			
	20.00	66.2			
	25.00	154.			
	30.00	325.			
	35.00	649.			
	40.00	1238.			
	50.00	4095.			
DELTA K MAX	A: 58.14	10101.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 34.58

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7352
FORM: 2.20"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 55.0 KSI
ULT. STRENGTH: 66.0 KSI
SPECIMEN THK: 0.156"
SPECIMEN WIDTH:
REFERENCES:MA012

ALUM. ALLOY

7075

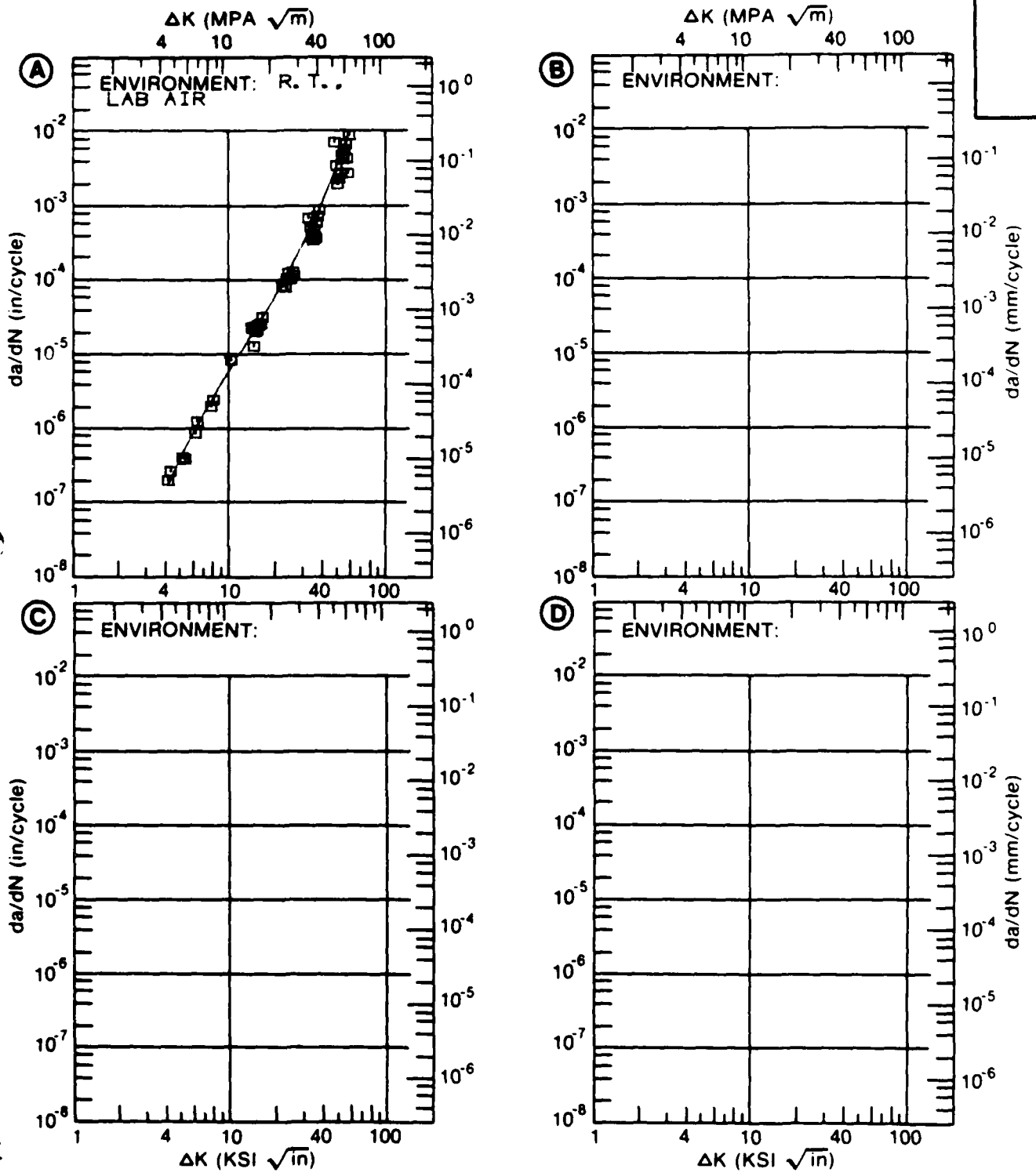

Figure 8.9.3.72

TABLE 8.9.3.73

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.73 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	3.98	.42			
	B:					
	C:					
	D:					
		4.00	.435			
		5.00	1.08			
		6.00	2.11			
		7.00	3.53			
		8.00	5.30			
		9.00	7.48			
		10.00	10.2			
		13.00	23.7			
		16.00	72.8			
DELTA K MAX	A:	18.35	345.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 133.08

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7352
FORM: 2.20"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: T-L
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 55.0 KSI
ULT. STRENGTH: 66.0 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH:
REFERENCES:MA012

ALUM. ALLOY

7075

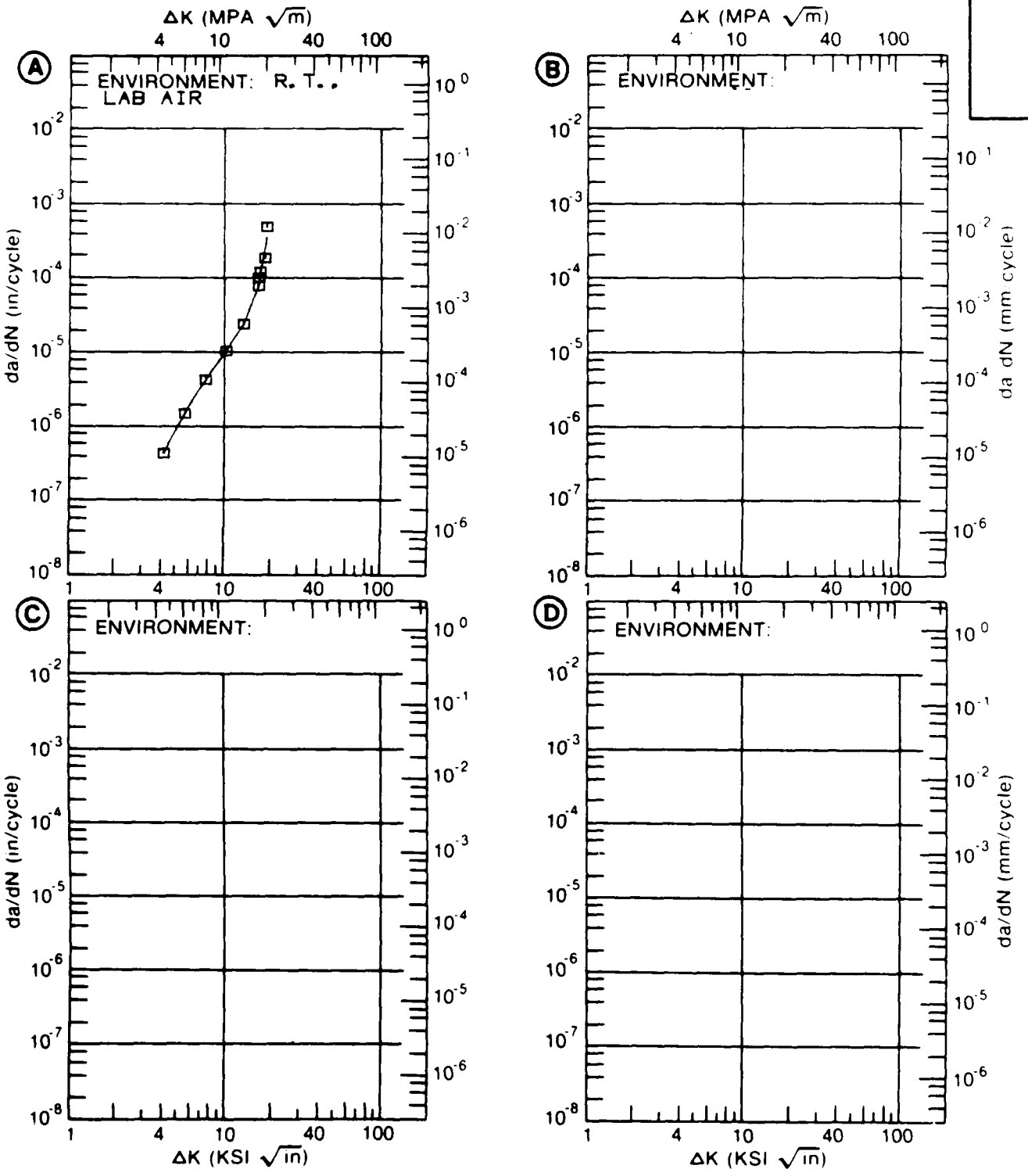

Figure 8.9.3.73

TABLE 8.9.3.74

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.74 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 11.52	9.50			
	B:				
	C:				
	D:				
	13.00	13.6			
	16.00	19.9			
	20.00	32.5			
	25.00	91.6			
	30.00	223.			
DELTA K MAX	A: 32.74	573.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 19.98

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7352
FORM: 2.35"TH BILLET
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00- 30.00 HZ

YIELD STRENGTH: 54.5 KSI
ULT. STRENGTH: 65.5 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA011

ALUM. ALLOY

7075

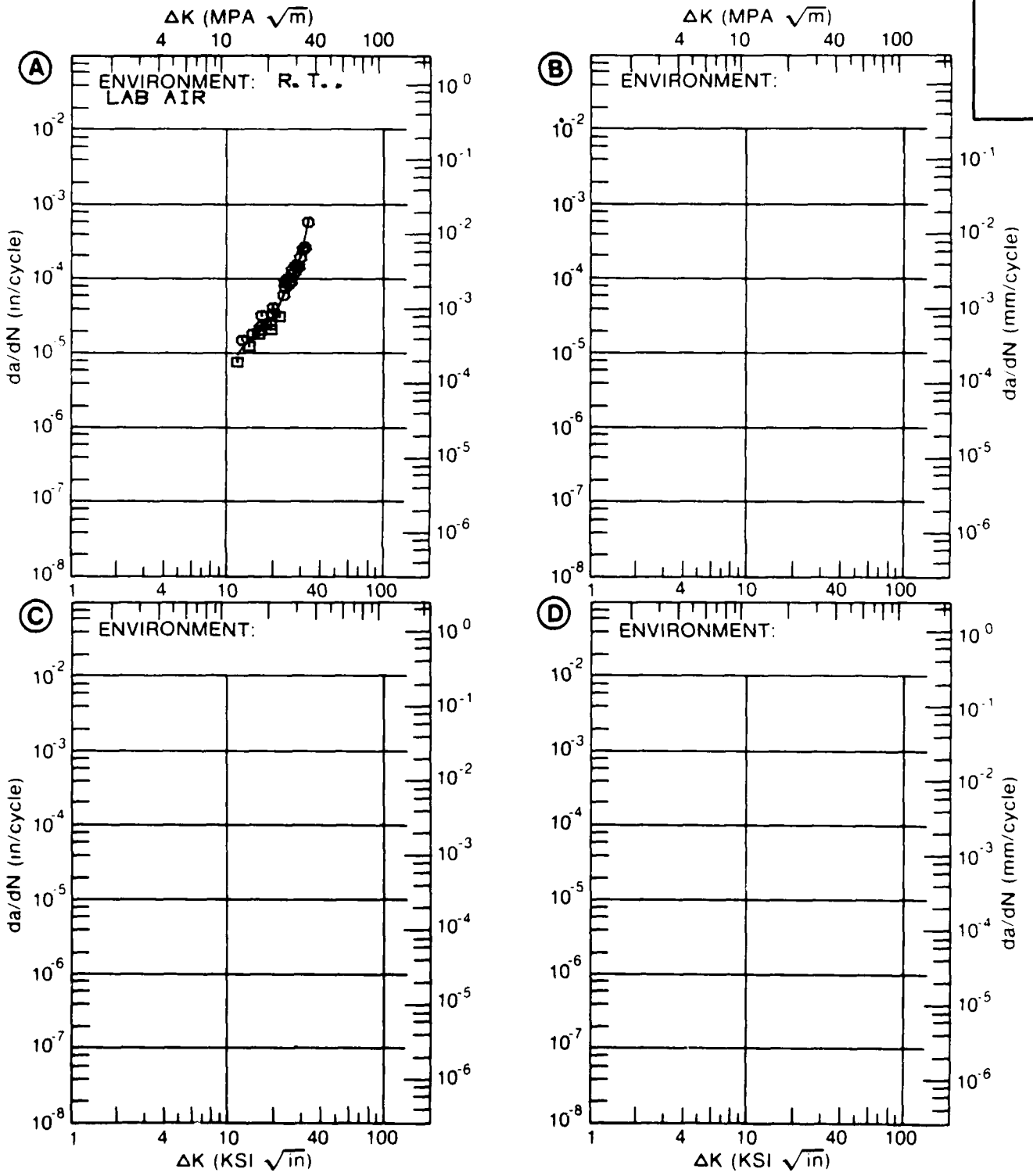

Figure 8.9.3.74

TABLE 8.9.3.75

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.75 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T L.H.A.			
DELTA K MIN	A:	5.33	.282			
	B:					
	C:					
	D:					
		6.00	1.02			
		7.00	2.30			
		8.00	3.86			
		9.00	5.87			
		10.00	8.49			
		13.00	18.7			
		16.00	27.1			
DELTA K MAX	A:	17.25	28.6			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 15.31

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	1
	0.8-1.25	
	1.25-2.0	
	>2.0	

CONDITION/HT: T7352
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 67.0 KSI
ULT. STRENGTH: 75.0 KSI
SPECIMEN THK: 0.500"
SPECIMEN WIDTH: 3.000"
REFERENCES:88579

ALUM. ALLOY

7075

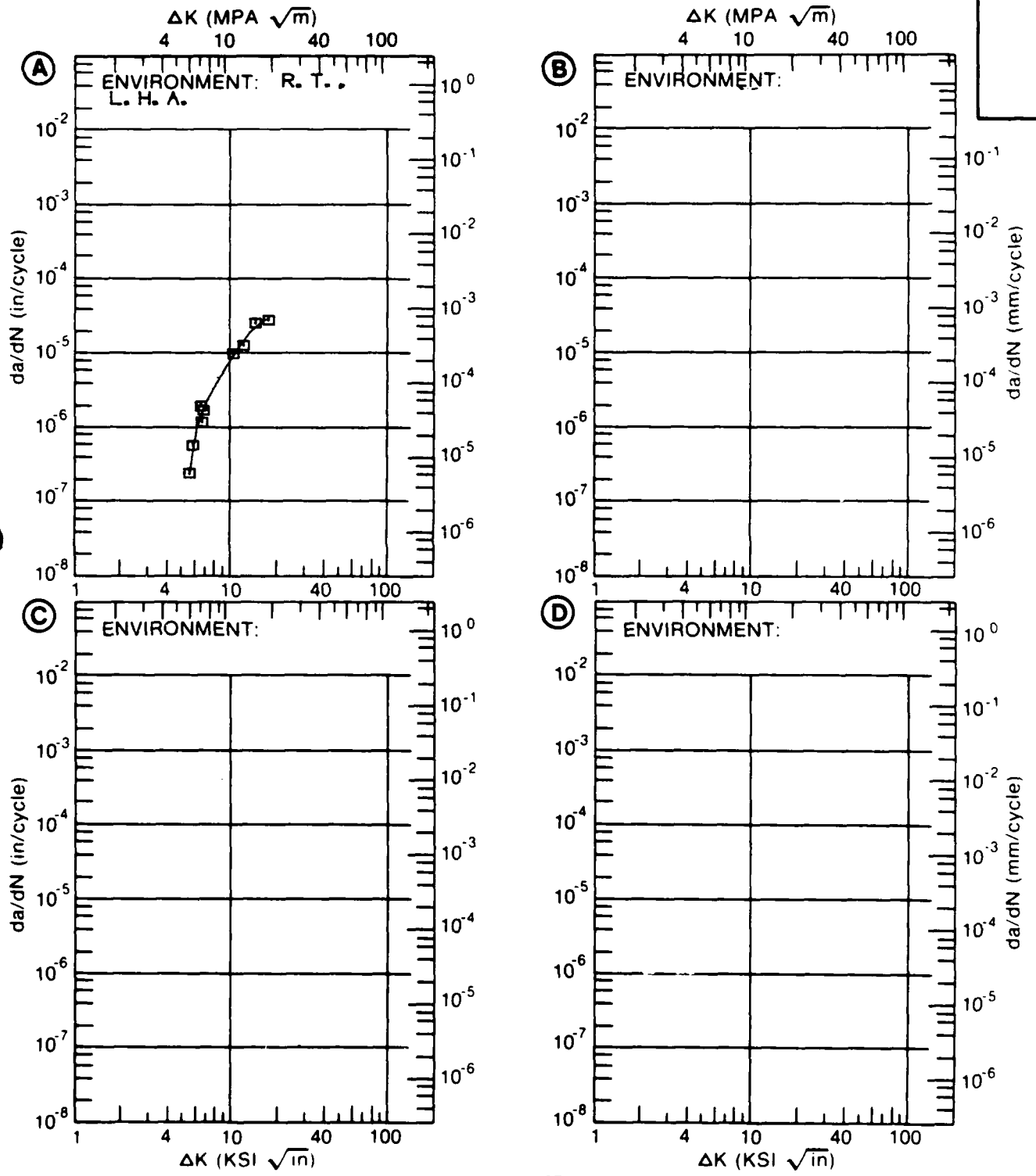

Figure 8.9.3.75

TABLE 8.9.3.76

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.76 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R. T. LAB AIR			
DELTA K MIN	A: 4.10	.99			
	B:				
	C:				
	D:				
	5.00	1.86			
	6.00	3.23			
	7.00	5.08			
	8.00	7.50			
	9.00	10.6			
	10.00	14.4			
	13.00	31.4			
	16.00	60.1			
	20.00	126.			
	25.00	281.			
DELTA K MAX	A: 26.38	345.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 16.34

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7352
FORM: FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 57.0 KSI
ULT. STRENGTH: 70.0 KSI
SPECIMEN THK: 0.148"
SPECIMEN WIDTH:
REFERENCES:MA012

ALUM. ALLOY

7075

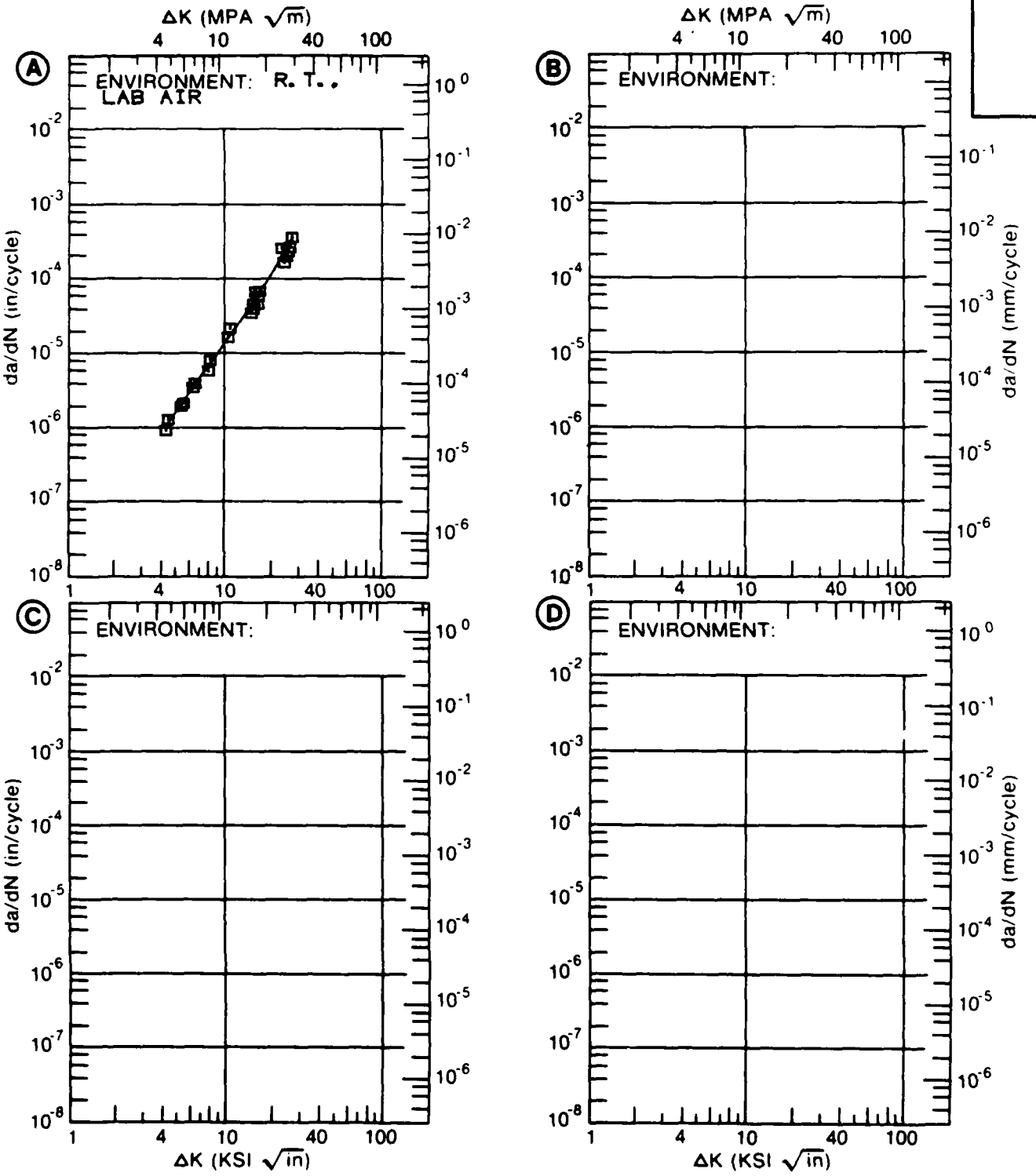

Figure 8.9.3.76

TABLE 8.9.3.77

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.77 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	19.98	27.2			
	B:					
	C:					
	D:					
		20.00	27.5			
		25.00	77.4			
DELTA K MAX	A:	29.54	509.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 32.60

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7352
FORM: FORGING
SPECIMEN TYPE: WOL
ORIENTATION: T-L
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 57.0 KSI
ULT. STRENGTH: 70.0 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH:
REFERENCES:MA012

ALUM. ALLOY

7075

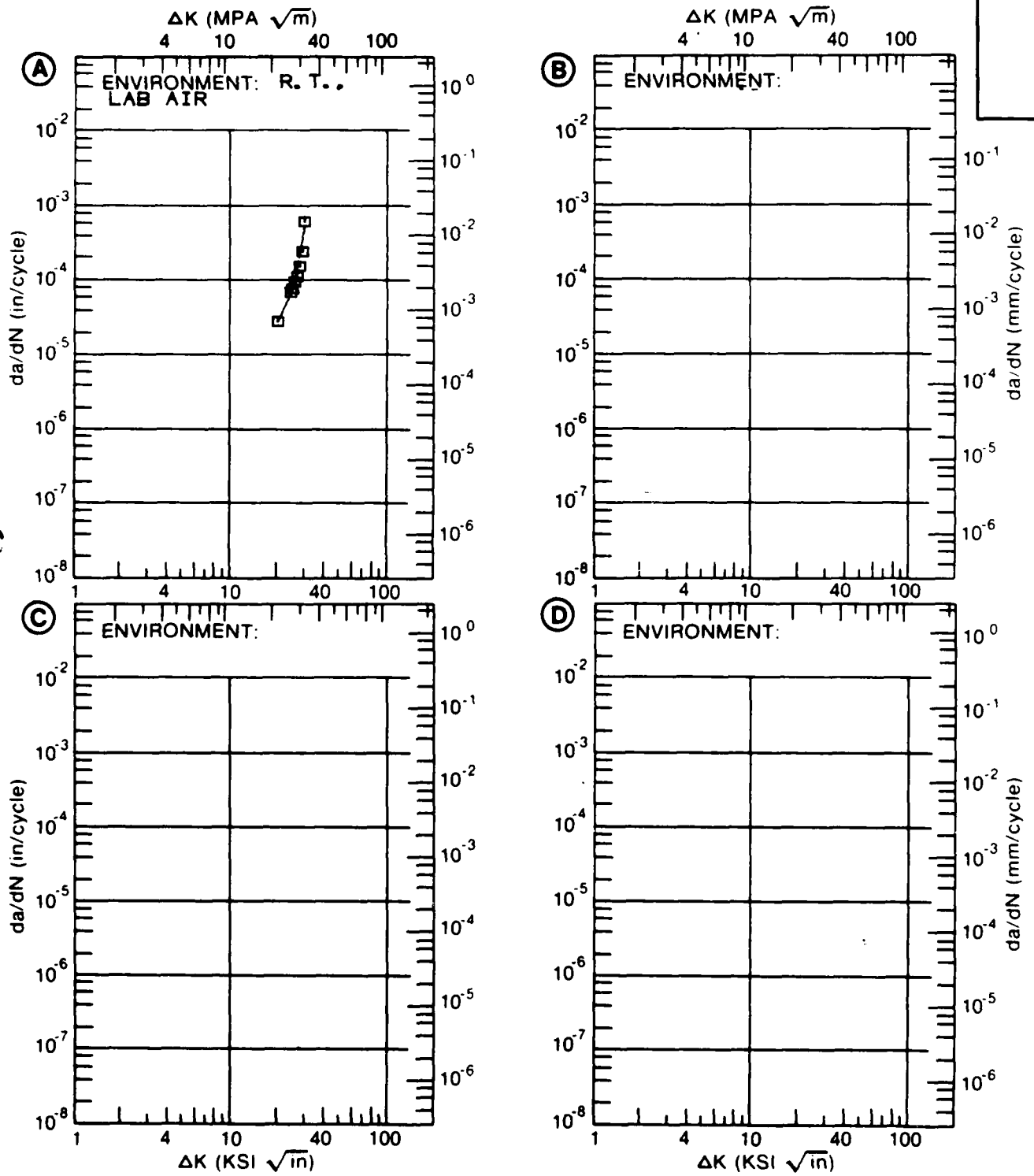

Figure 8.9.3.77

TABLE 8.9.3.78

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.78 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.32	1.31			
	B:					
	C:					
	D:					
		6.00	2.27			
		7.00	4.21			
		8.00	6.77			
		9.00	9.92			
		10.00	13.6			
		13.00	28.6			
		16.00	51.1			
DELTA K MAX	A:	18.81	82.3			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 6.29

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7352
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

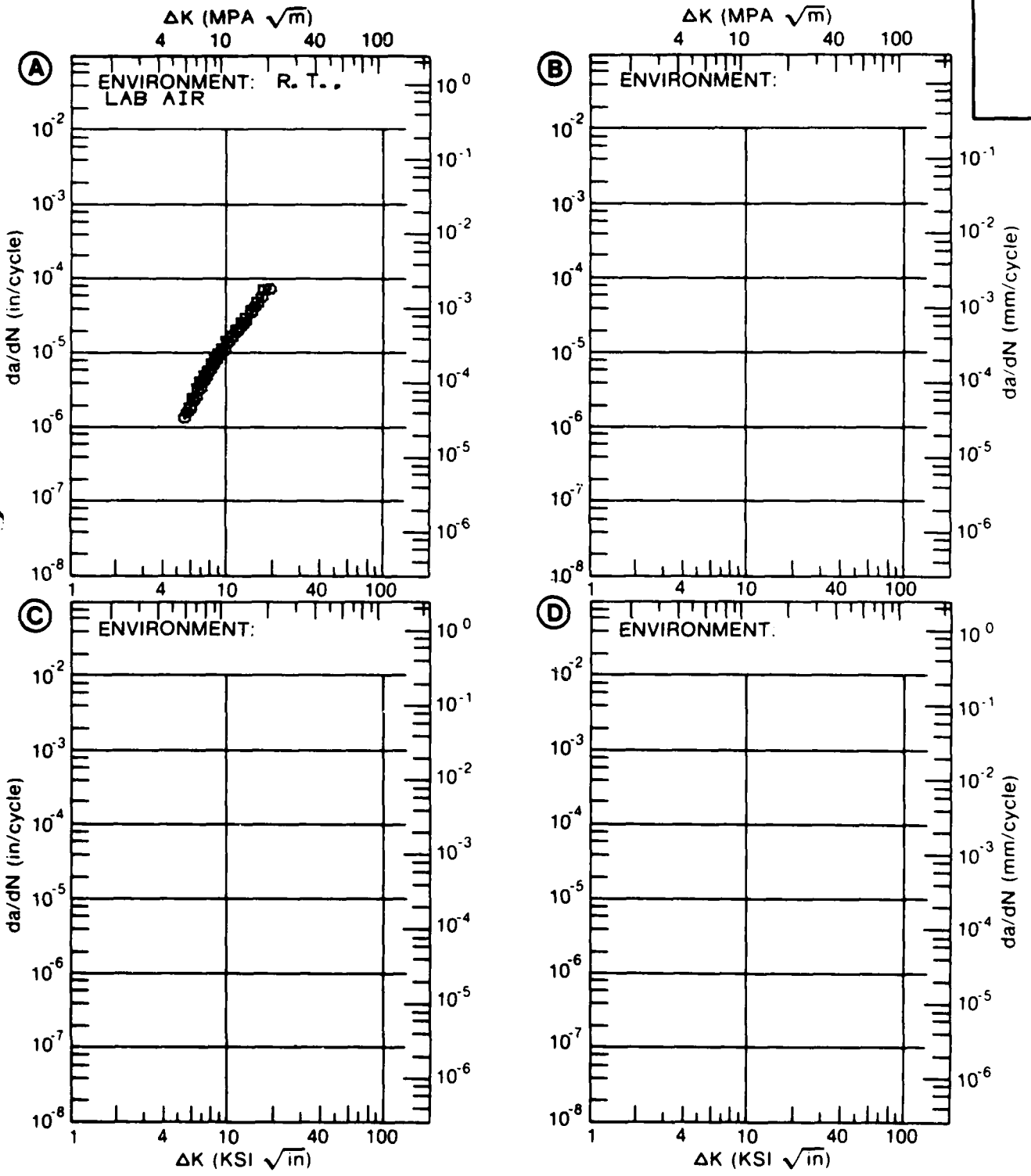

Figure 8.9.3.78

TABLE 8.9.3.79

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.79 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.97	2.24			
	B:					
	C:					
	D:					
		6.00	2.30			
		7.00	4.09			
		8.00	5.82			
		9.00	7.39			
		10.00	8.93			
		13.00	15.3			
		16.00	31.1			
DELTA K MAX	A:	16.54	36.2			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 11.63

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7352
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-S
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.740- 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

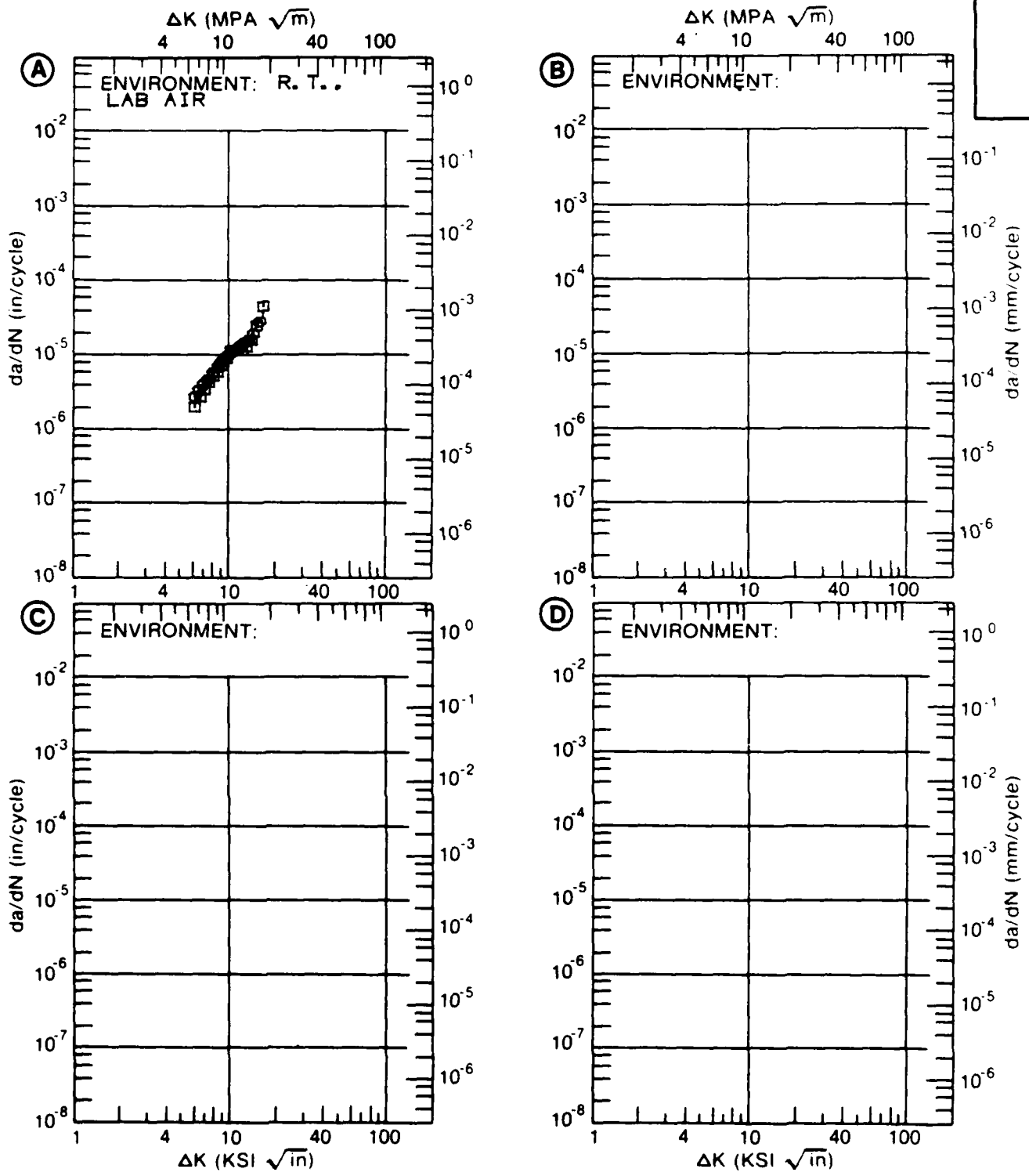

Figure 8.9.3.79

TABLE 8.9.3.80

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.80 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

		DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A: E= R.T. H.H.A.	B: E= R.T. 3.5% NACL	C	D
DELTA K MIN	A:	5.62	2.37			
	B:	5.32		2.03		
	C:					
	D:					
		6.00	2.96	3.21		
		7.00	4.77	5.27		
		8.00	6.96	7.68		
		9.00	9.59	10.5		
		10.00	12.8	13.9		
		13.00	27.8	30.7		
		16.00	58.6			
DELTA K MAX	A:	16.40	64.8			
	B:	15.03		53.2		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.44	11.38		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	4		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7352
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-S
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.730- 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

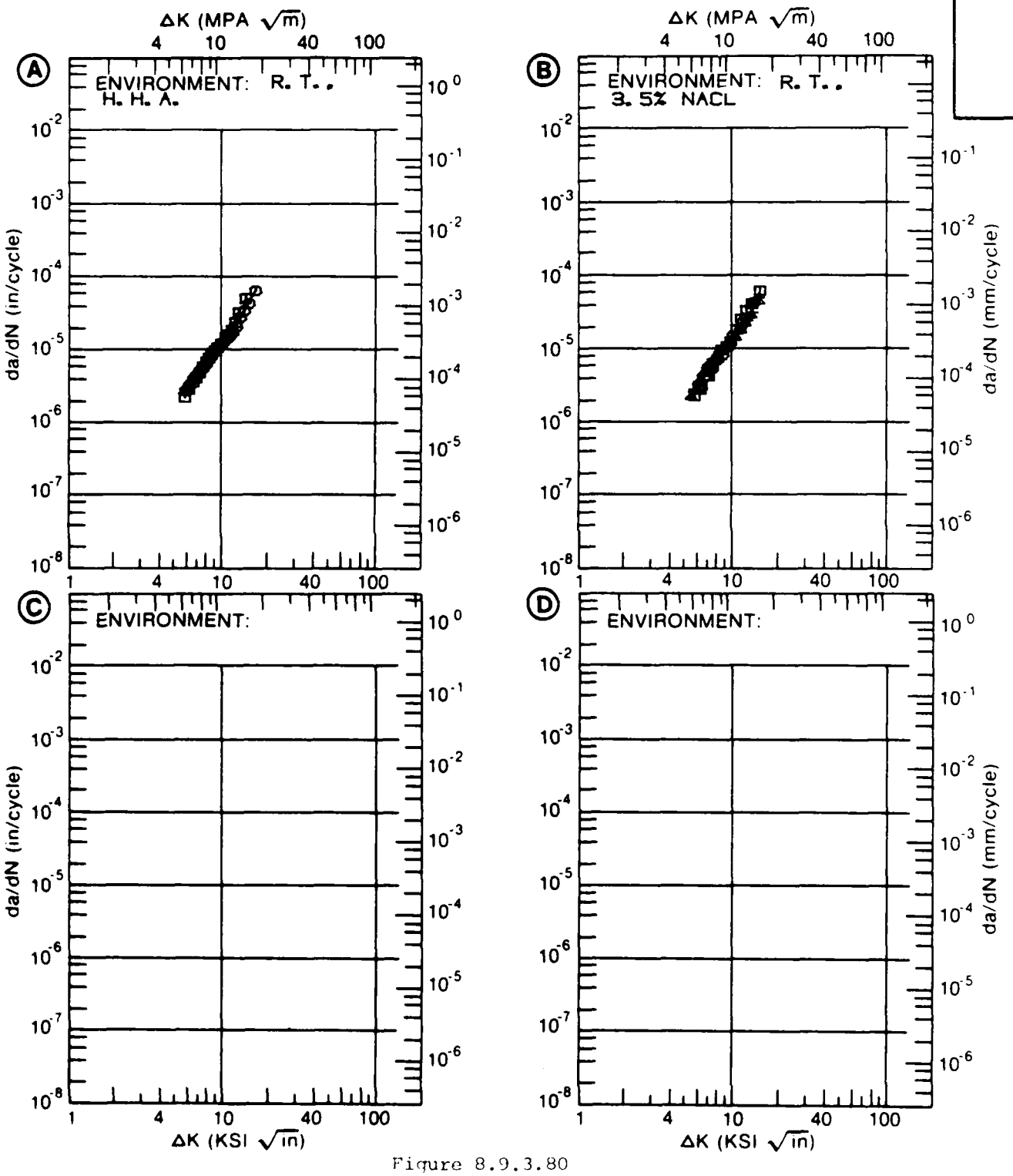

Figure 8.9.3.80

TABLE 8.9.3.81

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.81 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			EP R.T. LAB AIR			
DELTA K MIN	A:	5.69	2.08			
	B:					
	C:					
	D:					
		6.00	2.58			
		7.00	4.42			
		8.00	6.52			
		9.00	8.80			
		10.00	11.2			
		13.00	20.2			
		16.00	33.9			
		20.00	68.5			
DELTA K MAX	A:	22.72	114.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 13.19

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	5
	0.5-0.8	8
	0.8-1.25	8
	1.25-2.0	0
	>2.0	0

CONDITION/HT: T7352
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750- 0.760"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

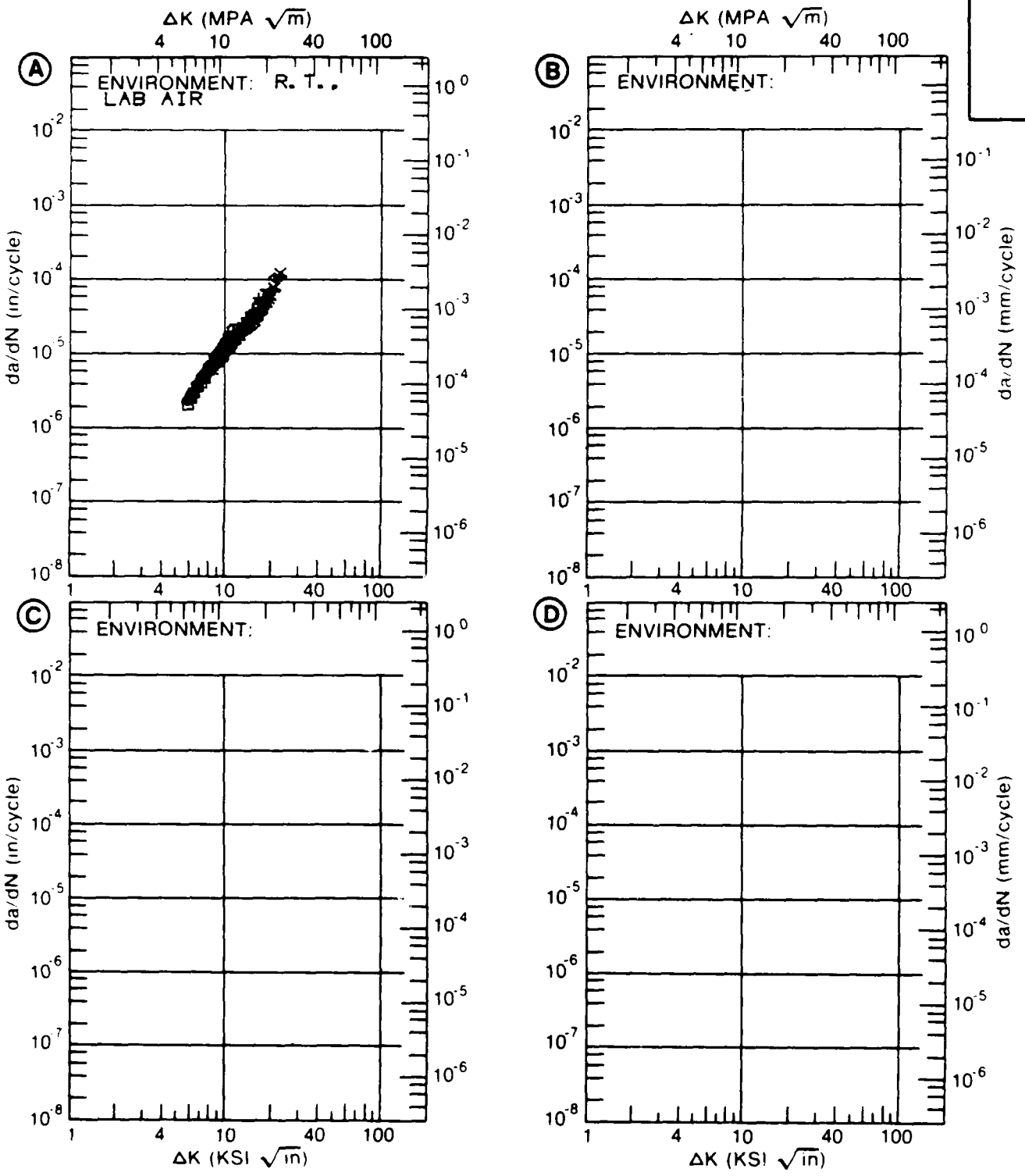

Figure 8.9.3.81

TABLE 8.9.3.82

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.82 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.78	2.52			
	B:					
	C:					
	D:					
		6.00	2.85			
		7.00	4.67			
		8.00	7.04			
		9.00	10.0			
		10.00	13.6			
DELTA K MAX	A:	10.85	17.3			
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			2.52			
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0				
		>2.0				

CONDITION/HT: T7352
FORM: 6.00" TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: S-T
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

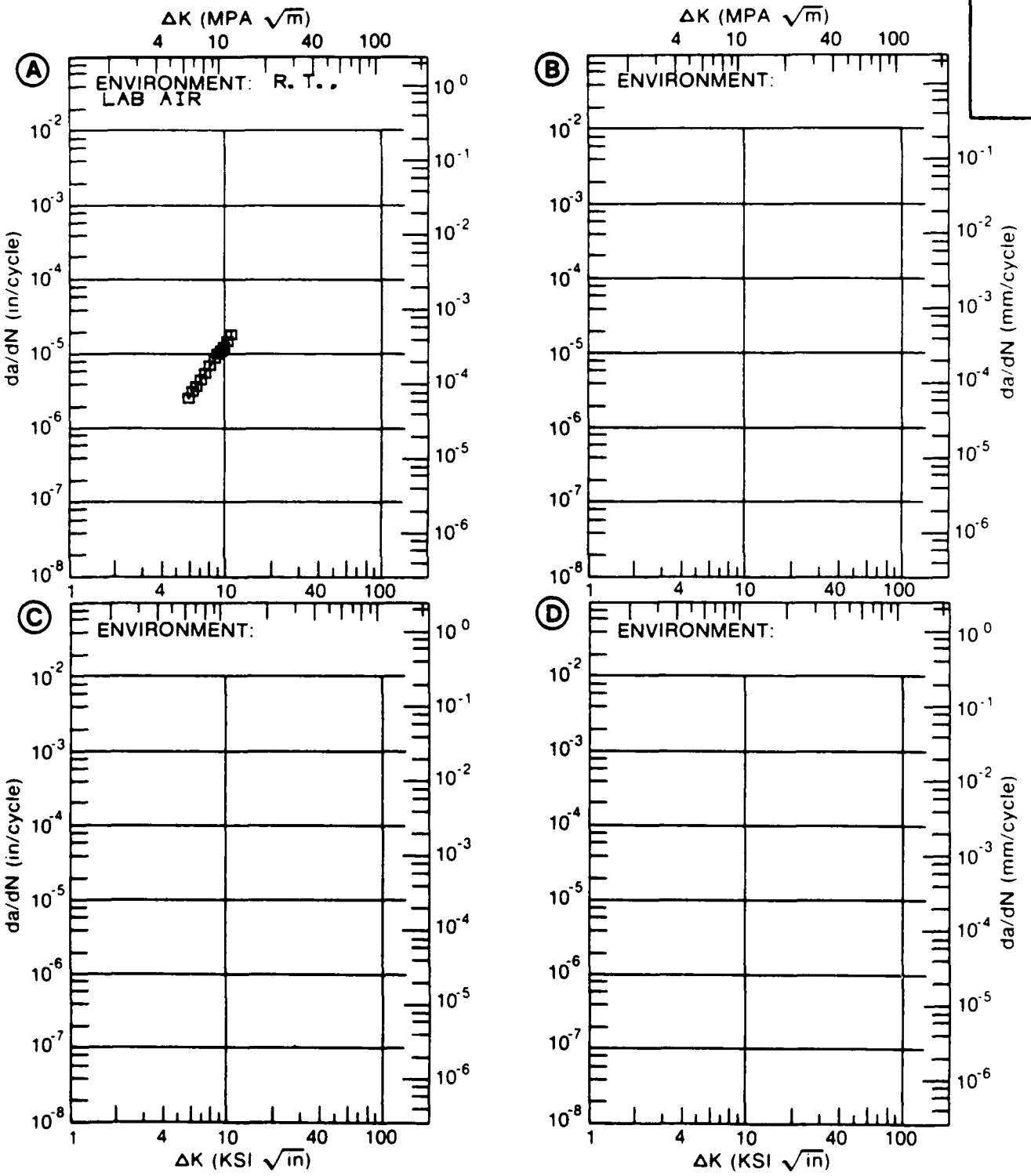

Figure 8.9.3.82

TABLE 8.9.3.83

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.83 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7352

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 5.82	3.15			
	B:				
	C:				
	D:				
	6.00	3.52			
	7.00	6.01			
	8.00	9.33			
	9.00	13.7			
	10.00	19.5			
	13.00	51.3			
	16.00	130.			
DELTA K MAX	A: 16.82	168.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 19.10

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	2
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7352
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: S-L
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7075

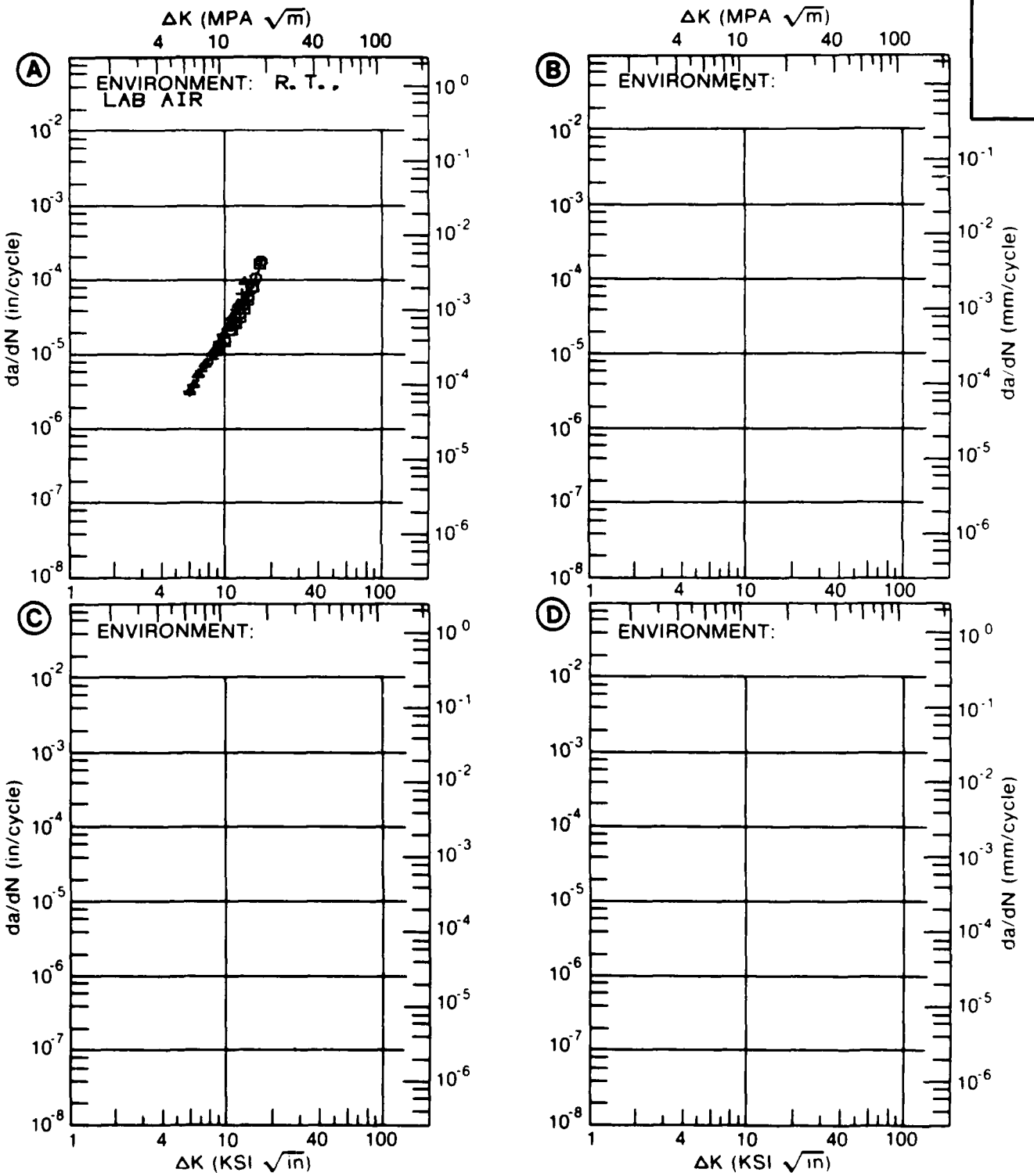

Figure 8.9.3.83

TABLE 8.9.3.84

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.84 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T76
ENVIRONMENT: R T. ,L H. A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		R=+0.30			
DELTA K MIN A:	4.26	.288			
DELTA K MIN B:					
DELTA K MIN C:					
DELTA K MIN D:					
	5.00	.783			
	6.00	1.98			
	7.00	3.68			
	8.00	5.63			
	9.00	7.75			
	10.00	10.1			
	13.00	19.7			
DELTA K MAX A:	15.89	37.3			
DELTA K MAX B:					
DELTA K MAX C:					
DELTA K MAX D:					

ROOT MEAN SQUARE PERCENT ERROR 12.33

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T76
FORM: 0.10"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., L.H.A.

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.099"
SPECIMEN WIDTH: 23.790"
REFERENCES:86575

ALUM. ALLOY

7075

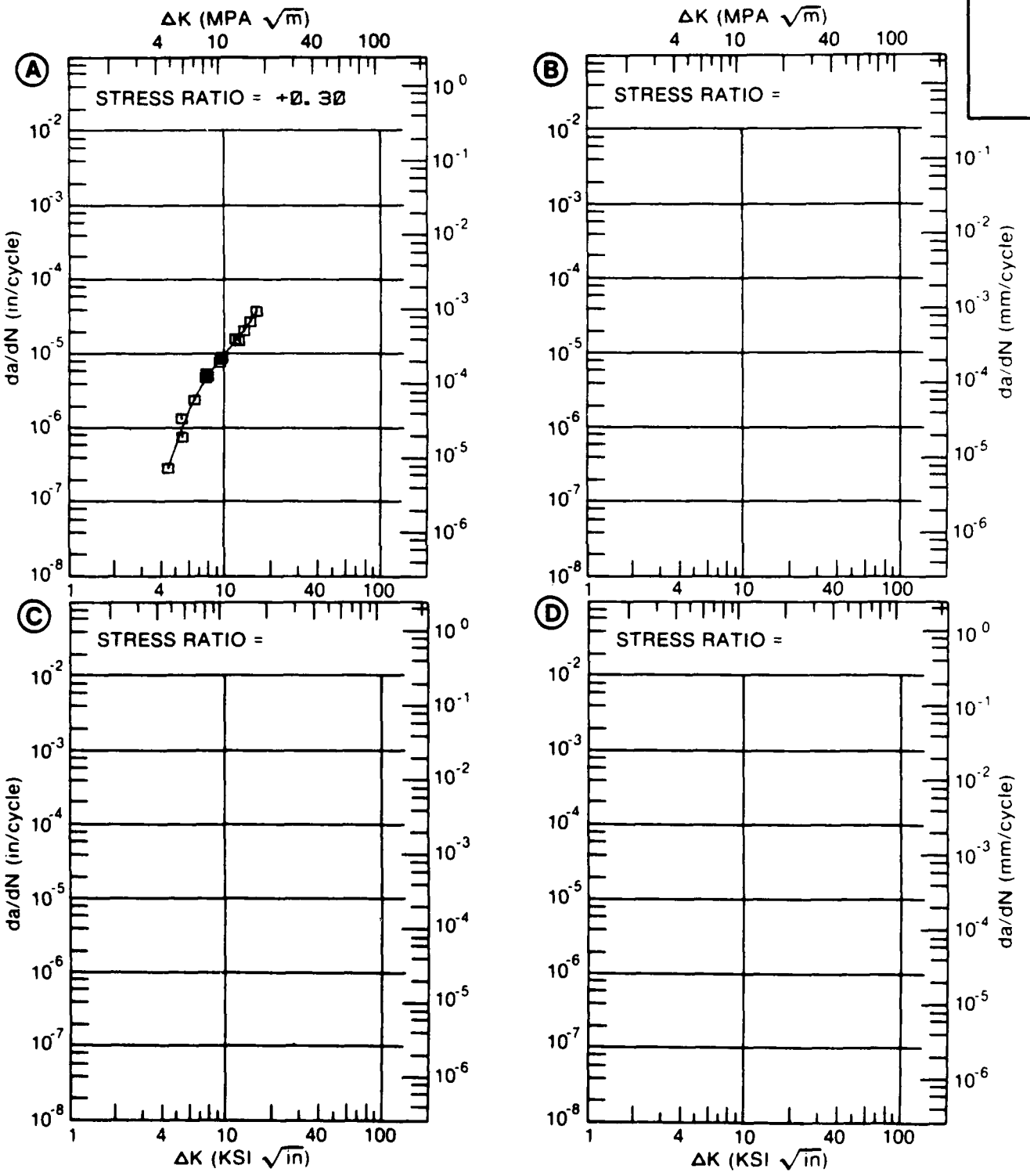

Figure 8.9.3.84

TABLE 8.9.3.85

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.85 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T76

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A., 1HZ	E= R.T. L.H.A., 6HZ	E= R.T. S.T.W., 1HZ	E= R.T. S.C.S., 1HZ
DELTA K MIN	A:	3.71	.333			
	B:	3.85		.203		
	C:					
	D:					
		4.00	.347	.242		
		5.00	.567	.615		
		6.00	1.09	1.20		
		7.00	1.98	2.01		
		8.00	3.18	3.05		
		9.00	4.44	4.33		
		10.00	5.69	5.87		
		13.00	10.1	12.3		
		16.00	19.1	22.3		
		20.00		43.8		
		25.00		92.7		
DELTA K MAX	A:	18.43	36.0			
	B:	28.99		161.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			36.67	48.67	0.00	0.00
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T76
FORM: 0.10"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY:

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.098- 0.099"
SPECIMEN WIDTH: 23.800- 23.850"
REFERENCES:86575

ALUM. ALLOY

7075

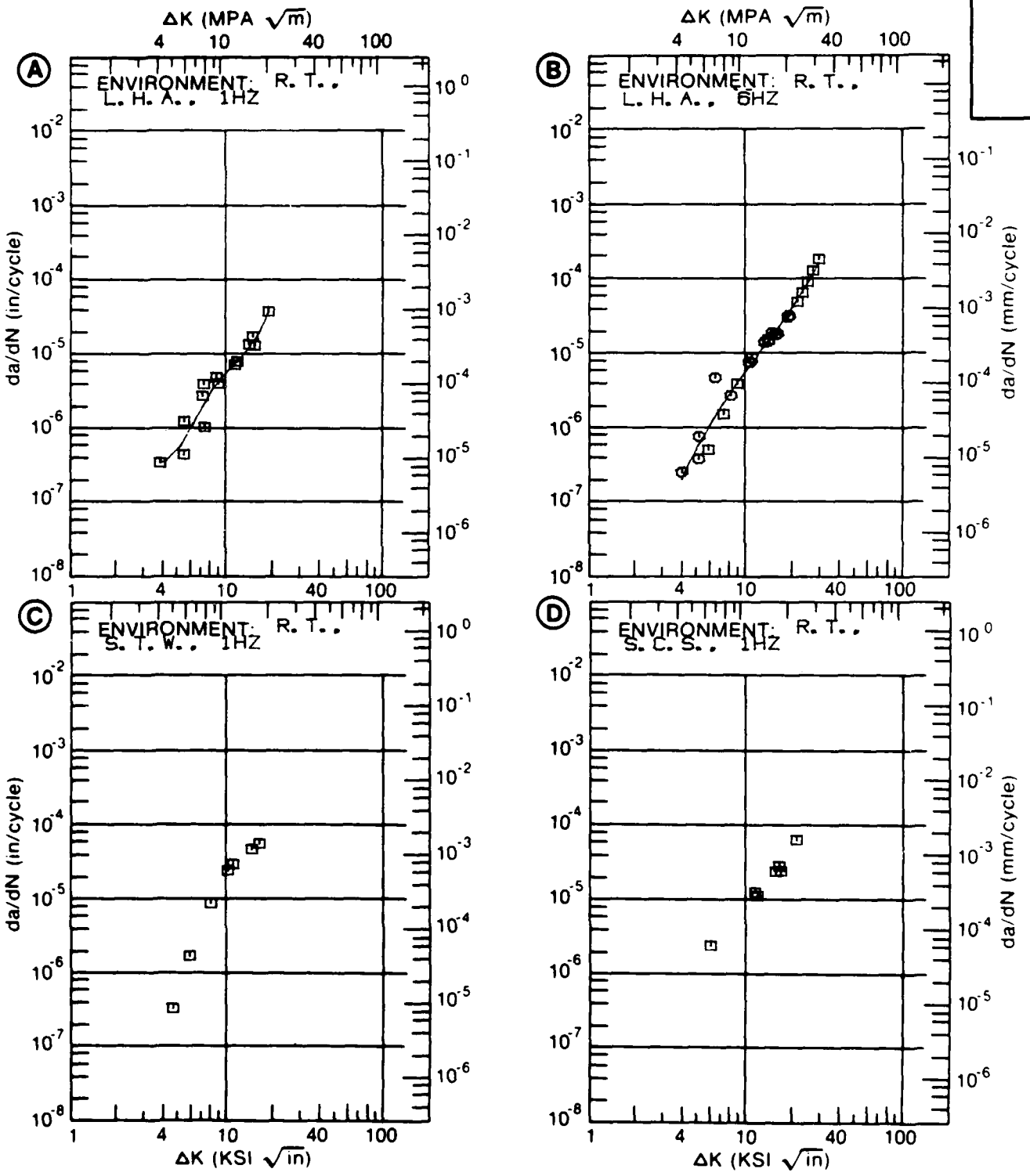

Figure 8.9.3.85

TABLE 8.9.3.86

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.86 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T76
ENVIRONMENT: R.T. ,L.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.08			
DELTA K MIN	A: 5.80	1.55			
	B:				
	C:				
	D:				
	6.00	1.57			
	7.00	2.23			
	8.00	3.92			
	9.00	6.95			
	10.00	11.2			
	13.00	23.5			
	16.00	33.5			
	20.00	58.2			
	25.00	175.			
	30.00	408.			
DELTA K MAX	A: 32.04	415.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 12.32

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T76
FORM: 0.10"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.099"
SPECIMEN WIDTH: 23.790"
REFERENCES:86575

ALUM. ALLOY

7075

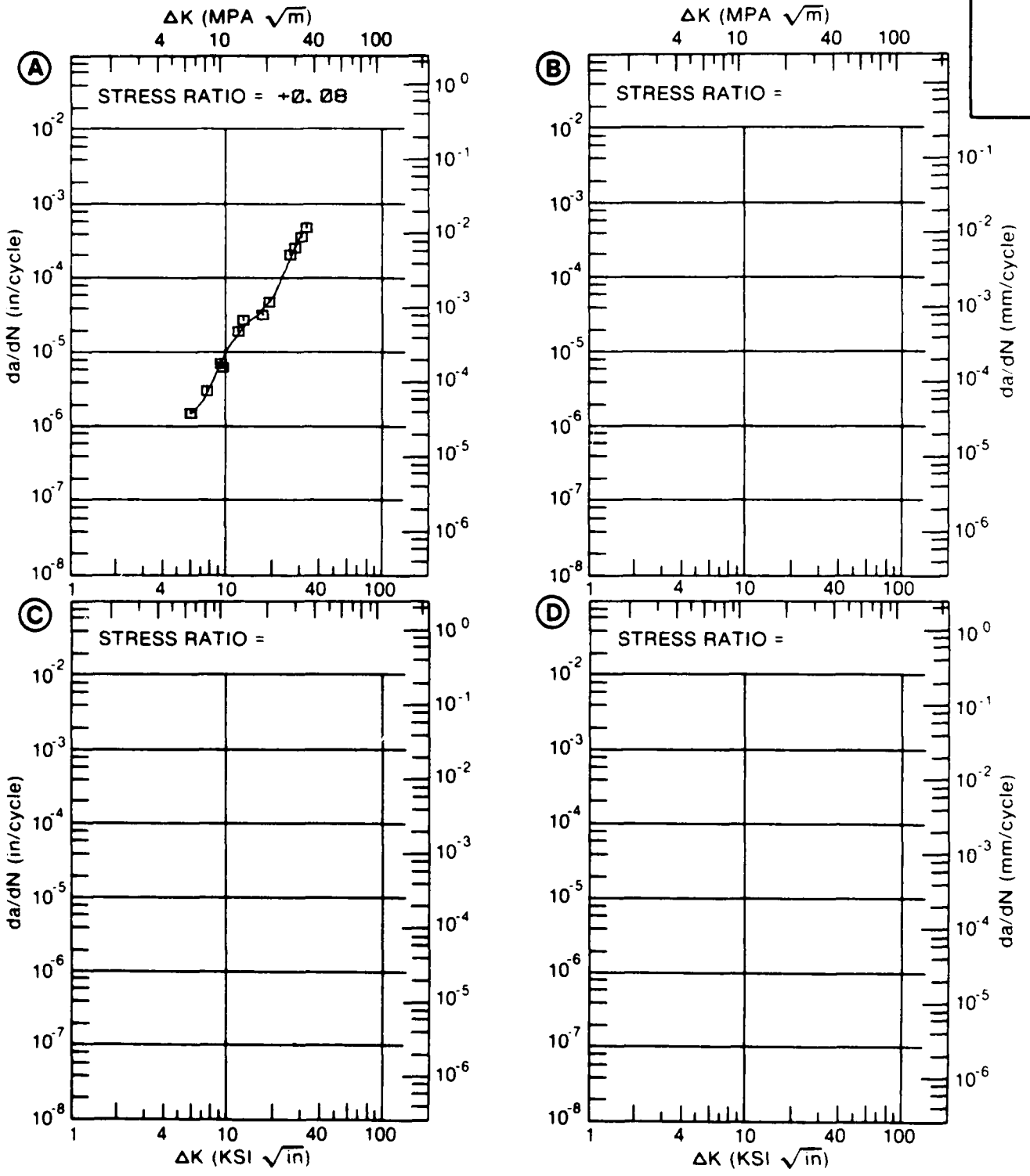

Figure 8.9.3.86

TABLE 8.9.3.87

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.87 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7651
ENVIRONMENT: R.T., L.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.08	R=+0.30		
DELTA K MIN	A:				
	B: 3.26		.163		
	C:				
	D:				
	3.50		.197		
	4.00		.297		
	5.00		.668		
	6.00		1.37		
	7.00		2.52		
	8.00		4.14		
	9.00		6.22		
	10.00		8.75		
	13.00		19.1		
	16.00		34.2		
DELTA K MAX	A:				
	B: 17.22		41.9		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	22.73		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25		1		
	1.25-2.0		1		
	>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., L.H.A.

YIELD STRENGTH: 63.0- 64.7 KSI
ULT. STRENGTH: 74.0- 75.5 KSI
SPECIMEN THK: 0.812- 0.992"
SPECIMEN WIDTH: 6.000- 7.400"
REFERENCES:88579, 85837

ALUM. ALLOY

7075

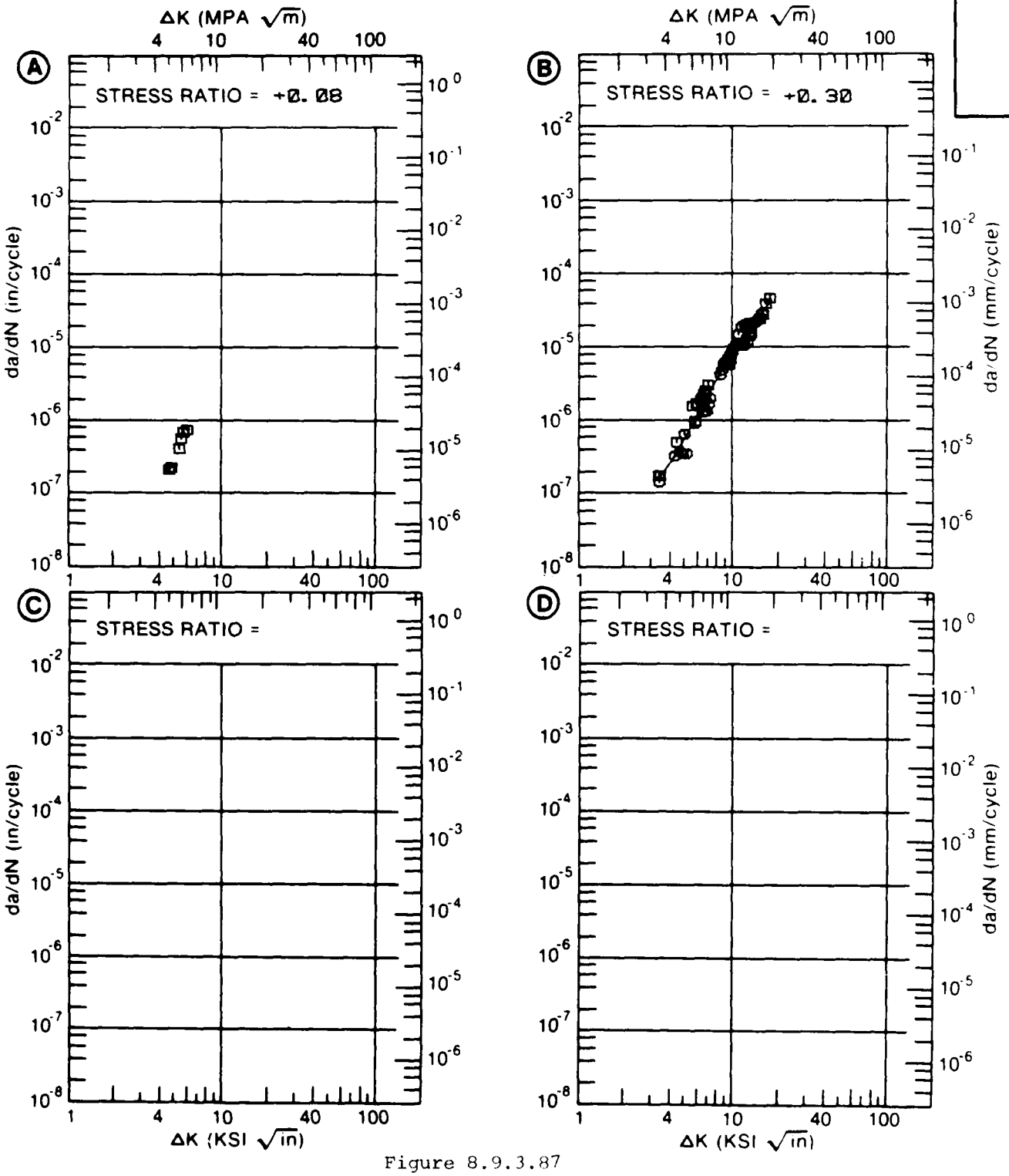

Figure 8.9.3.87

TABLE 8.9.3.88

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.88 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7651
ENVIRONMENT: R.T. ,S.T.W.

		DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A R=+0.08	B R=+0.30	C R=+0.50	D
DELTA K MIN	A:	4.54	.795			
	B:	4.41		1.49		
	C:	3.35			.745	
	D:					
		3.50			.903	
		4.00			1.52	
		5.00	1.16	2.17	3.04	
		6.00	2.20	3.58	4.78	
		7.00	3.55	5.32	6.72	
		8.00	5.18	7.41	9.00	
		9.00	7.12	9.88	11.8	
		10.00	9.40	12.8	15.3	
		13.00	19.1	25.0		
DELTA K MAX	A:	13.60	21.7			
	B:	13.60		28.2		
	C:	11.02			20.0	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.56	8.12	5.93	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 63.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.992- 0.995"
SPECIMEN WIDTH: 7.400"
REFERENCES:85837

ALUM. ALLOY

7075

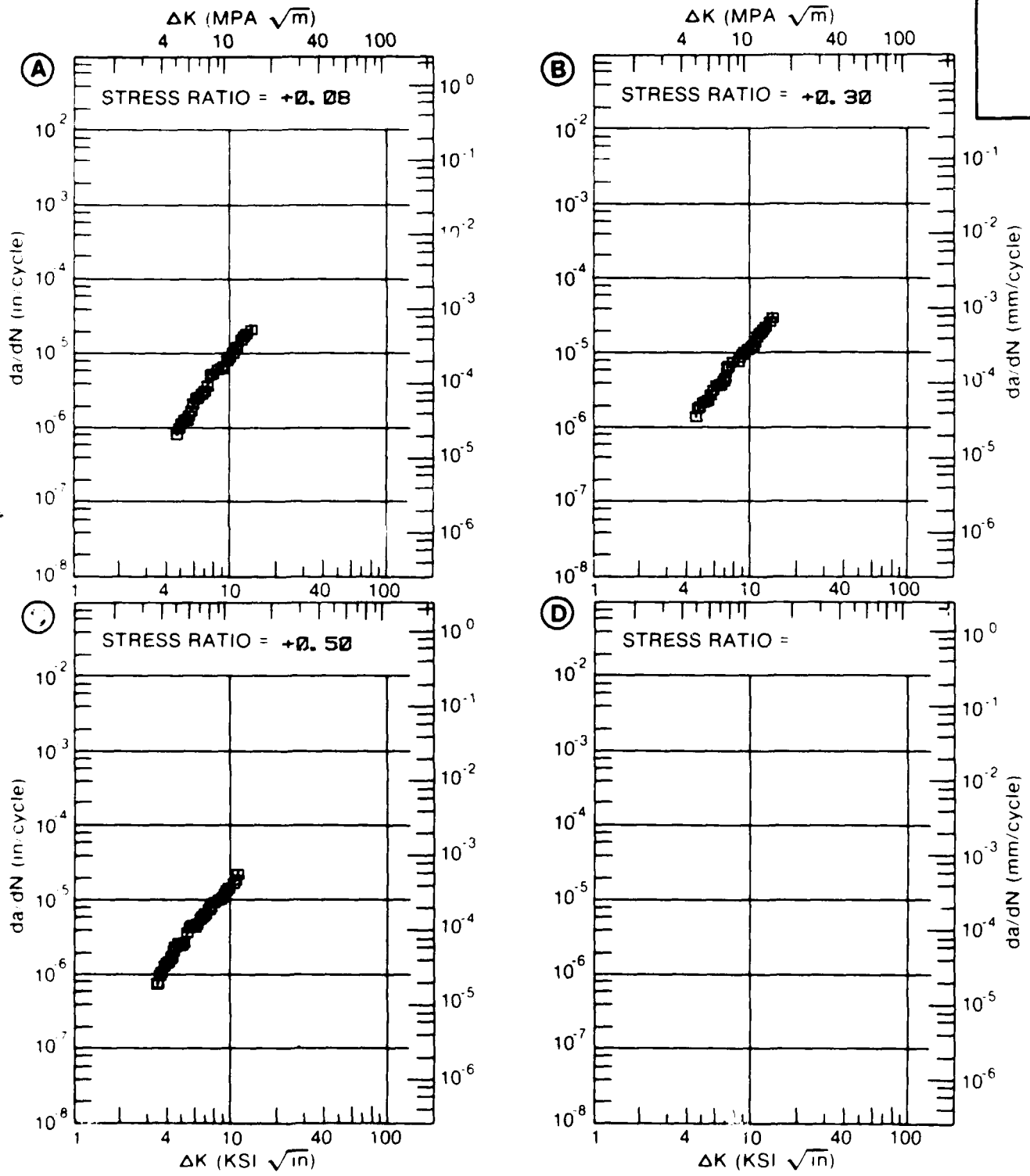

Figure 8.9.3.88

TABLE 8.9.3.89

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.89 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A. SP.THK.=.501"	E= R.T. L.H.A. SP.THK.=.250"		
DELTA K MIN	A:	5.08	.362			
	B:	8.23		3.19		
	C:					
	D:					
		6.00	.441			
		7.00	.909			
		8.00	2.00			
		9.00	3.77	4.05		
		10.00	5.63	5.20		
		13.00		9.97		
DELTA K MAX	A:	10.11	5.78			
	B:	13.89		12.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.55	2.68		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 63.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK:
SPECIMEN WIDTH: 7.400"
REFERENCES:85837, 88579

ALUM. ALLOY

7075

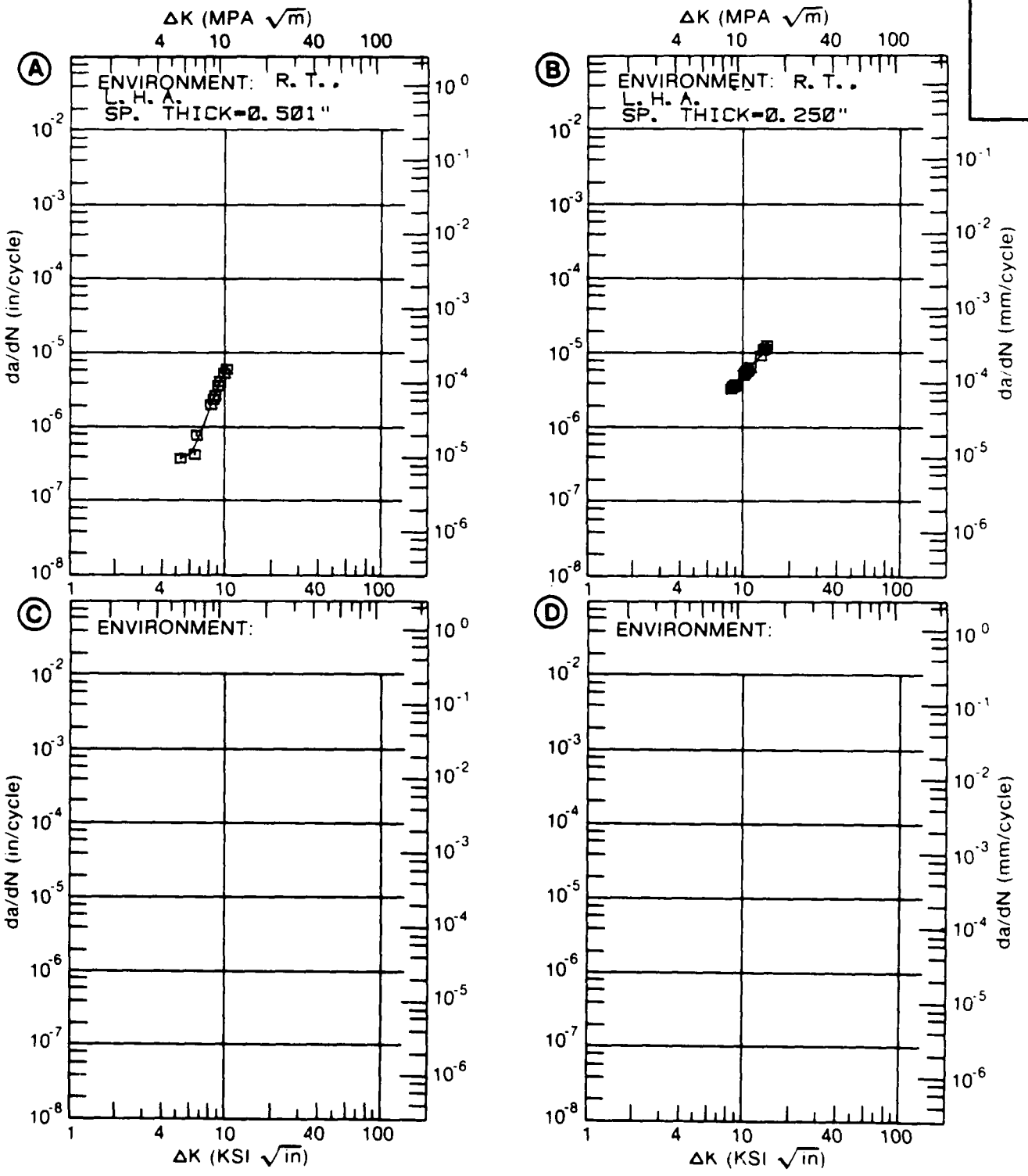

Figure 8.9.3.89

TABLE 8.9.3.90

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.90 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. S.T.W.		
DELTA K MIN	A:	4.88	.391			
	B:	3.59		.349		
	C:					
	D:					
		4.00		.436		
		5.00	.385	.868		
		6.00	.933	1.77		
		7.00	2.21	3.39		
		8.00	4.18	5.95		
		9.00	6.78	9.50		
		10.00	9.90	13.9		
		13.00	21.3	27.9		
		16.00	34.2			
		20.00	53.0			
DELTA K MAX	A:	23.91	158.			
	B:	15.70		33.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			12.71	11.02		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 64.7 KSI
ULT. STRENGTH: 75.5 KSI
SPECIMEN THK: 0.813- 0.814"
SPECIMEN WIDTH: 6.000"
REFERENCES:85837

ALUM. ALLOY

7075

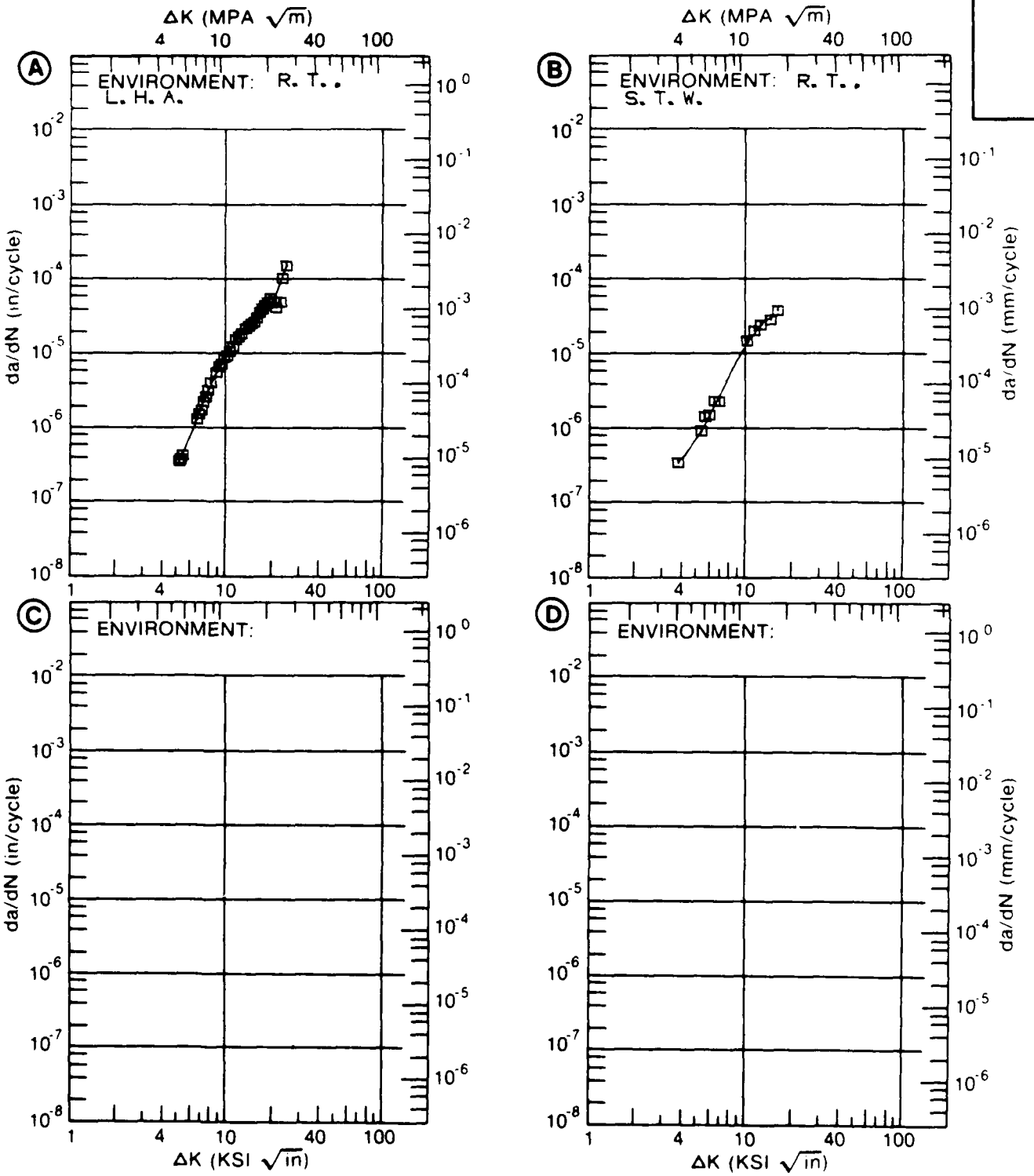

Figure 8.9.3.90

TABLE 8.9.3.91

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.91 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. S.C.S.	E= R.T. S.T.W.	
DELTA K MIN	A:	3.94	.237			
	B:	3.88		.259		
	C:	4.54			.795	
	D:					
		4.00	.262	.316		
		5.00	.913	1.09	1.16	
		6.00	1.96	2.33	2.20	
		7.00	3.28	3.87	3.55	
		8.00	4.81	5.60	5.18	
		9.00	6.55	7.47	7.12	
		10.00	8.57	9.51	9.40	
		13.00	17.5	17.4	19.1	
		16.00	35.8	30.8		
DELTA K MAX	A:	16.45	40.0			
	B:	18.21		47.5		
	C:	13.60			21.7	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			11.26	8.41	7.56	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1		1	
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 63.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.990- 0.994"
SPECIMEN WIDTH: 7.400"
REFERENCES:85837, 88579

ALUM. ALLOY

7075

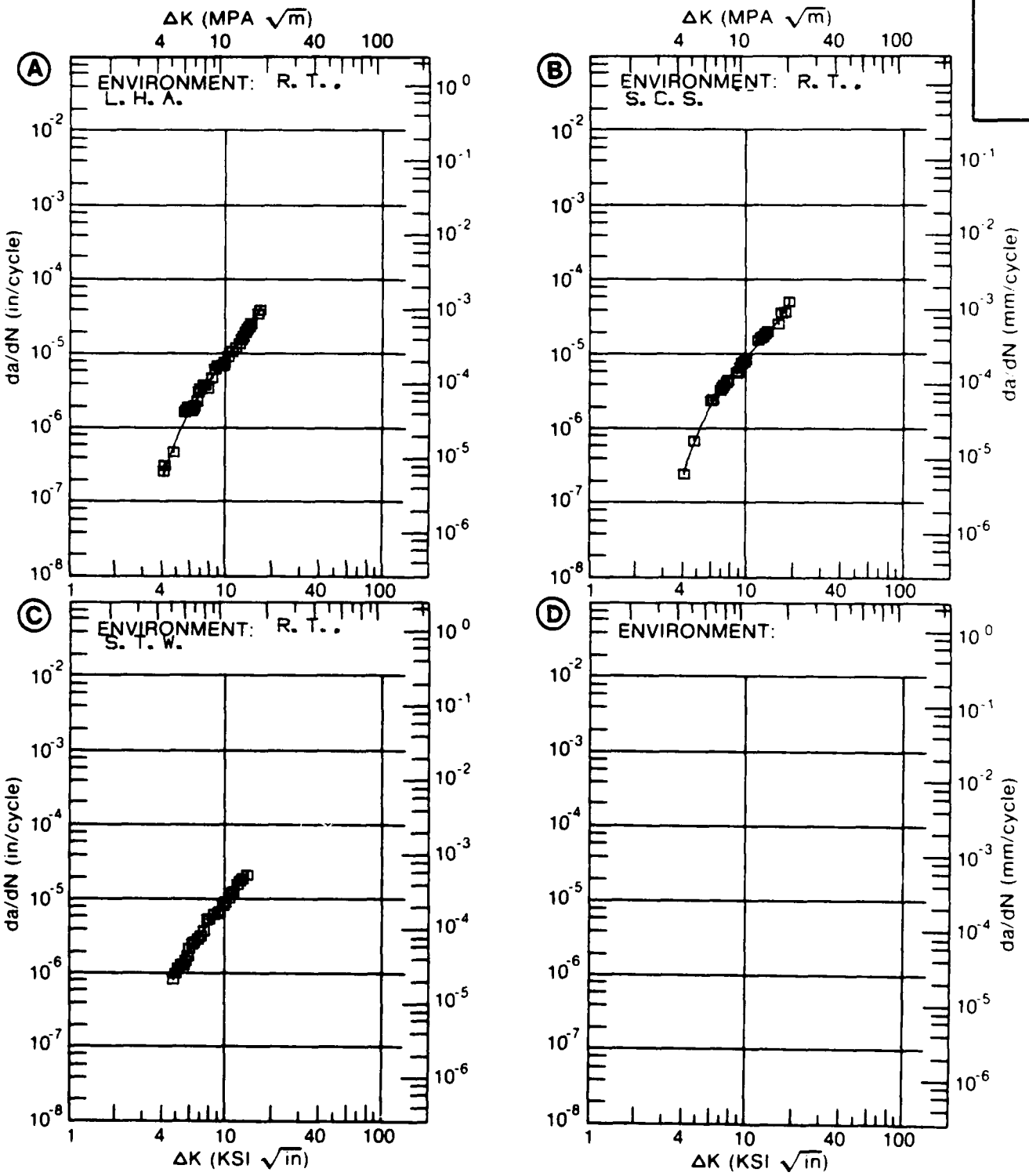

Figure 8.9.3.91

TABLE 8.9.3.92

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.92 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7075
CONDITION: T7651
ENVIRONMENT: + 265F, L. H. A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		F(HZ)= 1.00	F(HZ)= 6.00		
DELTA K MIN	A: 4.42	.889			
	B: 3.84		.518		
	C:				
	D:				
	4.00		.595		
	5.00	1.18	1.20		
	6.00	1.86	2.02		
	7.00	2.79	3.06		
	8.00	4.02	4.37		
	9.00	5.61	6.00		
	10.00	7.61	8.03		
	13.00	16.6	17.5		
	16.00	31.3			
	20.00	62.2			
	25.00	124.			
DELTA K MAX	A: 26.29	144.			
	B: 13.34		19.0		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		9.14	6.97		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8		1		
	0.8-1.25	1			
	1.25-2.0				
	>2.0				

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
ENVIRONMENT: + 265° F. L. H. A.

YIELD STRENGTH: 63.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.990"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

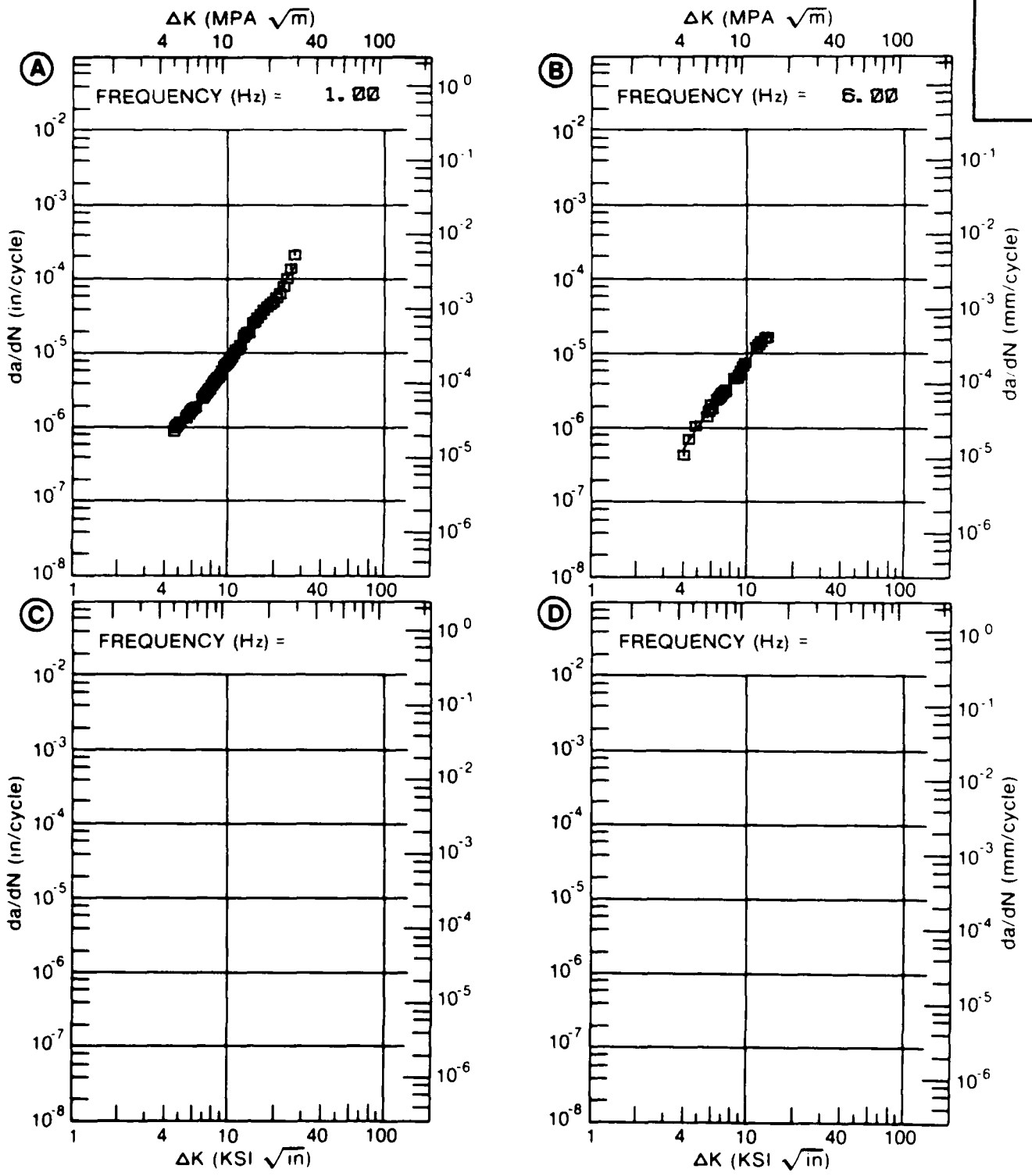

Figure 8.9.3.92

TABLE 8.9.3.93

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.93 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T7651
ENVIRONMENT: R.T. ,L.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.08			
DELTA K MIN	A: 6.51	1.49			
	B:				
	C:				
	D:				
	7.00	1.86			
	8.00	2.61			
	9.00	3.39			
	10.00	4.31			
	13.00	9.87			
	16.00	30.6			
DELTA K MAX	A: 17.22	52.9			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 13.52

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 64.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.505- 0.990"
SPECIMEN WIDTH: 7.400"
REFERENCES:85837, 88579

ALUM. ALLOY

7075

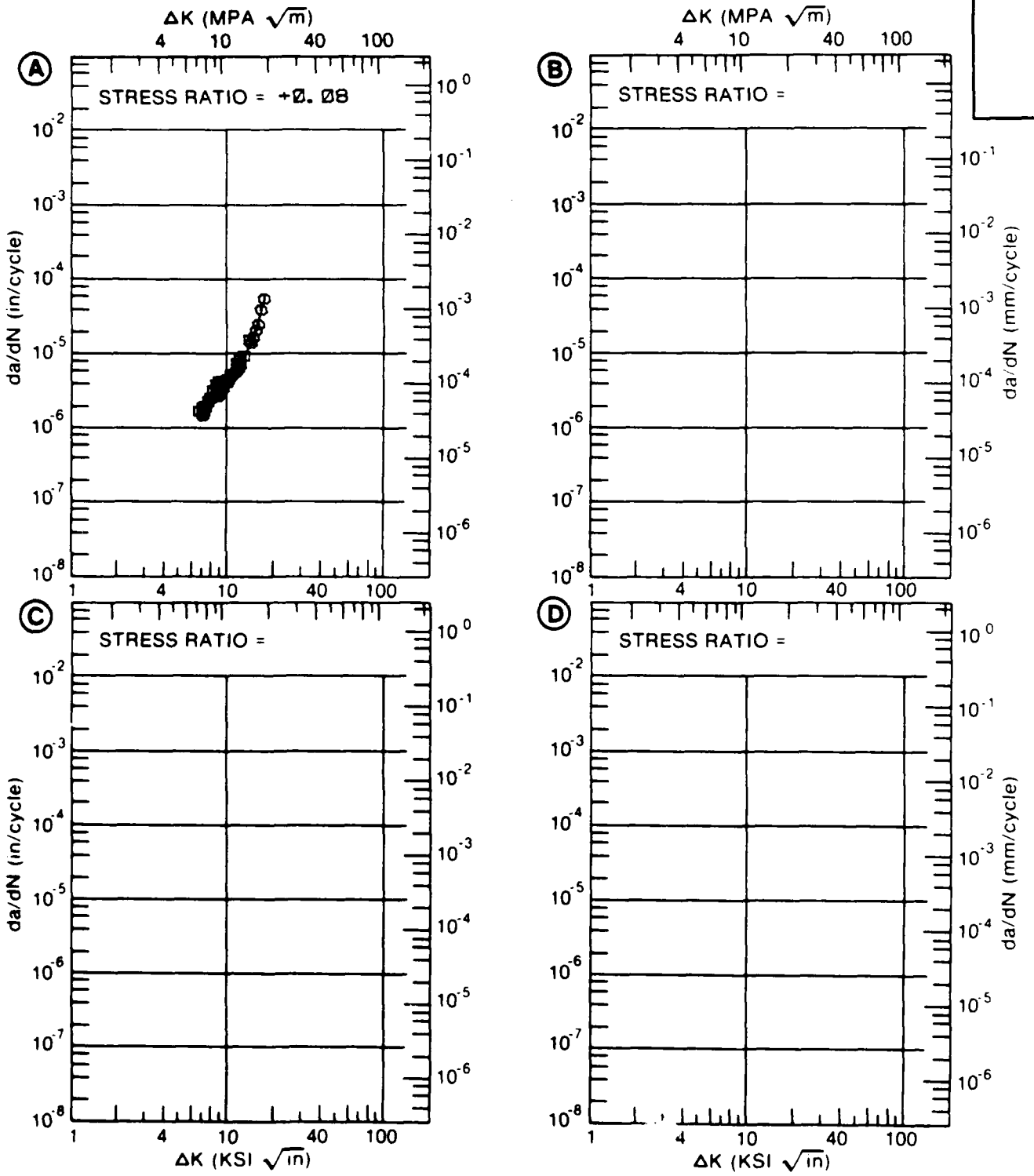

Figure 8.9.3.93

TABLE 8..9.3.94

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.94 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. S.C.S.			
DELTA K MIN	A:	4.30	.424			
	B:					
	C:					
	D:					
		5.00	.767			
		6.00	2.39			
		7.00	3.90			
		8.00	5.14			
		9.00	6.80			
		10.00	9.79			
		13.00	24.3			
DELTA K MAX	A:	14.82	36.4			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 11.33

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T7651
FORM: 2.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.08
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 64.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.990"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7075

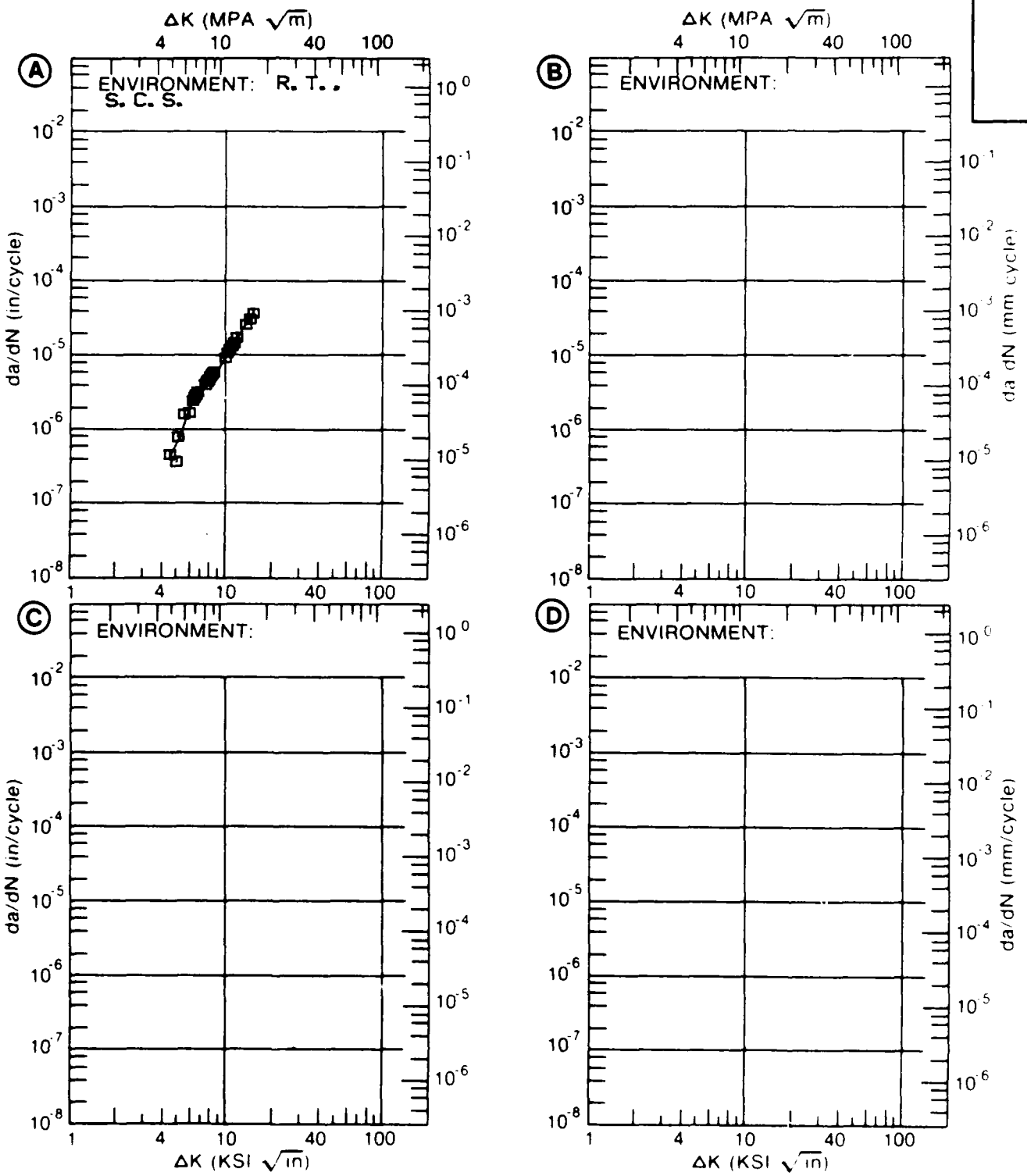

Figure 8.9.3.94

TABLE 8.9.3.95

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.95 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T76511
ENVIRONMENT: R T , L. H A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.08	R=+0.30		
DELTA K MIN A:	2.99	.139			
DELTA K MIN B:	4.80		.321		
DELTA K MIN C:					
DELTA K MIN D:					
	3.00	.139			
	3.50	.172			
	4.00	.271			
	5.00	.733	.506		
	6.00	1.50	1.99		
	7.00	2.43	3.61		
	8.00	3.43	5.12		
	9.00	4.50	6.55		
	10.00	5.67	7.97		
	13.00	10.3	13.5		
	16.00	18.6	25.2		
	20.00		72.6		
	25.00		338.		
DELTA K MAX A:	16.70	21.5			
DELTA K MAX B:	25.56		403.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		13.91	13.74		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25		1		
	1.25-2.0	1			
	2.0				

CONDITION/HT: T76511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T., L. H. A.

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 6.000"
REFERENCES:88579

ALUM. ALLOY

7075

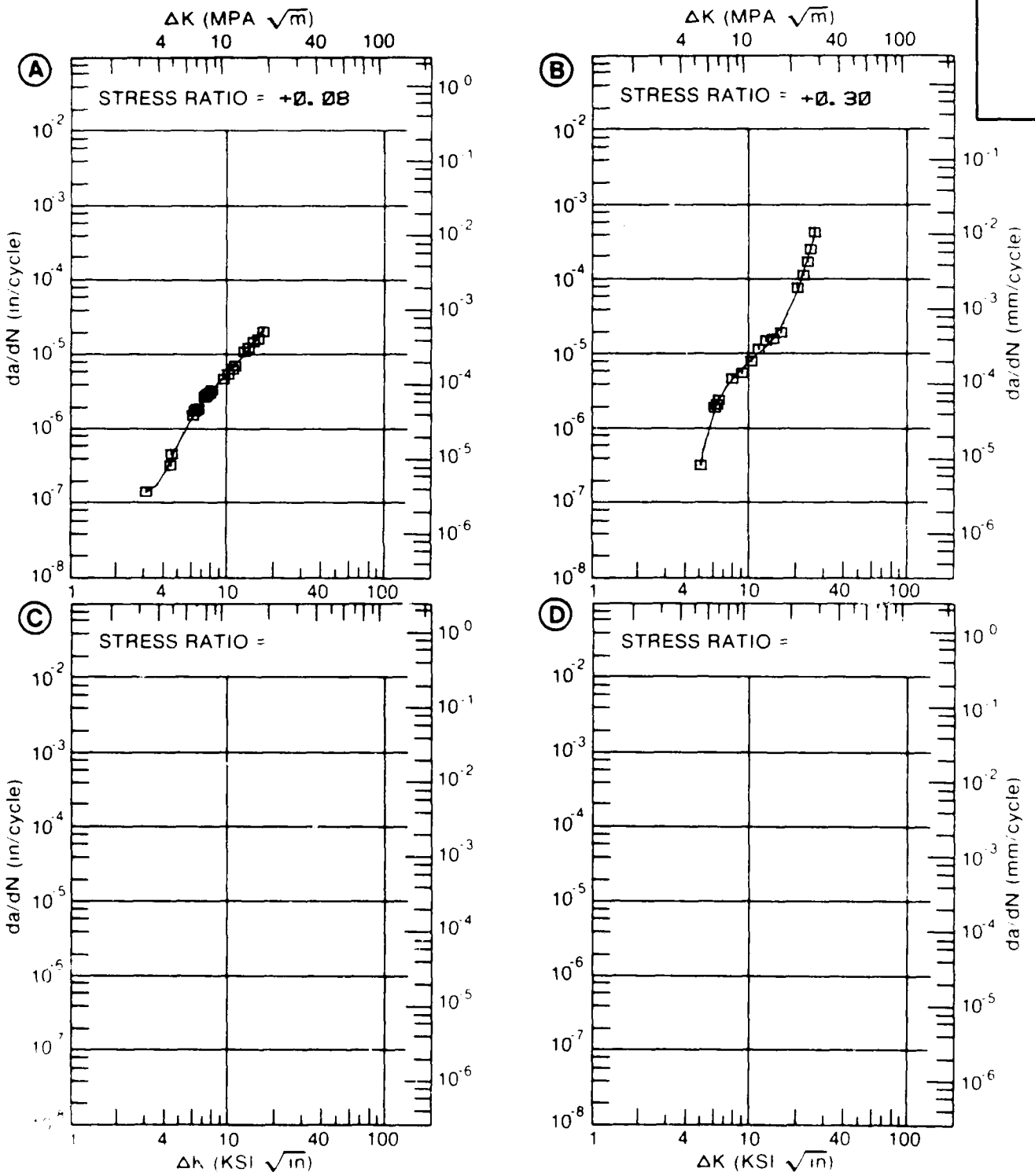

Figure 8.9.3.95

TABLE 8.9.3.96

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.96 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075
CONDITION: T76511
ENVIRONMENT: R T , L H A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.08			
DELTA K MIN	A:	6.23	1.65			
	B:					
	C:					
	D:					
		7.00	2.08			
		8.00	2.70			
		9.00	3.44			
		10.00	4.39			
		13.00	10.1			
		16.00	27.9			
DELTA K MAX	A:	19.09	127.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 8.99

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T76511
FORM: EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 6.00 HZ
ENVIRONMENT: R. T. , L. H. A.

YIELD STRENGTH: 61.0 KSI
ULT. STRENGTH: 72.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 6.000"
REFERENCES:88579

ALUM. ALLOY

7075

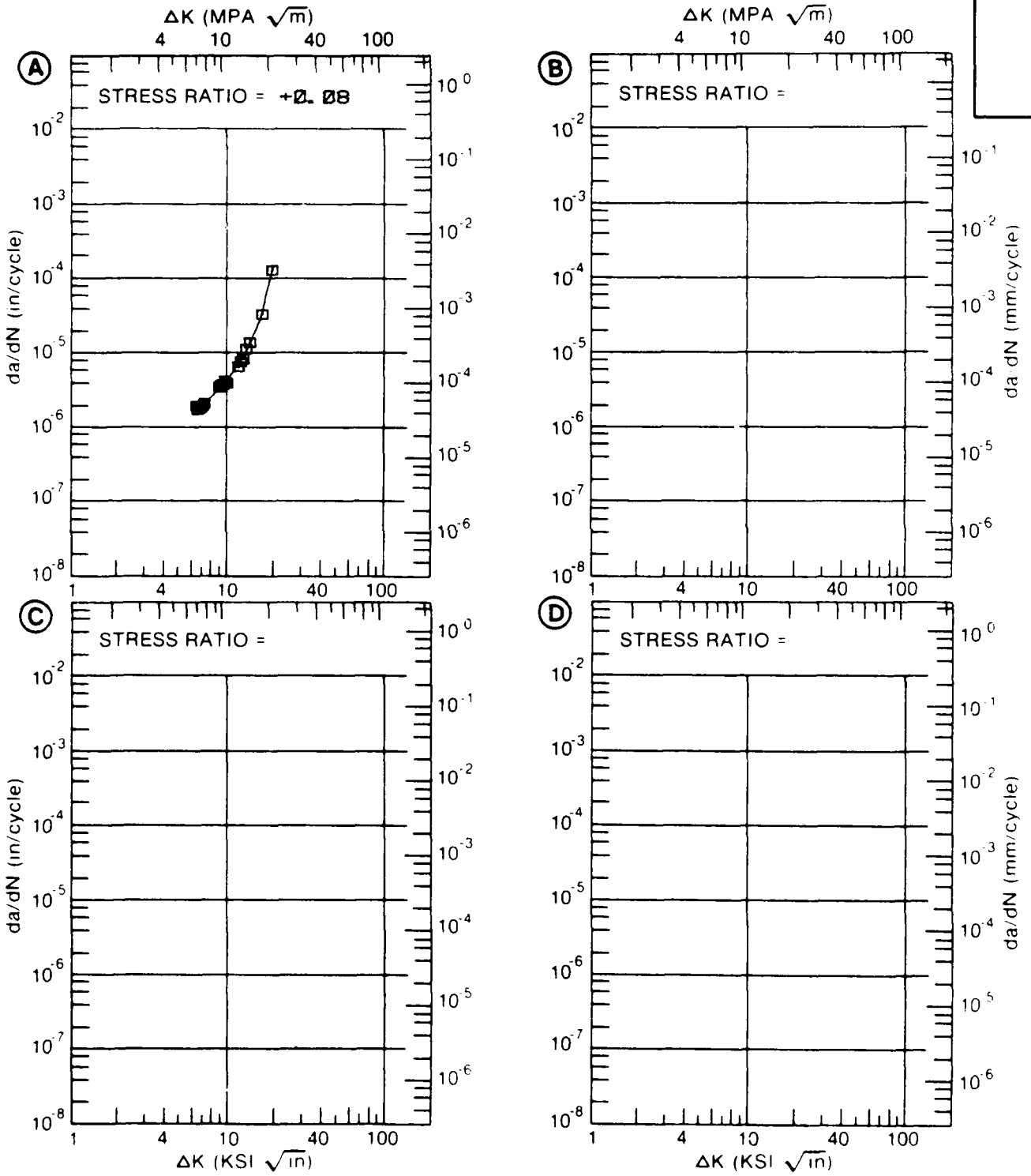

Figure 8.9.3.96

TABLE 8.9.3.97

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.97 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION:

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			E= F 3.5% NACL-T6	E= F 3.5% NACL-T6 +10HR 320F	E= F 3.5% NACL-T6 +15HR 320F	
	A:					
K MAX MIN	B:	4.50		126.		
	C:	3.80			156.	
	D:					
		4.00			176.	
		5.00		180.	260.	
		6.00		286.	316.	
		7.00		377.	351.	
		8.00		450.	374.	
		9.00		511.	392.	
		10.00		567.	409.	
		13.00		755.	479.	
		16.00		1059.	604.	
	A:					
K MAX MAX	B:	20.00		1873.		
	C:	20.00			916.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			0.00	16.25	18.15	

CONDITION/HT:
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 84286

ALUM. ALLOY

7075

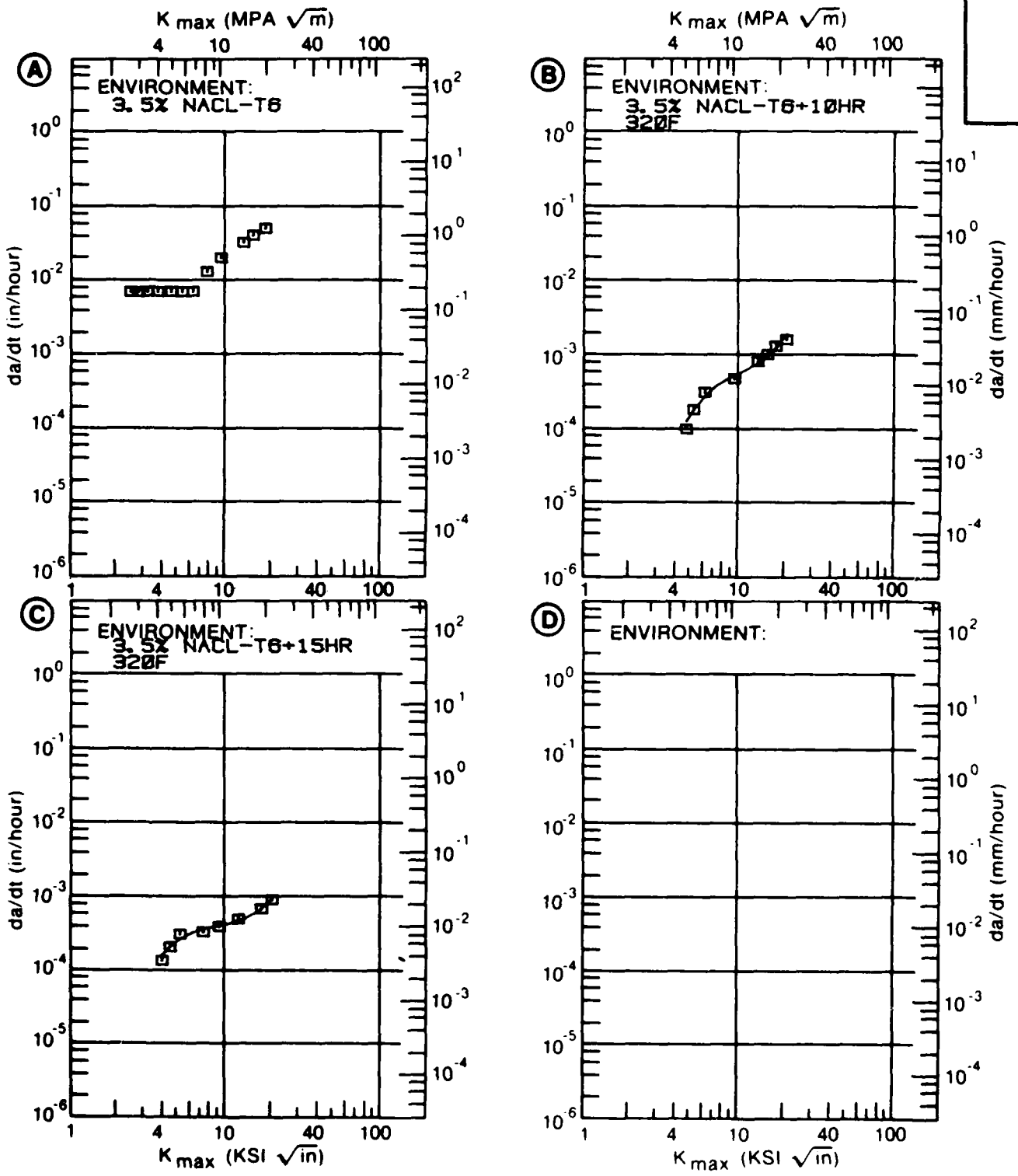

Figure 8.9.3.97

TABLE 8.9.3.98

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.98 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION:

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A: E= 3.5% NACL-T6 +20HR 320F	DA/DT (10**-6 IN/HOUR) B: E= 3.5% NACL-T6 +40HR 320F	DA/DT (10**-6 IN/HOUR) C	DA/DT (10**-6 IN/HOUR) D
K MAX MIN	A:	3.00	184.			
	B:					
	C:					
	D:					
		3.50	193.			
		4.00	209.			
		5.00	258.			
		6.00	320.			
		7.00	391.			
		8.00	468.			
		9.00	548.			
		10.00	628.			
		13.00	848.			
		16.00	1007.			
		20.00	1100.			
K MAX MAX	A:	22.00	1101.			
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.72	0.00		

CONDITION/HT:
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION:S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES:84286

ALUM. ALLOY

7075

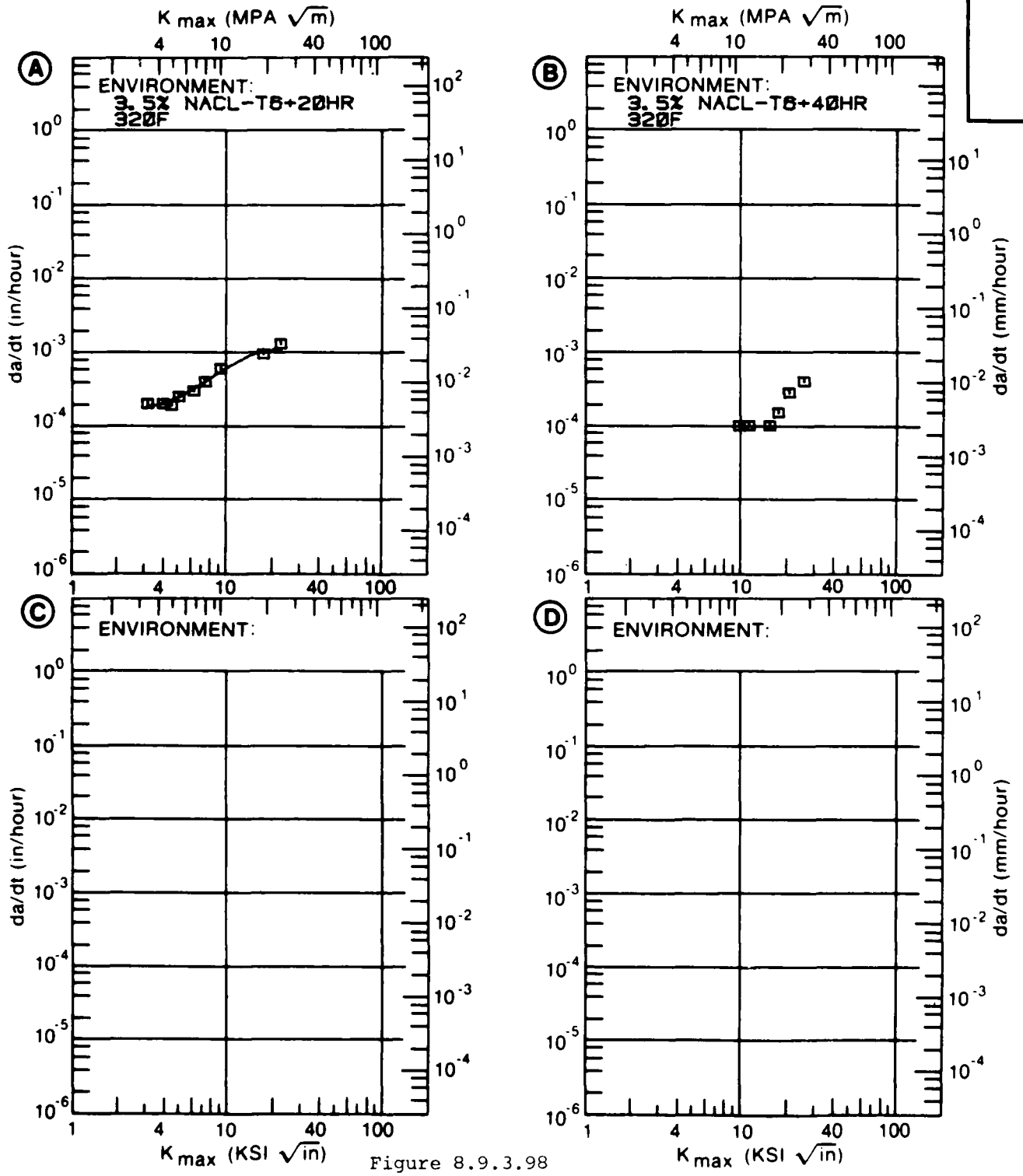

Figure 8.9.3.98

TABLE 8.9.3.99

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.99 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A: E= 3X/DAY-3.5NACL	B	C	D
K MAX MIN	A:	4.10	118			
	B:					
	C:					
	D:					
		5.00	260.			
		6.00	467.			
		7.00	698.			
		8.00	925.			
		9.00	1130.			
		10.00	1304.			
		13.00	1627.			
		16.00	1716.			
K MAX MAX	A:	20.00	1640.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 18.39

CONDITION/HT: T651
FORM:
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 78313

ALUM. ALLOY

7075

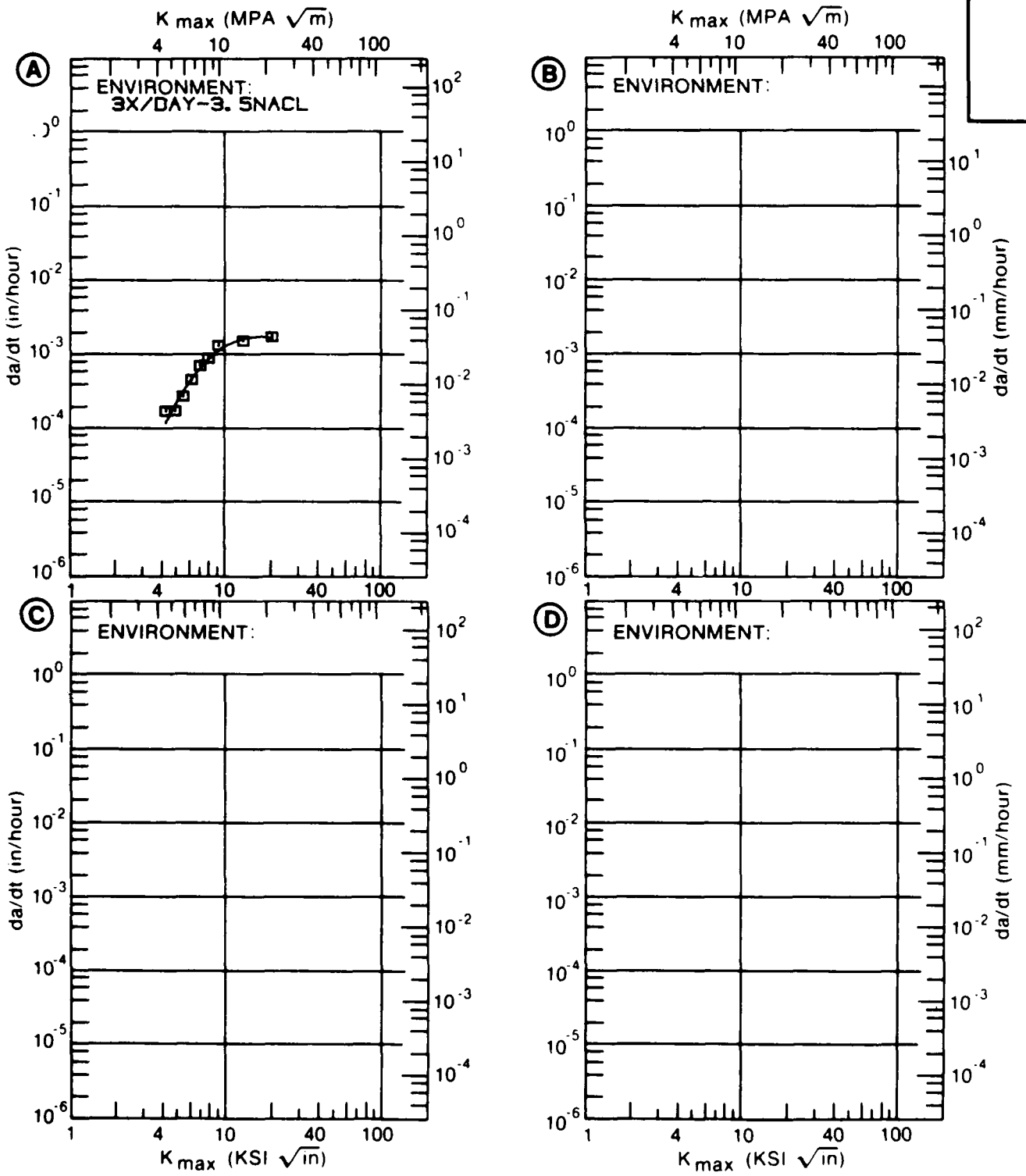

Figure 8.9.3.99

TABLE 8.9.3.100

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.100 INDICATING EFFECT OF ENVIRONMENT

MATERIAL ALUMINUM 7075
CONDITION T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			E= R.T. H.H.A. -100% REL HUM	E= R.T. H.H.A. -83% REL HUM.	E= R.T. LAB AIR-67% REL HUM.	E= R.T. LAB AIR-40% REL HUM
K MAX MIN	A:	7.50	25.5			
	B:					
	C:	7.30			5.98	
	D:	8.70				37.1
		8.00	63.2		30.8	
		9.00	210.		130.	52.8
		10.00	405.		277.	123.
		13.00	688.		455.	296.
		16.00	699.		406.	311.
K MAX MAX	A:	18.20	821.			
	B:					
	C:	17.30			422.	
	D:	17.30				312.
ROOT MEAN SQUARE PERCENT ERROR			12.35	0.00	15.10	9.75

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH: 11.800"
CRACK LENGTH (A_O):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7075

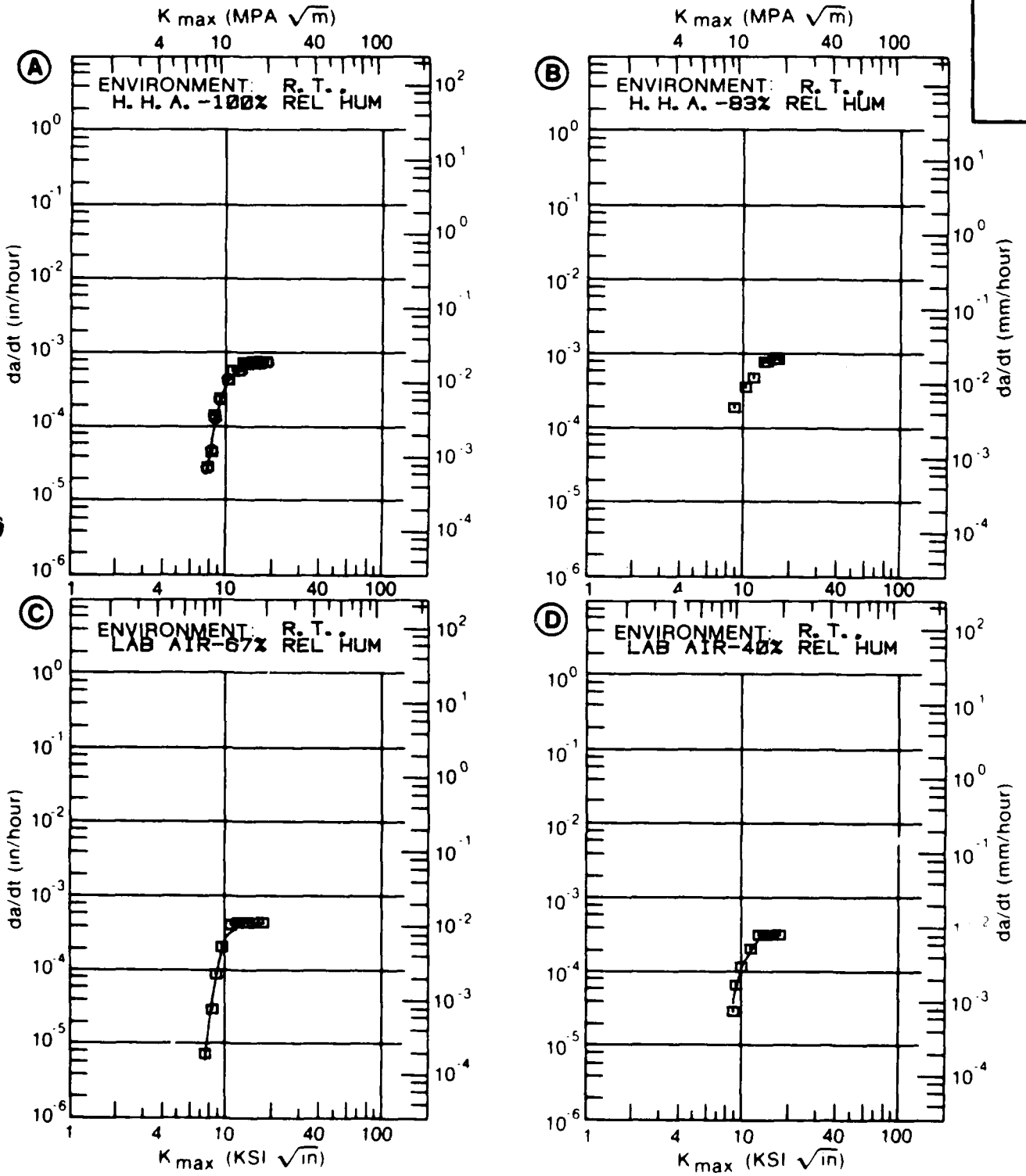

Figure 8.9.3.100

TABLE 8.9.3.101

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.101 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= R.T. LAB AIR-27% REL HUM	E= R.T. LAB AIR-17% REL HUM	E= R.T. L.H.A.	E= R.T. 5M KI, -27[illegible]V
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH: 11.800"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7075

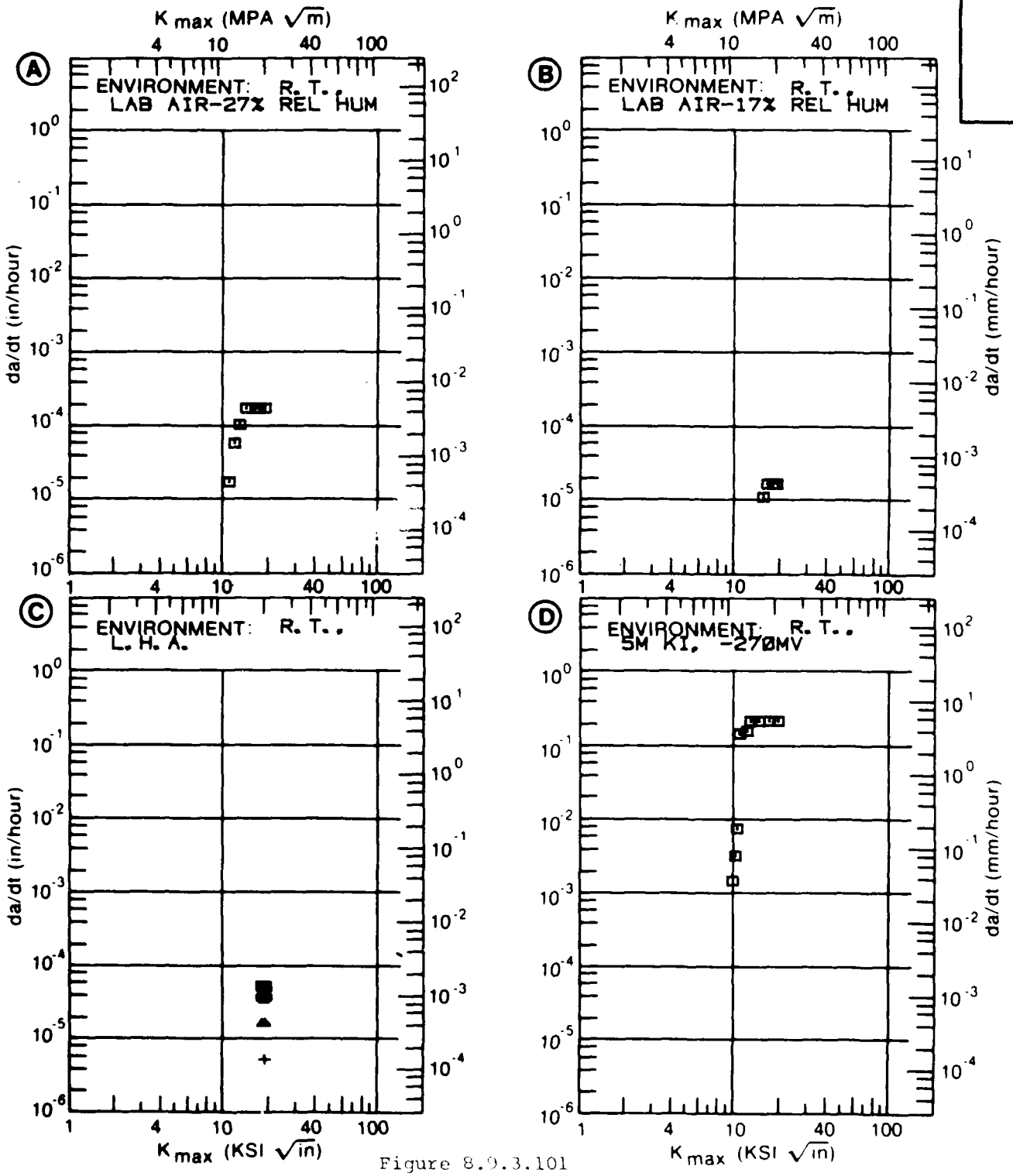

Figure 8.9.3.101

TABLE 8.9.3.102

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.102INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR)			
			A	B	C	D
			E= LAB AIR	E= 3.5% NACL	E= OUTDOORS, RENTON, WASH	E= WET 1X WITH 3.5%NACL
K MAX MIN	A: B: C: D:	9.20		472.		
		10.00		547.		
		13.00		886.		
		16.00		1244.		
		20.00		1600.		
		25.00		1705.		
K MAX MAX	A: B: C: D:	26.00		1681.		
ROOT MEAN SQUARE PERCENT ERROR			0.00	9.27	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION:S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 3.500- 5.000"
CRACK LENGTH (A_O):
K_{ISCC}:
REFERENCES:78313, 84284

ALUM. ALLOY

7075

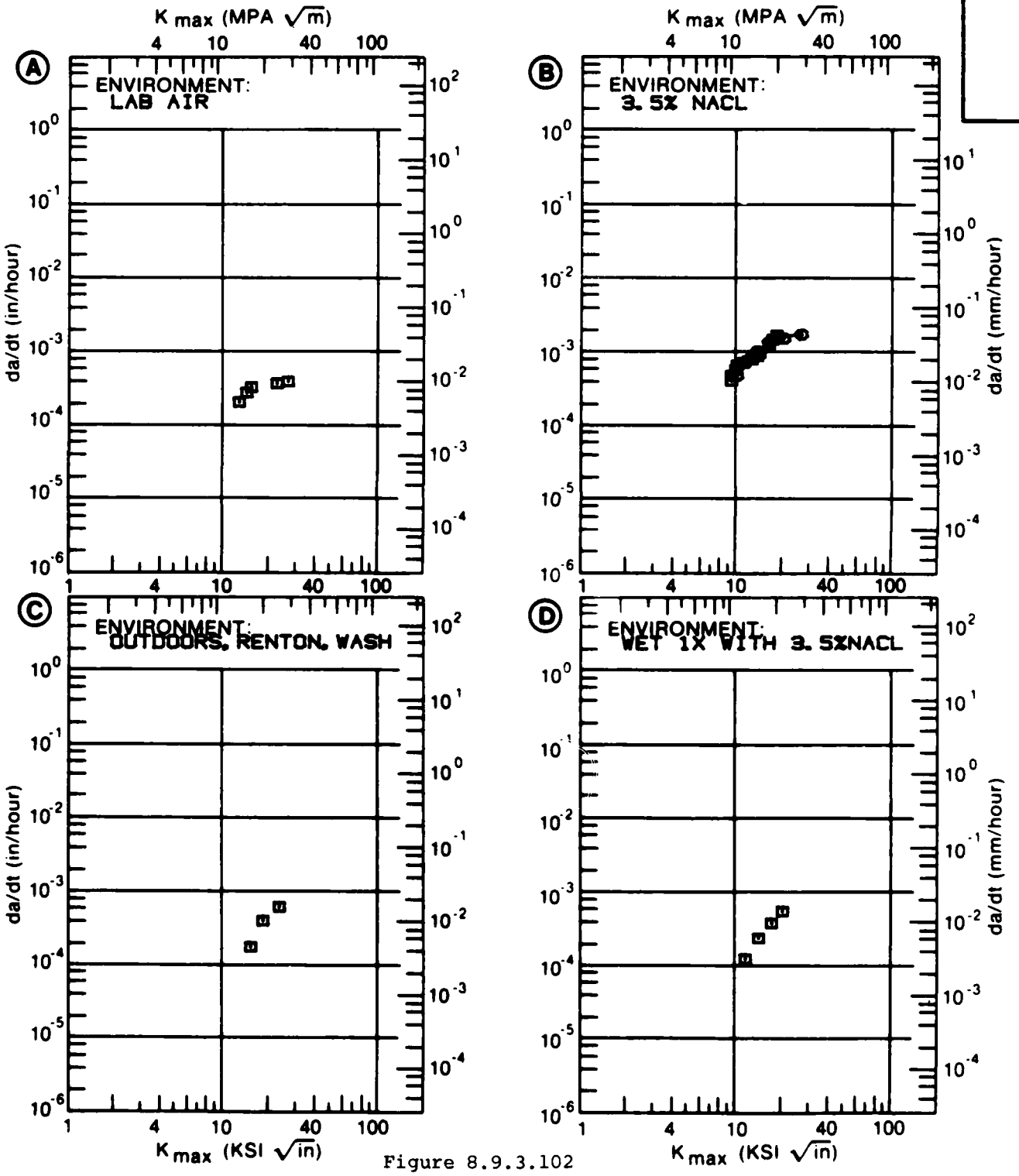

Figure 8.9.3.102

TABLE 8.9.3.103

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.103 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR)			
			A	B	C	D
			E= WET 1X/WK WITH 3.5% NACL	E= WET 1X/2 DAYS WITH 3.5%NACL	E= 1X/DAY-3.5NACL	E= ALT. IMMERSION IN 3.5%NACL
K MAX MIN	A:					
	B:					
	C:	5.60			482.	
	D:					
		6.00			497.	
		7.00			512.	
		8.00			509.	
		9.00			499.	
		10.00			487.	
		13.00			457.	
		16.00			451.	
		20.00			481.	
K MAX MAX	A:					
	B:					
	C:	21.00			495.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			0.00	0.00	3.79	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION:S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_O):
K_{ISCC}:
REFERENCES:78313

ALUM. ALLOY

7075

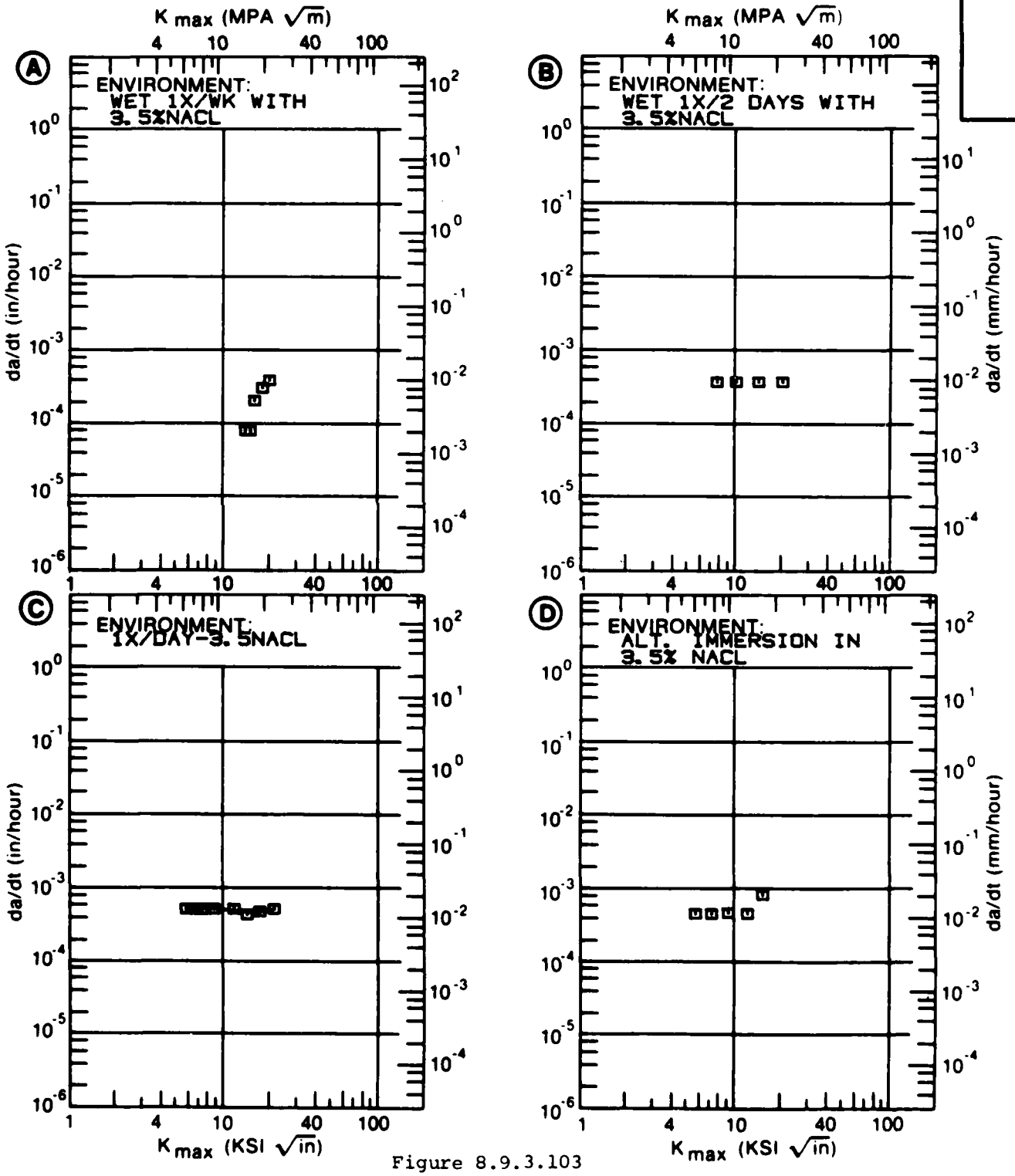

Figure 8.9.3.103

TABLE 8.9.3.104

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.104INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7075
CONDITION: T651
ENVIRONMENT: 3%/DAY-3.5NACL

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		T(IN)= 1.0 PLATE	T(IN)= 1.5 PLATE	T(IN)= 2.0 PLATE	T(IN)= 3.0 PLATE
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
ENVIRONMENT:3X/DAY-3. 5NACL
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES:78313

ALUM. ALLOY

7075

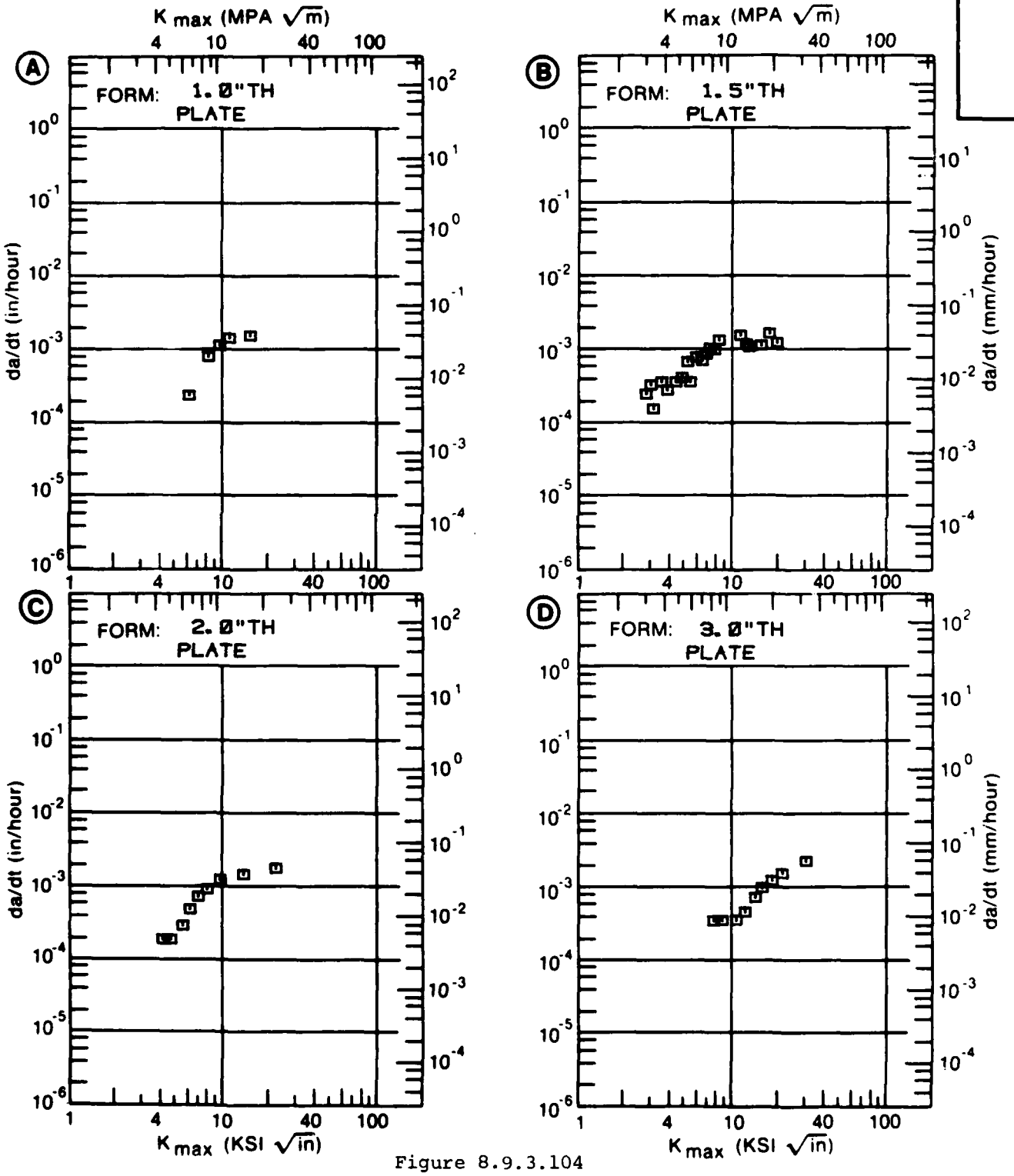

Figure 8.9.3.104

TABLE 8.9.3.105

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.105 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7075
CONDITION: T7351

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= F 3X/DAY-3.5NACL			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T7351
FORM: 1.5"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 84284, 84286

ALUM. ALLOY

7075

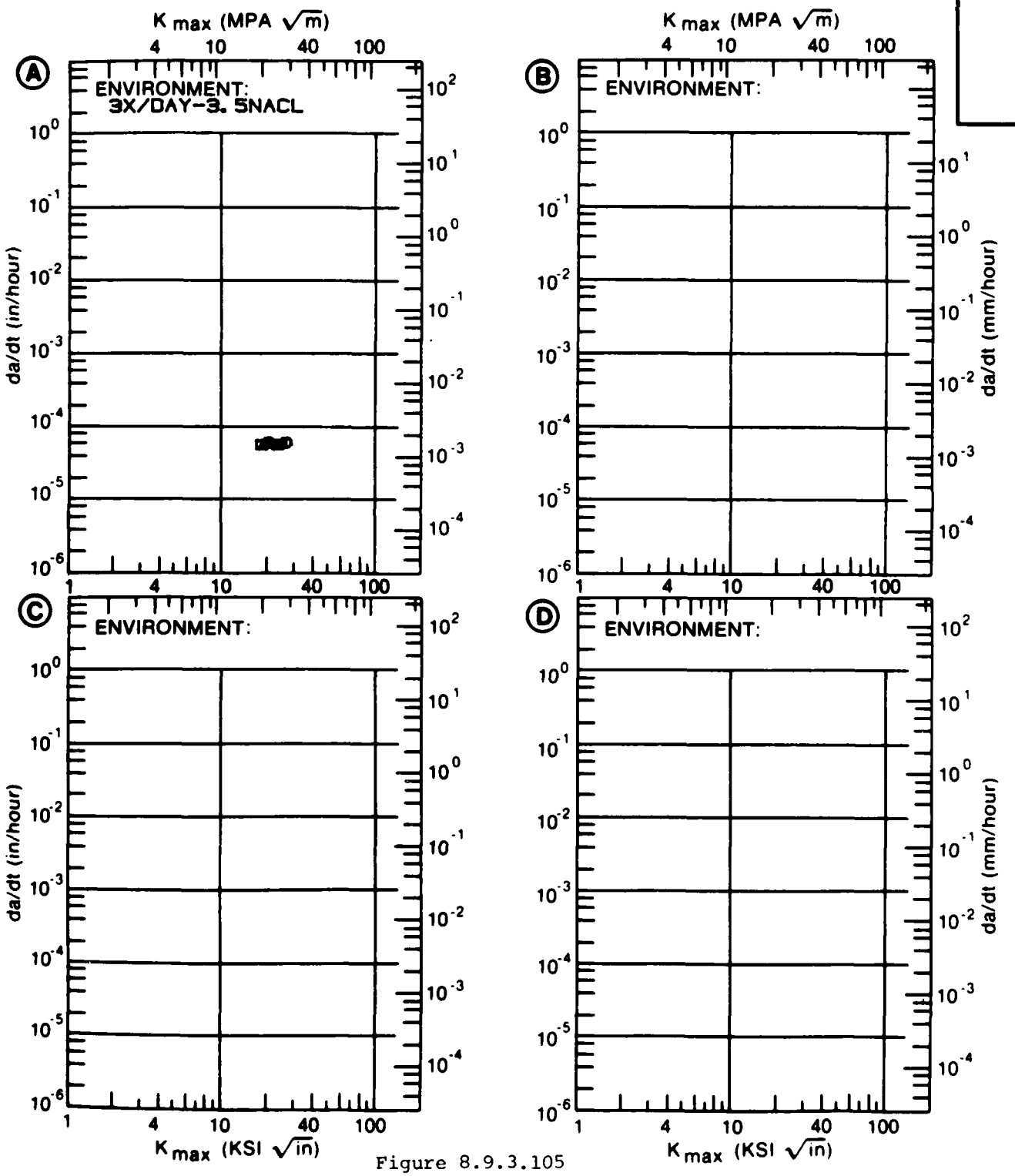

Figure 8.9.3.105

TABLE 8.9.3.106

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.9.3.106INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7075
CONDITION: UNDERAGED, 72HR 158F
ENVIRONMENT:

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		T(IN)= 1 0 PLATE			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: UNDERAGED, 72HR 158F
ENVIRONMENT:
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 84286

ALUM. ALLOY

7075

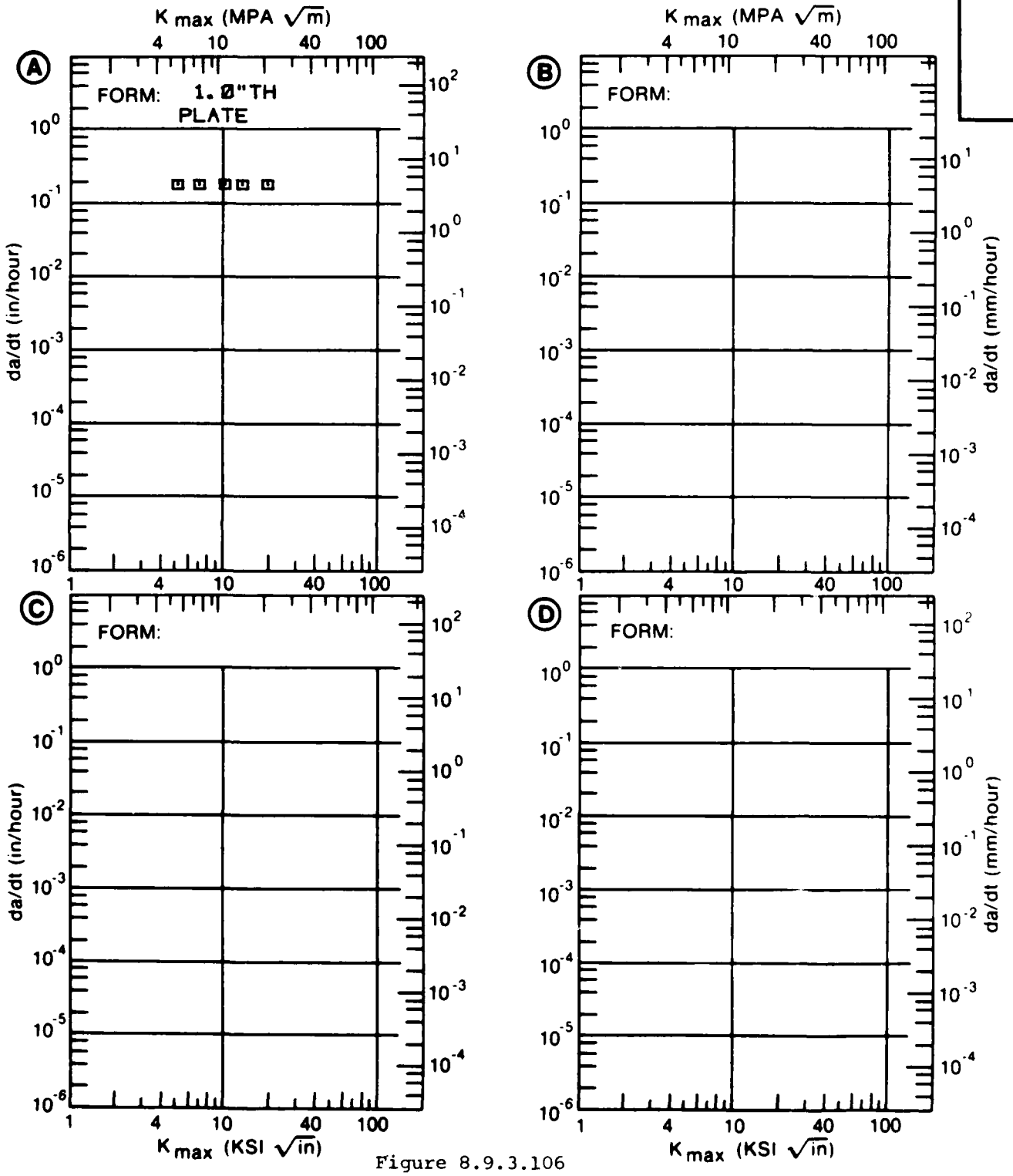

Figure 8.9.3.106

TABLE 8.9.3.107

ALUMINUM 7075 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(G) (KSI*SQRT IN)	K(ISCC) IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T6	P	1.00	R.T.	S-L	73.0	3.5 PCT NACL	4.000	1.000	DCB	----	23.00	19.00			----	1968	84331
T651	P	3.00	R.T.	L-T	70.2	AIR 74PCT RH	5.000	1.250	TDCB	----	30.00	25.30			----	1971	84360
T651	P	3.00	R.T.	L-T	70.2	DIST WATER	5.000	1.250	TDCB	----	30.00	24.00			----	1971	84360
T651	P	3.00	R.T.	L-T	70.2	3.5 PCT NACL	5.000	1.250	TDCB	----	30.00	28.30			----	1971	84360
T651	P	2.50	R.T.	S-L	66.7	INDUSTRIAL ATM	2.000	1.000	CT	----	19.60	10.00			----	1973	86688
T651	P	2.50	R.T.	S-L	66.7	SALT-DISCHRO-MATE-ACETATE	2.000	1.000	CT	----	19.60	5.00			----	1973	86688
T651	P	2.50	R.T.	S-L	66.7	SEACOAST ATM	2.000	1.000	CT	----	19.60	10.00			----	1973	86688
T651	P	1.00	R.T.	S-L	78.0	3.5 PCT NACL	4.000	1.000	DCB	----	21.00	17.00			----	1968	84331
T651	E	----	R.T.	T-L	----	CARBON TET.	3.000	0.750	DCB	----	------	10.00			----	1969	75787
		----			----	CCL4	3.000	0.750	DCB	----	------	12.00			----	1969	75787
													11.0/	1.4			
T651	E	----	R.T.	T-L	----	ETHANOL	3.000	0.750	DCB	----	------	7.00			----	1969	75787
		----			----		3.000	0.750	DCB	----	------	9.00			----	1969	75787
													8.0/	1.4			
T73	F	----	R.T.	T-L	62.0	S.T.W.	5.500	1.000	DCB	----	42.00	> 25.00			64920	1976	RI006
T7351	P	1.25	R.T.	L-T	54.5	JP-4 FUEL	3.083	1.244	BWOL	1.358	------	> 30.80			>148320	1977	MA005
		1.25			57.8		3.087	1.251	BWOL	1.372	------	> 26.40			>148320	1977	MA005
		1.25			54.5		3.095	1.251	BWOL	1.362	------	> 31.00			>148320	1977	MA005
		1.25			57.8		3.088	1.253	BWOL	1.356	------	> 26.50			>148320	1977	MA005
T7351	P	1.25	R.T.	L-T	57.8	SIM. SEA WATER	3.086	1.249	BWOL	1.380	------	> 26.30			>195840	1977	MA005
		1.25			54.5		3.083	1.250	BWOL	1.361	------	> 31.00			>195840	1977	MA005
		1.25			57.8		3.086	1.250	BWOL	1.358	------	> 26.20			>195840	1977	MA005

TABLE 8.9.3.107 (con't)

ALUMINUM 7075 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC) (KSI*SQRT IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T7351	P	1.25	R.T.	L-T	54.5	SIM. SEA WATER	3.086	1.251	BWOL	1.367	------	> 30.80			>195840	1977	MA005
T7351	P	4.00	R.T.	T-L	53.2	DIST WATER	5.000	1.250	TDCB	----	29.00	24.80			----	1972	84362
T7351	P	4.00	R.T.	T-L	53.2	3.5 PCT NACL	5.000	1.250	TDCB	----	29.00	23.90			----	1972	84362
T7351	P	2.50	R.T.	S-L	55.1	INDUSTRIAL ATM	2.000	1.000	CT	----	21.00	20.00			----	1973	86688
T7351	P	2.00	R.T.	S-L	----	S.T.W.	5.500	1.000	DCB	----	37.00	> 13.10			76140	1976	RI006
		2.00			----		5.500	1.000	DCB	----	37.00	15.00			61680	1976	RI006
T7351	P	2.50	R.T.	S-L	55.1	SALT-DICHRO-MATE-ACETATE	2.000	1.000	CT	----	21.00	19.00			----	1973	86688
T7351	P	2.50	R.T.	S-L	55.1	SEACOAST ATM	2.000	1.000	CT	----	21.00	20.00			----	1973	86688
T7351	P	1.00	R.T.	S-L	52.0	3.5 PCT NACL	4.000	1.000	DCB	----	24.00	21.00			----	1968	84331
T73511	EB	3.00	R.T.	L-T	66.0	F.C.S.	5.500	1.000	DCB	----	41.00	> 34.00			75240	1976	RI006
T73511	EB	3.00	R.T.	L-T	66.0	S.C.S.	5.500	1.000	DCB	----	41.00	35.60			75240	1976	RI006
T73511	EB	3.00	R.T.	S-L	58.0	S.T.W.	5.500	1.000	DCB	----	41.00	> 19.50			112200	1976	RI006
		3.00			58.0		5.500	1.000	DCB	----	41.00	> 21.00			59040	1976	RI006
		3.00			58.0		5.500	1.000	DCB	----	41.00	> 21.30			60120	1976	RI006
T7352	F	6.00	R.T.	S-L	56.3	3.5 PCT NACL	1.400	0.700	CANT	----	20.10	18.00			----	1972	82675
T7651	P	2.00	R.T.	L-T	63.0	F.C.S.	5.500	1.000	DCB	----	40.00	> 24.00			75240	1976	RI006
T7651	P	2.00	R.T.	L-T	63.0	S.C.S.	5.500	1.000	DCB	----	40.00	> 26.50			60180	1976	RI006
		2.00			63.0		5.500	1.000	DCB	----	40.00	> 23.50			75240	1976	RI006

TABLE 8.9.3.107 (con't)

ALUMINUM 7075 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (f)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC) (KSI*SQRT IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T7651	P	2.00	R.T.	L-T	63.0	S.T.W.	5.500	1.000	DCB	----	40.00	> 21.50			83520	1976	R1006
		2.00			63.0		5.500	1.000	DCB	----	40.00	> 22.00			76140	1976	R1006
T7651	P	2.00	R.T.	S-L	----	S.T.W.	5.500	1.000	DCB	----	40.00	12.70			76140	1976	R1006
		2.00			----		5.500	1.000	DCB	----	40.00	12.70			76140	1976	R1006
		2.00			----		5.500	1.000	DCB	----	40.00	12.80			76140	1976	R1006
		2.00			----		5.500	1.000	DCB	----	40.00	13.10			83520	1976	R1006
													12.8/	0.2			
T76511	E	----	R.T.	T-L	64.5	3.5 PCT NACL	----	----	DCB	----	31.80	29.10*			----	1973	86212

*NOTE-DATA WHICH DO NOT MEET MINIMUM SPECIMEN THICKNESS REQUIREMENTS OF 2.5(KISCC/TYS)SQUARED

TABLE 8.10.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7075 (ALCLAD) AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD DEVIATION (KSI SQRT(IN))	(NUMBER OF SPECIMENS)

PLATE

CONDITION/HT	L-T	T-L	S-L
T7651	28.6 ± 2.2 (3)	25.2 ± 1.9 (26)	-----

TABLE 8.10.1.2

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7075 (ALCLAD)

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	SHEET	0.00	13.30				6.99	68.3		
T6	SHEET	0.05	30.00			0.45				
T6	SHEET	0.20	30.00		0.08	0.70				
T6	SHEET	0.33	13.30				12.8	290		
T6	SHEET	0.40	30.00		0.17					

TABLE 8.10.2.1

ALUMINUM 7075 (ALCLAD) K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	0.62	R.T.	L-T	66.0	2.002	0.617	CT	1.021	0.48	29.10			1978	MPC01
		0.62			66.0	2.008	0.617	CT	1.064	0.52	30.50			1978	MPC01
		0.62			67.6	2.011	0.637	CT	1.086	0.36	26.20	28.6/	2.2	1978	MPC01
T7651	P	0.50	82	L-T	62.3	1.000	0.502	CT	0.516	0.36	23.60			1973	86213
		0.50			62.3	1.000	0.502	CT	0.531	0.36	23.60			1973	86213
		0.50			62.3	1.000	0.502	CT	0.527	0.33	22.50			1973	86213
		0.50			64.5	1.000	0.503	CT	0.515	0.33	23.40			1973	86213
		0.50			64.5	1.000	0.503	CT	0.517	0.33	23.50			1973	86213
		0.50			64.5	1.000	0.503	CT	0.516	0.33	23.40	23.3/	0.4	1973	86213
T7651	P	0.50	84	L-T	61.0	1.000	0.494	CT	0.514	0.40	24.50			1973	86213
		0.62			62.8	1.500	0.612	CT	0.773	0.41	25.30			1973	86213
		0.62			62.8	1.500	0.612	CT	0.787	0.41	25.40			1973	86213
		0.62			63.2	1.500	0.603	CT	0.768	0.37	24.20			1973	86213
		0.62			63.7	1.500	0.615	CT	0.778	0.47	27.60			1973	86213
		0.62			63.7	1.500	0.614	CT	0.778	0.45	27.10			1973	86213
		0.50			64.0	1.000	0.505	CT	0.532	0.43	26.50			1973	86213
		0.62			64.9	1.500	0.602	CT	0.755	0.40	25.90			1973	86213
		0.62			64.9	1.500	0.601	CT	0.791	0.41	26.20	25.9/	1.1	1973	86213
T7651	P	0.62	86	L-T	59.3	1.500	0.611	CT	0.818	0.48	25.90			1973	86213
		0.62			59.3	1.500	0.611	CT	0.771	0.47	25.70			1973	86213
		0.50			59.6	1.000	0.500	CT	0.515	0.40	23.70			1973	86213
		0.50			59.6	1.000	0.500	CT	0.534	0.40	23.80			1973	86213
		0.50			59.6	1.000	0.500	CT	0.514	0.40	23.70			1973	86213
		0.62			62.6	1.500	0.615	CT	0.773	0.43	26.00			1973	86213
		0.62			62.6	1.500	0.615	CT	0.787	0.43	26.00			1973	86213
		0.62			63.0	1.500	0.620	CT	0.788	0.46	27.00			1973	86213
		0.62			63.0	1.500	0.622	CT	0.750	0.48	27.50			1973	86213
		0.62			64.2	1.500	0.596	CT	0.780	0.42	26.20			1973	86213
		0.62			65.8	1.500	0.615	CT	0.781	0.37	25.30			1973	86213
		0.62			65.8	1.500	0.615	CT	0.762	0.38	25.70	25.5/	1.2	1973	86213
T7651	P	0.62	R.T.	T-L	----	2.017	0.636	CT	1.049	----	23.10			1978	MPC01
		0.62			62.6	2.000	0.632	CT	1.000	0.44	26.40			1978	MPC01
		0.62			62.6	1.996	0.632	CT	1.018	0.46	27.10			1978	MPC01
		0.62			62.6	1.985	0.632	CT	1.032	0.46	27.10			1978	MPC01
		0.62			64.1	1.998	0.624	CT	1.039	0.46	27.80			1978	MPC01

TABLE 8.10.2.1 (con't)

ALUMINUM 7075 (ALCLAD) K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	0.62	R.T.	T-L	64.1	1.984	0.625	CT	0.992	0.46	27.90			1978	MPC01
		0.62			64.1	1.984	0.623	CT	0.992	0.48	28.70			1978	MPC01
		0.50			64.4	1.000	0.506	CT	0.520	0.27	21.80			1978	MPC01
		0.50			64.4	1.006	0.506	CT	0.503	0.28	22.50			1978	MPC01
		0.50			64.8	1.012	0.502	CT	0.516	0.28	22.20			1978	MPC01
		0.62			65.0	2.005	0.615	CT	1.002	0.40	26.60			1978	MPC01
		0.62			65.0	2.006	0.615	CT	1.023	0.42	26.90			1978	MPC01
		0.62			65.0	2.000	0.617	CT	1.000	0.42	26.90			1978	MPC01
		0.62			67.5	2.011	0.617	CT	1.066	0.32	24.80			1978	MPC01
		0.62			67.5	1.990	0.617	CT	1.015	0.32	24.50			1978	MPC01
		0.62			67.5	1.984	0.617	CT	1.091	0.36	26.00			1978	MPC01
		0.62			67.8	2.002	0.605	CT	1.001	0.34	25.20			1978	MPC01
		0.60			67.8	2.018	0.605	CT	1.009	0.34	25.60			1978	MPC01
		0.62			67.8	2.002	0.605	CT	1.001	0.34	25.70			1978	MPC01
		0.62			68.7	2.012	0.635	CT	1.006	0.30	24.20			1978	MPC01
		0.62			68.7	2.006	0.635	CT	1.023	0.27	22.70			1978	MPC01
		0.62			69.3	2.016	0.611	CT	1.008	0.30	24.50			1978	MPC01
		0.62			69.3	2.018	0.609	CT	0.989	0.28	24.20			1978	MPC01
		0.62			71.2	2.016	0.624	CT	1.008	0.27	23.70			1978	MPC01
		0.62			71.2	1.984	0.625	CT	0.992	0.27	23.70			1978	MPC01
		0.62			71.2	2.015	0.625	CT	1.068	0.28	24.90	25.2/	1.9	1978	MPC01
T7651	P	0.50	82	T-L	63.0	1.000	0.502	CT	0.538	0.29	21.40			1973	86213
		0.50			64.8	1.000	0.502	CT	0.510	0.29	22.20			1973	86213
		0.50			64.8	1.000	0.502	CT	0.501	0.28	21.50			1973	86213
		0.50			64.8	1.000	0.502	CT	0.516	0.29	22.20	21.8/	0.4	1973	86213
T7651	P	0.50	84	T-L	61.2	1.000	0.494	CT	0.527	0.34	22.70			1973	86213
		0.50			61.2	1.000	0.494	CT	0.518	0.34	22.90			1973	86213
		0.50			61.2	1.000	0.494	CT	0.517	0.33	22.30			1973	86213
		0.62			62.4	1.500	0.603	CT	0.771	0.33	22.50			1973	86213
		0.62			62.4	1.500	0.603	CT	0.767	0.33	22.70			1973	86213
		0.62			63.0	1.500	0.612	CT	0.779	0.40	25.30			1973	86213
		0.62			63.0	1.500	0.615	CT	0.827	0.40	25.20			1973	86213
		0.62			64.0	1.500	0.602	CT	0.771	0.35	23.80			1973	86213
		0.62			64.0	1.500	0.601	CT	0.755	0.32	22.90			1973	86213
		0.50			64.4	1.000	0.506	CT	0.503	0.33	23.50			1973	86213
		0.50			64.4	1.000	0.506	CT	0.520	0.31	22.60			1973	86213
		0.62			64.6	1.500	0.612	CT	0.764	0.31	22.60			1973	86213

TABLE 8.10.2.1 (con't)

ALUMINUM 7075 (ALCLAD) K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	0.62	84	T-L	64.6	1.500	0.612	CT	0.797	0.33	23.30	23.2/	1.0	1973	86213
T7651	P	0.62	86	T-L	59.2	1.500	0.615	CT	0.768	0.40	23.80			1973	86213
		0.62			59.2	1.500	0.615	CT	0.775	0.41	24.10			1973	86213
		0.62			59.4	1.500	0.596	CT	0.771	0.39	23.40			1973	86213
		0.62			59.4	1.500	0.596	CT	0.773	0.37	22.70			1973	86213
		0.62			60.6	1.500	0.611	CT	0.796	0.38	23.50			1973	86213
		0.62													
	P	1.37	R.T.	T-S	74.2	1.002	0.500	CT	0.501	0.27	24.80			1978	MPC01
		1.37			74.2	0.996	0.500	CT	0.488	0.27	24.60	24.7/	0.1	1978	MPC01
T651	P	1.37	88	T-S	74.2	1.000	0.500	CT	0.488	0.27	24.50			1973	86213
		1.37			74.2	1.000	0.500	CT	0.501	0.31	26.00	25.3/	1.1	1973	86213
T651	P	1.38	- 320	T-L	90.6	3.000	1.380	NB	1.560	0.20	25.90			1971	84288
		1.38			90.6	3.000	1.380	NB	1.450	0.20	25.90			1971	84288
		1.38			90.6	3.000	1.380	NB	1.530	0.24	28.20	26.7/	1.3	1971	84288
T651	P	1.38	- 112	T-L	81.2	3.000	1.383	NB	1.652	0.23	27.50			1971	84288
		1.38			81.2	3.000	1.385	NB	1.695	0.19	24.70	26.1/	2.0	1971	84288
T651	P	5.00	R.T.	T-L	65.2	2.000	1.001	CT	1.044	0.37	25.00			1973	86213
		5.00			65.2	2.000	1.001	CT	1.050	0.42	26.60			1973	86213
		5.00			66.0	2.000	1.001	CT	1.019	0.36	25.00			1973	86213
		1.38			72.8	2.000	1.000	NB	1.034	0.26	23.30			1972	82880
		1.37			72.8	2.000	1.000	CT	1.003	0.29	24.70			1973	86213
		1.37			72.8	2.000	1.001	CT	1.008	0.26	23.70			1973	86213
		1.37			72.8	1.996	1.000	CT	0.998	0.27	24.50			1978	MPC01
		1.38			72.8	2.000	1.000	NB	1.078	0.25	22.80			1972	82880
		1.37			72.8	2.008	1.002	CT	0.984	0.24	22.70			1978	MPC01
		1.38			72.8	1.000	0.500	NB	0.486	0.23	21.90			1972	82880
		1.37			72.8	3.002	1.382	NB	1.471	0.25	24.00			1978	MPC01
		1.38			72.8	3.000	1.380	NB	1.628	0.28	24.30			1972	82880
		1.37			72.8	2.982	1.384	NB	1.491	0.27	24.70			1978	MPC01
		1.37			72.8	2.000	1.002	CT	1.000	0.25	23.20			1973	86213
		1.38			72.8	1.500	0.750	NB	0.781	0.29	24.90			1972	82880
		1.38			72.8	3.000	1.380	NB	1.617	0.23	22.30			1972	82880
		1.38			72.8	1.500	0.750	NB	0.757	0.26	23.50			1972	82880
		1.38			72.8	2.000	1.000	NB	1.128	0.16	18.60			1972	82880
		1.38			72.8	3.000	1.380	NB	1.677	0.26	23.60			1972	82880
		1.38			72.8	1.000	0.500	NB	0.487	0.30	25.10			1972	82880
		1.37			74.2	3.000	1.384	NB	1.470	0.19	21.50			1978	MPC01
		1.37			74.2	2.984	1.385	NB	1.462	0.25	24.30			1978	MPC01
		1.37			74.2	3.006	1.384	NB	1.473	0.19	21.20			1978	MPC01

TABLE 8.10.2.2

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T6	S	0.01	R.T.	L-T	67.4	15.000	0.009	7.500	8.480	---	18.70	76.33			85.92			1966	86734
		0.01			67.4	15.000	0.009	7.500	9.380	---	17.80	72.66	74.5/	2.6	91.70	88.8/	4.1	1966	86734
T6	S	0.08	R.T.	L-T	73.1	5.900	0.079	0.790	0.980	---	47.40	53.39			59.83			1965	70485
		0.08			73.1	5.900	0.079	0.390	----	---	57.00	44.73*			----			1965	70485
		0.08			73.1	5.900	0.079	3.150	----	---	19.60	53.32			----			1965	70485
		0.08			73.1	5.900	0.079	0.790	0.980	38.80	42.80	48.21			54.02			1965	70485
		0.08			73.1	5.900	0.079	0.390	----	51.50	58.50	45.91*			----			1965	70485
		0.08			73.1	5.900	0.079	0.790	0.980	---	46.50	52.38			58.70			1965	70485
		0.08			73.1	5.900	0.079	1.580	1.970	---	36.70	60.51			69.39			1965	70485
		0.08			73.1	5.900	0.079	1.580	----	---	32.10	52.93			----			1965	70485
		0.08			73.1	5.900	0.079	3.150	3.420	19.50	19.80	53.87			58.60			1965	70485
		0.08			73.1	5.900	0.079	1.580	2.010	---	31.40	51.78			60.16			1965	70485
		0.08			73.1	5.900	0.079	3.150	----	---	20.10	54.69			----			1965	70485
		0.08			73.1	5.900	0.079	0.390	0.670	---	58.90	46.23*	53.5/	3.2	60.91*	60.1/	5.1	1965	70485
T6	S	0.08	R.T.	L-T	73.1	11.800	0.079	0.980	1.380	42.10	48.80	60.81			72.46			1965	70485
		0.08			73.1	11.800	0.079	1.770	2.130	25.50	33.30	56.31			62.16			1965	70485
		0.08			73.1	11.800	0.079	4.720	5.860	19.20	21.00	63.57			75.57			1965	70485
		0.08			73.1	11.800	0.079	2.360	2.950	30.20	32.20	63.57			72.11			1965	70485
		0.08			73.1	11.800	0.079	2.360	2.600	25.90	32.30	63.77			67.30			1965	70485
		0.08			73.1	11.800	0.079	3.540	4.210	18.60	32.30	80.69			90.25			1965	70485
		0.08			73.1	11.800	0.079	0.980	1.260	41.60	46.40	57.82			65.74			1965	70485
		0.08			73.1	11.800	0.079	1.770	2.280	21.90	34.30	58.00			66.45			1965	70485
		0.08			73.1	11.800	0.079	3.540	3.940	18.00	23.00	57.46			61.50			1965	70485
		0.08			73.1	11.800	0.080	2.360	2.800	24.20	32.20	63.57			69.97			1966	65697
		0.08			73.1	11.800	0.080	2.360	3.340	17.60	30.80	60.81			74.25			1966	65697
		0.08			73.1	11.800	0.080	0.990	1.260	36.70	45.60	57.11			64.61			1966	65697
		0.08			73.1	11.800	0.080	0.990	1.320	34.30	49.20	61.62			71.40			1966	65697
		0.08			73.1	11.800	0.080	0.990	1.280	35.30	46.00	57.61			65.70			1966	65697
		0.08			73.1	11.800	0.080	2.360	3.150	---	33.20	65.55			77.27			1966	65697
		0.08			73.1	11.800	0.080	2.360	2.840	23.20	28.30	55.87			62.00			1966	65697
		0.08			73.1	11.800	0.080	0.990	1.400	21.00	49.00	61.37	61.5/	5.8	73.30	70.1/	7.2	1966	65697
T6	S	0.08	R.T.	L-T	73.1	23.600	0.079	1.580	1.890	35.60	39.70	62.72			68.68			1965	70485

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES RESTRAINED																			
T6	S	0.08	R.T.	L-T	73.1	23.600	0.079	0.790	1.300	---	45.50	50.72			65.14			1965	70485
		0.08			73.1	23.600	0.079	4.720	5.000	16.60	22.70	63.38			65.44			1965	70485
		0.08			73.1	23.600	0.079	6.300	6.700	14.20	18.90	62.21			64.55			1965	70485
		0.08			73.1	23.600	0.079	0.630	0.870	46.10	48.00	47.77			56.16			1965	70485
		0.08			73.1	23.600	0.079	3.940	5.200	22.20	28.90	73.16			85.16			1965	70485
		0.08			73.1	23.600	0.079	1.180	1.380	38.00	45.10	61.50			66.54			1965	70485
		0.08			73.1	23.600	0.079	1.180	1.380	44.30	46.50	63.41			68.61			1965	70485
		0.08			73.1	23.600	0.079	4.720	5.000	17.10	20.60	57.52			59.38			1965	70485
		0.08			73.1	23.600	0.079	6.300	6.850	15.90	21.20	69.78			73.39			1965	70485
		0.08			73.1	23.600	0.079	1.580	2.240	---	29.90	47.23			56.40			1965	70485
		0.08			73.1	23.600	0.079	1.180	1.340	38.20	45.10	61.50			70.33			1965	70485
		0.08			73.1	23.600	0.079	2.360	2.680	28.50	33.00	63.93			68.25			1965	70485
		0.08			73.1	23.600	0.079	1.580	2.560	33.80	37.20	58.77			75.14			1965	70485
		0.08			73.1	23.600	0.079	2.360	2.950	24.50	32.20	62.38			69.99			1965	70485
		0.08			73.1	23.600	0.079	3.150	3.580	22.60	29.30	65.90			70.48			1965	70485
		0.08			73.1	23.600	0.079	0.790	0.990	---	47.50	52.95			59.30			1965	70485
		0.08			73.1	23.600	0.079	3.150	3.460	24.00	29.70	66.80			70.17			1965	70485
		0.08			73.1	23.600	0.079	3.150	3.700	21.00	28.30	63.65			69.28			1965	70485
		0.08			73.1	23.600	0.079	11.800	13.220	10.00	18.10	92.67	62.4/	9.8	103.33	69.3/	10.4	1965	70485
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.02	R.T.	L-T	70.3	15.000	0.020	7.500	9.300	---	16.70	68.17			85.14			1966	86734
		0.02			70.3	15.000	0.020	7.500	8.640	---	17.00	69.39	68.8/	0.9	79.67	82.4/	3.9	1966	86734
T6	S	0.03	R.T.	L-T	68.8	15.000	0.030	7.500	8.050	---	17.50	71.43			76.30			1966	86734
		0.03			68.8	15.000	0.030	7.500	8.520	---	19.40	79.19	75.3/	5.5	89.58	82.9/	9.4	1966	86734
T6	S	0.04	R.T.	L-T	69.8	7.500	0.040	3.000	----	---	18.00	43.44			----			1966	86734
		0.04			69.8	7.500	0.040	3.000	----	---	21.20	51.17			----			1966	86734
		0.04			69.8	7.500	0.040	3.000	----	---	19.65	47.42	47.3/	3.9	----	----/	---	1966	86734
T6	S	0.04	R.T.	L-T	63.0	9.000	0.040	5.460	5.740	6.90	11.60	44.63			47.45			1965	62311

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.04	R.T.	L-T	63.0	9.000	0.040	5.560	5.740	10.70	11.80	46.39			48.27			1965	62311
		0.04			63.0	9.000	0.040	5.480	5.680	9.70	11.30	43.67			45.61			1965	62311
		0.04			63.0	9.000	0.040	1.800	2.030	31.90	35.10	60.52			64.72			1965	62311
		0.04			63.0	9.000	0.040	1.840	1.960	15.80	28.80	50.26			52.06			1965	62311
		0.04			63.0	9.000	0.040	3.640	4.180	17.10	20.70	55.17			61.43			1965	62311
		0.04			63.0	9.000	0.040	0.290	0.600	62.90	64.20	43.36*			62.30*			1965	62311
		0.04			63.0	9.000	0.040	0.260	0.580	64.00	64.90	41.50*			62.11*			1965	62311
		0.04			63.0	9.000	0.040	1.790	2.350	30.60	33.80	58.10			67.81			1965	62311
		0.04			63.0	9.000	0.040	0.540	0.680	52.60	55.40	51.14*			57.46*			1965	62311
		0.04			63.0	9.000	0.040	5.480	5.840	6.90	11.40	44.05			47.70			1965	62311
		0.04			63.0	9.000	0.040	3.650	4.030	11.10	19.90	53.15			57.33			1965	62311
		0.04			63.0	9.000	0.040	0.580	0.720	53.60	56.10	53.68*			59.90*			1965	62311
		0.04			63.0	9.000	0.040	1.860	1.940	15.80	29.30	51.44			52.66			1965	62311
		0.04			63.0	9.000	0.040	0.780	0.960	89.90	47.40	52.71*			58.62*			1965	62311
		0.04			63.0	9.000	0.040	3.640	4.030	10.60	19.60	52.24			56.47			1965	62311
		0.04			63.0	9.000	0.040	0.790	1.130	42.20	46.70	52.27*			62.83*			1965	62311
		0.04			63.0	9.000	0.040	3.960	4.120	19.20	20.00	56.83	51.4/	5.7	58.66	55.0/	7.3	1965	62311
T6	S	0.04	R.T.	L-T	63.0	20.000	0.040	----	2.470	---	27.50	----			54.68			1965	62311
		0.04			63.0	20.000	0.040	----	10.530	---	9.20	----			45.47			1965	62311
		0.04			63.0	20.000	0.040	----	1.960	---	29.60	----			52.25			1965	62311
		0.04			63.0	20.000	0.040	----	6.100	---	16.00	----			52.58			1965	62311
		0.04			63.0	20.000	0.040	----	2.080	---	32.10	----			58.41			1965	62311
		0.04			63.0	20.000	0.040	----	2.400	---	26.90	----			52.70			1965	62311
		0.04			63.0	20.000	0.040	----	3.940	---	20.50	----			52.26			1965	62311
		0.04			63.0	20.000	0.040	----	2.440	---	26.30	----			51.97			1965	62311
		0.04			63.0	20.000	0.040	----	6.220	---	15.30	----			50.89			1965	62311
		0.04			63.0	20.000	0.040	----	2.420	---	27.20	----			53.52			1965	62311
		0.04			63.0	20.000	0.040	----	3.860	---	20.30	----			51.17			1965	62311
		0.04			63.0	20.000	0.040	----	7.300	---	13.00	----			48.03			1965	62311
		0.04			63.0	20.000	0.040	----	7.300	---	13.20	----			48.77			1965	62311
		0.04			63.0	20.000	0.040	----	10.530	---	11.10	----	----/	---	53.86	51.9/	3.1	1965	62311
T6	S	0.04	R.T.	L-T	71.1	30.000	0.039	15.000	-----	---	13.60	78.51			----			1966	86734
		0.04			71.1	30.000	0.039	15.000	-----	---	14.00	80.81			----			1966	86734

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.04	R.T.	L-T	69.8	30.000	0.040	12.000	----	---	16.90	81.57			----			1966	86734
		0.04			72.7	30.000	0.040	6.000	----	---	15.64	49.23			----			1966	86734
		0.04			72.9	30.000	0.040	12.000	----	---	10.15	48.99			----			1966	86734
		0.04			73.4	30.000	0.040	3.000	----	---	23.10	50.46	64.9/16.9		----	----/	---	1966	86734
T6	S	0.06	R.T.	L-T	69.1	7.500	0.064	1.500	----	---	34.80	54.77			----			1966	86734
		0.06			69.1	7.500	0.064	3.000	----	---	34.50	83.26*			----			1966	86734
		0.06			69.2	7.500	0.064	3.000	----	---	20.90	50.44	52.6/ 3.1		----	----/	---	1966	86734
T6	S	0.06	R.T.	L-T	71.8	30.000	0.060	15.000	19.060	---	12.70	73.31			94.39			1966	86734
		0.06			71.8	30.000	0.060	15.000	17.300	---	12.90	74.46	73.9/ 0.8		85.61	90.0/	6.2	1966	86734
T6	S	0.08	R.T.	L-T	72.9	30.000	0.081	15.000	18.420	---	8.80	50.80			62.71			1966	86734
		0.08			72.9	30.000	0.081	15.000	21.200	---	9.00	51.95	51.4/ 0.8		77.89	70.3/10.7		1966	86734
T6	S	0.09	R.T.	L-T	63.0	9.000	0.091	0.540	0.800	48.30	51.60	47.63*			58.13*			1965	62311
		0.09			63.0	9.000	0.091	3.500	3.960	23.20	25.90	67.10			73.39			1965	62311
		0.09			63.0	9.000	0.091	5.360	5.540	14.00	17.20	64.79			67.33			1965	62311
		0.09			63.0	9.000	0.091	0.540	0.900	47.60	51.50	47.54*			61.61*			1965	62311
		0.09			63.0	9.000	0.091	3.840	4.080	24.80	25.50	70.74			74.20			1965	62311
		0.09			63.0	9.000	0.091	5.320	5.440	14.00	16.70	62.38			63.98			1965	62311
		0.09			63.0	9.000	0.091	1.960	2.270	36.00	36.90	66.71			72.54			1965	62311
		0.09			63.0	9.000	0.091	1.780	2.200	28.20	36.00	61.69			69.50			1965	62311
		0.09			63.0	9.000	0.091	0.750	1.080	39.50	46.50	50.69*			61.11*			1965	62311
		0.09			63.0	9.000	0.091	0.780	1.170	39.60	44.40	49.38			60.83*			1965	62311
		0.09			63.0	9.000	0.091	0.290	0.700	59.70	61.10	41.26*			64.31*			1965	62311
		0.09			63.0	9.060	0.091	5.360	5.500	15.90	17.20	64.79			66.75			1965	62311
		0.09			63.0	9.000	0.091	3.540	3.740	23.20	27.50	71.83			74.78			1965	62311
		0.09			63.0	9.000	0.091	1.780	2.220	29.10	35.70	61.18			69.28			1965	62311
		0.09			63.0	9.000	0.091	3.680	3.800	25.60	26.50	71.20			72.93			1965	62311
		0.09			63.0	9.000	0.091	5.320	5.600	16.50	16.70	62.38			66.24			1965	62311
		0.09			63.0	9.000	0.091	----	1.960	---	38.00	----	64.5/ 6.1		68.70	70.0/	3.6	1965	62311
T6	S	0.09	R.T.	L-T	63.0	20.000	0.091	1.860	2.400	19.20	32.70	56.19			64.06			1965	62311
		0.09			63.0	20.000	0.091	3.650	4.280	15.40	24.60	60.14			65.65			1965	62311

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.09	R.T.	L-T	63.0	20.000	0.091	10.050	11.180	6.60	11.00	52.08			57.68			1965	62311
		0.09			63.0	20.000	0.091	1.840	2.380	17.60	34.30	58.62			66.90			1965	62311
		0.09			63.0	20.000	0.091	3.660	4.150	15.70	24.20	59.25			63.48			1965	62311
		0.09			63.0	20.000	0.091	7.070	7.780	10.80	15.20	54.95			58.71			1965	62311
		0.09			63.0	20.000	0.091	5.400	6.070	12.10	19.00	57.96			62.24			1965	62311
		0.09			63.0	20.000	0.091	5.470	6.150	12.40	18.60	57.18			61.43			1965	62311
		0.09			63.0	20.000	0.091	10.070	10.850	6.90	10.80	51.22			54.95			1965	62311
		0.09			63.0	20.000	0.091	7.070	8.250	10.80	15.50	56.03	56.4/	2.9	62.49	61.8/	3.7	1965	62311
T6	S	0.12	R.T.	L-T	68.9	7.500	0.125	3.000	----	---	22.90	55.27			----			1966	86734
T6	S	0.09	82	L-T	69.0	3.000	0.089	1.120	2.016	---	33.90	49.27			85.94*			1973	86213
		0.09			69.0	3.000	0.089	1.230	2.141	---	31.80	49.43			88.38*			1973	86213
		0.09			69.0	3.000	0.089	1.170	2.140	---	33.60	50.36			93.38*			1973	86213
		0.09			69.2	3.000	0.089	1.170	2.005	---	32.70	49.01			82.20*			1973	86213
		0.09			69.2	3.000	0.089	1.210	2.062	---	32.40	49.76			84.91*			1973	86213
		0.09			69.2	3.000	0.089	1.230	2.162	---	31.70	49.27	49.5/	0.5	89.63*	----/	---	1973	86213
T6	S	0.09	83	L-T	69.0	3.000	0.089	1.210	2.058	---	32.50	49.91			84.92*			1973	86213
		0.09			69.0	3.000	0.089	1.220	2.115	---	31.80	49.13	49.5/	0.6	86.63*	----/	---	1973	86213
T6	S	0.12	83	L-T	71.0	3.000	0.125	1.210	1.947	---	34.00	52.21*			82.10*			1973	86213
		0.12			71.0	3.000	0.126	1.190	2.100	---	34.60	52.49*			93.27*			1973	86213
		0.12			71.0	3.000	0.126	1.250	2.081	---	33.90	53.33*			90.02*			1973	86213
		0.12			71.7	3.000	0.126	1.190	1.964	---	35.90	54.47*			87.76*			1973	86213
		0.12			71.7	3.000	0.126	1.230	2.059	---	34.40	53.47*			89.89*			1973	86213
		0.12			71.7	3.000	0.126	1.220	2.021	---	34.60	53.46*			87.96*			1973	86213
T6	S	0.09	84	L-T	69.7	3.000	0.089	1.160	2.116	---	33.30	49.60			90.85*			1973	86213
		0.09			69.7	3.000	0.089	1.260	2.178	---	30.80	48.75			88.20*			1973	86213
		0.09			69.7	3.000	0.089	1.240	2.146	---	31.50	49.26	49.2/	0.4	87.95*	----/	---	1973	86213
T6	S	0.12	84	L-T	71.8	3.000	0.126	1.230	2.024	---	34.10	53.00*			86.94*			1973	86213
		0.12			71.8	3.000	0.126	1.180	2.018	---	34.70	52.33			88.09*			1973	86213
		0.12			71.8	3.000	0.126	1.370	2.227	---	31.60	53.40*			94.10*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN DEV MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.16	84	L-T	70.4	3.000	0.164	1.087	1.580	---	36.80	52.36*			70.47*			1973	86213
		0.16			70.4	3.000	0.164	1.157	1.726	---	35.90	53.35*			75.15*			1973	86213
		0.16			70.4	3.000	0.164	1.200	1.747	---	35.00	53.42*			74.19*			1973	86213
		0.16			71.2	3.000	0.164	1.220	1.654	---	33.60	51.91			67.29*			1973	86213
		0.16			71.2	3.000	0.164	1.207	1.659	---	34.00	52.09			68.25*			1973	86213
		0.16			71.2	3.000	0.164	1.230	1.647	---	33.50	52.07			66.76*			1973	86213
		0.16			73.4	3.000	0.160	1.203	1.943	---	30.10	46.00			72.48*			1973	86213
		0.16			73.4	3.000	0.160	1.210	1.994	---	30.30	46.53			75.63*			1973	86213
		0.16			73.4	3.000	0.160	1.207	2.539	---	29.90	45.81	49.1/	3.2	121.98*	----/	---	1973	86213
T6	S	0.01	R.T.	T-L	67.1	15.000	0.010	7.500	8.380	---	14.40	58.78			65.36			1966	86734
		0.01			67.1	15.000	0.010	7.500	8.590	---	13.90	56.74	57.8/	1.4	64.74	65.1/	0.4	1966	86734
T6	S	0.02	R.T.	T-L	65.8	15.000	0.020	7.500	8.560	---	16.50	67.35			76.57			1966	86734
		0.02			65.8	15.000	0.020	7.500	8.610	---	17.20	70.21	68.8/	2.0	80.31	78.4/	2.6	1966	86734
T6	S	0.03	R.T.	T-L	69.6	15.000	0.030	7.500	9.360	---	17.60	71.84			90.43			1966	86734
		0.03			69.6	15.000	0.030	7.500	9.150	---	18.10	73.88	72.9/	1.4	90.49	90.5/	0.0	1966	86734
T6	S	0.04	R.T.	T-L	65.8	7.500	0.040	3.000	----	---	19.25	46.46			----			1966	86734
		0.04			66.2	7.500	0.040	3.000	----	---	18.54	44.75	45.6/	1.2	----	----/	---	1966	86734
T6	S	0.04	R.T.	T-L	69.9	30.000	0.039	15.000	----	---	11.10	64.07			----			1966	86734
		0.04			69.9	30.000	0.039	15.000	----	---	11.70	67.54	65.8/	2.5	----	----/	---	1966	86734
T6	S	0.06	R.T.	T-L	69.8	30.000	0.064	15.000	16.760	---	11.80	68.12			75.74			1966	86734
		0.06			69.8	30.000	0.064	15.000	16.640	---	11.80	68.12	68.1/	0.0	75.18	75.5/	0.4	1966	86734
T6	S	0.08	R.T.	T-L	69.2	30.000	0.081	15.000	16.800	---	8.20	47.33			52.76			1966	86734
		0.08			69.2	30.000	0.081	15.000	16.550	---	8.10	46.76	47.0/	0.4	51.33	52.0/	1.0	1966	86734
T6	S	0.09	82	T-L	67.2	3.000	0.089	1.320	2.056	---	27.10	44.46			70.71*			1973	86213
		0.09			67.2	3.000	0.089	1.200	1.862	---	29.30	44.72			66.89*			1973	86213
		0.09			67.2	3.000	0.089	1.270	1.960	---	28.10	44.74	44.6/	0.2	68.50*	----/	---	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.10.2.2 (con't)

ALUMINUM 7075 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.09	83	T-L	67.4	3.000	0.088	1.290	1.962	---	27.40	44.15			66.89*			1973	86213
		0.09			67.4	3.000	0.088	1.250	1.990	---	27.70	43.58			68.95*			1973	86213
		0.09			67.4	3.000	0.088	1.240	2.025	---	27.60	43.16			70.37*			1973	86213
		0.09			67.7	3.000	0.089	1.320	1.987	---	26.60	43.64			66.03*			1973	86213
		0.09			67.7	3.000	0.089	1.200	2.064	---	28.20	43.04			74.01*			1973	86213
		0.09			67.7	3.000	0.089	1.280	2.065	---	26.90	43.09	43.4	0.4	70.60*	-----	---	1973	86213
T6	S	0.12	83	T-L	69.4	3.000	0.127	1.240	1.902	---	30.00	46.91			70.32*			1973	86213
		0.12			69.4	3.000	0.125	1.250	2.052	---	30.40	47.82			79.09*			1973	86213
		0.12			69.4	3.000	0.125	1.330	2.026	---	28.90	47.69			73.79*			1973	86213
		0.12			69.6	3.000	0.127	1.170	1.821	---	31.40	47.06			69.76*			1973	86213
		0.12			69.6	3.000	0.128	1.250	1.991	---	29.40	46.25			73.18*			1973	86213
		0.12			69.6	3.000	0.125	1.210	1.894	---	29.90	45.92	46.9	0.8	69.71*	-----	---	1973	86213
T6	S	0.09	84	T-L	69.0	3.000	0.089	1.270	1.989	---	27.20	43.31			67.61*			1973	86213
		0.09			69.0	3.000	0.089	1.220	1.871	---	28.20	43.57			64.72*			1973	86213
		0.09			69.0	3.000	0.089	1.230	2.003	---	28.00	43.52	43.5	0.1	70.28*	-----	---	1973	86213
T6	S	0.09	84	T-L	69.1	16.000	0.089	4.000	5.100	16.60	22.80	59.46			68.90			1973	86213
		0.09			69.1	16.000	0.090	4.000	4.920	18.10	22.60	58.94	59.2	0.4	66.76	67.8	1.5	1973	86213
T6	S	0.12	84	T-L	69.1	3.000	0.126	1.350	2.031	---	27.90	46.59			71.44*			1973	86213
		0.12			69.1	3.000	0.126	1.300	1.925	---	29.10	47.17			69.22*			1973	86213
		0.12			69.1	3.000	0.125	1.250	1.932	---	30.60	48.14	47.3	0.8	73.19*	-----	---	1973	86213
T6	S	0.16	84	T-L	69.2	3.000	0.164	1.201	1.906	---	30.30	46.25			71.21*			1973	86213
		0.16			69.2	3.000	0.163	1.230	1.981	---	30.20	46.94			74.65*			1973	86213
		0.16			69.2	3.000	0.163	1.200	1.991	---	29.80	45.49			74.18*			1973	86213
		0.16			69.6	3.000	0.164	1.057	1.470	---	32.30	45.10			57.92*			1973	86213
		0.16			69.6	3.000	0.164	1.173	1.542	---	30.70	46.07			57.46*			1973	86213
		0.16			69.6	3.000	0.163	1.207	1.589	---	29.70	45.50			57.14*			1973	86213
		0.16			70.6	3.000	0.160	1.230	1.568	---	25.90	40.26			49.24			1973	86213
		0.16			70.6	3.000	0.160	1.280	1.683	---	24.60	39.40			50.12			1973	86213
		0.16			70.6	3.000	0.160	1.197	1.590	---	27.20	41.42	44.0	2.9	52.40*	49.7	0.6	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.10.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.10.3.1 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7075(ALCLAD)
CONDITION: T6
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.20	R=+0.40	R=+0.60
DELTA K MIN	A:	2.83	.108			
	B:	2.49		.0825		
	C:	1.82			.0657	
	D:	1.56				.0699
		1.60				.0762
		2.00			.107	.136
		2.50		.0837	.175	
		3.00	.134	.140	.250	
		3.50	.188	.197		
		4.00	.229	.279		
		5.00	.450	.709		
		6.00	1.83	2.71		
DELTA K MAX	A:	6.96	3.91			
	B:	6.09		3.12		
	C:	3.40			.347	
	D:	2.40				.193
ROOT MEAN SQUARE PERCENT ERROR			11.22	9.55	5.07	4.26
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	1
		1.25-2.0				
		>2.0				

CONDITION/HT: T6
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 30.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 47.2 KSI
ULT. STRENGTH: 68.2 KSI
SPECIMEN THK: 0.090"
SPECIMEN WIDTH: 14.000"
REFERENCES:EFM01

ALUM. ALLOY

7075 (ALCLAD)

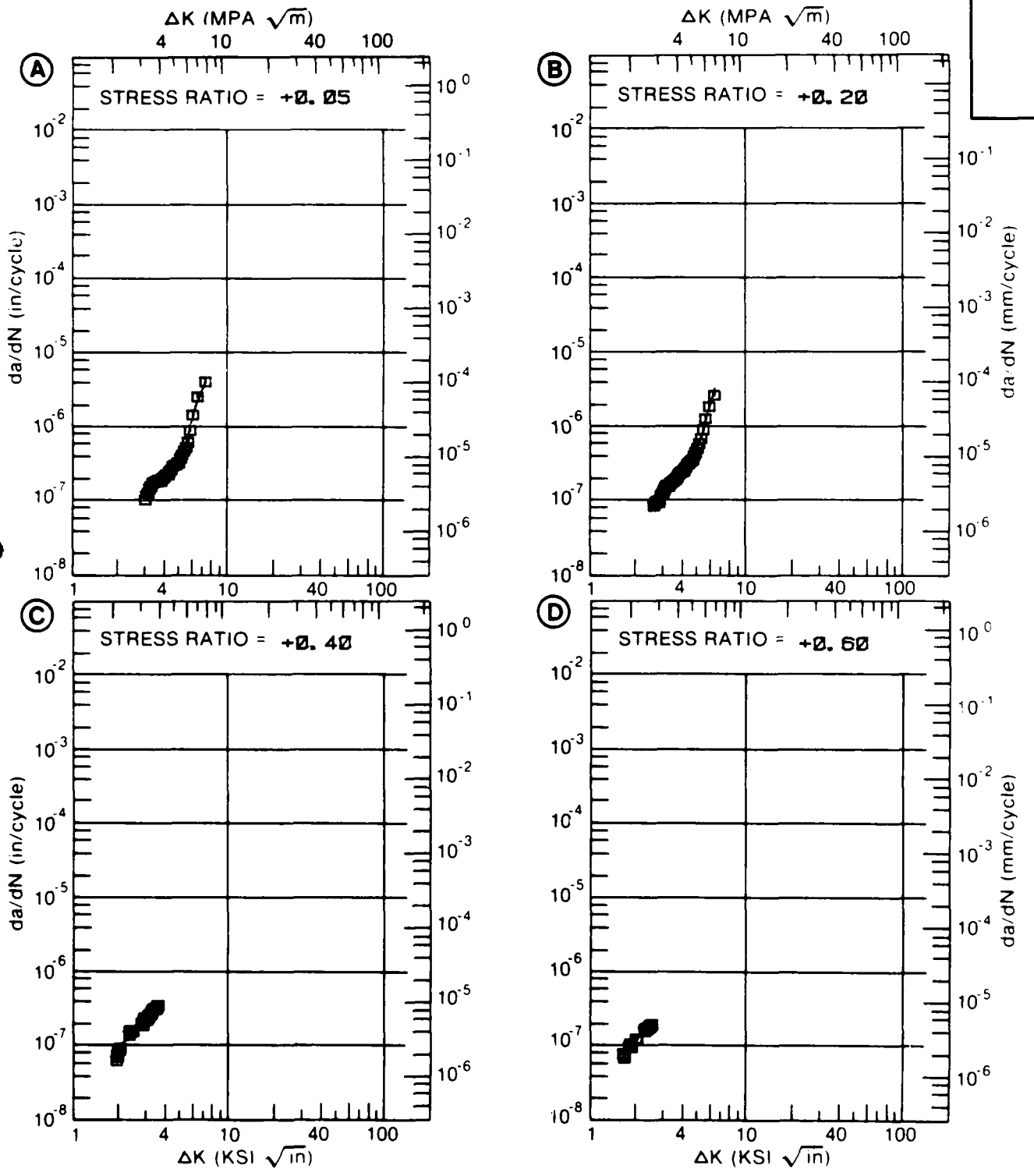

Figure 8.10.3.1

TABLE 8.10.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.10.3.2 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM /075(ALCLAD)
CONDITION: T6
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			R=+0.00	R=+0.33		
DELTA K MIN	A:	8.86	4.97			
	B:	6.36		4.28		
	C:					
	D:					
		7.00		4.77		
		8.00		6.31		
		9.00	5.20	8.91		
		10.00	6.99	12.8		
		13.00	14.7	34.4		
		16.00	28.6	86.2		
		20.00	68.3	290.		
		25.00	228.			
		30.00	996.			
DELTA K MAX	A:	30.12	1035.			
	B:	21.86		652.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			13.41	9.91		

FE	0.0-0.5		
CTION	0.5-0.8		
)D	0.8-1.25	2	3
ARY	1.25-2.0		
NA)	>2.0		

CONDITION/HT: T6
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 13.30 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 67.7 KSI
ULT. STRENGTH: 77.8 KSI
SPECIMEN THK: 0.089"
SPECIMEN WIDTH: 4.000"
REFERENCES:86213

ALUM. ALLOY

7075 (ALCLAD)

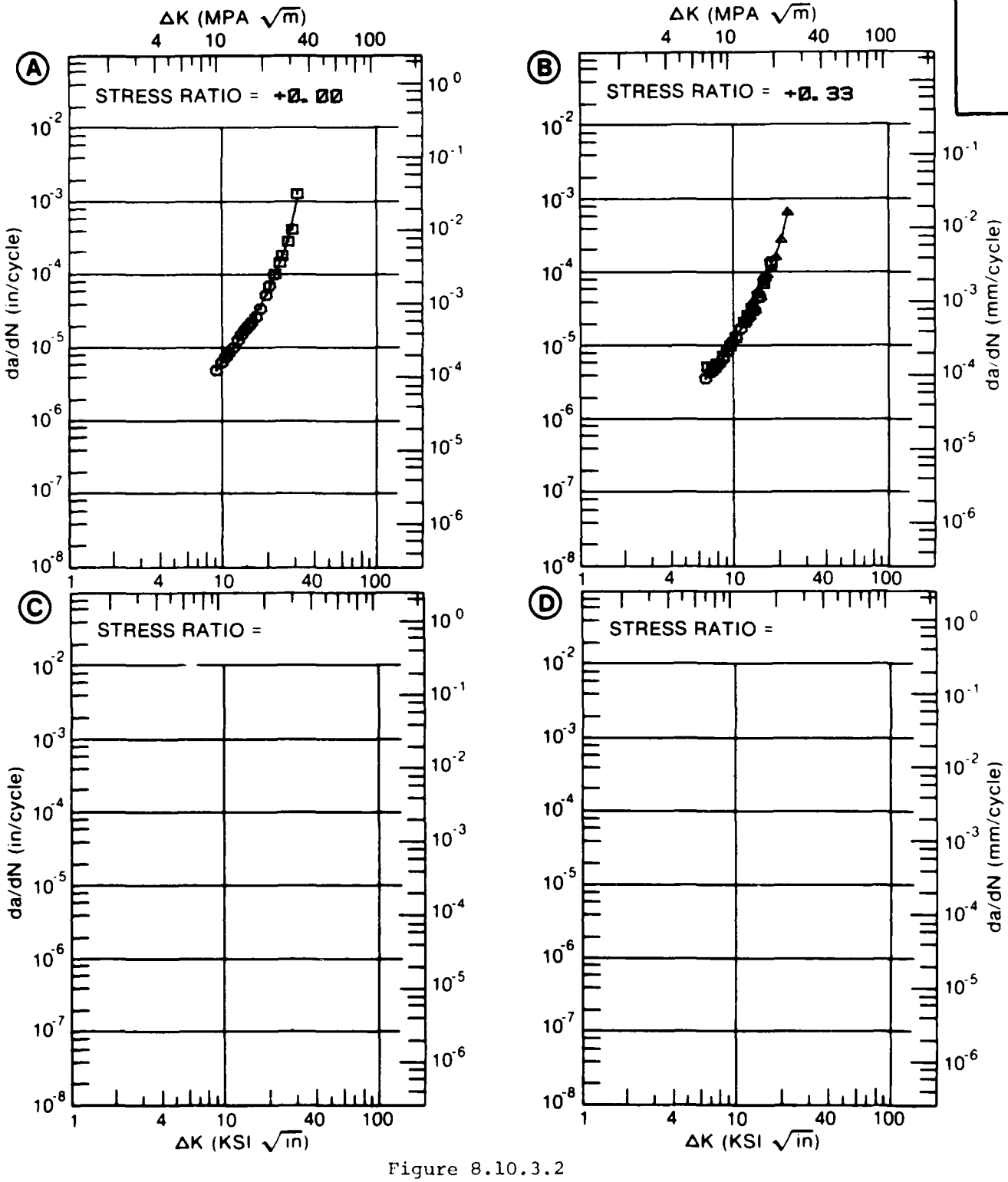

Figure 8.10.3.2

TABLE 8.11.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7079 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD DEVIATION (KSI SQRT(IN))		(NUMBER OF SPECIMENS)
	PLATE		
CONDITION/HT	L-T	T-L	S-L
T6	33.0 ± 2.9 (8)	-----	-----
T651	27.6 ± 1.8 (39)	23.3 ± 2.0 (27)	18.6 ± 3.2 (10)
T851	28.6 ± 1.6 (7)	21.3 ± 3.4 (2)	-----
	FORGING		
CONDITION/HT	L-T	T-L	S-L
T652	27.8 ± 2.2 (13)	23.1 ± 2.2 (10)	18.1 ± 0.7 (12)

TABLE 8.11.1.2

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7079

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T6	SHEET	0.05	2.00					64.8		
T6	SHEET	0.50	2.00					364		
T6	BILLET	0.02	1.00-30.00				10.7	110		
T651	SHEET	0.05	2.00				14.0	92.6		
T652	FORGING	0.33	5.17				22.2	145		

TABLE 8.11.1.3

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7079

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	FORGING	0.05	9.00			0.38	7.81	42.8		
T6	FORGING	0.50	9.00		0.19	2.08	22.0			
T652	FORGING	0.33	5.17				18.3			

TABLE 8.11.1.4

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FA' TOR

AI UMINUM 7079

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT H H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	FORGING	0.05	9.00			2.52	17.4	70.4		
T6	FORGING	0.50	9.00		0.26	3.77				

TABLE 8.11.2.1

ALUMINUM 7079 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.37	R.T.	T-L	74.2	3.000	1.385	NB	1.500	0.27	24.90			1978	MPC01
		1.37			74.2	3.000	1.384	NB	1.560	0.26	23.70			1973	86213
		1.00			74.8	2.006	0.968	CT	1.063	0.14	18.20			1978	MPC01
		1.37			75.6	3.000	1.397	NB	1.612	0.21	20.80	23.3/	2.0	1973	86213
T651	P	1.37	82	T-L	74.2	2.000	1.000	CT	1.012	0.22	22.10			1973	86213
		1.37			74.2	2.000	1.001	CT	1.007	0.21	21.60			1973	86213
		1.37			74.2	2.000	1.001	CT	1.017	0.21	21.90	21.7/	0.3	1973	86213
T651	P	5.00	88	T-L	65.5	2.000	1.001	CT	1.019	0.36	24.70			1973	86213
		5.00			65.5	2.000	1.002	CT	1.047	0.36	25.00	24.9/	0.2	1973	86213
T651	P	1.37	88	S-T	69.1	1.000	0.500	CT	0.483	0.15	16.70			1973	86213
		1.37			69.1	1.000	0.500	CT	0.523	0.15	17.20	17.0/	0.4	1973	86213
T651	P	5.00	R.T.	S-L	60.6	2.000	1.001	CT	1.002	0.37	23.40			1973	86213
		5.00			60.6	2.000	1.001	CT	0.994	0.33	21.90			1973	86213
		5.00			61.6	2.000	1.001	CT	1.015	0.30	21.50			1973	86213
		5.00			61.6	2.000	1.001	CT	1.024	0.31	21.80			1973	86213
		1.37			67.3	1.011	0.501	CT	0.465	0.13	15.70			1978	MPC01
		1.37			67.3	1.000	0.500	CT	0.473	0.15	16.50			1973	86213
		1.37			67.3	1.008	0.501	CT	0.484	0.13	15.80			1978	MPC01
		1.37			67.3	1.000	0.501	CT	0.480	0.15	16.90			1978	MPC01
		1.37			67.3	1.000	0.500	CT	0.472	0.14	16.10			1973	86213
		1.37			67.3	1.000	0.501	CT	0.485	0.14	15.90	18.6/	3.2	1973	86213
T651	P	1.37	86	S-L	69.1	1.000	0.500	CT	0.507	0.13	16.00			1973	86213
		1.37			69.1	1.000	0.500	CT	0.505	0.17	17.90			1973	86213
		1.37			69.1	1.000	0.500	CT	0.490	0.16	17.40	17.1/	1.0	1973	86213
T651	P	5.00	88	S-L	60.5	2.000	1.001	CT	1.016	0.31	21.30			1973	86213
		5.00			60.5	2.000	1.001	CT	1.022	0.33	22.00			1973	86213
		5.00			61.8	2.000	1.002	CT	1.030	0.33	22.60			1973	86213
		5.00			61.8	2.000	1.001	CT	1.024	0.32	22.10	22.0/	0.5	1973	86213
T652	F	6.00	R.T.	L-T	63.9	4.000	2.001	NB	1.990	0.67	33.10			1970	77720
		6.00			63.9	4.000	2.001	NB	2.055	0.51	28.80			1970	77720

TABLE 8.11.2.1 (con't)

ALUMINUM 7079 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T652	F	6.00	R.T.	L-T	63.9	4.000	2.001	NB	1.942	0.50	28.50			1970	77720
		5.00			65.6	3.000	1.502	NB	1.495	0.37	25.10			1970	77720
		5.00			65.6	3.000	1.500	NB	1.593	0.43	27.10			1970	77720
		4.00			68.0	3.000	1.500	NB	1.587	0.40	27.10			1970	77720
		4.00			68.0	3.000	1.500	NB	1.573	0.37	26.20			1970	77720
		4.00			68.0	3.000	1.500	NB	1.570	0.38	26.40			1970	77720
		3.00			68.7	2.000	1.000	NB	1.022	0.39	27.10			1970	77720
		3.00			68.7	2.000	0.999	NB	1.015	0.40	27.70			1970	77720
		2.00			71.0	1.490	0.753	NB	0.753	0.38	27.70			1970	77720
		2.00			71.0	1.490	0.751	NB	0.845	0.47	30.80			1970	77720
		2.00			71.0	1.500	0.750	NB	0.733	0.32	25.40	27.8/	2.2	1970	77720
T652	F	6.00	R.T.	T-S	59.1	4.000	2.002	CT	2.167	0.38	22.90			1973	86213
T652	F	6.00	R.T.	T-L	57.5	4.000	2.001	NB	2.170	0.44	24.10			1970	77720
		6.00			57.5	4.000	2.001	NB	2.035	0.38	22.40			1970	77720
		6.00			57.5	4.000	2.001	NB	2.092	0.46	24.60			1970	77720
		5.00			61.4	3.000	1.500	NB	1.527	0.44	25.60			1970	77720
		5.00			61.4	3.000	1.500	NB	1.578	0.34	22.50			1970	77720
		4.00			63.0	3.000	1.500	NB	1.602	0.24	19.50			1970	77720
		2.00			64.9	1.500	0.751	NB	0.797	0.36	24.70			1970	77720
		3.00			65.7	2.000	1.000	NB	1.032	0.39	26.00			1970	77720
		3.00			65.7	2.000	0.998	NB	0.990	0.24	20.50			1970	77720
		3.00			65.7	2.000	0.998	NB	0.963	0.26	21.10	23.1/	2.2	1970	77720
T652	F	6.00	R.T.	S-L	58.1	1.000	0.500	NB	0.495	0.23	17.60			1970	77720
		6.00			58.1	1.000	0.500	NB	0.493	0.26	18.70			1970	77720
		6.00			58.1	1.000	0.499	NB	0.482	0.24	18.00			1970	77720
		5.00			58.3	1.000	0.500	NB	0.485	0.22	18.30			1970	77720
		5.00			58.3	1.000	0.500	NB	0.517	0.22	18.10			1970	77720
		5.00			58.3	1.000	0.500	NB	0.487	0.22	18.30			1970	77720
		6.00			58.5	2.000	1.000	CT	0.978	0.23	17.60			1973	86213
		6.00			58.5	2.000	1.000	CT	0.981	0.23	17.70			1973	86213
		6.00			58.5	2.000	1.000	CT	0.996	0.25	18.60			1973	86213
		4.00			62.9	0.500	0.250	NB	0.257	0.19	17.20			1970	77720
		4.00			62.9	0.500	0.250	NB	0.263	0.18	17.10			1970	77720
		4.00			62.9	0.500	0.250	NB	0.282	0.24	19.70	18.1/	0.7	1970	77720

TABLE 8.11.2.1 (con't)

ALUMINUM 7079 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T851	P	1.37	R.T.	L-T	75.2	2.982	1.397	NB	1.640	0.28	25.90			1978	MPC01
		1.37			75.2	2.994	1.398	NB	1.557	0.36	28.70			1978	MPC01
		1.37			75.2	2.984	1.398	NB	1.522	0.32	27.20			1978	MPC01
		1.37			75.2	3.020	1.397	NB	1.540	0.40	30.60			1978	MPC01
		1.37			75.2	3.010	1.398	NB	1.505	0.38	29.90			1978	MPC01
		1.50			76.8	2.016	1.002	CT	1.109	0.36	29.70			1978	MPC01
		1.50			76.8	2.006	1.002	CT	1.083	0.32	28.40	28.6/	1.6	1978	MPC01
T851	P	1.37	R.T.	T-L	72.6	2.988	1.397	NB	1.524	0.16	18.90			1978	MPC01
		1.50			74.4	2.006	1.001	CT	1.063	0.24	23.70	21.3/	3.4	1978	MPC01

TABLE 8.11.2.2

ALUMINUM 7079 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	L-T	64.0	2.000	0.062	0.623	0.750	---	43.20	45.44*			51.42*			1973	86213
		0.06			64.0	2.000	0.062	0.622	0.870	---	42.90	45.13*			56.95*			1973	86213
		0.06			64.0	2.000	0.062	0.624	0.820	---	42.30	44.58*			53.68*			1973	86213
		0.06			70.2	2.000	0.063	0.625	1.150	---	43.20	45.53*			73.79*			1973	86213
		0.06			70.2	2.000	0.061	0.625	1.270	---	42.40	44.69*			81.31*			1973	86213
		0.06			70.2	2.000	0.063	0.625	1.120	---	43.60	45.95*			72.43*			1973	86213
		0.06			70.2	2.000	0.063	0.625	1.150	---	43.20	45.53*			73.79*			1973	86213
		0.06			70.2	2.000	0.061	0.625	1.220	---	42.60	44.90*			77.77*			1973	86213
T6	S	0.10	R.T.	L-T	75.6	3.000	0.112	1.000	1.410	---	39.70	53.47			68.70*			1973	86213
		0.10			75.6	3.000	0.112	1.000	----	---	40.50	54.54*			----			1973	86213
		0.10			75.6	3.000	0.112	1.000	1.370	---	40.60	54.68*			68.61*			1973	86213
		0.10			75.6	3.000	0.112	1.000	1.480	---	40.20	54.14	53.8/	0.5	72.51*	----/	---	1973	86213
T6	S	0.12	R.T.	L-T	72.0	2.990	0.120	0.991	1.300	---	42.00	56.22*			68.14*			1973	86213
		0.12			72.0	2.990	0.120	0.995	1.210	---	42.30	56.77*			65.01*			1973	86213
T6	S	0.12	R.T.	L-T	72.0	3.000	0.119	0.995	1.320	---	42.40	56.88*			69.55*			1973	86213
		0.12			72.0	3.000	0.119	0.997	1.320	---	42.40	56.95*			69.55*			1973	86213
T6	S	0.14	R.T.	L-T	74.2	3.000	0.128	1.143	1.949	---	36.00	53.04			87.04*			1973	86213
		0.14			74.2	3.000	0.128	1.180	1.951	---	35.30	53.23			85.47*			1973	86213
		0.14			75.7	3.000	0.136	1.133	1.873	---	35.70	52.27			82.04*			1973	86213
		0.14			75.7	3.000	0.136	1.107	1.951	---	36.20	52.15	52.7/	0.5	87.65*	----/	---	1973	86213
T6	S	0.10	82	L-T	72.5	3.000	0.099	1.110	2.010	---	37.10	53.59*			93.65*			1973	86213
		0.10			72.5	3.000	0.099	1.150	2.032	---	35.50	52.56			91.03*			1973	86213
T6	S	0.10	84	L-T	71.6	3.000	0.099	1.150	2.145	---	35.50	52.56*			98.96*			1973	86213
		0.10			71.6	3.000	0.099	1.130	2.041	---	35.50	51.91			91.56*			1973	86213
T6	S	0.06	R.T.	T-L	62.4	2.000	0.062	0.622	0.830	---	41.80	43.97*			53.53*			1973	86213
		0.06			62.4	2.000	0.062	0.623	0.800	---	40.90	43.02*			50.97*			1973	86213
		0.06			62.4	2.000	0.061	0.624	0.850	---	41.00	43.21*			53.46*			1973	86213
		0.06			67.3	2.000	0.062	0.625	1.040	---	40.30	42.48*			62.26*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.11.2.2 (con't)

ALUMINUM 7079 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV MEAN	K(C) (KSI*SQRT IN)	K(C) STAN DEV MEAN	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T6	S	0.06	R.T.	T-L	67.3	2.000	0.062	0.625	1.180	---	41.10	43.32*		72.21*		1973	86213
		0.06			67.3	2.000	0.062	0.625	1.260	---	41.10	43.32*		78.04*		1973	86213
		0.06			67.3	2.000	0.062	0.625	1.110	---	39.80	41.95*		65.52*		1973	86213
		0.06			67.3	2.000	0.062	0.625	1.060	---	41.30	43.53*		64.96*		1973	86213
T6	S	0.10	R.T.	T-L	68.3	3.000	0.099	1.150	2.035	---	33.80	50.04*		86.80*		1973	86213
		0.10			68.3	3.000	0.099	1.160	2.005	---	33.60	50.05*		84.46*		1973	86213
T6	S	0.10	R.T.	T-L	73.8	3.000	0.112	1.000	1.320	---	36.60	49.29		60.04*		973	86213
		0.10			73.8	3.000	0.112	1.000	1.520	---	36.30	48.89		67.06*		1973	86213
		0.10			73.8	3.000	0.112	1.000	1.430	---	35.70	48.08		62.51*		1973	86213
		0.10			73.8	3.000	0.112	1.000	----	---	37.10	49.97	49.1/ 0.8	----	----/ ---	1973	86213
T6	S	0.12	R.T.	T-L	69.6	2.990	0.119	0.995	1.300	---	39.20	52.61*		63.60*		1973	86213
		0.12			69.6	2.990	0.119	0.992	1.350	---	38.10	51.07*		63.69*		1973	86213
		0.12			69.6	2.990	0.119	0.992	1.350	---	37.30	50.00*		62.35*		1973	86213
T6	S	0.14	R.T.	T-L	71.3	3.000	0.129	1.240	1.962	---	30.20	47.23		73.72*		1973	86213
		0.14			71.3	3.000	0.128	1.180	1.964	---	31.80	47.95		77.74*		1973	86213
		0.14			73.7	3.000	0.137	1.160	1.902	---	29.10	43.35		68.21*		1973	86213
		0.14			73.7	3.000	0.137	1.160	1.911	---	29.70	44.24	45.7/ 2.2	69.99*	----/ ---	1973	86213
T6	S	0.10	B4	T-L	69.1	3.000	0.099	1.170	1.993	---	31.00	46.46		77.27*		1973	86213
		0.10			69.1	3.000	0.100	1.110	2.047	---	31.70	45.79	46.1/ 0.5	82.11*	----/ ---	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T651	S	0.12	R.T.	L-T	74.3	3.000	0.126	1.130	1.530	18.70	33.90	49.57		63.00*		1973	86213
		0.12			74.3	3.000	0.126	1.100	1.390	20.50	35.30	50.67		60.37*		1973	86213
		0.12			74.3	3.000	0.125	1.000	1.300	20.70	38.10	51.31		61.76*		1973	86213
		0.12			74.3	3.000	0.126	1.000	1.540	21.20	36.00	48.48		67.30*		1973	86213
		0.12			74.9	3.000	0.125	1.090	1.430	19.40	35.00	49.92		61.29*		1973	86213
		0.12			74.9	3.000	0.126	1.090	1.530	21.10	35.90	51.21		66.71*		1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.11.2.2 (con't)

ALUMINUM 7079 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T651	S	0.12	R.T.	L-T	74.9	3.000	0.124	1.000	1.360	23.10	37.10	49.97			62.32*			1973	86213
		0.12			74.9	3.000	0.125	1.000	1.510	23.60	37.50	50.50			68.86*			1973	86213
		0.12			76.1	3.000	0.126	1.110	1.500	17.30	36.00	52.00			65.71*			1973	86213
		0.12			76.1	3.000	0.126	1.120	1.560	18.90	36.60	53.19			69.25*			1973	86213
		0.12			76.1	3.000	0.126	1.000	1.320	19.90	37.60	50.64			61.68*			1973	86213
		0.12			76.1	3.000	0.125	1.000	1.460	22.30	37.90	51.04	50.7/	1.2	67.56*	----/	---	1973	86213
T651	P	0.25	R.T.	L-T	74.7	3.000	0.251	1.000	1.370	---	29.30	39.46			49.51			1973	86213
		0.25			74.7	3.000	0.251	1.160	1.630	---	26.60	39.62			52.50			1973	86213
		0.25			74.7	3.000	0.250	1.230	1.630	---	26.70	41.50	40.2/	1.1	52.69	51.6/	1.8	1973	86213
T651	P	1.00	R.T.	L-T	74.3	20.000	1.000	7.000	10.370	---	13.30	47.76			64.80			1973	86213
		1.00			74.3	20.000	1.000	7.000	9.330	---	12.80	45.97			56.84			1973	86213
		1.00			74.3	20.000	1.000	7.000	9.750	---	12.90	46.32			59.46			1973	86213
		1.00			74.3	20.000	1.000	7.000	10.260	---	12.70	45.61			61.27			1973	86213
		1.00			74.9	20.000	1.000	7.000	10.660	---	12.50	44.89			62.51			1973	86213
		1.00			74.9	20.000	1.000	7.000	10.340	---	13.00	46.68			63.17			1973	86213
		1.00			74.9	20.000	1.000	7.000	9.980	---	12.50	44.89			58.81			1973	86213
		1.00			74.9	20.000	1.000	7.000	9.880	---	12.40	44.53			57.82			1973	86213
		1.00			76.1	20.000	1.000	7.000	10.100	---	15.50	55.66			73.71			1973	86213
		1.00			76.1	20.000	1.000	7.000	9.770	---	14.00	50.28			64.65			1973	86213
		1.00			76.1	20.000	1.000	7.000	10.650	---	16.20	58.18			80.94			1973	86213
		1.00			76.1	20.000	1.000	7.000	9.850	---	16.00	57.46	49.0/	5.1	74.41	64.9/	7.6	1973	86213
T651	S	0.12	R.T.	T-L	71.4	3.000	0.126	1.000	1.260	22.80	33.80	45.52			53.49*			1973	86213
		0.12			71.4	3.000	0.126	1.080	1.430	17.00	29.20	41.39			51.13			1973	86213
		0.12			71.4	3.000	0.126	1.000	1.480	21.40	31.30	42.15			56.46*			1973	86213
		0.12			71.4	3.000	0.126	1.160	1.500	15.10	29.00	43.20			52.94*			1973	86213
		0.12			72.2	3.000	0.126	1.000	1.250	20.20	33.30	44.85			52.39			1973	86213
		0.12			72.2	3.000	0.126	1.100	1.380	18.50	30.40	43.63			51.68			1973	86213
		0.12			72.2	3.000	0.126	1.090	1.590	16.90	29.80	42.51			57.41*			1973	86213
		0.12			72.6	3.000	0.125	1.100	1.360	18.90	32.00	45.93			53.76*			1973	86213
		0.12			72.6	3.000	0.126	1.000	1.550	20.00	34.40	46.33			54.12*			1973	86213
		0.12			72.6	3.000	0.125	1.000	1.390	21.30	34.30	46.19			58.66*			1973	86213
		0.12			72.6	3.000	0.126	1.180	1.490	17.50	30.40	45.84	44.3/	1.8	55.16*	51.7/	0.6	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.11.2.2 (con't)

ALUMINUM 7079 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T651	P	0.25	R.T.	T-L	72.6	3.000	0.251	1.000	1.530	---	22.80	30.71		42.37		1973	86213
		0.25			72.6	3.000	0.250	1.180	1.530	---	20.80	31.37	31.0/ 0.5	38.65	40.5/ 2.6	1973	86213
T651	P	1.00	R.T.	T-L	71.3	20.000	1.000	7.000	8.880	---	8.50	30.52		36.26		1973	86213
		1.00			71.3	20.000	1.000	7.000	8.900	---	8.70	31.24		37.18		1973	86213
		1.00			71.3	20.000	1.000	7.000	9.620	---	8.60	30.88		39.18		1973	86213
		1.00			71.3	20.000	1.000	7.000	9.260	---	8.80	31.60		38.83		1973	86213
		1.00			72.2	20.000	1.000	7.000	9.410	---	8.50	30.52		38.01		1973	86213
		1.00			72.2	20.000	1.000	7.000	9.030	---	8.60	30.88		37.18		1973	86213
		1.00			72.2	20.000	1.000	7.000	8.950	---	8.30	29.81		35.63		1973	86213
		1.00			72.2	20.000	1.000	7.000	9.800	---	8.40	30.17		38.89		1973	86213
		1.00			72.6	20.000	1.000	7.000	8.980	---	8.90	31.96		38.31		1973	86213
		1.00			72.6	20.000	1.000	7.000	9.000	---	9.00	32.32		38.81		1973	86213
		1.00			72.6	20.000	1.000	7.000	8.910	---	9.10	32.68		38.92		1973	86213
		1.00			72.6	20.000	1.000	7.000	9.230	---	9.00	32.32	31.2/ 0.9	39.61	38.1/ 1.2	1973	86213

TABLE 8.11.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.1INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T6
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.50		
DELTA K MIN	A:	19.31	55.4			
	B:	16.89		172.		
	C:					
	D:					
		20.00	64.8	364.		
		25.00	167.	989.		
		30.00		2676.		
DELTA K MAX	A:	26.41	218.			
	B:	31.99		4067.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			6.21	9.61		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8		1		
		0.8-1.25	2	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T6
FORM: 0.17"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 57.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.170"
SPECIMEN WIDTH: 15.000"
REFERENCES: 86734

ALUM. ALLOY

7079

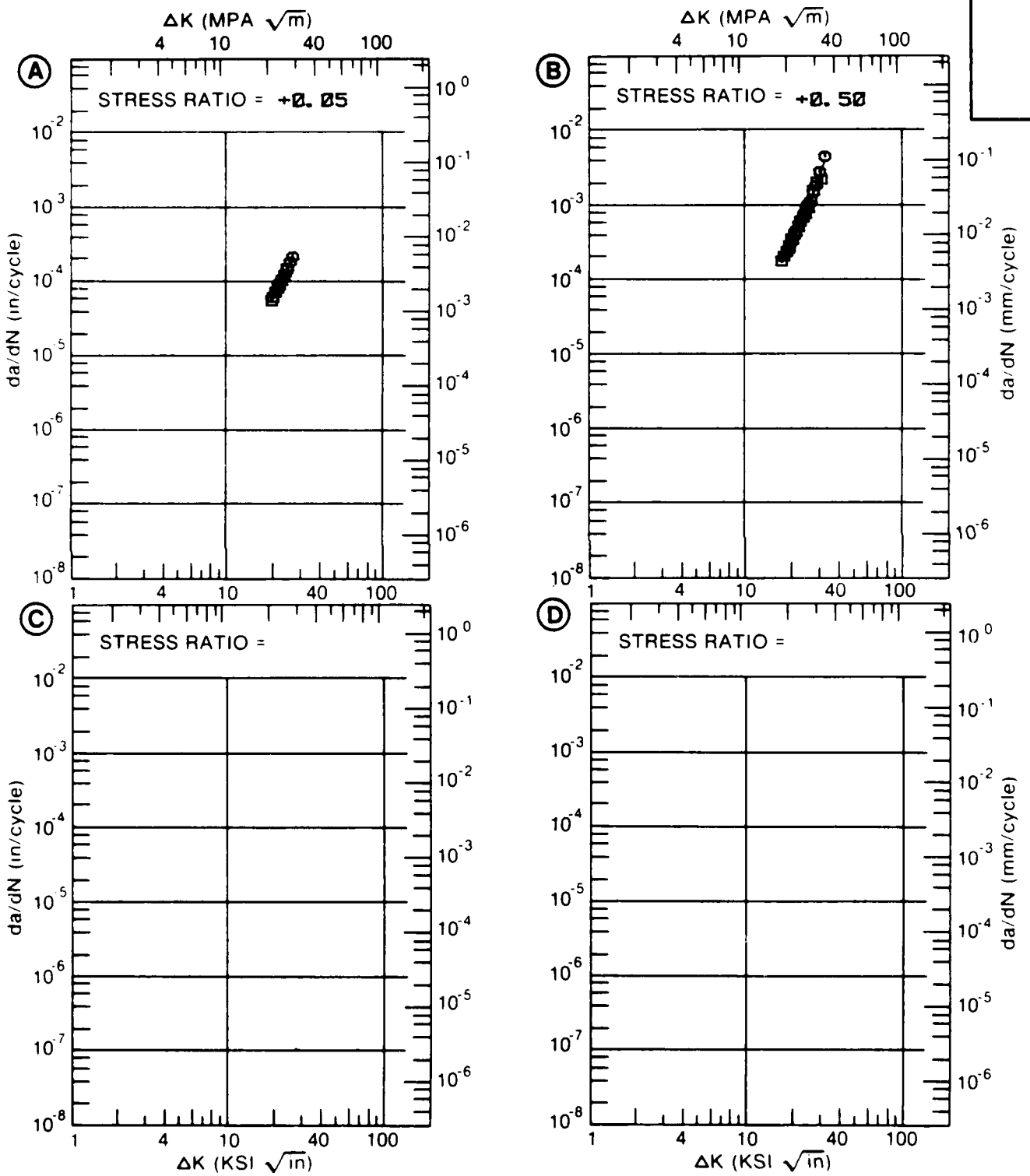

Figure 8.11.3.1

TABLE 8.11.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.2INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T6
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.02			
DELTA K MIN	A:	5.46	.114			
	B:					
	C:					
	D:					
		6.00	.262			
		7.00	1.01			
		8.00	2.84			
		9.00	6.13			
		10.00	10.7			
		13.00	27.4			
		16.00	53.6			
		20.00	110.			
DELTA K MAX	A:	20.96	123.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 25.00

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: 1.70"TH BILLET
SPECIMEN TYPE: WOL
ORIENTATION: L-T
FREQUENCY: 1.00- 30.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 79.0 KSI
ULT. STRENGTH: 86.0 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA011

ALUM. ALLOY

7079

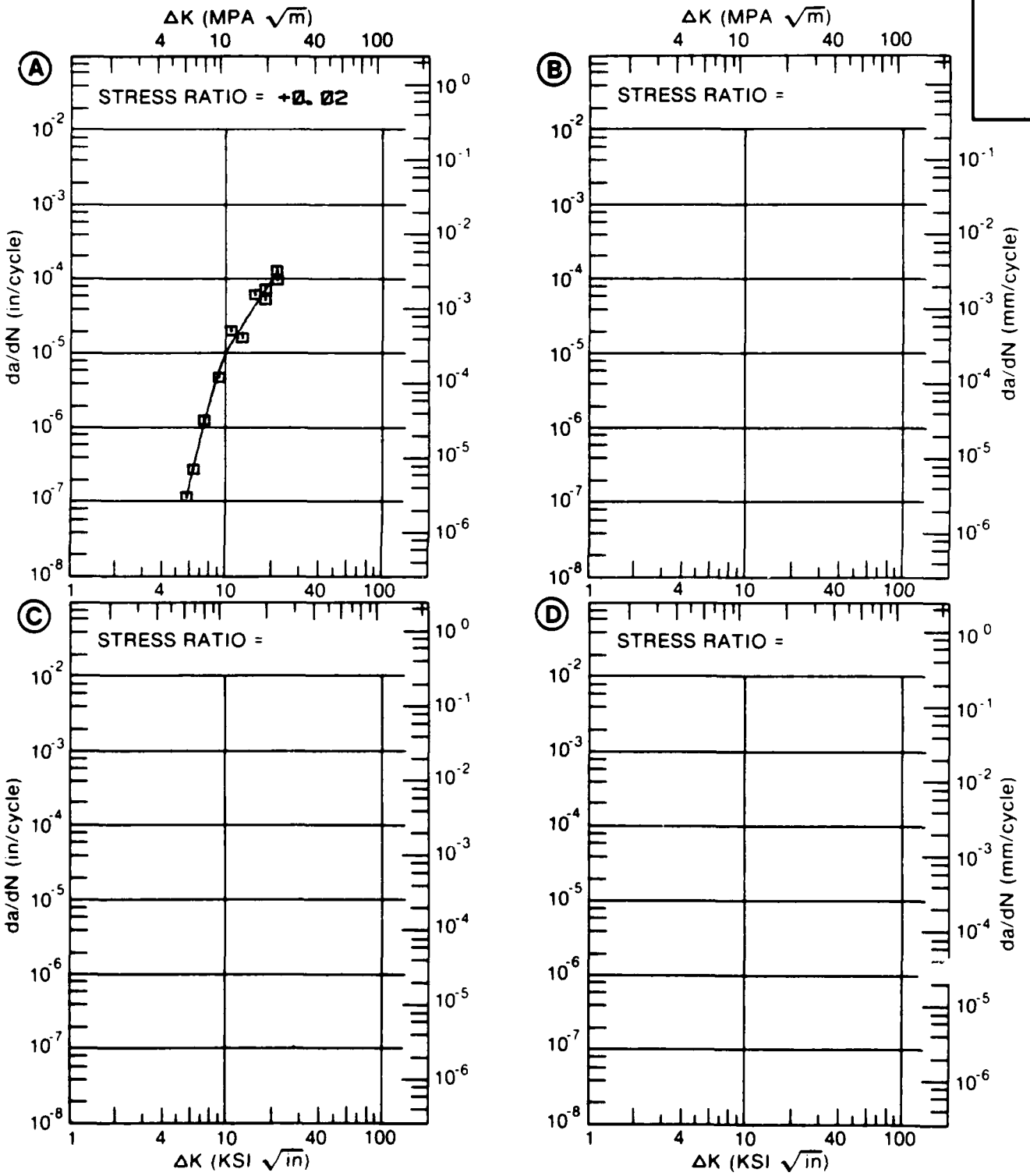

Figure 8.11.3.2

TABLE 8.11.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.3 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T6
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.05	R=+0.50		
DELTA K MIN A:	4.14	.284			
DELTA K MIN B:	2.16		.137		
DELTA K MIN C:					
DELTA K MIN D:					
	2.50		.193		
	3.00		.317		
	3.50		.517		
	4.00		.833		
	5.00	.387	2.08		
	6.00	.922	4.65		
	7.00	1.91	8.94		
	8.00	3.29	15.3		
	9.00	5.17	21.3		
	10.00	7.81	22.0		
	13.00	21.8			
	16.00	35.7			
	20.00	42.8			
	25.00	55.4			
DELTA K MAX A:	27.05	67.8			
DELTA K MAX B:	10.09		21.7		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		41.55	30.01		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 9.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 72.6 KSI
ULT. STRENGTH: 83.4 KSI
SPECIMEN THK: 0.400"
SPECIMEN WIDTH:
REFERENCES:BW001

ALUM. ALLOY

7079

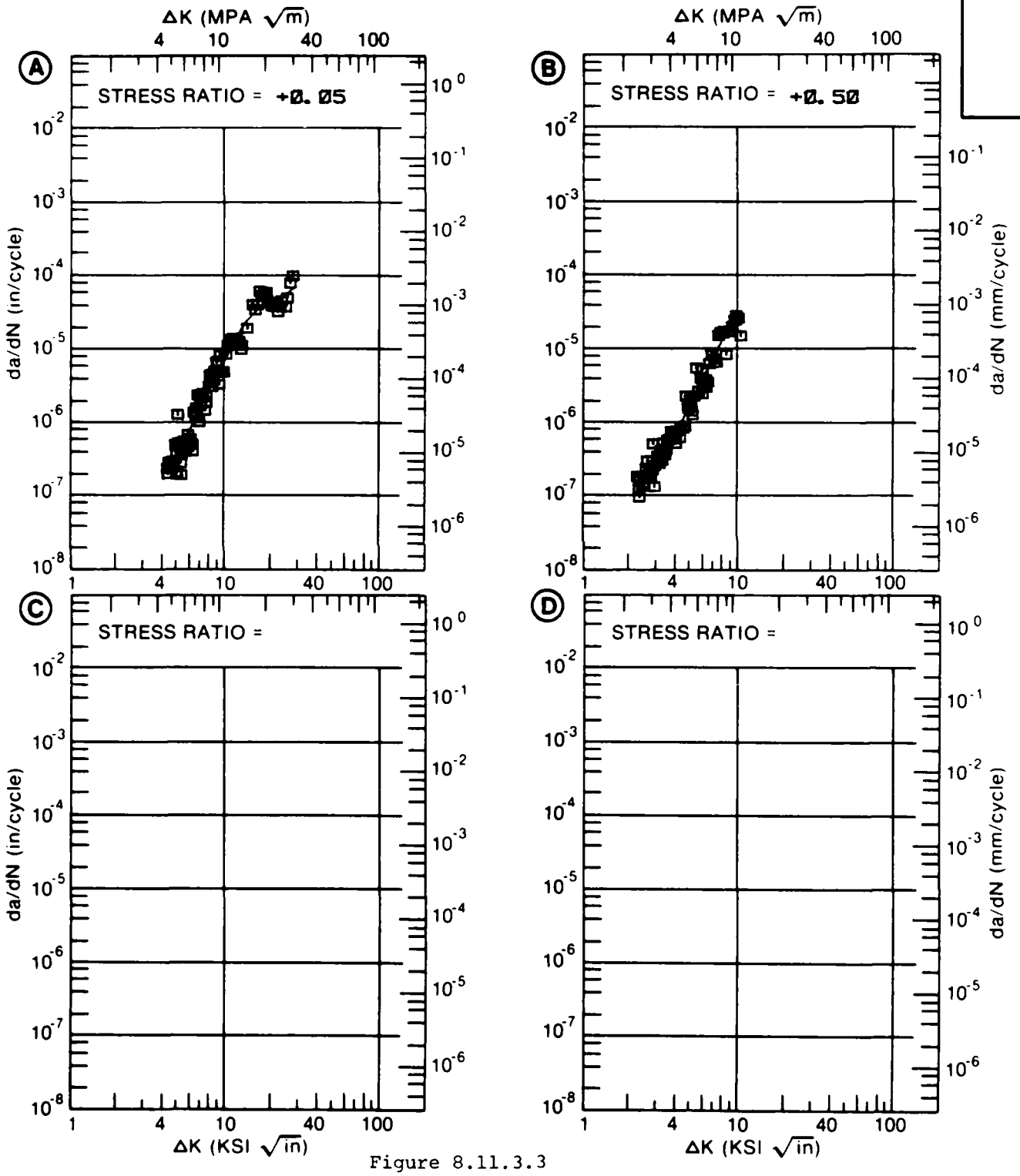

Figure 8.11.3.3

TABLE 8.11.3.4

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.4 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T6
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.50		
DELTA K MIN	A:	4.09	.377			
	B:	2.22		.197		
	C:					
	D:					
		2.50		.264		
		3.00		.537		
		3.50		1.04		
		4.00		1.70		
		5.00	2.52	3.77		
		6.00	4.34	8.18		
		7.00	6.76	14.2		
		8.00	9.78	20.8		
		9.00	13.4	34.9		
		10.00	17.4			
		13.00	32.0			
		16.00	48.4			
		20.00	70.4			
		25.00	98.4			
DELTA K MAX	A:	29.94	129.			
	B:	9.83		68.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			24.19	19.85		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 9.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 68.8 KSI
ULT. STRENGTH: 78.7 KSI
SPECIMEN THK: 0.400"
SPECIMEN WIDTH: 4.500"
REFERENCES: BW001

ALUM. ALLOY

7079

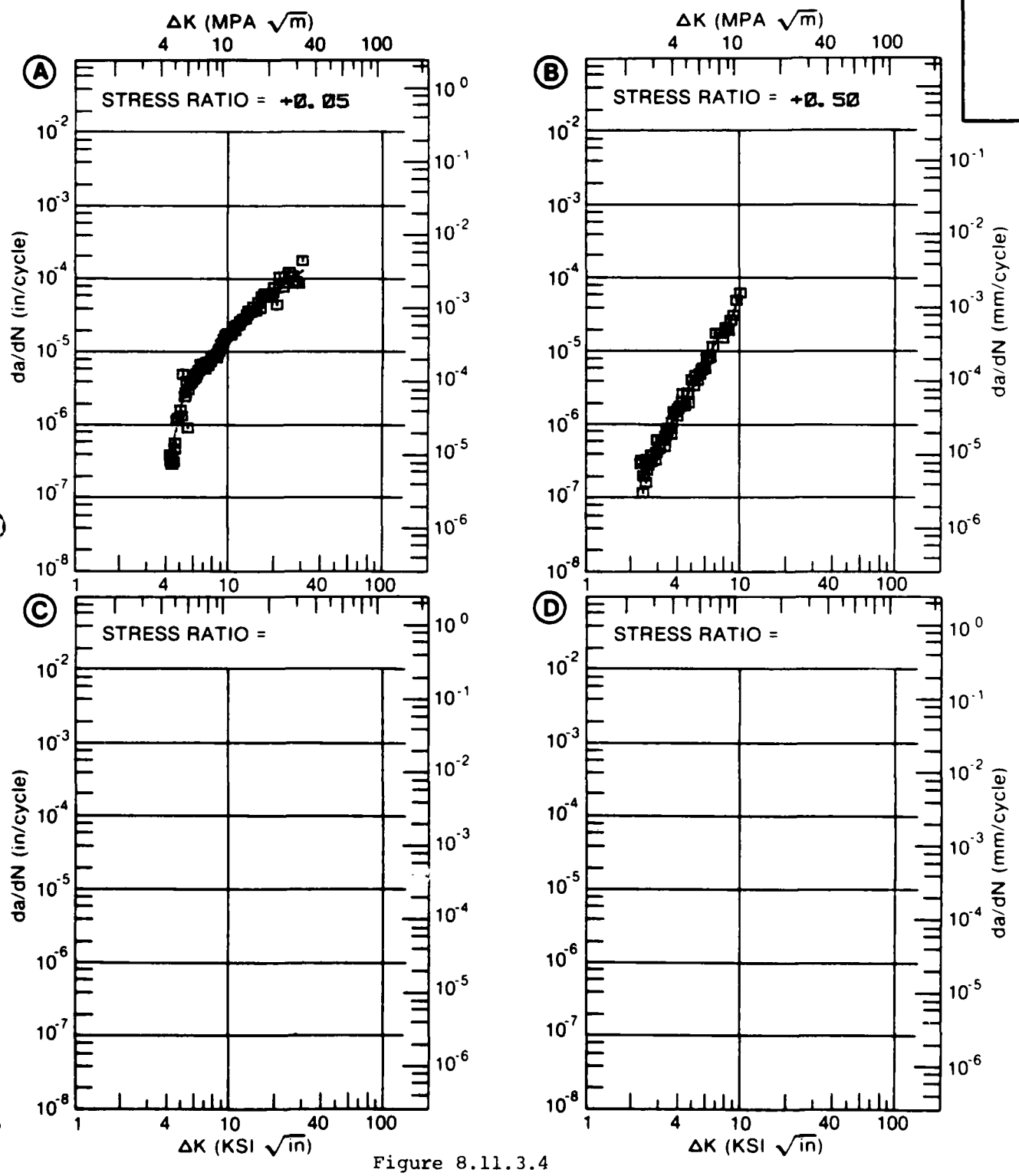

Figure 8.11.3.4

TABLE 8.11.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.5 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.75	2.85			
	B:					
	C:					
	D:					
		6.00	3.17			
		7.00	4.79			
		8.00	7.07			
		9.00	10.1			
		10.00	14.0			
		13.00	30.9			
		16.00	55.0			
		20.00	92.6			
		25.00	135.			
DELTA K MAX	A:	26.66	145.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 9.67

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	4
	1.25-2.0	
	>2.0	

CONDITION/HT: T651
FORM: 0.16"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 72.6 KSI
ULT. STRENGTH: 79.1 KSI
SPECIMEN THK: 0.160- 0.161"
SPECIMEN WIDTH: 3.000- 14.010"
REFERENCES:86734

ALUM. ALLOY

7079

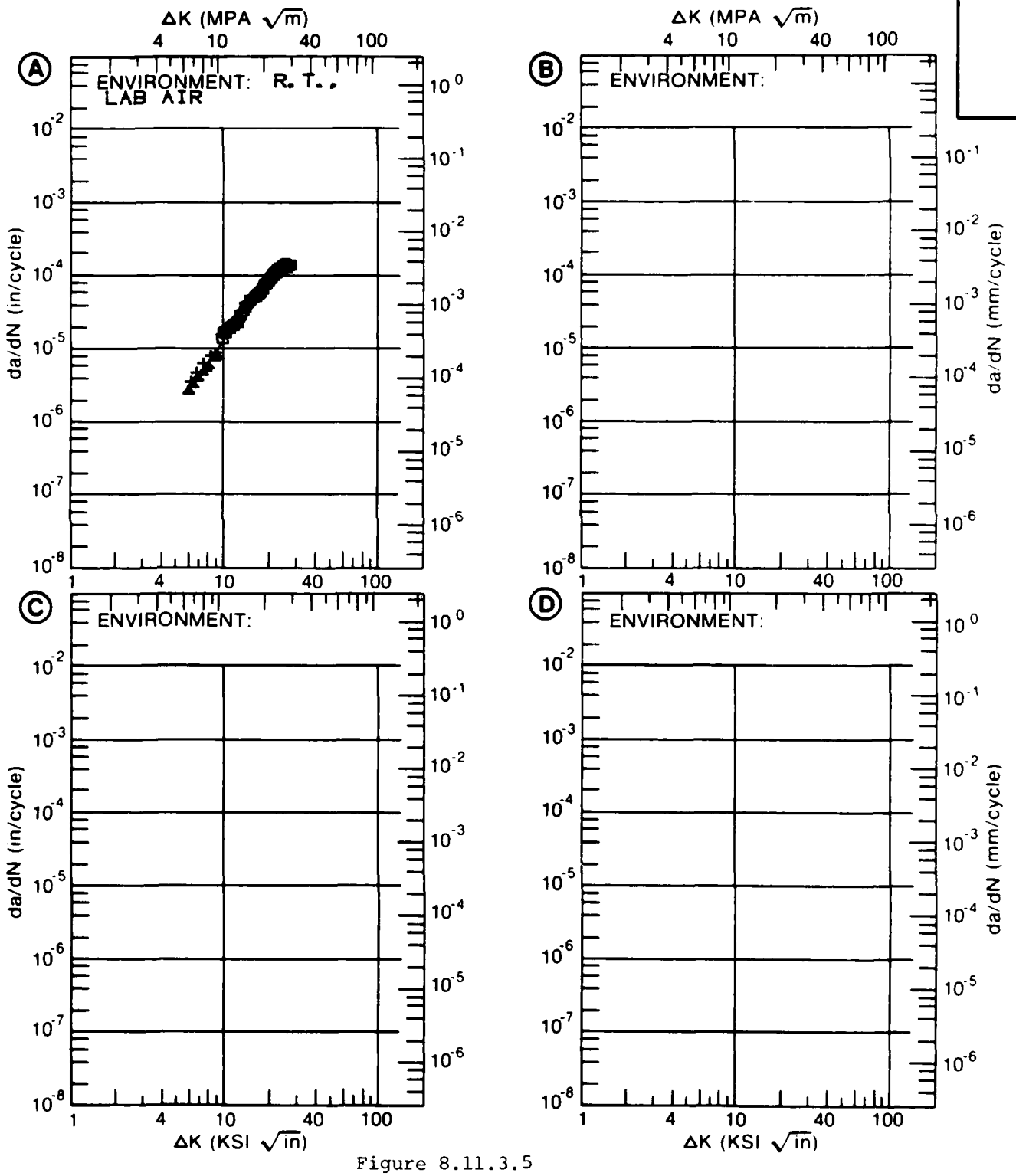

Figure 8.11.3.5

TABLE 8.11.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.6 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T652
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.82	2.27			
	B:					
	C:					
	D:					
		6.00	2.61			
		7.00	4.95			
		8.00	8.02			
		9.00	11.6			
		10.00	15.6			
		13.00	27.6			
		16.00	37.3			
DELTA K MAX	A:	17.35	40.7			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR		5.08
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: L-S
FREQUENCY: 5.17 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

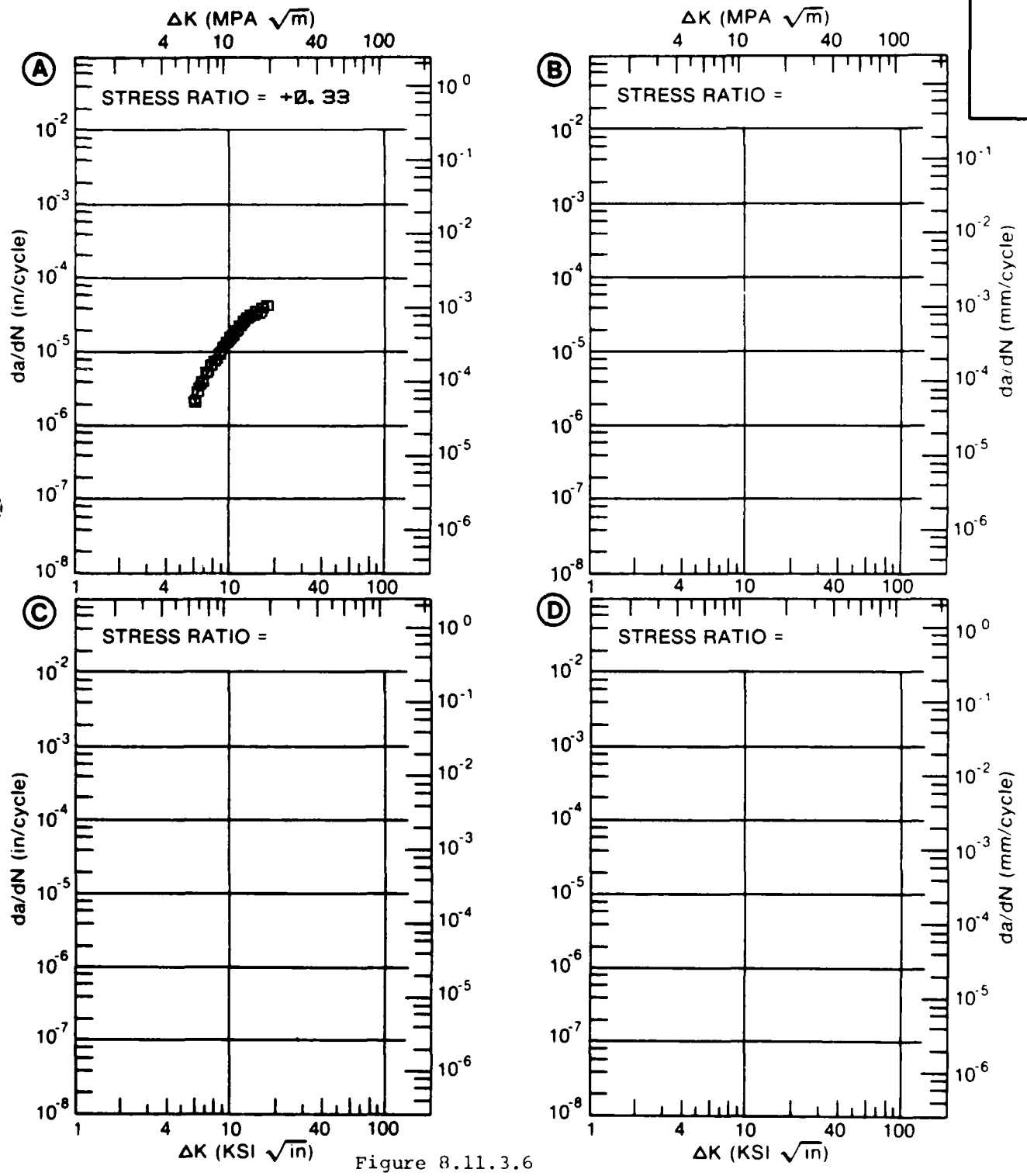

Figure 8.11.3.6

TABLE 8.11.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.7 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T652
ENVIRONMENT: R.T. /LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.59	4.14			
	B:					
	C:					
	D:					
		6.00	5.36			
		7.00	8.82			
		8.00	12.8			
		9.00	17.3			
		10.00	22.2			
		13.00	41.2			
		16.00	71.0			
		20.00	145.			
DELTA K MAX	A:	21.86	204.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 18.53

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	2
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.17 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

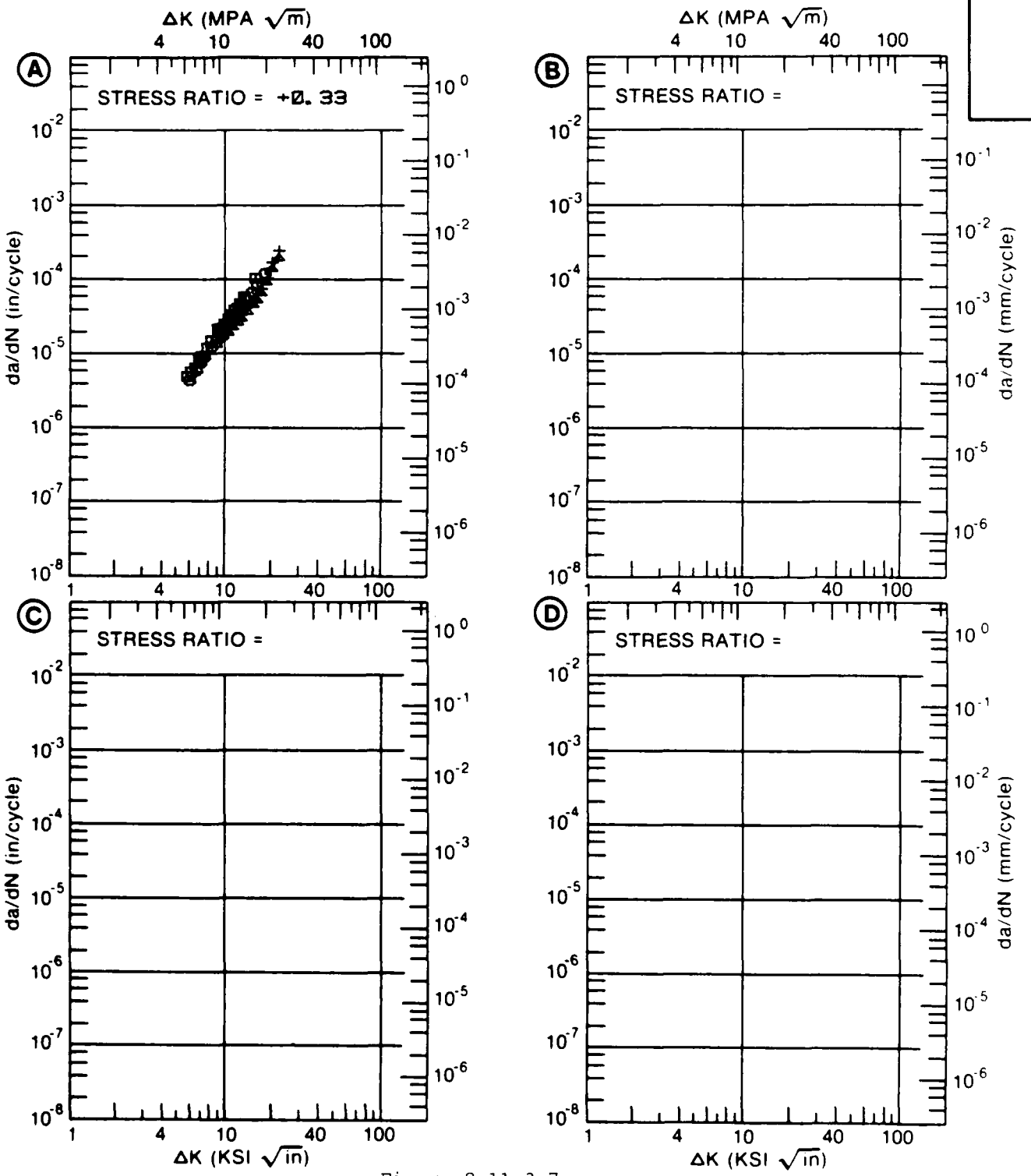

Figure 8.11.3.7

TABLE 8.11.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.8 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T652

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. L.H.A.	E= R.T. LAB AIR	E= R.T. 90% R.H.	E= R.T. SALT FOG
DELTA K MIN	A: 5.83	2.61			
	B: 5.53		2.48		
	C: 5.59			3.29	
	D: 5.46				3.21
	6.00	2.80	3.21	4.32	4.76
	7.00	4.05	4.86	7.10	8.01
	8.00	5.44	6.61	10.2	11.5
	9.00	6.95	8.44	13.6	15.2
	10.00	8.56	10.4	17.5	19.4
	13.00	13.6	17.7	35.6	38.2
	16.00	16.8	29.6	76.9	81.4
	20.00		60.9		
DELTA K MAX	A: 16.92	17.0			
	B: 22.12		91.5		
	C: 17.28			110.	
	D: 16.26				87.4
ROOT MEAN SQUARE PERCENT ERROR		16.35	11.53	8.60	10.74
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	2	6	2	4
	1.25-2.0				
	>2.0				

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-S
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

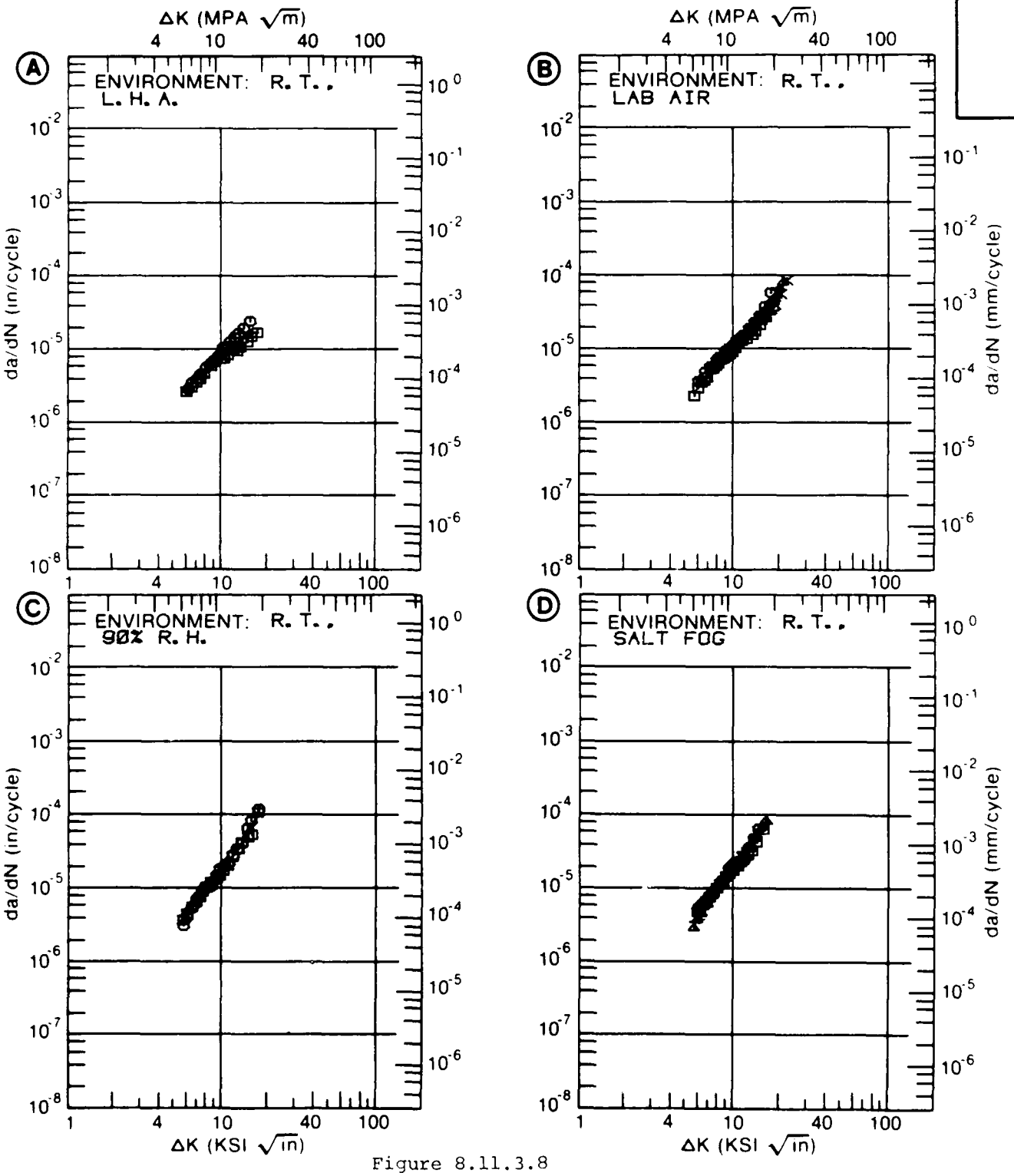

Figure 8.11.3.8

TABLE 8.11.3.9

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.9 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	5.52	2.82			
	B:					
	C:					
	D:					
		6.00	3.73			
		7.00	6.04			
		8.00	9.02			
		9.00	13.0			
		10.00	18.3			
		13.00	51.3			
DELTA K MAX	A:	15.68	95.3			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 12.51

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

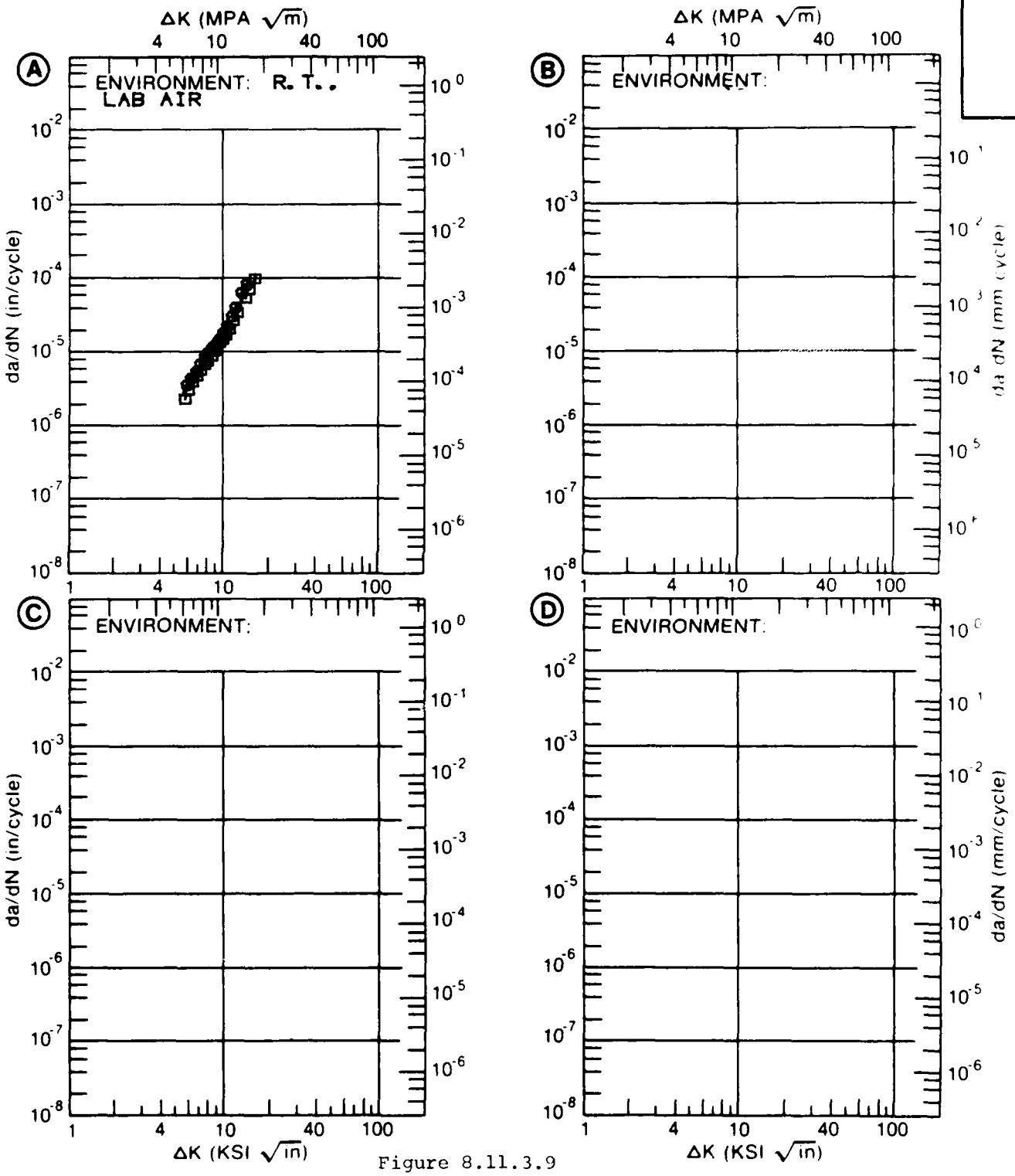

Figure 8.11.3.9

TABLE 8.11.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.10INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T652

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 5.58	2.93			
	B:				
	C:				
	D:				
	6.00	3.50			
	7.00	5.44			
	8.00	8.40			
	9.00	12.6			
	10.00	18.3			
DELTA K MAX	A: 11.52	29.9			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 12.23

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: S-T
STRESS RATIO: +0.33
FREQUENCY: 5.17 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

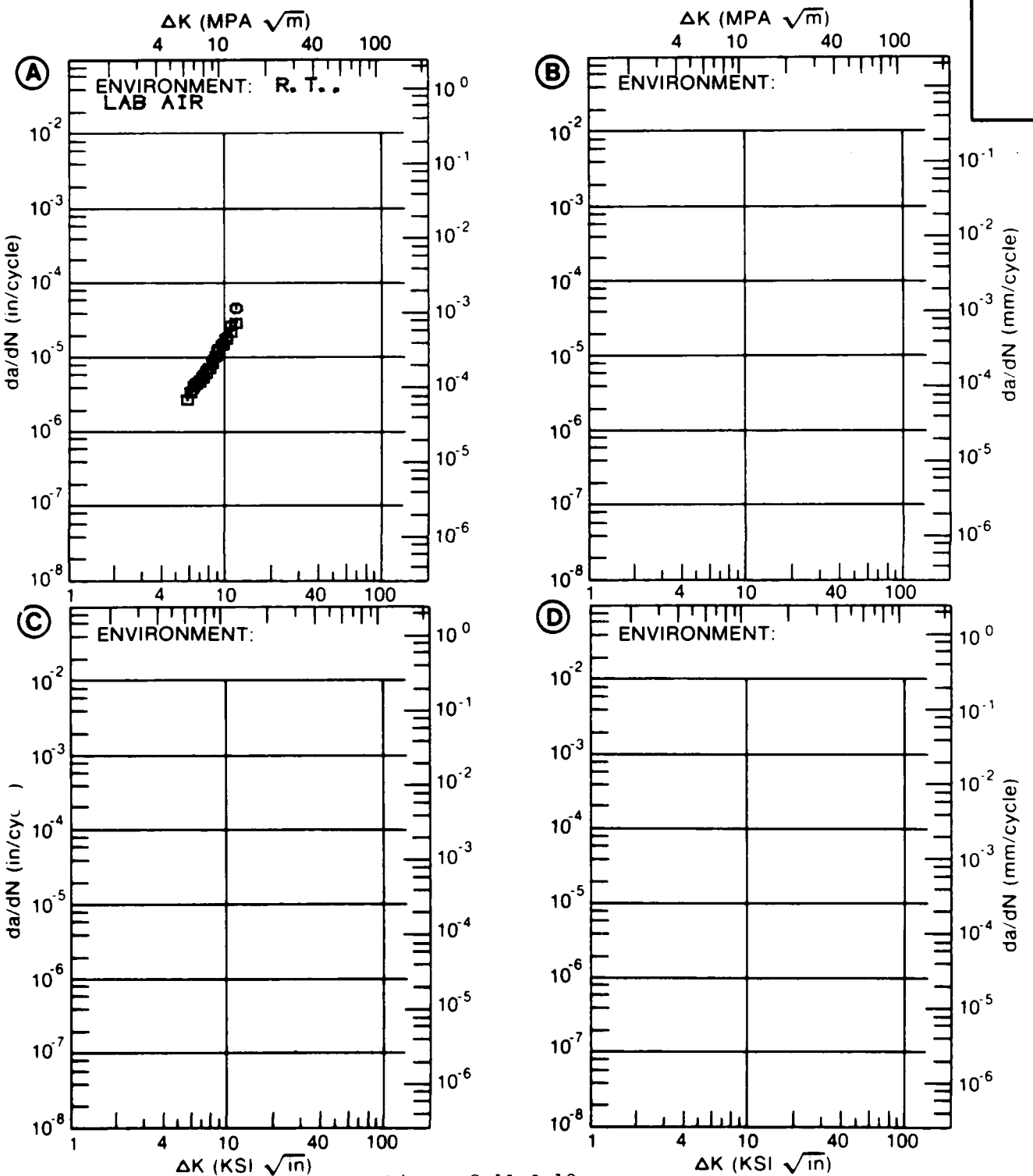

Figure 8.11.3.10

TABLE 8.11.3.11

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.11INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7079
CONDITION: T652
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	8.37	3.13			
	B:					
	C:					
	D:					
		9.00	4.98			
		10.00	9.73			
DELTA K MAX	A:	12.82	56.4			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 21.17

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	2
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: S-L
FREQUENCY: 5.17 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.750"
SPECIMEN WIDTH: 3.000"
REFERENCES:77720

ALUM. ALLOY

7079

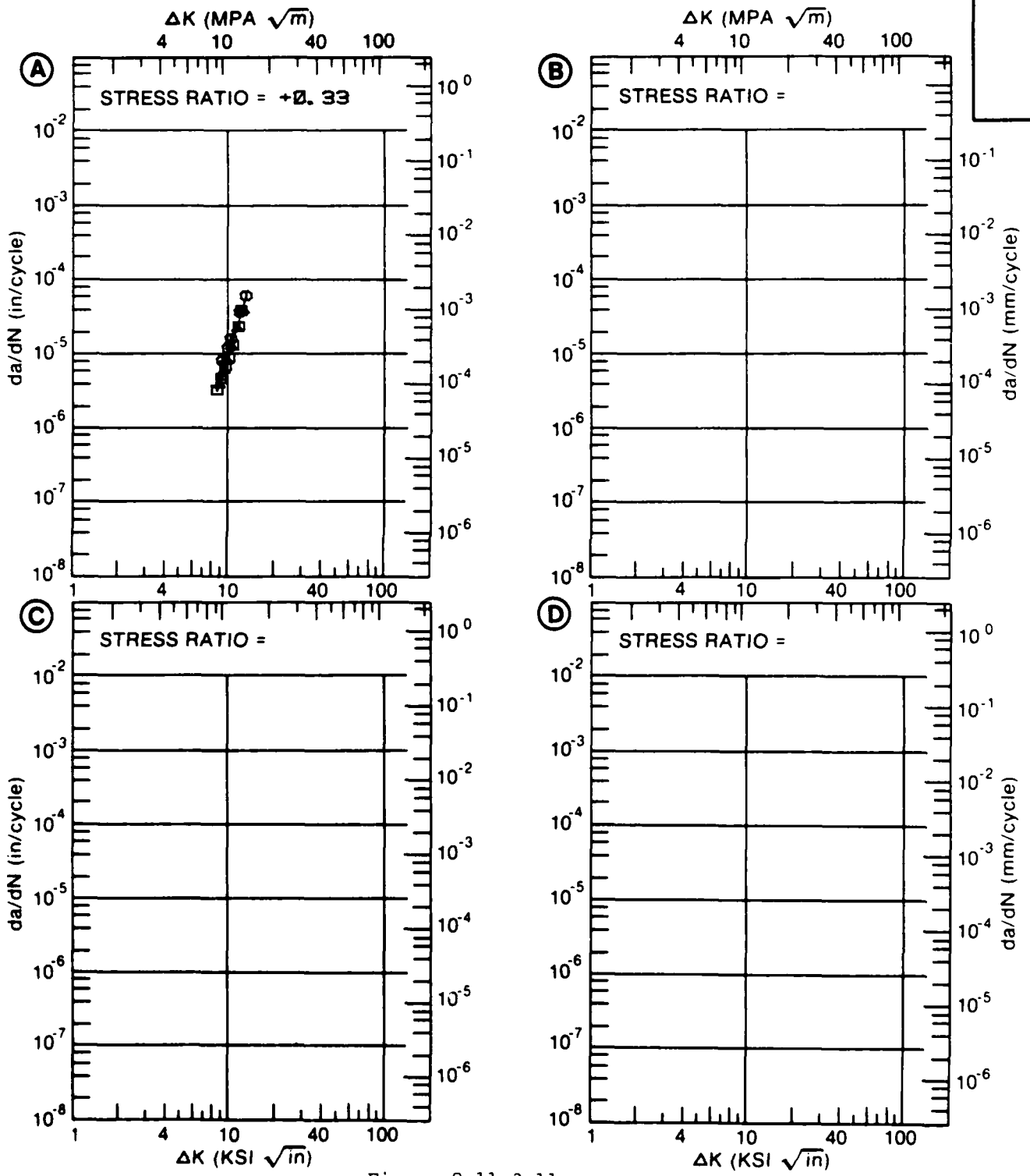

Figure 8.11.3.11

TABLE 8.11.3.12

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.12 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T6

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			E-3.5PCT NACL			
K MAX MIN	A:	5.20	88938.			
	B:					
	C:					
	D:					
		6.00	229024.			
		7.00	313826.			
K MAX MAX	A:	7.20	332604.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 4.14

CONDITION/HT: T6
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION:
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 3.500"
CRACK LENGTH (A_0):
K_{ISCC}: 4.30 KSI (SQRT IN)
REFERENCES:84330

ALUM. ALLOY

7079

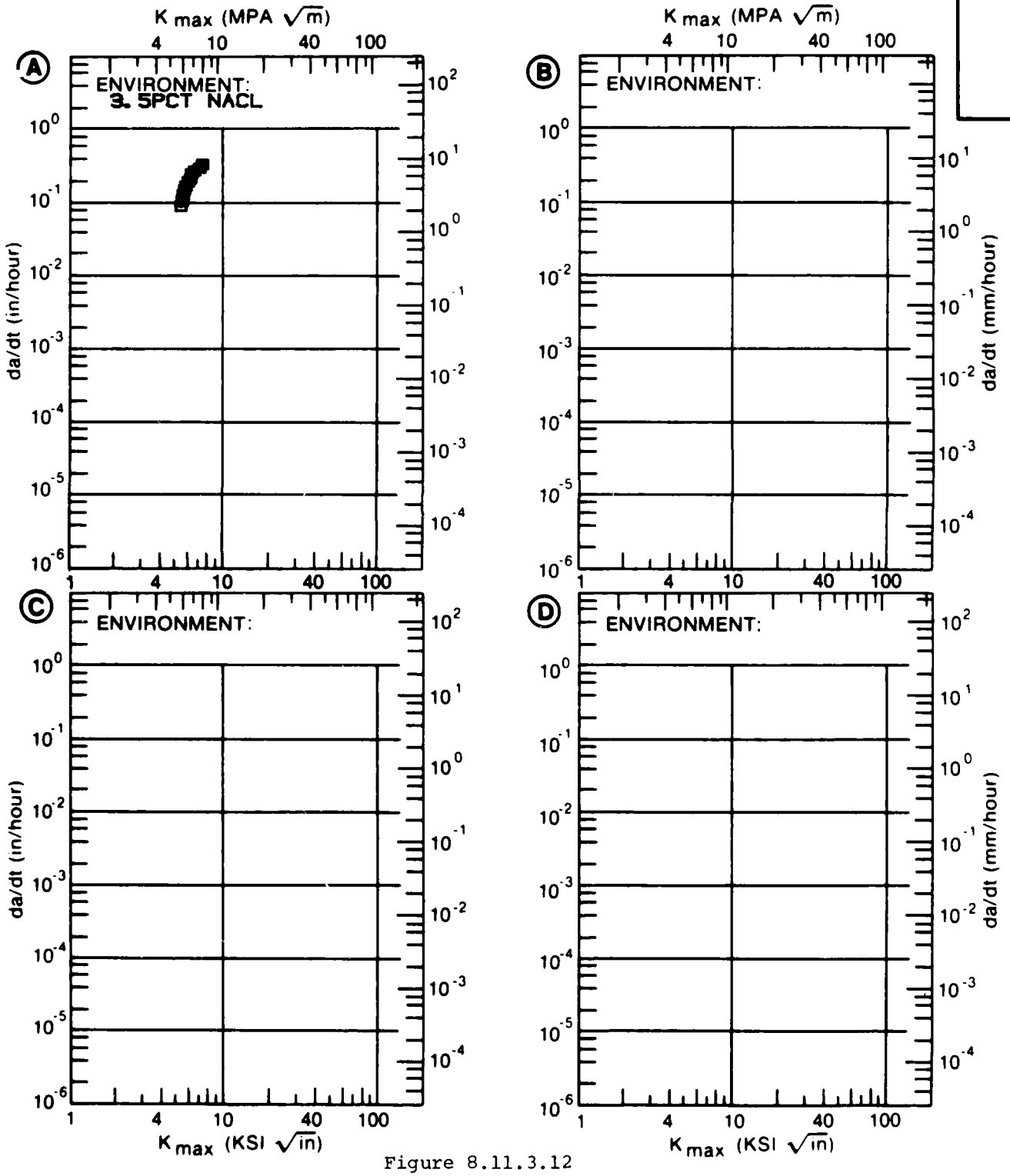

Figure 8.11.3.12

TABLE 8.11.3.13

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.13INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)		DA/DT (10**-3 IN/HOUR) A: E= R.T. 8M NAI,-700MV	B: E= R.T. 0.6M KI,-700MV	C: E= R.T. 5M KF,-700MV	D
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	

CONDITION/HT: T651
FORM:
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 76442

ALUM. ALLOY

7079

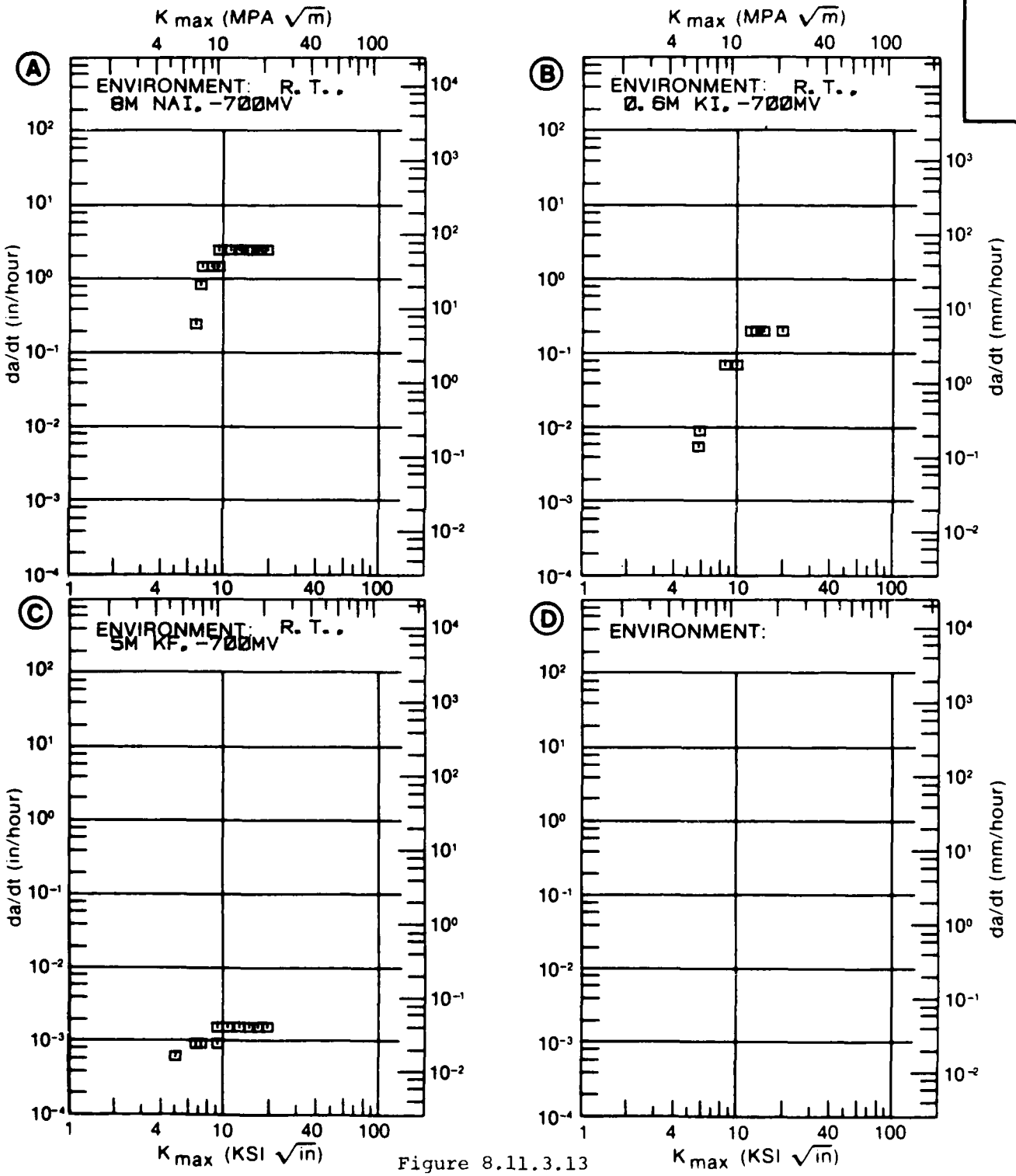

Figure 8.11.3.13

TABLE 8.11.3.14

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.14INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			E= R.T. DIST. WATER, OC	E= 3X/DAY-3.5NACL		
K MAX MIN	A: B: C: D:	3.60		308.		
		4.00		618.		
		5.00		2371.		
		6.00		6209.		
		7.00		12697.		
		8.00		21890.		
		9.00		33357.		
		10.00		46345.		
		13.00		85851.		
		16.00		113221.		
K MAX MAX	A: B: C: D:	19.00		123028.		
ROOT MEAN SQUARE PERCENT ERROR			0.00	24.67		

CONDITION/HT: T651
FORM:
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 76442, 78313

ALUM. ALLOY

7079

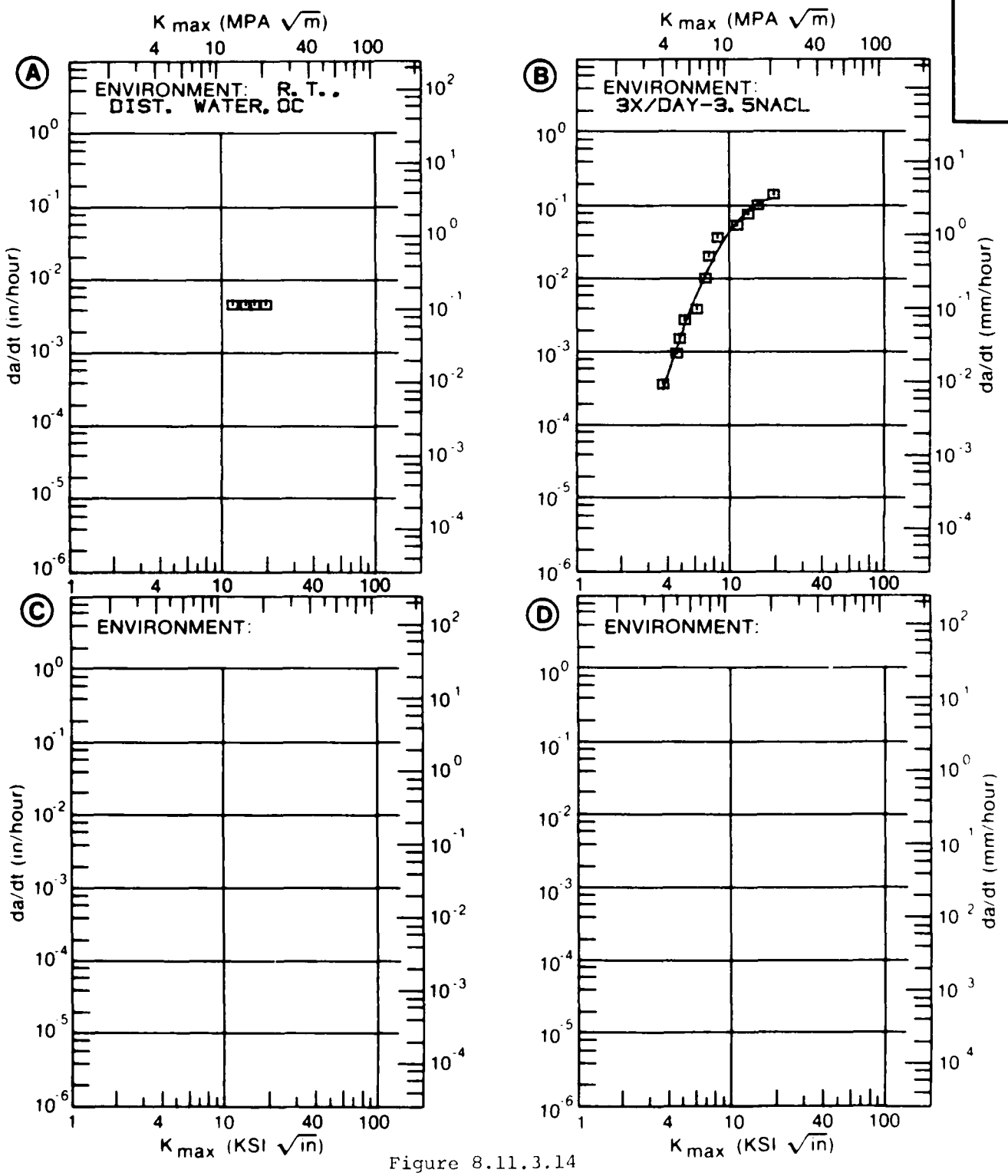

Figure 8.11.3.14

TABLE 8.11.3.15

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.15 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= R.T. AIR			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH: 65.0 KSI
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH: 11.800"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

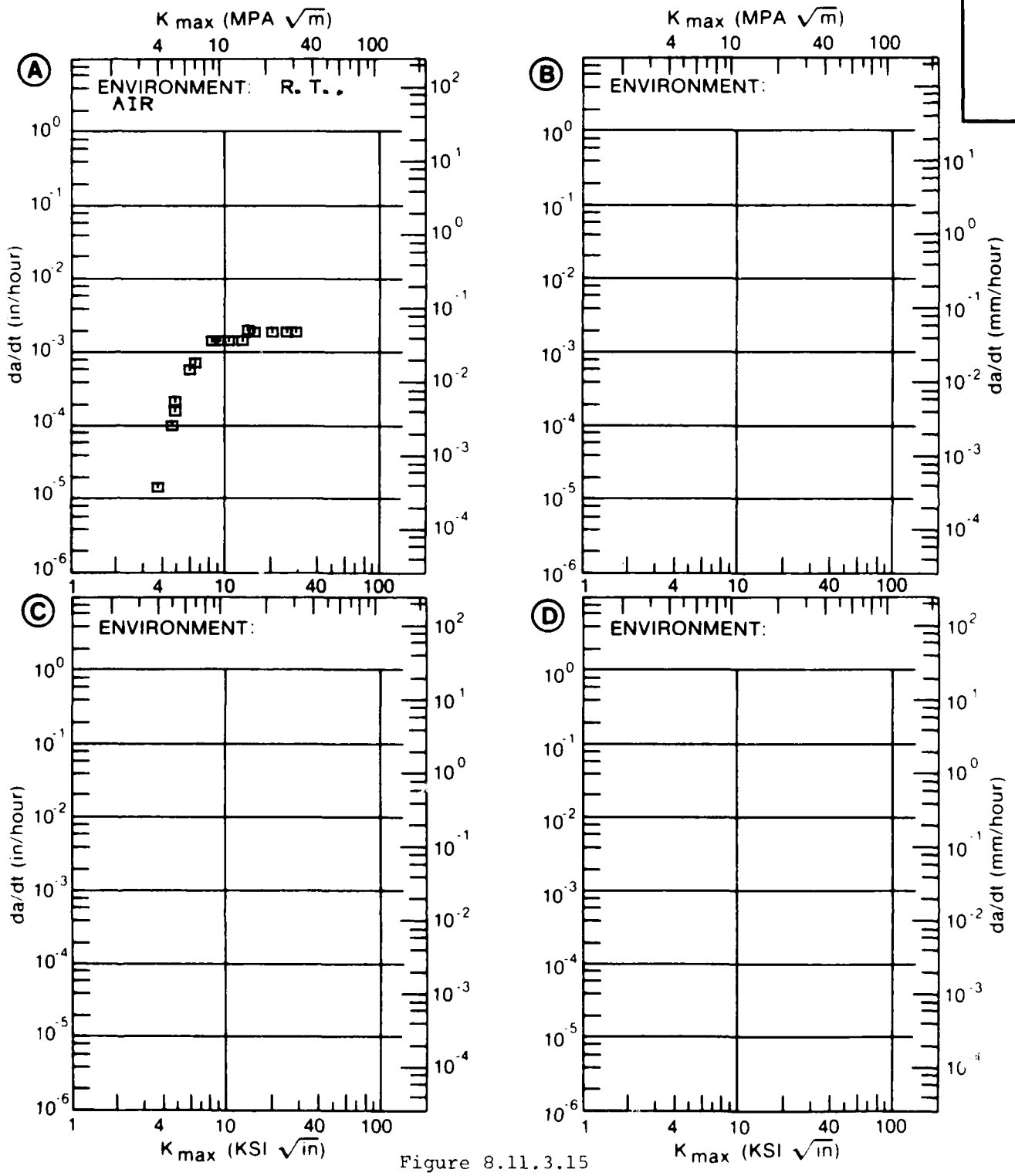

Figure 8.11.3.15

TABLE 8.11.3.16

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.16INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)		DA/DT (10**-3 IN/HOUR)			
		A	B	C	D
		E= R.T. AIR, 100PCT REL HUM	E= R.T. 3.5% NACL	E= R.T. AQUEOUS IODIDE, PH=0	E= R.T. AQUEOUS IODIDE PH=11
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH: 65.0 KSI
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH: 11.800"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

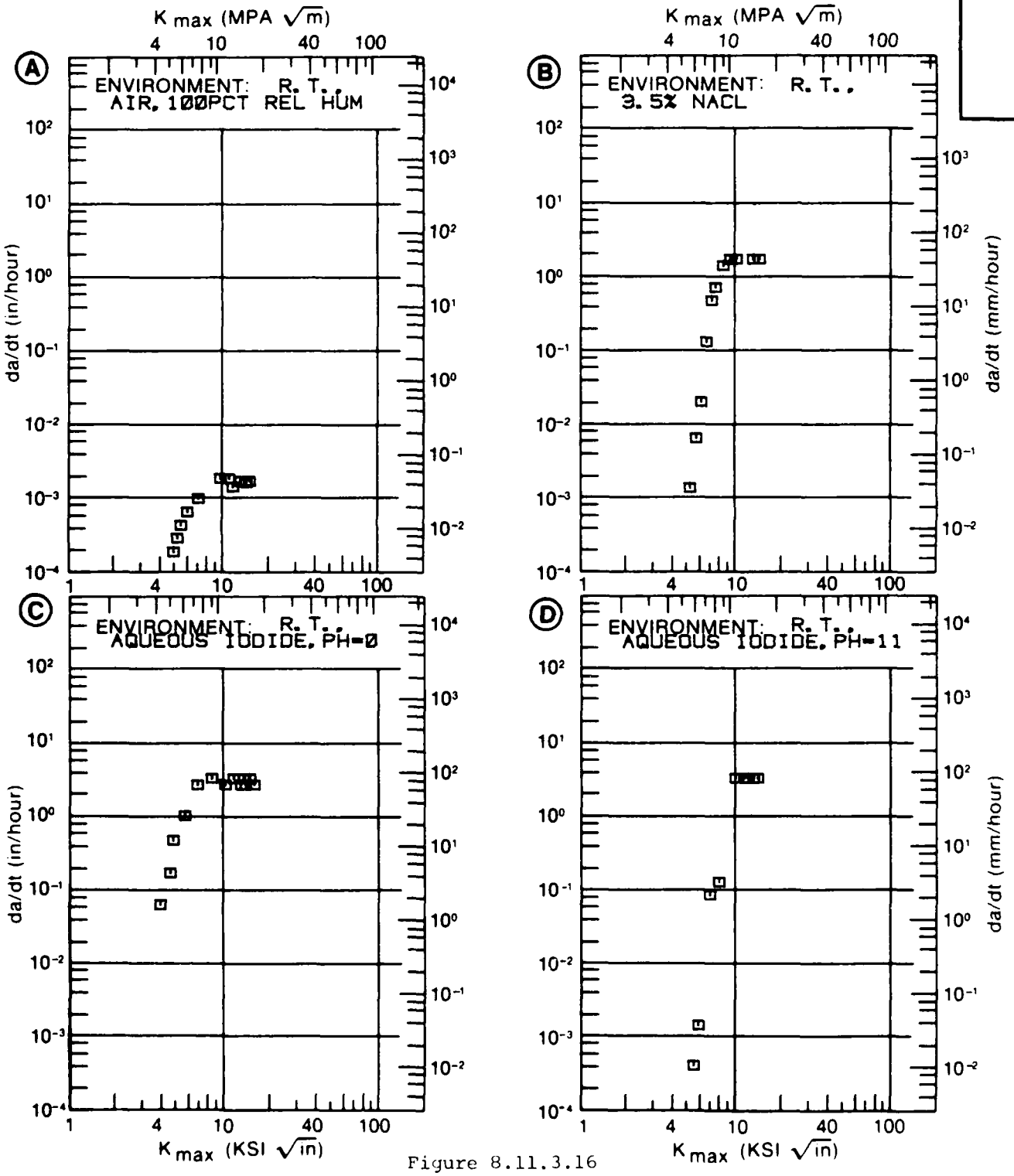

Figure 8.11.3.16

TABLE 8.11.3.17

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.17INDICATING EFFECT

OF ENVIRONMENT

MATERIAL ALUMINUM 7079
CONDITION T651

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= R.T. 0.002M KI, -450MV	E= R.T. 0.02M KI, -450MV	E= R.T. 0.05M KI, -450MV	E= R.T. 0.1M KI, -450MV
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

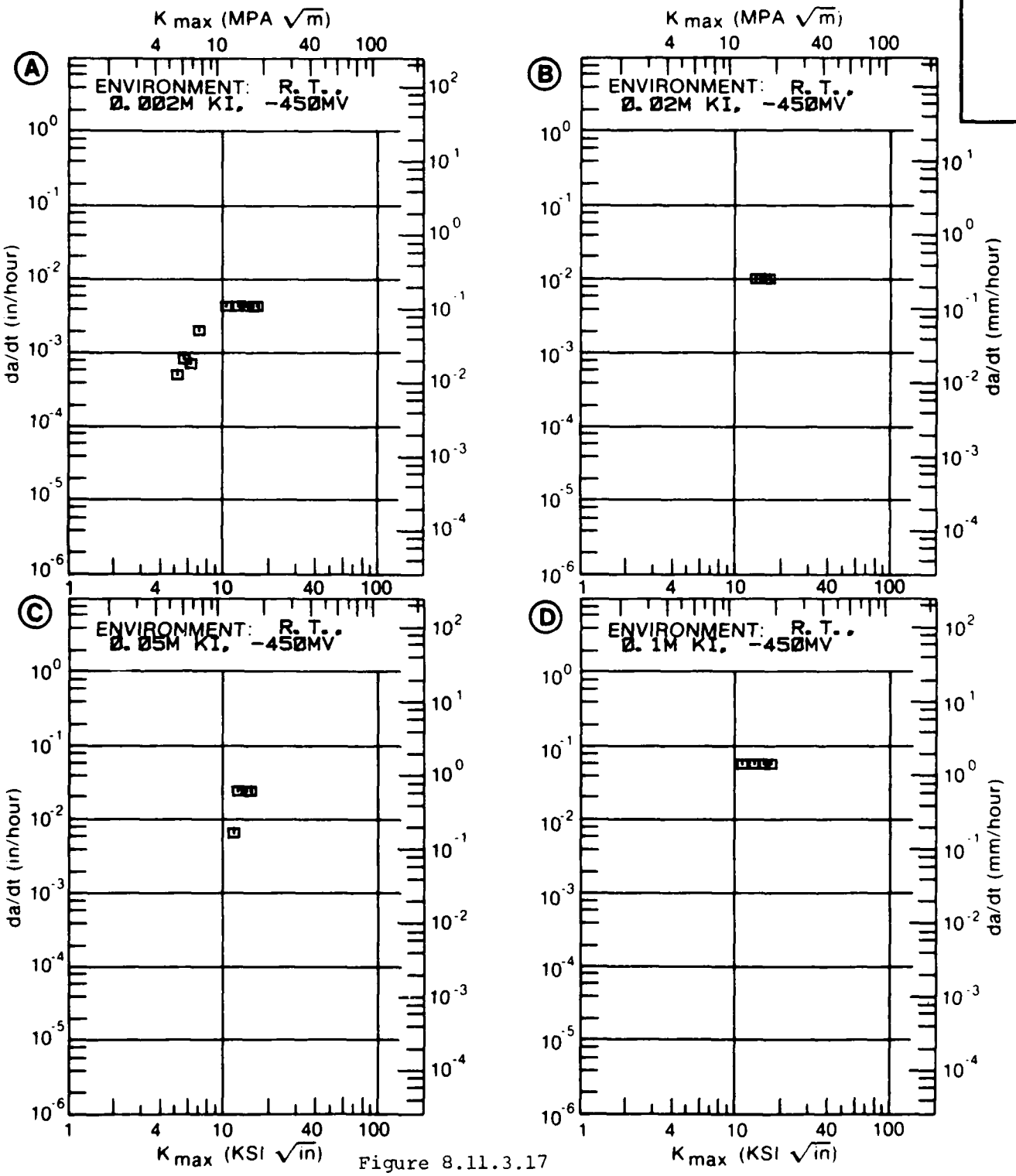

Figure 8.11.3.17

TABLE 8.11.3.18

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.18 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR)			
			A	B	C	D
			E= R. T. 0. 2M KI, -450MV	E= R. T. 0. 5M KI, -450MV	E= R. T. 2M KI, -450MV	
K MAX MIN	A:					
	B:					
	C:					
	D:					
		200. 00				
K MAX MAX	A:					
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			0. 00	0. 00	0. 00	

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

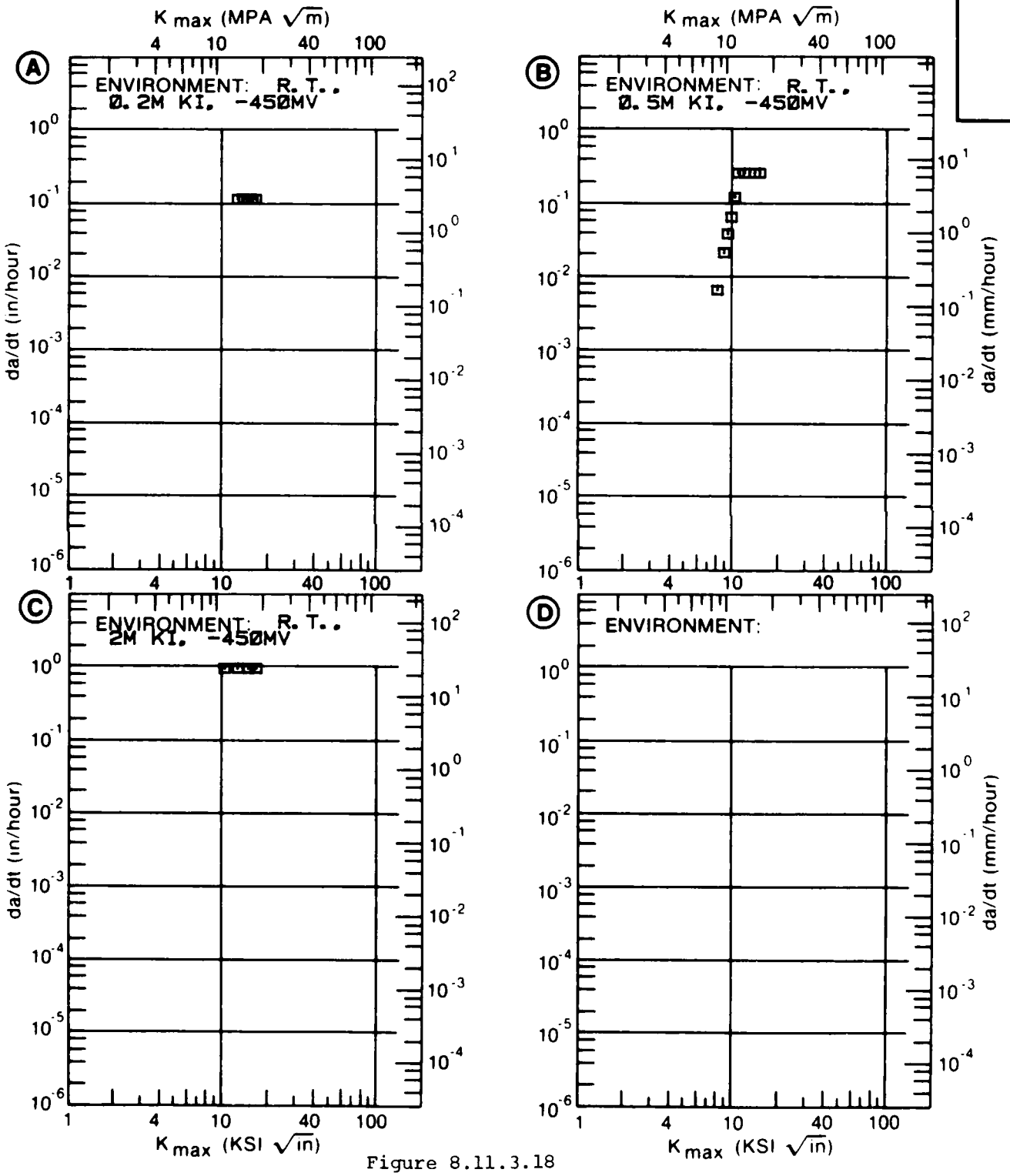

Figure 8.11.3.18

TABLE 8.11.3.19

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.19 INDICATING EFFECT OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-3 IN/HOUR)			
			A	B	C	D
			E= 3M KI, 221F, -450MV	E= 3M KI, 201F, -450MV	E= 3M KI, 176F, -450MV	E= 3M KI, 156F, -450MV
	A:	2.90	82.9			
K MAX MIN	B:					
	C:					
	D:	4.00				2.70
		3.00	124.			
		3.50	502.			
		4.00	1080.			
		5.00	2167.			43.2
		6.00	3109.			264.
		7.00	4633.			1740.
		8.00	6976.			3093.
		9.00	8905.			3726.
		10.00	9784.			4031.
		13.00	9372.			4015.
		16.00	9096.			3921.
	A:	18.50	10477.			
K MAX MAX	B:					
	C:					
	D:	17.90				4111.
ROOT MEAN SQUARE PERCENT ERROR			22.88	0.00	0.00	30.16

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

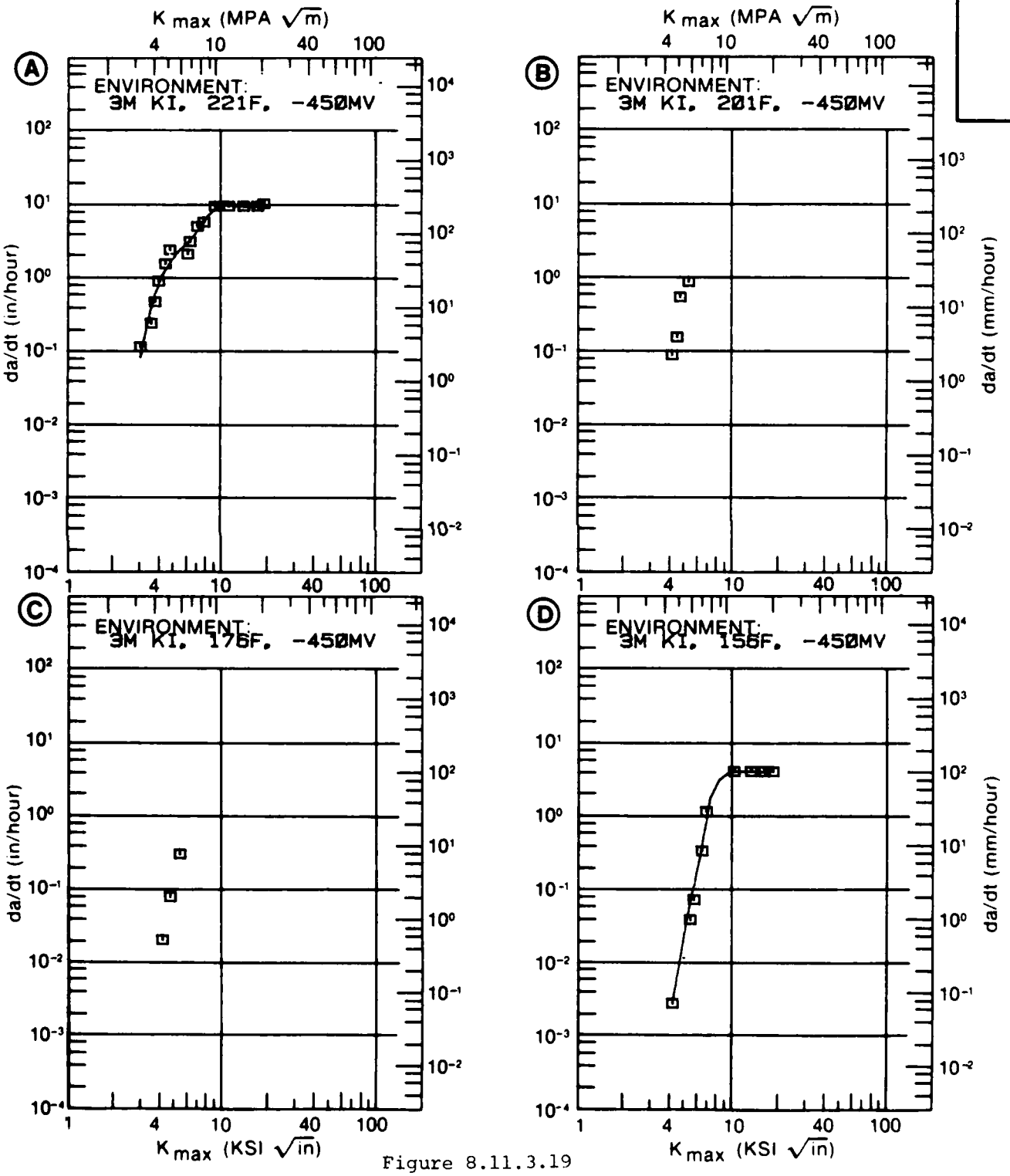

Figure 8.11.3.19

TABLE 8.11.3.20

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.20 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION T651

K MAX (KSI*IN**1/2)		DA/DT (10**-3 IN/HOUR)			
		A	B	C	D
		E= 3M KI, 113F, -450MV	E= 3M KI, 70F, -450MV	E= 3M KI, 37F, 50MV	E= 3M KI, 12F, -450MV
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.Ø"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

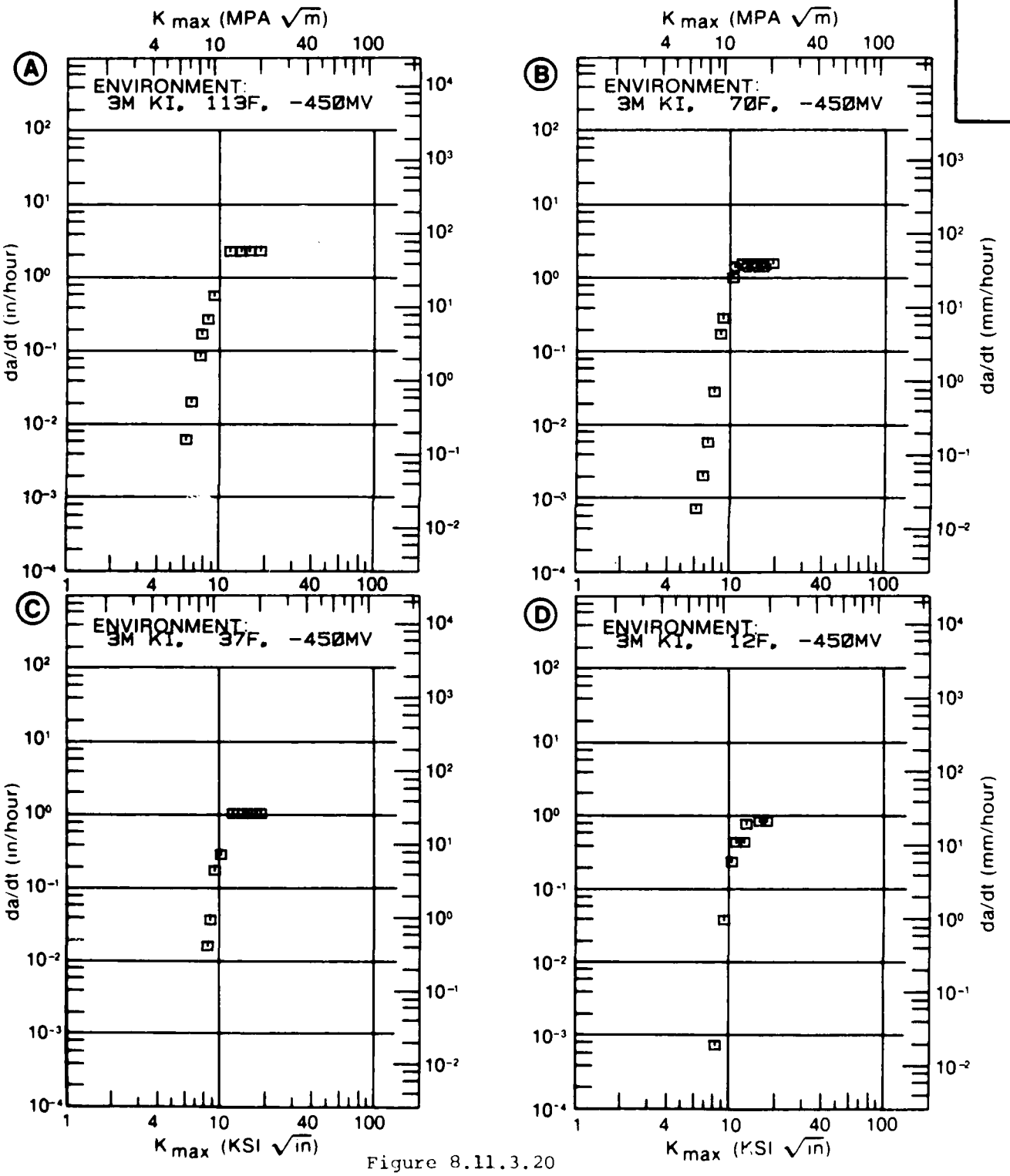

Figure 8.11.3.20

TABLE 8.11.3.21

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.21INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-3 IN/HOUR)			
			A	B	C	D
			E= R.T. 5.0M KI	E= R.T. 5M KI, -350MV	E= R.T. 5M KI, -450MV	E= R.T. 5M KI, -635MV(OC)
K MAX MIN	A:	7.50	1.71			
	B:	5.20		3.54		
	C:					
	D:	6.10				1.30
		6.00		325.		
		7.00		2027.		40.2
		8.00	4.80	2545.		317.
		9.00	8.71			870.
		10.00	10.7			1326.
		13.00	11.6			1308.
K MAX MAX	A:	15.00	11.5			
	B:	8.00		2545.		
	C:					
	D:	15.00				1220.
ROOT MEAN SQUARE PERCENT ERROR			2.82	40.87	0.00	36.57

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

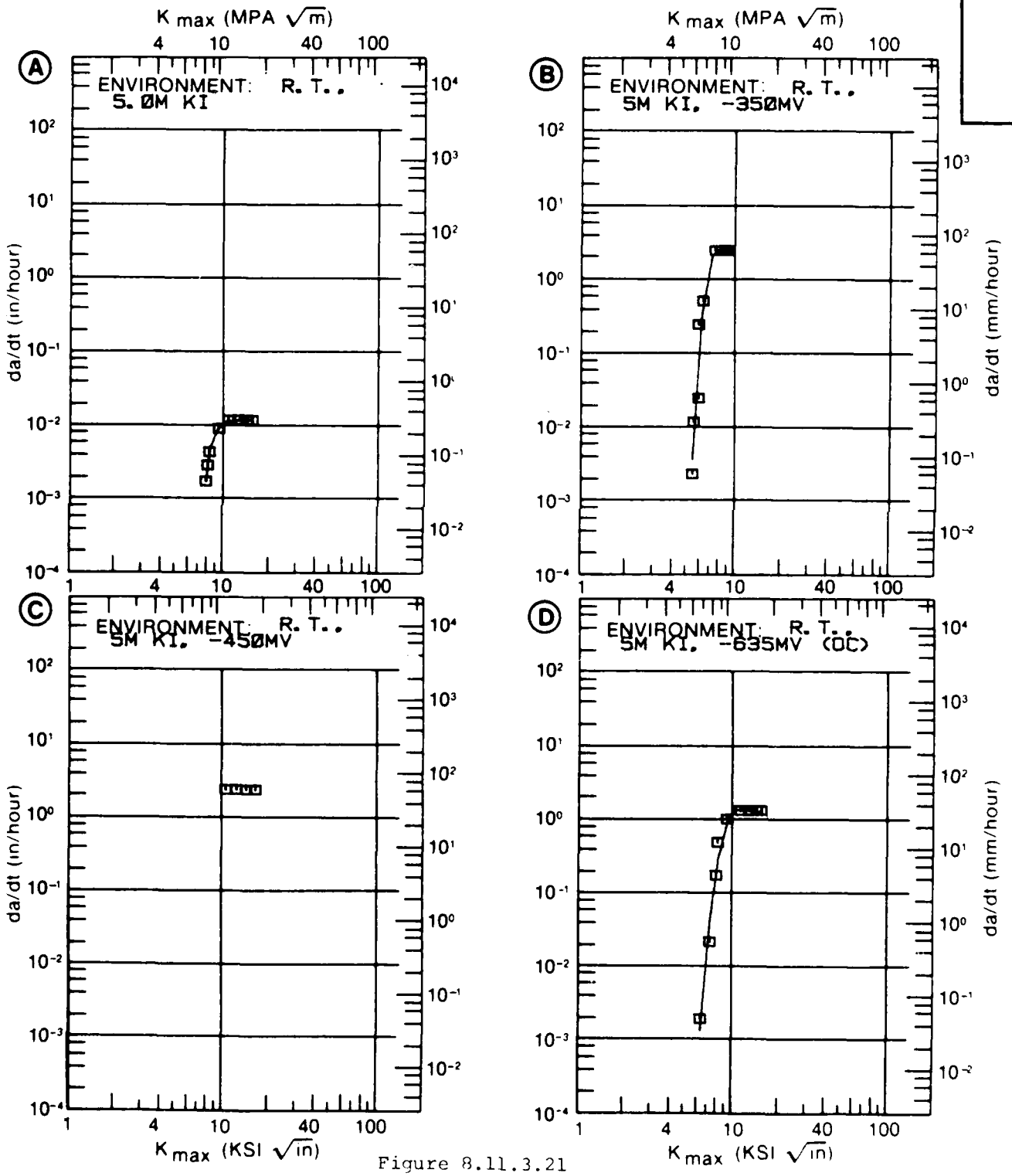

Figure 8.11.3.21

TABLE 8.11.3.22

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.22INDICATING EFFECT

OF ENVIRONMENT

MATERIAL ALUMINUM 7079
CONDITION T6S1

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= R.T. 5M KI, -800MV	E= R.T. 5M KI, -850MV	E= R.T. 5M KI, -900MV	E= R.T. 5M KI, -950MV
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

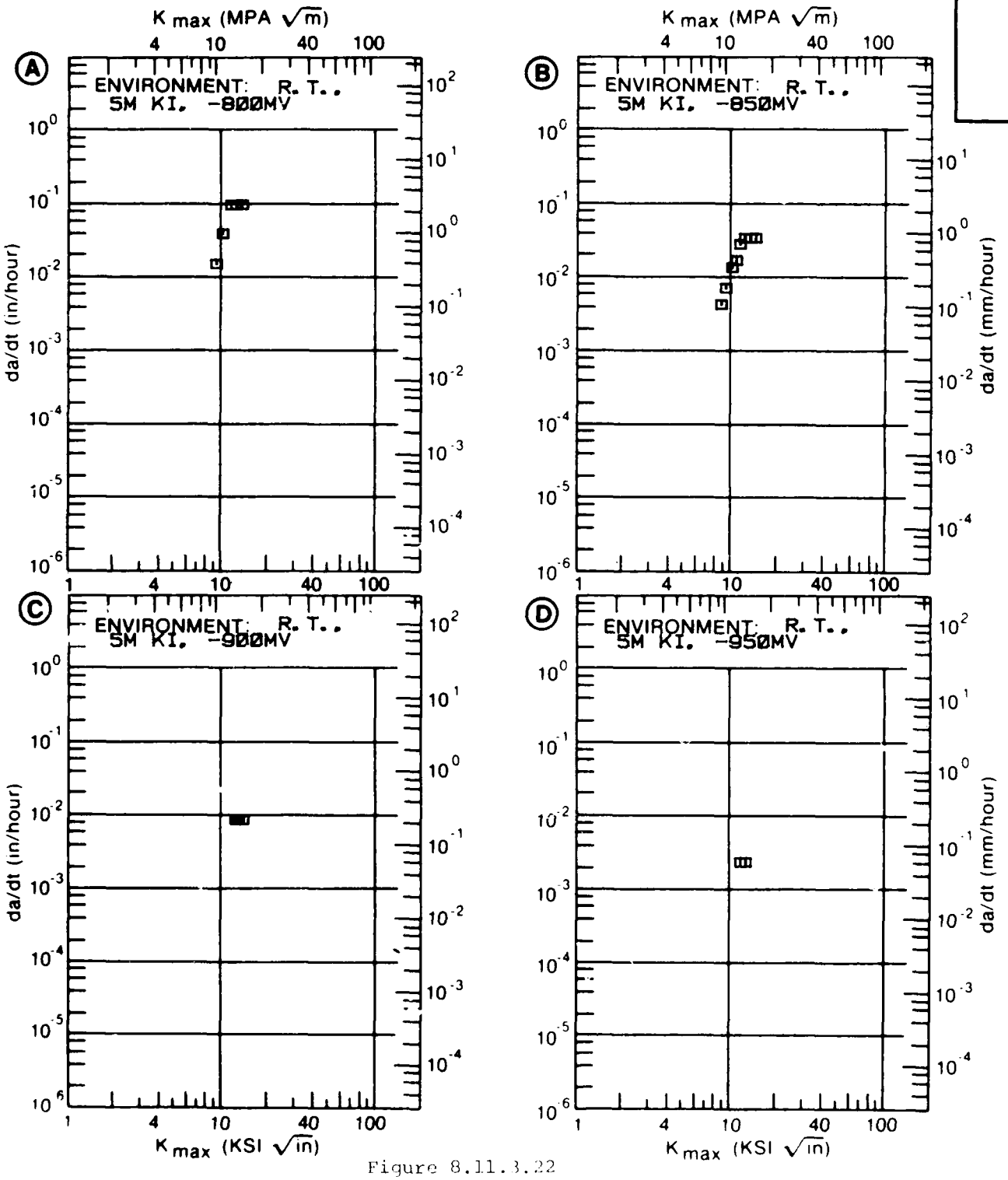

Figure 8.11.3.22

TABLE 8.11.3.23

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.23 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7079
CONDITION: T651

K MAX (KSI*IN**1/2)		DA/DT (10**-3 IN/HOUR)			
		A	B	C	D
		E= R.T. 5M KI, -1000MV	E= R.T. 3.4M KCL	E= R.T. 3.8M KBR	E= R.T. 8M NAI, -450MV
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	0.00

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

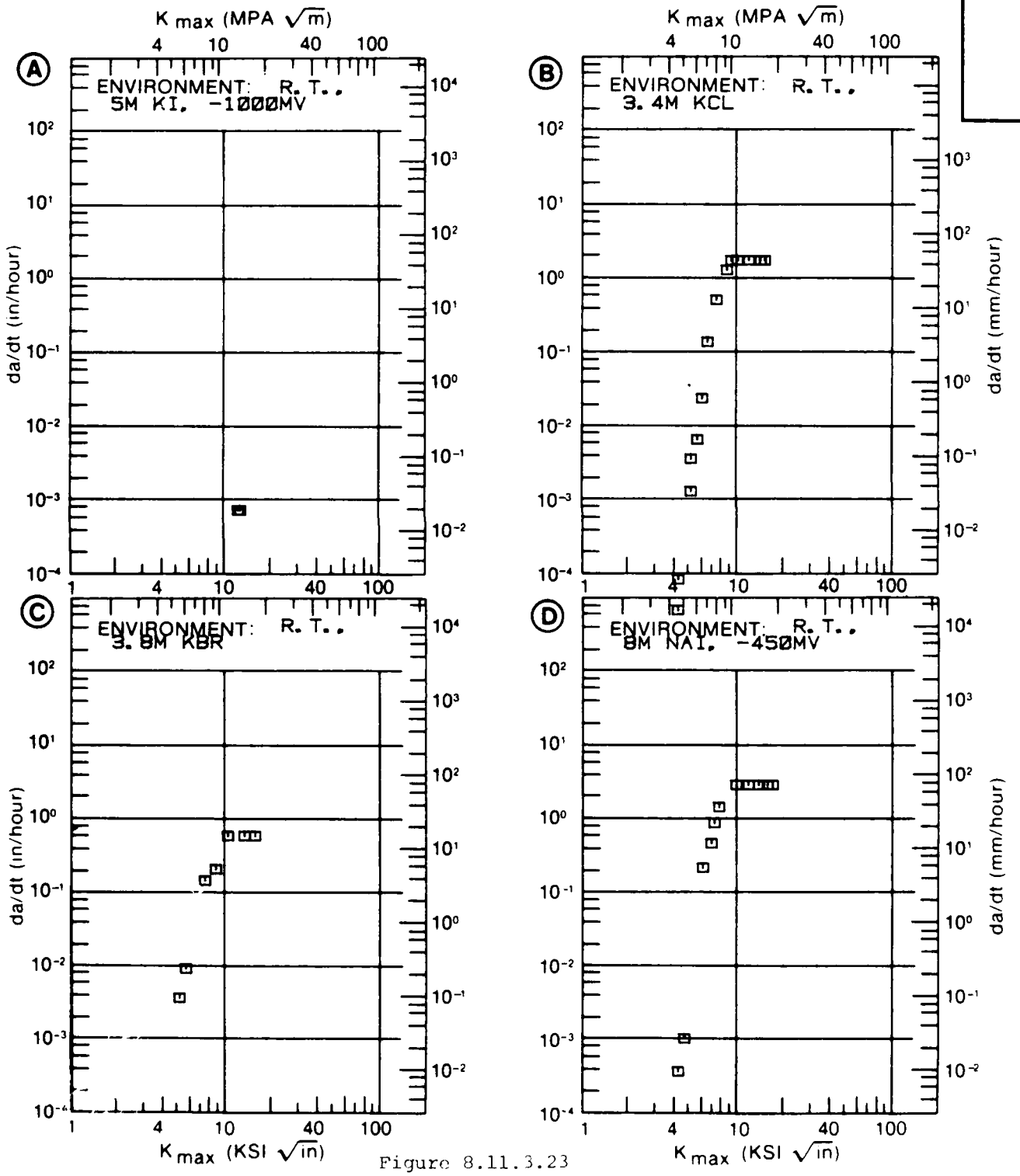

Figure 8.11.3.23

TABLE 8.11.3.24

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE8.11.3.24 INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7079
CONDITION: T651
ENVIRONMENT: 3.5% NACL

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A T(IN)= 1.0 PLATE	B T(IN)= 1.5 PLATE	C T(IN)= 2.0 PLATE	D
	A:	2.40	365.			
K MAX	B:	3.70		449.		
MIN	C:	2.80			164.	
	D:					
		2.50	573.			
		3.00	2816.		218.	
		3.50	6754.		430.	
		4.00	10931.	806.	799.	
		5.00	16247.	3639.	2323.	
		6.00	18045.	10271.	5506.	
		7.00	19011.	21381.	11054.	
		8.00	20818.	36079.	19406.	
		9.00	24517.	52335.	30552.	
		10.00		67826.	43987.	
		13.00			88051.	
		16.00			116680.	
	A:	9.50	27442.			
K MAX	B:	13.00		94452.		
MAX	C:	18.50			119909.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			25.56	9.41	23.56	

CONDITION/HT: T651
ENVIRONMENT: 3.5% NACL
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 3.500- 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 84284, 78313

ALUM. ALLOY

7079

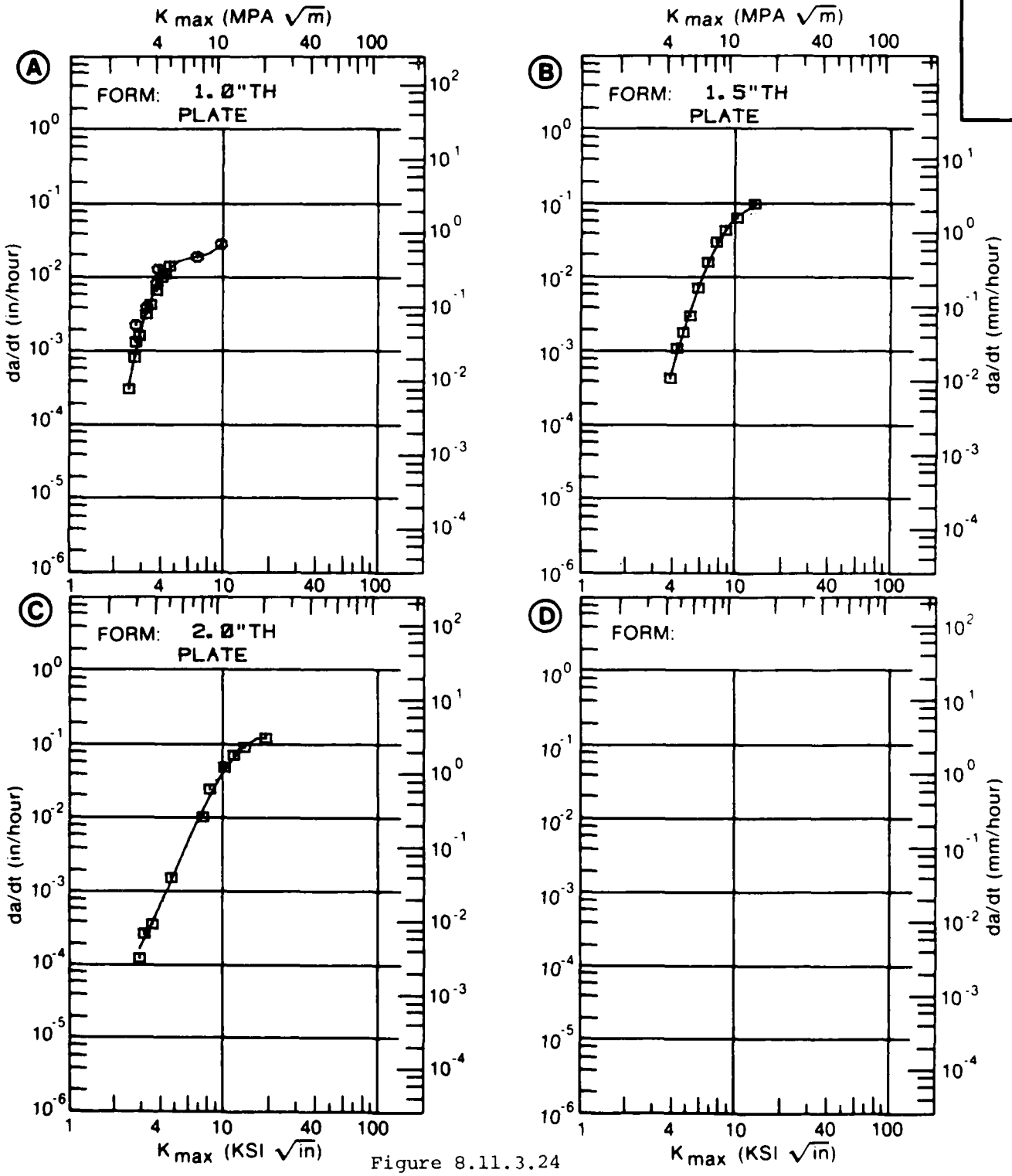

Figure 8.11.3.24

TABLE 8.11.3.25

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.25INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7079
CONDITION: T651+50HR AT 320F
ENVIRONMENT: R T

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			T(0)N)= 1.0 PLATE			
K MAX MIN	A:	9.10	174			
	B:					
	C:					
	D:					
		10.00	402.			
		13.00	38838.			
		16.00	708032.			
		20.00	761290.			
K MAX MAX	A:	22.00	976050.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 38.72

CONDITION/HT: T651+50HR AT 320F
ENVIRONMENT: R. T..
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7079

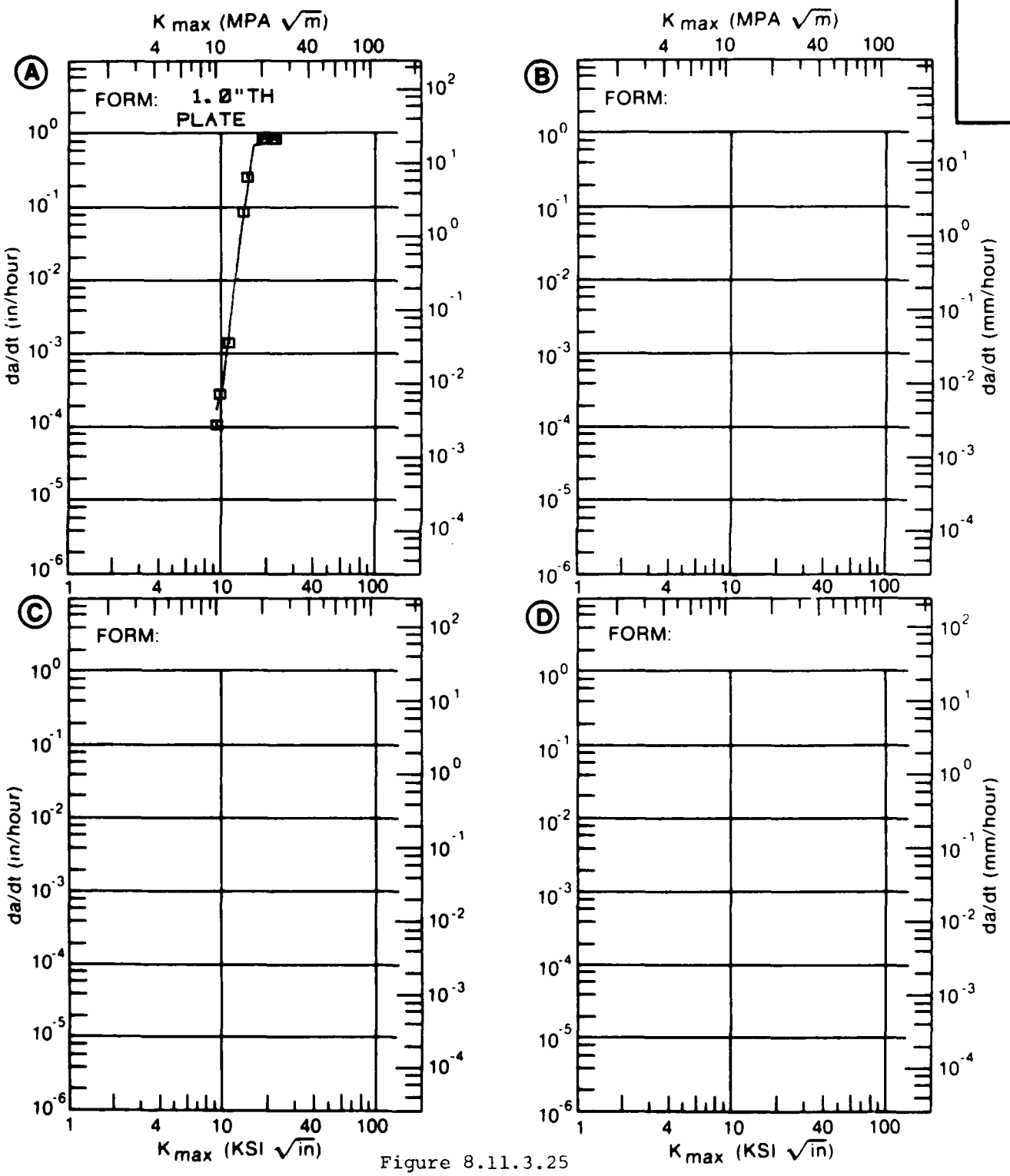

Figure 8.11.3.25

TABLE 8.11.3.26

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.11.3.26 INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7079
CONDITION: T651+500HR AT 320F
ENVIRONMENT: R T ,

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		T(IN)= 1.0 PLATE			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T651+500HR AT 320F
ENVIRONMENT: R. T.,
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES:85543

ALUM. ALLOY

7079

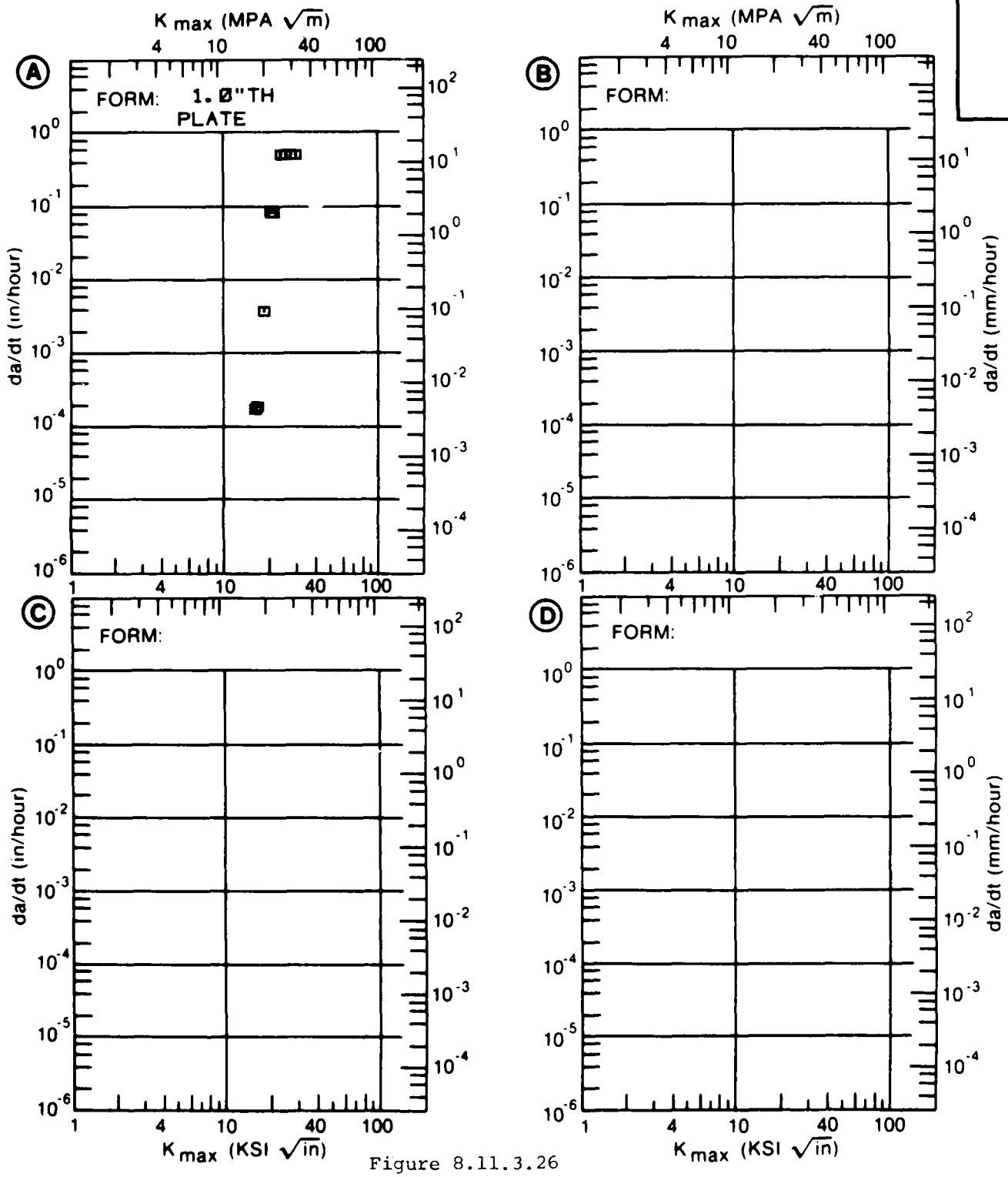

Figure 8.11.3.26

TABLE 8.11.3.27

ALUMINUM 7079 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC) (KSI*SQRT IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T6	P	1.00	R.T.	S-L	----	DIST WATER	4.000	1.000	DCB	----	------	9.20			1680	1967	84329
T6	P	1.00	R.T.	S-L	----	3.5 PCT NACL	3.500	1.000	DCB	----	------	4.30			----	1968	84330
		1.00			----		4.000	1.000	DCB	----	16.20	7.80			1320	1967	84329
		1.00			----		4.000	1.000	DCB	----	15.60	7.20			1440	1967	84329
		1.00			76.0		4.000	1.000	DCB	----	16.00	7.00			----	1968	84331
													6.67	1.6			
T651	P	2.50	R.T.	S-L	66.6	INDUSTRIAL ATM	2.000	1.000	CT	----	19.20	9.00			----	1973	86688
T651	P	2.50	R.T.	S-L	66.6	SALT-DICHRO-MATE-ACETATE	2.000	1.000	CT	----	19.20	6.00			----	1973	86688
T651	P	2.50	R.T.	S-L	66.6	SEACOAST ATM	2.000	1.000	CT	----	19.20	9.00			----	1973	86688
T651	P	1.00	R.T.	S-L	64.0	3.5 PCT NACL	5.000	1.000	DCB	0.700	30.00	3.00			----	1969	78313

TABLE 8.12.2.1

ALUMINUM 7079 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	L-T	61.2	2.000	0.062	0.625	1.200	---	39.10	41.21*			70.02*			1973	86213
		0.06			61.2	2.000	0.062	0.625	1.180	---	39.60	41.74*			69.58*			1973	86213
		0.06			61.2	2.000	0.062	0.625	1.280	---	38.20	40.26*			74.00*			1973	86213
		0.06			71.2	2.000	0.069	0.614	1.040	---	41.80	43.61*			64.57*			1973	86213
		0.06			71.2	2.000	0.069	0.612	1.020	---	42.60	44.36*			64.64*			1973	86213
		0.06			71.2	2.000	0.069	0.613	1.090	---	41.60	43.32*			67.24*			1973	86213
		0.06			71.2	2.000	0.069	0.616	1.100	---	42.20	44.12*			68.83*			1973	86213
T6	S	0.11	R.T.	L-T	73.1	3.000	0.109	1.150	2.024	---	38.00	56.26*			96.89*			1973	86213
		0.11			73.1	3.000	0.109	1.180	2.085	---	37.40	56.40*			99.61*			1973	86213
T6	S	0.06	84	L-T	69.9	3.000	0.058	1.230	2.353	---	34.50	53.63*			114.95*			1973	86213
		0.06			69.9	3.000	0.058	1.200	2.088	---	34.40	52.51*			91.90*			1973	86213
T6	S	0.09	84	L-T	72.1	3.000	0.087	1.230	2.264	---	36.30	56.42*			111.65*			1973	86213
		0.09			72.1	3.000	0.088	1.190	2.281	---	37.60	57.05*			117.28*			1973	86213
T6	S	0.04	R.T.	T-L	63.2	3.000	0.037	1.142	2.184	---	32.30	47.59*			92.94*			1973	86213
		0.04			63.2	3.000	0.037	1.143	1.954	---	33.70	50.26*			81.82*			1973	86213
		0.04			63.2	3.000	0.037	1.125	1.883	---	34.00	49.54*			78.65*			1973	86213
T6	S	0.05	R.T.	T-L	67.0	3.000	0.050	1.155	2.084	---	34.70	51.50*			92.42*			1973	86213
		0.05			67.0	3.000	0.050	1.153	2.091	---	34.60	51.29*			92.57*			1973	86213
		0.05			67.0	3.000	0.050	1.152	2.087	---	34.40	50.99*			91.76*			1973	86213
T6	S	0.06	R.T.	T-L	58.7	2.000	0.062	0.625	1.120	---	36.50	38.47*			60.64*			1973	86213
		0.06			58.7	2.000	0.062	0.625	1.150	---	36.40	38.37*			62.18*			1973	86213
		0.06			58.7	2.000	0.062	0.625	1.080	---	37.00	39.00*			59.26*			1973	86213
		0.06			68.7	2.000	0.069	0.616	0.975	---	39.70	41.51*			57.82*			1973	86213
		0.06			68.7	2.000	0.069	0.618	0.910	---	39.80	41.70*			54.75*			1973	86213
		0.06			68.7	2.000	0.069	0.614	0.990	---	39.60	41.32*			58.50*			1973	86213
		0.06			68.7	2.000	0.069	0.617	0.930	---	39.80	41.61*			55.74*			1973	86213
T6	S	0.11	R.T.	T-L	69.5	3.000	0.109	1.590	2.421	---	25.70	49.51			91.63*			1973	86213
		0.11			69.5	3.000	0.110	1.280	2.066	---	31.80	50.94	50 2/	1.0	83.58*	----/	---	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.12.2.1 (con't)

ALUMINUM 7079 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.05	84	T-L	64.3	3.000	0.049	1.190	2.305	---	32.70	49.61*			104.20*			1973	86213
		0.05			64.3	3.000	0.049	1.030	2.156	---	35.00	48.06*			98.49*			1973	86213
T6	S	0.06	84	T-L	68.2	3.000	0.058	1.130	1.952	---	33.00	48.26			80.01*			1973	86213
		0.06			68.2	3.000	0.058	1.200	2.126	---	31.90	48.69			87.70*			1973	86213
		0.06			67.2	3.000	0.062	1.160	2.267	---	35.80	53.33*			110.31*			1973	86213
		0.06			67.2	3.000	0.062	1.230	2.273	---	34.90	54.25*	48.5/	0.3	108.10*	-----/	---	1973	86213
T6	S	0.09	84	T-L	66.1	3.000	0.087	1.230	2.347	---	32.70	50.83*			108.33*			1973	86213
		0.09			66.1	3.000	0.087	1.250	2.124	---	32.30	50.81*			88.67*			1973	86213
		0.09			68.3	3.000	0.088	1.170	2.096	---	31.80	47.66			85.46*			1973	86213
		0.09			68.3	3.000	0.089	1.230	2.129	---	31.40	48.81			86.46*			1973	86213
		0.09			69.3	3.000	0.088	1.220	2.086	---	33.10	51.14*			88.29*			1973	86213
		0.09			69.3	3.000	0.089	1.200	2.166	---	33.80	51.59*	48.2/	0.8	95.87*	-----/	---	1973	86213
T6	S	0.19	84	T-L	66.4	3.000	0.194	1.160	2.162	---	32.60	48.56			92.17*			1973	86213
		0.19			66.4	3.000	0.194	1.177	2.192	---	32.00	48.14	48.4/	0.3	92.67*	-----/	---	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.13.2.1

ALUMINUM 7080 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7	F	----	R.T.	C-L	62.2	1.500	0.750	CT	0.750	0.21	18.10			1972	82879
		----			62.2	1.500	0.750	CT	0.750	0.24	19.20	18.7/	0.8	1972	82879
T7	FB	4.50	82	T-L	51.0	1.500	0.748	CT	0.715	0.44	21.40			1973	86213
		4.50			51.0	1.500	0.749	CT	0.758	0.48	22.40	21.9/	0.7	1973	86213
T7	FB	4.50	86	T-L	51.0	1.500	0.753	CT	0.822	0.51	23.10			1973	86213
		4.50			51.0	1.500	0.752	CT	0.754	0.52	23.20	23.2/	0.1	1973	86213

TABLE 8.14.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.14.3.1 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM X7090
CONDITION: T7E69

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A: E= R.T. NITROGEN GAS 10-20HZ	B: E= R.T. 3.5% NACL .13-.20HZ	C	D
DELTA K MIN	A:	3.53	1.39			
	B:	3.77		6.82		
	C:					
	D:					
		4.00	1.88	6.82		
		5.00	3.30	12.6		
		6.00	5.78	26.0		
		7.00	10.4			
DELTA K MAX	A:	7.30	12.6			
	B:	6.31		28.9		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			13.68	21.67		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	3	3		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7E69
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-T
STRESS RATIO: +0.50
FREQUENCY:

YIELD STRENGTH: 60.0- 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.508- 0.510"
SPECIMEN WIDTH: 1.028- 1.030"
REFERENCES:MR001

ALUM. ALLOY

X7090

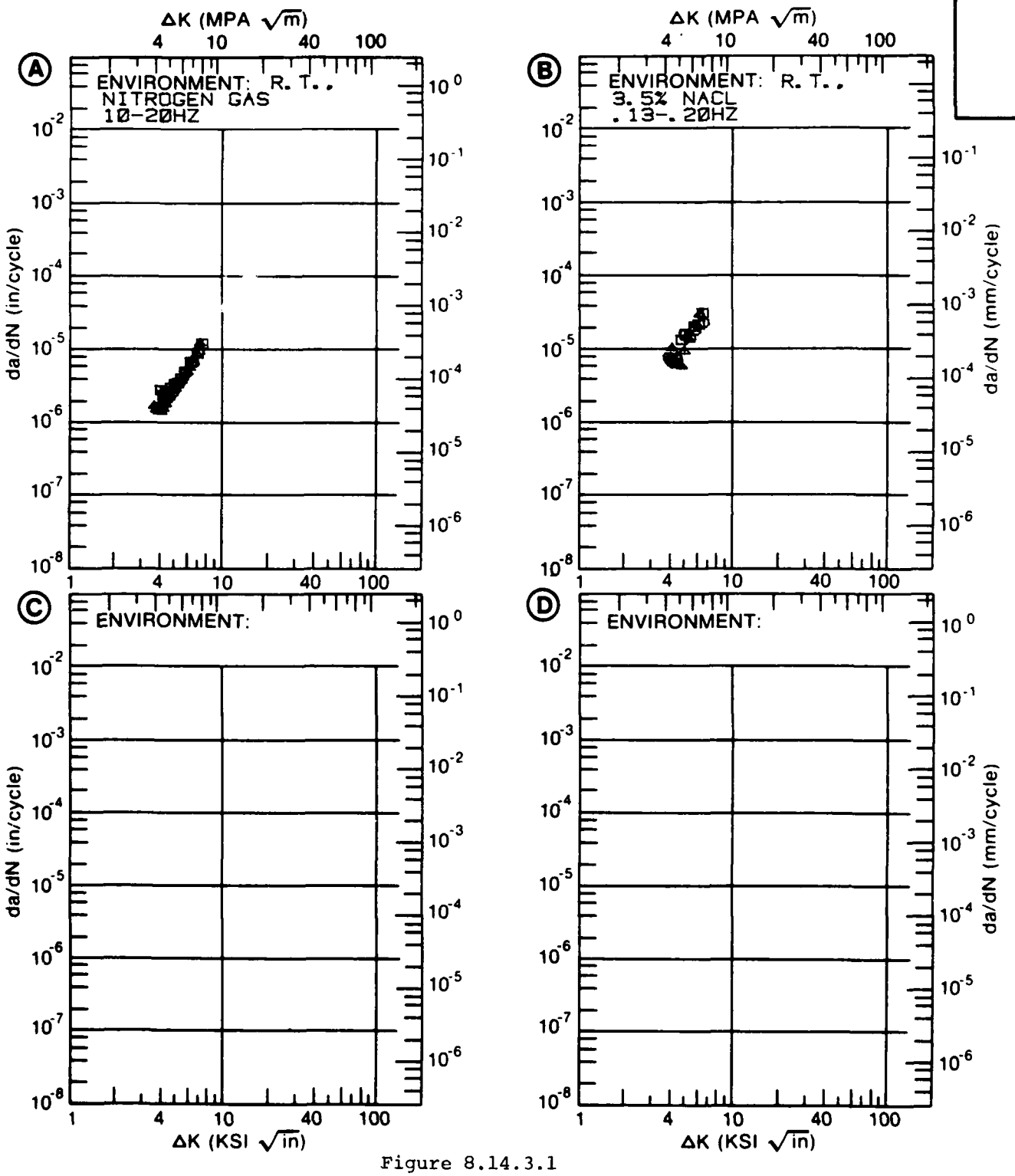

Figure 8.14.3.1

TABLE 8.15.1.1

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM X7091

TEST CONDITIONS

SPECIMEN ORIENTATION: S T

ENVIRONMENT: NITROGEN GAS AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7E70	PLATE	0.10	20.00				13.0	110		
T7E70	PLATE	0.50	20.00			3.07	20.3			

TABLE 8.15.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.15.3.1 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM X7091
CONDITION: T7E70

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. NITROGEN GAS			
DELTA K MIN	A: 3.06	.496			
	B:				
	C:				
	D:				
	3.50	.816			
	4.00	1.31			
	5.00	2.74			
	6.00	4.85			
	7.00	7.74			
	8.00	11.5			
	9.00	16.3			
	10.00	22.2			
	13.00	48.4			
DELTA K MAX	A: 15.71	86.4			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 19.83

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

2

CONDITION/HT: T7E70
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.50
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 60.0 KSI
ULT. STRENGTH: 73.2 KSI
SPECIMEN THK: 0.510- 0.513"
SPECIMEN WIDTH: 1.032- 1.033"
REFERENCES:MR001

ALUM. ALLOY
X7091

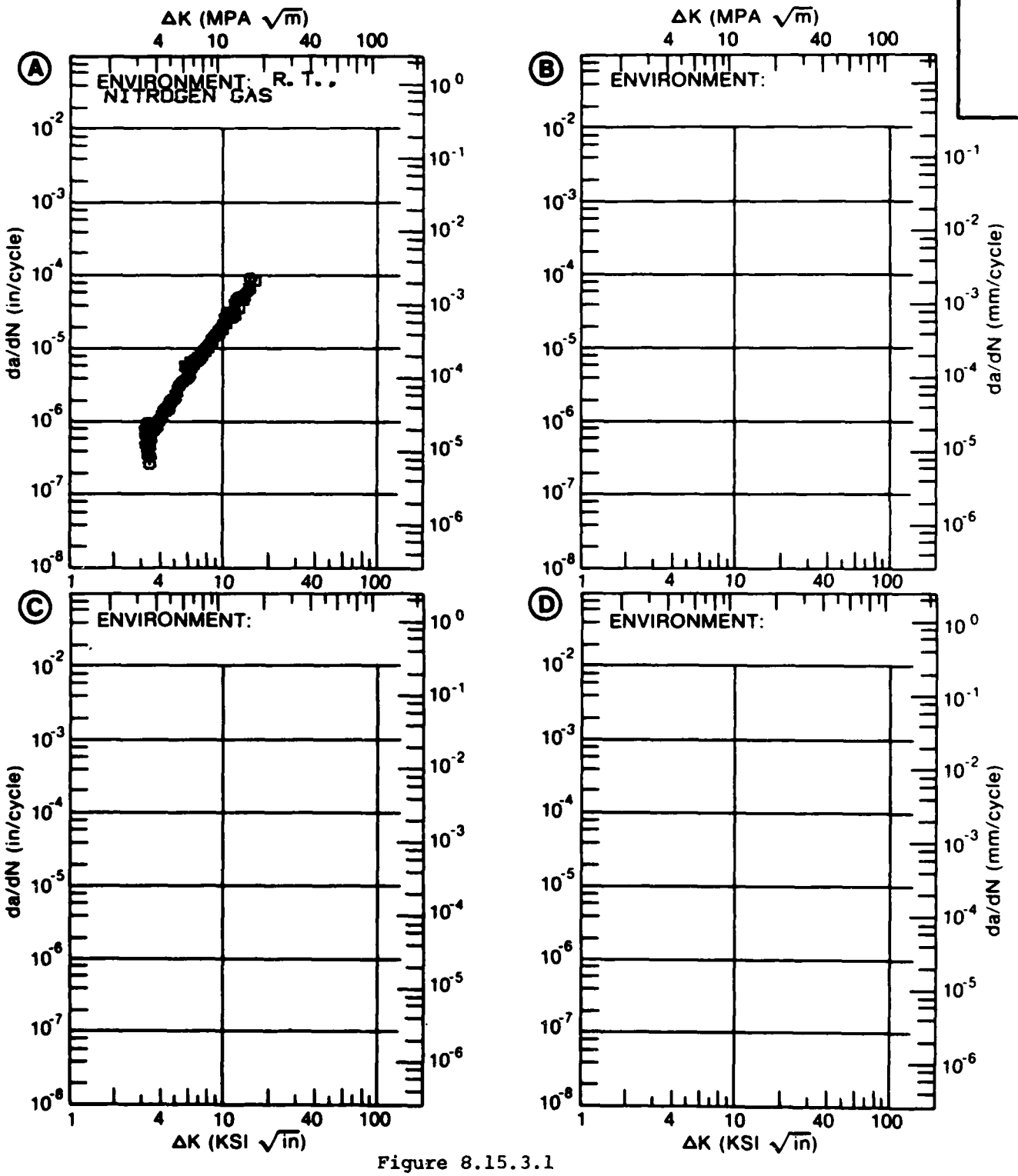

Figure 8.15.3.1

TABLE 8.15.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.15.3.2 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM X7091
CONDITION: T7E70
ENVIRONMENT: R.T. ,NITROGEN GAS

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-0.10	R=+0.50		
DELTA K MIN	A:	6.32	3.11			
	B:	3.10		.566		
	C:					
	D:					
		3.50		.929		
		4.00		1.51		
		5.00		3.07		
		6.00		5.13		
		7.00	4.29	7.73		
		8.00	6.51	11.0		
		9.00	9.40	15.1		
		10.00	13.0	20.3		
		13.00	29.2	46.1		
		16.00	55.3	100.		
		20.00	110.			
DELTA K MAX	A:	22.48	157.			
	B:	16.82		124.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			4.64	14.64		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	2		
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T7E70
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-T
FREQUENCY: 20.00 HZ
ENVIRONMENT: R. T., NITROGEN GAS

YIELD STRENGTH: 60.0- 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.483- 0.515"
SPECIMEN WIDTH: 1.021- 1.034"
REFERENCES:MR001

ALUM. ALLOY

X7091

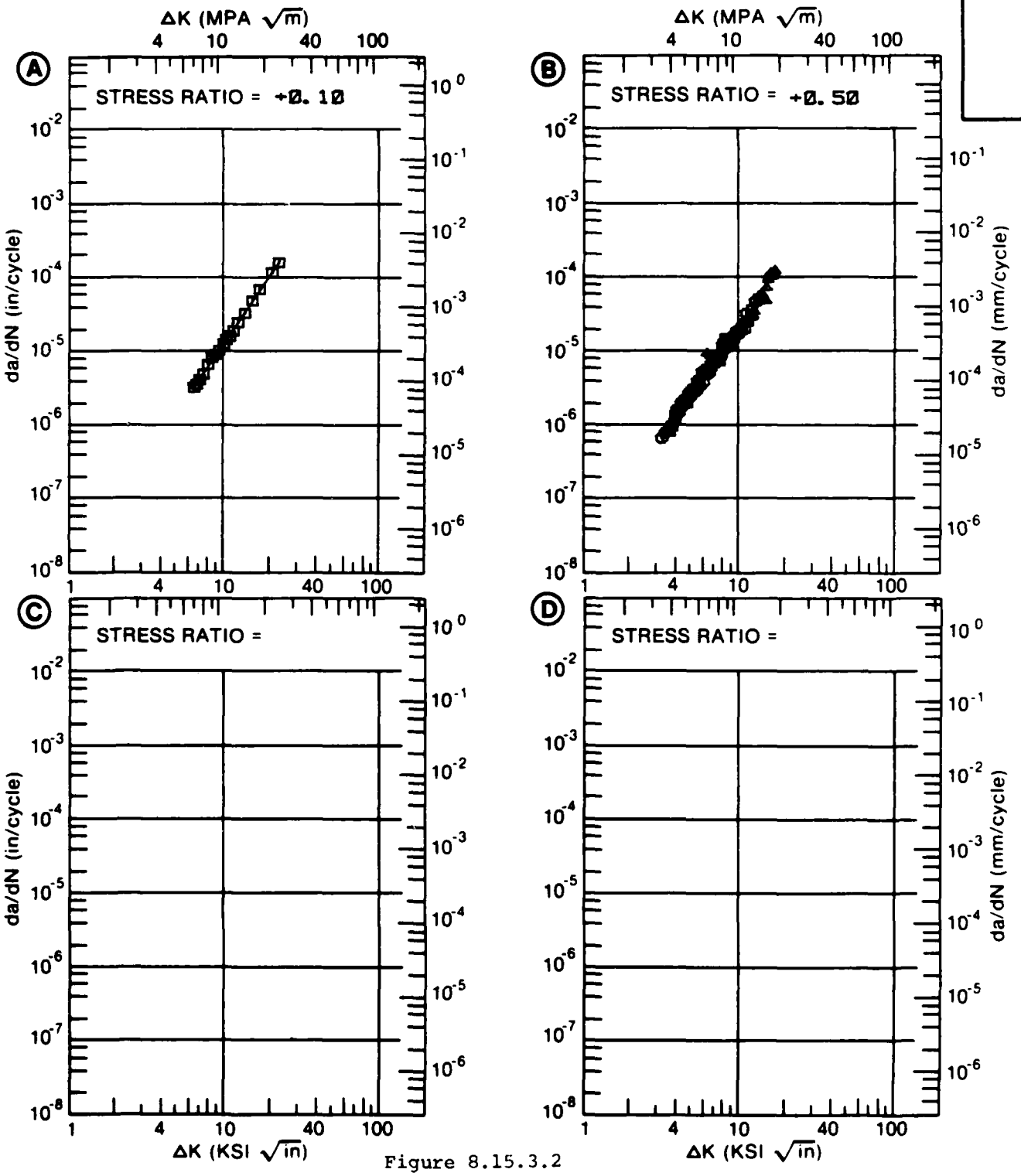

Figure 8.15.3.2

TABLE 8.15.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.15.3.3 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM X7091
CONDITION: T7E70
ENVIRONMENT: R.T. ,3.5% NACl.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.50		
DELTA K MIN	A:				
	B:				
	C:				
	D:				
	200.00				
DELTA K MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7E70
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-T
FREQUENCY: 0.20 HZ
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 60.0- 70.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.485- 0.513"
SPECIMEN WIDTH: 1.032- 1.040"
REFERENCES:MR001

ALUM. ALLOY

X7091

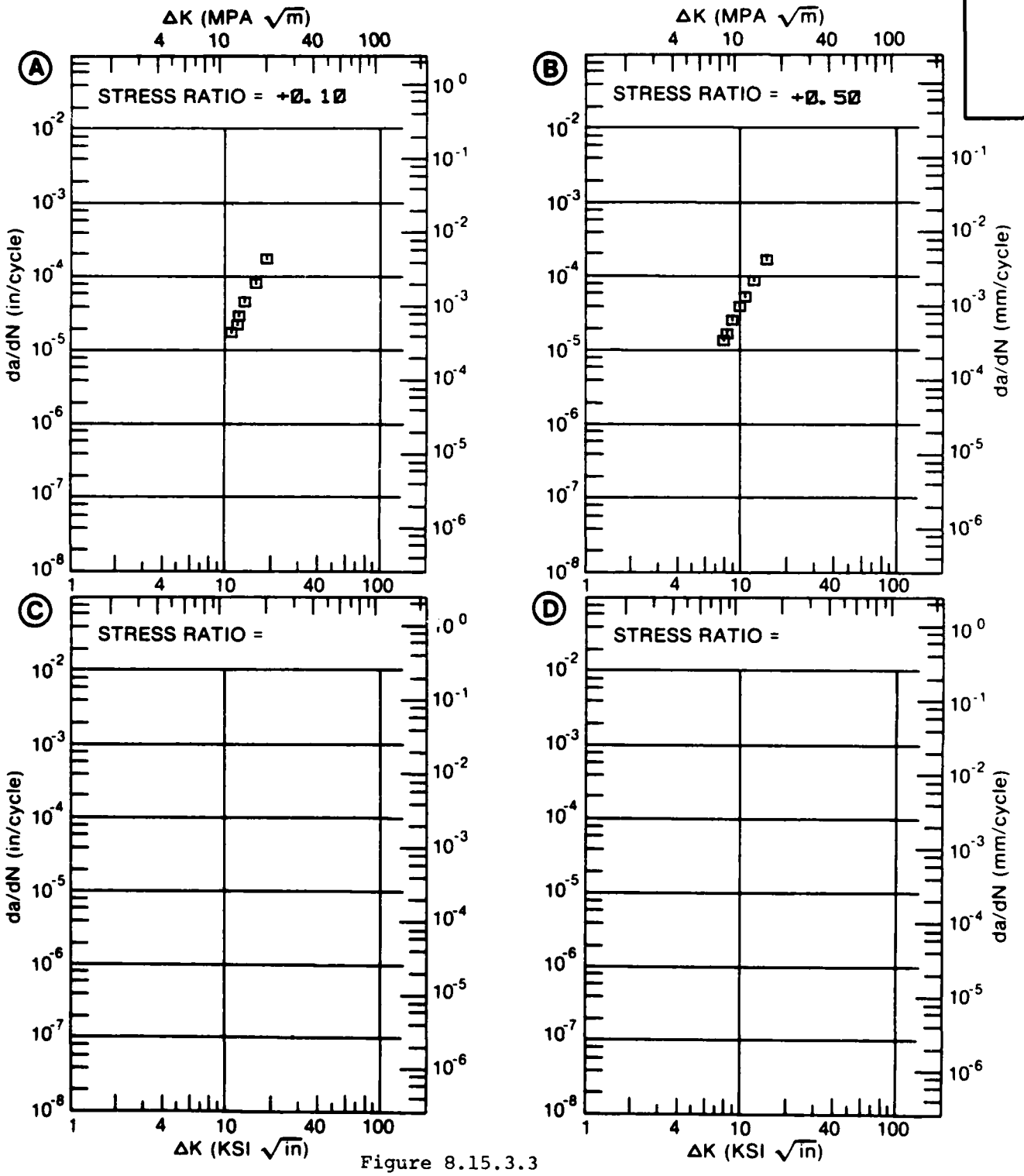

Figure 8.15.3.3

TABLE 8.16.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7149 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD (KSI SQRT(IN)) DEVIATION	(NUMBER OF SPECIMENS)

EXTRUSION

CONDITION/HT	L-T	T-L	S-L
T73511	31.5 ± 0.8 (3)	24.2 ± 0.3 (3)	-----

TABLE 8.16.2.1

ALUMINUM 7149 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T73511	E	3.00	R.T.	L-T	66.3	2.001	1.007	CT	1.038	0.59	32.32			1976	NC001
		3.00			66.3	2.002	1.007	CT	1.032	0.54	30.82			1976	NC001
		3.00			66.3	2.002	1.007	CT	1.025	0.56	31.42	31.5/	0.8	1976	NC001
T73511	E	3.00	R.T.	T-L	63.7	2.002	1.007	CT	1.028	0.37	24.55			1976	NC001
		3.00			63.7	2.001	1.007	CT	1.033	0.35	24.08			1976	NC001
		3.00			63.7	2.001	1.007	CT	1.001	0.35	24.07	24.2/	0.3	1976	NC001

TABLE 8.16.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.16.3.1 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7149
CONDITION: T73511

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. LAB AIR, 1-20HZ	DA/DN (10**-6 IN./CYCLE) B E= R.T. SIM. SEA WATER, 1-10HZ	C	D
DELTA K MIN	A:	4.54	1.29			
	B:	4.39		.836		
	C:					
	D:					
		5.00	1.64	1.70		
		6.00	2.52	4.00		
		7.00	3.60	7.47		
		8.00	4.91	12.0		
		9.00	6.47	17.6		
		10.00	8.32	24.1		
		13.00	16.2	49.0		
		16.00	28.8	82.9		
		20.00	57.9	148.		
		25.00	128.	279.		
DELTA K MAX	A:	27.96	199.			
	B:	26.48		334.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9.17	14.65		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	2		
		1.25-2.0	1			
		>2.0				

CONDITION/HT: T73511
FORM: 3.00"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY:

YIELD STRENGTH: 66.3 KSI
ULT. STRENGTH: 76.4 KSI
SPECIMEN THK: 1.003- 1.004"
SPECIMEN WIDTH: 4.500"
REFERENCES:NC002

ALUM. ALLOY

7149

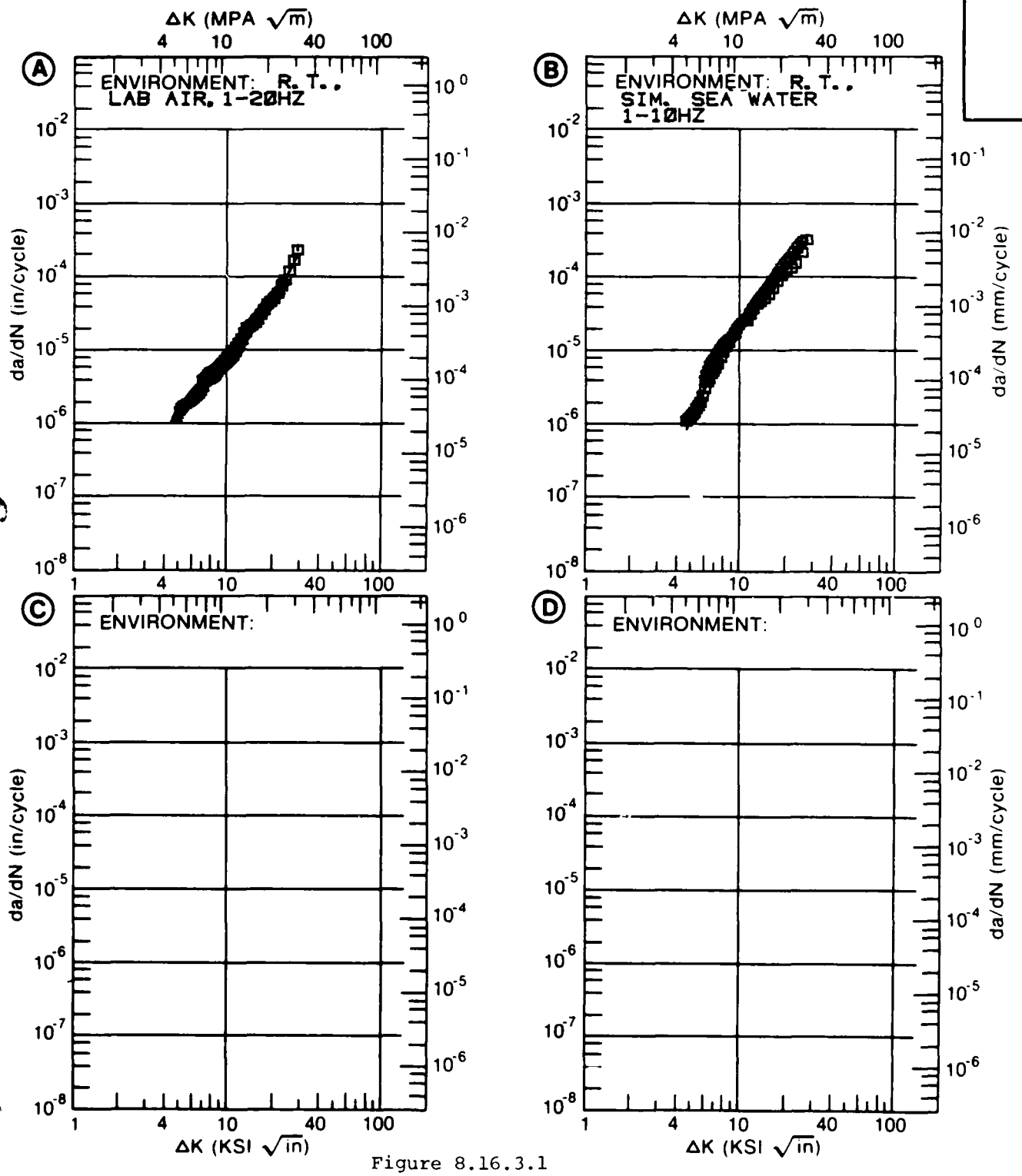

Figure 8.16.3.1

TABLE 8.16.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.16.3.2 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7149
CONDITION: T73511

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR 1-20HZ	E= R.T. SIM. SEA WATER 1-10HZ		
DELTA K MIN	A:	4.06	.949			
	B:	3.59		1.39		
	C:					
	D:					
		4.00		1.46		
		5.00	1.97	2.75		
		6.00	3.28	5.82		
		7.00	4.75	10.4		
		8.00	6.43	16.0		
		9.00	8.41	22.3		
		10.00	10.8	29.4		
		13.00	22.8	57.2		
		16.00	49.7	103.		
		20.00	152.	223.		
DELTA K MAX	A:	22.13	283.			
	B:	22.13		342.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			19.89	8.79		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	3	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T73511
FORM: 3.00"TH EXTRUSION
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY:

YIELD STRENGTH: 63.7 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: 1.002- 1.004"
SPECIMEN WIDTH: 7.400"
REFERENCES:NC002

ALUM. ALLOY

7149

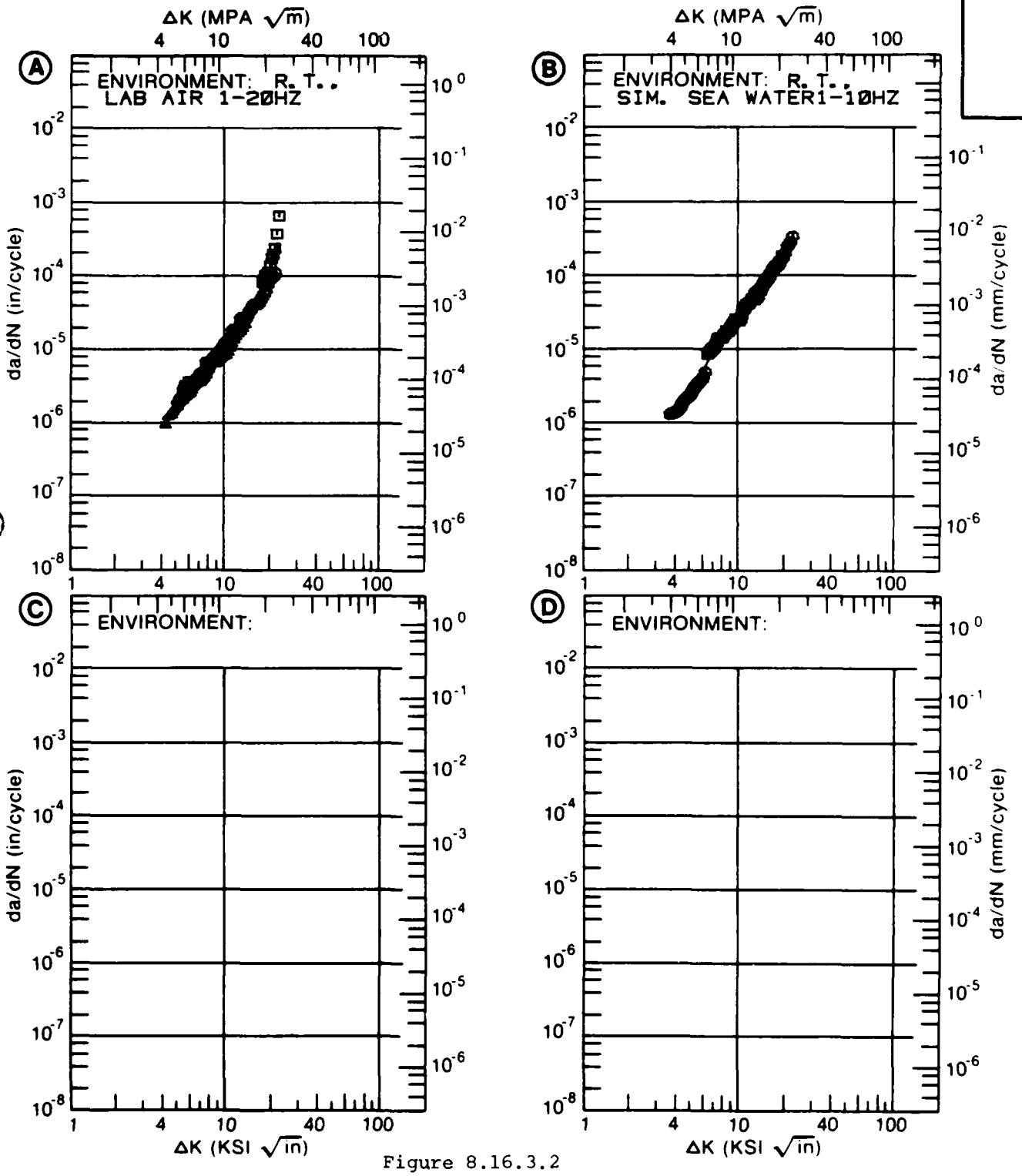

Figure 8.16.3.2

TABLE 8.16.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.16.3.3 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7150
CONDITION: T651
ENVIRONMENT: R T , H.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33	R=+0.33		
DELTA K MIN A:	1.85	.02			
DELTA K MIN B:	1.99		.01		
DELTA K MIN C:	9				
DELTA K MIN D:					
	2.00	.0355	.0125		
	2.50	.121	.0937		
	3.00	.306	.352		
	3.50	.639	.885		
	4.00	1.16	1.74		
	5.00	2.90	4.32		
	6.00	5.65	7.77		
	7.00	9.37	11.8		
	8.00	13.9	16.2		
	9.00	19.0	21.1		
	10.00	24.5	26.5		
	13.00	41.0	48.4		
	16.00	54.4	84.9		
	20.00		182.		
DELTA K MAX A:	16.19	55.2			
DELTA K MAX B:	20.66		207.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		23.19	37.79		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	1	1
	0.5-0.8	1	1
	0.8-1.25	3	1
	1.25-2.0		1
	>2.0		

CONDITION/HT: T651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
FREQUENCY: 25.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.249- 0.253"
SPECIMEN WIDTH: 2.550- 2.554"
REFERENCES:AL014

ALUM. ALLOY
7150

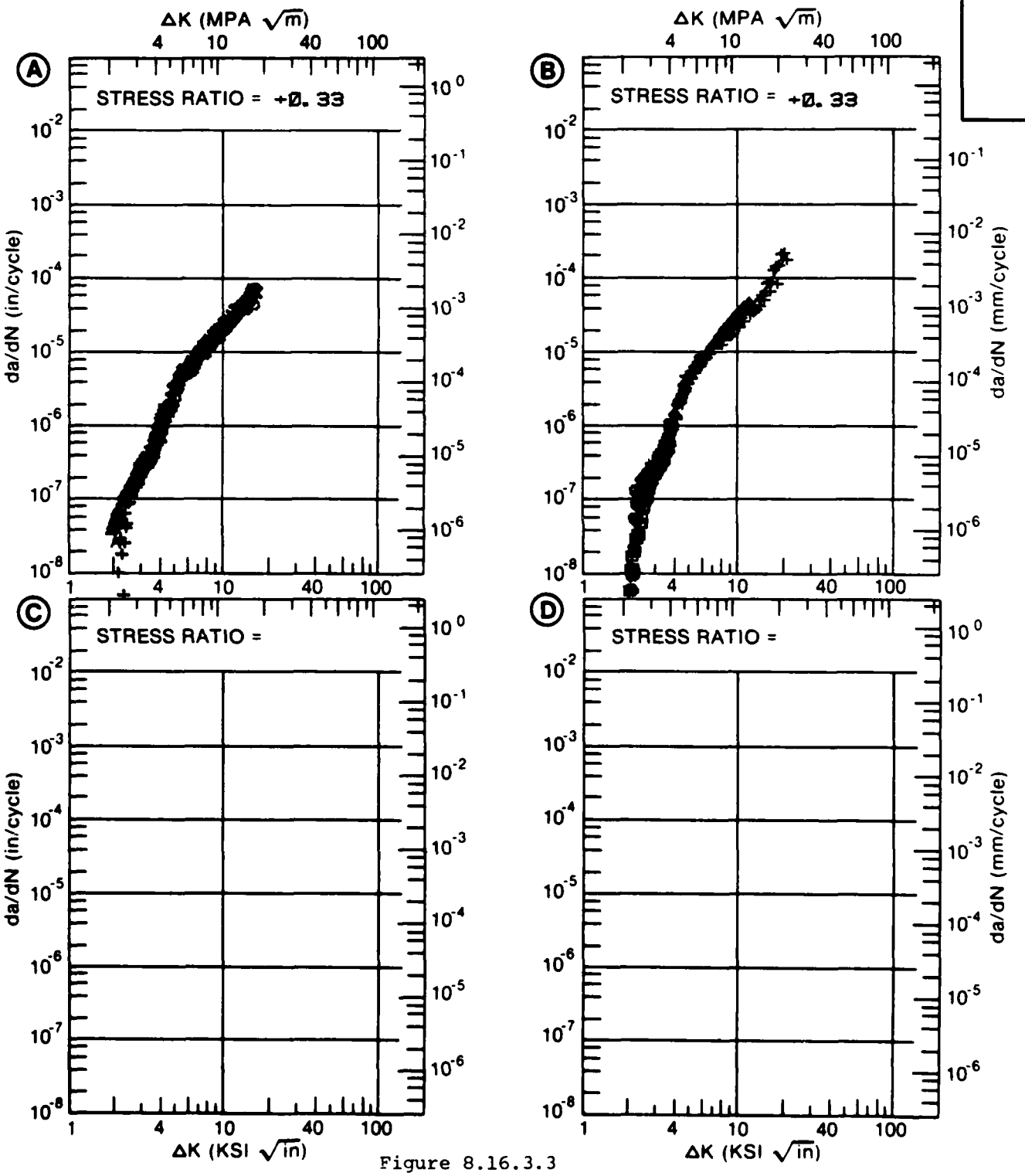

Figure 8.16.3.3

TABLE 8.17.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7175 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD DEVIATION (KSI SQRT(IN))		(NUMBER OF SPECIMENS)
		FORGING	
CONDITION/HT	L-T	T-L	S-L
T66	-----	23.2 ± 3.1 (2)	20.8 ± 1.1 (7)
T73	-----	-----	27.1 ± 1.2 (4)
T7352	-----	24.5 ± 0.5 (2)	-----
T736	31.2 ± 3.8 (4)	26.4 ± 3.6 (10)	25.3 ± 2.1 (23)
T73652	32.7 ± 8.0 (2)	-----	-----
		EXTRUSION	
CONDITION/HT	L-T	T-L	S-L
T73511	32.8 ± 4.5 (17)	27.0 ± 4.9 (12)	-----
T76511	32.9 ± 3.5 (48)	22.6 ± 2.5 (36)	20.9 ± 1.3 (3)

TABLE 8.17.1.2

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION: L T

ENVIRONMENT: DRY AIR AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7354	FORGING	0.10	6.00			1.15	10.6	83.1		
T736	FORGING	0.02	0.08-10.00					38.8		
T736	FORGING	0.10	6.00			1.11	12.2			
T736	FORGING	0.30	6.00			3.81	19.7			
T736	FORGING	0.33	5.20				16.6			

TABLE 8.17.1.3

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT L H.A. AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T73652	FORGING	0.08	0.10				10.1			
T73652	FORGING	0.08	1.00			0.43	9.52	53.8		
T73652	FORGING	0.08	6.00				6.50	40.0		
T73652	FORGING	0.30	6.00			0.52	10.2			

TABLE 8.17.1.4

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T736	FORGING	0.02	10.00				9.87	56.8		
T73652	FORGING	0.02	1.00-20.00				7.92	33.3		
T73652	FORGING	0.02	1.00-18.00		0.10	0.80	6.03			

TABLE 8.17.1.5

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION L T

ENVIRONMENT H H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T736	FORGING	0.10	1.00			2.03	11.2	55.1		
T736	FORGING	0.30	1.00			1.78	15.8			
T736	FORGING	0.33	5.20				18.9			
T736	FORGING	0.50	1.00			2.83	16.4			

TABLE 8.17.1.6

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT: S.T.W., 1HZ AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T7354	FORGING	0.10	1.00			0.61	26.5			
T736	FORGING	0.10	1.00			1.46				
T736	FORGING	0.50	1.00		0.32	6.13	59.3			
T73652	FORGING	0.08	1.00				22.4			
T73652	FORGING	0.30	1.00			3.12	27.9			
T73652	FORGING	0.50	1.00				33.3			

TABLE 8.17.1.7

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT DRY AIR AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T736	FORGING	0.33	5.20				15.5			
T736	FORGING	0.33	18.30				10.1			
T736	FORGING	0.33	18.30				16.1			

TABLE 8.17.1.8

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION: T L

ENVIRONMENT: L H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T73652	FORGING	0.08	6.00				4.09			
T73652	FORGING	0.08	6.00				1.95			

TABLE 8.17.1.9

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT H.H.A. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T736	FORGING	0.33	5.20				18.2			
T736	FORGING	0.33	18.30				22.8			
T736	FORGING	0.33	18.30				24.0			

TABLE 8.17.1.10

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7175

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT SALT FOG AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T736	FORGING	0.33	5.20				31.0			
T736	FORGING	0.33	18.30				22.4			
T736	FORGING	0.33	18.30				20.7			

TABLE 8.17.2.1

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T66	F	1.00	R.T.	L-T	82.4	1.000	0.500	CT	0.541	0.49	36.30			1973	86213
T66	F	0.50	89	L-T	80.4	1.000	0.500	CT	0.538	0.47	34.90			1973	86213
		0.50			80.4	1.000	0.501	CT	0.541	0.46	34.50	34.7/	0.3	1973	86213
T66	F	1.00	R.T.	T-L	80.2	1.000	0.499	CT	0.551	0.25	25.40			1973	86213
		1.00			80.2	1.000	0.499	CT	0.541	0.17	21.00	23.2/	3.1	1973	86213
T66	F	0.50	89	T-L	82.2	1.000	0.500	CT	0.531	0.24	25.70			1973	86213
T66	F	1.00	R.T.	S-L	70.4	1.000	0.500	CT	0.525	0.23	21.50			1973	96213
		1.00			70.4	1.000	0.499	CT	0.535	0.25	22.30			1973	86213
		1.00			70.4	1.000	0.499	CT	0.523	0.19	19.40			1973	86213
		1.00			73.0	1.000	0.500	CT	0.539	0.20	20.70			1973	86213
		1.00			73.0	1.000	0.499	CT	0.528	0.23	21.90			1973	86213
		1.00			73.0	1.000	0.500	CT	0.533	0.18	19.40			1973	86213
		1.00			73.0	1.000	0.500	CT	0.503	0.20	20.60	20.8/	1.1	1973	86213
T73	F	8.50	R.T.	T-L	47.7	1.500	0.750	CT	0.775	0.52	21.80			1973	86213
T73	F	1.00	R.T.	S-L	64.9	1.000	0.500	CT	0.517	0.46	27.90			1973	86213
		1.00			64.9	1.000	0.500	CT	0.520	0.41	26.40			1973	86213
		1.00			64.9	1.000	0.500	CT	0.480	0.40	25.80			1973	86213
		1.00			64.9	1.000	0.500	CT	0.525	0.47	28.20	27.1/	1.2	1973	86213
T73	E	4.50	82	L-C	62.2	2.000	1.002	CT	1.052	0.87	36.60			1973	86213
T73511	E	1.30	- 65	L-T	62.4	2.000	1.017	CT	1.040	0.59	30.50			1977	LG001
		1.30			63.5	2.497	1.250	CT	1.320	0.58	30.79			1977	LG001
		1.30			65.6	2.997	1.500	CT	1.562	0.55	30.90			1977	LG001
		1.30			65.8	2.501	1.250	CT	1.360	1.00	41.70			1977	LG001
		1.30			67.2	1.999	1.020	CT	1.084	0.85	39.40			1977	LG001
		1.30			67.6	2.994	1.503	CT	1.572	0.65	34.70			1977	LG001
		1.30			67.6	1.498	0.750	CT	0.749	0.60	33.20	34.5/	4.5	1977	LG001

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T73511	E	1.80	R.T.	L-T	62.4	3.000	1.500	CT	----	0.87	36.90			1981	LG003
		1.30			66.1	2.999	1.500	CT	1.532	1.28	47.40			1977	LG001
		1.30			66.7	2.999	1.500	CT	1.516	0.84	38.80			1977	LG001
		1.30			66.9	2.495	1.250	CT	1.292	0.51	30.40			1977	LG001
		1.30			67.1	2.003	1.001	CT	1.045	0.51	30.40			1977	LG001
		1.30			67.1	1.503	0.746	CT	0.765	0.53	30.90			1977	LG001
		1.30			67.1	1.503	0.749	CT	0.770	0.47	29.10			1977	LG001
		1.30			67.1	2.002	1.000	CT	1.019	0.50	30.29			1977	LG001
		1.30			68.0	1.500	0.752	CT	0.786	0.33	24.90			1977	LG001
		1.30			68.0	1.000	0.501	CT	0.534	0.29	23.40			1977	LG001
		1.30			68.0	2.000	1.000	CT	1.088	0.47	29.60			1977	LG001
		1.30			68.0	2.400	1.200	CT	1.288	0.45	29.00			1977	LG001
		1.30			68.3	2.505	1.250	CT	1.310	0.72	36.90			1977	LG001
		1.30			68.7	3.000	1.505	CT	1.580	0.87	40.70			1977	LG001
		1.30			68.7	2.505	1.250	CT	1.355	0.40	27.70			1977	LG001
		1.30			68.8	3.000	1.505	CT	1.550	0.91	41.70			1977	LG001
		1.30			70.6	3.001	1.500	CT	1.521	0.44	29.79	32.8/	6.5	1977	LG001
T73511	E	1.30	- 65	T-L	60.9	3.000	1.500	CT	1.520	0.25	19.29			1977	LG001
		1.30			60.9	2.000	1.013	CT	1.147	0.45	25.90			1977	LG001
		1.30			60.9	3.003	1.499	CT	1.504	0.28	20.50			1977	LG001
		1.30			60.9	2.501	1.250	CT	1.306	0.45	26.10			1977	LG001
		1.30			64.0	2.501	1.250	CT	1.353	0.49	28.60			1977	LG001
		1.30			64.0	1.501	0.752	CT	0.765	0.59	31.20			1977	LG001
		1.30			64.0	1.990	1.008	CT	1.118	0.56	30.50			1977	LG001
		1.30			65.6	2.501	1.251	CT	1.325	0.41	26.60			1977	LG001
		1.30			65.6	1.499	0.751	CT	0.763	0.57	31.40	26.7/	4.4	1977	LG001
T73511	E	1.30	R.T.	T-L	62.6	2.501	1.250	CT	1.345	0.57	29.90			1977	LG001
		1.80			63.2	3.000	1.500	CT	----	0.79	35.50			1981	LG003
		1.30			63.7	1.505	0.749	CT	0.825	0.29	21.79			1977	LG001
		1.30			63.7	3.000	1.499	CT	1.533	0.27	21.00			1977	LG001
		1.30			64.1	1.500	0.751	CT	0.807	0.50	28.70			1977	LG001
		1.30			64.7	1.998	1.012	CT	1.063	0.48	28.40			1977	LG001
		1.30			64.8	1.000	0.501	CT	0.533	0.40	26.10			1977	LG001
		1.30			65.0	2.500	1.251	CT	1.203	0.39	25.70			1977	LG001
		1.30			65.0	2.500	1.243	CT	1.294	0.31	22.90			1977	LG001
		1.30			67.1	2.000	1.005	CT	1.047	0.23	20.50			1977	LG001
		1.30			68.0	2.000	1.000	CT	1.088	0.59	33.20			1977	LG001

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T73511	E	1.30	R.T.	T-L	68.0	2.400	1.200	CT	1.290	0.49	30.40	27.0/	4.9	1977	LG001
T7352	F	2.75	82	L-S	60.8	2.000	0.998	CT	1.023	0.96	37.70			1973	86213
T7352	F	0.75	R.T.	T-L	53.9	1.500	0.622	NB	0.729	0.50	24.10			1973	86213
		0.75			53.9	1.500	0.622	NB	0.754	0.53	24.80	24.5/	0.5	1973	86213
T7352	F	3.00	86	T-L	52.2	1.990	1.000	CT	1.015	0.87	30.80			1973	86213
		3.00			52.2	1.990	1.000	CT	1.045	0.86	30.60	30.7/	0.1	1973	86213
T7352	F	3.00	86	S-L	55.8	1.990	0.999	CT	1.018	0.47	24.20			1973	86213
		3.00			55.8	1.990	1.000	CT	1.015	0.49	24.80	24.5/	0.4	1973	86213
T736	F	3.00	R.T.	L-S	63.9	2.000	1.000	CT	1.073	0.86	37.40			1973	86213
		3.00			65.7	2.000	1.000	CT	1.012	0.42	26.80	32.1/	7.5	1973	86213
T736	F	2.00	R.T.	L-T	68.0	1.500	0.749	CT	0.804	0.41	27.40			1973	86213
		----			68.5	1.400	0.698	CT	0.740	0.67	36.40			1973	85880
		3.00			69.0	1.500	0.750	CT	0.825	0.46	29.60			1973	86213
		1.00			76.9	1.000	0.500	CT	0.480	0.42	31.50	31.2/	3.8	1972	84368
T736	F	0.50	82	L-T	70.6	1.000	0.500	CT	0.517	0.37	27.20			1973	86213
		0.50			70.6	1.000	0.501	CT	0.539	0.38	27.50			1973	86213
		1.50			76.9	0.990	0.499	CT	0.477	0.42	31.50	28.7/	2.4	1973	86213
T736	F	5.00	84	L-T	62.1	2.990	1.500	CT	1.639	0.73	33.60			1973	86213
		2.00			65.6	2.000	1.000	CT	1.097	0.73	35.40			1973	86213
		2.00			67.1	2.000	1.000	CT	1.088	0.64	34.00	34.3/	0.9	1973	86213
T736	F	3.00	85	L-T	71.6	2.000	0.999	CT	1.107	0.73	38.60			1973	86213
T736	F	3.00	R.T.	T-L	59.7	2.000	1.000	CT	1.025	0.31	21.10			1973	86213
		4.00			59.9	2.000	1.000	CT	1.090	0.51	27.10			1972	84368
		4.00			59.9	2.000	1.000	CT	1.070	0.50	26.90			1972	84368
		3.00			65.7	2.000	1.000	CT	1.100	0.39	26.10			1972	84368

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T736	F	3.00	R.T.	T-L	65.7	2.000	0.998	CT	1.104	0.39	26.10			1973	86213
		3.00			65.7	2.000	0.998	CT	1.086	0.35	24.70			1973	86213
		3.00			65.7	2.000	1.000	CT	1.090	0.35	24.70			1972	84368
		2.50			66.3	2.000	1.000	CT	1.000	0.29	22.70			1972	83058
		1.00			73.0	1.000	0.500	CT	0.526	0.47	31.50			1973	86213
		----			75.4	1.000	0.500	CT	0.500	0.48	33.10	26.4/	3.6	1972	83058
T736	F	4.00	82	T-L	59.9	1.990	1.000	CT	1.074	0.50	26.90			1973	86213
		4.00			59.9	1.990	0.998	CT	1.087	0.51	27.10			1973	86213
		2.75			73.8	2.000	0.999	CT	1.102	0.28	24.60	26.2/	1.4	1973	86213
T736	F	5.00	84	T-L	70.0	2.991	1.500	CT	1.594	0.38	27.40			1973	86213
		5.00			70.0	2.991	1.500	CT	1.586	0.43	29.00			1973	86213
		3.00			74.2	2.000	1.001	CT	1.072	0.25	23.40			1973	86213
		3.00			74.2	2.000	0.999	CT	1.070	0.21	21.40	25.3/	3.5	1973	86213
T736	F	3.00	85	T-L	73.8	2.000	1.000	CT	1.093	0.32	26.60			1973	86213
T736	F	3.00	88	T-L	69.3	2.000	1.000	CT	1.097	0.30	23.90			1973	86213
		3.00			69.4	2.000	1.000	CT	1.099	0.27	22.70	23.3/	0.8	1973	86213
T736	F	2.50	- 65	S-T	66.6	2.000	1.000	CT	1.000	0.40	26.70			1972	83058
		2.50			66.6	2.000	1.000	CT	1.000	0.38	26.00			1972	83058
		2.50			66.6	2.000	1.000	CT	1.000	0.38	26.10	26.3/	0.4	1972	83058
T736	F	2.50	0	S-T	65.9	2.000	1.000	CT	1.000	0.40	26.30			1972	83058
		2.50			65.9	2.000	1.000	CT	1.000	0.42	27.10			1972	83058
		2.50			65.9	2.000	1.000	CT	1.000	0.40	26.40	26.6/	0.4	1972	83058
T736	F	2.50	R.T.	S-T	64.9	2.000	1.000	CT	1.000	0.65	33.10			1972	83058
		2.50			64.9	2.000	1.000	CT	1.000	0.67	33.50			1972	83058
		2.50			64.9	2.000	1.000	CT	1.000	0.50	29.10			1972	83058
		----			65.5	1.000	0.500	CT	0.500	0.45	27.70			1972	83058
		----			65.5	1.000	0.500	CT	0.500	0.37	25.20	29.7/	3.6	1972	83058
T736	F	3.00	85	S-T	75.5	1.500	0.749	CT	0.810	0.24	23.50			1973	86213
T736	F	2.50	200	S-T	60.5	2.000	1.000	CT	1.000	0.74	33.00			1972	83058
		2.50			60.5	2.000	1.000	CT	1.000	0.84	35.00			1972	83058

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T736	F	2.50	200	S-T	60.5	2.000	1.000	CT	1.000	0.81	34.40	34 1/	1.0	1972	83058
T736	F	4.00	R.T.	S-L	61.4	2.000	1.000	CT	1.040	0.31	21.70			1972	84368
		4.00			61.4	2.000	1.000	CT	1.010	0.32	22.10			1972	84368
		2.50			62.6	1.500	0.749	CT	0.781	0.53	28.80			1973	86213
		2.50			62.6	1.500	0.749	CT	0.797	0.49	27.60			1973	86213
		2.00			62.6	1.500	0.750	CT	0.800	0.49	27.60			1972	84368
		3.00			62.6	1.500	0.750	CT	0.780	0.53	28.80			1972	84368
		1.00			65.2	1.500	0.750	CT	0.830	0.40	26.00			1972	84368
		----			65.5	1.000	0.500	CT	0.500	0.46	28.10			1972	83058
		----			65.5	1.000	0.500	CT	0.500	0.39	26.00			1972	83058
		3.00			65.6	2.000	0.998	CT	1.084	0.31	23.00			1973	86213
		3.00			65.6	2.000	1.000	CT	1.080	0.31	23.00			1972	84368
		----			65.7	1.000	0.500	CT	0.500	0.36	24.80			1972	83242
		1.00			65.7	1.000	0.500	CT	0.481	0.33	23.70			1973	86213
		----			65.7	1.000	0.500	CT	0.500	0.36	24.80			1972	83242
		1.00			65.7	1.000	0.500	CT	0.509	0.43	27.20			1973	86213
		----			65.7	1.000	0.500	CT	0.500	0.36	24.80			1972	83242
		1.00			65.7	1.000	0.500	CT	0.527	0.38	25.70			1973	86213
		----			65.7	1.000	0.500	CT	0.500	0.36	24.80			1972	83242
		2.00			66.4	1.500	0.750	CT	0.830	0.39	26.30			1972	84368
		2.00			66.7	1.500	0.750	CT	0.827	0.33	24.10			1973	86213
		2.00			67.4	1.000	0.500	CT	0.490	0.35	25.10			1972	84368
		1.00			67.4	1.000	0.500	CT	0.500	0.37	25.80			1972	84368
		2.00			68.4	1.000	0.500	CT	0.490	0.28	22.70	25.3/	2.1	1972	84368
T736	F	4.00	82	S-L	61.4	2.000	0.998	CT	1.009	0.32	22.10			1973	86213
		4.00			61.4	2.000	0.998	CT	1.037	0.31	21.70			1973	86213
		2.50			65.1	1.500	0.749	CT	0.820	0.41	26.40			1973	86213
		2.50			65.1	1.500	0.750	CT	0.804	0.54	30.30			1973	86213
		1.50			65.2	1.500	0.750	CT	0.830	0.40	26.00			1973	86213
		1.00			66.3	1.000	0.500	CT	0.497	0.38	26.00			1973	86213
		2.00			66.4	1.500	0.749	CT	0.832	0.39	26.30			1973	86213
		3.00			67.1	1.000	0.498	CT	0.528	0.39	26.40			1973	86213
		1.50			67.4	0.990	0.499	CT	0.492	0.35	25.10			1973	86213
		1.50			67.4	1.000	0.499	CT	0.500	0.37	25.80			1973	86213
		3.00			67.7	1.000	0.500	CT	0.545	0.36	25.70			1973	86213
		1.50			68.4	0.990	0.499	CT	0.490	0.28	22.70			1973	86213
		3.00			69.8	1.490	0.750	CT	0.804	0.28	23.20			1973	86213

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T736	F	3.00	82	S-L	69.8	1.500	0.749	CT	0.759	0.21	20.20	24.9/	2.6	1973	86213
T736	F	3.00	84	S-L	62.8	1.490	0.750	CT	0.791	0.62	31.30			1973	86213
		0.75			66.3	1.000	0.501	CT	0.554	0.46	28.30			1973	86213
		0.75			66.3	1.000	0.501	CT	0.536	0.41	26.80	28.8/	2.3	1973	86213
T736	F	3.00	88	S-L	66.2	1.000	0.498	CT	0.539	0.40	26.50			1973	86213
		3.00			66.3	1.000	0.498	CT	0.532	0.38	25.70			1973	86213
		3.00			68.5	1.000	0.500	CT	0.552	0.32	24.90	25.6/	1.0	1973	86213
T736	F	0.50	89	S-L	67.1	1.000	0.501	CT	0.549	0.43	27.90			1973	86213
		0.50			67.1	1.000	0.500	CT	0.531	0.38	26.30	27.1/	1.1	1973	86213
T73652	F	1.25	R.T.	L-T	63.5	2.501	1.251	CT	1.308	0.45	27.00			1977	MA005
		3.10			71.7	2.506	1.250	CT	1.343	0.71	38.30	32.7/	8.0	1981	MA002
T73652	F	3.75	82	L-T	62.9	4.000	1.999	CT	2.162	1.00	39.80			1973	86213
T73652	F	1.25	R.T.	T-L	63.5	2.498	1.243	CT	1.335	0.34	23.50			1977	MA005
T76511	E	3.75	R.T.	L-T	62.1	3.972	2.000	CT	2.105	0.93	38.40			1978	MPC01
		3.75			62.7	4.031	2.000	CT	2.056	0.90	37.70			1978	MPC01
		3.75			62.8	4.023	1.998	CT	2.092	0.90	38.10			1978	MPC01
		3.75			63.4	4.039	2.000	CT	2.100	0.90	38.30			1978	MPC01
		3.75			63.4	3.979	2.000	CT	2.069	0.87	37.80			1978	MPC01
		3.75			63.5	3.977	2.000	CT	2.068	0.90	38.10			1978	MPC01
		3.75			63.7	4.029	2.000	CT	2.095	0.93	39.00			1978	MPC01
		3.75			64.0	3.987	2.000	CT	2.153	0.87	37.90			1978	MPC01
		3.75			64.1	3.990	2.000	CT	2.075	0.84	37.40			1978	MPC01
		3.75			64.4	4.010	2.000	CT	2.085	0.84	37.40			1978	MPC01
		3.75			64.5	3.979	2.000	CT	2.109	0.84	37.90			1978	MPC01
		3.75			64.7	3.970	2.000	CT	2.104	0.87	38.50			1978	MPC01
		1.40			67.5	0.994	0.600	CT	0.507	0.50	30.40			1978	MPC01
		1.40			67.5	1.010	0.600	CT	0.505	0.46	29.20			1978	MPC01
		1.80			67.5	4.008	1.765	CT	2.044	0.50	30.90			1978	MPC01

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T76511	E	1.40	R.T.	L-T	67.5	1.004	0.600	CT	0.492	0.44	28.40			1978	MPC01
		3.00			68.3	2.002	0.996	CT	1.001	0.65	35.20			1978	MPC01
		3.00			68.3	2.002	0.996	CT	1.021	0.55	32.70			1978	MPC01
		3.00			68.3	1.986	0.996	CT	1.013	0.57	33.30			1978	MPC01
		3.00			68.3	1.996	0.996	CT	1.018	0.65	35.00			1978	MPC01
		1.80			68.3	4.014	1.764	CT	2.007	0.44	29.10			1978	MPC01
		3.50			68.5	1.982	0.999	CT	0.991	0.50	30.90			1978	MPC01
		3.50			68.5	2.006	0.999	CT	0.983	0.48	30.60			1978	MPC01
		3.50			68.5	2.002	0.999	CT	1.001	0.52	31.90			1978	MPC01
		3.50			68.5	1.980	0.999	CT	0.970	0.44	28.80			1978	MPC01
		3.50			68.5	1.998	0.999	CT	0.979	0.48	30.30			1978	MPC01
		1.80			68.8	3.000	1.500	CT	----	0.59	33.50			1981	LQ003
		3.00			69.5	1.985	0.999	CT	1.032	0.52	32.00			1978	MPC01
		3.00			69.5	2.004	0.999	CT	1.022	0.52	32.00			1978	MPC01
		3.50			69.5	2.008	0.997	CT	1.024	0.57	34.00			1978	MPC01
		3.50			69.5	1.983	0.997	CT	1.031	0.62	34.80			1978	MPC01
		3.00			69.5	2.004	0.996	CT	1.002	0.55	32.80			1978	MPC01
		3.00			69.5	2.004	0.998	CT	1.002	0.52	32.10			1978	MPC01
		3.00			69.5	2.000	0.999	CT	1.020	0.48	30.90			1978	MPC01
		3.00			69.5	2.004	0.999	CT	1.022	0.50	31.90			1978	MPC01
		3.00			69.5	1.990	0.995	CT	0.995	0.57	33.50			1978	MPC01
		3.00			69.5	2.004	0.998	CT	1.002	0.48	30.90			1978	MPC01
		3.00			69.5	2.008	0.996	CT	1.004	0.55	32.80			1978	MPC01
		1.40			69.6	1.994	1.001	CT	0.997	0.42	29.10			1978	MPC01
		1.40			69.6	2.008	1.001	CT	1.024	0.38	27.80			1978	MPC01
		1.40			69.6	1.986	1.001	CT	0.993	0.38	27.60			1978	MPC01
		1.40			69.6	1.983	1.001	CT	1.051	0.38	27.70			1978	MPC01
		1.80			69.6	4.022	1.765	CT	1.971	0.44	29.40			1978	MPC01
		1.40			69.6	2.004	1.001	CT	0.982	0.38	27.20			1978	MPC01
		2.80			70.5	1.990	1.000	CT	1.015	0.46	30.80			1978	MPC01
		3.50			71.0	1.990	1.000	CT	0.995	0.48	31.50			1978	MPC01
		3.50			71.0	1.992	0.998	CT	0.996	0.48	31.90			1978	MPC01
		3.50			71.0	1.986	1.001	CT	0.993	0.52	33.00	32.9/	3.5	1978	MPC01
T76511	E	3.50	R.T.	T-L	62.2	1.992	1.000	CT	1.016	0.36	24.00			1978	MPC01
		3.50			62.2	2.011	0.999	CT	1.066	0.38	24.60			1978	MPC01
		3.50			62.2	1.988	0.999	CT	1.014	0.36	24.00			1978	MPC01
		3.50			62.2	2.004	0.999	CT	1.102	0.34	23.50			1978	MPC01
		3.50			62.2	2.006	0.999	CT	0.983	0.30	22.00			1978	MPC01

TABLE 8.17.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T76511	E	3.50	R.T.	T-L	63.0	2.014	0.999	CT	1.007	0.34	23.50			1978	MPC01
		3.50			63.0	2.002	0.999	CT	0.961	0.28	21.80			1978	MPC01
		3.00			63.2	2.006	1.005	CT	1.003	0.28	21.70			1978	MPC01
		3.00			63.2	1.982	0.999	CT	1.011	0.28	21.50			1978	MPC01
		3.00			63.2	2.010	1.003	CT	0.985	0.27	21.20			1978	MPC01
		3.00			63.2	2.018	1.004	CT	0.989	0.27	21.20			1978	MPC01
		1.40			64.0	1.002	0.599	CT	0.501	0.28	22.10			1978	MPC01
		1.40			64.0	0.994	0.600	CT	0.497	0.27	21.40			1978	MPC01
		1.40			64.0	1.010	0.600	CT	0.505	0.28	21.80			1978	MPC01
		1.40			64.0	0.996	0.599	CT	0.488	0.25	21.00			1978	MPC01
		3.00			64.4	2.004	1.002	CT	1.002	0.25	20.80			1978	MPC01
		3.00			64.4	2.004	1.015	CT	1.004	0.27	21.30			1978	MPC01
		3.00			64.4	1.984	1.004	CT	0.972	0.25	21.00			1978	MPC01
		3.00			64.6	1.992	0.996	CT	0.936	0.25	21.00			1978	MPC01
		3.00			64.6	2.015	0.996	CT	0.967	0.27	21.40			1978	MPC01
		3.00			64.6	1.988	0.995	CT	0.994	0.27	21.70			1978	MPC01
		3.00			64.6	2.010	0.995	CT	0.965	0.25	21.20			1978	MPC01
		3.00			64.6	1.996	0.995	CT	0.998	0.27	21.70			1978	MPC01
		3.50			64.6	2.010	0.995	CT	1.025	0.24	20.40			1978	MPC01
		1.80			66.2	3.988	1.764	CT	2.034	0.42	27.20			1978	MPC01
		1.80			66.7	3.996	1.764	CT	2.078	0.42	27.40			1978	MPC01
		1.80			67.0	3.000	1.500	CT	----	0.56	31.70			1981	LG003
		1.40			68.2	2.005	1.000	CT	1.123	0.24	21.40			1978	MPC01
		1.40			68.2	1.989	1.000	CT	1.074	0.24	21.20			1978	MPC01
		1.40			68.2	2.014	1.001	CT	1.027	0.22	20.80			1978	MPC01
		1.40			68.2	2.015	1.001	CT	1.088	0.21	20.40			1978	MPC01
		1.40			68.2	1.985	1.001	CT	1.072	0.22	20.70			1978	MPC01
		3.50			68.8	1.978	0.998	CT	1.009	0.25	22.40			1978	MPC01
		3.50			68.8	1.986	0.998	CT	0.993	0.27	23.00			1978	MPC01
		3.50			68.8	1.983	0.998	CT	1.031	0.34	25.60			1978	MPC01
		1.80			69.0	4.037	1.764	CT	2.059	0.40	27.60	22.6/	2.5	1978	MPC01
T76511	E	3.00	R.T.	S-T	60.7	1.982	1.002	CT	0.991	0.30	21.50			1978	MPC01
		3.00			60.7	2.000	1.001	CT	0.960	0.28	20.70			1978	MPC01
		3.00			60.7	2.017	1.002	CT	0.968	0.32	21.90			1978	MPC01
		3.00			60.7	2.002	1.002	CT	0.981	0.28	21.00			1978	MPC01
		3.00			60.7	1.998	1.000	CT	0.939	0.27	20.60			1978	MPC01
		3.00			60.7	1.980	1.002	CT	0.970	0.30	21.80			1978	MPC01
		3.50			61.5	1.982	0.999	CT	0.991	0.28	21.40			1978	MPC01

TABLE 8.7.2.1 (con't)

ALUMINUM 7175 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T76511	E	3.50	R.T.	S-T	61.5	1.992	0.999	CT	0.976	0.28	21.20			1978	MPC01
		3.50			61.5	1.990	0.999	CT	0.975	0.27	20.60			1978	MPC01
		3.00			61.5	2.011	1.002	CT	0.945	0.30	21.90			1978	MPC01
		3.50			61.5	2.013	0.999	CT	0.966	0.27	20.70			1978	MPC01
		3.00			61.5	2.008	0.998	CT	1.004	0.27	20.90			1978	MPC01
		3.50			61.5	1.990	0.999	CT	0.975	0.24	19.60			1978	MPC01
		3.00			61.5	1.984	0.997	CT	1.012	0.30	21.70			1978	MPC01
		3.00			61.5	1.982	1.005	CT	0.971	0.28	21.40			1978	MPC01
		3.00			62.0	2.015	1.005	CT	0.927	0.28	21.50			1978	MPC01
		3.00			62.0	2.012	0.998	CT	1.006	0.28	21.30			1978	MPC01
		3.00			62.0	1.996	0.996	CT	0.978	0.30	22.30			1978	MPC01
		3.00			62.0	2.009	1.002	CT	0.924	0.30	21.70			1978	MPC01
		3.50			62.2	1.984	0.998	CT	0.992	0.27	20.90			1978	MPC01
		3.50			62.2	2.008	0.999	CT	0.964	0.28	21.50			1978	MPC01
		3.50			62.2	1.996	0.998	CT	0.998	0.32	23.00			1978	MPC01
		3.50			63.4	2.000	0.999	CT	0.960	0.30	22.60			1978	MPC01
		3.50			63.4	1.980	0.999	CT	0.970	0.28	21.90			1978	MPC01
		1.40			66.6	0.998	0.599	CT	0.479	0.25	21.50			1978	MPC01
		1.40			66.6	1.004	0.600	CT	0.472	0.24	20.90			1978	MPC01
		1.40			66.6	1.011	0.600	CT	0.465	0.22	20.50			1978	MPC01
		1.40			66.6	1.002	0.600	CT	0.451	0.25	21.60	21.4/	0.7	1978	MPC01
T76511	E	1.80	R.T.	S-L	66.1	1.489	0.751	CT	0.804	0.27	22.30			1978	MPC01
		1.80			66.4	1.498	0.750	CT	0.779	0.22	20.00			1978	MPC01
		1.80			66.4	1.498	0.751	CT	0.809	0.22	20.30	20.9/	1.3	1978	MPC01

TABLE 8.17.2.2

ALUMINUM 7175 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T73511	E	1.30	R.T.	L-T	63.4	5.910	0.551	1.880	----	---	34.20	62.80			----			1977	LG001
T73511	E	1.30	R.T.	L-T	66.1	7.980	0.505	2.490	----	---	37.90	79.90			----			1977	LG001
T73511	E	1.30	R.T.	L-T	66.1	7.980	0.749	2.480	----	---	37.30	78.30			----			1977	LG001
T73511	E	1.30	R.T.	L-T	65.2	7.990	0.256	2.250	----	---	41.00	81.20			----			1977	LG001
		1.30			66.1	7.990	0.251	2.470	----	---	40.70	85.20			----			1977	LG001
		1.30			66.1	7.990	0.252	2.520	----	---	40.50	85.80			----			1977	LG001
		1.30			66.1	7.990	0.251	2.520	----	---	40.90	86.80	84.8/ 2.5		----	----/	---	1977	LG001
T73511	E	1.30	R.T.	L-T	66.1	7.990	0.502	2.410	----	---	37.90	78.10			----			1977	LG001
T73511	E	1.30	R.T.	L-T	66.8	7.990	0.749	2.540	----	---	33.90	72.30			----			1977	LG001
T73511	E	1.30	R.T.	L-T	65.2	8.000	0.506	2.420	----	22.00	37.80	78.20			----			1977	LG001
		1.30			66.1	8.000	0.501	2.250	3.300	35.20	37.40	74.00			95.36*			1977	LG001
		1.30			66.1	8.000	0.501	3.940	4.350	24.80	28.80	84.80*			92.89*			1977	LG001
		1.30			66.8	8.000	0.500	2.080	----	---	42.70	80.60			----			1977	LG001
		1.30			66.8	8.000	0.503	2.440	----	35.30	37.80	78.60	77.9/ 2.8		----	----/	---	1977	LG001
T73511	E	1.30	R.T	L-T	66.1	8.010	0.250	2.510	----	---	39.90	84.40			----			1977	LG001
T73511	E	1.30	R.T.	L-T	66.8	8.010	0.497	2.150	----	---	41.70	80.30			----			1977	LG001
		1.30			66.8	8.010	0.504	2.530	----	---	37.40	79.40	79.9/ 0.6		----	----/	---	1977	LG001
T73511	E	1.30	R.T.	T-L	65.6	7.940	0.502	2.460	----	---	23.90	49.90			----			1977	LG001
T73511	E	1.30	R.T.	T-L	65.6	7.980	0.252	2.260	----	15.90	25.80	51.30			----			1977	LG001
T73511	E	1.30	R.T.	T-L	64.0	7.980	0.499	2.680	----	---	22.20	49.10			----			1977	LG001
T73511	E	1.30	R.T.	T-L	64.0	7.990	0.250	2.570	----	---	21.50	46.30			----			1977	LG001
T73511	E	1.30	R.T.	T-L	64.0	7.990	0.499	2.130	----	---	27.60	52.80			----			1977	LG001

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.17.2.2 (con't)

ALUMINUM 7175 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T73511	E	1.30	R.T.	T-L	63.3	7.990	0.502	2.510	----	---	23.70	50.10			----			1977	LG001
		1.30			64.0	7.990	0.505	2.430	----	---	24.90	51.70	51.5/	1.4	----	----/	---	1977	LG001
T73511	E	1.30	R.T.	T-L	64.0	8.000	0.248	2.590	----	---	25.70	55.40			----			1977	LG001
		1.30			64.0	8.000	0.253	2.540	----	---	29.60	63.00	59.2/	5.4	----	----/	---	1977	LG001
T73511	E	1.30	R.T.	T-L	64.0	8.000	0.509	2.470	----	17.40	25.30	53.00			----			1977	LG001
T73511	E	1.30	R.T.	T-L	63.3	8.010	0.251	2.540	----	---	22.80	48.50			----			1977	LG001
		1.30			64.0	8.010	0.250	2.490	----	---	29.20	61.50	55.0/	9.2	----	----/	---	1977	LG001
T73511	E	1.30	R.T.	T-L	63.3	8.010	0.498	2.150	----	---	26.30	50.60			----			1977	LG001
		1.30			64.0	8.010	0.500	2.200	----	---	26.50	50.60			----			1977	LG001
		1.30			65.6	8.010	0.509	2.400	----	17.20	23.80	49.00	50.1/	0.9	----	----/	---	1977	LG001
T73511	E	1.30	R.T.	T-L	63.3	8.020	0.251	2.530	----	---	27.10	57.60			----			1977	LG001
		1.30			65.6	8.020	0.252	2.530	----	---	25.60	54.40			----			1977	LG001
		1.30			64.0	8.030	0.251	2.520	----	---	26.50	56.10	56.0/	1.6	----	----/	---	1977	LG001

TABLE 8.17.3.1

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.1 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T7354

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR, 6HZ	E= R.T. S.T.W., 1HZ		
DELTA K MIN	A:	4.27	.740			
	B:	3.96		.119		
	C:					
	D:					
		4.00		.124		
		5.00	1.15	.613		
		6.00	2.00	2.37		
		7.00	3.27	6.31		
		8.00	5.08	12.3		
		9.00	7.50	19.4		
		10.00	10.6	26.5		
		13.00	24.8	42.5		
		16.00	46.1	50.9		
		20.00	83.1			
DELTA K MAX	A:	21.32	96.6			
	B:	17.40		53.4		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.39	41.96		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0		1		
		>2.0		1		

CONDITION/HT: T7354
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY:

YIELD STRENGTH: 64.8 KSI
ULT. STRENGTH: 75.7 KSI
SPECIMEN THK: 0.498"
SPECIMEN WIDTH: 2.547- 2.550"
REFERENCES:GD002

ALUM. ALLOY

7175

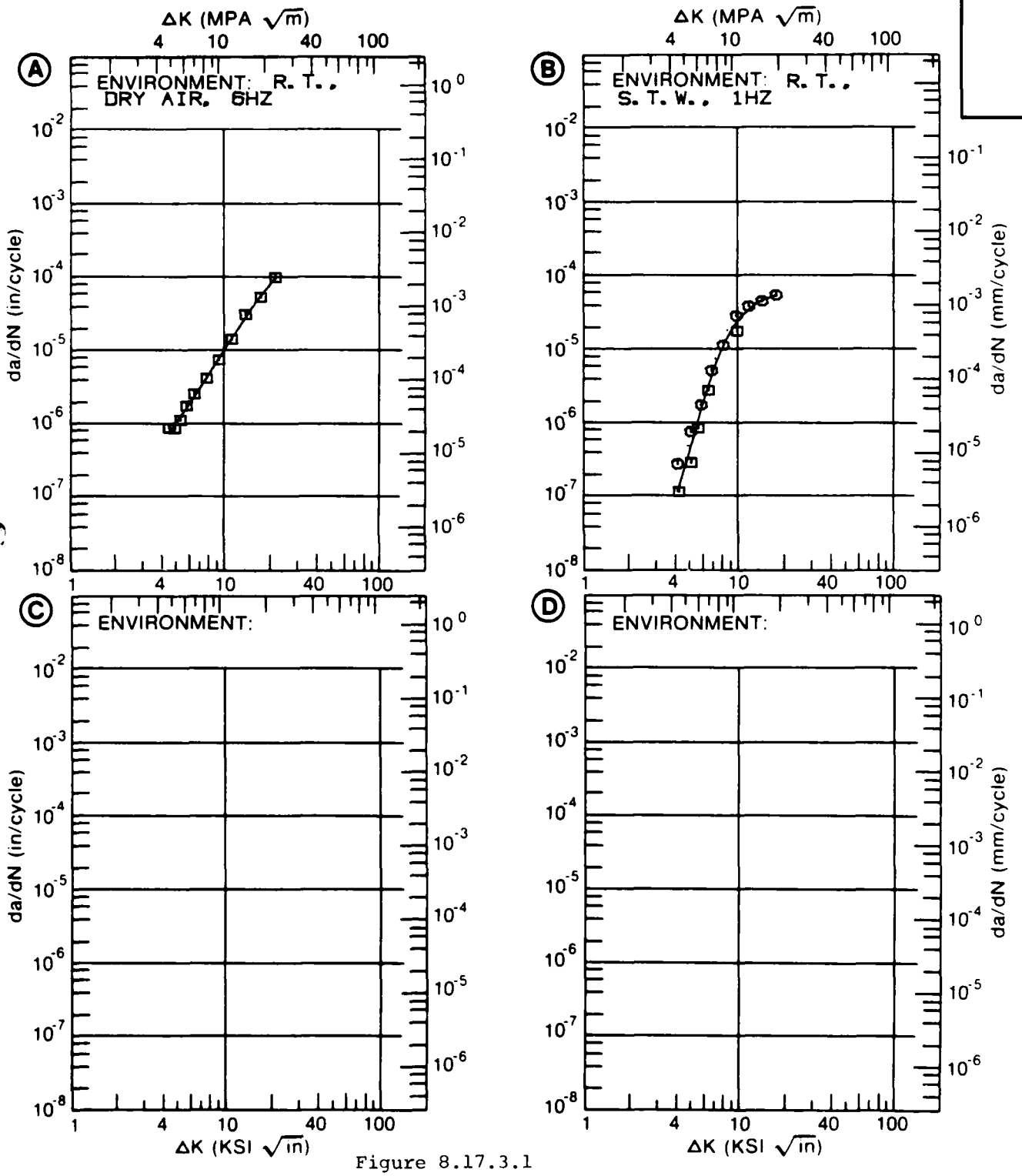

Figure 8.17.3.1

TABLE 8.17.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.2 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T7354

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. S.T.W.			
DELTA K MIN	A:	3.20	.186			
	B:					
	C:					
	D:					
		3.50	.187			
		4.00	.291			
		5.00	1.21			
		6.00	4.32			
		7.00	9.48			
		8.00	16.2			
		9.00	26.4			
		10.00	37.9			
		13.00	60.2			
		16.00	90.5			
DELTA K MAX	A:	18.60	169.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR		14.05
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	
	1.25-2.0	1
	>2.0	

CONDITION/HT: T7354
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 62.6 KSI
ULT. STRENGTH: 73.5 KSI
SPECIMEN THK: 0.499"
SPECIMEN WIDTH: 2.550"
REFERENCES:GD002

ALUM. ALLOY

7175

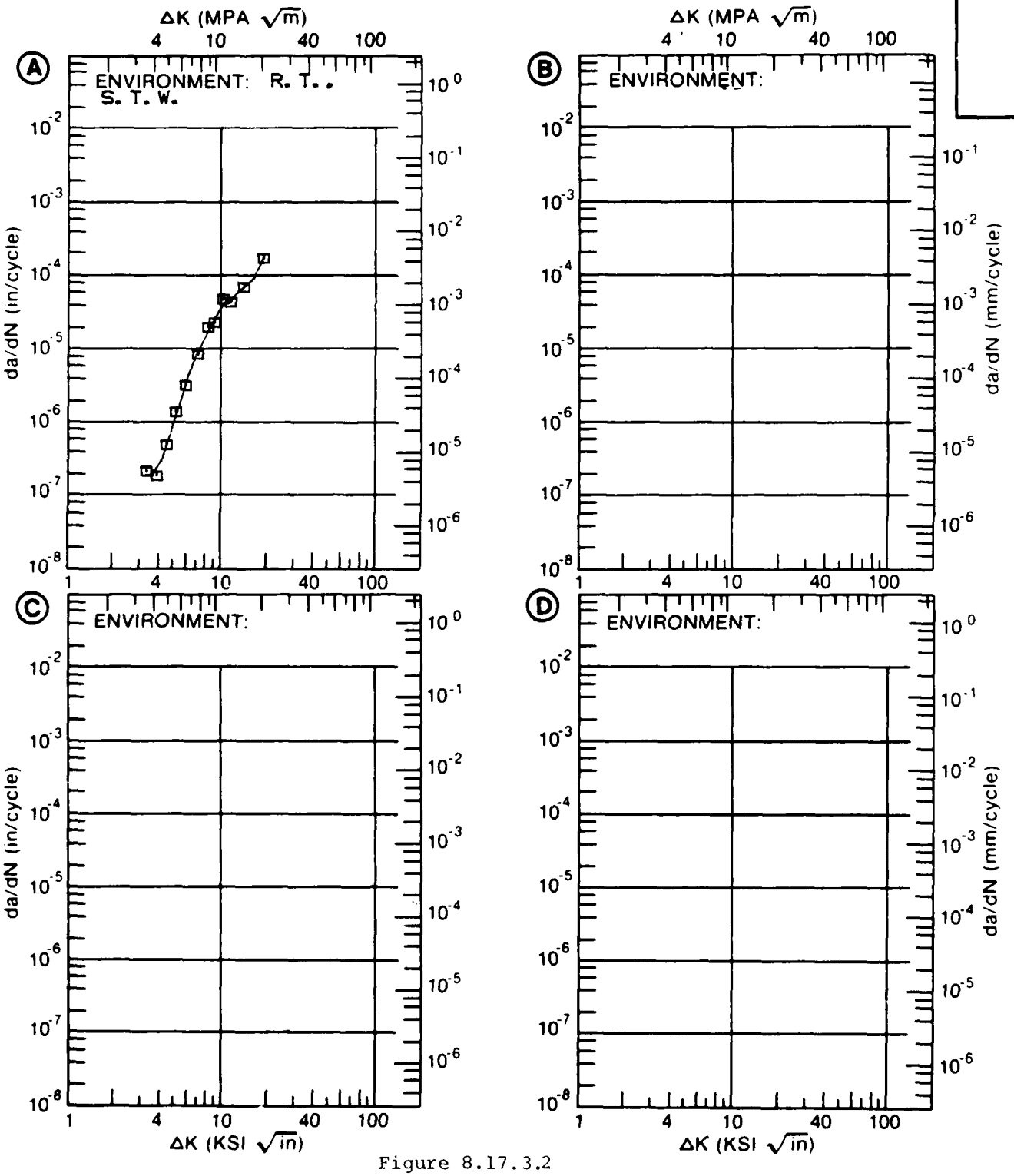

Figure 8.17.3.2

TABLE 8.17.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.3INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. 3.5% NACL		
DELTA K MIN	A:	8.66	5.48			
	B:					
	C:					
	D:					
		9.00	6.50			
		10.00	9.87			
		13.00	22.1			
		16.00	35.8			
		20.00	56.8			
DELTA K MAX	A:	23.70	81.8			
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			25.37	0.00		

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	1
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T736
FORM: 0.70"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 10.00 HZ

YIELD STRENGTH: 88.5 KSI
ULT. STRENGTH: 77.5 KSI
SPECIMEN THK: 0.700"
SPECIMEN WIDTH: 1.400"
REFERENCES:85880

ALUM. ALLOY

7175

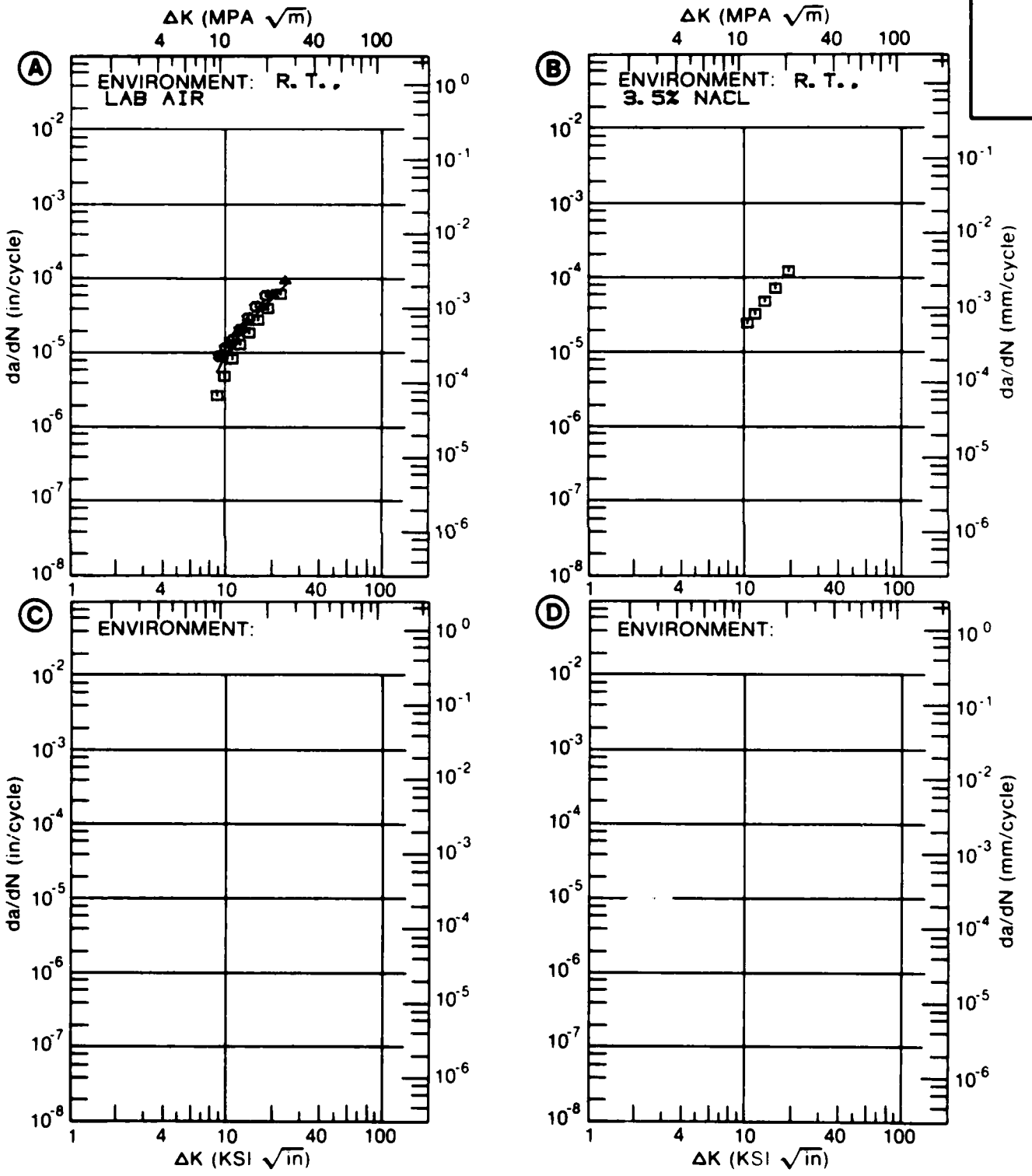

Figure 8.17.3.3

TABLE 8.17.3.4

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.4 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7175
CONDITION: T736
ENVIRONMENT: R T , DRY AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30		
DELTA K MIN	A:	4.64	.764			
	B:	2.93		.552		
	C:					
	D:					
		3.00		.614		
		3.50		1.16		
		4.00		1.89		
		5.00	1.11	3.81		
		6.00	2.46	6.23		
		7.00	4.31	9.03		
		8.00	6.58	12.2		
		9.00	9.22	15.7		
		10.00	12.2	19.7		
		13.00	23.6	35.0		
		16.00	40.3			
DELTA K MAX	A:	19.27	69.3			
	B:	15.83		56.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			3.51	12.99		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1		
		1.25-2.0	1			
		>2.0				

CONDITION/HT: T736
FORM: 1.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 69.3 KSI
ULT. STRENGTH: 78.7 KSI
SPECIMEN THK: 0.401"
SPECIMEN WIDTH: 2.566- 2.571"
REFERENCES: GD001

ALUM. ALLOY

7175

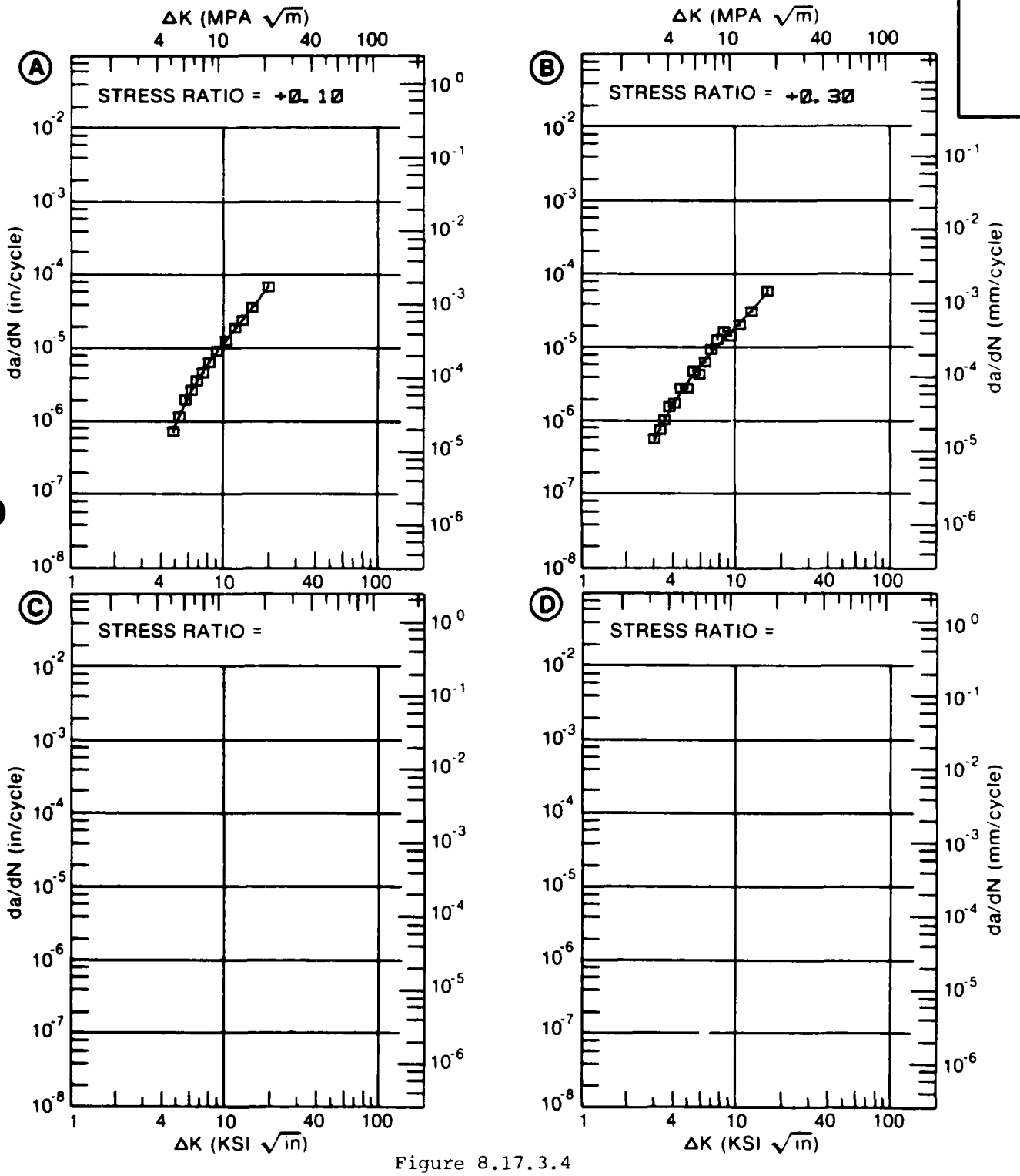

Figure 8.17.3.4

TABLE 8.17.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.5 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7175
CONDITION: T736
ENVIRONMENT: R T. ,H. H. A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0. 10	R=+0. 30	R=+0. 50	
DELTA K MIN	A: 2. 99	. 44			
	B: 2. 70		. 30		
	C: 2. 66			. 23	
	D:				
	3. 00	. 445	. 405	. 304	
	3. 50	. 726	. 624	. 711	
	4. 00	1. 08	. 917	1. 31	
	5. 00	2. 03	1. 78	2. 83	
	6. 00	3. 27	3. 12	4. 48	
	7. 00	4. 82	5. 06	6. 24	
	8. 00	6. 65	7. 73	8. 44	
	9. 00	8. 78	11. 3	11. 6	
	10. 00	11. 2	15. 8	16. 4	
	13. 00	20. 4	37. 0	55. 3	
	16. 00	32. 8	72. 6		
	20. 00	55. 1			
	25. 00	94. 4			
DELTA K MAX	A: 25. 85	103.			
	B: 18. 80		122.		
	C: 13. 04			55. 5	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		42. 61	26. 27	16. 70	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0. 0-0. 5				
	0. 5-0. 8				
	0. 8-1. 25	3	2	1	
	1. 25-2 0	1	2	1	
	>2. 0				

CONDITION/HT: T736
FORM: 1.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 69.3 KSI
ULT. STRENGTH: 78.7 KSI
SPECIMEN THK: 0.398- 0.404"
SPECIMEN WIDTH: 2.545- 2.570"
REFERENCES:GD001

ALUM. ALLOY

7175

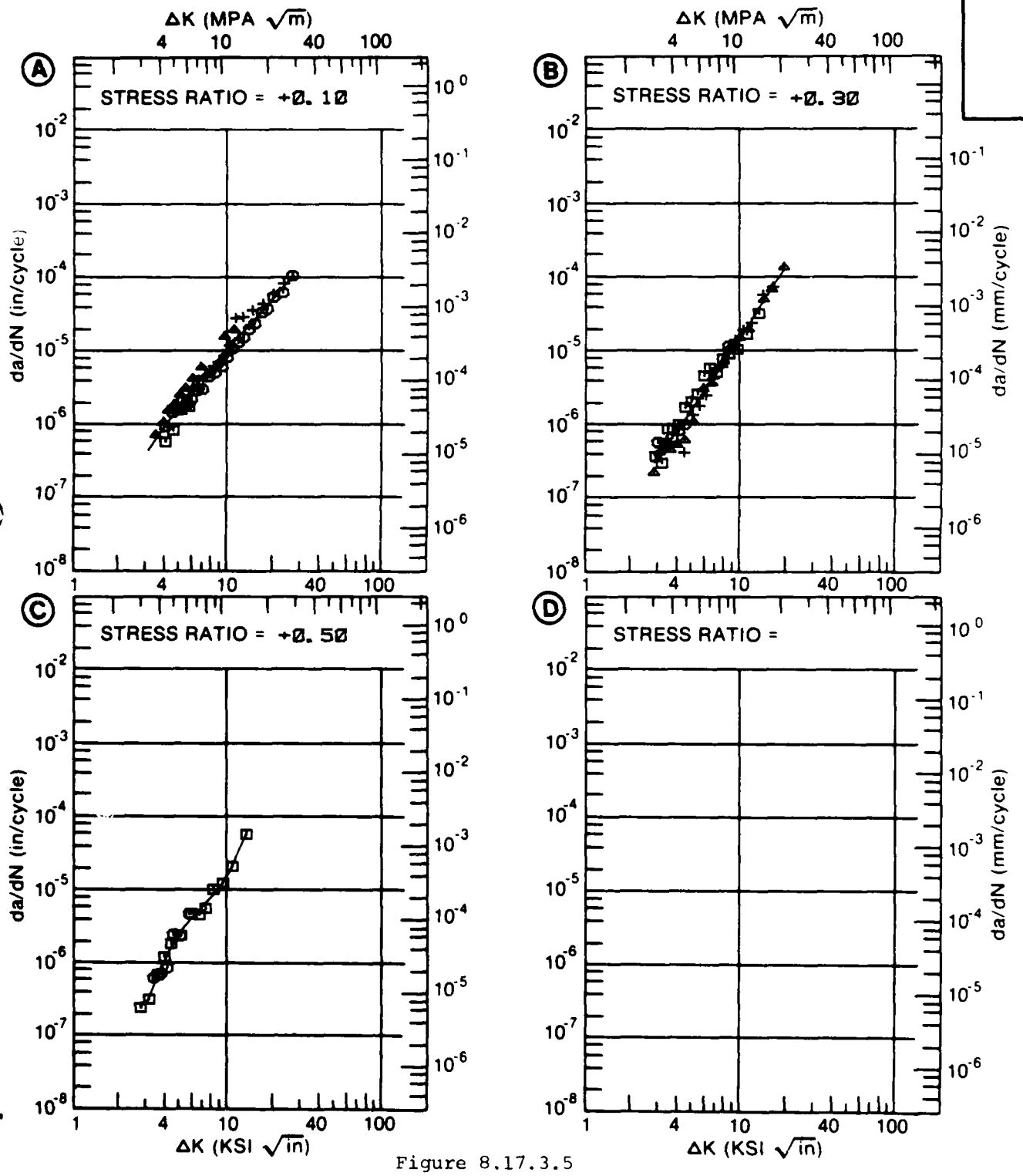

Figure 8.17.3.5

TABLE 8.17.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE8.17.3.6 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7175
CONDITION: T736
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.50		
DELTA K MIN	A:	4.02	.498			
	B:	2.15		.268		
	C:					
	D:					
		2.50		.328		
		3.00		.592		
		3.50		1.17		
		4.00		2.22		
		5.00	1.46	6.13		
		6.00	3.68	12.7		
		7.00	9.09	21.8		
		8.00	24.4	33.0		
		9.00	55.0	45.7		
		10.00		59.3		
		13.00		117.		
DELTA K MAX	A:	9.90	55.0			
	B:	13.68		144.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			15.80	24.79		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	2		
		1.25-2.0	1	2		
		>2.0				

CONDITION/HT: T736
FORM: 1.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 69.3 KSI
ULT. STRENGTH: 78.7 KSI
SPECIMEN THK: 0.394- 0.403"
SPECIMEN WIDTH: 2.540- 2.567"
REFERENCES:GD001

ALUM. ALLOY

7175

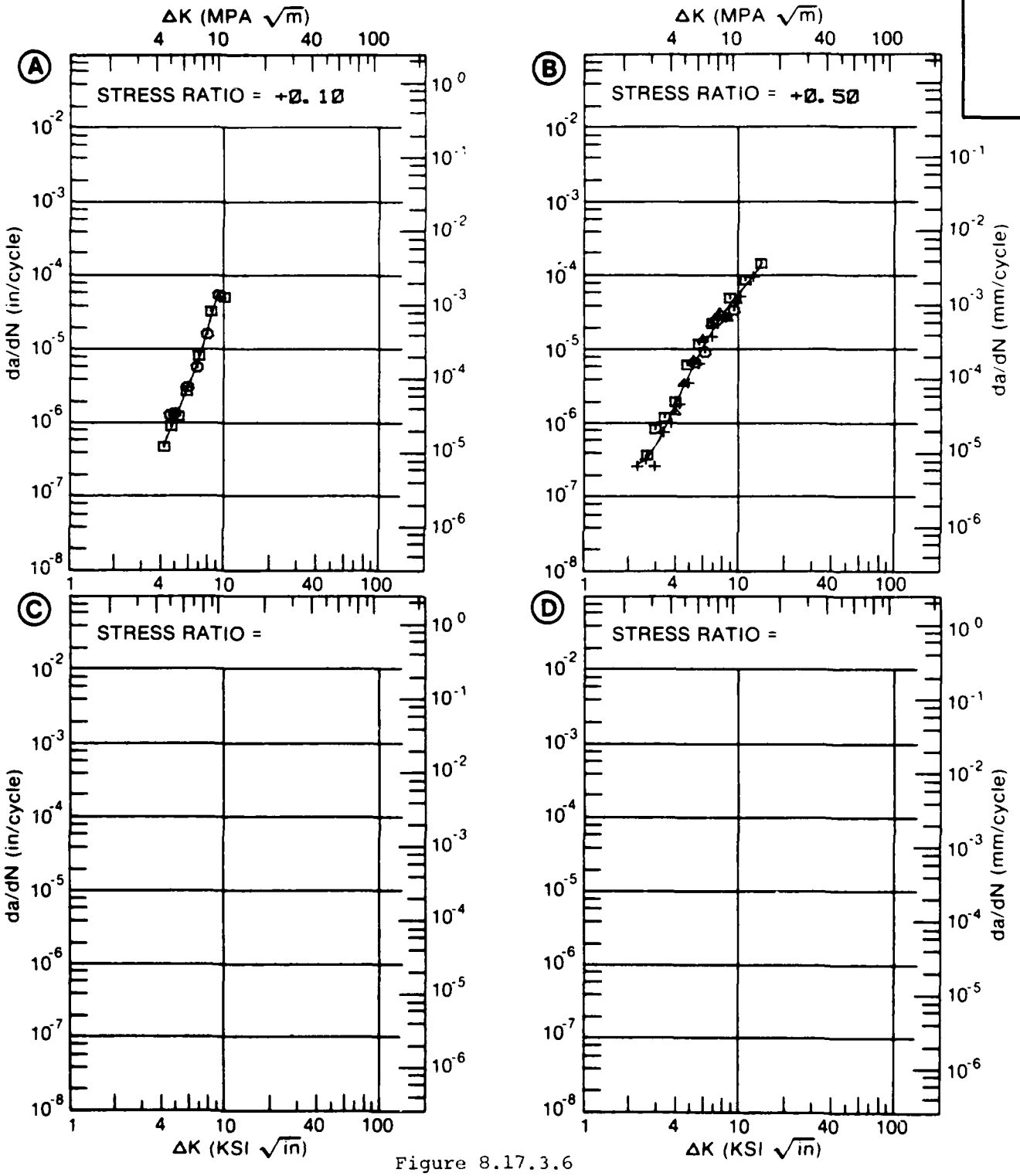

Figure 8.17.3.6

TABLE 8.17.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.7 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

	DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A E= R.T. DRY AIR	B E= R.T. LAB AIR	C	D
DELTA K MIN A:	12.53	7.69			
DELTA K MIN B:					
DELTA K MIN C:					
DELTA K MIN D:					
	13.00	8.50			
	16.00	16.7			
	20.00	38.8			
	25.00	88.2			
	30.00	154.			
	35.00	213.			
	40.00	244.			
DELTA K MAX A:	40.38	244.			
DELTA K MAX B:					
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		19.84	0.00		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T736
FORM: 2.00- 3.00"TH FORGING
SPECIMEN TYPE: DCB
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 0.08- 10.00 HZ

YIELD STRENGTH: 69.0- 71.0 KSI
ULT. STRENGTH: 78.0- 79.0 KSI
SPECIMEN THK: 0.625- 0.750"
SPECIMEN WIDTH: 5.500"
REFERENCES:84360

ALUM. ALLOY

7175

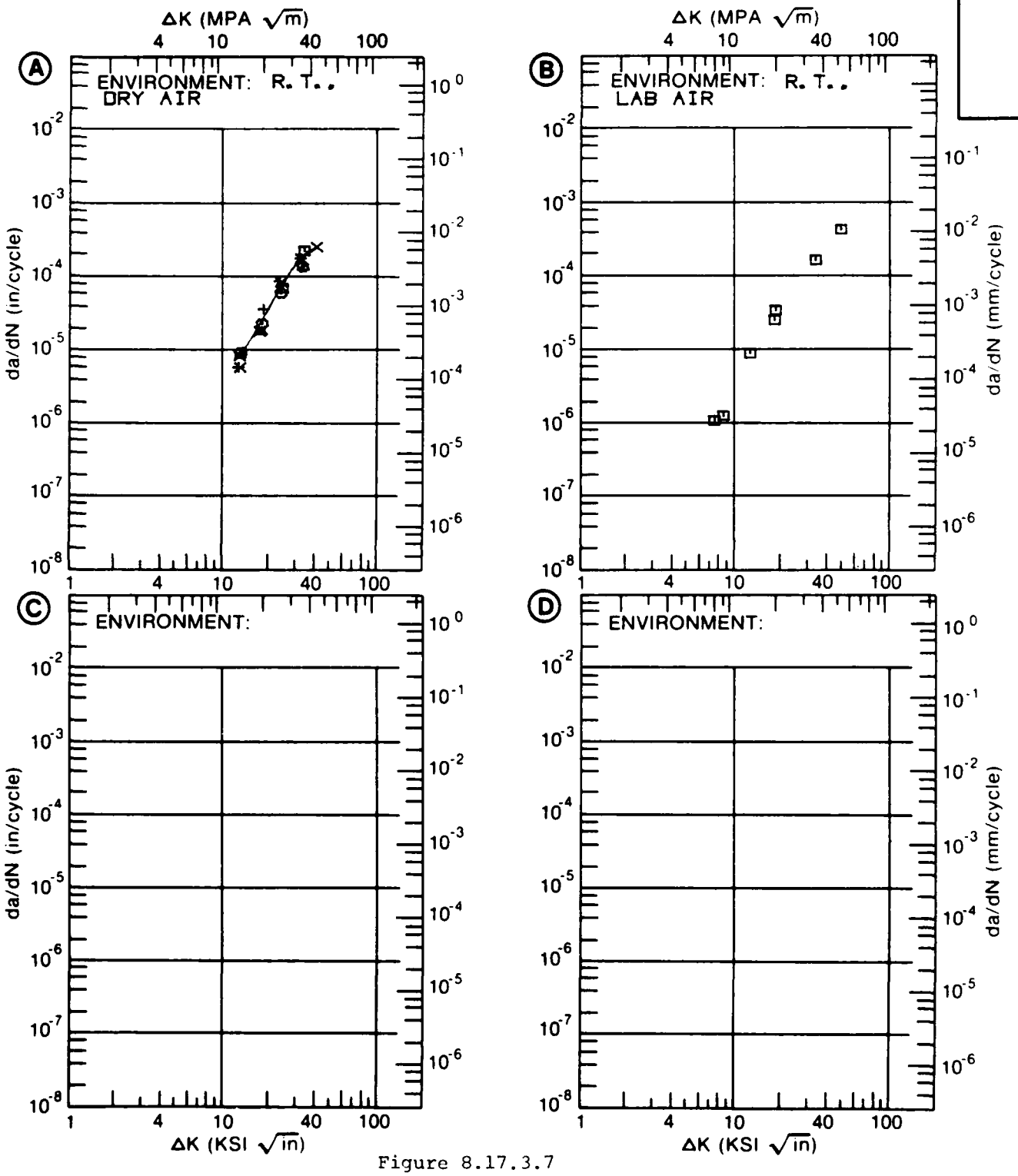

Figure 8.17.3.7

TABLE 8.17.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.8 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A:	5.95	3.30			
	B:	6.01		5.82		
	C:	6.10			5.64	
	D:					
		6.00	3.42			
		7.00	5.89	9.56	9.54	
		8.00	8.57	13.4	13.7	
		9.00	11.8	17.7	17.7	
		10.00	16.1	22.8	22.4	
		13.00	50.1	54.2	52.5	
DELTA K MAX	A:	13.80	72.5			
	B:	13.54		65.1		
	C:	13.09			54.2	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.44	6.38	7.79	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T736
FORM: 4.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 18.30 HZ

YIELD STRENGTH: 59.9 KSI
ULT. STRENGTH: 70.8 KSI
SPECIMEN THK: 1.501- 1.502"
SPECIMEN WIDTH: 3.800"
REFERENCES:86842

ALUM. ALLOY

7175

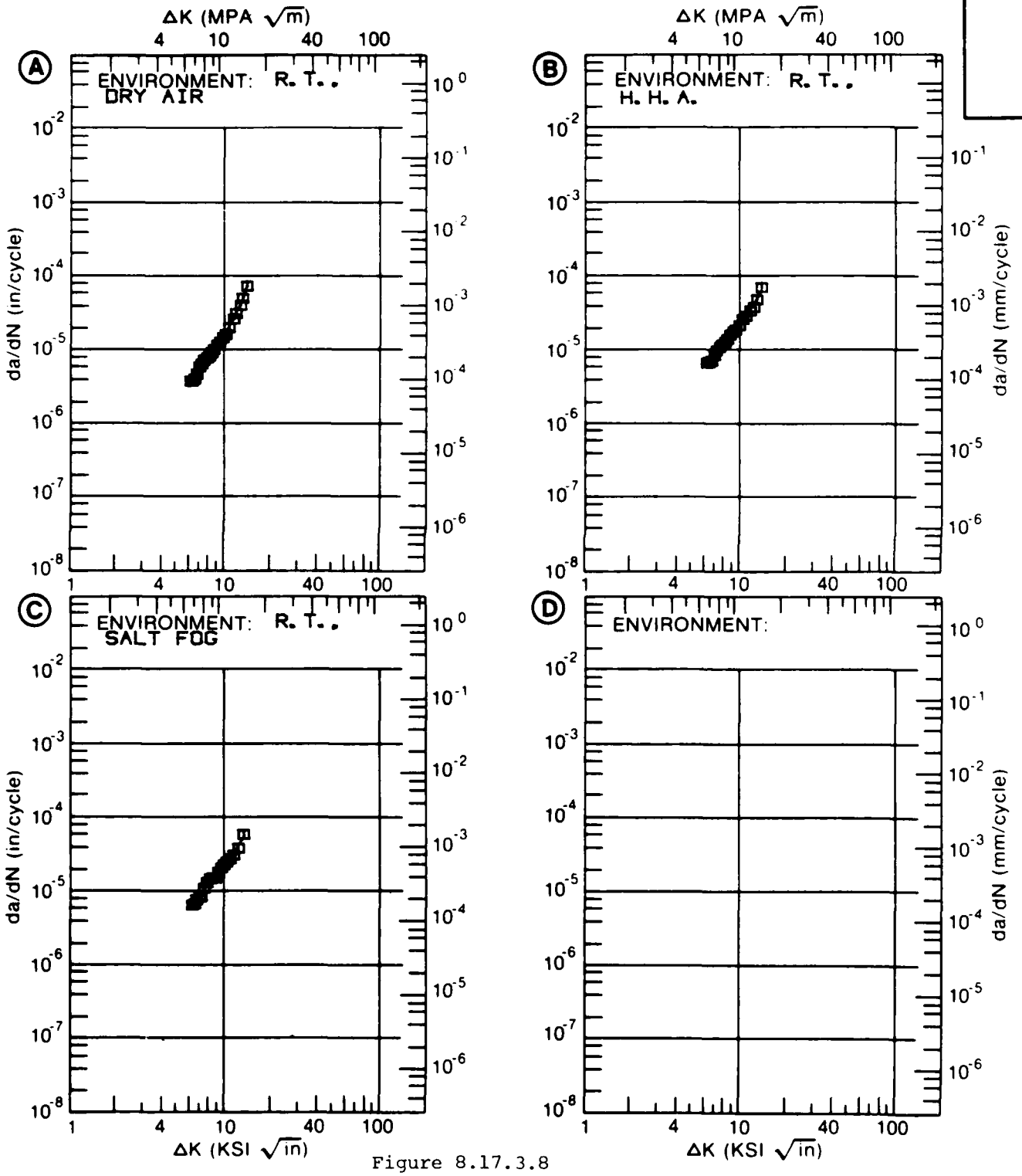

Figure 8.17.3.8

TABLE 8.17.3.9

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.9 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A: 6.32	3.17			
	B: 6.04		3.26		
	C: 6.16			8.32	
	D:				
	7.00	4.96	6.08	12.7	
	8.00	8.23	9.74	19.9	
	9.00	12.1	14.0	29.4	
	10.00	16.6	18.9	40.7	
	13.00	33.5	38.9	76.7	
	16.00	53.7	75.1		
DELTA K MAX	A: 16.26	55.4			
	B: 16.99		93.6		
	C: 14.93			92.1	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		6.92	5.07	3.23	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T736
FORM: 5.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 5.20 HZ

YIELD STRENGTH: 62.1 KSI
ULT. STRENGTH: 72.5 KSI
SPECIMEN THK: 0.744- 0.747"
SPECIMEN WIDTH: 3.000"
REFERENCES:86842

ALUM. ALLOY

7175

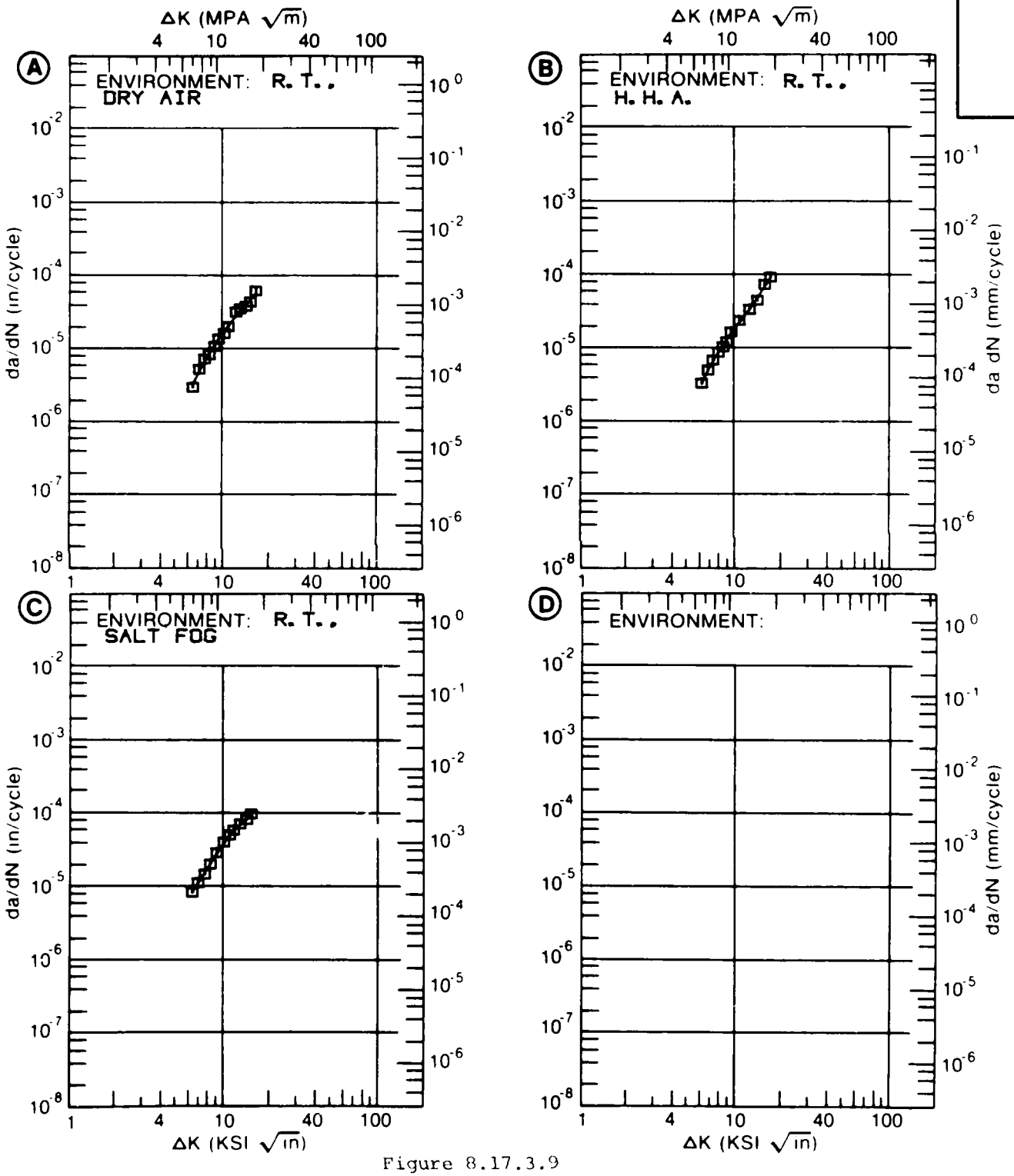

Figure 8.17.3.9

TABLE 8.17.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.10 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A: 5.85	2.42			
	B: 6.25		7.41		
	C: 5.96			5.82	
	D:				
	6.00	2.72		5.96	
	7.00	4.56	10.2	9.31	
	8.00	6.10	13.9	12.6	
	9.00	7.73	18.2	16.2	
	10.00	10.1	24.0	20.7	
	13.00	34.2	67.7	51.9	
	16.00	121.			
DELTA K MAX	A: 16.26	115.			
	B: 13.84		97.1		
	C: 13.62			65.5	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		8.87	6.93	6.30	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T736
FORM: 5.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 18.30 HZ

YIELD STRENGTH: 60.1 KSI
ULT. STRENGTH: 69.5 KSI
SPECIMEN THK: 1.501- 1.502"
SPECIMEN WIDTH: 3.800"
REFERENCES:86842

ALUM. ALLOY

7175

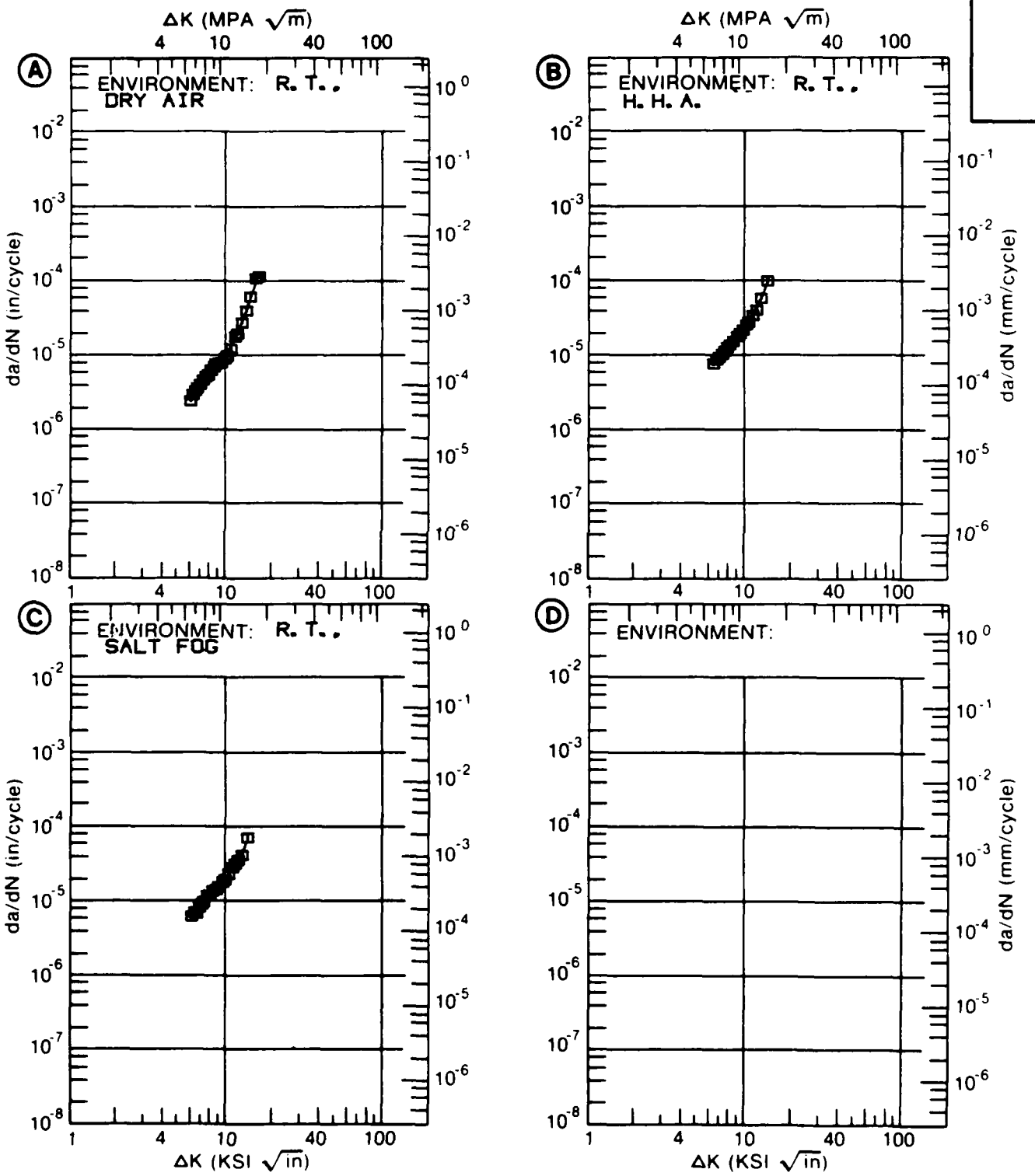

Figure 8.17.3.10

TABLE 8.17.3.11

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.11 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A:	6.02	2.56			
	B:	6.07		3.75		
	C:	5.94			5.81	
	D:					
		6.00			6.14	
		7.00	4.72	5.78	12.3	
		8.00	7.57	8.79	18.8	
		9.00	11.1	12.9	24.9	
		10.00	15.5	18.2	31.0	
		13.00	37.2	44.9	56.0	
		16.00	86.6		119.	
DELTA K MAX	A:	16.71	106.			
	B:	15.81		90.7		
	C:	16.59			143.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.28	11.59	16.69	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8			1	
		0.8-1.25	2	2	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T736
FORM: 5.00"TH FORGING
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 5.20 HZ

YIELD STRENGTH: 80.1 KSI
ULT. STRENGTH: 89.5 KSI
SPECIMEN THK: 0.743- 0.751"
SPECIMEN WIDTH: 3.000"
REFERENCES:86842

ALUM. ALLOY

7175

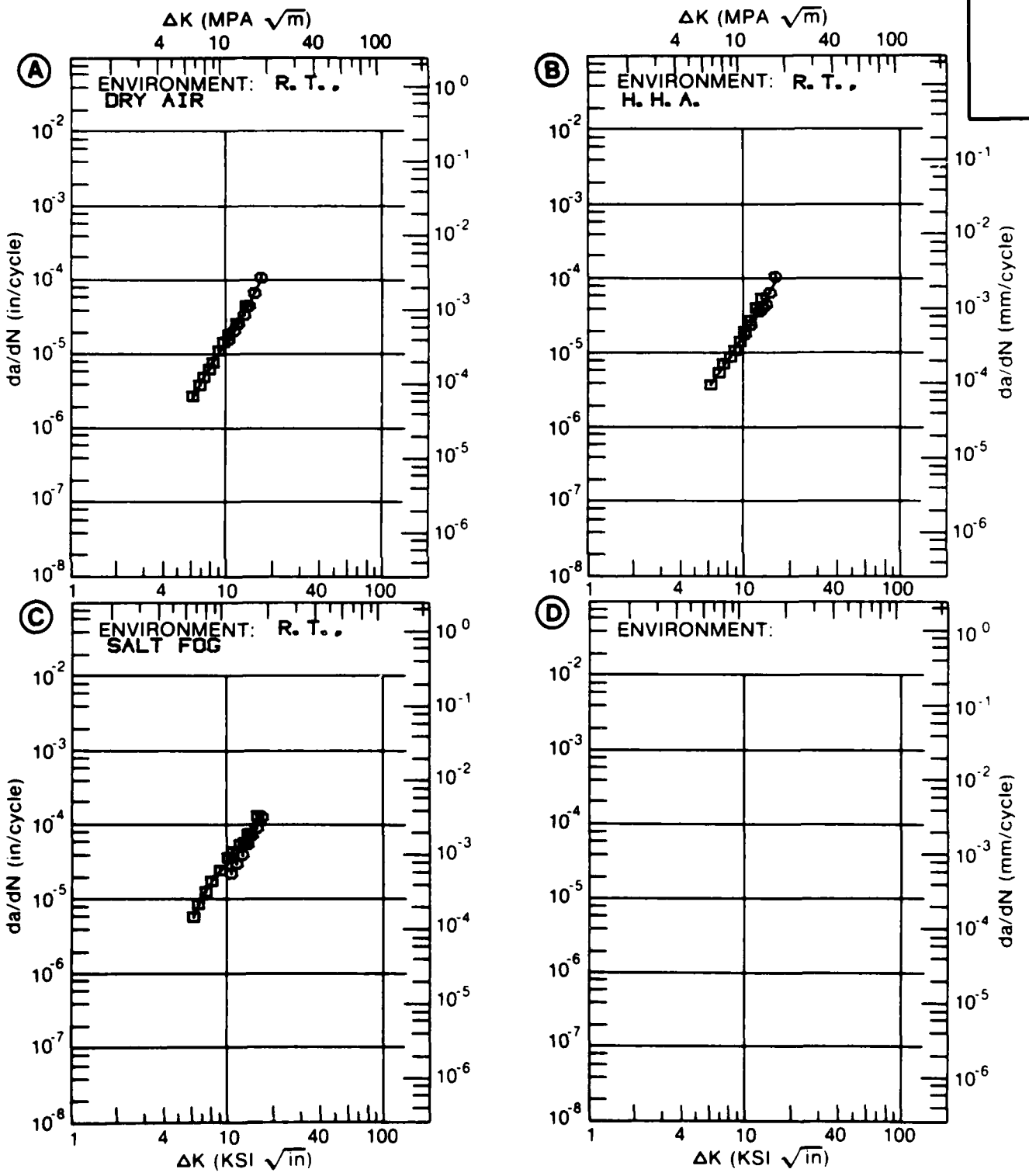

FIGURE 8.17.3.11

TABLE 8.17.3.12

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.12INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.		
DELTA K MIN	A:	6.41	1.68			
	B:	6.38		1.51		
	C:					
	D:					
		7.00	2.92	2.58		
		8.00	5.35	5.36		
		9.00	8.21	9.94		
		10.00	12.3	17.0		
		13.00	65.9			
DELTA K MAX	A:	13.35	85.6			
	B:	12.96		60.9		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			15.78	7.52		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T736
FORM: 5.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: S-T
STRESS RATIO: +0.33
FREQUENCY: 18.30 HZ

YIELD STRENGTH: 58.5 KSI
ULT. STRENGTH: 68.9 KSI
SPECIMEN THK: 1.500"
SPECIMEN WIDTH: 3.800"
REFERENCES:86842

ALUM. ALLOY

7175

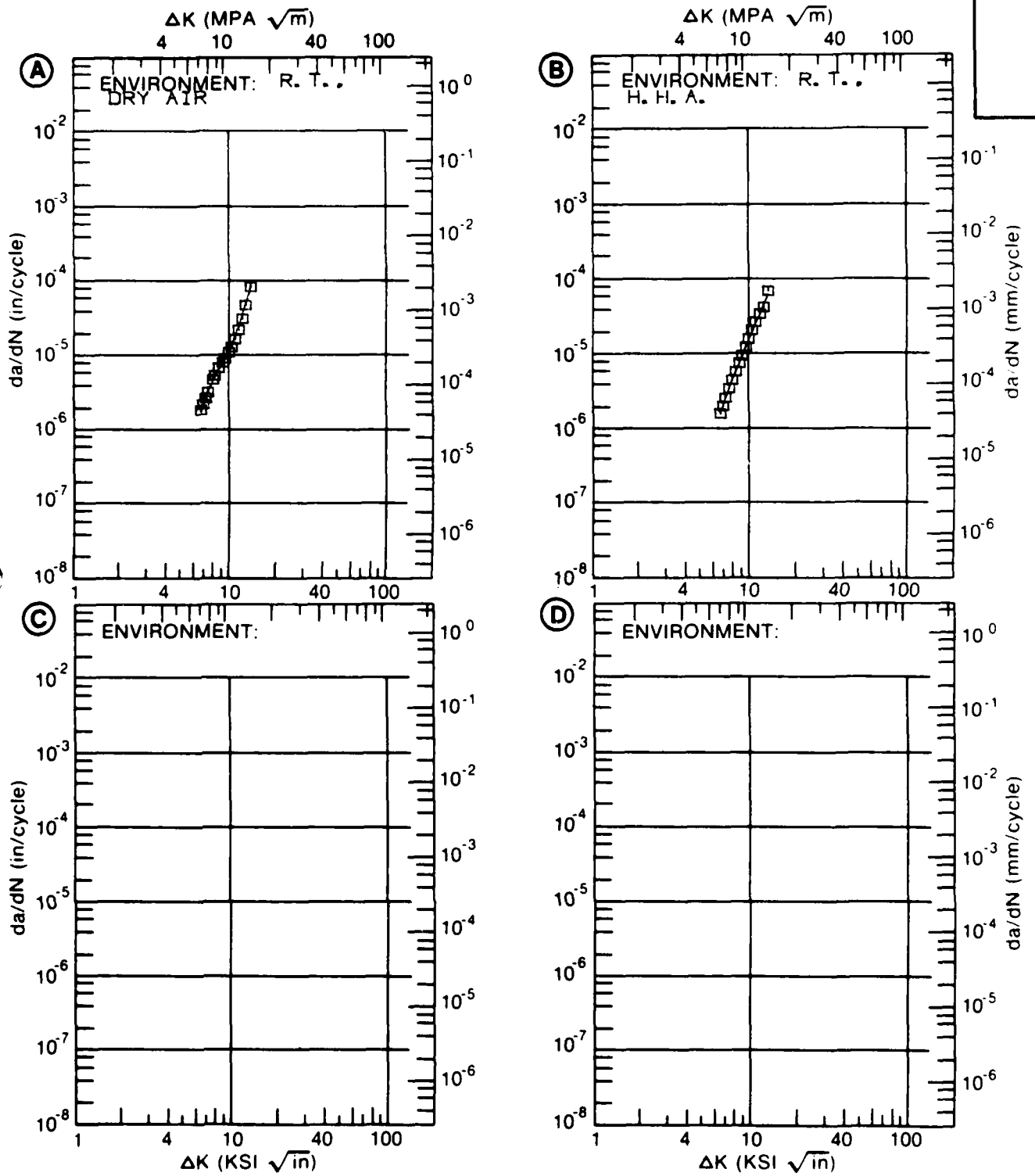

FIGURE 8.17.3.12

TABLE 8.17.3.13

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.13 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7175
CONDITION: T73652
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.08	R=+0.30	R=+0.50	
DELTA K MIN	A:	7.93	5.41			
	B:	2.91		.174		
	C:	5.36			9.41	
	D:					
		3.00		.174		
		3.50		.276		
		4.00		.704		
		5.00		3.12		
		6.00		8.85	12.6	
		7.00		16.3	17.8	
		8.00	5.94	21.9	23.1	
		9.00	14.8	25.4	28.3	
		10.00	22.4	27.9	33.3	
		13.00	45.4	40.1		
DELTA K MAX	A:	14.18	75.9			
	B:	13.55		44.6		
	C:	12.77			45.5	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			17.33	15.97	4.32	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R. T., S. T. W.

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.990- 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES88579

ALUM. ALLOY

7175

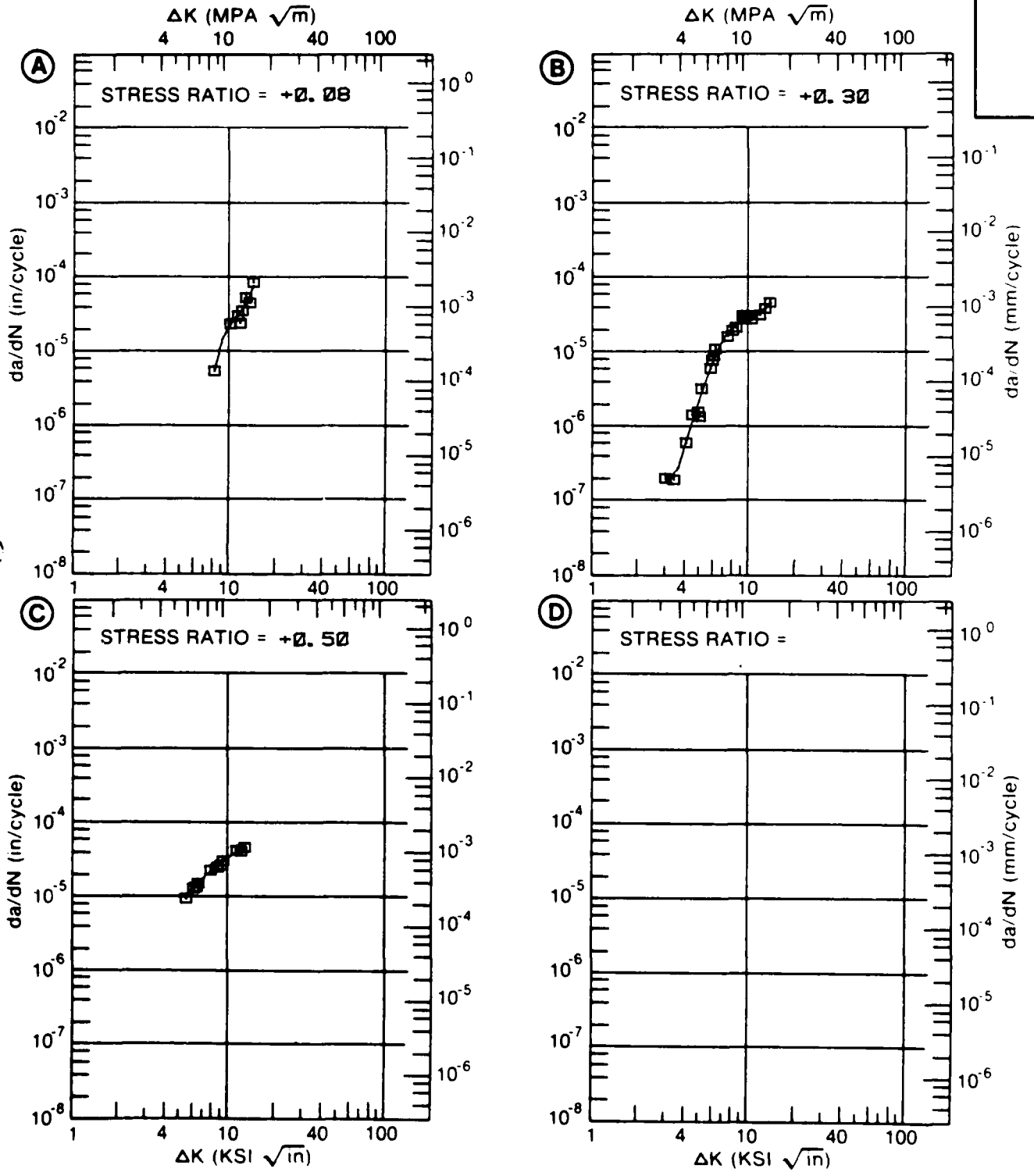

Figure 8.17.3.13

TABLE 8.17.3.14

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.14 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	1.69	.0427			
	B:					
	C:					
	D:					
		2.00	.0608			
		2.50	.104			
		3.00	.170			
		3.50	.265			
		4.00	.398			
		5.00	.806			
		6.00	1.46			
		7.00	2.45			
		8.00	3.82			
		9.00	5.66			
		10.00	8.03			
		13.00	18.8			
DELTA K MAX	A:	13.43	20.8			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 14.68

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00- 18.00 HZ

YIELD STRENGTH: 71.7 KSI
ULT. STRENGTH: 81.5 KSI
SPECIMEN THK: 0.107- 0.110"
SPECIMEN WIDTH: 3.947- 3.951"
REFERENCES: MA002

ALUM. ALLOY

7175

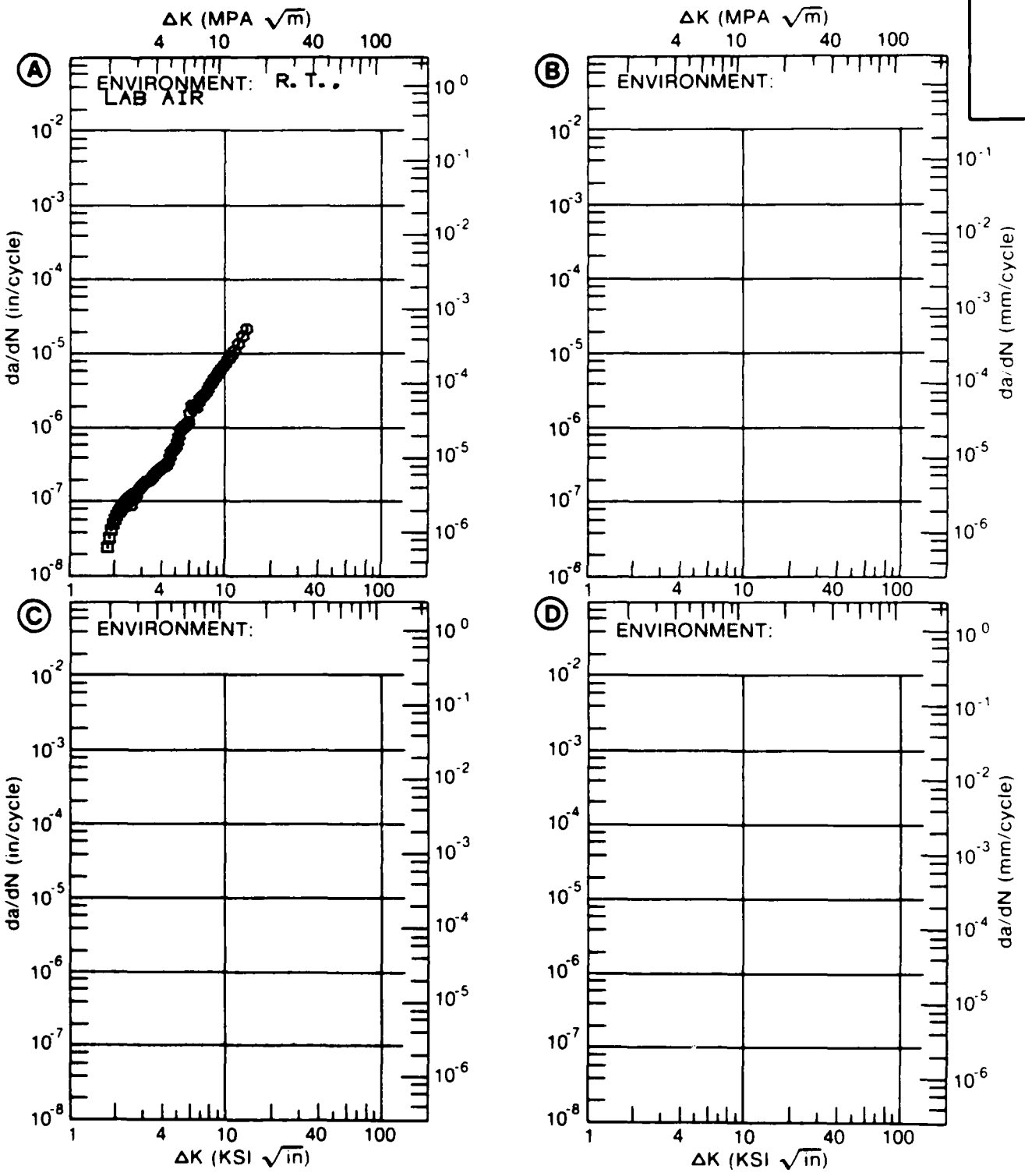

Figure 8.17.3.14

TABLE 8.17.3.15

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.15 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E=+ 265F L. H. A.			
DELTA K MIN	A:	4.56	.331			
	B:					
	C:					
	D:					
		5.00	.461			
		6.00	1.22			
		7.00	2.69			
		8.00	4.58			
		9.00	6.76			
		10.00	9.26			
		13.00	20.5			
		16.00	38.7			
DELTA K MAX	A:	16.44	41.7			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 11.30

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.990"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7175

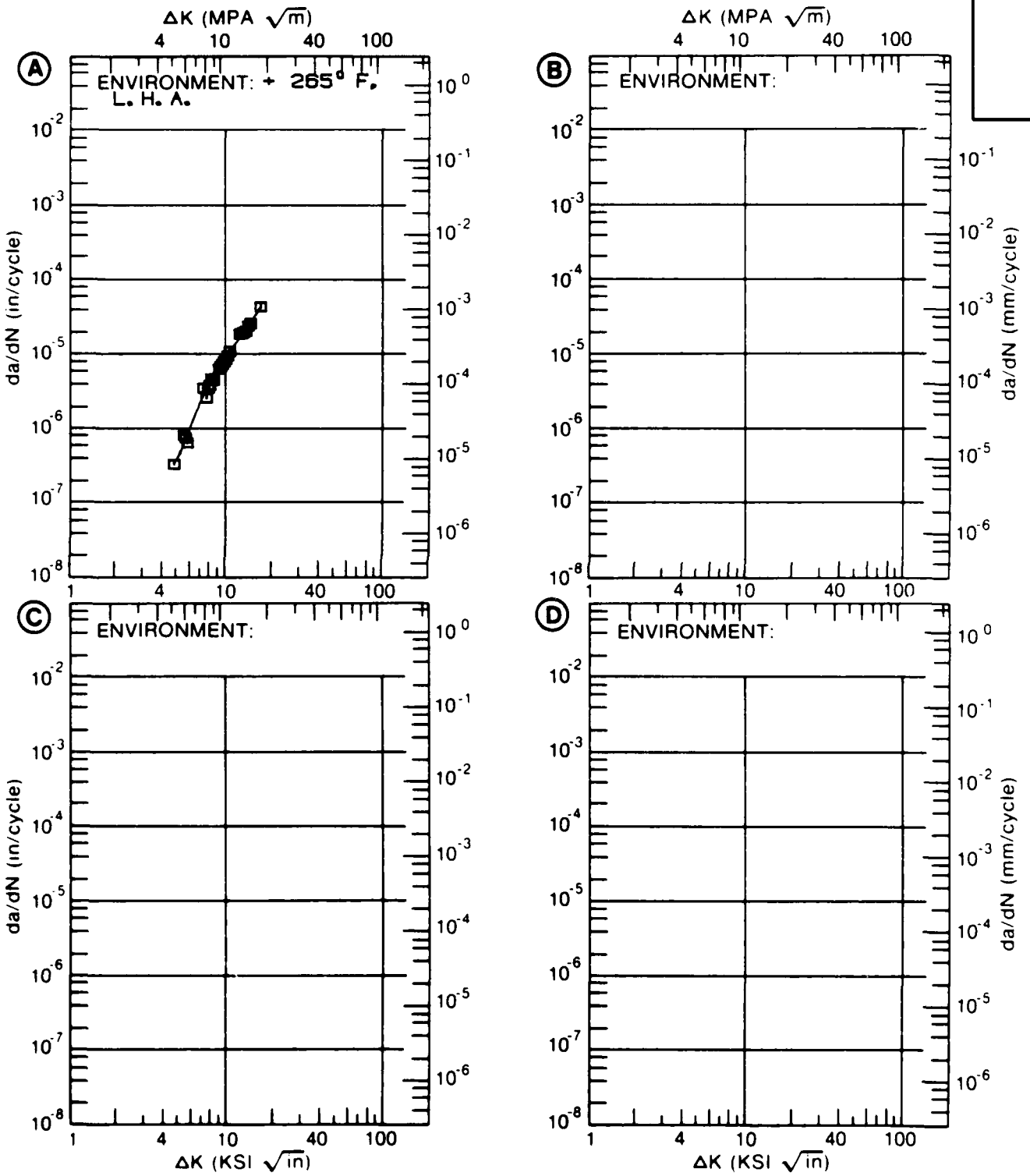

Figure 8.17.3.15

TABLE 8.17.3.16

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.16 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. F.C.S.		
DELTA K MIN	A:	4.93	.417			
	B:	2.82		.269		
	C:					
	D:					
		3.00		.329		
		3.50		.507		
		4.00		.714		
		5.00	.432	1.31		
		6.00	.804	2.22		
		7.00	1.64	3.54		
		8.00	3.27	5.36		
		9.00	5.92	7.74		
		10.00	9.52	10.7		
		13.00	20.3	21.7		
		16.00	29.0	34.6		
		20.00	53.8			
DELTA K MAX	A:	20.53	60.0			
	B:	18.66		48.8		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.54	5.19		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 0.990- 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7175

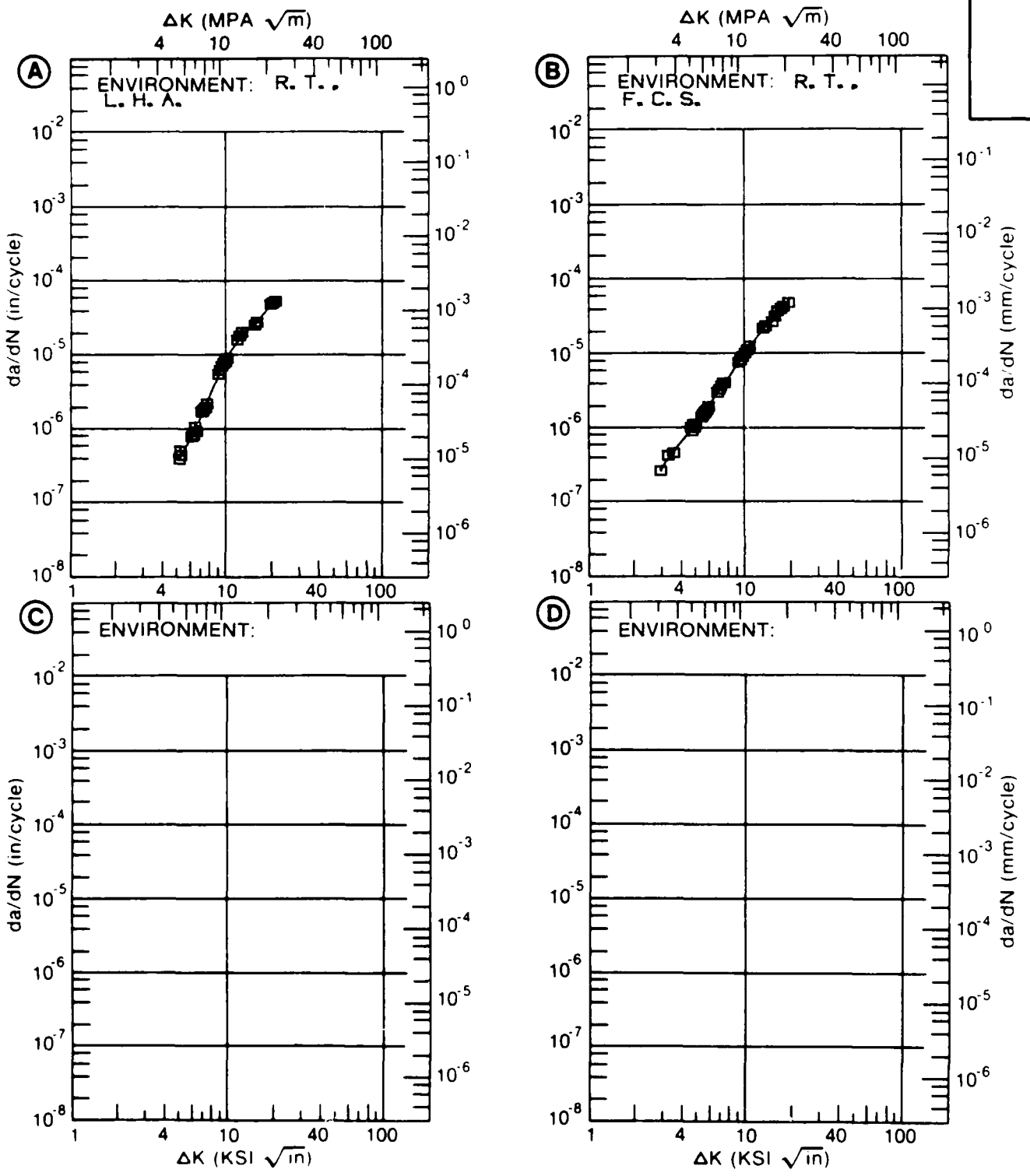

Figure 8.17.3.16

TABLE 8.17.3.17

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.17INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. L.H.A.	E= R.T. S.T.W.		
DELTA K MIN	A:	7.94	4.66			
	B:					
	C:					
	D:					
		8.00	4.72			
		9.00	6.64			
		10.00	10.1			
		13.00	23.5			
		16.00	37.3			
DELTA K MAX	A:	17.28	43.9			
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			2.32	0.00		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0				
		>2.0				

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 0.10 HZ

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7175

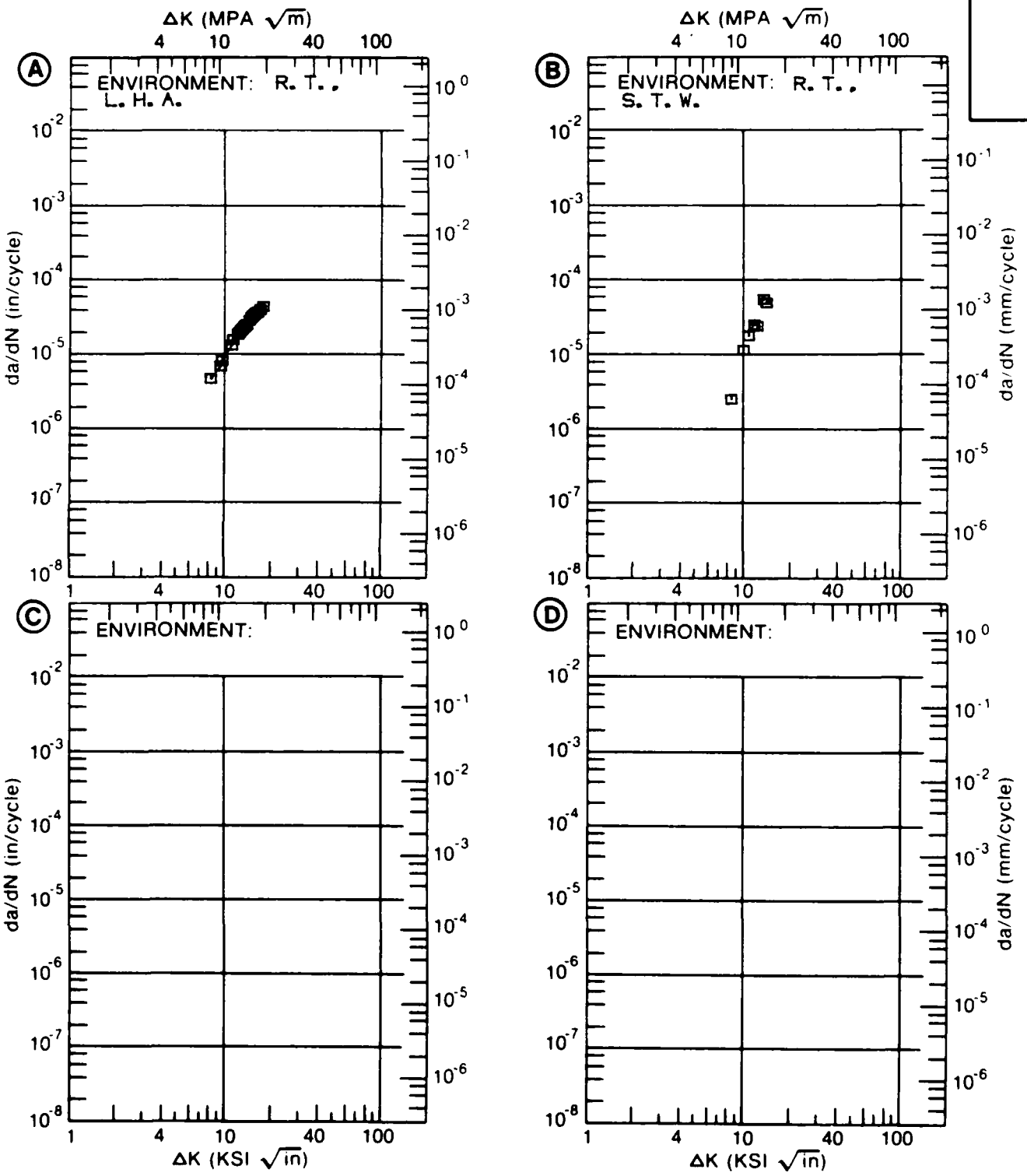

Figure 8.17.3.17

TABLE 8.17.3.18

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.18INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. L.H.A.			
DELTA K MIN	A: 4.45	.499			
	B:				
	C:				
	D:				
	5.00	.521			
	6.00	1.01			
	7.00	2.24			
	8.00	4.31			
	9.00	7.06			
	10.00	10.2			
	13.00	19.7			
	16.00	27.6			
DELTA K MAX	A: 18.40	32.5			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 4.94

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T73852
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.30
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 68.0 KSI
ULT. STRENGTH: 77.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 7.400"
REFERENCES: 88579

ALUM. ALLOY

7175

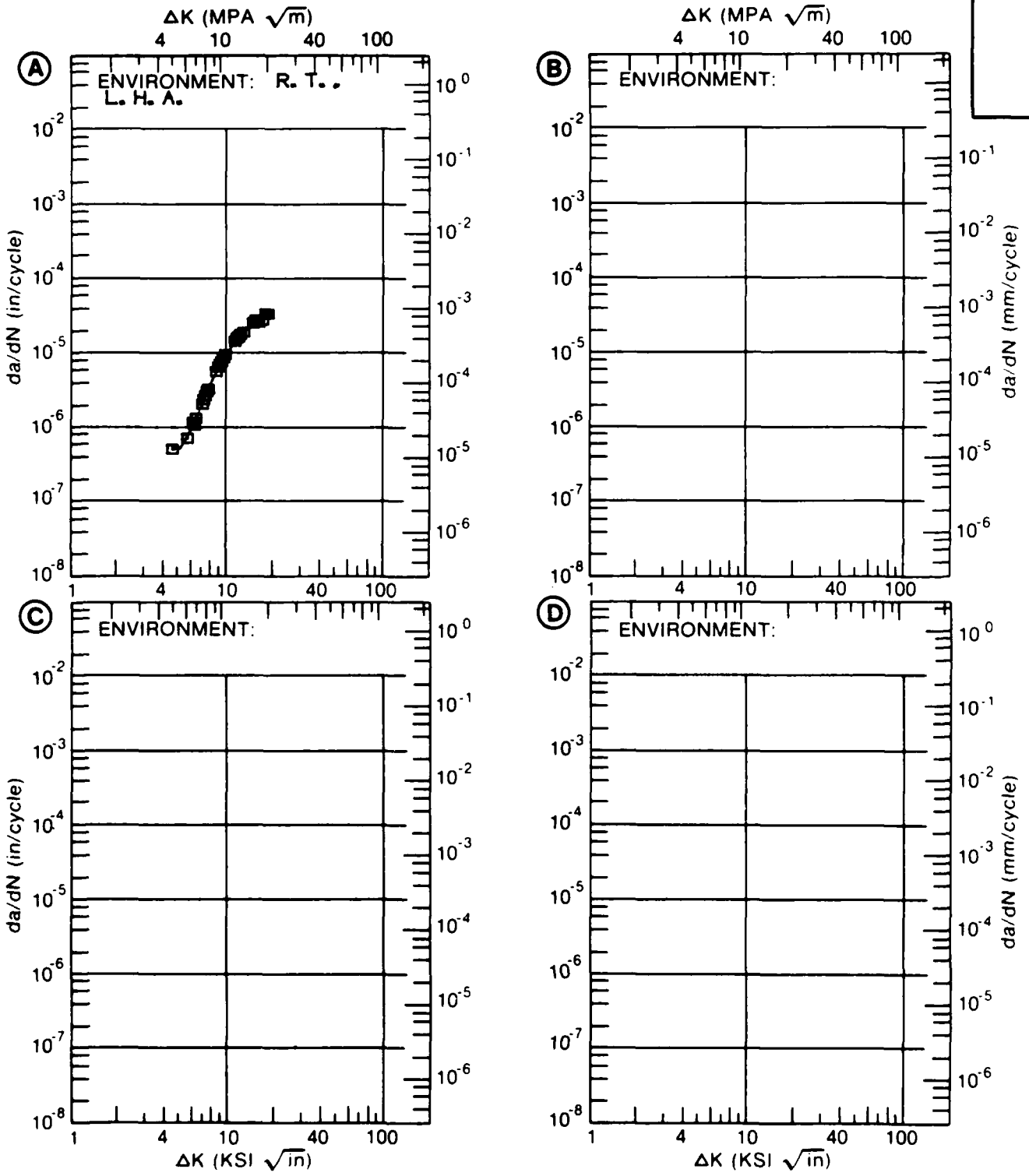

Figure 8.17.3.18

TABLE 8.17.3.19

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.19 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. L.H.A. SP. THK. =.5"	E= R.T. L.H.A. SP. THK. =.1"		
DELTA K MIN	A:	7.73	1.12			
	B:	6.81		.450		
	C:					
	D:					
		7.00		.502		
		8.00	1.41	.877		
		9.00	2.66	1.35		
		10.00	4.09	1.95		
		13.00	10.1	15.8		
		16.00	21.4			
DELTA K MAX	A:	18.99	28.3			
	B:	15.77		39.6		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.25	15.36		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T73652
FORM: FORGING
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.08
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 64.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK:
SPECIMEN WIDTH: 7.400"
REFERENCES:88579

ALUM. ALLOY

7175

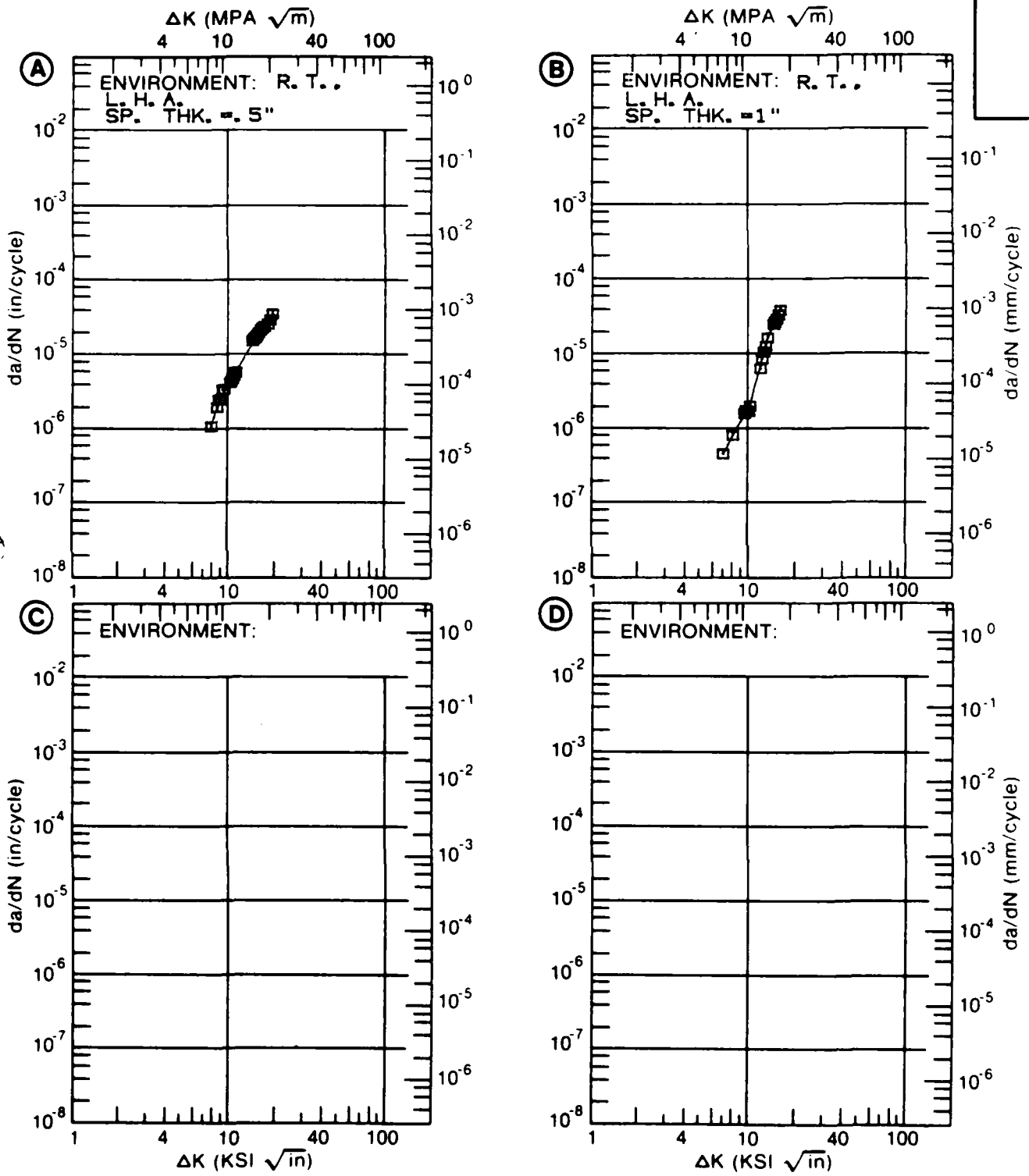

Figure 8.17.3.19

TABLE 8.17.3.20

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.20 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. JP-4 FUEL	E= R.T. SIM SEA WATER	
DELTA K MIN	A:	5.21	.832			
	B:	4.00		.224		
	C:	5.31			1.31	
	D:					
		5.00		.388		
		6.00	.951	.931	1.46	
		7.00	2.48	1.83	2.61	
		8.00	4.17	3.05	4.95	
		9.00	6.01	4.58	8.16	
		10.00	7.92	6.40	11.8	
		13.00	13.7	13.8	23.6	
		16.00	20.3	24.9	37.6	
		20.00	33.3	49.9	66.5	
		25.00	66.1	113.	148.	
		30.00	144.	289.		
DELTA K MAX	A:	34.62	318.			
	B:	31.92		503.		
	C:	28.56			285.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			18.40	12.04	8.50	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73652
FORM: 1.25"TH FORGING
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 1.00- 20.00 HZ

YIELD STRENGTH: 66.3- 70.3 KSI
ULT. STRENGTH: 76.8- 79.3 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA005

ALUM. ALLOY

7175

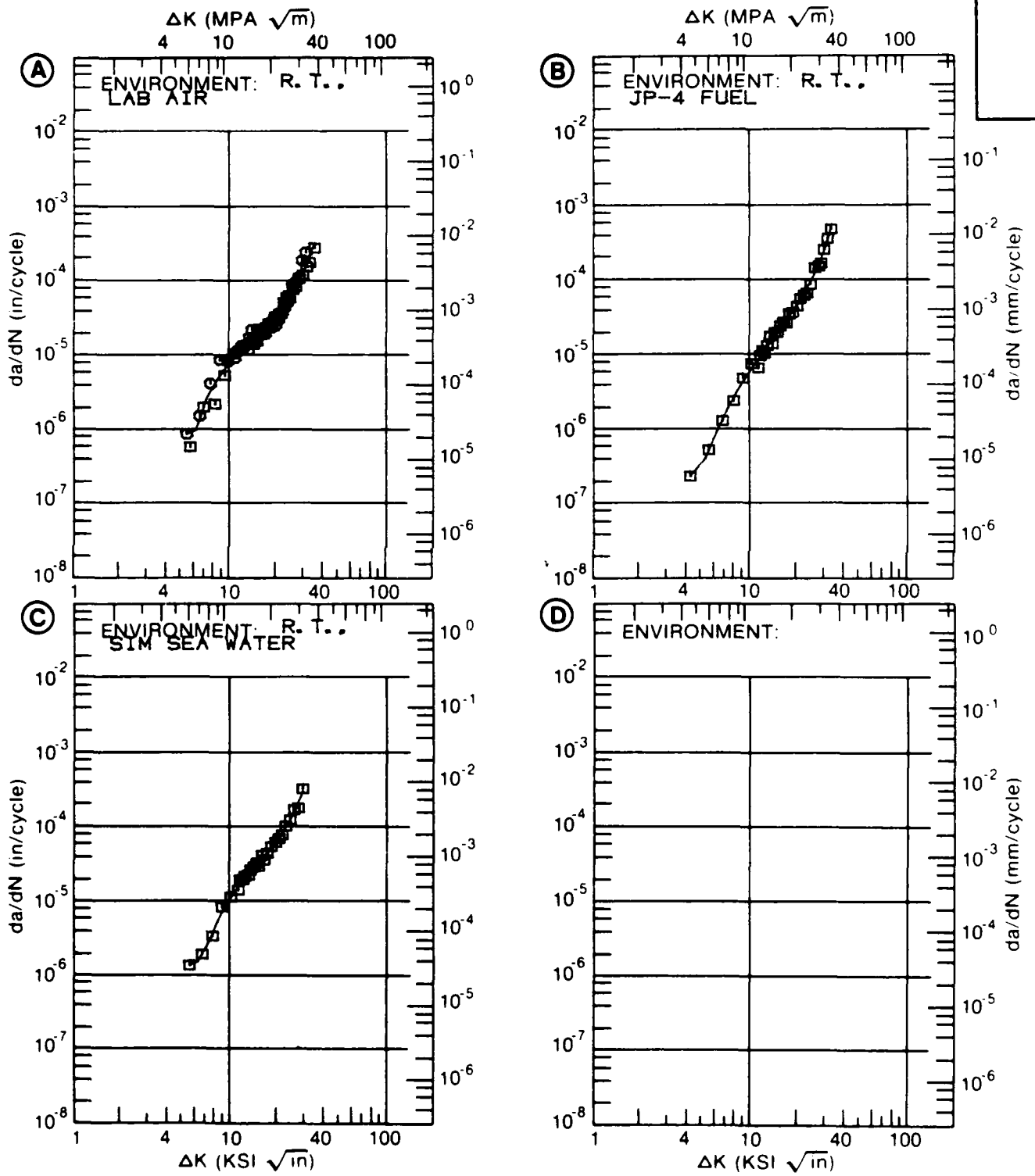

Figure 8.17.3.20

TABLE 8.17.3.21

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.21 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. LAB AIR	E= R.T. JP-4 FUEL	E= R.T. SIM SEA WATER	
DELTA K MIN	A: 5.14	.732			
	B: 4.29		.571		
	C: 3.99			.517	
	D:				
	4.00			.523	
	5.00		.647	1.12	
	6.00	.861	.952	1.61	
	7.00	2.62	1.50	2.52	
	8.00	5.18	2.33	4.21	
	9.00	8.00	3.49	6.66	
	10.00	10.7	5.07	9.59	
	13.00	17.2	13.7	20.5	
	16.00	24.5	32.4	36.0	
	20.00	45.4	87.8	72.0	
	25.00	135.	342.	178.	
	30.00	396.		480.	
DELTA K MAX	A: 30.29	417.			
	B: 25.04		352.		
	C: 32.21			764.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		23.67	17.09	21.64	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T73652
FORM: 1.25"TH FORGING
SPECIMEN TYPE: WOL
ORIENTATION: T-L
STRESS RATIO: +0.02
FREQUENCY: 0.10- 20.00 HZ

YIELD STRENGTH: 59.0- 66.3 KSI
ULT. STRENGTH: 70.0- 76.8 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA005

ALUM. ALLOY

7175

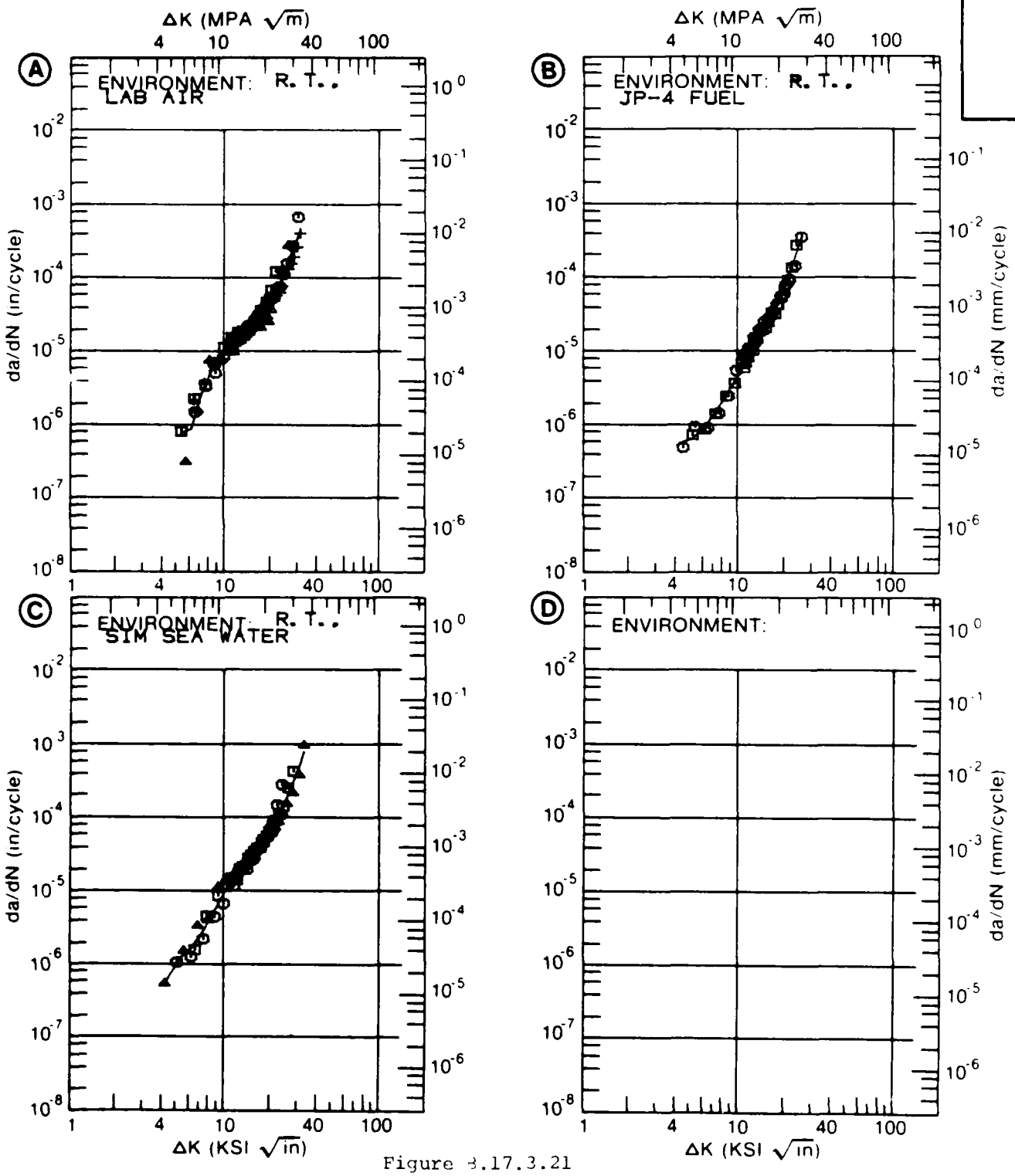

Figure 8.17.3.21

TABLE 8.17.3.22

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.22INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T73652

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R. T. L. H. A.			
DELTA K MIN	A: 5.05	.359			
	B:				
	C:				
	D:				
	6.00	.814			
	7.00	1.61			
	8.00	2.81			
	9.00	4.43			
	10.00	6.50			
	13.00	15.0			
	16.00	25.6			
	20.00	40.0			
	25.00	53.7			
	30.00	60.9			
DELTA K MAX	A: 32.75	62.2			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 26.00

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	3
	1.25-2.0	
	>2.0	

CONDITION/HT: T73652
FORM: 6.00"TH FORGING
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.08
FREQUENCY: 6.00 HZ

YIELD STRENGTH: 68.0- 70.0 KSI
ULT. STRENGTH: 77.0- 80.0 KSI
SPECIMEN THK: 0.250- 0.998"
SPECIMEN WIDTH: 7.400"
REFERENCES: 88579, 85837

ALUM. ALLOY

7175

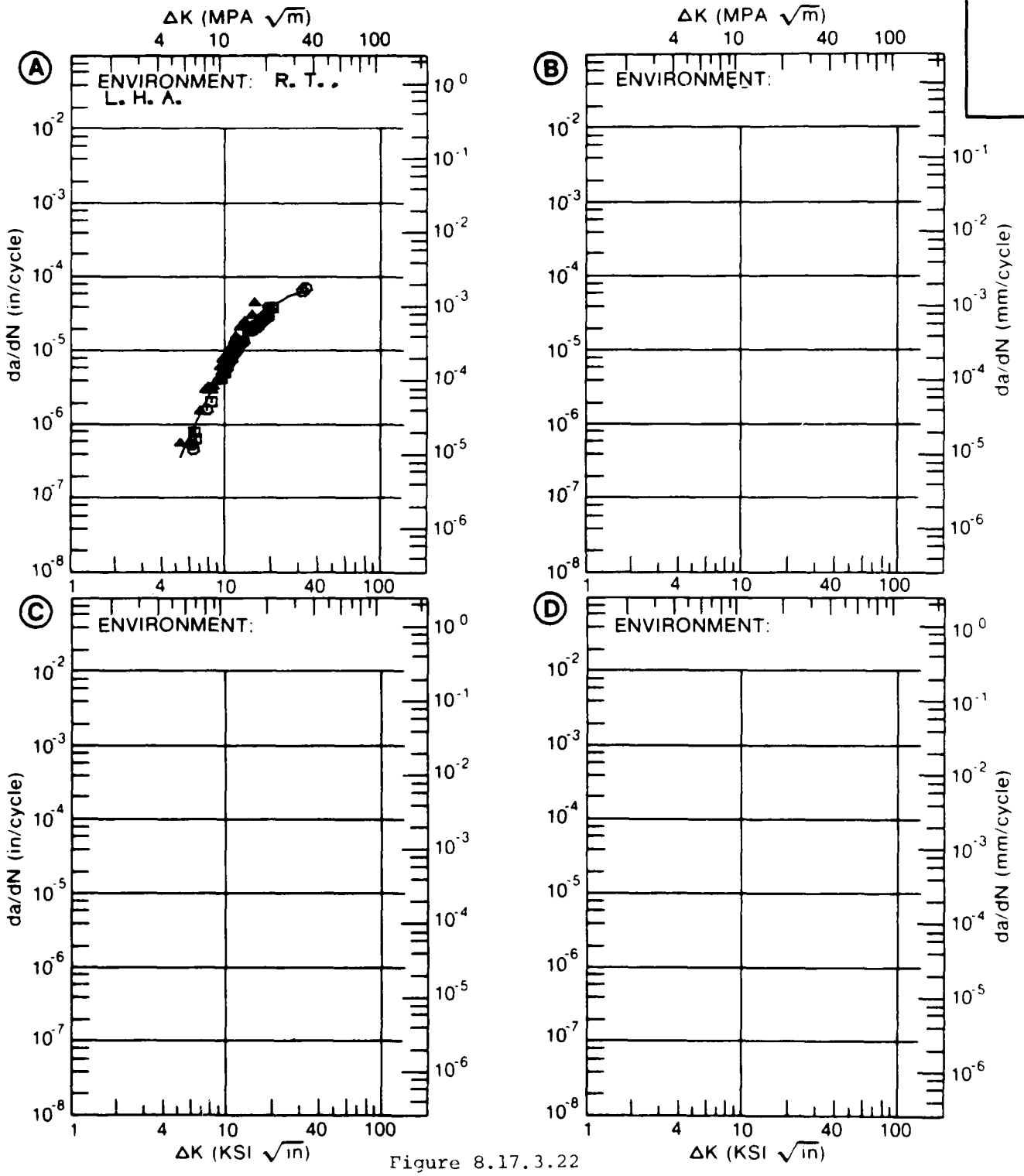

Figure 8.17.3.22

TABLE 8.17.3.23

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.23INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T66 2H=0.076"

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR)			
			A	B	C	D
			E: WET 3X/DAY WITH 3.5% NACL	F:		
K MAX MIN	A:	2.00	574.			
	B:					
	C:					
	D:					
		2.50	610.			
		3.00	711.			
		3.50	857.			
		4.00	1043.			
		5.00	1524.			
		6.00	2140.			
		7.00	2872.			
		8.00	3693.			
		9.00	4573.			
		10.00	5478.			
		13.00	8047.			
		16.00	9947.			
		20.00	11054.			
K MAX MAX	A:	21.50	11075.			
	B:					
	C:					
	D					

ROOT MEAN SQUARE PERCENT ERROR: 16.48

CONDITION/HT: T66 2H = 0.376"
FORM: FORGING
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 78313

ALUM. ALLOY

7175

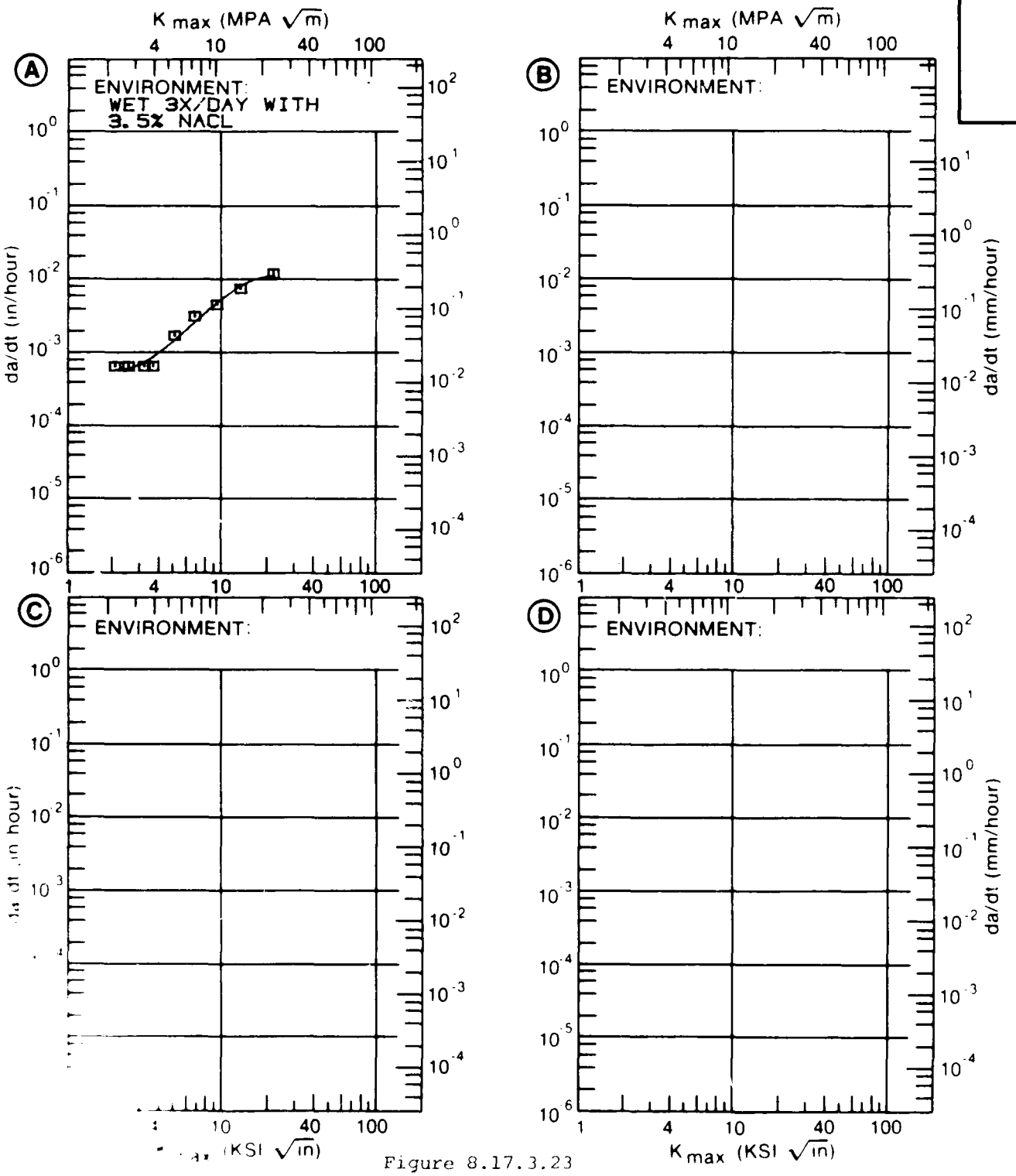

Figure 8.17.3.23

TABLE 8.17.3.24

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.24 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T66 2H=0.928"

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		EF P WET 3X/DAY WITH 3.5% NACL			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T66 2H = 0.928"
FORM: FORGING
SPECIMEN TYPE: DCB
ORIENTATION: S-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 5.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 78313

ALUM. ALLOY

7175

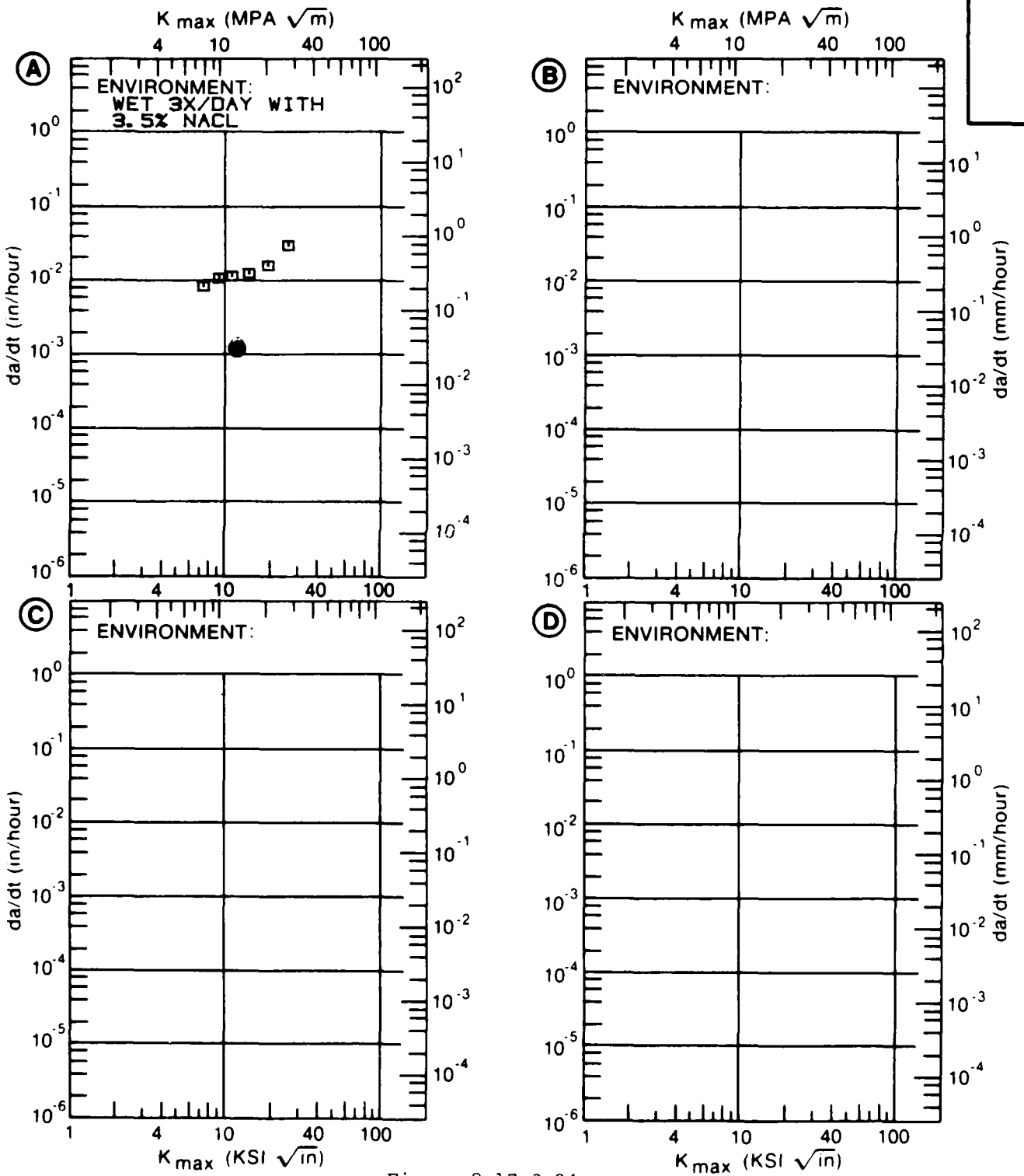

Figure 8.17.3.24

TABLE 8.17.3.25

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.25 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736 2H=0 928"

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E=			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T73 2H = 0.50"
FORM: FORGING
SPECIMEN TYPE: DCB
ORIENTATION:
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 84284

ALUM. ALLOY

7175

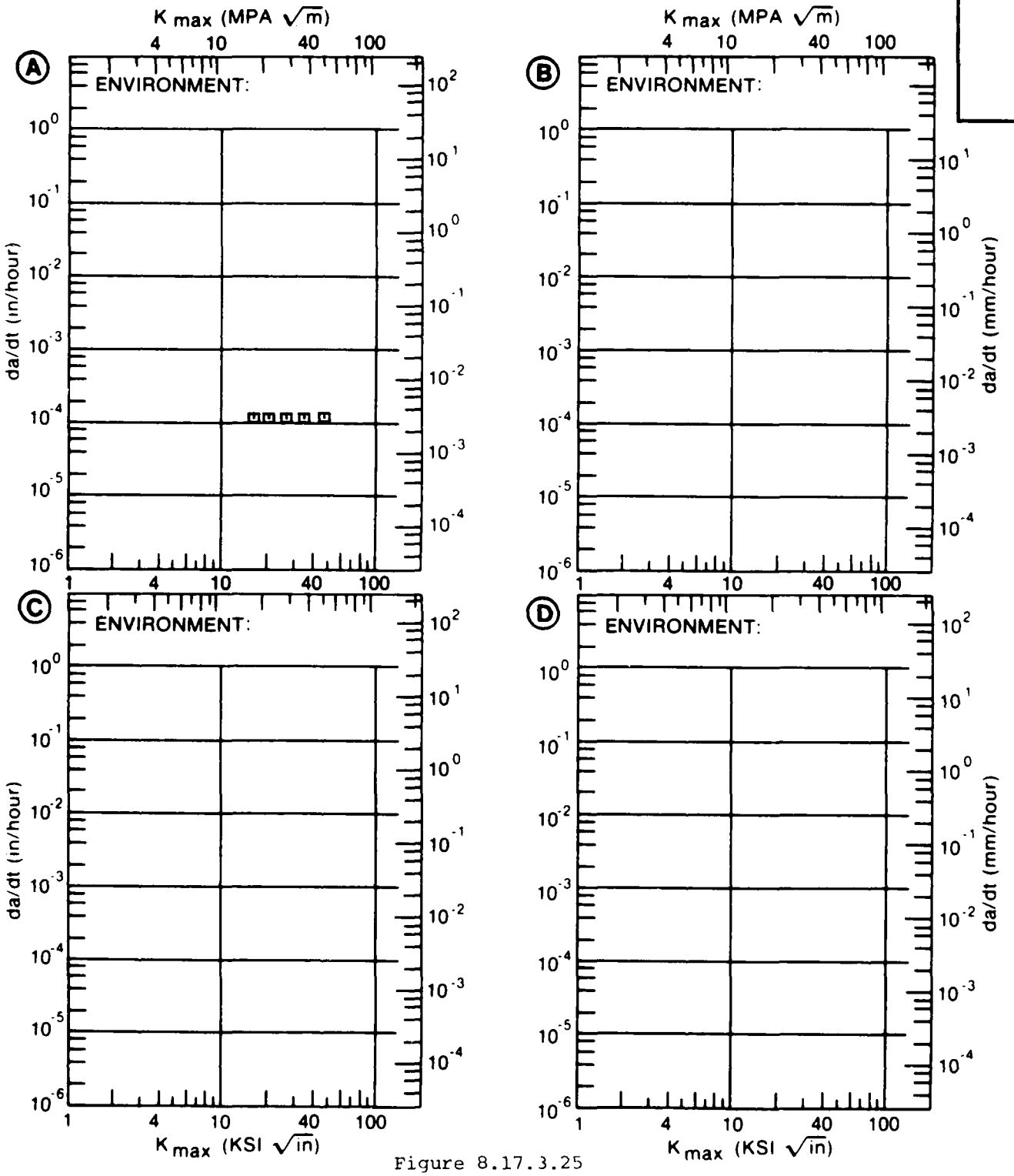

Figure 8.17.3.25

TABLE 8.17.3.26

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.17.3.26 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7175
CONDITION: T736 2H=0.50"

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E=			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T736 2H = 0.928"
FORM: FORGING
SPECIMEN TYPE: DCB
ORIENTATION:
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES:84284

ALUM. ALLOY

7175

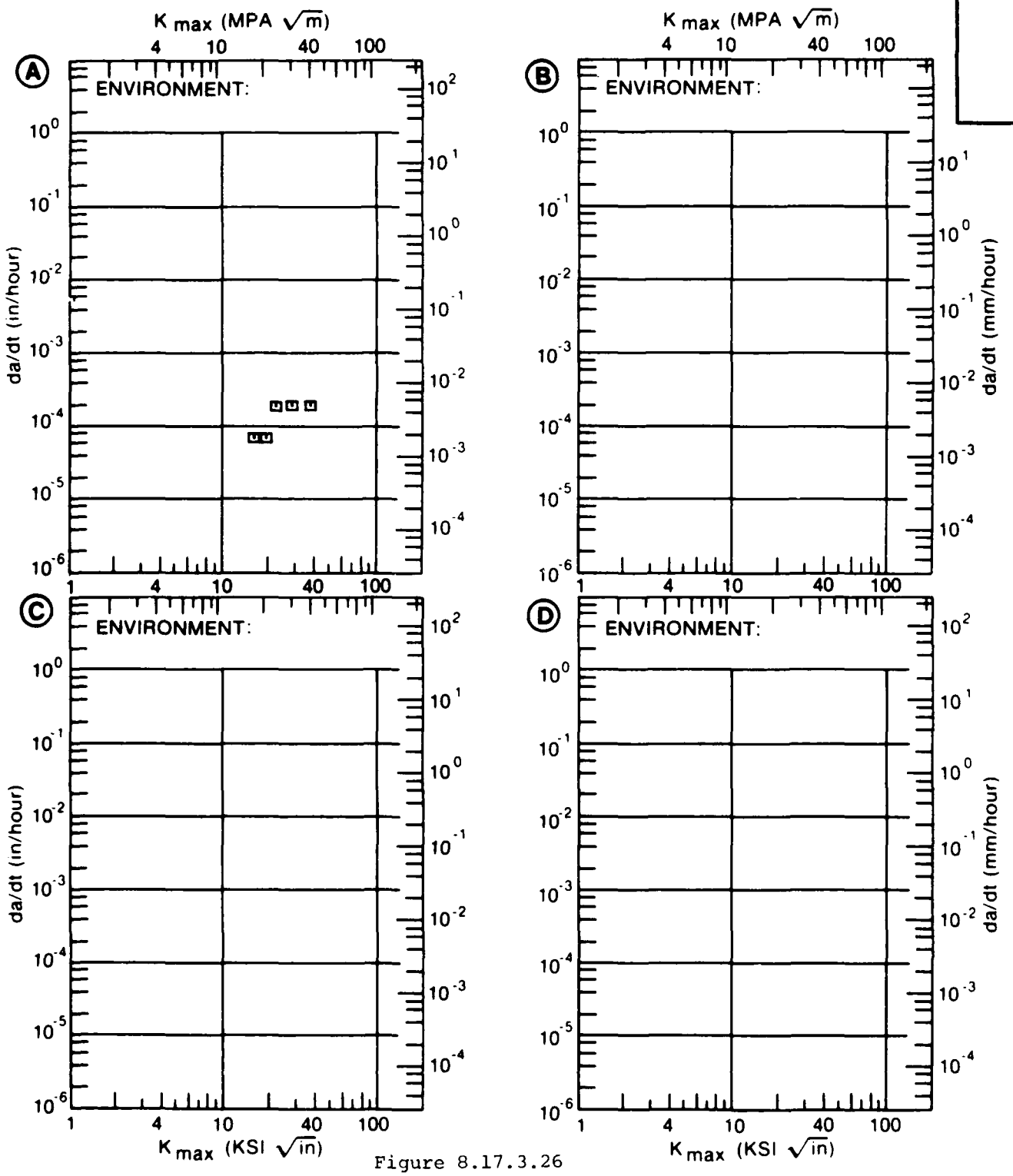

Figure 8.17.3.26

TABLE 8.17.3.27

ALUMINUM 7175 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	SPECIMEN WIDTH (IN) W	SPECIMEN THICK (IN) B	SPECIMEN DESIGN (*=SQ)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC) (KSI*SQRT IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T66	F	----	R.T.	S-L	76.0	3.5 PCT NACL	5.000	1.000	DCB	0.700	29.00	< 5.00			----	1969	78313
		----			76.0		5.000	1.000	DCB	0.700	29.00	< 7.00			----	1969	78313
		----			76.0		5.000	1.000	DCB	0.700	29.00	< 6.00			----	1969	78313
T73511	E	1.30	R.T.	S-L	----	3.5% NACL	4.750	1.000	DCB	0.960	------	24.10			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	1.010	------	22.60			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	0.960	------	31.20			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	0.930	------	24.40			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	0.940	------	24.60			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	0.970	------	22.40			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	1.130	------	20.50			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	1.100	------	25.60			89280	1977	LG001
		1.30			----		4.750	1.000	DCB	0.900	------	24.10			89280	1977	LG001
													24.4/	3.0			
T736	F	3.10	R.T.	L-T	65.9	3.5 PCT NACL	5.000	1.250	TDCB	----	------	30.60			----	1971	84360
T736	F	----	R.T.	S-L	65.7	3.5 PCT NACL	1.000	0.500	CT	----	24.80	18.70			> 61740	1972	83242
T73652	F	6.00	R.T.	L-T	68.0	F.C.S.	5.500	1.000	DCB	----	44.00	> 27.60			76140	1976	R1006
		6.00			68.0		5.500	1.000	DCB	----	44.00	> 27.80			76140	1976	R1006
T73652	F	6.00	R.T.	L-T	68.0	S.C.S.	5.500	1.000	DCB	----	44.00	27.70			76200	1976	R1006
		6.00			68.0		5.500	1.000	DCB	----	44.00	27.50			76200	1976	R1006
													27.6/	0.1			
T73652	F	6.00	R.T.	L-T	68.0	S.T.W.	5.500	1.000	DCB	----	44.00	> 21.50			133680	1976	R1006
		6.00			68.0		5.500	1.000	DCB	----	44.00	> 21.50			133680	1976	R1006
		6.00			68.0		5.500	1.000	DCB	----	44.00	> 22.50			123600	1976	R1006
		6.00			68.0		5.500	1.000	DCB	----	44.00	> 22.50			133680	1976	R1006
T73652	F	1.25	R.T.	T-L	63.5	JP-4 FUEL	3.085	1.252	BWOL	1.371	------	> 17.00			>148320	1977	MA005
		1.25			63.5		3.087	1.252	BWOL	1.399	------	> 16.80			>148320	1977	MA005
T73652	F	6.00	R.T.	T-L	64.0	S.T.W.	5.500	1.000	DCB	----	40.00	> 18.50			133680	1976	R1006

TABLE 8.17.3.27 (con't)

ALUMINUM 7175 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC) (KSI*SQRT IN)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T73652	F	6.00	R.T.	T-L	64.0	S.T.W.	5.500	1.000	DCB	----	40.00	> 18.50			133680	1976	RI006
		6.00			64.0		5.500	1.000	DCB	----	40.00	22.00			133680	1976	RI006
		6.00			64.0		5.500	1.000	DCB	----	40.00	> 18.00			133680	1976	RI006
T73652	F	1.25	R.T.	T-L	63.5	SIM. SEA WATER	3.086	1.247	BWOL	1.702	------	> 17.70			>132480	1977	MA005
		1.25			63.5		3.087	1.248	BWOL	1.412	------	> 17.60			>132480	1977	MA005
T73652	F	1.25	R.T.	S-T	57.5	JP-4 FUEL	3.086	1.248	BWOL	1.411	------	> 18.20			>148320	1977	MA005
		1.25			57.5		3.084	1.252	BWOL	1.354	------	> 17.90			>148320	1977	MA005
T73652	F	1.25	R.T.	S-T	57.5	SIM. SEA WATER	3.084	1.248	BWOL	1.377	------	> 17.00			>132480	1977	MA005
		1.25			57.5		3.086	1.248	BWOL	1.372	------	> 17.60			>132480	1977	MA005

TABLE 8.18.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7178 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD DEVIATION (KSI SQRT(IN))		(NUMBER OF SPECIMENS)
PLATE			
CONDITION/HT	L-T	T-L	S-L
T651	25.3 ± 1.9 (5)	21.5 ± 1.8 (10)	15.0 ± 0.3 (3)
T7651	27.8 ± 1.8 (16)	23.1 ± 2.4 (18)	17.3 ± 0.4 (5)
EXTRUSION			
CONDITION/HT	L-T	T-L	S-L
T6510	---	18.5 ± 1.3 (6)	14.5 ± 0.1 (2)
T76510	30.5 ± 0.9 (6)	26.8 ± 1.1 (5)	16.2 ± 0.4 (2)
T76511	25.7 ± 0.3 (2)	-----	-----
FORGED BAR			
CONDITION/HT	L-T	T-L	S-L
T76510	---	19.2 ± 1.2 (5)	-----

TABLE 8.18.1.2

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7178

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6	SHEET	0.02	1.00- 5.00				12.6	109		
T6	SHEET	0.02	10.00-14.00				11.9	89.9		
T6	SHEET	0.50	1.00- 5.00			6.47	45.9			
T6	SHEET	0.50	10.00-14.00				47.3			
T651	SHEET	0.02	0.10-12.00			0.92	15.4	100		
T651	PLATE	0.00	0.10-20.00			0.79	13.1	56.8		
T651	PLATE	0.02	0.10-20.00			0.98	15.4	107		
T76	SHEET	0.02	----			0.60	7.76	58.1	2652	
T7651	PLATE	0.33	5.20				13.2			
T7651	PLATE	0.33	5.20				12.8			
T76510	EXTRUSION	0.33	5.20				12.6			
T76510	EXTRUDED BAR	0.33	5.20				13.6			

TABLE 8.18.1.3

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7178

TEST CONDITIONS

SPECIMEN ORIENTATION: L T

ENVIRONMENT: H H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2 5	5	10	20	50	100
T6	SHEET	0 00	9 00			0 71	22 8			
T6	SHEET	0 05	9 00			0 63	10 1			
T6	SHEET	0 05	9 00				24 5	142		
T6	SHEET	0 50	9 00		0 20	3 45				
T6	SHEET	0 50	9 00			6 42	52 6			
T6	SHEET	0 60	9 00			10 1	79 8			

TABLE 8.18.1.4

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7178

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT S T W AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2 5	5	10	20	50	100
T651	PLATE	0 00	20 00			0 82	22 3	134		
T651	PLATE	0 01	6 00				29 2	157		

TABLE 8.18.1.5

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7178

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT LAB AIR AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7651	PLATE	0.00	20.00			478	11.5	85.2		
T7651	PLATE	0.33	5.20				13.2			
T7651	PLATE	0.33	5.20				16.2			

TABLE 8.18.2.1

ALUMINUM 7178 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.00	R.T.	L-T	81.0	2.000	1.048	NB	1.060	0.27	26.50			1973	86213
		1.00			81.0	2.000	1.048	NB	1.050	0.24	25.10			1973	86213
		1.00			81.0	2.000	1.048	NB	1.040	0.26	26.00			1973	86213
		1.00			81.0	2.000	1.048	NB	1.030	0.27	26.70			1973	86213
		0.50			82.4	1.000	0.500	NB	0.499	0.18	22.10	25.3/	1.9	1969	77140
T651	P	1.37	R.T.	T-L	77.8	2.000	0.999	CT	1.065	0.18	20.80			1969	77140
		1.37			77.8	2.000	0.999	CT	1.052	0.18	20.60			1969	77140
		1.37			77.8	1.930	0.999	NB	0.956	0.17	20.50			1969	77140
		1.37			77.8	1.940	0.999	NB	0.944	0.16	19.80			1969	77140
		0.50			78.8	0.990	0.460	NB	0.510	0.14	18.60			1969	77140
		0.50			78.8	1.000	0.500	NB	0.496	0.17	20.80			1969	77140
		1.00			80.8	2.000	1.048	NB	1.060	0.21	23.40			1973	86213
		1.00			80.8	2.000	1.048	NB	1.040	0.20	23.00			1973	86213
		1.00			80.8	2.000	1.048	NB	1.060	0.20	22.90			1973	86213
		1.00			80.8	2.000	1.048	NB	1.050	0.22	24.20	21.5/	1.8	1973	86213
T651	P	1.37	R.T.	S-L	68.1	1.000	0.500	CT	0.494	0.12	14.80			1973	86213
		1.37			68.1	1.000	0.500	CT	0.508	0.12	15.00			1973	86213
		1.37			68.1	1.000	0.500	CT	0.483	0.13	15.30	15.0/	0.3	1973	86213
T651	E	0.75	82	T-L	72.0	1.500	0.739	NB	0.725	0.27	23.70			1973	86213
		0.75			72.0	1.500	0.739	NB	0.787	0.29	24.40	24.1/	0.5	1973	86213
T6510	E	3.50	R.T.	T-L	69.2	0.990	0.500	NB	0.461	0.14	16.50			1969	77140
		3.50			69.2	2.000	1.001	CT	1.041	0.17	18.30			1969	77140
		3.50			69.2	1.990	1.000	CT	1.030	0.16	17.70			1969	77140
		0.68			82.9	1.490	0.626	NB	0.742	0.15	20.40			1969	77140
		0.68			83.4	1.500	0.648	NB	0.701	0.13	19.20			1969	77140
		0.68			83.4	1.490	0.625	NB	0.697	0.13	18.80	18.5/	1.3	1969	77140
T6510	E	3.50	R.T.	S-L	62.3	2.000	0.998	CT	0.994	0.14	14.50			1969	77140
		3.50			62.3	2.000	1.001	CT	0.997	0.13	14.40	14.5/	0.1	1969	77140
T7651	P	0.50	R.T.	L-T	71.2	0.998	0.447	NB	0.519	0.42	29.90			1978	MPC01

TABLE 8.18.2.1 (con't)

ALUMINUM 7178 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	0.50	R.T.	L-T	71.2	0.990	0.446	NB	0.505	0.42	29.50			1978	MPC01
		0.50			71.2	1.000	0.483	NB	0.530	0.40	29.00			1978	MPC01
		0.50			71.2	0.990	0.447	NB	0.507	0.41	28.80			1973	86213
		0.50			71.2	0.990	0.446	NB	0.499	0.41	29.00			1973	86213
		1.00			71.2	2.000	1.001	NB	1.030	0.48	31.20			1973	86213
		0.50			71.2	0.990	0.482	NB	0.525	0.40	28.50			1973	86213
		1.00			71.2	2.000	1.001	NB	1.060	0.44	29.80			1973	86213
		1.37			72.6	2.014	1.001	NB	1.007	0.30	26.00			1978	MPC01
		1.37			72.6	2.011	0.999	CT	1.086	0.30	26.10			1978	MPC01
		1.37			72.6	2.000	1.000	CT	0.997	0.33	26.30			1973	86213
		1.37			72.6	2.000	1.000	CT	1.000	0.32	26.40			1978	MPC01
		1.37			72.6	1.982	1.000	CT	0.991	0.32	26.30			1978	MPC01
		1.37			72.6	2.004	1.001	NB	1.002	0 32	26.70			1978	MPC01
		1.00			74.4	2.004	0.970	CT	1.062	0.28	25.40			1978	MPC01
		1.00			74.4	1.998	0.972	CT	1.079	0.30	26.50	27.8/	1.8	1978	MPC01
T7651	P	2.00	R.T.	T-L	63.8	4.002	2.036	NB	2.201	0.34	23.70			1978	MPC01
		2.00			63.8	4.000	2.036	NB	2.105	0.29	21.80			1973	86213
		0.50			69.2	0.994	0.447	NB	0.467	0.27	23.30			1978	MPC01
		0.50			69.2	1.000	0.485	NB	0.520	0.28	24.10			1978	MPC01
		0.50			69.2	1.002	0.448	NB	0.521	0.28	24.10			1978	MPC01
		0.50			69.2	0.998	0.485	NB	0.529	0.32	25.40			1978	MPC01
		1.00			69.9	2.002	0.974	CT	1.041	0.18	19.10			1978	MPC01
		1.00			69.9	2.002	0.973	CT	1.061	0.18	19.30			1978	MPC01
		1.00			70.5	2.000	1.001	NB	1.080	0.40	28.30			1978	MPC01
		1.00			70.5	2.000	1.001	NB	1.040	0.38	27.70			1978	MPC01
		1.37			71.1	2.000	1.000	CT	1.022	0.26	22.80			1973	86213
		1.37			71.1	1.988	0.999	CT	0.994	0.25	23.00			1978	MPC01
		1.37			71.1	2.000	1.001	NB	0.993	0.24	22.10			1973	86213
		1.37			71.1	2.012	1.000	NB	1.046	0.25	23.30			1978	MPC01
		1.37			71.1	2.000	1.001	NB	1.048	0.25	22.40			1973	86213
		1.37			71.1	2.000	1.001	NB	1.000	0.24	22.30			1978	MPC01
		1.37			71.1	2.000	0.999	CT	1.020	0.21	21.20			1978	MPC01
		1.37			71.1	1.990	0.999	CT	1.015	0.24	22.60	23.1/	2.4	1978	MPC01
T7651	P	1.37	R.T.	S-L	66.8	1.000	0.500	CT	0.480	0.15	16.80			1978	MPC01
		1.37			66.8	1.000	0.500	CT	0.494	0.17	17.60			1973	86213
		1.37			66.8	1.010	0.500	CT	0.495	0.15	17.10			1978	MPC01
		1.37			66.8	1.002	0.500	CT	0.501	0.16	17.90			1978	MPC01

TABLE 8.18.2.1 (con't)

ALUMINUM 7178 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	1.37	R.T.	S-L	66.8	1.000	0.500	CT	0.487	0.17	17.20	17.3/	0.4	1973	86213
T76510	E	3.50	R.T.	L-S	61.4	2.000	1.001	NB	1.029	0.71	32.80			1973	86213
		3.50			63.0	2.000	1.002	NB	1.096	0.69	33.10	33.0/	0.2	1973	86213
T76510	E	3.50	R.T.	L-T	61.4	2.000	1.000	NB	1.012	0.60	30.00			1973	86213
		0.68			67.6	1.500	0.655	NB	0.702	0.50	30.30			1973	86213
		0.68			68.0	1.490	0.656	NB	0.665	0.48	29.90			1973	86213
		0.68			69.4	1.490	0.663	NB	0.767	0.52	31.60			1973	86213
		0.68			69.4	1.490	0.659	NB	0.673	0.45	29.40			1973	86213
		0.68			69.4	1.500	0.620	NB	0.772	0.52	31.70	30.5/	0.9	1973	86213
T76510	E	0.68	R.T.	T-L	66.2	1.490	0.638	NB	0.670	0.41	26.90			1973	86213
		0.68			66.2	1.490	0.625	NB	0.703	0.46	28.50			1973	86213
		0.68			66.7	1.490	0.658	NB	0.708	0.41	27.10			1973	86213
		0.68			66.7	1.490	0.624	NB	0.670	0.38	25.90			1973	86213
		0.68			66.7	1.500	0.649	NB	0.780	0.37	25.70	26.8/	1.1	1973	86213
T76510	E	3.50	R.T.	S-L	54.4	2.000	1.000	CT	0.937	0.21	15.90			1973	86213
		3.50			54.4	2.000	0.999	CT	0.946	0.23	16.40	16.2/	0.4	1973	86213
T76510	FB	3.50	R.T.	T-L	57.2	1.000	0.500	NB	0.473	0.28	19.30			1973	86213
		3.50			58.4	2.000	1.001	CT	0.943	0.23	17.70			1973	86213
		3.50			58.4	2.000	1.001	CT	0.931	0.25	18.50			1973	86213
		3.50			58.4	1.000	0.500	NB	0.482	0.28	19.60			1973	86213
		3.50			61.9	1.000	0.500	NB	0.459	0.29	20.90	19.2/	1.2	1973	86213
T76511	E	0.40	R.T.	L-T	74.7	1.000	0.401	NB	0.467	0.29	25.50			1973	86213
		1.44			76.6	3.000	1.400	CT	1.571	0.29	25.90	25.7/	0.3	1973	86213
T76511	E	1.25	83	L-T	68.5	3.000	1.217	NB	1.465	0.45	29.20			1973	86213
		1.25			68.5	3.000	1.227	NB	1.457	0.41	27.70	28.5/	1.1	1973	86213
T76511	E	2.00	86	L-T	72.3	4.000	1.962	CT	2.077	0.32	25.90			1973	86213
		2.00			72.3	4.000	1.961	CT	2.078	0.34	26.50	26.2/	0.4	1973	86213

TABLE 8.18.2.1 (con't)

ALUMINUM 7178 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T76511	E	1.44	R.T.	T-L	75.0	3.000	1.401	CT	1.578	0.18	20.30			1973	86213
T76511	E	1.25	83	T-L	67.6	3.000	1.170	NB	1.470	0.37	26.00			1973	86213
		1.25			67.6	3.000	1.166	NB	1.463	0.37	26.00	26.0/	0.0	1973	86213
T76511	E	1.44	84	S-L	69.1	2.000	0.821	CT	0.998	0.26	22.20			1973	86213
		1.44			69.1	2.000	0.821	CT	1.000	0.17	18.00	20.1/	3.0	1973	86213
T76511	E	2.00	86	S-L	64.4	1.500	0.750	CT	0.735	0.16	16.20			1973	86213
		2.00			64.4	1.500	0.750	CT	0.746	0.16	16.20	16.2/	0.0	1973	86213

TABLE 8.18.2.2

ALUMINUM 7178 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																		
T6	S	0.06	R.T.	L-T	82.4	2.000	0.064	0.621	0.812	---	37.20	39.05		46.87			1973	86213
		0.06			82.4	2.000	0.064	0.621	0.790	---	35.70	37.48		44.09			1973	86213
		0.06			82.4	2.000	0.064	0.622	0.825	---	36.90	38.8[illegible]		47.00			1973	86213
		0.06			82.4	2.000	0.064	0.625	0.760	---	31.30	32.[illegible]9		37.60			1973	86213
		0.06			82.4	2.000	0.064	0.625	0.860	---	36.10	38.05		47.49			1973	86213
		0.06			82.4	2.000	0.064	0.620	----	---	35.70	37.48		----			1973	86213
		0.06			82.4	2.000	0.064	0.625	0.770	---	37.80	39.84		45.83			1973	86213
		0.06			82.6	2.000	0.065	0.622	0.750	---	41.20	43.34		49.04			1973	86213
		0.06			82.6	2.000	0.064	0.621	0.780	---	42.50	44.61		52.01*			1973	86213
		0.06			83.4	2.000	0.064	0.622	0.790	---	40.20	42.29		49.65			1973	86213
		0.06			83.4	2.000	0.064	0.625	0.760	---	39.70	41.84		47.70			1973	86213
		0.06			83.4	2.000	0.064	0.624	0.770	---	40.40	42.58		48.99			1973	86213
		0.06			83.4	2.000	0.064	0.624	0.740	---	38.50	40.58	39.9/ 3.1	45.40	46.3/ 3.3		1973	86213
T6	S	0.06	R.T.	L-T	81.6	15.810	0.065	6.000	6.320	---	13.20	44.55		46.23			1973	86213
		0.06			81.6	15.820	0.064	3.030	3.260	---	21.20	47.33		49.27			1973	86213
		0.06			81.6	15.820	0.064	4.000	4.000	---	17.20	44.90		44.90			1973	86213
		0.06			81.6	15.820	0.066	3.020	3.310	---	21.50	47.91		50.39			1973	86213
		0.06			81.6	15.820	0.064	1.000	1.000	---	38.20	47.99	46.9/ 1.7	47.99	47.8/ 2.2		1973	86213
T6	S	0.12	R.T.	L-T	83.6	2.990	0.123	0.994	1.340	---	27.00	36.24		44.87			1973	86213
		0.12			83.6	2.990	0.123	0.998	1.320	---	27.60	37.14		45.32			1973	86213
		0.12			75.3	3.000	0.124	1.000	1.320	---	33.50	45.12		54.95			1973	86213
		0.12			75.3	3.000	0.124	1.000	1.340	---	35.30	47.54		58.60*			1973	86213
		0.12			82.5	3.000	0.128	1.000	1.470	---	28.70	38.65		51.46			1973	86213
		0.12			82.5	3.000	0.129	1.000	1.500	---	30.40	40.94		55.49			1973	86213
		0.12			83.3	3.000	0.125	1.000	1.400	---	34.10	45.92		58.66			1973	86213
		0.12			83.3	3.000	0.125	1.000	1.370	---	33.10	44.58		55.94			1973	86213
		0.12			83.5	3.000	0.125	1.000	1.420	---	29.50	39.73		51.35			1973	86213
		0.12			83.5	3.000	0.125	1.080	1.400	---	27.60	39.12		47.48			1973	86213
		0.12			83.5	3.000	0.125	1.060	1.330	---	27.80	38.91		45.88			1973	86213
		0.12			83.6	3.000	0.122	0.999	1.360	---	25.60	34.43		43.01			1973	86213
		0.12			83.6	3.000	0.123	0.994	1.350	---	27.40	36.76		45.76			1973	86213
		0.12			83.6	3.000	0.123	1.090	1.360	---	31.20	44.50		52.41			1973	86213
		0.12			83.6	3.000	0.123	1.090	1.390	---	31.00	44.22	40.9/ 4.1	53.01	50.4/ 5.0		1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.18.2.2 (con't)

ALUMINUM 7178 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	T-L	77.8	2.000	0.064	0.625	0.740	---	33.60	35.41			39.62			1973	86213
		0.06			77.8	2.000	0.064	0.622	0.795	---	35.30	37.13			43.75			1973	86213
		0.06			77.8	2.000	0.064	0.621	0.785	---	36.90	38.74			45.32			1973	86213
		0.06			77.8	2.000	0.064	0.623	0.805	---	37.10	39.02			46.41			1973	86213
		0.06			77.8	2.000	0.064	0.625	0.780	---	36.90	38.89			45.16			1973	86213
		0.06			77.8	2.000	0.064	0.625	0.920	---	33.00	34.78			45.90			1973	86213
		0.06			77.8	2.000	0.064	0.619	0.845	---	35.60	37.30			46.17			1973	86213
		0.06			80.4	2.000	0.066	0.626	0.860	---	33.10	34.96			43.55			1973	86213
		0.06			80.4	2.000	0.065	0.628	0.850	---	32.30	34.18			42.12			1973	86213
		0.06			80.4	2.000	0.065	0.627	0.850	---	37.00	39.08			48.24			1973	86213
		0.06			80.4	2.000	0.066	0.627	0.900	---	31.70	33.48			43.22			1973	86213
		0.06			81.0	2.000	0.065	0.627	0.850	---	32.30	34.11			42.12			1973	86213
		0.06			81.0	2.000	0.065	0.627	0.830	---	37.90	40.03	36.7/ 2.3		48.54	44.6/ 2.5		1973	86213
T6	S	0.06	R.T.	T-L	78.6	15.810	0.065	3.010	3.230	---	19.90	44.26			46.01			1973	86213
		0.06			78.6	15.820	0.065	1.010	1.310	---	33.20	41.92			47.83			1973	86213
		0.06			78.6	15.820	0.065	1.000	1.460	---	32.10	40.33			48.87			1973	86213
		0.06			78.6	15.820	0.065	4.000	4.550	---	16.20	42.29			45.66			1973	86213
		0.06			78.6	15.820	0.065	6.000	6.480	---	12.40	41.84	42.1/ 1.4		44.23	46.5/ 1.8		1973	86213
T6	S	0.12	R.T.	T-L	79.4	2.990	0.123	0.996	1.250	---	21.30	28.63			33.54			1973	86213
		0.12			75.3	3.000	0.125	1.000	1.000	---	25.90	34.88			34.88			1973	86213
		0.12			75.3	3.000	0.125	1.000	1.000	---	25.90	34.88			34.88			1973	86213
		0.12			77.4	3.000	0.125	1.060	1.440	---	23.50	32.89			41.40			1973	86213
		0.12			77.4	3.000	0.125	1.060	1.270	---	23.50	32.89			37.42			1973	86213
		0.12			77.4	3.000	0.125	1.060	1.440	---	24.50	34.29			43.16			1973	86213
		0.12			78.0	3.000	0.125	1.000	1.300	---	25.90	34.88			41.98			1973	86213
		0.12			78.0	3.000	0.125	1.000	1.230	---	26.20	35.29			40.72			1973	86213
		0.12			78.0	3.000	0.128	1.000	1.320	---	25.40	34.21			41.67			1973	86213
		0.12			78.0	3.000	0.128	1.000	1.390	---	25.30	34.07			43.26			1973	86213
		0.12			79.2	3.000	0.125	1.080	1.380	---	24.20	34.30			41.14			1973	86213
		0.12			79.2	3.000	0.125	1.110	1.300	---	23.60	34.09			38.26			1973	86213
		0.12			79.4	3.000	0.123	0.996	1.200	---	21.20	28.48	33.4/ 2.3		32.36	38.8/ 3.8		1973	86213

TABLE 8.18.2.2 (con't)

ALUMINUM 7178 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T651	P	0.25	R.T.	L-T	84.3	4.000	0.254	1.330	1.960	---	23.40	36.33		48.45		1973	86213
		0.25			84.3	4.000	0.255	1.430	2.290	---	21.40	34.86	35.6/ 1.0	51.46	50.0/ 2.1	1973	86213
T651	P	0.25	R.T.	T-L	79.5	4.000	0.247	1.420	1.680	---	15.10	24.48		27.60		1973	86213
		0.25			79.5	4.000	0.247	1.390	1.560	---	15.60	24.93		27.00		1973	86213
		0.25			80.4	4.000	0.254	1.330	1.330	---	16.80	26.08		26.08		1973	86213
		0.25			80.4	4.000	0.255	1.330	1.330	---	16.90	26.24		26.24		1973	86213
		0.25			80.4	4.000	0.254	1.440	2.070	---	15.20	24.88	25.3/ 0.8	33.06	28.0/ 2.9	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T7651	P	1.00	R.T.	L-T	71.2	20.000	1.005	7.000	8.640	---	11.90	42.73		49.69		1973	86213
		1.00			71.2	20.000	1.005	7.000	8.570	---	11.50	41.30		47.72		1973	86213
		1.00			71.2	20.000	1.005	7.000	8.600	---	11.80	42.37	42.1/ 0.7	49.09	48.8/ 1.0	1973	86213
T7651	P	0.25	R.T.	T-L	71.0	4.000	0.247	1.410	1.610	---	19.80	31.95		35.06		1973	86213
		0.25			71.0	4.000	0.247	1.460	1.730	---	19.80	32.71	32.3/ 0.5	37.01	36.0/ 1.4	1973	86213
T7651	P	1.00	R.T.	T-L	70.5	20.000	1.005	7.000	7.850	---	8.20	29.45		31.88		1973	86213
		1.00			70.5	20.000	1.005	7.000	8.050	---	8.40	30.17		33.26		1973	86213
		1.00			70.5	20.000	1.005	7.000	8.500	---	8.30	29.81	29.8/ 0.4	34.22	33.1/ 1.2	1973	86213

TABLE 8.18.3.1

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.1 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T6
ENVIRONMENT: R. T. , H. H. A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.05	R=+0.50		
DELTA K MIN	A: 3.09	.109			
	B: 1.64		.0279		
	C:				
	D:				
	2.00		.126		
	2.50		.209		
	3.00		.345		
	3.50	.129	.589		
	4.00	.198	1.05		
	5.00	.631	3.45		
	6.00	2.40	7.81		
	7.00	5.26	10.3		
	8.00	7.61	14.1		
	9.00	9.08			
	10.00	10.1			
	13.00	15.3			
DELTA K MAX	A: 13.11	15.7			
	B: 8.87		28.7		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		22.81	34.25		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T8
FORM: SHEET
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 82.0 KSI
ULT. STRENGTH: 89.7 KSI
SPECIMEN THK: 0.190"
SPECIMEN WIDTH: 3.750"
REFERENCES:BW001

ALUM. ALLOY

7178

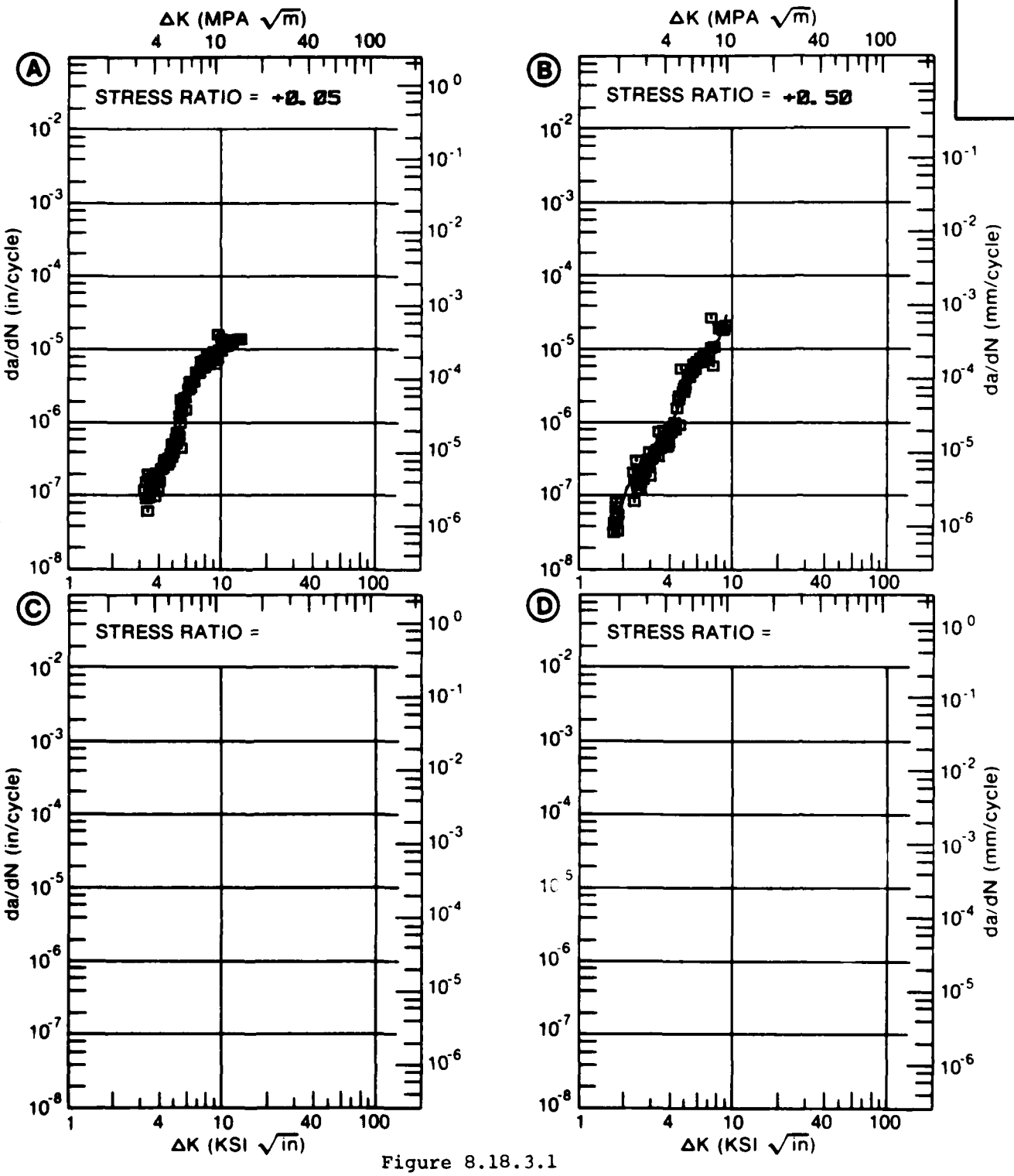

Figure 8.18.3.1

TABLE 8.18.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.2 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T6
ENVIRONMENT: R.T. ,H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.50		
DELTA K MIN	A:	7.65	11.5			
	B:	3.65		1.30		
	C:					
	D:					
		4.00		2.26		
		5.00		6.42		
		6.00		12.1		
		7.00		18.8		
		8.00	13.3	27.1		
		9.00	18.7	37.9		
		10.00	24.5	52.6		
		13.00	44.7	184.		
		16.00	71.4	923.		
		20.00	142.			
		25.00	642.			
		30.00	3933.			
DELTA K MAX	A:	33.50	13249.			
	B:	17.91		9786.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			47.97	66.46		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 82.0 KSI
ULT. STRENGTH: 89.7 KSI
SPECIMEN THK: 0.190"
SPECIMEN WIDTH: 6.000"
REFERENCES:BW001

ALUM. ALLOY

7178

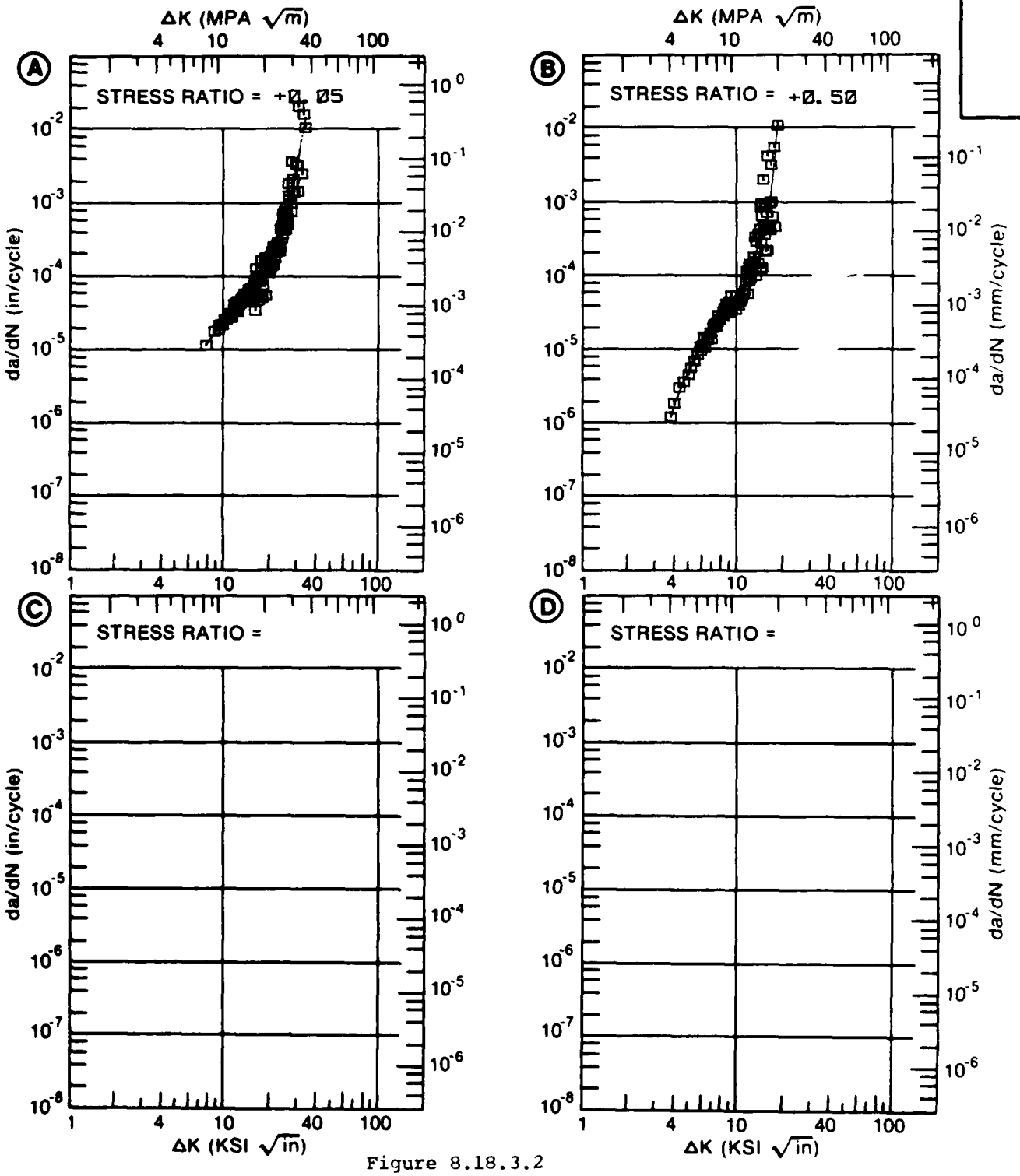

Figure 8.18.3.2

TABLE 8.18.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.3 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T6
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.02	R=+0.50		
DELTA K MIN	A:	6.14	.894			
	B:	5.67		5.44		
	C:					
	D:					
		6.00		7.11		
		7.00	2.46	11.8		
		8.00	5.24	17.0		
		9.00	8.53	26.1		
		10.00	11.9	47.3		
		13.00	21.8			
		16.00	36.6			
		20.00	89.9			
DELTA K MAX	A:	20.58	105.			
	B:	10.80		88.0		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			16.09	25.87		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8	1	1		
		0.8-1.25	5	1		
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T6
FORM: 0.20"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 10.00- 14.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 81.8- 86.0 KSI
ULT. STRENGTH: 88.2- 90.5 KSI
SPECIMEN THK: 0.200"
SPECIMEN WIDTH: 11.500"
REFERENCES:86088

ALUM. ALLOY

7178

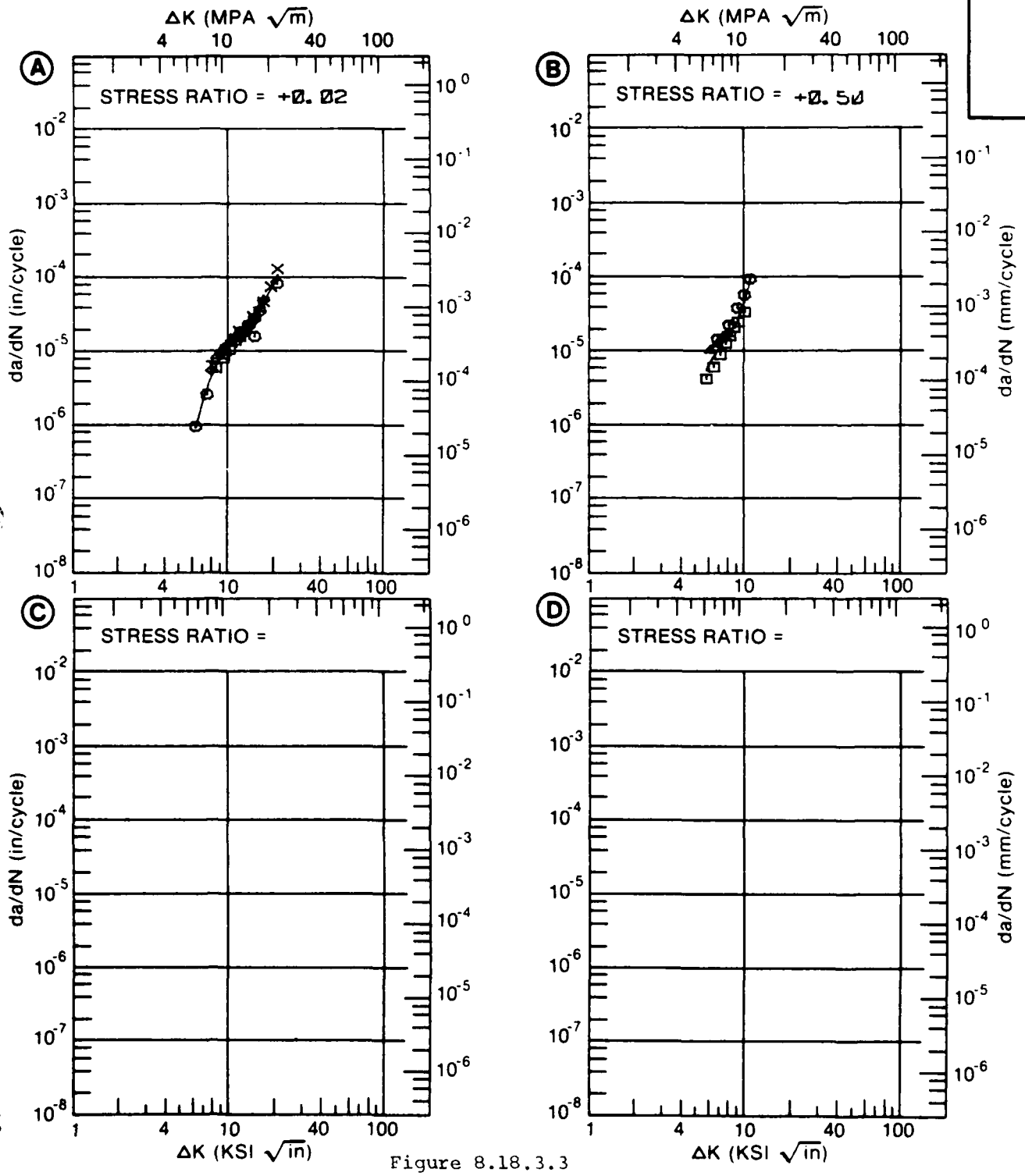

Figure 8.18.3.3

TABLE 8.18.3.4

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.4 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T6
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.02	R=+0.50		
DELTA K MIN	A:	8.28	8.78			
	B:	4.70		6.33		
	C:					
	D:					
		5.00		6.47		
		6.00		8.83		
		7.00		13.5		
		8.00		20.2		
		9.00	10.3	29.9		
		10.00	12.6	45.9		
		13.00	22.7	180.		
		16.00	42.8	1110.		
		20.00	109.			
		25.00	393.			
DELTA K MAX	A:	29.76	1448.			
	B:	16.38		1518.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			34.16	31.55		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8	2	1		
		0.8-1.25	3	4		
		1.25-2.0	1	1		
		>2.0				

CONDITION/HT: T6
FORM: 0.20"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 1.00- 5.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 81.8- 86.0 KSI
ULT. STRENGTH: 88.2- 90.5 KSI
SPECIMEN THK: 0.200"
SPECIMEN WIDTH: 11.500"
REFERENCES:86088

ALUM. ALLOY

7178

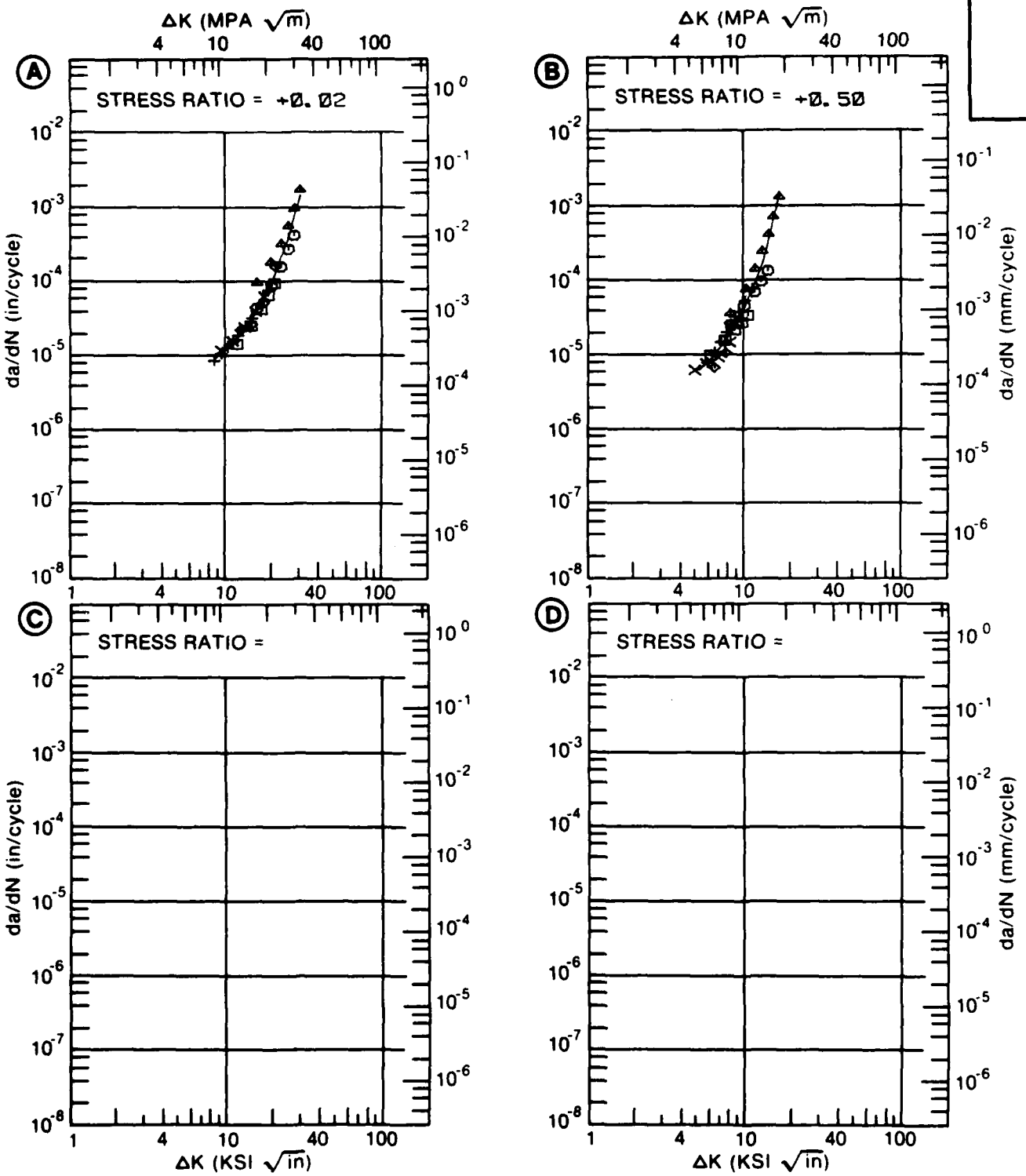

Figure 8.18.3.4

TABLE 8.18.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.5 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T6
ENVIRONMENT: R.T. ,H.H.A.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.00	R=+0.60		
DELTA K MIN A:	4.76	.520			
DELTA K MIN B:	2.81		.230		
DELTA K MIN C:					
DELTA K MIN D:					
	3.00		.369		
	3.50		1.28		
	4.00		3.28		
	5.00	.715	10.1		
	6.00	3.60	18.8		
	7.00	7.67	28.8		
	8.00	12.4	40.7		
	9.00	17.5	56.7		
	10.00	22.8	79.8		
	13.00	41.2	265.		
	16.00	70.7			
DELTA K MAX A:	17.25	89.8			
DELTA K MAX B:	13.07		273.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		13.50	13.83		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T6
FORM: 0.25"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 9.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.163"
SPECIMEN WIDTH: 5.000"
REFERENCES:BW002

ALUM. ALLOY

7178

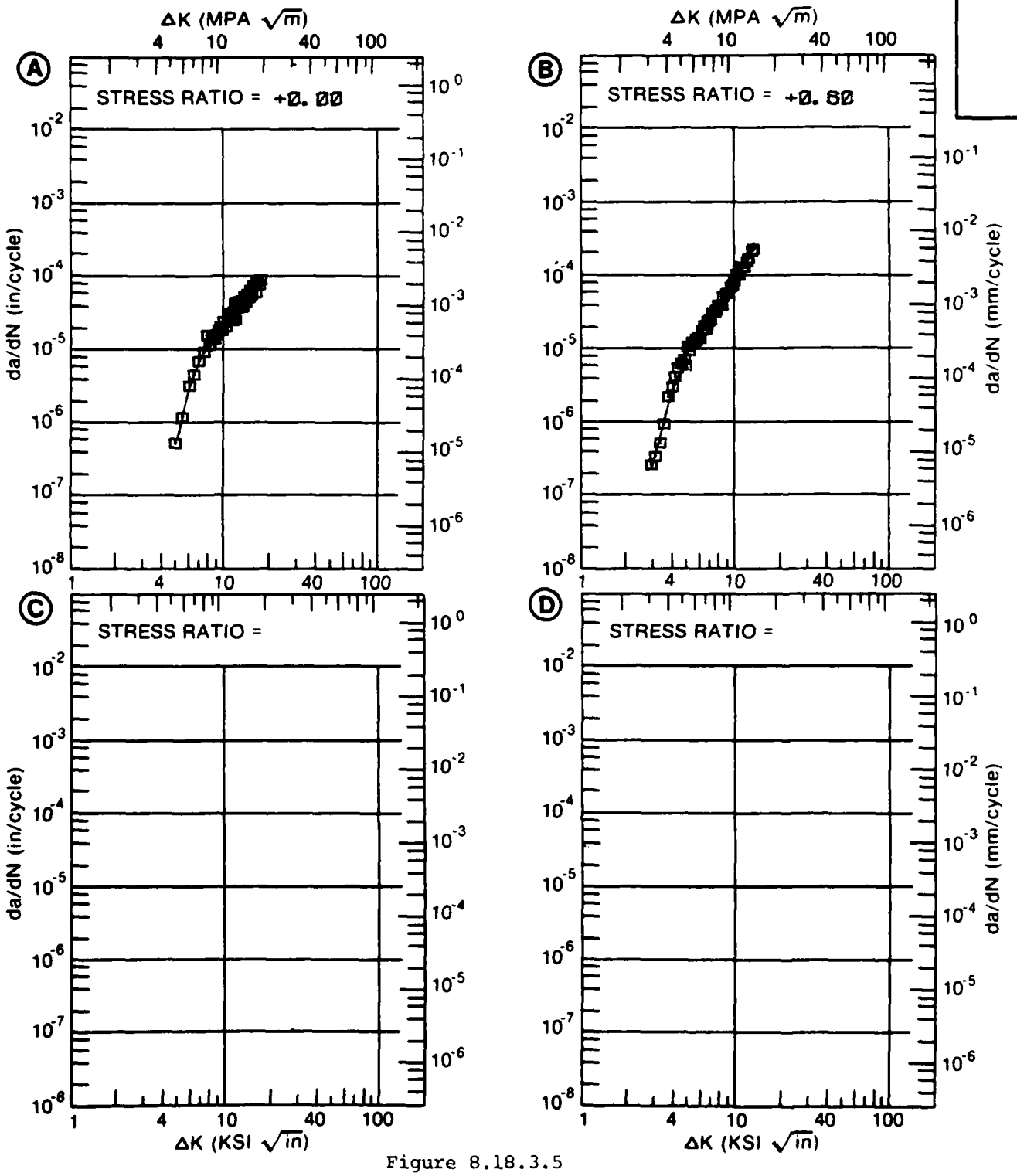

Figure 8.18.3.5

TABLE 8.18.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.6 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.02			
DELTA K MIN	A: 4.20	.240			
	B:				
	C:				
	D:				
	5.00	.923			
	6.00	2.66			
	7.00	5.23			
	8.00	8.32			
	9.00	11.7			
	10.00	15.4			
	13.00	29.6			
	16.00	51.4			
	20.00	99.6			
	25.00	214.			
	30.00	454.			
	35.00	1218.			
	40.00	4807.			
DELTA K MAX	A: 43.81	5423.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 22.83

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T851
FORM: 0.13"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 0.10- 12.00 HZ
ENVIRONMENT: R.T.,LAB AIR

YIELD STRENGTH: 82.5 KSI
ULT. STRENGTH: 88.5 KSI
SPECIMEN THK: 0.063"
SPECIMEN WIDTH: 6.000"
REFERENCES:MA011

ALUM. ALLOY

7178

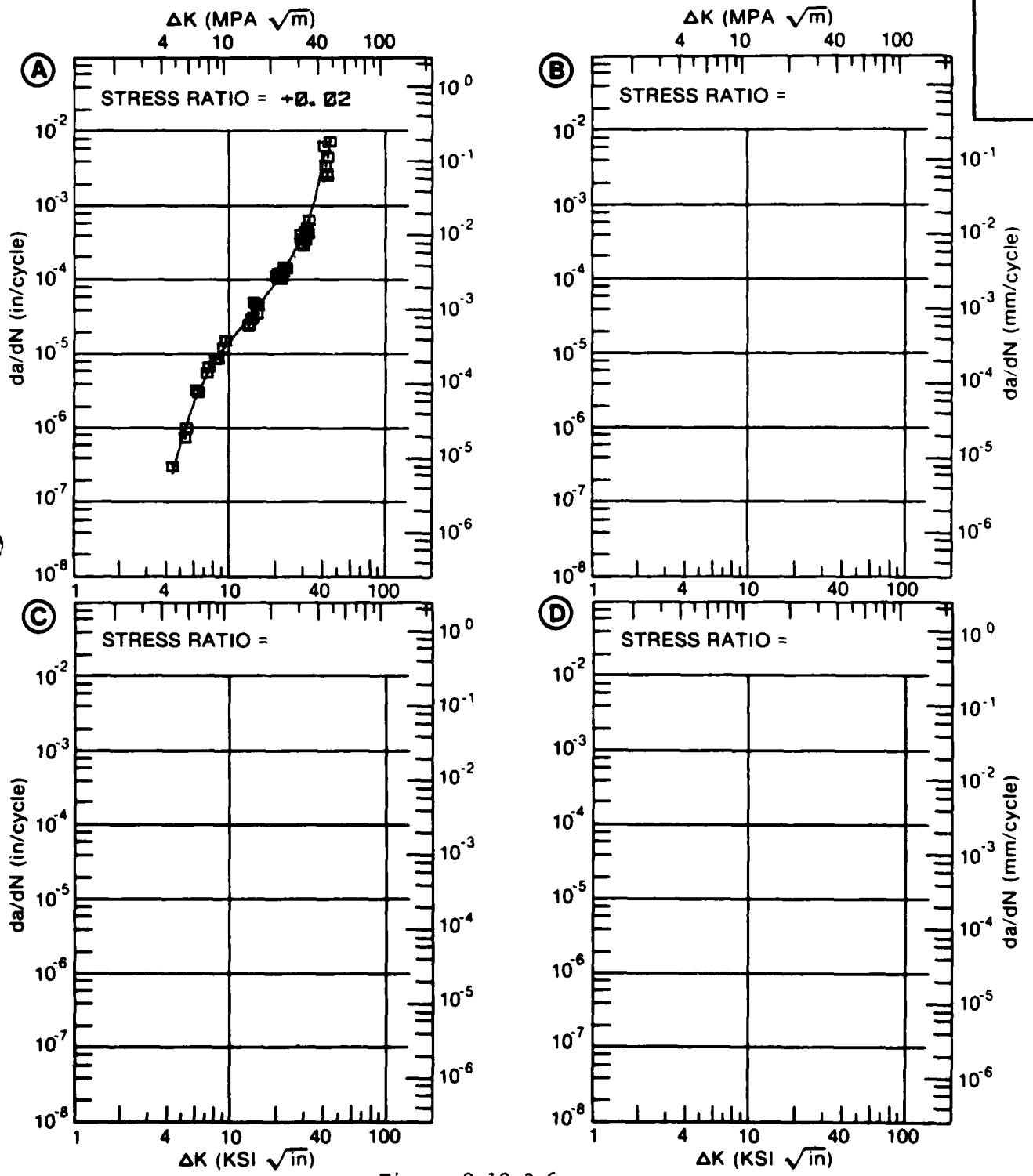

Figure 8.18.3.6

TABLE 8.18.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.7 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.02		
DELTA K MIN	A:	4.82	.735			
	B:	3.99		.211		
	C:					
	D:					
		4.00		.216		
		5.00	.799	.980		
		6.00	2.19	2.55		
		7.00	4.60	4.90		
		8.00	7.44	7.89		
		9.00	10.3	11.4		
		10.00	13.1	15.4		
		13.00	21.1	30.6		
		16.00	31.3	53.6		
		20.00	56.8	107.		
		25.00	144.	253.		
		30.00	444.	603.		
		35.00		1443.		
		40.00		3382.		
DELTA K MAX	A:	30.28	475.			
	B:	44.41		6207.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			12.99	50.13		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T651
FORM: 0.25- 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 0.10- 20.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 72.0- 83.5 KSI
ULT. STRENGTH: 80.5- 89.7 KSI
SPECIMEN THK: 0.100- 0.185"
SPECIMEN WIDTH: 6.000- 8.000"
REFERENCES:RI002, MA011

ALUM. ALLOY

7178

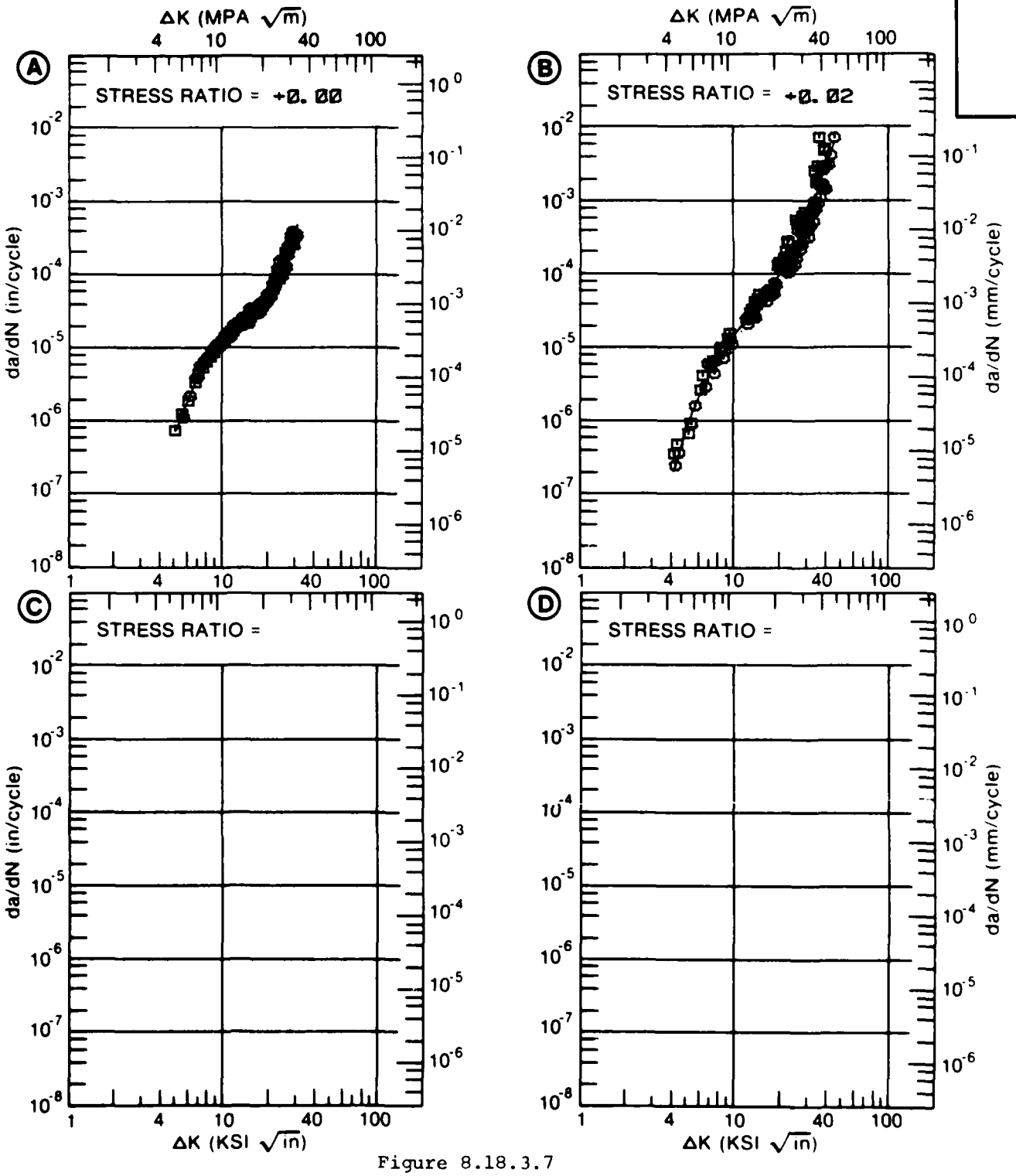

Figure 8.18.3.7

TABLE 8.18.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.8 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7178
CONDITION: T651
ENVIRONMENT: R.T., S.T.W.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		F(HZ)= 6.00	F(HZ)= 20.00		
DELTA K MIN A:	5.01	2.50			
DELTA K MIN B:	4.58		.685		
DELTA K MIN C:					
DELTA K MIN D:					
	5.00		.829		
	6.00	7.05	2.90		
	7.00	12.1	6.61		
	8.00	17.1	11.2		
	9.00	22.8	16.4		
	10.00	29.2	22.3		
	13.00	53.7	43.5		
	16.00	88.0	72.3		
	20.00	157.	134.		
	25.00	341.	281.		
DELTA K MAX A:	29.40	778.			
DELTA K MAX B:	29.56		345.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		5.55	10.80		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1		
	1.25-2.0				
	>2.0				

CONDITION/HT: T851
FORM: 0.25"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.01
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 81.5 KSI
ULT. STRENGTH: 89.7 KSI
SPECIMEN THK: 0.125"
SPECIMEN WIDTH: 8.000"
REFERENCES:RI002

ALUM. ALLOY

7178

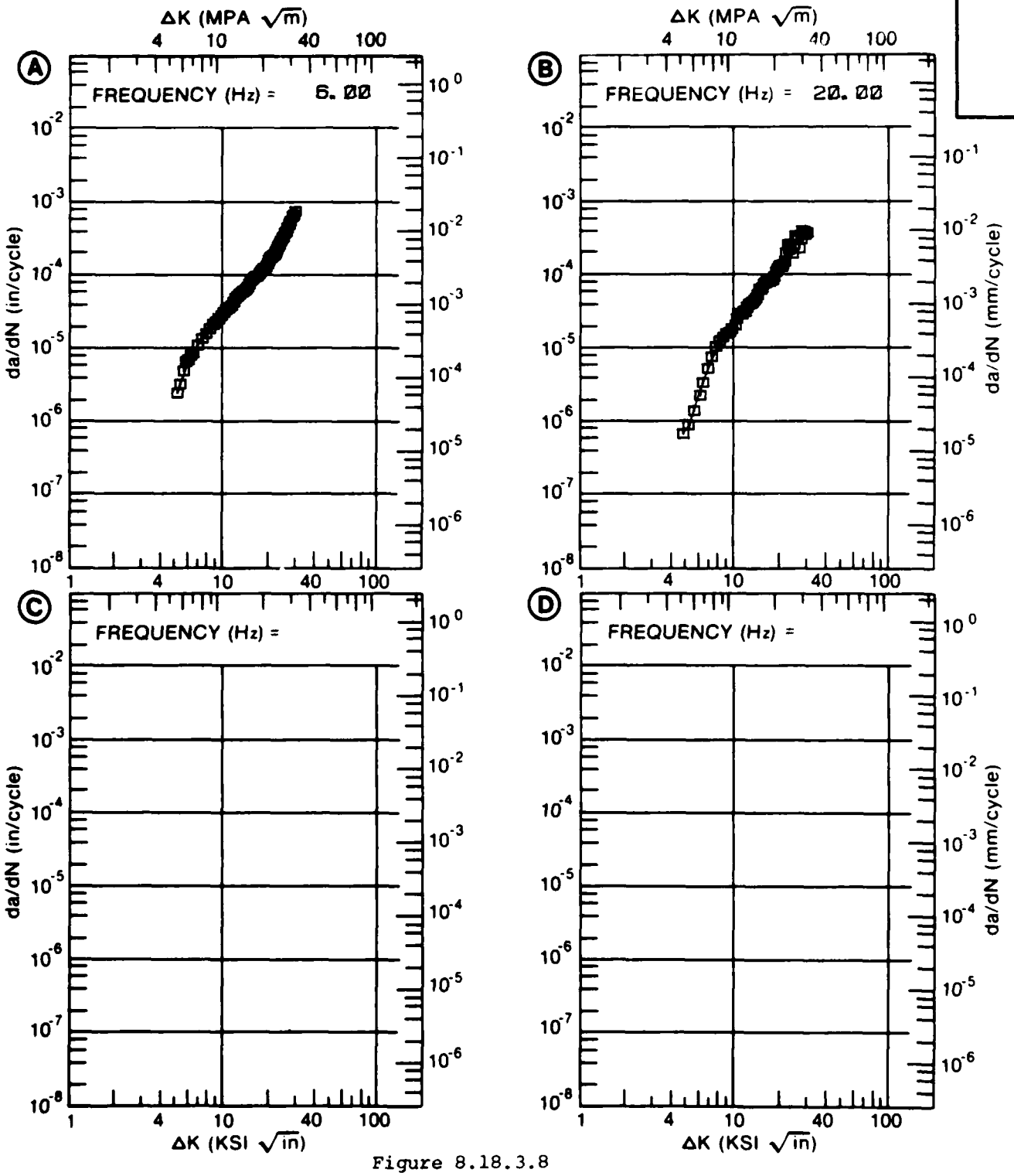

Figure 8.18.3.8

TABLE 8.18.3.9

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.9 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7178
CONDITION: T651

		DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A E= R.T. LAB AIR - 20HZ	B E= R.T. S.T.W. - 6HZ	C	D
DELTA K MIN	A:	4.35	.364			
	B:	5.16		3.42		
	C:					
	D:					
		5.00	.478			
		6.00	1.43	6.32		
		7.00	3.46	10.3		
		8.00	6.06	14.7		
		9.00	8.81	19.3		
		10.00	11.5	24.3		
		13.00	20.1	44.5		
		16.00	34.4	82.5		
		20.00	85.2	208.		
		25.00	378.	781.		
DELTA K MAX	A:	27.90	382.			
	B:	25.29		847.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			20.21	12.78		
LIFE PREDICTION .RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T651
FORM: 0.25"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.00
FREQUENCY:

YIELD STRENGTH: 81.5 KSI
ULT. STRENGTH: 89.7 KSI
SPECIMEN THK: 0.125"
SPECIMEN WIDTH: 8.000"
REFERENCES:RI002

ALUM. ALLOY

7178

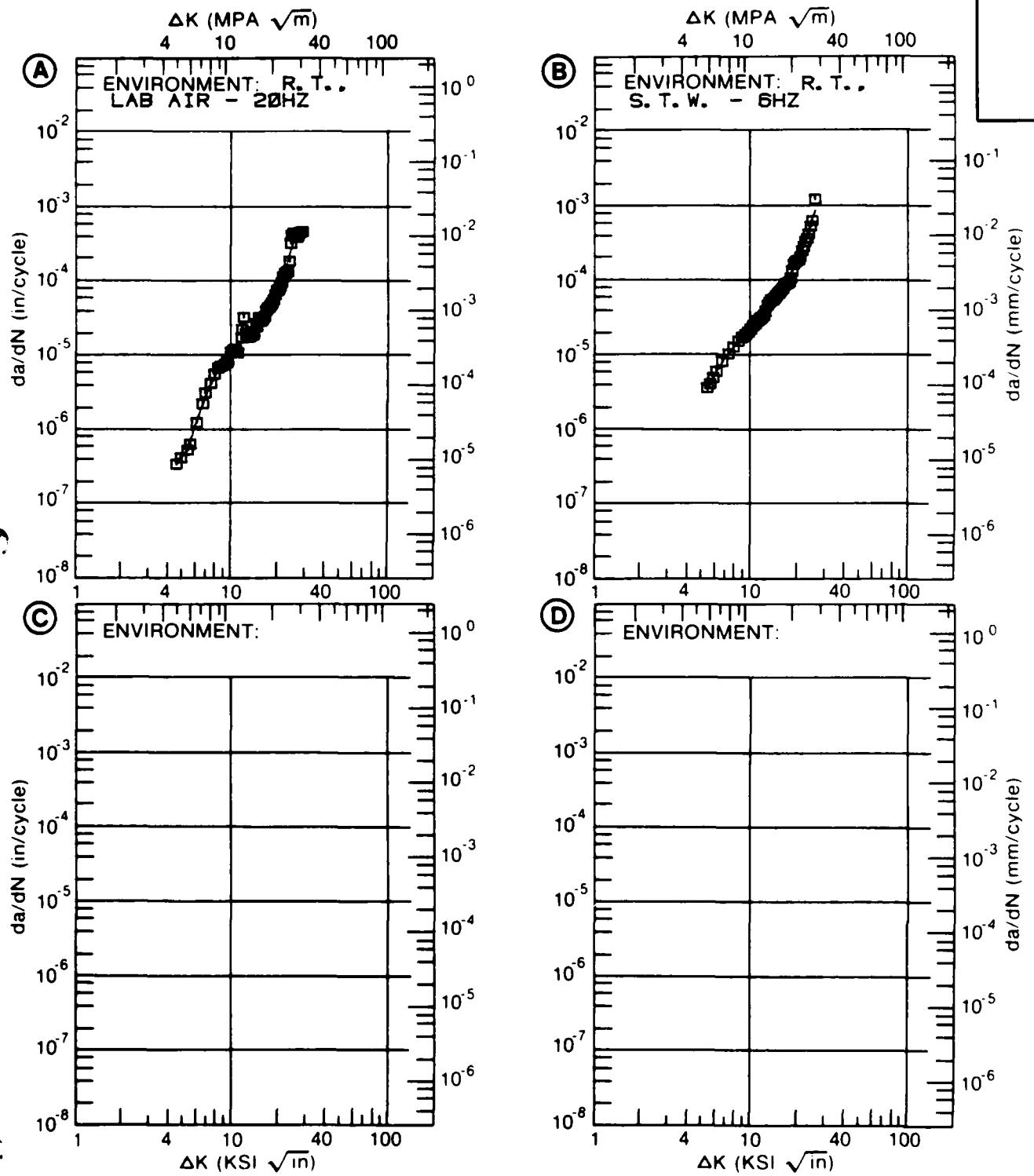

Figure 8.18.3.9

TABLE 8.18.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.10INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7178
CONDITION: T76

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR	E= R.T. DISTILLED WATER		
DELTA K MIN	A:	4.01	.260			
	B:	4.00		.434		
	C:					
	D:					
		5.00	.605	.752		
		6.00	1.27	1.70		
		7.00	2.35	3.30		
		8.00	3.86	5.51		
		9.00	5.72	8.34		
		10.00	7.76	11.8		
		13.00	15.0	25.7		
		16.00	26.2	45.8		
		20.00	58.1	87.2		
		25.00	153.	180.		
		30.00	330.	362.		
		35.00	613.	706.		
		40.00	1044.	1335.		
		50.00	2653.	4323.		
DELTA K MAX	A:	56.27	4541.			
	B:	50.42		4529.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			34.73	27.87		

LIFE PREDICTION RATIO SUMMARY (NP/NA)
0.0-0.5
0.5-0.8
0.8-1.25
1.25-2.0
>2.0

CONDITION/HT: T76
FORM: 0.10- 0.18"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY:

YIELD STRENGTH: 70.5- 75.0 KSI
ULT. STRENGTH: 79.0- 81.5 KSI
SPECIMEN THK: 0.100- 0.194"
SPECIMEN WIDTH:
REFERENCES:MA012

ALUM. ALLOY

7178

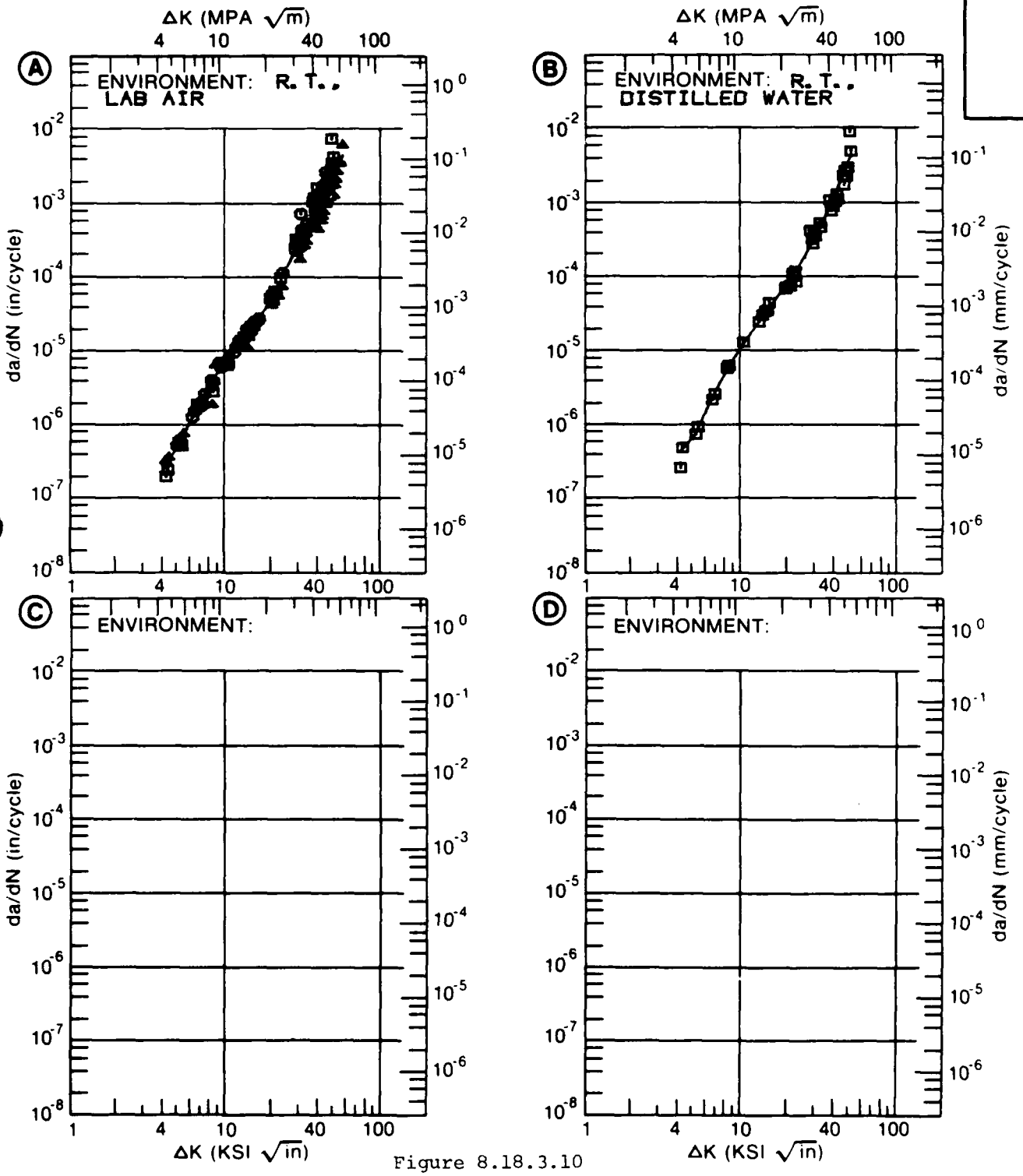

Figure 8.18.3.10

TABLE 8.18.3.11

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.11 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T7651
ENVIRONMENT: R T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.37	1.57			
	B:					
	C:					
	D:					
		6.00	2.60			
		7.00	4.59			
		8.00	6.90			
		9.00	9.57			
		10.00	12.8			
		13.00	29.1			
DELTA K MAX	A:	15.78	67.2			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 12.31

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	4
	1.25-2.0	
	>2.0	

CONDITION/HT: T7651
FORM: 0.44- 0.49"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 69.2- 70.9 KSI
ULT. STRENGTH: 80.0 KSI
SPECIMEN THK: 0.444- 0.486"
SPECIMEN WIDTH: 2.999- 3.000"
REFERENCES:86213

ALUM. ALLOY

7178

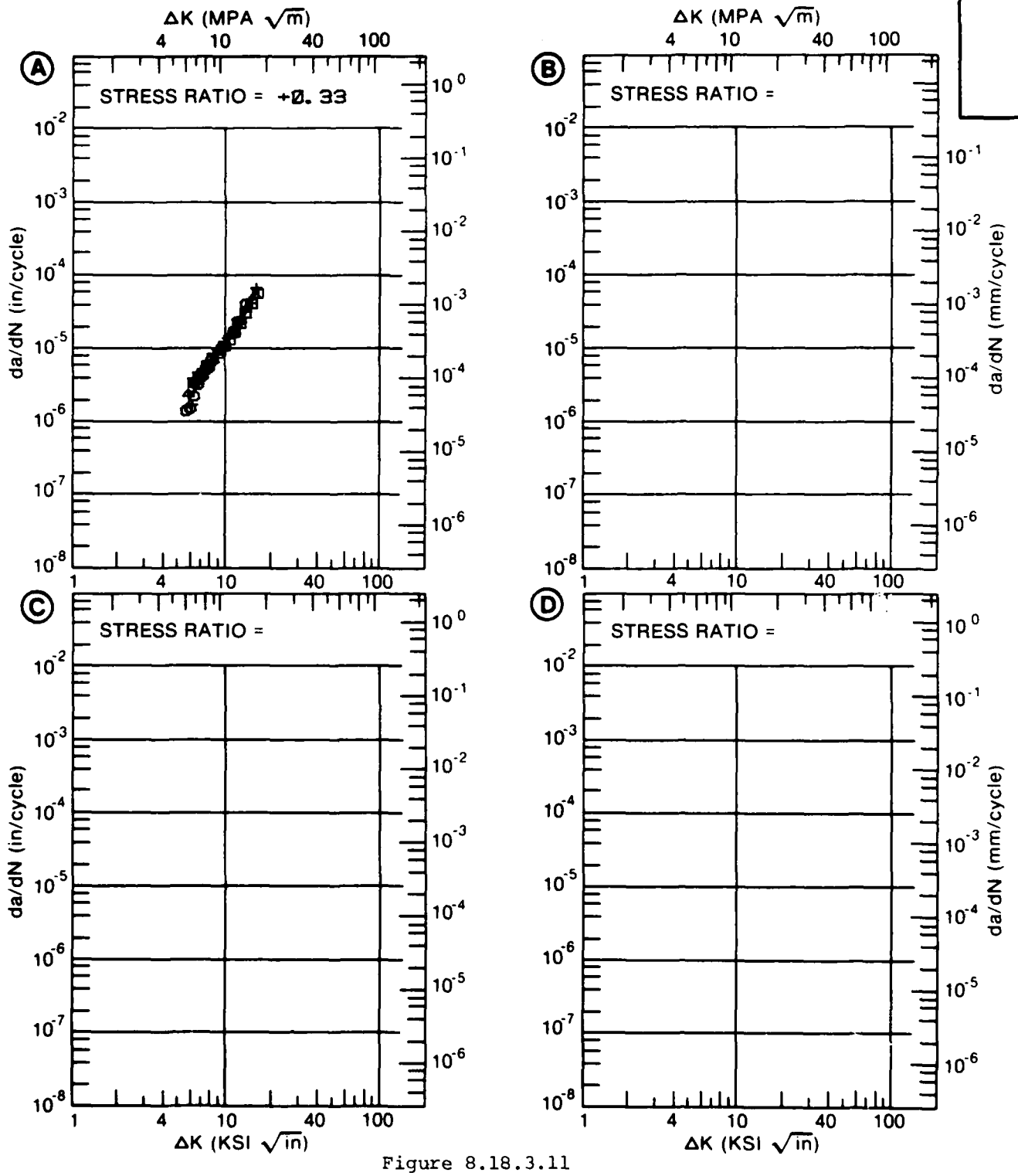

Figure 8.18.3.11

TABLE 8.18.3.12

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.12 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T7651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.59	1.50			
	B:				
	C:				
	D:				
	6.00	1.94			
	7.00	3.76			
	8.00	6.23			
	9.00	9.32			
	10.00	13.2			
	13.00	33.9			
	16.00	83.2			
DELTA K MAX	A: 16.70	94.3			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 13.84

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	1
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7851
FORM: 0.49"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 5.20
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 89.2 KSI
ULT. STRENGTH: 79.1 KSI
SPECIMEN THK: 0.485"
SPECIMEN WIDTH: 3.000"
REFERENCES:86213

ALUM. ALLOY

7178

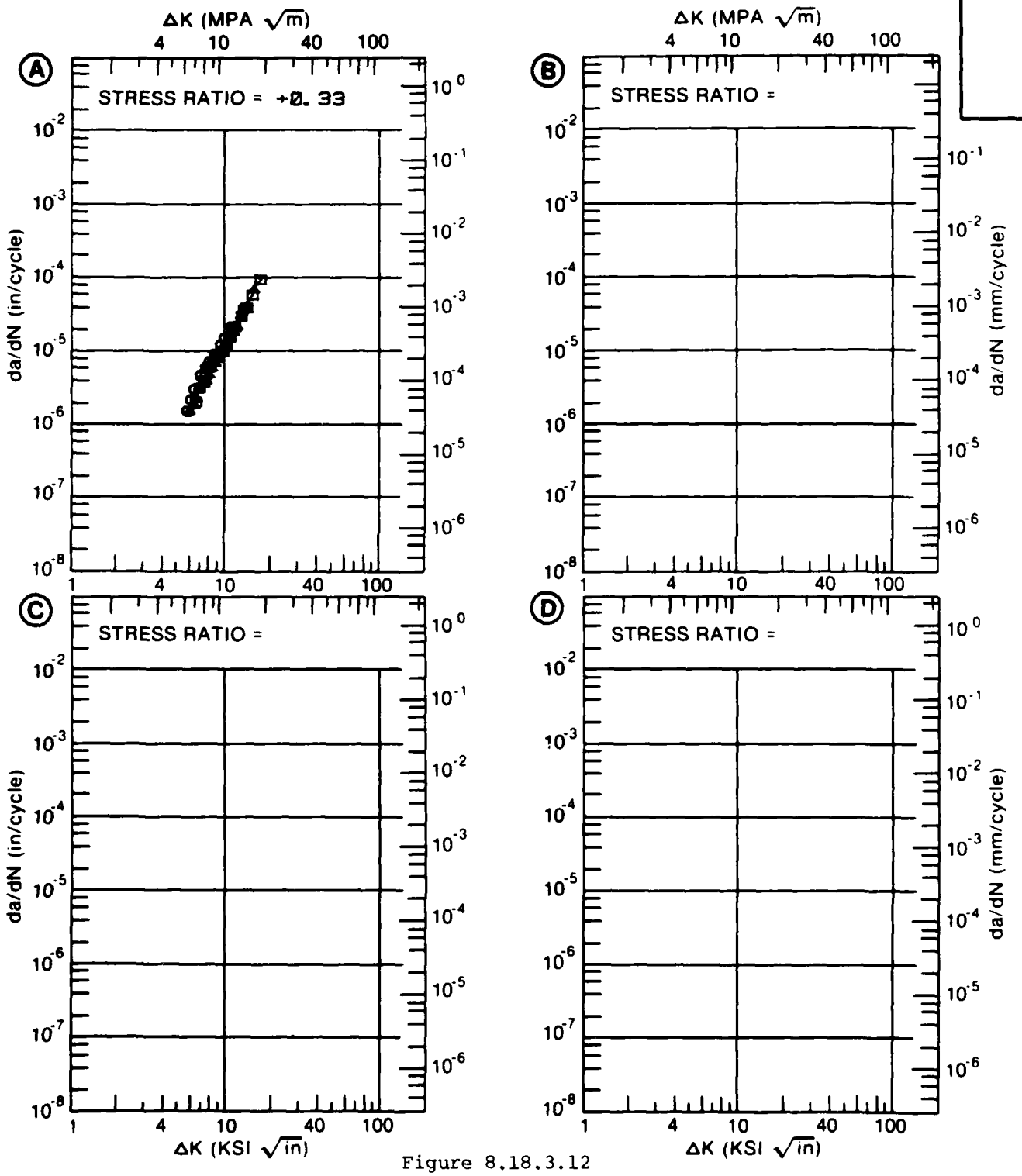

Figure 8.18.3.12

TABLE 8.18.3.13

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.13 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T7651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.52	2.74			
	B:					
	C:					
	D:					
		6.00	3.33			
		7.00	4.86			
		8.00	6.90			
		9.00	9.63			
		10.00	13.2			
		13.00	32.5			
		16.00	75.1			
DELTA K MAX	A:	16.23	79.9			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 12.03

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	3
	1.25-2.0	
	>2.0	

CONDITION/HT: T7651
FORM: 1.38"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 72.6 KSI
ULT. STRENGTH: 81.3 KSI
SPECIMEN THK: 0.748"
SPECIMEN WIDTH: 3.000"
REFERENCES:86213

ALUM. ALLOY

7178

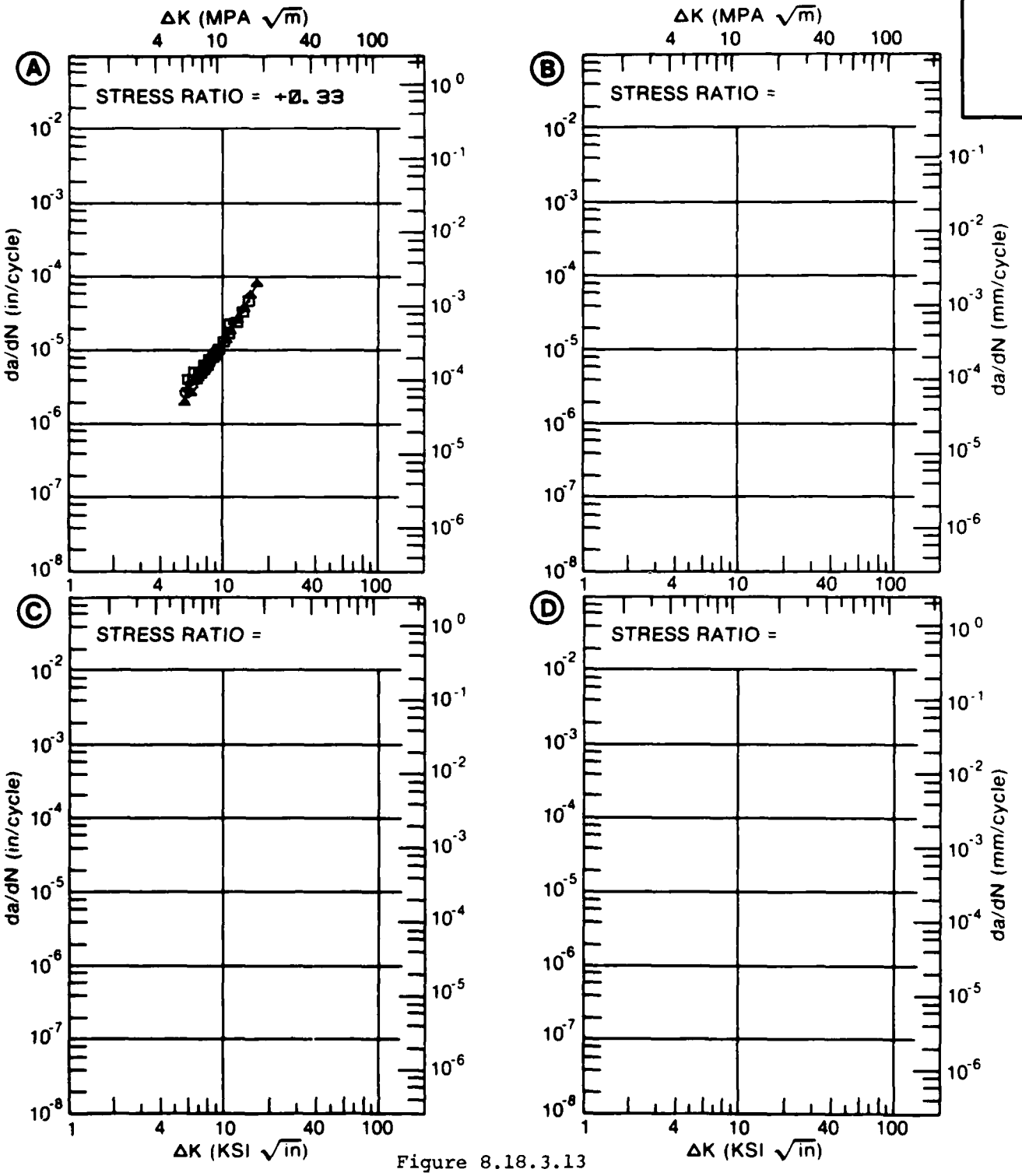

Figure 8.18.3.13

TABLE 8.18.3.14

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.14 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T7651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.54	2.10			
	B:				
	C:				
	D:				
	6.00	2.95			
	7.00	4.80			
	8.00	7.29			
	9.00	11.0			
	10.00	16.2			
	13.00	43.6			
DELTA K MAX	A: 13.28	47.2			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 4.49

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T7651
FORM: 1.38"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 5.20
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 71.1 KSI
ULT. STRENGTH: 80.5 KSI
SPECIMEN THK: 0.751"
SPECIMEN WIDTH: 3.000"
REFERENCES:86213

ALUM. ALLOY

7178

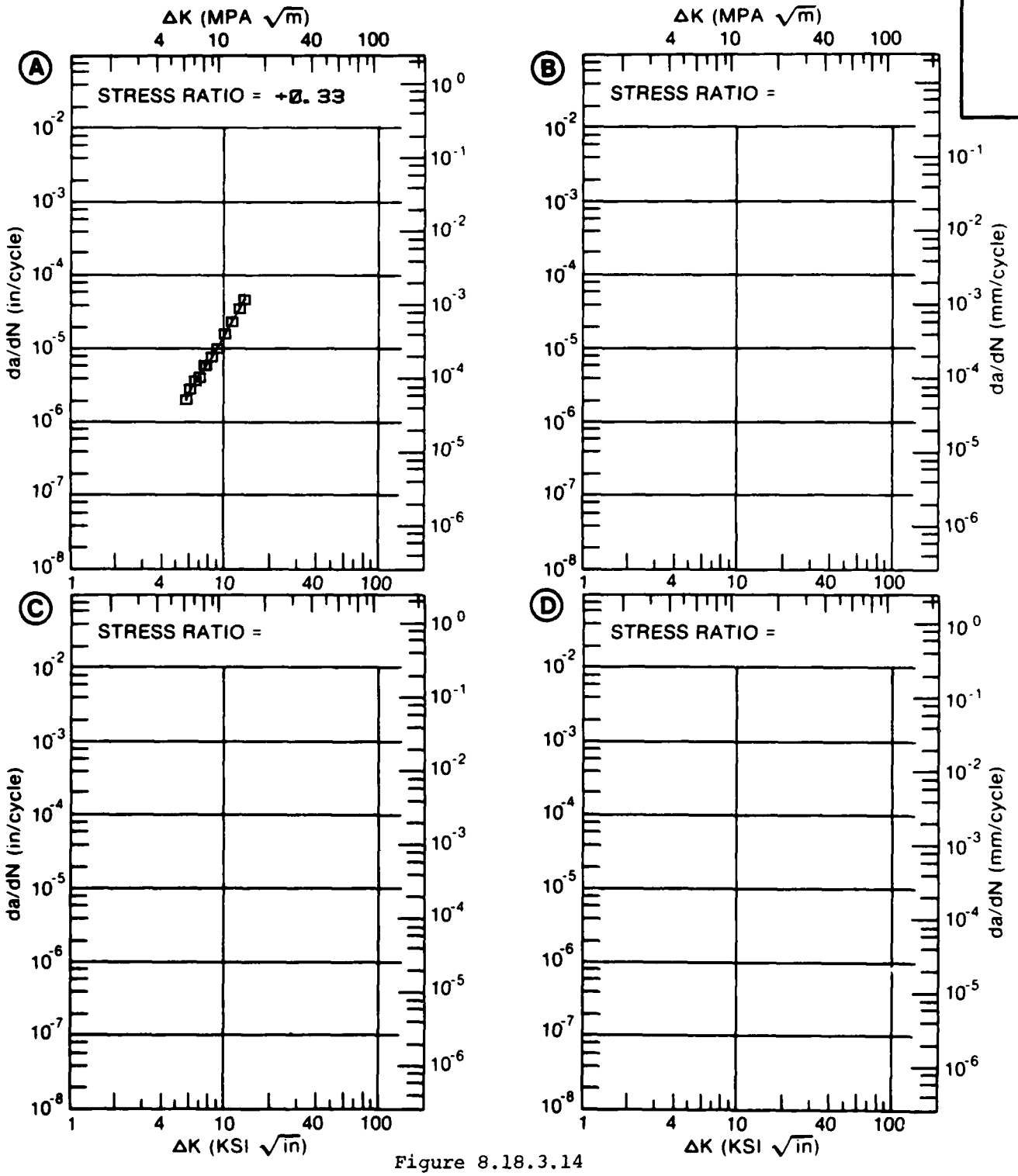

Figure 8.18.3.14

TABLE 8.18.3.15

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.15INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T76510
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	6.03	2.82			
	B:					
	C:					
	D:					
		7.00	4.64			
		8.00	6.85			
		9.00	9.44			
		10.00	12.6			
		13.00	27.9			
		16.00	63.8			
DELTA K MAX	A:	16.32	70.0			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 6.86

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	5
	1.25-2.0	
	>2.0	

CONDITION/HT: T76510
FORM: 0.69"TH EXTRUSION
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 85.3 KSI
ULT. STRENGTH: 76.0 KSI
SPECIMEN THK: 0.628- 0.659"
SPECIMEN WIDTH: 3.000- 3.006"
REFERENCES:86213

ALUM. ALLOY

7178

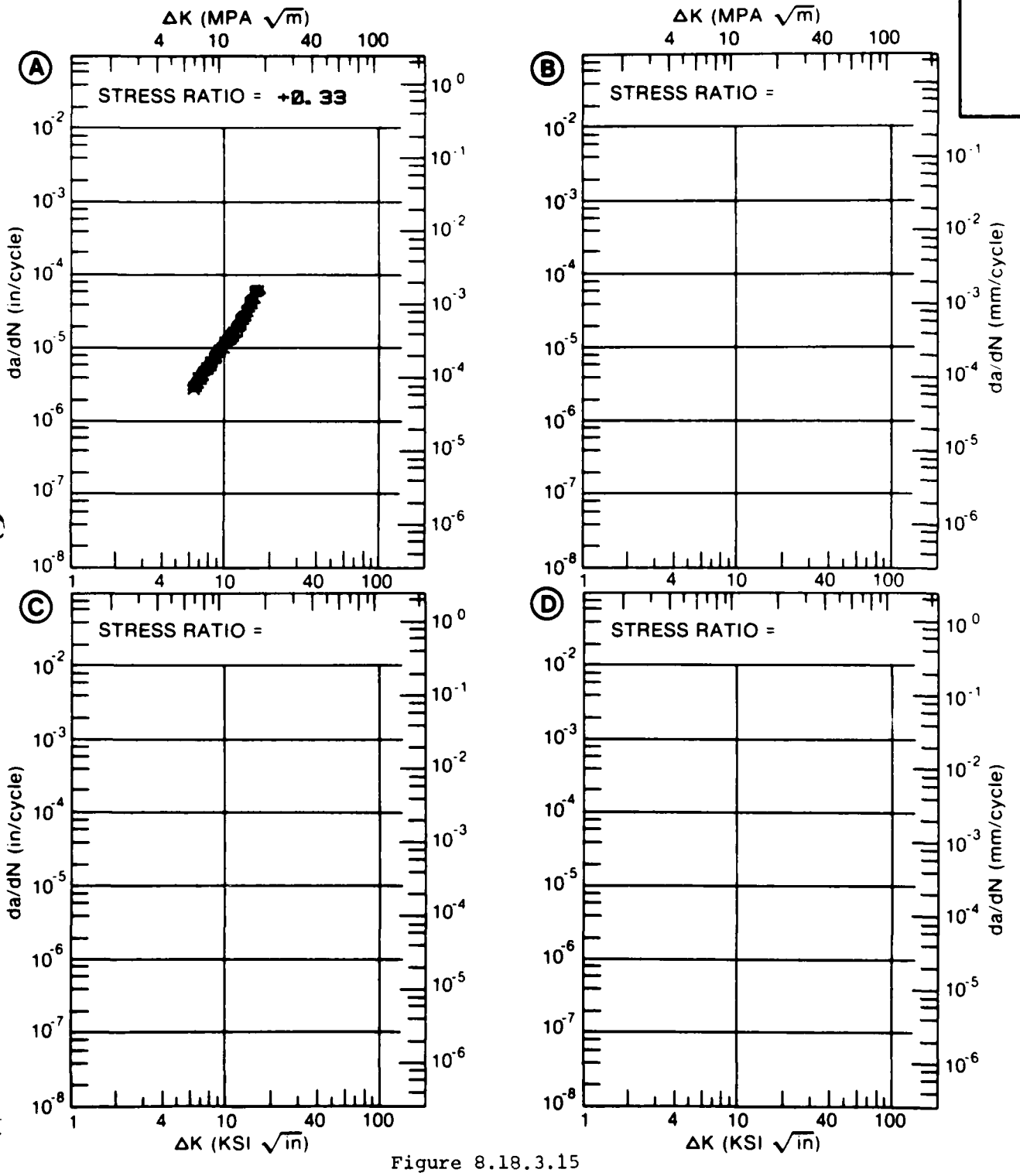

Figure 8.18.3.15

TABLE 8.18.3.16

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.16 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7178
CONDITION: T76510
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.65	2.40			
	B:				
	C:				
	D:				
	6.00	2.79			
	7.00	4.29			
	8.00	6.48			
	9.00	9.53			
	10.00	13.6			
	13.00	32.3			
	16.00	60.3			
DELTA K MAX	A: 18.20	84.3			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 9.55

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	3
	1.25-2.0	
	>2.0	

CONDITION/HT: T76510
FORM: 3.50"TH EXTRUDED BAR
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 63.4 KSI
ULT. STRENGTH: 73.6 KSI
SPECIMEN THK: 0.750- 0.752"
SPECIMEN WIDTH: 2.998- 3.004"
REFERENCES:86213

ALUM. ALLOY

7178

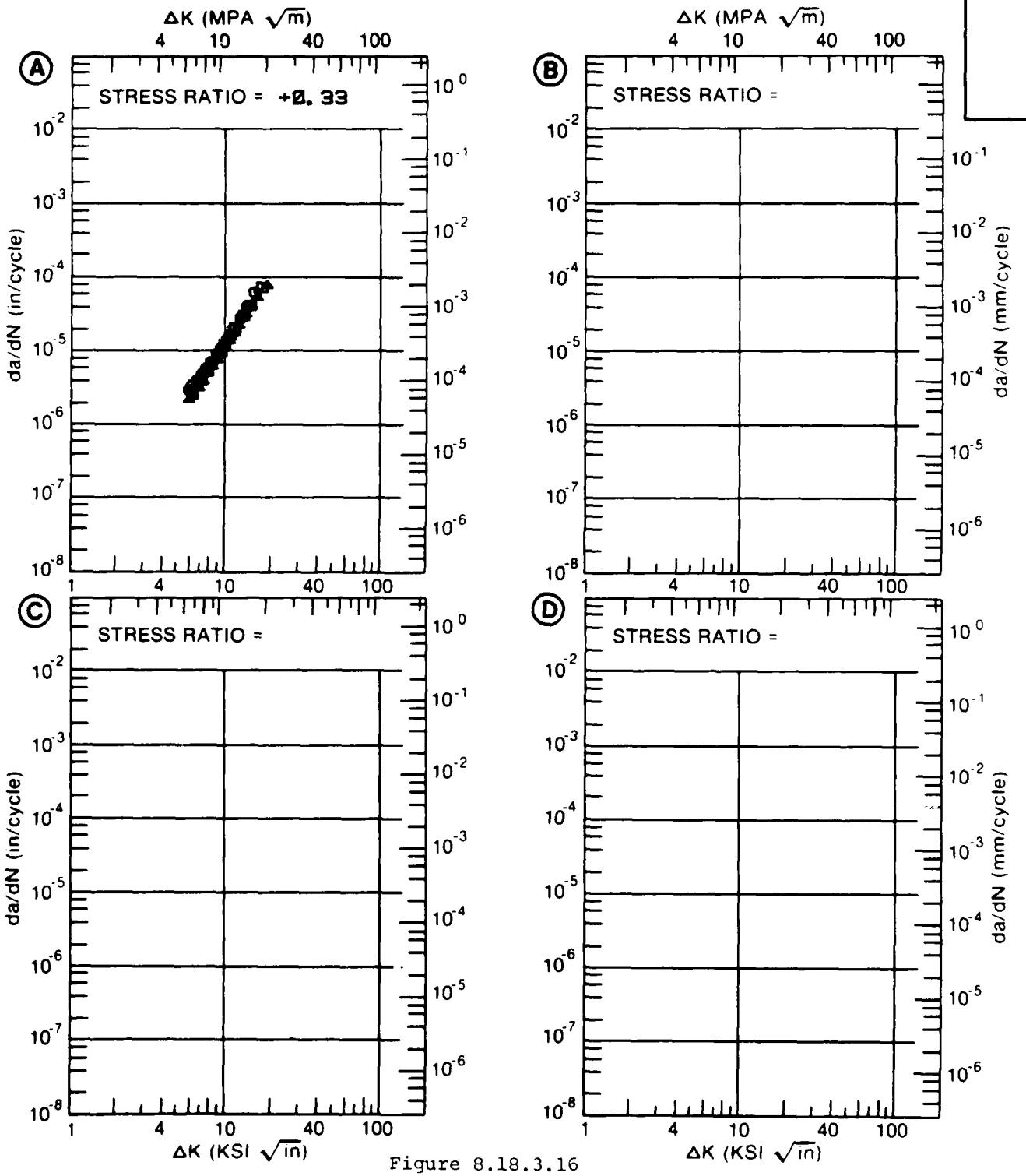

Figure 8.18.3.16

TABLE 8.18.3.17

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.17 INDICATING EFFECT

OF YIELD STRENGTH

MATERIAL: ALUMINUM 7178
CONDITION:
ENVIRONMENT: R T

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		CONDITION: T651 & 1HR AT 320F	CONDITION: T651 & 8HRS AT 320F	CONDITION: T651 & 12HRS AT 320F	
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		0.00	0.00	0.00	

CONDITION/HT:
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
ENVIRONMENT: R.T..
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7178

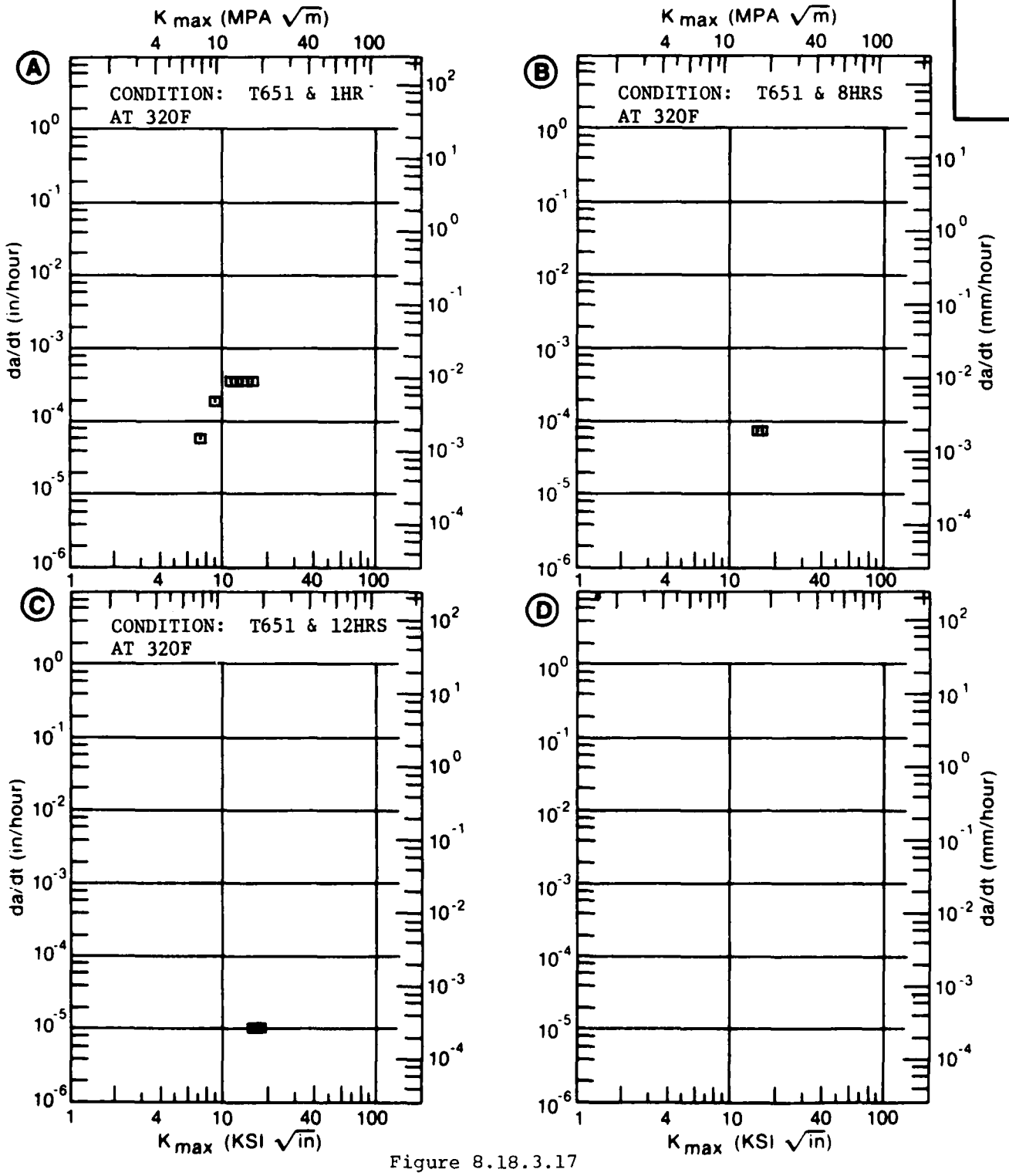

Figure 8.18.3.17

TABLE 8.18.3.18

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.18 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7178
CONDITION: T651

K MAX (KSI*IN**1/2)			DA/DT (10**-6 IN/HOUR) A	B	C	D
			E= R. T. 3. 5% NACL			
K MAX MIN	A:	5. 60	10. 3			
	B:					
	C:					
	D:					
		6. 00	36. 7			
		7. 00	294.			
		8. 00	883.			
		9. 00	1523.			
		10. 00	1925.			
		13. 00	1927.			
K MAX MAX	A:	14. 70	1823.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 30. 27

CONDITION/HT: T651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7178

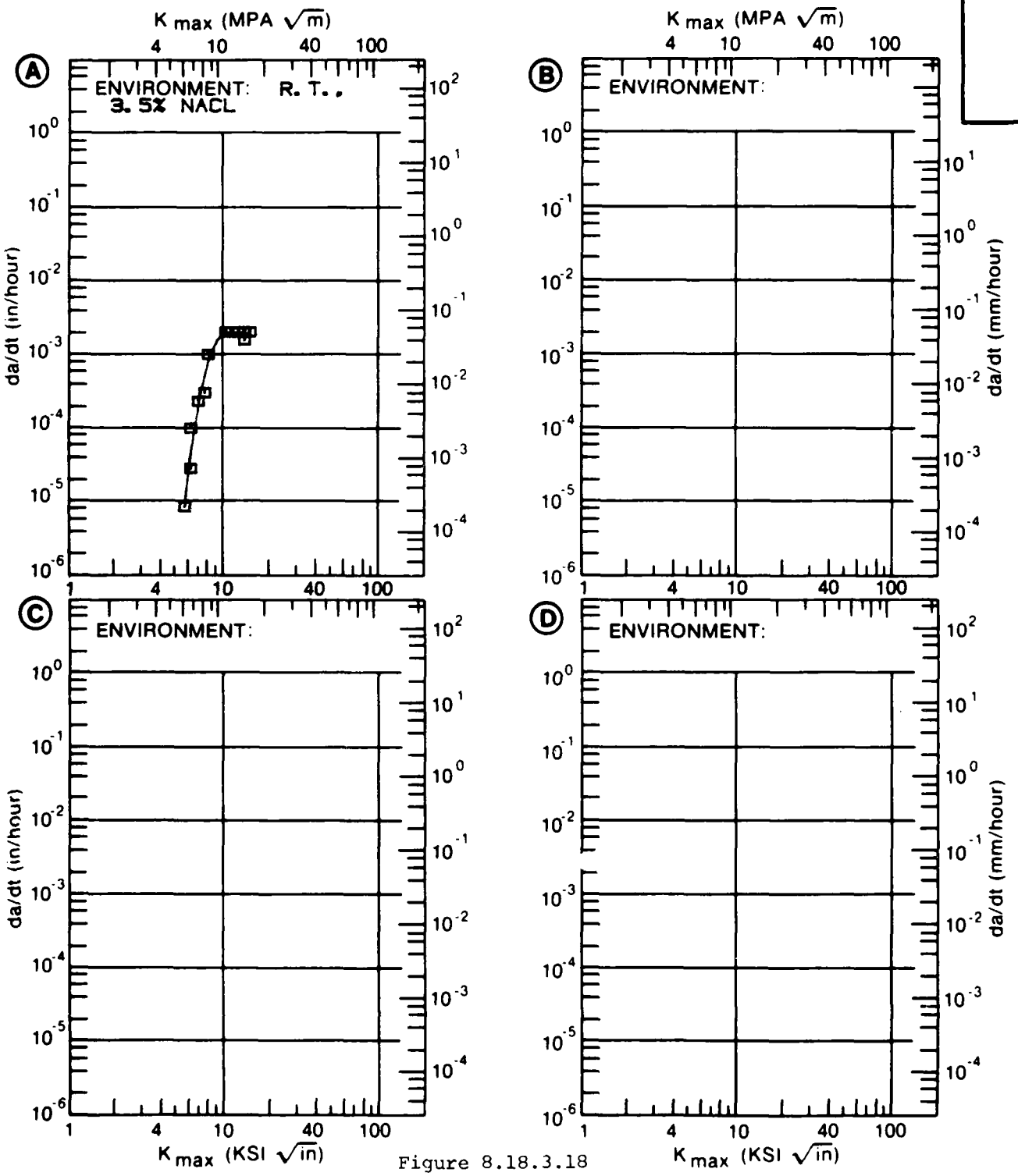

Figure 8.18.3.18

TABLE 8.18.3.19

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.18.3.19 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7178
CONDITION: T7651

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		E= R.T. 3.5% NACL			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T7651
FORM: 1.0"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
YIELD STRENGTH:
ULT. STRENGTH:

SPECIMEN THK:
SPECIMEN WIDTH:
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES: 85543

ALUM. ALLOY

7178

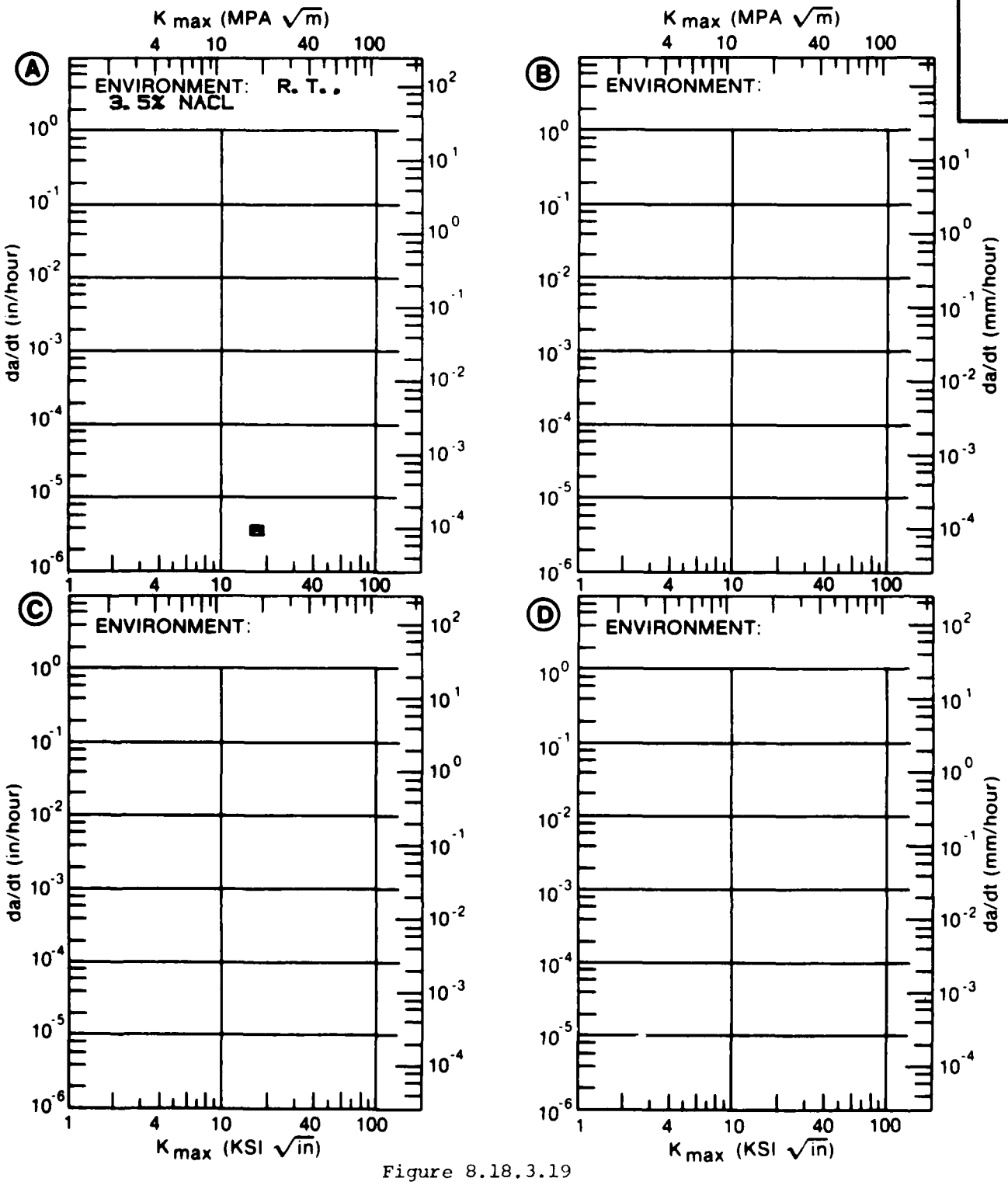

Figure 8.18.3.19

TABLE 8.19.2.1

ALUMINUM 7178 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T6	S	0.06	R.T.	L-T	82.2	3.000	0.063	1.260	1.883	---	24.80	39.25			57.36*			1973	86213
		0.06			82.2	3.000	0.063	1.200	1.828	---	26.40	40.30			58.95*			1973	86213
		0.06			82.2	3.000	0.063	1.100	1.762	---	26.00	37.32	39.0/	1.5	55.67	----/	---	1973	86213
T6	S	0.12	R.T.	L-T	81.8	3.000	0.124	1.200	2.066	---	26.10	39.84			68.60*			1973	86213
		0.12			81.8	3.000	0.123	1.160	2.102	---	29.10	43.35	41.6/	2.5	78.56*	----/	---	1973	86213
T6	S	0.02	R.T.	T-L	78.6	3.000	0.021	1.120	1.879	---	29.10	42.29			67.13*			1973	86213
		0.02			78.6	3.000	0.021	1.140	2.016	---	28.60	42.08	42.2/	0.1	72.50*	----/	---	1973	86213
T6	S	0.06	R.T.	T-L	79.4	3.000	0.063	1.170	1.768	---	23.90	35.82			51.37			1973	86213
T6	S	0.12	R.T.	T-L	77.0	3.000	0.125	1.200	2.055	---	20.30	30.99			52.89*			1973	86213
		0.12			77.0	3.000	0.125	1.300	2.033	---	19.20	31.12	31.1/	0.1	49.23	----/	---	1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T76	S	0.06	R.T.	L-T	71.6	3.000	0.064	1.200	2.059	---	32.00	48.84			83.62*			1973	86213
		0.06			71.6	3.000	0.064	1.120	2.010	---	35.40	51.45	50.1/	1.8	89.36*	----/	---	1973	86213
T76	S	0.12	R.T.	L-T	67.4	3.000	0.131	1.260	2.150	---	31.80	50.33*			89.07*			1973	86213
		0.12			67.4	3.000	0.130	1.150	2.093	---	34.20	50.63*			91.64*			1973	86213
T76	S	0.06	R.T.	T-L	71.4	3.000	0.064	1.140	1.824	---	29.70	43.70			66.15*			1973	86213
		0.06			71.4	3.000	0.065	1.240	1.910	---	27.30	42.69	43.2/	0.7	64.33*	----/	---	1973	86213
T76	S	0.12	R.T.	T-L	66.8	3.000	0.132	1.210	2.089	---	29.50	45.30			78.81*			1973	86213
		0.12			66.8	3.000	0.132	1.200	2.015	---	30.00	45.79	45.5/	0.3	75.95*	----/	---	1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.1.1

MEAN PLANE STRAIN FRACTURE TOUGHNESS DATA OF
ALUMINUM ALLOY 7475 AT ROOM TEMPERATURE

CONDITION/HT	MEAN KIC ± STANDARD (KSI SQRT(IN)) DEVIATION (NUMBER OF SPECIMENS)		
	PLATE		
CONDITION/HT	L-T	T-L	S-L
T651	40.1 ± 2.4 (19)	34.6 ± 3.5 (120)	32.9 ± 2.5 (8)
T651 (SP)	35.3 ± 1.9 (8)	34.4 ± 2.1 (11)	27.3 ± 1.6 (10)
T7351	47.1 ± 4.9 (150)	37.1 ± 4.0 (111)	30.6 ± 2.6 (62)
T7351 (SP)	-----	37.6 ± 2.5 (17)	-----
T7651	40.4 ± 2.3 (7)	34.0 ± 2.9 (8)	27.6 ± 0.8 (5)
T7651 (SP)	42.4 ± 2.9 (3)	35.7 ± 0.4 (3)	27.3 ± 2.1 (6)

TABLE 8.20.1.2

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT DRY AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.33	13.30				10.4			
T7351	PLATE	0.10	6.00			0.26	2.91	46.5		
T7351	PLATE	0.30	6.00			0.34	7.98	46.0		
T7351	PLATE	0.33	2.00-20.00				4.97			
T7351	PLATE	0.50	6.00			0.54	9.71	79.7		
T761	SHEET	0.33	13.30				9.10	53.1		
T7651	PLATE	-0.20	6.00			0.19	3.63	32.7		
T7651	PLATE	0.10	6.00				3.73	37.7		
T7651	PLATE	0.10	20.00			1.03	5.97			
T7651	PLATE	0.30	6.00			0.62				
T7651	PLATE	0.50	6.00		0.10	1.15	12.1			

TABLE 8.20.1.3

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT AIR AT - 65 F

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T761	SHEET	0.00	3.00-20.00					28.4		
T7651	SHEET	0.80	10.00				13.9			

TABLE 8.20.1.4

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT: LAB AIR AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	PLATE	0.10	20.00				6.87			
T6151	SHEET	0.10	20.00				5.52	40.7		
T651	PLATE	0.33	25.00			1.19	22.8			
T7351	PLATE	0.02	0.10-20.00			0.21	5.00	37.1	2520	
T7351	PLATE	0.10	20.00				5.55			
T761	SHEET	0.10	20.00				5.41	33.1		
T7651	SHEET	0.00	2.00-30.00			0.25	4.56	42.3		
T7651	SHEET	0.00	6.00-30.00			0.27	4.26	43.3		

TABLE 8.20.1.4 (con't)

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT LAB AIR AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7651	SHEET	0.40	2.00-30.00			1.19	13.1	75.4		
T7651	SHEET	0.80	2.00-30.00			3.26	20.0			
T7651	PLATE	0.00	3.00-30.00				3.93	47.6	508.	
T7651	PLATE	0.80	3.00-30.00			4.03				

TABLE 8.20.1.5

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

IFSI CONDITIONS

SPECIMEN ORIENTATION L-T ENVIRONMENT H H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.05	2.00					42.7		
T61	SHEET	0.05	2.00						928.	
T61	SHEET	0.05	2.00					58.2		
T61	SHEET	0.33	13.30				29.7			
T651	PLATE	0.33	5.20				34.4	302		
T651	PLATE	0.33	25.00		0.05	1.45	31.2	224		
T7351	PLATE	0.10	1.00				2.78	47.8		
T7351	PLATE	0.10	5.50-33.00			0.25				
T7351	PLATE	0.10	5.50-33.00				9.90	101		
T7351	PLATE	0.25	5.50-33.00		0.06					
T7351	PLATE	0.25	5.50-33.00				11.8			
T7351	PLATE	0.33	25.00		0.06	0.99	11.6	90.8		
T7351	PLATE	0.50	5.50-33.00		0.10					
T7351	PLATE	0.50	5.50-33.00				20.6			
T761	SHEET	0.33	13.30				19.0			

TABLE 8.20.1.6

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT 3 5% NACL AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2 5	5	10	20	50	100
T61	SHEET	0 05	2 00					159		
T7351	PLATE	0 10	20 00				13 6			

TABLE 8.20.1.7

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT S.T.W AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	-0.20	1.00				2.92			
T7351	PLATE	0.10	1.00			0.62	13.4			
T7351	PLATE	0.10	1.00			0.74	14.4			
T7351	PLATE	0.10	1.00				20.8	130	2093	
T7351	PLATE	0.10	6.00				8.17			
T7351	PLATE	0.30	1.00			0.71	29.1			
T7351	PLATE	0.30	1.00				50.7	170		
T7351	PLATE	0.33	2.00-20.00				22.3			
T7351	PLATE	0.50	1.00			4.18	46.8			
T7351	PLATE	0.50	1.00			1.48	63.0	333		
T7651	SHEET	0.00	1.00-5.00				32.1			
T7651	PLATE	-0.20	1.00			0.34	24.6			
T7651	PLATE	0.10	0.10				16.2	199		
T7651	PLATE	0.10	1.00			0.26	25.9	115		
T7651	PLATE	0.30	1.00			0.76	30.8	162		
T7651	PLATE	0.50	1.00			4.06	44.8			

TABLE 8.20.1.8

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: SALT FOG AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.33	13.30				44.5			
T761	SHEET	0.33	13.30				35.5	190		

TABLE 8.20.1.9

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: DRY AIR AT R T

CONDITION/TR	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE)					
					2.5	5	10	20	50	100
T61	SHEET	0.33	13.30				8.58			
T61	SHEET	0.33	13.30				11.5	92.2		
T651	PLATE	0.10	1.00			0.90	8.68			
T7351	PLATE	0.10	6.00			0.36	3.64	56.8		
T7351	PLATE	0.30	6.00			0.39	7.54	65.5		
T7351	PLATE	0.50	6.00			0.74				
T761	SHEET	0.33	13.30				10.3	75.7		
T761	SHEET	0.33	13.30				8.36			

TABLE 8.20.1.10

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS:

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T6151	SHEET	0.10	20.00				6.22	54.5		
T76	SHEET	0.33	13.30				9.90			
T761	SHEET	0.10	20.00				4.36	43.8		

TABLE 8.20.1.11

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT H.H.A AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.33	13.30				21.3			
T61	SHEET	0.33	13.30				26.6	179		
T7351	PLATE	0.10	1.00				3.57	49.4		
T7351	PLATE	0.10	0.10				4.65	51.0		
T7351	PLATE	0.33	2.00-20.00				13.1			
T761	SHEET	0.33	13.30				19.5	118		
T761	SHEET	0.25	2.00				10.8	58.1		
T761	SHEET	0.33	13.30				19.1			

TABLE 8.20.1.12

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: 3.5% NACL AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.05	2.00					188.		
T761	SHEET	0.05	2.00					158.		
T761	SHEET	0.05	2.00					139.		

TABLE 8.20.1.13

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: S. T. W. AT R. T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	0.10	1.00				8.01	118		
T7351	PLATE	0.30	1.00			0.29	35.6	197		
T7351	PLATE	0.33	2.00				30.0			
T7351	PLATE	0.33	20.00			2.35	23.5			
T7351	PLATE	0.33	30.00			2.32				
T7351	PLATE	0.50	1.00			1.39	43.5	401		

TABLE 8.20.1.14

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT SALT FOG AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.33	13.30				30.6			
T61	SHEET	0.33	13.30				40.5	198		
T761	SHEET	0.33	13.30				39.3	191		
T761	SHEET	0.33	13.30				33.1			

TABLE 8.20.1.15

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS:

SPECIMEN ORIENTATION: S-L

ENVIRONMENT: DRY AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	0.10	6.00			0.78	7.49	145		
T7351	PLATE	0.33	2.00-20.00				5.71			
T7351	PLATE	0.50	6.00			1.44	25.8			

TABLE 8.20.1.16

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475

TEST CONDITIONS:

SPECIMEN ORIENTATION: S-L

ENVIRONMENT: S. T. W. AT R. T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T7351	PLATE	0.10	1.00			2.02	32.1			
T7351	PLATE	0.30	1.00			4.37	54.6			
T7351	PLATE	0.33	20.00				23.1			
T7351	PLATE	0.50	1.00			5.02	60.9			

TABLE 8.20.2.1

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T6	P	1.62	83	S-L	69.6	1.000	0.499	CT	0.529	0.46	29.80			1973	B6213
		1.62			69.6	1.000	0.499	CT	0.552	0.47	30.30	30.1/	0.4	1973	B6213
T651	P	0.95	R.T.	L-T	72.3	2.004	0.958	CT	1.042	0.75	40.40			1978	MPC01
		0.92			72.3	2.979	0.960	CT	1.549	0.81	41.90			1978	MPC01
		0.92			74.3	3.017	0.931	CT	1.569	0.87	44.00			1978	MPC01
		0.95			74.3	1.985	0.931	CT	1.032	0.72	40.60			1978	MPC01
		0.95			74.5	2.009	0.950	CT	1.065	0.70	40.10			1978	MPC01
		0.92			74.5	3.014	0.952	CT	1.537	0.78	42.20			1978	MPC01
		0.95			74.8	1.996	0.934	CT	1.058	0.72	40.50			1978	MPC01
		0.92			74.8	3.021	0.935	CT	1.571	0.81	43.20			1978	MPC01
		0.92			74.8	2.011	0.918	CT	1.086	0.78	42.60			1978	MPC01
		0.95			75.1	1.996	0.931	CT	1.038	0.78	42.40			1978	MPC01
		0.87			76.6	2.975	0.860	CT	1.547	0.67	40.10			1978	MPC01
		0.92			76.6	1.985	0.903	CT	1.072	0.72	41.60			1978	MPC01
		0.87			76.6	2.017	0.859	CT	1.049	0.65	39.10			1978	MPC01
		0.92			76.9	2.992	0.951	CT	1.496	0.52	36.00			1978	MPC01
		0.95			76.9	2.012	0.949	CT	1.046	0.52	35.40			1978	MPC01
		0.92			77.5	2.992	0.910	CT	1.526	0.60	38.70			1978	MPC01
		0.92			77.5	1.996	0.904	CT	1.098	0.55	36.80			1978	MPC01
		0.92			78.0	3.004	0.932	CT	1.532	0.57	38.00			1978	MPC01
		0.92			78.0	2.000	0.932	CT	1.040	0.60	38.70	40.1/	2.4	1978	MPC01
T651	P	1.00	R.T.	T-L	----	2.017	1.000	CT	1.049	----	39.80			1978	MPC01
		1.50			69.0	3.022	1.501	CT	1.541	0.60	34.00			1978	MPC01
		1.00			69.0	1.993	0.999	CT	1.056	0.84	40.50			1978	MPC01
		1.00			69.0	3.028	1.025	CT	1.609	0.90	41.80			1978	MPC01
		0.87			69.5	1.992	0.886	CT	1.036	0.62	35.30			1978	MPC01
		0.92			69.5	2.010	0.947	CT	1.045	0.60	34.70			1978	MPC01
		0.87			69.5	3.020	0.888	CT	1.510	0.62	35.30			1978	MPC01
		0.87			69.6	1.990	0.866	CT	1.035	0.72	38.10			1978	MPC01
		0.87			69.8	2.008	0.876	CT	1.004	0.62	35.30			1978	MPC01
		1.00			69.8	1.987	1.001	CT	1.053	0.57	34.00			1978	MPC01
		0.87			69.8	3.020	0.880	CT	1.540	0.72	38.30			1978	MPC01
		0.87			70.6	2.988	0.882	CT	1.494	0.70	38.00			1978	MPC01
		1.00			70.6	2.017	0.999	CT	1.049	0.72	38.80			1978	MPC01
		0.92			70.6	2.011	0.959	CT	1.086	0.57	34.50			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	K(IC) STAN DEV	DATE	REFER
T651	P	0.87	R.T.	T-L	70.6	1.996	0.880	CT	1.018	0.60	35.20			1978	MPC01
		1.00			70.6	2.979	1.006	CT	1.549	0.84	41.60			1978	MPC01
		0.87			70.7	1.983	0.873	CT	1.071	0.44	30.40			1978	MPC01
		1.00			70.7	3.024	0.993	CT	1.542	0.70	37.80			1978	MPC01
		1.00			70.7	1.993	0.990	CT	1.056	0.62	35.70			1978	MPC01
		0.87			70.8	2.000	0.889	CT	1.040	0.57	34.00			1978	MPC01
		0.87			71.0	2.000	0.871	CT	1.000	0.84	41.20			1978	MPC01
		0.87			71.1	2.010	0.871	CT	1.025	0.67	37.30			1978	MPC01
		0.87			71.1	2.981	0.873	CT	1.580	0.65	36.80			1978	MPC01
		0.87			71.2	2.012	0.870	CT	1.026	0.52	33.20			1978	MPC01
		0.87			71.2	2.002	0.882	CT	1.061	0.84	41.30			1978	MPC01
		0.87			71.3	1.993	0.869	CT	1.056	0.55	34.10			1978	MPC01
		1.00			71.4	2.978	1.007	CT	1.519	0.81	40.80			1978	MPC01
		1.00			71.4	2.002	1.002	CT	1.021	0.70	38.30			1978	MPC01
		0.87			71.5	2.008	0.884	CT	1.024	0.60	35.10			1978	MPC01
		0.87			71.6	2.000	0.865	CT	1.000	0.72	38.80			1978	MPC01
		0.87			71.7	1.985	0.895	CT	1.052	0.50	32.40			1978	MPC01
		0.92			71.7	2.998	0.921	CT	1.529	0.52	33.40			1978	MPC01
		0.92			71.7	1.985	0.920	CT	1.032	0.46	31.50			1978	MPC01
		1.00			71.8	1.982	1.001	CT	1.090	0.50	32.60			1978	MPC01
		0.92			71.9	2.017	0.894	CT	1.069	0.65	37.30			1978	MPC01
		0.92			71.9	1.985	0.927	CT	1.052	0.52	33.60			1978	MPC01
		0.92			72.0	2.008	0.907	CT	1.004	0.52	33.40			1978	MPC01
		0.92			72.0	1.981	0.952	CT	1.030	0.50	32.90			1978	MPC01
		0.92			72.0	1.989	0.927	CT	1.054	0.57	35.10			1978	MPC01
		0.87			72.1	2.014	0.867	CT	1.047	0.55	34.60			1978	MPC01
		0.92			72.4	2.000	0.931	CT	1.040	0.62	36.90			1978	MPC01
		0.92			72.4	1.996	0.921	CT	1.018	0.62	36.40			1978	MPC01
		0.92			72.5	2.018	0.929	CT	1.029	0.52	33.60			1978	MPC01
		0.87			72.6	2.000	0.887	CT	1.040	0.50	33.30			1978	MPC01
		0.92			72.7	1.985	0.934	CT	1.032	0.52	33.70			1978	MPC01
		0.62			72.7	2.990	0.646	CT	1.509	0.45	30.80			1973	86213
		0.62			72.7	3.000	0.646	CT	1.516	0.53	33.60			1973	86213
		0.92			72.7	2.000	0.928	CT	1.040	0.52	34.00			1978	MPC01
		0.92			72.7	1.971	0.904	CT	1.025	0.60	35.70			1978	MPC01
		0.92			72.8	2.012	0.921	CT	1.046	0.50	33.30			1978	MPC01
		0.87			72.8	2.015	0.896	CT	1.048	0.50	33.30			1978	MPC01
		0.87			72.9	1.987	0.878	CT	1.053	0.62	36.50			1978	MPC01
		0.92			73.0	1.989	0.932	CT	1.054	0.48	32.70			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	0.87	R.T.	T-L	73.1	1.989	0.888	CT	1.034	0.50	33.20			1978	MPC01
		0.95			73.2	2.010	0.954	CT	1.005	0.62	36.60			1978	MPC01
		0.62			73.2	3.000	0.645	CT	1.539	0.49	32.30			1973	86213
		0.62			73.2	3.000	0.646	CT	1.476	0.41	29.80			1973	86213
		0.95			73.2	2.004	0.952	CT	1.062	0.65	37.50			1978	MPC01
		0.95			73.2	1.992	0.955	CT	1.036	0.57	35.40			1978	MPC01
		0.92			73.3	2.006	0.932	CT	1.043	0.52	34.20			1978	MPC01
		0.92			73.4	2.014	0.929	CT	1.007	0.60	36.10			1978	MPC01
		1.00			73.4	2.013	0.978	CT	1.067	0.42	30.20			1978	MPC01
		1.00			73.4	1.983	0.993	CT	1.071	0.48	32.70			1978	MPC01
		0.87			73.6	3.018	0.881	CT	1.509	0.48	32.70			1978	MPC01
		0.87			73.6	1.998	0.878	CT	1.039	0.60	32.00			1978	MPC01
		0.87			73.7	1.984	0.865	CT	0.972	0.81	42.30			1978	MPC01
		0.87			73.7	1.994	0.872	CT	0.937	0.87	43.60			1978	MPC01
		0.87			73.9	2.992	0.873	CT	1.556	0.40	29.60			1978	MPC01
		0.87			73.9	2.013	0.886	CT	1.087	0.44	31.70			1978	MPC01
		0.87			73.9	1.980	0.873	CT	1.010	0.38	29.50			1978	MPC01
		0.92			73.9	1.981	0.922	CT	1.030	0.52	34.10			1978	MPC01
		0.92			74.0	1.990	0.911	CT	1.035	0.57	36.10			1978	MPC01
		0.92			74.0	1.996	0.927	CT	1.038	0.50	33.70			1978	MPC01
		0.95			74.1	2.012	0.956	CT	1.046	0.72	40.40			1978	MPC01
		0.92			74.2	1.989	0.918	CT	1.034	0.55	35.30			1978	MPC01
		0.87			74.3	1.998	0.872	CT	1.019	0.38	29.30			1978	MPC01
		0.87			74.3	2.998	0.879	CT	1.499	0.42	31.10			1978	MPC01
		0.87			74.3	2.015	0.877	CT	1.088	0.55	35.00			1978	MPC01
		0.92			74.3	2.004	0.920	CT	1.042	0.48	32.90			1978	MPC01
		0.92			74.3	3.026	0.919	CT	1.543	0.62	37.20			1978	MPC01
		0.92			74.3	1.988	0.903	CT	0.994	0.57	36.00			1978	MPC01
		0.92			74.4	2.002	0.920	CT	1.001	0.46	32.50			1978	MPC01
		1.00			74.5	2.000	1.011	CT	1.020	0.36	28.50			1978	MPC01
		1.00			74.5	1.983	1.011	CT	1.051	0.36	28.90			1978	MPC01
		0.87			74.5	1.993	0.860	CT	1.056	0.44	31.70			1978	MPC01
		1.00			74.5	1.979	1.011	CT	1.049	0.36	28.80			1978	MPC01
		0.75			74.6	4.955	0.751	CT	2.527	0.72	40.30			1978	MPC01
		0.87			74.6	2.013	0.866	CT	0.966	0.78	41.90			1978	MPC01
		0.92			74.8	3.024	0.908	CT	1.542	0.57	36.30			1978	MPC01
		0.92			74.8	2.004	0.908	CT	1.042	0.60	36.70			1978	MPC01
		0.92			74.9	1.996	0.919	CT	1.038	0.48	33.50			1978	MPC01
		0.92			75.0	1.981	0.907	CT	1.030	0.38	29.80			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	1.00	R.T.	T-L	75.0	2.000	0.964	CT	1.026	0.48	33.00			1973	86213
		0.75			75.1	4.967	0.759	CT	2.533	0.70	40.30			1978	MPC01
		1.00			75.4	1.985	1.010	CT	1.052	0.40	30.30			1978	MPC01
		1.00			75.4	2.000	1.010	CT	1.060	0.42	31.00			1978	MPC01
		1.00			75.4	2.012	1.010	CT	1.046	0.38	30.00			1978	MPC01
		0.92			75.4	1.983	0.925	CT	1.031	0.46	33.10			1978	MPC01
		0.92			75.4	1.988	0.904	CT	1.014	0.44	32.40			1978	MPC01
		0.75			75.4	4.943	0.749	CT	2.521	0.67	39.50			1978	MPC01
		0.92			75.5	1.984	0.917	CT	1.012	0.50	34.10			1978	MPC01
		0.92			75.5	3.006	0.918	CT	1.533	0.62	37.80			1978	MPC01
		0.75			75.6	5.046	0.748	CT	2.523	0.65	39.20			1978	MPC01
		1.00			75.7	1.993	1.002	CT	1.056	0.44	31.80			1978	MPC01
		1.00			75.7	2.019	1.002	CT	1.070	0.40	30.80			1978	MPC01
		0.87			75.7	1.983	0.867	CT	1.031	0.42	31.60			1978	MPC01
		1.00			75.7	1.987	1.003	CT	1.053	0.40	30.30			1978	MPC01
		0.87			75.9	1.996	0.873	CT	1.018	0.52	35.20			1978	MPC01
		0.87			76.0	1.979	0.881	CT	1.029	0.50	34.20			1978	MPC01
		0.87			76.1	2.014	0.870	CT	1.047	0.57	36.80			1978	MPC01
		1.00			76.1	1.998	0.982	CT	1.079	0.44	32.40			1978	MPC01
		1.00			76.5	2.018	1.006	CT	1.029	0.40	30.70			1978	MPC01
		1.00			76.5	1.985	1.006	CT	1.052	0.42	31.80			1978	MPC01
		1.00			76.5	1.996	1.004	CT	1.038	0.38	30.50			1978	MPC01
		0.75			76.6	4.969	0.741	CT	2.534	0.67	40.50			1978	MPC01
		0.87			76.7	1.989	0.876	CT	1.034	0.48	34.50			1978	MPC01
		0.92			76.8	1.994	0.950	CT	1.017	0.34	28.70			1978	MPC01
		0.92			76.9	2.011	0.905	CT	1.086	0.40	31.10			1978	MPC01
		0.92			77.1	1.988	0.932	CT	0.994	0.38	30.30			1978	MPC01
		1.00			77.3	1.996	1.005	CT	1.038	0.30	27.20	34.6/	3.5	1978	MPC01
T651	P	1.62	83	T-L	73.0	1.490	0.750	CT	0.747	0.49	32.40			1973	86213
		1.62			73.0	1.490	0.739	CT	0.737	0.53	33.70			1973	86213
		1.62			74.6	1.490	0.750	CT	0.755	0.41	30.30			1973	86213
		1.62			74.6	1.490	0.750	CT	0.738	0.39	29.50	31.5/	1.9	1973	86213
T651	P	2.62	R.T.	S-L	61.7	2.000	1.001	CT	0.976	0.73	33.30			1973	86213
		2.62			61.8	2.000	1.001	CT	0.981	0.66	31.80			1973	86213
		2.62			62.2	2.000	1.001	CT	0.990	0.63	31.30			1973	86213
		2.62			62.2	2.000	1.001	CT	0.985	0.52	28.40			1973	86213
		2.62			62.2	2.000	1.001	CT	1.015	0.76	34.40			1973	86213

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651	P	2.62	R.T.	S-L	62.6	2.000	1.000	CT	1.010	0.85	36.50			1973	86213
		2.62			62.7	2.000	1.001	CT	1.011	0.78	35.10			1973	86213
		2.62			63.8	2.000	1.001	CT	1.002	0.64	32.30	32.9/	2.5	1973	86213
T651	P	1.62	83	S-L	68.1	1.000	0.499	CT	0.499	0.32	24.50			1973	86213
T651 (SP)	P	1.30	R.T.	L-T	75.0	3.000	1.281	CT	1.603	0.63	37.70			1973	86213
		1.30			75.0	3.000	1.282	CT	1.595	0.60	36.60			1973	86213
		1.30			77.4	3.000	1.305	CT	1.614	0.52	35.40			1973	86213
		1.30			77.4	3.000	1.304	CT	1.600	0.50	34.50			1973	86213
		1.30			78.5	3.000	1.293	CT	1.611	0.57	37.40			1973	86213
		1.30			79.0	3.000	1.314	CT	1.608	0.50	35.20			1973	86213
		1.30			81.3	3.000	1.277	CT	1.610	0.41	32.80			1973	86213
		1.30			81.3	3.000	1.278	CT	1.607	0.41	32.90	35.3/	1.9	1973	86213
T651 (SP)	P	2.00	R.T.	T-L	70.5	3.990	2.032	CT	2.110	0.62	35.10			1973	86213
		2.00			70.5	4.000	2.030	CT	2.120	0.58	33.90			1973	86213
		1.30			72.3	3.000	1.283	CT	1.584	0.65	36.90			1973	86213
		1.30			72.3	3.000	1.281	CT	1.579	0.65	36.80			1973	86213
		1.75			73.1	4.000	1.784	CT	2.182	0.41	29.60			1973	86213
		1.30			74.9	3.000	1.305	CT	1.617	0.54	34.70			1973	86213
		1.30			74.9	3.000	1.305	CT	1.584	0.51	33.70			1973	86213
		1.30			75.5	3.000	1.336	CT	1.601	0.50	33.80			1973	86213
		1.30			76.7	3.000	1.313	CT	1.599	0.51	34.70			1973	86213
		1.30			77.3	3.000	1.290	CT	1.600	0.55	36.40			1973	86213
		1.30			78.1	3.000	1.276	CT	1.613	0.45	33.20	34.4/	2.1	1973	86213
T651 (SP)	P	1.30	82	T-L	75.5	5.000	1.343	CT	2.658	0.62	37.70			1973	86213
		1.30			75.5	5.000	1.343	CT	2.704	0.67	39.20	38.5/	1.1	1973	86213
T651 (SP)	P	1.30	R.T.	S-L	66.8	1.000	0.498	CT	0.496	0.48	29.20			1973	86213
		1.30			67.2	1.000	0.499	CT	0.501	0.47	29.20			1973	86213
		1.30			67.8	1.000	0.498	CT	0.489	0.41	27.30			1973	86213
		1.30			67.8	1.000	0.498	CT	0.512	0.37	26.00			1973	86213
		1.30			68.0	1.000	0.498	CT	0.502	0.40	27.20			1973	86213
		1.30			68.0	1.000	0.498	CT	0.506	0.48	29.80			1973	86213
		1.30			68.4	1.000	0.498	CT	0.504	0.39	25.60			197?	86213

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T651 (SP)	P	1.30	R.T.	S-L	68.4	1.000	0.499	CT	0.500	0.34	25.30			1973	86213
		1.30			70.8	1.000	0.499	CT	0.506	0.37	27.10			1973	86213
		1.30			70.8	1.000	0.498	CT	0.513	0.36	26.70	27.3/	1.6	1973	86213
T651 (SP)	P	2.00	82	S-L	62.6	1.490	0.748	CT	0.768	0.70	33.20			1973	86213
		1.75			66.3	1.000	0.500	CT	0.478	0.23	19.90			1973	86213
		1.75			66.3	1.000	0.499	CT	0.496	0.27	21.80	25.0/	7.2	1973	86213
T73	P	1.62	83	T-L	70.0	1.490	0.749	CT	0.783	0.66	36.00			1973	86213
		1.62			70.4	1.490	0.750	CT	0.798	0.71	37.60			1973	86213
		1.62			70.4	1.490	0.750	CT	0.774	0.68	36.60	36.7/	0.8	1973	86213
T73	P	1.62	83	S-L	68.9	1.000	0.500	CT	0.510	0.48	30.10			1973	86213
		1.62			68.9	1.000	0.501	CT	0.490	0.45	29.20			1973	86213
		1.62			69.1	1.000	0.499	CT	0.481	0.44	29.00	29.4/	0.6	1973	86213
T7351	P	4.00	R.T.	L-T	55.2	3.003	1.498	CT	1.525	1.27	39.40			1977	RA006
		3.50			55.3	4.967	2.500	CT	2.583	1.76	47.00			1978	MPC01
		3.50			55.8	5.014	2.500	CT	2.607	1.89	48.90			1978	MPC01
		3.54			56.5	3.000	1.500	CT	1.454	1.42	42.70			1977	RA004
		3.50			56.7	4.985	2.500	CT	2.592	2.07	51.70			1978	MPC01
		3.00			56.7	5.035	2.501	CT	2.568	2.25	54.20			1978	MPC01
		3.00			56.7	5.978	2.983	CT	3.049	2.50	56.70			1978	MPC01
		3.50			56.7	5.049	2.500	CT	2.575	2.20	53.50			1978	MPC01
		3.00			56.7	5.982	3.000	CT	3.051	2.50	57.00			1978	MPC01
		3.00			56.7	4.969	2.503	CT	2.584	2.30	54.80			1978	MPC01
		3.50			57.0	5.049	2.500	CT	2.575	2.02	51.70			1978	MPC01
		3.50			57.1	5.035	2.499	CT	2.568	1.89	50.00			1978	MPC01
		3.00			57.2	5.003	2.503	CT	2.677	1.74	47.80			1978	RA003
		3.50			57.3	5.039	2.500	CT	2.620	1.98	51.20			1978	MPC01
		3.50			57.3	5.024	2.500	CT	2.562	1.72	47.60			1978	MPC01
		3.00			57.4	4.999	2.499	CT	2.663	1.72	47.70			1978	RA003
		2.80			57.5	4.982	2.500	CT	2.541	1.72	47.90			1978	MPC01
		3.62			57.6	3.005	1.487	CT	1.485	1.36	42.59			1977	RA006
		3.00			57.8	5.000	2.501	CT	2.597	1.28	41.50			1978	RA003

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	2.75	R.T.	L-T	57.9	5.986	2.759	CT	2.993	1.80	49.60			1978	MPC01
		2.75			57.9	5.026	2.500	CT	2.563	1.80	49.50			1978	MPC01
		2.75			57.9	5.982	2.757	CT	2.991	1.84	50.20			1978	MPC01
		3.50			58.1	4.996	2.500	CT	2.548	2.11	53.90			1978	MPC01
		3.00			58.1	4.997	2.493	CT	2.582	1.41	43.70			1978	RA003
		3.00			58.1	4.995	2.498	CT	2.577	1.11	38.80			1980	RA005
		3.50			58.2	5.004	2.500	CT	2.602	1.48	45.10			1978	MPC01
		4.00			58.3	5.996	3.001	CT	3.178	2.35	57.00			1978	MPC01
		3.50			58.3	5.037	2.500	CT	2.619	1.80	50.10			1978	MPC01
		3.00			58.3	4.996	2.499	CT	2.635	1.54	45.80			1978	RA003
		3.00			58.3	4.997	2.499	CT	2.649	1.21	40.70			1978	RA003
		3.50			58.3	4.966	2.500	CT	2.632	1.89	50.80			1978	MPC01
		3.50			58.5	4.964	2.500	CT	2.631	1.76	49.30			1978	MPC01
		3.50			58.6	5.000	2.500	CT	2.600	1.44	44.60			1978	MPC01
		2.25			58.7	5.046	2.275	CT	2.523	1.93	51.70			1978	MPC01
		3.50			58.8	6.015	3.002	CT	3.128	1.76	49.70			1978	MPC01
		4.00			58.8	5.962	2.994	CT	3.160	1.76	49.50			1978	MPC01
		3.50			58.8	5.975	3.000	CT	3.107	1.72	49.20			1978	MPC01
		2.25			58.9	5.008	2.276	CT	2.554	1.89	51.60			1978	MPC01
		3.00			59.1	4.996	2.494	CT	2.649	1.67	48.40			1978	RA003
		3.00			59.1	4.999	2.496	CT	2.664	1.38	44.00			1978	RA003
		3.50			59.1	6.017	3.000	CT	3.129	1.84	51.20			1978	MPC01
		3.50			59.1	5.951	3.000	CT	3.154	1.80	50.70			1978	MPC01
		2.25			59.2	6.036	2.252	CT	3.018	1.72	49.20			1978	MPC01
		2.25			59.2	6.042	2.253	CT	3.021	1.68	48.80			1978	MPC01
		4.00			59.3	6.023	3.002	CT	3.192	2.40	58.20			1978	MPC01
		3.25			59.3	3.003	1.499	CT	1.500	0.91	35.80			1977	RA006
		3.50			59.3	5.029	2.500	CT	2.615	2.02	53.60			1978	MPC01
		3.00			59.5	5.002	2.502	CT	2.570	1.75	49.80			1978	GD006
		2.40			59.5	5.977	2.385	CT	3.048	1.19	41.40			1978	MPC01
		3.00			59.5	4.998	2.505	CT	2.572	1.68	48.90			1978	GD006
		2.30			59.6	5.044	2.258	CT	2.522	1.60	47.80			1978	MPC01
		2.25			59.6	5.006	2.275	CT	2.553	1.89	52.30			1978	MPC01
		3.00			59.7	5.040	2.502	CT	2.621	1.44	45.80			1978	MPC01
		2.25			59.7	5.020	2.270	CT	2.560	1.84	51.50			1978	MPC01
		4.00			59.9	6.000	3.001	CT	3.240	1.76	50.90			1978	MPC01
		3.00			60.0	4.977	2.502	CT	2.638	1.56	47.80			1978	MPC01
		4.00			60.0	4.959	2.500	CT	2.628	1.52	46.90			1978	MPC01
		3.00			60.0	4.994	2.501	CT	2.647	1.60	48.40			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	3.00	R.T.	L-T	60.1	4.992	2.495	CT	2.582	1.22	42.09			1978	RA003
		2.75			60.1	6.045	2.726	CT	3.083	2.16	56.20			1978	MPC01
		3.00			60.1	4.957	2.501	CT	2.627	1.56	47.70			1978	MPC01
		3.50			60.2	4.960	2.500	CT	2.579	1.68	49.40			1978	MPC01
		2.25			60.2	4.986	2.274	CT	2.543	1.76	51.00			1978	MPC01
		2.75			60.4	4.958	2.500	CT	2.578	1.48	46.60			1978	MPC01
		2.75			60.4	4.980	1.750	CT	2.540	1.60	48.70			1978	MPC01
		2.75			60.4	6.032	2.735	CT	3.016	1.48	46.70			1978	MPC01
		2.75			60.4	6.018	2.740	CT	3.009	1.48	47.00			1978	MPC01
		3.00			60.5	4.998	2.495	CT	2.575	1.02	38.70			1978	RA003
		3.00			60.5	5.027	2.502	CT	2.614	1.48	46.90			1978	MPC01
		3.50			60.5	5.012	2.499	CT	2.606	1.64	49.40			1978	MPC01
		2.25			60.5	5.012	2.275	CT	2.556	1.76	51.00			1978	MPC01
		2.50			60.5	5.049	2.500	CT	2.575	1.68	49.80			1978	MPC01
		3.25			60.6	3.004	1.478	CT	1.586	1.13	40.90			1977	RA006
		2.50			60.6	5.012	2.500	CT	2.606	1.72	50.60			1978	MPC01
		1.50			60.6	5.015	2.500	CT	2.608	1.68	49.70			1978	MPC01
		1.00			60.6	4.991	2.501	CT	2.645	1.68	49.70			1978	MPC01
		[illegible]			60.7	5.004	2.500	CT	2.552	1.68	50.20			1978	MPC01
		[illegible]			60.8	5.019	2.502	CT	2.660	1.33	44.80			1978	MPC01
		[illegible]			60.8	5.000	2.502	CT	2.650	1.76	51.10			1978	MPC01
		[illegible]			60.9	5.033	2.501	CT	2.567	1.76	51.30			1978	MPC01
		[illegible]			60.9	5.008	2.500	CT	2.554	1.22	43.20			1978	MPC01
					60.9	4.966	2.501	CT	2.632	1.15	41.70			1978	MPC01
					60.9	4.999	2.488	CT	2.604	0.77	33.80			1978	RA003
					60.9	5.031	2.383	CT	2.566	1.60	48.90			1978	MPC01
					61.1	4.999	2.501	CT	2.625	1.00	38.80			1978	RA003
					61.1	5.056	2.088	CT	2.528	1.93	54.00			1978	MPC01
					61.2	5.033	2.488	CT	2.617	2.30	58.90			1978	MPC01
					61.2	5.004	2.379	CT	2.552	1.89	53.50			1978	MPC01
					61.4	4.967	2.500	CT	2.583	1.44	47.20			1978	MPC01
					61.5	4.998	2.500	CT	2.578	1.26	44.10			1978	MPC01
					61.5	4.998	2.496	CT	2.627	0.98	38.70			1978	RA003
					61.6	5.026	2.500	CT	2.563	1.60	49.40			1978	MPC01
					61.6	5.963	2.726	CT	3.041	1.52	48.60			1978	MPC01
					61.6	4.951	2.263	CT	2.525	1.48	47.50			1978	MPC01
					61.8	5.012	2.501	CT	2.556	1.22	43.70			1978	MPC01
					61.8	4.999	2.491	CT	2.628	1.06	40.40			1978	RA003
					61.9	5.000	2.333	CT	2.550	1.44	47.20			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	3.50	R.T.	L-T	61.9	4.992	2.499	CT	2.596	1.52	48.30			1978	MPC01
		3.00			61.9	4.987	2.502	CT	2.643	1.19	42.90			1978	MPC01
		2.25			61.9	5.996	2.263	CT	2.998	1.52	48.30			1978	MPC01
		2.25			61.9	6.008	2.261	CT	3.004	1.52	48.70			1978	MPC01
		3.00			62.0	4.996	2.497	CT	2.639	1.15	42.20			1978	RA003
		1.25			62.0	3.996	1.995	CT	1.990	1.21	43.30			1977	MA005
		1.25			62.0	3.996	1.994	CT	2.021	1.26	44.09			1977	MA005
		2.50			62.2	3.003	1.497	CT	1.557	0.64	39.50			1977	RA006
		1.75			62.4	5.040	1.750	CT	2.520	1.60	50.20			1978	MPC01
		2.40			62.4	5.986	2.364	CT	3.053	1.44	47.60			1978	MPC01
		3.00			62.4	5.322	2.500	CT	2.661	1.19	43.10			1978	MPC01
		3.00			62.4	5.041	2.500	CT	2.571	1.05	41.10			1978	MPC01
		3.00			62.4	4.999	2.493	CT	2.597	0.94	38.40			1978	RA003
		1.75			62.6	5.028	1.748	CT	2.514	1.68	51.90			1978	MPC01
		2.70			62.6	5.017	2.500	CT	2.609	2.25	60.00			1978	MPC01
		1.75			62.6	5.030	1.774	CT	2.515	1.33	45.90			1978	MPC01
		1.77			62.8	2.999	1.499	CT	1.587	1.01	39.90			1977	RA004
		1.75			62.8	4.955	1.760	CT	2.527	1.52	49.50			1978	MPC01
		1.77			62.8	2.999	1.499	CT	1.618	1.00	39.80			1977	RA004
		3.00			63.0	4.997	2.498	CT	2.650	1.26	44.80			1980	RA005
		3.00			63.0	5.025	2.501	CT	2.663	1.22	44.50			1978	MPC01
		2.40			63.3	5.028	2.380	CT	2.514	1.08	42.40			1978	MPC01
		3.00			63.4	4.960	2.502	CT	2.579	1.08	42.20			1978	MPC01
		1.75			63.4	4.985	1.751	CT	2.592	1.44	48.40			1978	MPC01
		2.00			63.4	4.994	2.075	CT	2.547	1.98	56.80			1978	MPC01
		2.75			63.4	5.949	2.726	CT	3.034	1.36	47.20			1978	MPC01
		2.40			63.4	6.049	2.367	CT	3.085	1.12	42.70			1978	MPC01
		2.40			63.5	4.994	2.383	CT	2.497	1.02	41.10			1978	MPC01
		1.75			63.5	5.004	1.741	CT	2.552	1.52	50.10			1978	MPC01
		2.50			63.6	3.002	1.503	CT	1.634	1.10	42.30			1977	RA006
		2.40			63.7	5.980	2.364	CT	3.050	1.22	44.60			1978	MPC01
		2.75			63.7	5.998	2.726	CT	3.059	1.60	51.00			1978	MPC01
		2.40			63.7	4.965	2.353	CT	2.532	1.22	45.00			1978	MPC01
		1.75			63.7	5.006	1.793	CT	2.553	1.68	52.70			1978	MPC01
		3.00			63.7	4.995	2.484	CT	2.615	0.89	38.09			1978	RA003
		2.40			64.0	4.994	2.365	CT	2.547	1.12	42.90			1978	MPC01
		2.40			64.2	4.978	2.378	CT	2.489	0.93	39.50			1978	MPC01
		1.25			64.5	3.001	1.271	CT	1.549	0.89	38.50			1977	RA006
		2.40			64.7	5.042	2.364	CT	2.521	0.99	40.90			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	1.75	R.T.	L-T	64.7	4.984	1.795	CT	2.542	1.26	46.40			1978	MPC01
		1.75			64.7	4.982	1.755	CT	2.541	1.44	49.20			1978	MPC01
		2.40			64.7	6.049	2.364	CT	3.085	1.08	42.90			1978	MPC01
		1.75			64.8	4.980	1.746	CT	2.540	1.15	44.50			1978	MPC01
		2.25			64.8	2.997	1.499	CT	1.609	1.04	41.80			1977	RA004
		1.75			65.1	4.977	1.753	CT	2.538	1.19	45.40			1978	MPC01
		1.75			65.2	4.965	1.753	CT	2.532	1.44	50.20			1978	MPC01
		1.75			65.2	4.967	1.758	CT	2.533	1.33	47.80			1978	MPC01
		1.75			65.3	4.975	1.755	CT	2.537	1.36	48.70			1978	MPC01
		1.75			65.6	4.965	1.755	CT	2.532	1.22	46.00			1978	MPC01
		2.40			65.7	5.004	2.378	CT	2.552	1.08	43.80			1978	MPC01
		1.75			66.0	5.029	1.761	CT	2.565	1.22	46.20			1978	MPC01
		1.75			66.0	5.000	1.742	CT	2.550	1.15	45.40			1978	MPC01
		1.75			67.0	4.992	1.750	CT	2.546	1.05	43.80	47.1/	4.9	1978	MPC01
T7351	P	4.00	R.T.	T-L	54.6	3.005	1.497	CT	1.574	0.82	31.40			1977	RA006
		3.50			55.2	5.014	2.500	CT	2.607	1.22	39.10			1978	MPC01
		3.50			55.8	4.973	2.498	CT	2.586	1.84	48.30			1978	MPC01
		3.50			55.8	5.041	2.500	CT	2.571	1.33	41.00			1978	MPC01
		3.50			55.8	4.971	2.500	CT	2.585	1.29	40.20			1978	MPC01
		3.50			55.9	5.019	2.499	CT	2.610	1.19	38.80			1978	MPC01
		3.50			56.0	5.039	2.500	CT	2.620	1.08	37.10			1978	MPC01
		3.50			56.0	4.985	2.500	CT	2.592	1.02	35.90			1978	MPC01
		3.00			56.0	5.000	2.499	CT	2.657	0.83	32.40			1978	RA003
		3.50			56.3	4.970	2.500	CT	2.634	1.12	37.80			1978	MPC01
		3.50			56.5	5.012	2.500	CT	2.656	1.12	38.20			1978	MPC01
		3.50			56.5	5.000	2.500	CT	2.600	1.12	38.20			1978	MPC01
		3.00			56.5	4.998	2.494	CT	2.640	0.87	33.50			1978	RA003
		3.50			56.6	5.033	2.500	CT	2.617	1.29	41.00			1978	MPC01
		3.00			56.9	4.997	2.497	CT	2.698	0.80	32.20			1978	RA003
		3.50			57.0	4.964	2.500	CT	2.631	0.93	35.20			1978	MPC01
		3.50			57.0	5.987	3.000	CT	3.173	1.02	36.80			1978	MPC01
		3.50			57.0	5.979	3.000	CT	3.169	0.99	36.20			1978	MPC01
		3.50			57.0	6.047	2.998	CT	3.205	1.05	37.40			1978	MPC01
		3.50			57.0	6.021	3.001	CT	3.191	1.08	37.70			1978	MPC01
		3.25			57.1	2.003	1.002	CT	1.017	0.63	28.79			1977	RA006
		3.50			57.1	4.989	2.500	CT	2.594	1.44	43.50			1978	MPC01
		3.00			57.1	4.996	2.500	CT	2.656	0.94	35.09			1978	RA003
		3.00			57.2	4.998	2.498	CT	2.653	0.79	32.20			1978	RA003

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	K(IC) STAN DEV	DATE	REFER
T7351	P	3.00	R.T.	T-L	57.2	4.996	2.494	CT	2.623	1.05	37.20			1978	RA003
		3.50			57.4	5.006	2.500	CT	2.603	1.48	44.60			1978	MPC01
		3.00			57.5	4.999	2.496	CT	2.592	0.81	32.80			1978	RA003
		2.75			57.6	6.049	2.755	CT	3.085	1.02	37.40			1978	MPC01
		3.54			57.6	2.994	1.499	CT	1.488	1.01	36.70			1977	RA004
		2.75			57.6	5.052	2.500	CT	2.627	1.05	37.50			1978	MPC01
		2.75			57.6	5.049	1.750	CT	2.575	1.02	37.40			1978	MPC01
		2.75			57.6	5.036	1.250	CT	2.518	1.02	37.00			1978	MPC01
		2.75			57.6	6.039	2.756	CT	3.080	1.05	37.50			1978	MPC01
		3.50			57.9	4.987	2.500	CT	2.593	1.33	42.50			1978	MPC01
		2.25			58.0	2.998	1.499	CT	1.559	1.14	39.20			1977	RA004
		3.50			58.3	5.017	2.497	CT	2.609	0.96	36.70			1978	MPC01
		3.62			58.3	3.002	1.498	CT	1.528	0.76	32.20			1977	RA006
		2.75			58.7	4.985	2.500	CT	2.642	0.90	35.50			1978	MPC01
		2.75			58.7	6.057	2.744	CT	3.089	0.87	35.00			1978	MPC01
		2.75			58.7	4.971	1.249	CT	2.535	0.93	35.90			1978	MPC01
		2.75			58.7	6.042	2.725	CT	3.142	0.87	35.00			1978	MPC01
		3.50			58.7	4.981	2.499	CT	2.590	0.93	36.20			1978	MPC01
		3.50			58.9	4.966	2.500	CT	2.632	1.80	50.10			1978	MPC01
		2.25			59.0	6.035	2.257	CT	3.078	0.93	36.50			1978	MPC01
		2.25			59.0	5.969	2.249	CT	3.104	0.96	36.60			1978	MPC01
		3.75			59.1	5.031	2.501	CT	2.566	0.87	35.20			1978	MPC01
		3.50			59.1	5.005	2.498	CT	2.608	1.44	45.00			1978	MPC01
		3.00			59.2	4.999	2.496	CT	2.591	0.80	33.59			1978	RA003
		3.00			59.5	4.983	2.502	CT	2.641	1.05	38.80			1978	MPC01
		3.50			59.6	4.977	2.498	CT	2.638	0.90	36.30			1978	MPC01
		3.00			59.6	4.972	2.500	CT	2.635	1.12	40.20			1978	MPC01
		3.00			59.6	4.974	2.502	CT	2.636	1.12	40.20			1978	MPC01
		3.00			59.7	4.970	2.501	CT	2.634	1.15	40.80			1978	MPC01
		3.25			59.7	3.003	1.499	CT	1.592	0.64	30.40			1977	RA006
		2.25			59.9	2.998	1.499	CT	1.560	1.03	38.59			1977	RA004
		3.00			59.9	5.015	2.498	CT	2.658	0.99	38.20			1978	MPC01
		3.00			60.1	5.026	2.501	CT	2.664	1.05	39.30			1978	MPC01
		3.00			60.1	5.038	2.502	CT	2.670	1.15	41.00			1978	MPC01
		3.00			60.1	5.001	2.495	CT	2.552	0.78	33.59			1978	RA003
		3.50			60.2	5.027	2.500	CT	2.614	1.68	49.50			1978	MPC01
		3.25			60.4	4.977	2.500	CT	2.588	0.81	34.90			1978	MPC01
		1.75			60.4	4.982	1.747	CT	2.541	1.02	39.00			1978	MPC01
		2.25			60.4	2.997	1.499	CT	1.648	1.04	39.00			1977	RA004

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	3.00	R.T.	T-L	60.5	4.983	2.502	CT	2.641	1.19	42.20			1978	MPC01
		3.00			60.5	4.995	2.498	CT	2.591	0.80	34.40			1980	RA005
		3.00			60.9	5.037	2.501	CT	2.619	0.96	37.90			1978	MPC01
		2.25			60.9	6.008	2.262	CT	3.064	0.93	37.60			1978	MPC01
		2.25			60.9	6.045	2.260	CT	3.083	0.96	38.10			1978	MPC01
		3.00			60.9	4.998	2.500	CT	2.599	0.62	30.60			1978	MPC01
		3.00			60.9	5.002	2.500	CT	2.601	0.62	31.00			1978	MPC01
		3.00			60.9	4.992	2.500	CT	2.596	0.65	31.30			1978	MPC01
		3.00			61.0	4.997	2.499	CT	2.626	1.00	38.59			1980	RA005
		3.00			61.0	5.032	2.501	CT	2.667	1.19	42.60			1978	MPC01
		3.00			61.0	5.042	2.502	CT	2.622	0.75	33.80			1978	MPC01
		1.75			61.2	6.052	1.760	CT	3.026	0.99	38.60			1978	MPC01
		3.00			61.3	4.998	2.505	CT	2.581	0.81	35.00			1978	GD006
		3.00			61.3	5.036	2.500	CT	2.669	0.93	37.40			1978	MPC01
		3.00			61.3	4.997	2.505	CT	2.612	0.84	35.70			1978	GD006
		3.00			61.3	4.993	2.504	CT	2.626	0.94	37.70			1978	GD006
		3.00			61.3	4.998	2.503	CT	2.620	1.00	38.80			1978	GD006
		3.00			61.3	4.997	2.505	CT	2.610	0.91	37.09			1978	GD006
		3.00			61.4	4.998	2.495	CT	2.562	0.70	32.70			1978	RA003
		1.75			61.5	4.971	1.750	CT	2.535	0.99	39.10			1978	MPC01
		2.75			61.5	4.987	2.501	CT	2.593	1.64	50.00			1978	MPC01
		3.00			61.6	4.989	2.502	CT	2.694	1.19	42.60			1978	MPC01
		3.00			61.8	5.019	2.501	CT	2.710	0.99	39.10			1978	MPC01
		2.75			61.9	4.968	2.500	CT	2.633	0.81	35.60			1978	MPC01
		2.50			61.9	4.967	2.499	CT	2.583	0.70	33.10			1978	MPC01
		3.00			61.9	5.001	2.491	CT	2.647	0.96	38.50			1978	RA003
		1.75			62.0	5.996	1.752	CT	3.058	1.02	39.70			1978	MPC01
		1.75			62.0	5.965	1.755	CT	3.042	1.02	40.20			1978	MPC01
		3.00			62.1	5.039	2.500	CT	2.620	0.78	34.80			1978	MPC01
		2.50			62.1	3.004	1.496	CT	1.587	0.71	33.09			1977	RA006
		2.50			62.3	4.964	2.500	CT	2.581	0.78	35.10			1978	MPC01
		3.00			62.3	4.997	2.498	CT	2.647	0.90	37.50			1978	RA003
		3.00			62.3	5.000	2.500	CT	2.682	0.81	35.59			1978	RA003
		3.00			62.6	4.998	2.500	CT	2.649	0.84	36.40			1978	MPC01
		2.37			62.6	4.971	2.363	CT	2.585	0.93	38.50			1978	MPC01
		3.00			62.7	4.999	2.490	CT	2.571	0.70	33.30			1978	RA003
		2.00			62.9	5.031	1.974	CT	2.566	0.87	37.30			1978	MPC01
		2.50			62.9	5.012	2.500	CT	2.606	0.75	34.90			1978	MPC01
		2.00			63.2	5.031	1.972	CT	2.566	0.87	37.30			1978	MPC01

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	2.00	R.T.	T-L	63.2	3.004	1.498	CT	1.586	0.65	32.30			1977	RA006
		2.40			63.2	6.043	2.365	CT	3.082	0.81	36.60			1978	MPC01
		1.25			63.6	3.002	1.270	CT	1.506	0.61	31.60			1977	RA006
		2.00			63.6	5.041	1.996	CT	2.571	0.70	33.90			1978	MPC01
		3.00			64.5	4.998	2.489	CT	2.611	0.68	33.80			1978	RA003
		1.75			65.2	5.018	1.738	CT	2.559	0.81	37.60			1978	MPC01
		1.77			66.0	2.997	1.498	CT	1.509	0.58	31.79			1977	RA004
		1.77			66.0	2.997	1.497	CT	1.556	0.60	32.59			1977	RA004
		1.75			66.3	5.041	1.760	CT	2.571	0.75	37.00	37.1/	4.0	1978	MPC01
T7351	P	1.62	83	T-L	65.2	1.490	0.750	CT	0.728	0.64	33.00			1973	86213
		1.62			65.8	1.490	0.750	CT	0.730	0.61	32.40			1973	86213
		1.62			65.8	1.490	0.749	CT	0.727	0.60	32.20	32.5/	0.4	1973	86213
T7351	P	1.25	R.T.	S-L	----	1.003	0.501	CT	0.526	----	28.10			1977	RA006
		3.00			53.3	2.003	0.999	CT	1.067	0.79	30.10			1978	RA003
		3.50			53.9	2.010	1.000	CT	1.005	0.93	33.40			1978	MPC01
		3.50			53.9	2.000	1.000	CT	1.020	0.96	33.70			1978	MPC01
		3.50			54.2	2.480	1.250	CT	1.265	0.87	32.20			1978	MPC01
		3.50			54.2	2.528	1.251	CT	1.264	0.84	31.70			1978	MPC01
		3.00			54.3	2.003	0.999	CT	1.050	0.87	32.20			1978	RA003
		3.00			54.3	2.010	0.999	CT	1.005	0.96	33.70			1978	MPC01
		2.75			54.3	1.994	1.001	CT	1.017	0.81	31.30			1978	MPC01
		2.75			54.3	2.014	1.000	CT	1.007	0.87	32.10			1978	MPC01
		3.50			54.4	2.510	1.249	CT	1.255	0.87	32.50			1978	MPC01
		3.50			54.4	2.516	1.250	CT	1.258	0.93	33.50			1978	MPC01
		3.50			54.4	2.014	1.000	CT	1.007	0.87	32.40			1978	MPC01
		3.00			54.5	1.986	1.001	CT	1.013	0.90	32.90			1978	MPC01
		3.00			54.6	2.003	1.000	CT	1.046	0.69	28.79			1978	RA003
		3.00			54.7	1.999	1.000	CT	0.967	0.79	30.79			1978	RA003
		4.00			54.9	3.002	1.498	CT	1.566	0.71	29.40			1977	RA006
		3.00			55.0	2.008	0.999	CT	1.004	0.90	33.50			1978	MPC01
		3.00			55.0	2.006	1.001	CT	1.003	0.87	32.70			1978	MPC01
		2.75			55.3	2.018	1.000	CT	1.009	0.99	35.00			1978	MPC01
		2.75			55.3	1.992	1.000	CT	1.016	0.99	34.90			1978	MPC01
		2.50			55.7	1.999	1.002	CT	1.024	0.67	28.90			1977	RA006
		3.62			55.8	2.002	0.999	CT	0.984	0.67	29.10			1977	RA006
		3.00			55.8	1.990	1.001	CT	1.015	0.81	31.90			1978	MPC01
		3.25			56.0	1.998	1.002	CT	0.947	0.53	25.90			1977	RA006

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	K(IC) STAN DEV	DATE	REFER
T7351	P	3.00	R.T.	S-L	56.0	2.006	1.001	CT	1.003	0.78	31.80			1978	MPC01
		3.50			56.2	2.000	1.000	CT	1.020	0.81	32.50			1978	MPC01
		3.50			56.2	1.992	1.000	CT	1.015	0.84	32.70			1978	MPC01
		3.00			56.4	2.000	1.000	CT	1.000	0.87	33.70			1978	MPC01
		3.00			56.6	2.010	0.999	CT	1.005	0.84	32.90			1978	MPC01
		3.00			56.7	1.999	1.006	CT	1.001	0.53	26.20			1978	RA003
		3.00			56.8	1.998	0.999	CT	1.009	0.59	27.70			1978	RA003
		3.54			56.9	2.000	0.999	CT	0.963	0.71	30.40			1977	RA004
		3.54			56.9	2.000	0.998	CT	0.982	0.69	30.00			1977	RA004
		3.00			57.0	1.996	0.998	CT	1.025	0.63	28.79			1978	RA003
		3.00			57.2	2.000	0.998	CT	0.965	0.59	28.00			1978	RA003
		3.00			57.2	1.996	1.001	CT	0.998	0.75	32.00			1978	MPC01
		3.00			57.2	2.006	1.001	CT	1.003	0.78	32.60			1978	MPC01
		3.00			57.3	2.000	0.998	CT	0.988	0.61	28.40			1980	RA005
		3.00			57.3	1.001	1.001	CT	1.074	0.67	29.70			1978	RA003
		3.00			57.4	2.002	1.000	CT	1.039	0.99	36.30			1978	GD006
		3.50			57.4	2.010	1.000	CT	1.005	0.79	31.80			1978	MPC01
		3.00			57.4	1.999	0.999	CT	1.053	0.87	34.00			1978	GD006
		3.00			57.4	2.004	1.000	CT	1.049	0.69	30.20			1978	GD006
		3.00			57.4	1.997	1.000	CT	1.046	0.76	31.79			1978	GD006
		3.00			57.4	2.001	1.000	CT	1.033	0.87	33.90			1978	GD006
		3.00			57.6	1.990	1.000	CT	0.995	0.70	31.00			1978	MPC01
		3.00			57.6	2.000	1.008	CT	1.043	0.50	25.79			1978	RA003
		3.00			57.7	1.999	0.999	CT	0.967	0.67	30.00			1978	RA003
		3.00			57.9	1.999	1.005	CT	1.032	0.55	27.29			1978	RA003
		3.00			58.0	1.992	1.000	CT	1.016	0.57	28.00			1978	MPC01
		1.77			58.1	1.498	0.747	CT	0.771	0.48	25.50			1977	RA004
		1.77			58.1	1.498	0.746	CT	0.766	0.47	25.20			1977	RA004
		3.00			58.1	2.000	1.000	CT	1.056	0.67	30.29			1978	RA003
		3.00			58.6	1.999	0.999	CT	0.975	0.58	28.29			1978	RA003
		3.00			59.4	2.000	1.007	CT	1.027	0.61	29.50			1978	RA003
		3.00			59.7	2.001	1.000	CT	1.075	0.59	29.10			1978	RA003
		3.00			59.9	2.000	0.998	CT	0.985	0.54	28.00			1980	RA005
		3.00			60.0	2.001	1.001	CT	1.055	0.47	26.20			1978	RA003
		2.50			60.7	1.999	1.001	CT	1.013	0.61	30.00			1977	RA006
		3.00			60.8	2.001	1.000	CT	1.053	0.58	29.29			1978	RA003
		2.00			63.2	1.503	0.750	CT	0.790	0.51	28.70	30.6/	2.6	1977	RA006
T7351	P	1.62	83	S-L	60.6	1.000	0.500	CT	0.484	0.43	25.00			1973	86213

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7351	P	1.62	83	S-L	60.9	1.000	0.499	CT	0.487	0.45	25.70	25.4/	0.5	1973	86213
T7351 (SP)	P	1.75	R.T.	L-T	59.9	4.000	1.798	CT	2.195	1.63	48.30			1973	86213
T7351 (SP)	P	3.25	R.T.	T-L	54.2	4.000	2.002	CT	2.177	1.40	40.50			1973	86213
		3.25			54.2	4.000	2.001	CT	2.156	1.34	39.70			1973	86213
		3.25			56.2	3.990	2.001	CT	2.152	1.12	37.60			1973	86213
		3.25			56.2	6.000	1.999	CT	3.161	1.16	38.20			1973	86213
		3.25			56.2	4.000	2.000	CT	2.187	1.08	37.00			1973	86213
		3.25			56.7	4.000	2.000	CT	2.197	1.12	37.90			1973	86213
		3.25			56.7	6.000	2.000	CT	3.216	1.08	37.20			1973	86213
		2.50			57.4	2.500	1.252	CT	1.329	1.06	37.40			1973	86213
		2.50			57.4	2.500	1.251	CT	1.296	1.10	38.10			1973	86213
		2.50			57.6	2.500	1.249	CT	1.312	1.24	40.50			1973	86213
		2.50			57.6	2.500	1.251	CT	1.294	1.09	38.10			1973	86213
		3.00			58.0	6.010	2.000	CT	3.176	0.99	36.50			1973	86213
		3.00			60.3	6.000	2.003	CT	3.221	1.16	41.10			1973	86213
		2.50			60.4	1.490	0.752	CT	0.736	0.71	32.10			1973	86213
		2.50			60.6	1.490	0.748	CT	0.756	0.69	31.80			1973	86213
		1.75			60.9	4.000	1.796	CT	2.160	0.96	37.70			1973	86213
		1.75			60.9	4.000	1.796	CT	2.188	0.94	37.30	37.6/	2.5	1973	86213
T7351 (SP)	P	3.25	82	S-L	54.7	2.000	1.002	CT	1.004	0.93	33.40			1973	86213
		3.25			54.7	1.990	1.002	CT	0.982	0.86	32.00			1973	86213
		3.25			55.0	1.990	1.001	CT	1.011	0.77	30.60			1973	86213
		3.25			55.0	1.990	1.002	CT	1.006	0.88	32.60			1973	86213
		3.00			55.8	1.990	1.002	CT	0.976	0.72	30.00			1973	86213
		3.00			55.8	1.990	1.001	CT	0.985	0.74	30.30			1973	86213
		3.00			57.0	1.990	1.003	CT	0.992	0.94	35.00			1973	86213
		3.00			57.0	1.990	1.003	CT	0.979	0.76	31.50	31.9/	1.7	1973	86213
T736	F	2.00	82	S-T	68.9	2.000	0.999	CT	1.053	0.72	37.10			1973	86213

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651	P	2.00	R.T.	L-T	60.8	2.998	1.500	CT	1.581	1.25	43.00			1977	RA007
		2.00			61.7	3.001	1.498	CT	1.612	1.19	42.70			1977	RA007
		2.00			62.0	3.000	1.497	CT	1.547	1.06	40.40			1977	RA007
		2.00			67.6	3.000	1.498	CT	1.609	0.89	40.40			1977	RA001
		2.00			68.7	3.000	1.498	CT	1.575	0.68	35.90			1977	RA007
		1.00			71.0	2.490	0.950	CT	1.268	0.80	40.10			1973	86574
		1.00			71.0	2.490	0.950	CT	1.297	0.80	40.30	40.4/	2.3	1973	86574
T7651	P	2.00	R.T.	T-L	62.3	2.998	1.500	CT	1.512	0.78	34.90			1977	RA007
		2.00			63.7	3.001	1.498	CT	1.576	0.71	34.00			1977	RA007
		2.00			64.7	3.000	1.499	CT	1.564	0.69	34.09			1977	RA007
		2.00			67.7	3.000	1.499	CT	1.582	0.63	34.09			1977	RA007
		0.87			69.5	3.000	0.892	CT	1.523	0.50	31.00			1973	86213
		2.00			69.8	3.000	1.498	CT	1.612	0.43	29.10			1977	RA007
		1.00			70.2	2.000	0.965	CT	1.048	0.72	37.70			1973	86213
		1.00			70.2	2.000	0.965	CT	0.991	0.71	37.40	34.0/	2.9	1973	86213
T7651	P	2.00	R.T.	S-L	60.5	1.499	0.749	CT	0.770	0.50	27.29			1977	RA007
		2.00			60.9	1.498	0.750	CT	0.775	0.51	27.60			1977	RA007
		2.00			61.1	1.499	0.750	CT	0.766	0.48	27.00			1977	RA007
		2.00			65.7	1.499	0.752	CT	0.802	0.42	27.00			1977	RA007
		2.00			66.1	1.500	0.749	CT	0.798	0.47	28.90	27.6/	0.8	1977	RA007
T7651 (SP)	P	1.75	R.T.	L-T	64.2	4.000	1.789	CT	2.208	1.27	45.80			1973	86213
		2.00			66.0	4.000	2.017	CT	2.096	0.96	40.90			1973	86213
		2.00			66.0	3.990	2.016	CT	2.109	0.95	40.60	42.4/	2.9	1973	86213
T7651 (SP)	P	2.00	R.T.	T-L	66.4	3.000	0.998	CT	1.499	0.70	35.20			1973	86213
		2.00			66.7	4.000	2.018	CT	2.093	0.72	35.80			1973	86213
		2.00			66.7	4.000	2.017	CT	2.105	0.73	36.00	35.7/	0.4	1973	86213
T7651 (SP)	P	2.00	R.T.	S-T	60.2	1.500	0.748	CT	0.793	0.63	30.30			1973	86213
		2.00			61.0	1.500	0.748	CT	0.776	0.56	28.90			1973	86213
		2.00			62.3	1.490	0.748	CT	0.765	0.50	27.80			1973	86213
		2.00			62.4	1.490	0.748	CT	0.759	0.49	27.70			1973	86213
		2.00			63.4	1.500	0.748	CT	0.787	0.54	29.40	28.8/	1.1	1973	86213

TABLE 8.20.2.1 (con't)

ALUMINUM 7475 K(IC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPECIMEN ORIENT	YIELD STRENGTH (KSI)	------SPECIMEN------ WIDTH (IN) W	THICK (IN) B	DESIGN	CRACK LENGTH (IN) A	2.5* (K(IC)/TYS)**2 (IN)	K(IC) (KSI*SQRT IN)	K(IC) MEAN	STAN DEV	DATE	REFER
T7651 (SP)	P	2.00	R.T.	S-L	60.2	1.500	0.747	CT	0.779	0.60	29.60			1973	86213
		2.00			61.0	1.500	0.746	CT	0.765	0.48	26.60			1973	86213
		2.00			61.5	1.500	0.747	CT	0.746	0.41	24.90			1973	86213
		2.00			62.3	1.500	0.747	CT	0.744	0.54	28.90			1973	86213
		2.00			62.4	1.500	0.747	CT	0.755	0.40	25.10			1973	86213
		2.00			63.4	1.500	0.747	CT	0.756	0.52	28.80	27.3/	2.1	1973	86213
T7651 (SP)	P	1.75	82	S-L	61.6	1.000	0.500	CT	0.492	0.37	23.70			1973	86213
		2.00			63.8	1.490	0.749	CT	0.752	0.54	29.60			1973	86213
		2.00			63.8	1.490	0.749	CT	0.756	0.51	28.90	27.4/	3.2	1973	86213

TABLE 8.20.2.2

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T61	S	0.04	R.T.	L-T	77.1	16.000	0.039	4.000	4.340	---	29.20	76.15			79.90			1973	86842
		0.04			76.2	16.000	0.040	4.000	4.280	---	30.20	78.76	77.5	1.8	81.95	80.9	1.4	1973	86842
T61	S	0.06	R.T.	L-T	74.1	16.000	0.063	4.000	4.320	---	32.60	85.02			88.95			1972	84368
		0.06			74.1	16.000	0.063	6.000	6.600	---	23.60	79.46			85.10			1972	84368
		0.06			74.1	16.000	0.063	3.000	3.460	---	39.80	88.32			95.56			1972	84368
		0.06			74.1	16.000	0.063	1.000	1.520	---	61.90	77.77*			96.18*			1972	84368
		0.06			74.1	16.000	0.063	5.000	5.400	---	28.40	84.75			89.05			1972	84368
		0.06			74.1	16.000	0.063	2.000	2.320	---	49.00	87.70			94.77			1972	84368
		0.06			75.7	16.000	0.062	4.000	4.280	---	30.50	79.54	84.1	3.9	82.76	89.4	5.1	1972	84368
T61	S	0.09	R.T.	L-T	76.0	3.000	0.090	1.280	2.237	---	41.30	66.15*			124.03*			1973	86213
		0.09			76.0	3.000	0.090	1.027	2.111	---	48.00	65.74*			130.37*			1973	86213
T61	S	0.09	R.T.	L-T	76.4	15.880	0.090	4.000	4.850	---	38.20	99.68			111.95			1973	86213
		0.09			76.4	15.880	0.090	3.980	4.700	---	38.70	100.69	100.2	0.7	111.22	111.6	0.5	1973	86213
T61	S	0.09	R.T.	L-T	75.8	15.880	0.100	4.000	4.300	---	32.90	85.85			89.59			1973	86213
		0.09			75.8	15.880	0.100	4.000	4.400	---	30.70	80.11	83.0	4.1	84.76	87.2	3.4	1973	86213
T61	S	0.09	R.T.	L-T	73.7	16.000	0.089	4.000	4.620	23.90	38.30	99.88			108.82			1973	86842
		0.09			74.2	16.000	0.091	4.000	5.220	---	38.00	99.10	99.5	0.6	116.56	112.7	5.5	1973	86842
T61	S	0.12	R.T.	L-T	78.4	3.000	0.127	1.117	2.146	---	43.10	62.48*			120.34*			1973	86213
		0.12			78.4	3.000	0.127	1.177	2.253	---	41.30	62.13*			125.72*			1973	86213
T61	S	0.12	R.T.	L-T	74.5	16.000	0.110	4.000	4.780	18.20	38.60	100.66			112.00			1973	86842
		0.12			76.8	16.000	0.125	4.000	4.900	20.00	36.20	94.40	97.5	4.4	106.67	109.3	3.8	1973	86842
T61	S	0.18	R.T.	L-T	75.0	16.000	0.182	4.000	5.400	---	36.70	95.71			115.08			1973	86842
		0.18			75.6	16.000	0.186	4.000	5.000	---	32.90	85.80	90.8	7.0	98.18	106.6	12.0	1973	86842
T61	S	0.18	82	L-T	77.3	3.000	0.178	1.190	2.202	---	43.40	65.84*			126.71*			1973	86213
		0.18			77.3	3.000	0.178	1.110	2.111	---	45.70	66.01*			124.12*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN DEV MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T61	S	0.06	84	L-T	75.6	16.000	0.063	3.000	3.560	26.80	34.20	75.89			83.44			1973	86213
T61	S	0.09	85	L-T	75.9	3.000	0.089	1.220	2.073	---	41.10	63.50*			110.12*			1973	86213
		0.09			75.9	3.000	0.089	1.235	2.070	---	40.60	63.26*			107.02*			1973	86213
		0.09			76.4	3.000	0.091	1.160	1.915	---	44.70	66.59*			105.62*			1973	86213
		0.09			76.4	3.000	0.091	1.145	2.006	---	44.90	66.23*			113.02*			1973	86213
T61	S	0.09	85	L-T	75.8	3.000	0.101	1.185	2.030	---	40.10	60.62*			102.68*			1973	86213
		0.09			75.8	3.000	0.101	1.190	2.072	---	39.40	59.78*			104.01*			1973	86213
T61	S	0.12	86	L-T	73.4	3.000	0.115	1.172	1.935	---	41.60	62.42*			101.00*			1973	86213
		0.12			73.4	3.000	0.115	1.208	2.012	---	40.60	62.27*			102.63*			1973	86213
T61	S	0.18	86	L-T	76.5	3.000	0.186	1.160	2.053	---	39.70	59.14*			103.28*			1973	86213
		0.18			76.5	3.000	0.186	1.153	2.081	---	39.70	58.85*			105.43*			1973	86213
T61	S	0.06	88	L-T	75.6	16.000	0.063	4.000	4.410	15.90	25.60	66.76			70.72			1973	86213
		0.06			75.6	16.000	0.062	6.000	6.920	13.30	21.70	73.06			81.11			1973	86213
		0.06			75.6	16.000	0.063	1.000	1.380	41.70	61.50	77.26*			90.96*			1973	86213
		0.06			75.6	16.000	0.063	4.000	4.420	18.70	30.30	79.02	72.9/ 6.1		83.82	78.6/ 6.9		1973	86213
T61	P	0.25	R.T.	L-T	74.8	3.000	0.242	1.190	2.206	---	39.70	60.23*			116.29*			1973	86213
		0.25			74.8	3.000	0.242	1.160	2.082	---	39.90	59.44*			106.12*			1973	86213
T61	P	0.25	82	L-T	77.0	3.000	0.250	1.193	2.231	---	31.40	47.70			93.82*			1973	86213
		0.25			77.0	3.000	0.250	1.210	2.046	---	28.10	43.15	45.4/ 3.2		72.79*	----/ ---		1973	86213
T61	S	0.04	R.T.	T-L	72.1	16.000	0.042	4.000	4.360	---	31.70	82.67			86.97			1973	86842
		0.04			72.9	16.000	0.040	4.000	4.320	---	30.30	79.02	80.8/ 2.6		84.96	86.0/ 1.4		1973	86842
T61	S	0.06	R.T.	T-L	72.6	16.000	0.063	4.000	4.520	---	31.20	81.36			87.48			1972	84368
		0.06			72.6	16.000	0.063	3.000	3.600	---	38.10	84.55			93.54			1972	84368
		0.06			72.6	16.000	0.063	2.000	2.050	---	45.90	82.15			83.21			1972	84368
		0.06			72.6	16.000	0.063	1.000	1.640	---	60.70	76.26*			98.06*			1972	84368
		0.06			72.6	16.000	0.063	5.000	5.480	---	27.80	82.96			88.02			1972	84368

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN DEV	DATE	REFER
						BUCKLING OF CRACK EDGES NOT RESTRAINED											
T61	S	0.06	R.T.	T-L	72.6	16.000	0.063	6.000	6.800	---	22.20	74.74		81.87		1972	84368
		0.06			73.8	16.000	0.062	4.000	4.380	---	29.30	76.41	80.4/ 3.9	80.61	85.8/ 4.8	1972	84368
T61	S	0.09	R.T.	T-L	72.5	3.000	0.090	1.113	2.116	---	44.60	64.50*		121.68*		1973	86213
		0.09			72.5	3.000	0.090	1.157	2.147	---	43.50	64.64*		121.46*		1973	86213
T61	S	0.09	R.T.	T-L	73.1	15.880	0.091	3.980	4.320	---	35.10	91.32		95.84		1973	86213
		0.09			73.1	15.880	0.091	3.980	4.750	---	33.00	85.86		95.46		1973	86213
		0.09			74.1	15.880	0.101	4.000	4.350	---	31.80	82.98		87.19		1973	86213
		0.09			74.1	15.880	0.100	4.000	4.300	---	29.30	76.46		79.79		1973	86213
		0.09			71.9	16.000	0.090	4.000	5.120	---	36.80	95.97		111.48		1973	86842
		0.09			72.1	16.000	0.091	4.000	4.880	---	34.30	89.45	87.0/ 6.8	100.81	95.1/10.9	1973	86842
T61	S	0.12	R.T.	T-L	73.6	3.000	0.127	1.137	2.122	---	40.10	58.86*		109.91*		1973	86213
		0.12			73.6	3.000	0.127	1.180	2.124	---	37.40	56.40*		102.67*		1973	86213
T61	S	0.12	R.T.	T-L	72.6	16.000	0.110	4.000	5.360	19.30	35.60	92.84		111.09		1973	86842
		0.12			73.1	16.000	0.126	4.000	4.600	18.80	29.70	77.45	85.1/10.9	84.17	97.6/19.0	1973	86842
T61	S	0.18	R.T.	T-L	74.2	3.000	0.181	1.223	2.164	---	42.10	65.12*		119.22*		1973	86213
		0.18			74.2	3.000	0.182	1.150	2.234	---	43.70	64.70*		131.02*		1973	86213
T61	S	0.18	R.T.	T-L	72.3	16.000	0.181	4.000	5.000	---	30.90	80.58		92.21		1973	86842
		0.18			72.6	16.000	0.186	4.000	4.870	---	27.70	72.24	76.4/ 5.9	81.31	86.8/ 7.7	1973	86842
T61	S	0.06	-4	T-L	71.6	16.000	0.064	3.000	3.480	25.40	36.50	81.00		87.92		1973	86213
		0.06			71.6	16.000	0.063	1.000	1.530	44.20	58.60	73.62*		91.36*		1973	86213
T61	S	0.09	85	T-L	74.5	3.000	0.089	1.165	2.029	---	40.40	60.33*		103.30*		1973	86213
		0.09			74.5	3.000	0.089	1.150	2.020	---	43.10	63.81*		109.57*		1973	86213
		0.09			73.1	3.000	0.091	1.145	1.880	---	44.30	65.34*		102.34*		1973	86213
		0.09			73.1	3.000	0.091	1.160	1.932	---	44.00	65.54*		105.24*		1973	86213
T61	S	0.09	85	T-L	74.1	3.000	0.101	1.180	1.956	---	40.40	60.92*		98.22*		1973	86213
		0.09			74.1	3.000	0.101	1.220	2.064	---	40.30	62.26*		105.76*		1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T61	S	0.12		86 T-L	71.8	3.000	0.115	1.157	1.967	---	40.10	59.59*			98.16*			1973	86213
		0.12			71.8	3.000	0.115	1.133	1.919	---	41.40	60.62*			98.09*			1973	86213
T61	S	0.18		86 T-L	73.5	3.000	0.186	1.162	2.018	---	38.30	57.12*			97.23*			1973	86213
		0.18			73.5	3.000	0.186	1.168	2.117	---	38.10	57.03*			103.95*			1973	86213
T61	S	0.06		88 T-L	71.6	16.000	0.062	4.000	4.510	17.60	31.20	81.36			87.36			1973	86213
		0.06			71.6	16.000	0.063	6.000	6.430	10.10	21.90	73.73			77.46			1973	86213
		0.06			71.6	16.000	0.062	4.000	4.440	15.50	32.50	84.75	79.9/	5.6	90.15	85.0/	6.7	1973	86213
T61	P	0.25	R.T.	T-L	75.2	3.000	0.250	1.130	1.592	---	27.90	40.80			53.81			1973	86213
		0.25			75.2	3.000	0.250	1.140	1.863	---	27.90	41.05	40.9/	0.2	63.69*	----/	---	1973	86213
T61	P	0.25		82 T-L	72.4	3.000	0.243	1.220	2.113	---	37.10	57.32*			100.91*			1973	86213
		0.25			72.4	3.000	0.243	1.243	2.152	---	37.50	58.71*			105.20*			1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7351	P	3.00	R.T.	L-S	59.5	2.009	0.303	0.744	----	---	44.57	52.80*			87.20*			1979	GD011
		3.00			59.5	2.009	0.303	0.750	----	---	43.20	51.40*			85.10*			1979	GD011
		3.00			59.5	2.009	0.303	0.750	----	---	39.10	46.50*			80.10*			1979	GD011
T7351	P	0.50	-	80 L-T	64.9	16.000	0.266	4.000	----	---	36.89	96.20			160.30			1978	GD005
T7351	P	0.50	-	80 L-T	64.9	16.000	0.364	4.000	----	---	36.37	94.80			150.50			1978	GD005
T7351	P	0.50	-	80 L-T	64.9	16.000	0.508	4.010	----	---	37.21	97.30			129.30			1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	6.000	0.255	2.822	----	---	33.85	82.90*			120.70*			1978	GD005
		0.50			64.9	6.004	0.256	2.004	----	---	41.77	79.70*			116.40*			1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	6.013	0.350	1.980	----	---	42.55	80.50*			116.60*			1978	GD005

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T7351	P	0.50	R.T.	L-T	64.9	6.070	0.514	2.032	----	---	38.34	73.70*		106.20*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	6.080	0.507	2.008	----	---	41.59	79.30*		117.30*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	15.970	0.511	4.000	----	---	45.00	117.40*		178.30*		1978	GD005
		0.50			64.9	15.990	0.514	4.010	----	---	45.93	120.00*		193.90*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	16.000	0.253	4.020	----	---	44.47	116.30*		166.30*		1978	GD005
		0.50			64.9	16.000	0.256	4.030	----	---	44.68	117.00*		177.70*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	16.000	0.355	4.020	----	---	47.84	125.10*		198.90*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	16.000	0.507	3.980	----	---	46.28	120.30*		193.70*		1978	GD005
T7351	P	0.50	R.T.	L-T	64.9	16.020	0.358	4.000	----	---	46.31	120.80*		186.20*		1978	GD005
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T761	S	0.03	R.T.	L-T	72.8	16.000	0.032	4.000	4.460	---	27.00	70.41		75.09		1973	86842
T761	S	0.04	R.T.	L-T	73.7	16.000	0.041	4.000	4.640	13.10	31.10	81.10		88.60		1973	86842
		0.04			74.3	16.000	0.041	4.000	4.440	---	29.60	77.19	79 1/ 2 8	82.10	85 4/ 4 6	1973	86842
T761	S	0.06	R.T.	L-T	66.4	16.000	0.061	4.000	4.720	---	35.70	93.10		102.78		1972	84168
		0.06			70.5	16.000	0.062	4.000	4.880	---	33.90	88.41		99.63		1972	84168
		0.06			70.5	16.000	0.062	3.000	3.520	---	40.20	89.21		97.45		1972	84168
		0.06			70.5	16.000	0.061	2.000	2.480	---	49.70	88.95*		99.57*		1972	84168
		0.06			70.5	16.000	0.062	1.000	1.660	---	61.40	77.14*		99.81*		1972	84168
		0.06			70.5	16.000	0.061	5.000	5.740	---	27.40	81.77		89.48		1972	84168
		0.06			70.5	16.000	0.061	6.000	6.800	---	24.40	82.15	86 9/ 4 9	89.99	95 9/ 9 9	1972	84168
T761	S	0.09	R.T.	L-T	66.7	15.880	0.090	4.000	4.920	---	37.70	98.38		111.48*		1972	84168
		0.09			66.7	15.880	0.090	4.000	5.050	---	38.90	101.51		116.94*		1972	84168

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD DEV

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T761	S	0.09	R.T.	L-T	70.7	15.880	0.090	3.970	5.150	---	38.20	99.25			116.28			1973	86213
		0.09			70.7	15.880	0.090	3.980	4.970	---	37.70	98.09	99.3/	1.5	112.19	114.2/	2.9	1973	86213
T761	S	0.09	R.T.	L-T	69.8	16.000	0.089	4.000	4.900	19.70	39.70	103.53			116.98*			1973	86842
		0.09			67.3	16.000	0.091	4.000	5.240	18.50	38.90	101.44	102.5/	1.5	119.61*	----/	---	1973	86842
T761	S	0.12	R.T.	L-T	66.4	16.000	0.125	4.000	5.300	17.50	41.30	107.70*			127.93*			1973	86842
		0.12			66.8	16.000	0.125	4.000	5.240	16.00	39.70	103.53			122.07*			1973	86842
T761	S	0.18	R.T.	L-T	66.4	16.000	0.185	4.000	6.000	17.60	42.00	109.53*			141.40*			1973	86842
		0.18			69.3	16.000	0.192	4.000	5.880	17.80	46.20	120.48*			153.38*			1973	86842
T761	S	0.12	83	L-T	75.2	3.000	0.129	1.230	2.278	---	40.10	62.33*			124.86*			1973	86213
		0.12			75.2	3.000	0.129	1.117	2.158	---	43.20	62.63*			121.76*			1973	86213
T761	S	0.06	84	L-T	73.6	16.000	0.063	3.000	3.630	28.10	37.00	82.11			91.27			1973	86213
		0.06			73.6	16.000	0.063	1.000	1.740	52.70	60.40	75.88*			100.59*			1973	86213
T761	S	0.09	86	L-T	66.7	3.000	0.090	1.150	1.988	---	40.70	60.26*			101.17*			1973	86213
		0.09			66.7	3.000	0.090	1.170	1.988	---	40.70	61.00*			101.17*			1973	86213
		0.09			70.7	3.000	0.095	1.185	1.981	---	40.90	61.83*			101.10*			1973	86213
		0.09			70.7	3.000	0.095	1.160	1.972	---	40.00	59.58*			98.33*			1973	86213
T761	S	0.12	86	L-T	67.1	3.000	0.115	1.180	2.014	---	40.00	60.32*			101.26*			1973	86213
		0.12			67.1	3.000	0.115	1.200	2.027	---	40.00	61.06*			102.13*			1973	86213
T761	S	0.06	88	L-T	73.6	16.000	0.063	6.000	6.140	9.00	19.20	64.64			65.70			1973	86213
		0.06			73.6	16.000	0.064	4.000	4.230	15.70	31.40	81.89			84.62			1973	86213
		0.06			73.6	16.000	0.063	4.000	4.170	19.40	28.90	75.37	74.0/	8.7	77.22	75.8/	9.5	1973	86213
T761	P	0.25	R.T.	L-T	67.0	16.000	0.245	4.000	5.120	---	42.70	111.35*			129.36*			1973	86842
		0.25			67.8	16.000	0.249	4.000	4.970	---	27.90	72.76			82.94			1973	86842
T761	P	0.25	82	L-T	66.6	3.000	0.240	1.183	2.234	---	39.20	59.18*			117.52*			1973	86213
		0.25			66.6	3.000	0.240	1.130	2.209	---	39.80	58.20*			116.77*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	PRODUCT FORM	PRODUCT THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	SPECIMEN WIDTH (IN) W	SPECIMEN THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T761	P	0.25	82	L-T	72.2	3.000	0.250	1.133	2.302	---	35.20	51.54			111.97*			1973	86213
		0.25			72.2	3.000	0.250	1.150	1.743	---	34.20	50.63	51.1/	0.6	72.31*	----/	---	1973	86213
T761	S	0.03	R.T.	T-L	69.4	16.000	0.032	4.000	4.840	---	29.70	77.45			86.84			1973	86842
T761	S	0.04	R.T.	T-L	70.8	16.000	0.041	4.000	4.420	15.20	30.60	79.80			84.65			1973	86842
		0.04			71.1	16.000	0.042	4.000	4.420	11.60	32.40	84.49	82.1/	3.3	89.63	87.1/	3.5	1973	86842
T761	S	0.06	R.T.	T-L	65.0	16.000	0.062	4.000	4.560	---	33.10	86.32			93.30			1972	84368
		0.06			69.0	16.000	0.061	5.000	5.840	---	28.10	83.86			92.86			1972	84368
		0.06			69.0	16.000	0.062	2.000	2.500	---	50.80	90.92*			102.21*			1972	84368
		0.06			69.0	16.000	0.062	6.000	6.800	---	24.60	82.82			90.72			1972	84368
		0.06			69.0	16.000	0.062	1.000	1.520	---	61.00	76.64*			94.78*			1972	84368
		0.06			69.0	16.000	0.063	4.000	4.720	---	34.10	88.93			98.17			1972	84368
		0.06			69.0	16.000	0.061	3.000	3.460	---	40.50	89.87	86.4/	3.1	97.24	94.5/	3.1	1972	84368
T761	S	0.09	R.T.	T-L	65.3	15.880	0.090	4.000	4.920	---	35.20	91.85			104.08			1973	86213
		0.09			65.3	15.880	0.090	4.000	4.950	---	34.50	90.03			102.41			1973	86213
		0.09			68.9	15.880	0.090	3.990	4.600	---	33.80	88.07			99.86			1973	86213
		0.09			68.9	15.880	0.090	3.990	4.620	---	37.60	97.97	92.0/	4.3	106.93	102.3/	4.7	1973	86213
T761	S	0.09	R.T.	T-L	68.3	16.000	0.089	4.000	4.660	19.70	37.20	97.01			106.26			1973	86842
		0.09			64.6	16.000	0.090	4.000	4.920	17.40	36.60	95.45	96.2/	1.1	108.12*	----/	---	1973	86842
T761	S	0.12	R.T.	T-L	72.2	3.000	0.129	1.133	2.164	---	42.60	62.37*			120.63*			1973	86213
		0.12			72.2	3.000	0.129	1.193	2.251	---	41.70	63.34*			126.73*			1973	86213
T761	S	0.12	R.T.	T-L	64.9	16.000	0.125	4.000	5.240	17.00	37.40	97.53			115.00*			1973	86842
		0.12			65.6	16.000	0.125	4.000	5.240	17.00	35.20	91.80	94.7/	4.1	108.23	----/	---	1973	86842
T761	S	0.18	R.T.	T-L	65.3	16.000	0.185	4.000	5.660	18.20	39.80	103.79*			128.75*			1973	86842
		0.18			67.0	16.000	0.193	4.000	5.700	---	38.50	100.40			125.14*			1973	86842
T761	S	0.06	84	T-L	71.4	16.000	0.064	1.000	1.840	43.90	58.60	73.62*			100.45*			1973	86213
		0.06			71.4	16.000	0.064	3.000	3.460	23.00	34.20	75.89			82.11			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.20.2.2 (con't)

ALUMINUM 7475 K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T761	S	0.09	86	T-L	65.3	3.000	0.090	1.155	1.952	---	39.40	58.48*			95.53*			1973	86213
		0.09			65.3	3.000	0.090	1.215	2.093	---	38.50	59.27*			103.16*			1973	86213
		0.09			68.9	3.000	0.095	1.185	1.980	---	39.80	60.16*			98.38*			1973	86213
		0.09			68.9	3.000	0.095	1.155	1.989	---	40.70	60.41*			101.17*			1973	86213
T761	S	0.12	86	T-L	66.1	3.000	0.115	1.153	2.087	---	40.00	59.29*			106.70*			1973	86213
		0.12			66.1	3.000	0.115	1.198	2.012	---	39.00	59.46*			98.59*			1973	86213
T761	S	0.06	88	T-L	71.4	16.000	0.064	4.000	4.380	13.70	33.40	87.10			91.89			1973	86213
		0.06			71.4	16.000	0.063	6.000	6.510	7.70	23.40	78.78			83.52			1973	86213
		0.06			71.4	16.000	0.064	4.000	4.580	18.70	33.70	87.88	84.6/	5.0	95.25	90.2/	6.0	1973	86213
T761	P	0.25	R.T.	T-L	65.9	16.000	0.245	4.000	5.660	---	40.60	105.88*			131.34*			1973	86842
		0.25			68.3	16.000	0.249	4.000	4.550	---	25.60	66.76			72.07			1973	86842
T761	P	0.25	82	T-L	64.5	3.000	0.240	1.157	2.276	---	38.50	57.21*			119.66*			1973	86213
		0.25			64.5	3.000	0.240	1.203	2.220	---	37.50	57.31*			111.12*			1973	86213
		0.25			70.6	3.000	0.250	1.127	2.288	---	35.50	51.79*			111.51*			1973	86213
		0.25			70.6	3.000	0.250	1.147	2.146	---	34.60	51.10			96.61*			1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T7651	P	0.50	R.T.	L-T	70.6	15.900	0.512	4.000	----	---	40.98	106.90			130.20			1978	GD005
T7651	P	0.50	R.T.	L-T	70.6	16.000	0.258	4.020	----	---	40.80	106.70			168.00			1978	GD005
T7651	P	0.50	R.T.	L-T	70.6	16.000	0.355	4.010	----	---	50.49	131.90*			217.20*			1978	GD005

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

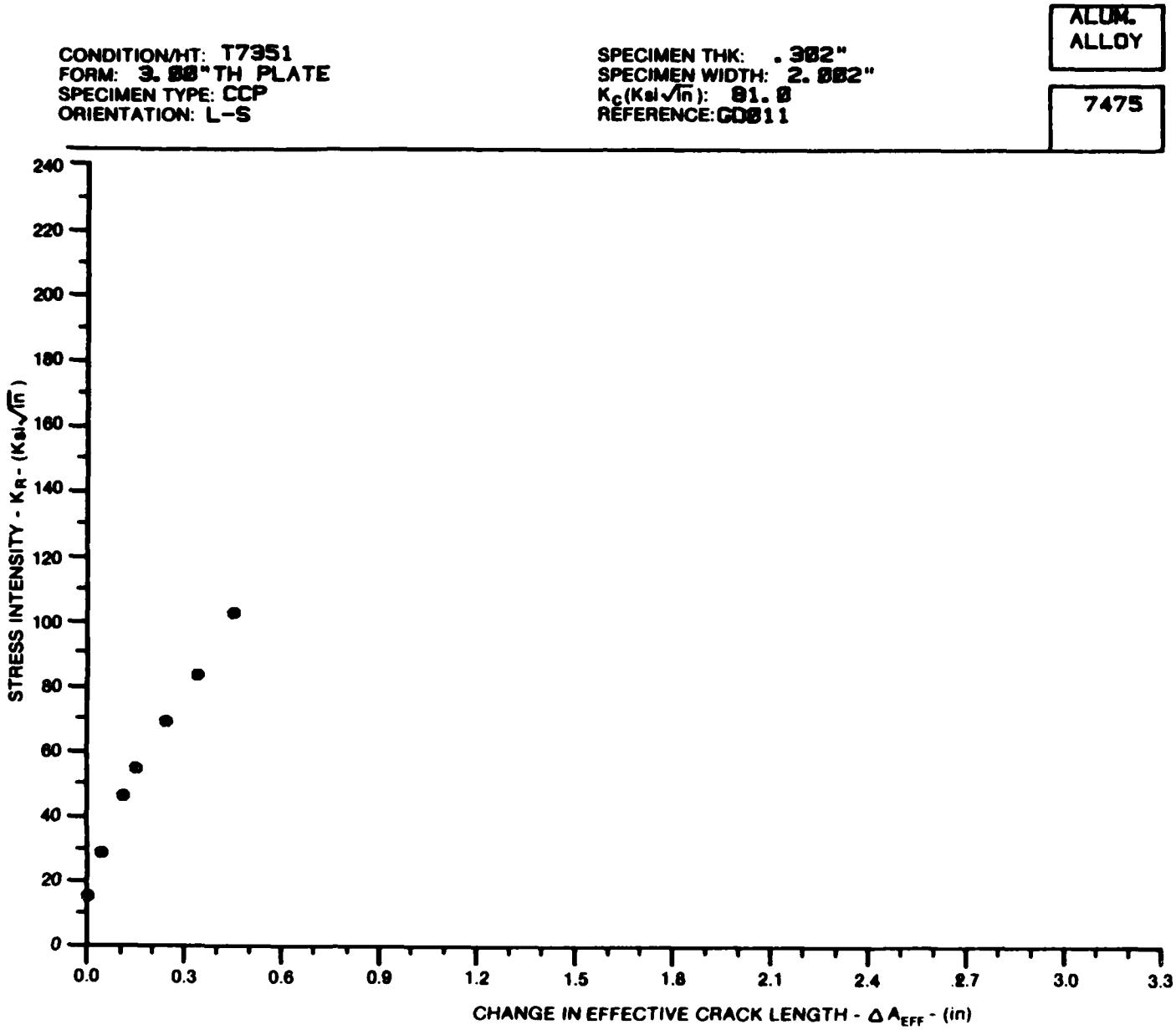

Figure 8.20.2.3

ALUM. ALLOY

7475

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-S

SPECIMEN THK: .302"
SPECIMEN WIDTH: 2.002"
K_c(Ksi$\sqrt{in}$): 87.2
REFERENCE: GD811

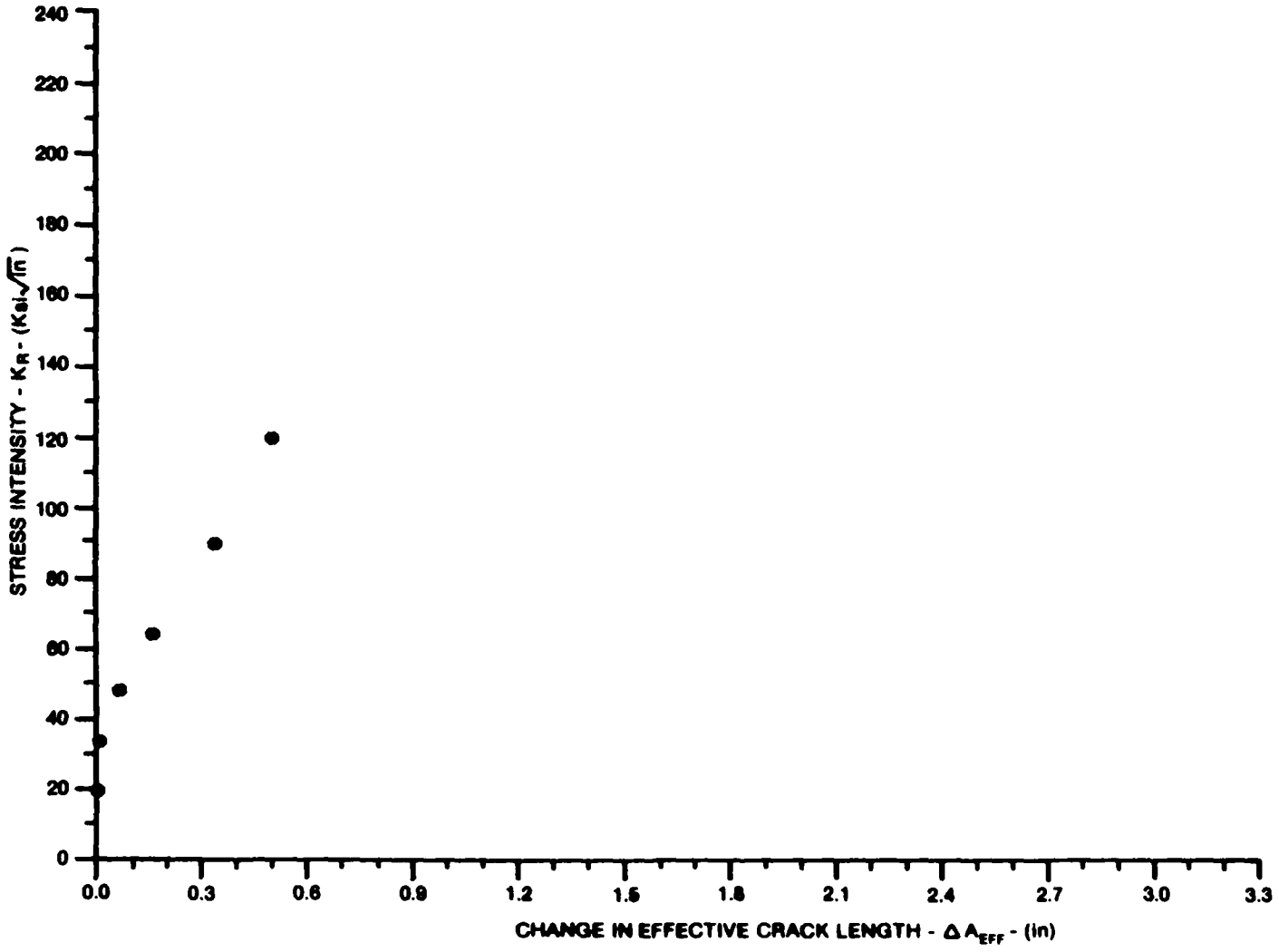

Figure 8.20.2.4

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-S

SPECIMEN THK: .309"
SPECIMEN WIDTH: 2.009"
K_c(Ksi$\sqrt{in}$): 85.1
REFERENCE: CD011

ALUM. ALLOY

7475

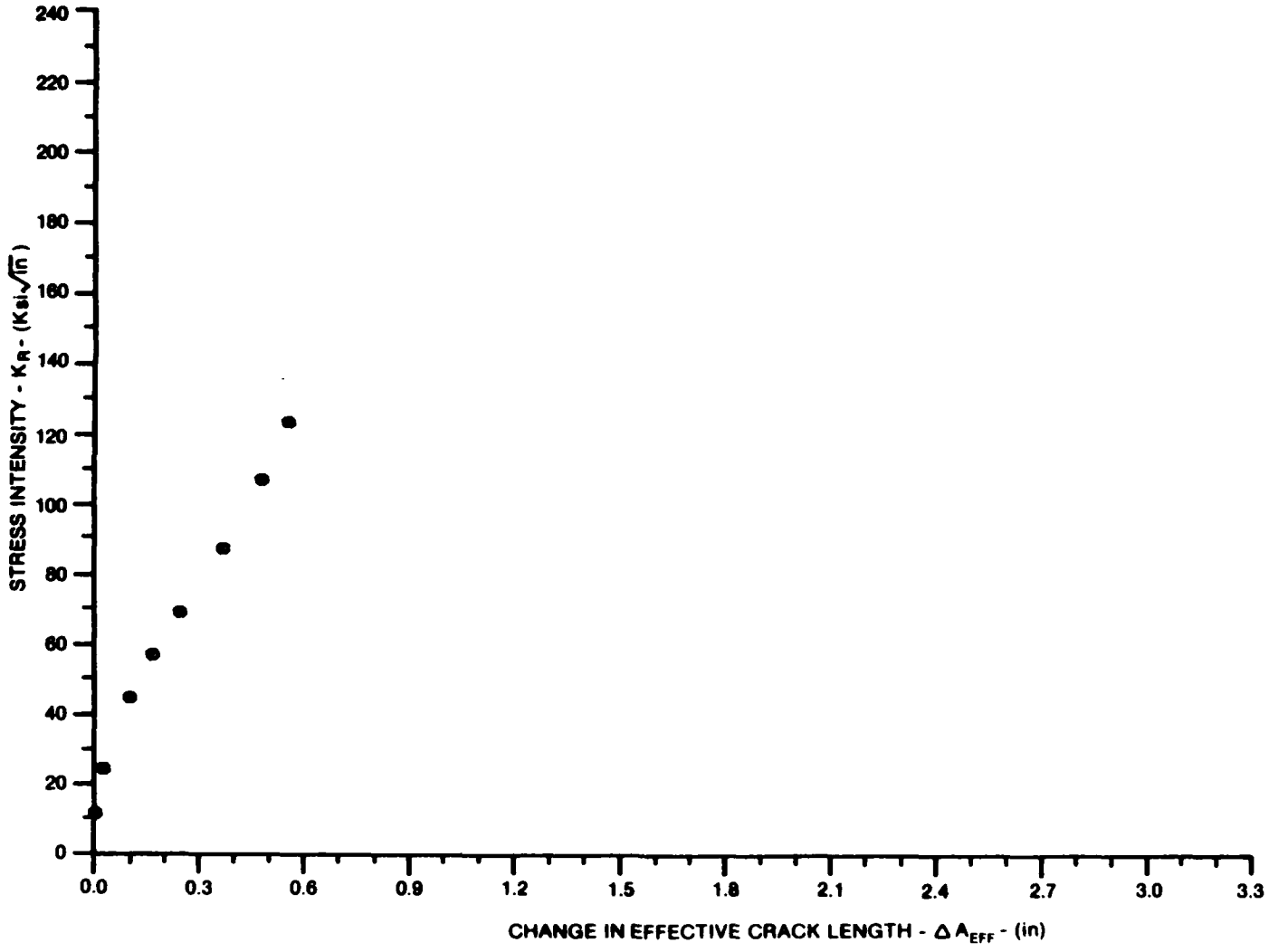

Figure 8.20.2.5

CONDITION/HT: T7351
FORM: .50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .255"
SPECIMEN WIDTH: 6.000"
K_C(Ksi$\sqrt{in}$): 121.0
REFERENCE: CD005

ALUM. ALLOY
7475

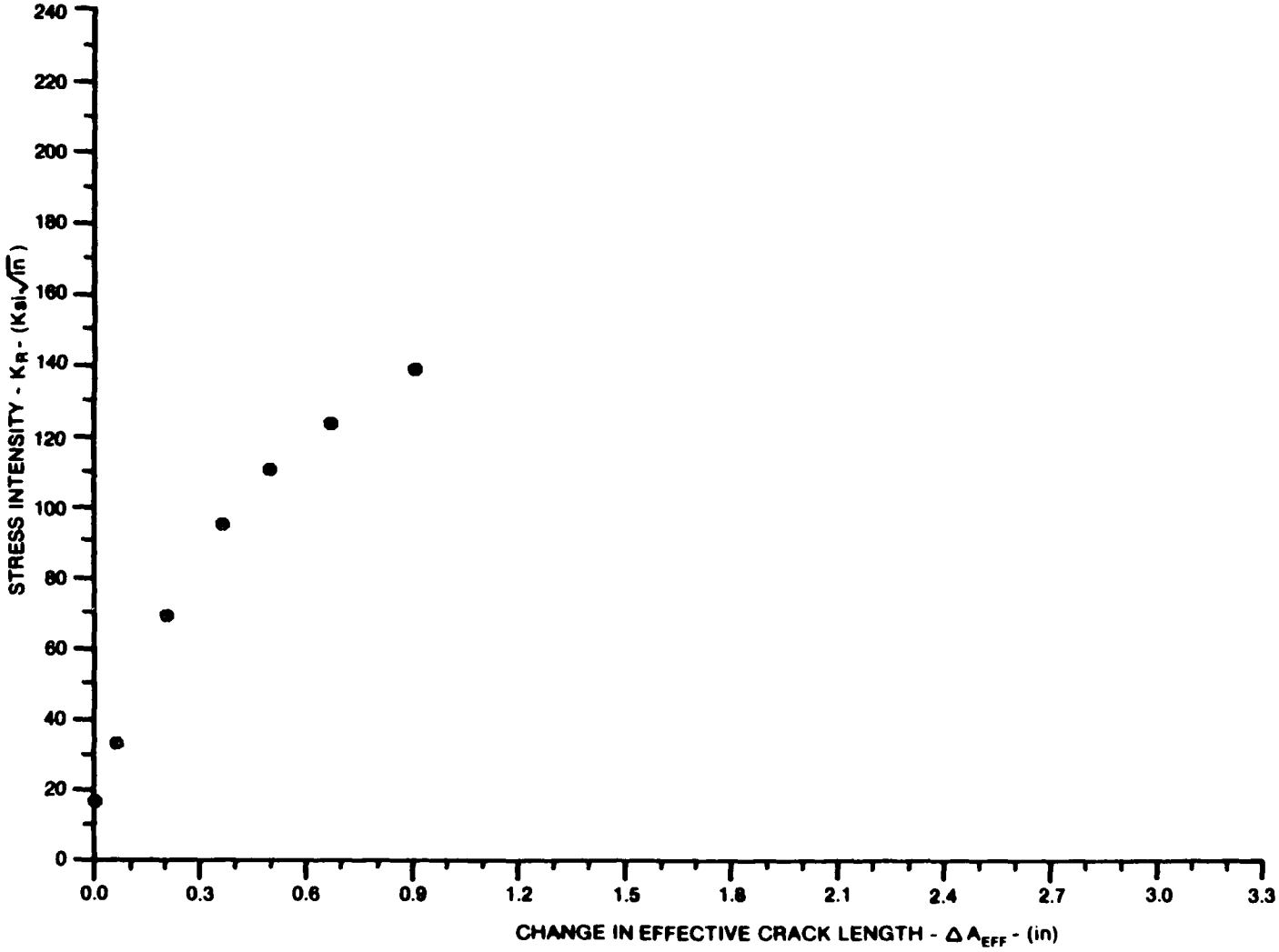

Figure 8.20.2.6

CONDITION/HT: T7351
FORM: .50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .258"
SPECIMEN WIDTH: 6.004"
K_C(Ksi$\sqrt{in}$): 116.0
REFERENCE: CD005

ALUM. ALLOY
7475

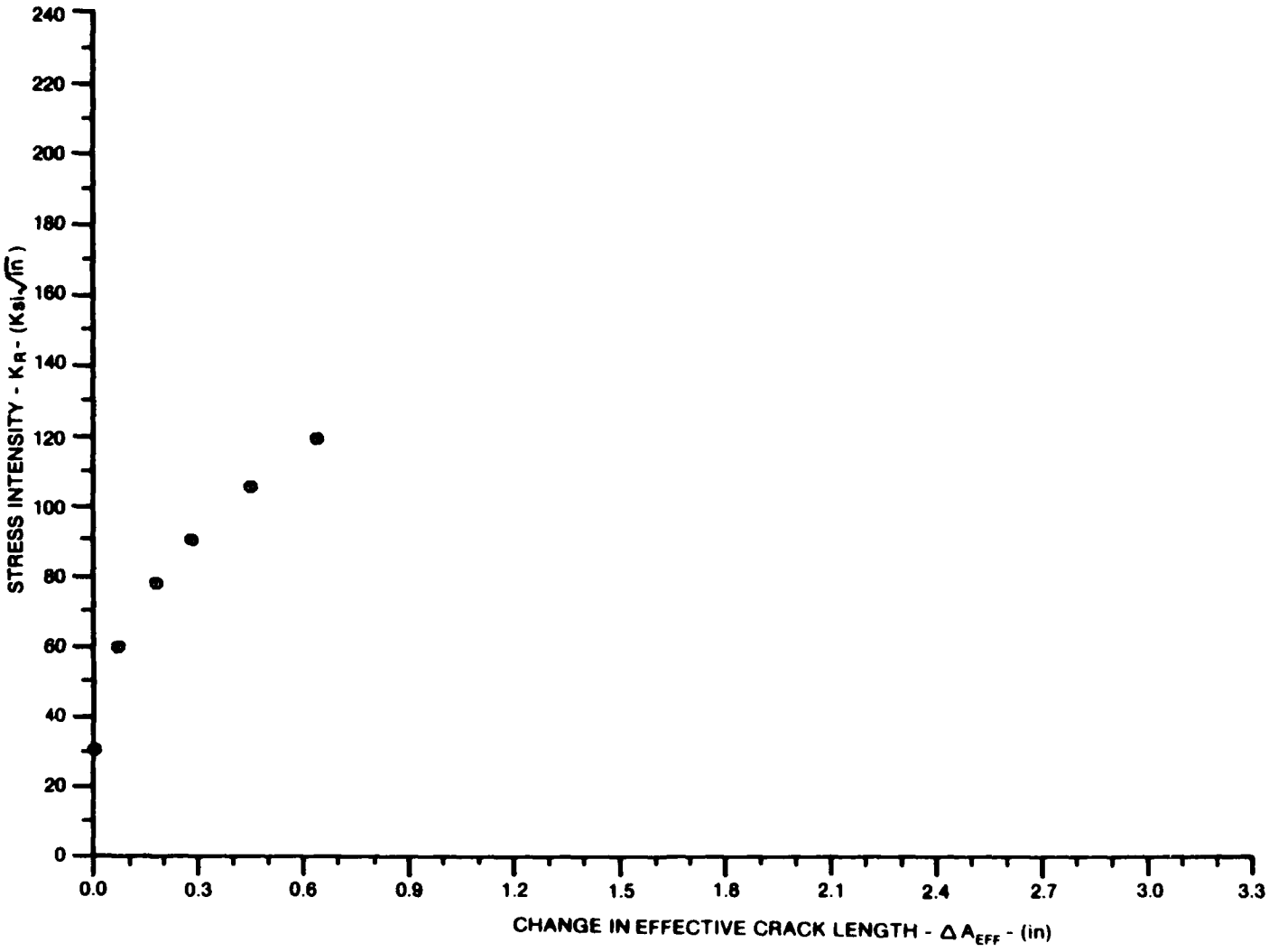

Figure 8.20.2.7

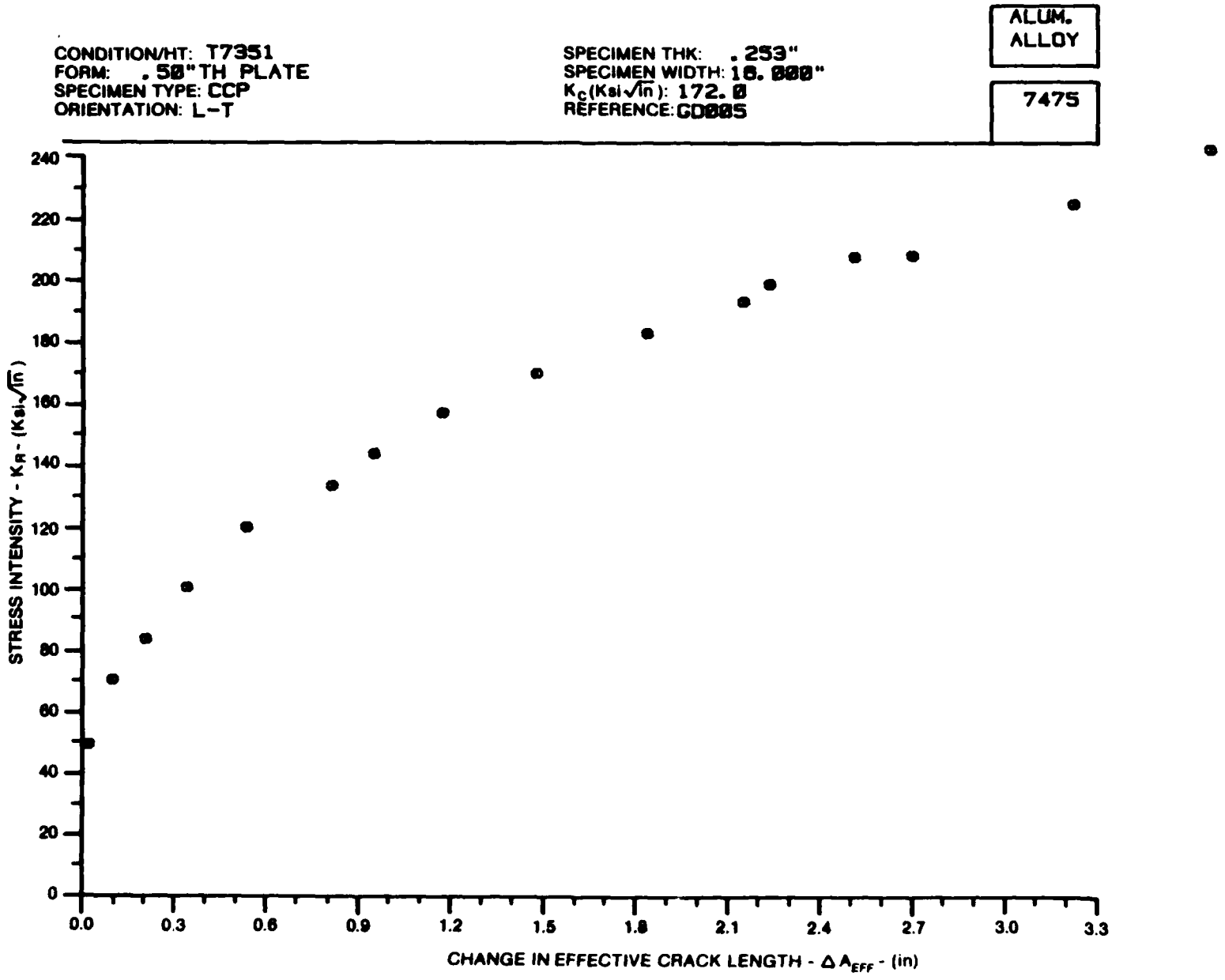

Figure 8.20.2.8

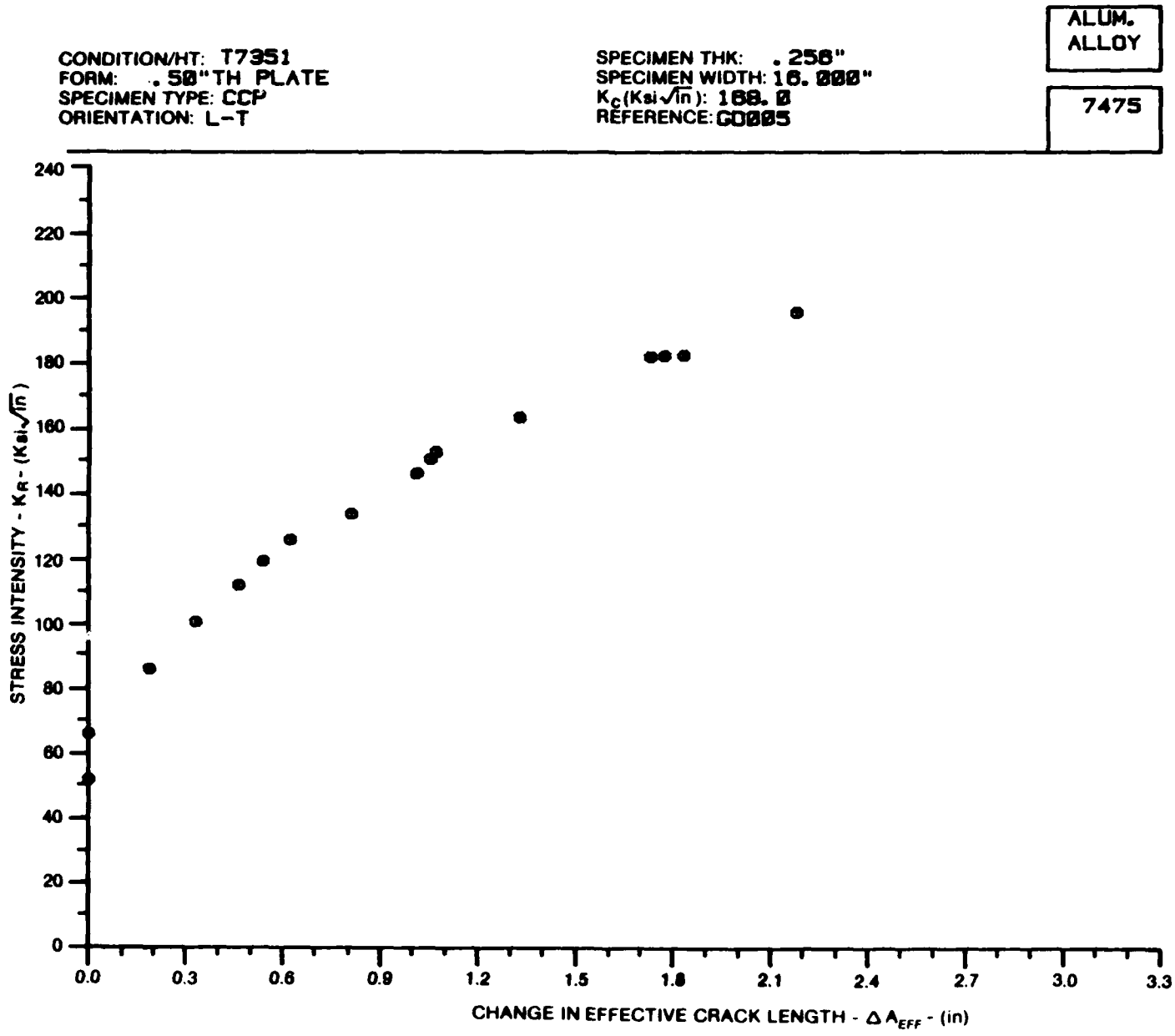

Figure 8.20.2.9

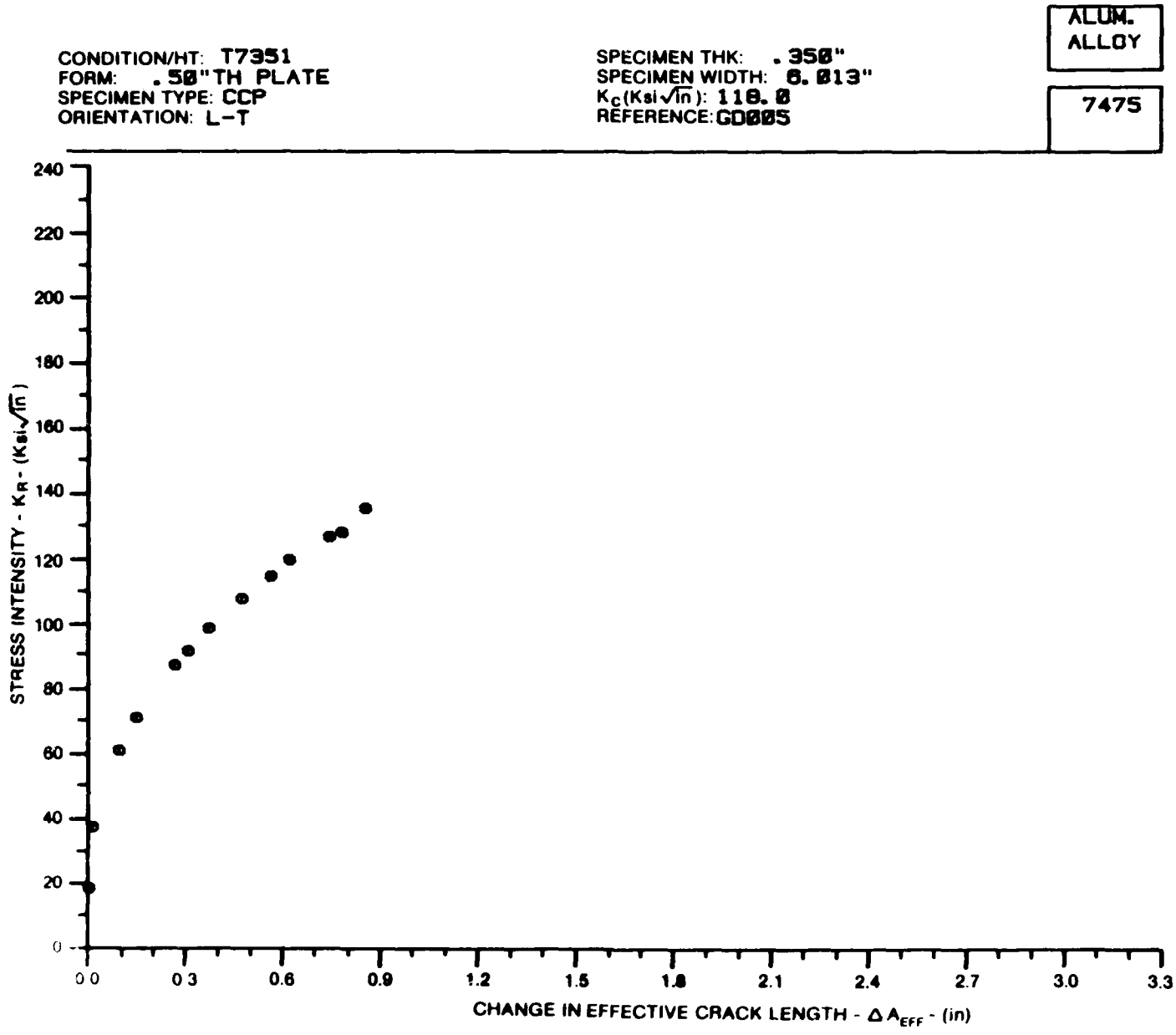

Figure 8.20.2.10

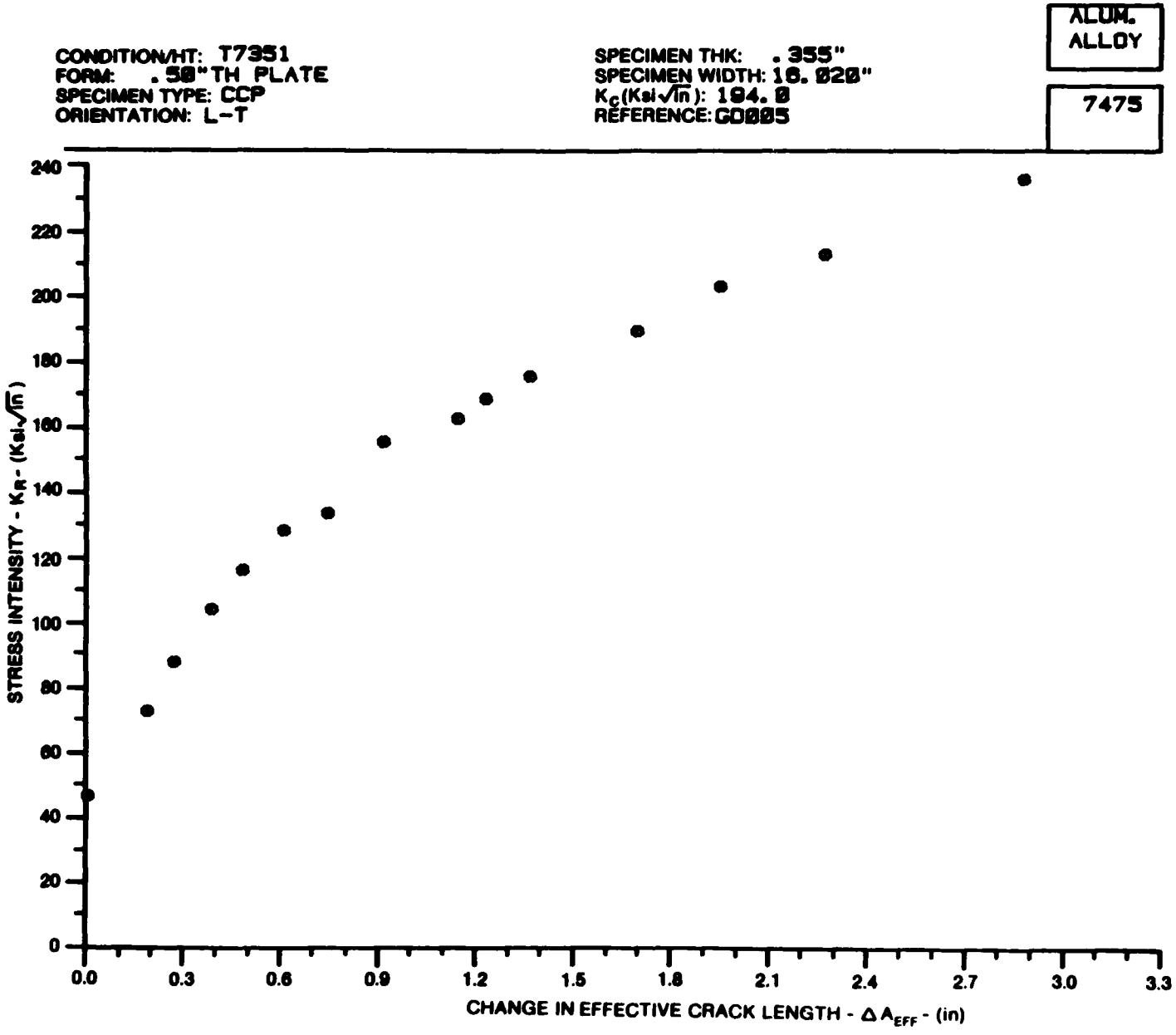

Figure 8.20.2.11

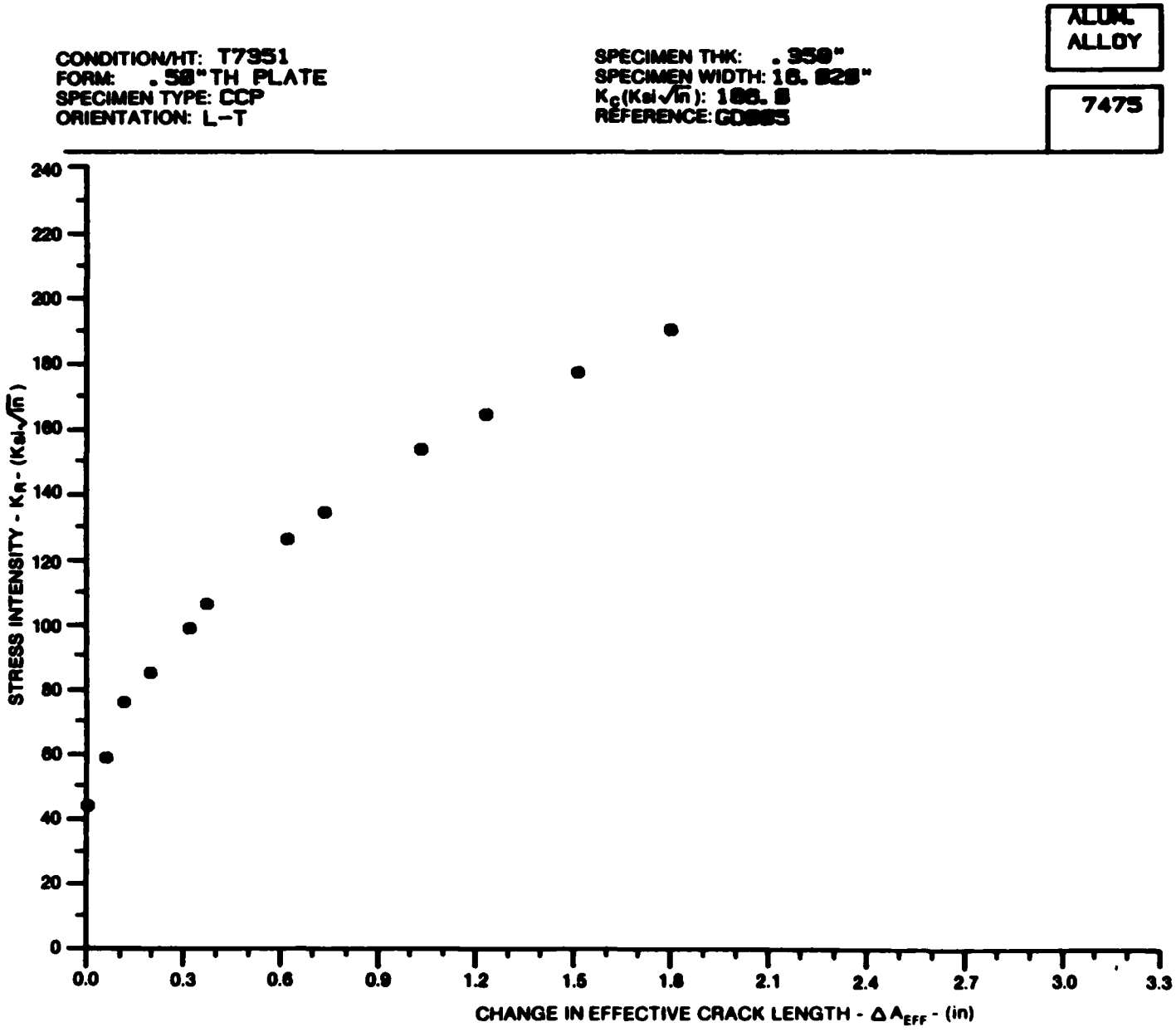

Figure 8.20.2.12

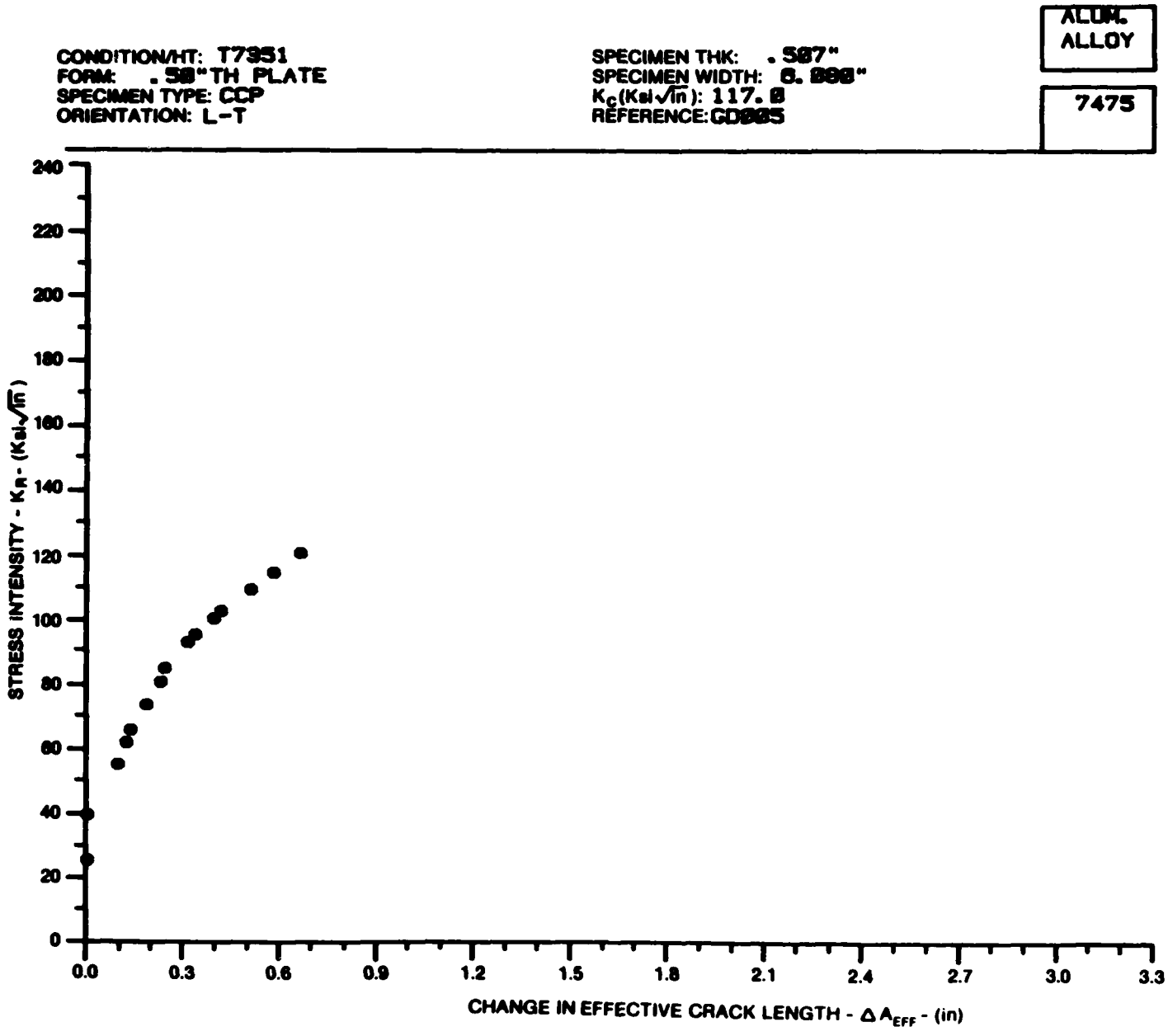

Figure 8.20.2.13

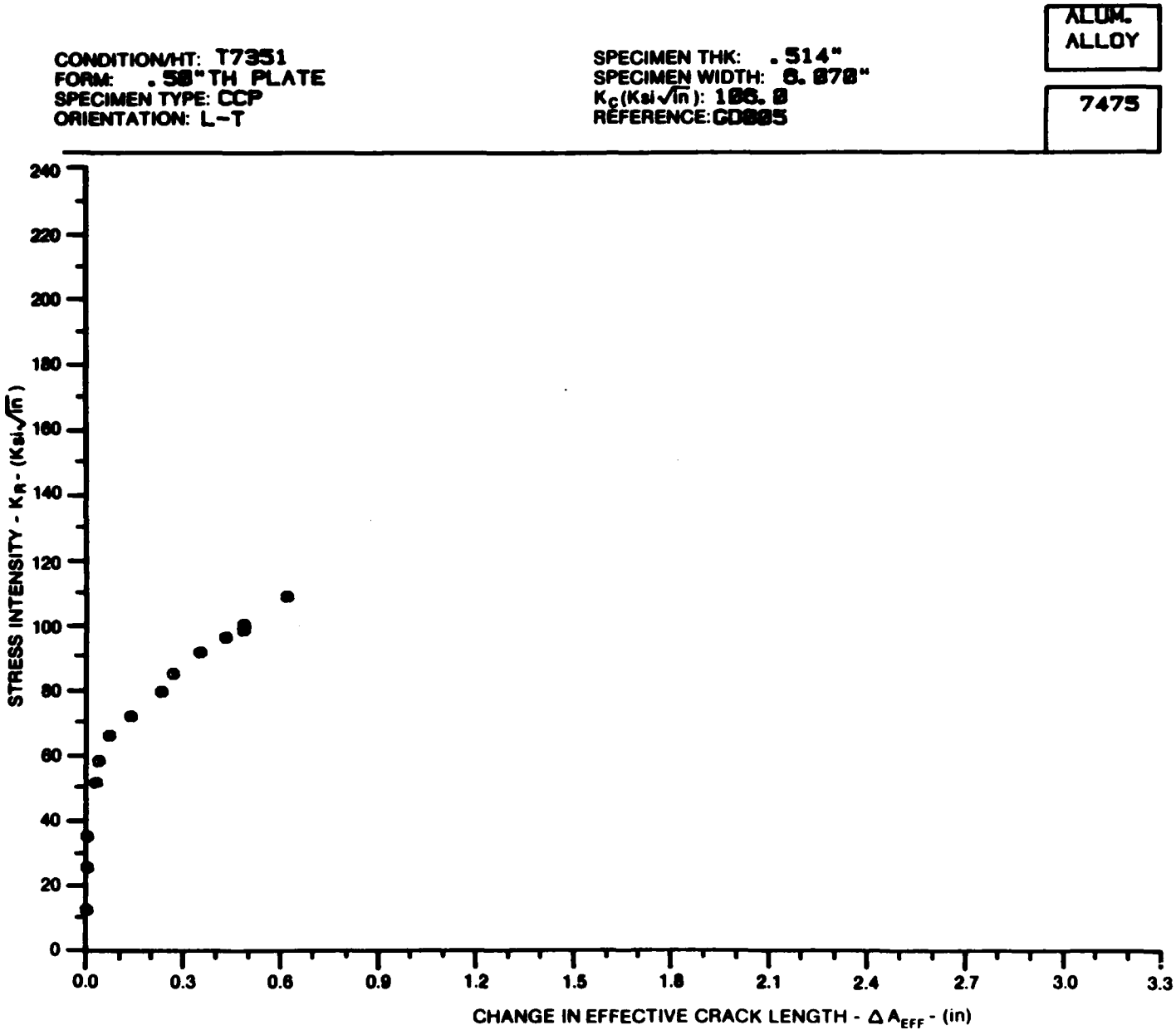

Figure 8.20.2.14

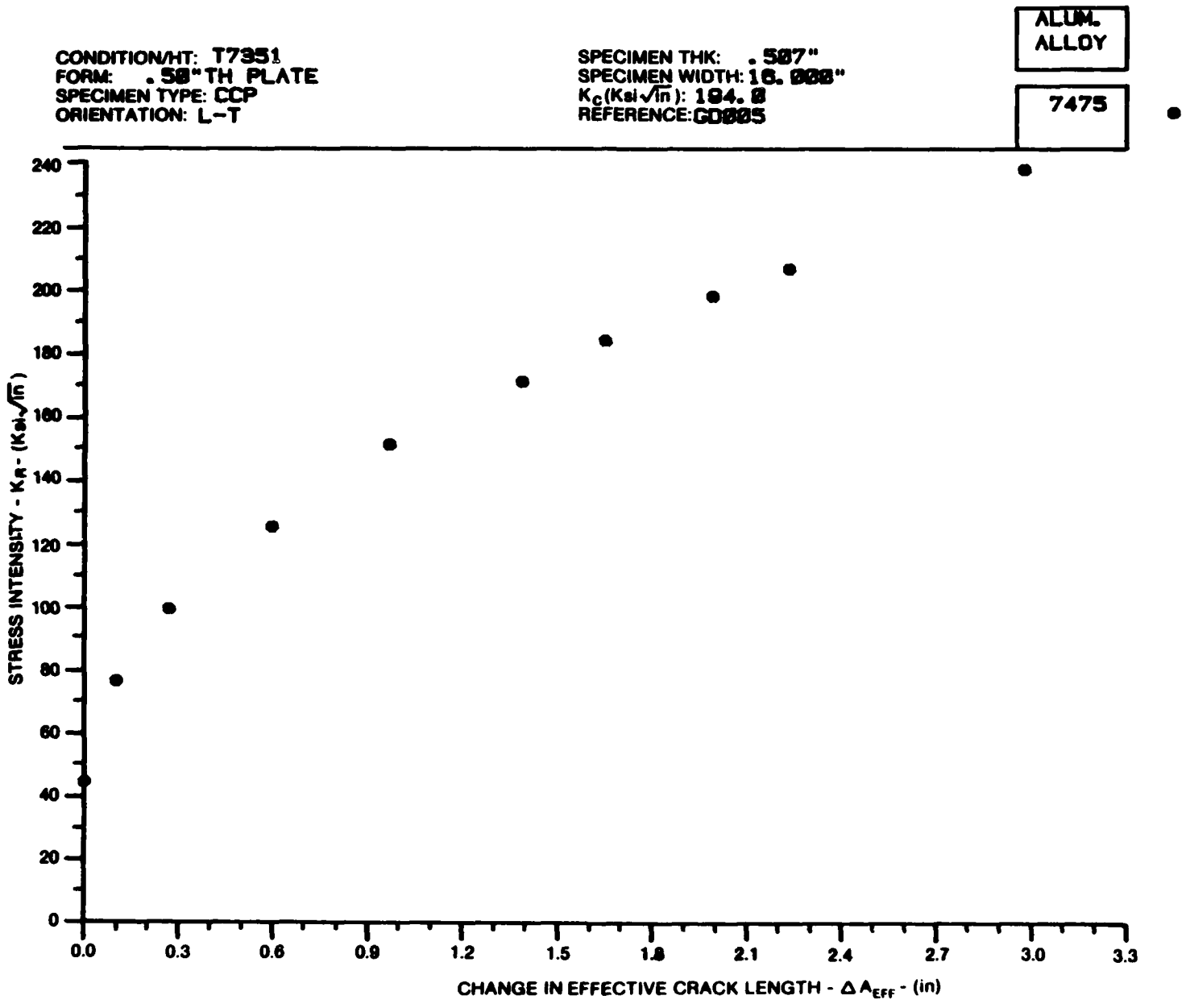

Figure 8.20.2.15

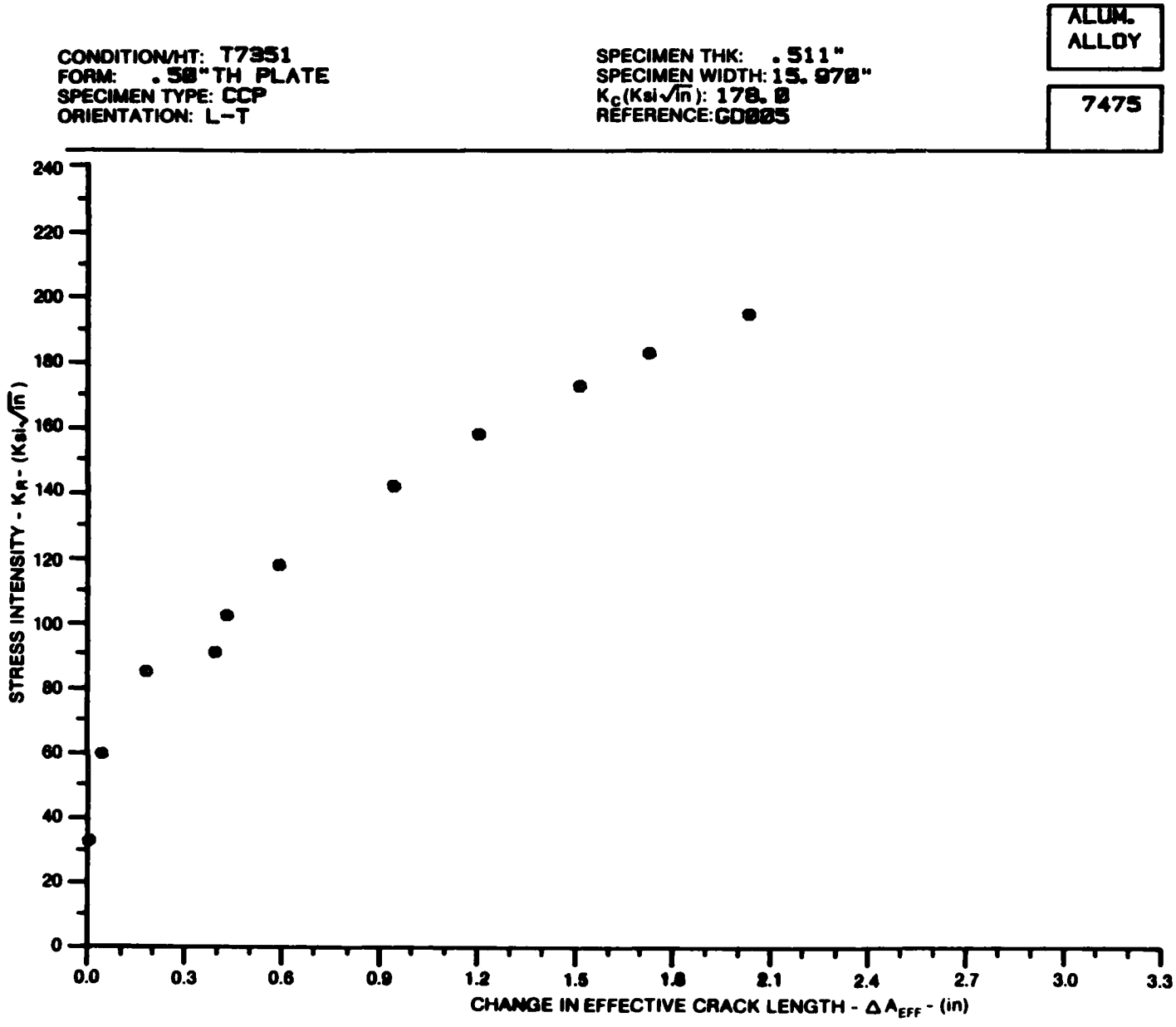

Figure 8.20.2.16

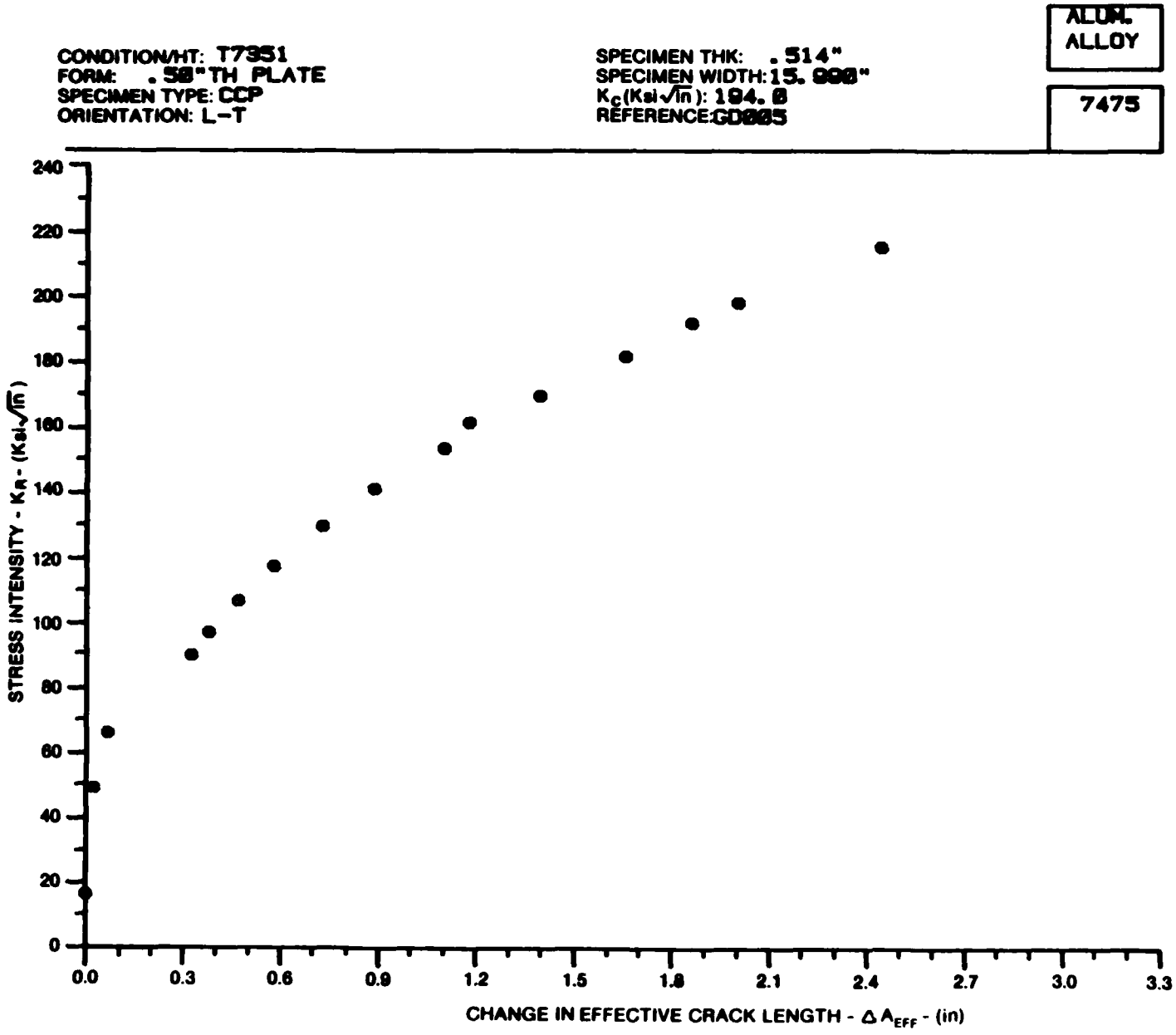

Figure 8.20.2.17

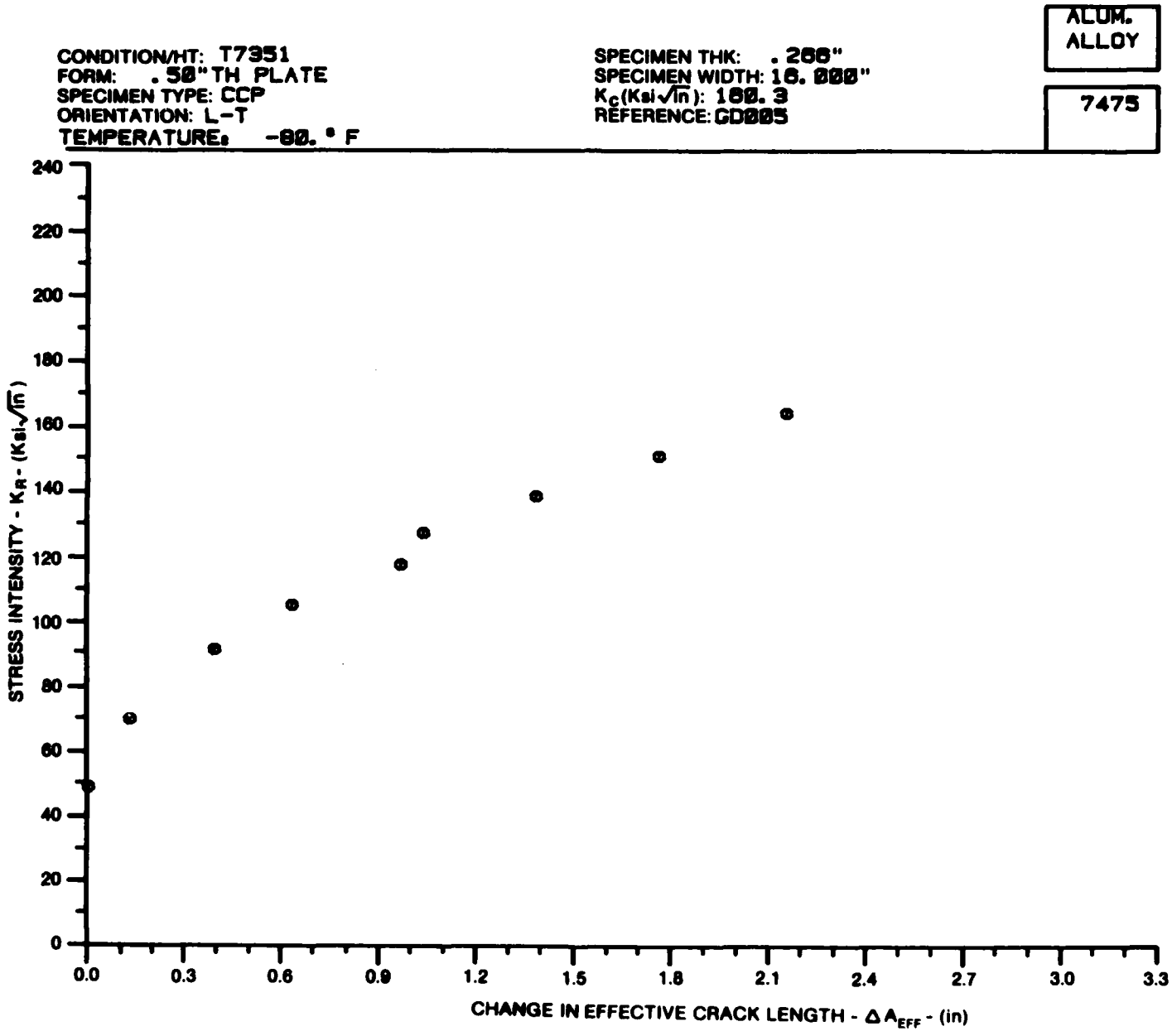

Figure 8.20.2.18

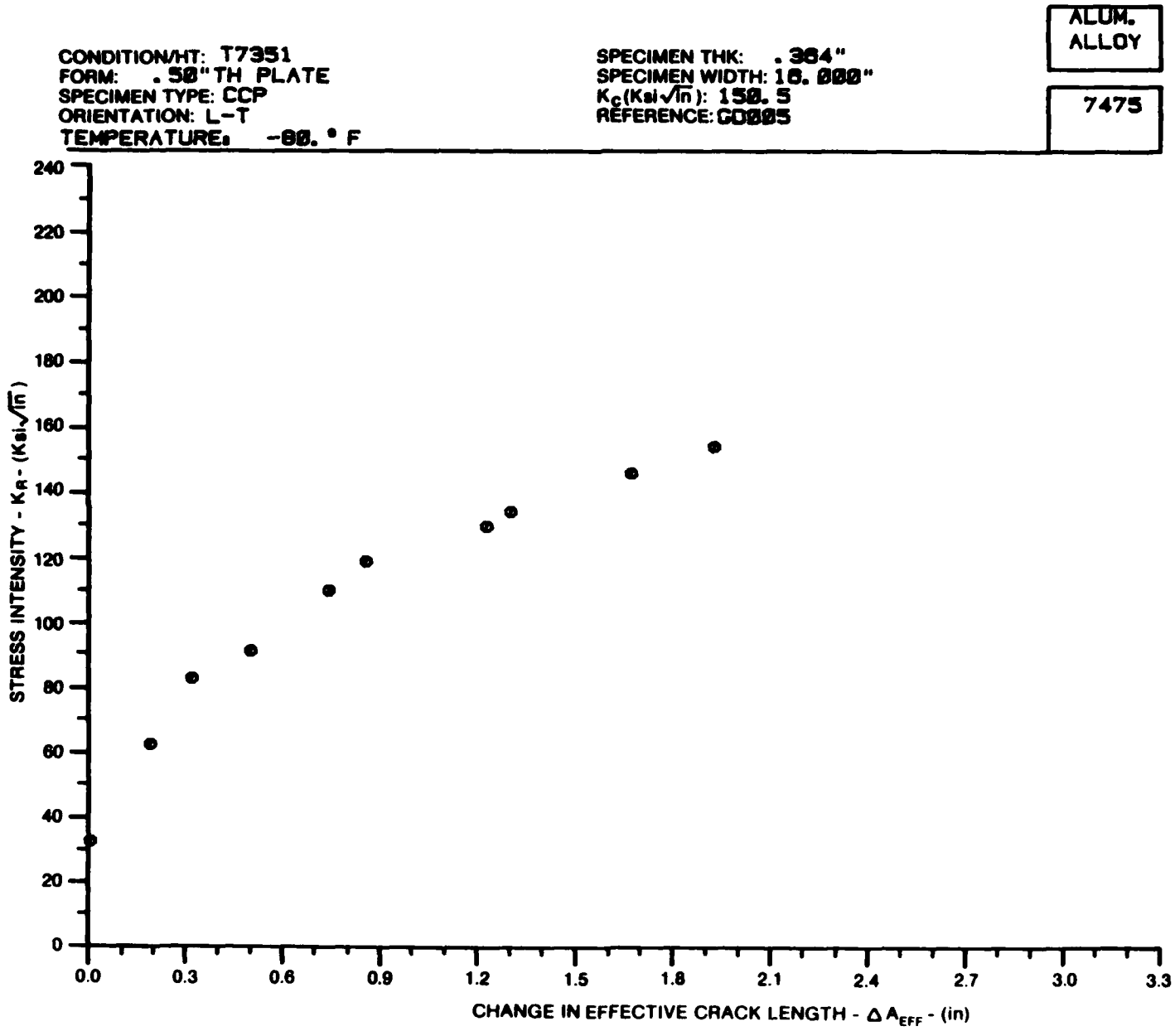

Figure 8.20.2.19

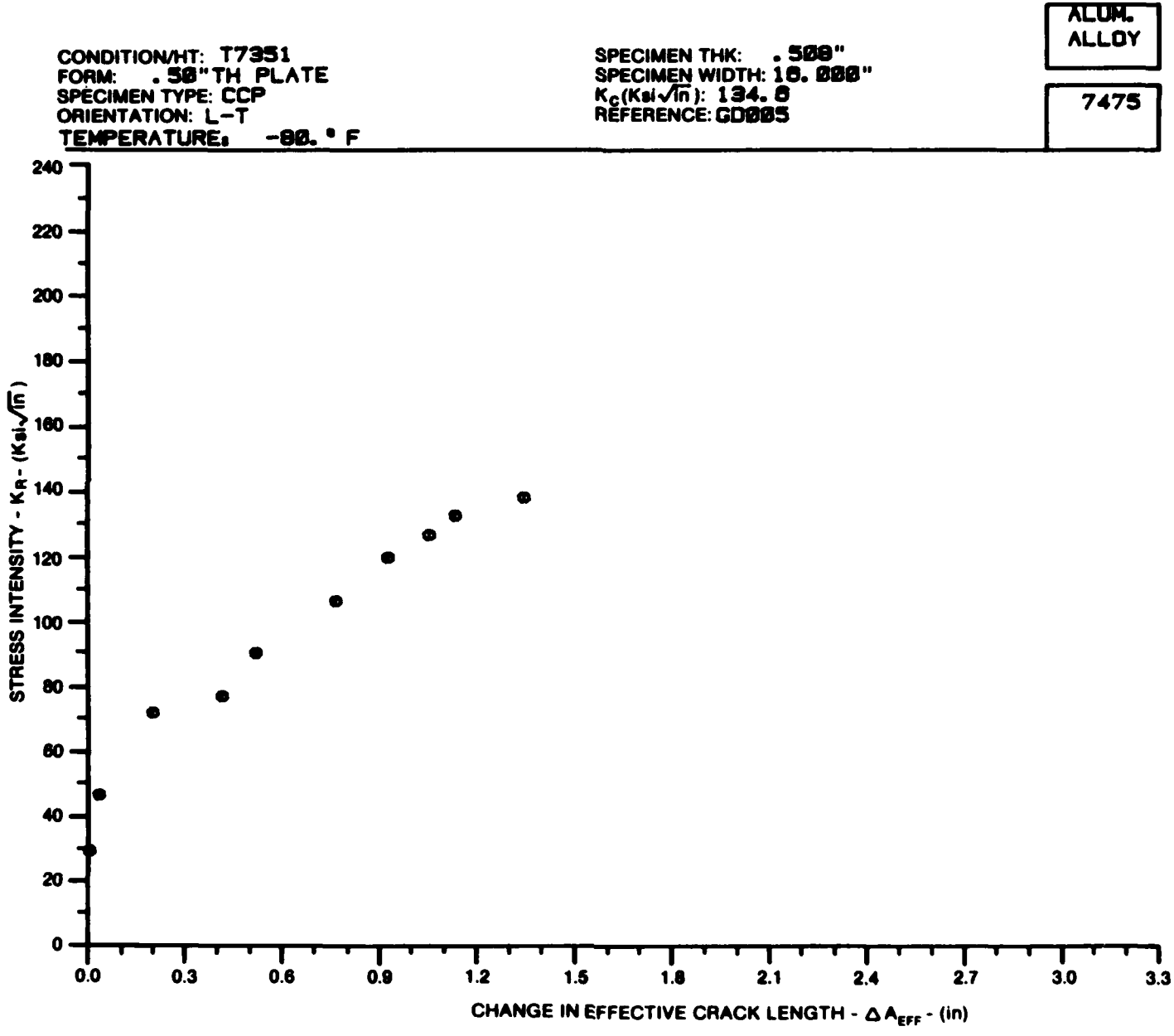

Figure 8.20.2.20

ALUM. ALLOY

7475

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .187"
SPECIMEN WIDTH: 4.001"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

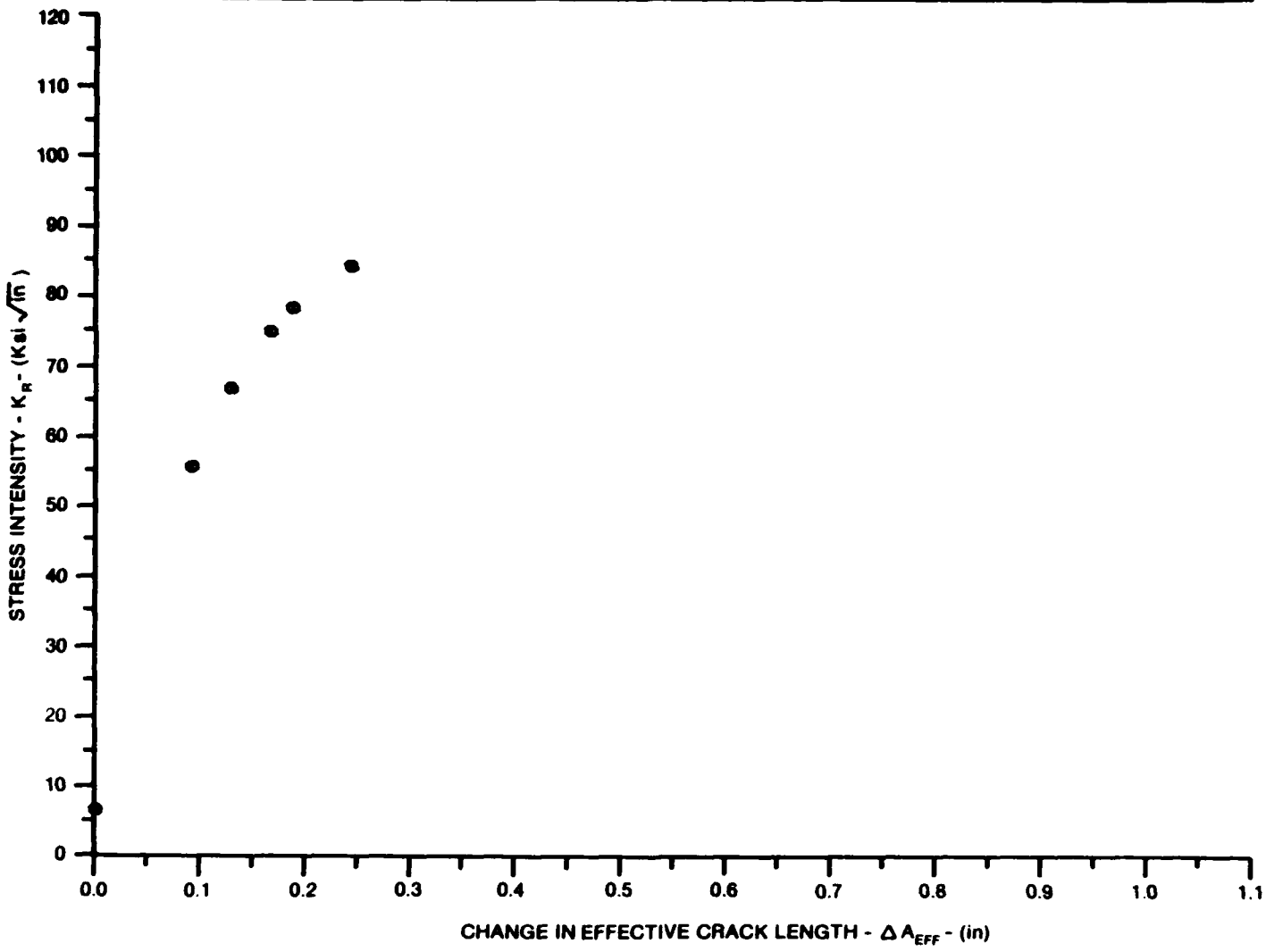

Figure 8.20.2.21

ALUM. ALLOY

7475

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .188"
SPECIMEN WIDTH: 4.002"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

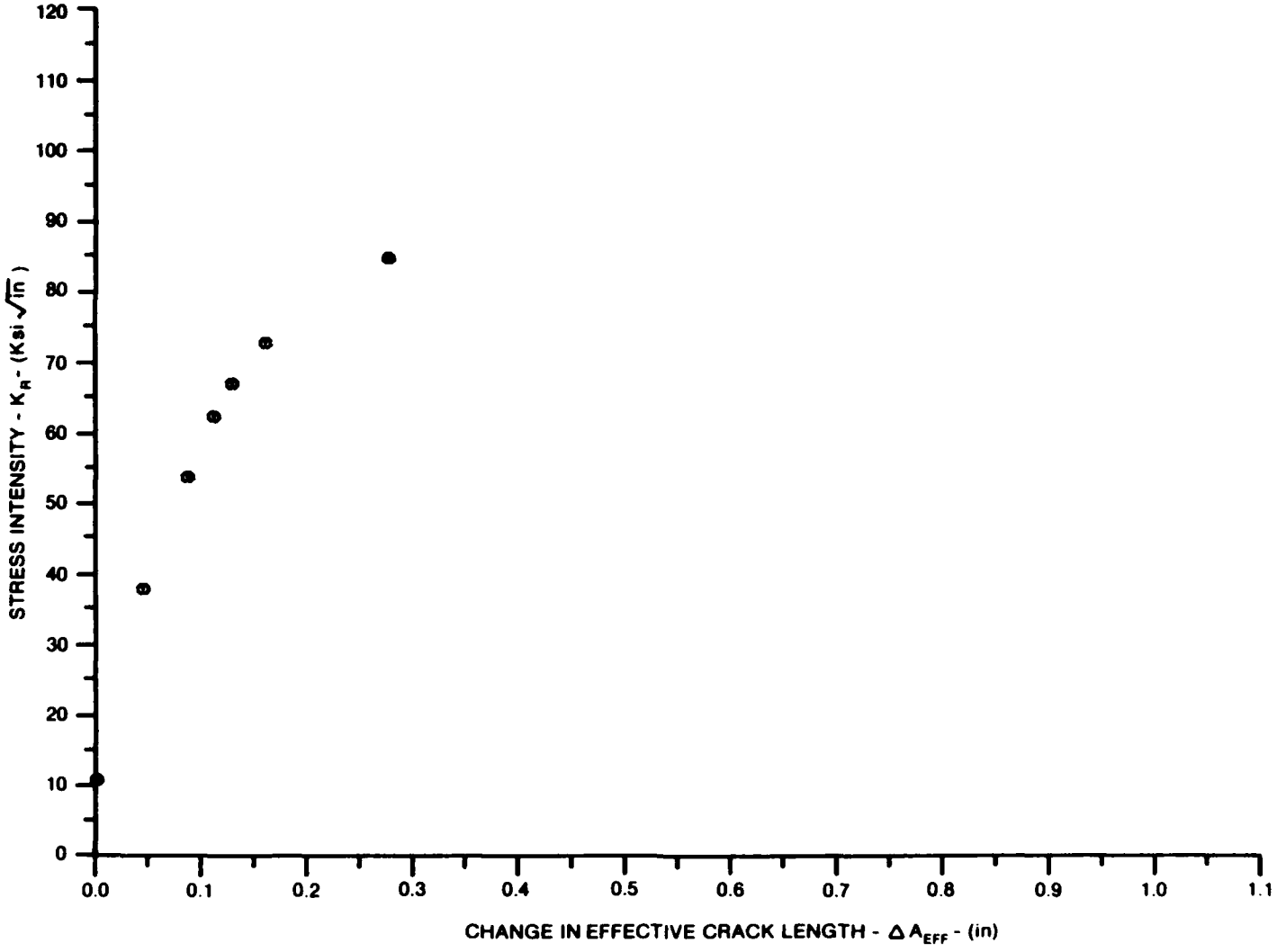

Figure 8.20.2.22

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .188"
SPECIMEN WIDTH: 4.012"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY

7475

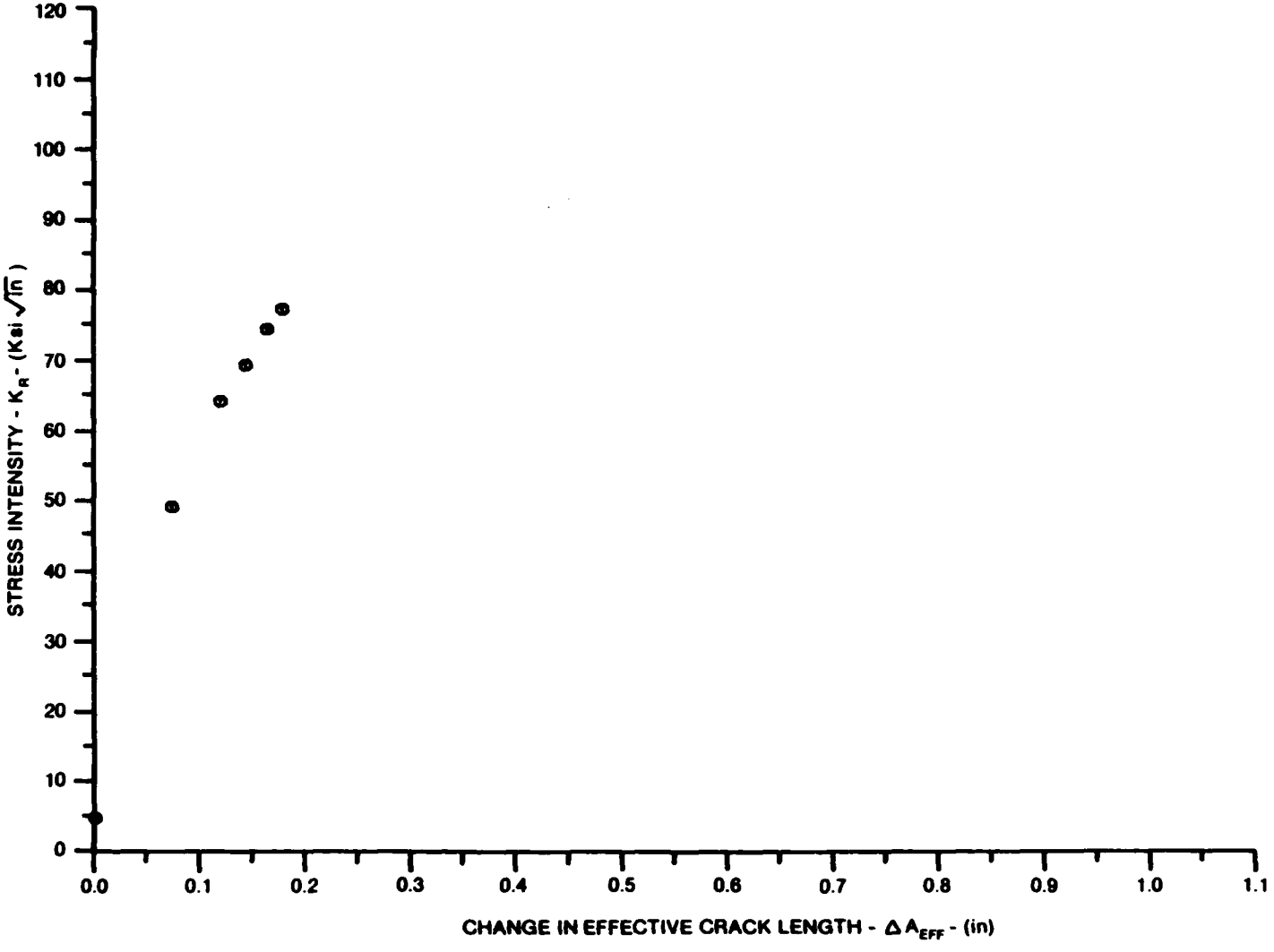

Figure 8.20.2.23

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .190"
SPECIMEN WIDTH: 4.004"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

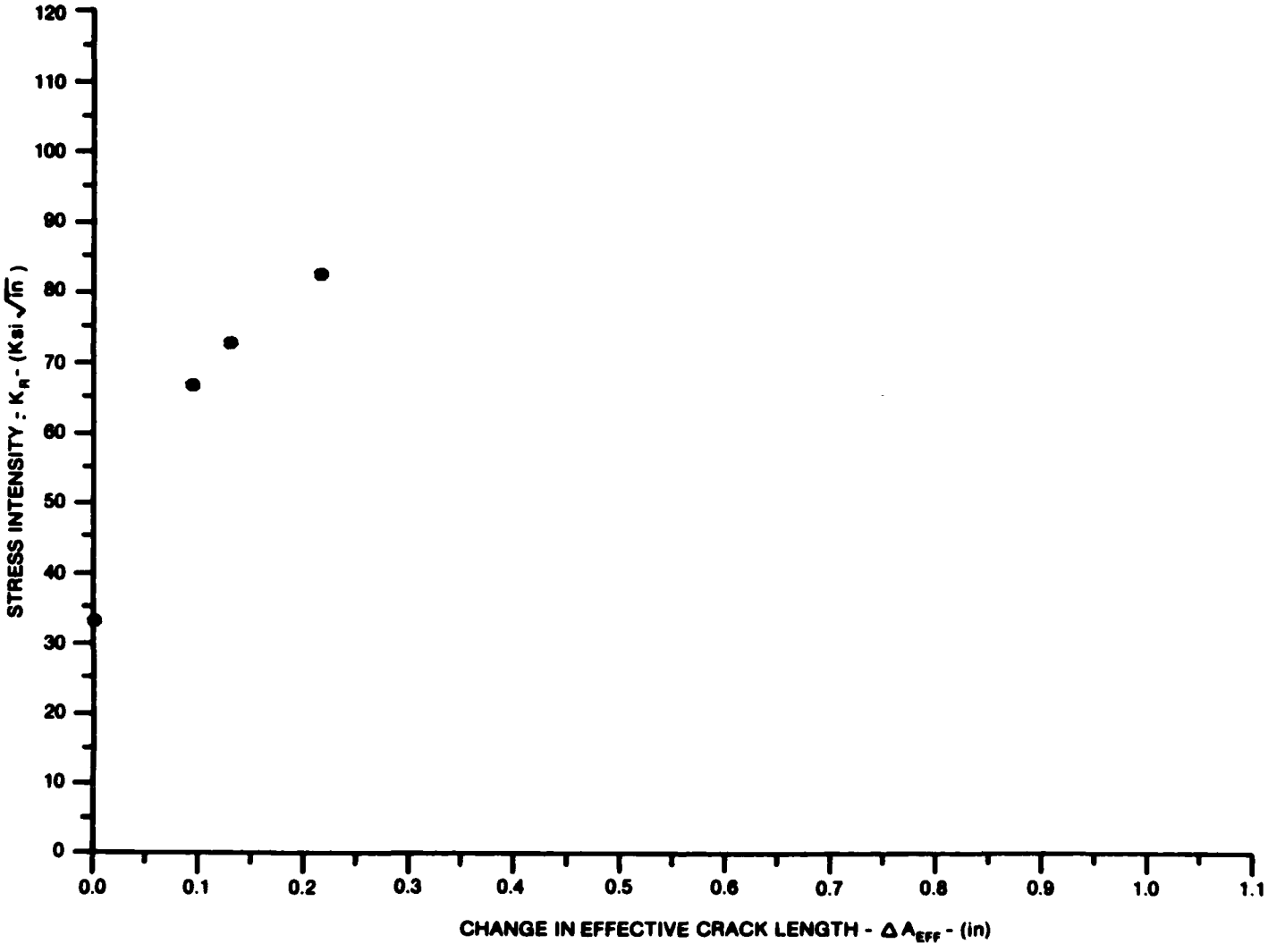

Figure 8.20.2.24

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .182"
SPECIMEN WIDTH: 12.000"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

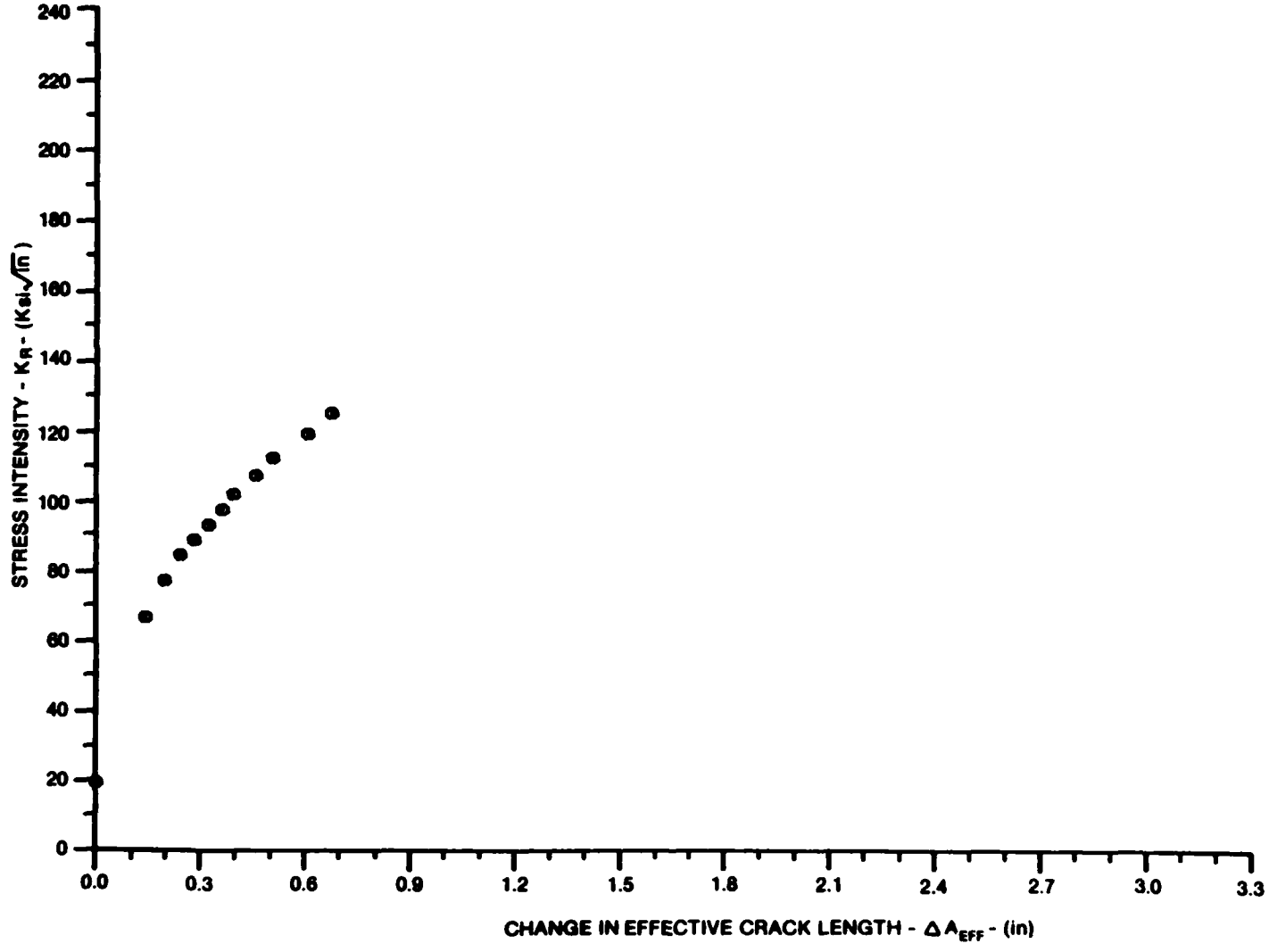

Figure 8.20.2.25

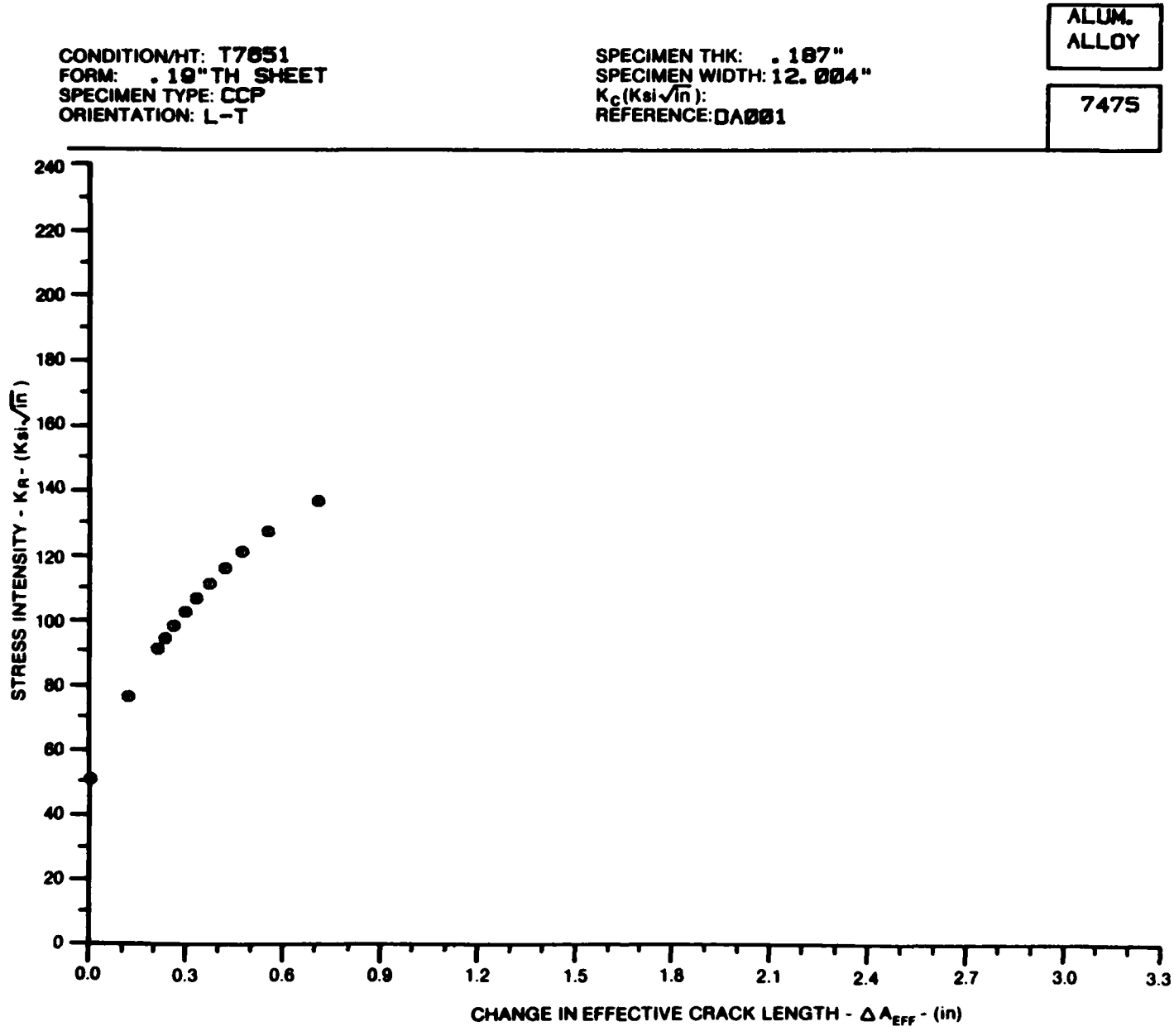

Figure 8.20.2.26

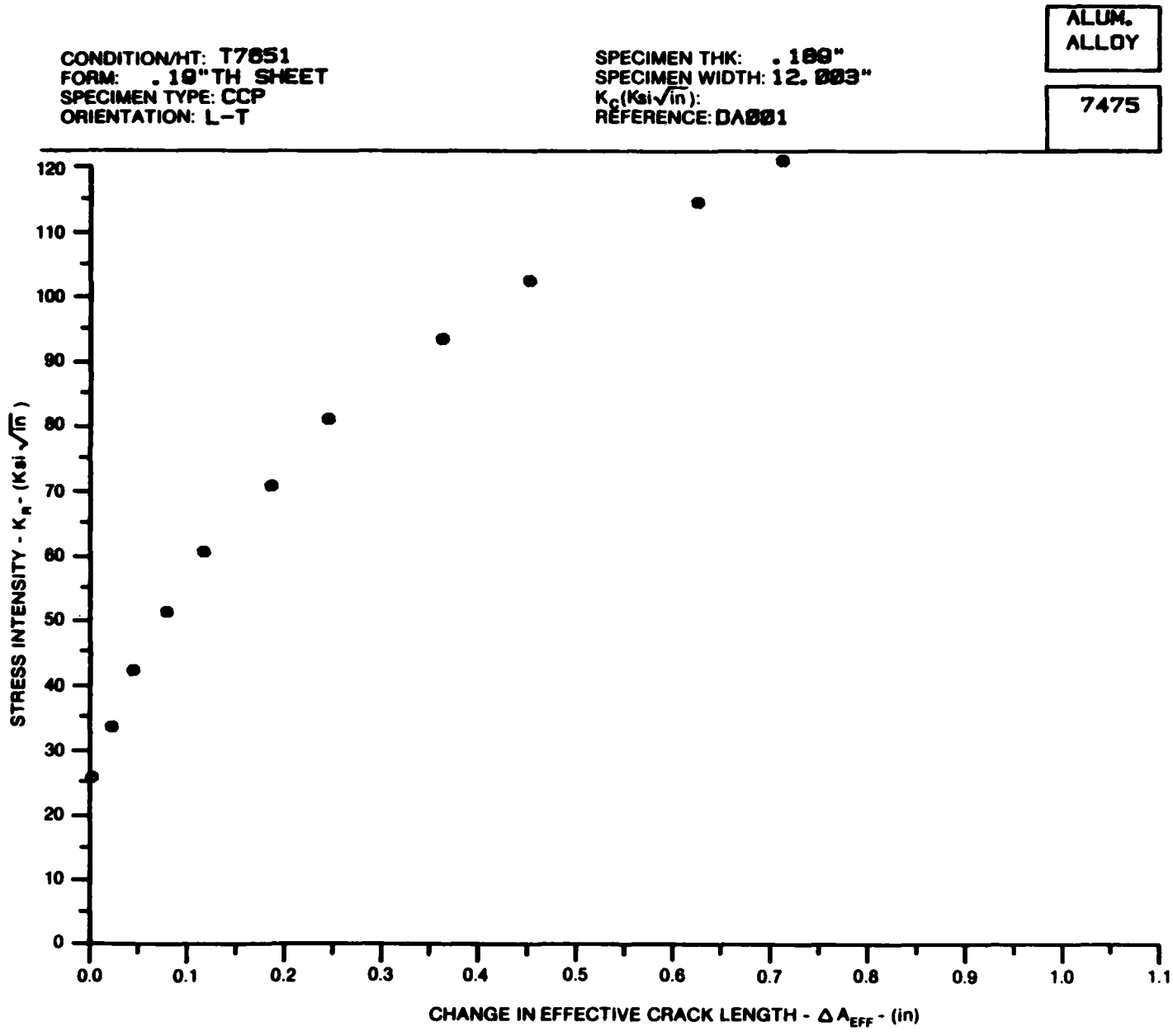

Figure 8.20.2.27

CONDITION/HT: T7651
FORM: .19"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .188"
SPECIMEN WIDTH: 12.004"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

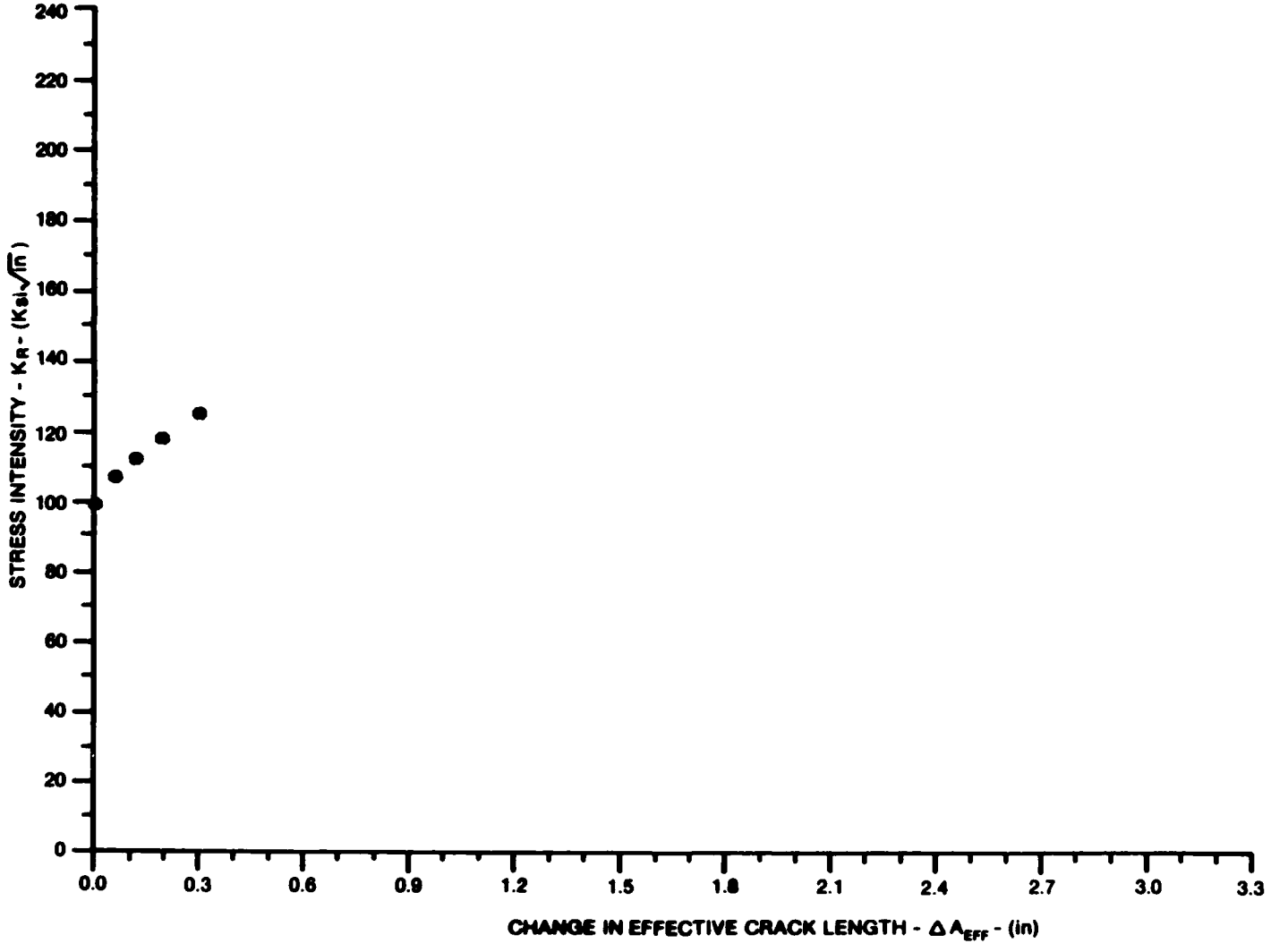

Figure 8.20.2.28

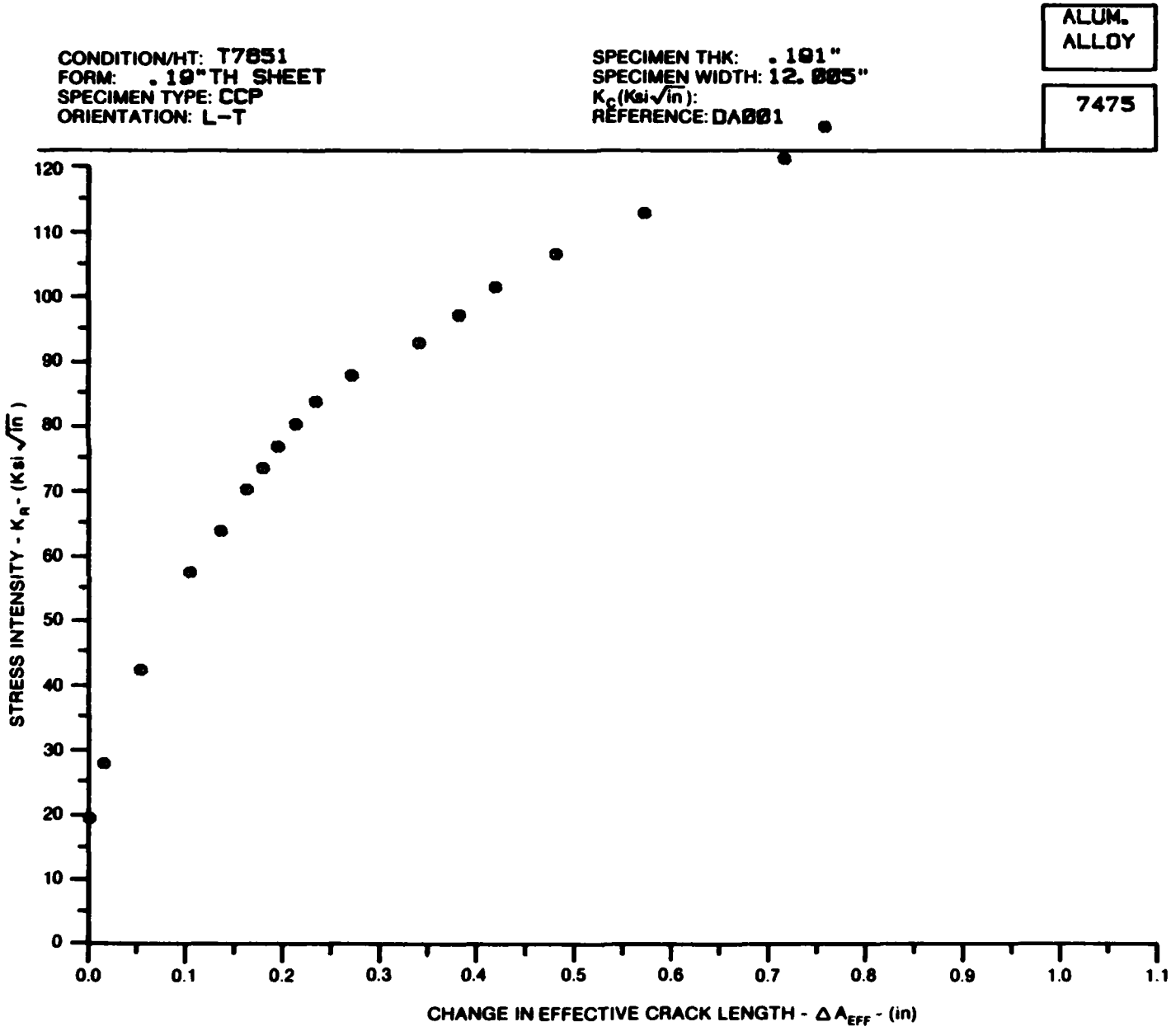

Figure 8.20.2.29

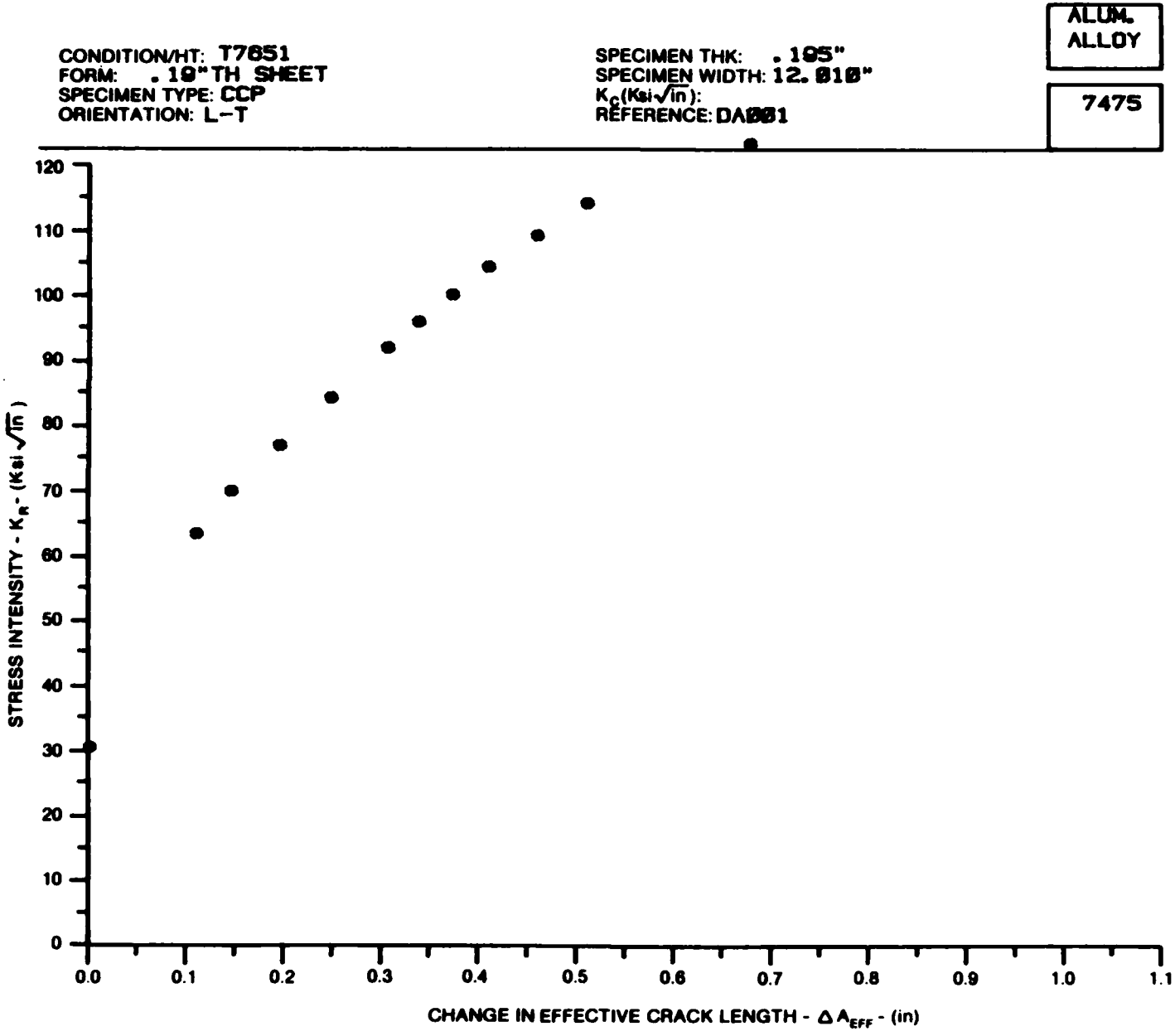

Figure 8.20.2.30

CONDITION/HT: T7651
FORM: .25" TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .251"
SPECIMEN WIDTH: 4.012"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

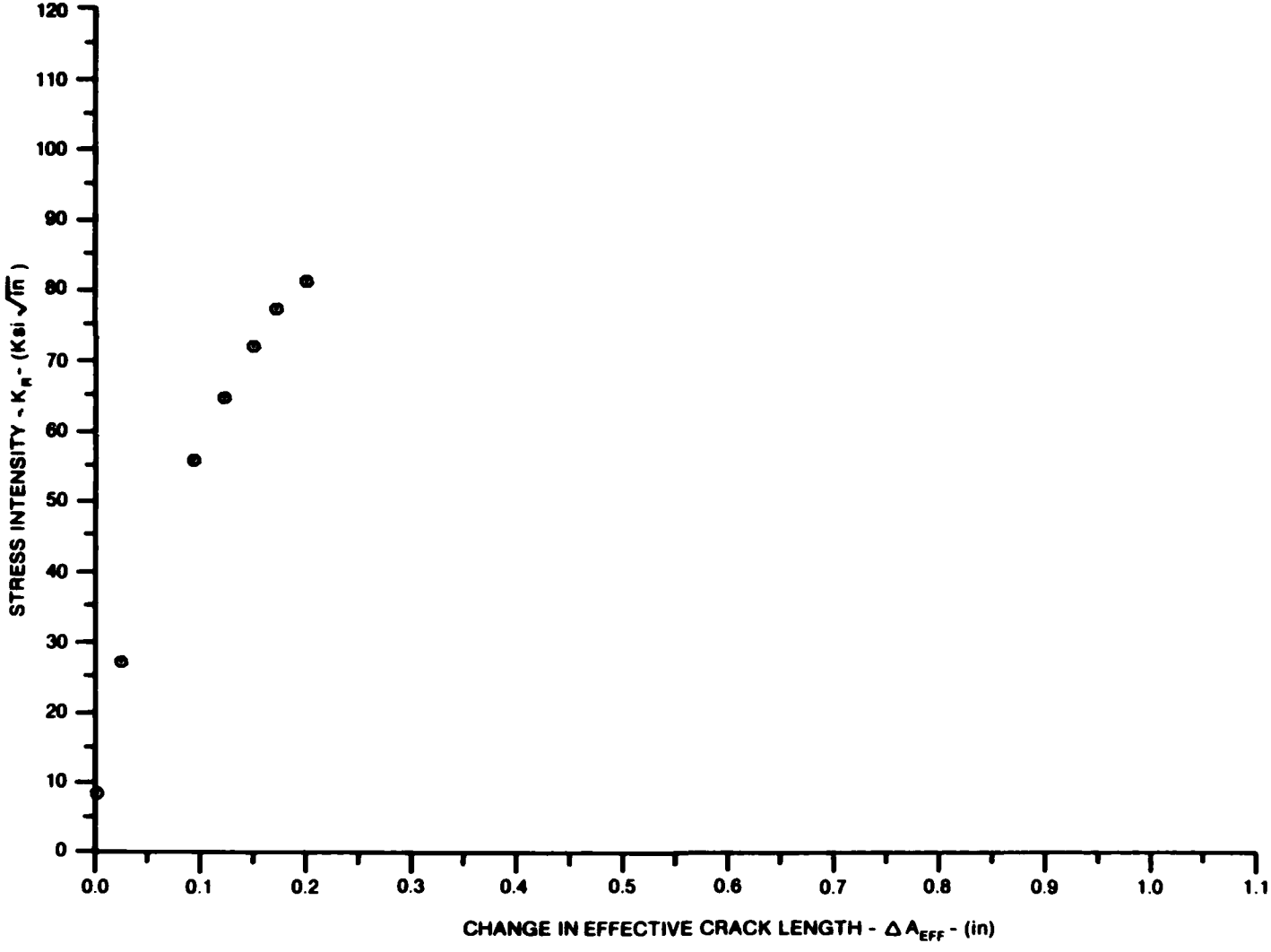

Figure 8.20.2.31

CONDITION/HT: T7651
FORM: .25"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .251"
SPECIMEN WIDTH: 4.002"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

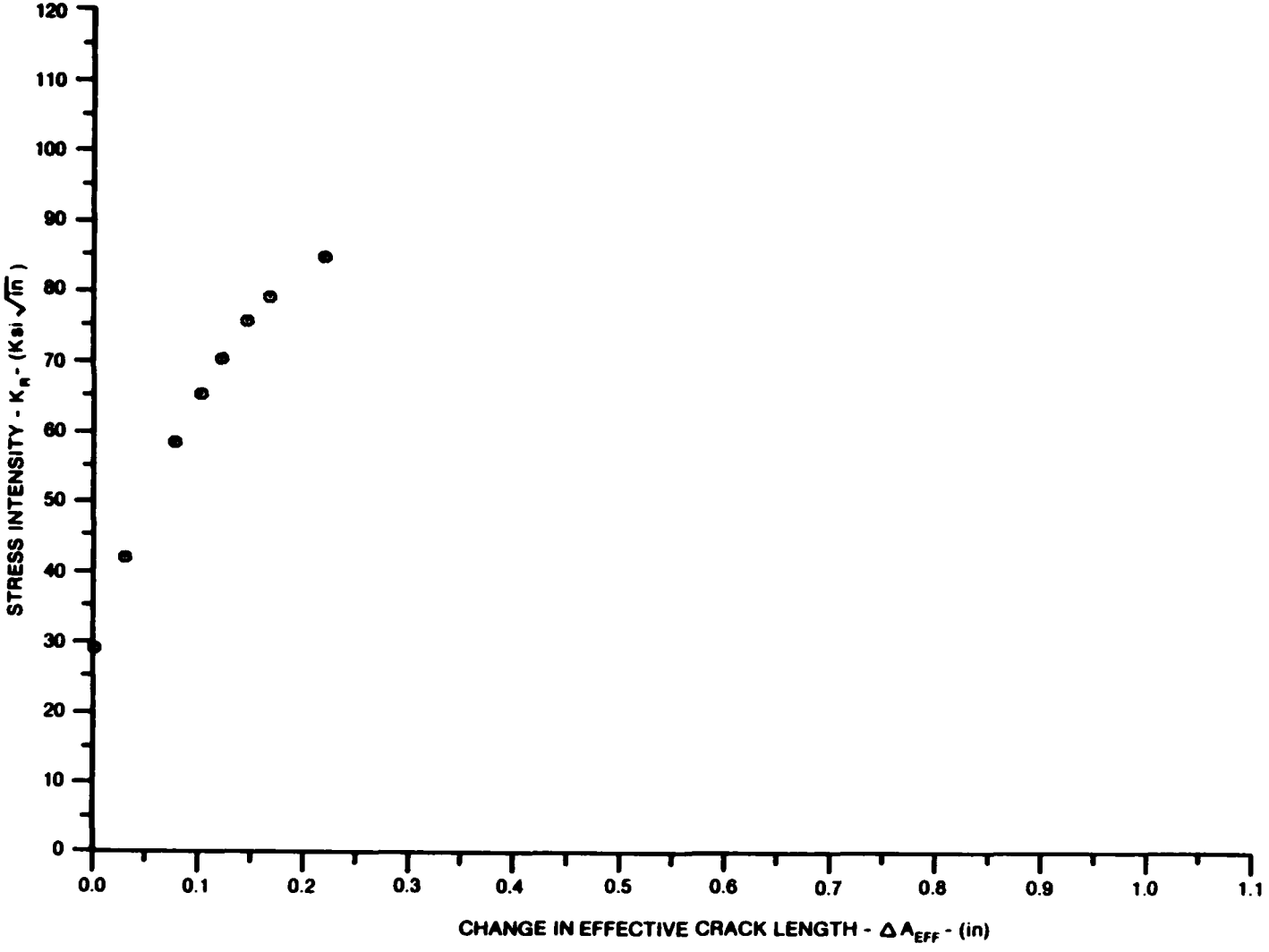

Figure 8.20.2.32

CONDITION/HT: T7651
FORM: .25"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .252"
SPECIMEN WIDTH: 3.998"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

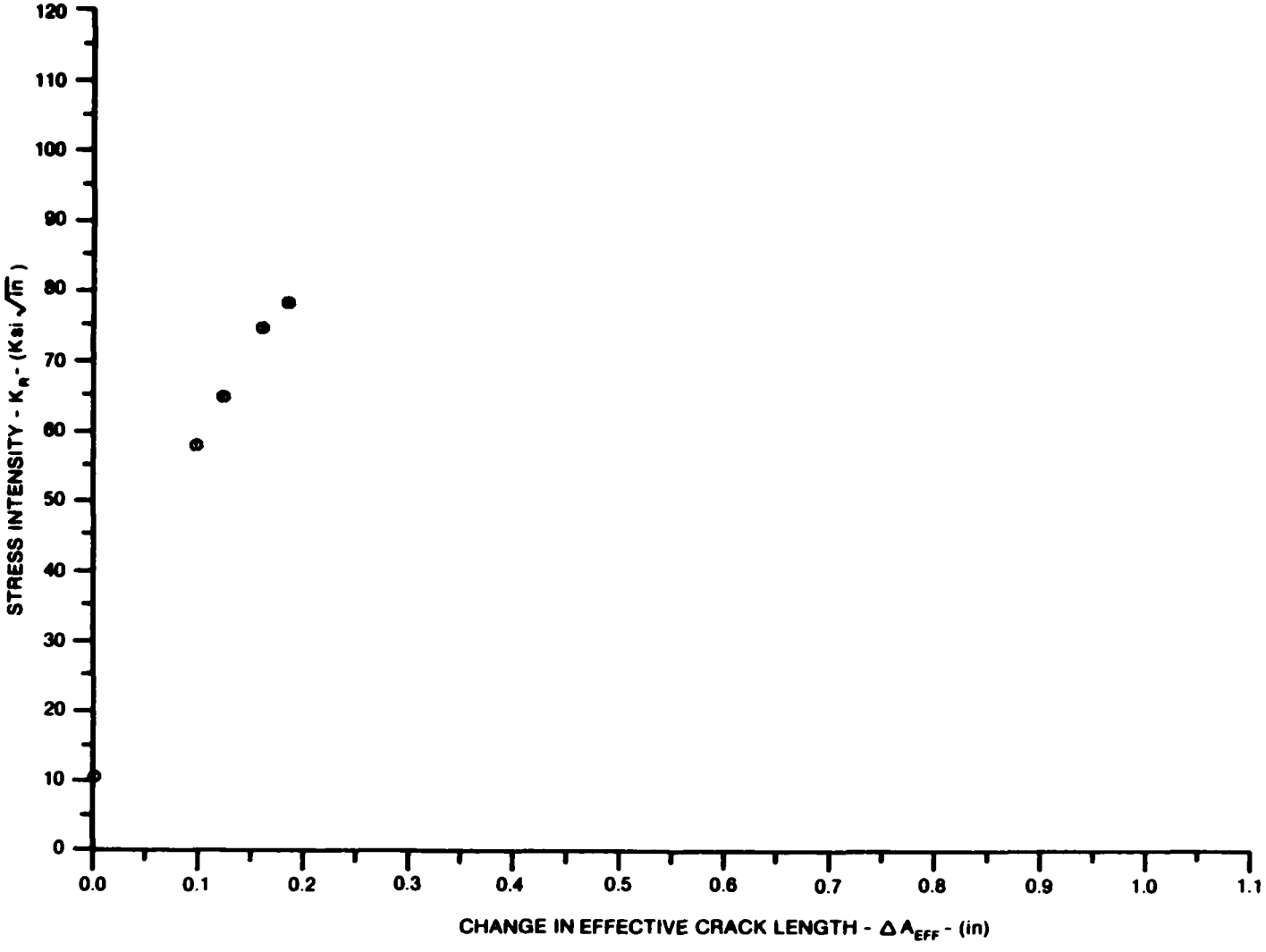

Figure 8.20.2.33

CONDITION/HT: T7651
FORM: .25" TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .252"
SPECIMEN WIDTH: 3.998"
K_c(Ksi$\sqrt{in}$):
REFERENCE: DA001

ALUM. ALLOY
7475

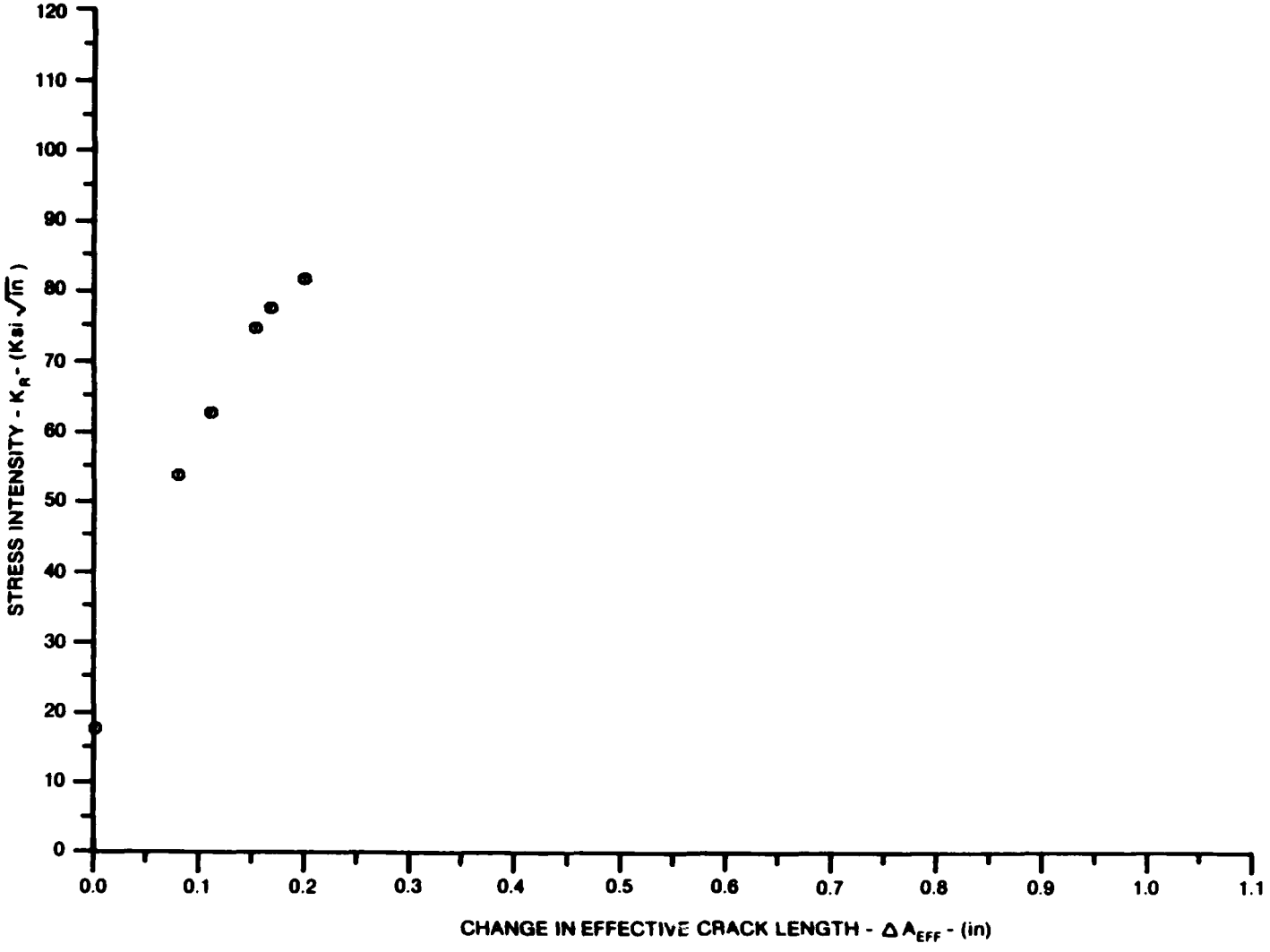

Figure 8.20.2.34

ALUM. ALLOY

7475

CONDITION/HT: T7651
FORM: .25" TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T

SPECIMEN THK: .249"
SPECIMEN WIDTH: 12.016"
K_C(Ksi$\sqrt{in}$):
REFERENCE: DA001

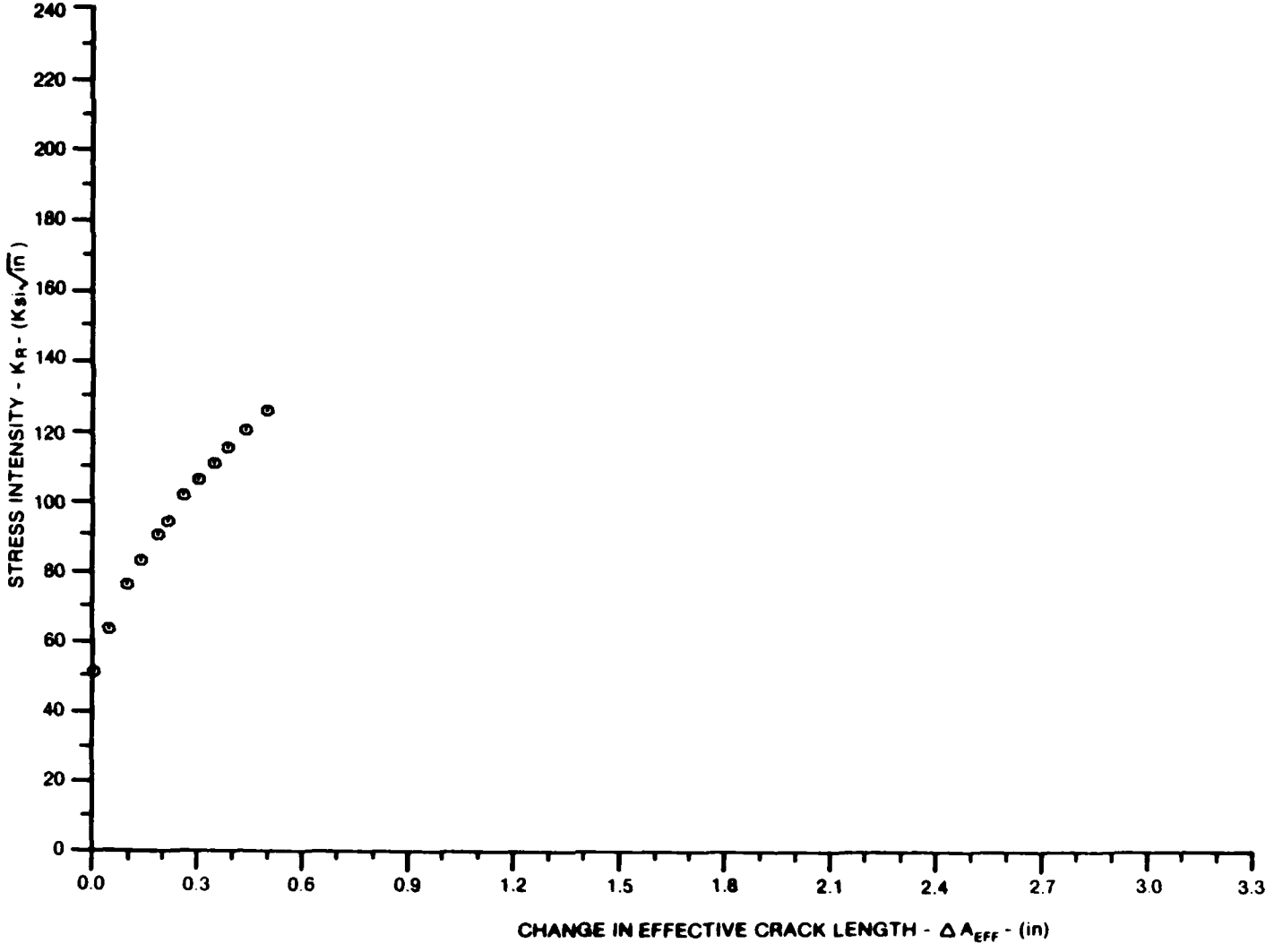

Figure 8.20.2.35
8.20-75

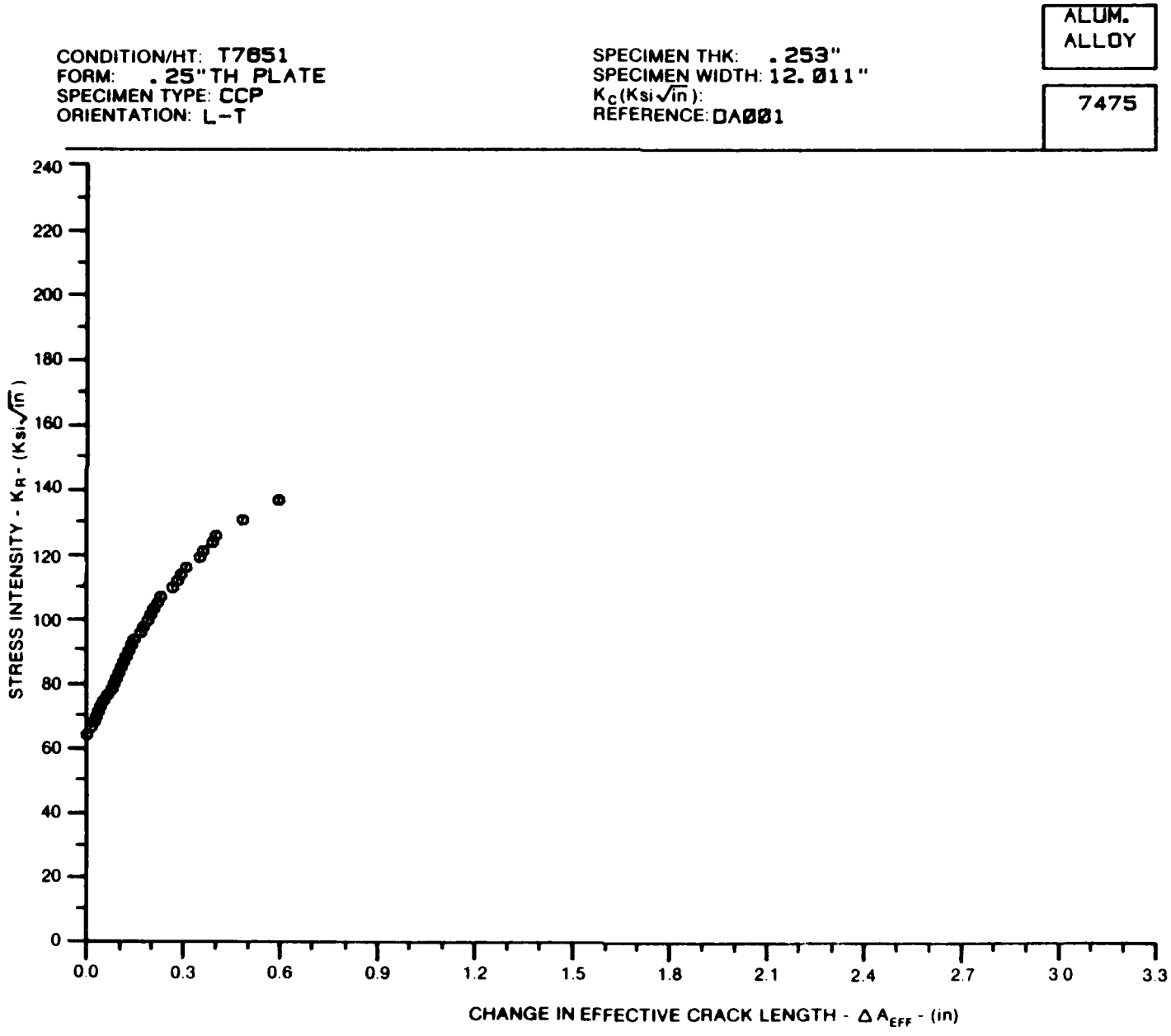

Figure 8.20.2.36

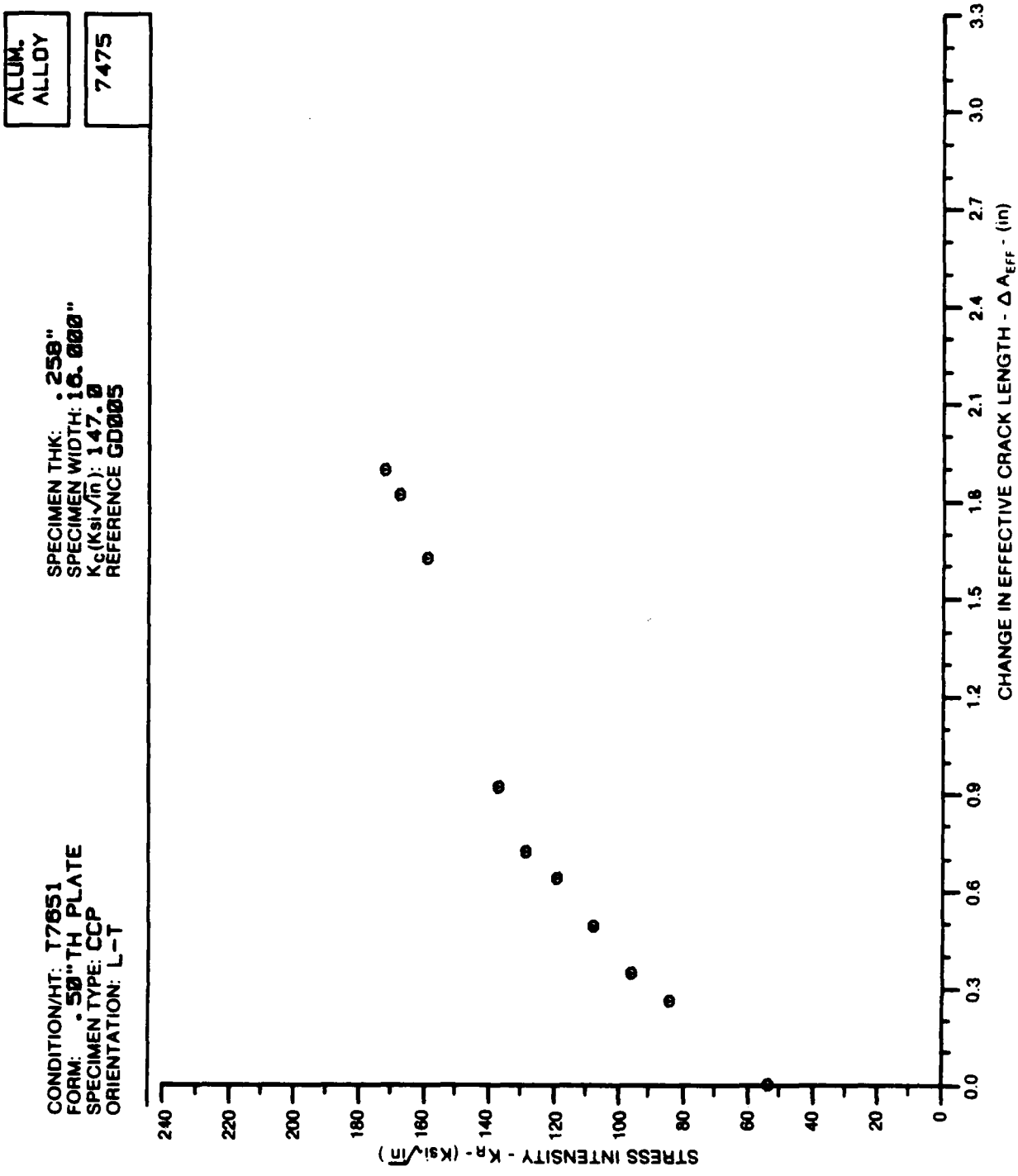

Figure 8.20.2.37

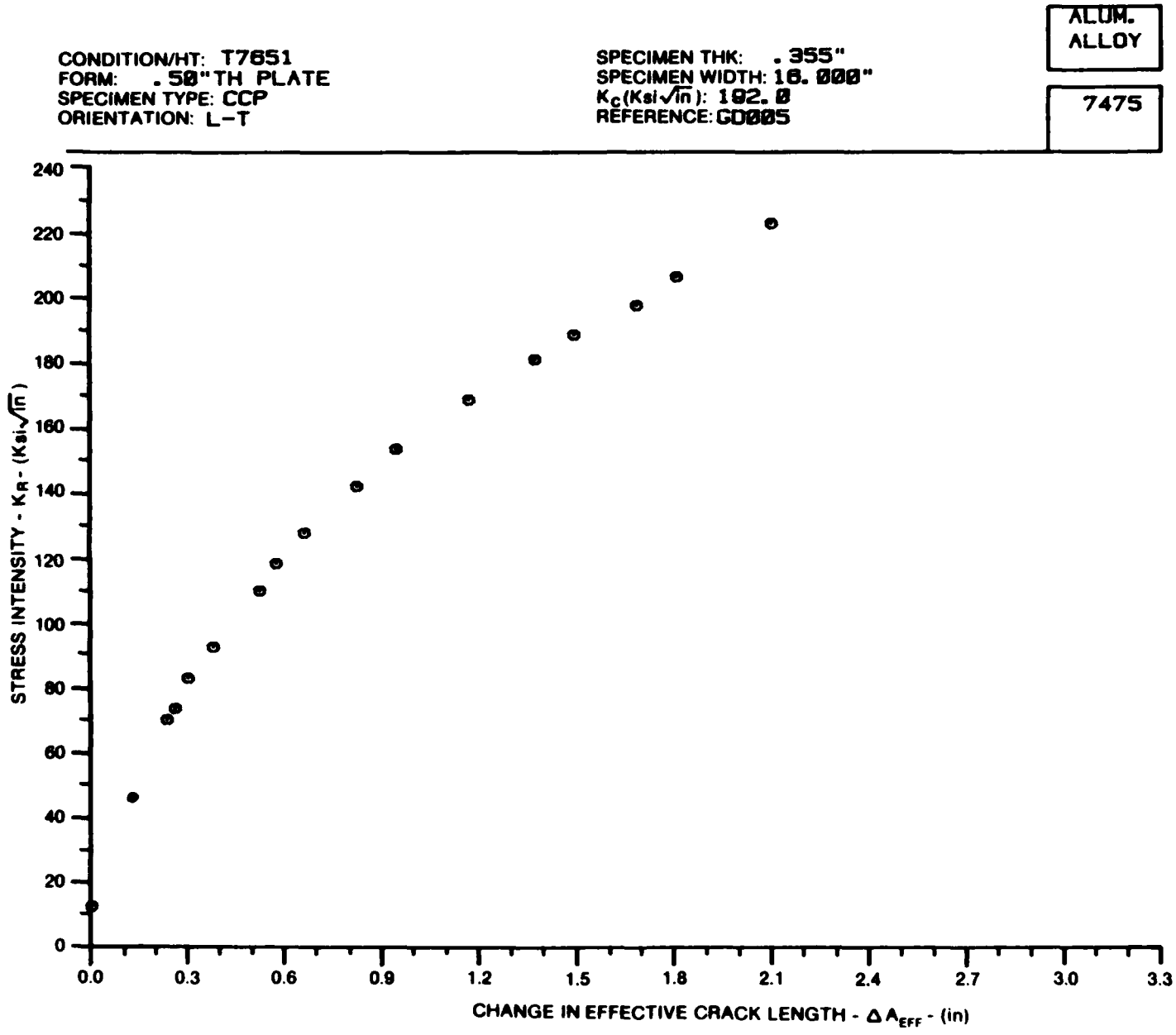

Figure 8.20.2.38

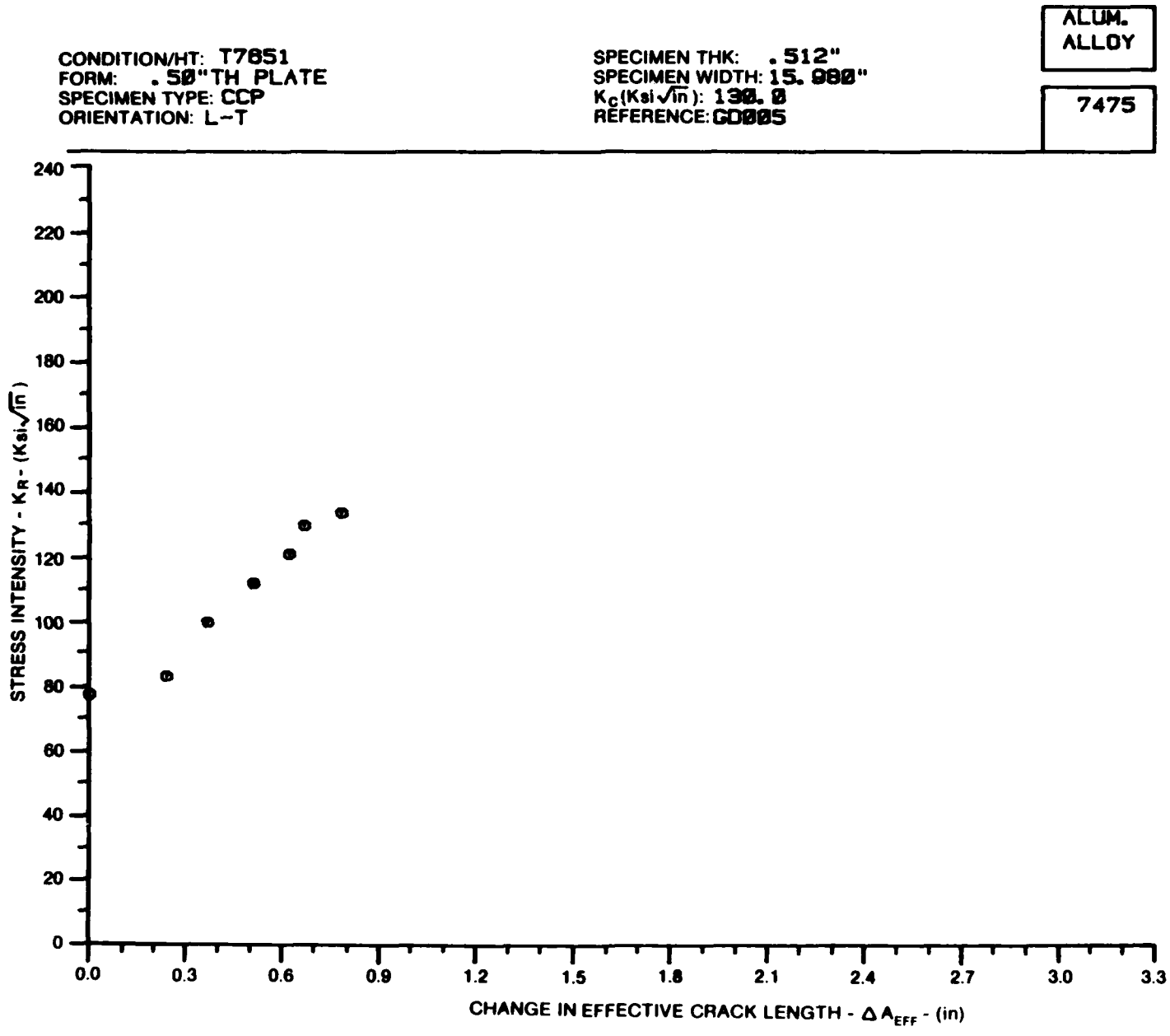

Figure 8.20.2.39

TABLE 8.20.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.1 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A:	6.16	2.36			
	B:	6.60		7.04		
	C:	6.08			9.43	
	D:					
		7.00	3.44	8.26	14.2	
		8.00	4.94	11.8	19.5	
		9.00	6.66	16.2	24.8	
		10.00	8.58	21.3	30.6	
		13.00	15.7	42.4	57.3	
		16.00	25.6	73.2	120.	
DELTA K MAX	A:	19.58	119.			
	B:	19.57		125.		
	C:	16.67			144.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			12.67	4.40	5.55	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 72.1 KSI
ULT. STRENGTH: 70.8- 79.8 KSI
SPECIMEN THK: 0.042- 0.045"
SPECIMEN WIDTH: 4.000"
REFERENCES:86842

ALUM. ALLOY

7475

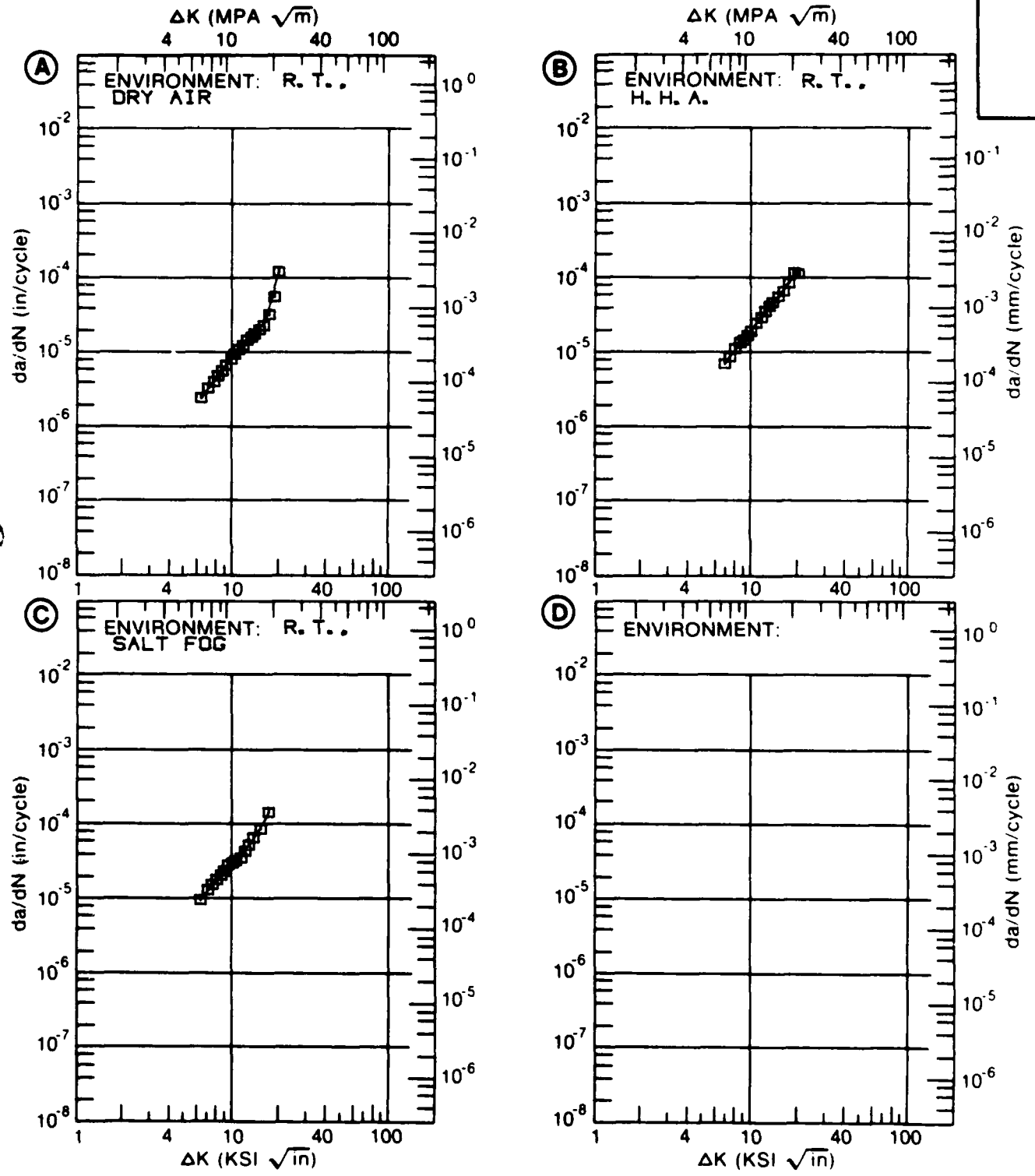

Figure 8.20.3.1

TABLE 8.20.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.2 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. H.H.A. SP. WIDTH=12"	E= R.T. H.H.A. SP. WIDTH=23.98"		
DELTA K MIN	A:	37.09	143.			
	B:	14.23		30.2		
	C:					
	D:					
		16.00		38.7		
		20.00		58.2		
		25.00		82.6		
		30.00				
		35.00				
		40.00	251.			
		50.00	928.			
		60.00	2439.			
		70.00	6613.			
DELTA K MAX	A:	79.11	24790.			
	B:	28.96		102.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			22.45	2.94		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 75.3 KSI
ULT. STRENGTH: 80.1 KSI
SPECIMEN THK: 0.111- 0.112"
SPECIMEN WIDTH:
REFERENCES:86212

ALUM. ALLOY

7475

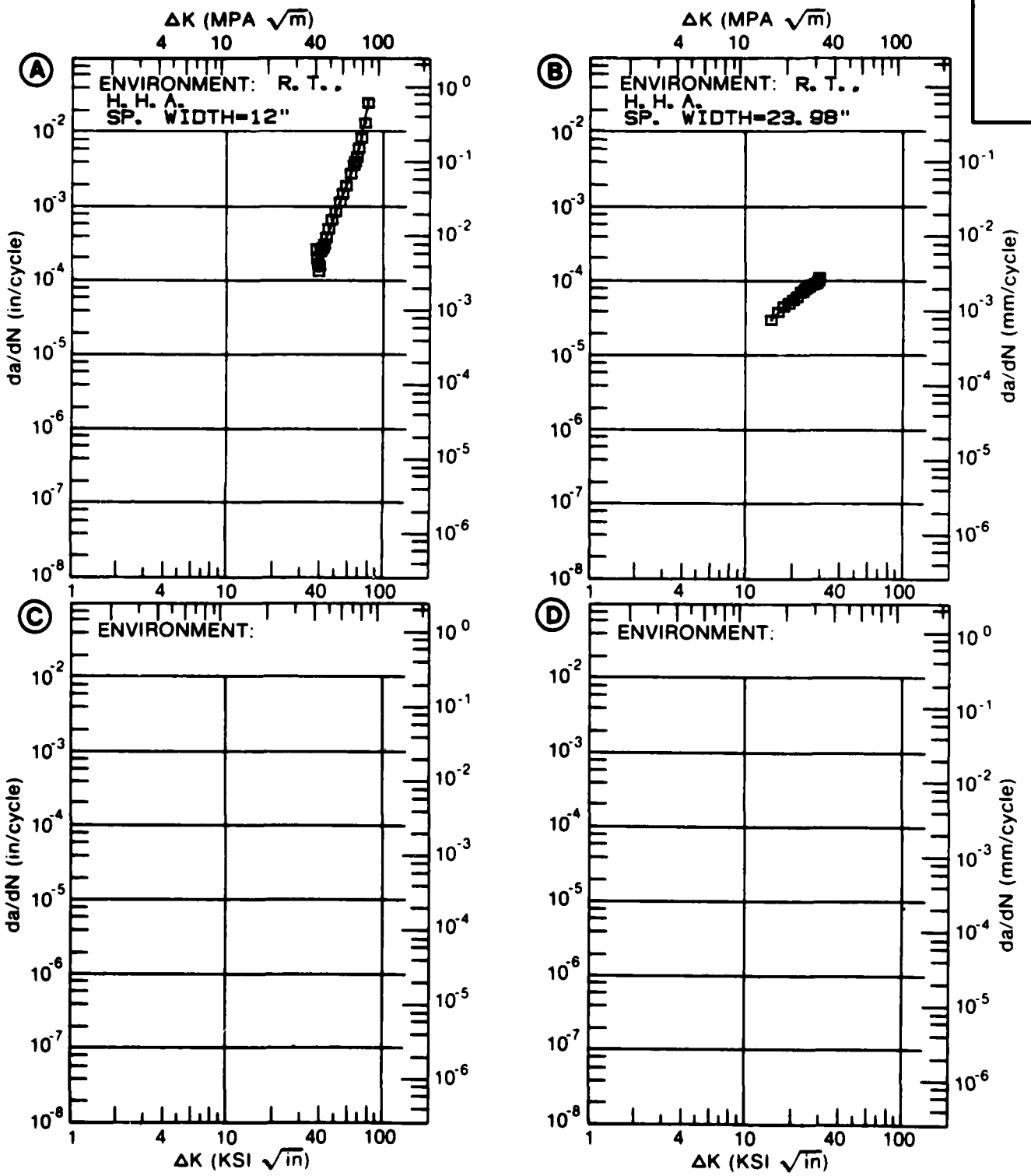

Figure 8.20.3.2

TABLE 8.20.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.3INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

		DELTA K (KSI*IN**1/2)	DA/DN (10**-6 IN./CYCLE) A E= R.T. H.H.A.	B E= R.T. 3.5% NACL	C	D
DELTA K MIN	A:	12.56	18.4			
	B:	14.22		68.5		
	C:					
	D:					
		13.00	19.7			
		16.00	28.8	91.8		
		20.00	42.7	159.		
		25.00	68.4	265.		
		30.00	113.	385.		
		35.00	194.			
DELTA K MAX	A:	39.58	330.			
	B:	33.00		458.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			4.98	1.82		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION HT: T61
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 68.6- 75.3 KSI
ULT. STRENGTH: 74.5- 80.1 KSI
SPECIMEN THK: 0.112- 0.113"
SPECIMEN WIDTH: 36.000"
REFERENCES:86212

ALUM. ALLOY

7475

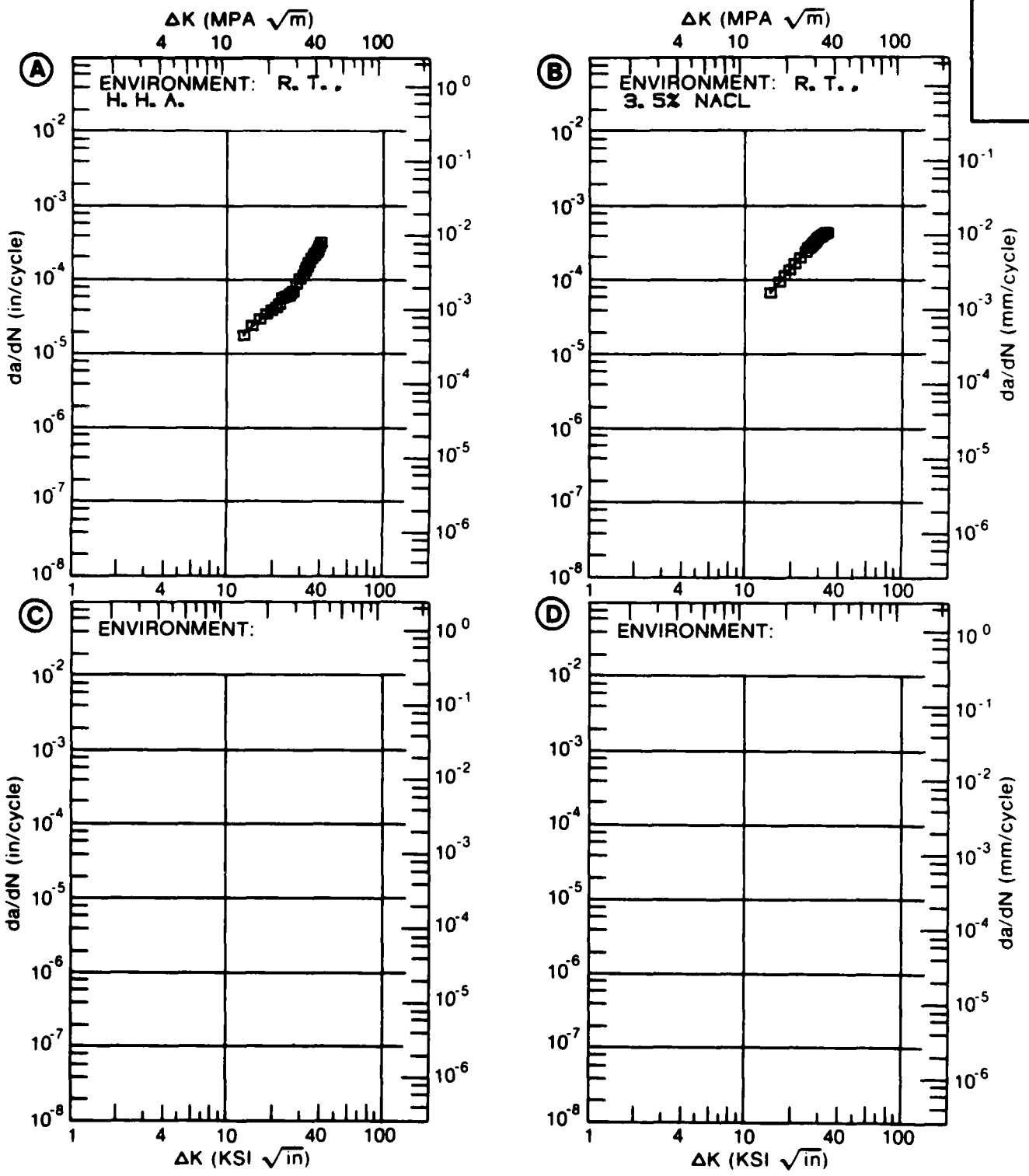

Figure 8.20.3.3

TABLE 8.20.3.4

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.4 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. 3.5% NACL			
DELTA K MIN	A: 12.45	61.0			
	B:				
	C:				
	D:				
	13.00	68.5			
	16.00	115.			
	20.00	188.			
	25.00	290.			
	30.00	396.			
DELTA K MAX	A: 32.47	448.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 2.19

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T61
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 73.1 KSI
ULT. STRENGTH: 80.6 KSI
SPECIMEN THK: 0.112"
SPECIMEN WIDTH: 35.980"
REFERENCES:86212

ALUM. ALLOY

7475

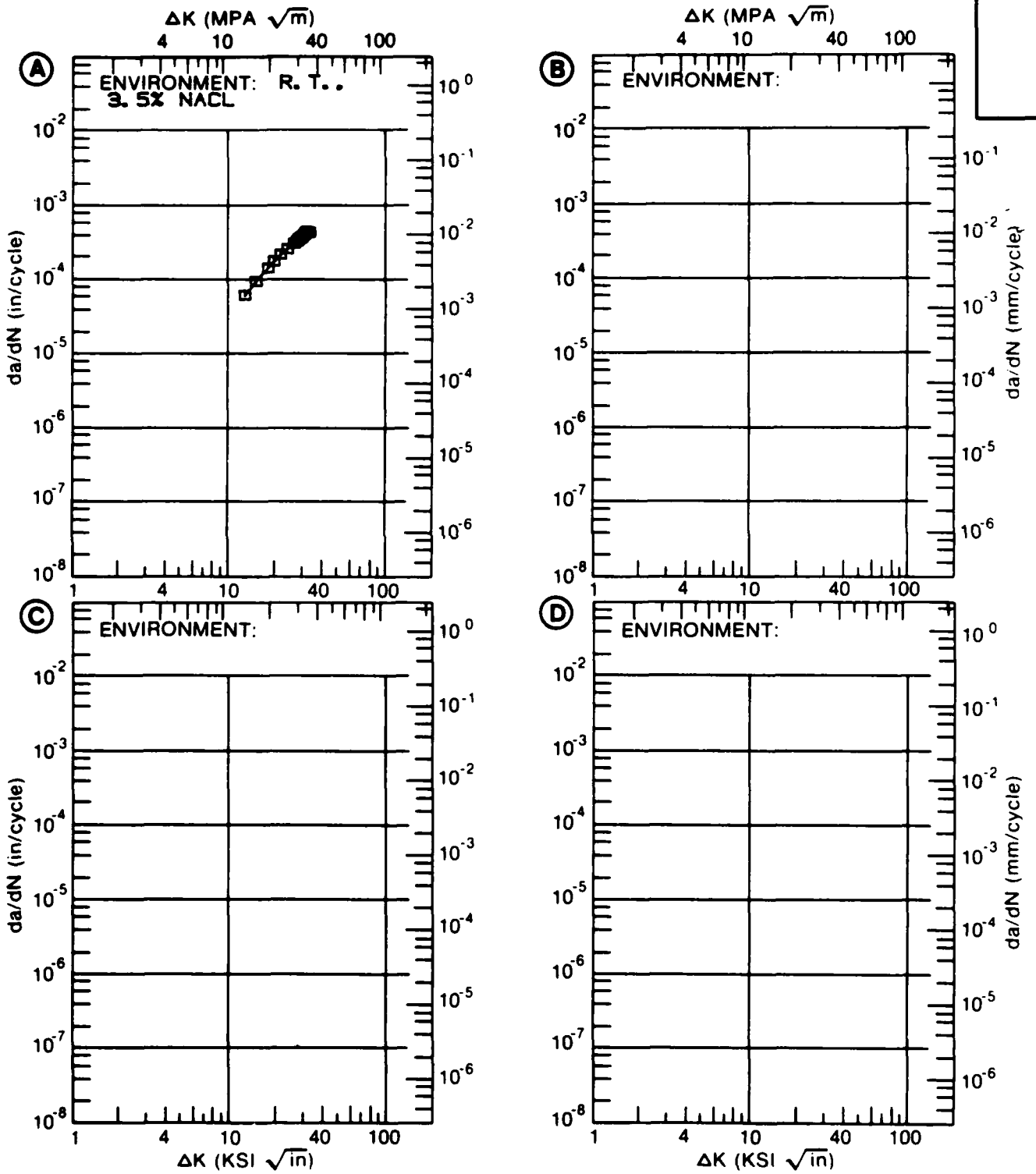

Figure 8.20.3.4

TABLE 8.20.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.5 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A E= R.T. DRY AIR	B E= R.T. H.H.A.	C E= R.T. SALT FOG	D
DELTA K MIN	A: 6.32	2.10			
	B: 6.33		7.43		
	C: 6.18			9.59	
	D:				
	7.00	3.27	10.0	14.9	
	8.00	5.37	15.0	23.0	
	9.00	7.79	21.6	33.0	
	10.00	10.4	29.7	44.5	
	13.00	19.1	64.8	86.8	
	16.00	29.3	116.	138.	
DELTA K MAX	A: 18.93	42.0			
	B: 18.76		174.		
	C: 18.95			193.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		5.38	4.06	3.66	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T61
FORM: 0.13"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 76.8 KSI
ULT. STRENGTH: 82.0 KSI
SPECIMEN THK: 0.126"
SPECIMEN WIDTH: 4.000"
REFERENCES:86842

ALUM. ALLOY

7475

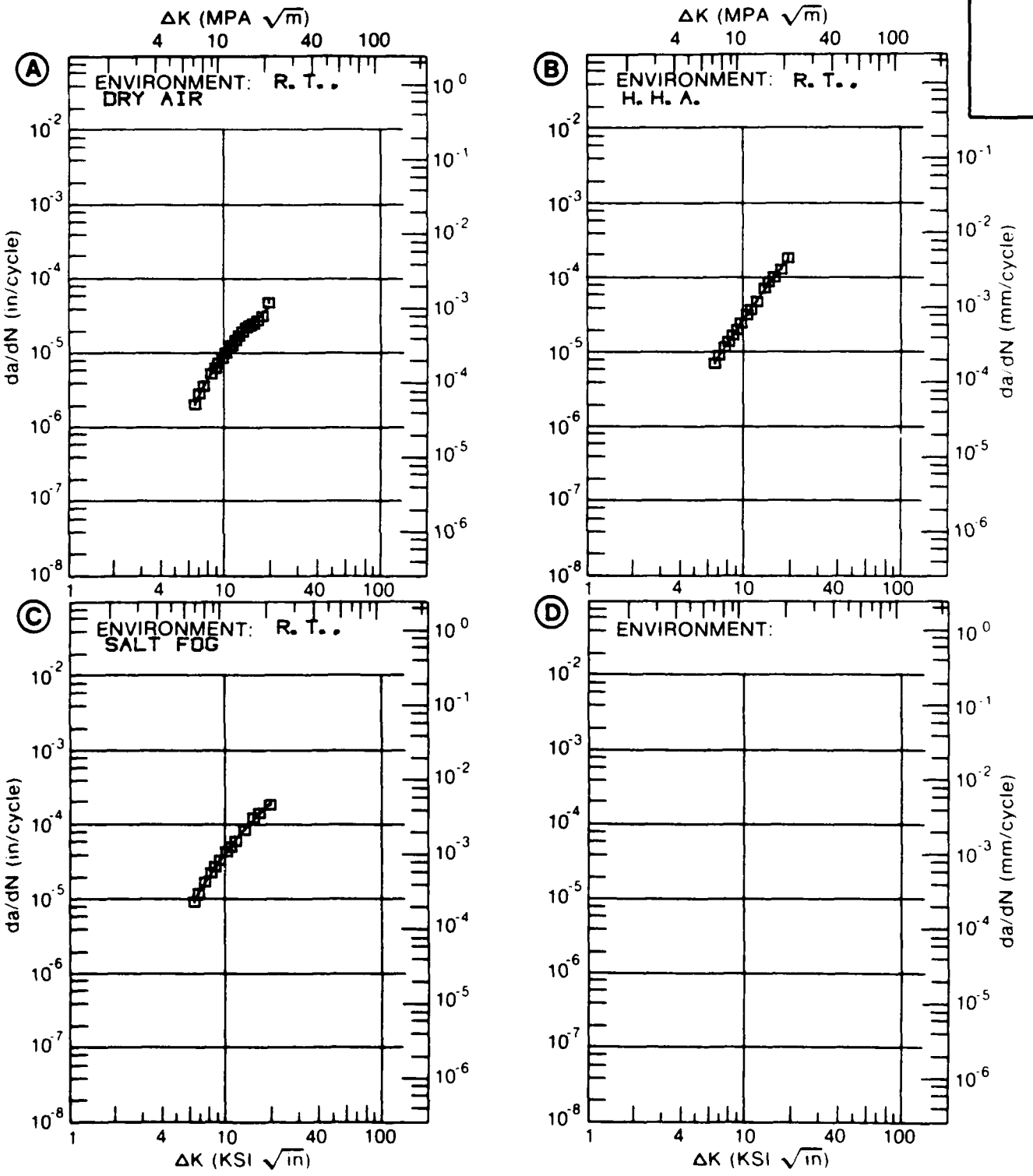

Figure 8.20.3.5

TABLE 8.20.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.6 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T61

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A:	6.57	2.87			
	B:	5.72		4.43		
	C:	5.95			9.48	
	D:					
		6.00		5.19	9.69	
		7.00	3.70	8.63	14.8	
		8.00	5.95	13.3	21.5	
		9.00	8.55	19.2	30.1	
		10.00	11.5	26.6	40.5	
		13.00	23.0	57.7	81.8	
		16.00	41.7	102.	132.	
		20.00	92.2	179.	198.	
DELTA K MAX	A:	23.38	187.			
	B:	21.13		204.		
	C:	20.82			210.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.22	5.08	7.98	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	3	3	
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.13"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 73.1 KSI
ULT. STRENGTH: 76.8 KSI
SPECIMEN THK: 0.126"
SPECIMEN WIDTH: 4.000"
REFERENCES:86842

ALUM. ALLOY

7475

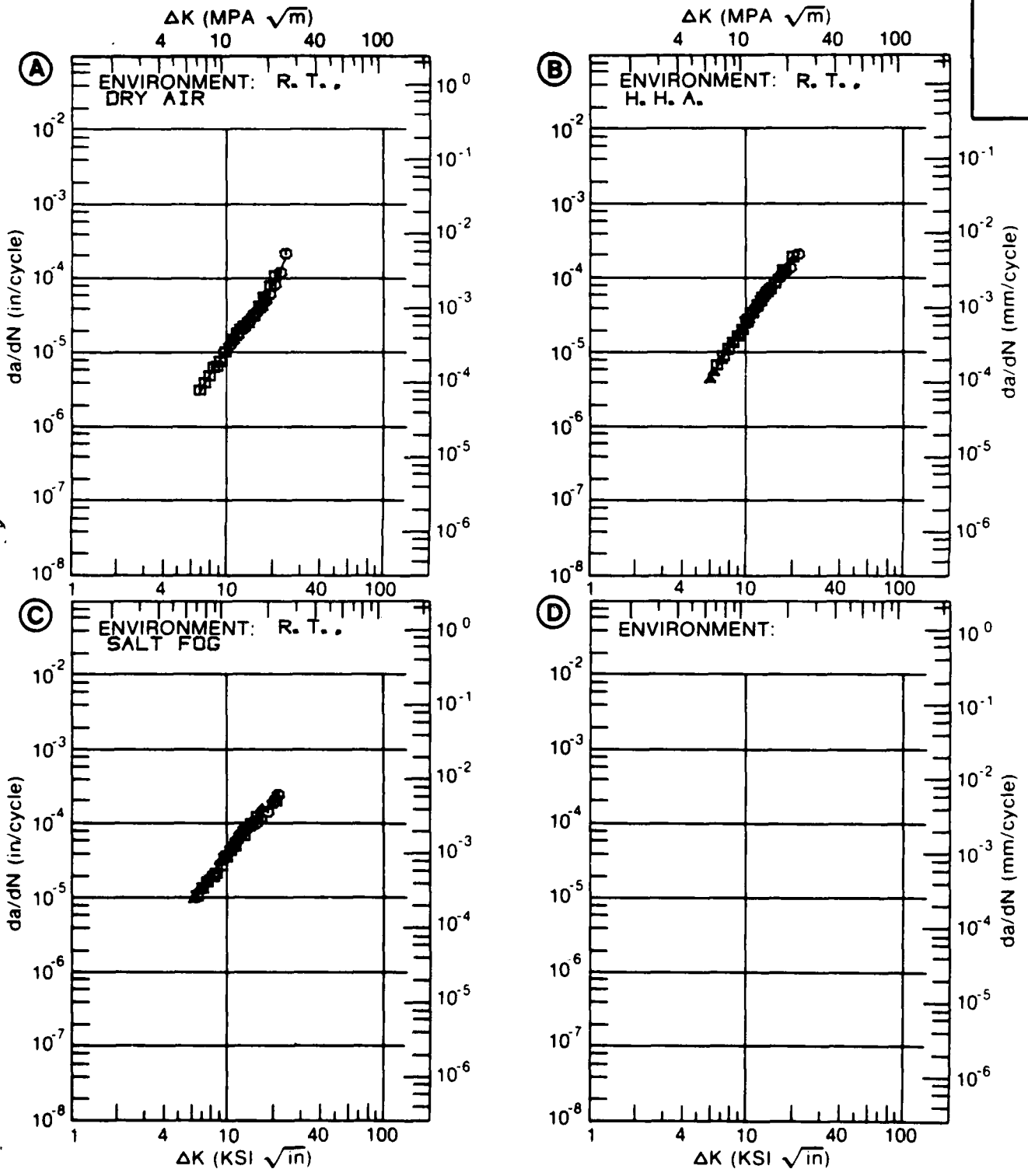

Figure 8.20.3.6

TABLE 8.20.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.7 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T61
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10			
DELTA K MIN	A: 5.90	.723			
	B:				
	C:				
	D:				
	6.00	.727			
	7.00	1.03			
	8.00	1.94			
	9.00	3.85			
	10.00	6.87			
	13.00	19.2			
	16.00	53.9			
DELTA K MAX	A: 17.32	57.4			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 25.62

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T61
FORM: 1.50"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 20.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 73.9 KSI
ULT. STRENGTH: 78.5 KSI
SPECIMEN THK: 0.650"
SPECIMEN WIDTH: 1.490- 1.500"
REFERENCES:85363

ALUM. ALLOY

7475

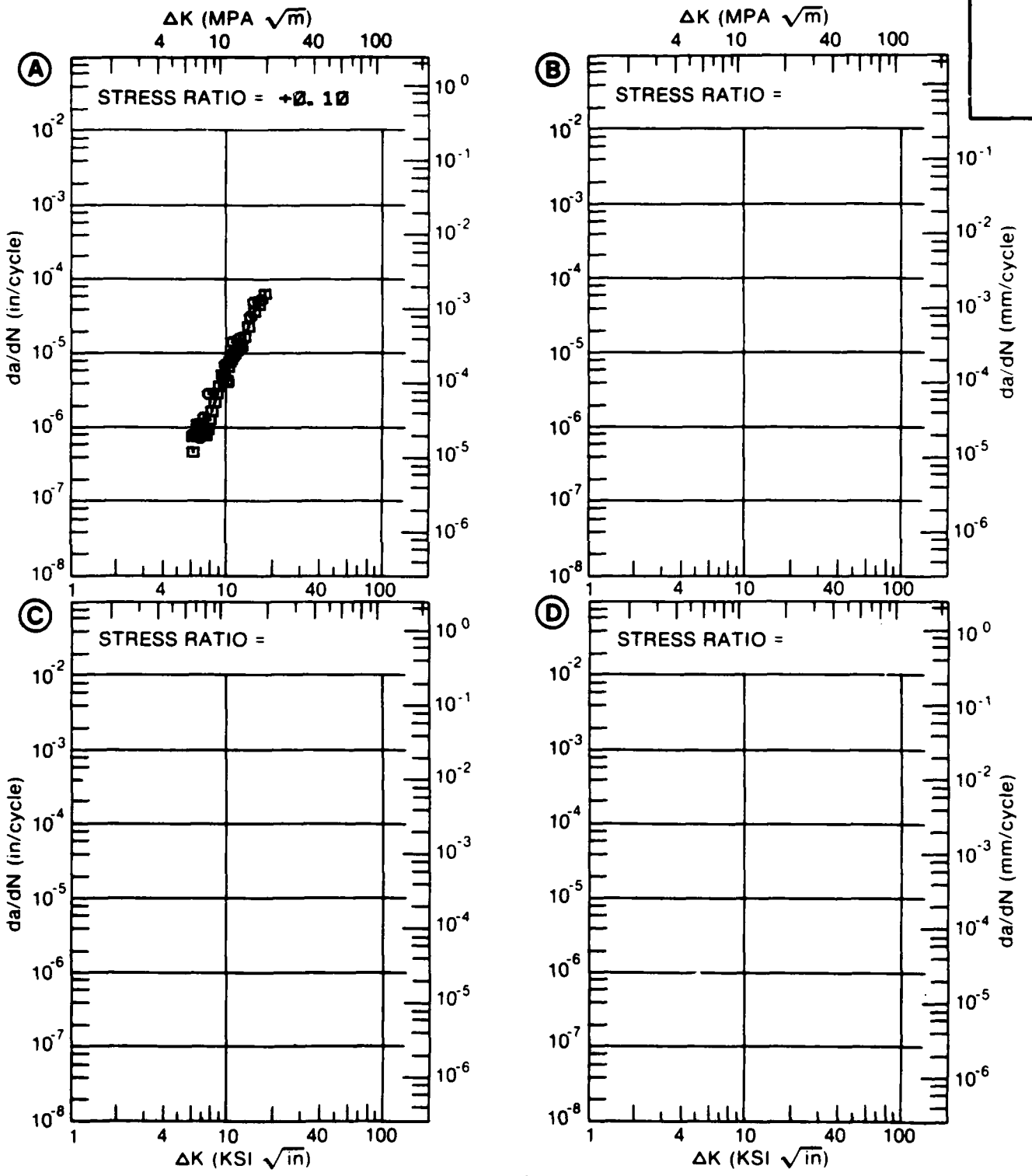

Figure 8.20.3.7

TABLE 8.20.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.8 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T6151

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 9.79	5.11			
	B:				
	C:				
	D:				
	10.00	5.52			
	13.00	14.7			
	16.00	28.2			
	20.00	40.7			
DELTA K MAX	A: 24.63	87.7			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 16.38

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	1
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T6151
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 52.2 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.090"
SPECIMEN WIDTH: 1.496- 1.498"
REFERENCES:85363

ALUM. ALLOY

7475

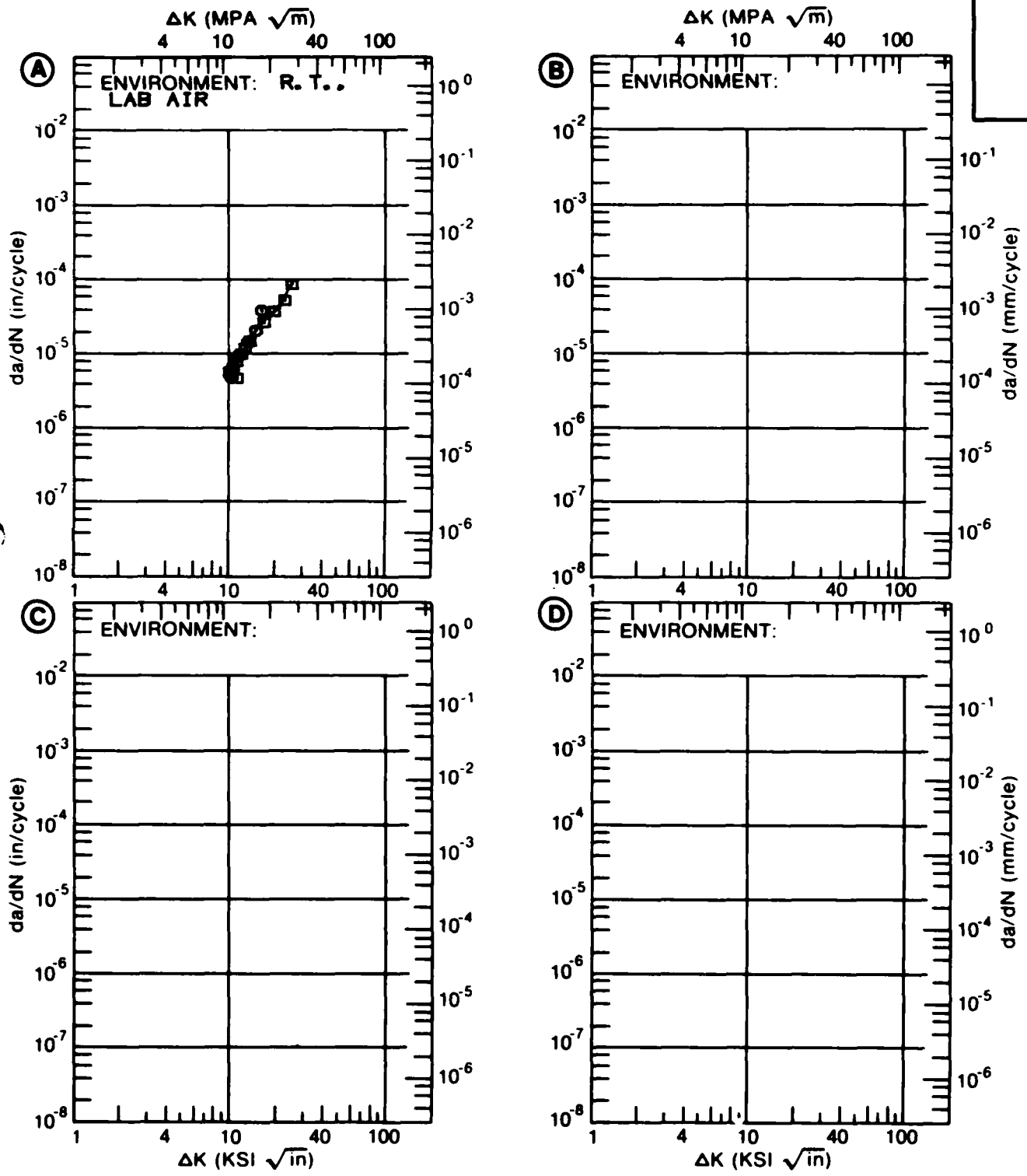

Figure 8.20.3.8

TABLE 8.20.3.9

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.9 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T6151

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	8.91	5.41			
	B:					
	C:					
	D:					
		9.00	5.31			
		10.00	6.22			
		13.00	15.5			
		16.00	23.5			
		20.00	54.5			
		25.00	102.			
		30.00	115.			
DELTA K MAX	A:	30.31	122.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 26.51

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
0.0-0.5	
0.5-0.8	3
0.8-1.25	
1.25-2.0	
>2.0	

CONDITION/HT: T6151
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 62.2 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.089"
SPECIMEN WIDTH: 1.478- 1.498"
REFERENCES:85363

ALUM. ALLOY

7475

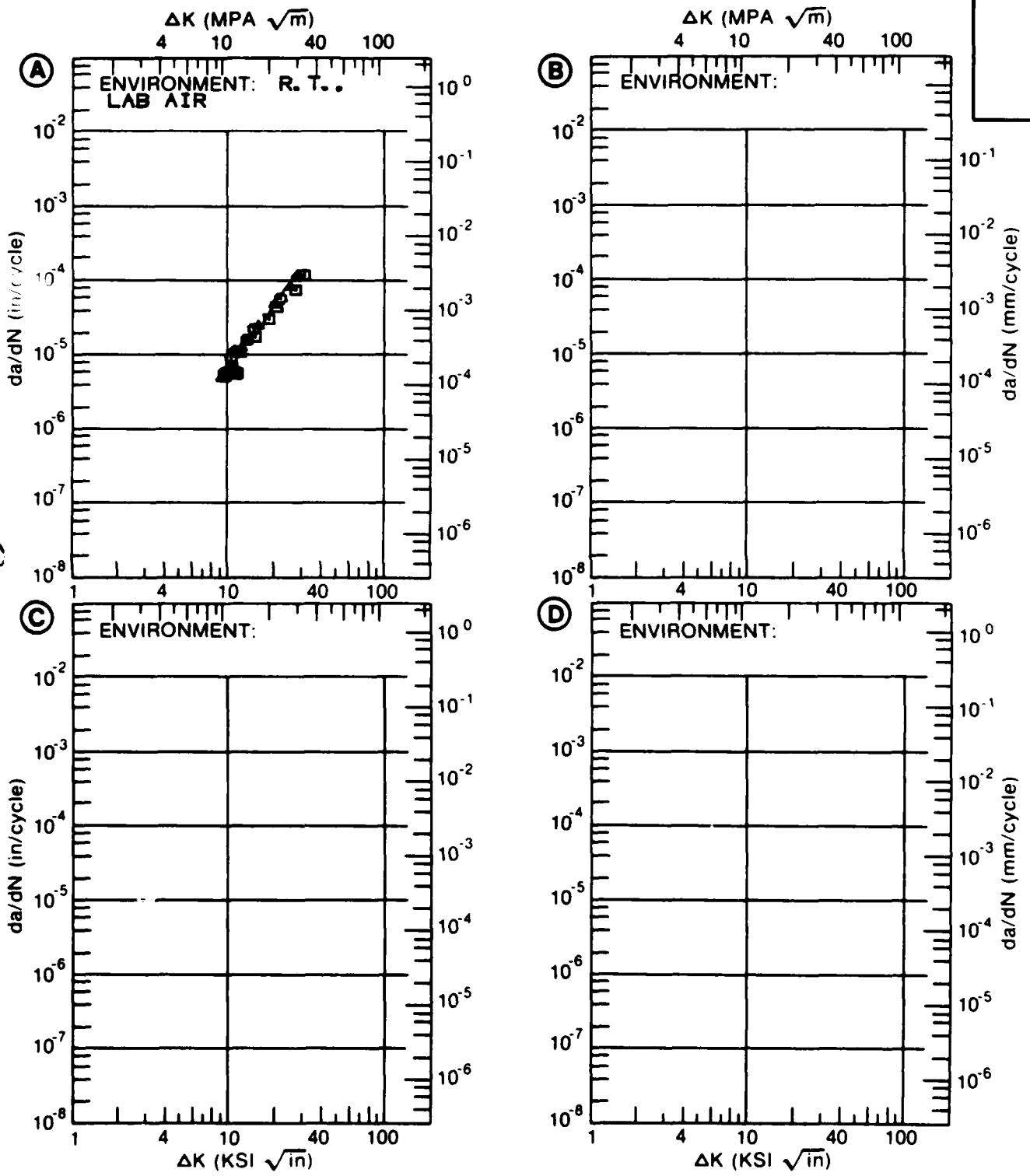

Figure 8.20.3.9

TABLE 8.20.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.10INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. DRY AIR 1.00" PLATE	B E= R.T. DRY AIR 0.50" PLATE	C E= R.T. DRY AIR .125" PLATE	D
DELTA K MIN	A:	5.60	1.21			
	B:	6.40		.918		
	C:	8.74			2.07	
	D:					
		6.00	1.72			
		7.00	3.30	1.39		
		8.00	5.19	2.44		
		9.00	7.22	3.85	2.34	
		10.00	9.31	5.61	3.51	
		13.00	15.8	12.8	7.75	
		16.00	23.6	22.6	12.5	
		20.00	39.4	39.1	19.6	
		25.00	79.0		31.5	
		30.00			50.0	
		35.00			81.2	
DELTA K MAX	A:	26.91	105.			
	B:	24.37		61.3		
	C:	35.06			81.7	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.60	10.62	11.97	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM:
SPECIMEN TYPE:
ORIENTATION:
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK: 0.125- 1.000"
SPECIMEN WIDTH:
REFERENCES:91332

ALUM. ALLOY

7475

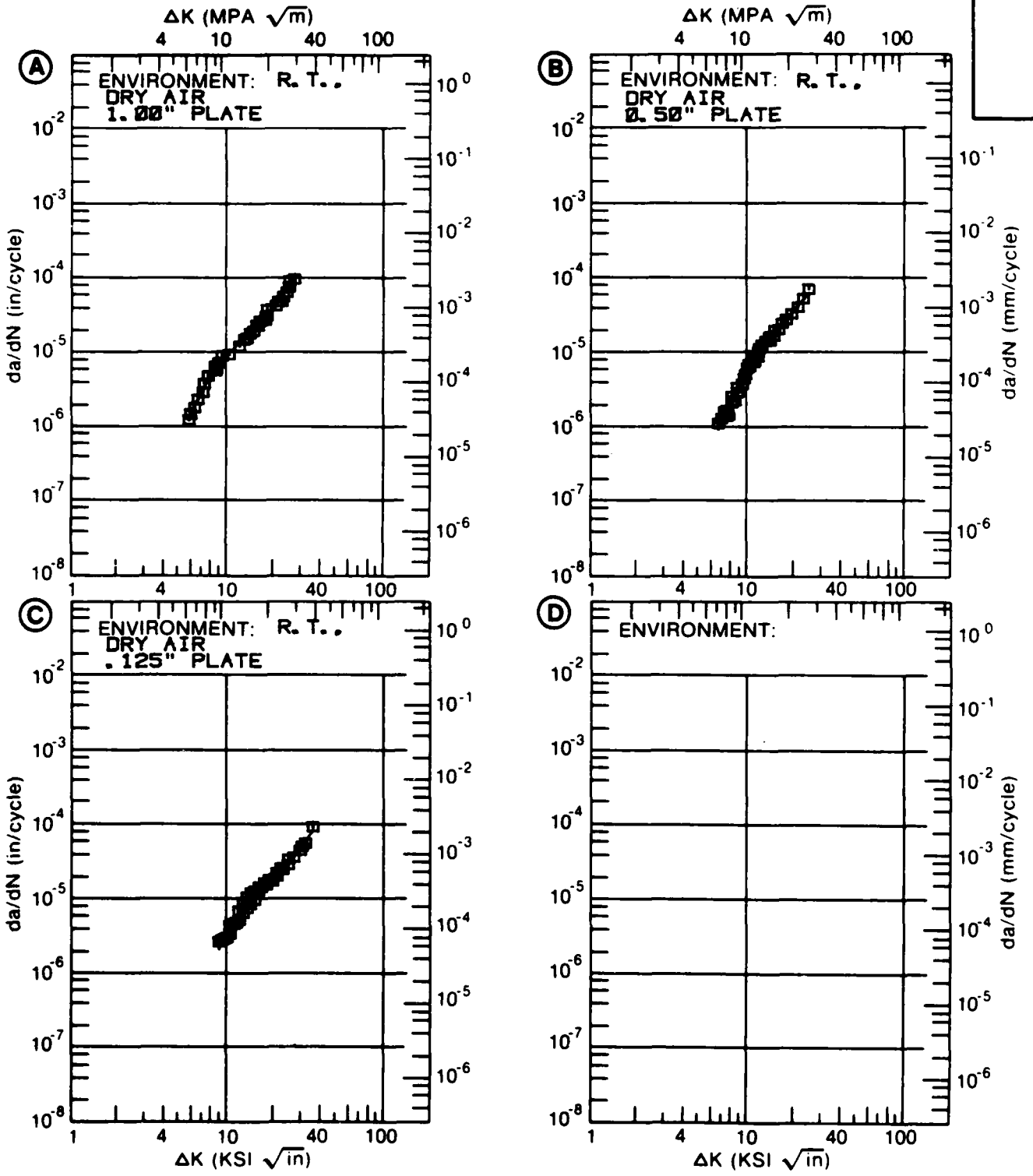

Figure 8.20.3.10

TABLE 8.20.3.11

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.11INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T651
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.33			
DELTA K MIN	A:	5.49	6.81			
	B:					
	C:					
	D:					
		6.00	8.16			
		7.00	11.8			
		8.00	17.1			
		9.00	24.4			
		10.00	34.4			
		13.00	84.8			
		16.00	168.			
		20.00	302.			
DELTA K MAX	A:	24.79	433.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 6.04

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T851
FORM: 0.51"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.20 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 74.5 KSI
ULT. STRENGTH: 80.0 KSI
SPECIMEN THK: 0.508"
SPECIMEN WIDTH: 3.025- 3.026"
REFERENCES:86213

ALUM. ALLOY

7475

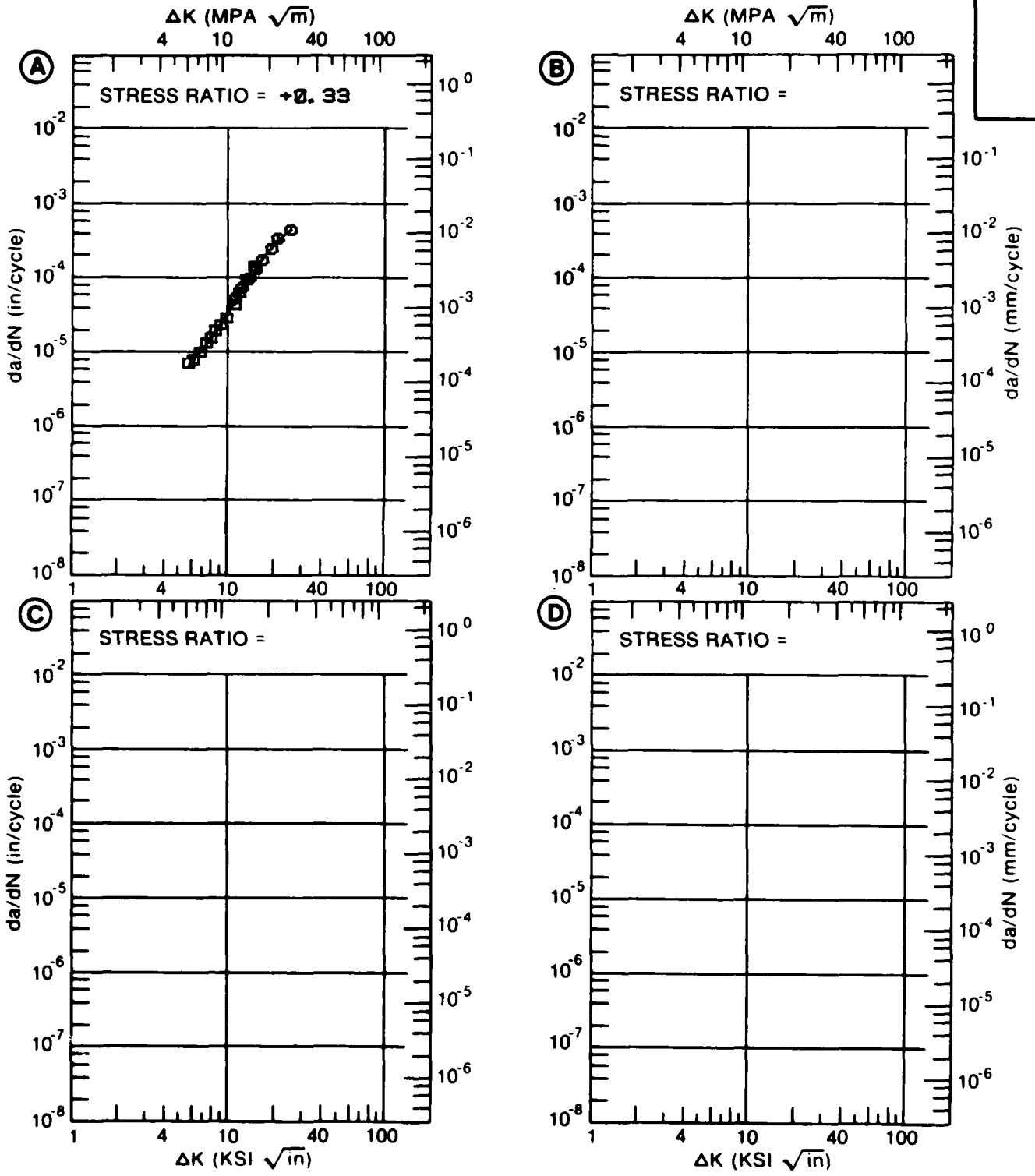

Figure 8.20.3.11

TABLE 8.20.3.12

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.12 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T651

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. LAB AIR	E= R.T. H.H.A.		
DELTA K MIN A:	2.66	.108			
DELTA K MIN B:	2.40		.0430		
DELTA K MIN C:					
DELTA K MIN D:					
	2.50		.0518		
	3.00	.105	.122		
	3.50	.159	.255		
	4.00	.306	.489		
	5.00	1.19	1.45		
	6.00	3.40	3.44		
	7.00	7.14	6.99		
	8.00	12.1	12.6		
	9.00	17.6	20.6		
	10.00	22.8	31.2		
	13.00		78.4		
	16.00		141.		
	20.00		224.		
DELTA K MAX A:	12.54	31.3			
DELTA K MAX B:	24.13		284.		
DELTA K MAX C:					
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		22.53	37.43		
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8		2		
	0.8-1.25	1	1		
	1.25-2.0				
	>2.0				

CONDITION/HT: T651
FORM: 0.75"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 25.00 HZ

YIELD STRENGTH: 79.6 KSI
ULT. STRENGTH: 87.7 KSI
SPECIMEN THK: 0.242- 0.250"
SPECIMEN WIDTH: 2.500- 2.552"
REFERENCES:AL002, AL003

ALUM. ALLOY

7475

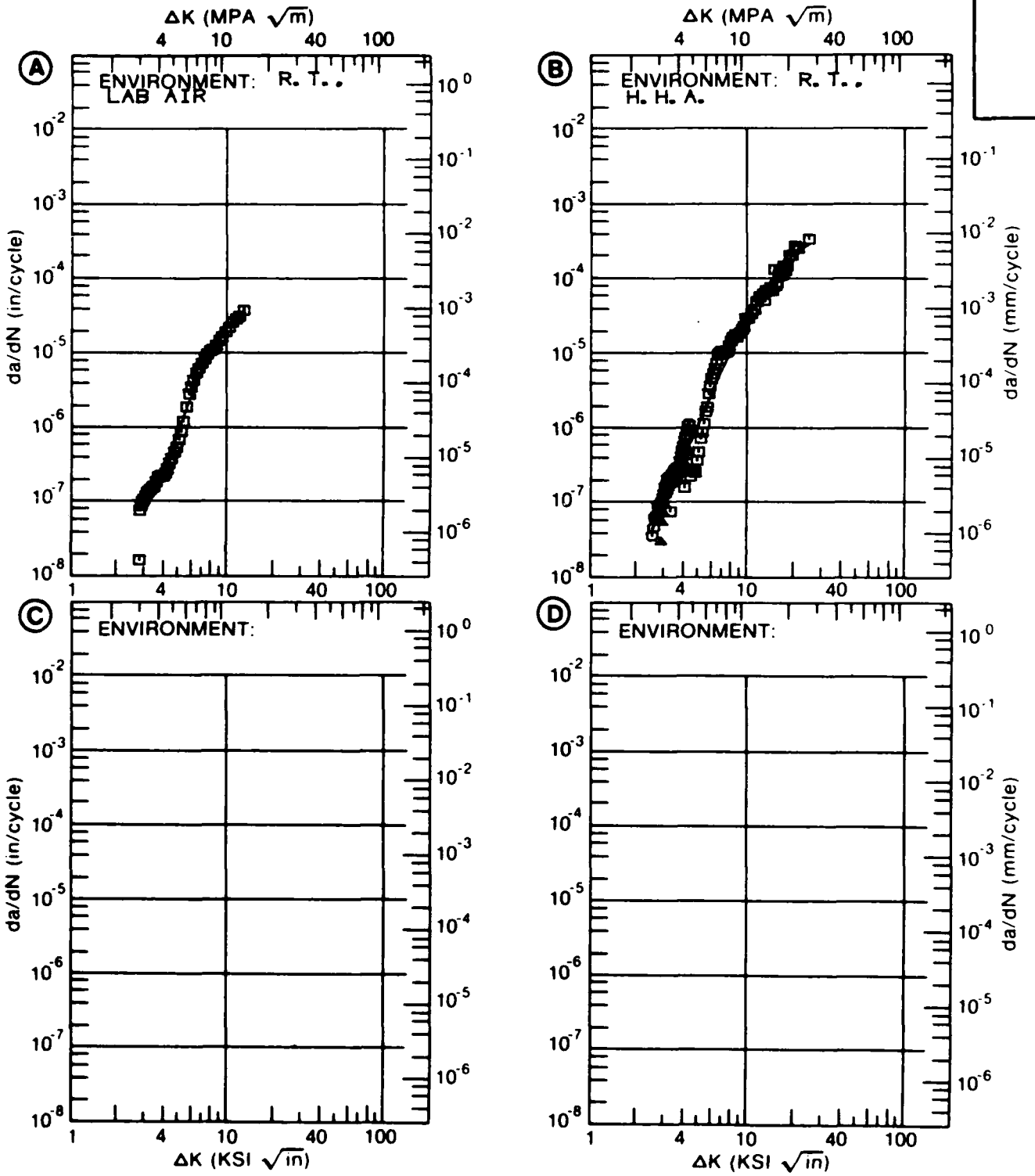

Figure 8.20.3.12

TABLE 8.20.3.13

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.13INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. 3.5% NACL		
DELTA K MIN	A:	5.00	.903			
	B:					
	C:					
	D:					
		5.00	.902			
		6.00	1.71			
		7.00	4.16			
		8.00	6.29			
		9.00	7.66			
		10.00	8.68			
		13.00	15.2			
DELTA K MAX	A:	13.95	20.9			
	B:					
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			12.24	0.00		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: DCB
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:88140

ALUM. ALLOY

7475

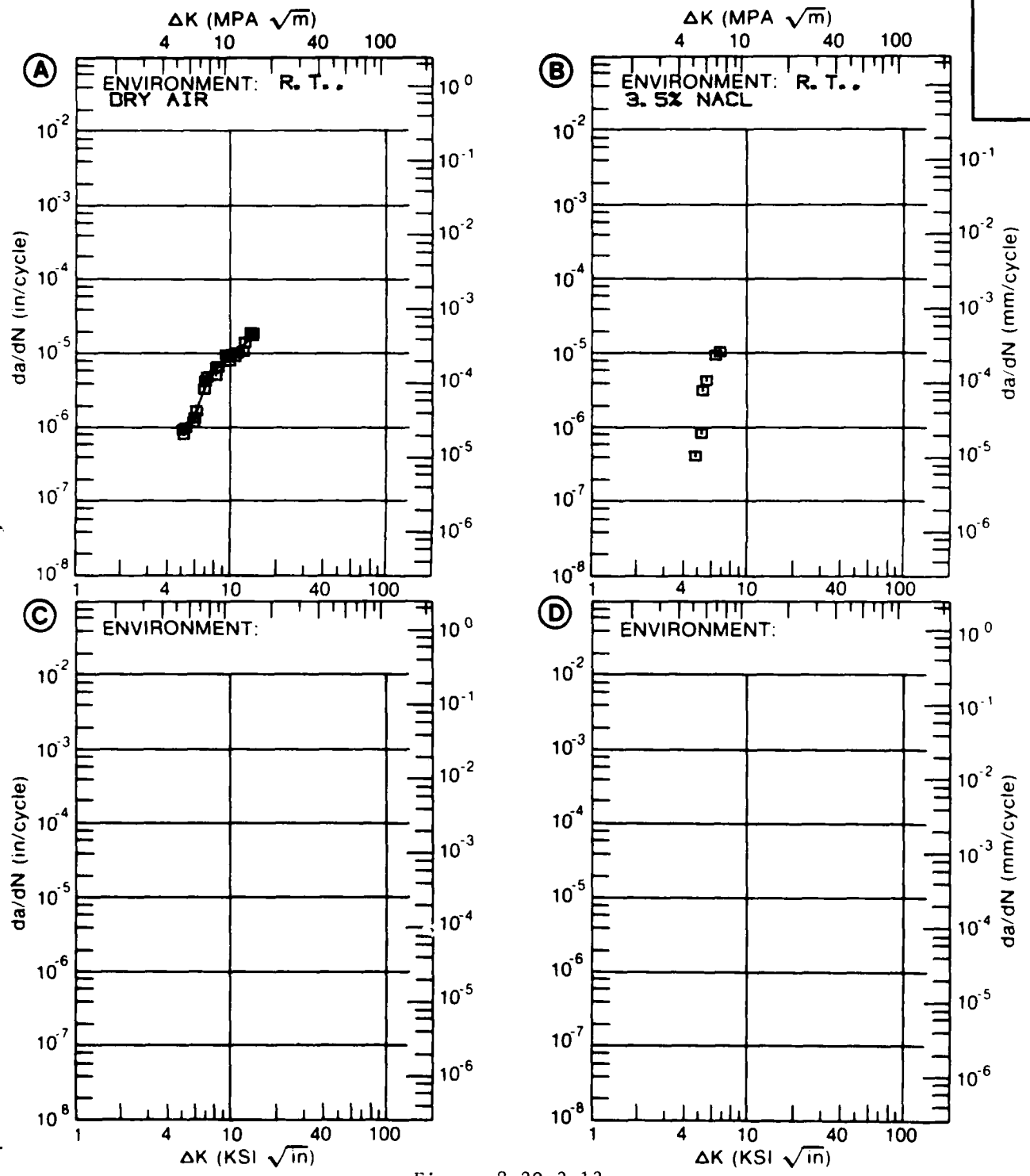

Figure 8.20.3.13

TABLE 8.20.3.14

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.14INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.25	R=+0.50	
DELTA K MIN	A:	3.99	.165			
	B:	2.27		.00125		
	C:	1.84			.0273	
	D:					
		2.00			.0464	
		2.50		.0689	.108	
		3.00		.0731		
		3.50		.178		
		4.00	.165	.270		
		5.00	.257			
DELTA K MAX	A:	5.96	.494			
	B:	4.73		.468		
	C:	2.80			.140	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			9.95	48.27	19.66	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5			1		
	0.5-0.8			2		
	0.8-1.25		4	3	4	
	1.25-2.0			2		
	>2.0					

CONDITION/HT: T7351
FORM: 0.52"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.50- 33.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 57.0 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.520- 0.530"
SPECIMEN WIDTH: 6.000"
REFERENCES:BL002

ALUM. ALLOY

7475

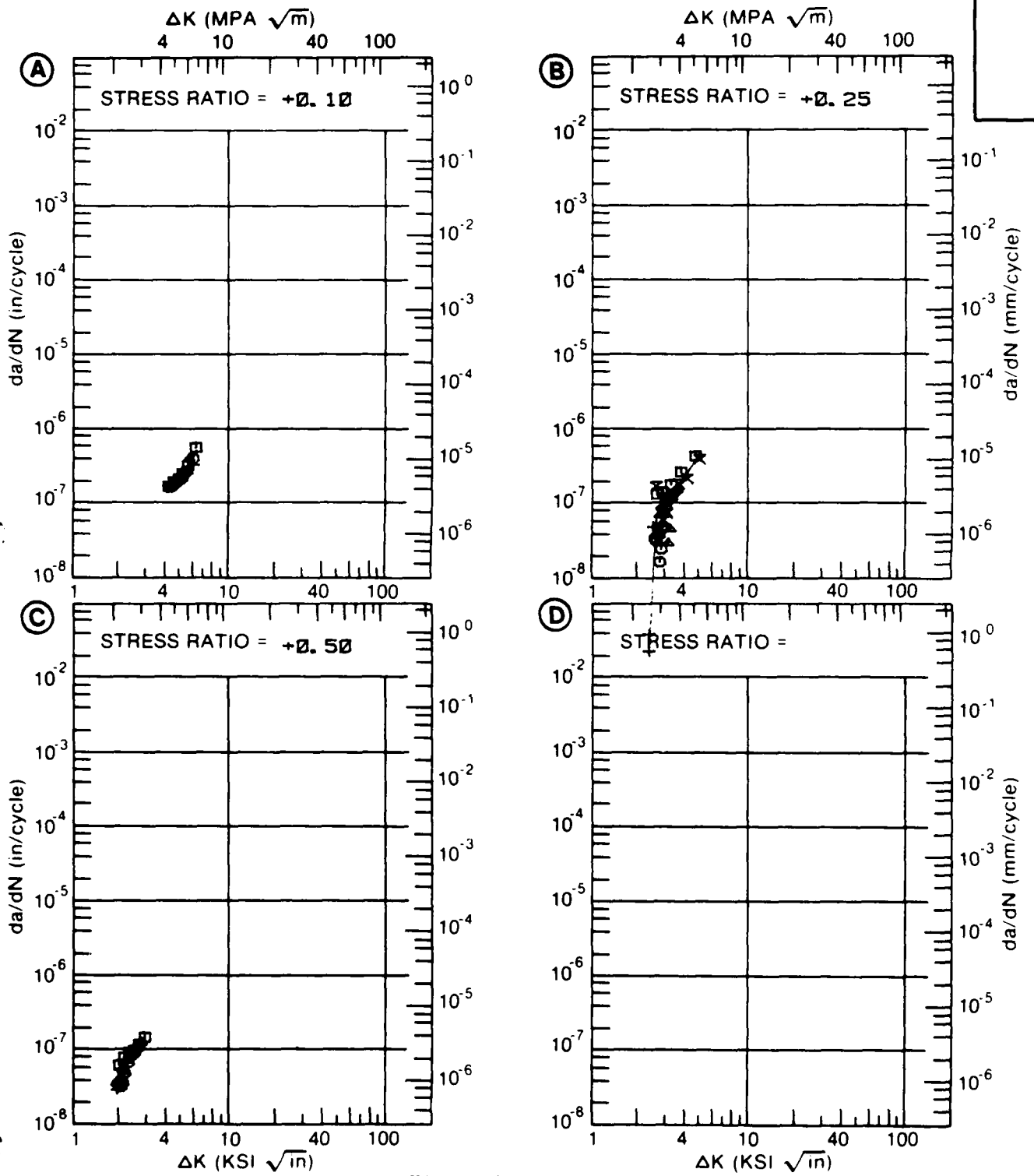

Figure 8.20.3.14

TABLE 8.20.3.15

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.15 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T. ,H H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.25	R=+0.50	
DELTA K MIN	A:	9.92	9.59			
	B:	5.05		.807		
	C:	9.78			19.0	
	D:					
		6.00		1.41		
		7.00		3.06		
		8.00		5.77		
		9.00		8.65		
		10.00	9.90	11.8	20.6	
		13.00	25.6		49.0	
		16.00	50.5			
		20.00	101.			
		25.00	201.			
DELTA K MAX	A:	25.08	203.			
	B:	12.99		32.1		
	C:	13.90			71.6	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.61	12.76	11.47	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8		1		
		0.8-1.25	4	7	4	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: Ø.52"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 5.5Ø- 33.ØØ HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 57.Ø KSI
ULT. STRENGTH:
SPECIMEN THK. Ø.5ØØ- Ø.528"
SPECIMEN WIDTH: 4.ØØØ"
REFERENCES:BLØØ2

ALUM. ALLOY
7475

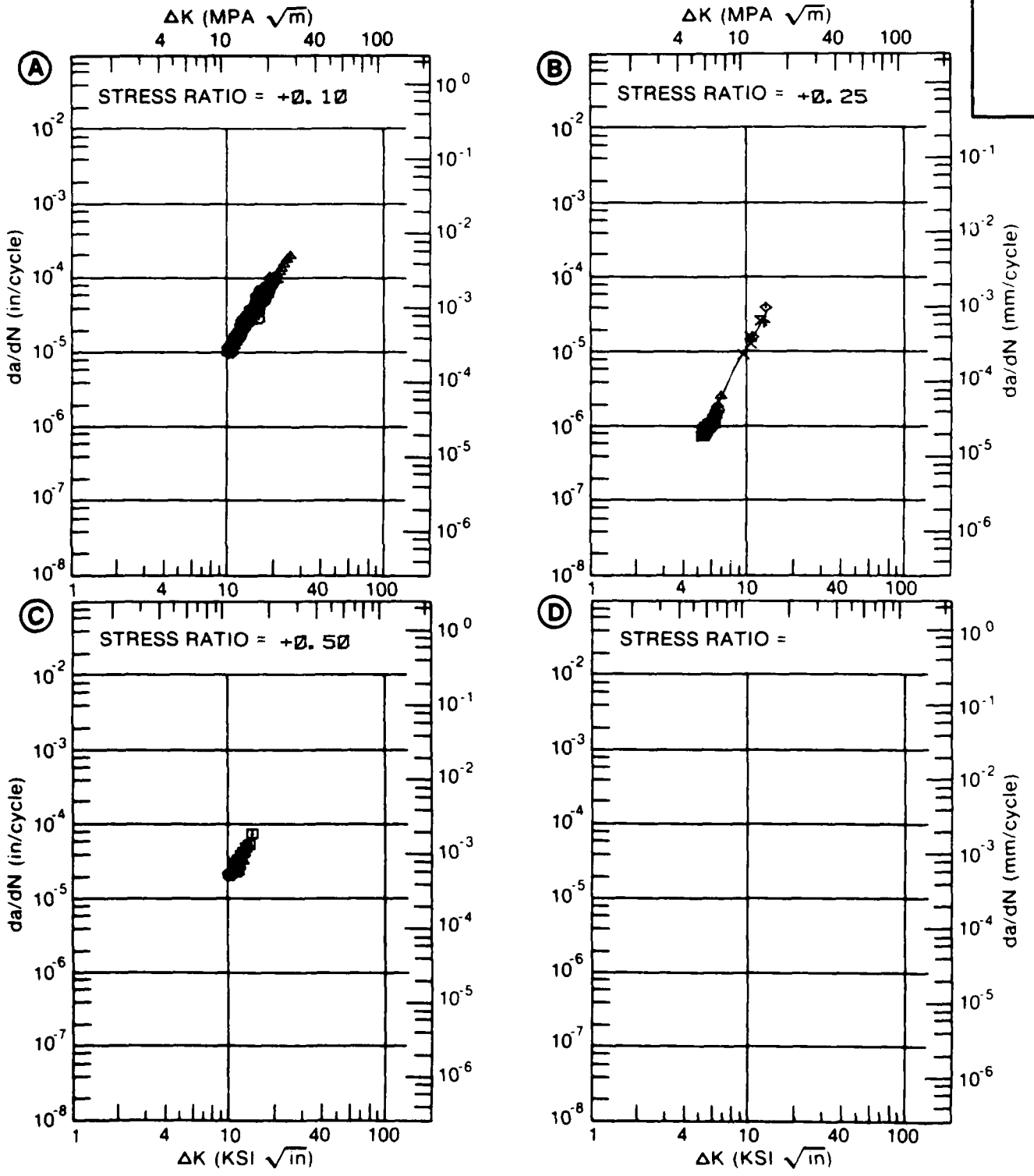

Figure 8.20.3.15

TABLE 8.20.3.16

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.16 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-0.20	R=+0.10	R=+0.30	R=+0.50
DELTA K MIN	A:	5.37	.0822			
	B:	3.77		.194		
	C.	3.42			.170	
	D:	3.05				.113
		3.50			.158	.106
		4.00		.261	.202	.412
		5.00		.620	.717	4.18
		6.00	.196	2.99	2.37	10.7
		7.00	.299	6.44	8.15	17.4
		8.00	.608	8.50	16.1	24.3
		9.00	1.37	10.2	22.0	33.1
		10.00	2.92	13.4	29.1	46.8
		13.00	8.58	48.0		
		16.00	9.88			
DELTA K MAX	A:	16.99	11.4			
	B:	13.62		40.5		
	C:	12.09			86.5	
	D:	10.13				49.2
ROOT MEAN SQUARE PERCENT ERROR			19.31	13.98	22.47	16.76
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25			1	
		1.25-2.0	1	1		1
		>2.0				

CONDITION/HT: T7351
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 59.5 KSI
ULT. STRENGTH: 69.1 KSI
SPECIMEN THK: 0.199- 0.202"
SPECIMEN WIDTH: 5.990- 6.000"
REFERENCES:GD006

ALUM. ALLOY

7475

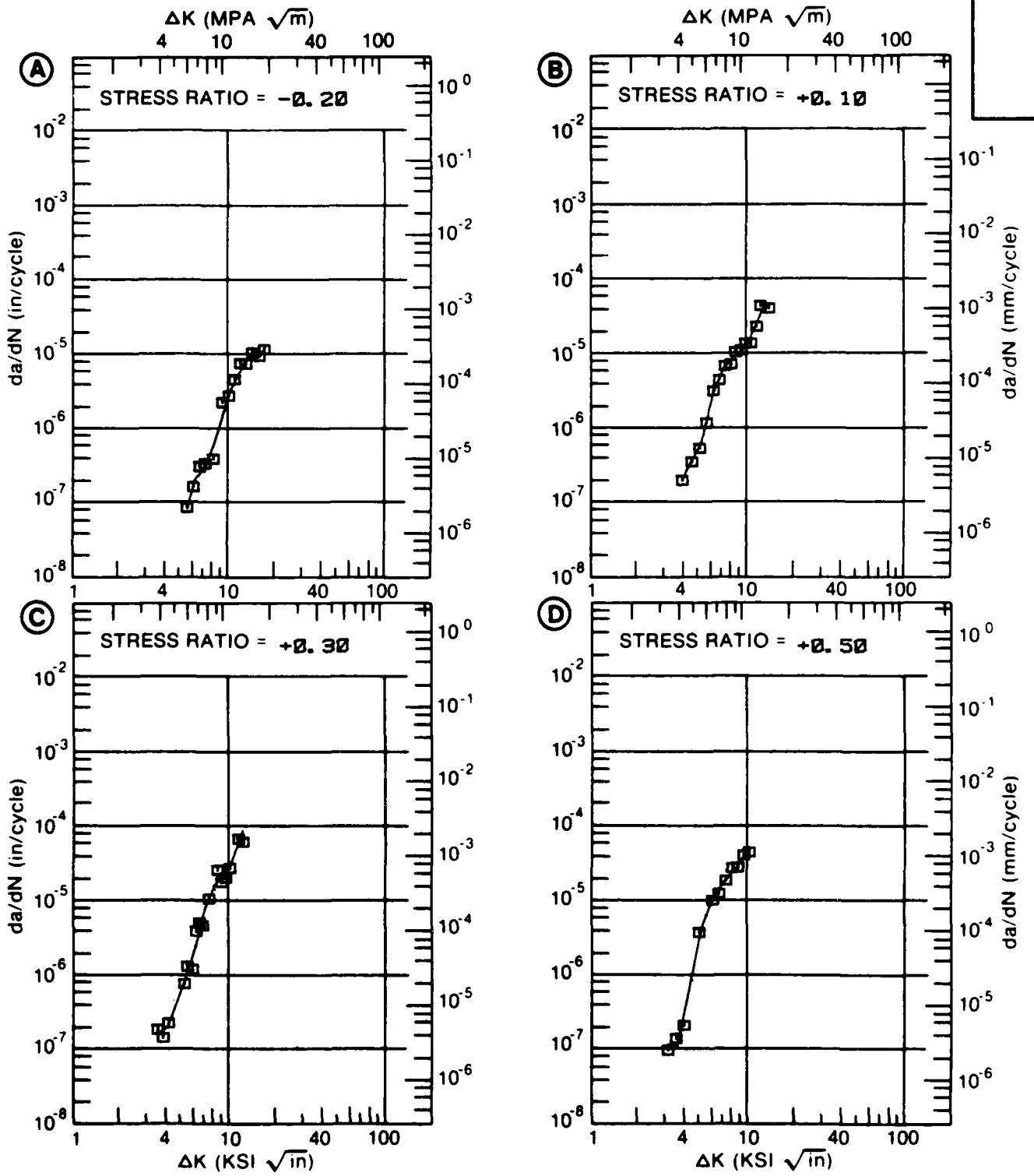

Figure 8.20.3.16

TABLE 8.20.3.17

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.17INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R T , S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			F(HZ)= 1.00	F(HZ)= 6.00		
DELTA K MIN	A:	3.77	.216			
	B:	6.13		.282		
	C:					
	D:					
		4.00	.215			
		5.00	.742			
		6.00	2.95			
		7.00	5.86	.339		
		8.00	8.19	1.00		
		9.00	10.6	3.62		
		10.00	14.4	8.17		
		13.00	44.8	25.8		
		16.00		34.6		
DELTA K MAX	A:	13.62	40.8			
	B:	16.61		34.2		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			15.93	10.03		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1		
		1.25-2.0	1			
		>2.0				

CONDITION/HT: T7351
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.10
ENVIRONMENT: R.T..S.T.W.

YIELD STRENGTH: 58.5 KSI
ULT. STRENGTH: 69.1 KSI
SPECIMEN THK: 0.199- 0.205"
SPECIMEN WIDTH: 5.990- 6.000"
REFERENCES:GD006

ALUM. ALLOY

7475

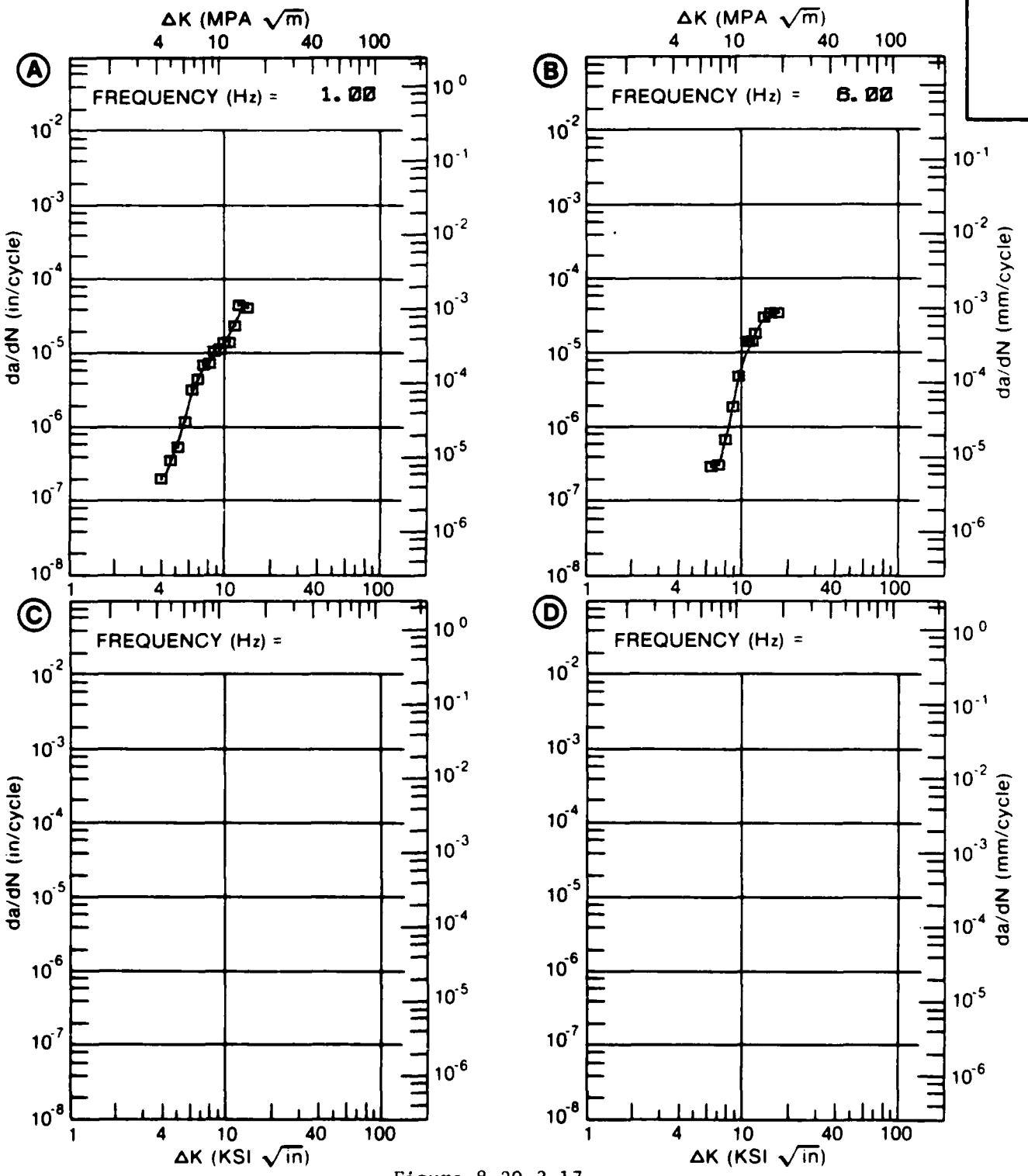

Figure 8.20.3.17

TABLE 8.20.3.18

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.18INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. L.H.A. 2-30HZ	E= R.T. H.H.A. 2-20HZ		
DELTA K MIN	A: 2.78	.08			
	B: 5.70		1.47		
	C:				
	D:				
	3.00	.0914			
	3.50	.119			
	4.00	.162			
	5.00	.312			
	6.00	.589	1.92		
	7.00	1.07	3.90		
	8.00	1.84	6.50		
	9.00	3.02	9.59		
	10.00	4.75	13.1		
	13.00	14.6	26.3		
	16.00	34.5	45.8		
	20.00	80.6			
	25.00	168.			
DELTA K MAX	A: 26.73	203.			
	B: 18.33		68.6		
	C:				
	D:				
ROOT MEAN SQUARE PERCENT ERROR		30.27	16.74		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
0.0-0.5	
0.5-0.8	
0.8-1.25	
1.25-2.0	
>2.0	

CONDITION/HT: T7351
FORM: 0.75- 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY:

YIELD STRENGTH: 54.2- 59.4 KSI
ULT. STRENGTH: 66.0- 70.0 KSI
SPECIMEN THK: 0.250- 1.000"
SPECIMEN WIDTH: 2.550- 3.805"
REFERENCES:AL001, AL009

ALUM. ALLOY

7475

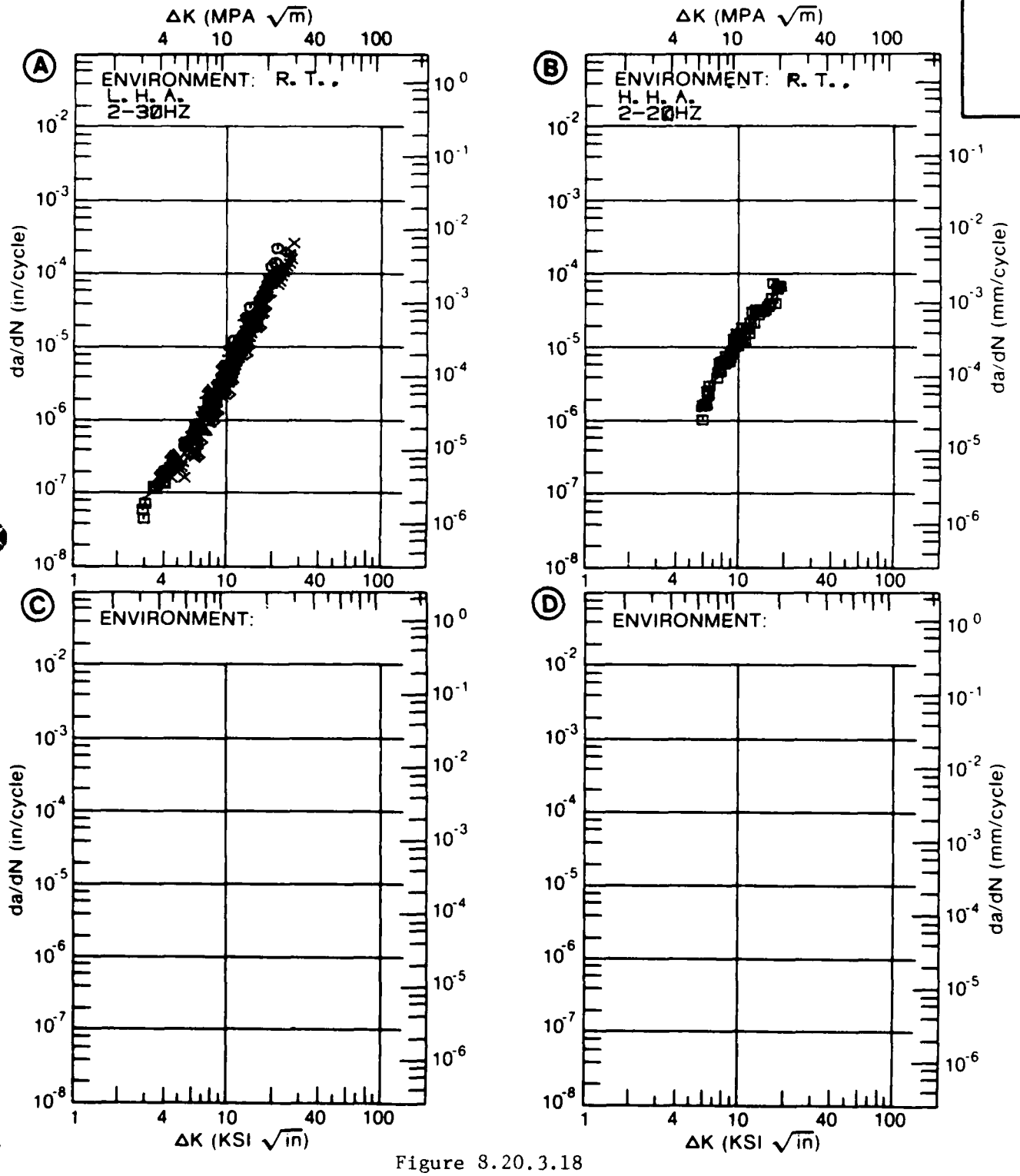

Figure 8.20.3.18

TABLE 8.20.3.19

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE8.20.3.19 INDICATING EFFECT

OF FREQUENCY

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R T , S. T. W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			F(HZ)= 2.00	F(HZ)= 20.00	F(HZ)= 30.00	
DELTA K MIN	A:	6.23	7.20			
	B:	3.75		.38		
	C:	4.46			1.09	
	D:					
		4.00		.614		
		5.00		2.35	2.32	
		6.00		5.32	5.13	
		7.00	11.1	9.17	8.14	
		8.00	17.8	13.6	11.9	
		9.00	24.8	18.3		
		10.00	30.0	23.5		
		13.00	50.9	43.6		
		16.00	90.4			
DELTA K MAX	A:	16.00	90.4			
	B:	15.03		64.2		
	C:	8.64			15.4	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			16.06	24.42	4.42	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 0.75- 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.33
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 54.2 KSI
ULT. STRENGTH: 66.0 KSI
SPECIMEN THK: 0.250- 1.000"
SPECIMEN WIDTH: 2.550- 3.805"
REFERENCES: AL009, AL001

ALUM. ALLOY

7475

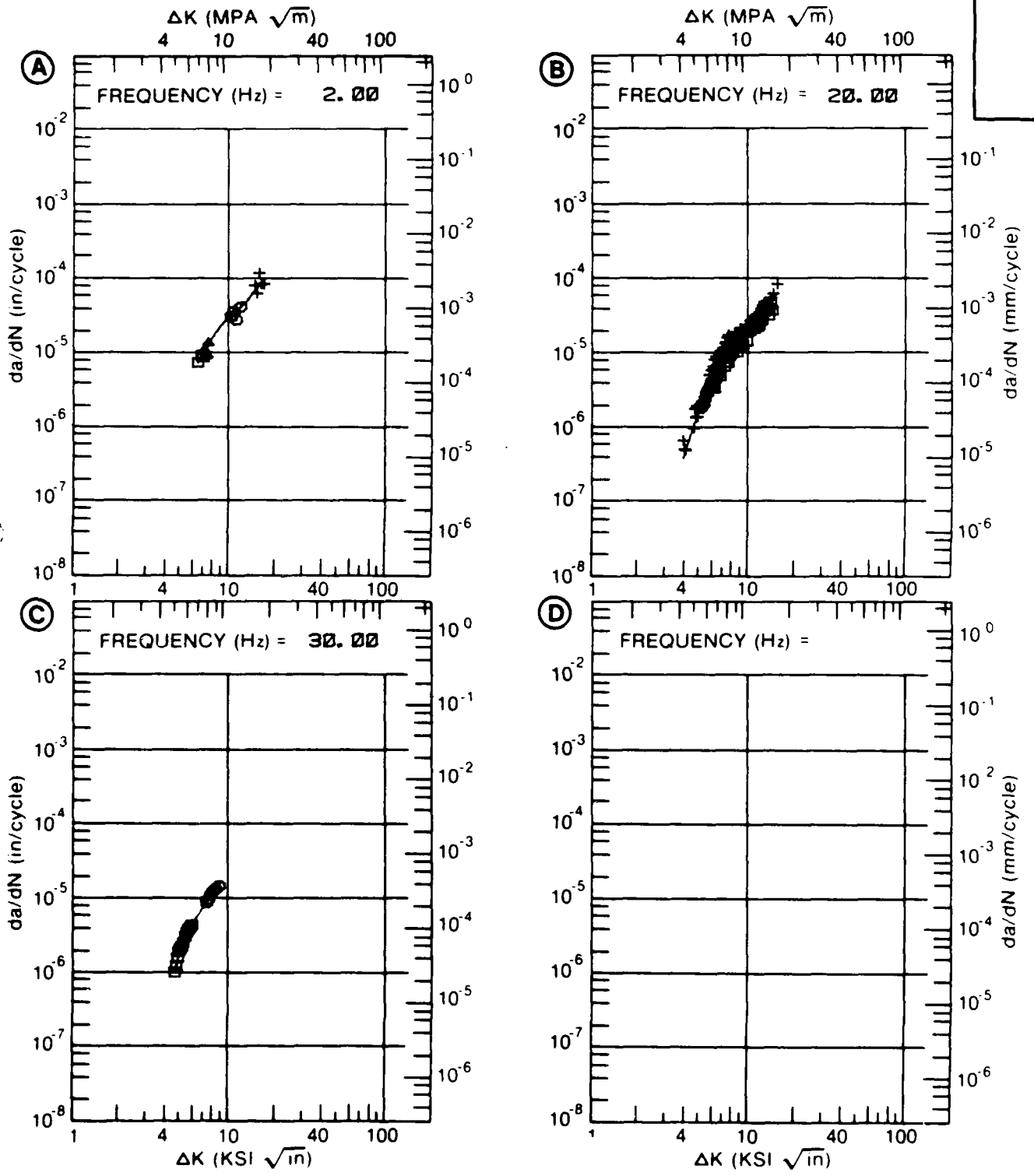

Figure 8.20.3.19

TABLE 8.20.3.20

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.20INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. S.T.W.		
DELTA K MIN	A:	5.63	.615			
	B:	5.70		3.35		
	C:					
	D:					
		6.00	.732	4.75		
		7.00	1.13	9.77		
		8.00	1.76	14.1		
		9.00	2.92	17.9		
		10.00	4.97	22.3		
		13.00	17.8	45.8		
		16.00	33.7	98.2		
DELTA K MAX	A:	19.79	62.7			
	B:	16.77		111.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			24.69	20.18		

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM 1.00- 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION L-T
STRESS RATIO: +0.33
FREQUENCY: 2.00- 20.00 HZ

YIELD STRENGTH: 52.6- 59.6 KSI
ULT. STRENGTH: 63.8- 70.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 3.805"
REFERENCES:AL001

ALUM. ALLOY

7475

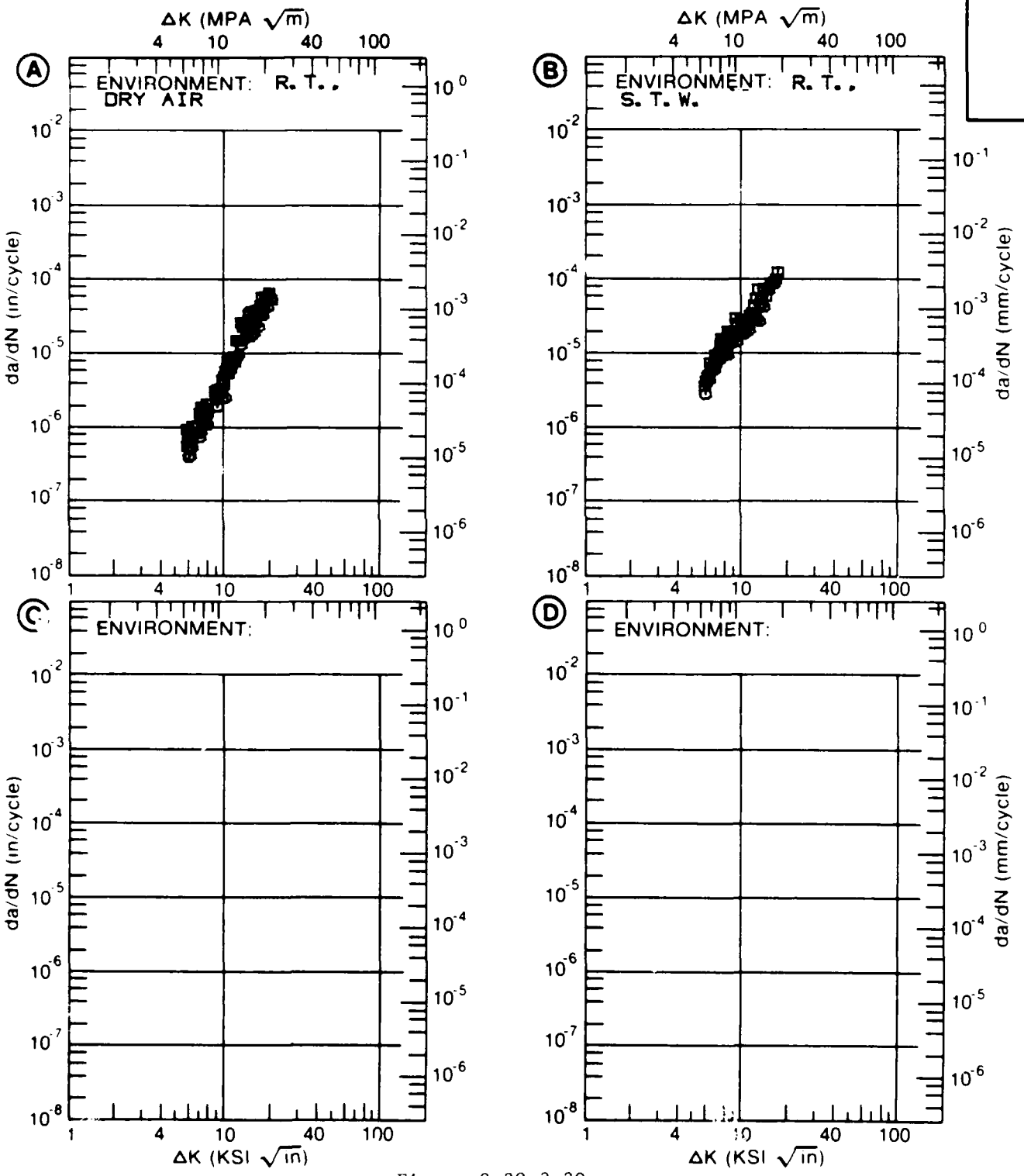

Figure 8.20.3.20

TABLE 8.20.3.21

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.21 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A E= R.T. LAB AIR	B E= R.T. JP-4 FUEL	C E= R.T. SIM SEA WATER	D
DELTA K MIN	A: 4.63	.182			
	B: 4.07		.338		
	C: 4.14			.224	
	D:				
	5.00	.216	.474	.407	
	6.00	.420	.712	.850	
	7.00	.880	1.11	1.68	
	8.00	1.75	1.77	3.02	
	9.00	3.14	2.85	4.94	
	10.00	5.00	4.50	7.37	
	13.00	12.4	13.2	17.3	
	16.00	21.7	24.5	31.1	
	20.00	37.1	41.1	57.5	
	25.00	66.0	68.6	111.	
	30.00	117.	115.	205.	
	35.00	212.	204.	376.	
	40.00	398.	384.	688.	
	50.00	2520.	1622.	5477.	
DELTA K MAX	A: 57.16	5633.			
	B: 58.69		7160.		
	C: 54.23			6222.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		21.03	21.01	23.16	

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 1.25"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.02
FREQUENCY: 0.10- 20.00 HZ

YIELD STRENGTH: 62.0 KSI
ULT. STRENGTH: 70.3 KSI
SPECIMEN THK: 1.250"
SPECIMEN WIDTH: 5.000"
REFERENCES:MA005

ALUM. ALLOY

7475

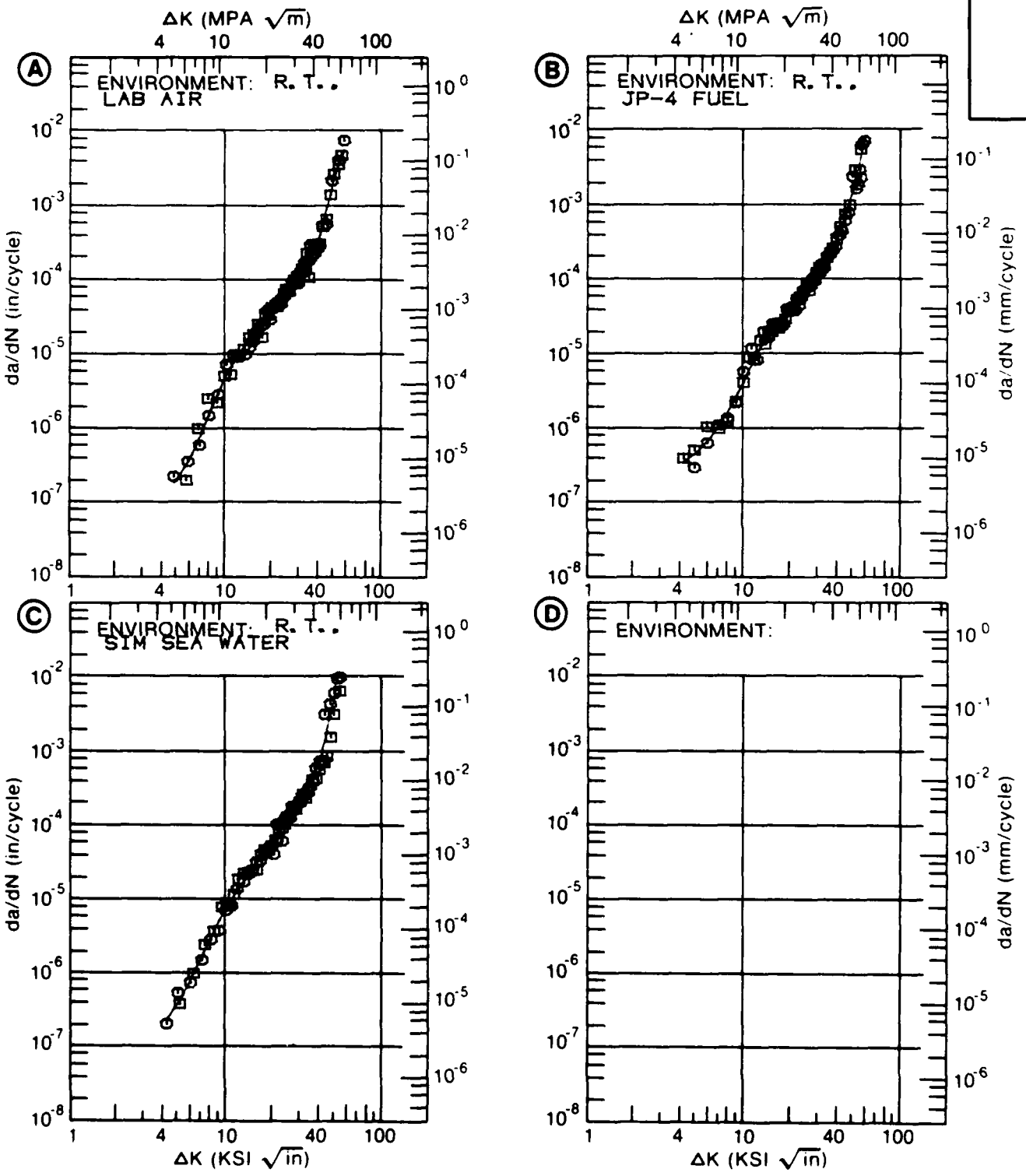

Figure 8.20.3.21

TABLE 8.20.3.22

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.22INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. LAB AIR	E= R.T. 3.5%NACL		
DELTA K MIN	A:	5.95	.370			
	B:	6.90		2.54		
	C:					
	D:					
		6.00	.379			
		7.00	.722	2.92		
		8.00	1.53	6.32		
		9.00	3.07	8.71		
		10.00	5.55	13.6		
		13.00	16.3			
		16.00	27.4			
DELTA K MAX	A:	19.80	59.0			
	B:	10.75		24.9		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			17.20	11.31		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 1.50"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 62.2 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.850"
SPECIMEN WIDTH: 1.500"
REFERENCES:85363

ALUM. ALLOY

7475

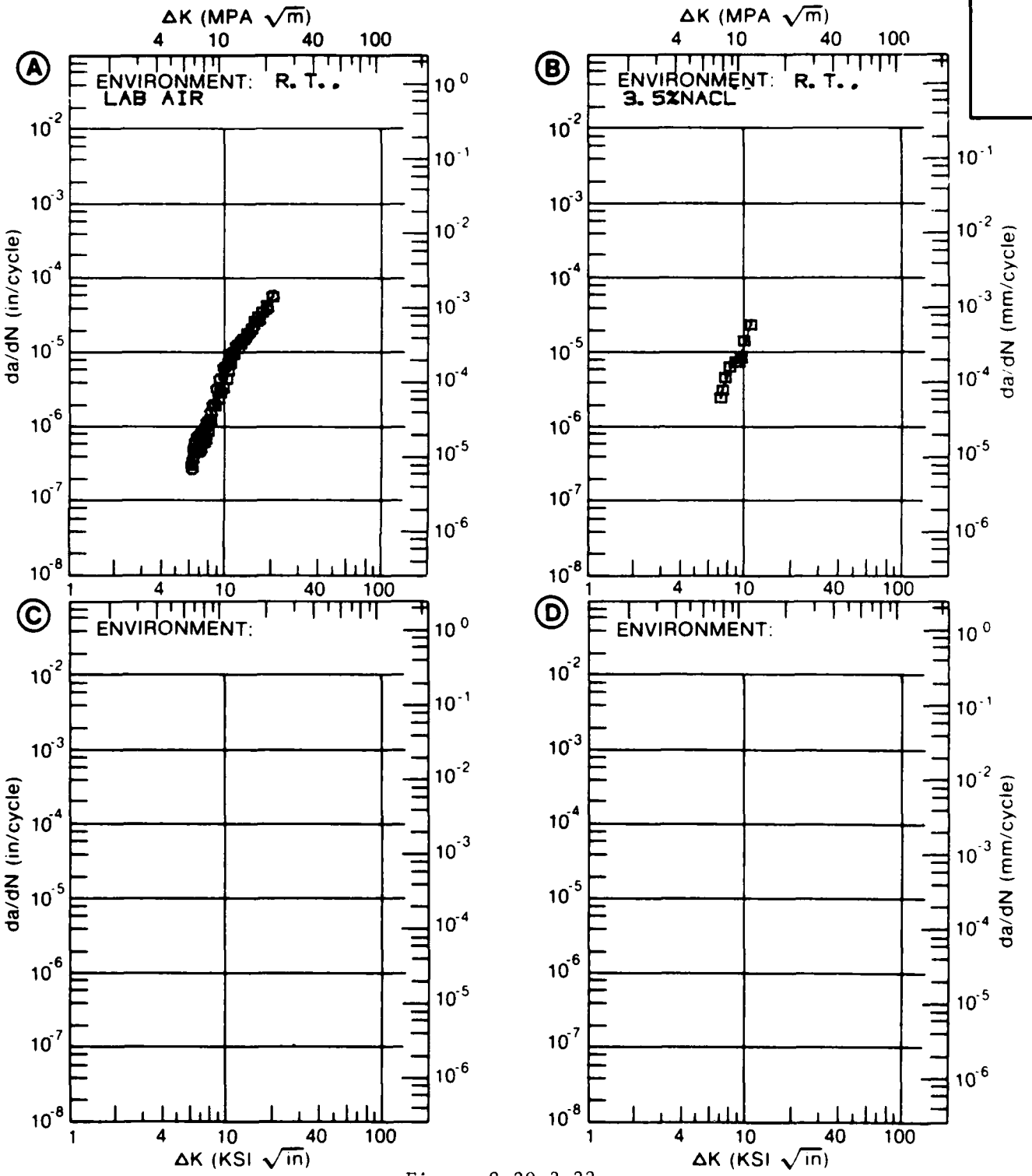

Figure 8.20.3.22

TABLE 8.20.3.23

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.23 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. H.H.A.			
DELTA K MIN	A:	2.03	.016			
	B:	1				
	C:					
	D:					
		2.50	.0603			
		3.00	.151			
		3.50	.290			
		4.00	.474			
		5.00	.993			
		6.00	1.78			
		7.00	3.00			
		8.00	4.91			
		9.00	7.73			
		10.00	11.6			
		13.00	30.5			
		16.00	57.3			
		20.00	90.8			
DELTA K MAX	A:	23.17	104.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR		19.89
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	1
	0.8-1.25	2
	1.25-2.0	
	>2.0	

CONDITION/HT: T7351
FORM: 1.50- 4.00"TH PLATE
SPECIMEN TYPE: WOL
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 25.00 HZ

YIELD STRENGTH: 64.0 KSI
ULT. STRENGTH: 74.0 KSI
SPECIMEN THK: 0.245- 0.251"
SPECIMEN WIDTH: 2.548- 2.553"
REFERENCES:AL009

ALUM. ALLOY

7475

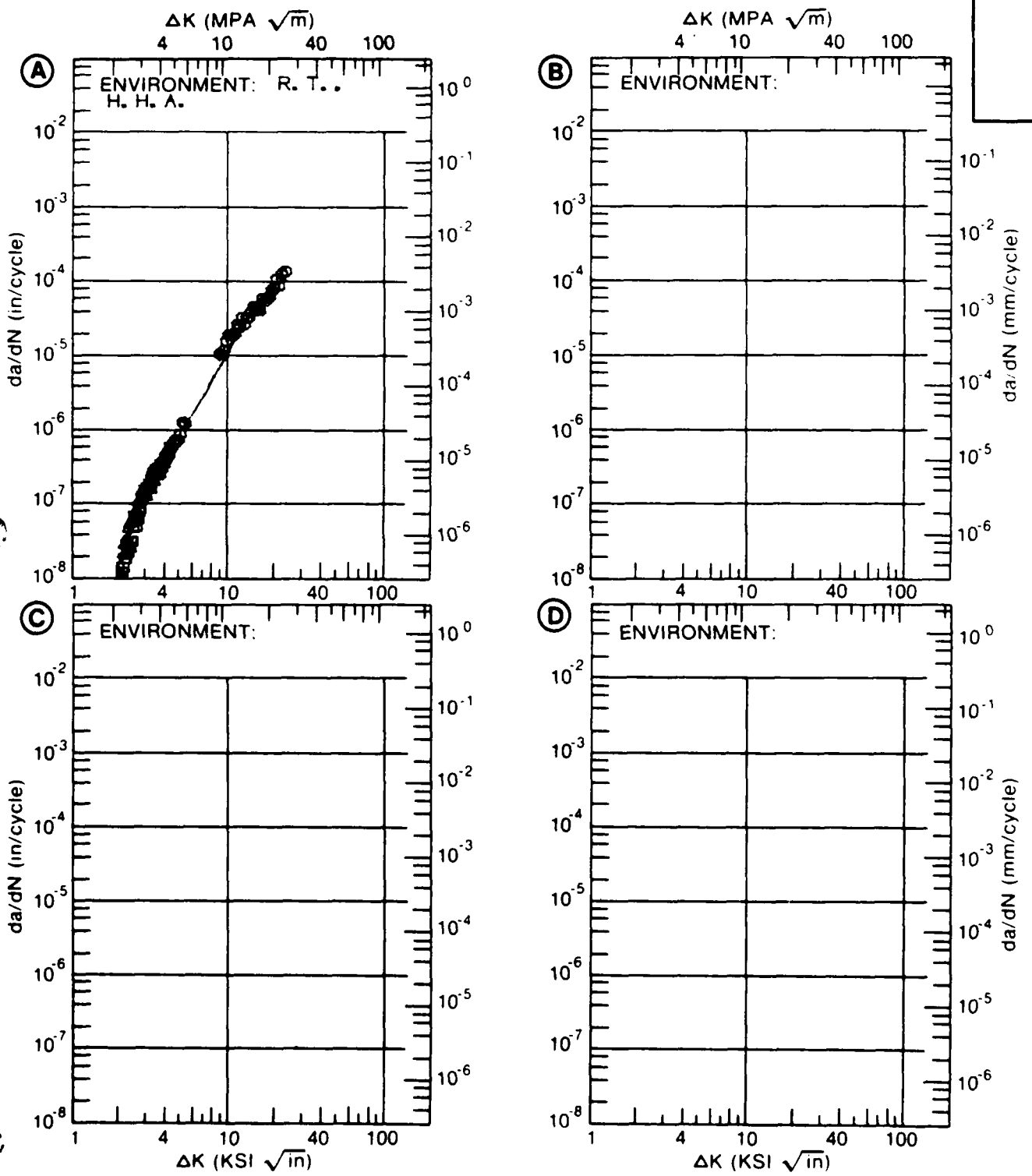

Figure 8.20.3.23

TABLE 8.20.3.24

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.24 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T., DRY AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	3.78	.119			
	B:	3.40		.0980		
	C:	2.69			.0671	
	D:					
		3.00			.113	
		3.50		.114	.198	
		4.00	.146	.196	.293	
		5.00	.263	.346	.543	
		6.00	.384	.550	1.01	
		7.00	.571	1.02	2.04	
		8.00	.932	2.22	3.92	
		9.00	1.65	4.61	6.57	
		10.00	2.91	7.98	9.71	
		13.00	11.3	18.9	21.6	
		16.00	25.2	28.6	39.9	
		20.00	46.5	46.0	79.7	
		25.00	87.2	98.8	145.	
		30.00		223.		
		35.00		470.		
DELTA K MAX	A:	28.02	136.			
	B:	35.96		535.		
	C:	26.23			161.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.57	20.46	10.95	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 59.5 KSI
ULT. STRENGTH: 69.1 KSI
SPECIMEN THK: 0.747- 0.750"
SPECIMEN WIDTH: 5.000- 5.006"
REFERENCES:GD006

ALUM. ALLOY

7475

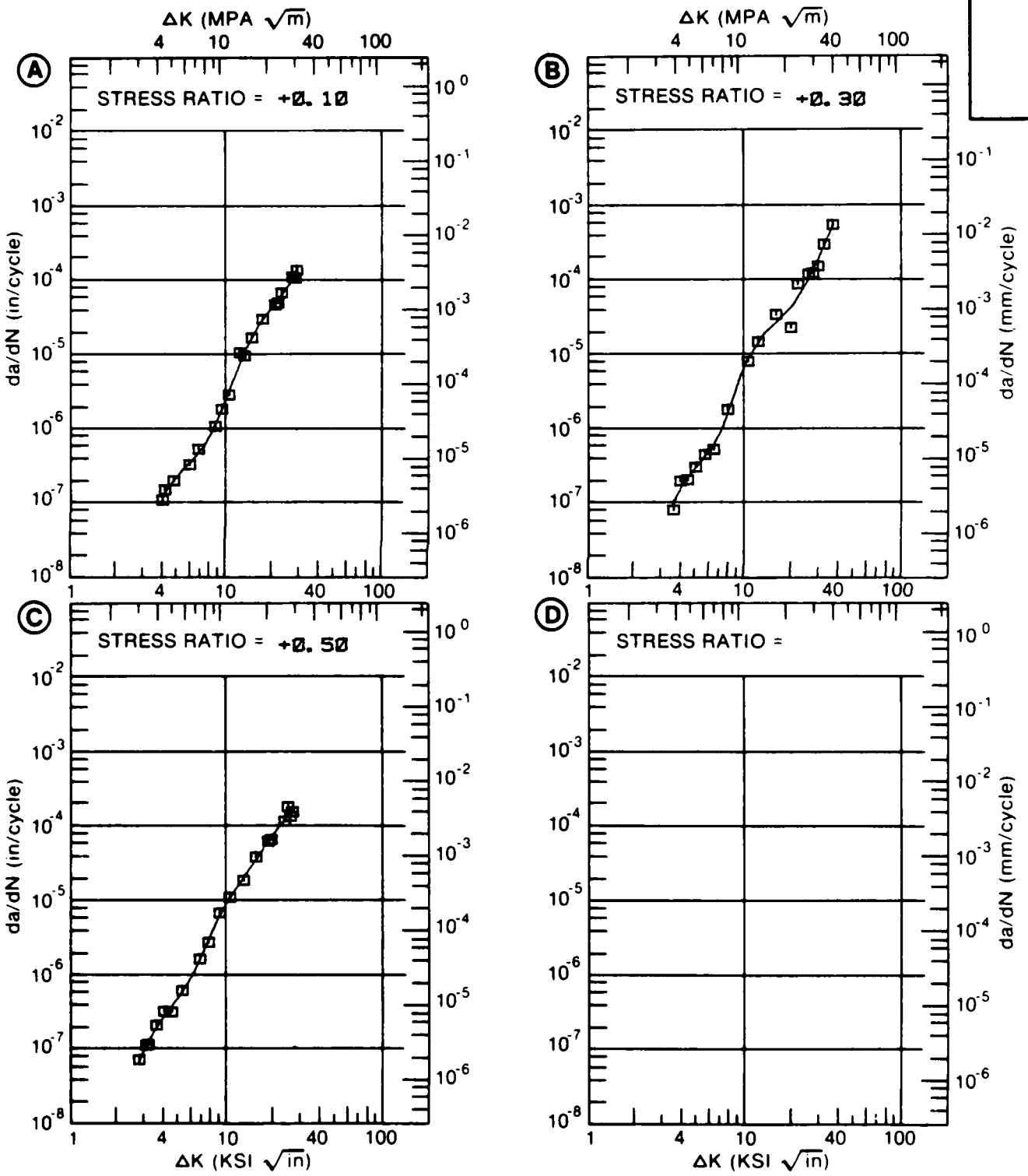

Figure 3.20.3.24

TABLE 8.20.3.25

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE8.20.3.25 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R T , S. T. W.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN A:	6.61	3.35			
DELTA K MIN B:	5.51		.62		
DELTA K MIN C:	3.94			.30	
DELTA K MIN D:					
	4.00			.302	
	5.00			1.48	
	6.00		.569	6.57	
	7.00	4.37	3.38	15.6	
	8.00	8.04	16.0	28.6	
	9.00	13.5	33.3	44.7	
	10.00	20.8	50.7	63.0	
	13.00	50.2	99.5	125.	
	16.00	83.1	134.	199.	
	20.00	130.	170.	333.	
	25.00	203.	235.		
	30.00	314.	361.		
	35.00	498.	629.		
	40.00	802.			
	50.00	2093.			
DELTA K MAX A:	50.66	2229.			
DELTA K MAX B:	36.44		753.		
DELTA K MAX C:	24.36			577.	
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		34 42	32 28	17 83	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8	1			
	0.8-1.25		1		
	1.25-2.0	1		2	
	>2.0		1		

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 59.5 KSI
ULT. STRENGTH: 69.1 KSI
SPECIMEN THK: 0.750- 0.759"
SPECIMEN WIDTH: 4.991- 4.999"
REFERENCES:GD006

ALUM. ALLOY

7475

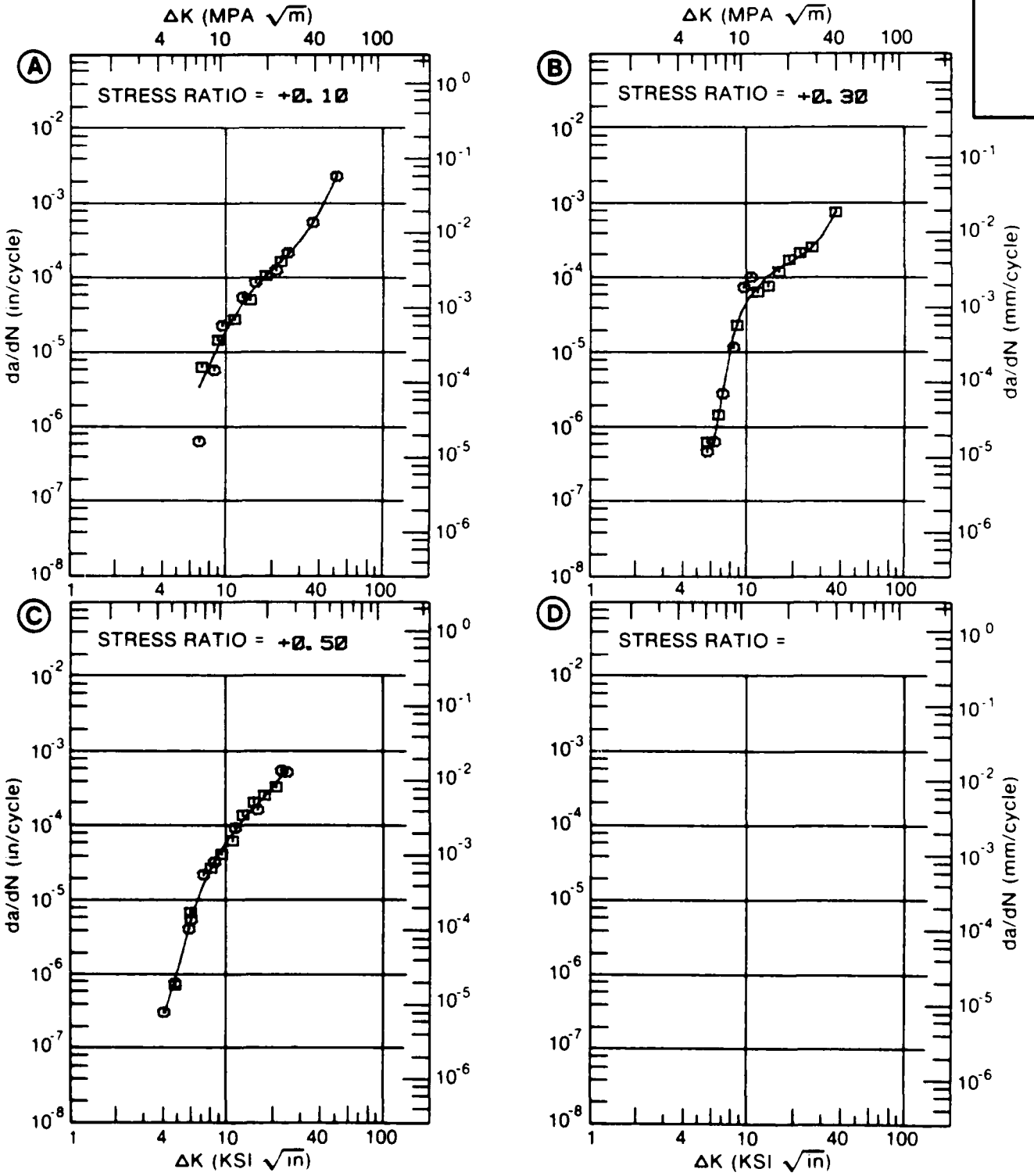

Figure 8.20.3.25

TABLE 8.20.3.26

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE8.20.3.26 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. H.H.A.	B E= R.T. S.T.W.	C	D
DELTA K MIN	A:	5.04	.20			
	B:	6.61		3.35		
	C:					
	D:					
		6.00	.426			
		7.00	.723	4.37		
		8.00	1.13	8.05		
		9.00	1.76	13.5		
		10.00	2.78	20.8		
		13.00	11.0	50.2		
		16.00	27.5	83.2		
		20.00	47.8	130.		
		25.00	81.5	203.		
		30.00		314.		
		35.00		498.		
		40.00		801.		
		50.00		2093.		
DELTA K MAX	A:	29.75	171.			
	B:	50.66		2229.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			5.71	34.44		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8		1		
		0.8-1.25				
		1.25-2.0	1	1		
		>2.0				

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION L-T
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH: 59.5 KSI
ULT. STRENGTH: 69.1 KSI
SPECIMEN THK: 0.744- 0.759"
SPECIMEN WIDTH: 4.998- 5.006"
REFERENCES:GD006

ALUM. ALLOY

7475

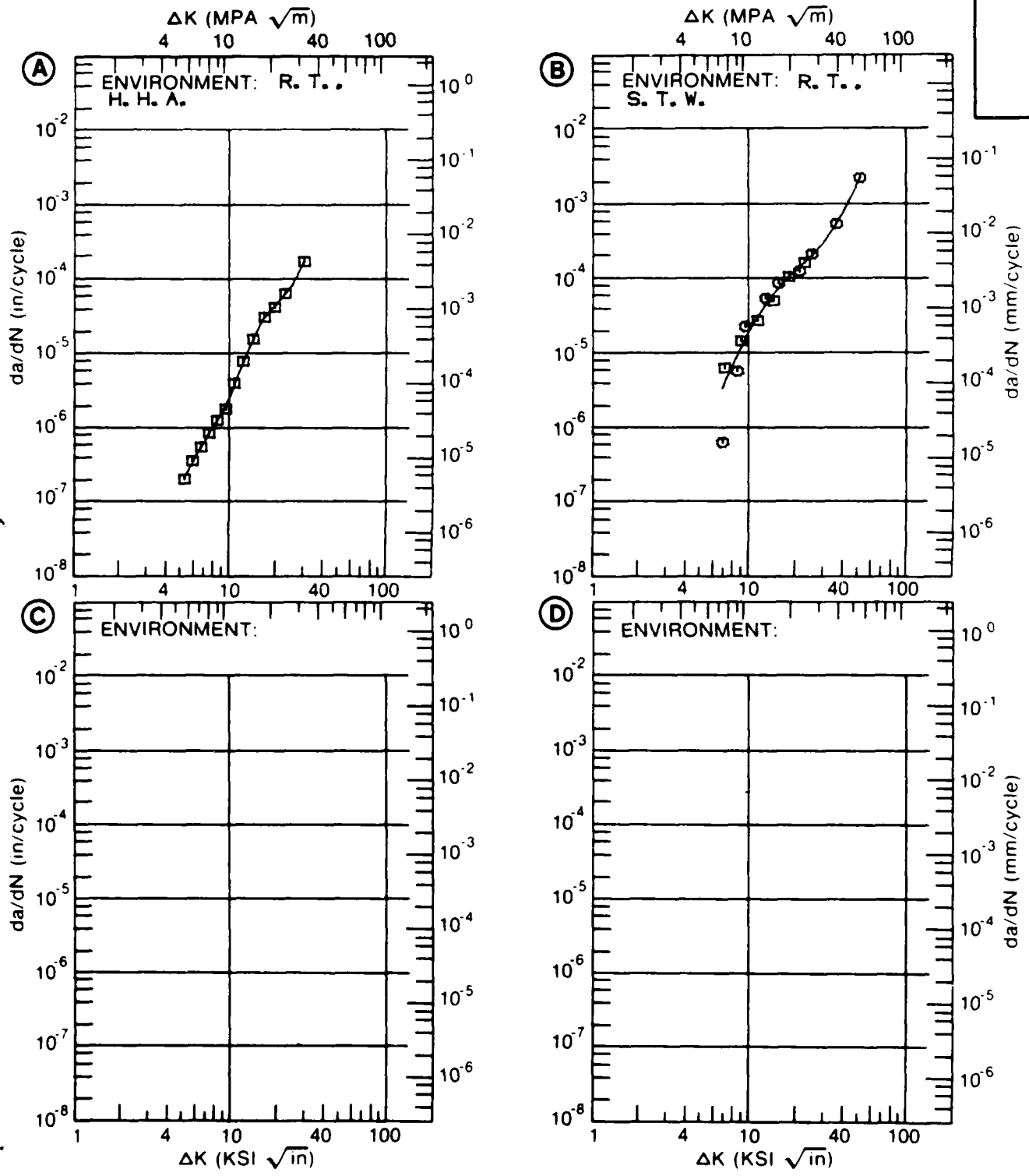

Figure 8.20.3.26

TABLE 8.20.3.27

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.27 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T., DRY AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN A:	4.24	.106			
DELTA K MIN B:	3.30		.118		
DELTA K MIN C:	2.88			.160	
DELTA K MIN D:					
	3.00			.160	
	3.50		.133	.191	
	4.00		.186	.277	
	5.00	.362	.391	.748	
	6.00	.317	.810	1.72	
	7.00	.635	1.58	2.98	
	8.00	1.25	2.86	6.95	
	9.00	2.22	4.80	9.21	
	10.00	3.64	7.54		
	13.00	11.3	20.8		
	16.00	25.4	38.8		
	20.00	56.8	65.5		
	25.00	120.			
DELTA K MAX A:	27.78	168.			
DELTA K MAX B:	24.91		174.		
DELTA K MAX C:	9.11			8.75	
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		23.64	8.01	11.47	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 61.3 KSI
ULT. STRENGTH: 72.1 KSI
SPECIMEN THK: 0.750- 0.755"
SPECIMEN WIDTH: 5.003- 5.005"
REFERENCES:GD006

ALUM. ALLOY

7475

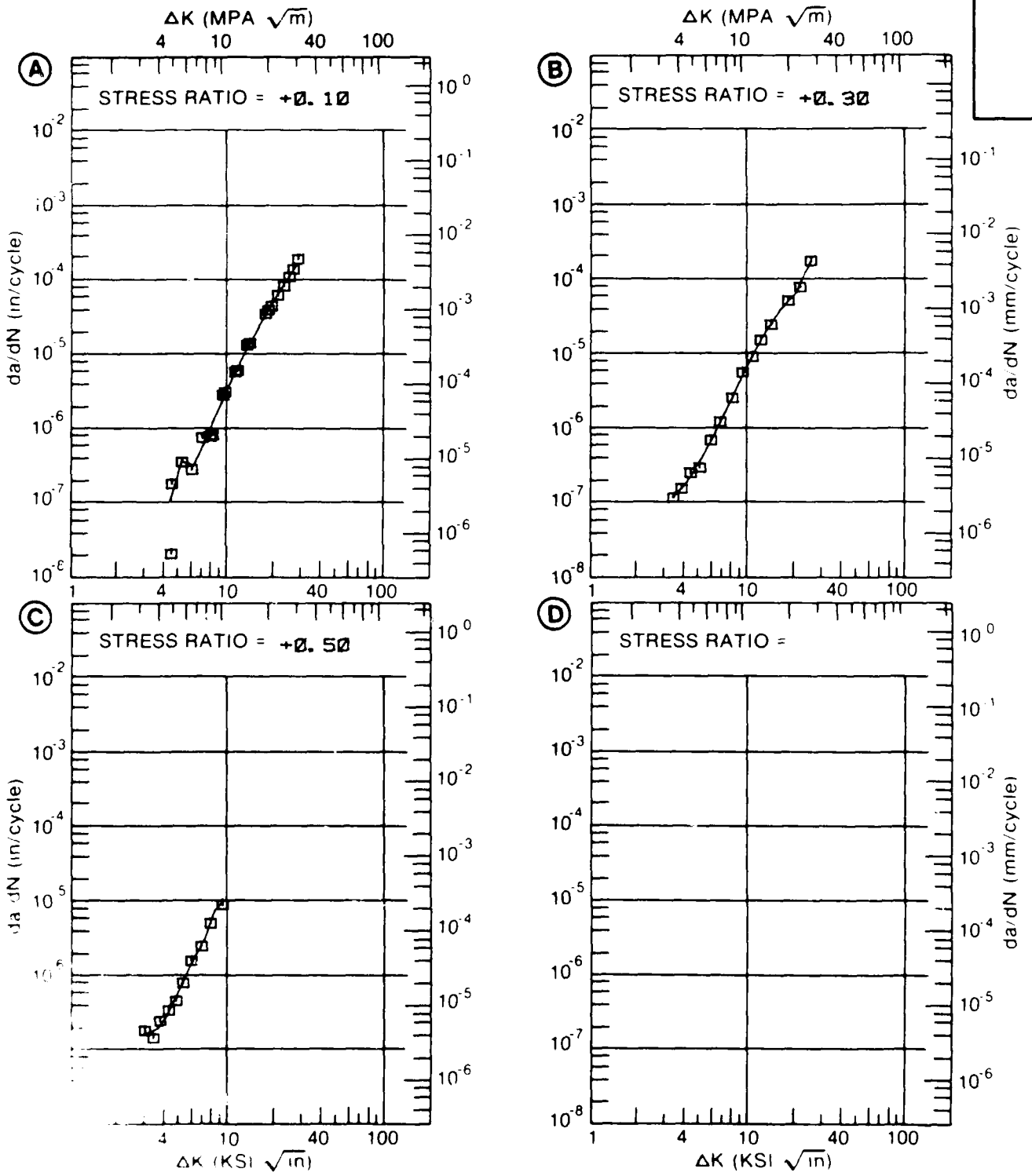

Figure 8.20.3.27

TABLE 8.20.3.28

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.28 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T. ,S.T.W.

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A: 6.02	.26			
	B: 4.08		.25		
	C: 3.17			.21	
	D:				
	3.50			.242	
	4.00			.382	
	5.00		.293	1.39	
	6.00		1.21	5.04	
	7.00	.603	4.74	12.2	
	8.00	1.56	12.1	21.3	
	9.00	3.78	22.8	31.7	
	10.00	8.01	35.6	43.5	
	13.00	35.9	76.7	90.3	
	16.00	75.1	118.	169.	
	20.00	118.	197.	401.	
	25.00	185.	421.		
	30.00	352.			
	35.00	871.			
DELTA K MAX	A: 39.82	2827.			
	B: 26.55		555.		
	C: 21.86			615.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		32.50	24.24	22.33	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1			
	1.25-2.0		1	1	
	>2.0	1	1	1	

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T.,S.T.W.

YIELD STRENGTH: 61.3 KSI
ULT. STRENGTH: 72.1 KSI
SPECIMEN THK: 0.750- 0.752"
SPECIMEN WIDTH: 4.997- 5.000"
REFERENCES:GD006

ALUM. ALLOY

7475

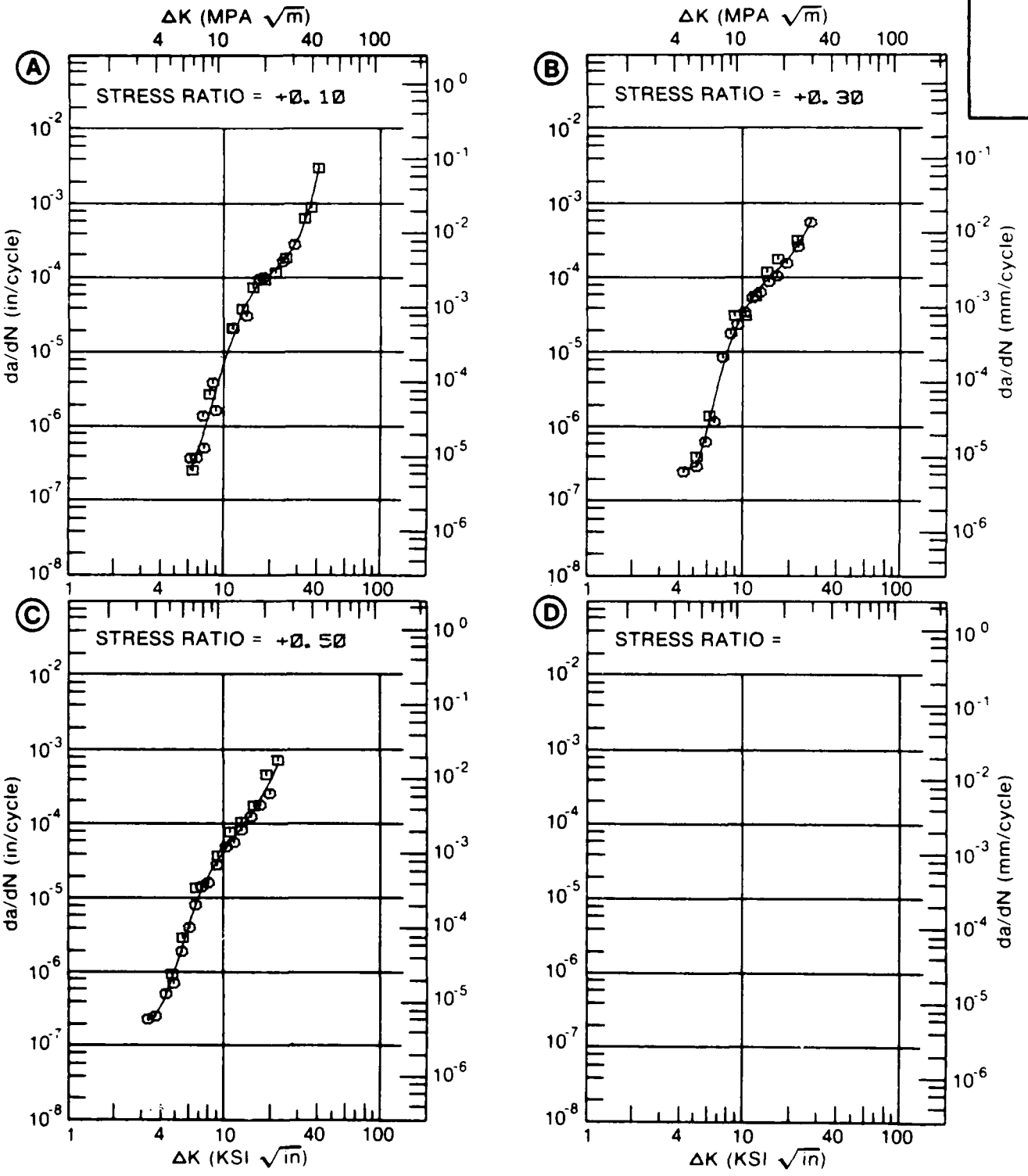

Figure 8.20.3.28

TABLE 8.20.3.29

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.29 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. H.H.A. .10HZ	B E= R.T. H.H.A. 1HZ	C E= R.T. S.T.W. .10HZ	D
DELTA K MIN	A:	5.10	.30			
	B:	5.59		.38		
	C:					
	D:					
		6.00	.471	.444		
		7.00	.995	.725		
		8.00	1.84	1.25		
		9.00	3.04	2.16		
		10.00	4.65	3.57		
		13.00	12.4	11.8		
		16.00	25.2	25.7		
		20.00	51.0	49.4		
		25.00	98.1	97.8		
		30.00	163.	216.		
		35.00		572.		
DELTA K MAX	A:	31.22	181.			
	B:	36.11		925.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			13.48	3.95	0.00	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1			
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY:

YIELD STRENGTH: 81.3 KSI
ULT. STRENGTH: 72.1 KSI
SPECIMEN THK: 0.748- 0.751"
SPECIMEN WIDTH: 4.995- 5.002"
REFERENCES:GD006

ALUM. ALLOY

7475

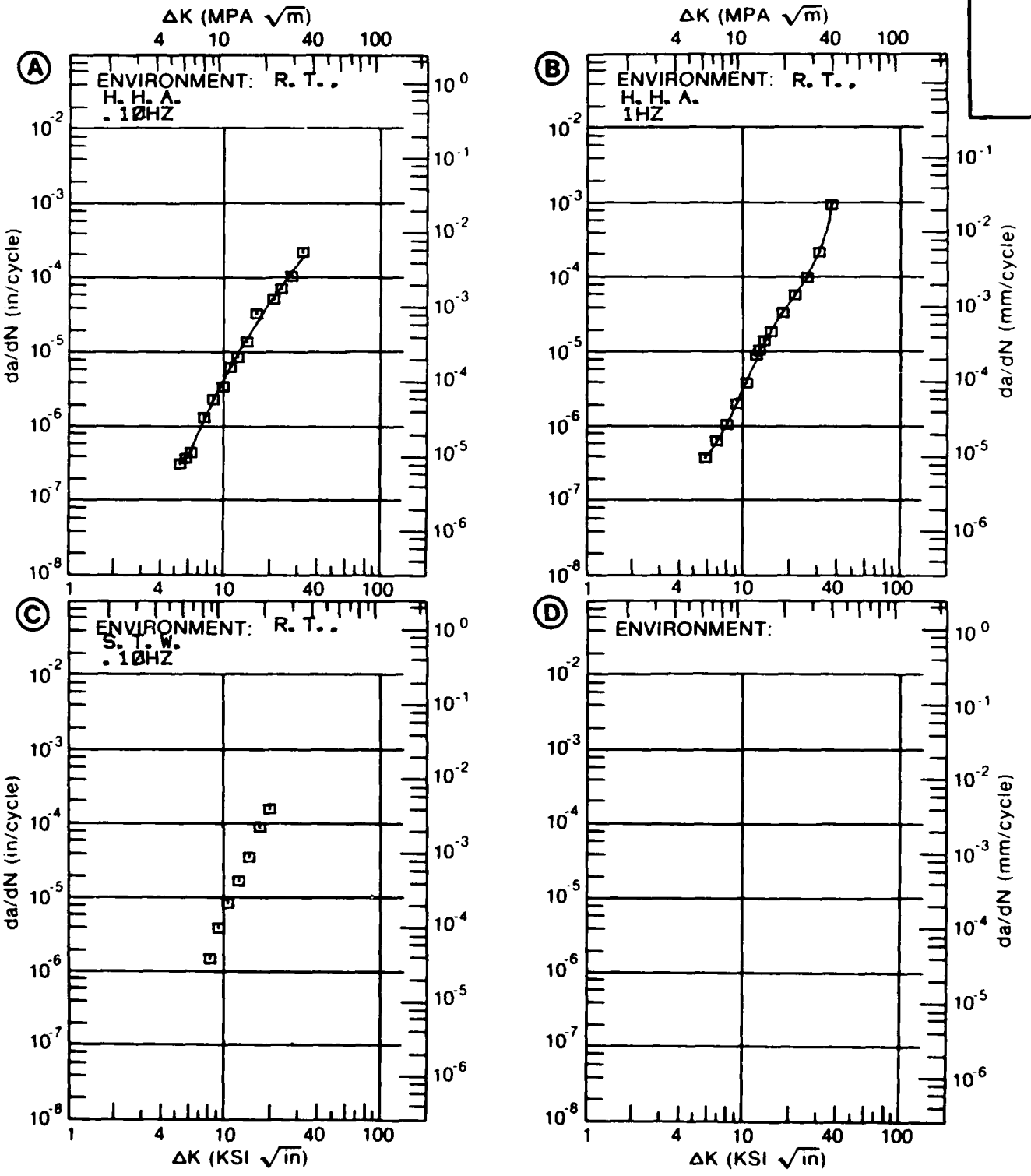

Figure 8.20.3.29

TABLE 8.20.3.30

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.30 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T., DRY AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN A:	3.31	.254			
DELTA K MIN C:	2.73			.467	
	3.00			.646	
	3.50	.304		.918	
	4.00	.446		1.11	
	5.00	.789		1.44	
	6.00	1.26		2.03	
	7.00	1.96		3.35	
	8.00	3.08		6.56	
	9.00	4.83		13.5	
	10.00	7.49		25.8	
	13.00	24.2			
	16.00	54.2			
	20.00	145.			
DELTA K MAX A:	20.84	210.			
DELTA K MAX C:	11.73			57.1	
ROOT MEAN SQUARE PERCENT ERROR		24.19	0.00	17.91	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25			1	
	1.25-2.0	1			
	>2.0				

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-L
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 57.4 KSI
ULT. STRENGTH: 70.6 KSI
SPECIMEN THK: 0.502- 0.503"
SPECIMEN WIDTH: 2.552- 2.554"
REFERENCES:GD006

ALUM. ALLOY

7475

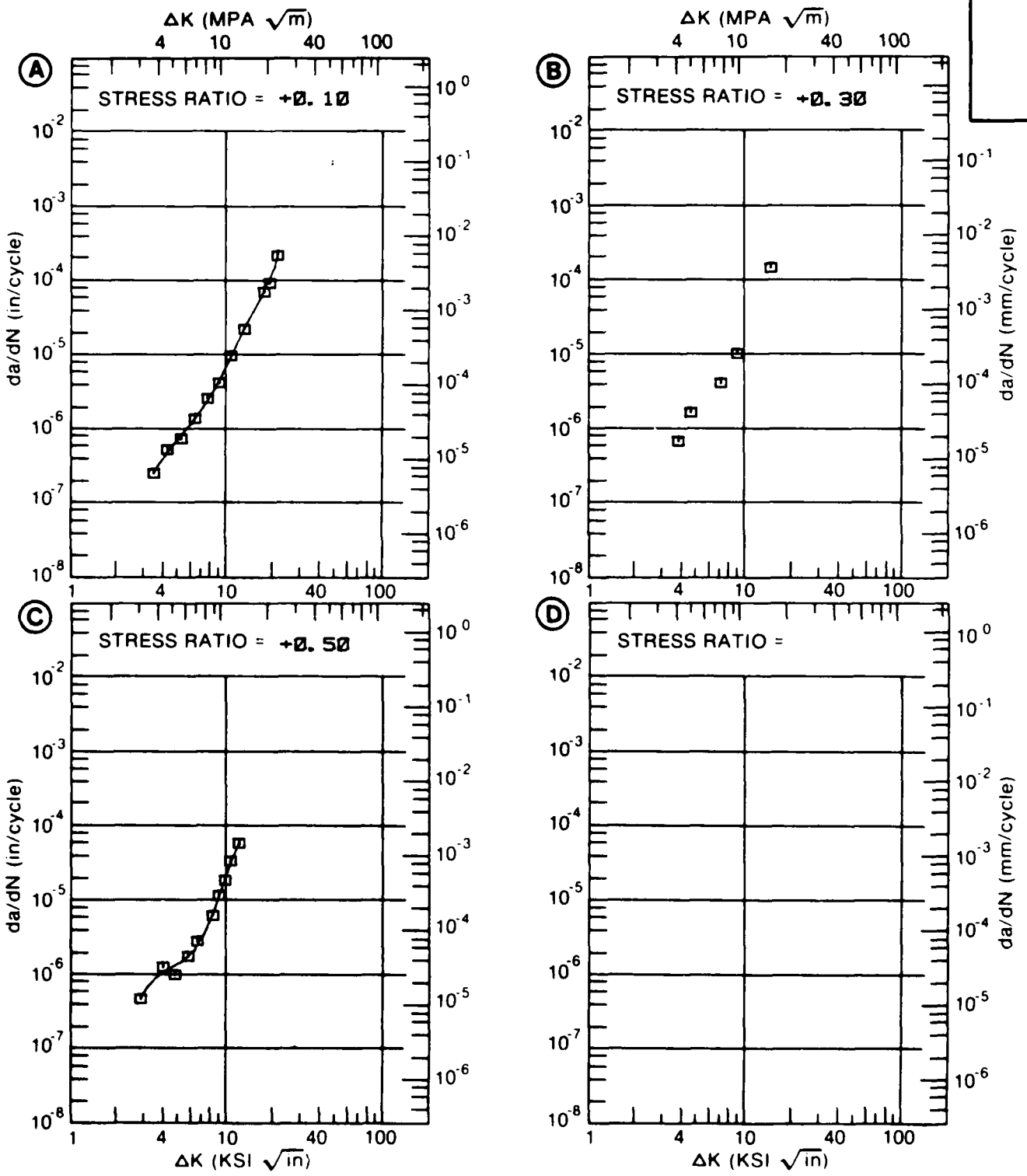

Figure 8.20.3.30

TABLE 8.20.3.31

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.31 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7351
ENVIRONMENT: R.T. , S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.10	R=+0.30	R=+0.50	
DELTA K MIN	A:	4.00	.86			
	B:	3.44		.81		
	C:	3.55			1.66	
	D:					
		3.50		.873		
		4.00		2.35	2.44	
		5.00	2.02	4.37	5.02	
		6.00	4.28	5.86	9.20	
		7.00	8.12	11.6	15.7	
		8.00	13.9	22.9	25.4	
		9.00	21.9	38.3	39.9	
		10.00	32.1	54.6	60.9	
		13.00	74.0	107.	194.	
		16.00		192.		
DELTA K MAX	A:	15.42	113.			
	B:	18.55		348.		
	C:	13.03			196.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			23.64	28.38	24.44	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0	1	1		
		>2.0			1	

CONDITION/HT: T7351
FORM: 3.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-L
FREQUENCY: 1.00 HZ
ENVIRONMENT: R.T., S.T.W.

YIELD STRENGTH: 57.4 KSI
ULT. STRENGTH: 70.6 KSI
SPECIMEN THK: 0.502- 0.518"
SPECIMEN WIDTH: 2.554- 2.555"
REFERENCES:GD006

ALUM. ALLOY

7475

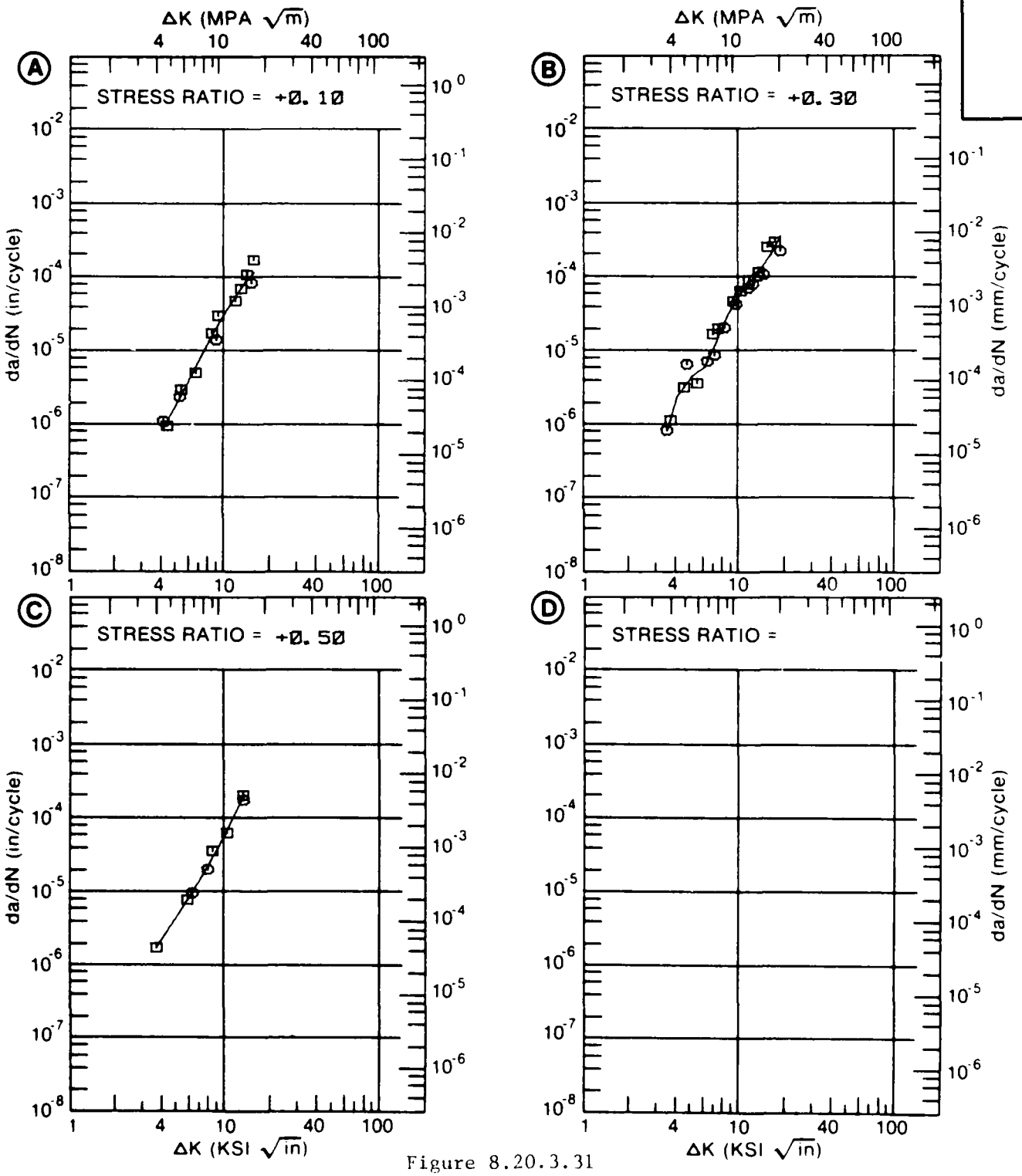

Figure 8.20.3.31

TABLE 8.20.3.32

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.32 INDICATING EFFECT OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7351

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR 2-20HZ	E= R.T. L.H.A. 2-30HZ	E= R.T. H.H.A. 2-20HZ	E= R.T. S.T.W. 20HZ
DELTA K MIN	A:	5.68	.99			
	B:	2.80		.30		
	C:	5.74			2.10	
	D:	5.70				5.48
		3.00		.373		
		3.50		.554		
		4.00		.732		
		5.00		1.09		
		6.00	1.15	1.52	2.49	6.36
		7.00	1.76	2.12	4.24	9.63
		8.00	2.65	3.01	6.31	13.4
		9.00	3.91	4.42	8.75	17.9
		10.00	5.71	6.68	11.8	23.1
		13.00	16.9	22.9	28.0	
		16.00	47.8	56.2	72.3	
DELTA K MAX	A:	19.93	321.			
	B:	17.86		79.1		
	C:	18.53			175.	
	D:	11.87				36.3
ROOT MEAN SQUARE PERCENT ERROR			26.89	13.57	16.38	14.42

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7351
FORM: 3.5- 4.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: S-L
STRESS RATIO: +0.33
FREQUENCY:

YIELD STRENGTH: 52.5 KSI
ULT. STRENGTH: 65.0 KSI
SPECIMEN THK: 1.000"
SPECIMEN WIDTH: 3.546- 3.805"
REFERENCES: AL001, AL009

ALUM. ALLOY

7475

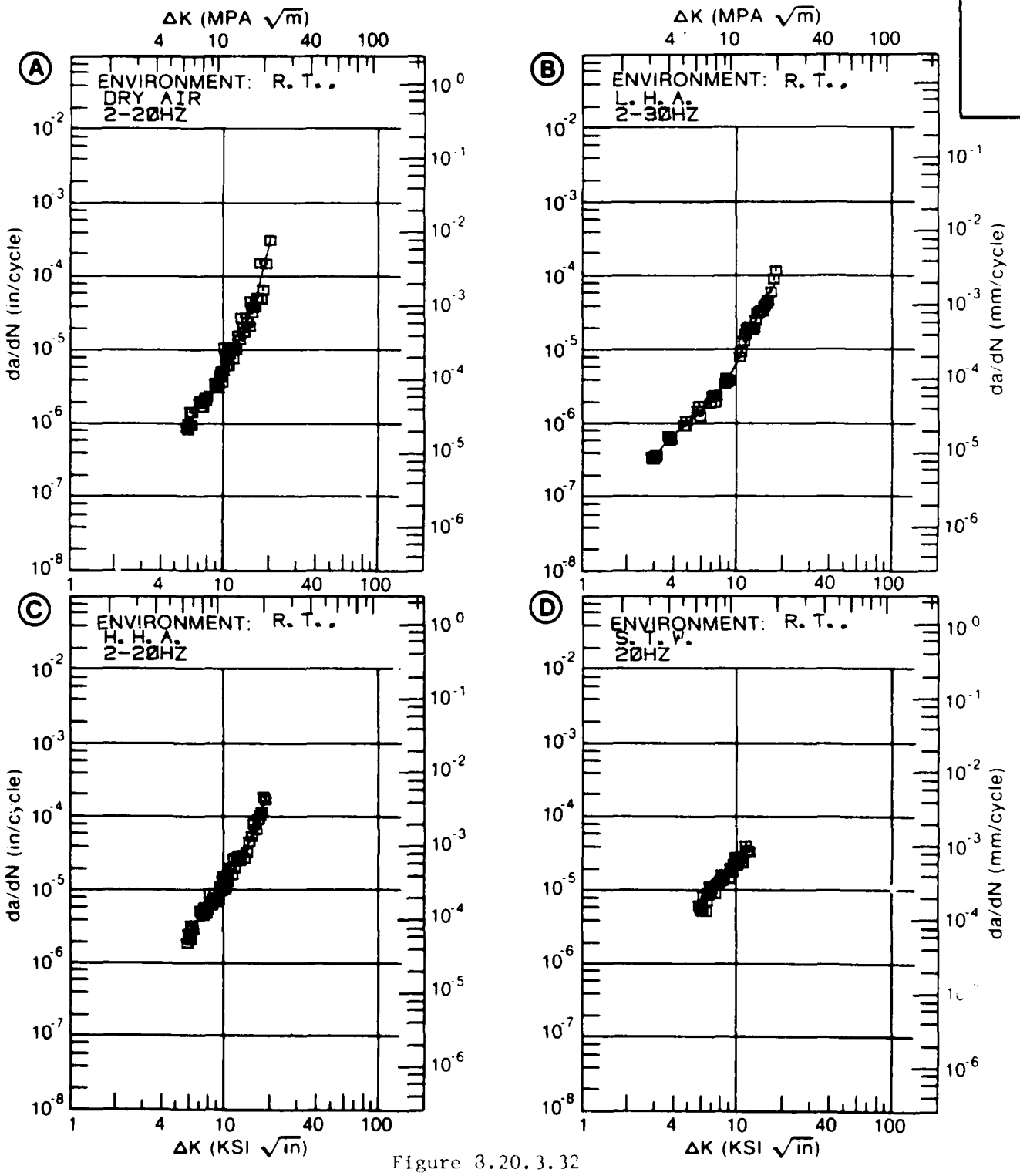

Figure 8.20.3.32

TABLE 8.30.3.33

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.33 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T76
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.33			
DELTA K MIN	A: 5.18	1.49			
	B:				
	C:				
	D:				
	6.00	2.41			
	7.00	3.83			
	8.00	5.56			
	9.00	7.59			
	10.00	9.90			
	13.00	18.6			
	16.00	30.0			
DELTA K MAX	A: 19.87	49.5			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 9.56

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T76
FORM: 0.09" TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 13.30 HZ
ENVIRONMENT: R. T., LAB AIR

YIELD STRENGTH: 67.0 KSI
ULT. STRENGTH: 76.2 KSI
SPECIMEN THK: 0.091"
SPECIMEN WIDTH: 4.000"
REFERENCES:86213

ALUM. ALLOY

7475

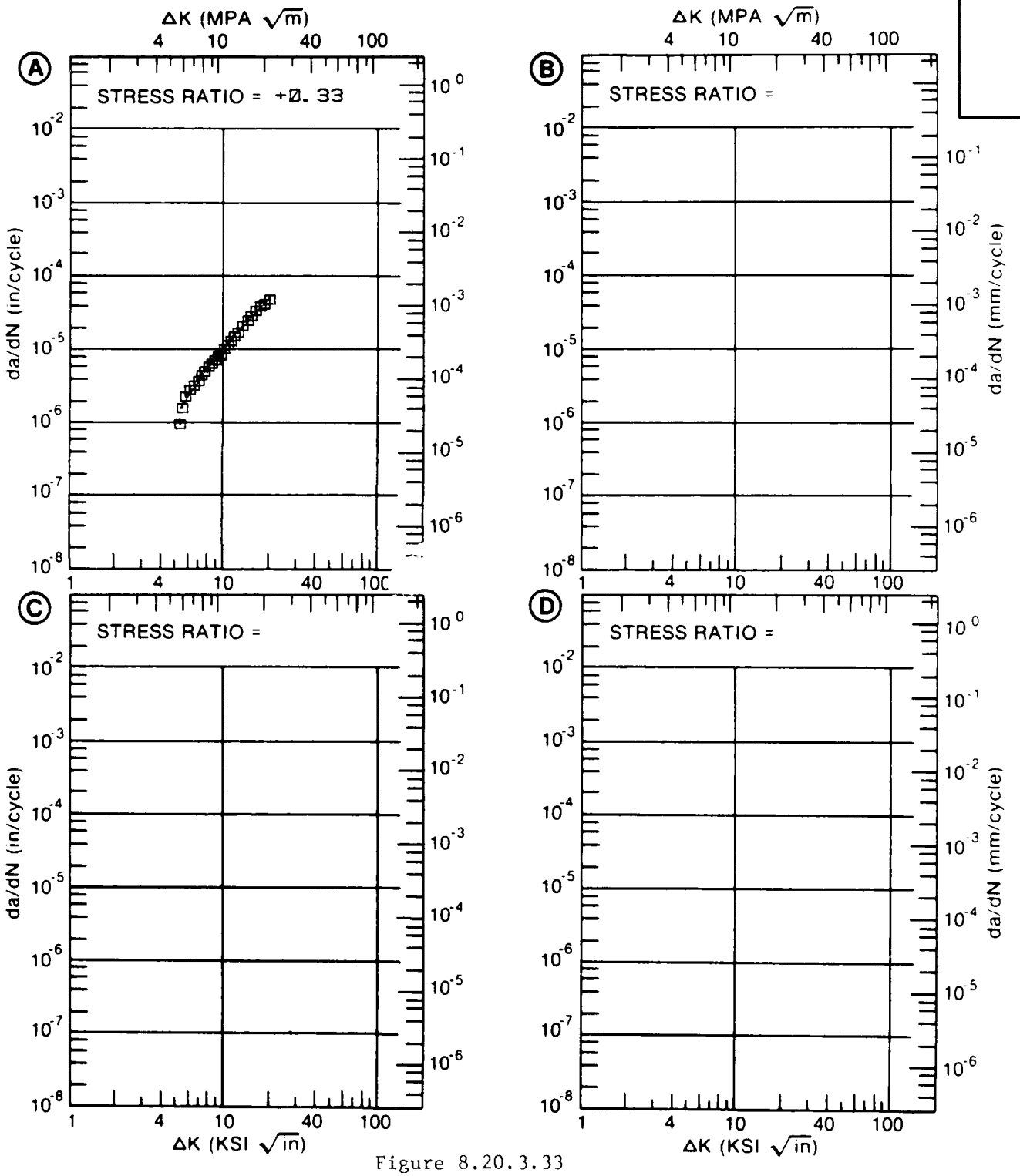

Figure 8.20.3.33

TABLE 8.20.3.34

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.34INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A: 6.32	2.27			
	B: 6.20		4.68		
	C: 6.53			12.0	
	D:				
	7.00	3.11	6.46	14.7	
	8.00	4.58	9.56	20.6	
	9.00	6.32	13.8	26.7	
	10.00	8.36	19.1	33.1	
	13.00	16.7	41.2	56.8	
	16.00	29.8	66.8	95.9	
DELTA K MAX	A: 17.65	40.1			
	B: 16.34		69.5		
	C: 17.48			126.	
	D.				
ROOT MEAN SQUARE PERCENT ERROR		2.75	4.65	4.51	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0				

CONDITION/HT: T761
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 71.1 KSI
ULT. STRENGTH: 78.9 KSI
SPECIMEN THK: 0.042"
SPECIMEN WIDTH: 4.000"
REFERENCES:86842

ALUM. ALLOY

7475

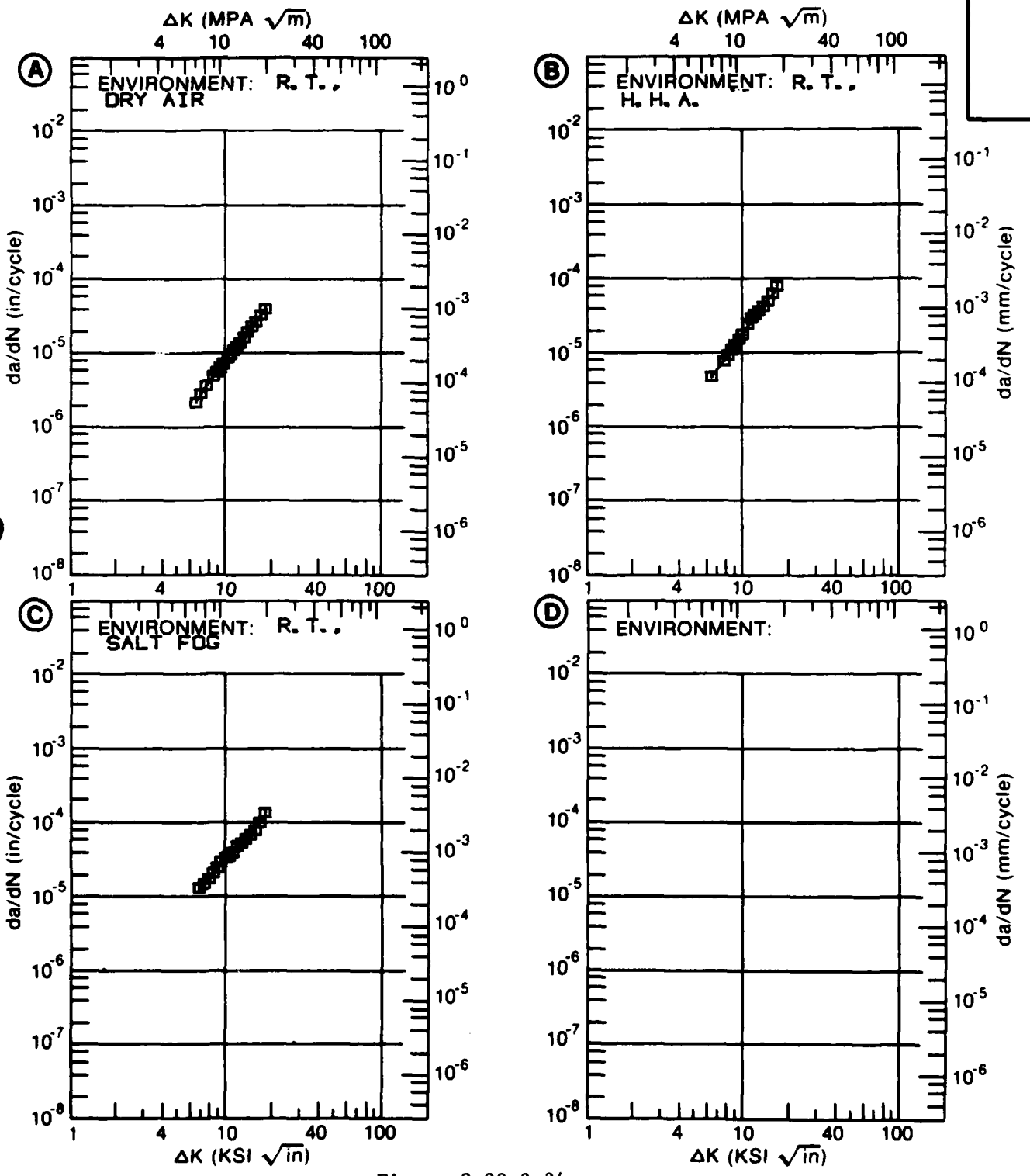

Figure 8.20.3.34

TABLE 8.20.3.35

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.35 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. LAB AIR			
DELTA K MIN	A:	8.75	3.85			
	B:					
	C:					
	D:					
		9.00	4.09			
		10.00	5.41			
		13.00	13.1			
		16.00	23.6			
		20.00	33.1			
		25.00	65.4			
DELTA K MAX	A:	27.73	129.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 21.37

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	3
	0.8-1.25	
	1.25-2.0	
	>2.0	

CONDITION/HT: T761
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 82.2 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.089"
SPECIMEN WIDTH: 1.493- 1.499"
REFERENCES:85363

ALUM. ALLOY

7475

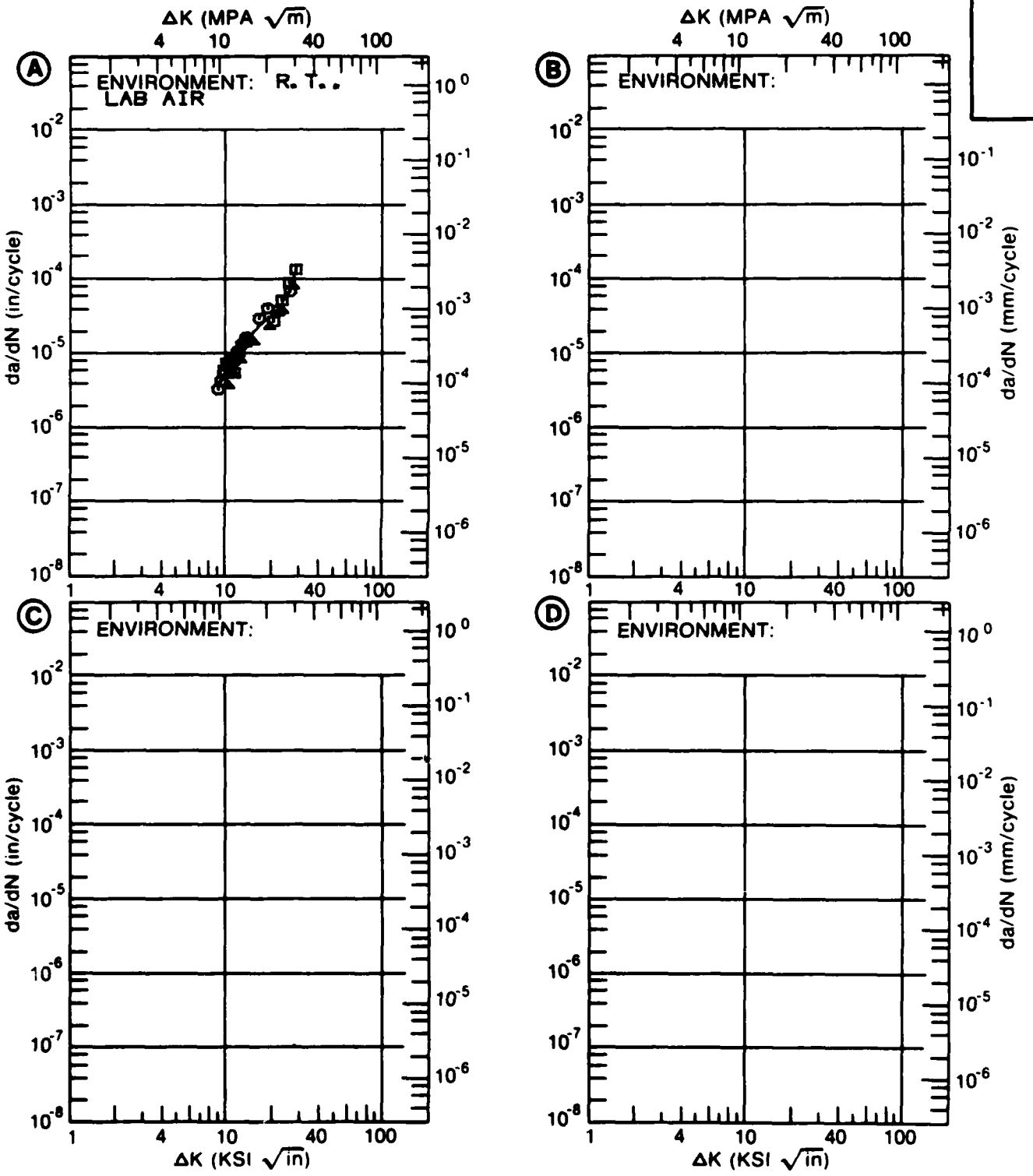

Figure 8.20.3.35

TABLE 8.20.3.36

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.36INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. LAB AIR			
DELTA K MIN	A: 8.76	2.27			
	B:				
	C:				
	D:				
	9.00	2.62			
	10.00	4.36			
	13.00	12.3			
	16.00	23.6			
	20.00	43.8			
	25.00	81.5			
DELTA K MAX	A: 29.38	134.			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 18.71

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

3

CONDITION/HT: T761
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CT
ORIENTATION: T-L
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH: 62.2 KSI
ULT. STRENGTH: 70.2 KSI
SPECIMEN THK: 0.089"
SPECIMEN WIDTH: 1.499"
REFERENCES:85363

ALUM. ALLOY

7475

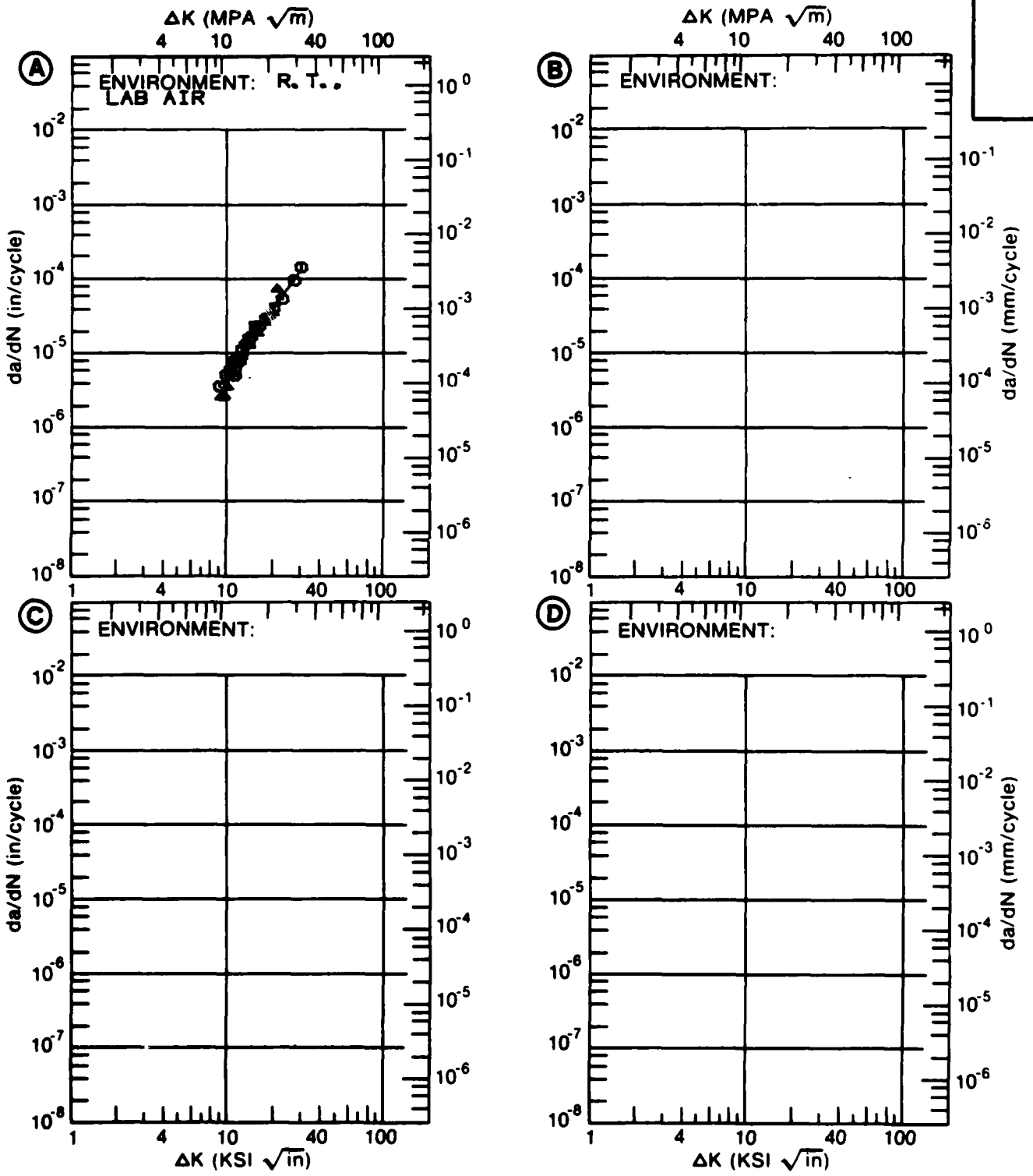

Figure 8.20.3.36

TABLE 8.20.3.37

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.37 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T761
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05			
DELTA K MIN	A:	12.56	56.3			
	B:					
	C:					
	D:					
		13.00	60.6			
		16.00	96.1			
		20.00	158.			
		25.00	244.			
		30.00	319.			
DELTA K MAX	A:	33.19	354.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 2.88

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T761
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 58.8 KSI
ULT. STRENGTH: 68.7 KSI
SPECIMEN THK: 0.114"
SPECIMEN WIDTH: 36.070"
REFERENCES:88212

ALUM. ALLOY

7475

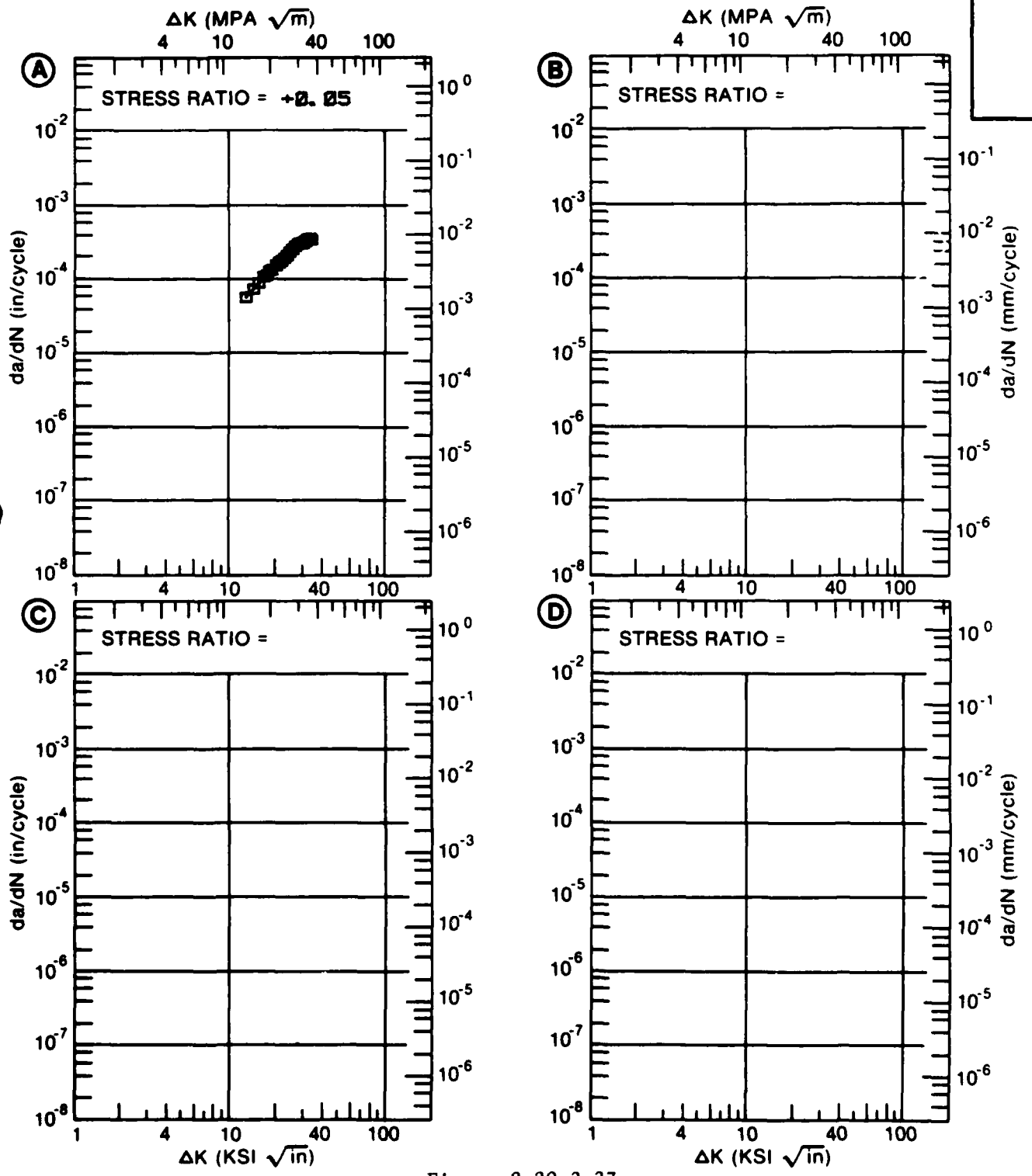

Figure 8.20.3.37

TABLE 8.20.3.38

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.38 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. H.H.A.	E= R.T. 3.5% NACL		
DELTA K MIN	A:					
	B:	12.85		53.7		
	C:					
	D:					
		13.00		55.2		
		16.00		88.7		
		20.00		139.		
		25.00		205.		
		30.00		269.		
DELTA K MAX	A:					
	B:	32.63		302.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			0.00	3.54		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 65.3 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: 0.040- 0.115"
SPECIMEN WIDTH: 12.000- 36.080"
REFERENCES:86212

ALUM. ALLOY

7475

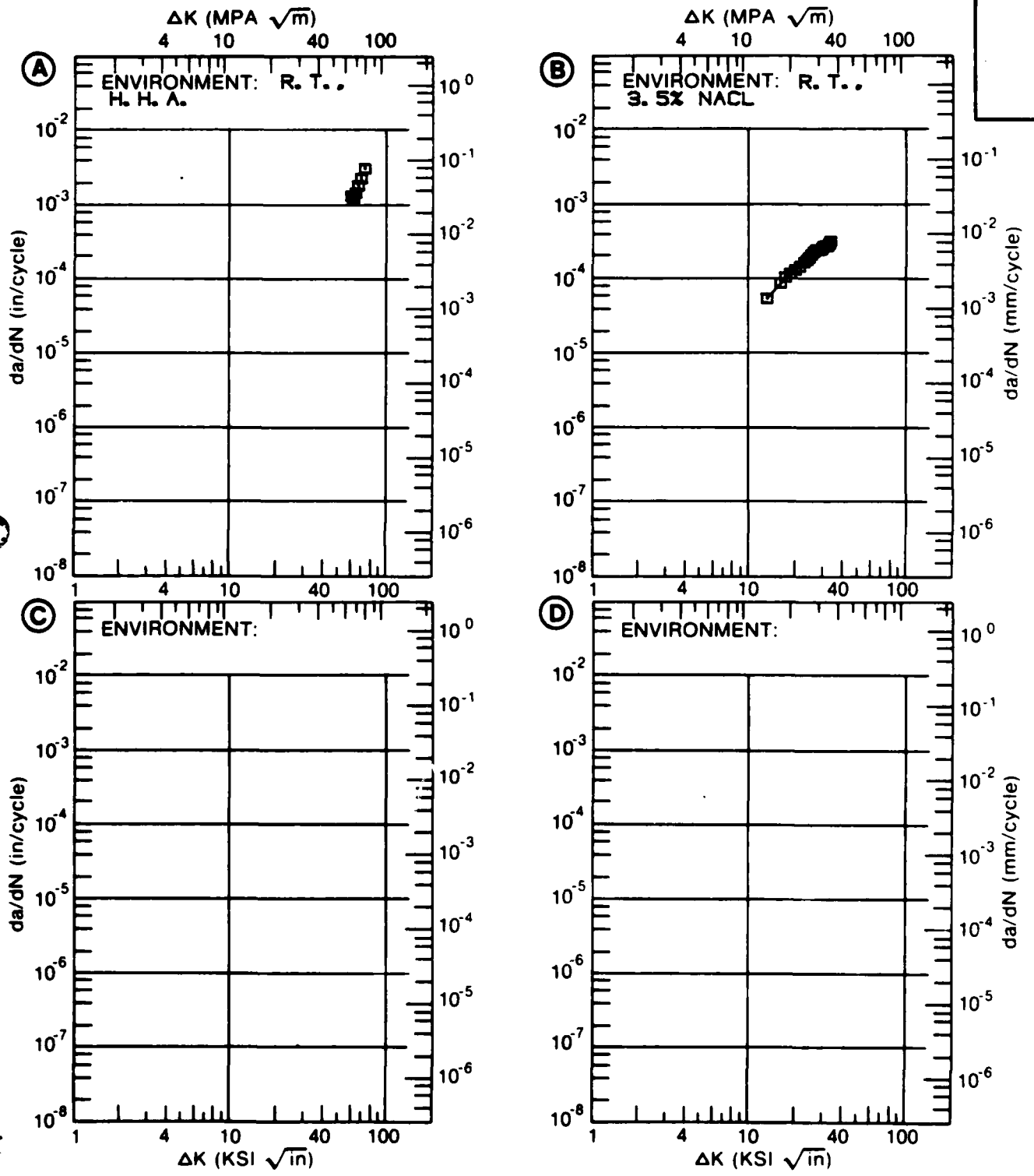

Figure 8.20.3.38

TABLE 8.20.3.39

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.39 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE) A	B	C	D
		E= R.T. H.H.A.			
DELTA K MIN	A: 7.84	5.07			
	B:				
	C:				
	D:				
	8.00	5.43			
	9.00	7.96			
	10.00	10.8			
	13.00	21.4			
	16.00	34.7			
	20.00	58.1			
DELTA K MAX	A: 22.71	79.3			
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 6.43

LIFE PREDICTION RATIO SUMMARY (NP/NA)		
	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T761
FORM: 0.11"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.25
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 65.3 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: 0.115"
SPECIMEN WIDTH: 24.030"
REFERENCES:86212

ALUM. ALLOY

7475

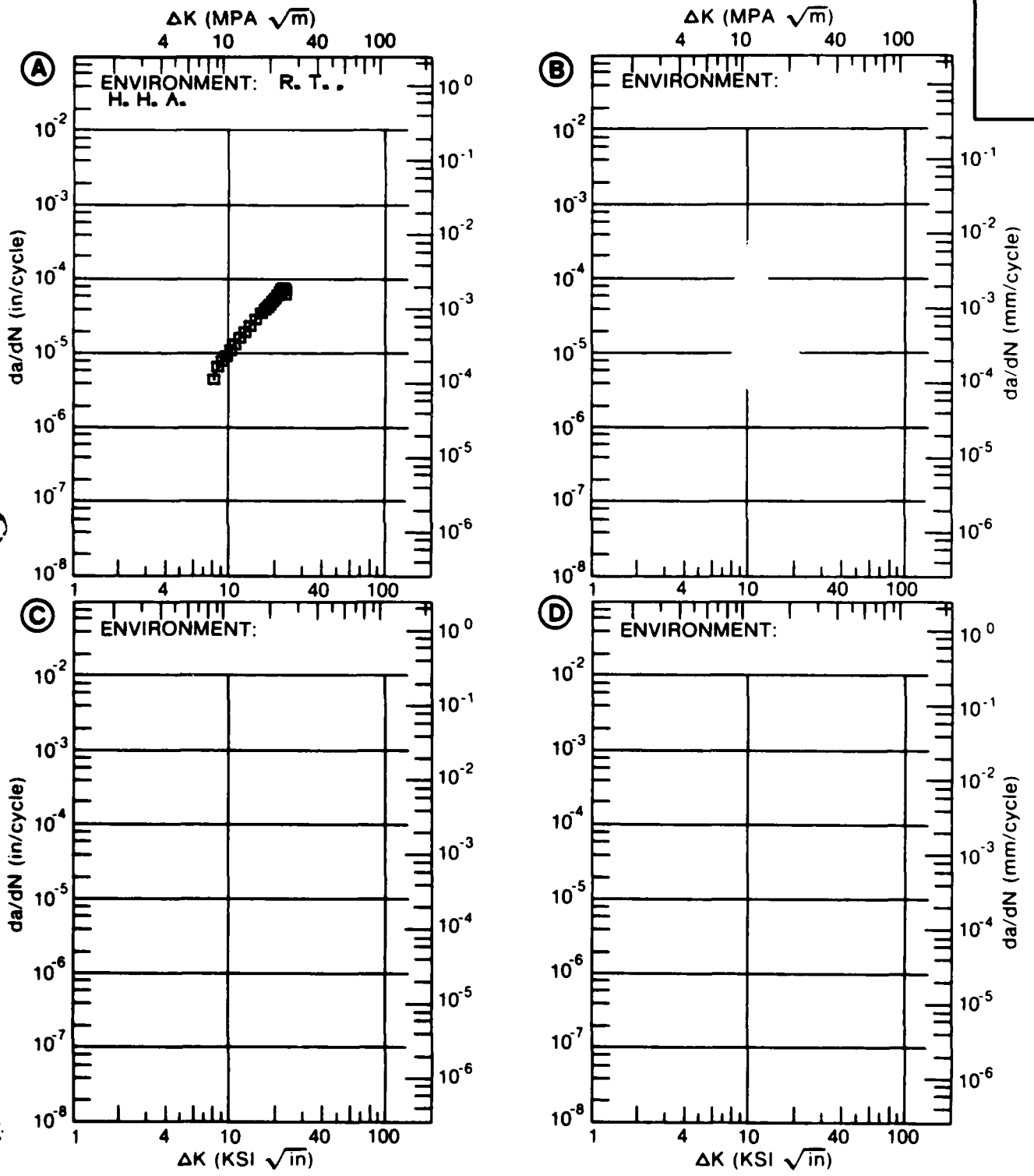

Figure 8.20.3.39

TABLE 8.20.3.40

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.40 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A:	6.38	2.05			
	B:	6.18		2.95		
	C:	6.42			9.72	
	D:					
		7.00	3.00	5.08	15.3	
		8.00	4.81	8.67	23.7	
		9.00	6.87	13.3	29.8	
		10.00	9.10	19.0	35.5	
		13.00	16.9	41.9	64.6	
		16.00	27.9	72.0	113.	
		20.00	53.1		190.	
DELTA K MAX	A:	20.38	56.5			
	B:	17.61		90.9		
	C:	21.42			214.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.76	4.64	5.44	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1	1	
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.13"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 66.8 KSI
ULT. STRENGTH: 74.8 KSI
SPECIMEN THK: 0.126"
SPECIMEN WIDTH: 4.000"
REFERENCES:86842

ALUM. ALLOY

7475

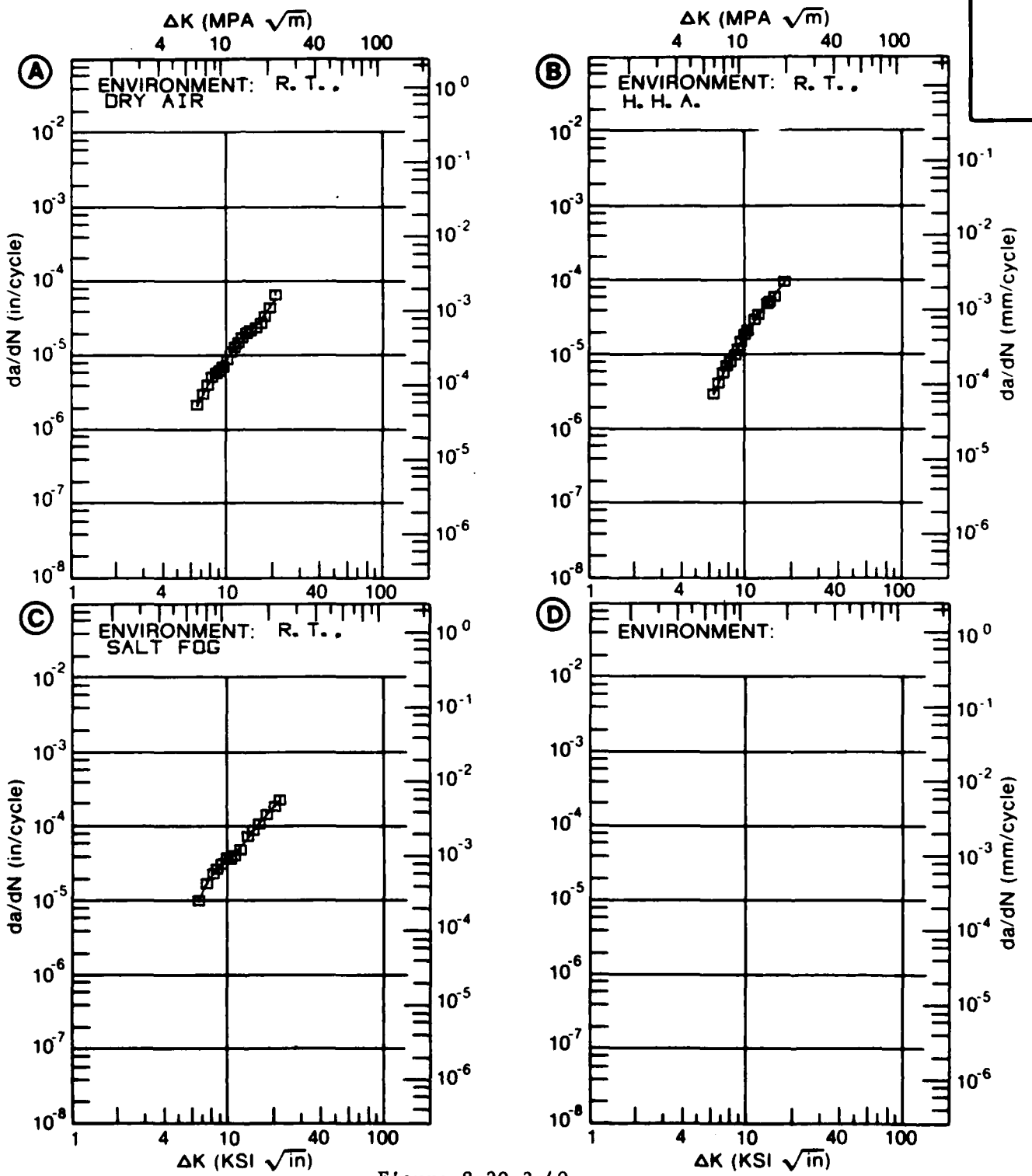

Figure 8.20.3.40

TABLE 8.20.3.41

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.41INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T761

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		E= R.T. DRY AIR	E= R.T. H.H.A.	E= R.T. SALT FOG	
DELTA K MIN	A: 5.60	1.36			
	B: 5.54		2.23		
	C: 5.98			6.66	
	D:				
	6.00	1.86	3.15	6.76	
	7.00	3.43	5.84	12.2	
	8.00	5.40	9.48	19.6	
	9.00	7.70	14.0	28.6	
	10.00	10.3	19.5	39.3	
	13.00	20.5	40.9	78.7	
	16.00	36.4	69.3	125.	
	20.00	75.7	118.	191.	
	25.00		202.		
DELTA K MAX	A: 24.97	192.			
	B: 25.01		202.		
	C: 22.77			237.	
	D:				
ROOT MEAN SQUARE PERCENT ERROR		6.90	7.68	6.13	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	3	3	3	
	1.25-2.0				
	>2.0				

CONDITION/HT: T761
FORM: 0.13"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.33
FREQUENCY: 13.30 HZ

YIELD STRENGTH: 65.6 KSI
ULT. STRENGTH: 76.0 KSI
SPECIMEN THK: 0.126"
SPECIMEN WIDTH: 4.000"
REFERENCES:86942

ALUM. ALLOY

7475

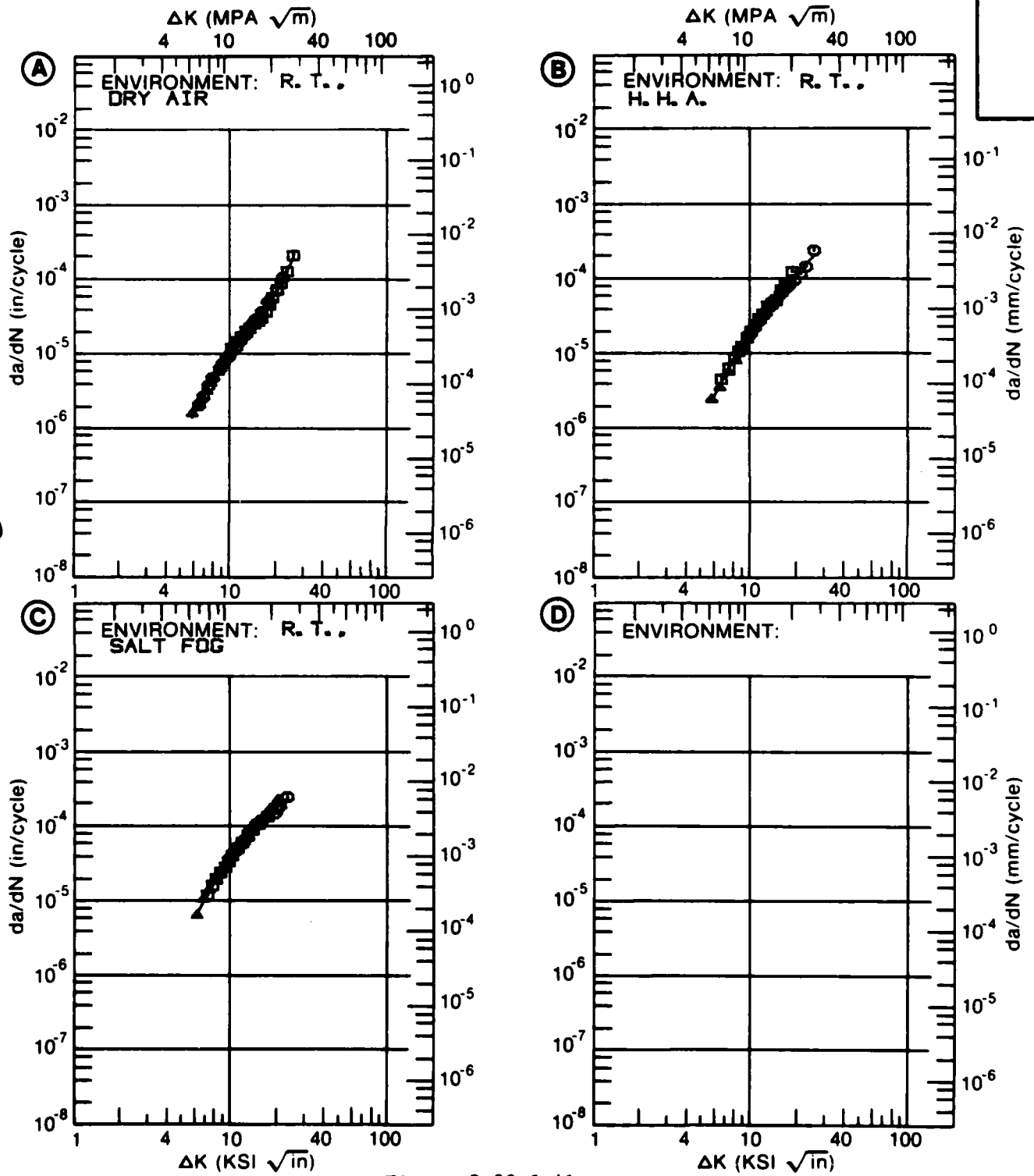

Figure 8.20.3.41

TABLE 8.20.3.42

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.42 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.40	R=+0.80	
DELTA K MIN	A:	3.89	.224			
	B:	3.68		.233		
	C:	3.62			1.23	
	D:					
		4.00	.216	.380	1.72	
		5.00	.254	1.19	3.26	
		6.00	.458	2.57	5.17	
		7.00	.900	4.50	7.53	
		8.00	1.68	6.93	10.6	
		9.00	2.88	9.80	14.6	
		10.00	4.56	13.1	20.0	
		13.00	12.8	25.4	52.3	
		16.00	24.8	42.3		
		20.00	42.3	75.4		
		25.00		145.		
DELTA K MAX	A:	23.91	54.9			
	B:	28.77		232.		
	C:	13.30			57.7	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			8.37	8.69	6.74	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8		1		
		0.8-1.25	2		2	
		1.25-2.0		1		
		>2.0				

CONDITION/HT: T7651
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.00- 30.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 67.6 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.187- 0.190"
SPECIMEN WIDTH: 4.000- 12.004"
REFERENCES:DA001

ALUM. ALLOY

7475

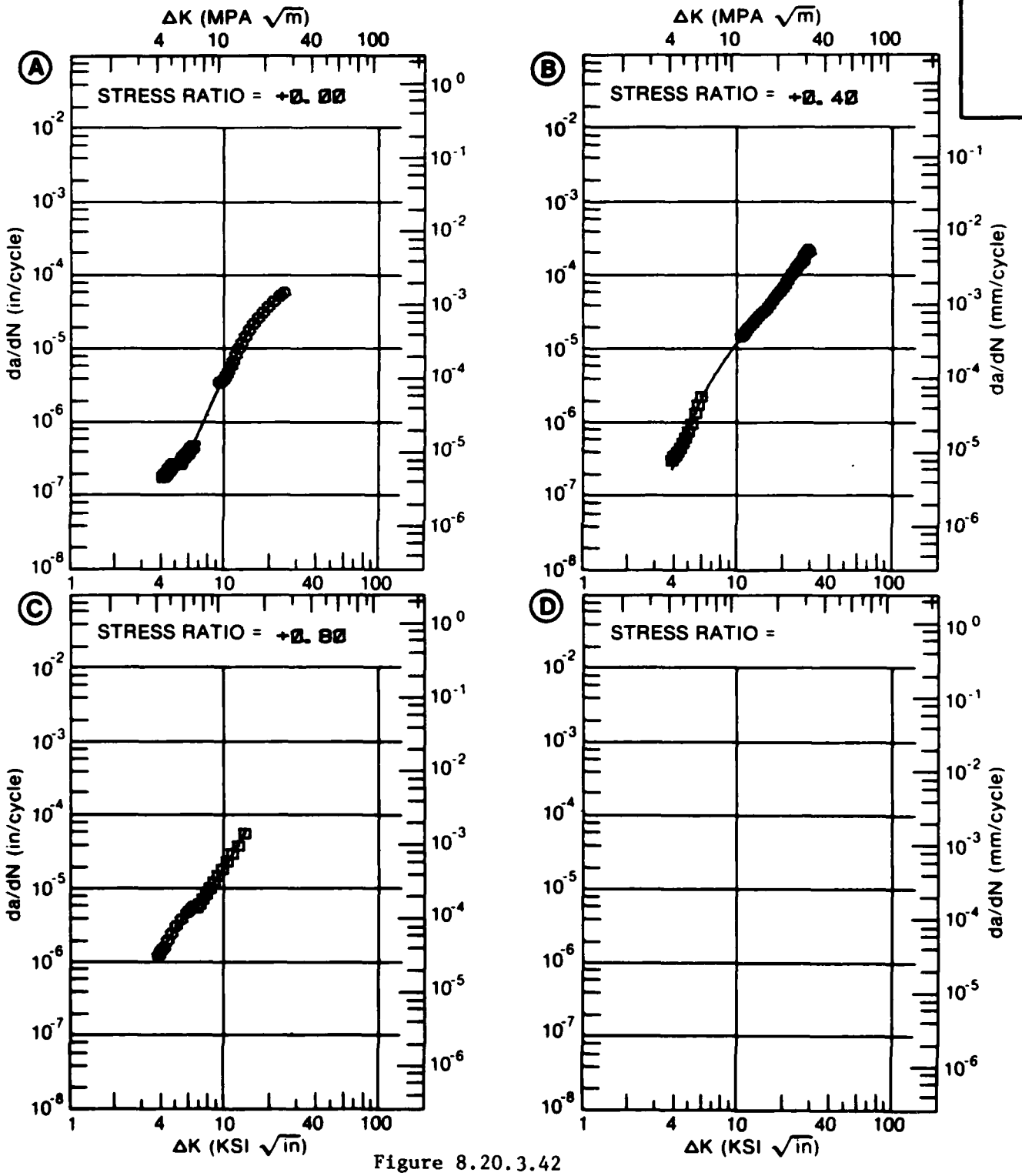

Figure 8.20.3.42

TABLE 8.20.3.43

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.43 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E=- 65 AIR, 3-20HZ	E= R.T. LAB AIR, 6-30HZ	E= R.T. S.T.W., 1-5HZ	
DELTA K MIN	A:	11.25	3.55			
	B:	3.89		.183		
	C:	6.10			.622	
	D:					
		4.00		.187		
		5.00		.274		
		6.00		.481		
		7.00		.874	6.36	
		8.00		1.55	14.2	
		9.00		2.64	23.3	
		10.00		4.26	32.1	
		13.00	6.44	13.0	54.0	
		16.00	13.9	26.7	81.2	
		20.00	28.4	43.3		
		25.00	53.2			
DELTA K MAX	A:	29.01	77.5			
	B:	23.91		47.7		
	C:	18.16			118.	
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.11	8.70	13.61	
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8			2	
		0.8-1.25	1	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7651
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.00
FREQUENCY:

YIELD STRENGTH: 67.6 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.188- 0.193"
SPECIMEN WIDTH: 4.000- 12.007"
REFERENCES:DA001

ALUM. ALLOY
7475

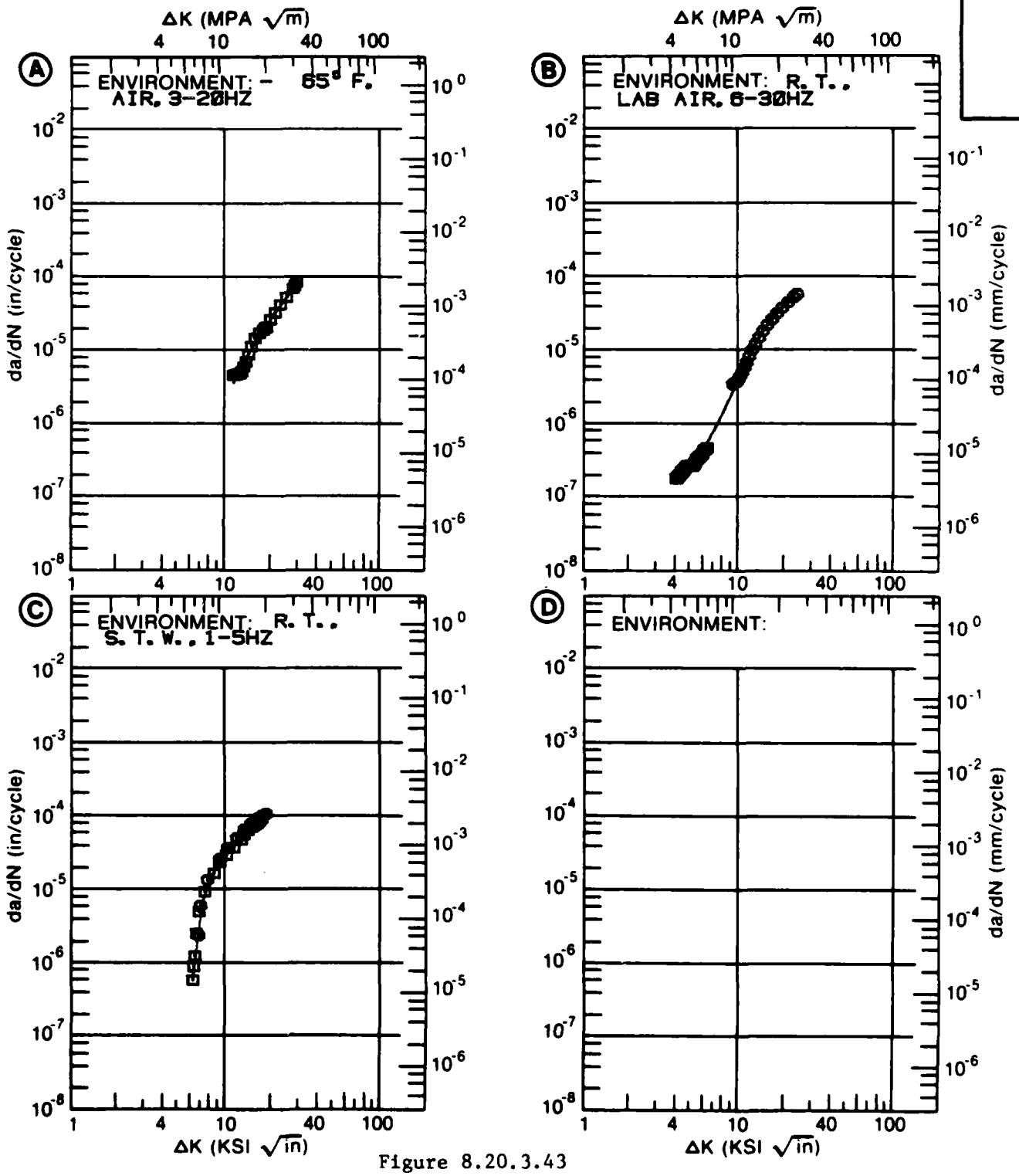

Figure 8.20.3.43

TABLE 8.20.3.44

FATIQUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.44INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E=- 65F AIR, 10HZ	E= R.T. LAB AIR, 2-10HZ		
DELTA K MIN	A:	6.25	2.03			
	B:	3.62		1.23		
	C:					
	D:					
		4.00		1.72		
		5.00		3.26		
		6.00		5.17		
		7.00	3.63	7.53		
		8.00	6.28	10.6		
		9.00	9.57	14.6		
		10.00	13.9	20.0		
		13.00		52.3		
DELTA K MAX	A:	11.72	26.0			
	B:	13.30		57.7		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			2.18	6.74		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7651
FORM: SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.00
FREQUENCY:

YIELD STRENGTH: 67.6 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.188- 0.190"
SPECIMEN WIDTH: 4.004- 12.004"
REFERENCES:DA001

ALUM. ALLOY

7475

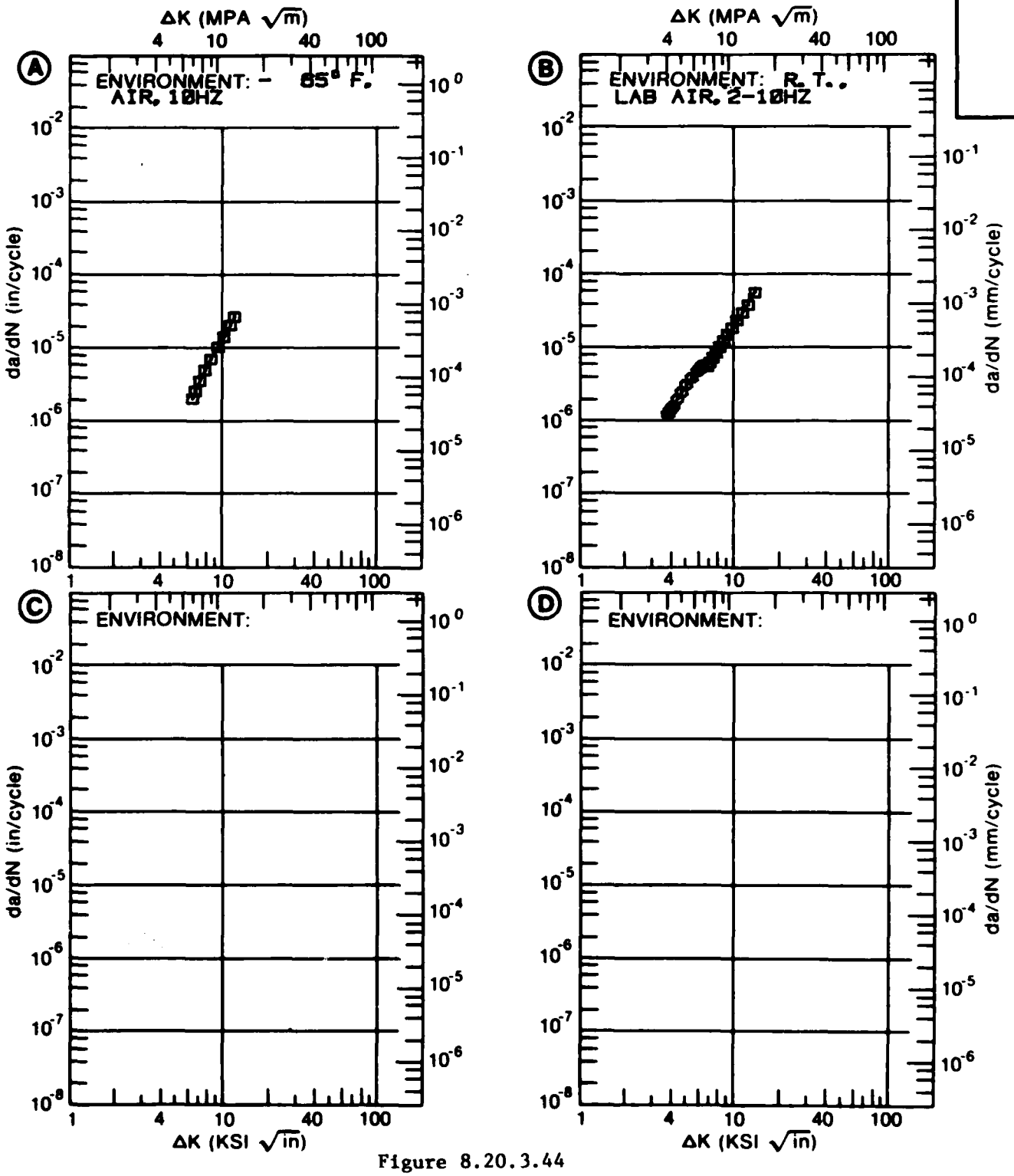

Figure 8.20.3.44

TABLE 8.20.3.45

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.45INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7651
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=+0.00	R=+0.40	R=+0.80	
DELTA K MIN A:	6.12	.441			
DELTA K MIN B:	6.82		4.51		
DELTA K MIN C:	3.18			.654	
DELTA K MIN D:					
	3.50			.901	
	4.00			1.68	
	5.00			4.03	
	6.00				
	7.00	.789	4.93		
	8.00	1.44	7.36		
	9.00	2.45	10.0		
	10.00	3.93			
	13.00	11.8			
	16.00	24.7			
	20.00	47.6			
	25.00	83.7			
	30.00	129.			
	35.00	188.			
	40.00	265.			
	50.00	508.			
DELTA K MAX A:	57.35	813.			
DELTA K MAX B:	9.50		11.5		
DELTA K MAX C:	5.14			4.24	
DELTA K MAX D:					
ROOT MEAN SQUARE PERCENT ERROR		9.10	.69	3.88	
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25	1	1	1	
	1.25-2.0				
	>2.0	1			

CONDITION/HT: T7651
FORM: 0.25"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 3.00- 30.00 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 67.6 KSI
ULT. STRENGTH:
SPECIMEN THK: 0.251- 0.253"
SPECIMEN WIDTH: 3.998- 12.011"
REFERENCES:DA001

ALUM. ALLOY

7475

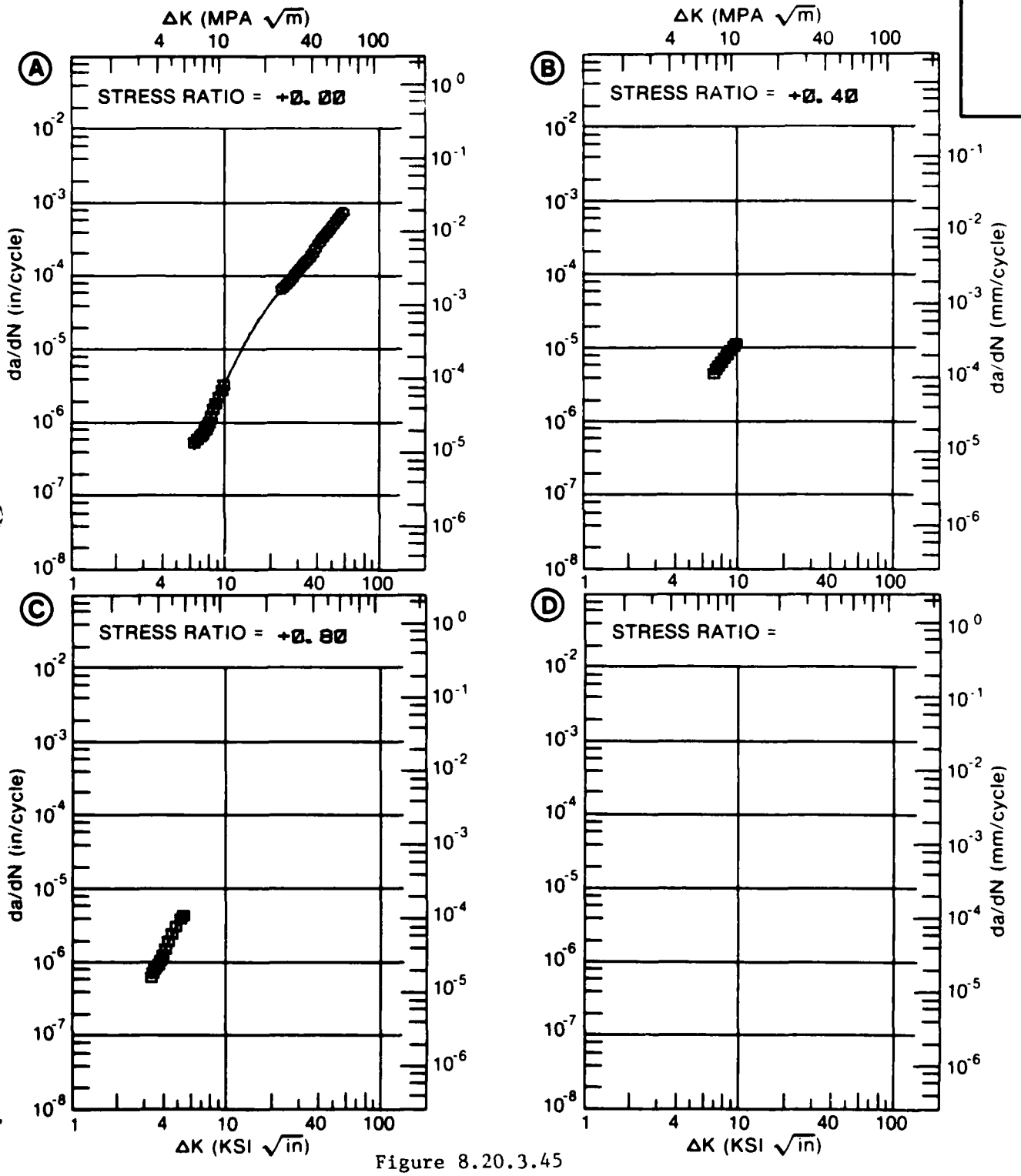

Figure 8.20.3.45

TABLE 8.20.3.46

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.46INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7651
ENVIRONMENT: R.T. ,DRY AIR

DELTA K (KSI*IN**1/2)		DA/DN (10**-6 IN./CYCLE)			
		A	B	C	D
		R=-0.20	R=+0.10	R=+0.30	R=+0.50
DELTA K MIN A:	3.26	.062			
DELTA K MIN B:	5.62		.466		
DELTA K MIN C:	3.51			.147	
DELTA K MIN D:	2.38				.101
	2.50				.109
	3.00				.169
	3.50	.0723			.280
	4.00	.0990		.245	.465
	5.00	.191		.627	1.15
	6.00	.377	.575	1.40	2.35
	7.00	.728	.891	2.79	4.07
	8.00	1.33	1.37		6.29
	9.00	2.27	2.25		8.97
	10.00	3.63	3.73		12.1
	13.00	10.2	11.2		23.5
	16.00	19.0	21.4		
	20.00	32.7	37.7		
	25.00	54.0	63.0		
	30.00	84.0			
	35.00	130.			
DELTA K MAX A:	39.76	199.			
DELTA K MAX B:	28.70		80.1		
DELTA K MAX C:	7.94			4.88	
DELTA K MAX D:	15.98				37.4
ROOT MEAN SQUARE PERCENT ERROR		10.22	12.89	9.40	7.47
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5				
	0.5-0.8				
	0.8-1.25				
	1.25-2.0	1	1	1	1
	>2.0				

CONDITION/HT: T7651
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 6.00 HZ
ENVIRONMENT: R.T., DRY AIR

YIELD STRENGTH: 70.6 KSI
ULT. STRENGTH: 78.1 KSI
SPECIMEN THK: 0.198- 0.202"
SPECIMEN WIDTH: 6.007- 6.009"
REFERENCES:GD006

ALUM. ALLOY

7475

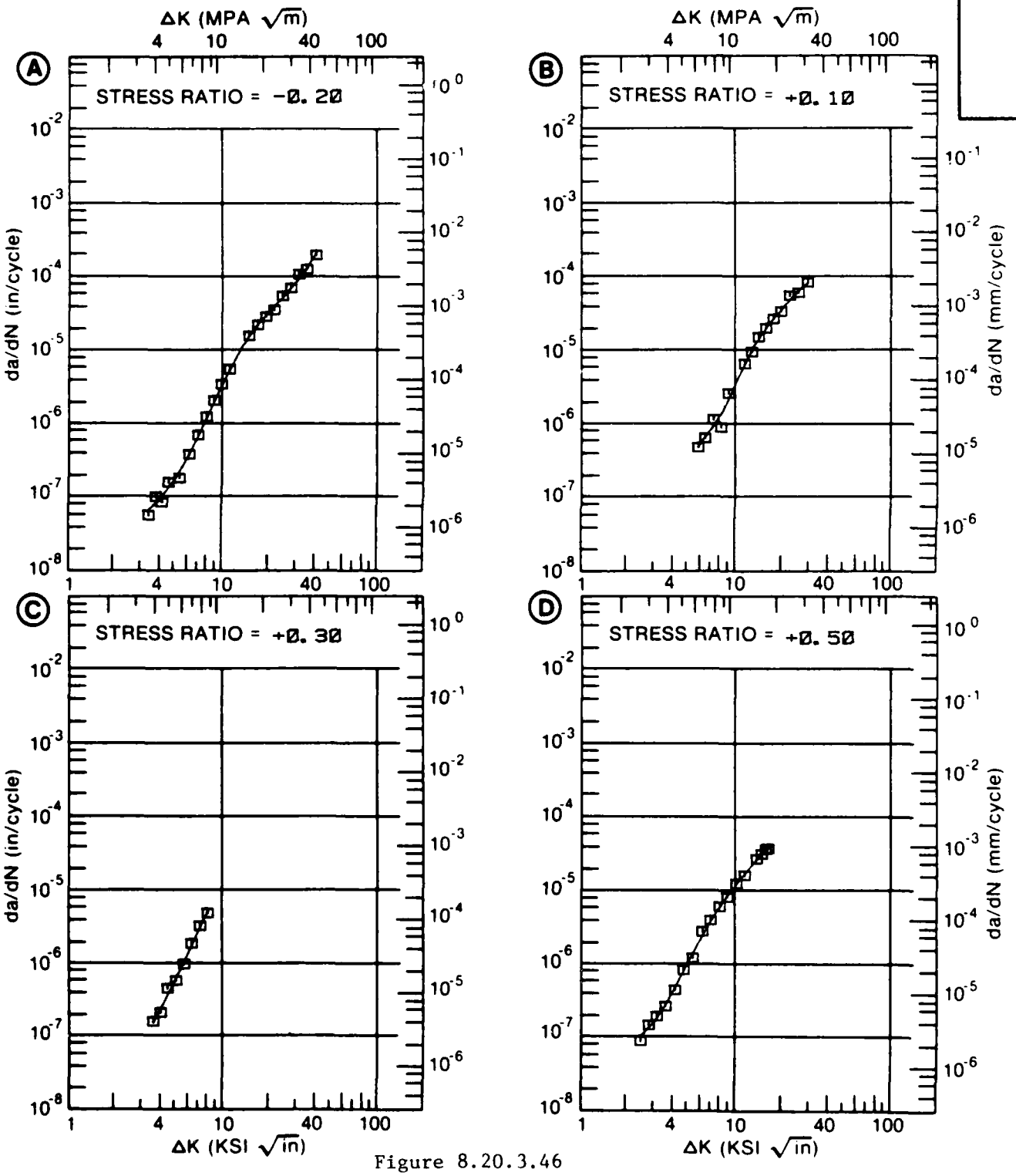

Figure 8.20.3.46

TABLE 8.20.3.47

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.47 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475
CONDITION: T7651
ENVIRONMENT: R.T., S.T.W.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=-0.20	R=+0.10	R=+0.30	R=+0.50
DELTA K MIN	A:	4.45	.262			
	B:	3.34		.0791		
	C:	3.58			.0800	
	D:	3.02				.211
		3.50		.100		.245
		4.00		.151	.241	.597
		5.00	.346	.264	.764	4.06
		6.00	1.03	.956	5.15	12.6
		7.00	3.20	4.73	12.0	21.2
		8.00	7.91	11.0	17.9	28.4
		9.00	15.4	17.9	23.7	35.9
		10.00	24.6	25.9	30.8	44.8
		13.00	43.9	52.1	60.1	
		16.00	50.8	78.6	100.	
		20.00		115.	162.	
		25.00			233.	
DELTA K MAX	A:	18.59	79.1			
	B:	22.11		136.		
	C:	25.47			238.	
	D:	11.88				70.4
ROOT MEAN SQUARE PERCENT ERROR			28.02	19.91	15.71	26.97
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25		1		1
		1.25-2.0	1	1	2	
		>2.0				

CONDITION/HT: T7651
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 1.00 HZ
ENVIRONMENT: R. T., S. T. W.

YIELD STRENGTH: 70.6 KSI
ULT. STRENGTH: 78.1 KSI
SPECIMEN THK: 0.200- 0.206"
SPECIMEN WIDTH: 0.005- 0.011"
REFERENCES:GD006

ALUM. ALLOY

7475

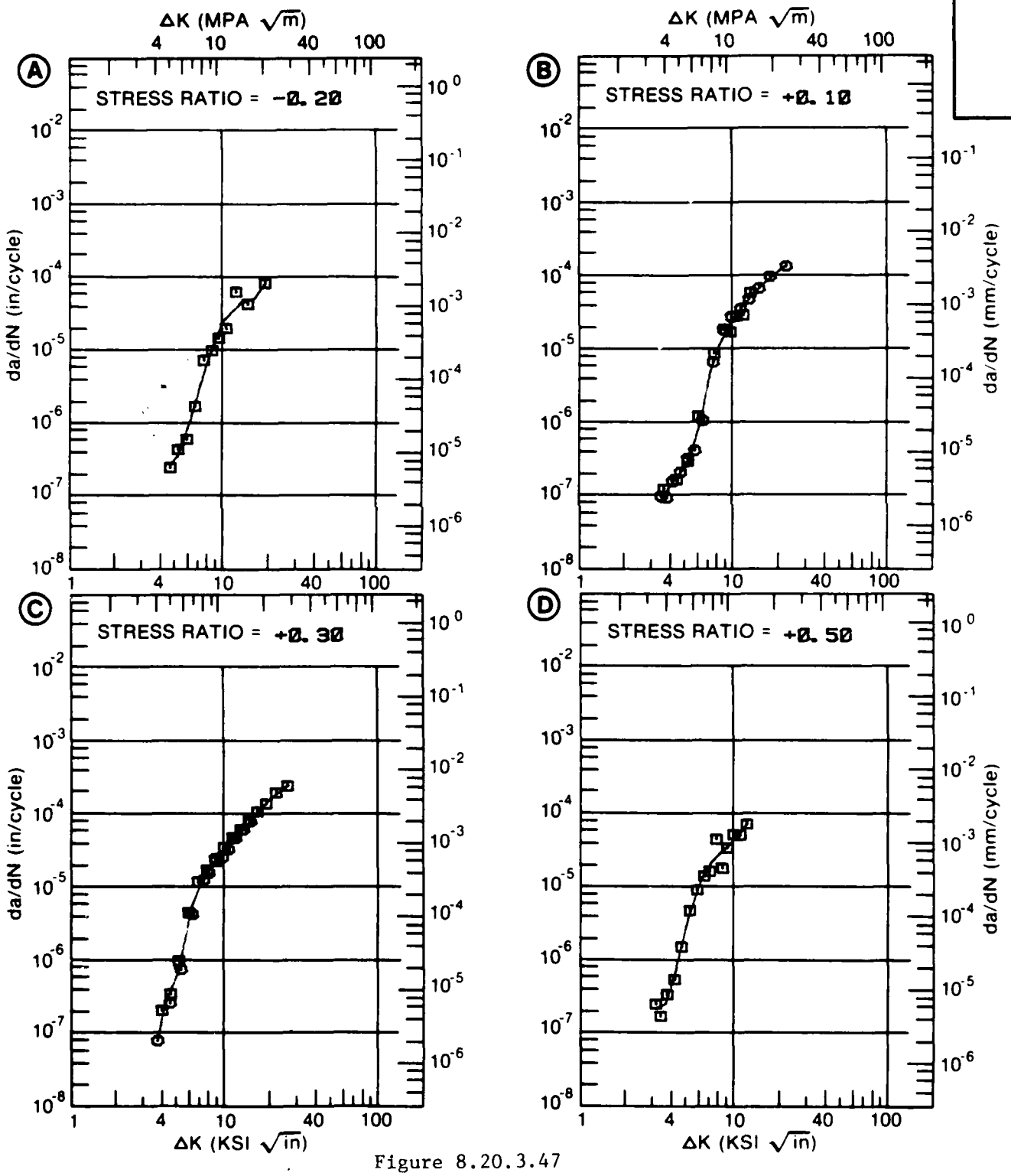

Figure 8.20.3.47

TABLE 8.20.3.48

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.48 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A E= R.T. H.H.A.	B E= R.T. S.T.W.	C	D
DELTA K MIN	A:	6.80	1.70			
	B:	5.69		1.13		
	C:					
	D:					
		6.00		1.26		
		7.00	1.98	2.31		
		8.00	3.55	4.80		
		9.00	5.18	9.41		
		10.00	6.84	16.2		
		13.00	13.9	44.7		
		16.00	27.6	87.3		
		20.00		199.		
DELTA K MAX	A:	18.72	45.1			
	B:	21.30		264.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.88	14.71		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25				
		1.25-2.0	1	1		
		>2.0				

CONDITION/HT: T7651
FORM: 0.50"TH PLATE
SPECIMEN TYPE: CCP
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 0.10 HZ

YIELD STRENGTH: 70.6 KSI
ULT. STRENGTH: 78.1 KSI
SPECIMEN THK: 0.198- 0.202"
SPECIMEN WIDTH: 0.006- 0.007"
REFERENCES:GD006

ALUM. ALLOY

7475

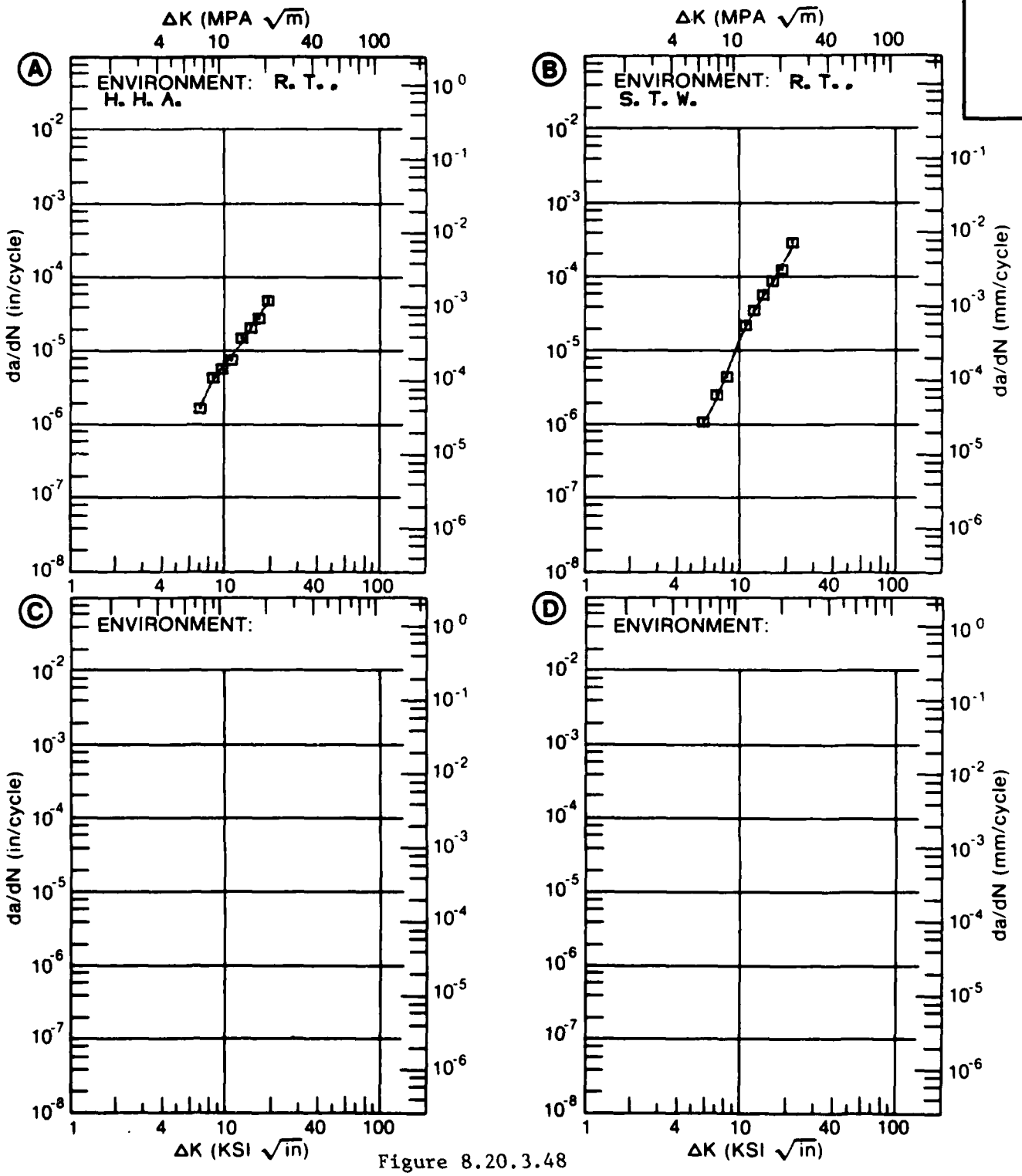

Figure 8.20.3.48

TABLE 8.20.3.49

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.49INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. 3.5% NACL			
DELTA K MIN	A:	5.68	1.23			
	B:					
	C:					
	D:					
		6.00	1.33			
		7.00	9.87			
		8.00	12.1			
		9.00	18.0			
		10.00	27.3			
		13.00	64.4			
DELTA K MAX	A:	15.14	83.1			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 9.36

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7651
FORM: 1.00"TH PLATE
SPECIMEN TYPE:
ORIENTATION:
STRESS RATIO: +0.10
FREQUENCY: 1.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:91332

ALUM. ALLOY

7475

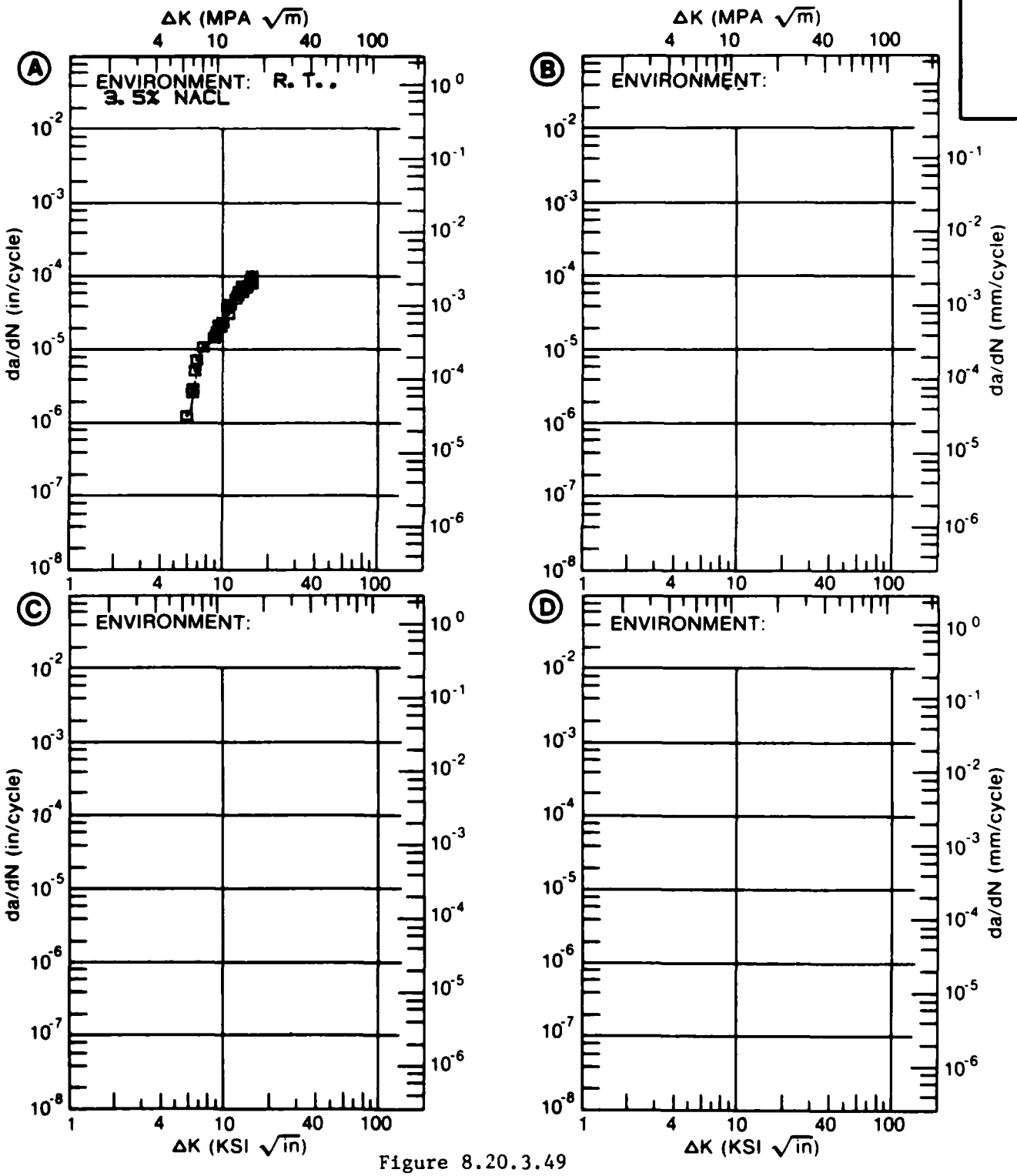

Figure 8.20.3.49

TABLE 8.20.3.50

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.50 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475
CONDITION: T7651

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. DRY AIR			
DELTA K MIN	A:	4.44	.591			
	B:					
	C:					
	D:					
		5.00	1.03			
		6.00	1.98			
		7.00	2.97			
		8.00	3.94			
		9.00	4.92			
		10.00	5.97			
		13.00	10.5			
		16.00	19.9			
DELTA K MAX	A:	16.94	25.0			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 7.66

LIFE PREDICTION RATIO SUMMARY (NP/NA)	
	0.0-0.5
	0.5-0.8
	0.8-1.25
	1.25-2.0
	>2.0

CONDITION/HT: T7651
FORM: 1.00"TH PLATE
SPECIMEN TYPE: CT
ORIENTATION: L-T
STRESS RATIO: +0.10
FREQUENCY: 20.00 HZ

YIELD STRENGTH:
ULT. STRENGTH:
SPECIMEN THK:
SPECIMEN WIDTH:
REFERENCES:91332

ALUM. ALLOY

7475

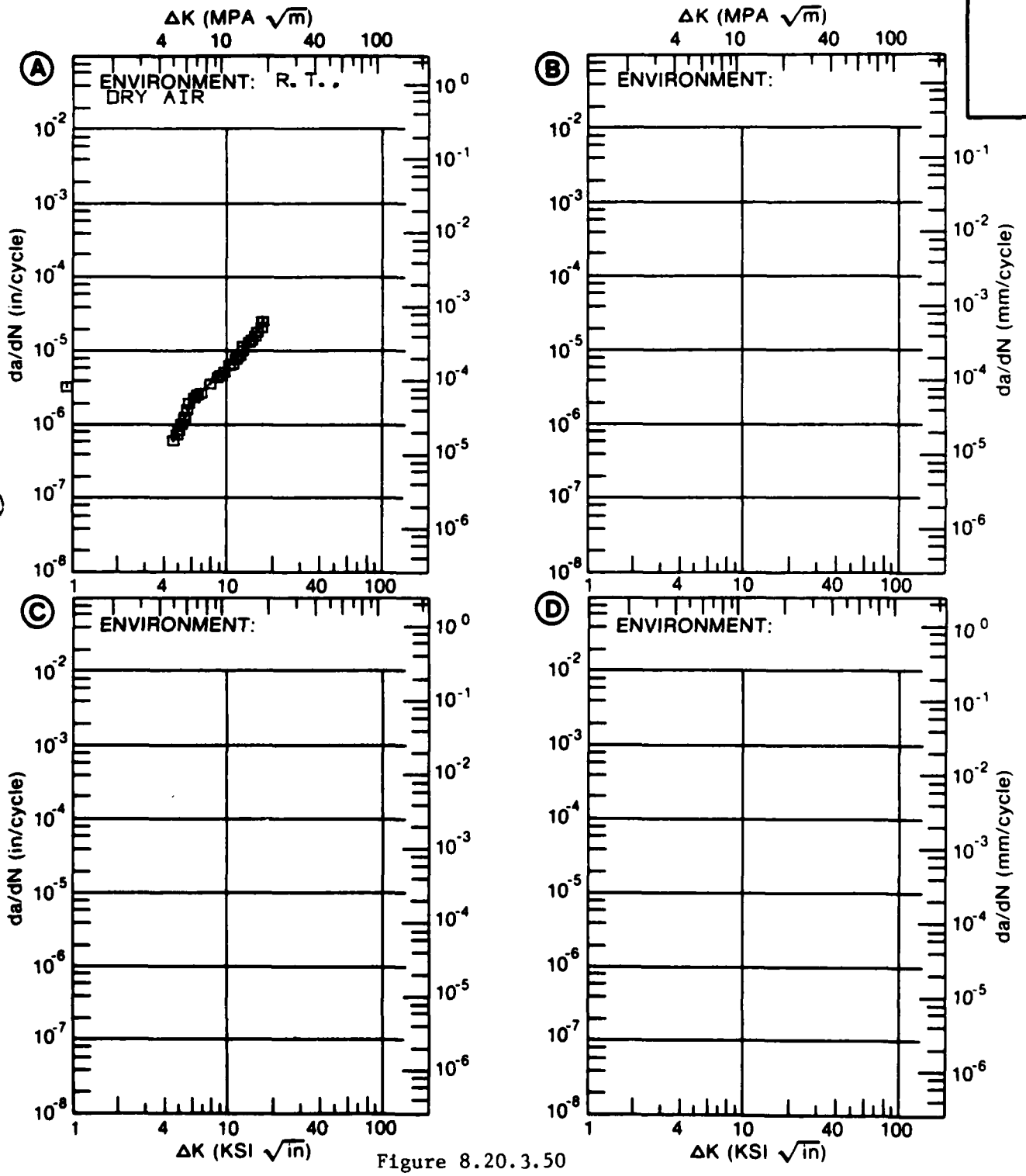

Figure 8.20.3.50

TABLE 8.20.3.51

SUSTAINED CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.20.3.51INDICATING EFFECT

OF FORM

MATERIAL: ALUMINUM 7475
CONDITION: T761
ENVIRONMENT: R.T. ,3.5% NACL.

K MAX (KSI*IN**1/2)		DA/DT (10**-6 IN/HOUR)			
		A	B	C	D
		T(IN)= 0.04 SHEET			
K MAX MIN	A:				
	B:				
	C:				
	D:				
200.00					
K MAX MAX	A:				
	B:				
	C:				
	D:				

ROOT MEAN SQUARE PERCENT ERROR 0.00

CONDITION/HT: T761
ENVIRONMENT: R. T., 3.5% NACL
SPECIMEN TYPE: CNT
ORIENTATION: L-T ; T-L
YIELD STRENGTH: 59.8- 59.9 KSI
ULT. STRENGTH:

SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 12.000"
CRACK LENGTH (A_o):
K_{ISCC}:
REFERENCES:86212

ALUM. ALLOY

7475

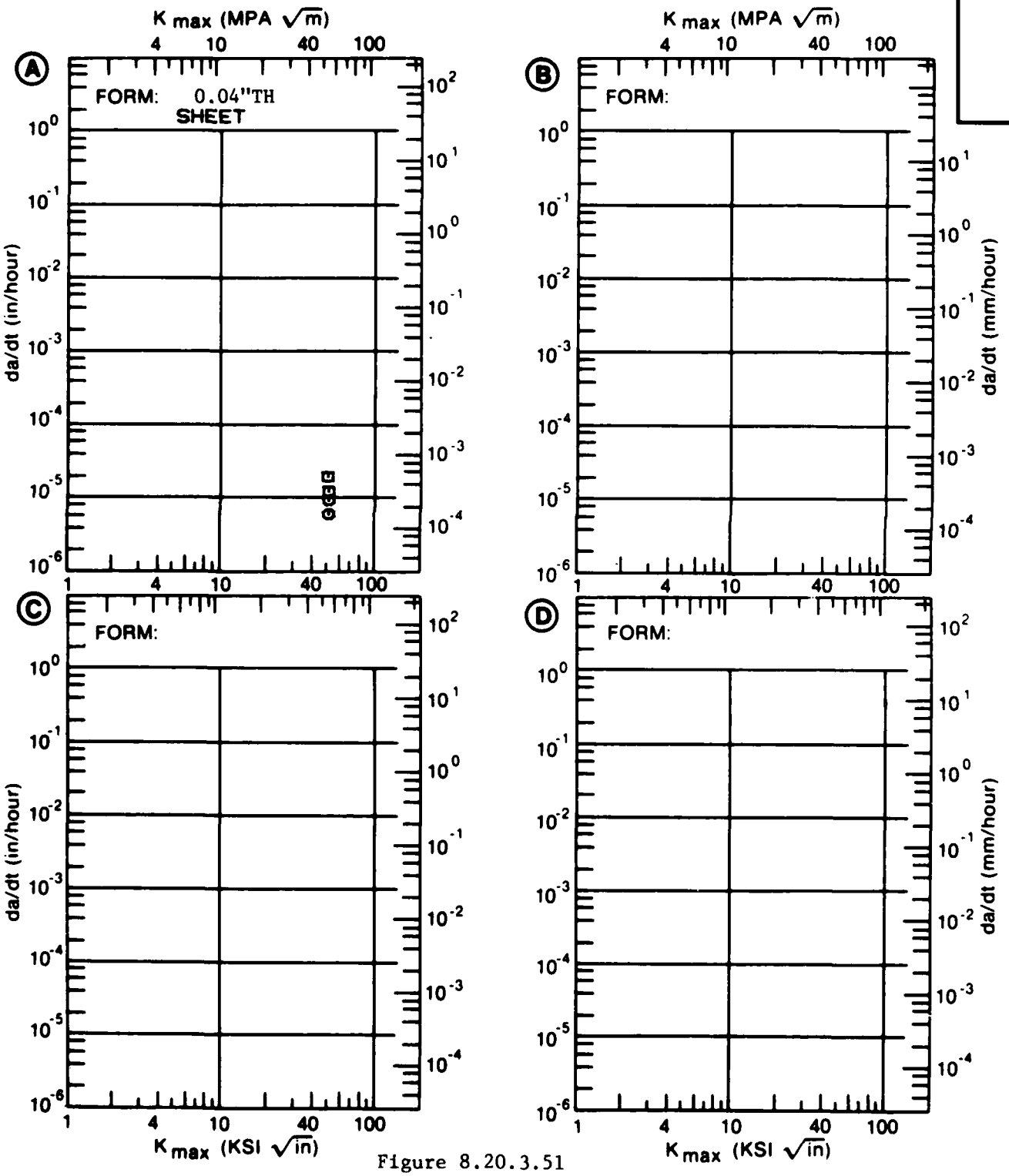

Figure 8.20.3.51

TABLE 8.20.3.52

ALUMINUM 7475 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SG)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T7351	P	1.25	R.T.	L-T	62.0	JP-4 FUEL	3.087	1.252	BWOL	1.379	------	> 35.00			>195840	1977	MA005
		1.25			62.0		3.093	1.255	BWOL	1.381	------	> 35.20			>195840	1977	MA005
T7351	P	3.00	R.T.	L-T	59.5	S.T.W.	5.093	2.500	BWOL	2.179	------	> 38.60			>112020	1978	GD006
		3.00			59.5		5.093	2.503	BWOL	2.227	------	> 42.70			>112020	1978	GD006
T7351	P	1.25	R.T.	L-T	62.0	SIM. SEA WATER	3.085	1.250	BWOL	1.370	------	> 35.00			>195840	1977	MA005
		1.25			62.0		3.084	1.254	BWOL	1.360	------	> 35.10			>195840	1977	MA005
T7351	P	3.00	R.T.	L-T	59.5	3.5% NACL	5.110	2.502	BWOL	2.198	------	> 37.50			>112020	1978	GD006
		3.00			59.5		5.097	2.503	BWOL	2.185	------	> 42.70			>112020	1978	GD006
T7351	P	1.25	R.T.	T-L	61.8	JP-4 FUEL	3.082	1.253	BWOL	1.360	------	> 30.30			>195840	1977	MA005
		1.25			61.8		3.087	1.254	BWOL	1.381	------	> 30.60			>195840	1977	MA005
T7351	P	3.00	R.T.	T-L	61.3	S.T.W.	5.119	2.502	BWOL	2.177	------	> 31.50			>112020	1978	GD006
		3.00			61.3		5.106	2.503	BWOL	2.199	------	> 34.10			>112020	1978	GD006
T7351	P	1.25	R.T.	T-L	61.8	SIM. SEA WATER	3.087	1.250	BWOL	1.347	------	> 30.70			>195840	1977	MA005
		1.25			61.8		3.087	1.250	BWOL	1.370	------	> 30.50			>195840	1977	MA005
T7351	P	3.00	R.T.	T-L	61.3	3.5% NACL	5.102	2.503	BWOL	2.056	------	> 31.50			>112020	1978	GD006
		3.00			61.3		5.107	2.505	BWOL	2.202	------	> 33.80			>112020	1978	GD006
T7351	P	3.00	R.T.	S-L	57.4	S.T.W.	2.545	1.004	BWOL	1.110	------	> 30.90			> 74400	1978	GD006
		3.00			57.4		2.554	1.006	BWOL	1.091	------	26.60			> 74400	1978	GD006
T7351	P	3.00	R.T.	S-L	57.4	3.5% NACL	2.554	1.003	BWOL	1.108	------	> 20.40			> 74400	1978	GD006
		3.00			57.4		2.552	1.004	BWOL	1.118	------	> 30.60			> 68700	1978	GD006
T7651	P	0.50	R.T.	L-T	70.6	S.T.W.	2.555	0.509	BWOL	1.079	------	30.90			>104820	1978	GD006
		0.50			70.6		2.555	0.509	BWOL	1.072	------	35.10*			>104820	1978	GD006
T7651	P	0.50	R.T.	T-L	70.8	S.T.W.	2.556	0.509	BWOL	1.130	------	30.80			>104820	1978	GD006
		0.50			70.8		2.557	0.509	BWOL	1.085	------	34.50*			>104820	1978	GD006

*NOTE-DATA WHICH DO NOT MEET MINIMUM SPECIMEN THICKNESS REQUIREMENTS OF 2.5(KISCC/TYS)SQUARED

TABLE 8.20.3.52 (con't)

ALUMINUM 7475 K(ISCC)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	ENVIRONMENT	------SPECIMEN-------- WIDTH (IN) W	THICK (IN) B	DESIGN (*=SQ)	CRACK LENGTH (IN) A	K(Q) (KSI*SQRT IN)	K(ISCC)	MEAN	STAN DEV	TEST TIME (MIN)	DATE	REFER
T7651	P	0.50	R.T.	T-L	70.8	3.5% NACL	2.557	0.509	BWOL	1.115	------	35.70*			>104820	1978	QD006
		0.50			70.8		2.558	0.509	BWOL	1.104	------	35.70*			>104820	1978	QD006

*NOTE-DATA WHICH DO NOT MEET MINIMUM SPECIMEN THICKNESS REQUIREMENTS OF 2.5(KISCC/TYS)SQUARED

TABLE 8.21.1.1

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS.

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.00	13.30				5.71	32.7		
T61	SHEET	0.00	13.30				6.62	33.1		
T61	SHEET	0.33	13.30				10.8	56.9		
T61	SHEET	0.33	13.30				12.2	65.4		

TABLE 8.21.1.2

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS:

SPECIMEN ORIENTATION: L-T

ENVIRONMENT: H.H.A. AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.05	2.00					39.1		
T61	SHEET	0.25	2.00				12.6	72.6		
T761	SHEET	0.05	2.00					29.7		
T761	SHEET	0.25	2.00				9.15	47.0		

TABLE 8.21.1.3

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS

SPECIMEN ORIENTATION L-T

ENVIRONMENT: 3.5% NACL AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.05	2.00					107.		
T61	SHEET	0.25	2.00					121.		
T761	SHEET	0.05	2.00					86.1		
T761	SHEET	0.25	2.00					126.		

TABLE 8.21.1.4

FATIQUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS:

SPECIMEN ORIENTATION: T-L

ENVIRONMENT: LAB AIR AT R.T.

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ. (HZ)	DELTA K LEVELS: (KSI SQRT(IN))	FATIQUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.00	13.30				8.56	19.9		
T61	SHEET	0.33	13.30				10.6	37.3		
T761	SHEET	0.00	13.30				5.53	31.0		
T761	SHEET	0.33	13.30				10.5	52.0		

TABLE 8.21.1.5

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT H H A AT R T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2 5	5	10	20	50	100
T61	SHEET	0 05	2 00					39 7		
T61	SHEET	0 05	2 00					43 8		
T61	SHEET	0 05	2 00						1795	
T61	SHEET	0 25	2 00				8 45	60 9		
T61	SHEET	0 25	2 00				10 8	56 1		
T761	SHEET	0 05	2 00					34 5		
T761	SHEET	0 05	2 00						605	
T761	SHEET	0 25	2 00				9 89	55 9		

TABLE 8.21.1.6

FATIGUE CRACK GROWTH RATE AT DEFINED LEVELS OF THE STRESS-INTENSITY FACTOR

ALUMINUM 7475(ALCLAD)

TEST CONDITIONS

SPECIMEN ORIENTATION T-L

ENVIRONMENT 3.5% NACL AT R.T

CONDITION/HT	PRODUCT FORM	STRESS RATIO	FREQ (HZ)	DELTA K LEVELS (KSI SQRT(IN))	FATIGUE CRACK GROWTH RATES (MICRO IN/CYCLE) 2.5	5	10	20	50	100
T61	SHEET	0.05	2.00					104		
T761	SHEET	0.05	2.00					89.1		

TABLE 8.21.2.1

ALUMINUM 7475 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV	K(C) MEAN (KSI*SQRT IN)	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T61	S	0.09	82	L-T	68.8	3.000	0.088	1.170	2.154	---	40.20	60.25*		112.95*		1973	86213
		0.09			68.8	3.000	0.089	1.150	2.340	---	40.70	60.26*		134.07*		1973	86213
T61	S	0.18	82	L-T	73.8	3.000	0.192	1.080	2.166	---	43.50	61.66*		123.38*		1973	86213
		0.18			73.8	3.000	0.192	1.163	2.274	---	40.10	59.81*		124.42*		1973	86213
T61	S	0.09	84	L-T	73.6	3.000	0.089	1.060	2.071	---	43.70	61.17*		115.20*		1973	86213
		0.09			73.6	3.000	0.089	1.080	2.147	---	43.50	61.66*		121.46*		1973	86213
		0.09			71.0	3.000	0.098	1.090	2.196	---	42.20	60.19*		122.61*		1973	86213
		0.09			71.0	3.000	0.098	1.100	2.249	---	42.80	61.43*		129.85*		1973	86213
T61	S	0.12	84	L-T	72.6	3.000	0.126	1.330	2.303	---	37.50	61.88*		119.28*		1973	86213
		0.12			72.6	3.000	0.126	1.150	2.193	---	42.30	62.63*		122.50*		1973	86213
		0.12			69.1	3.000	0.130	1.280	2.316	---	37.40	59.91*		120.48*		1973	86213
		0.12			69.1	3.000	0.130	1.180	2.228	---	40.30	60.77*		120.22*		1973	86213
T61	S	0.09	85	L-T	73.9	3.000	0.089	1.190	1.919	---	40.30	61.14*		95.48*		1973	86842
		0.09			73.9	3.000	0.089	1.200	1.997	---	39.90	60.90*		99.73*		1973	86842
T61	S	0.06	86	L-T	69.3	3.000	0.064	1.135	1.976	---	39.90	58.49*		98.35*		1973	86842
		0.06			69.3	3.000	0.064	1.130	1.947	---	40.70	59.52*		98.28*		1973	86842
		0.06			69.9	3.000	0.063	1.180	2.062	---	40.00	60.32*		104.82*		1973	86213
		0.06			69.9	3.000	0.063	1.135	2.014	---	40.00	58.64*		101.26*		1973	86213
		0.06			71.8	3.000	0.063	1.150	1.893	---	41.00	60.70*		95.47*		1973	86842
		0.06			71.8	3.000	0.063	1.185	2.028	---	39.40	59.56*		100.74*		1973	86842
		0.06			73.0	3.000	0.063	1.115	1.872	---	41.60	60.23*		95.59*		1973	86213
		0.06			73.0	3.000	0.063	1.120	1.874	---	41.50	60.31*		95.49*		1973	86213
T61	P	0.25	82	L-T	69.6	3.000	0.244	1.148	2.260	---	38.50	56.93*		118.01*		1973	86213
		0.25			69.6	3.000	0.243	1.133	2.311	---	38.10	55.79*		122.07*		1973	86213
T61	S	0.04	R.T.	T-L	64.8	3.000	0.041	1.210	2.404	---	32.50	49.91*		113.98*		1973	86213
		0.04			64.8	3.000	0.041	1.[illegible]0	2.124	---	38.80	68.75*		106.51*		1973	86213
T61	S	0.06	R.T.	T-L	66.5	16.000	0.064	3.000	3.680	---	37.40	82 99		92.97		1972	84368

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV

TABLE 8.21.2.1 (con't)

ALUMINUM 7475 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T61	S	0.06	R.T.	T-L	66.5	16.000	0.064	4.000	5.080	---	31.50	82.15			94.95			1972	84368
		0.06			66.5	16.000	0.064	6.000	7.150	---	23.20	78.11			88.98			1972	84368
		0.06			66.5	16.000	0.064	4.000	5.080	---	31.20	81.36			94.05			1972	84368
		0.06			66.5	16.000	0.064	1.000	1.780	---	57.30	71.99*			96.55*			1972	84368
		0.06			68.4	16.000	0.063	3.000	3.520	---	36.50	81.00			88.48			1972	84368
		0.06			68.4	16.000	0.063	4.000	4.500	---	28.00	73.02			78.30			1972	84368
		0.06			68.4	16.000	0.063	0.980	1.350	---	55.80	69.39*			81.62*			1972	84368
		0.06			68.4	16.000	0.063	3.990	4.380	---	29.80	77.60			81.99			1972	84368
		0.06			68.4	16.000	0.063	5.980	6.350	---	21.50	72.22	78.6/	4.1	75.36	86.9/	7.5	1972	84368
T61	S	0.09	R.T.	T-L	71.5	15.880	0.089	3.980	4.520	12.40	29.70	77.27			83.34			1973	86842
		0.09			71.5	15.880	0.089	3.960	4.270	---	27.90	72.38	74.8/	3.5	75.66	79.5/	5.4	1973	86842
T61	S	0.04	82	T-L	66.0	3.000	0.039	1.400	2.528	---	28.70	49.37*			115.63*			1973	86213
		0.04			66.0	3.000	0.038	1.400	2.407	---	31.60	54.36*			111.05*			1973	86213
T61	S	0.09	82	T-L	66.4	3.000	0.088	1.130	2.320	---	39.70	58.06*			128.36*			1973	86213
		0.09			66.4	3.000	0.088	1.140	2.388	---	39.70	58.42*			137.00*			1973	86213
T61	S	0.18	82	T-L	71.6	3.000	0.192	1.142	2.201	---	39.30	57.90*			114.55*			1973	86213
		0.18			71.6	3.000	0.193	1.160	2.256	---	38.40	57.20*			117.30*			1973	86213
T61	S	0.12	83	T-L	66.9	3.000	0.130	1.280	2.381	---	37.90	60.71*			129.75*			1973	86213
		0.12			66.9	3.000	0.130	1.170	2.210	---	39.40	59.05*			115.79*			1973	86213
T61	S	0.09	84	T-L	71.6	3.000	0.089	1.180	2.175	---	40.30	60.77*			115.03*			1973	86213
		0.09			69.4	3.000	0.097	1.100	2.215	---	41.70	59.85*			122.95*			1973	86213
		0.09			69.4	3.000	0.098	1.150	2.241	---	41.00	60.70*			123.54*			1973	86213
T61	S	0.12	84	T-L	68.6	3.000	0.126	1.220	2.213	---	39.70	61.34*			116.86*			1973	86213
		0.12			68.6	3.000	0.126	1.140	2.192	---	41.70	61.36*			120.76*			1973	86213
T61	S	0.06	85	T-L	68.4	3.000	0.064	1.175	1.996	---	38.30	57.54*			95.73*			1973	86842
		0.06			68.4	3.000	0.064	1.160	1.973	---	37.80	56.31*			92.92*			1973	86842

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.21.2.1 (con't)

ALUMINUM 7475 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN DEV MEAN	K(C) (KSI*SQRT IN)	K(C) STAN DEV MEAN	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T61	S	0.09	85 T-L		71.5	3.000	0.089	1.190	1.925	---	38.20	57.96*		90.87*		1973	86842
		0.09			71.5	3.000	0.090	1.190	1.872	---	39.40	59.78*		90.54*		1973	86842
		0.09			71.6	3.000	0.090	1.185	2.029	---	40.60	61.37*		103.81*		1973	86213
T61	S	0.06	86 T-L		66.5	3.000	0.064	1.185	2.039	---	38.30	57.90*		98.64*		1973	86842
		0.06			66.5	3.000	0.064	1.180	2.040	---	38.20	57.60*		98.52*		1973	86842
		0.06			67.2	3.000	0.062	1.225	2.044	---	37.10	57.46*		93.96*		1973	86213
		0.06			67.2	3.000	0.062	1.110	2.011	---	39.00	56.33*		98.45*		1973	86213
		0.06			70.2	3.000	0.063	1.150	1.874	---	39.20	58.04*		90.20*		1973	86213
		0.06			70.2	3.000	0.063	1.150	1.854	---	39.70	58.78*		90.16*		1973	86213
T61	P	0.25	82 T-L		67.8	3.000	0.244	1.157	2.113	---	36.10	53.64*		98.19*		1973	86213
		0.25			67.8	3.000	0.244	1.170	1.954	---	36.70	55.00*		89.10*		1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAIN D																	
T73	S	0.09	82 L-T		60.6	3.000	0.089	1.150	2.450	---	37.20	55.07*		136.93*		1973	86213
		0.09			60.6	3.000	0.089	1.145	2.410	---	37.40	55.17*		131.97*		1973	86213
T73	S	0.09	82 T-L		58.5	3.000	0.088	1.105	2.428	---	37.40	53.82*		134.46*		1973	86213
		0.09			58.5	3.000	0.089	1.200	2.417	---	35.60	54.34*		126.40*		1973	86213
BUCKLING OF CRACK EDGES NOT RESTRAINED																	
T731	P	0.25	82 L-T		60.1	3.000	0.245	1.180	2.554	---	37.80	57.00*		157.39*		1973	86213
		0.25			60.1	3.000	0.245	1.185	2.558	---	37.70	56.99*		157.79*		1973	86213
T731	S	0.25	82 T-L		58.8	3.000	0.246	1.203	2.585	---	37.10	56.70*		160.78*		1973	86213
		0.25			58.8	3.000	0.245	1.233	2.580	---	36.60	56.96*		157.75*		1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.21.2.1 (con't)

ALUMINUM 7475 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T761	S	0.06	R.T.	L-T	62.0	15.880	0.063	4.000	4.920	---	33.90	88.46			100.24			1973	86213
		0.06			62.0	15.880	0.062	1.000	2.000	---	57.40	72.12*			102.75*			1973	86213
		0.06			62.0	15.880	0.062	2.980	3.920	---	39.50	87.37			101.87*			1973	86213
		0.06			62.0	15.880	0.063	3.990	5.130	---	33.20	86.51			100.81			1973	86213
		0.06			62.0	15.880	0.063	6.000	7.500	---	24.20	81.60			96.74			1973	86213
		0.06			66.9	15.880	0.063	4.000	4.980	---	30.40	79.33			85.99			1973	86213
		0.06			66.9	15.880	0.063	6.000	6.950	---	22.90	77.21			82.26			1973	86213
		0.06			66.9	15.880	0.063	1.000	1.520	32.90	52.50	65.96*			81.58*			1973	86213
		0.06			66.9	15.880	0.062	2.980	3.500	---	36.30	80.29	83.0/	4.4	87.76	92.3/	8.0	1973	86213
T761	S	0.09	R.T.	L-T	66.5	15.880	0.089	4.000	5.000	18.60	37.00	96.55			110.53*			1973	86213
		0.09			66.5	15.880	0.089	4.000	4.950	12.80	36.60	95.51	96.0/	0.7	108.64	----/	---	1973	86213
T761	S	0.09	82	L-T	61.4	3.000	0.088	1.190	2.406	---	36.40	55.22*			127.92*			1973	86213
		0.09			61.4	3.000	0.087	1.160	2.267	---	37.40	55.71*			115.24*			1973	86213
T761	S	0.18	82	L-T	64.1	3.000	0.193	1.107	2.480	---	41.00	59.07*			156.05*			1973	86213
		0.18			64.1	3.000	0.193	1.090	2.495	---	40.80	58.20*			157.81*			1973	86213
T761	S	0.06	85	L-T	62.0	3.000	0.063	1.185	1.993	---	38.40	58.05*			95.71*			1973	86213
		0.06			62.0	3.000	0.063	1.140	1.965	---	38.00	55.91*			92.89*			1973	86213
		0.06			66.9	3.000	0.063	1.140	2.041	---	38.80	57.09*			100.07*			1973	86213
		0.06			66.9	3.000	0.063	1.170	2.040	---	37.70	56.50*			97.23*			1973	86213
T761	S	0.09	85	L-T	66.5	3.000	0.088	1.200	2.065	---	38.20	58.31*			100.25*			1973	86213
		0.09			66.5	3.000	0.088	1.150	2.057	---	39.40	58.33*			102.80*			1973	86213
T761	P	0.25	82	L-T	60.9	3.000	0.246	1.145	2.610	---	38.60	56.94*			173.56*			1973	86213
		0.25			60.9	3.000	0.246	1.138	2.522	---	39.00	57.31*			155.97*			1973	86213
T761	S	0.06	R.T.	T-L	60.5	15.880	0.062	4.000	5.050	---	33.90	88.46			101.91*			1973	86213
		0.06			60.5	15.880	0.063	6.010	7.240	---	24.30	82.03			94.35			1973	86213
		0.06			60.5	15.880	0.063	3.020	3.920	---	39.30	87.56*			101.36*			1973	86213
		0.06			60.5	15.880	0.062	4.000	5.000	---	33.20	86.63			99.17			1973	86213
		0.06			60.5	15.880	0.063	1.000	1.980	---	55.10	69.23*			98.11*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.21.2.1 (con't)

ALUMINUM 7475 (ALCLAD) K(C)

CONDITION	--PRODUCT-- FORM	THICK (IN)	TEST TEMP (F)	SPEC OR	YIELD STR (KSI)	---SPECIMEN--- WIDTH (IN) W	THICK (IN) B	CRACK LENGTH INIT (IN) 2A(O)	CRACK LENGTH FINAL (IN) 2A(F)	GROSS STRESS ONSET (KSI) S(O)	GROSS STRESS MAX (KSI) S(MAX)	K(APP) (KSI*SQRT IN)	K(APP) STAN MEAN	K(APP) STAN DEV	K(C) (KSI*SQRT IN)	K(C) STAN MEAN	K(C) STAN DEV	DATE	REFER
BUCKLING OF CRACK EDGES NOT RESTRAINED																			
T761	S	0.06	R.T.	T-L	64.9	15.880	0.063	3.000	3.430	---	35.50	78.80			84.86			1973	86213
		0.06			64.9	15.880	0.063	1.000	1.420	---	58.00	72.87*			87.05*			1973	86213
		0.06			64.9	15.880	0.063	4.000	4.550	---	30.60	79.85			86.21			1973	86213
		0.06			64.9	15.880	0.063	3.990	4.600	---	33.30	86.77			94.45			1973	86213
		0.06			64.9	15.880	0.063	5.990	6.600	---	22.50	75.78	82.6/	4.8	81.28	90.1/	6.9	1973	86213
T761	S	0.09	R.T.	T-L	65.6	15.880	0.089	3.970	4.600	14.90	31.70	82.36			89.91			1973	86213
		0.09			65.6	15.880	0.089	3.980	4.600	---	32.10	83.52	82.9/	0.8	93.46	91.7/	2.5	1973	86213
T761	S	0.09	82	T-L	59.4	3.000	0.088	1.170	2.387	---	36.30	54.41*			125.02*			1973	86213
		0.09			59.4	3.000	0.088	1.155	2.397	---	36.70	54.47*			127.67*			1973	86213
T761	S	0.18	82	T-L	62.9	3.000	0.193	1.188	2.413	---	38.90	58.95*			137.55*			1973	86213
		0.18			62.9	3.000	0.193	1.240	2.551	---	37.50	58.64*			155.33*			1973	86213
T761	S	0.06	85	T-L	60.5	3.000	0.063	1.140	2.190	---	37.40	55.03*			108.13*			1973	86213
		0.06			60.5	3.000	0.063	1.085	2.085	---	39.00	55.42*			103.88*			1973	86213
		0.06			64.9	3.000	0.063	1.165	2.046	---	39.20	58.54*			101.54*			1973	86213
		0.06			64.9	3.000	0.063	1.150	1.923	---	39.90	59.07*			94.79*			1973	86213
T761	S	0.09	85	T-L	65.6	3.000	0.089	1.170	2.033	---	39.00	58.45*			100.01*			1973	86213
		0.09			65.6	3.000	0.089	1.150	2.066	---	39.70	58.78*			104.34*			1973	86213
T761	P	0.25	82	T-L	61.9	3.000	0.245	1.180	2.723	---	38.00	57.30*			206.31*			1973	86213
		0.25			61.9	3.000	0.245	1.197	2.580	---	37.70	57.41*			162.49*			1973	86213

*NOTE- NET SECTION STRESS EXCEEDS 80% OF YIELD STRENGTH. VALUE NOT INCLUDED IN MEAN OR STD. DEV.

TABLE 8.21.3.1

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.1 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R.T. ,H H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	11.50	9.78			
	B:	8.78		11.4		
	C:					
	D:					
		9.00		11.5		
		10.00		12.6		
		13.00	15.9	21.0		
		16.00	26.1	37.6		
		20.00	39.1	72.6		
		25.00	77.3			
DELTA K MAX	A:	27.35	121.			
	B:	22.61		101.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			6.41	13.11		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: Ø.Ø4"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.ØØ HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 65.7 KSI
ULT. STRENGTH: 73.6 KSI
SPECIMEN THK: Ø.Ø4Ø"
SPECIMEN WIDTH: 23.97Ø- 24.Ø1Ø"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

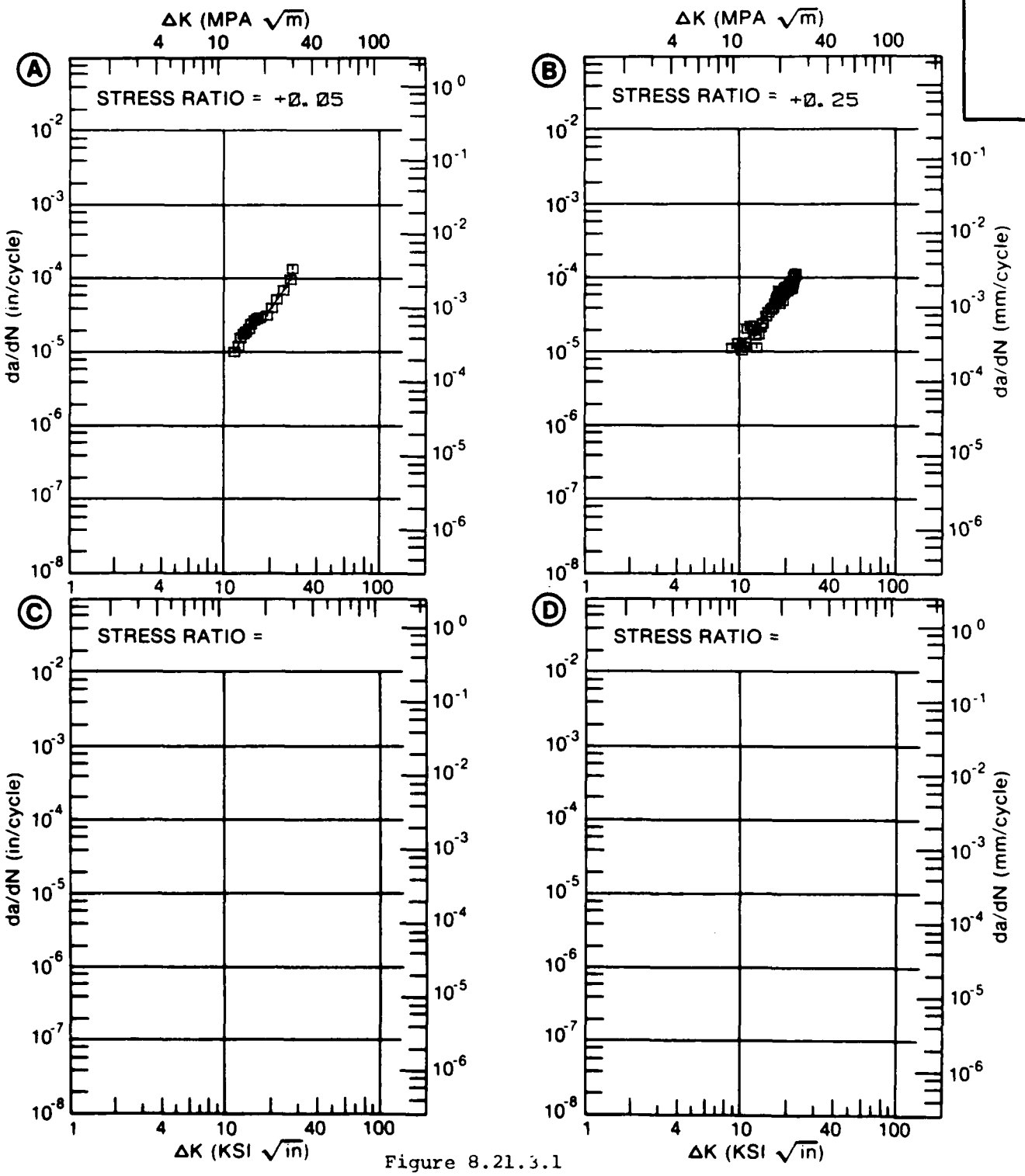

Figure 8.21.3.1

TABLE 8.21.3.2

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.2 INDICATING EFFECT
OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	13.24	48.9			
	B:	11.34		69.4		
	C:					
	D:					
		13.00		72.5		
		16.00	75.0	85.6		
		20.00	107.	121.		
		25.00	150.			
		30.00	215.			
DELTA K MAX	A:	32.52	264.			
	B:	23.86		184.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			4.06	6.45		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 68.6 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 36.030- 36.040"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

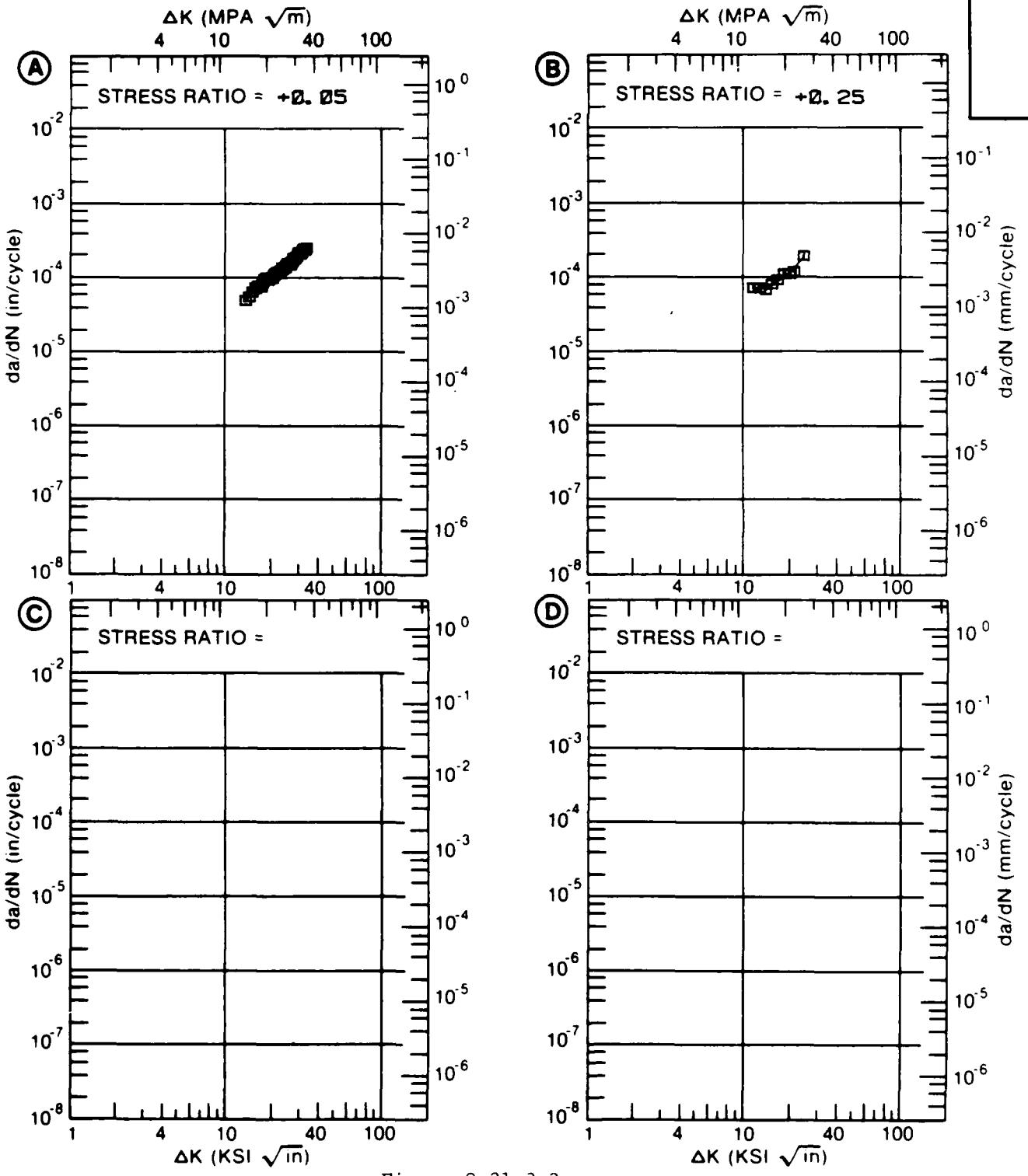

Figure 8.21.3.2

TABLE 8.21.3.3

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.3 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R. T. , H. H. A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05			
DELTA K MIN	A:	45.66	818.			
	B:					
	C:					
	D:					
		50.00	1796.			
		60.00	5797.			
		70.00	17228.			
DELTA K MAX	A:	72.32	23137.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 11.05

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	1
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T61
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 2.00 HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 65.7- 68.6 KSI
ULT. STRENGTH: 73.6- 74.5 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 12.000"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

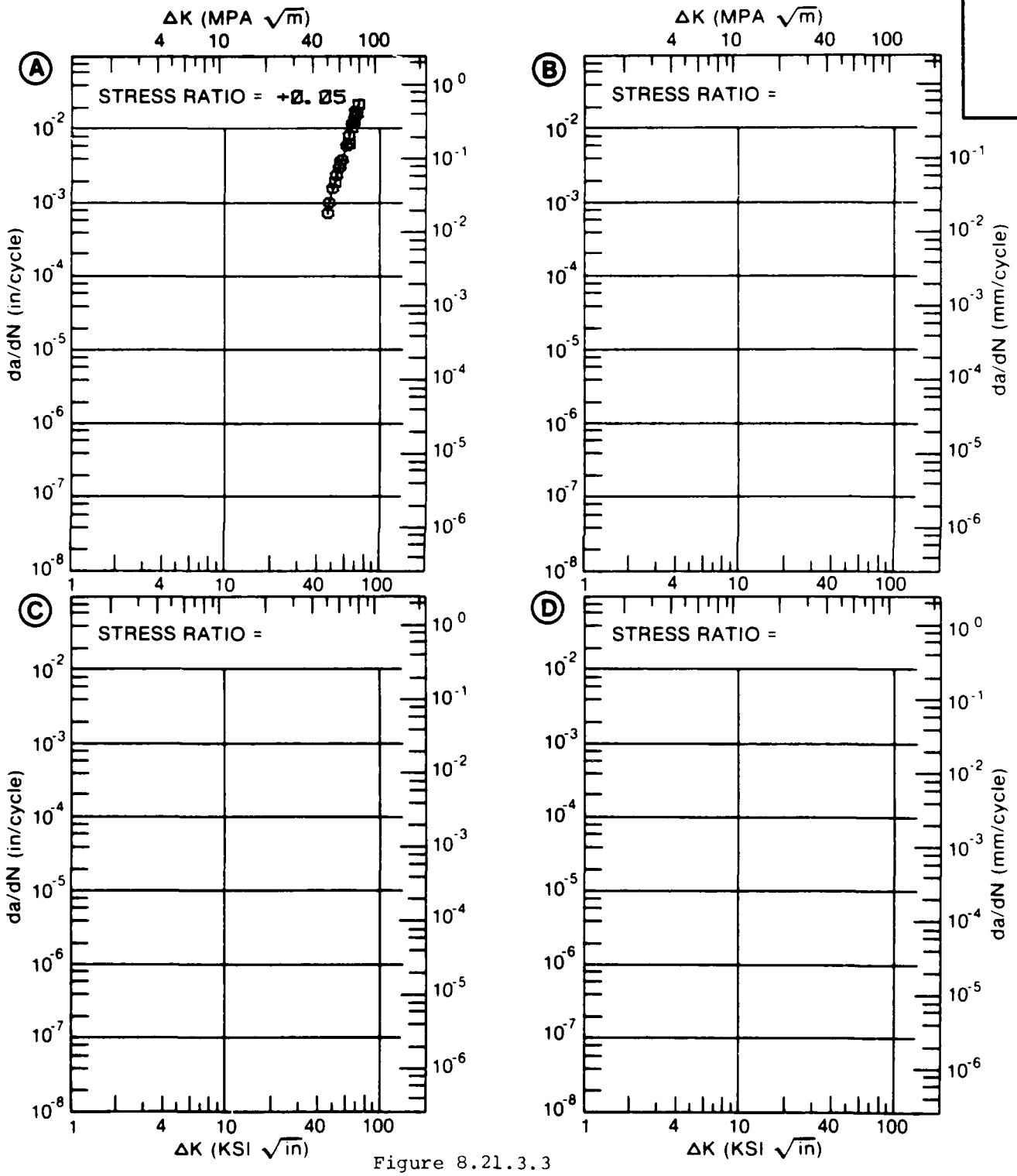

Figure 8.21.3.3

TABLE 8.21.3.4

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.4 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R.T. ,H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	15.82	29.5			
	B:	9.46		9.39		
	C:					
	D:					
		10.00		10.8		
		13.00		19.3		
		16.00	29.9	30.3		
		20.00	43.8	56.1		
		25.00	80.2			
DELTA K MAX	A:	27.02	104.			
	B:	22.36		83.8		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			4.35	3.15		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: Ø.Ø4"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 2.ØØ HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 68.6 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: Ø.Ø4Ø"
SPECIMEN WIDTH: 23.92Ø- 24.Ø1Ø"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

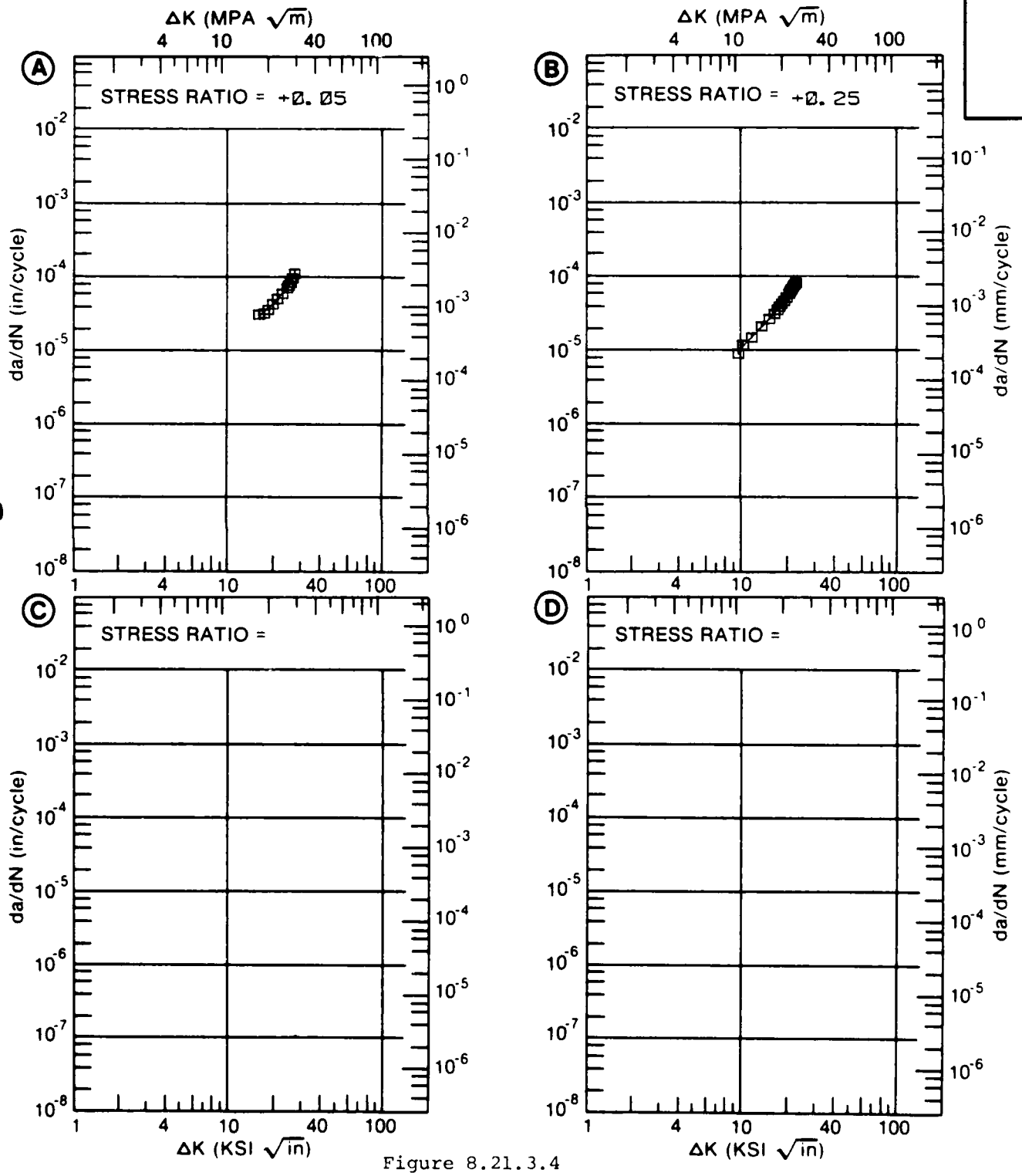

Figure 8.21.3.4

TABLE 8.21.3.5

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.5 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R T. ,H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	11.39	10.8			
	B:	8.44		5.01		
	C:					
	D:					
		9.00		6.15		
		10.00		8.45		
		13.00	14.7	17.5		
		16.00	23.3	31.0		
		20.00	39.7	60.9		
		25.00	76.6	135.		
		30.00	152.	298.		
		35.00	313.			
		40.00	667.			
DELTA K MAX	A:	41.52	843.			
	B:	32.55		447.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			15.75	20.59		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: Ø.Ø4"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 2.ØØ HZ
ENVIRONMENT: R. T., H. H. A.

YIELD STRENGTH: 65.7- 68.6 KSI
ULT. STRENGTH: 73.6- 74.5 KSI
SPECIMEN THK: Ø.Ø4Ø"
SPECIMEN WIDTH: 35.98Ø- 36.Ø2Ø"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

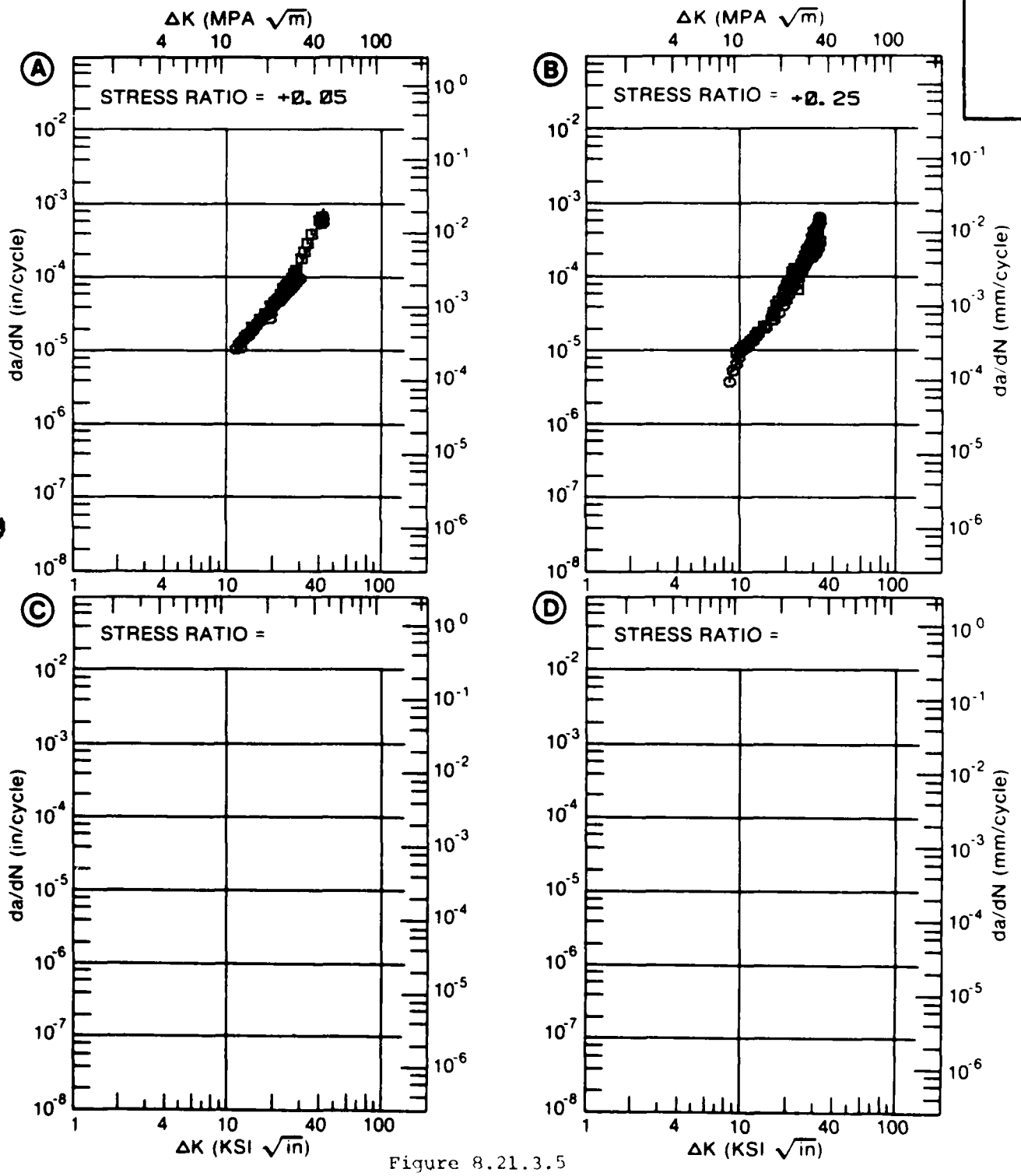

Figure 8.21.3.5

TABLE 8.21.3.6

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.6 INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			E= R.T. 3.5% NACL			
DELTA K MIN	A:	15.18	69.1			
	B:					
	C:					
	D:					
		16.00	73.7			
		20.00	104.			
		25.00	154.			
		30.00	212.			
DELTA K MAX	A:	33.11	248.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR		2.21
LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T81
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 65.7 KSI
ULT. STRENGTH: 73.6 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 35.800"
REFERENCES:96212

ALUM. ALLOY

7475 (ALCLAD)

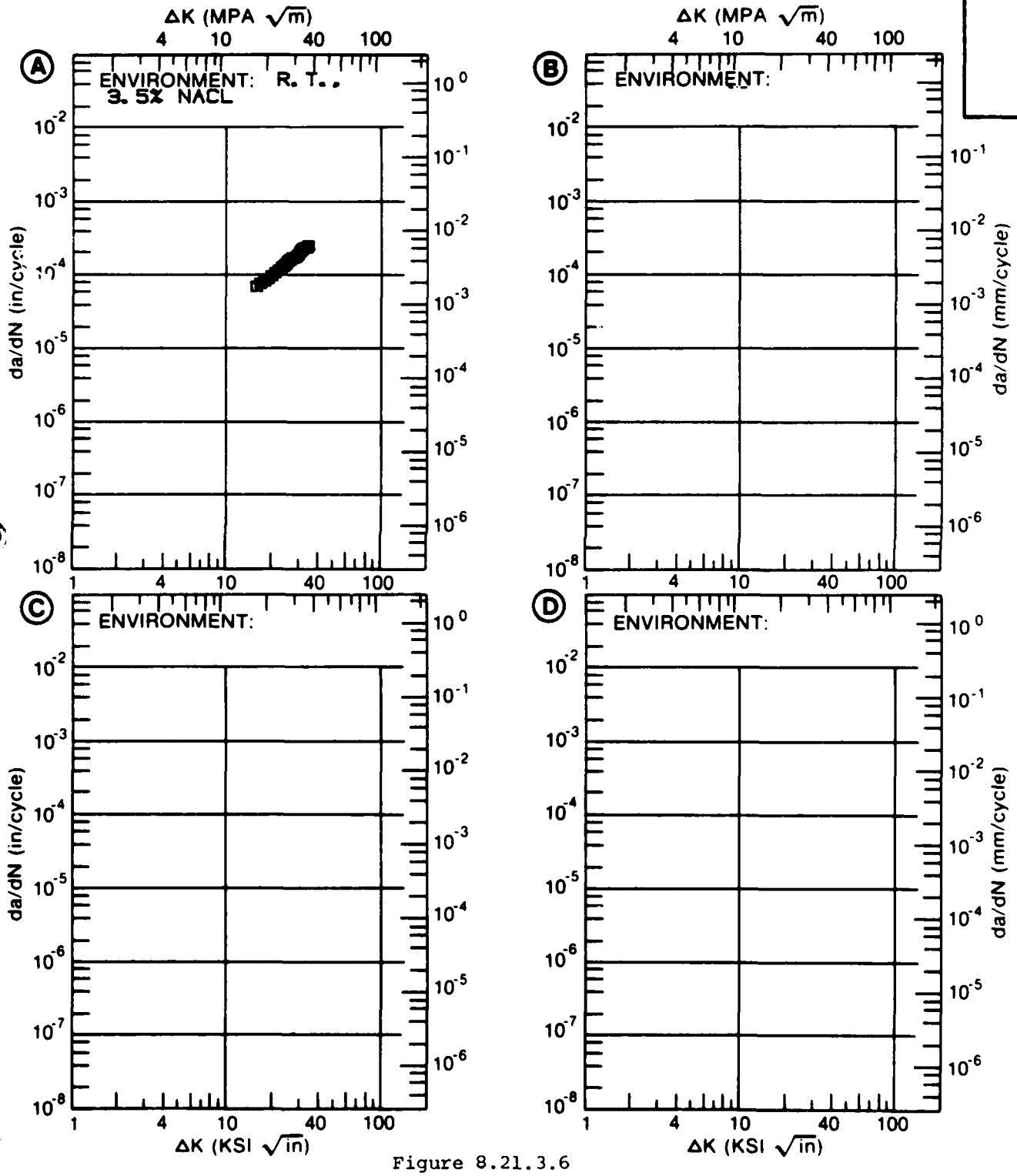

Figure 8.21.3.6

TABLE 8.21.3.7

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.7 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R T , LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.33		
DELTA K MIN	A:	9.44	5.53			
	B:	5.91		2.96		
	C:					
	D:					
		6.00		3.13		
		7.00		5.16		
		8.00		7.39		
		9.00		9.75		
		10.00	6.62	12.2		
		13.00	13.0	21.0		
		16.00	20.4	34.0		
		20.00	33.1	65.4		
		25.00	58.9	159.		
		30.00	108.			
		35.00	207.			
		40.00	411.			
DELTA K MAX	A:	45.47	905.			
	B:	27.65		261.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.65	17.71		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	5		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 13.30 HZ
ENVIRONMENT: R.T.,LAB AIR

YIELD STRENGTH: 73.6 KSI
ULT. STRENGTH: 79.8 KSI
SPECIMEN THK: 0.087- 0.088"
SPECIMEN WIDTH: 4.000"
REFERENCES:88213

ALUM. ALLOY

7475 (ALCLAD)

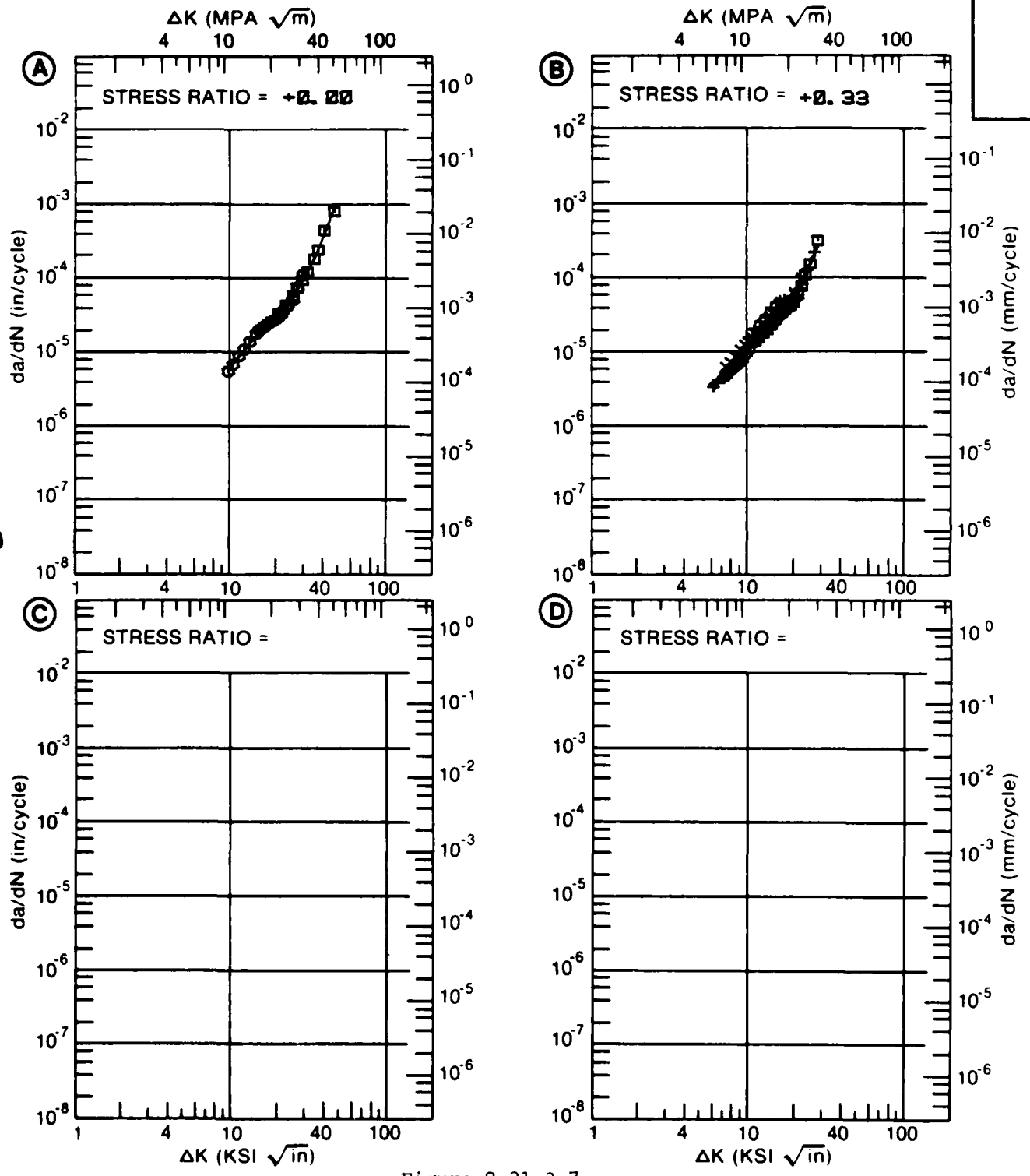

Figure 8.21.3.7

TABLE 8.21.3.8

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.8 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R.T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.33		
DELTA K MIN	A:	8.89	5.55			
	B:	6.05		2.97		
	C:					
	D:					
		7.00		4.76		
		8.00		6.74		
		9.00	5.85	8.71		
		10.00	8.56	10.6		
		13.00	14.2	16.4		
		16.00	16.6	23.2		
		20.00	19.9	37.3		
		25.00	30.9	71.9		
		30.00	63.5			
		35.00	168.			
DELTA K MAX	A:	38.72	396.			
	B:	27.65		105.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.46	12.30		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	5		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 13.30 HZ
ENVIRONMENT: R.T.,LAB AIR

YIELD STRENGTH: 68.2 KSI
ULT. STRENGTH: 78.6 KSI
SPECIMEN THK: 0.089- 0.090"
SPECIMEN WIDTH: 4.000"
REFERENCES:86213

ALUM. ALLOY

7475 (ALCLAD)

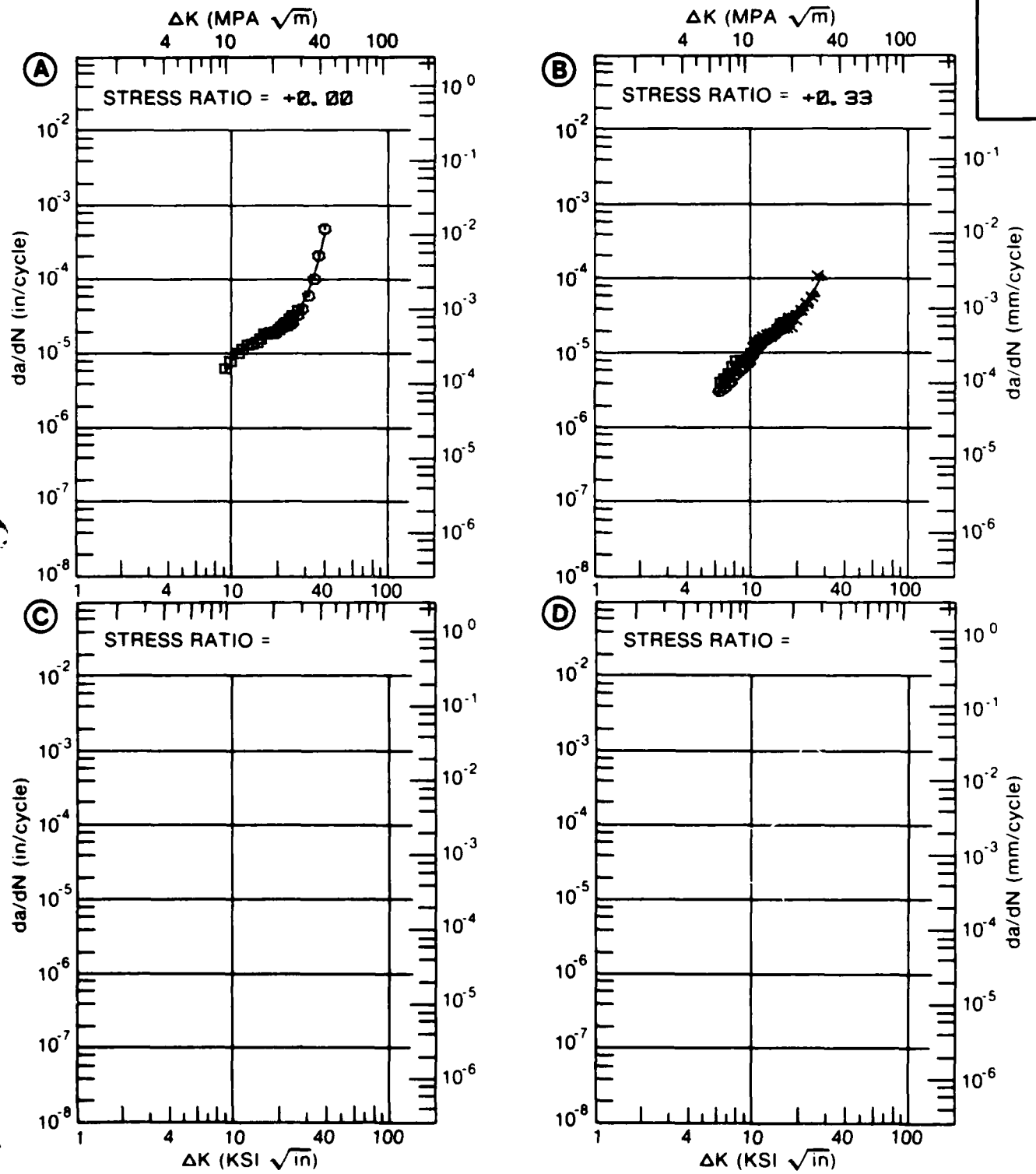

Figure 8.21.3.8

TABLE 8.21.3.9

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.9 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T61
ENVIRONMENT: R.T., LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.00	R=+0.33		
DELTA K MIN	A:	8.88	3.20			
	B:	5.54		1.99		
	C:					
	D:					
		6.00		2.65		
		7.00		4.34		
		8.00		6.29		
		9.00	3.44	8.46		
		10.00	5.71	10.8		
		13.00	13.6	19.4		
		16.00	21.2	31.4		
		20.00	32.7	56.9		
		25.00	57.5	119.		
		30.00	115.			
		35.00	250.			
		40.00	420.			
DELTA K MAX	A:	43.48	664.			
	B:	29.02		216.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			7.63	6.62		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T61
FORM: 0.10"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 13.30
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 71.0 KSI
ULT. STRENGTH: 76.8 KSI
SPECIMEN THK: 0.101- 0.102"
SPECIMEN WIDTH: 4.000"
REFERENCES: 86213

ALUM. ALLOY

7475 (ALCLAD)

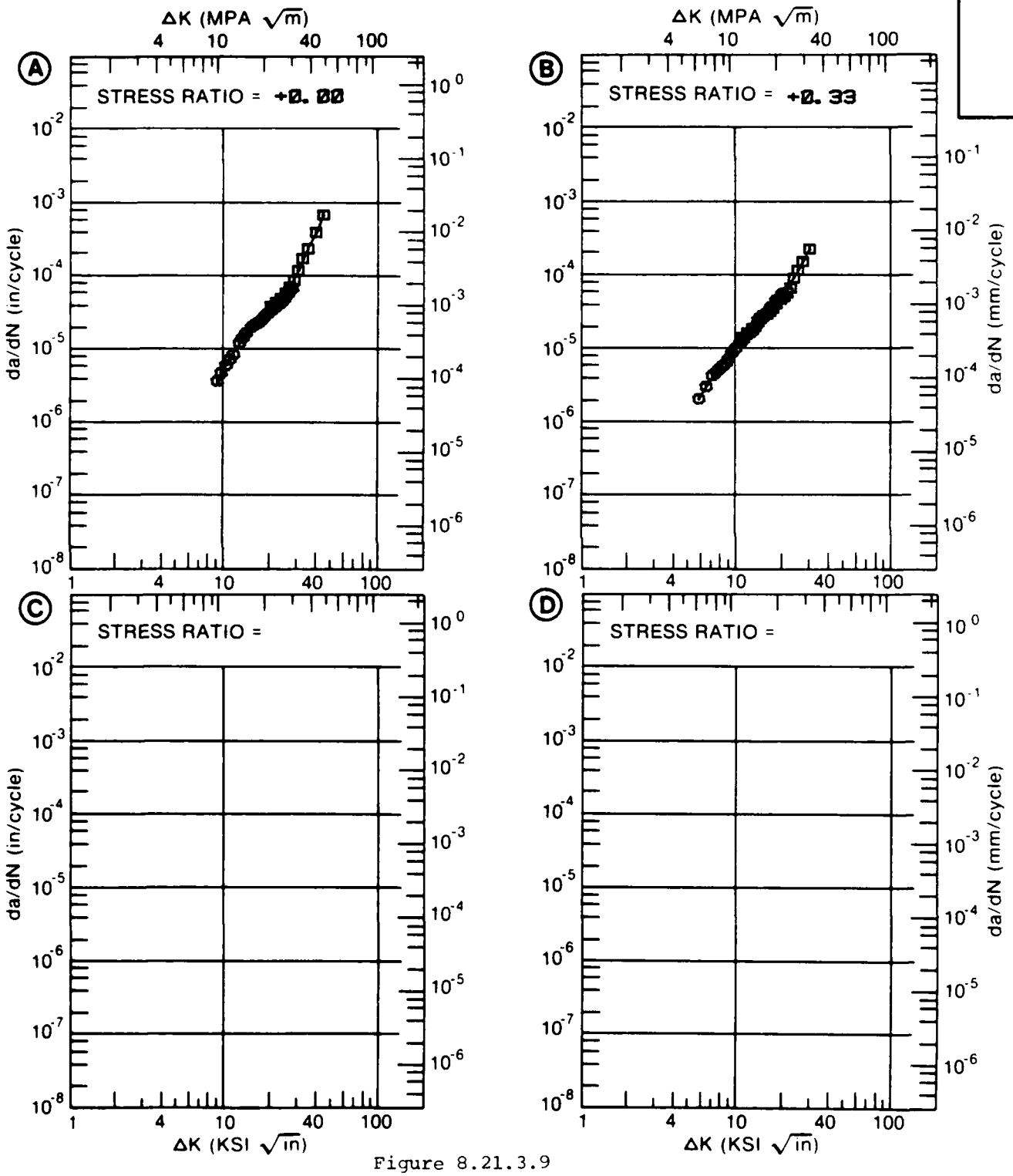

Figure 8.21.3.9

TABLE 8.21.3.10

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.10 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T761
ENVIRONMENT: R.T., H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	10.65	6.87			
	B:	8.57		7.22		
	C:					
	D:					
		9.00		7.74		
		10.00		9.15		
		13.00	11.7	15.2		
		16.00	18.6	24.9		
		20.00	29.7	47.0		
		25.00	50.5	99.0		
		30.00	87.0	198.		
		35.00	155.			
		40.00	285.			
DELTA K MAX	A:	40.71	311.			
	B:	31.95		257.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.30	8.78		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 59.8 KSI
ULT. STRENGTH: 68.7 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 23.980- 36.000"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

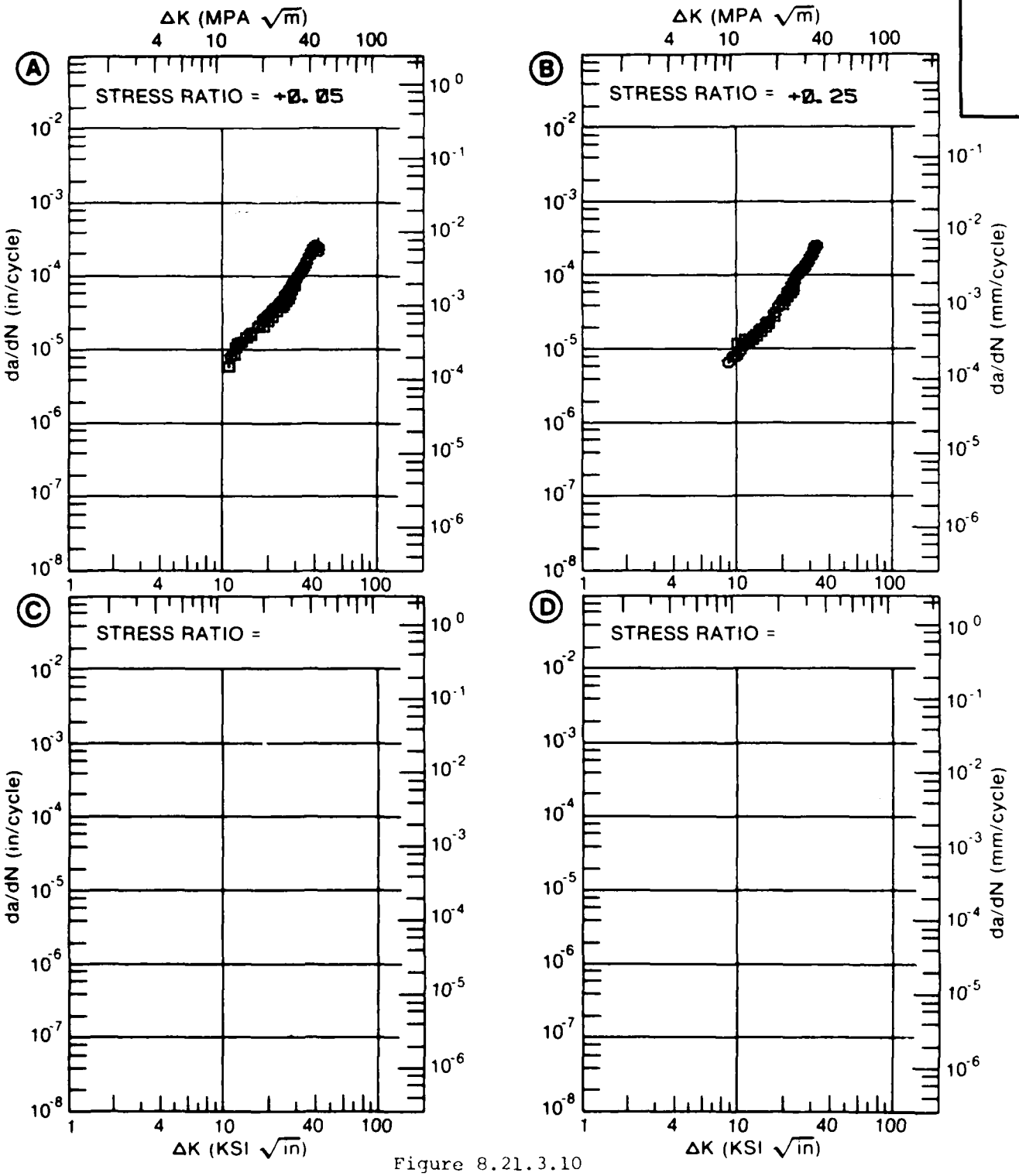

Figure 8.21.3.10

TABLE 8.21.3.11

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.11INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T/61
ENVIRONMENT: R.T. ,3.5% NACL

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	13.39	42.6			
	B:	11.95		51.8		
	C:					
	D:					
		13.00		59.4		
		16.00	59.0	84.5		
		20.00	86.1	126.		
		25.00	124.	194.		
		30.00	170.			
DELTA K MAX	A:	33.27	205.			
	B:	25.66		204.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			2.14	1.22		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: L-T
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., 3.5% NACL

YIELD STRENGTH: 59.8 KSI
ULT. STRENGTH: 68.7 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 35.960- 36.000"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

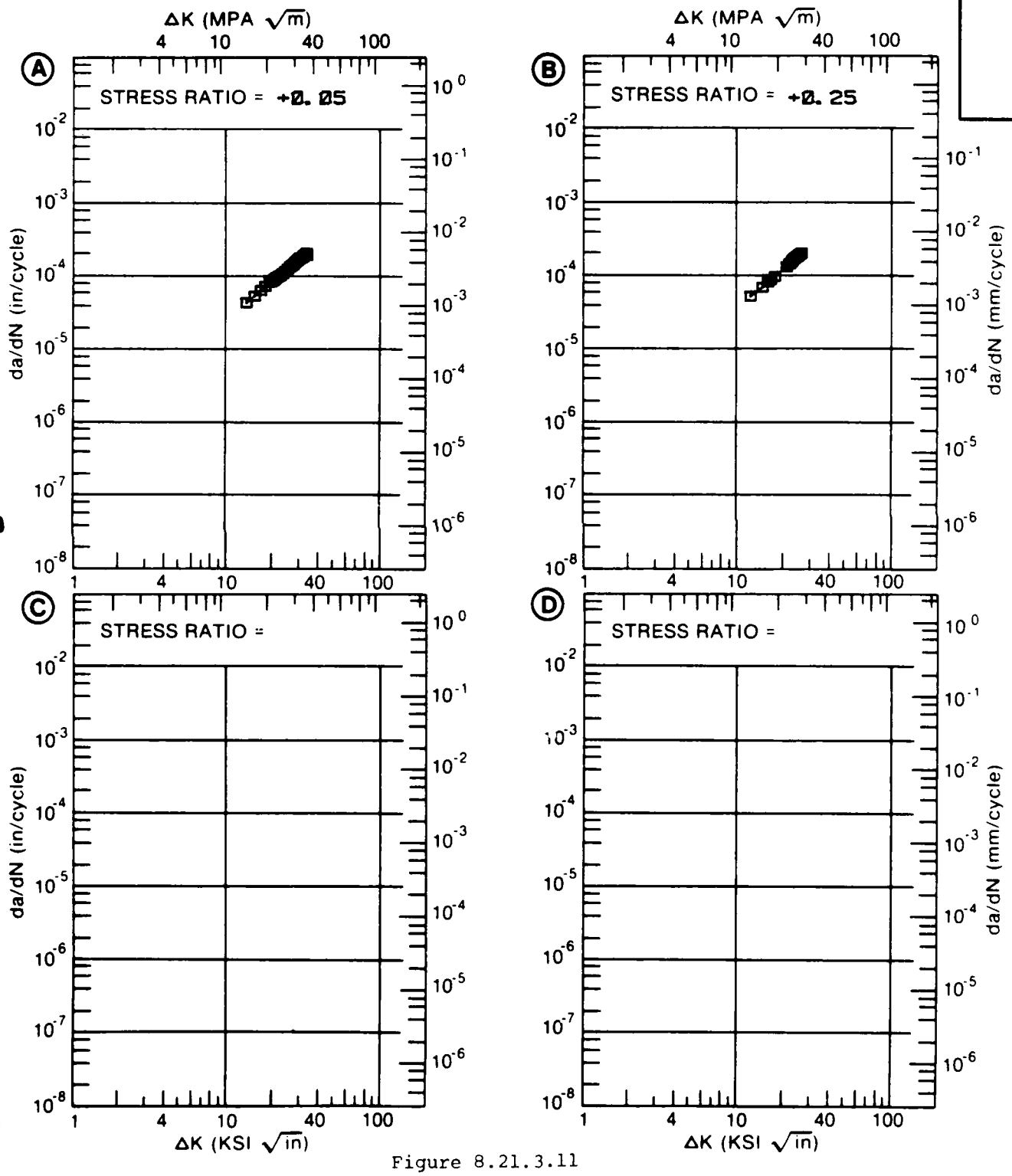

Figure 8.21.3.11

TABLE 8.21.3.12

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.12 INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T761
ENVIRONMENT: R.T. ,H.H.A.

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE)			
			A	B	C	D
			R=+0.05	R=+0.25		
DELTA K MIN	A:	26.64	67.6			
	B:	9.01		7.60		
	C:					
	D:					
		10.00		9.89		
		13.00		18.6		
		16.00		30.8		
		20.00		55.9		
		25.00		113.		
		30.00	106.	225.		
		35.00	172.			
DELTA K MAX	A:	37.33	218.			
	B:	32.68		324.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			1.83	8.21		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T7351
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 2.00 HZ
ENVIRONMENT: R.T., H.H.A.

YIELD STRENGTH: 59.9 KSI
ULT. STRENGTH: 67.3 KSI
SPECIMEN THK: 0.040- 0.041"
SPECIMEN WIDTH: 23.940- 36.020"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

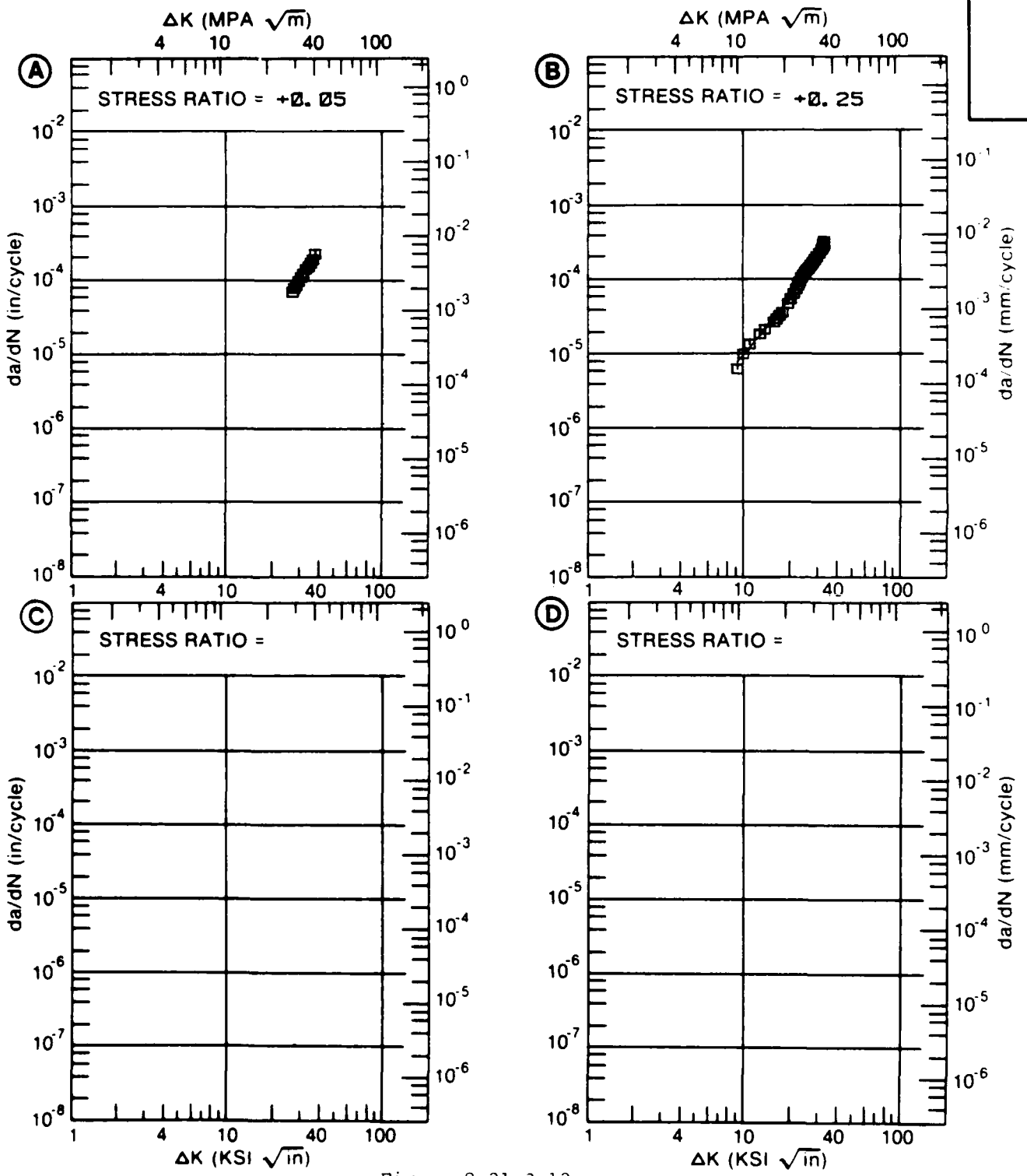

Figure 8.21.3.12

TABLE 8.21.3.13

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.13INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T761

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. H.H.A.			
DELTA K MIN	A:	49.02	496.			
	B:					
	C:					
	D:					
		50.00	605.			
		60.00	2503.			
		70.00	6032.			
DELTA K MAX	A:	77.48	10735.			
	B:					
	C:					
	D:					

ROOT MEAN SQUARE PERCENT ERROR 6.24

LIFE PREDICTION RATIO SUMMARY (NP/NA)	0.0-0.5	
	0.5-0.8	
	0.8-1.25	1
	1.25-2.0	
	>2.0	

CONDITION/HT: T761
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 59.9 KSI
ULT. STRENGTH: 67.3 KSI
SPECIMEN THK: 0.040"
SPECIMEN WIDTH: 12.000"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

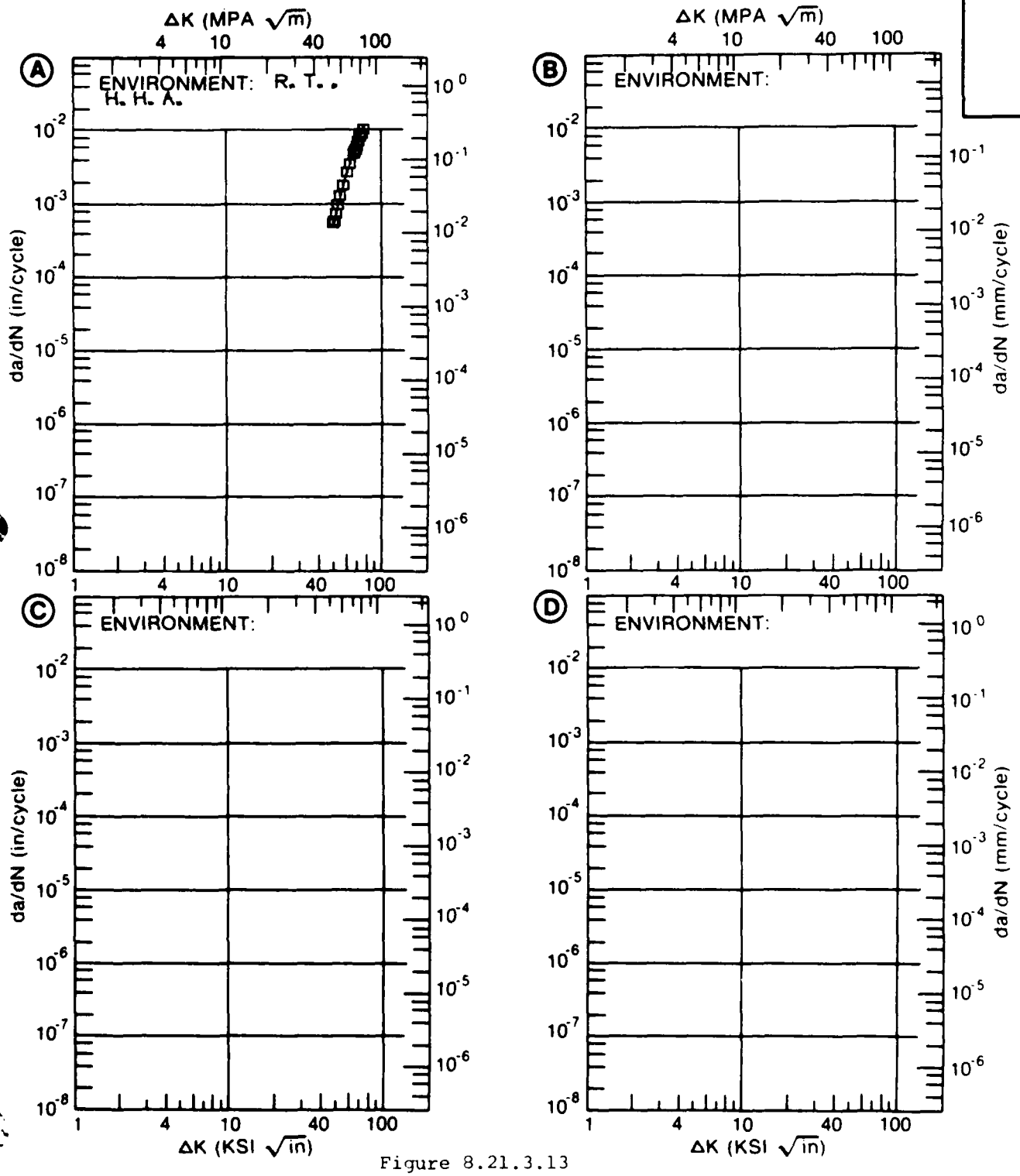

Figure 8.21.3.13

TABLE 8.21.3.14

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.14INDICATING EFFECT

OF ENVIRONMENT

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T761

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A	B	C	D
			E= R.T. H.H.A.	E= R.T. 3.5% NACL		
DELTA K MIN	A:	11.47	10.3			
	B:	14.79		52.5		
	C:					
	D:					
		13.00	13.1			
		16.00	20.2	61.2		
		20.00	34.5	89.1		
		25.00	63.5	128.		
		30.00	111.	184.		
		35.00	185.			
		40.00	297.			
DELTA K MAX	A:	40.45	309.			
	B:	32.79		227.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			4.52	1.94		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	1	1		
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.04"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
STRESS RATIO: +0.05
FREQUENCY: 2.00 HZ

YIELD STRENGTH: 59.9 KSI
ULT. STRENGTH: 67.3 KSI
SPECIMEN THK: 0.040- 0.041"
SPECIMEN WIDTH: 35.990- 36.000"
REFERENCES:86212

ALUM. ALLOY

7475 (ALCLAD)

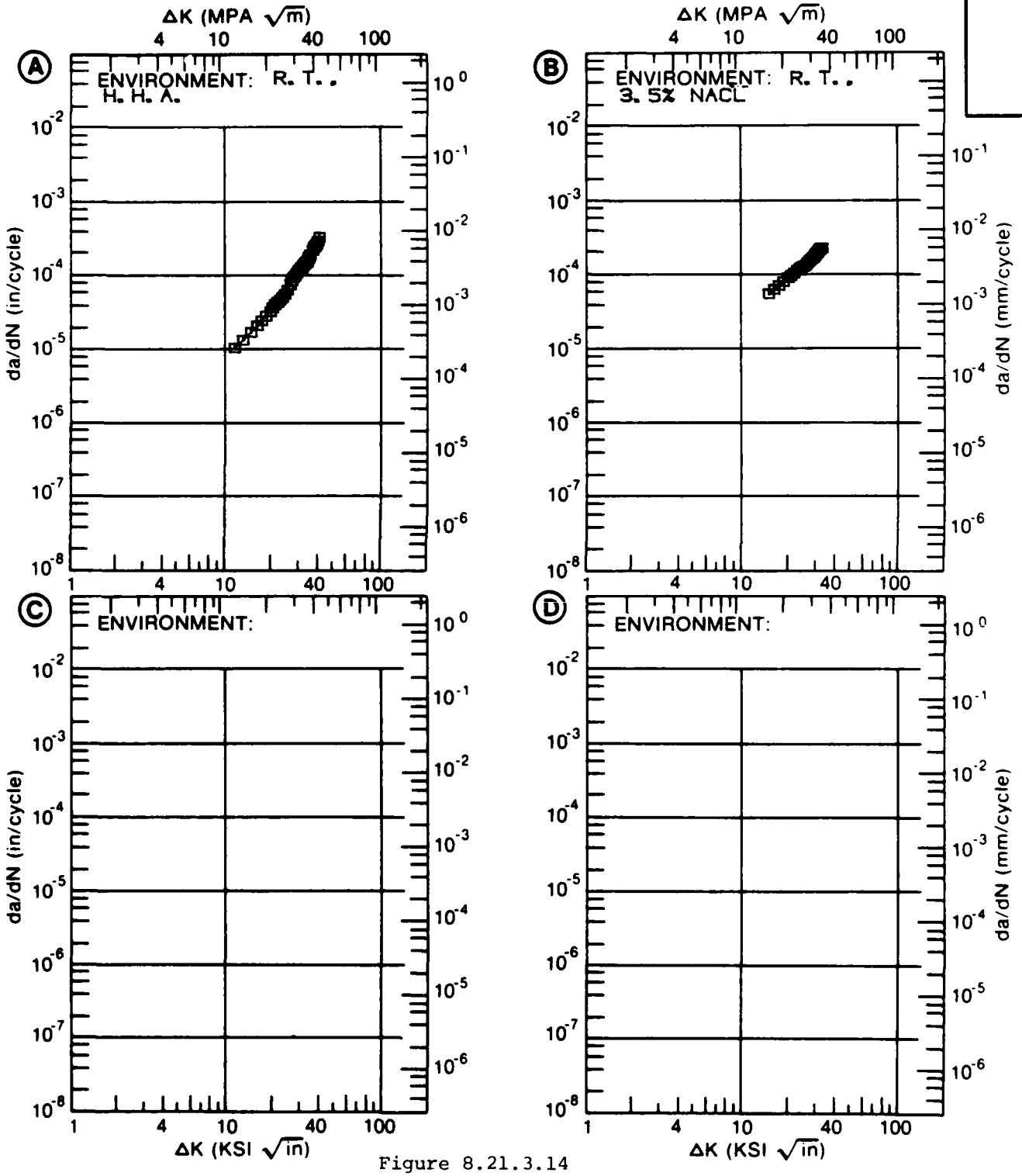

Figure 8.21.3.14

TABLE 8.2..3.15

FATIGUE CRACK GROWTH RATES AT DEFINED LEVELS
OF STRESS INTENSITY FACTOR

DATA ASSOCIATED WITH FIGURE 8.21.3.15INDICATING EFFECT

OF STRESS RATIO

MATERIAL: ALUMINUM 7475(ALCLAD)
CONDITION: T761
ENVIRONMENT: R T. ,LAB AIR

DELTA K (KSI*IN**1/2)			DA/DN (10**-6 IN./CYCLE) A R=+0.00	B R=+0.33	C	D
DELTA K MIN	A:	7.75	1.47			
	B:	5.67		2.02		
	C:					
	D:					
		6.00		2.53		
		7.00		4.29		
		8.00	1.79	6.27		
		9.00	3.43	8.36		
		10.00	5.53	10.5		
		13.00	13.0	18.0		
		16.00	20.6	28.3		
		20.00	31.0	52.0		
		25.00	49.0	118.		
DELTA K MAX	A:	27.14	60.3			
	B:	28.65		223.		
	C:					
	D:					
ROOT MEAN SQUARE PERCENT ERROR			10.96	6.84		
LIFE PREDICTION RATIO SUMMARY (NP/NA)		0.0-0.5				
		0.5-0.8				
		0.8-1.25	2	2		
		1.25-2.0				
		>2.0				

CONDITION/HT: T761
FORM: 0.09"TH SHEET
SPECIMEN TYPE: CCP
ORIENTATION: T-L
FREQUENCY: 13.30 HZ
ENVIRONMENT: R.T., LAB AIR

YIELD STRENGTH: 66.0 KSI
ULT. STRENGTH: 74.5 KSI
SPECIMEN THK: 0.090"
SPECIMEN WIDTH: 4.000"
REFERENCES: 86213

ALUM. ALLOY

7475 (ALCLAD)

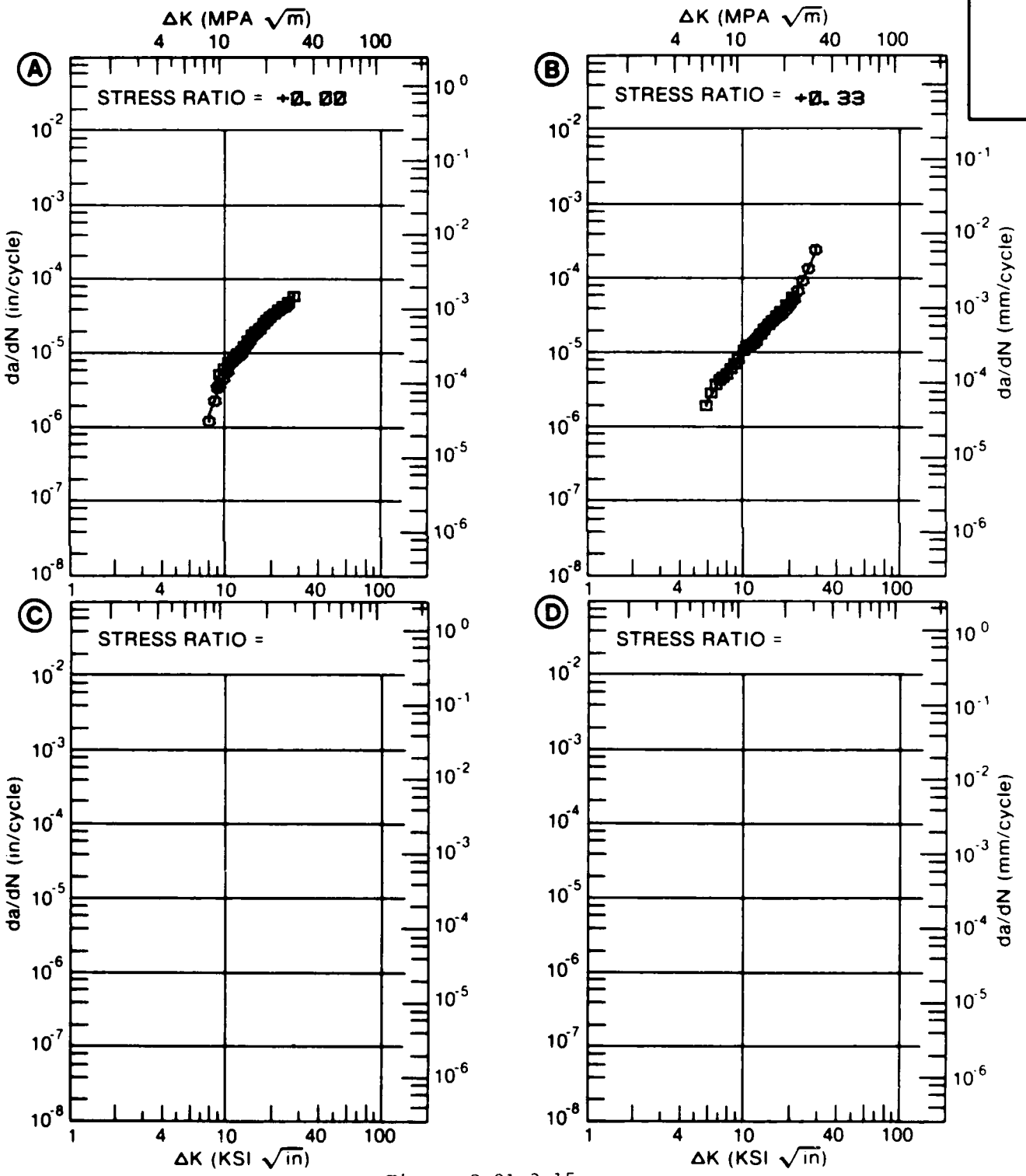

Figure 8.21.3.15

TABLE 8.22

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77720

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78313

2024-T351	da/dt, K_{Iscc}
2024-T4	da/dt
2219-T37	da/dt
7075-T651	da/dt
7079-T651	da/dt, K_{Iscc}
7175-T66	da/dt, K_{Iscc}

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2219-T851 K_{Ic}
6061-T651 K_{Ic}
7075-T7351 K_{Ic}
7079-T651 K_{Ic}

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84284 2024-T351 da/dt
7039-T64 da/dt
7049-T73 da/dt
7075-T651 da/dt
7075-T7351 da/dt
7079-T651 da/dt
7175-T736 da/dt

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TABLE 8.22 (con't)

84286 7075 da/dt
7075-T7351 da/dt

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7075-T651 K_{Ic}
7075-T7351 K_{Ic}
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7075-T6 K_{Iscc}
7075-T651 K_{Iscc}
7075-T7351 K_{Iscc}
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7049-T73 K_{Ic}
7175-T736 K_{Ic}
7475-T61 K_c
7475-T761 K_c
7475(ALCLAD)-T61 K_c

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7475-T6151 da/dN
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85543
7075-T651 da/dt
7079-T651 da/dt
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7178-T651 da/dt
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85631
2219-T87 K_{Ic}
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85836
2024-T851 K_{Ic}
2024-T852 K_{Ic}
2219-T851 K_{Ic}
2219-T852 K_{Ic}
7049-T7352 K_{Ic}
7075-T73651 K_{Ic}
7075-T73511 K_{Ic}
7075-T73652 K_{Ic}
7075-T7651 K_{Ic}

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85837
2024-T851 da/dN
2024-T852 da/dN
2219-T851 da/dN
2219-T8511 da/dN
2219-T852 da/dN
7050-T7351 da/dN
7050-T7351 da/dN
7075-T7651 da/dN
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7050-T736 K_{Ic}
7175-T736 K_{Ic}, da/dN

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86210
2024-T852 K_{Ic}
7075-T73511 K_{Ic}
7075-T7651 K_{Ic}
7075-T76511 K_{Ic}

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TABLE 8.22 (con't)

86212

2024-T3	da/dN
7050-T736	K_{Ic}, K_{Iscc}
7075-T76511	K_{Ic}, K_{Iscc}
7475-T61	da/dN
7475-T761	da/dN, da/dt
7475(ALCLAD)-T61	da/dN
7475(ALCLAD)-T761	da/dN

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86213

2014-T6	K_{Ic}, K_c, da/dN	7075-T6510	K_{Ic}
2014-T61	K_{Ic}	7075-T6511	K_{Ic}
2014-T611	K_{Ic}	7075-T73	K_{Ic}, K_c
2014-T651	K_{Ic}, K_c	7075-T7351	K_{Ic}, K_c
2020-T6	K_{Ic}, K_c	7075-T73510	K_{Ic}
2020-T651	K_{Ic}, K_c, da/dN	7075-T73511	K_{Ic}
2020(ALCLAD)-T6	K_c	7075-T7352	K_{Ic}
2021-T8151	K_{Ic}	7075-T76	K_{Ic}, K_c
2024-T3	K_c, da/dN	7075-T7651	K_{Ic}, K_c
2024-T351	K_{Ic}, K_c	7075-T7651 (SP)	K_{Ic}
2024-T36	K_c	7075-T76511	K_{Ic}
2024-T6	K_c	7075(ALCLAD)-T6	da/dN
2024-T81	K_c	7075(ALCLAD)-T7651	K_{Ic}
2024-T851	K_{Ic}, K_c	7079-T6	K_{Ic}, K_c
2024-T852	K_{Ic}	7079-T651	K_{Ic}, K_c
2024-T86	K_c	7079-T652	K_{Ic}
2024(ALCLAD)-T3	K_c, da/dN	7079(ALCLAD)-T6	K_c
2024(ALCLAD)-T86	K_c	7080-T7	K_{Ic}
2124-T351(417)	K_{Ic}	7175-T66	K_{Ic}
2124-T851	K_c	7175-T73	K_{Ic}
2124-T851 (SP)	K_{Ic}	7175-T7352	K_{Ic}
2124-T851 (417)	K_{Ic}	7175-T736	K_{Ic}
2214-T651	K_{Ic}	7175-T73652	K_{Ic}
2214-T651 (417)	K_{Ic}	7178-T6	K_c
2219-T81	K_c	7178-T651	K_{Ic}, K_c
2219-T851	K_{Ic}, K_c	7178-T7651	K_{Ic}, K_c, da/
2219-T852	K_{Ic}	7178-T76510	K_{Ic}, da/dN
2219-T87	K_{Ic}, K_c	7178-T76511	K_{Ic}
2618-T61	K_c	7178(ALCLAD)-T6	K_c
2618-T651	K_{Ic}	7178(ALCLAD)-T76	K_c
6061-T6	K_c	7475-T6	K_{Ic}
6061-T651	K_{Ic}, K_c	7475-T61	K_c
7001-T75	K_{Ic}, K_c	7475-T651	K_{Ic}, da/dN
7005-T6	K_c	7475-T651 (SP)	K_{Ic}
7005-T6351	K_{Ic}, K_c	7475-T73	K_{Ic}
7049-T73	K_{Ic}	7475-T7351	K_{Ic}
7049-T7351	K_{Ic}	7475-T7351 (SP)	K_{Ic}
7049-T7352	K_{Ic}	7475-T736	K_{Ic}
7050-T6	da/dN	7475-T76	da/dN
7050-T7352	K_{Ic}	7475-T761	K_c
7050-T736	K_{Ic}	7475-T7651	K_{Ic}
7050-T73651	K_{Ic}	7475-T7651 (SP)	K_{Ic}
7050-T73652	K_{Ic}	7475(ALCLAD)-T73	K_c
7050-T76	da/dN	7475(ALCLAD)-T731	K_c
7050-T76511	K_{Ic}	7475(ALCLAD)-T761	K_c, da/dN
7075-T6	K_c, da/dN	7475(ALCLAD)-T761	K_c, da/dN
7075-T651	K_{Ic}, K_c		

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86429 2024-T851 K_{Ic}
7050-T73651 K_{Ic}

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86493 7050-T73651

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86574 7050-T73651 K_{Ic}
7050-T7651 K_{Ic}
7475-T7651 K_{Ic}

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86575 2024-T81 da/dN
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86688

2014-T651	K_{Iscc}	2219-T87	K_{Ic}, K_{Iscc}
2021-T81	K_{Iscc}	6061-T651	K_{Ic}, K_{Iscc}
2024-T351	K_{Iscc}	7075-T651	K_{Iscc}
2024-T851	K_{Iscc}	7075-T7351	K_{Iscc}
2219-T37	K_{Iscc}	7079-T651	K_{Iscc}

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86734

2014-T6	da/dN	2618-T81	da/dN
2024-T3	K_c	7075-T6	K_c
2024-T351	K_c	7075(ALCLAD)-T6	K_c
2024-T4	K_c	7079-T6	da/dN
2024-T81	K_c, da/dN	7079-T651	da/dN
2024(ALCLAD)-T3	K_c		

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86842 2124-T851 da/dN
7049-T73 da/dN
7175-T736 da/dN
7475-T61 K_c, da/dN
7475-T761 K_c, da/dN
7475(ALCLAD)-T61 K_c

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86844 7050-T7351 da/dN
7050-T73651 da/dN
7050-T7651 da/dN

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88140 7075-T651 K_{Ic}, da/dN
7475-T651 da/dN

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88174 7050-T73651 K_{Ic}, da/dN

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88186 7050-T7351 K_{Ic}

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88468 2219-T851 da/dN

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88578 2024-T861 da/dN

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88579

2024-T851	da/dN	7075-T73511	da/dN
2024-T852	da/dN	7075-T7352	da/dN
2219-T851	da/dN	7075-T7651	da/dN
7050-T73	da/dN	7075-T76511	da/dN
7050-T73651	da/dN	7175-T73652	da/dN
7075-T7351	da/dN		

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88700 6061-T6 K_{Iscc}

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88742 2124-T851 K_{Ic}

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90011

2024-T351	K_{Ic}
2024-T851	K_{Ic}
2024-T852	K_{Ic}
2219-T851	K_{Ic}
7075-T7651	K_{Ic}

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90981 2024-T851 K_{Ic}, da/dN

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91123

7050-T736	K_{Ic}
7075-T76511	K_{Ic}

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91332

7050-T736	da/dN
7050-T73651	da/dN
7050-T7651	da/dN
7475-T651	da/dN
7475-T7651	da/dN

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AL001 2048-T851 K_{Ic}, da/dN
2219-T852 K_{Ic}, da/dN
7050-T7351 K_{Ic}, da/dN
7475-T7351 da/dN

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AL002

2020-T651 da/dN
7075-T6510 da/dN
7075-T73510 da/dN
7475-T651 da/dN

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AL003 7475-T651 da/dN

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AL004 7050-T76511 da/dN

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AL005 7075-T651 da/dN
7075-T6510 da/dN
7075-T7351 da/dN
7075-T73510 da/dN

FCGR Data Sheets on Aluminum Alloy 7075- Conditions T651, T6510, T7351, T73510, Plates, Bars, and Extrusions; Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL006 7050-T73511 da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T73511 Extrusions, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL007 7050-T7351X da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T7351X Extrusions, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL008 7050-T7651X da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T7651X Extrusions, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

TABLE 8.22 (con't)

AL009 7475-T7351 da/dN

FCGR Data Sheets on Aluminum Alloy 7475-T7351 Plate, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL010 2024-T351 da/dN

FCGR Data Sheets on Aluminum Alloy 2024-T351 Plate, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL011 2324-T39 da/dN

FCGR Data Sheets on Aluminum Alloy 2324-T39 Plate, Received From R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL012 7050(ALCLAD)-T76 da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T76 (ALCLAD), Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL013 7050-T73651 da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T73651 Plate, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL014 7150-T651 da/dN

FCGR Data Sheets on Aluminum Alloy 7150-T651 Plate, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

AL015 7050-T73651 K_{Ic}
7050-T73652 K_{Ic}, da/dN
7050-T76 da/dN

FCGR Data Sheets on Aluminum Alloy 7050-T73651 Plate and 7050-T73652 Forging, Received from R. J. Bucci, Aluminum Company of America, Alcoa Laboratories, August 1982.

BL001 7010-T73651 K_{Ic}, K_{Iscc}

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BL002 2124-T851 da/dN
7075-T7351 da/dN
7475-T7351 da/dN

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TABLE 8.22 (con't)

BW001	2014-T6	da/dN
	2024-T3511	da/dN
	7075-T6	da/dN
	7075-T6511	da/dN
	7079-T6	da/dN
	7178-T6	da/dN

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	7075-T6	da/dN
	7178-T6	da/dN

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BW005	2024-T3511	da/dN

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2124-T851	K_{Ic}	7079-T651	K_{Ic}
2219-T851	K_{Ic}	7079-T851	K_{Ic}
2419-T851	K_{Ic}	7175-T76511	K_{Ic}
7075-T651	K_{Ic}	7178-T7651	K_{Ic}
7075-T6510	K_{Ic}	7475-T651	K_{Ic}
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