

LMSC-HREC TR D951500-1B

 **Lockheed**  
Missiles & Space Company, Inc  
Huntsville Engineering Center

Cummings Research Park  
4800 Bradford Drive  
Huntsville, AL 35807

Appendix B

**FILAMENT WOUND  
DATA BASE DEVELOPMENT**

Revision 1  
March 1985

**Contract NAS8-35054**

Prepared for National Aeronautics and Space Administration  
Marshall Space Flight Center, AL 35812

by

**R. Scott Sharp  
William F. Braddock**

(NASA-CR-179070) FILAMENT WOUND DATA BASE  
LEVELPMENT, REVISION 1, APPENDIX B  
(Lockheed Missiles and Space Co.) 970 p

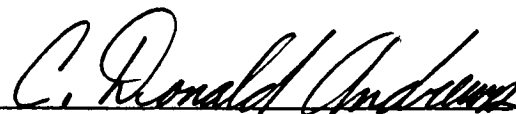
N87-21017

CSCL 22B

Unclas

G3/16 43360

APPROVED



C. Donald Andrews, Manager  
Systems Anal. & Sim. Section

## FOREWORD

This appendix presents the data Tape 8 data in tabular form. Each page consists of six-component force and moment coefficients as they vary with angle of attack at a specific Mach number and roll angle. The angle-of-attack range is from 0 to 180 deg in 5 deg increments. The six coefficients are normal force (CN), pitching moment (CM), side force (CY), yawing moment (CYM), axial force, (CA), and rolling moment (CR). Each successive page is incremented for roll angle in 45 deg increments from a roll angle range from 0 to 360 deg. The cycle is then repeated for the next Mach number. The Mach numbers in the data base are 0.4, 0.5, 0.55, 0.6, 0.7, 0.8, 0.9, 0.95, 1.05, 1.1, 1.2, 1.4, 1.96, 2.5, 3.0, and 3.48.

This report is presented in three parts:

Summary Report, LMSC-HREC TR D951500-1  
Tabular Data, LMSC-HREC TR D951500-1A  
Graphical Data, LMSC-HREC TR D951500-1B

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**NORMAL FORCE (CN)**

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0.7	B-37
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0.9	B-55
0.95	B-64
1.05	B-73
1.1	B-82
1.2	B-91
1.4	B-100
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2.5	B-118
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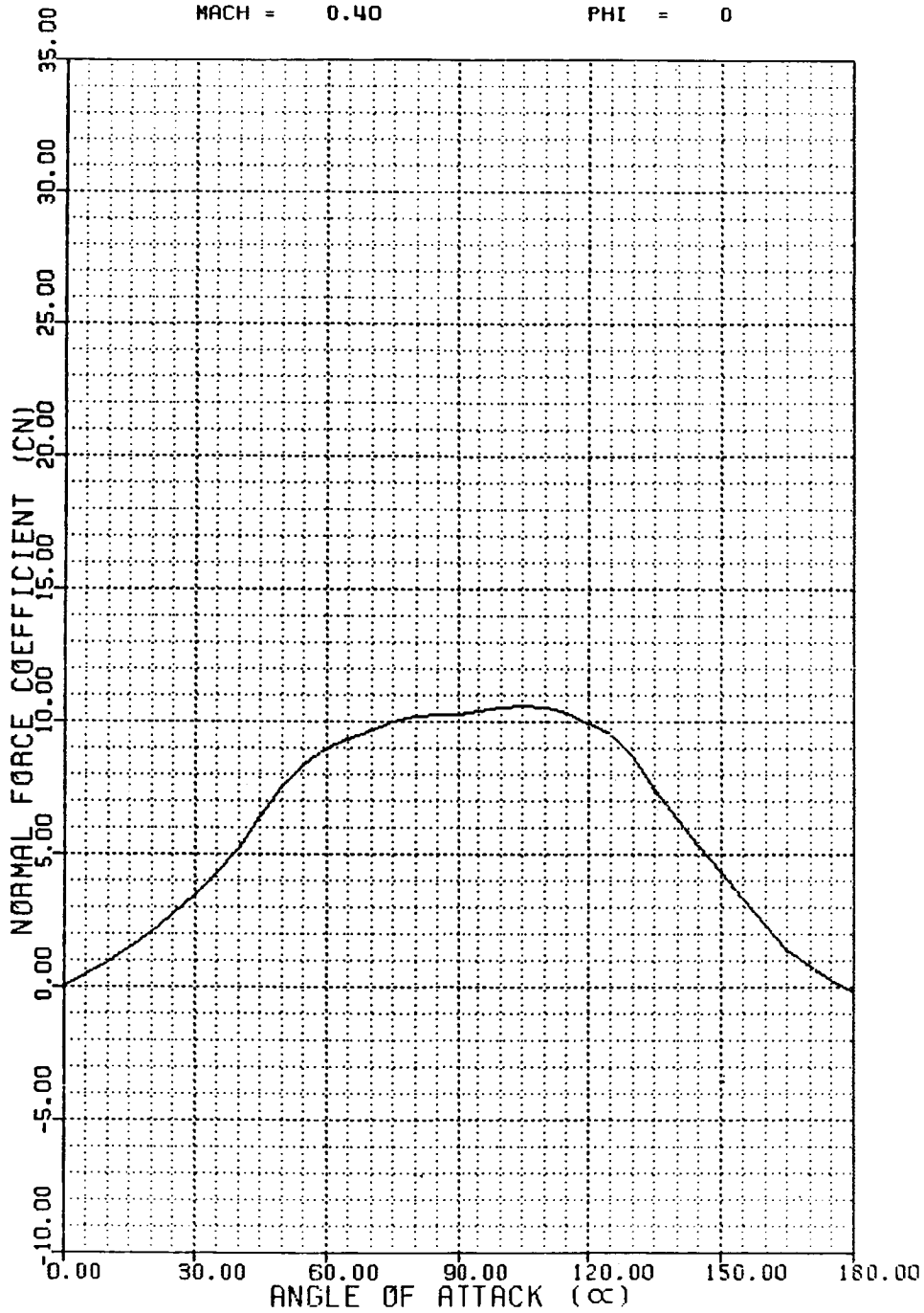
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LMSC-HREC TR D951500-1B

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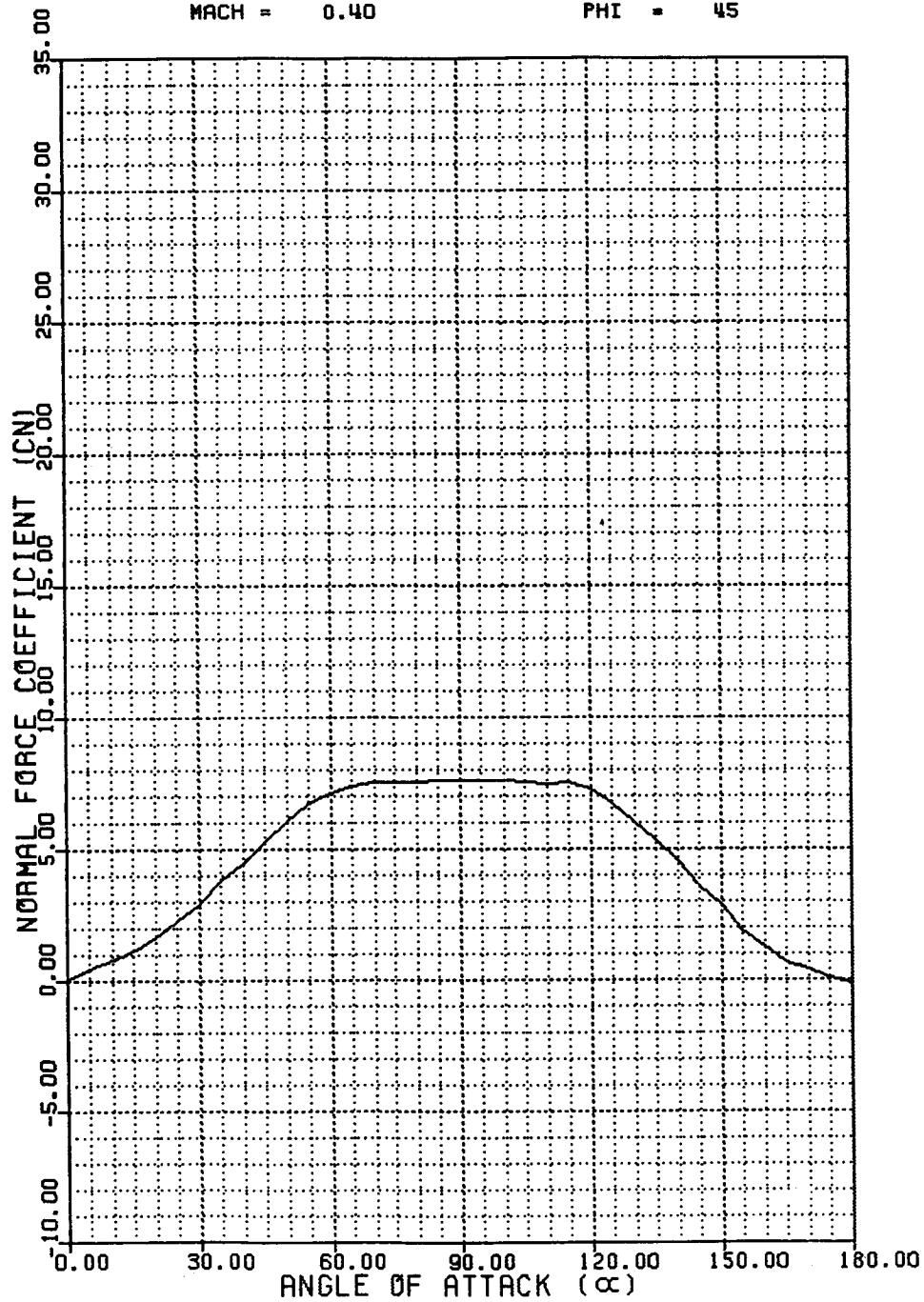
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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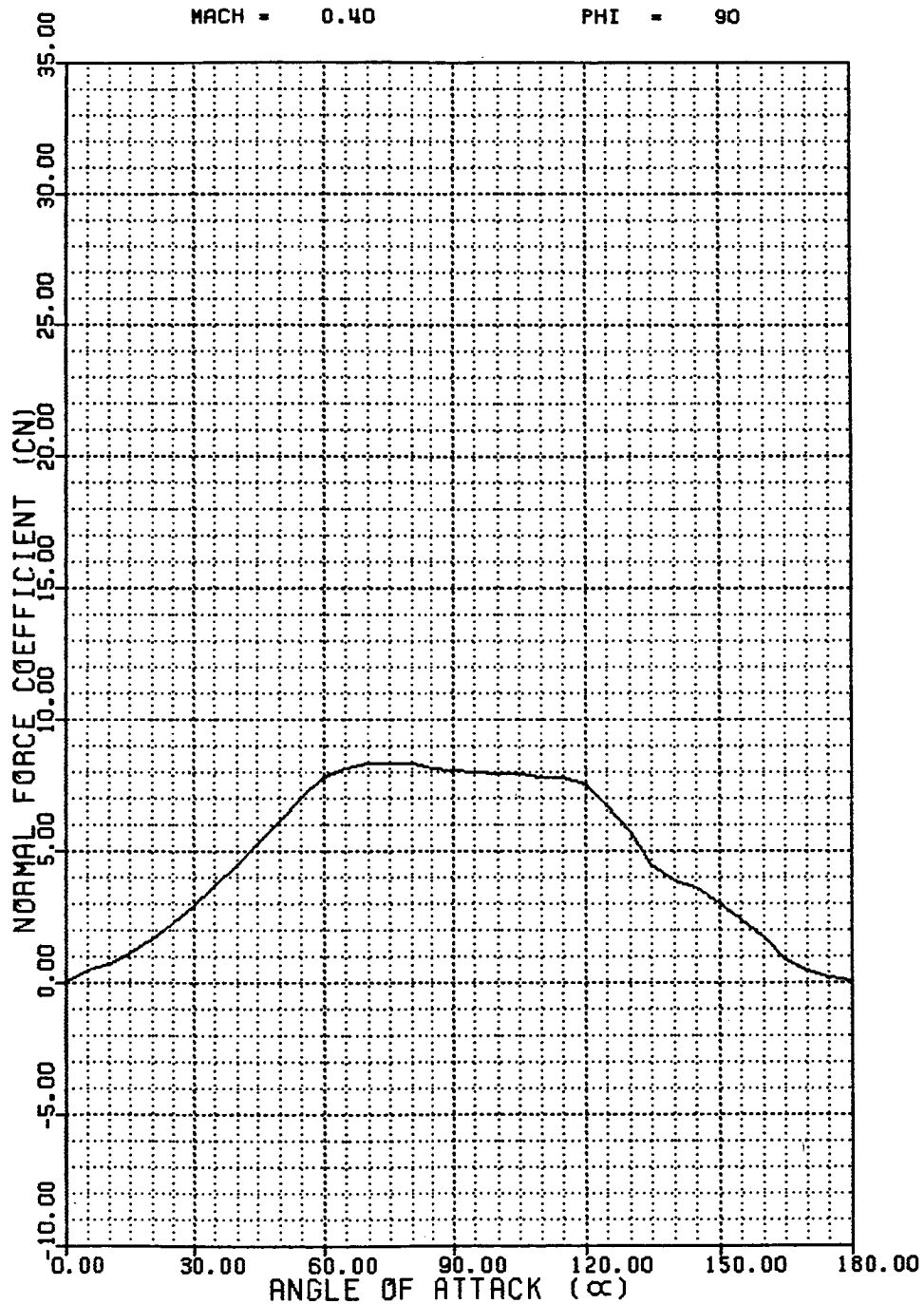
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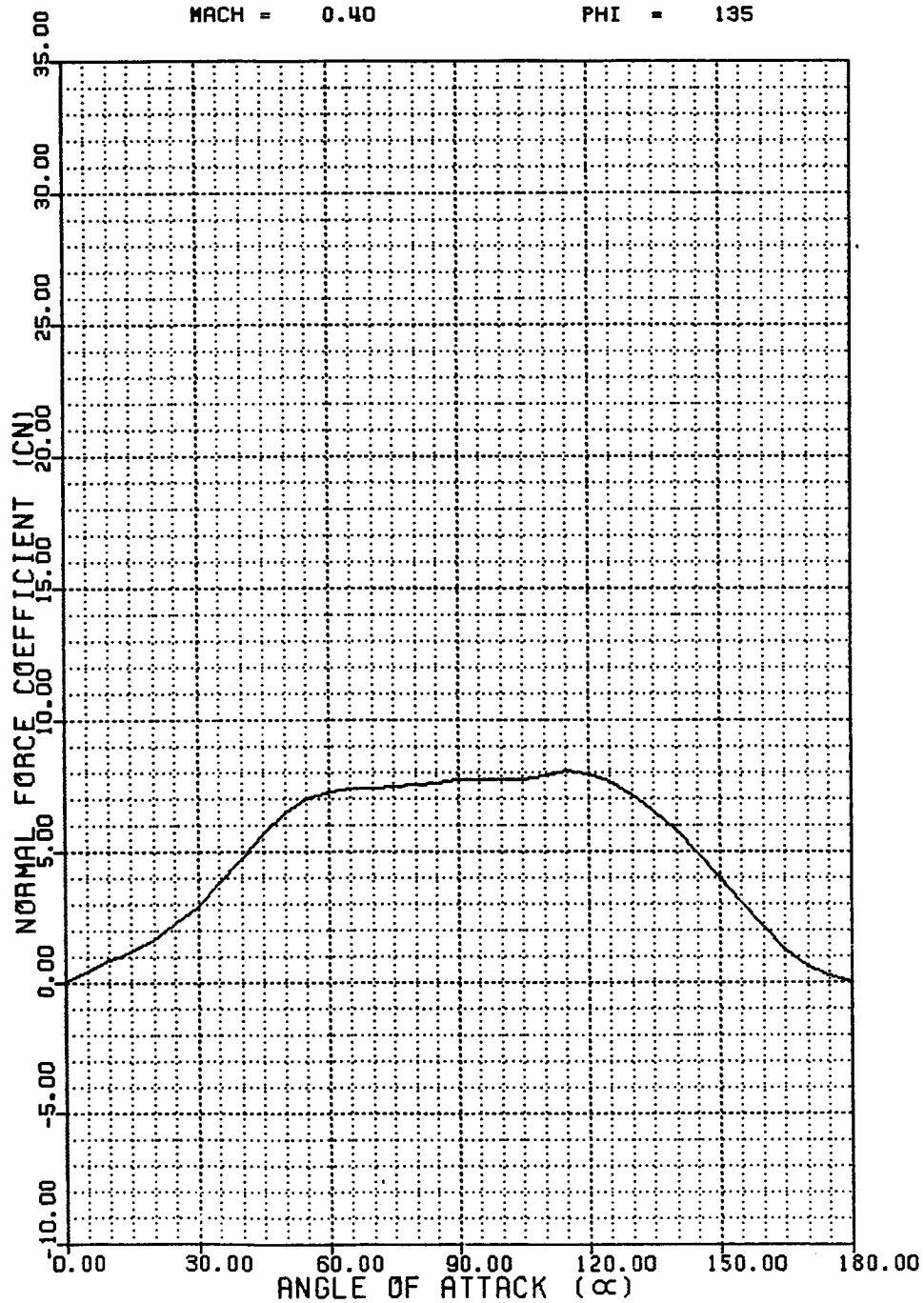
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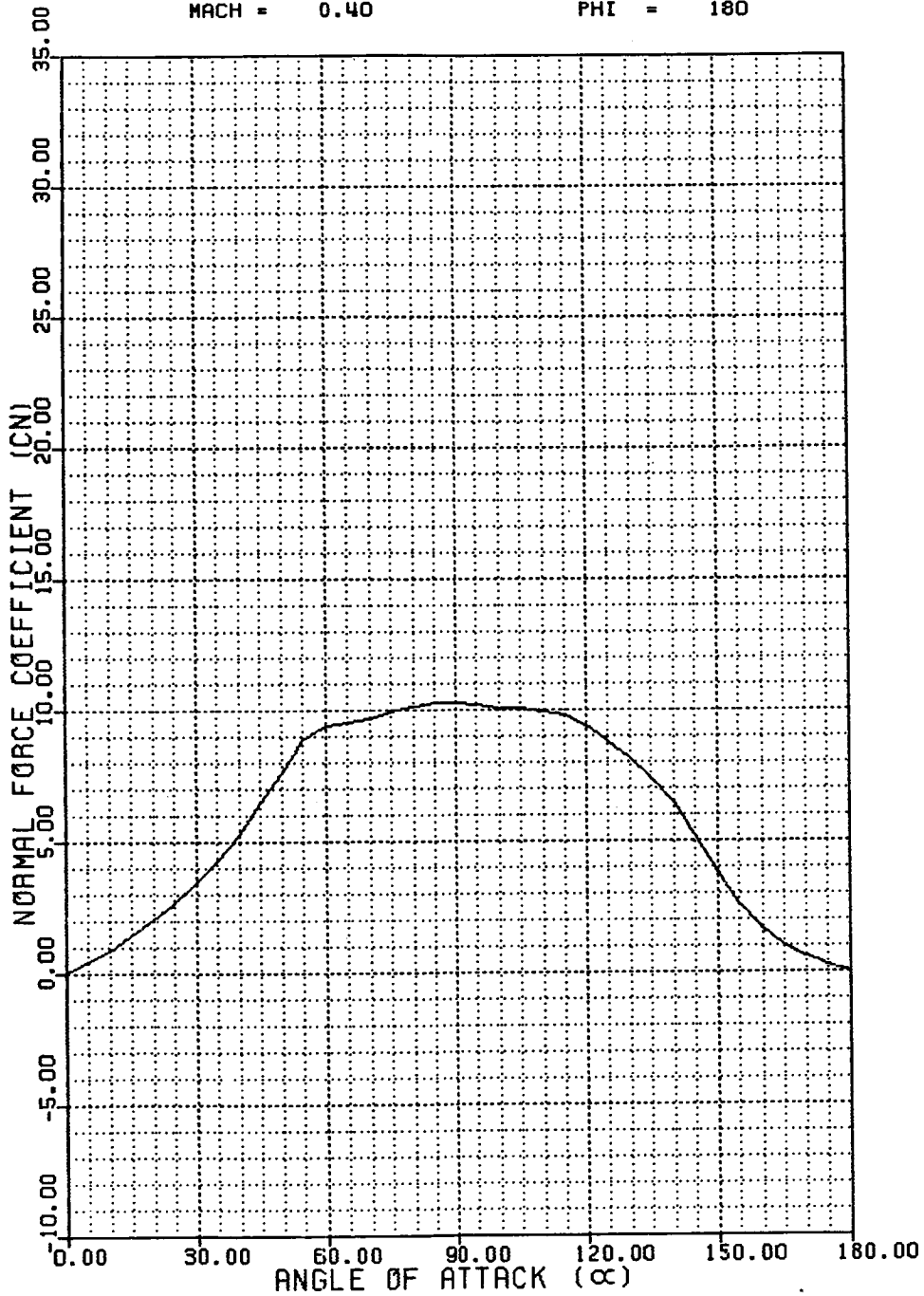
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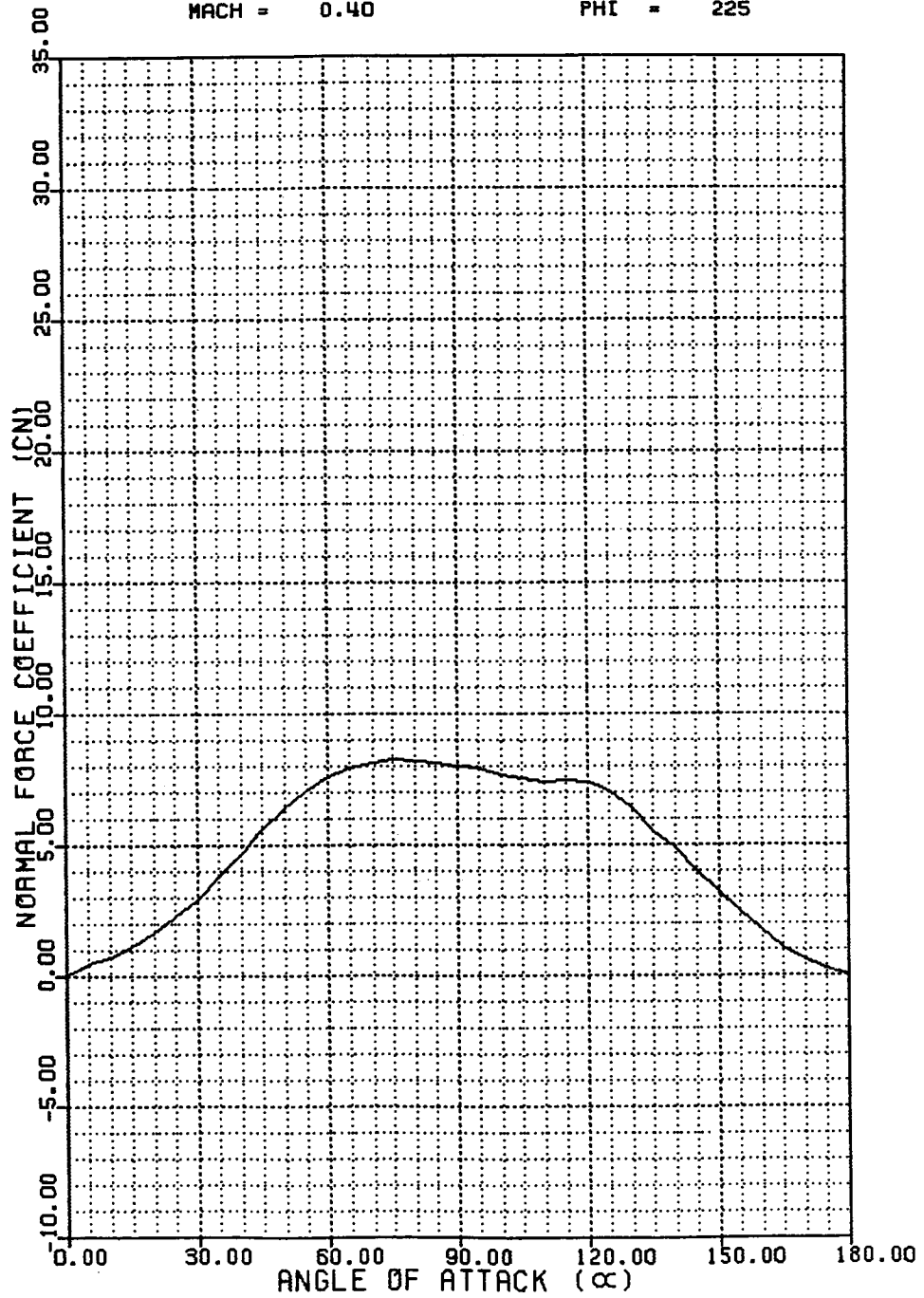
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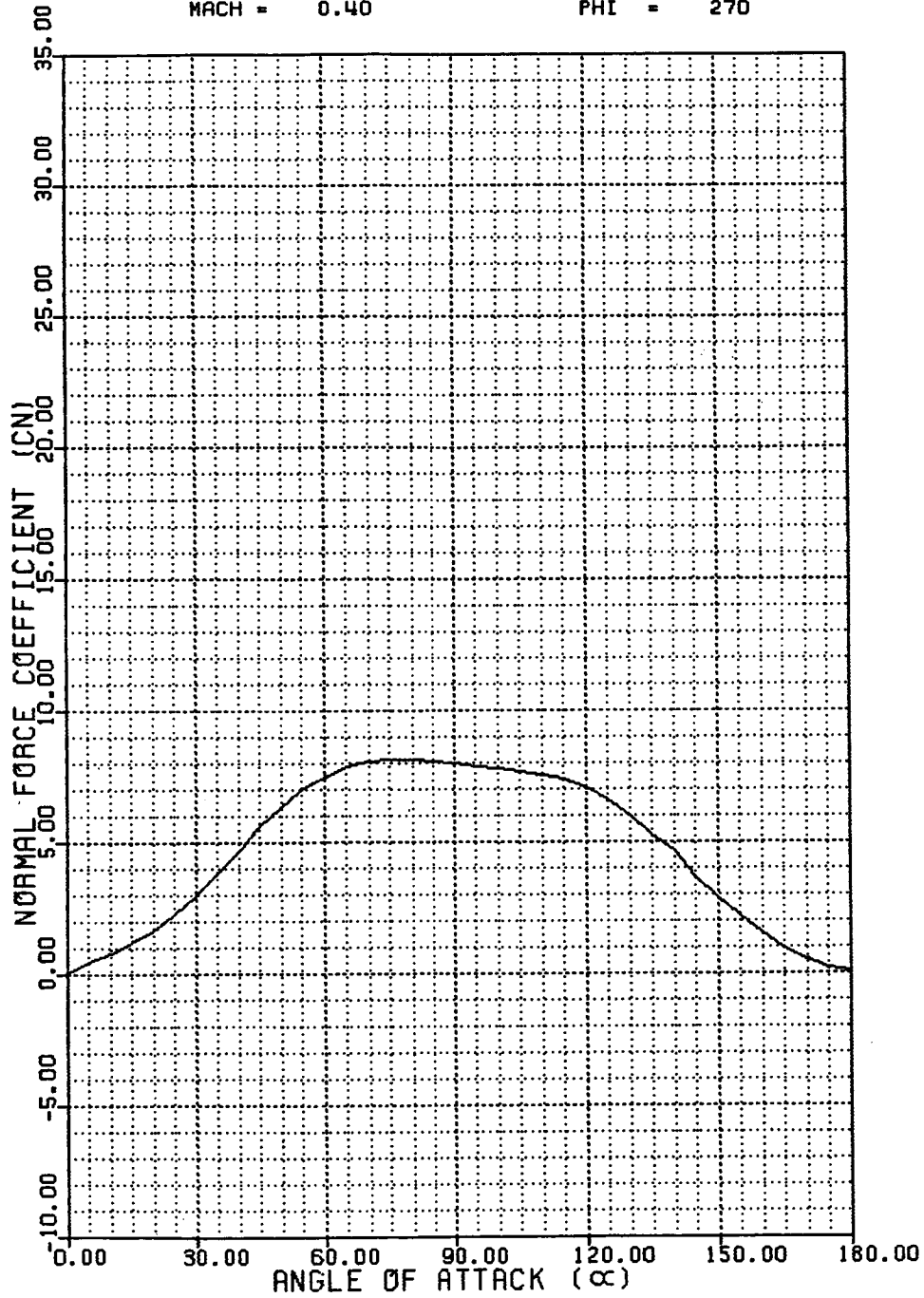
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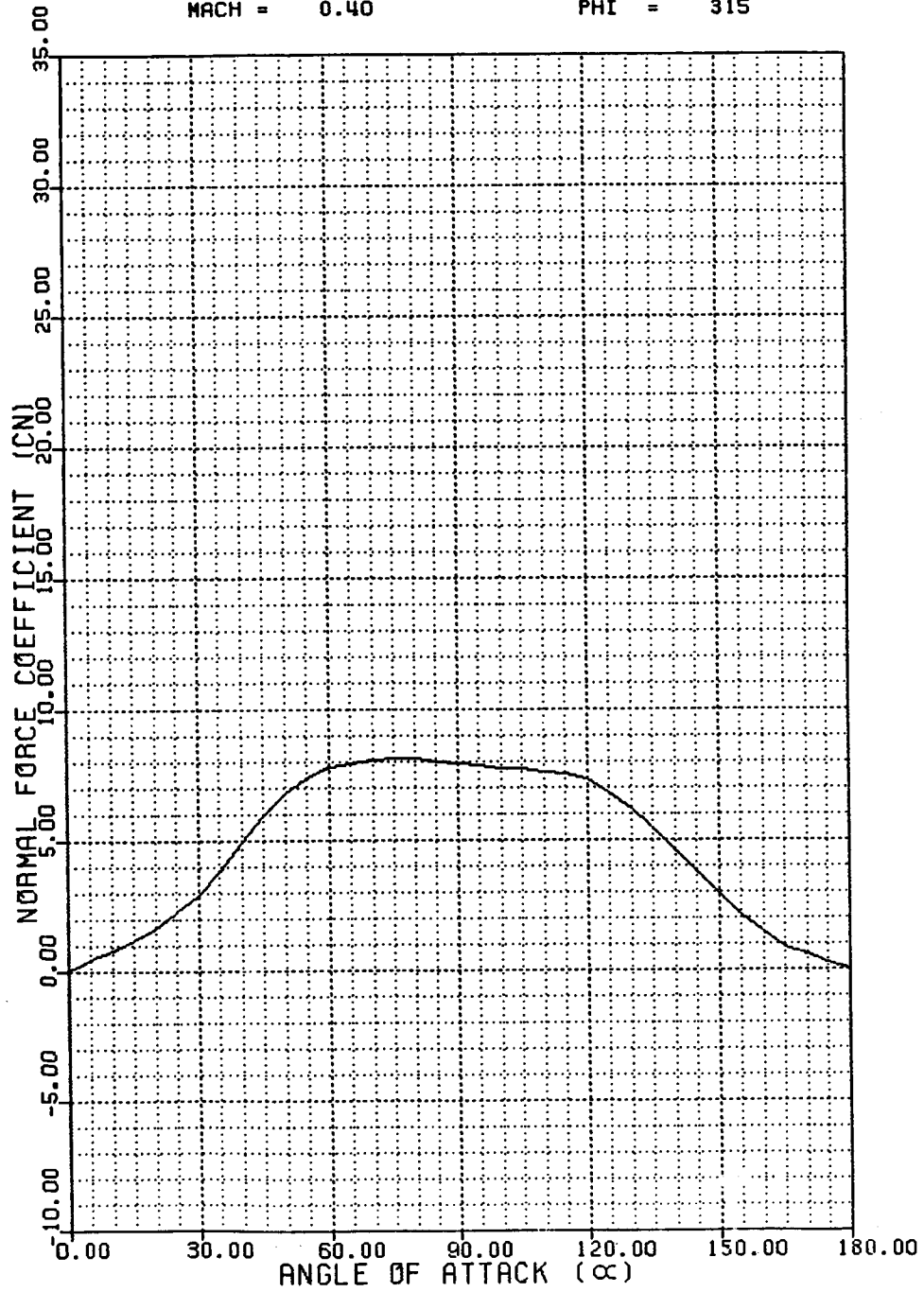
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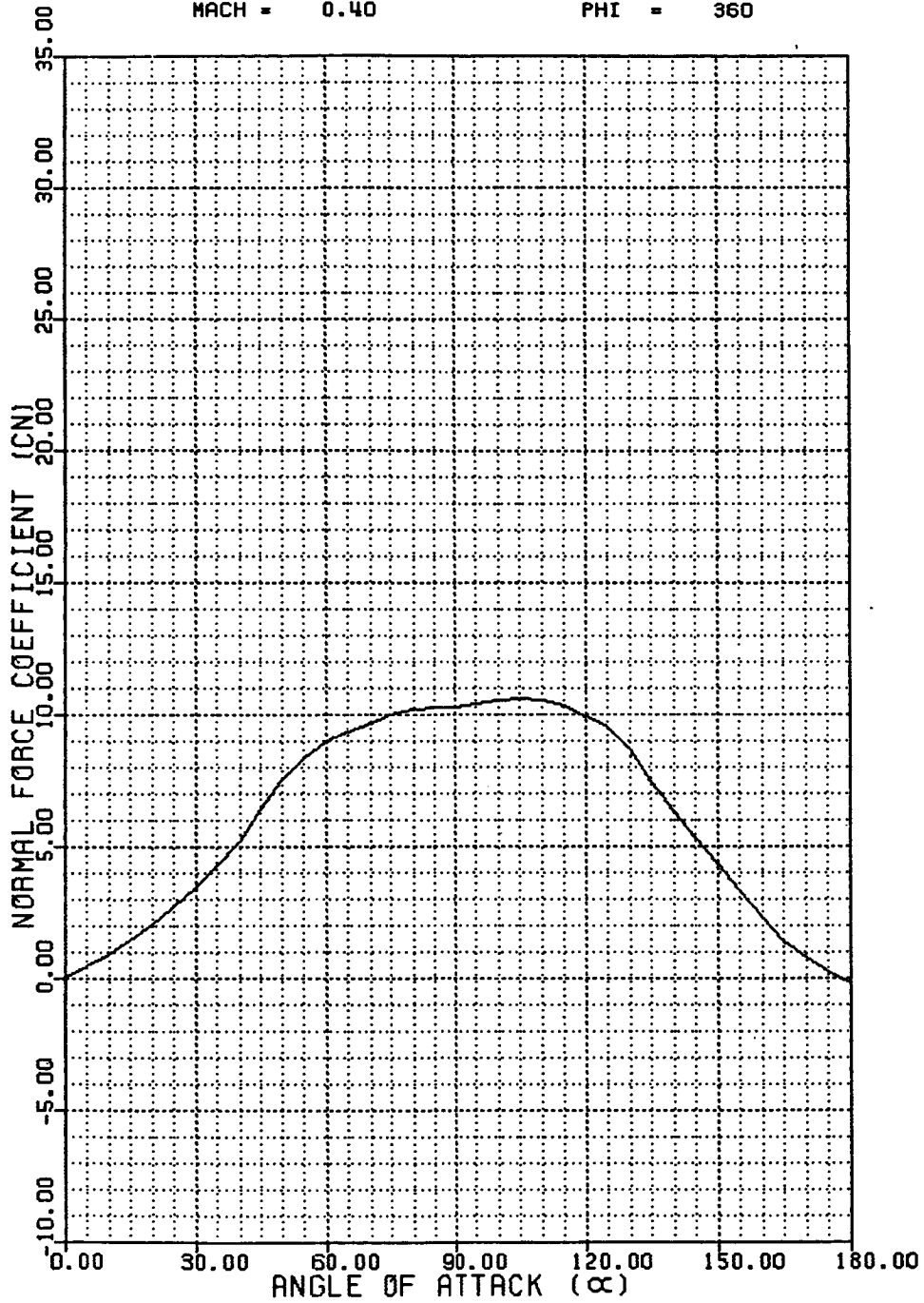


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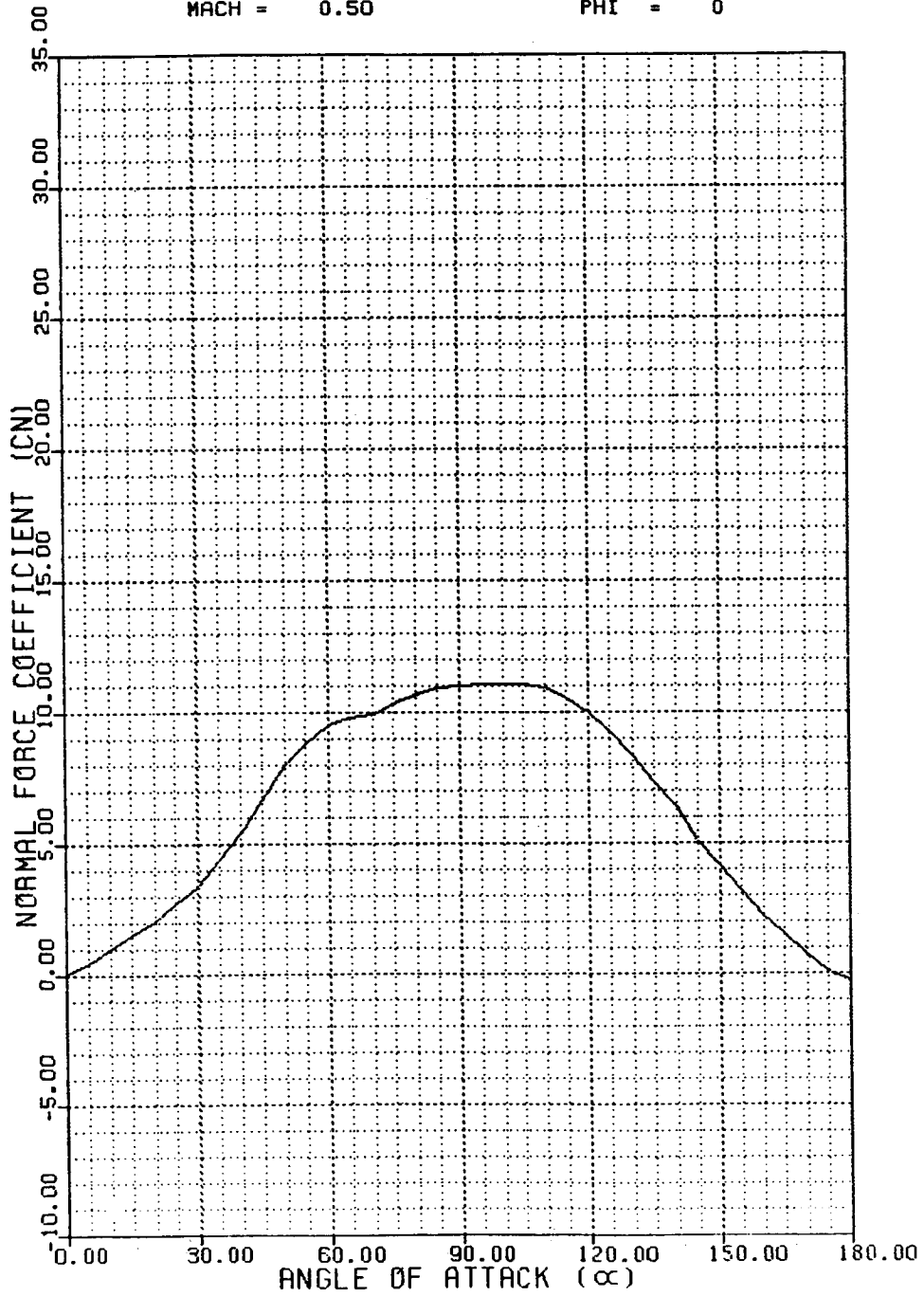
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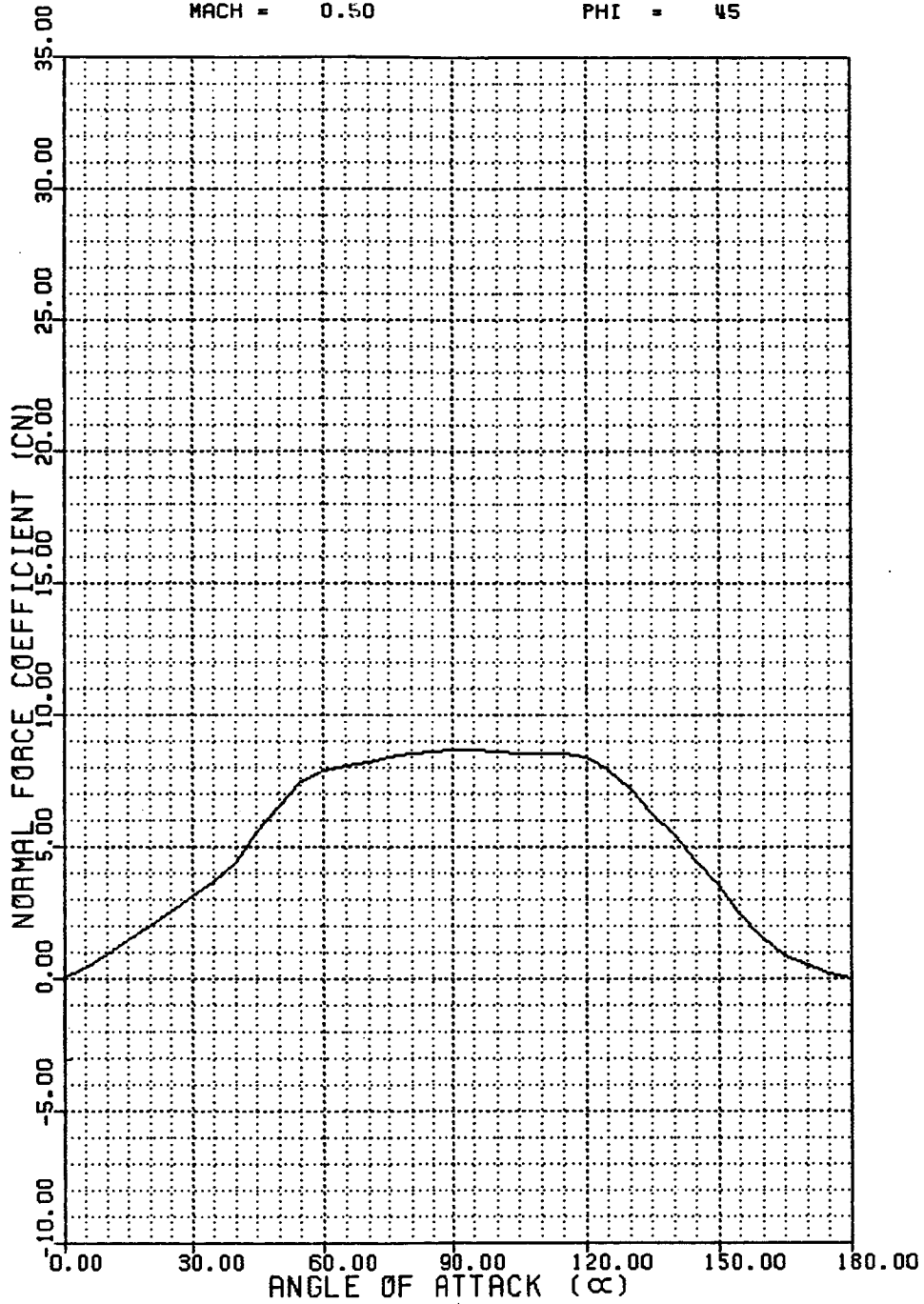
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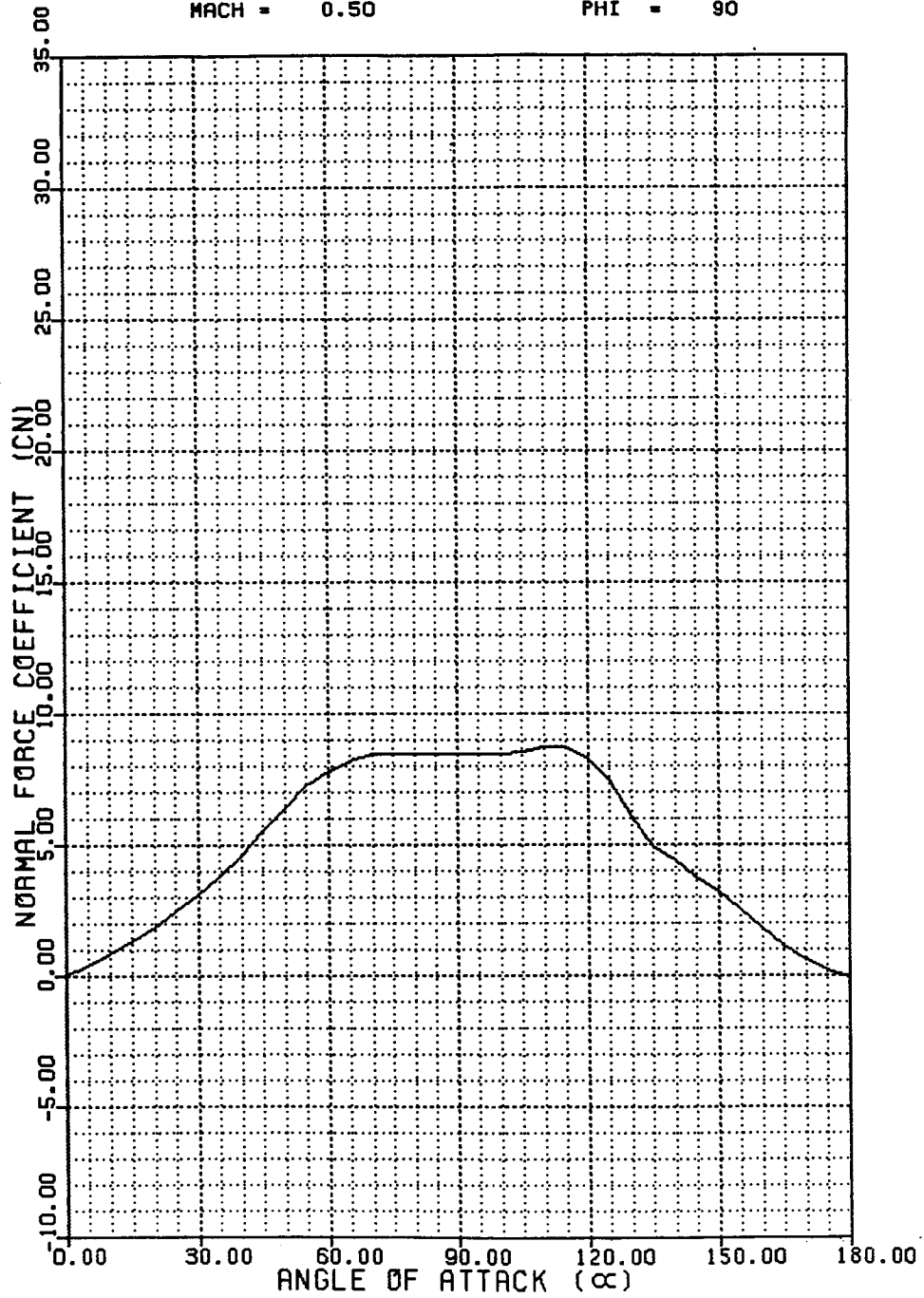


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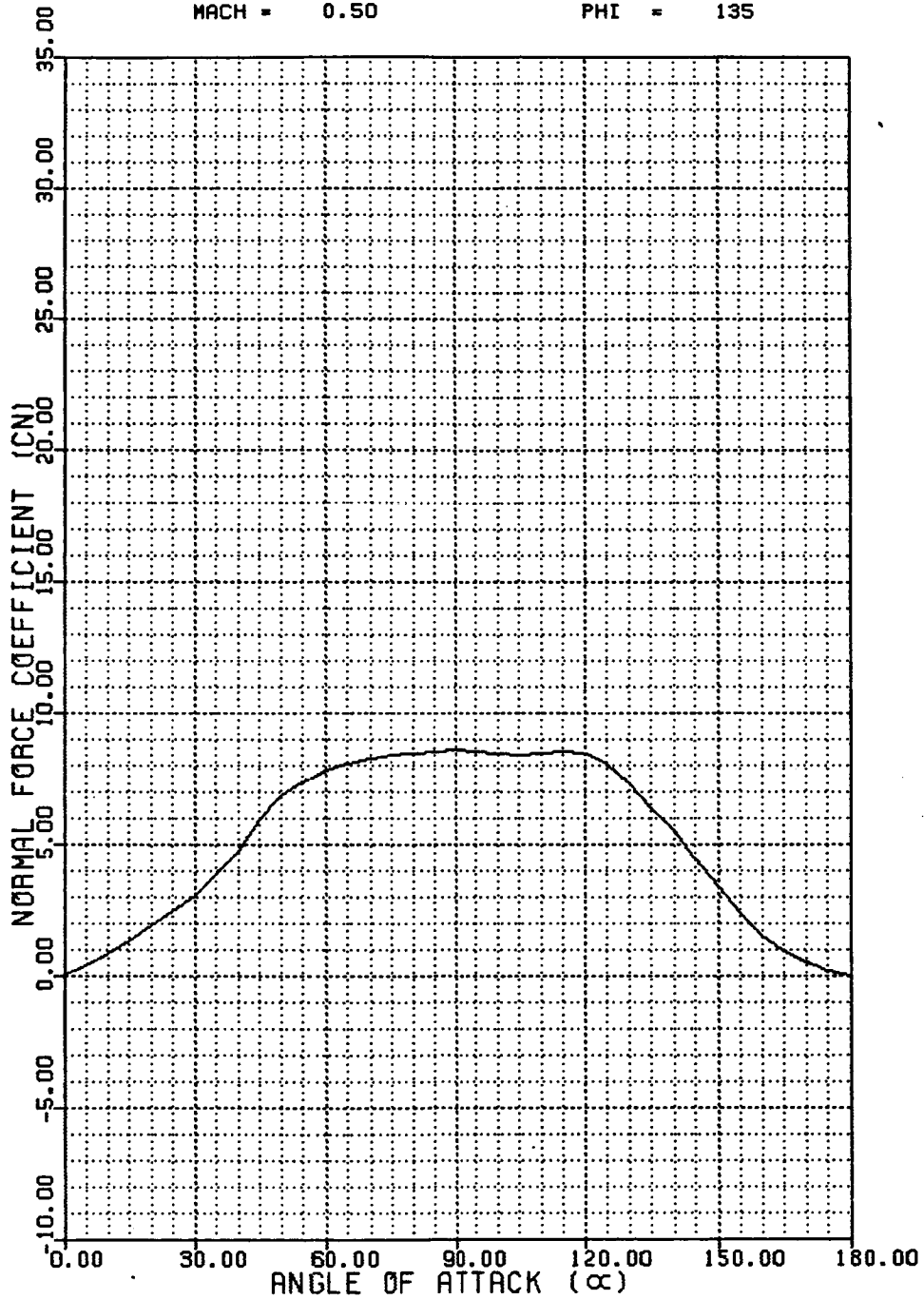
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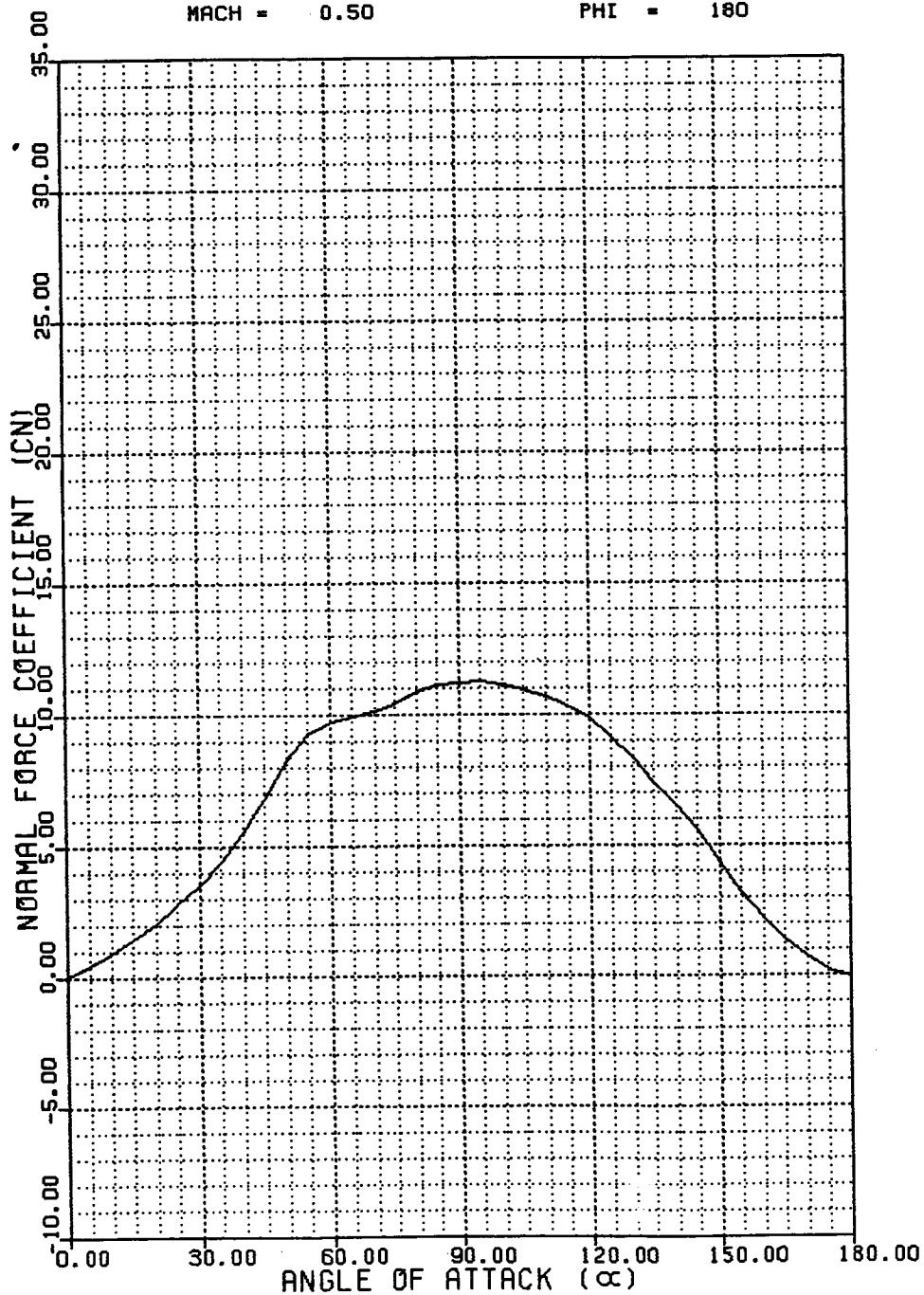
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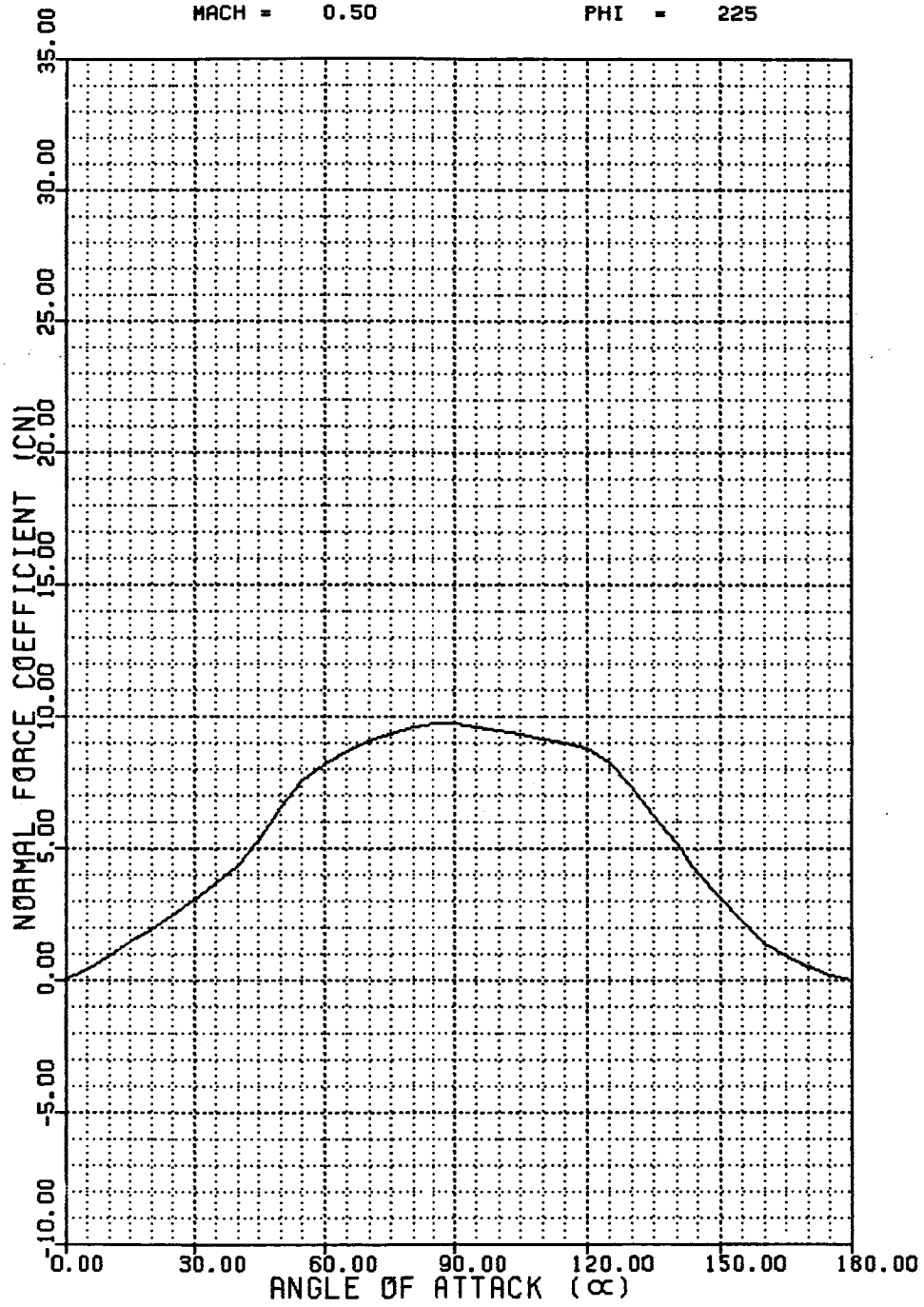
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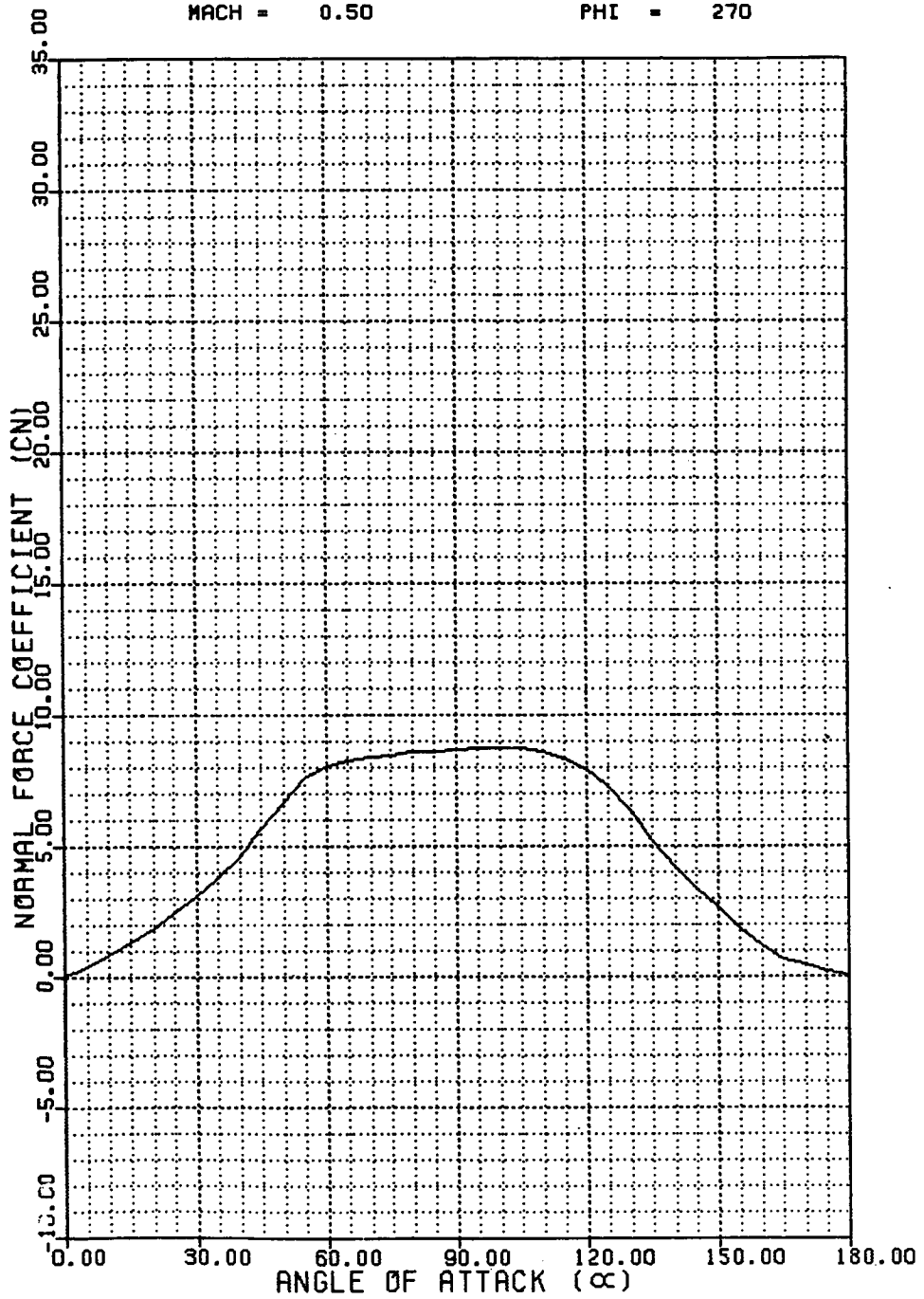
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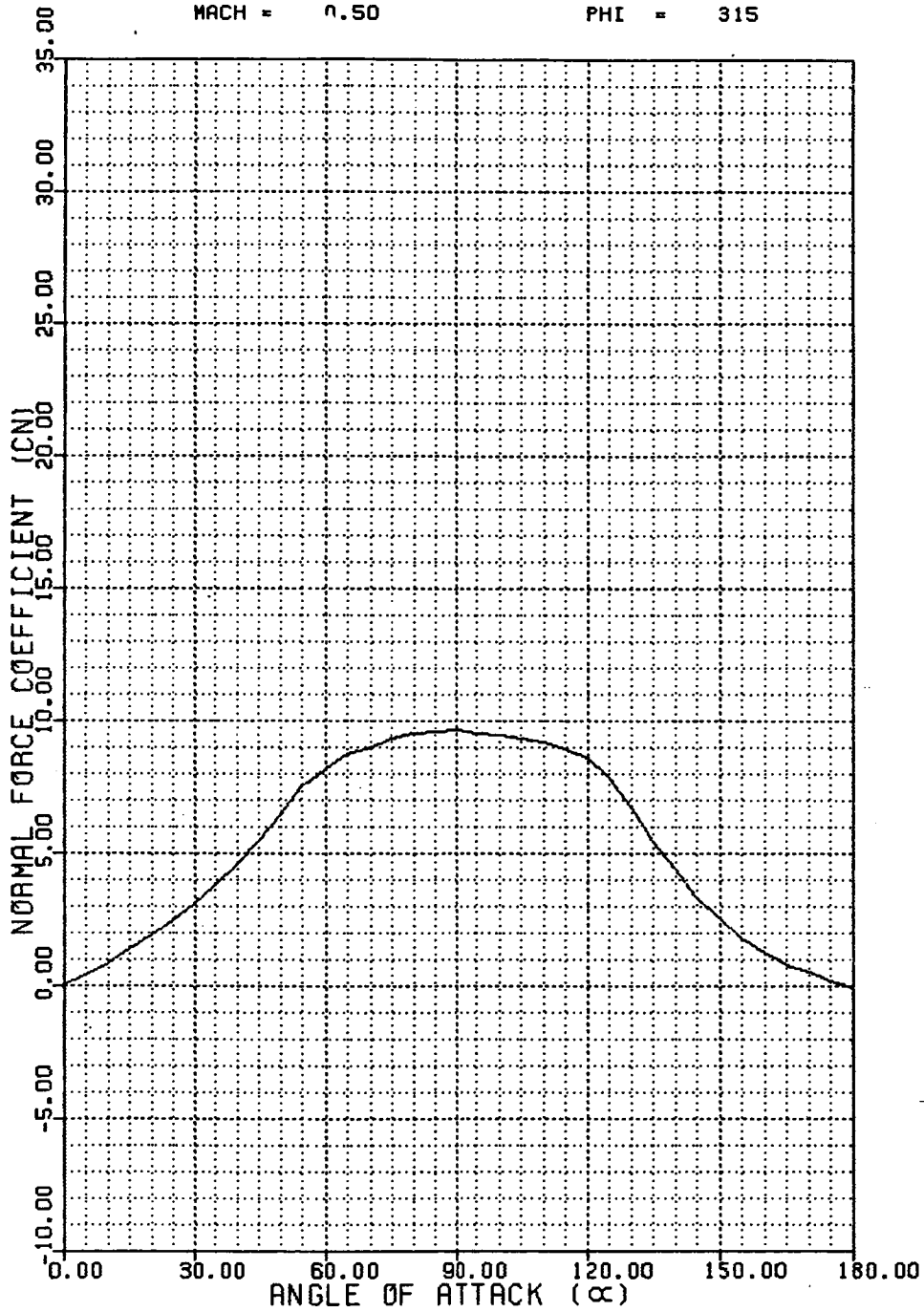
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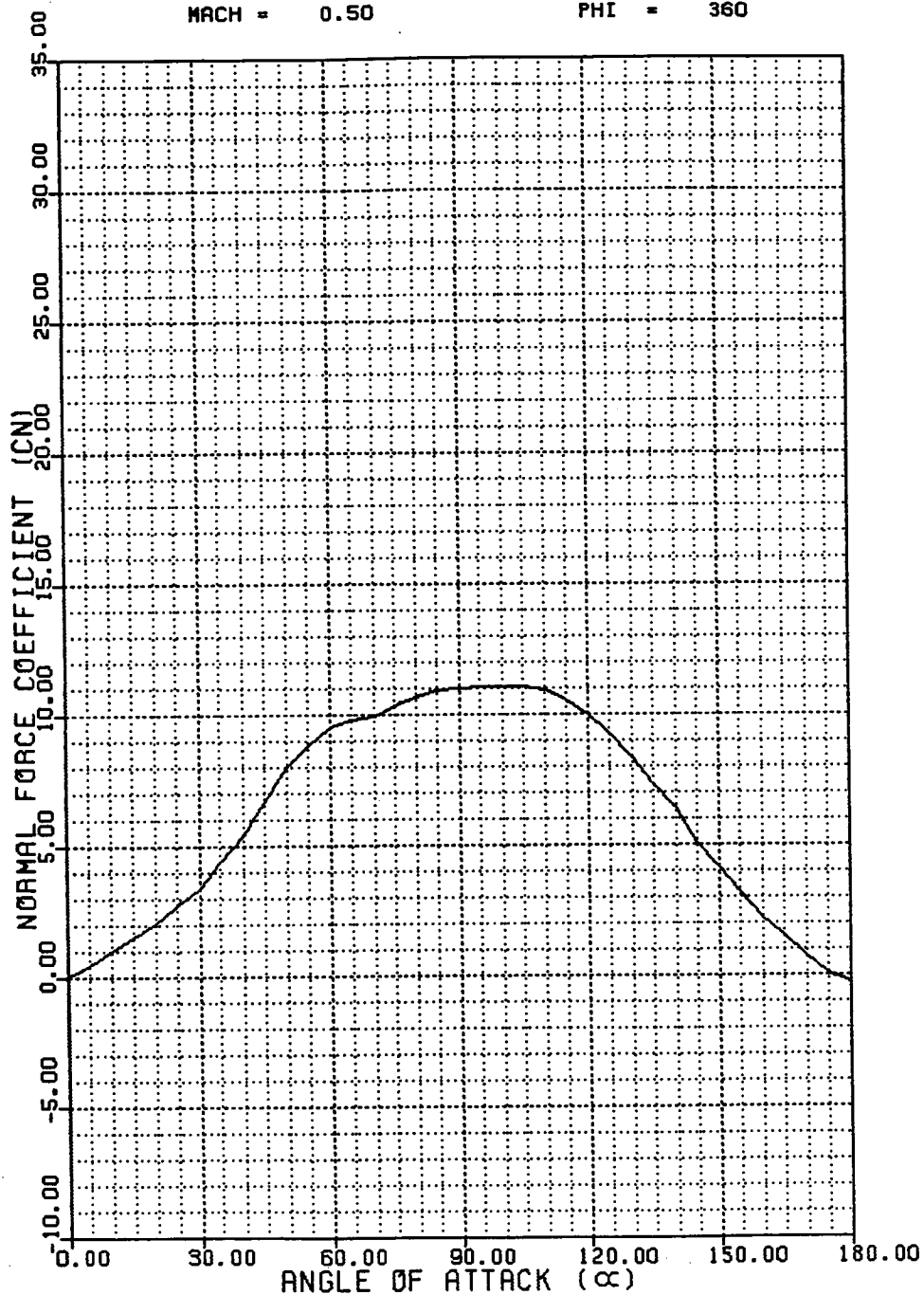
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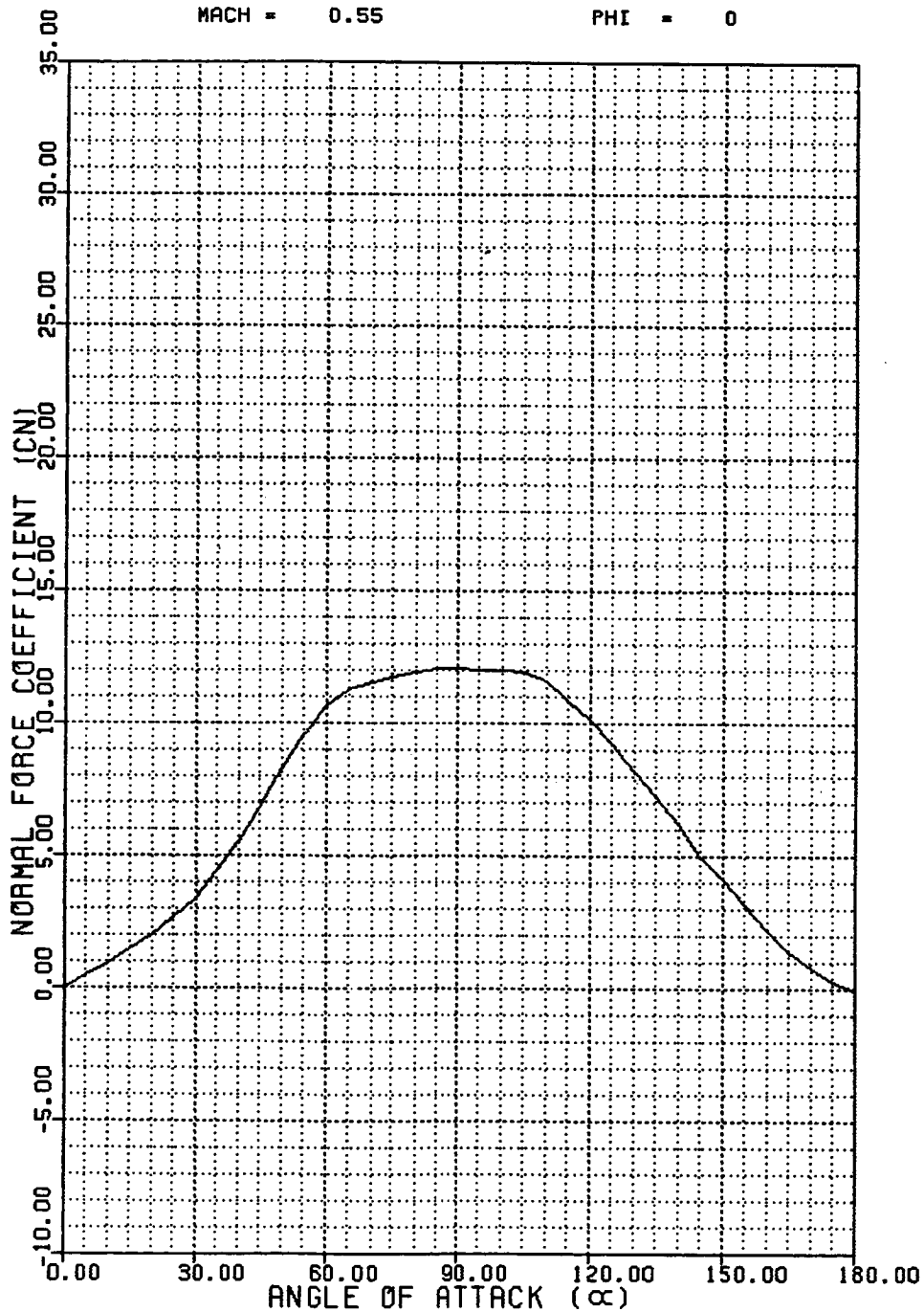




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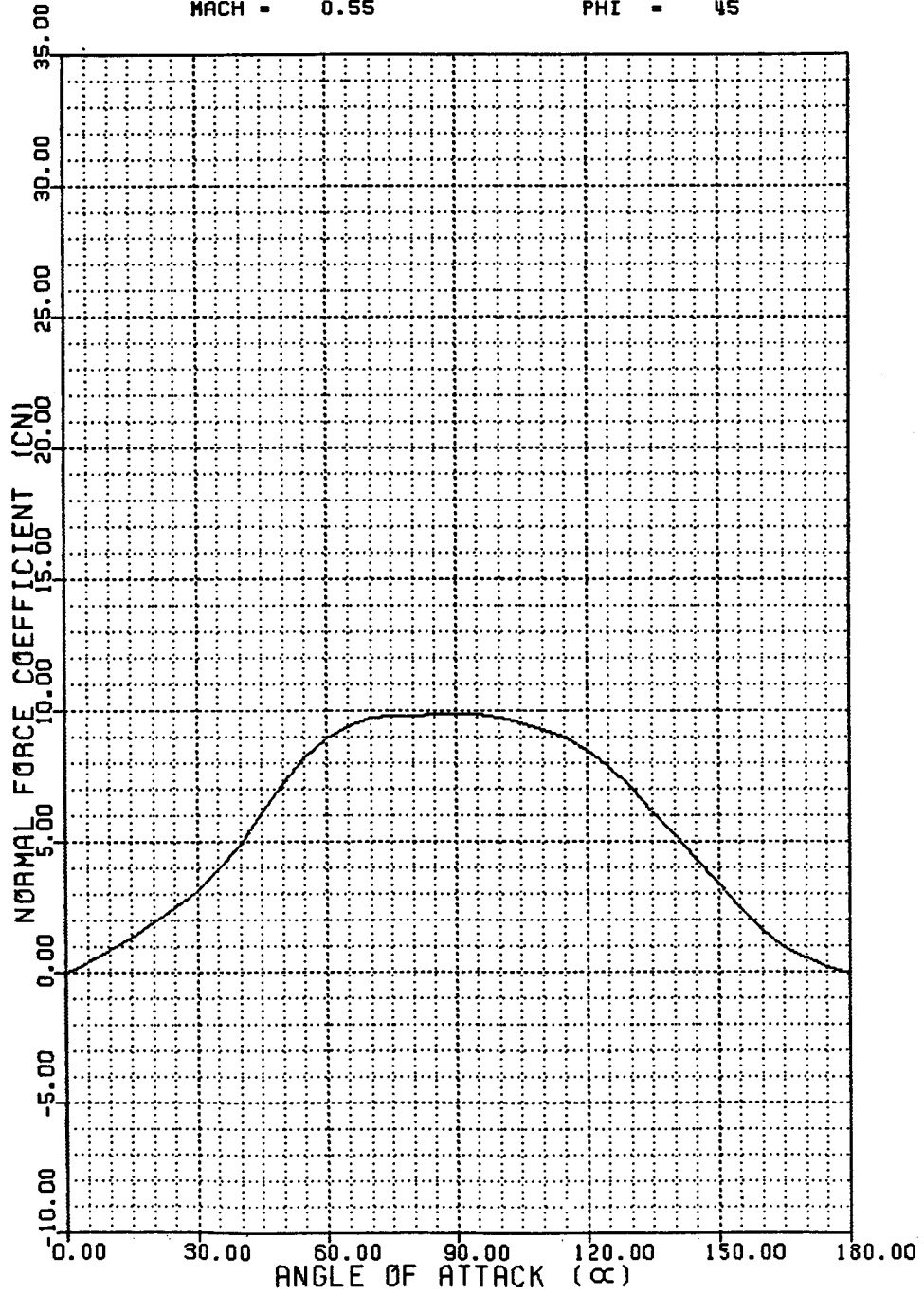
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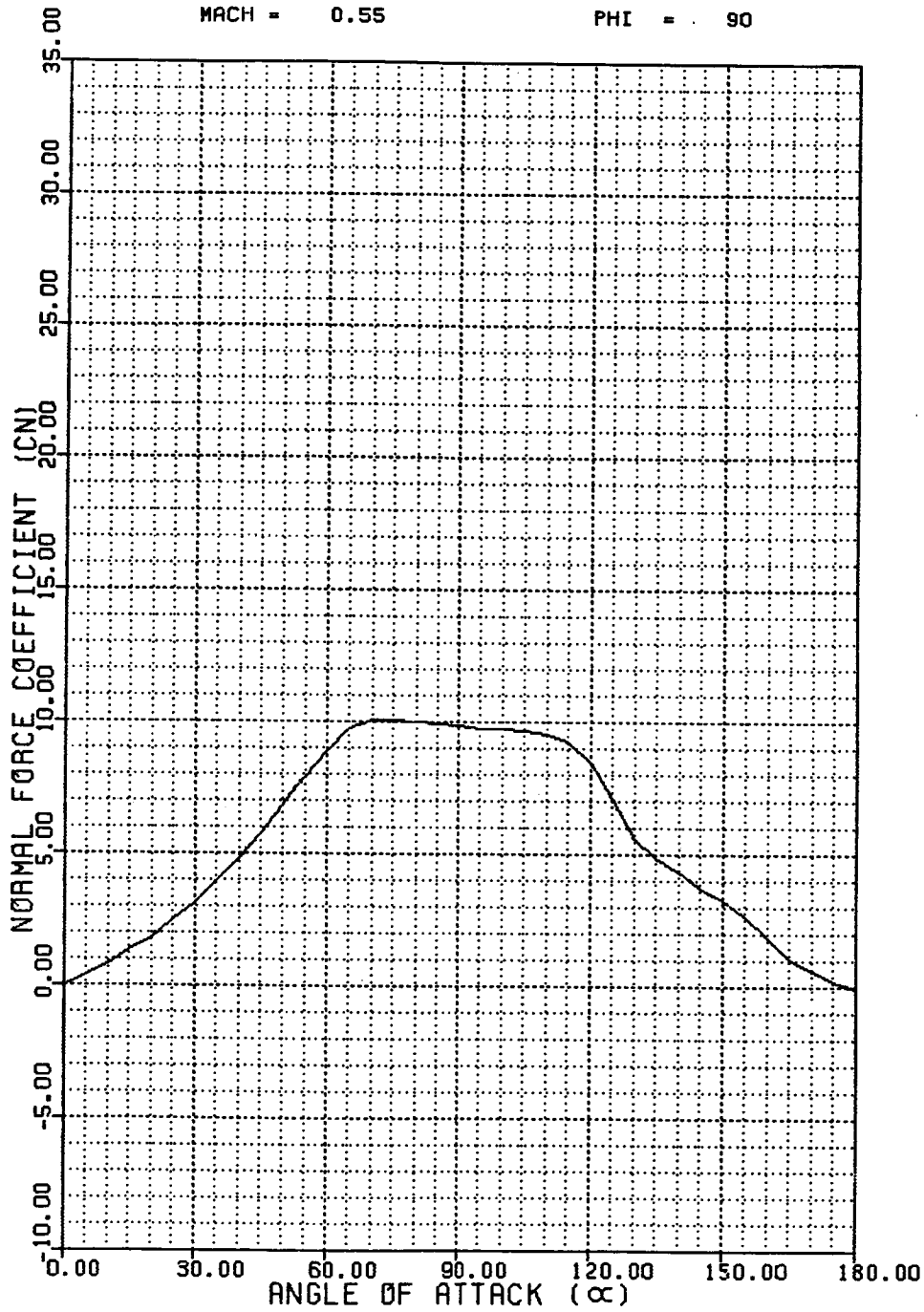
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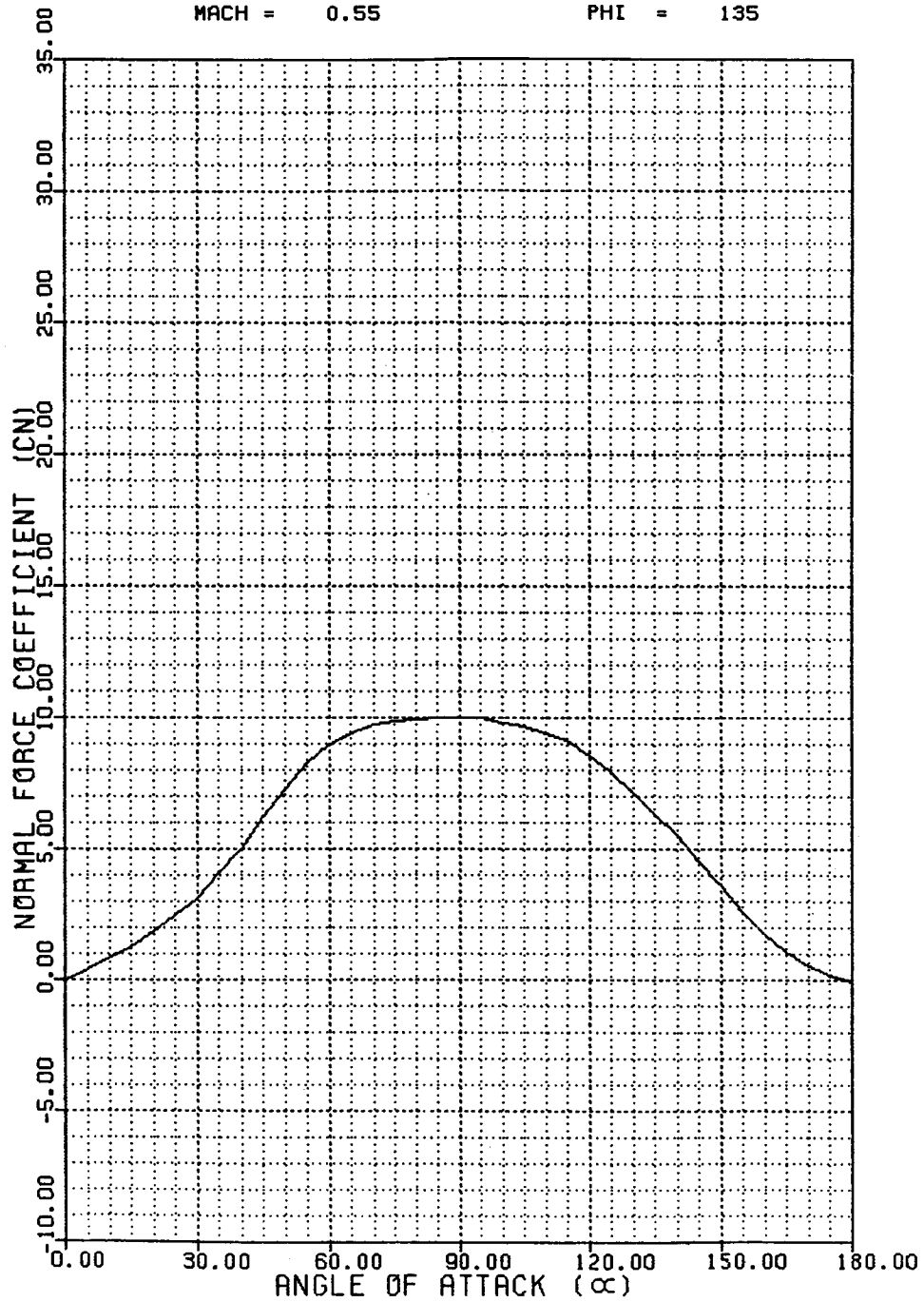


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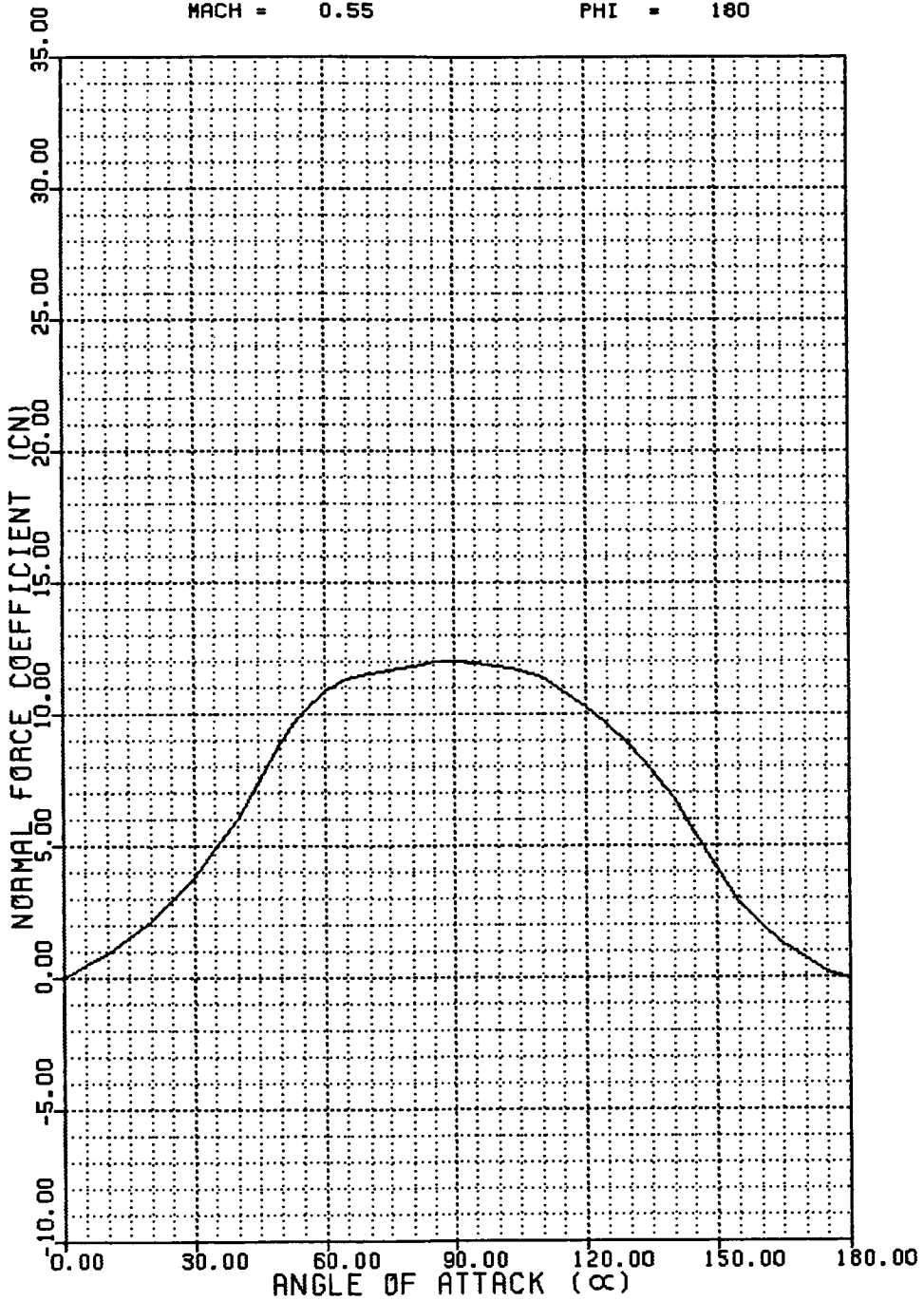
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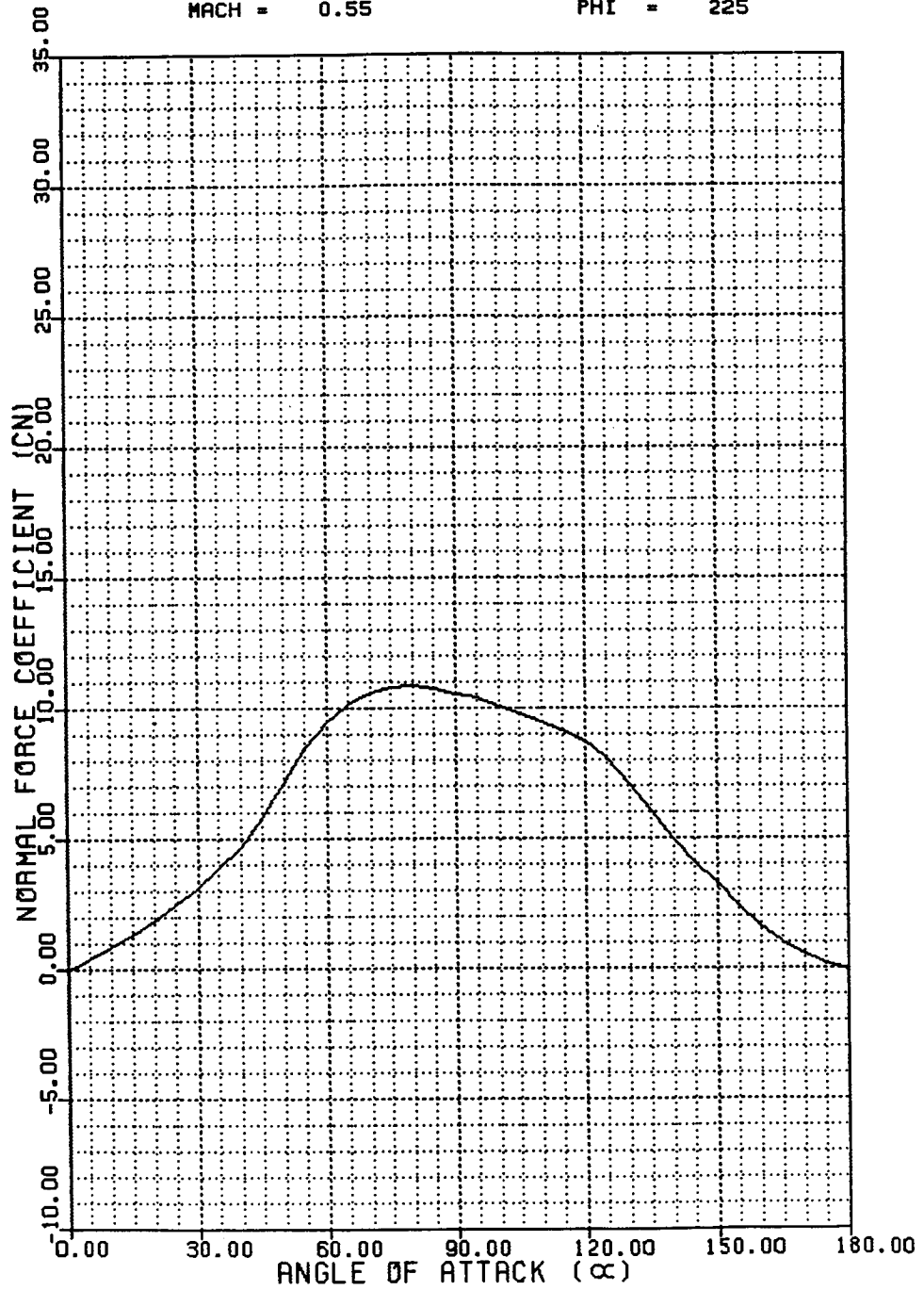
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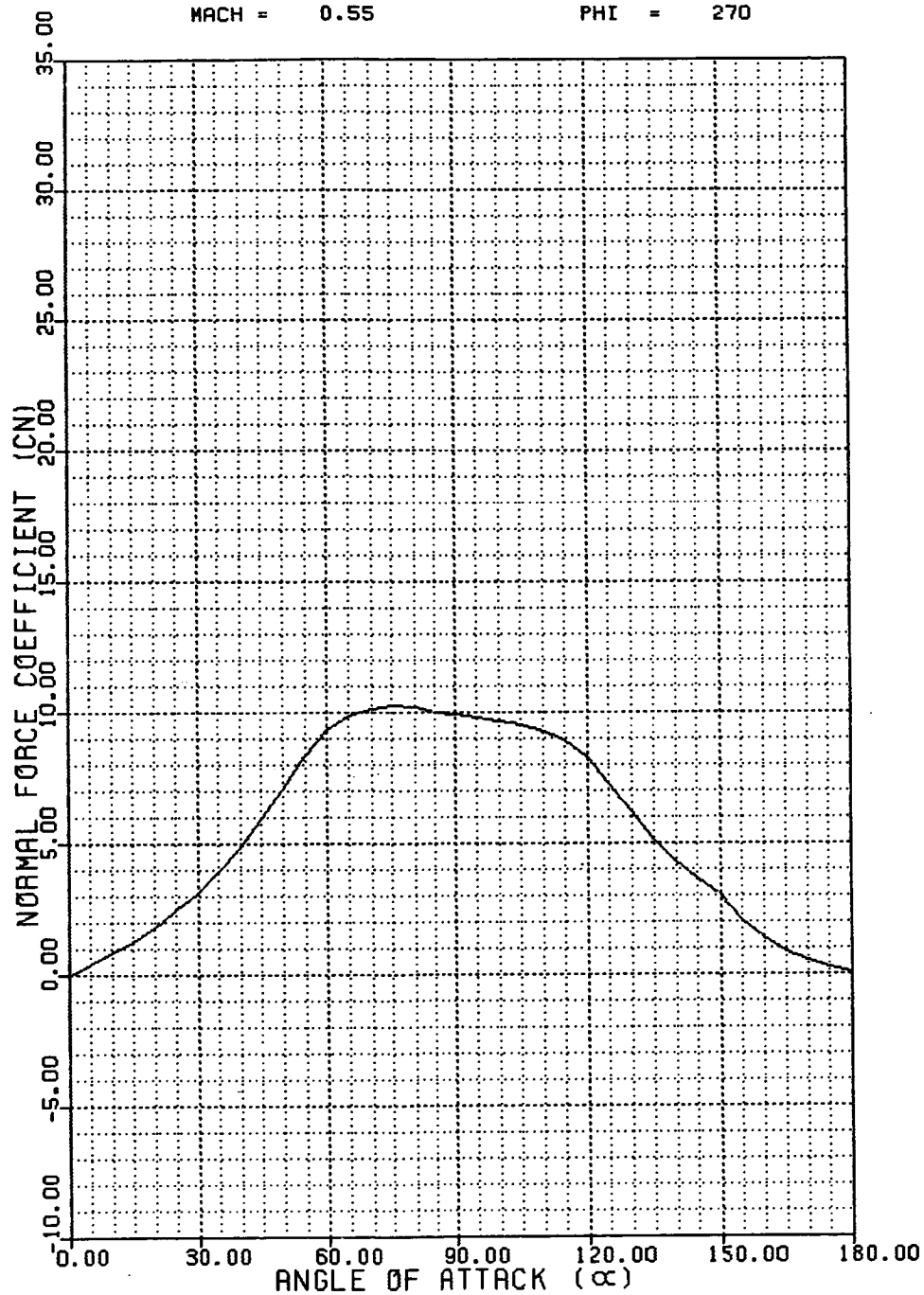
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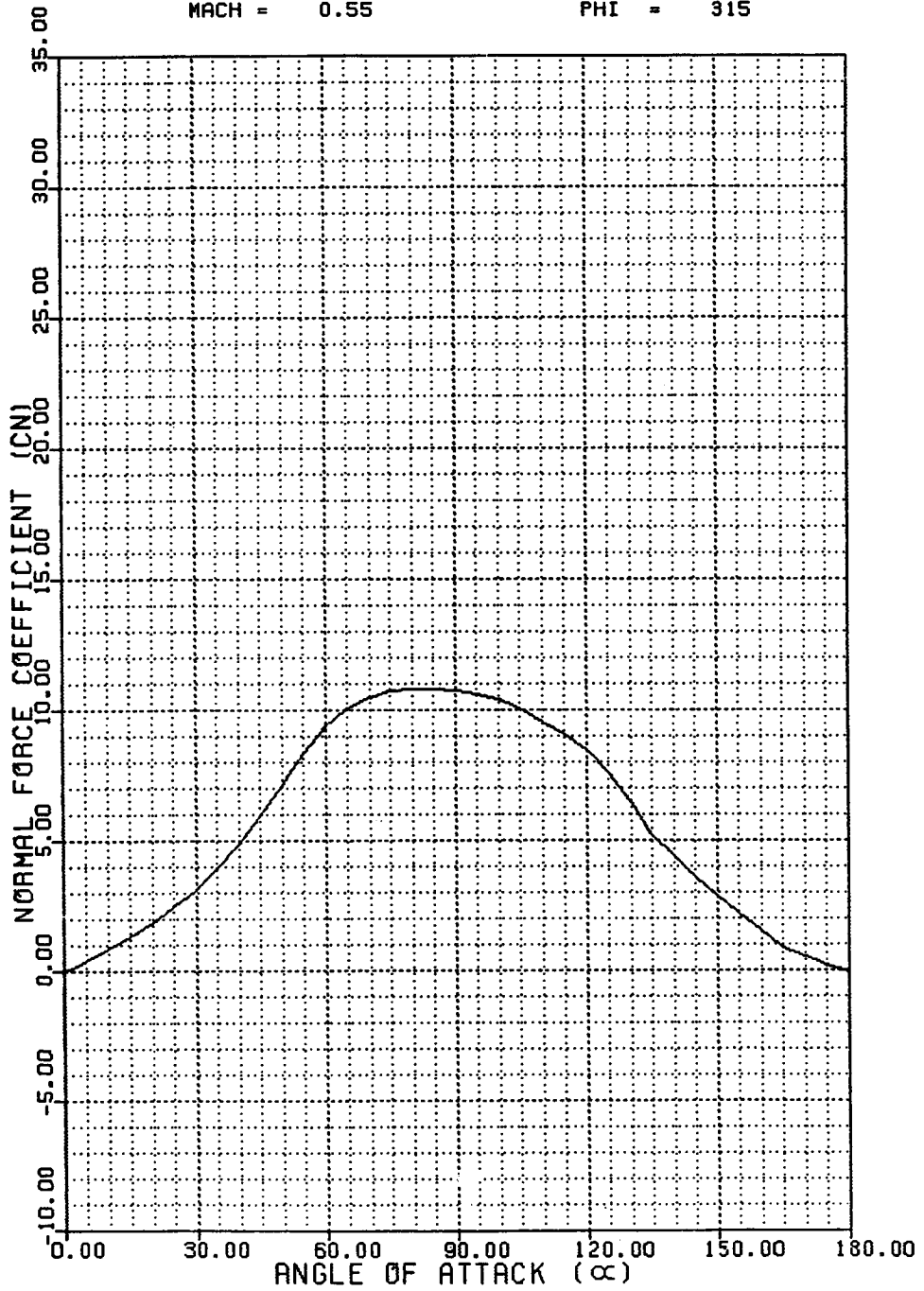
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# SRB TAPE 8 DATA

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PHI = 315



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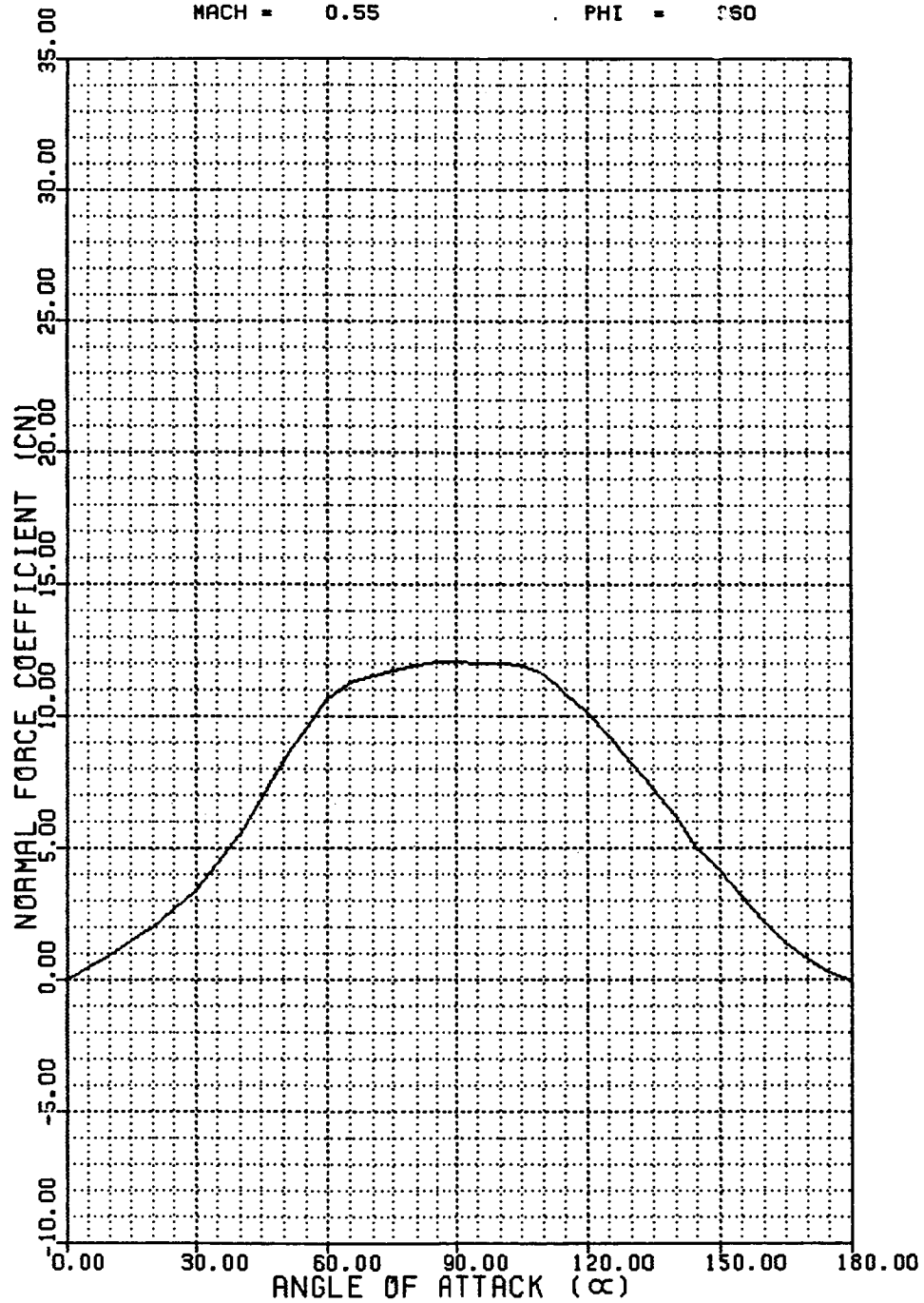
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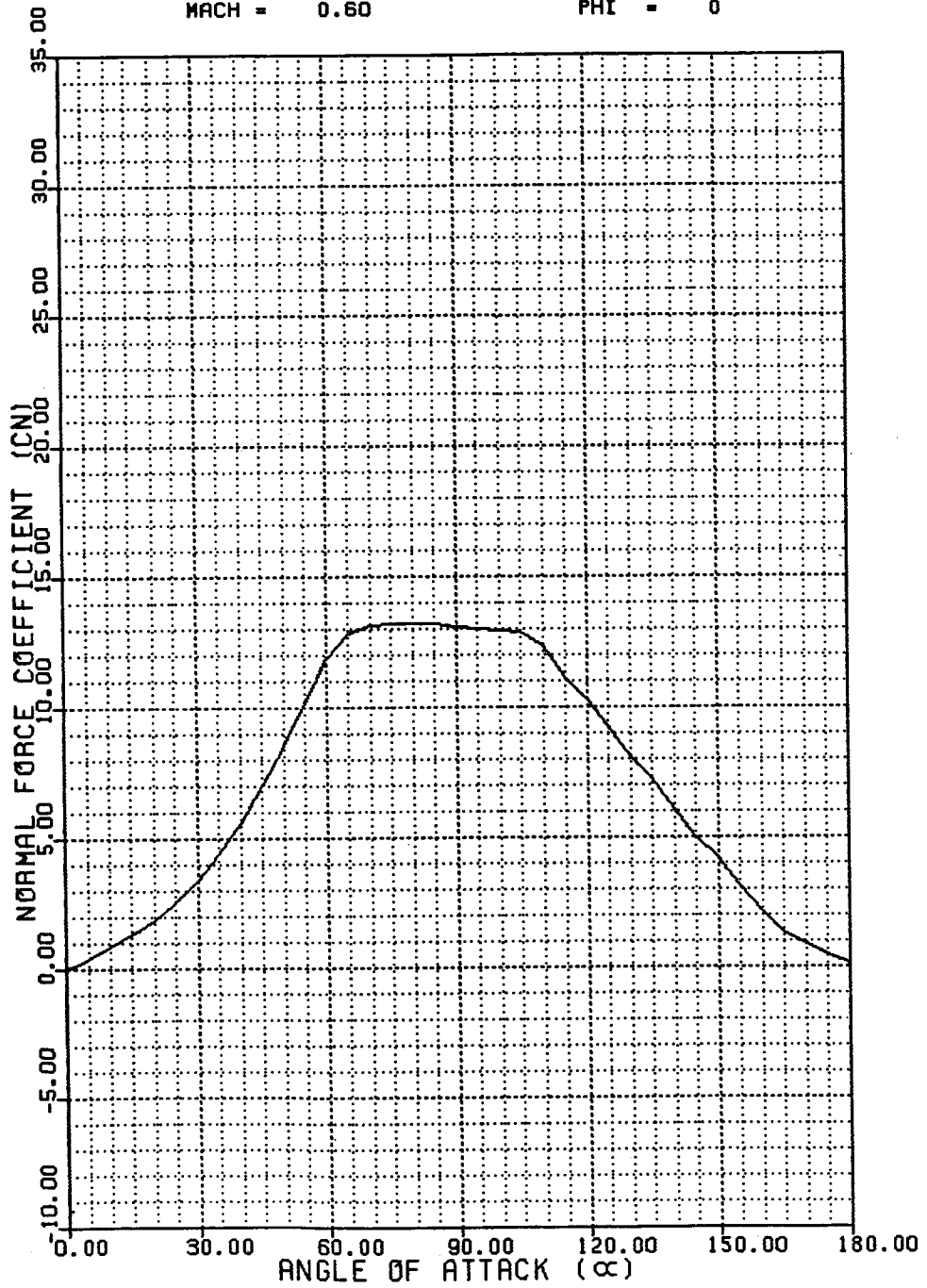
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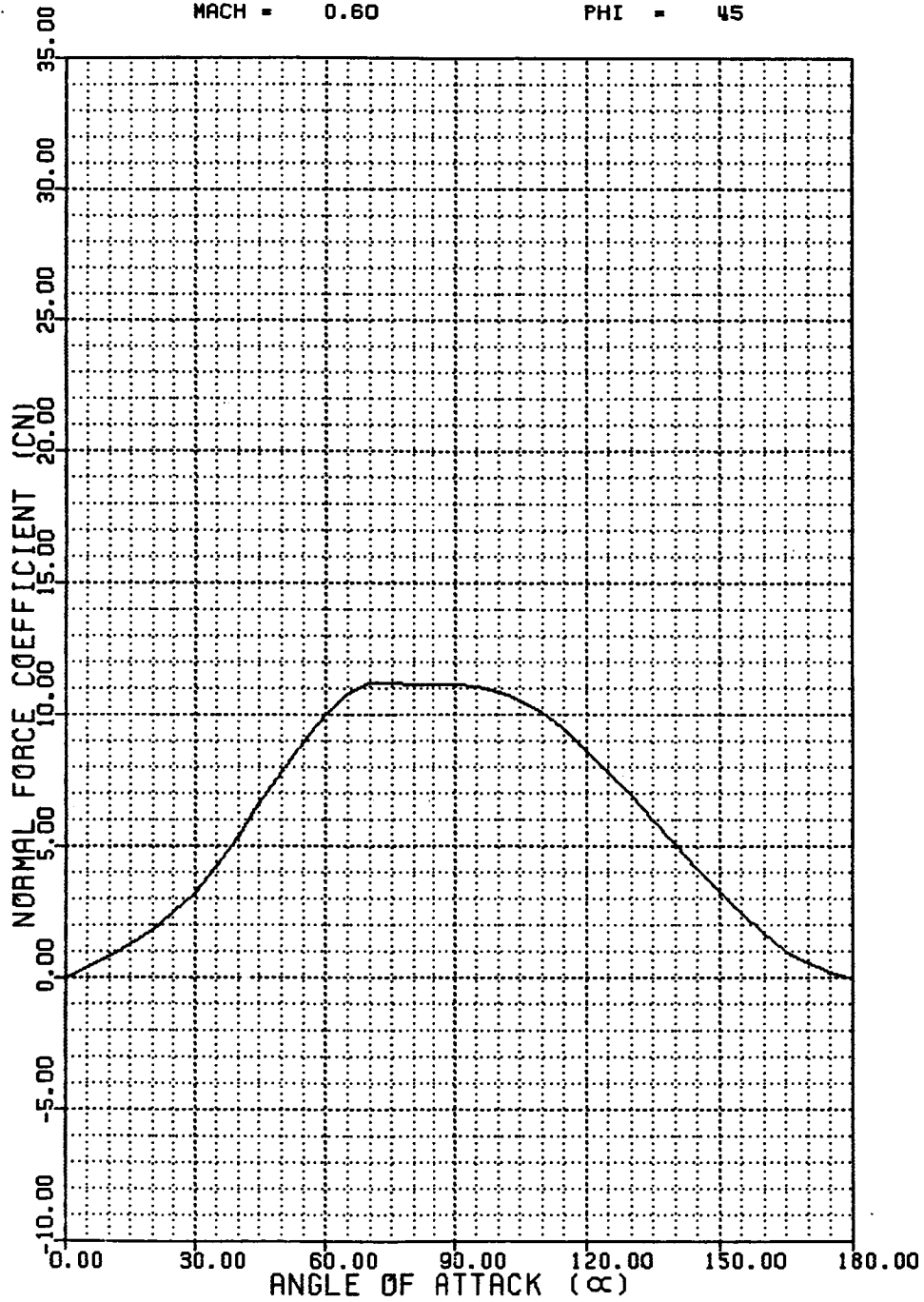
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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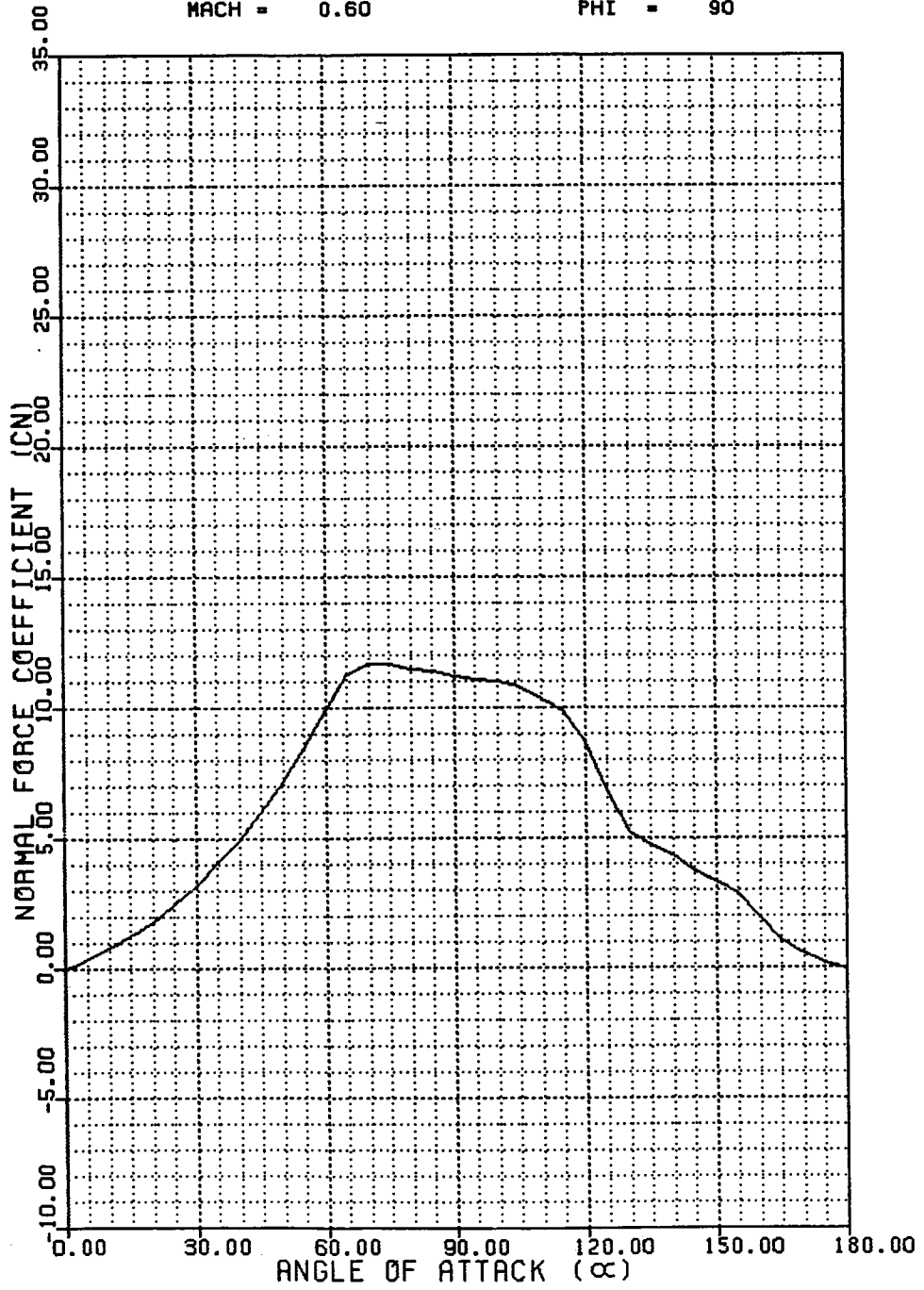
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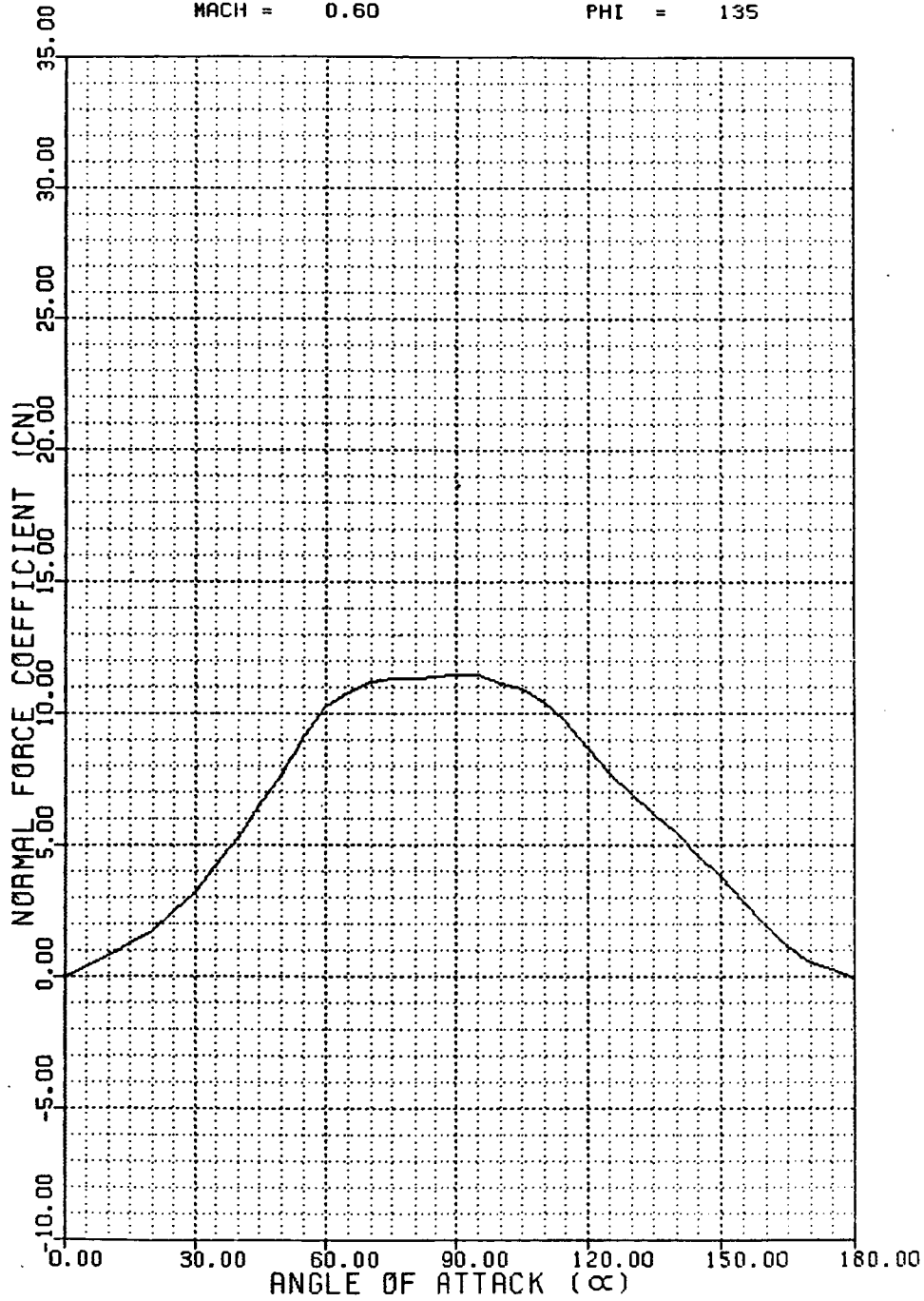
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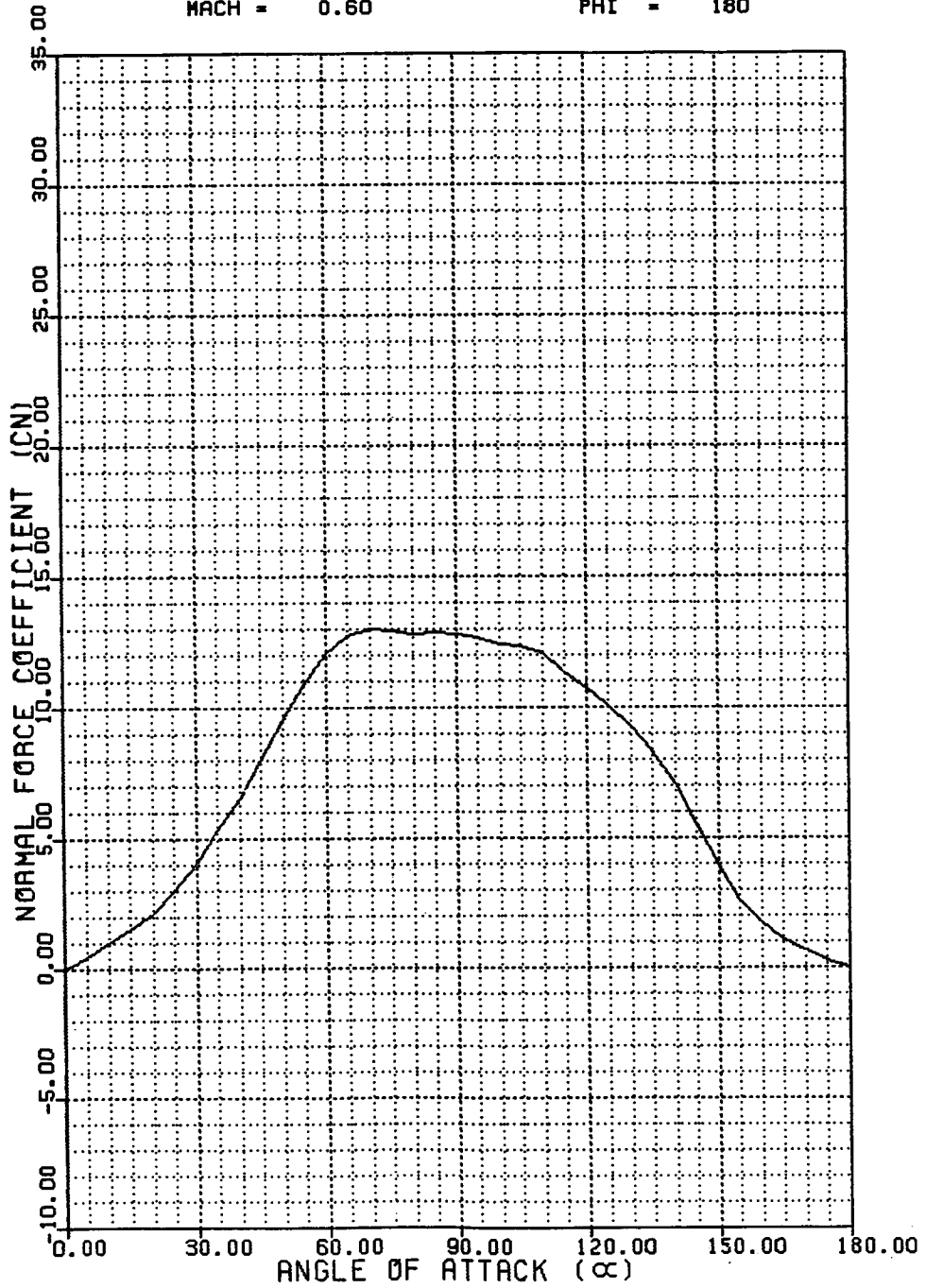
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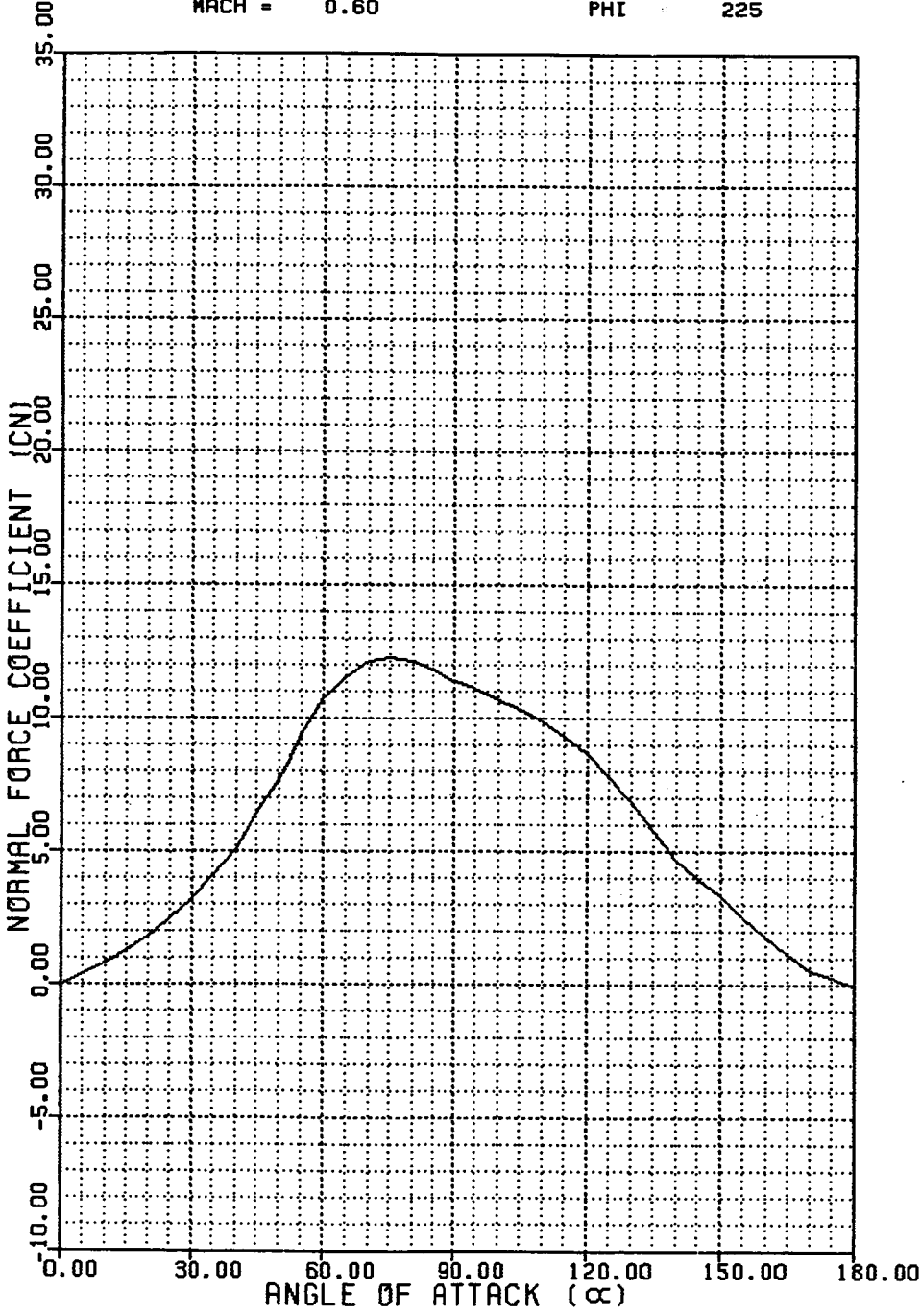


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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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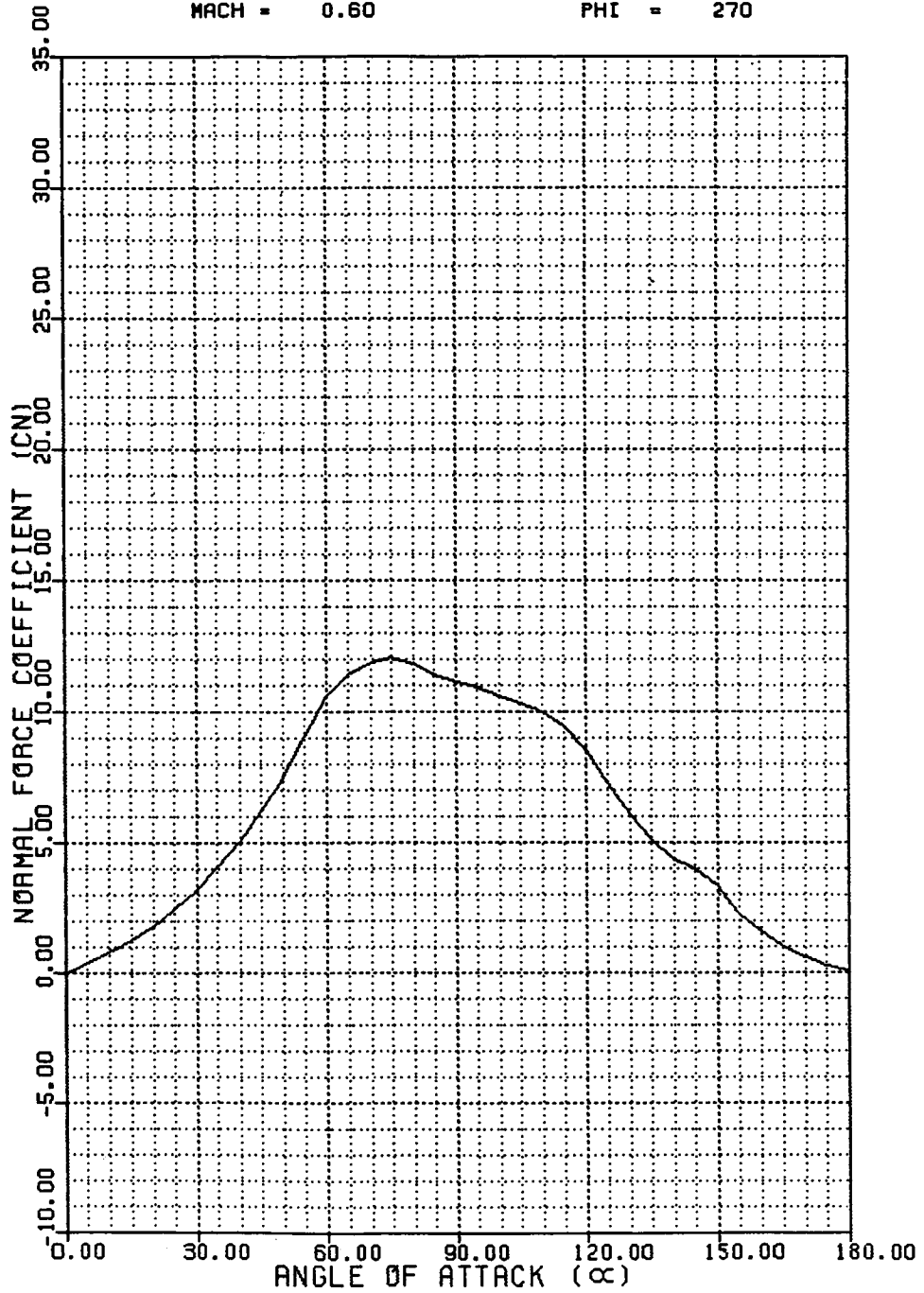


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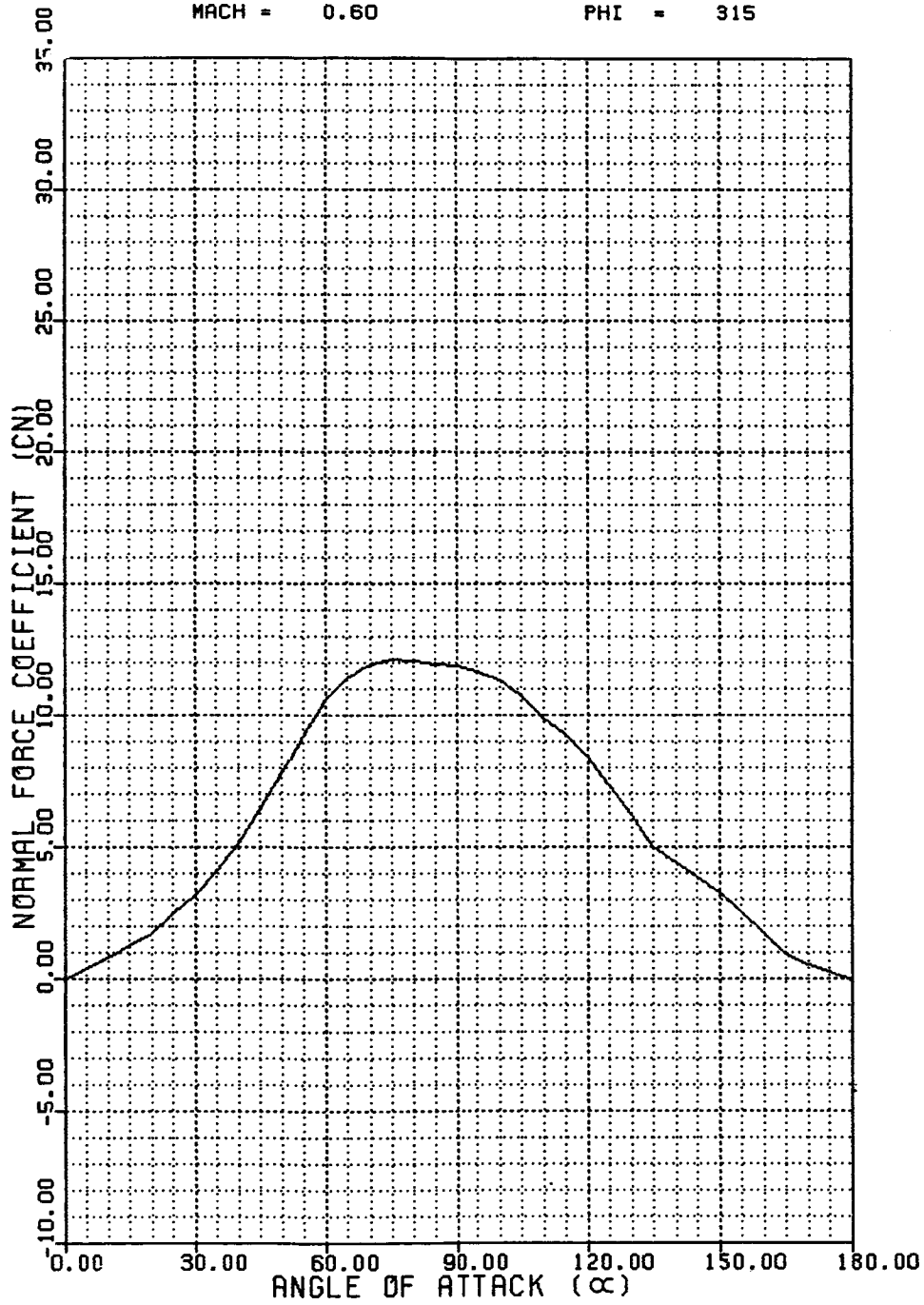
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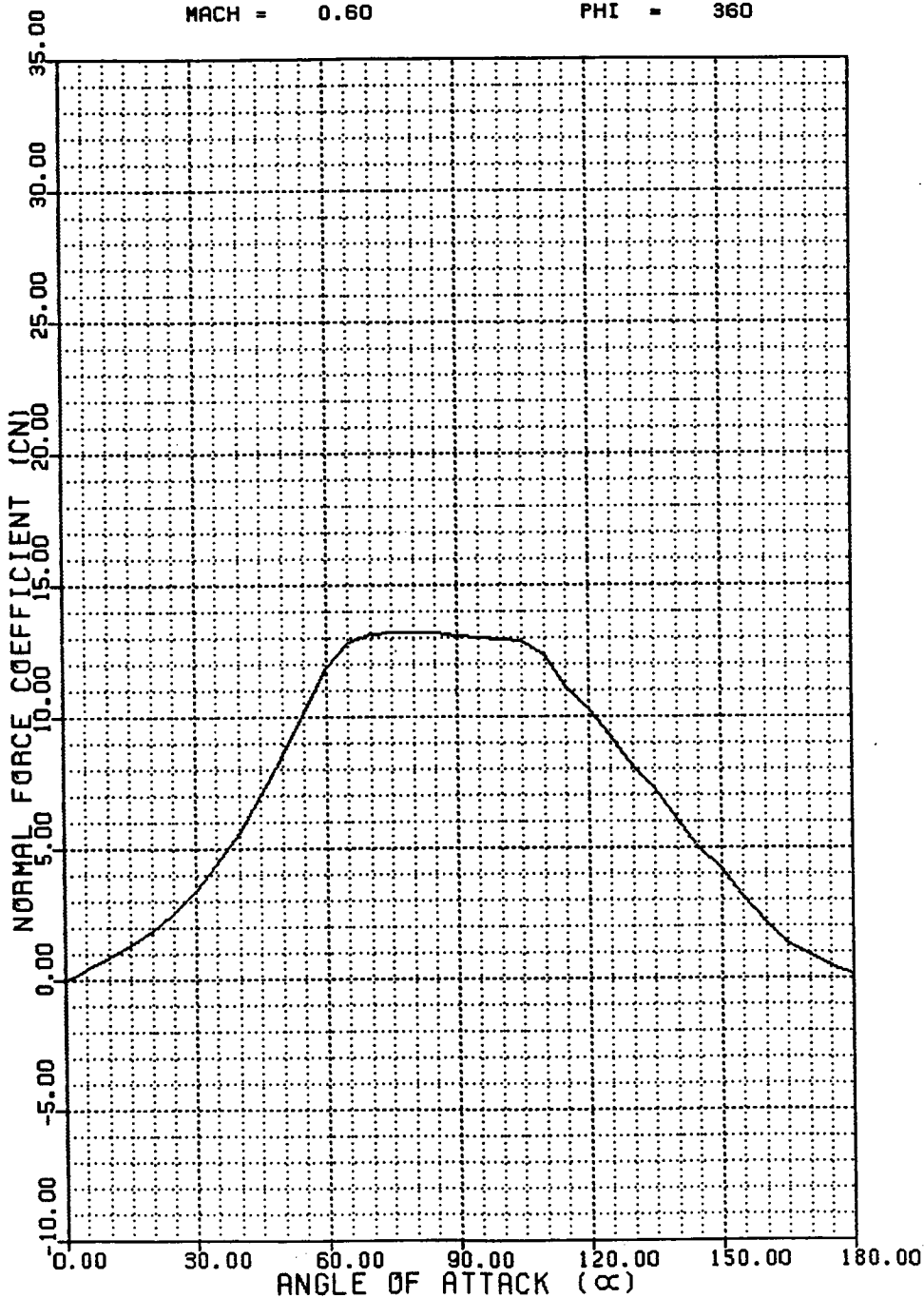


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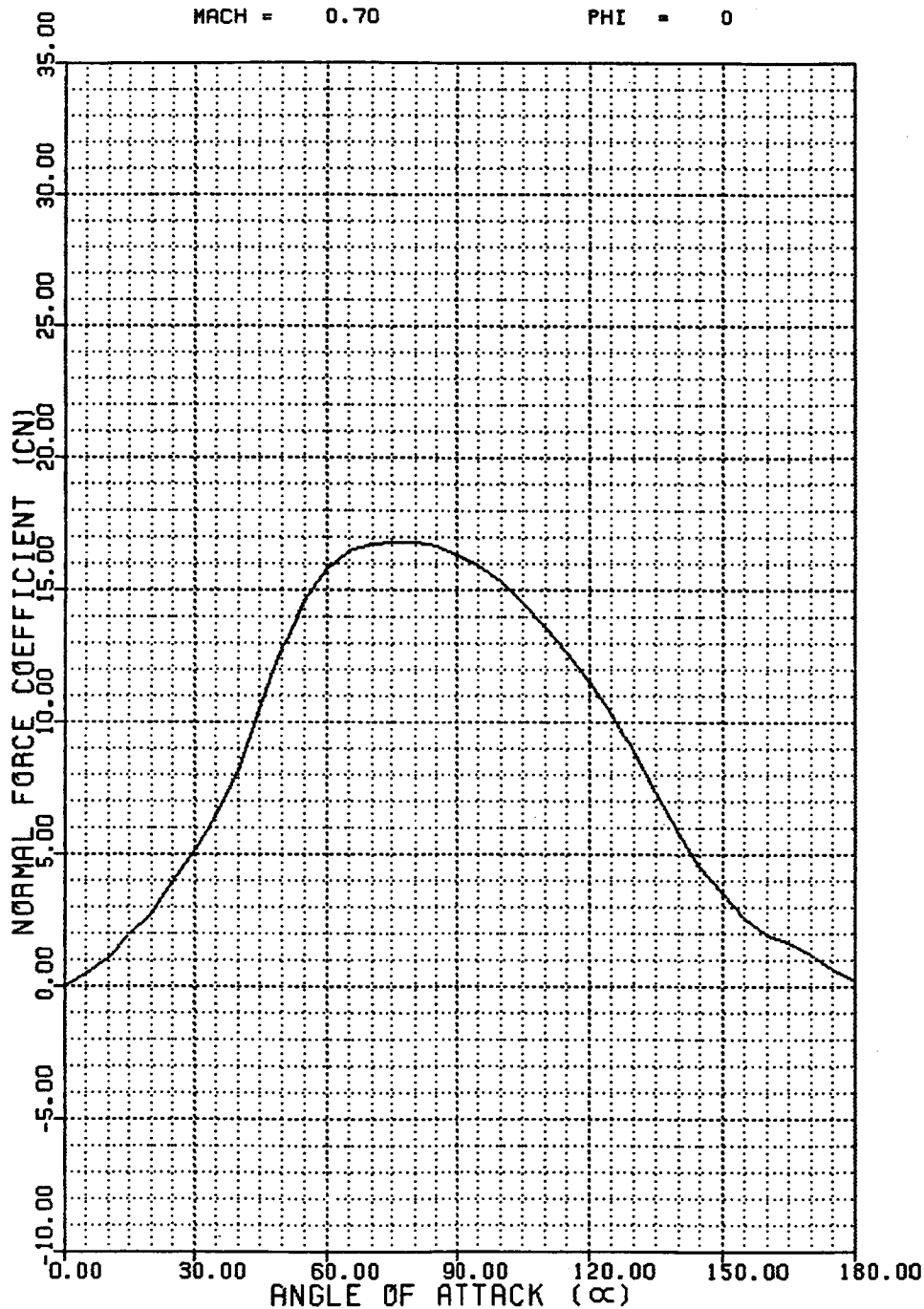
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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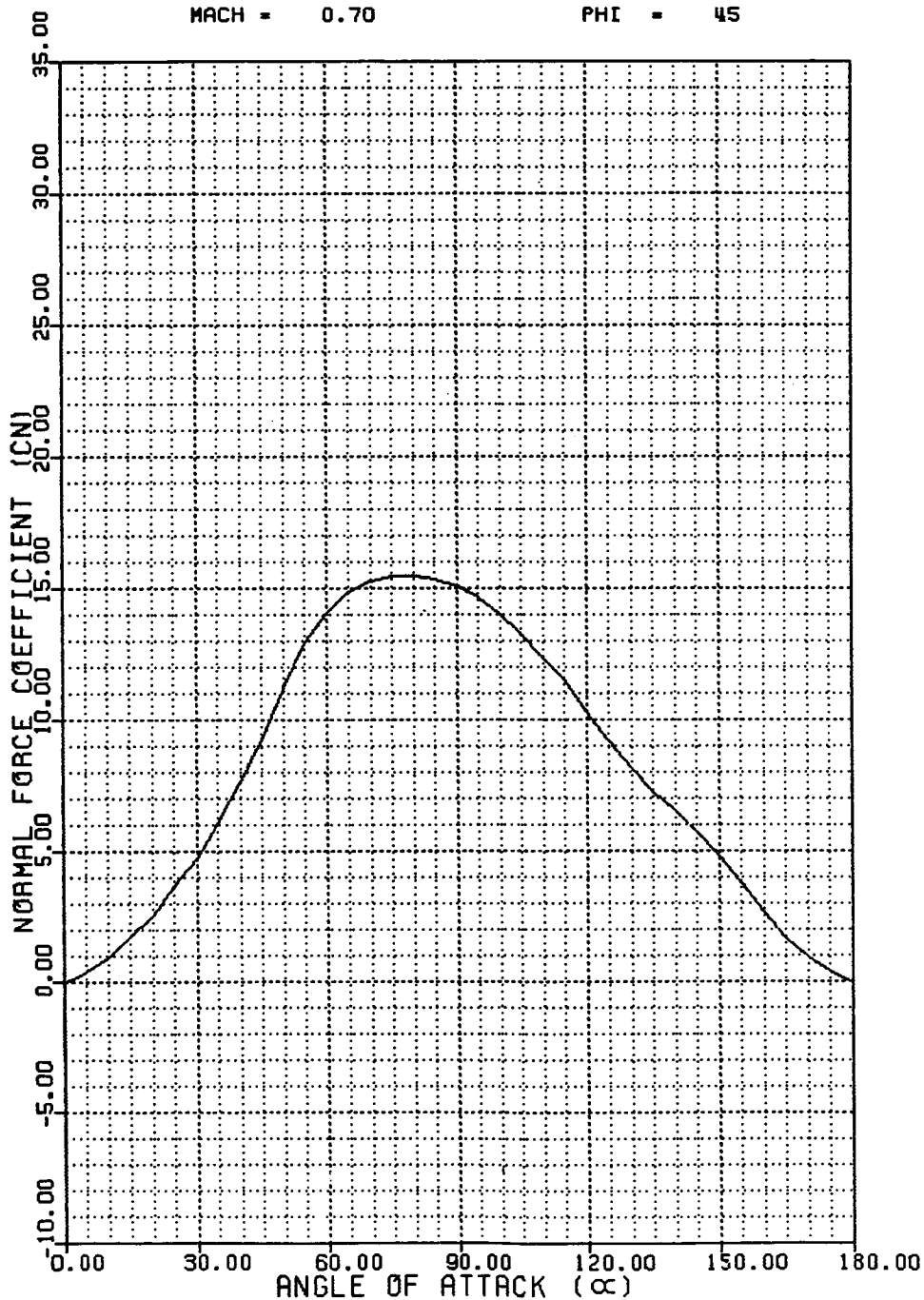


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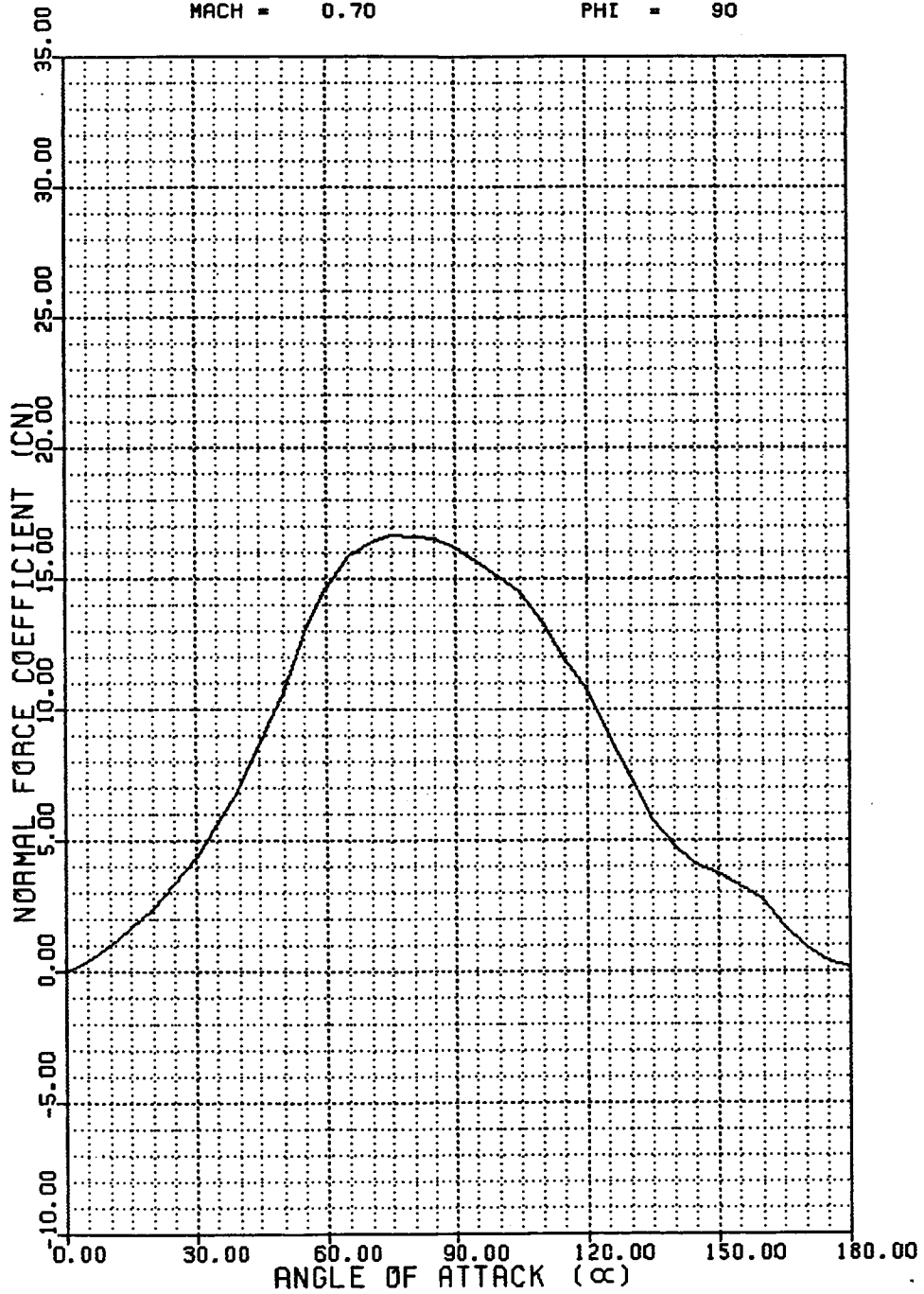
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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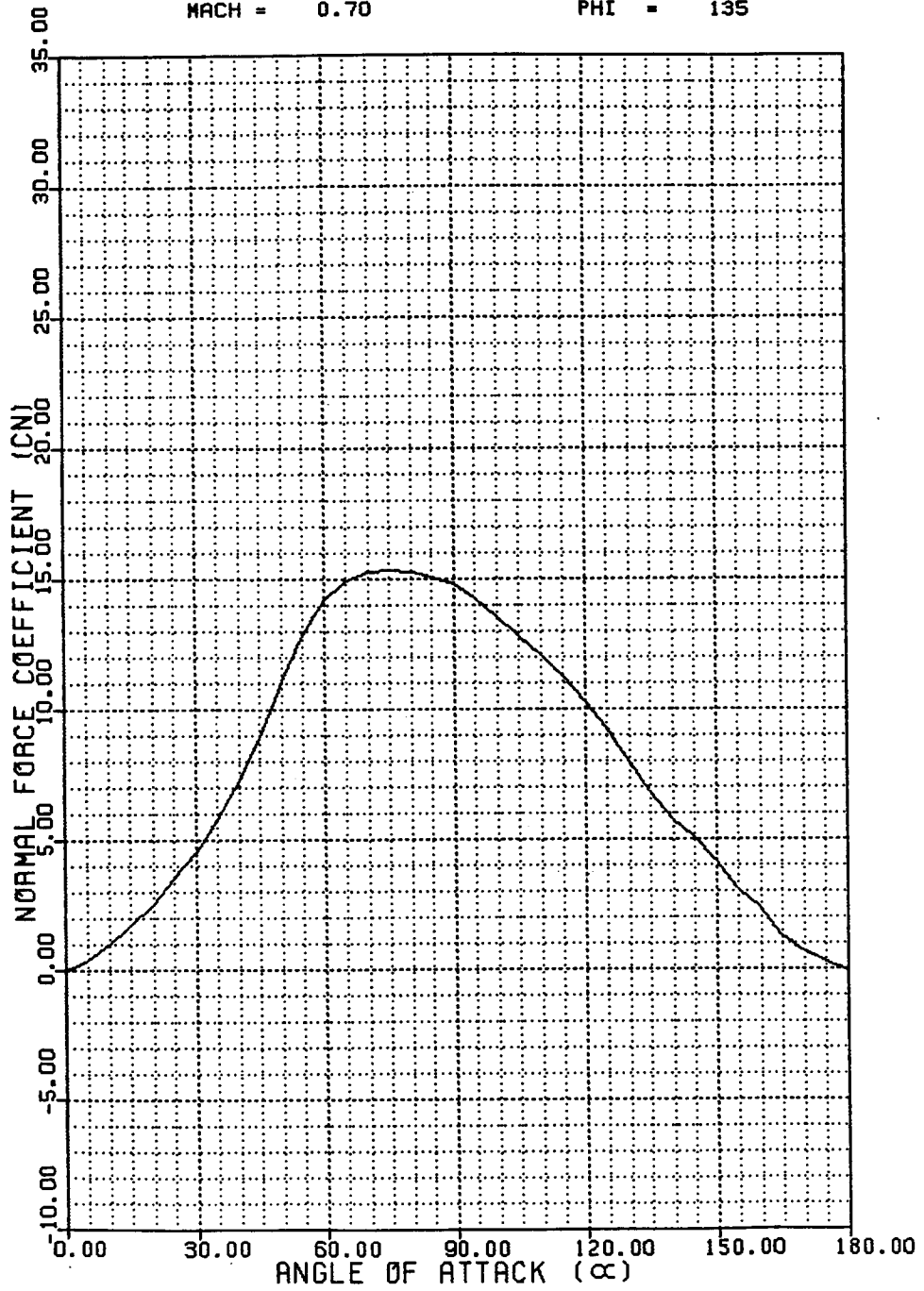


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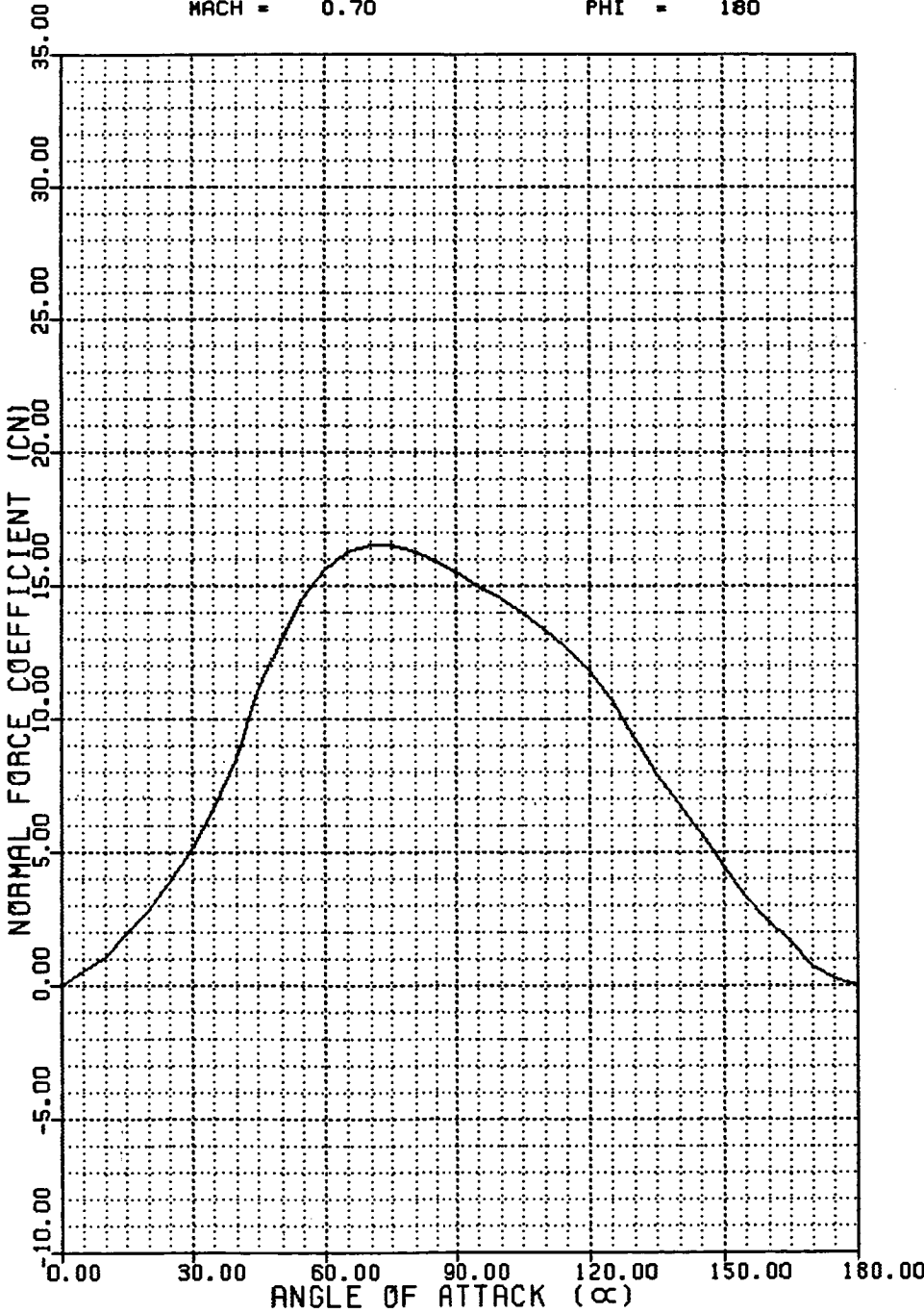
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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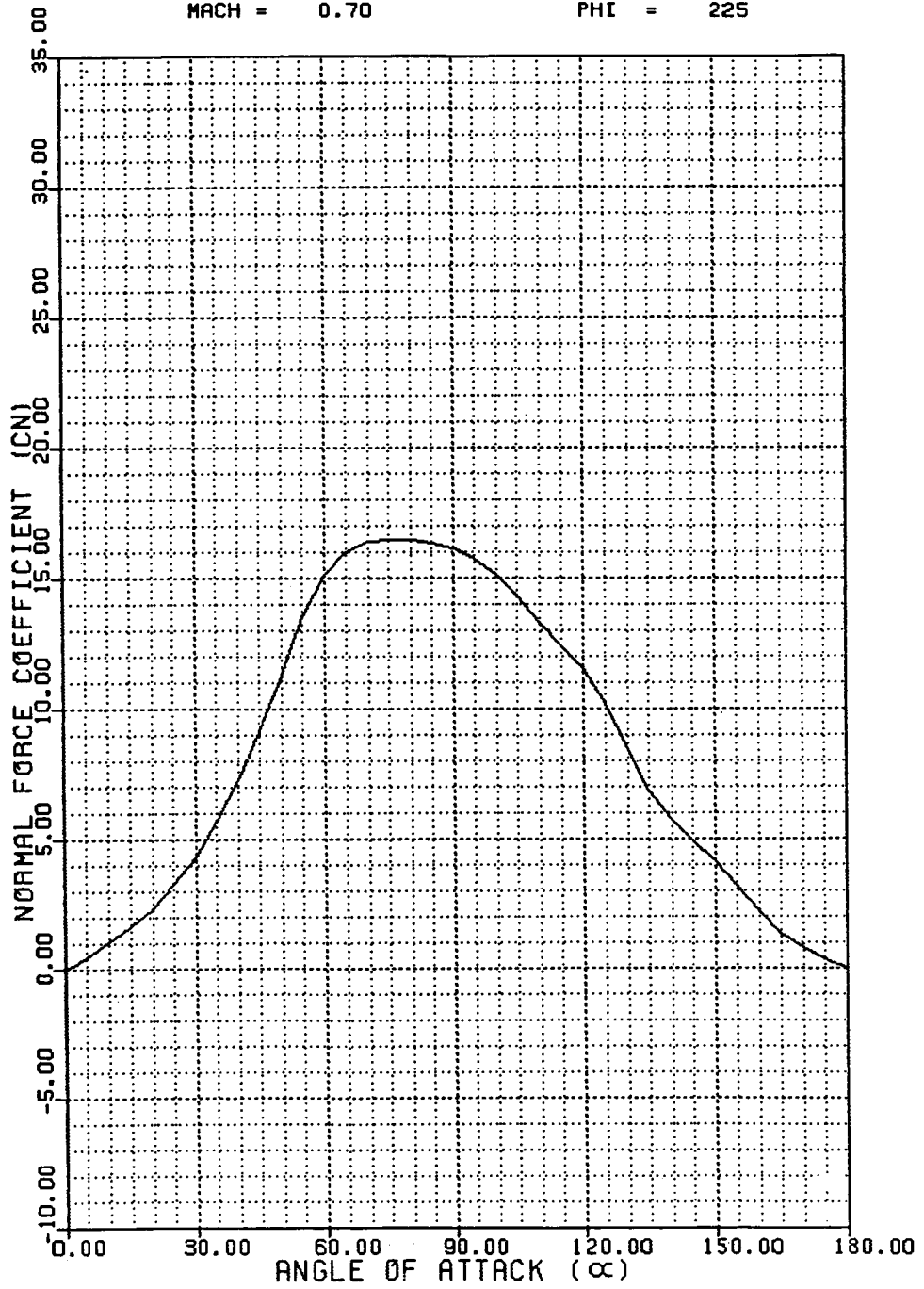


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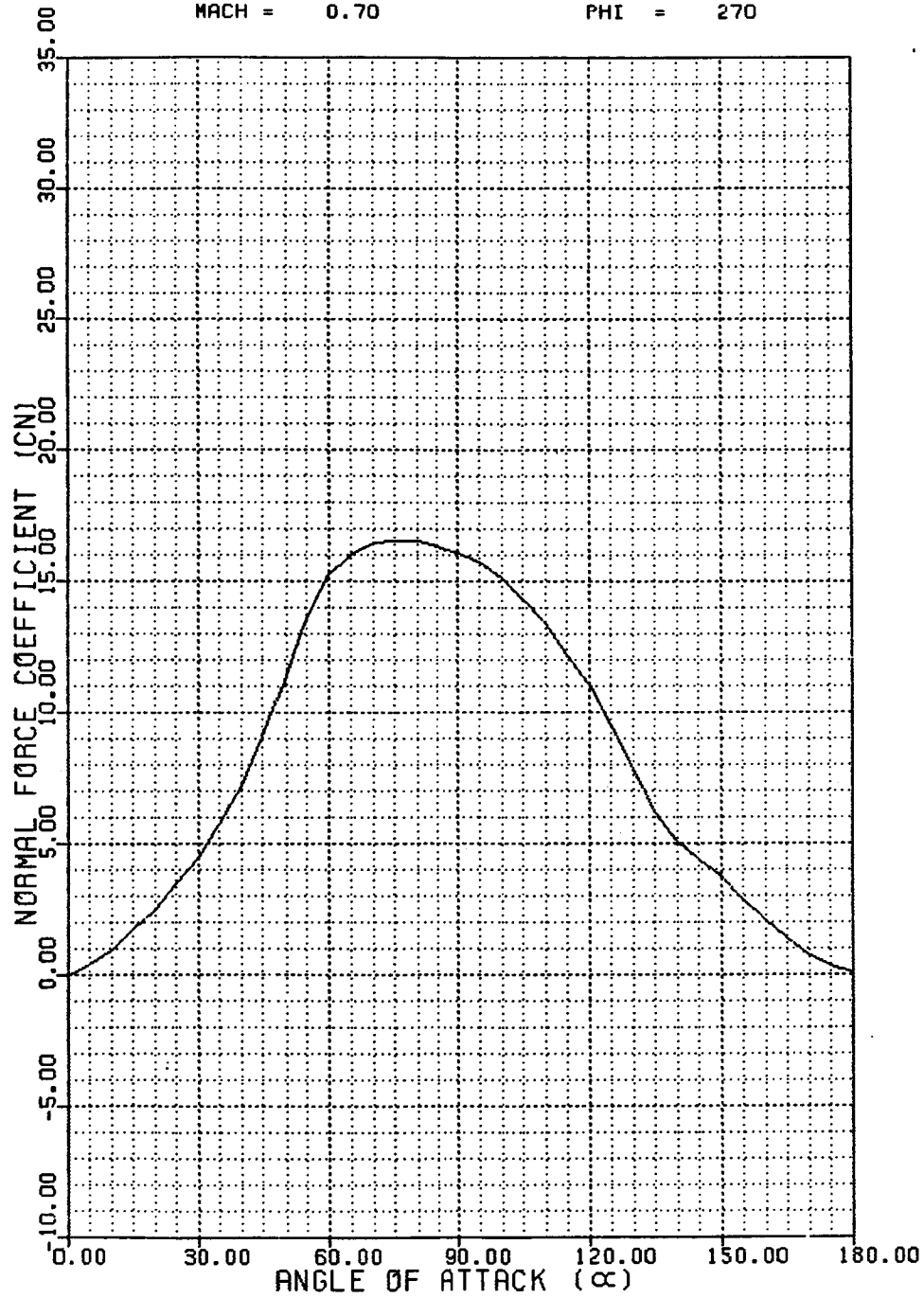
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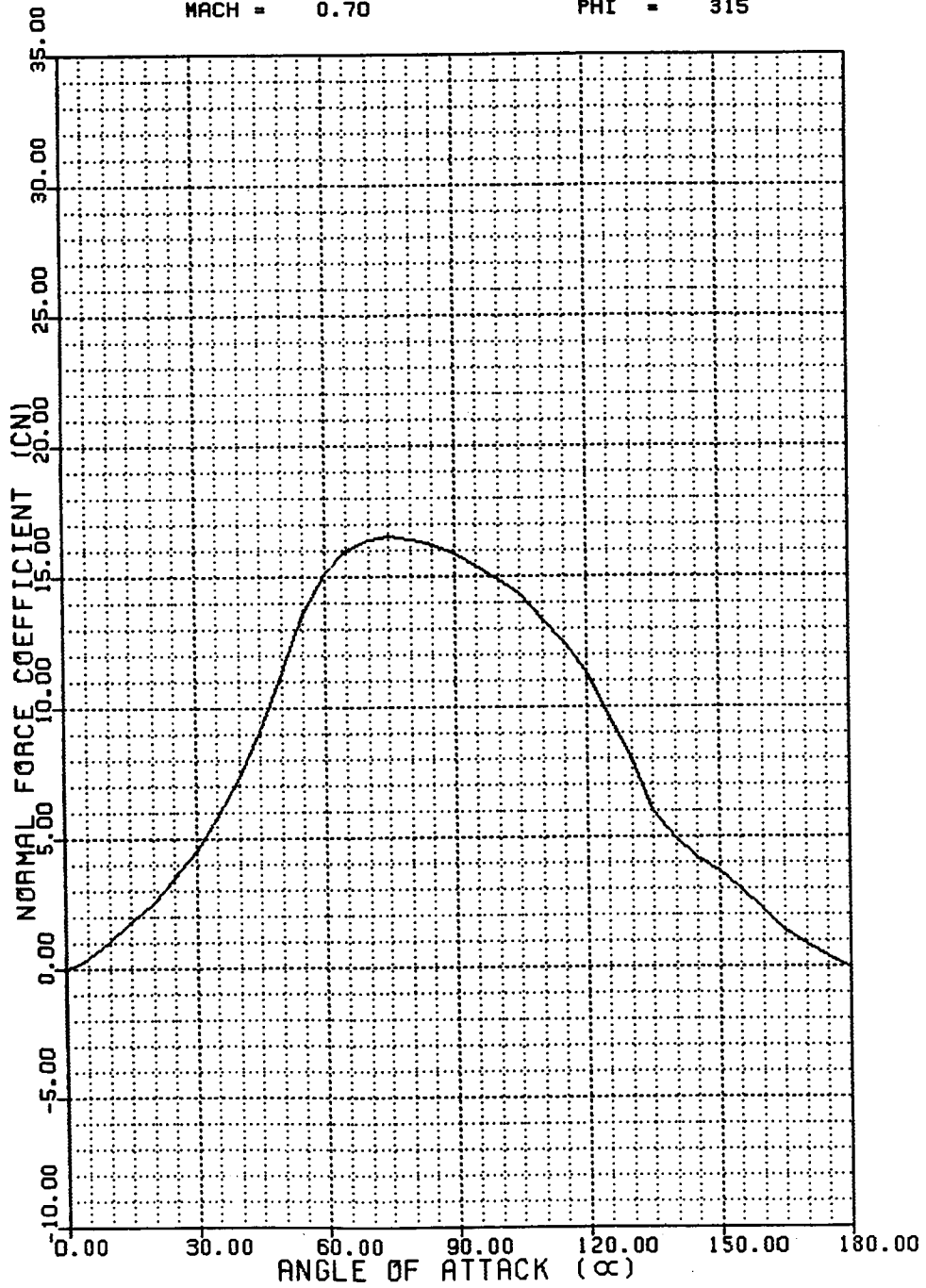


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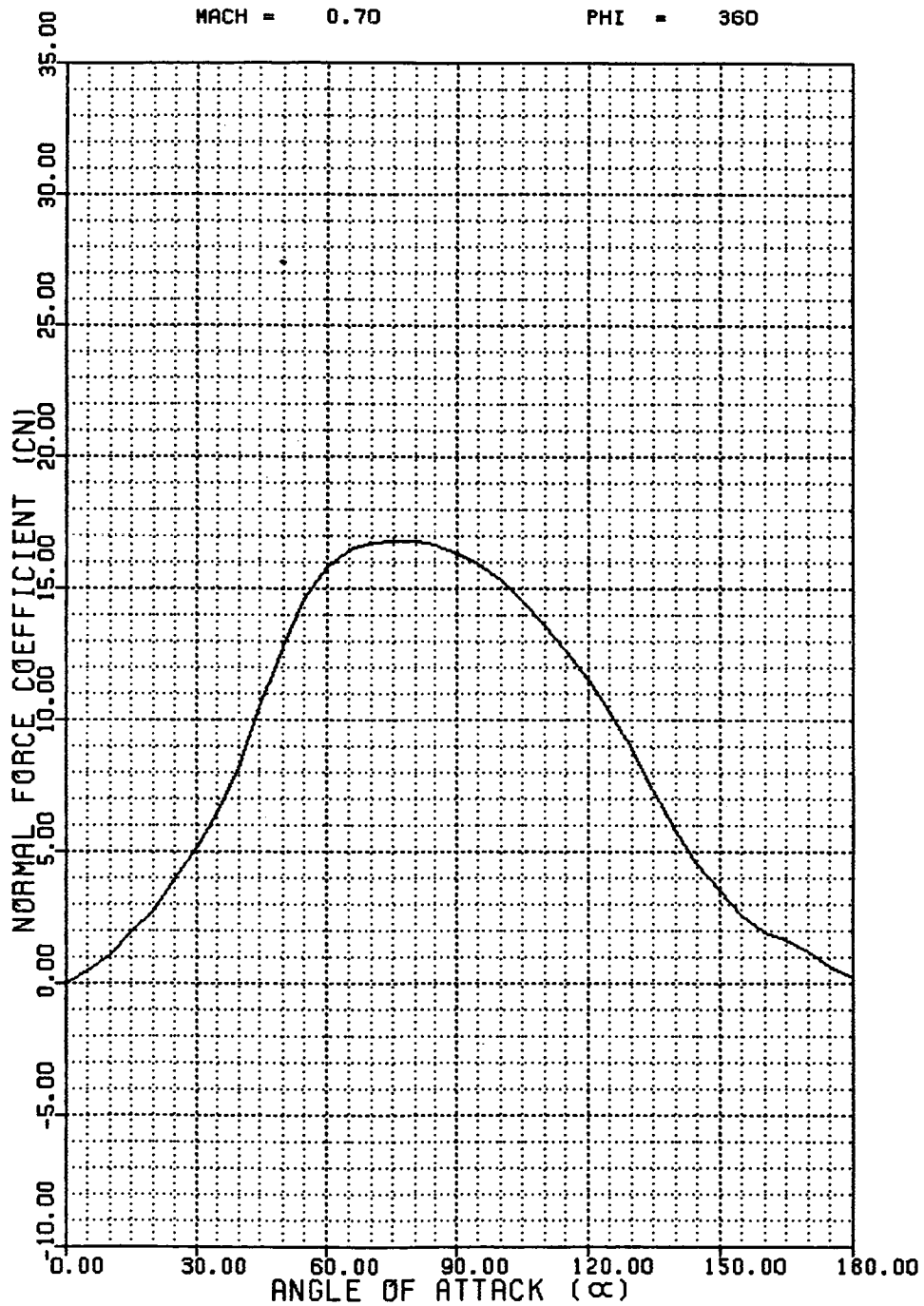
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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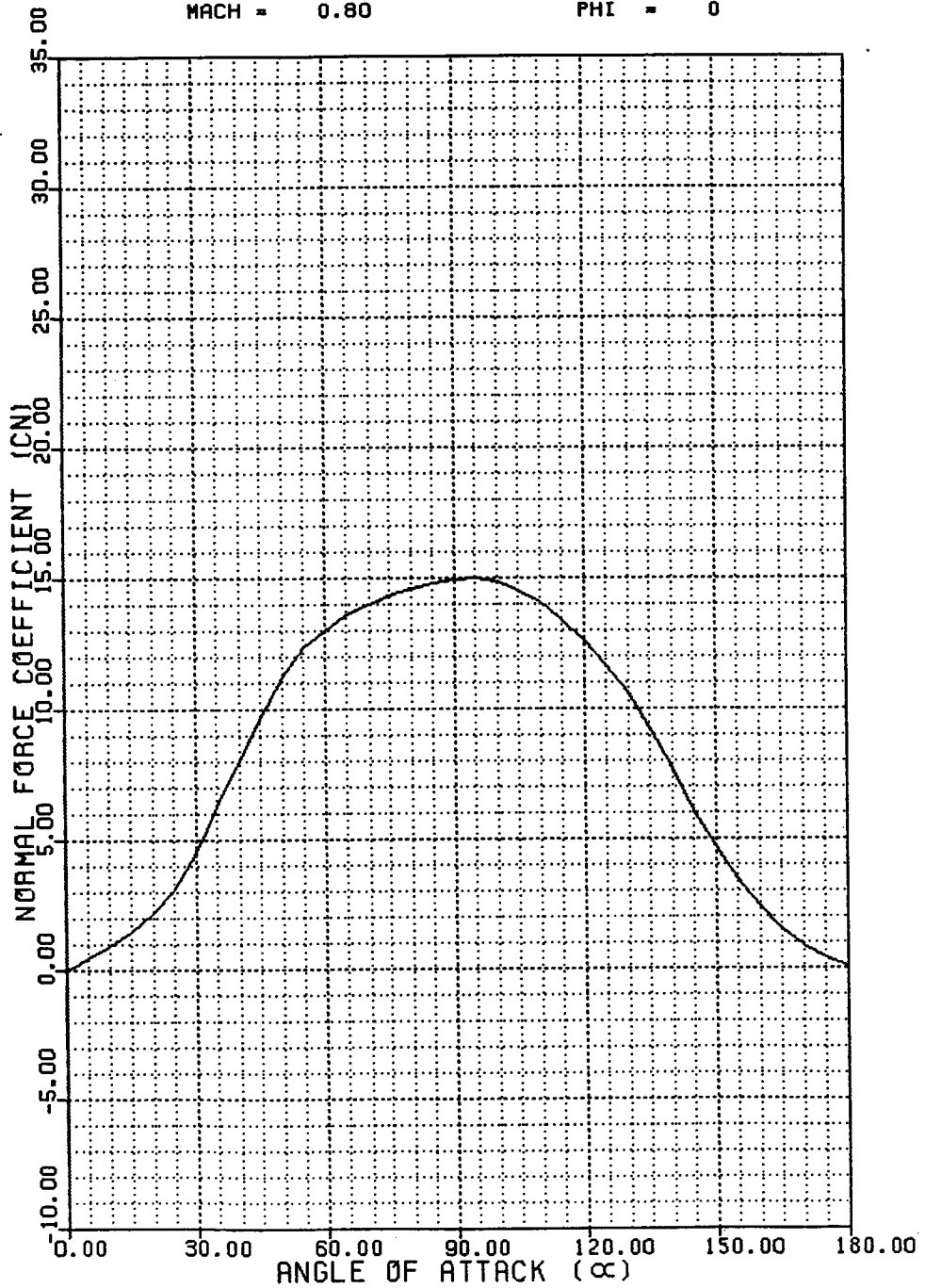
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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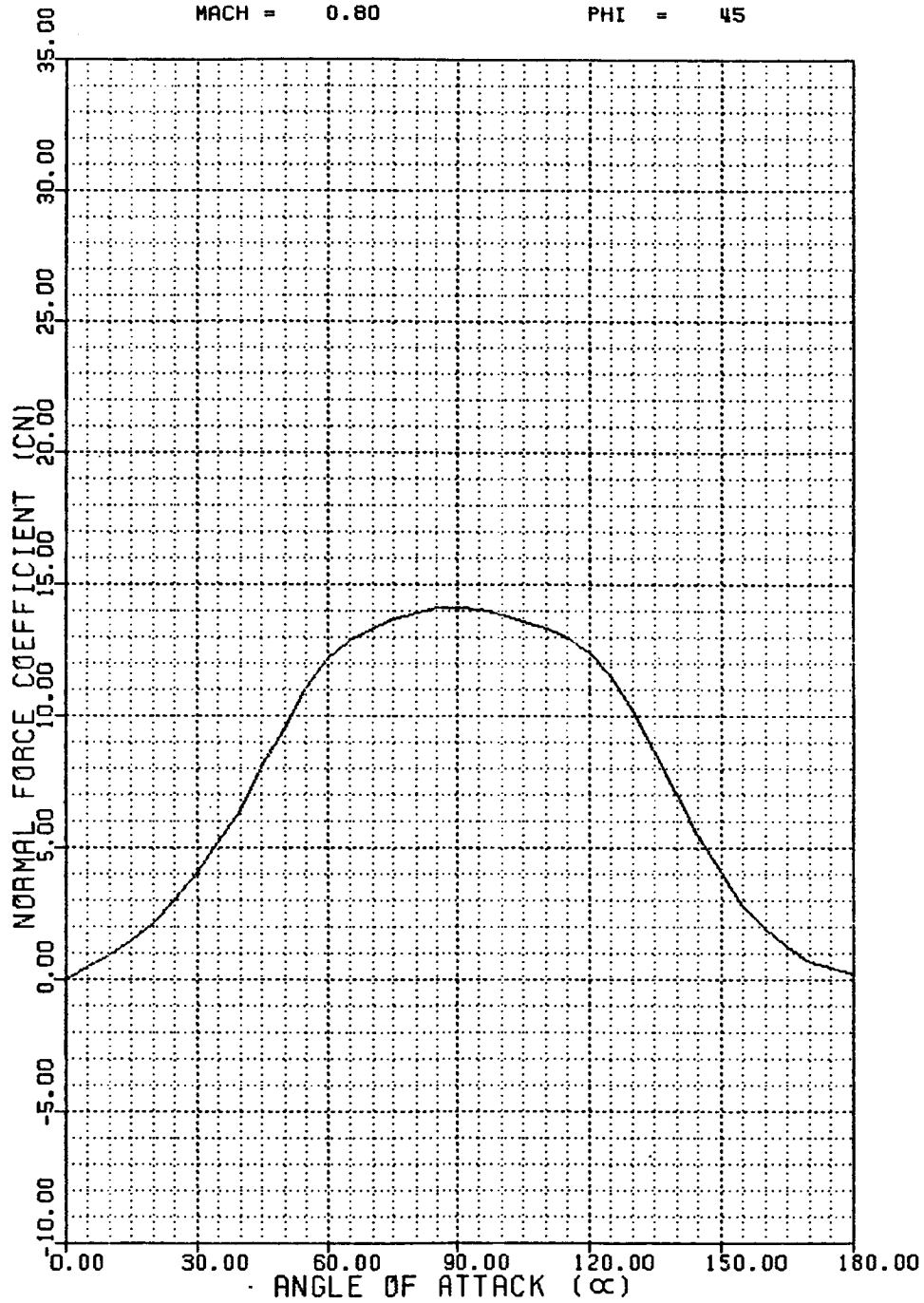
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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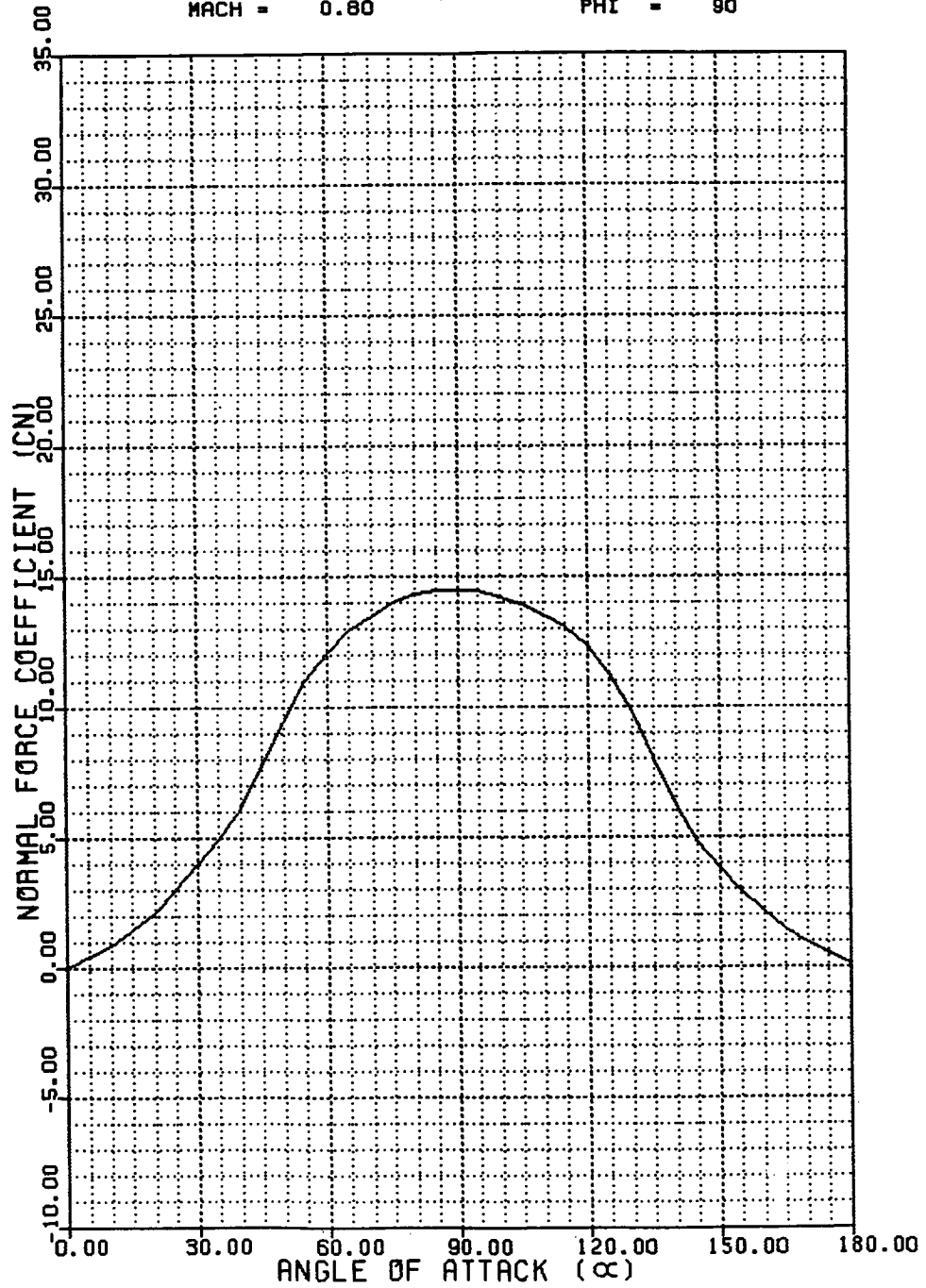


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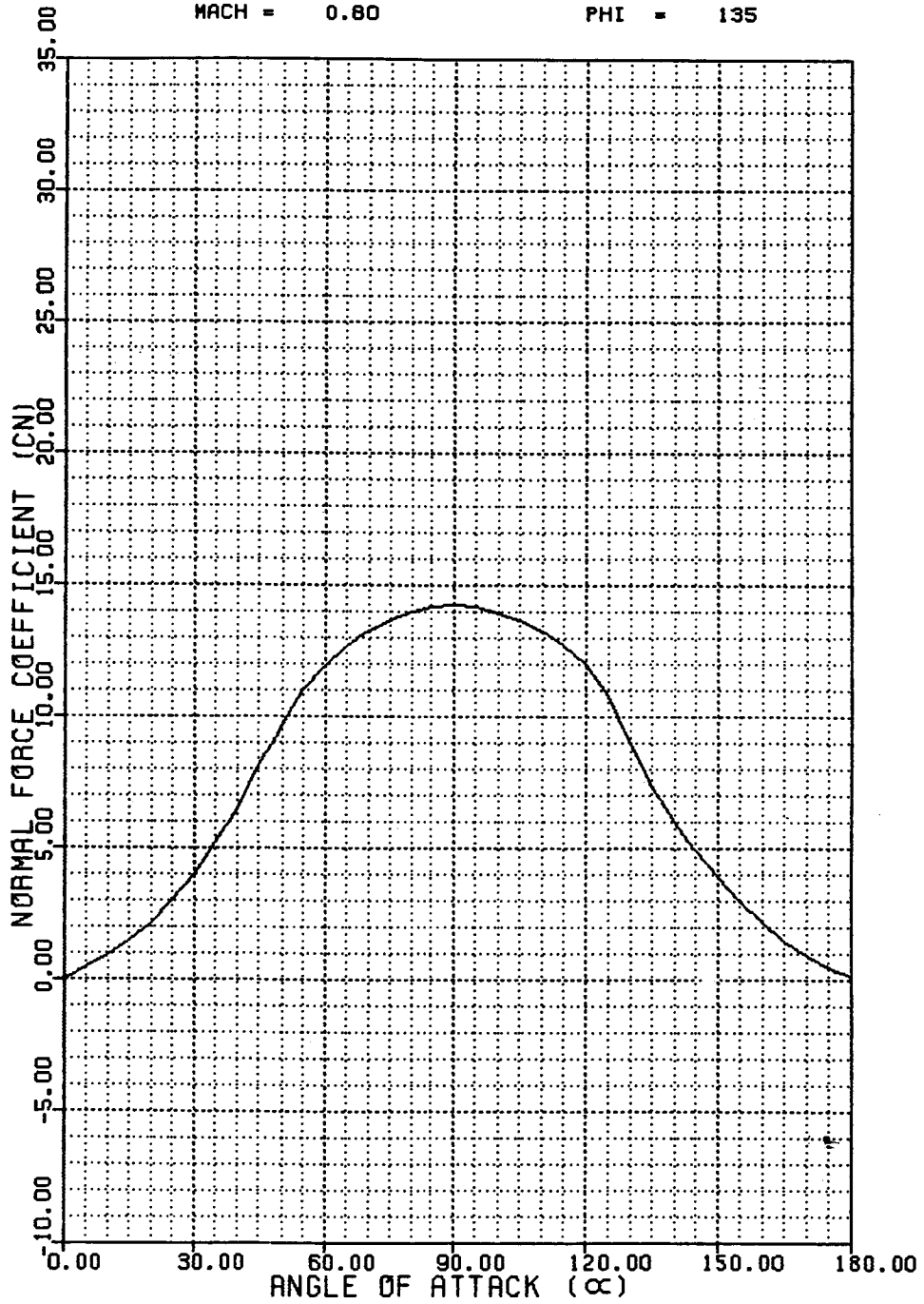
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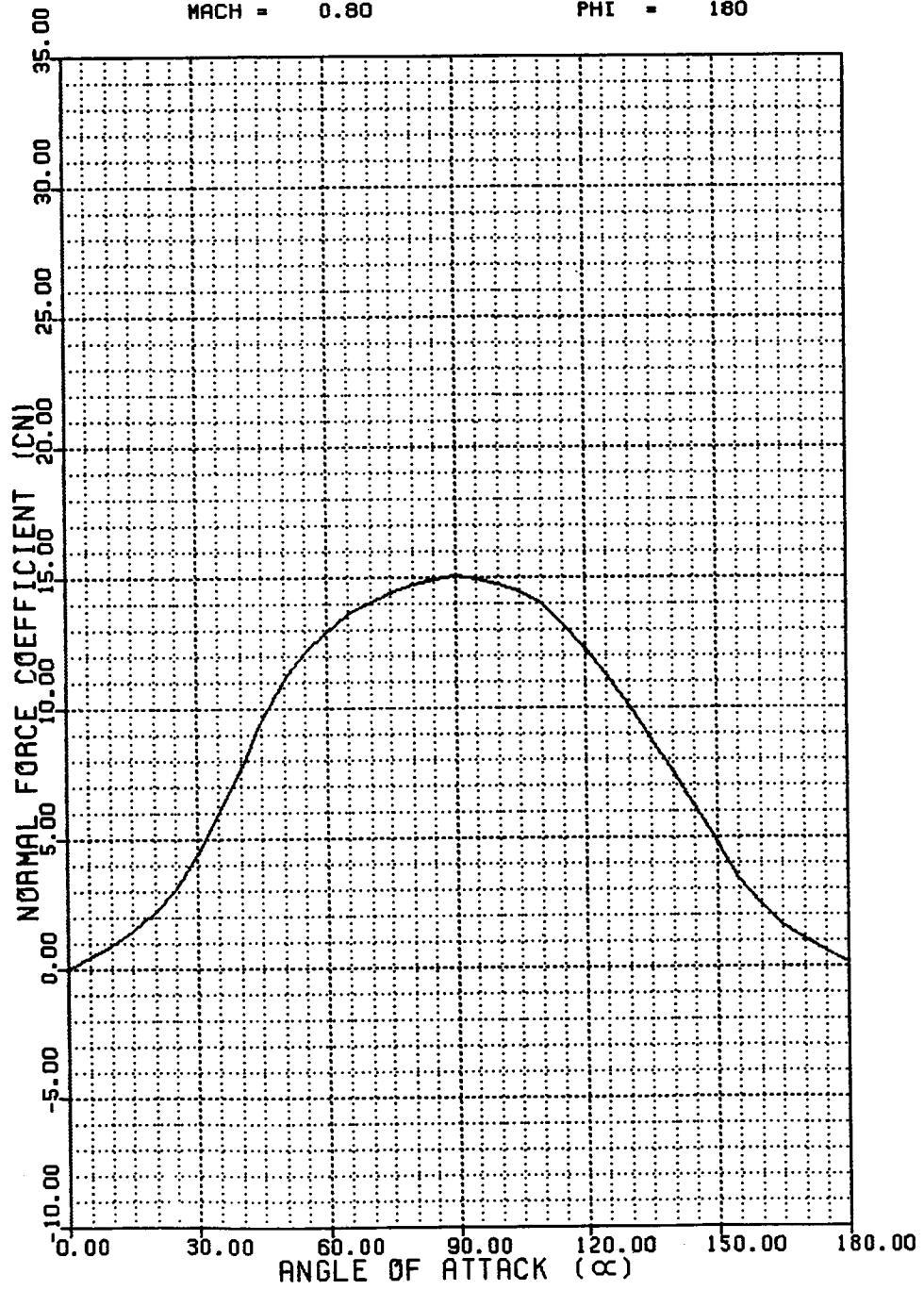
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LOCKHEED-HUNTSVILLE ENGINEERING CENTER

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PHI = 180



B-50

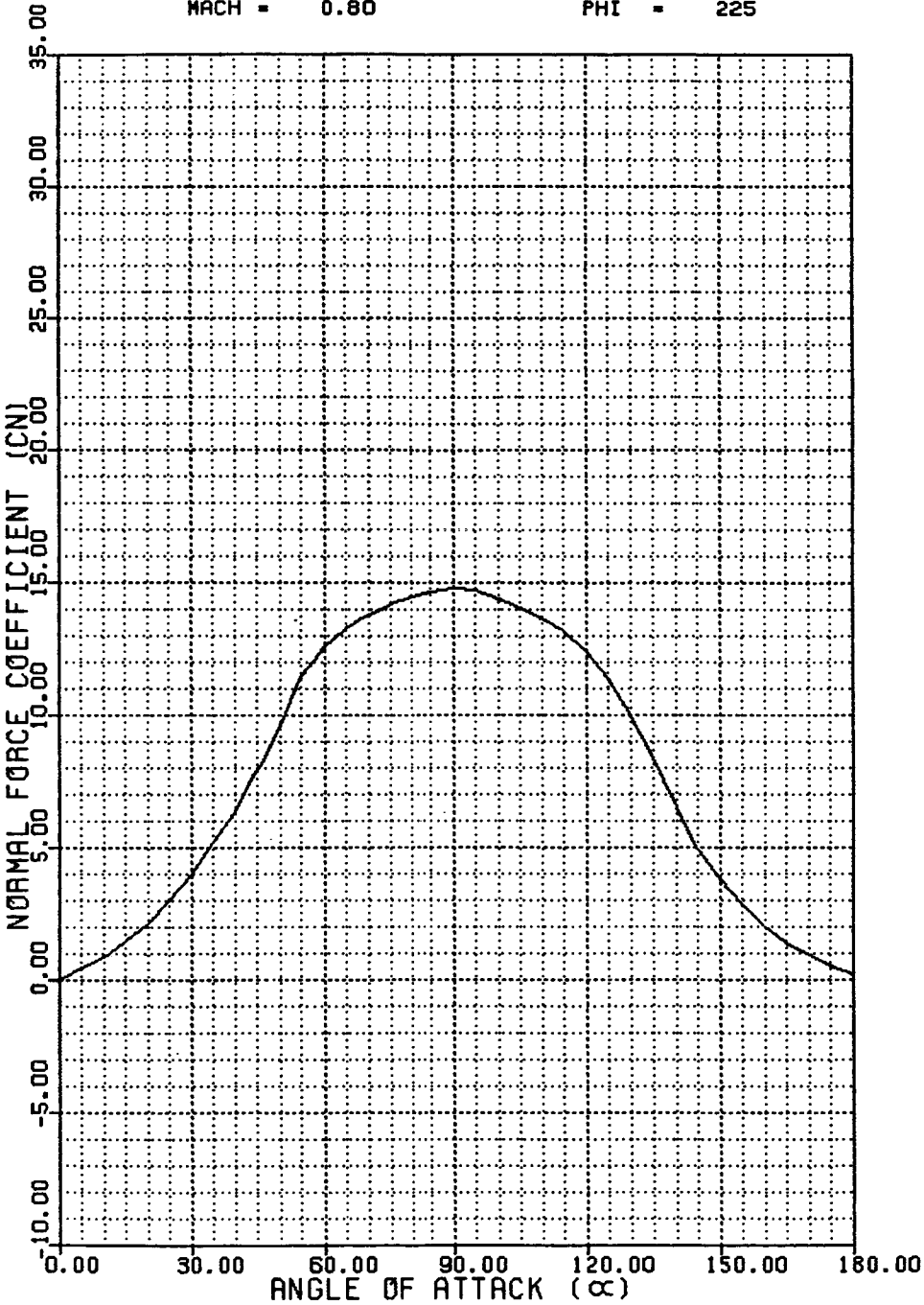
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



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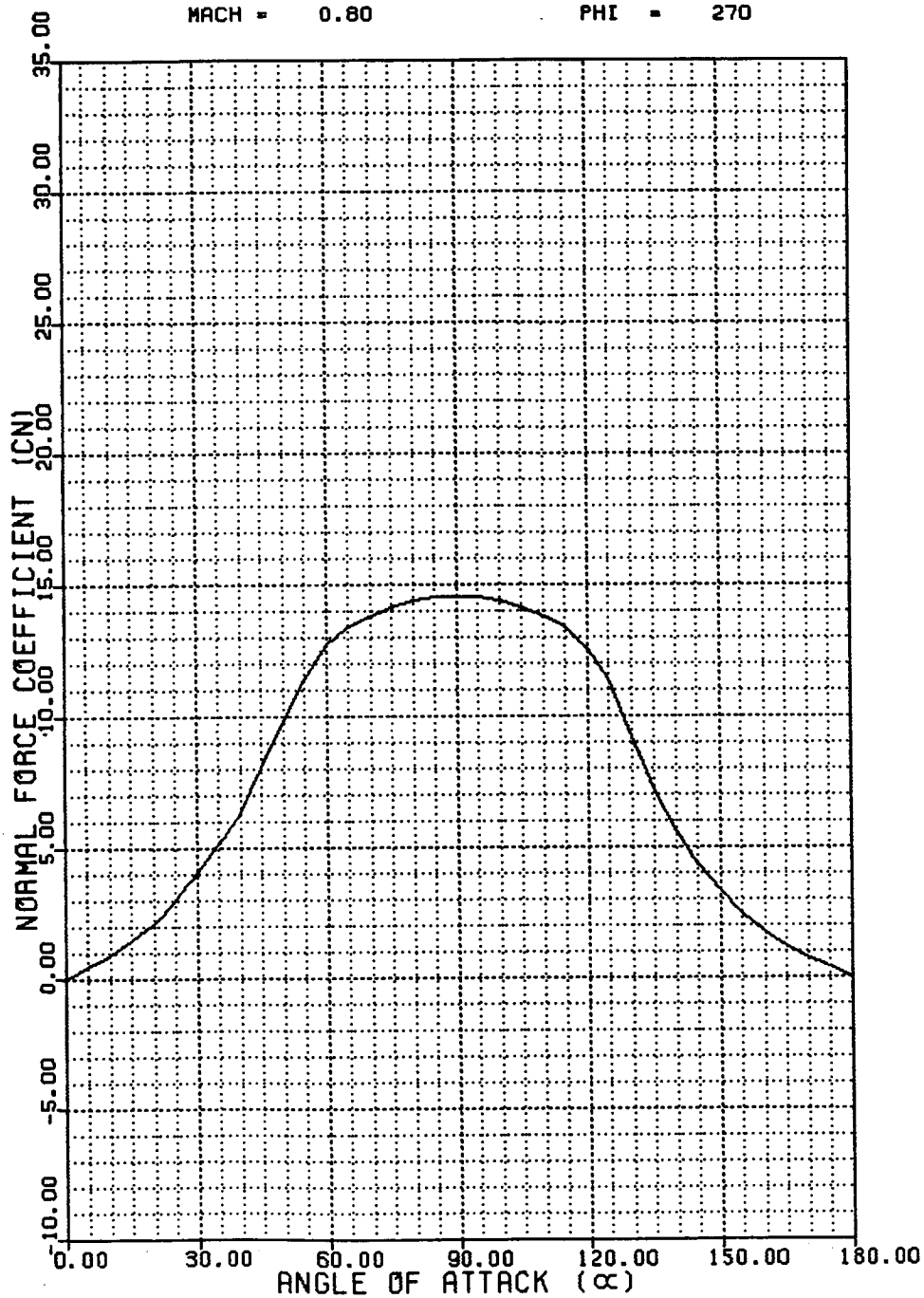


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MACH = 0.80

PHI = 270



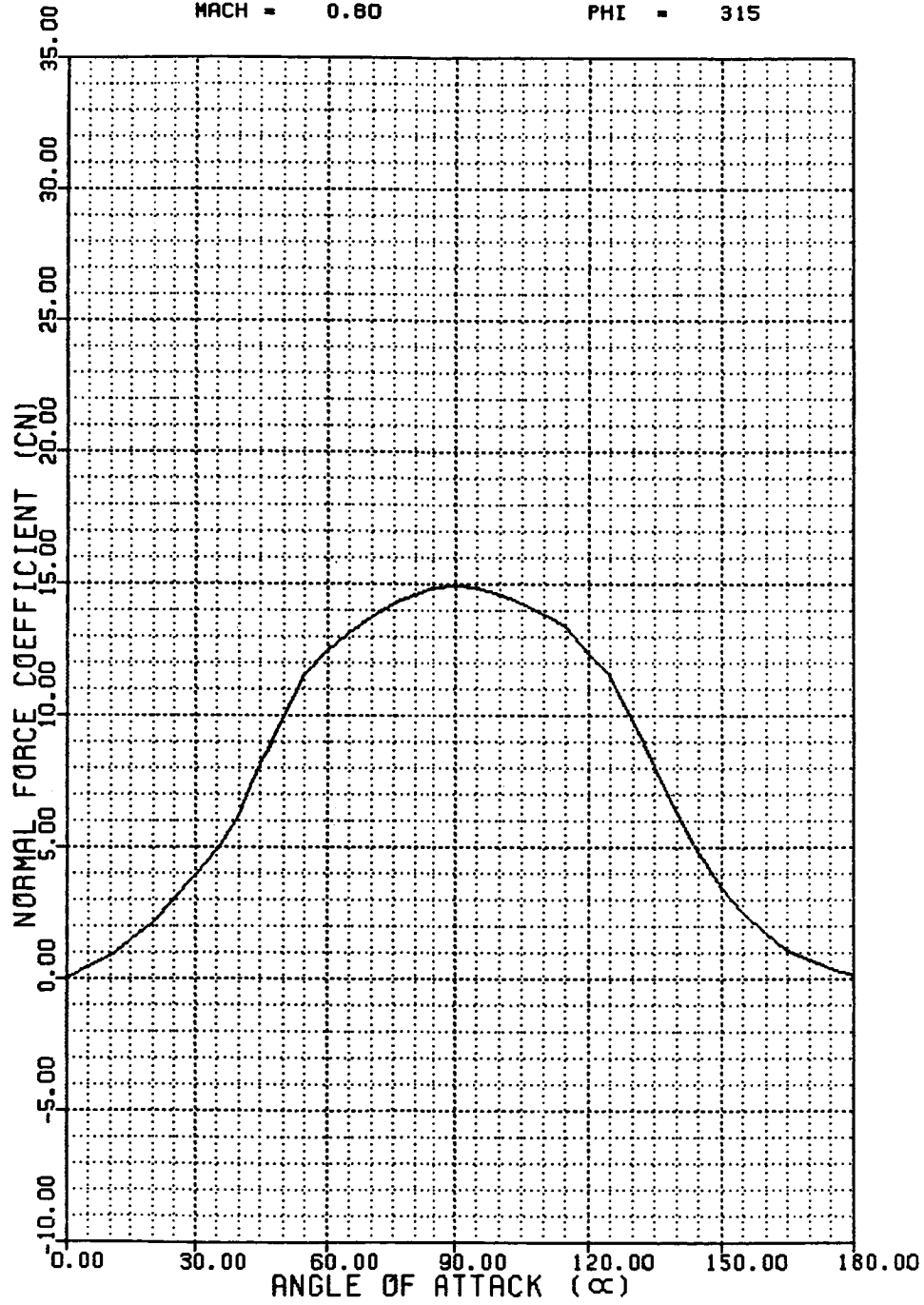
B-52

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 315



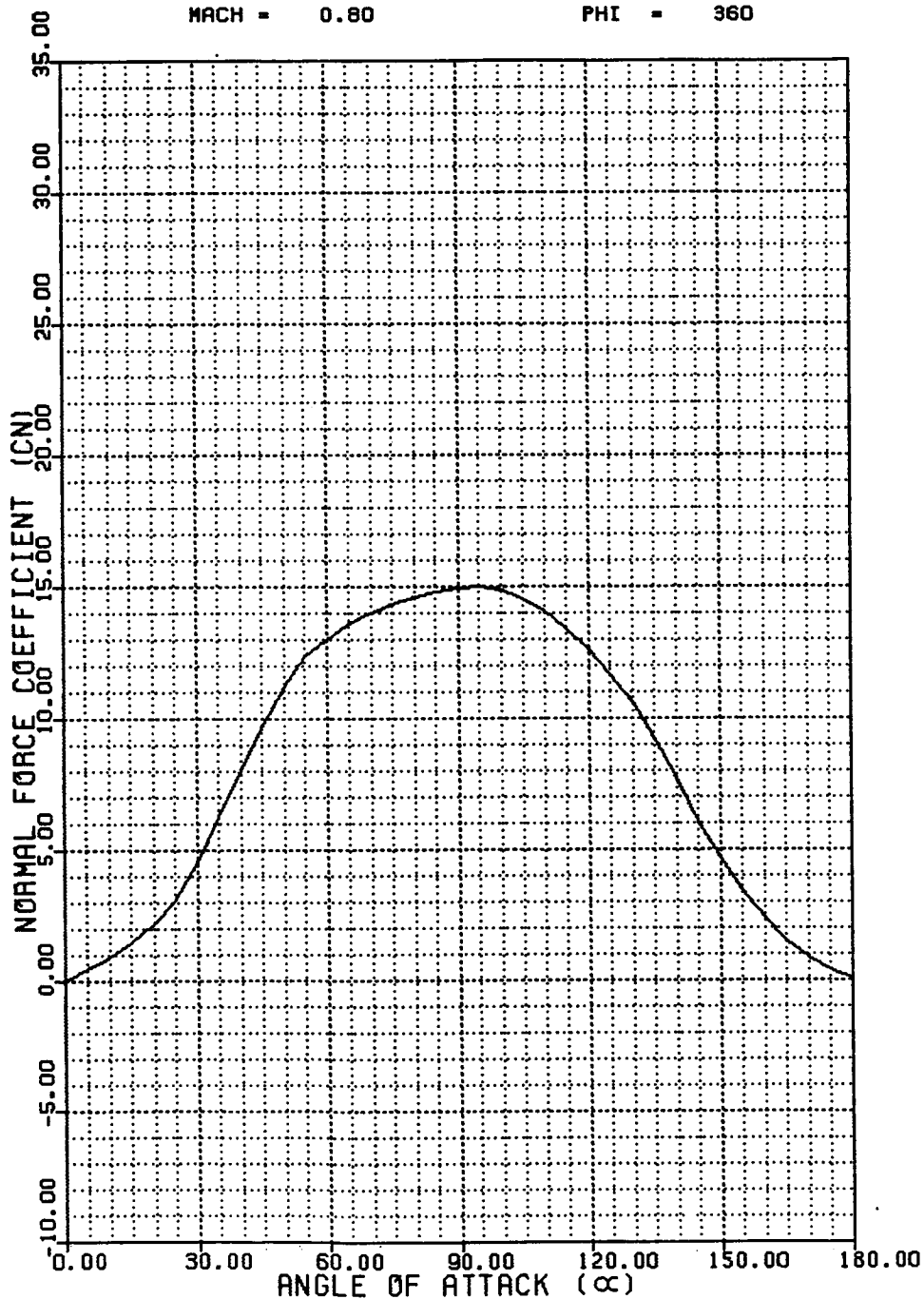
B-53

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360



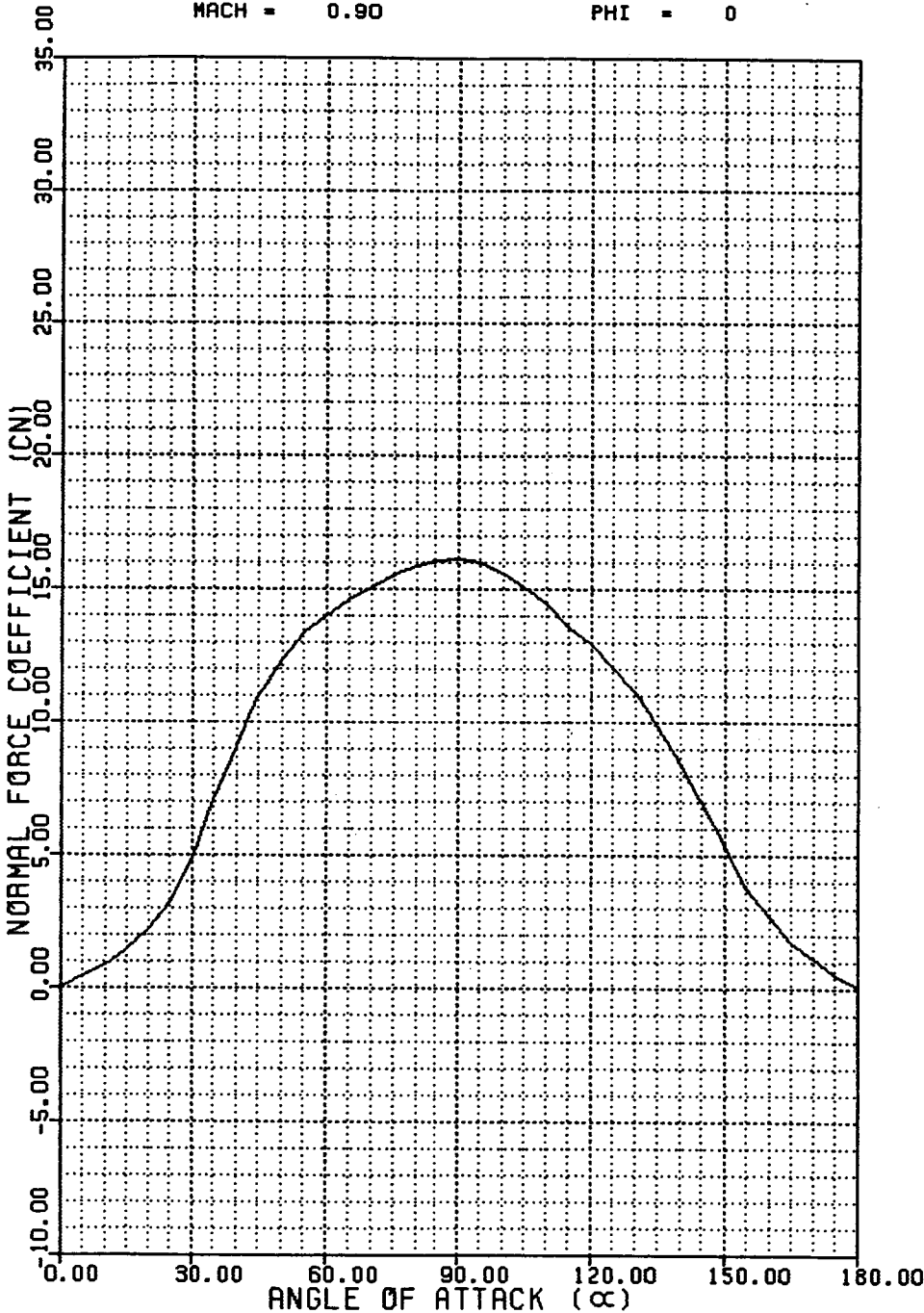
B-54

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0

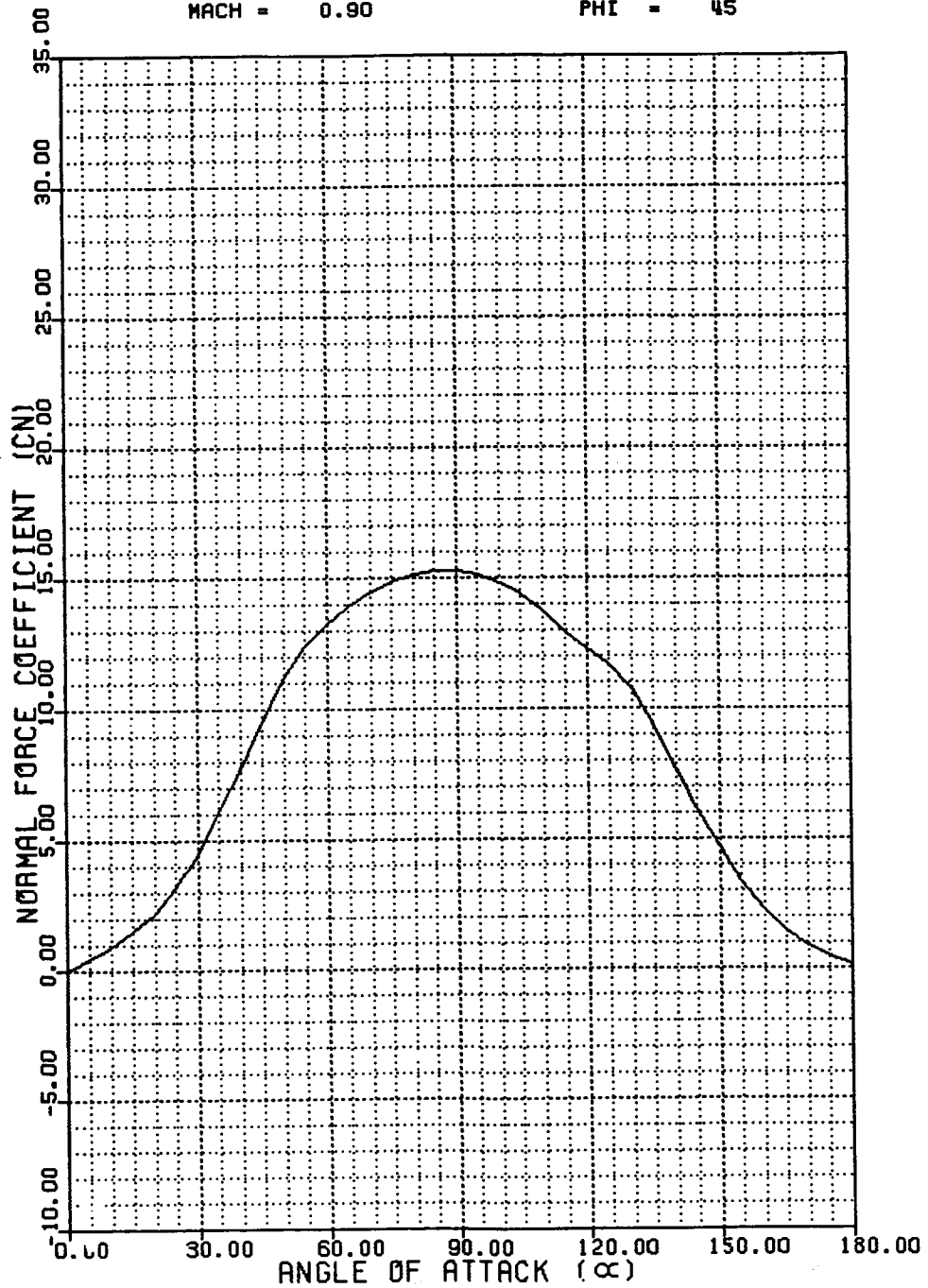


B-55

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45



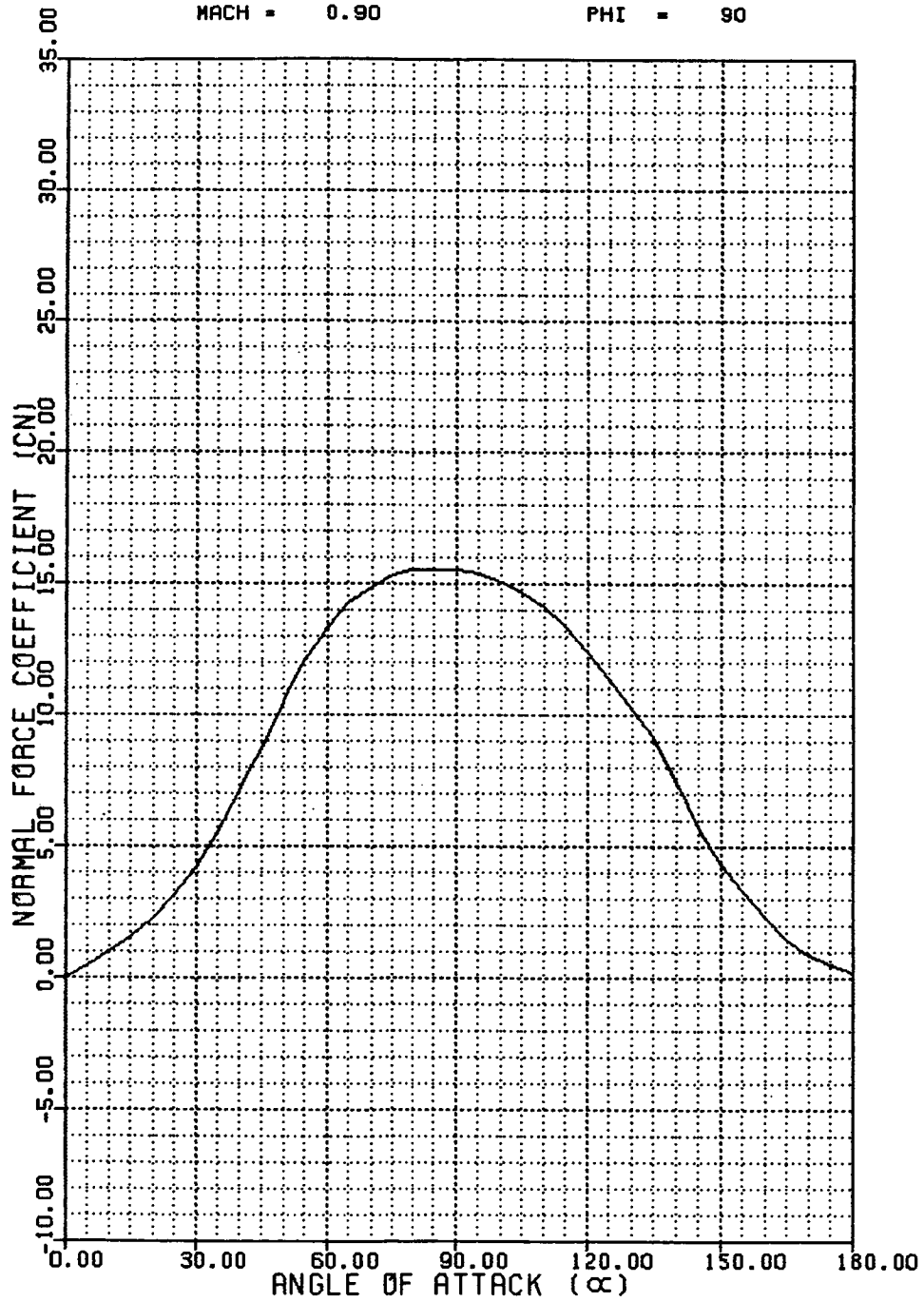
B-56

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 90



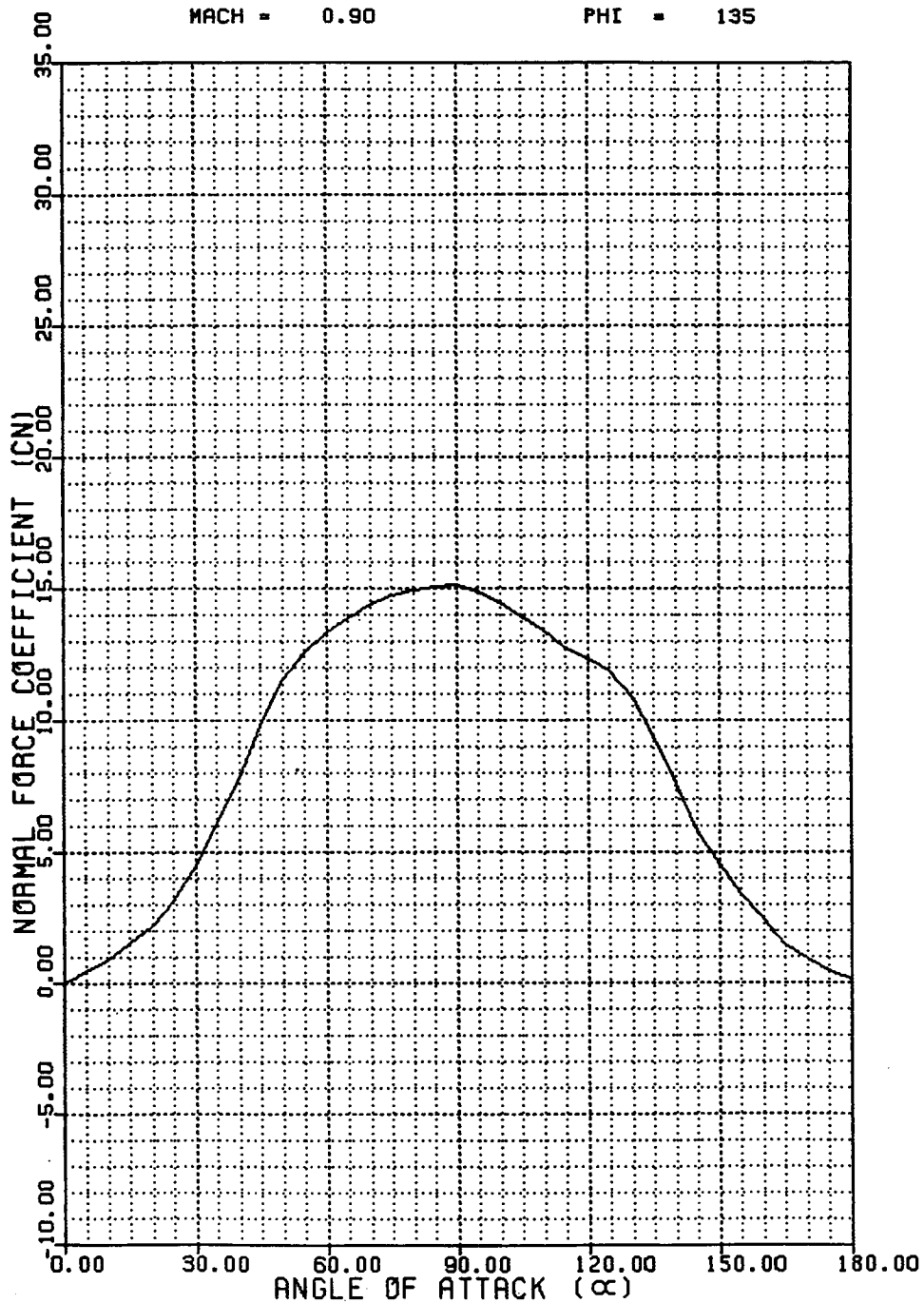
B-57

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135



B-58

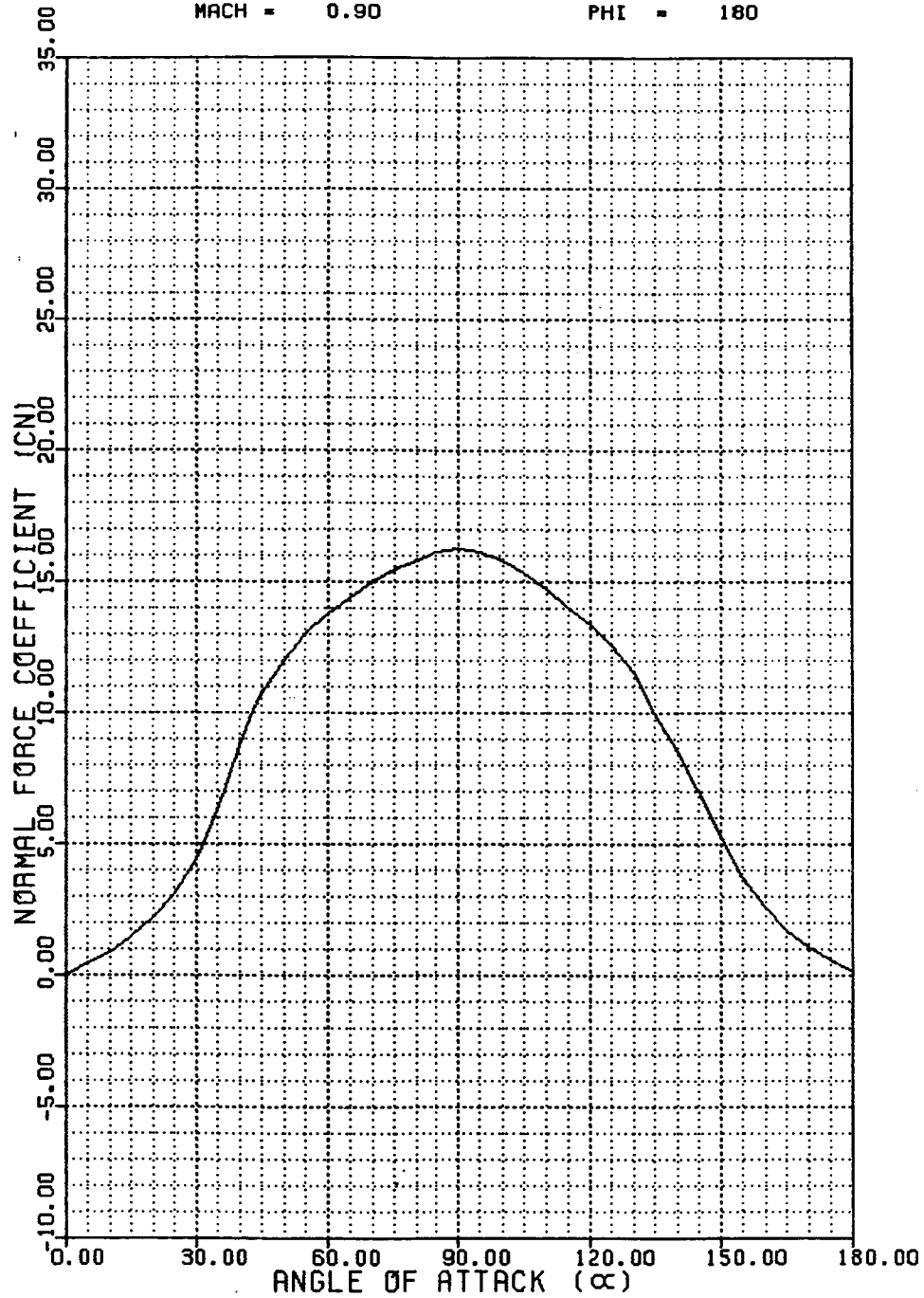
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180



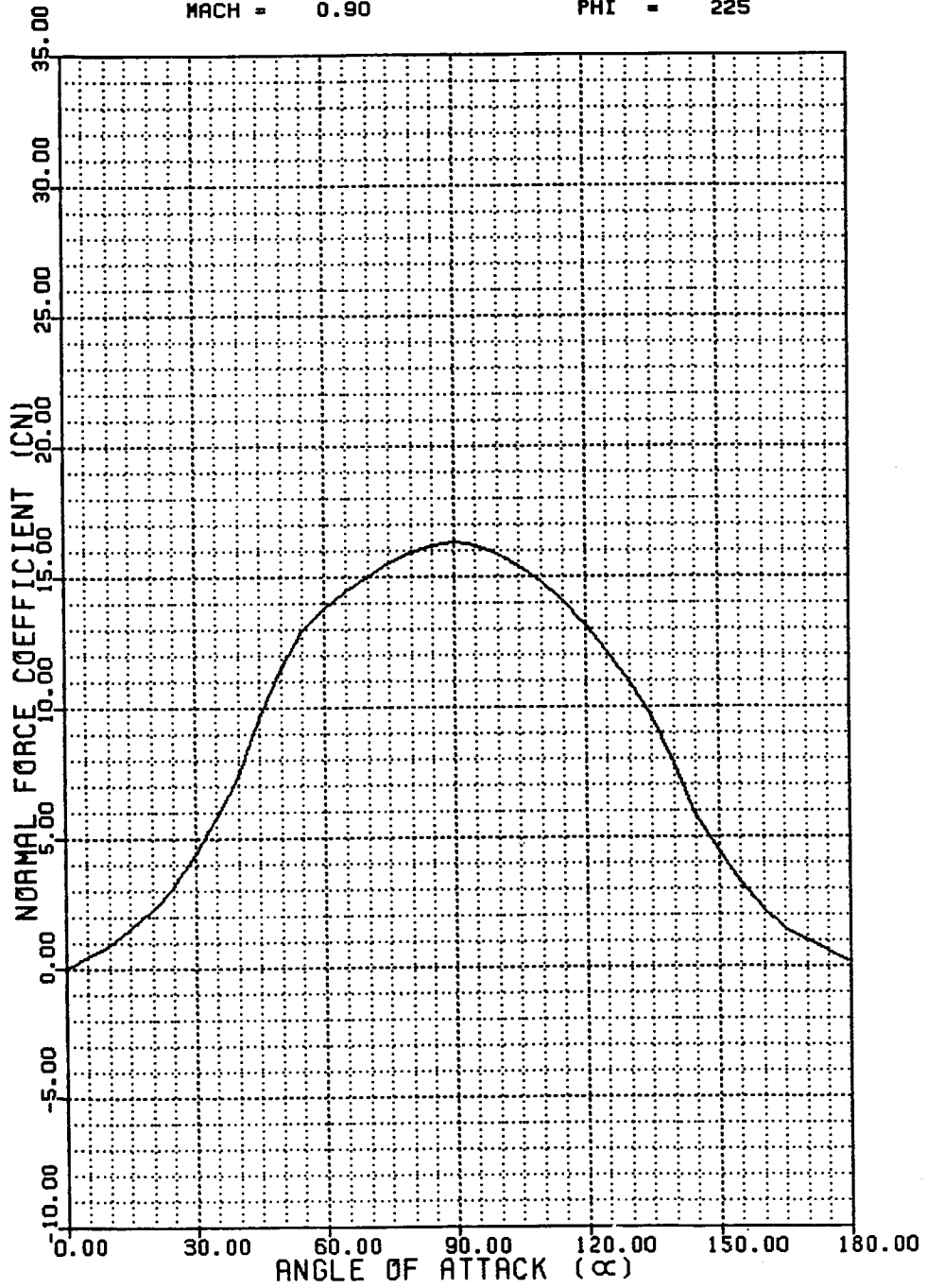
B-59

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225



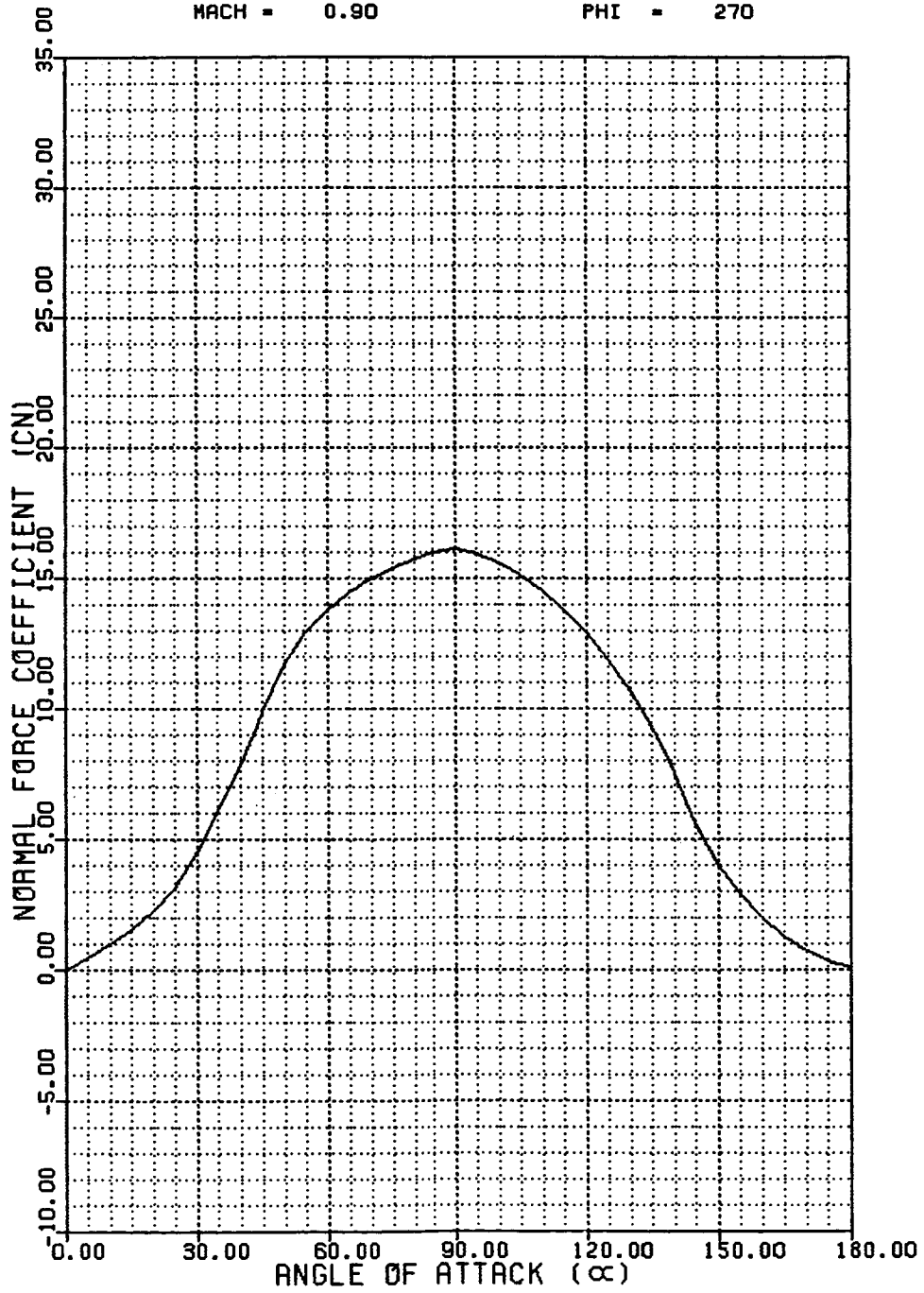
B-60

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270



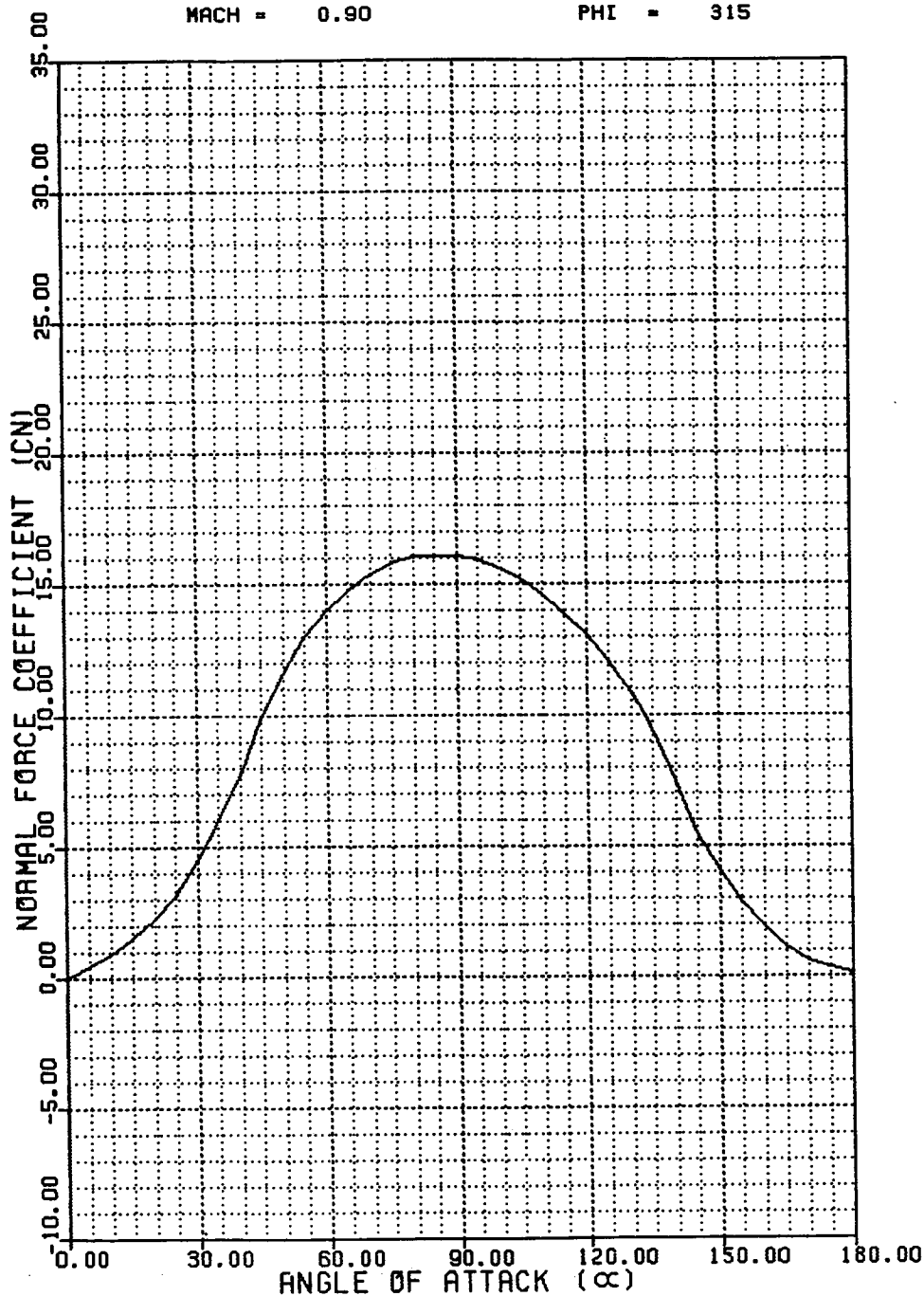
B-61

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 315



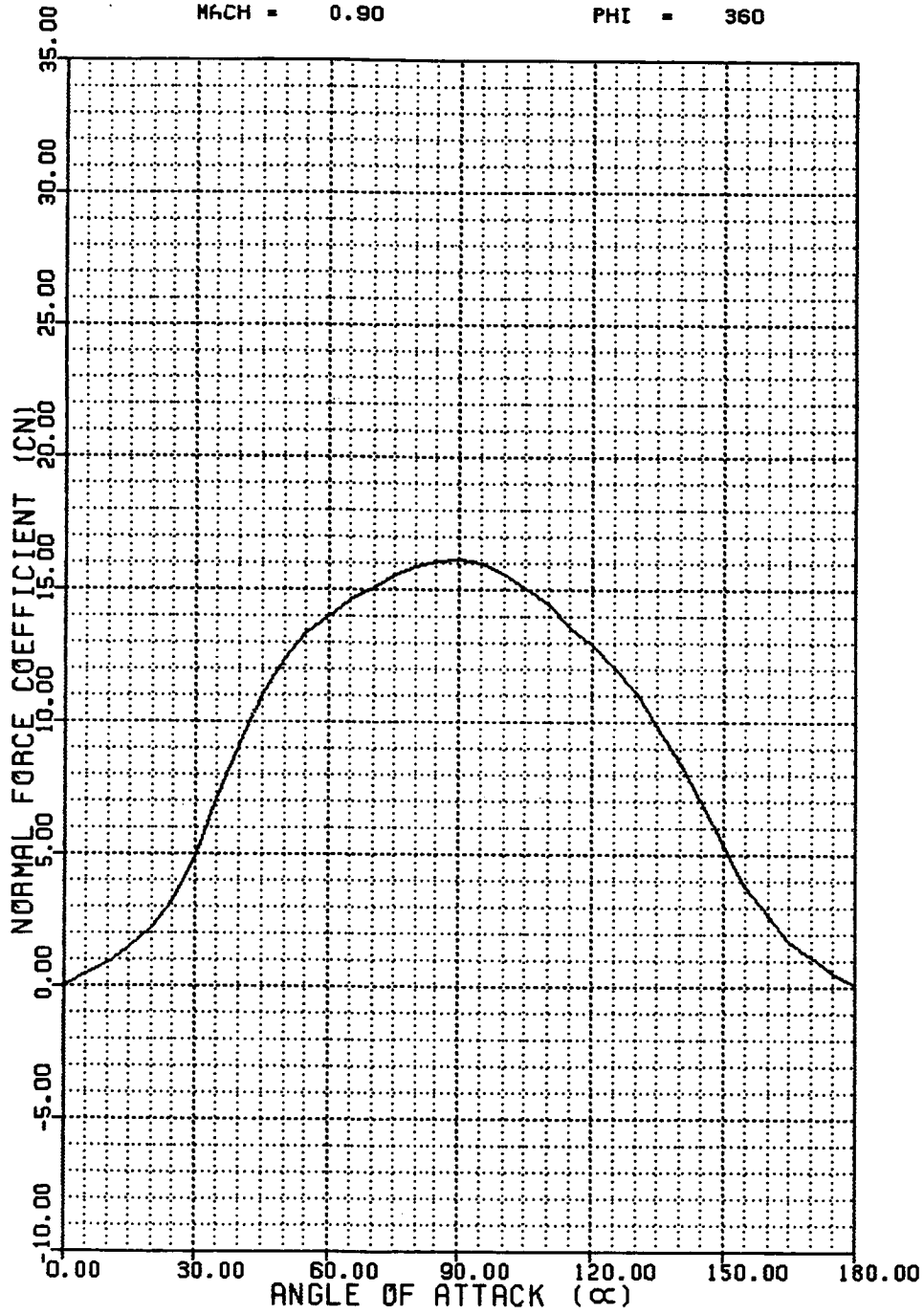
B-62

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360

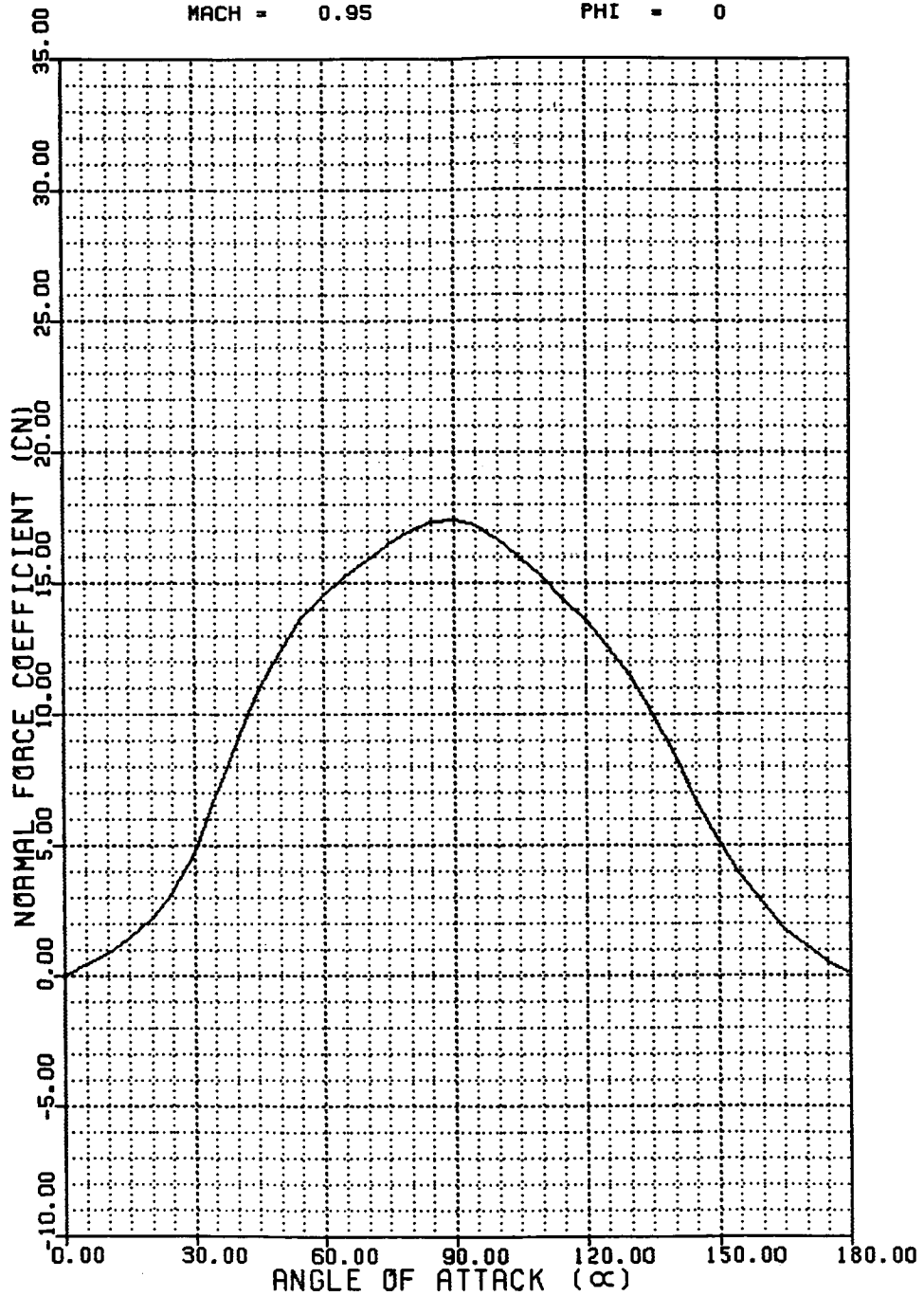


B-69

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0



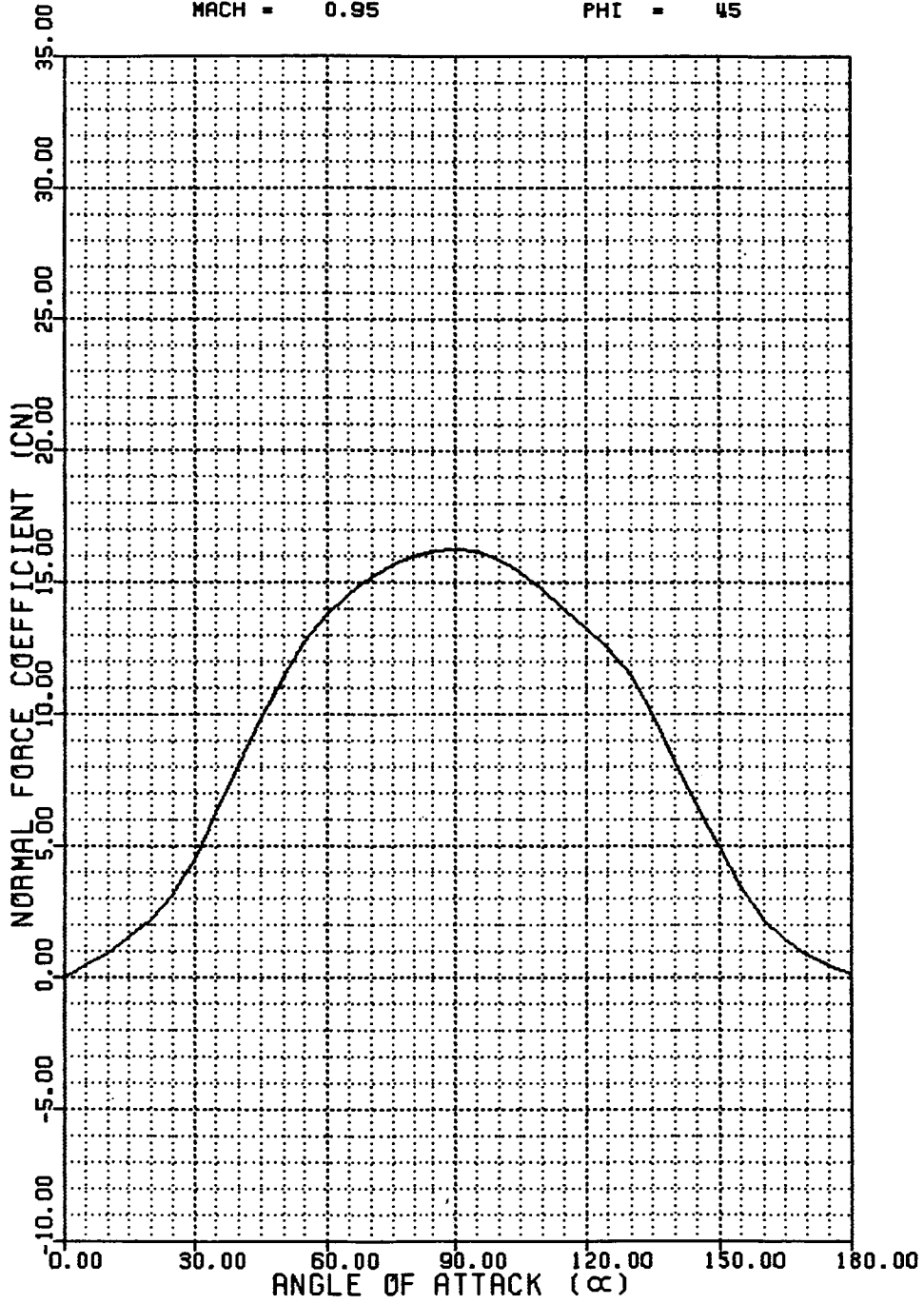
B-64

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45



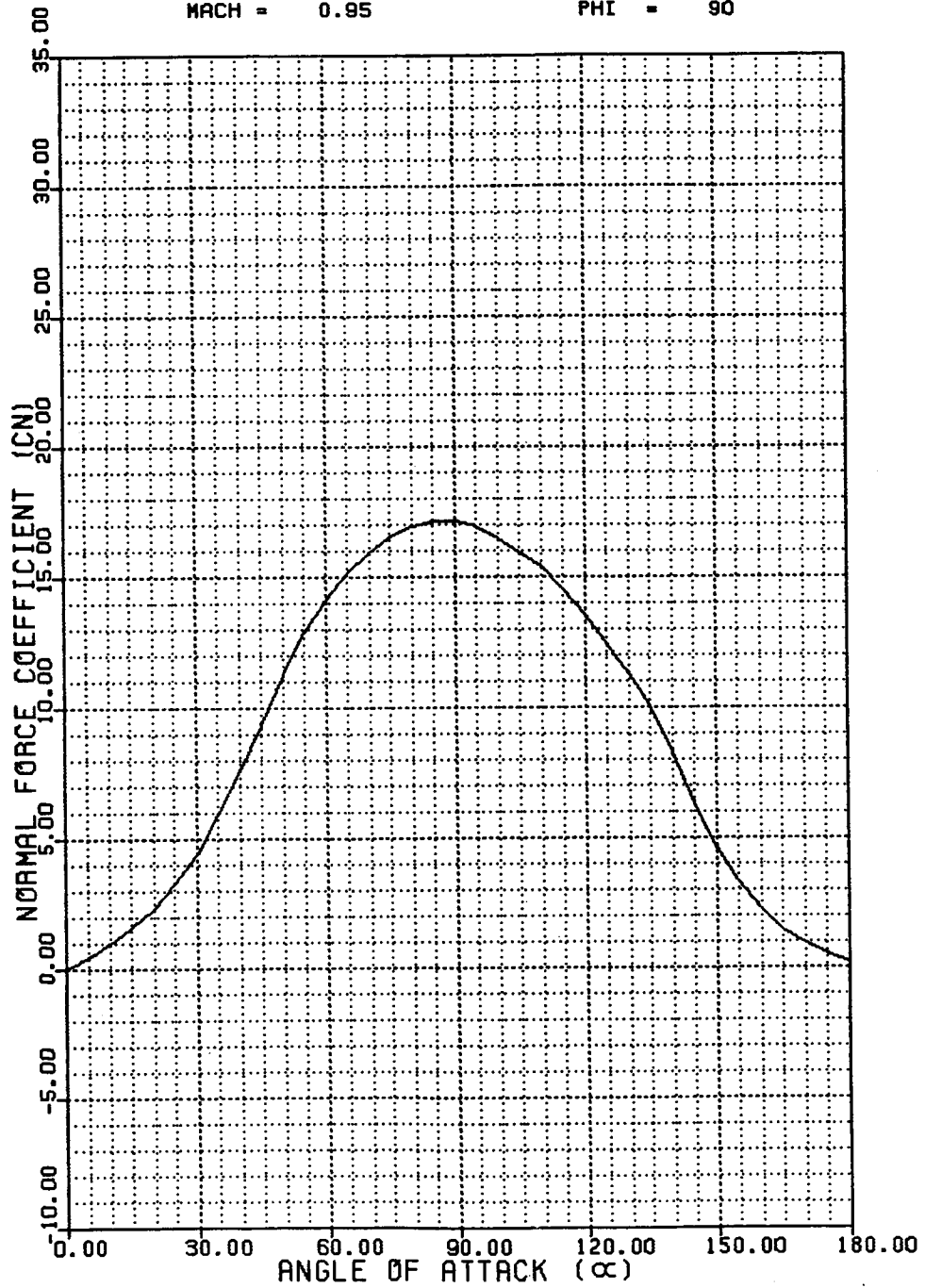
B-65

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90



B-66

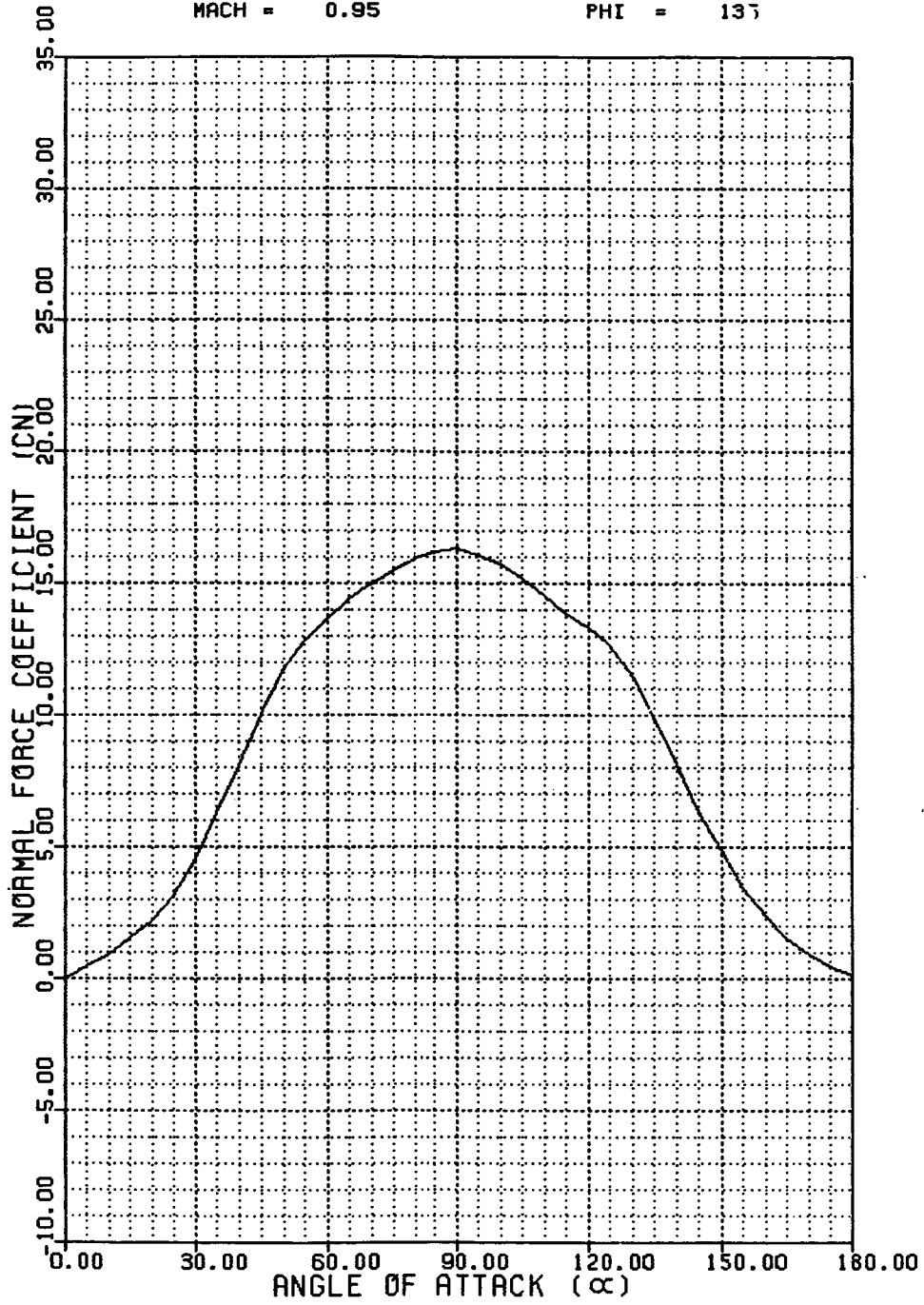
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135

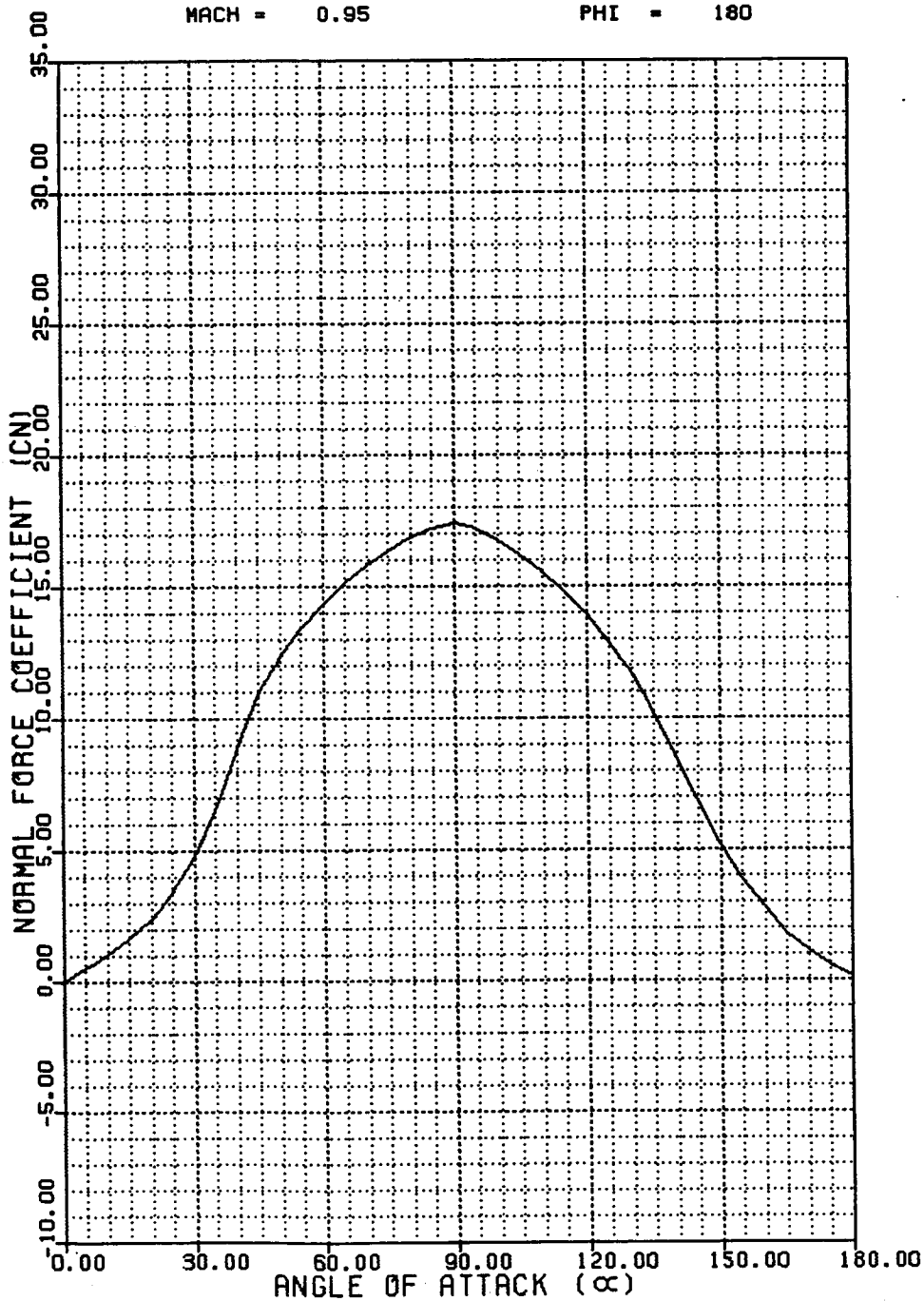


B-67

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180



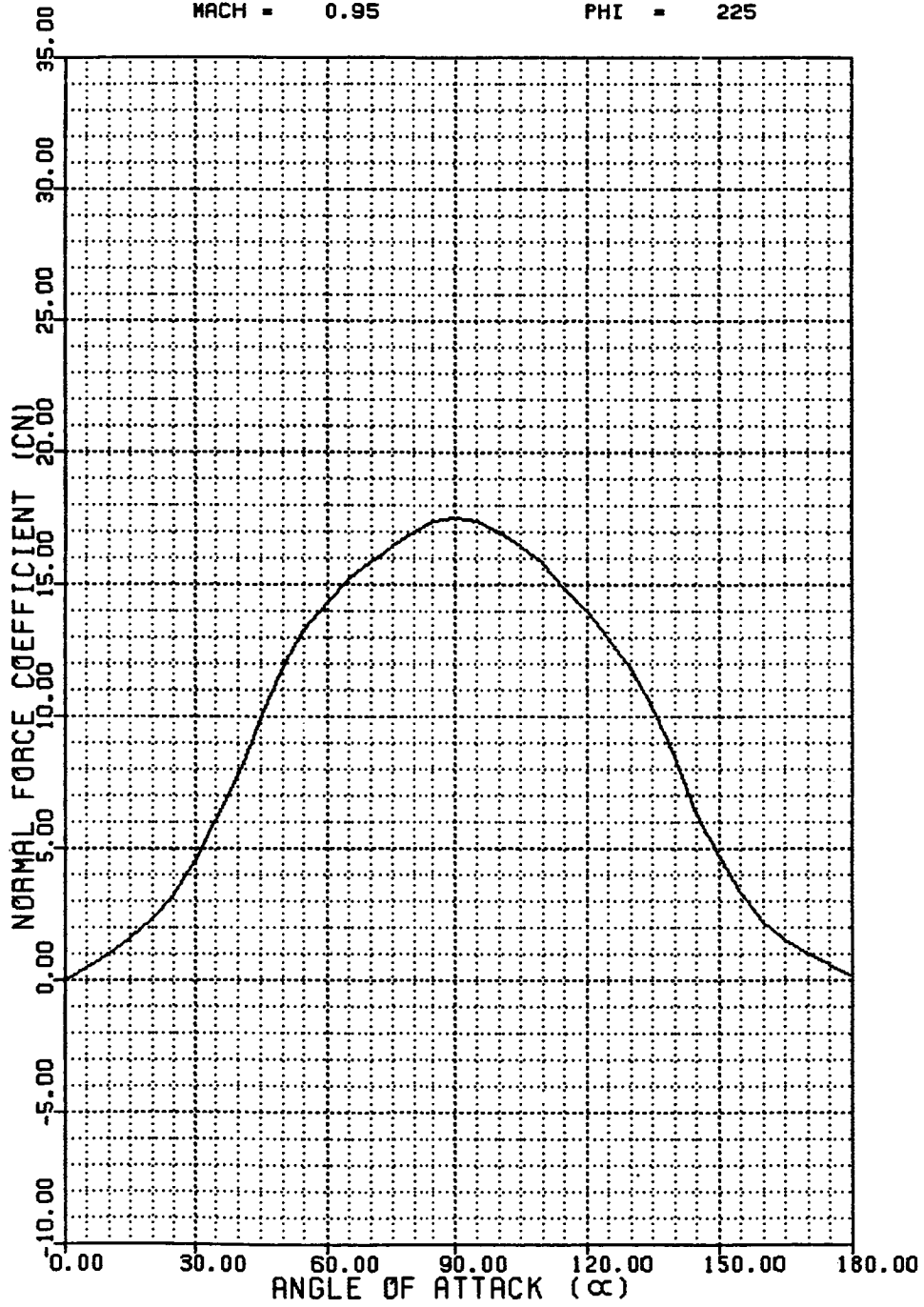
B-68

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 225

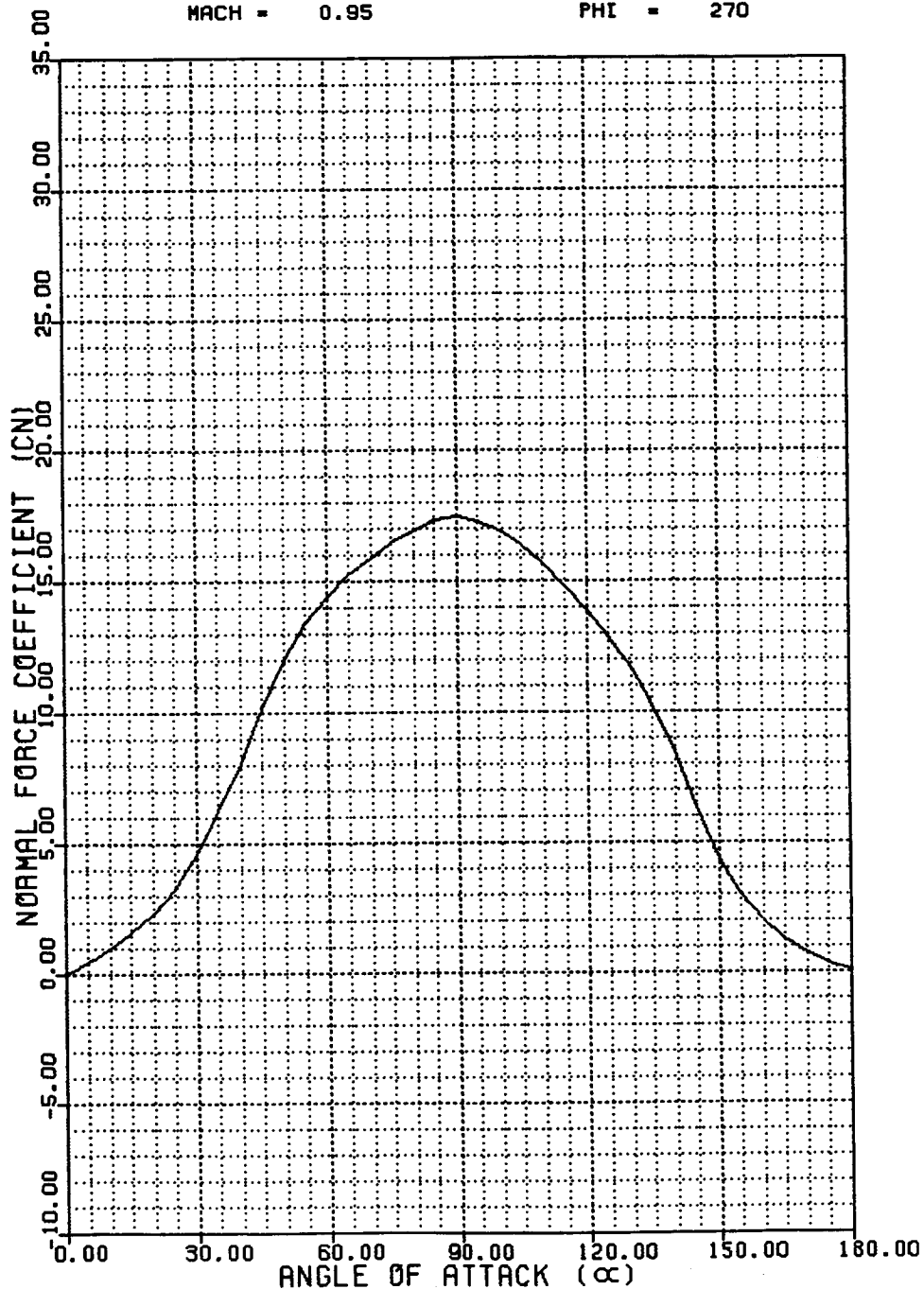


B-69

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270



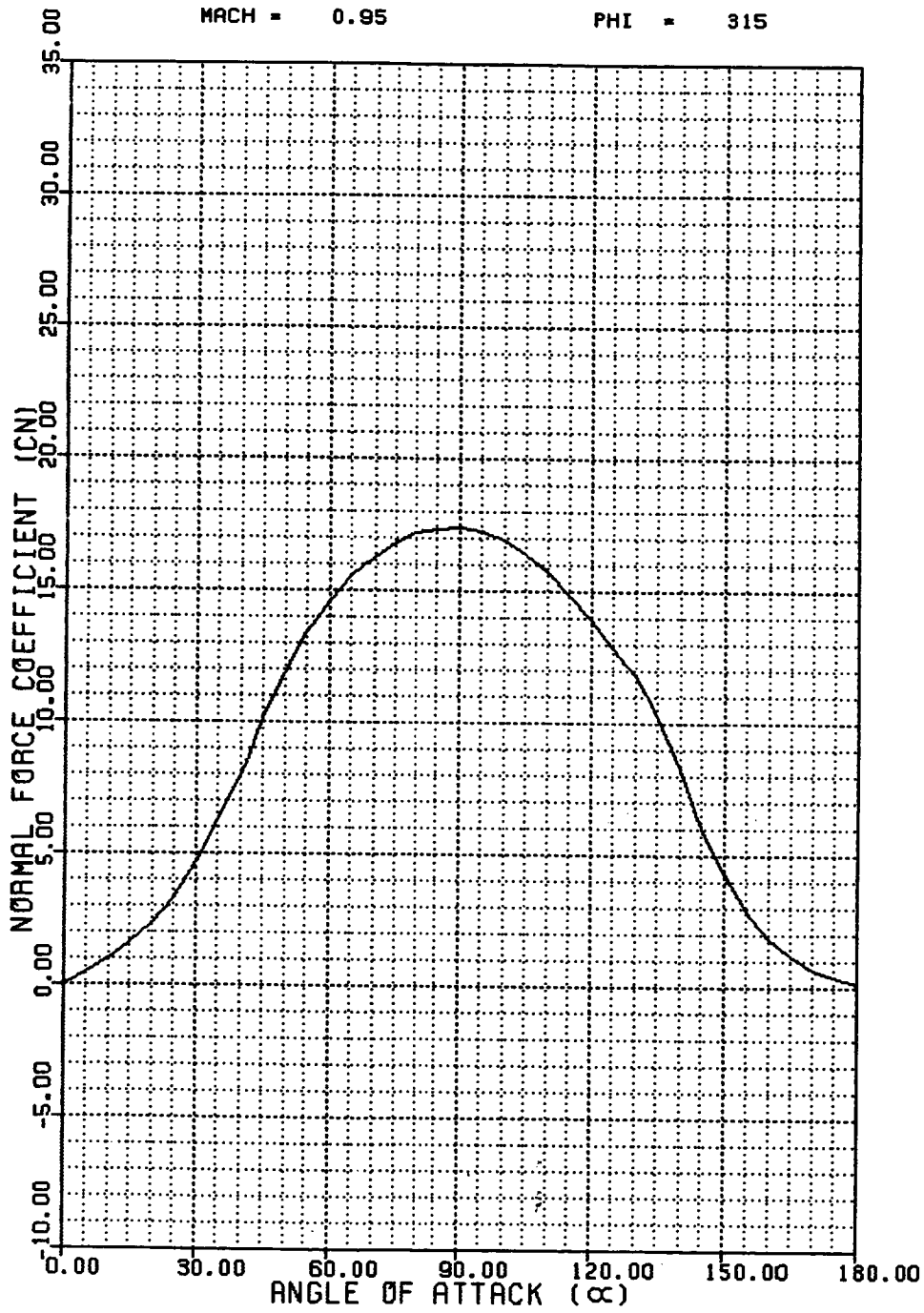
B-70

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 315

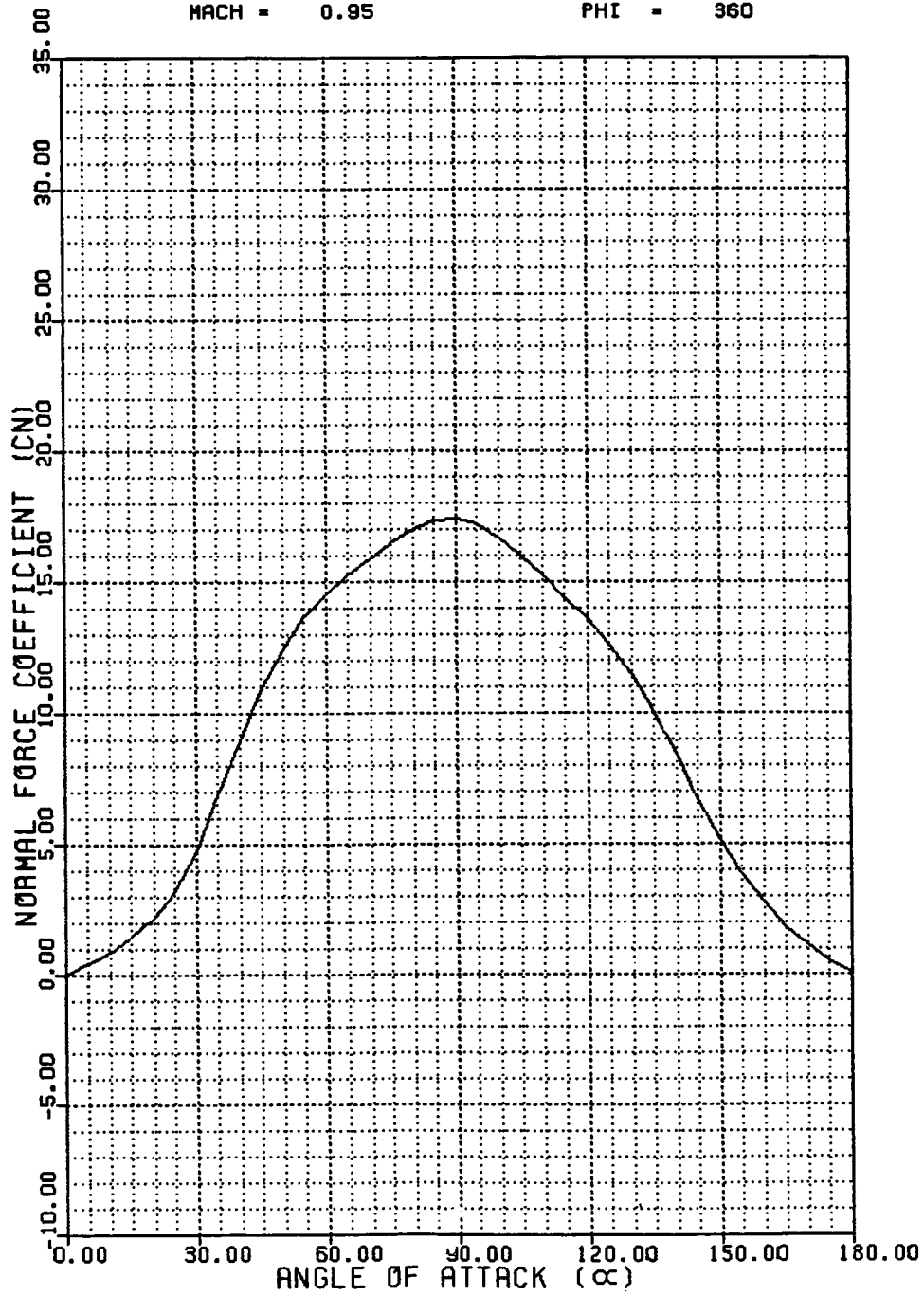


B-71

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360



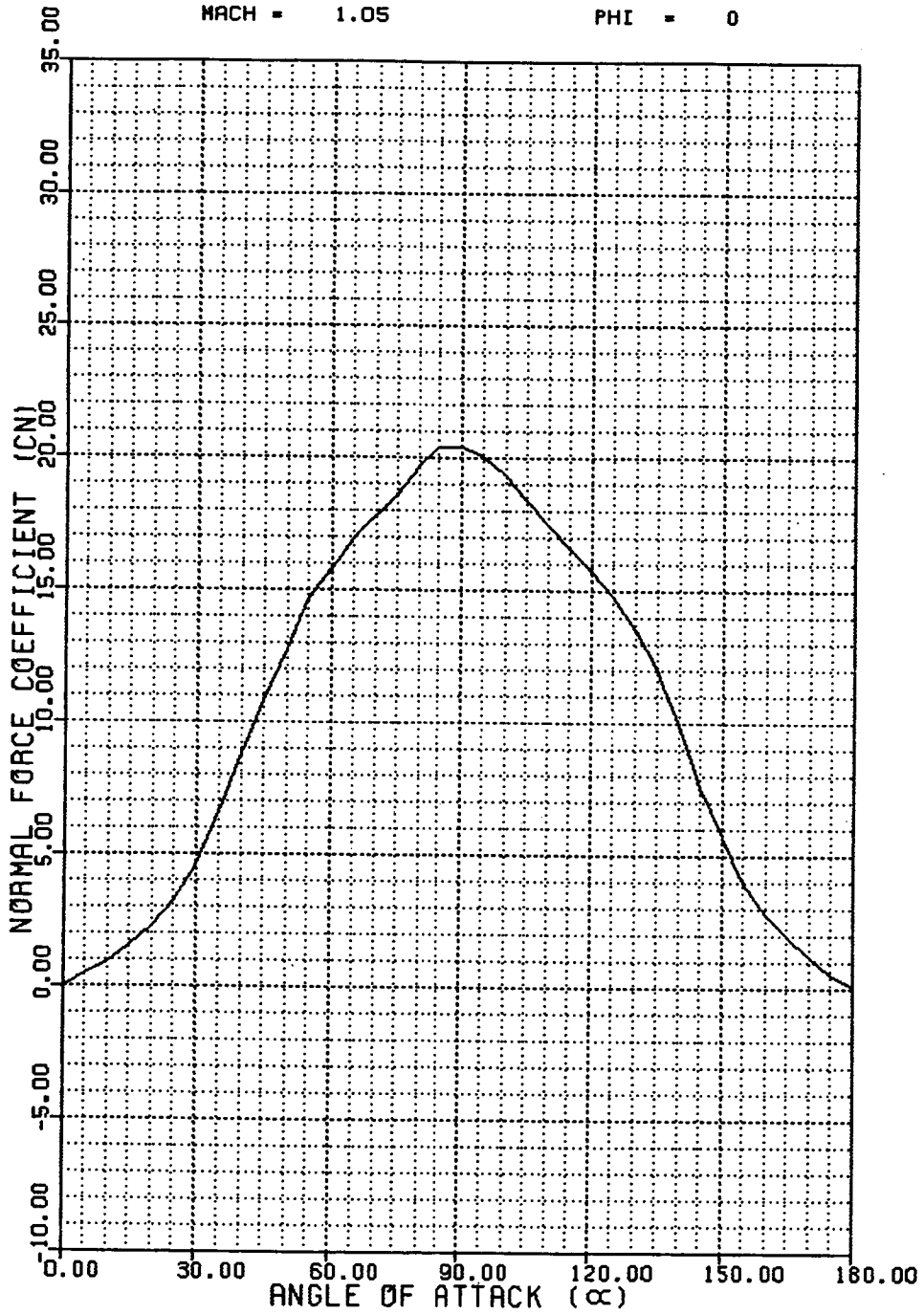
B-72

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0

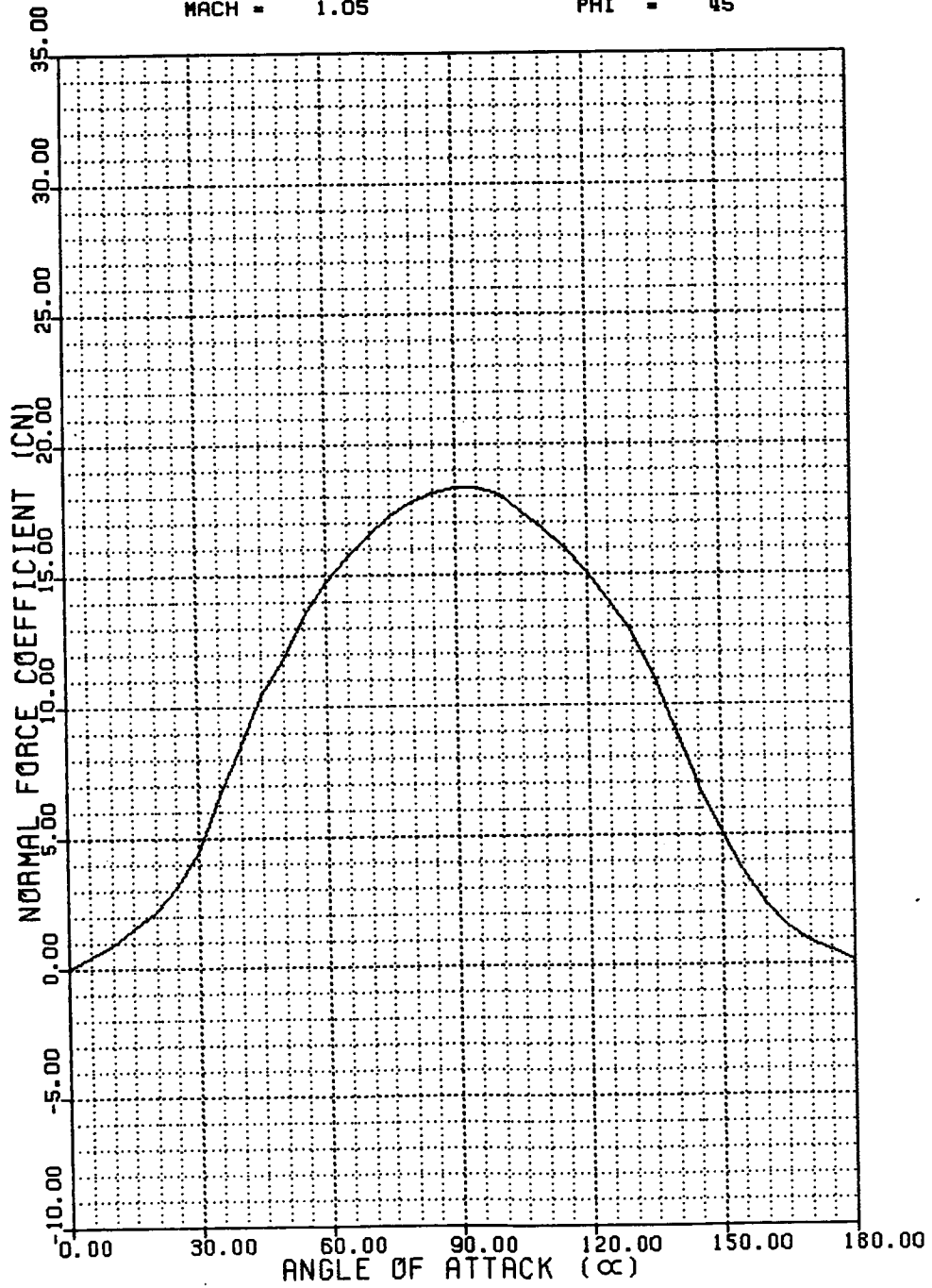


B-73

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



B-74

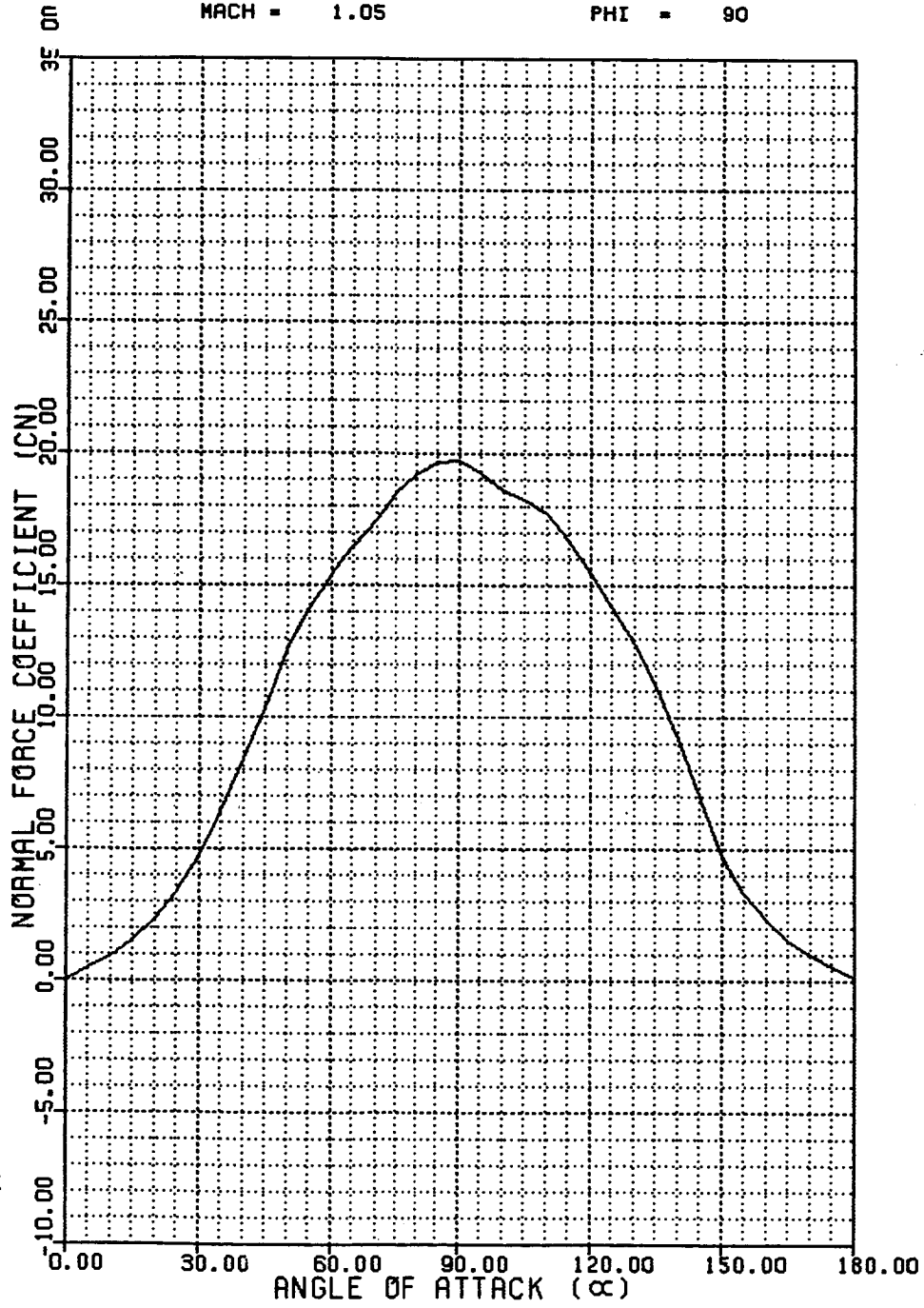
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90

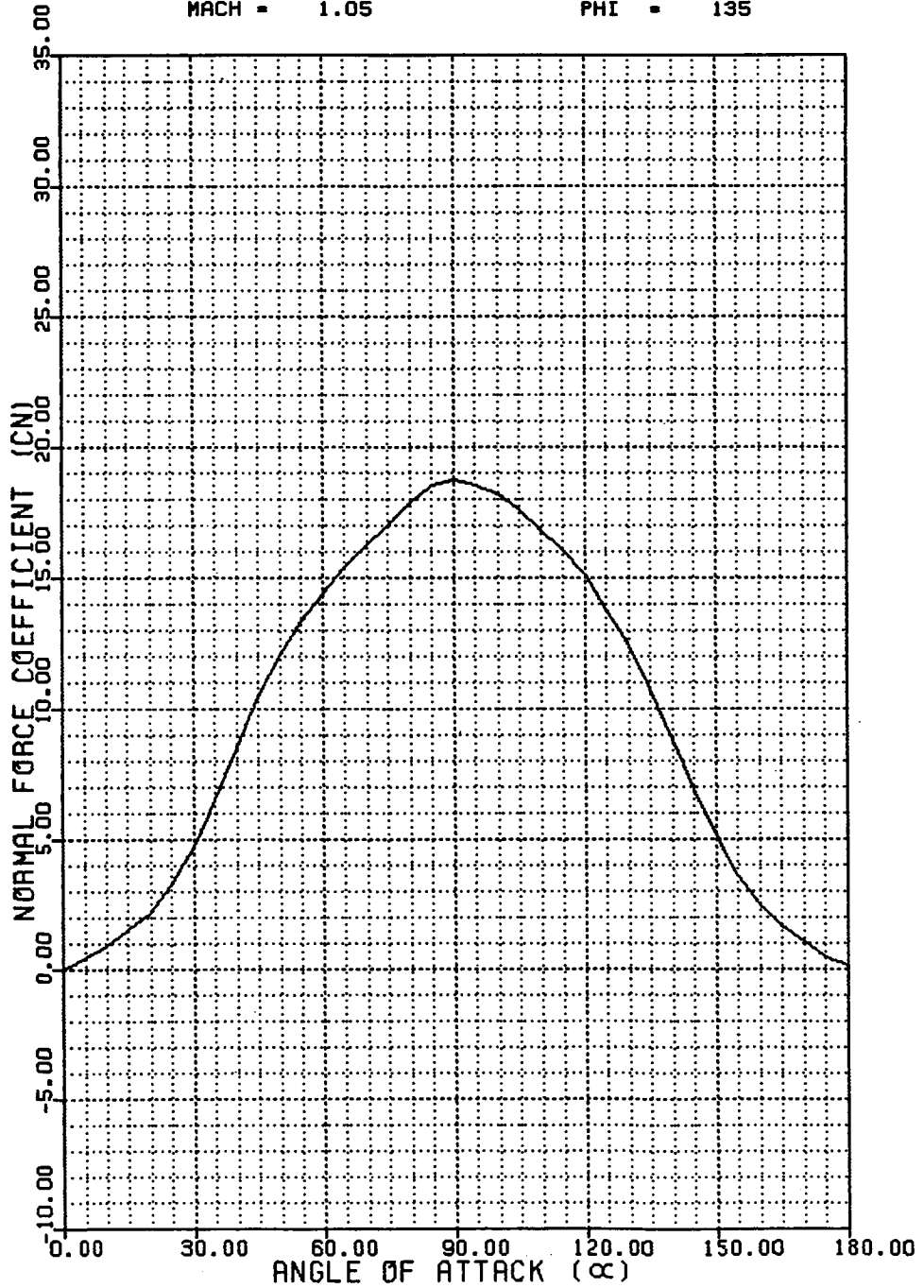


B-75

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135



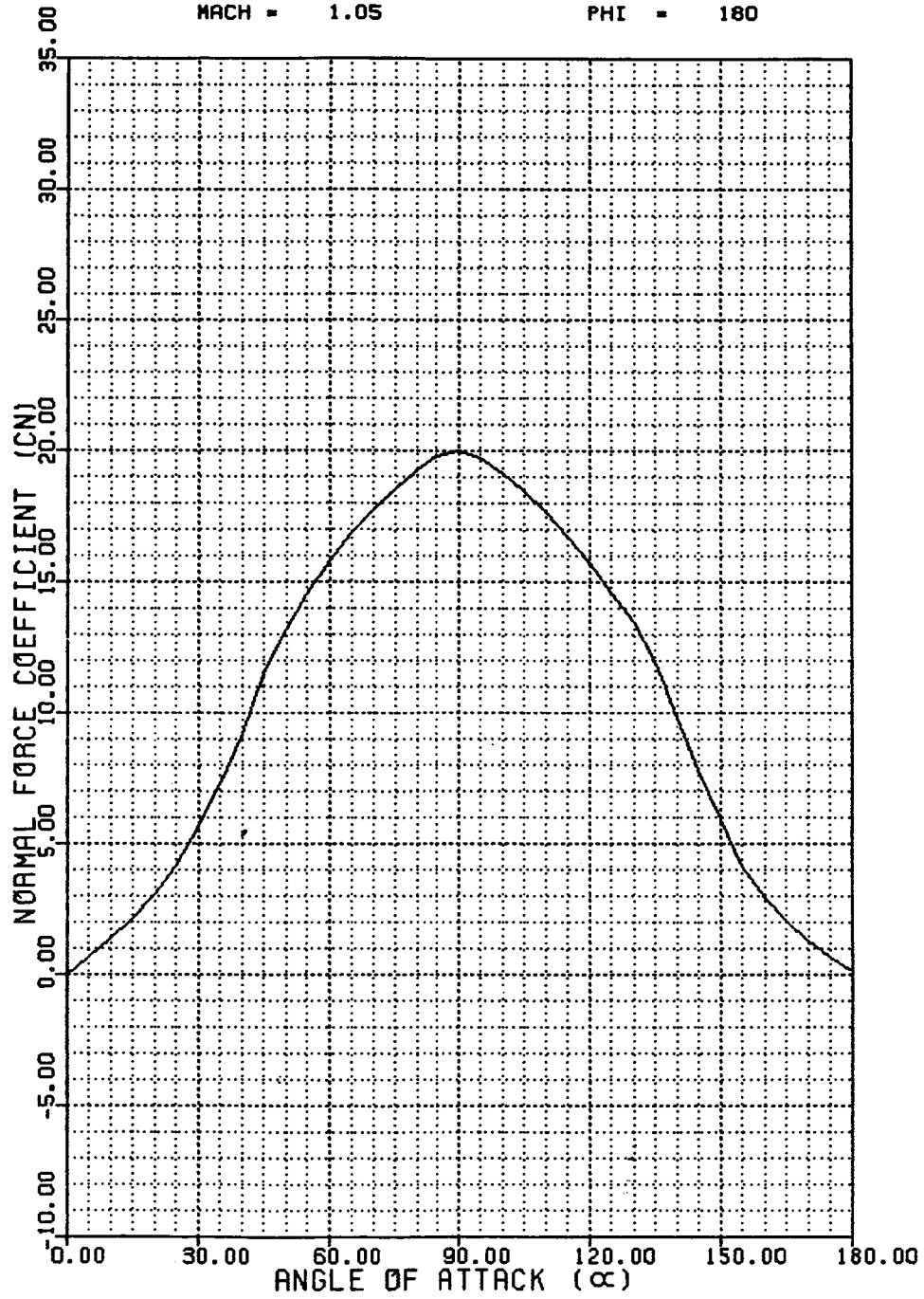
B-78

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180



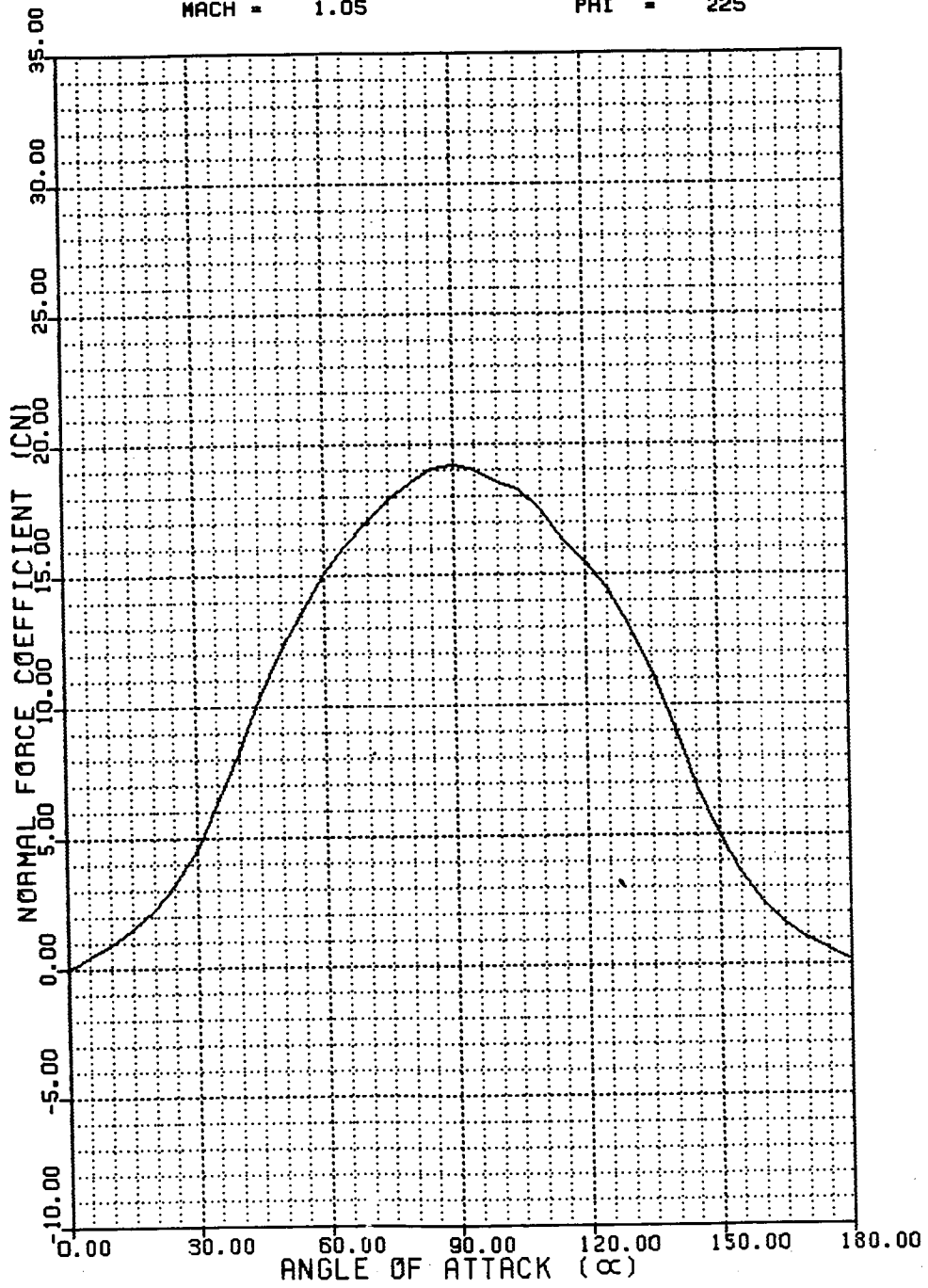
B-77

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225



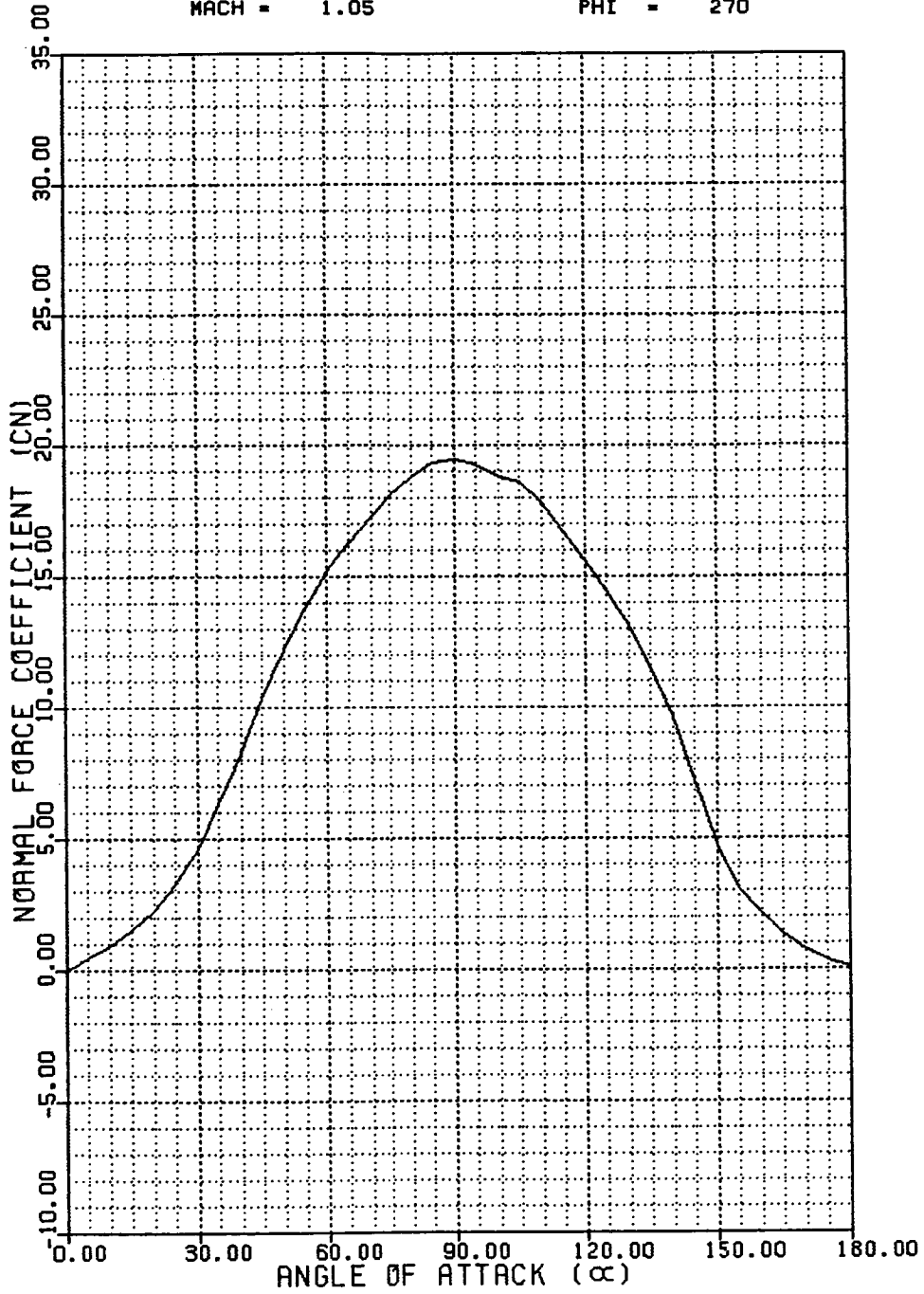
B-78

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270

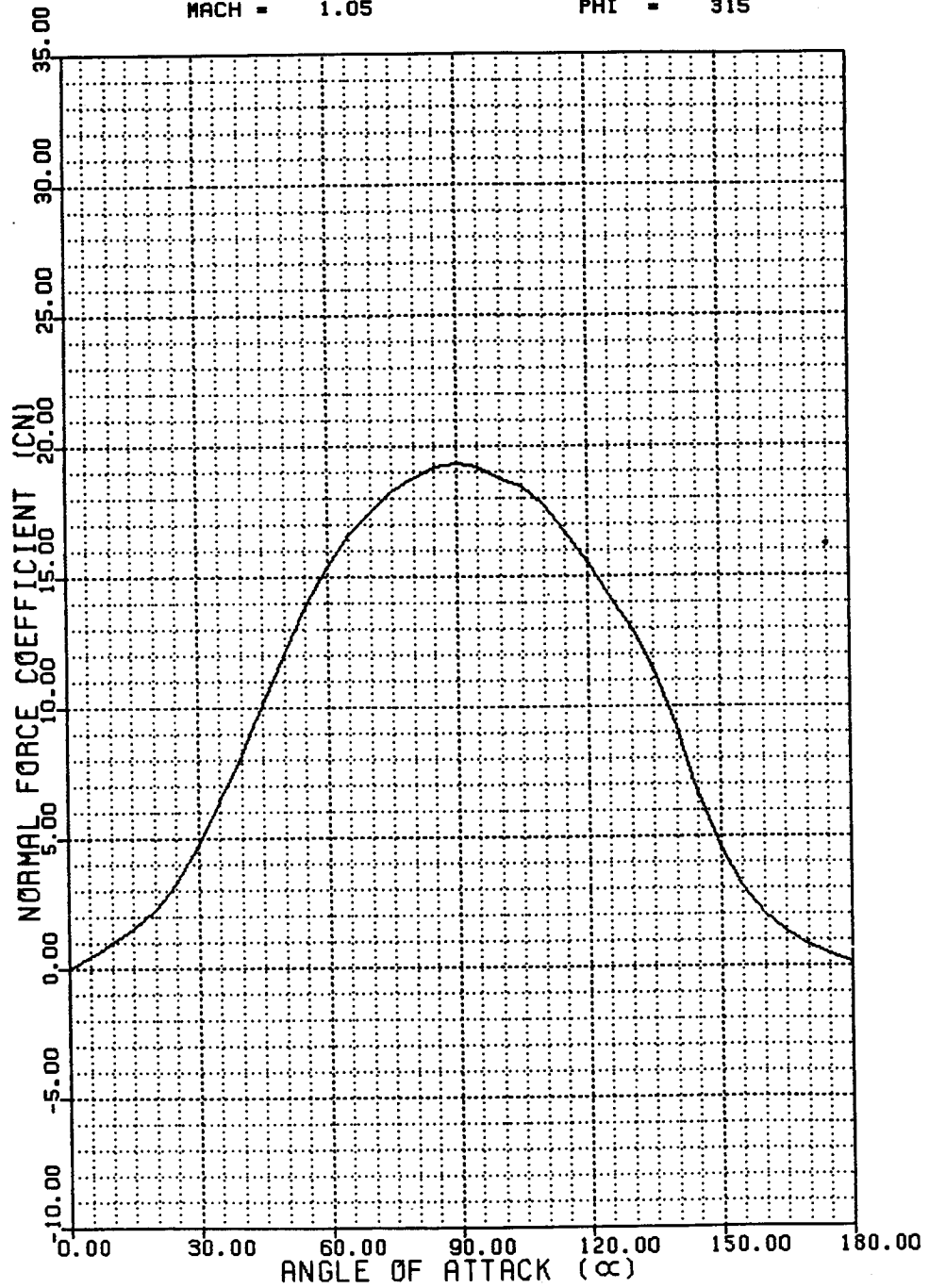


B-79

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315



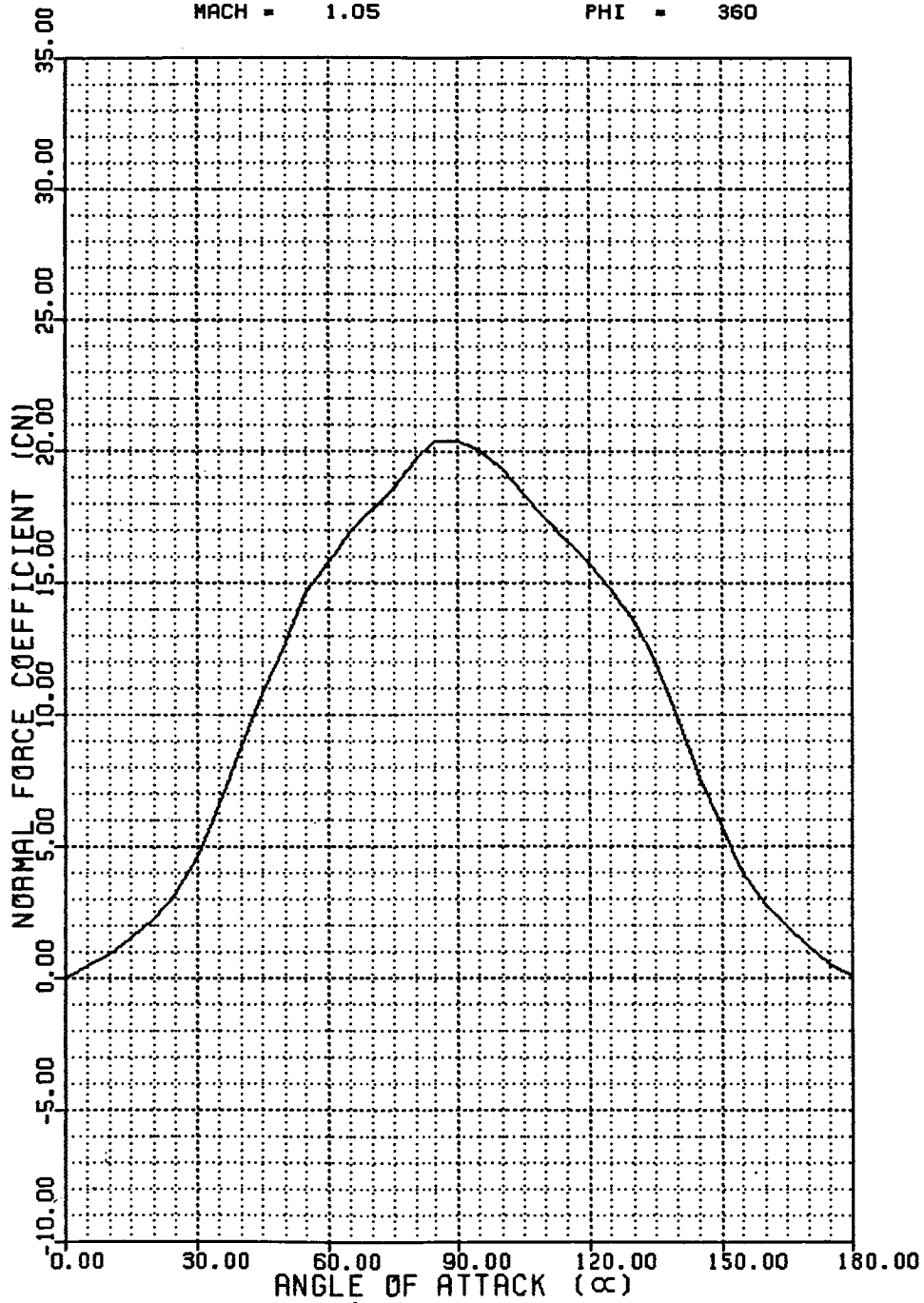
B-80

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 360

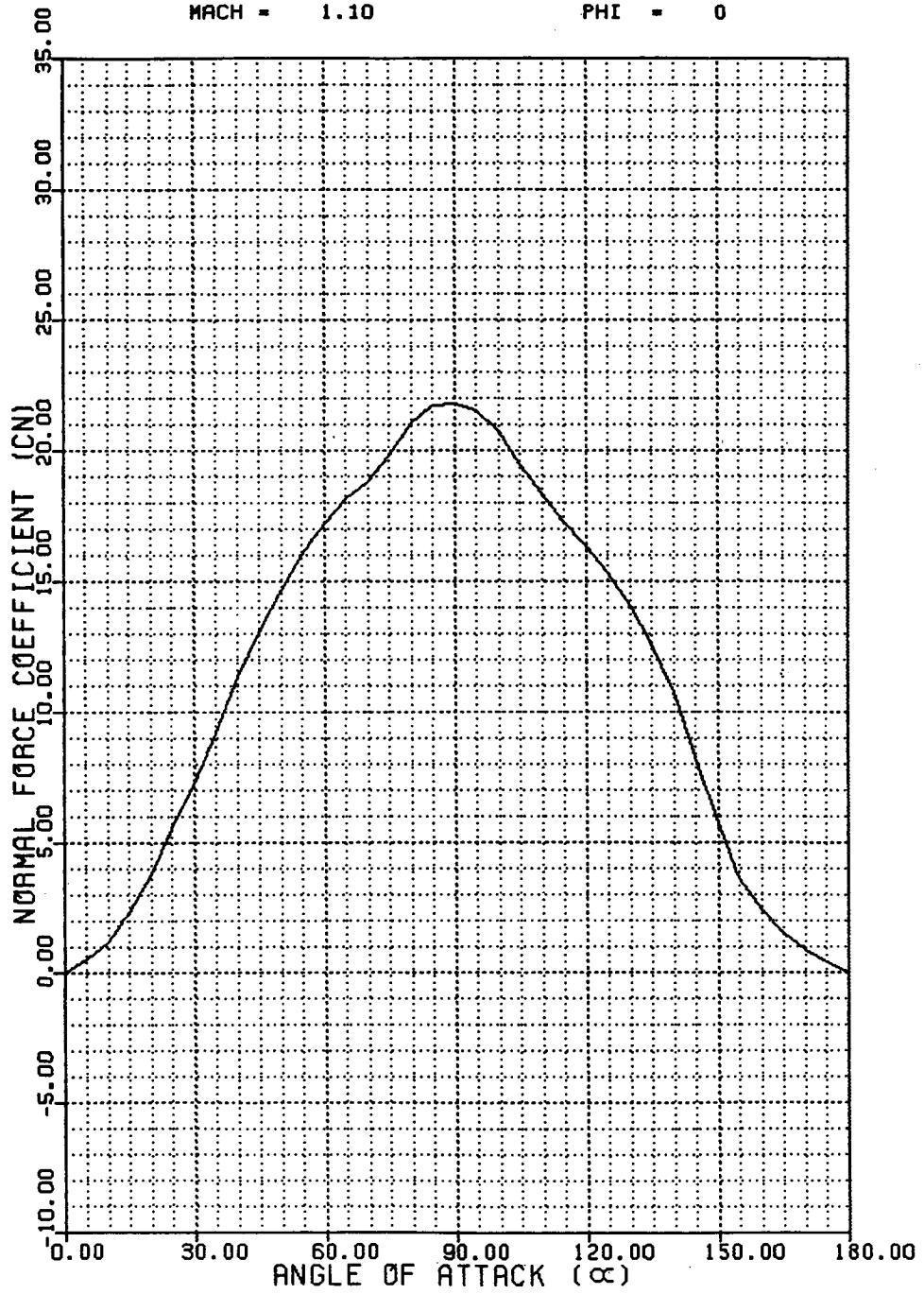


B-81

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0



B-82

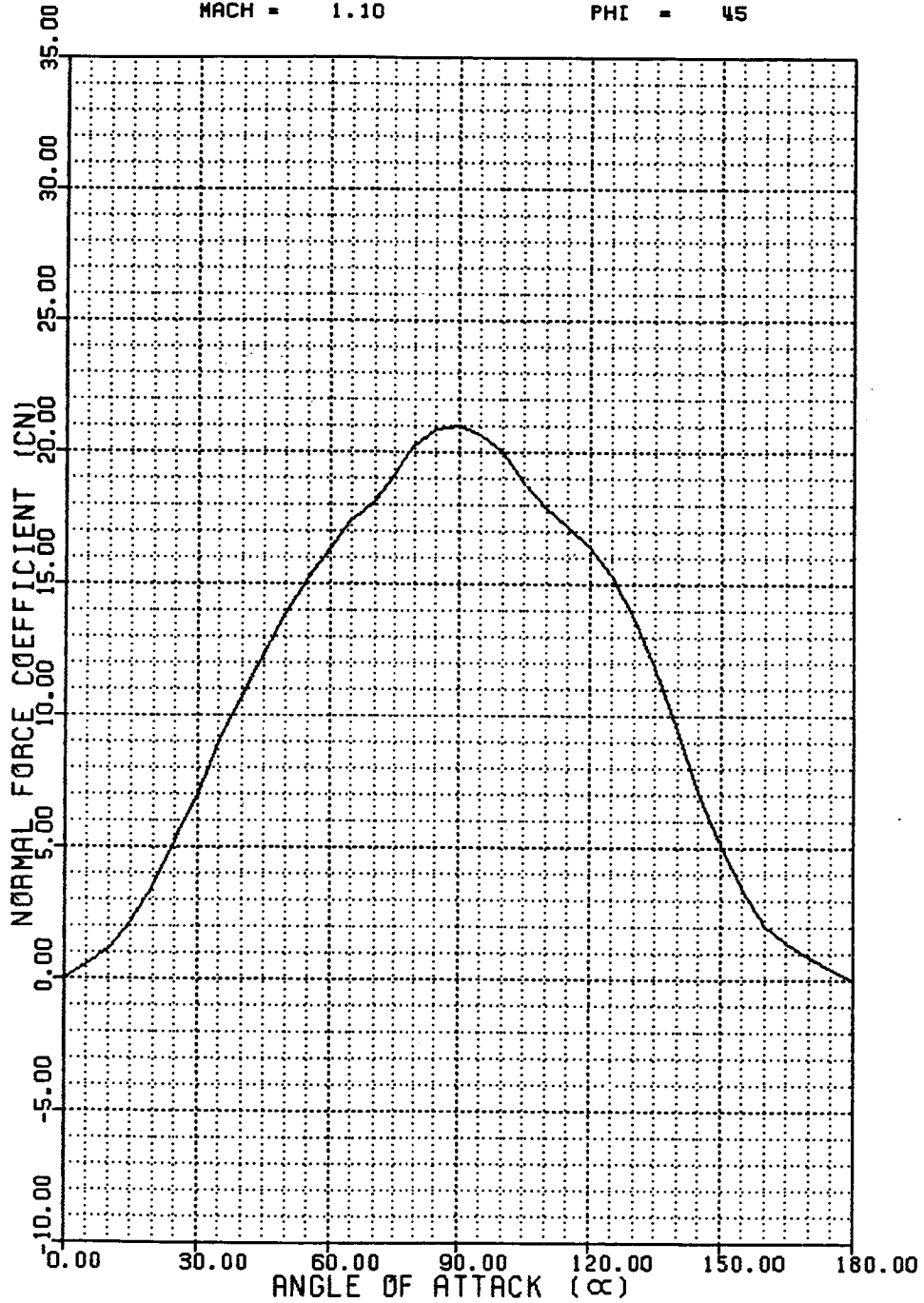
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 45

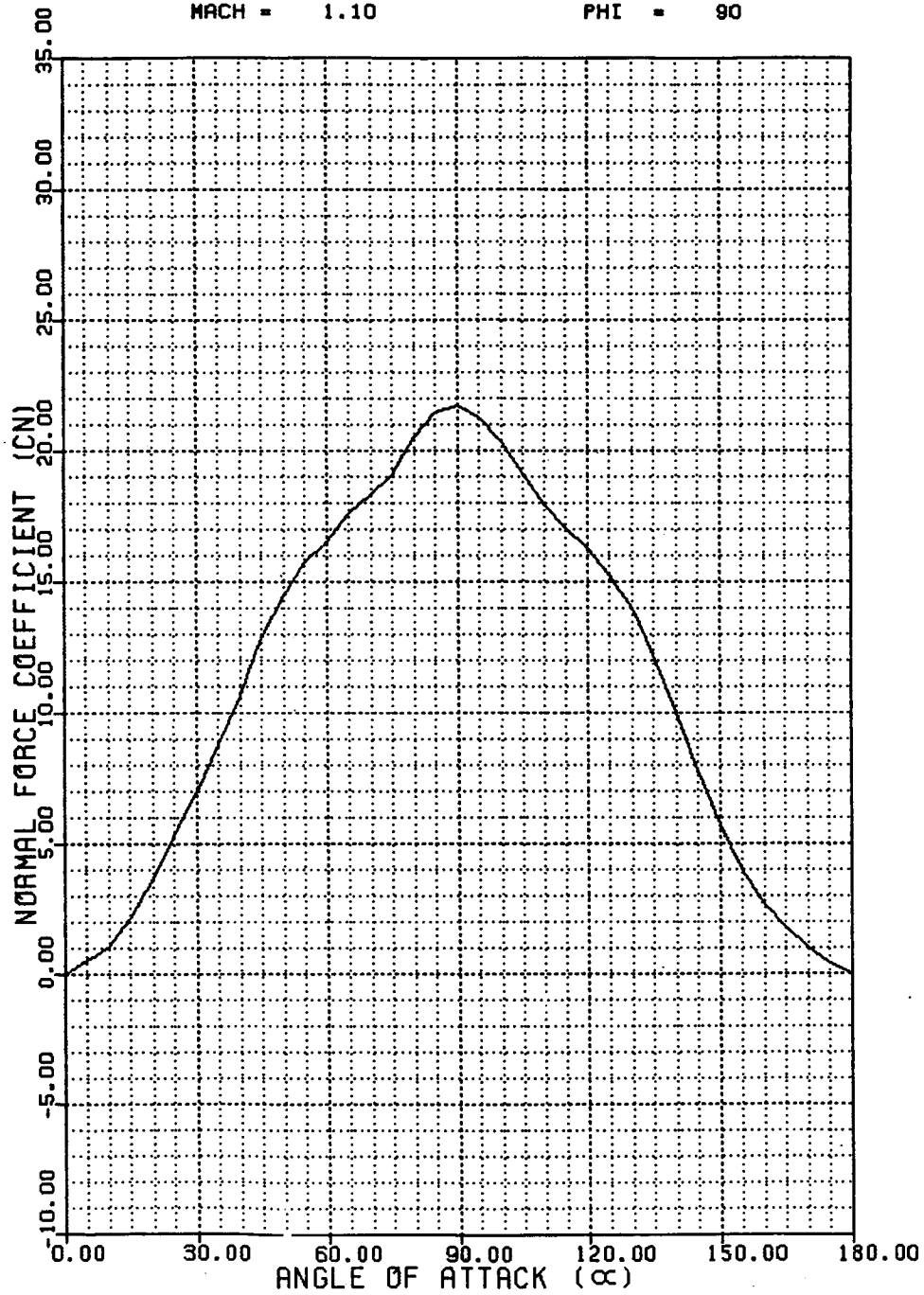


B-89

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90



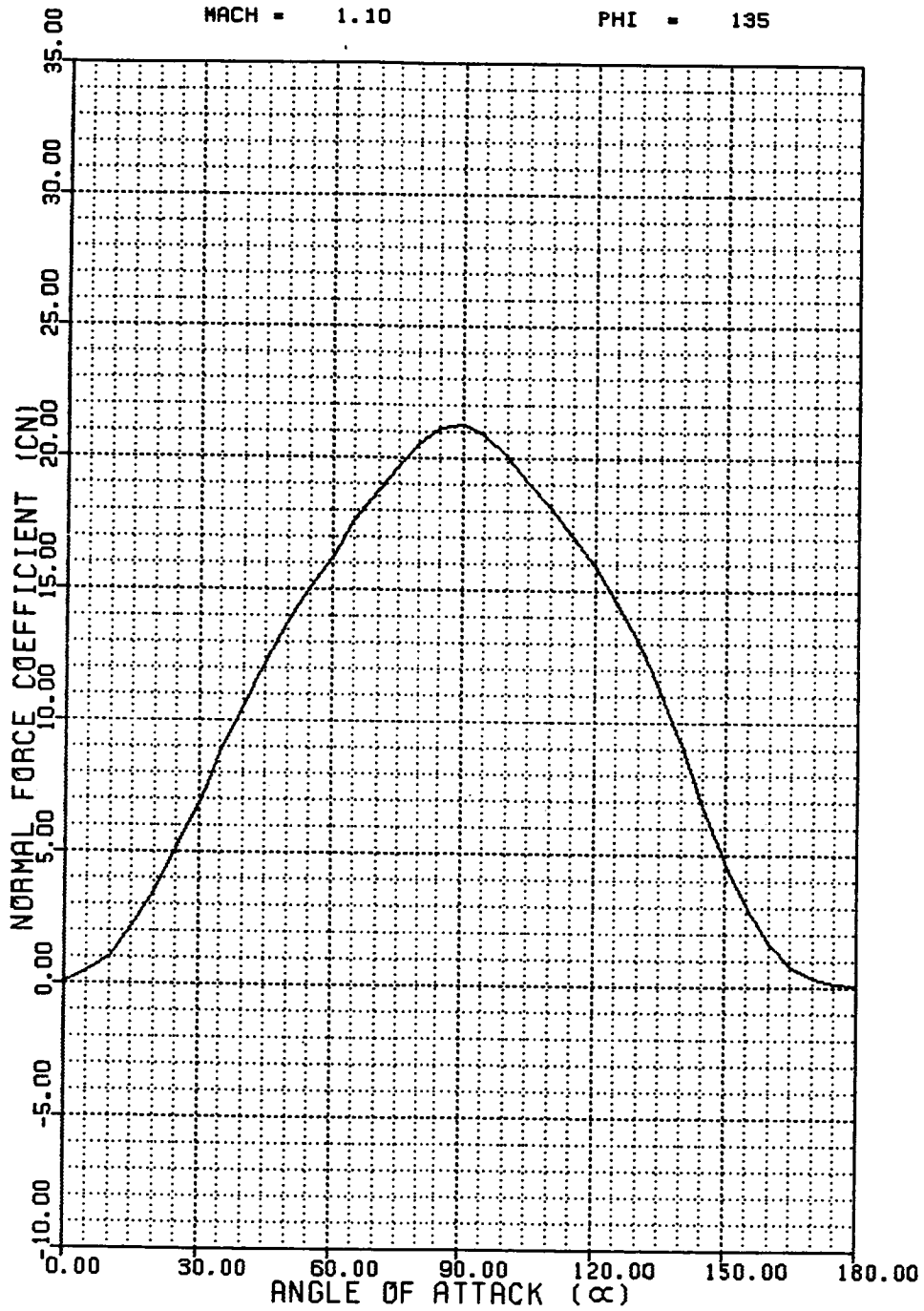
B-84

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135

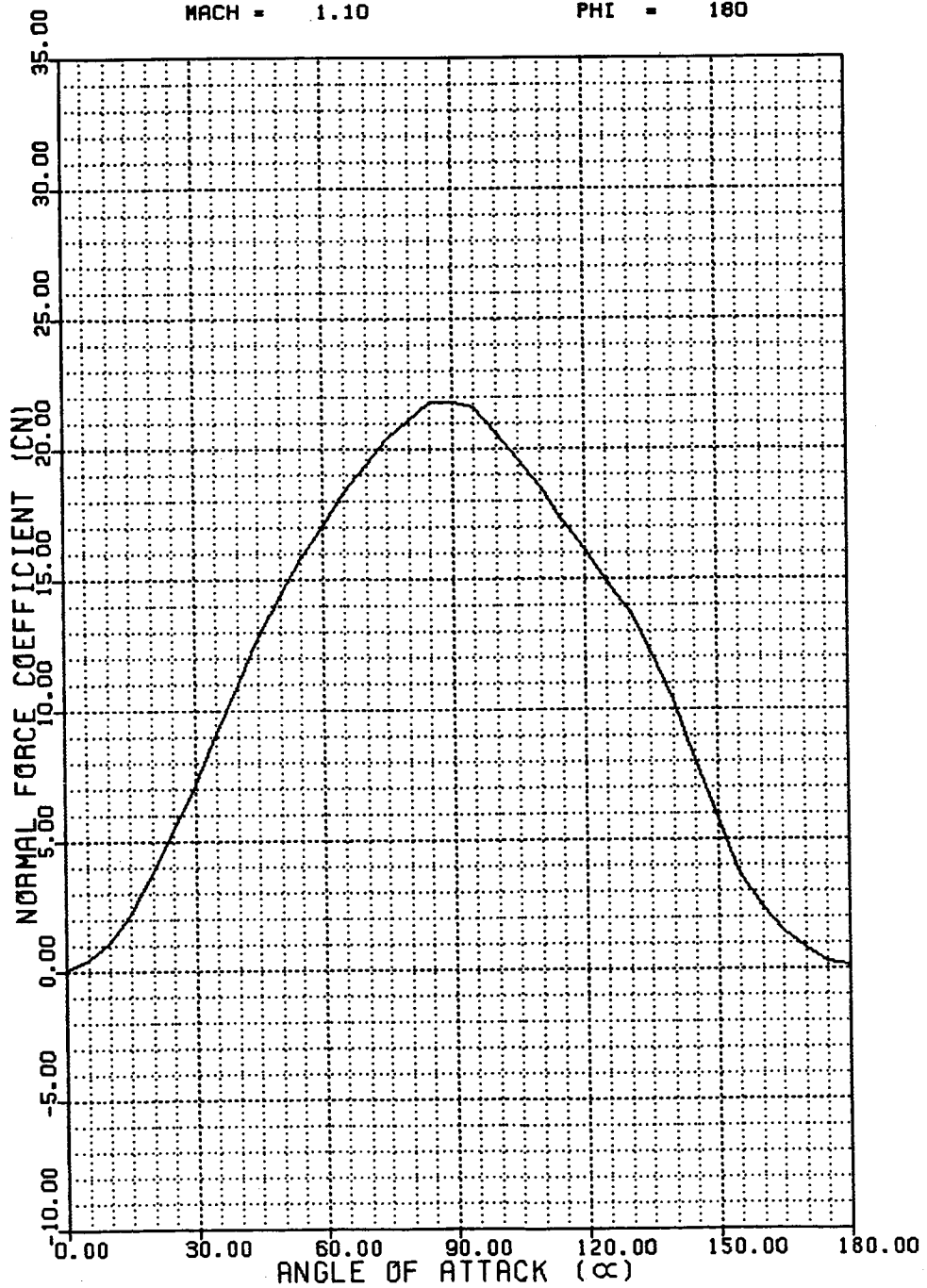


B-85

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180



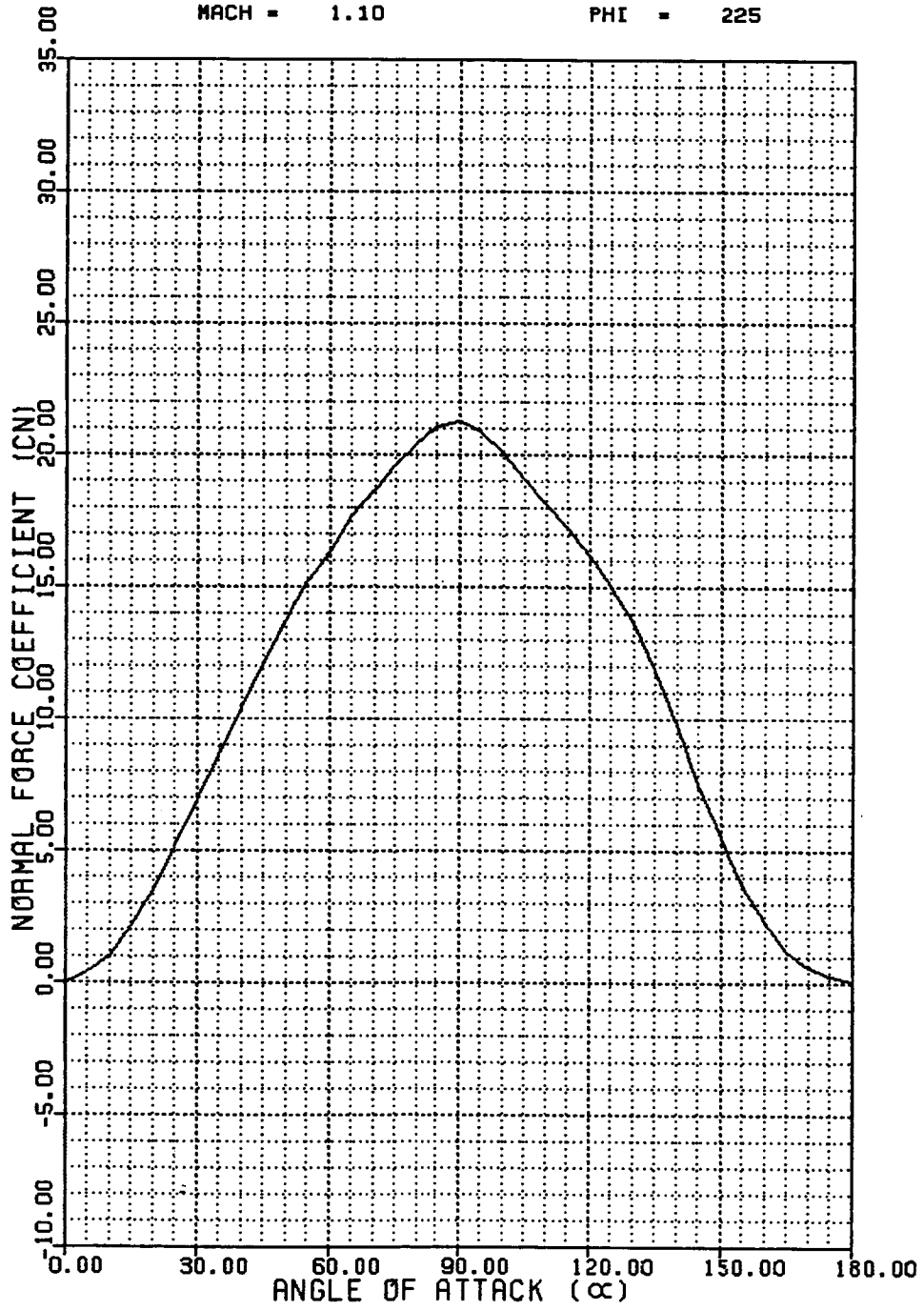
B-86

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225

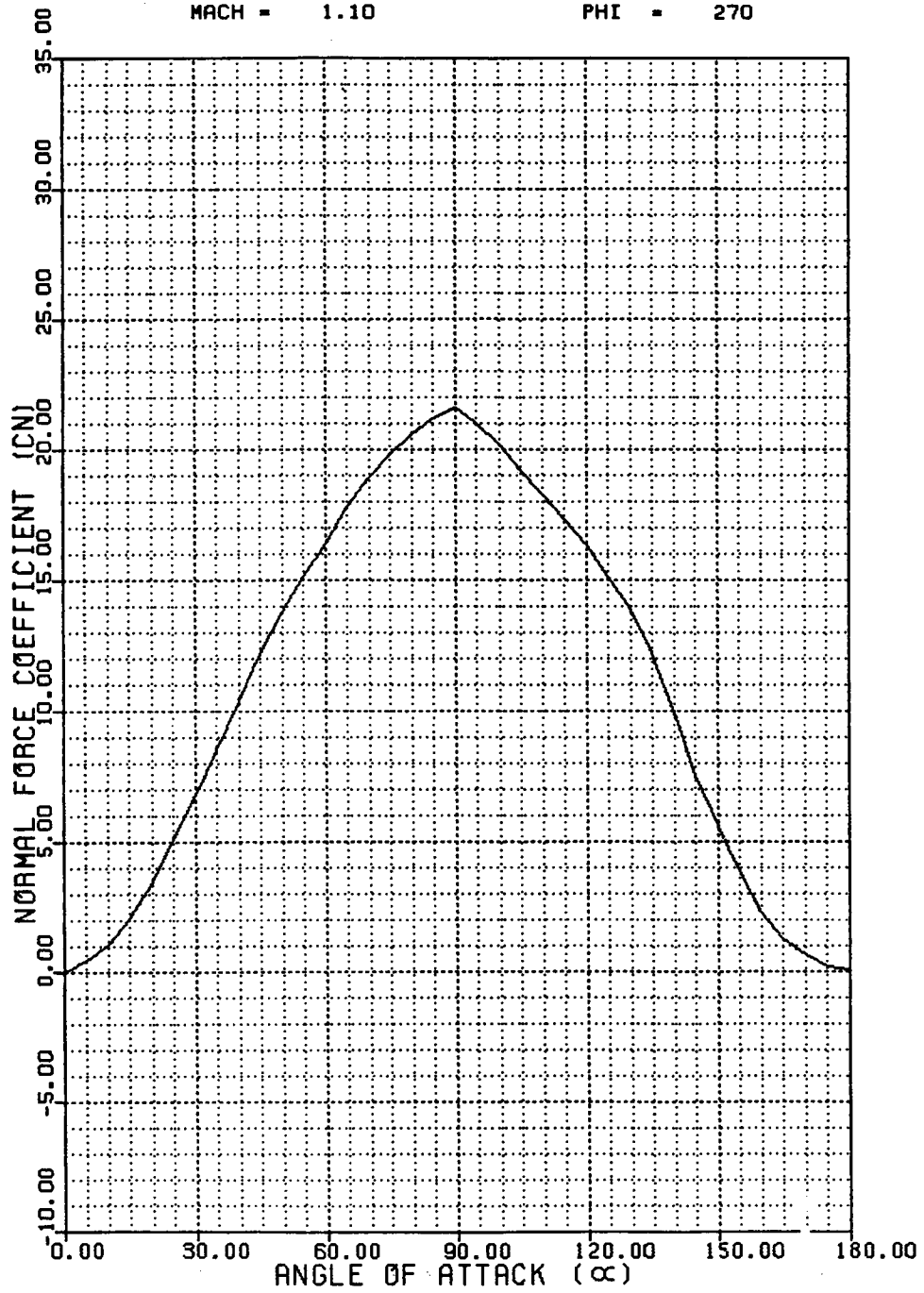


B-87

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270



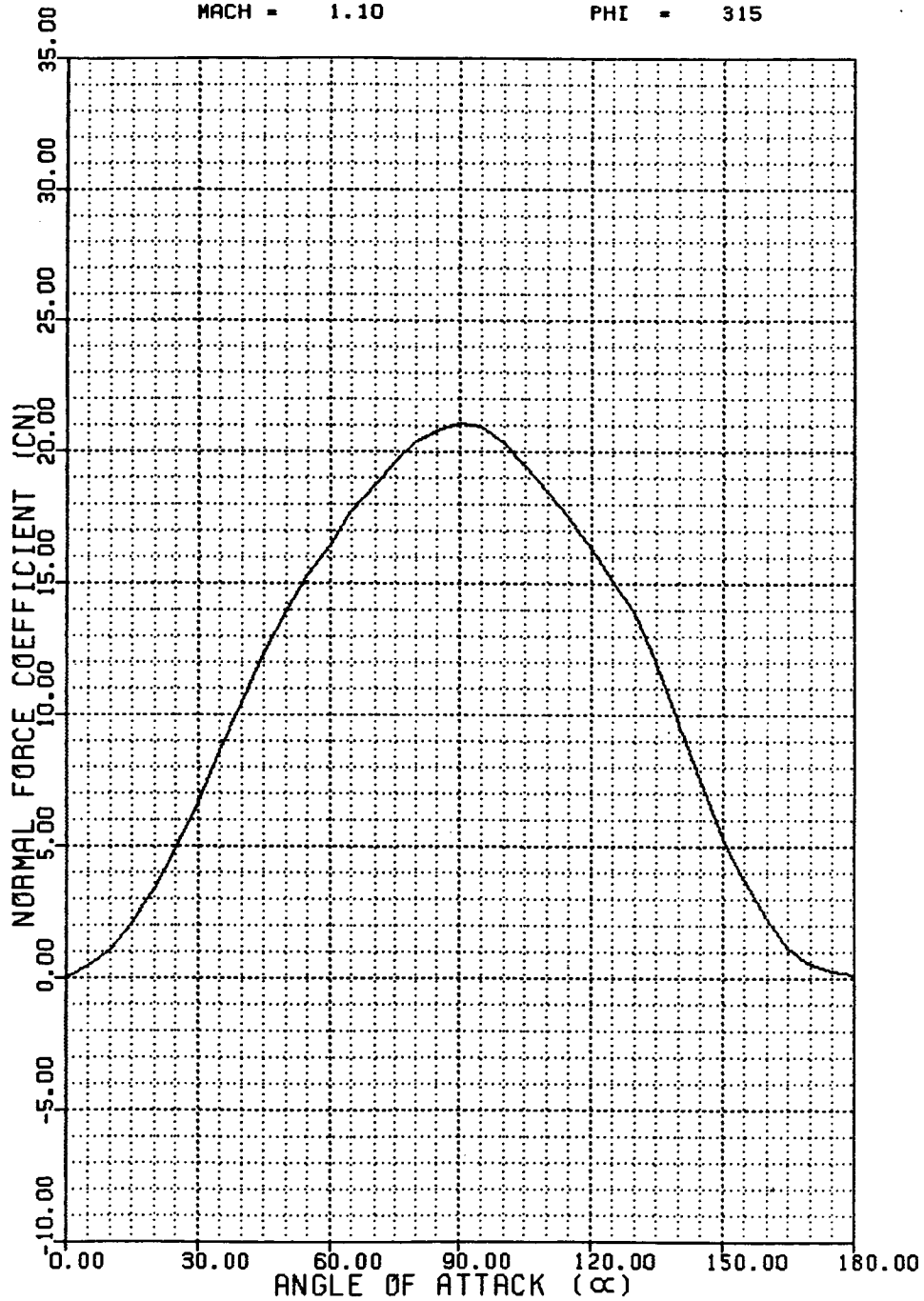
B-88

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315

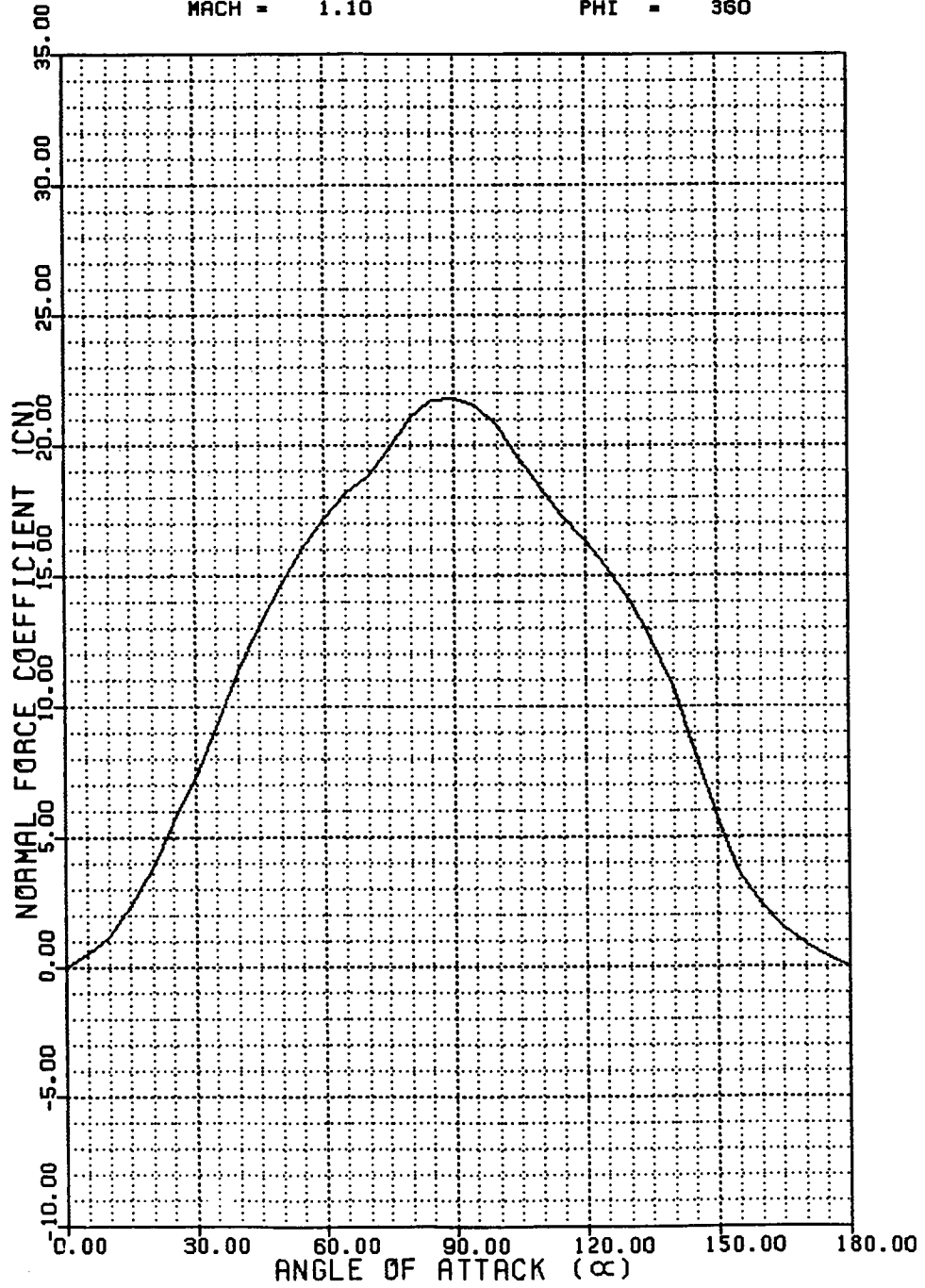


B-89

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360



B-90

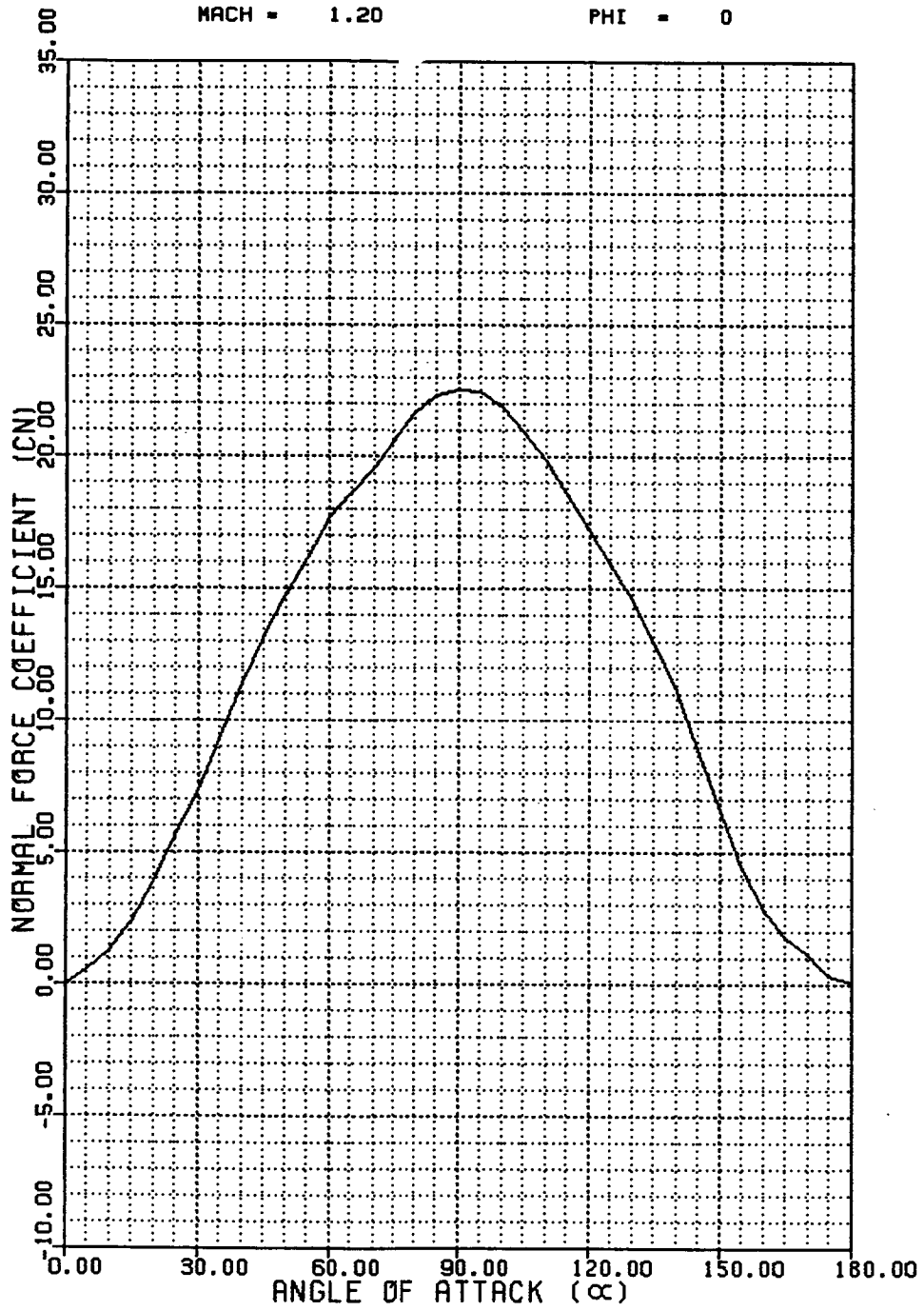
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0



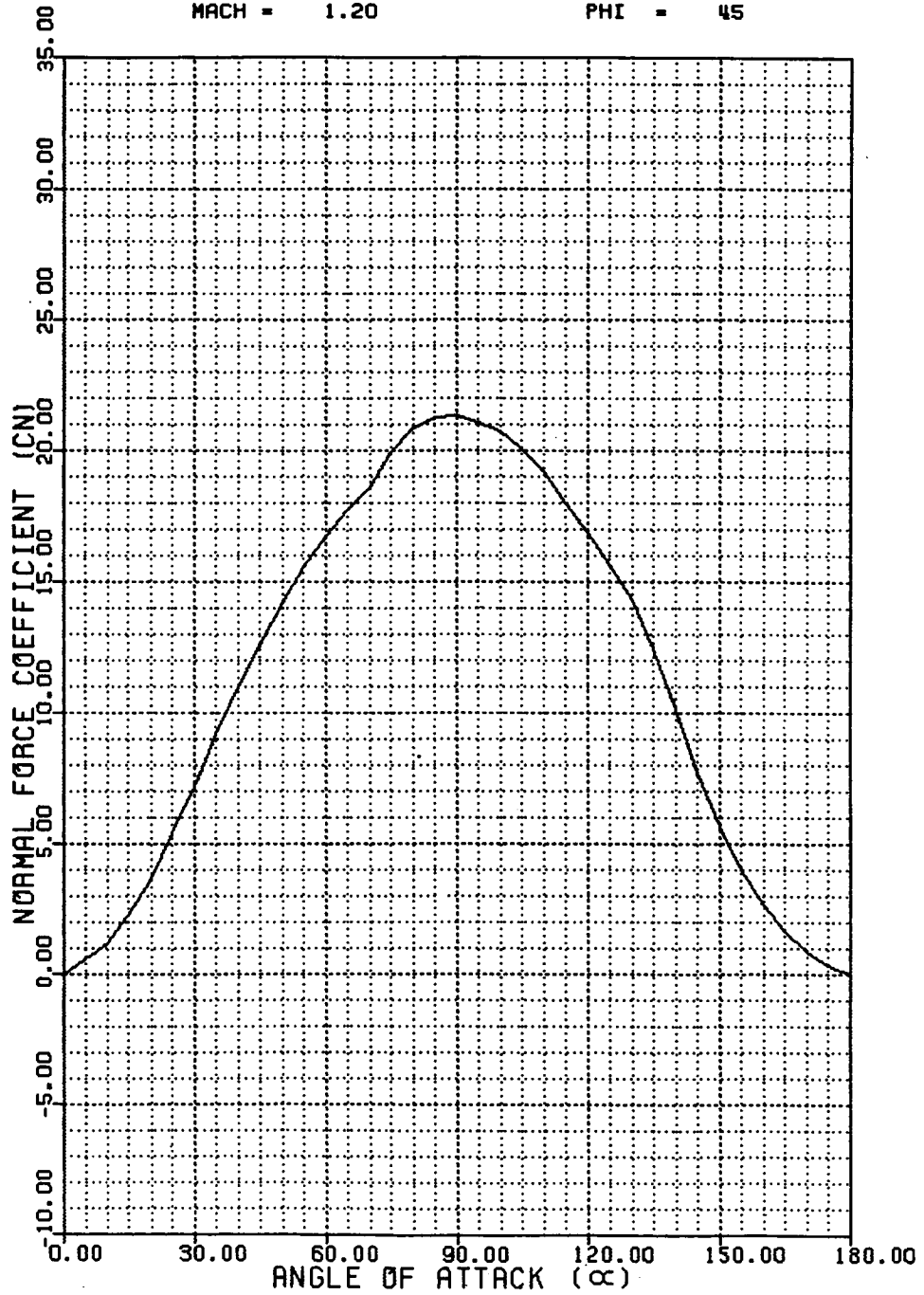
B-91

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



B-92

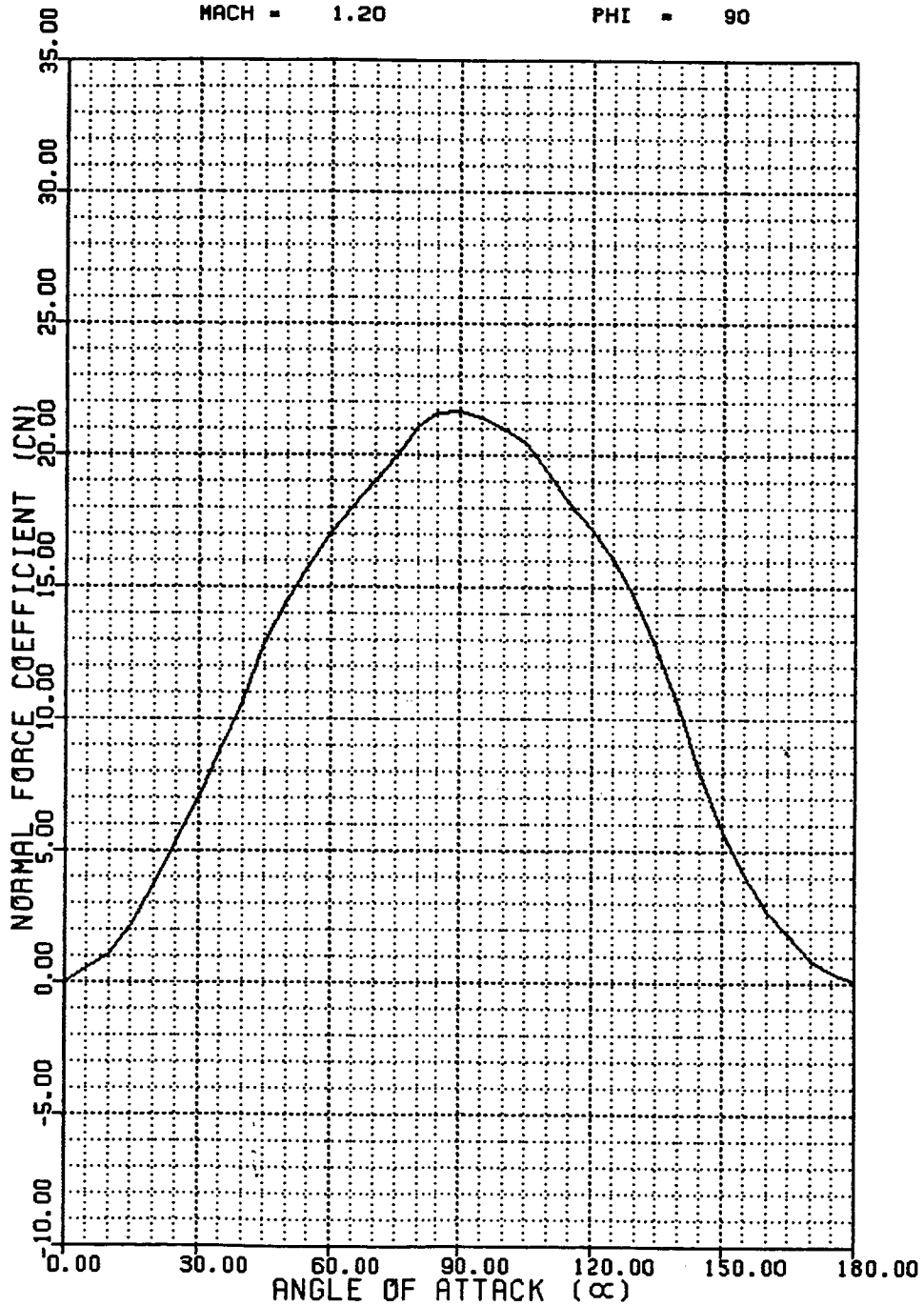
LOCKHEED-HUNTSVILLE ENGINEERING CENTER

c-2

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90

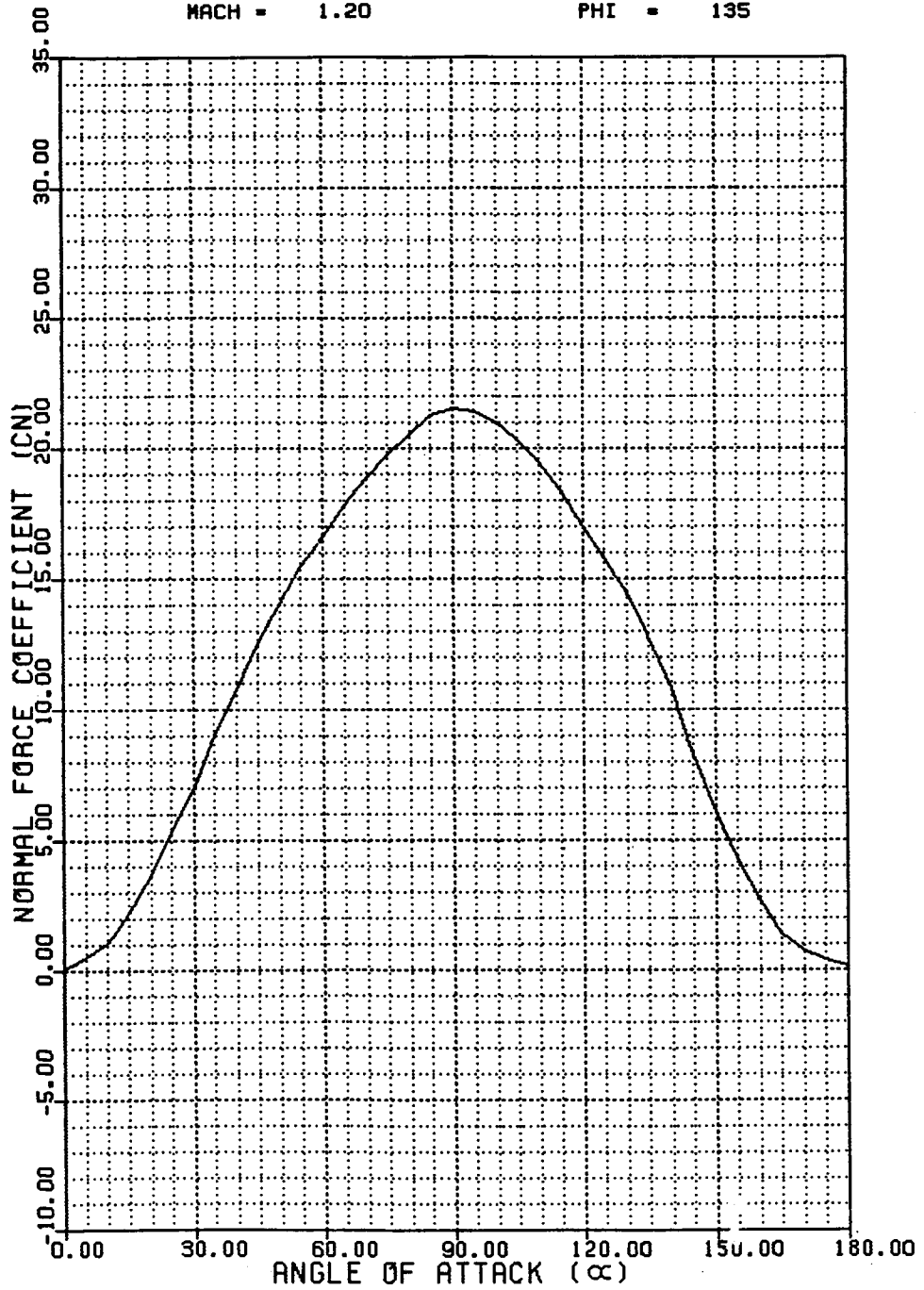


B-93

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135



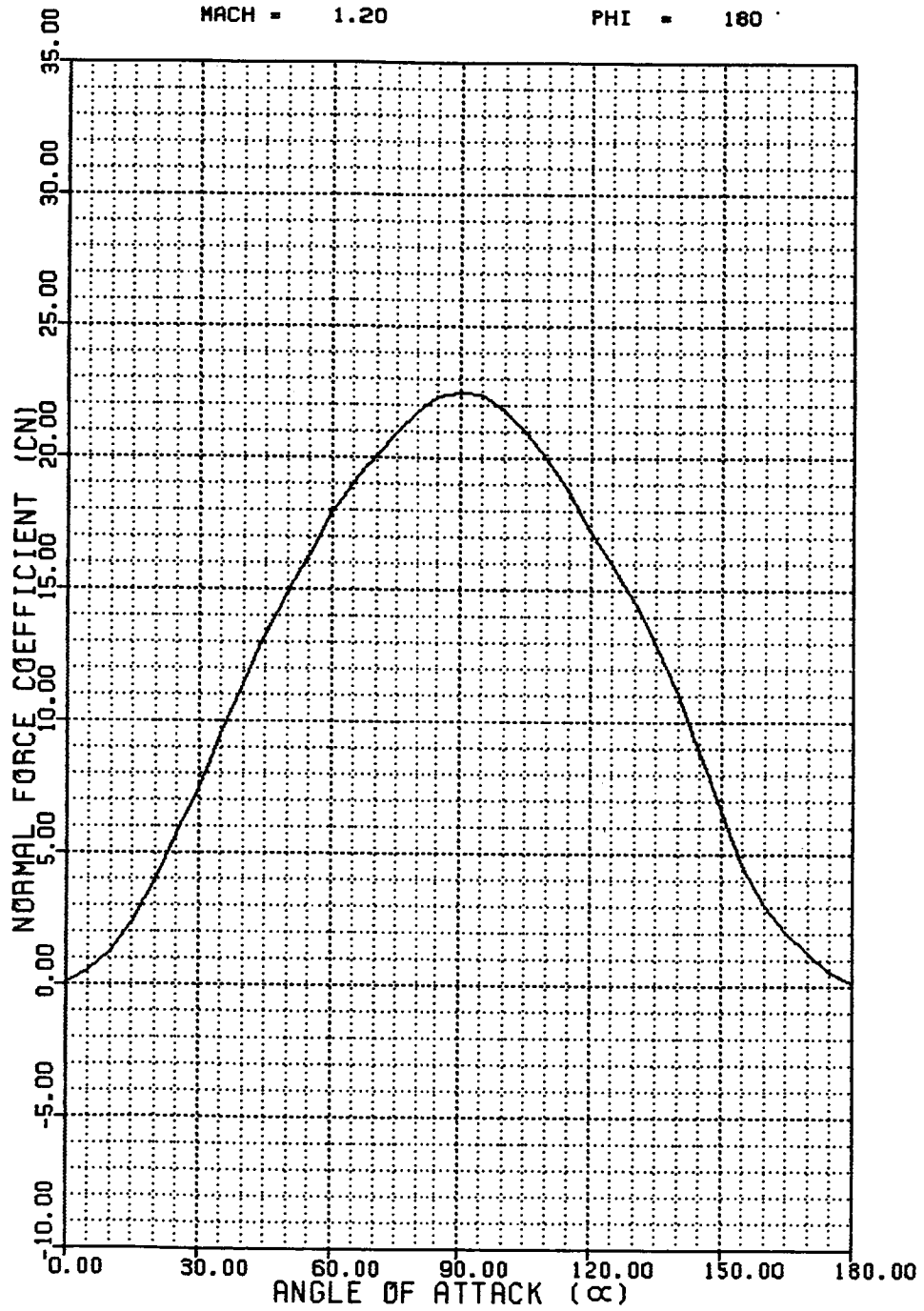
B-94

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180



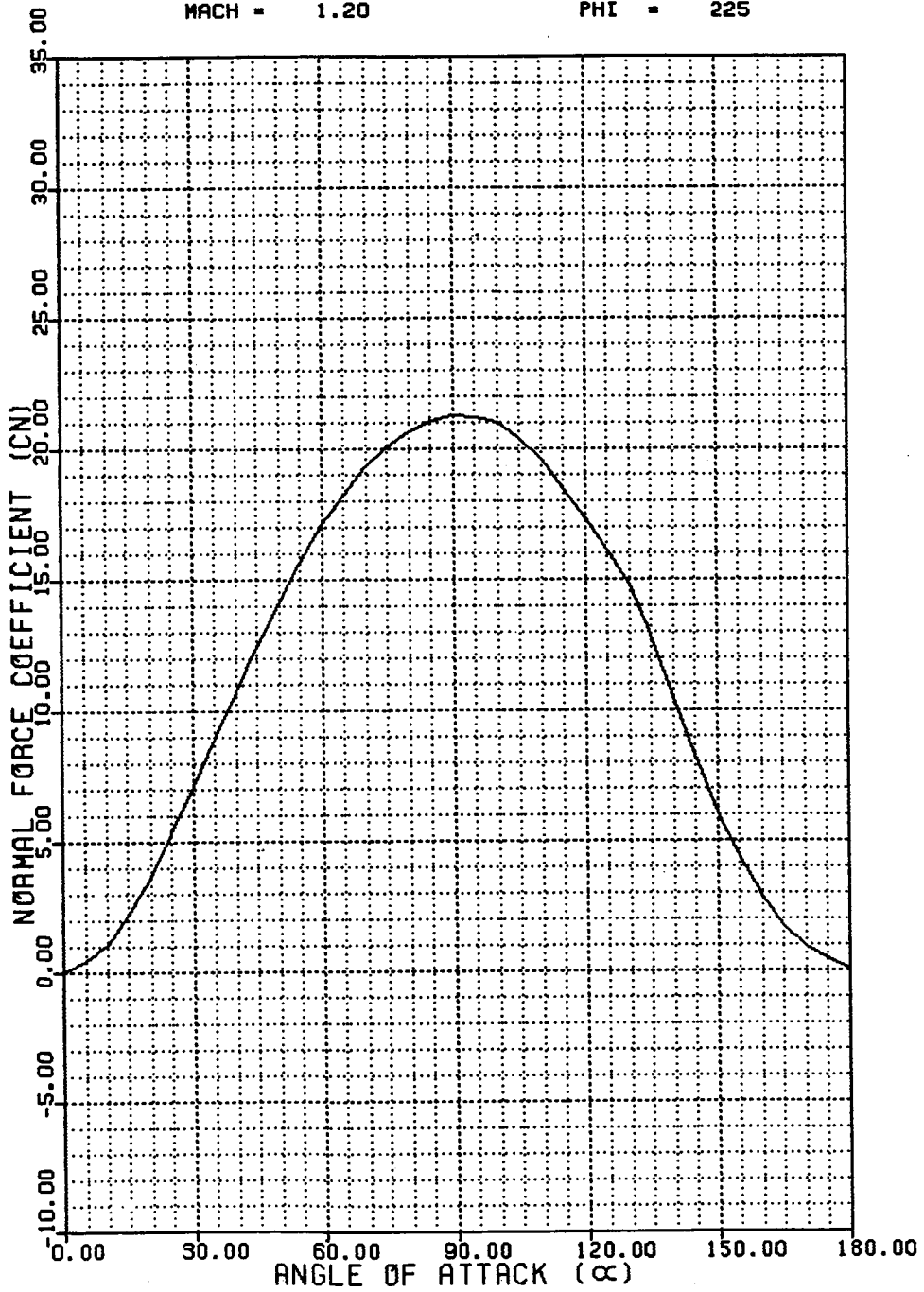
B-95

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225



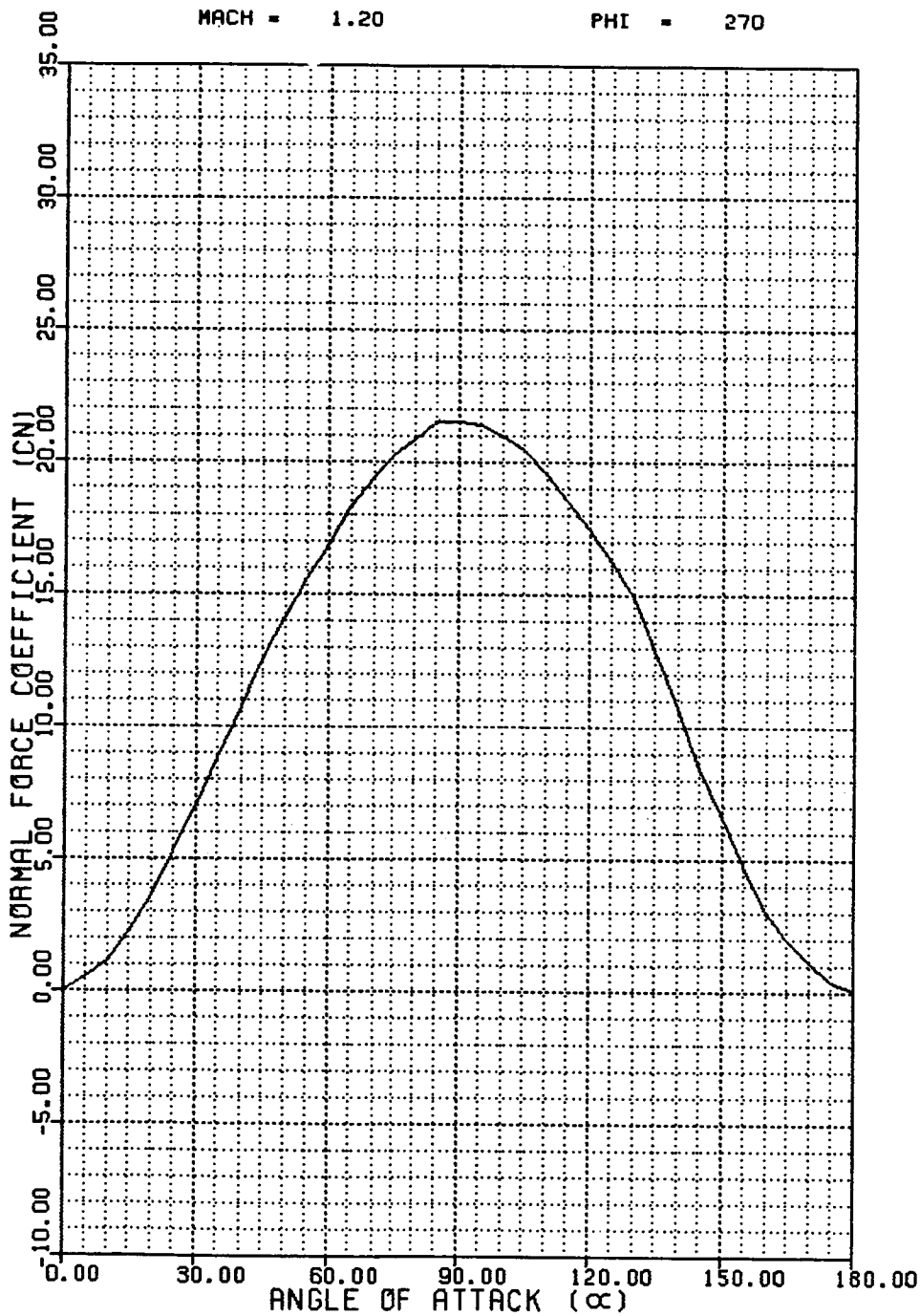
B-96

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 270

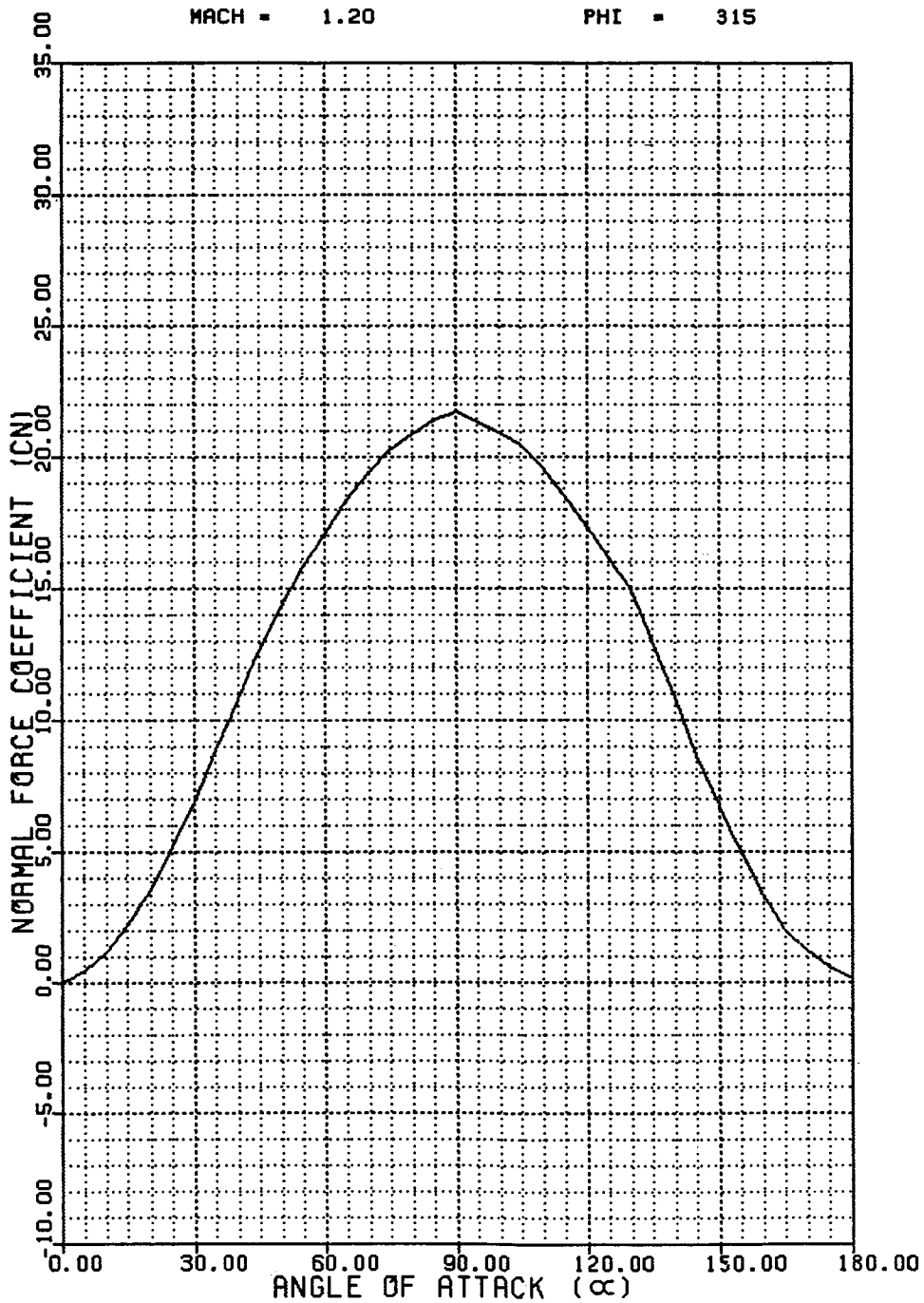


B-97

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 315



B-98

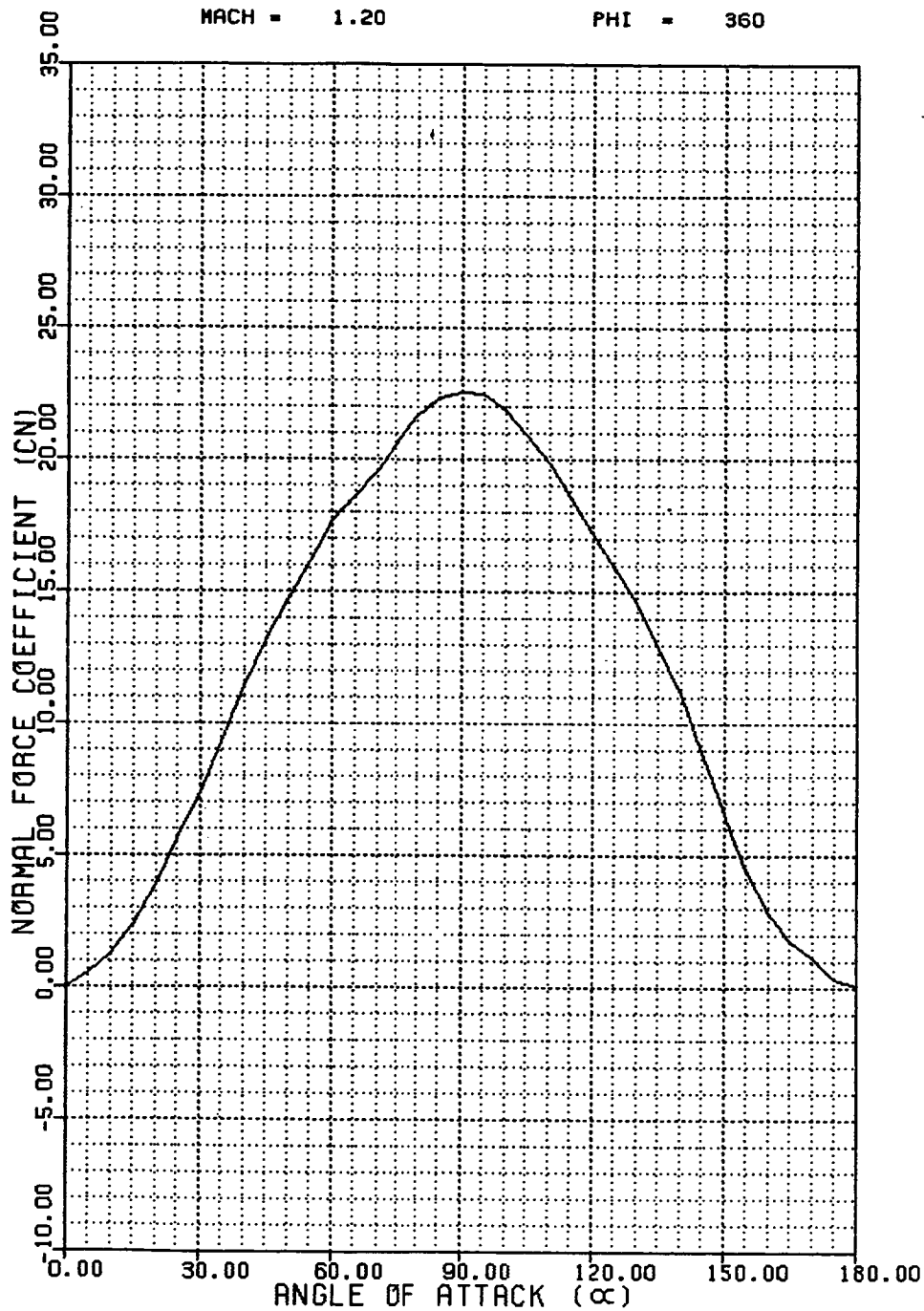
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360

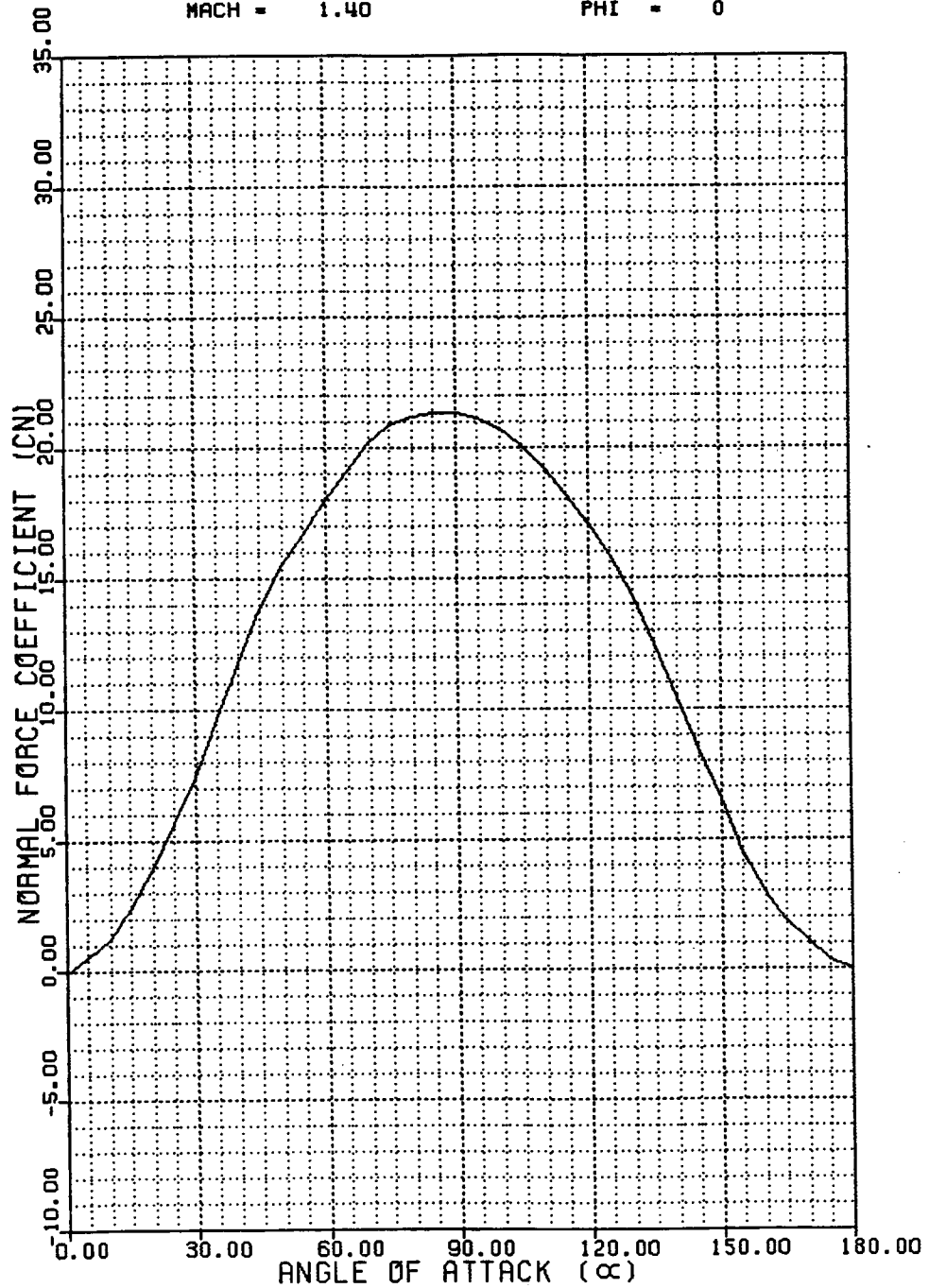


B-99

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0



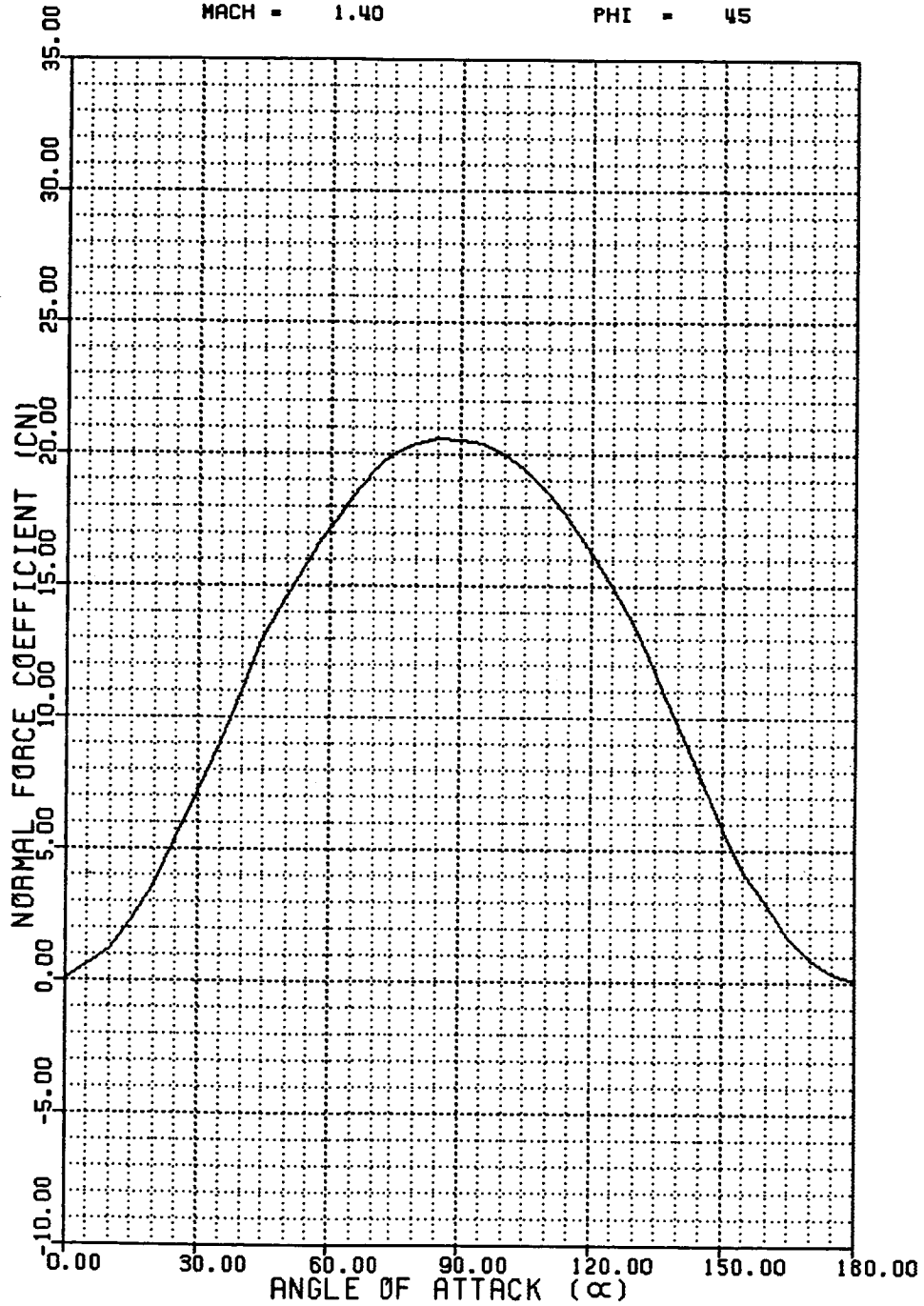
B-100

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45

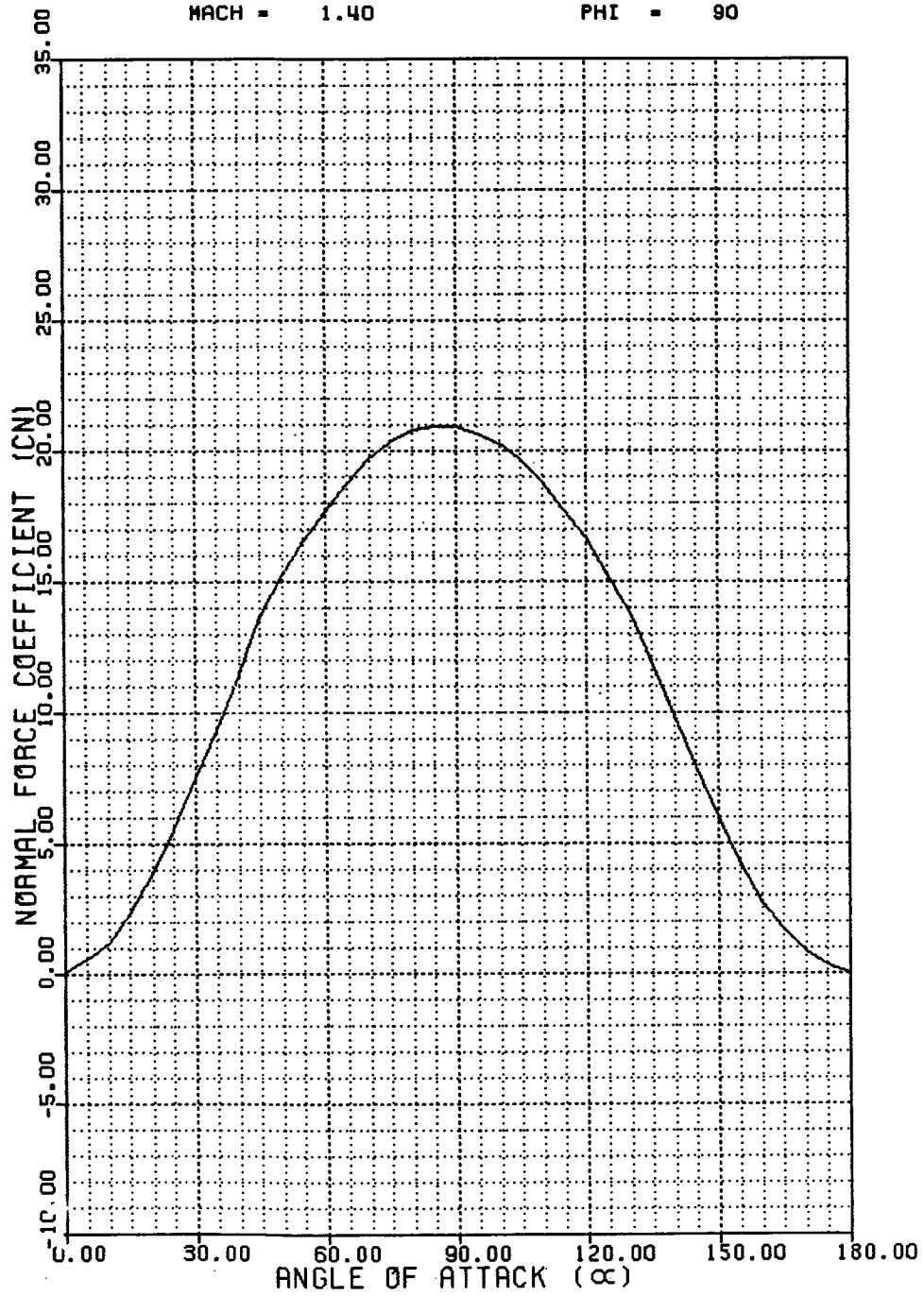


B-101

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90



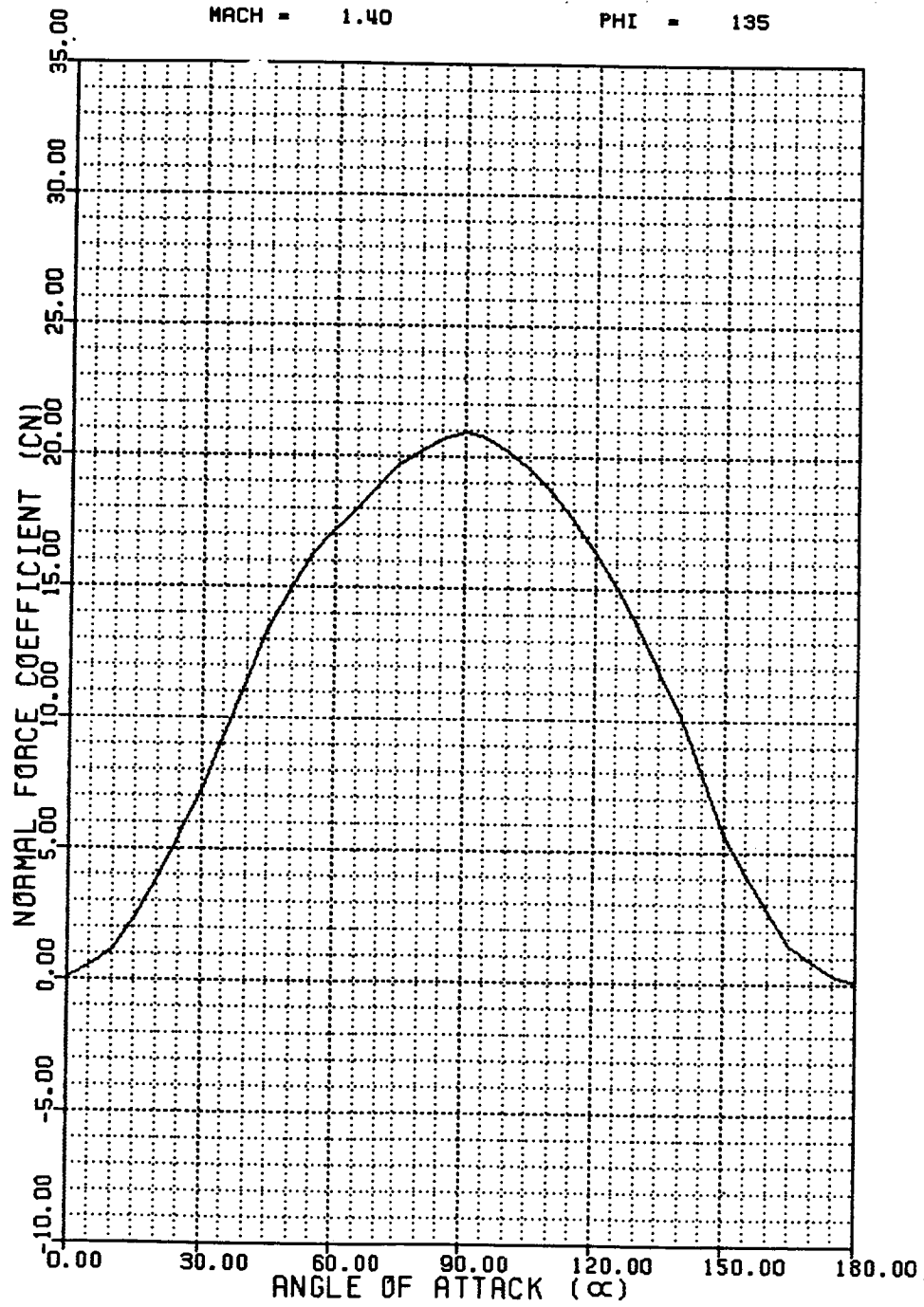
B-102

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135



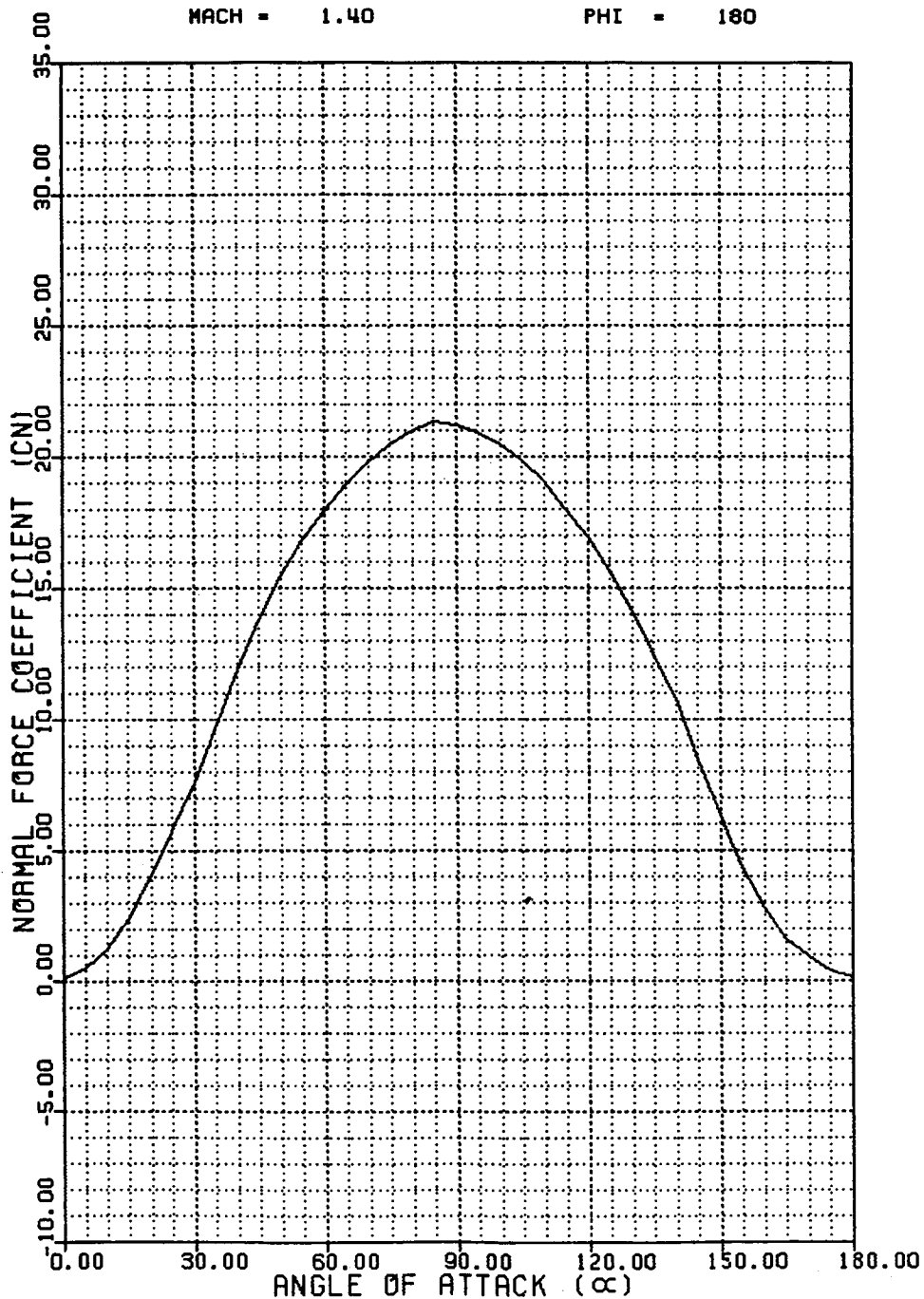
B-103

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 180



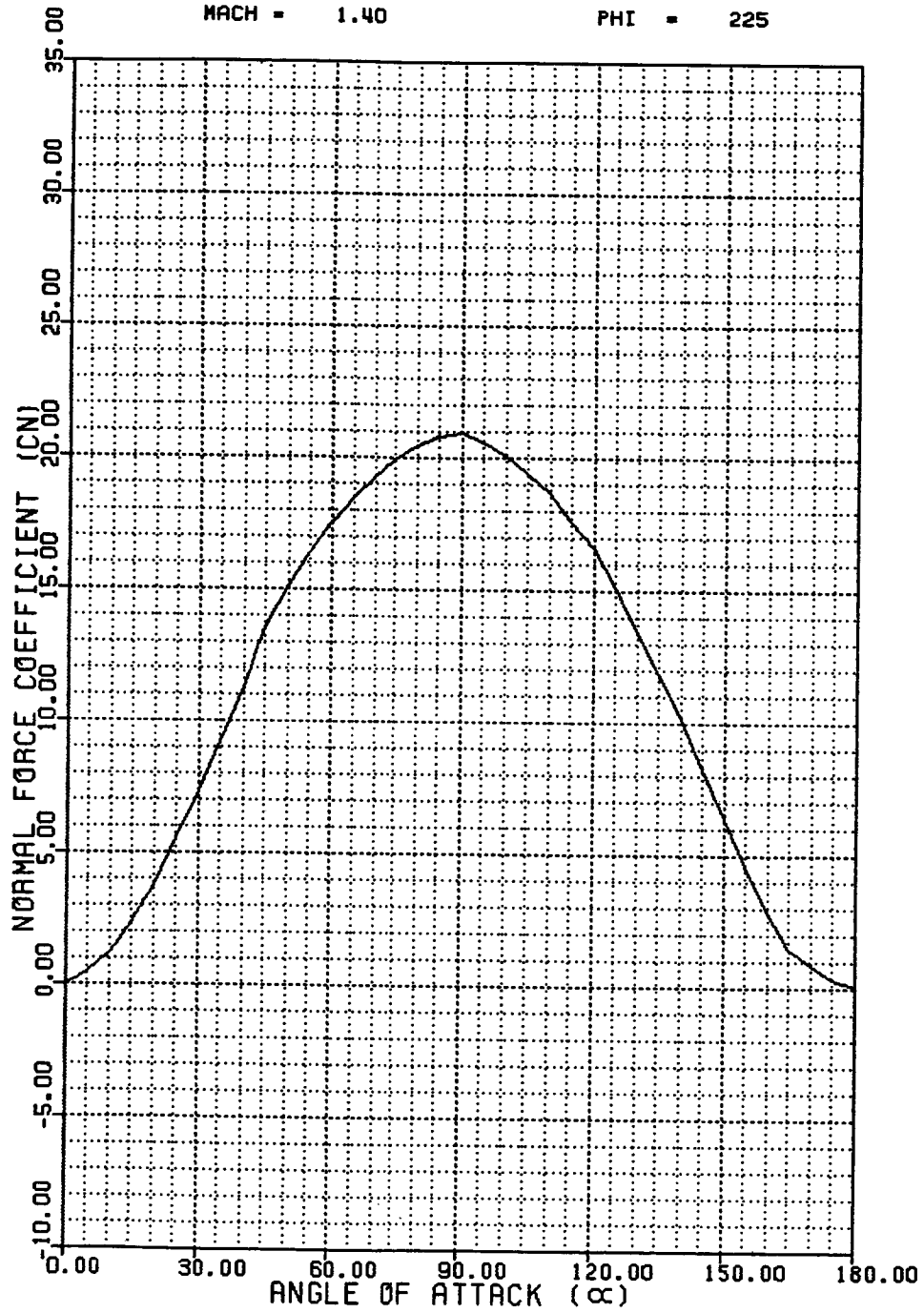
B-104

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225



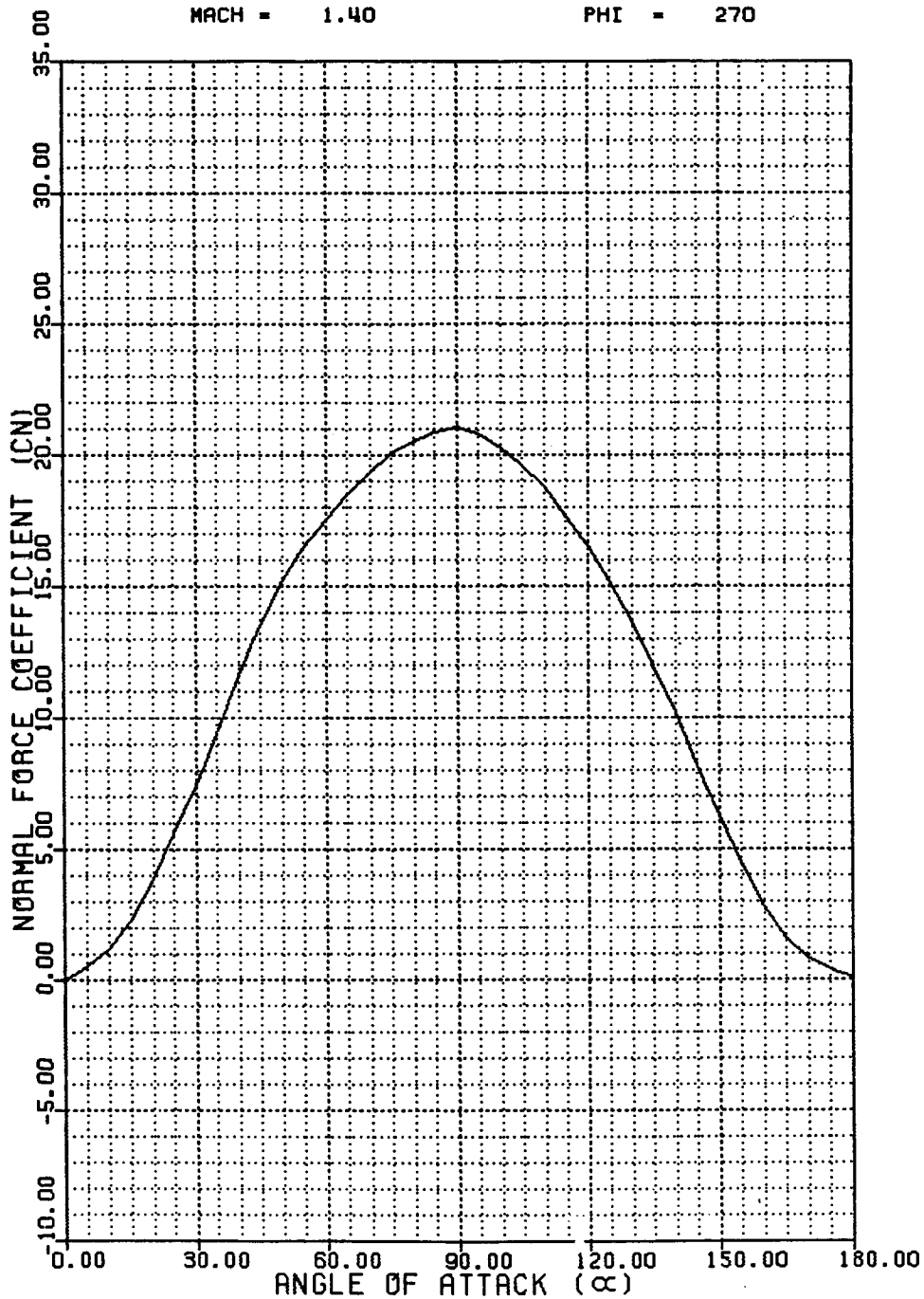
B-105

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270



B-106

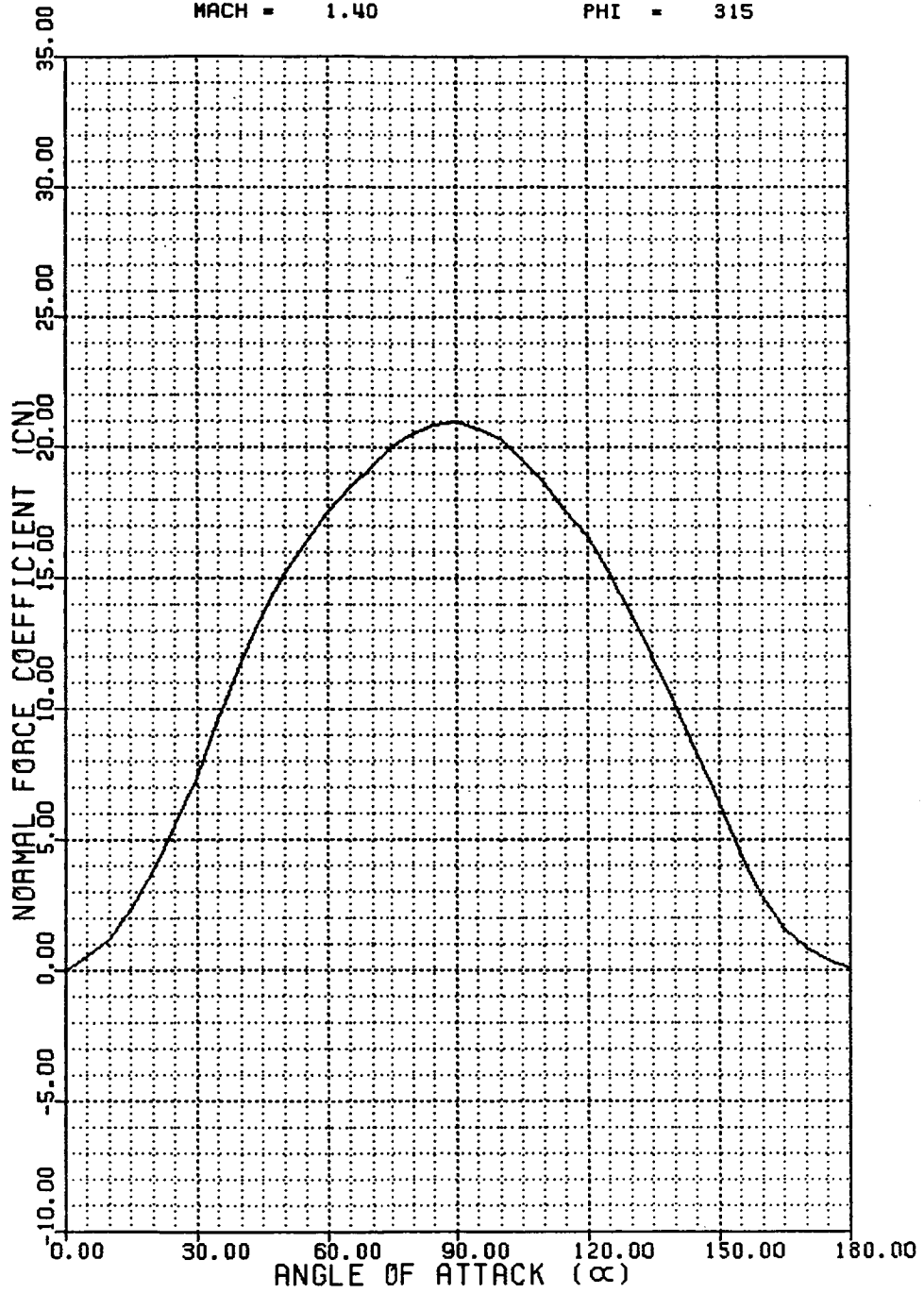
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 315

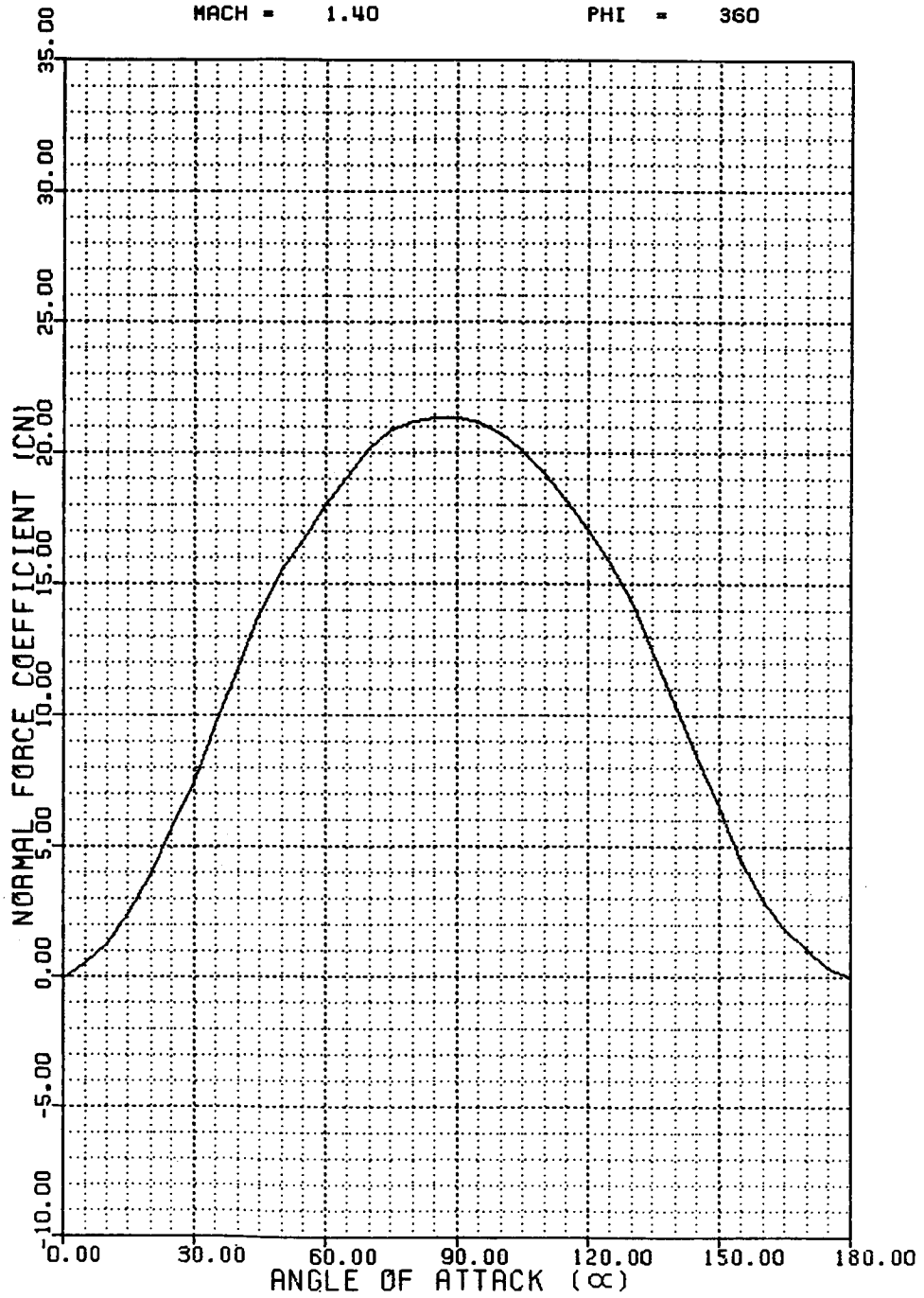


B-107

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360



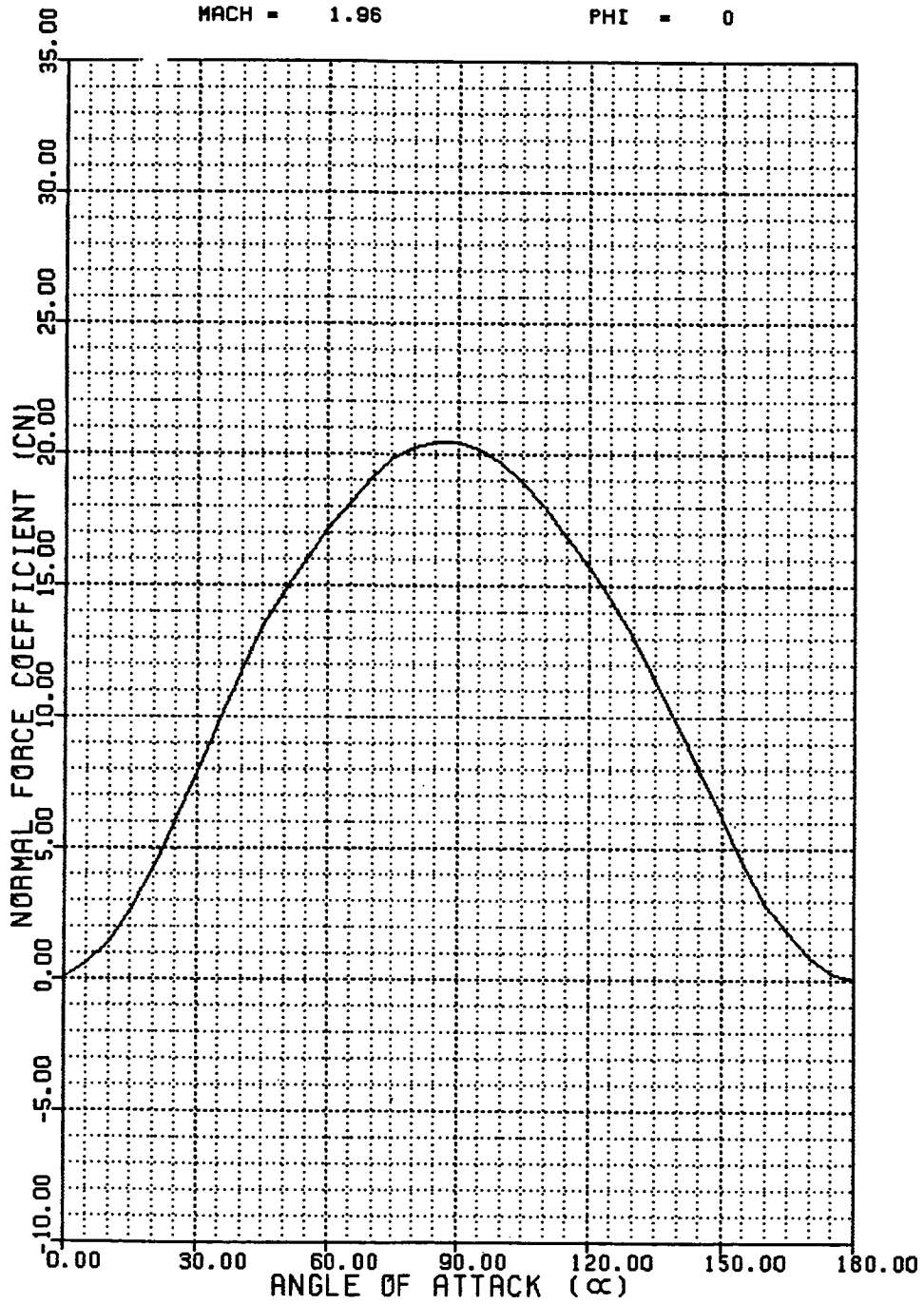
B-108

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 0



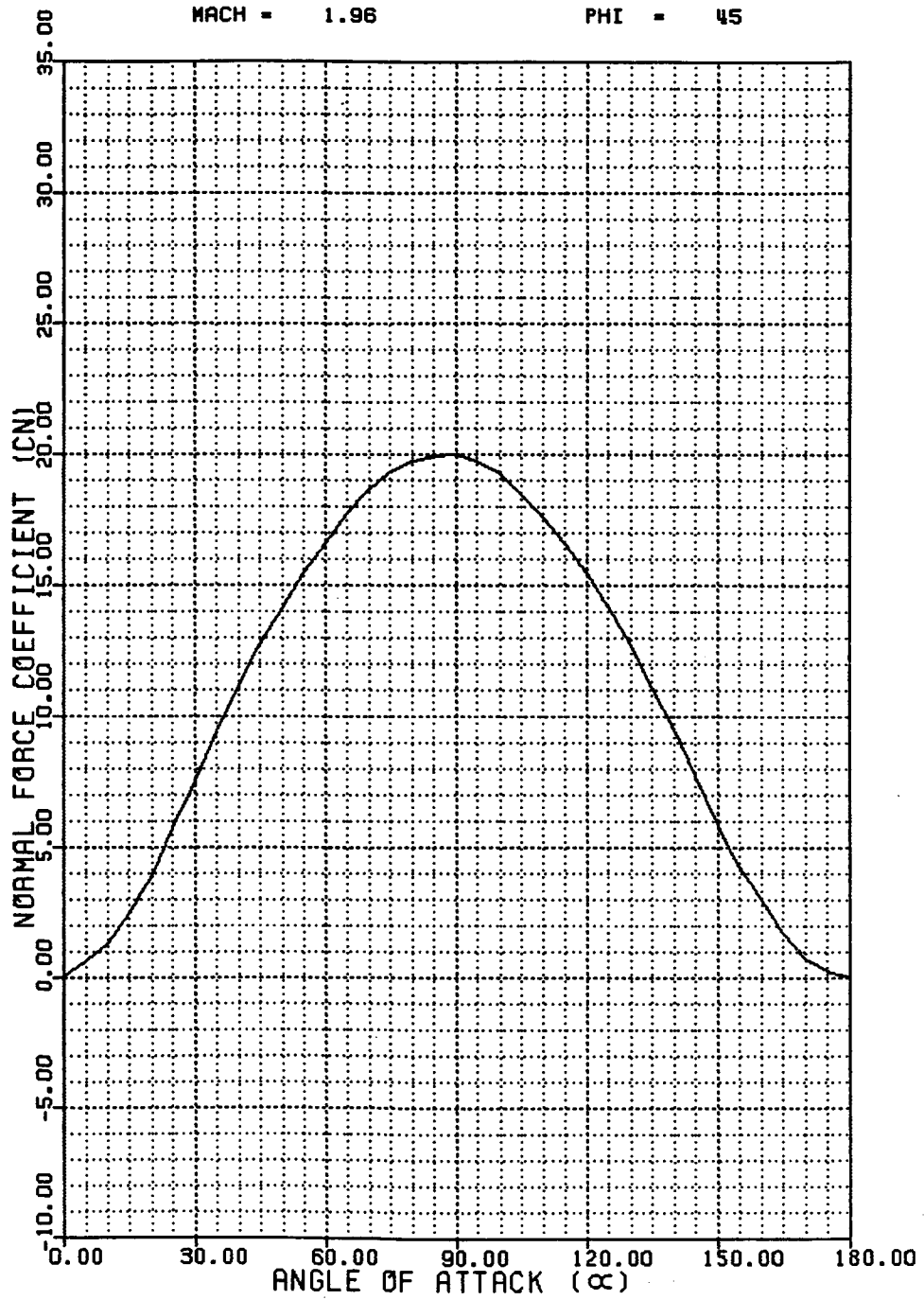
B-109

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45



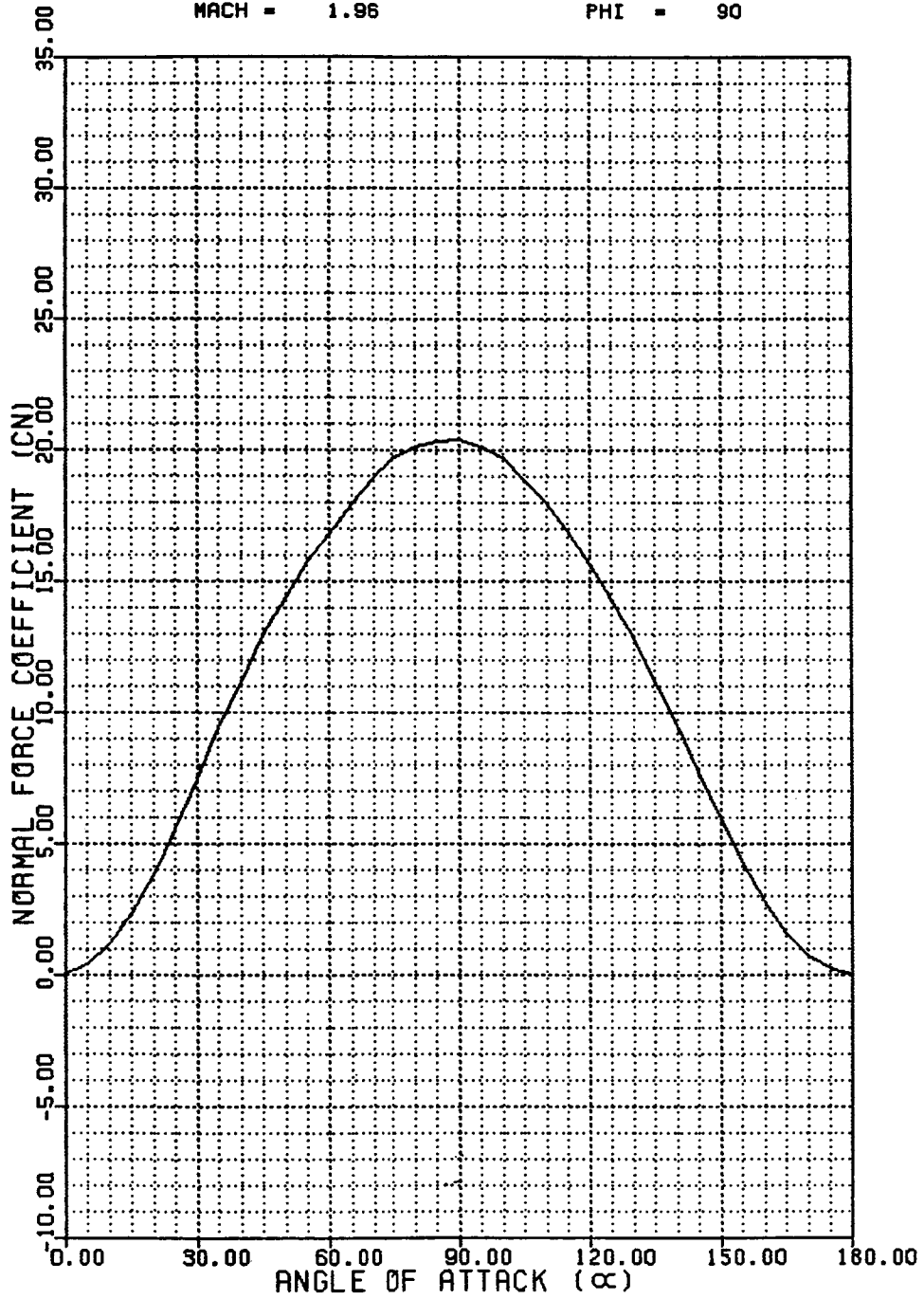
B-110

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90



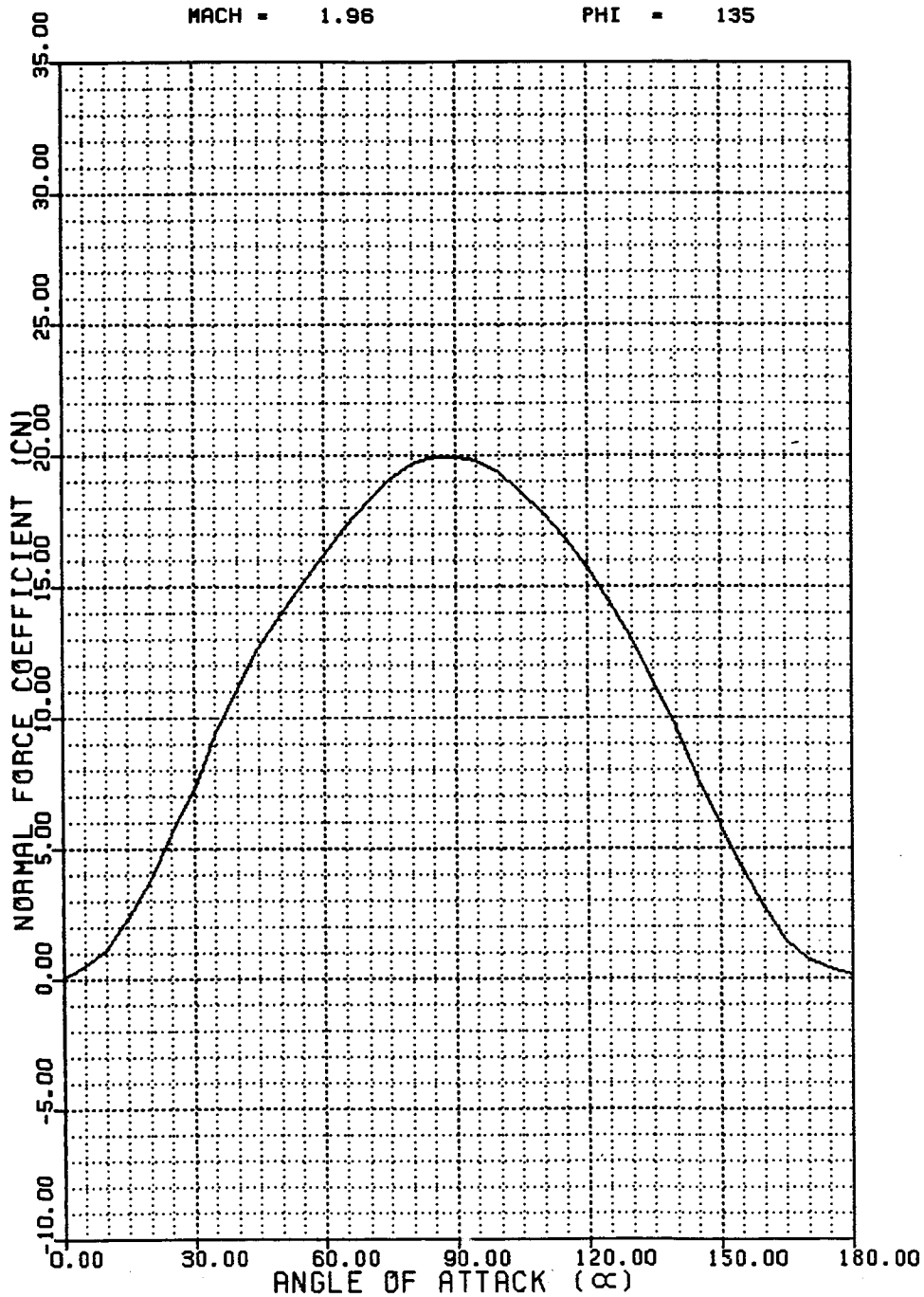
B-111

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135



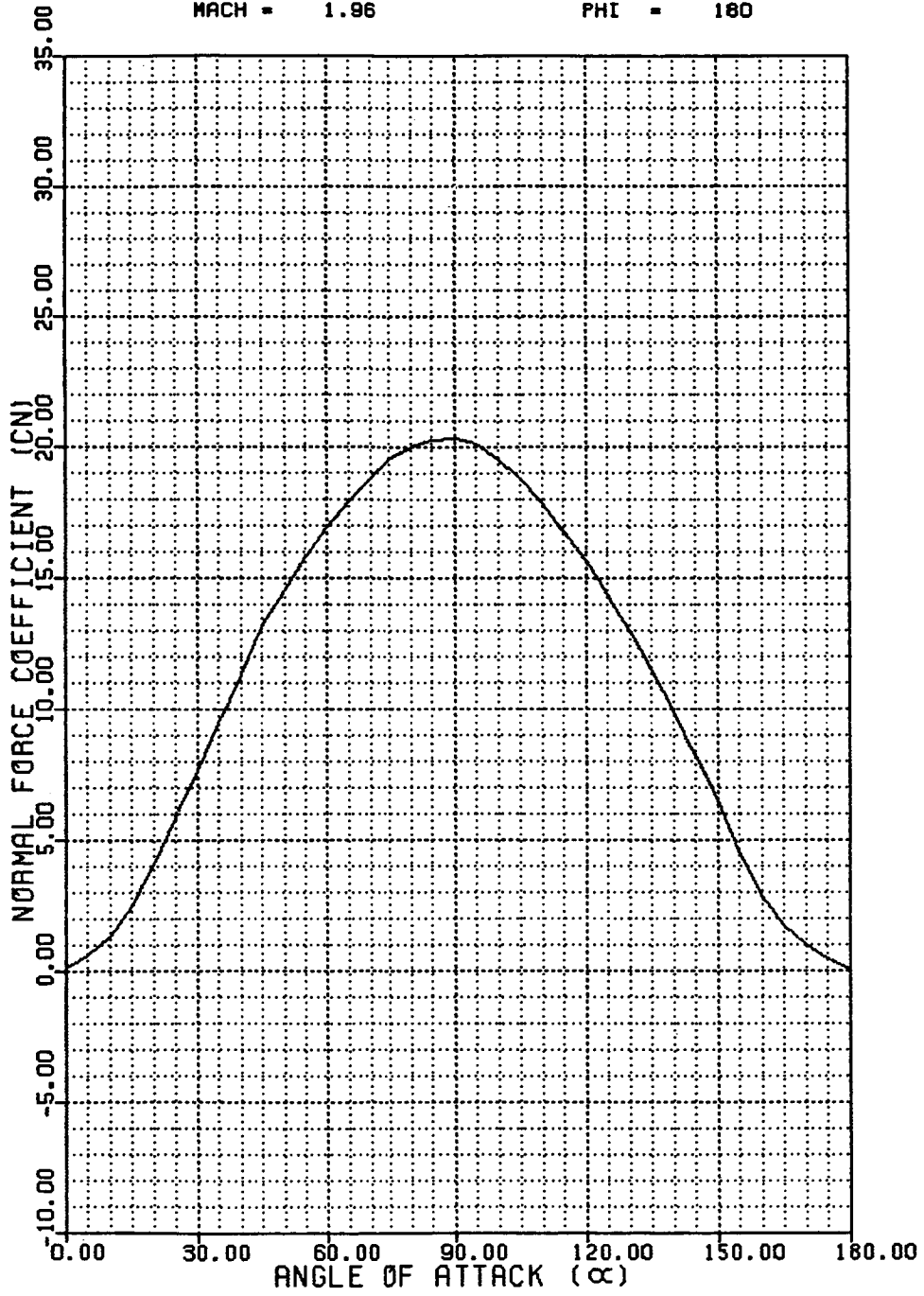
B-112

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180

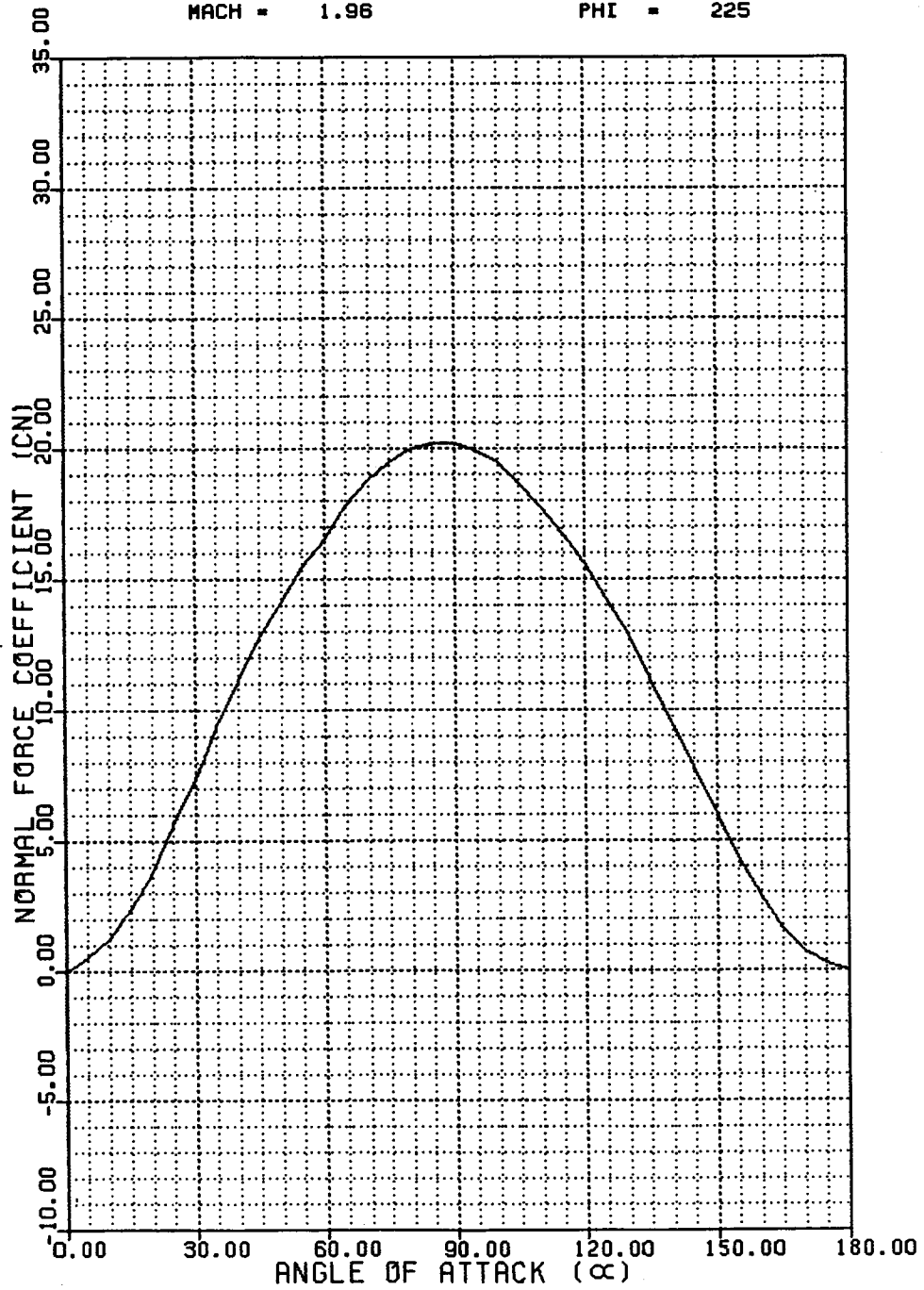


B-113

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225



B-114

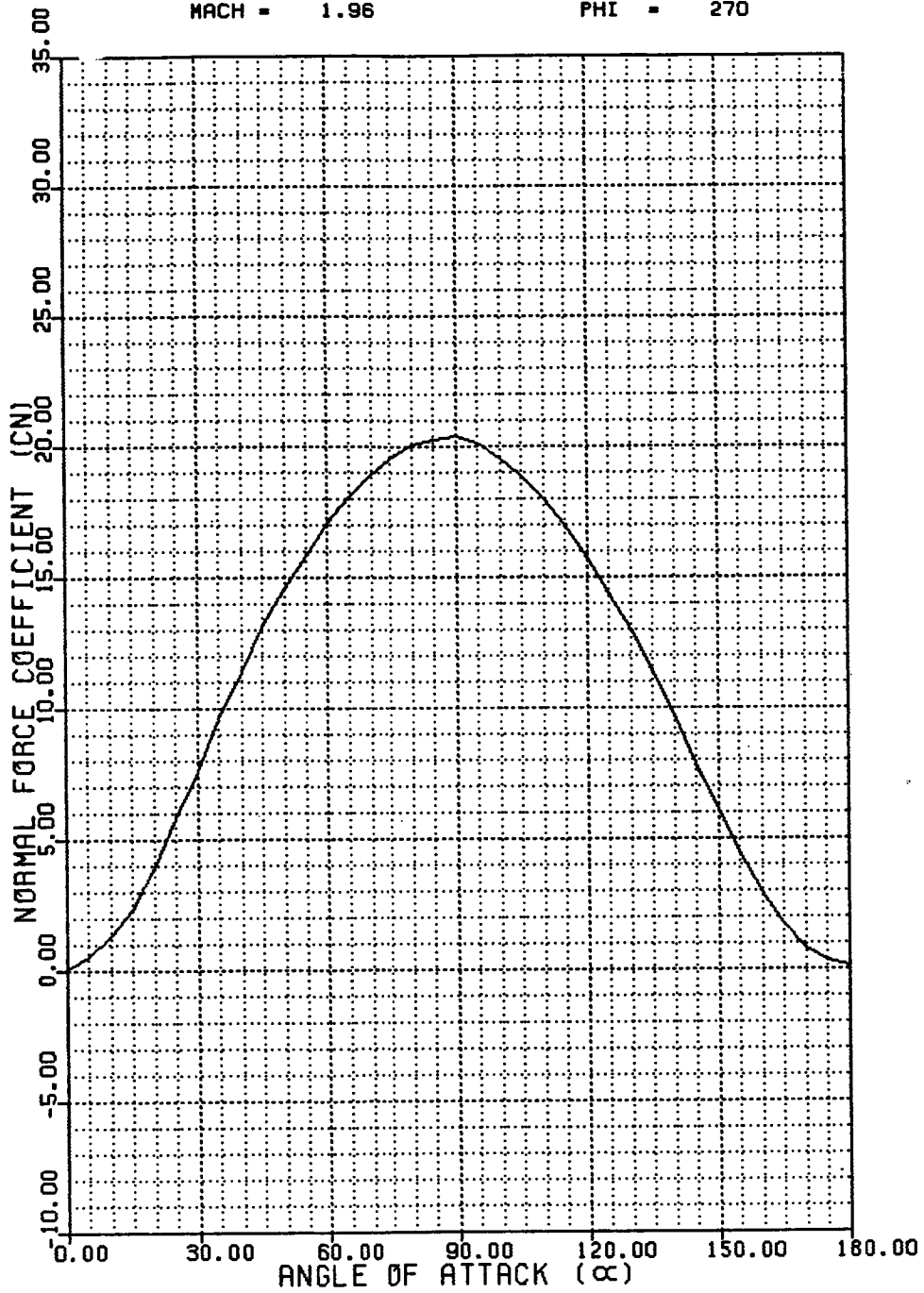
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270



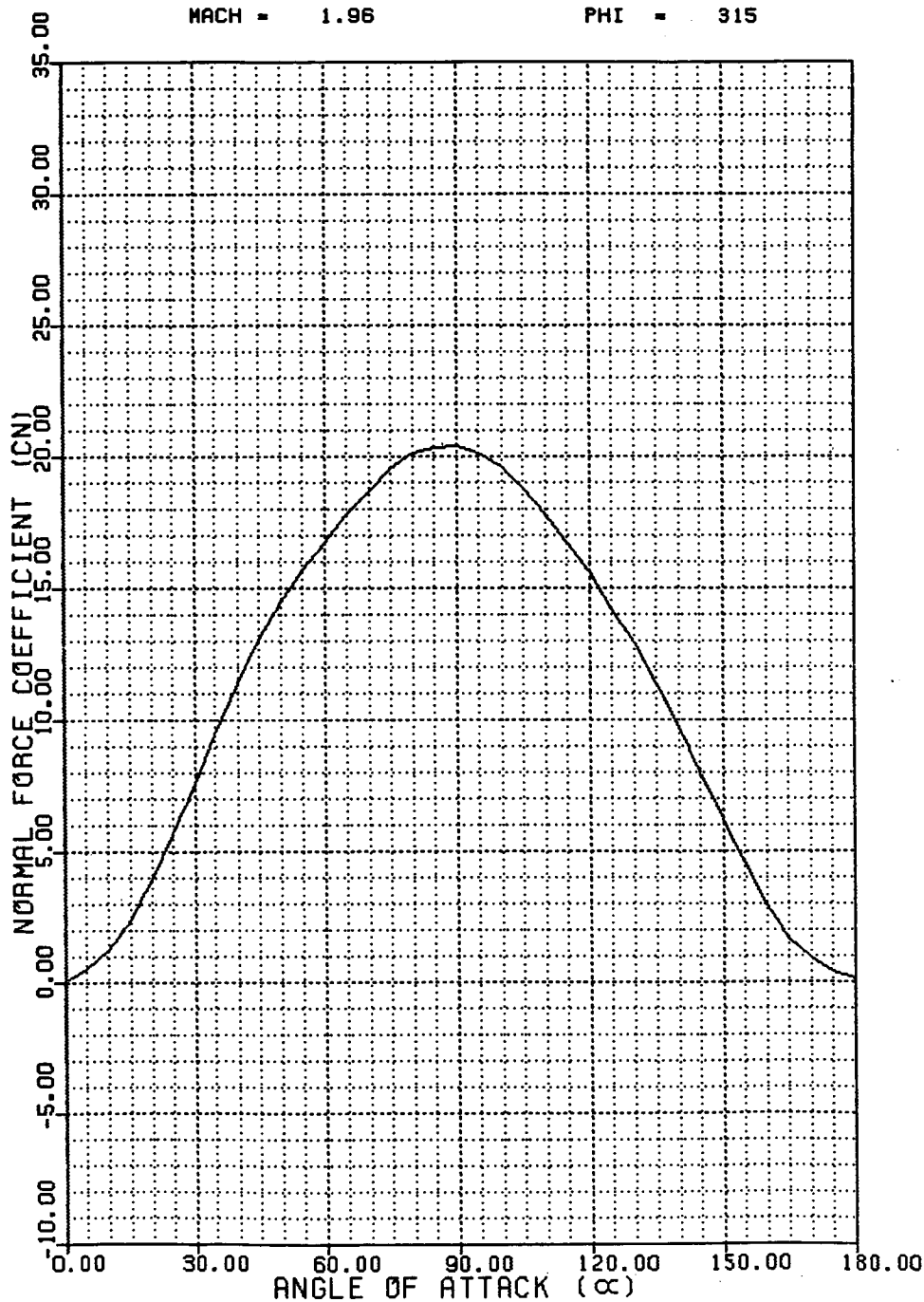
B-115

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315



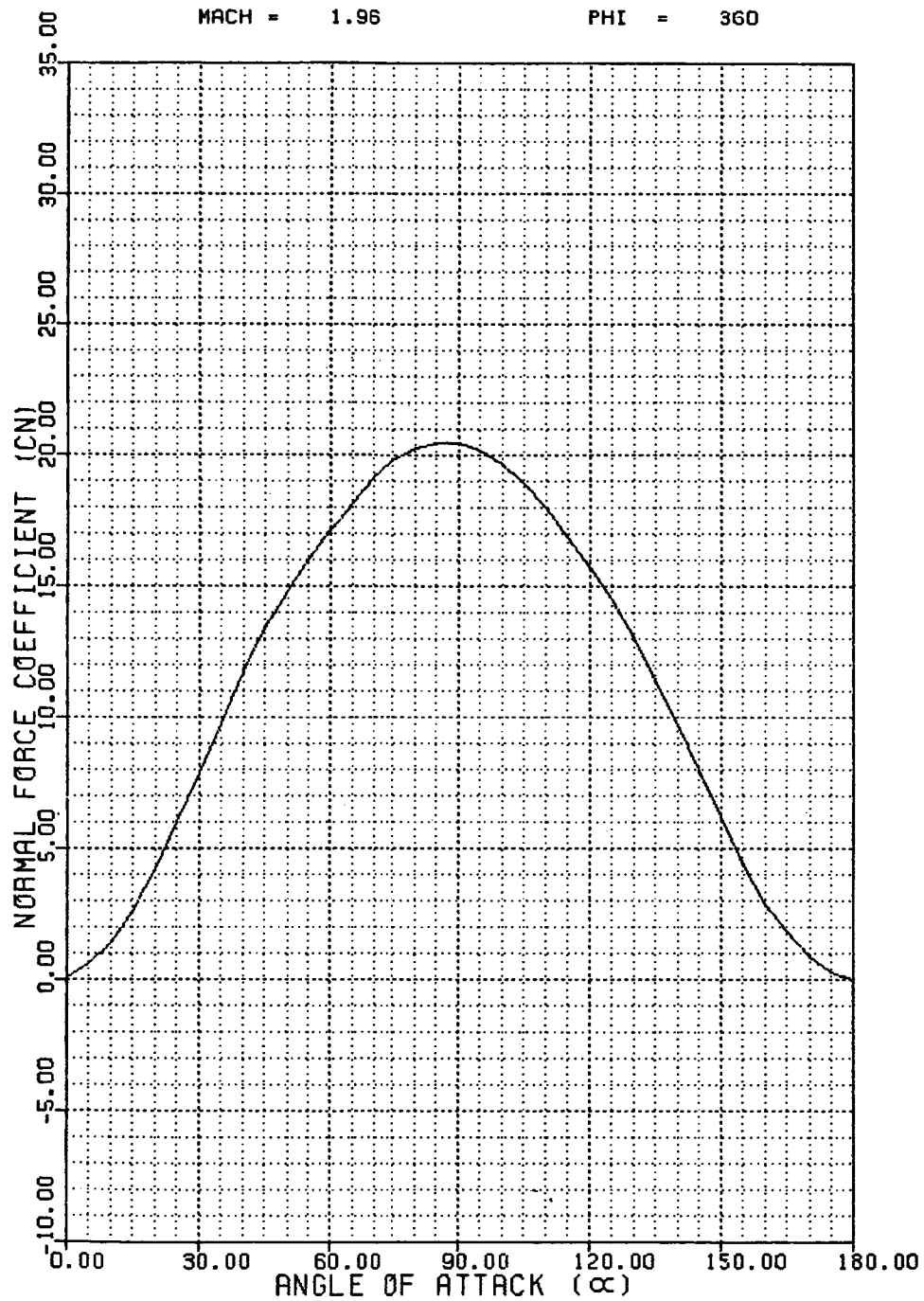
B-116

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 360

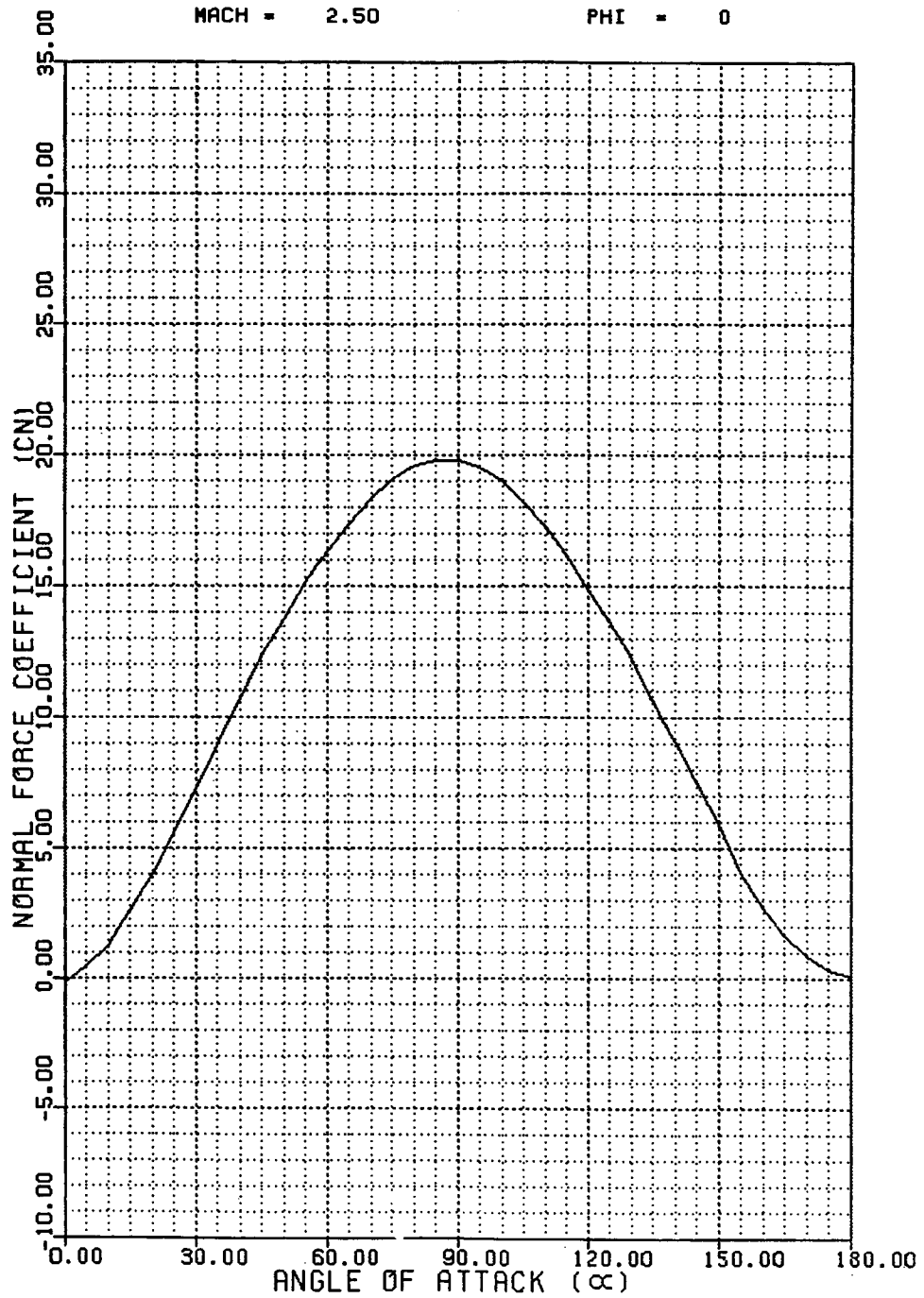


B-117

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



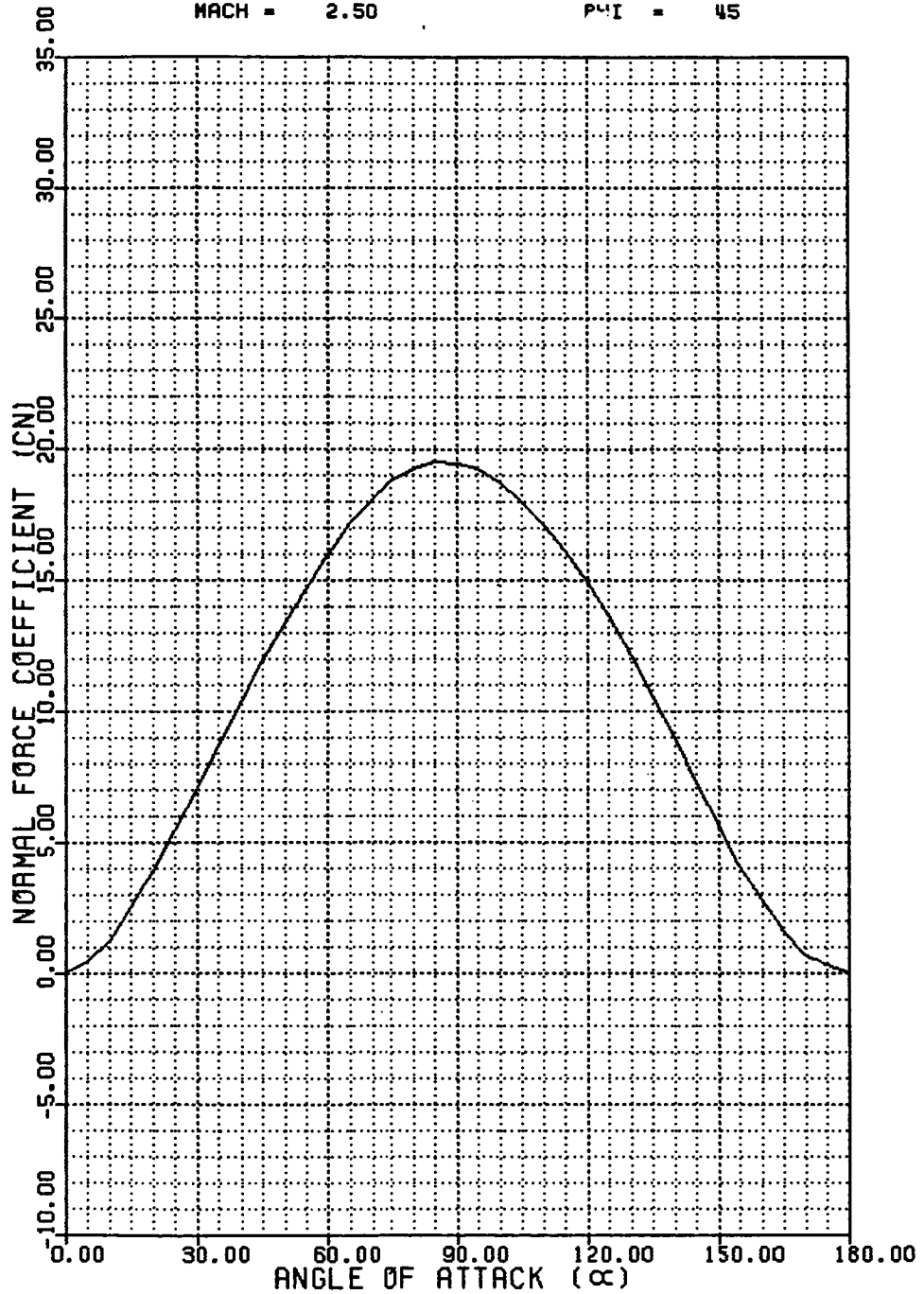
B-118

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 45

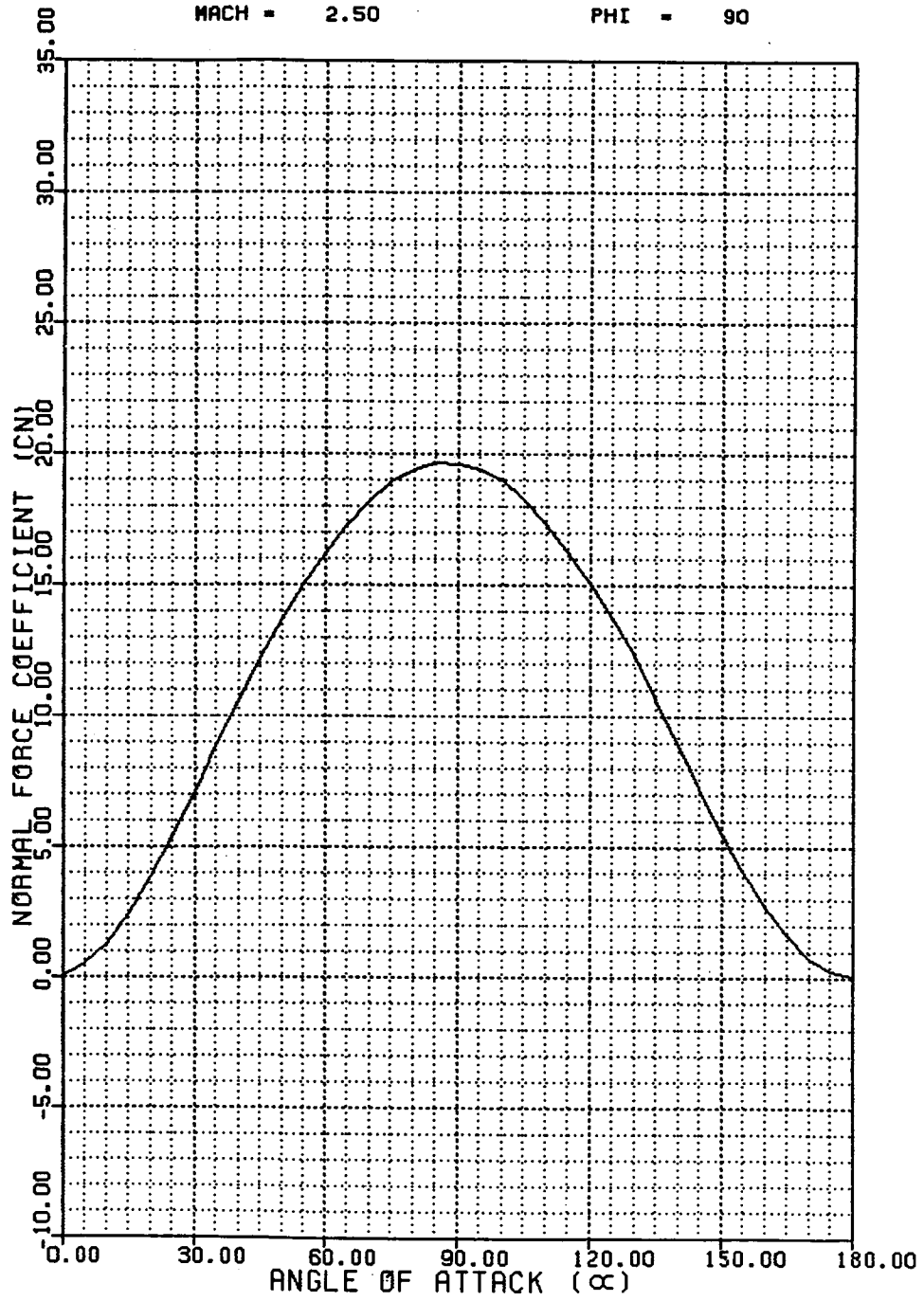


B-119

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90



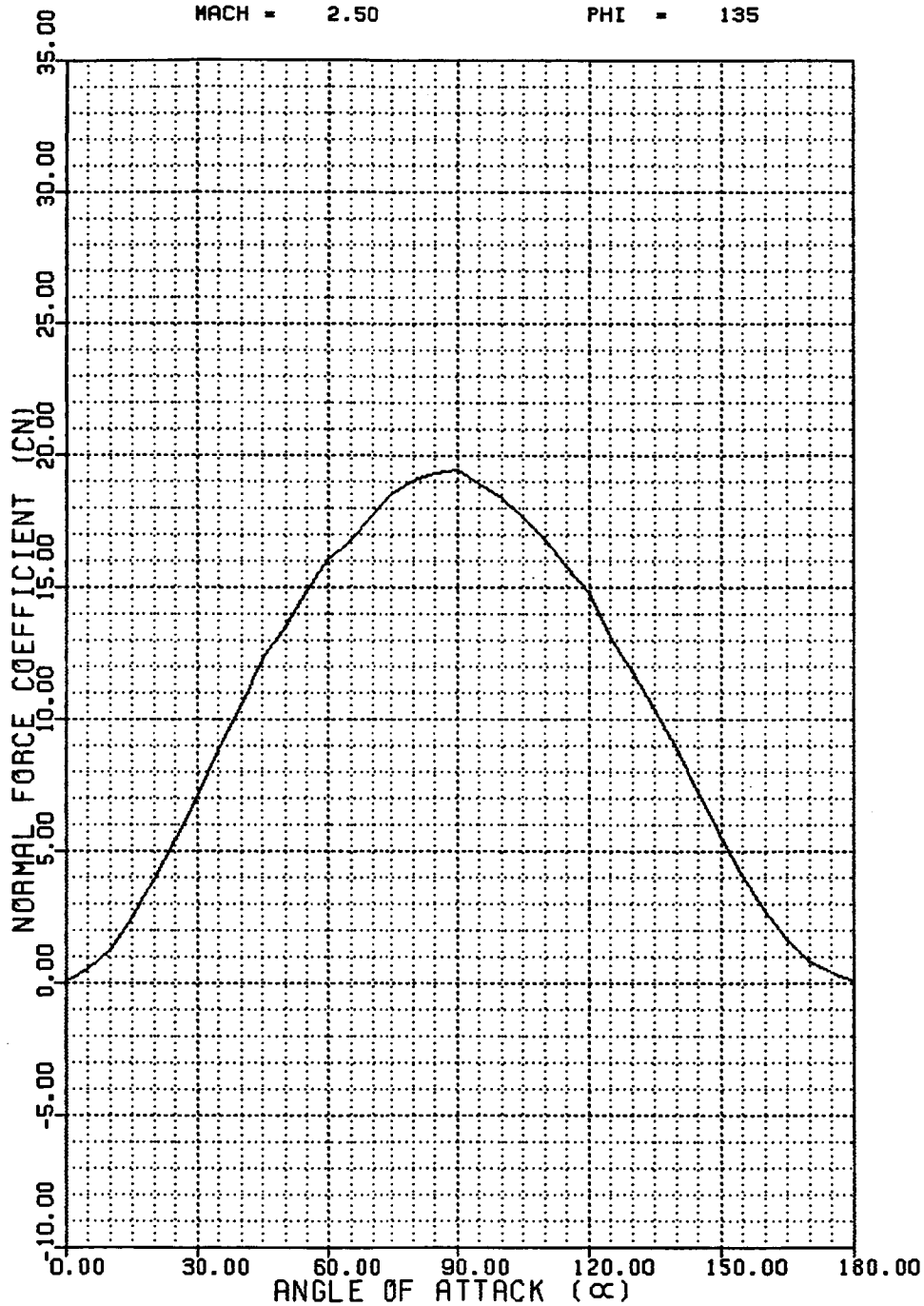
B-120

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135

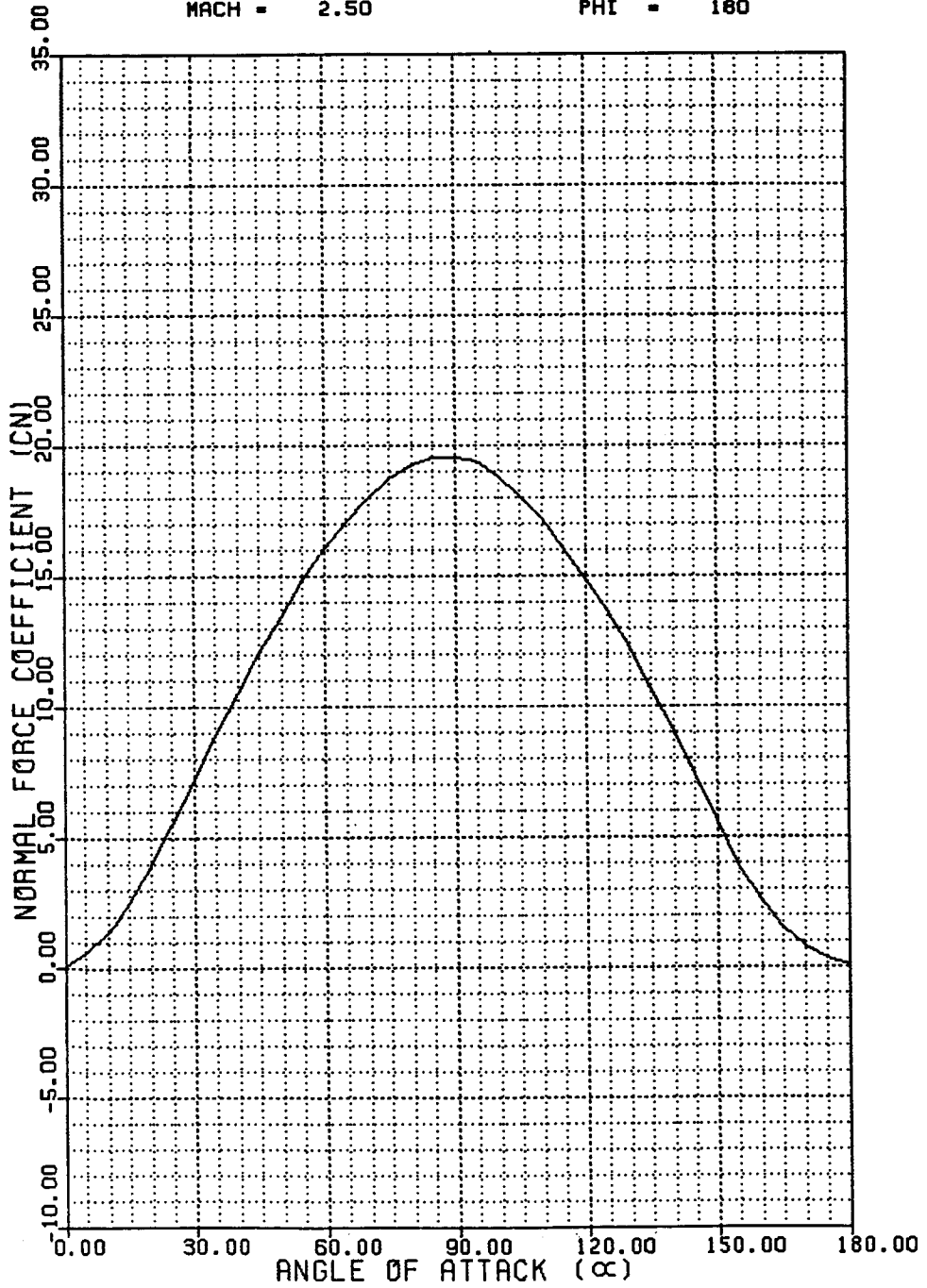


B-121

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



B-122

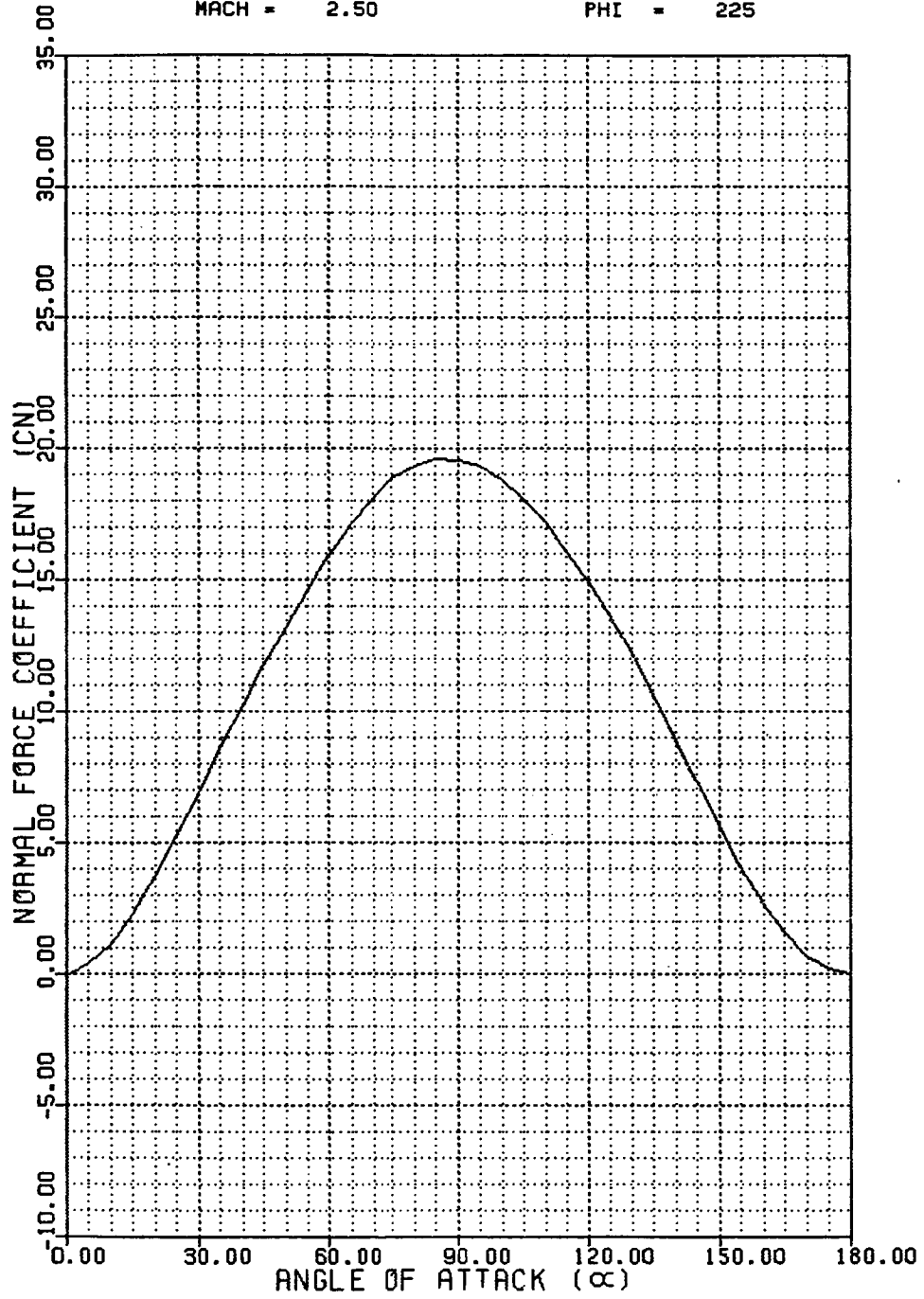
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225

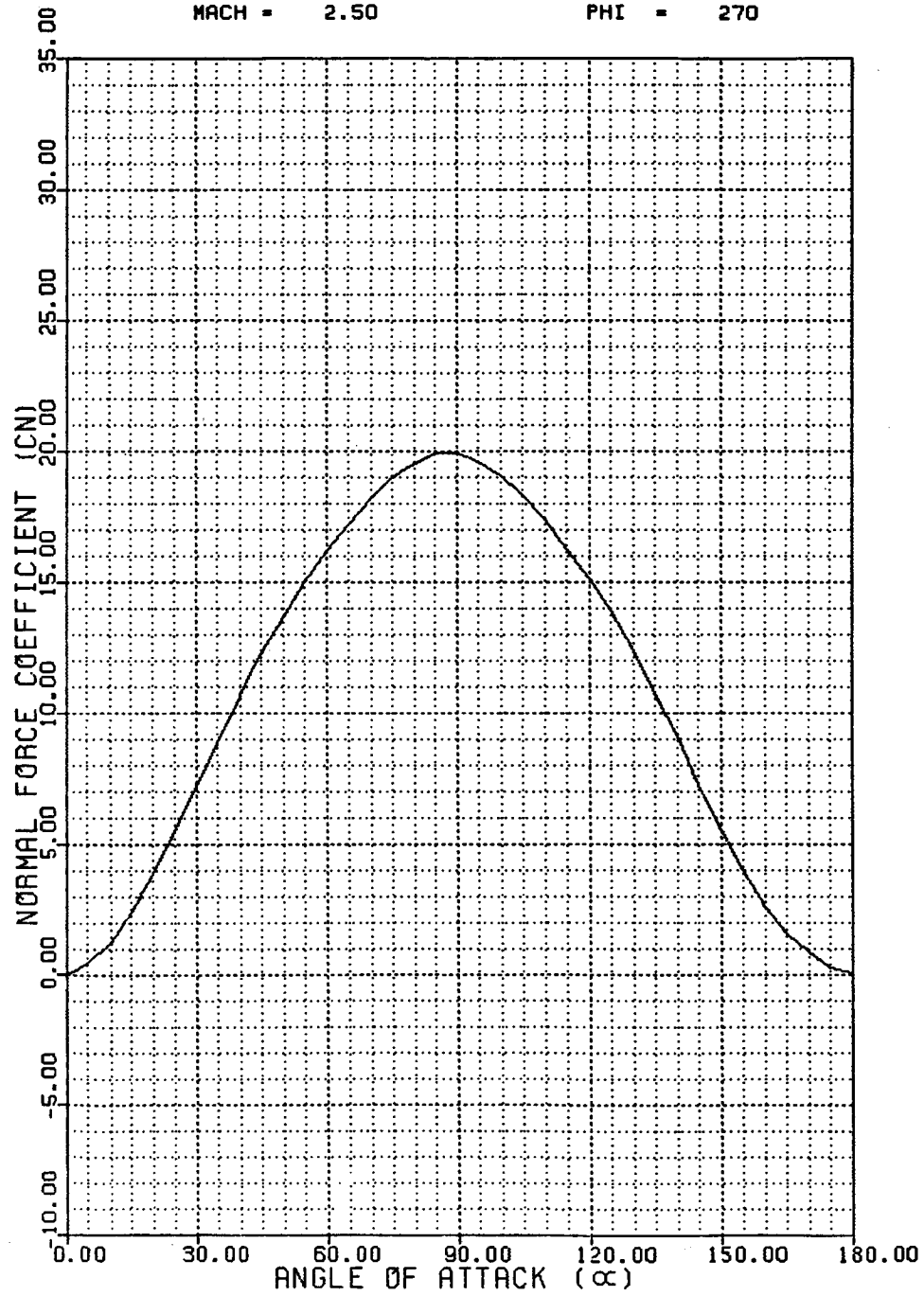


B-123

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270



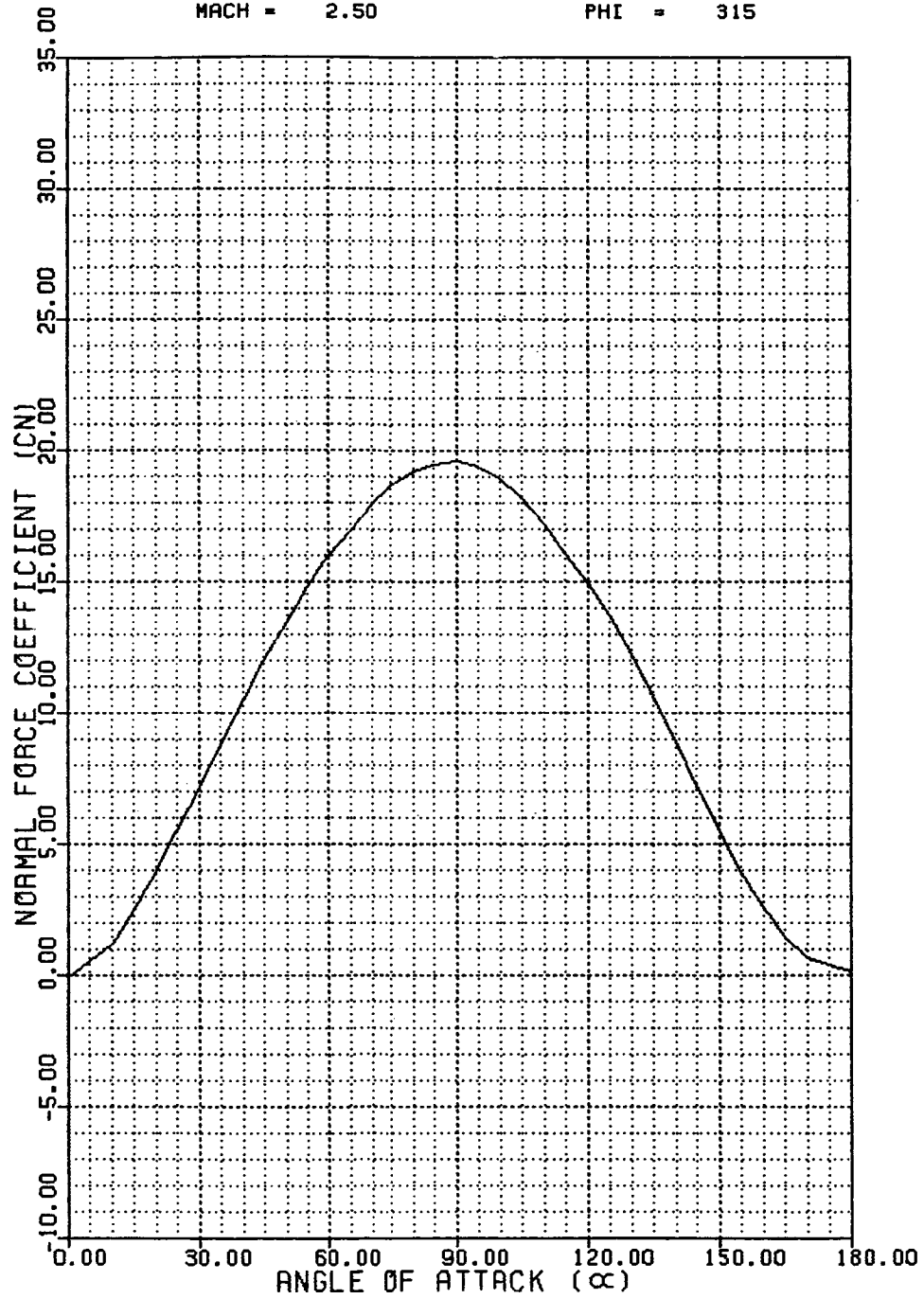
B-124

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315



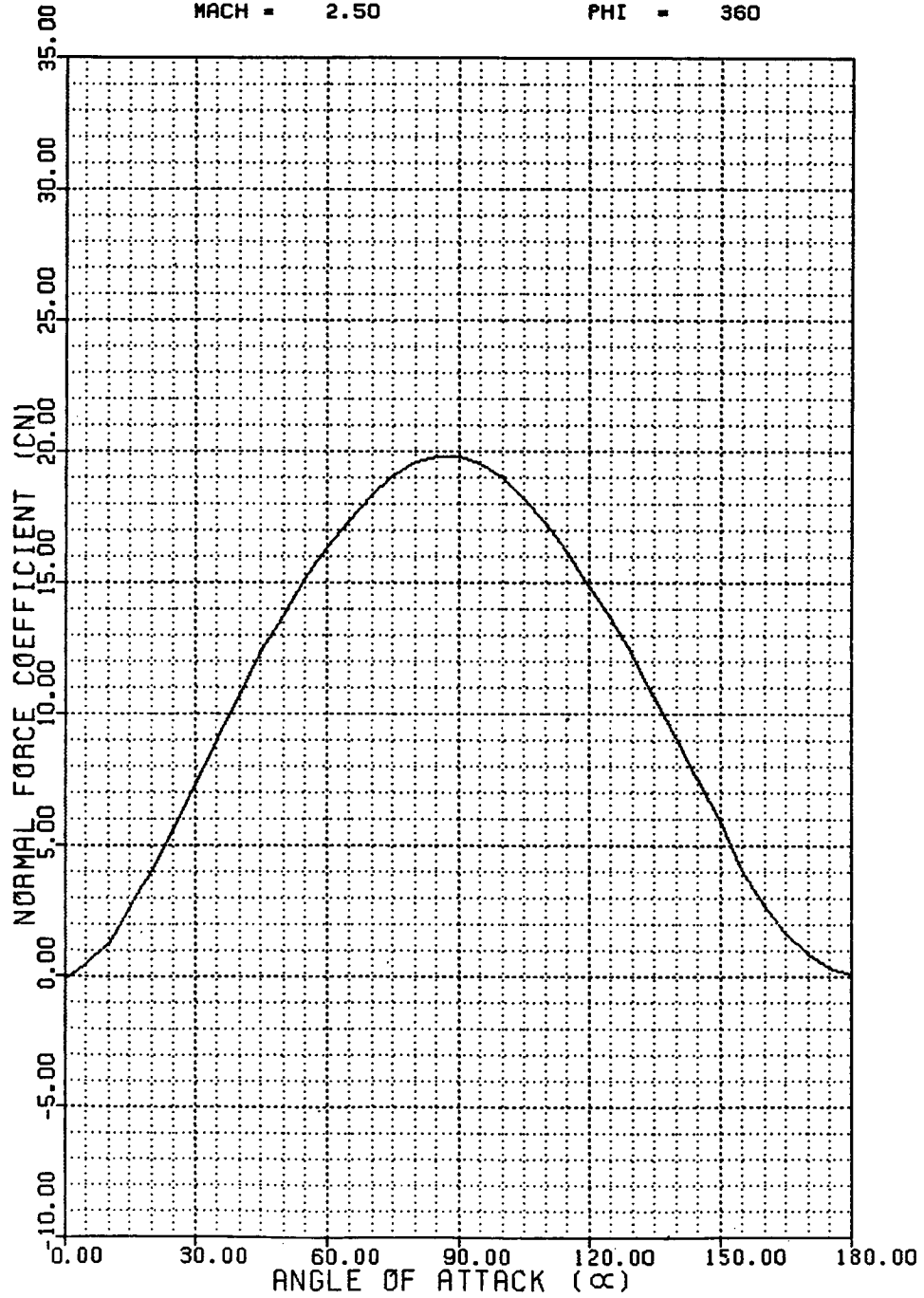
B-125

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360



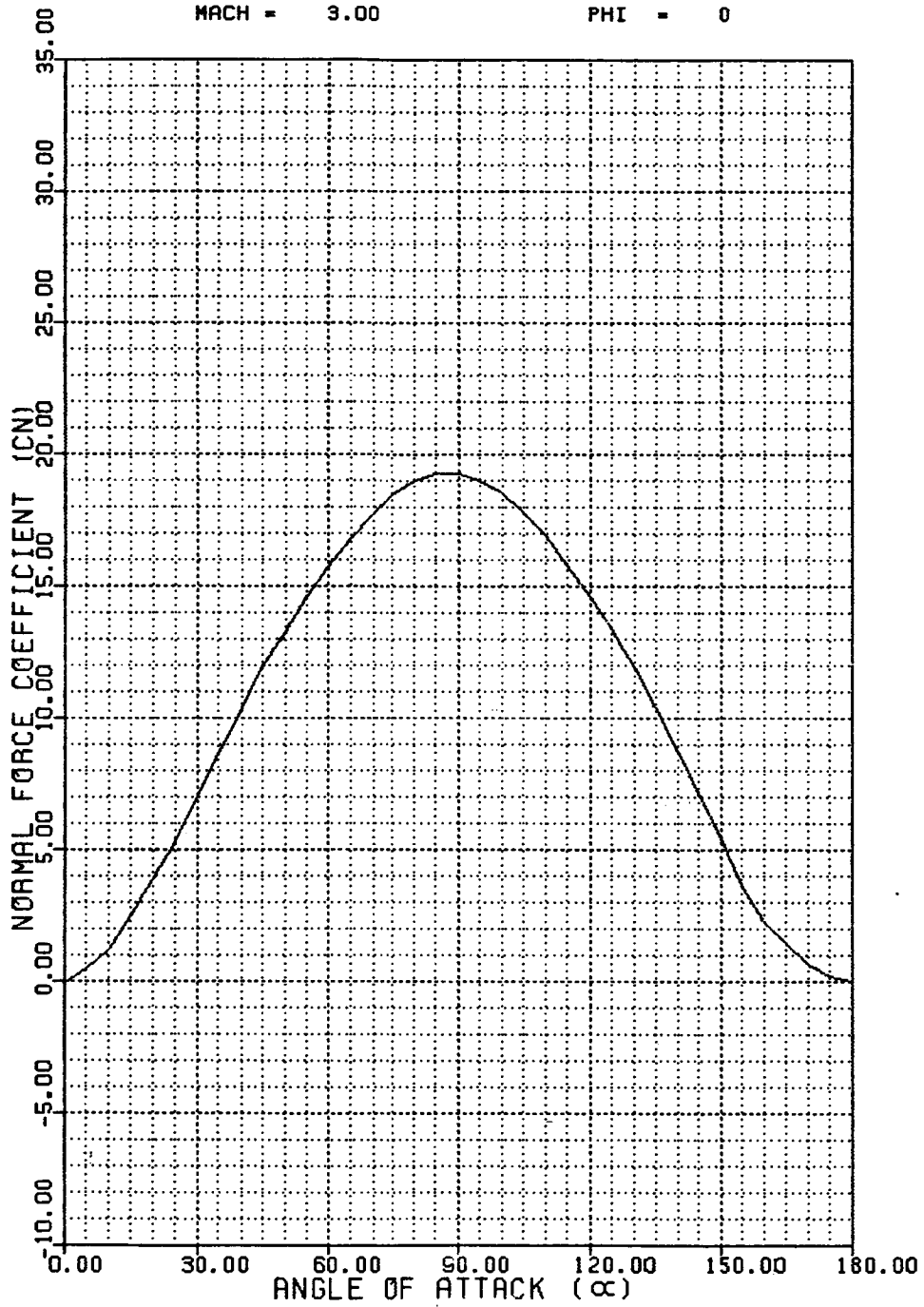
B-126

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0

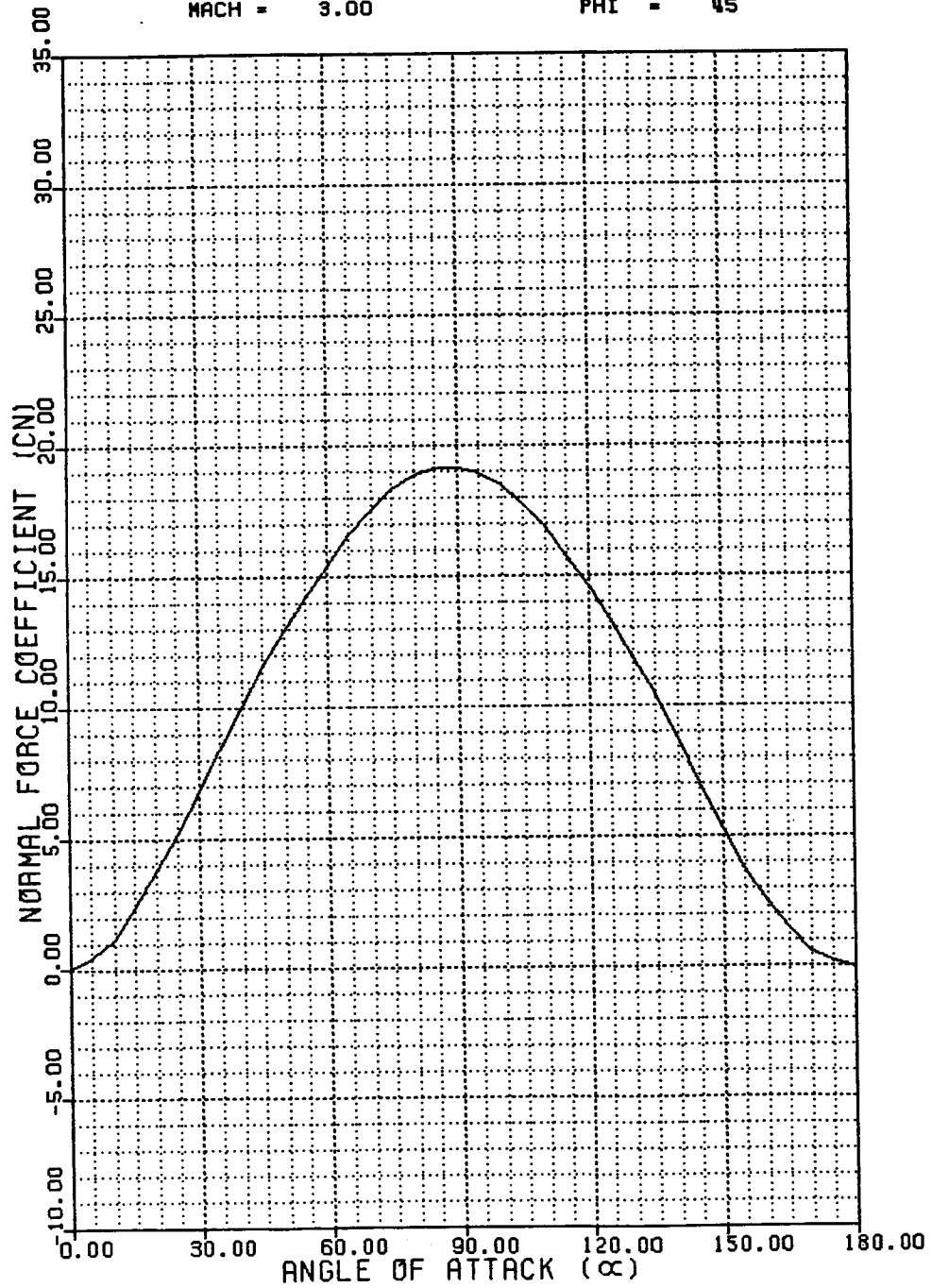


B-127

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45



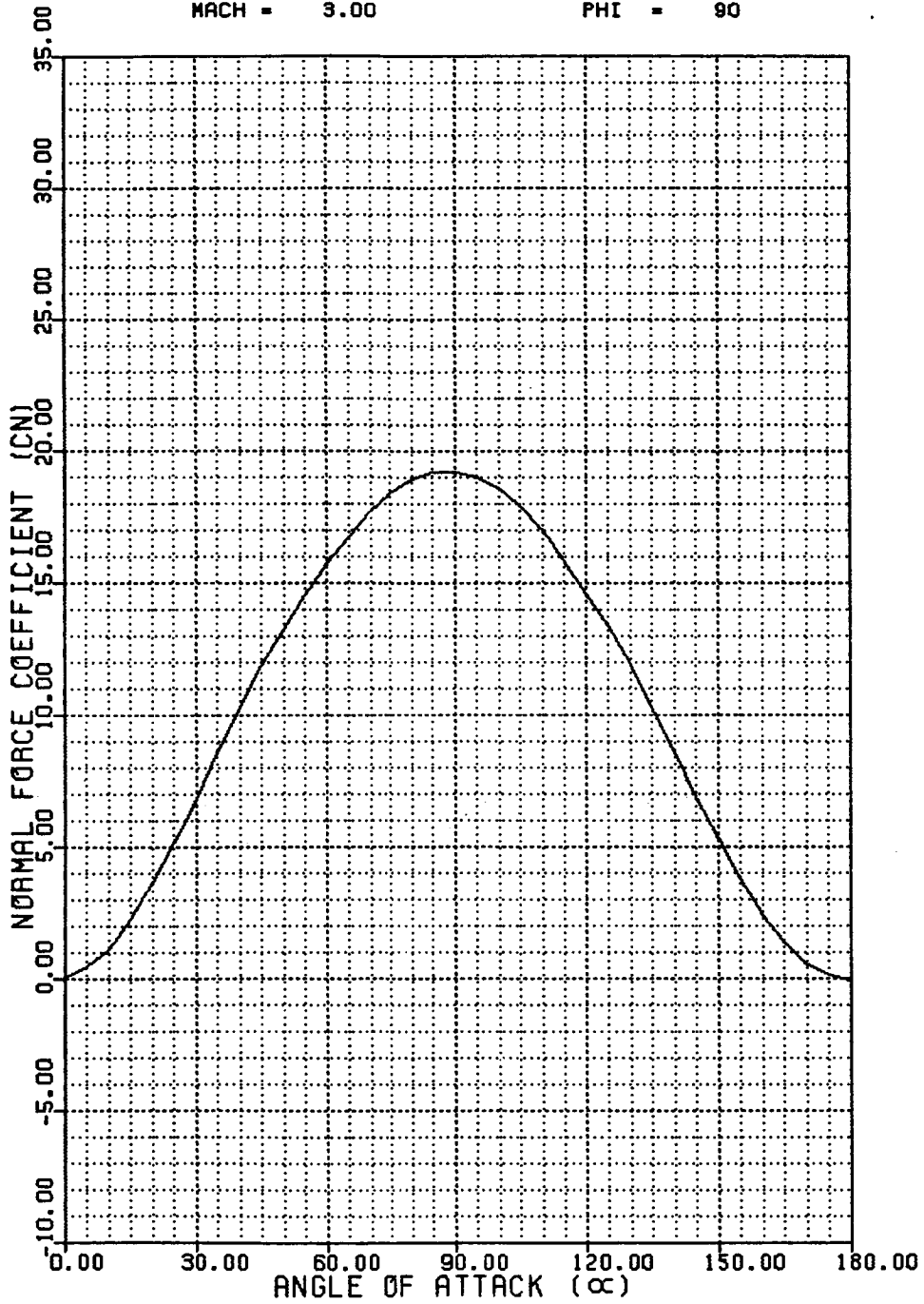
B-128

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90

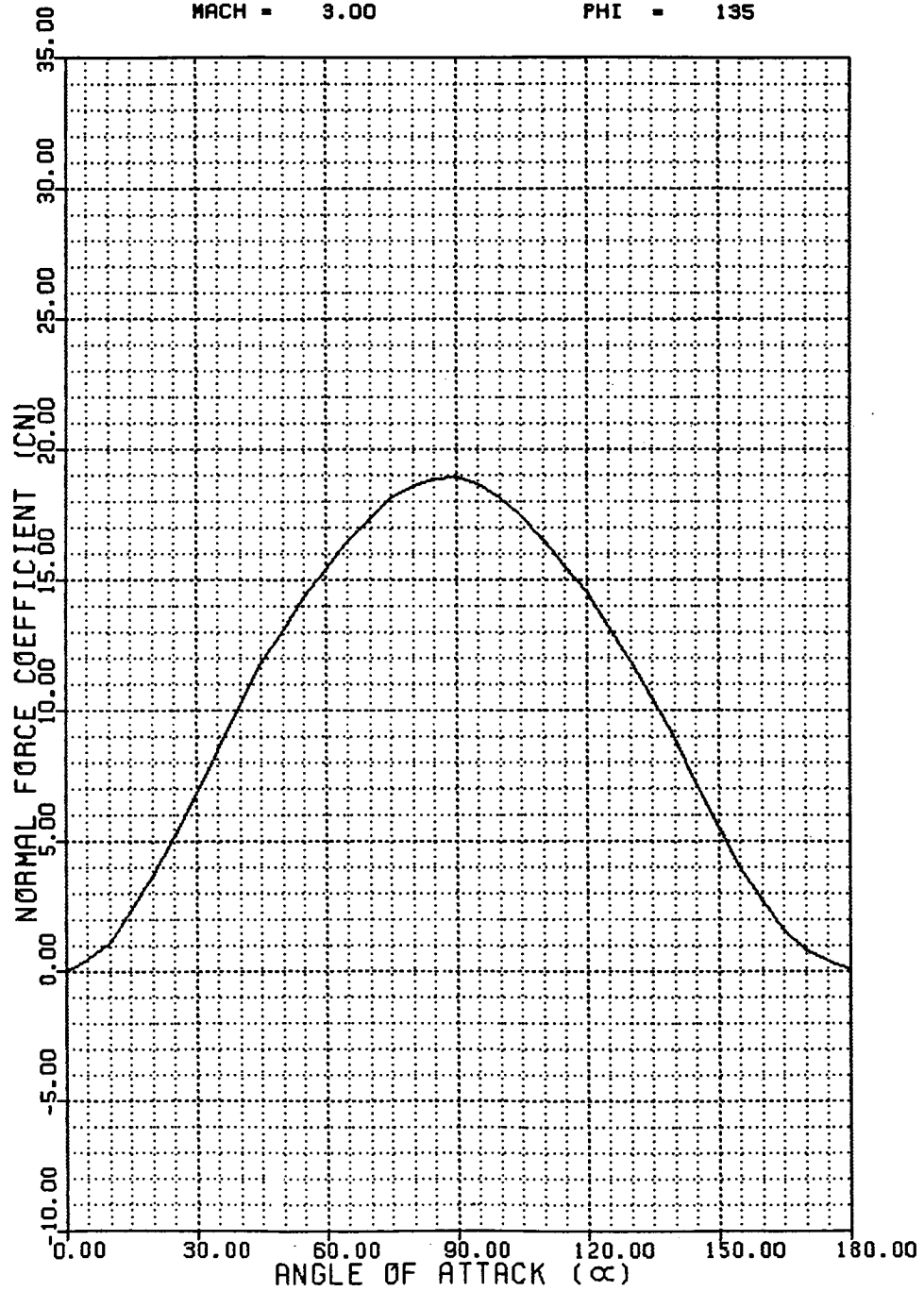


B-129

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



B-190

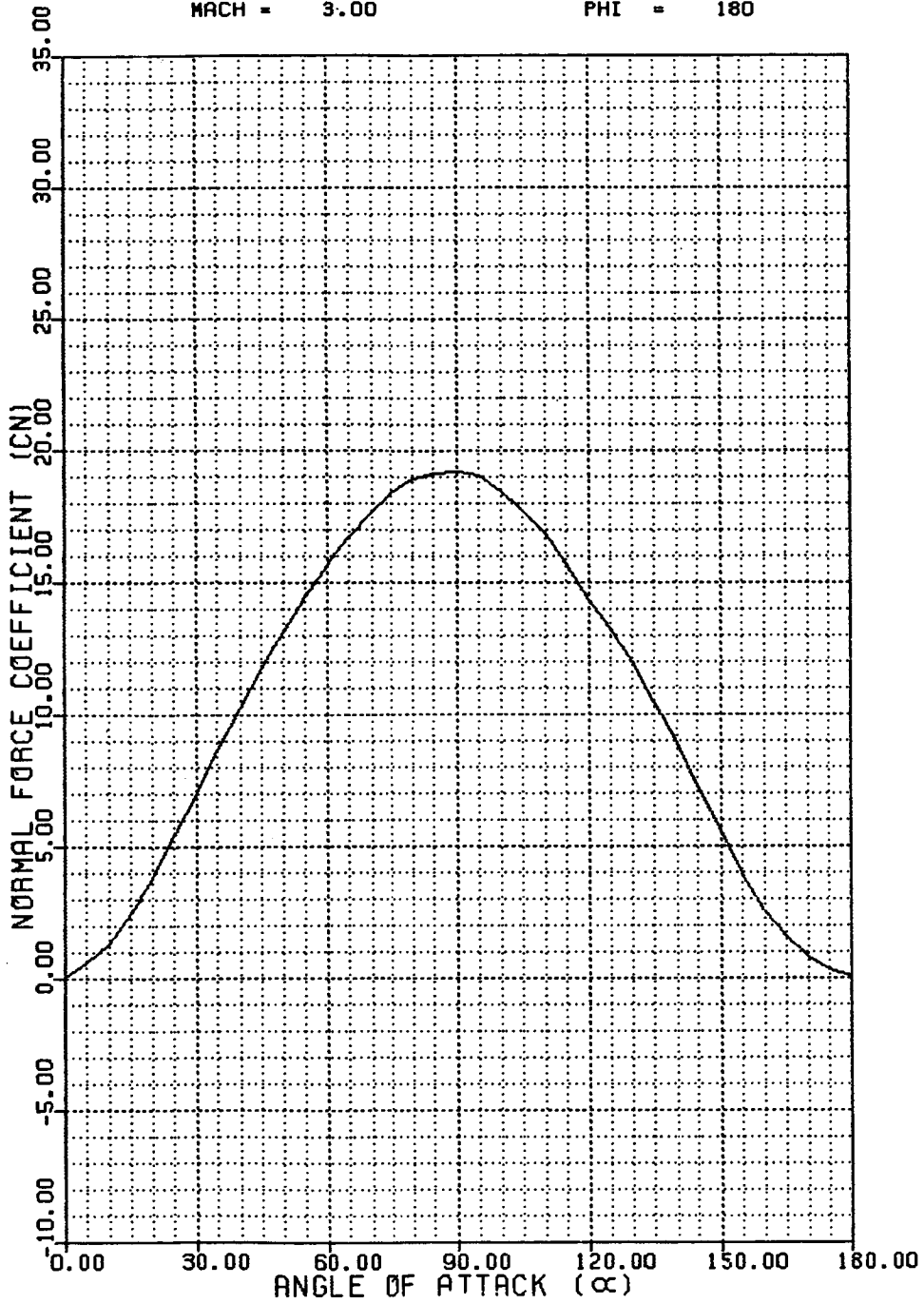
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 180



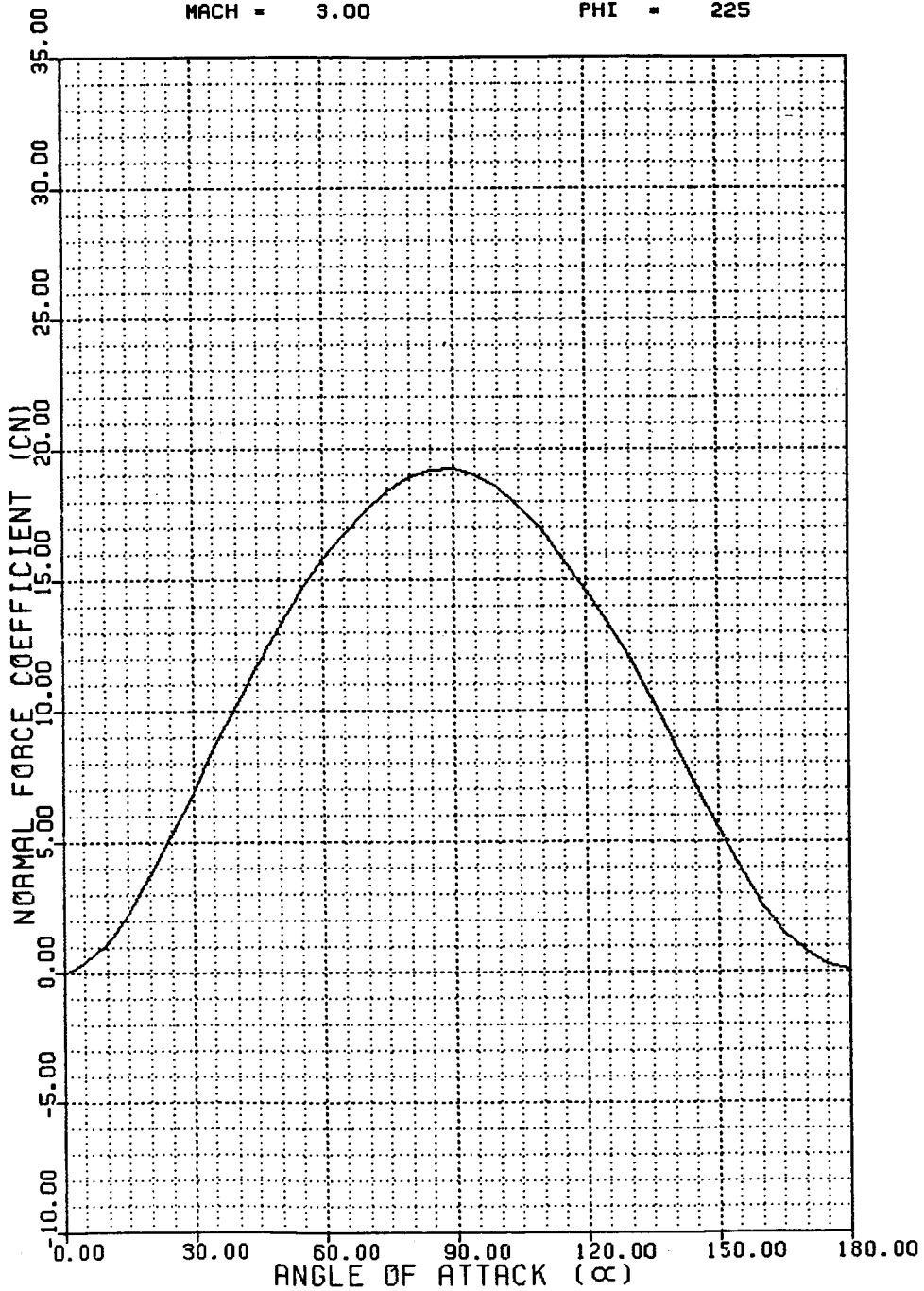
B-131

LOCKHEED-HUNTSVILLE ENGINEERING CENTER.

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225



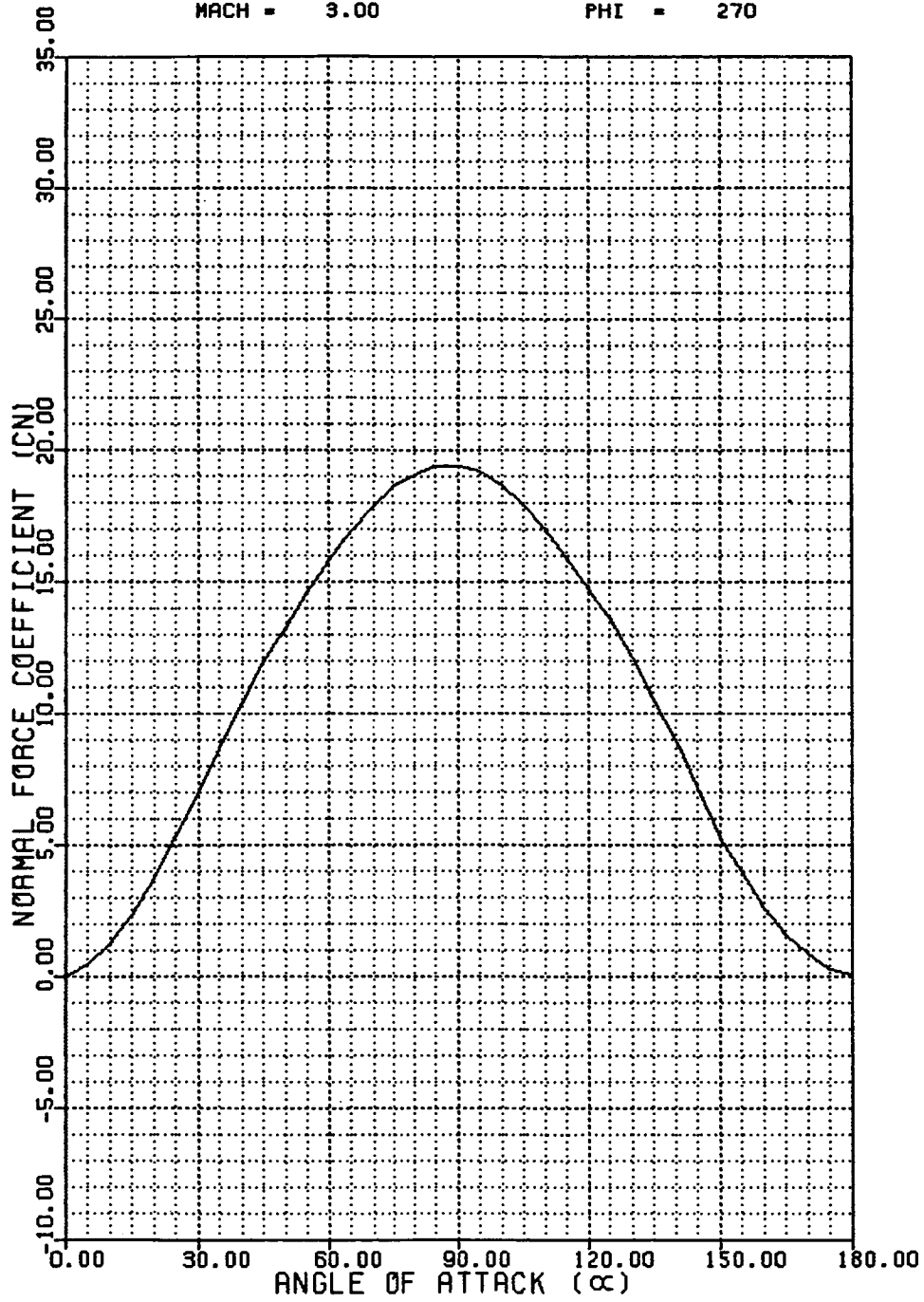
B-132

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270



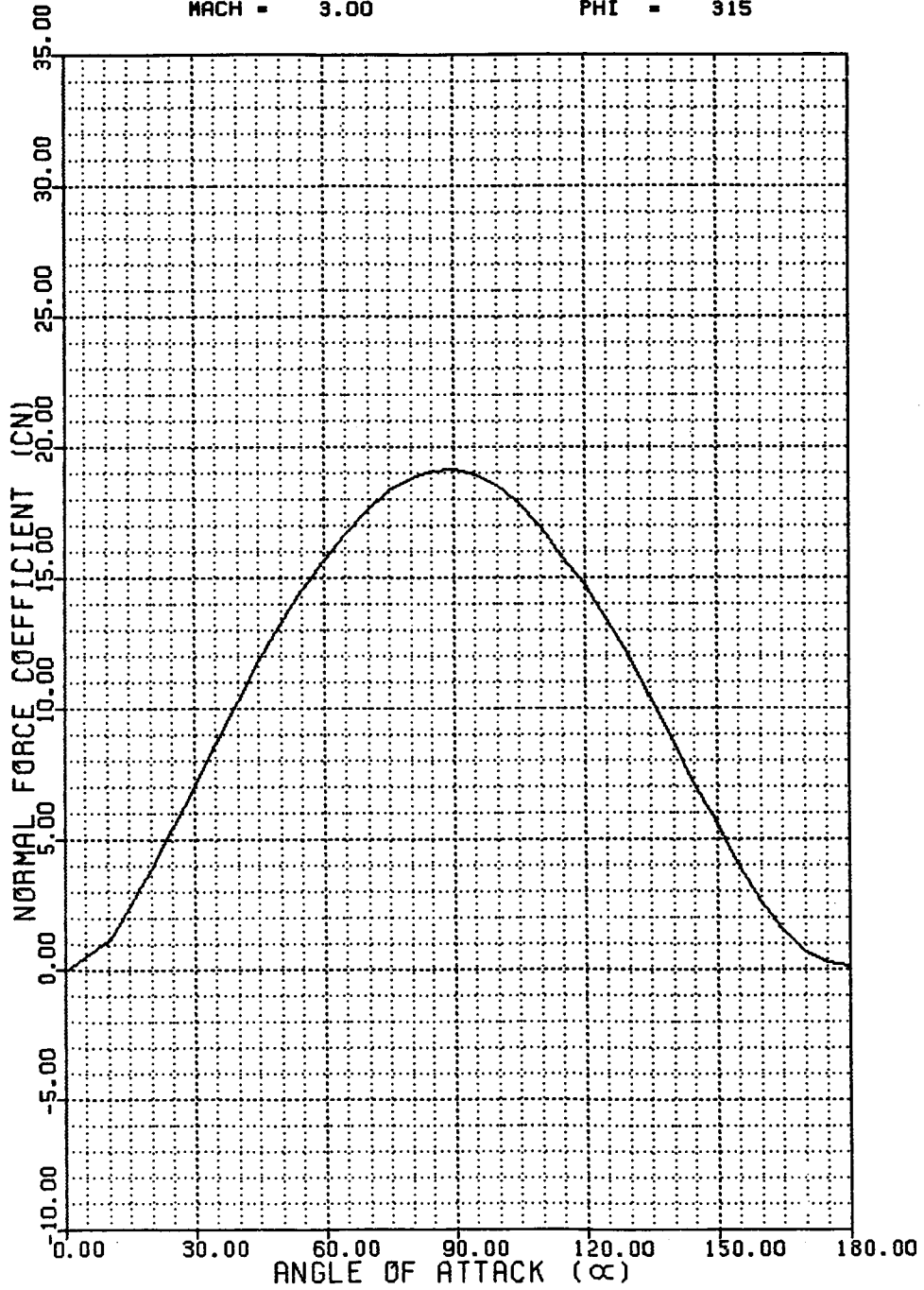
B-193

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315



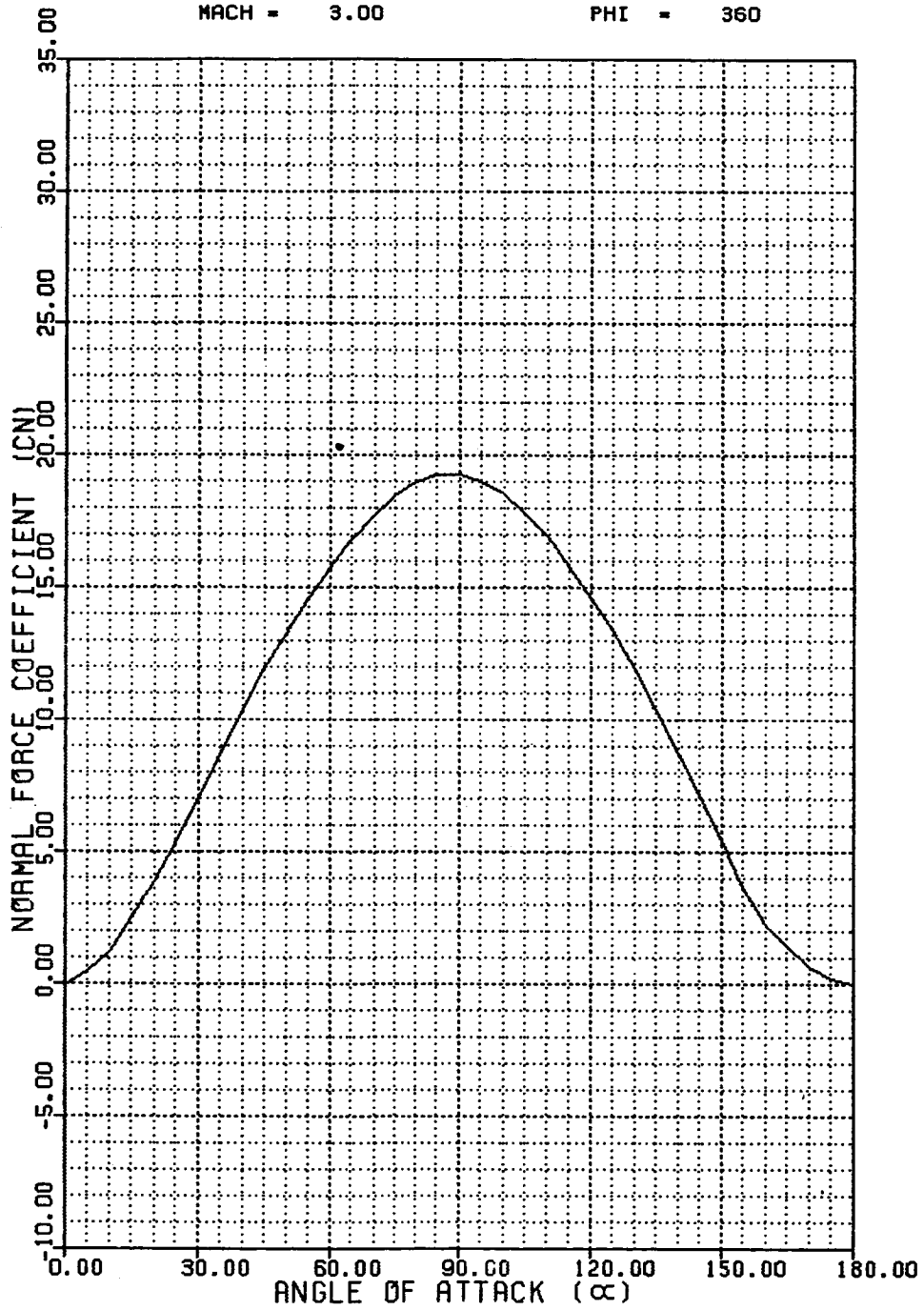
B-134

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360

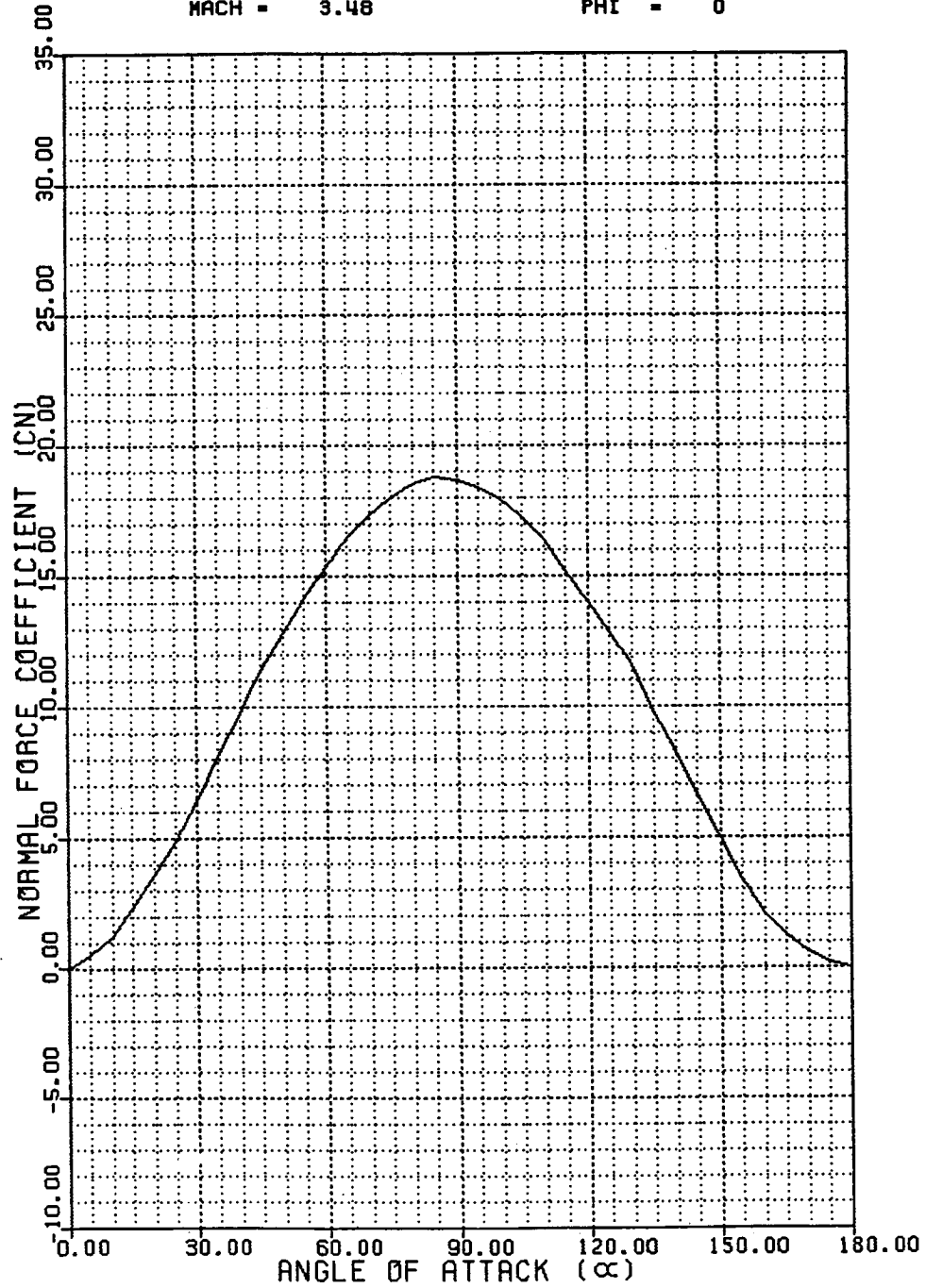


B-195

# SRB TAPE 8 DATA

MACH = 3.48

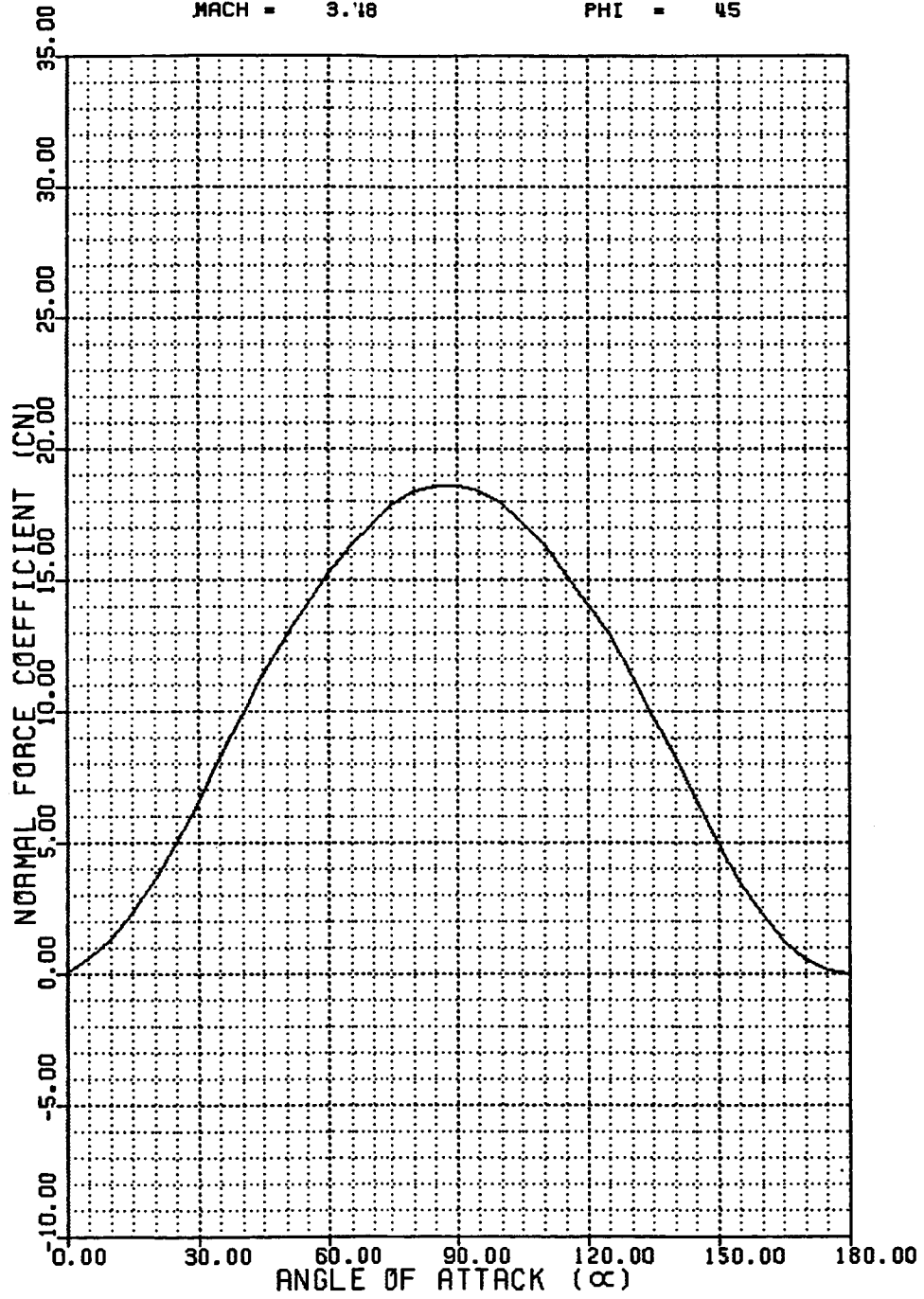
PHI = 0



# SRB TAPE 8 DATA

MACH = 3.18

PHI = 45



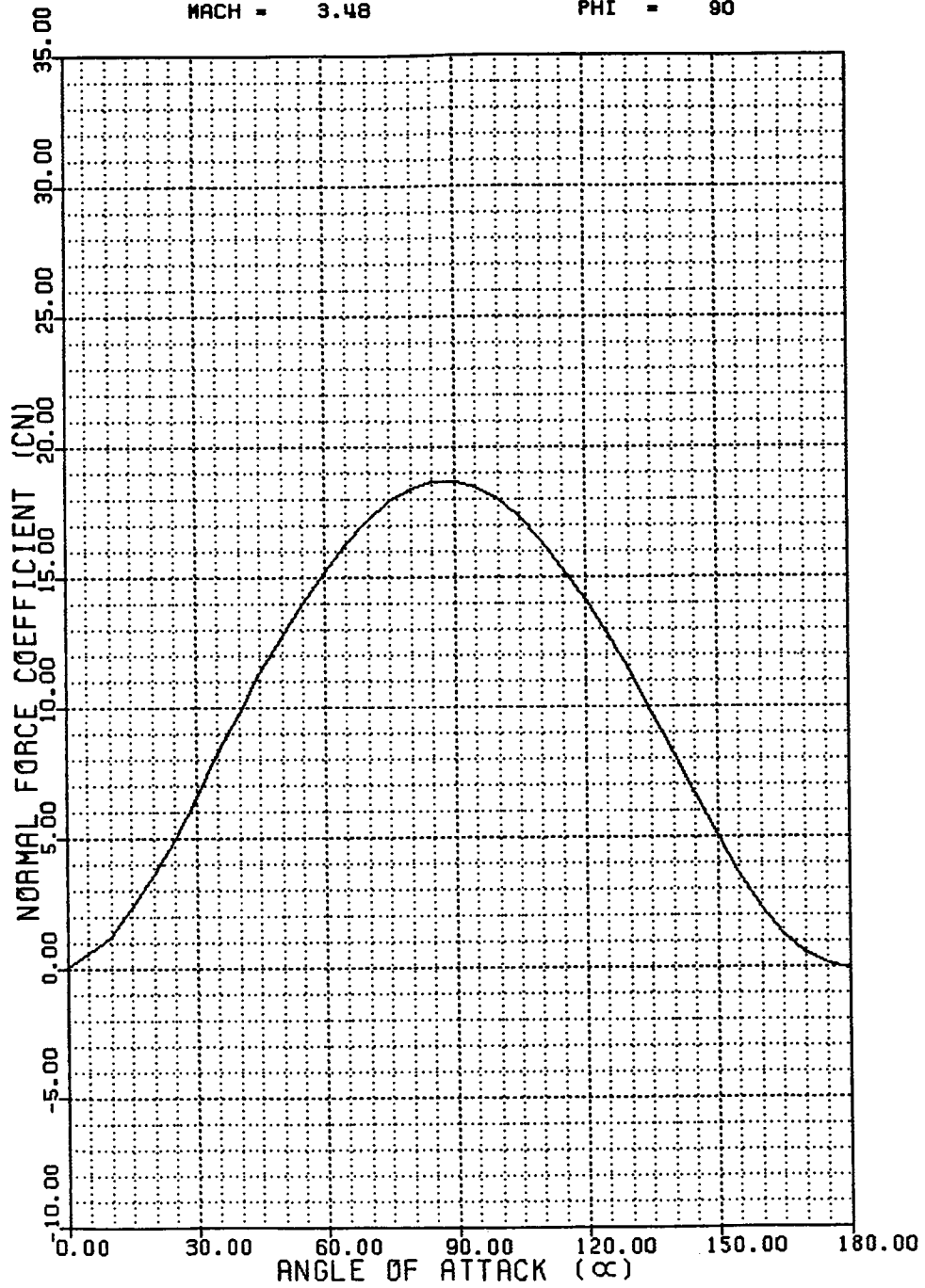
B-197

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90



B-138

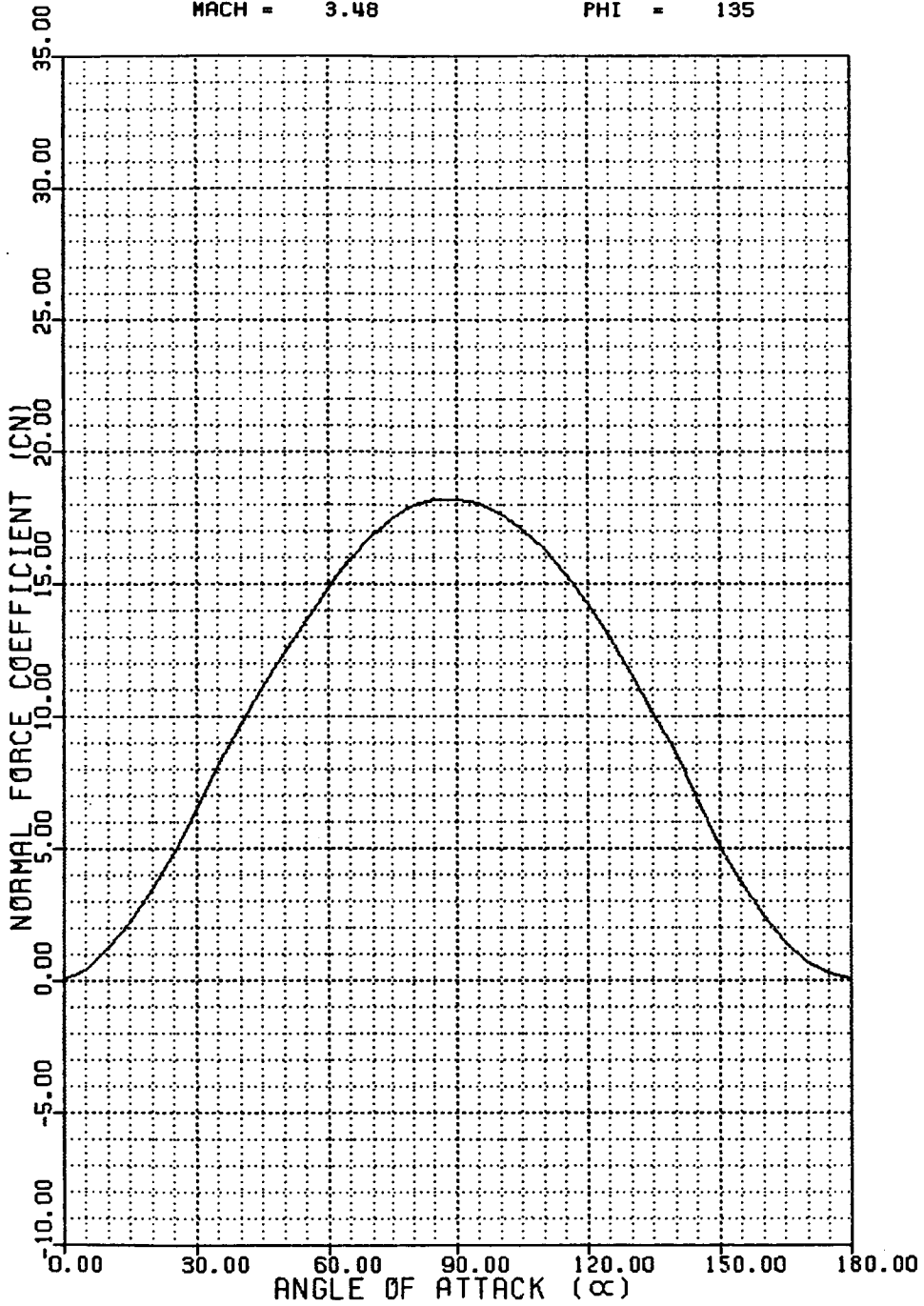
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 135

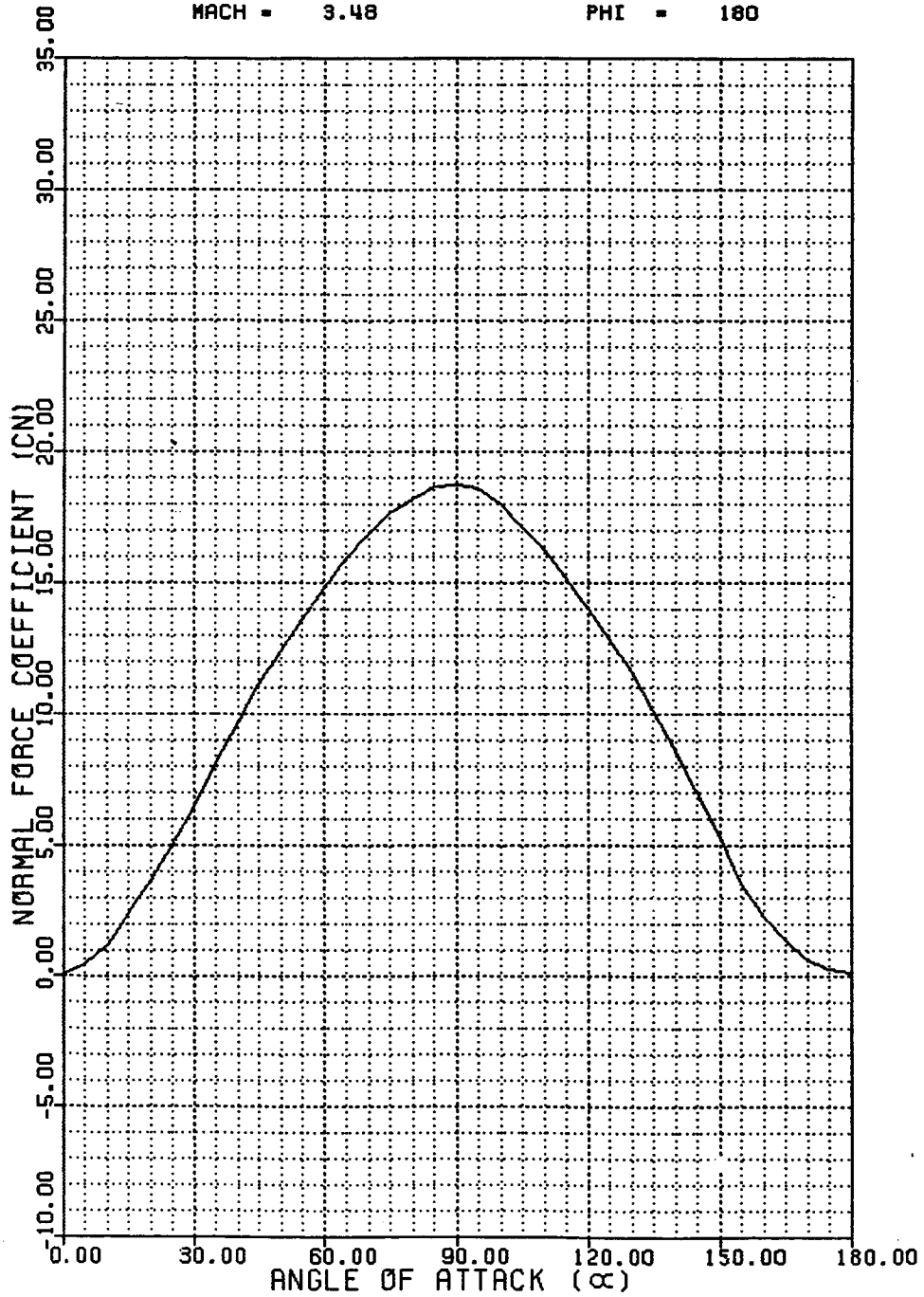


B-139

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180



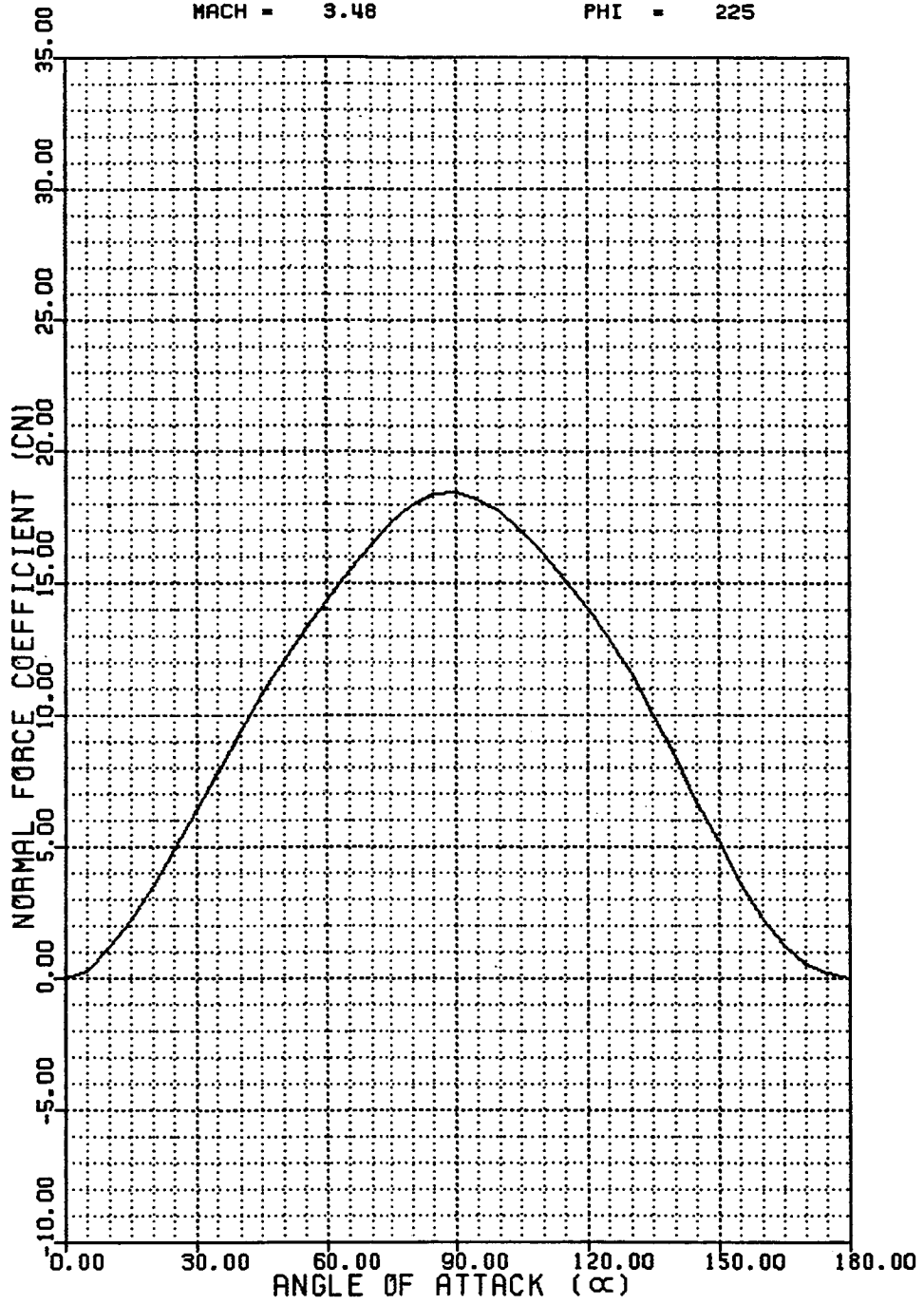
B-140

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225

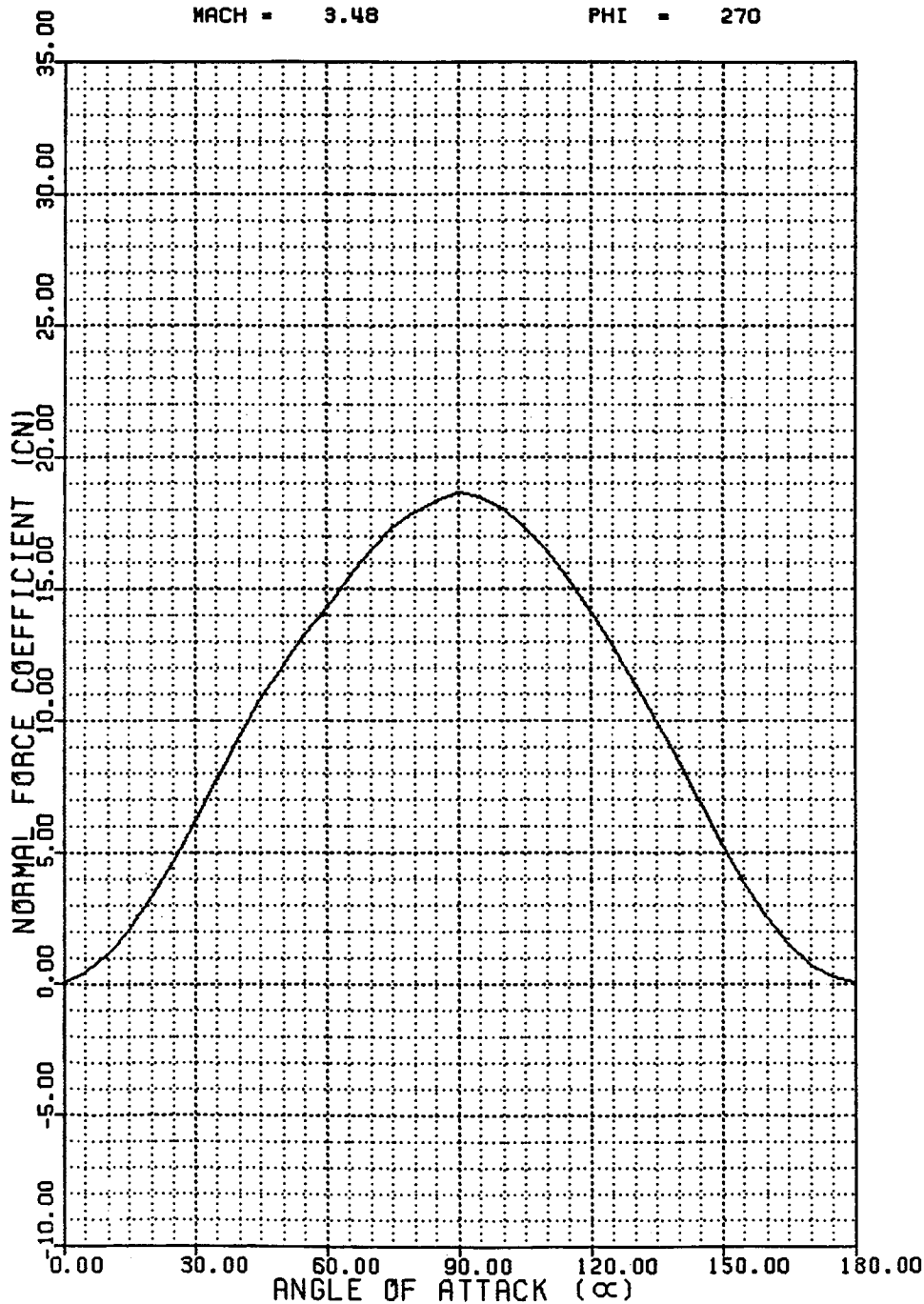


B-141

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270



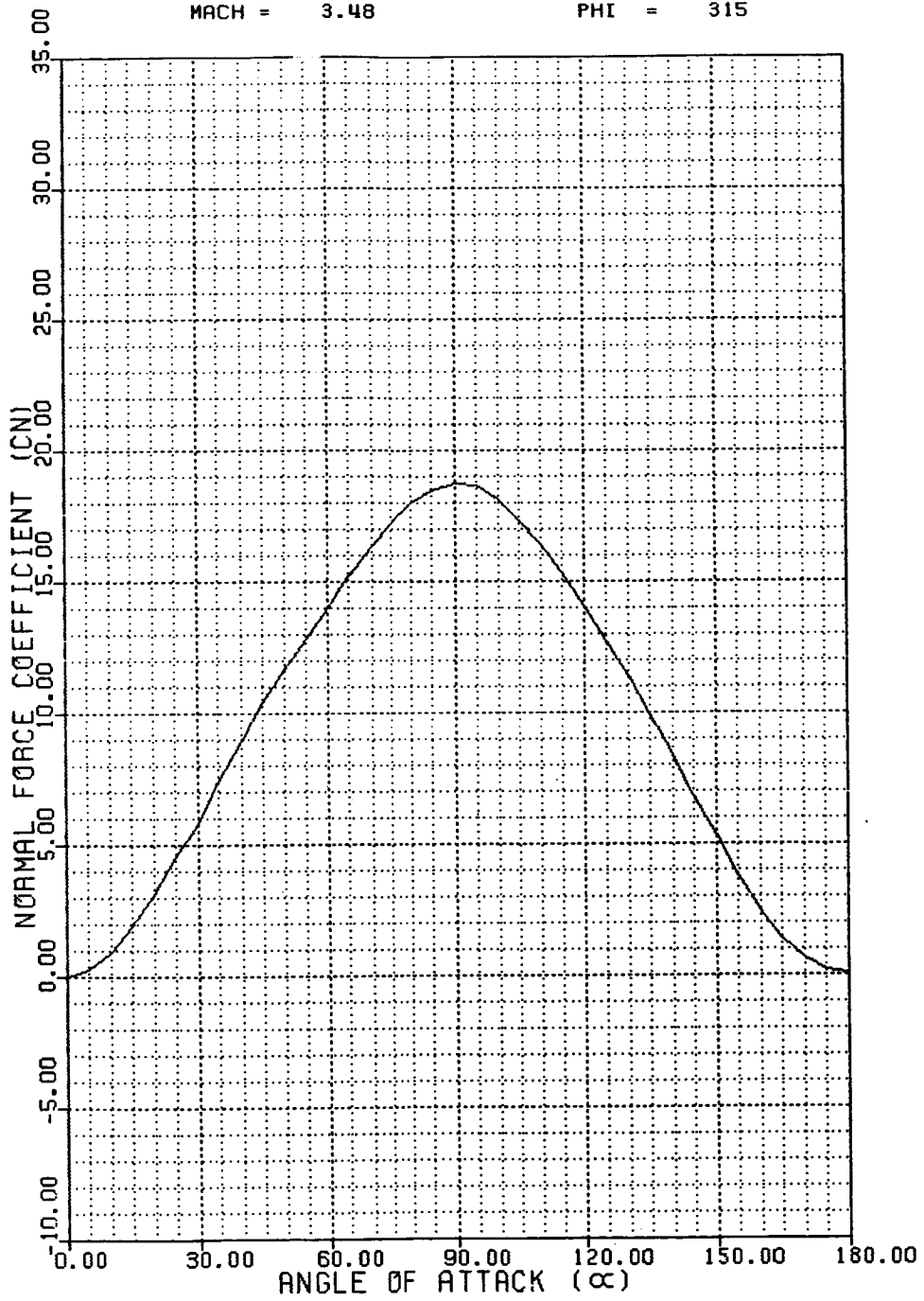
B-142

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 315



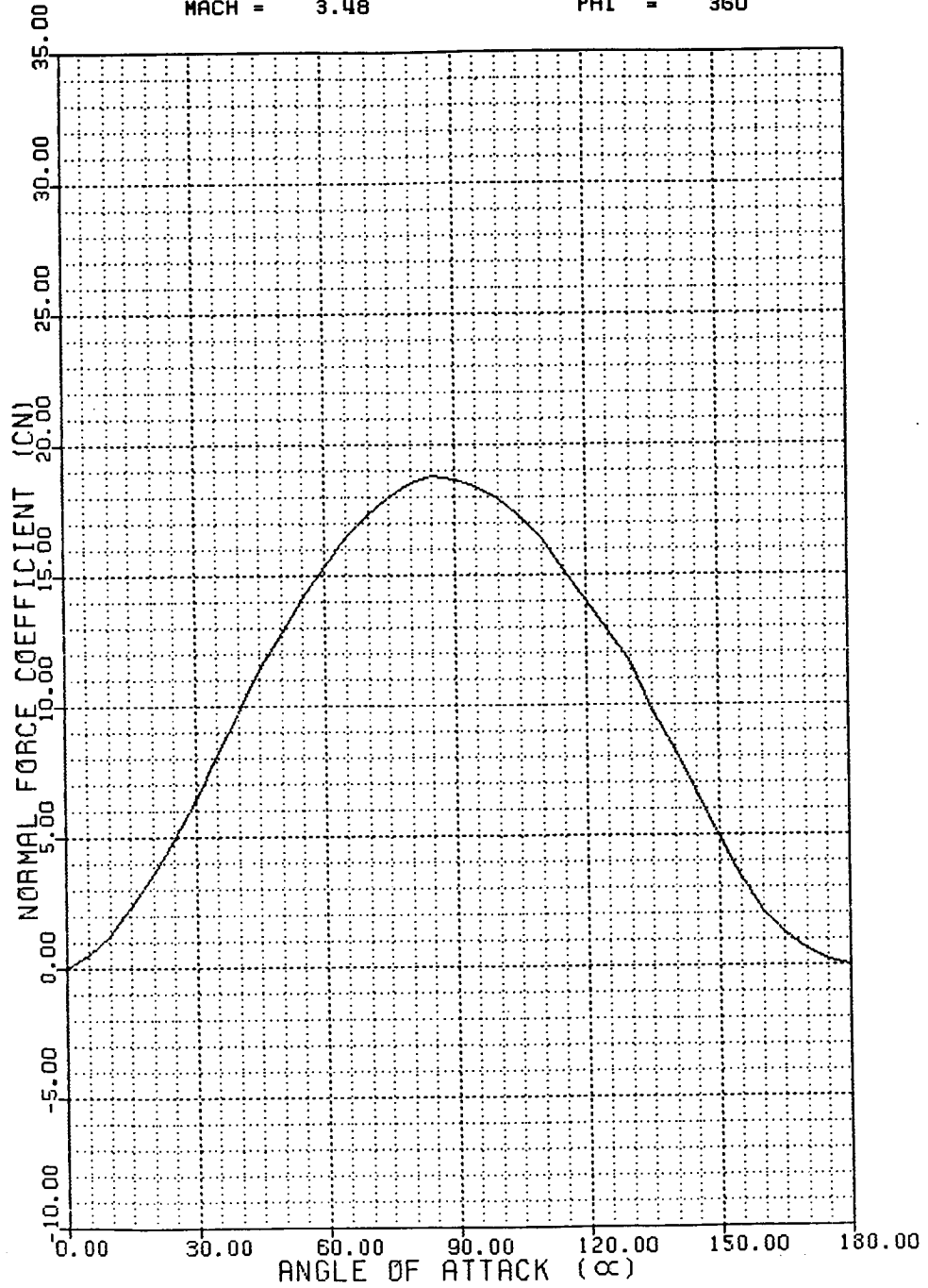
B-143

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-144

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

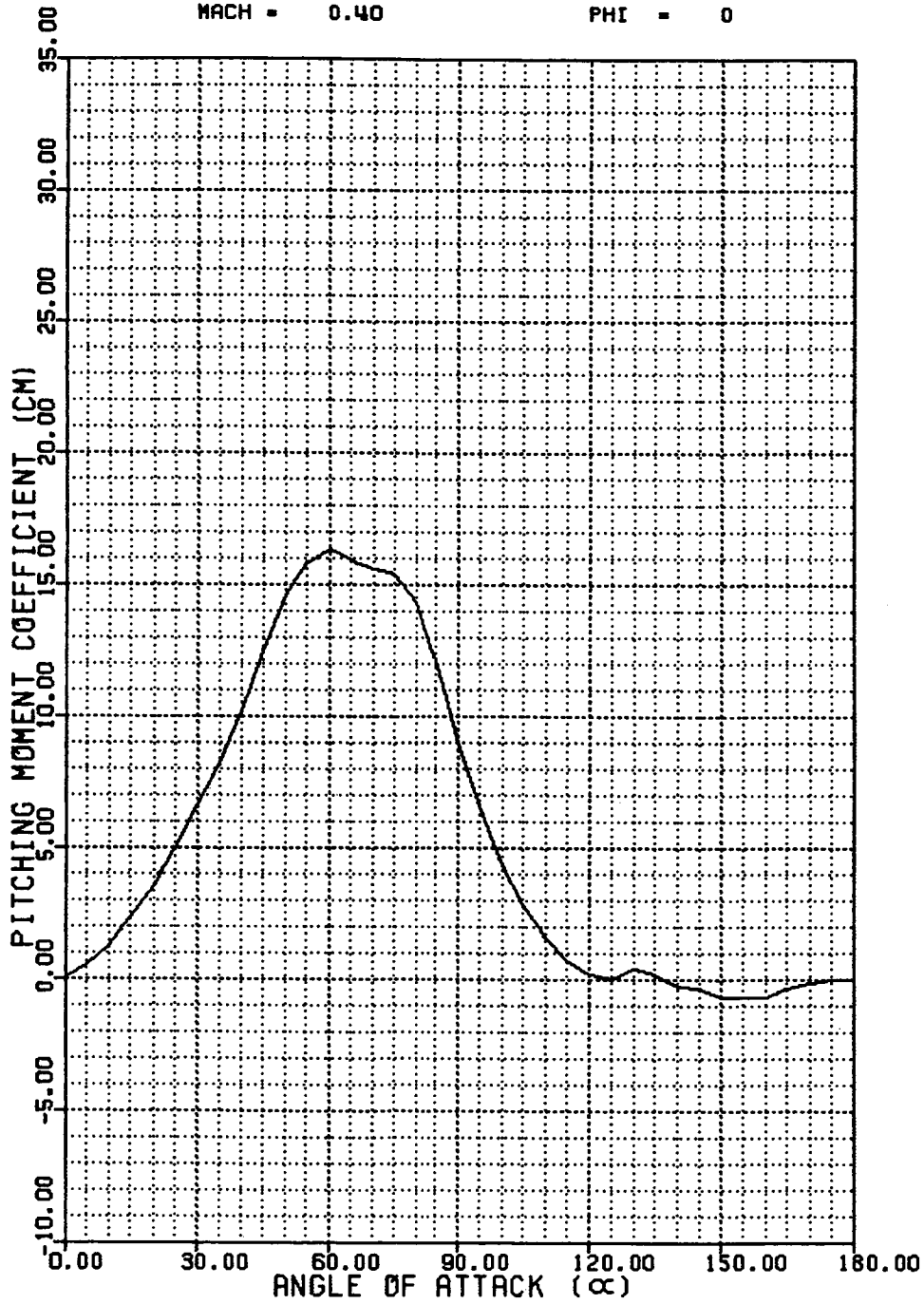
**PITCHING MOMENT (CM)**

<u>Mach Number</u>	<u>Page</u>
0.4	B-145
0.5	B-154
0.55	B-163
0.6	B-163
0.7	B-181
0.8	B-190
0.9	B-199
0.95	B-208
1.05	B-217
1.1	B-226
1.2	B-235
1.4	B-244
1.96	B-253
2.5	B-262
3.0	B-271
3.48	B-280

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 0



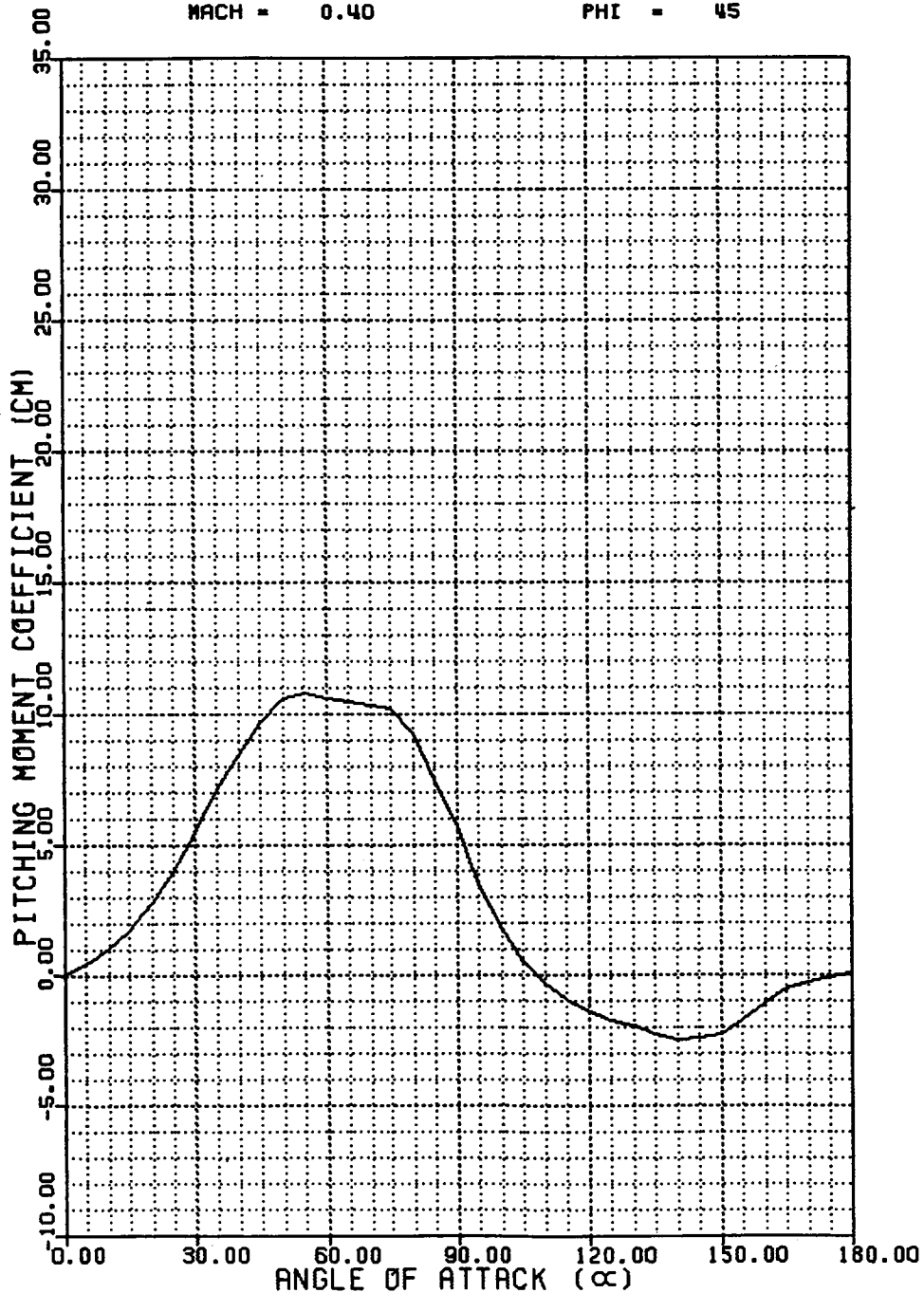
B-145



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 45

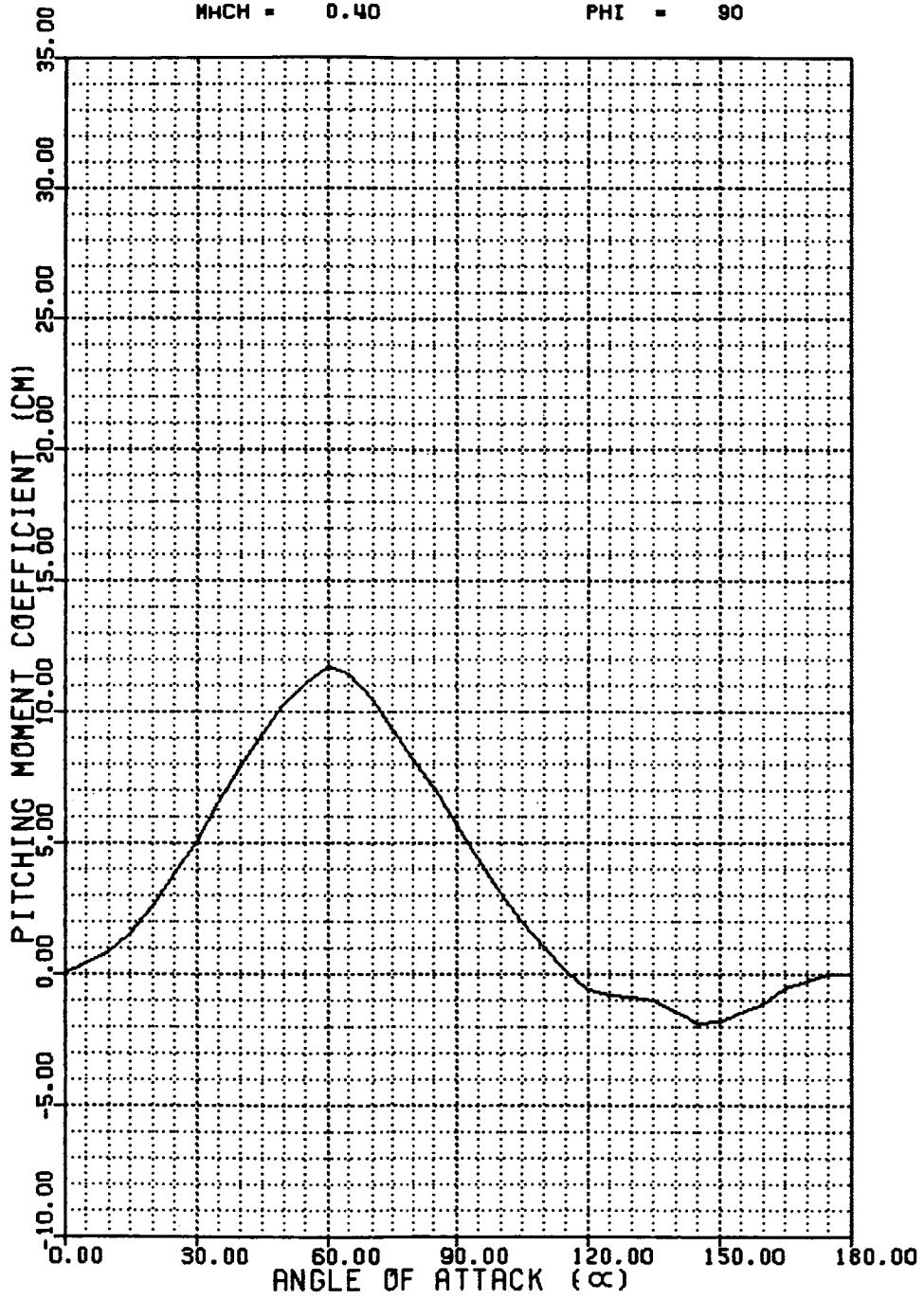


B-146

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 90

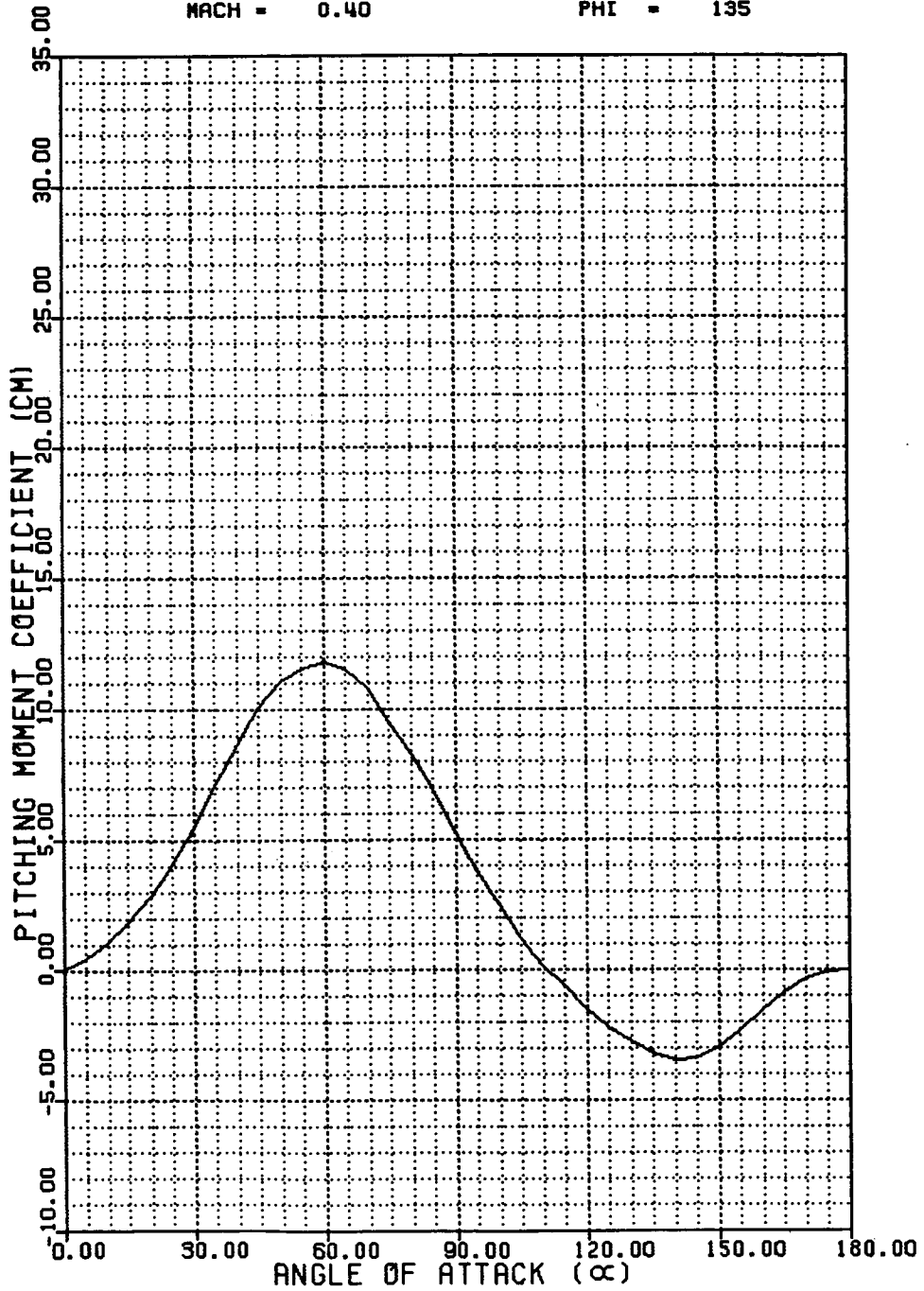


B-147

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 135



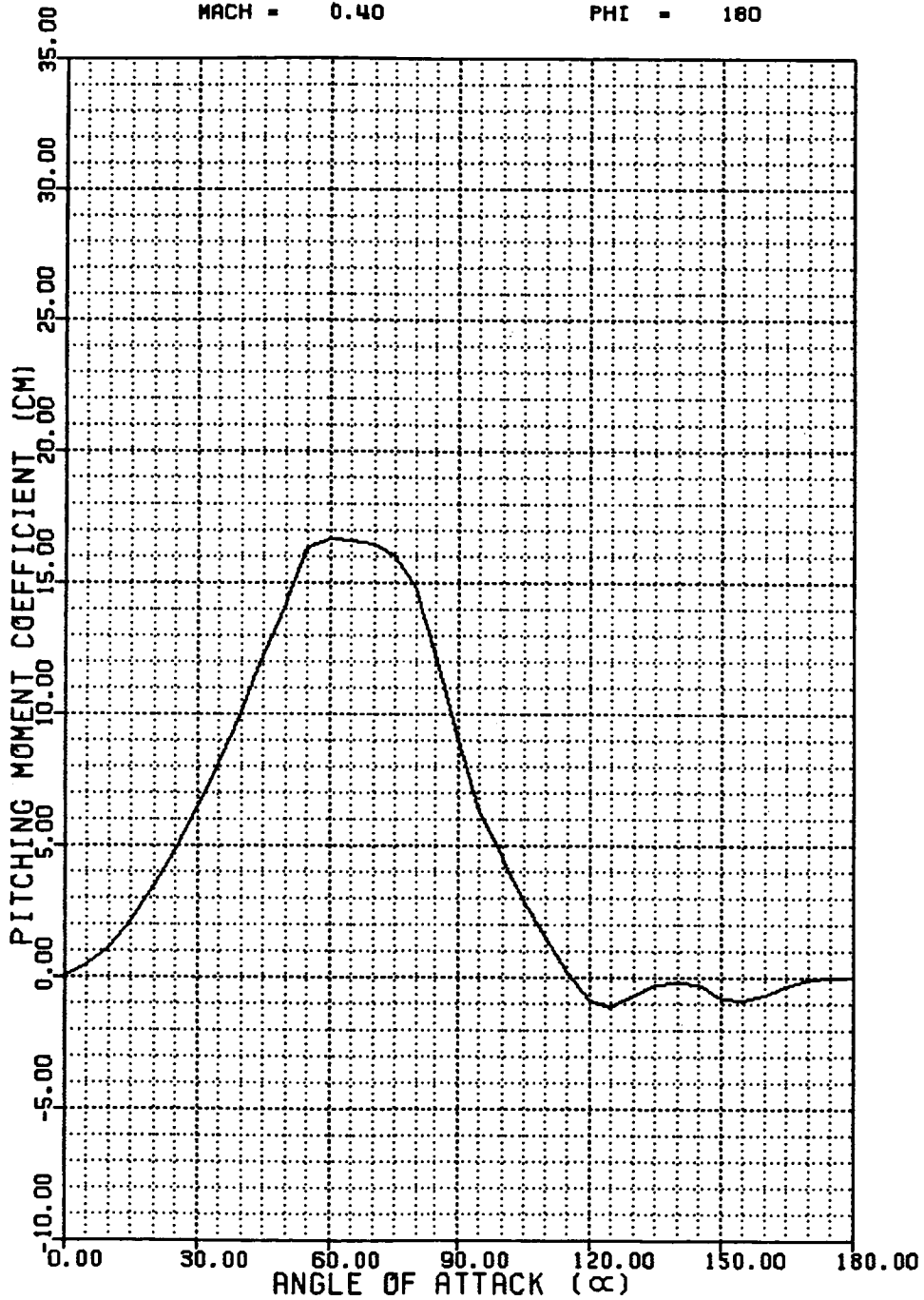
B-148

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

### SRB TAPE 8 DATA

MACH = 0.40

PHI = 180

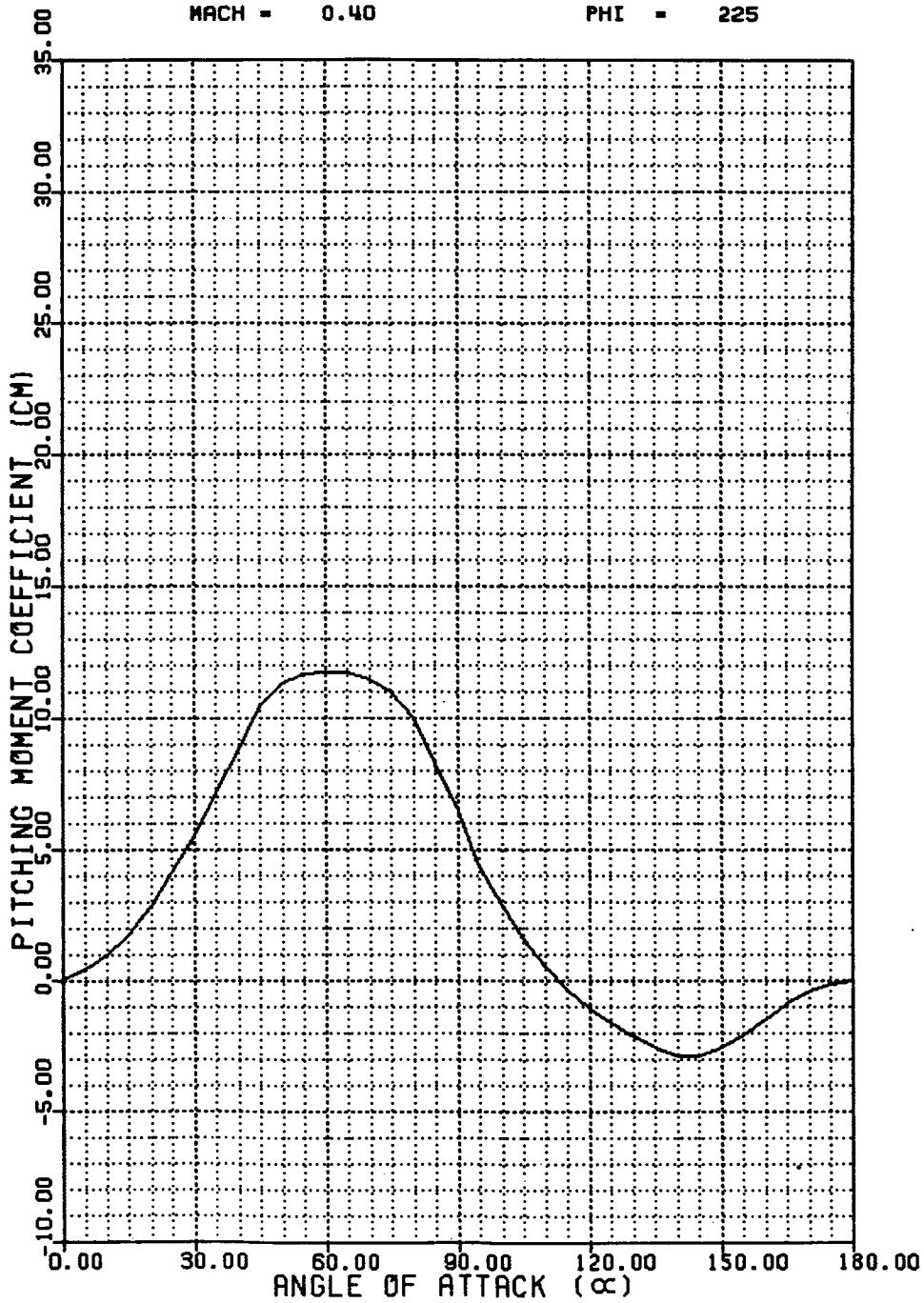


B-149

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 225



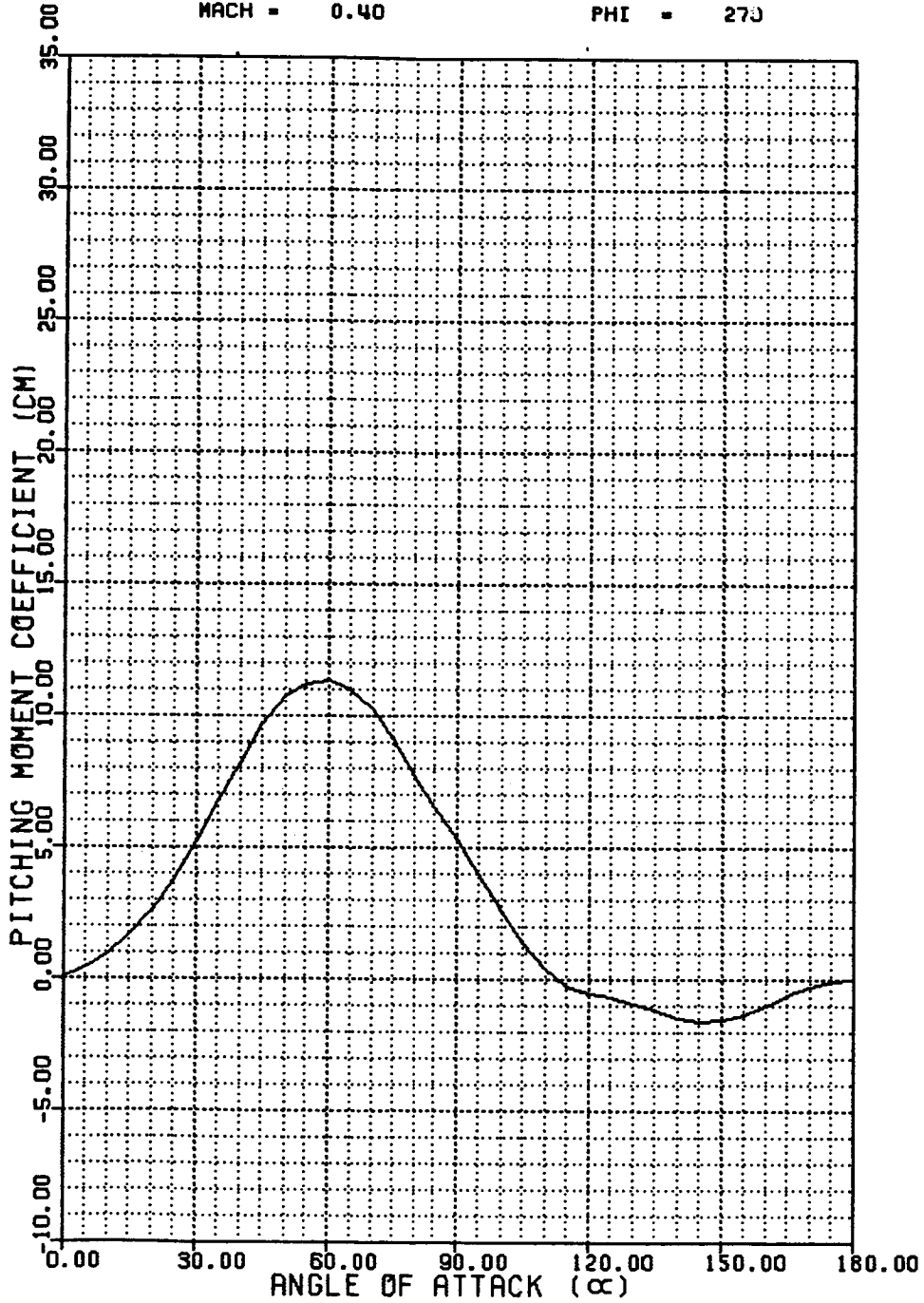
B-150

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 270

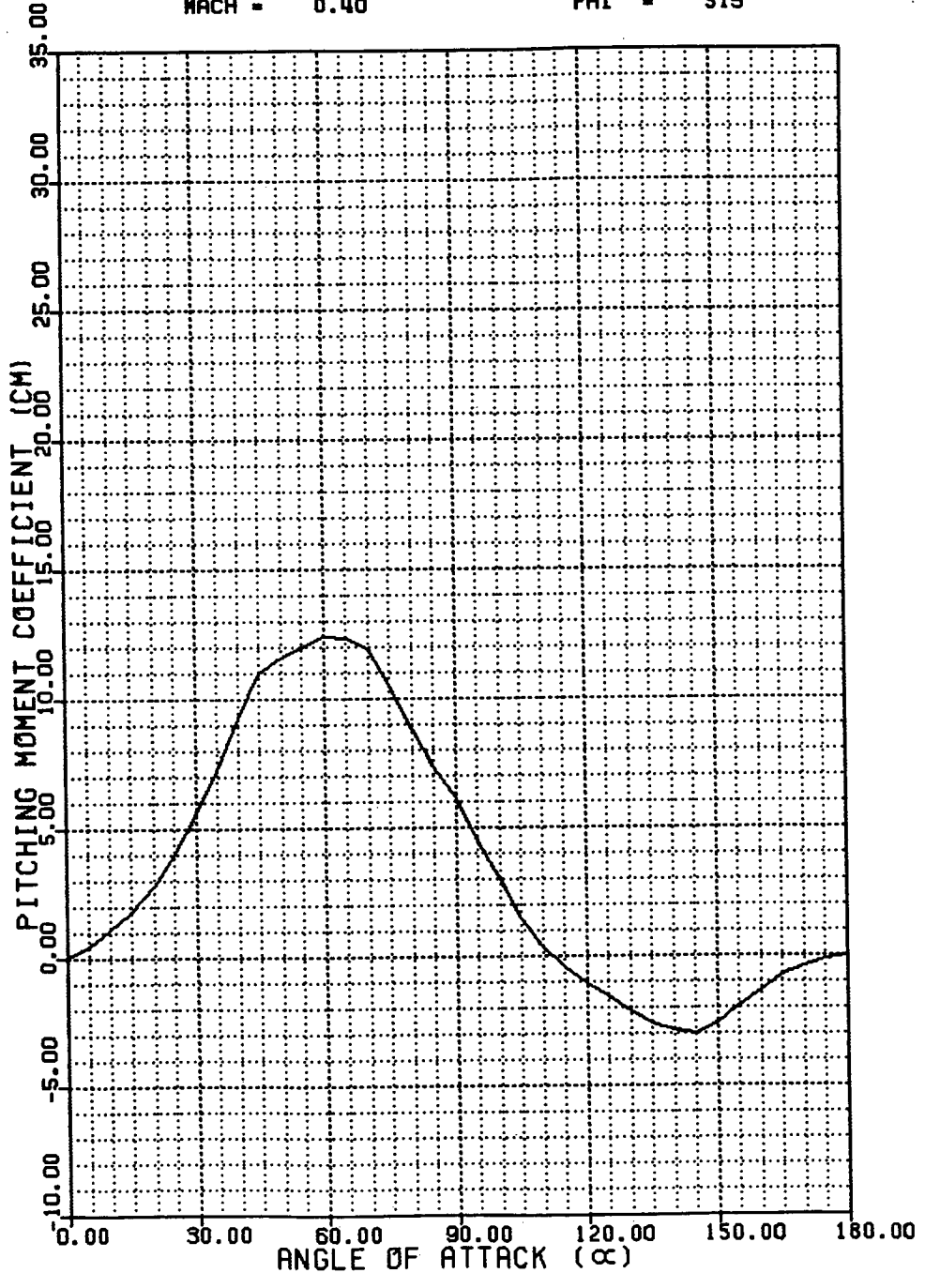


B-151

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 315

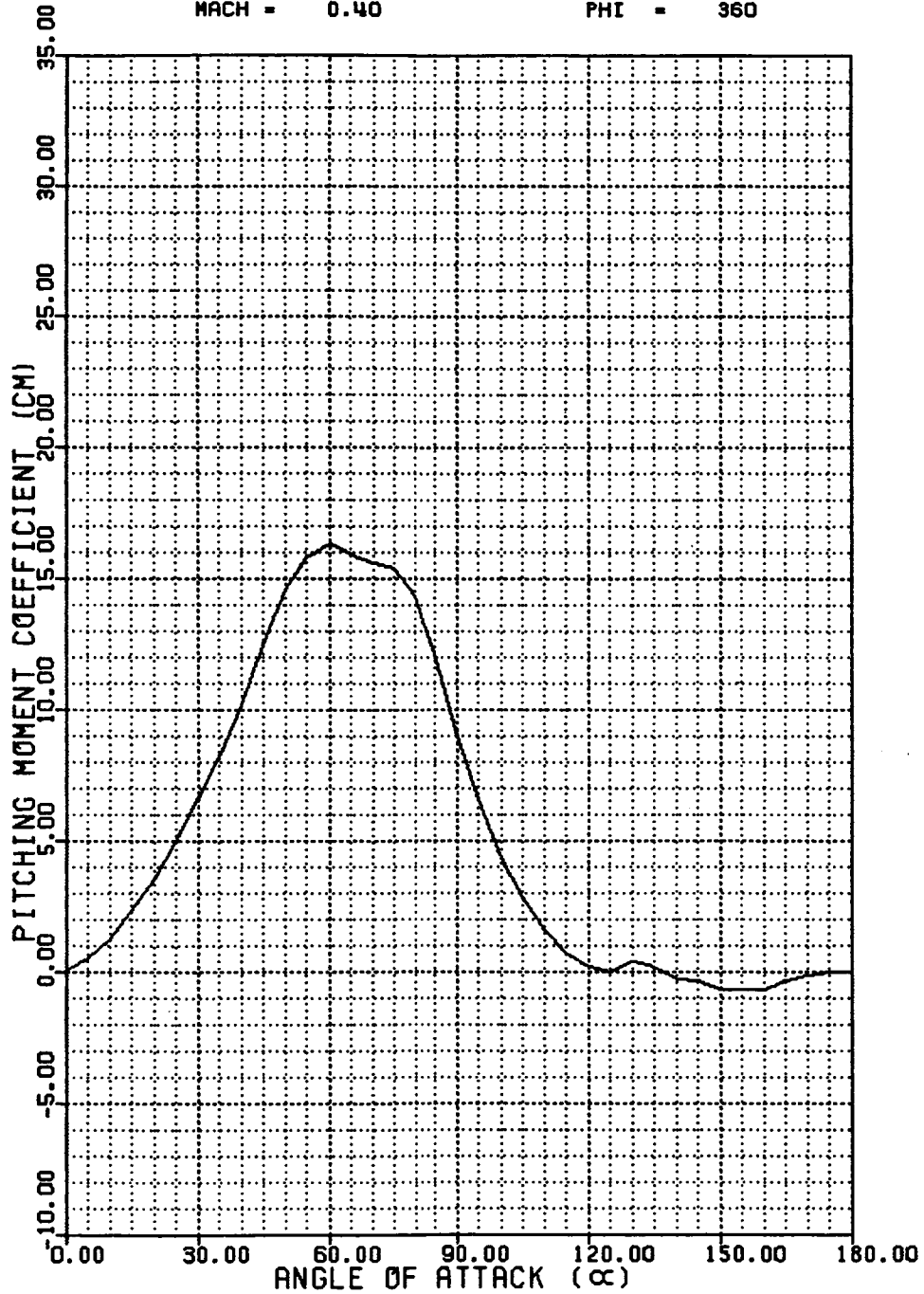


B-152

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 360

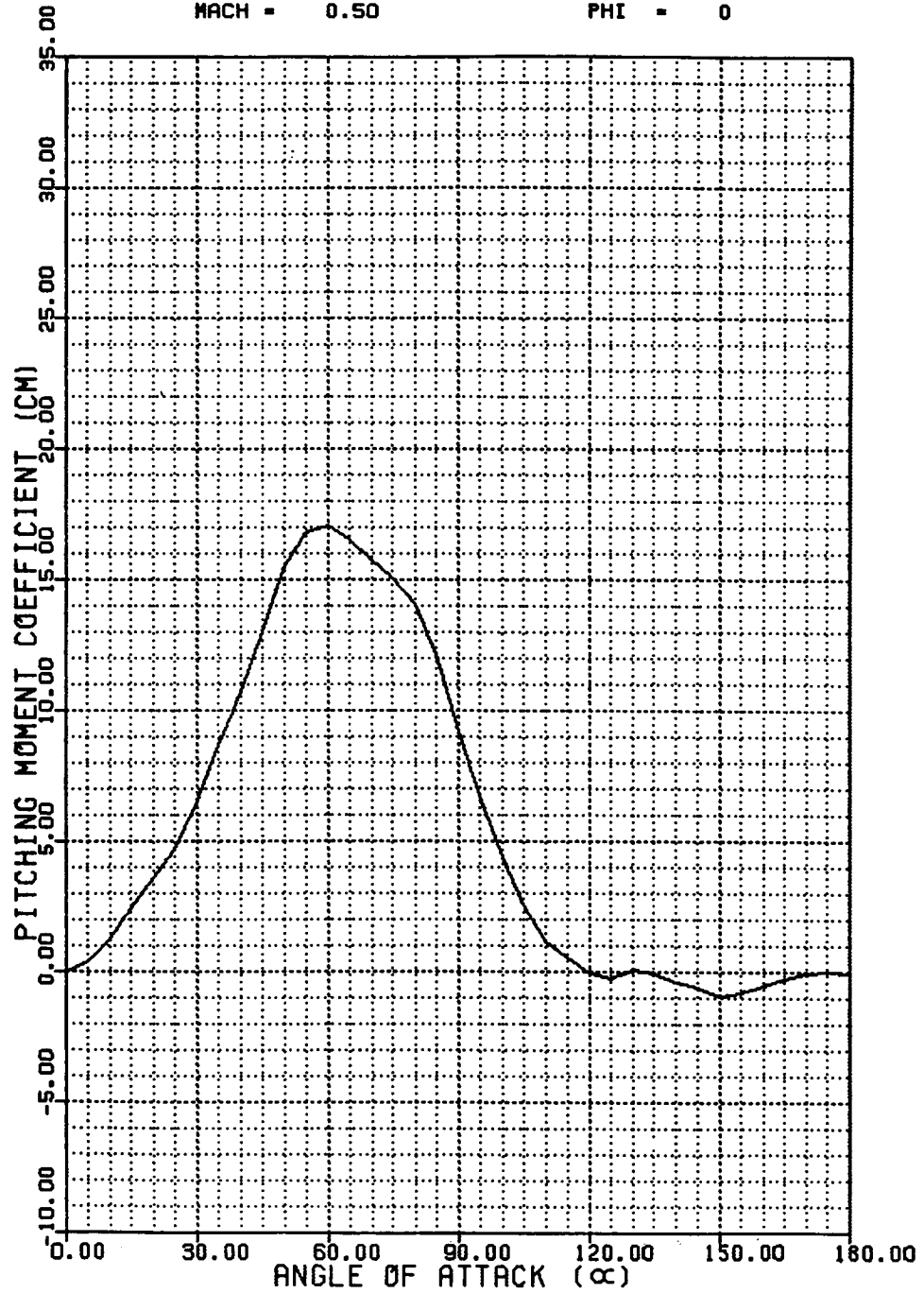




# SRB TAPE 8 DATA

MACH = 0.50

PHI = 0



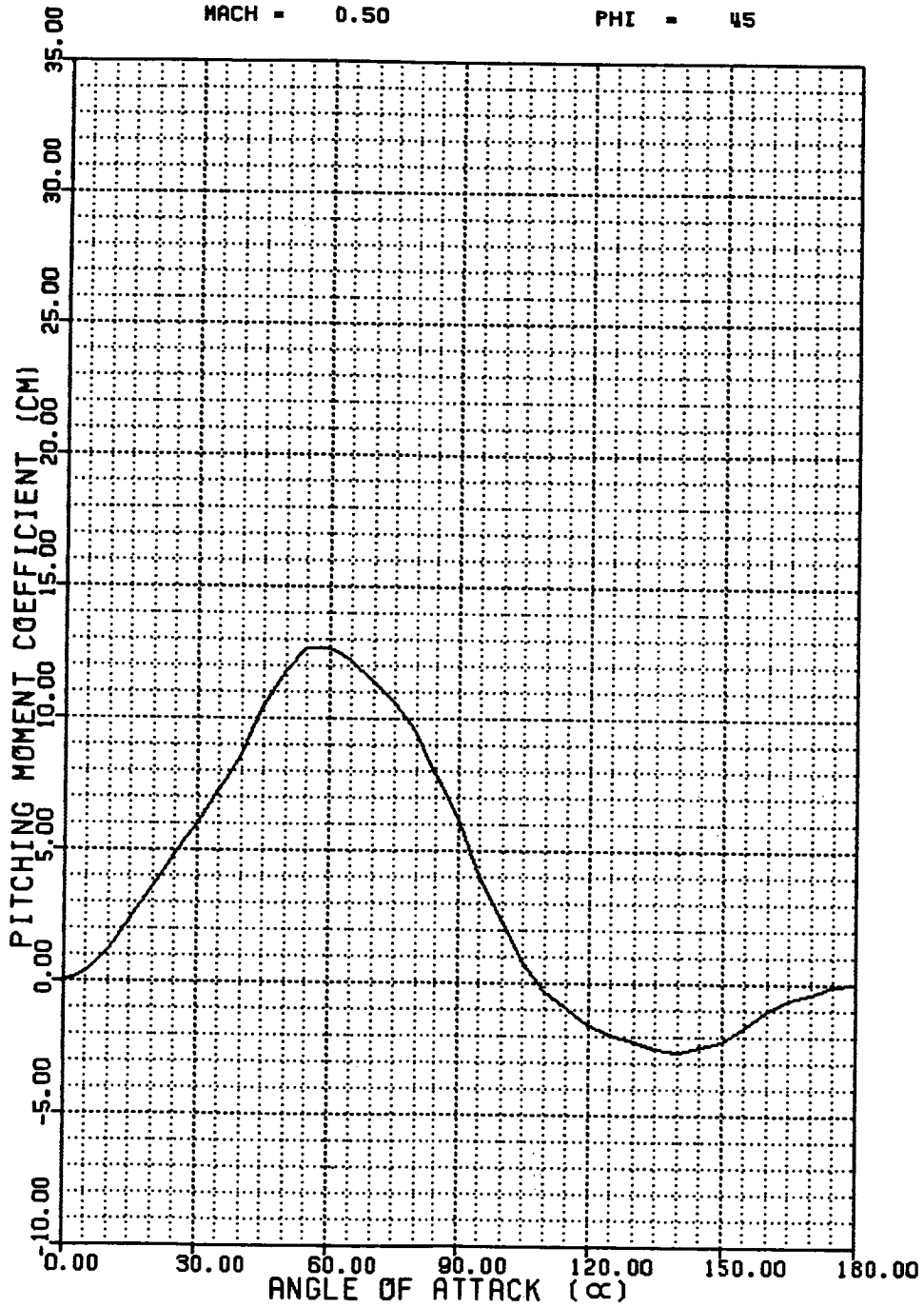
B-154

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 45



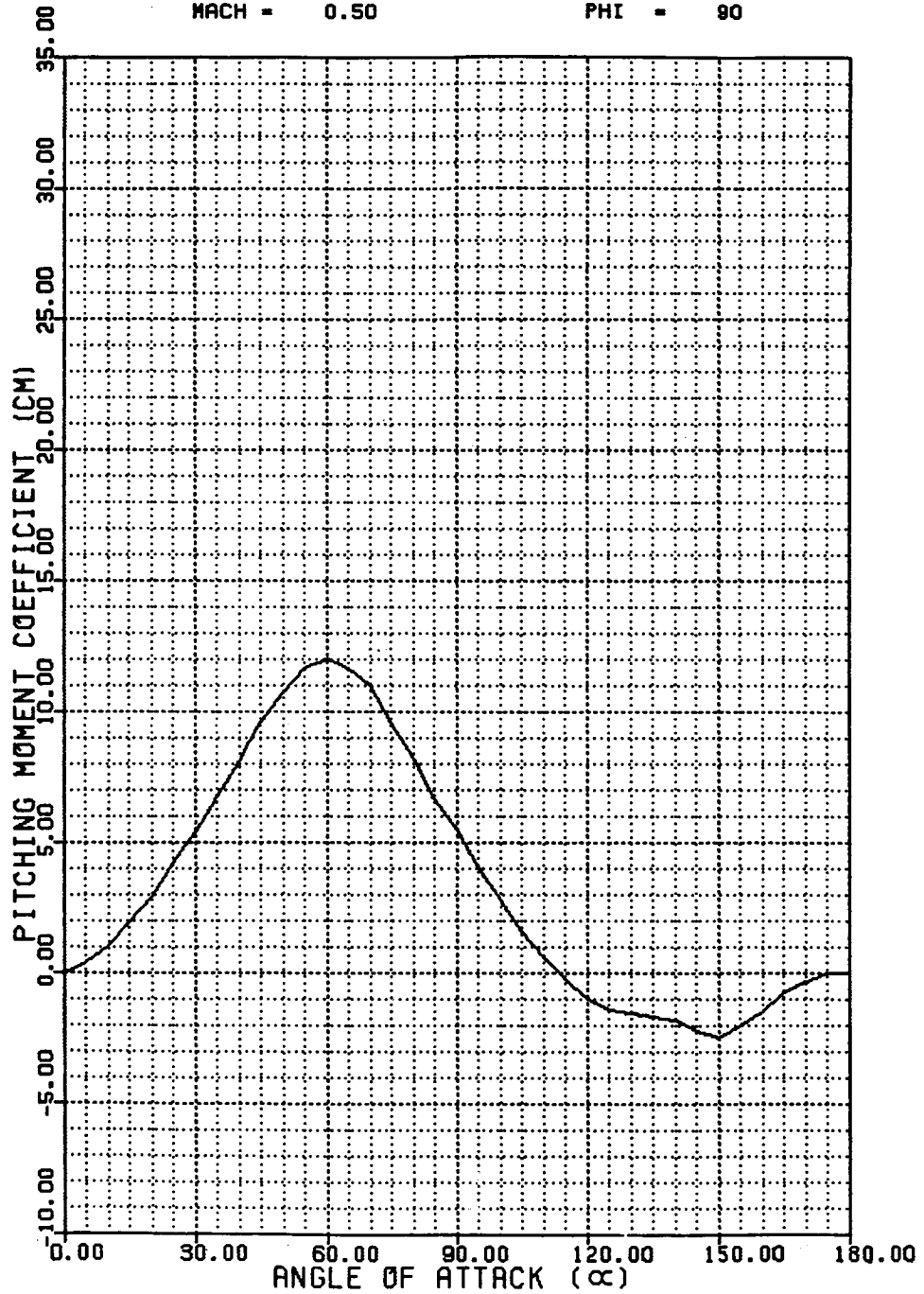
B-155

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 90



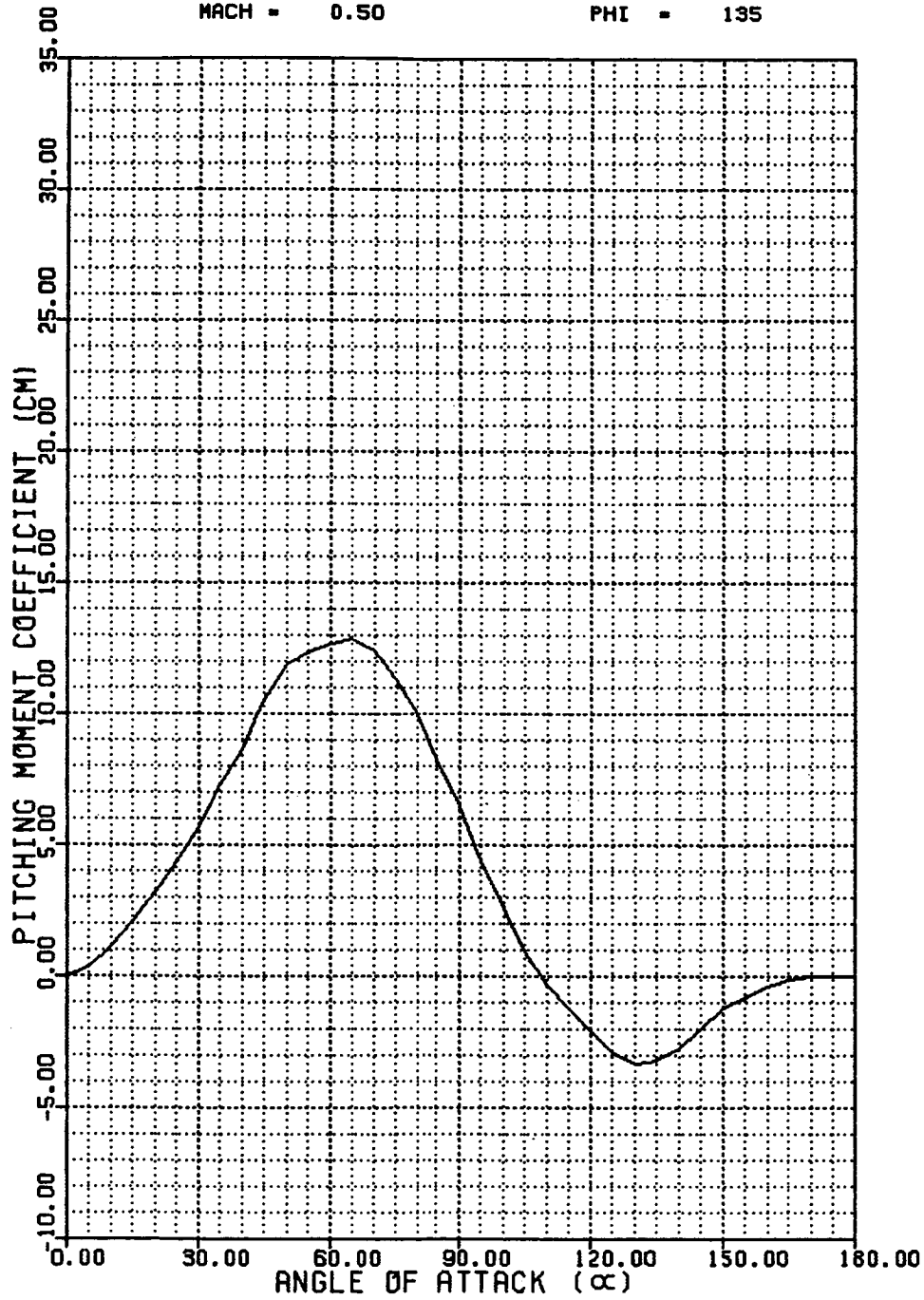
B-156

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

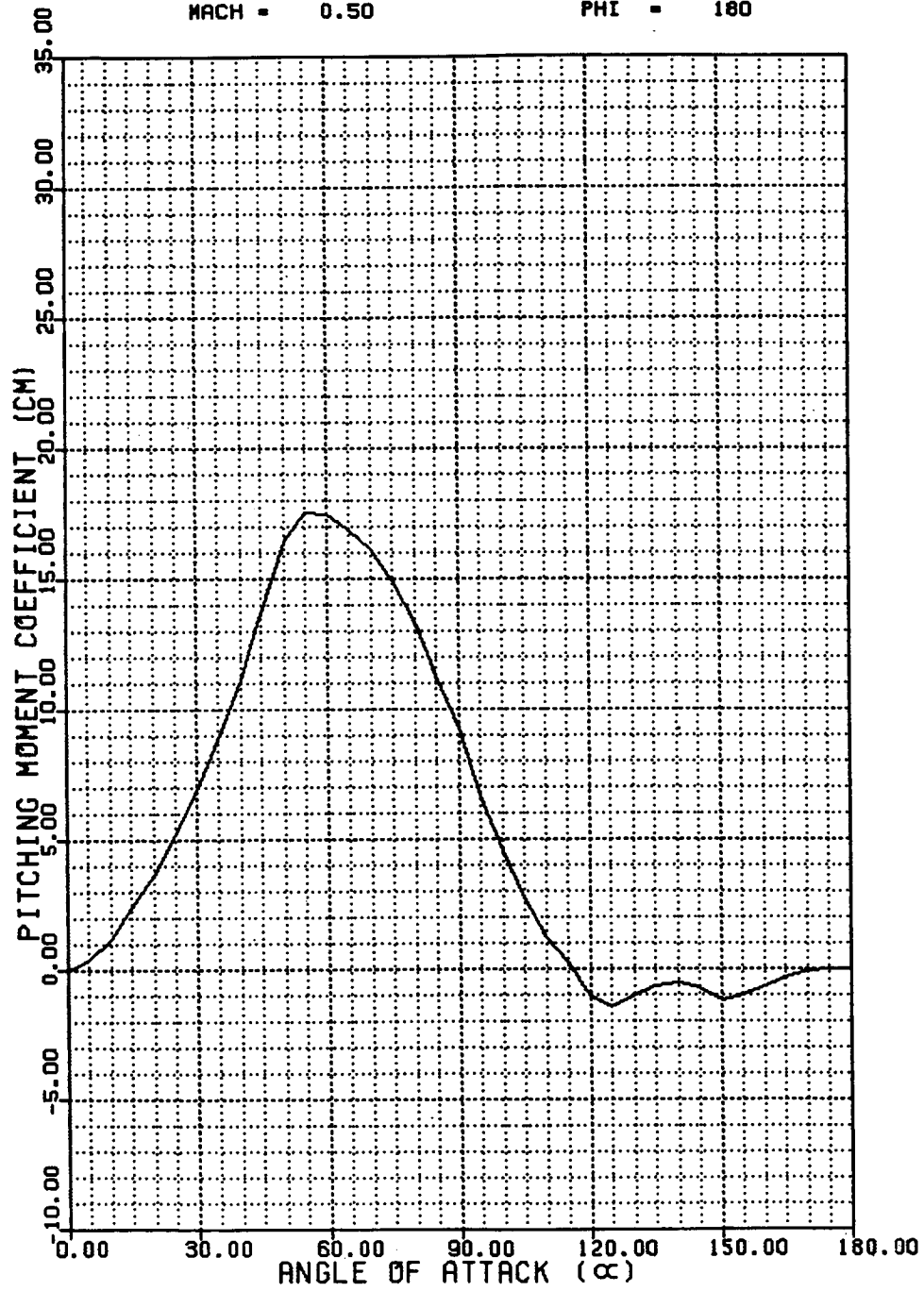
PHI = 135



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 180



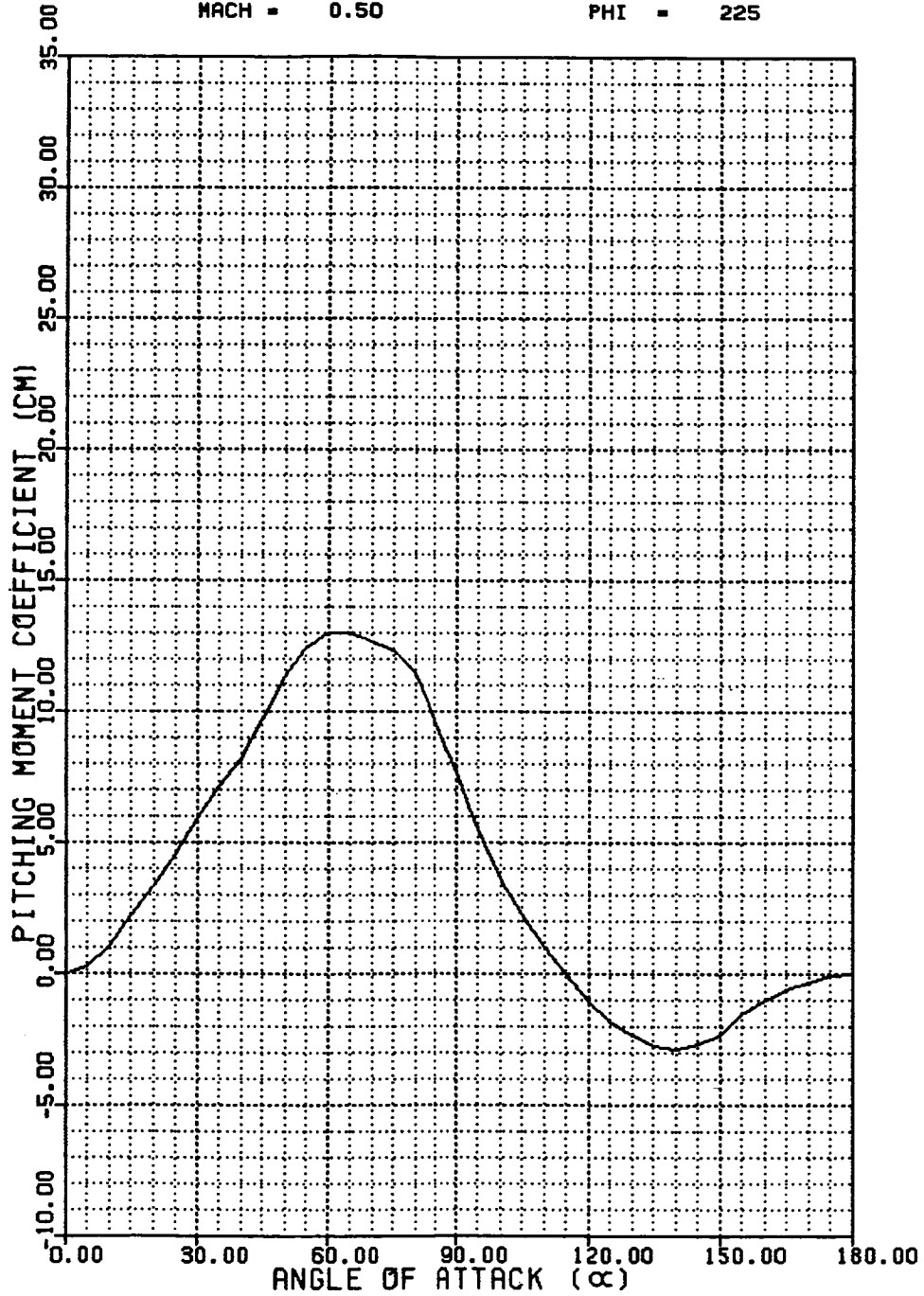
B-158

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 225



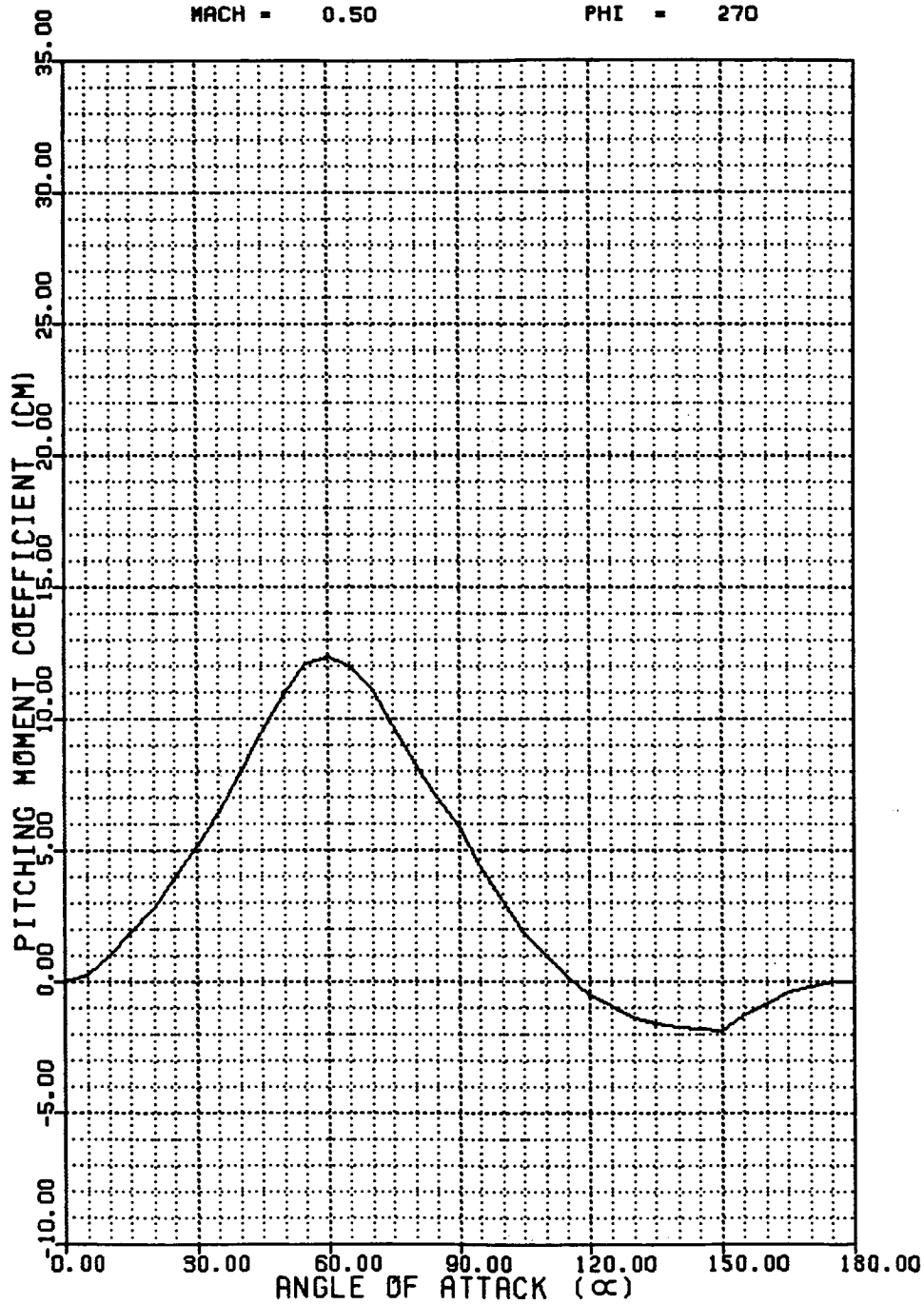
B-159

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 270



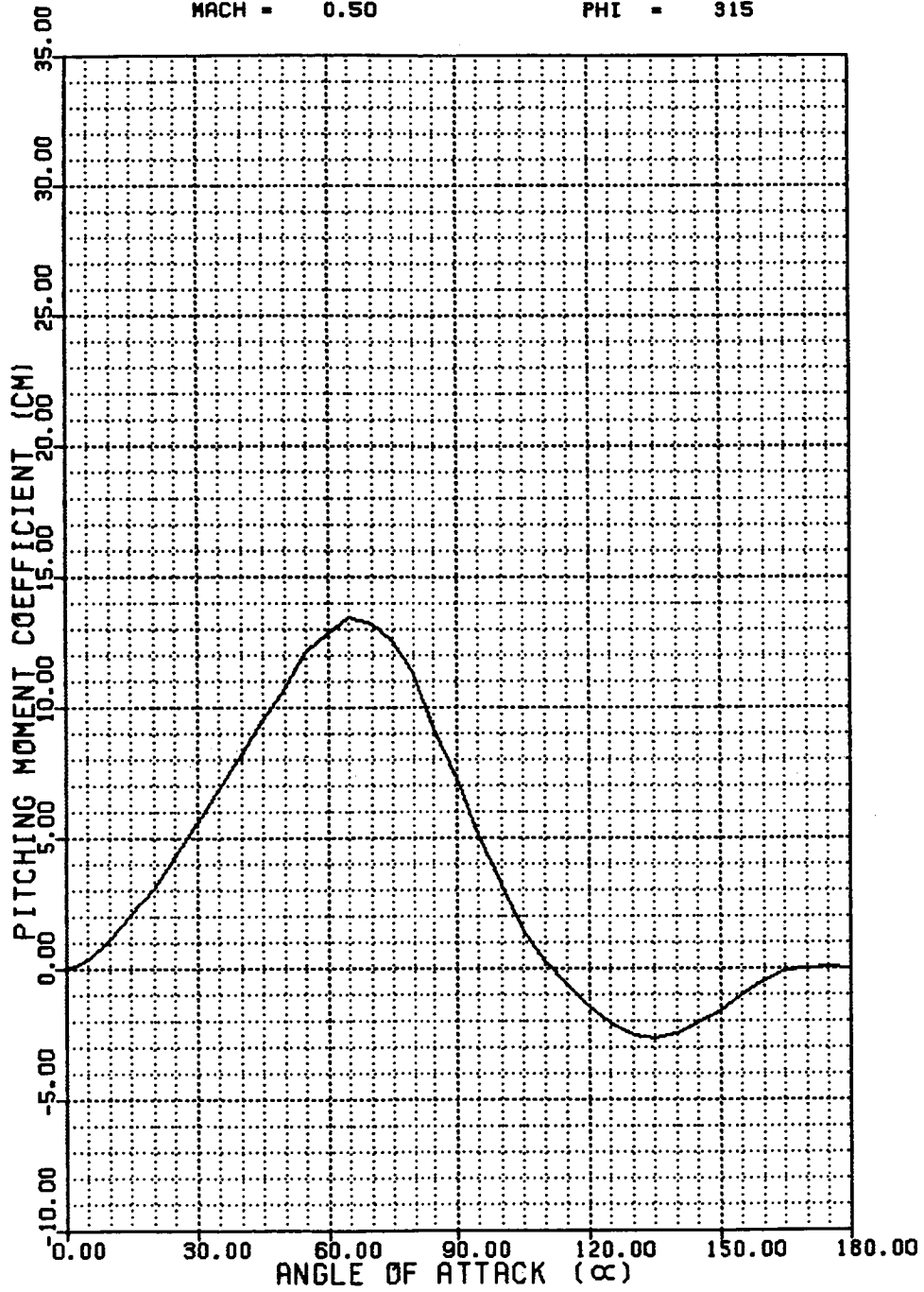
B-160

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 315



B-161

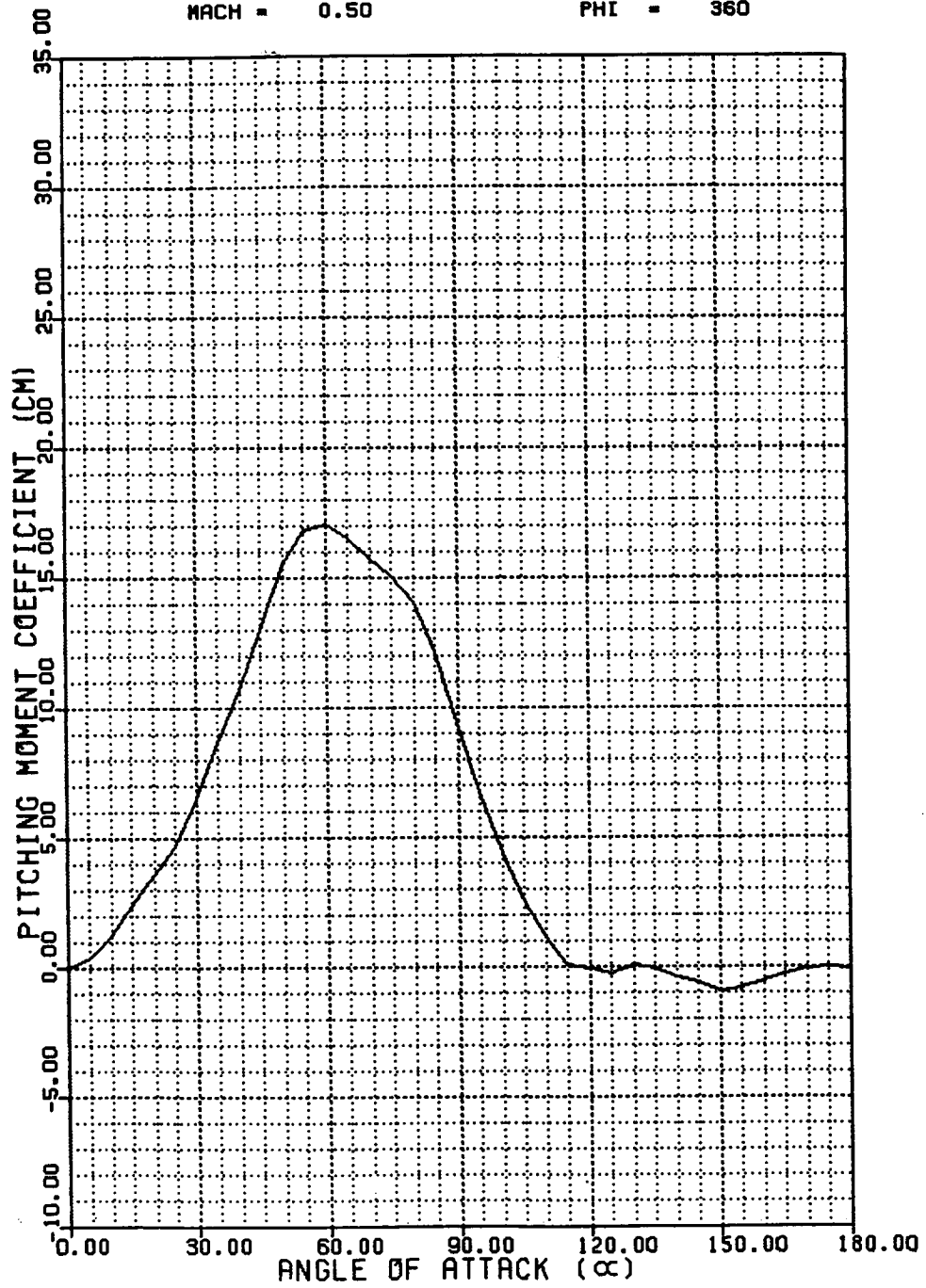
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 360



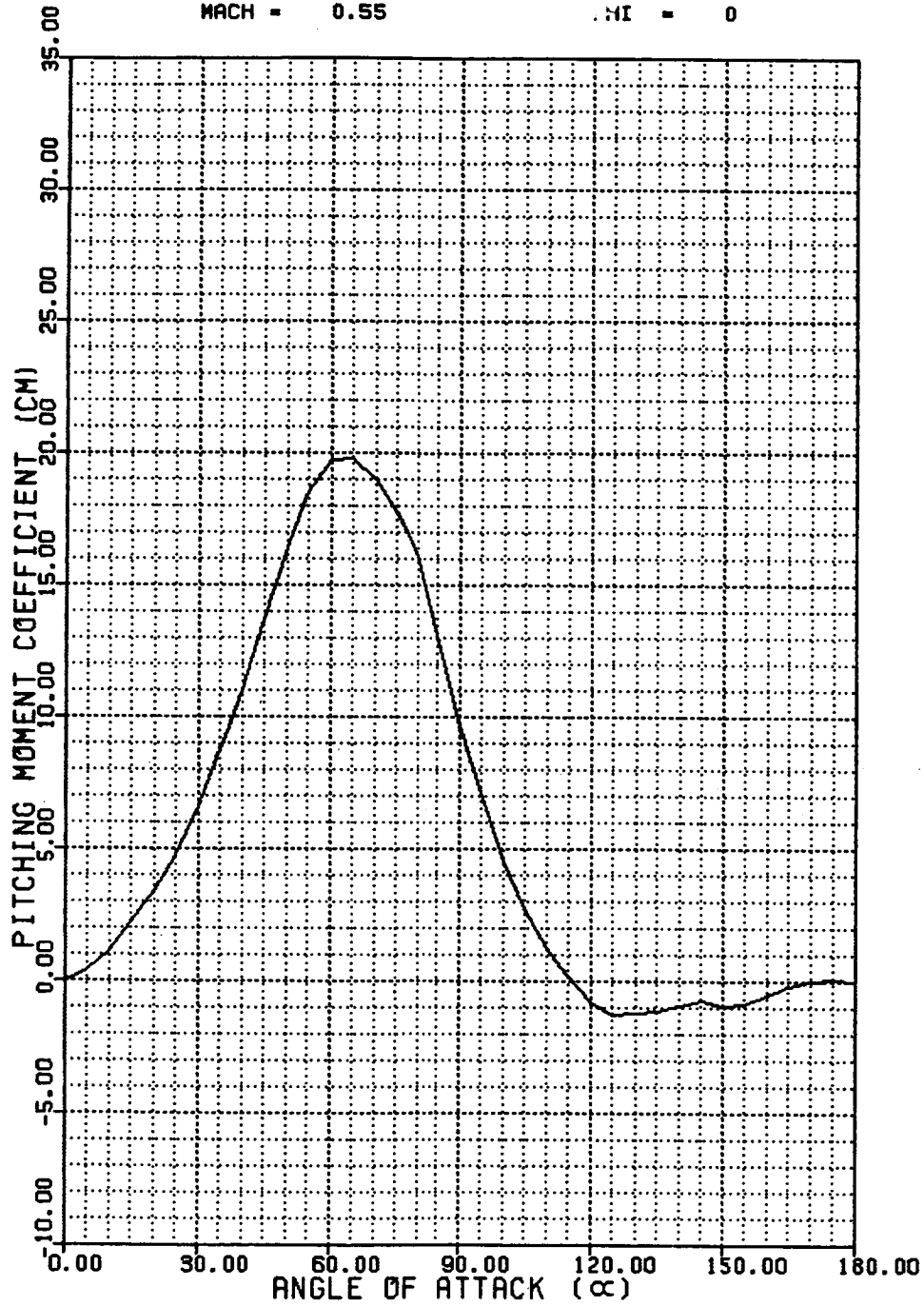
B-162

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

### SRB TAPE 8 DATA

MACH = 0.55

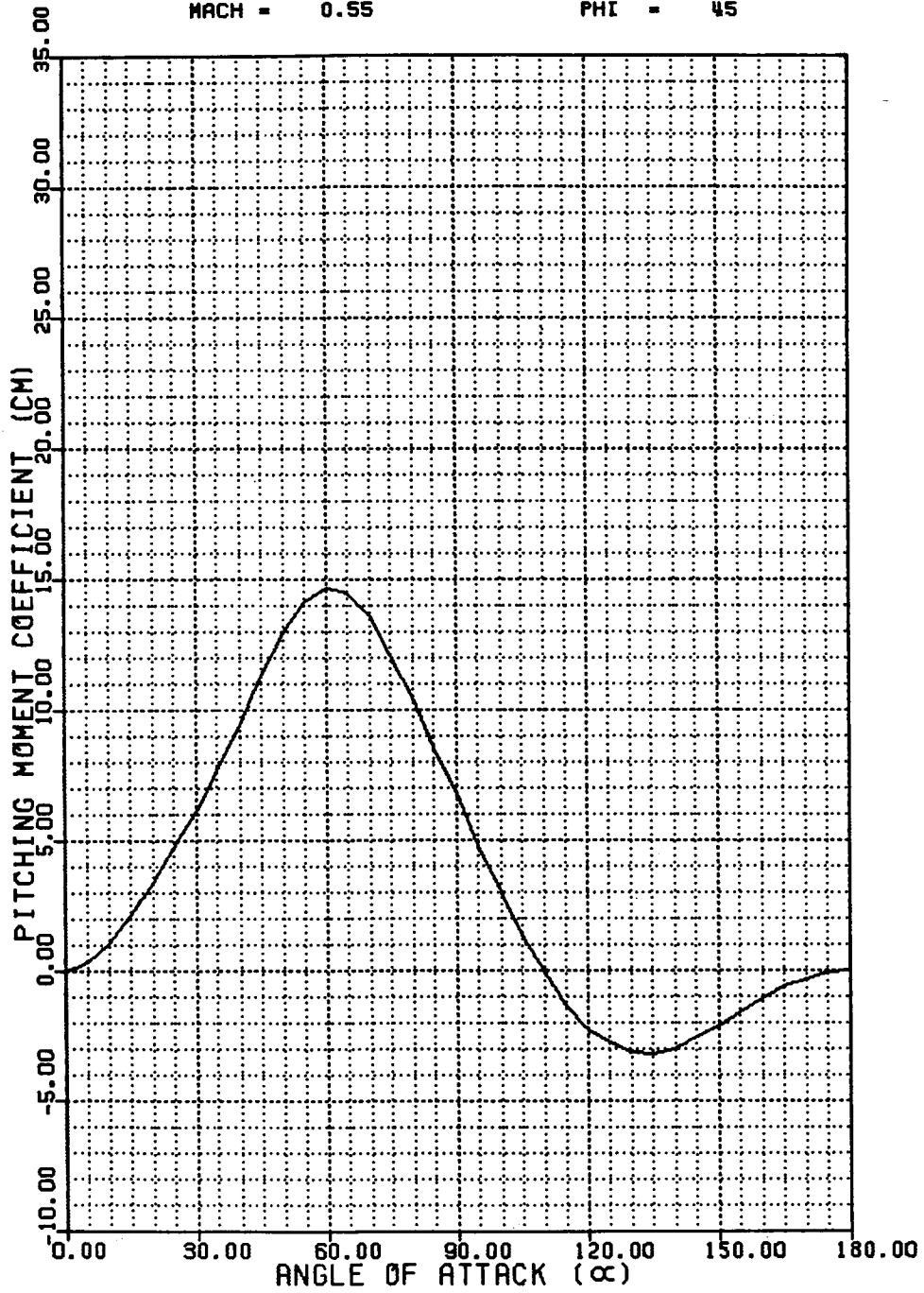
HI = 0



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 45

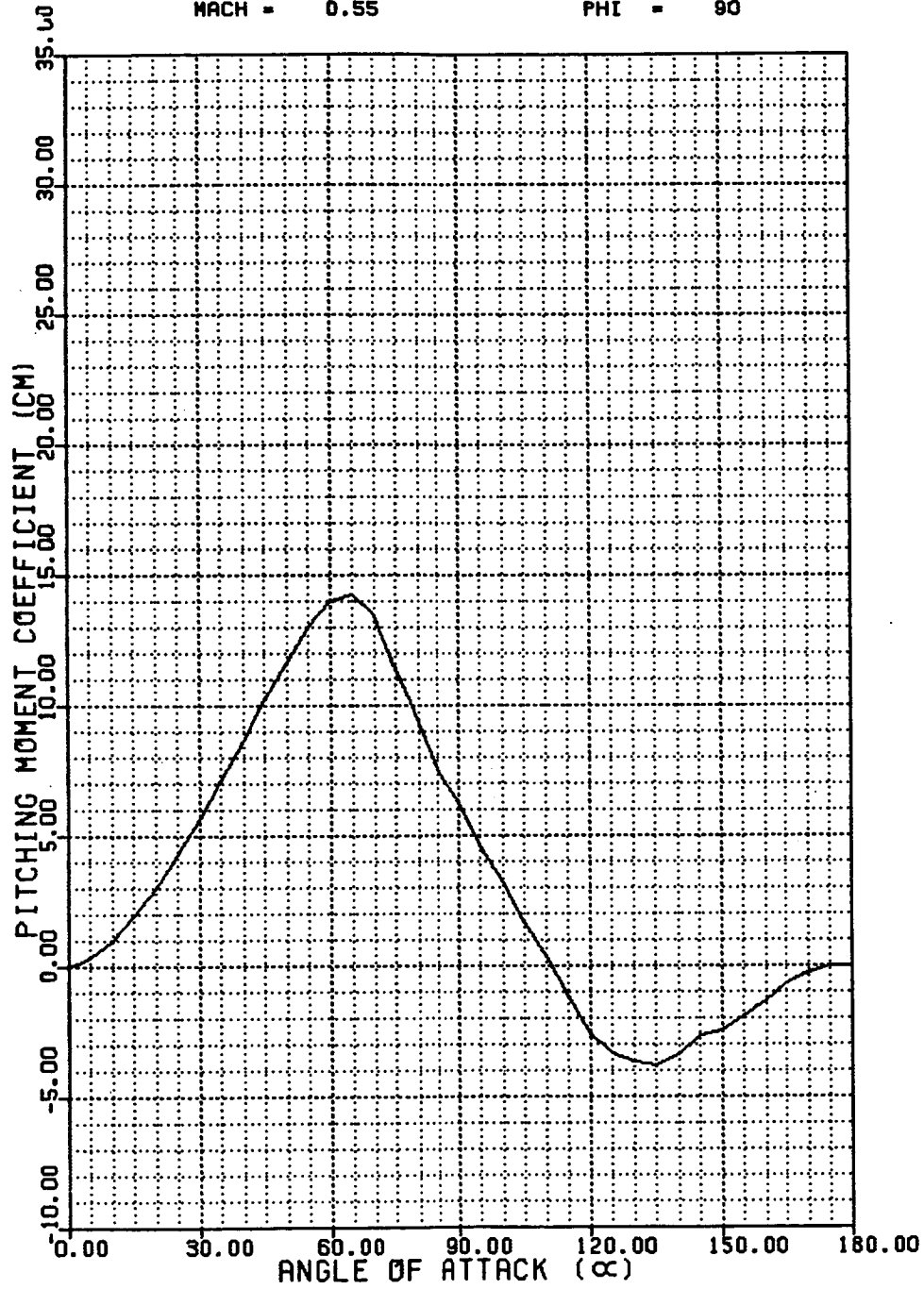


B-184

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 90



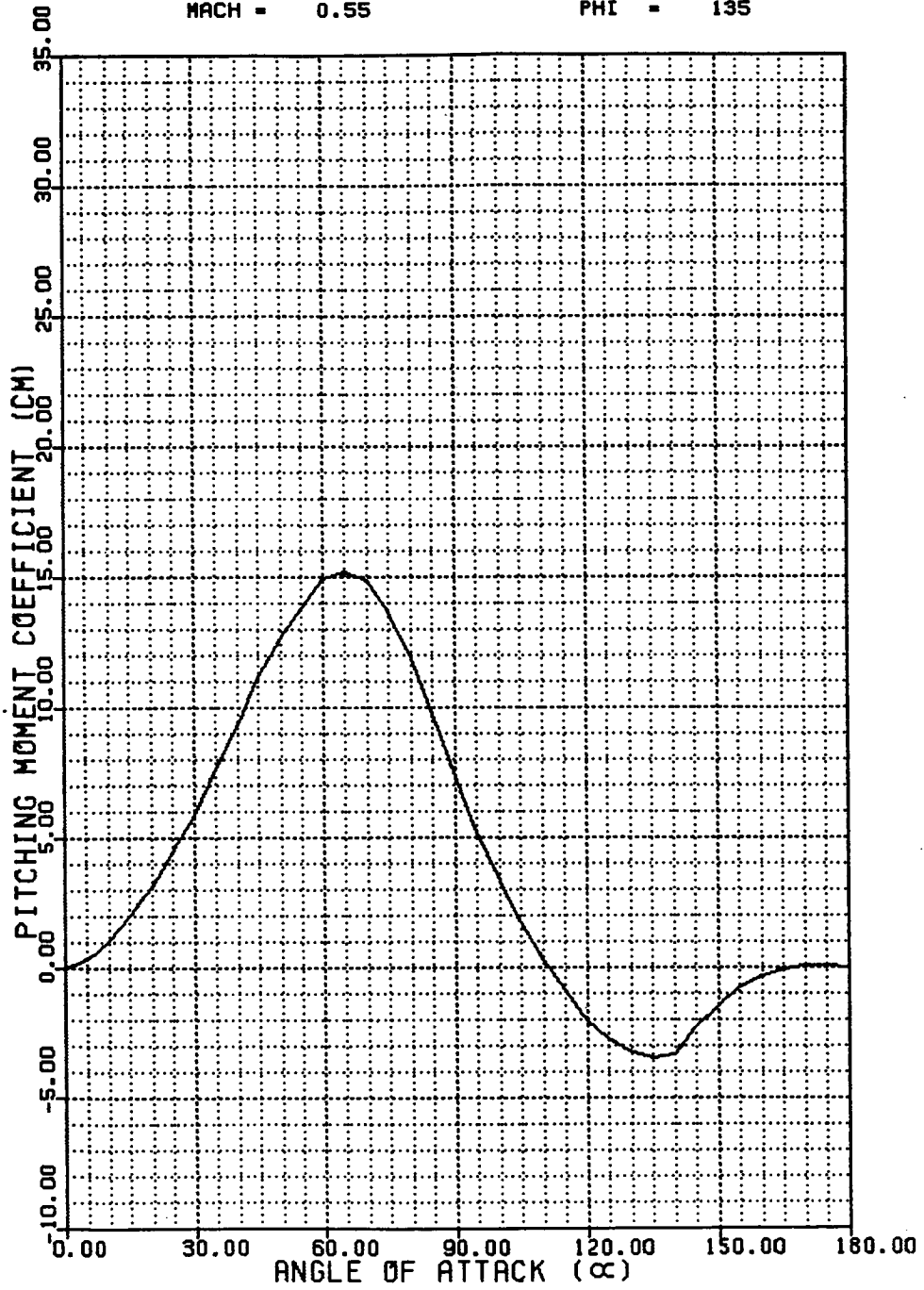
B-185

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 135



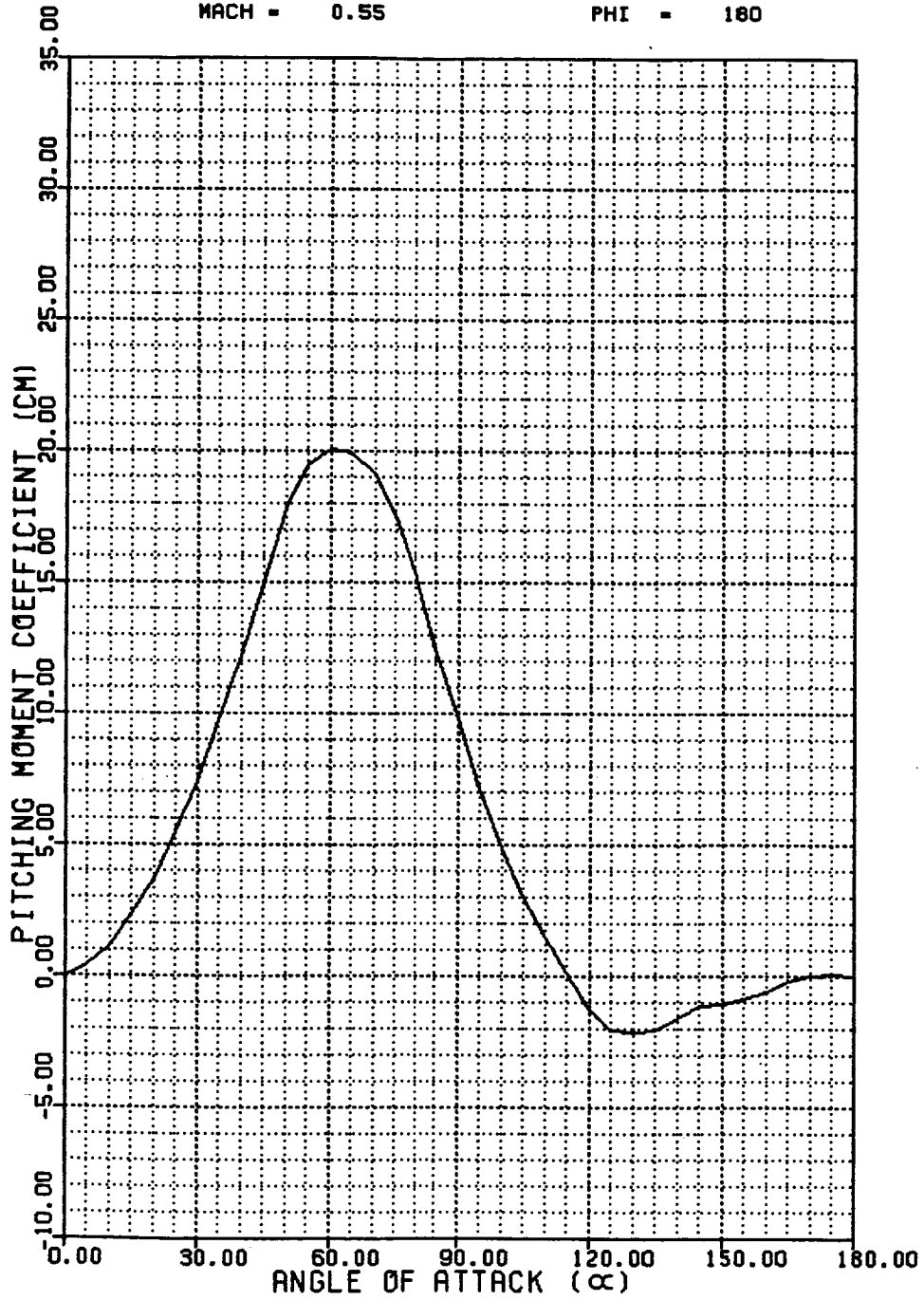
B-166

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 180

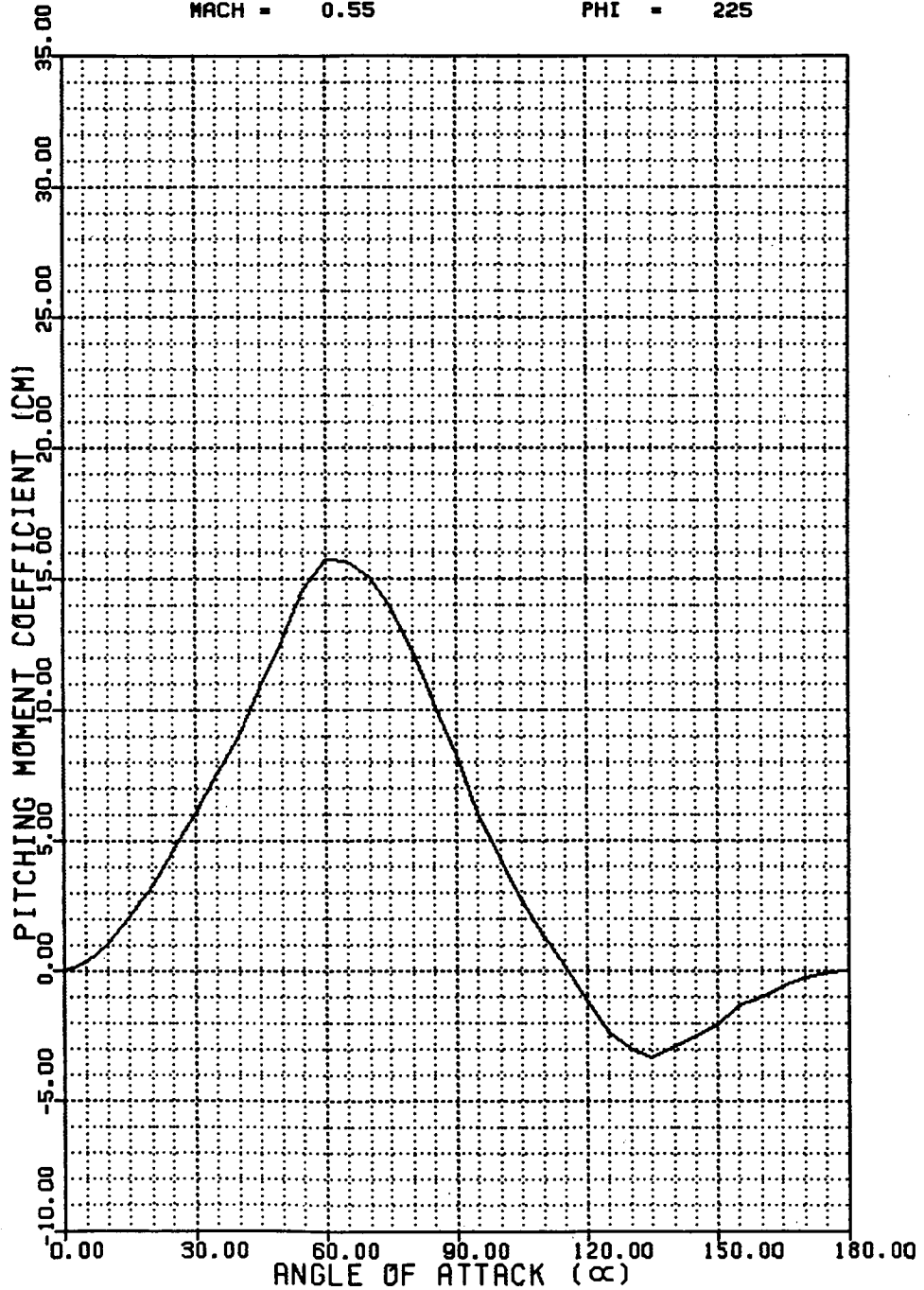


B-167

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 225



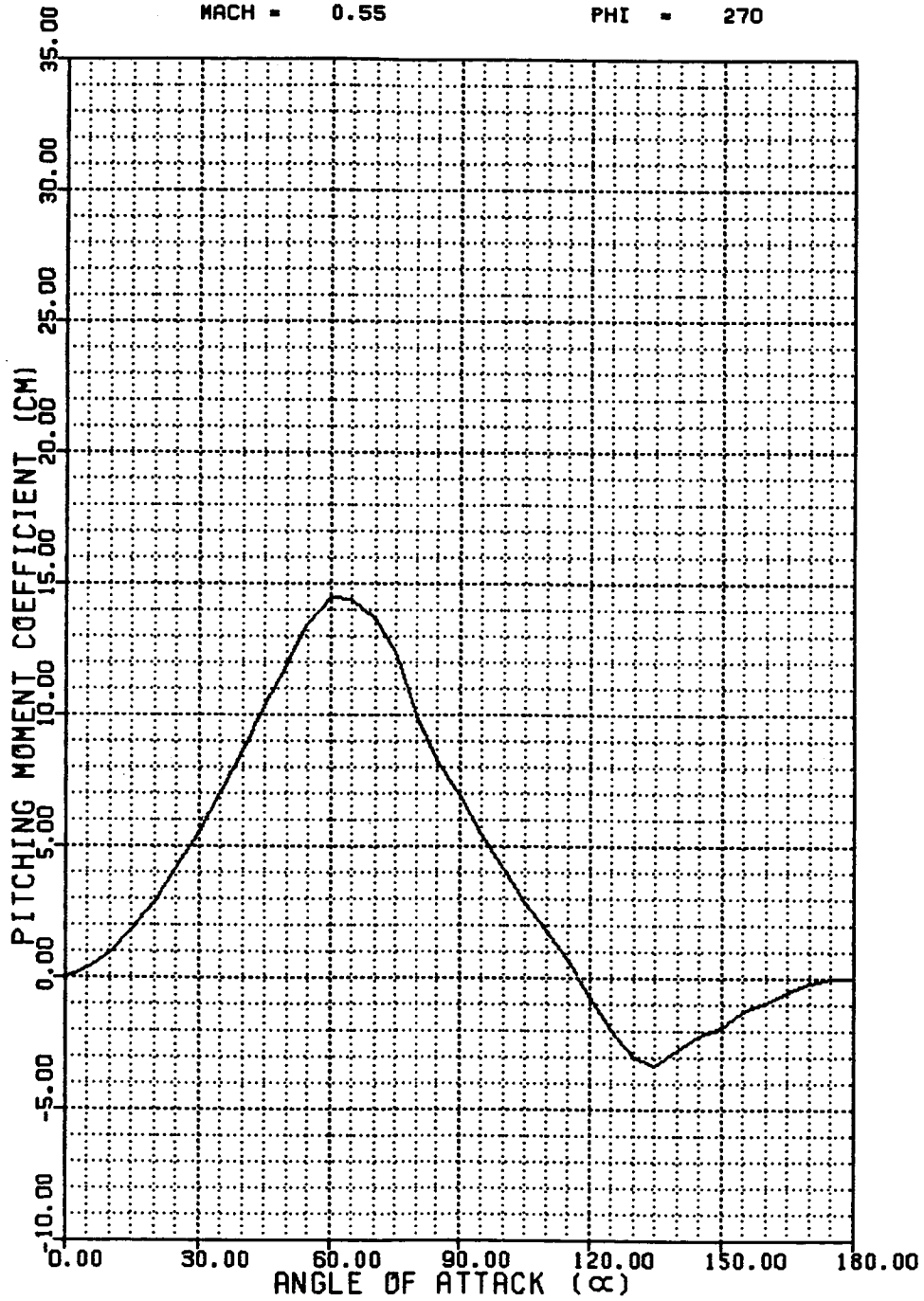
B-168

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 270



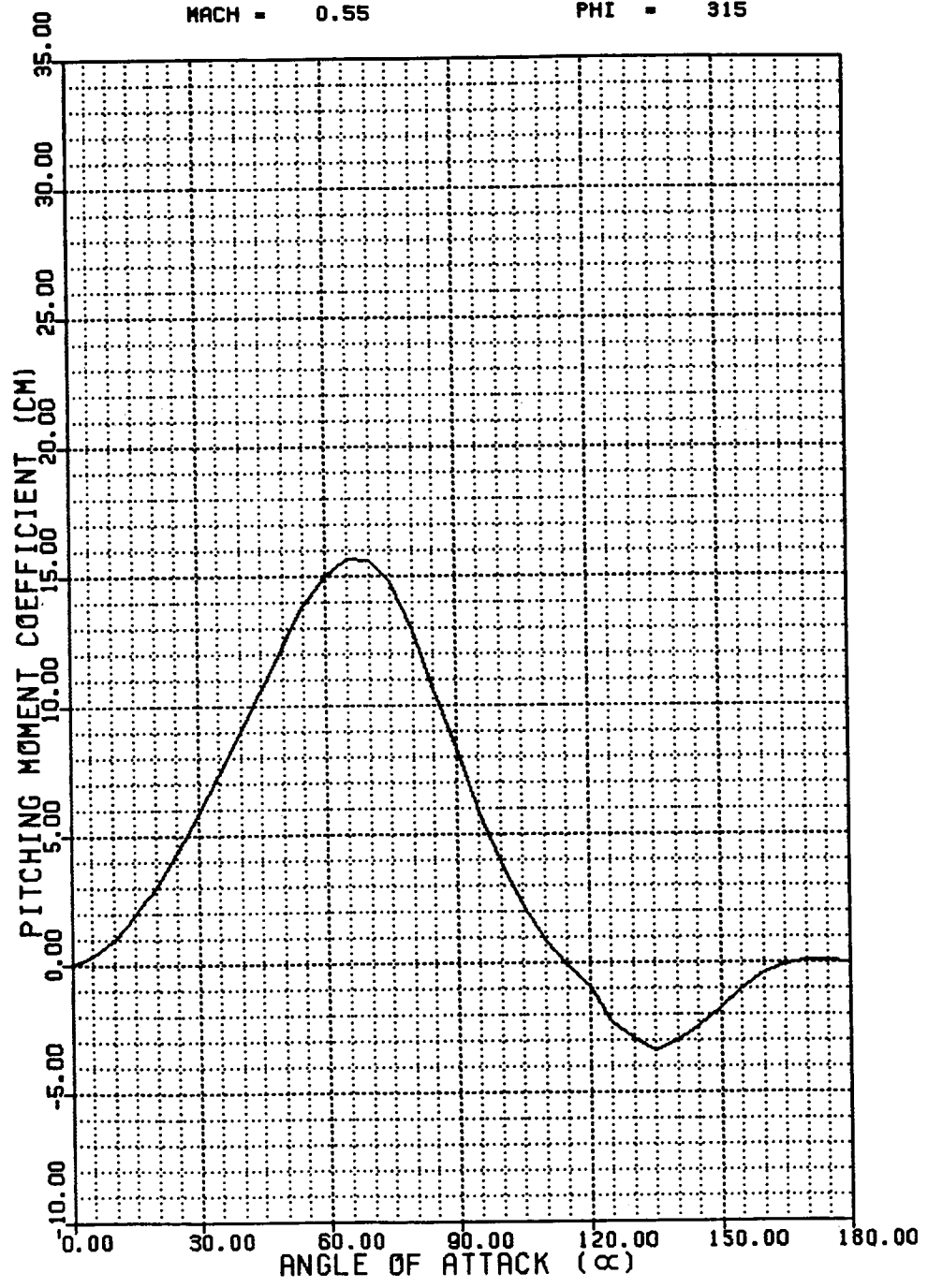
B-169



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 315



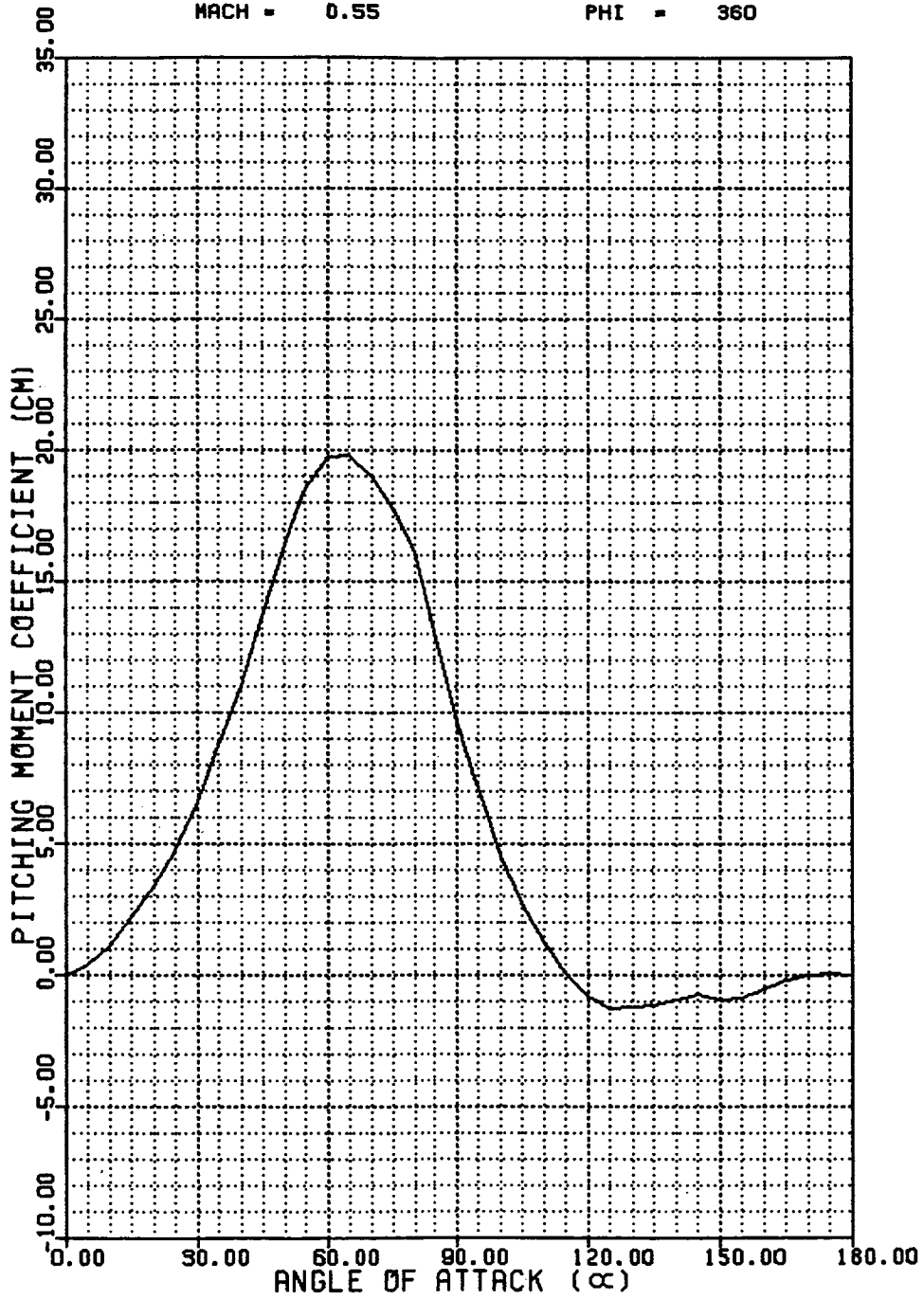
B-170

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 360

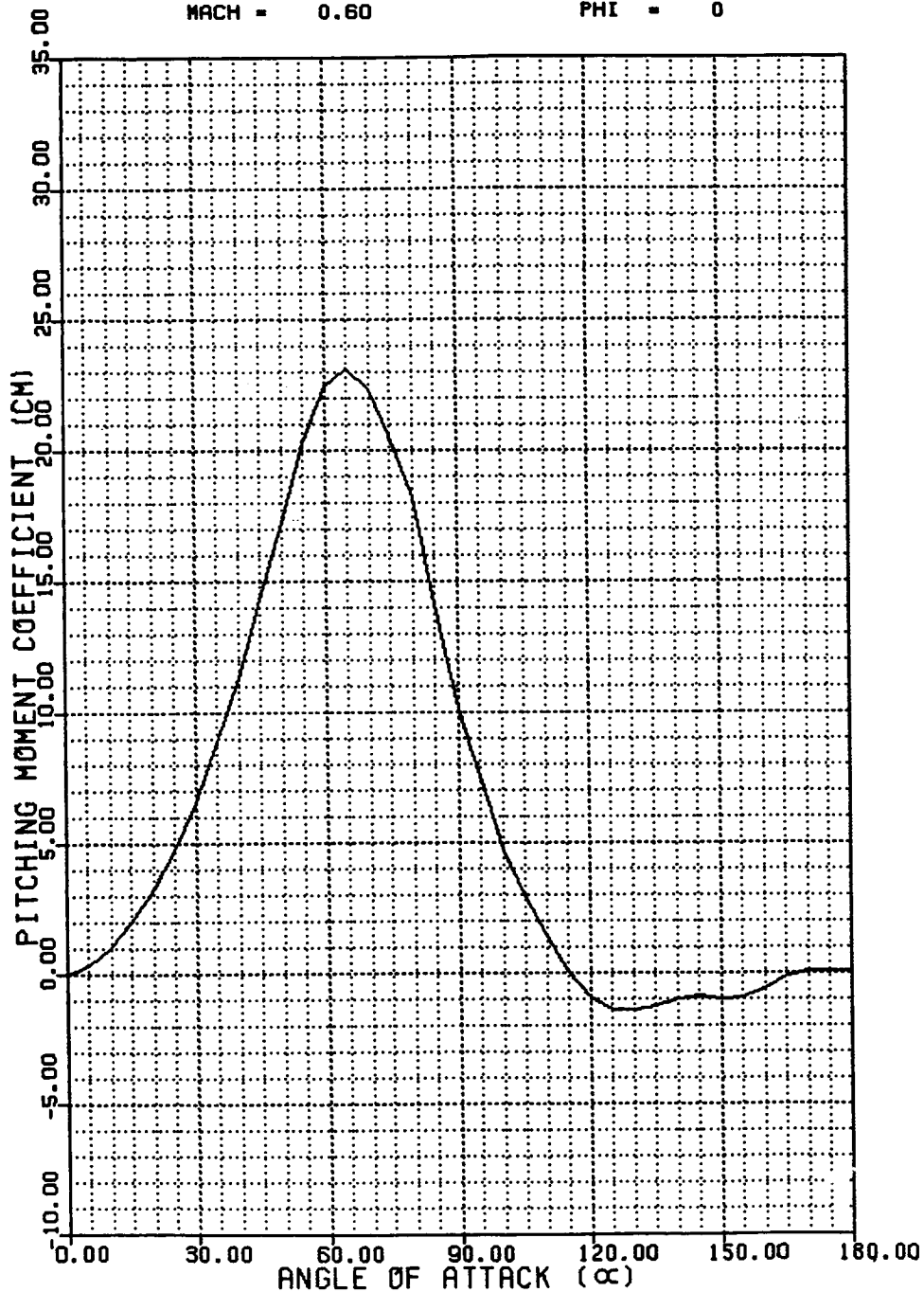


B-171

# SRB TAPE 8 DATA

MACH = 0.60

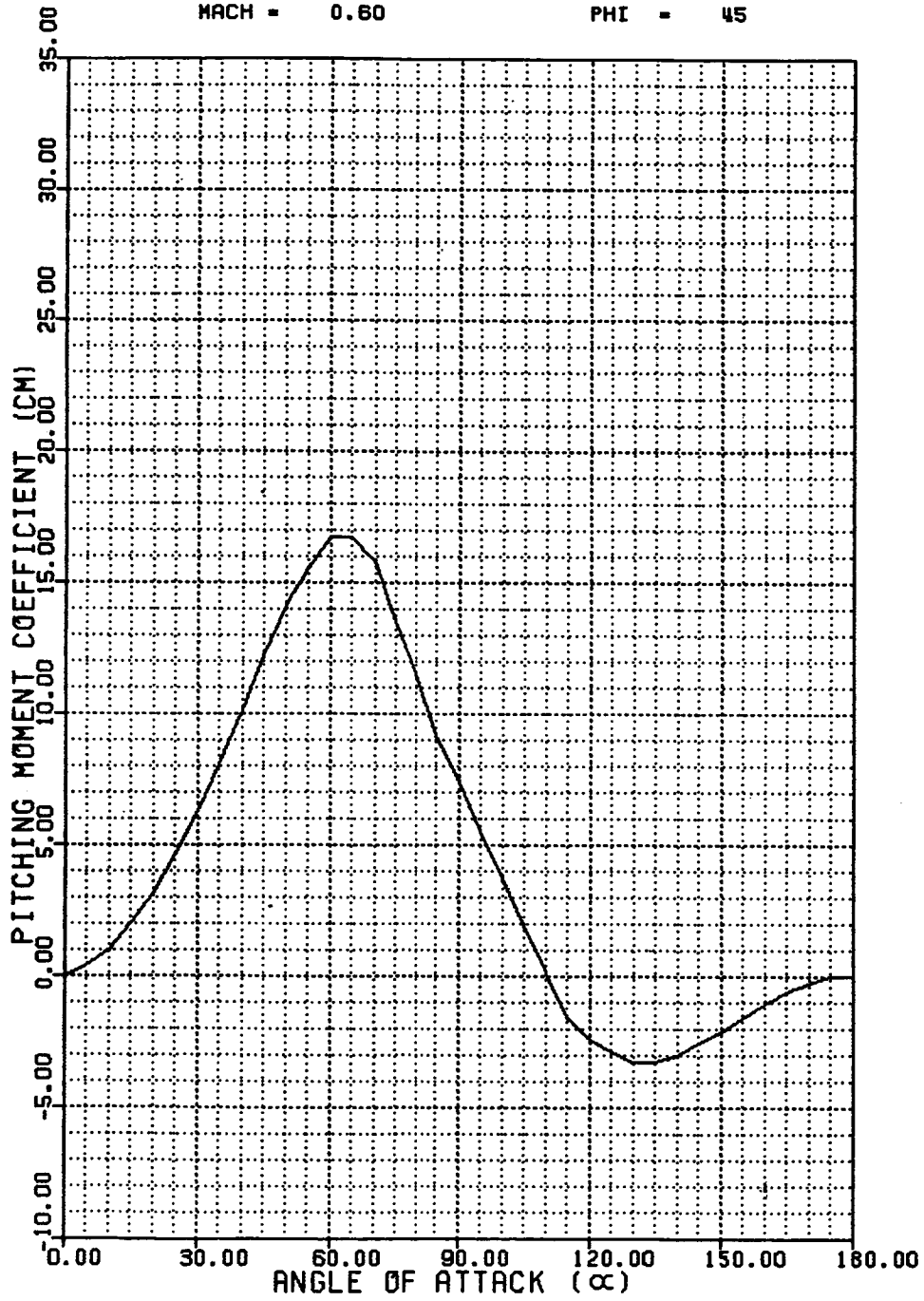
PHI = 0



# SRB TAPE 8 DATA

MACH = 0.60

PHI = 45



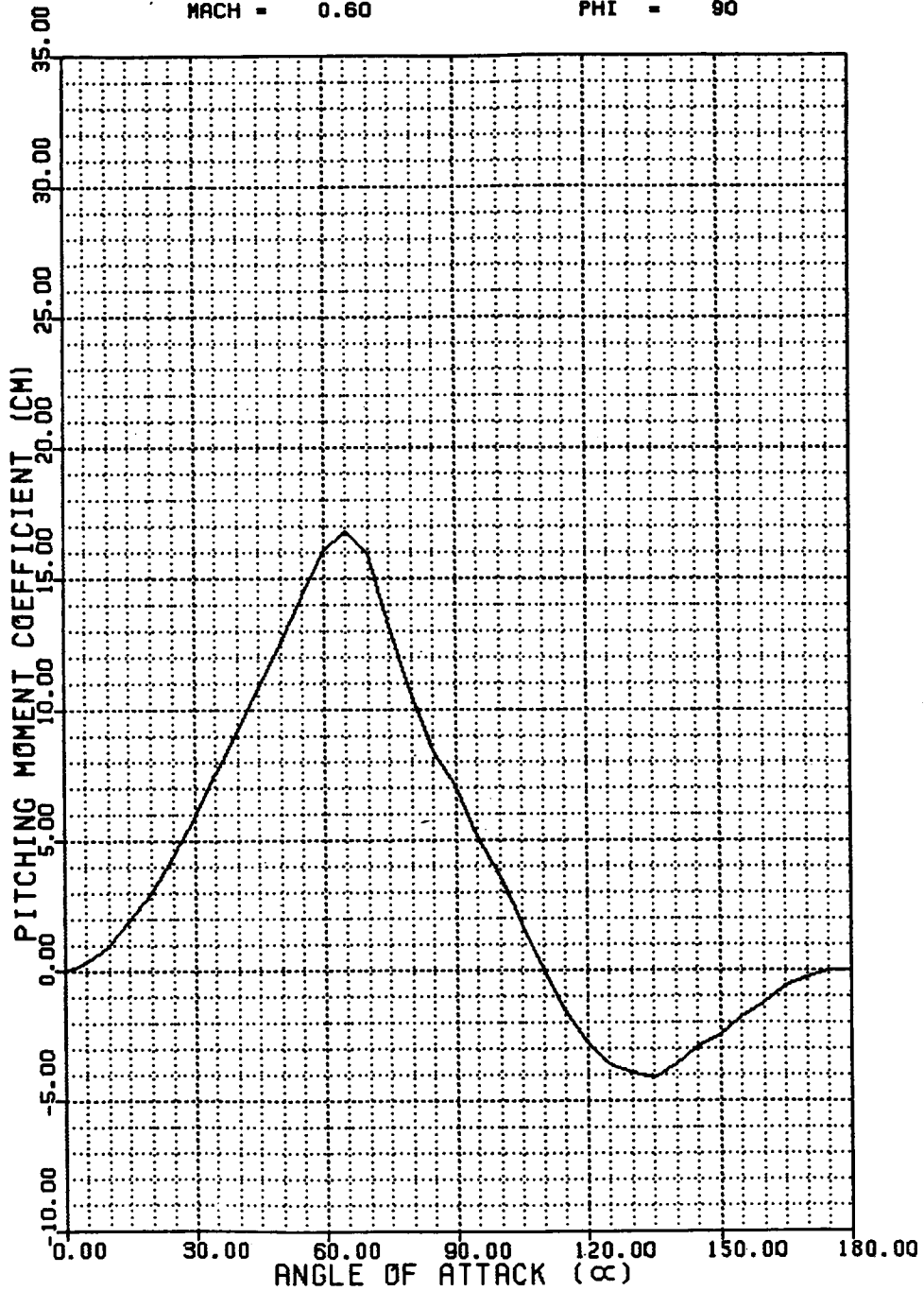
B-173

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH - 0.60

PHI - 90



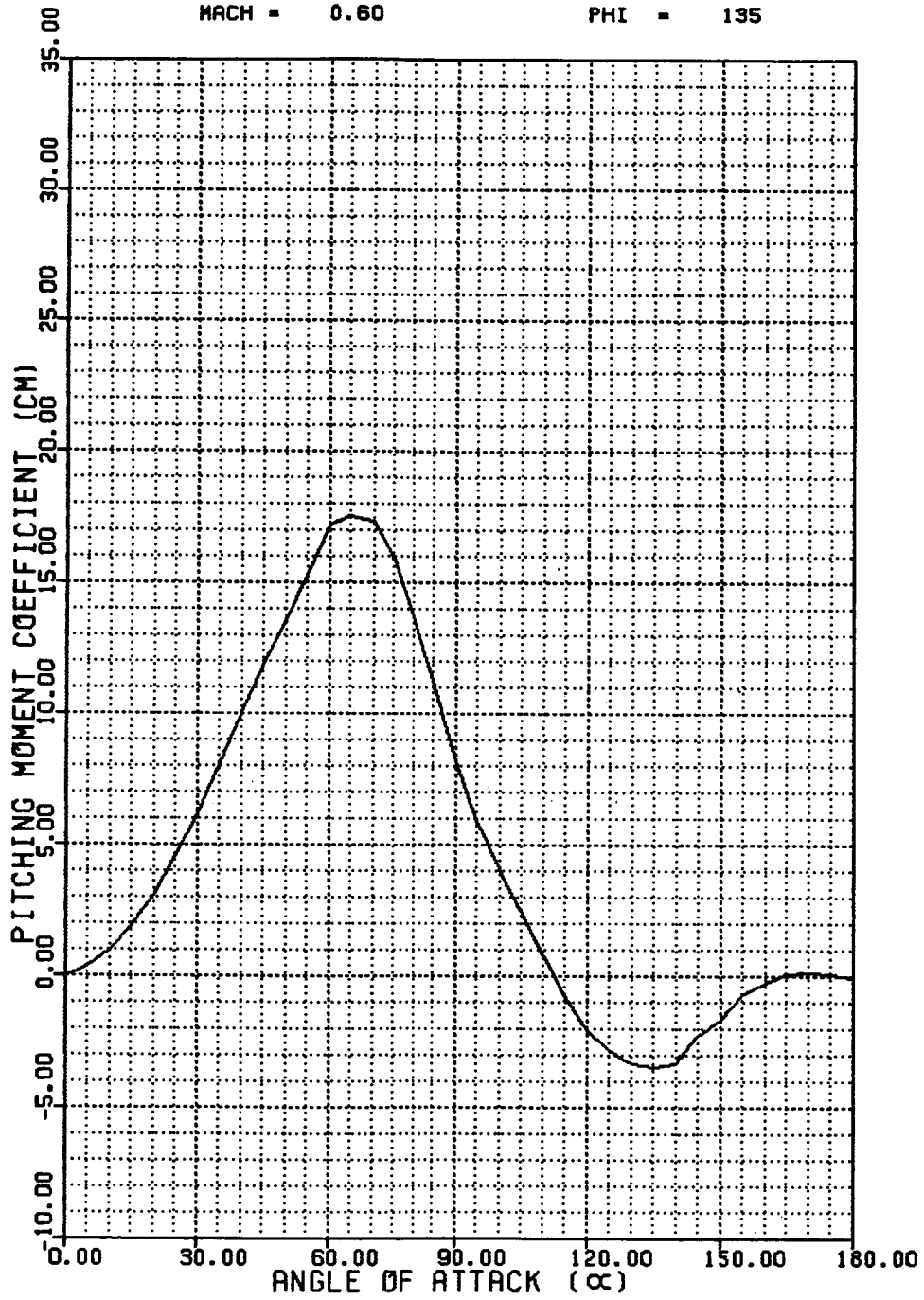
B-174

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 135



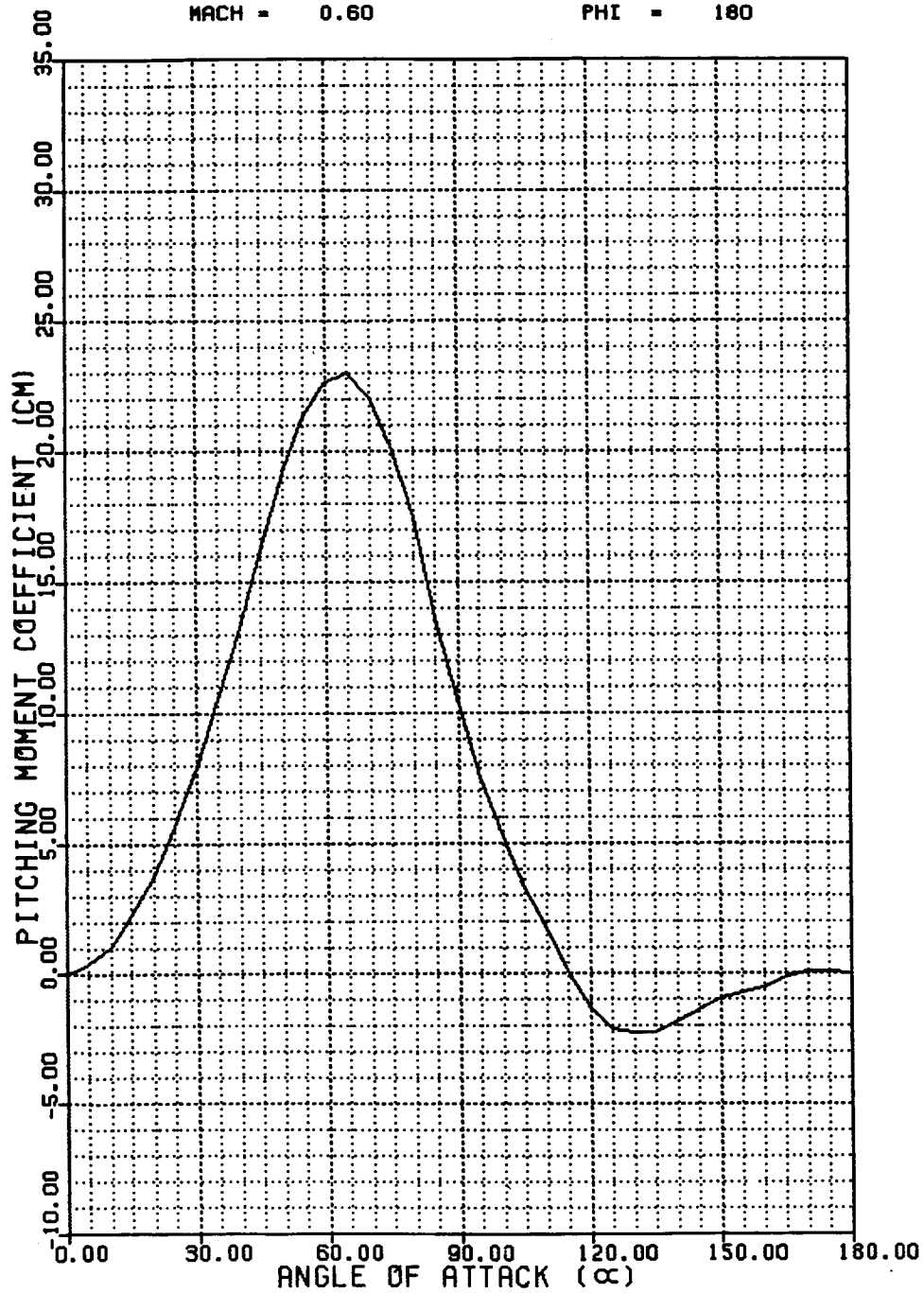
B-175

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 180



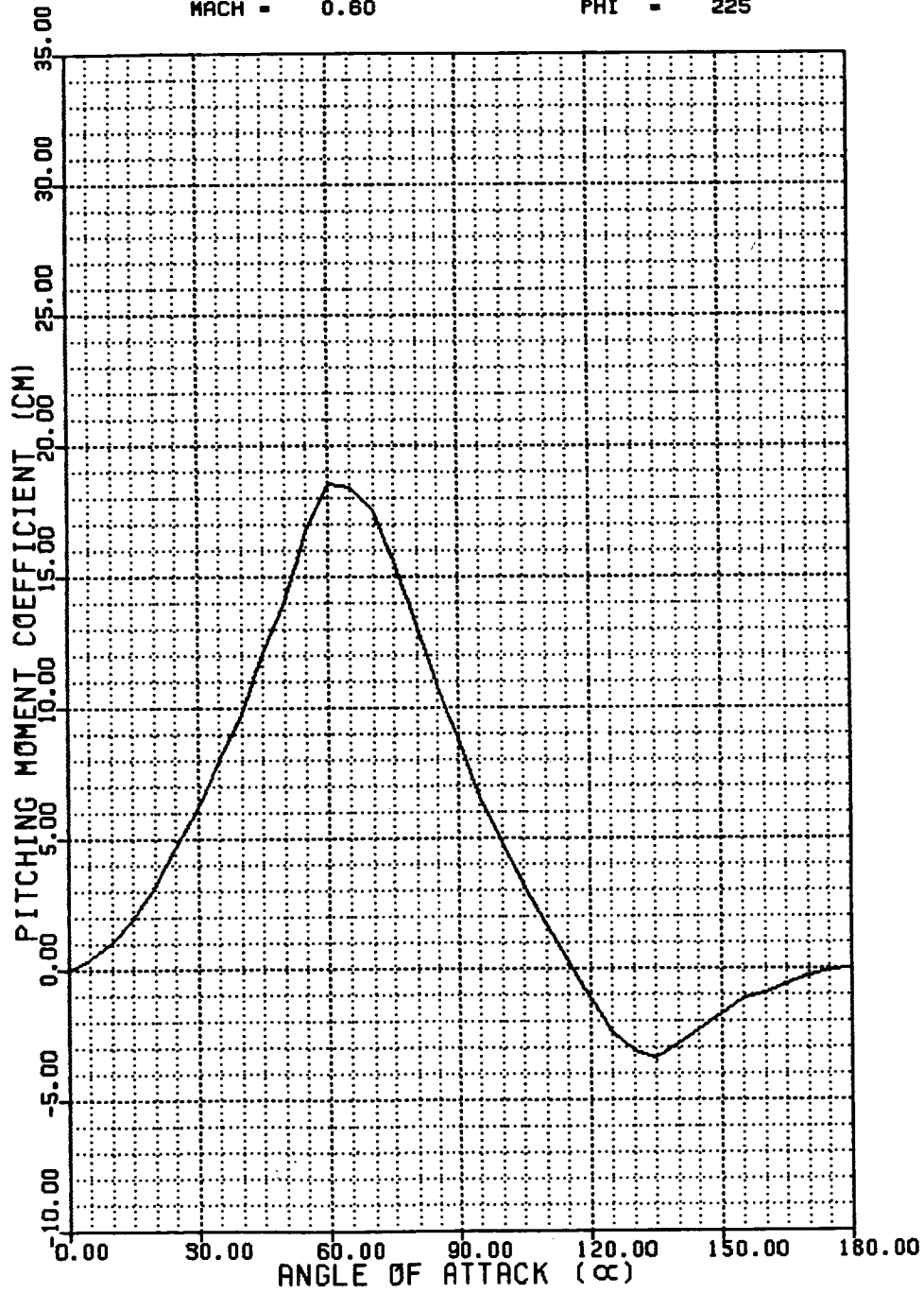
B-176

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 225



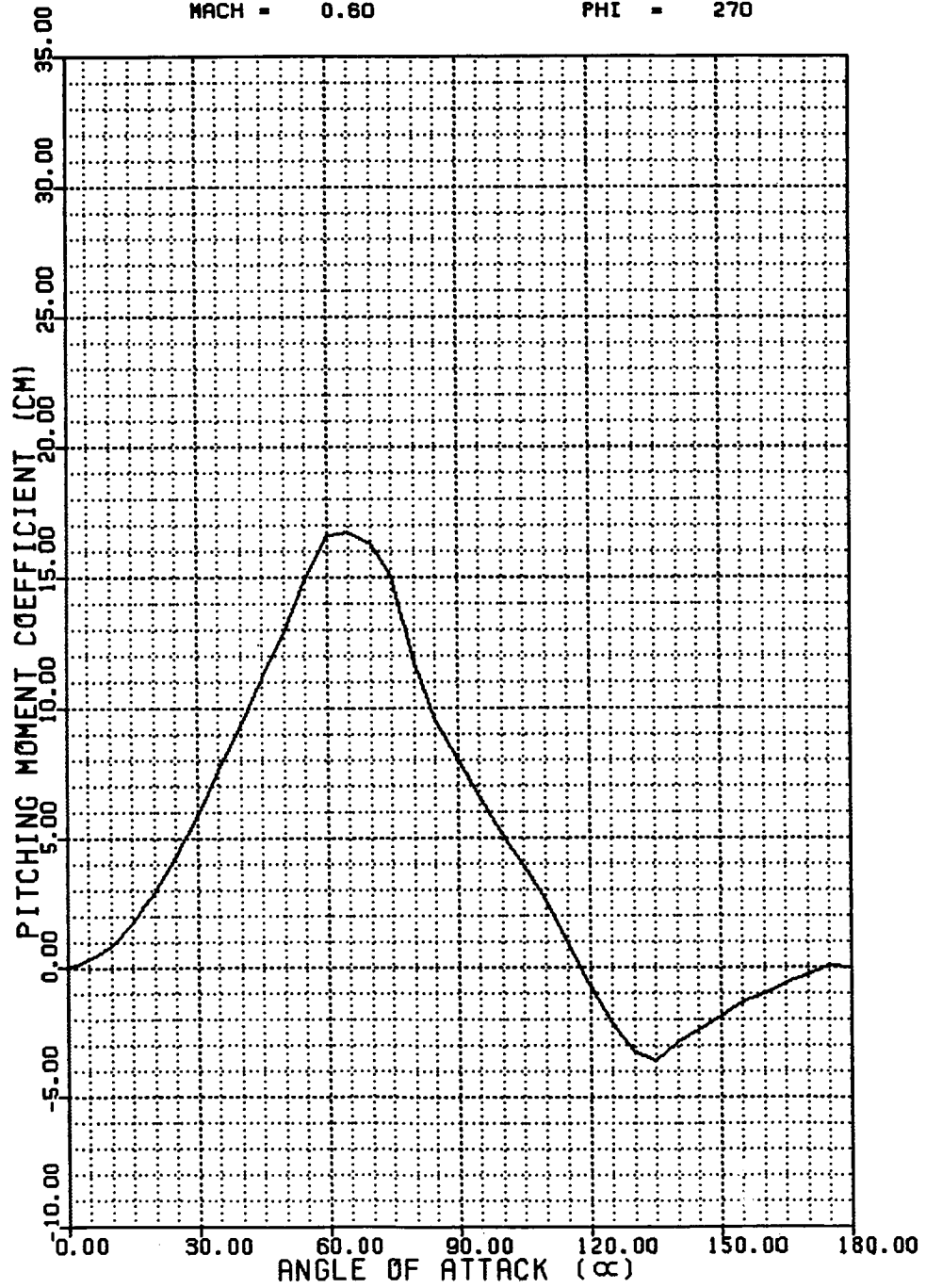
B-177



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270



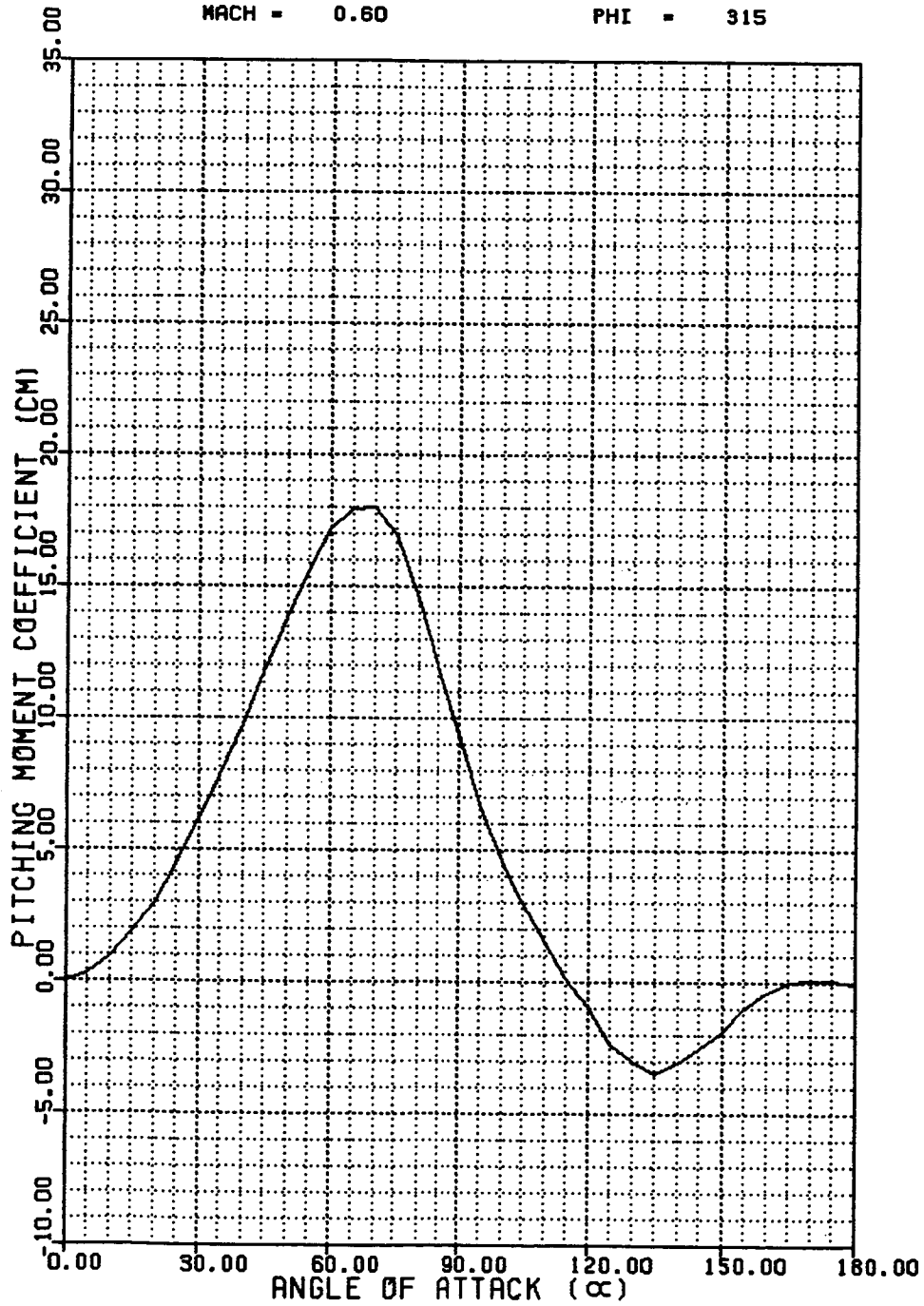
B-178

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 315

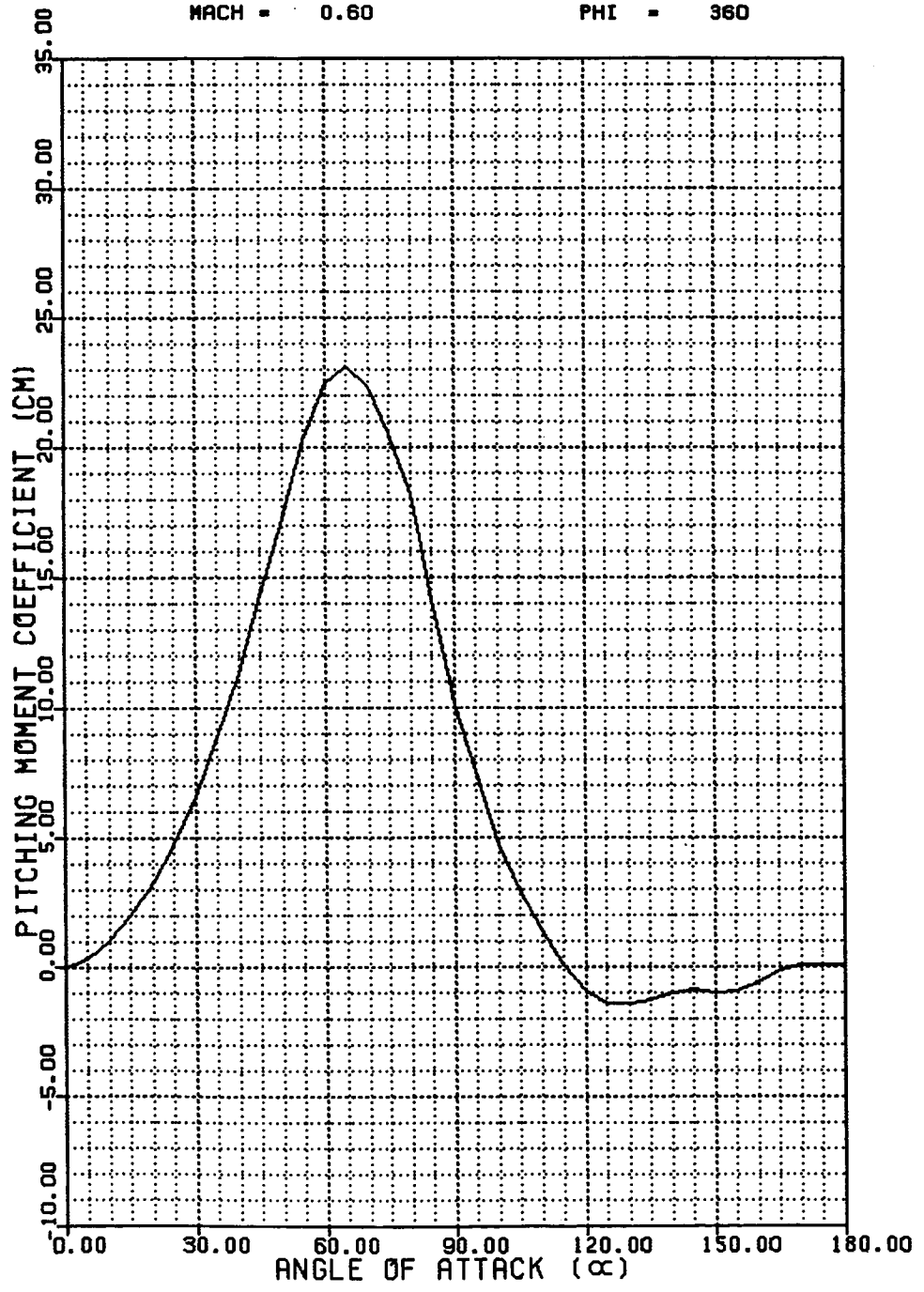


B-179

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 360

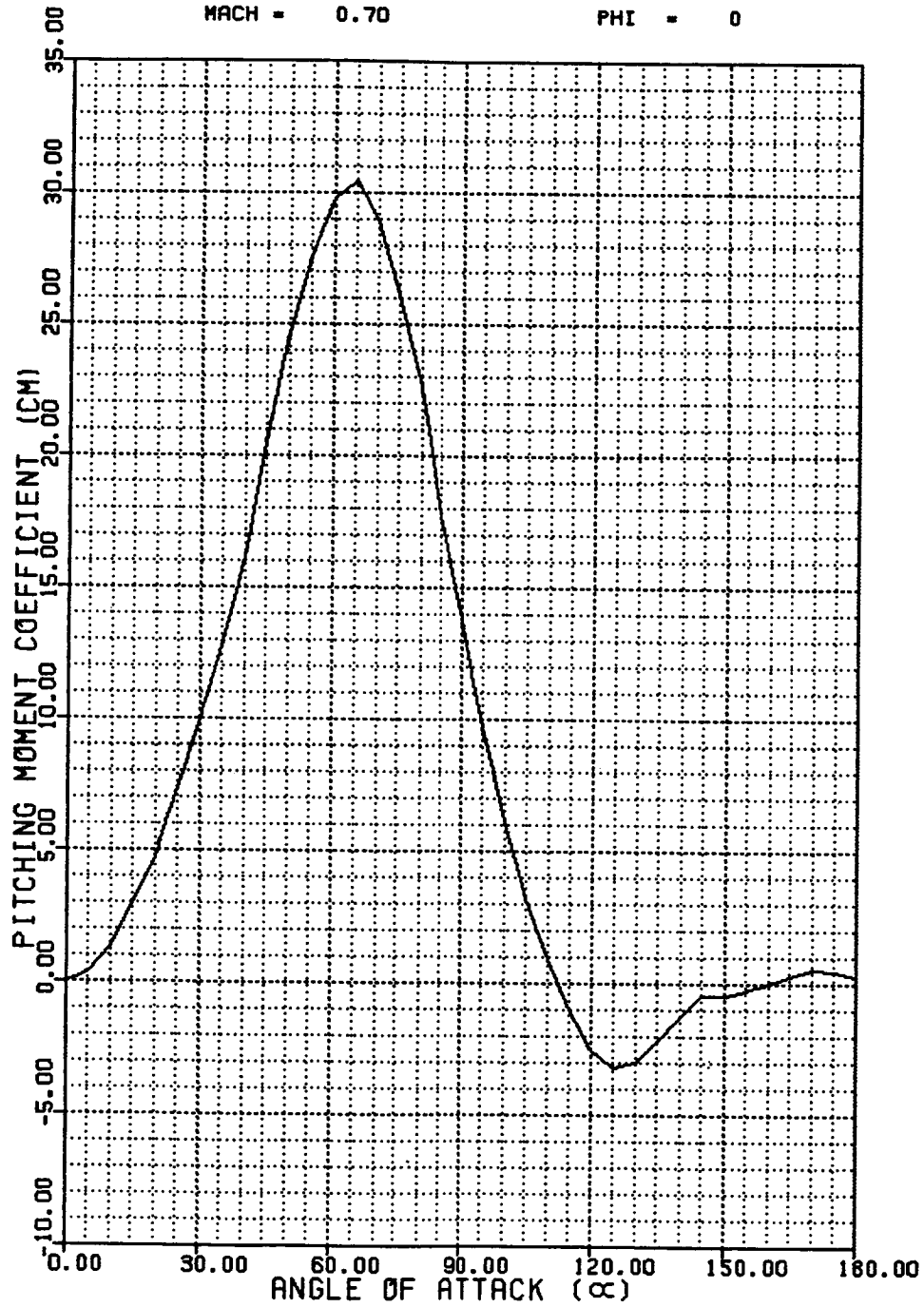


B-180

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 0

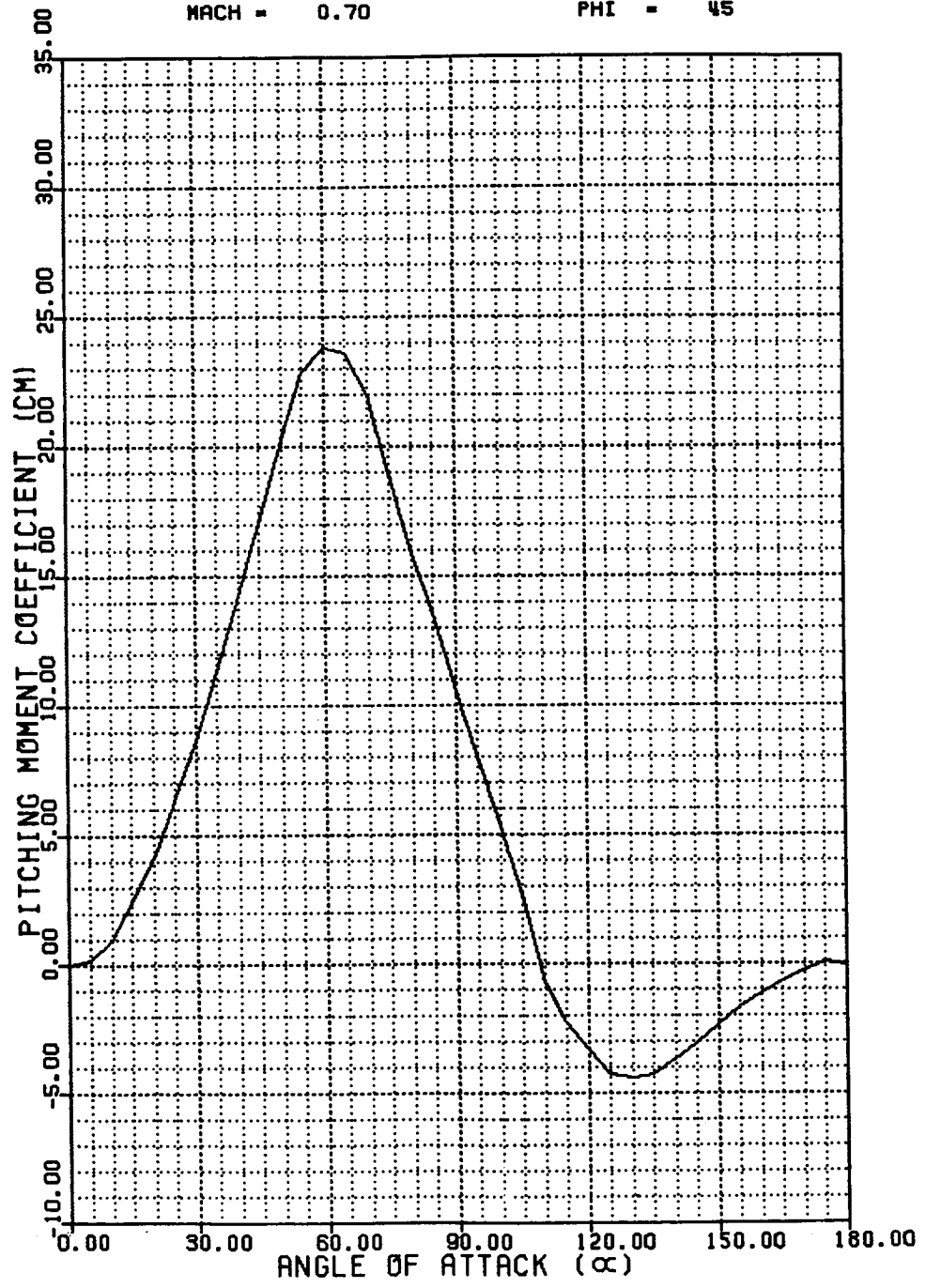


B-181

### SRB TAPE 8 DATA

MACH = 0.70

PHI = 45

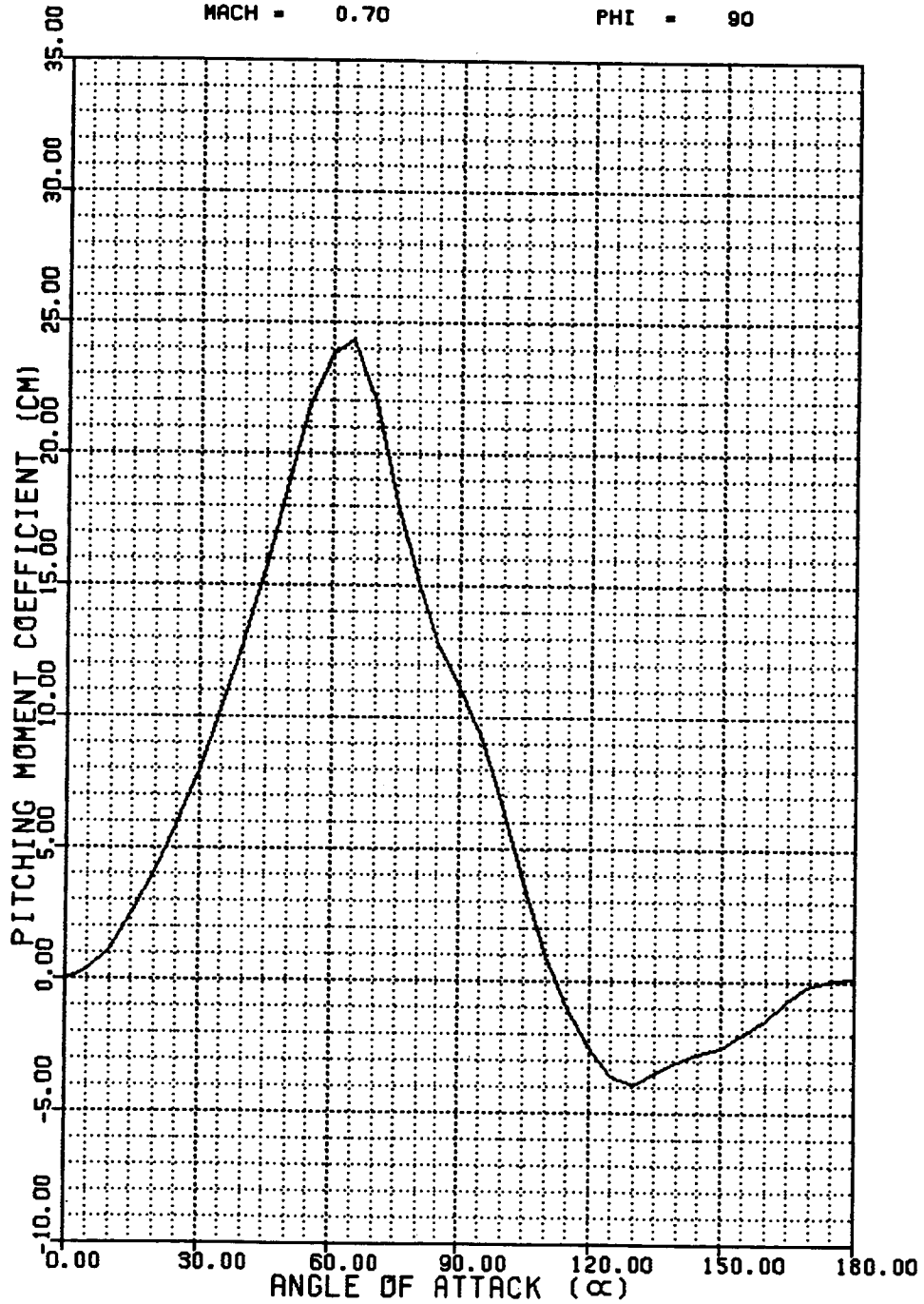


B-182

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 90



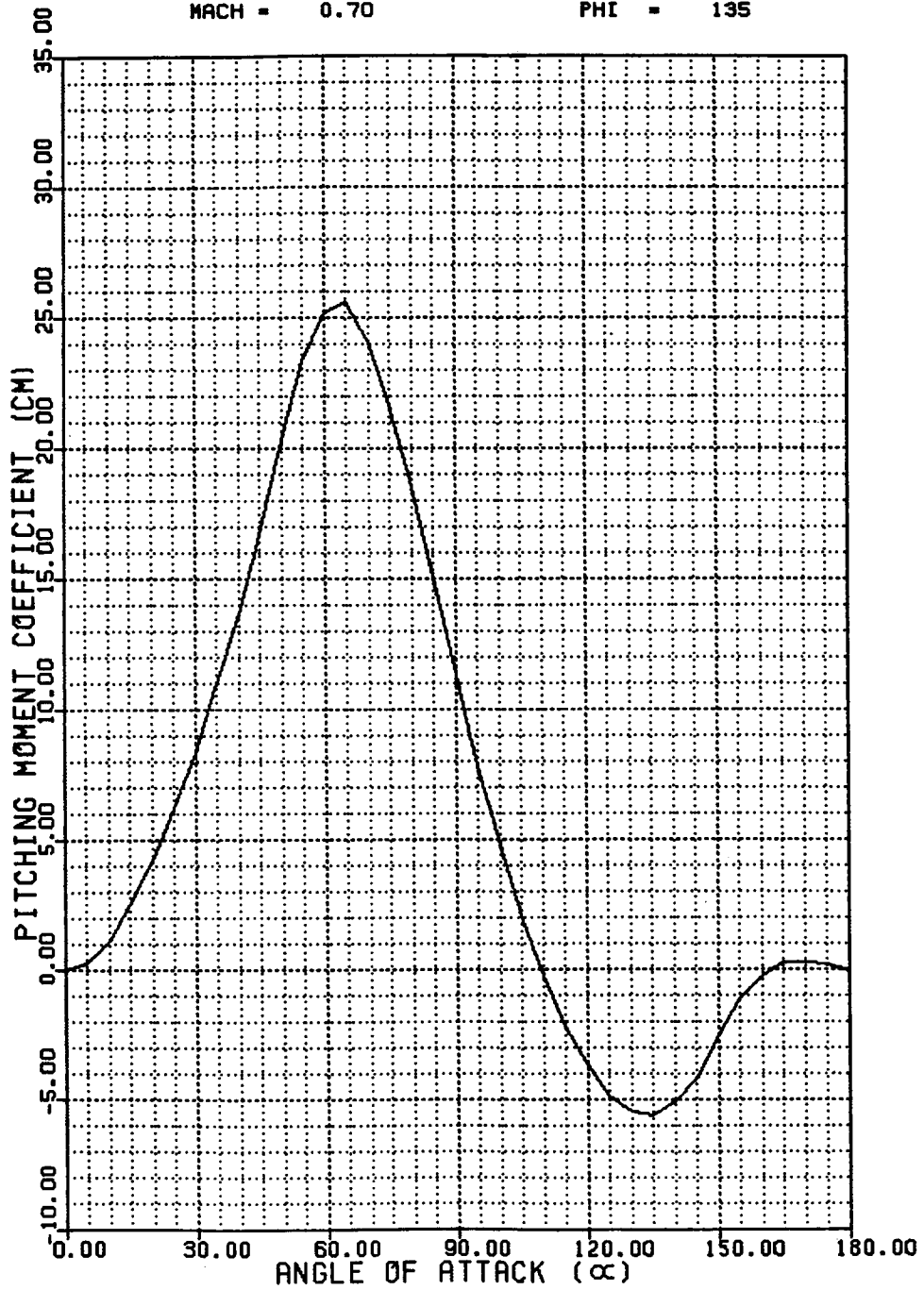
B-183

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 135

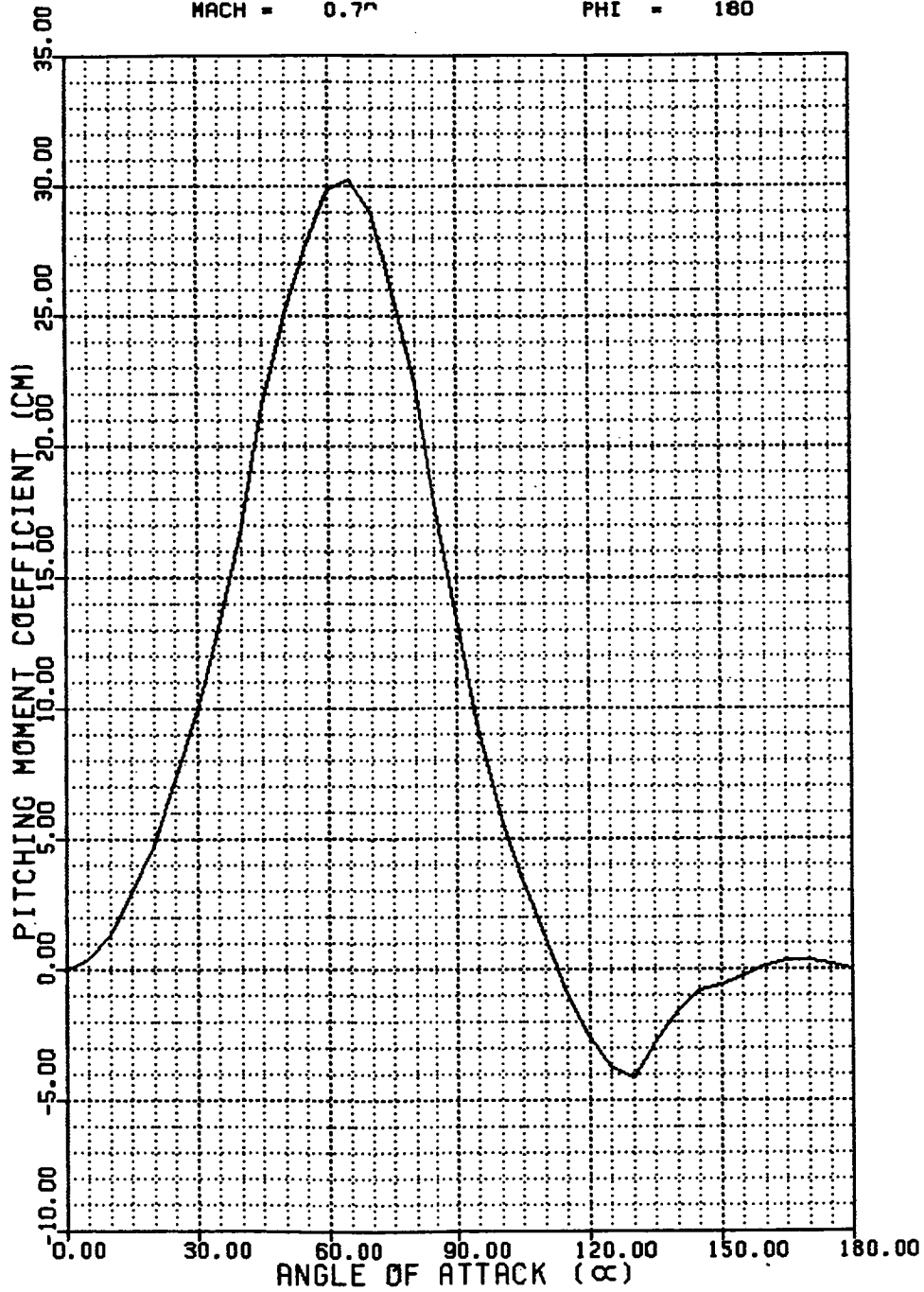


B-184

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 180



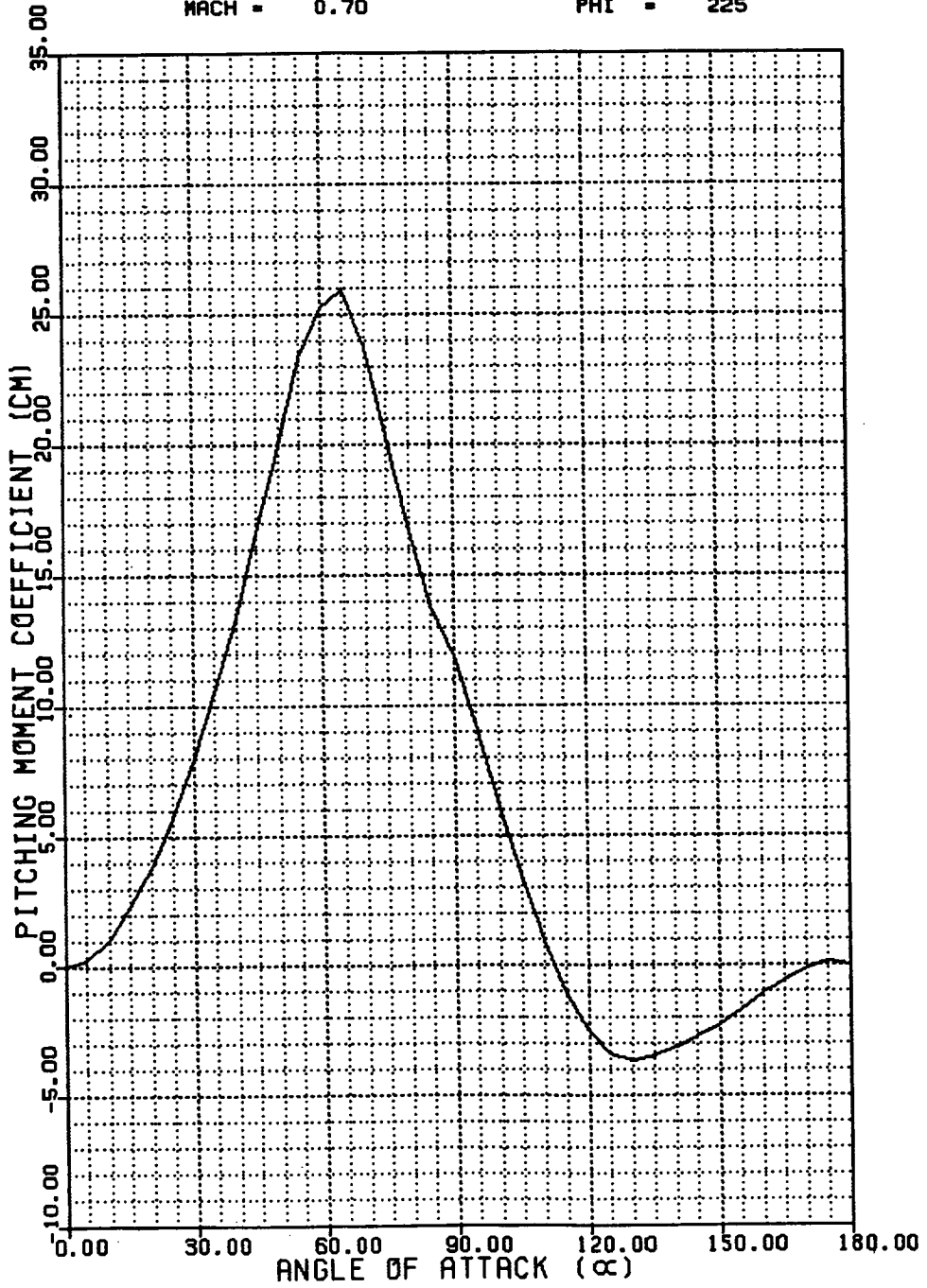
B-185



# SRB TAPE 8 DATA

MACH = 0.70

PHI = 225

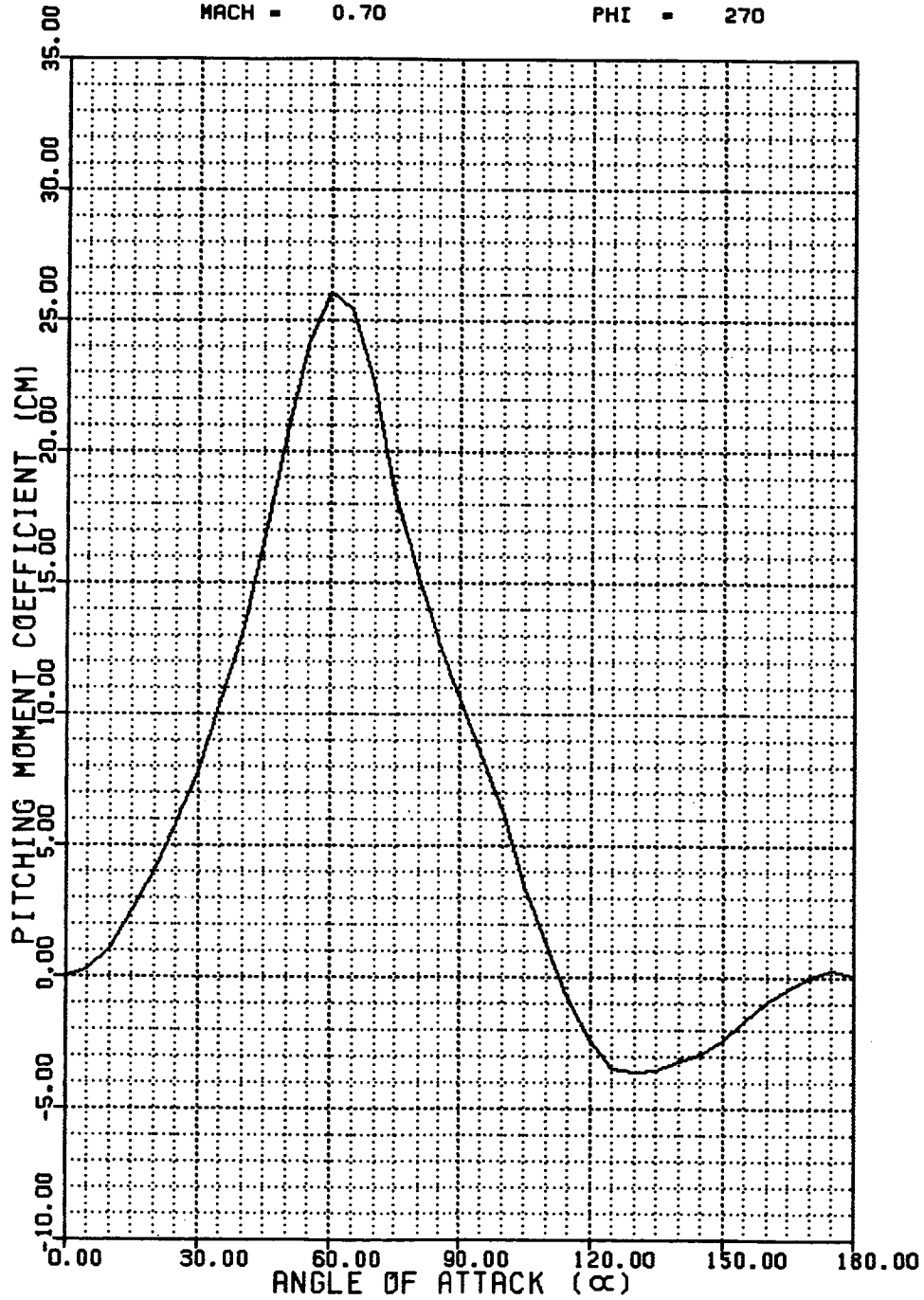


B-186

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 270

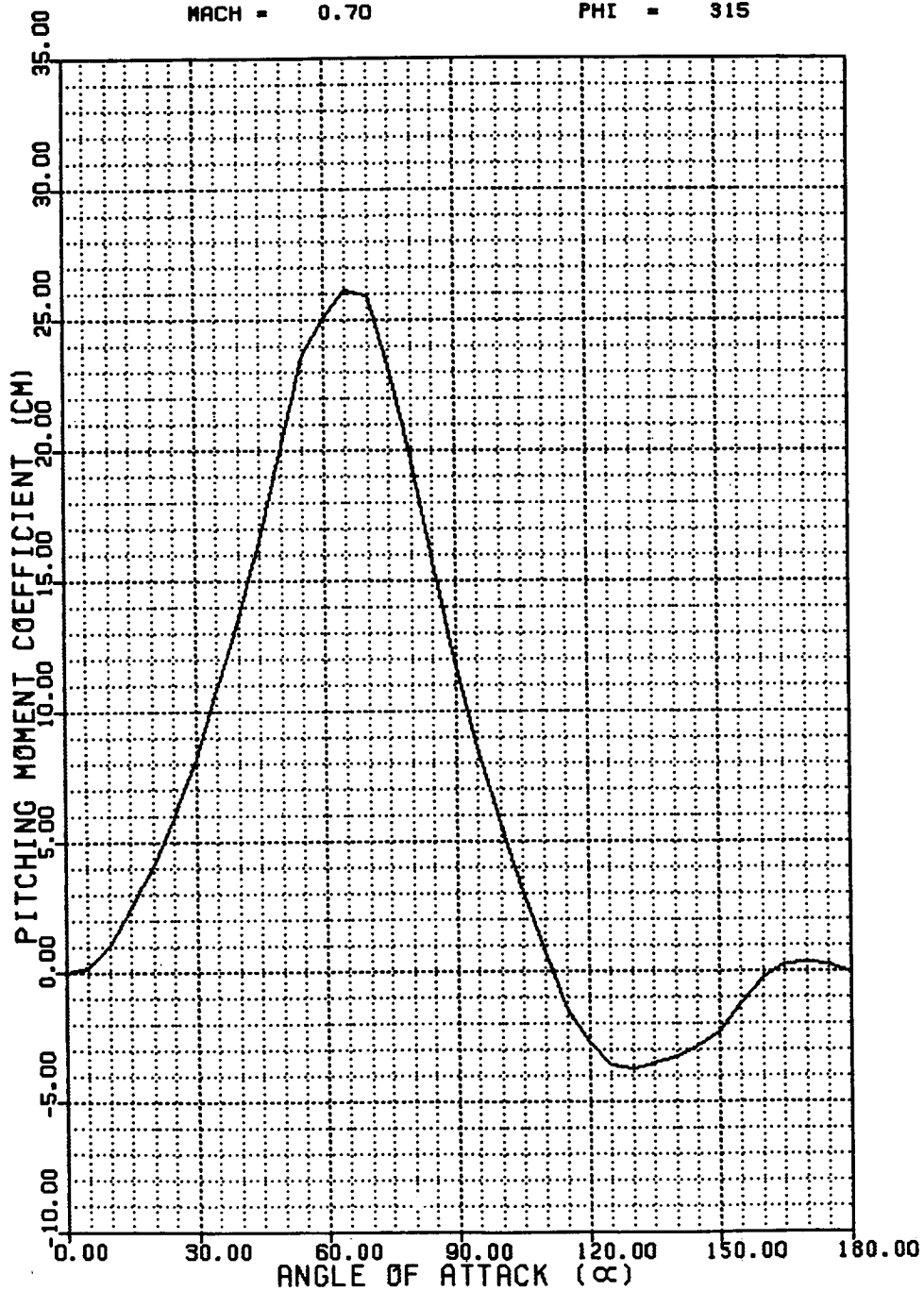


B-187

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 315



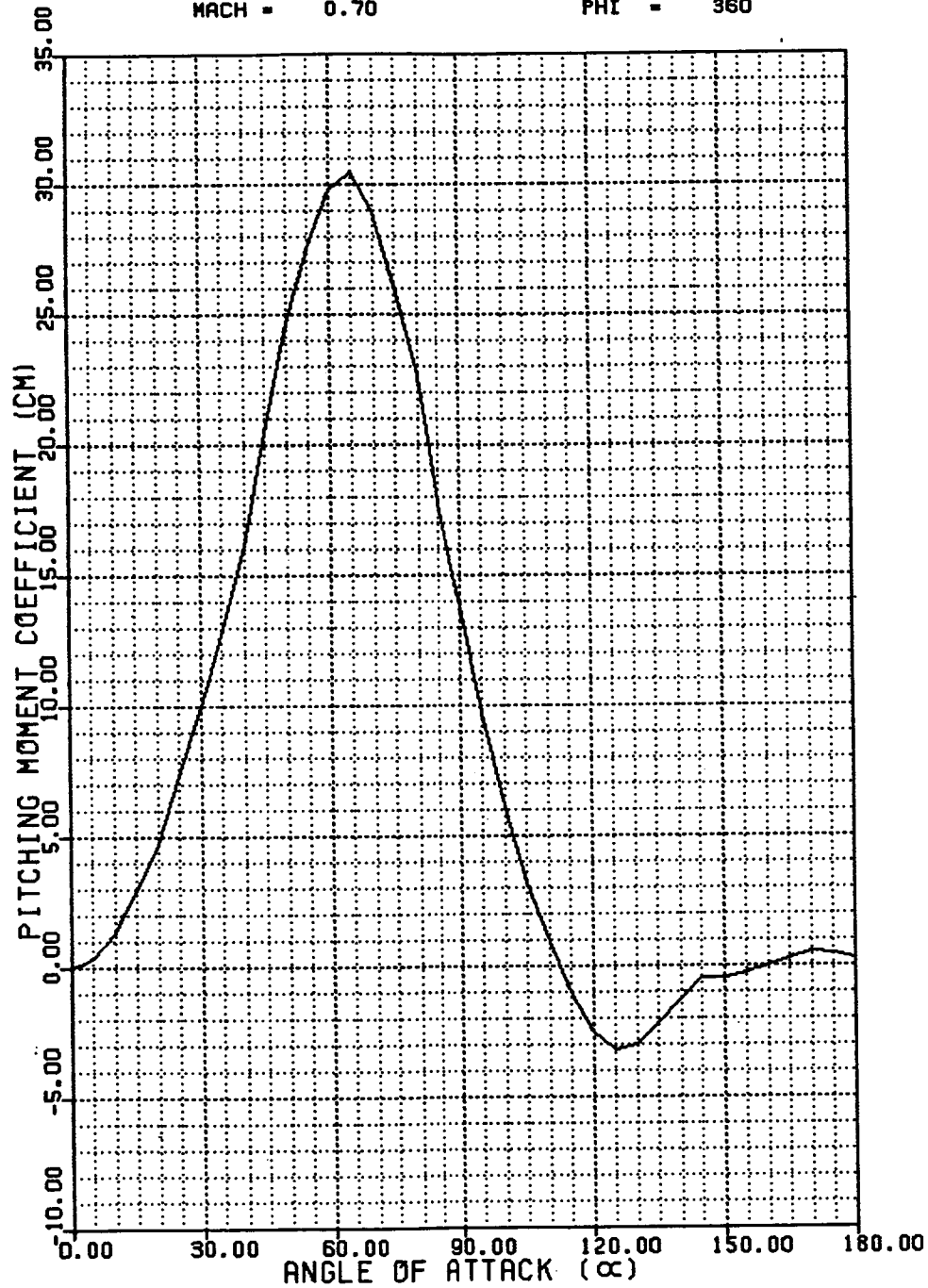
B-188

C-3

# SRB TAPE 8 DATA

MACH = 0.70

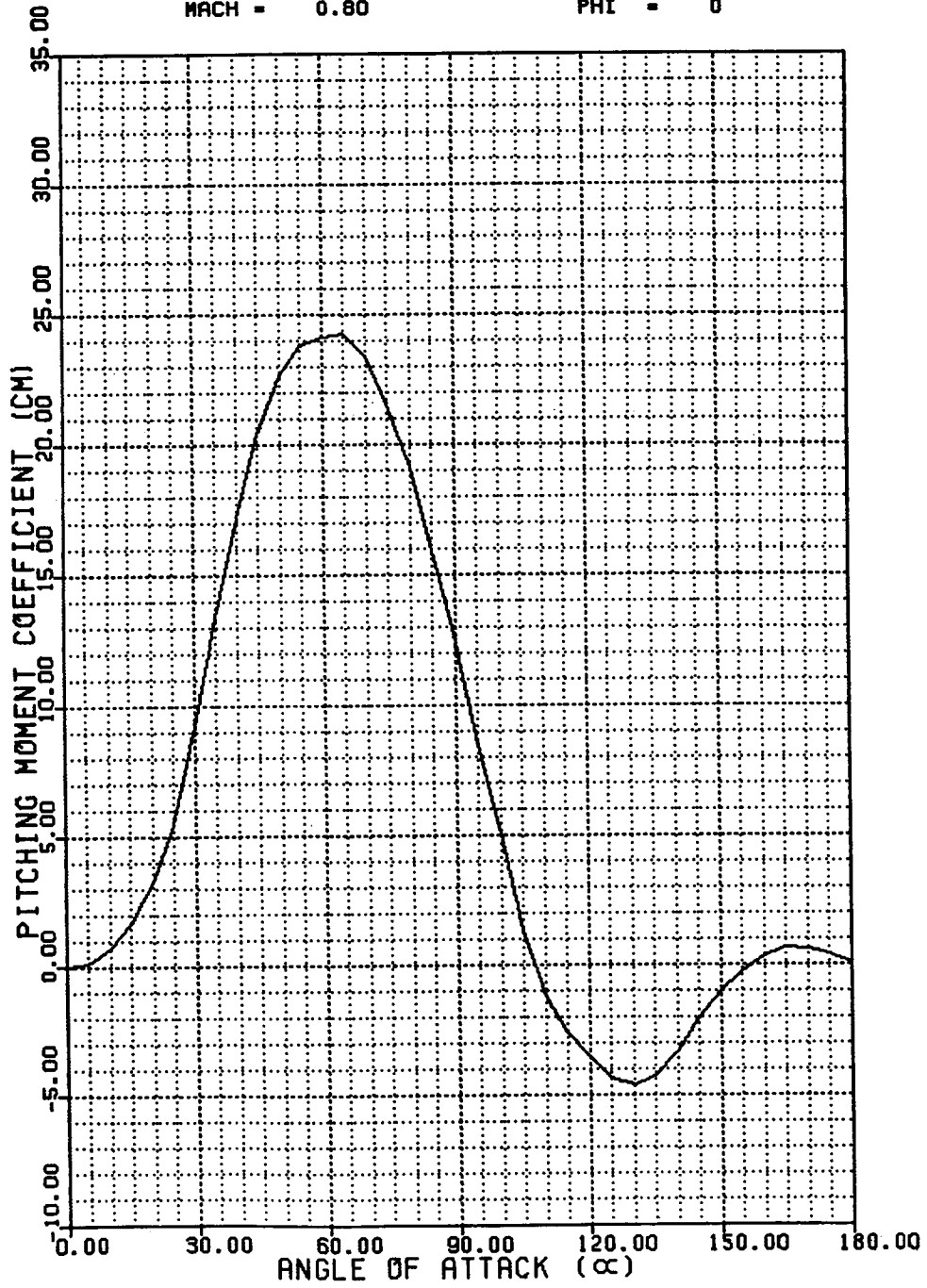
PHI = 360



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 0



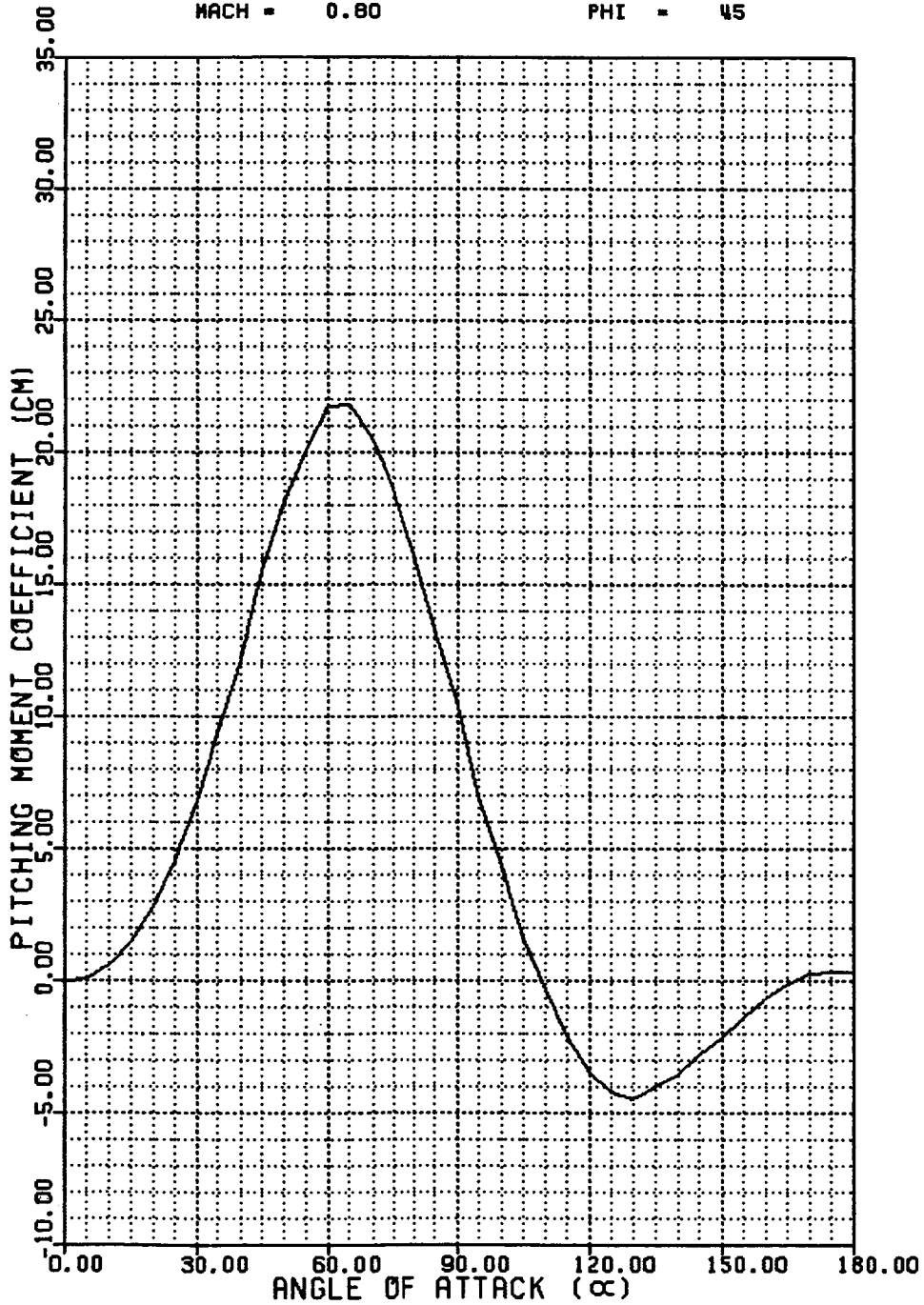
B-190

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

### SRB TAPE 8 DATA

MACH = 0.80

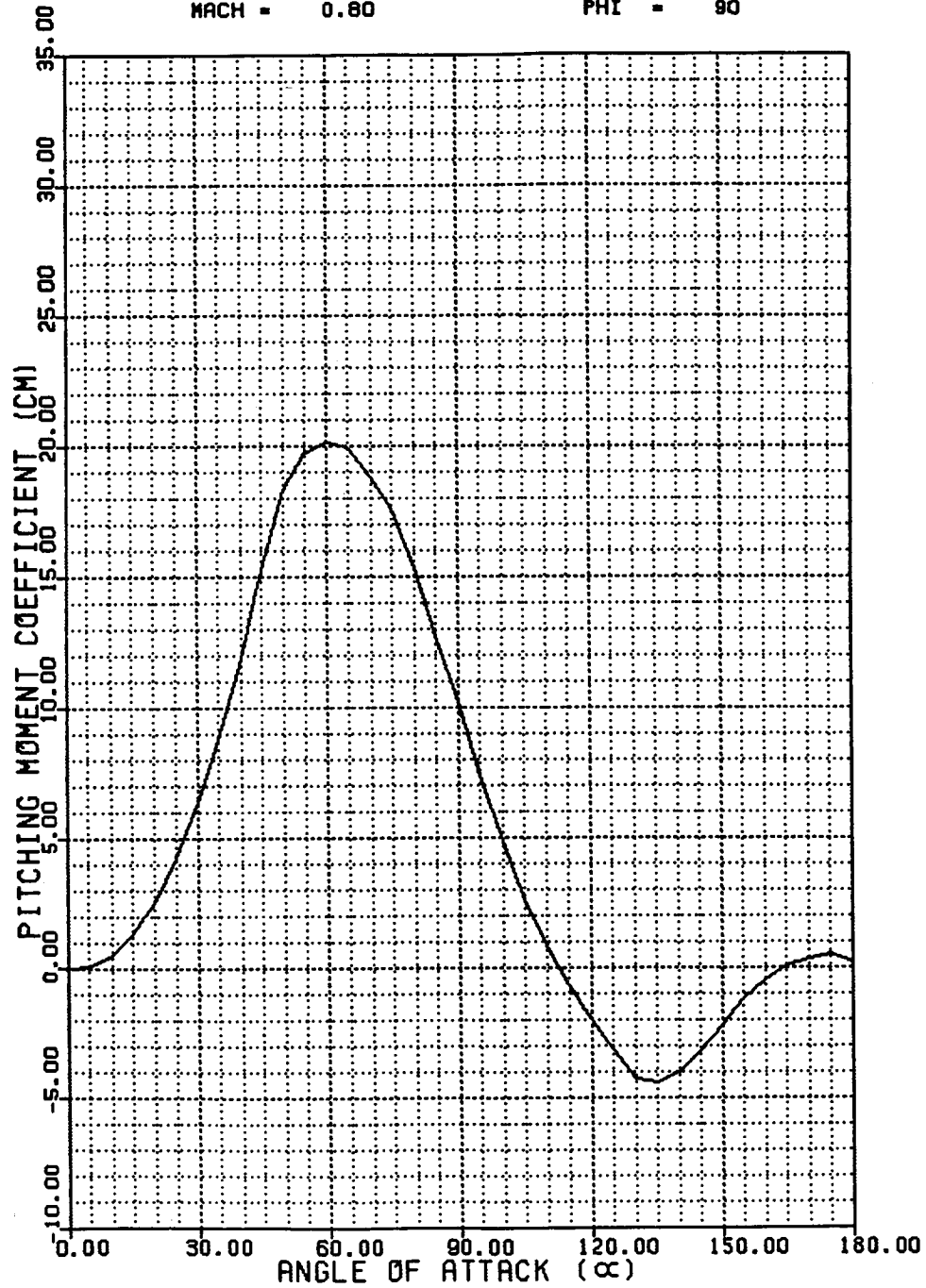
PHI = 45



### SRB TAPE 8 DATA

MACH = 0.80

PHI = 90

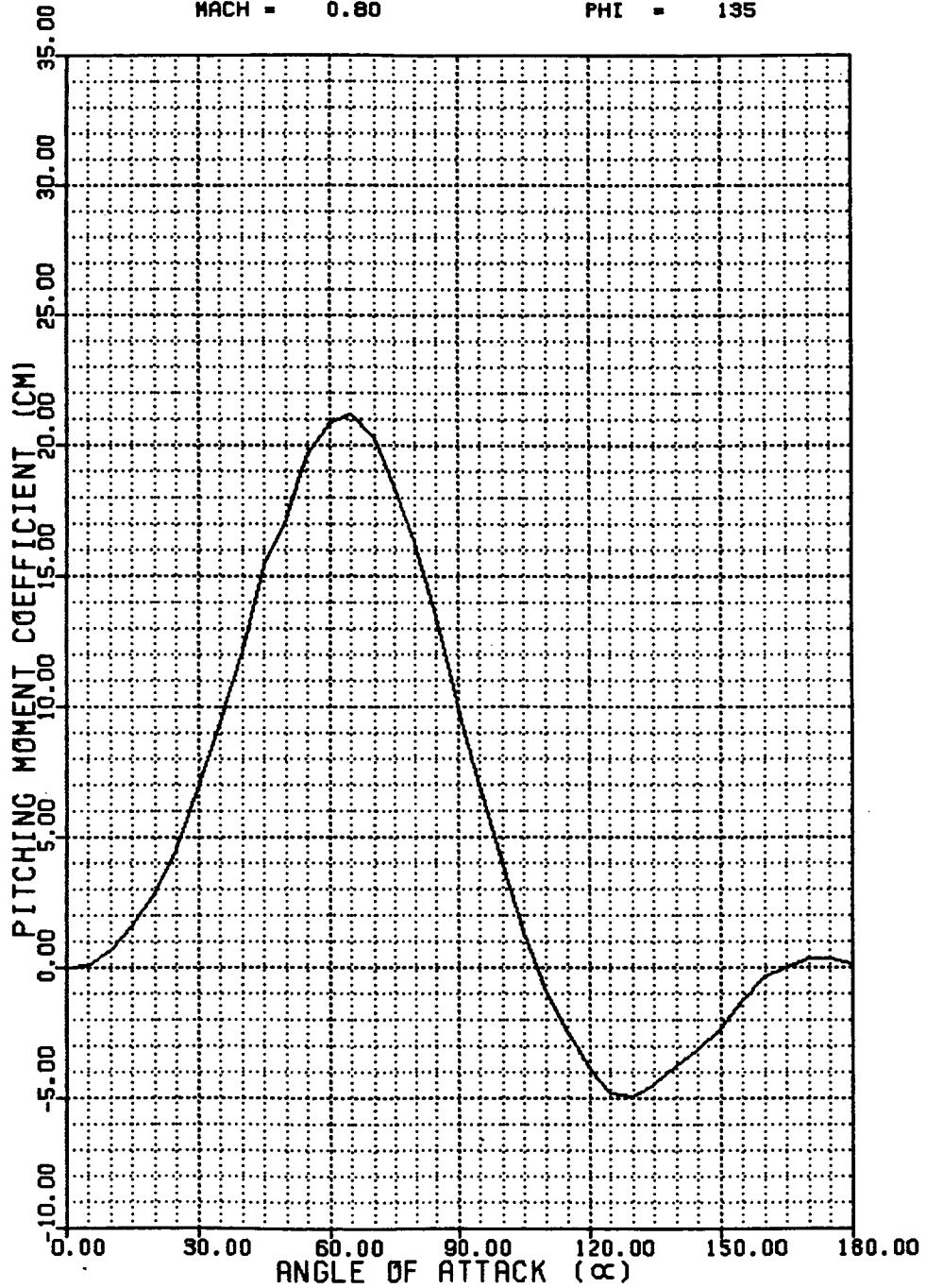


B-192

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 135



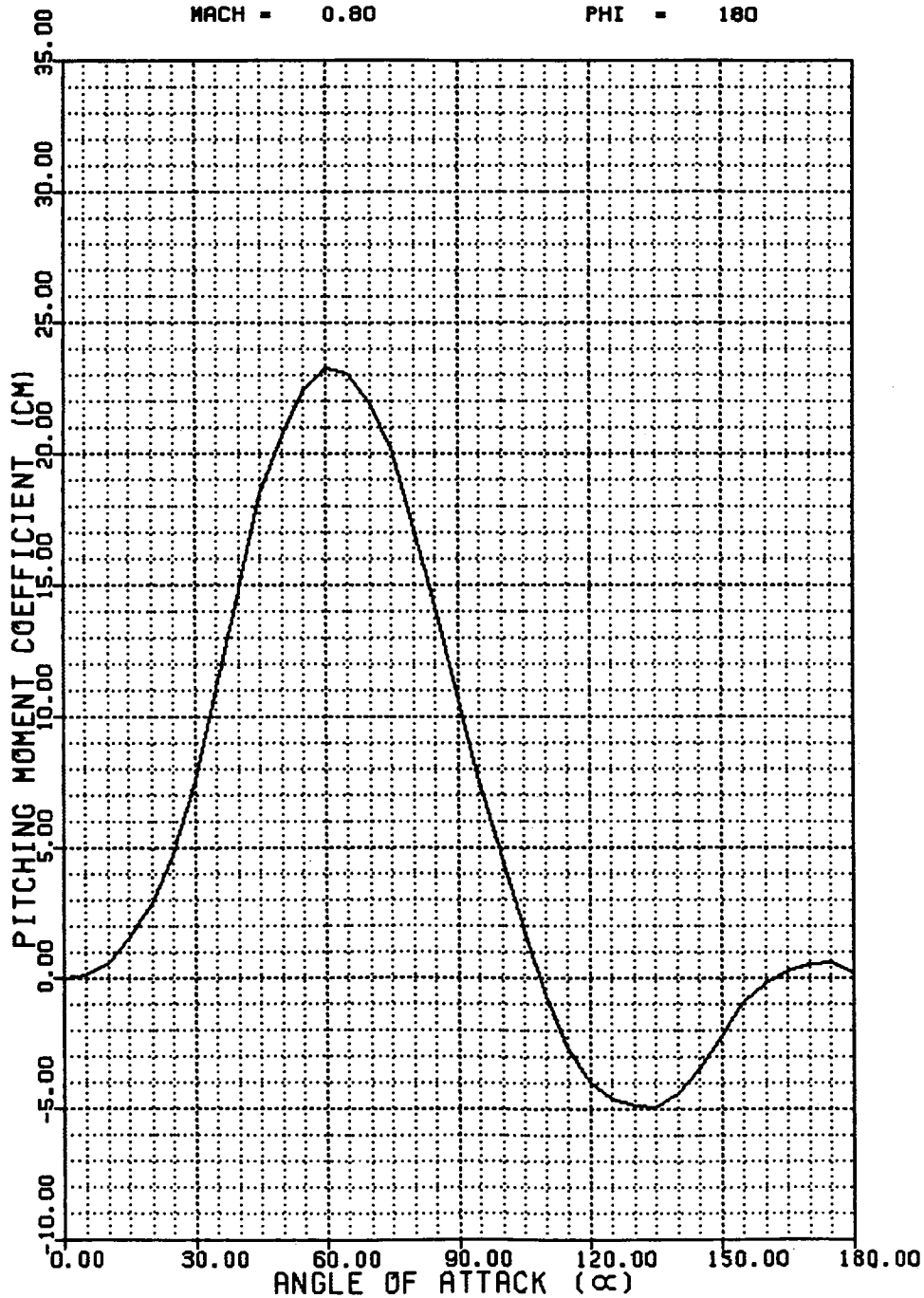
B-193



# SRB TAPE 8 DATA

MACH - 0.80

PHI - 180

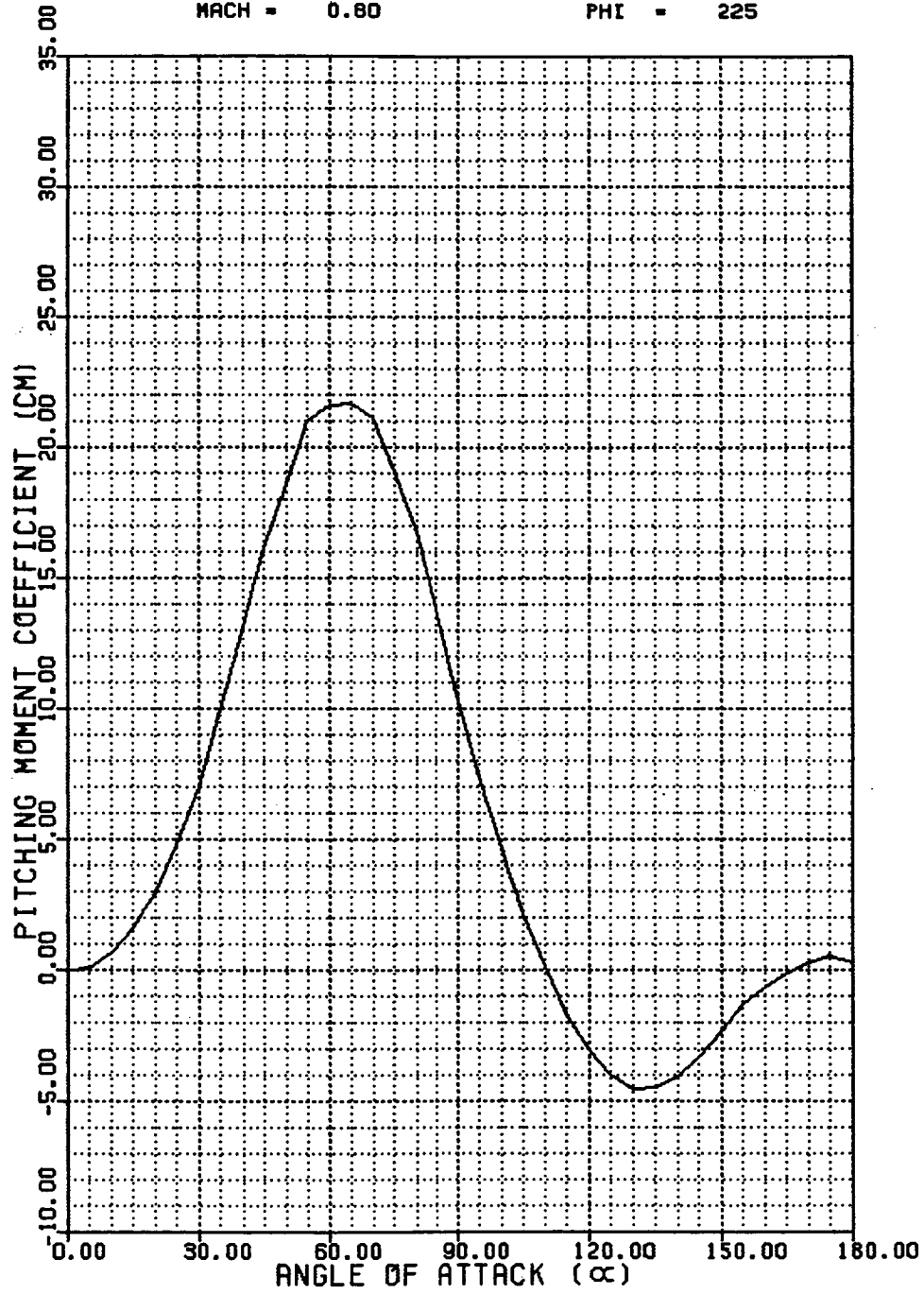


B-194

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 225

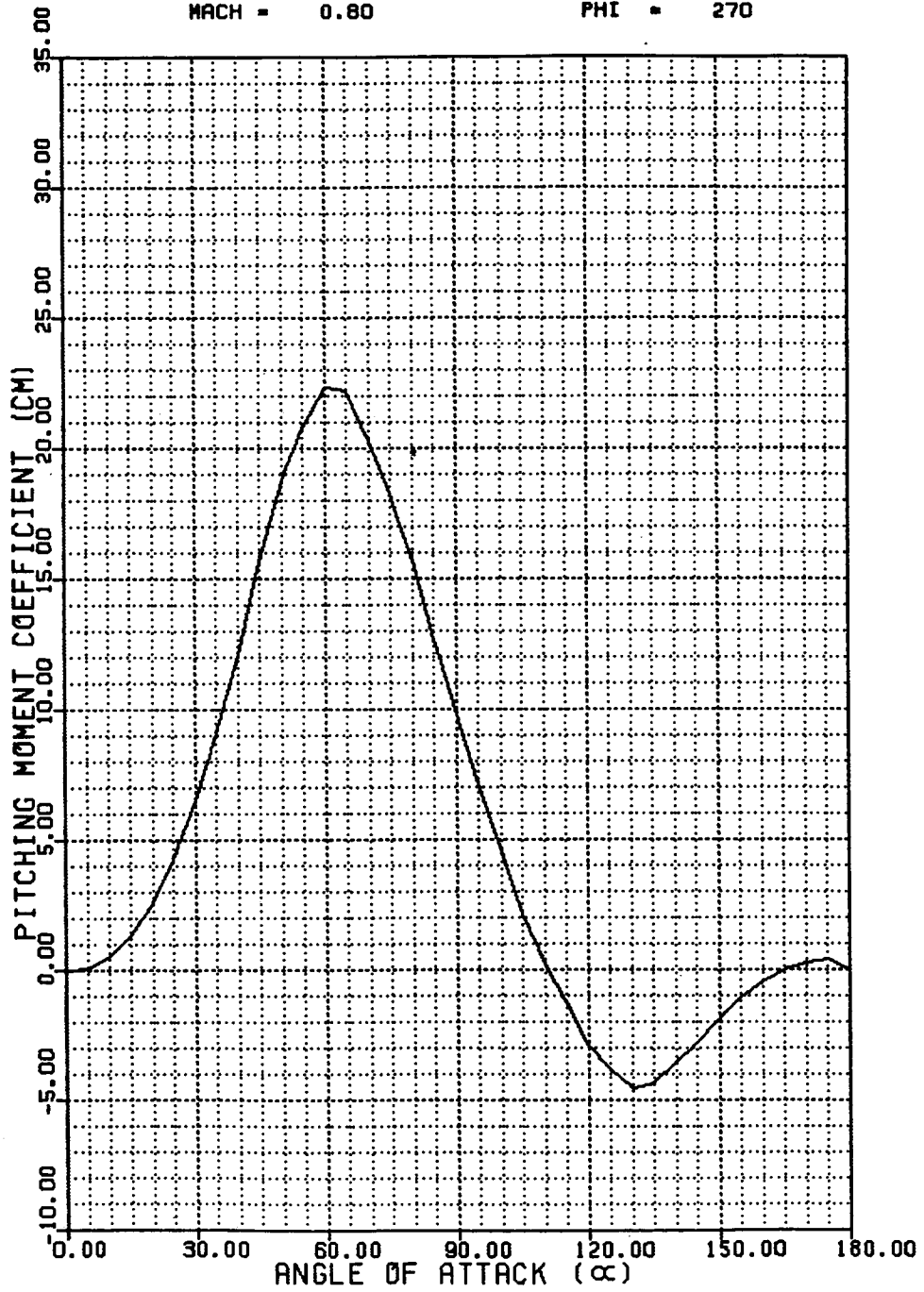


B-195

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270

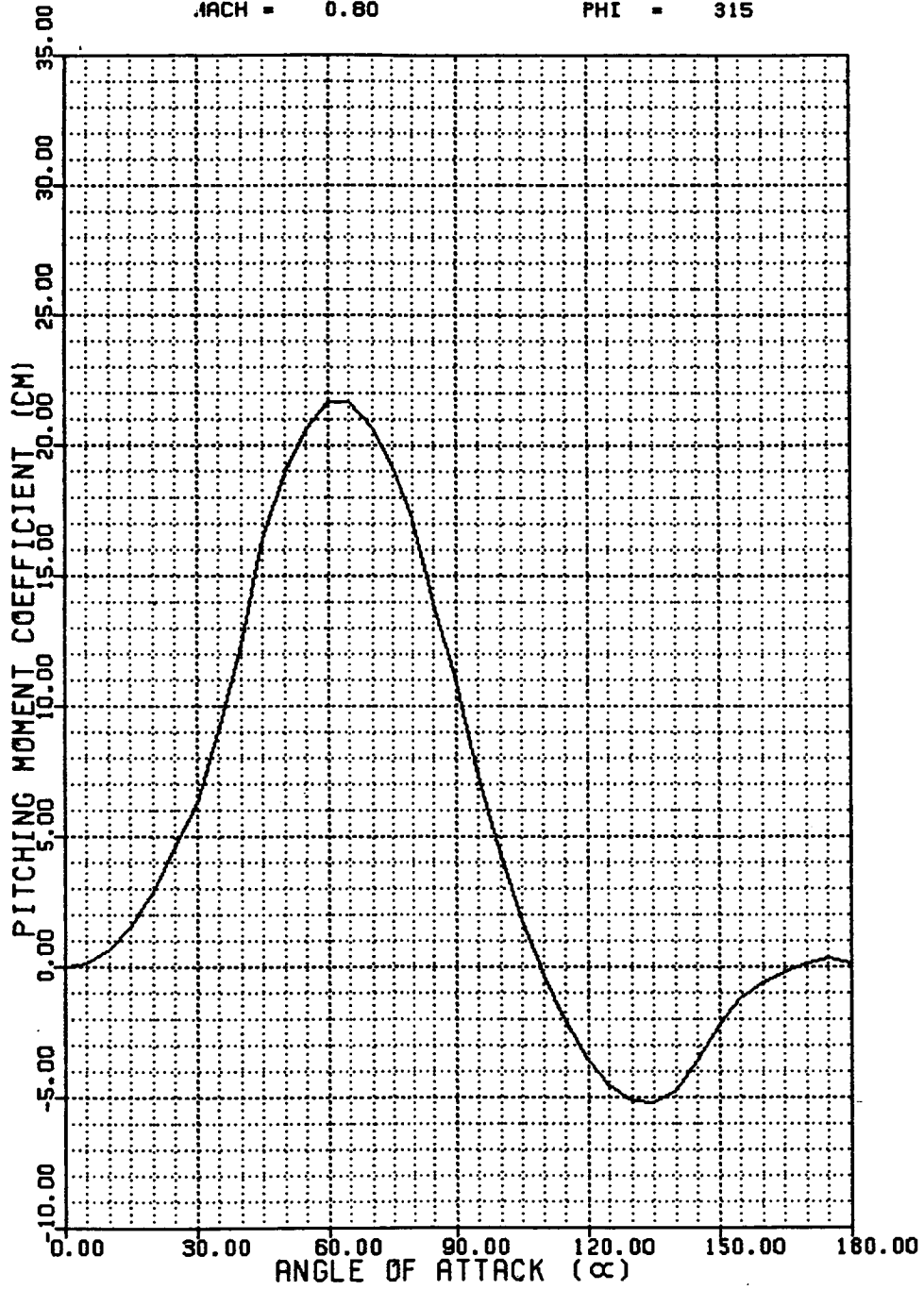


B-196

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 315

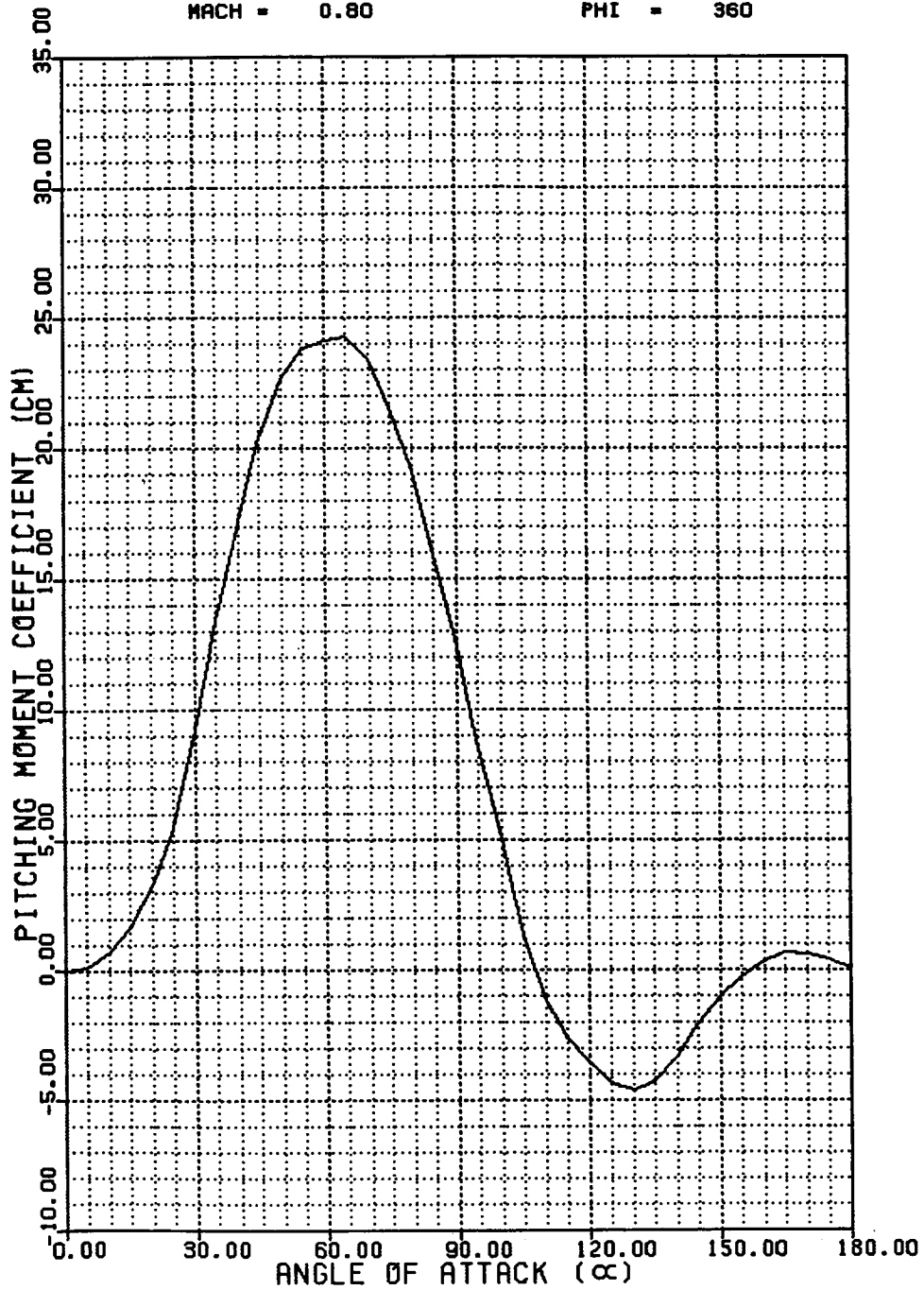


B-197

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360

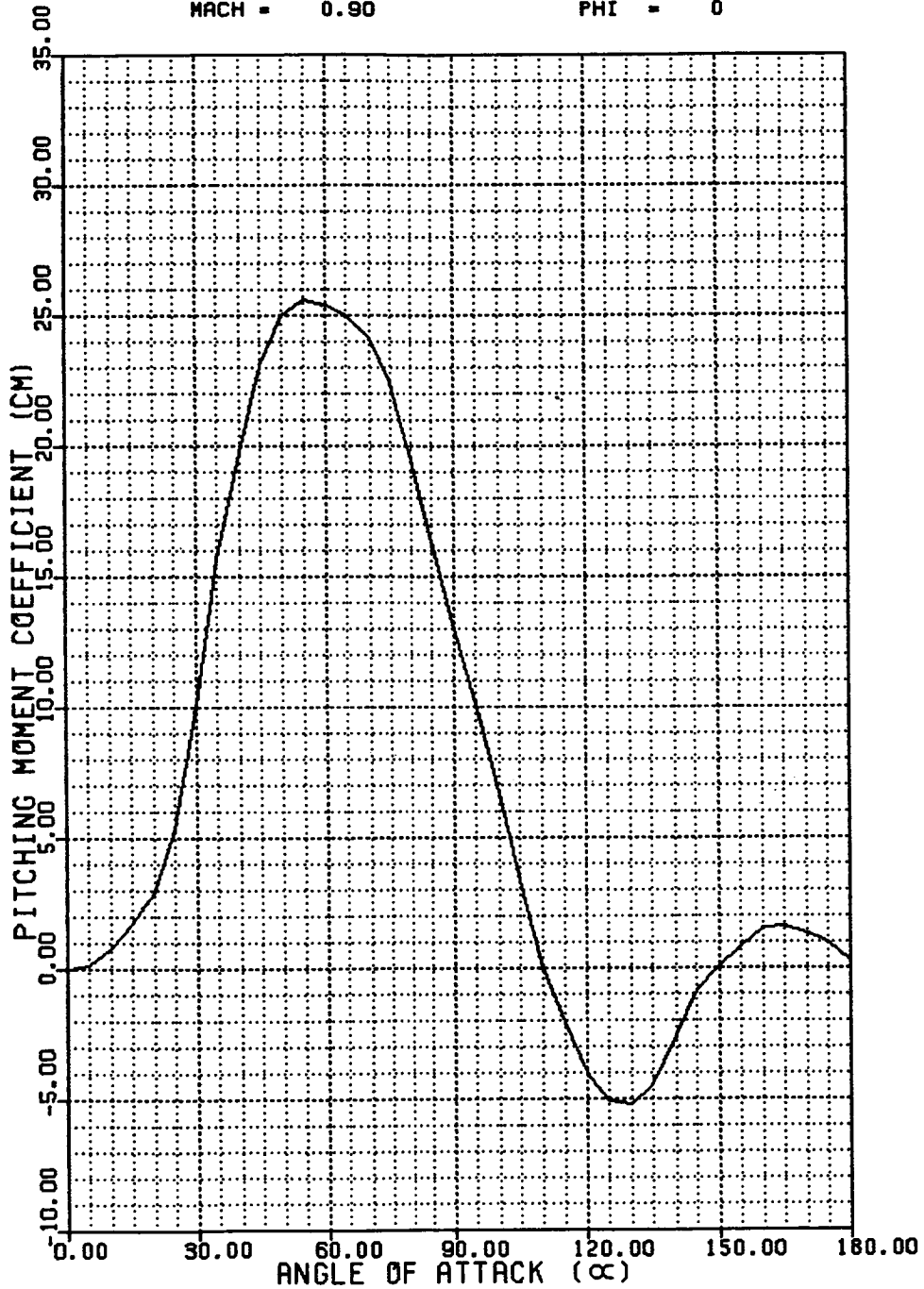


B-198

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0



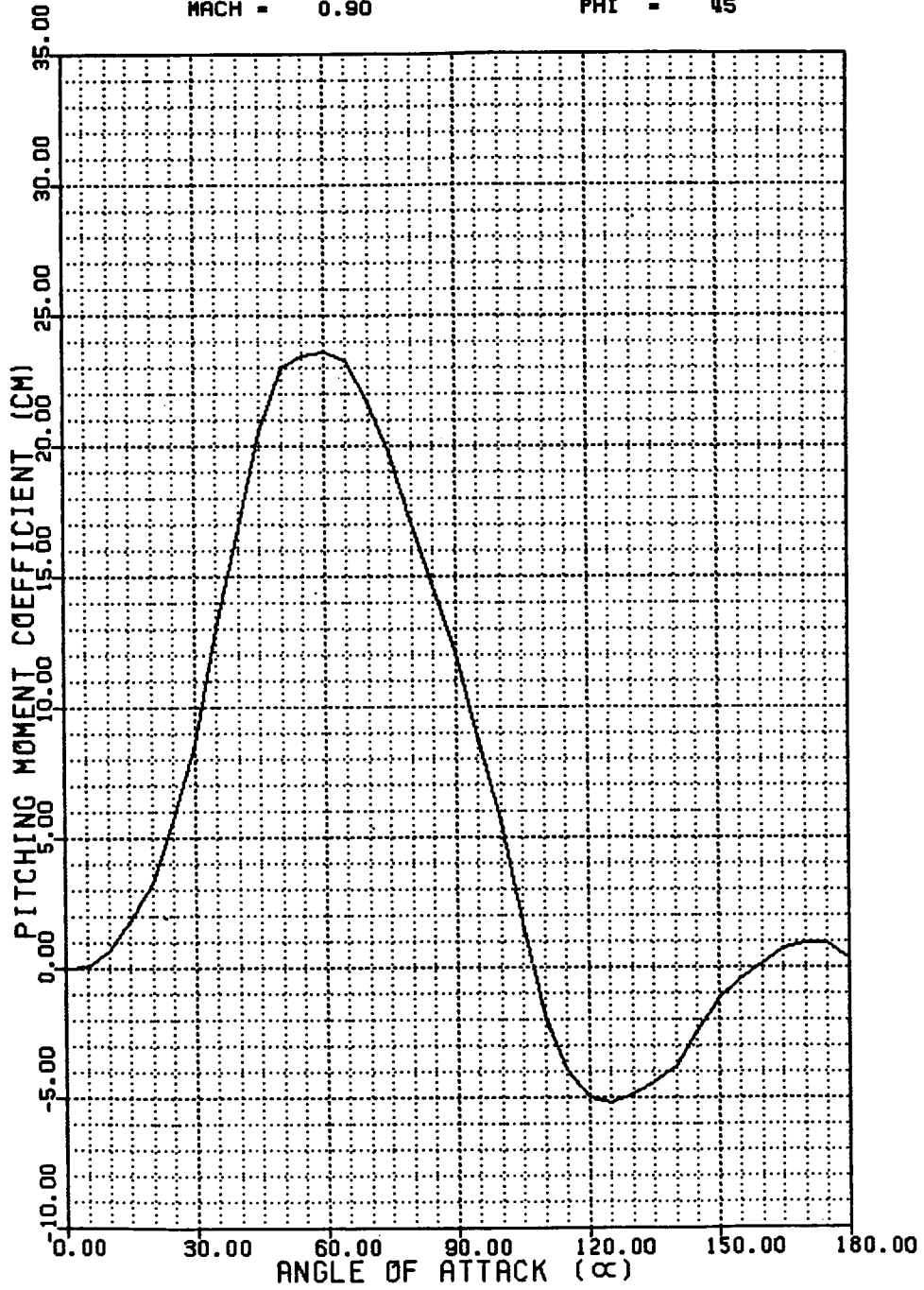
B-199

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45



B-200

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

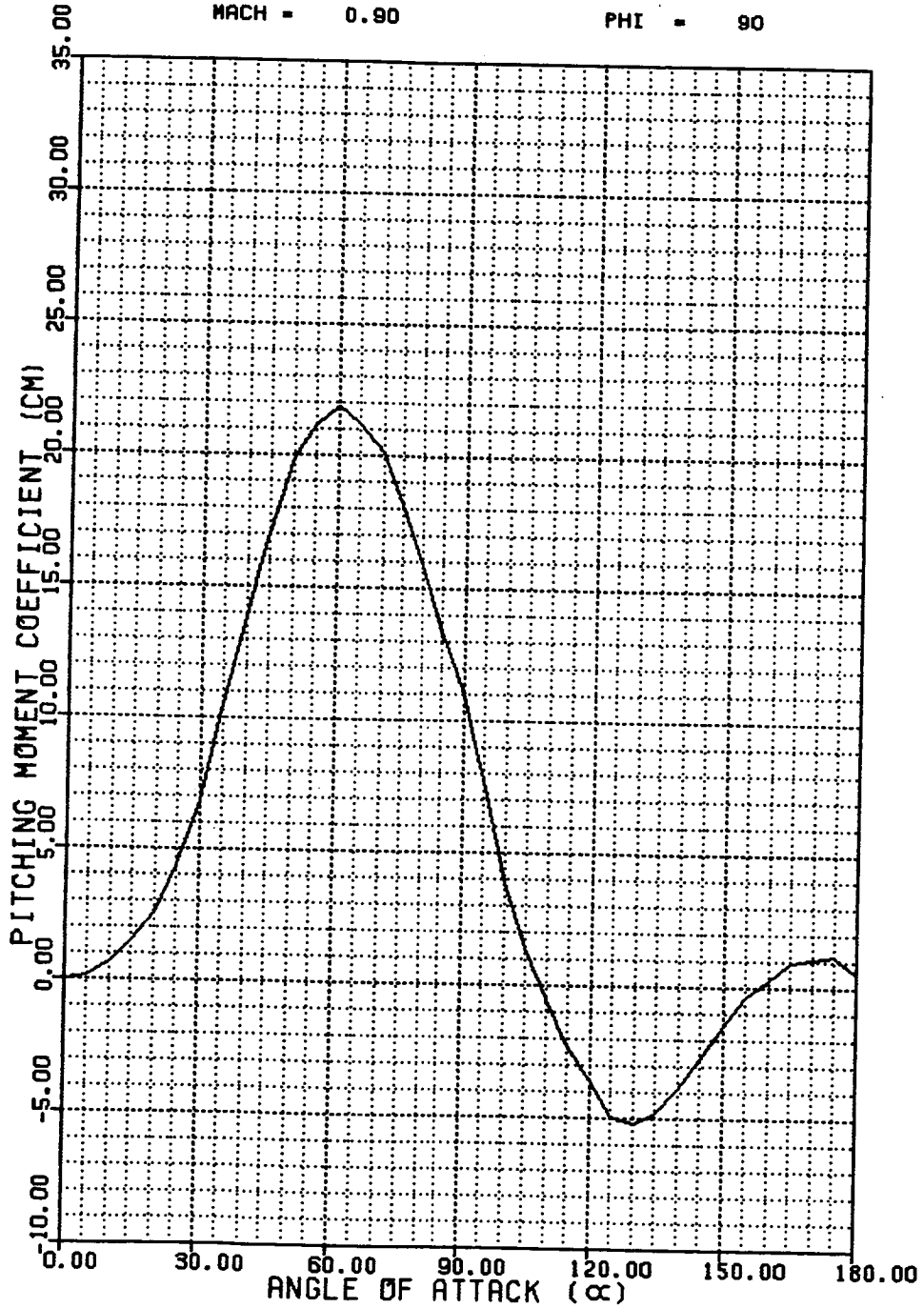
ORIGINAL DATA  
OF POOR QUALITY

LMSC-HREC TR D951500-1B

### SRB TAPE 8 DATA

MACH = 0.90

PHI = 90



B-201

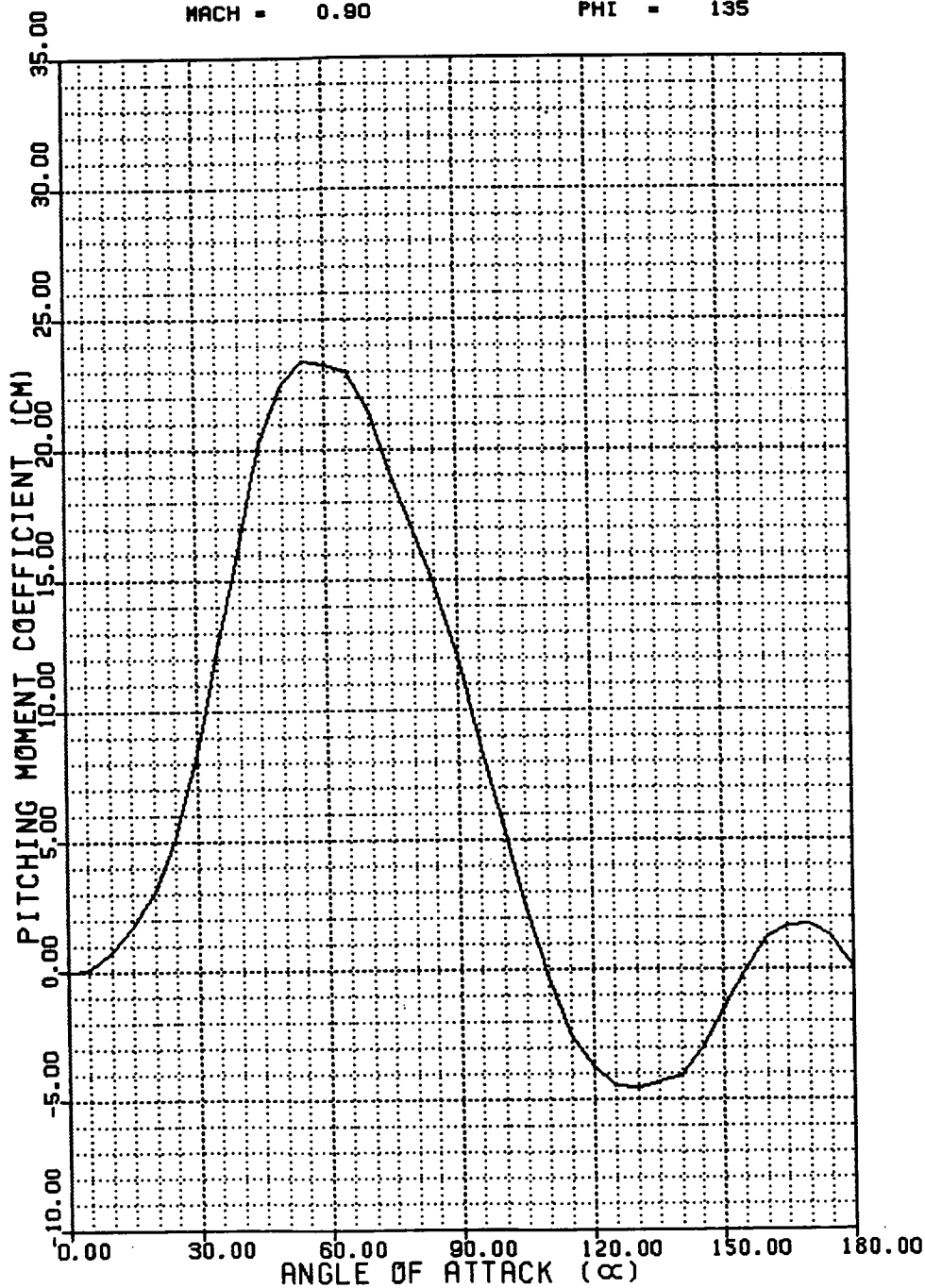
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135



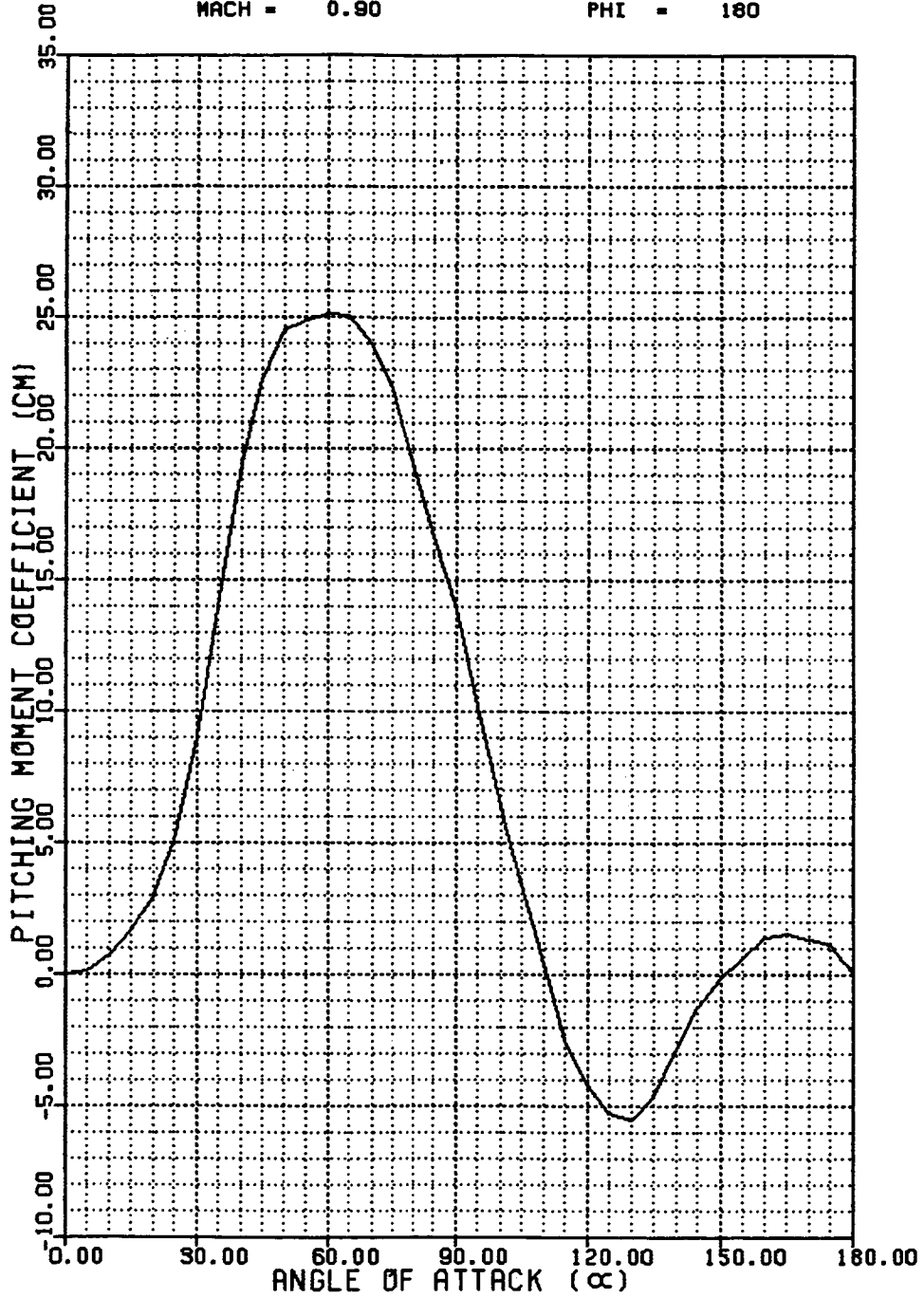
B-202

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180



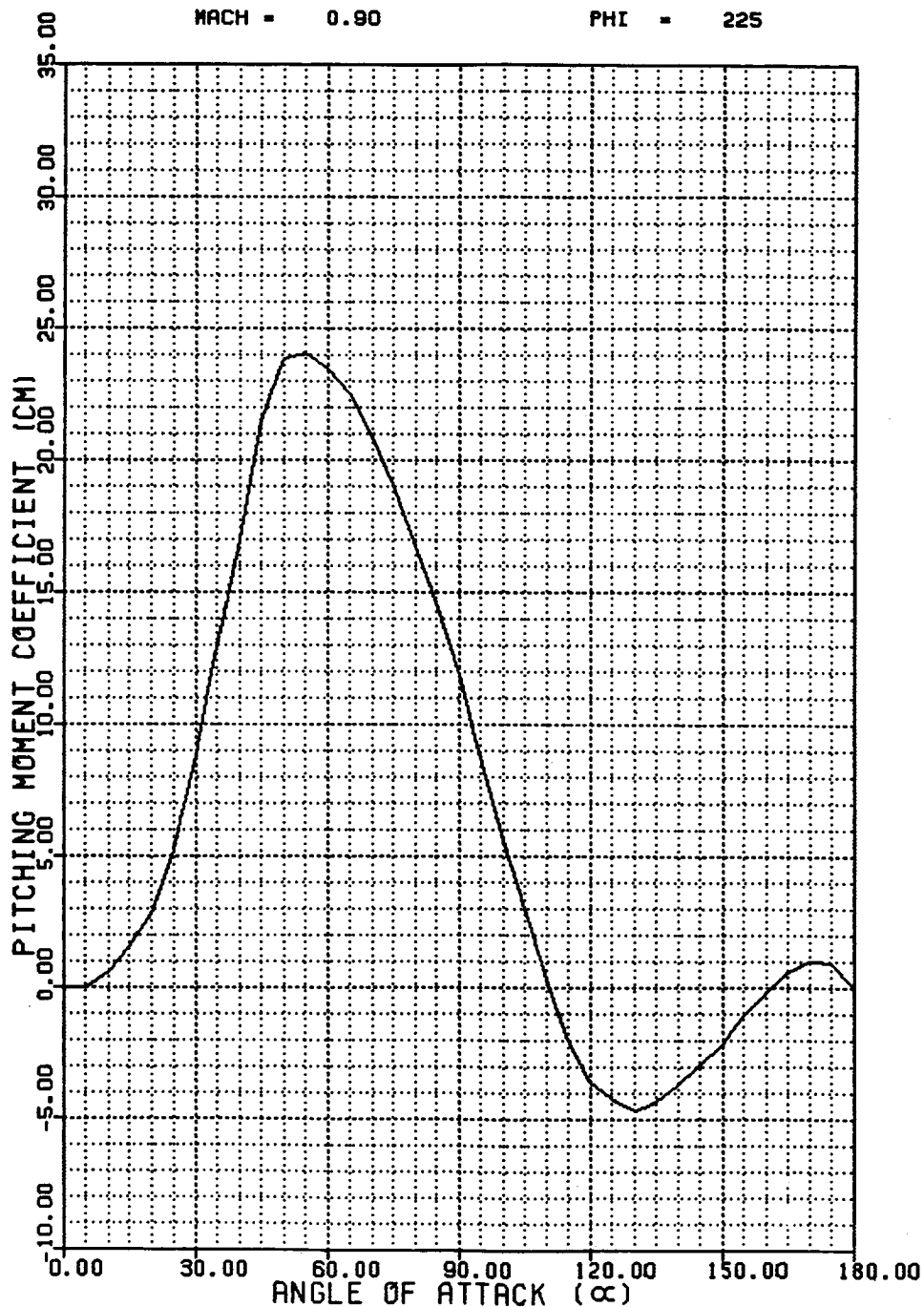
B-203

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225

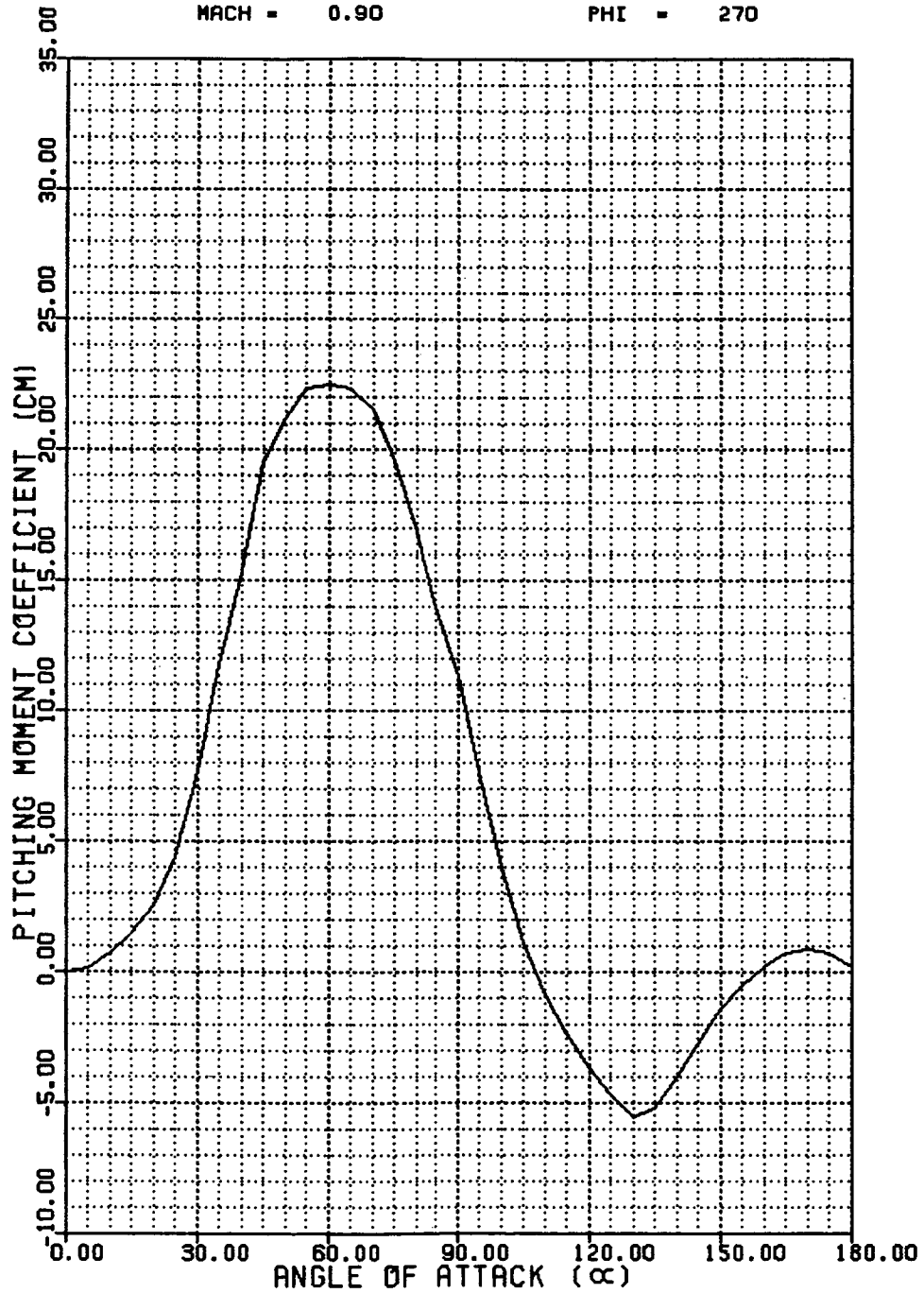


B-204

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270

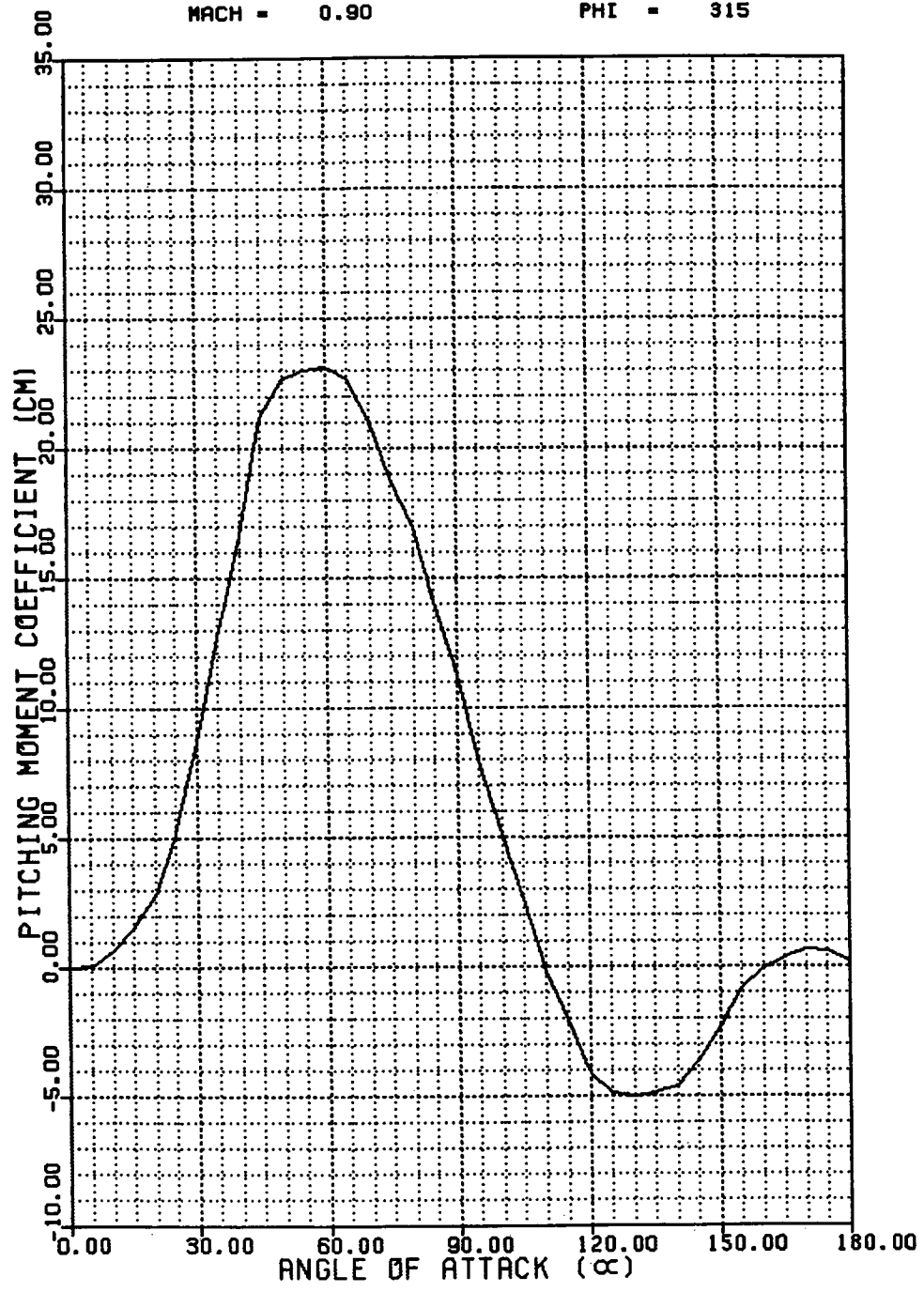


B-205

# SRB TAPE 8 DATA

MACH - 0.90

PHI - 315

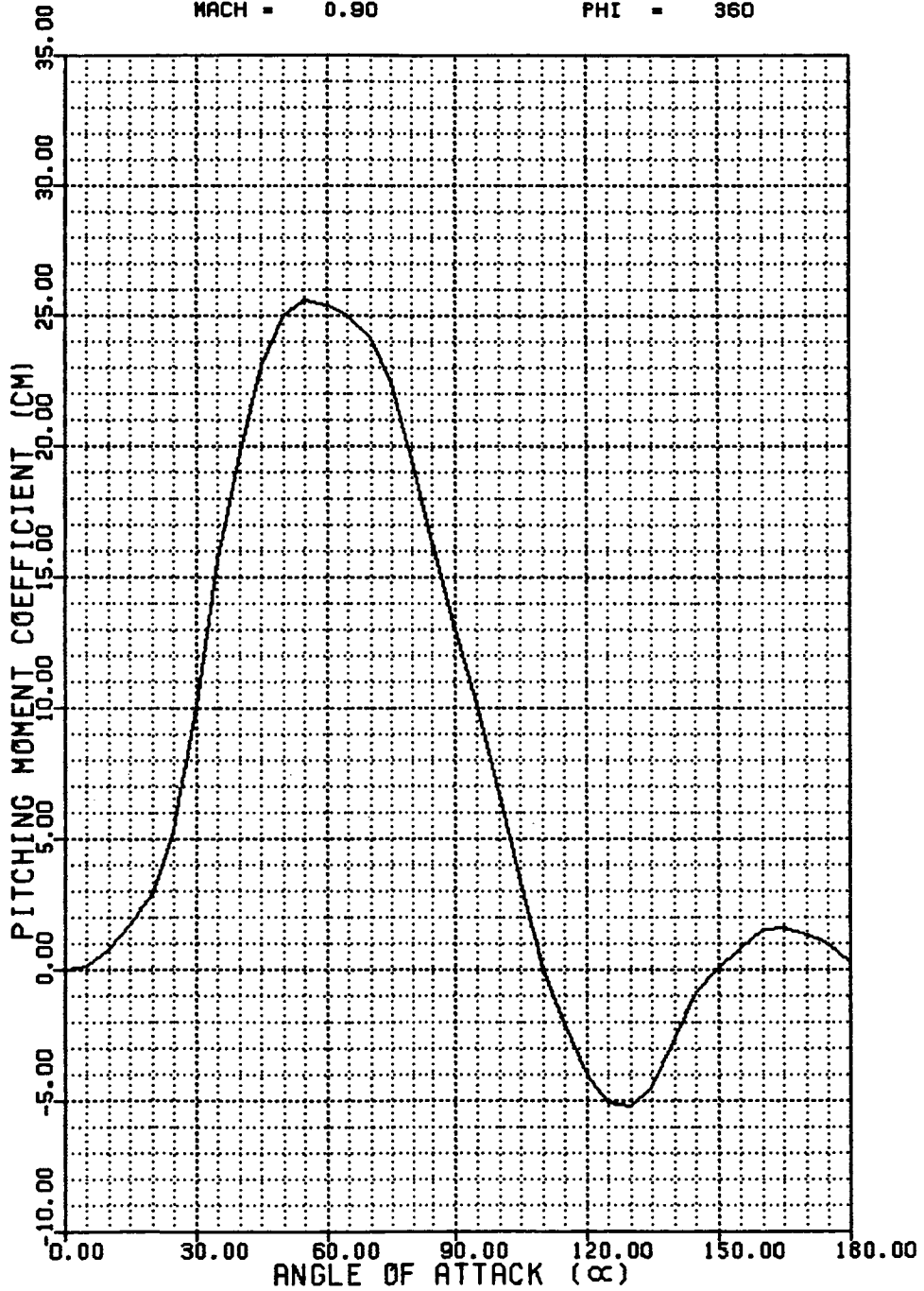


B-206

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360

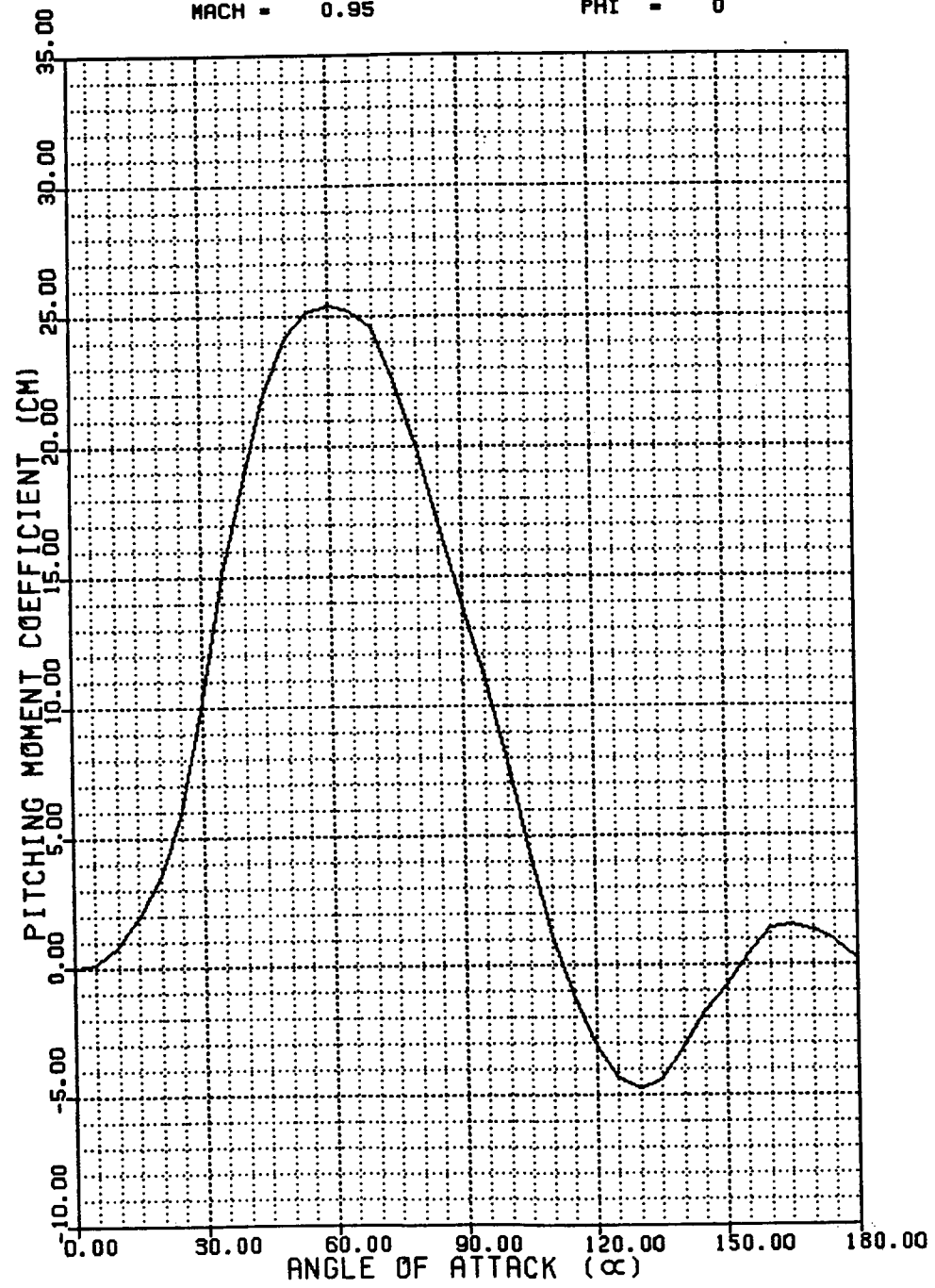


B-207

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0

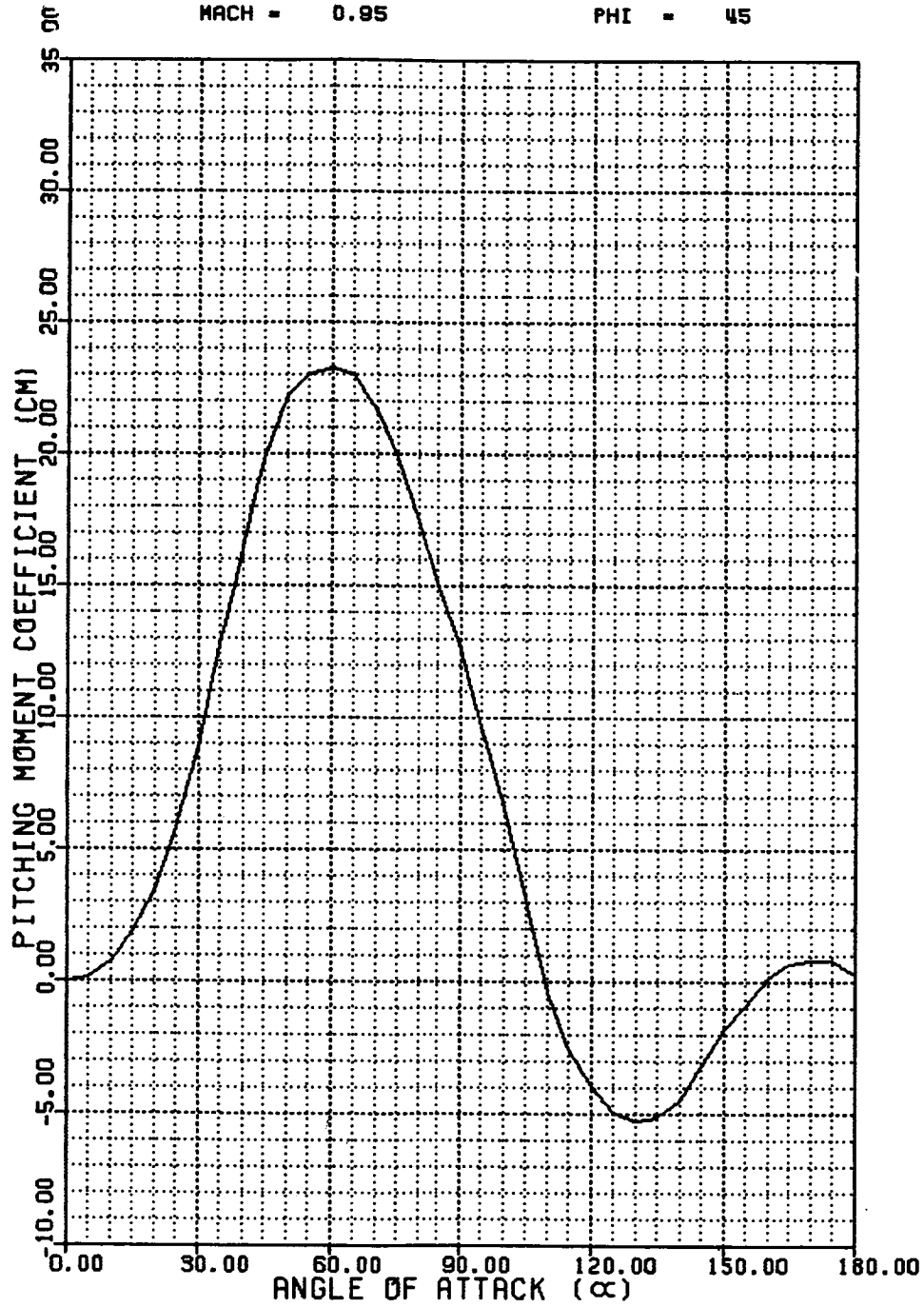


B-208

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45



B-209

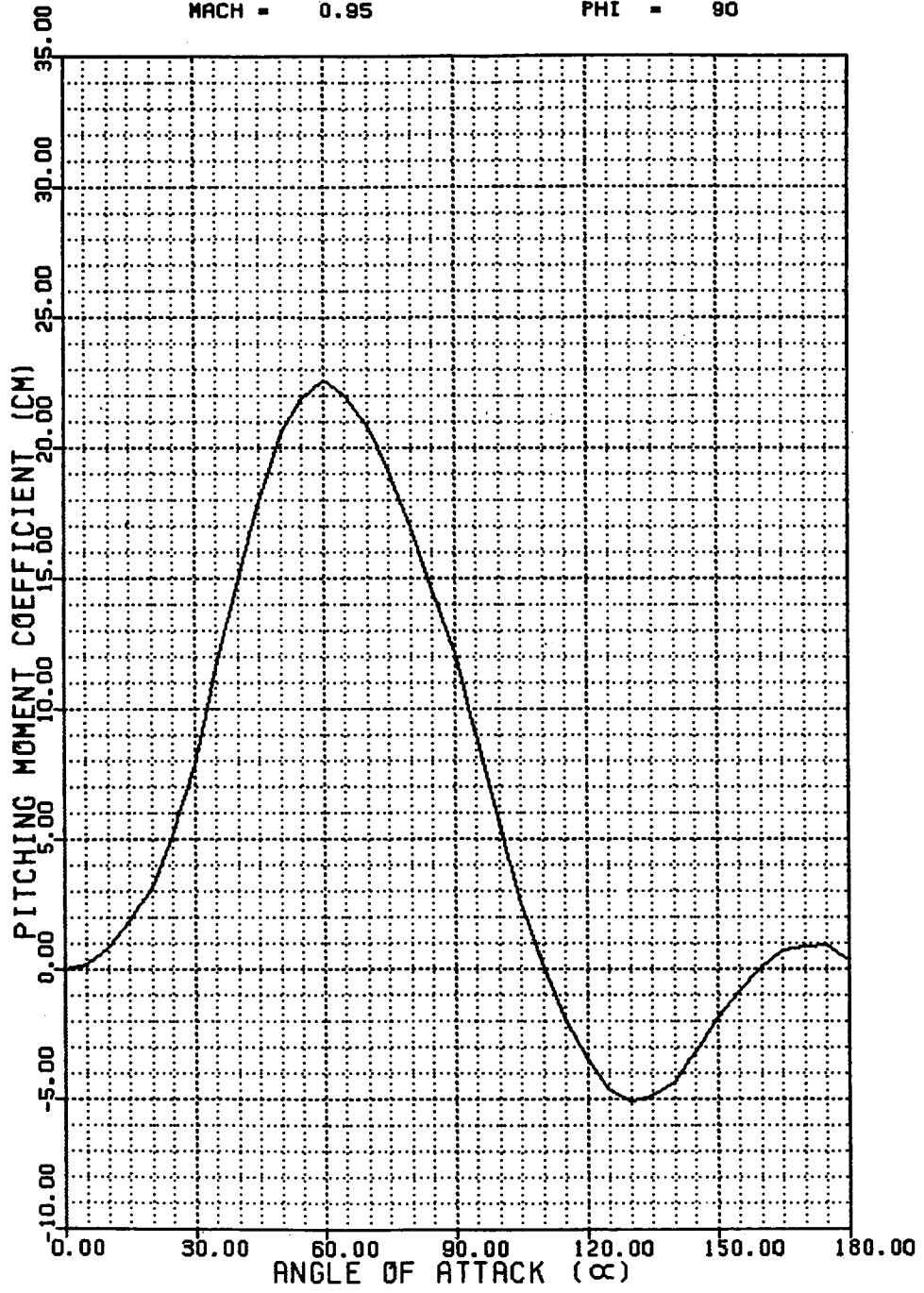
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90



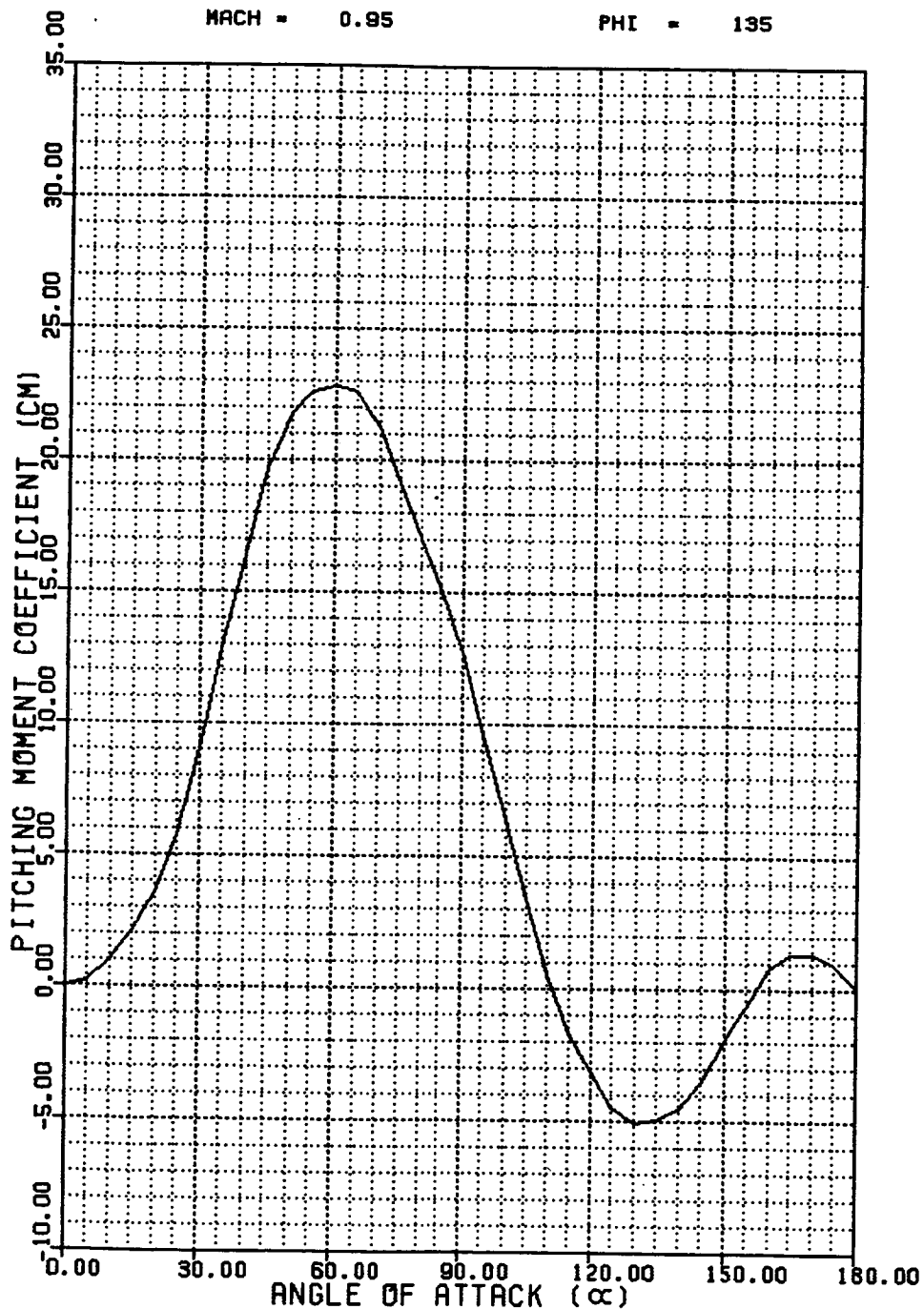
B-210

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135

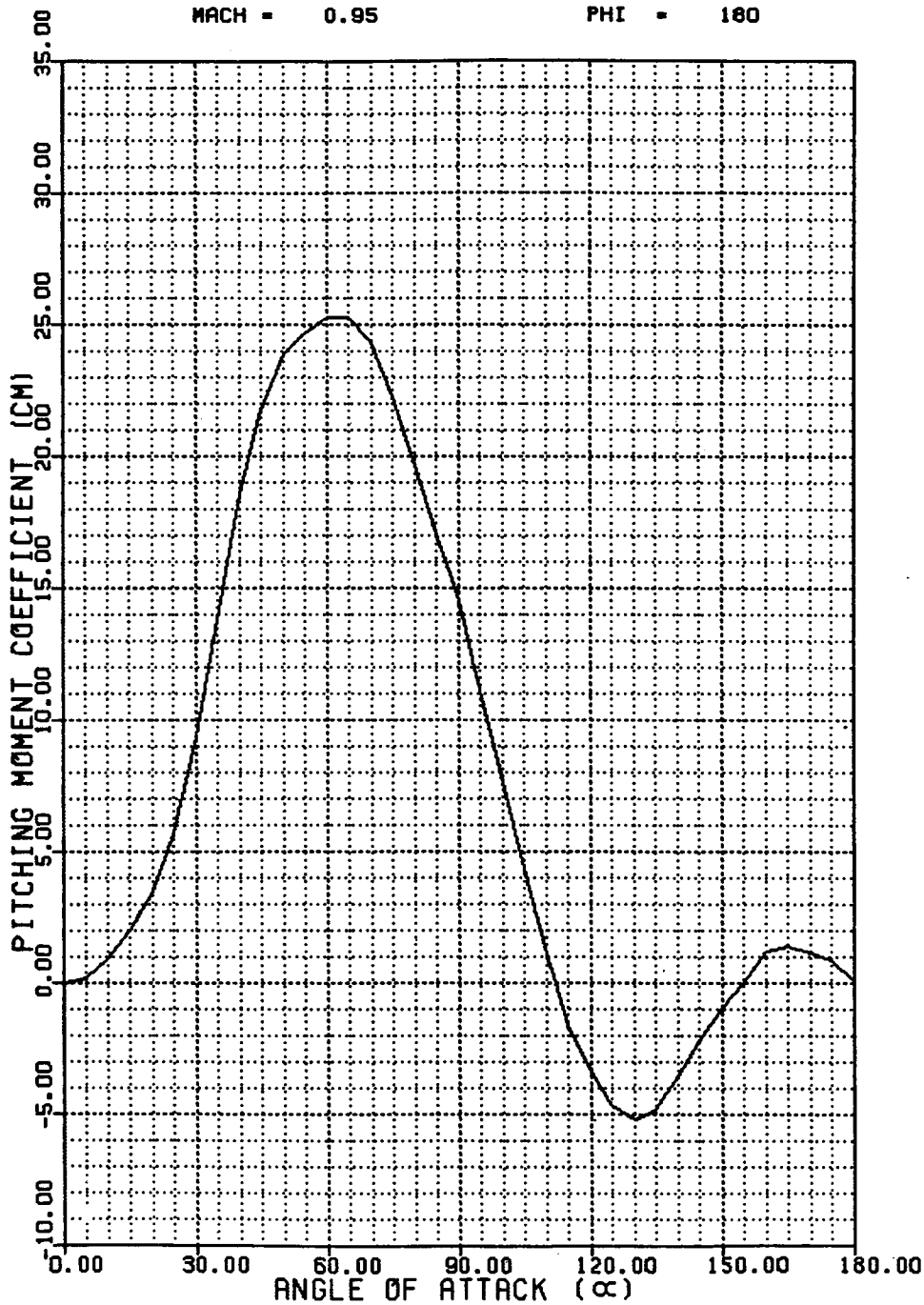


B-211

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180

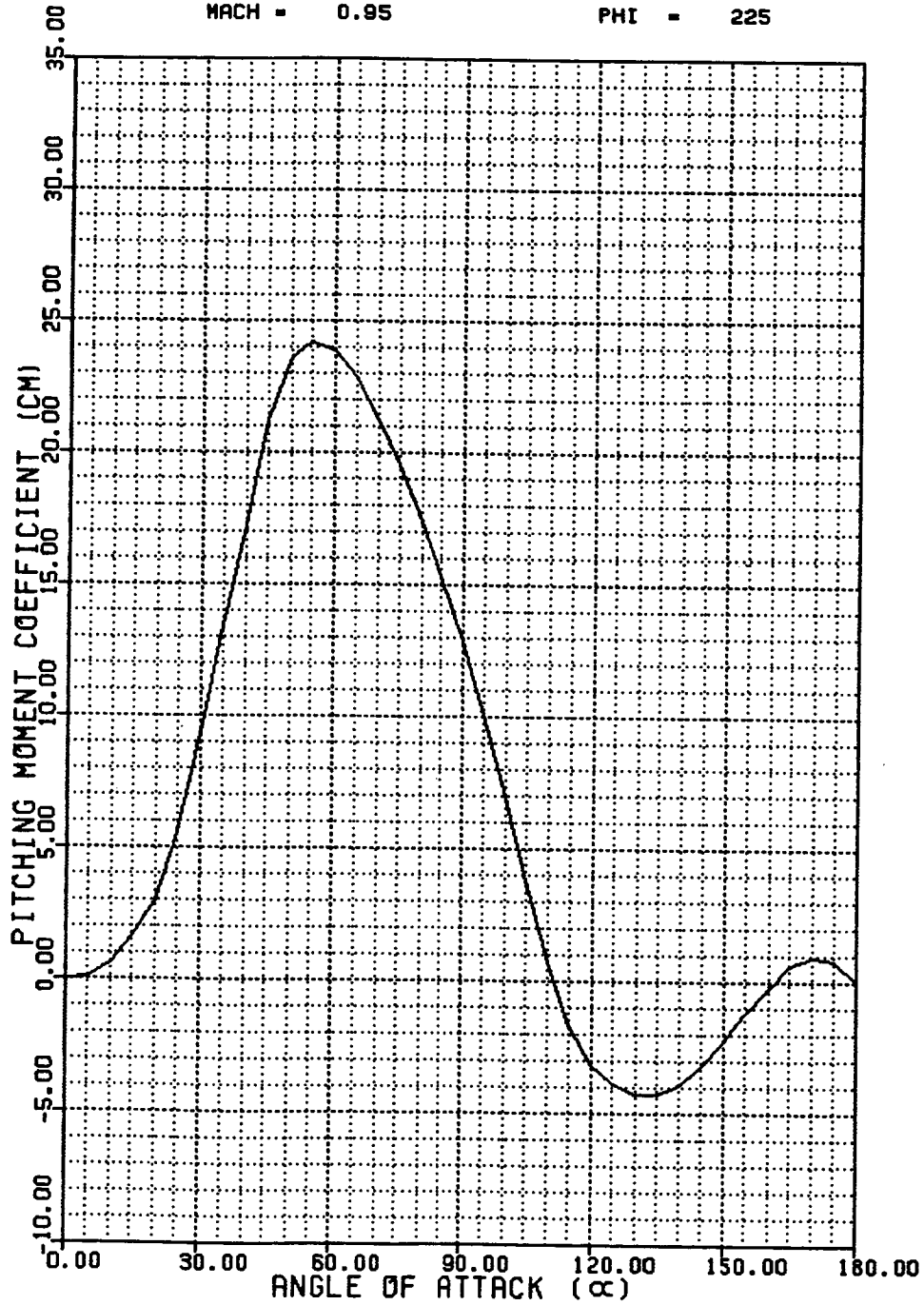


B-212

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 225

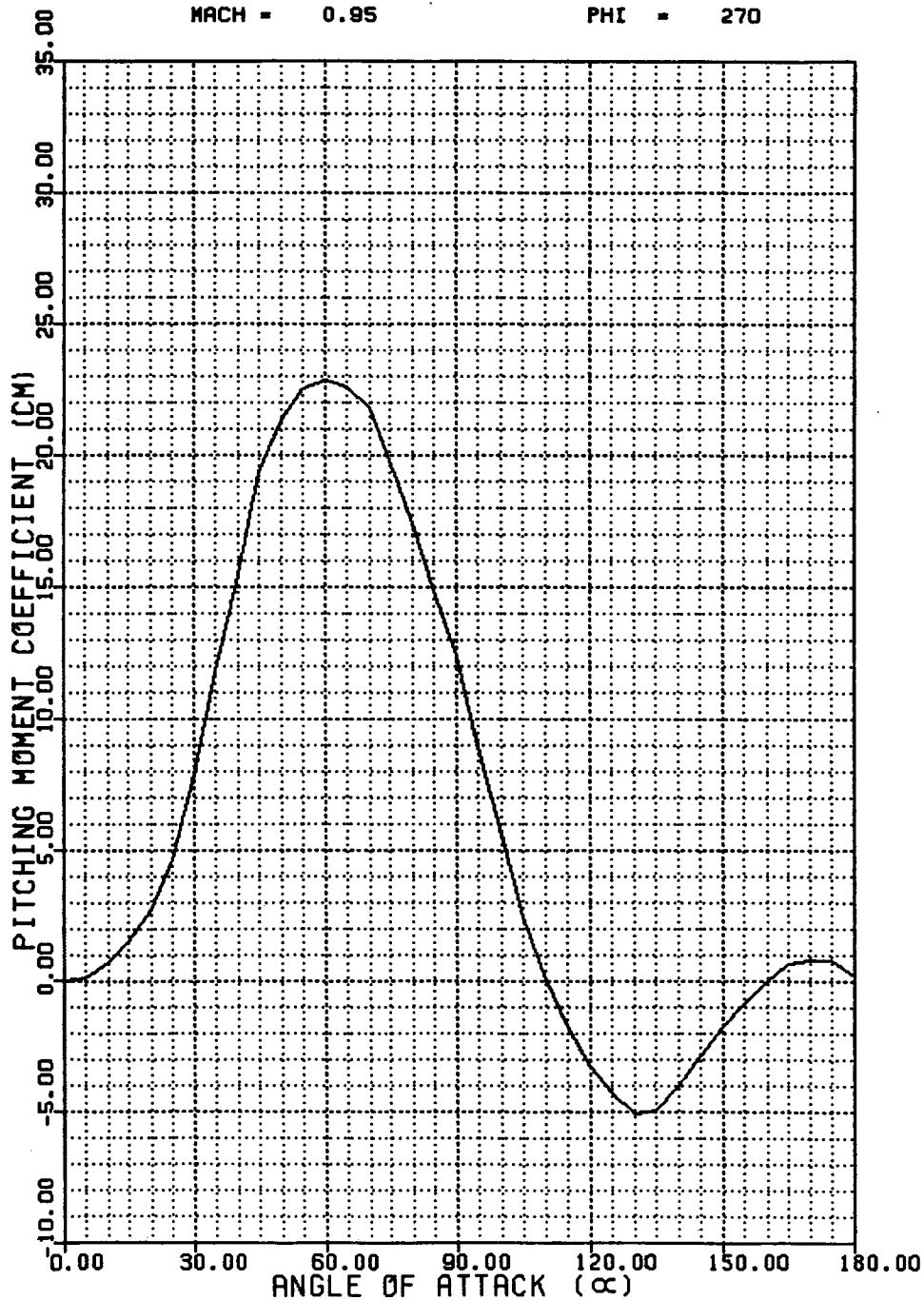


B-213

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270

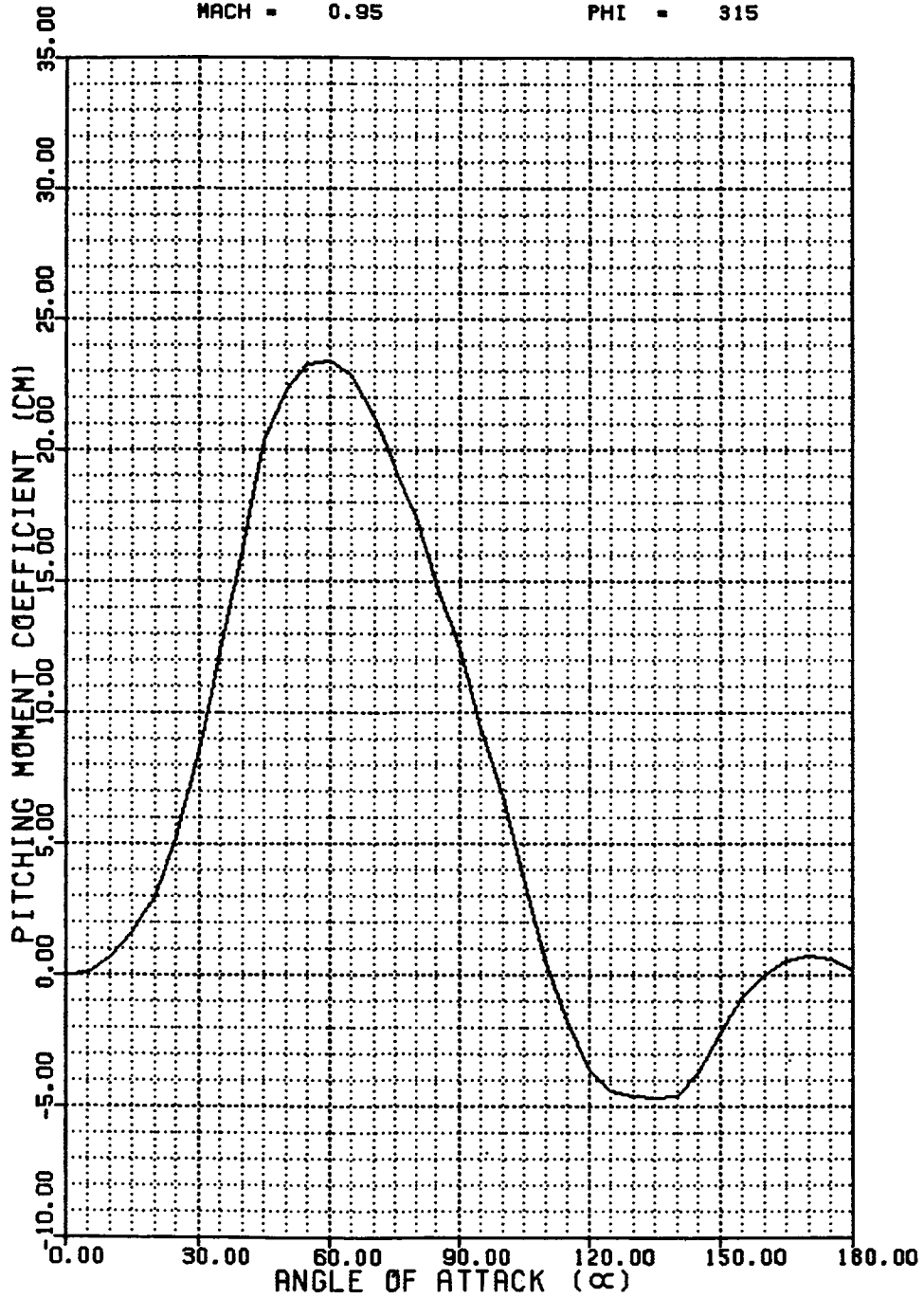


B-214

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 315



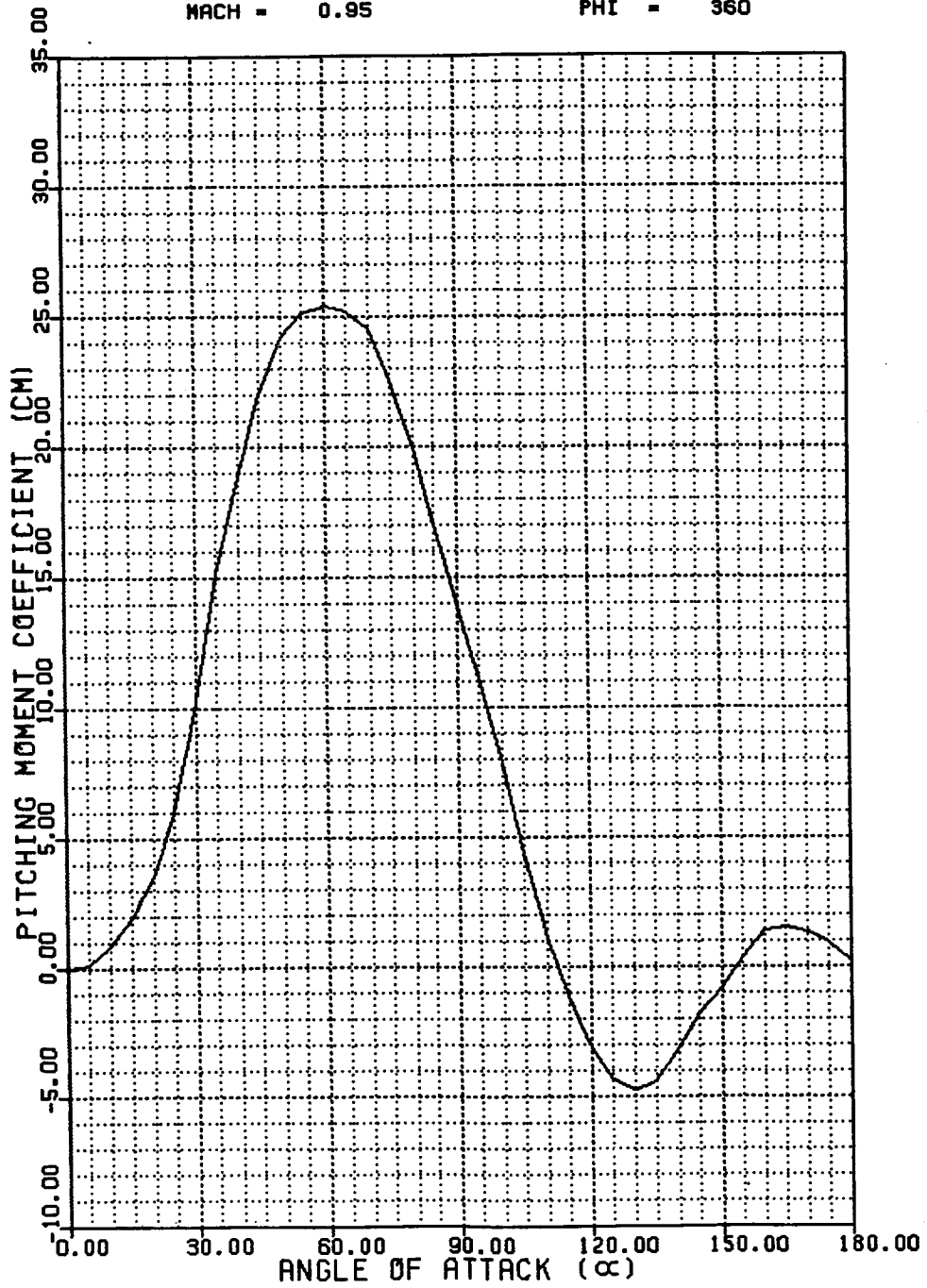
B-215

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360

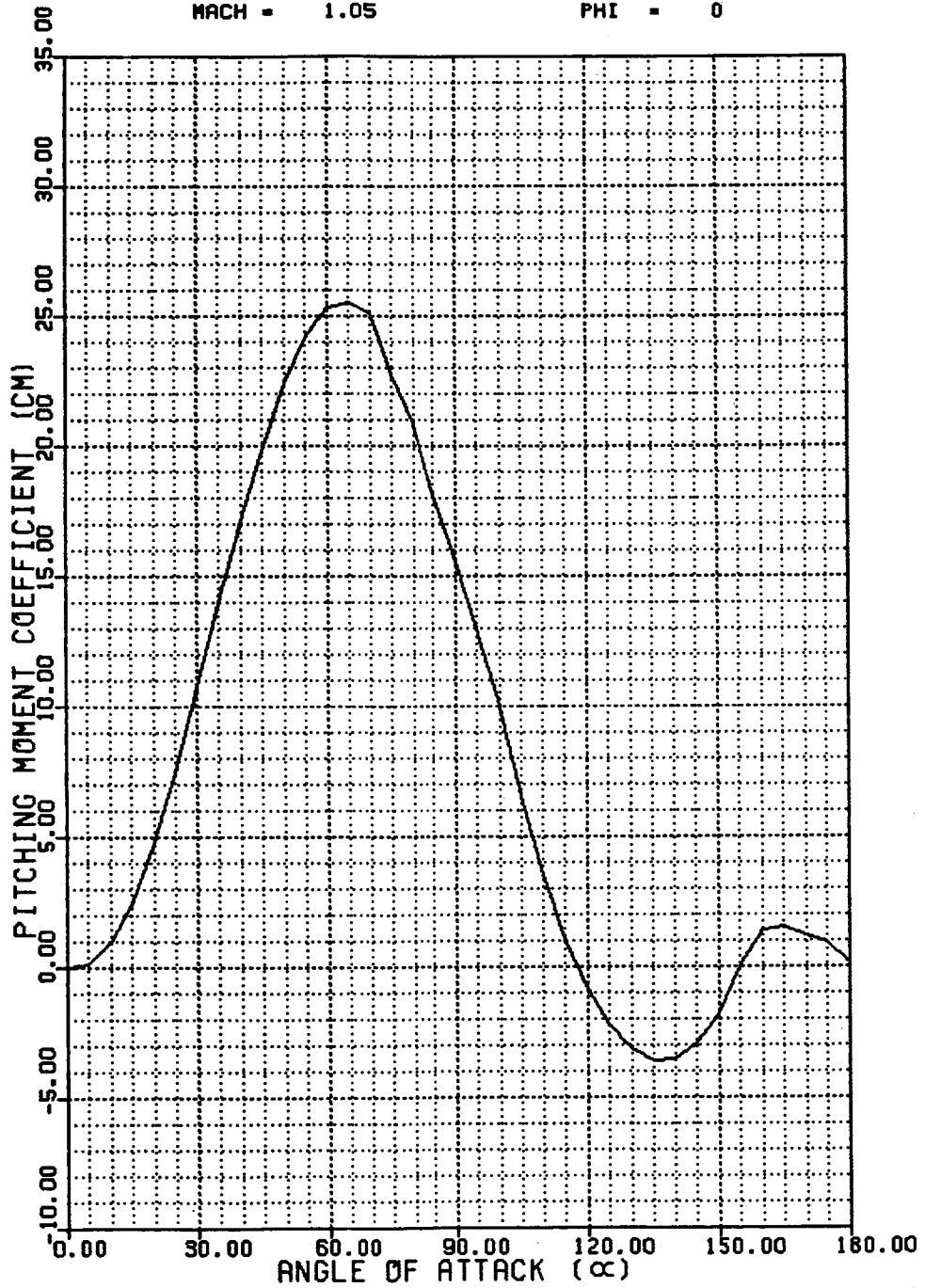


B-216

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0



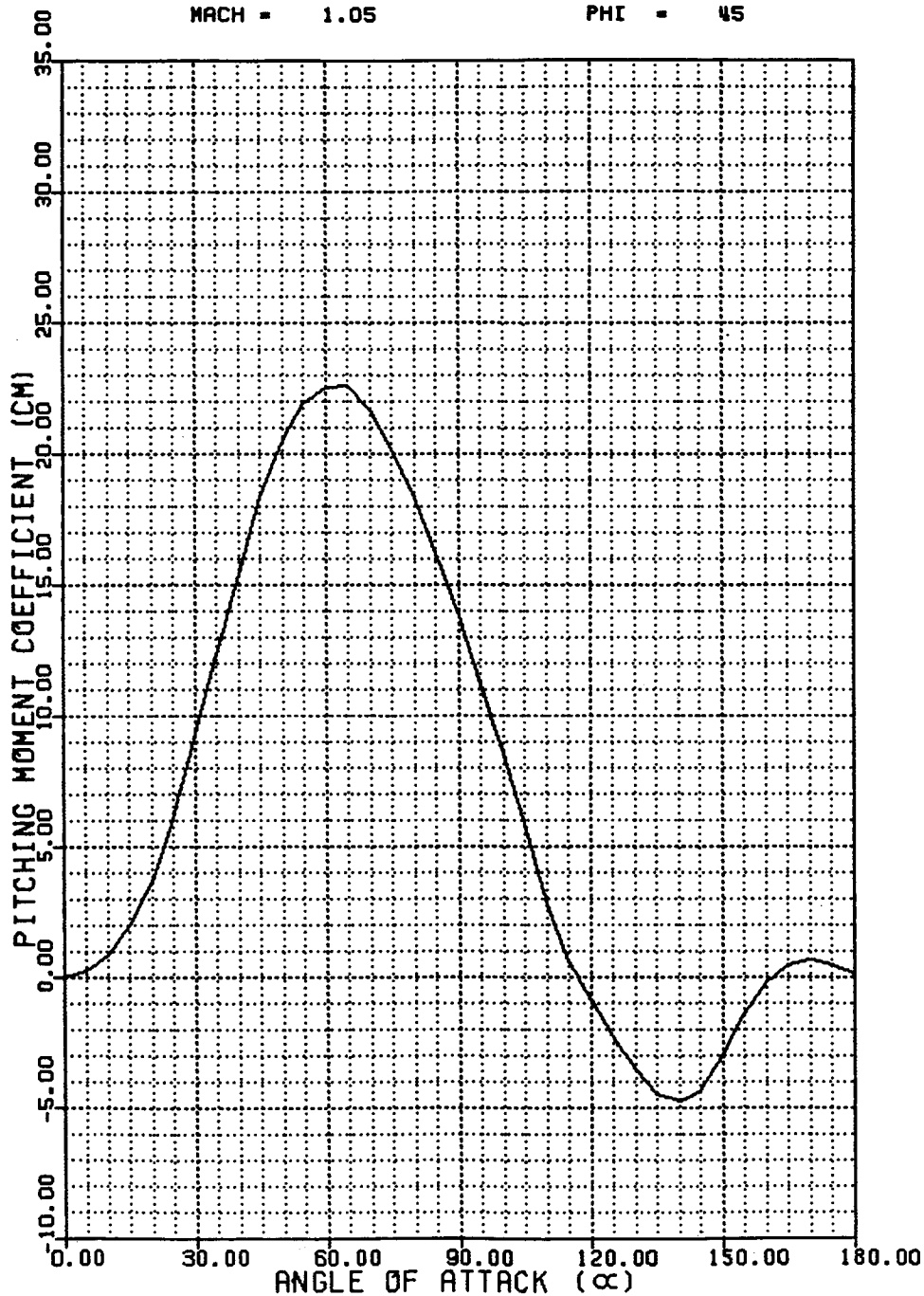
B-217



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



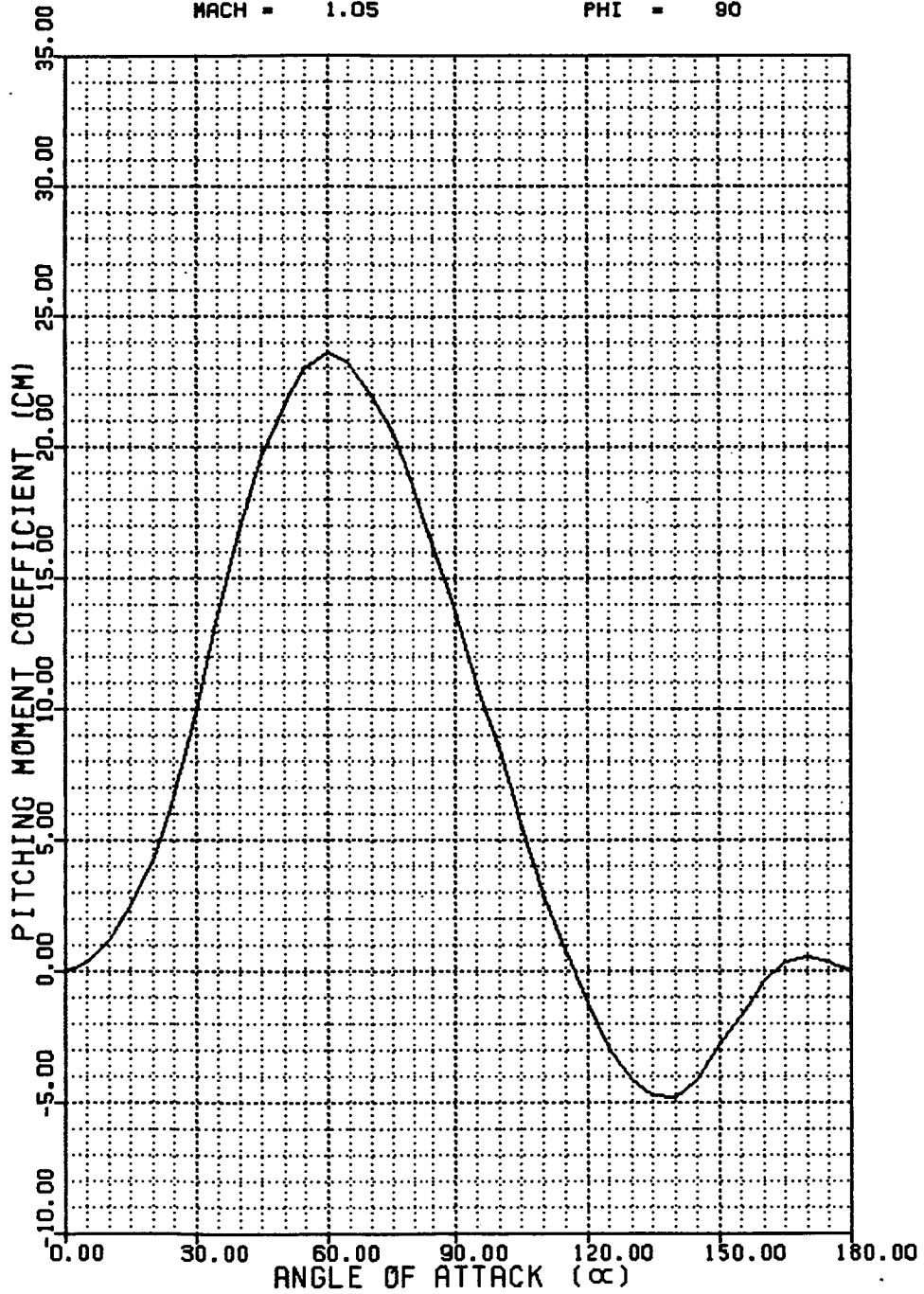
B-218

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90

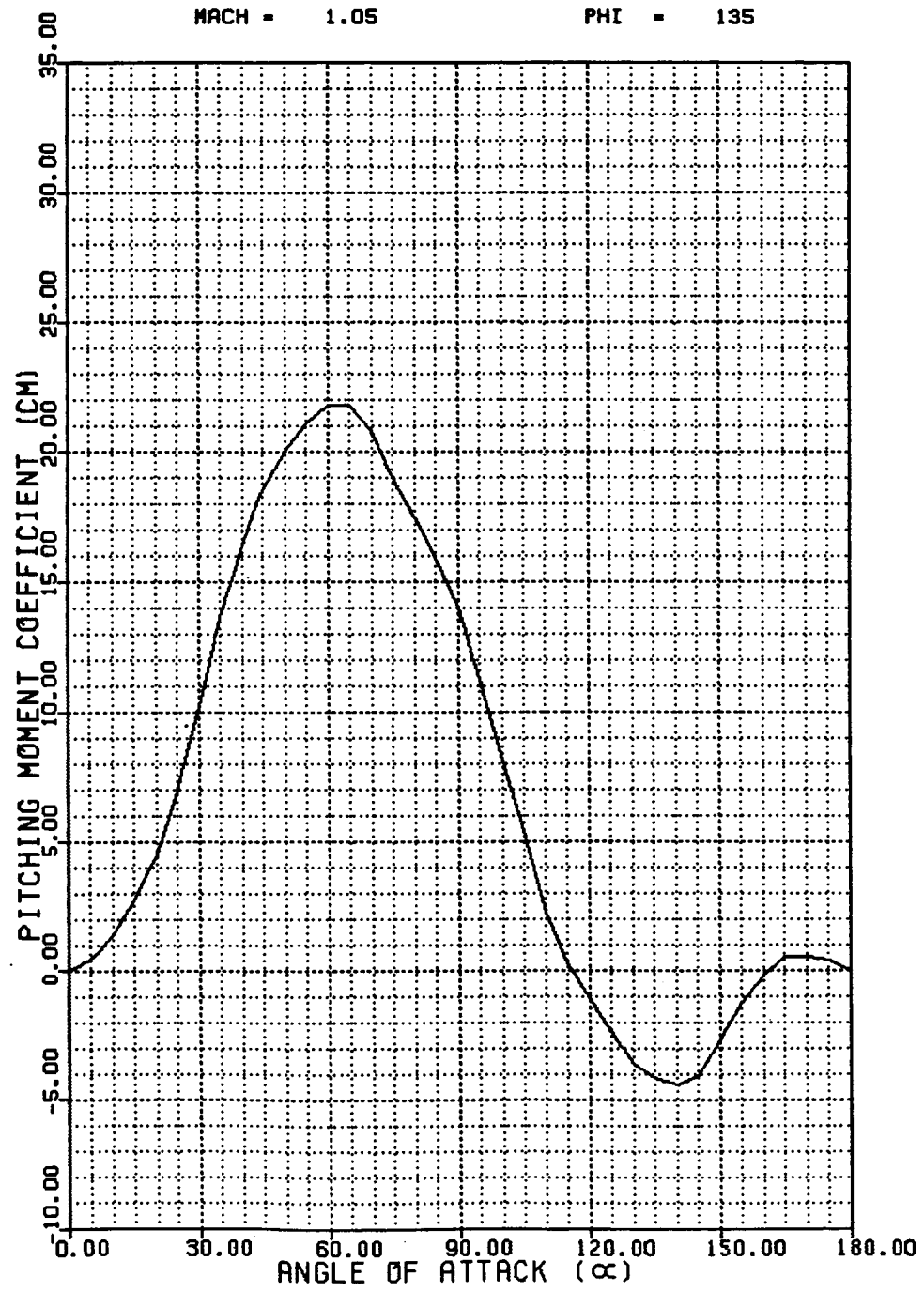


B-219

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135

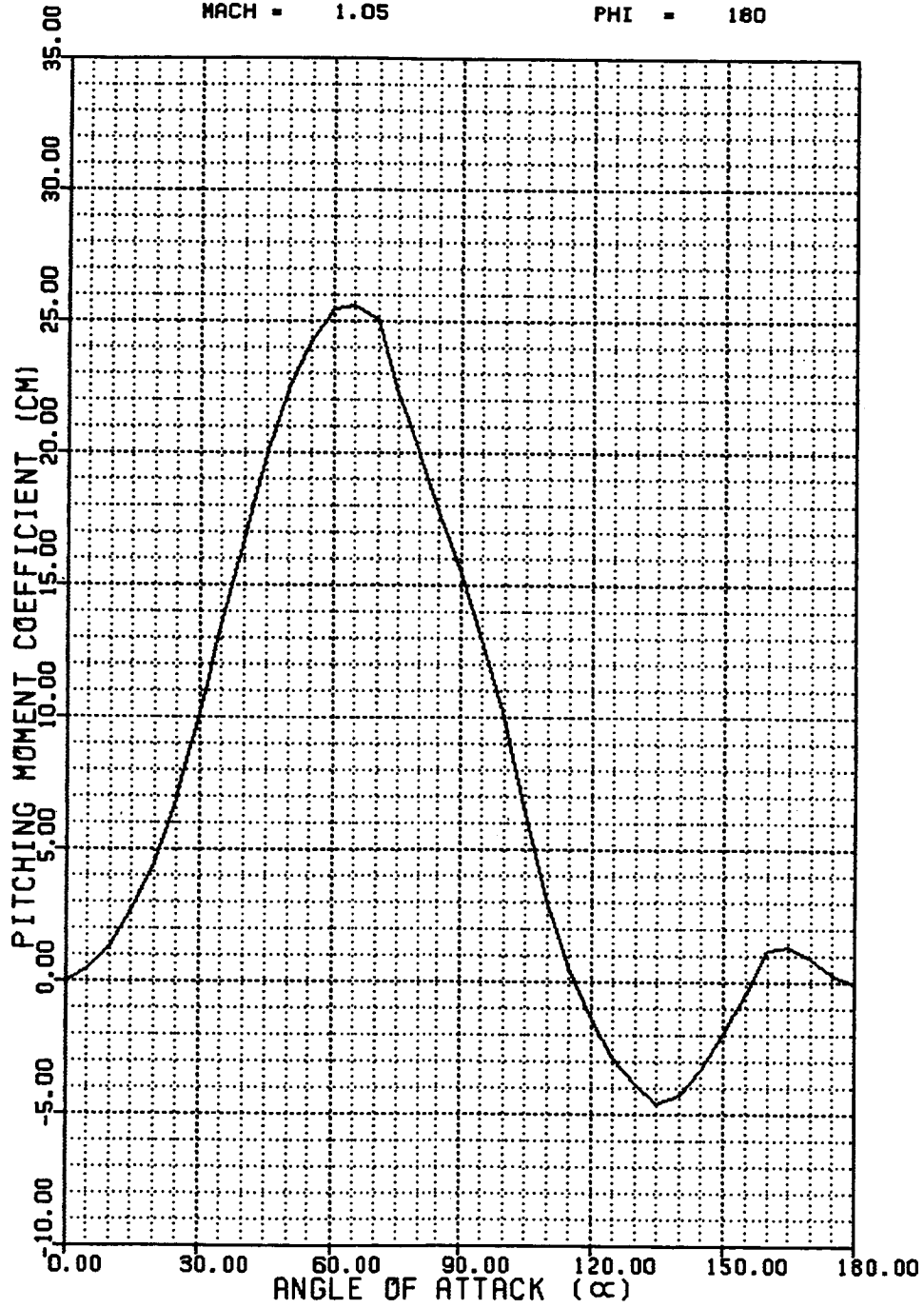


B-220

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180

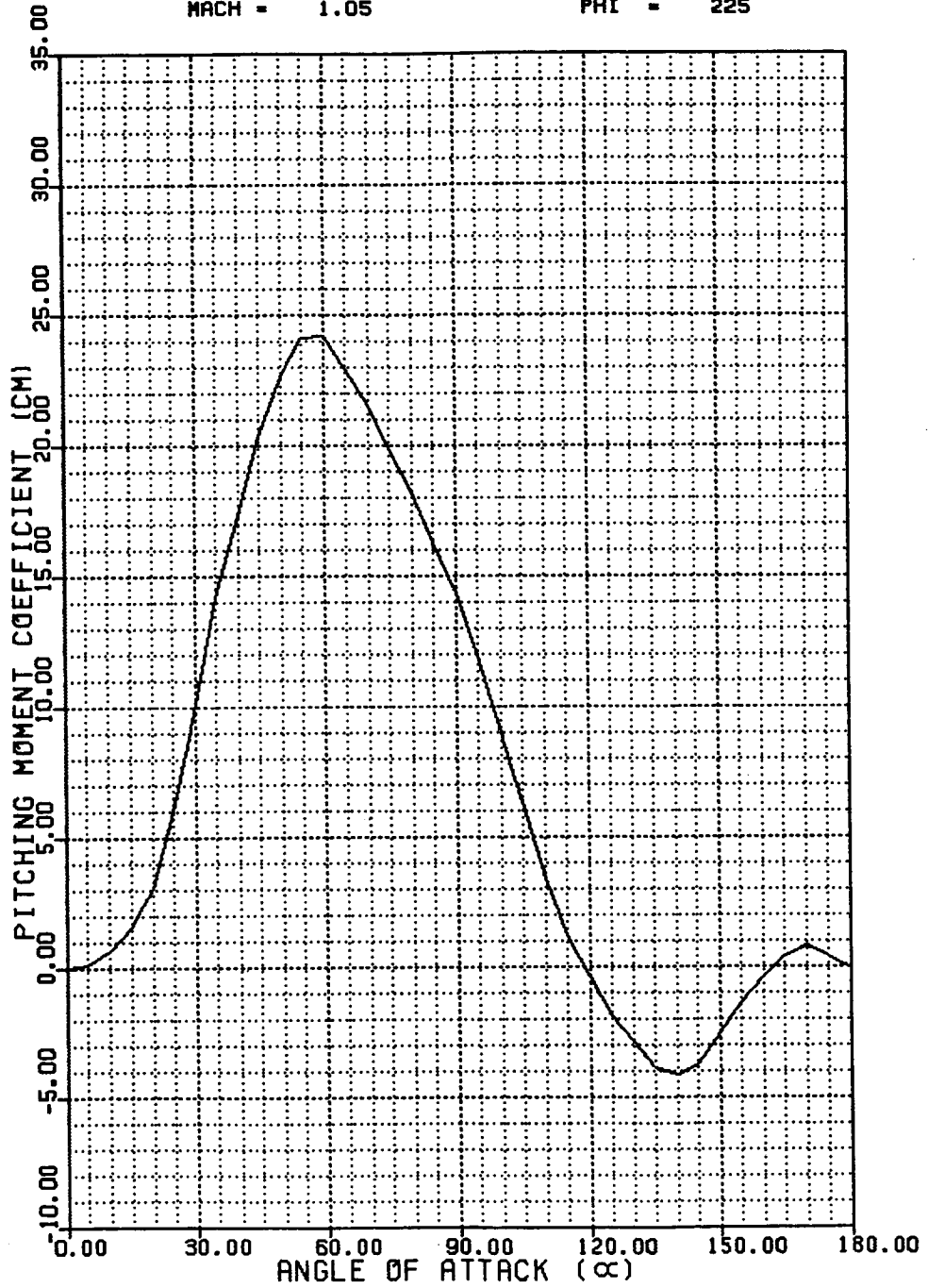


B-221

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225

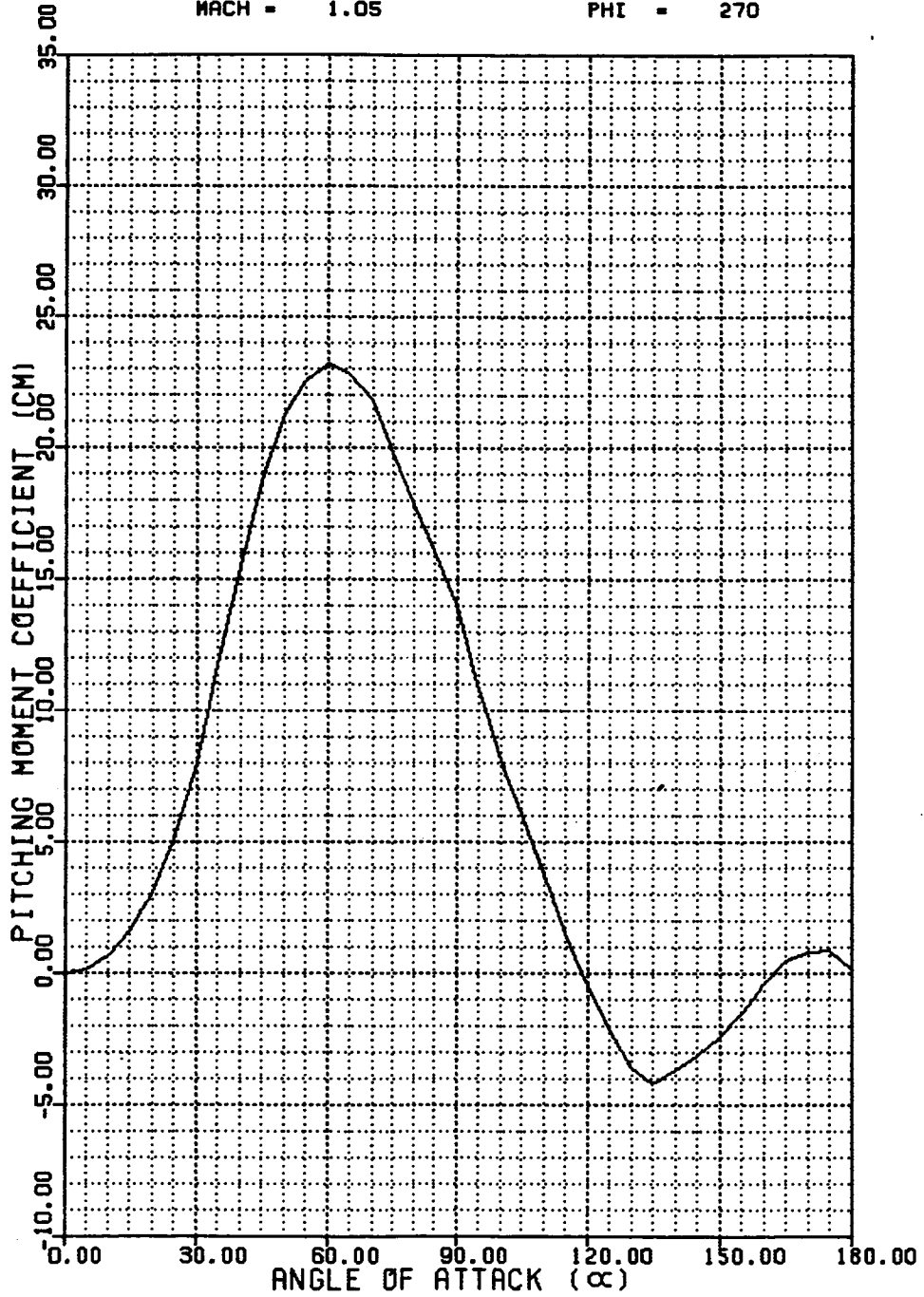


B-222

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270



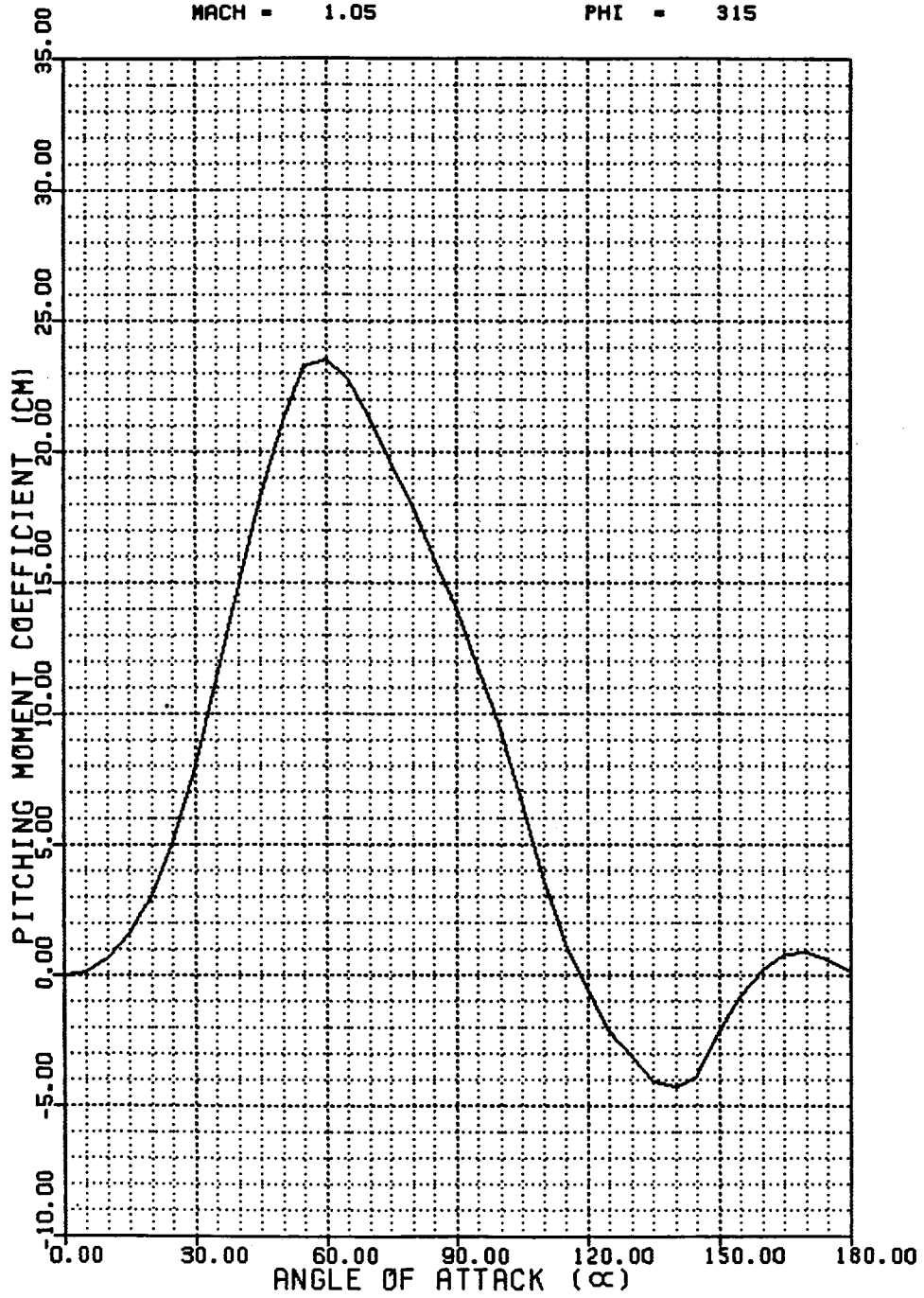
B-223

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315

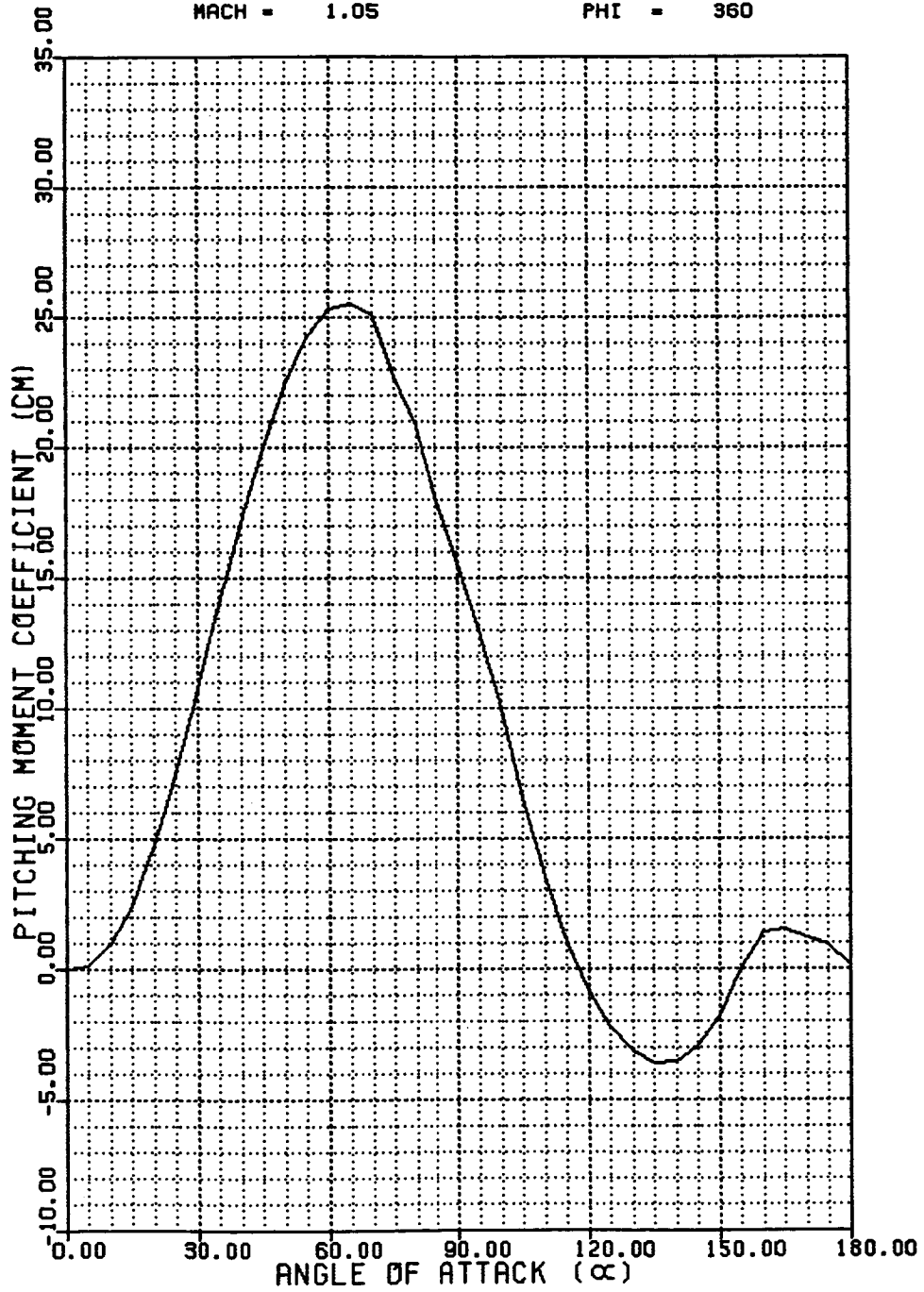


B-224

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 360



B-225

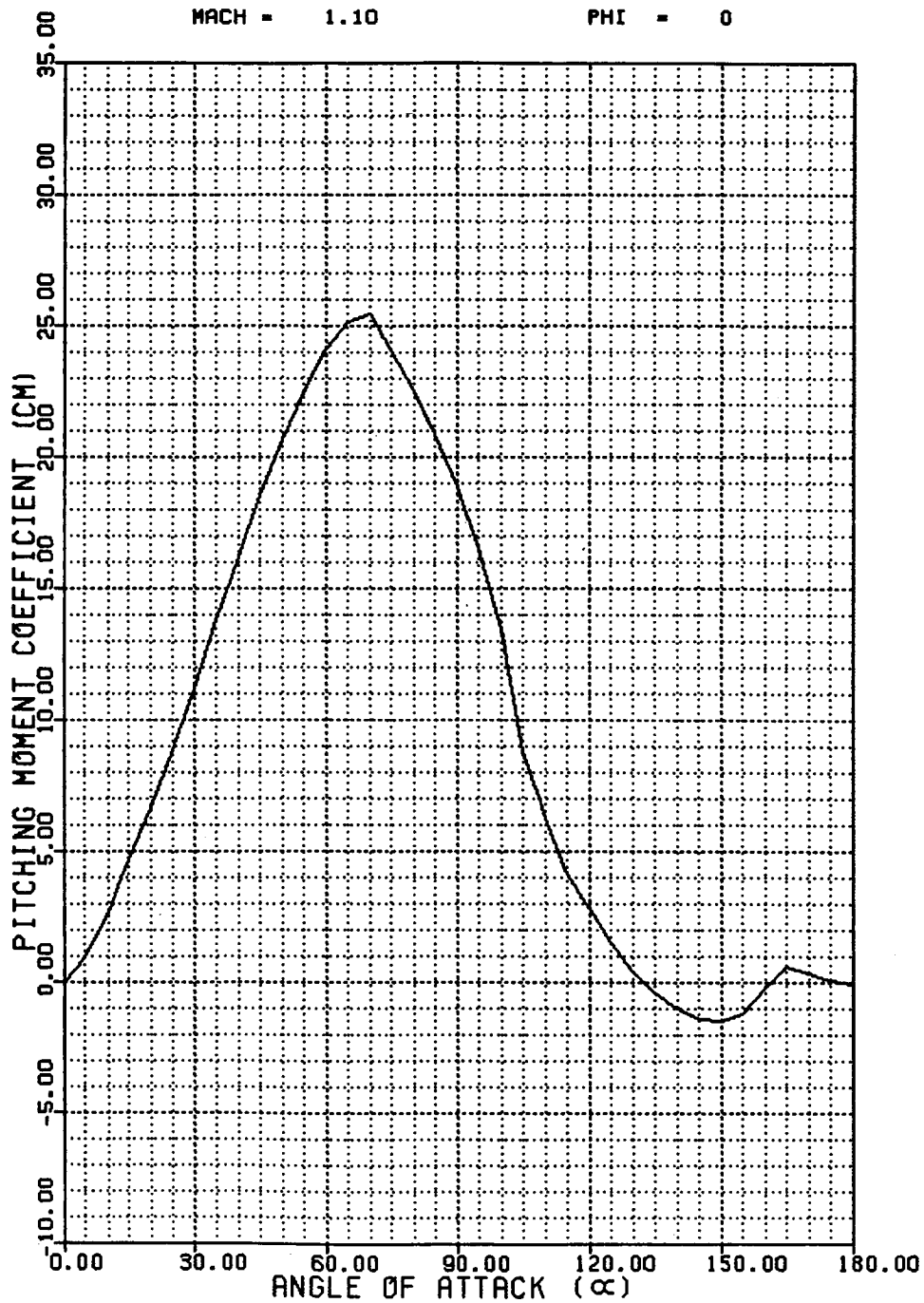
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0



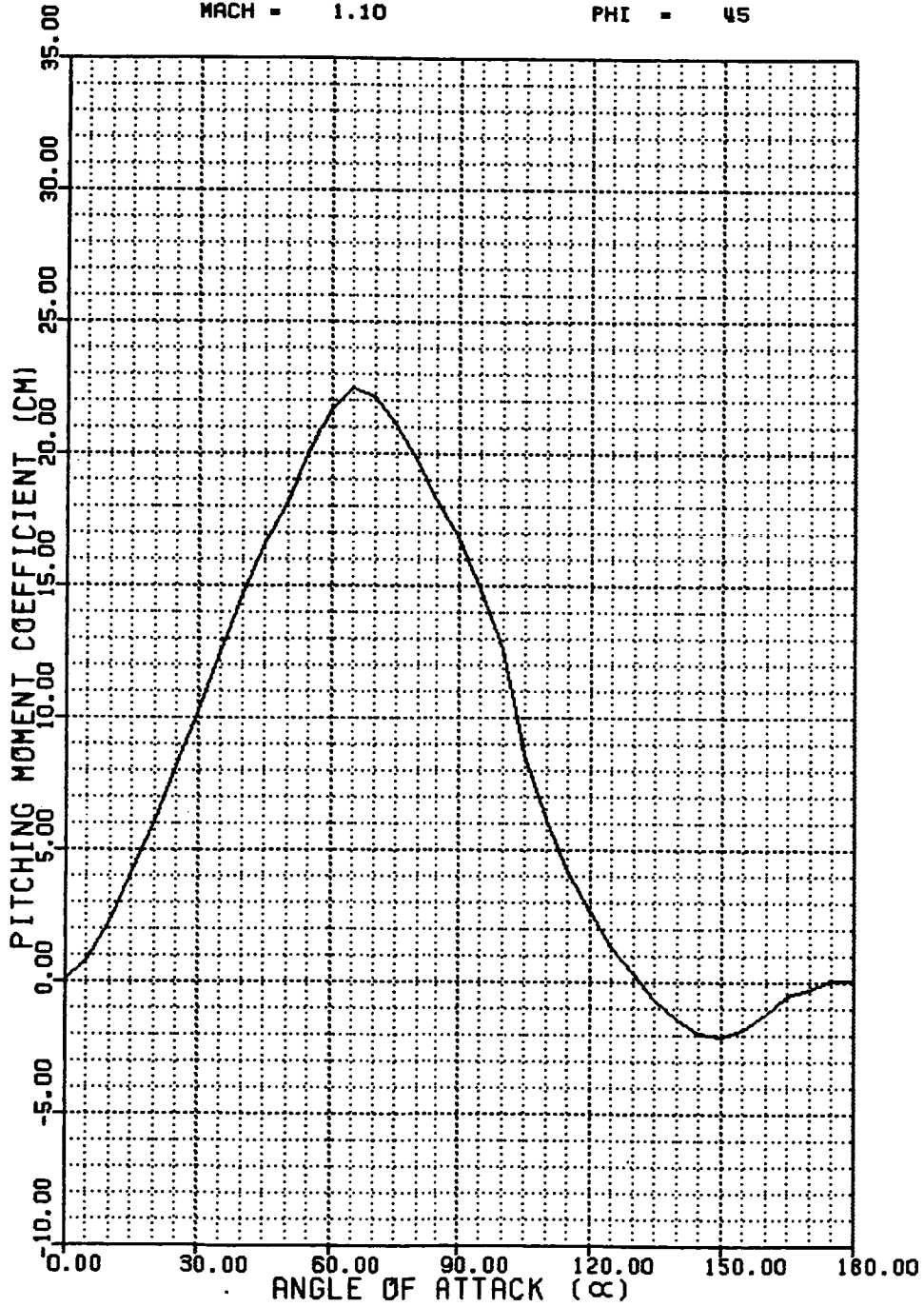
B-226

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 45

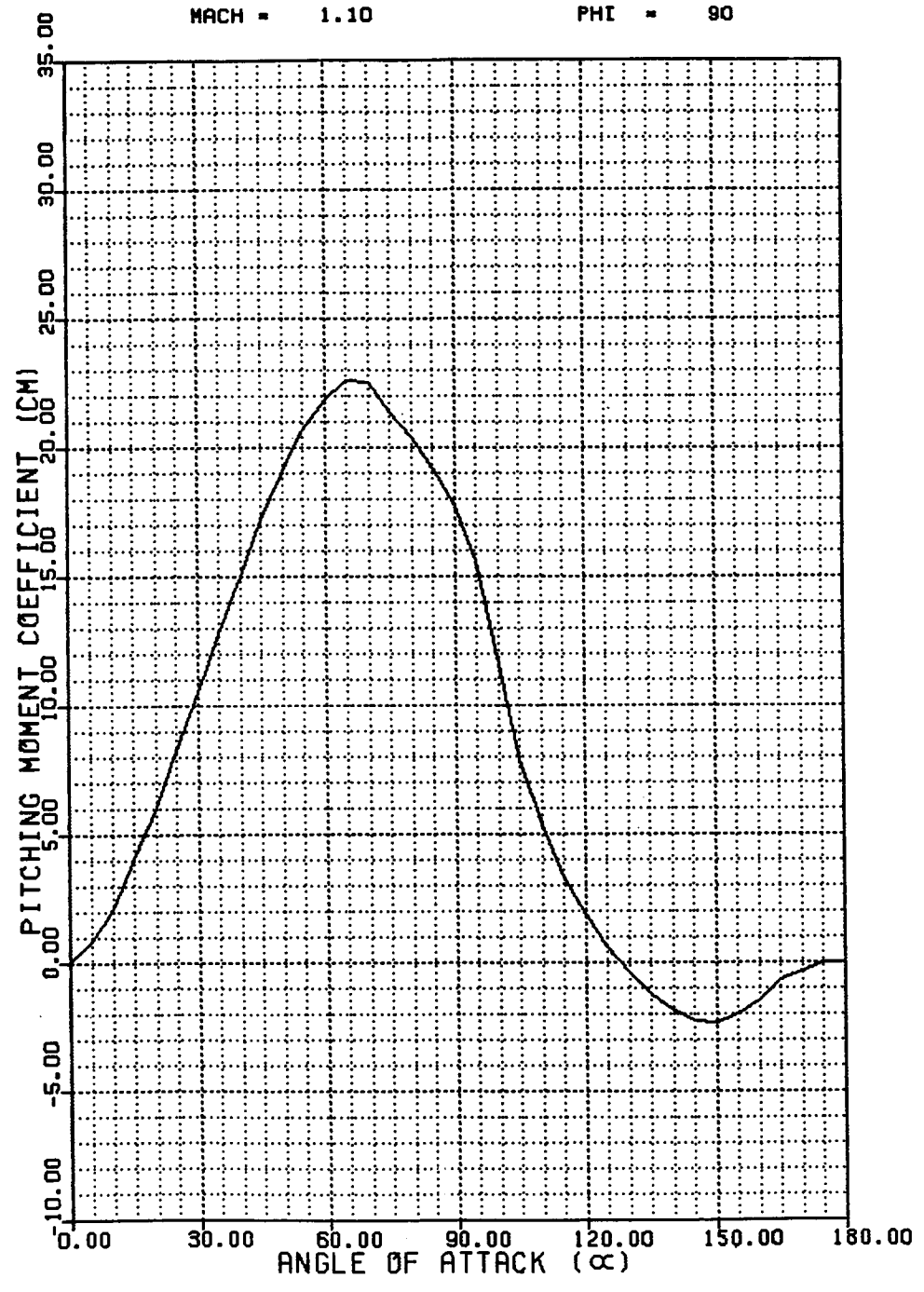


B-227

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90

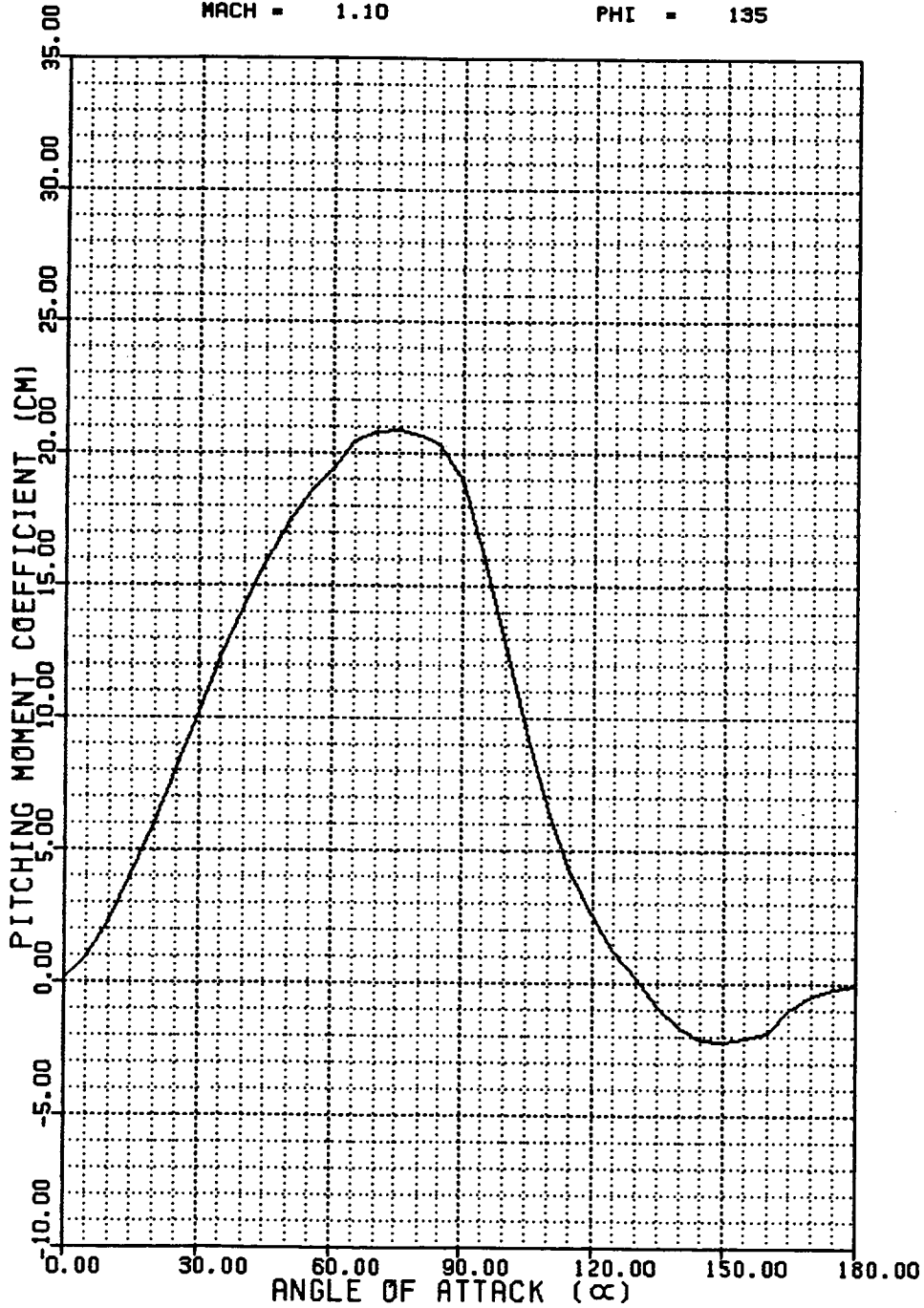


B-228

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135

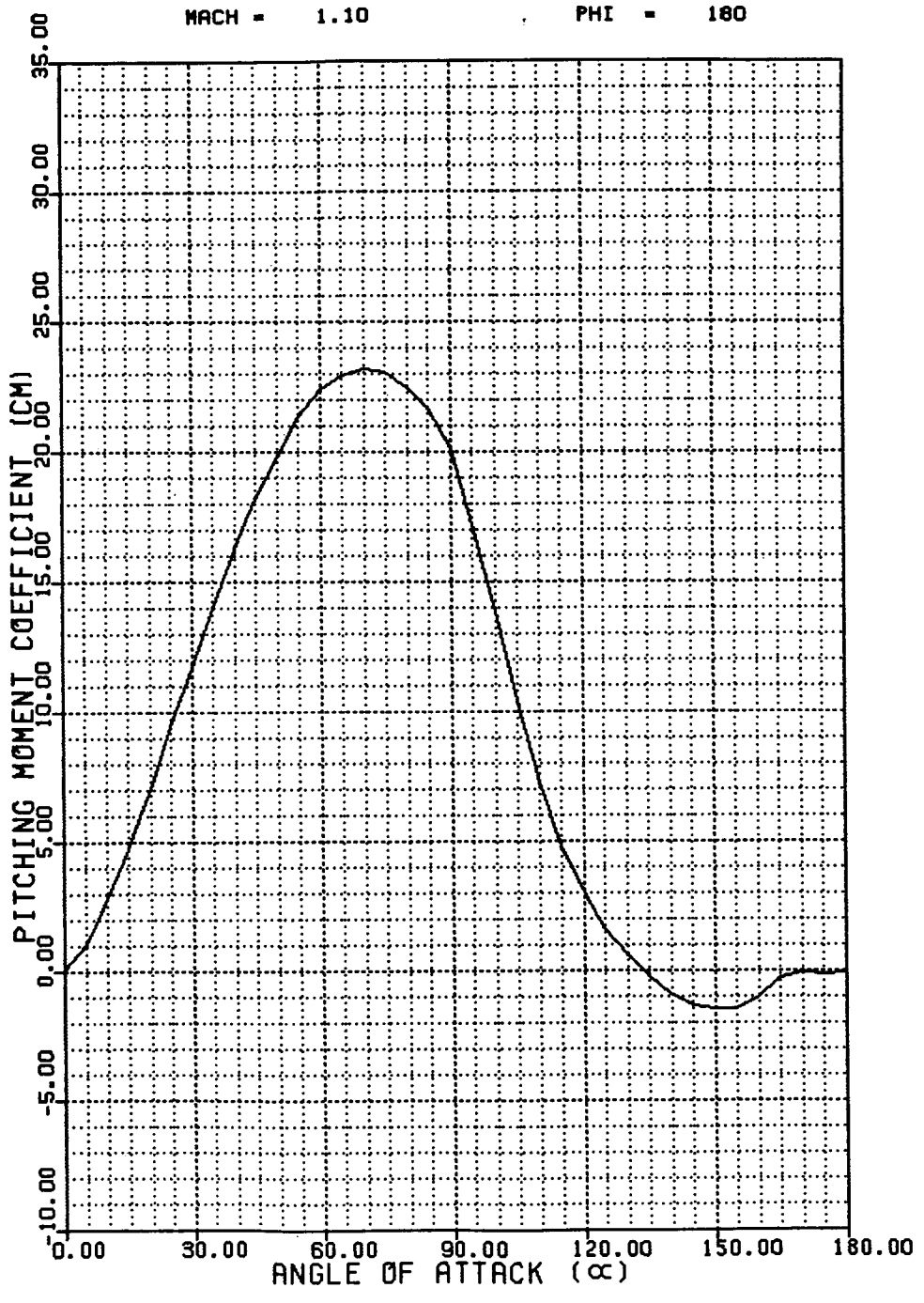


B-229

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180

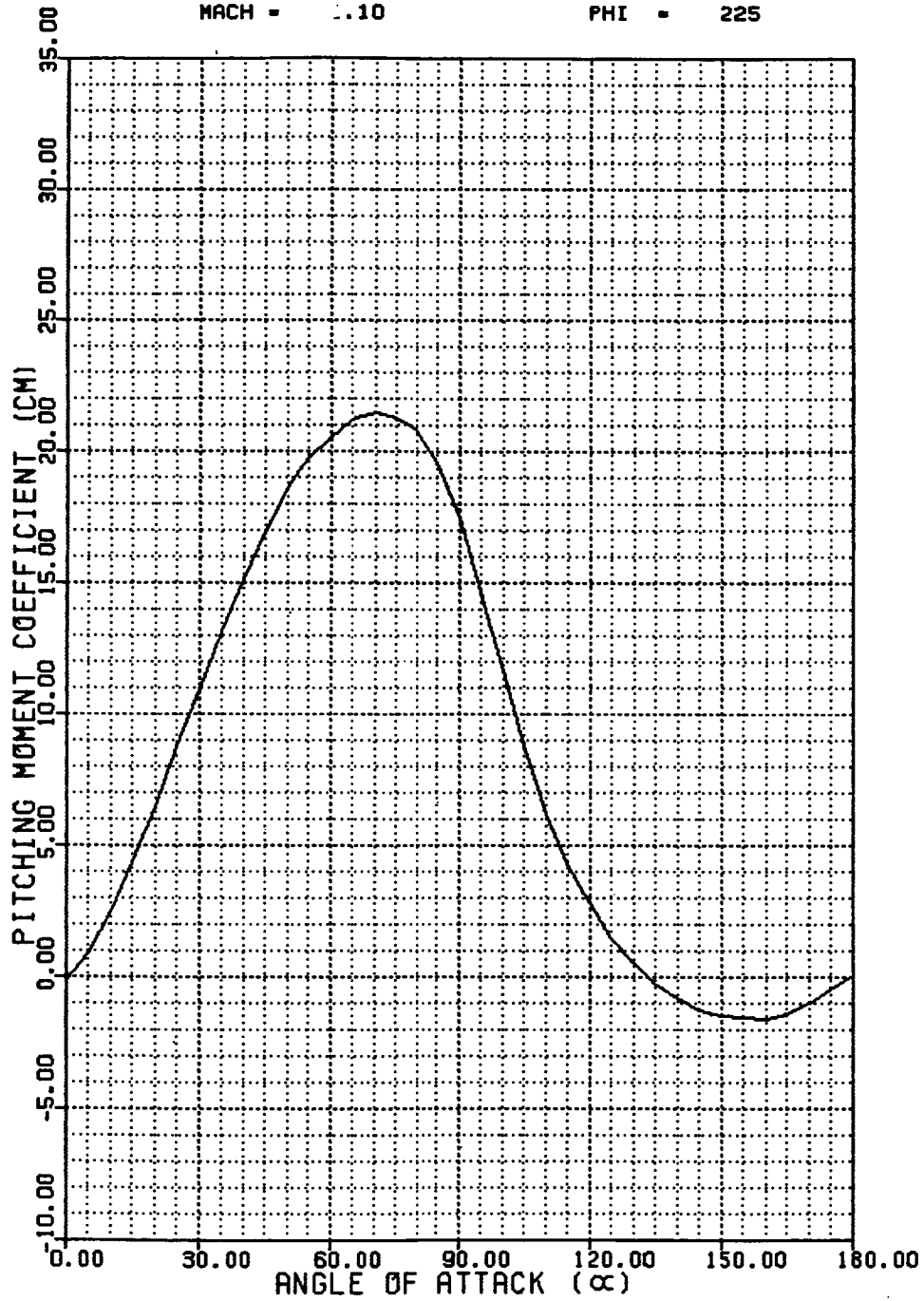


B-230

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225

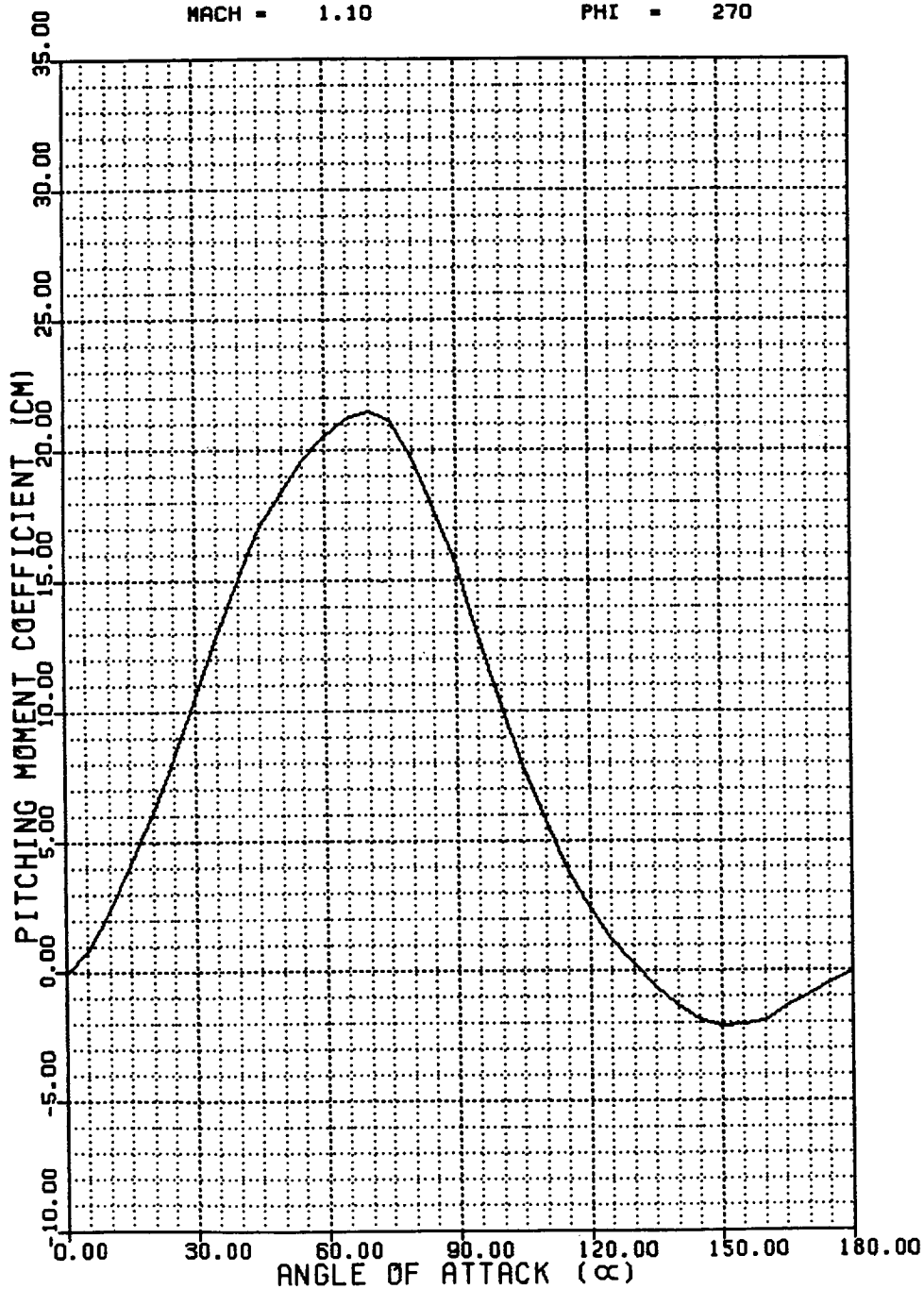


B-291

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270

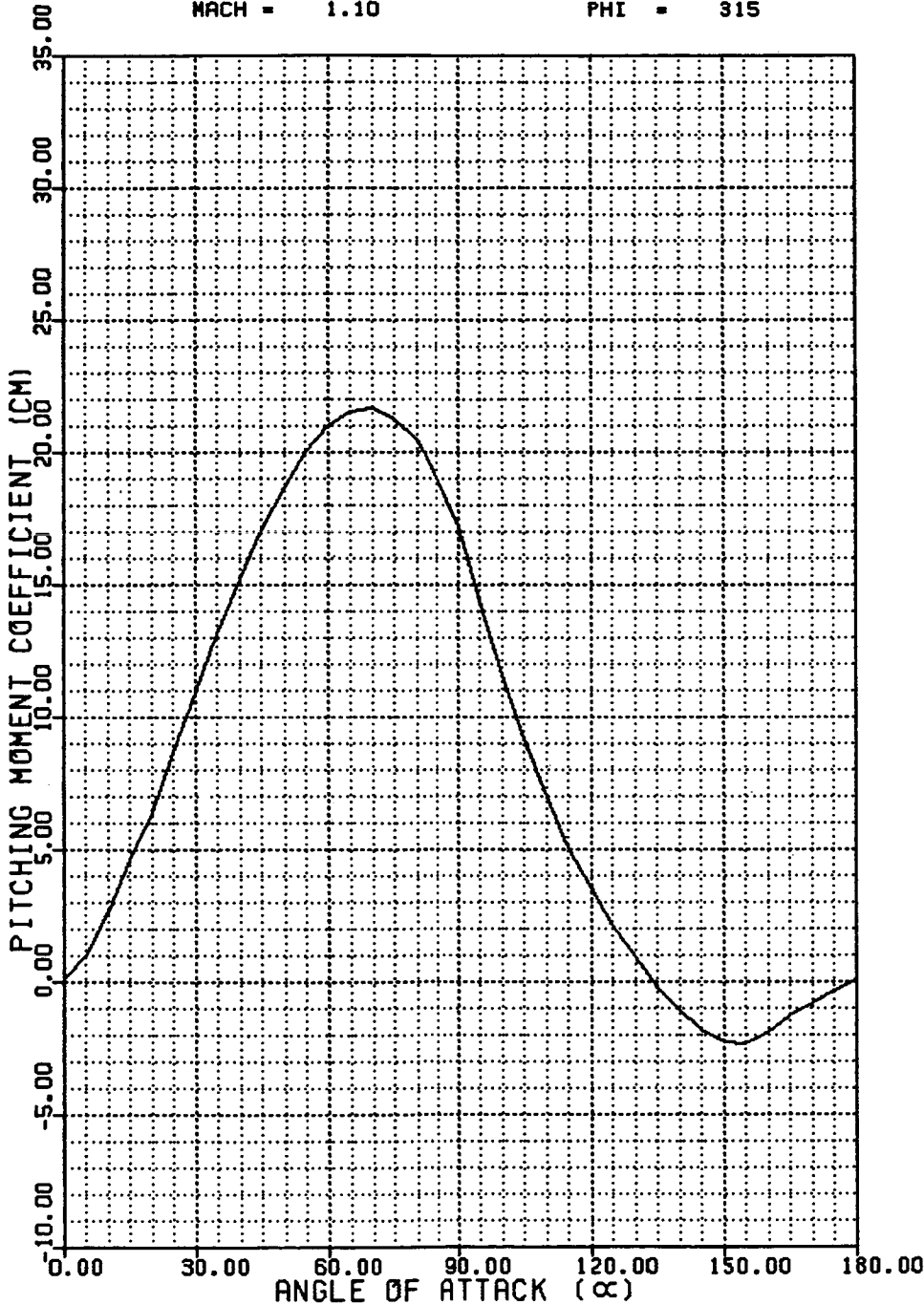


B-292

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315



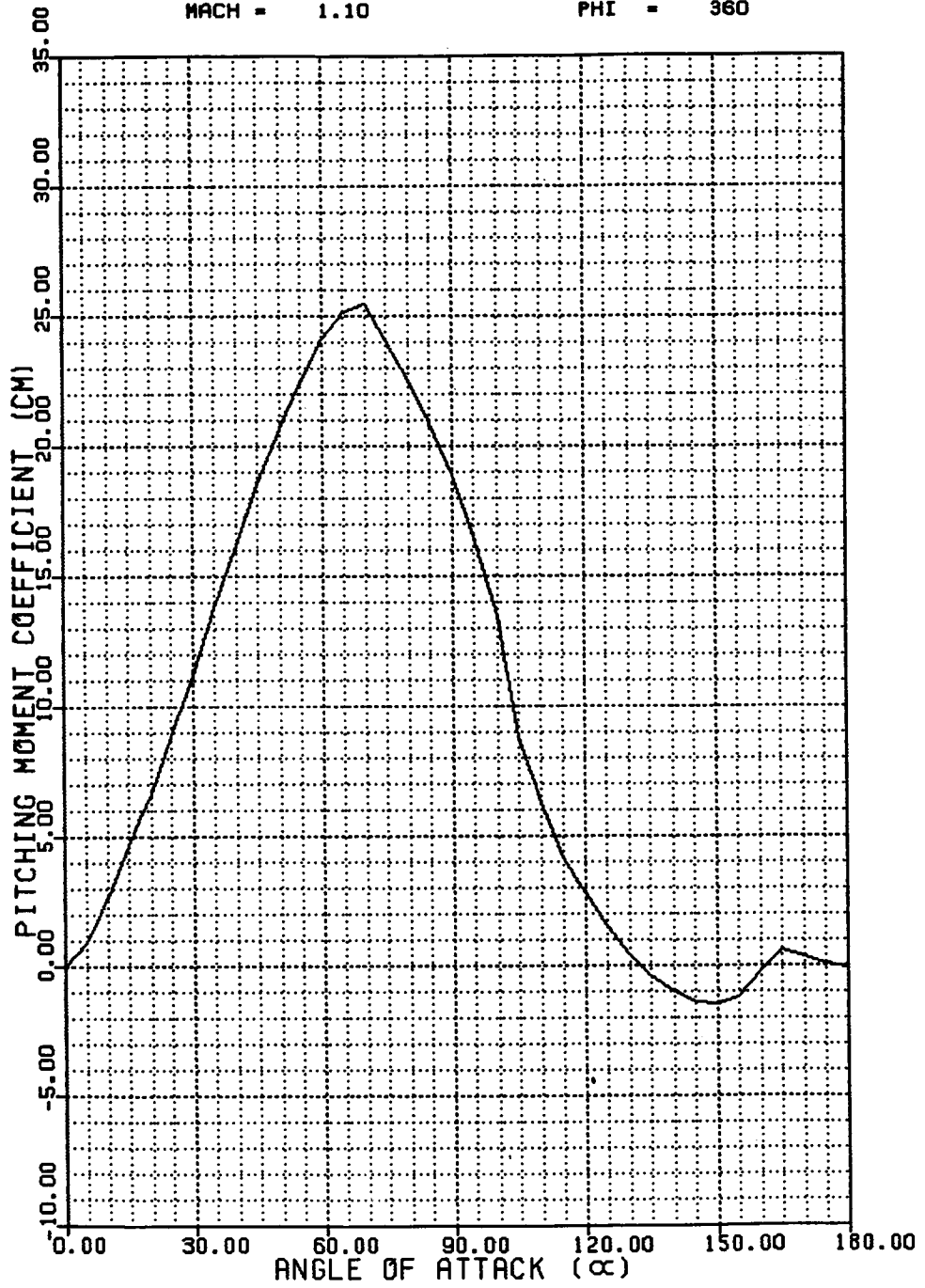
B-293



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360

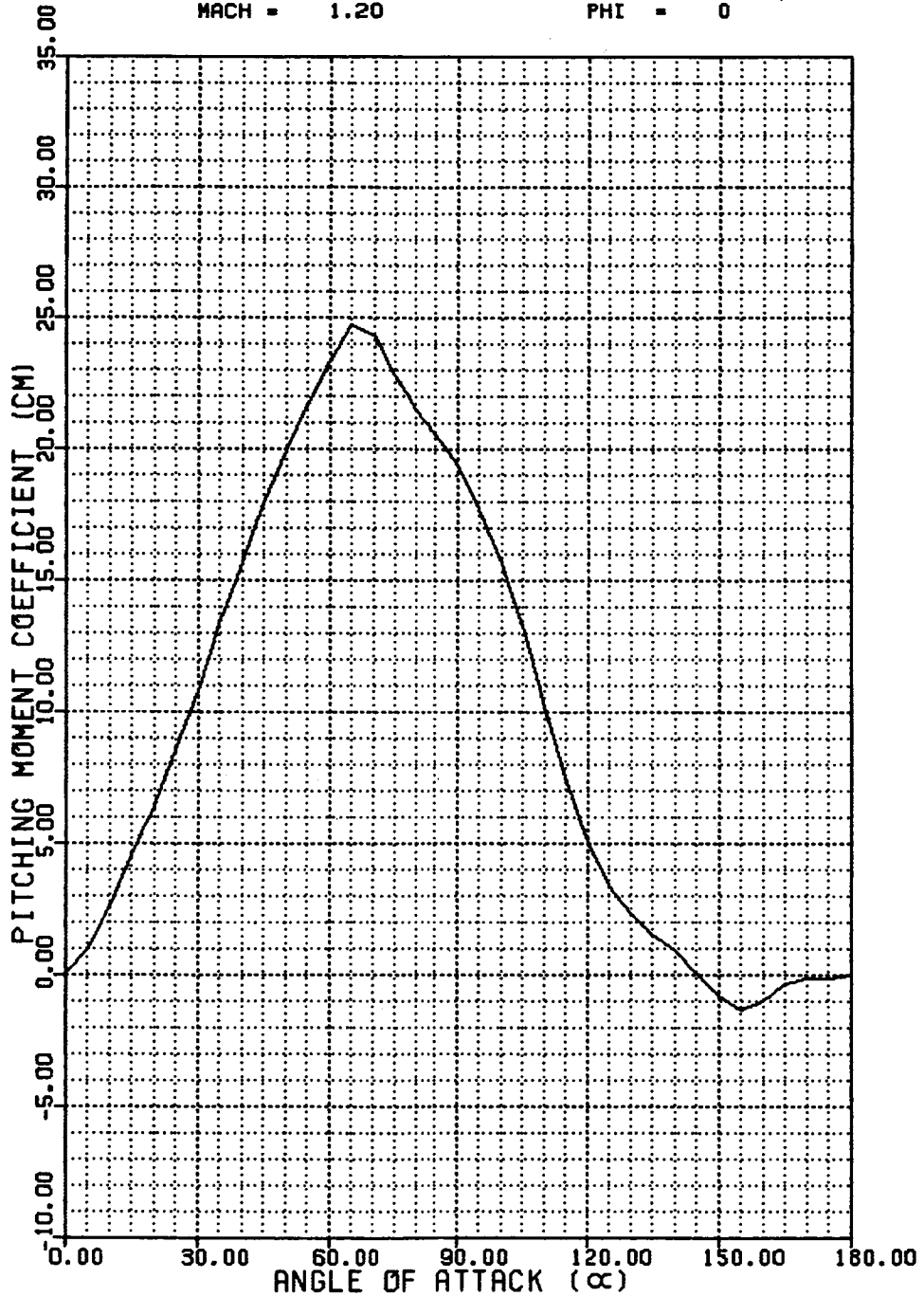


B-234

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0

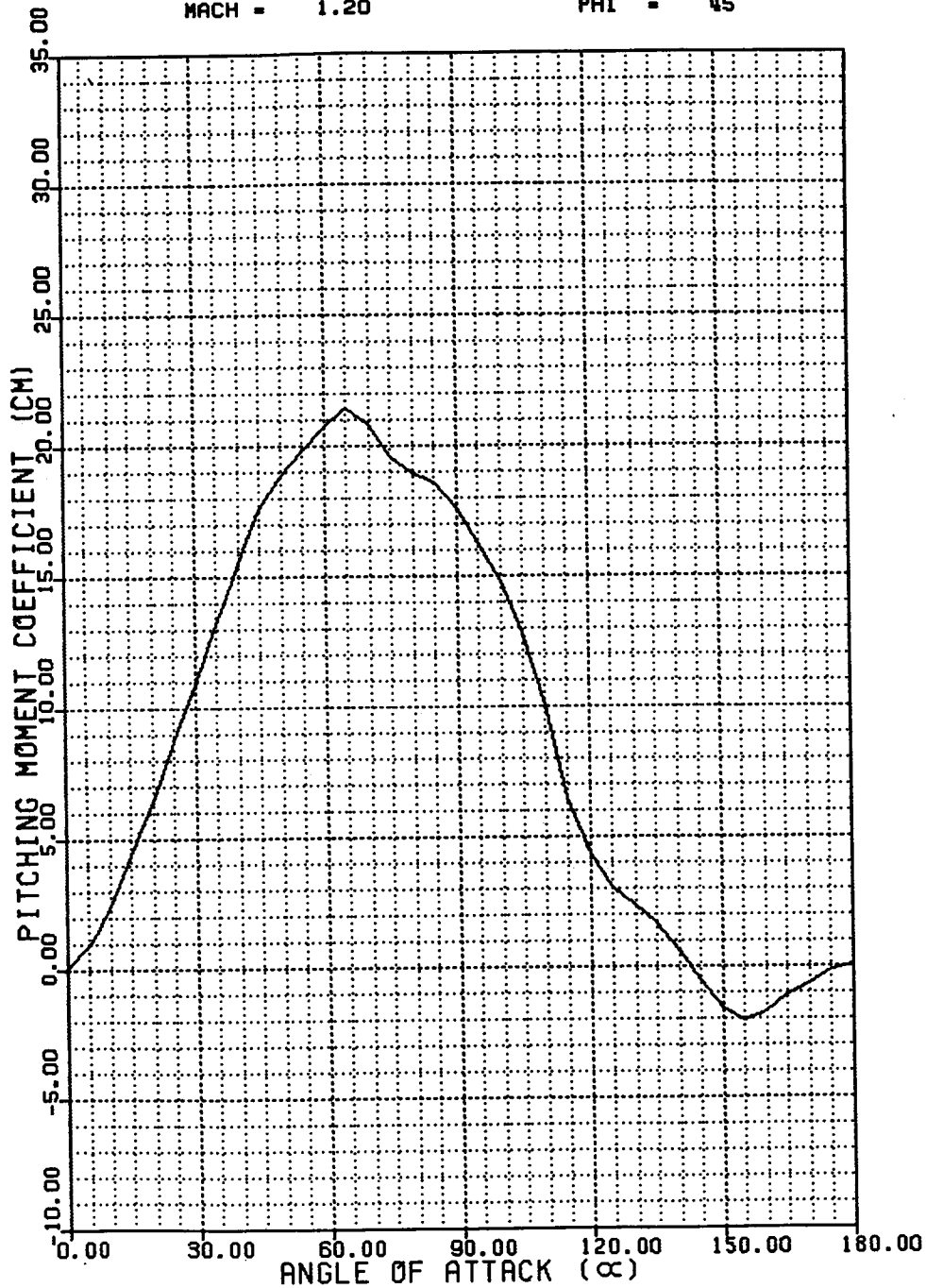


B-295

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



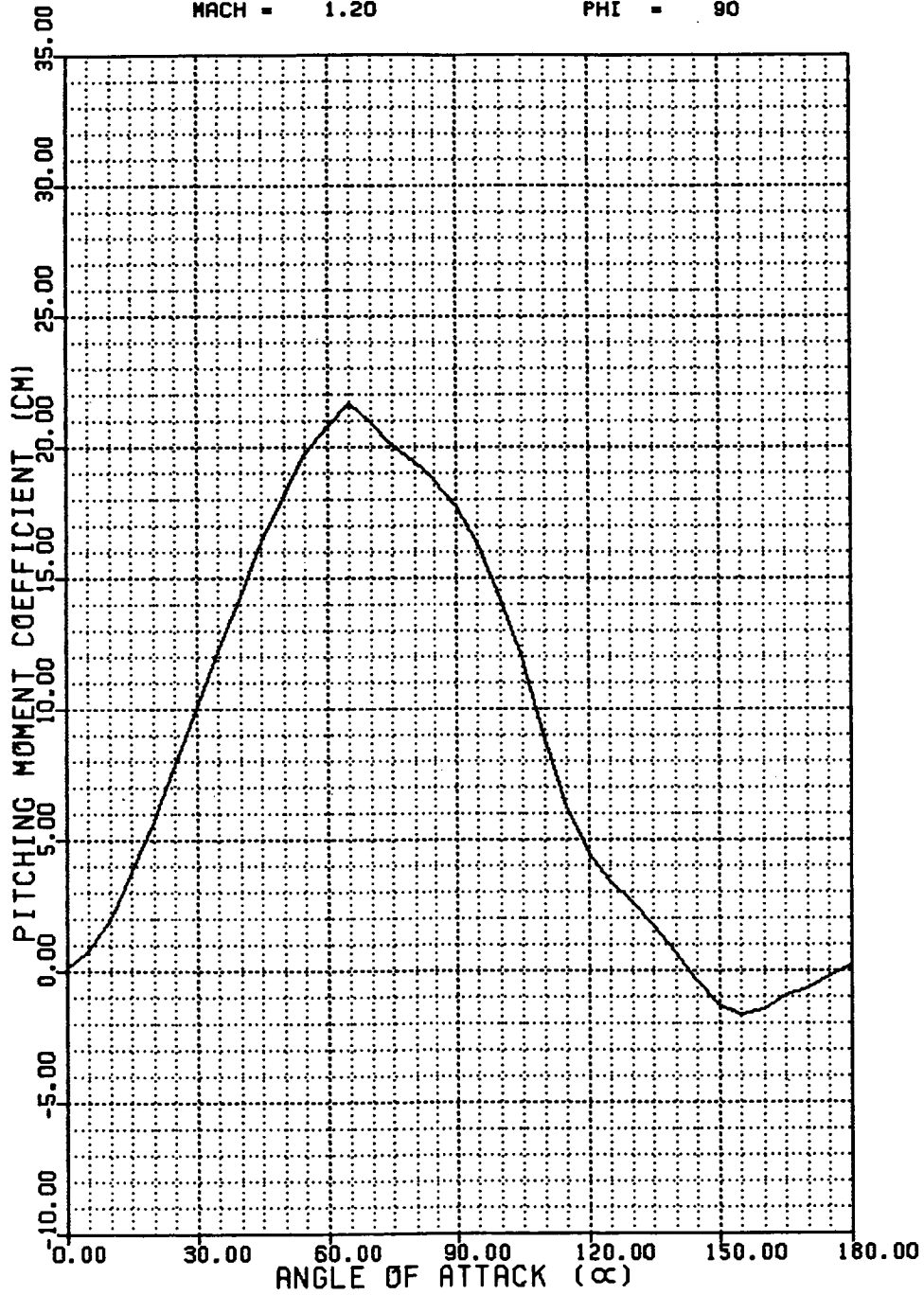
B-296

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90

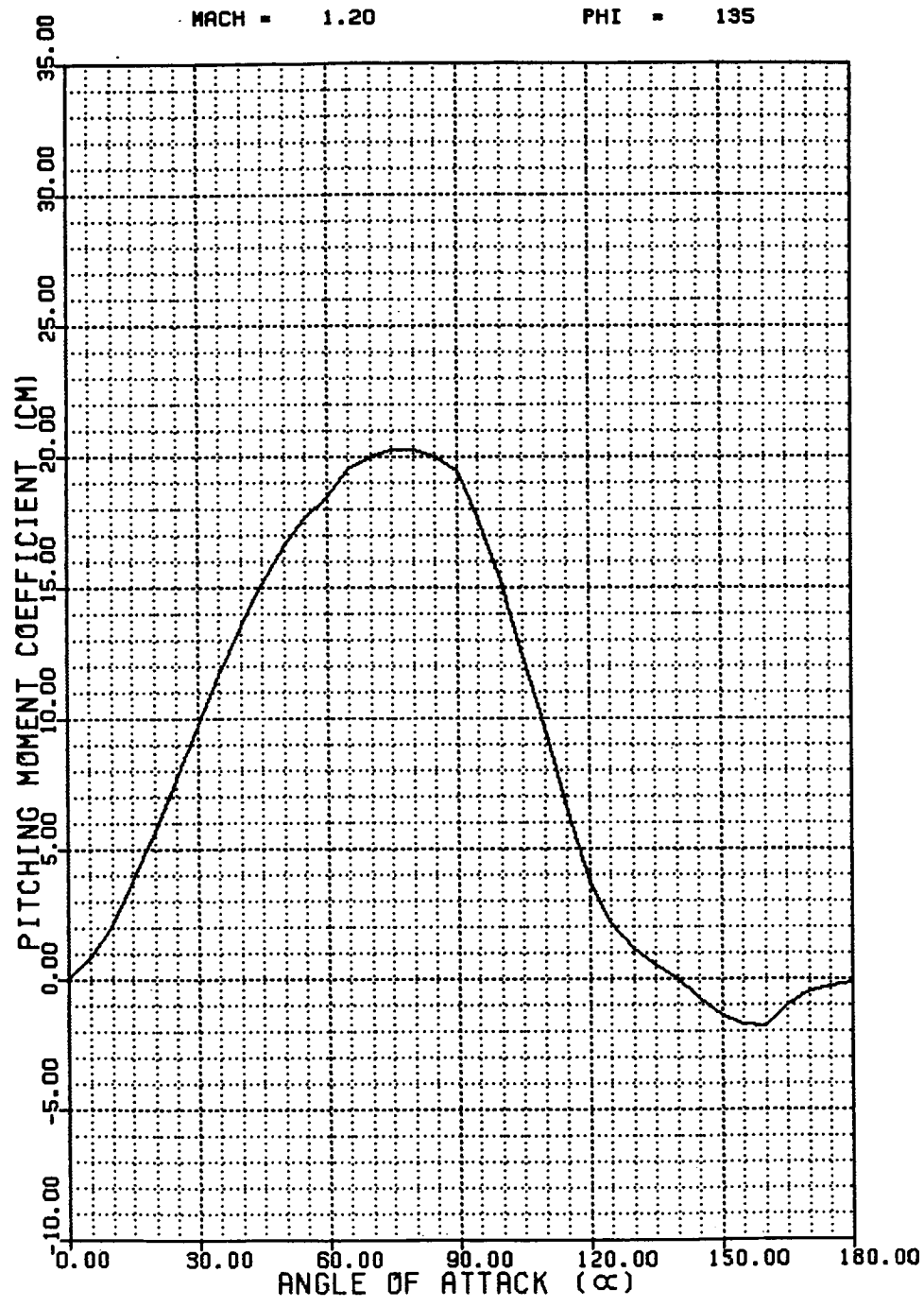


B-297

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135

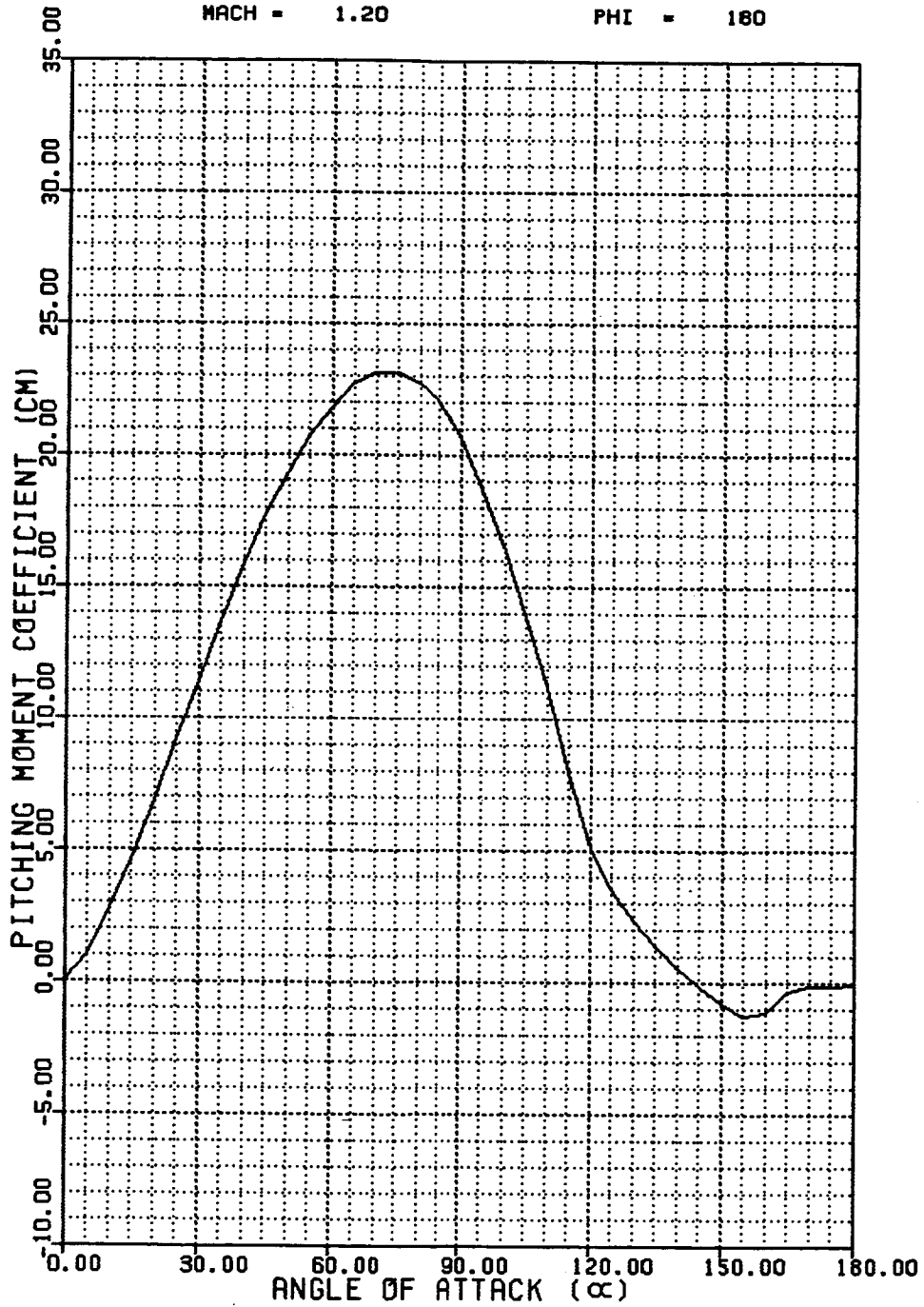


B-298

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180

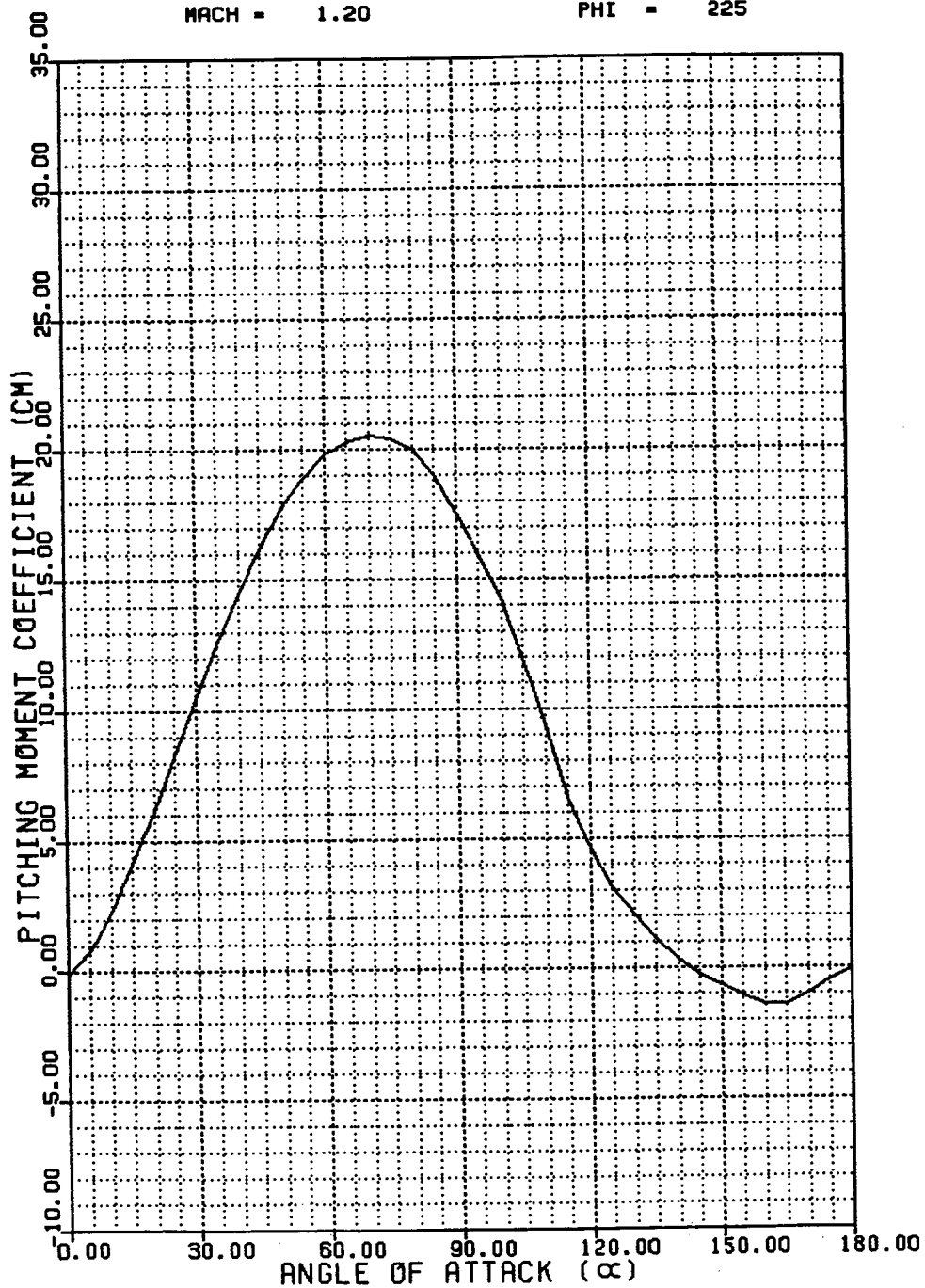


B-299

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225



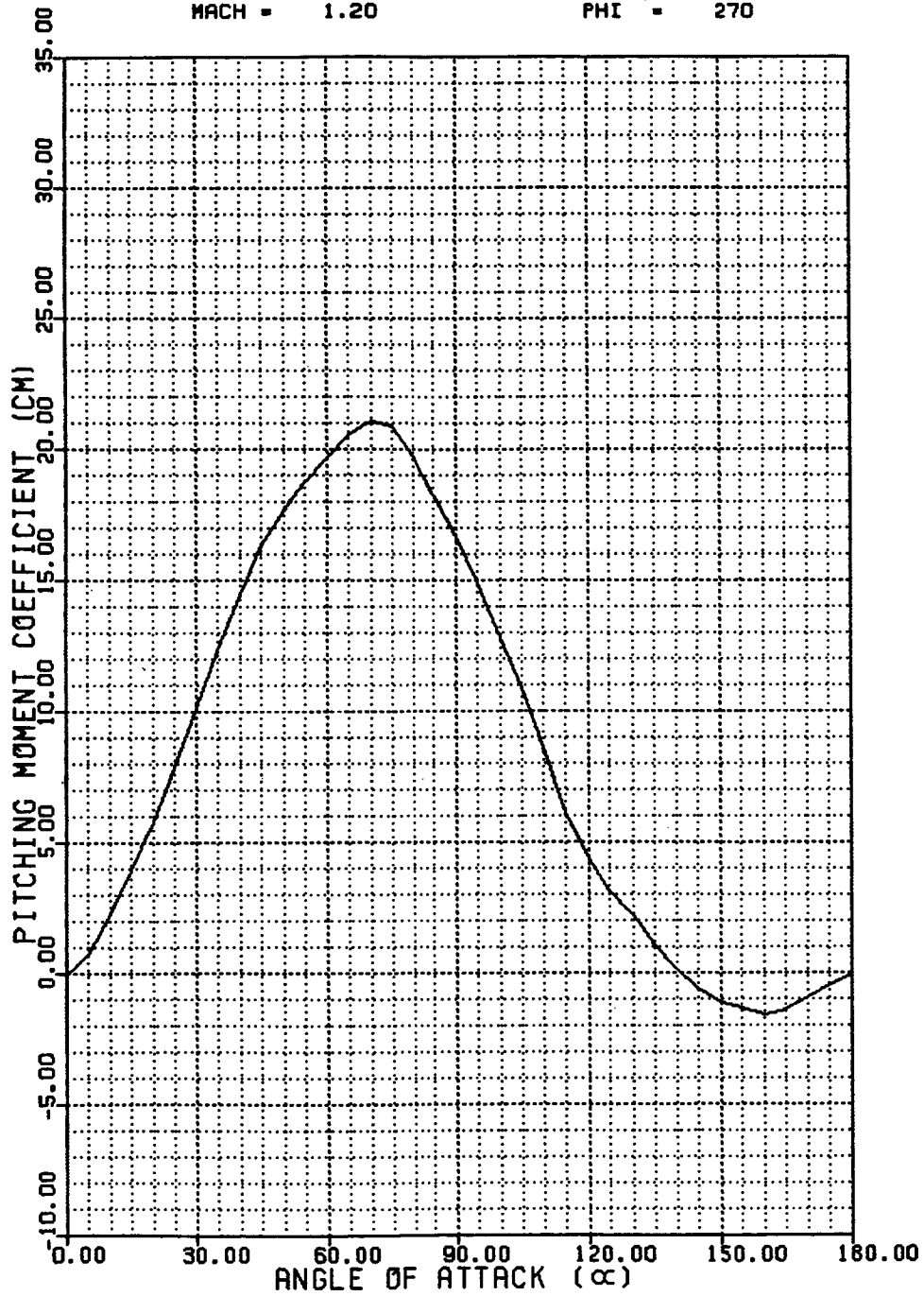
B-240

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 270



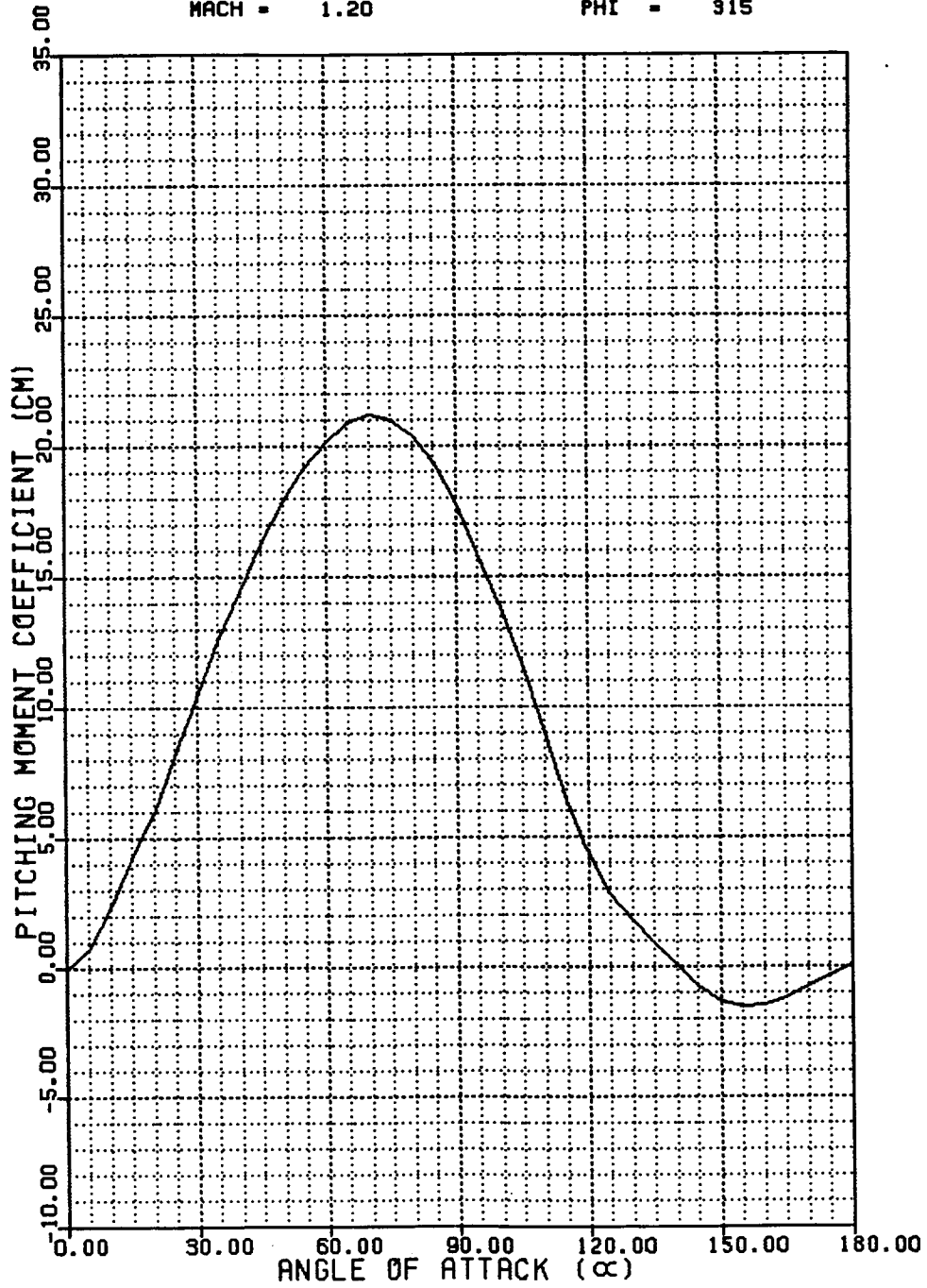
B-241



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 915

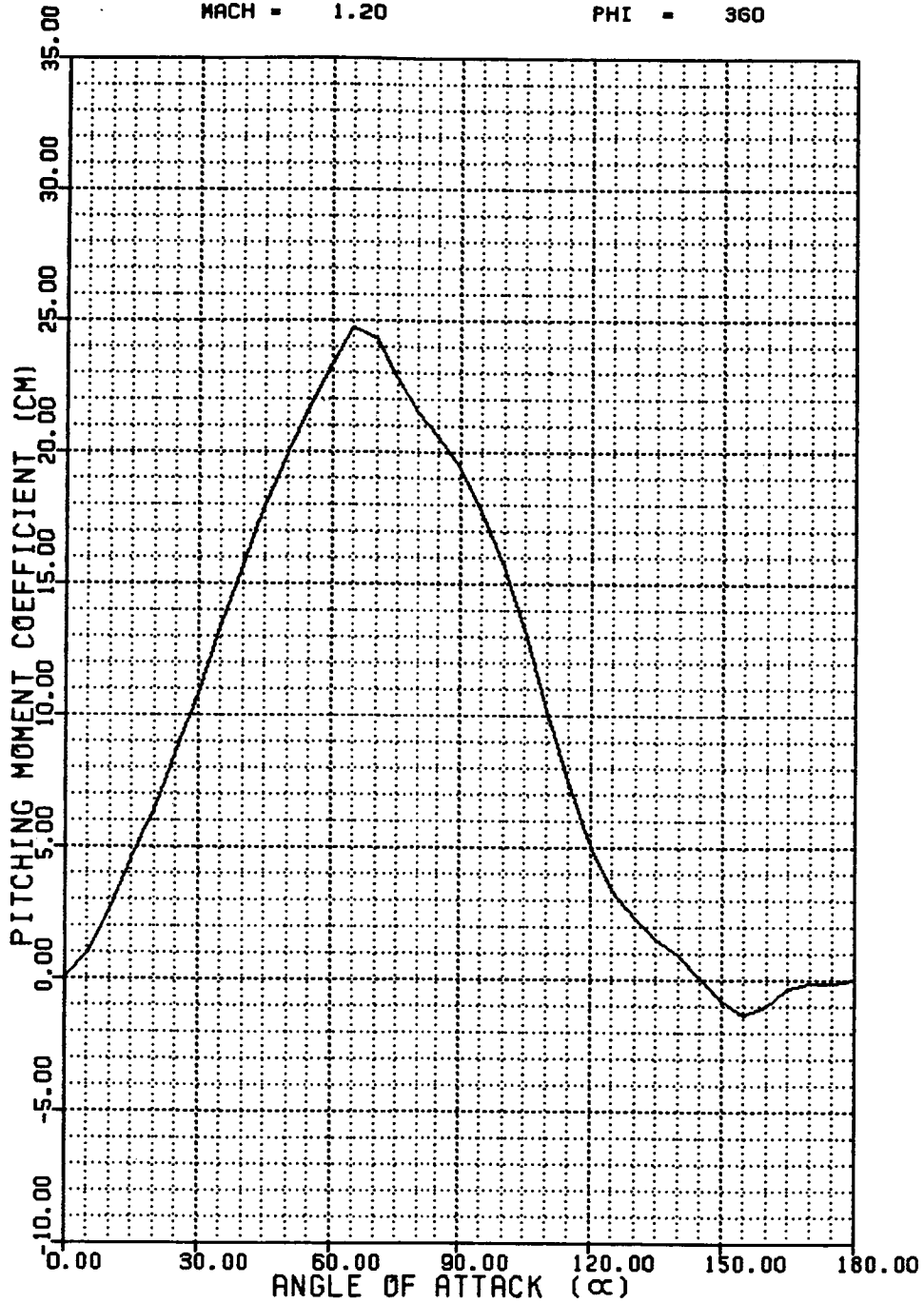


B-242

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360

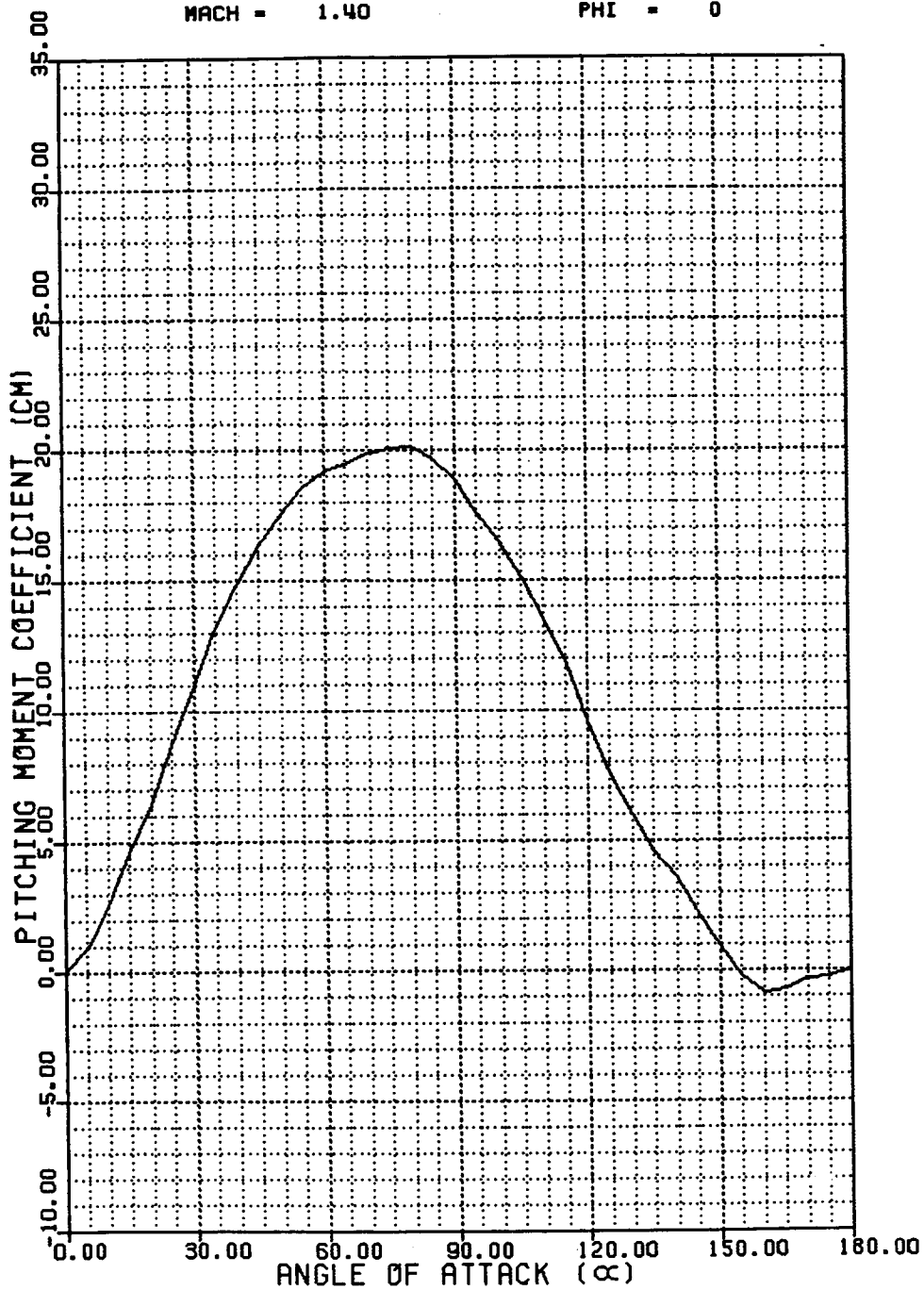


B-243

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0



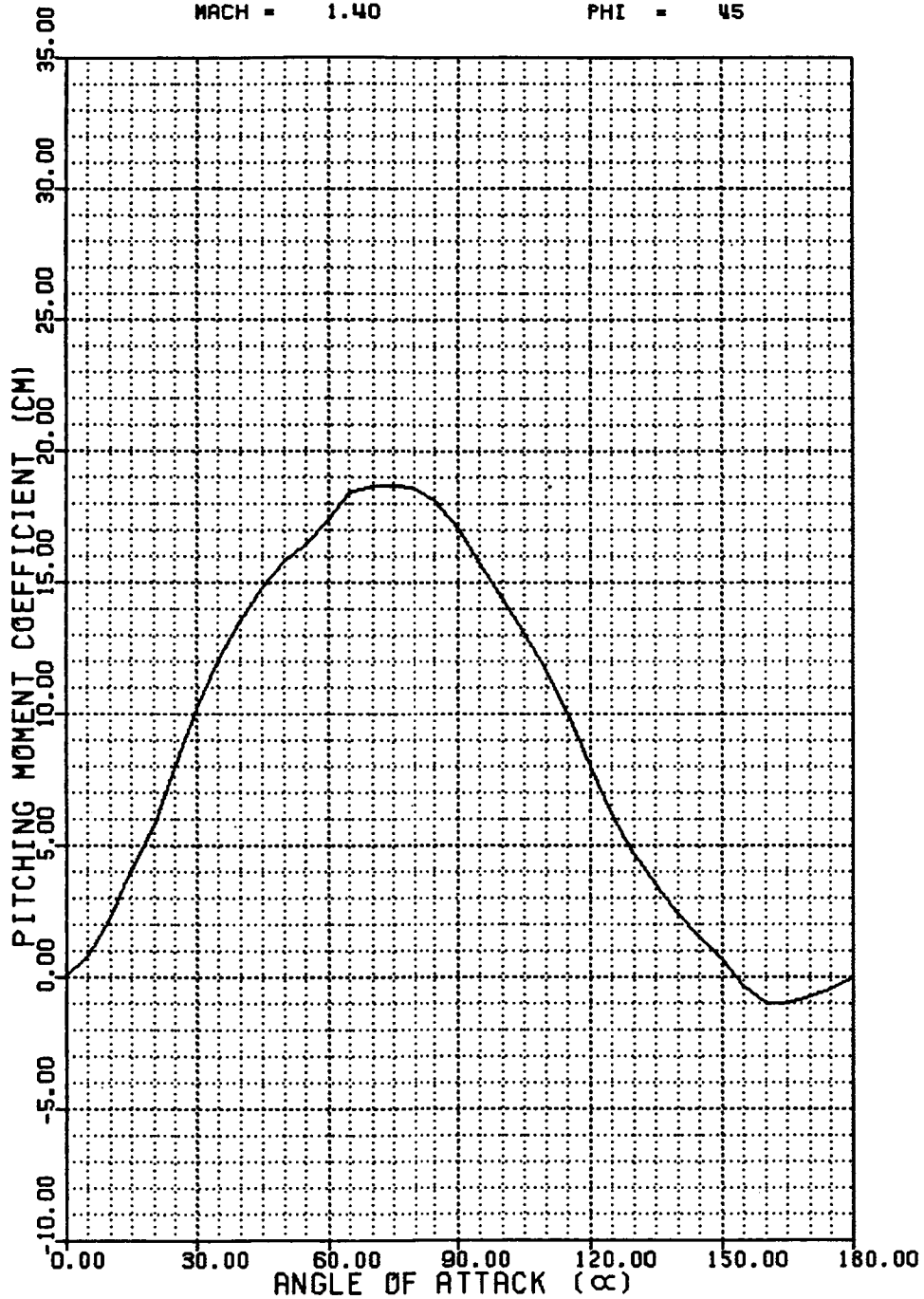
B-244

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45



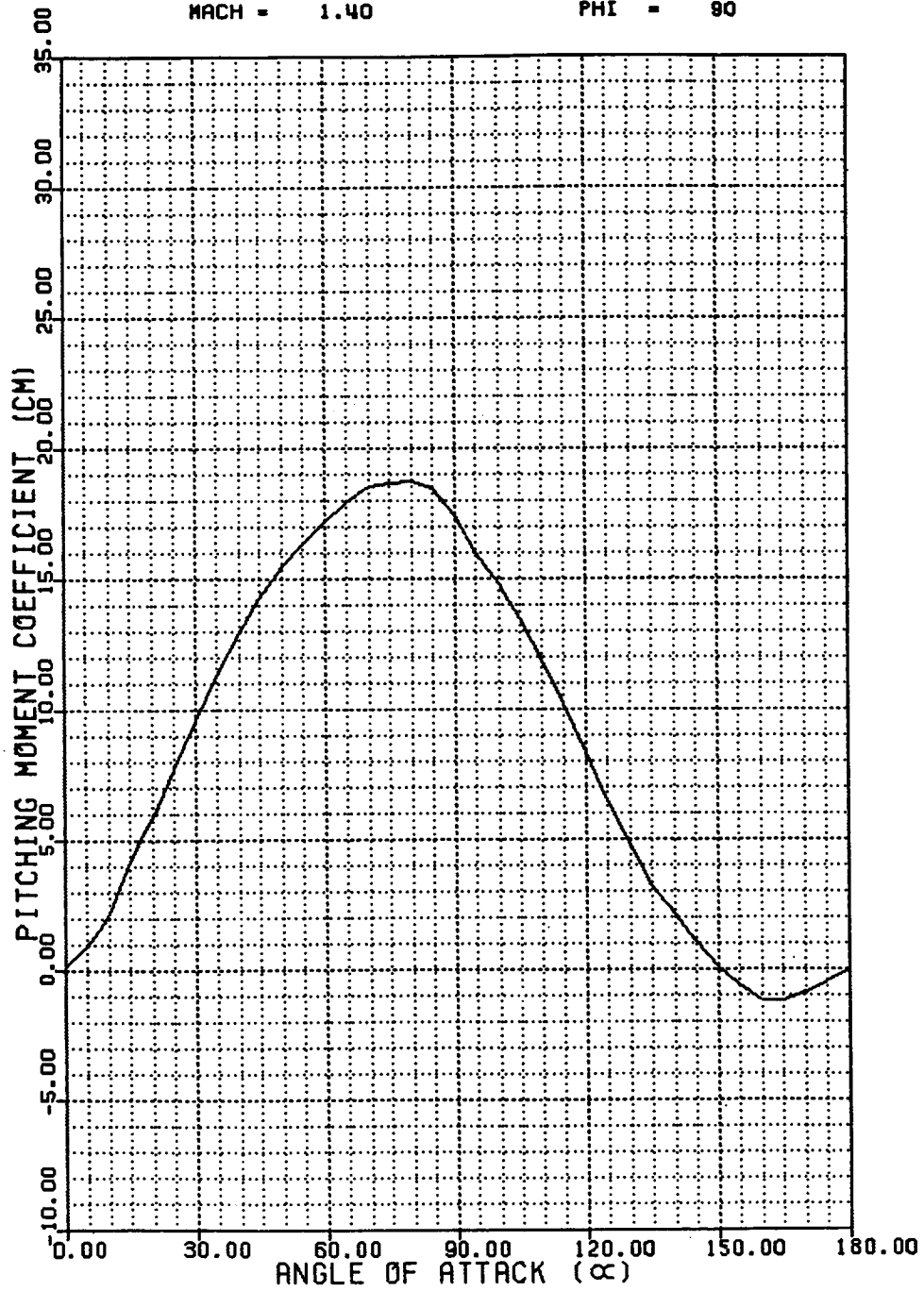
B-245

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90



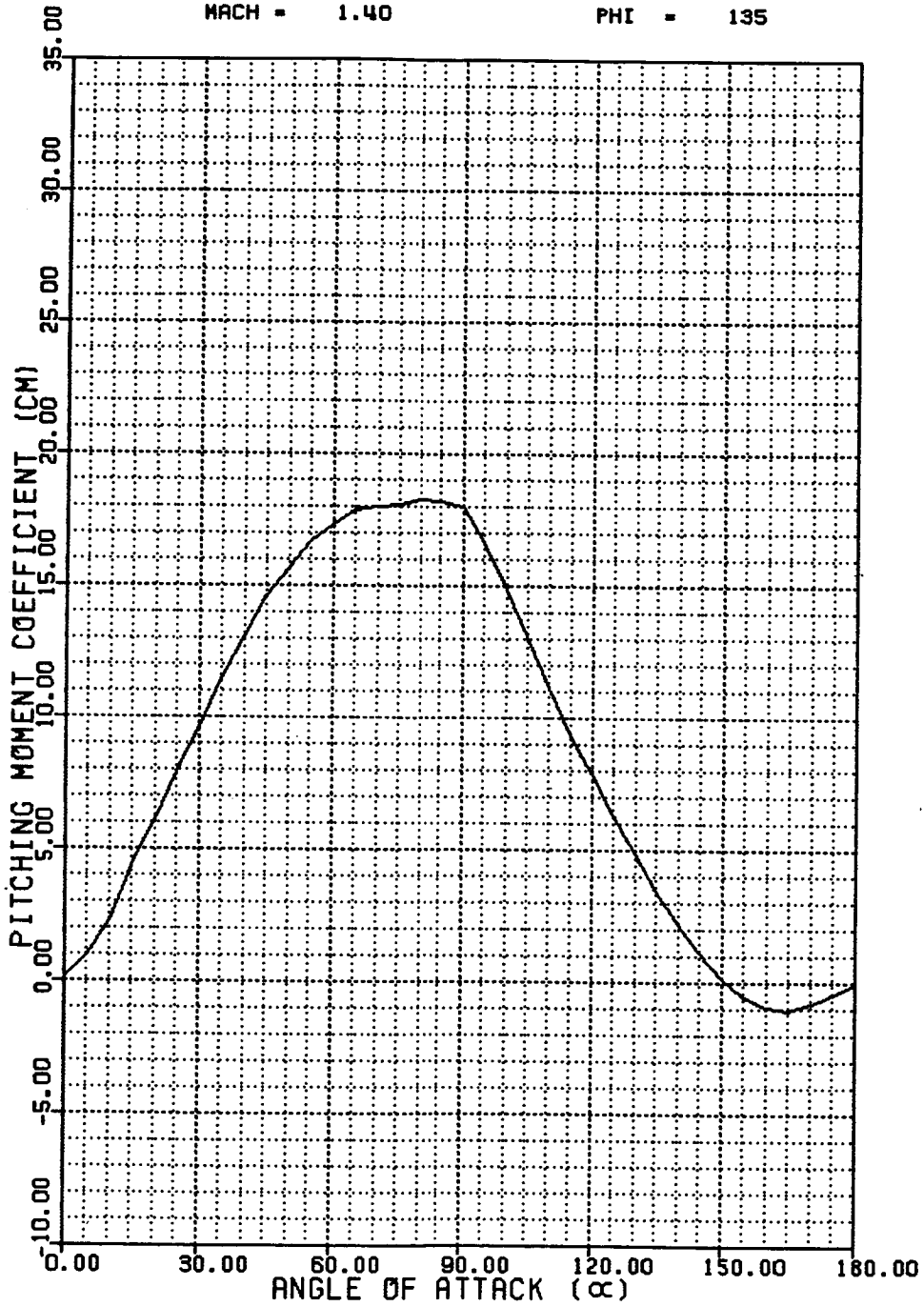
B-246

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135

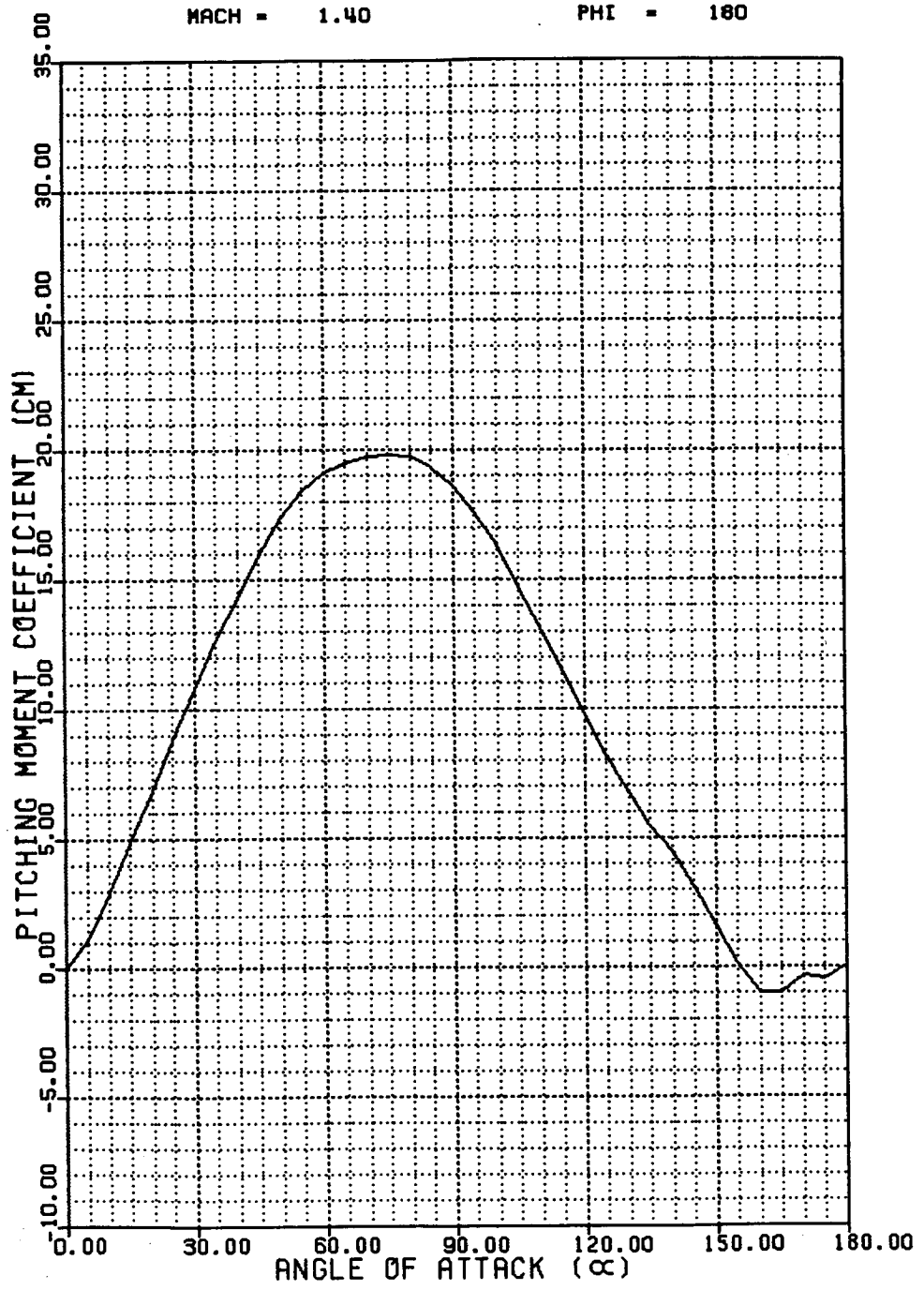


B-247

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 180

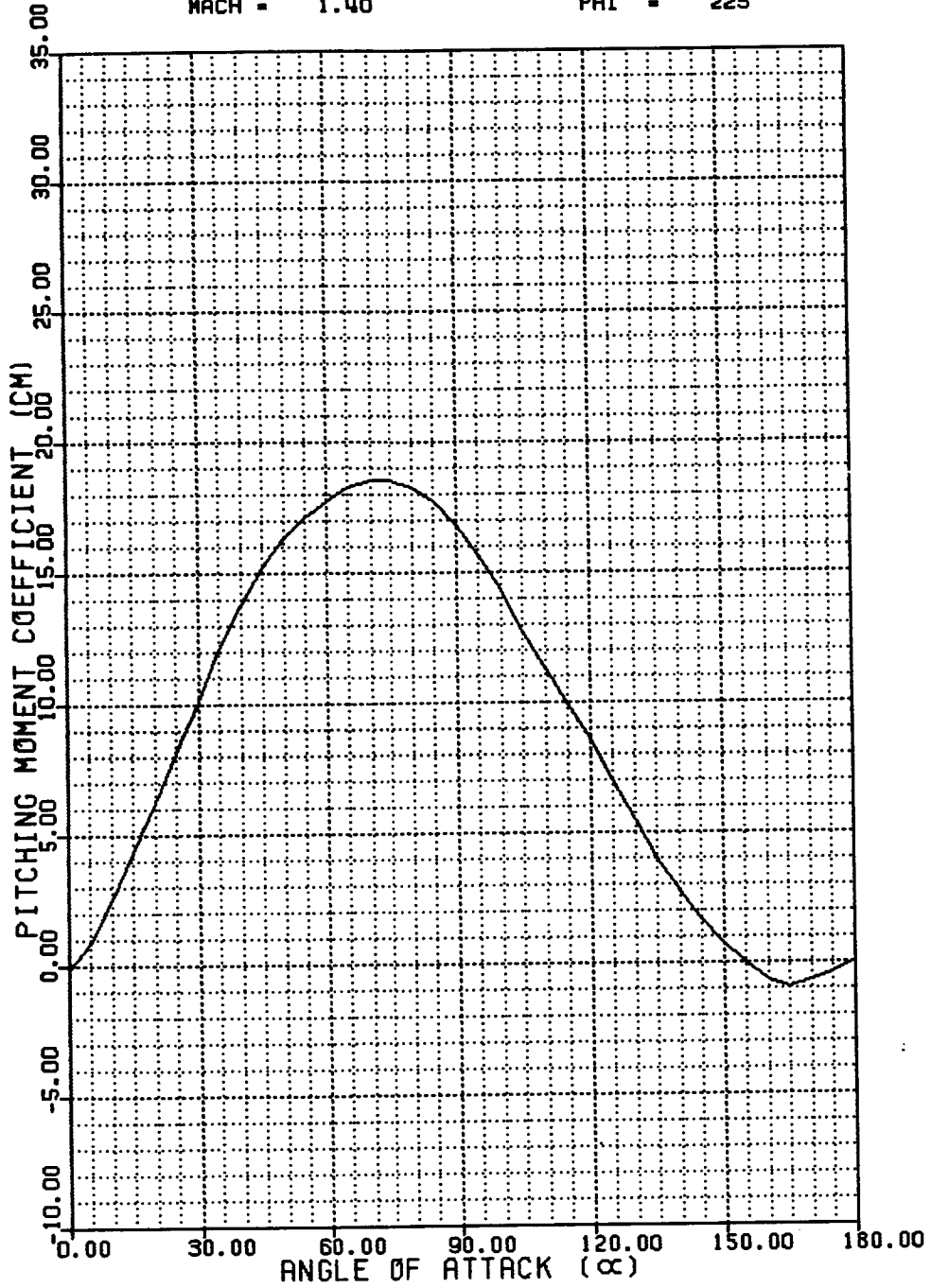


B-246

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225



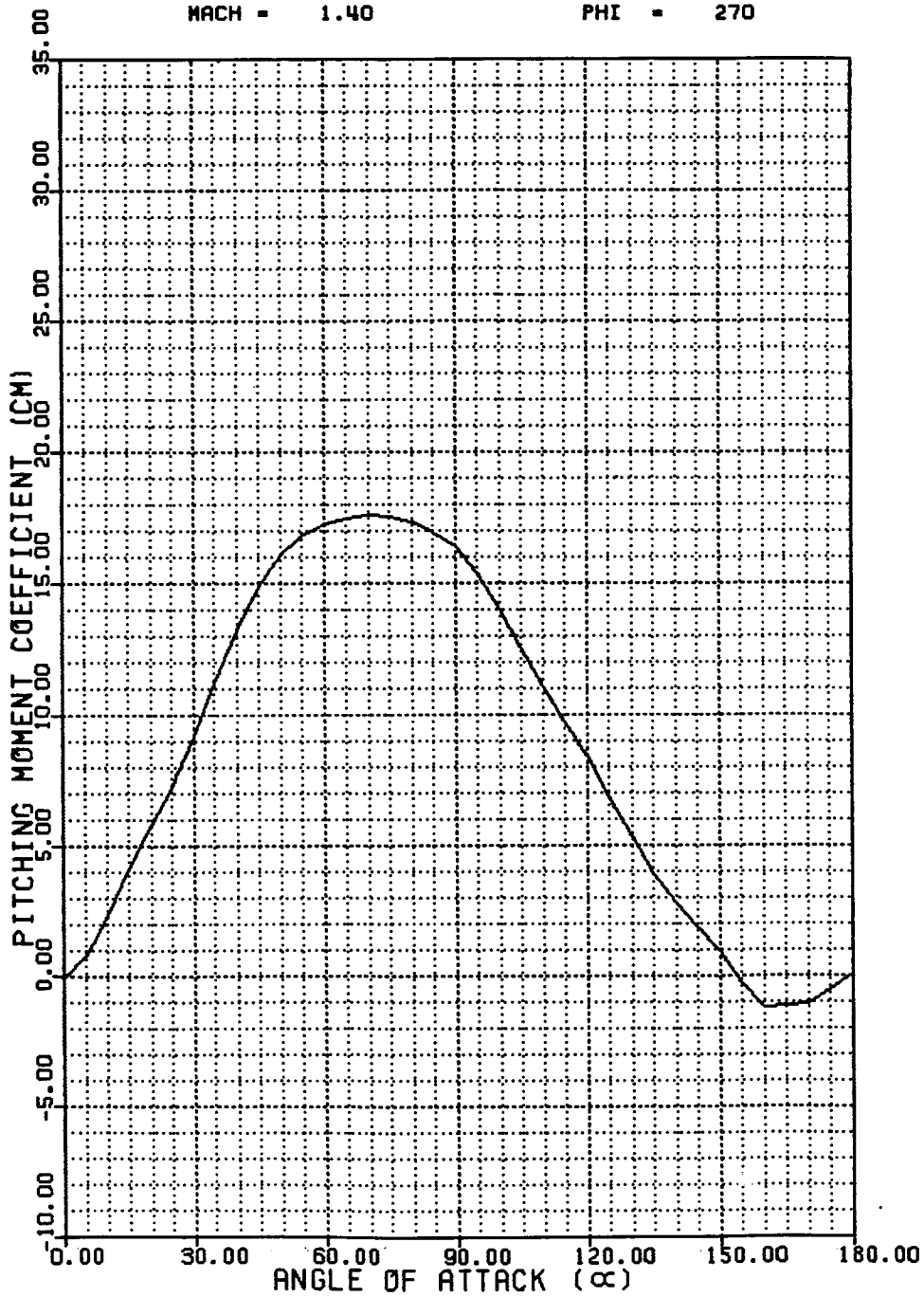
B-249



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270



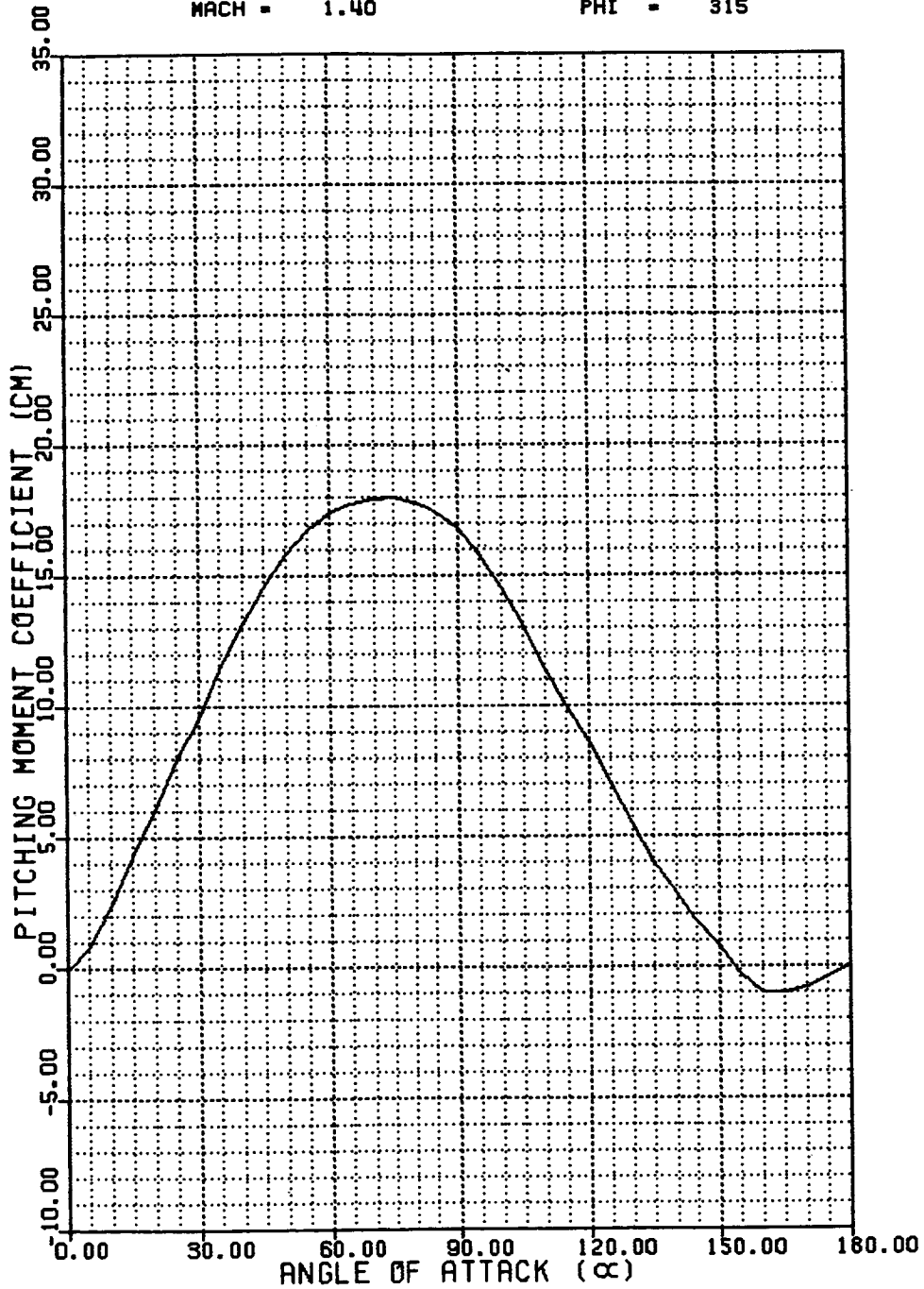
B-250

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 315



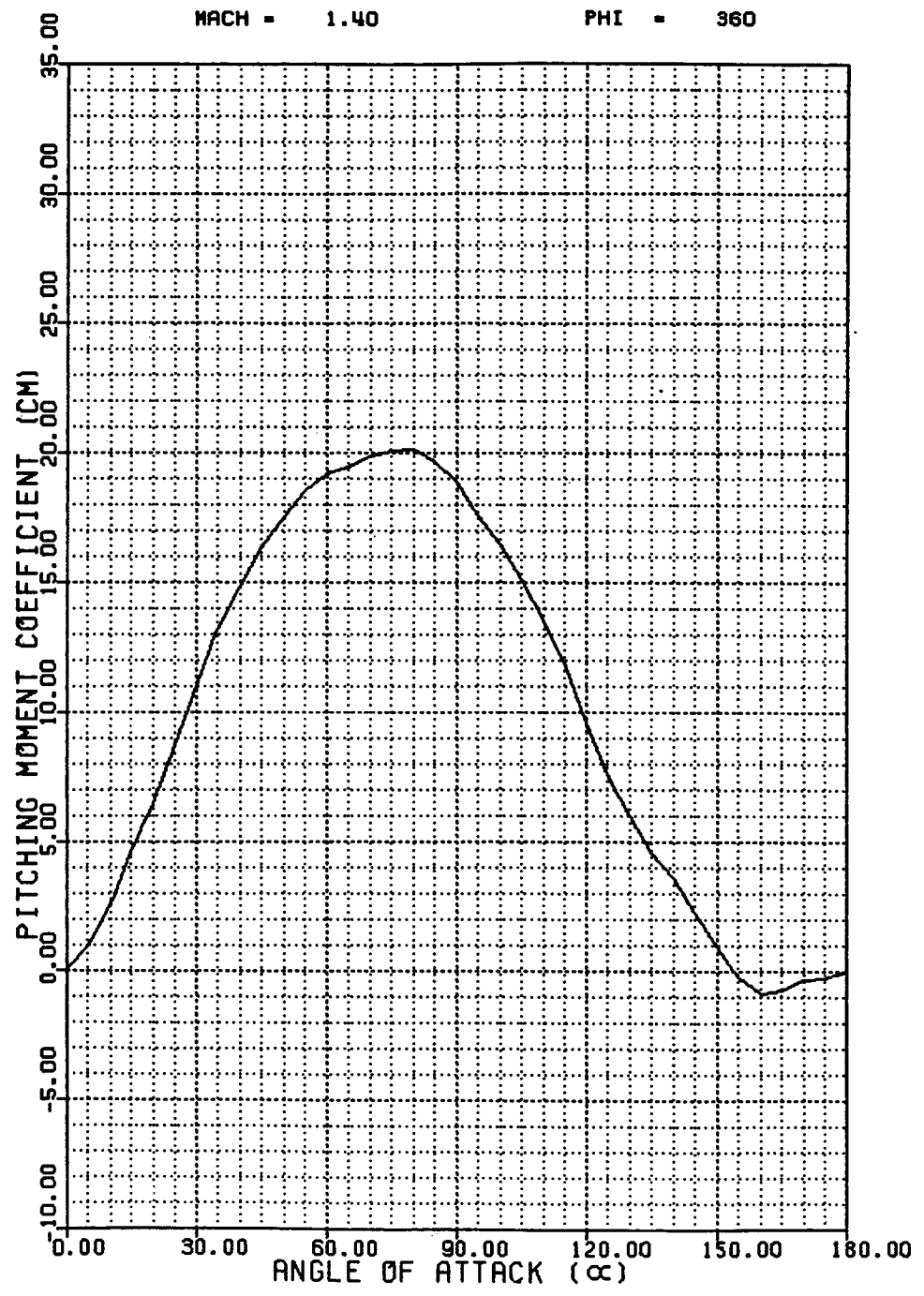
B-251

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360

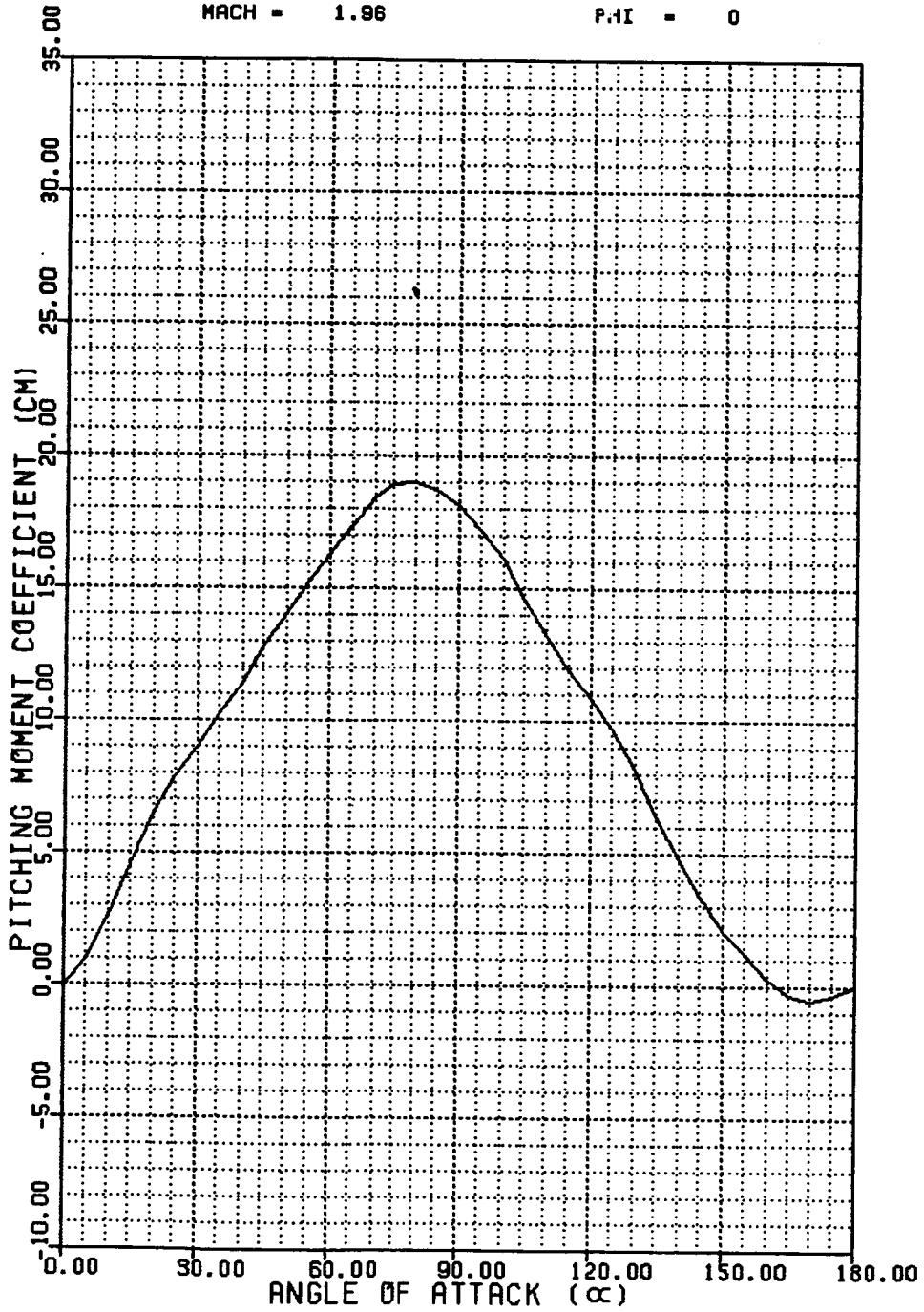


B-252

# SRB TAPE 8 DATA

MACH = 1.96

P.HI = 0



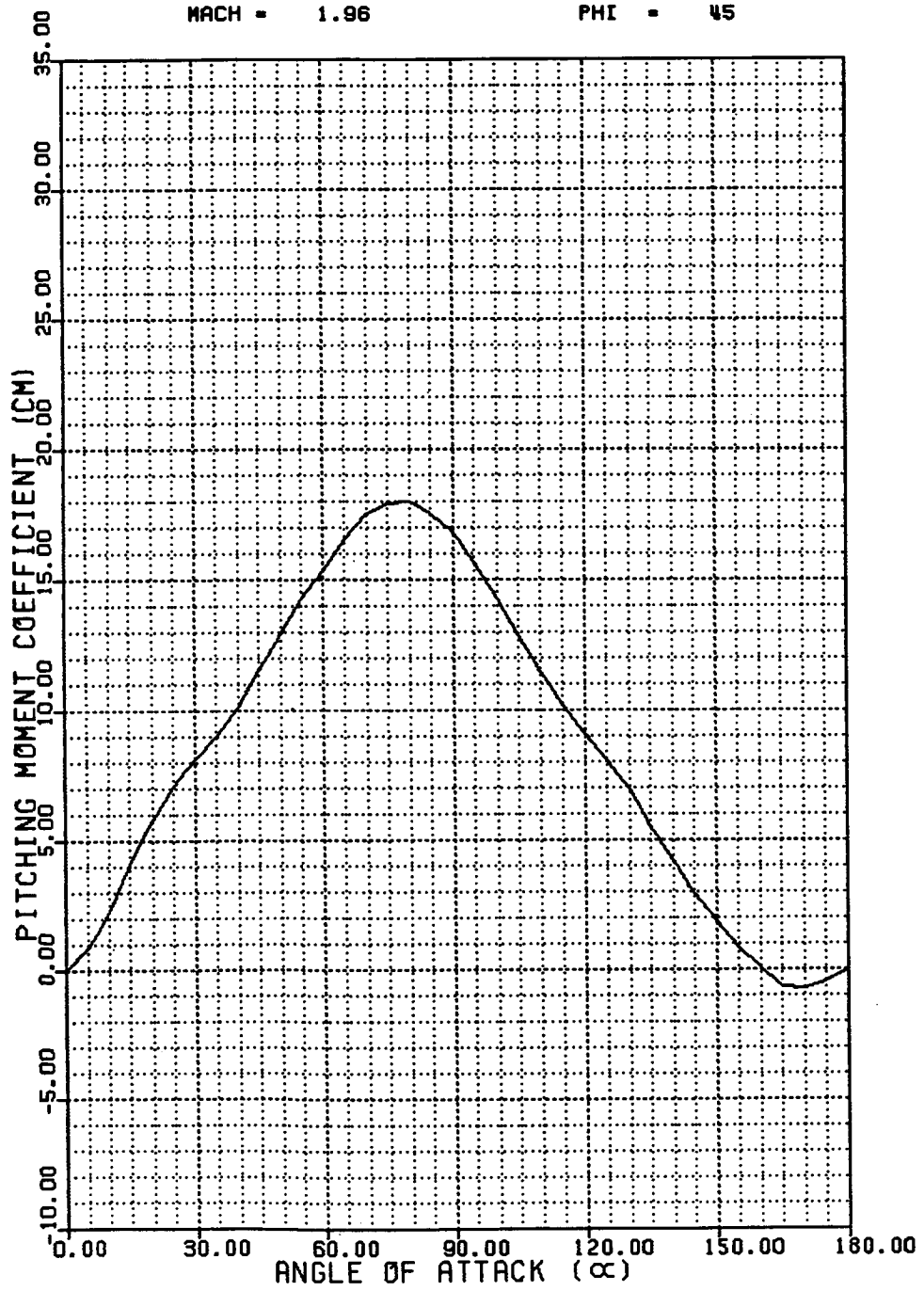
B-253

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45

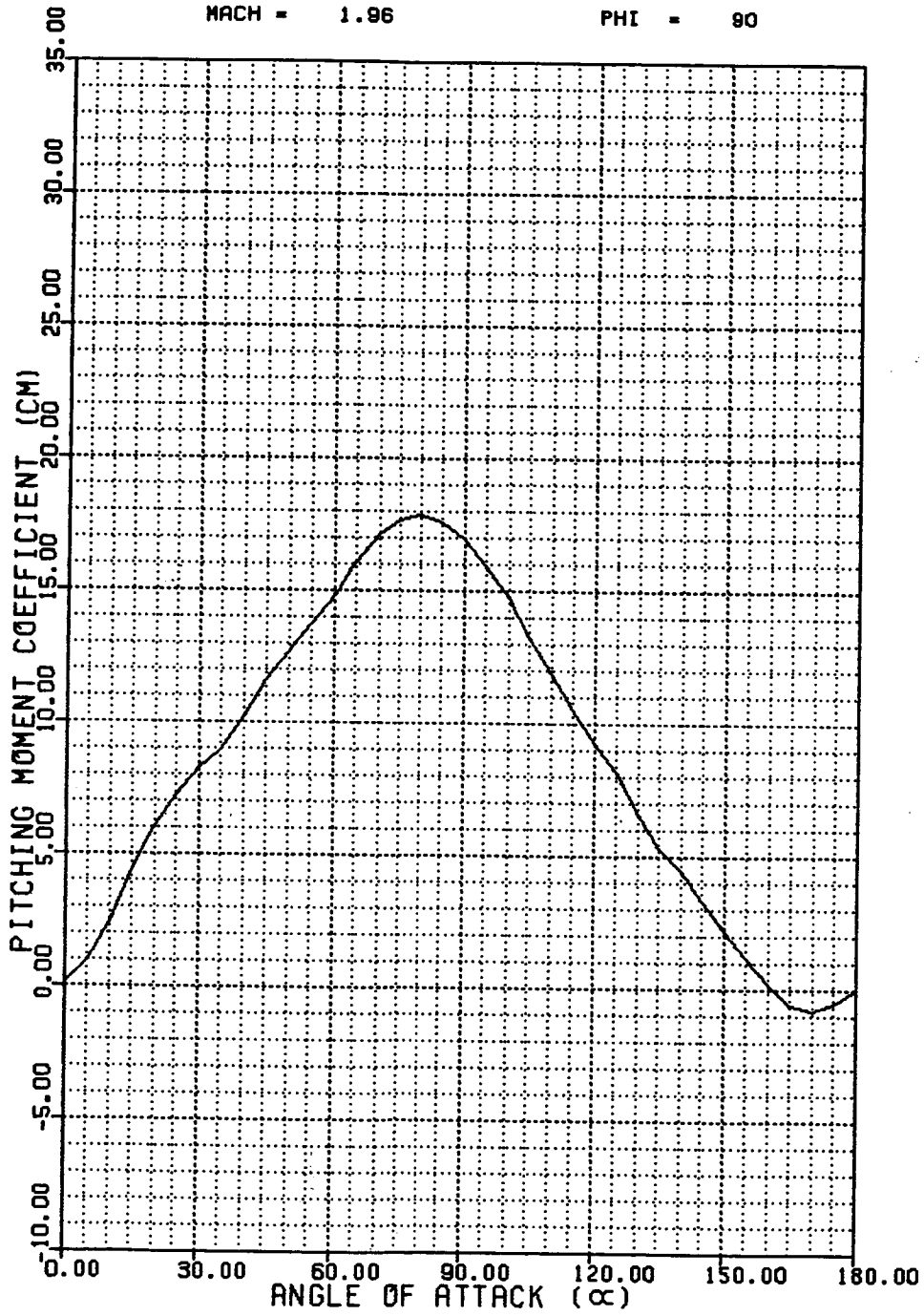


B-254

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90

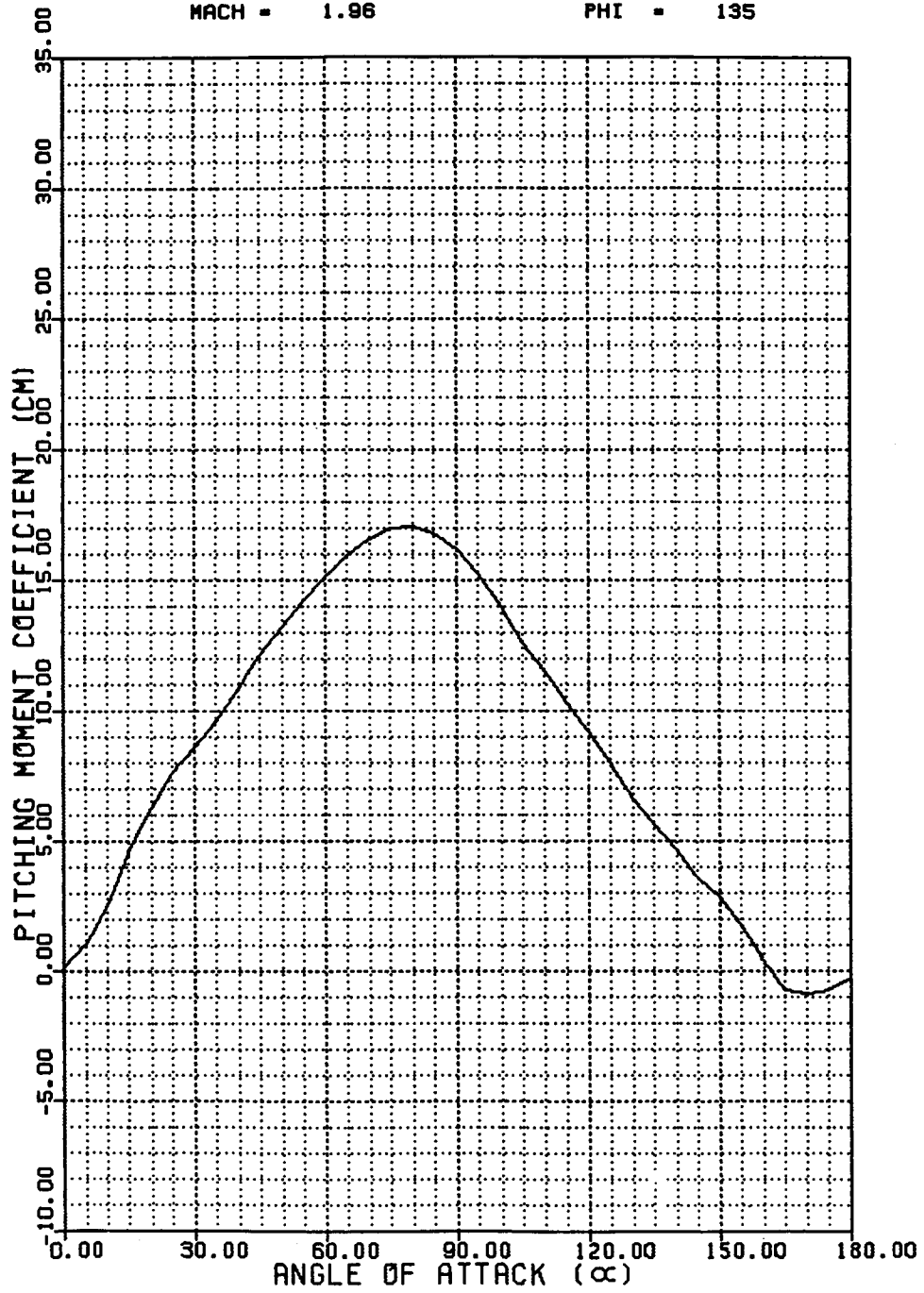


B-255

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135

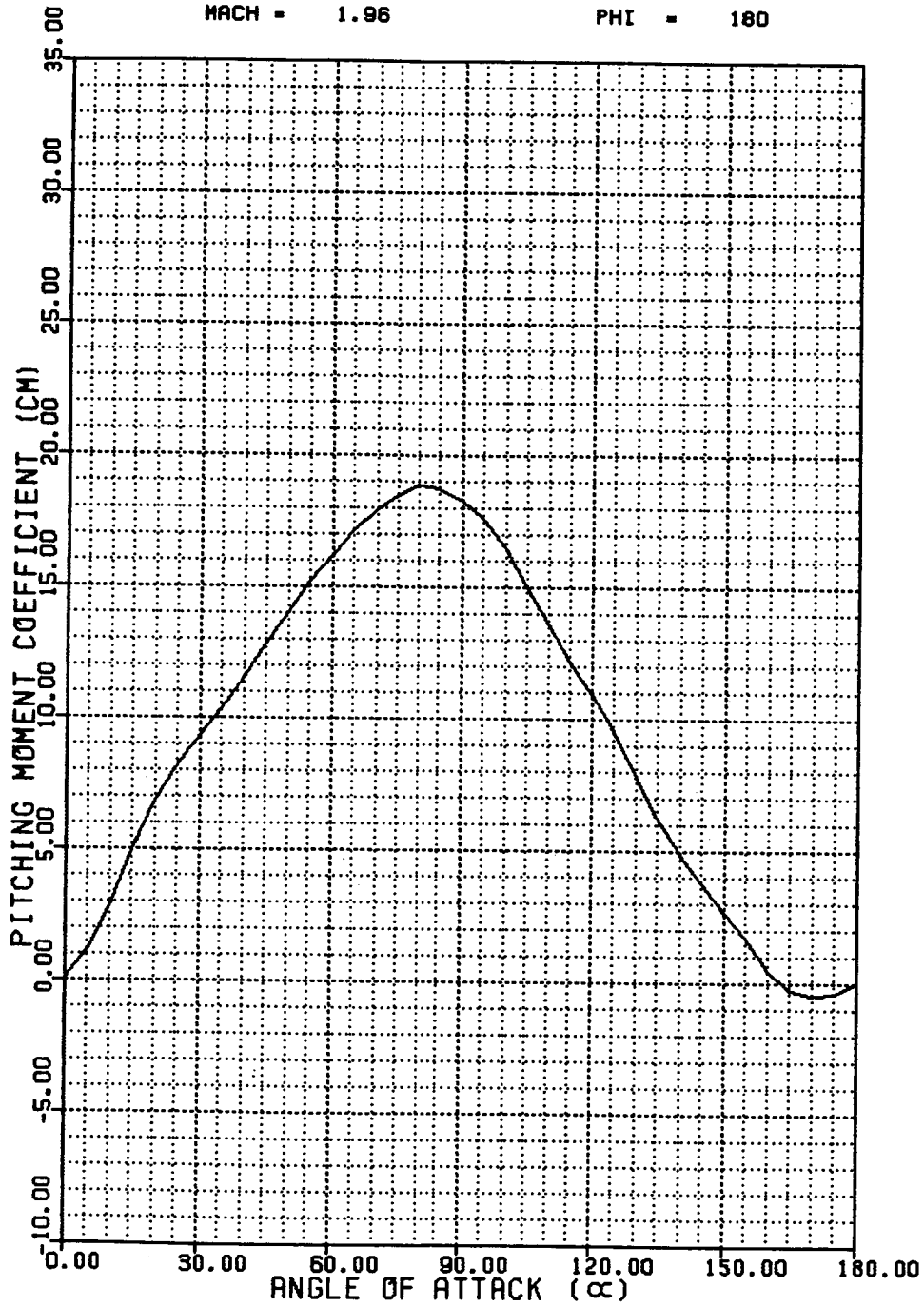


B-256

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180



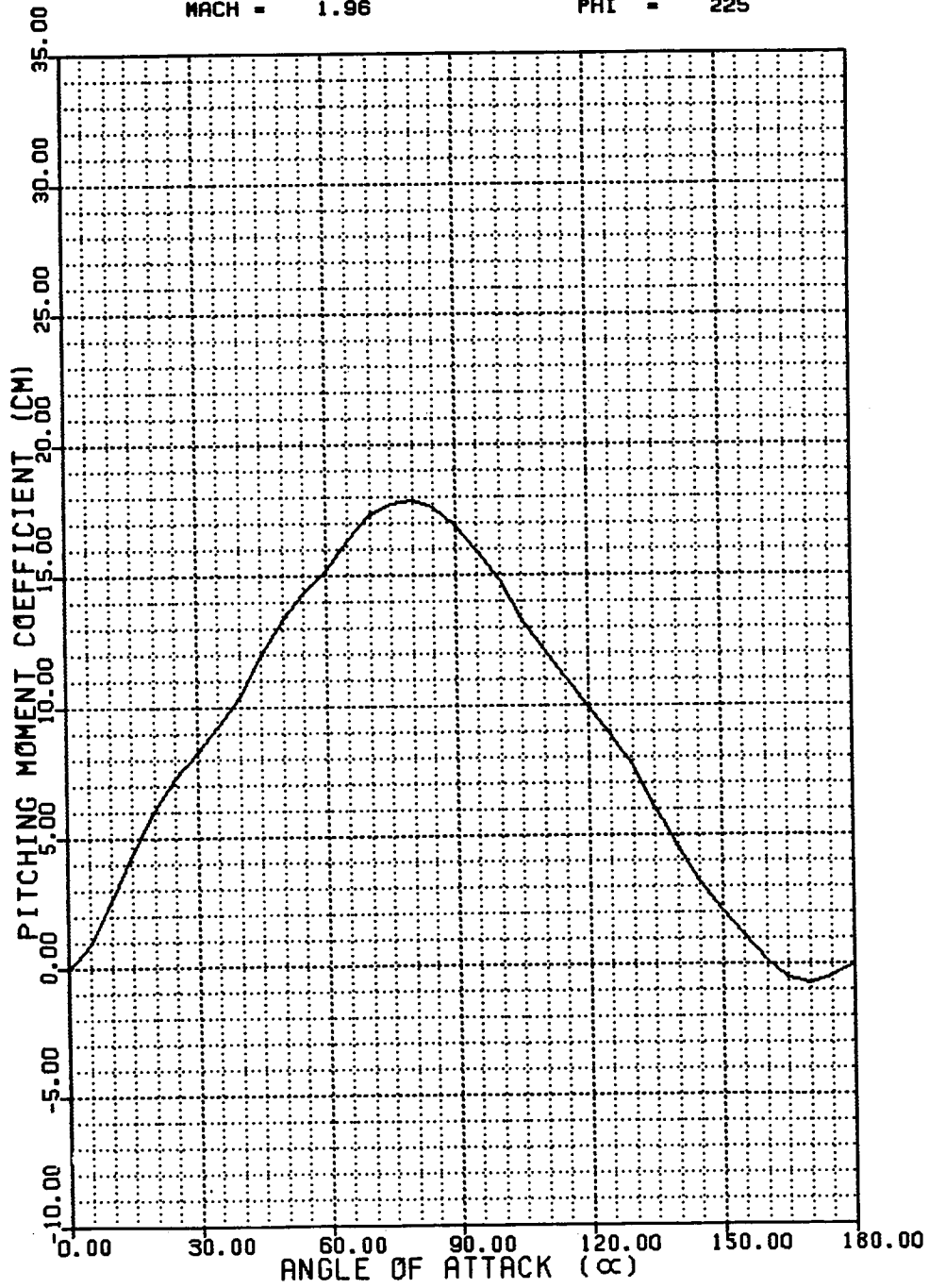
B-257



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225

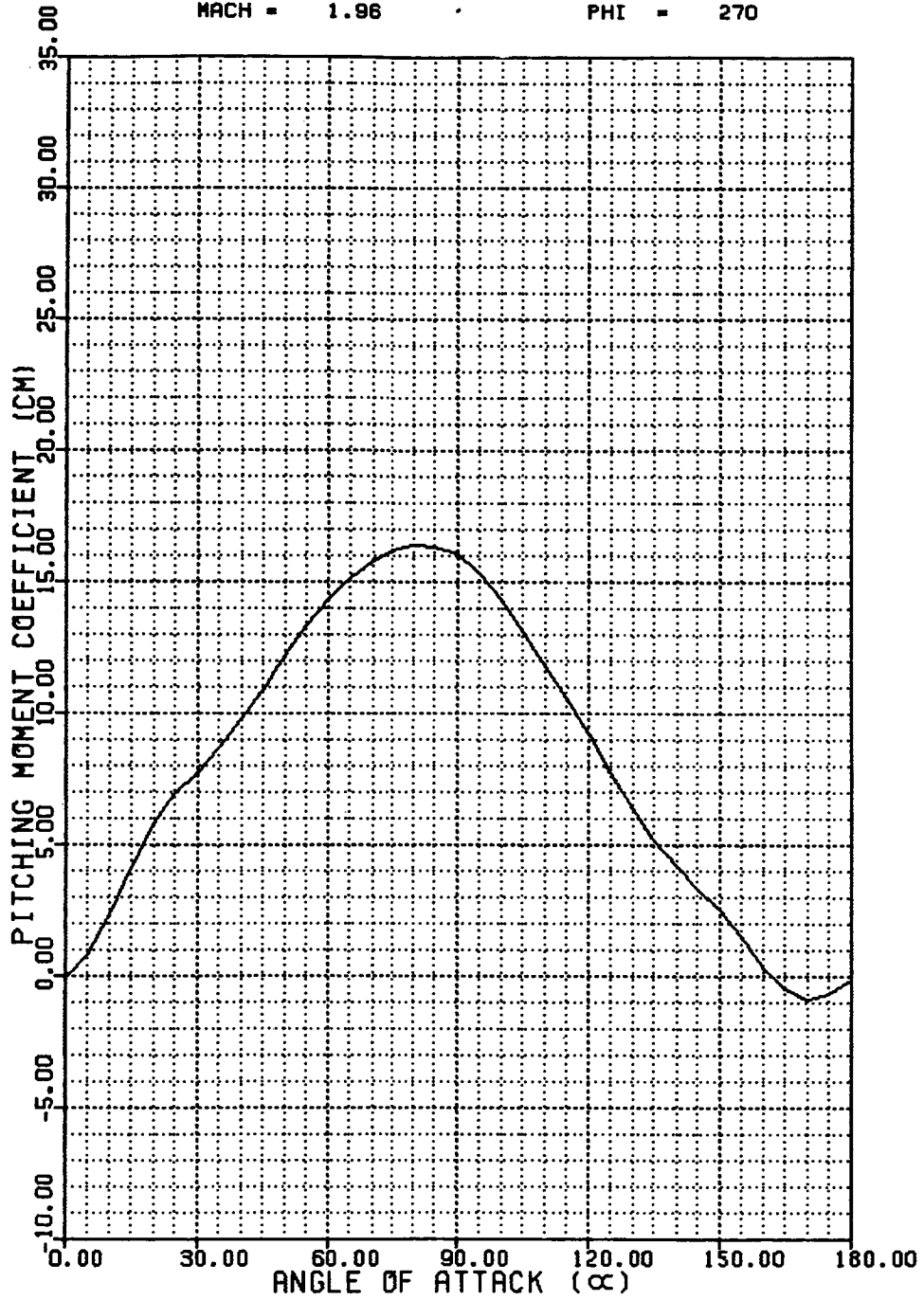


B-258

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270



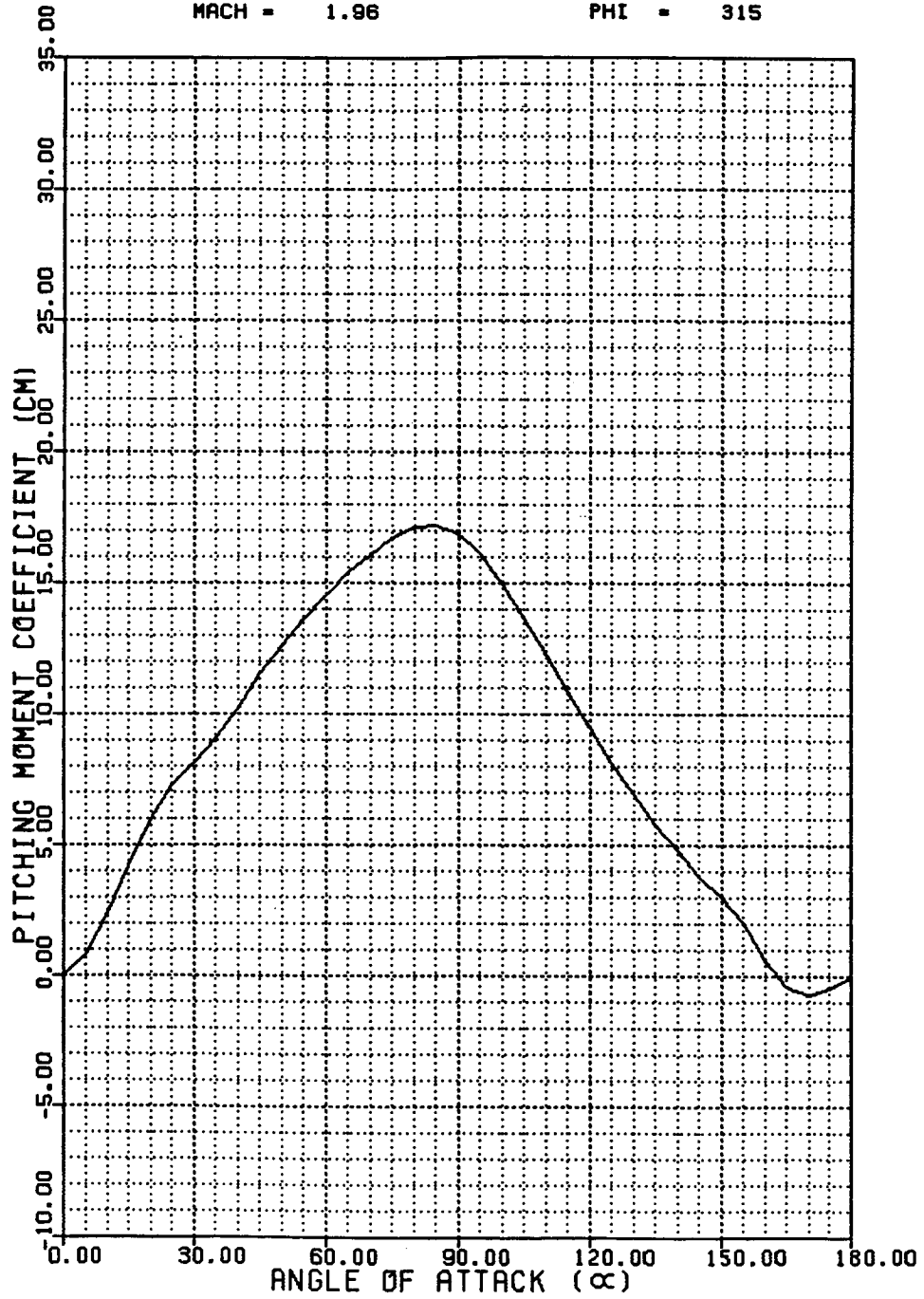
B-259

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315



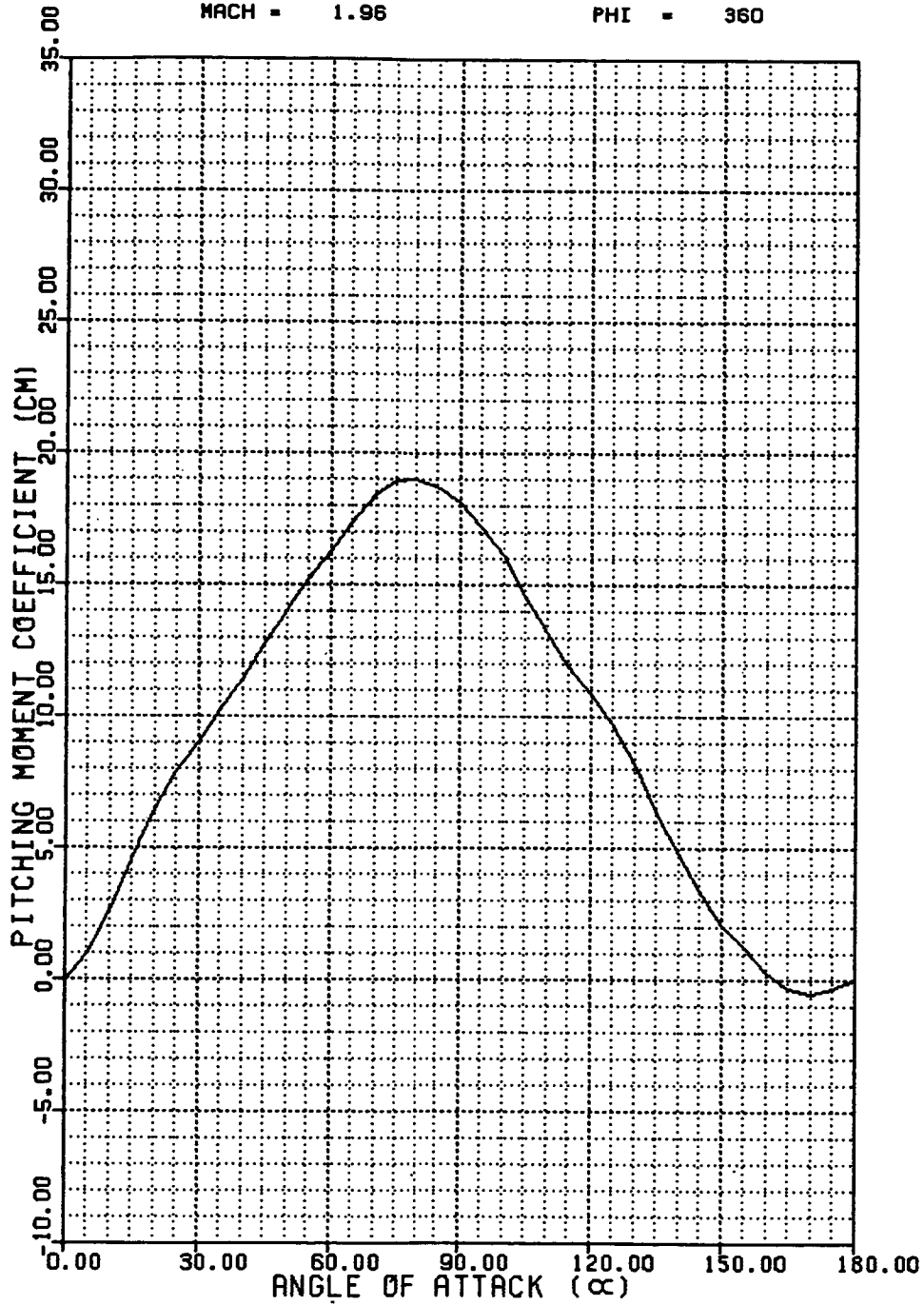
B-260

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 360

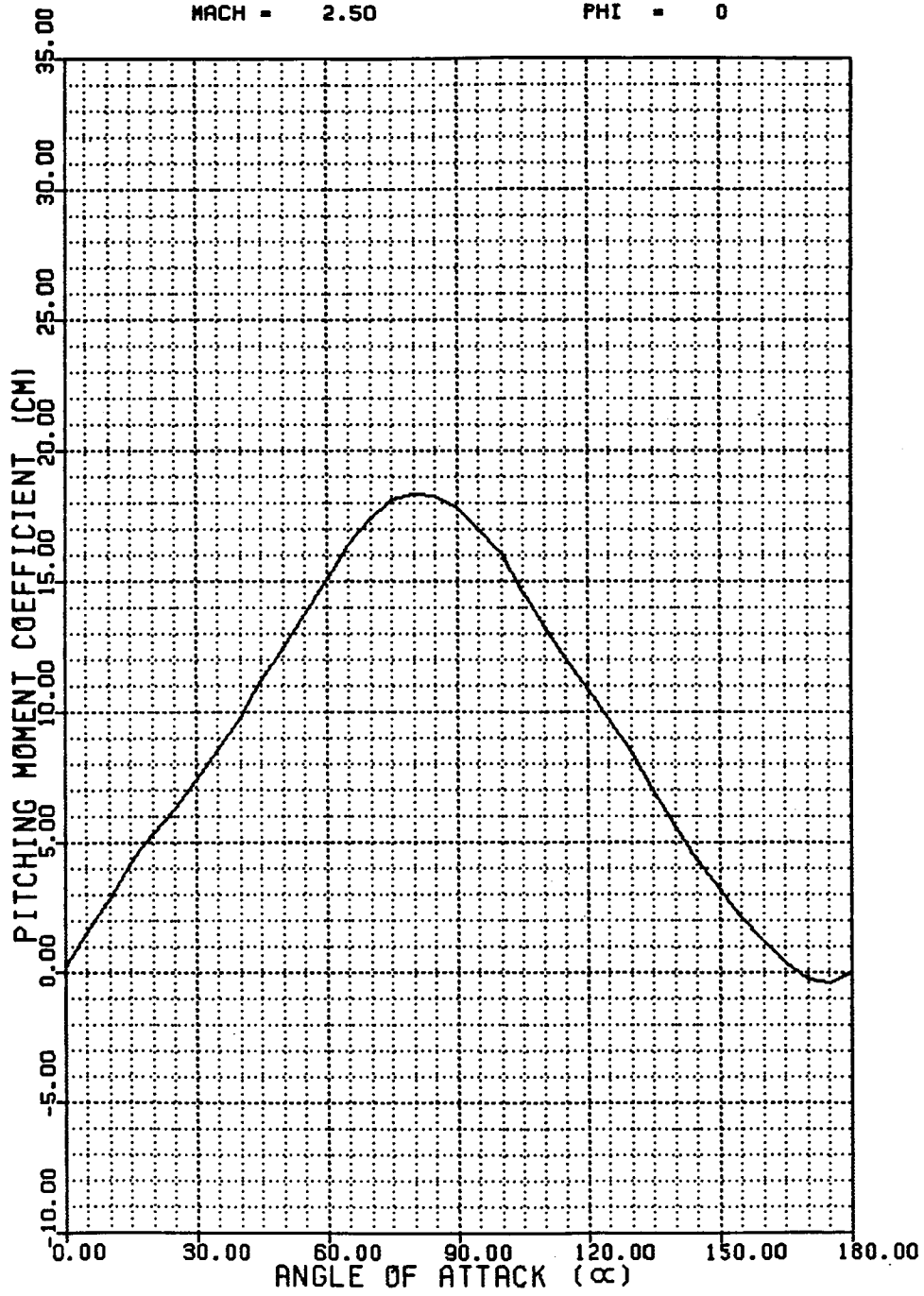


B-261

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



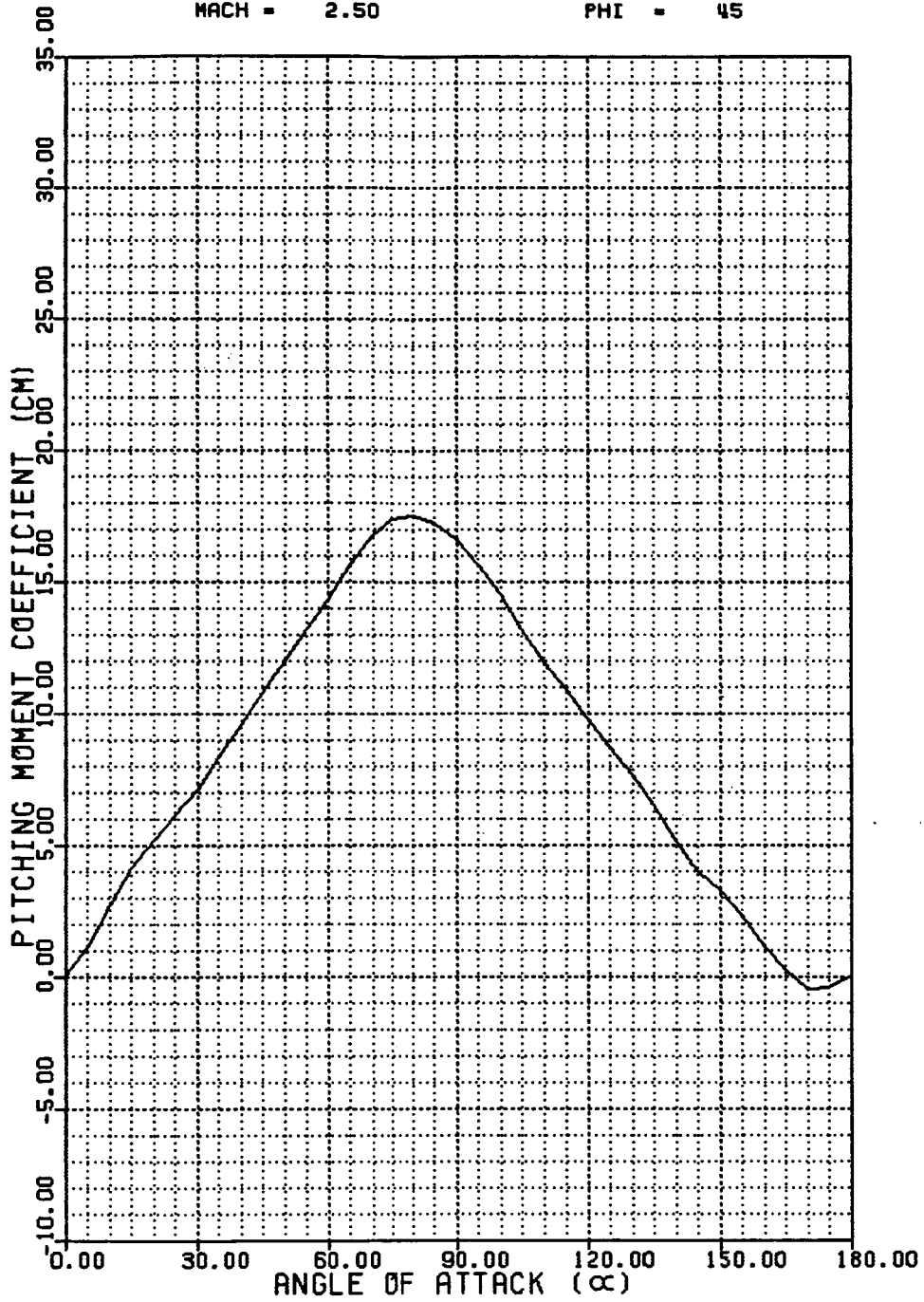
B-262

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 45

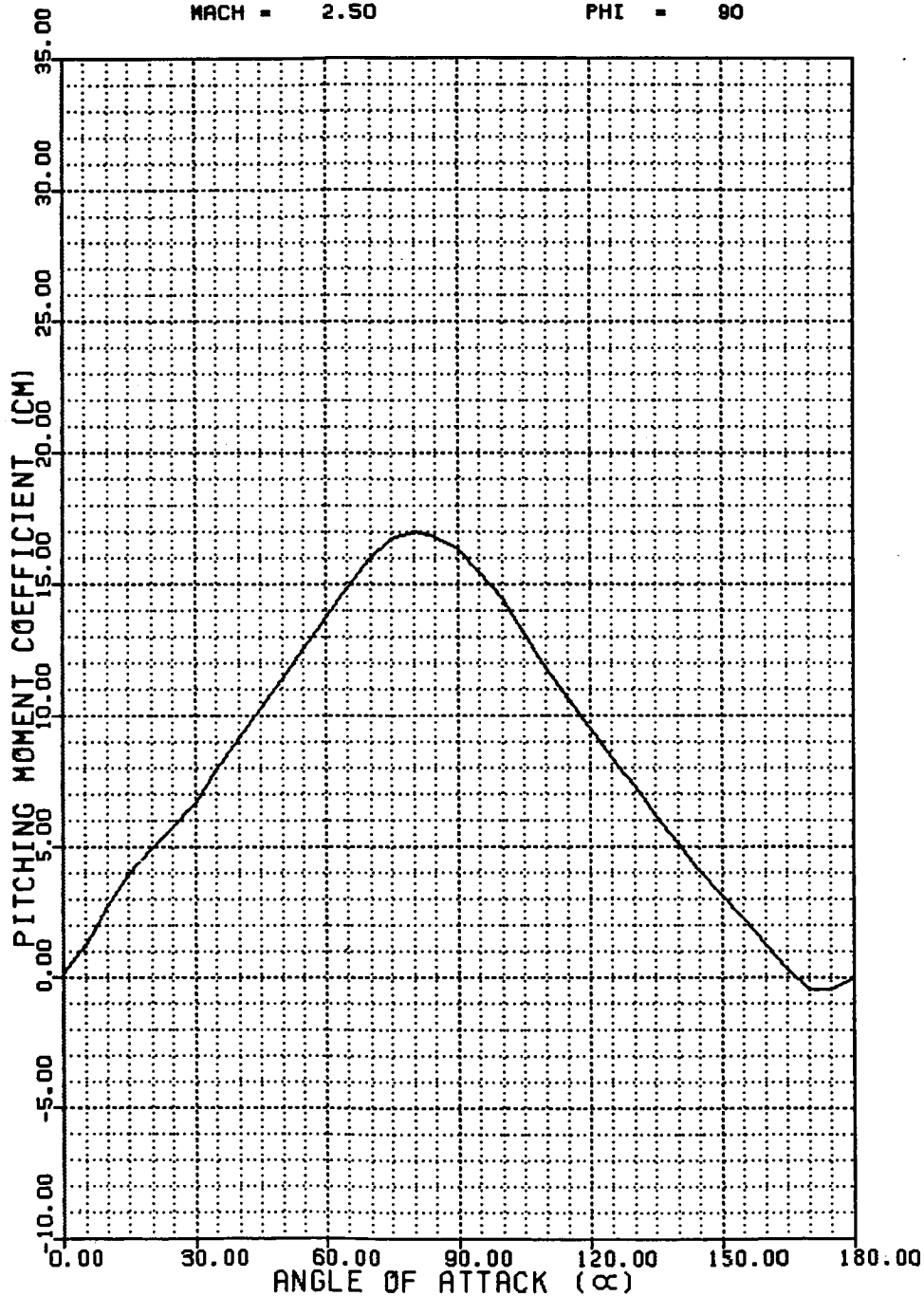


B-263

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90

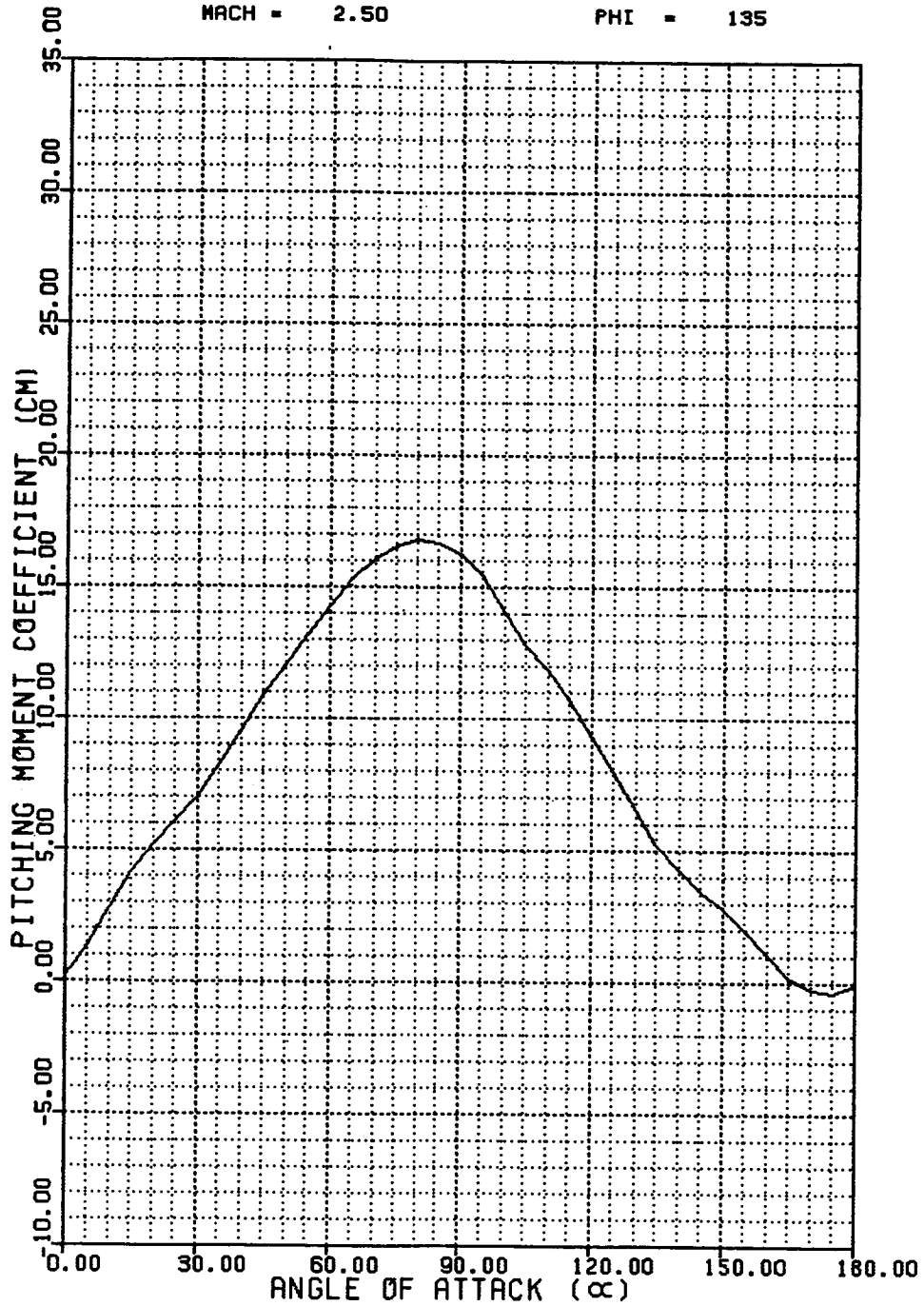


B-264

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135



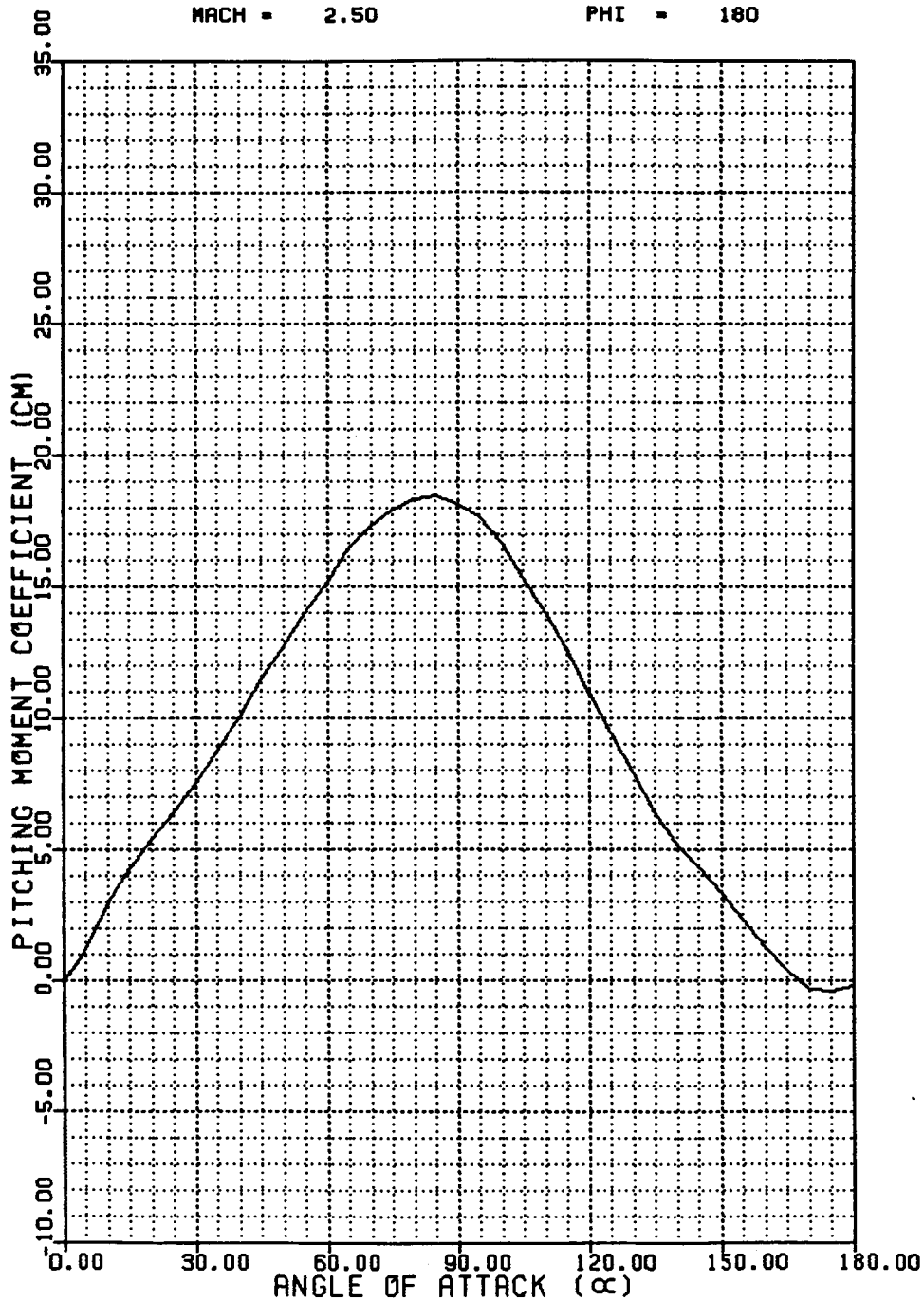
B-265



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



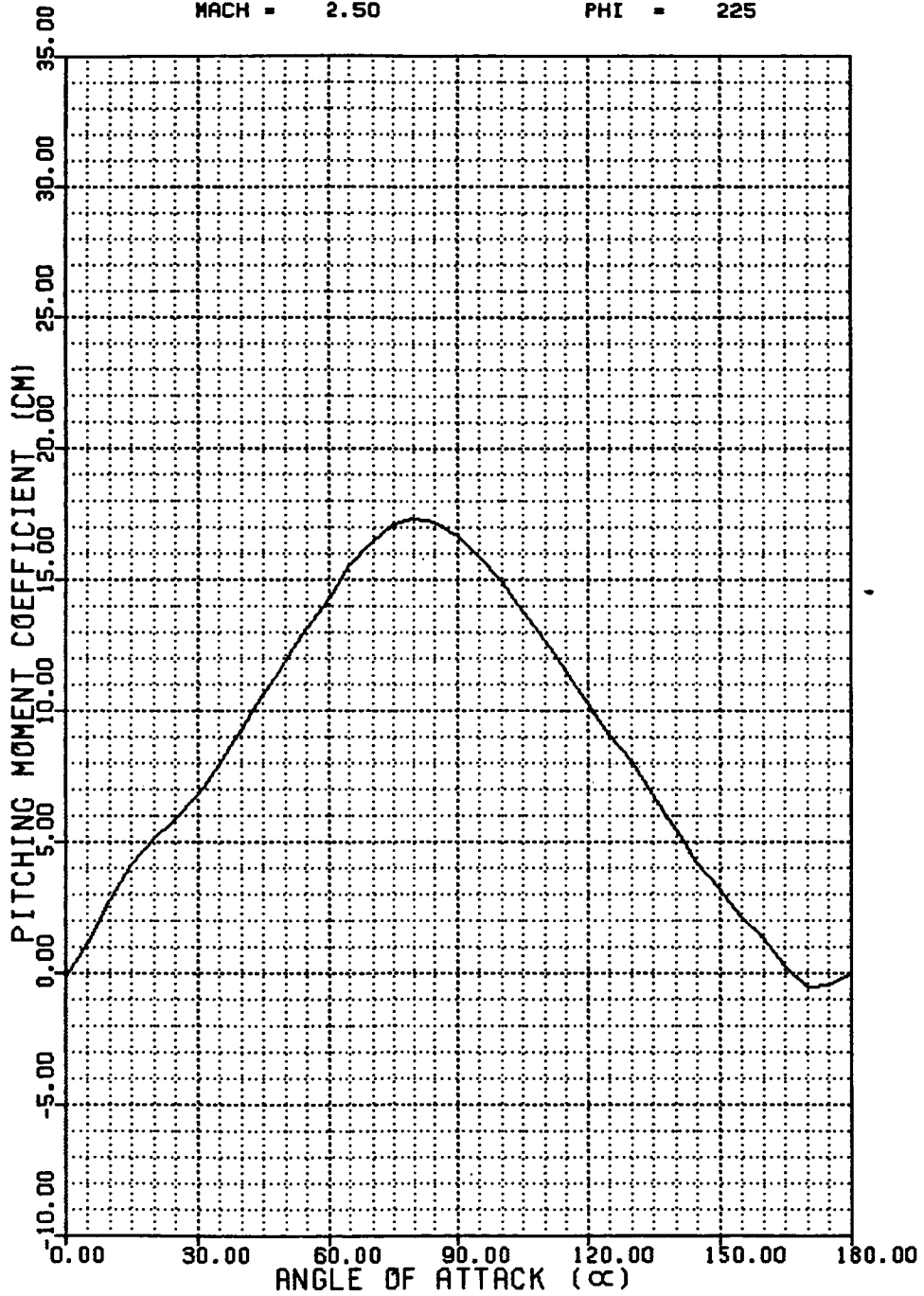
B-266

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225



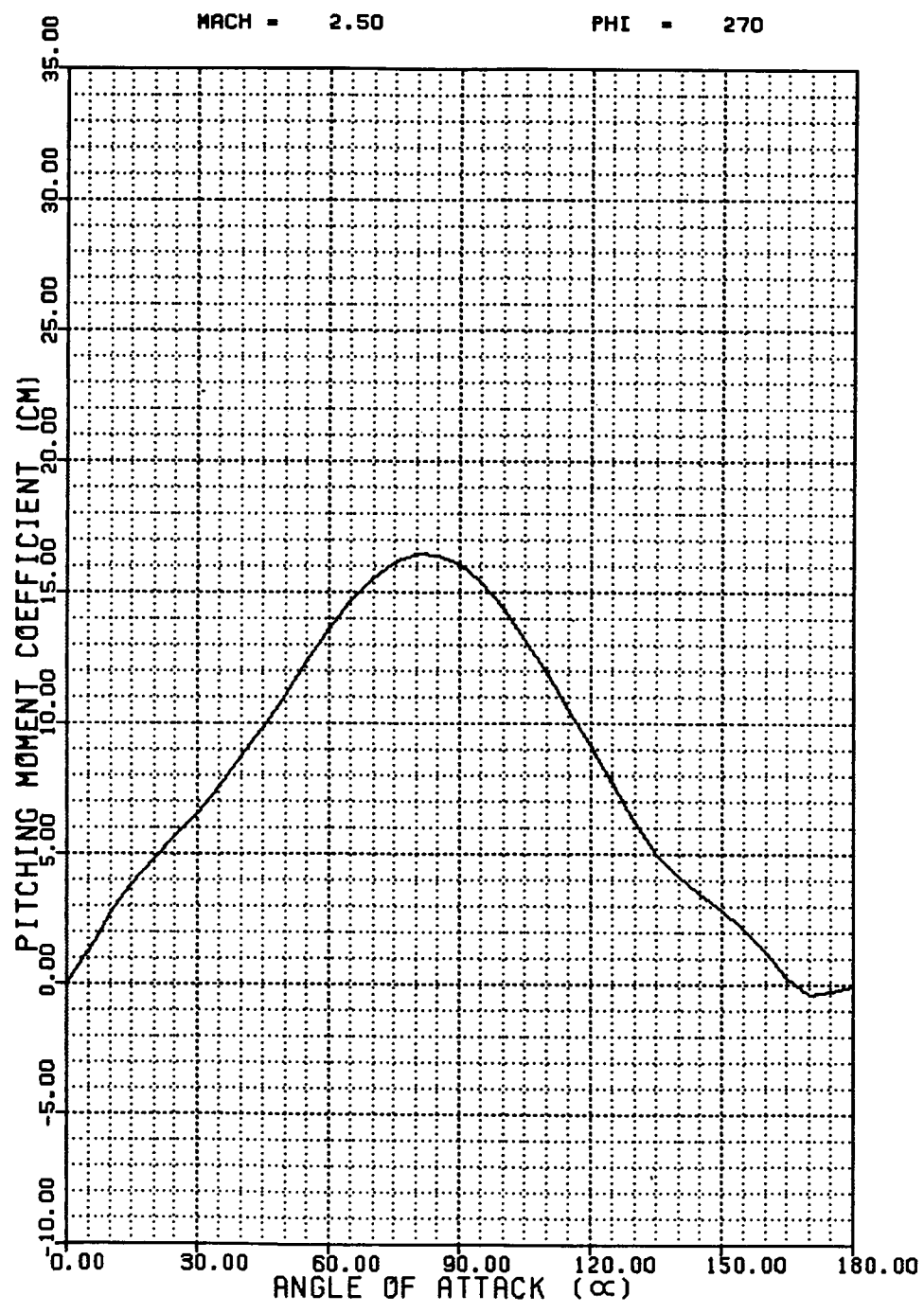
B-267

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270

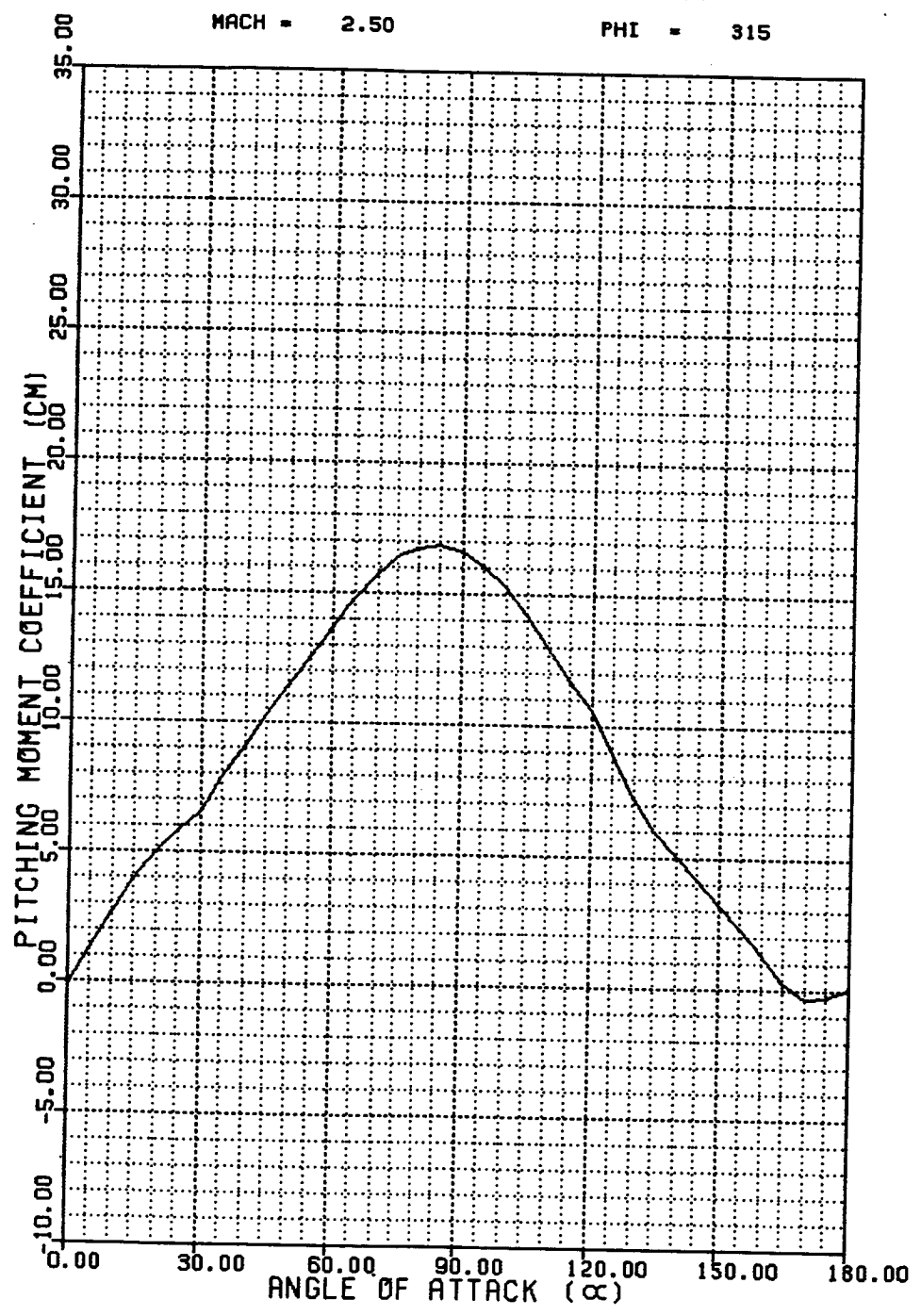


B-268

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315

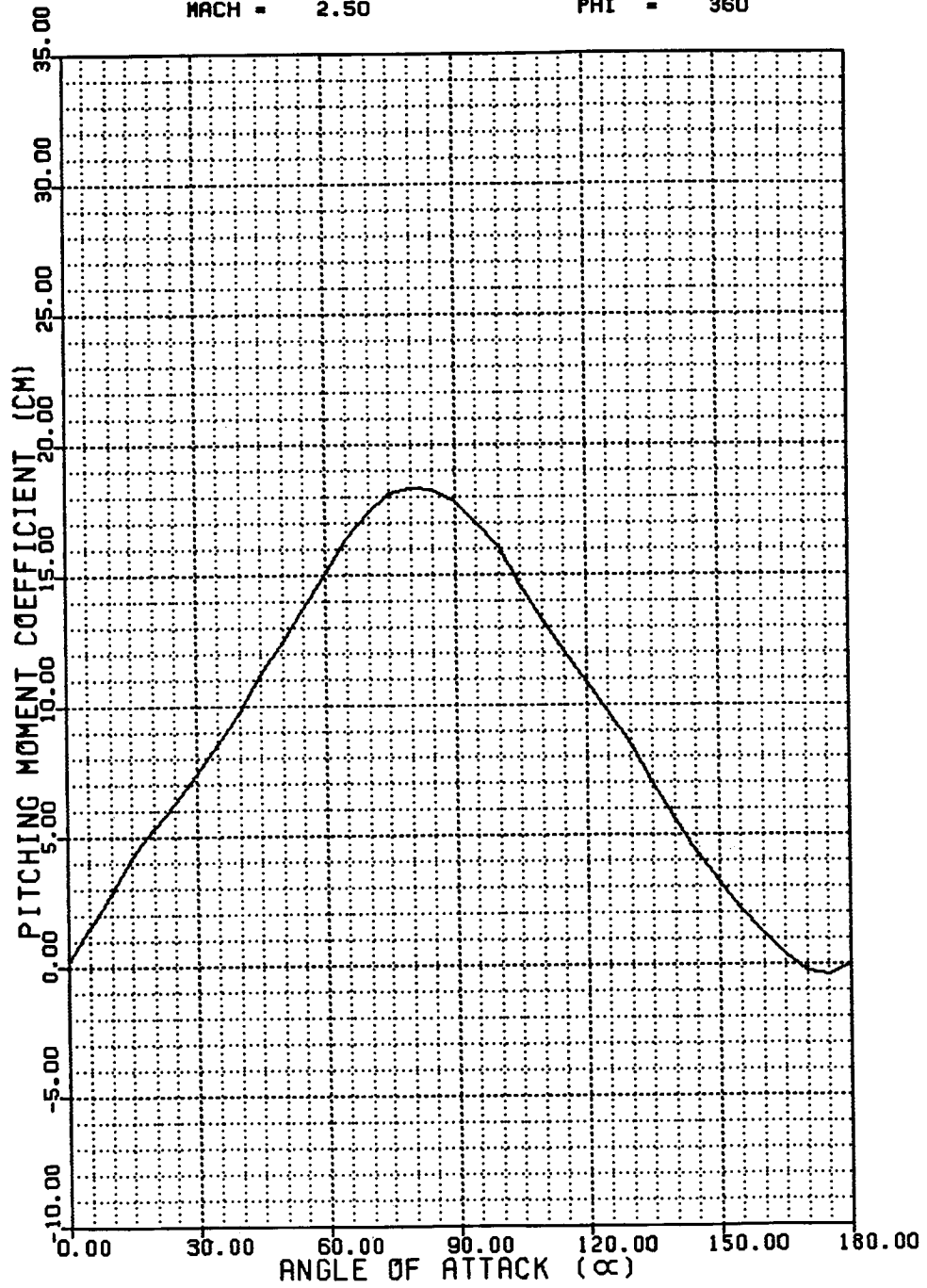


B-269

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360



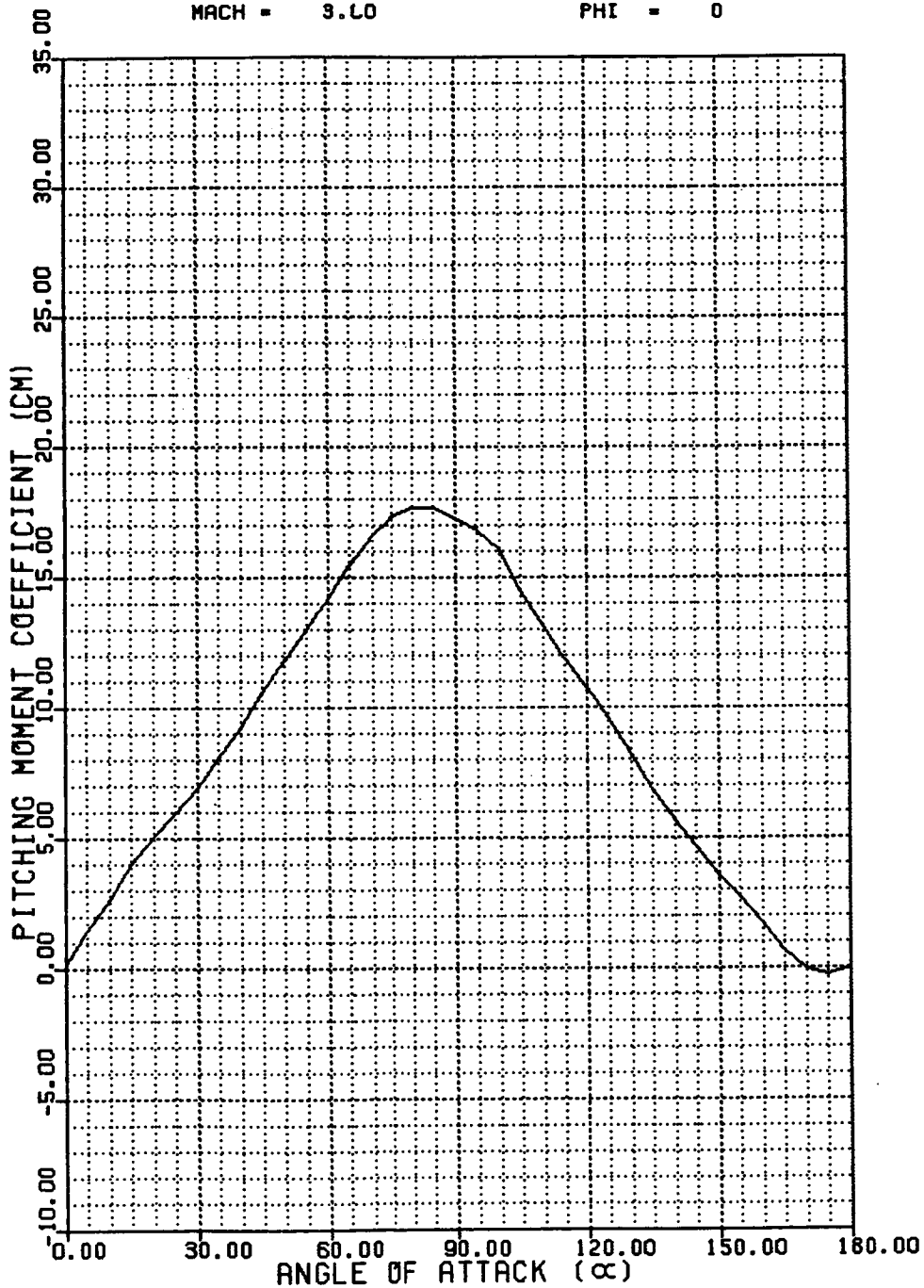
B-270

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0



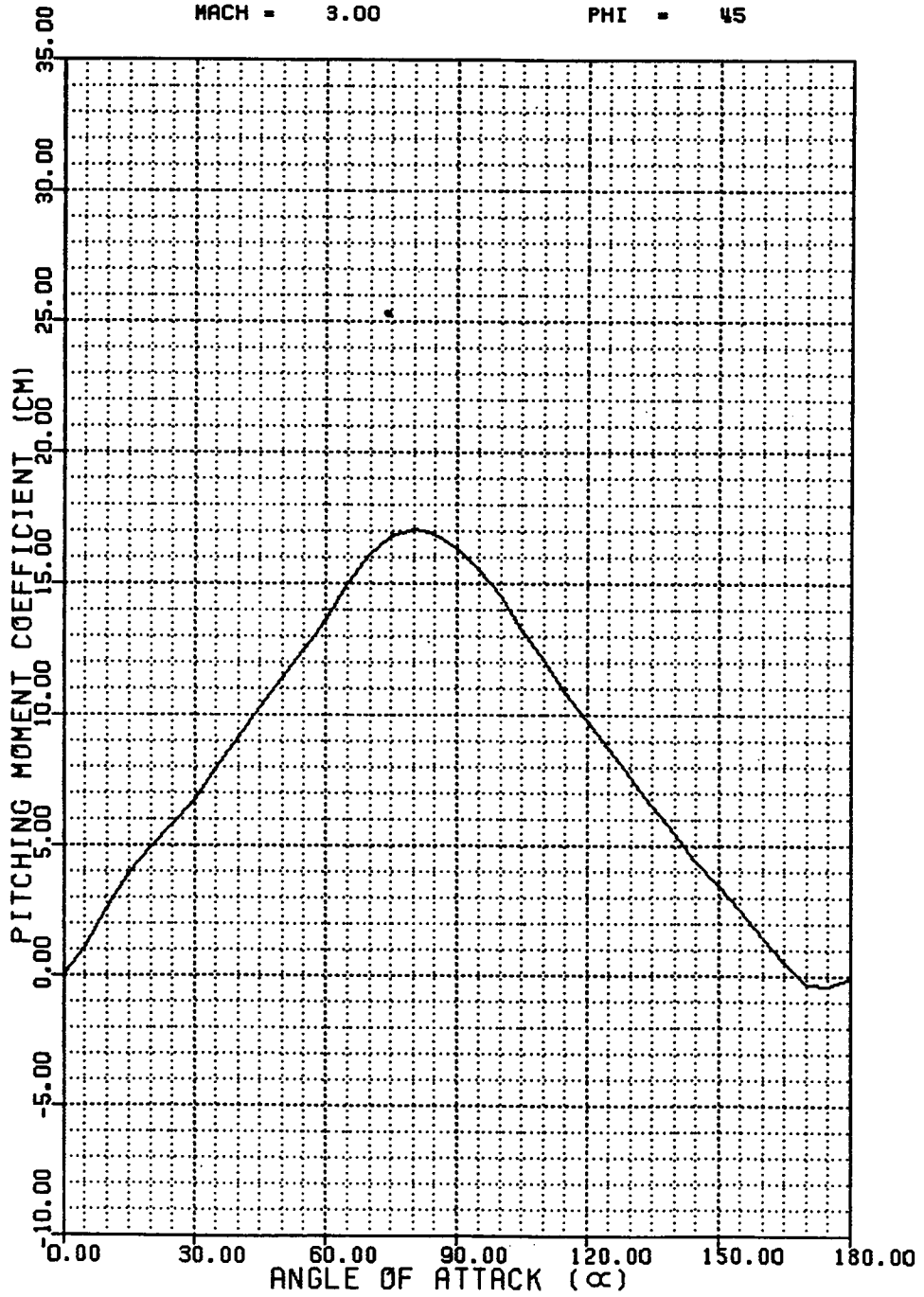
B-271

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45

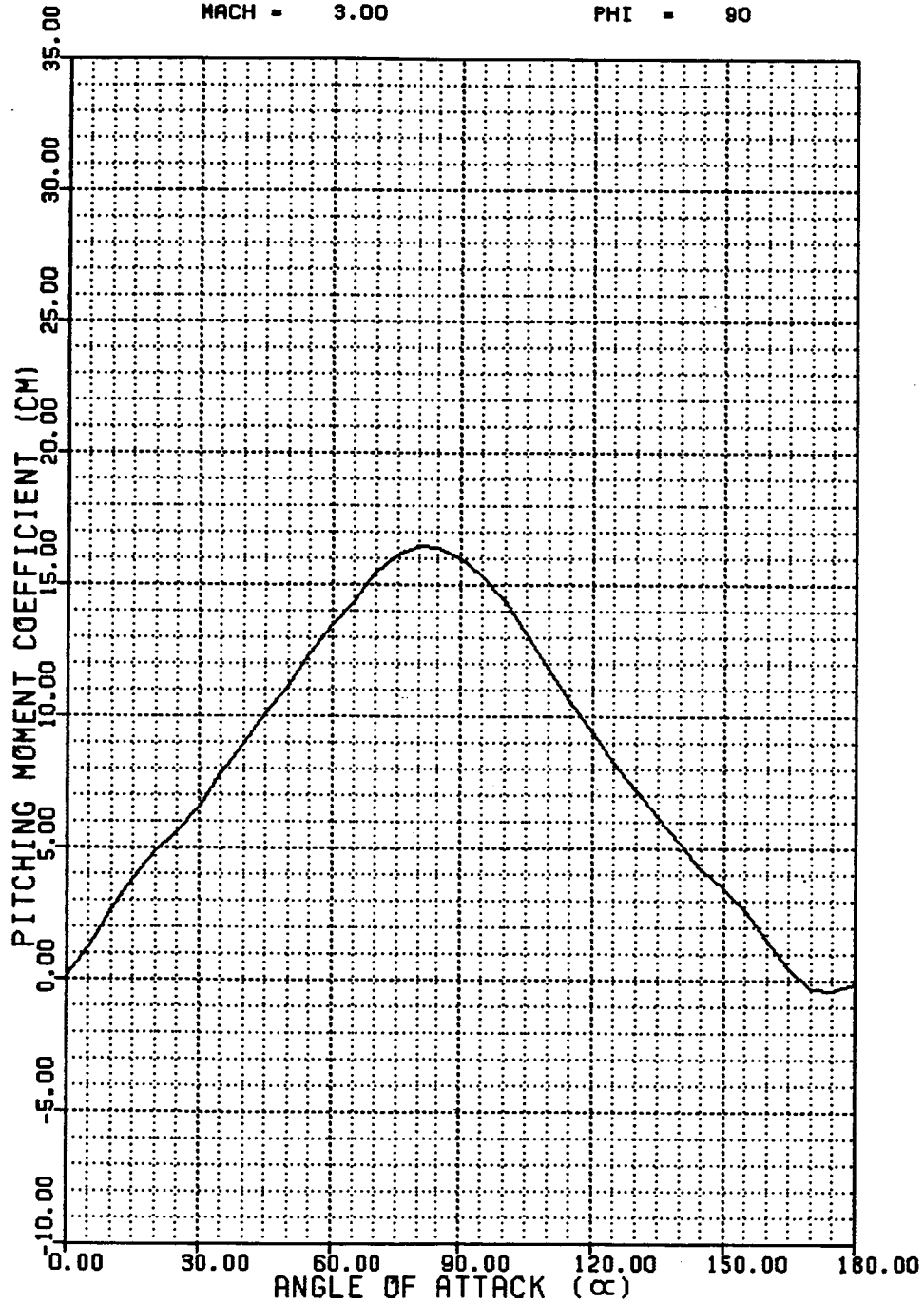


B-272

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90



B-273

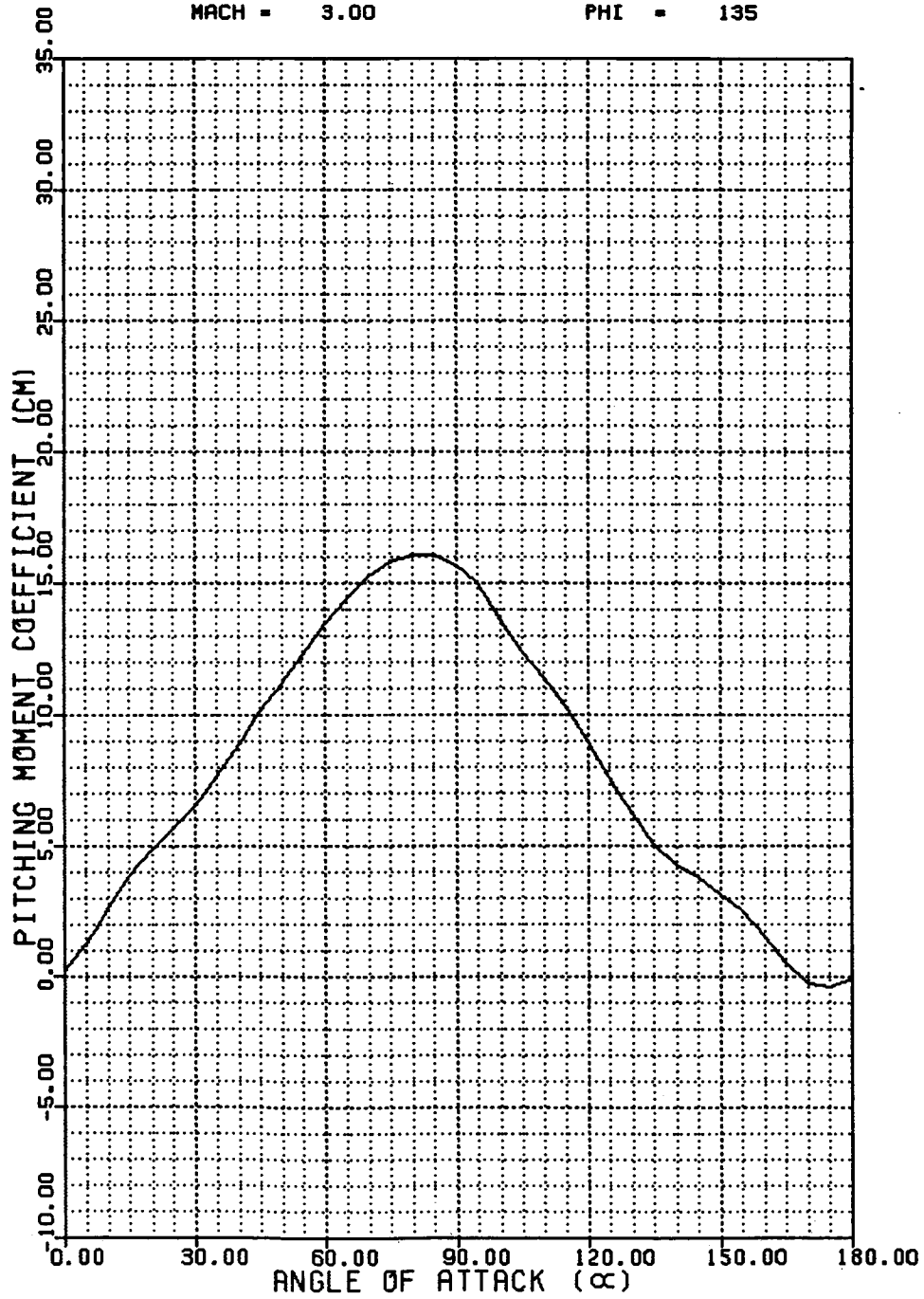
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



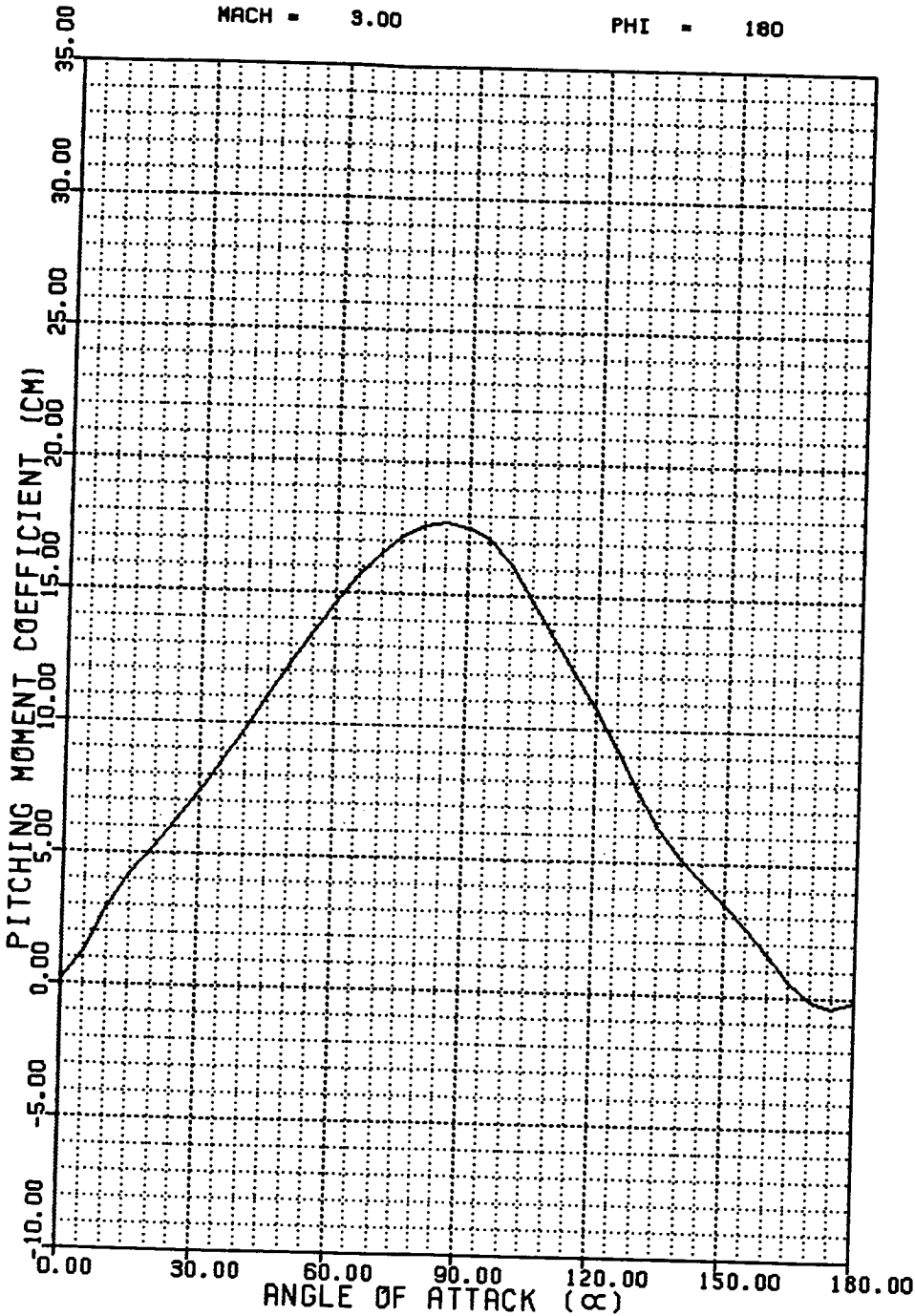
B-274

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 9.00

PHI = 180

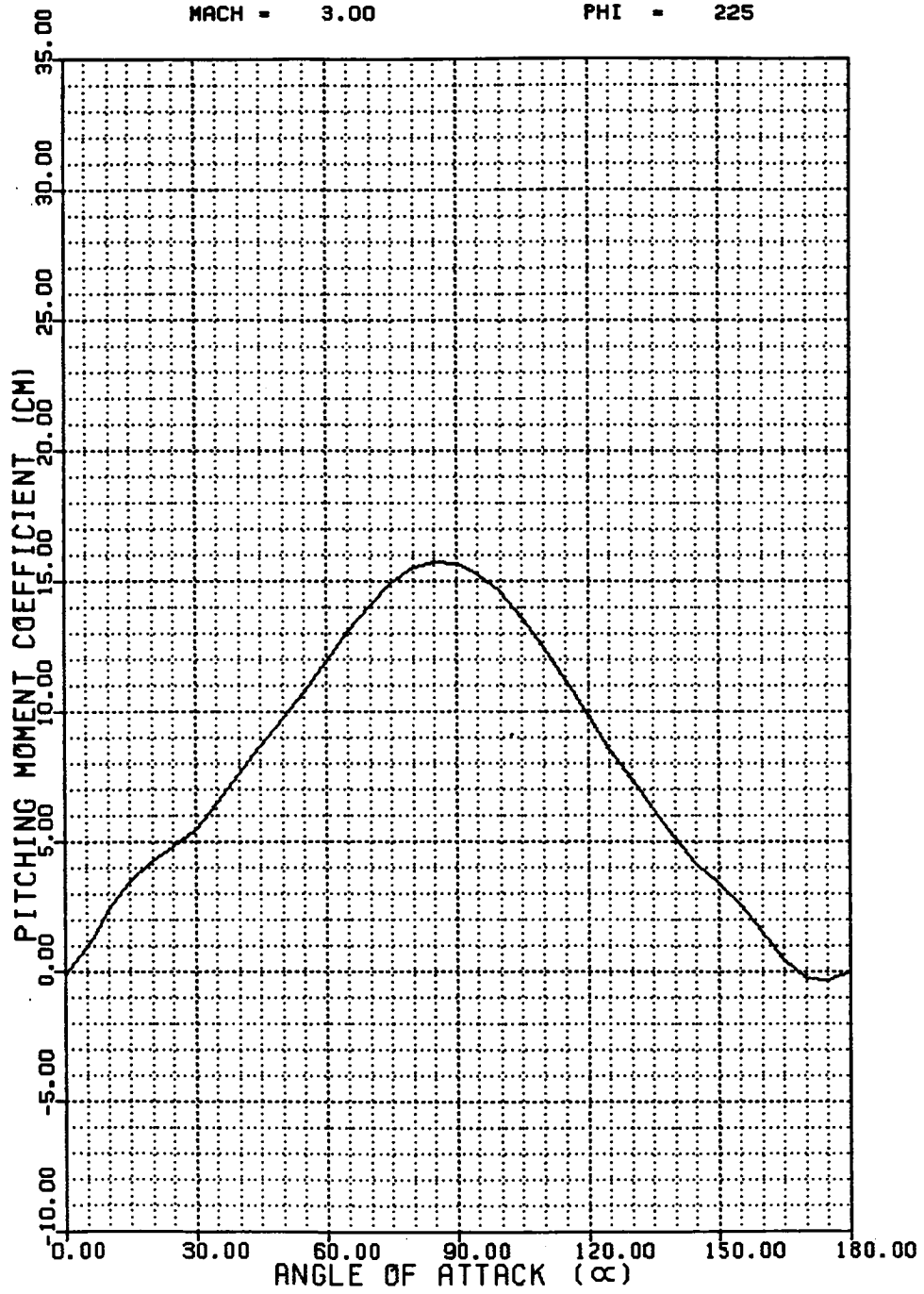


B-275

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225



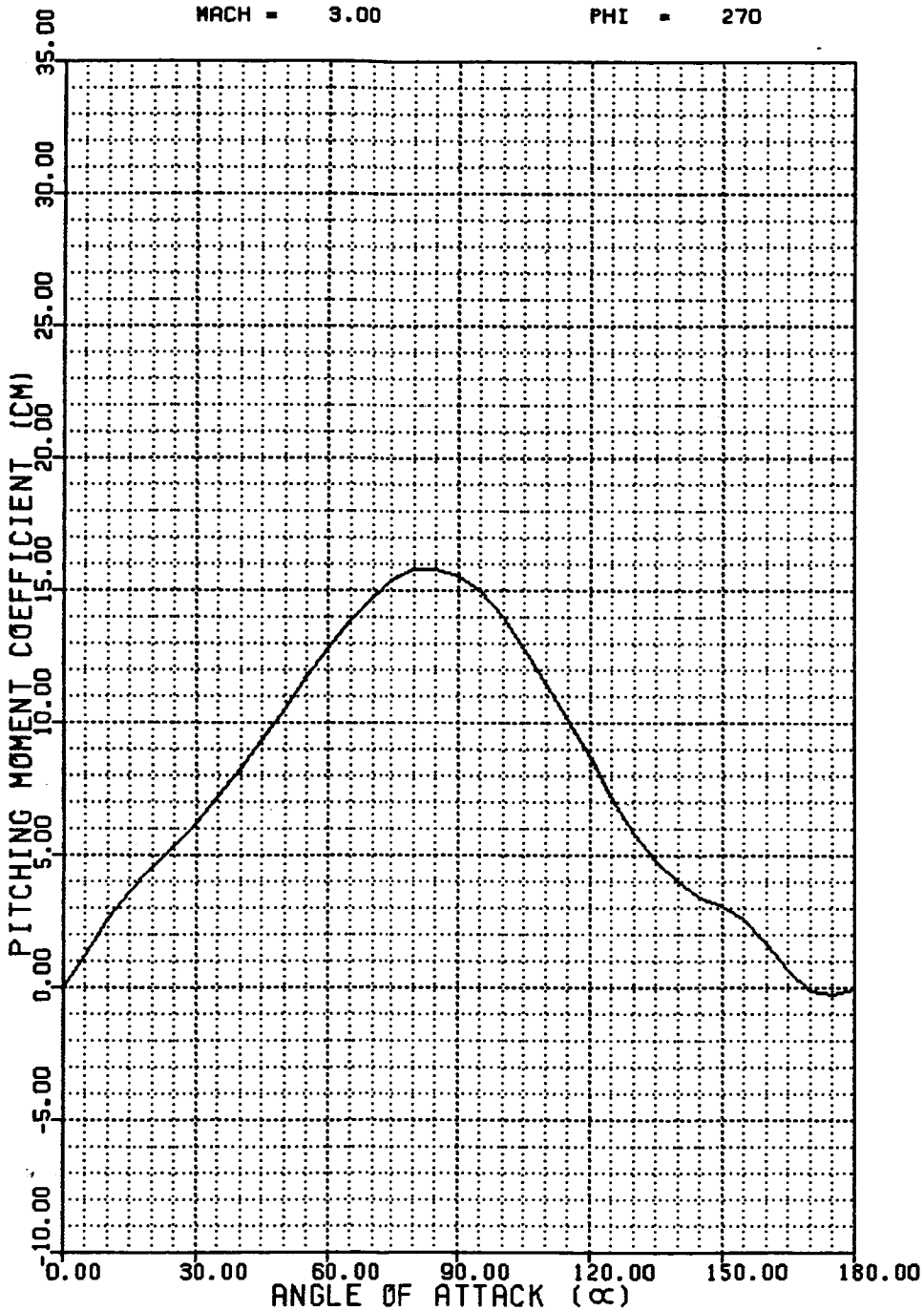
B-276

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270

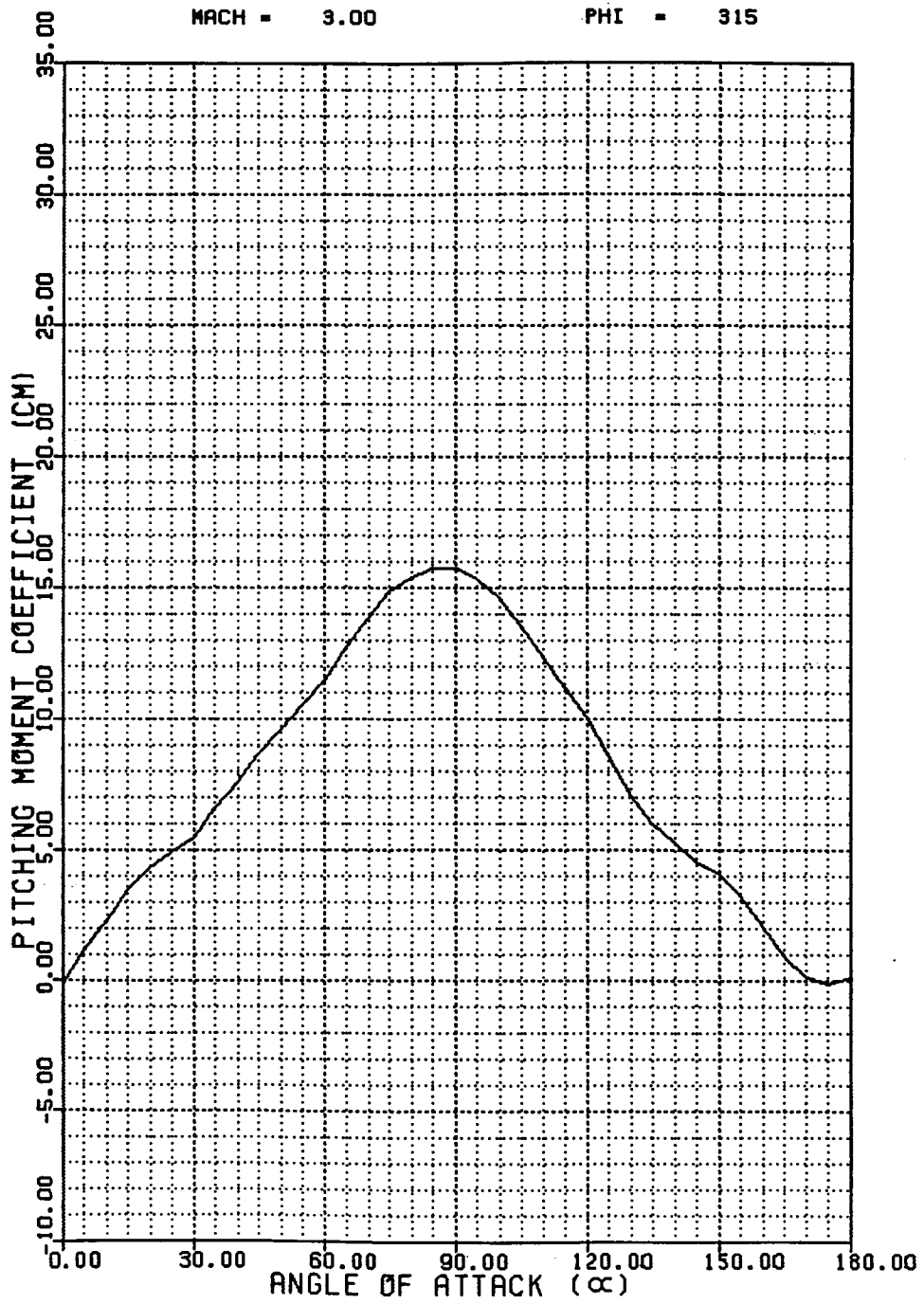


B-277

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315

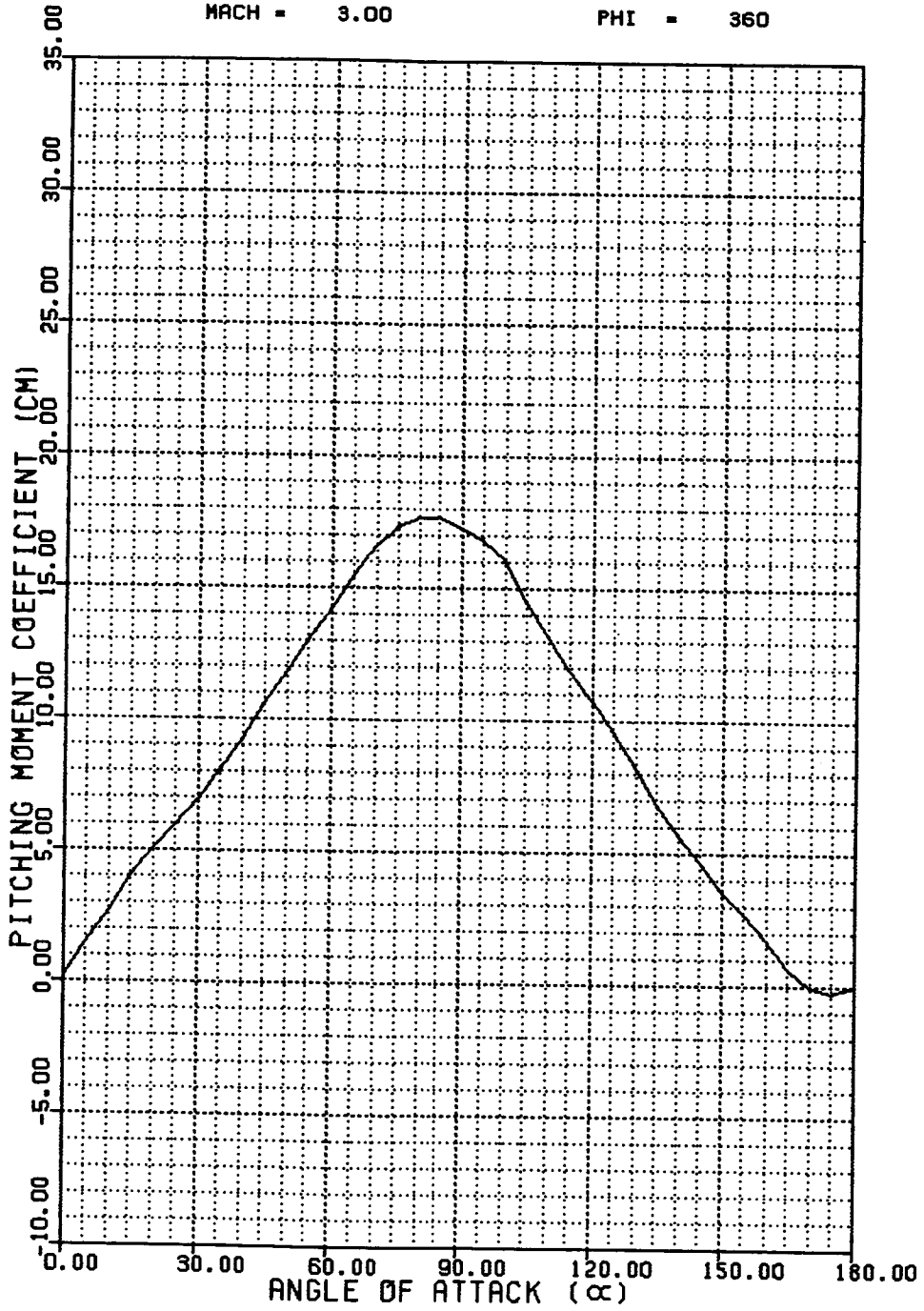


B-278

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360

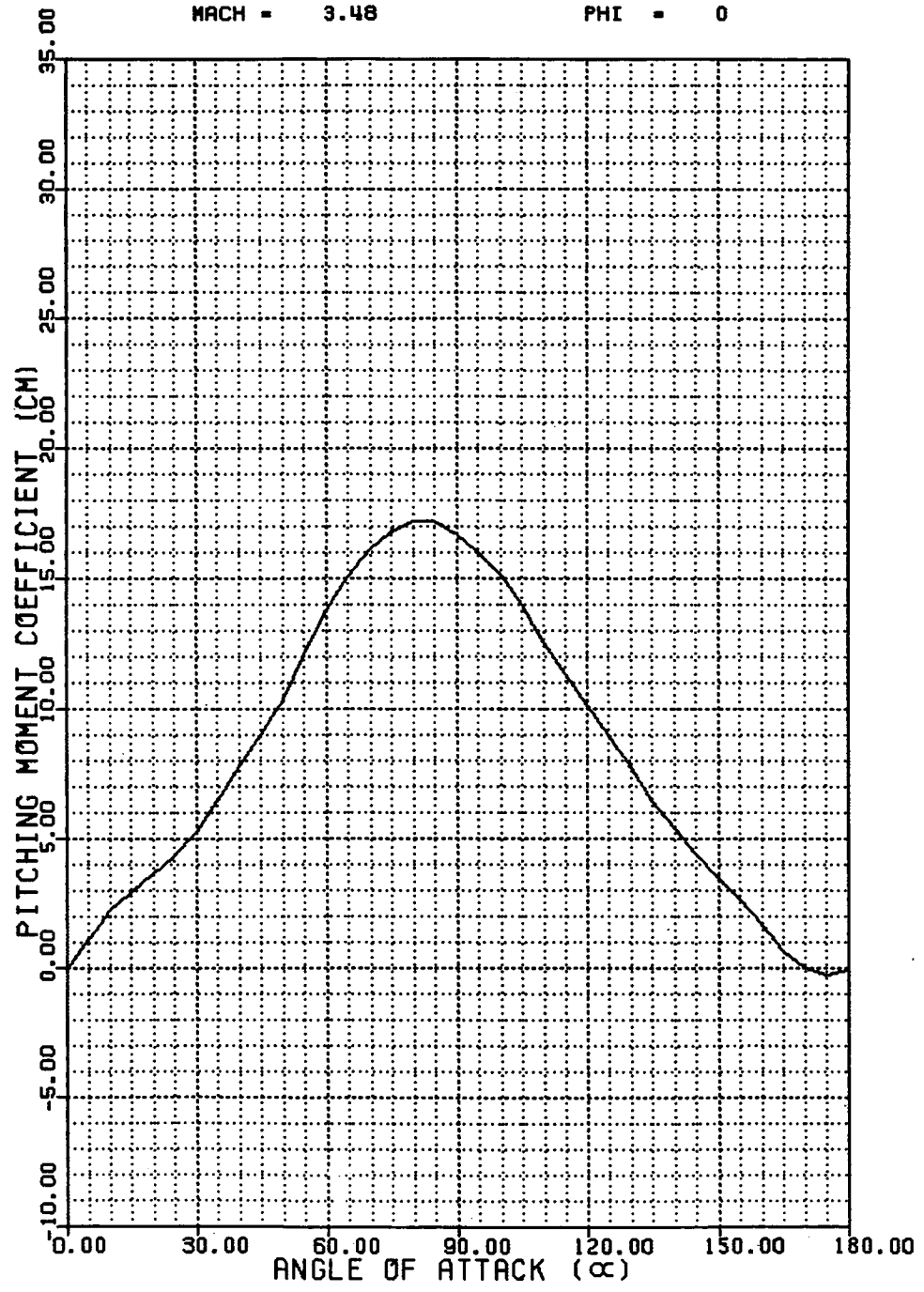


B-279

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 0



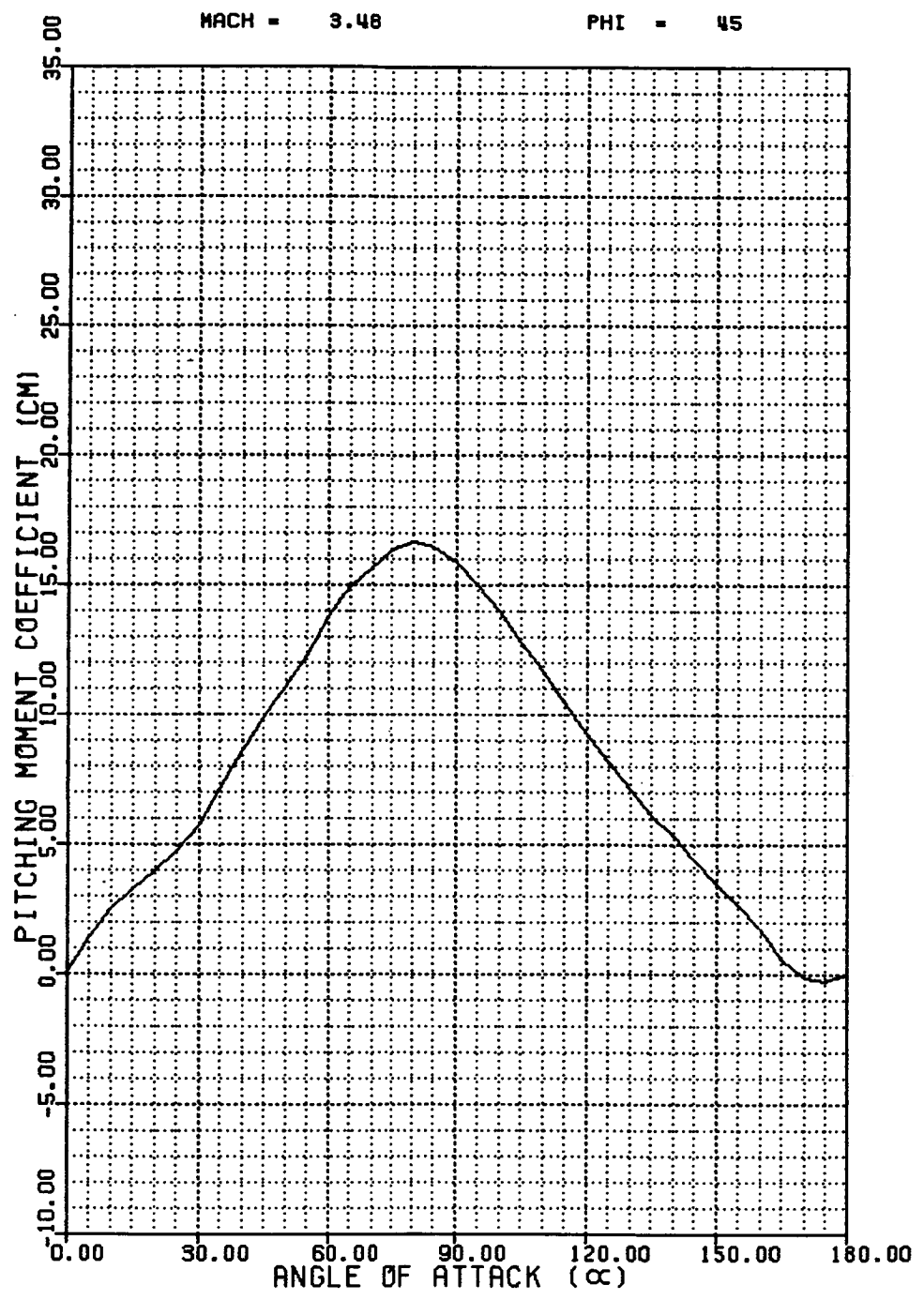
B-280

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 45



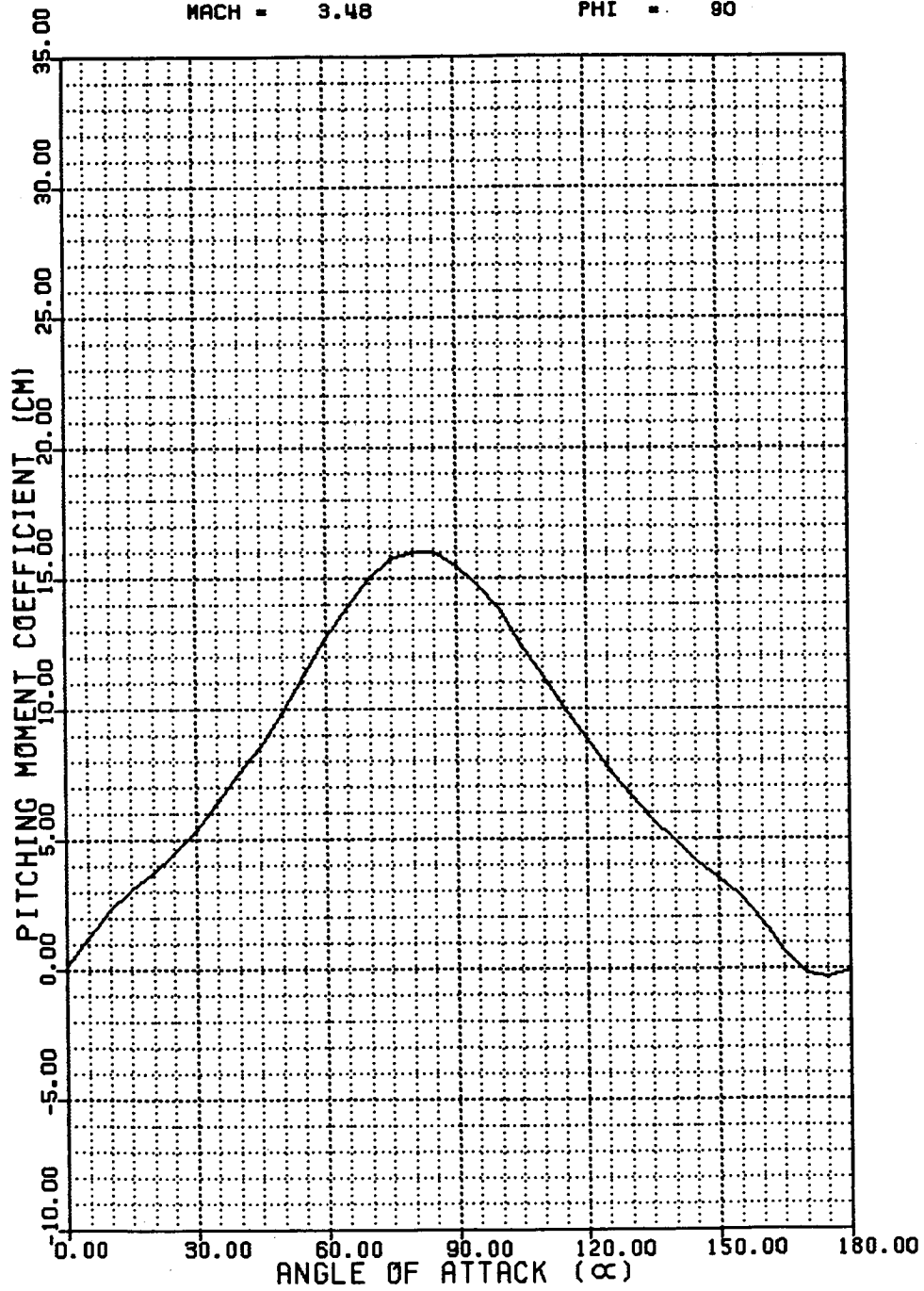
B-281



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90



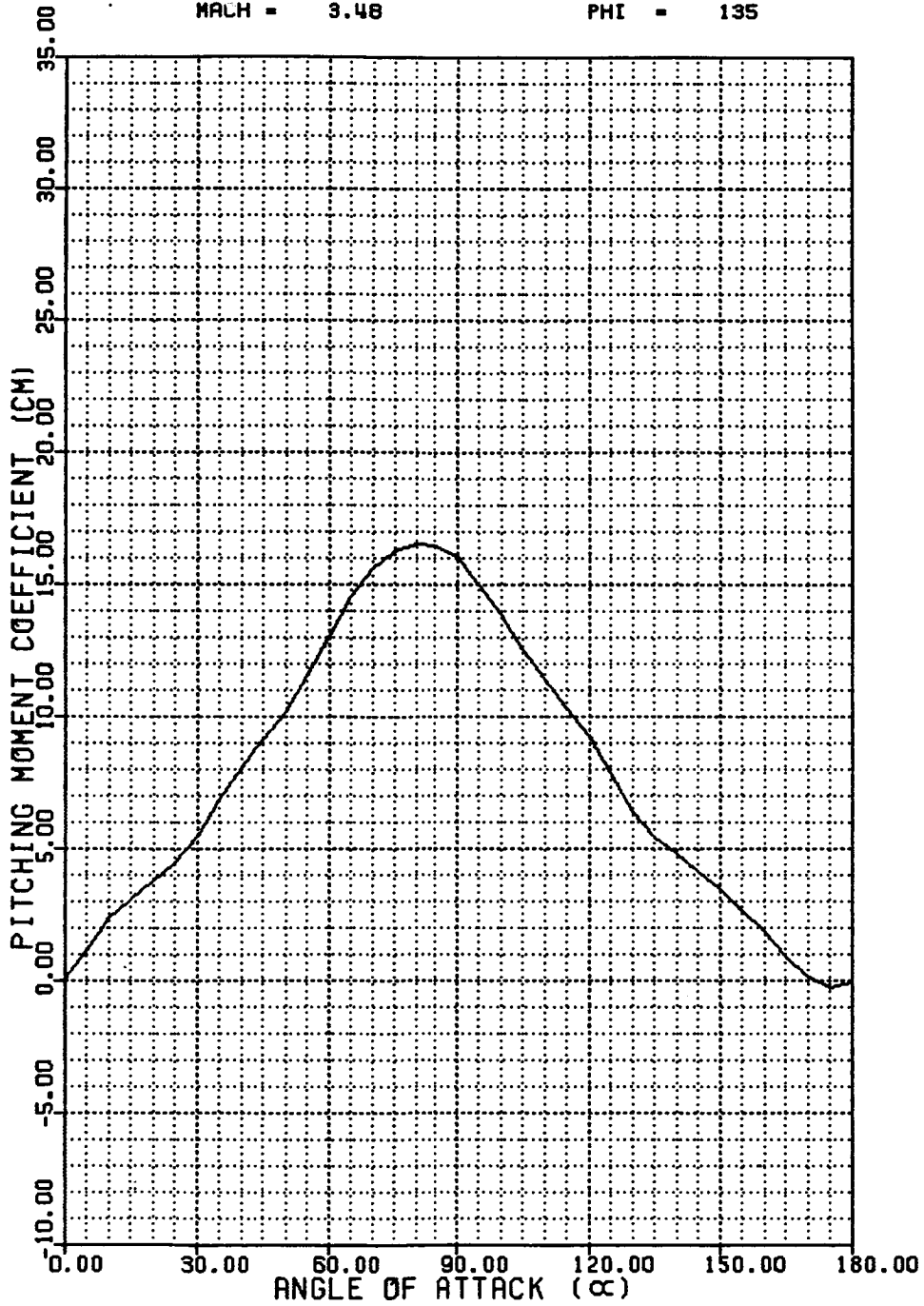
B-282

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH - 3.48

PHI - 135

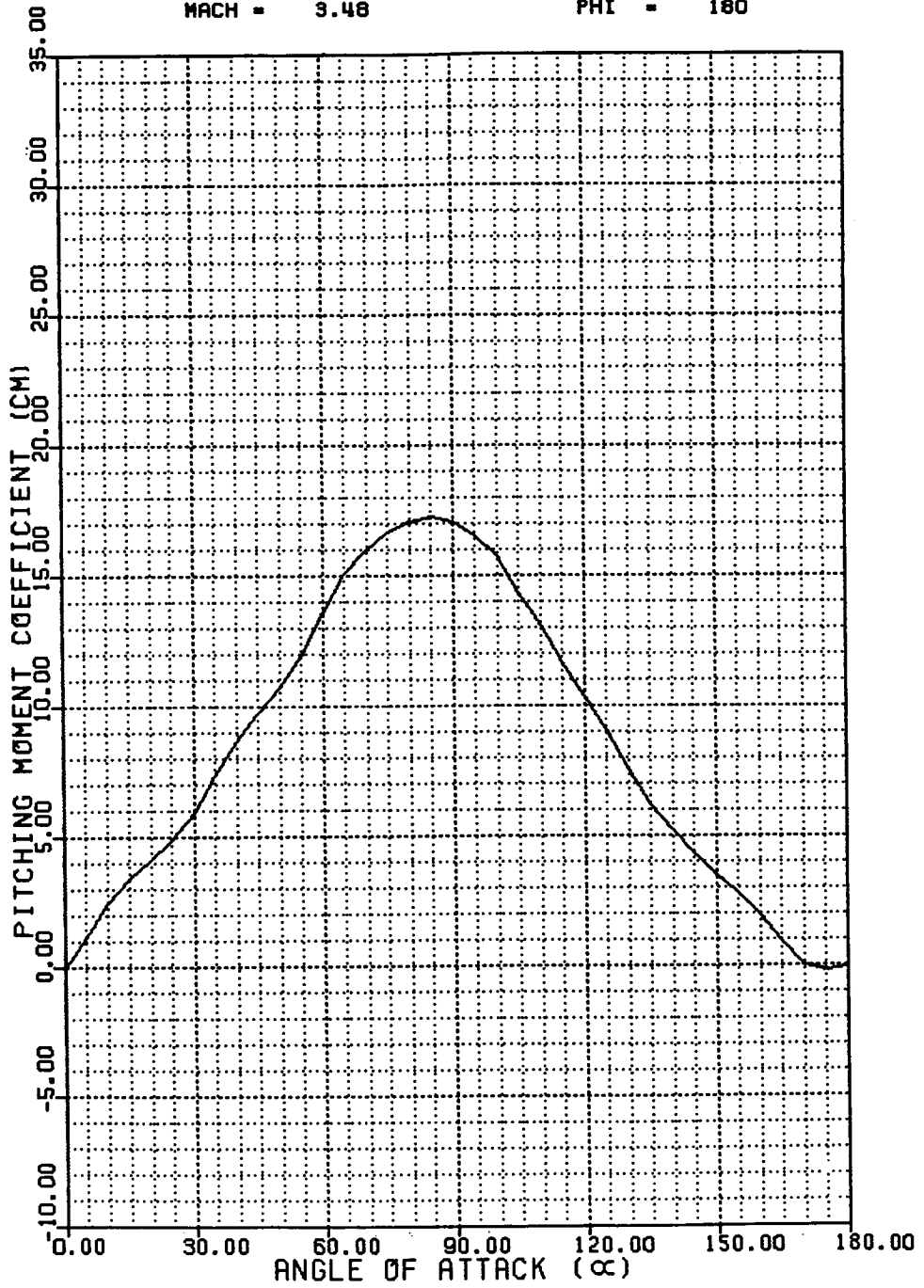


B-283

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180

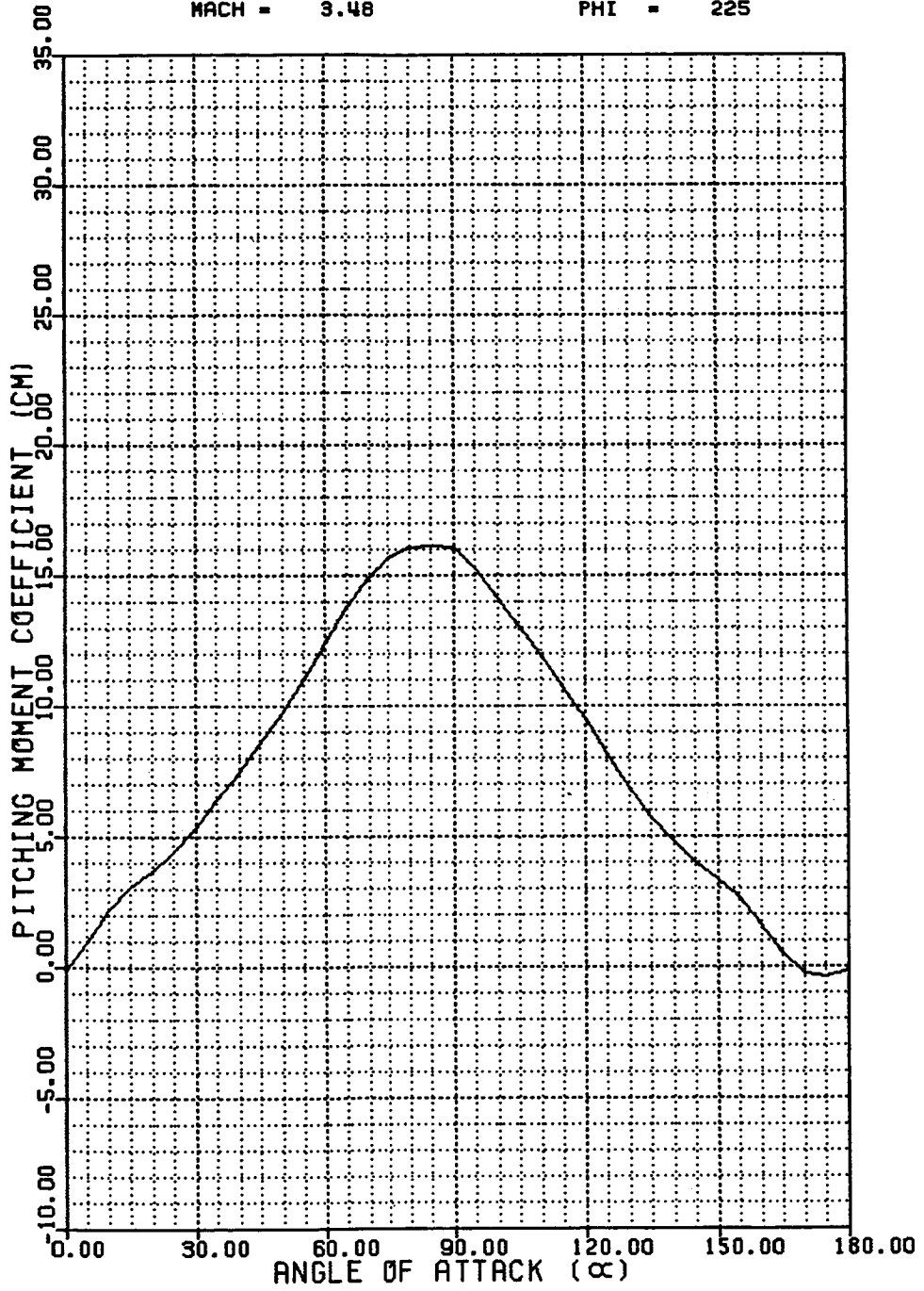


B-284

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225



B-285

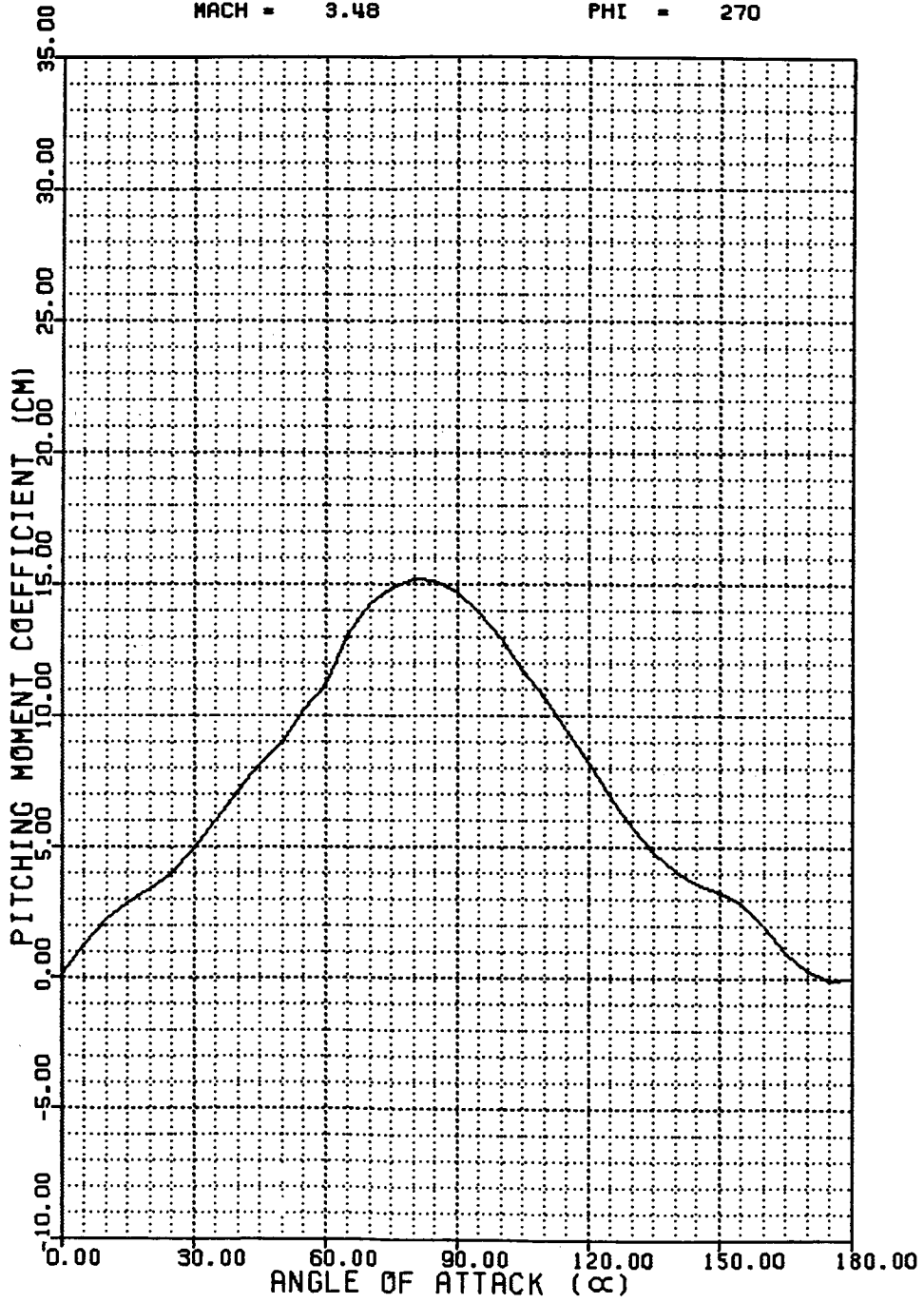
LOCKHEED-HUNTSVILLE ENGINEERING CENTER

C-4

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270

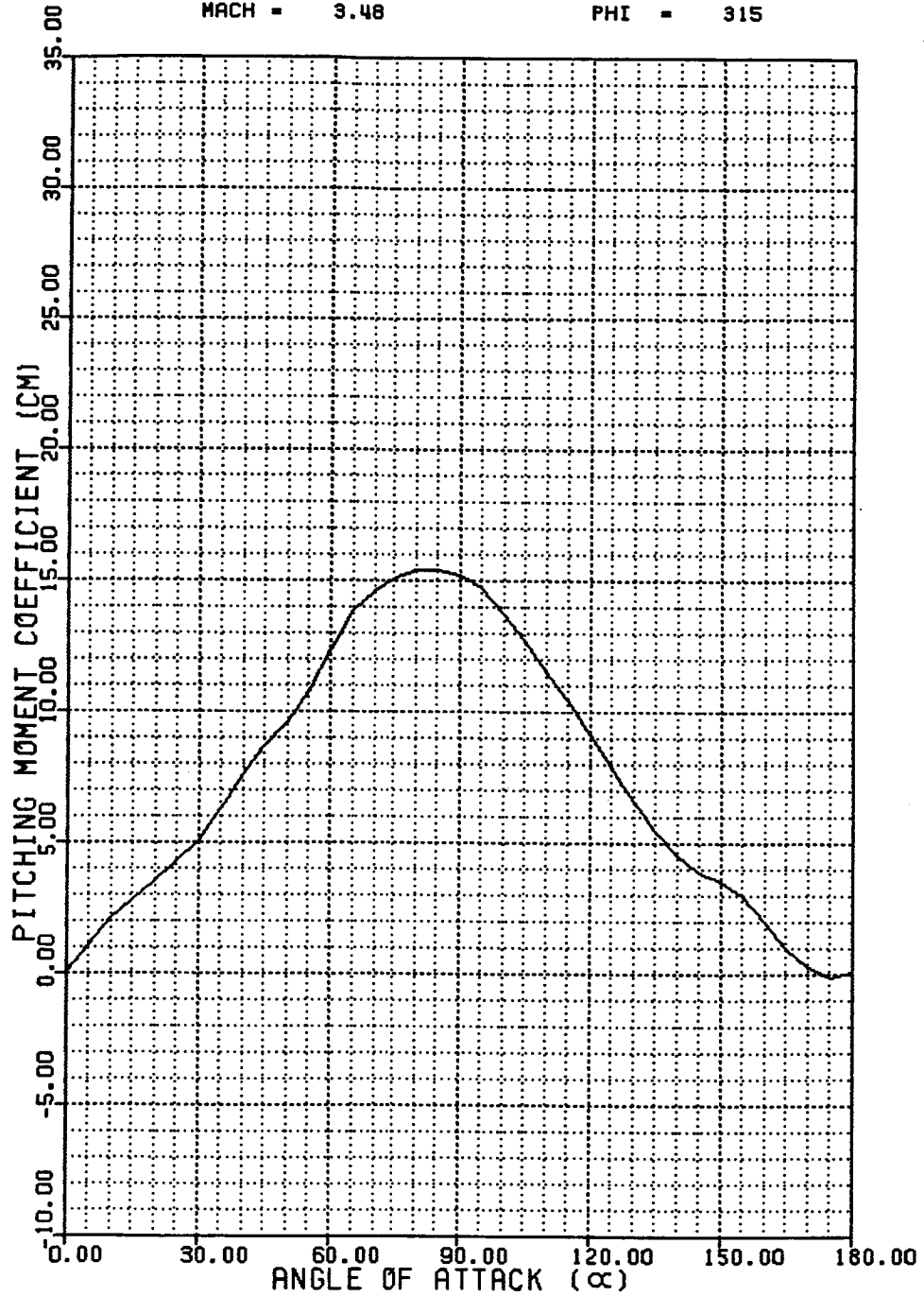


B-286

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 315

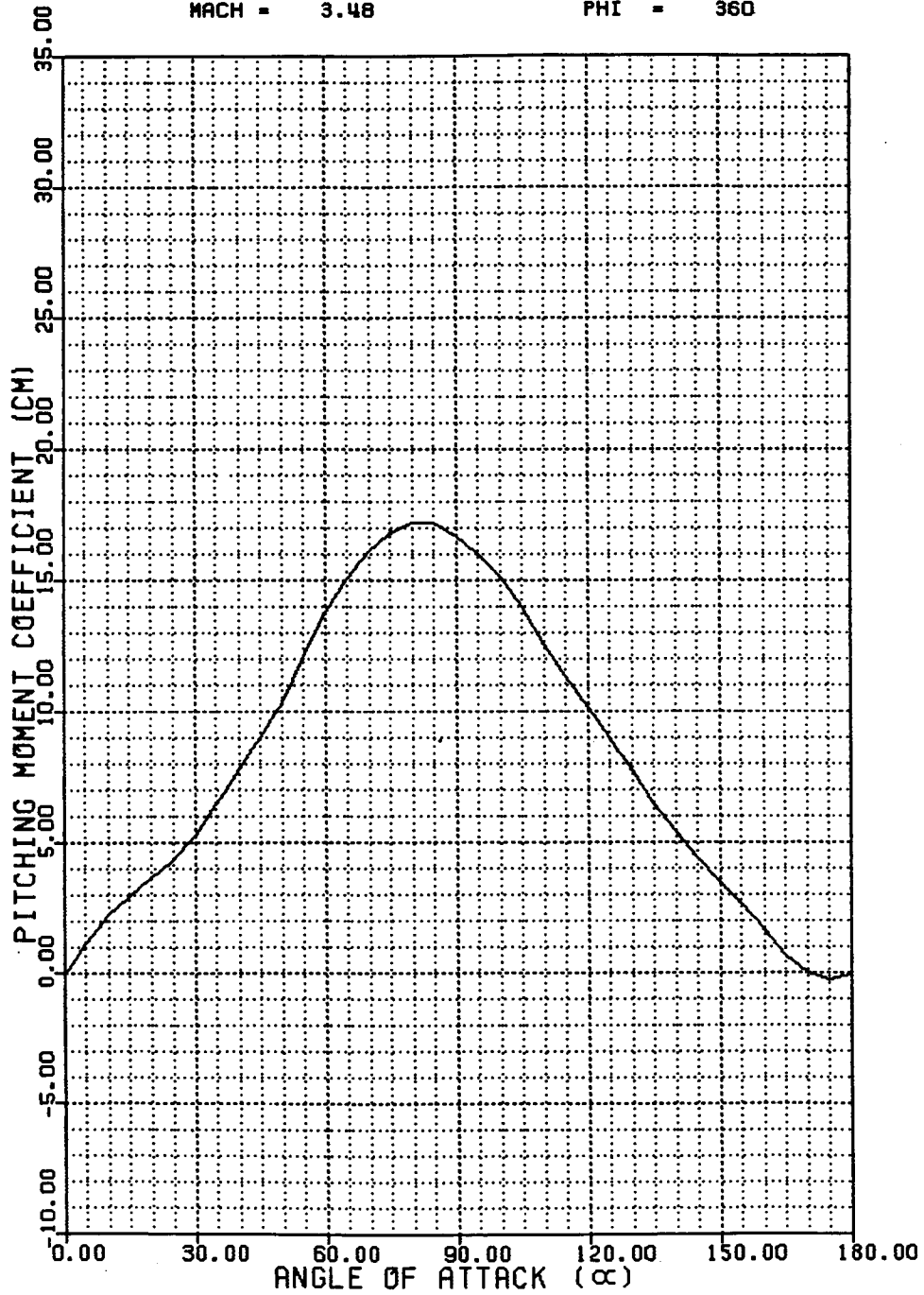


B-287

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-288

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

**SIDE FORCE (CY)**

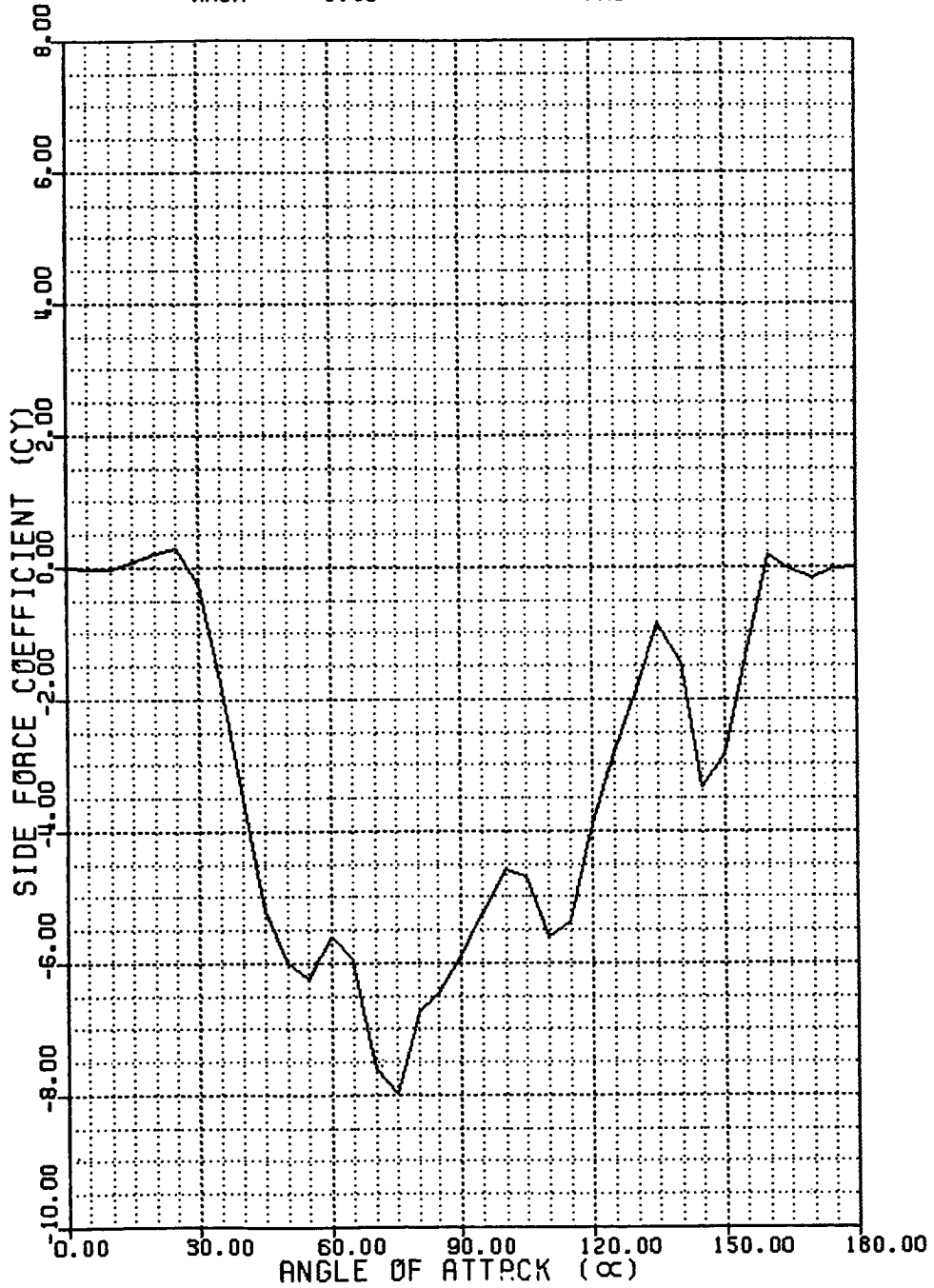
<u>Mach Number</u>	<u>Page</u>
0.4	B-289
0.5	B-298
0.55	B-307
0.6	B-316
0.7	B-325
0.8	B-334
0.9	B-343
0.95	B-352
1.05	P-361
1.1	B-370
1.2	B-379
1.4	B-388
1.96	B-397
2.5	B-406
3.0	B-415
3.48	B-424



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 0

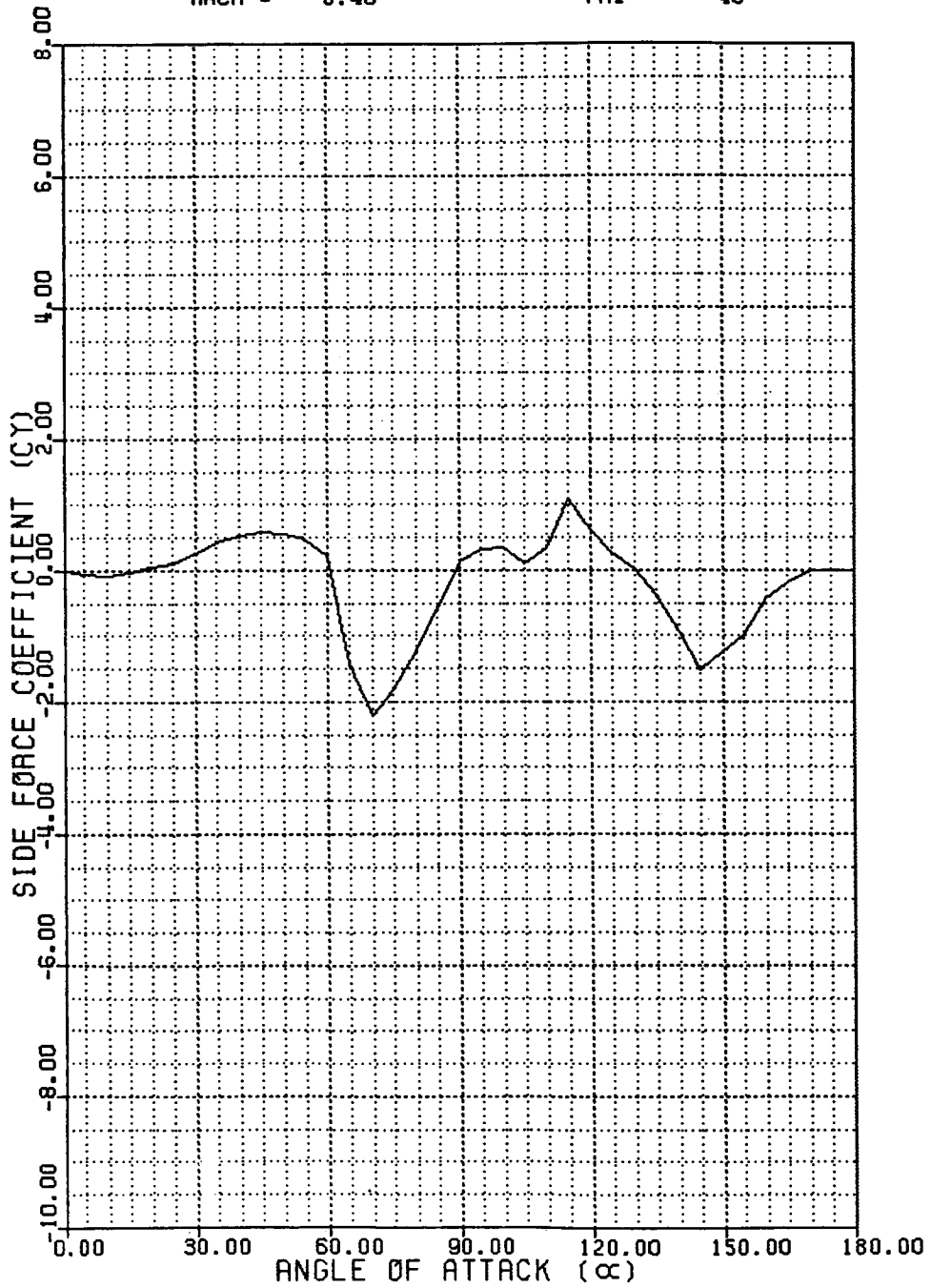


B-289

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 45

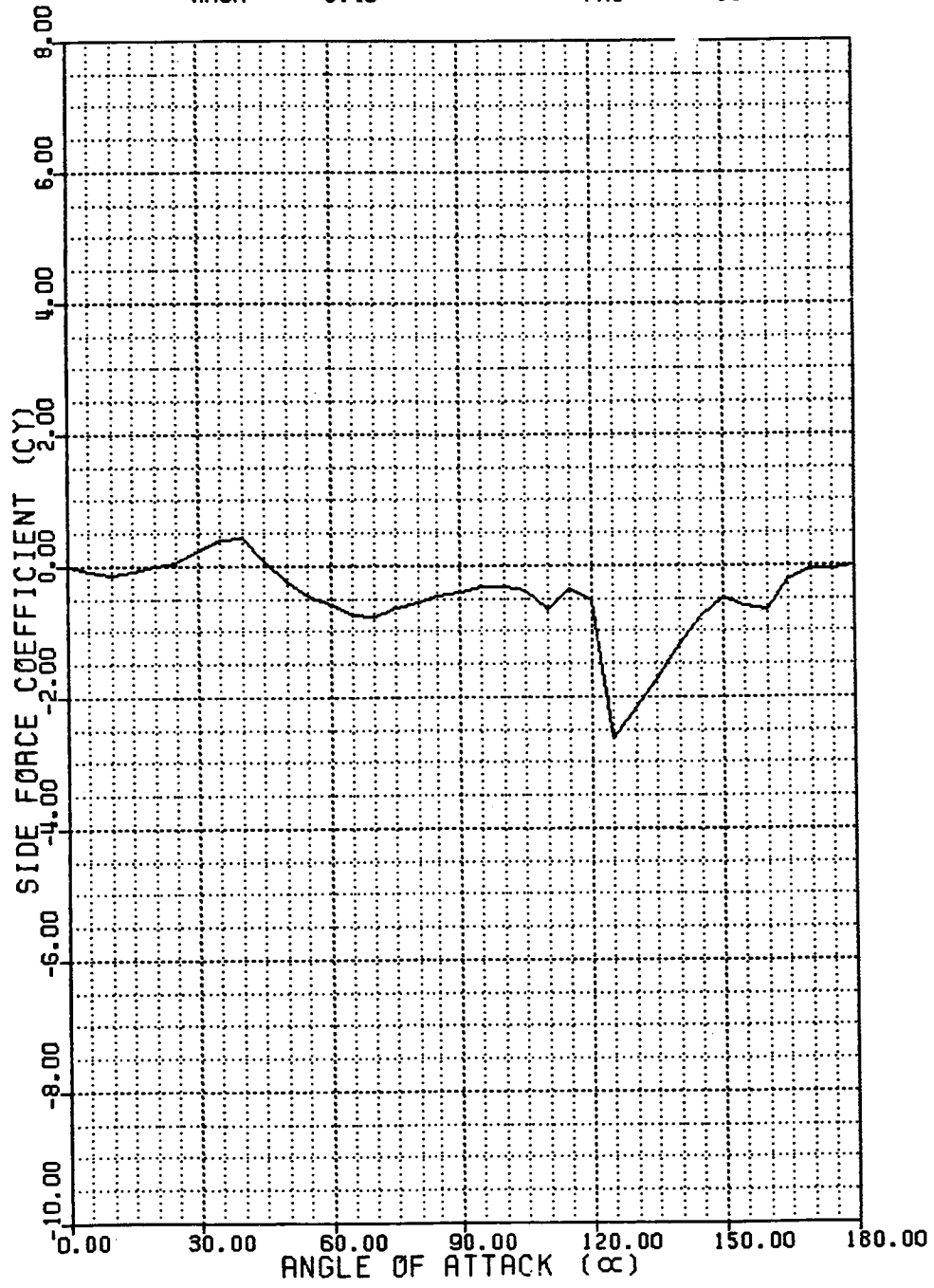


B-290

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 90

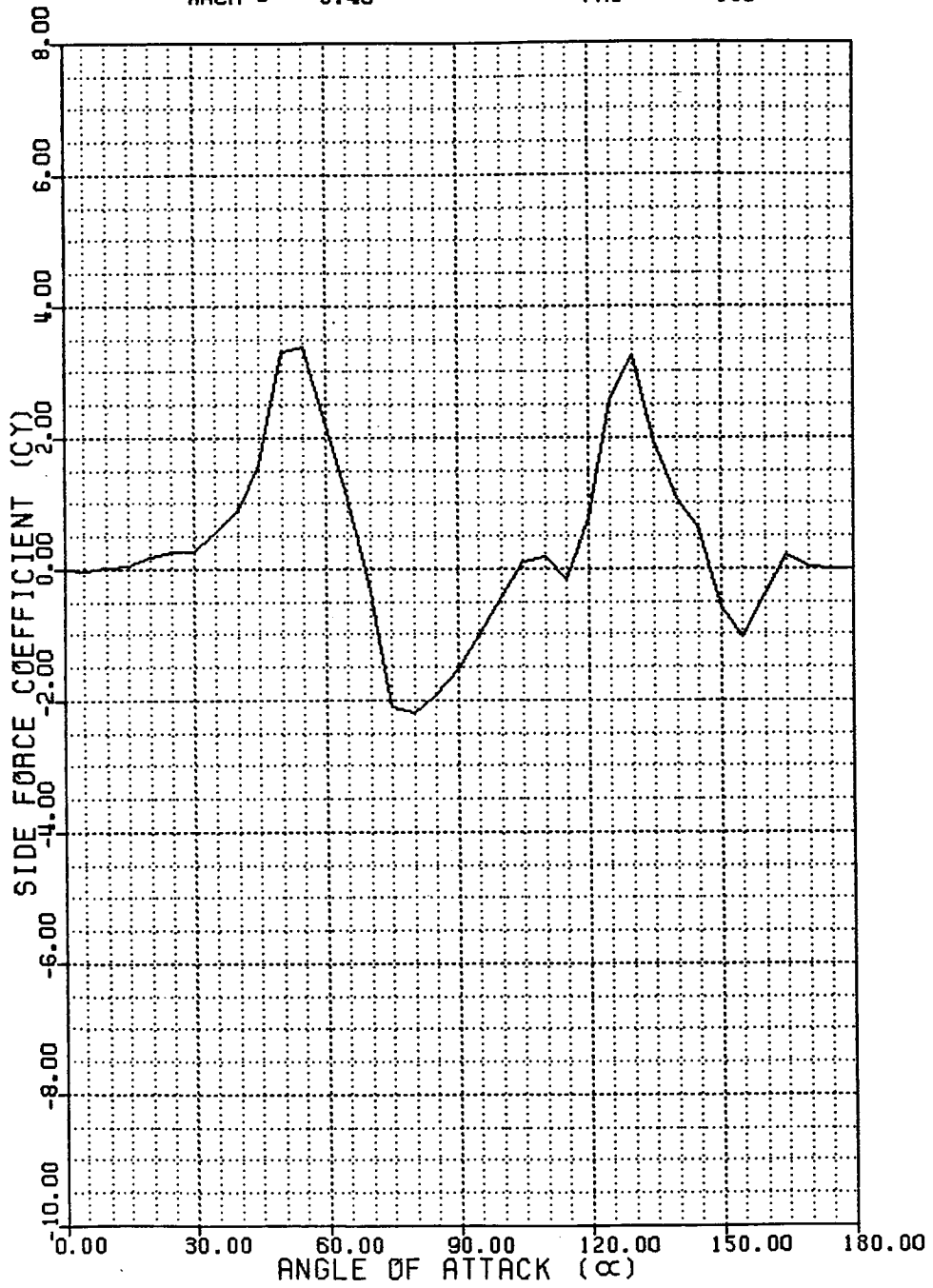


B-291

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 135

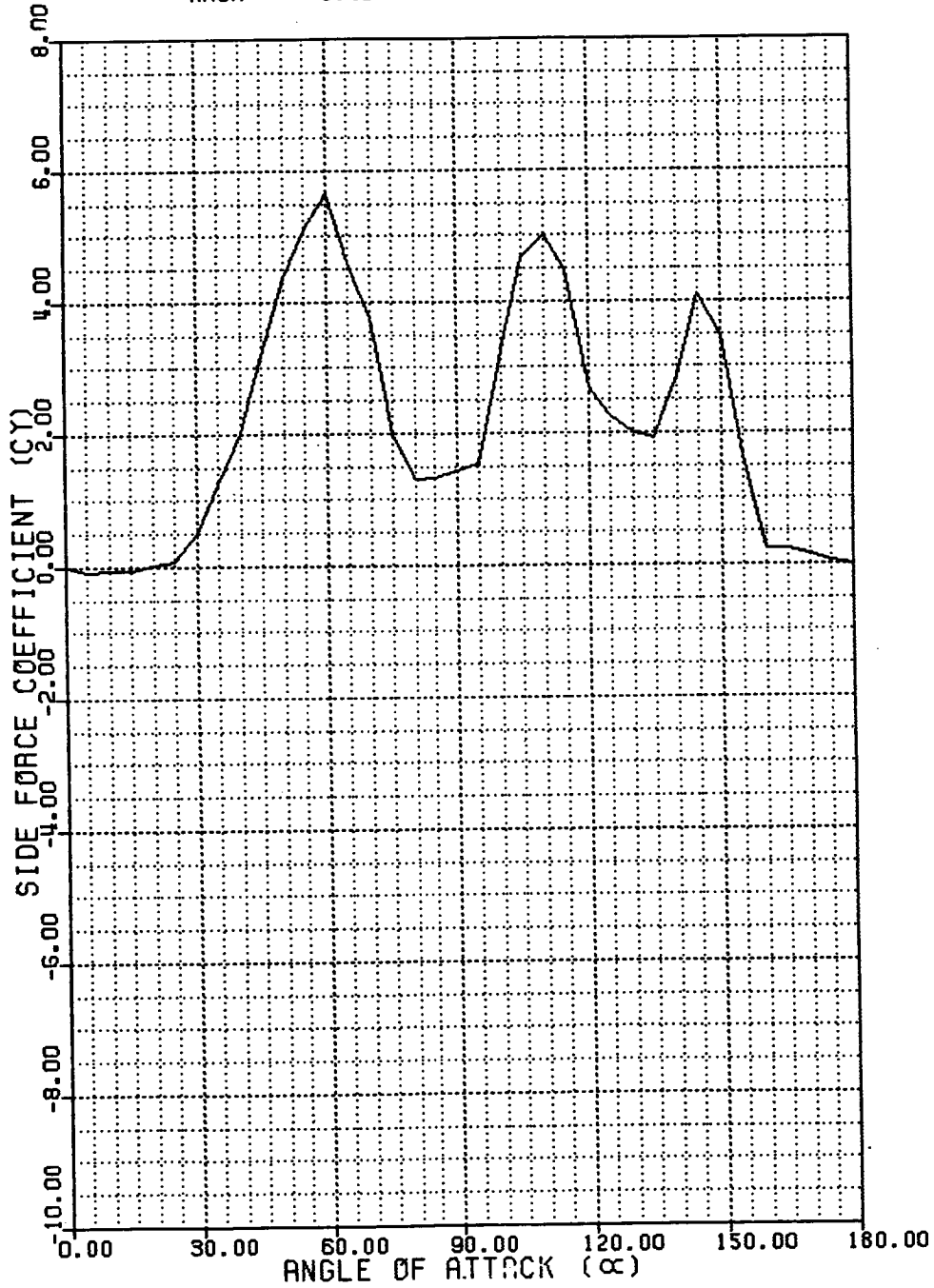


B-292

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 180

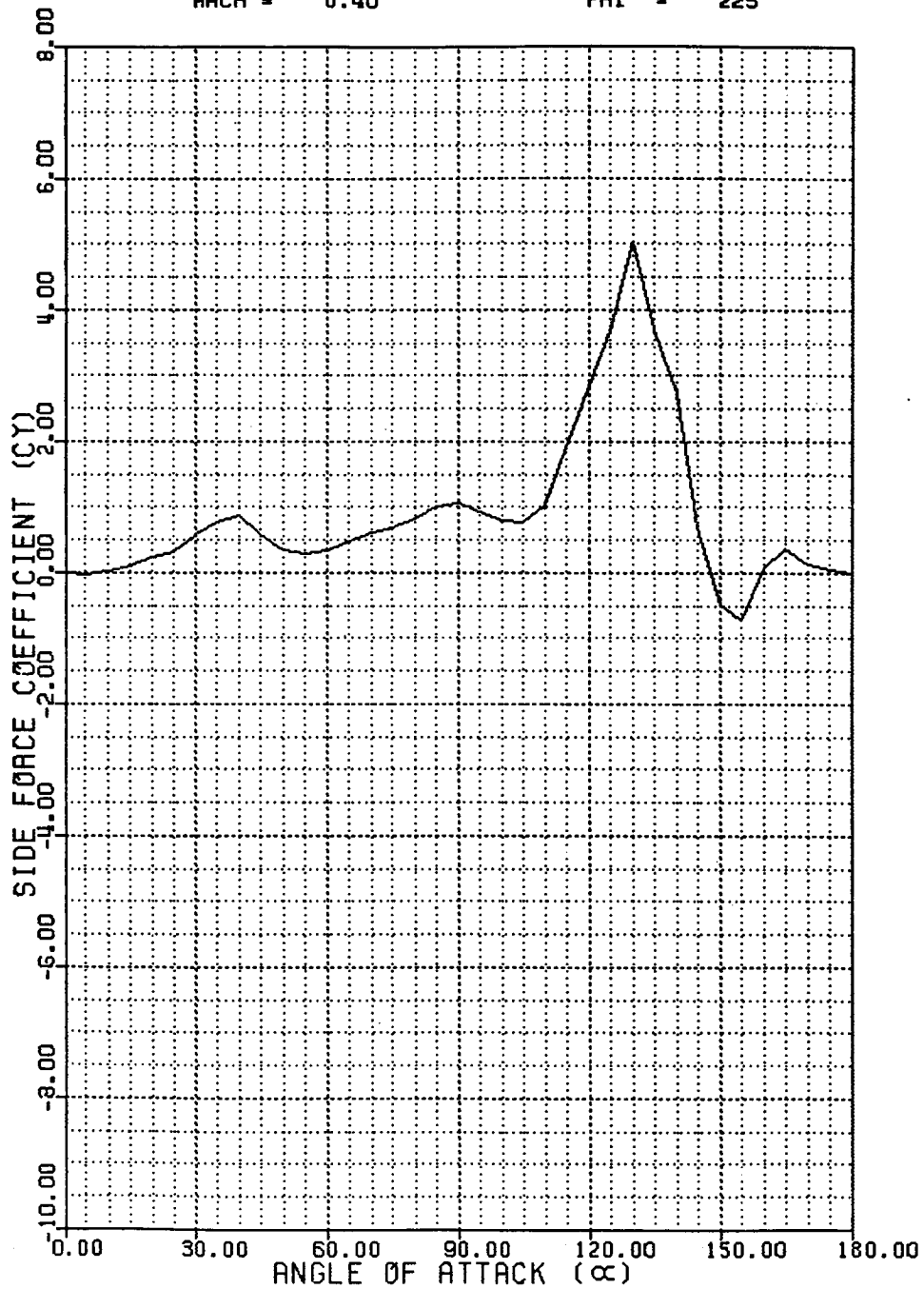


B-293

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 225

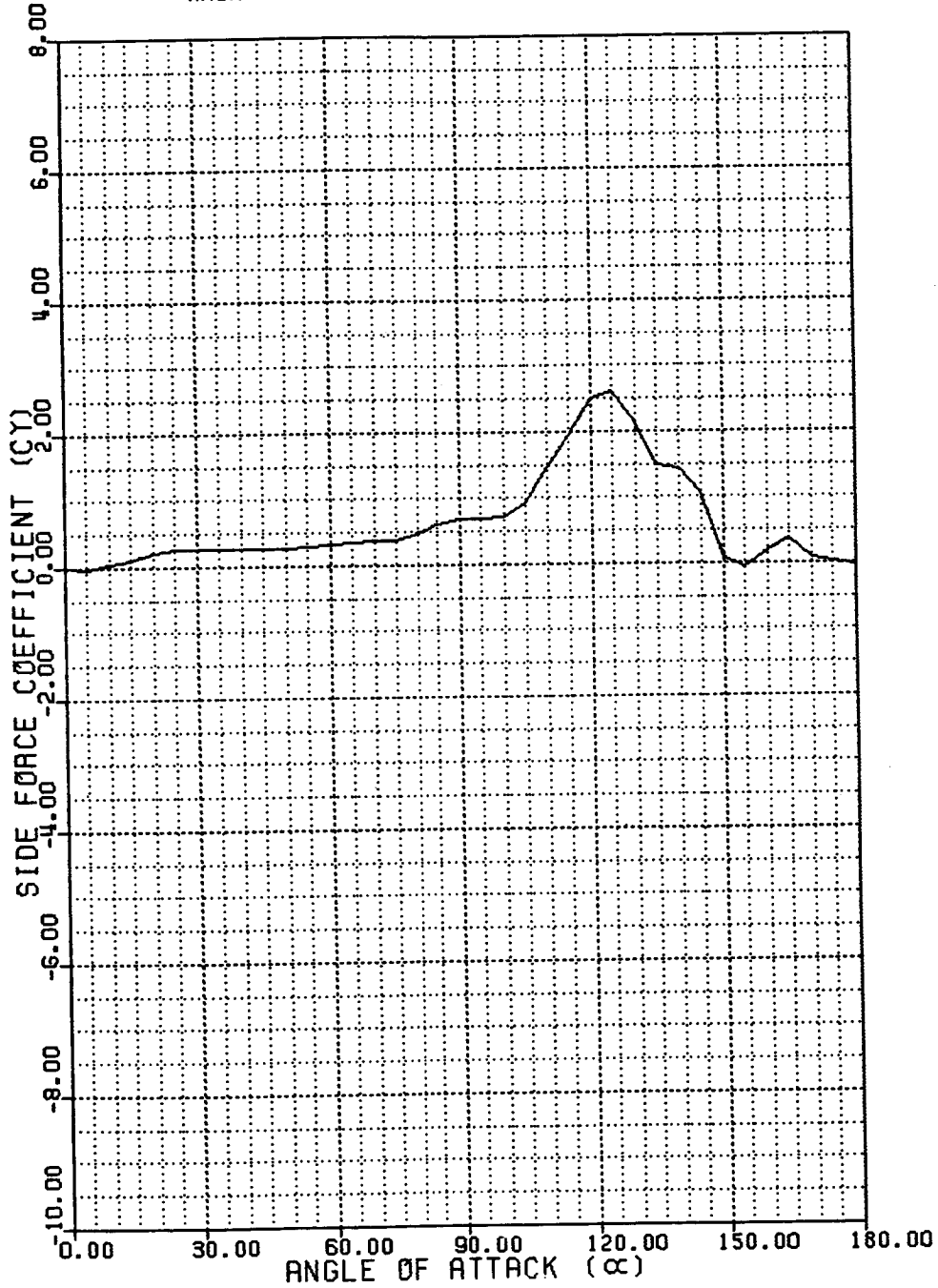


B-294

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 270



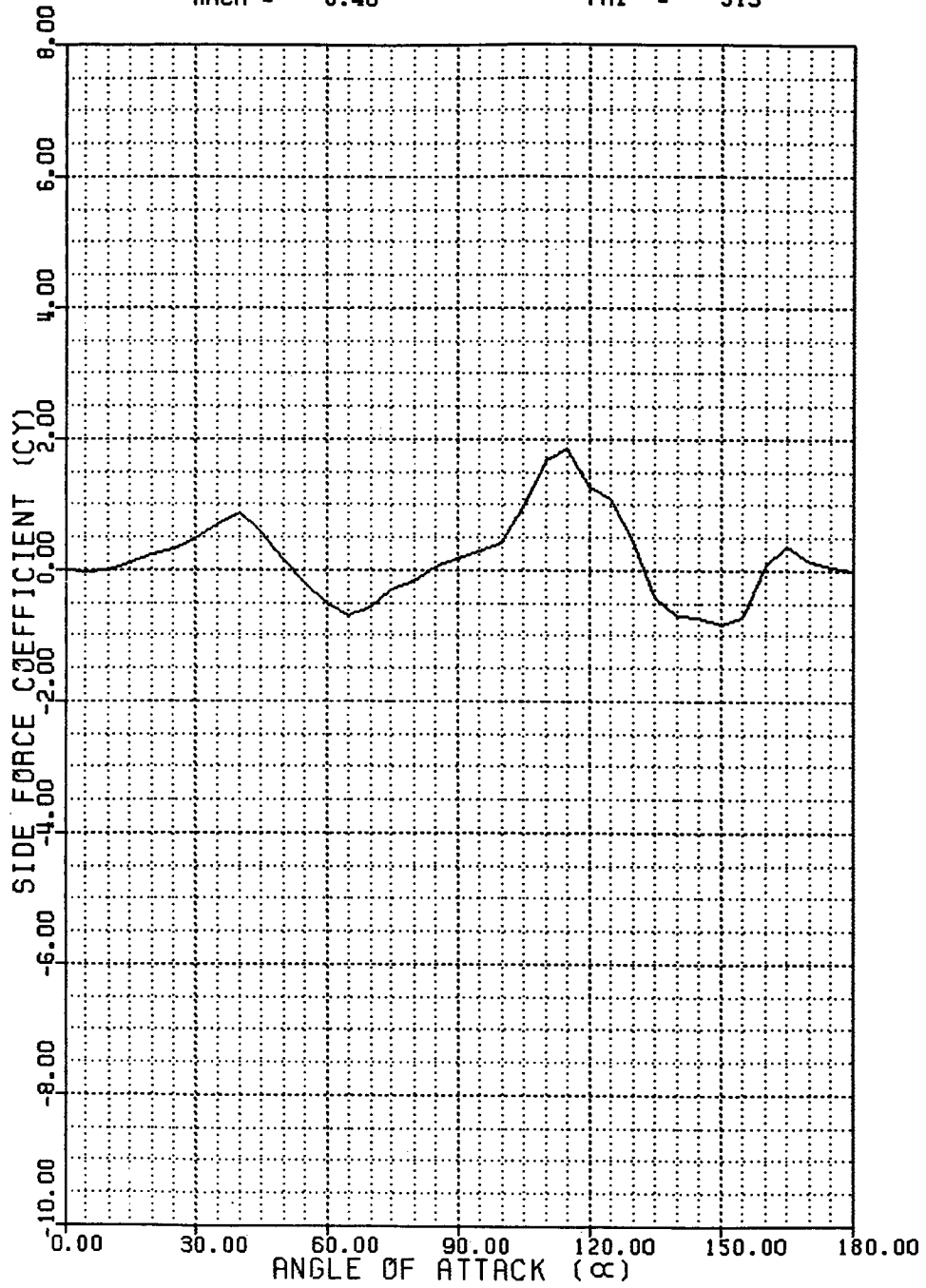
B-295

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 315



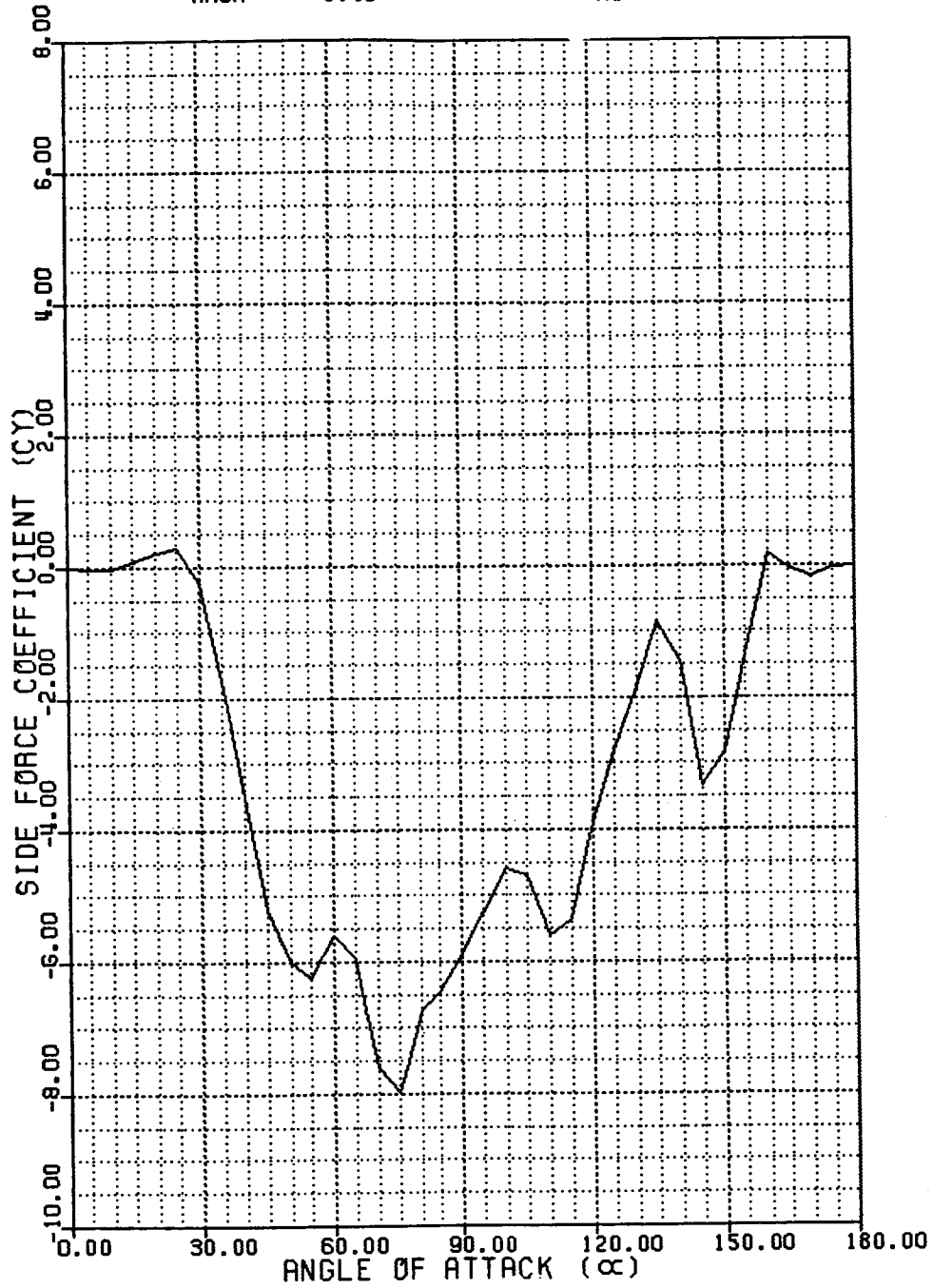
B-296



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 960

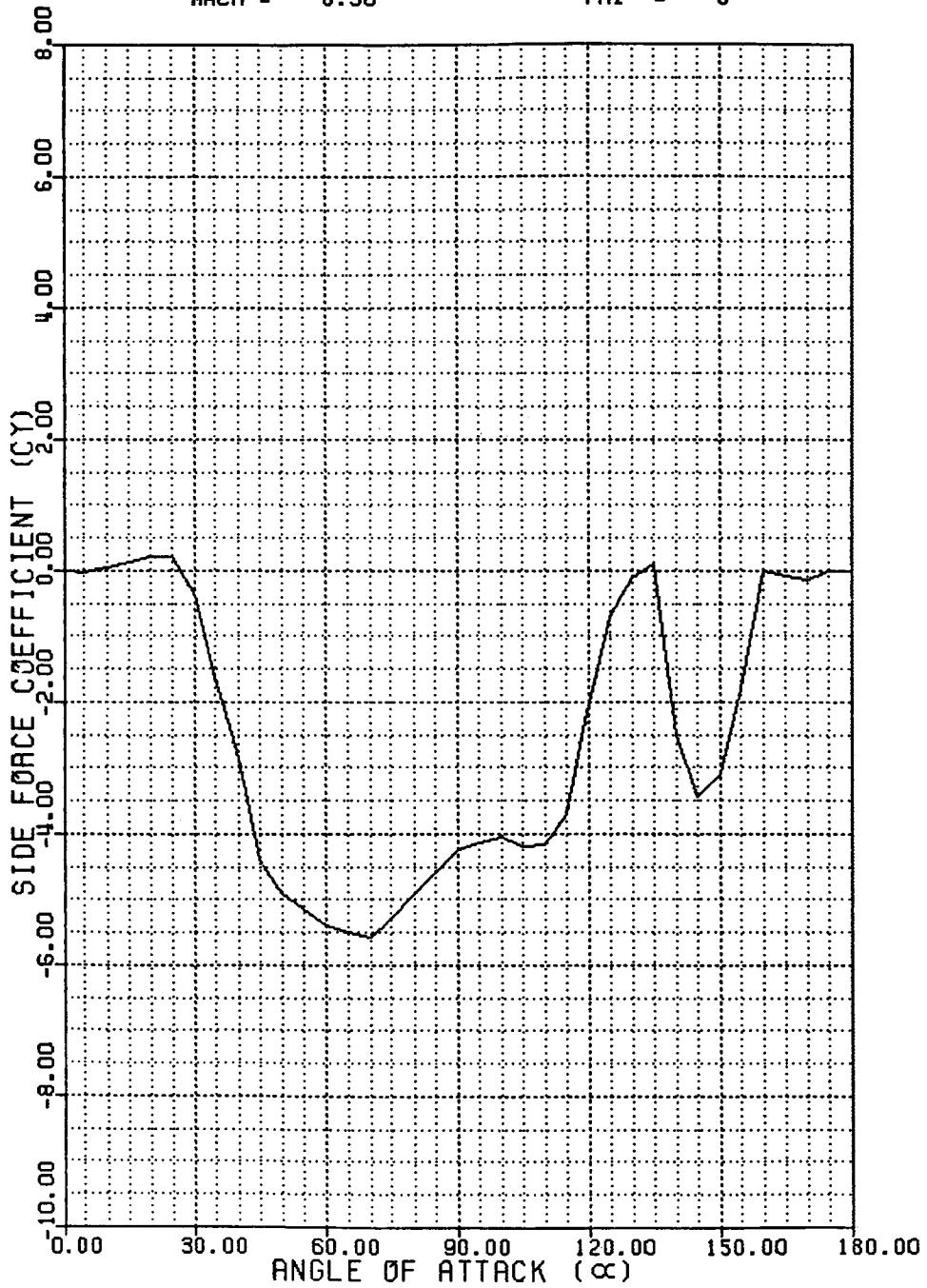


B-297

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 0

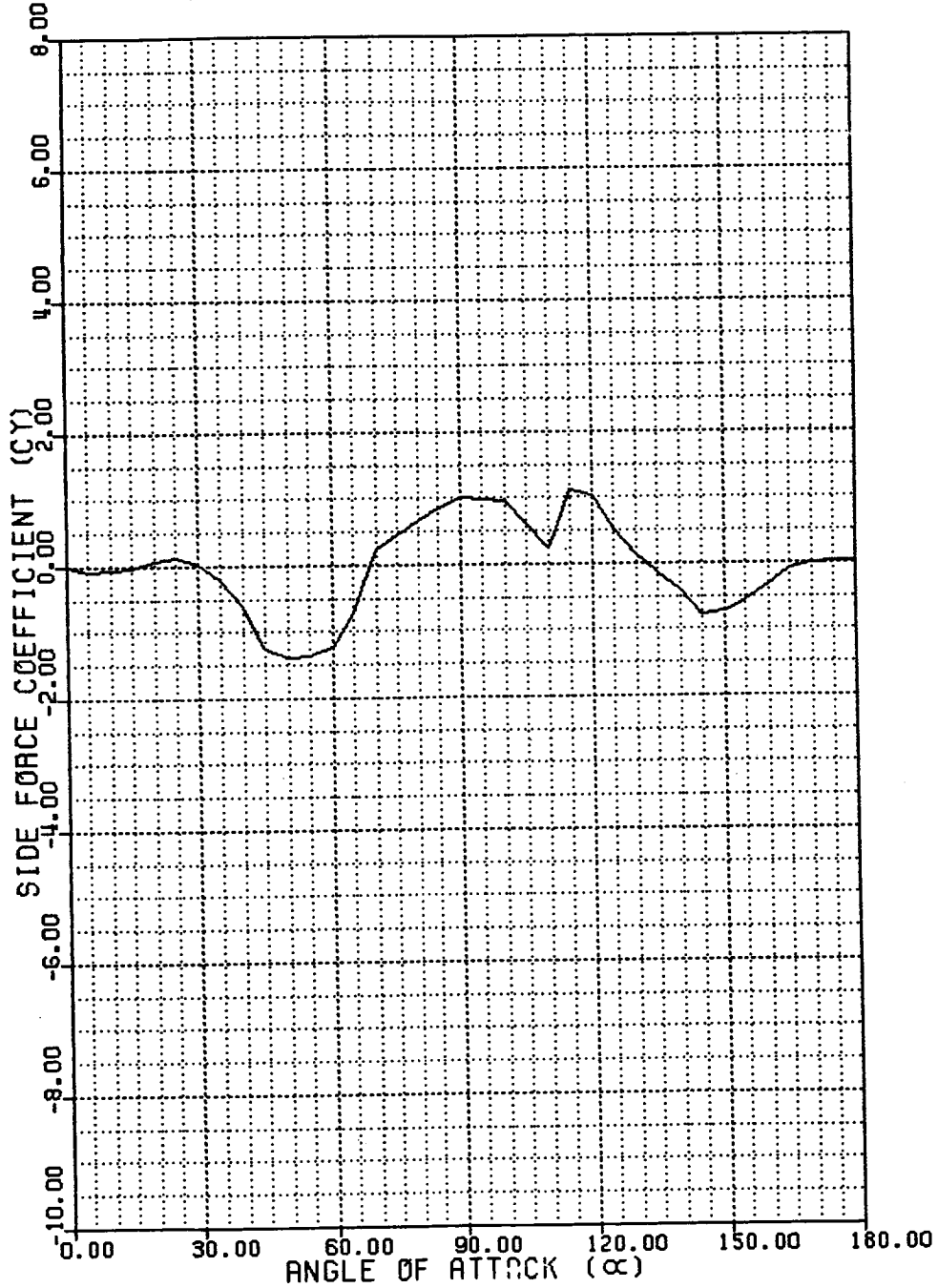


B-298

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 45



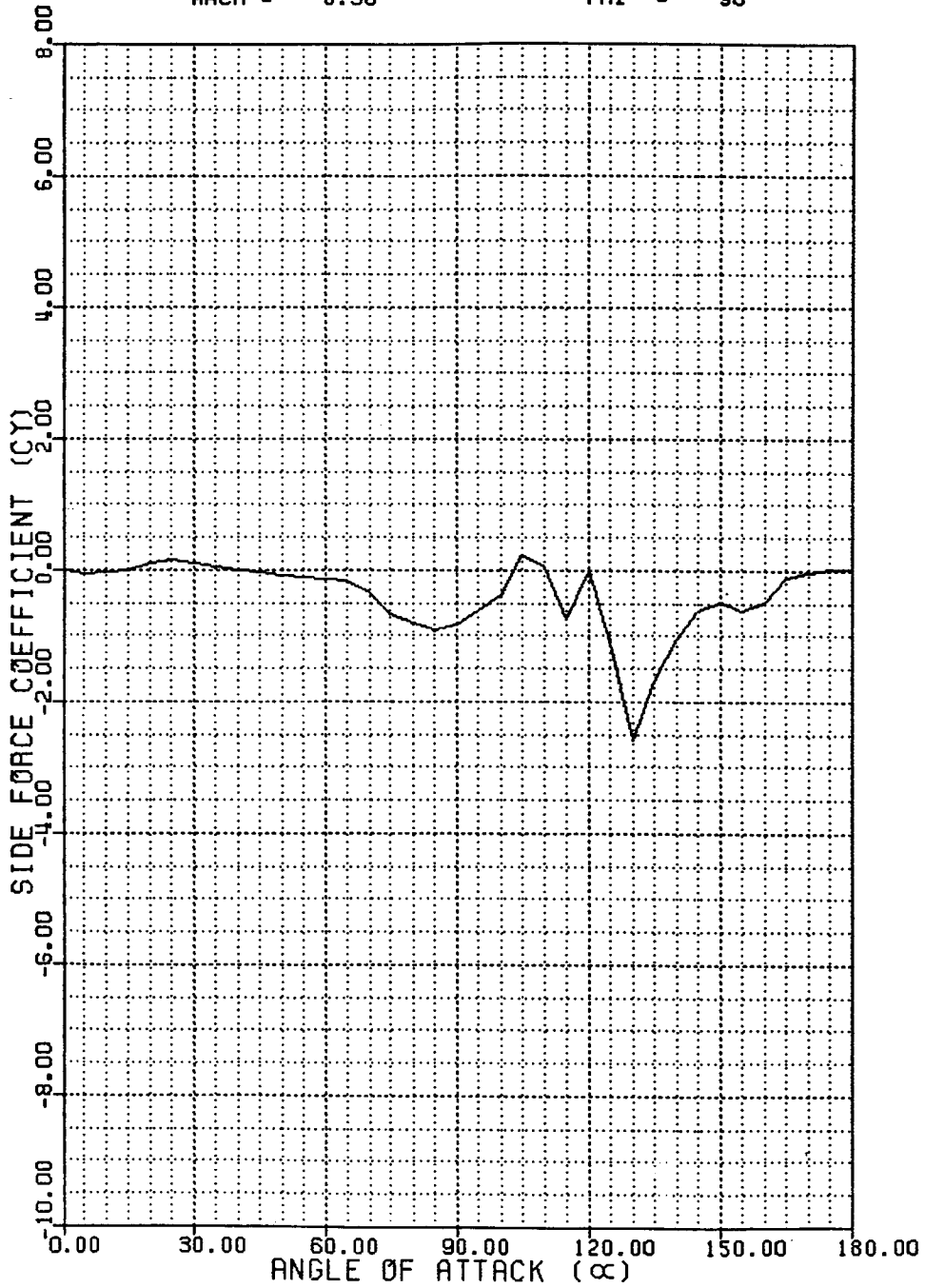
B-299

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 90



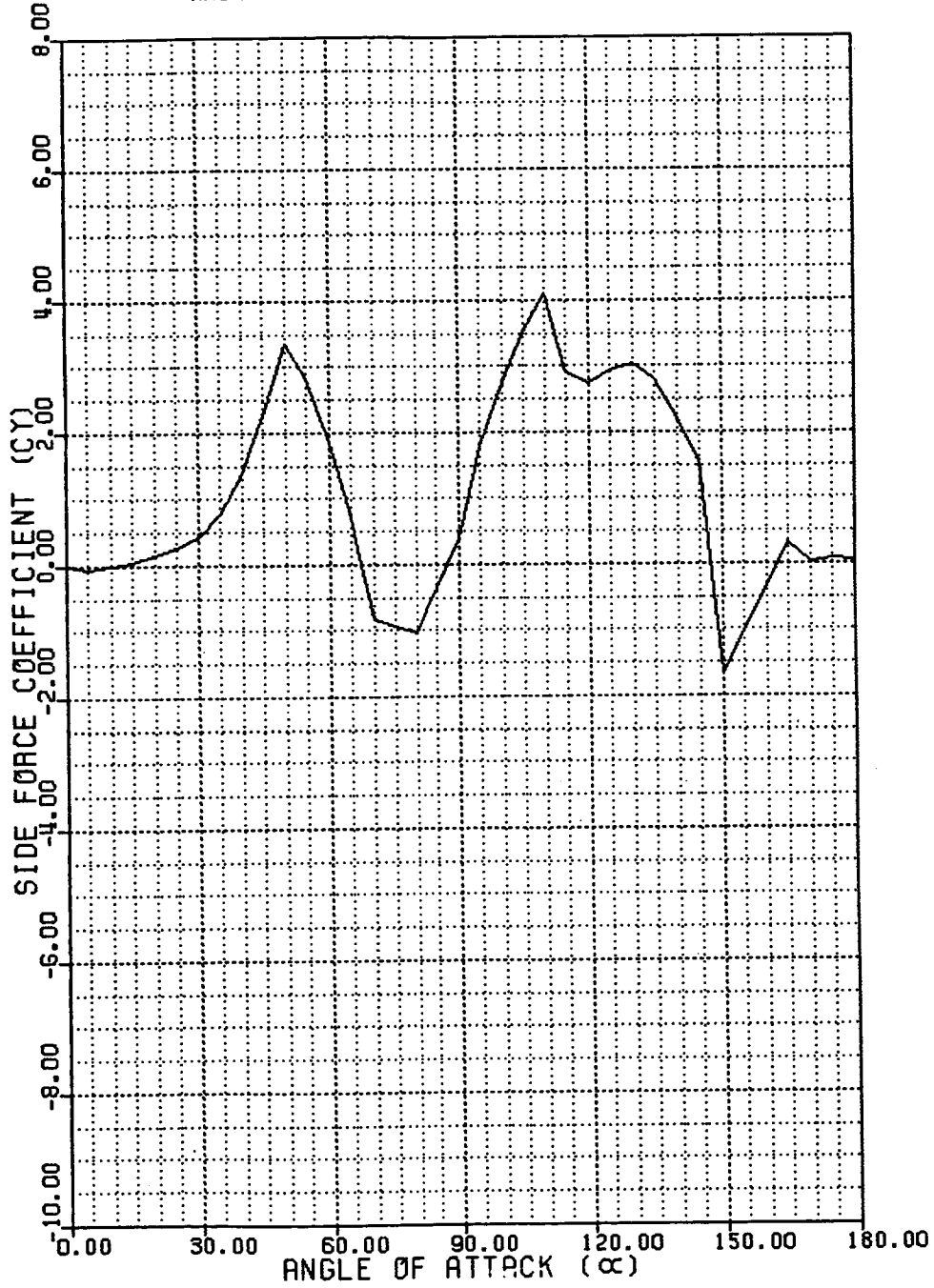
B-300

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 135

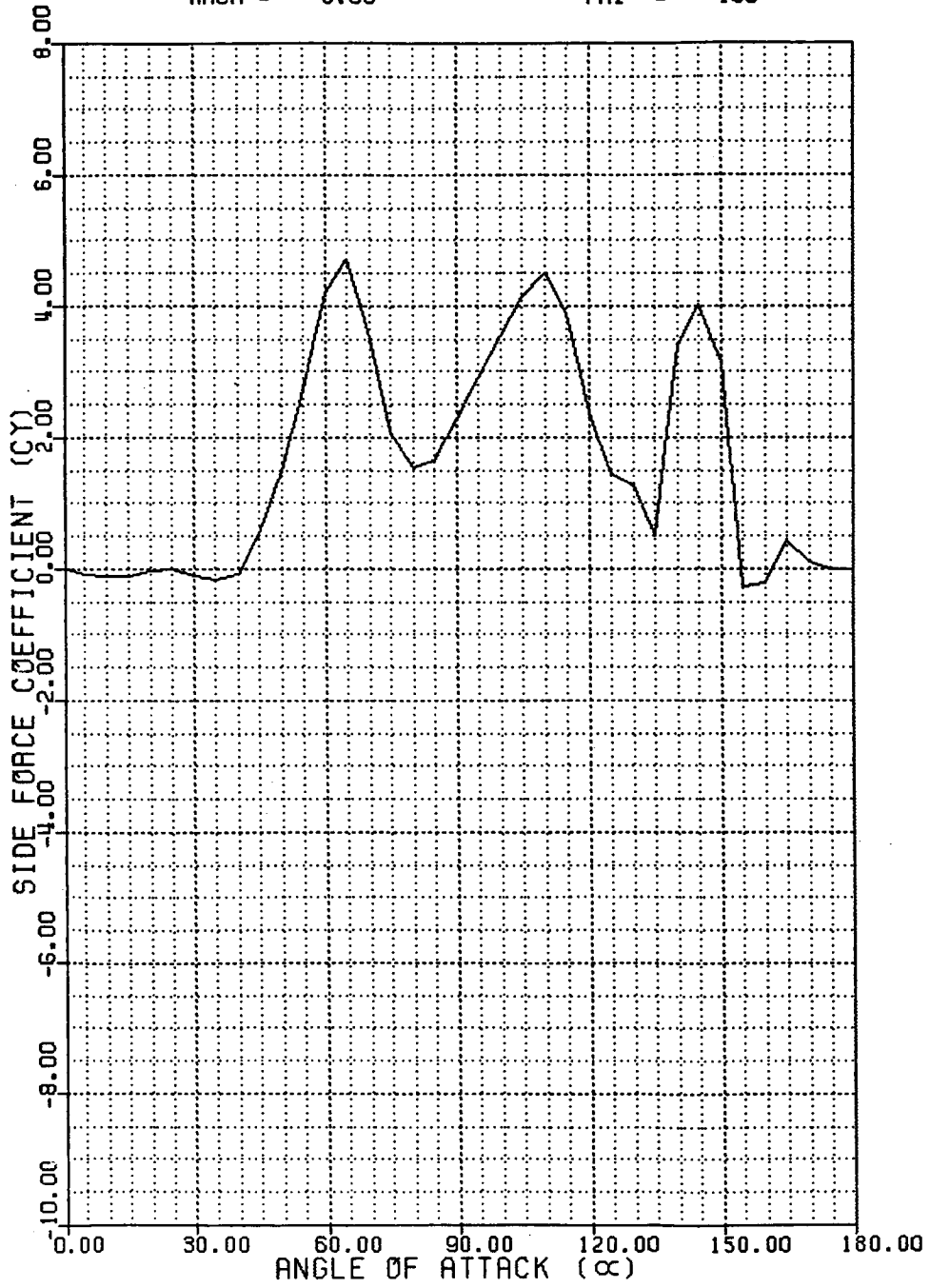


B-301

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 180

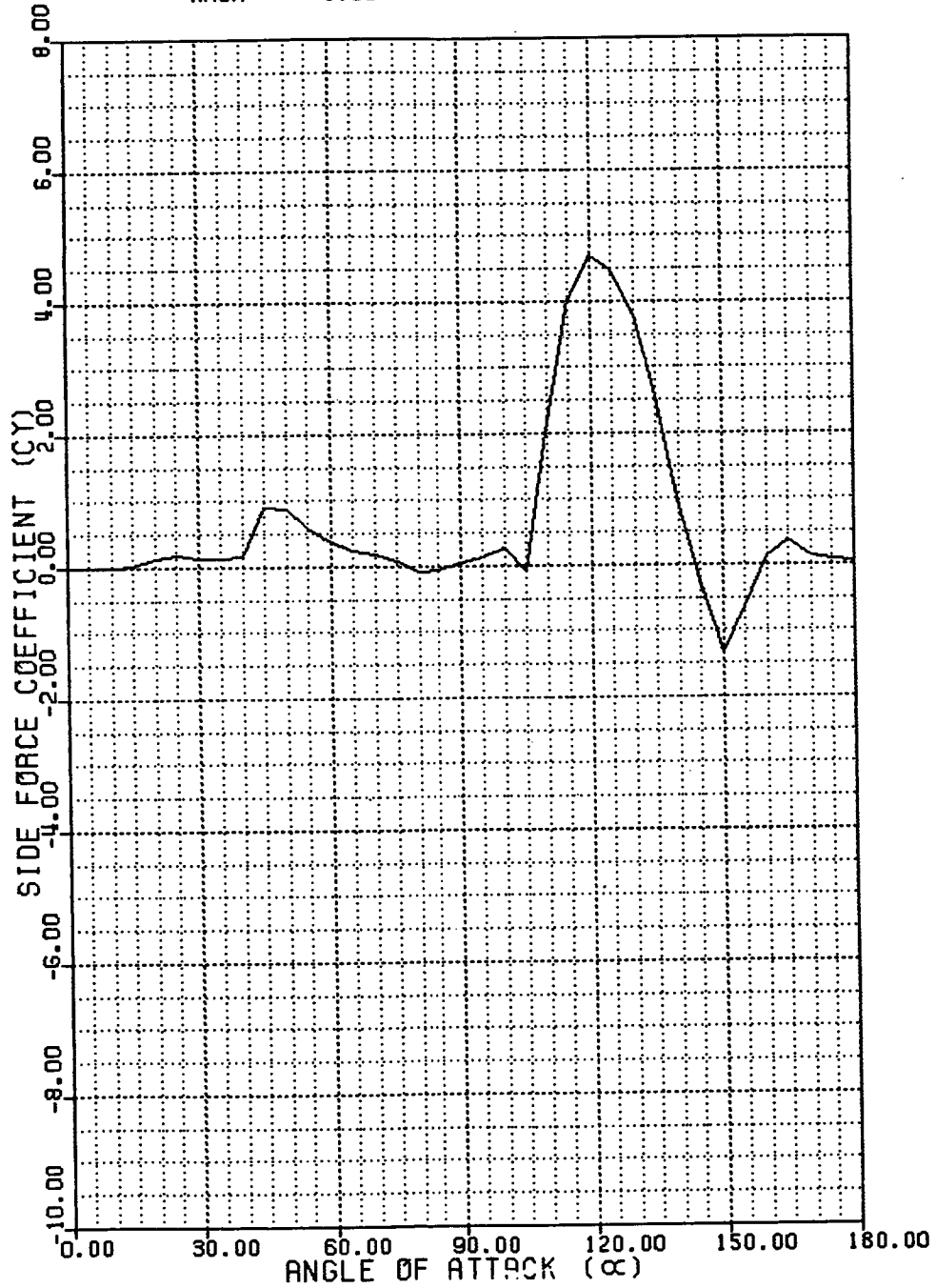


B-302

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 225

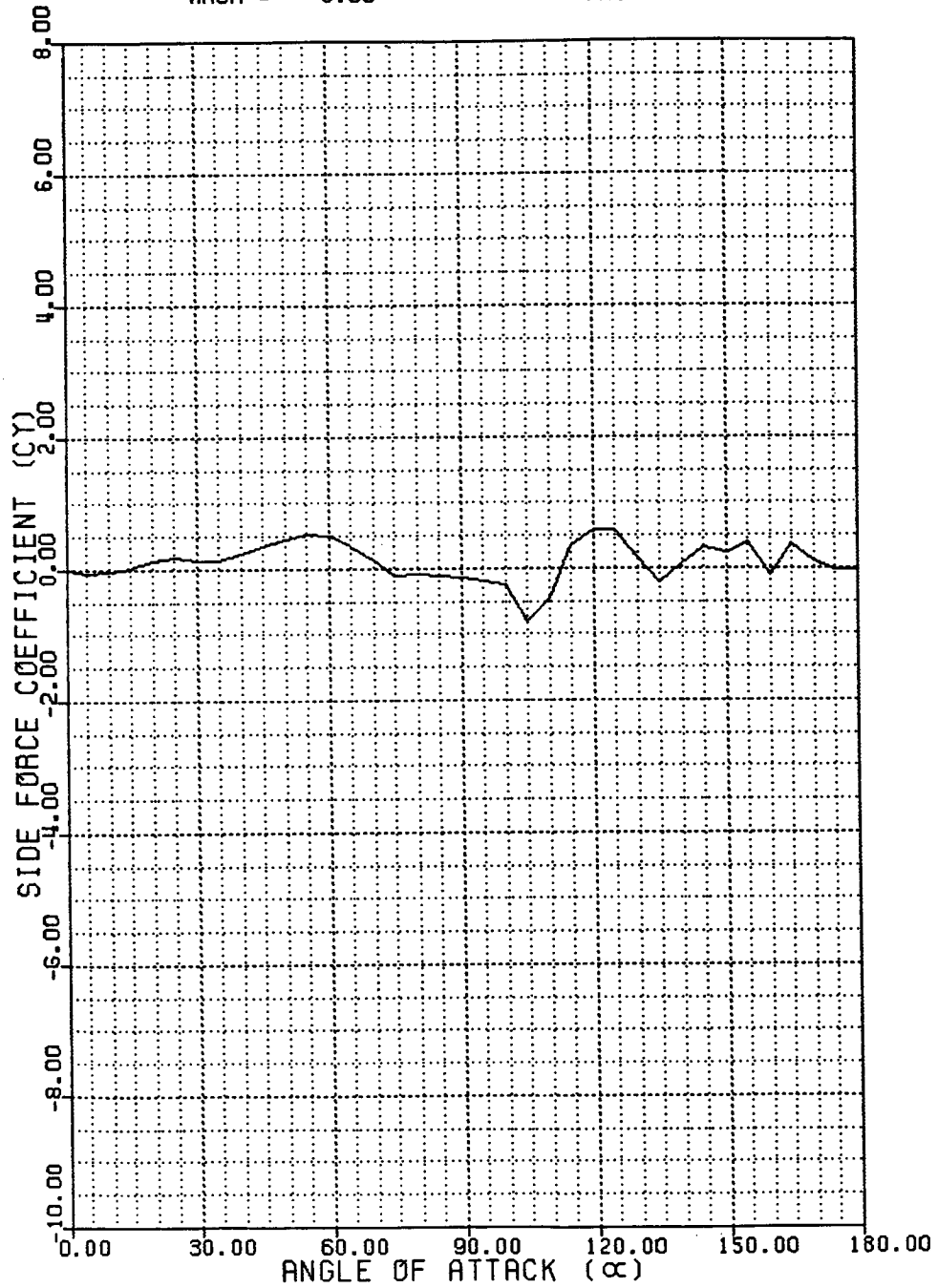


B-903

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 270



B-304

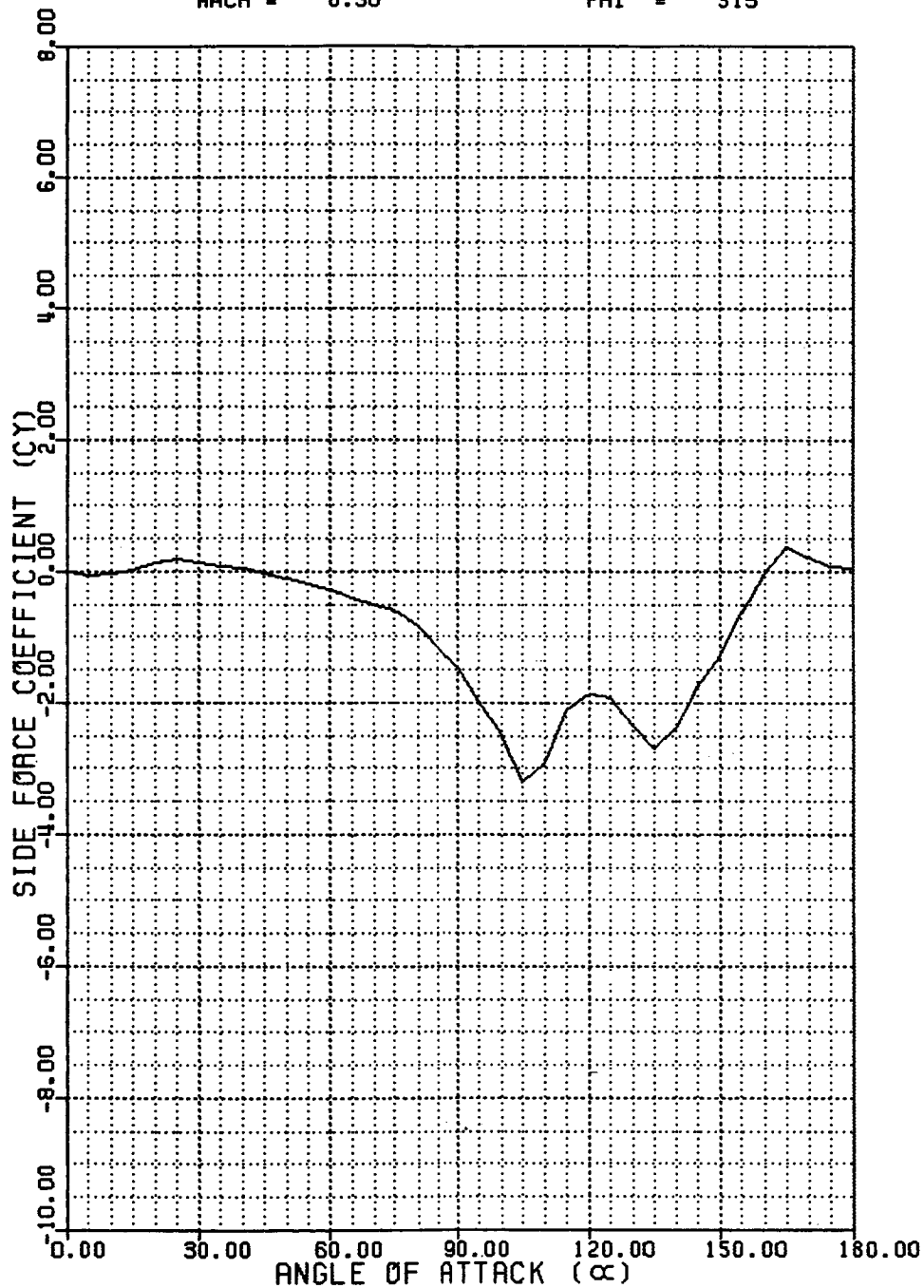
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 315

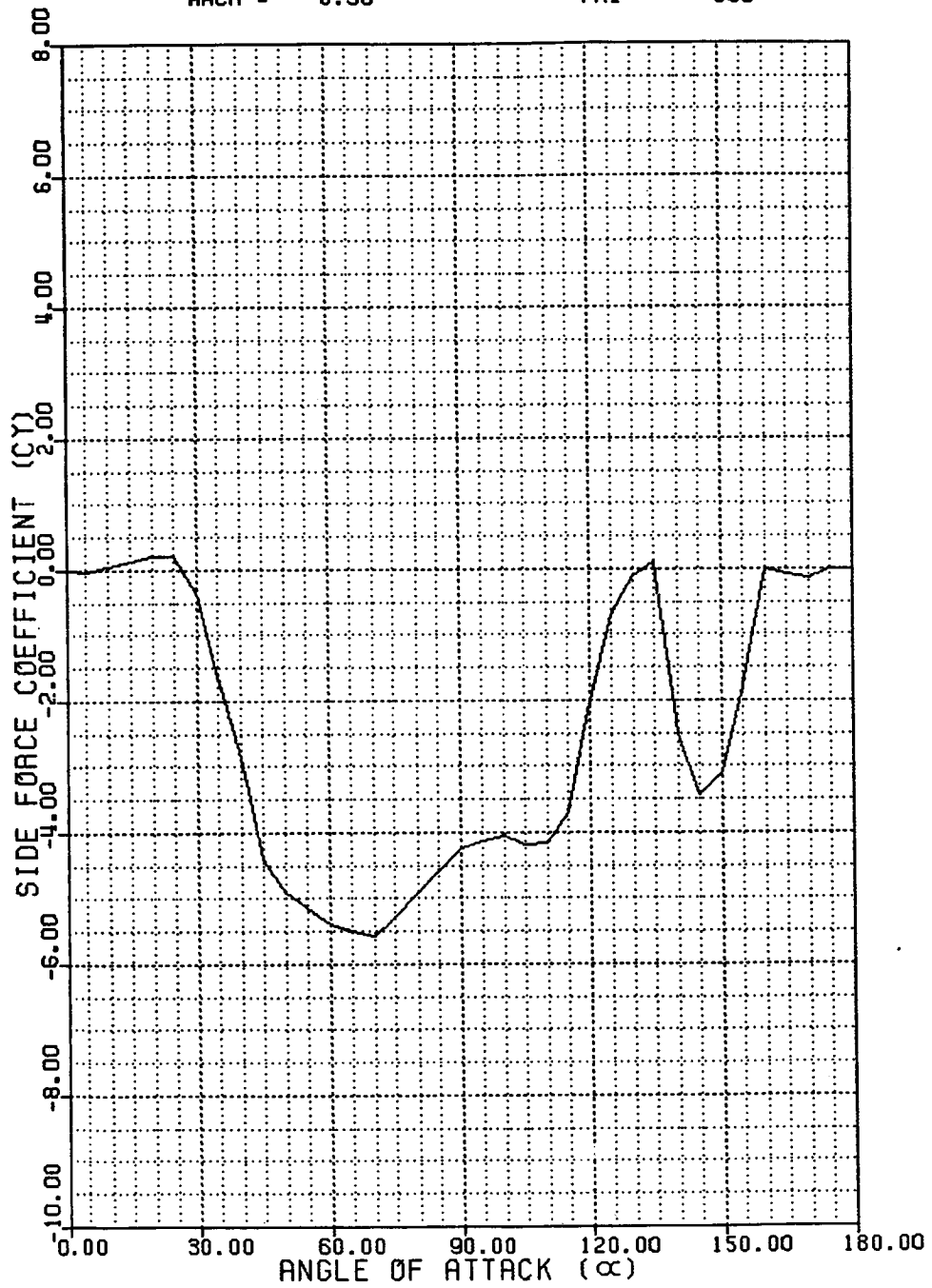


B-305

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 360



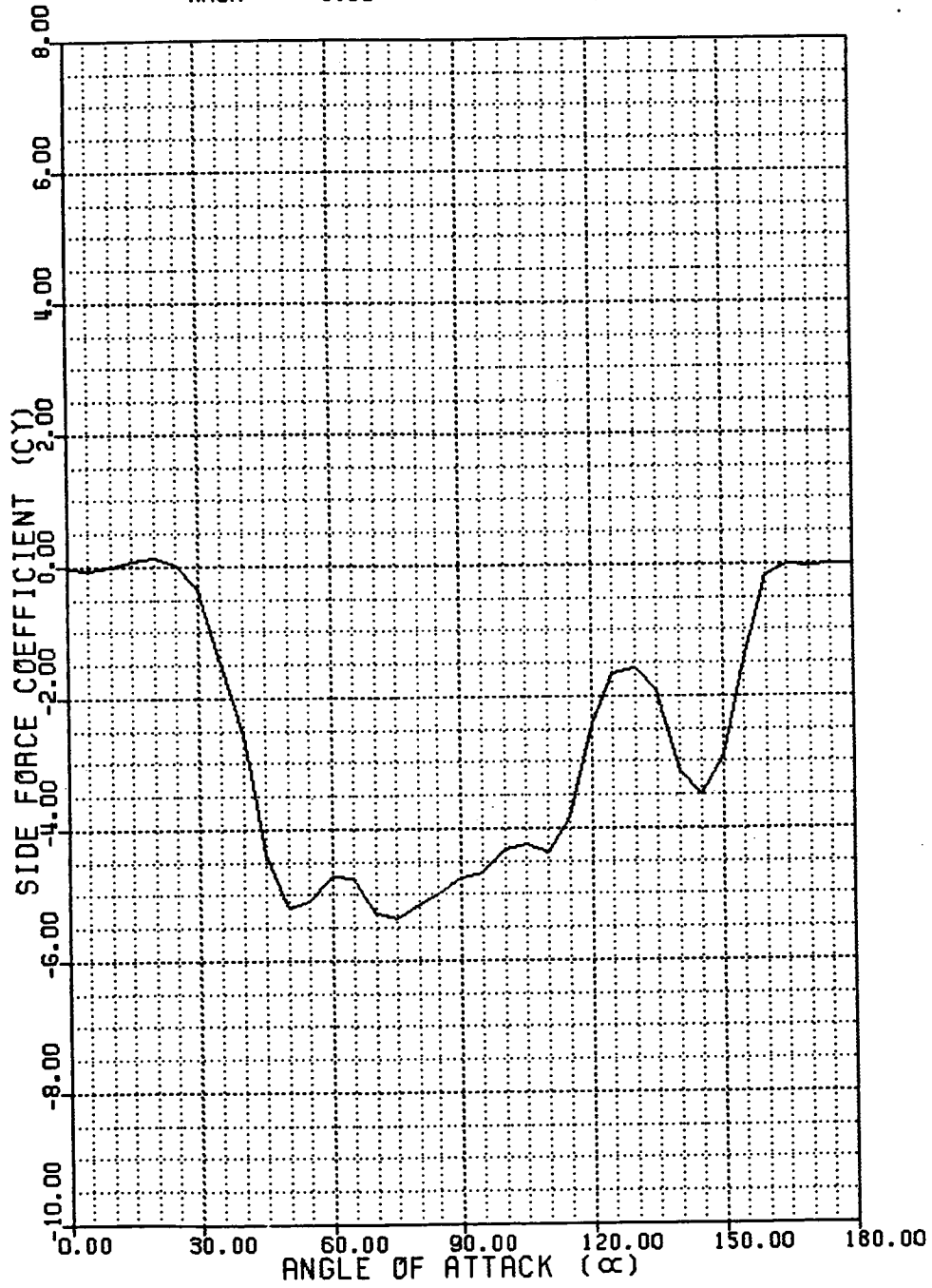
B-306

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 0



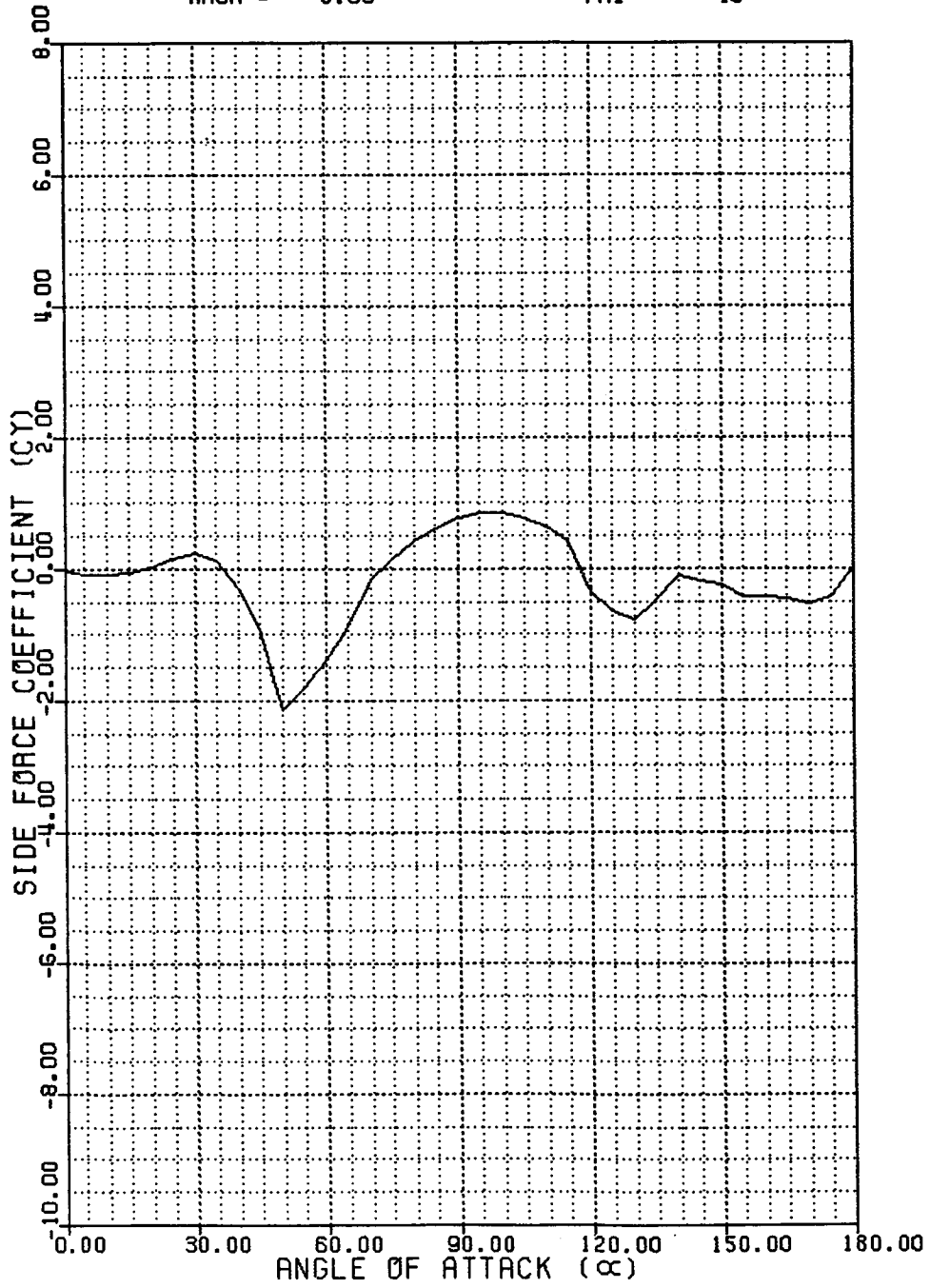
B-307

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 45



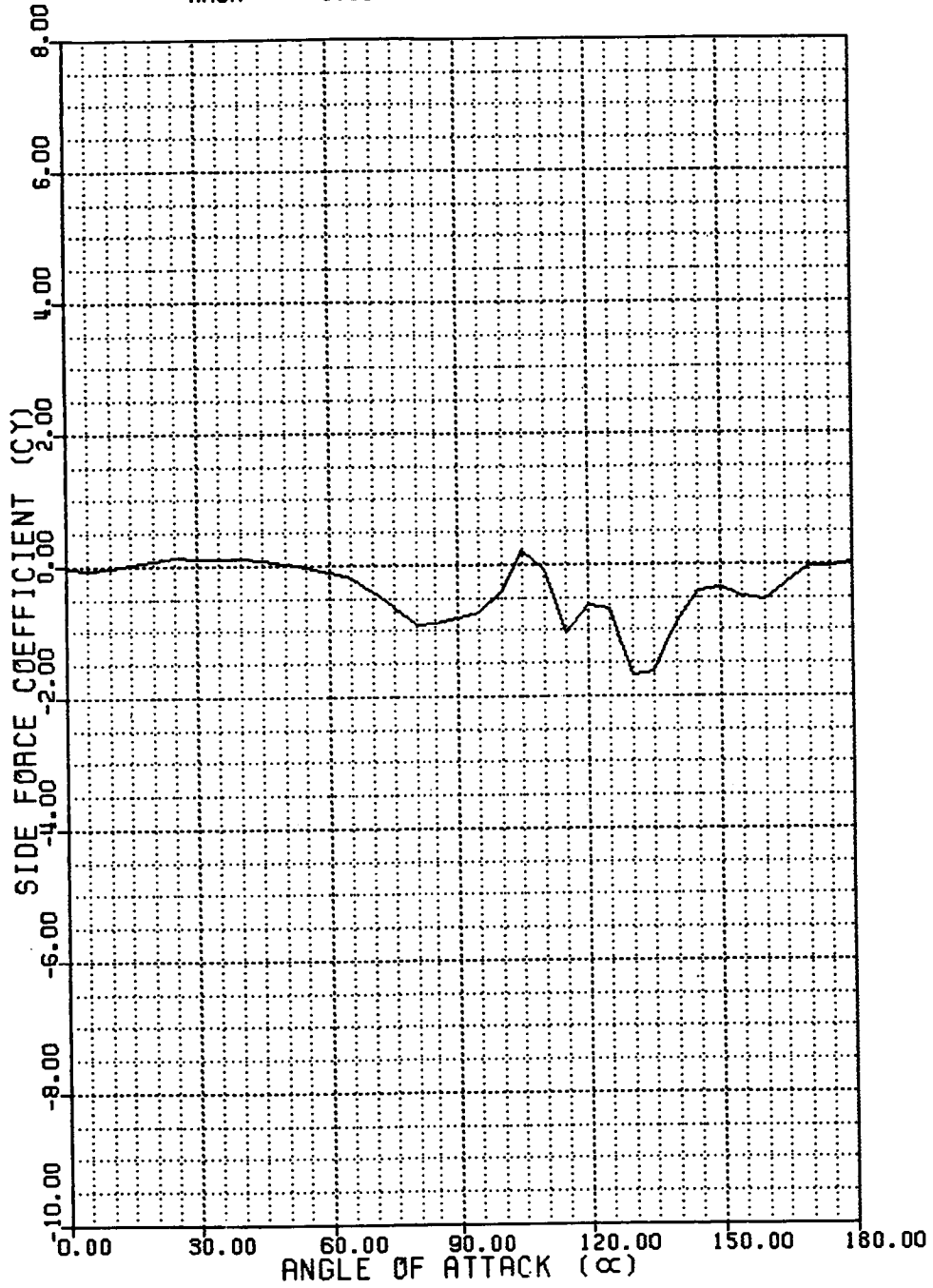
B-308

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 90



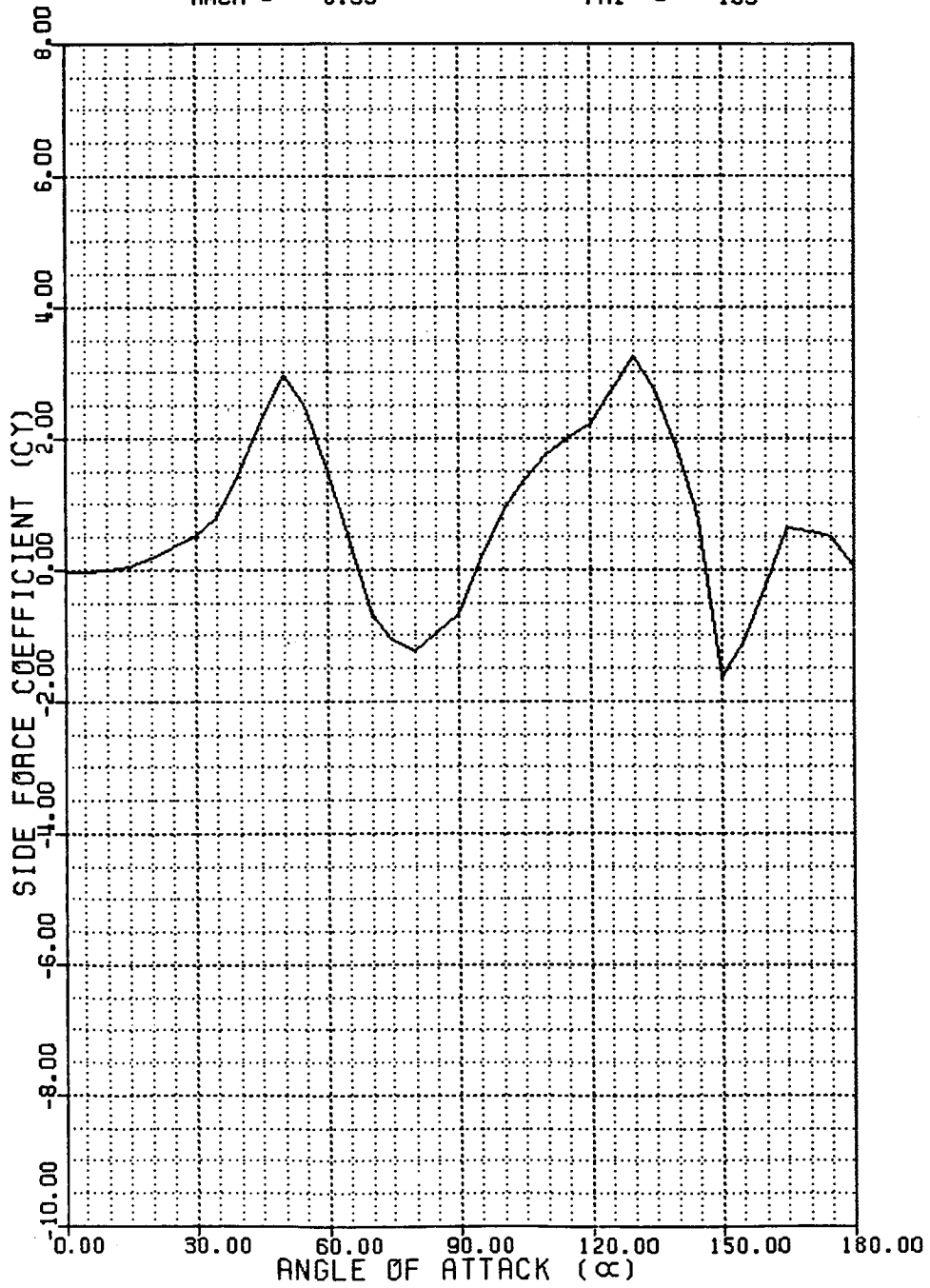
B-309

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 135

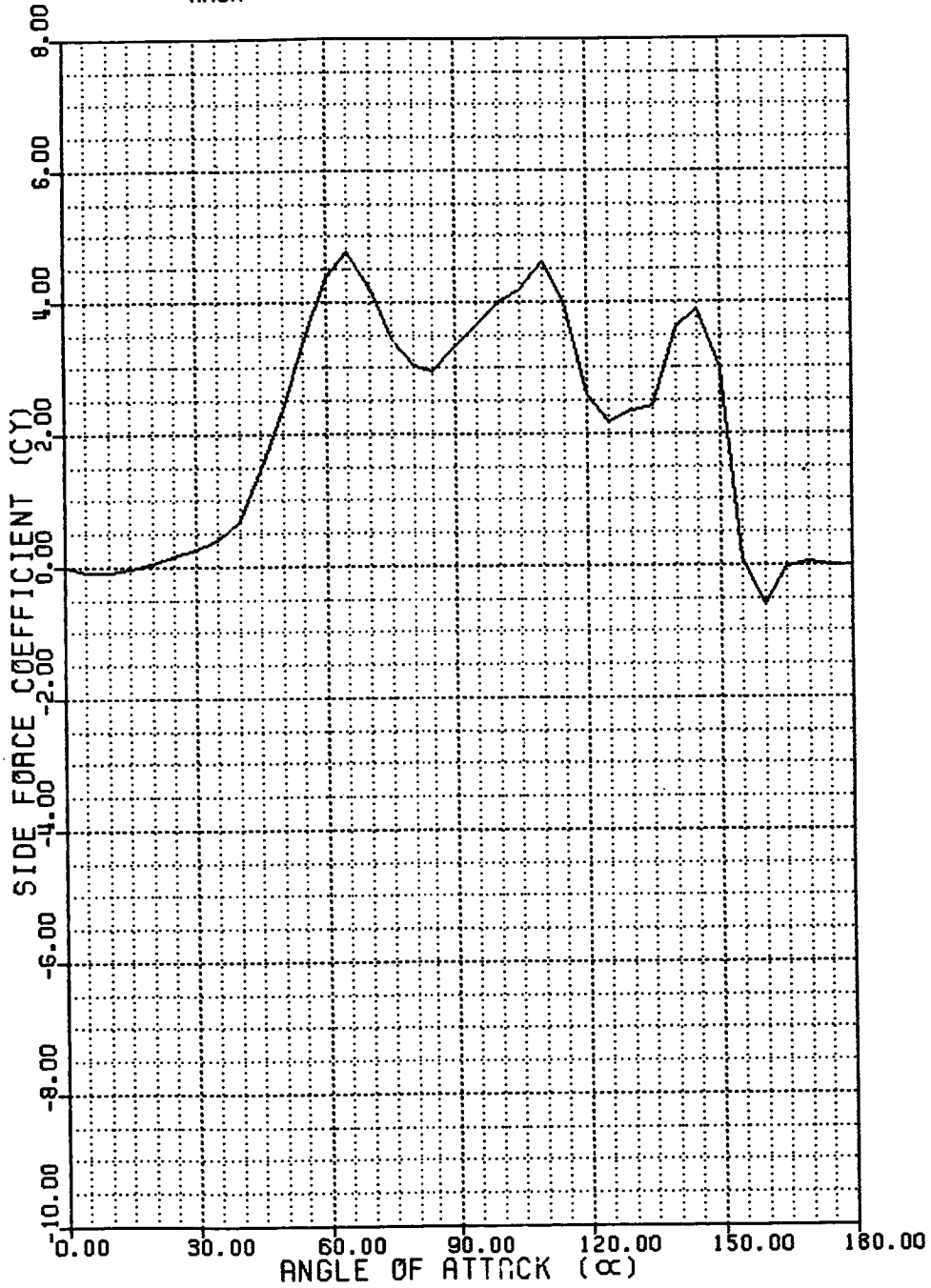


B-310

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 180



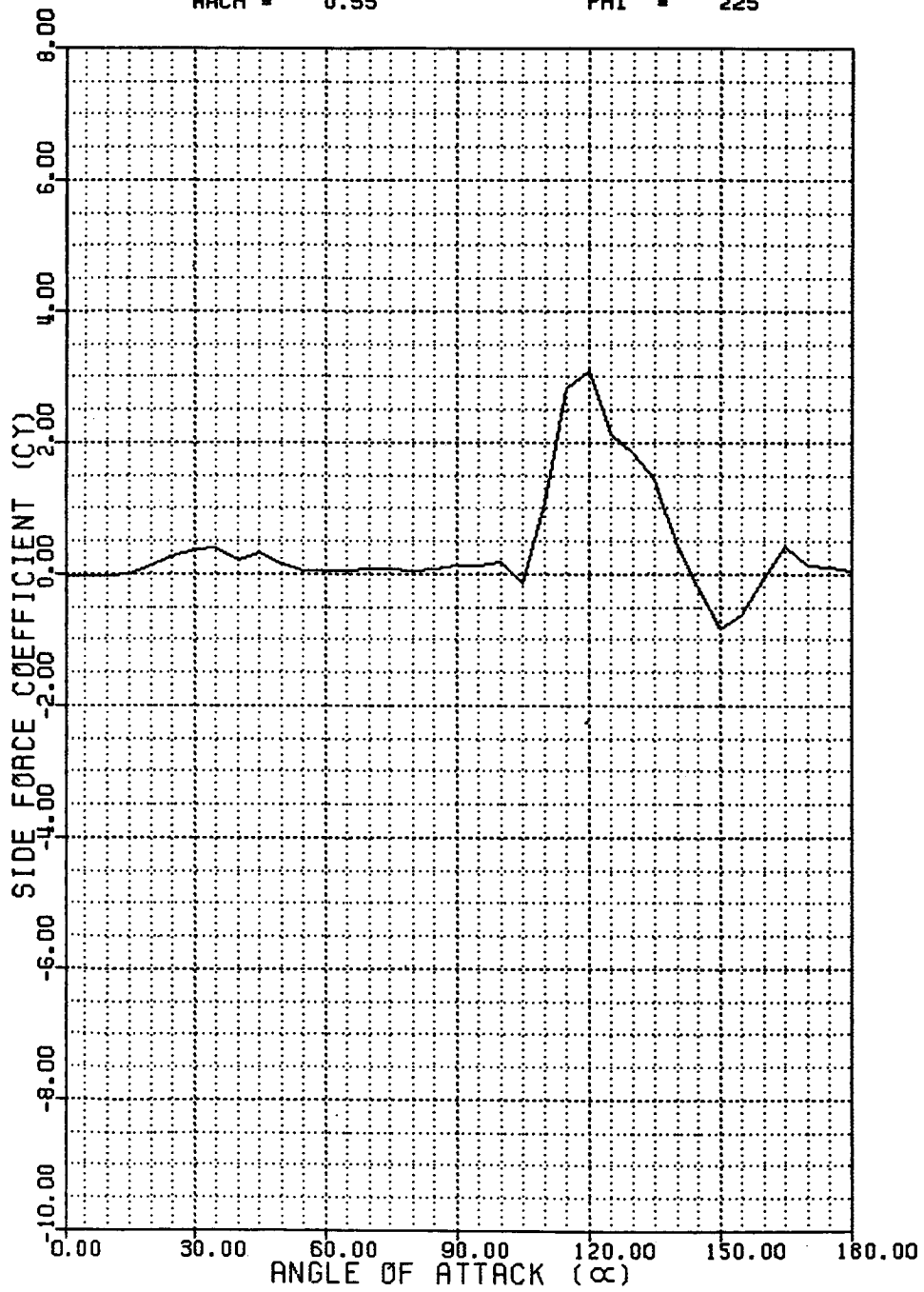
B-911

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 225



B-312

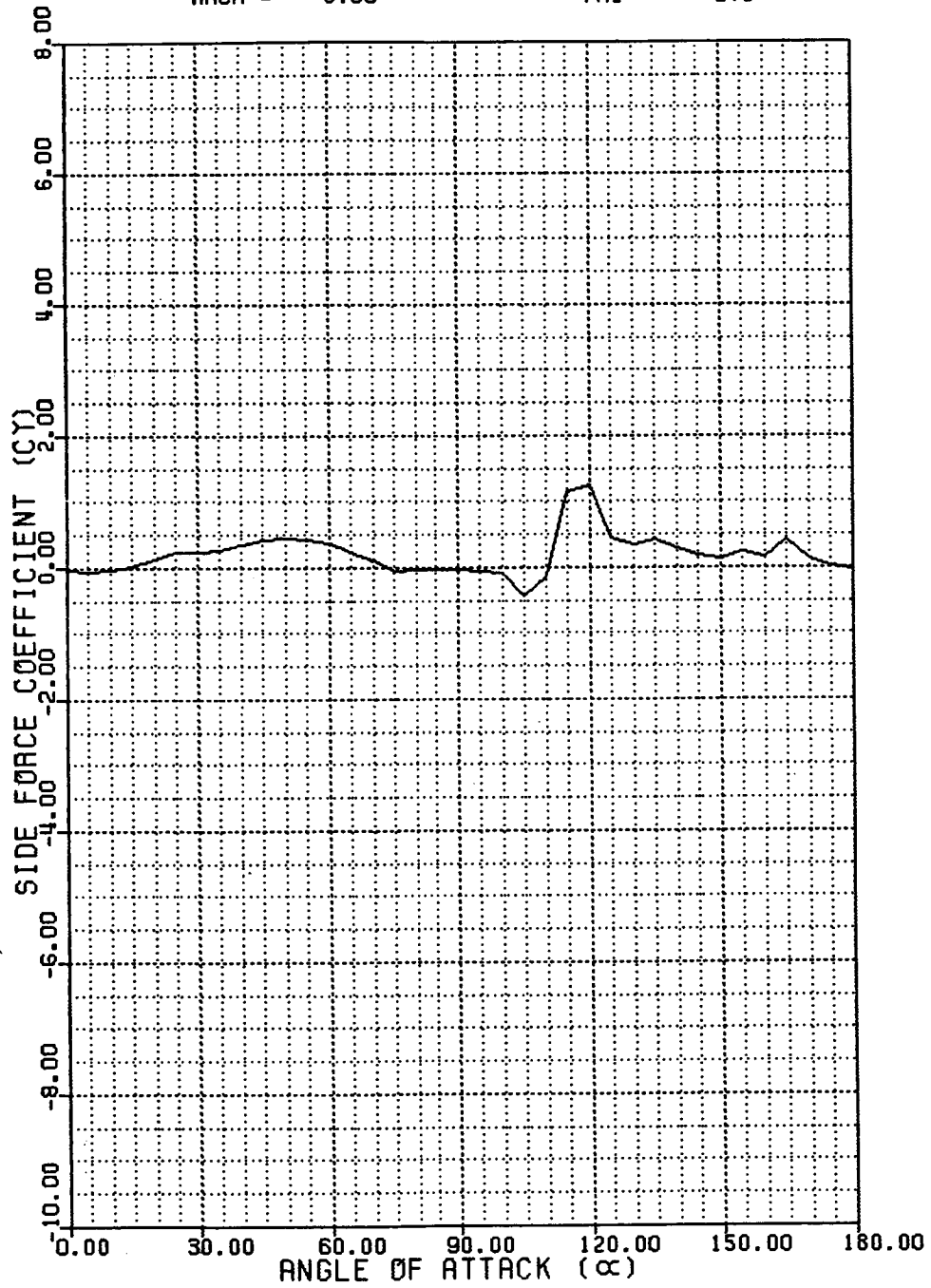
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 270



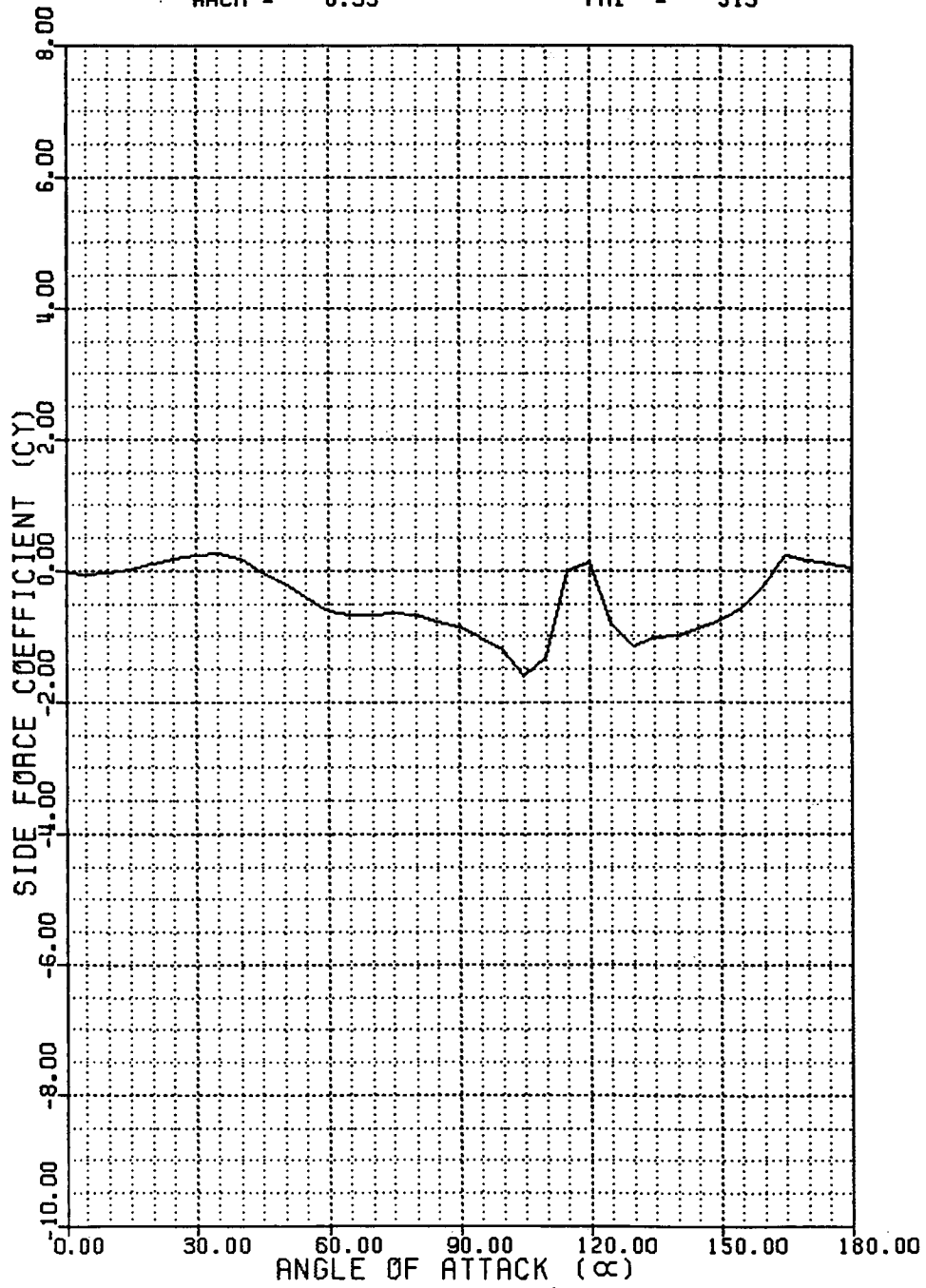
B-913

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 315



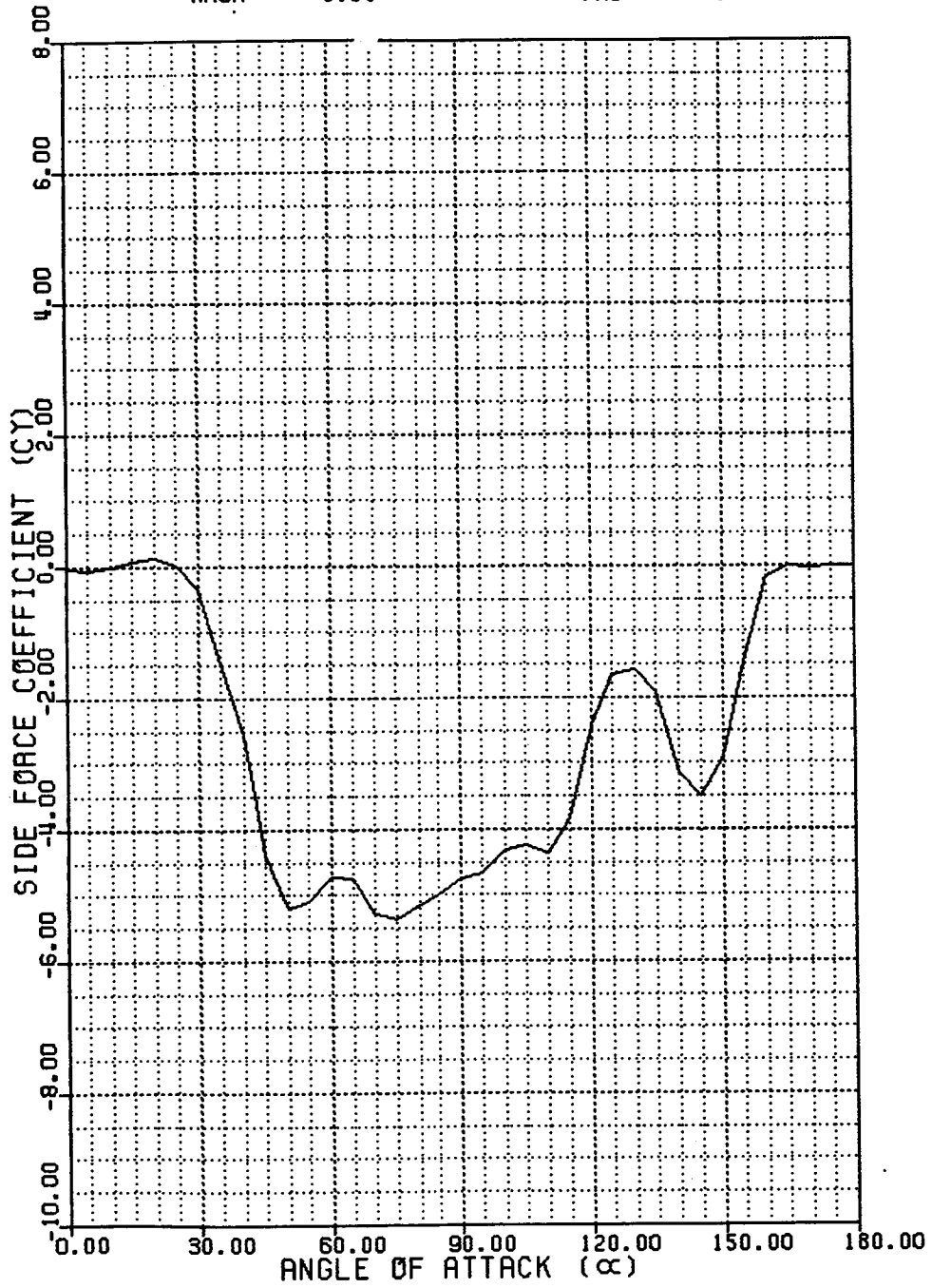
B-314

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 360

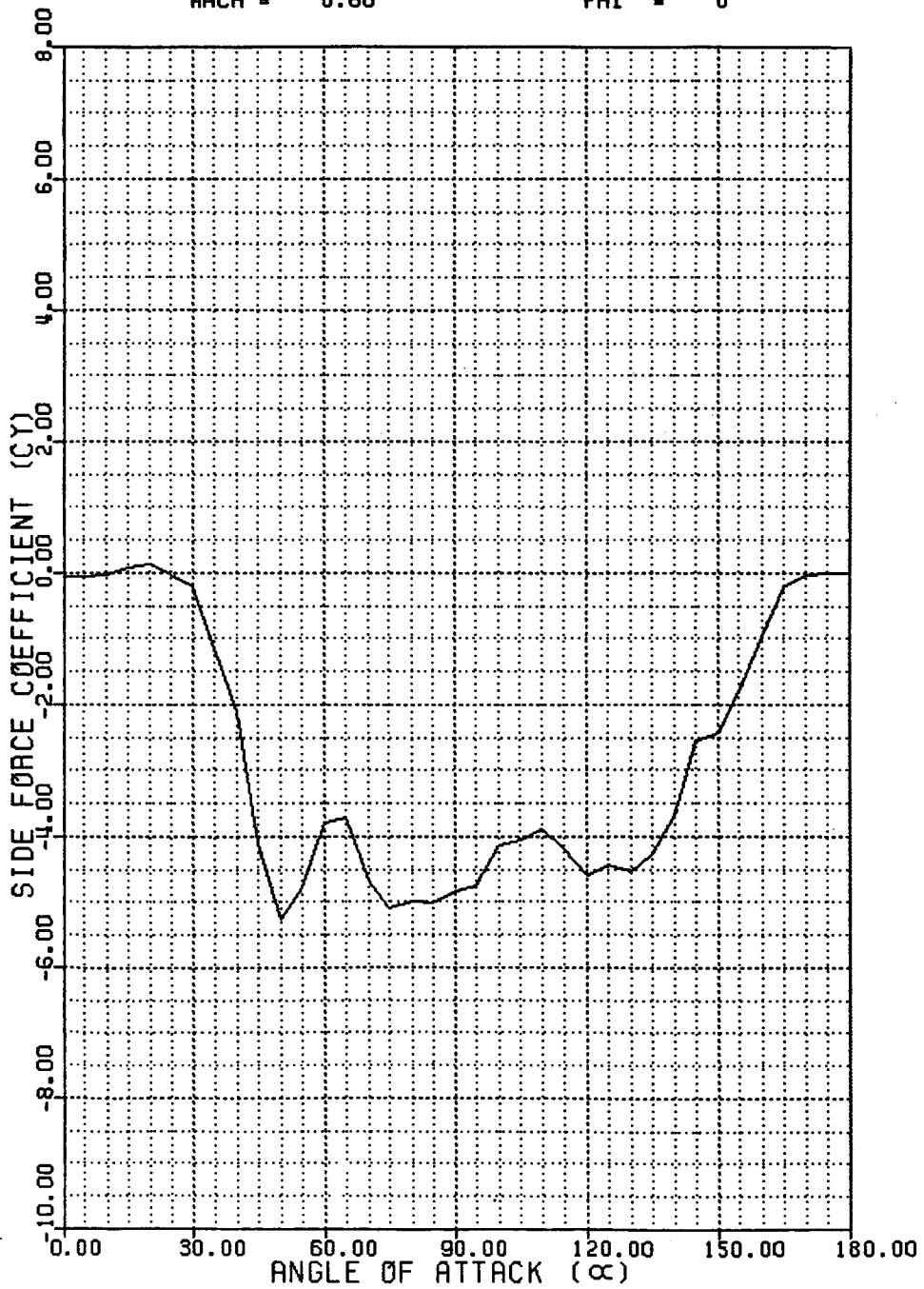


B-915

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 0



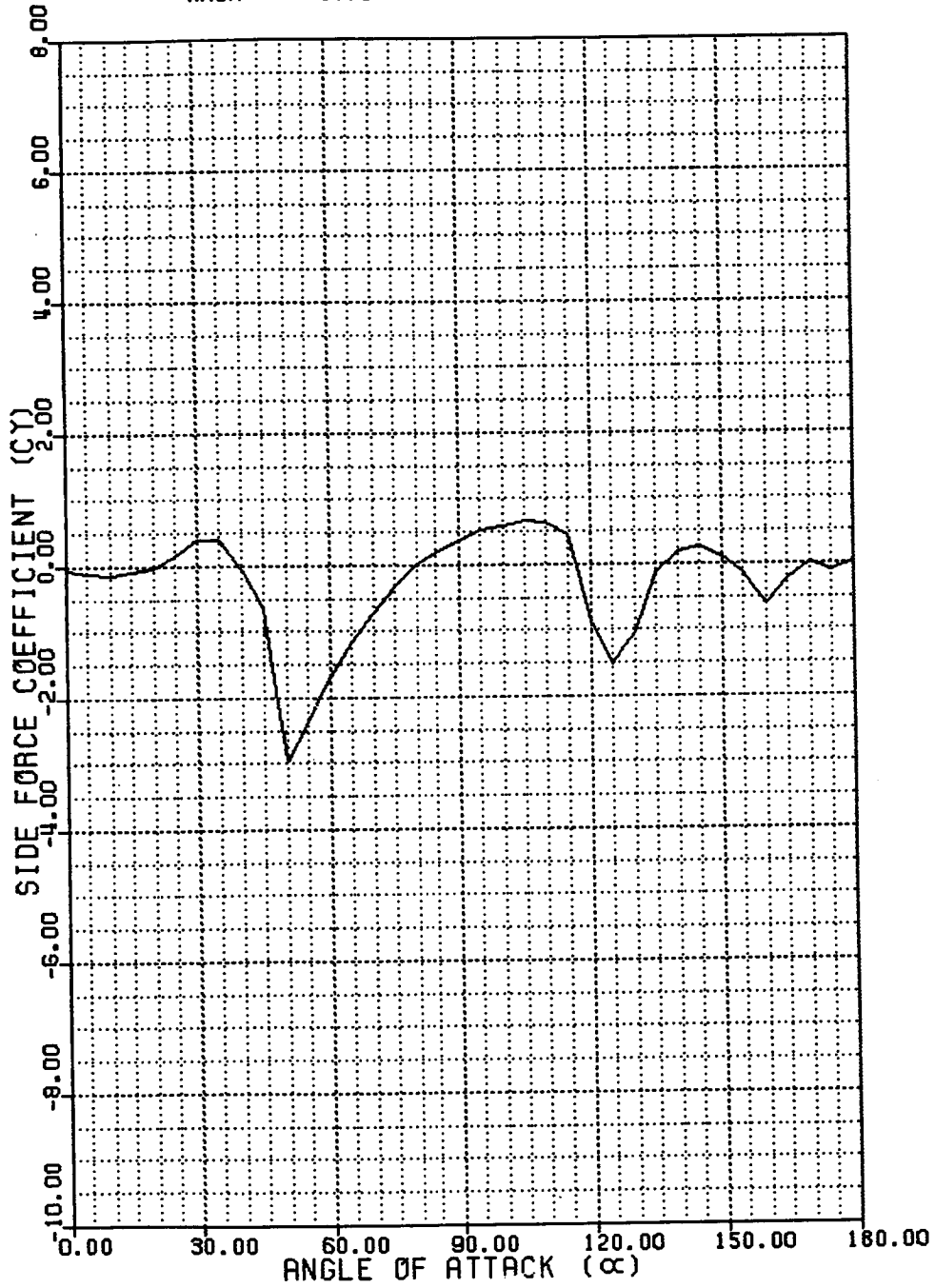
B-316

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 45



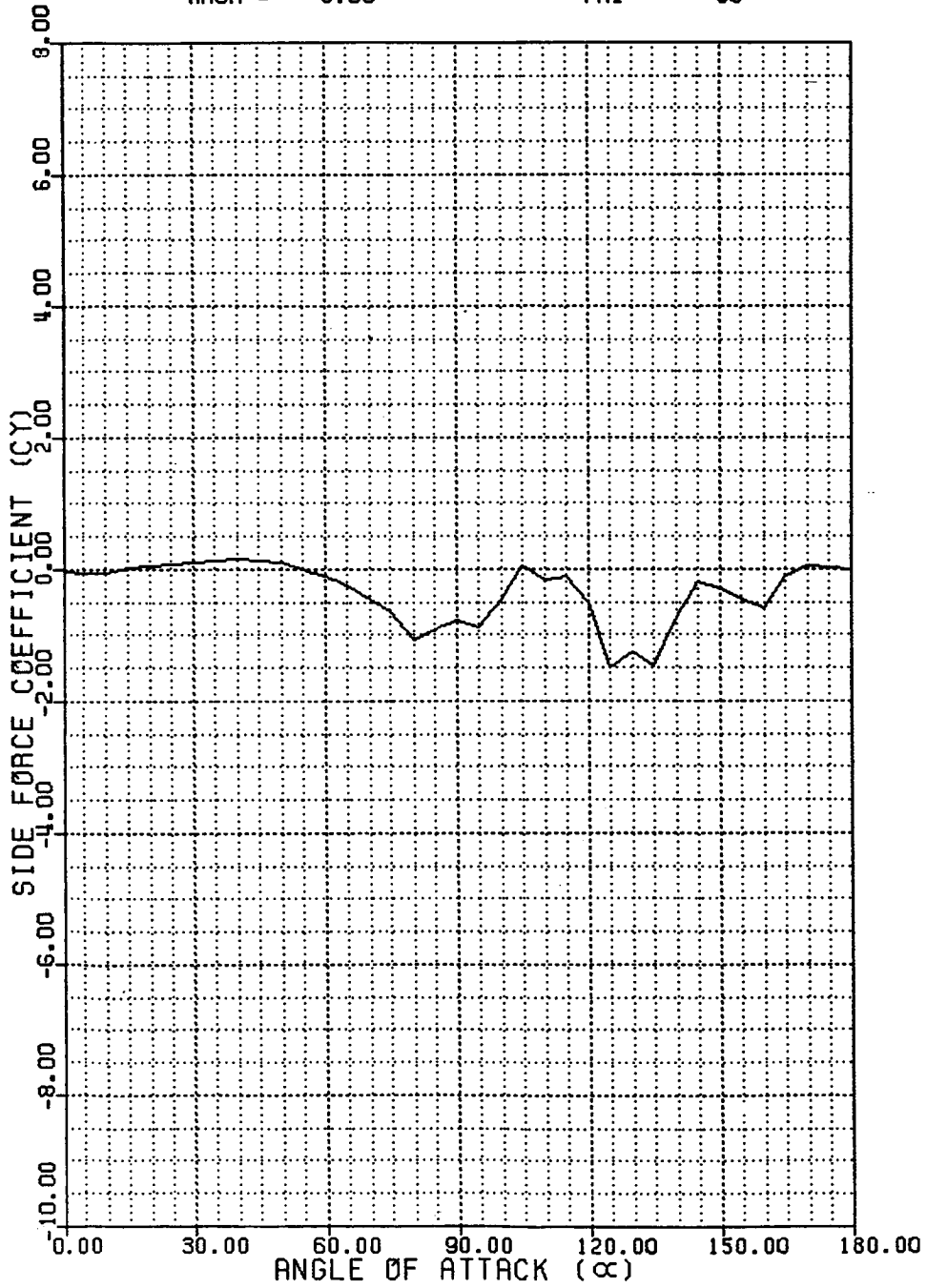
B-917

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 90



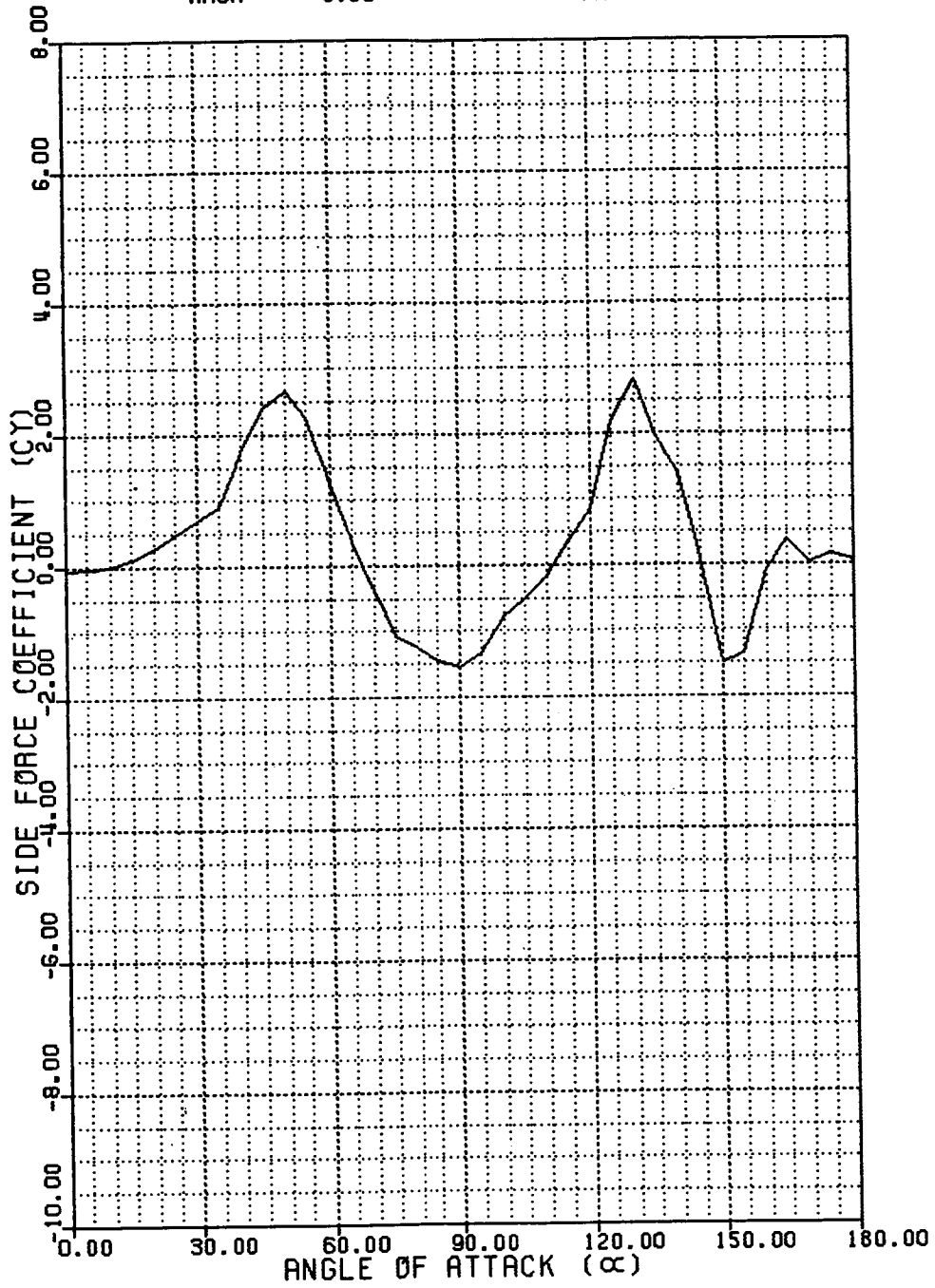
B-318

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 135



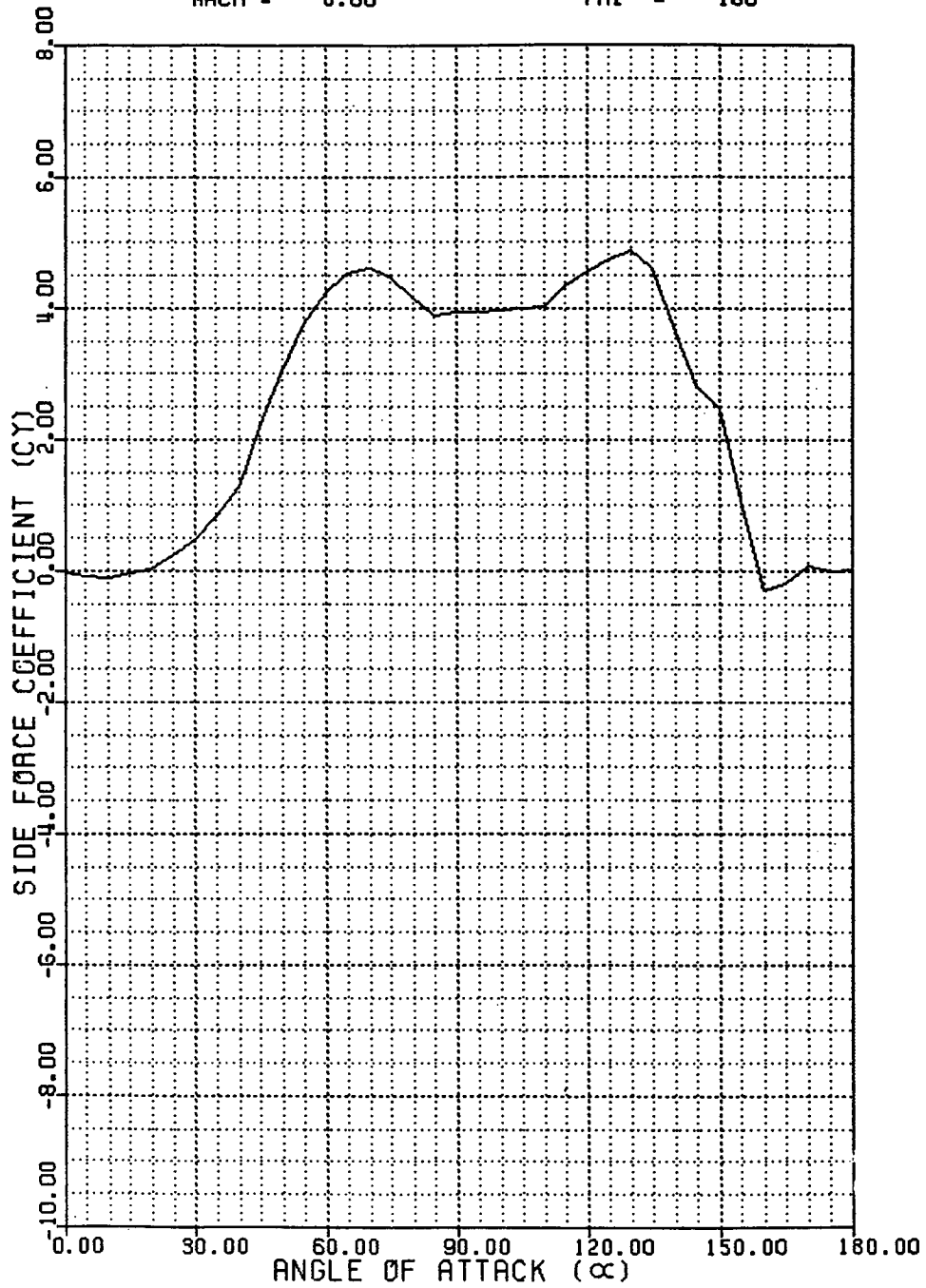
B-919

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 180



B-320

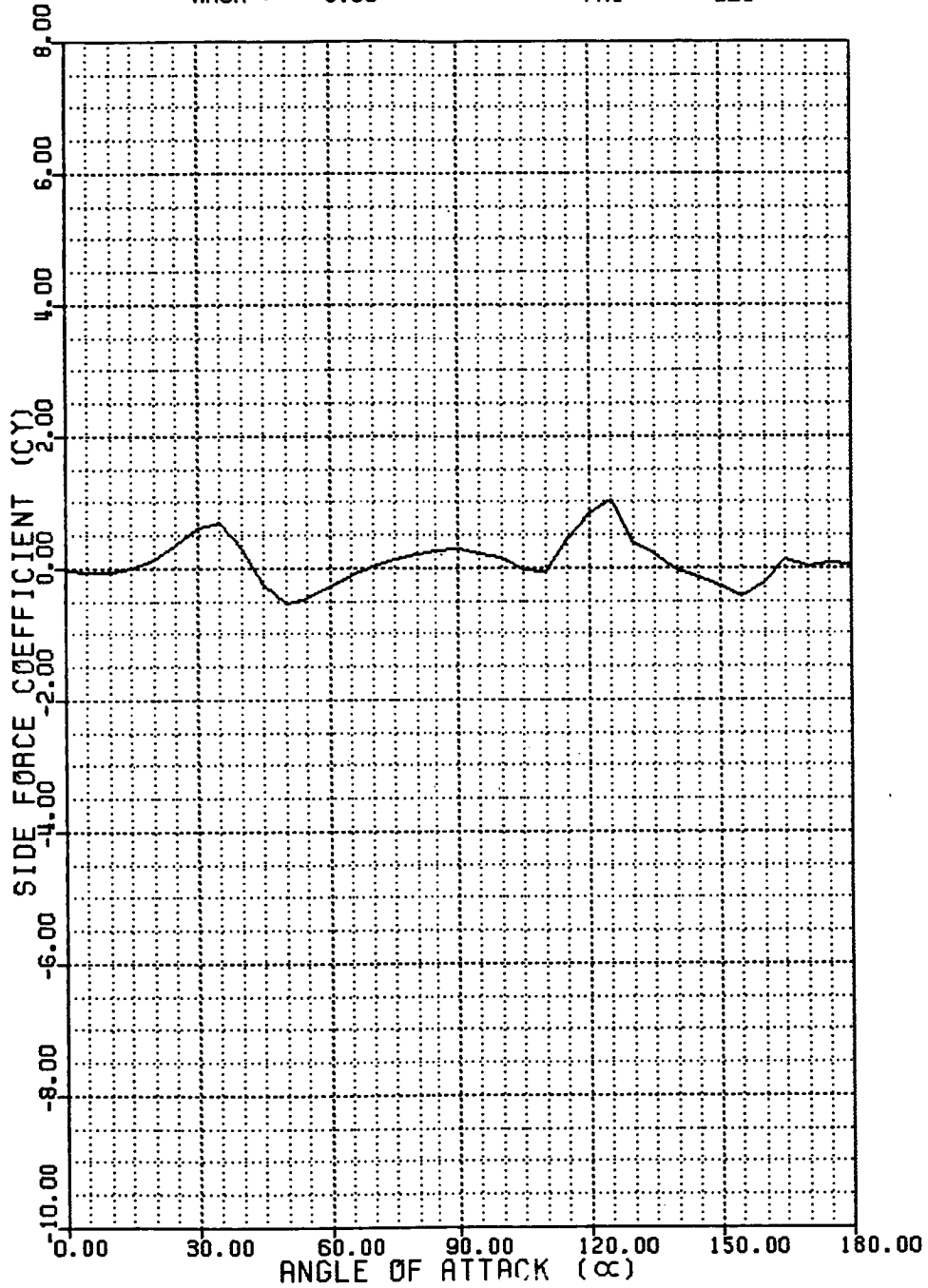
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.60

PHI = 225



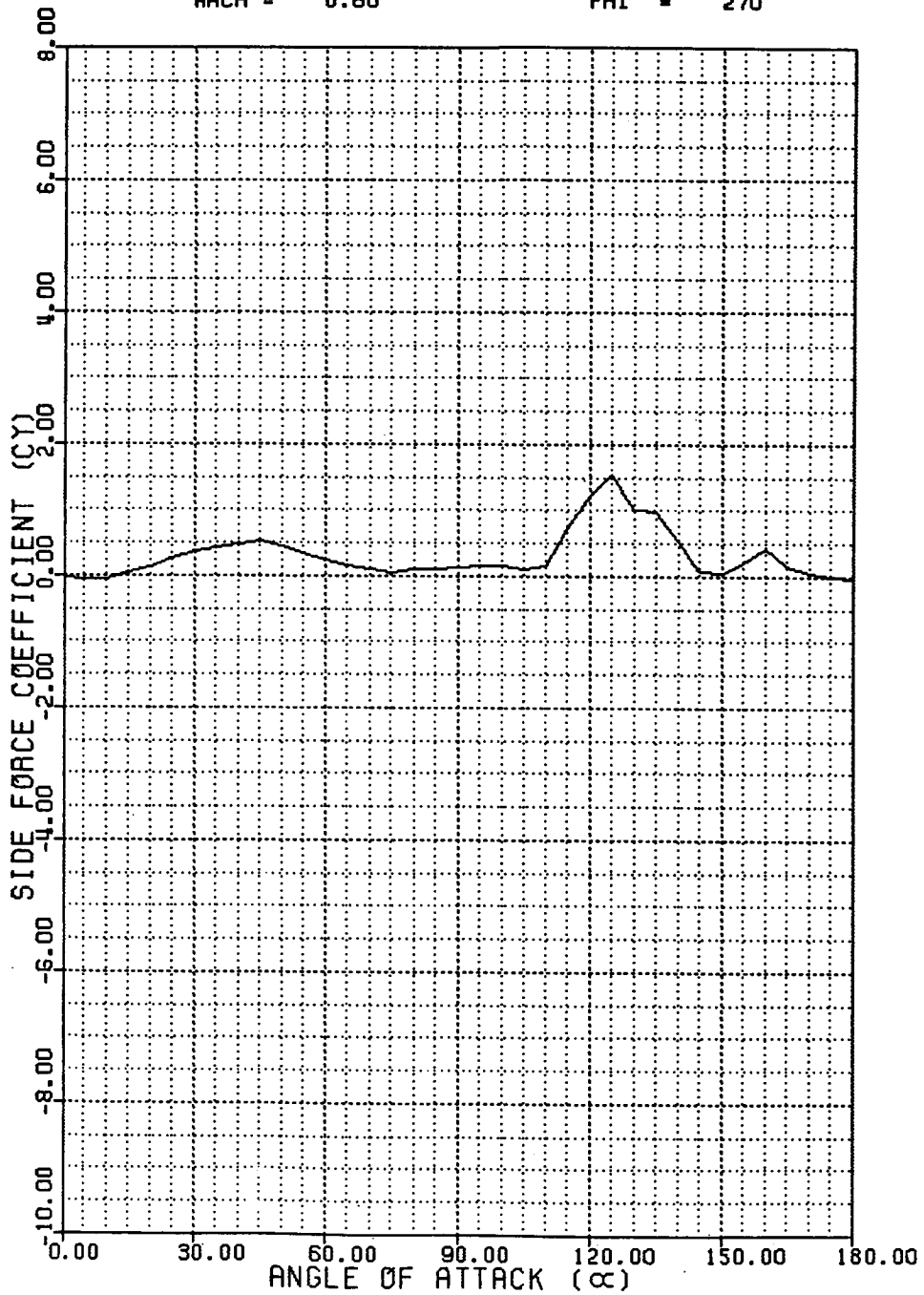
B-321

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 270



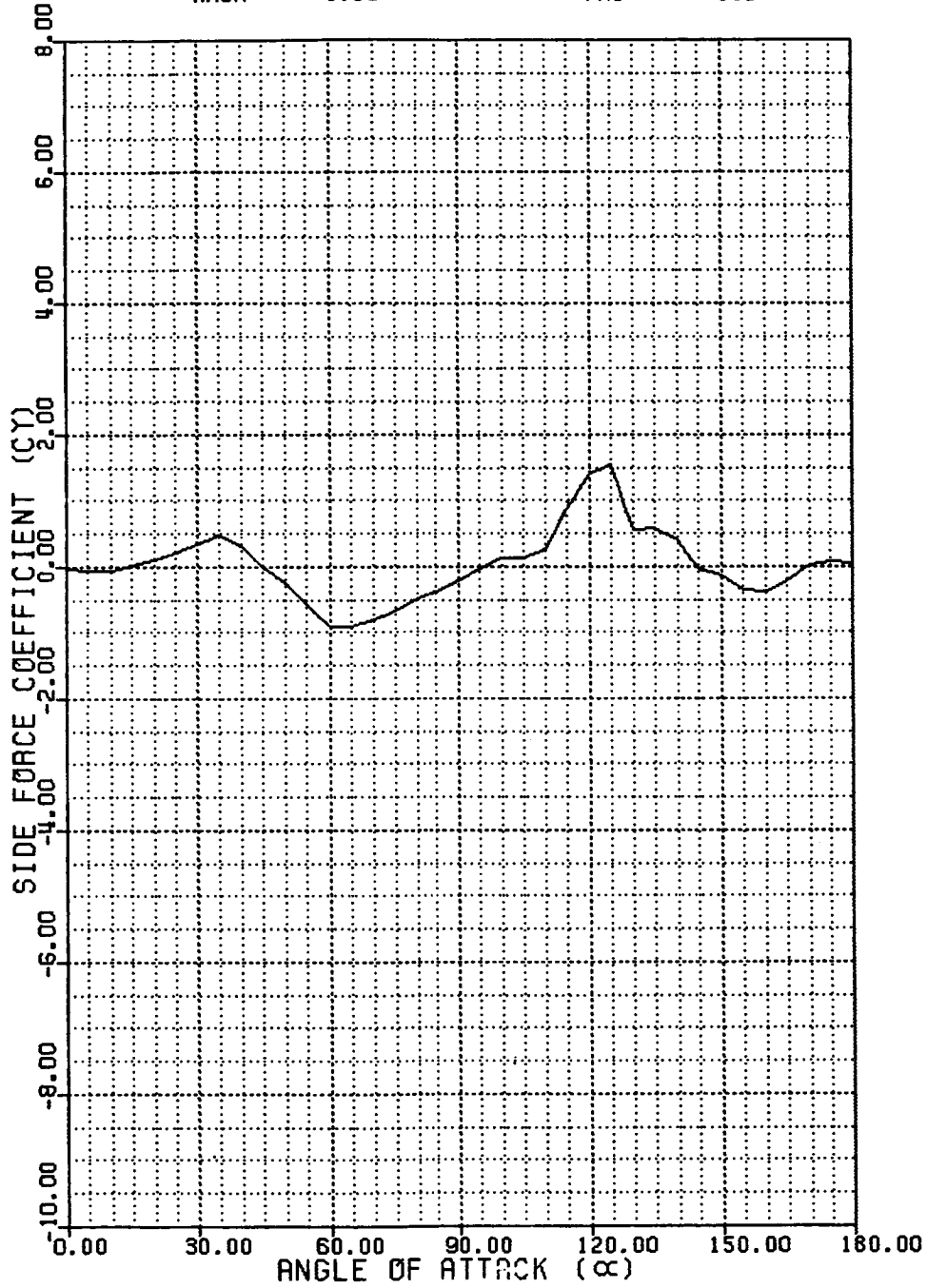
B-322

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 315

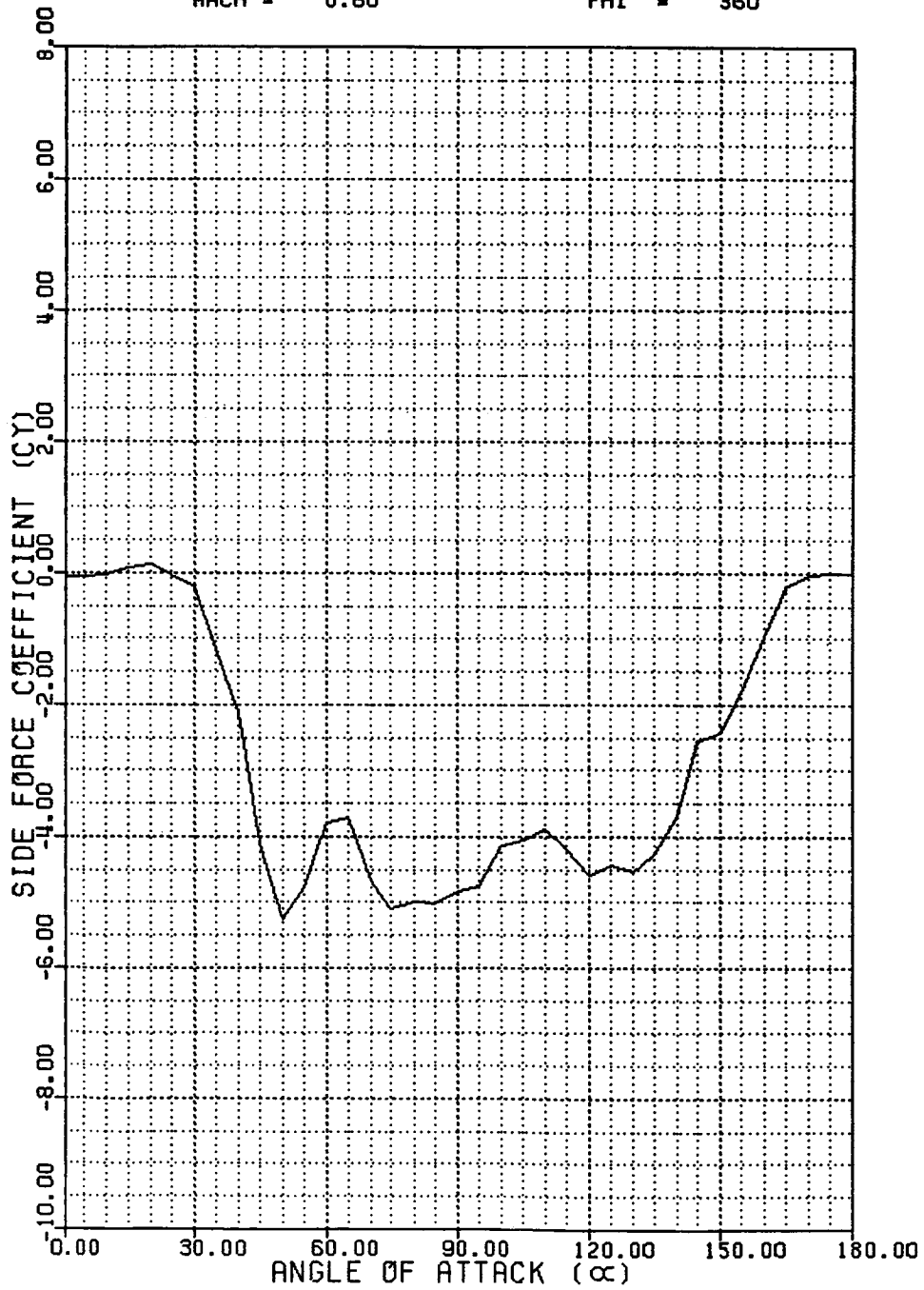


B-323

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 360



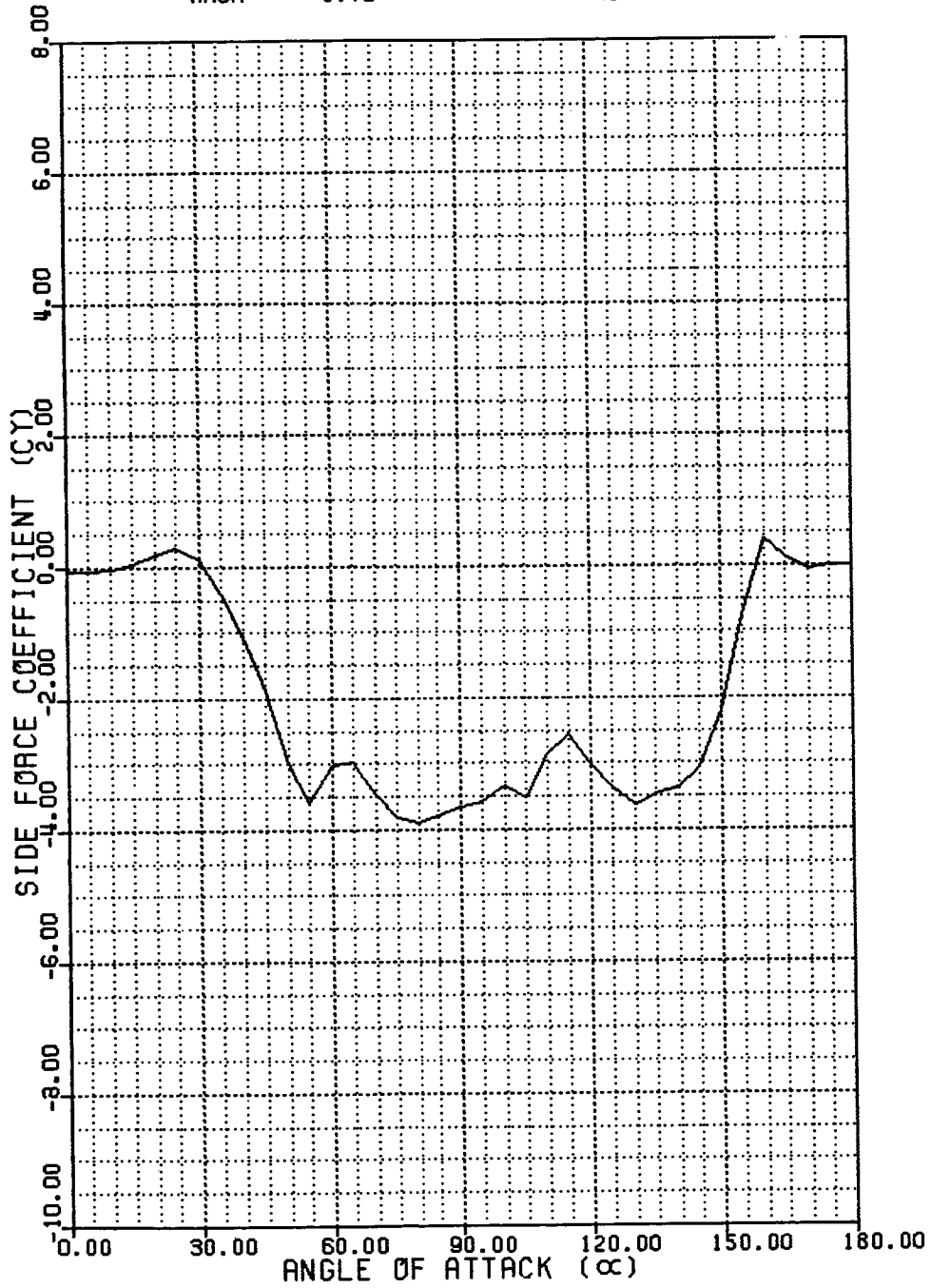
B-324

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 0



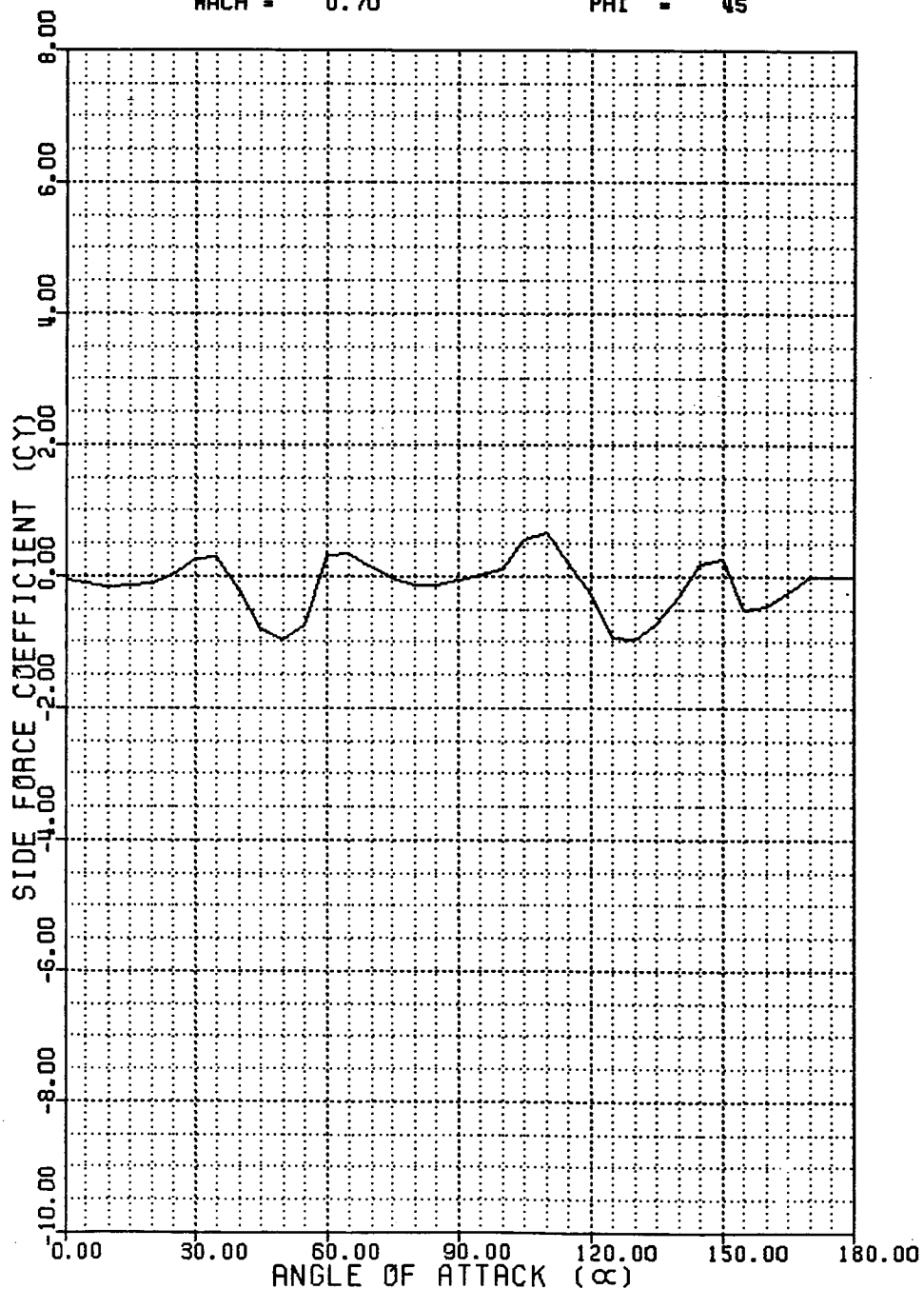
B-925

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 45

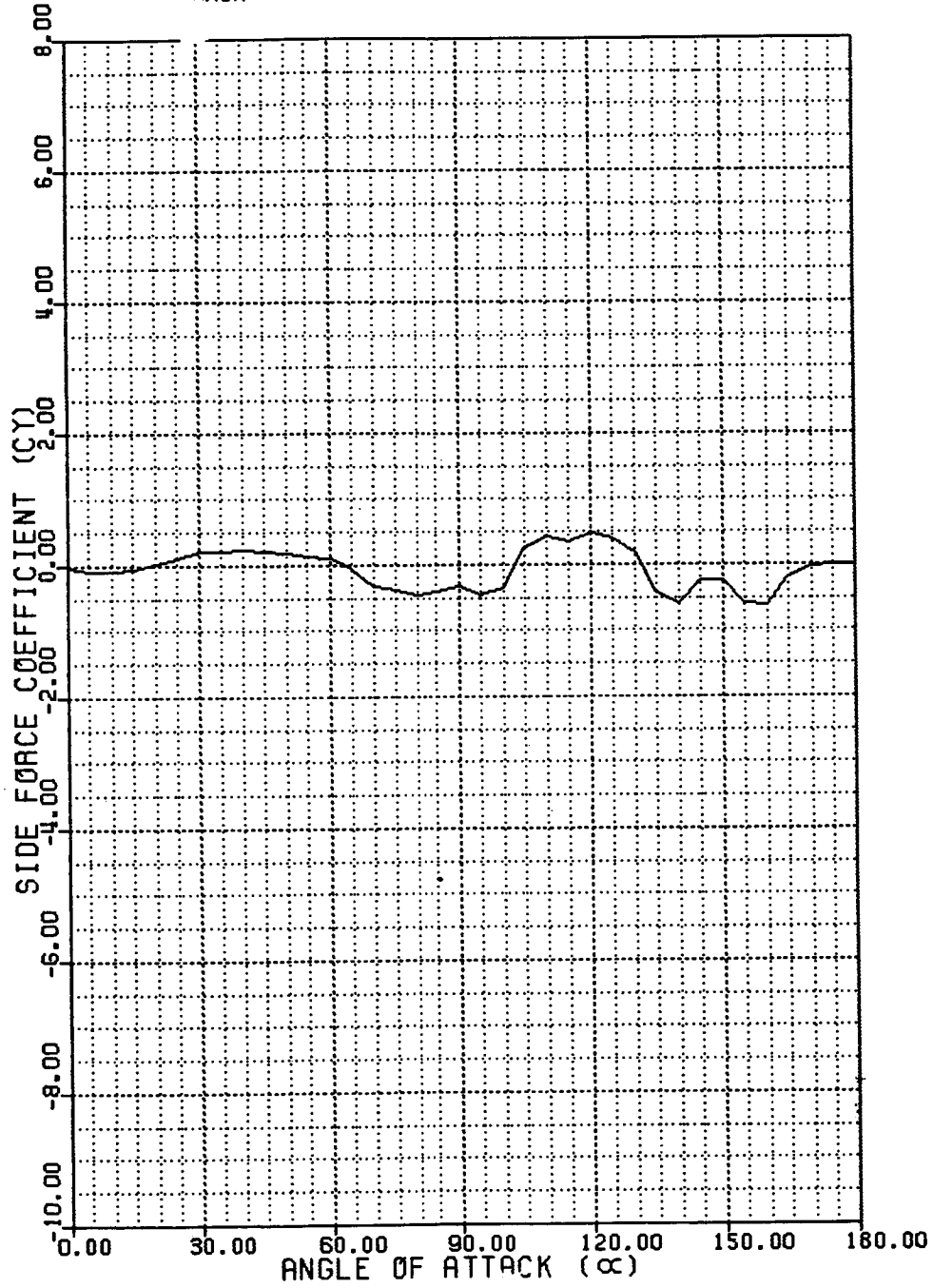


B-326

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 90

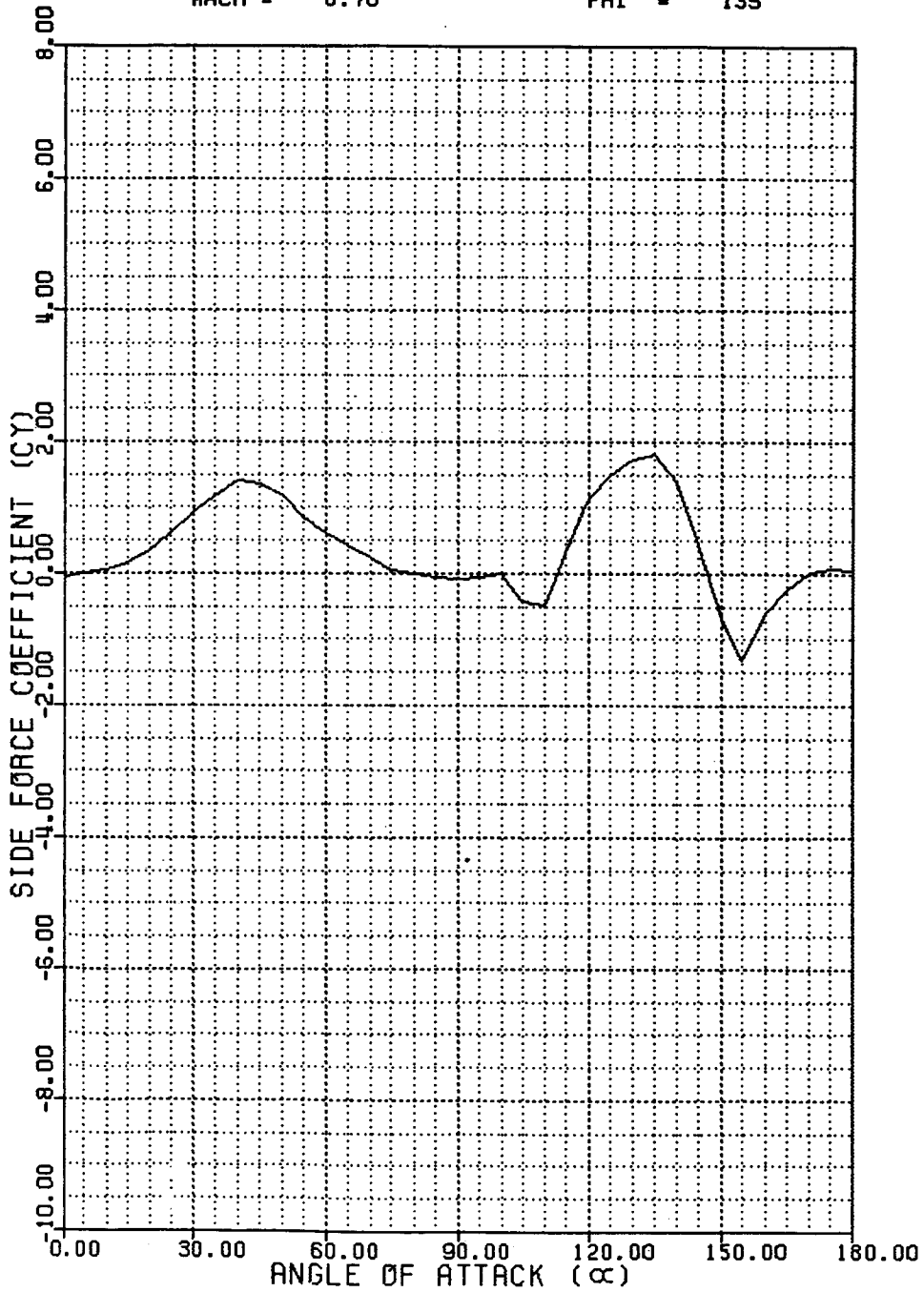


B-927

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 135



B-328

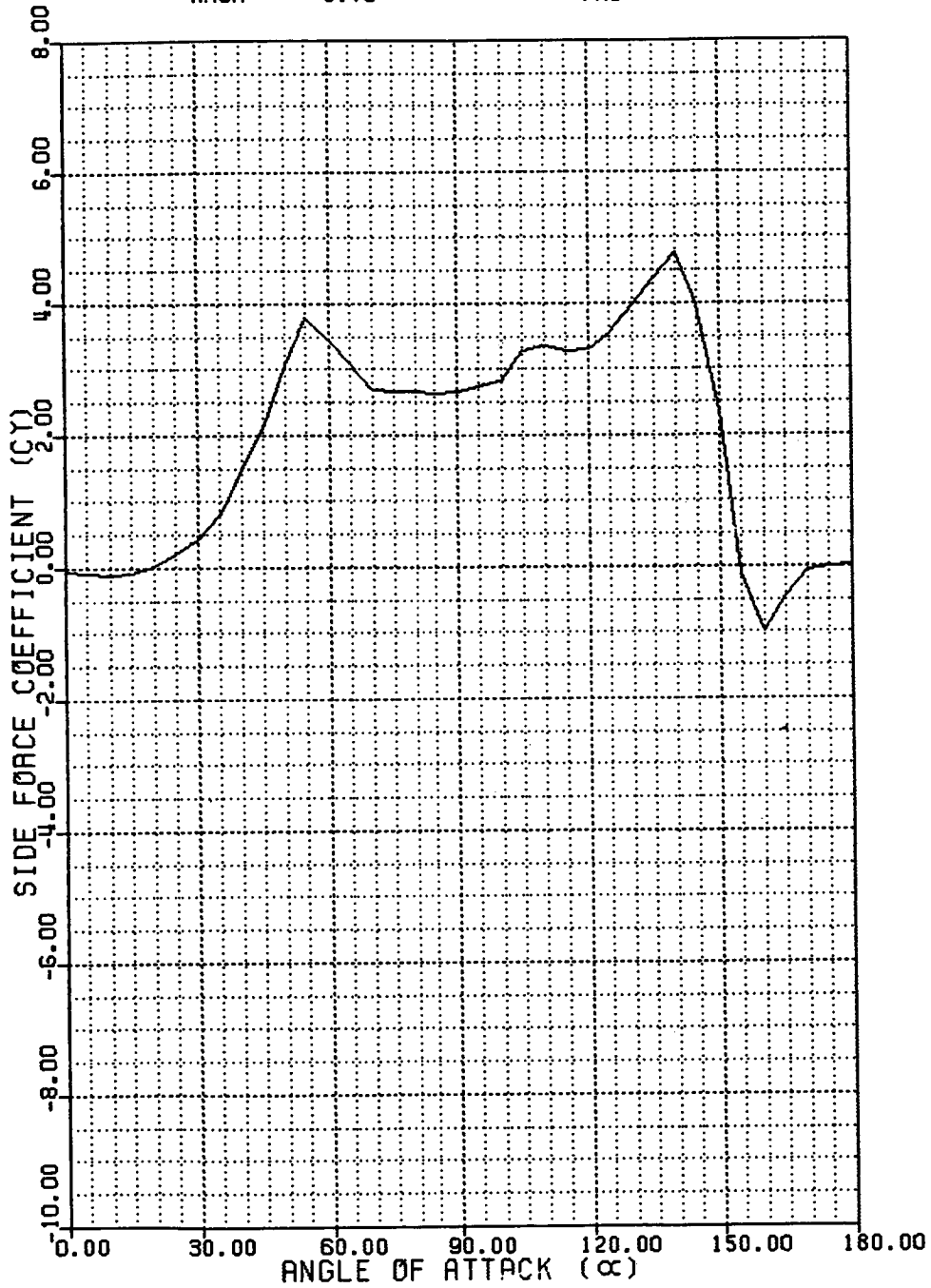
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.70

PHI = 180



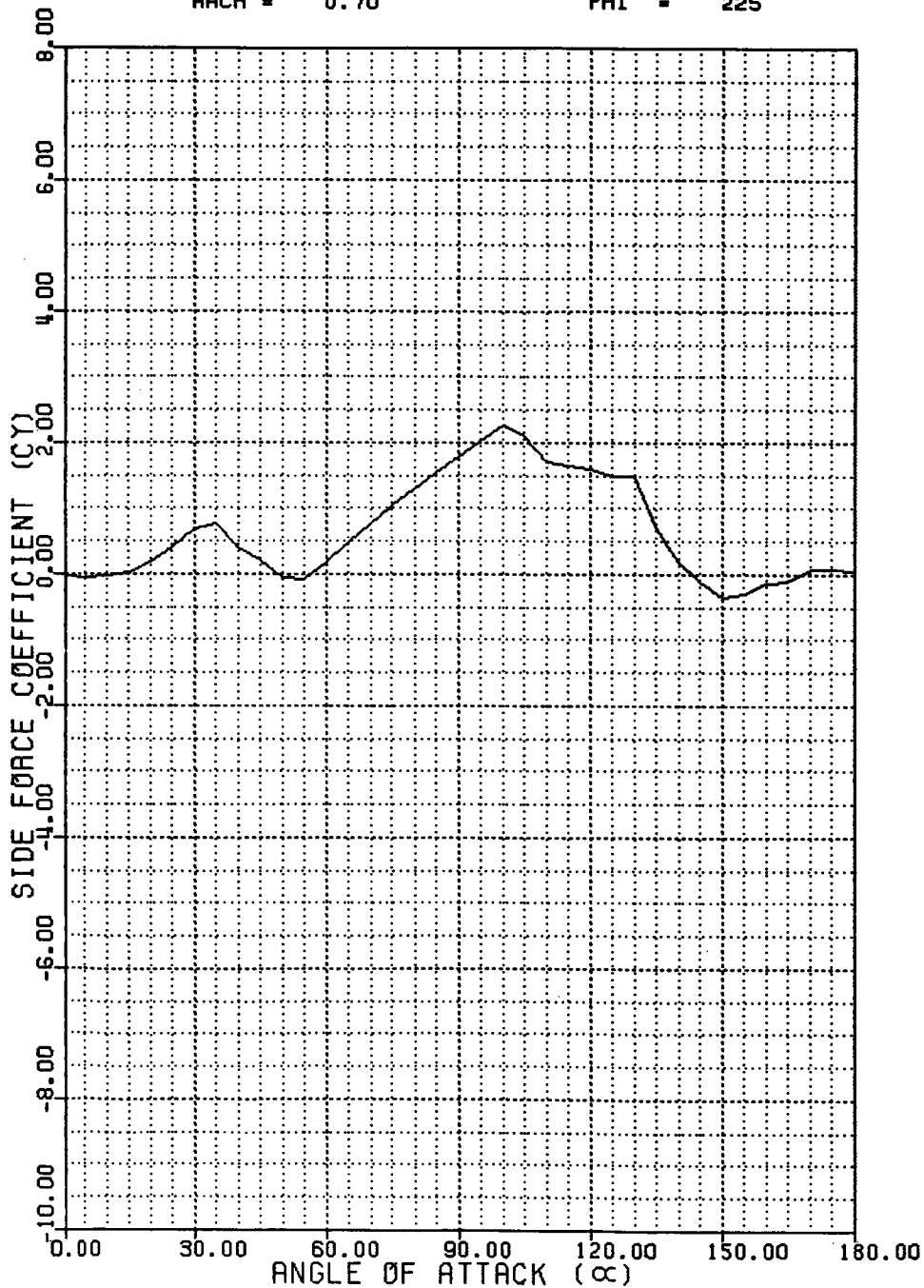
B-929

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 225



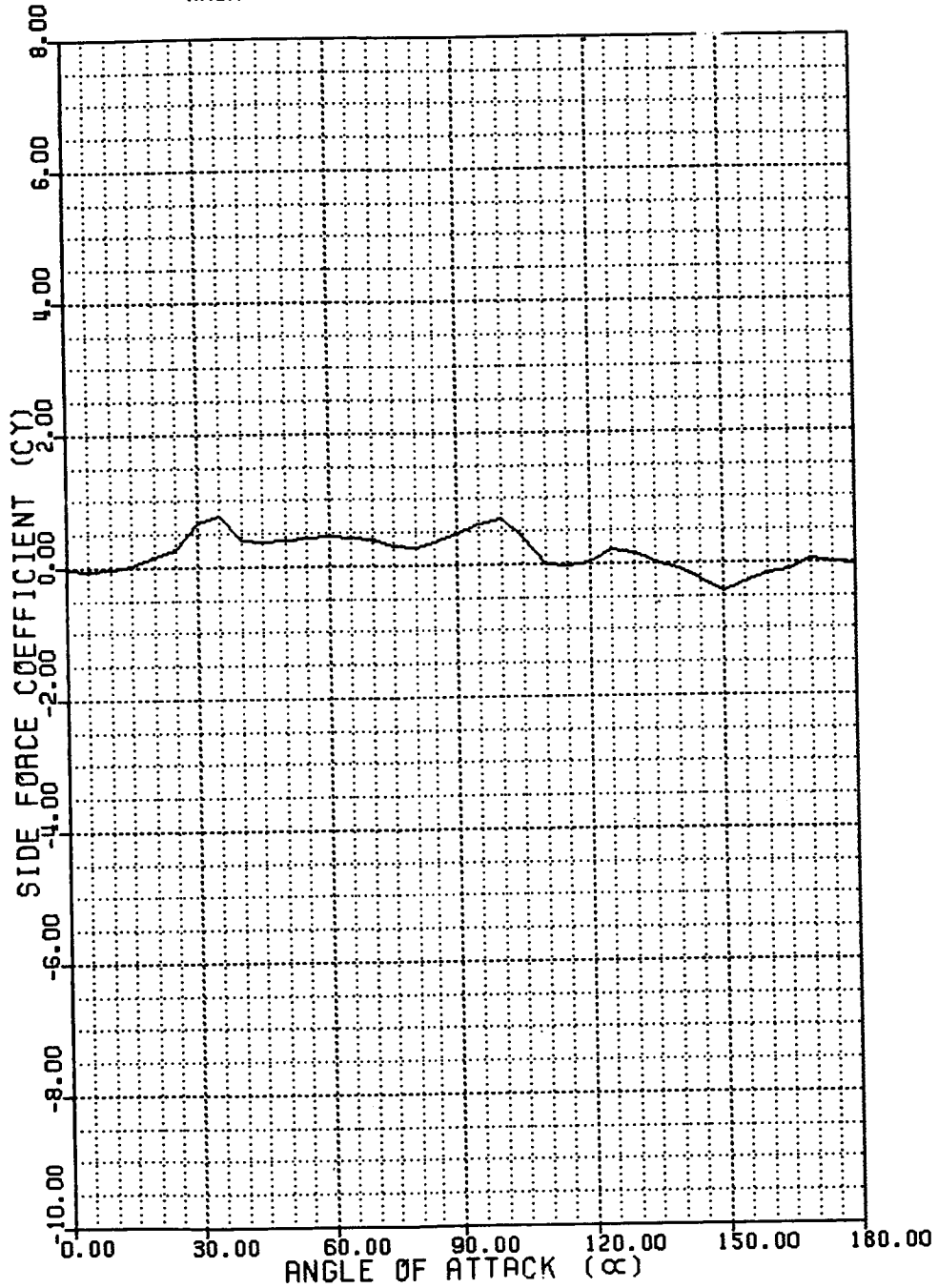
B-930

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 270



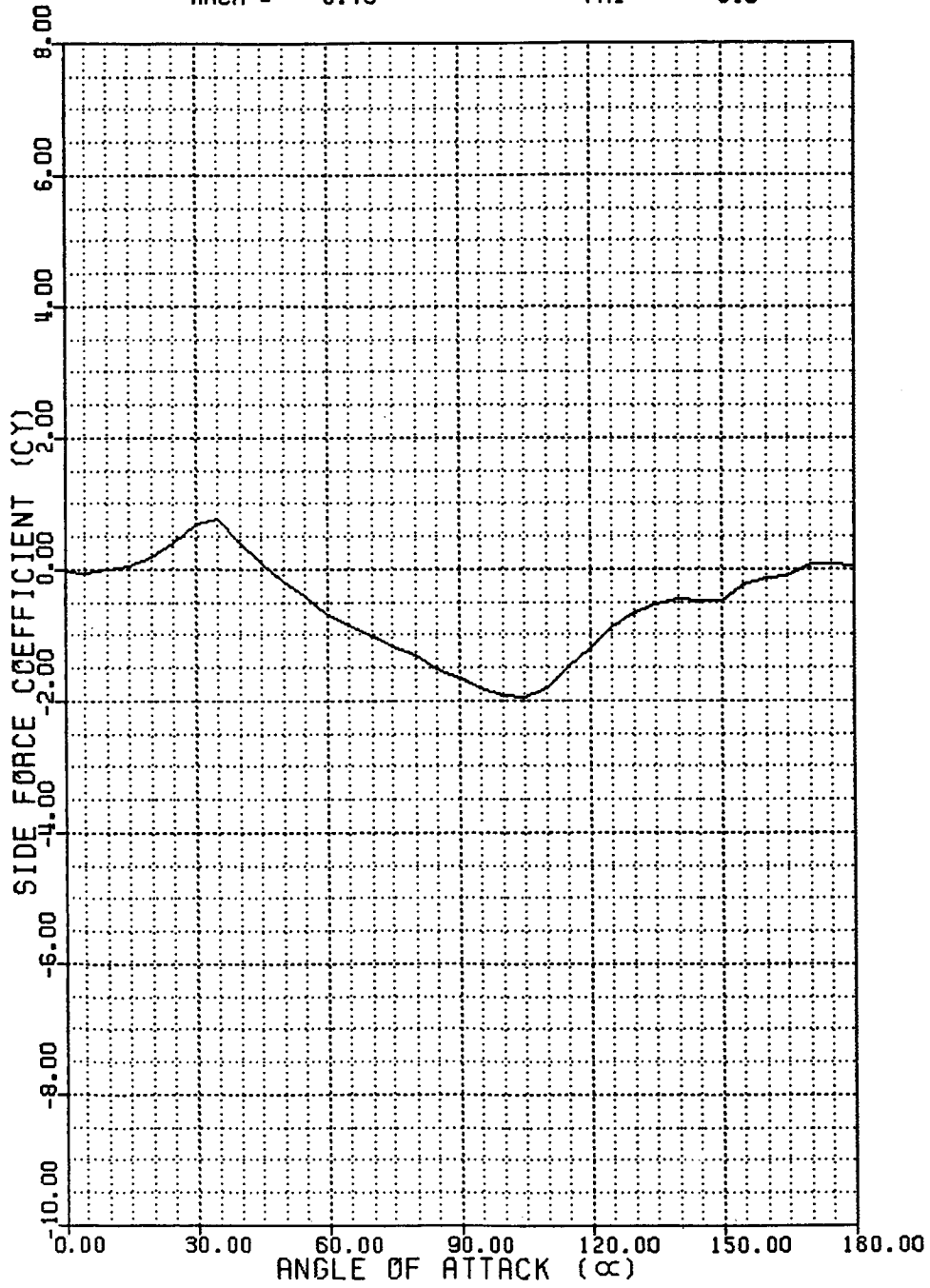
B-391

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 315



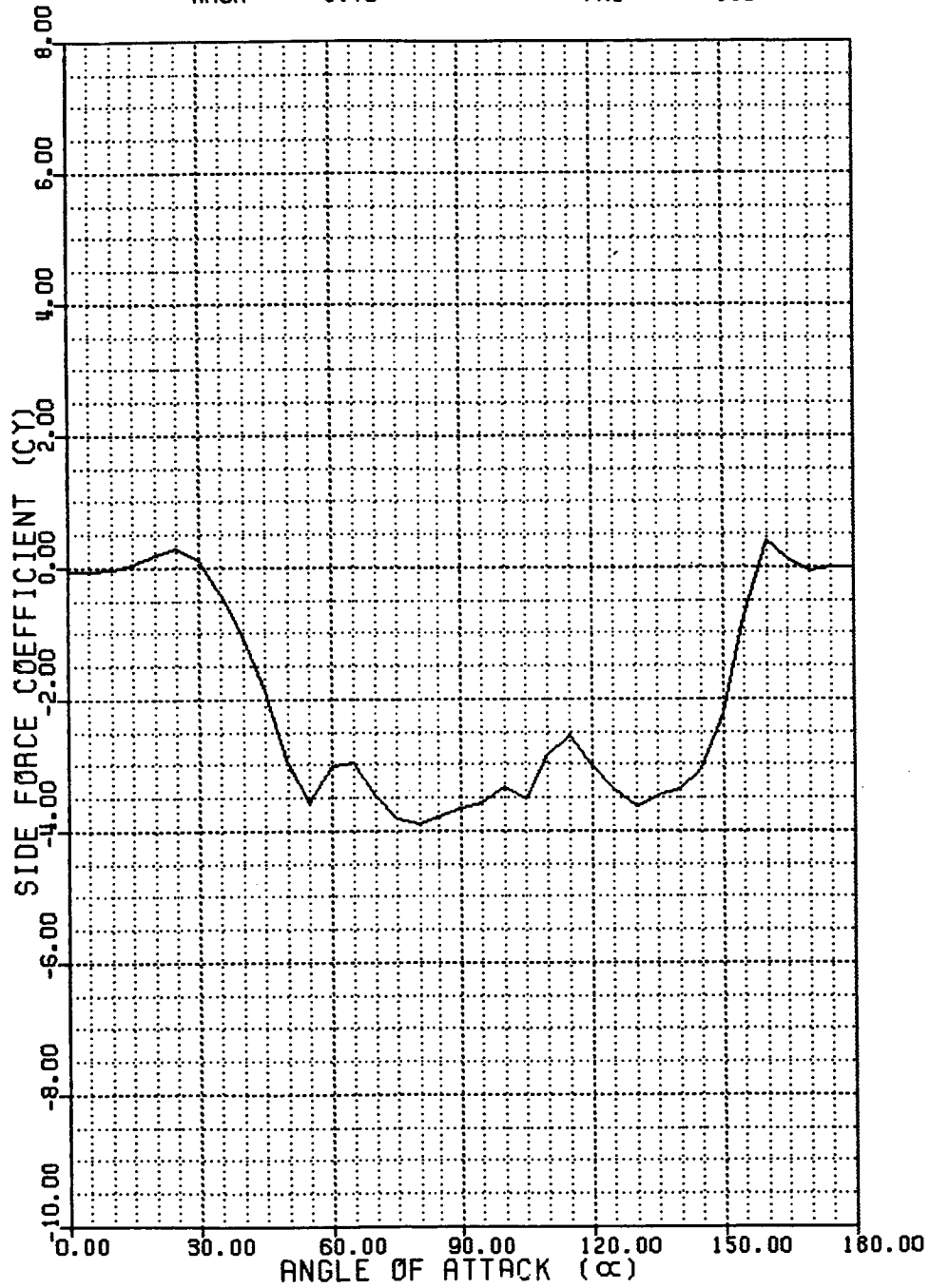
B-332

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 360

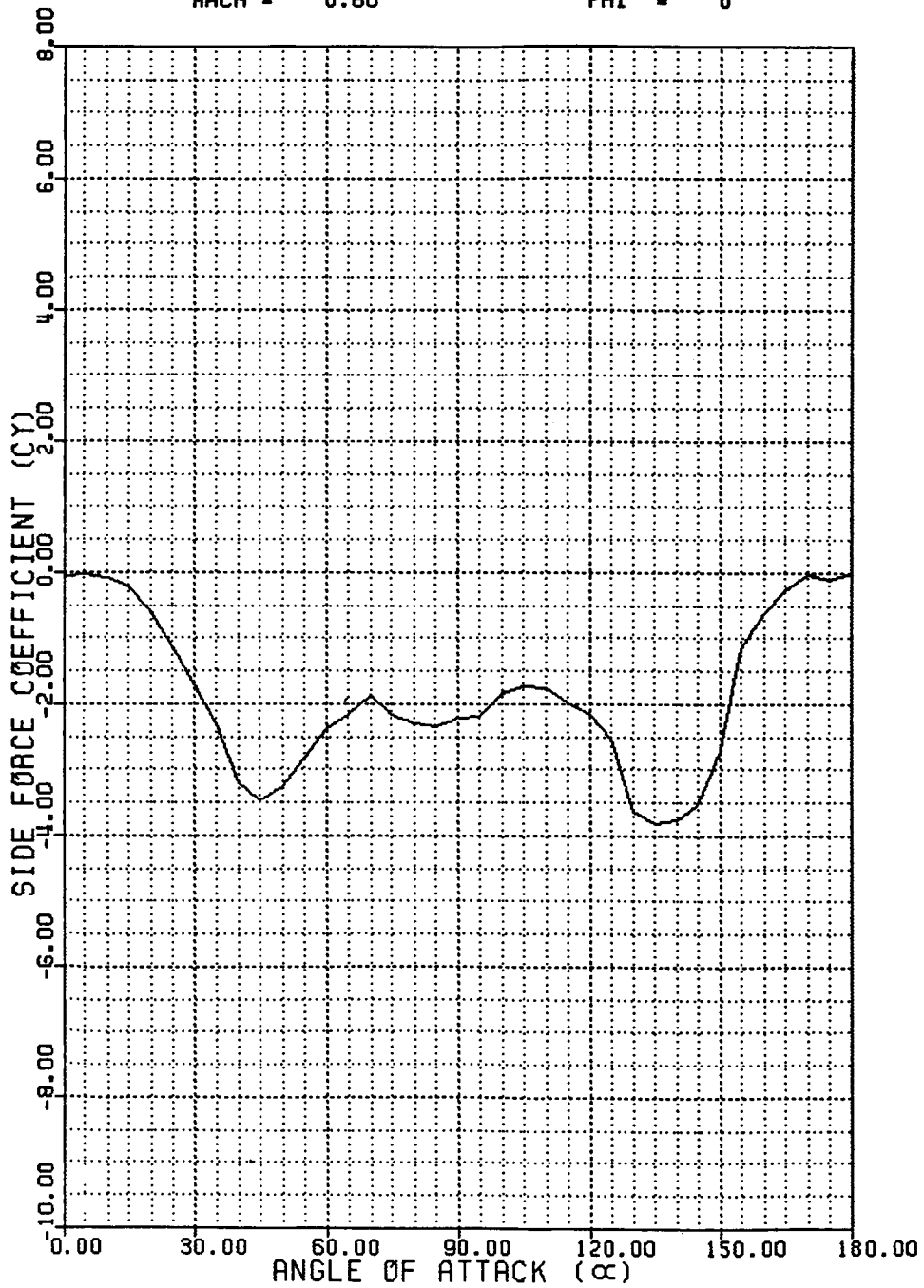


B-333

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 0



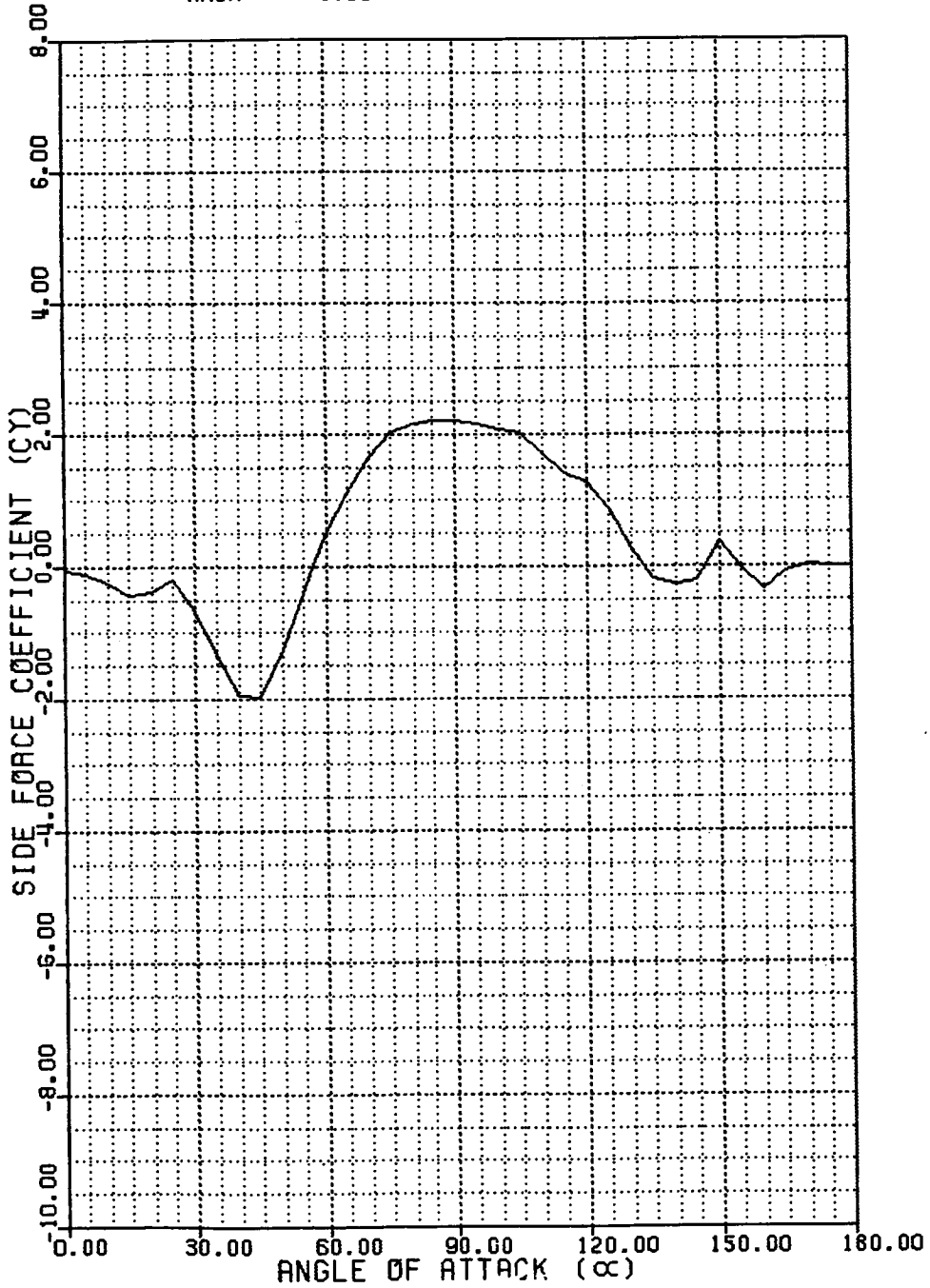
B-334

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 45

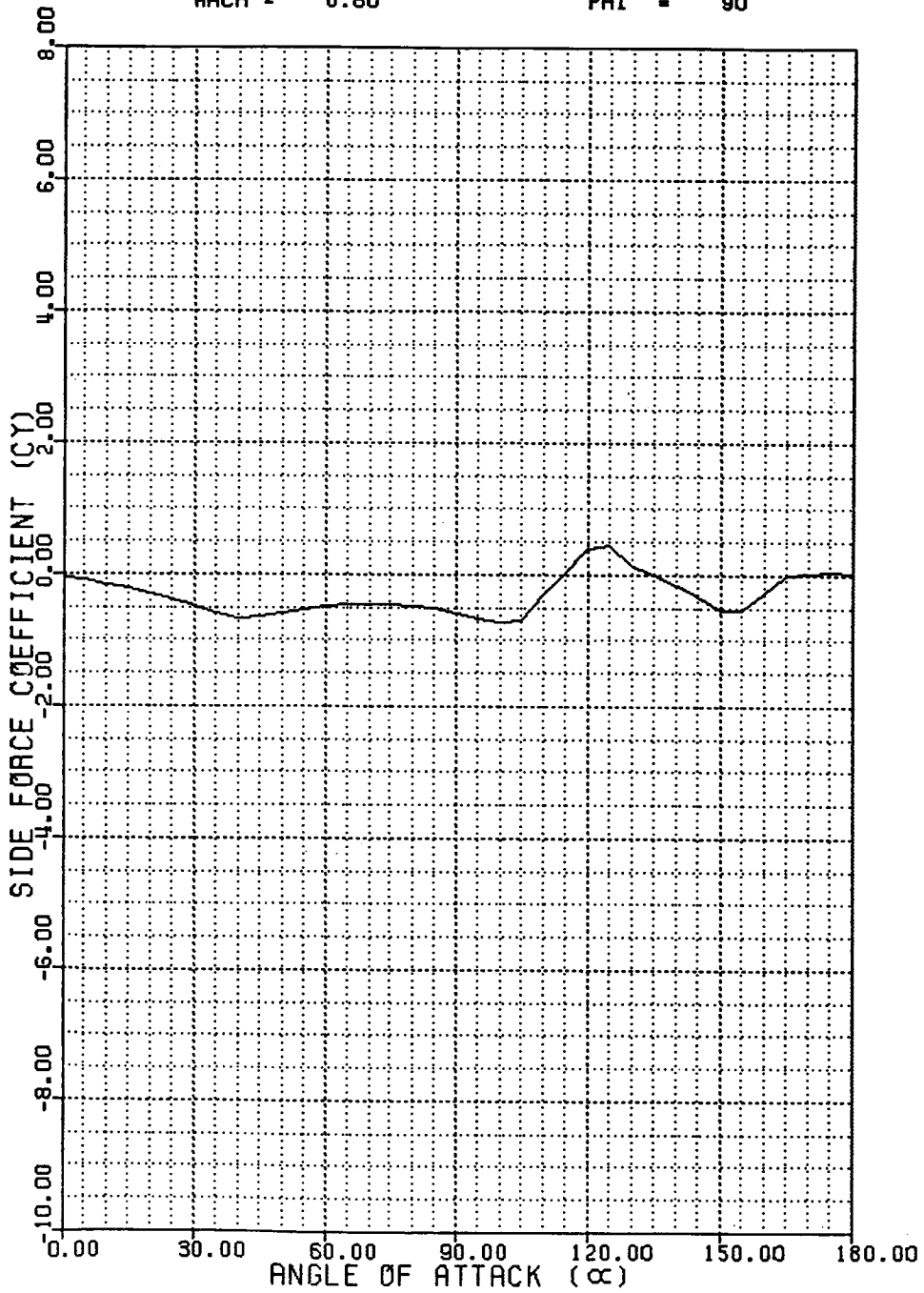


B-335

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 90



B-336

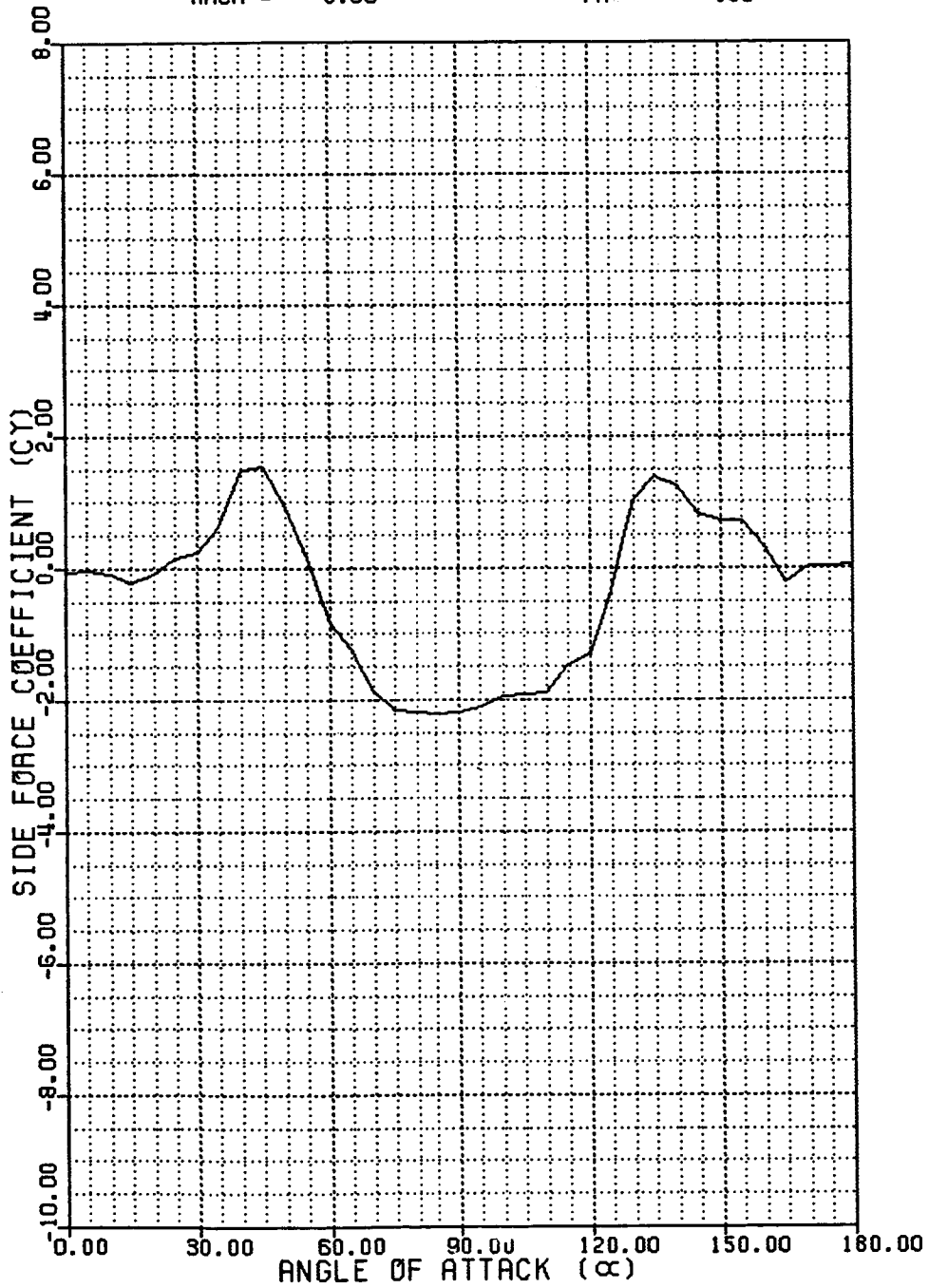
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 135

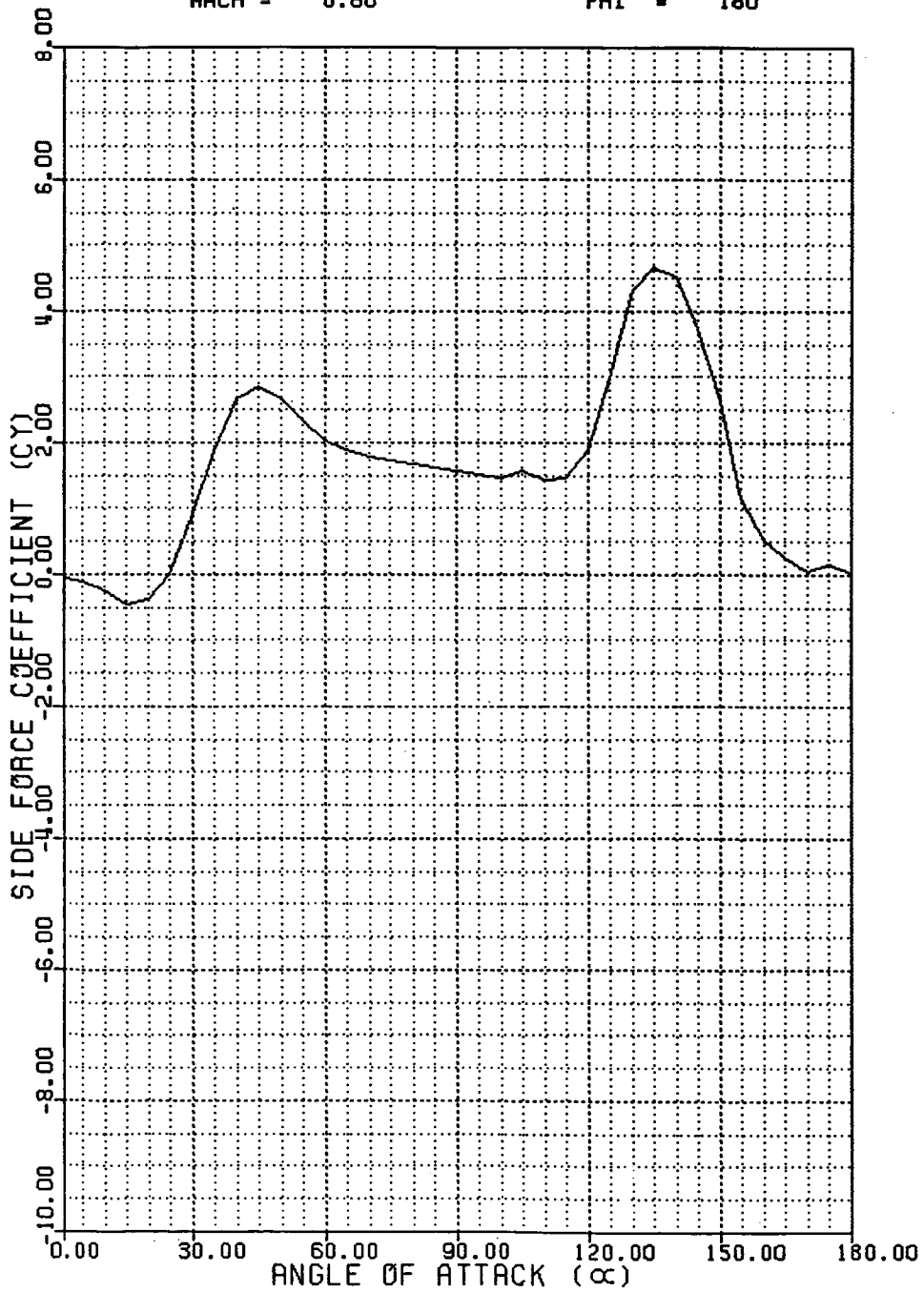


B-337

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 180



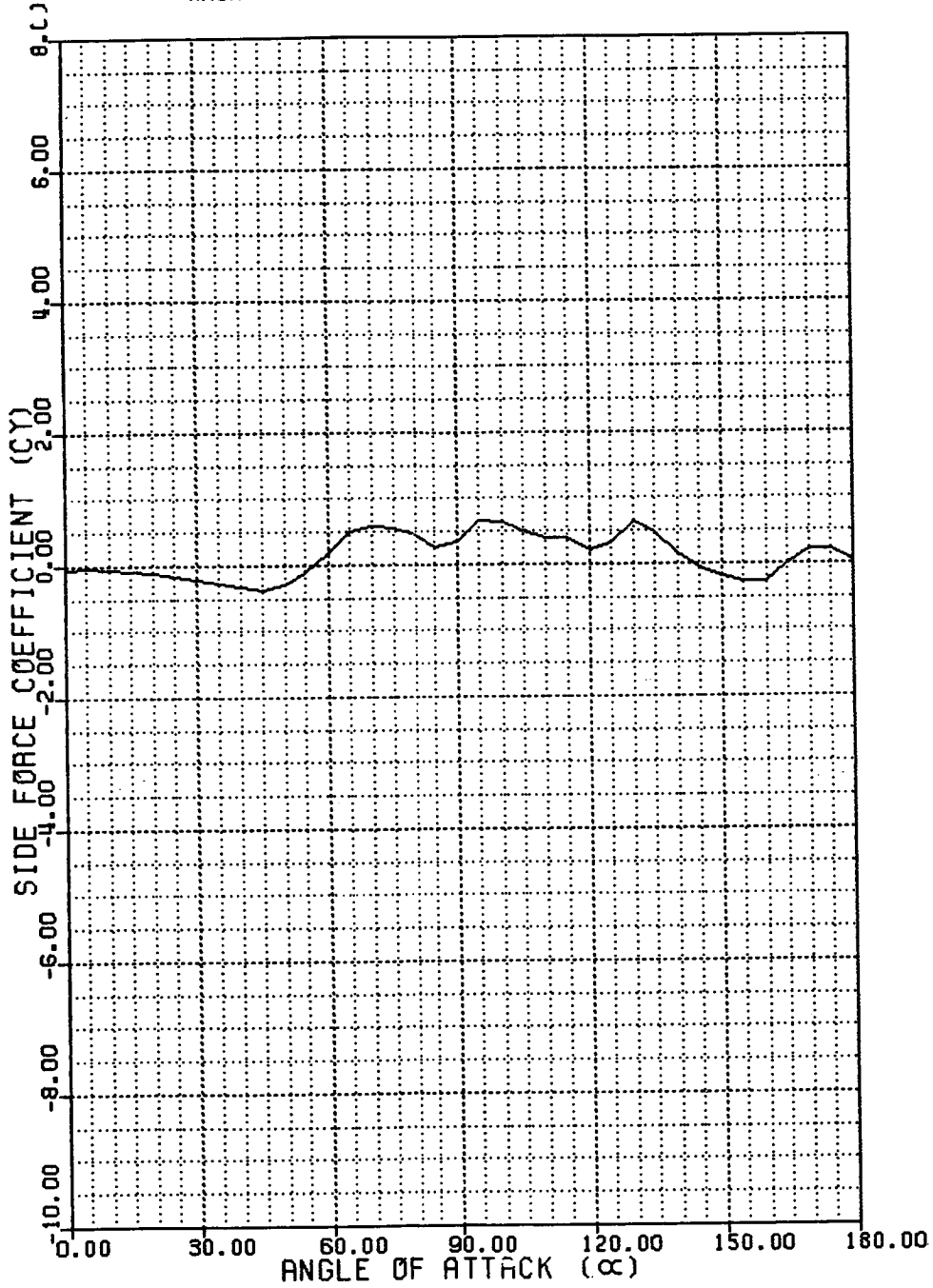
B-338

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 225

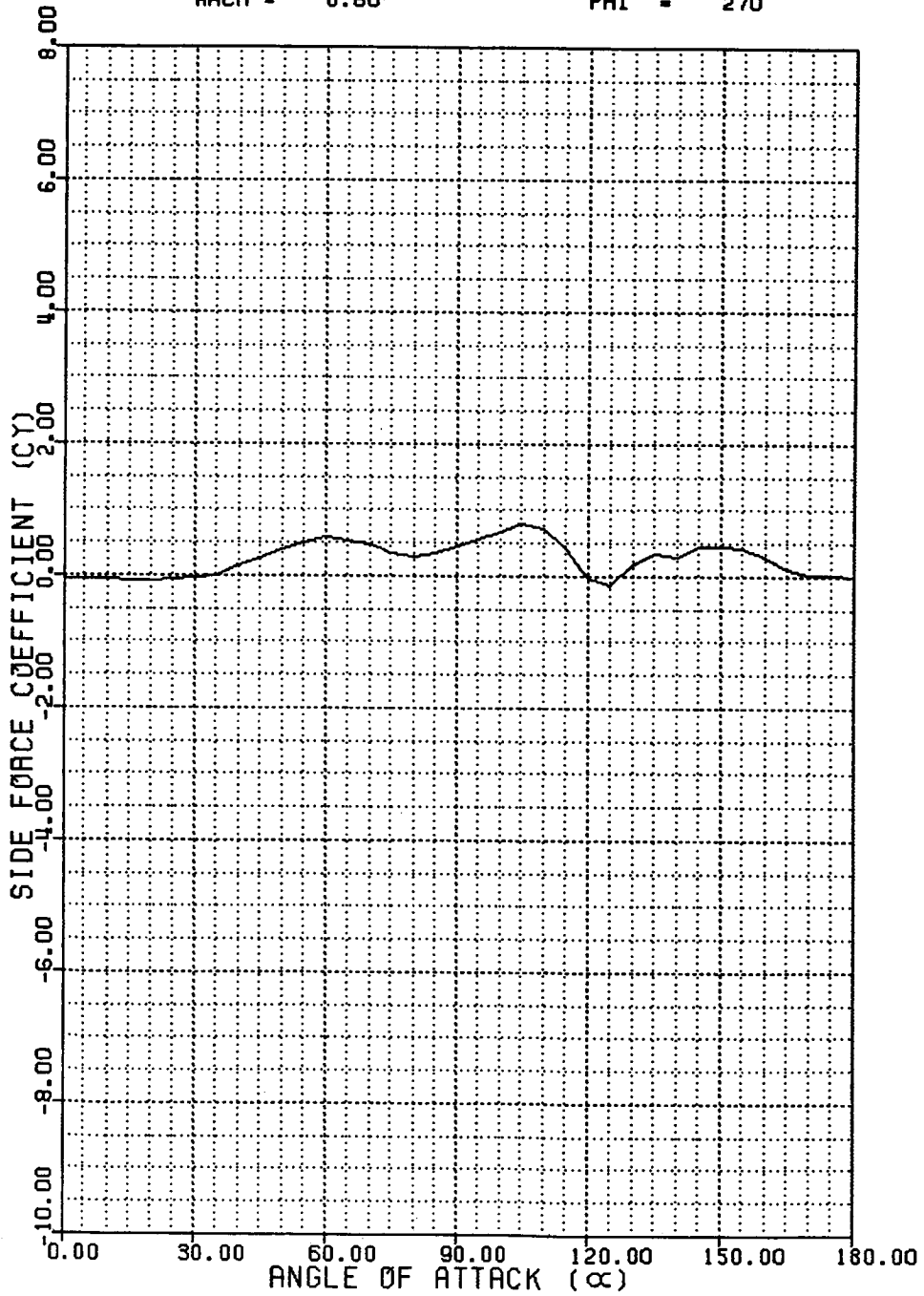


B-399

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270



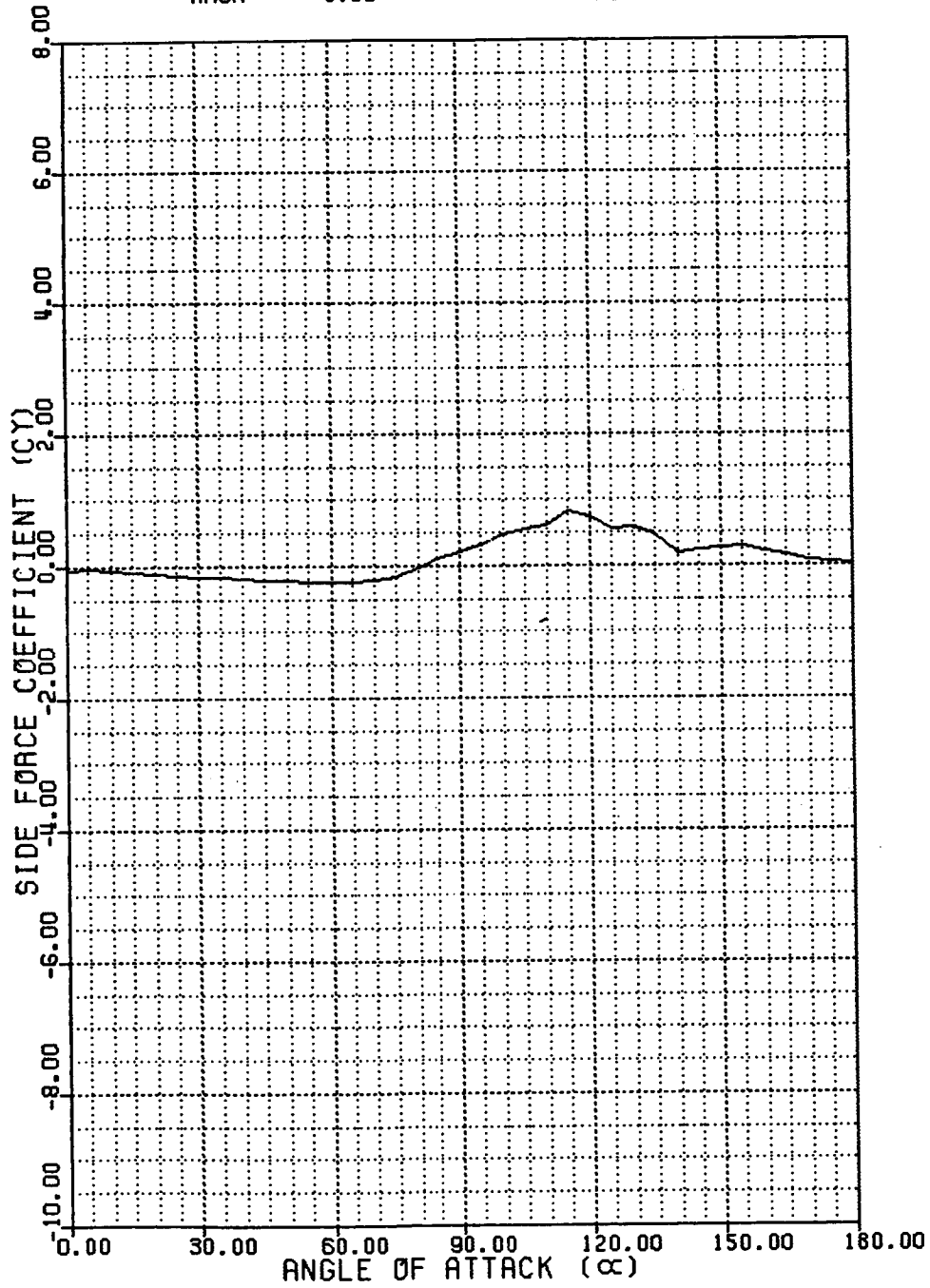
B-340

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 315



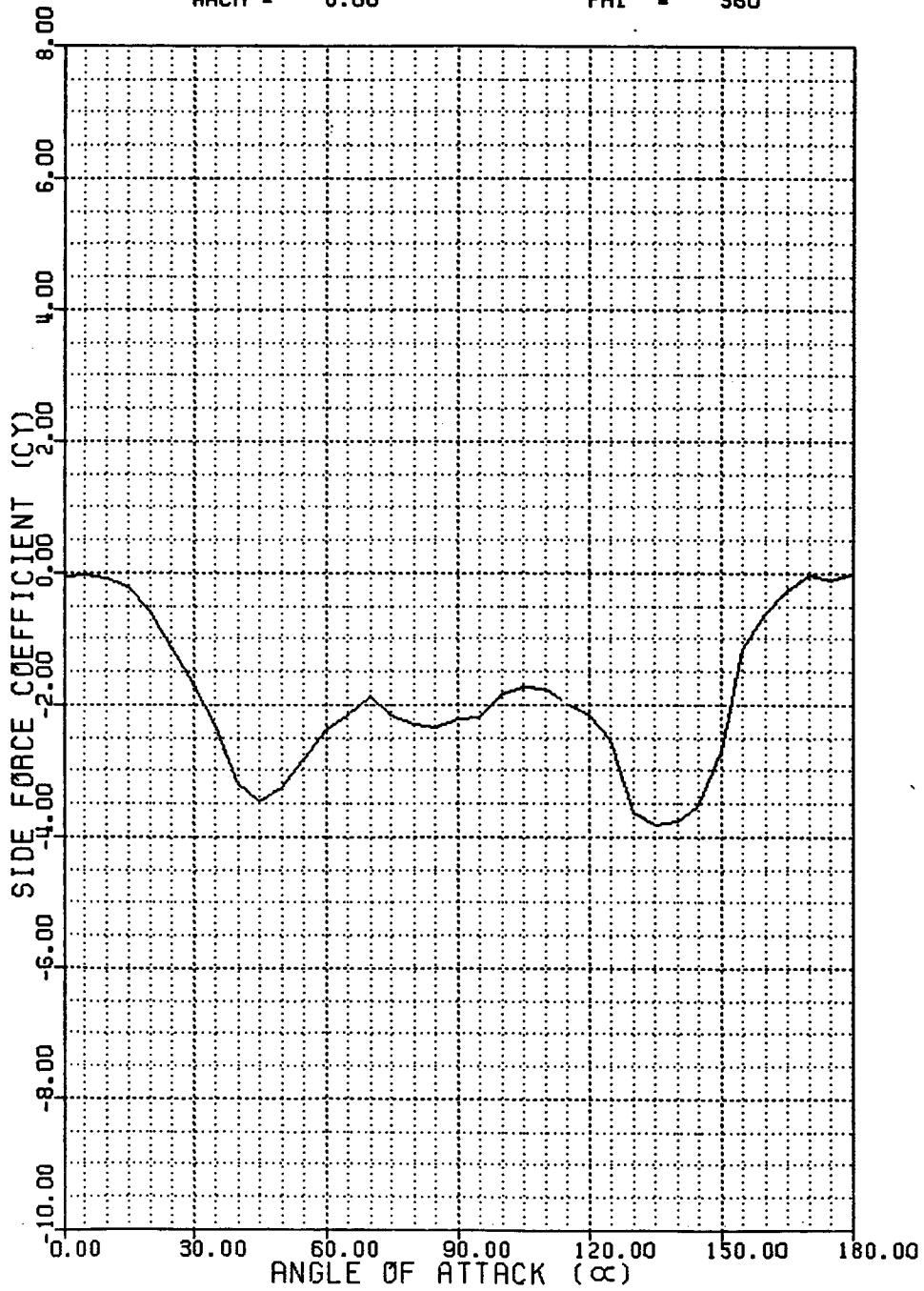
B-341

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360

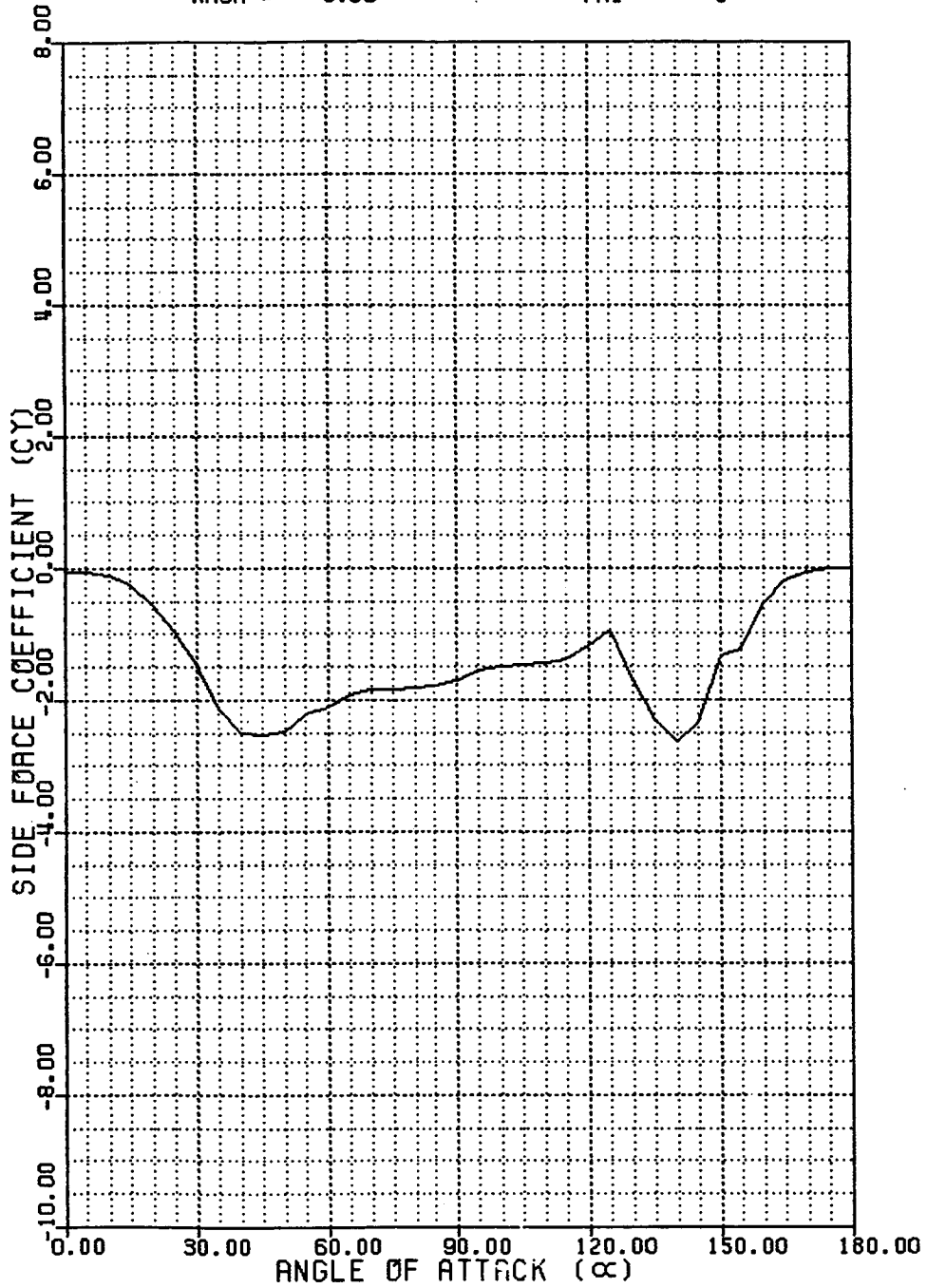


B-342

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0

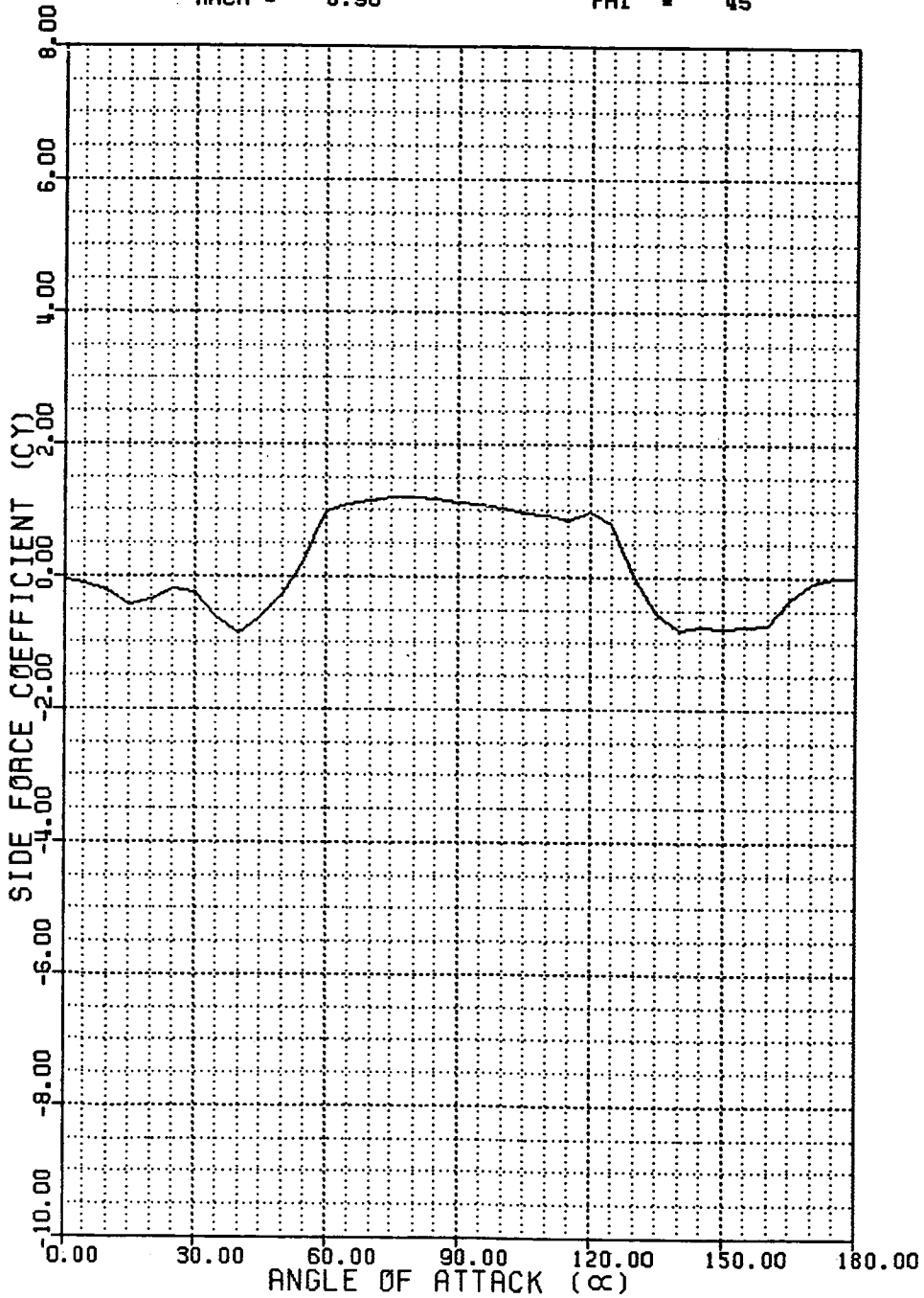


B-943

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45



B-344

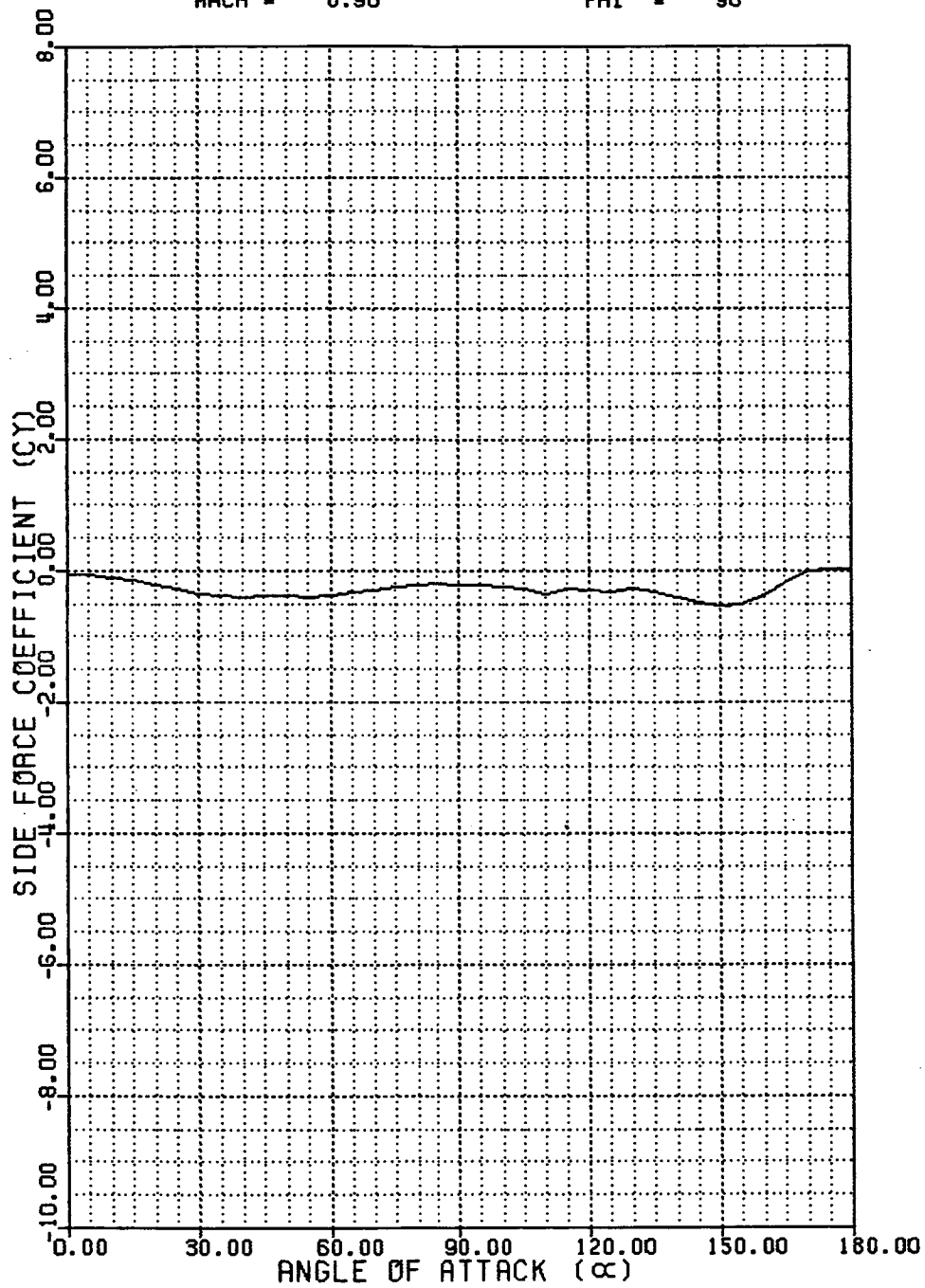
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 90



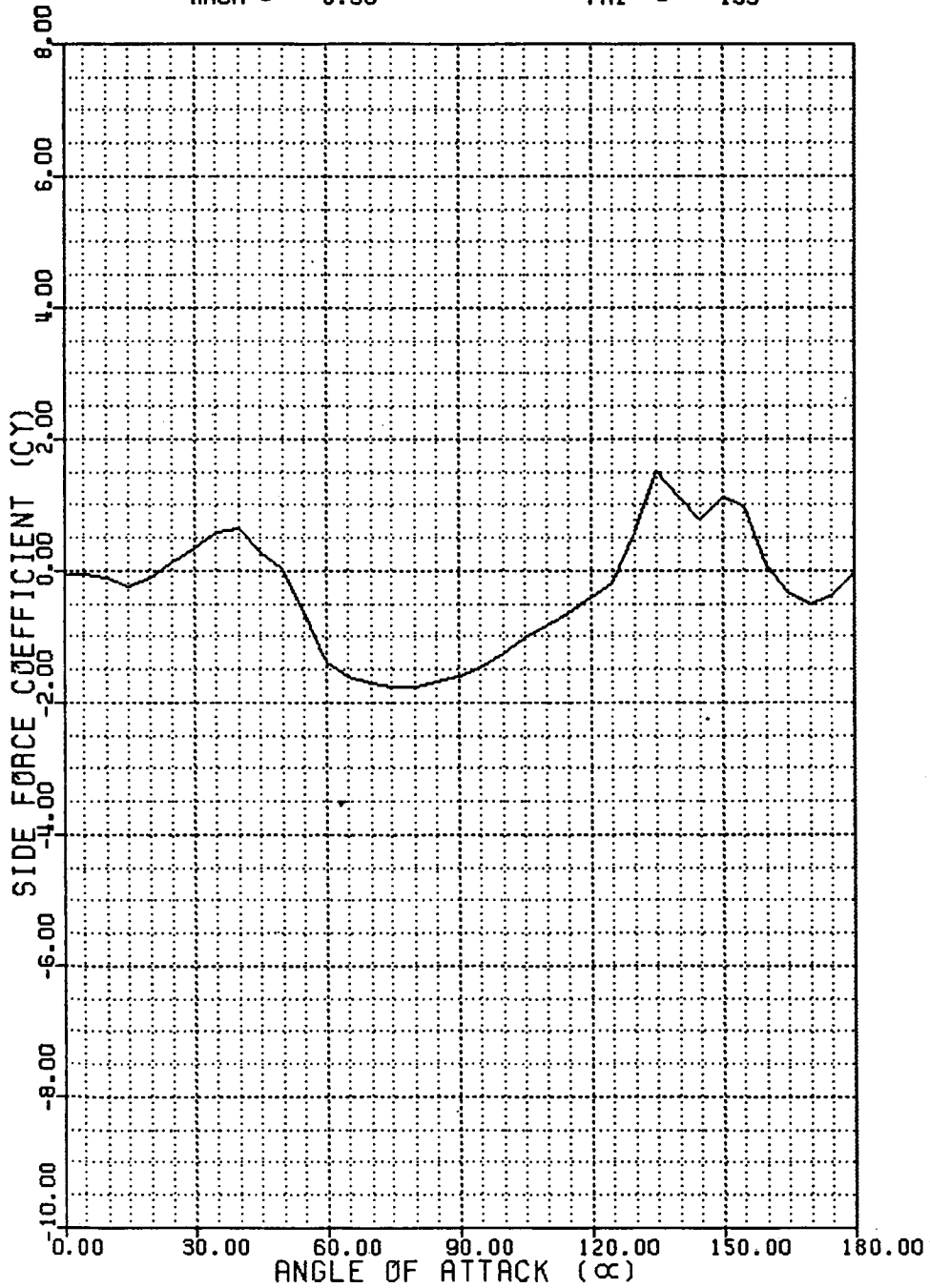
B-945

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135



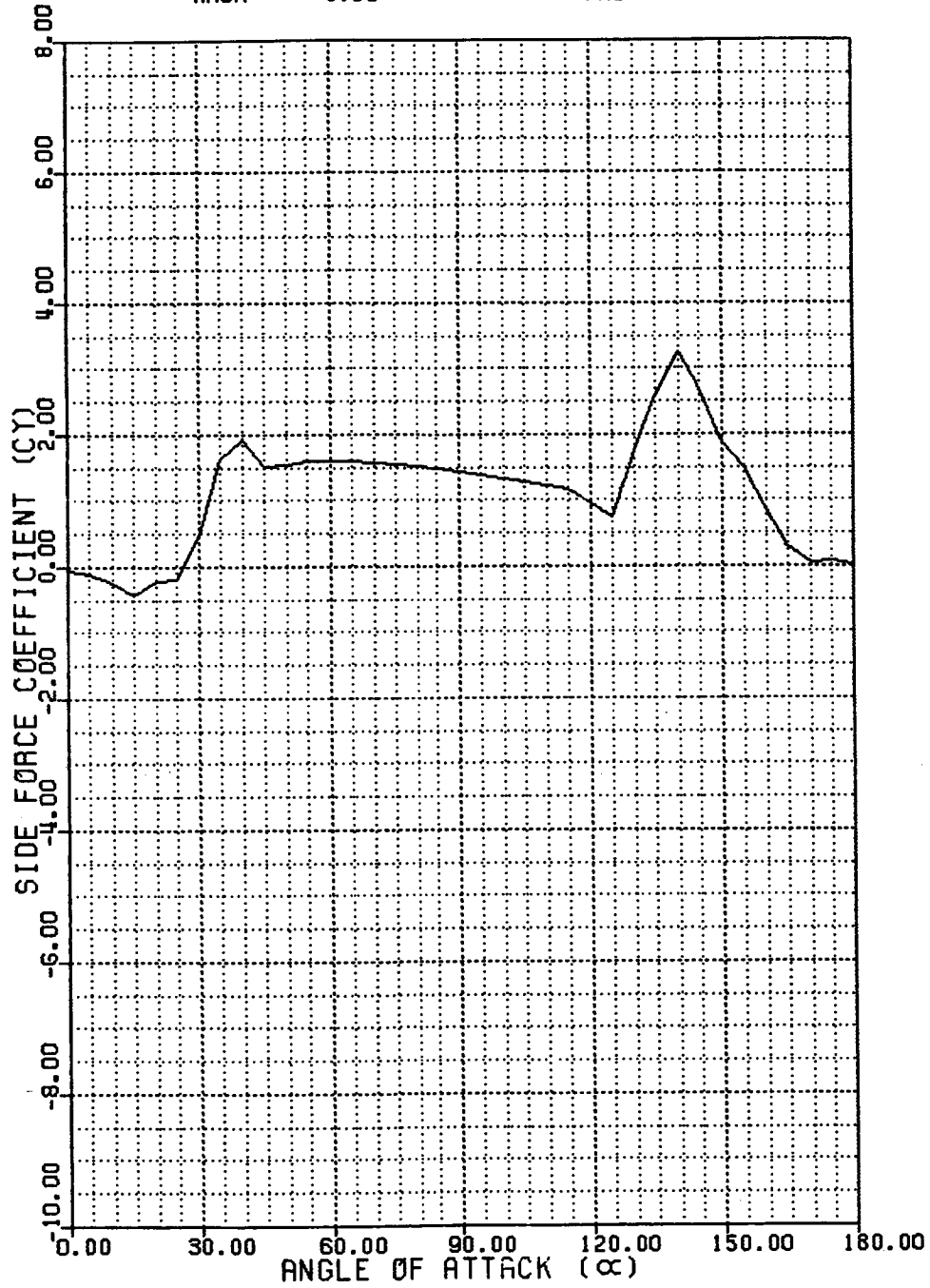
B-346

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180

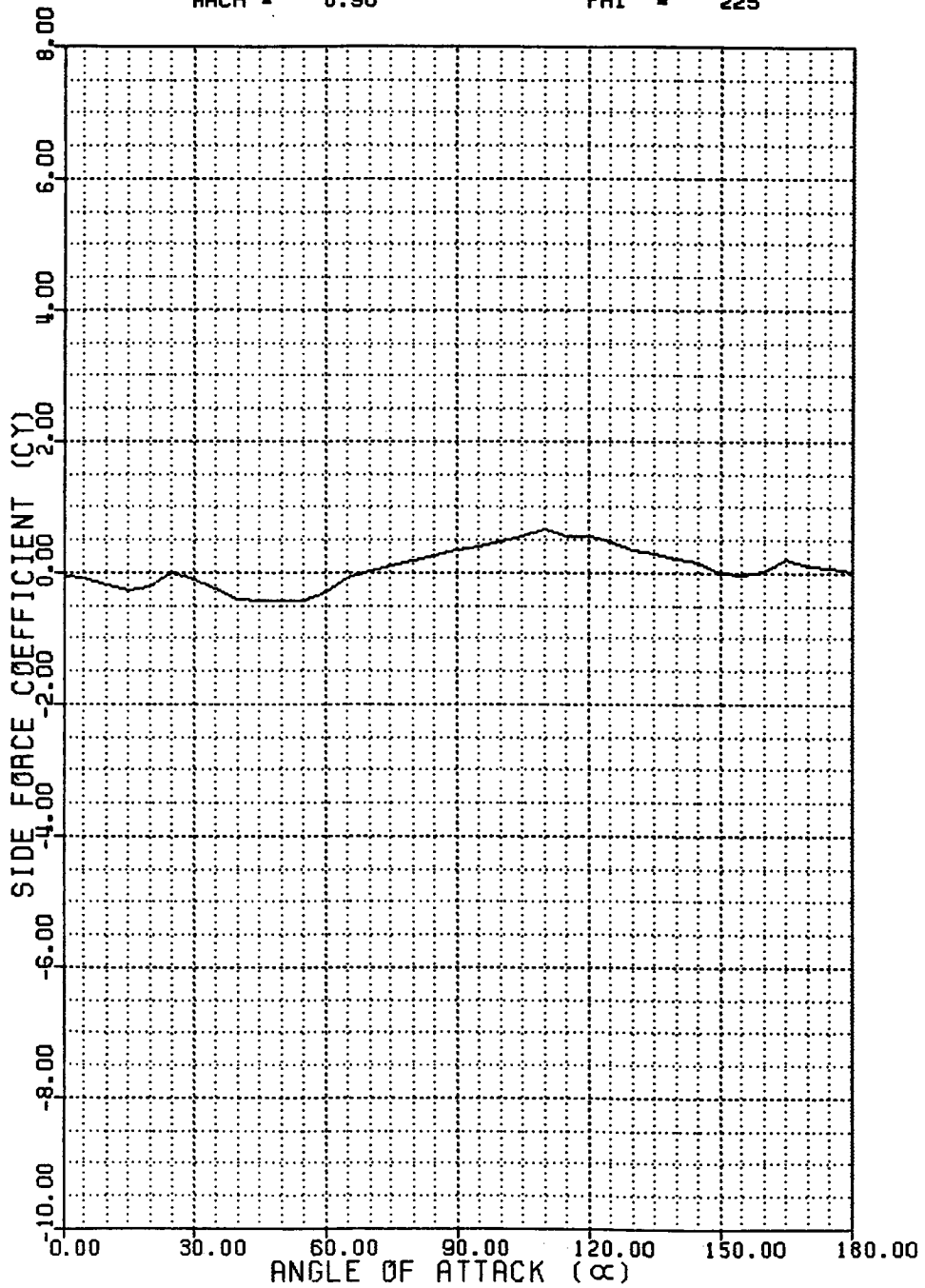


B-947

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225



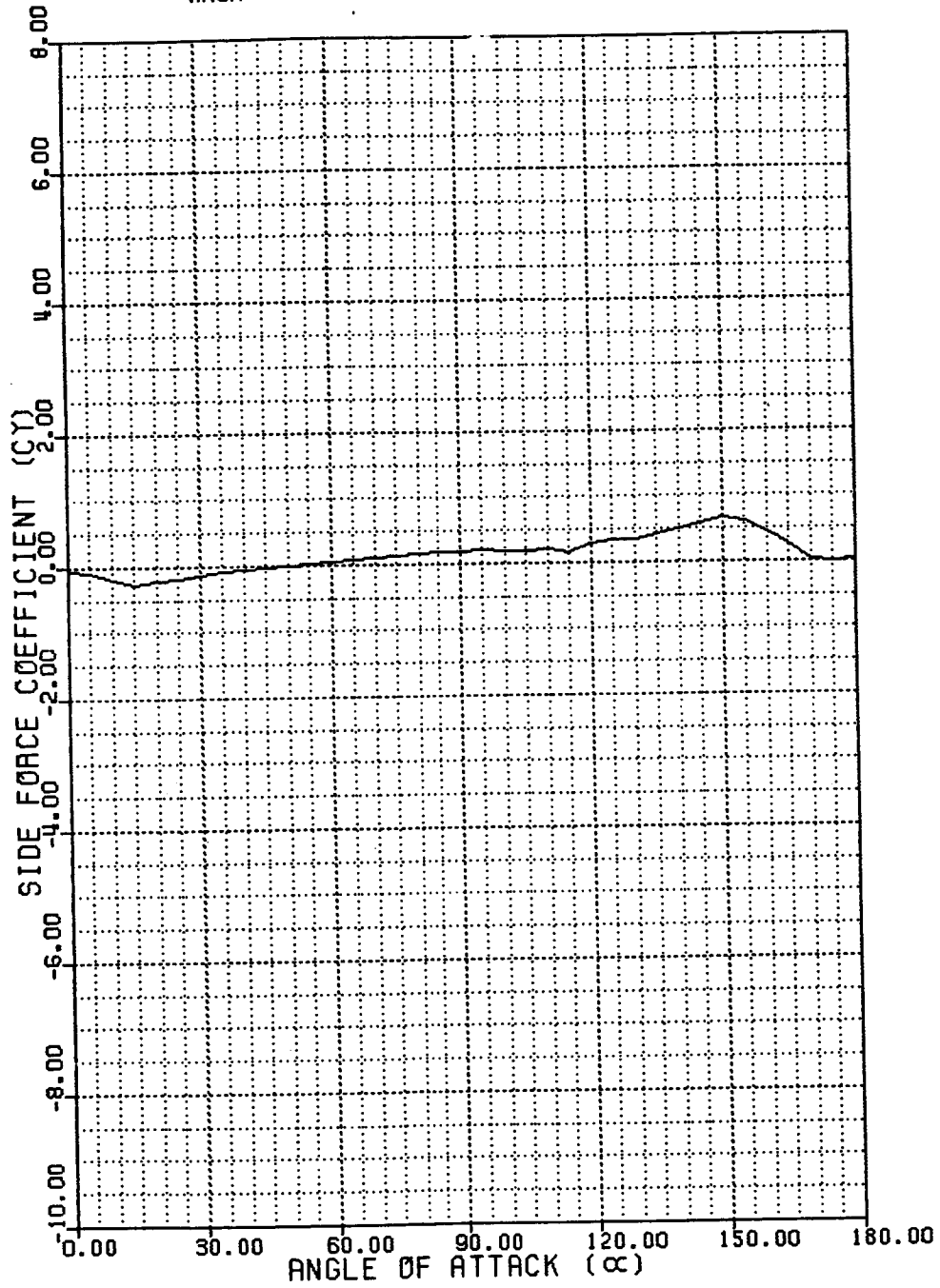
B-348

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270

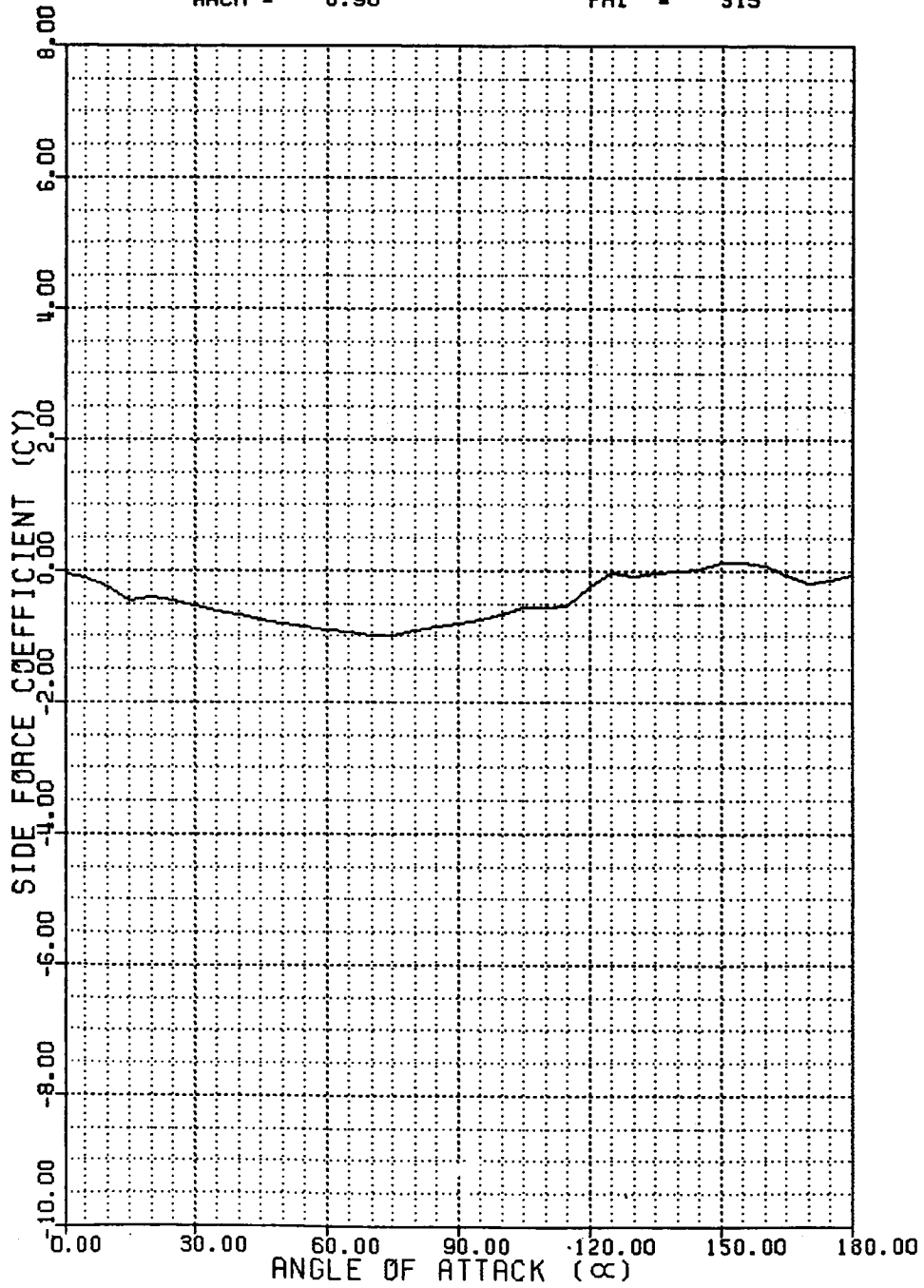


B-349

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 315



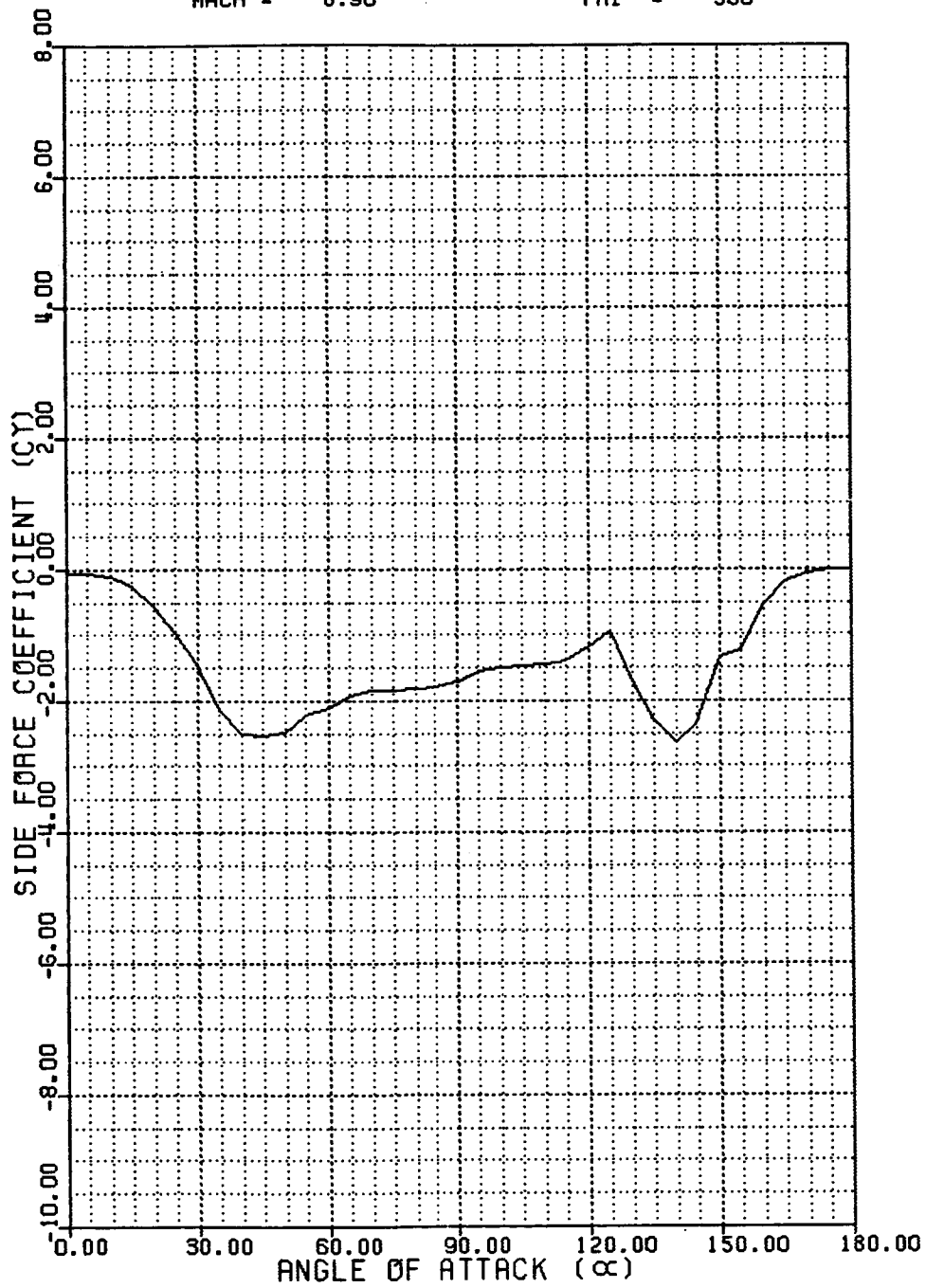
B-350

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360



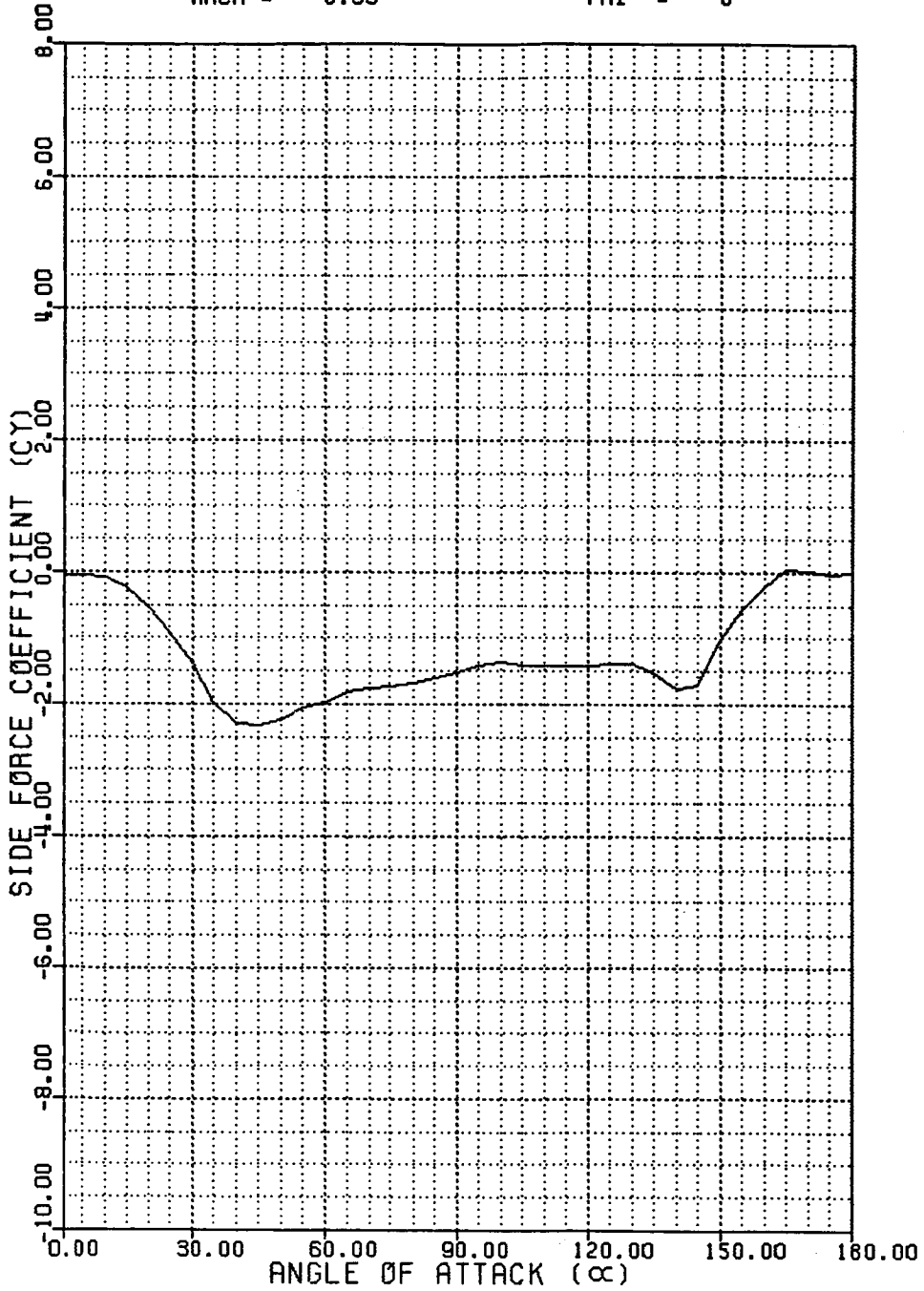
B-951

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0



B-352

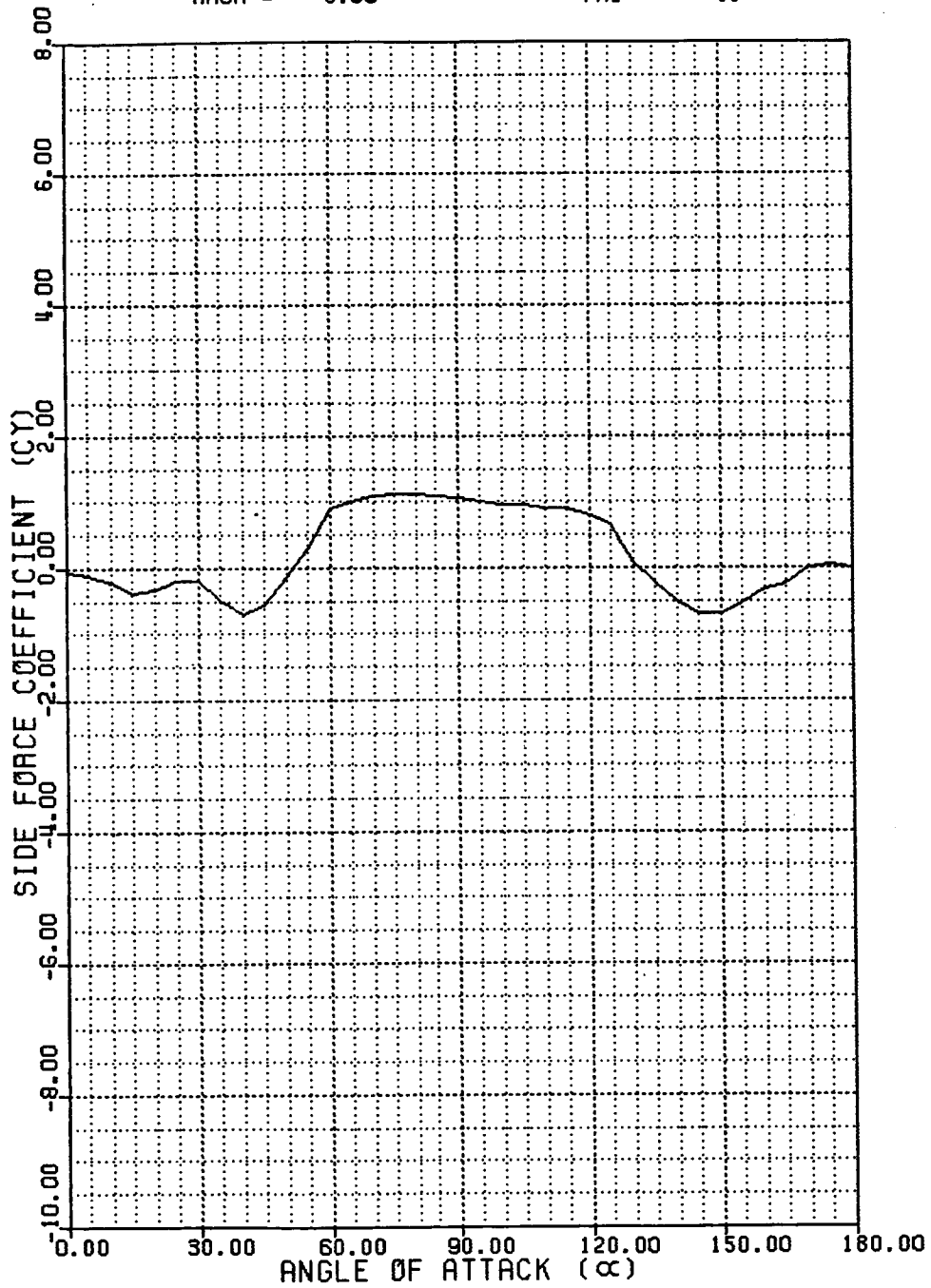
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45



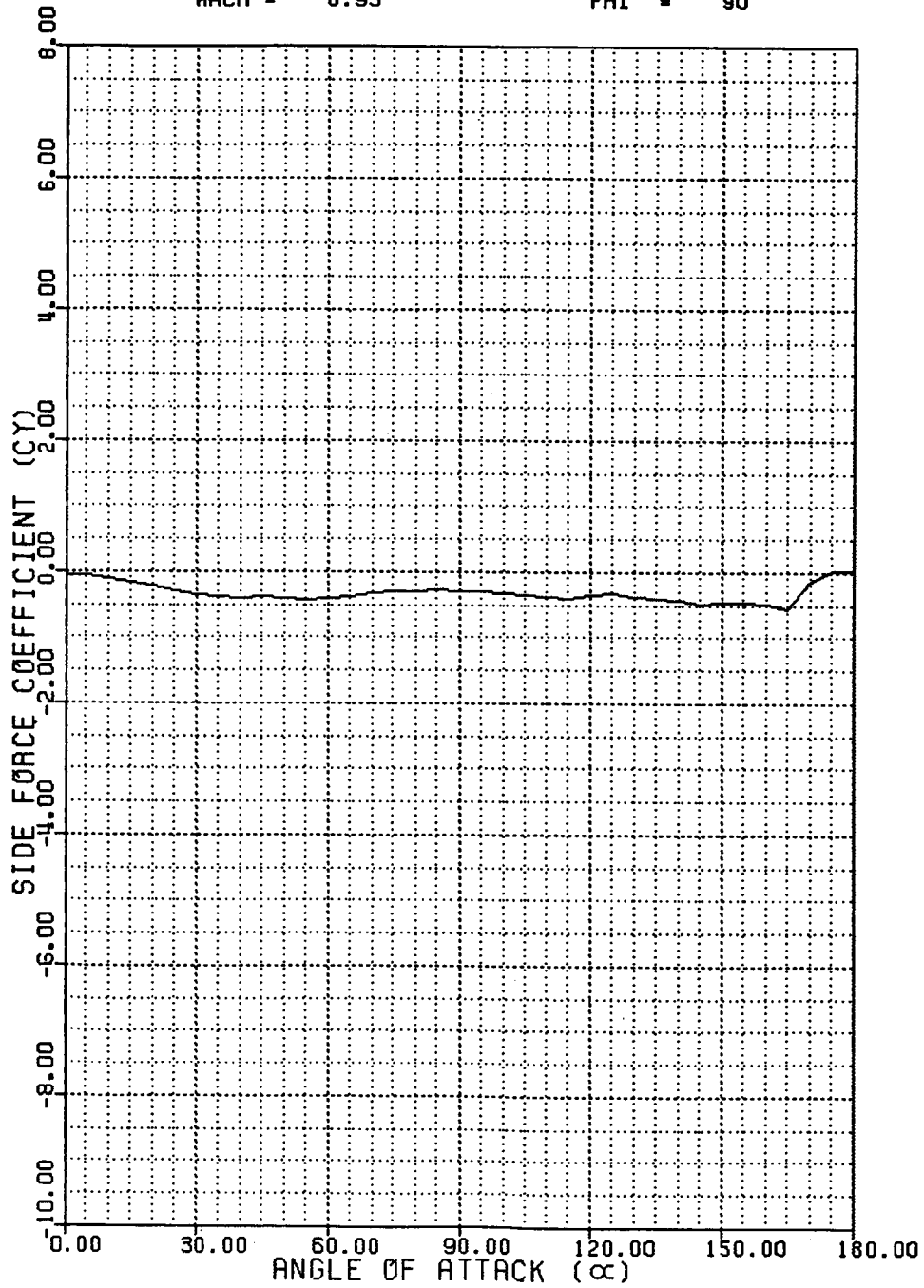
B-953

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90



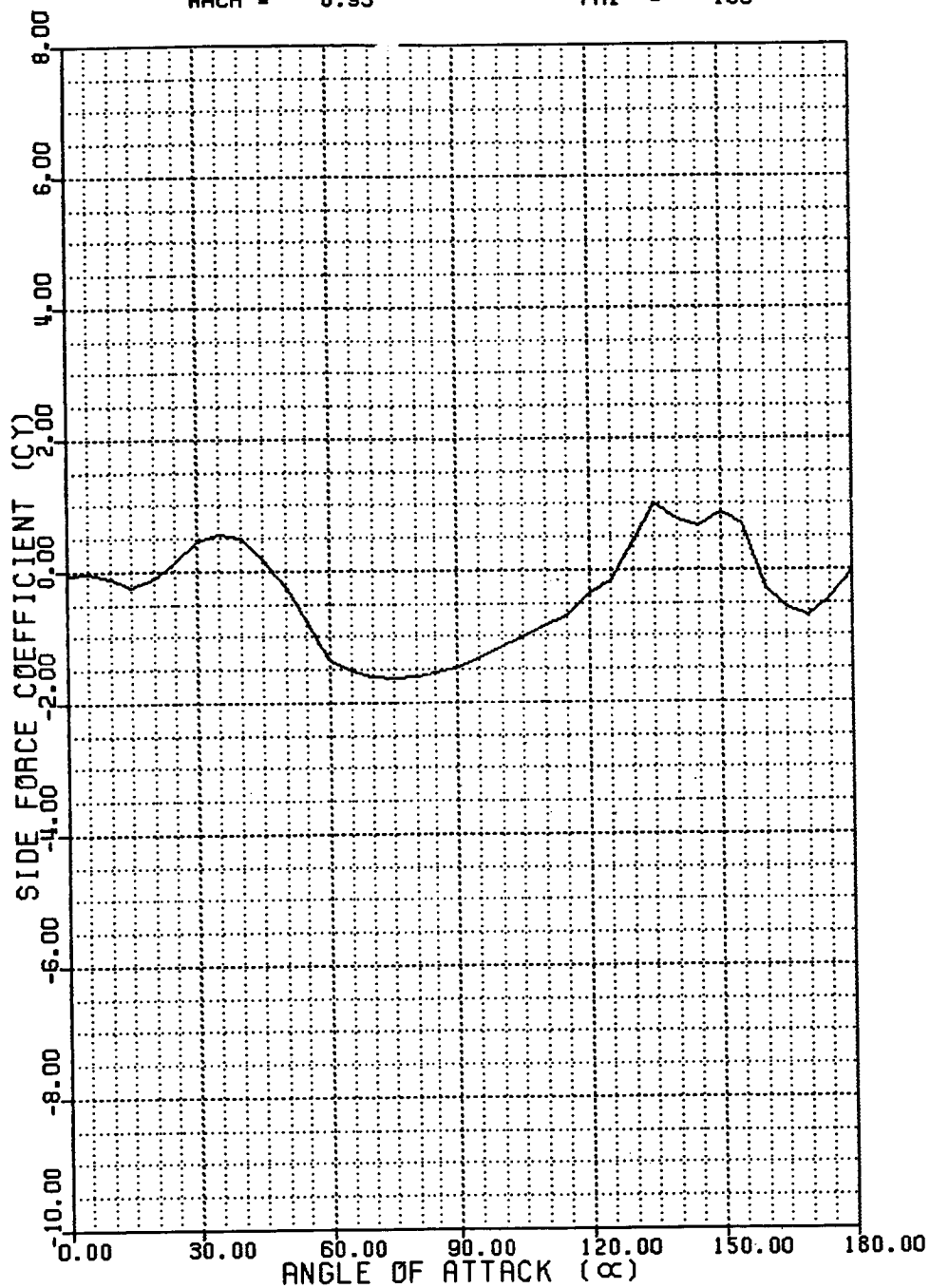
B-354

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135

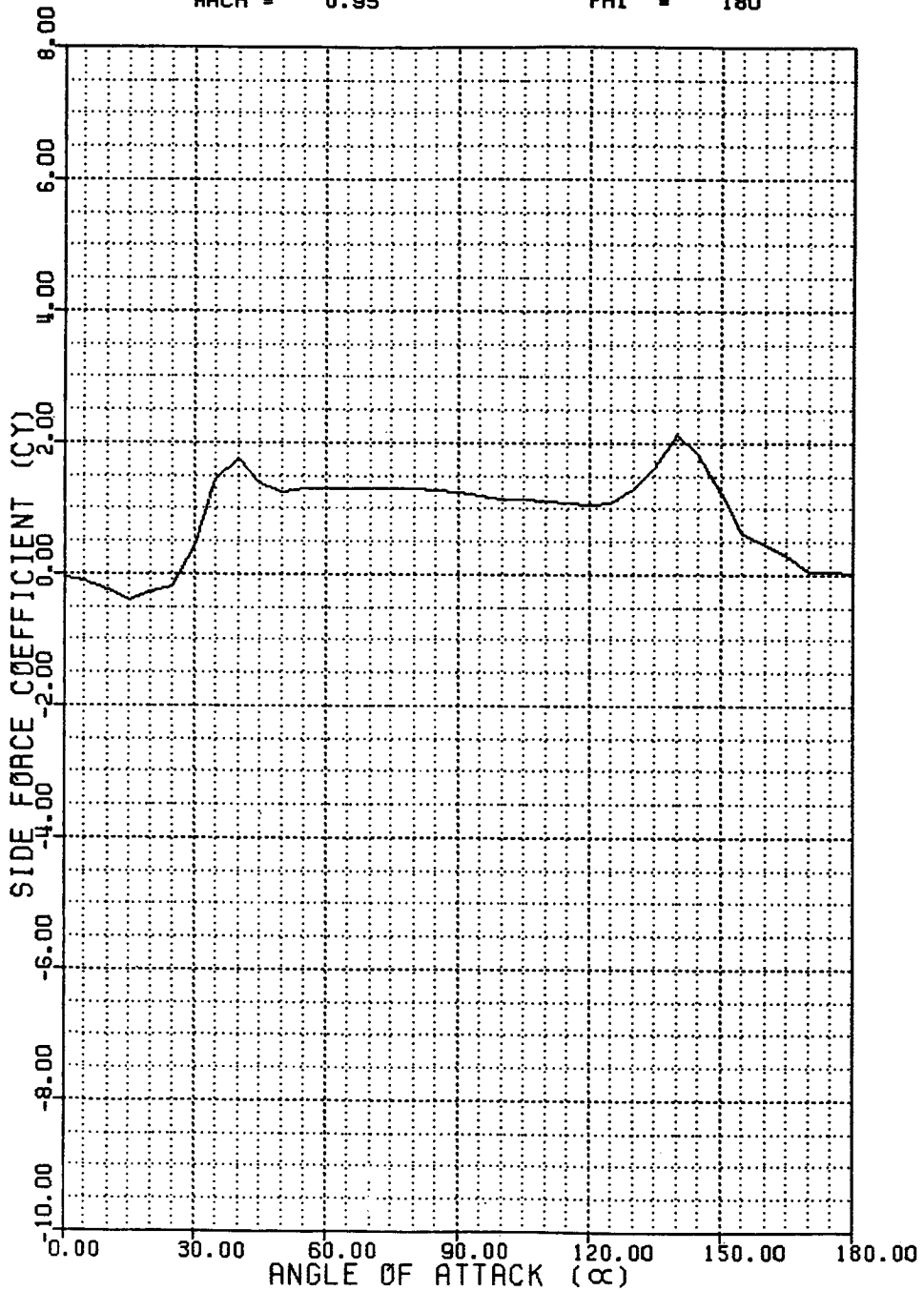


B-355

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180



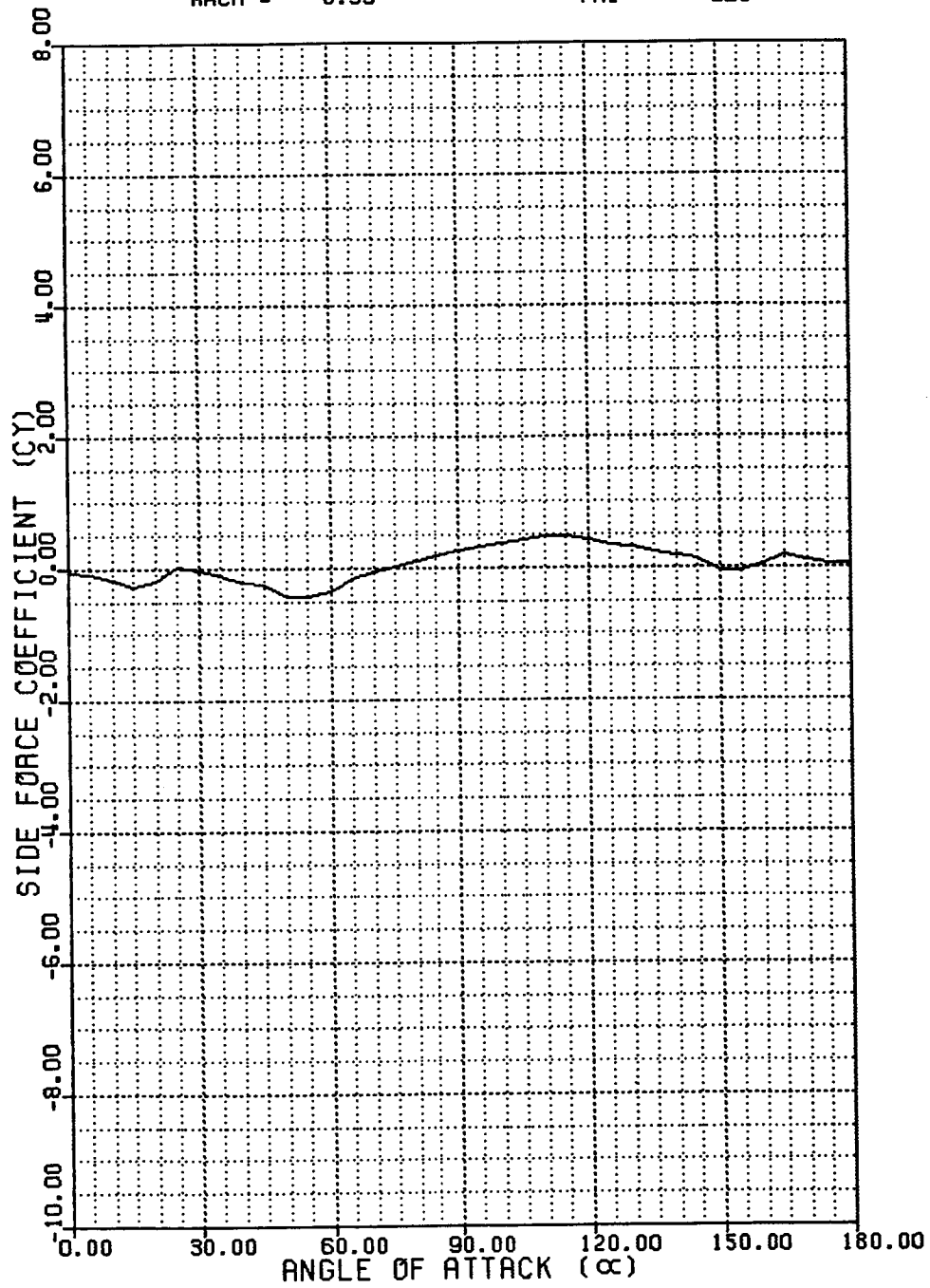
B-356

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 225

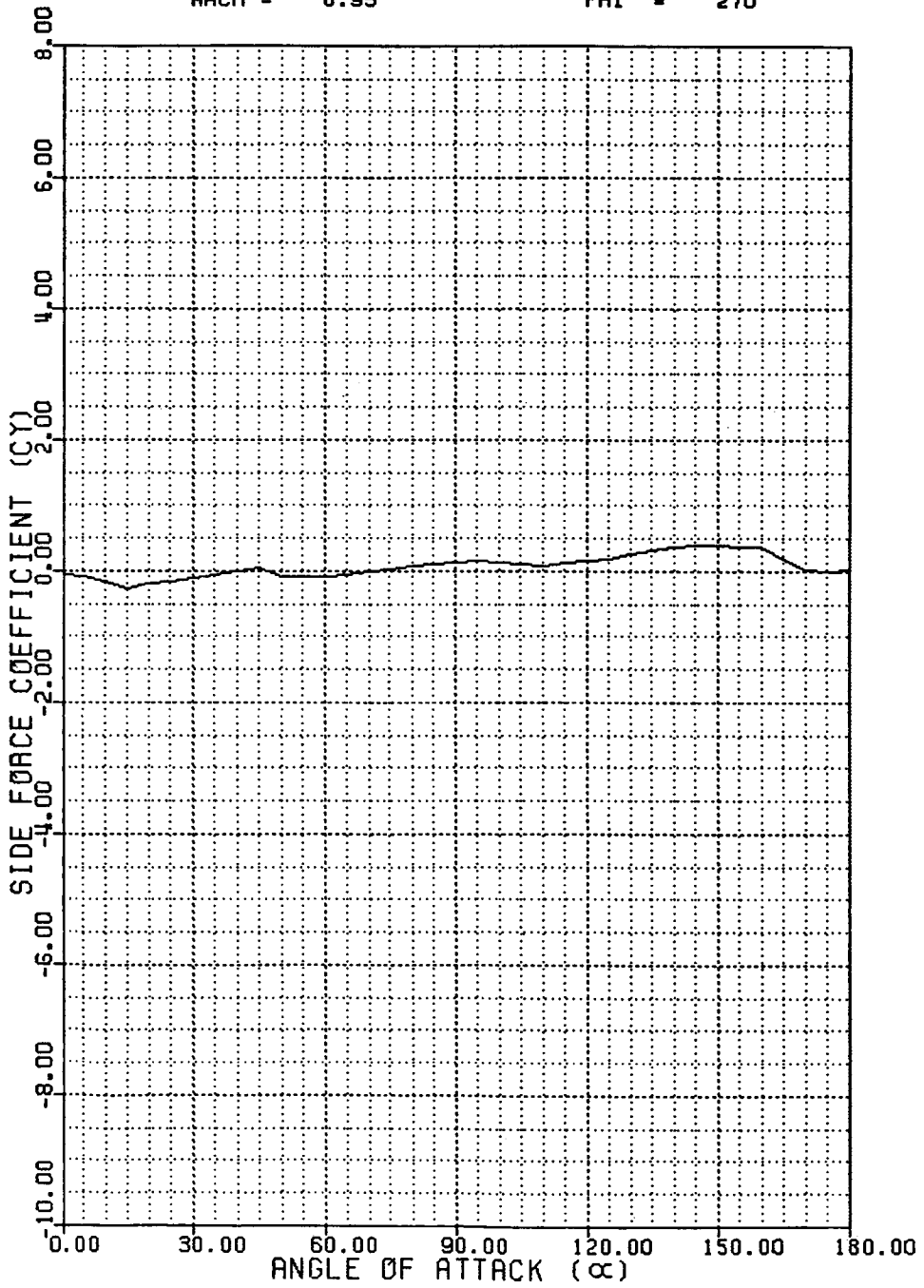


B-357

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270

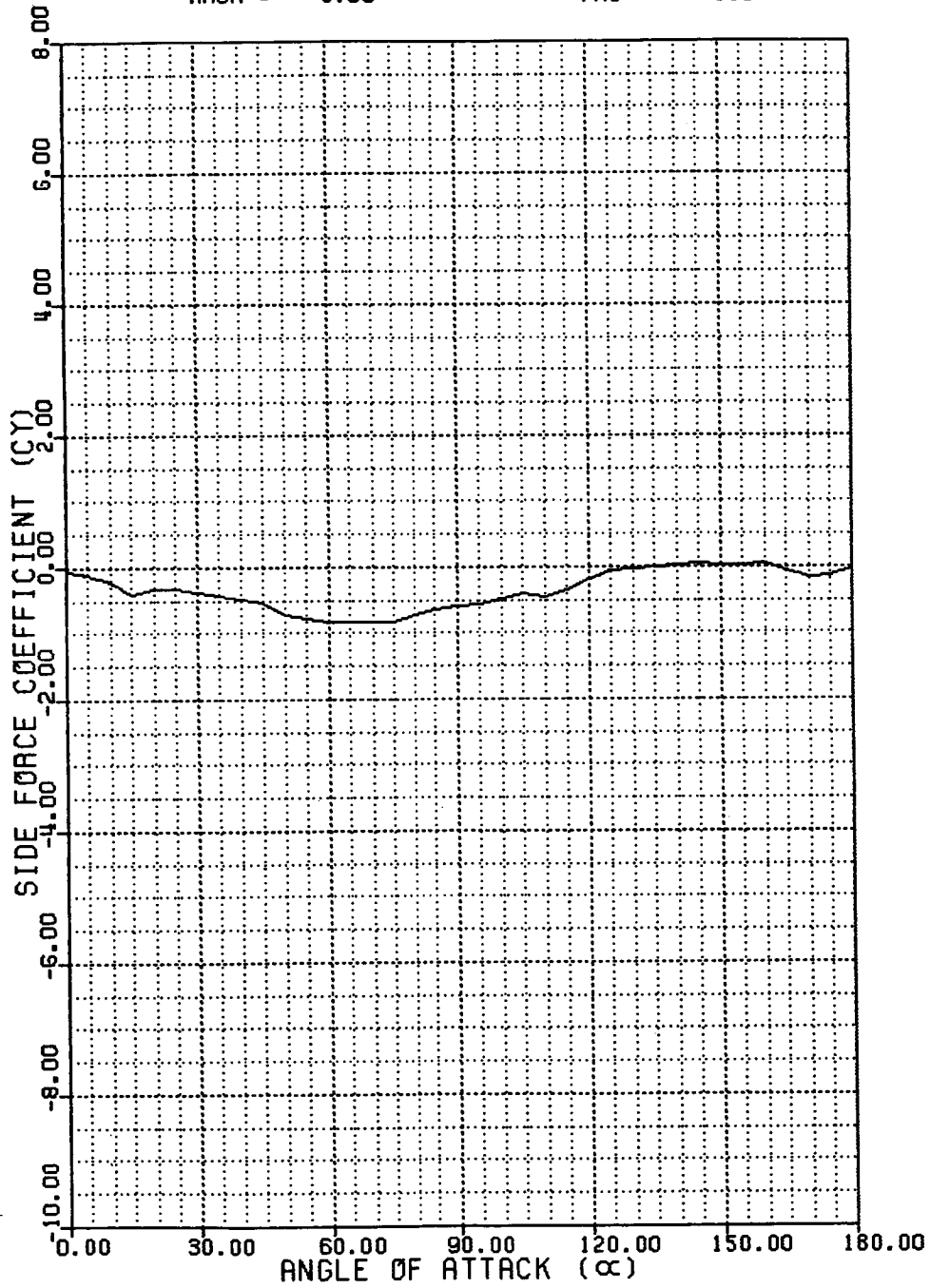


B-358

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 315

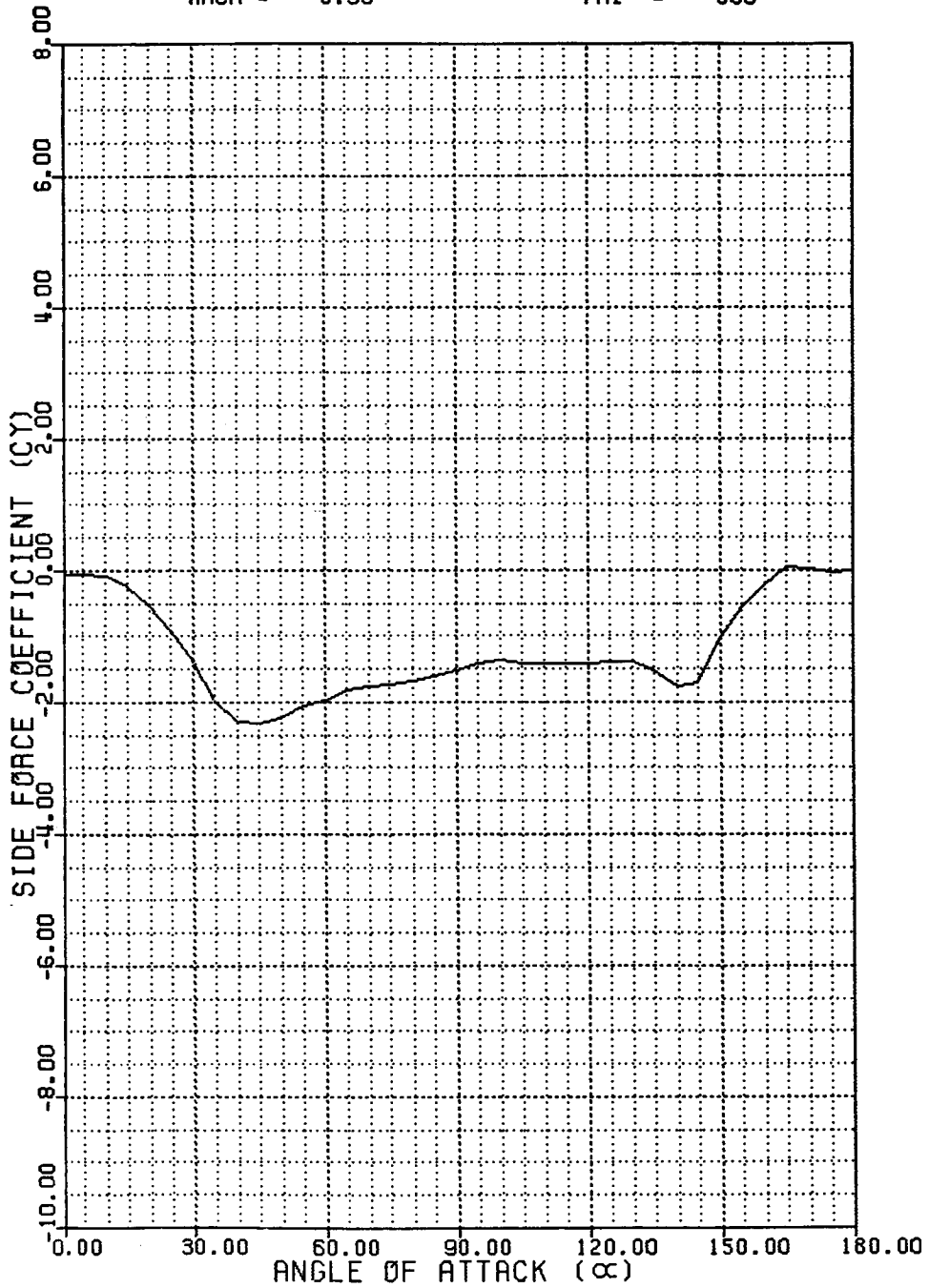


B-359

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360



B-360

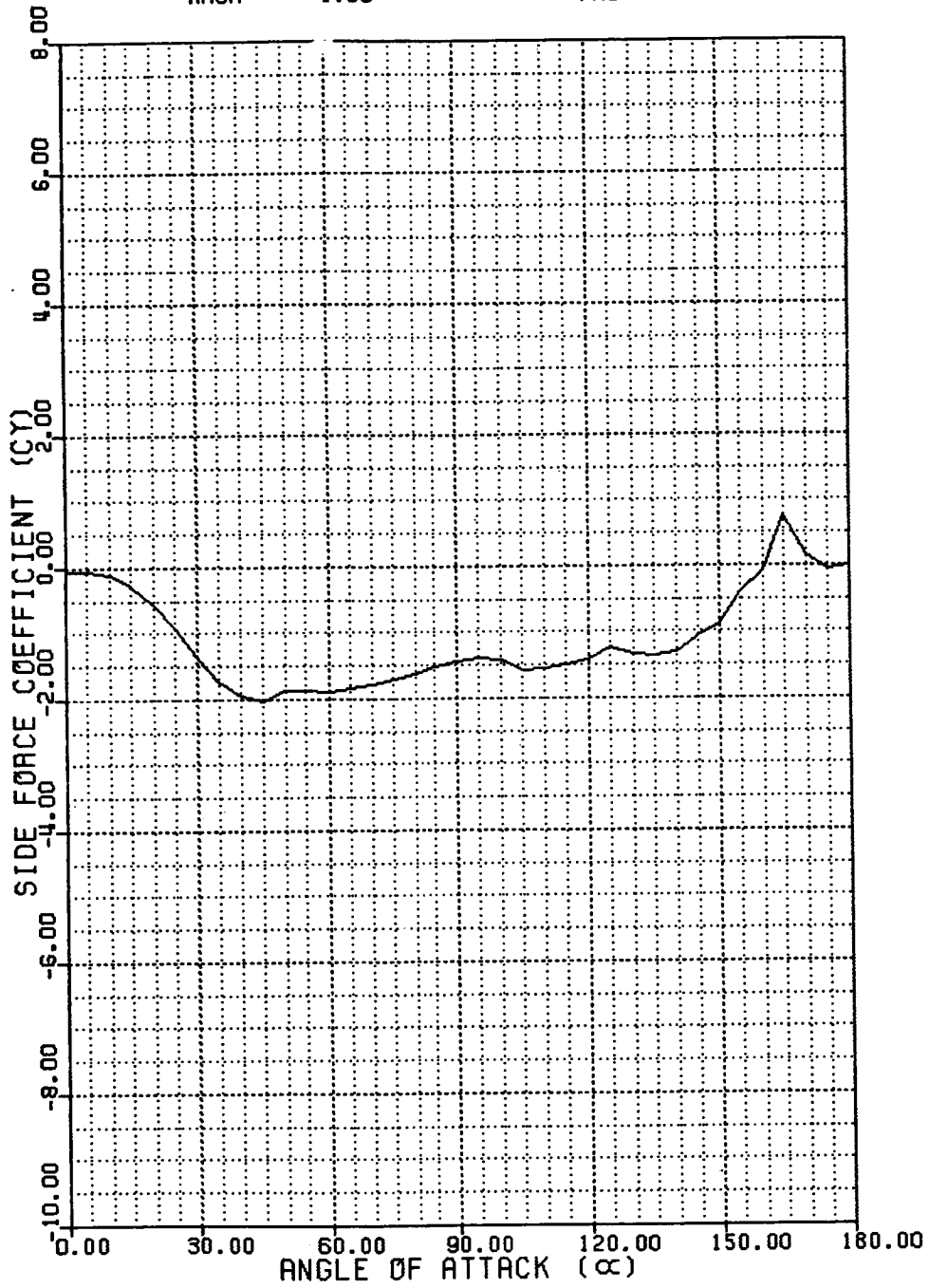
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0



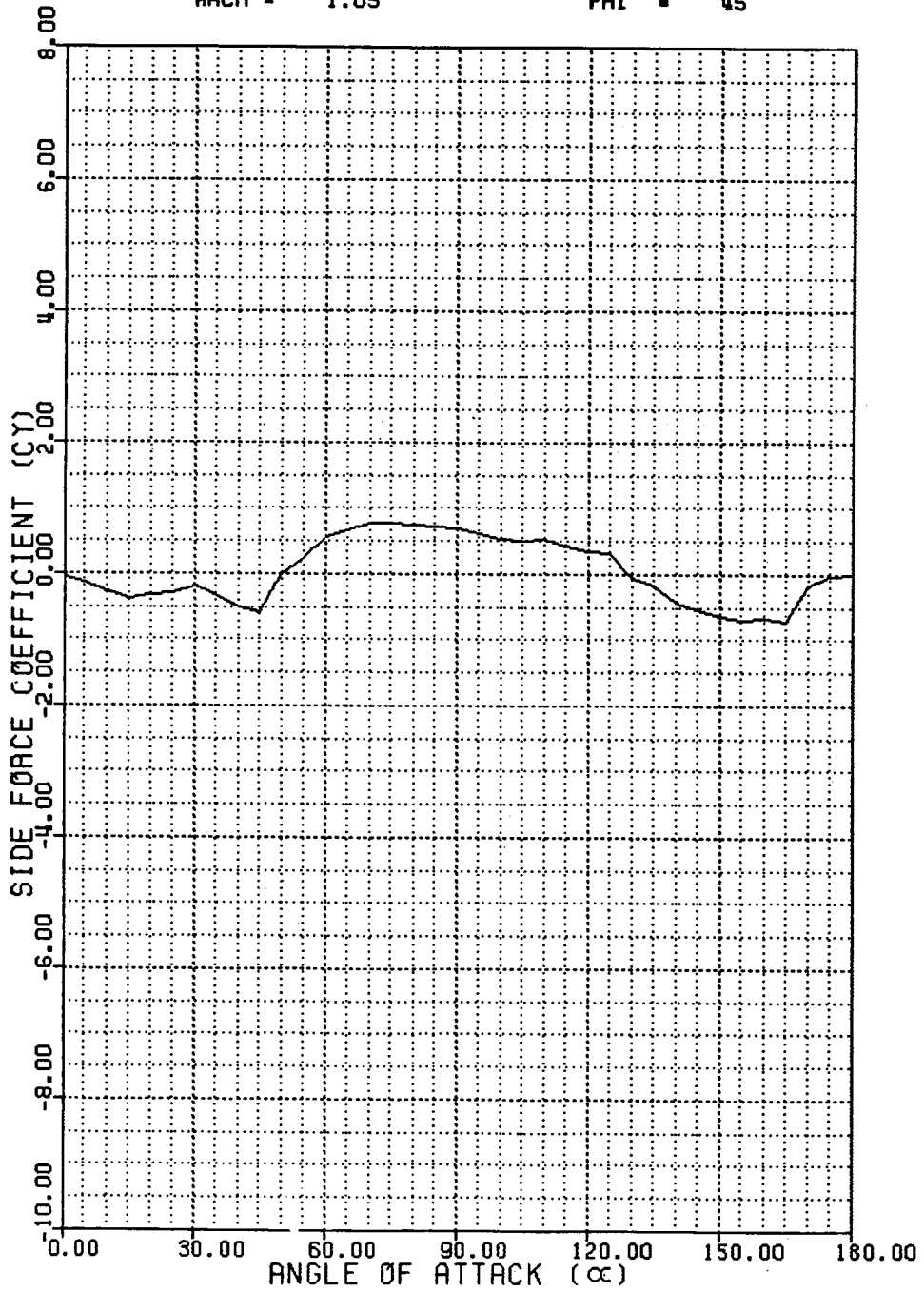
B-361

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



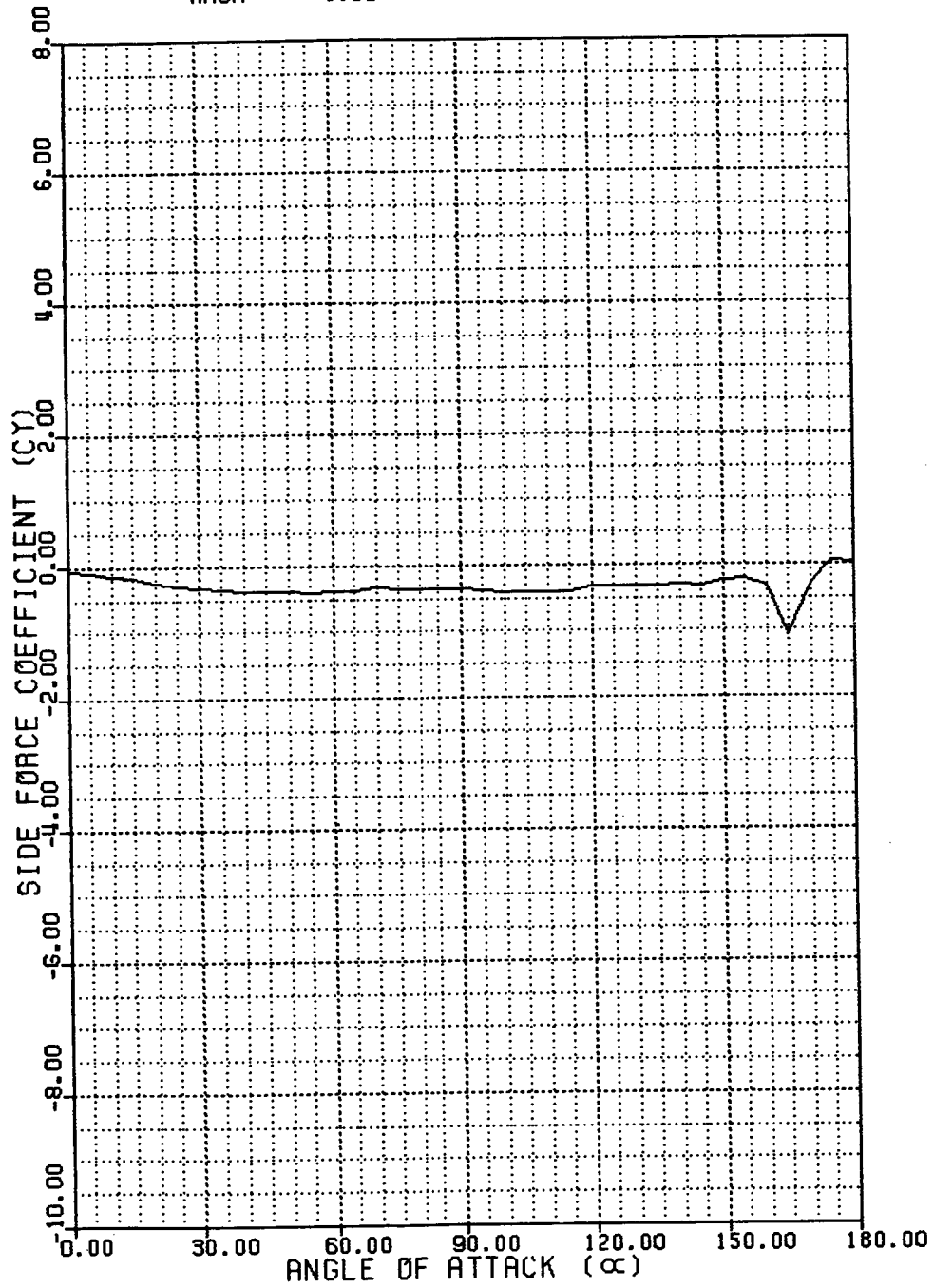
B-362

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90



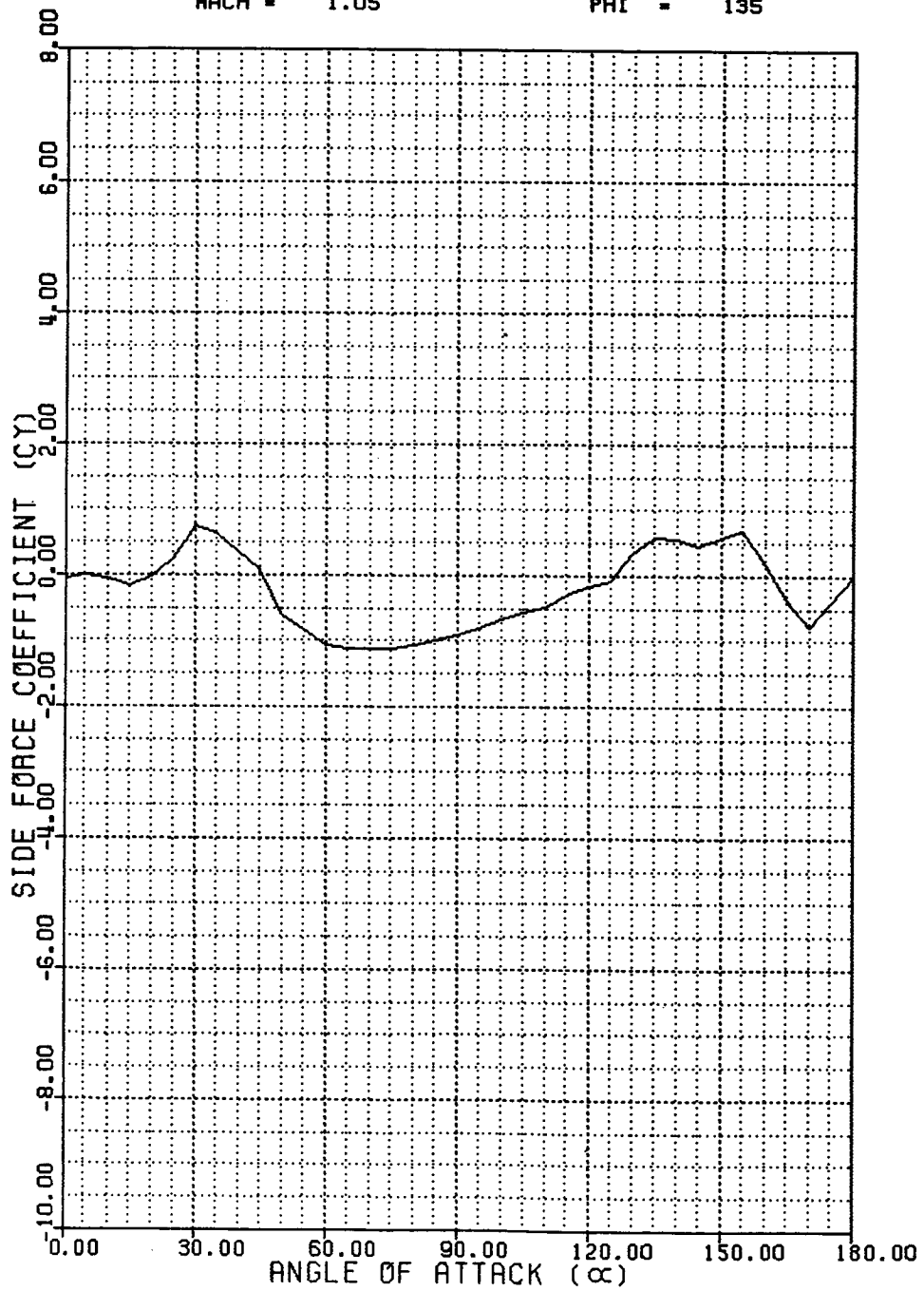
B-963

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135



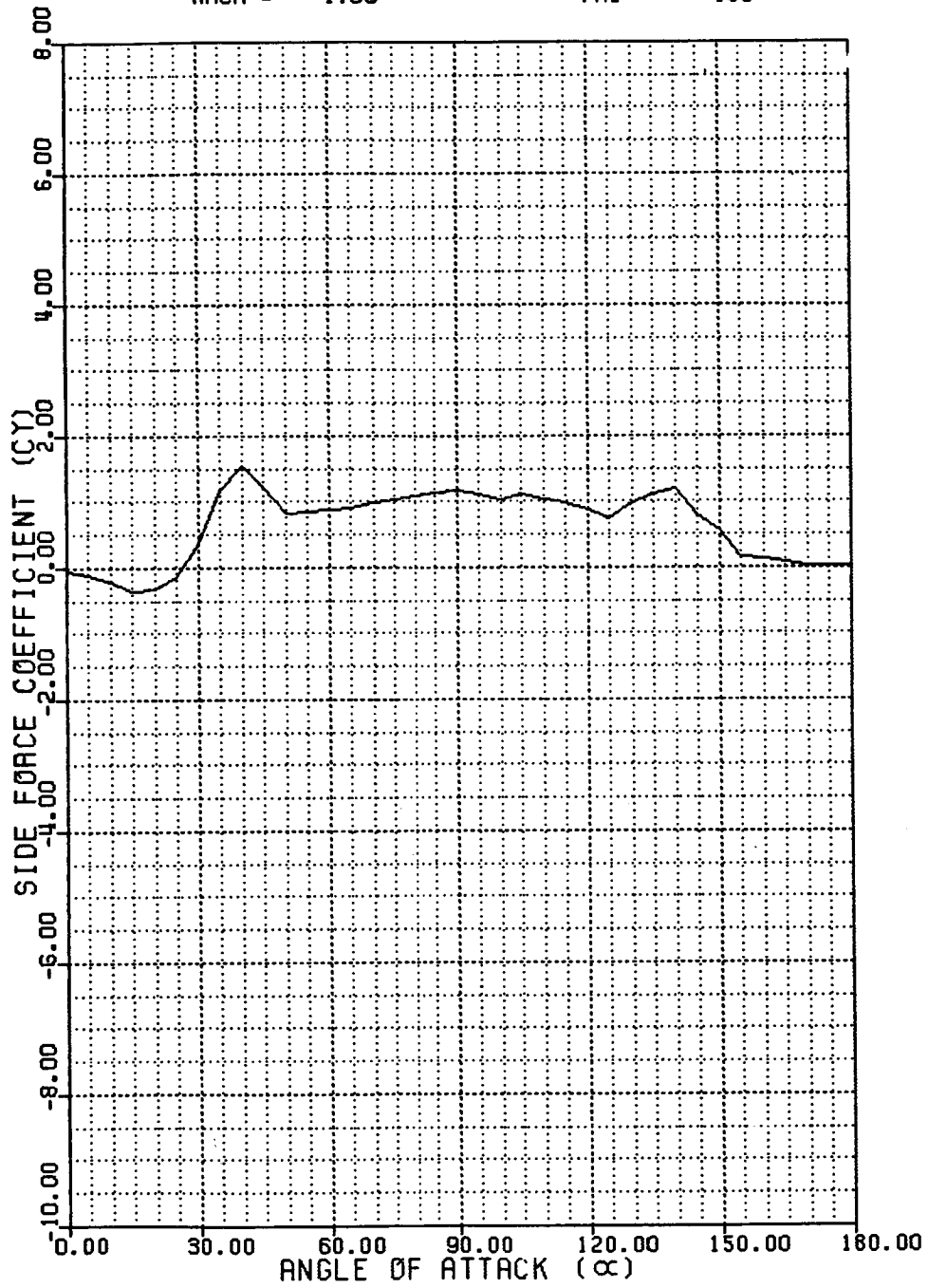
B-364

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180



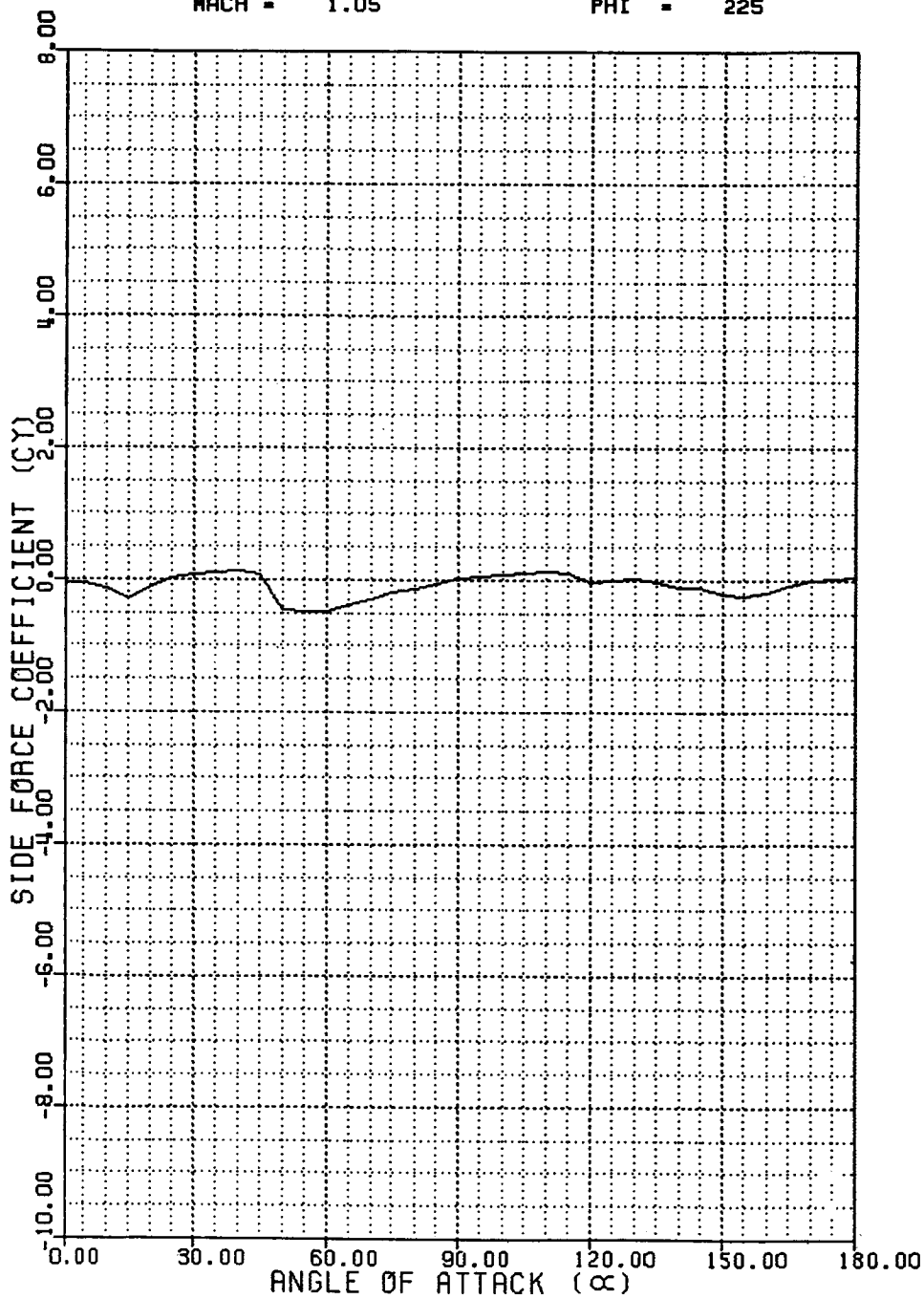
B-965

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225

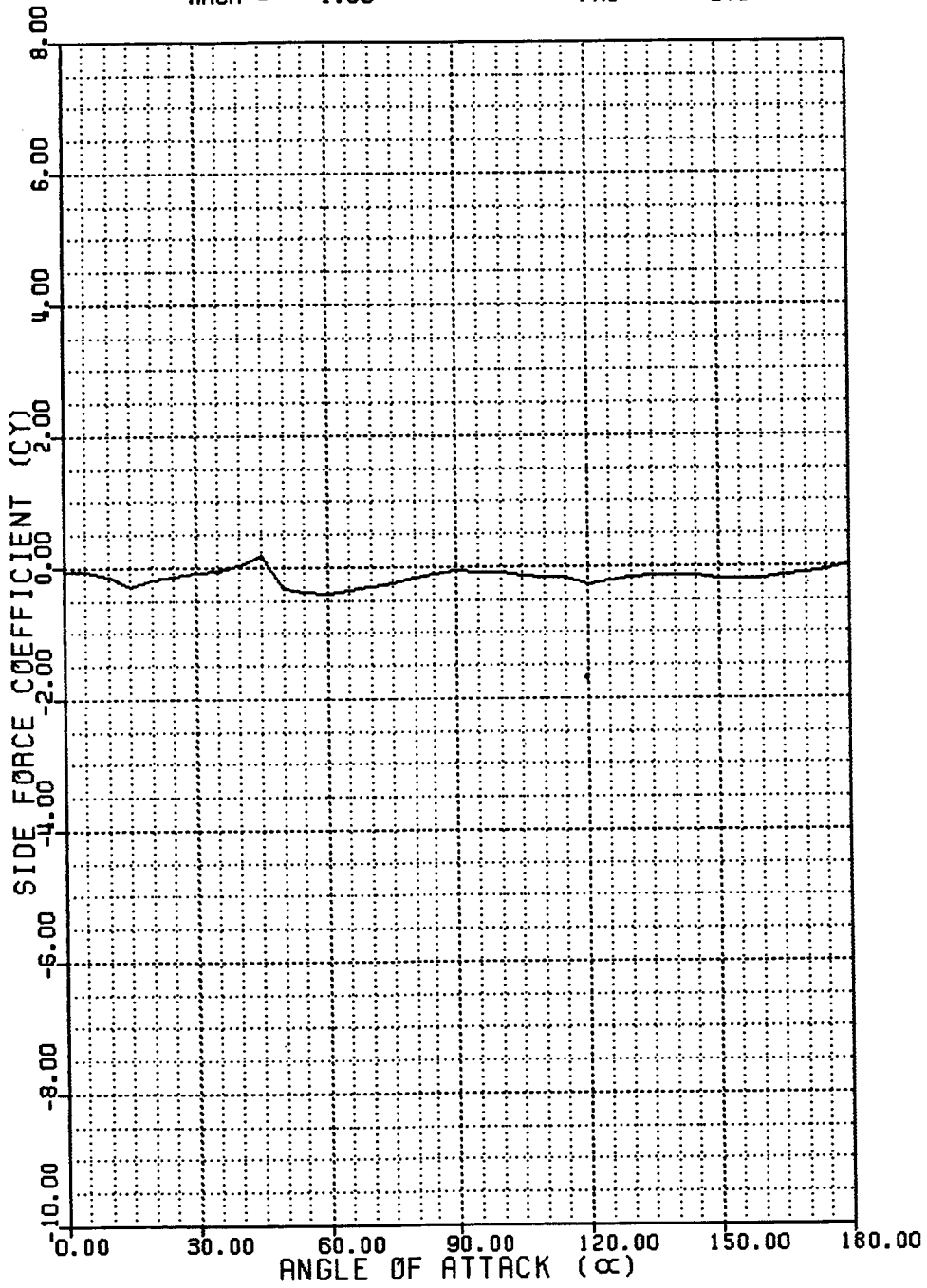


B-366

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270



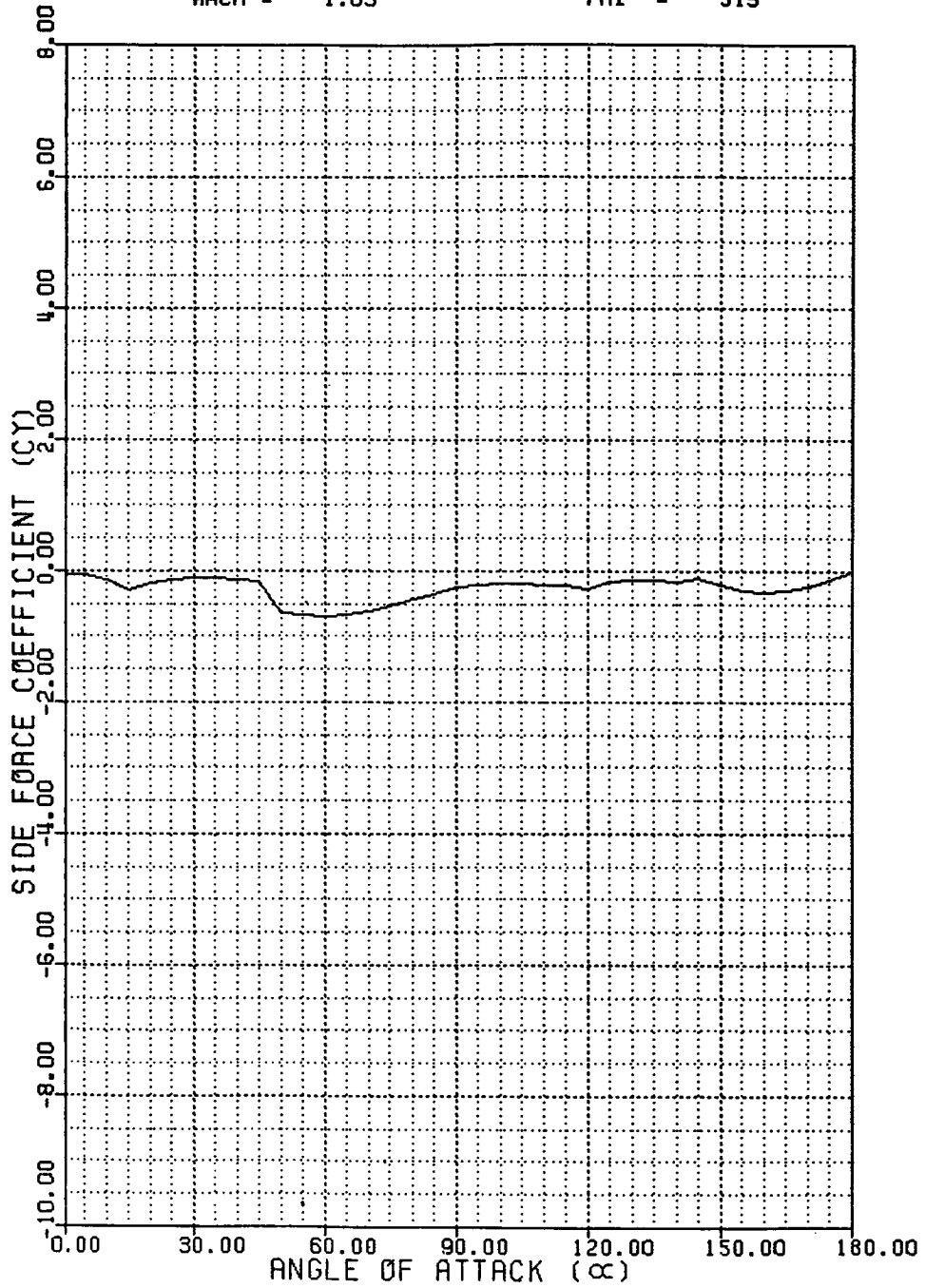
B-367

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315



B-368

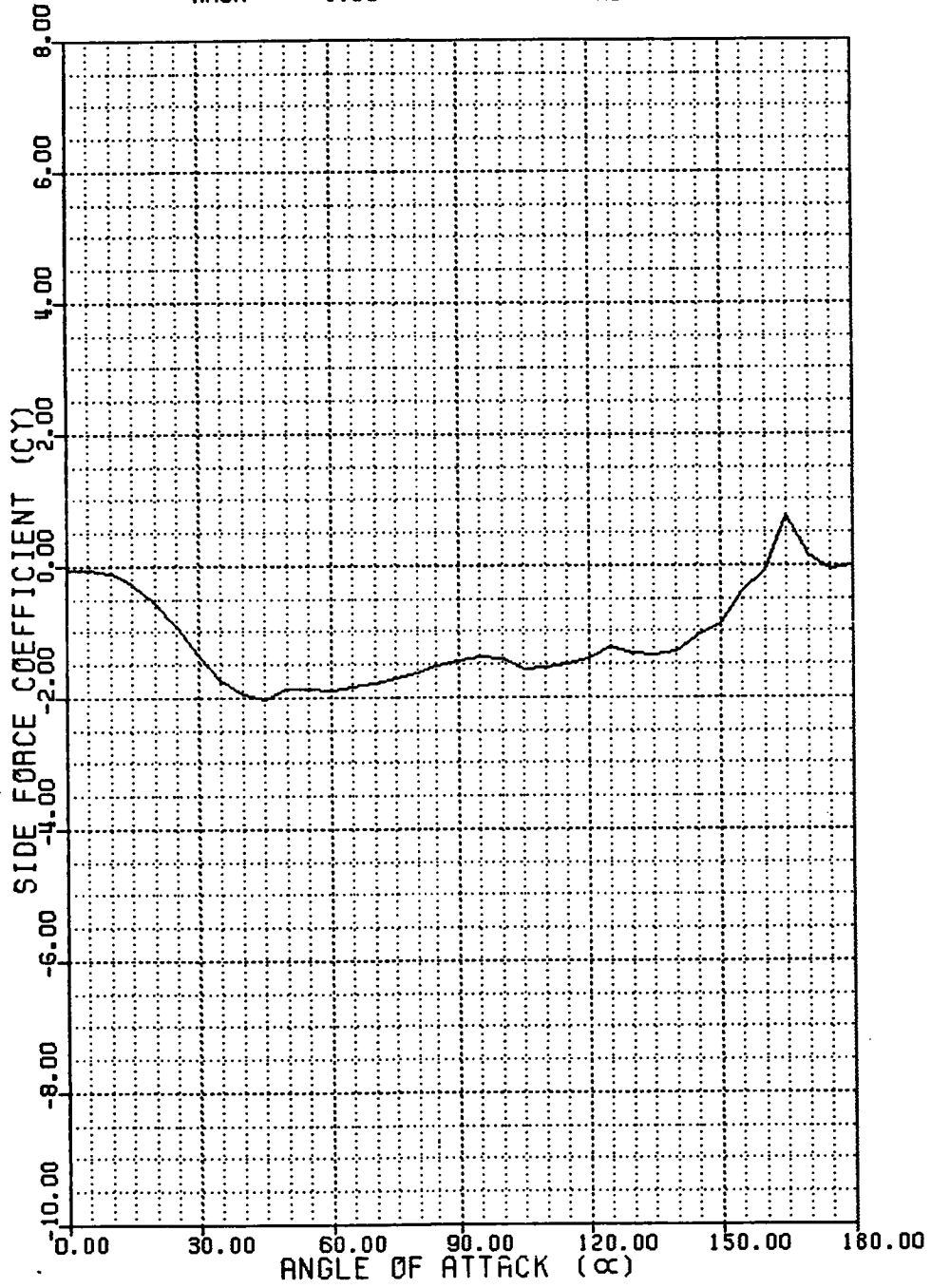
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 360

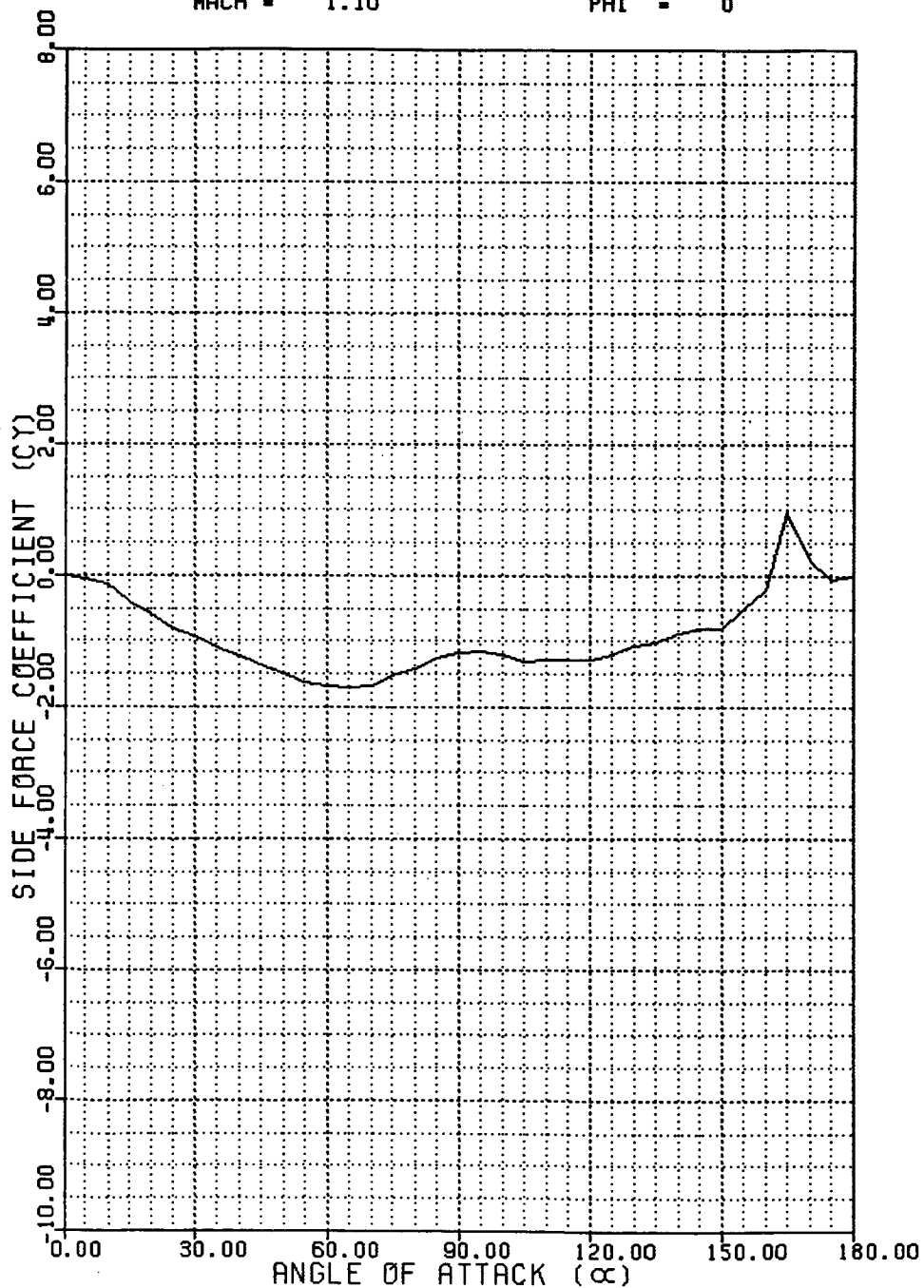


B-369

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0



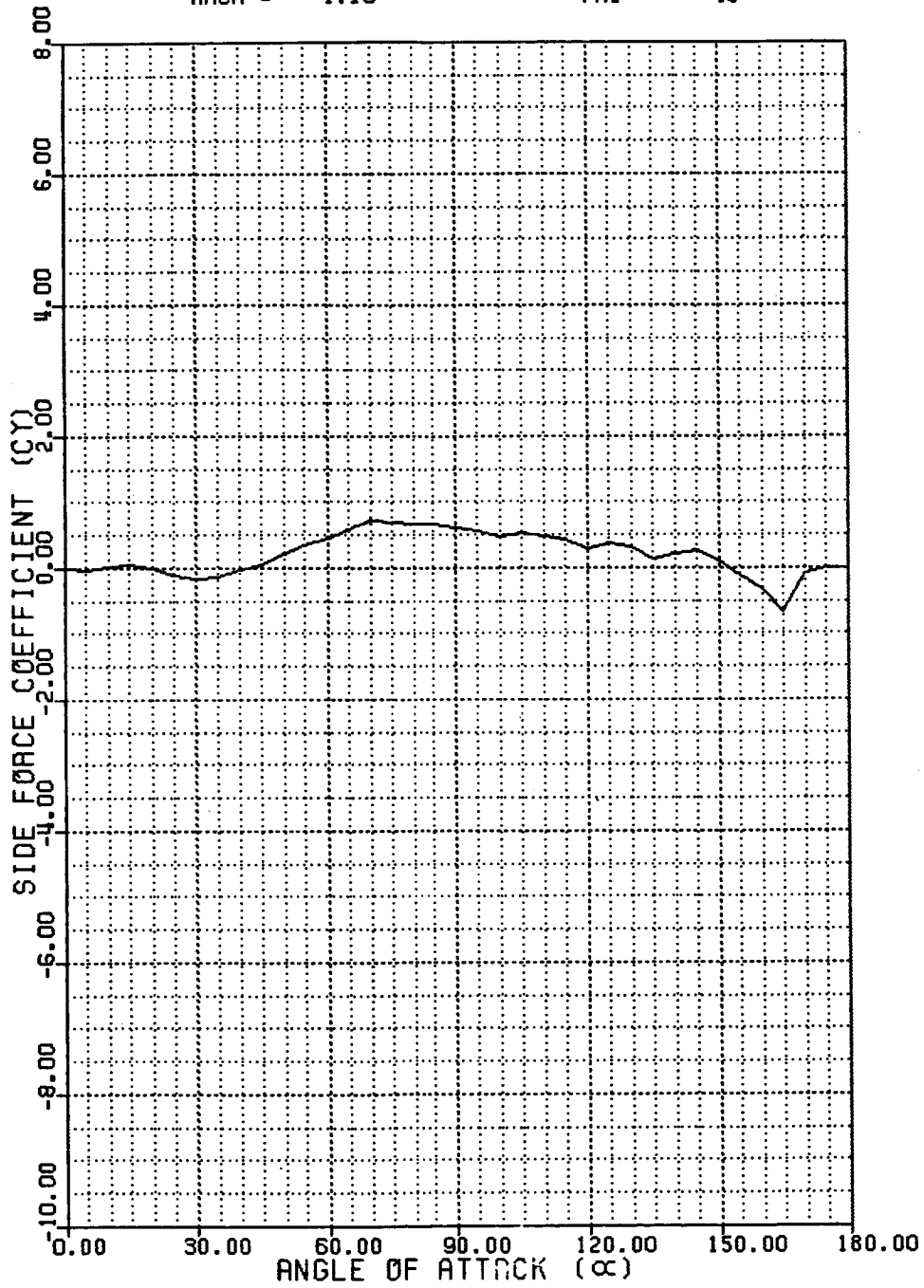
B-370

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 45



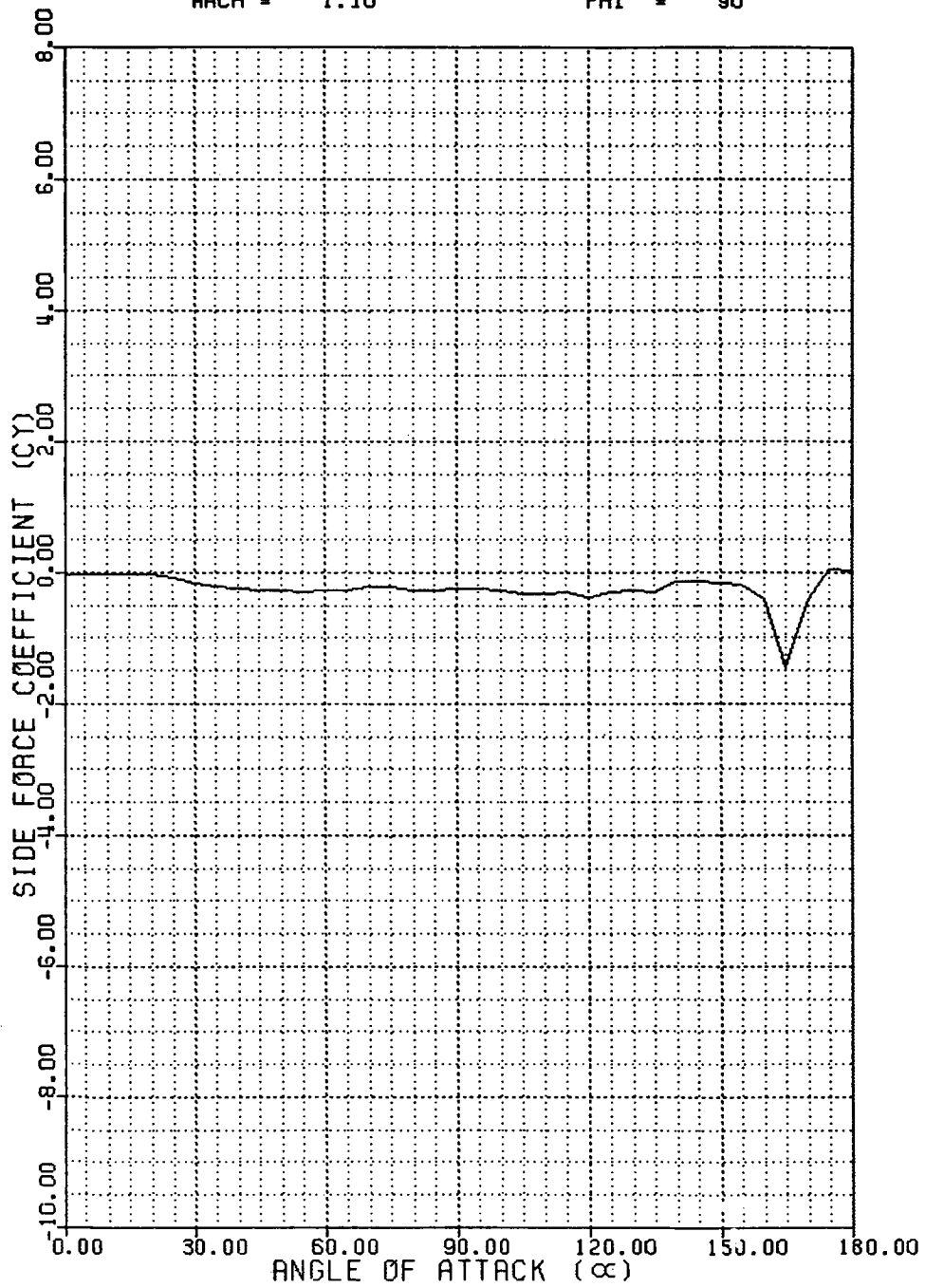
B-971

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90



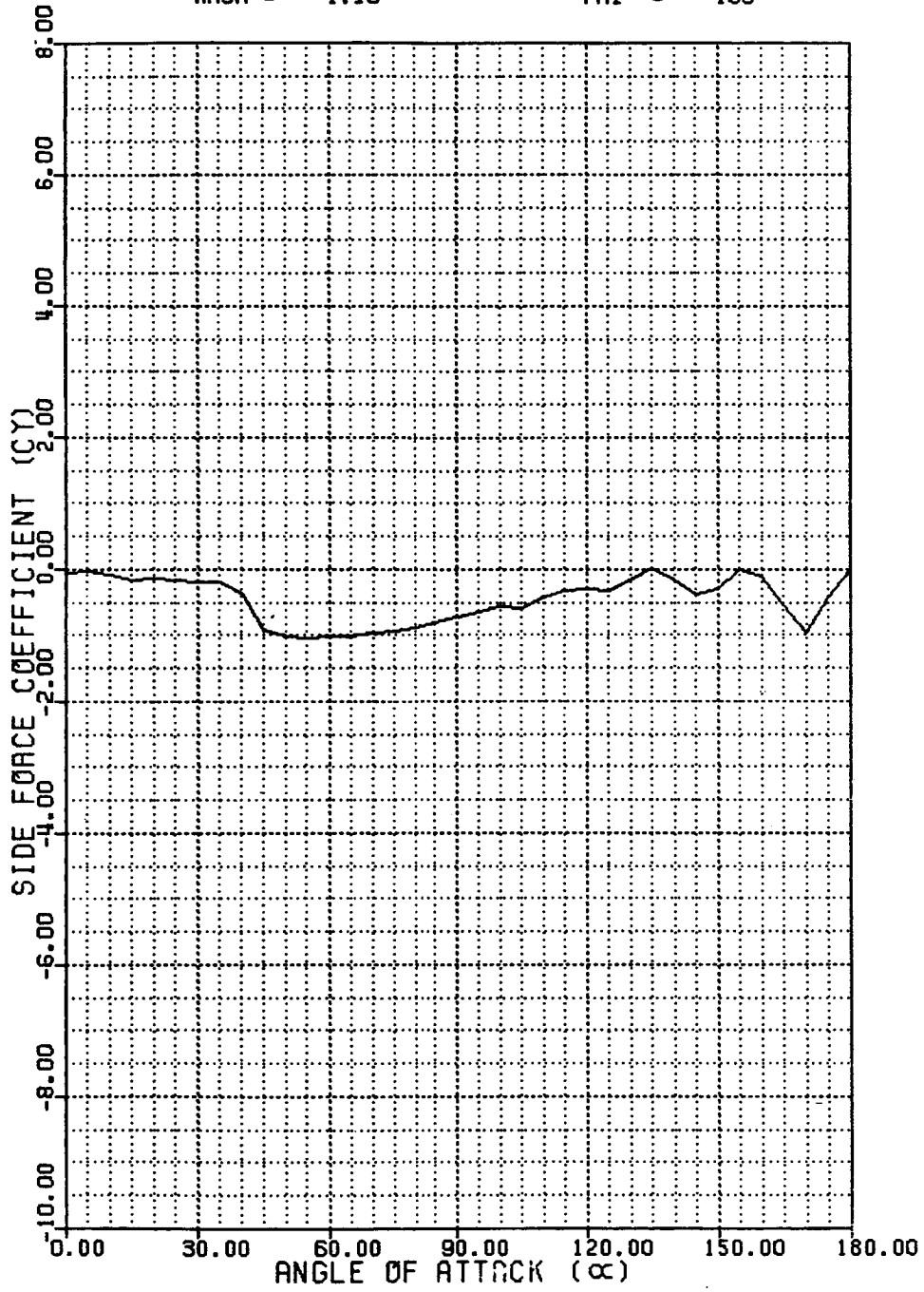
B-372

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135

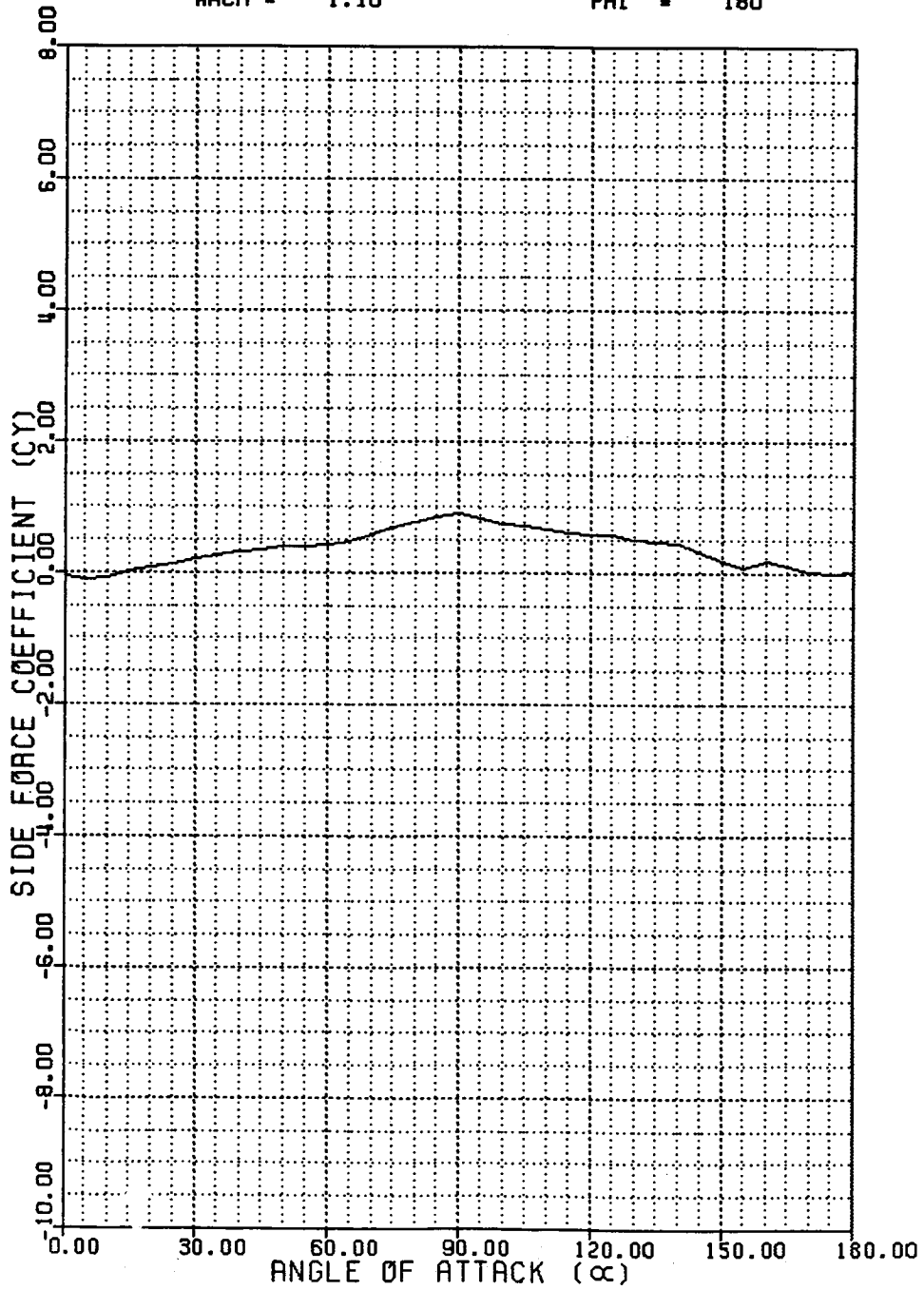


B-973

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180



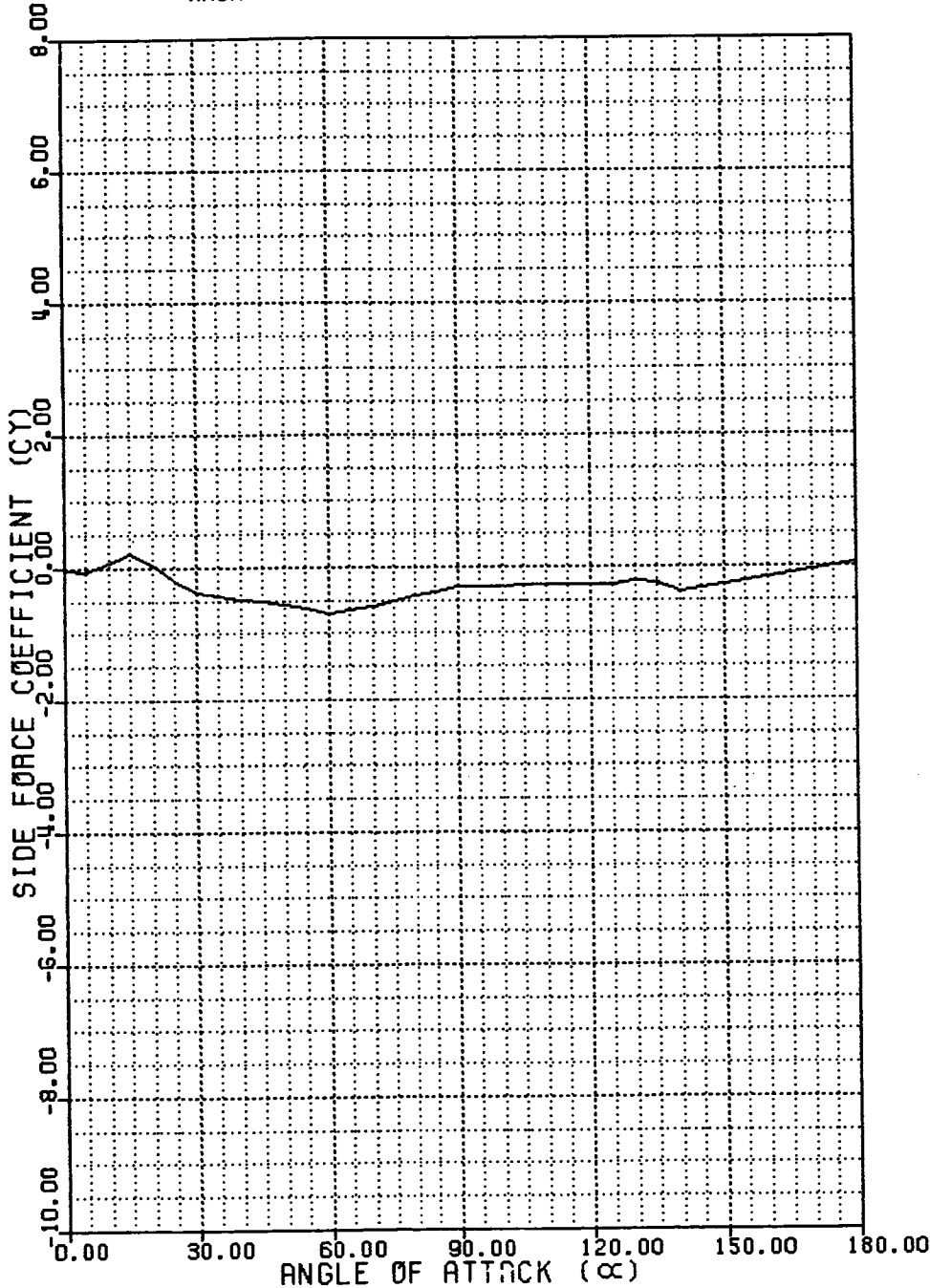
B-374

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225

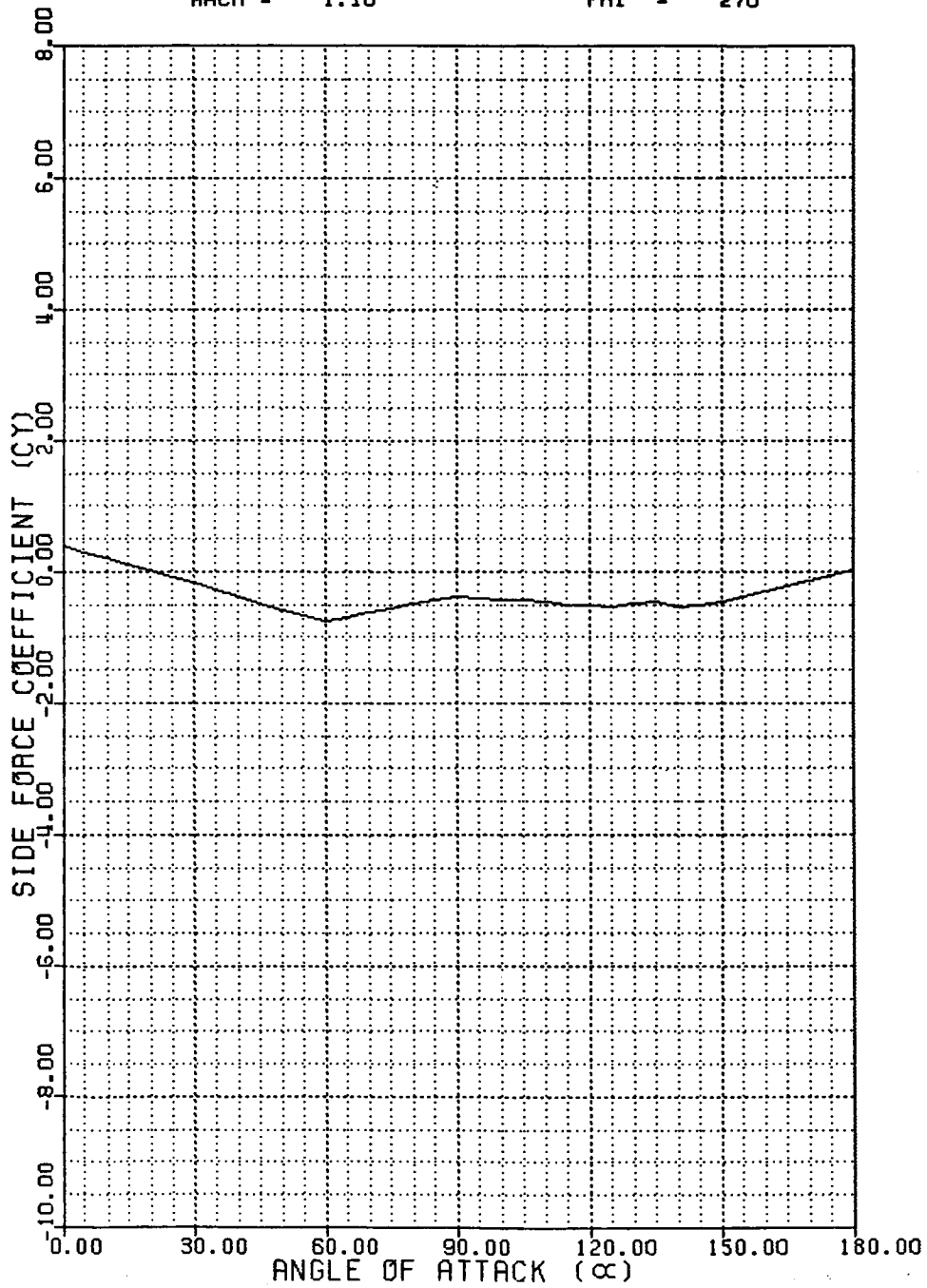


B-975

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270



B-376

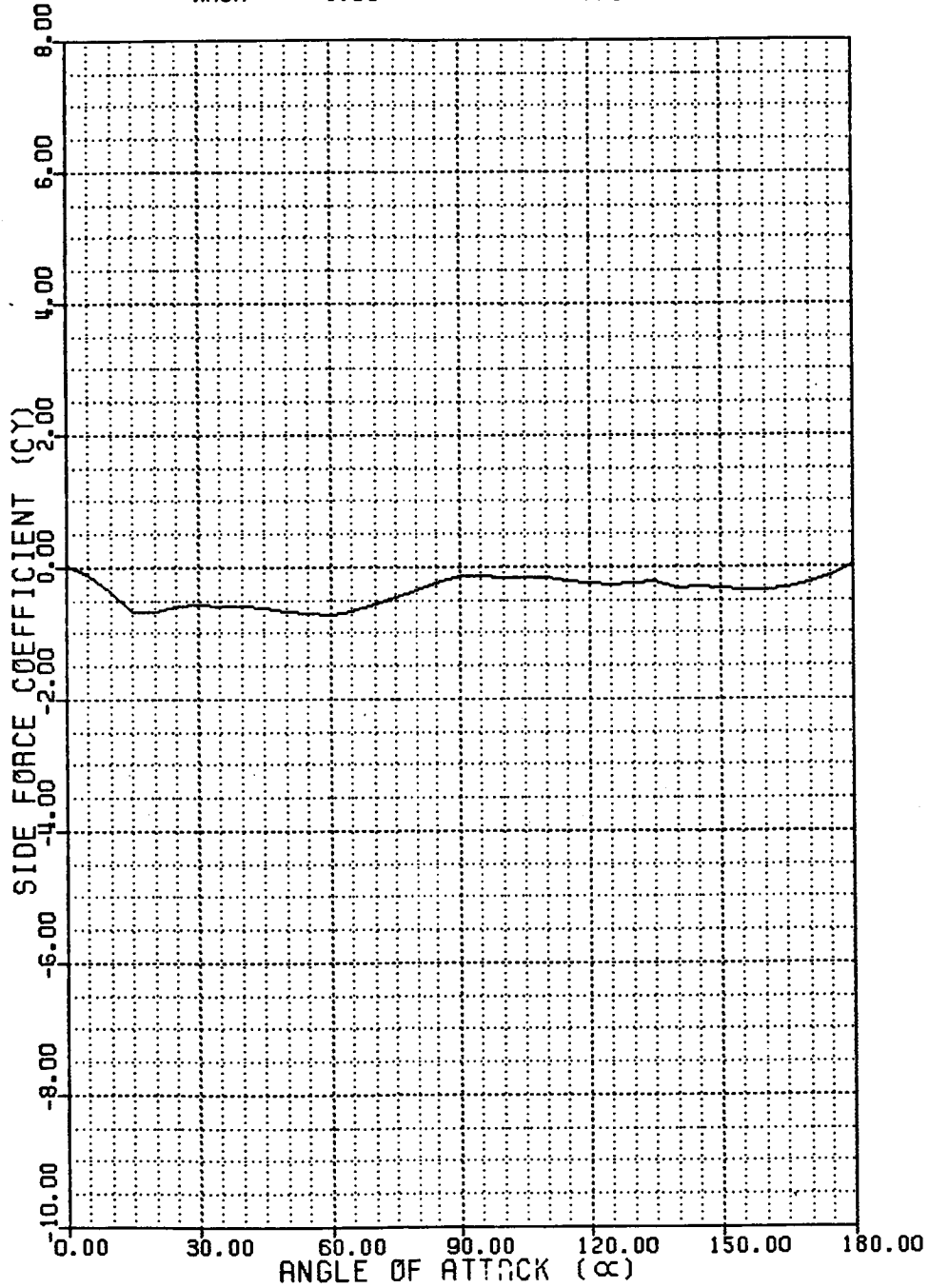
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315

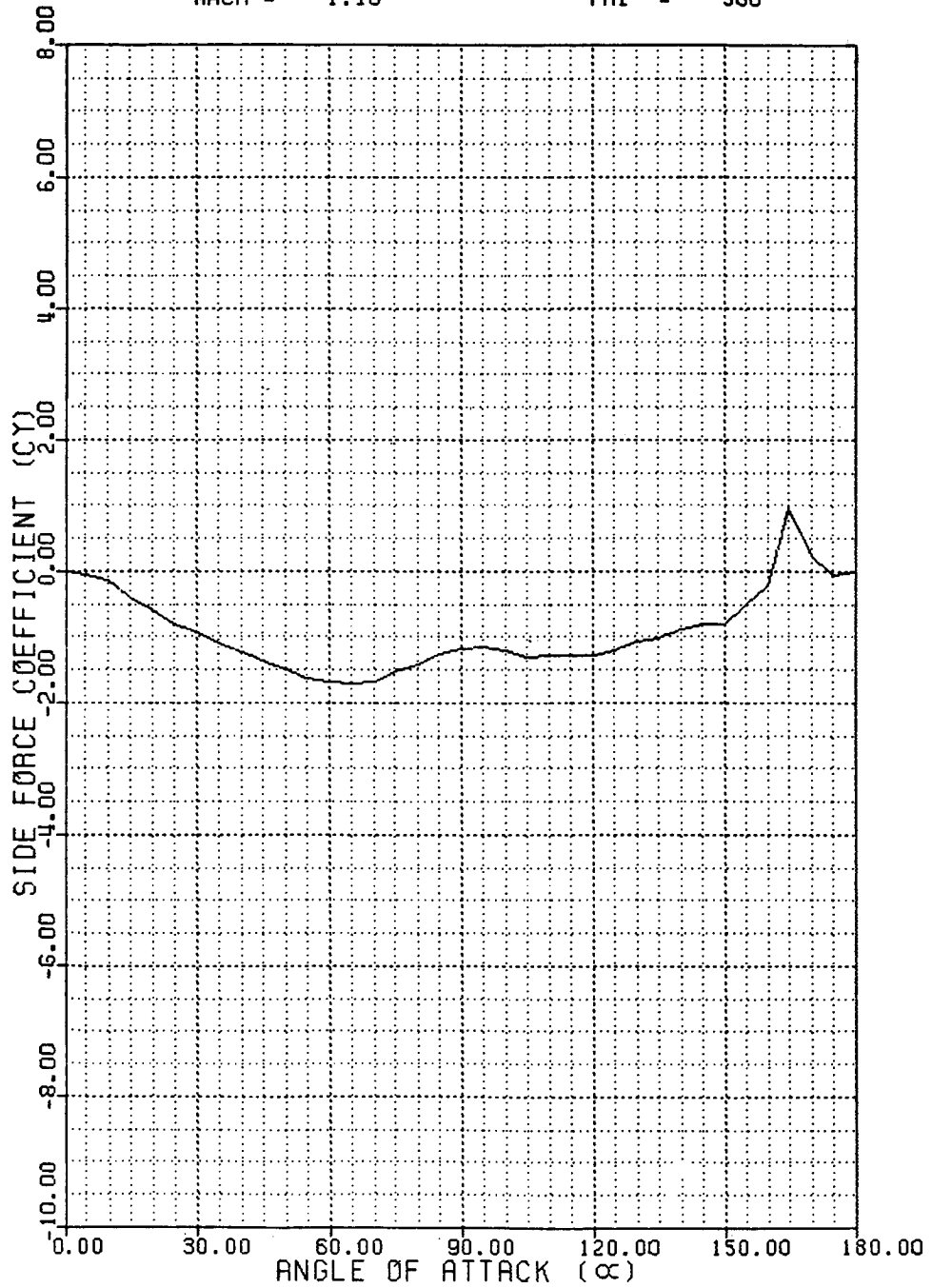


B-377

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360



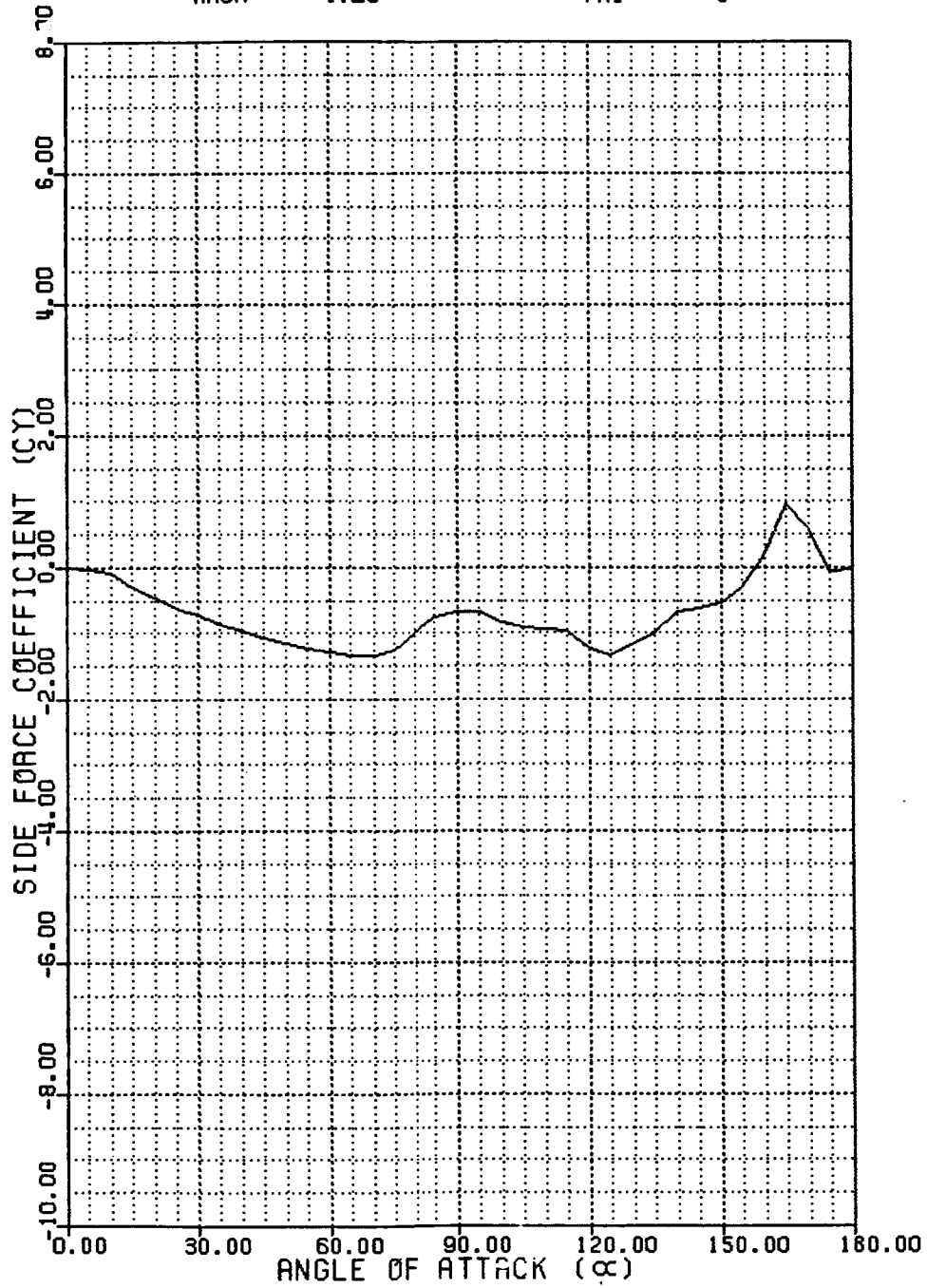
B-378

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0

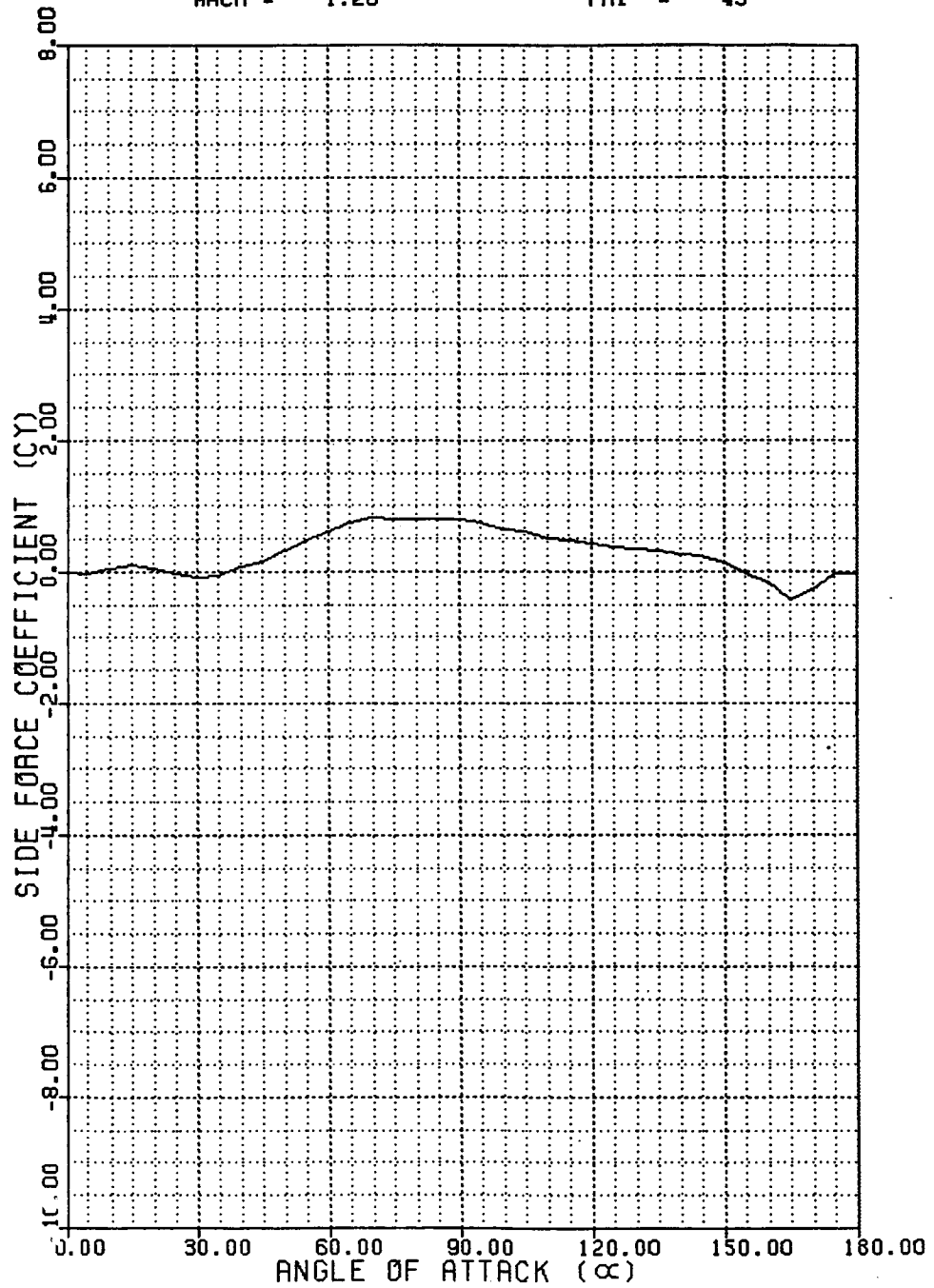


B-979

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



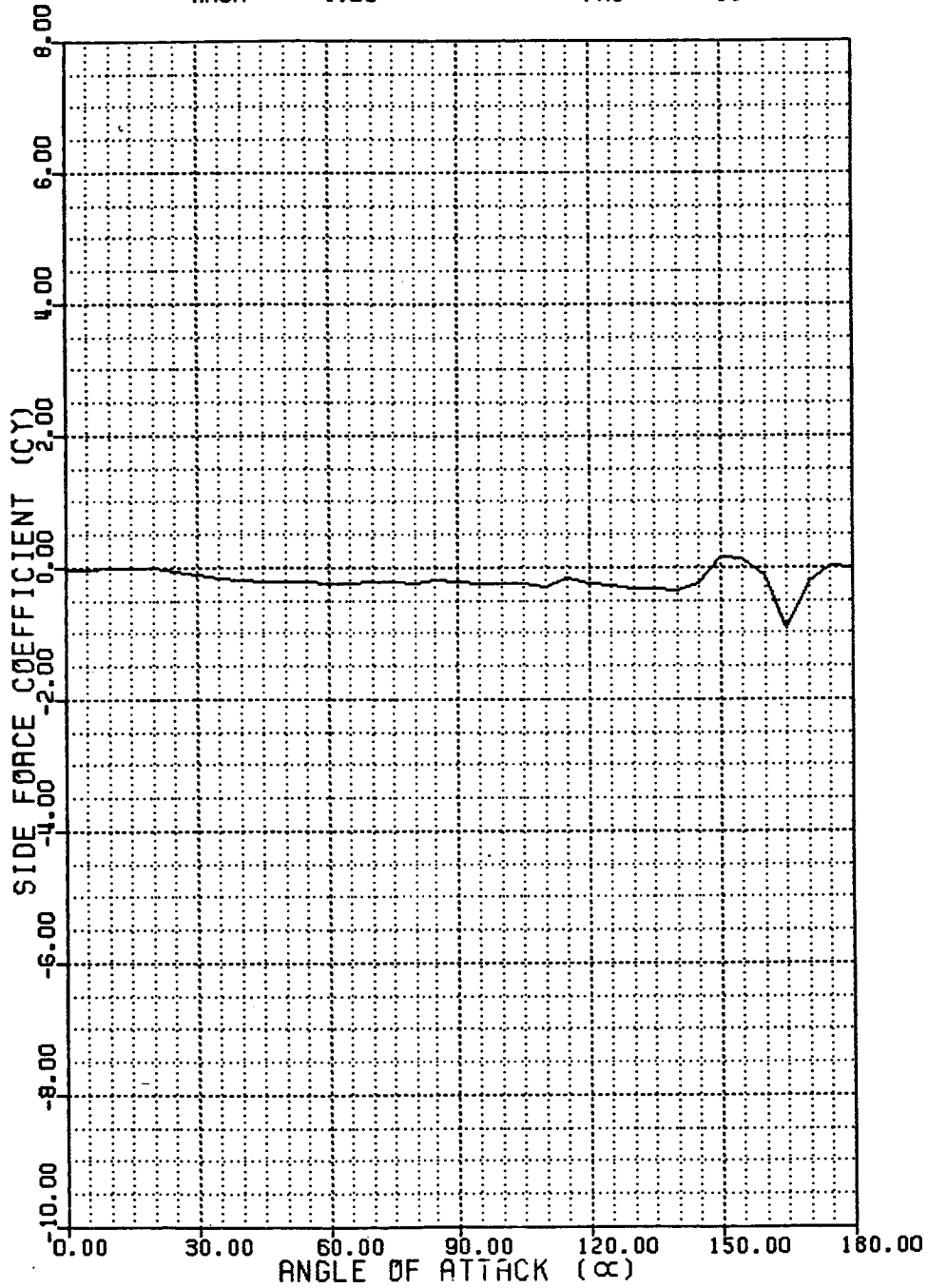
B-380

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90



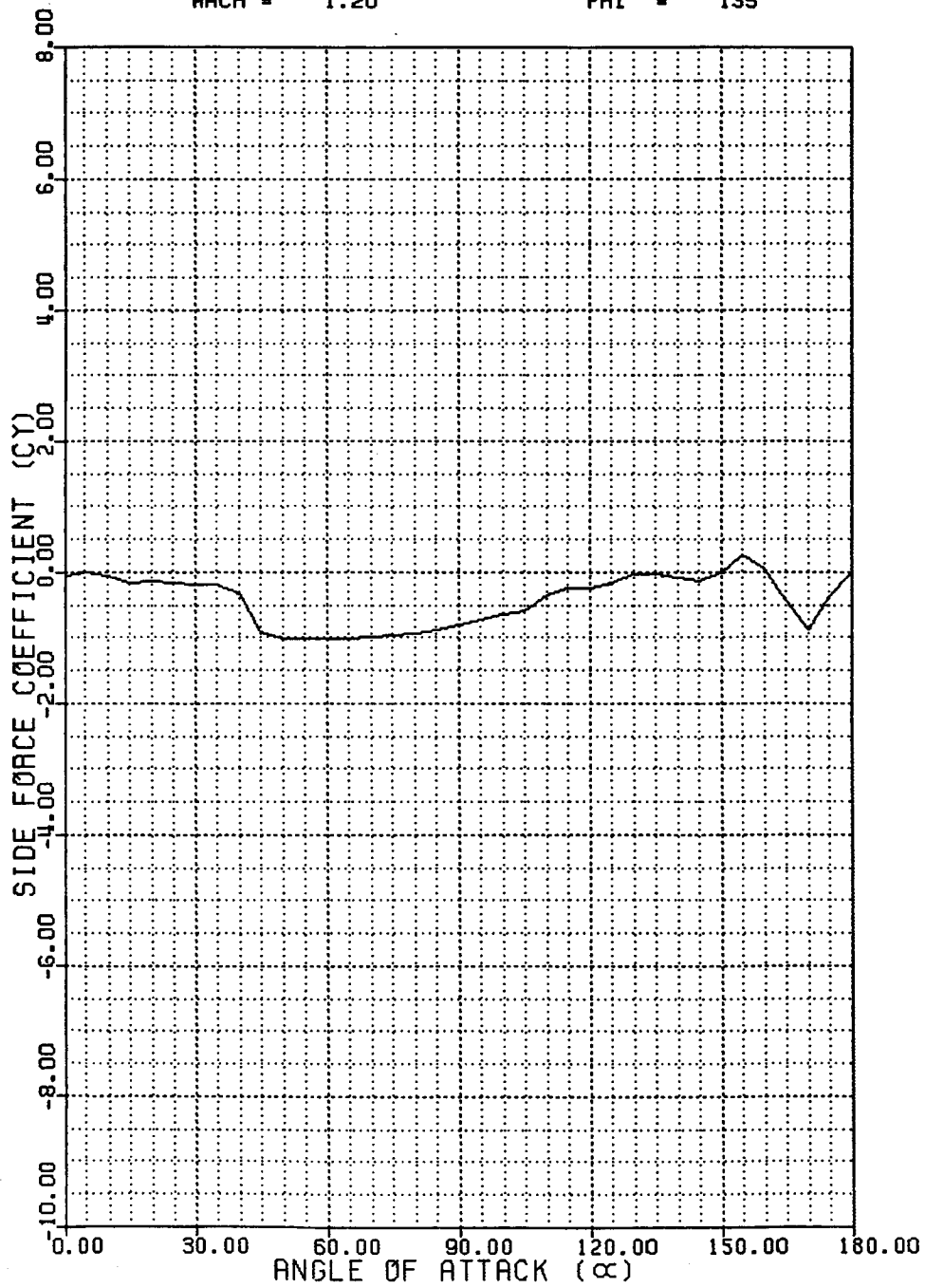
B-381

C-5

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135



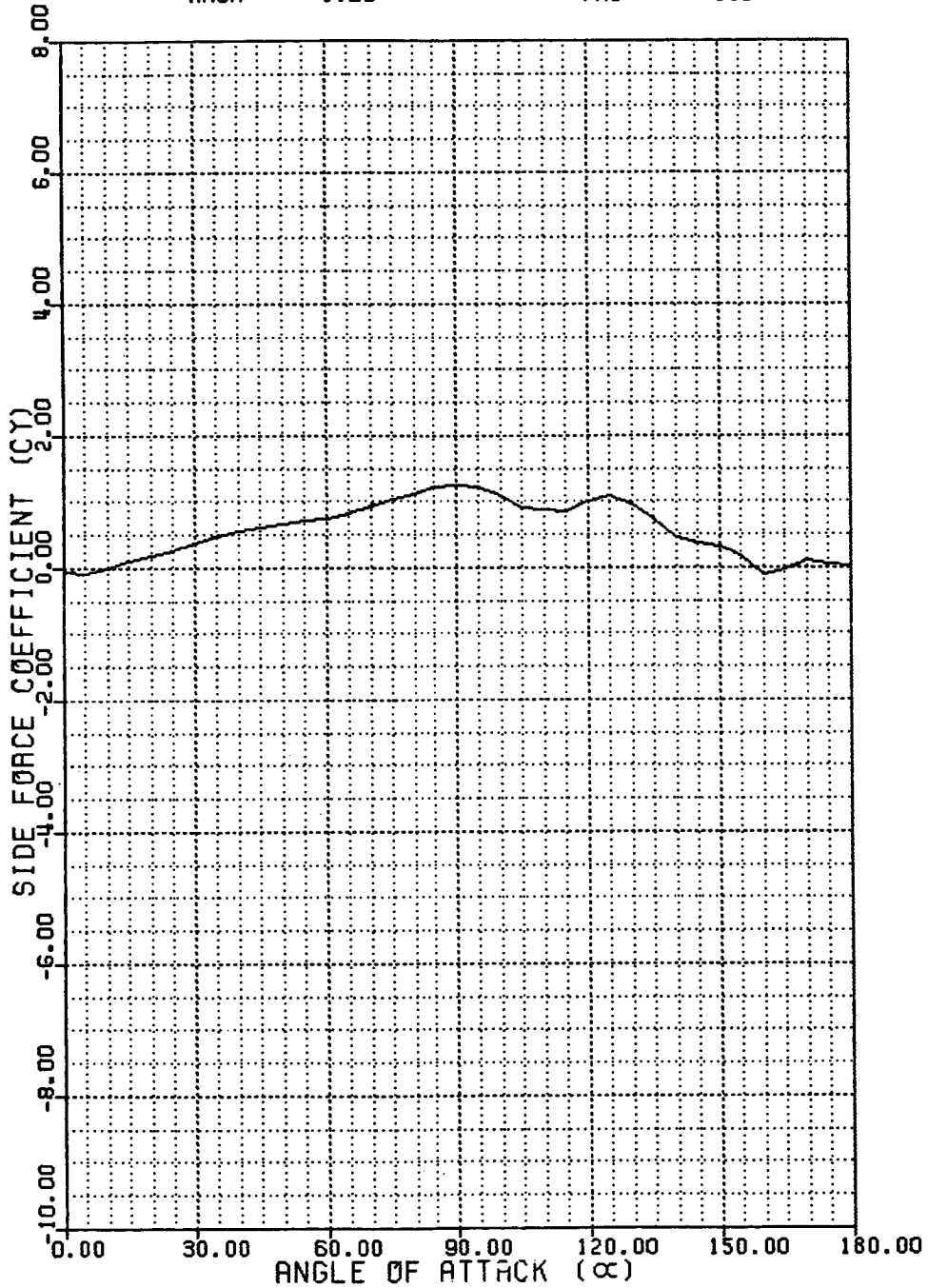
B-382

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180

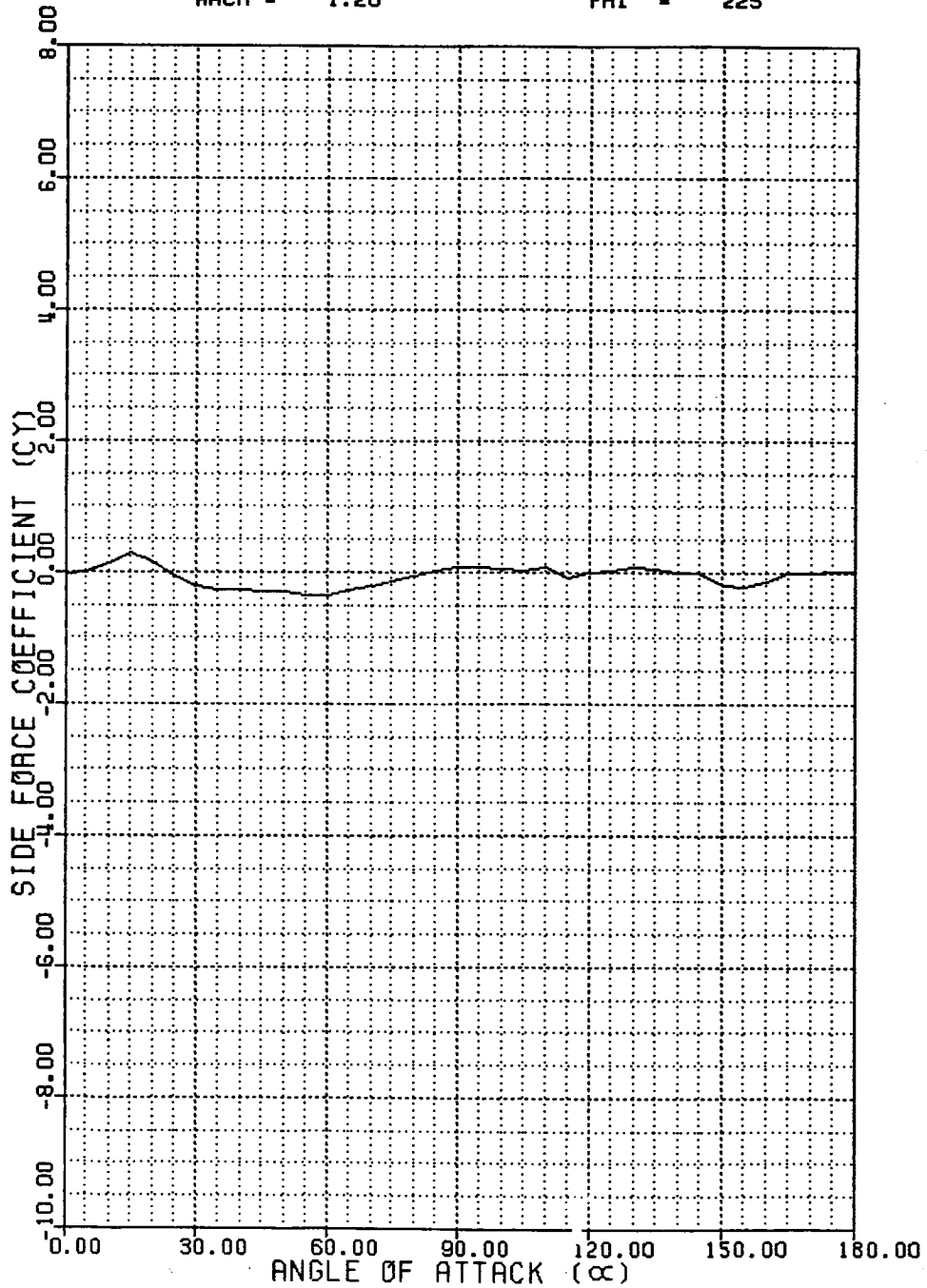


B-383

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225



B-384

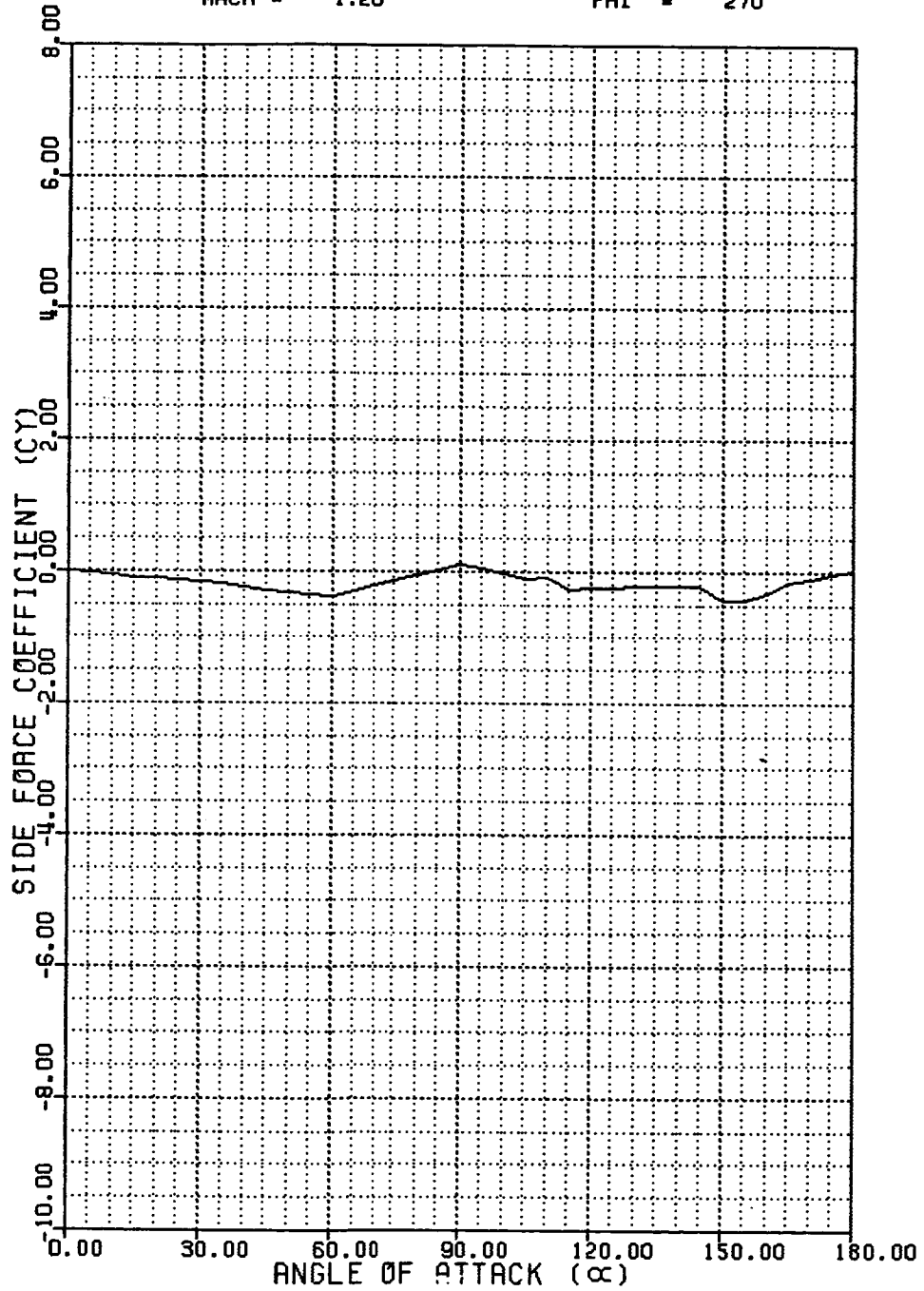
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 270

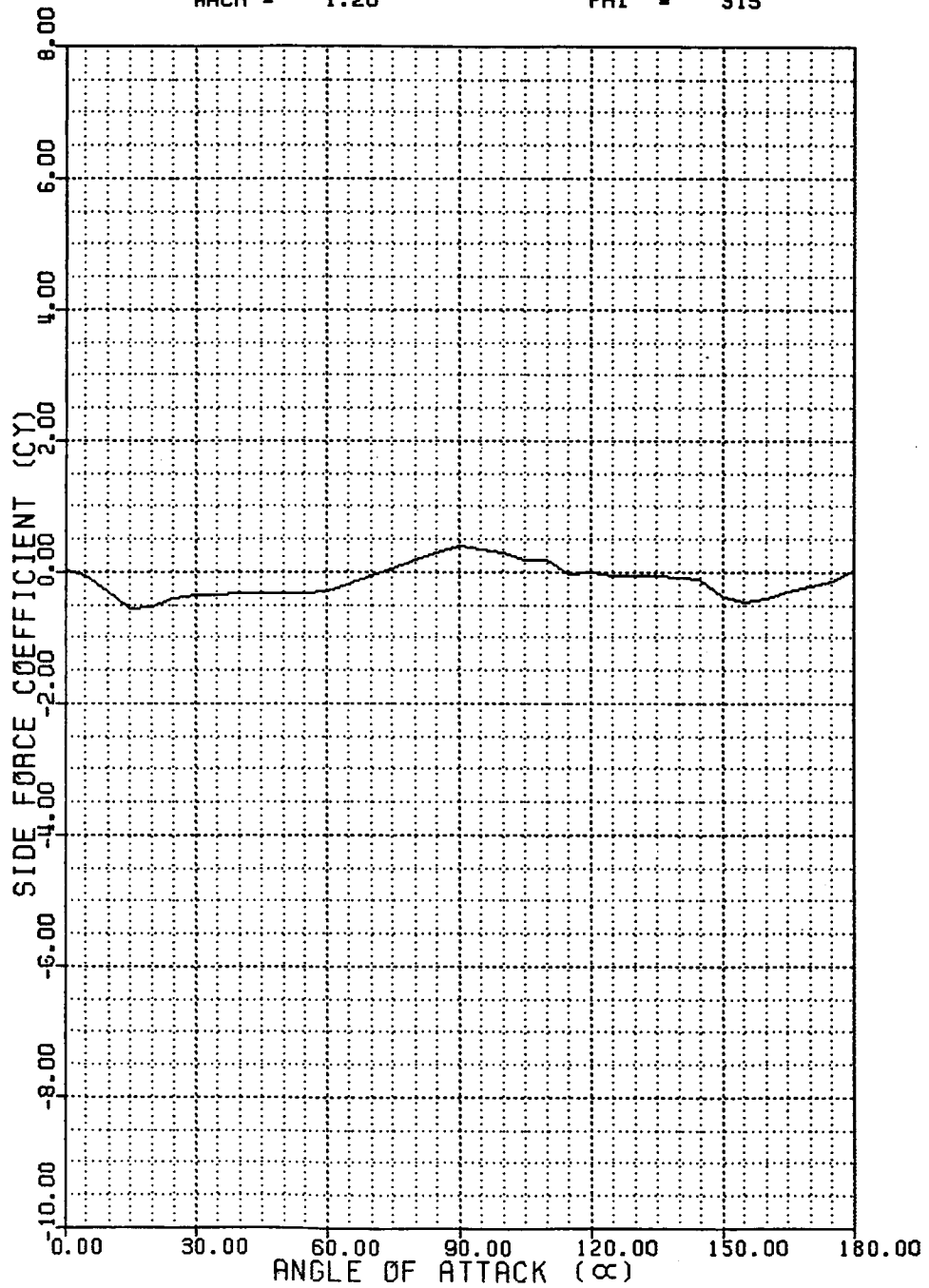


B-385

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 315



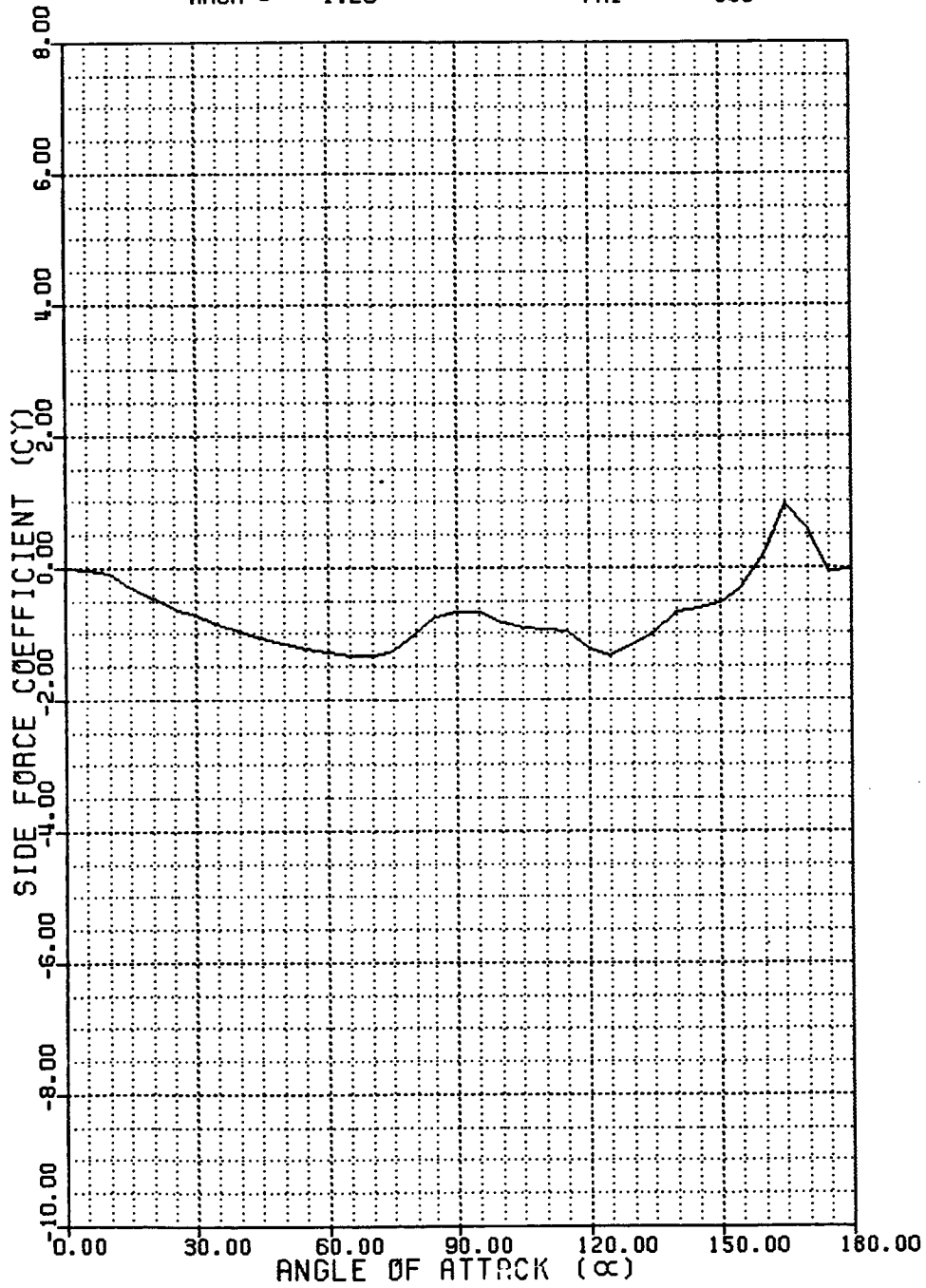
B-386

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360

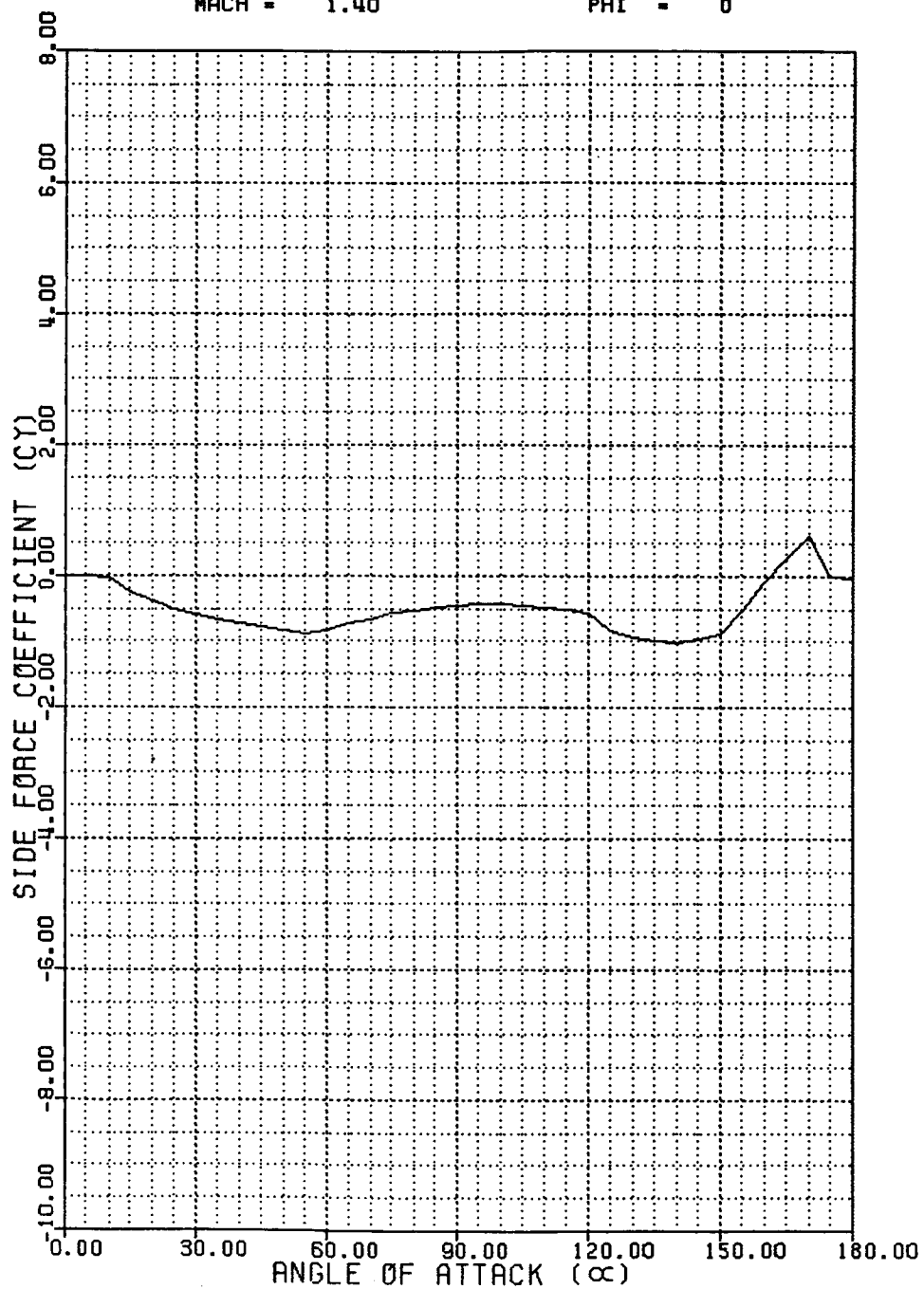


B-387

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0



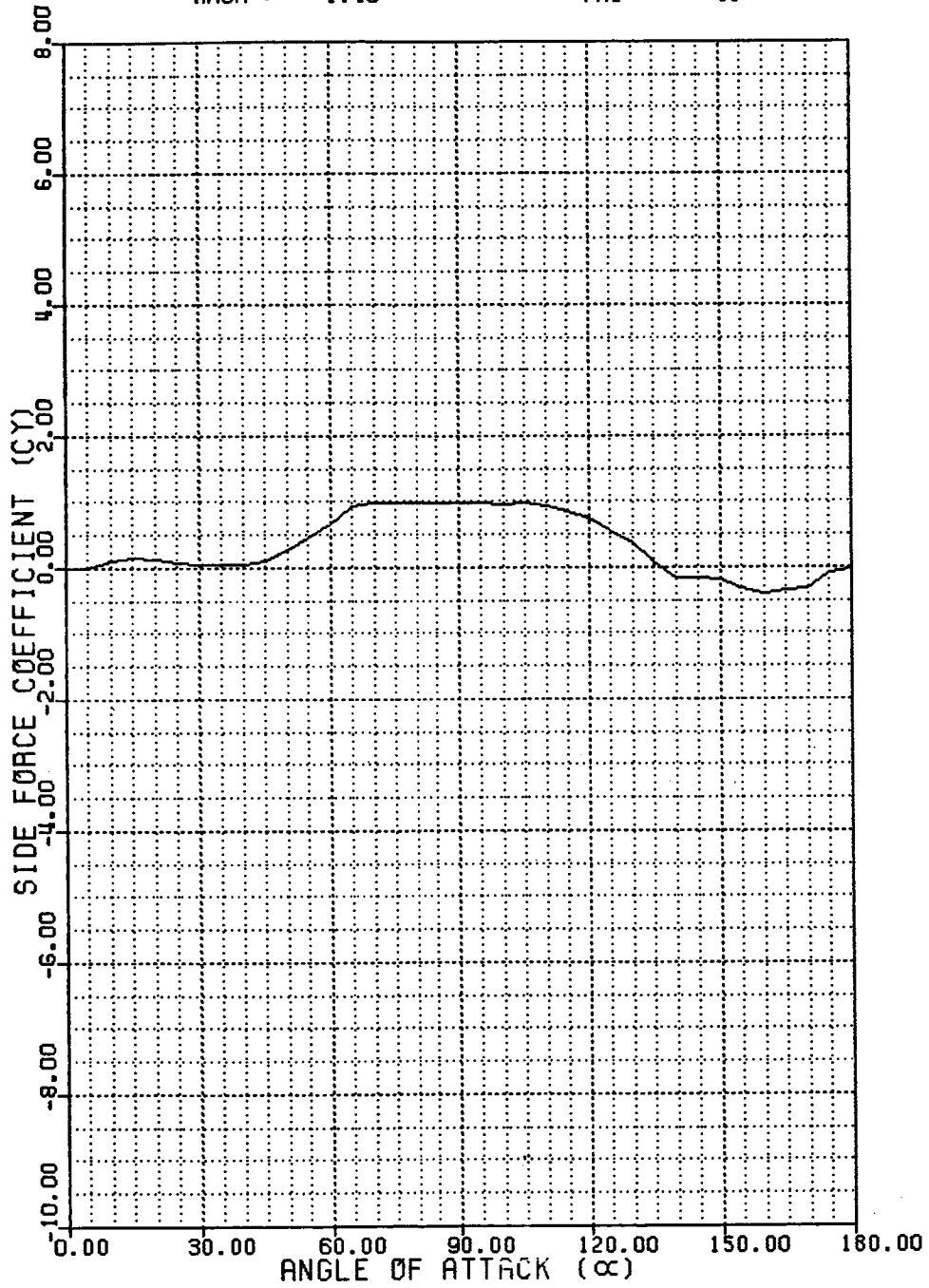
B-388

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45



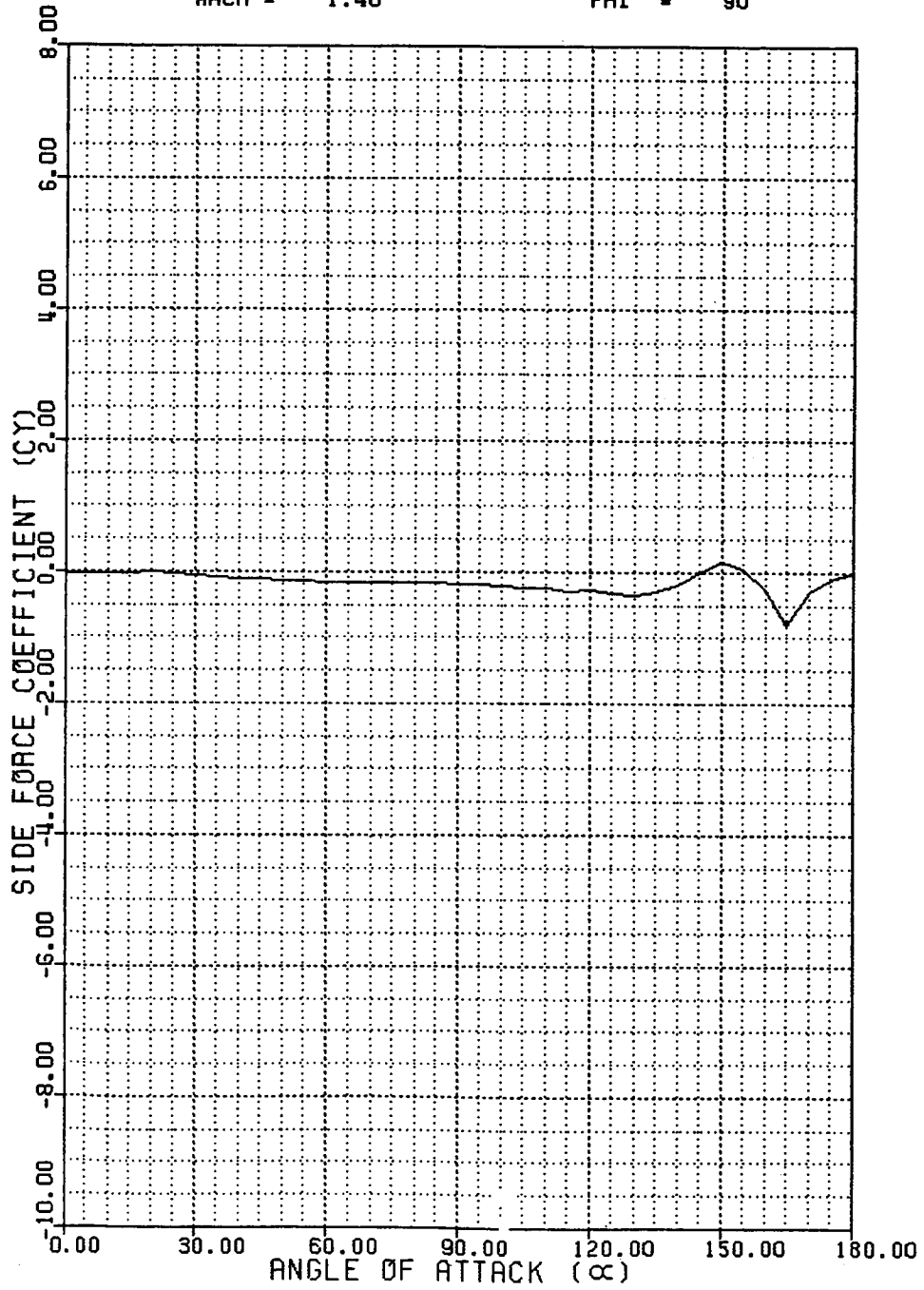
B-389

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90



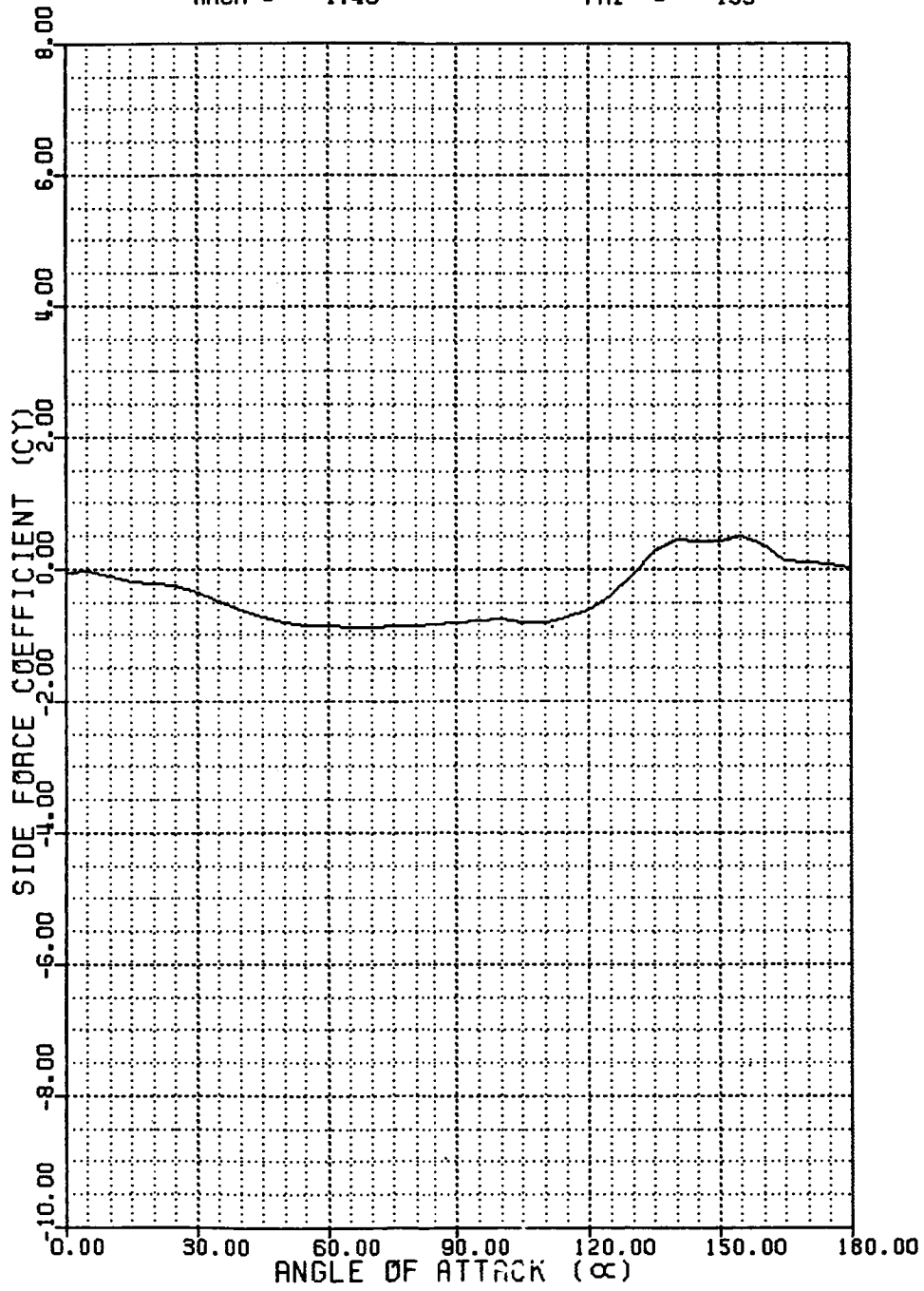
B-390

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135

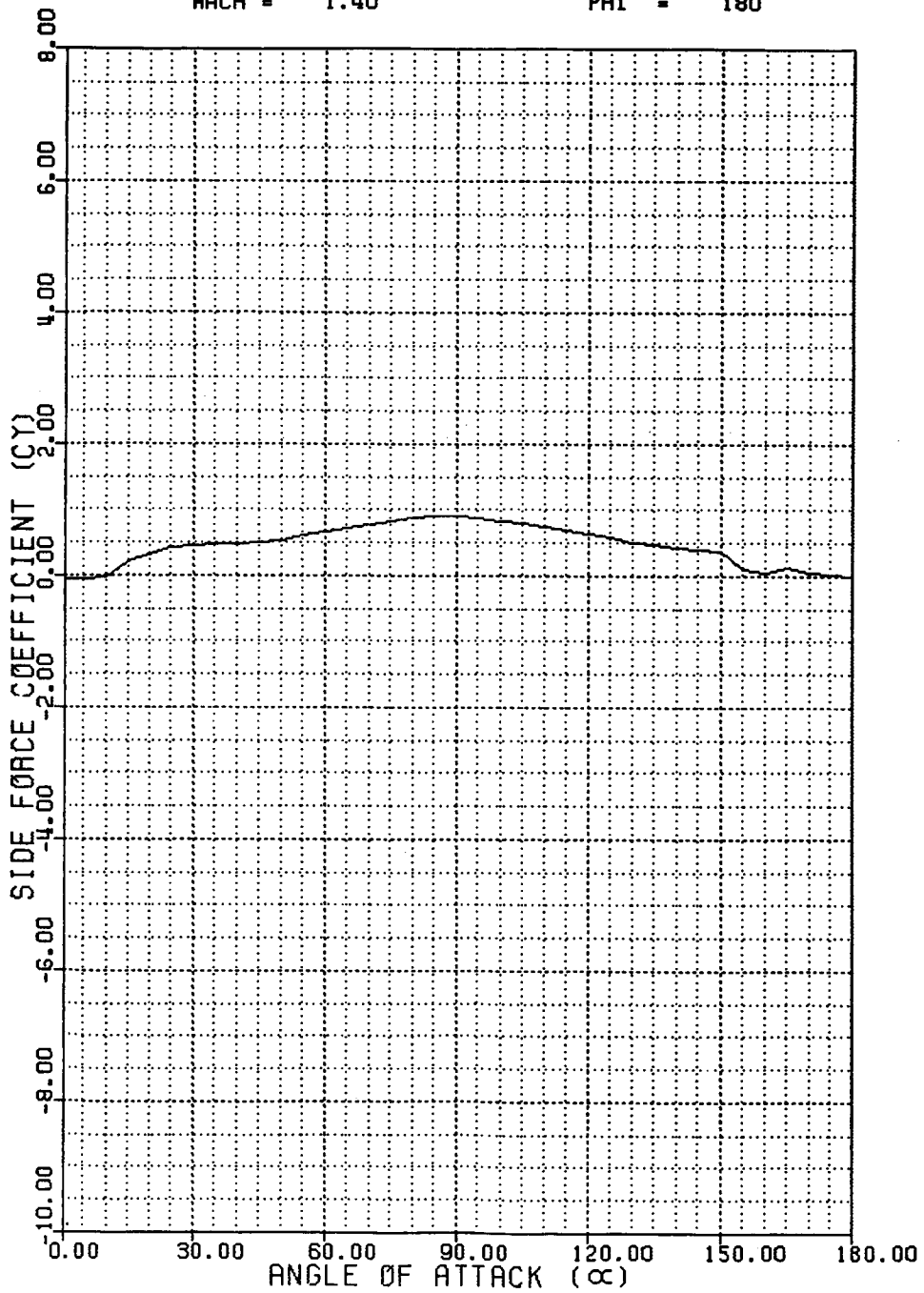


8-991

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 180



B-392

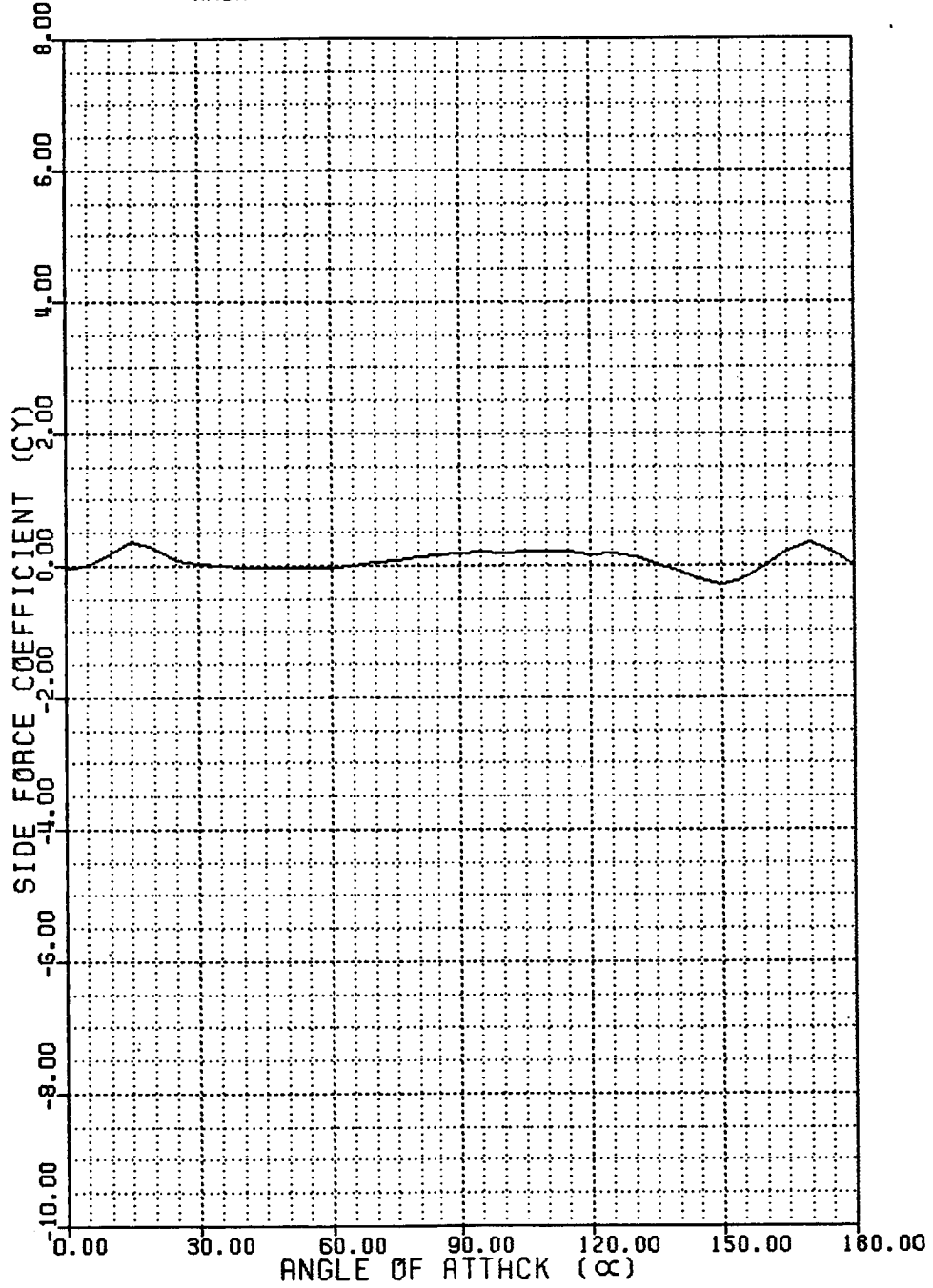
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225

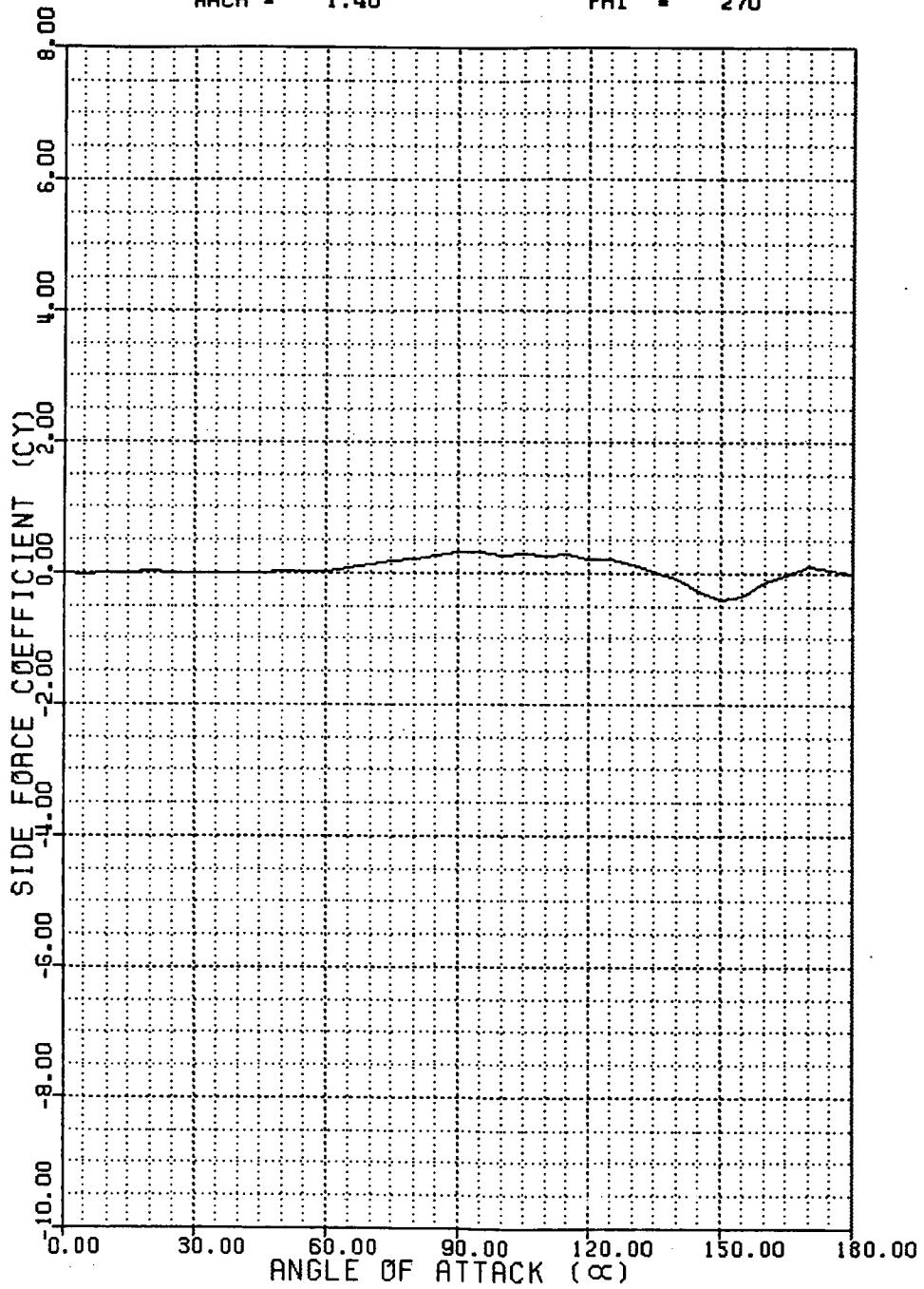


B-393

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270



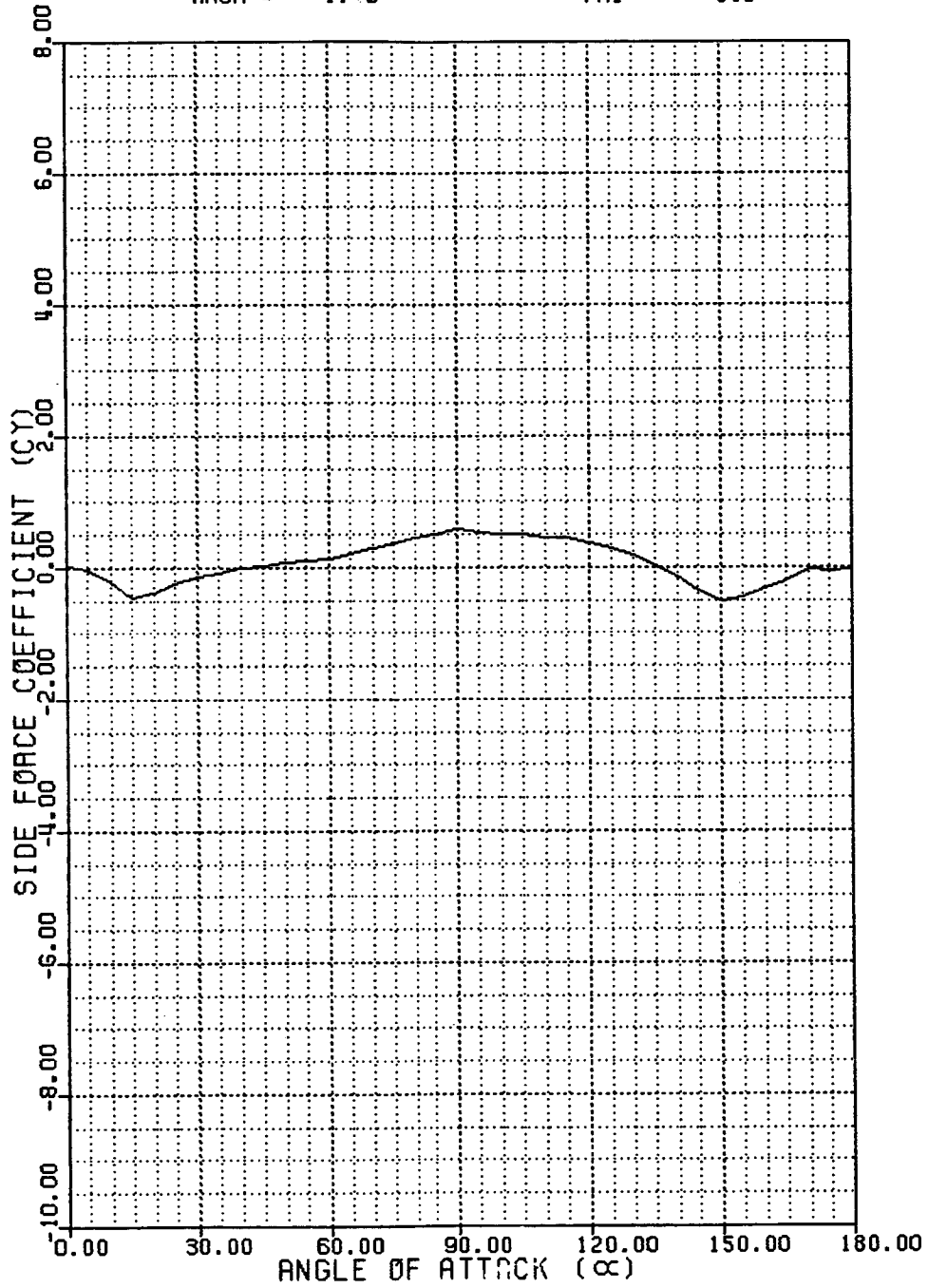
B-394

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

### SRB TAPE 8 DATA

MACH = 1.40

PHI = 315

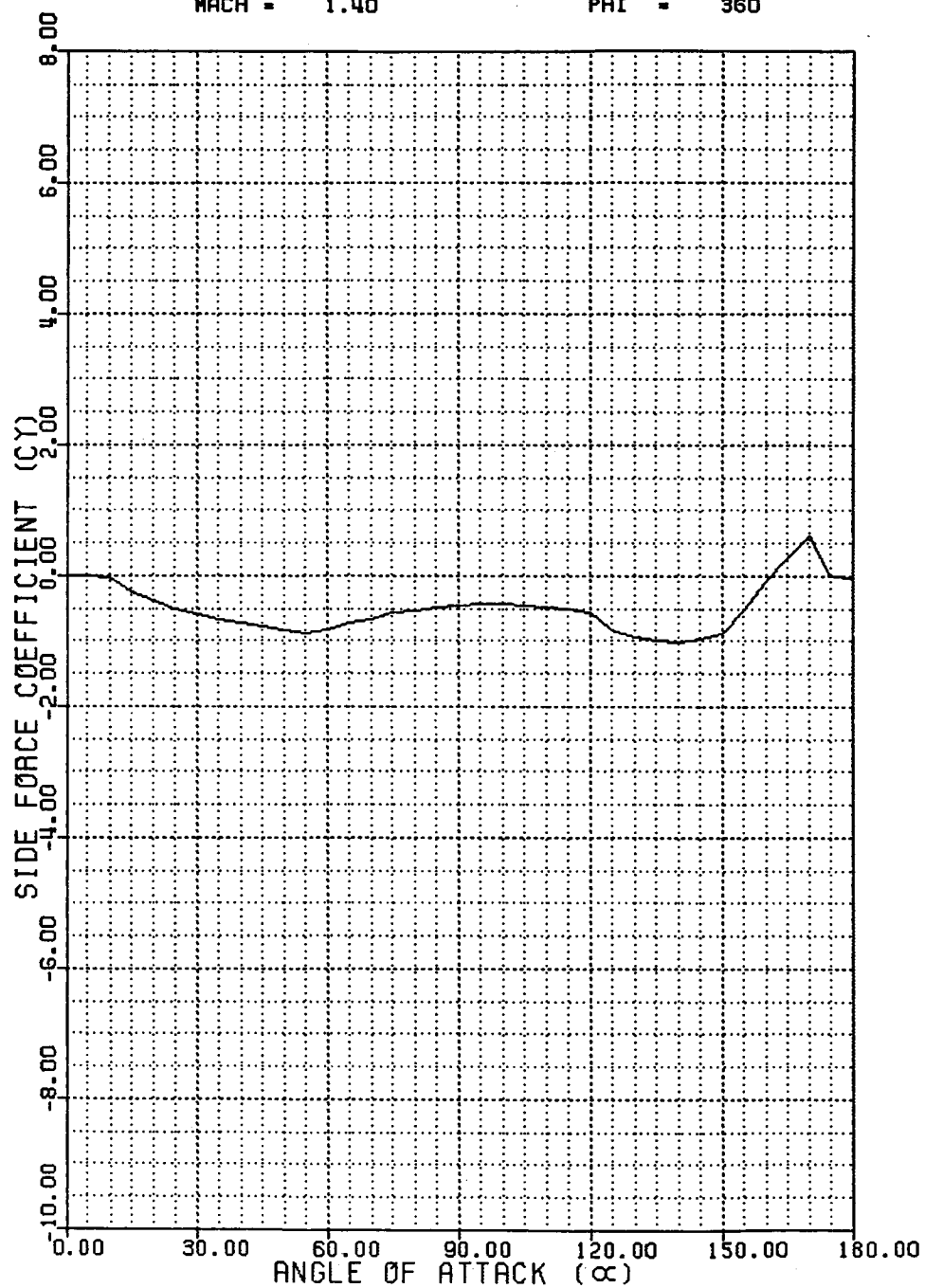


B-395

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360



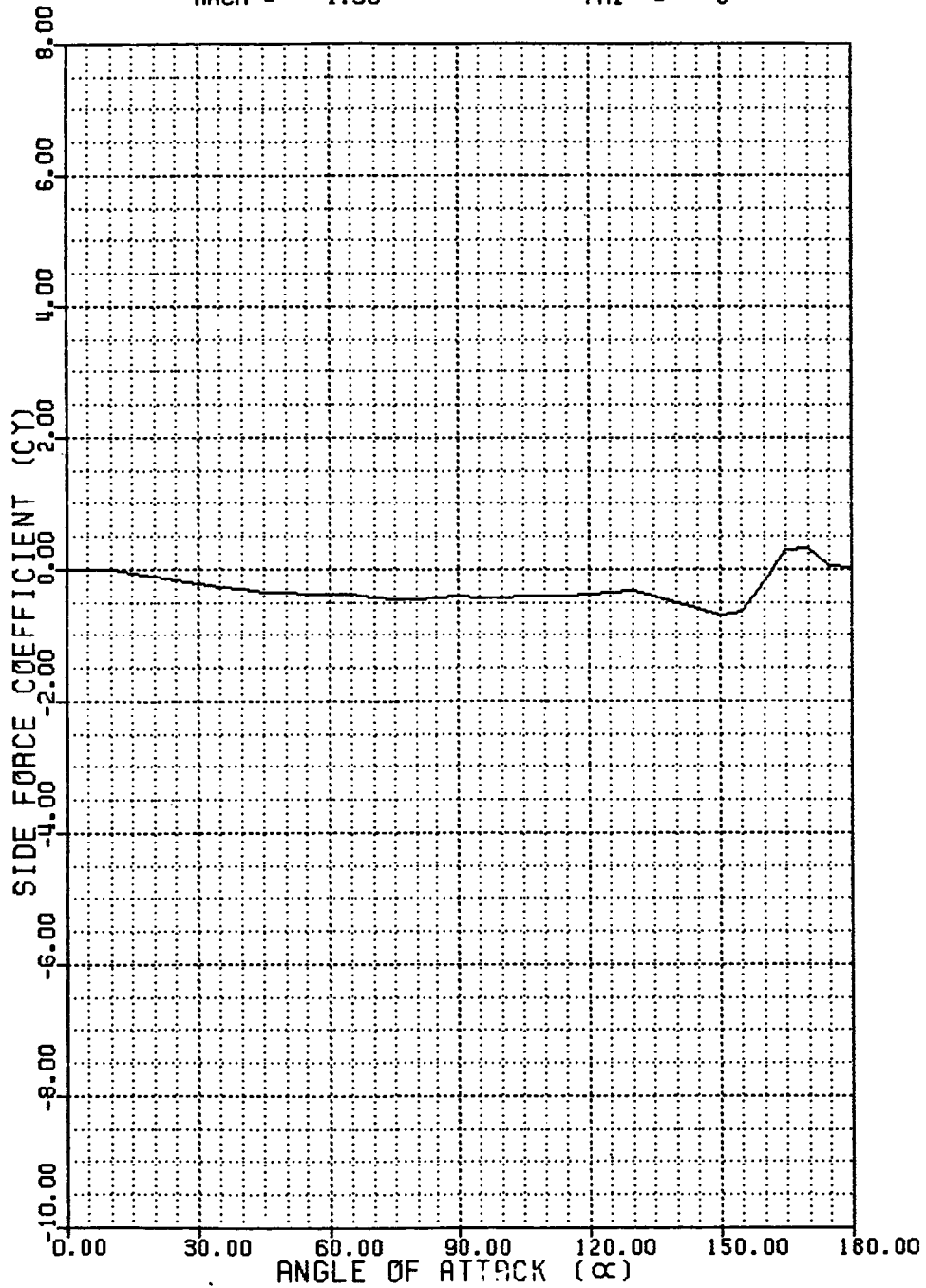
B-396

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 0

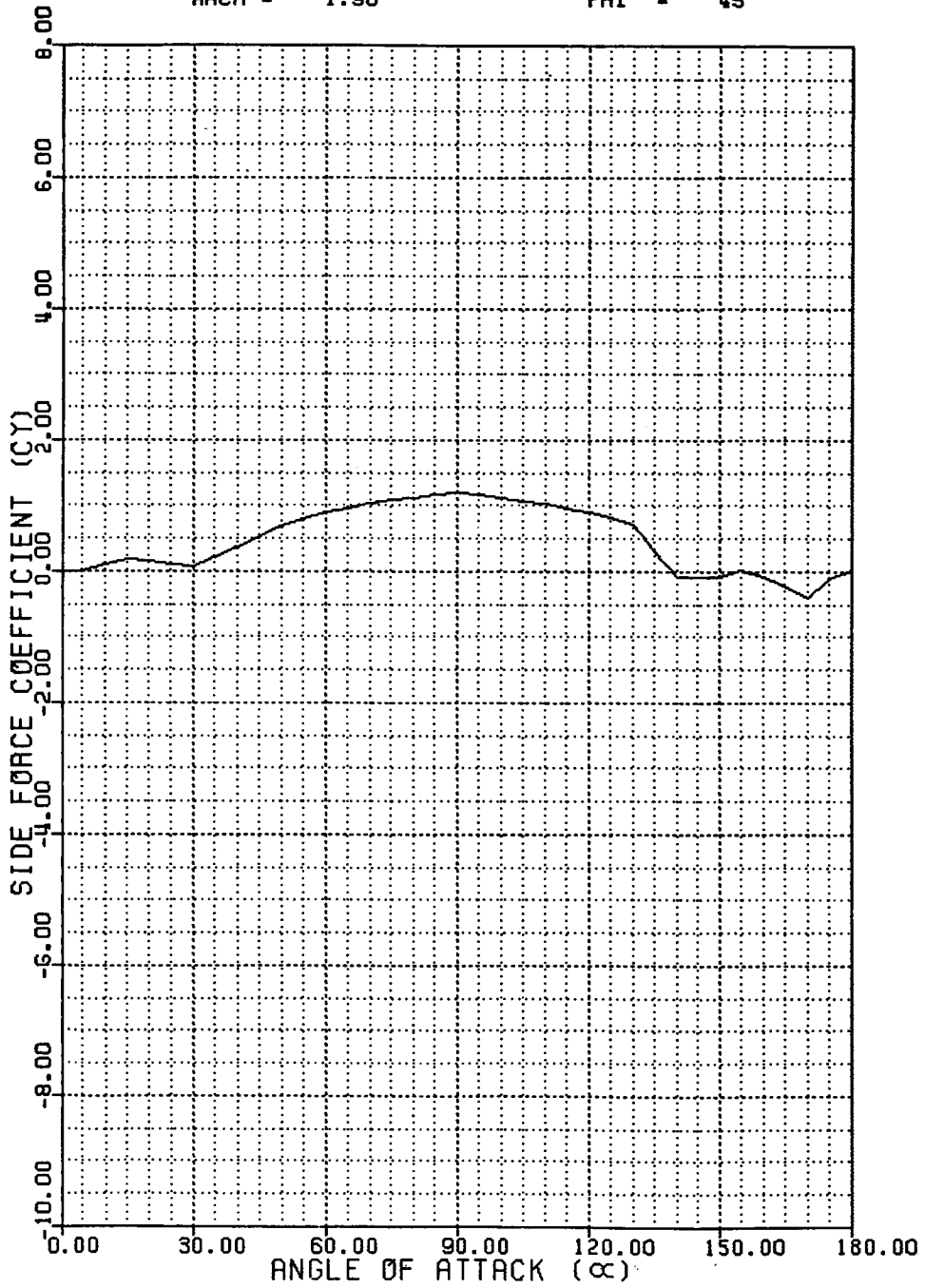


B-397

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45



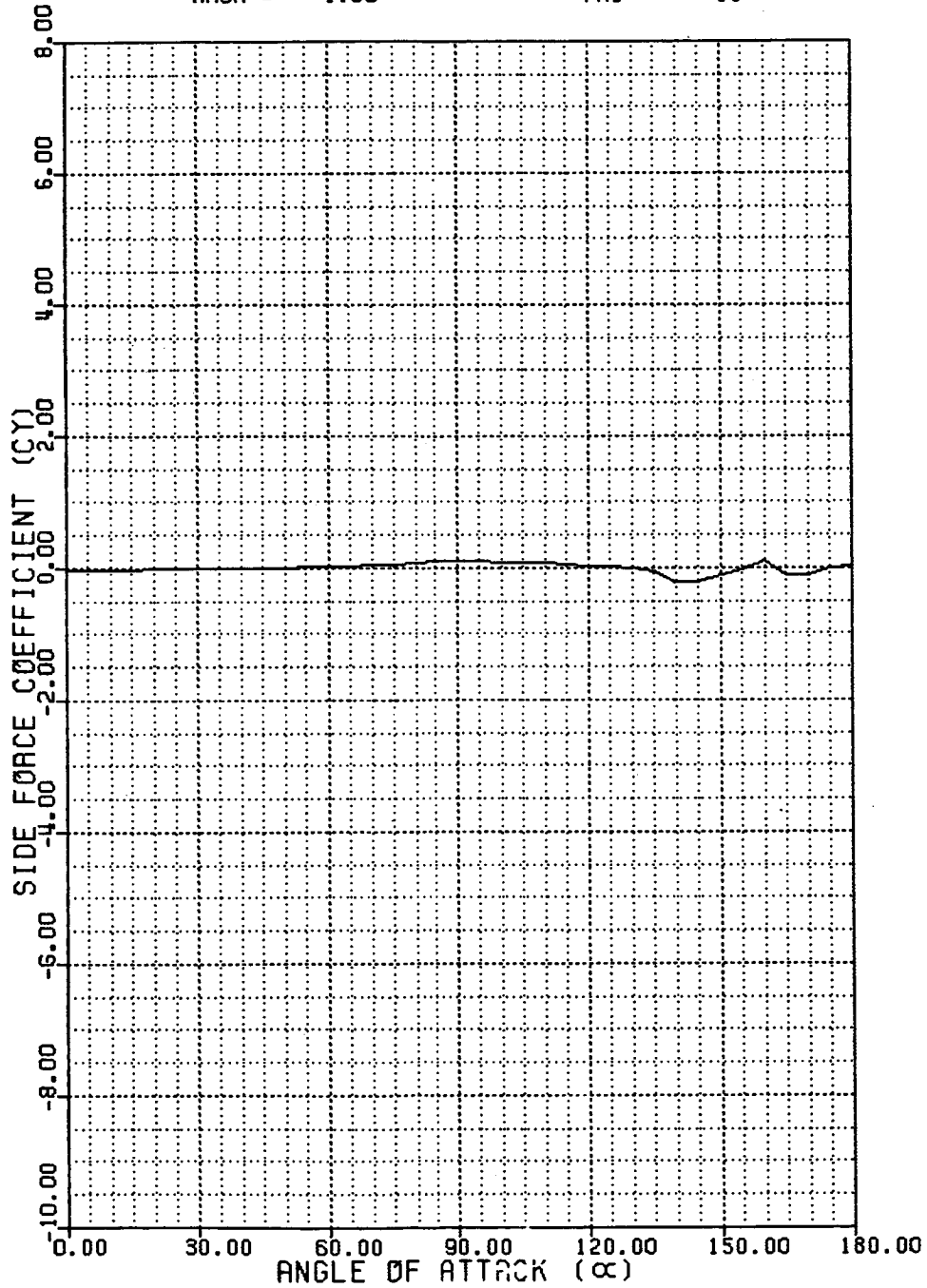
B-398

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90

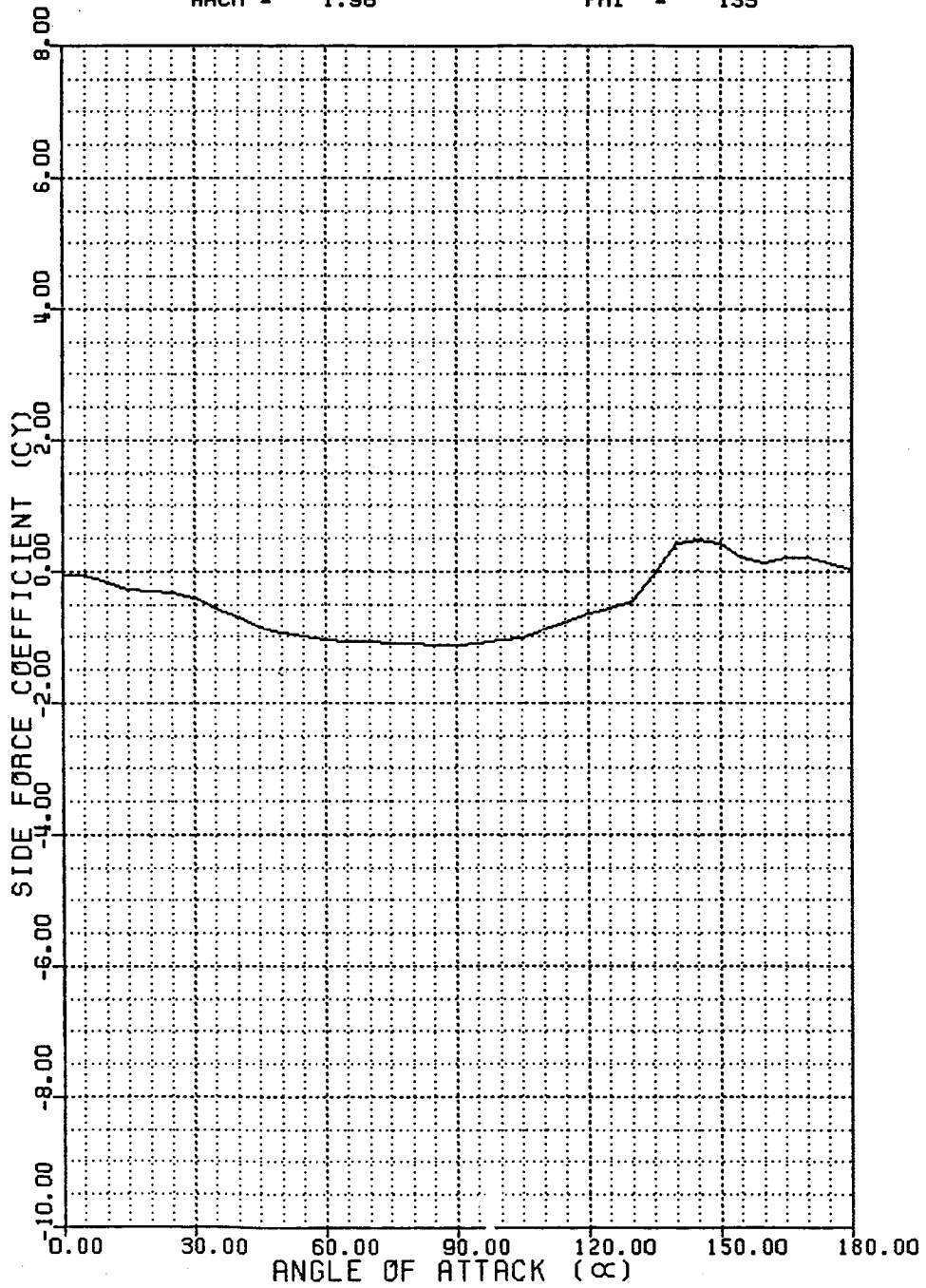


B-399

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135



B-400

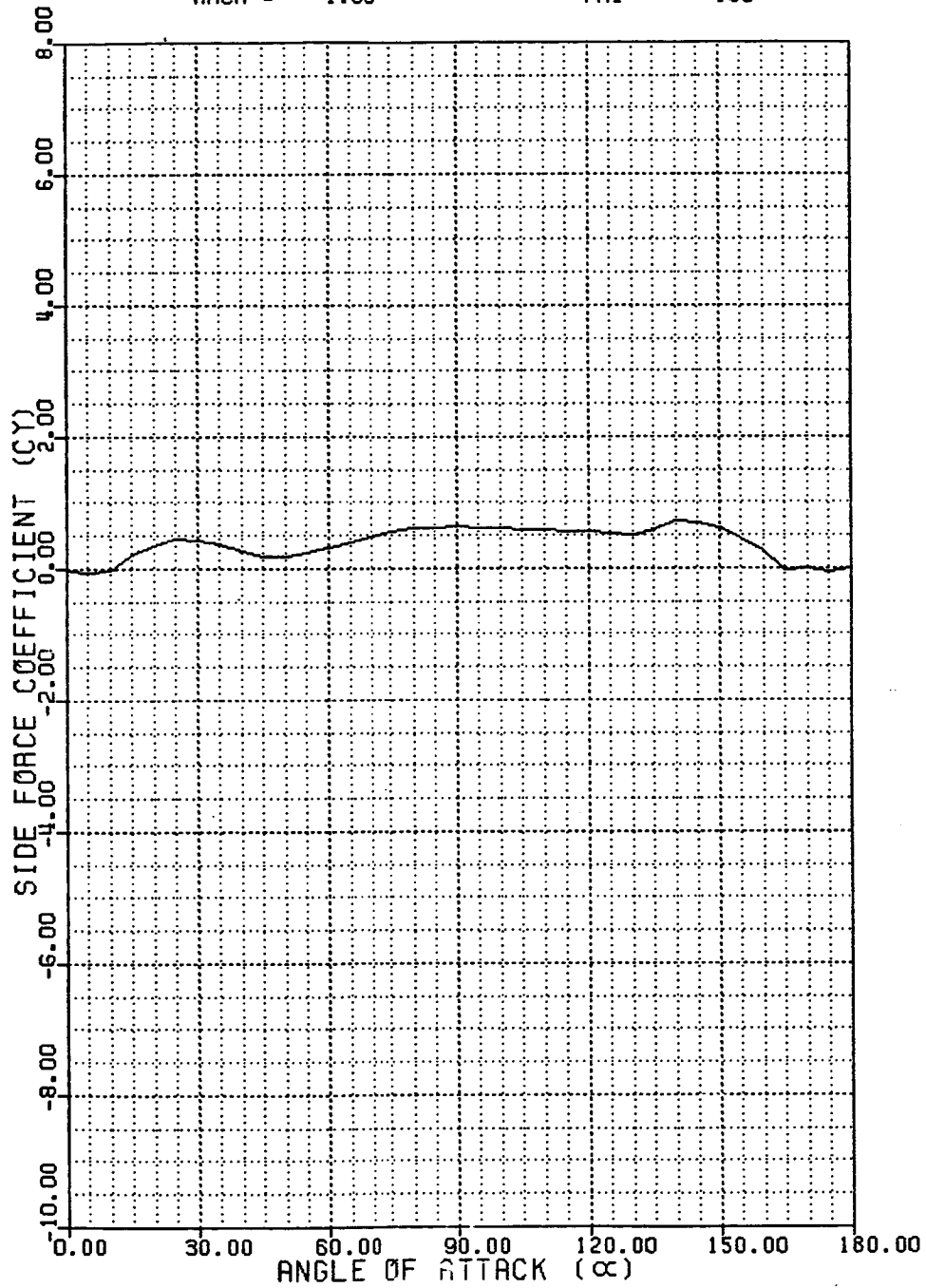
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180



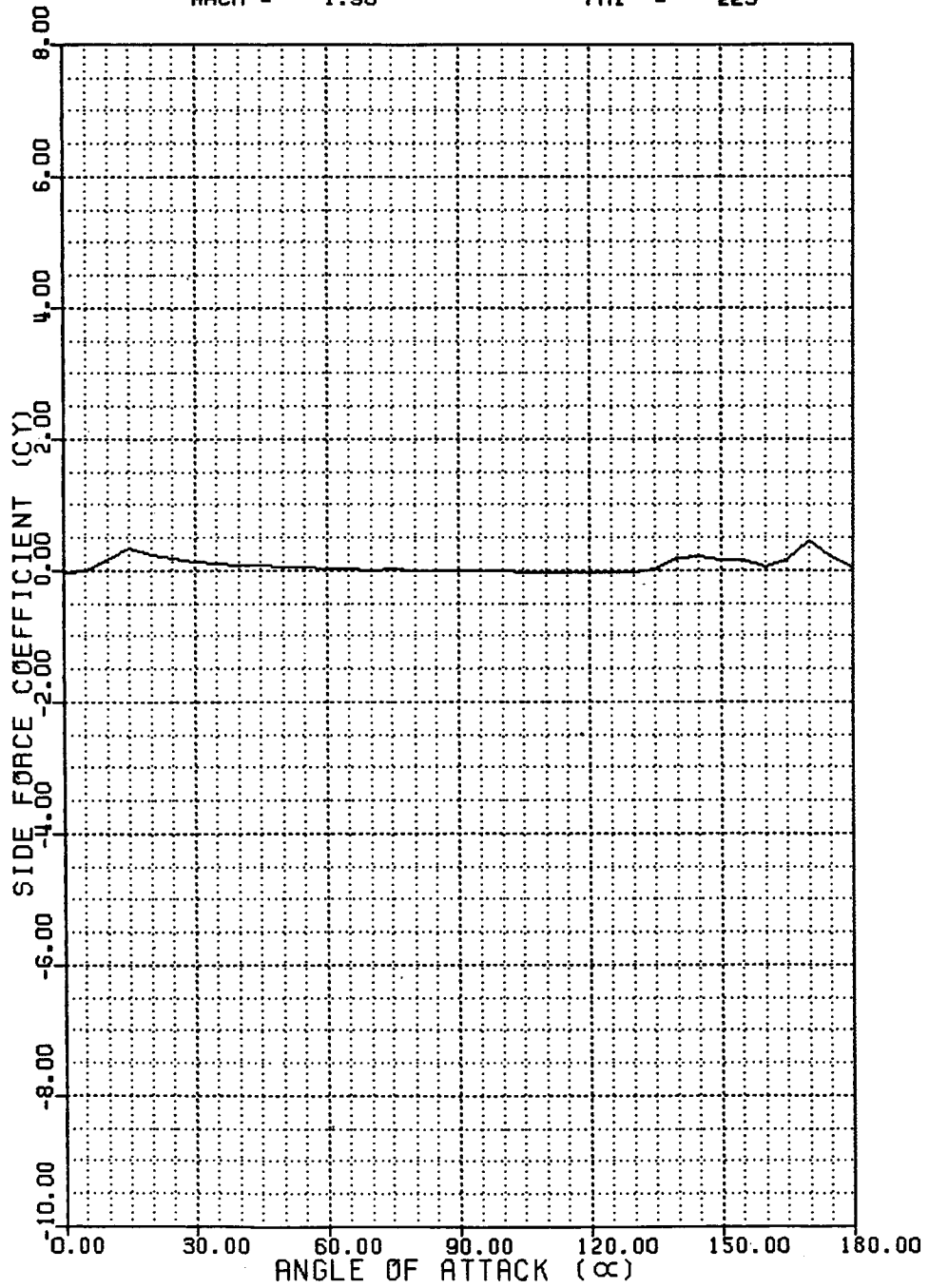
B-401

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225



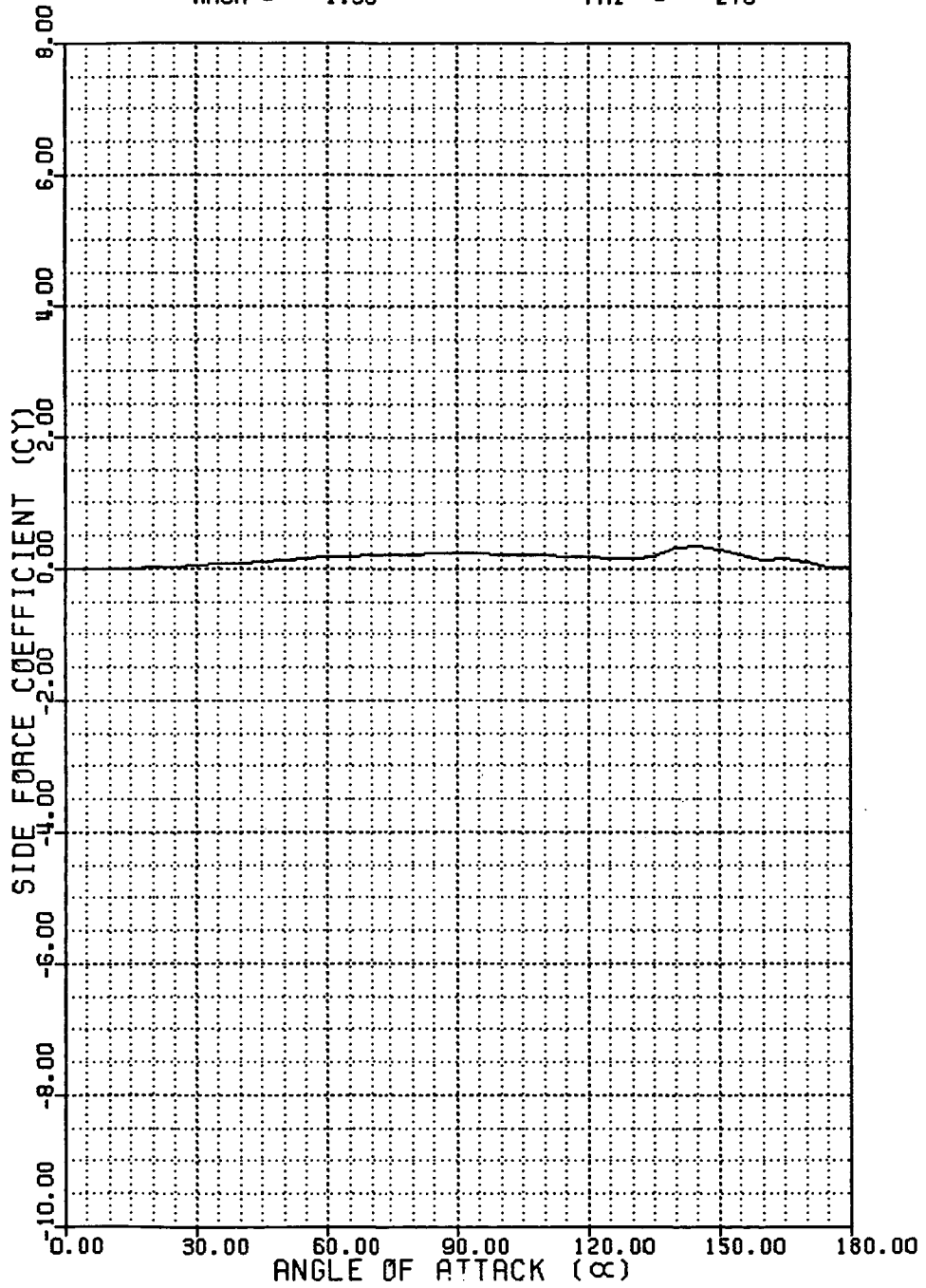
B-402

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270



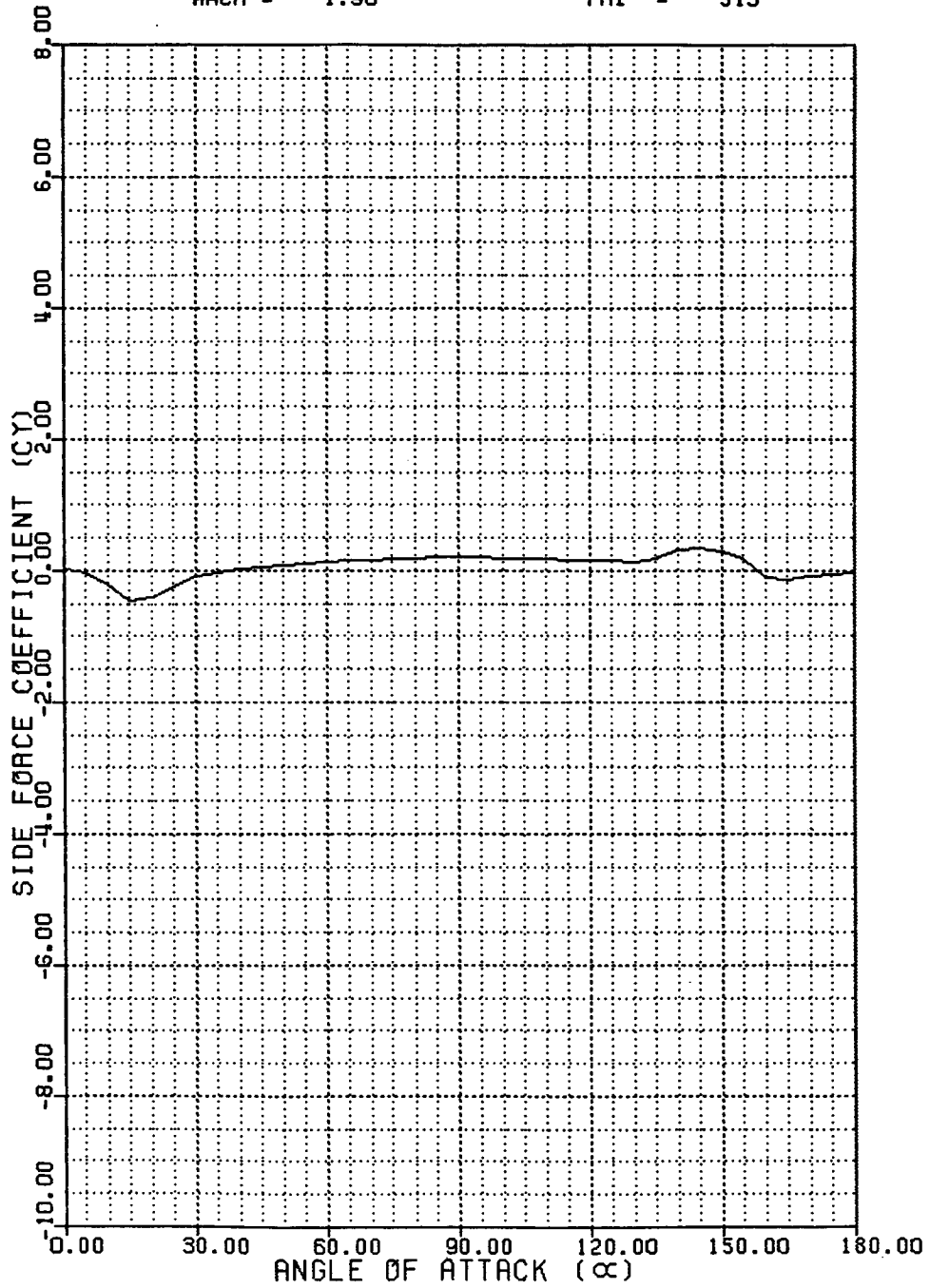
B-403

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315



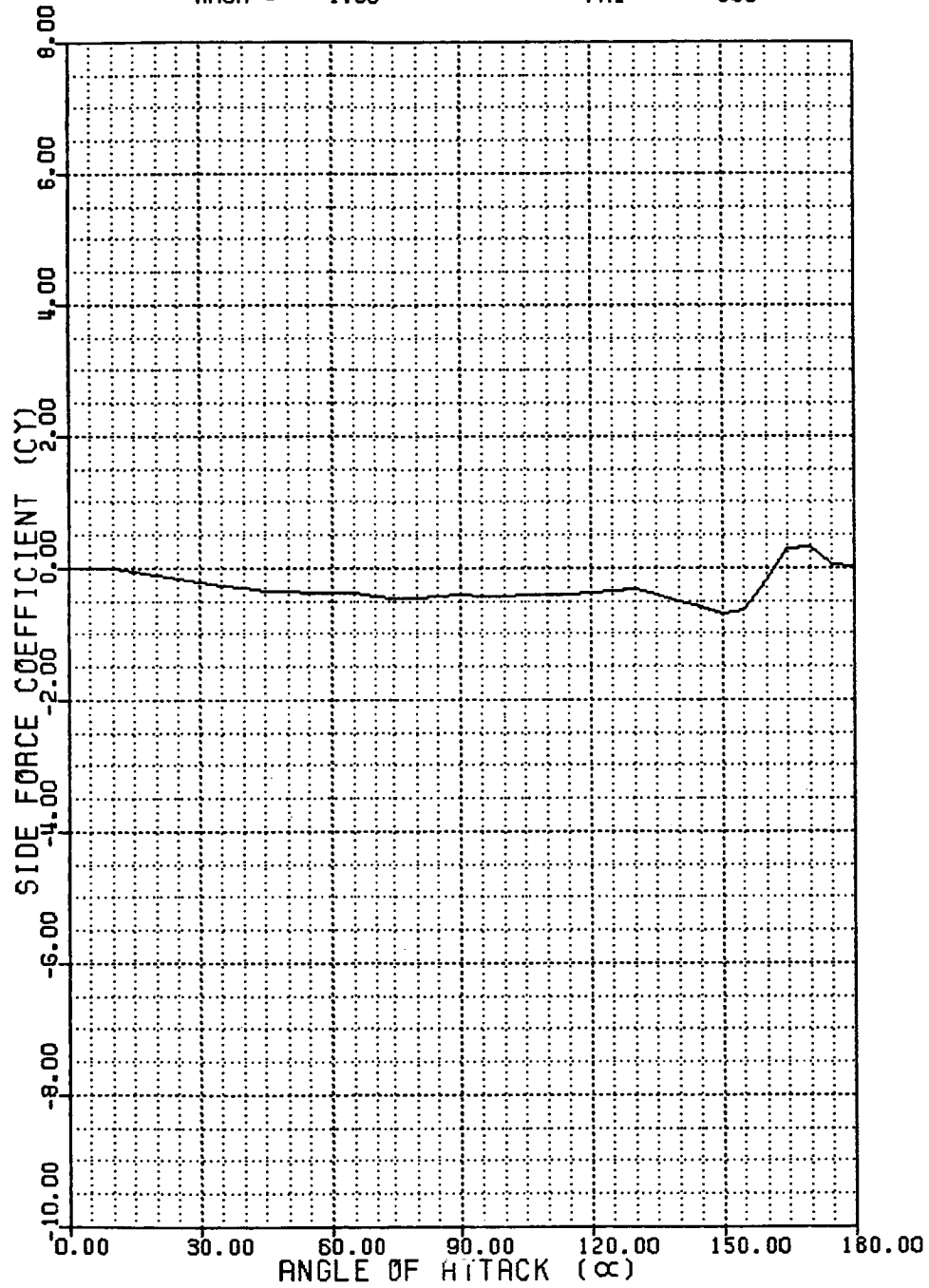
B-404

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 360



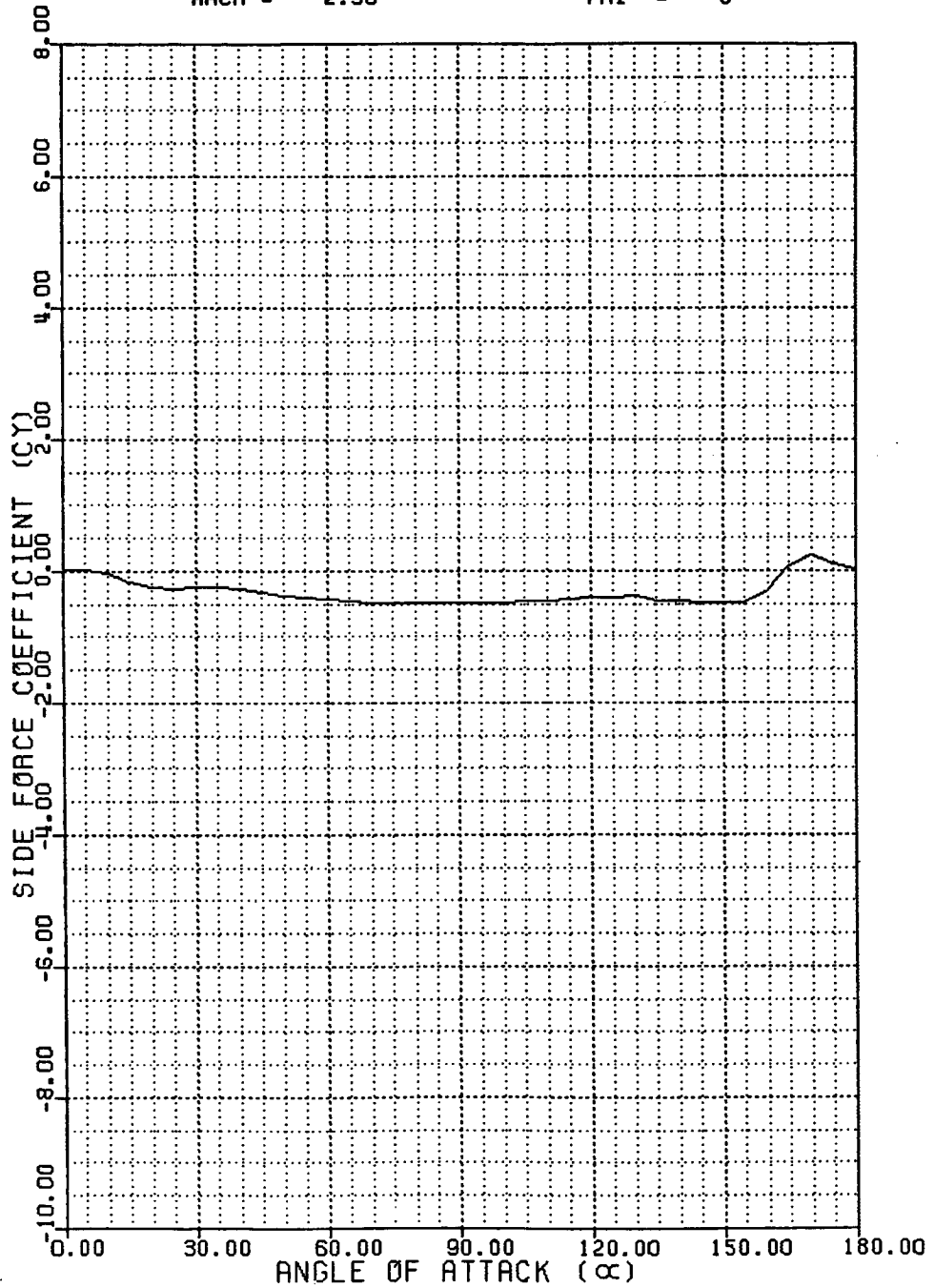
B-405

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



B-406

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

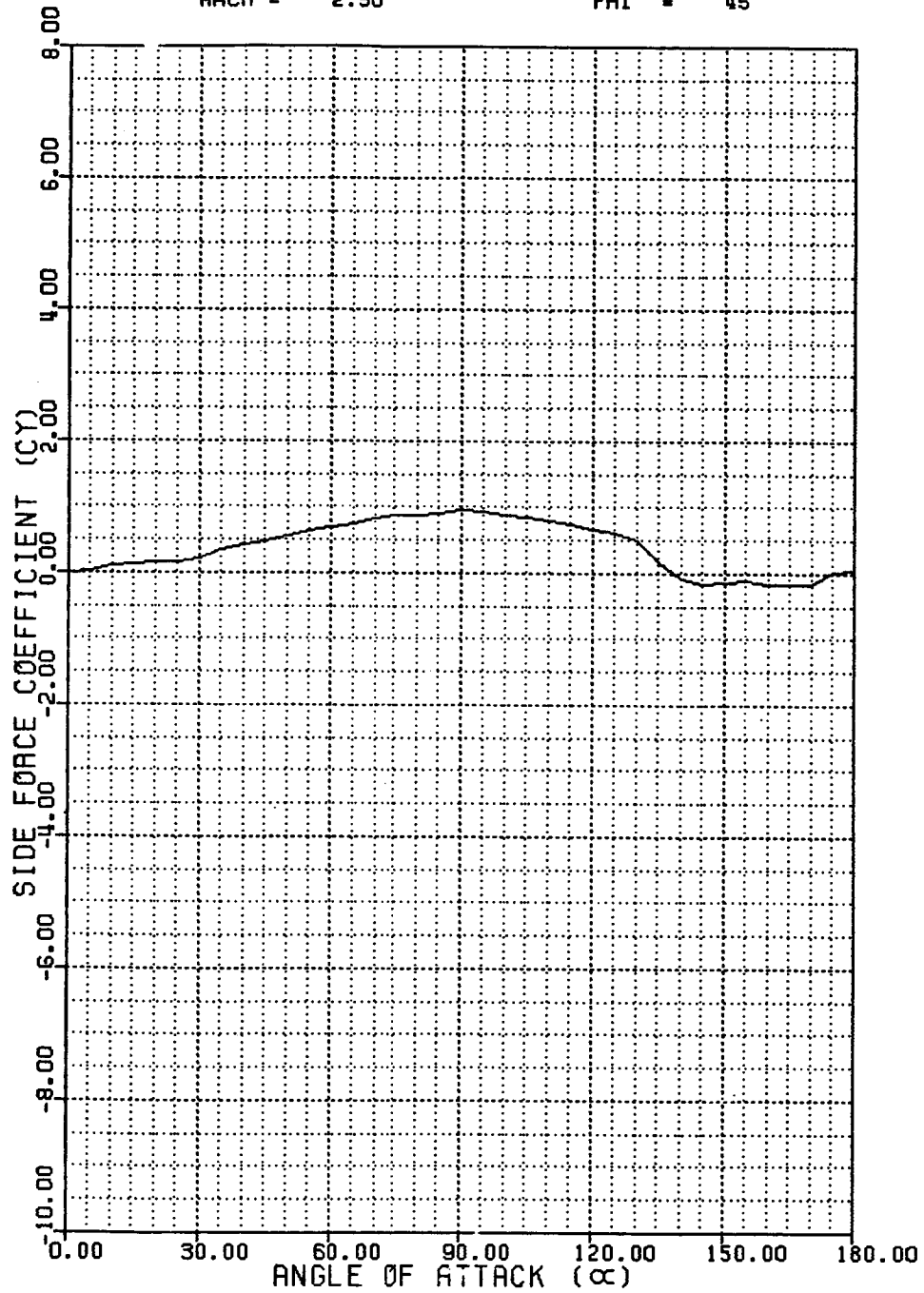
ORIGINAL PAGE IS  
OF POOR QUALITY

LMSC-HREC TR 0951500-1B

### SRB TAPE 8 DATA

MACH = 2.50

PHI = 45



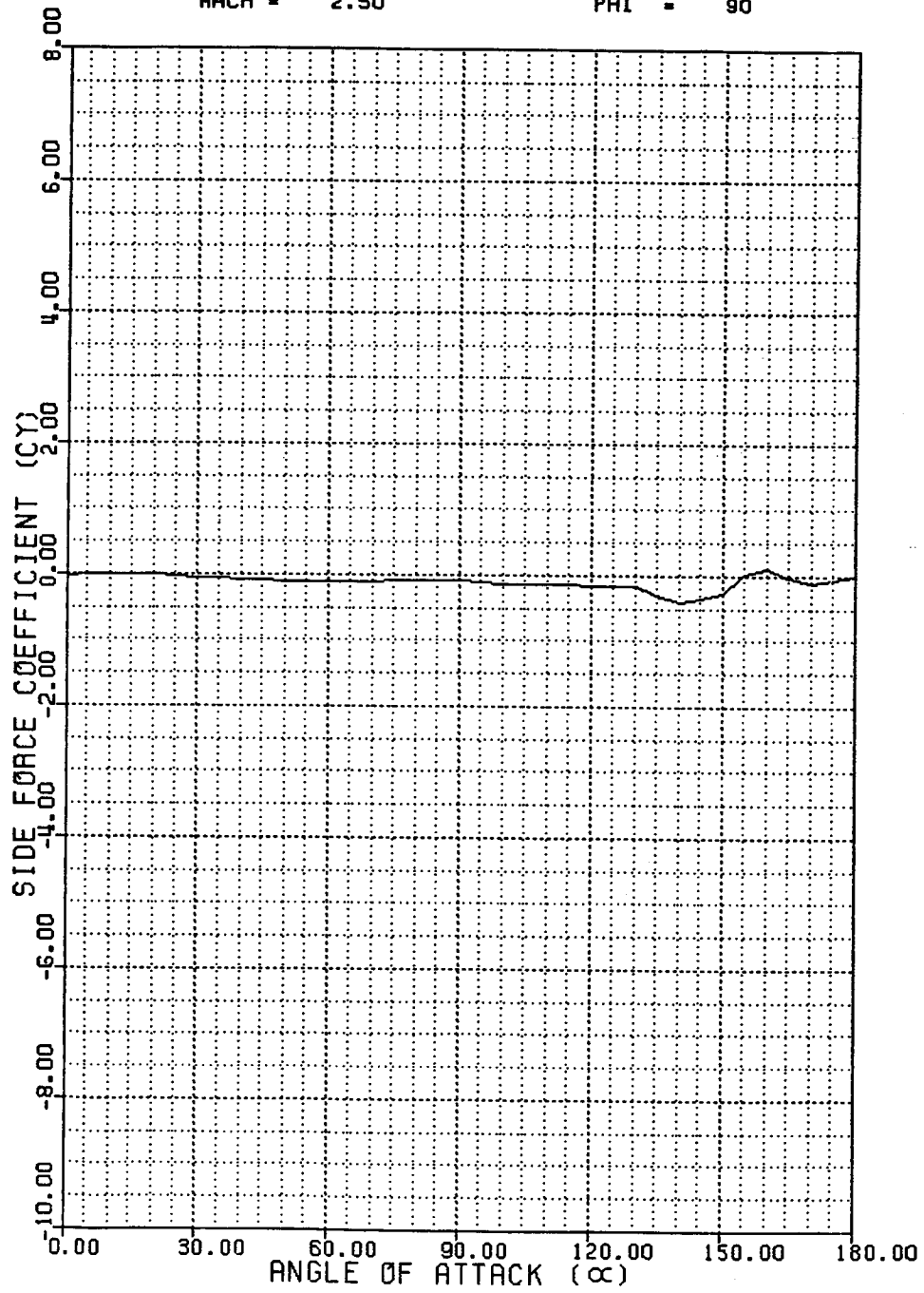
B-407

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90



B-408

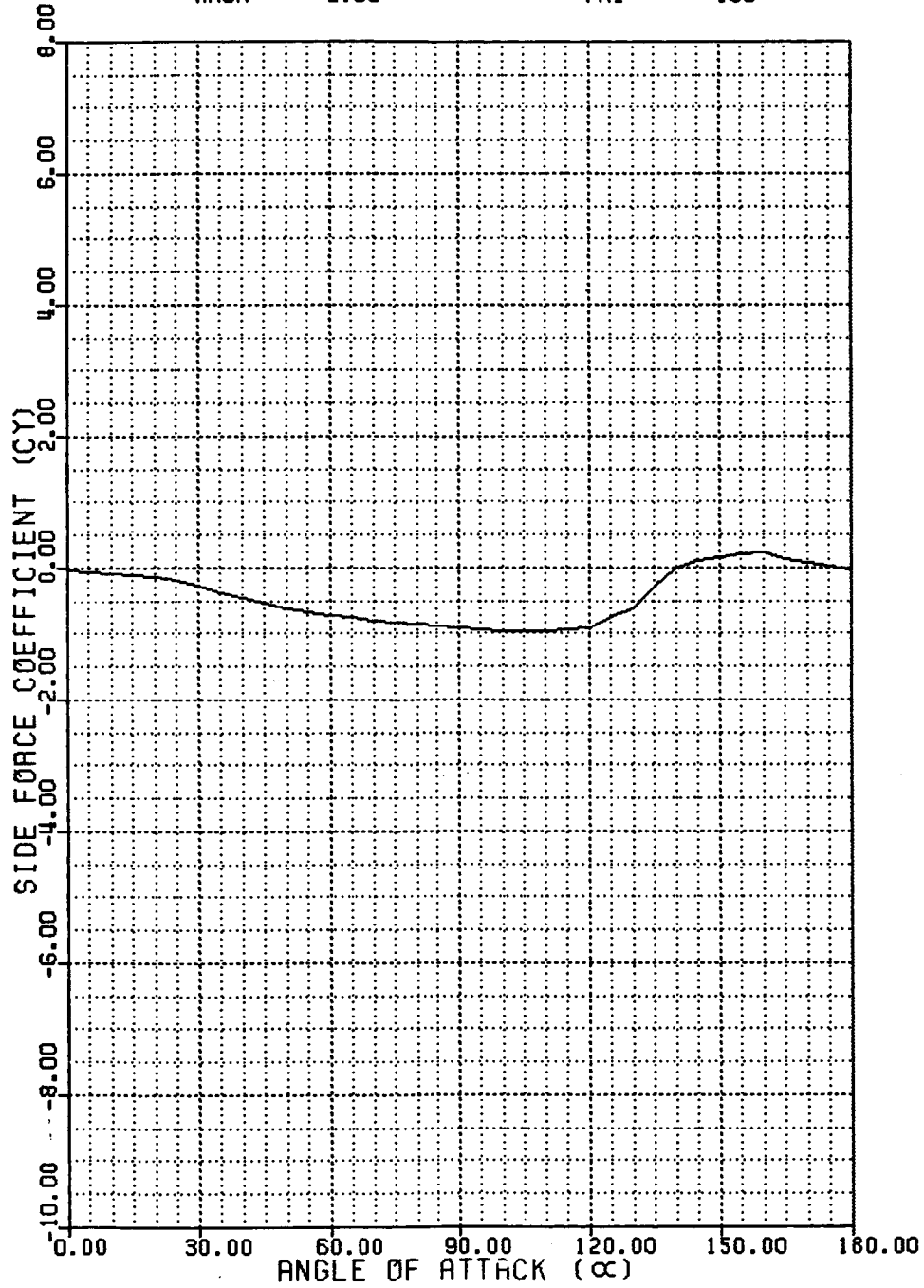
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135

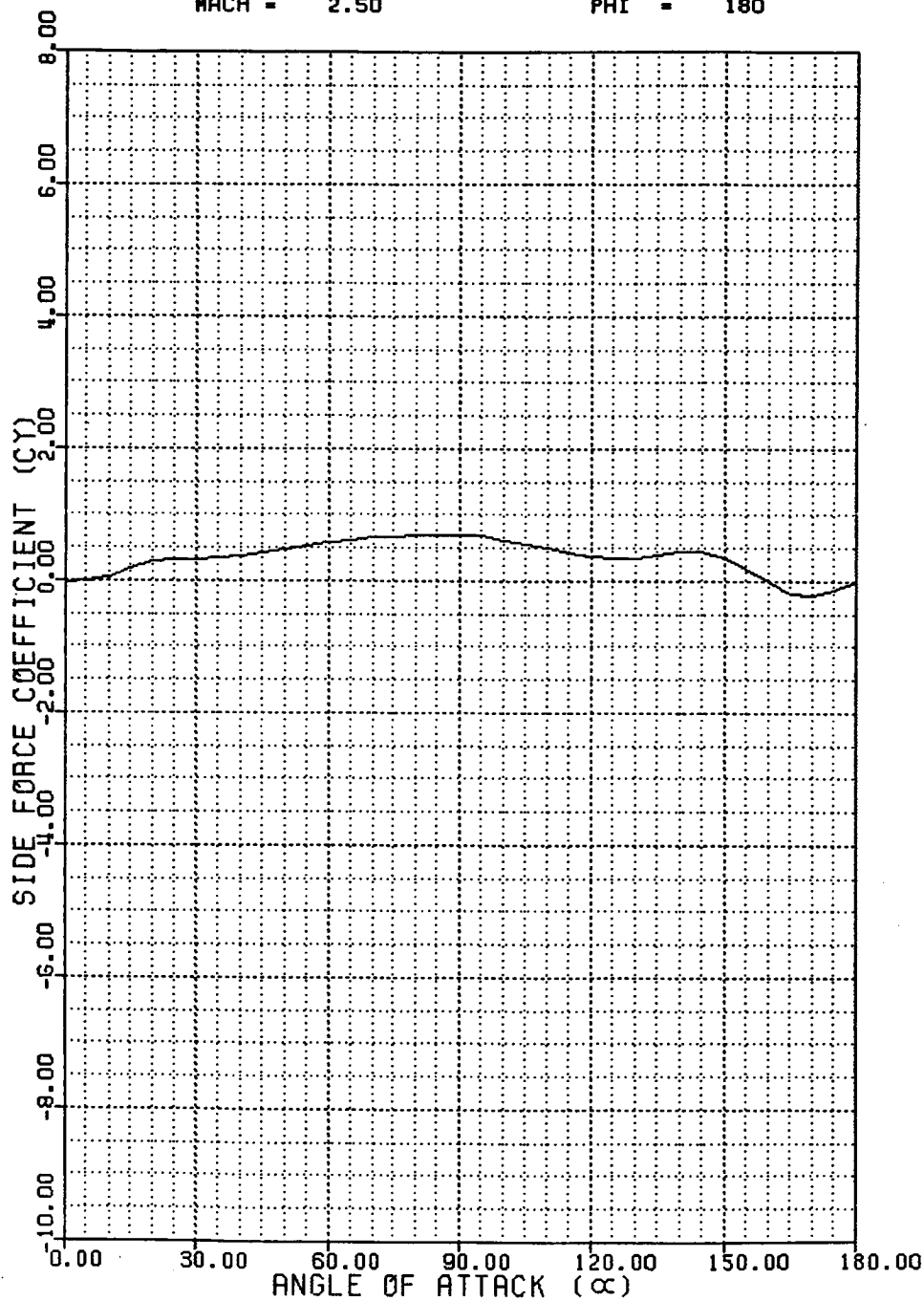


B-409

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



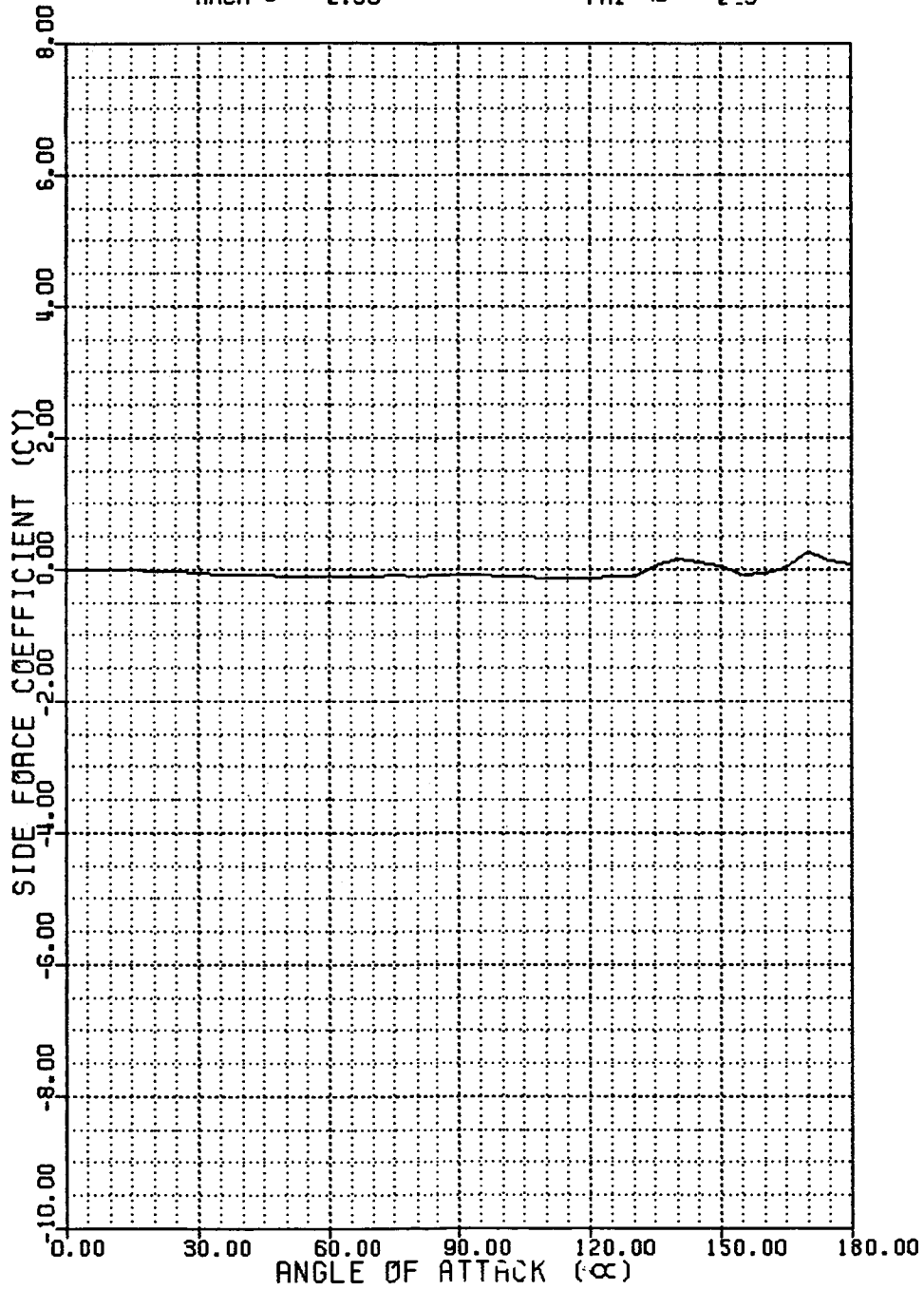
B-410

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225



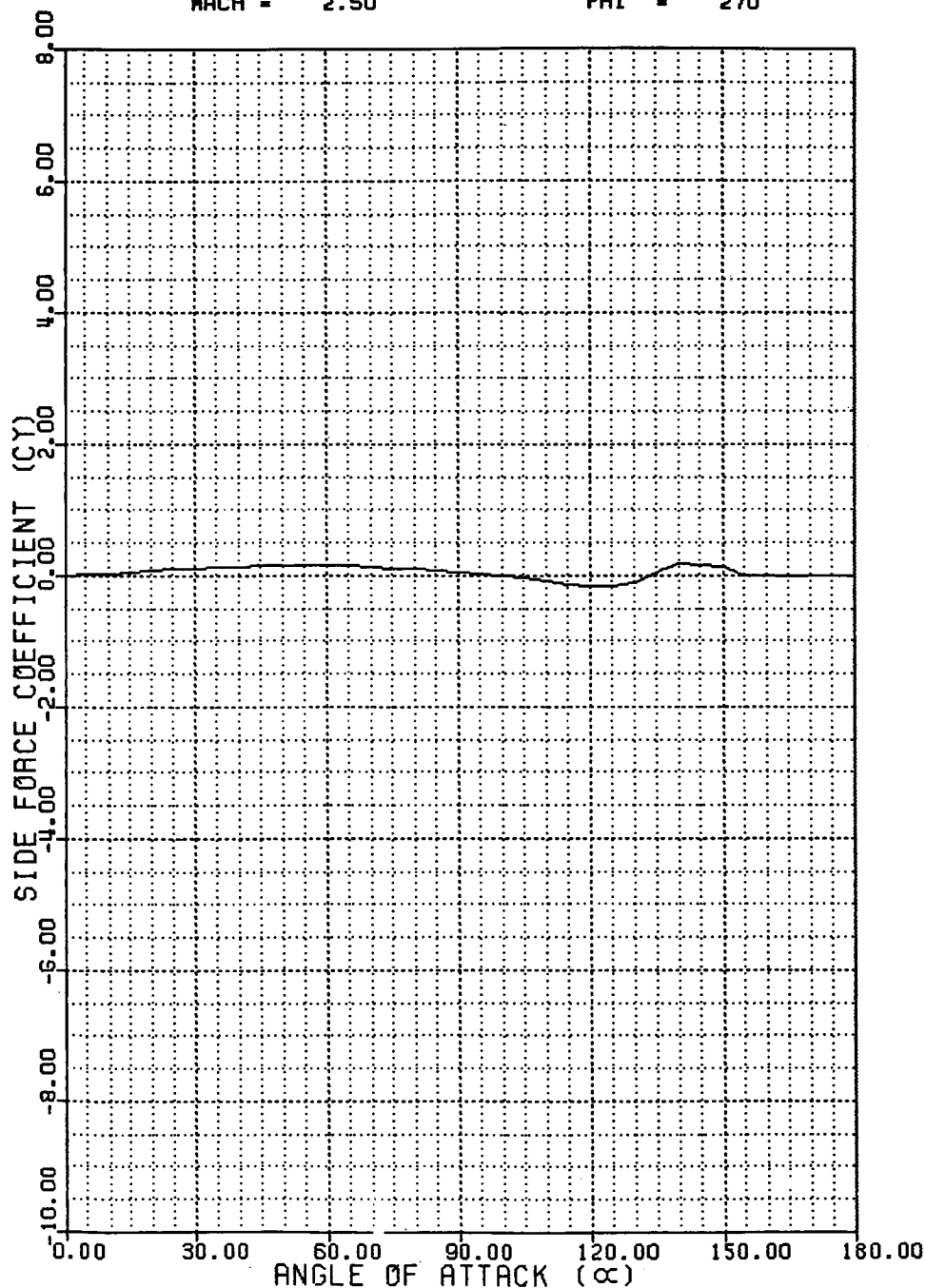
B-411

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270



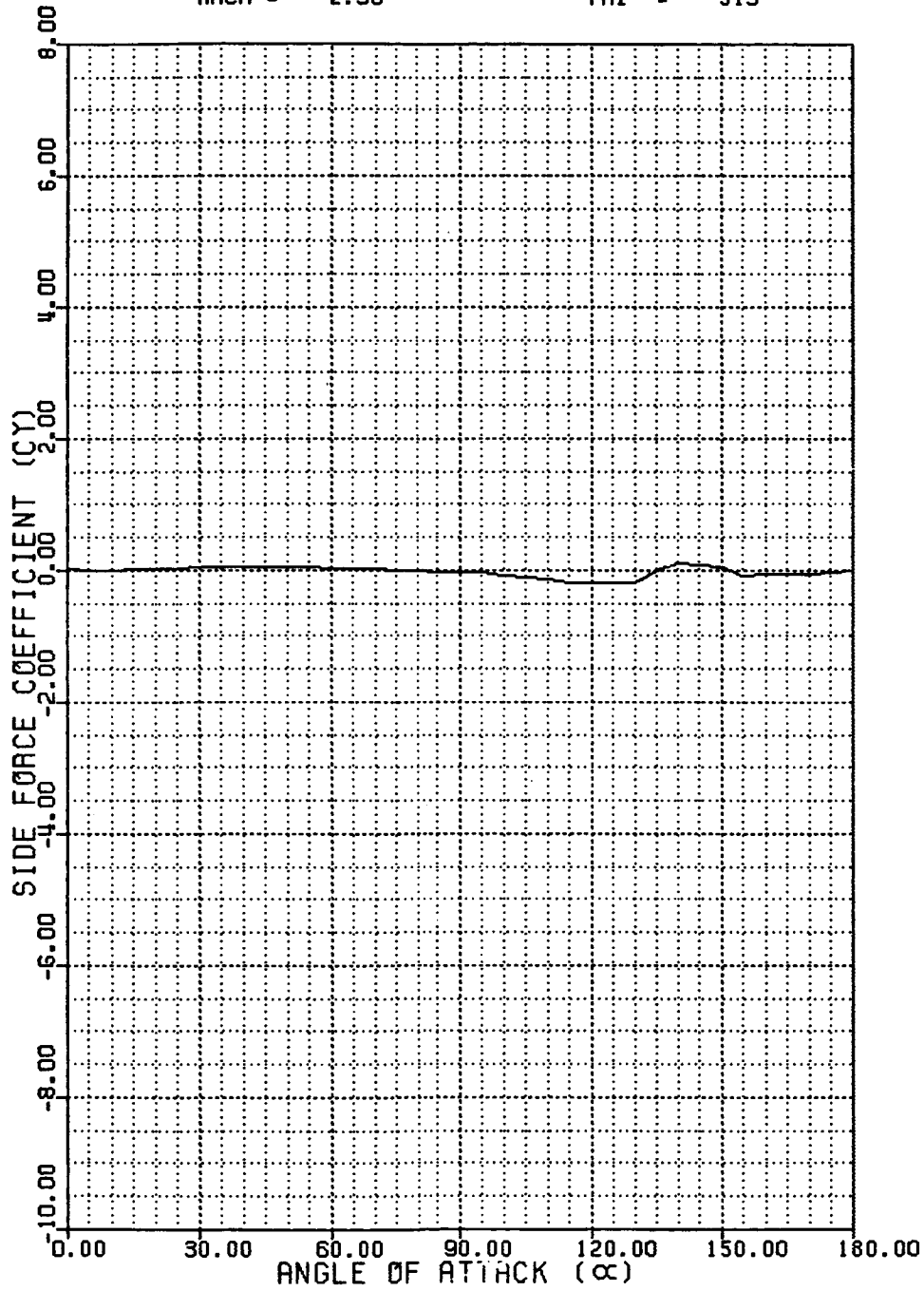
B-412

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315

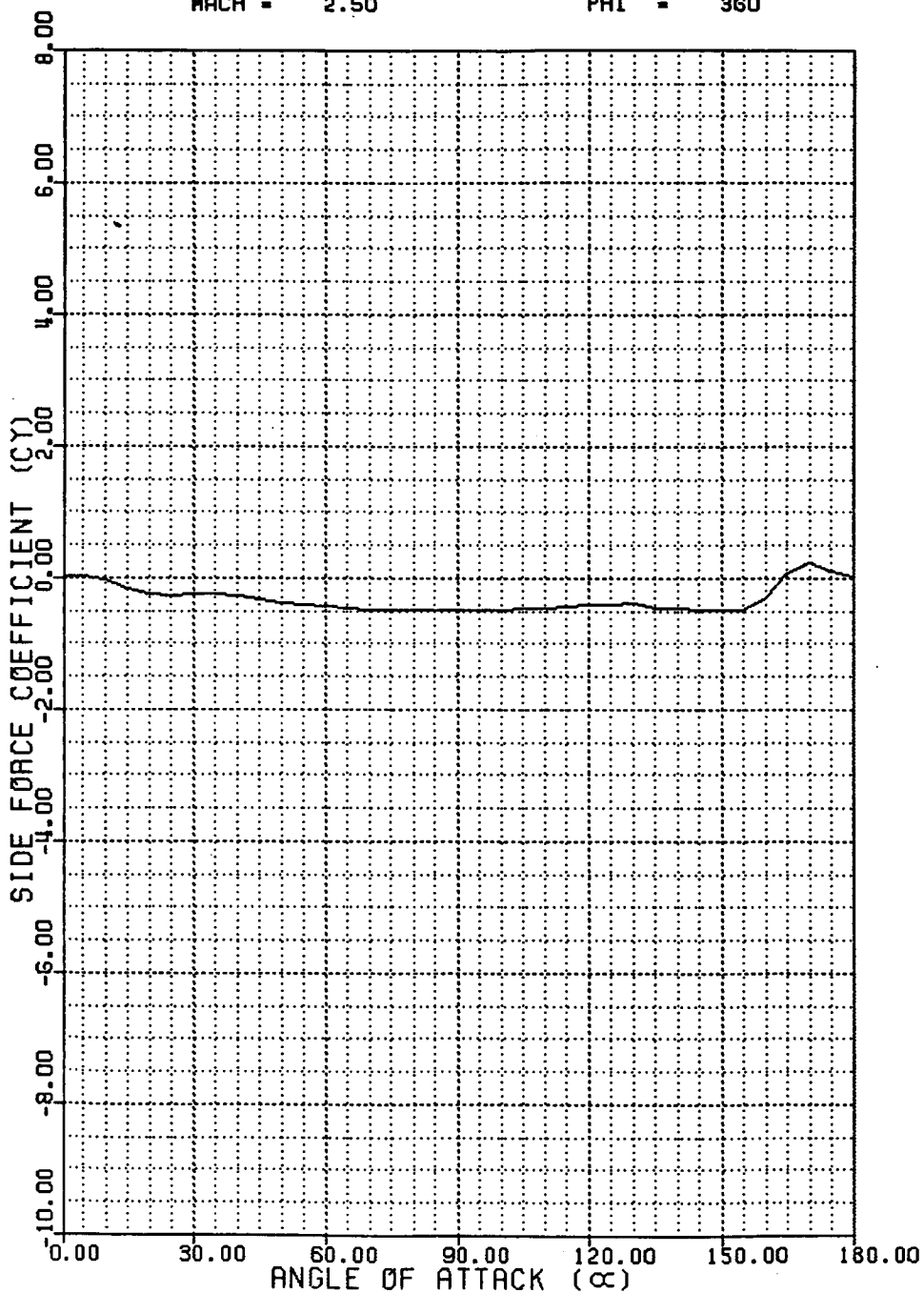


B-413

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360



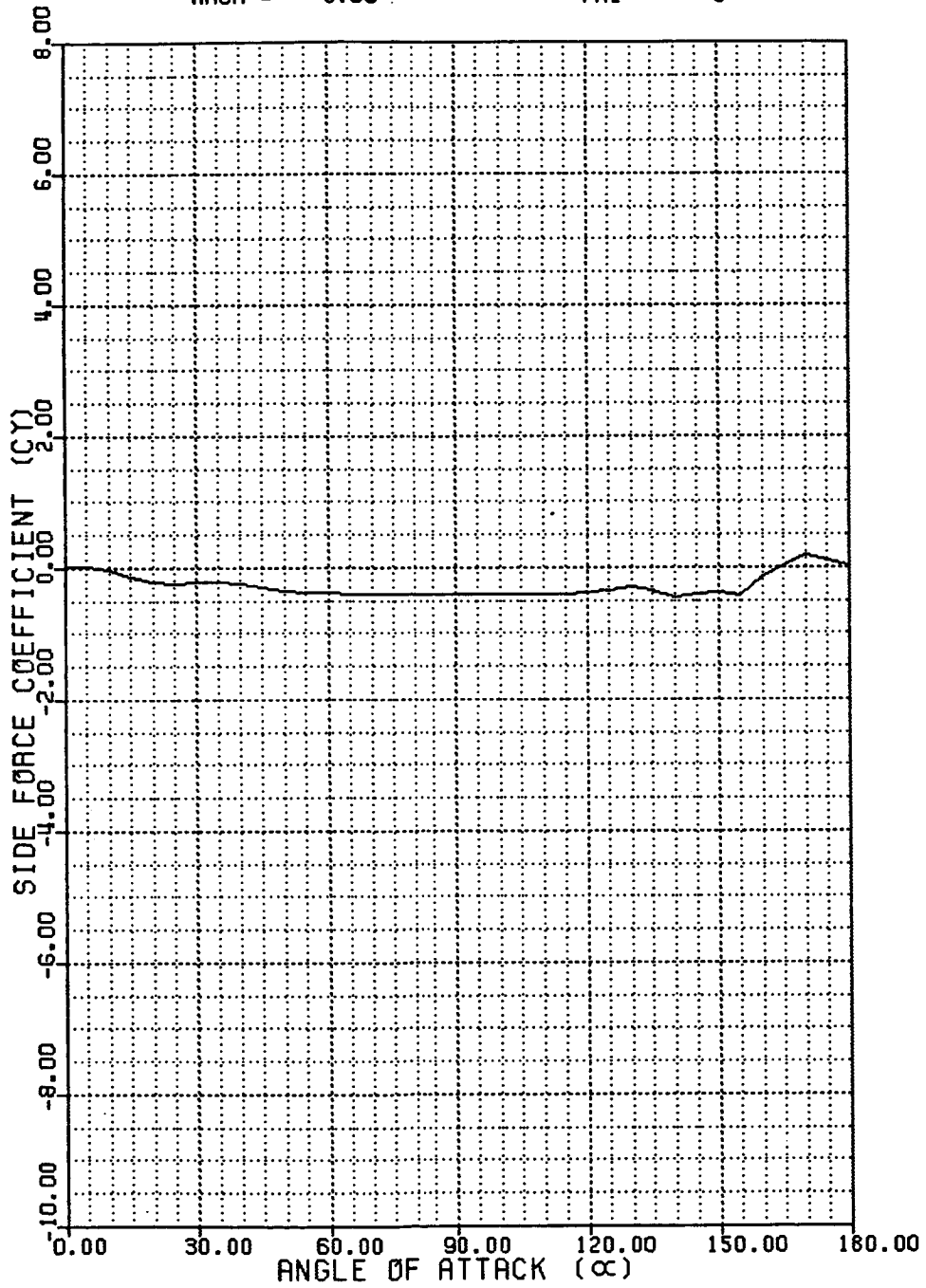
B-414

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0



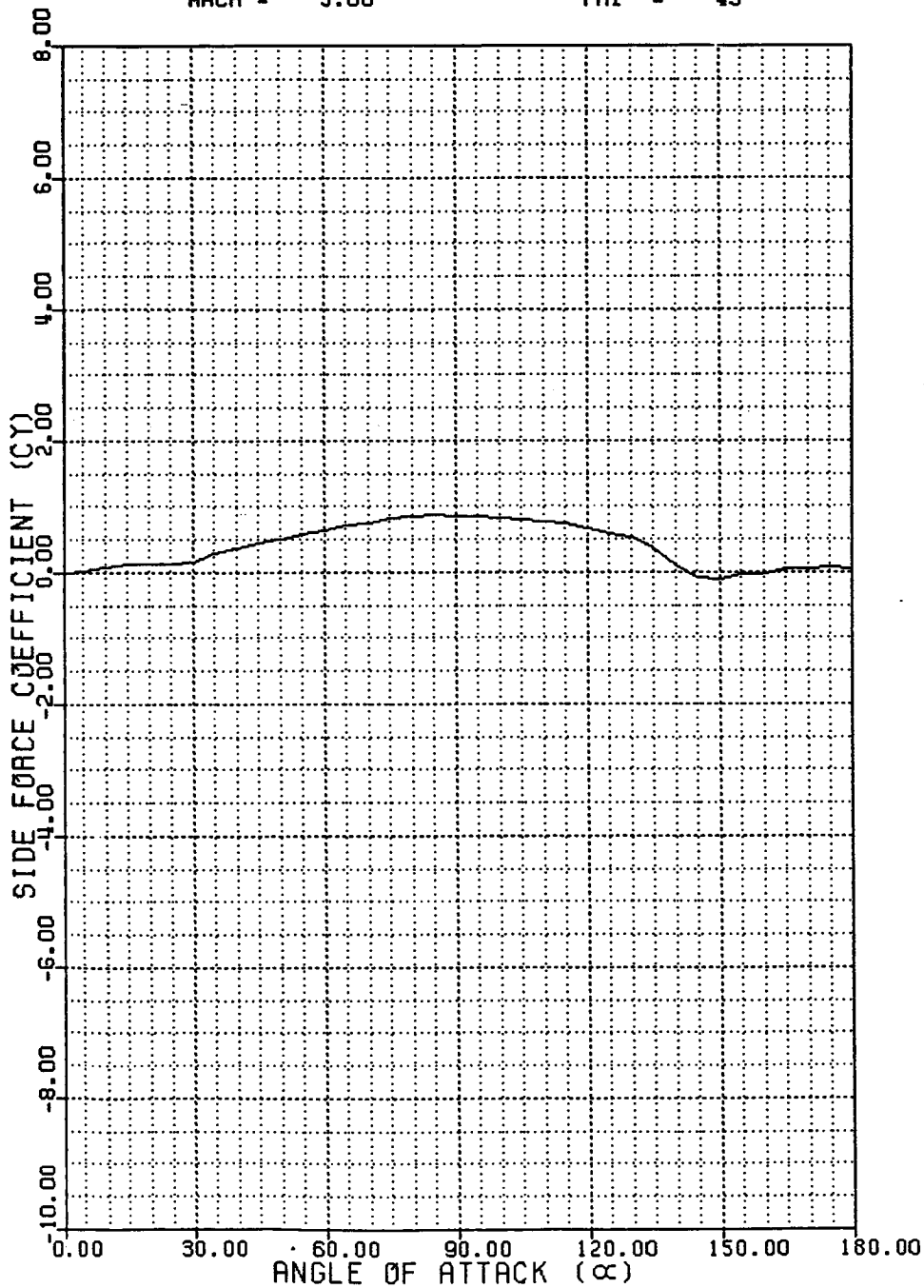
B-415

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45



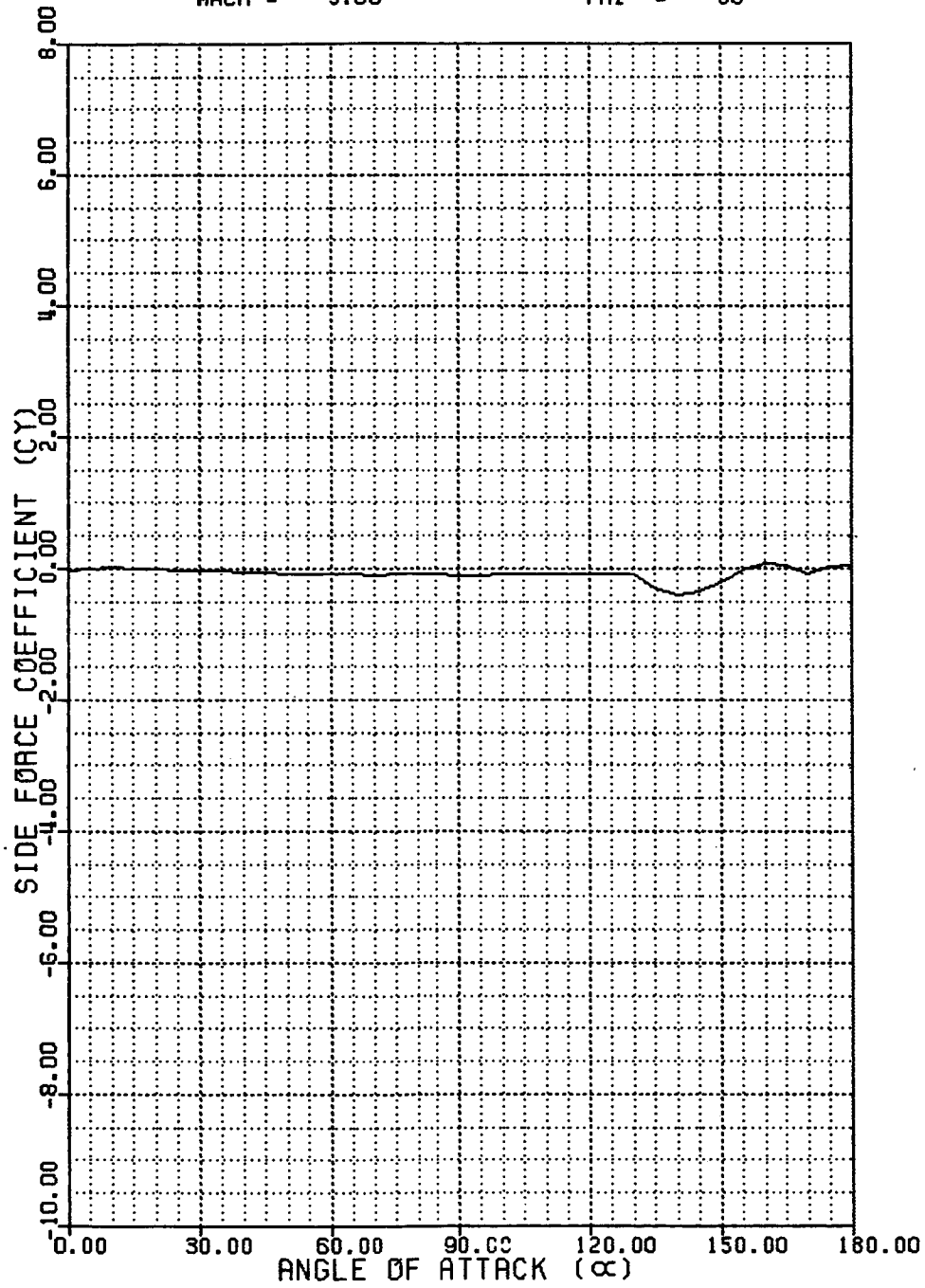
B-416



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90

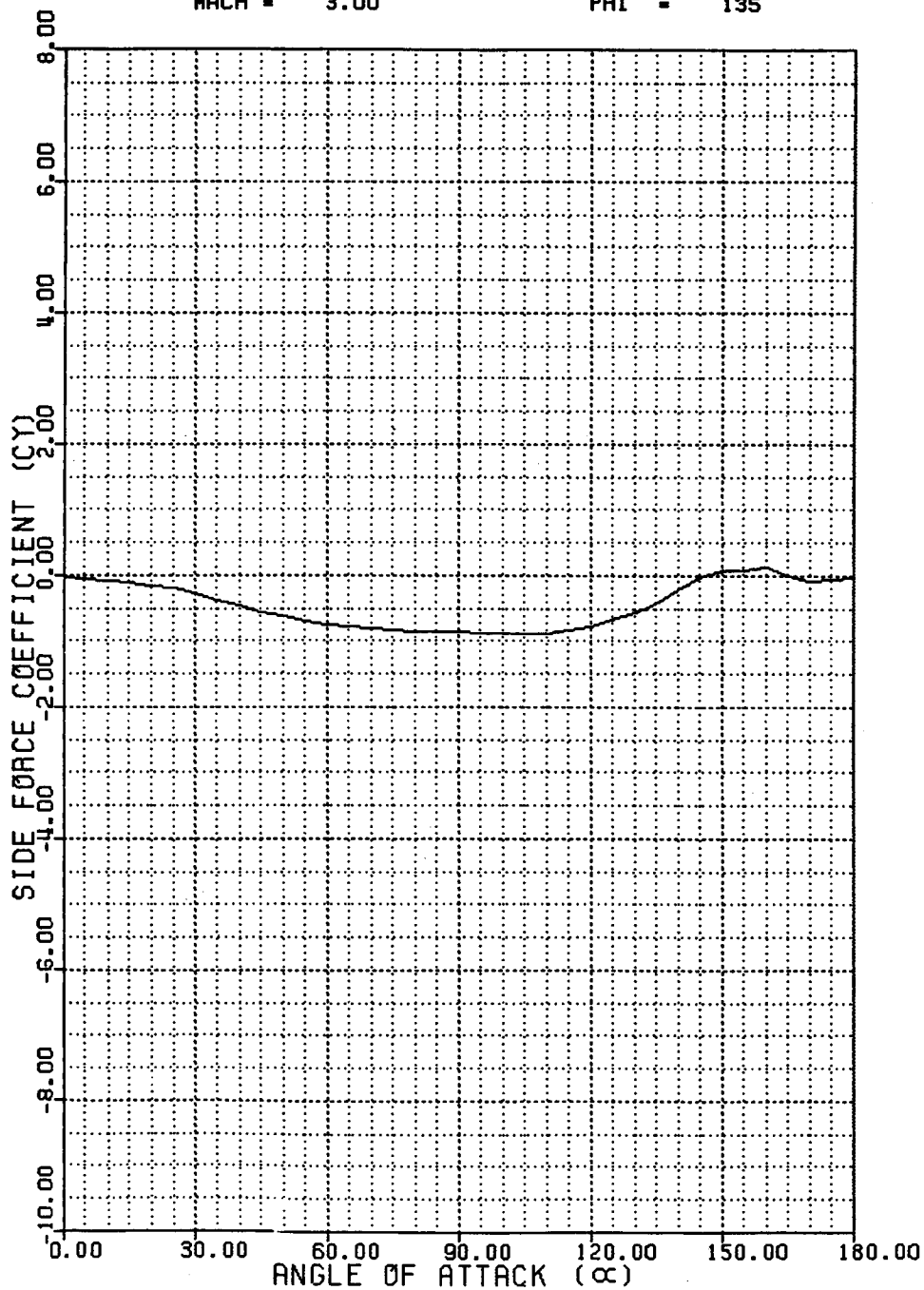


B-417

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



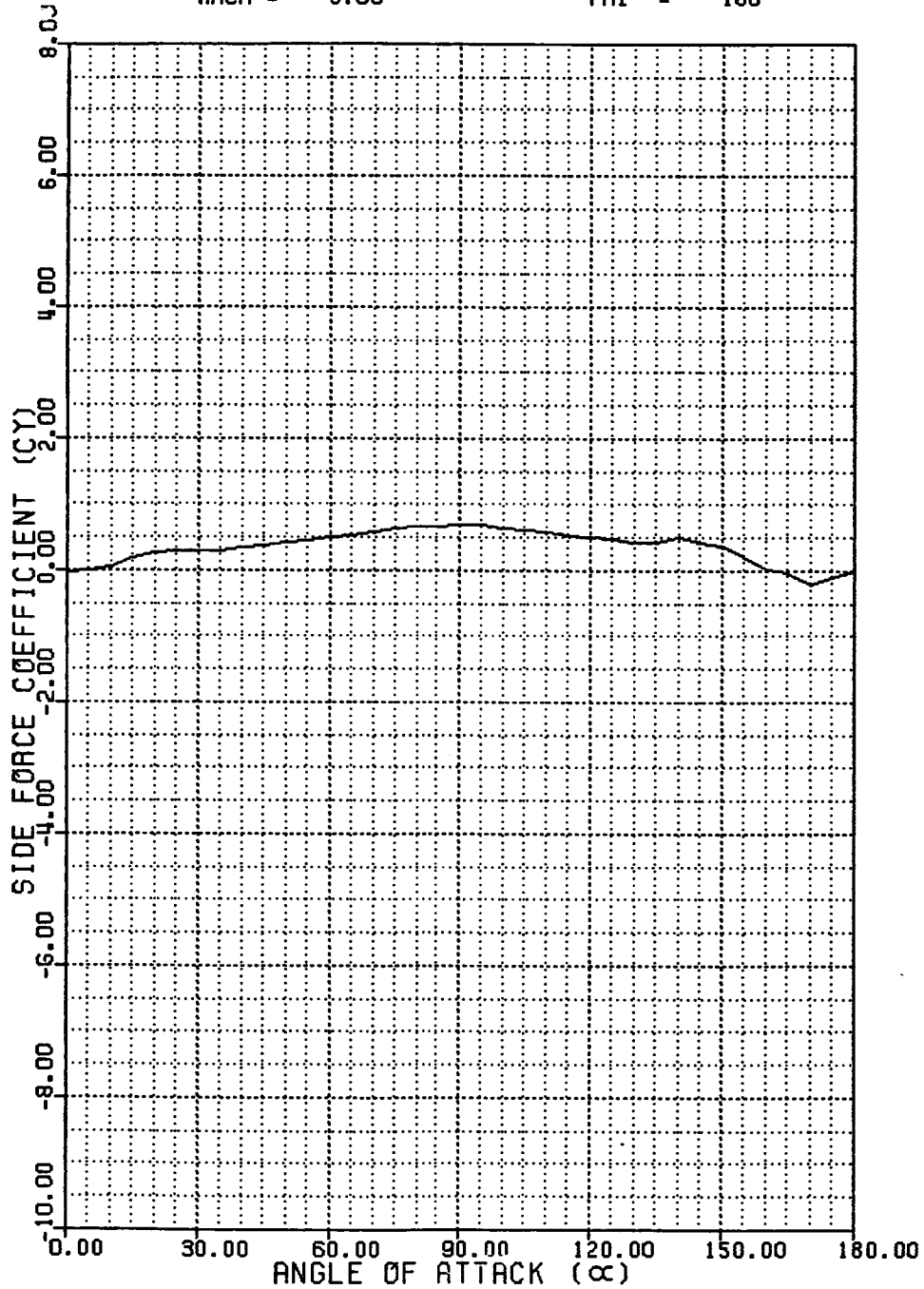
B-418

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 180

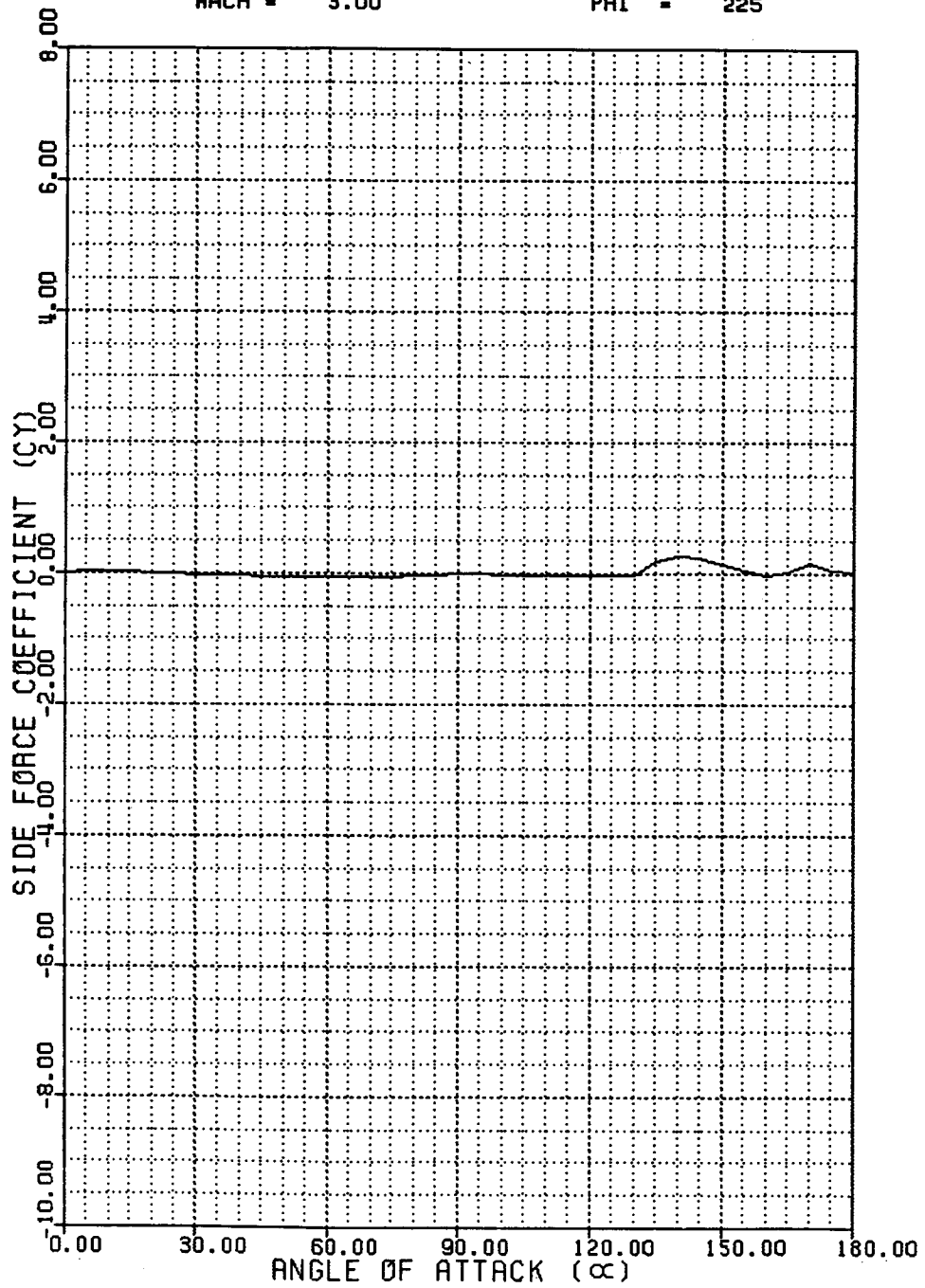


B-419

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225



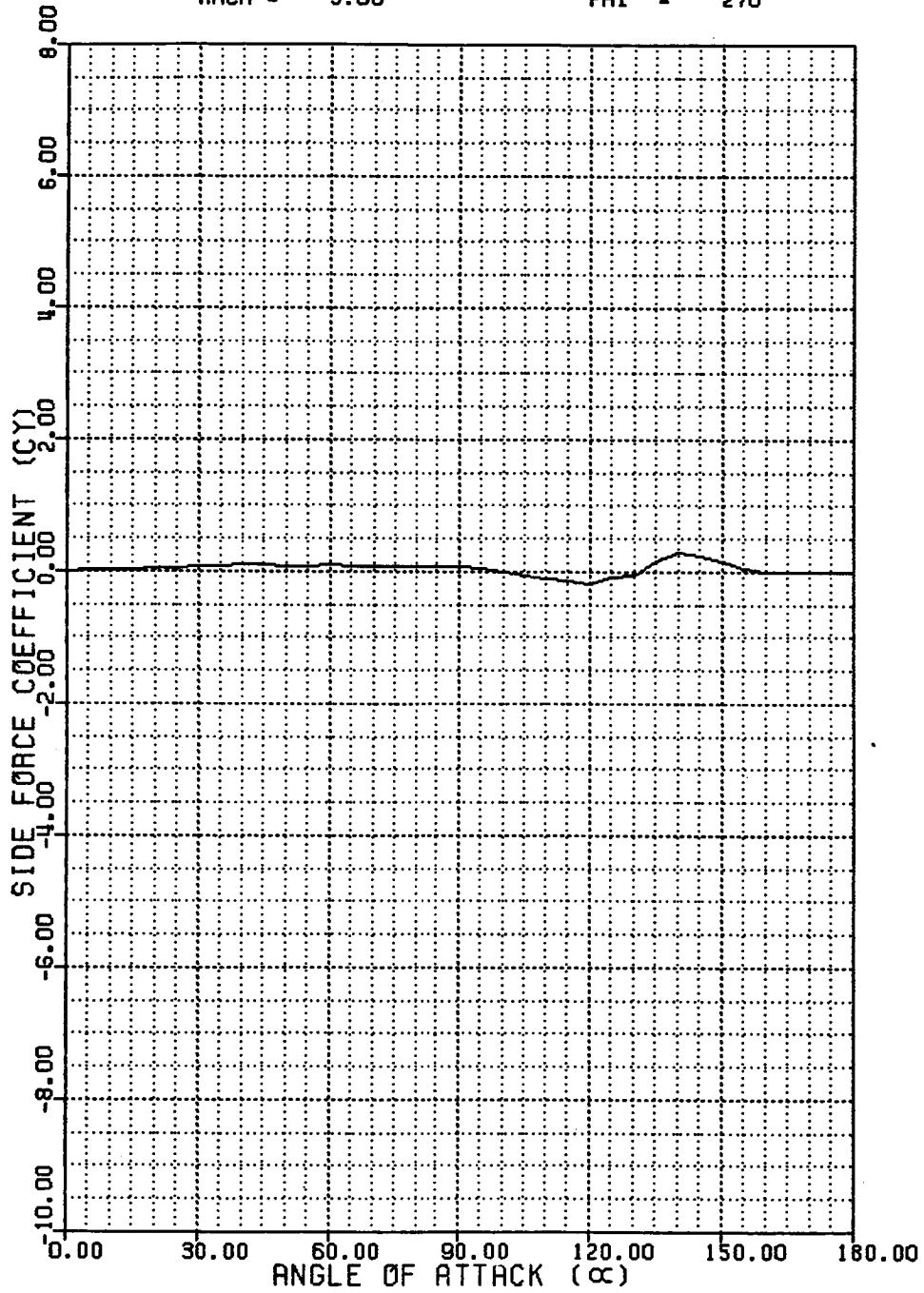
B-420

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270



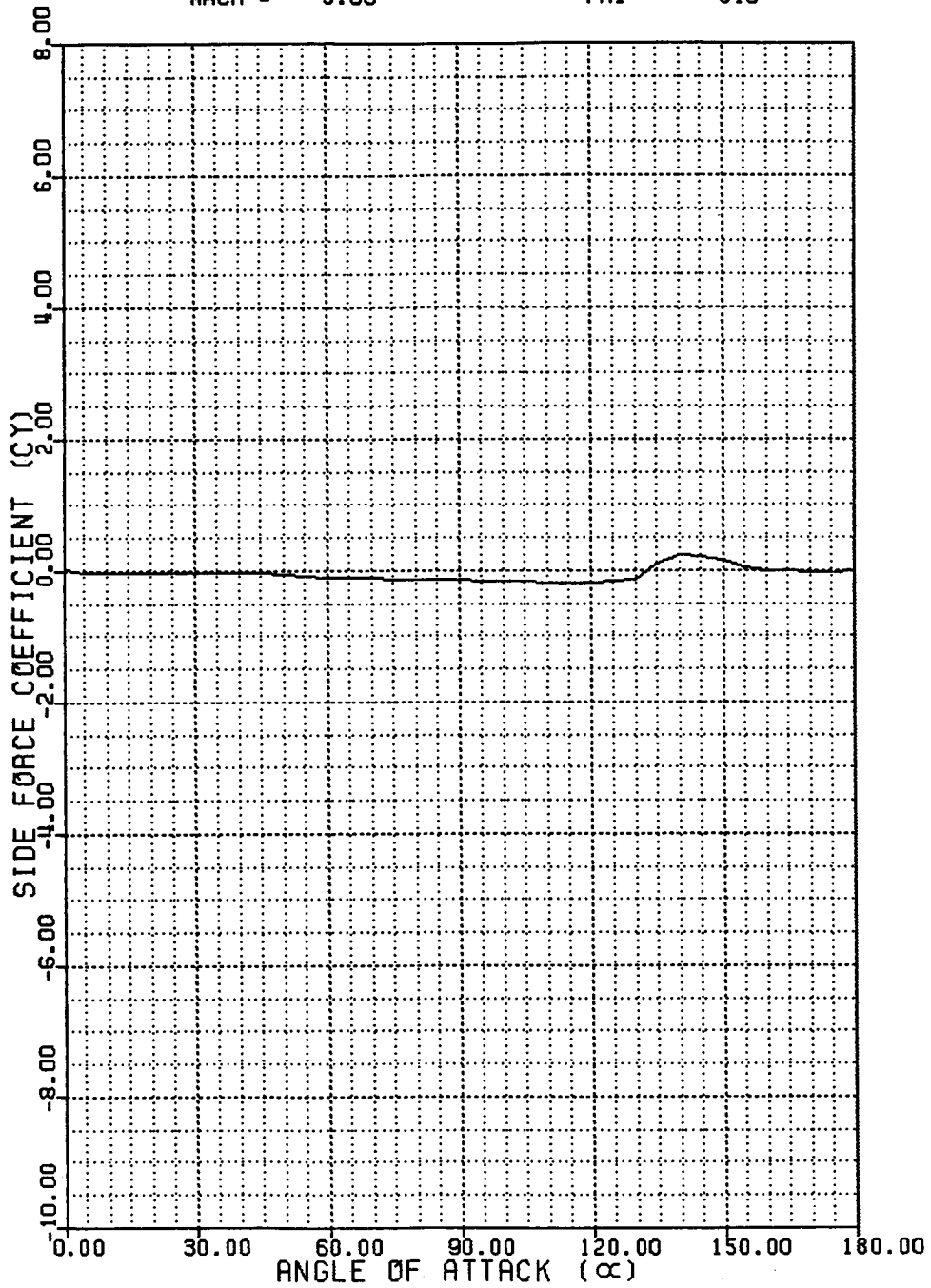
B-421

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315



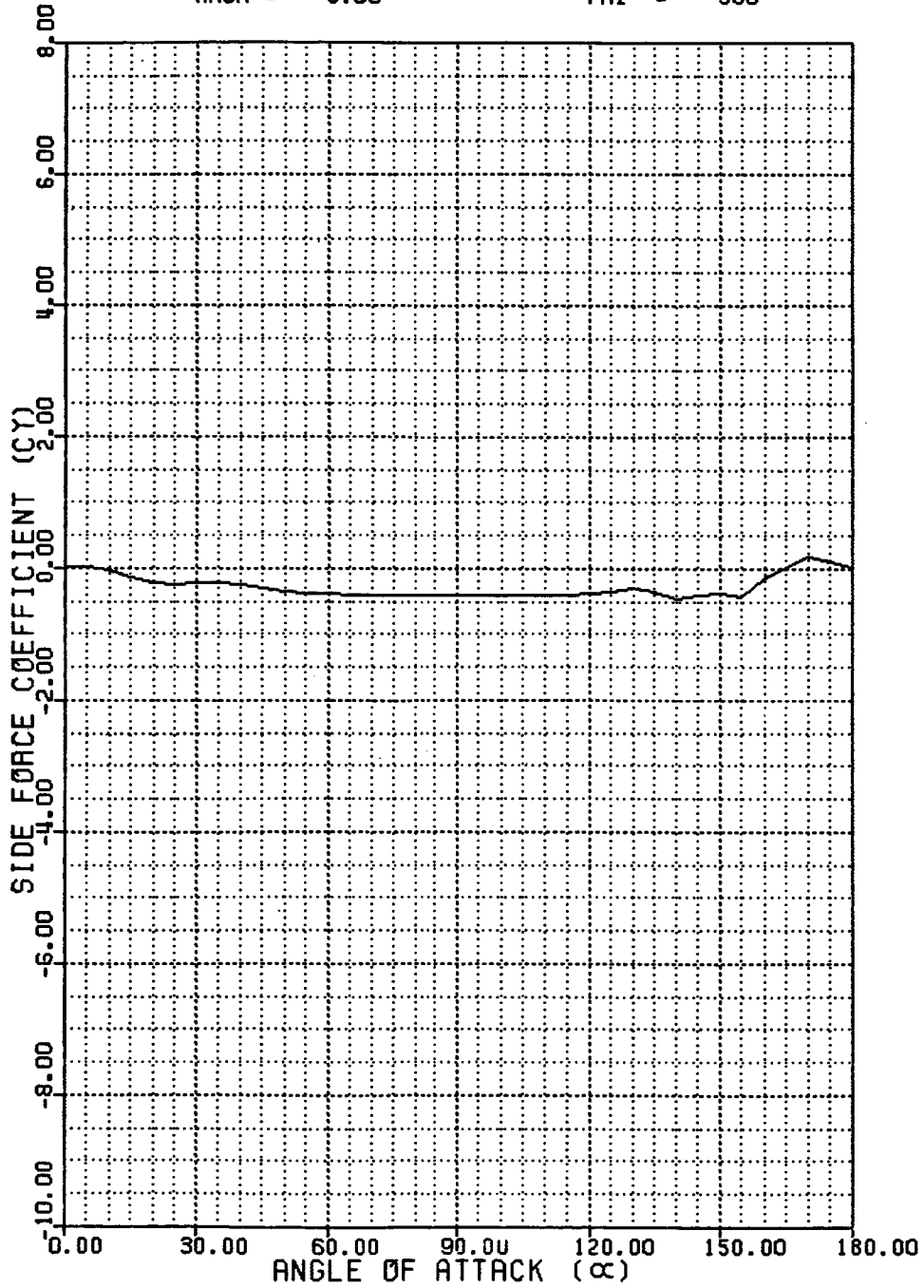
B-422

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360

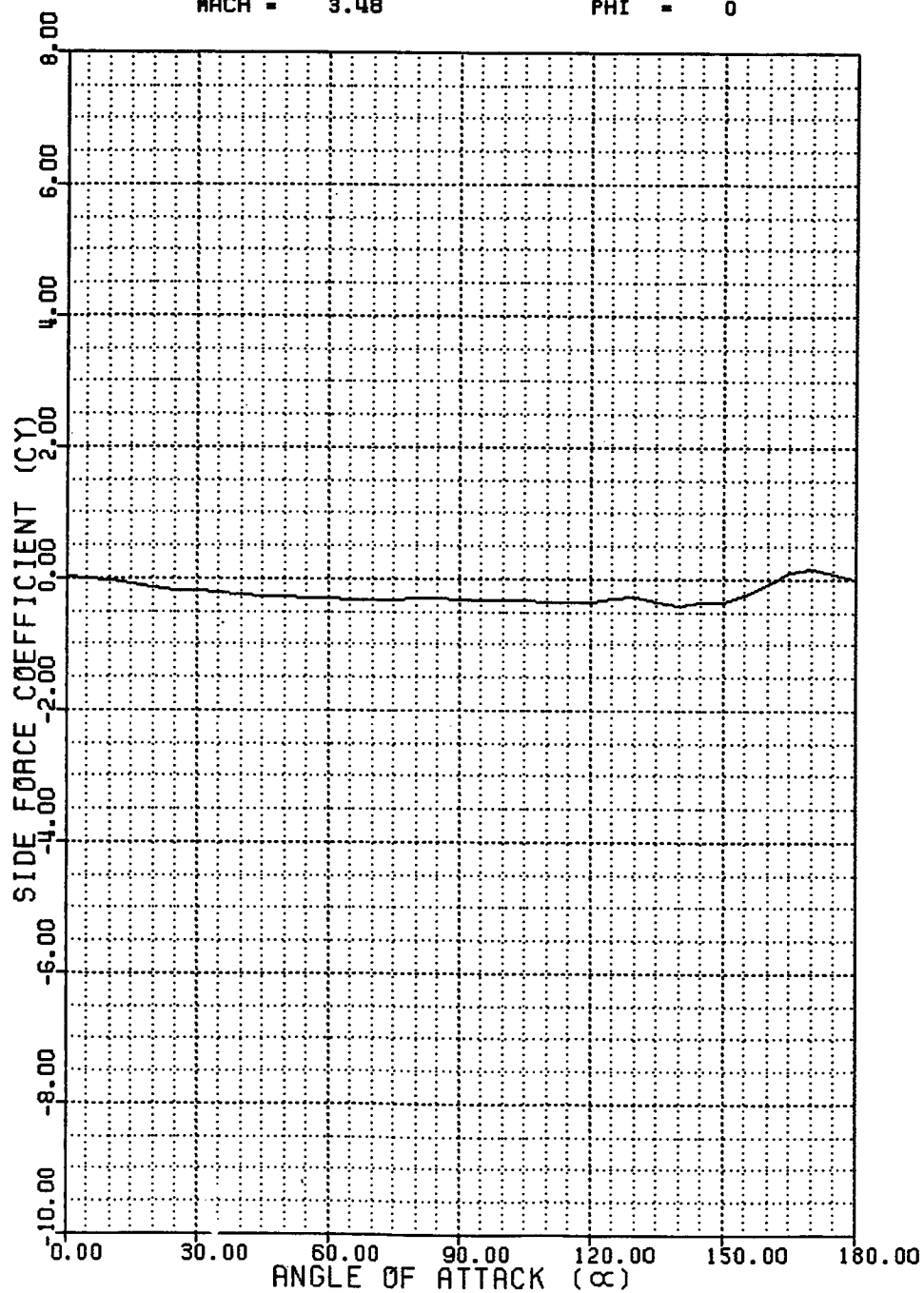


B-423

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 0



B-424

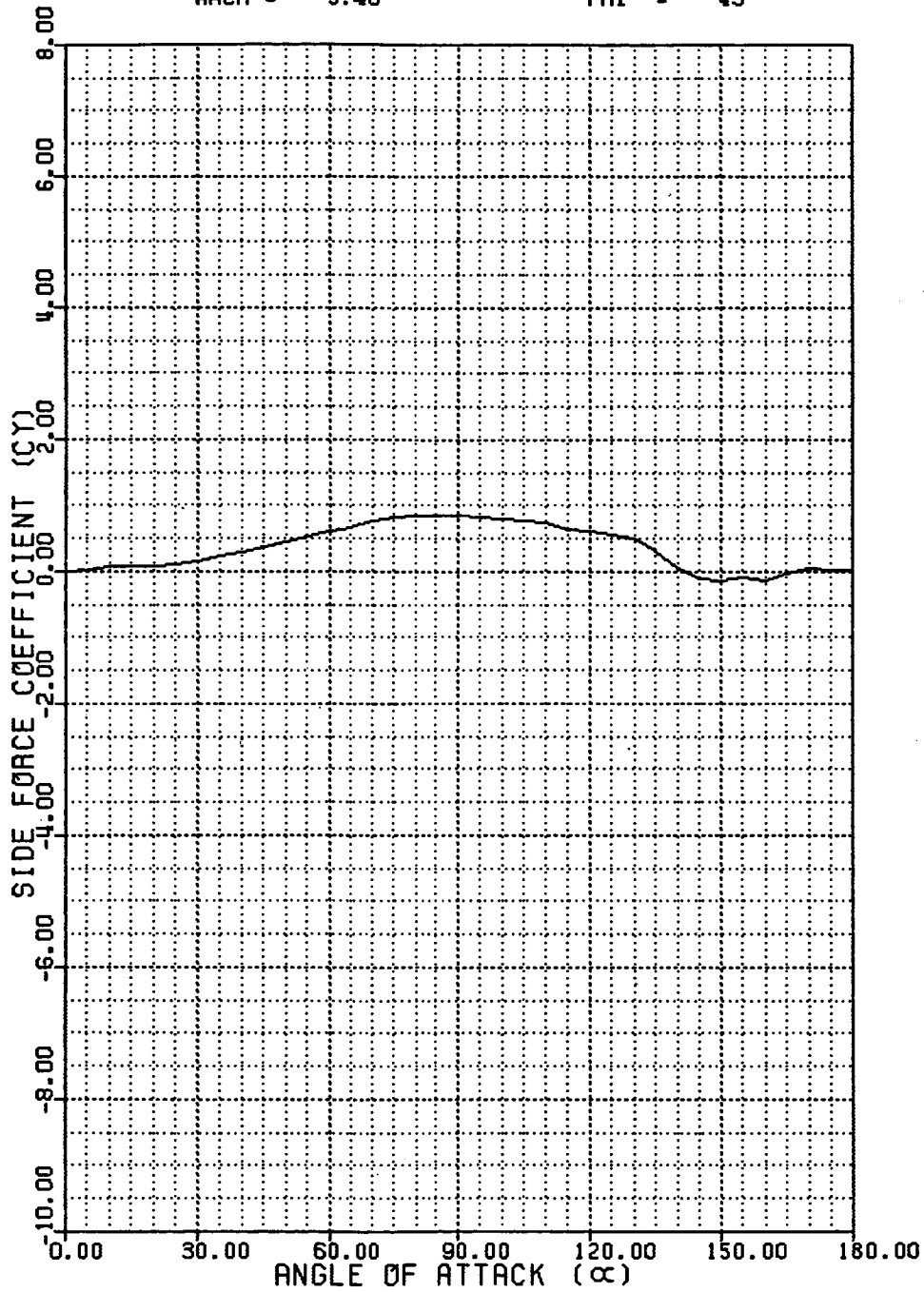
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 45

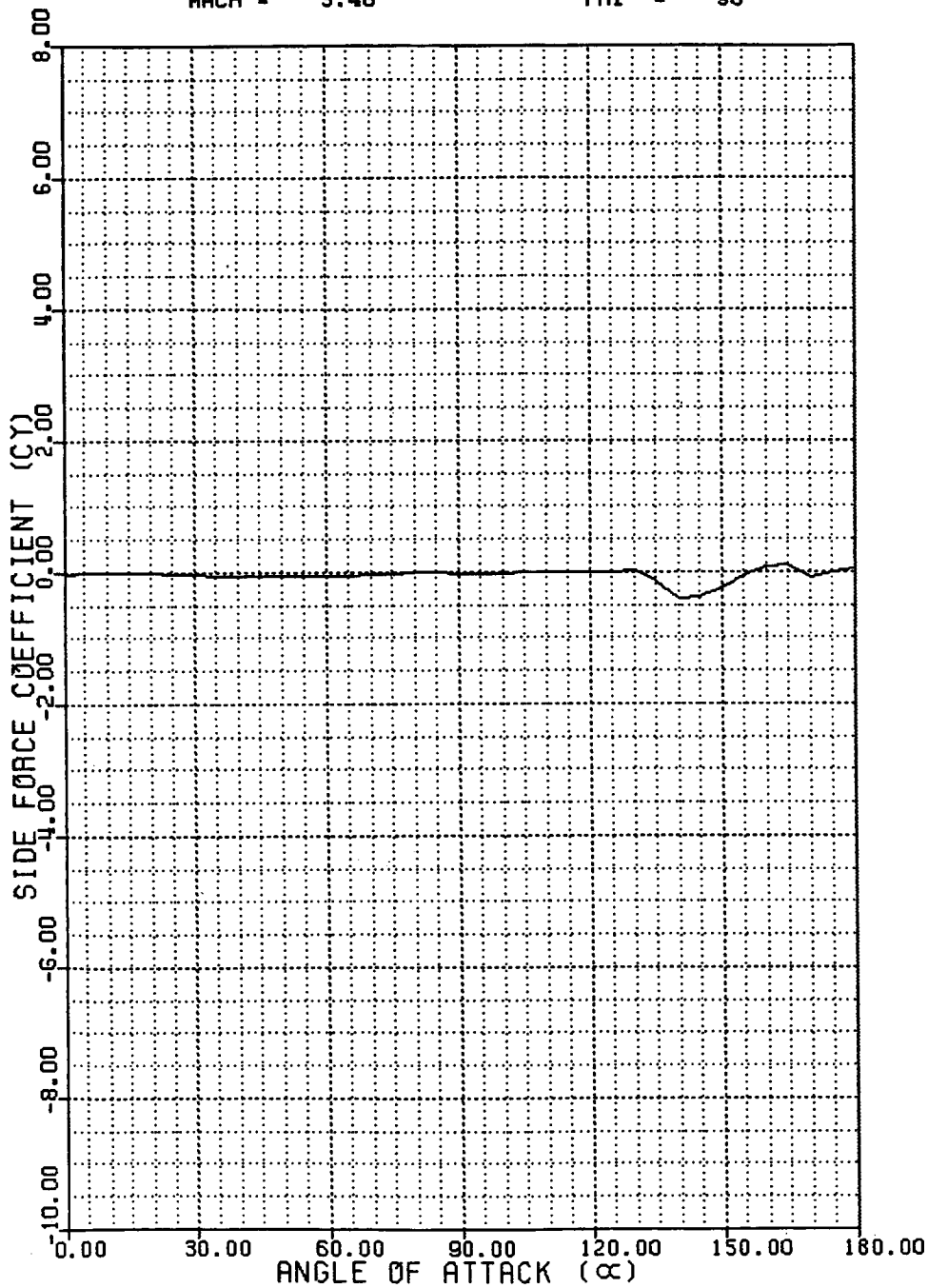


B-425

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90



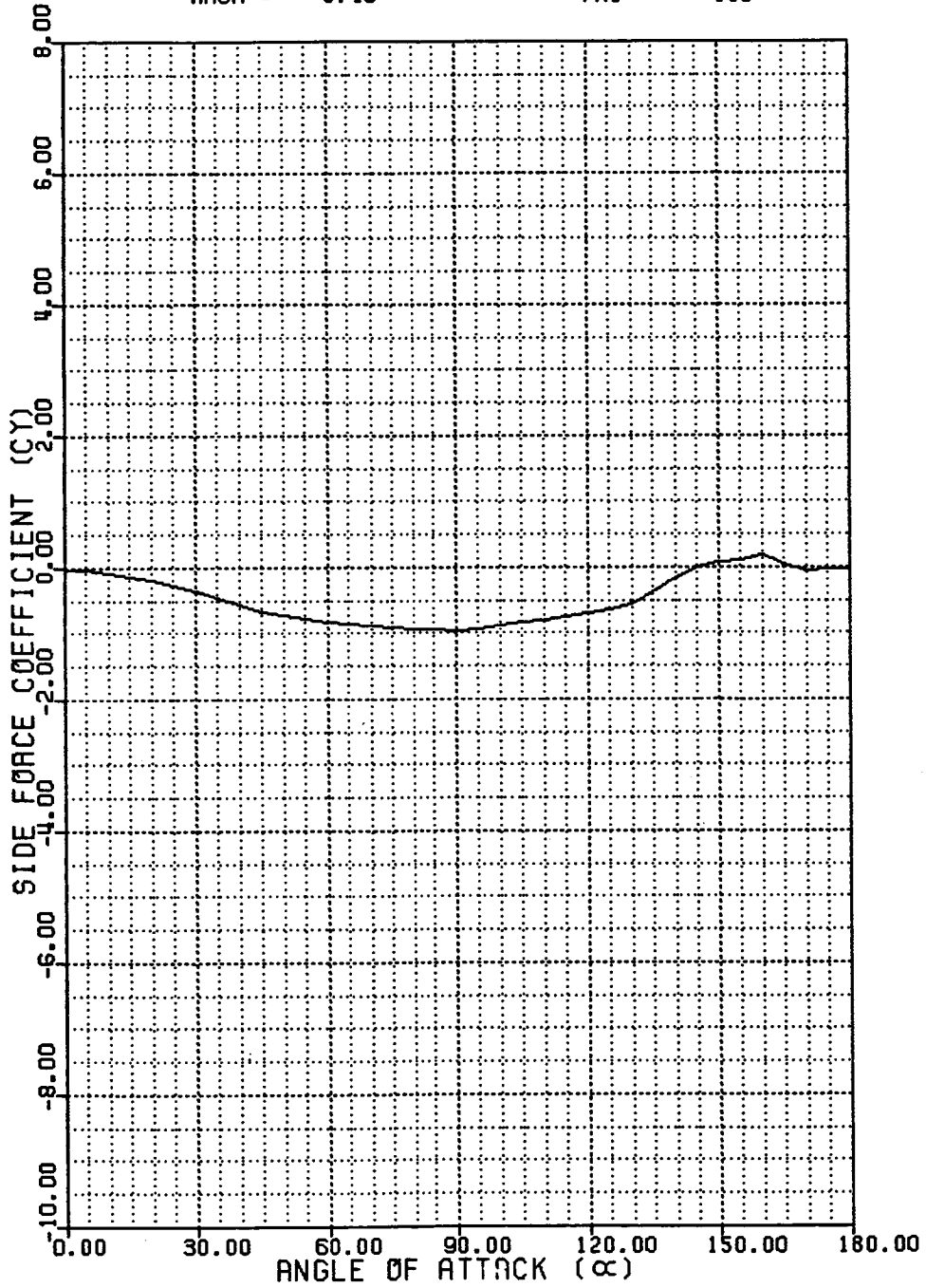
B-426

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 135

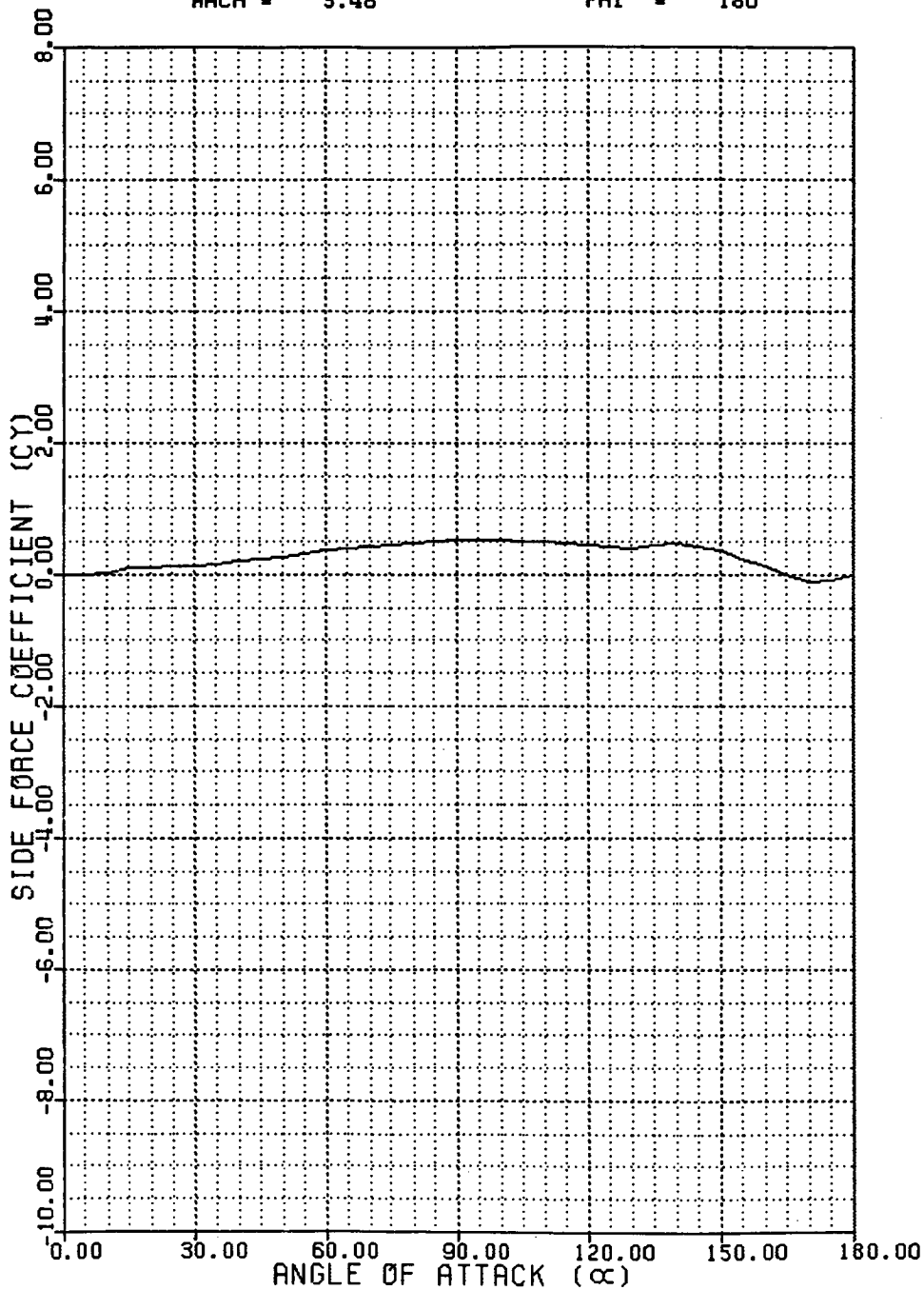


B-427

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180

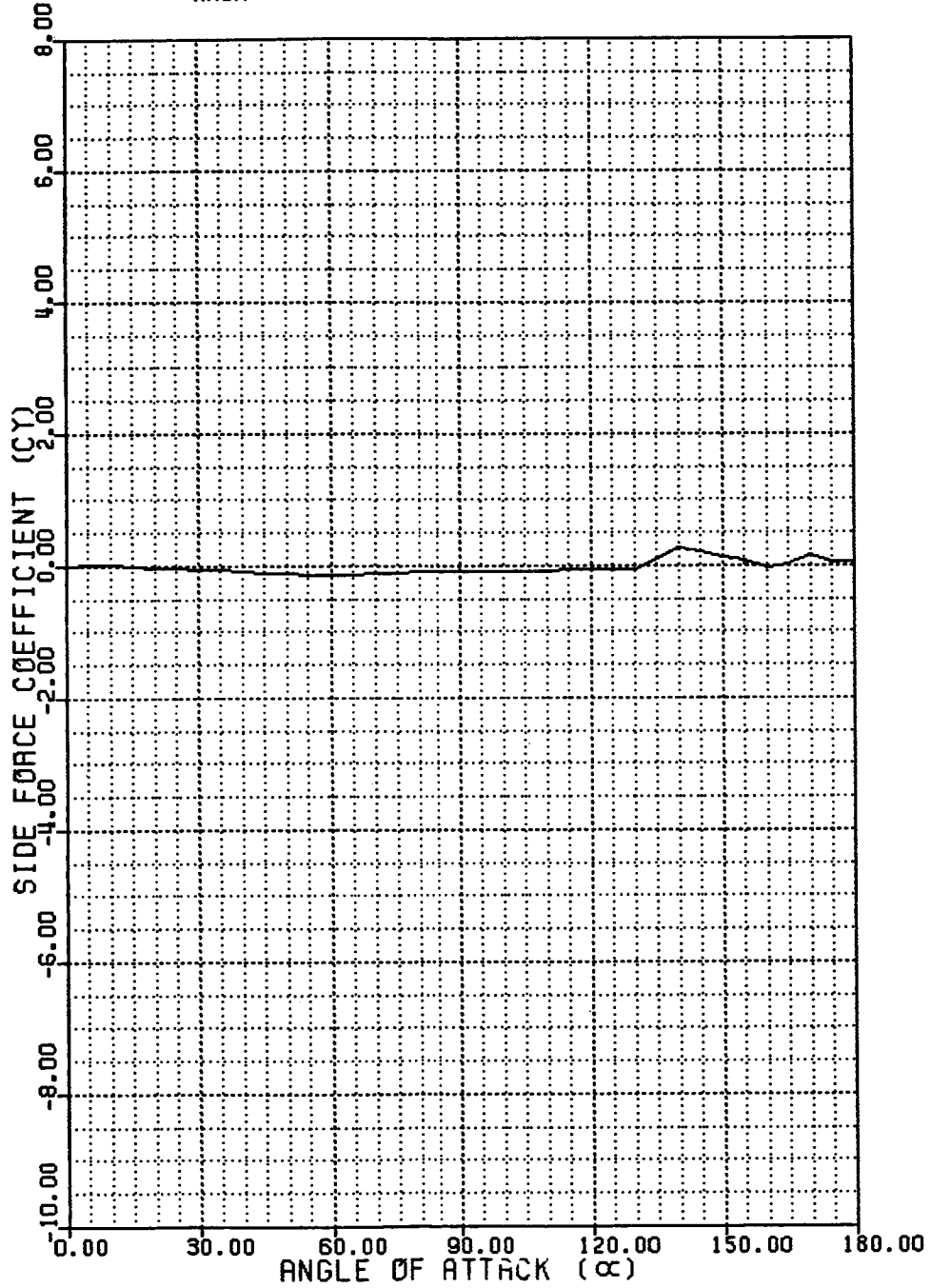


B-428

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225

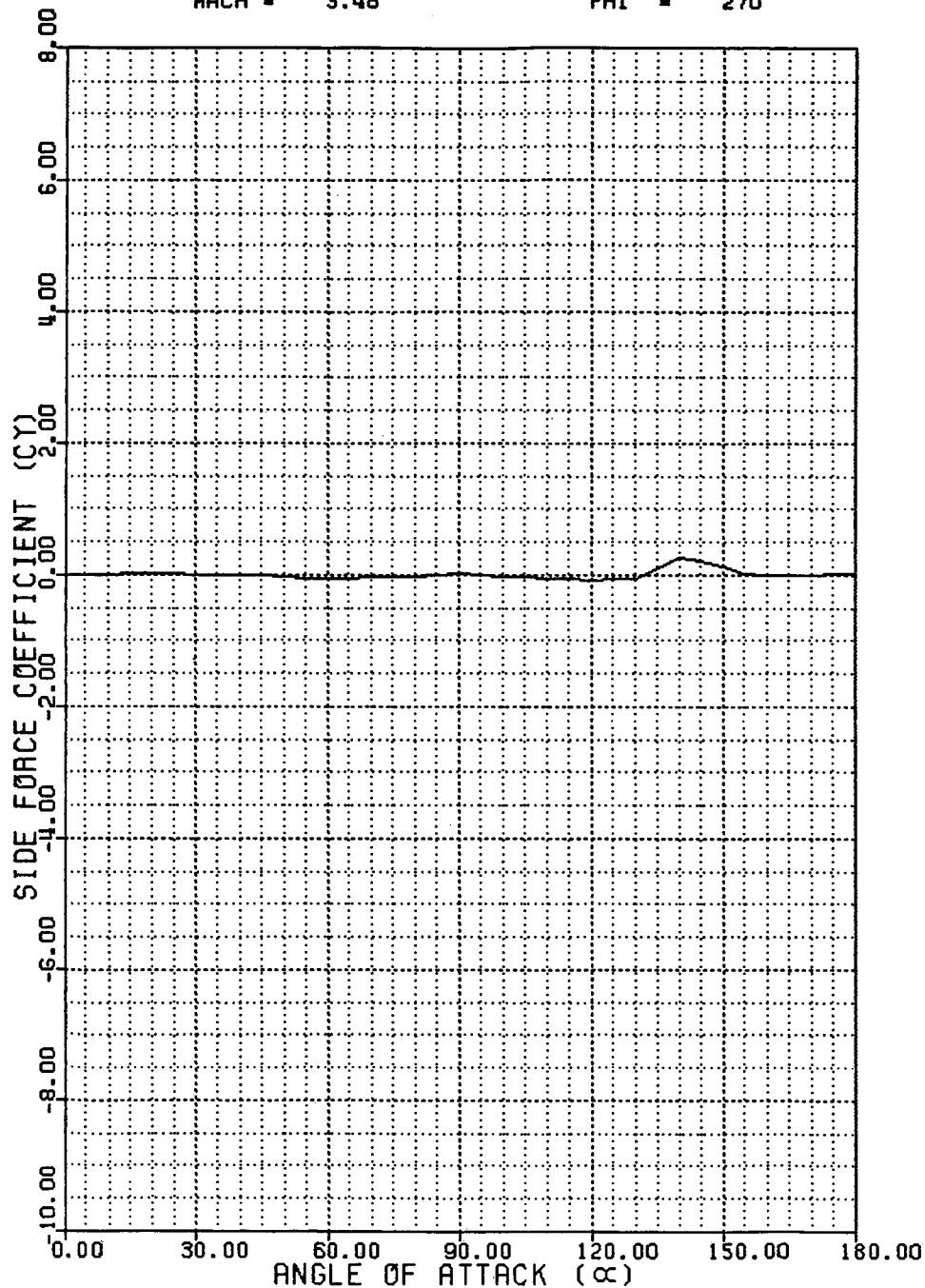


B-429

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270



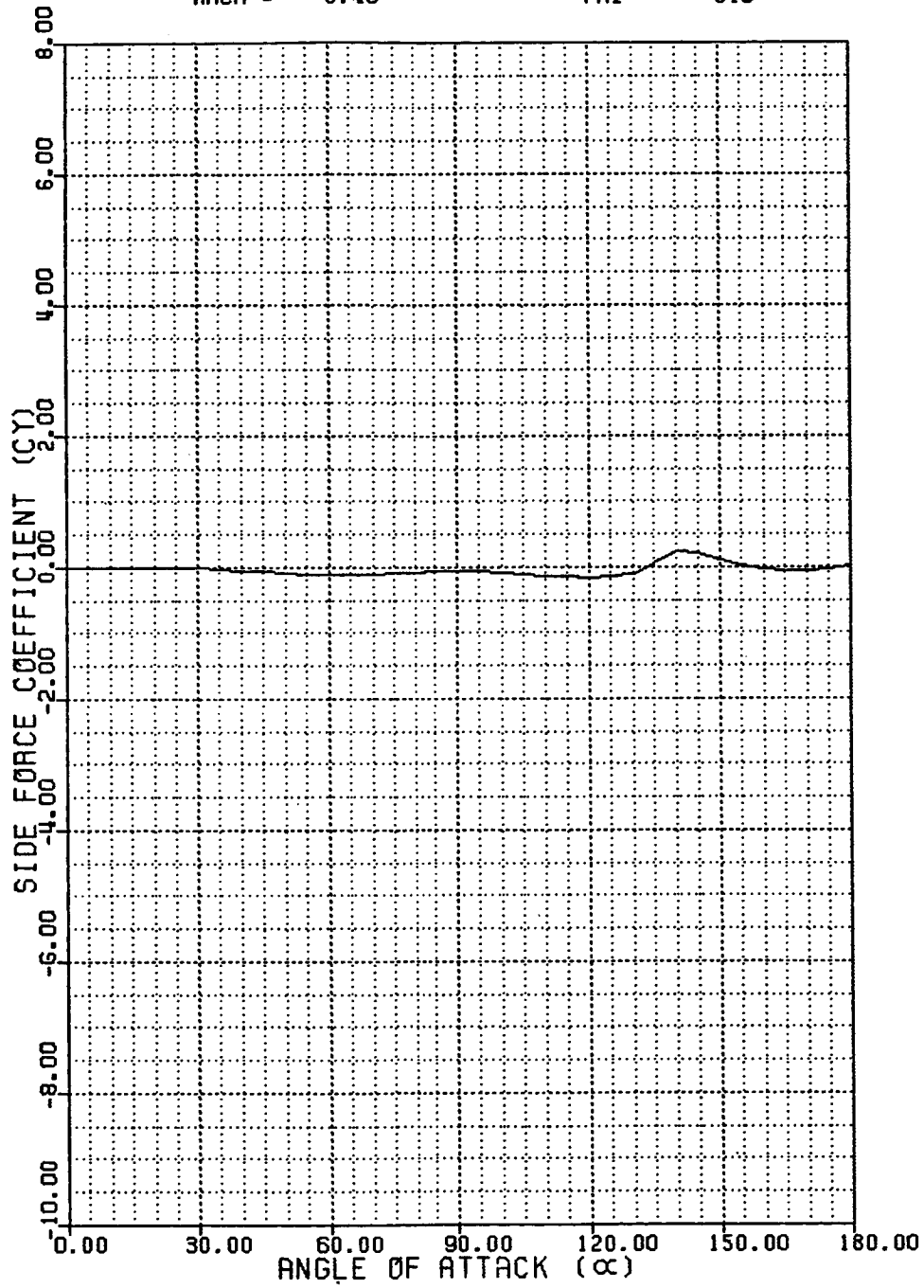
B-430

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 315

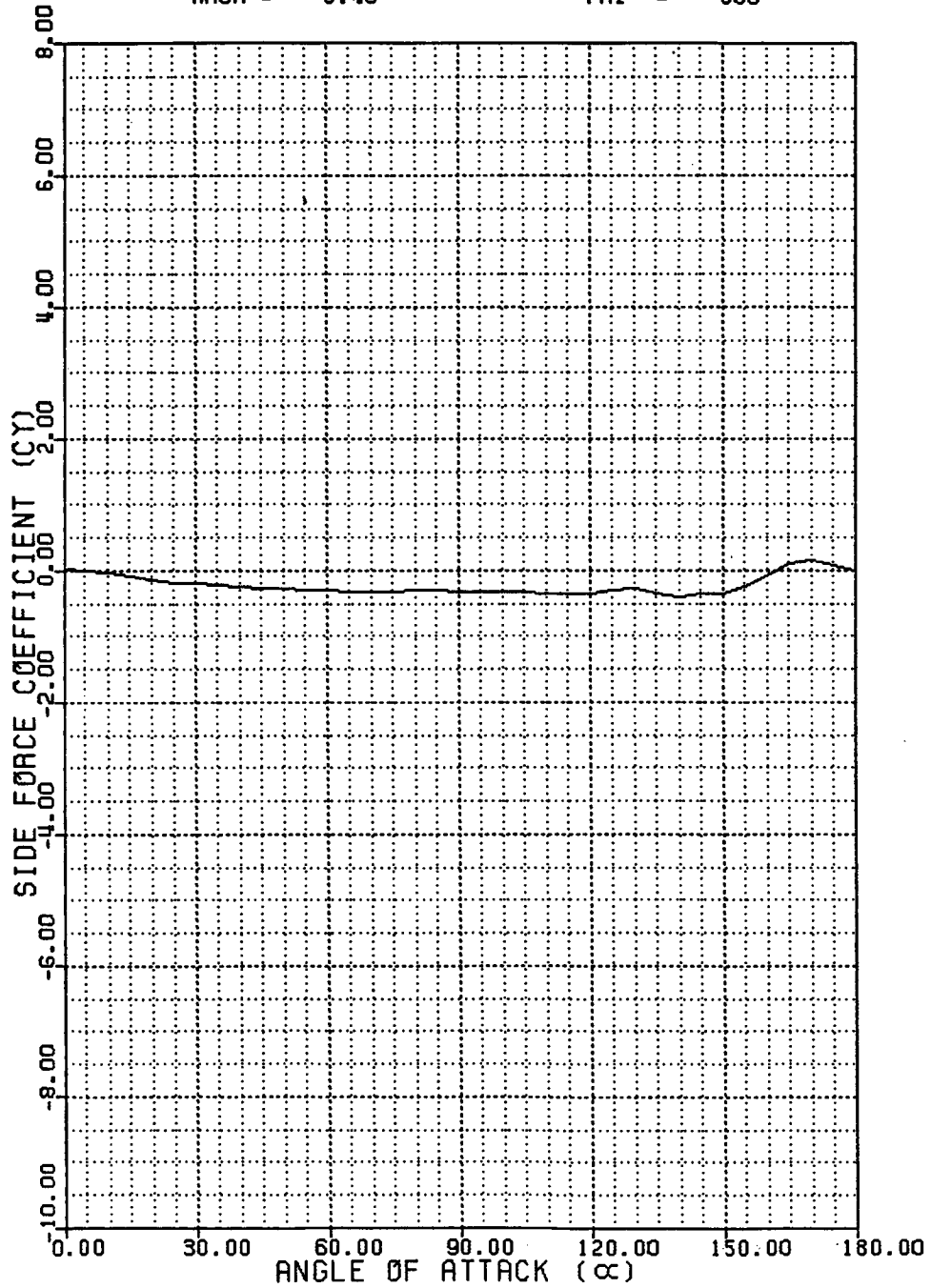


B-431

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-432

LOCKHEED-HUNTSVILLE ENGINEERING CENTER



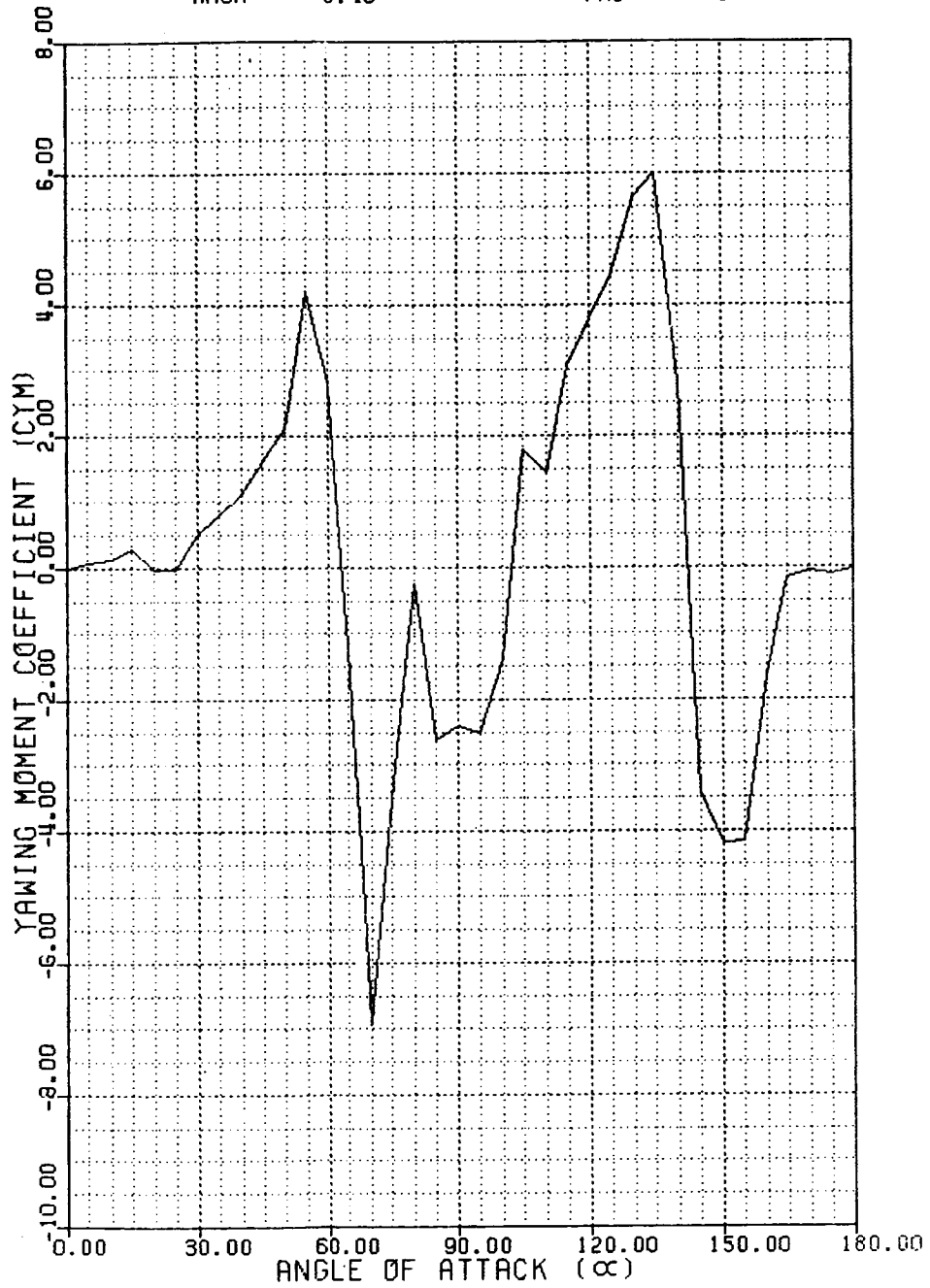
**YAWING MOMENT (CYM)**

<u>Mach Number</u>	<u>Page</u>
0.4	B-433
0.5	B-442
0.55	B-451
0.6	B-460
0.7	B-469
0.8	B-478
0.9	B-487
0.95	B-496
1.05	B-505
1.1	B-514
1.2	B-523
1.4	B-532
1.96	B-541
2.5	B-550
3.0	B-559
3.48	B-568

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 0



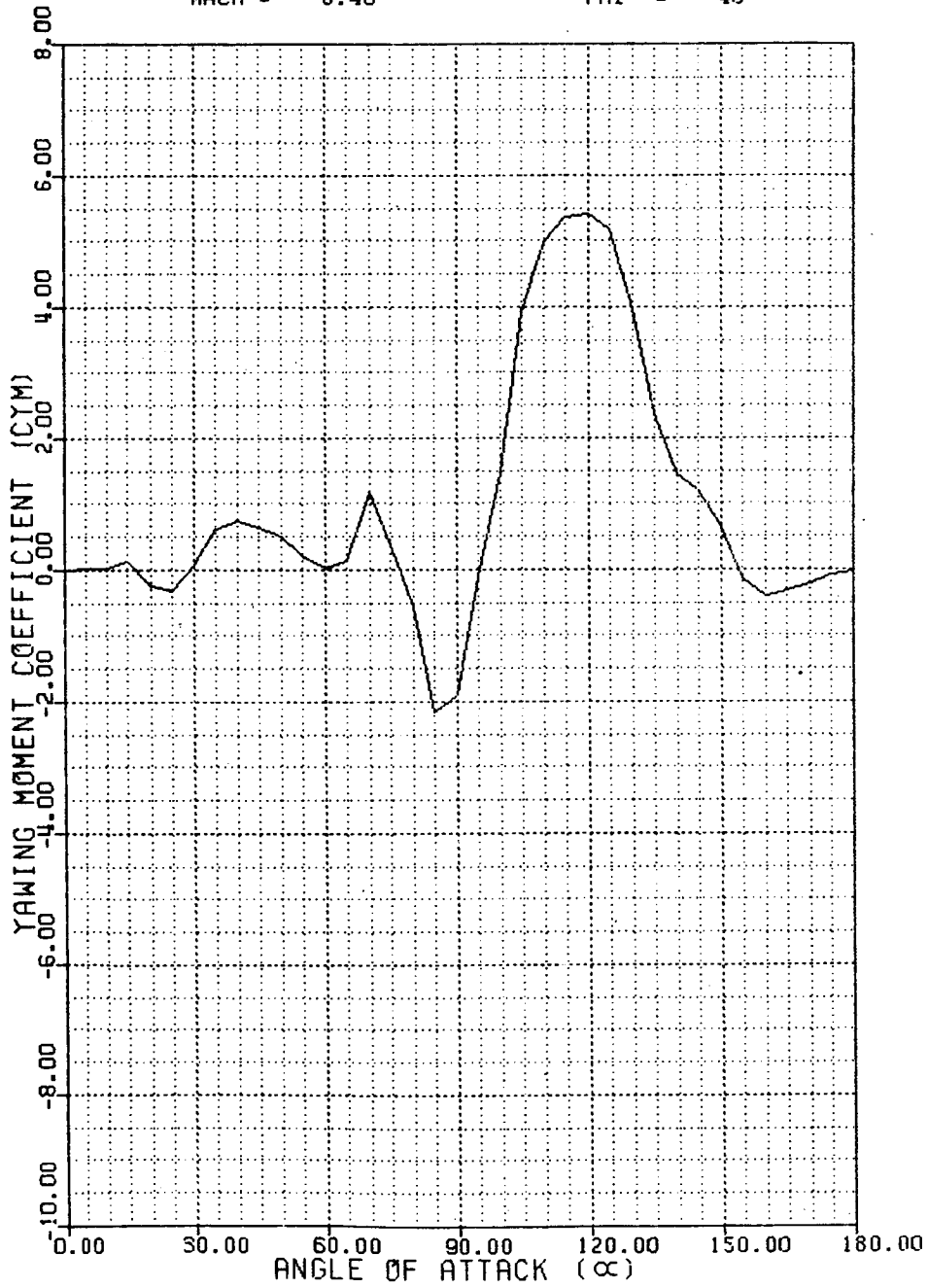
B-433

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 45

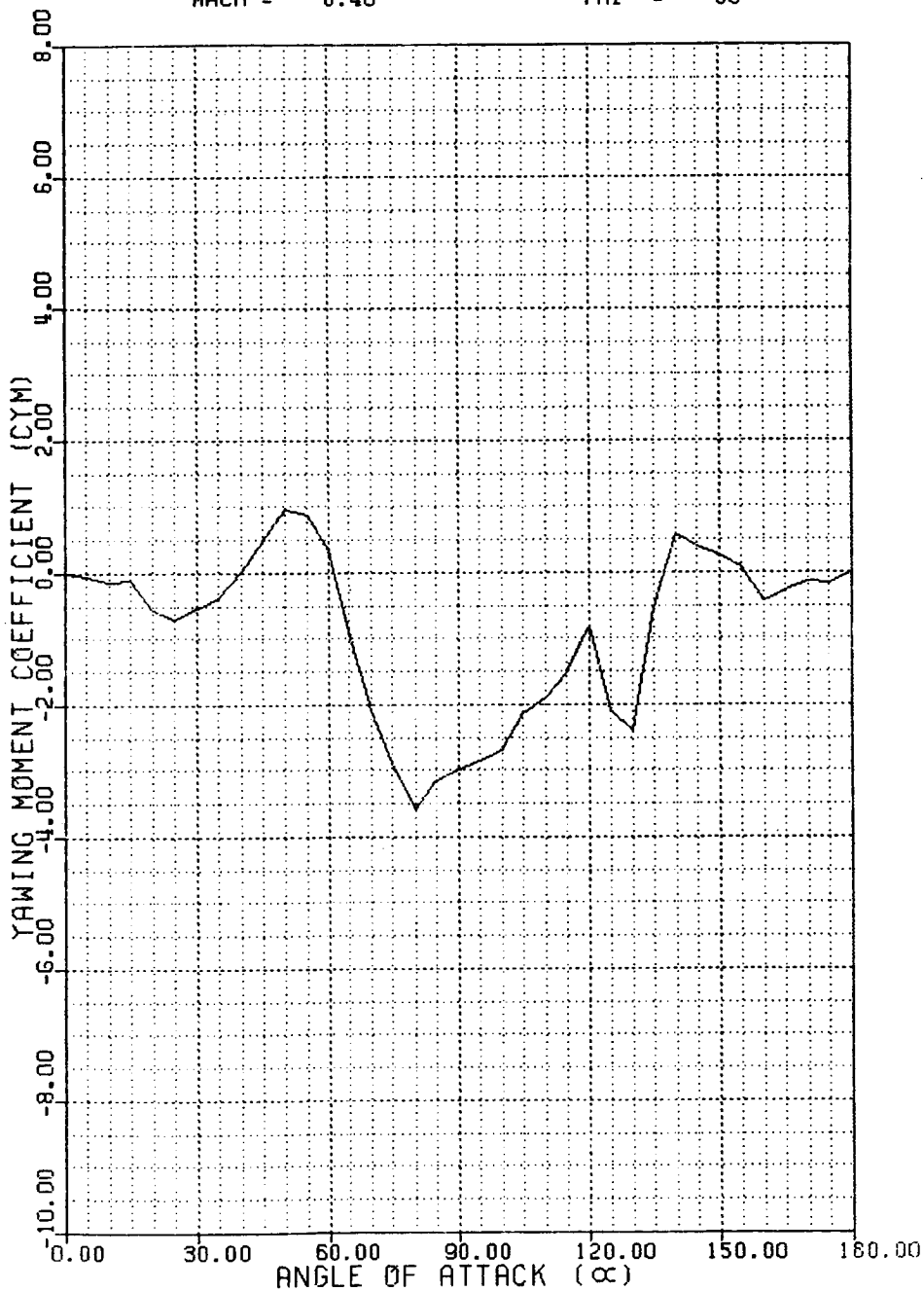


B-434

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 90



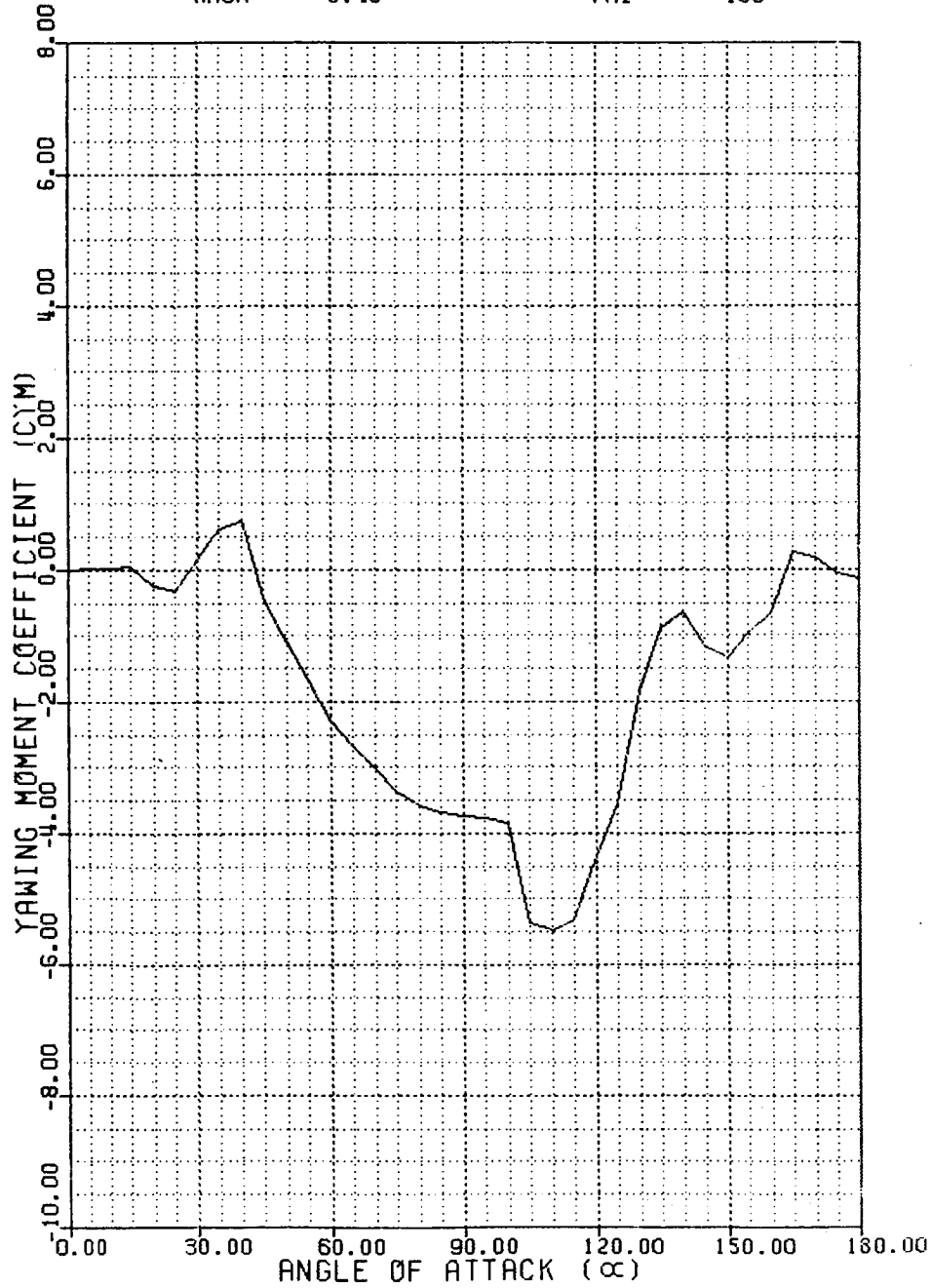
B-435

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 135

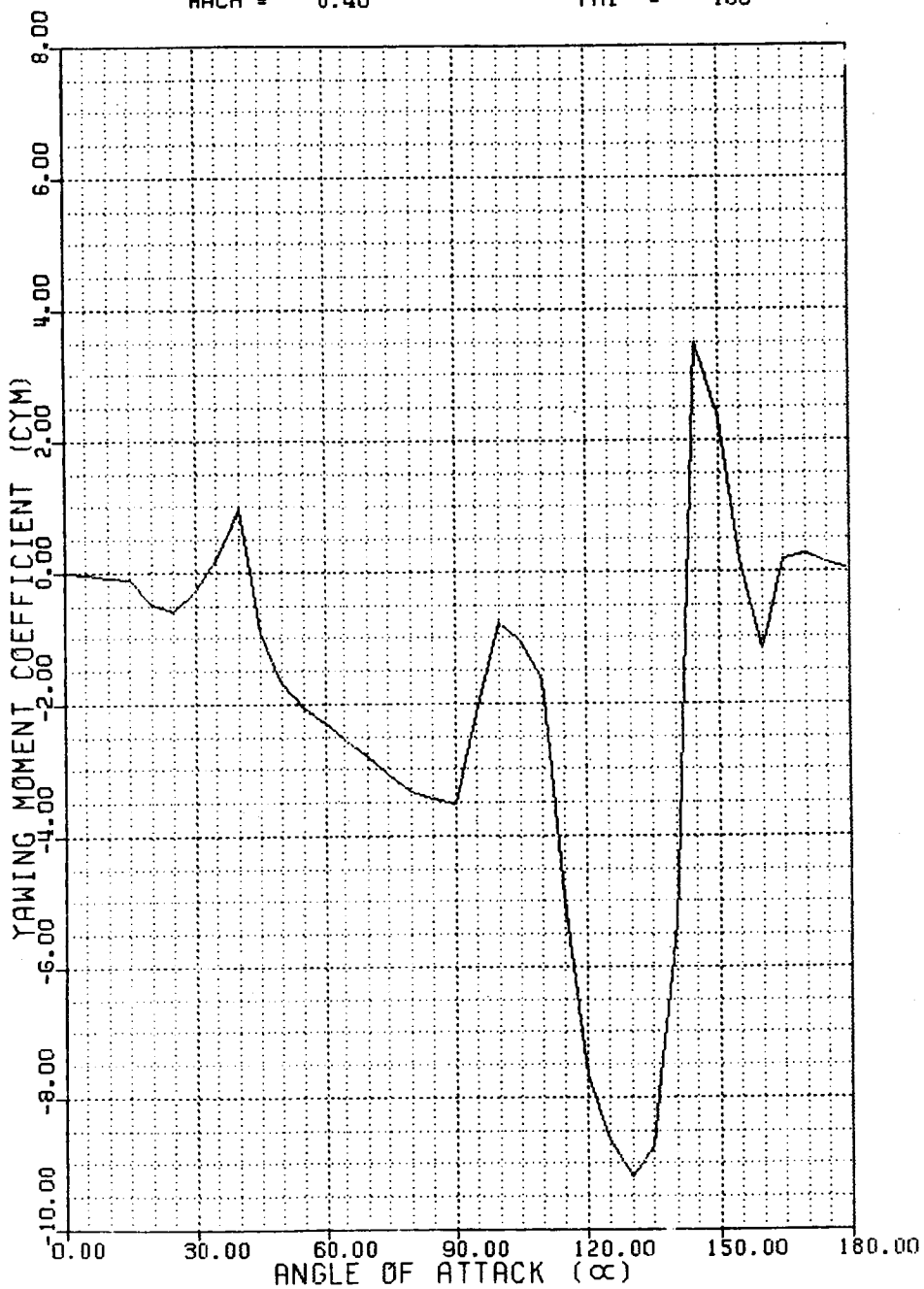


B-436

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 180



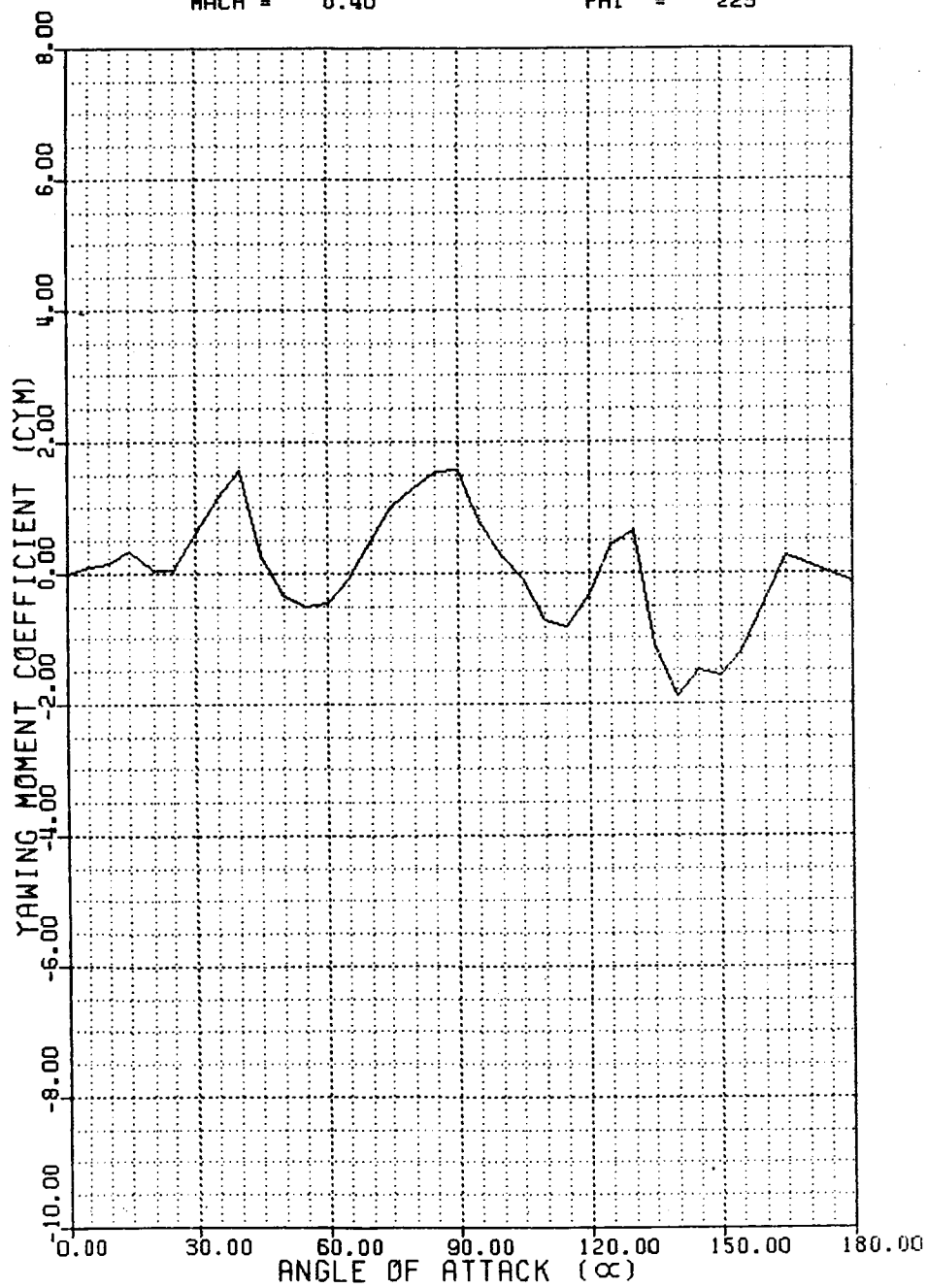
B-437

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 225

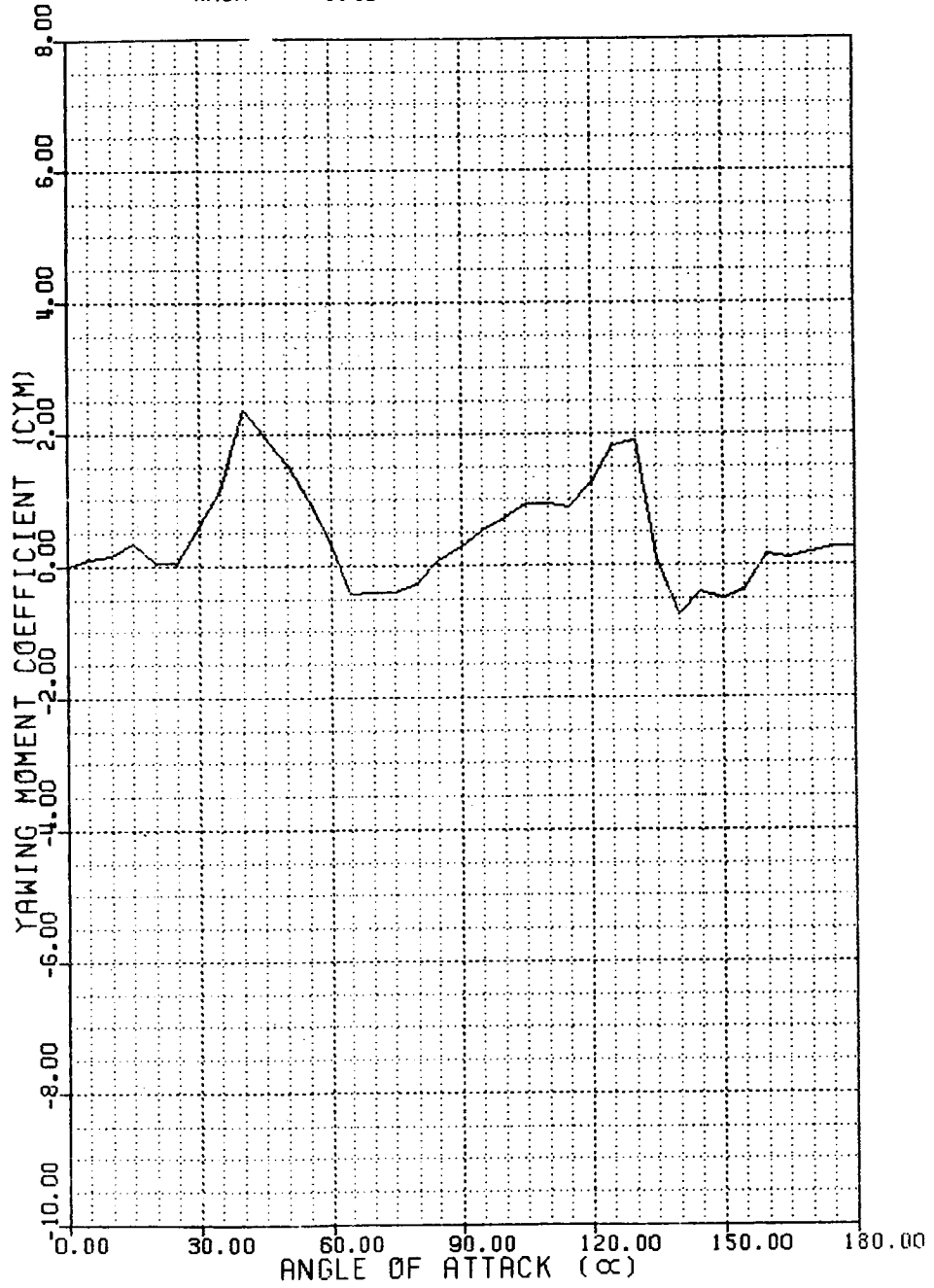


B-438

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 270



B-439

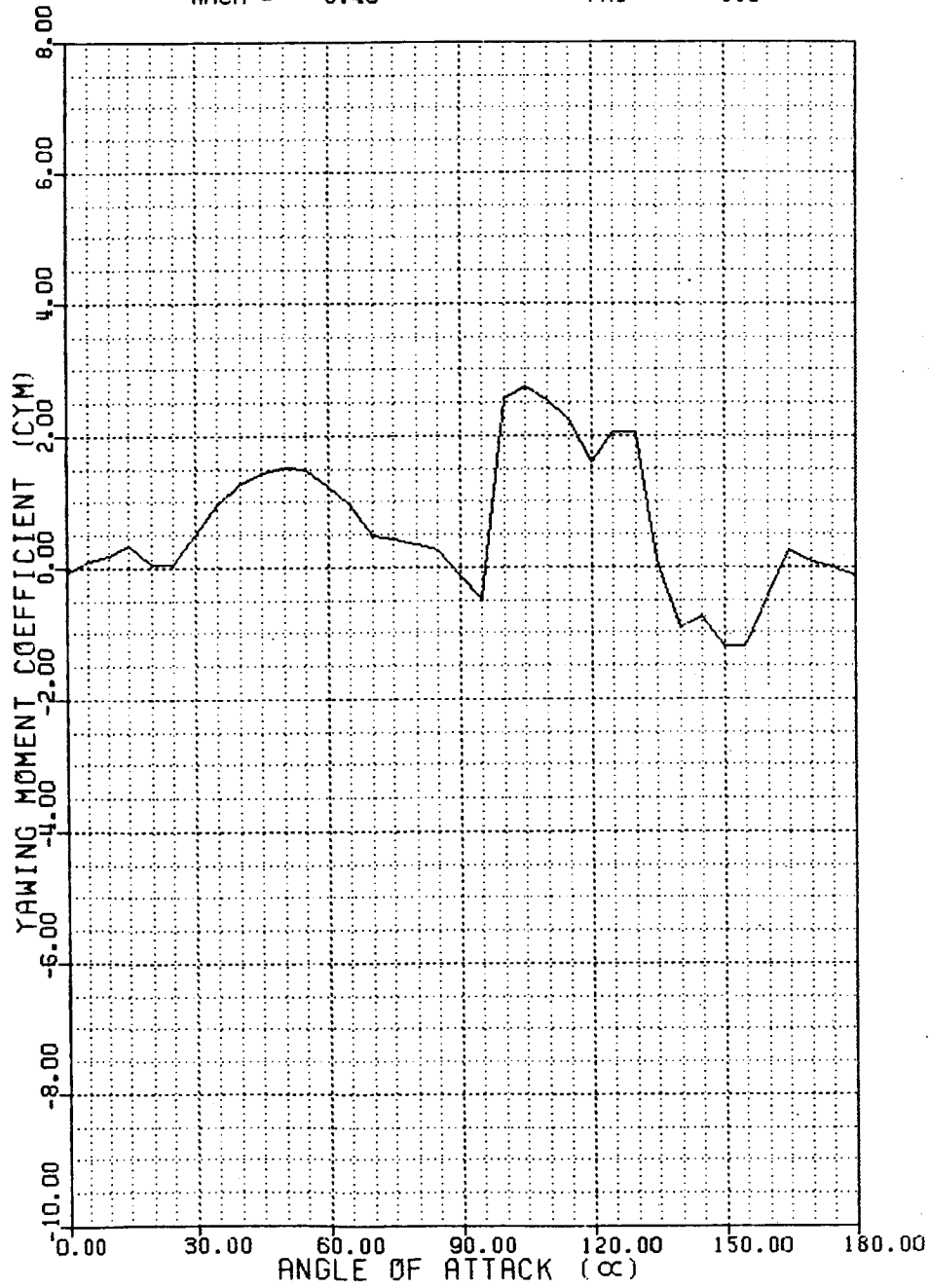
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 315



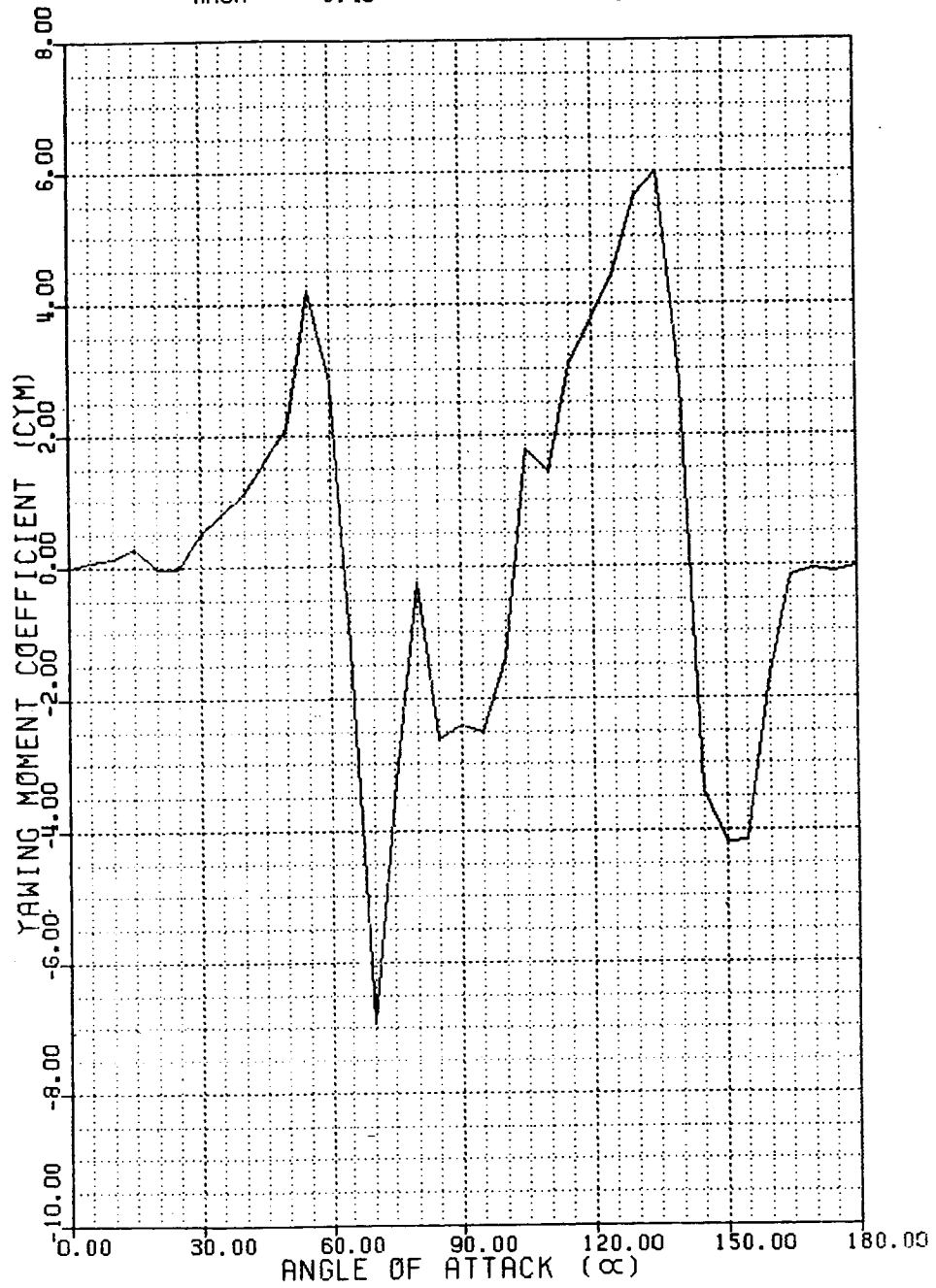
B-440

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 360



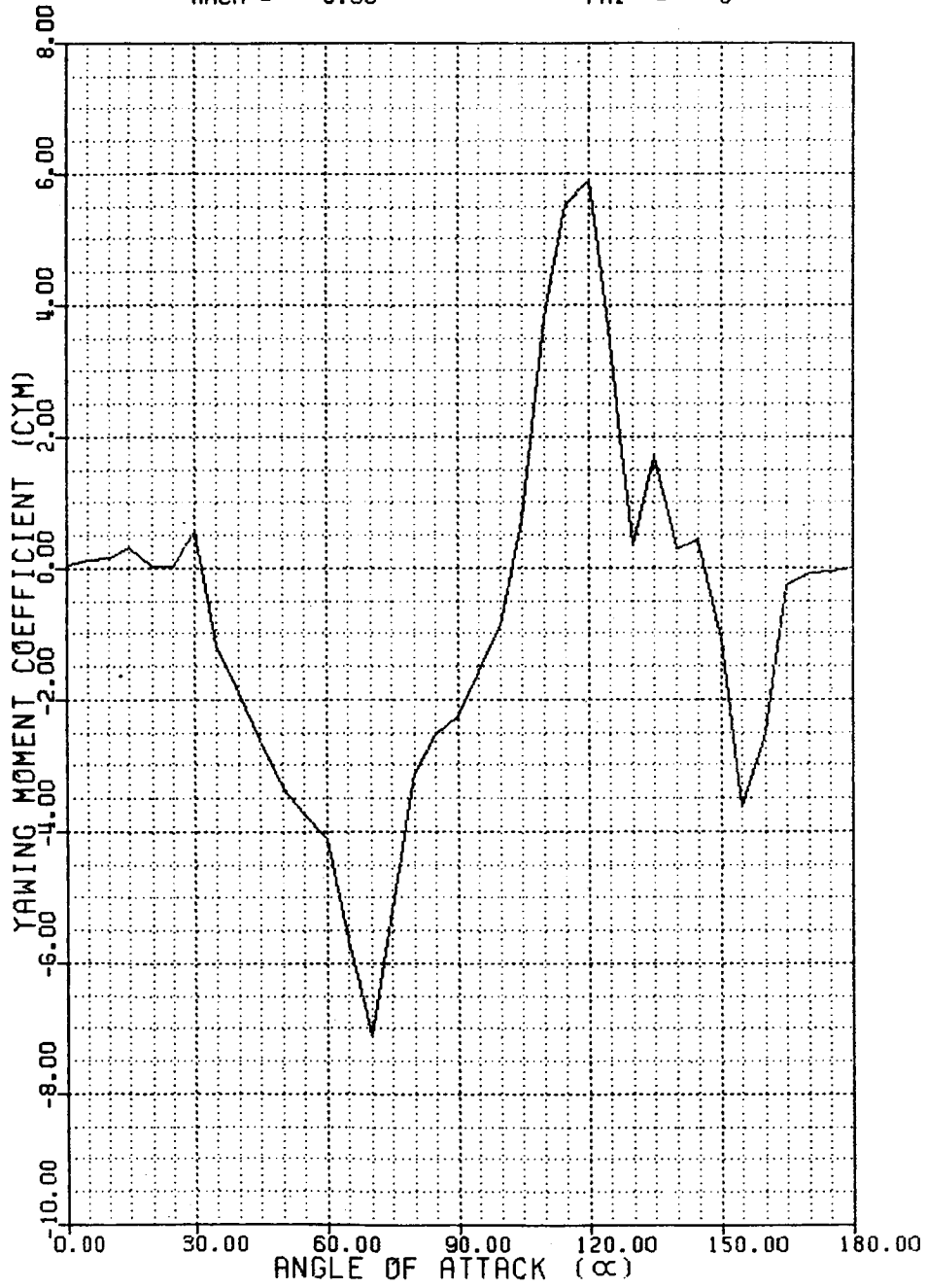
B-441

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 0

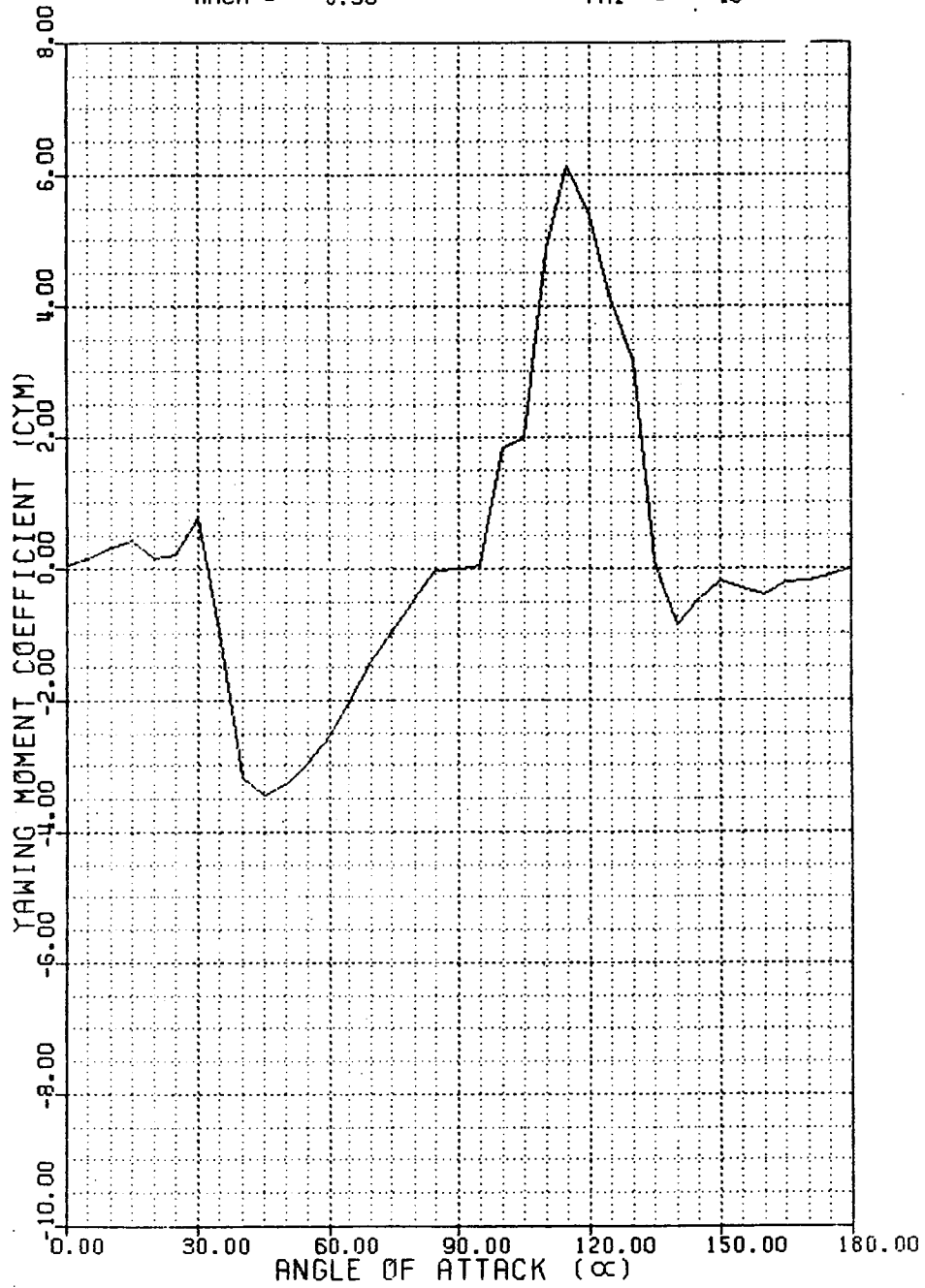


B-442

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 45



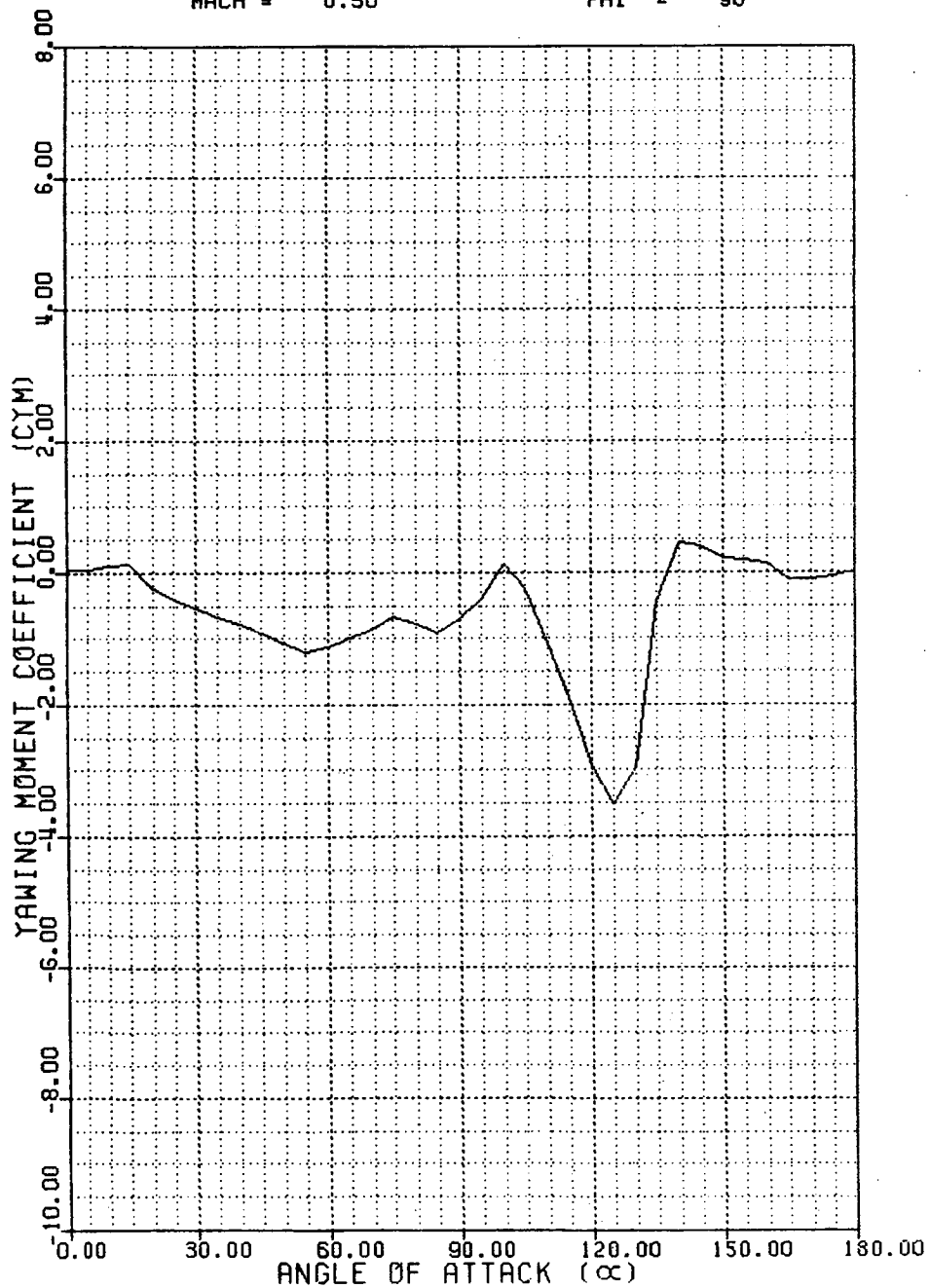
B-443

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 90

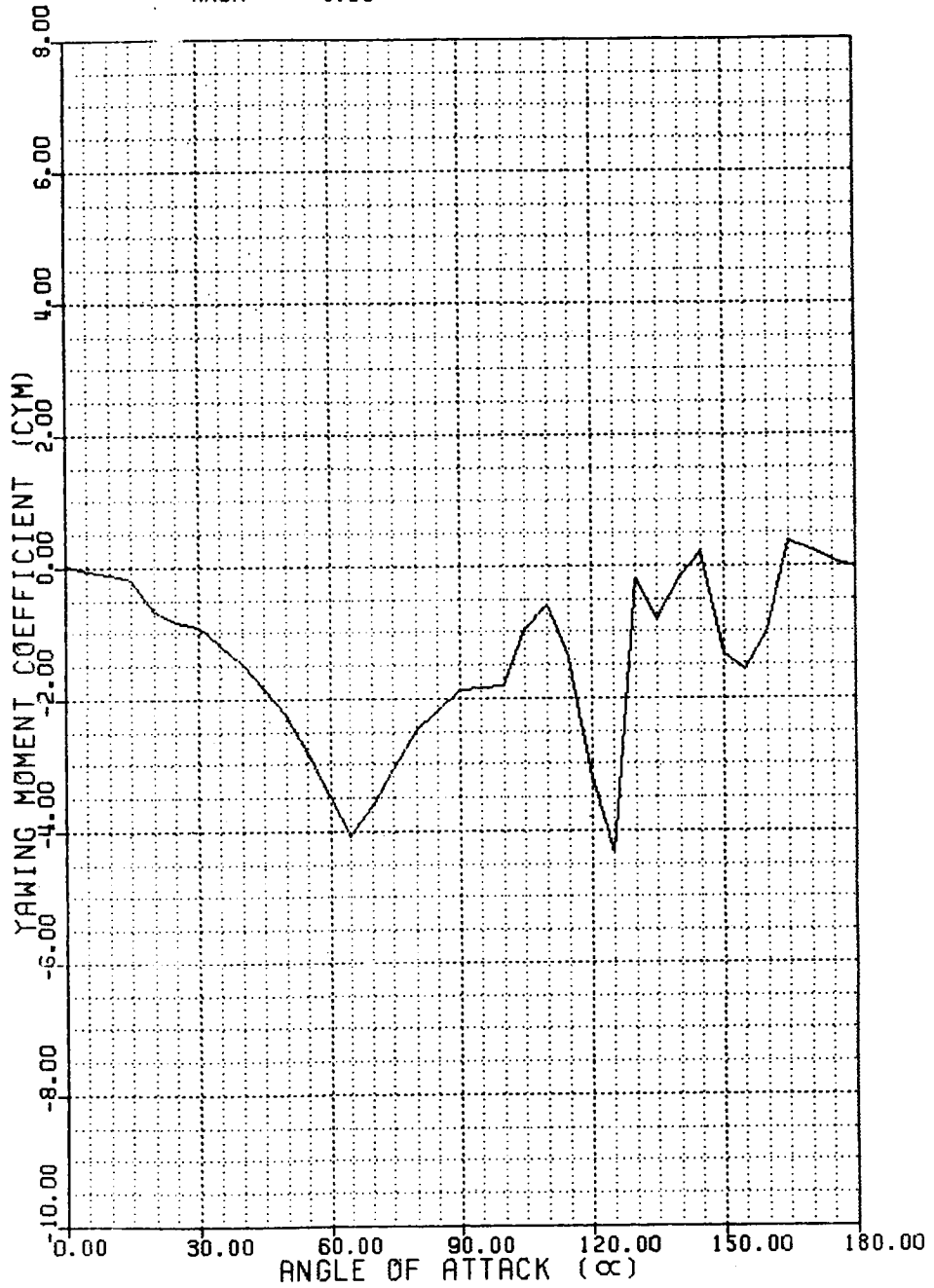


B-444

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 135



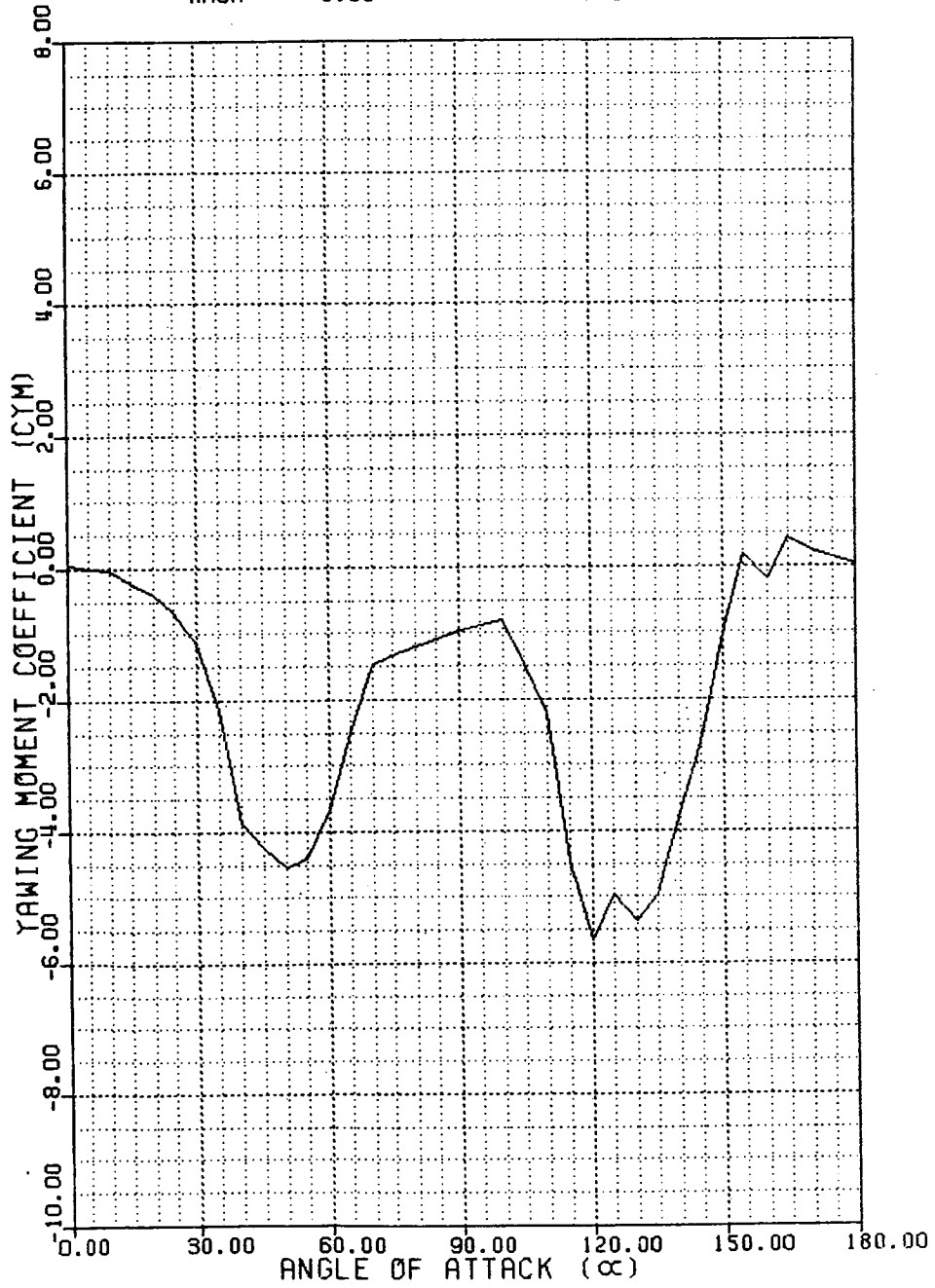
B-445

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 180



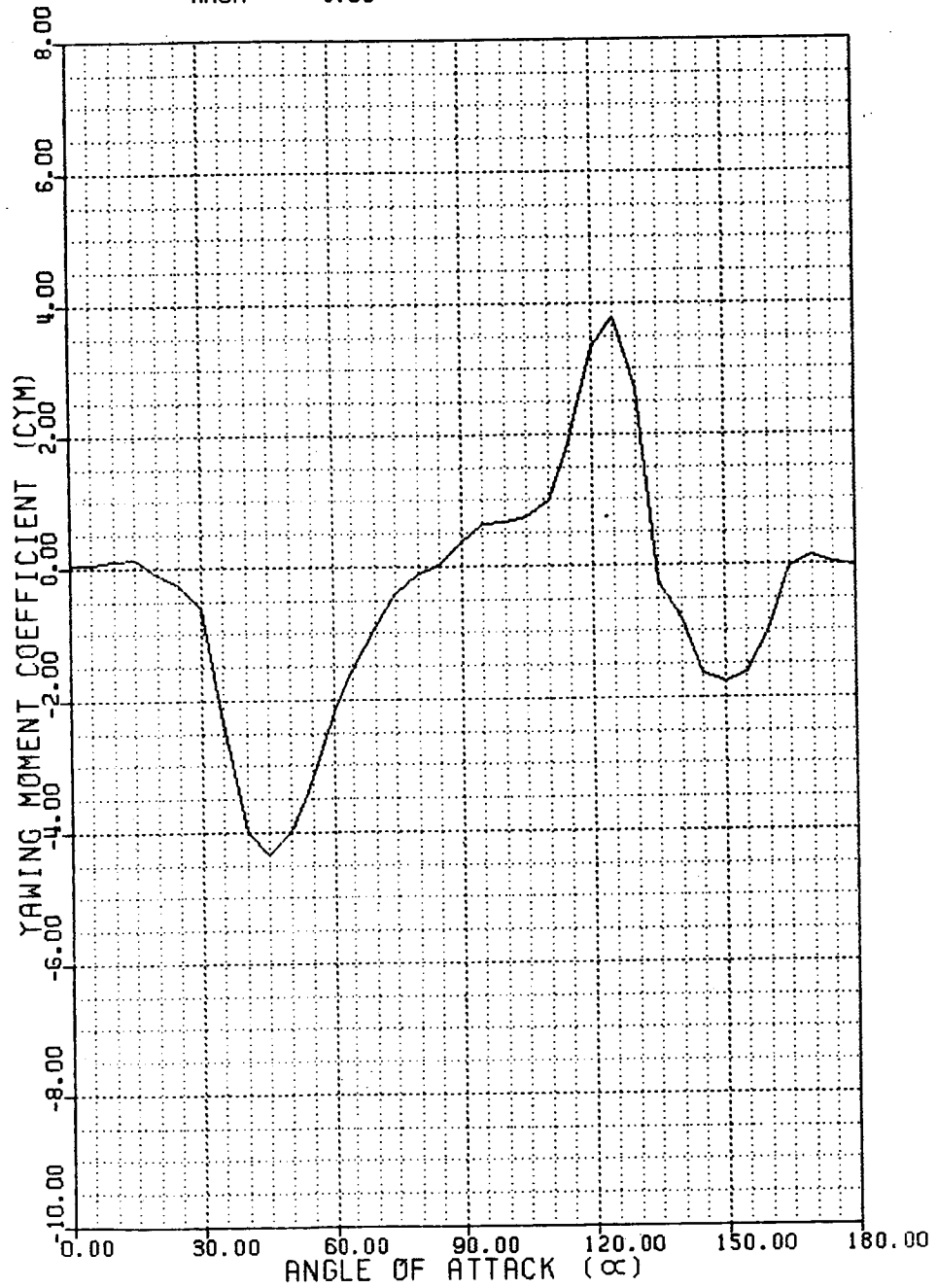
B-446

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 225



B-447

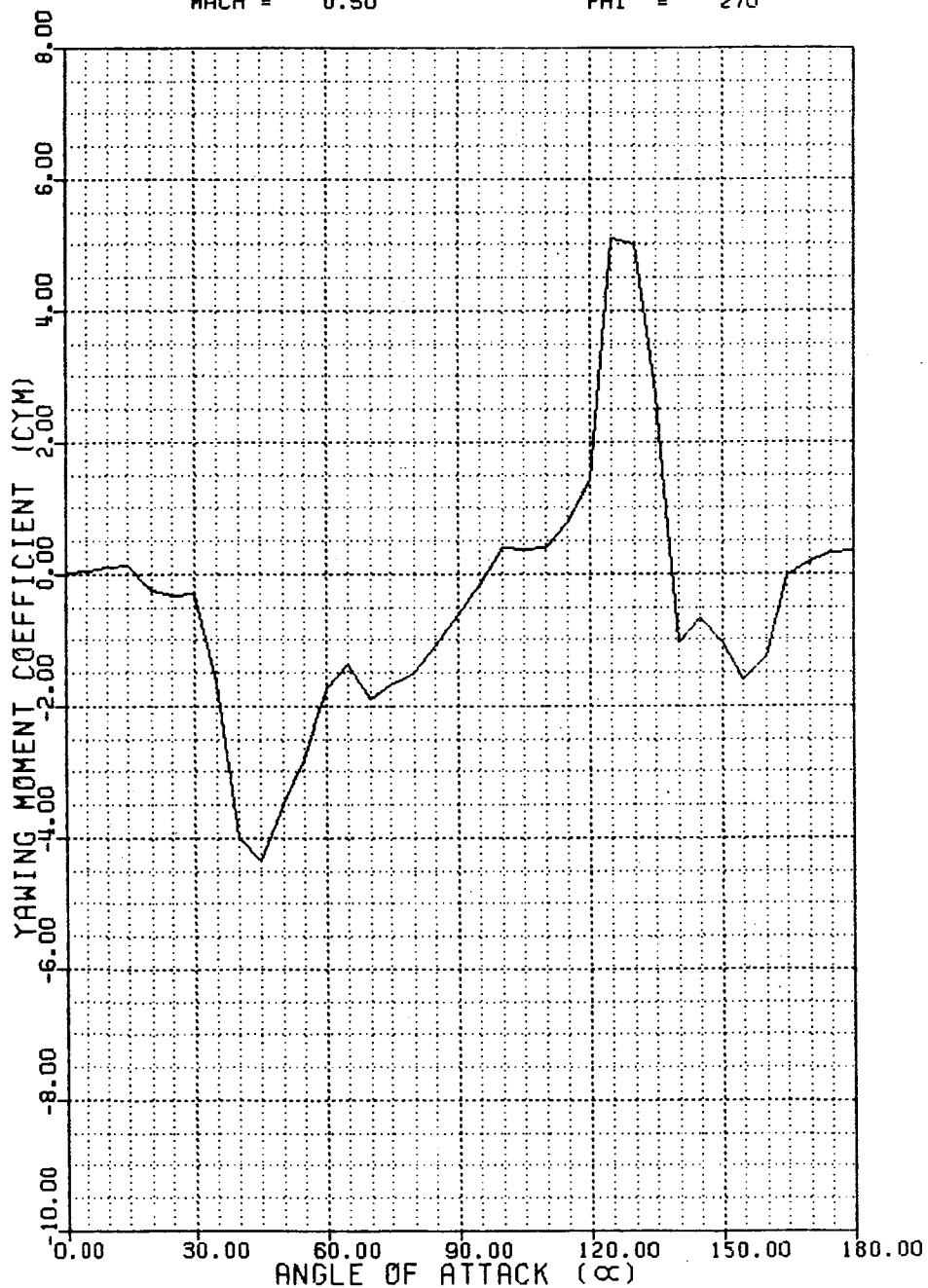
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 270

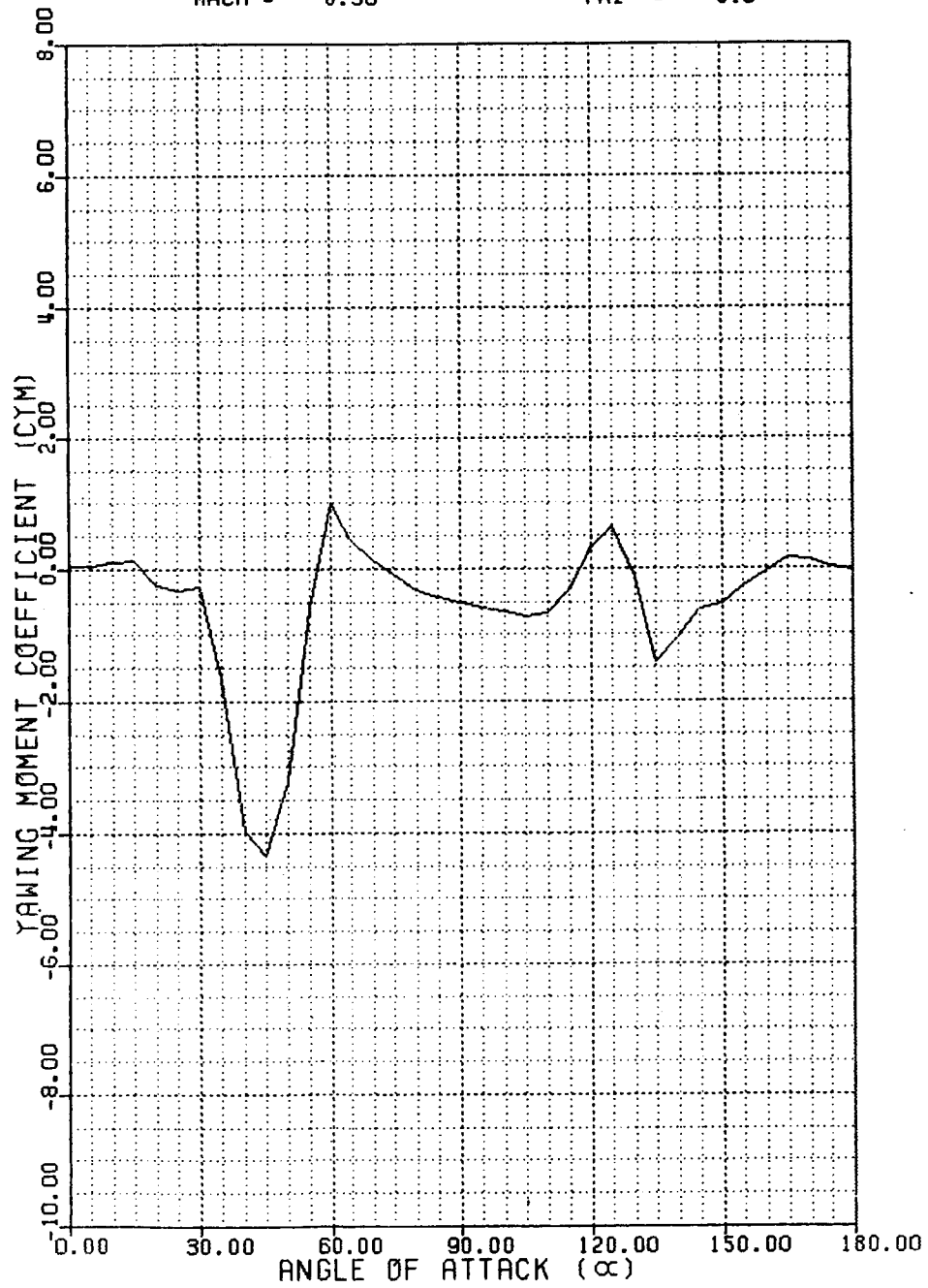


B-448

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 315



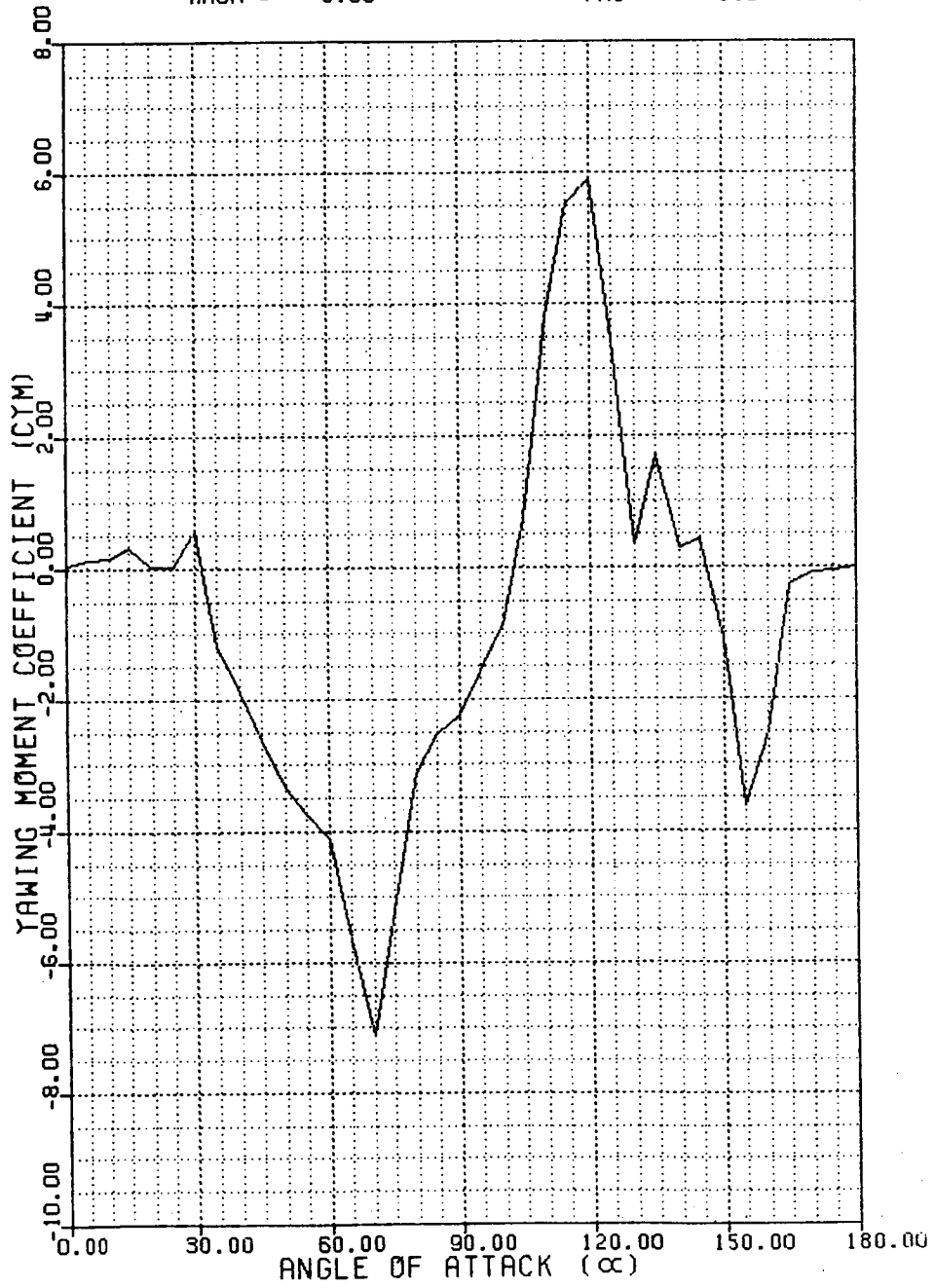
B-449

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 360

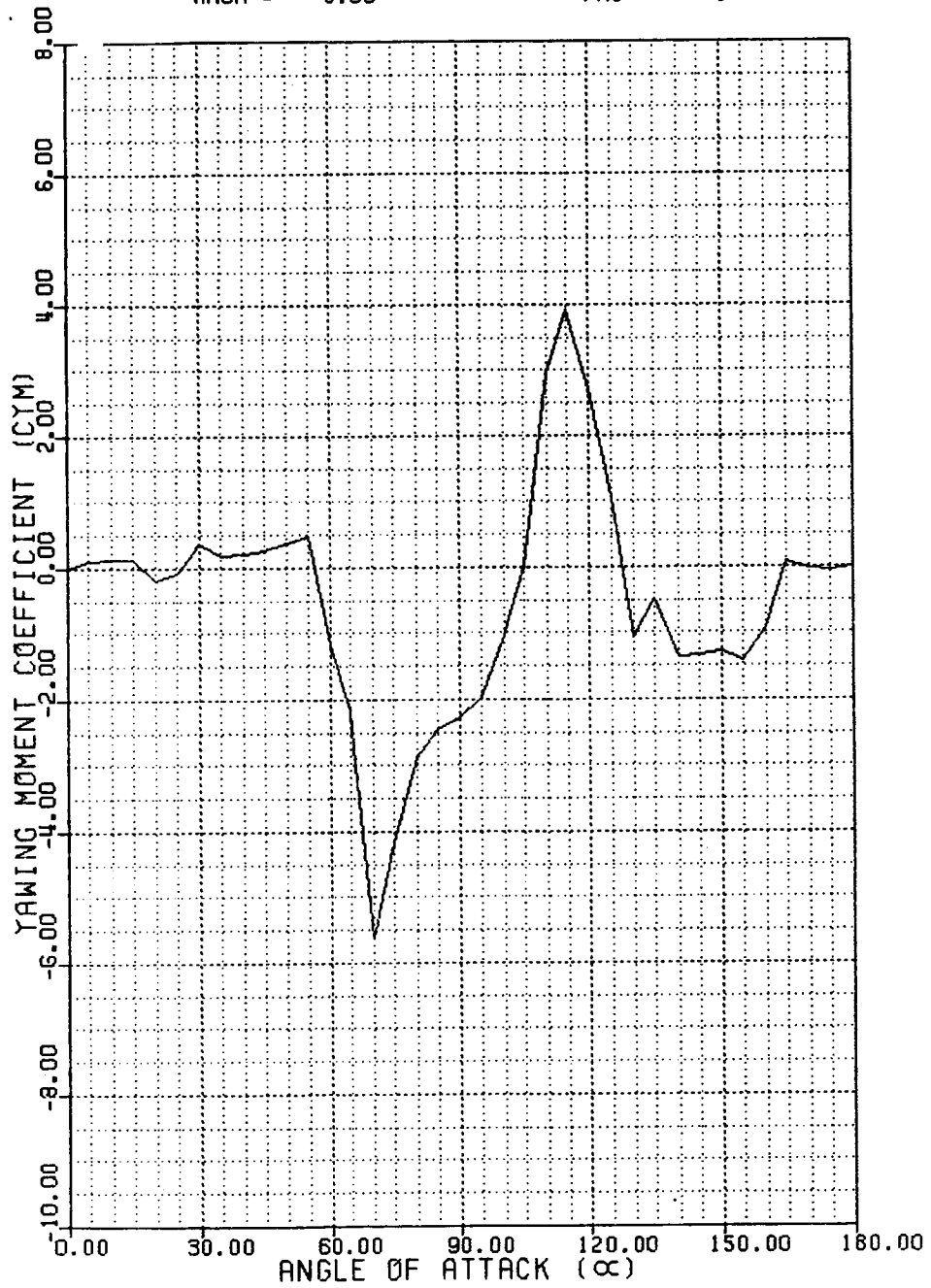


B-450

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 0



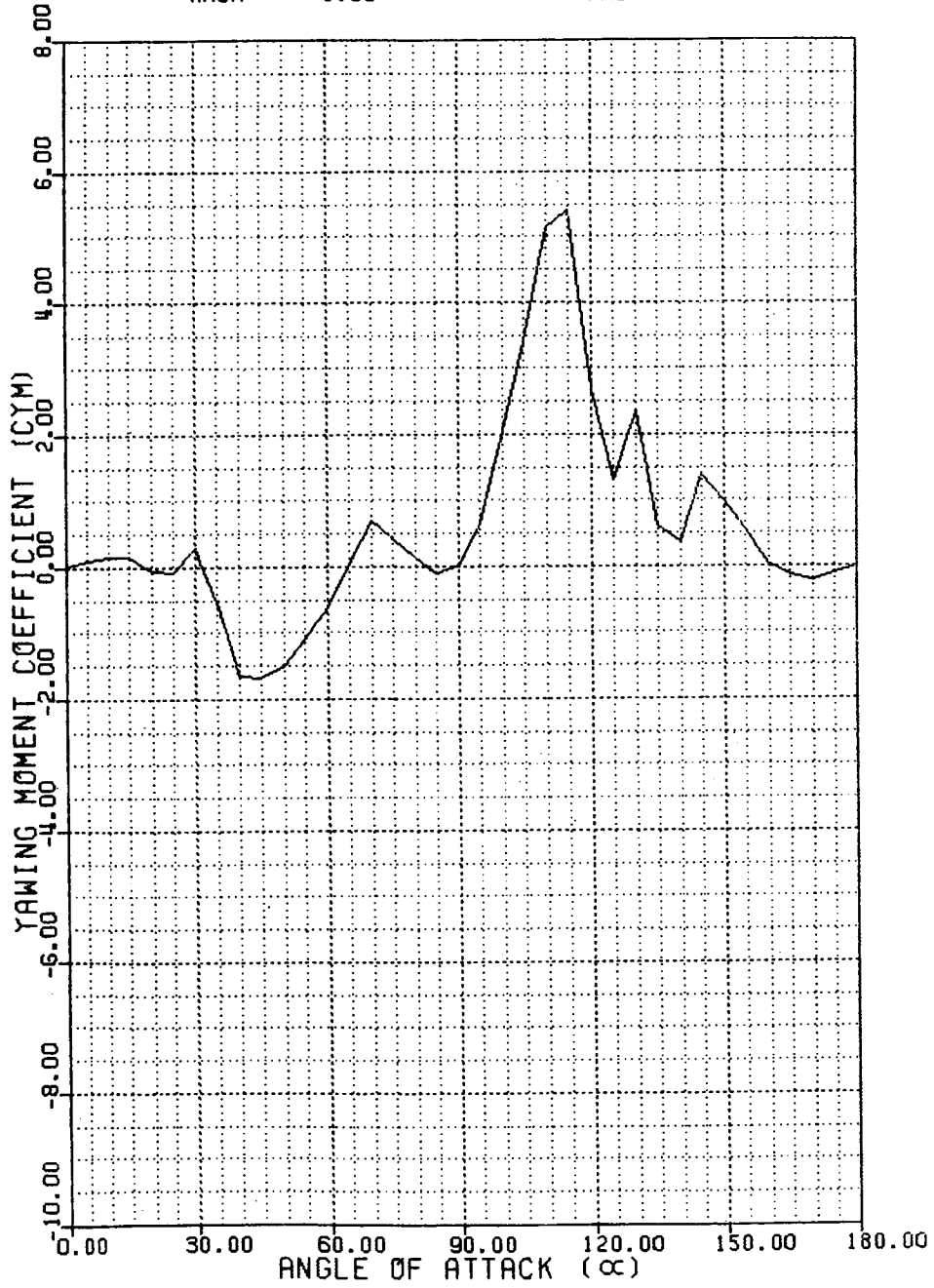
B-451

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 45

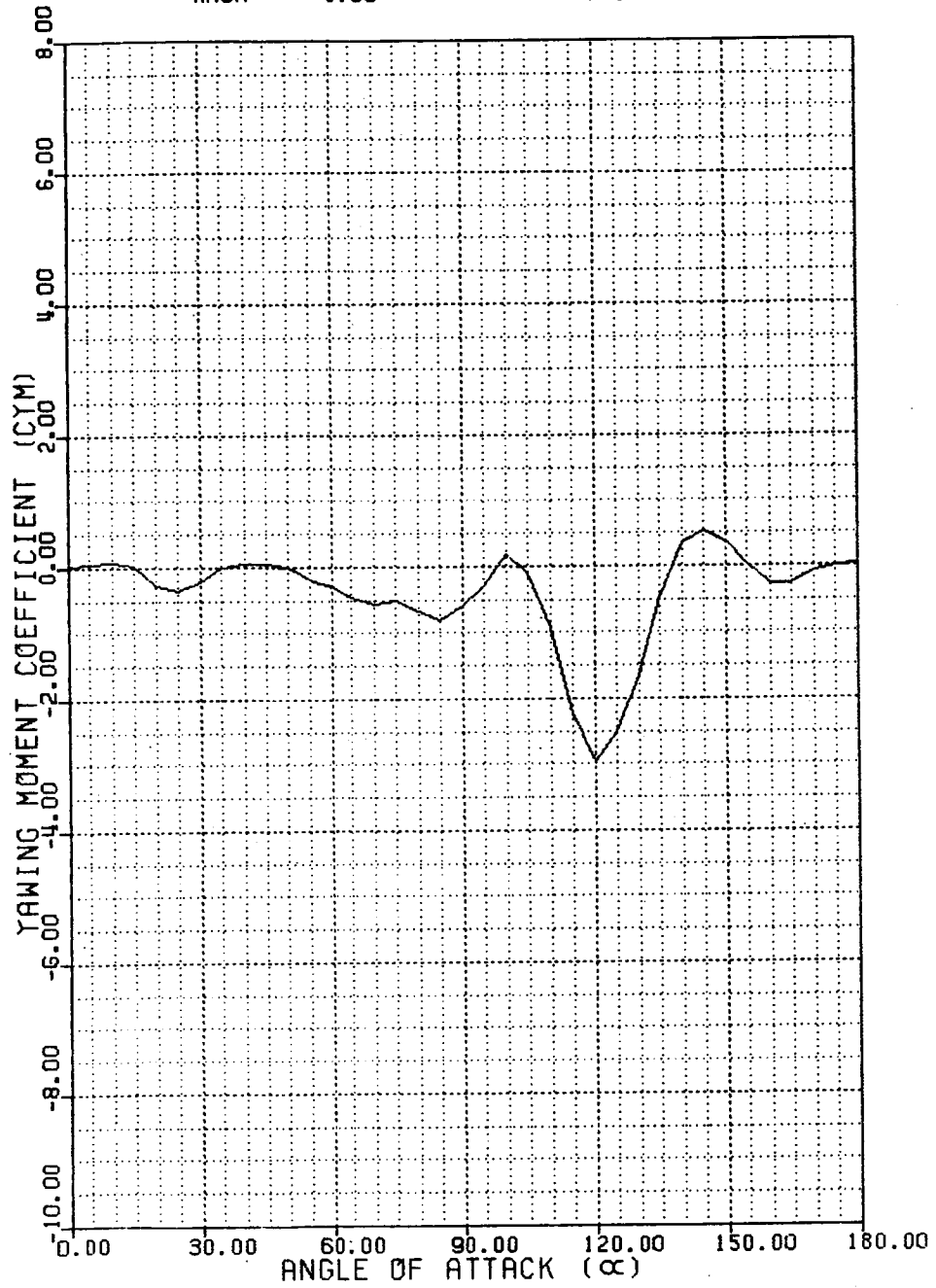


B-452

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 90



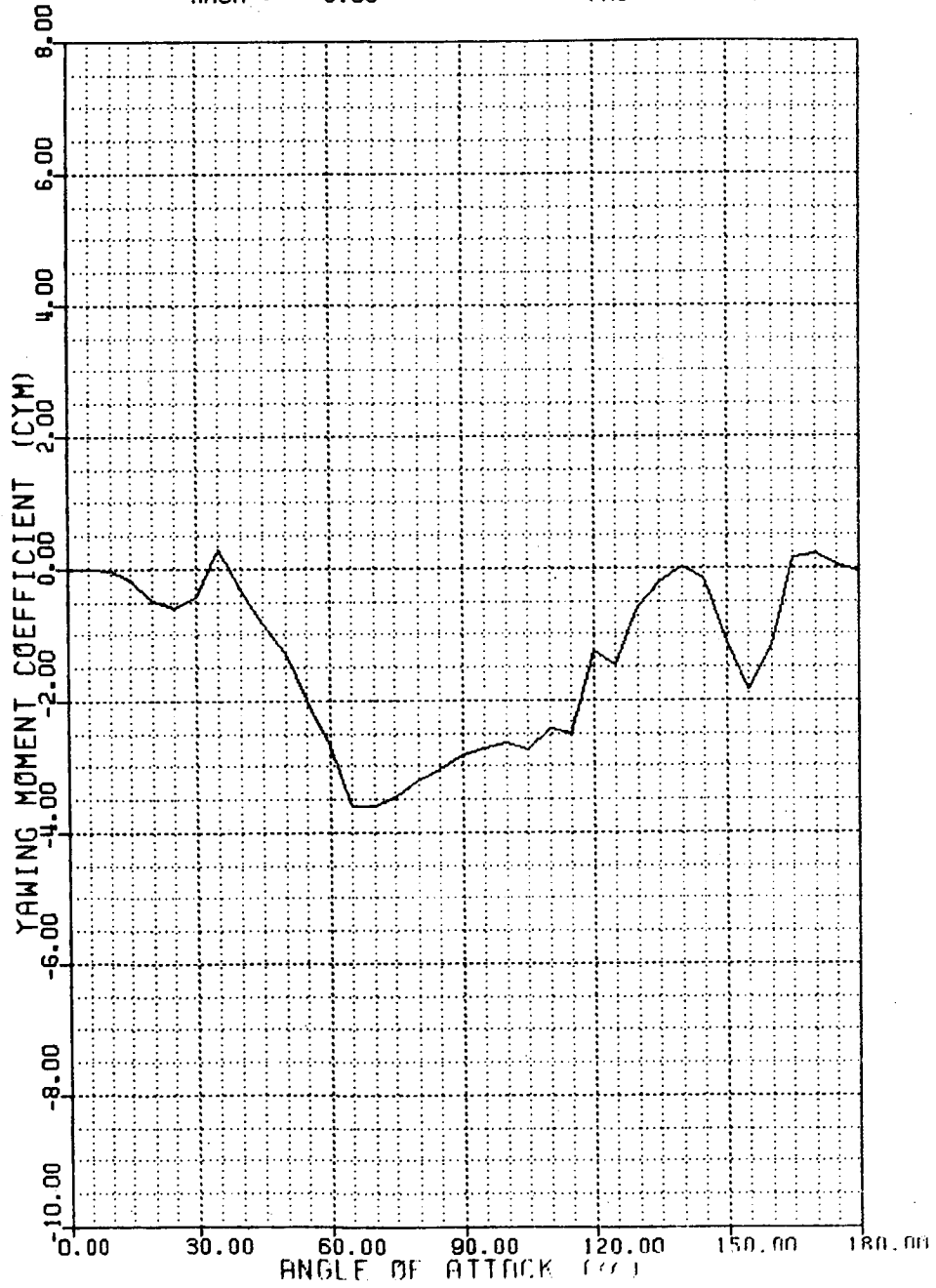
B-453

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 135

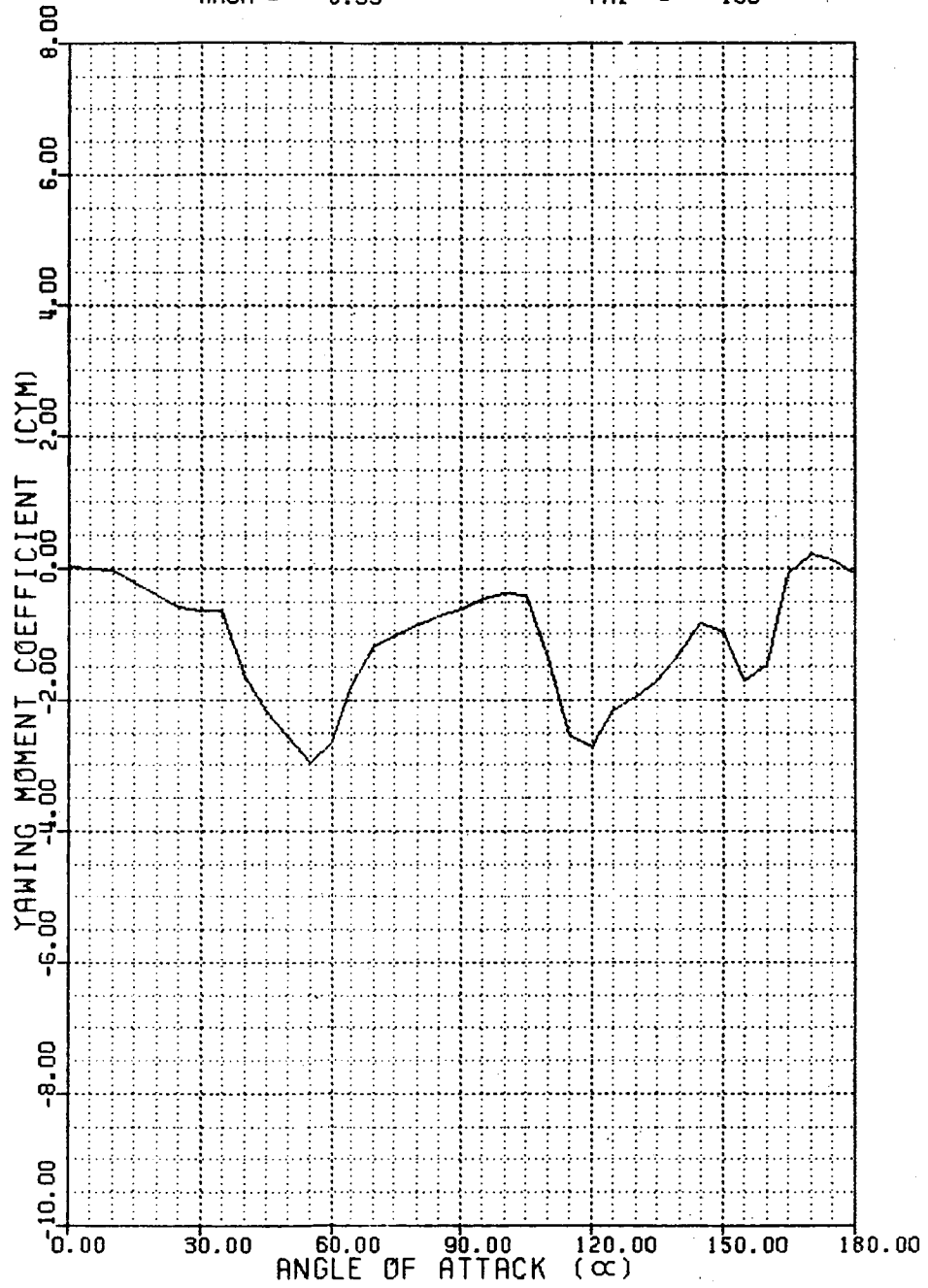


B-454

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 180



B-455

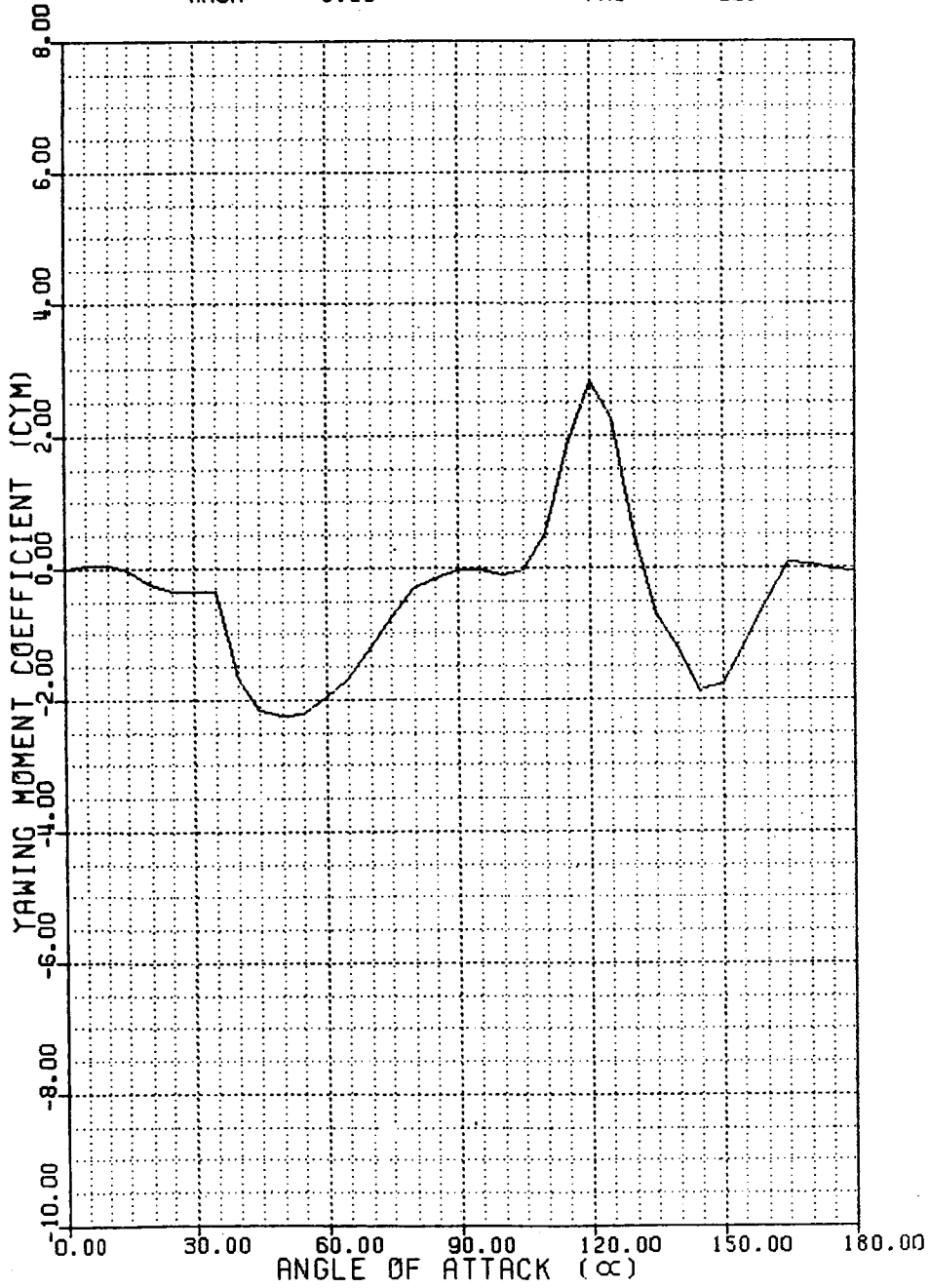
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 225

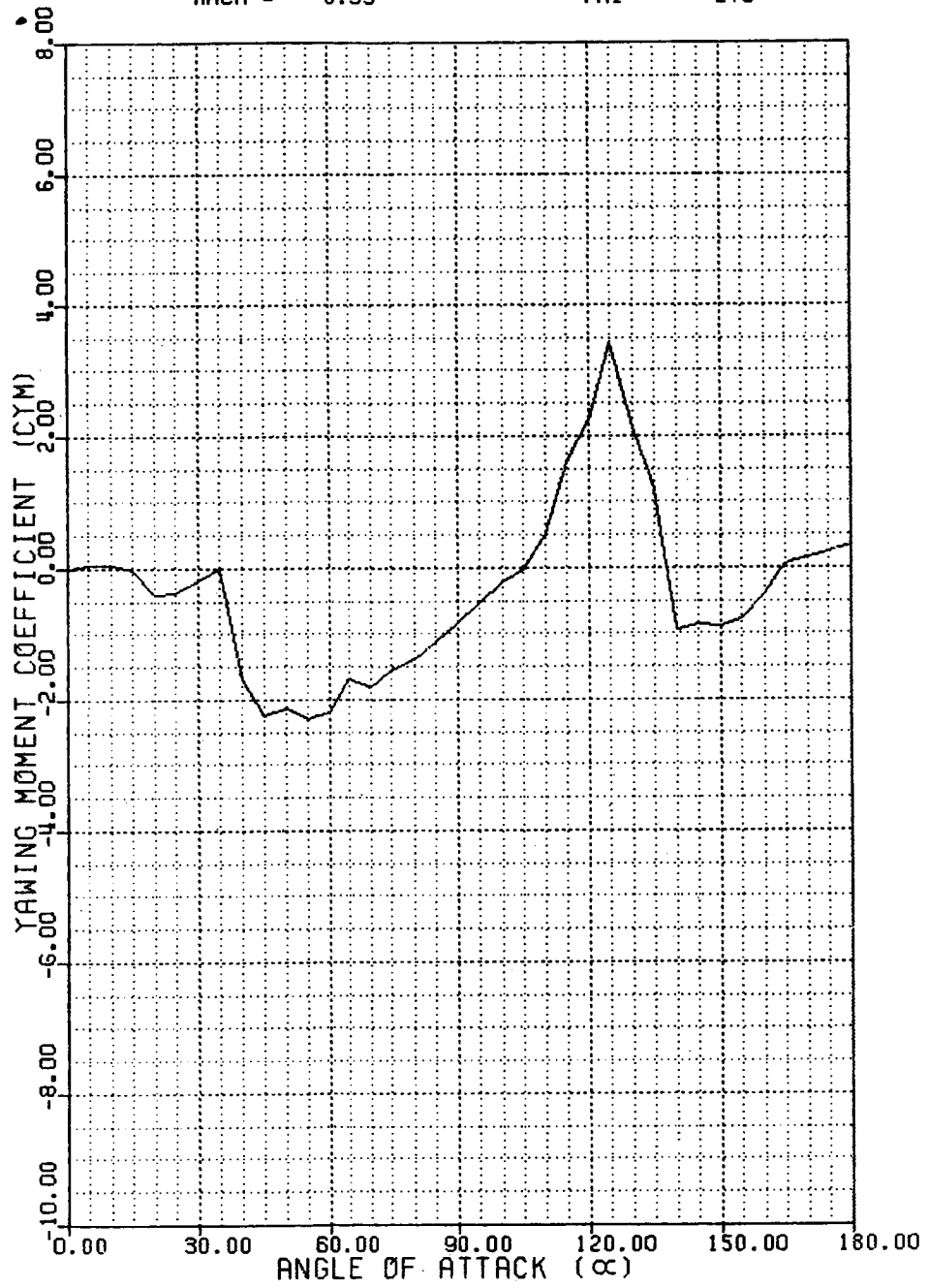


B-456

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 270



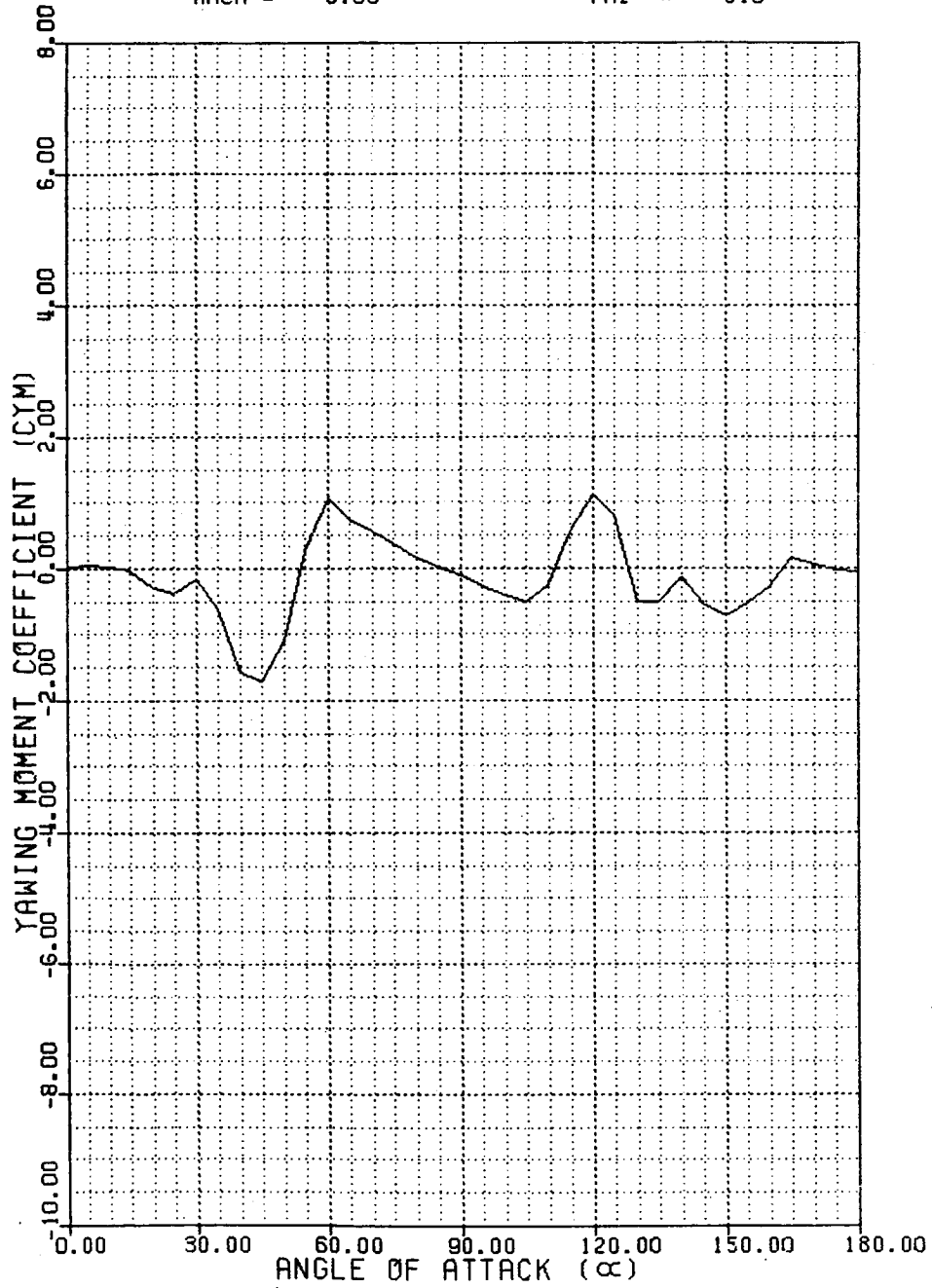
B-457

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 315

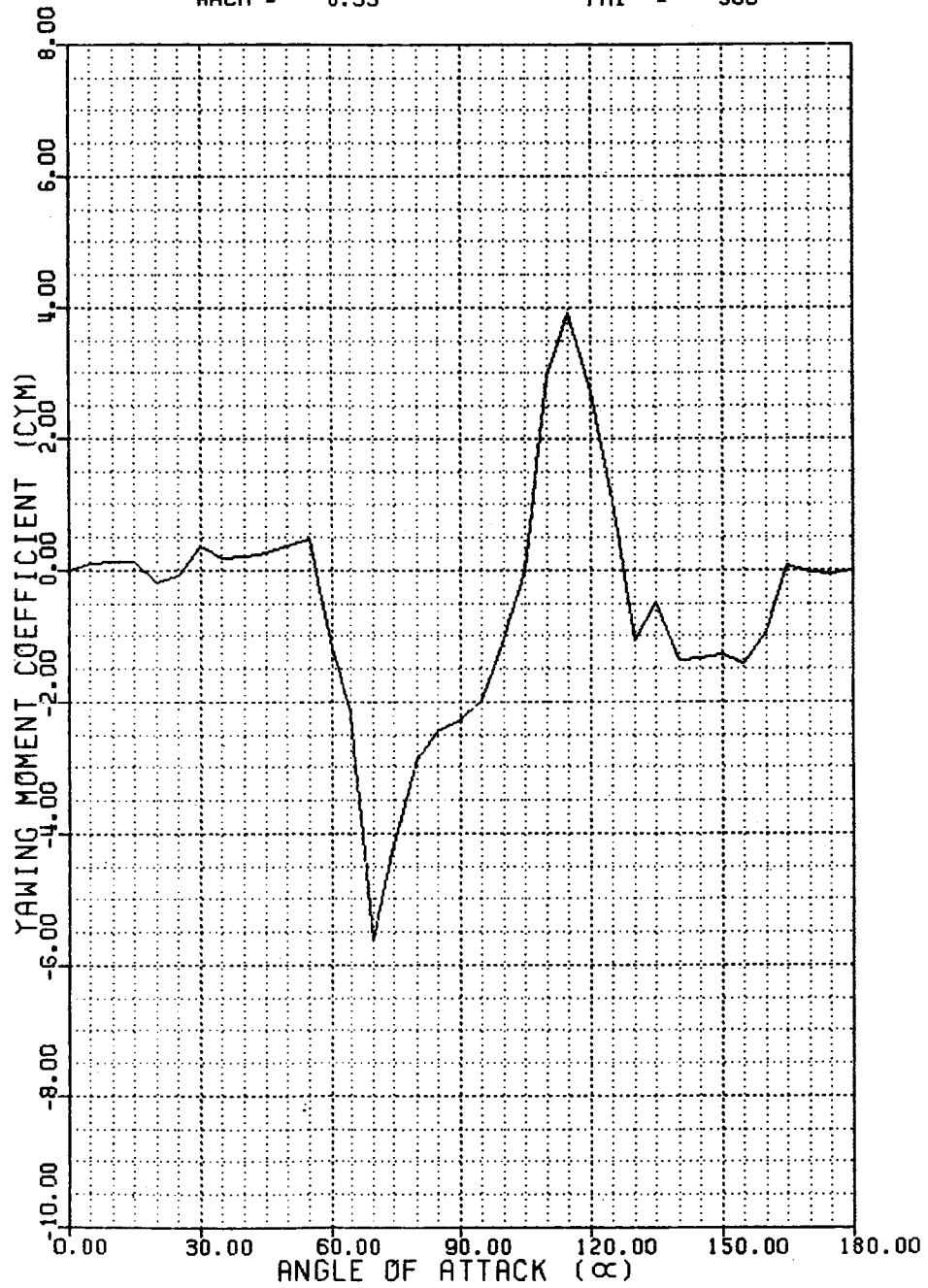


B-458

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 360



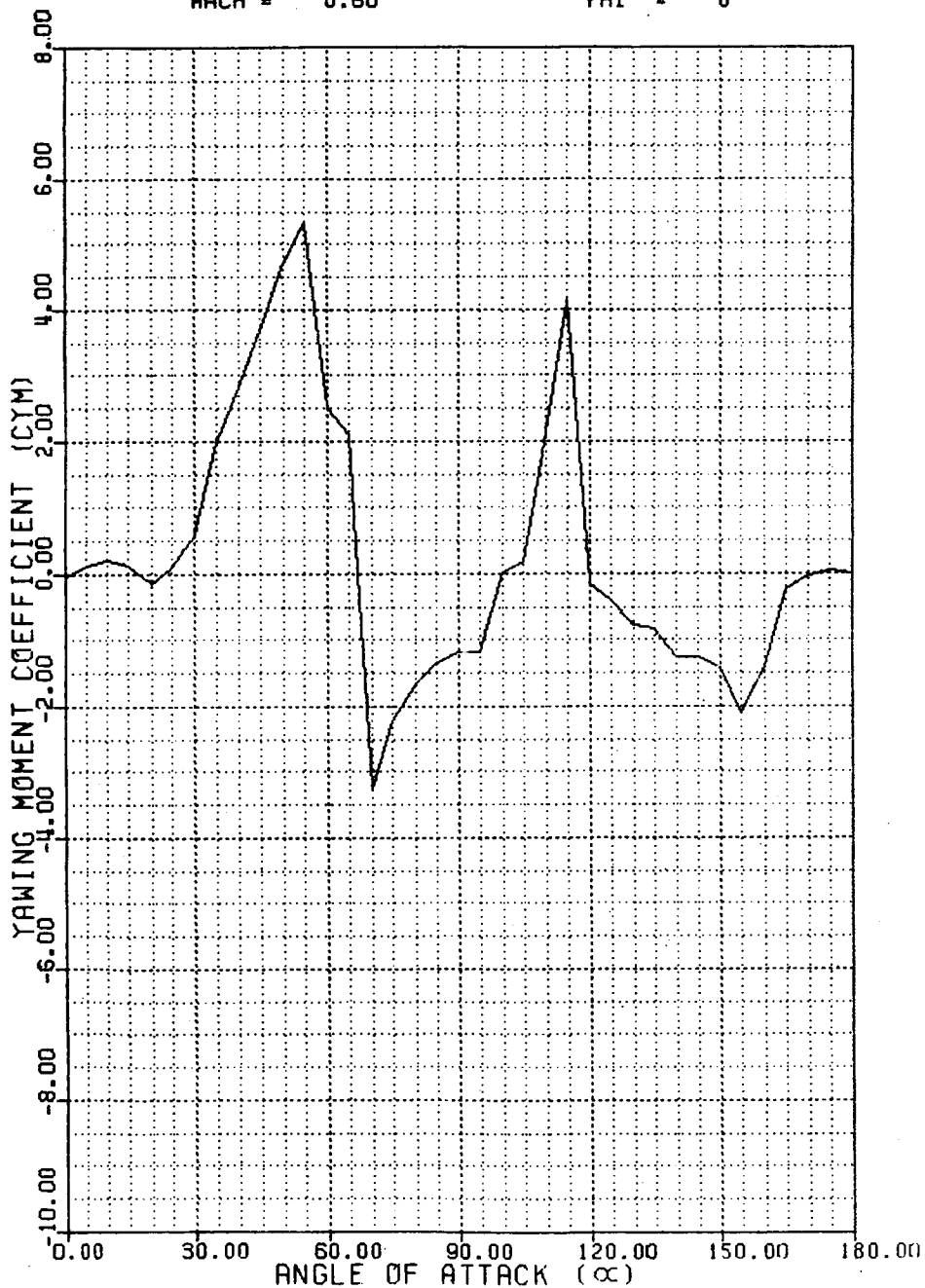
B-459

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 0



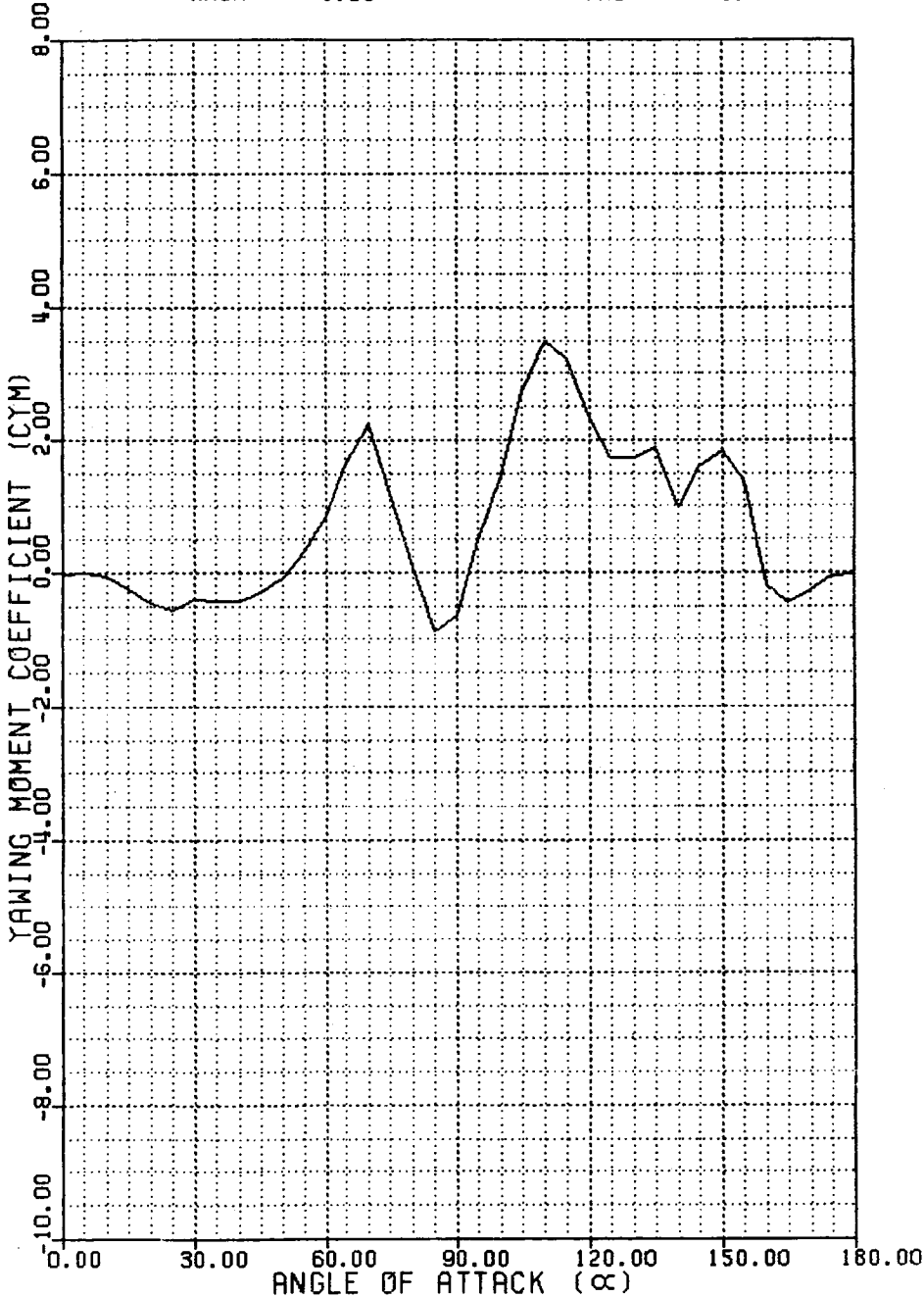
B-460

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 45



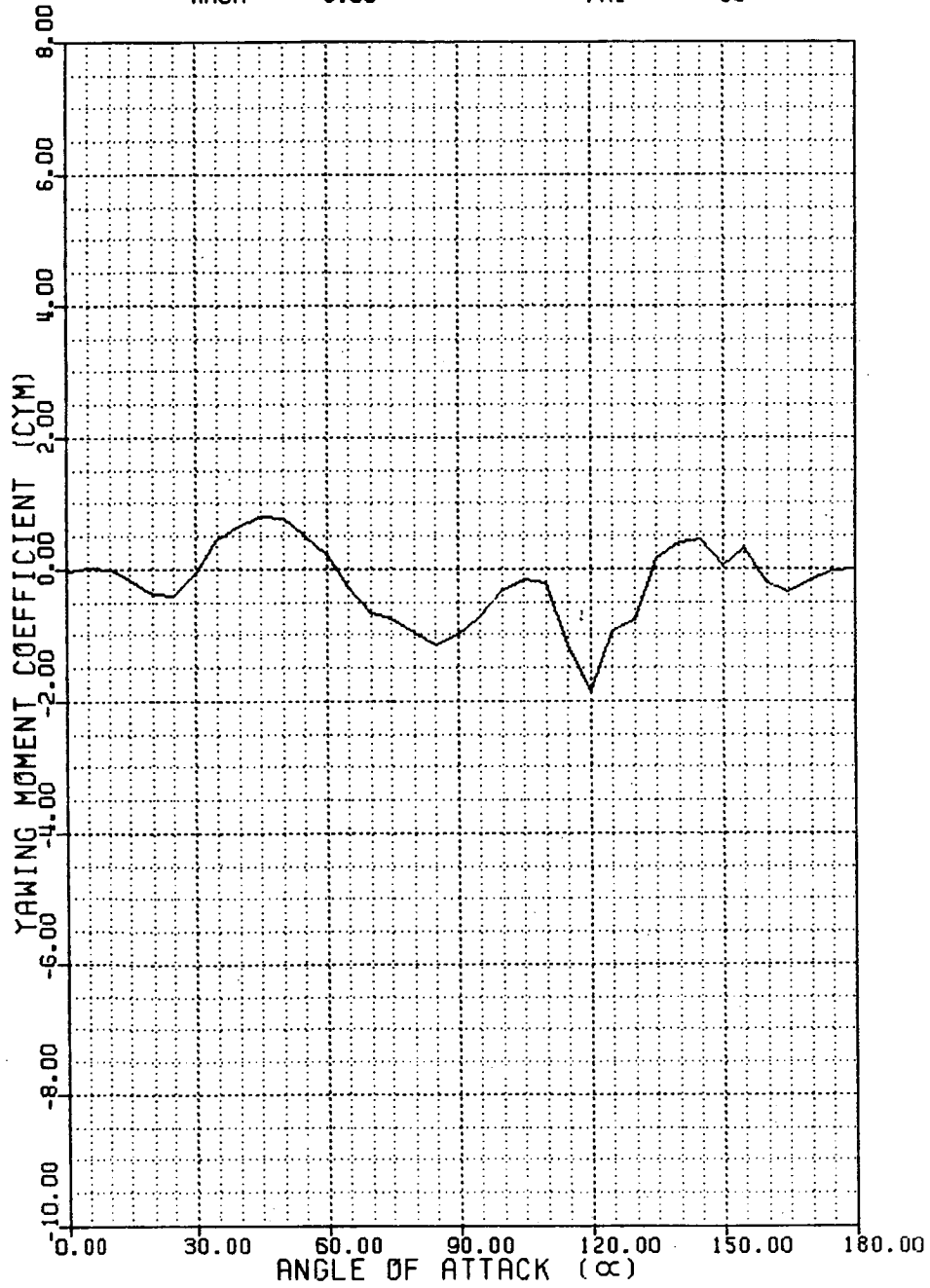
B-461

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 90

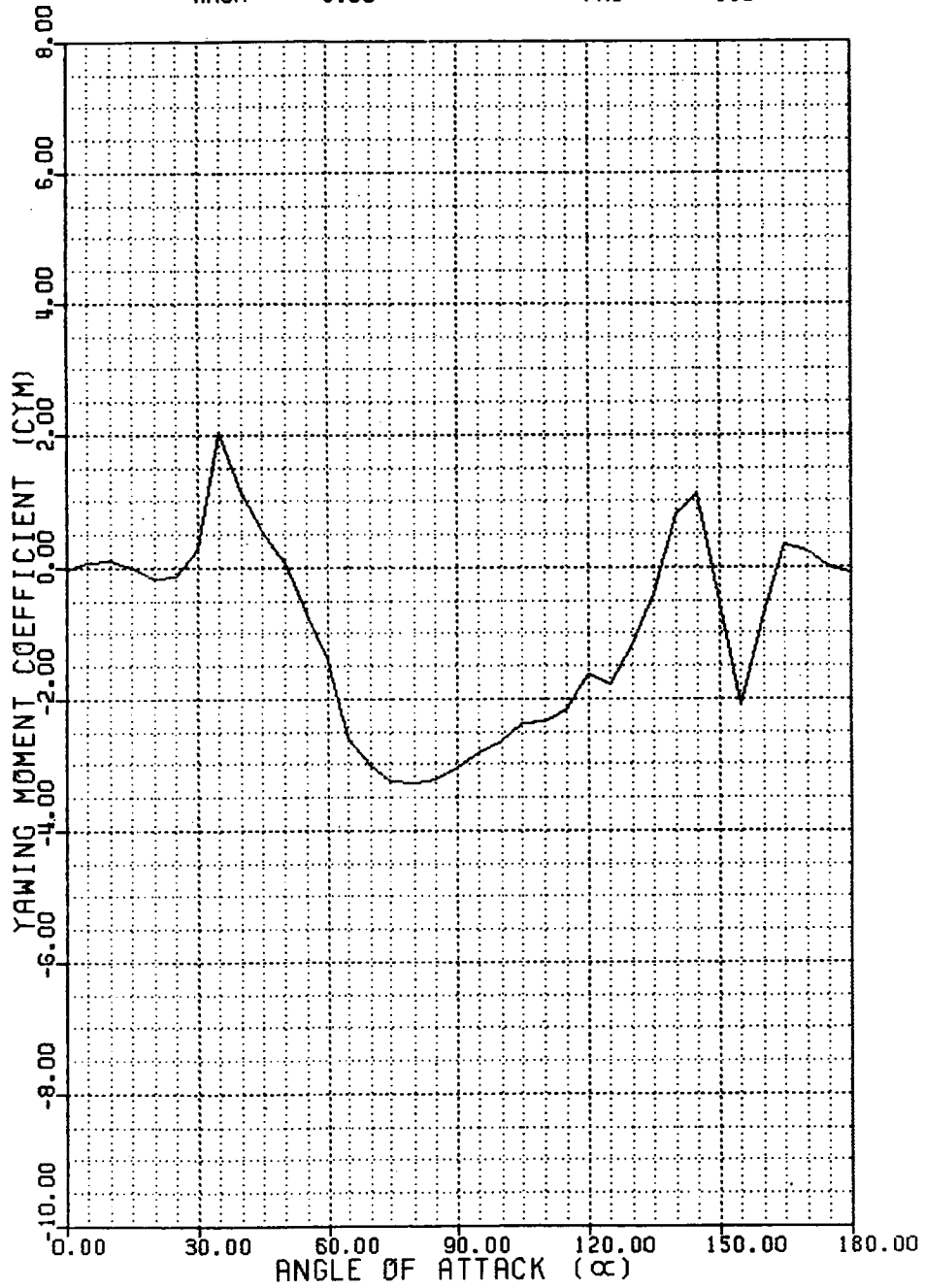


B-462

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 135



B-463

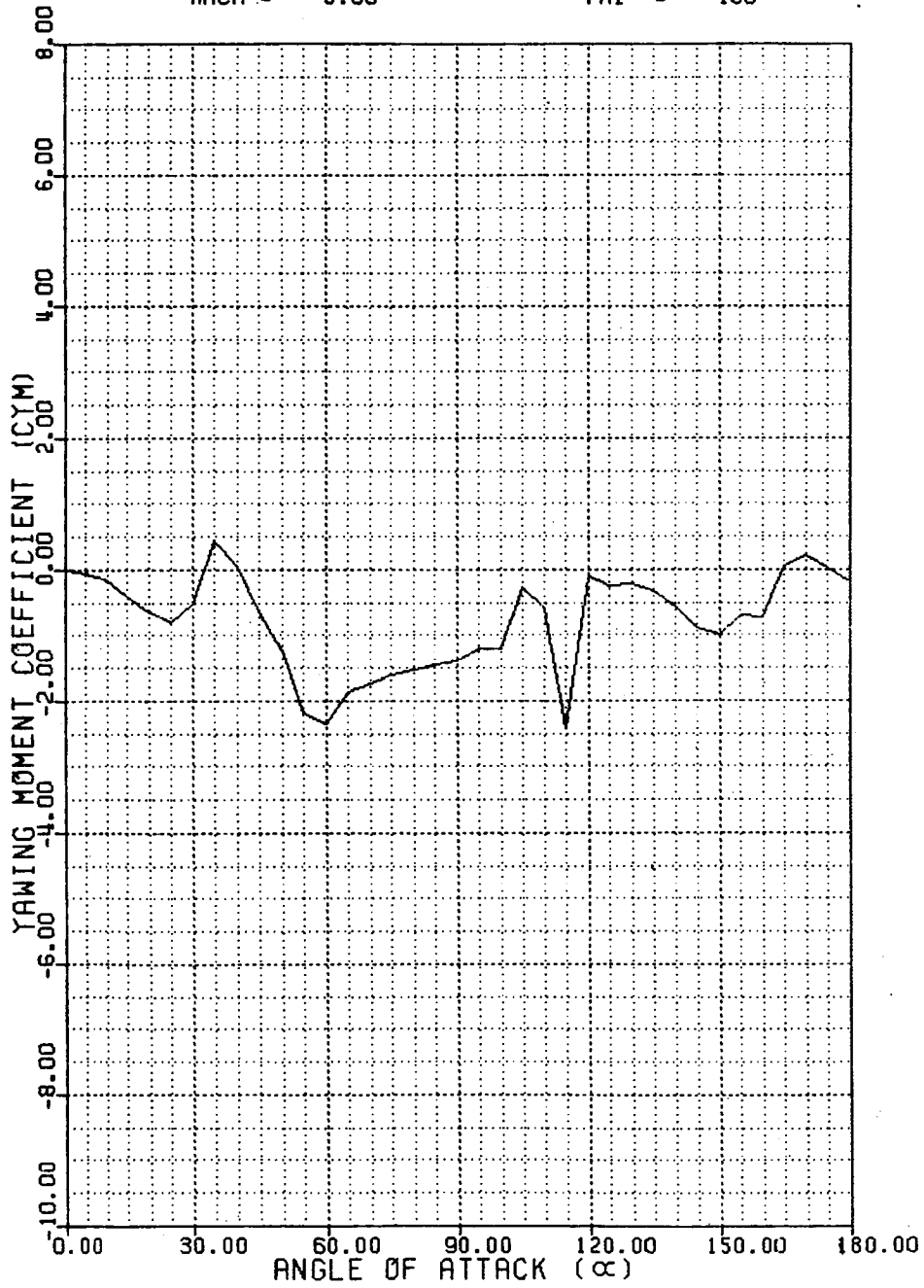
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.60

PHI = 180



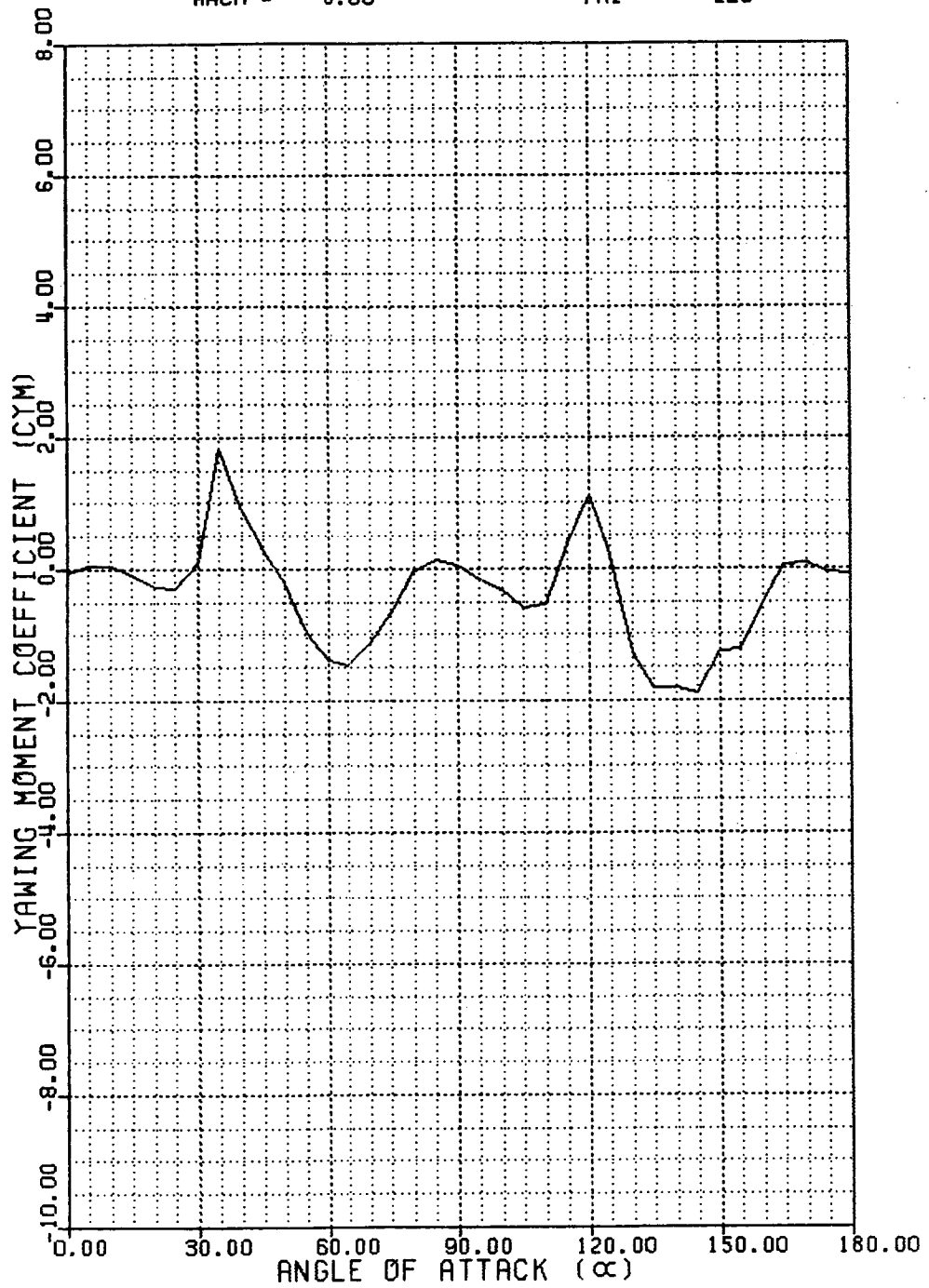
B-464

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 225



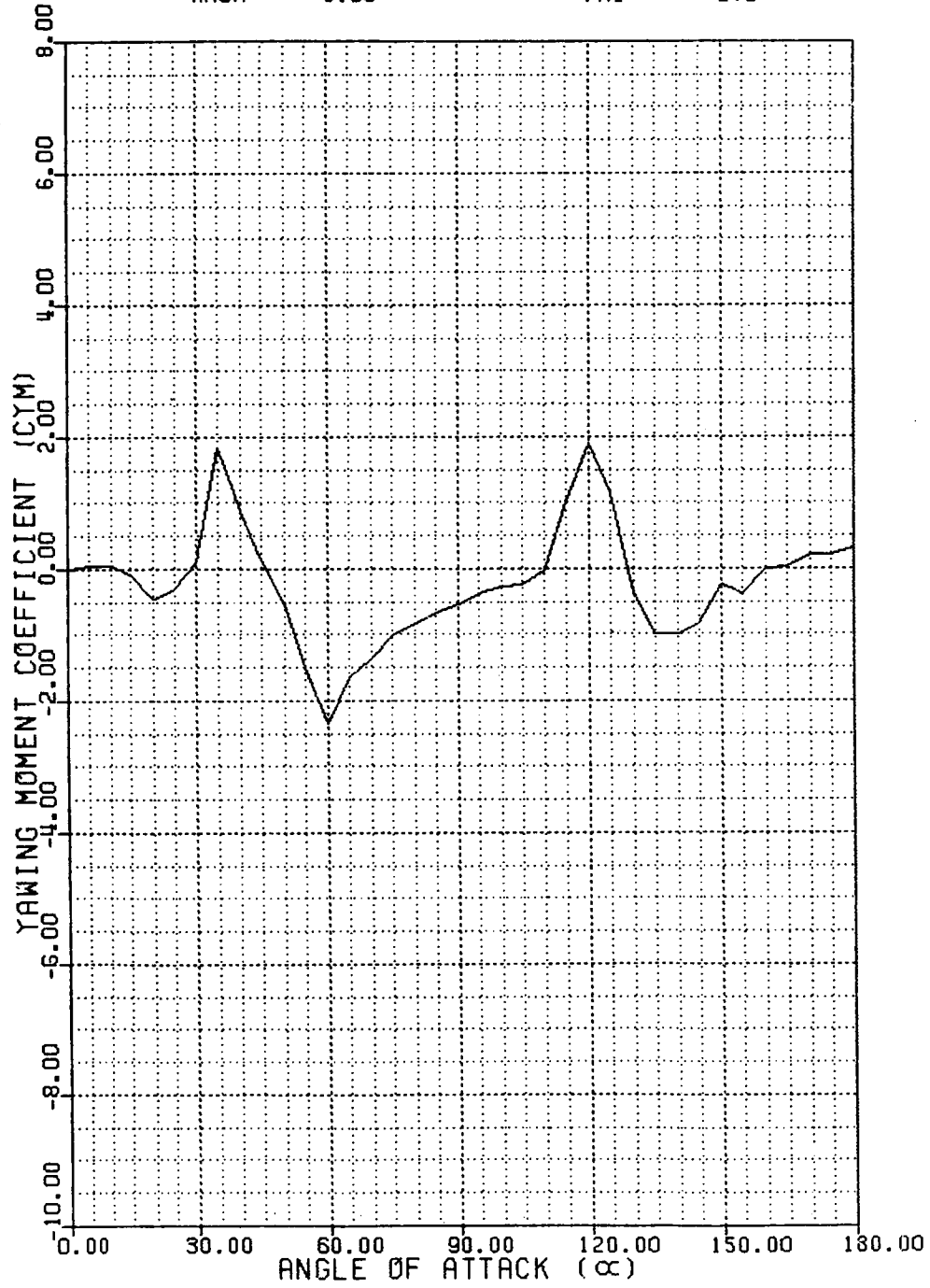
B-465

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 270

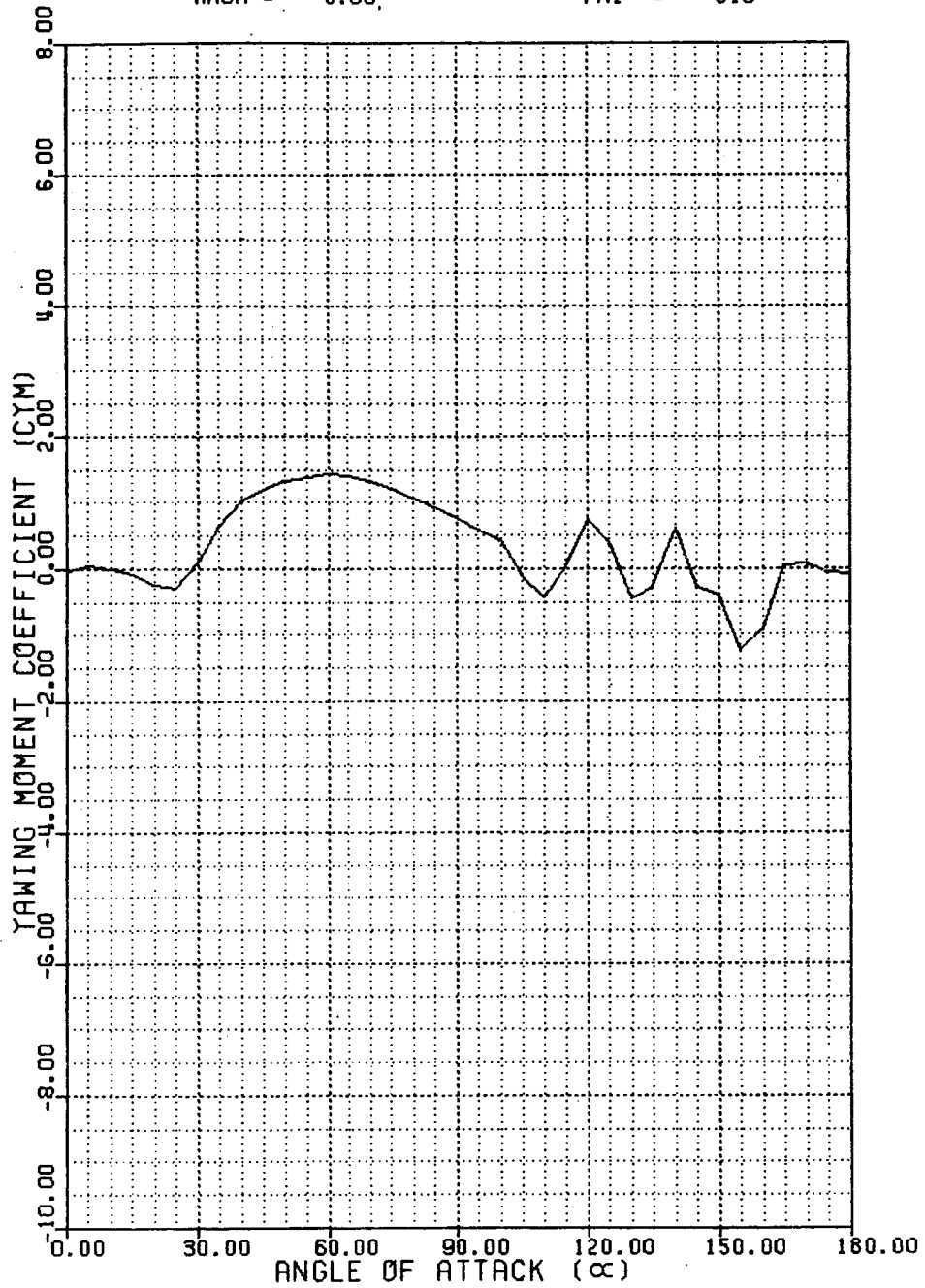


B-466

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 315

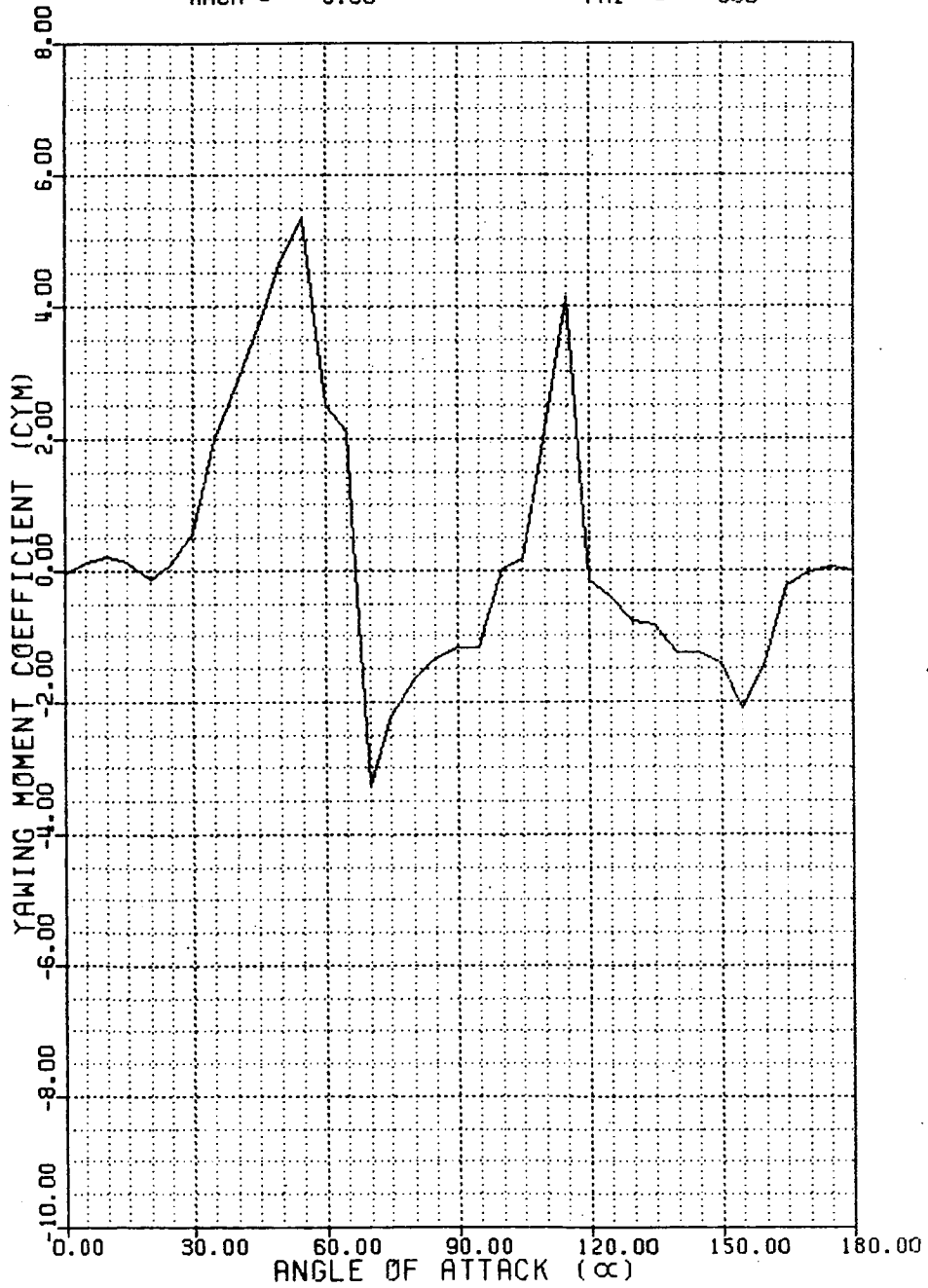


B-467

### SRB TAPE 8 DATA

MACH = 0.60

PHI = 360

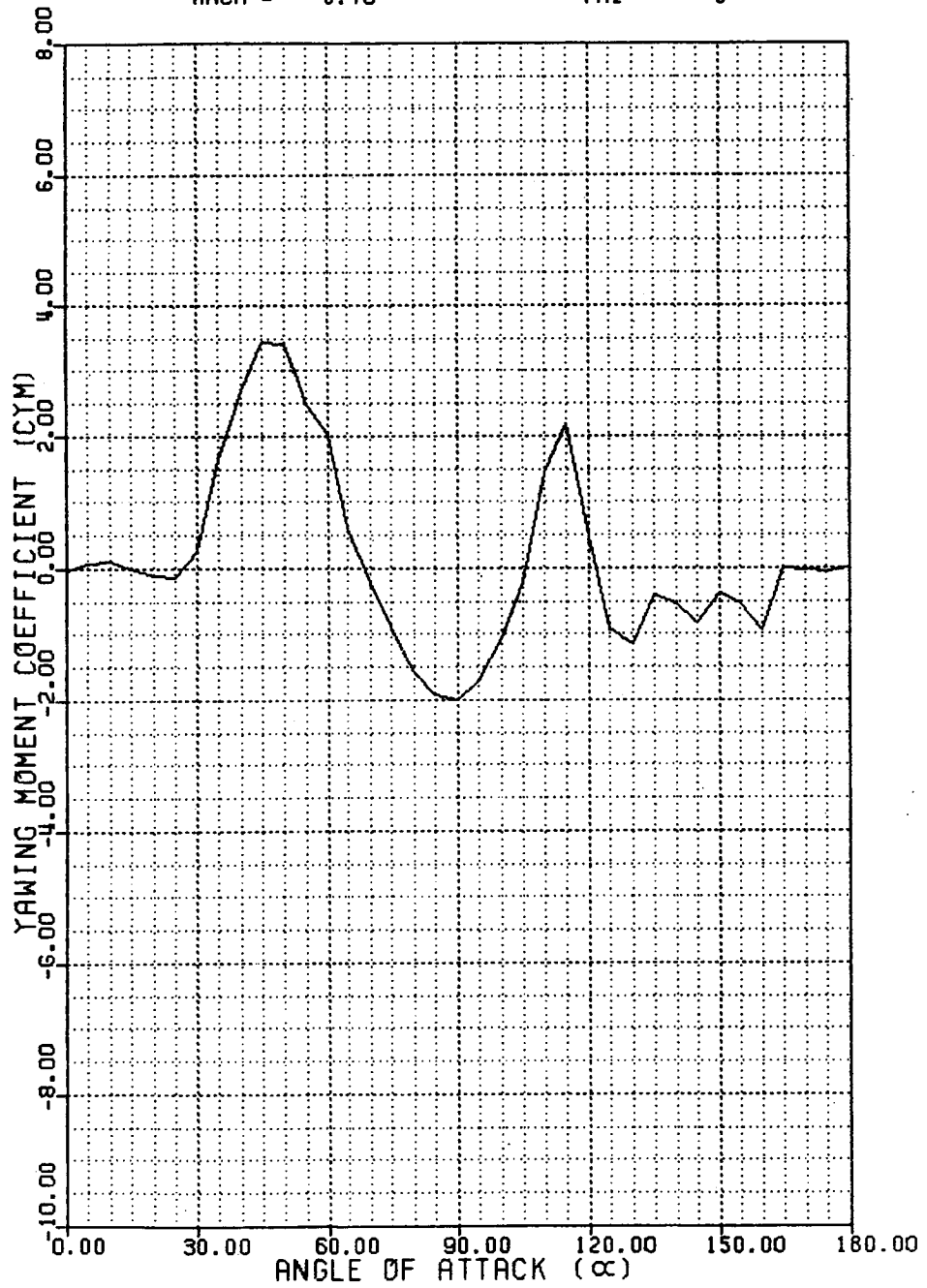


B-468

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 0



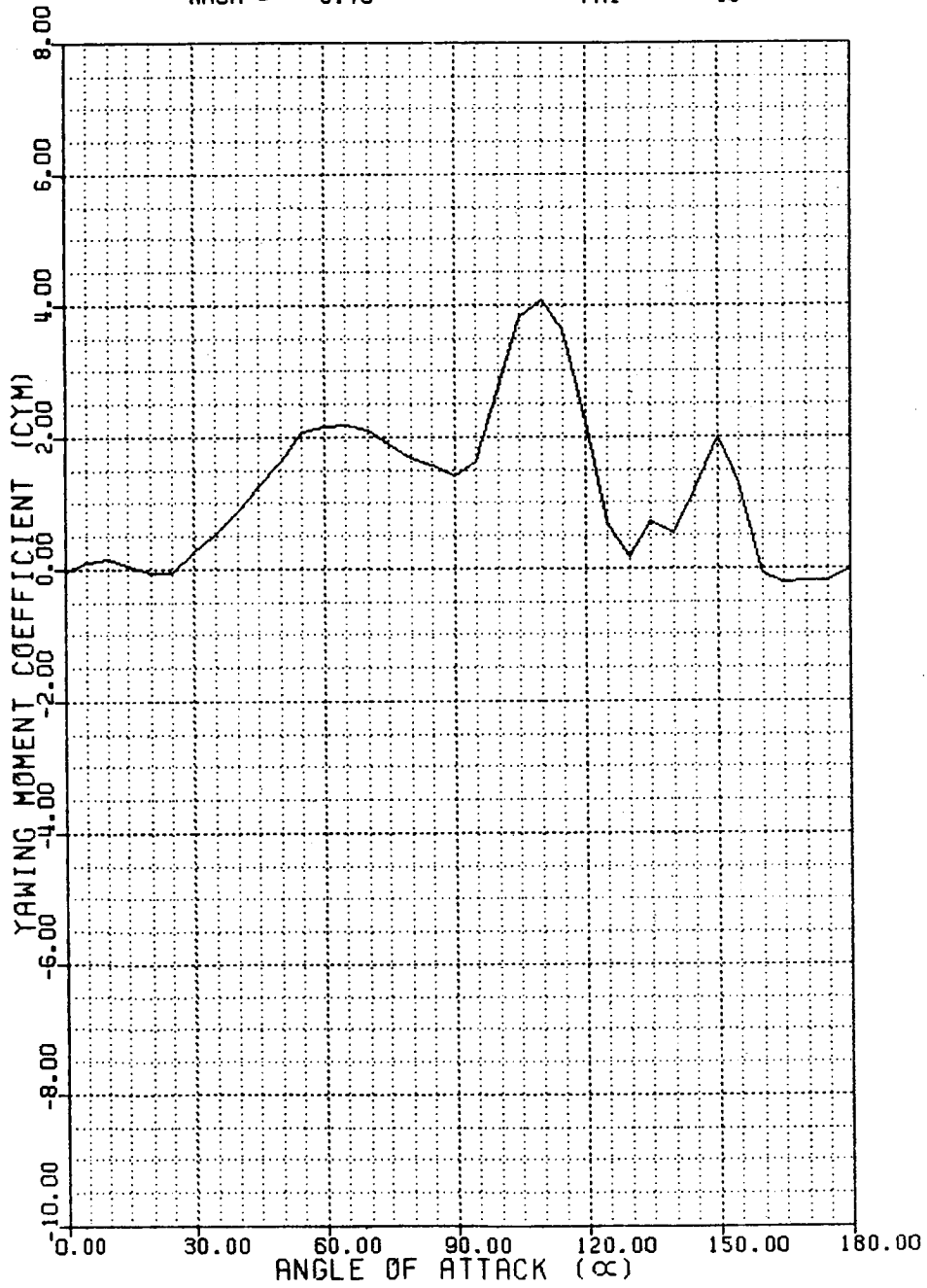
B-469

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

### SRB TAPE 8 DATA

MACH = 0.70

PHI = 45



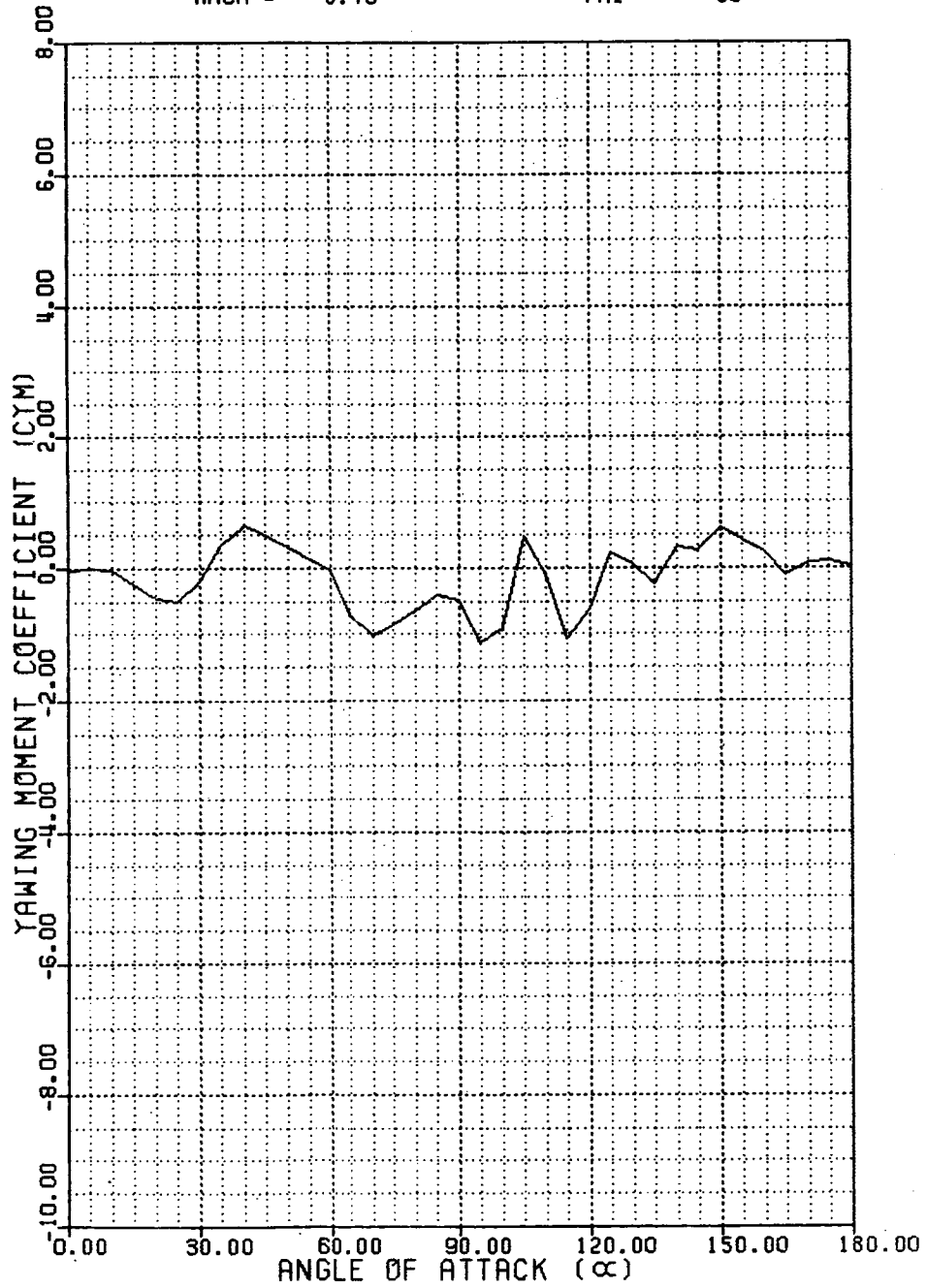
B-470

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 90



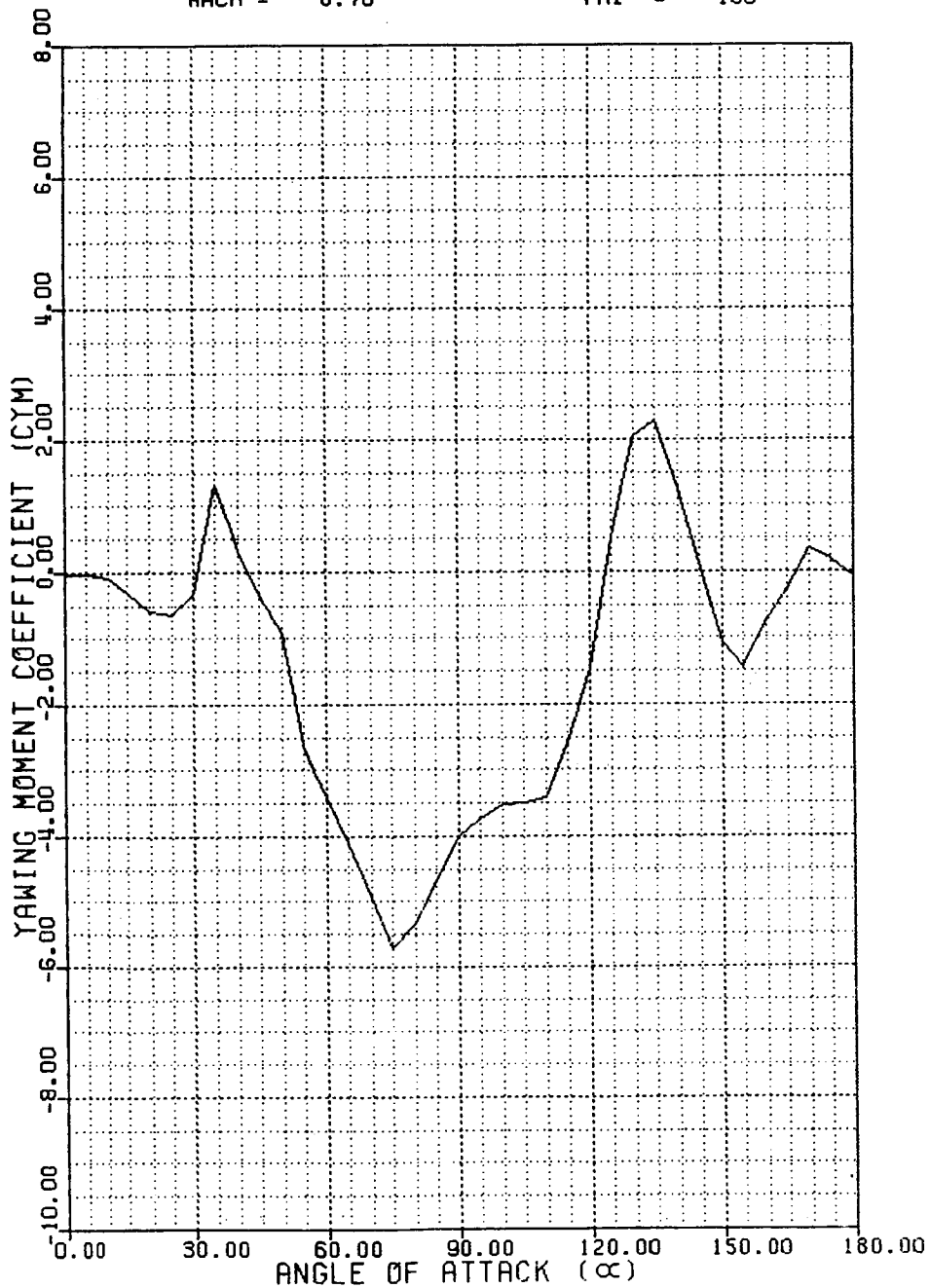
B-471

LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.70                      PHI = 135

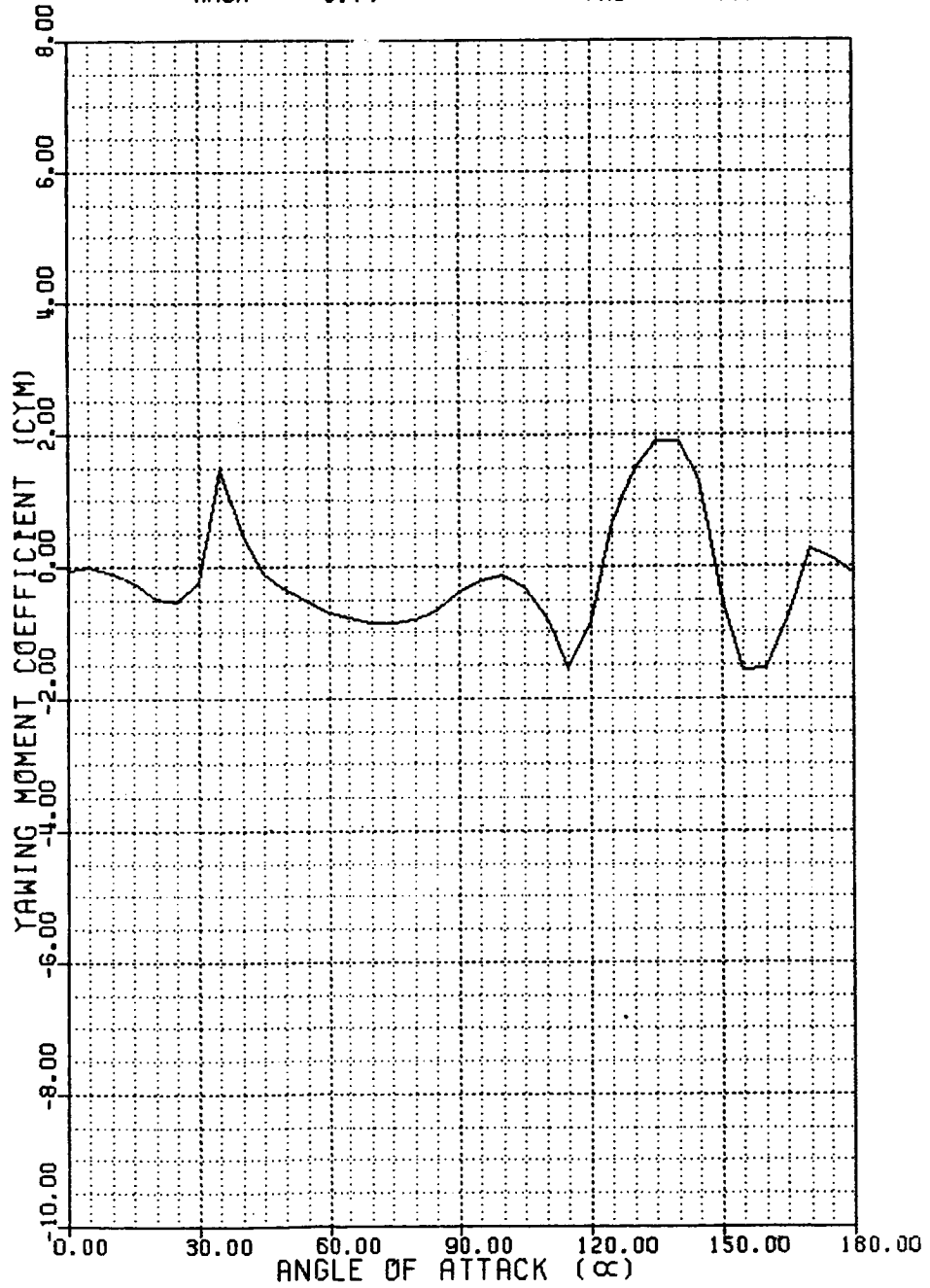


B-472

# SRB TAPE 8 DATA

MACH = 0.79

PHI = 180



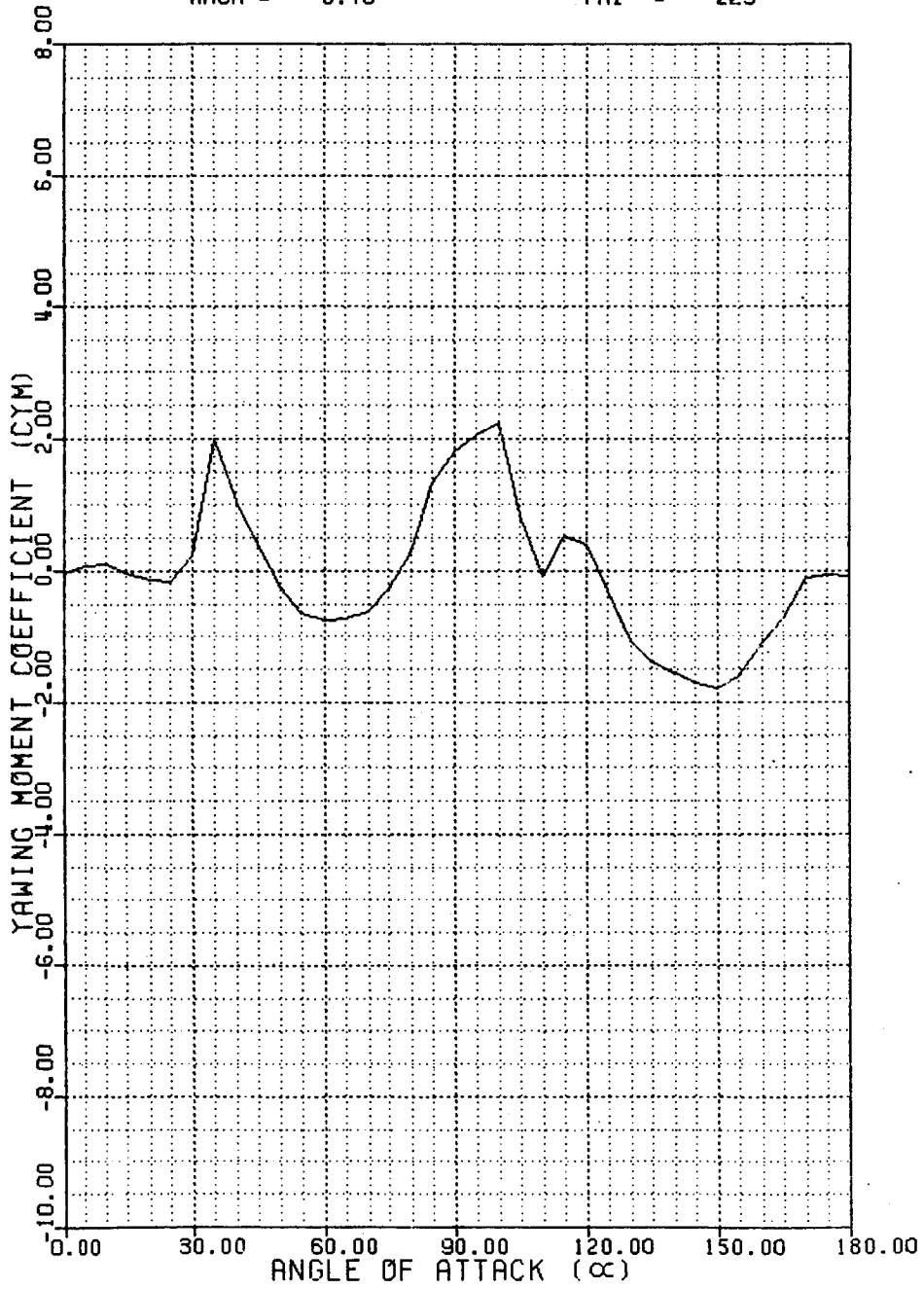
B-473

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 225

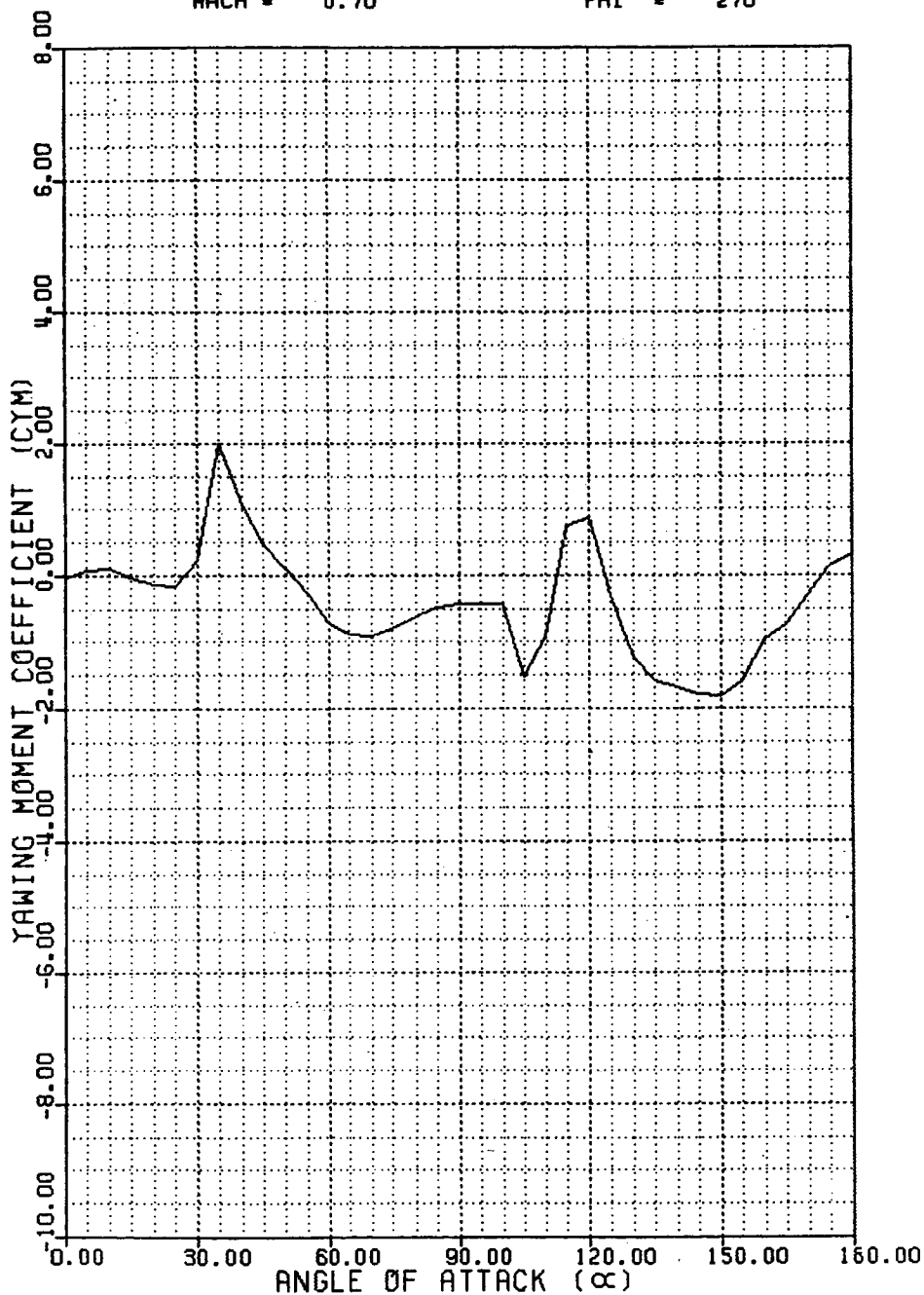


B-474

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 270



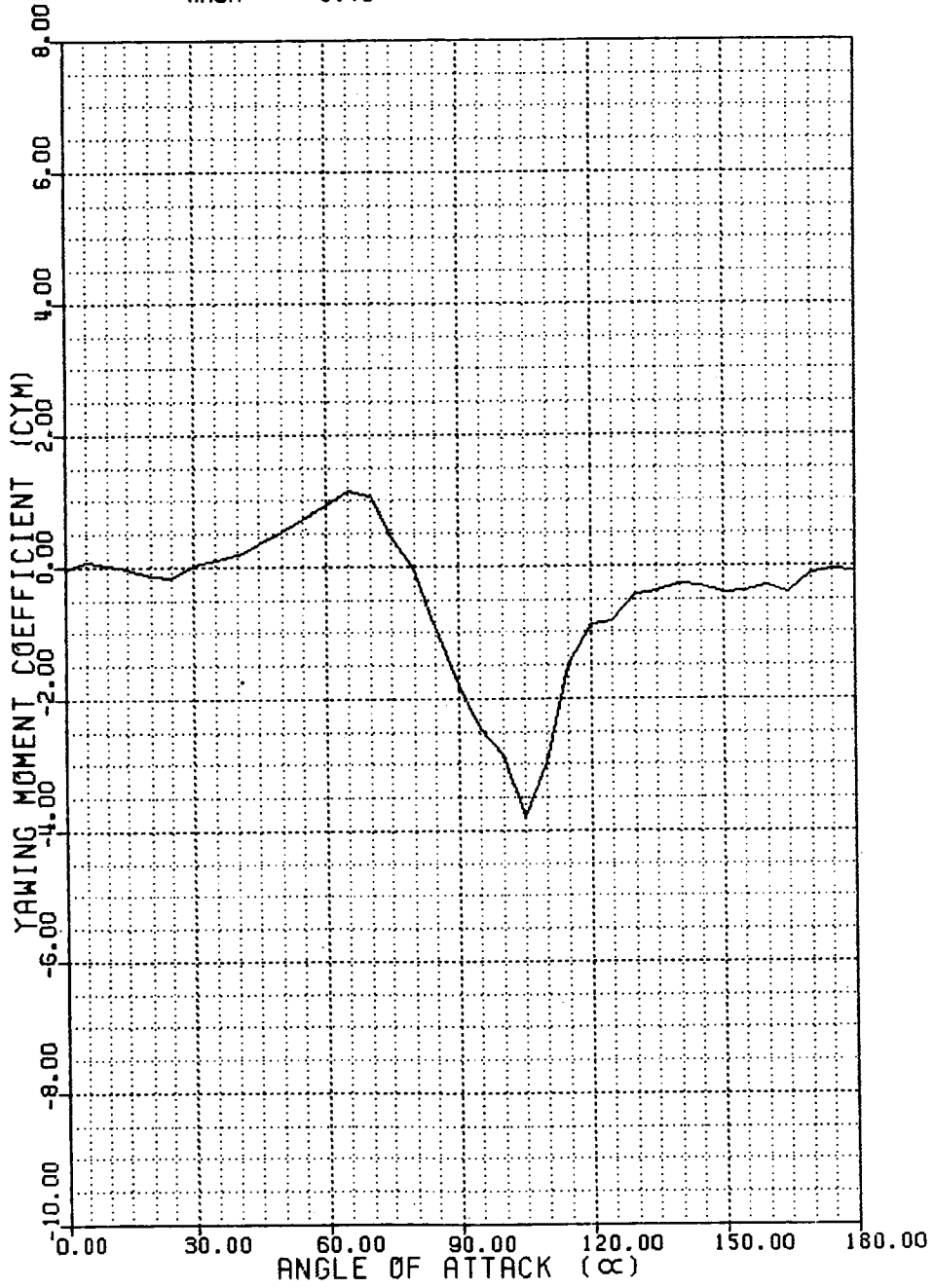
B-475

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 315

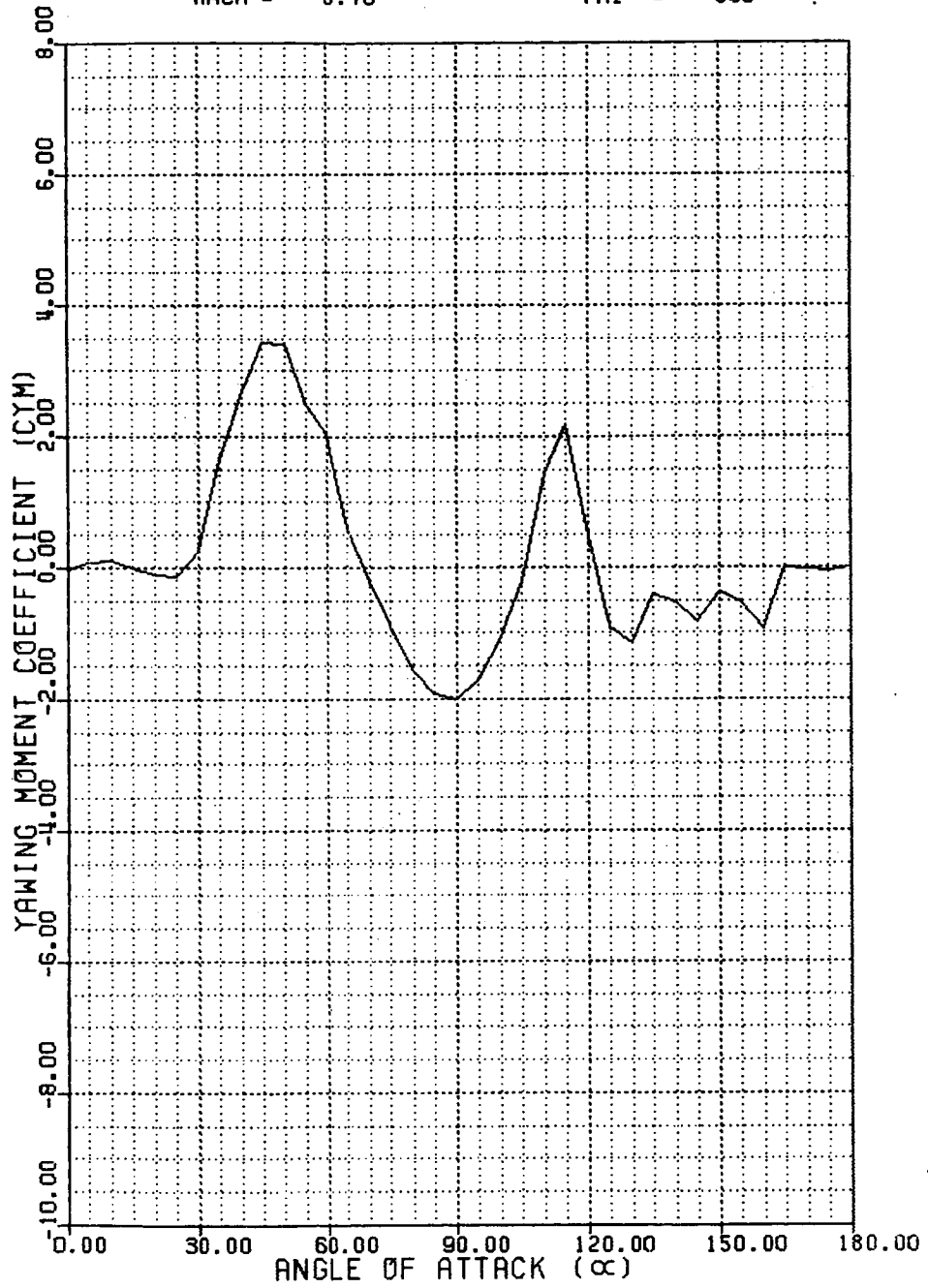


B-476

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 360



B-477

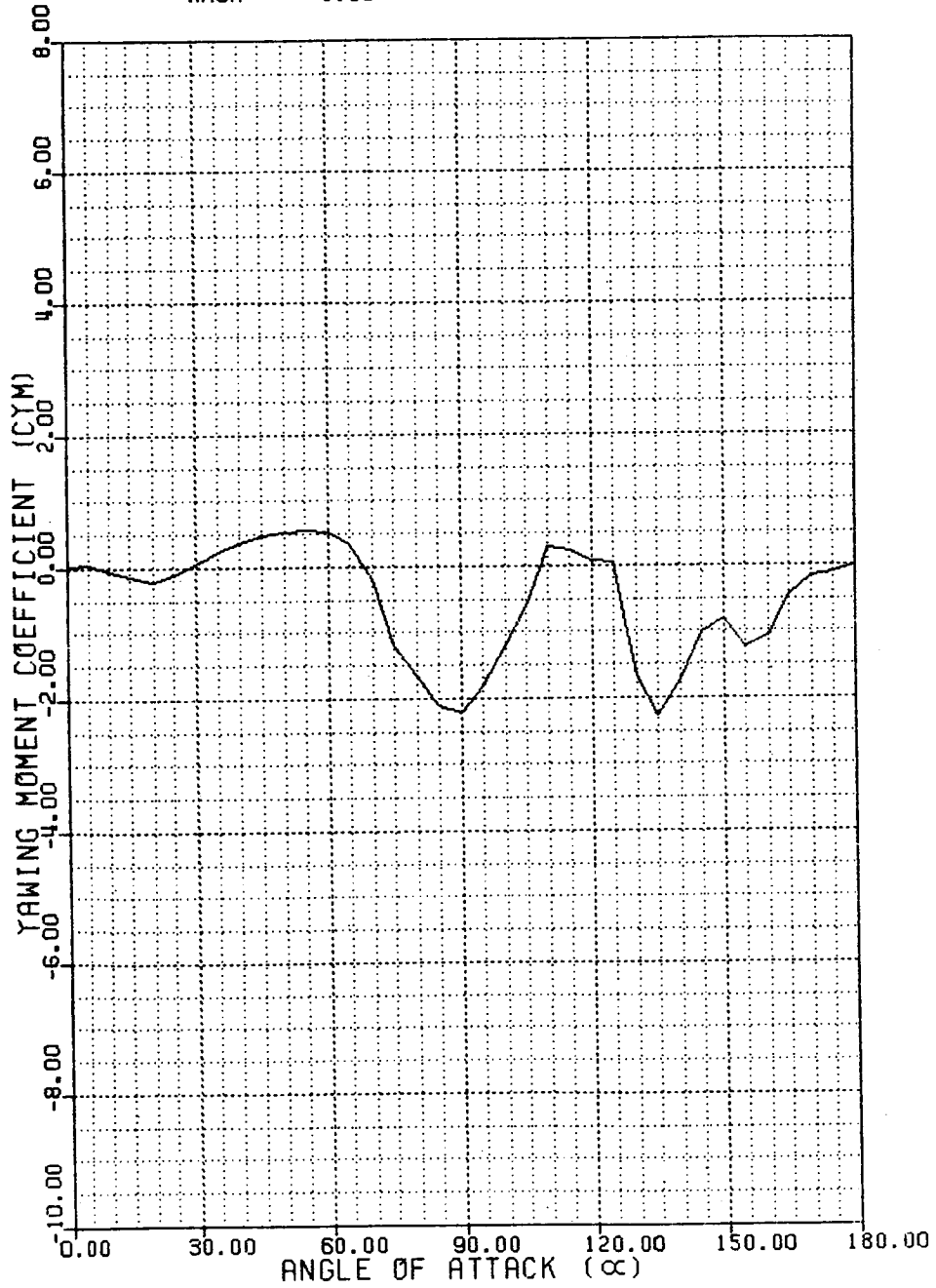
LOCKHEED-HUNTSVILLE ENGINEERING CENTER

C-6

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 0

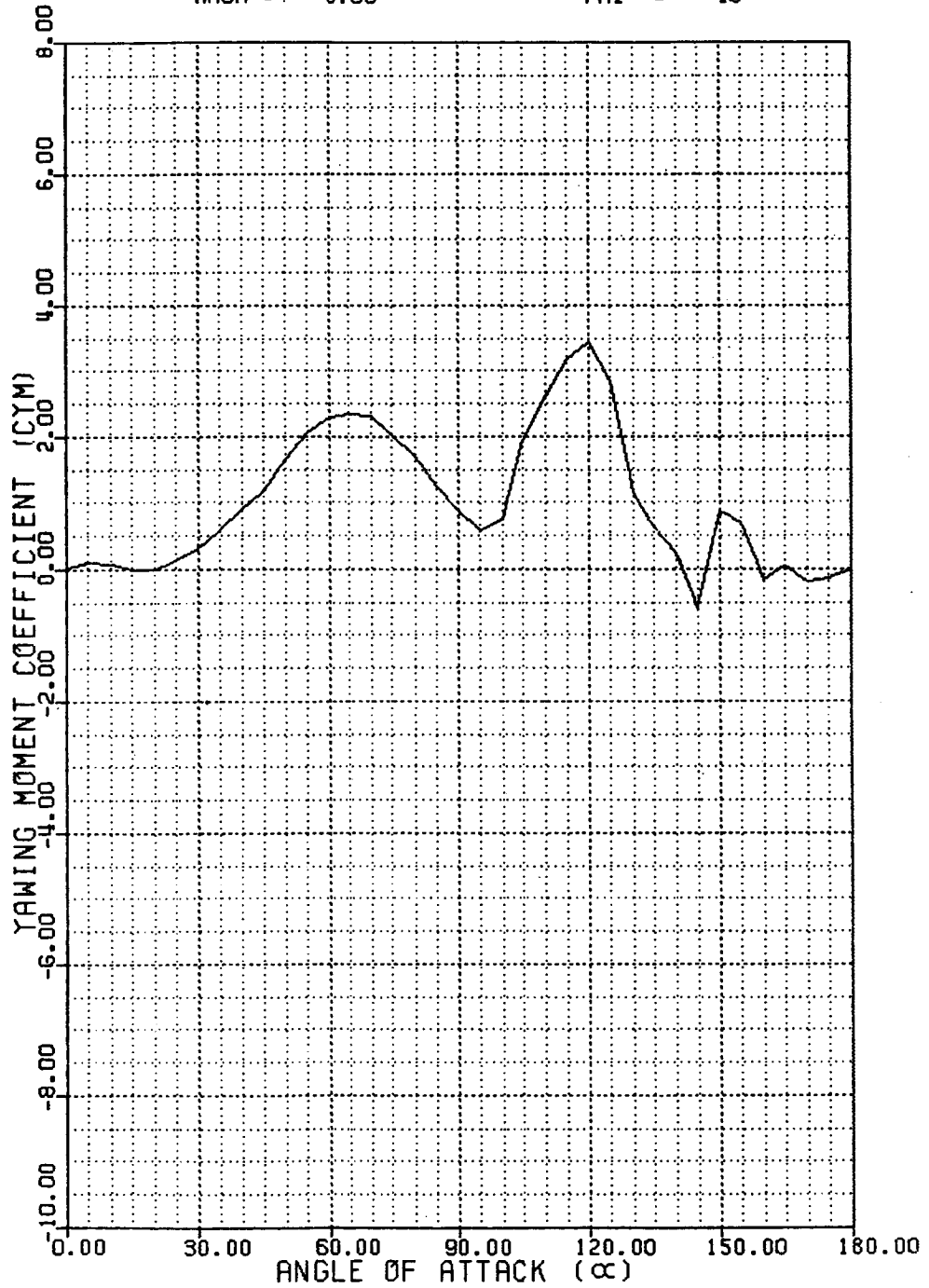


B-478

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 45



B-479

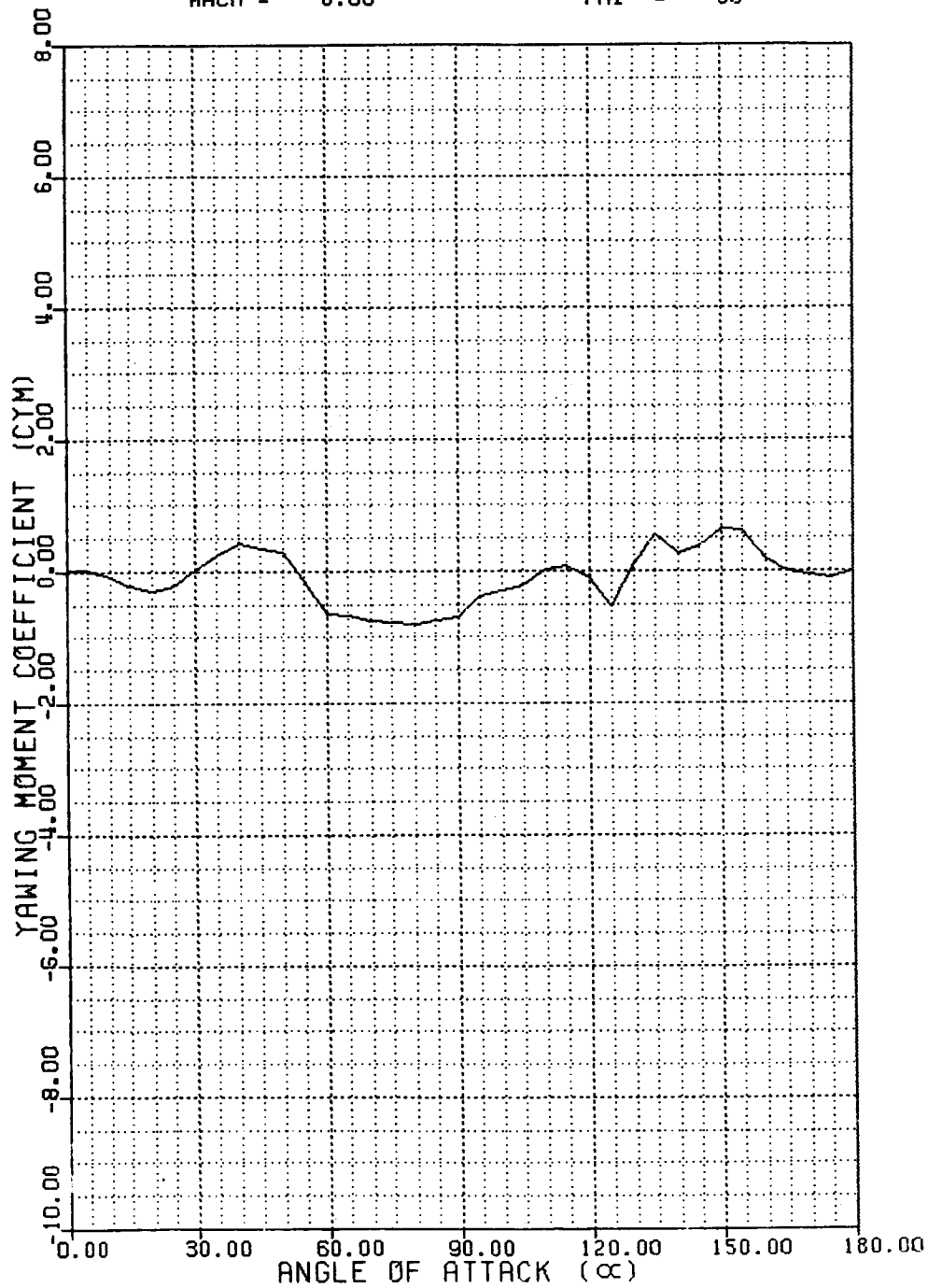
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 90

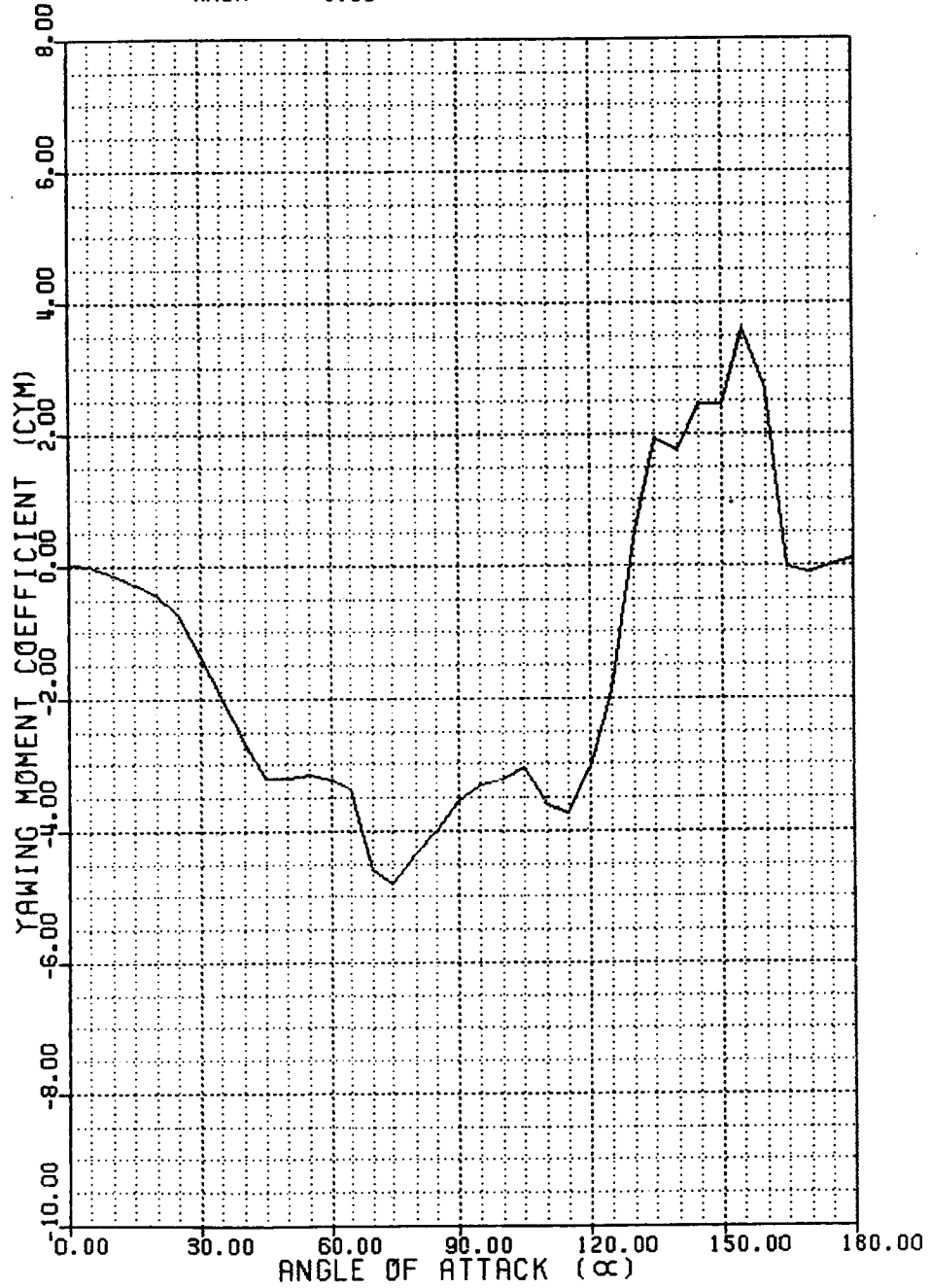


B-480

SRB TAPE 8 DATA

MACH = 0.80

PHI = 135



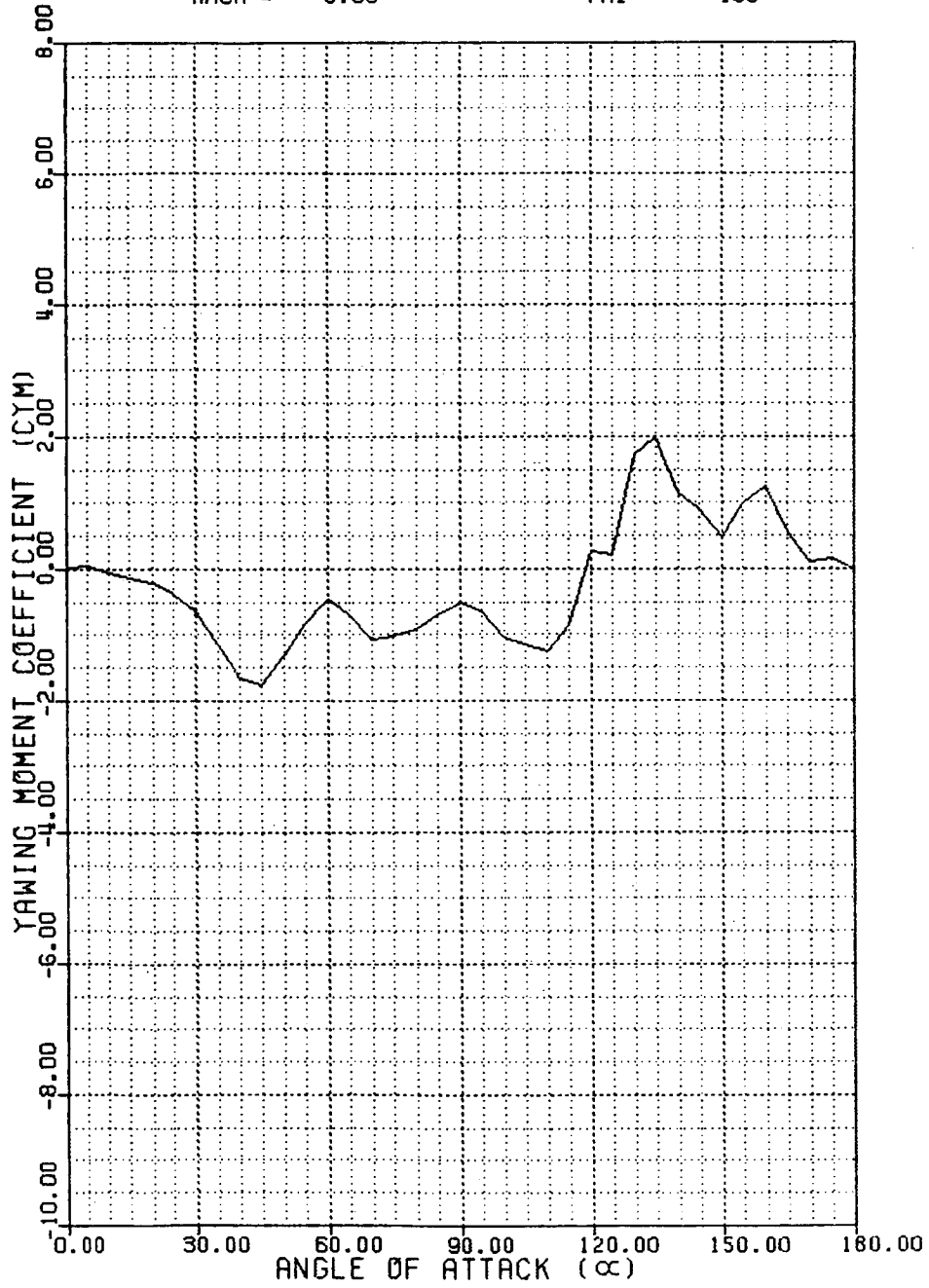
B-481

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 180

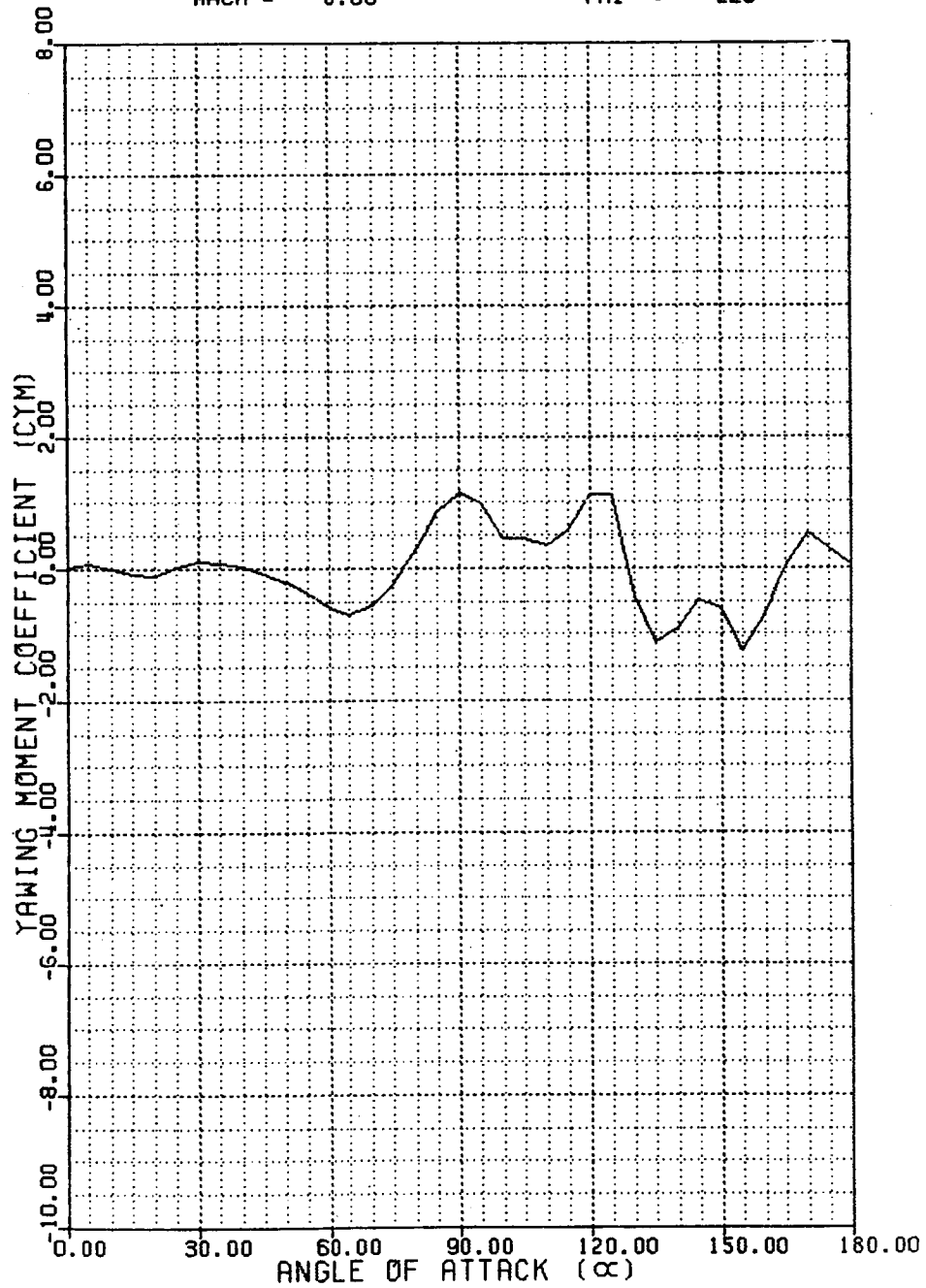


B-482

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 225



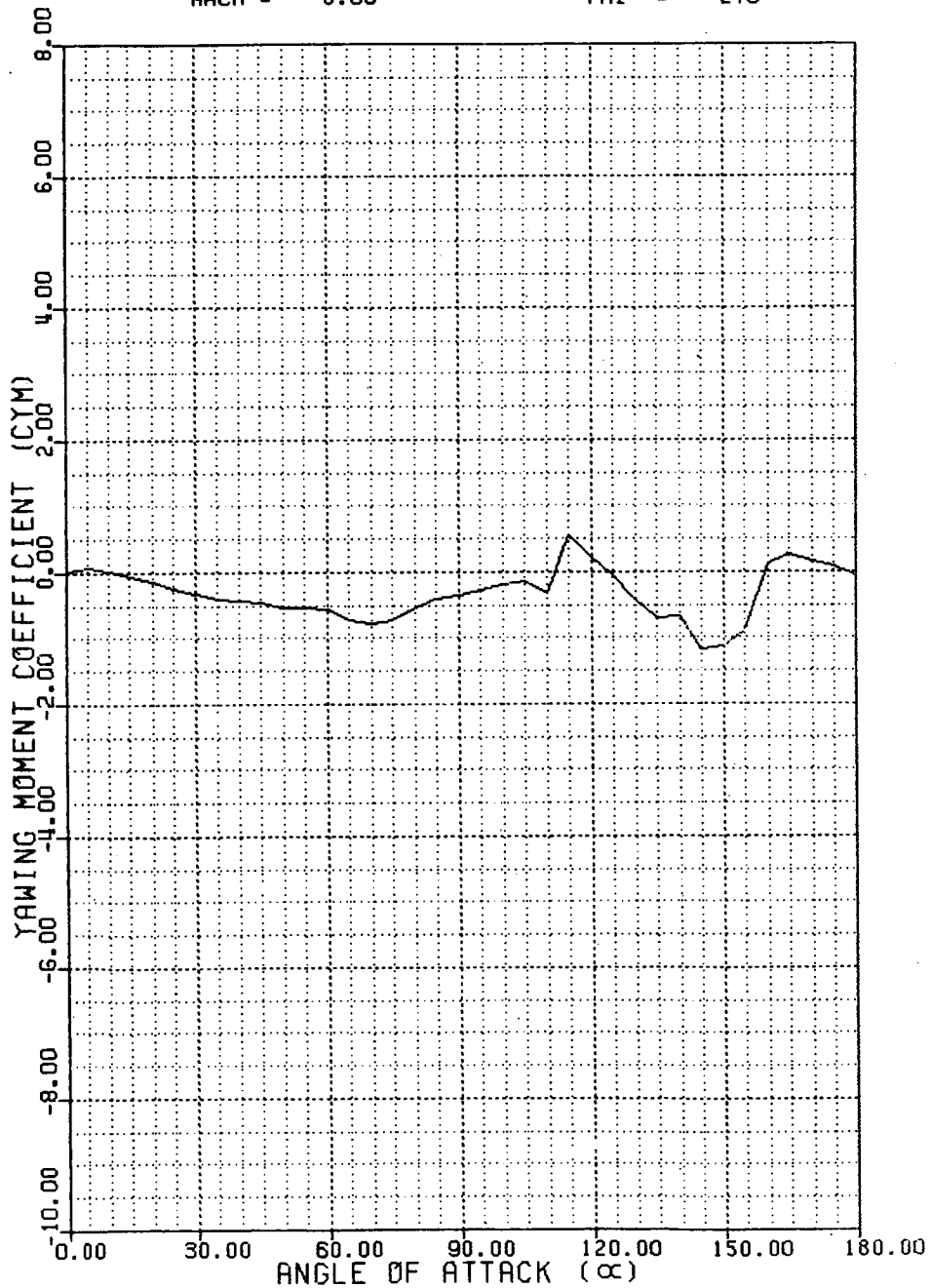
B-483

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270

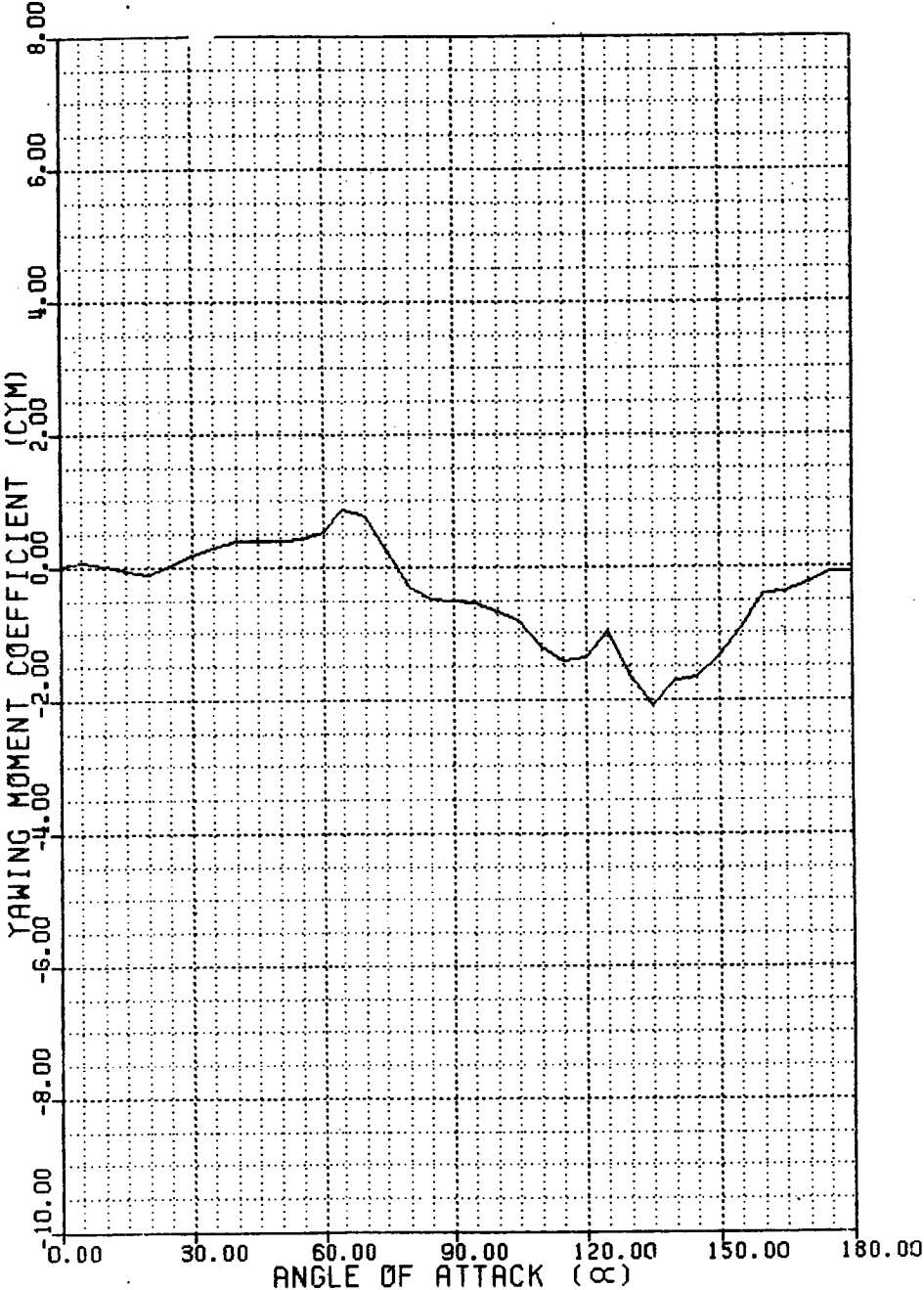


B-484

ORIGINAL PAGE IS  
OF POOR QUALITY

### SRB TAPE 8 DATA

MACH = 0.80                      PHI = 315

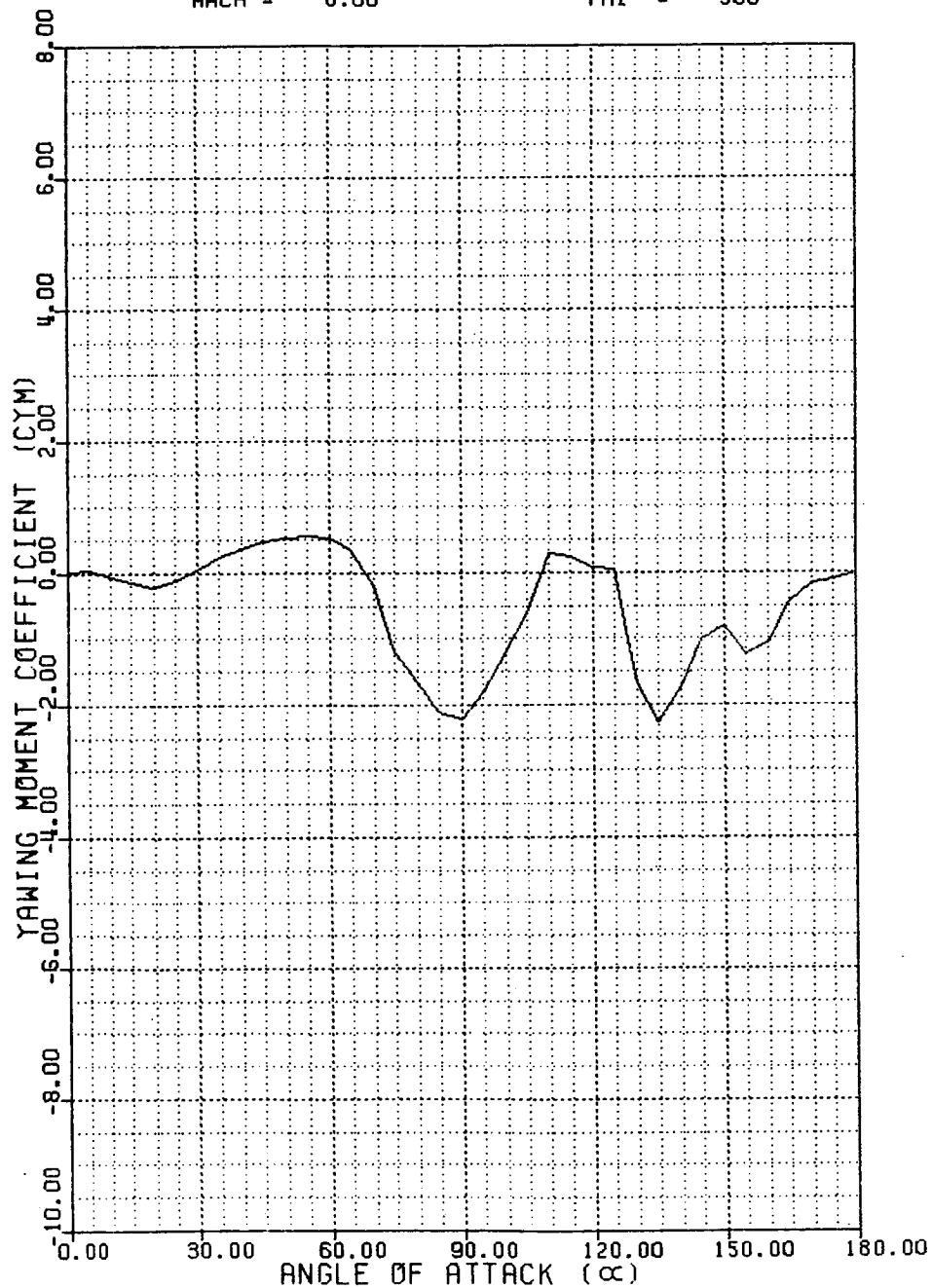


B-485

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360

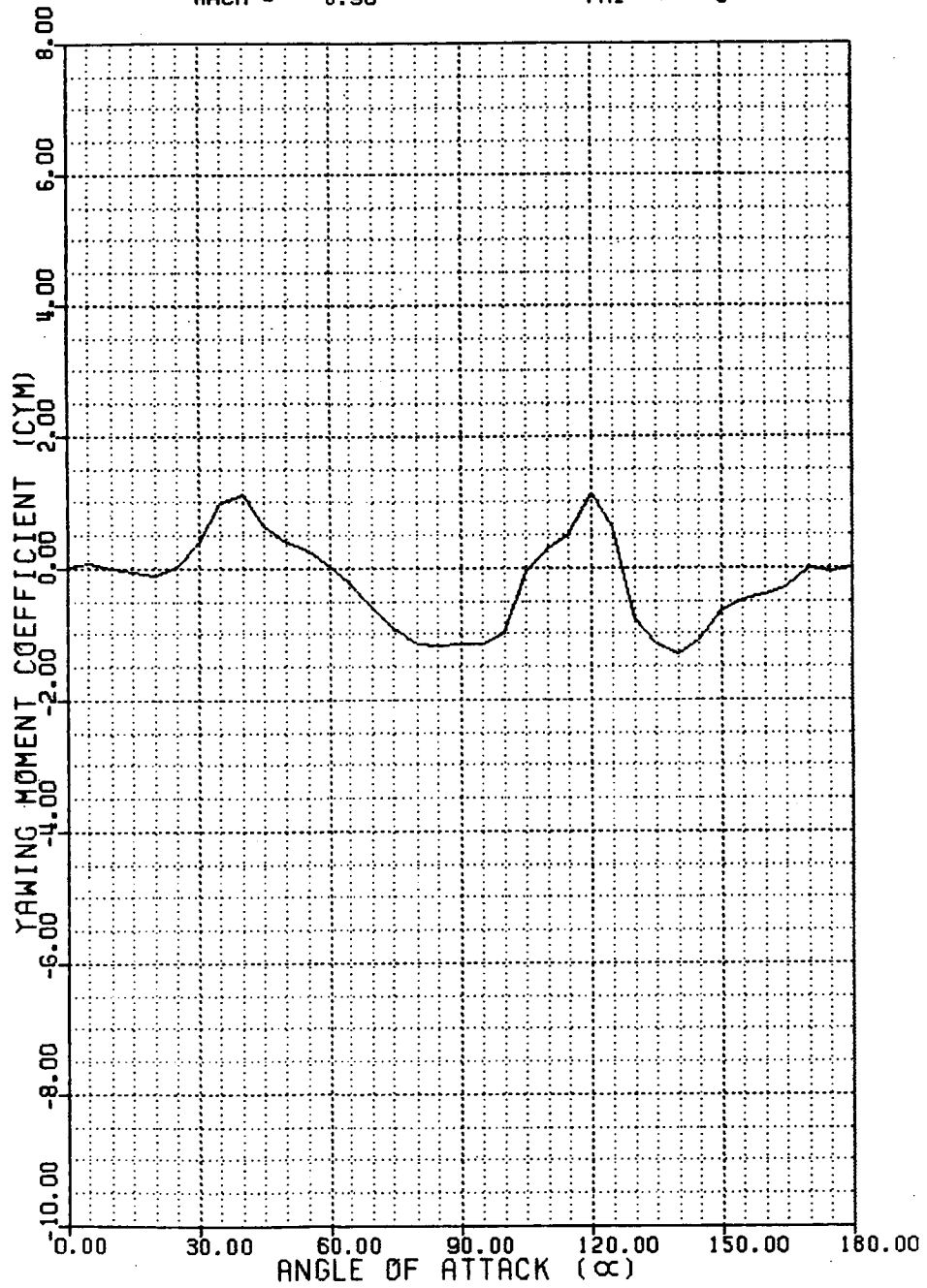


B-486

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0



B-487

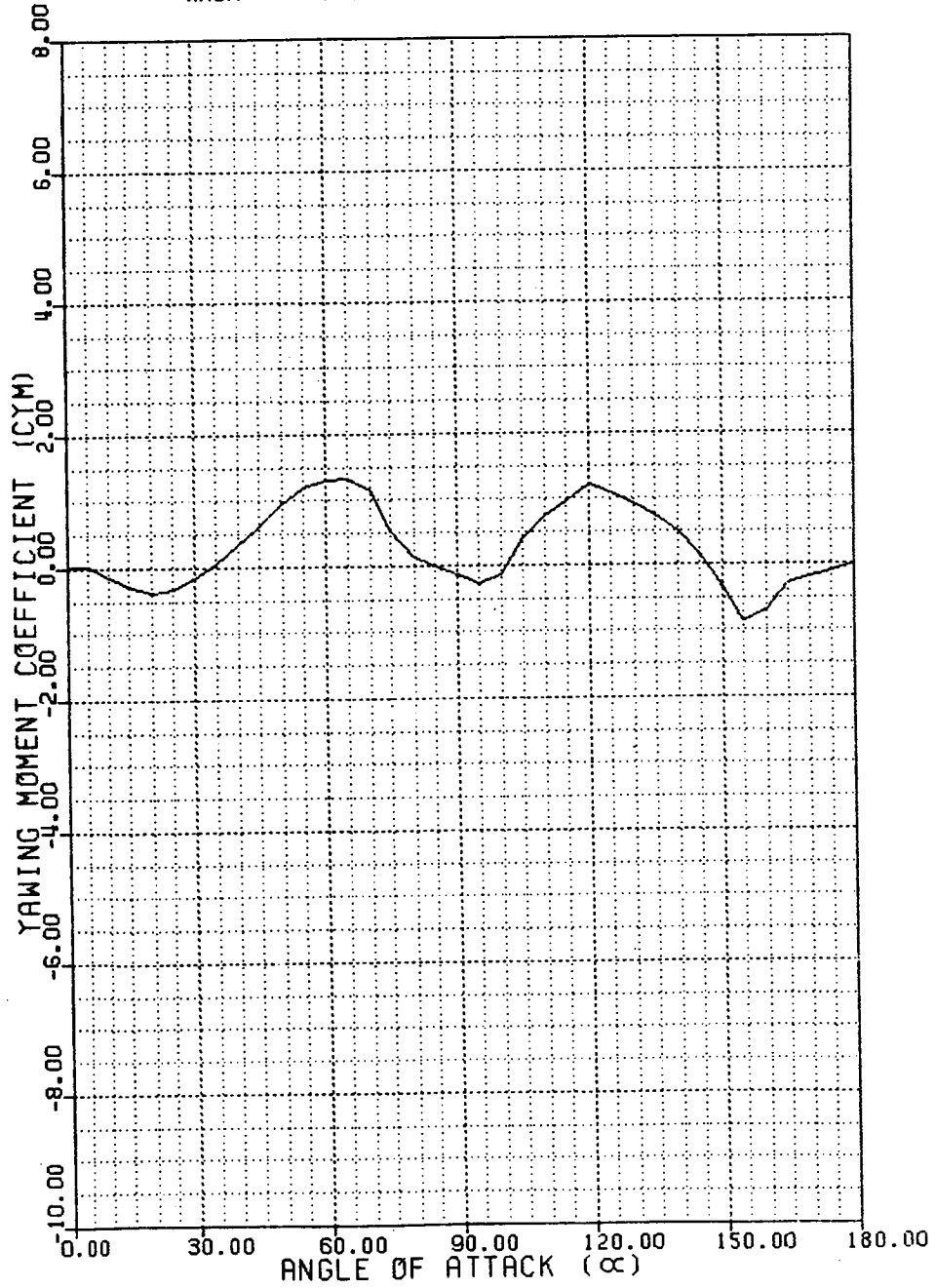
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45

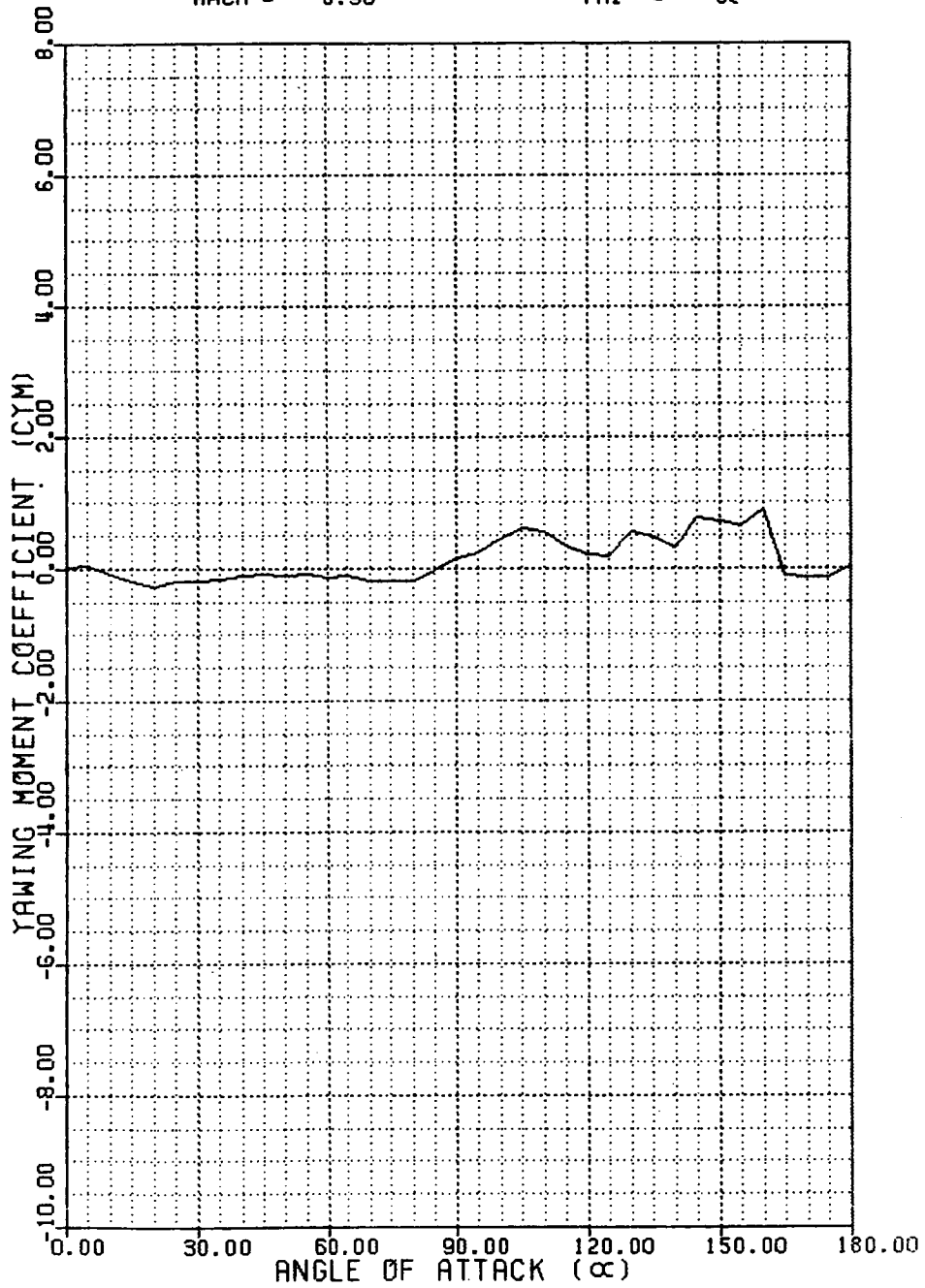


B-488

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 90



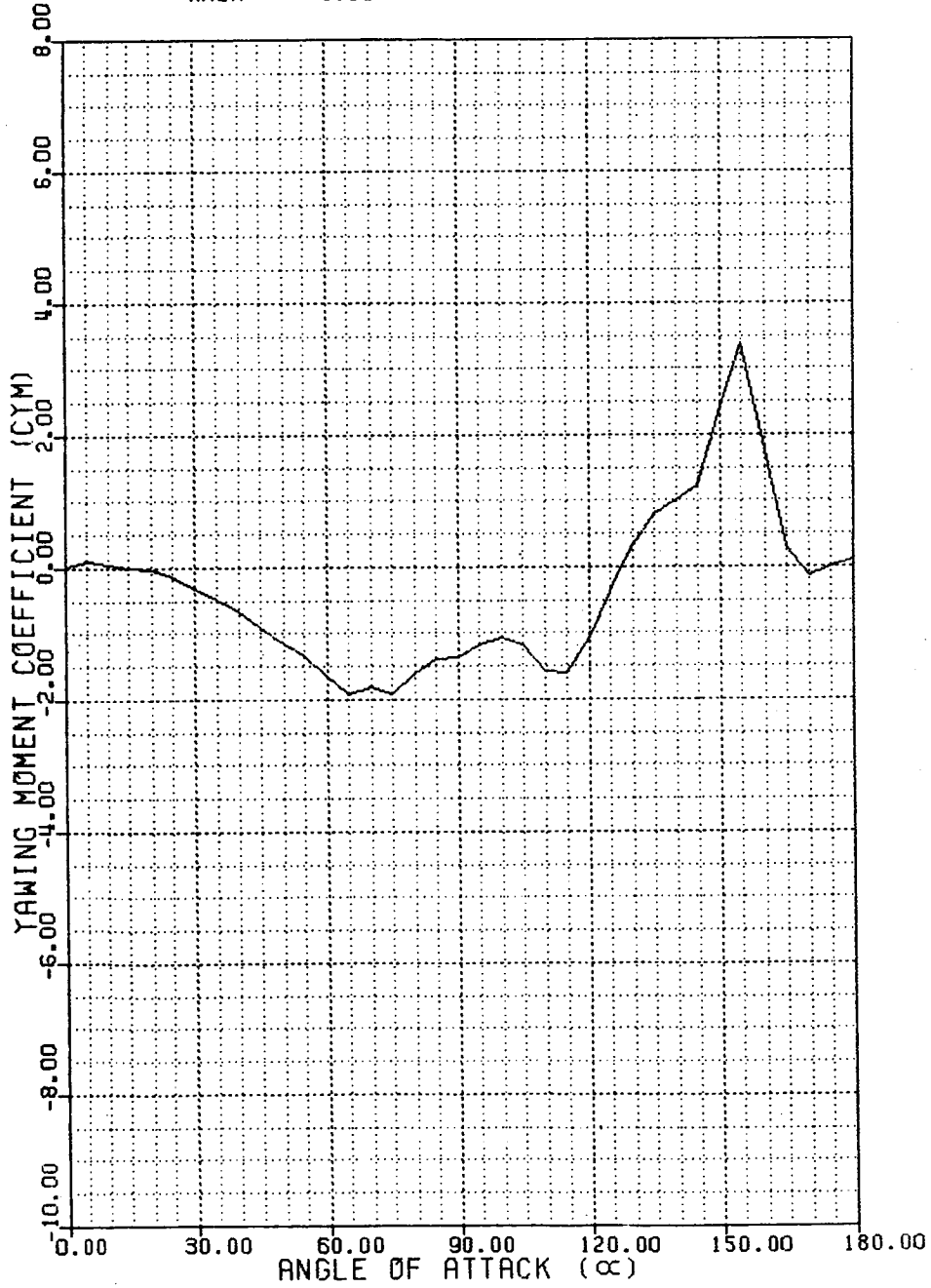
B-489

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135

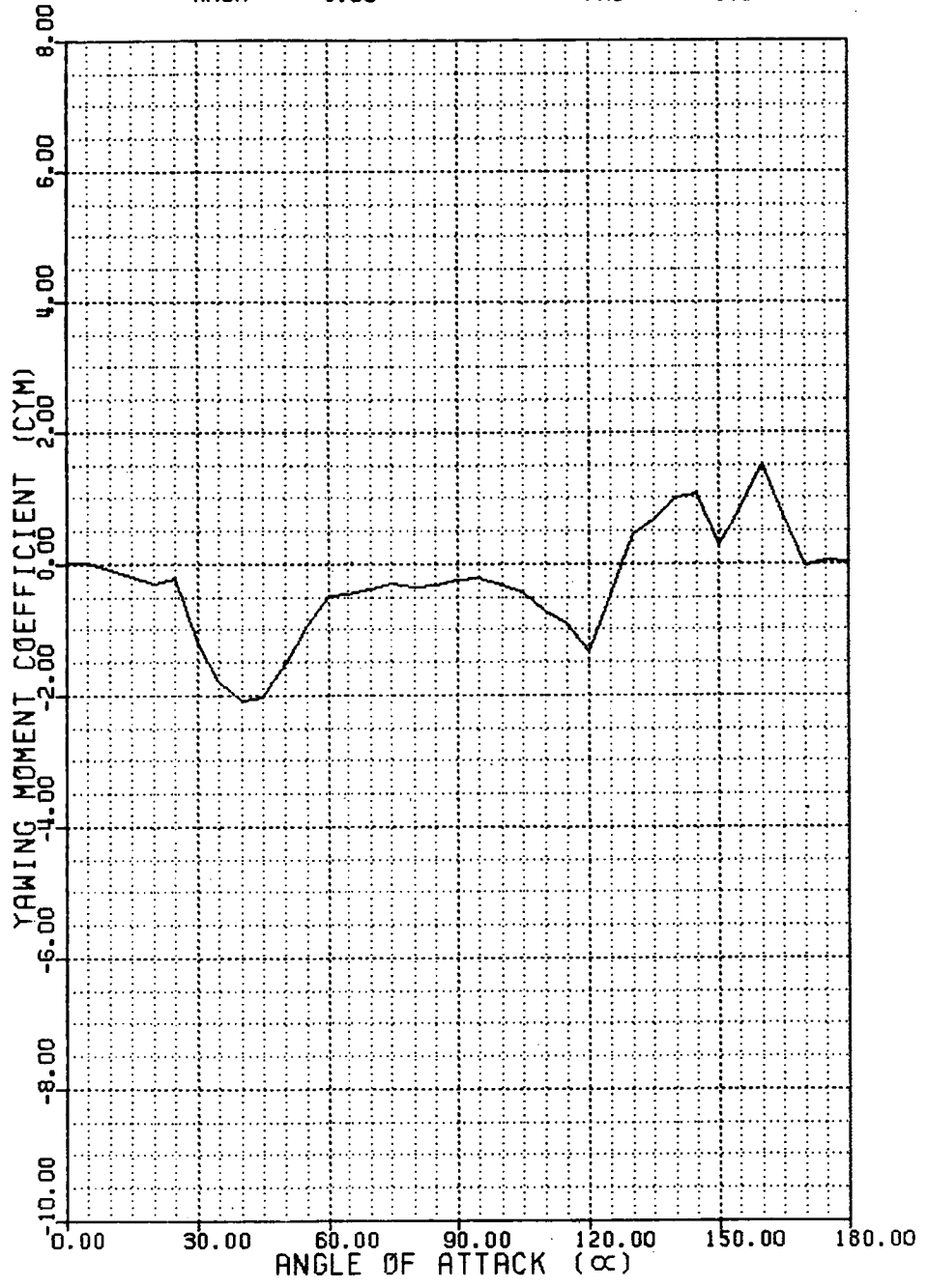


B-490

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180



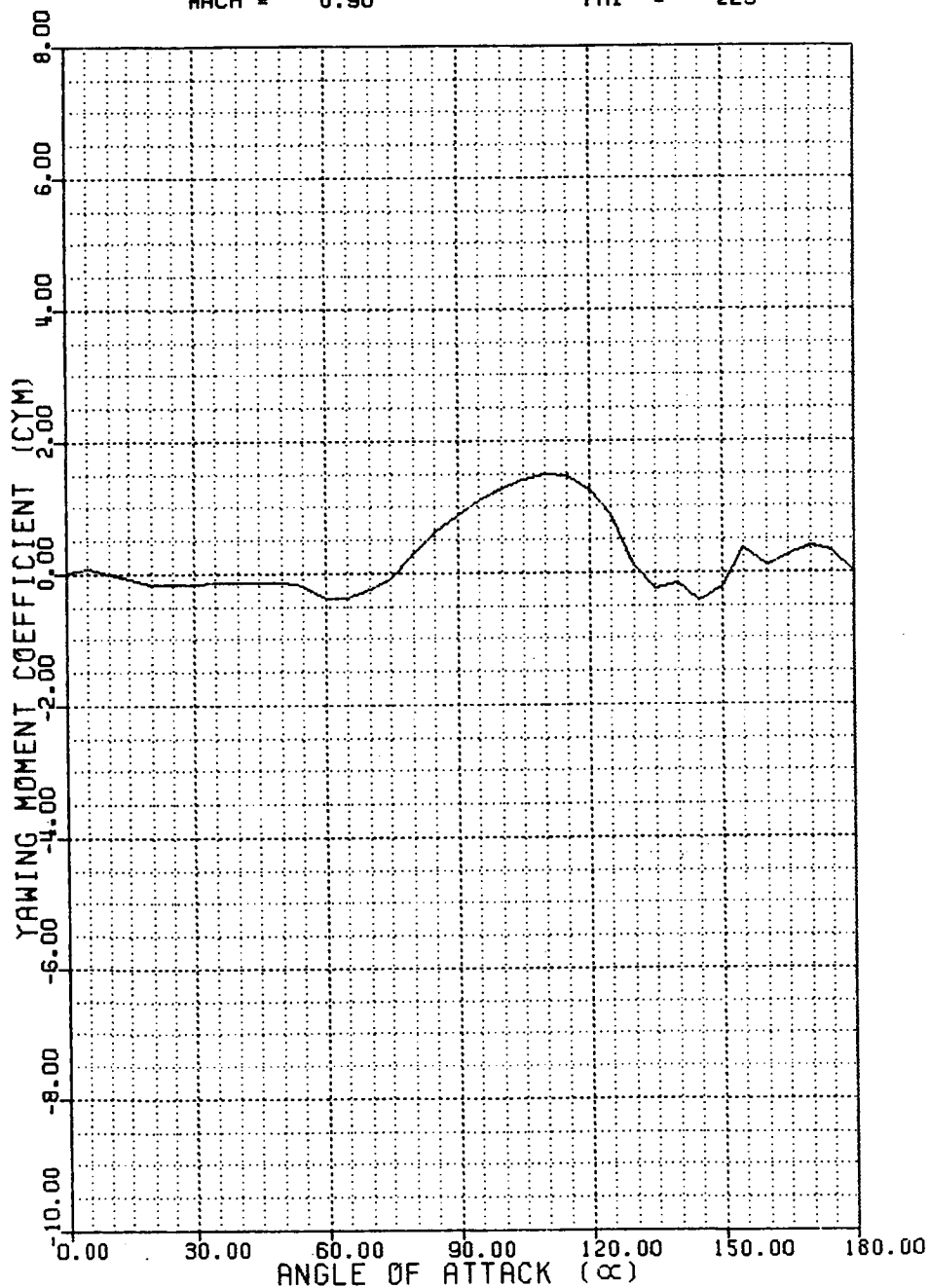
B-491

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225



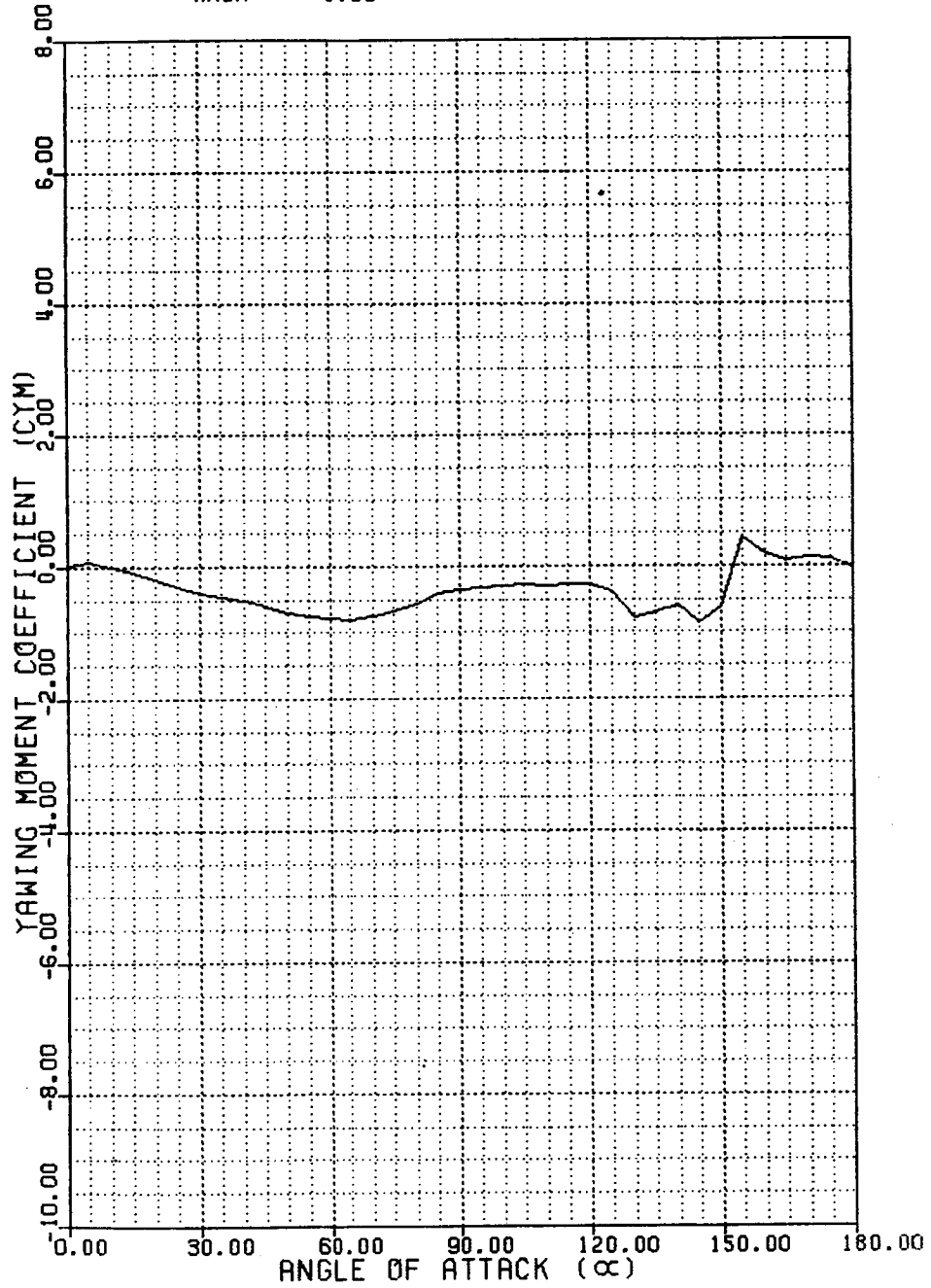
B-492

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270



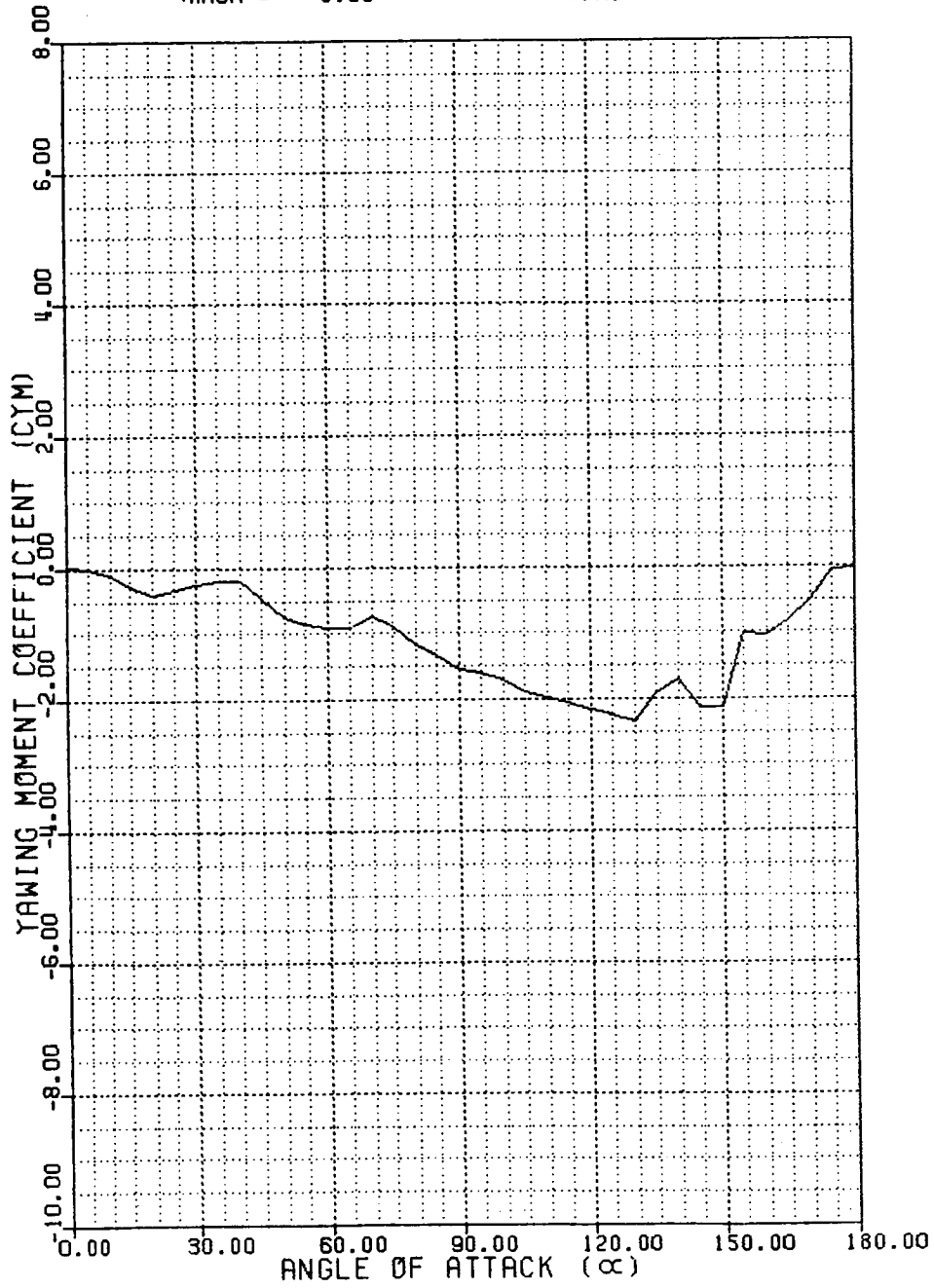
B-493

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 315

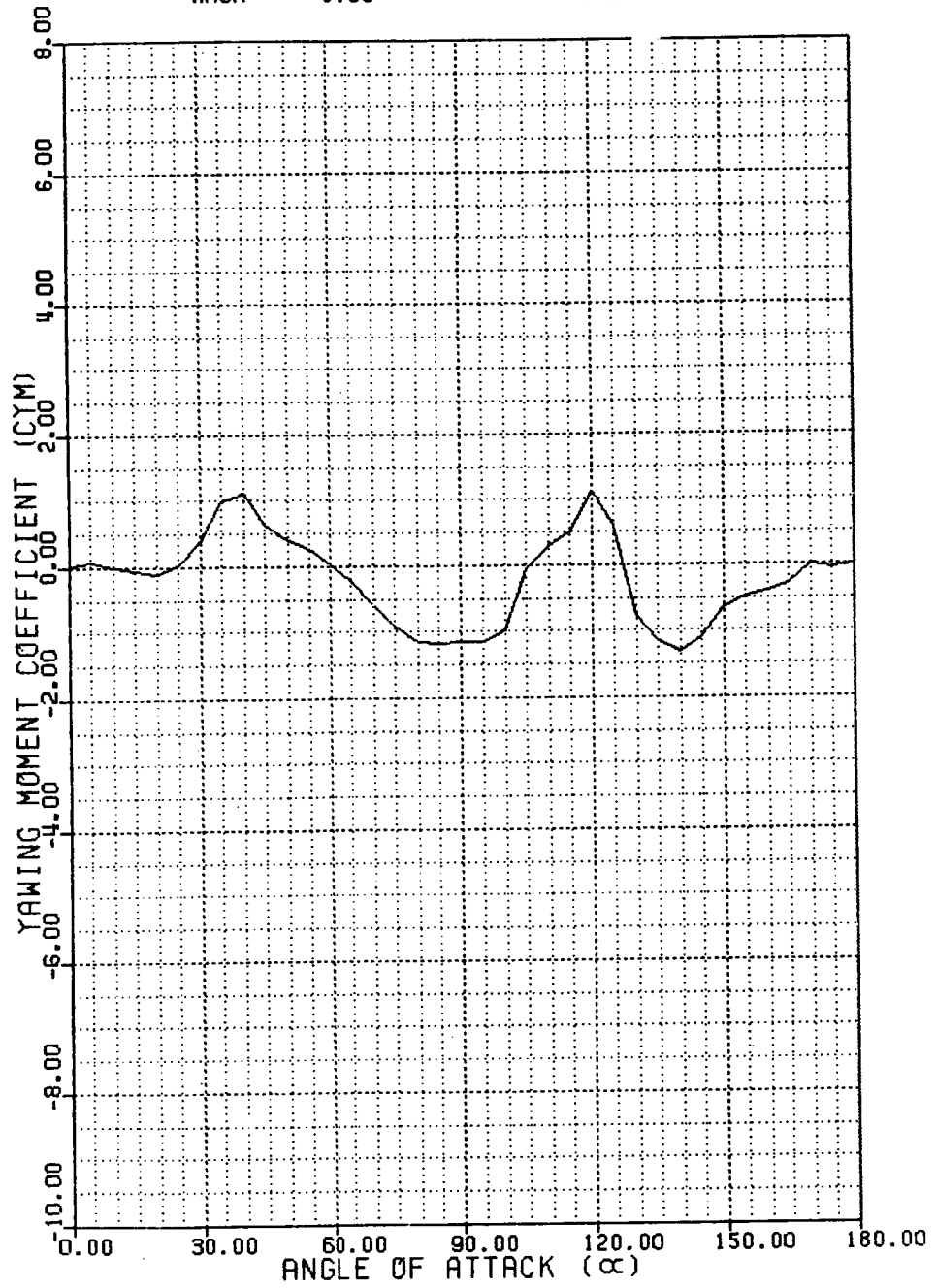


B-494

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360



B-495

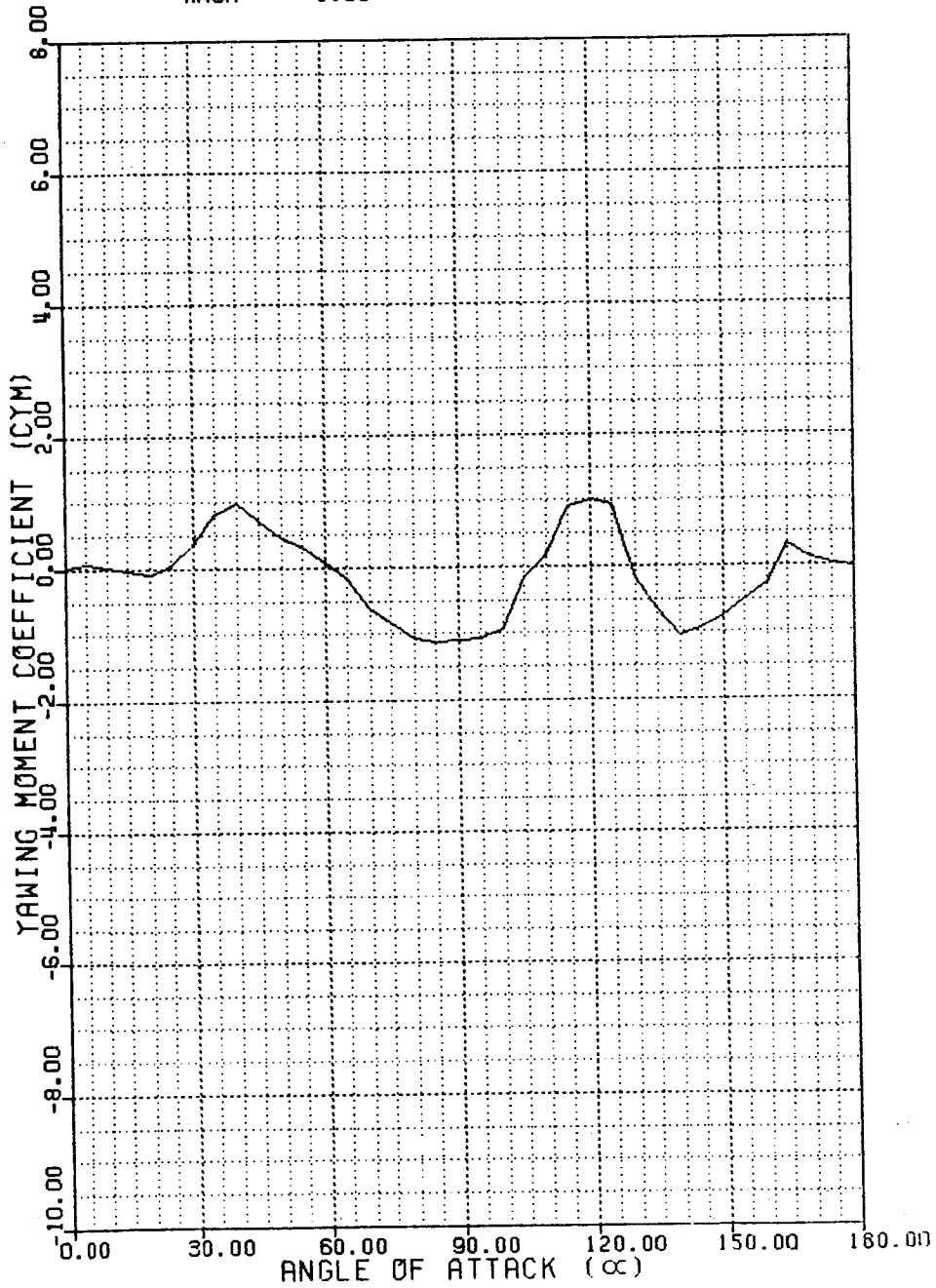
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0

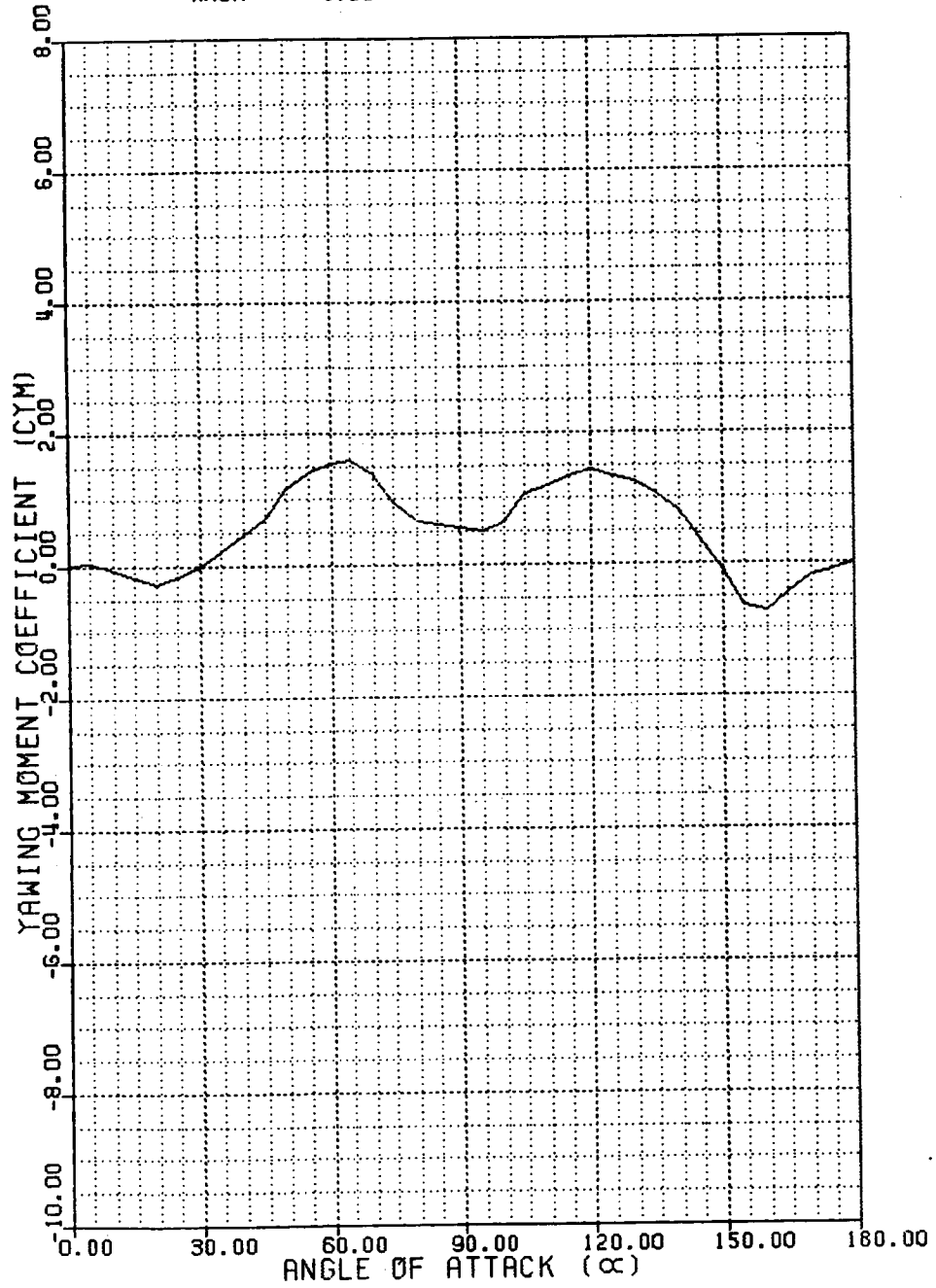


B-496

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45

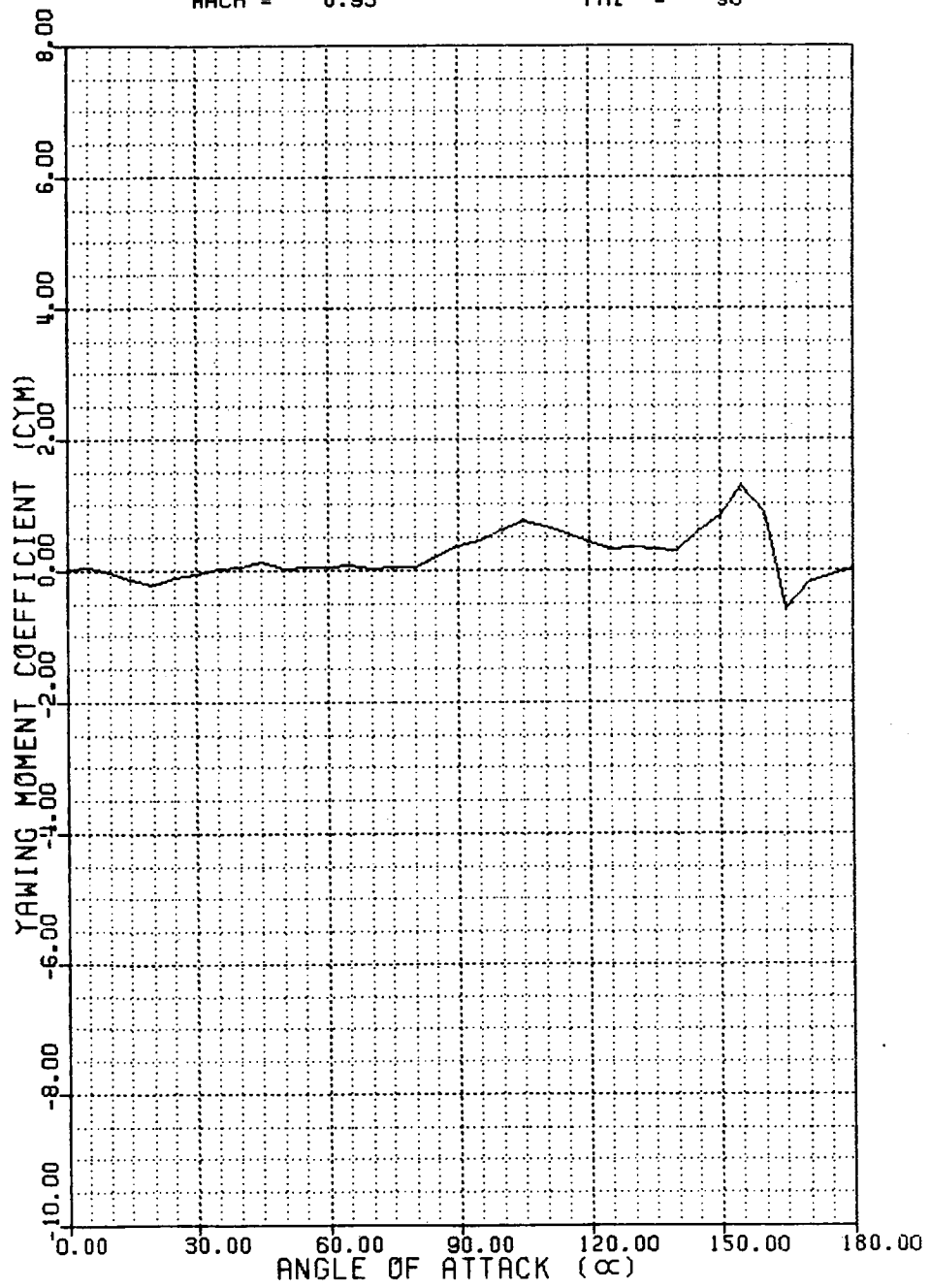


B-497

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90



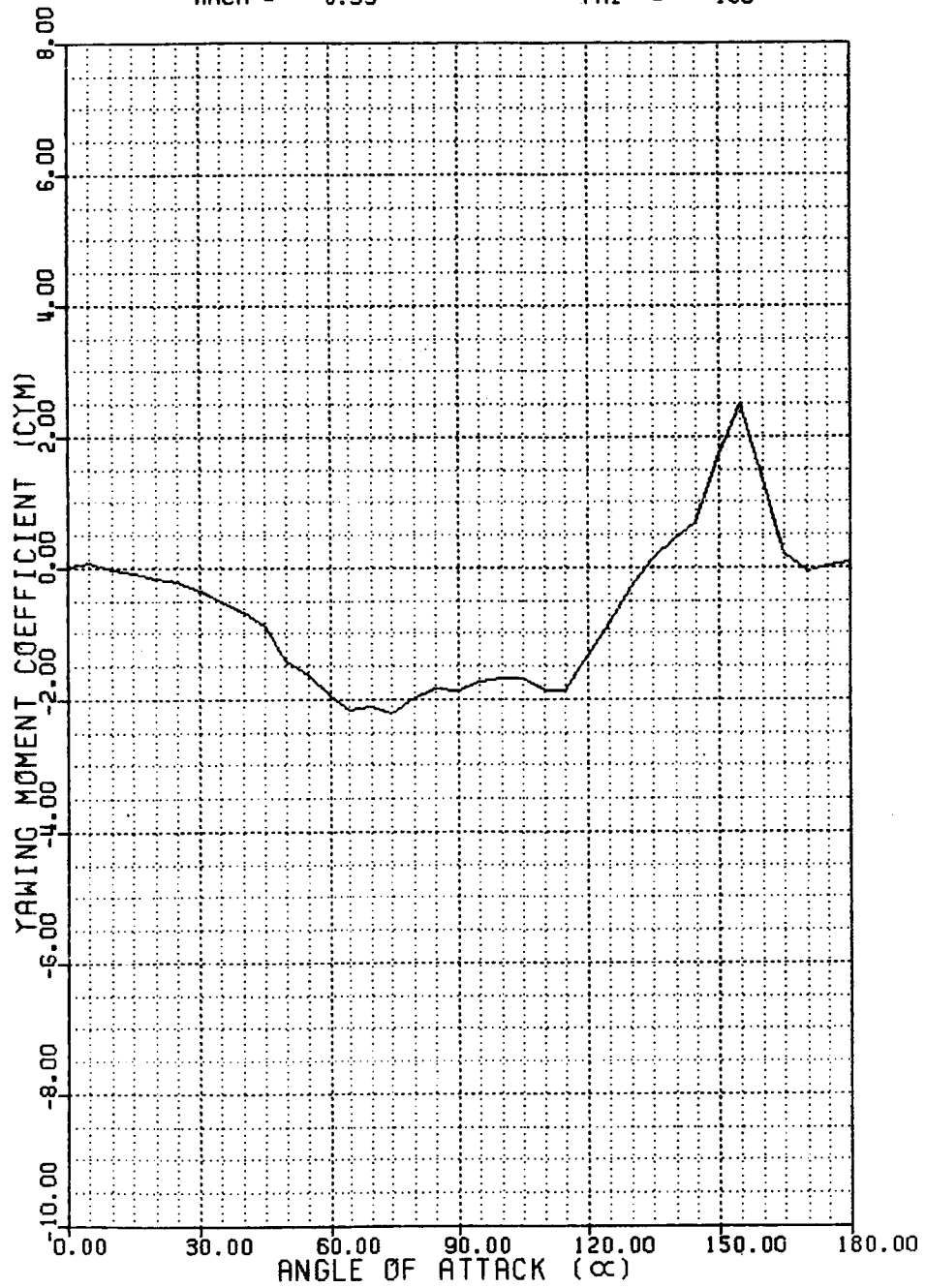
B-498

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135



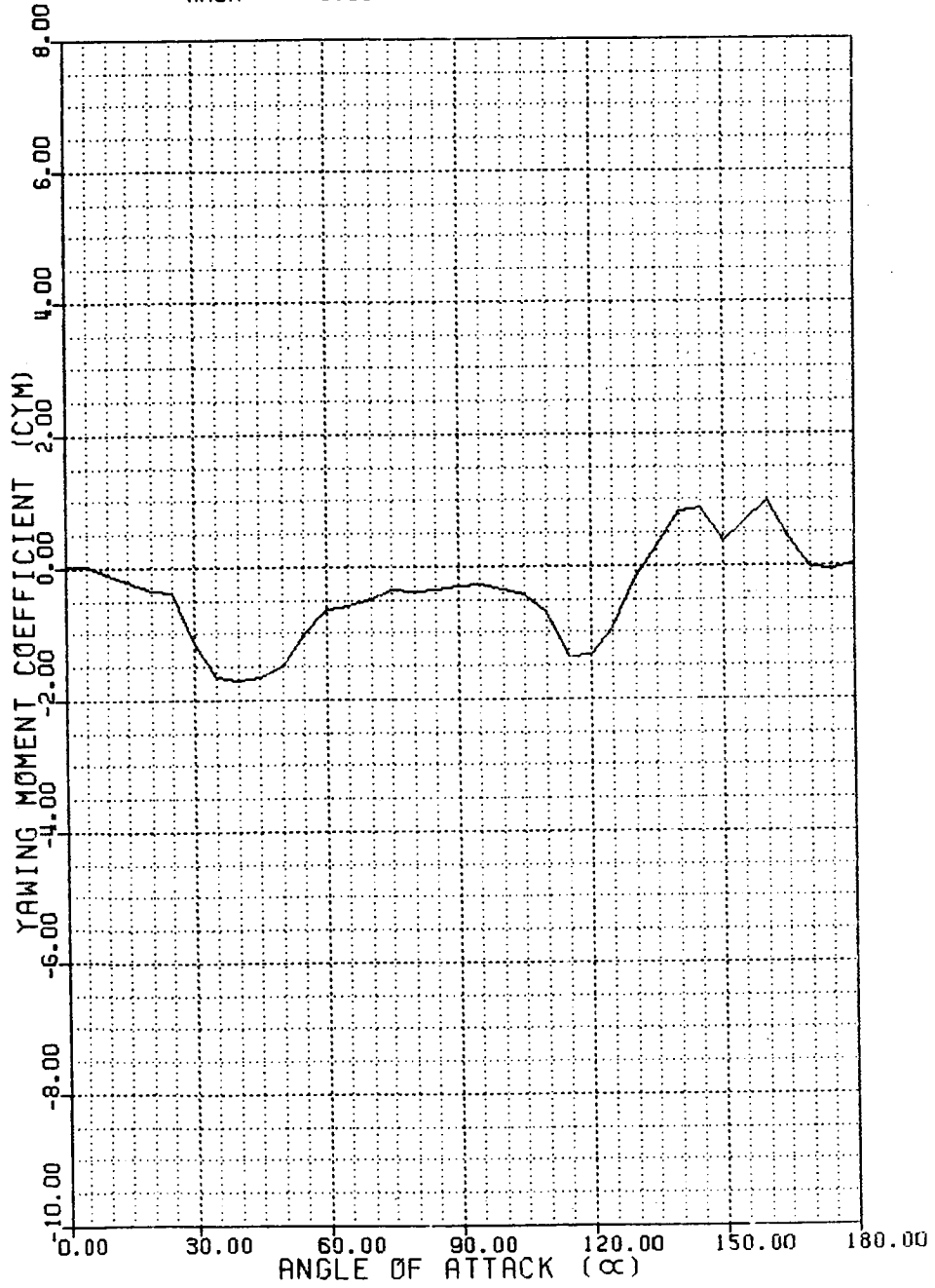
B-499

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180

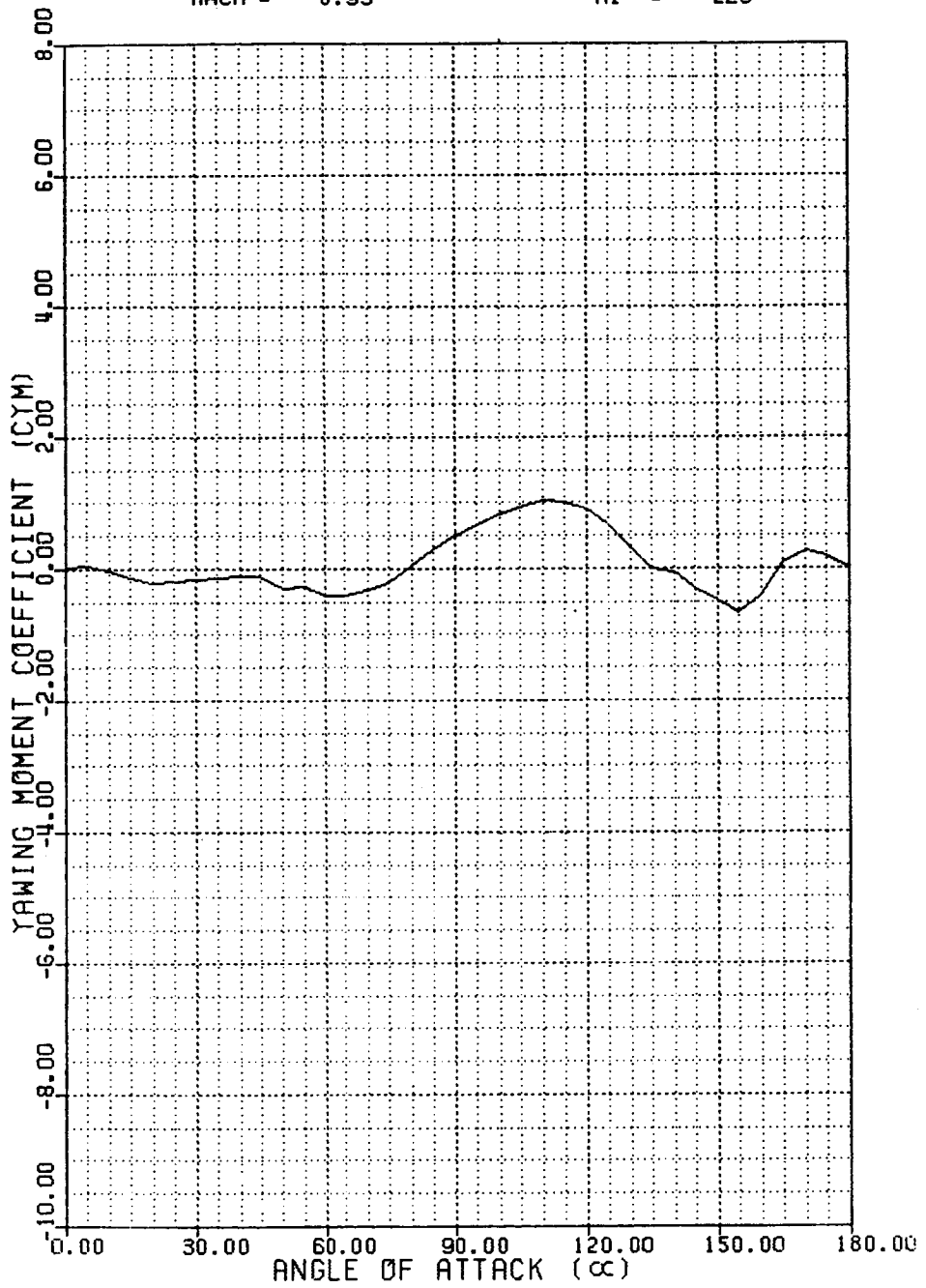


B-500

# SRB TAPE 8 DATA

MACH = 0.95

'HI = 225



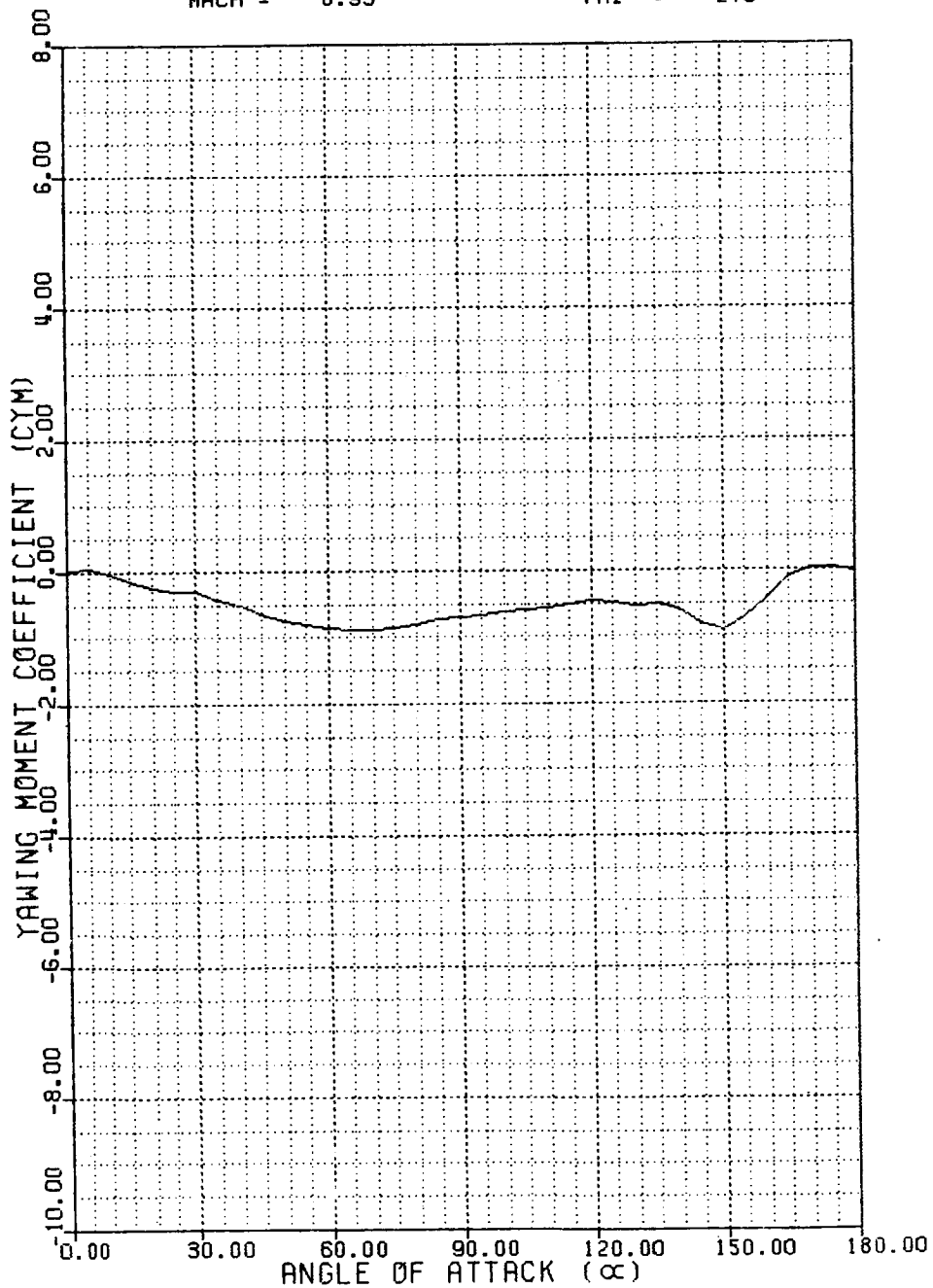
B-501

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270

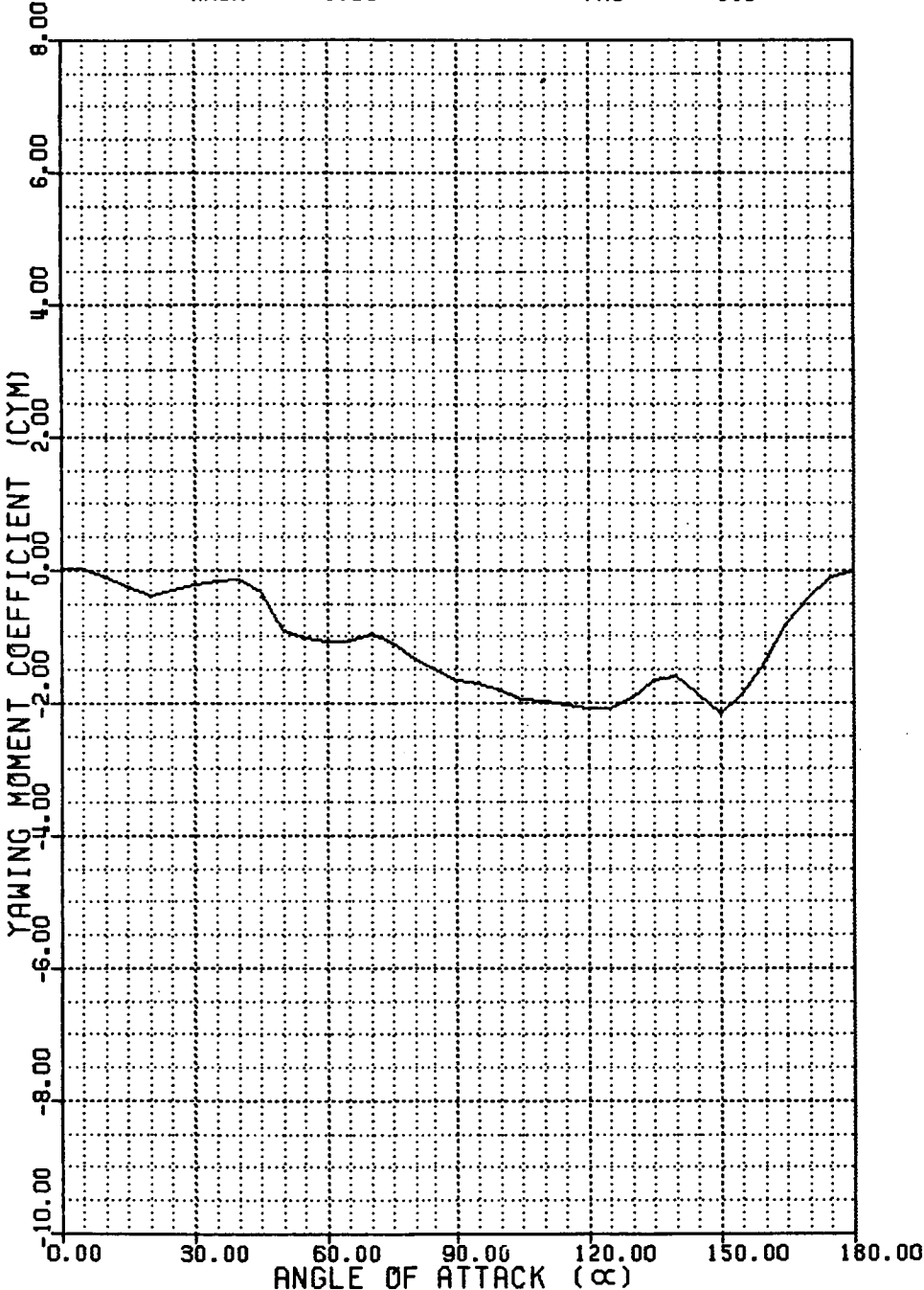


B-502

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 315



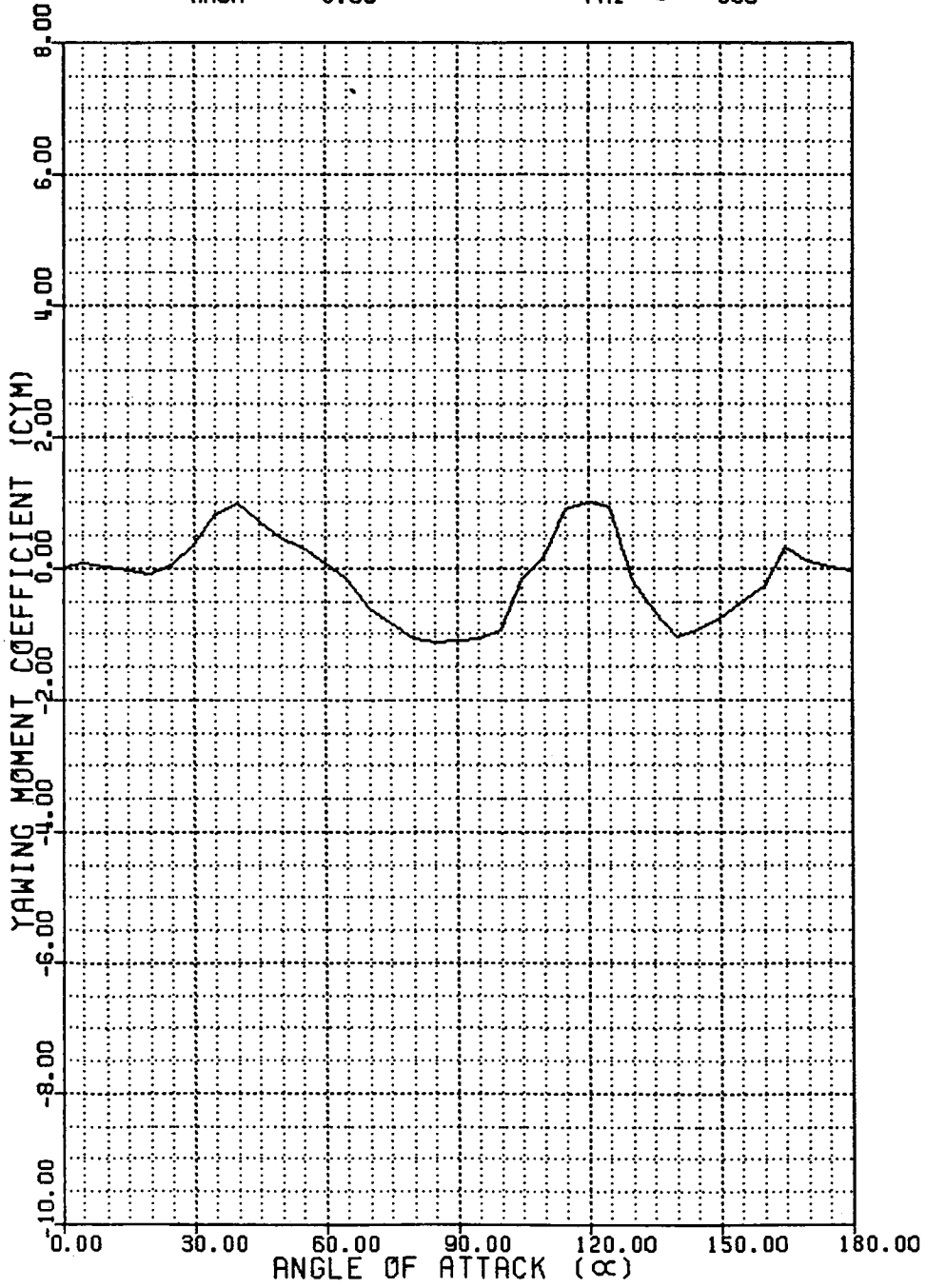
B-503



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360



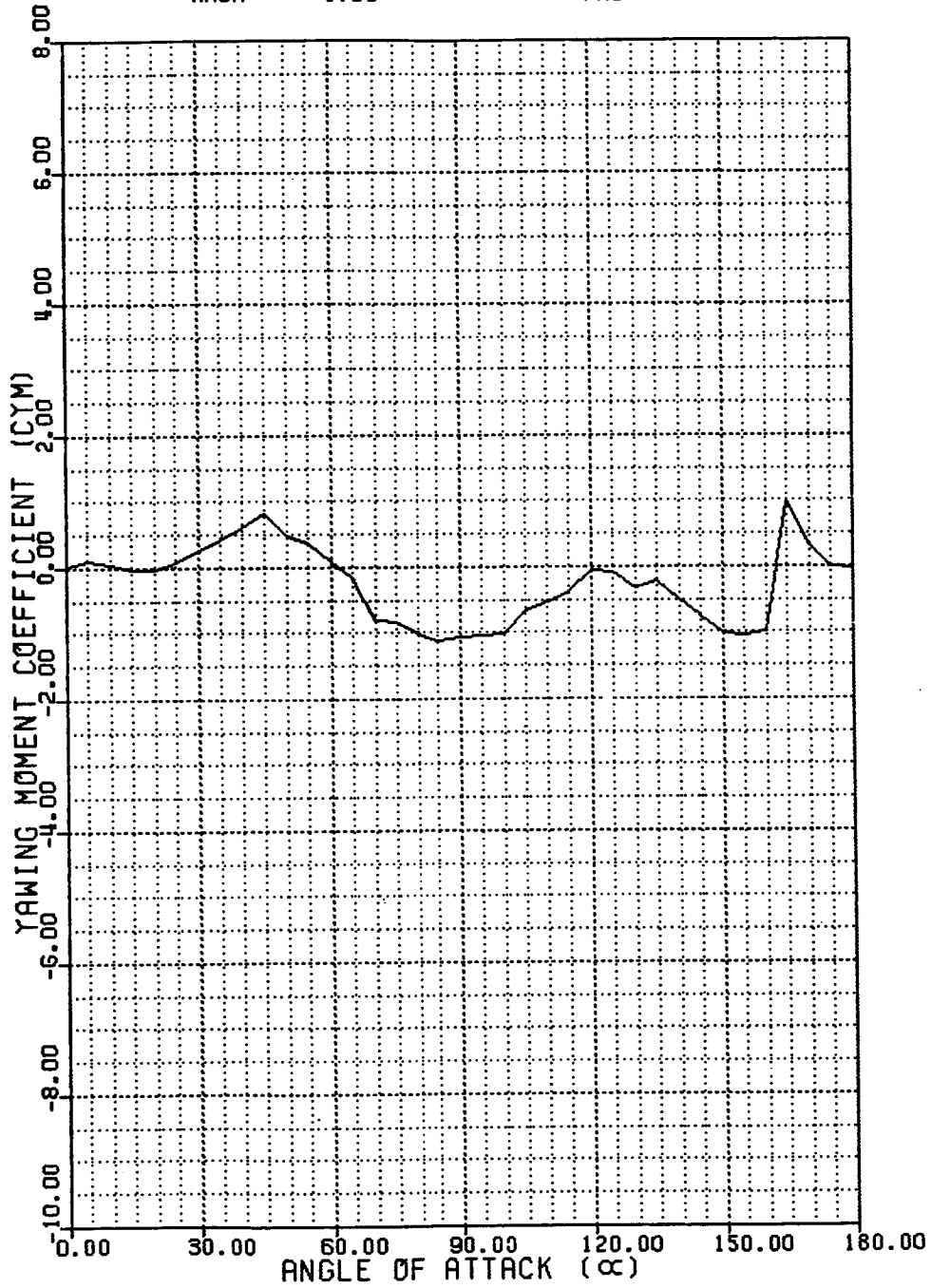
B-504

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0



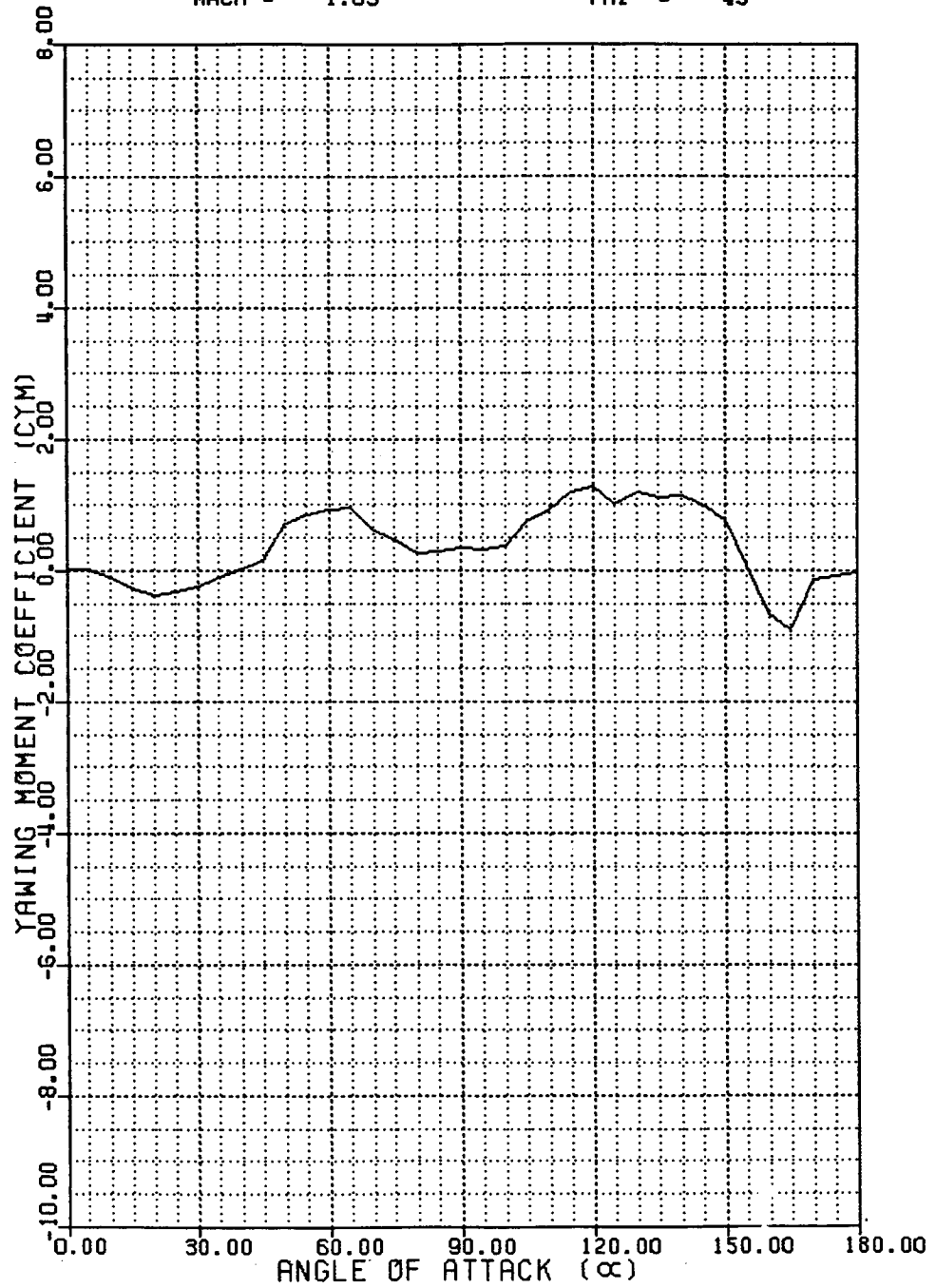
B-505

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



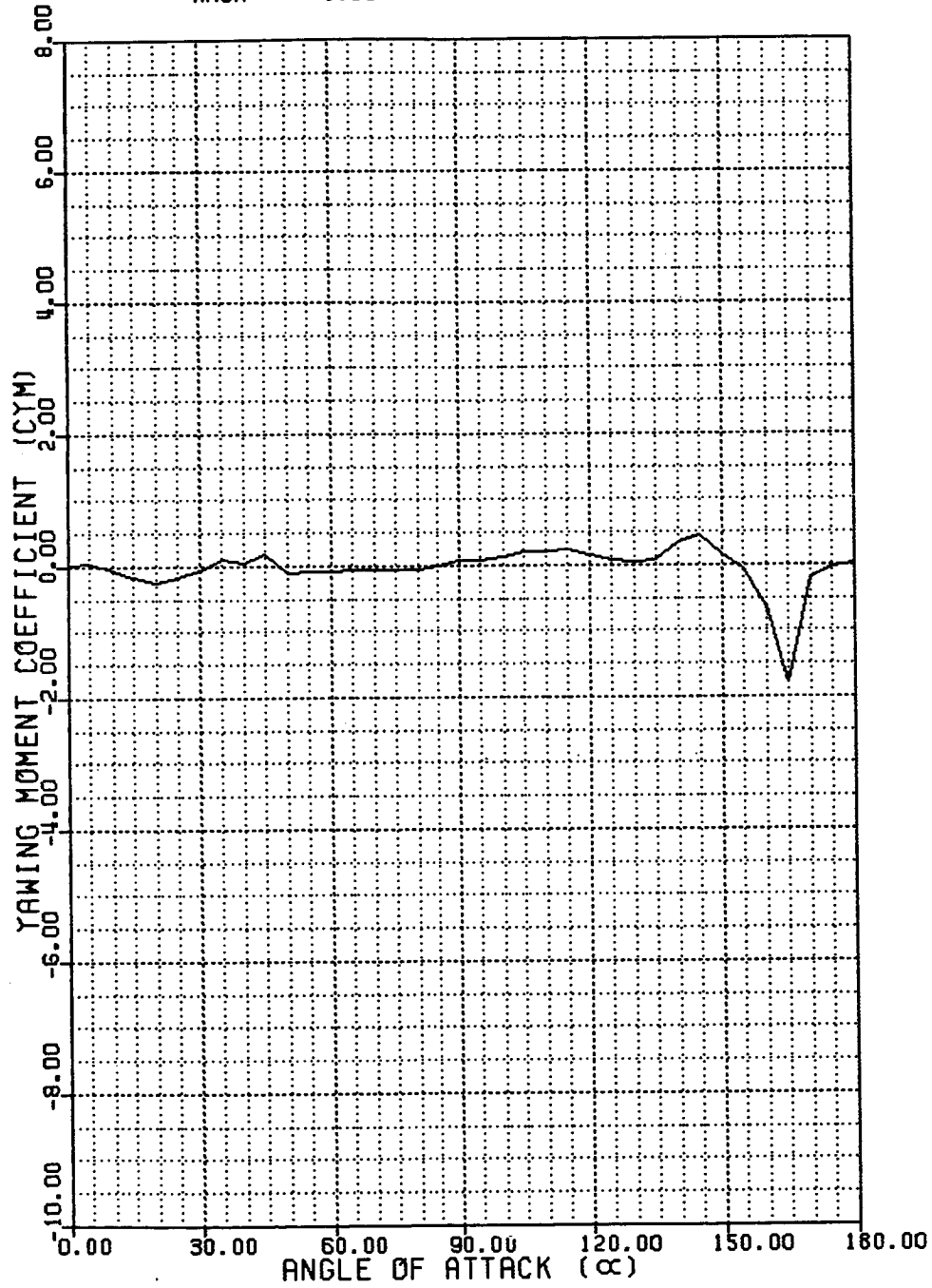
B-506

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90

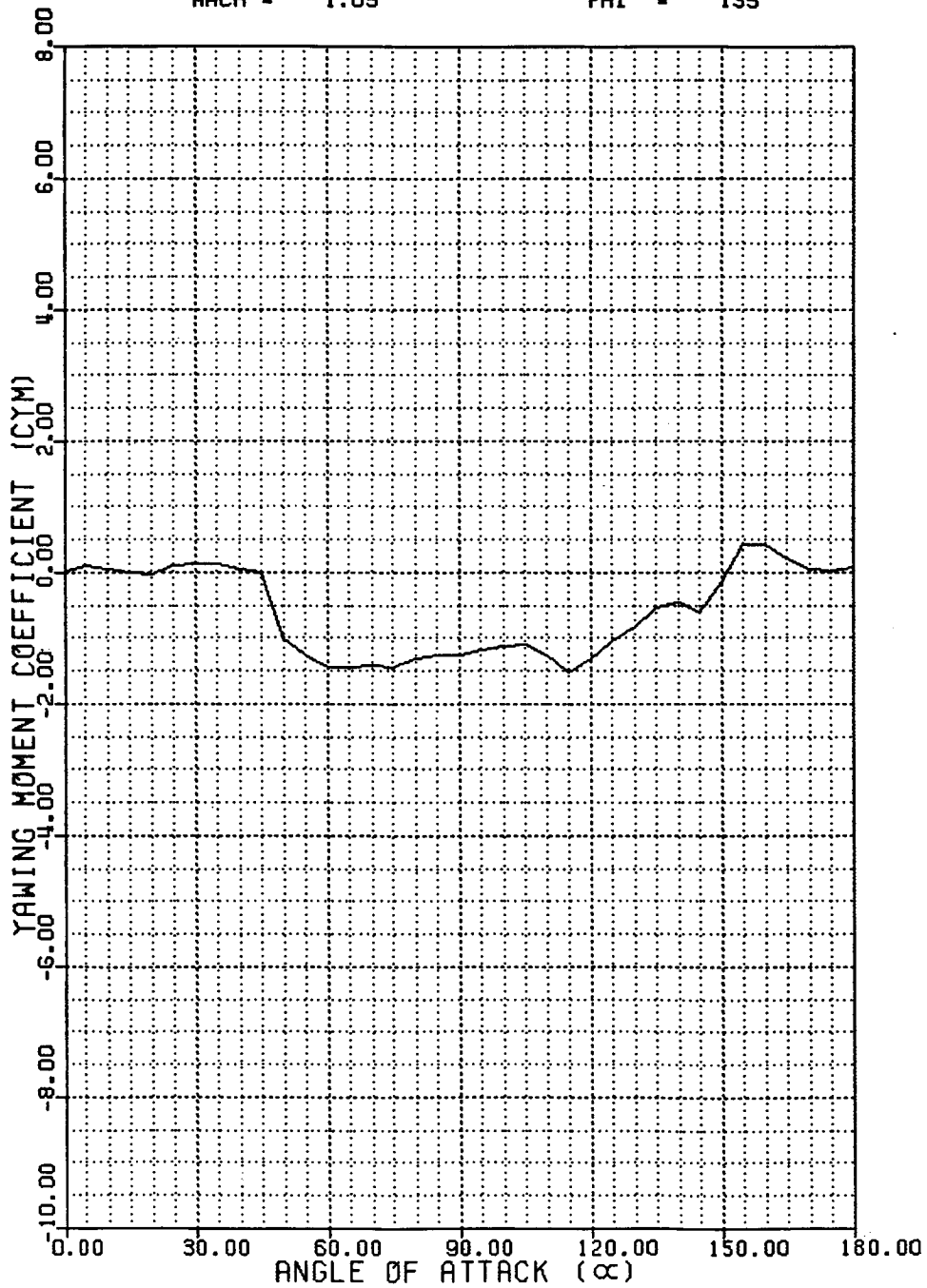


B-507

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135



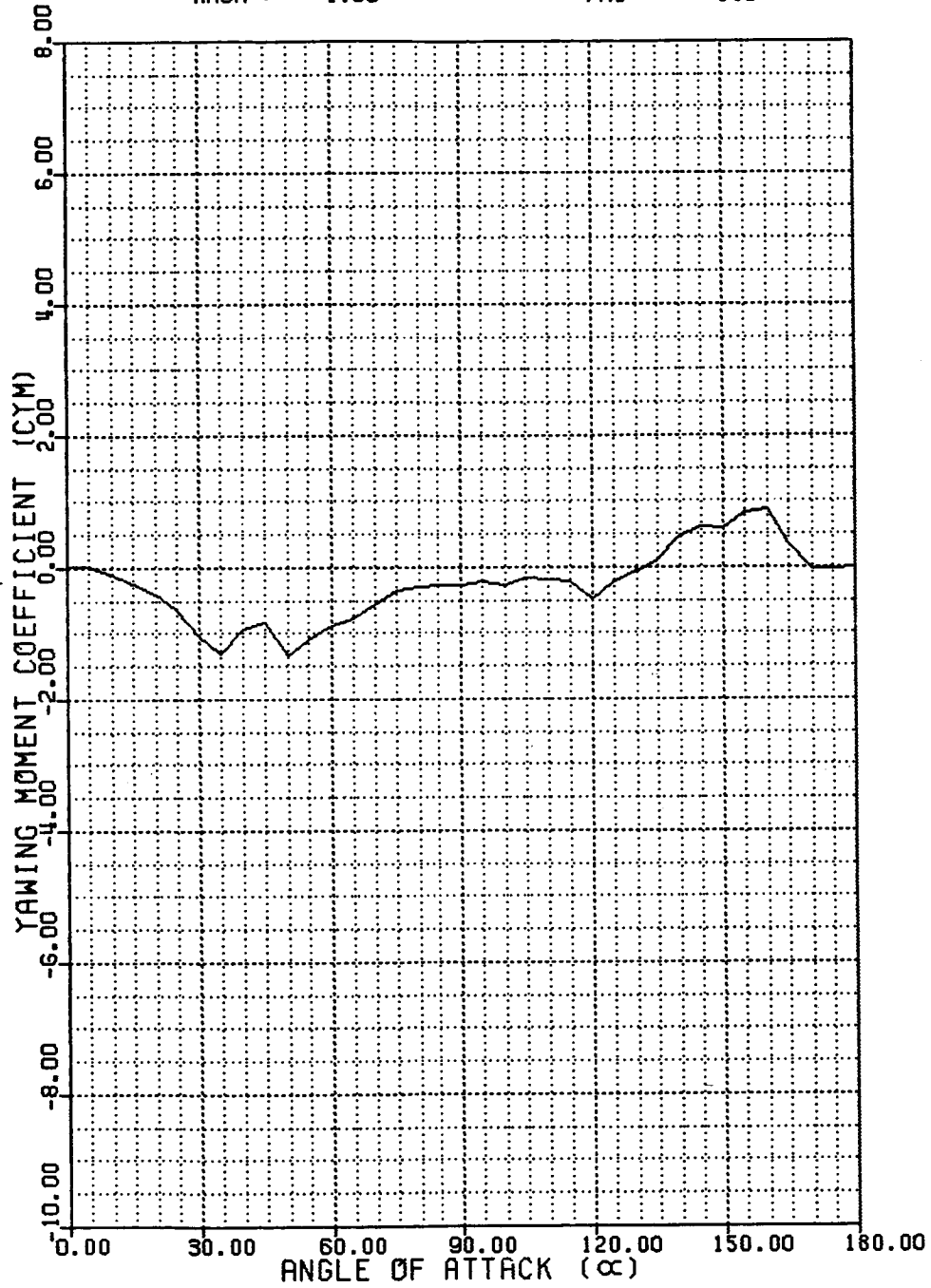
B-508

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180



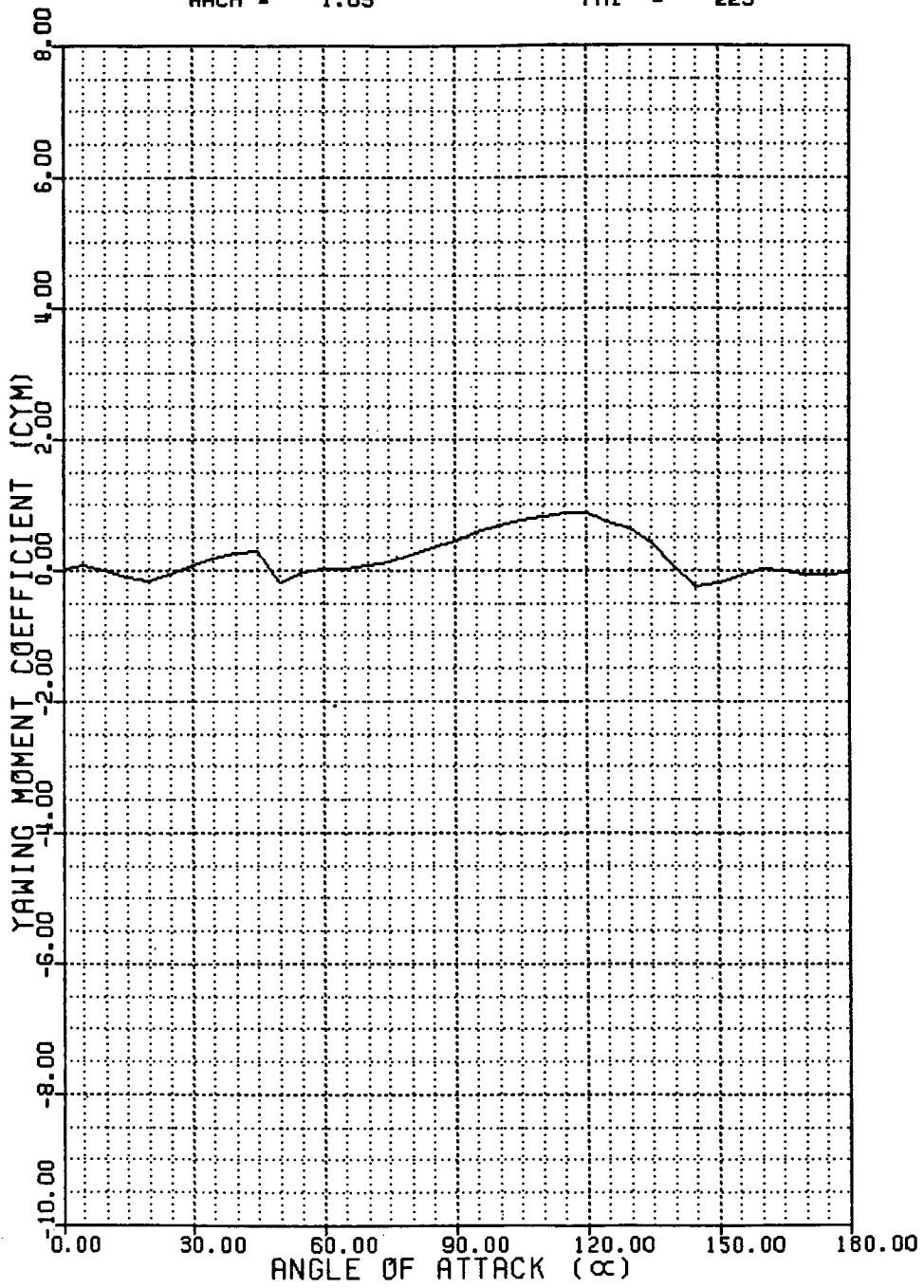
B-509

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225



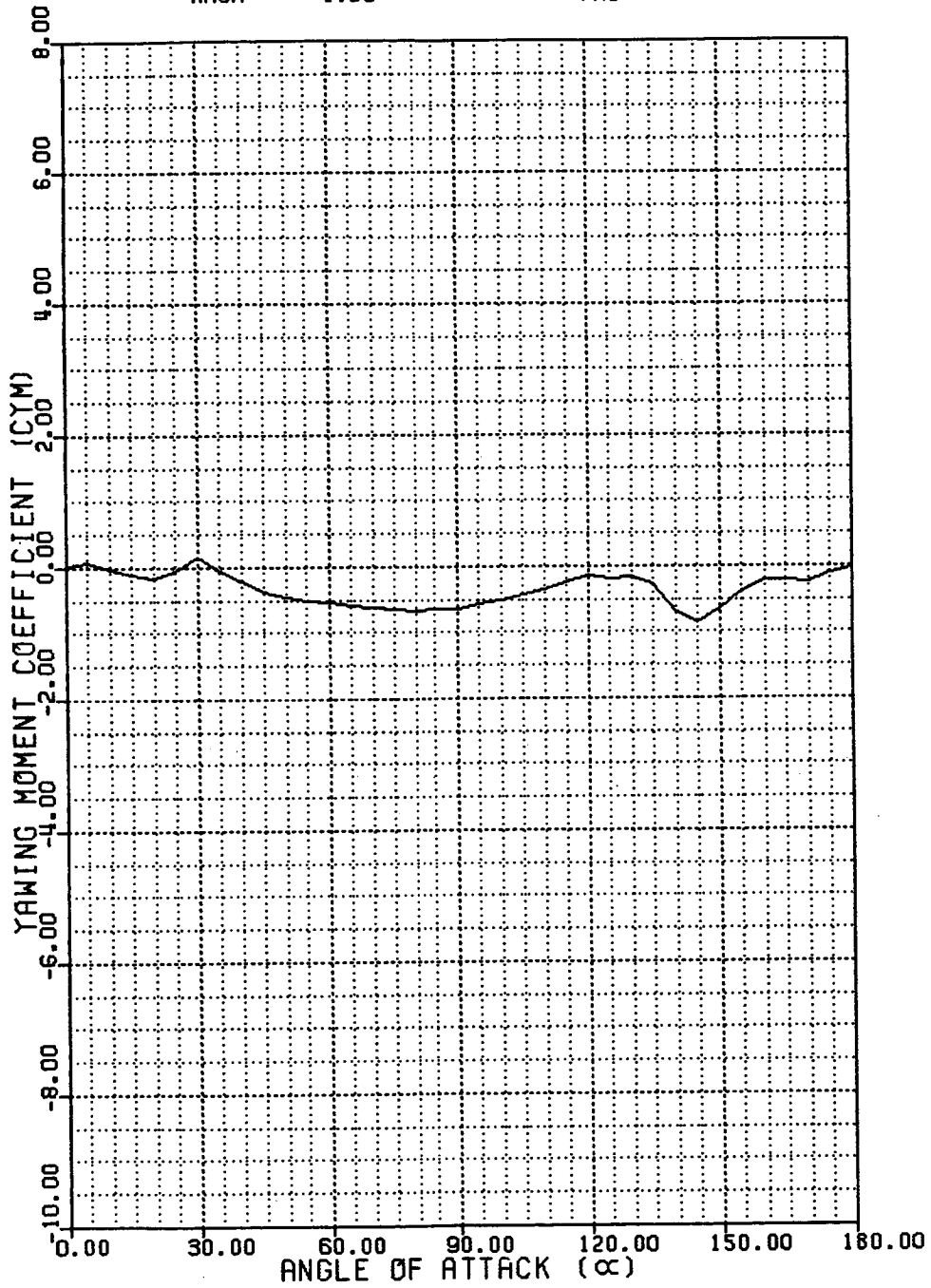
B-510

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270



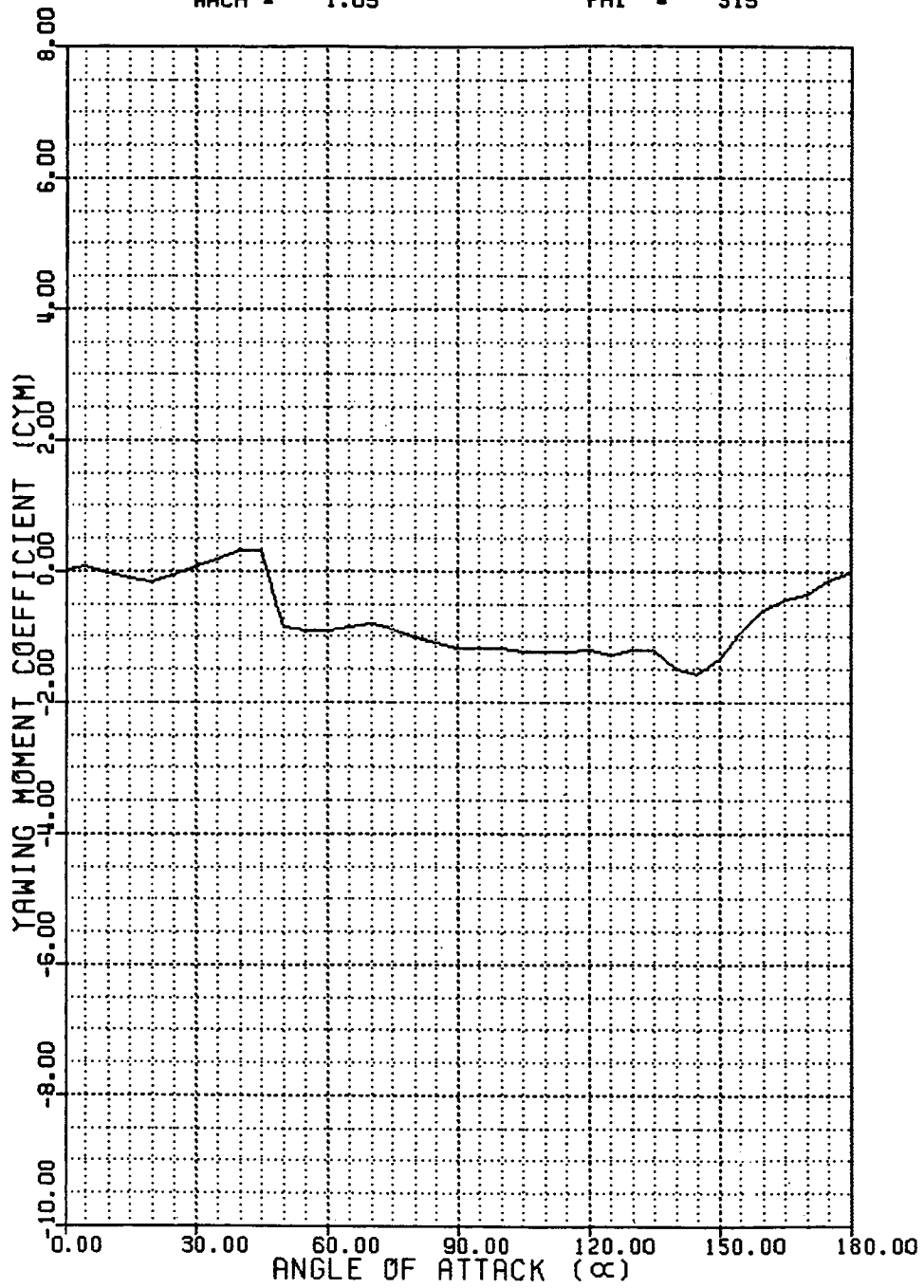
B-511



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315



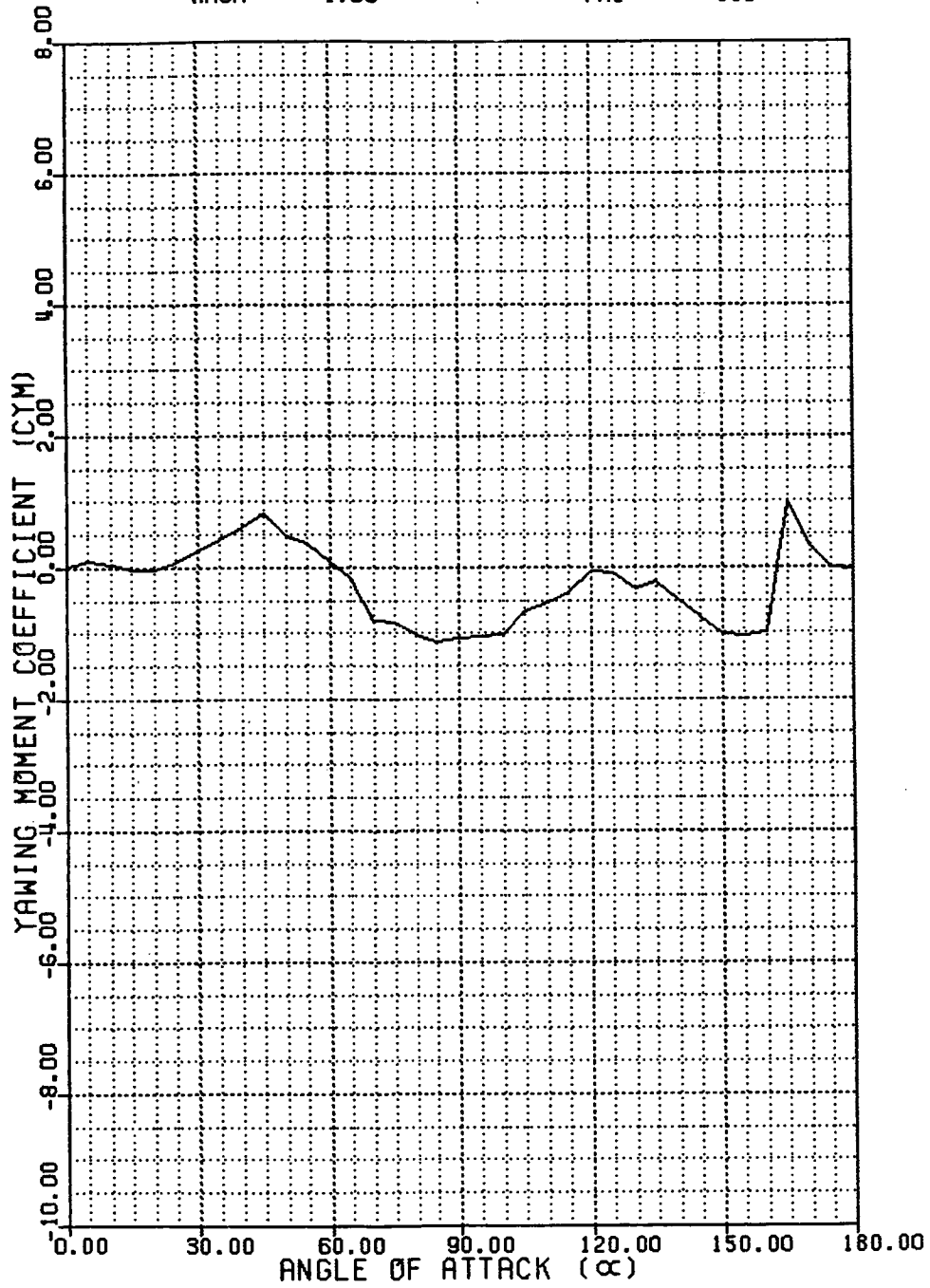
B-512

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 360



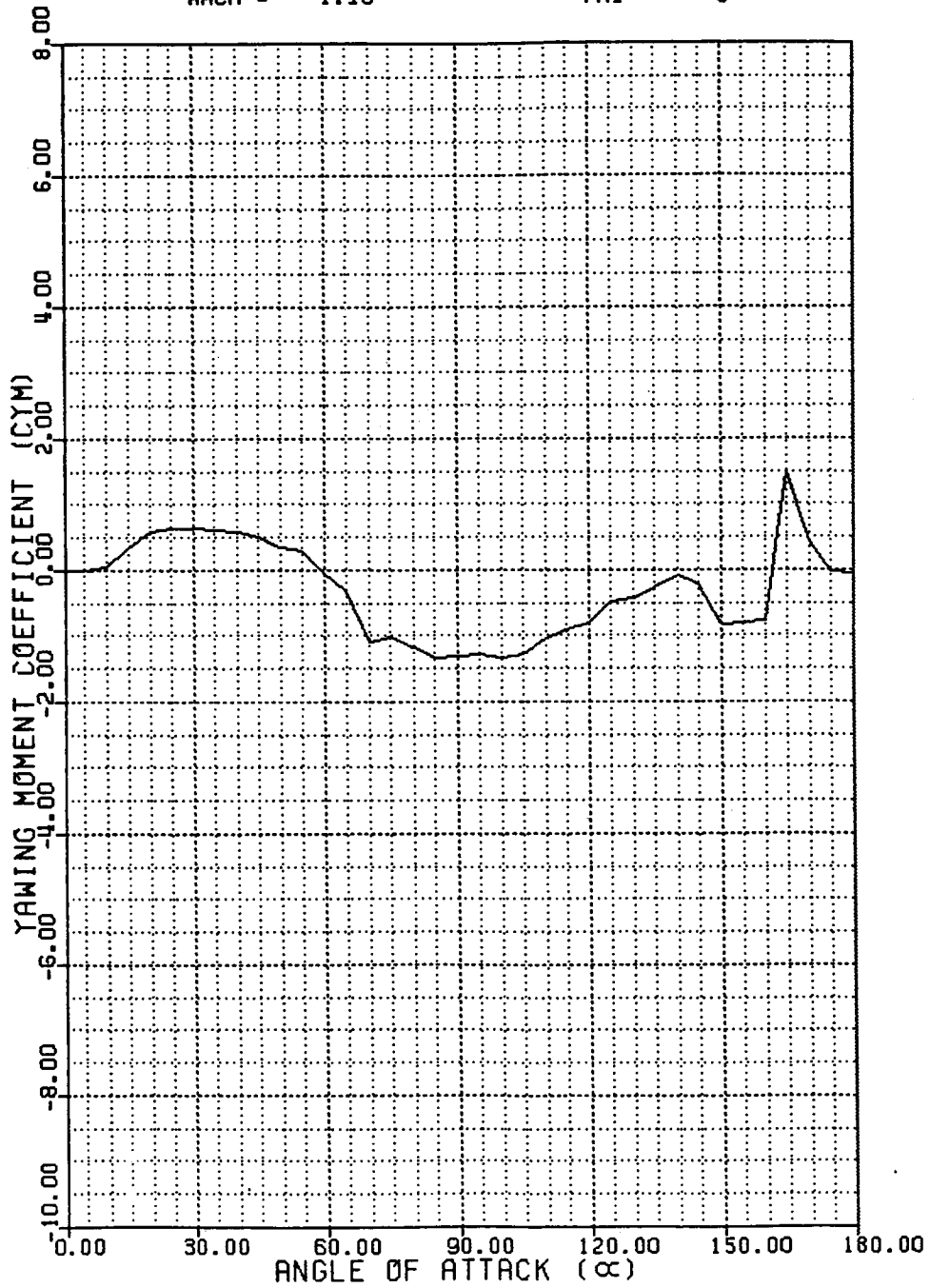
B-513

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0

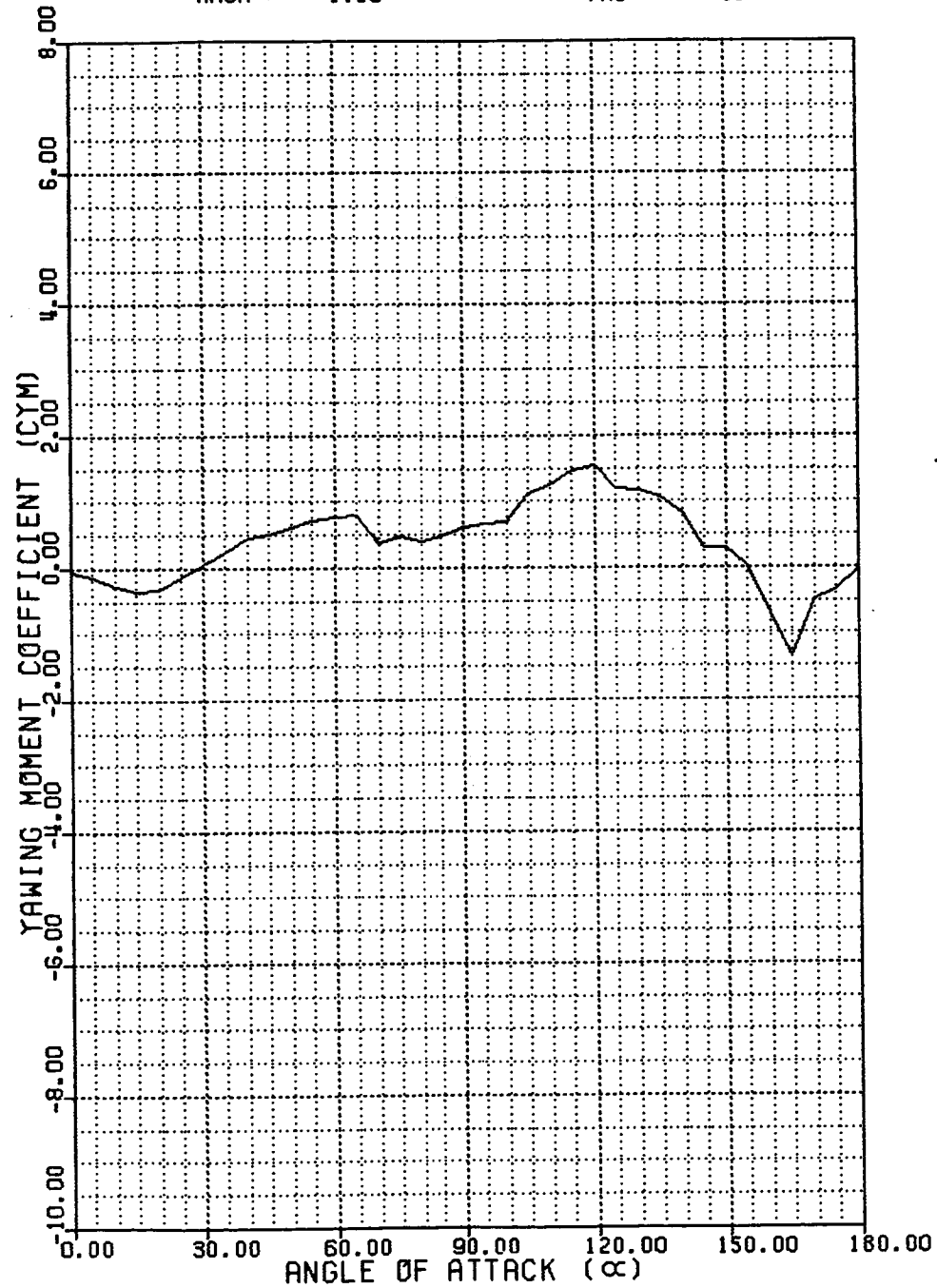


B-514

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10                      PHI = 45

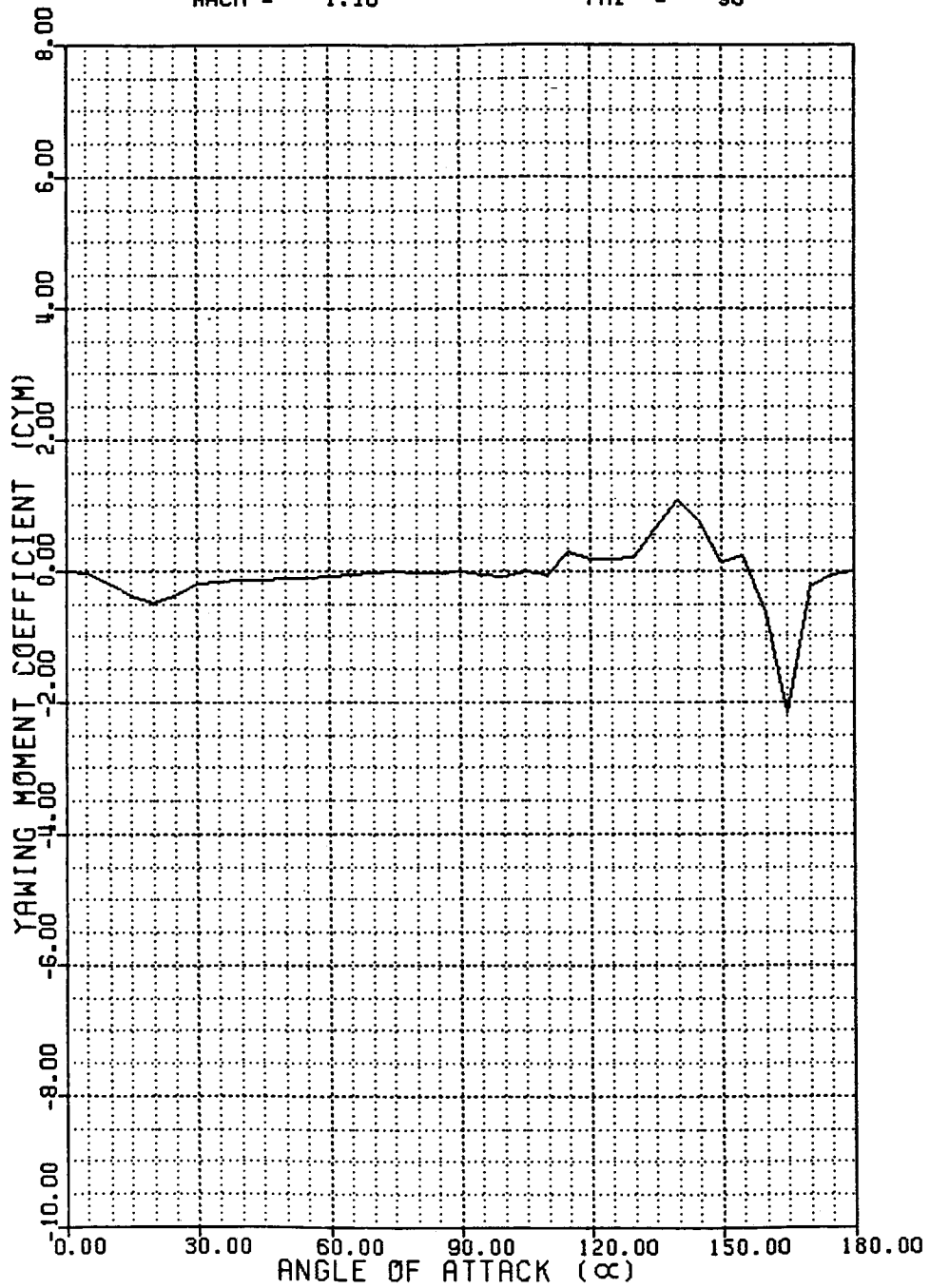


B-515

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90



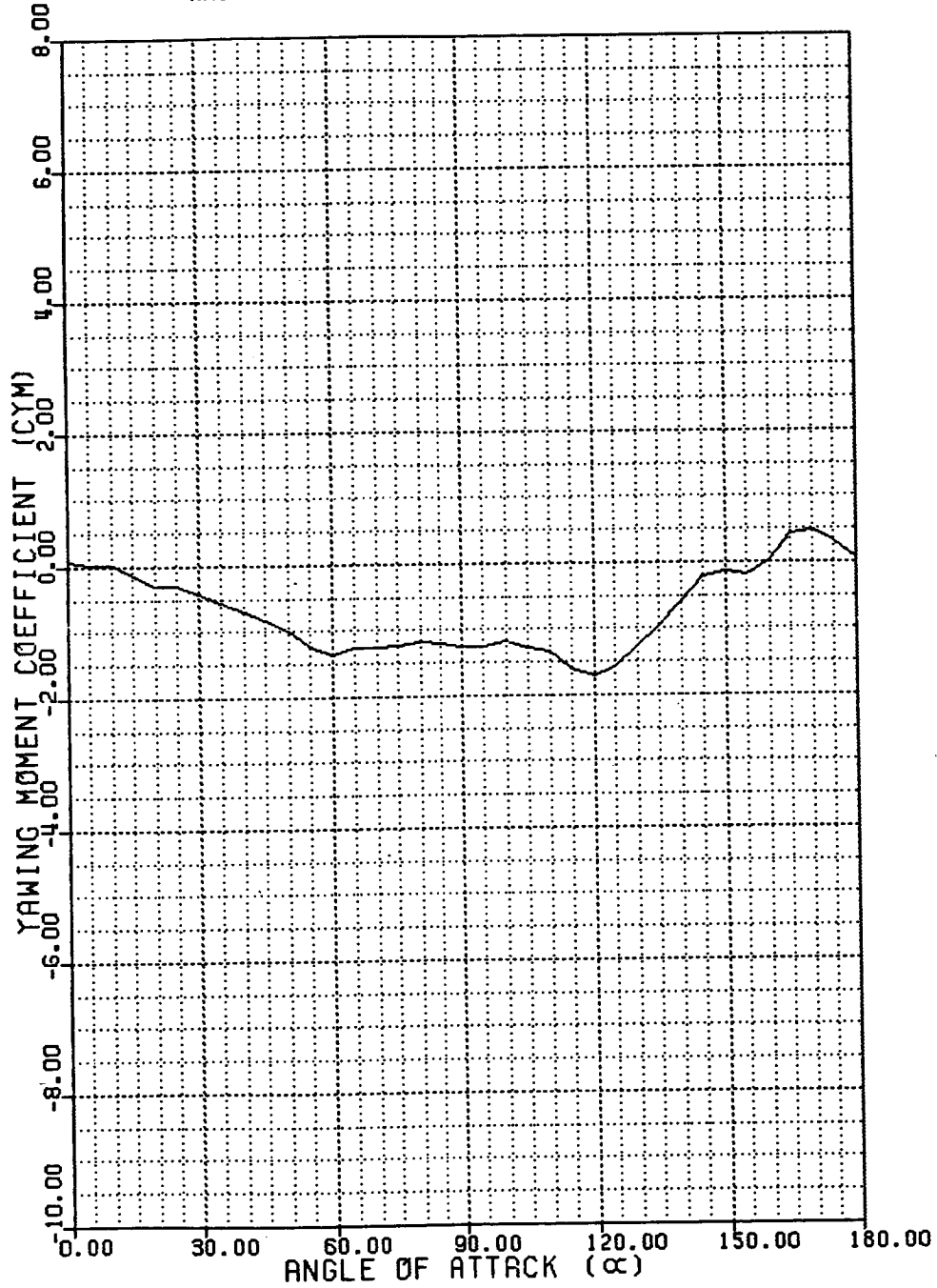
B-516

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135

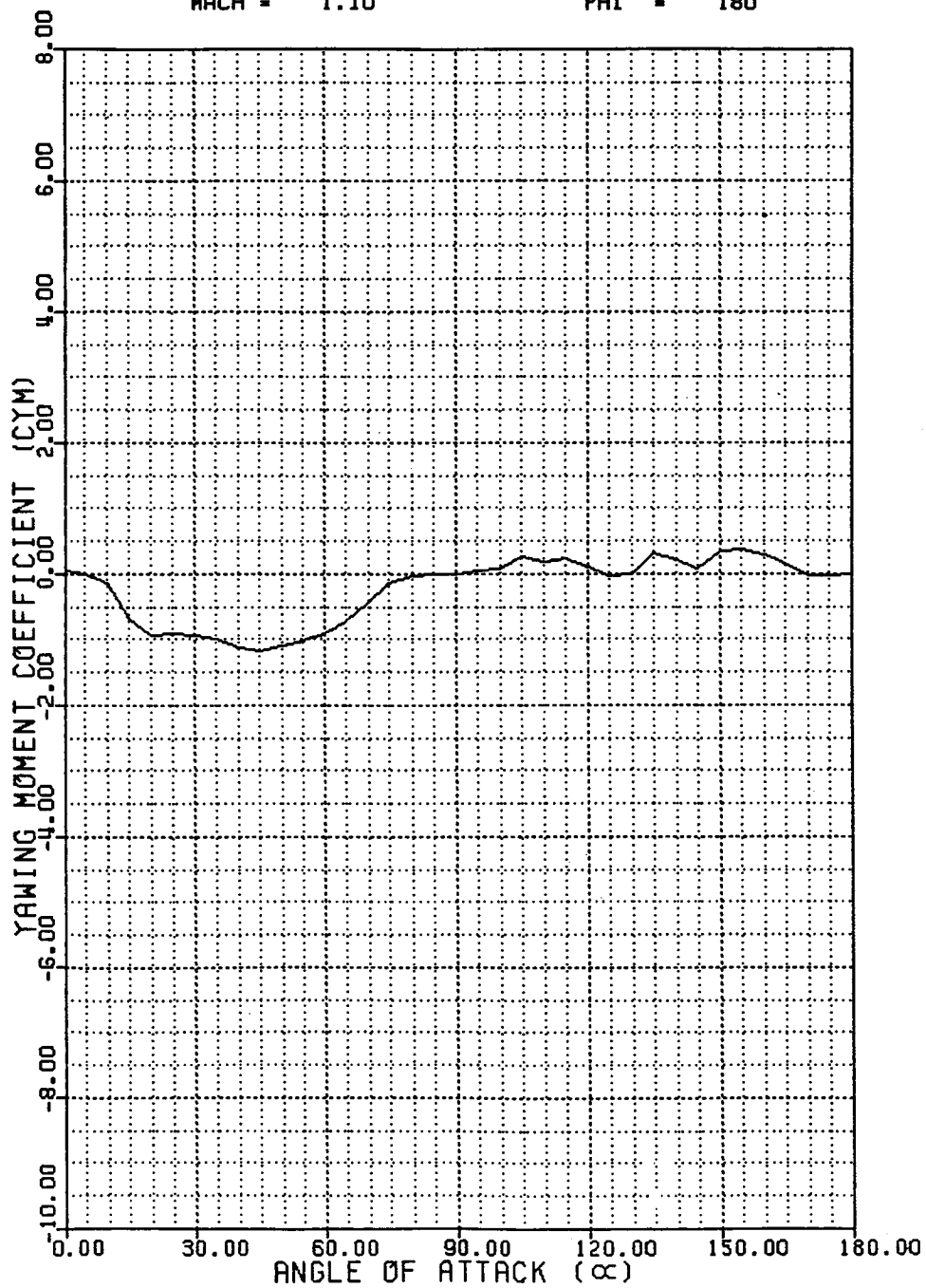


B-517

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180

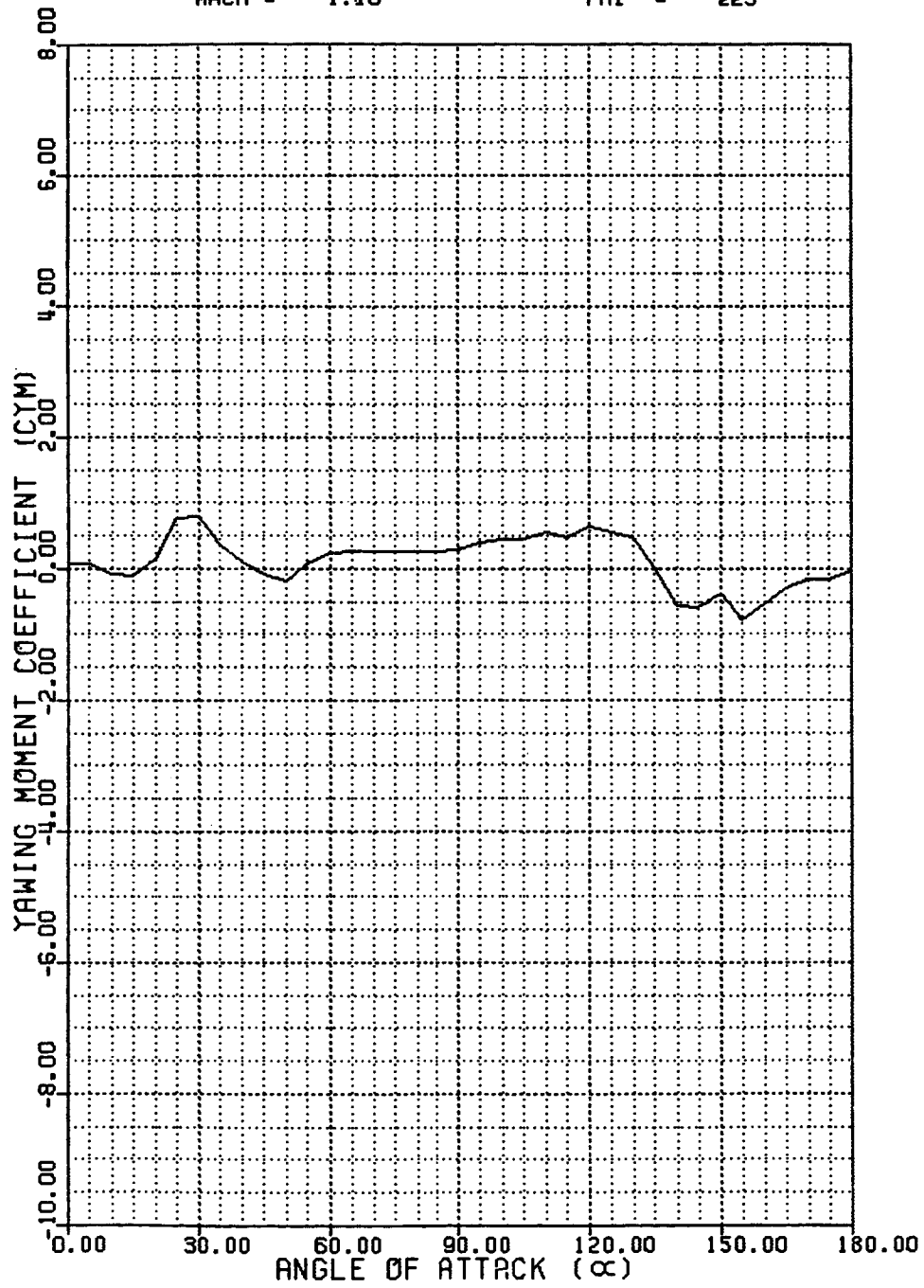


B-518

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225



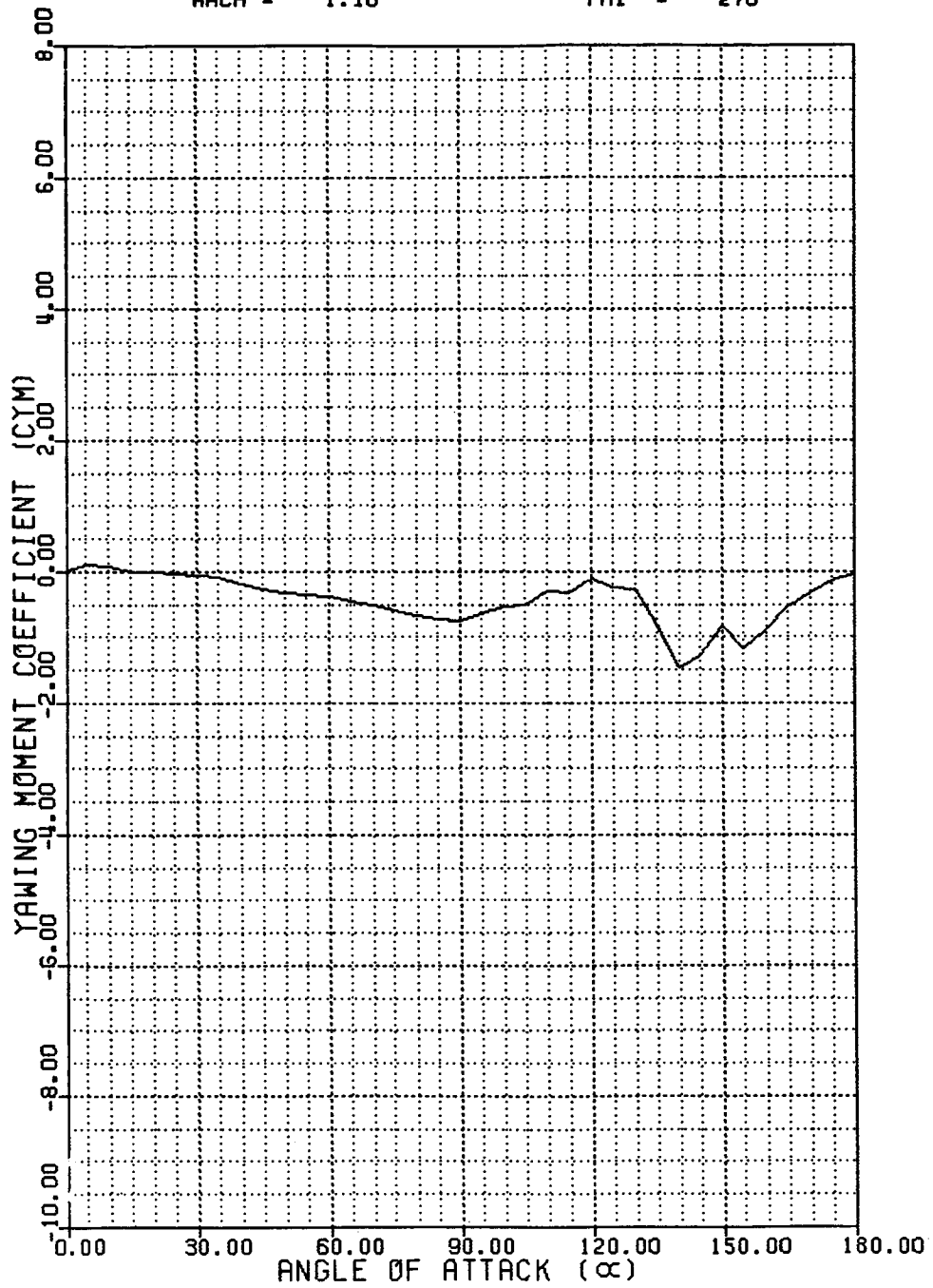
B-519



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270



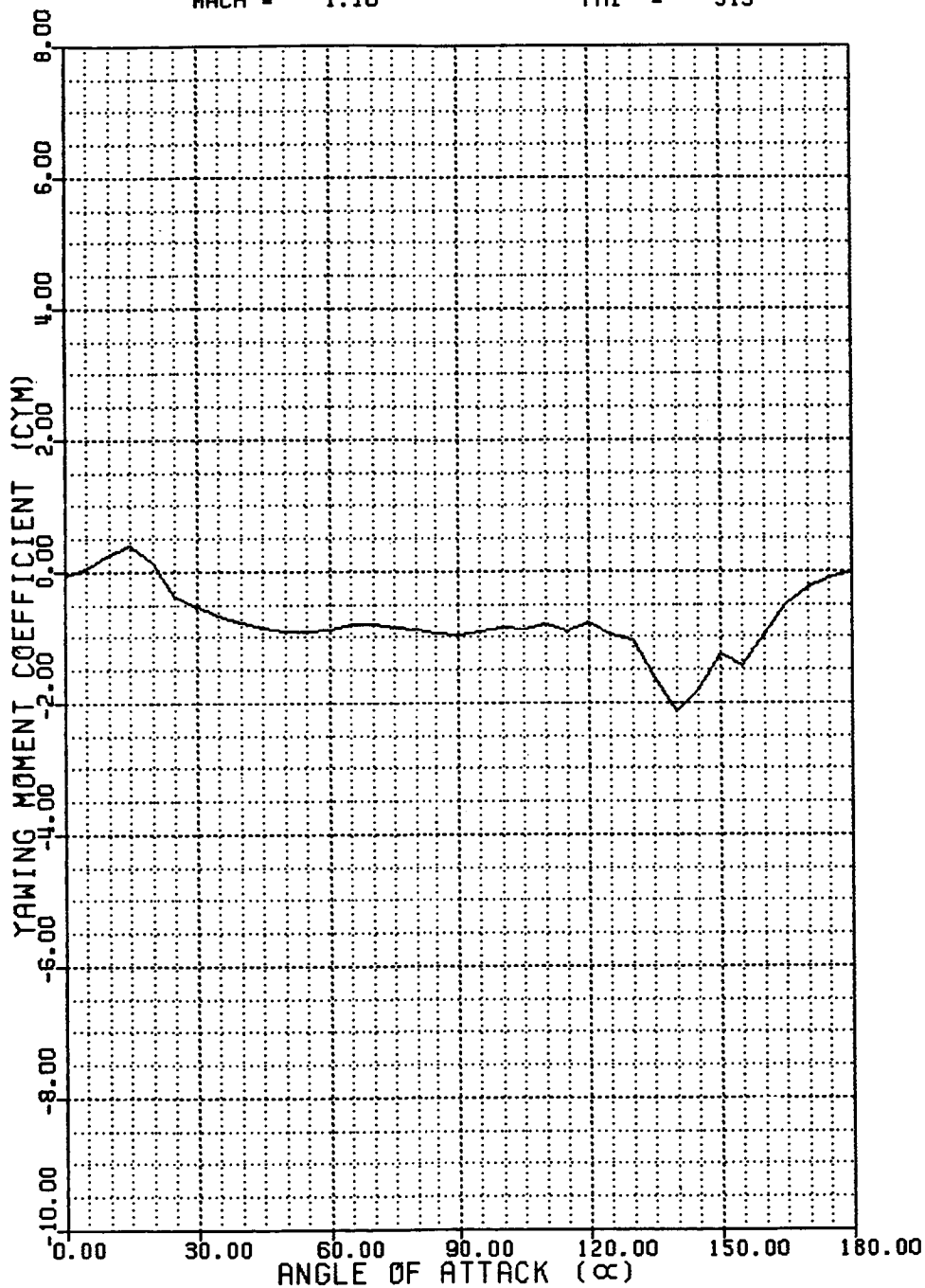
B-520

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315



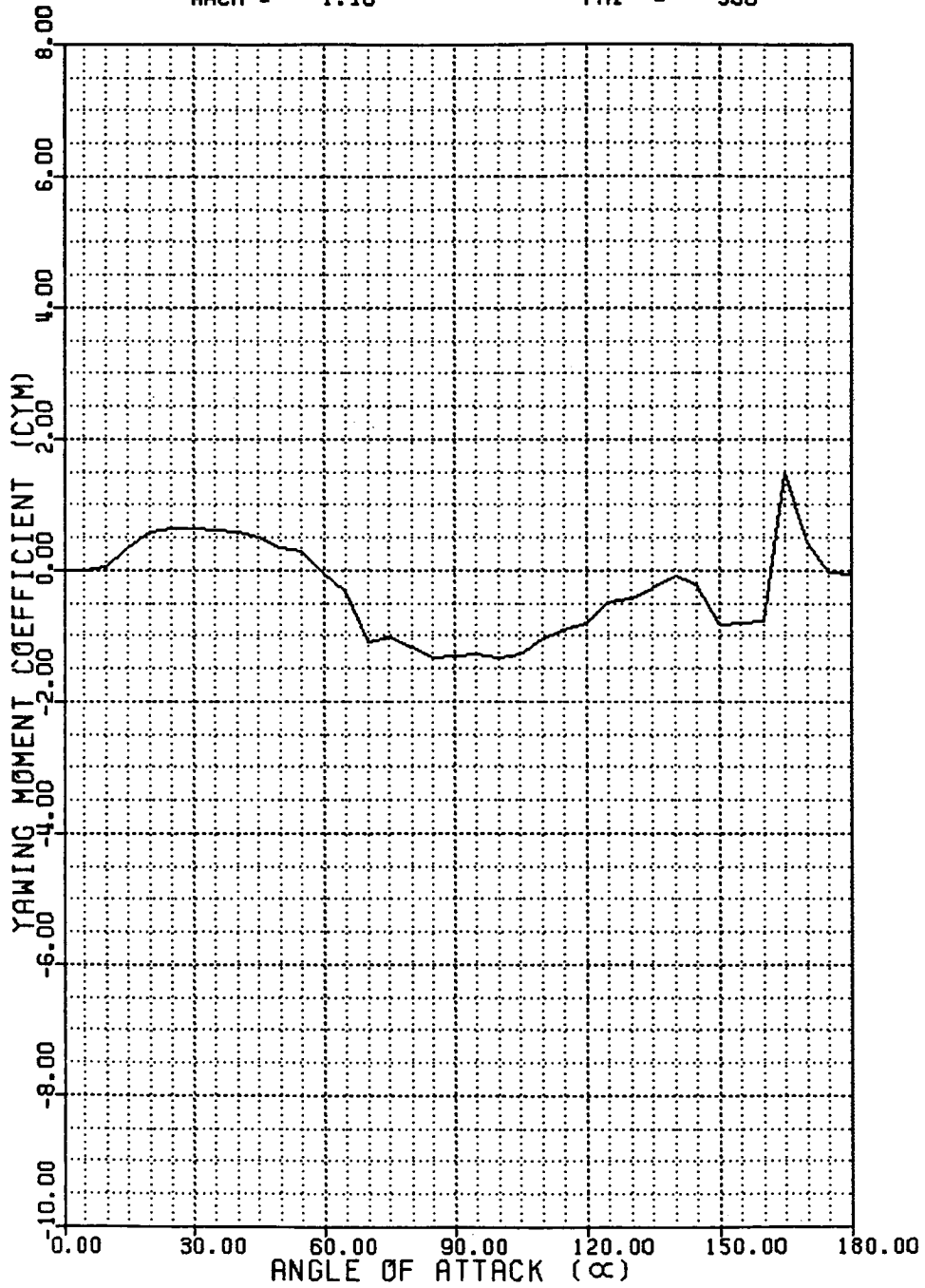
B-521

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360

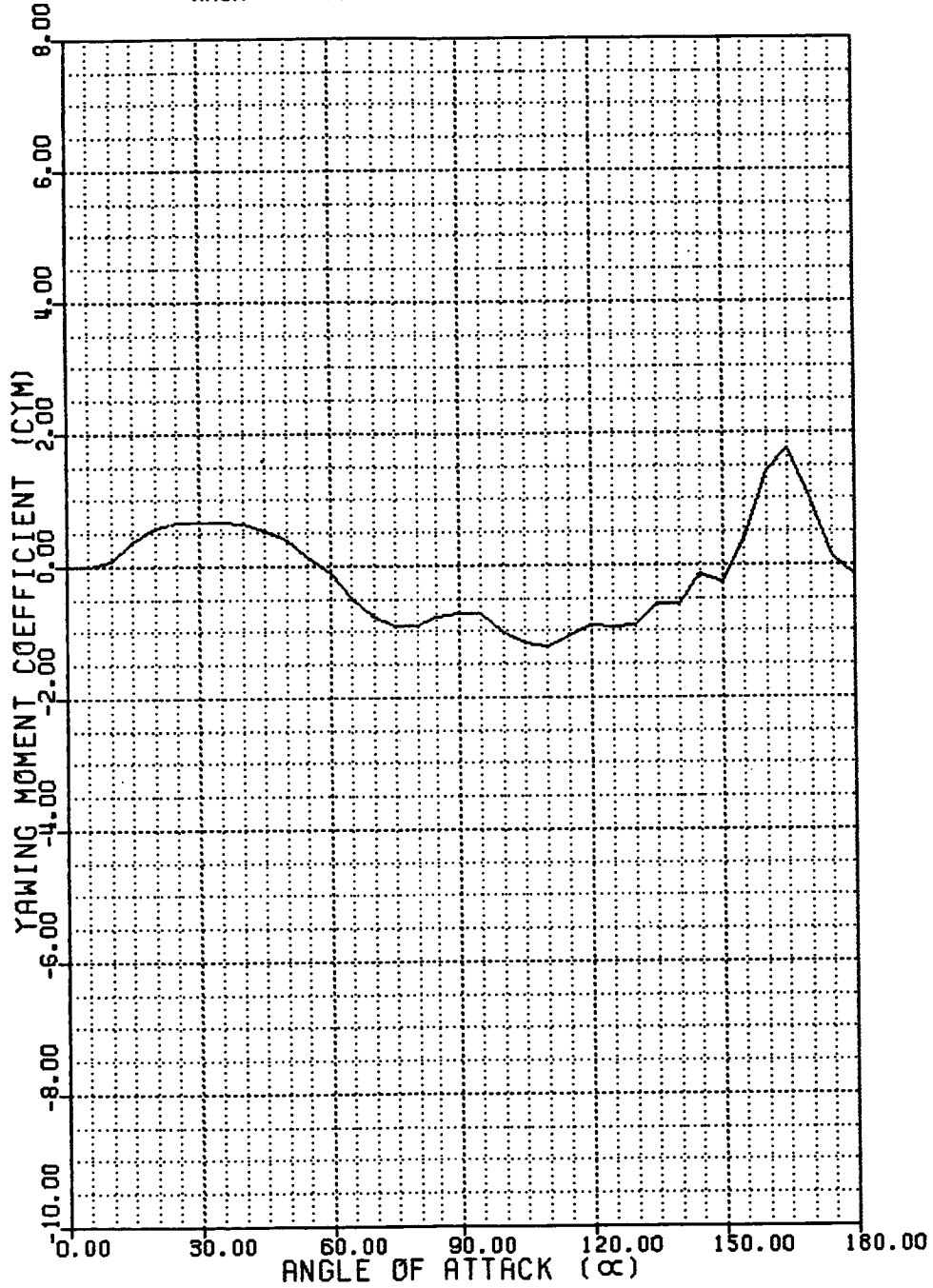


B-522

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0



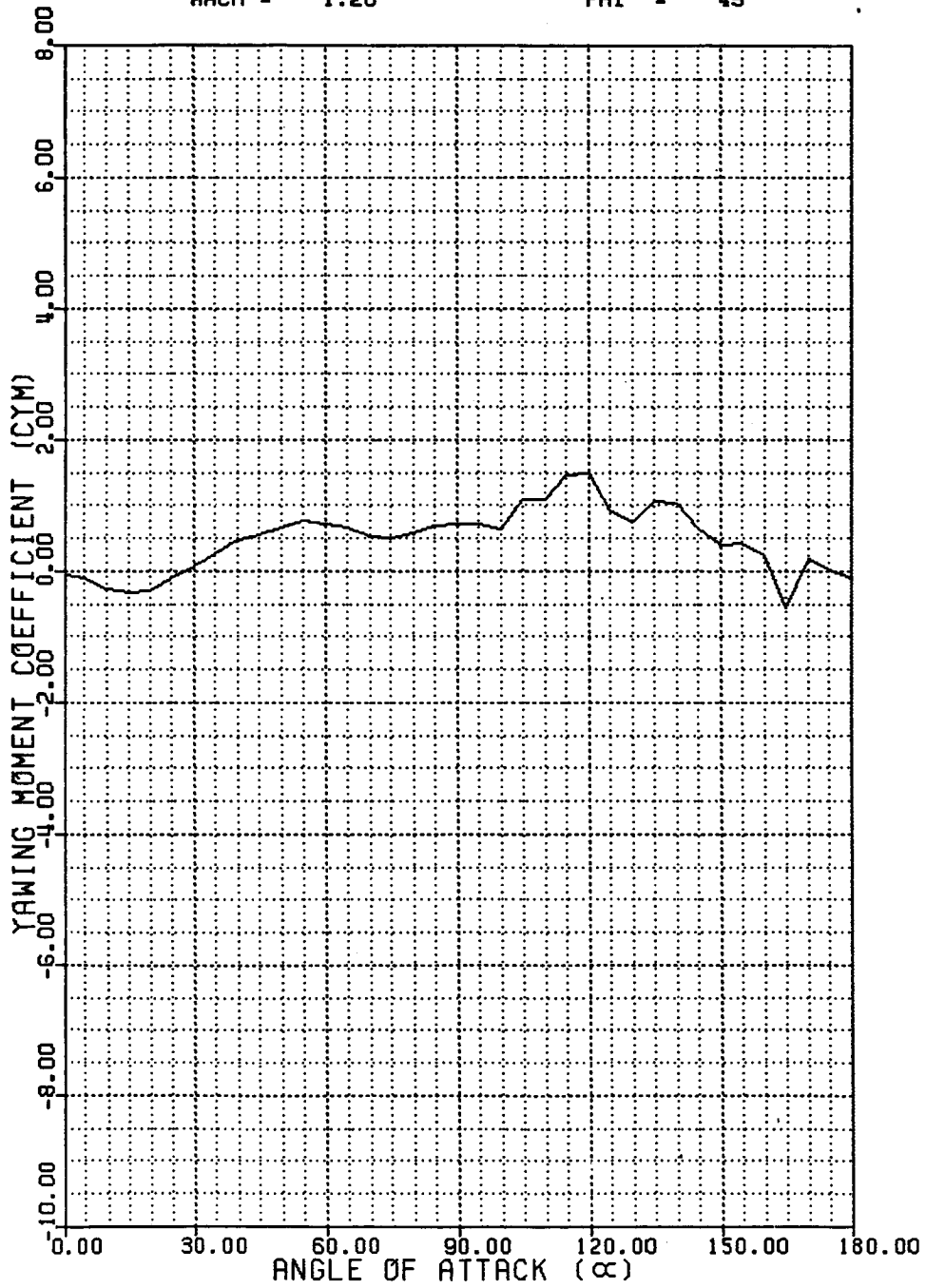
B-523

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



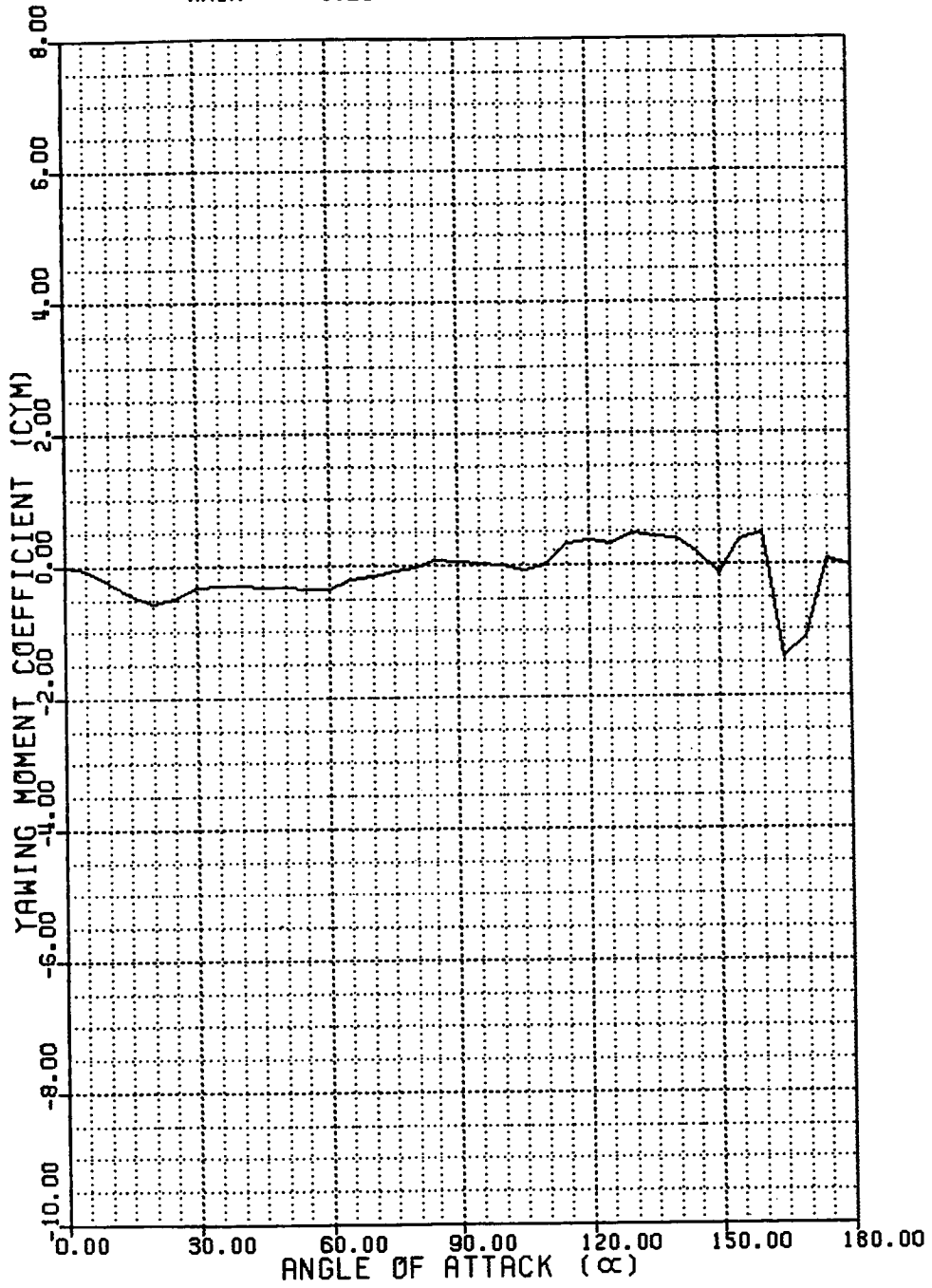
B-524

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90

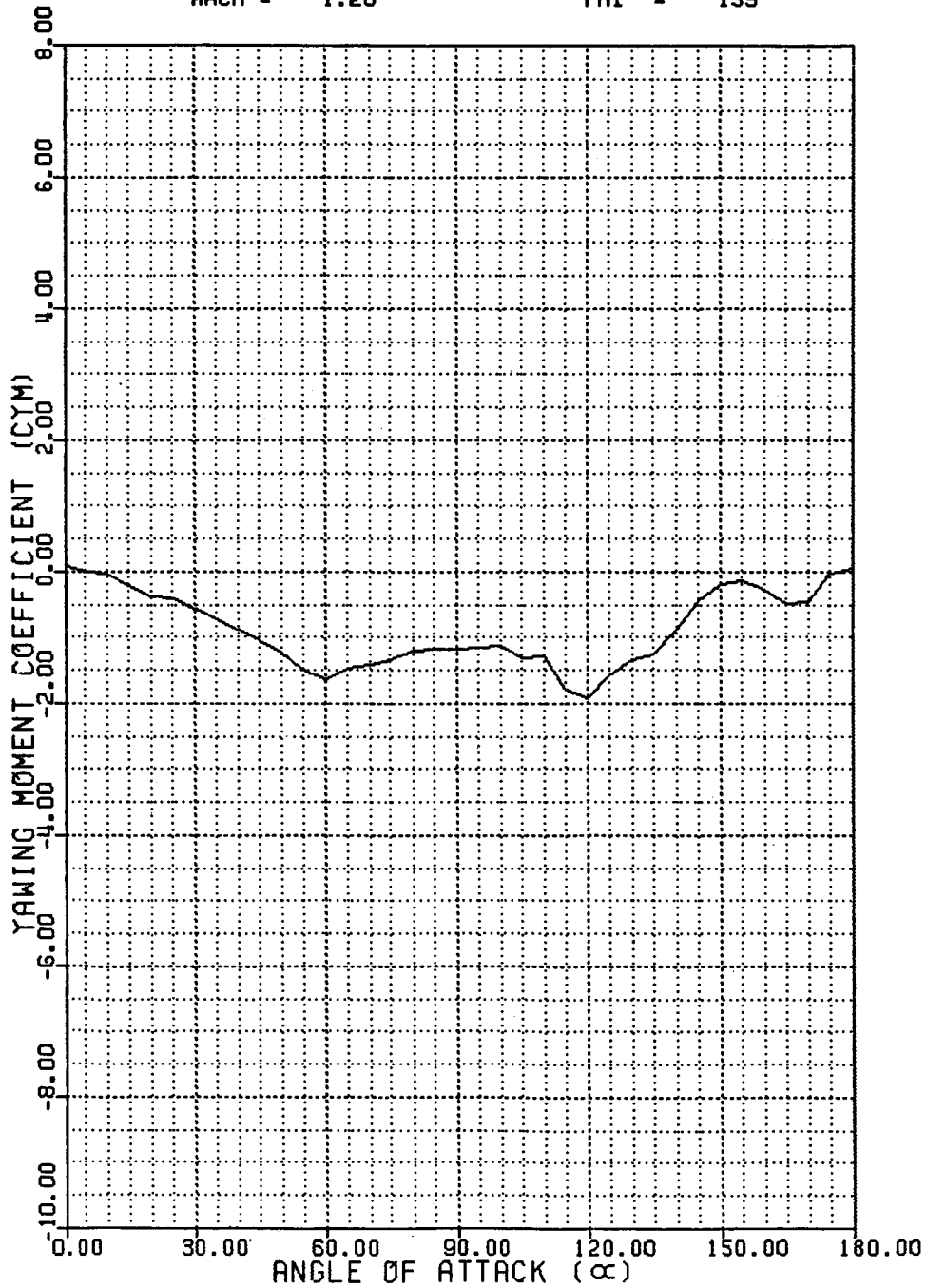


B-525

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135

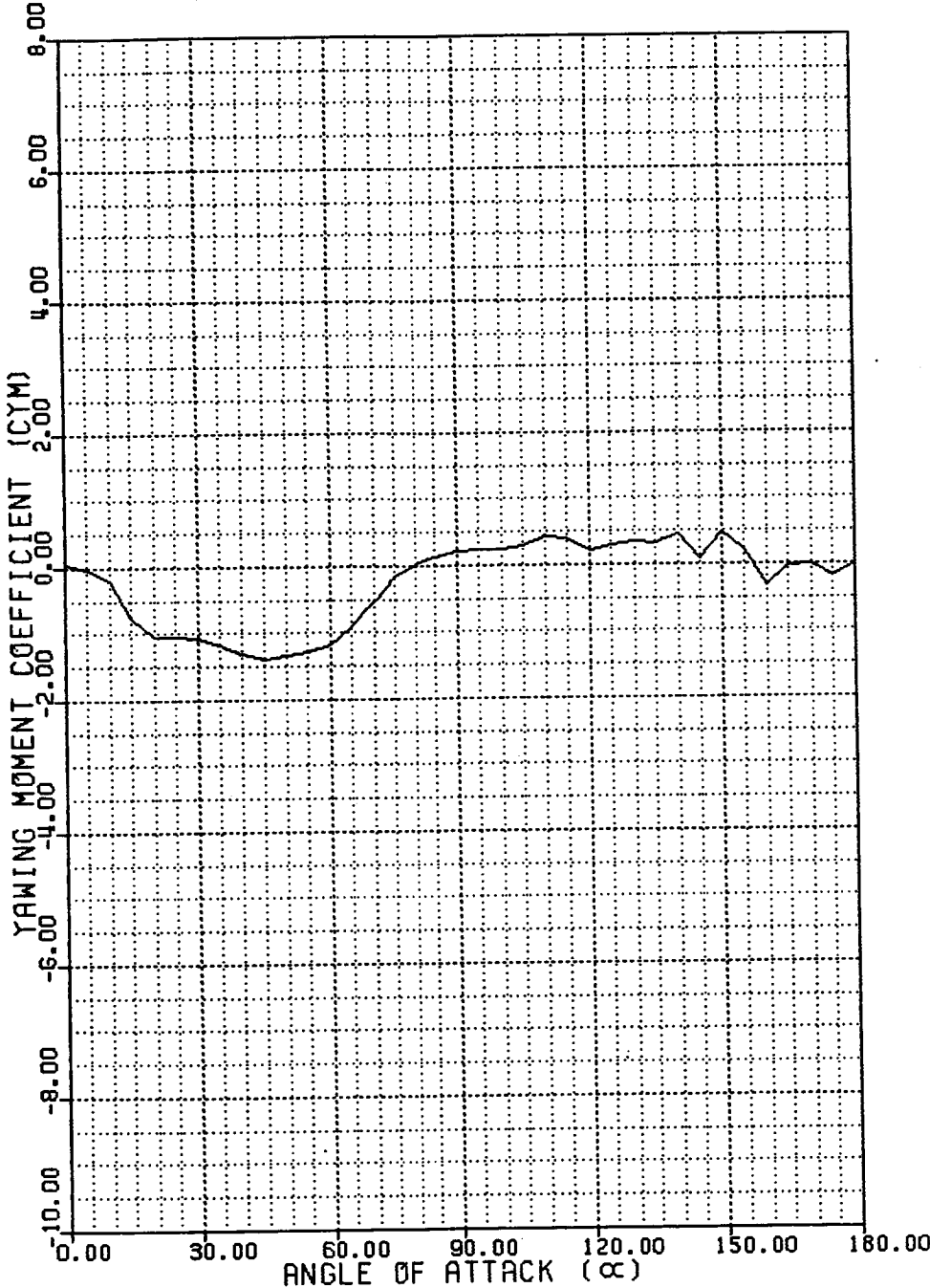


B-526

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180



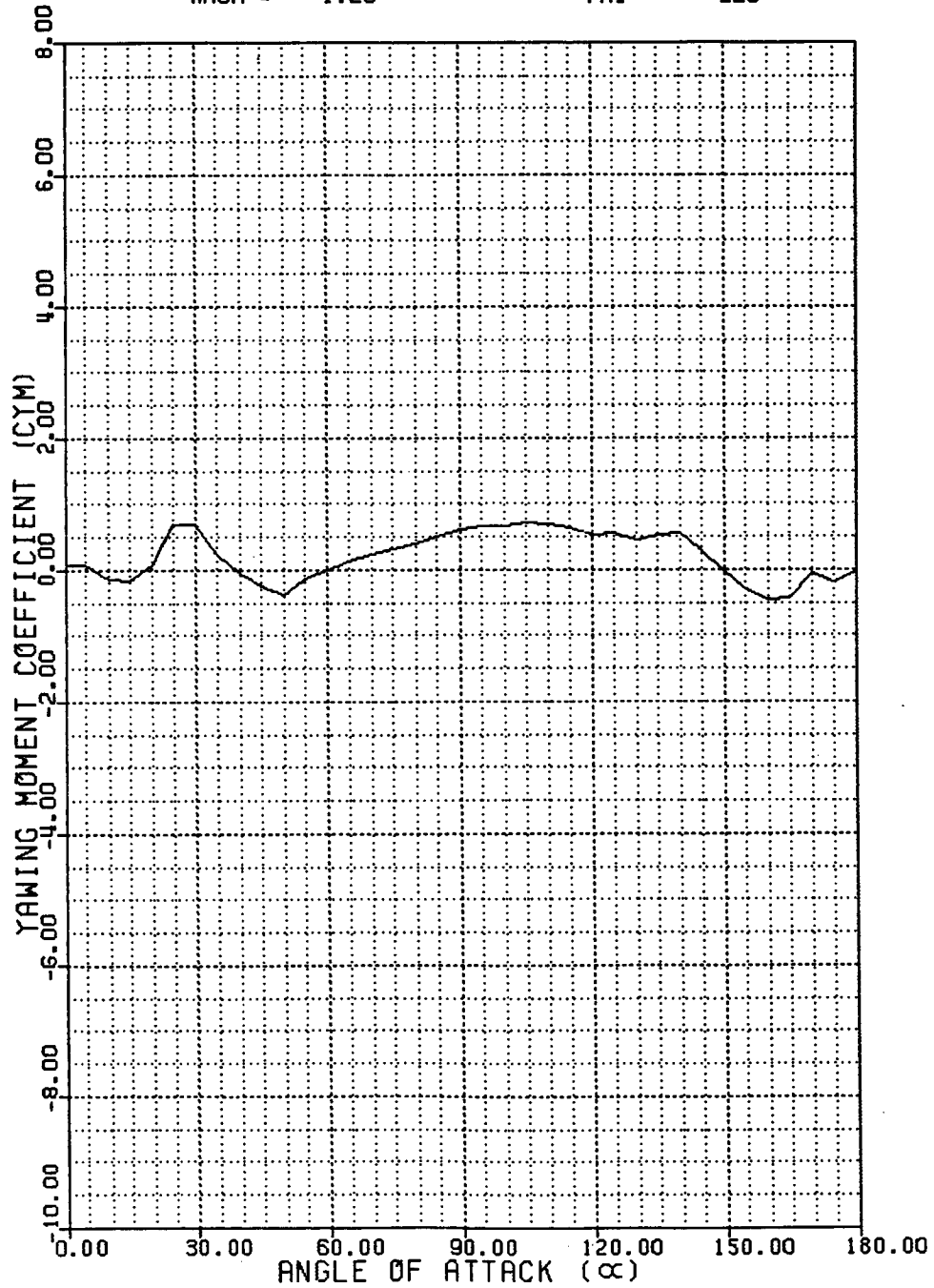
B-527



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225



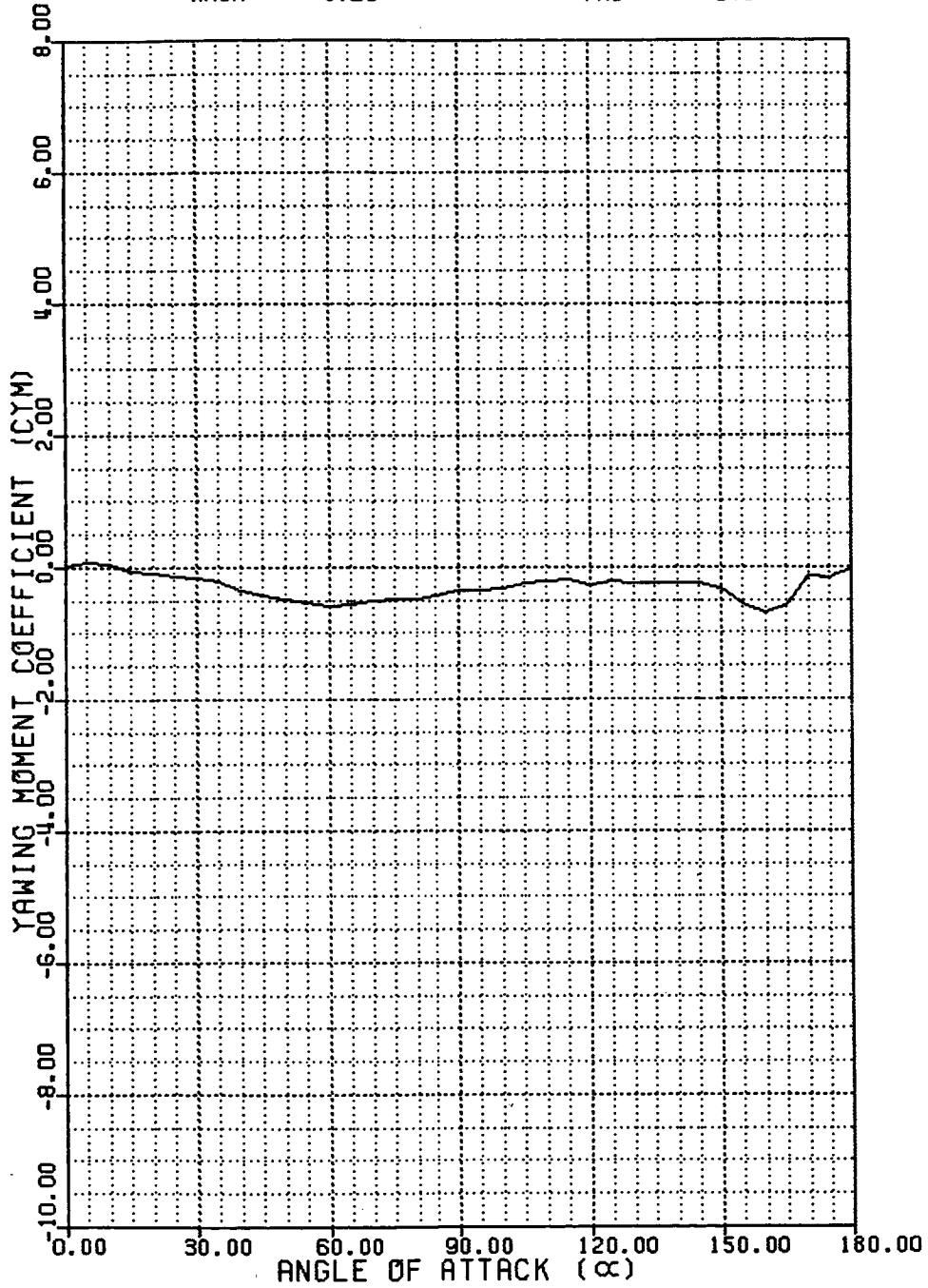
B-528

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 270

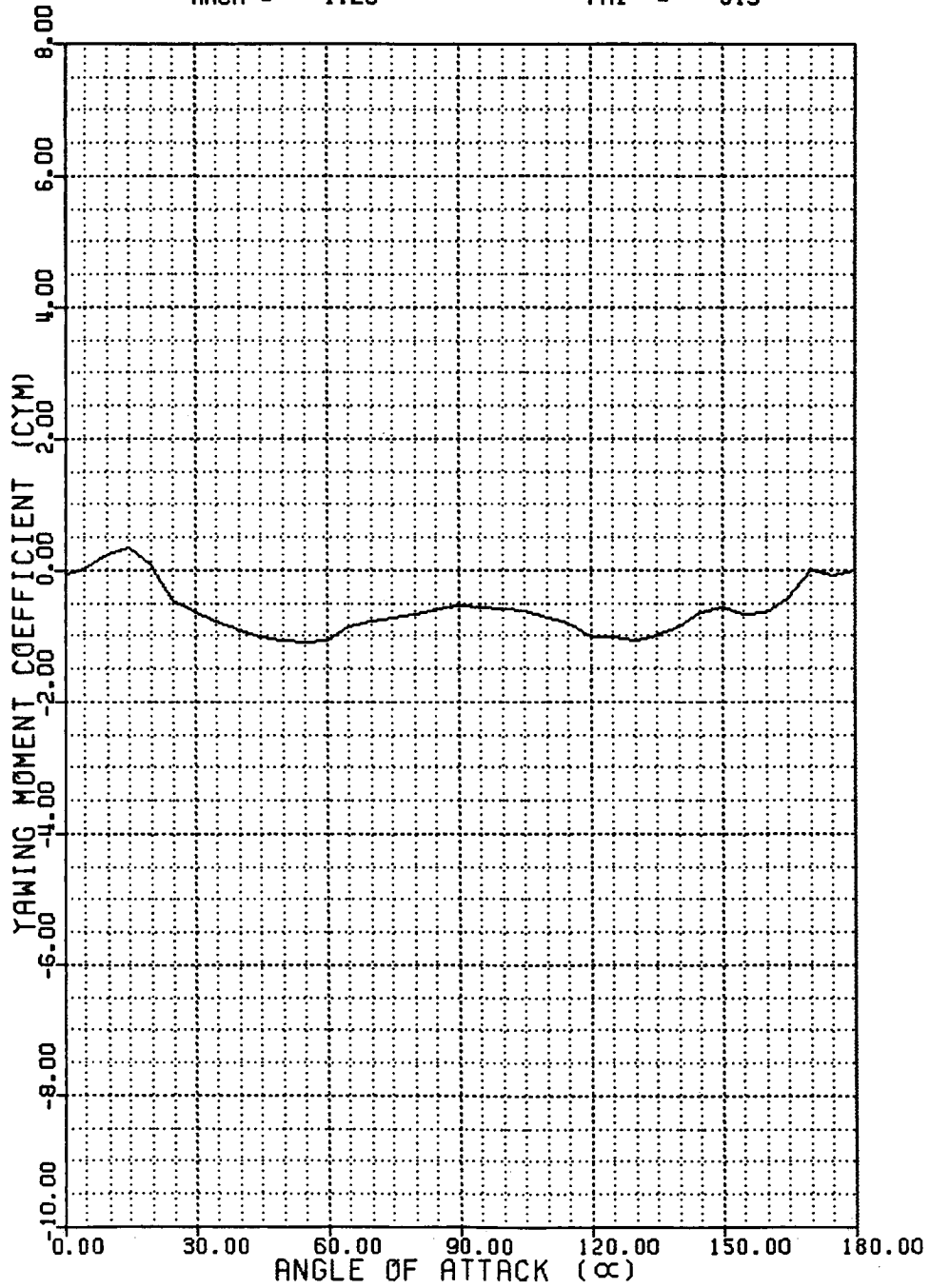


B-529

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 315

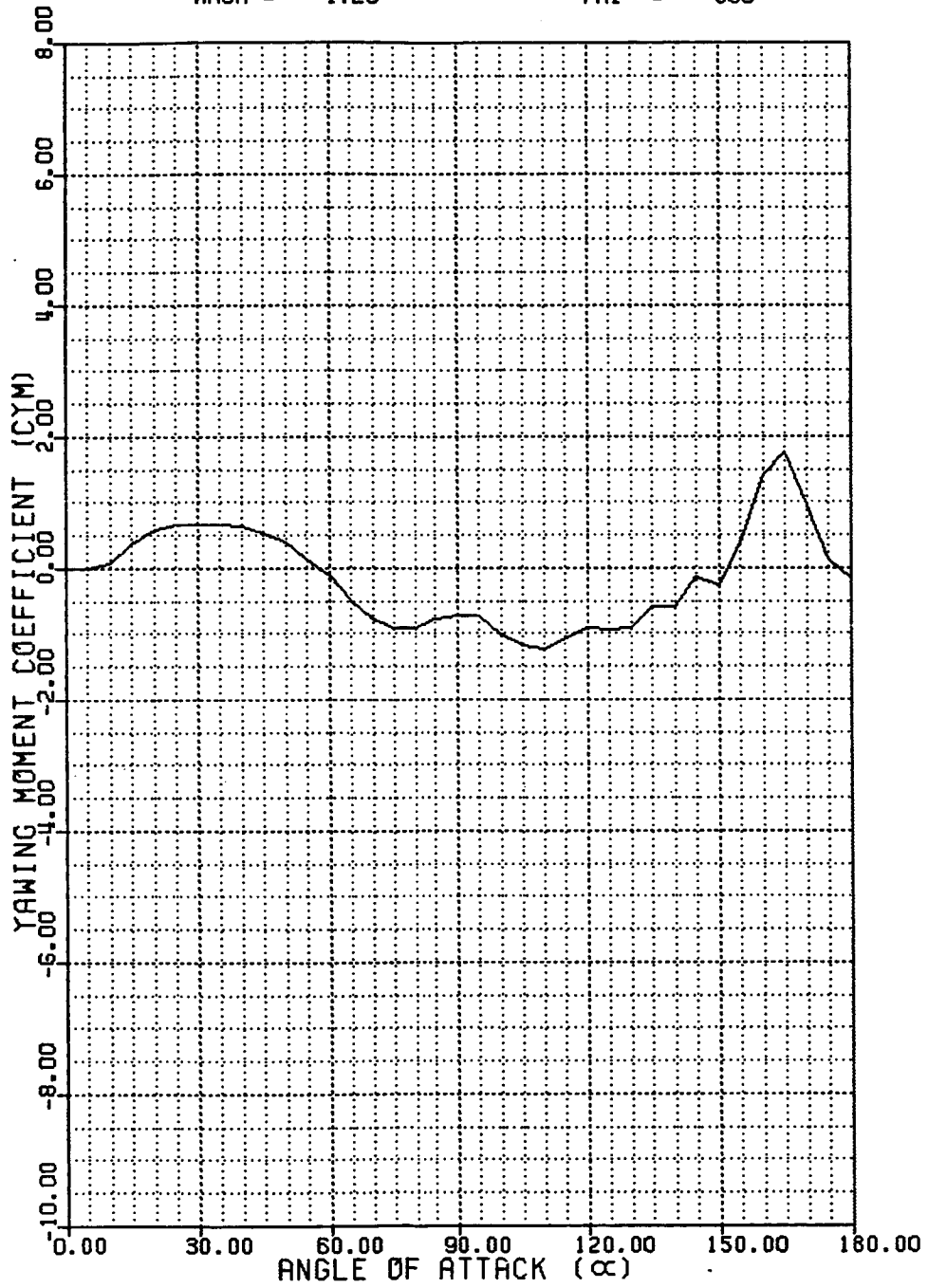


B-530

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360



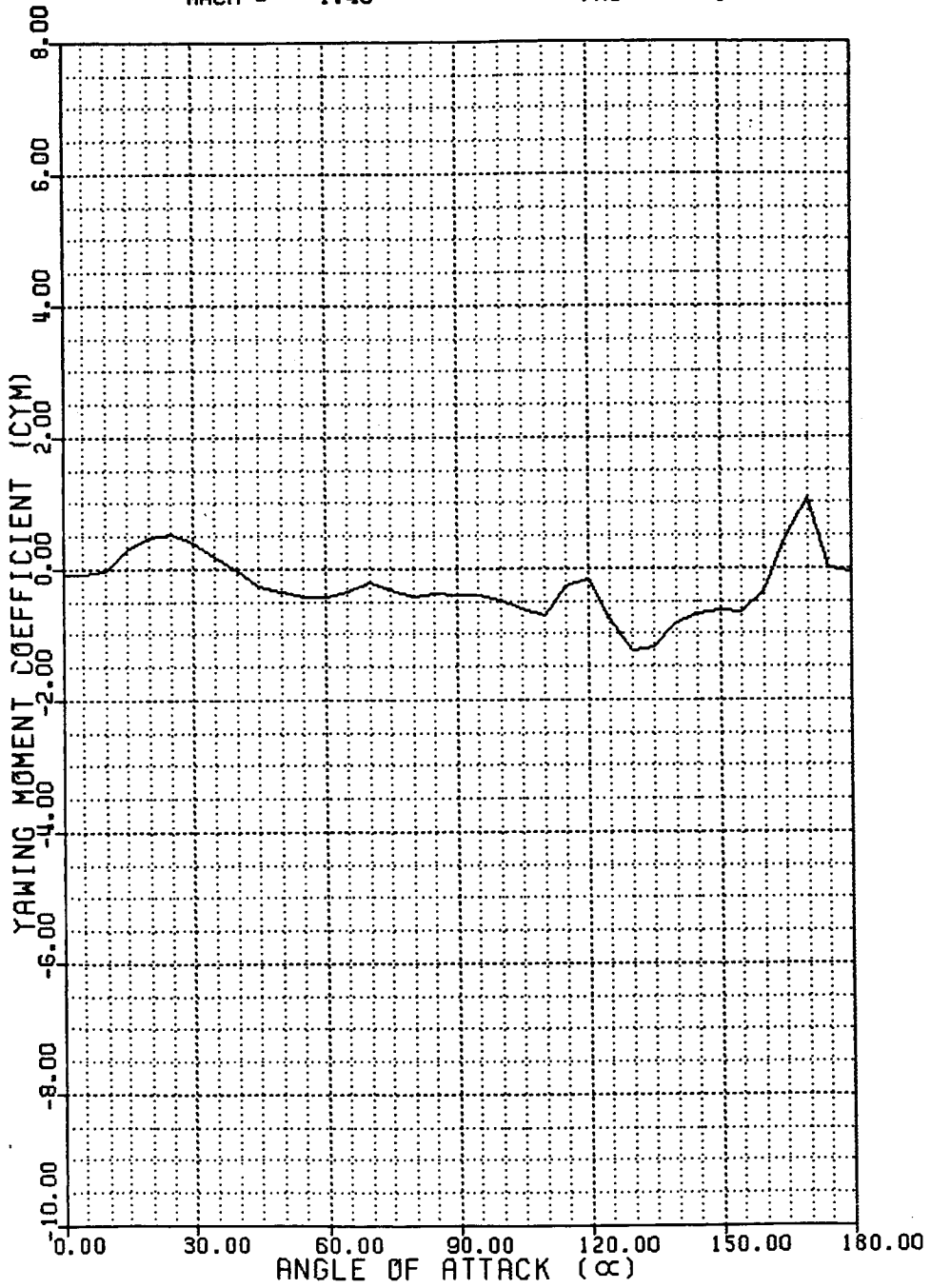
B-531

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0

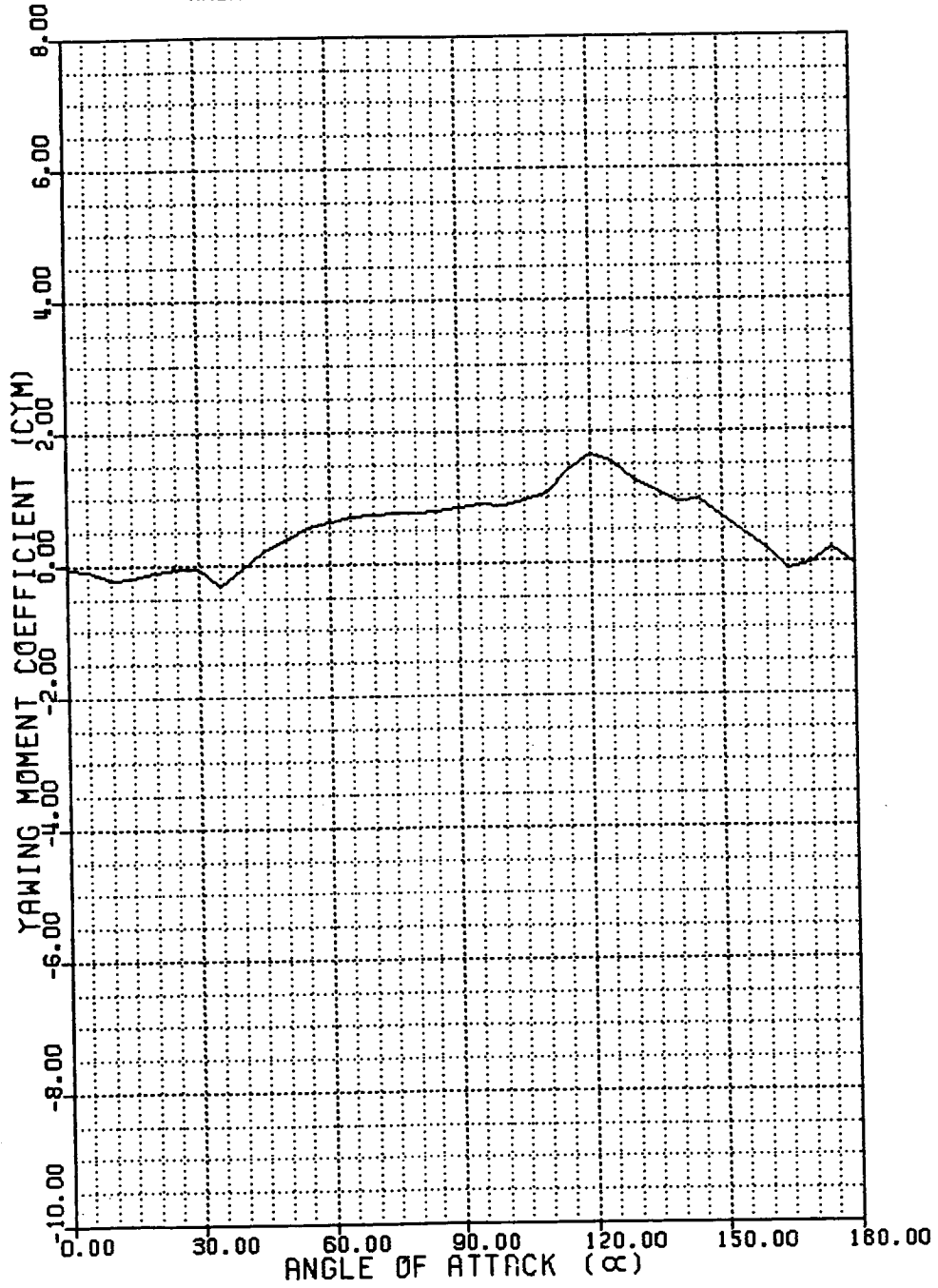


B-532

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45



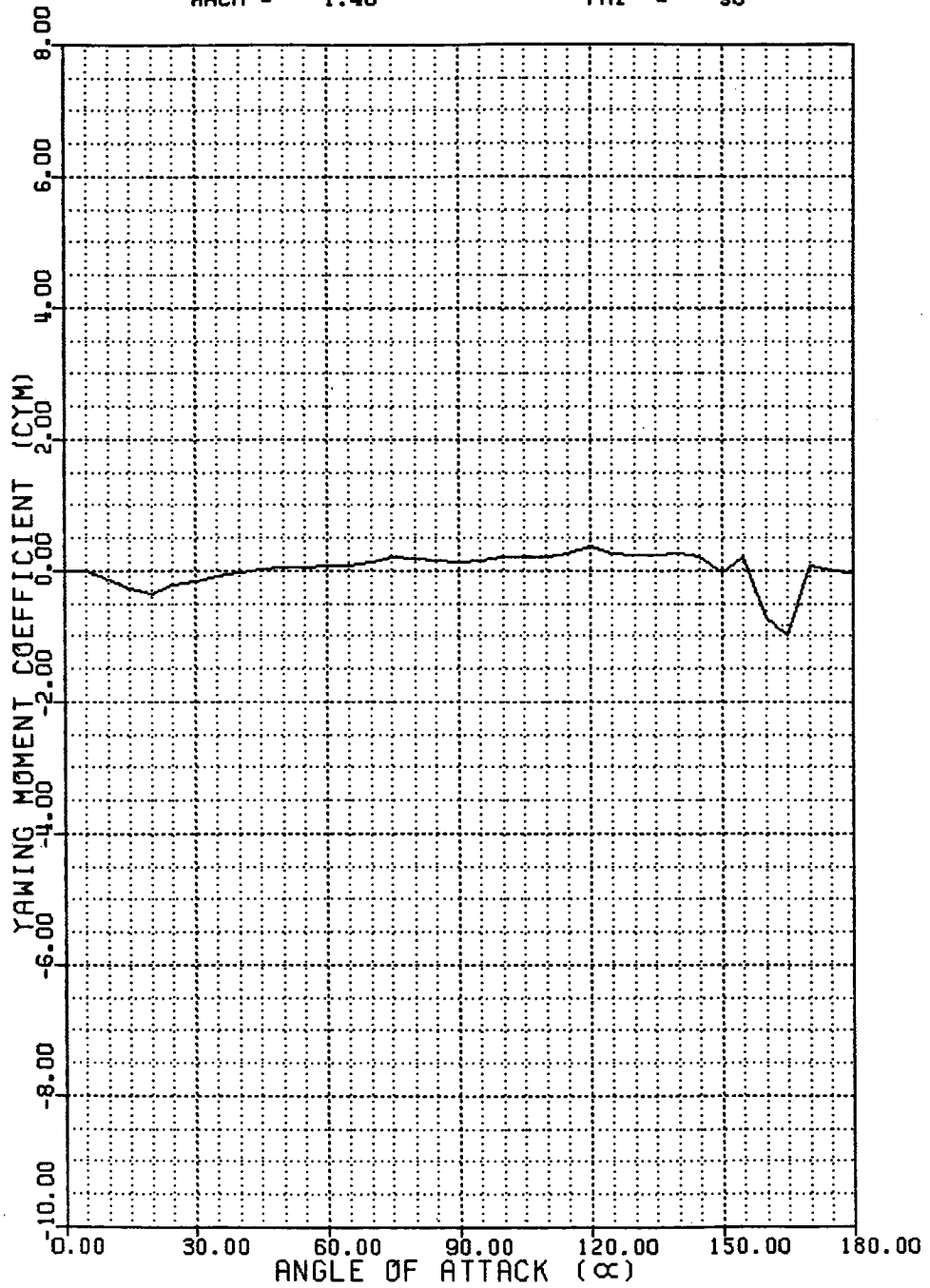
B-593

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90



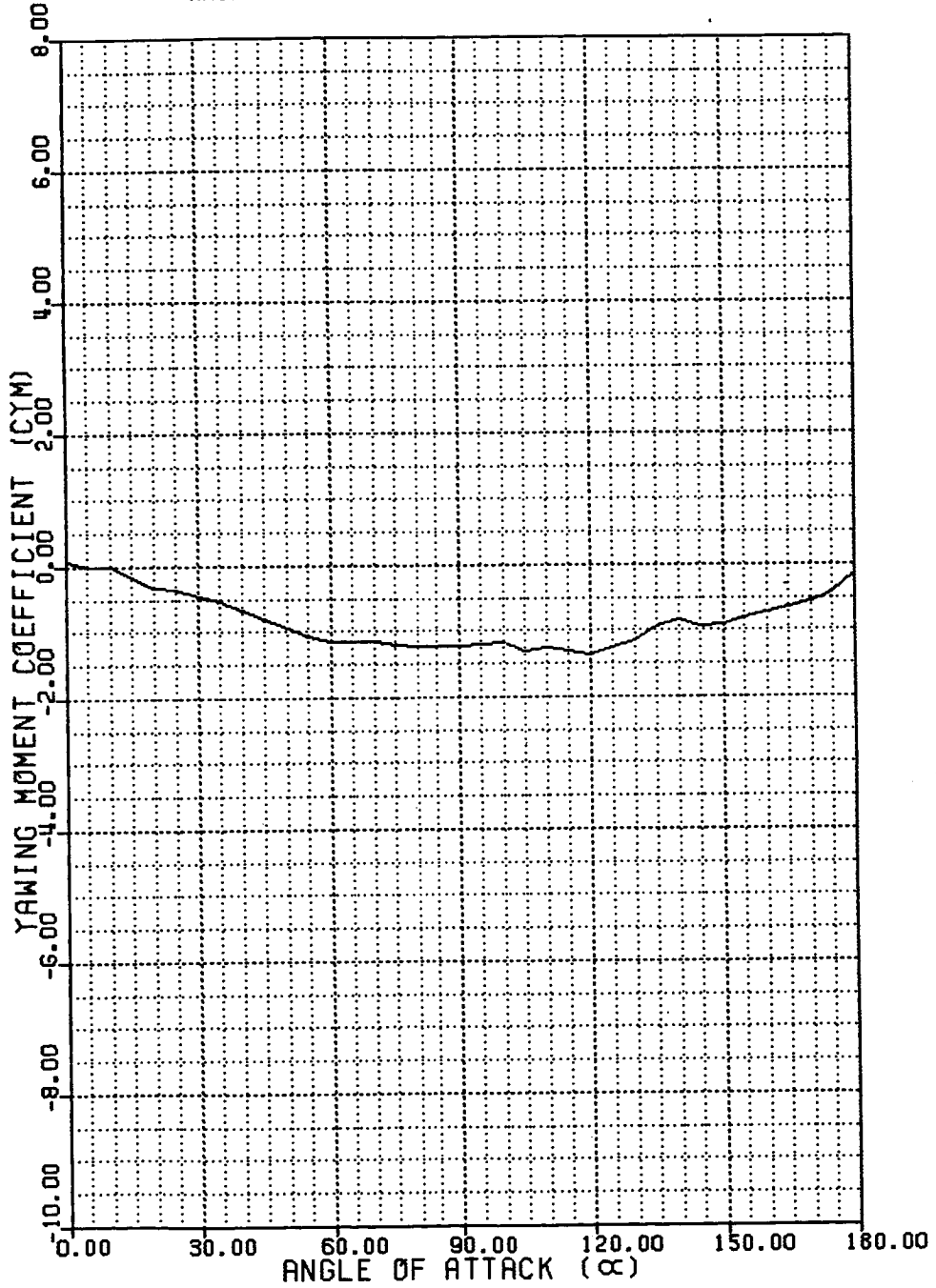
B-534

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135



B-535

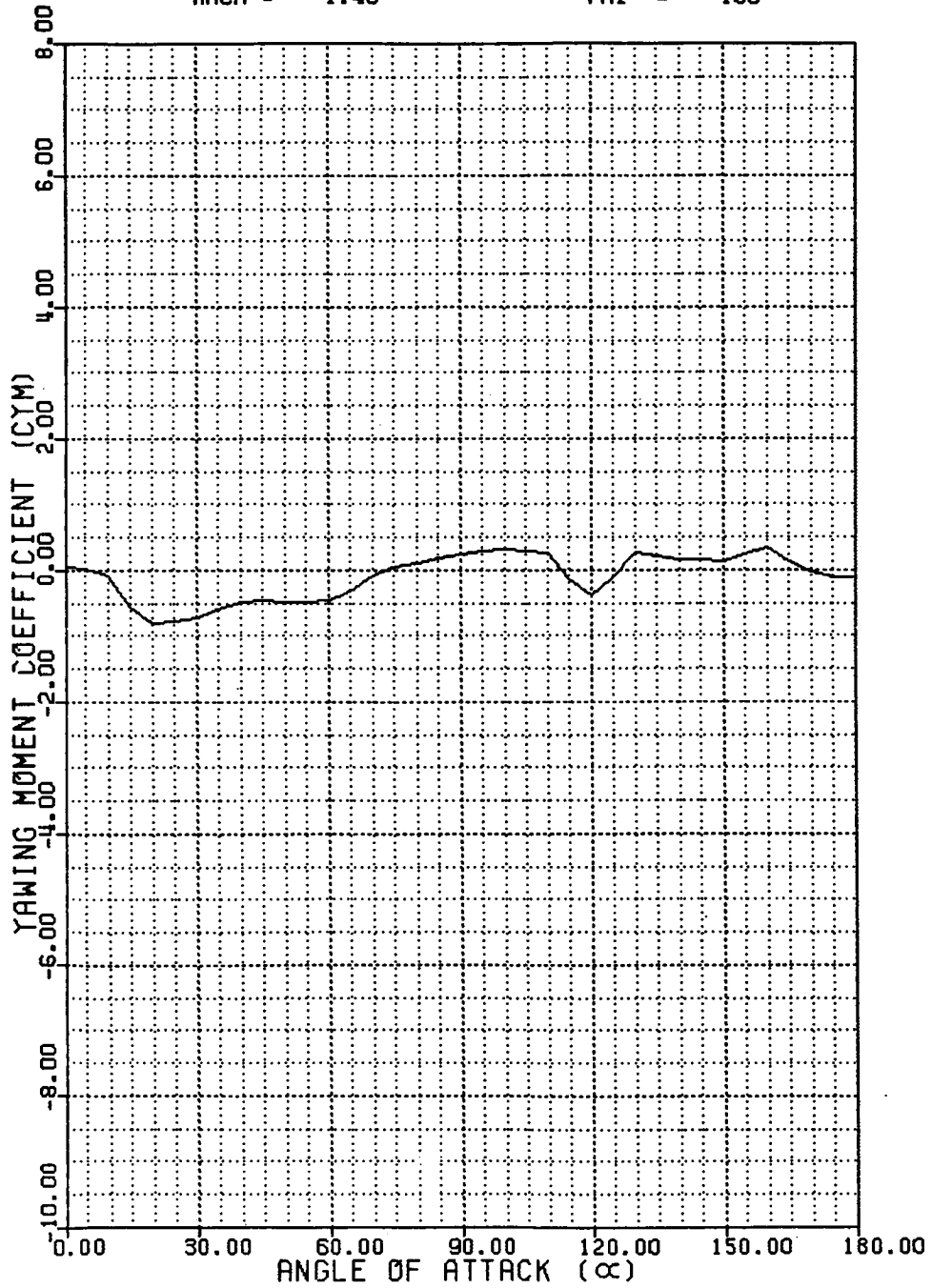
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 180

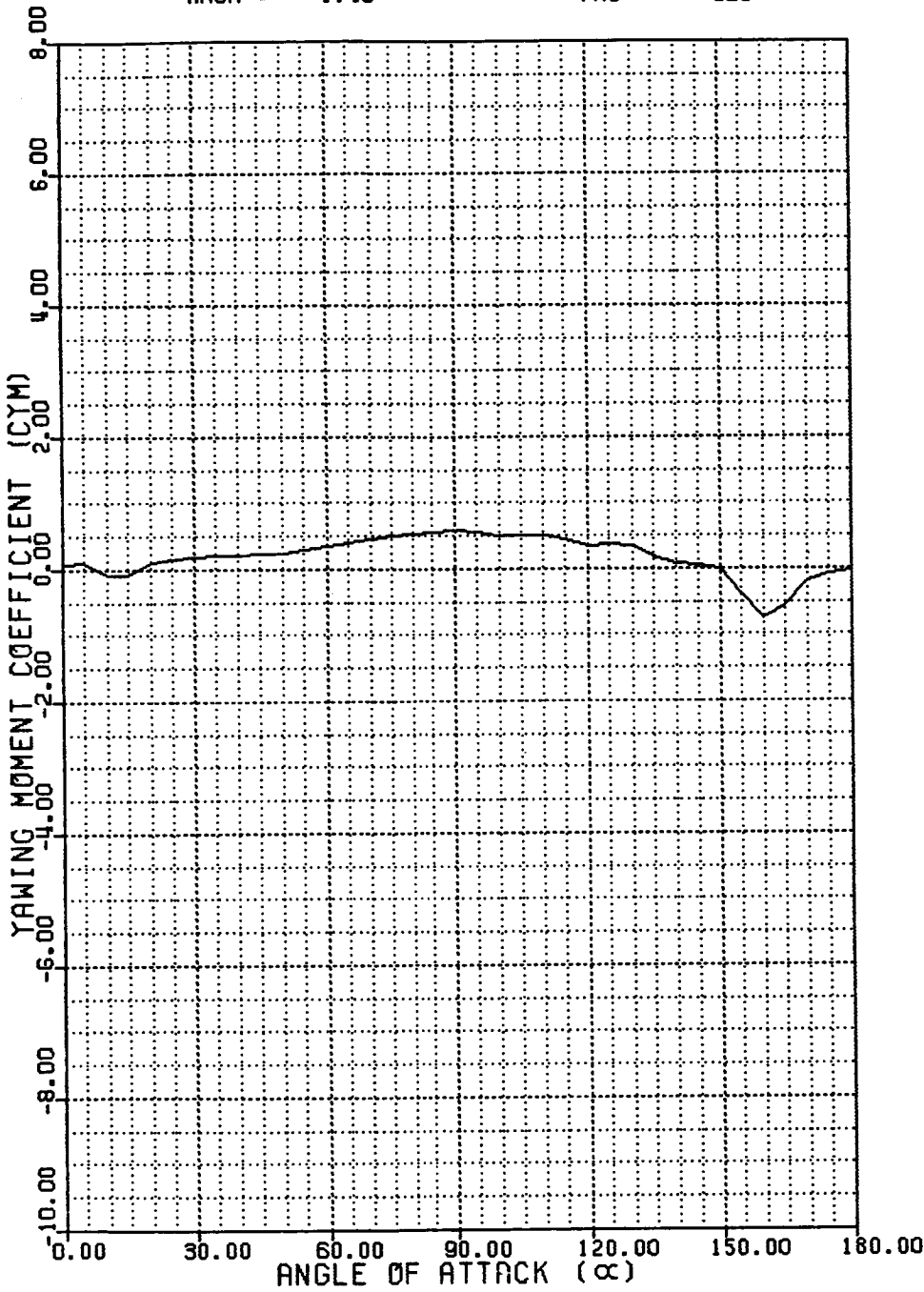


B-536

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225

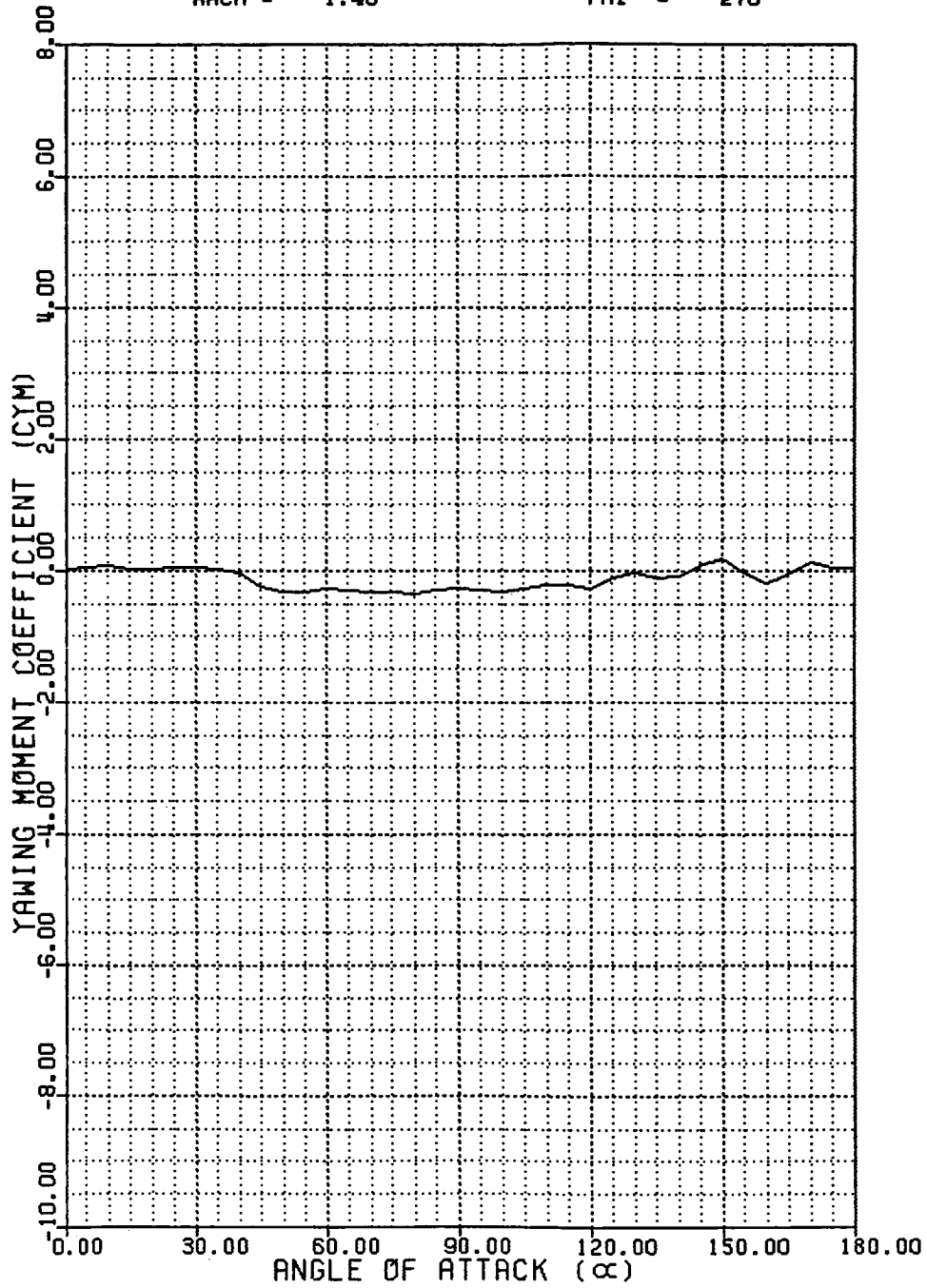


B-597

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270

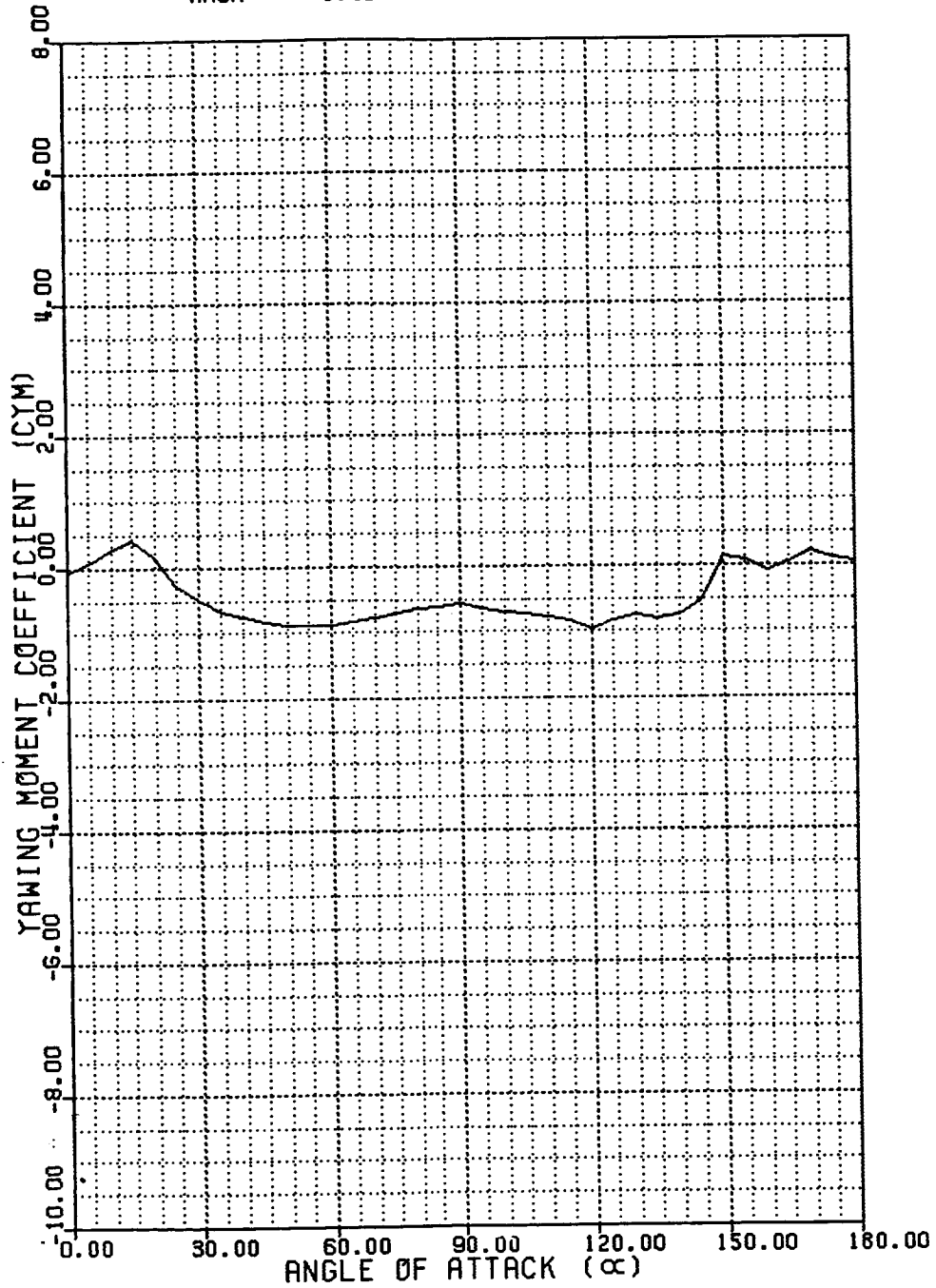


B-538

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 315

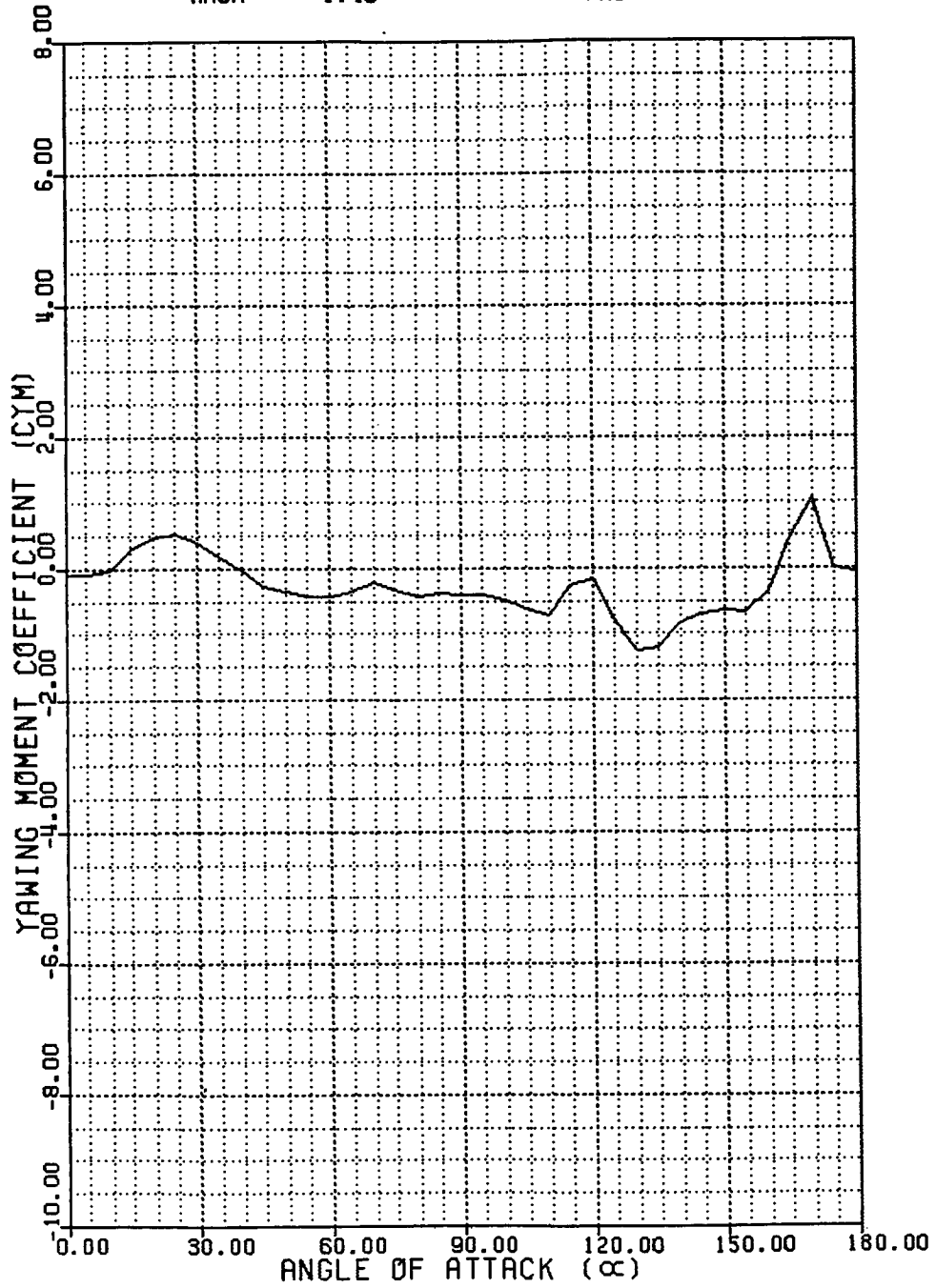


B-539

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360



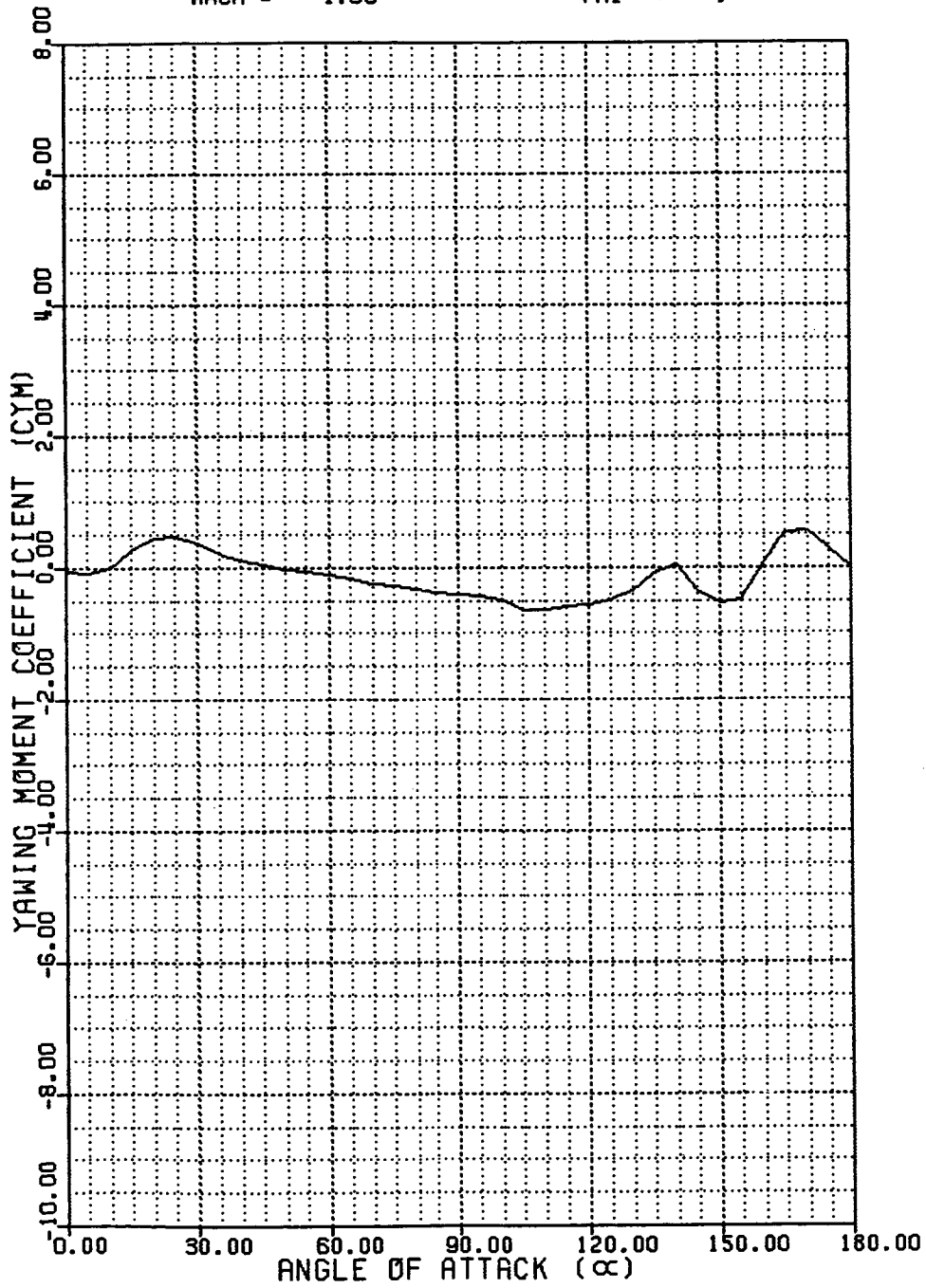
B-540

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 0



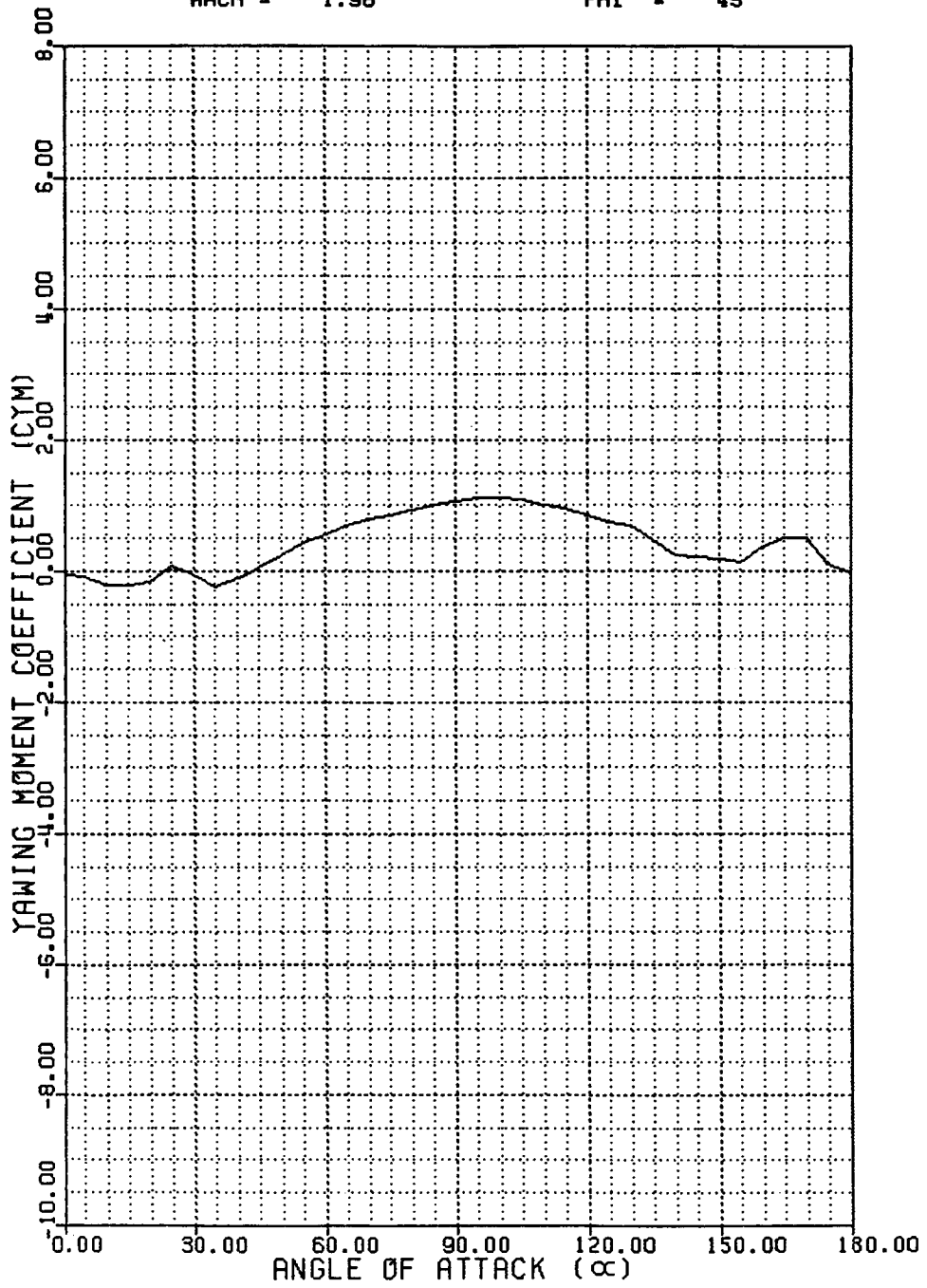
B-541

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45

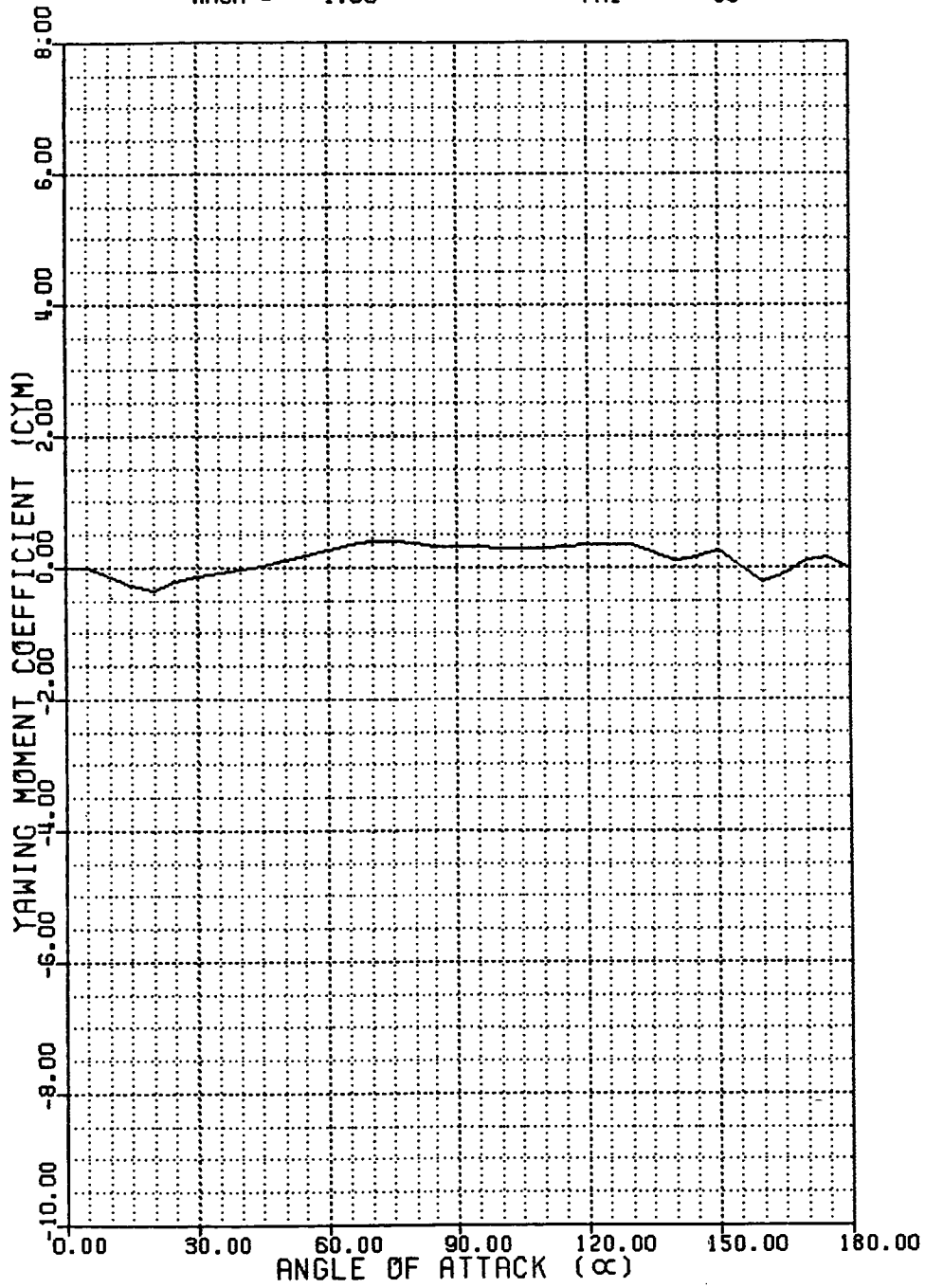


B-542

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90



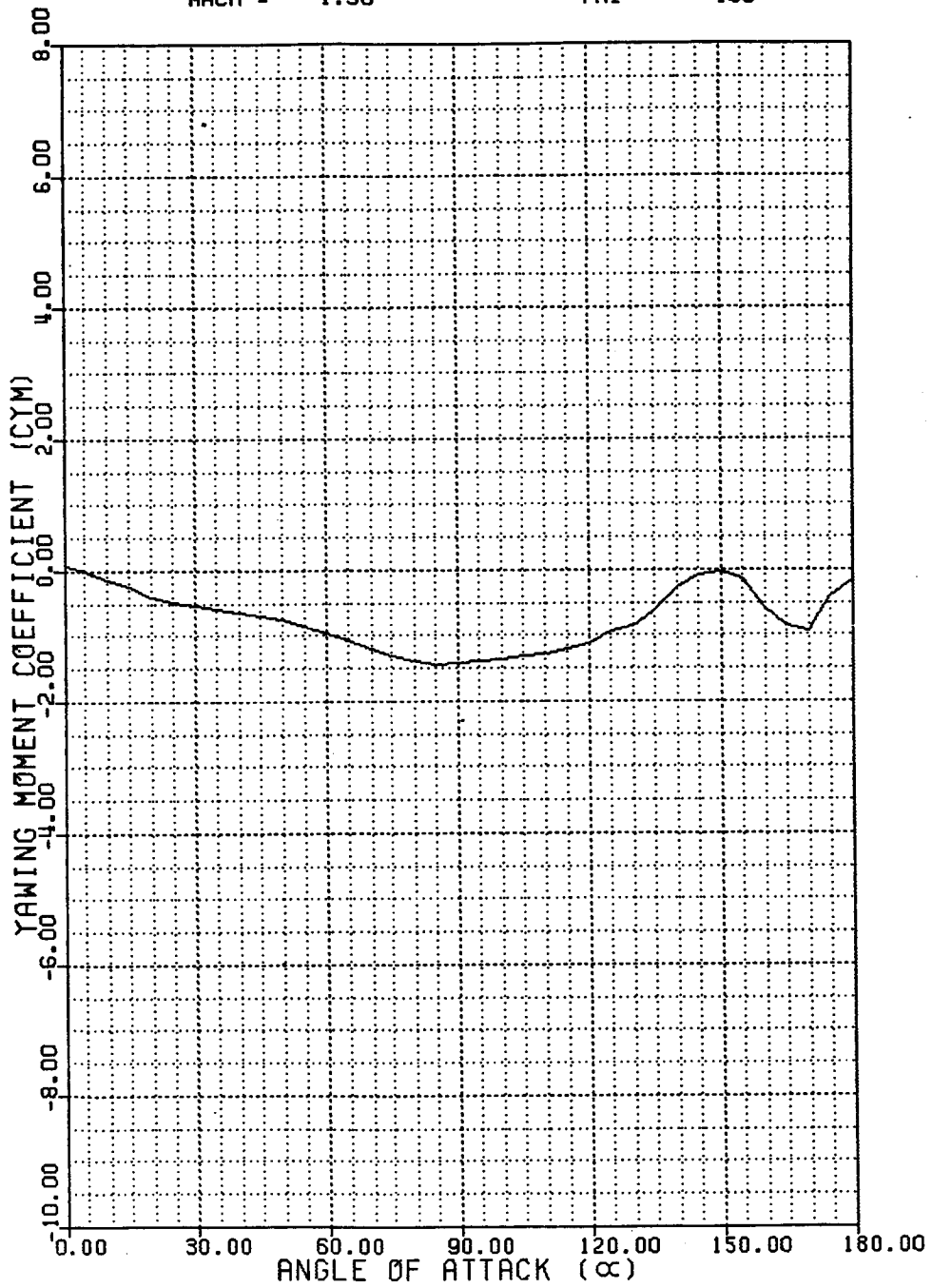
B-543



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135



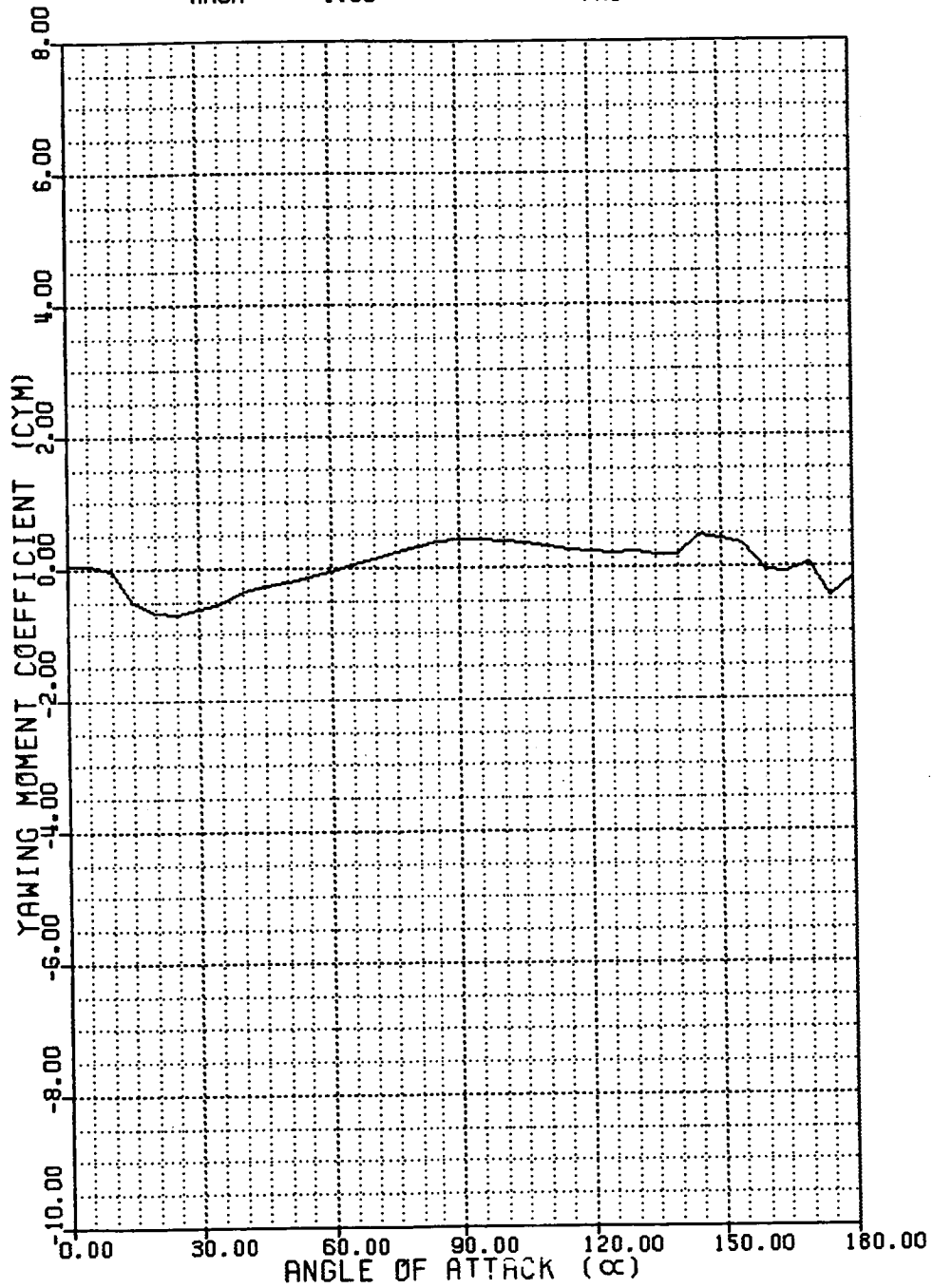
B-544

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180



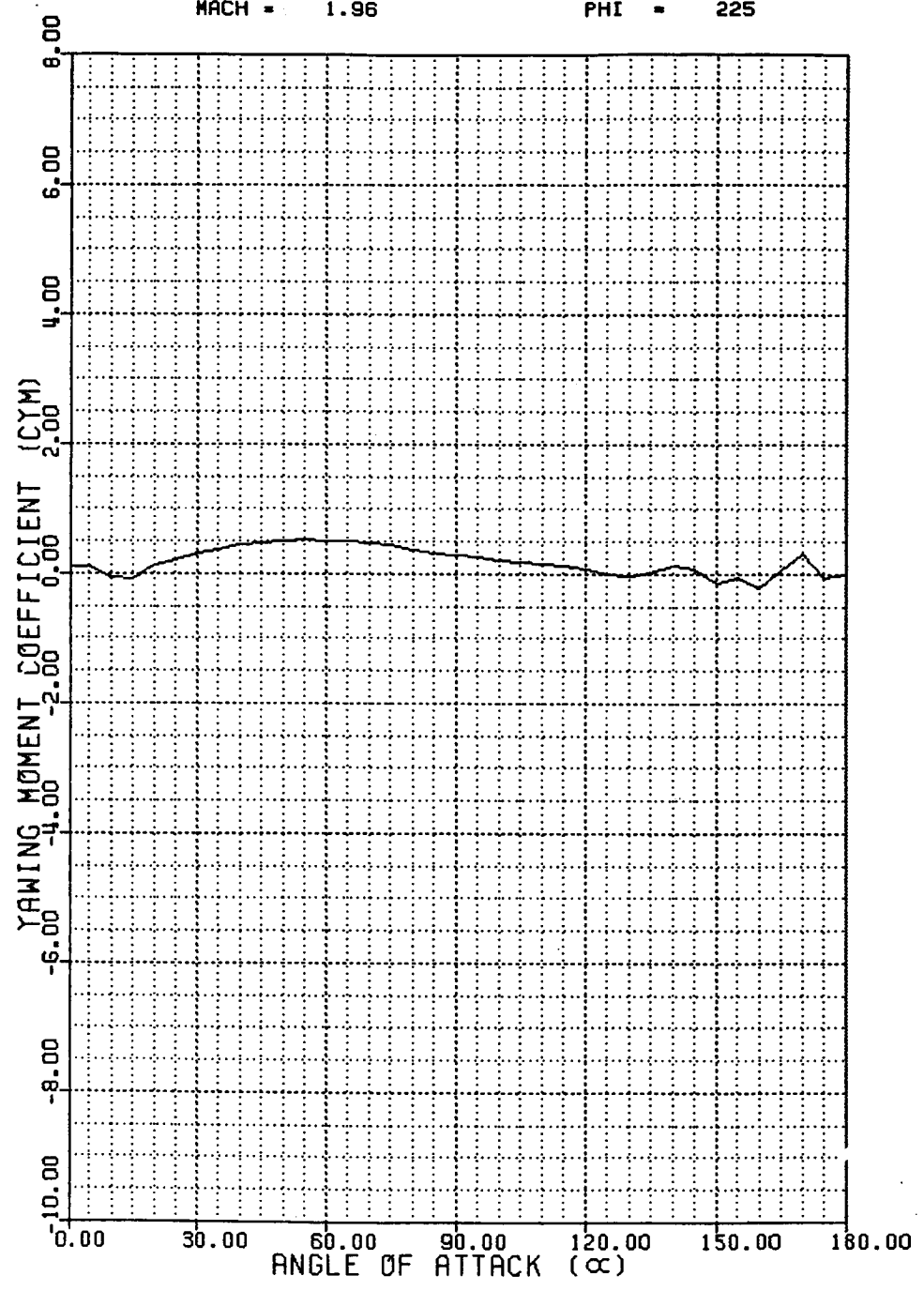
B-545

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225

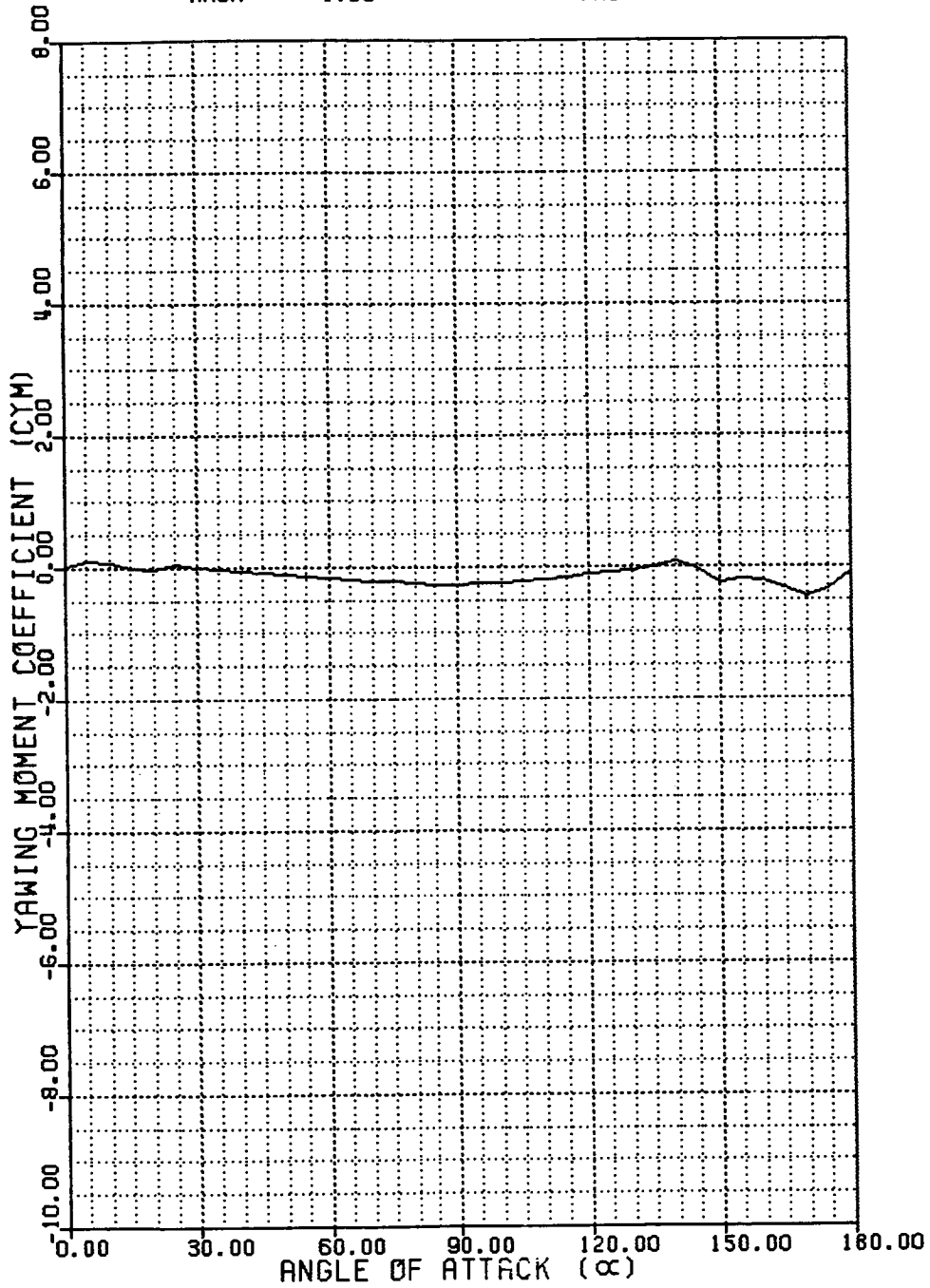


B-546

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270

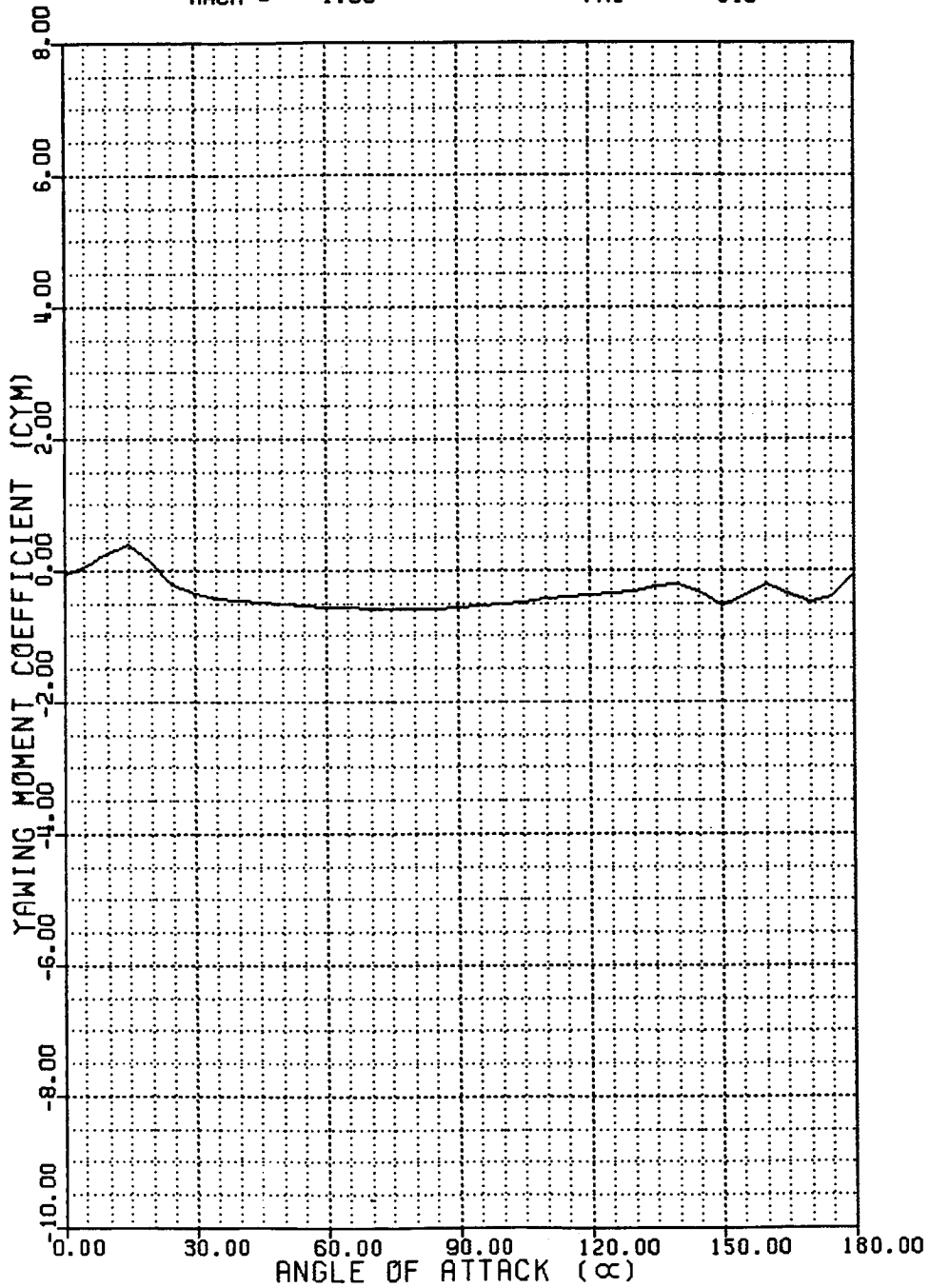


B-547

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315

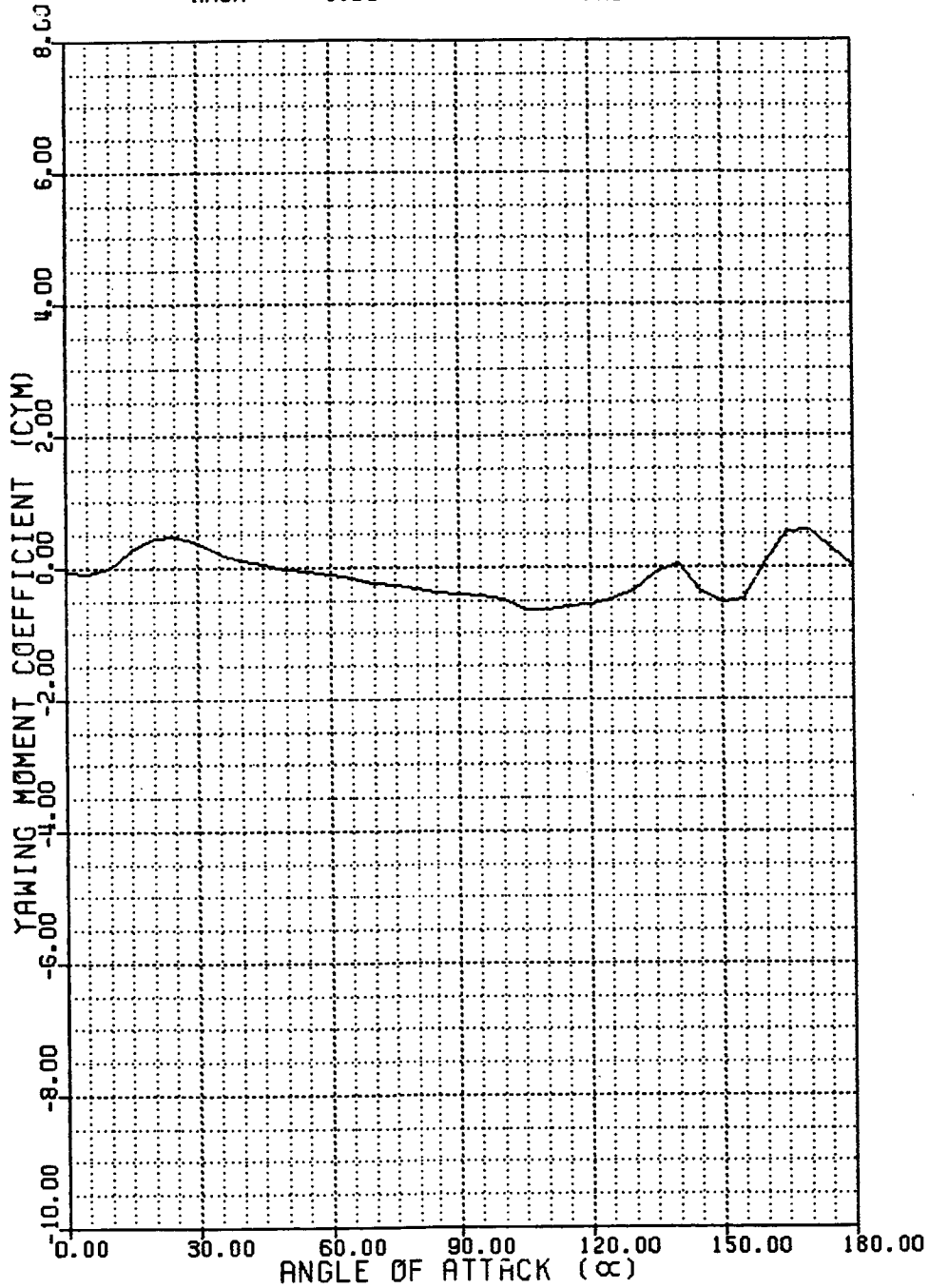


B-548

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 360

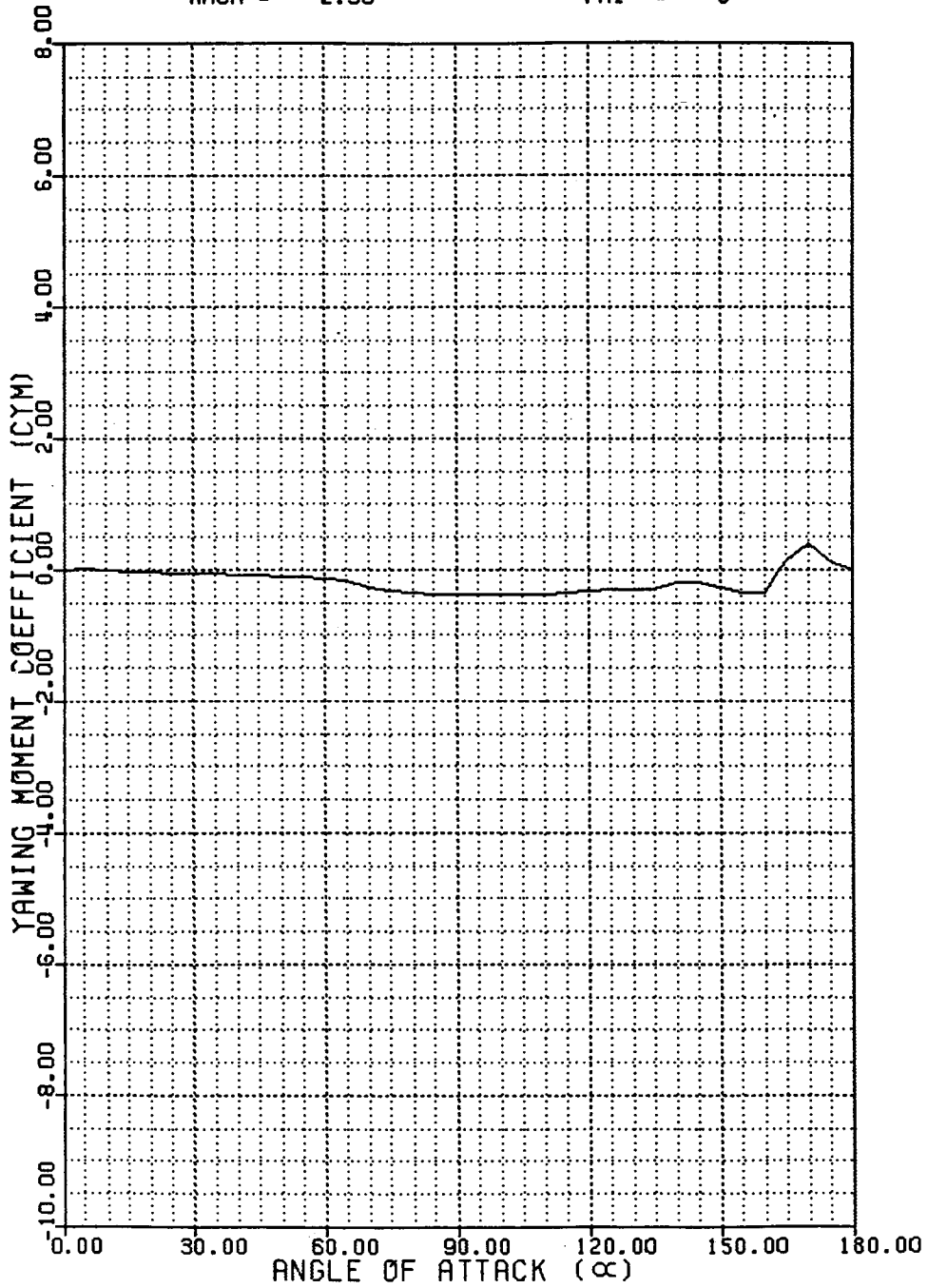


B-549

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



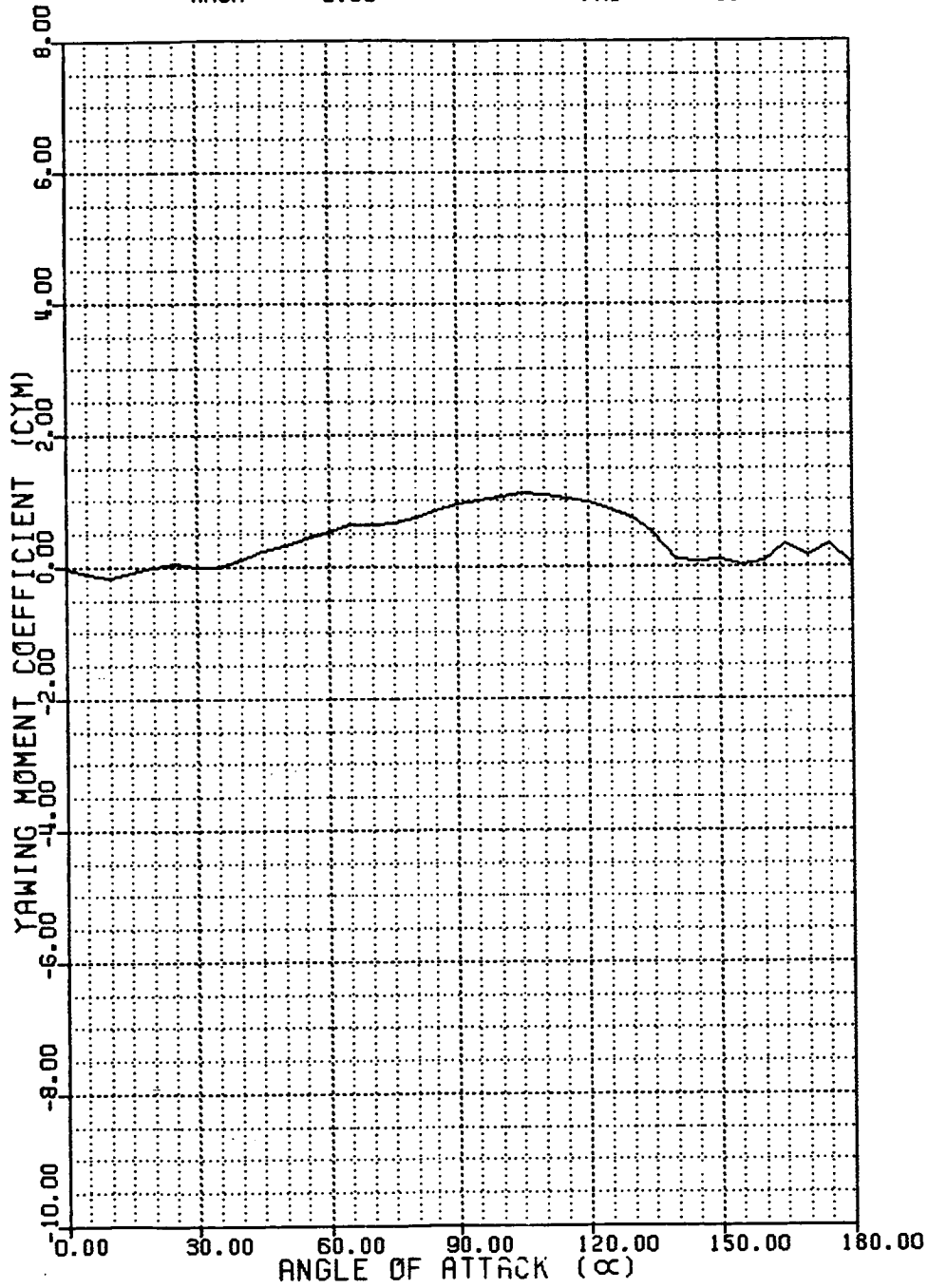
B-550

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 45



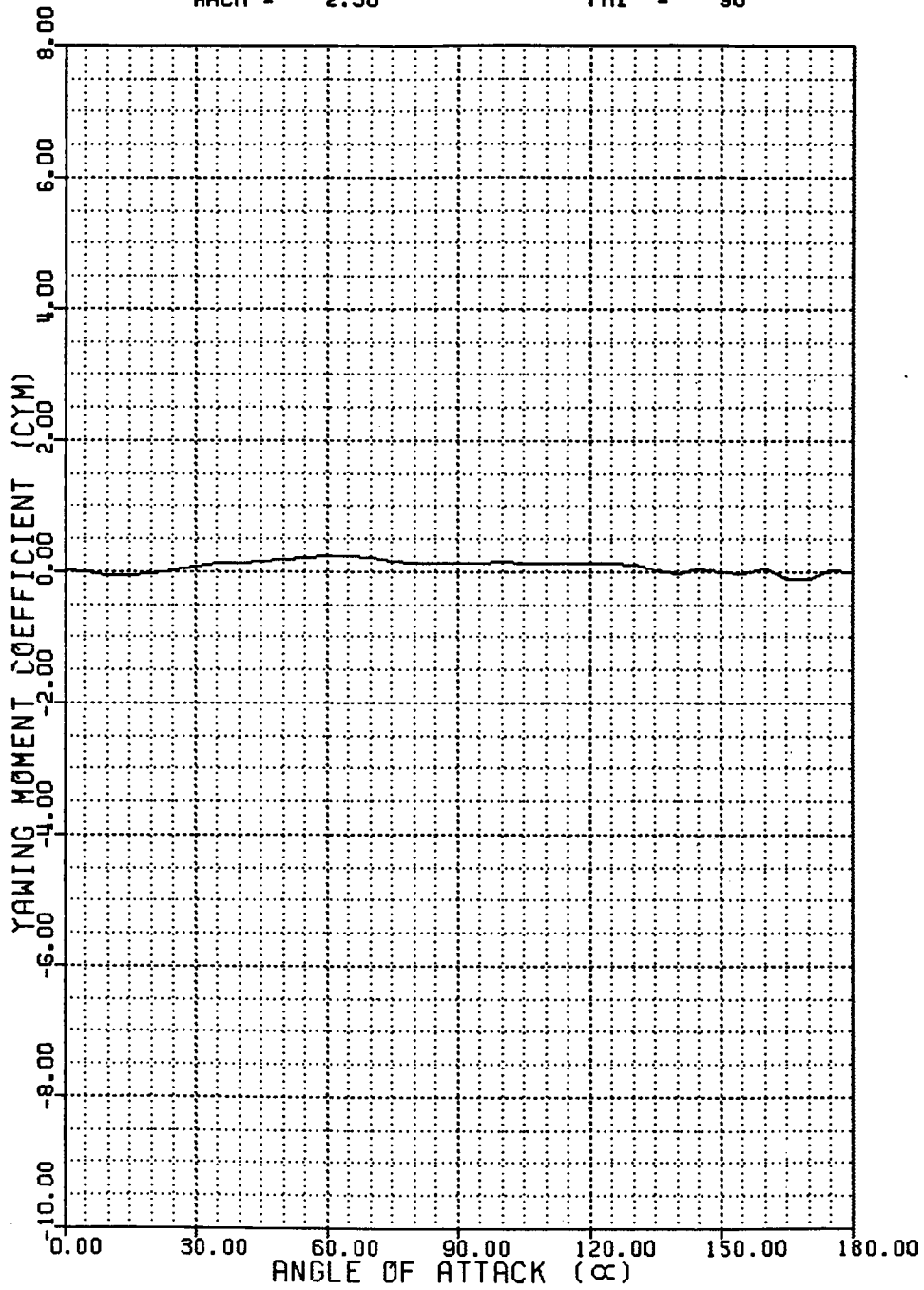
B-551



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90



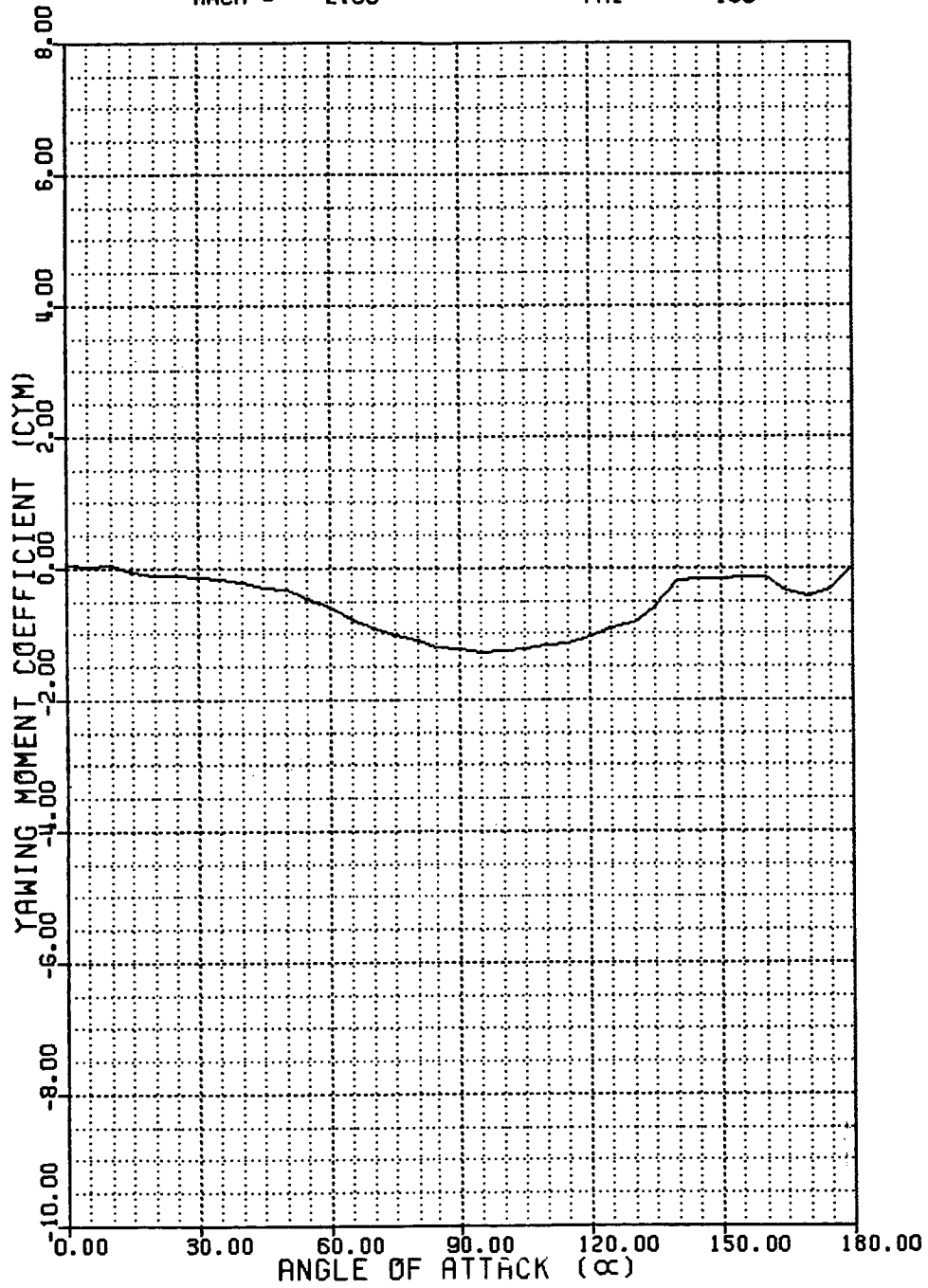
B-552

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135

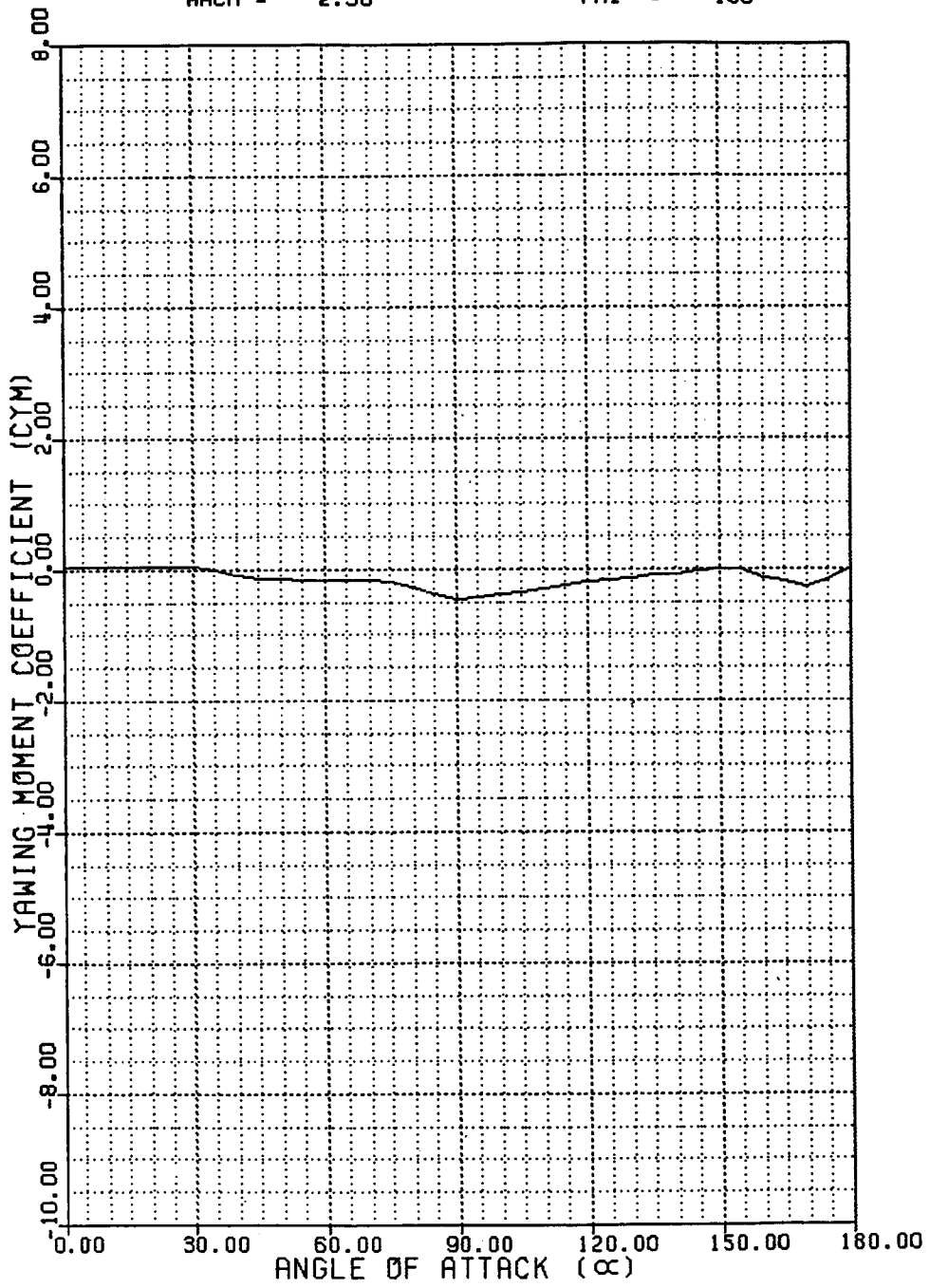


B-553

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



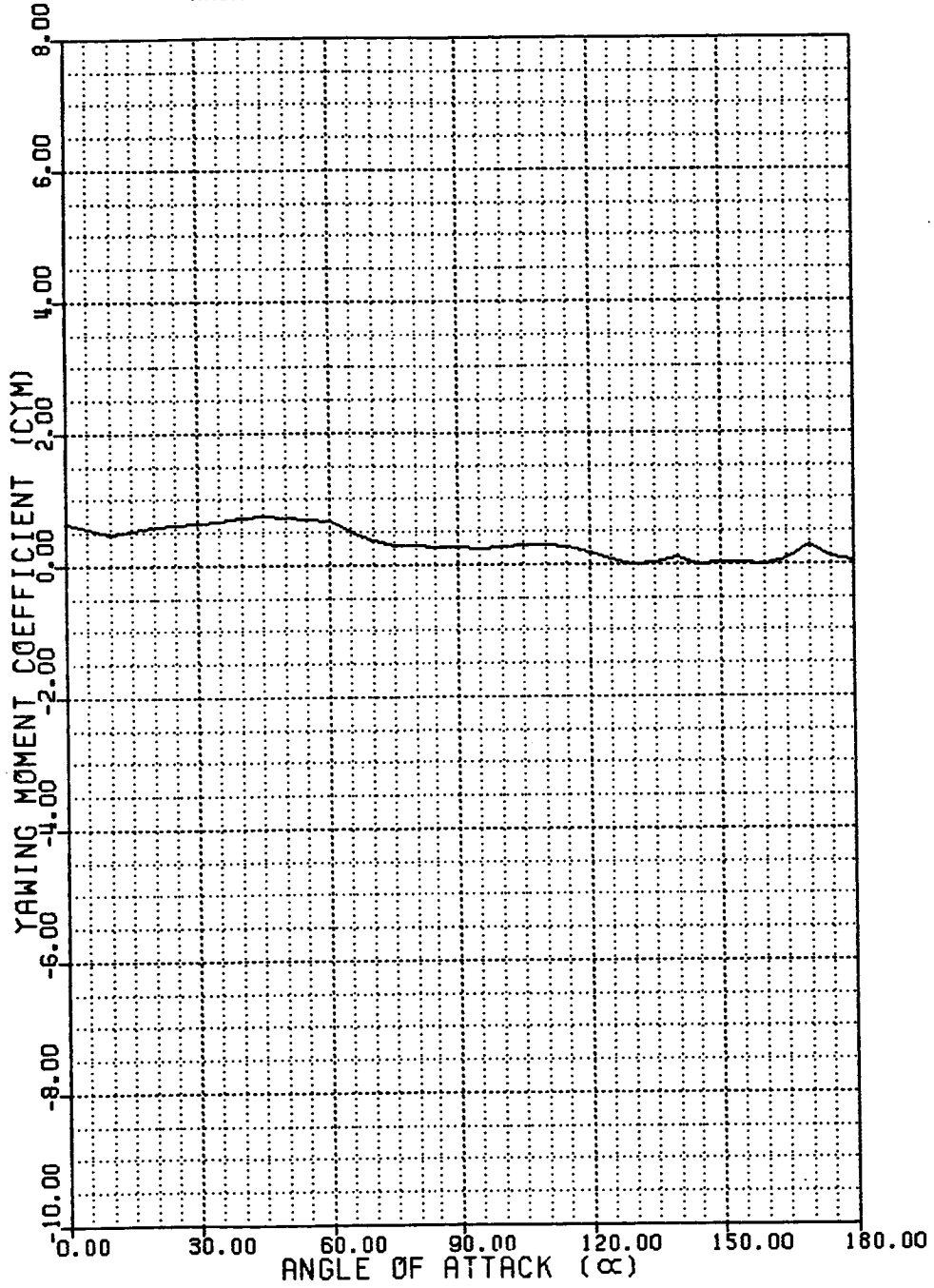
B-554

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225

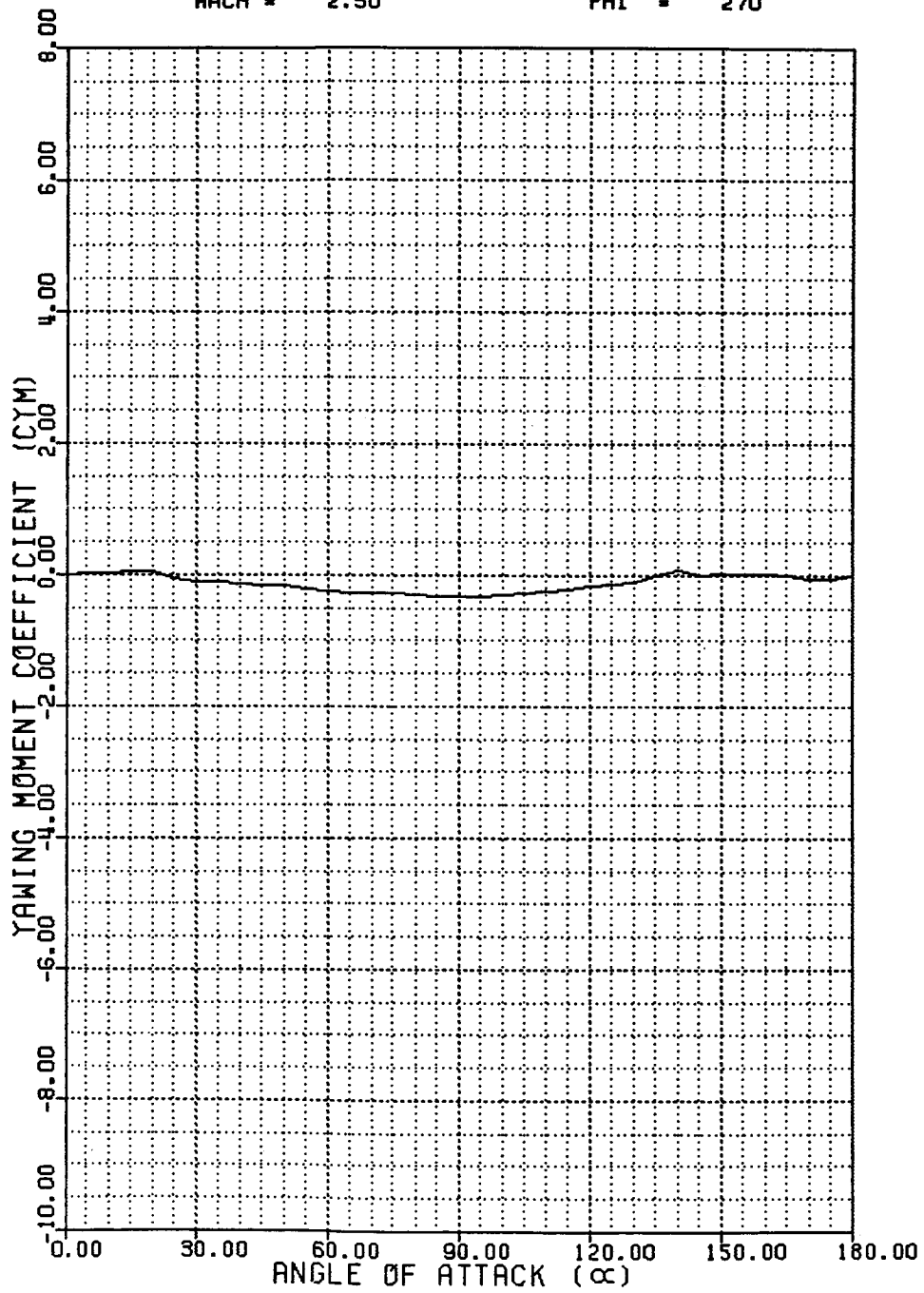


B-555

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270



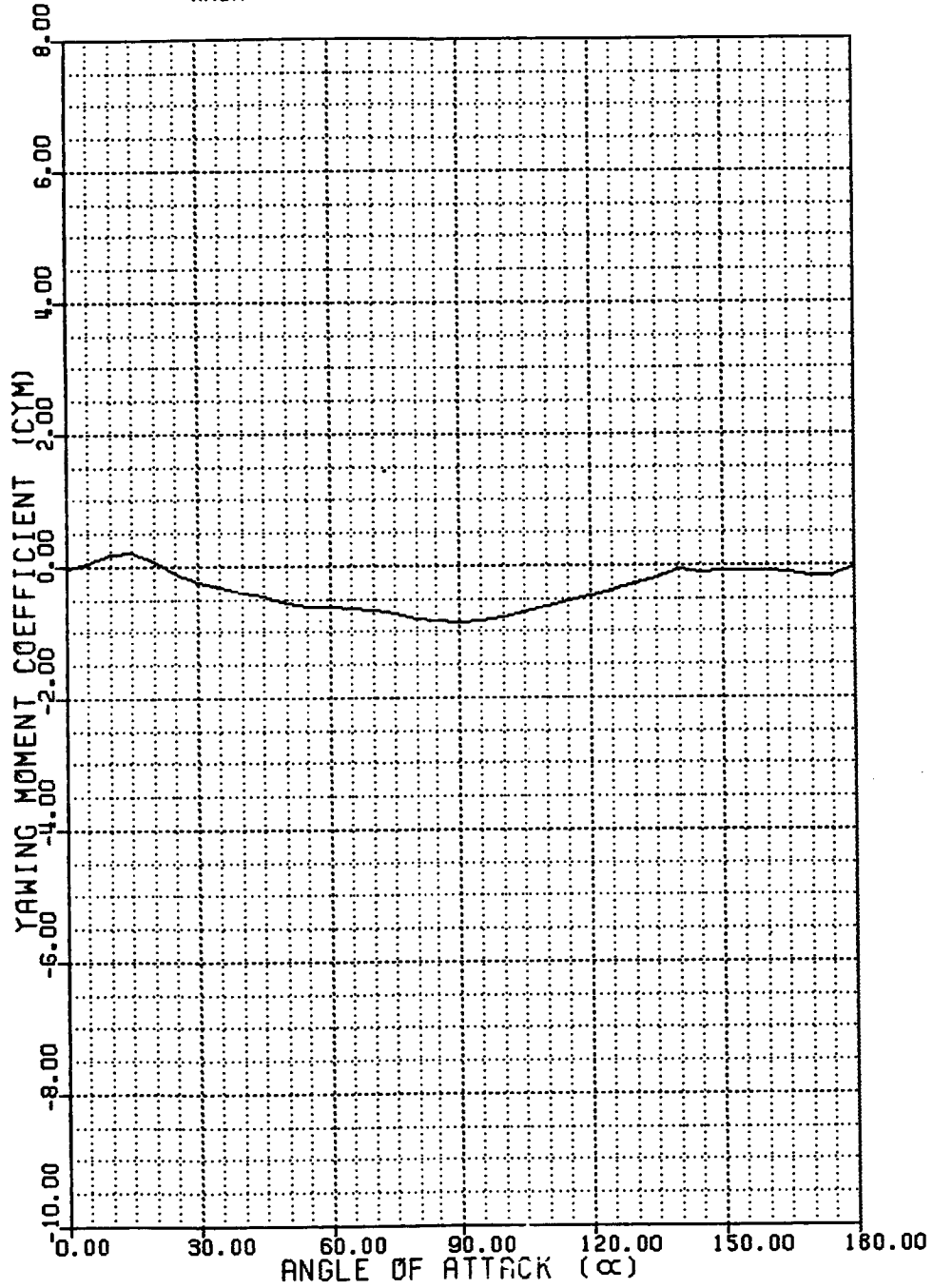
B-556

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315

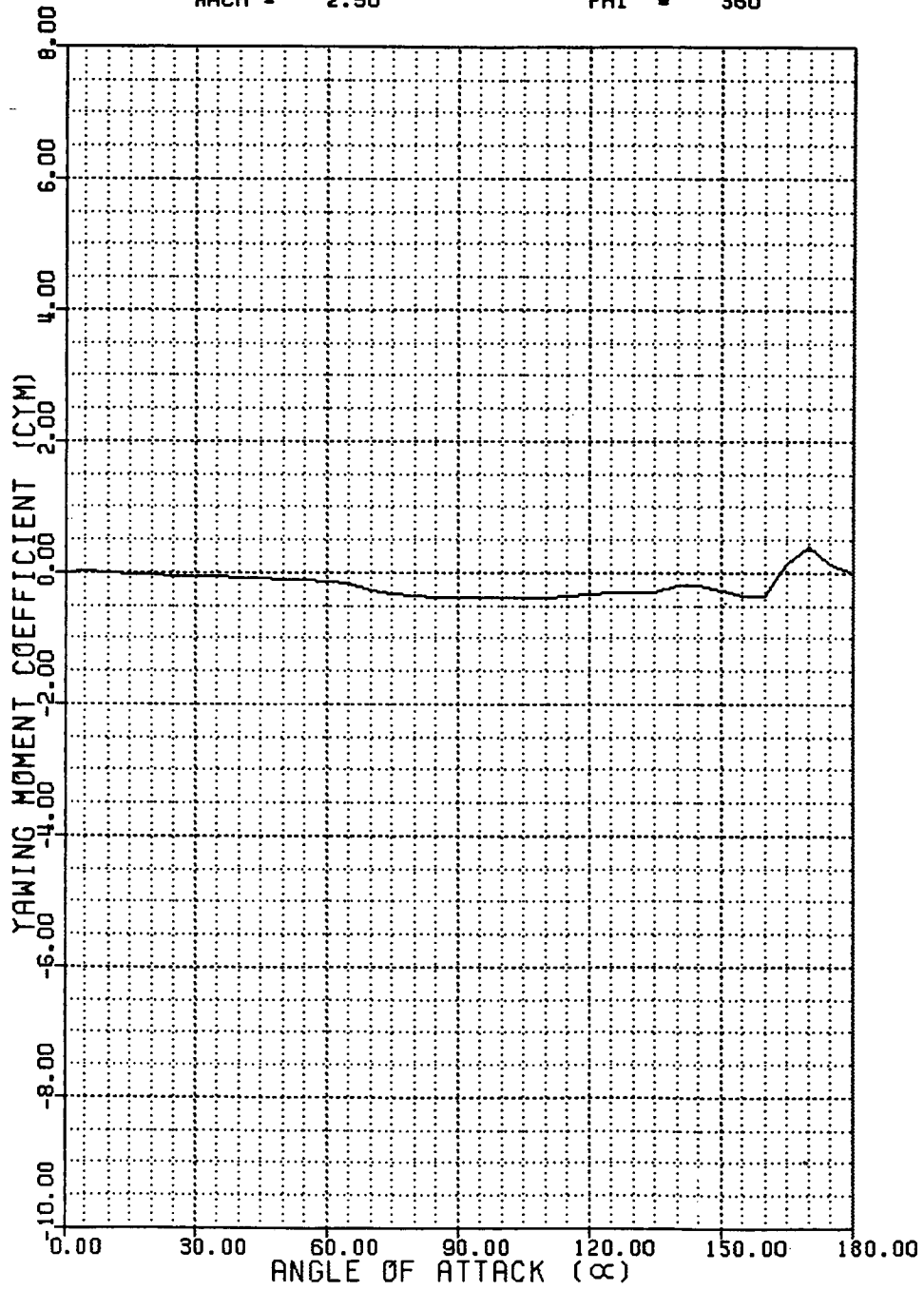


B-557

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360



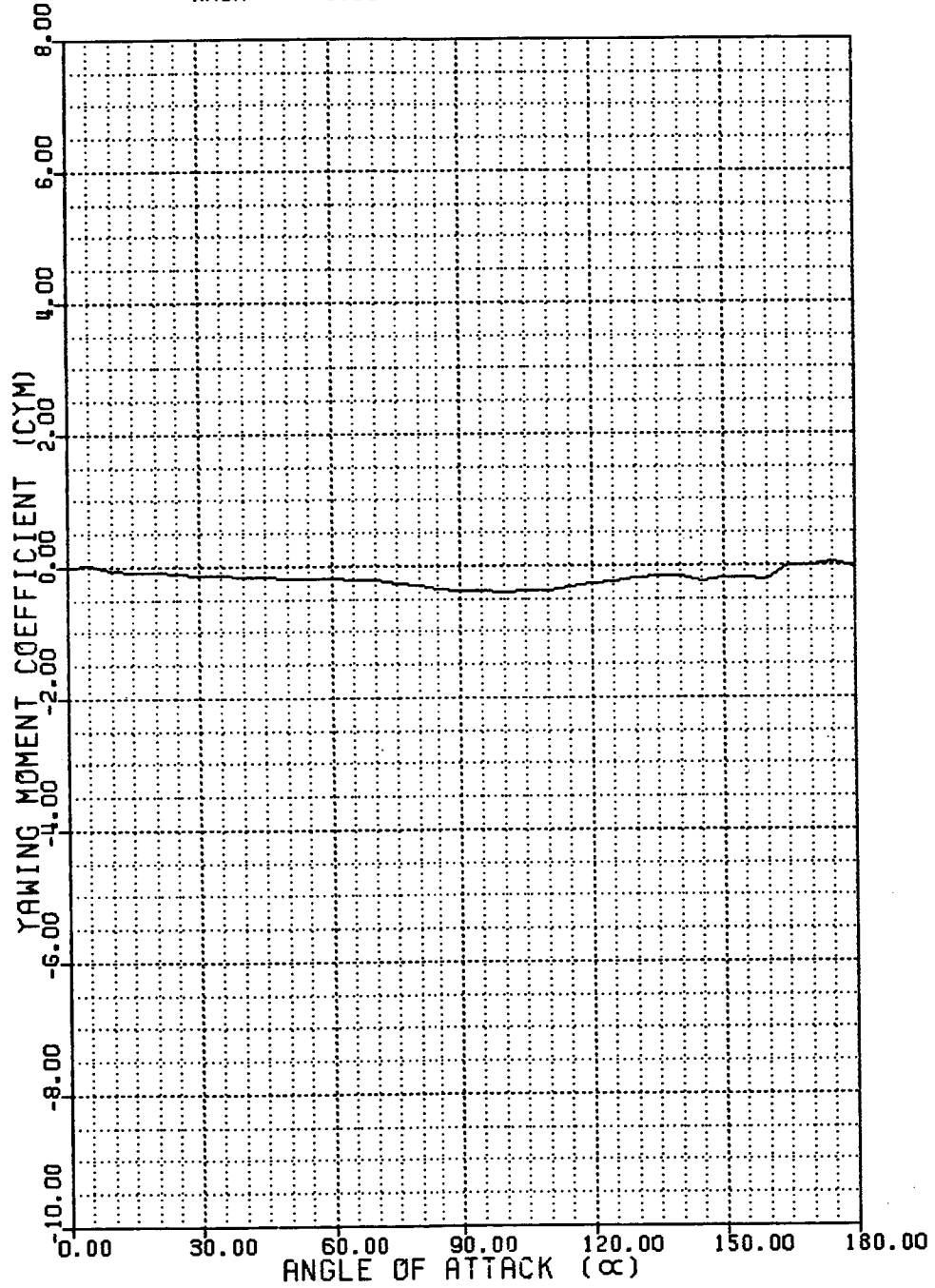
B-558

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0



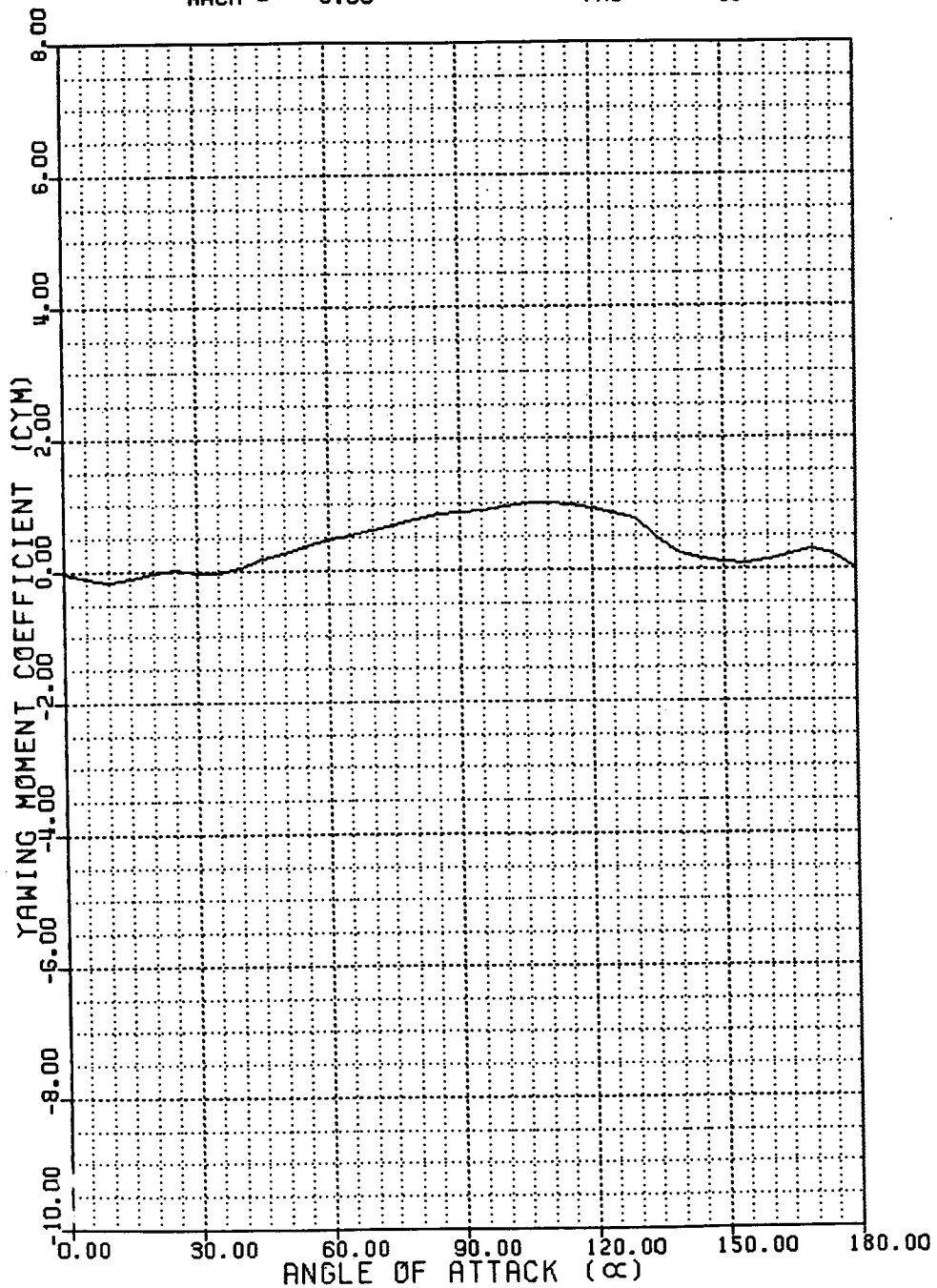
B-559



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45



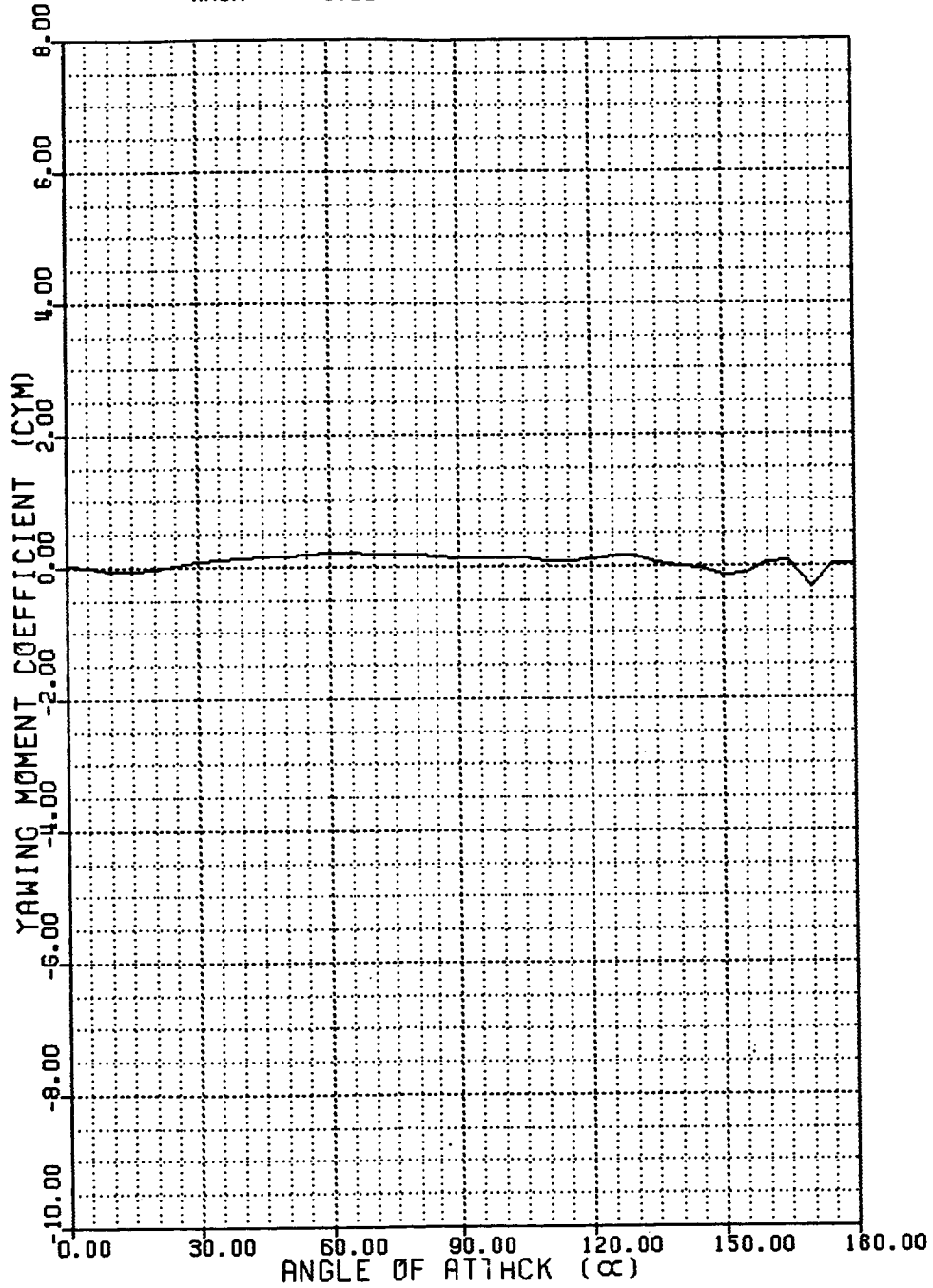
B-560

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90

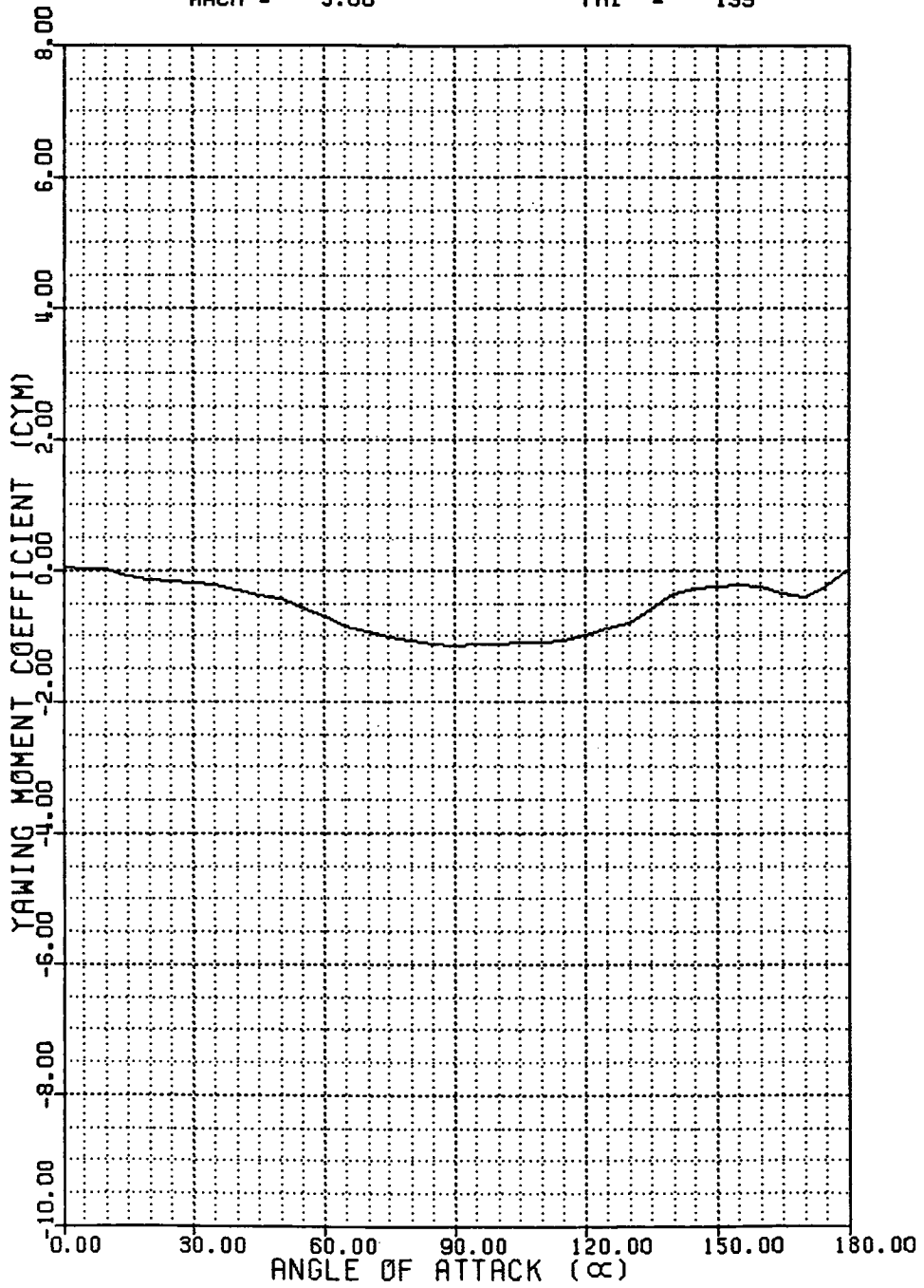


B-561

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



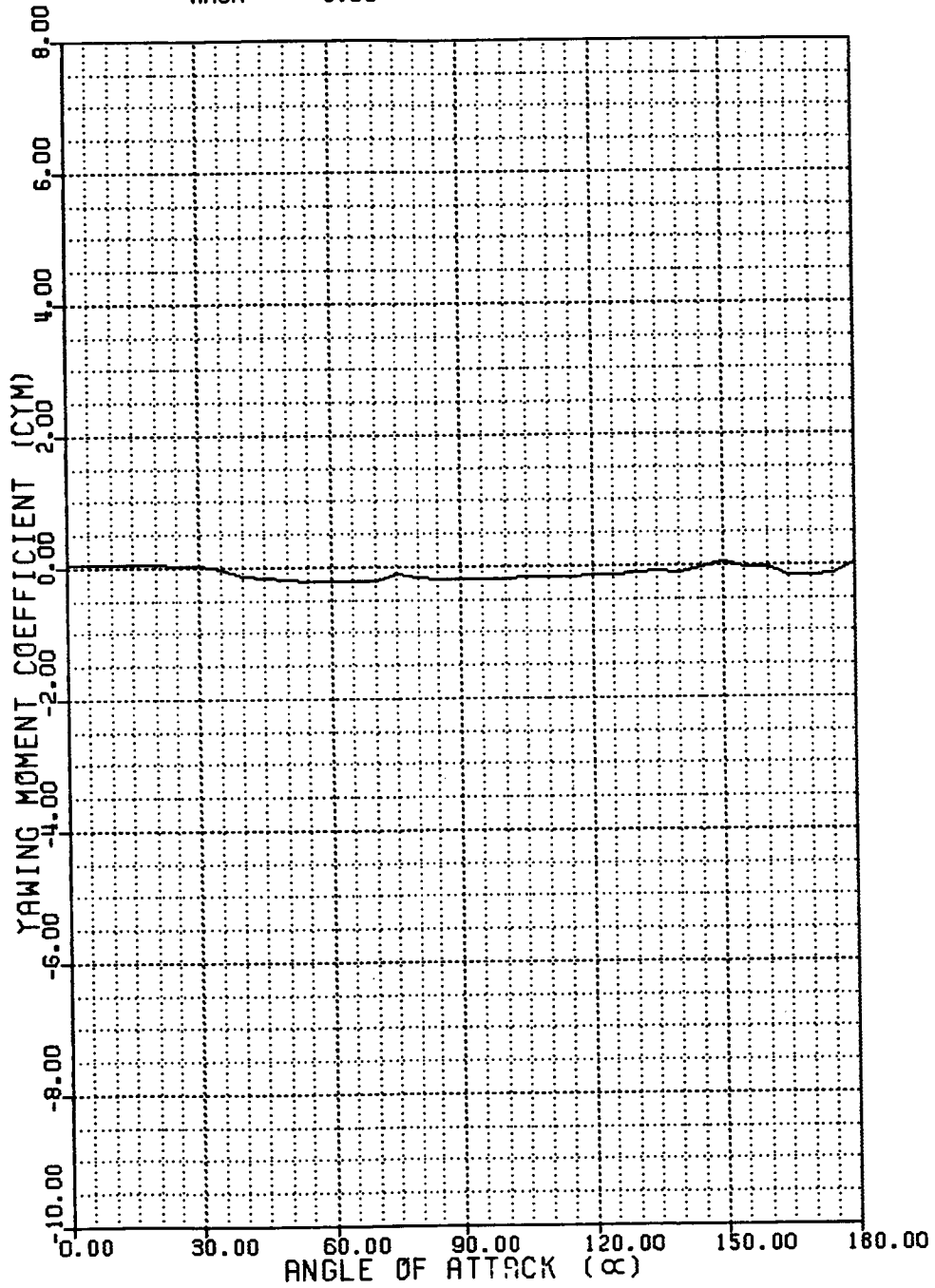
B-562

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 180

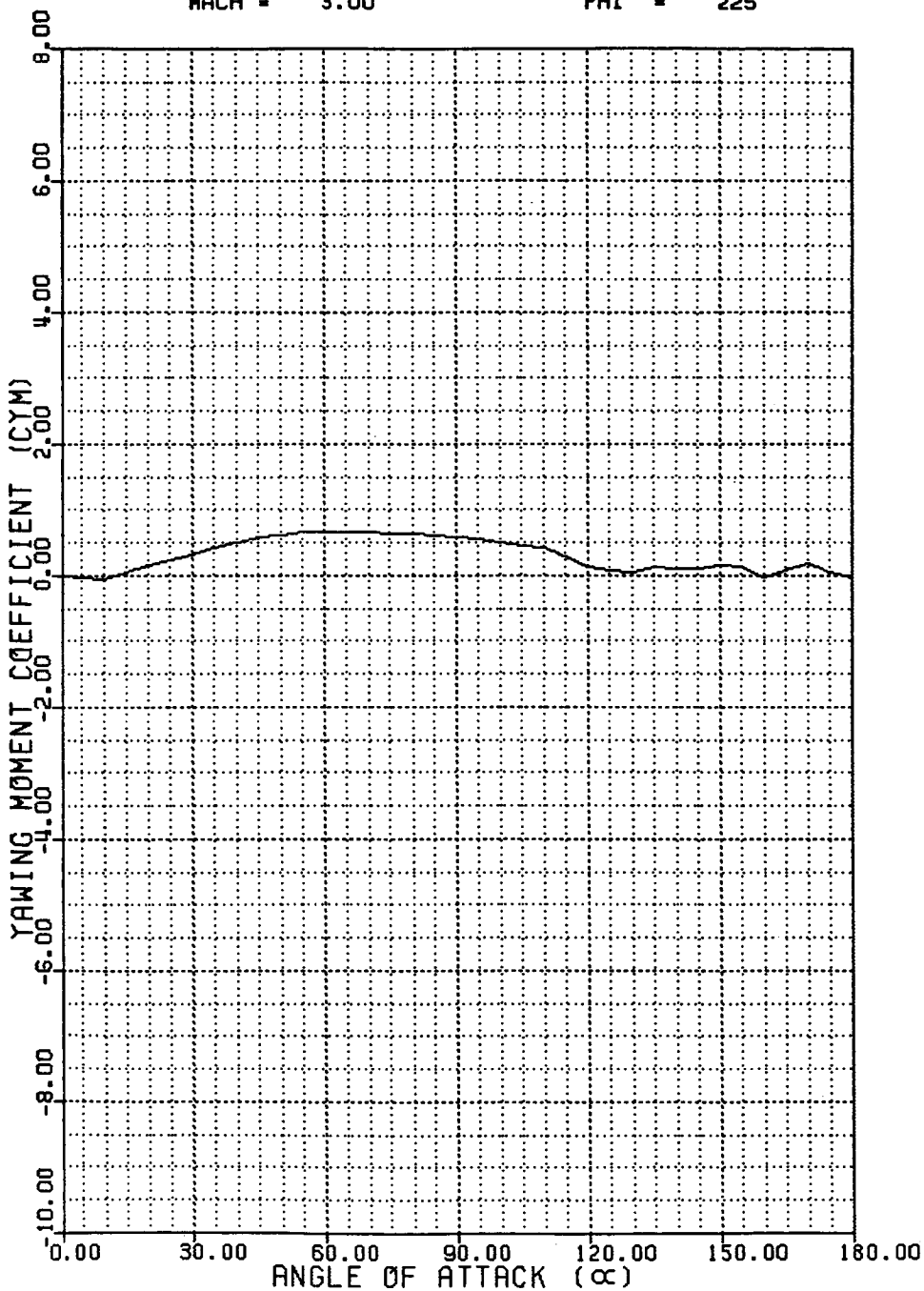


B-563

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225



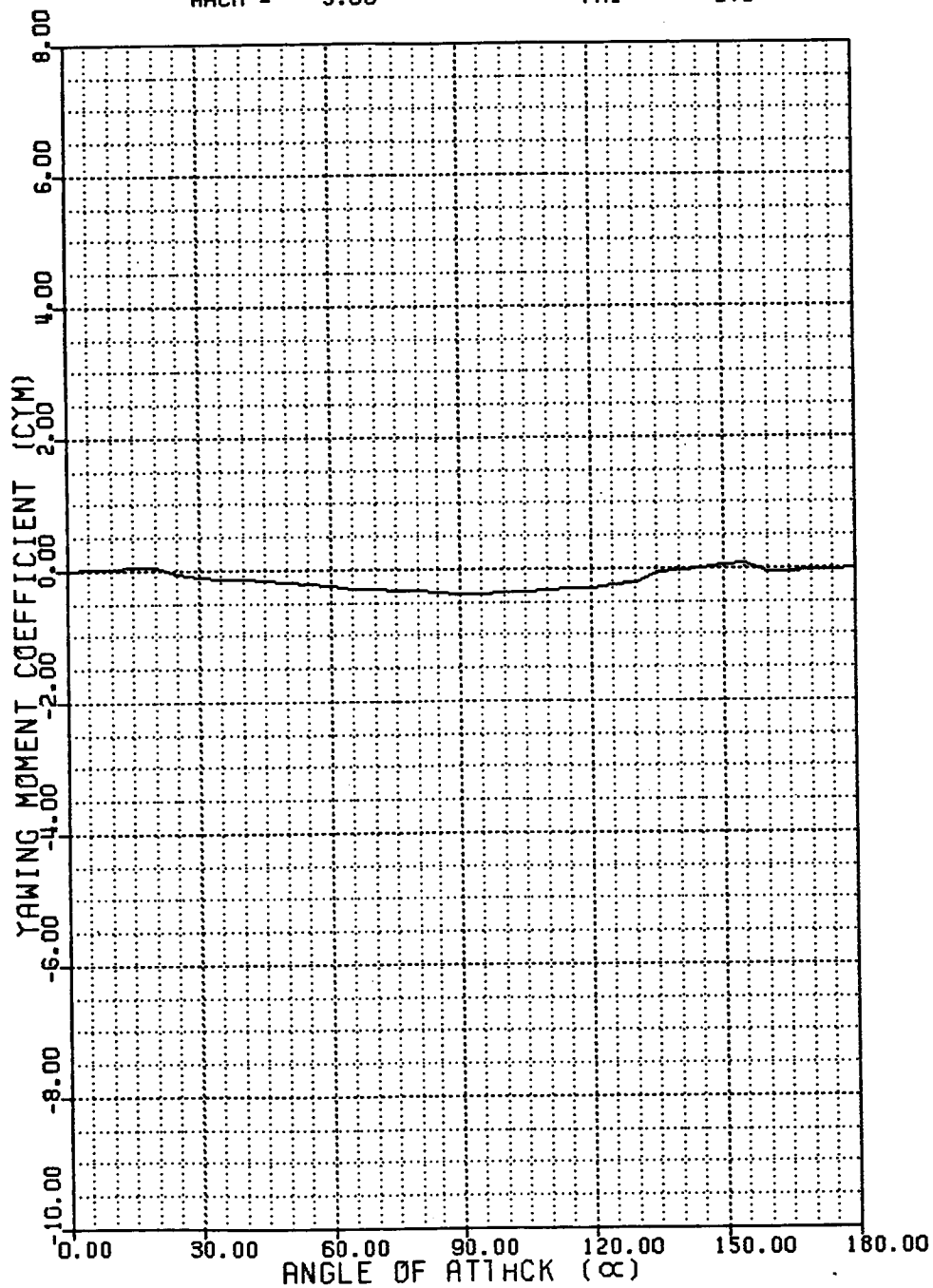
B-564

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270



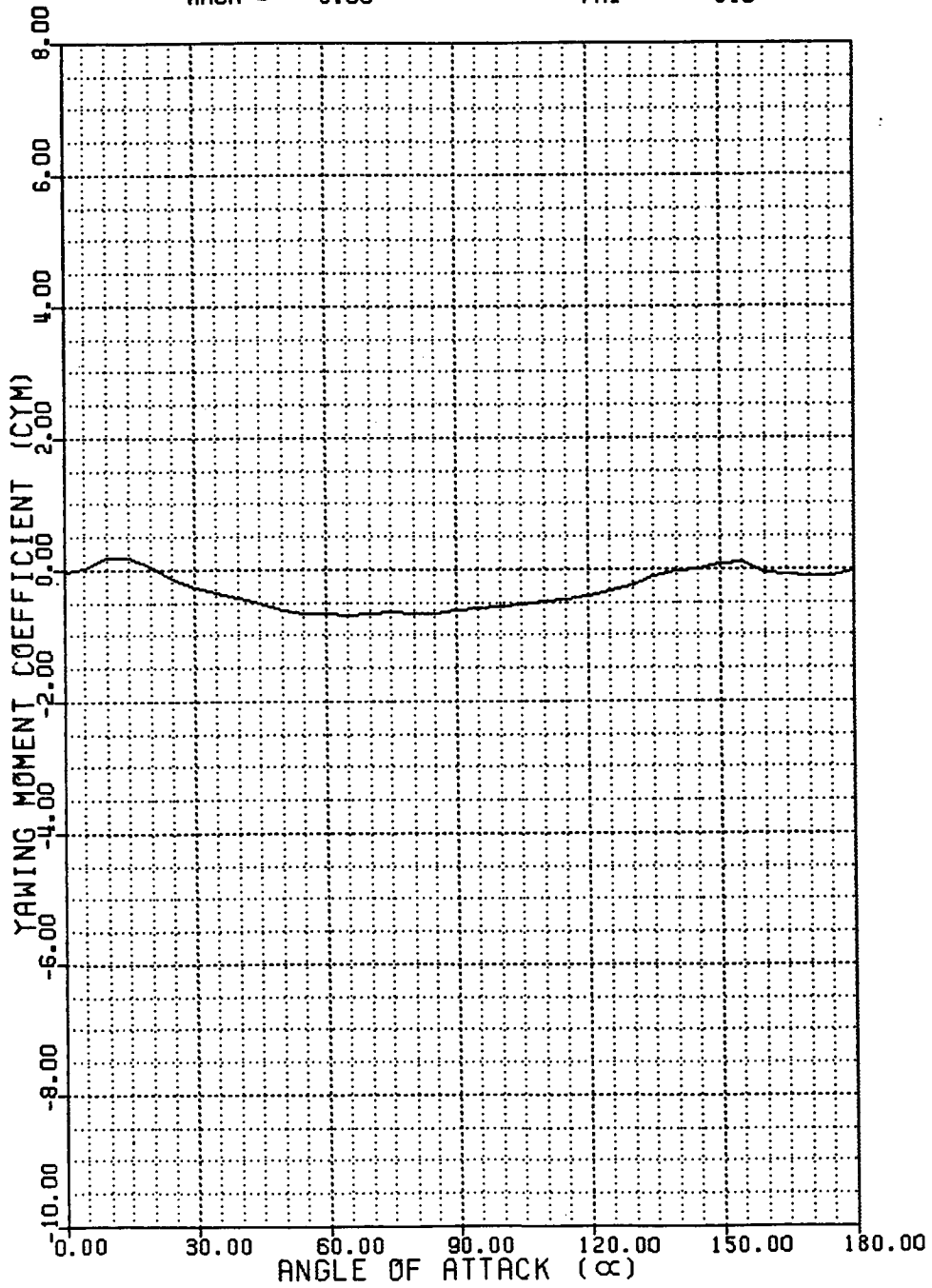
B-565

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315

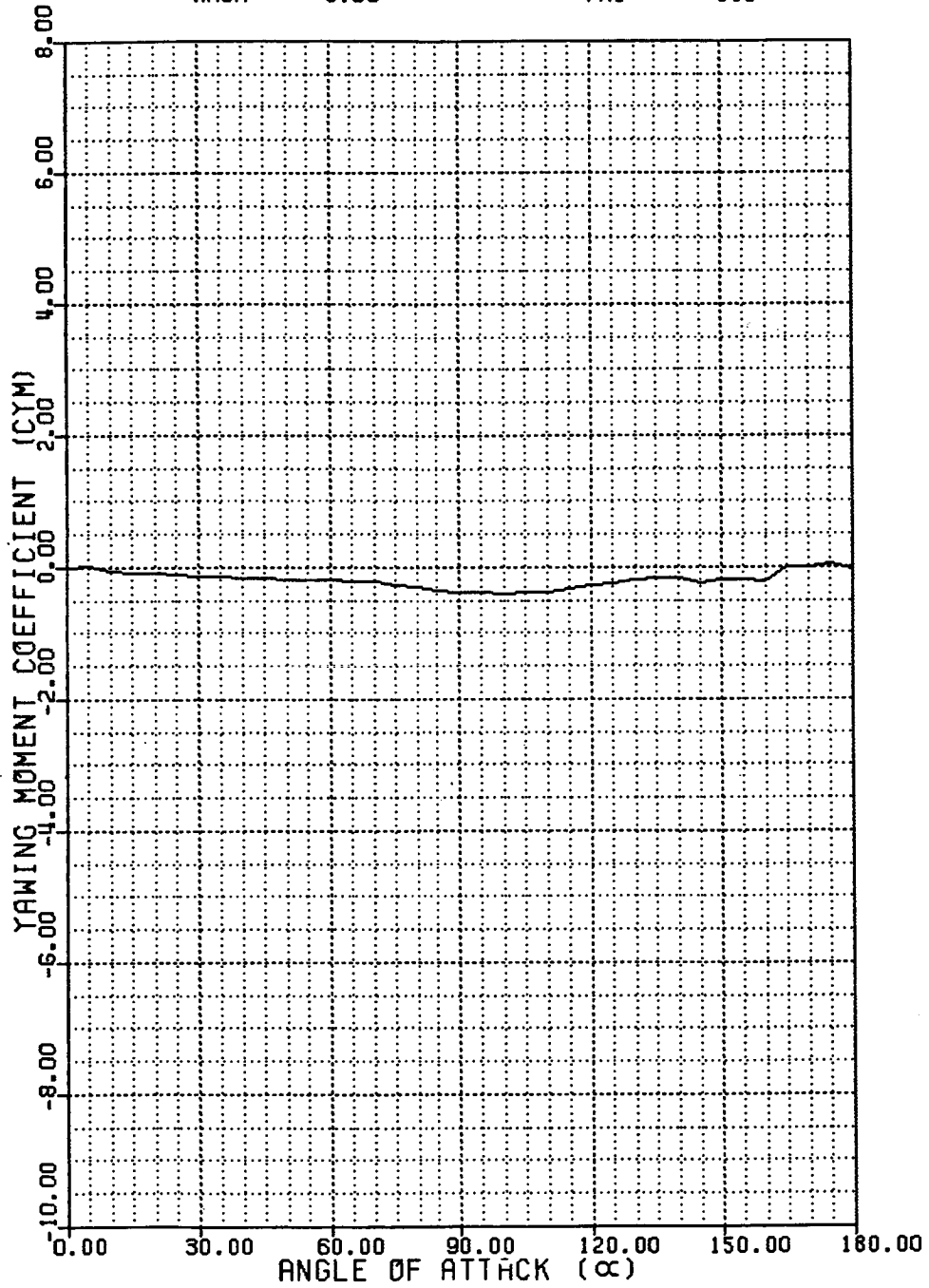


B-586

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360



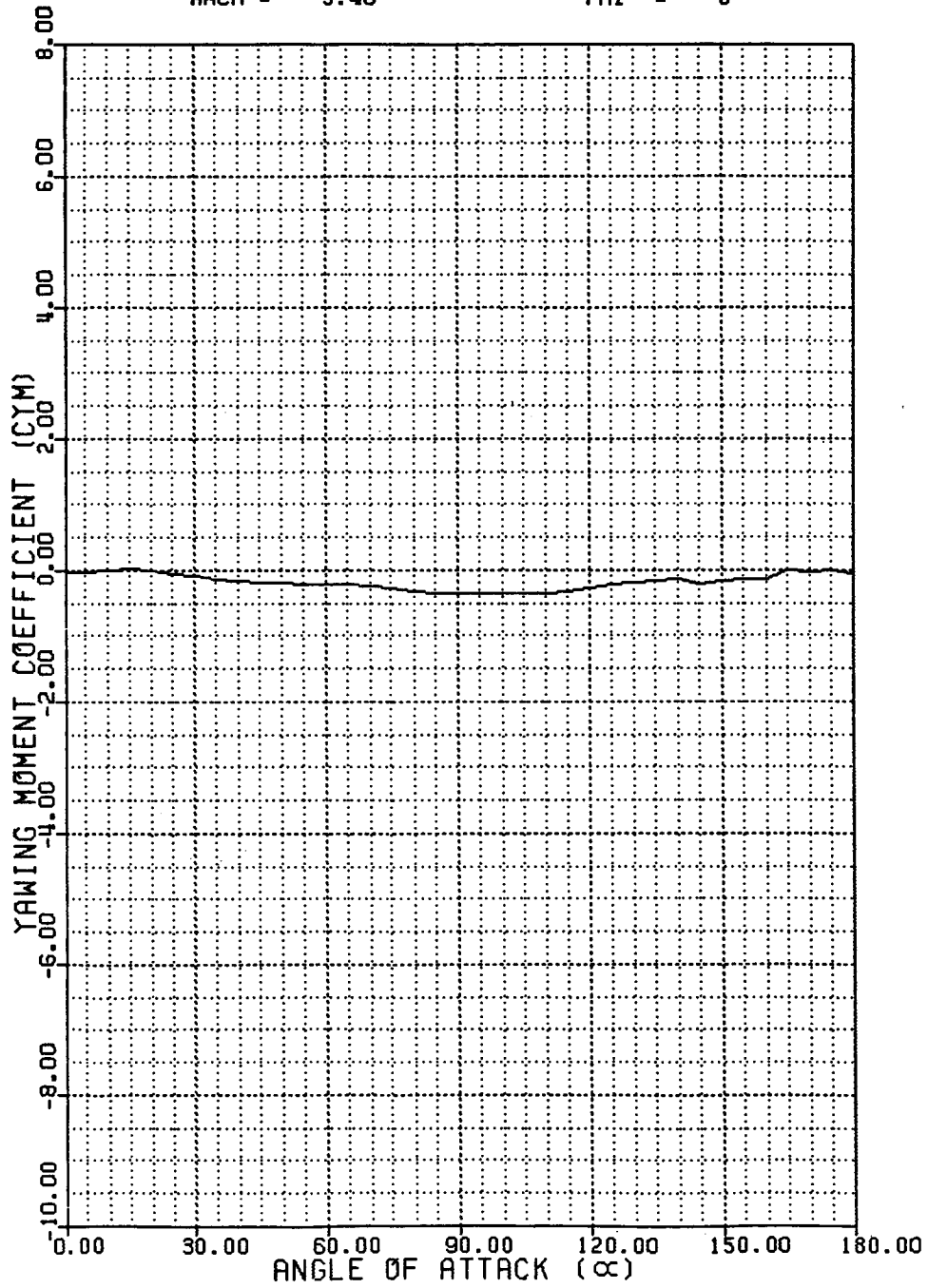
B-567



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 0

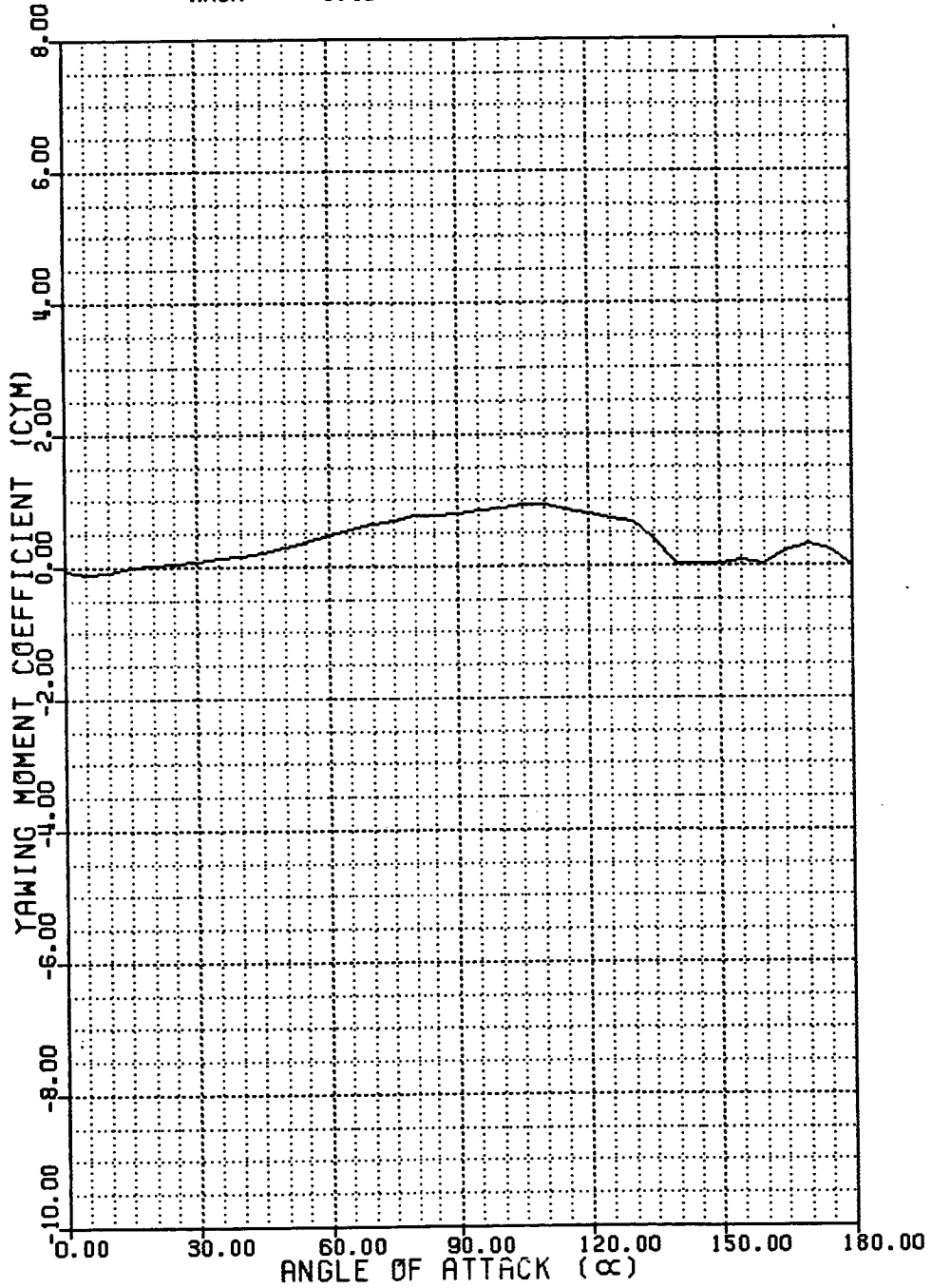


B-568

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 45



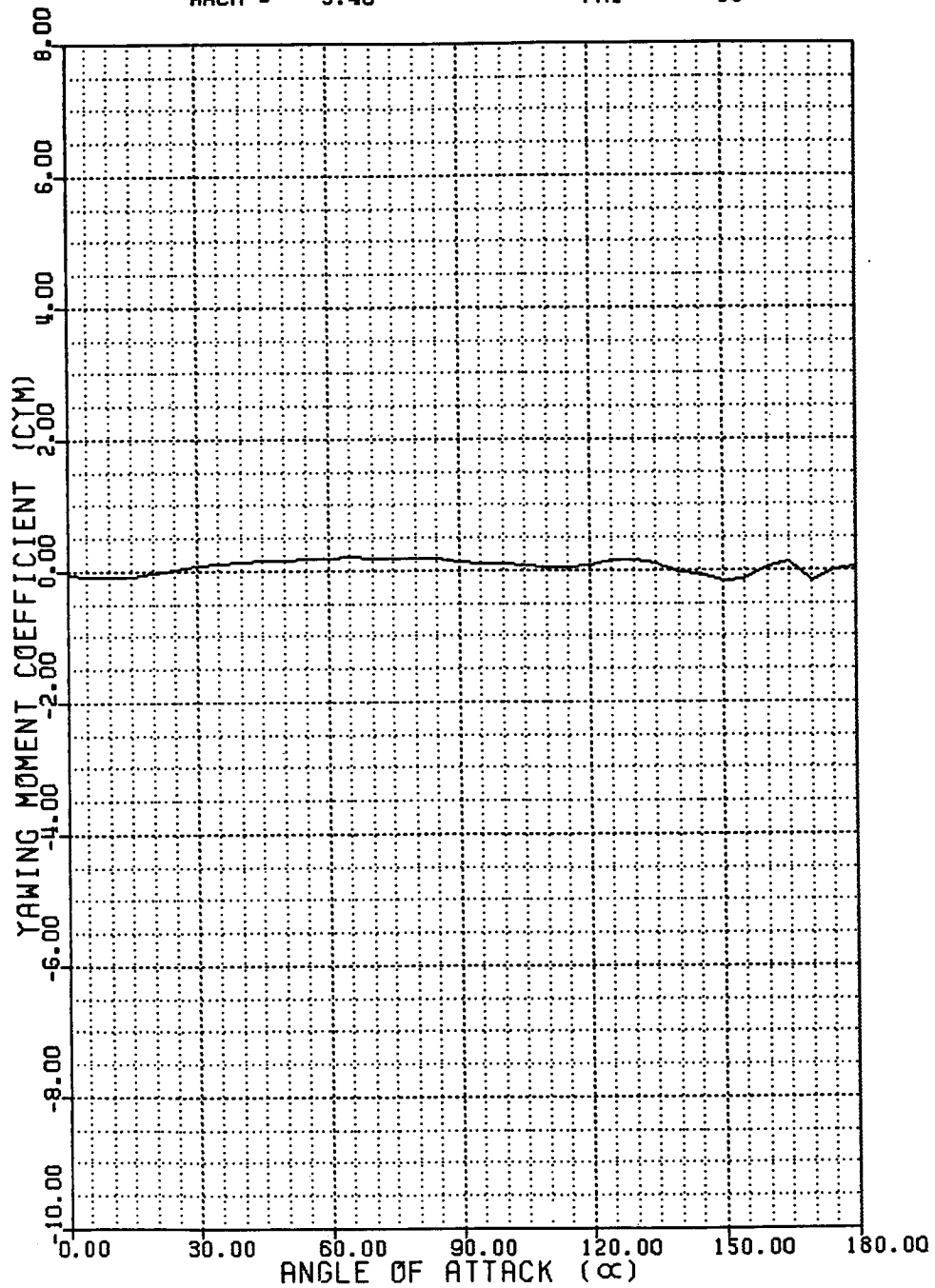
B-569

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90



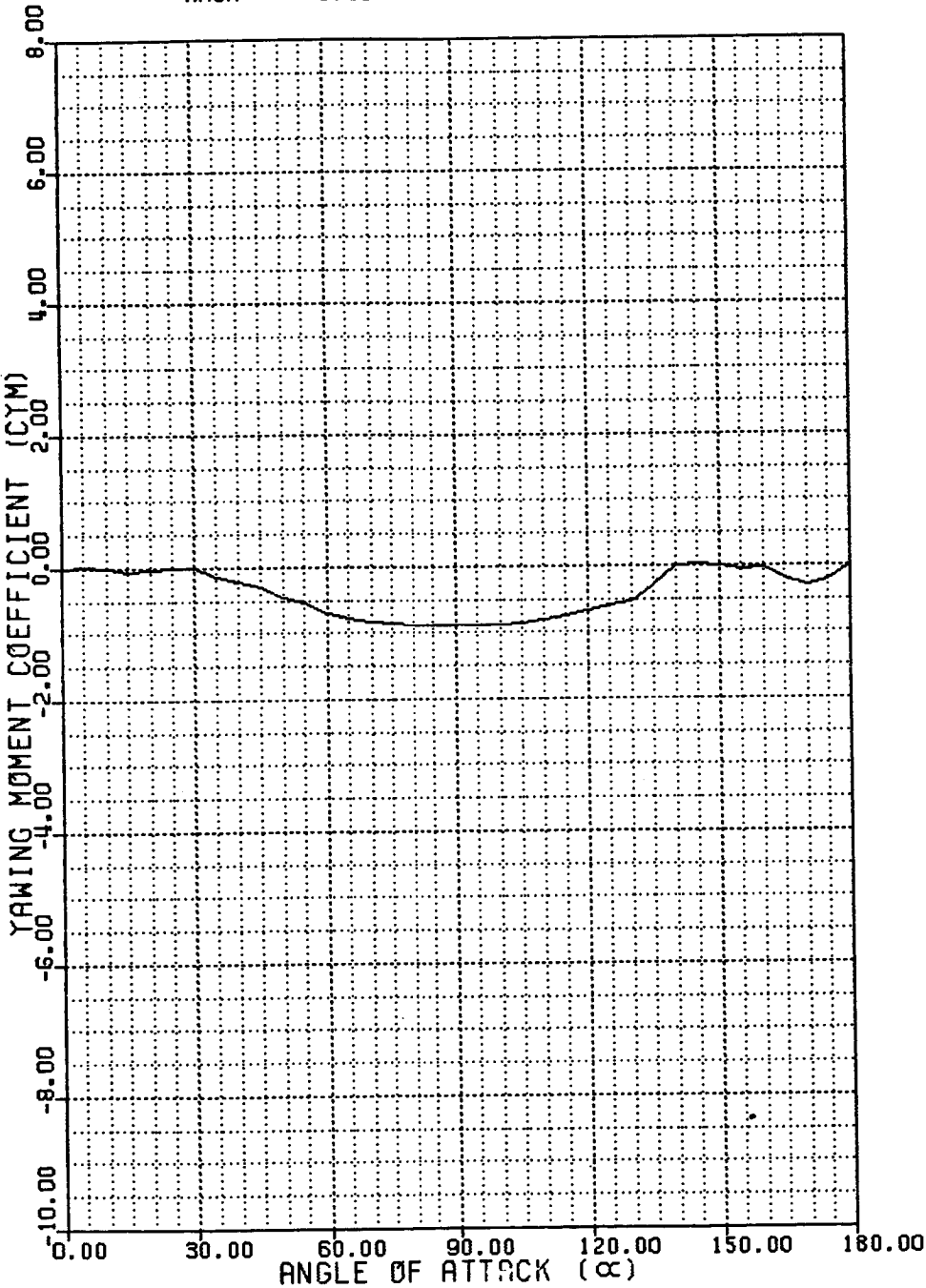
B-570

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 135

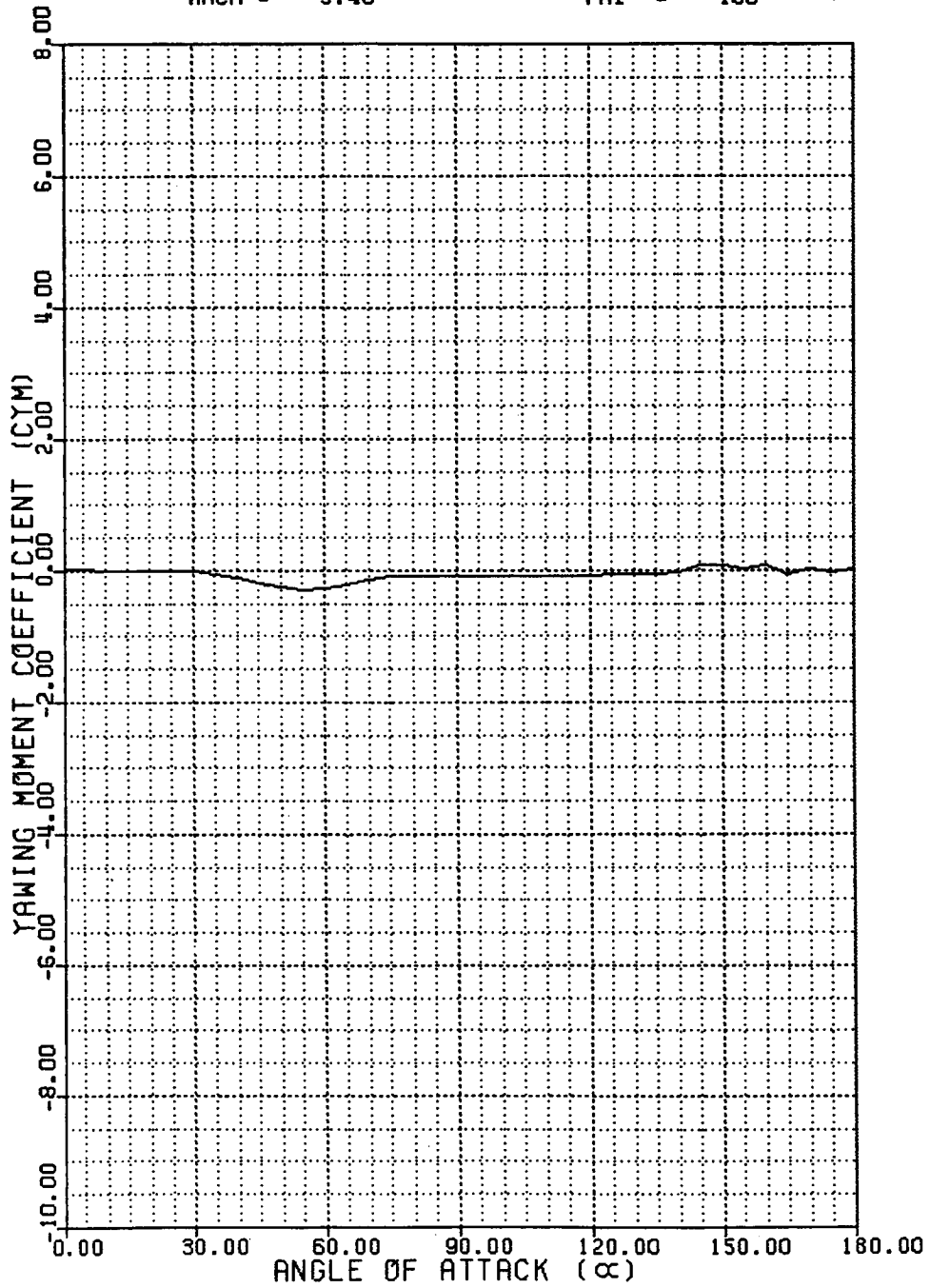


B-571

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180



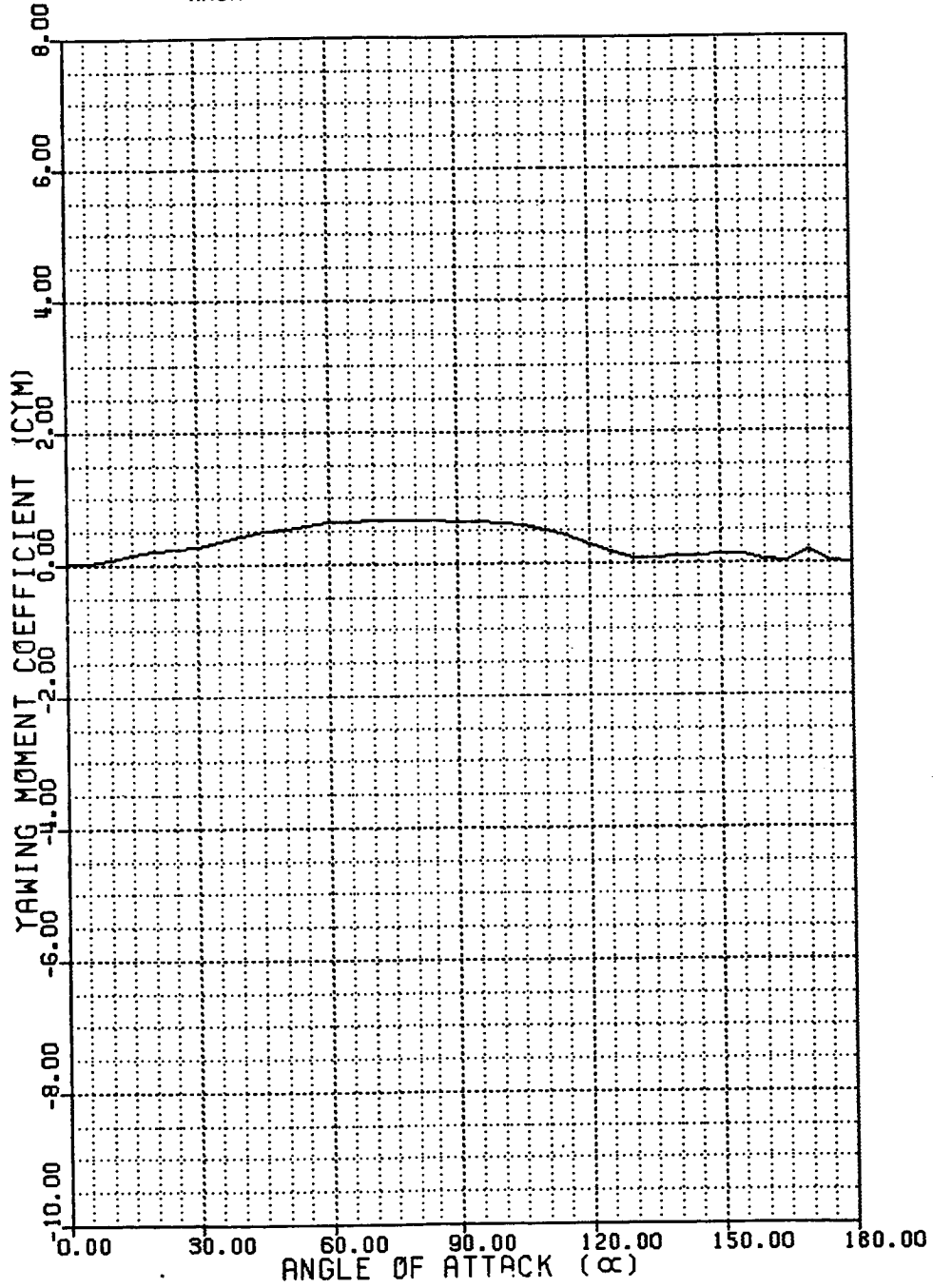
B-572

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225

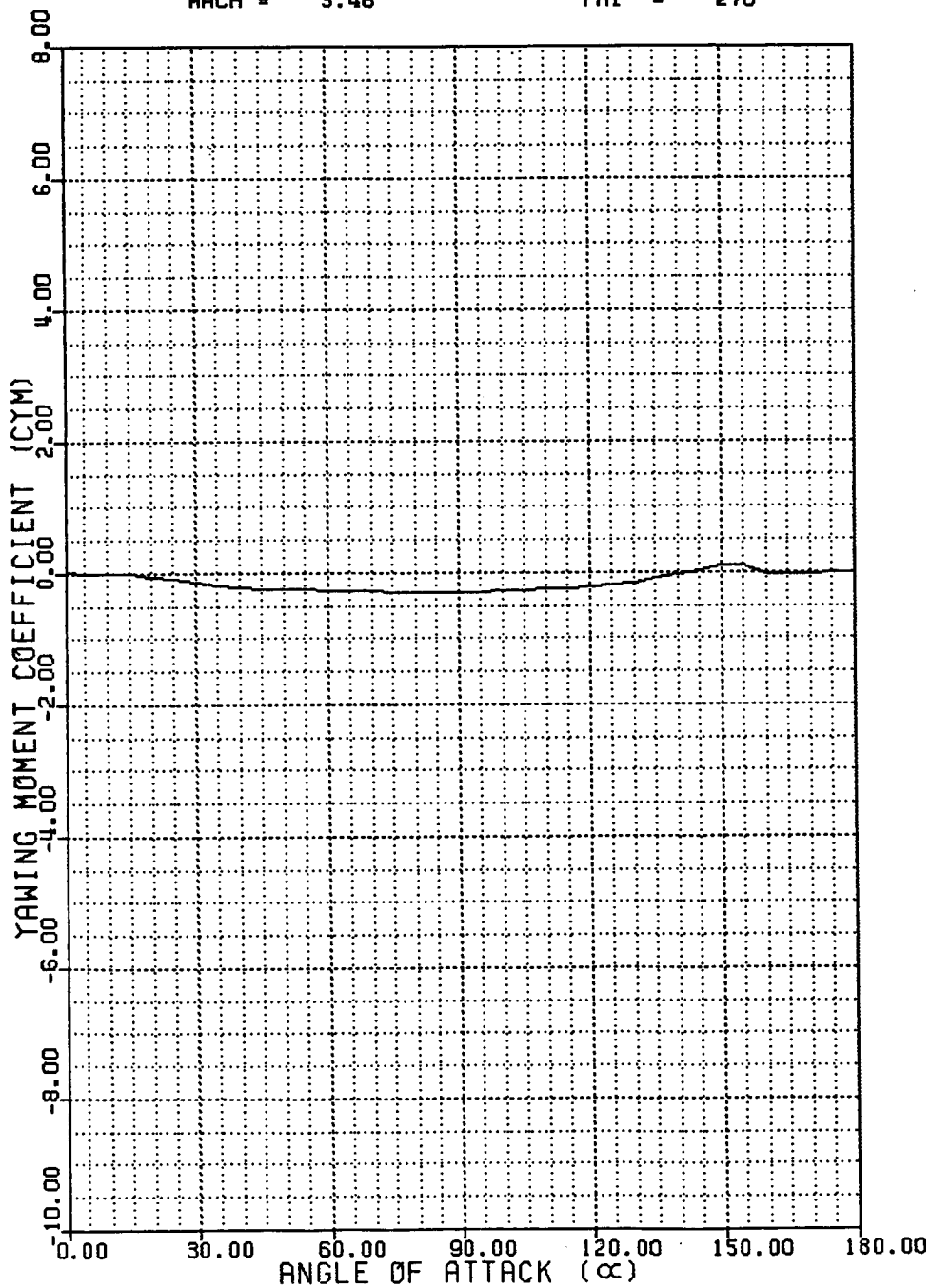


B-573

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270



B-574

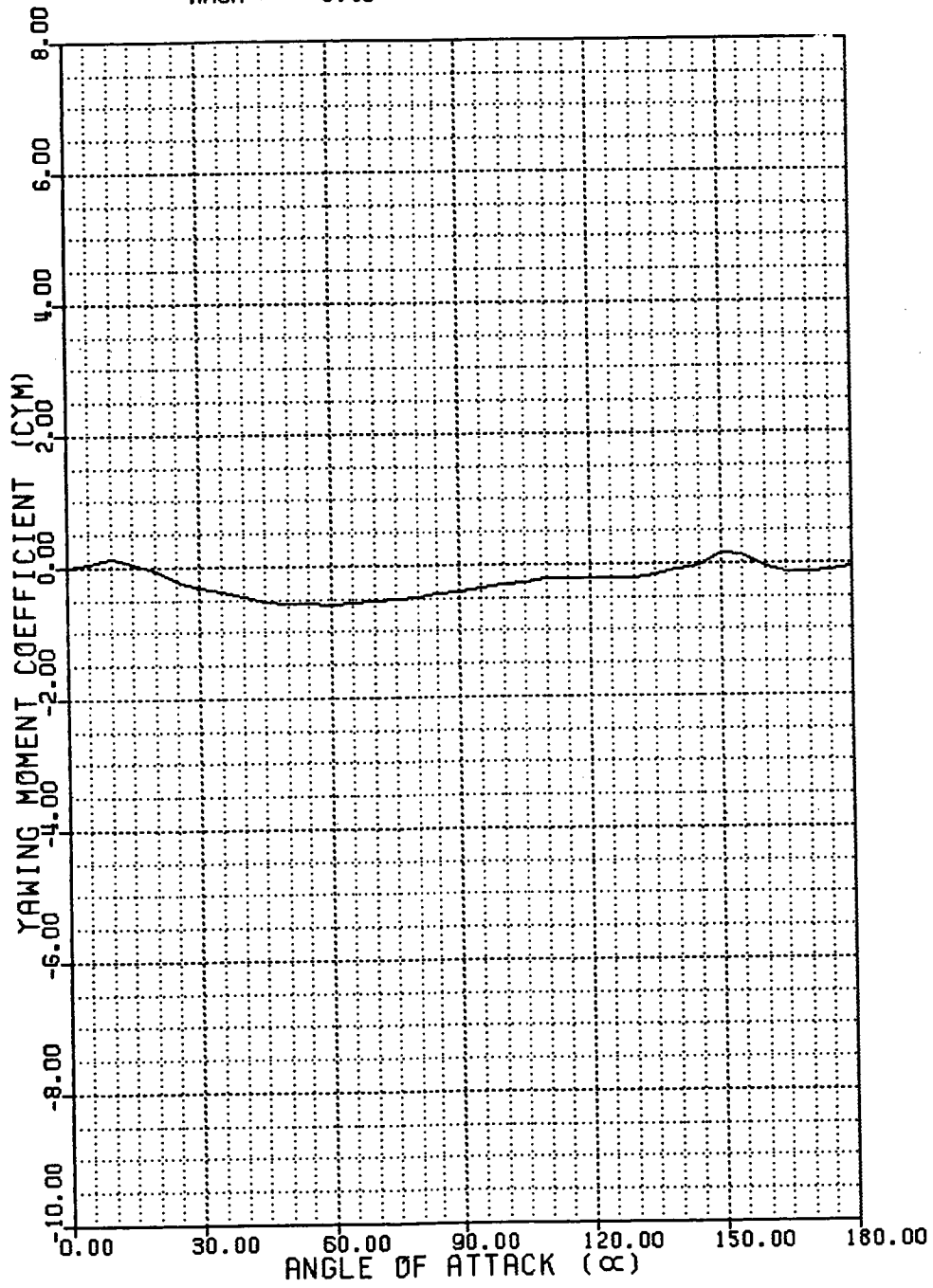
LOCKHEED-HUNTSVILLE ENGINEERING CENTER

C-7

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 315



B-575

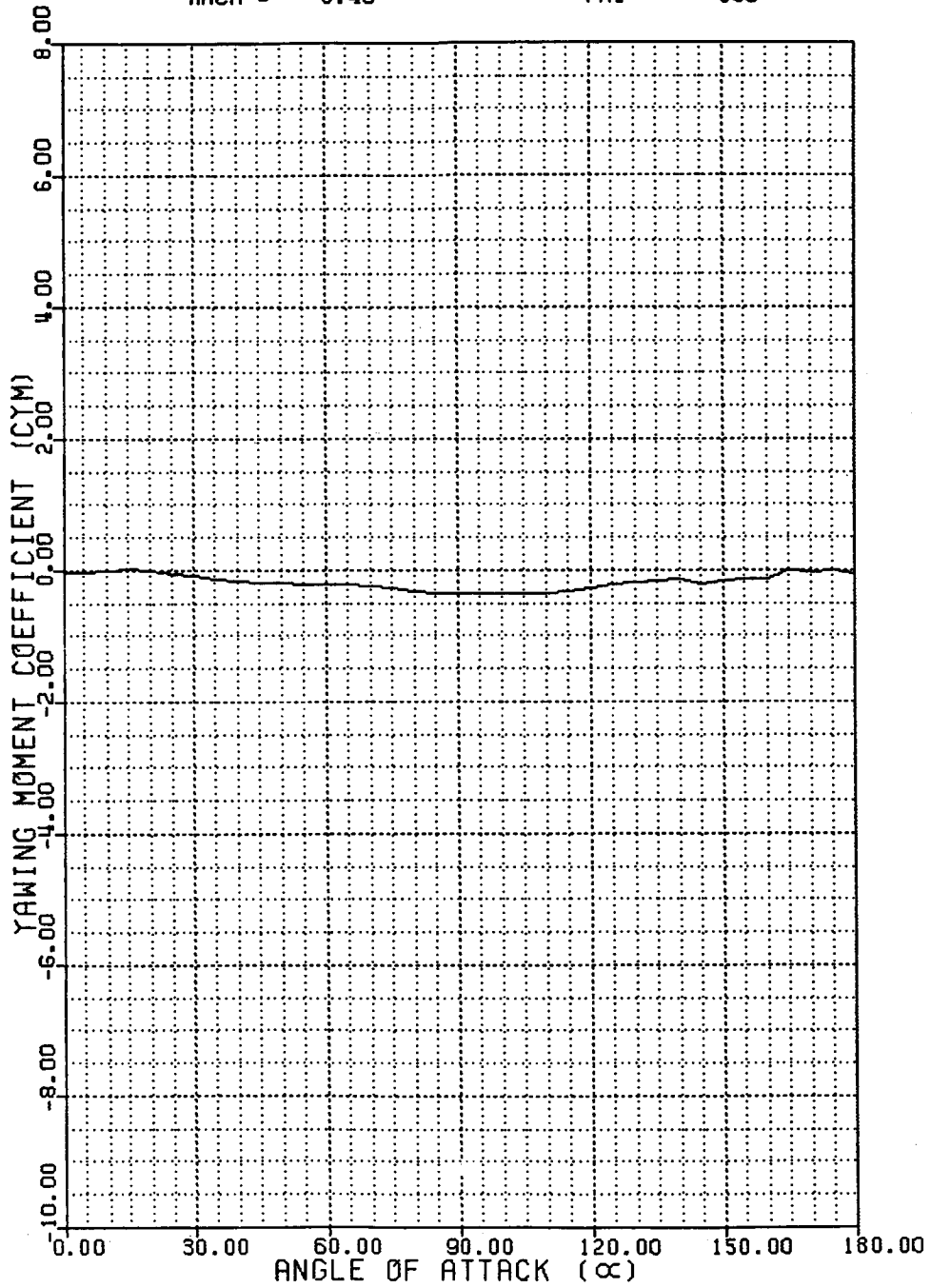
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-576

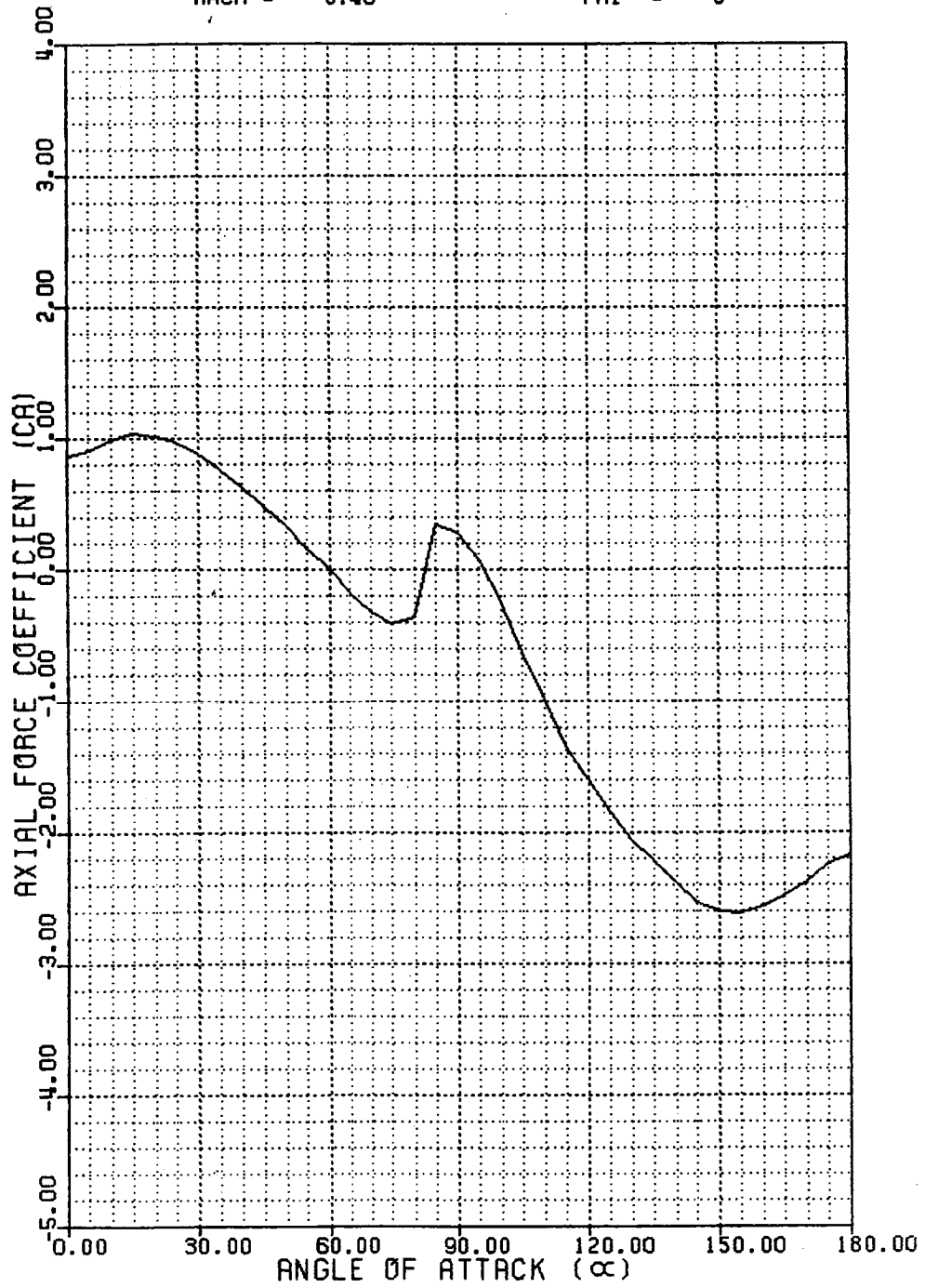
**AXIAL FORCE (CA)**

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0.55	B-595
0.6	B-604
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1.05	B-649
1.1	B-658
1.2	B-667
1.4	B-676
1.96	B-685
2.5	B-694
3.0	B-703
3.48	B-712

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 0

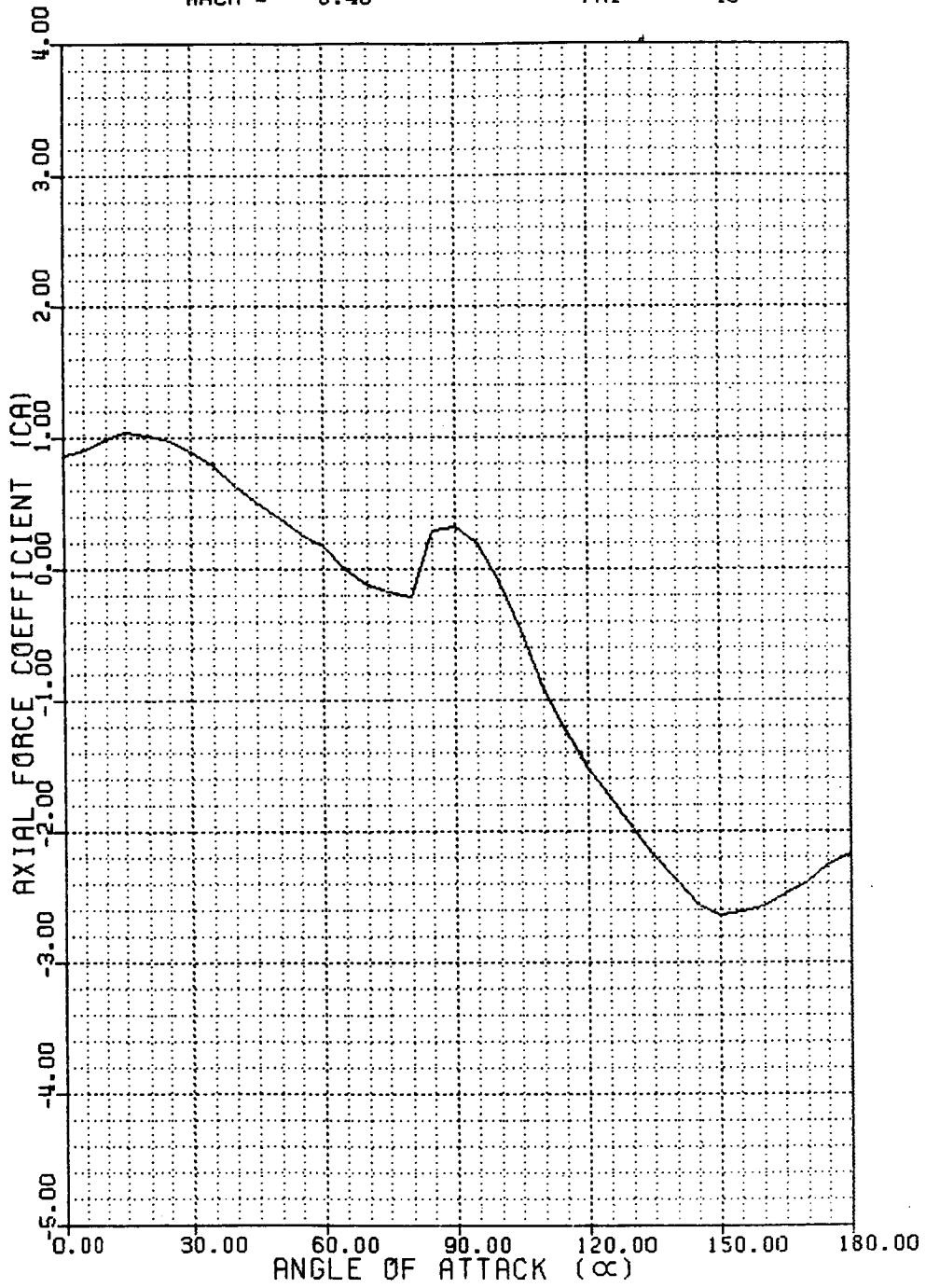


B-577

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 45

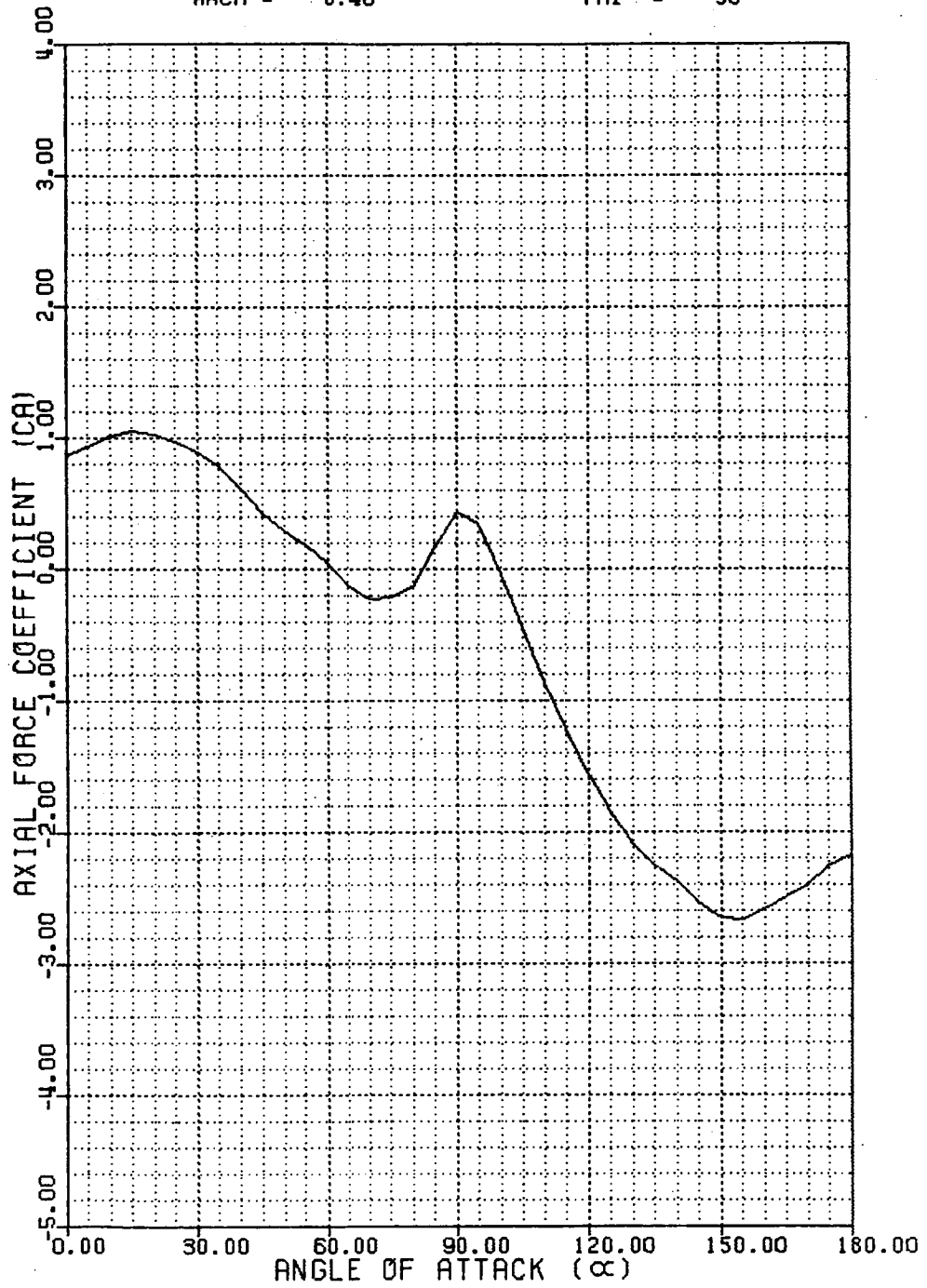


B-578

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 90

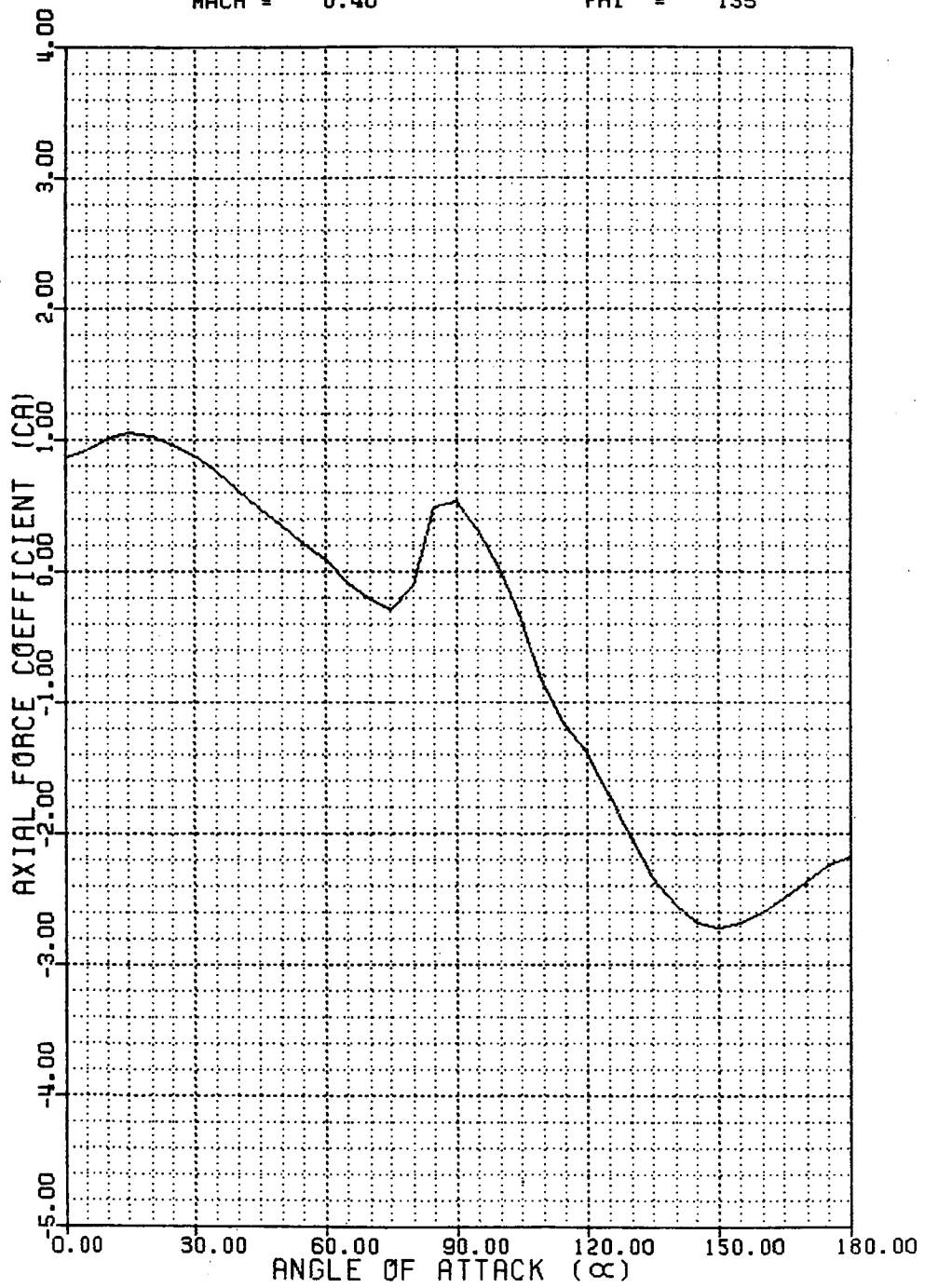


B-579

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 135



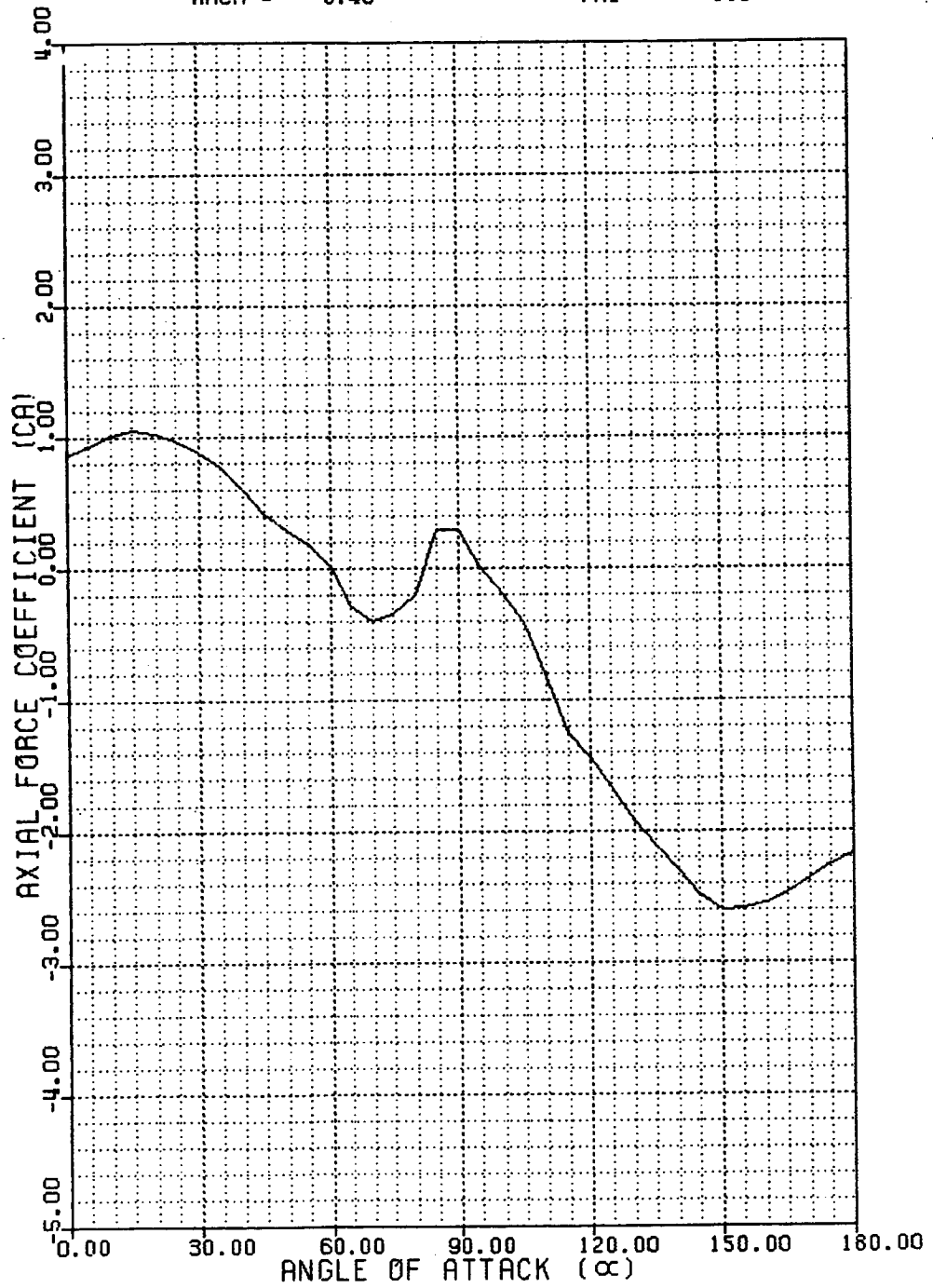
B-580

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 180

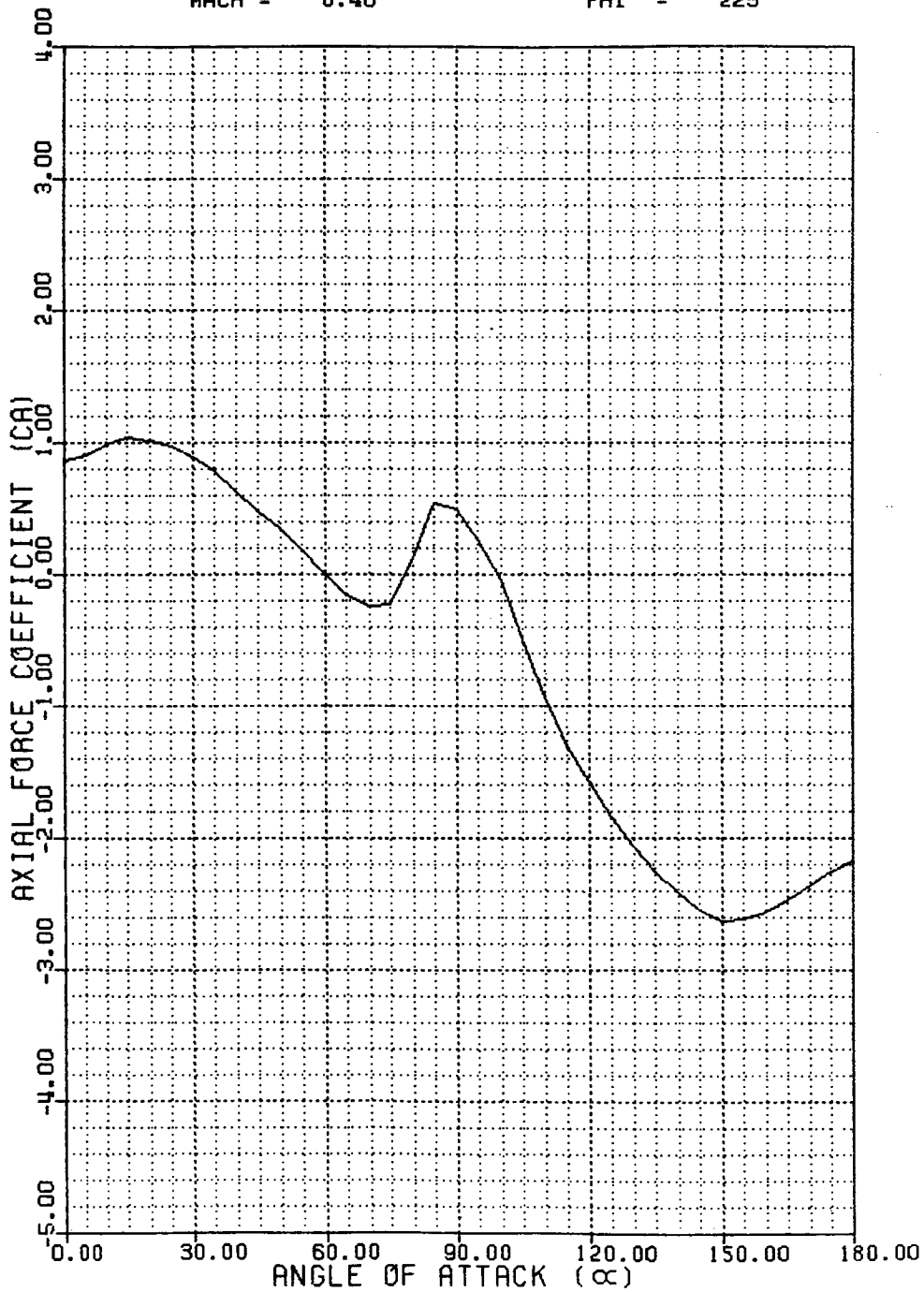


B-581

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 225



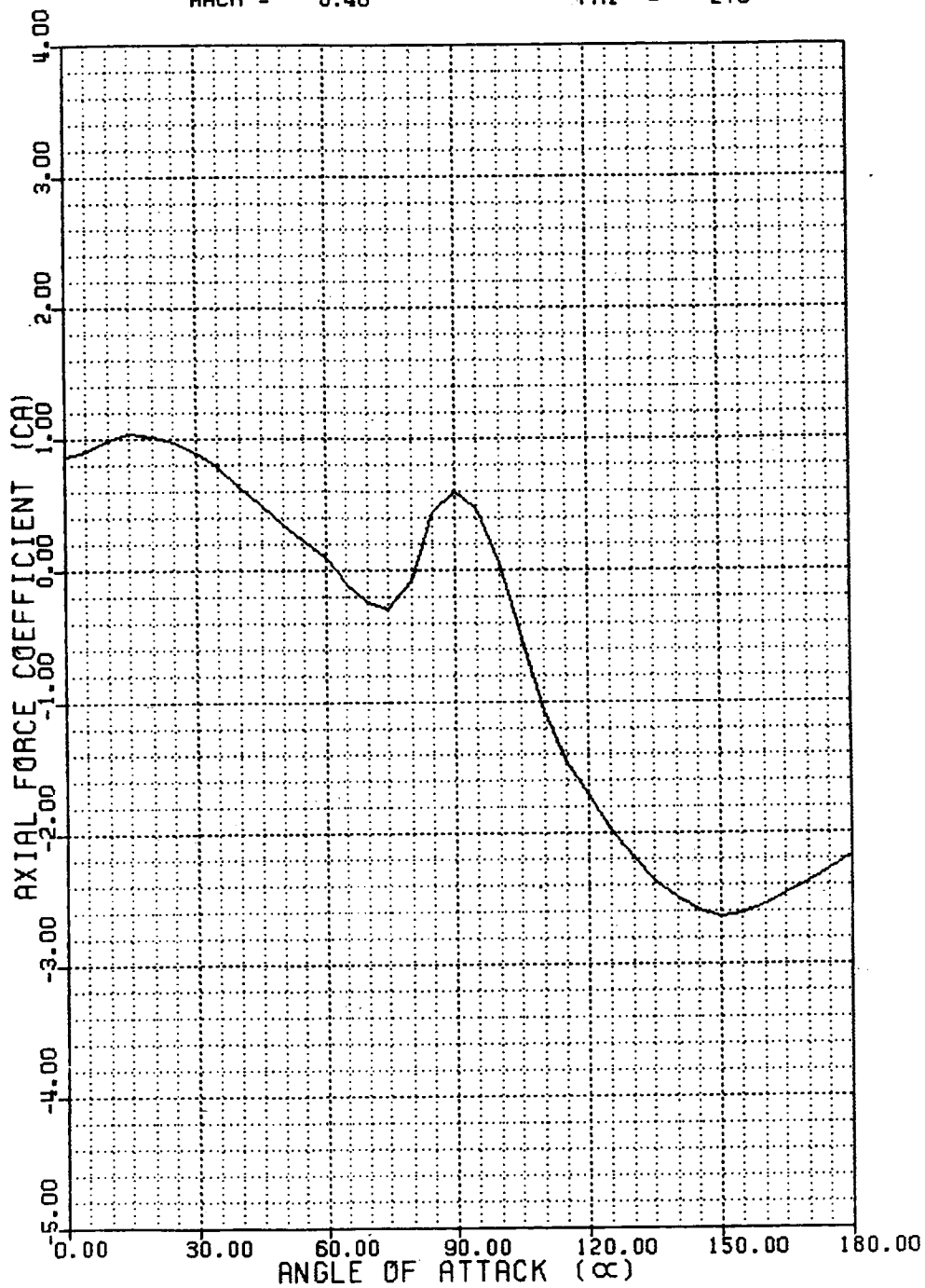
B-582



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 270



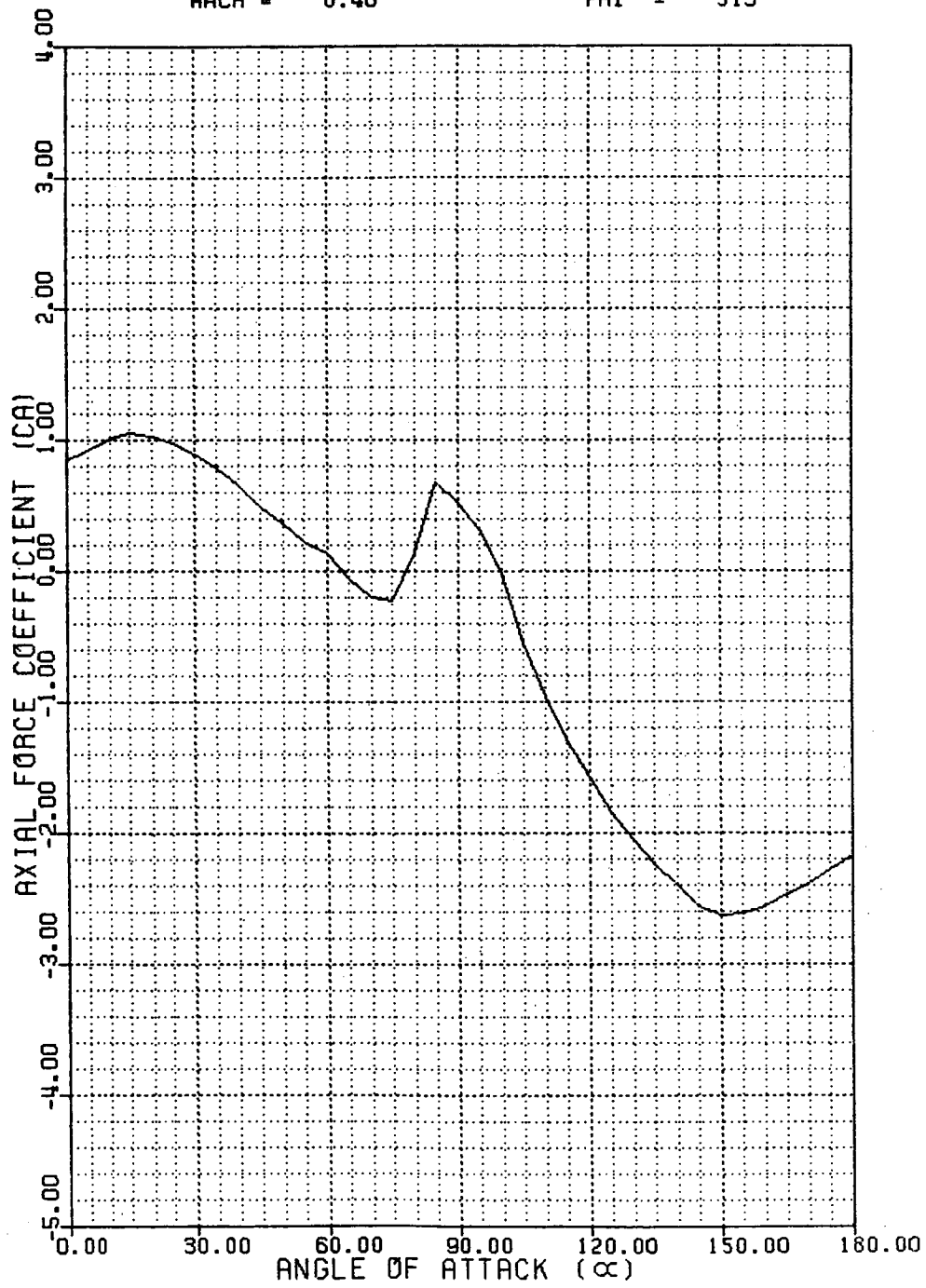
B-583

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 315

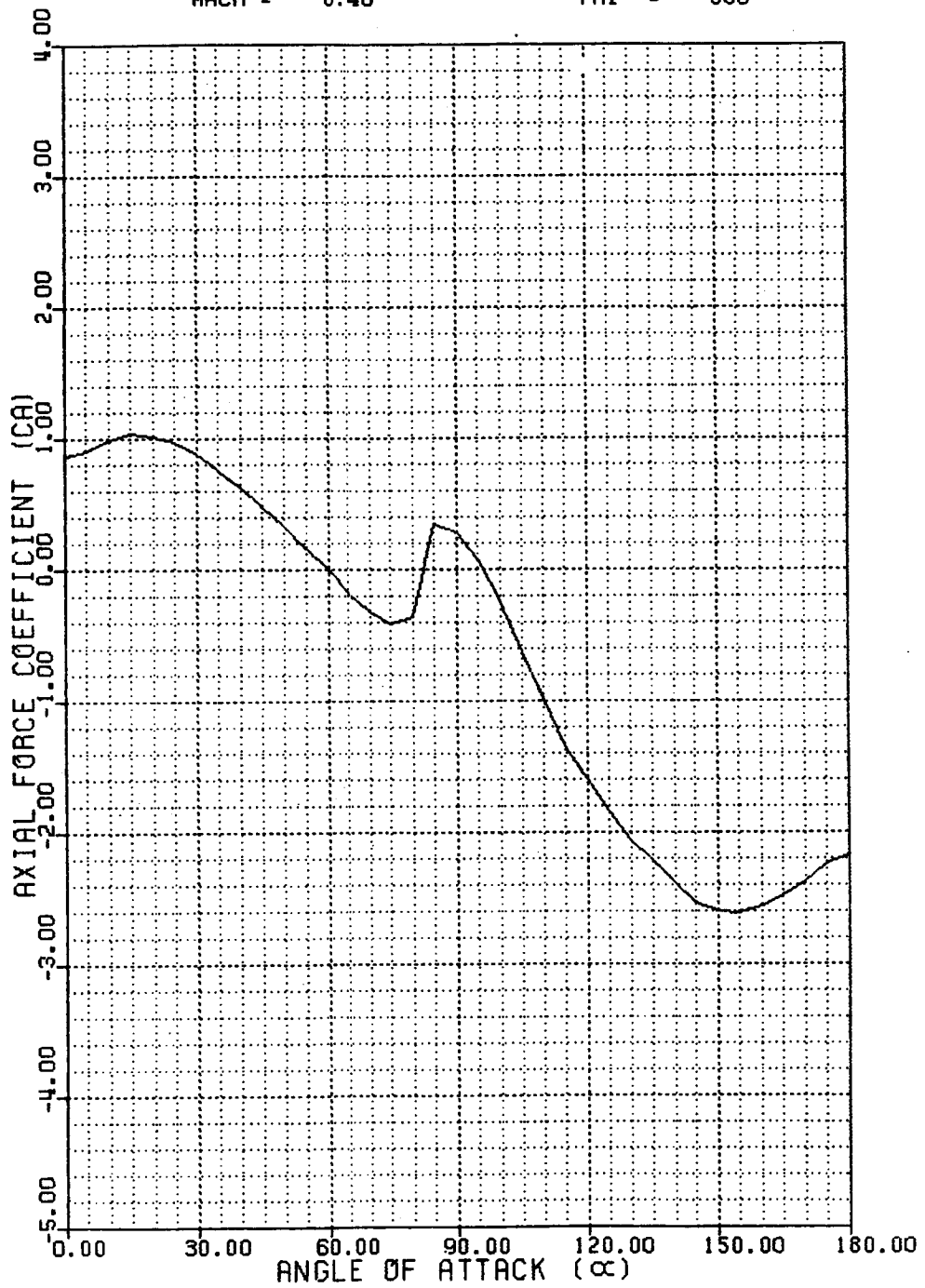


B-584

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 360



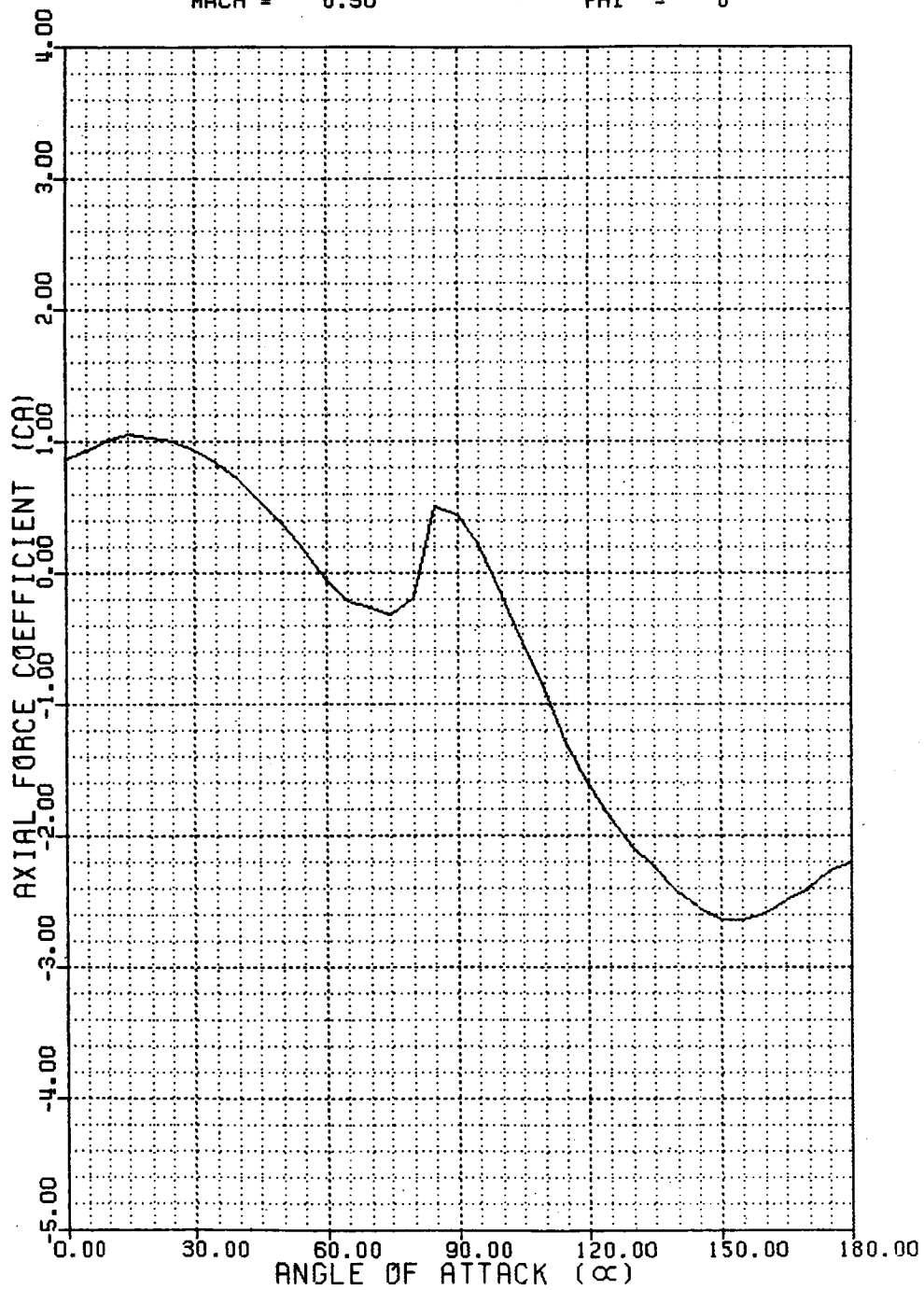
B-585

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 0

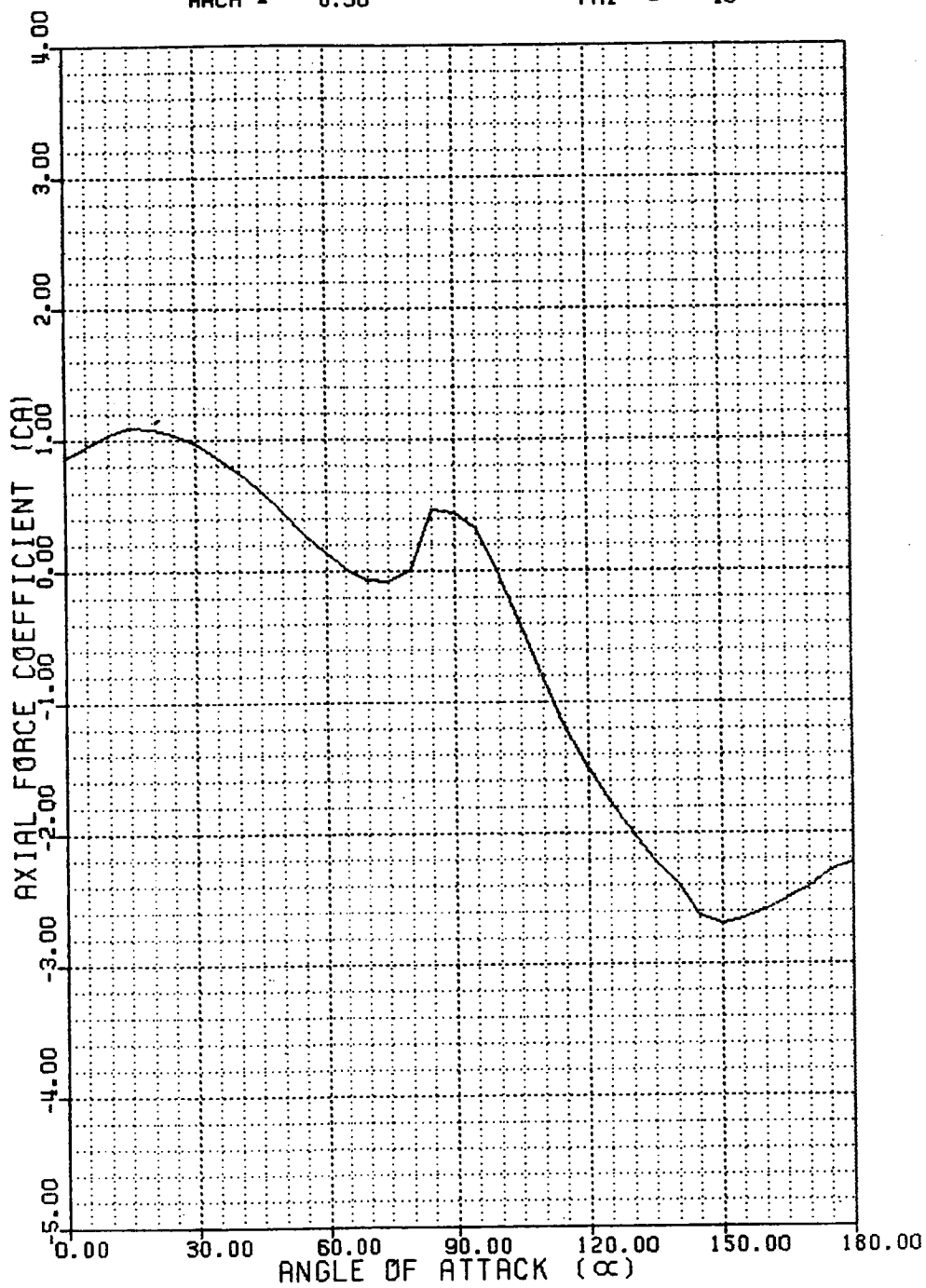


B-586

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 45

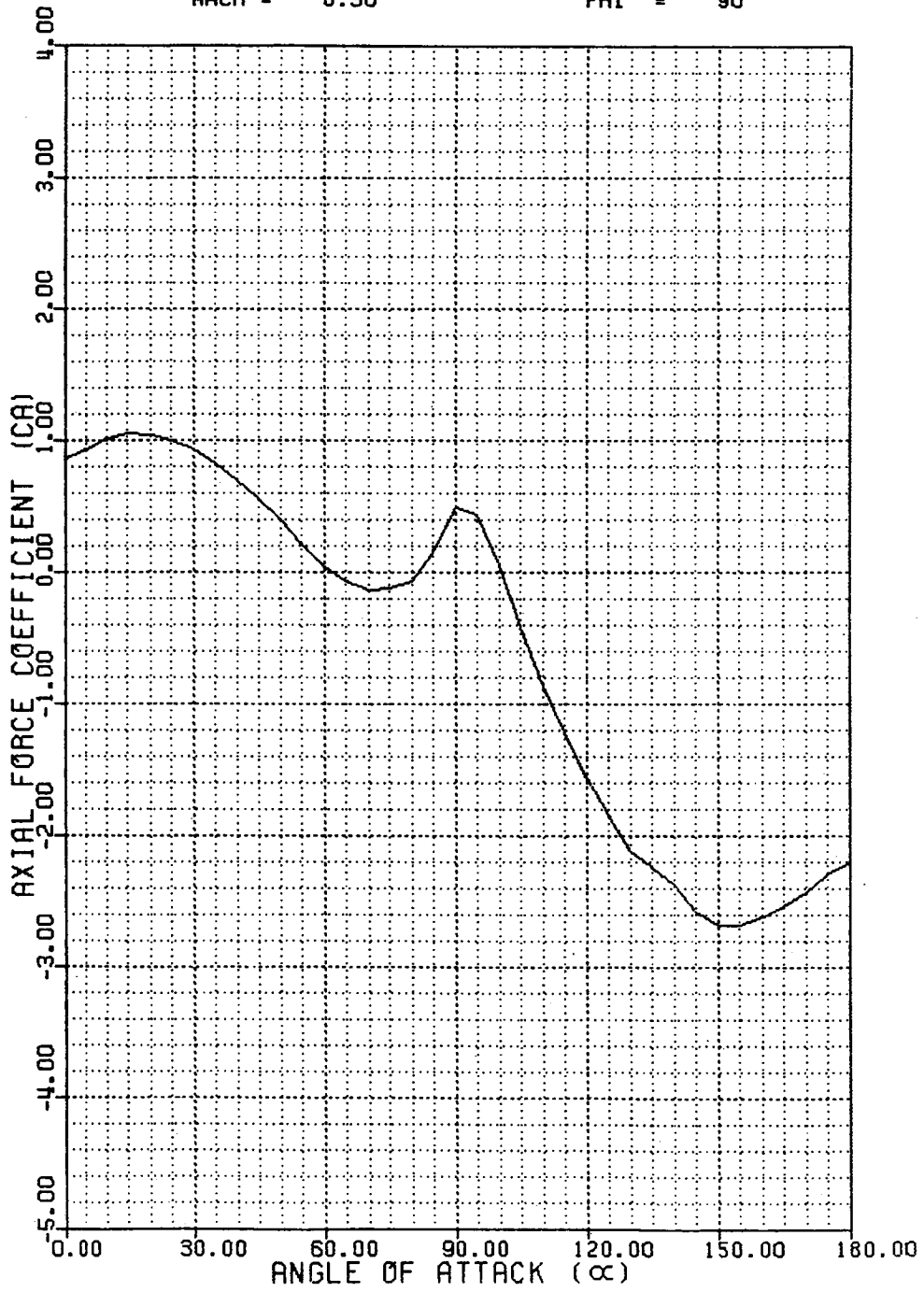


B-587

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 90



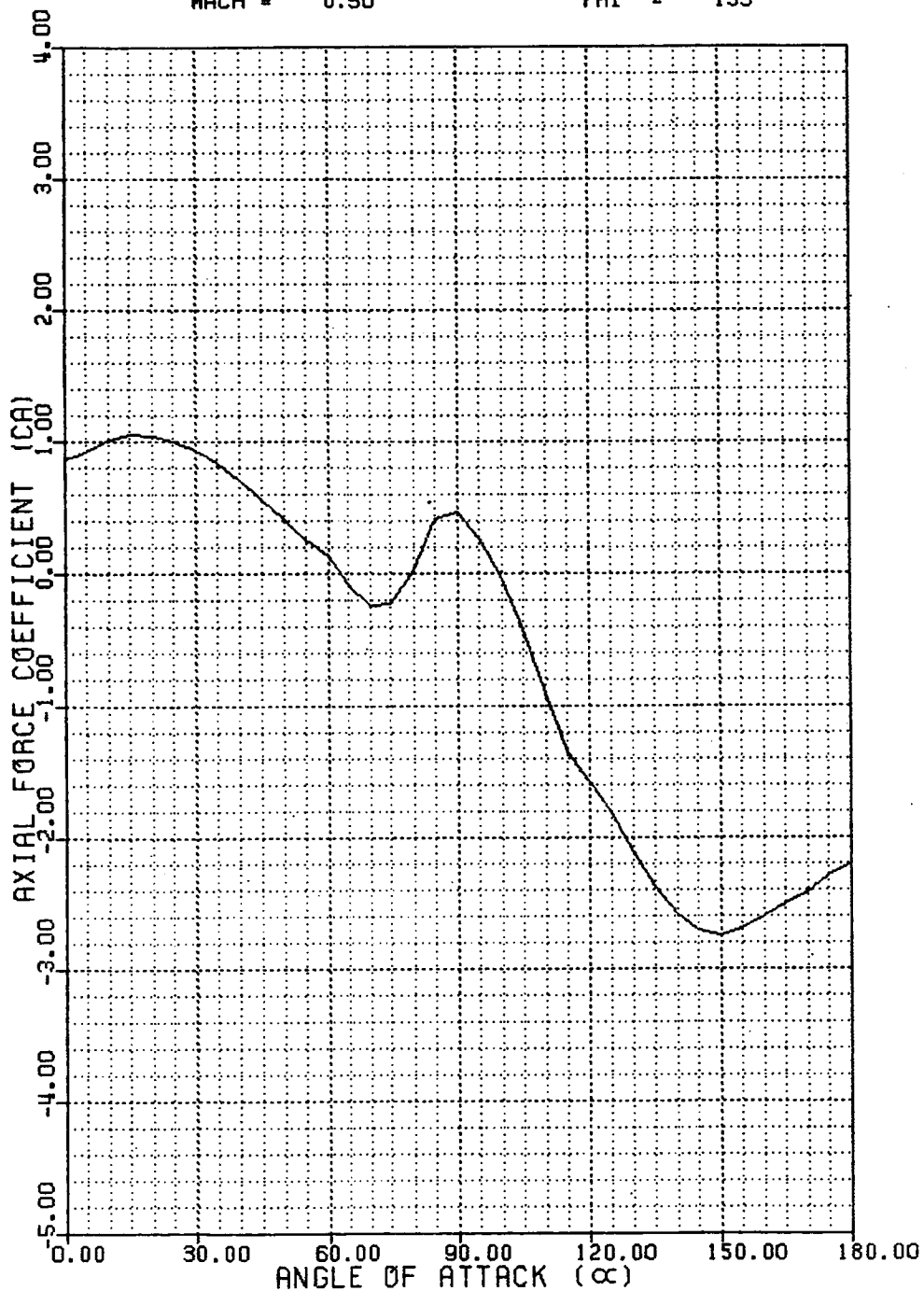
B-588

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 135

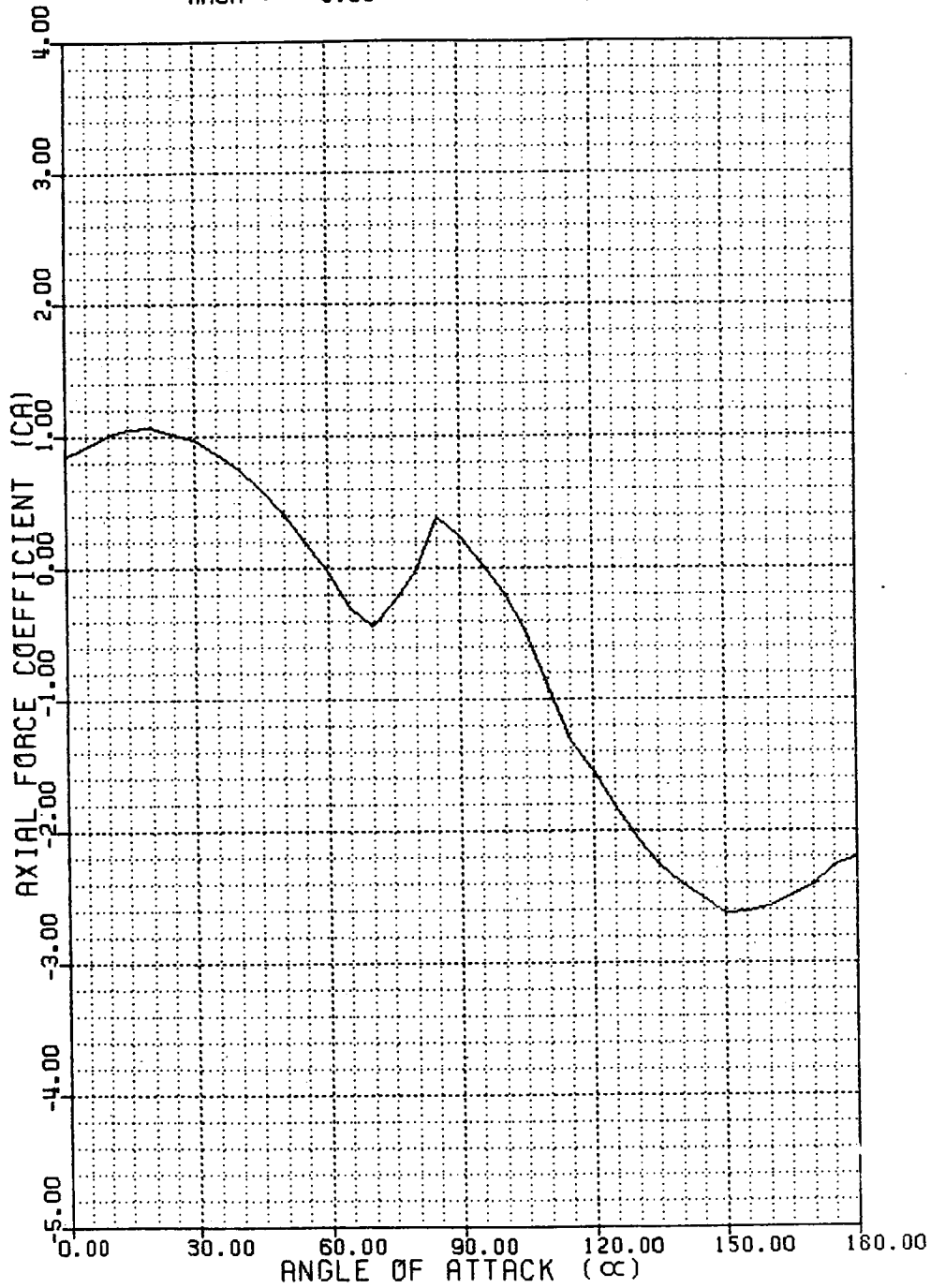


B-589

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 180



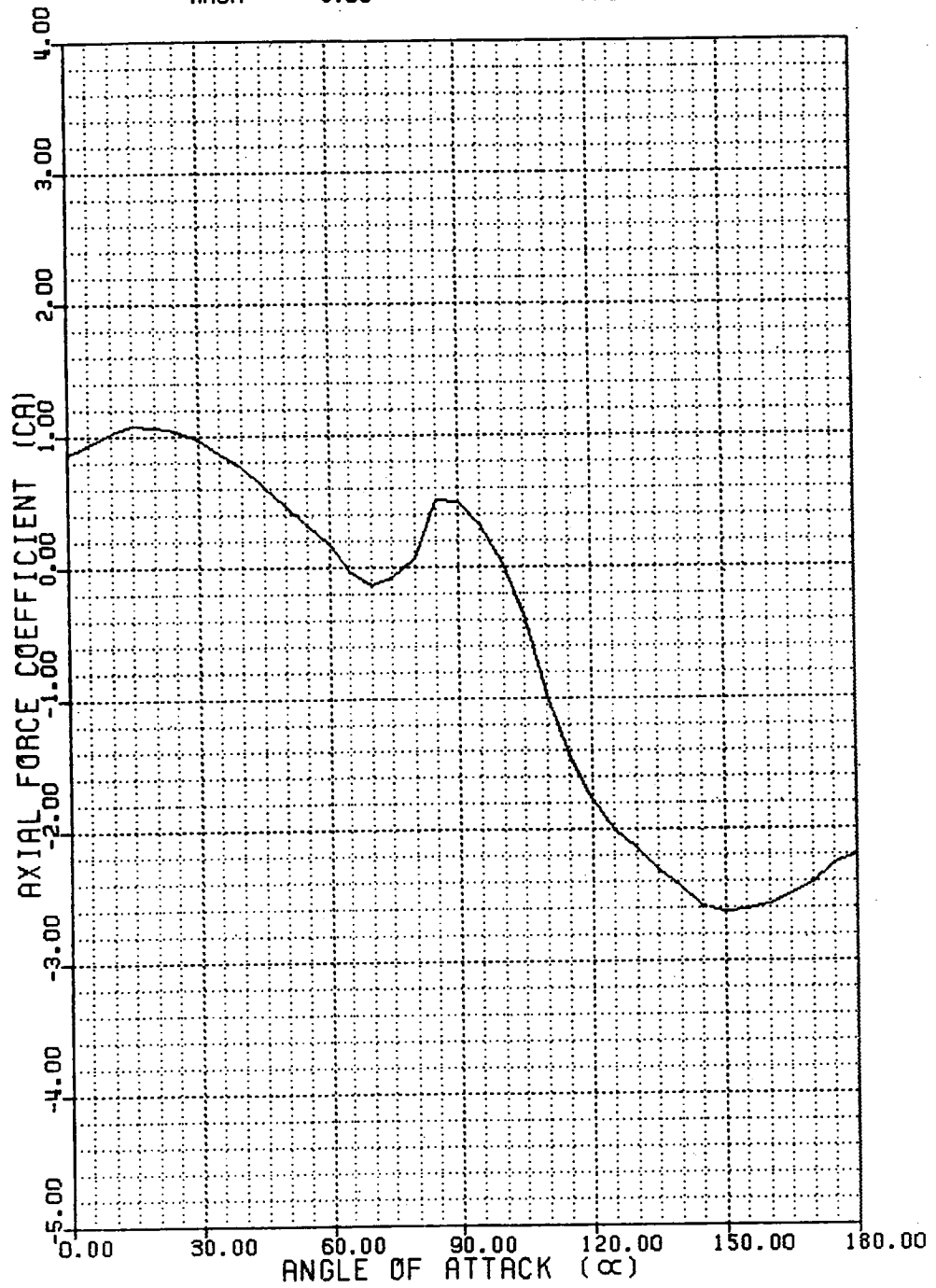
B-590



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 225



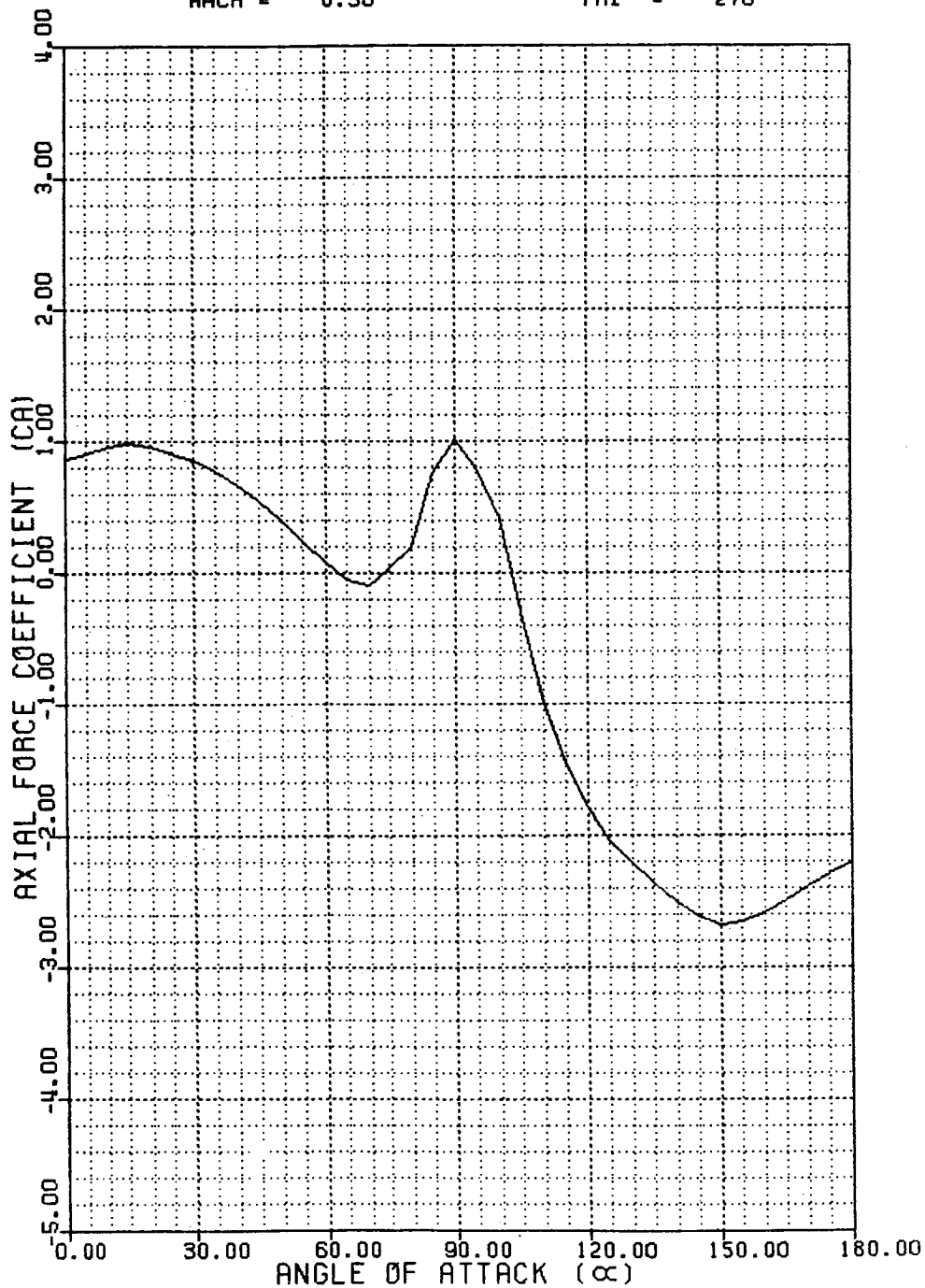
B-591

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 270

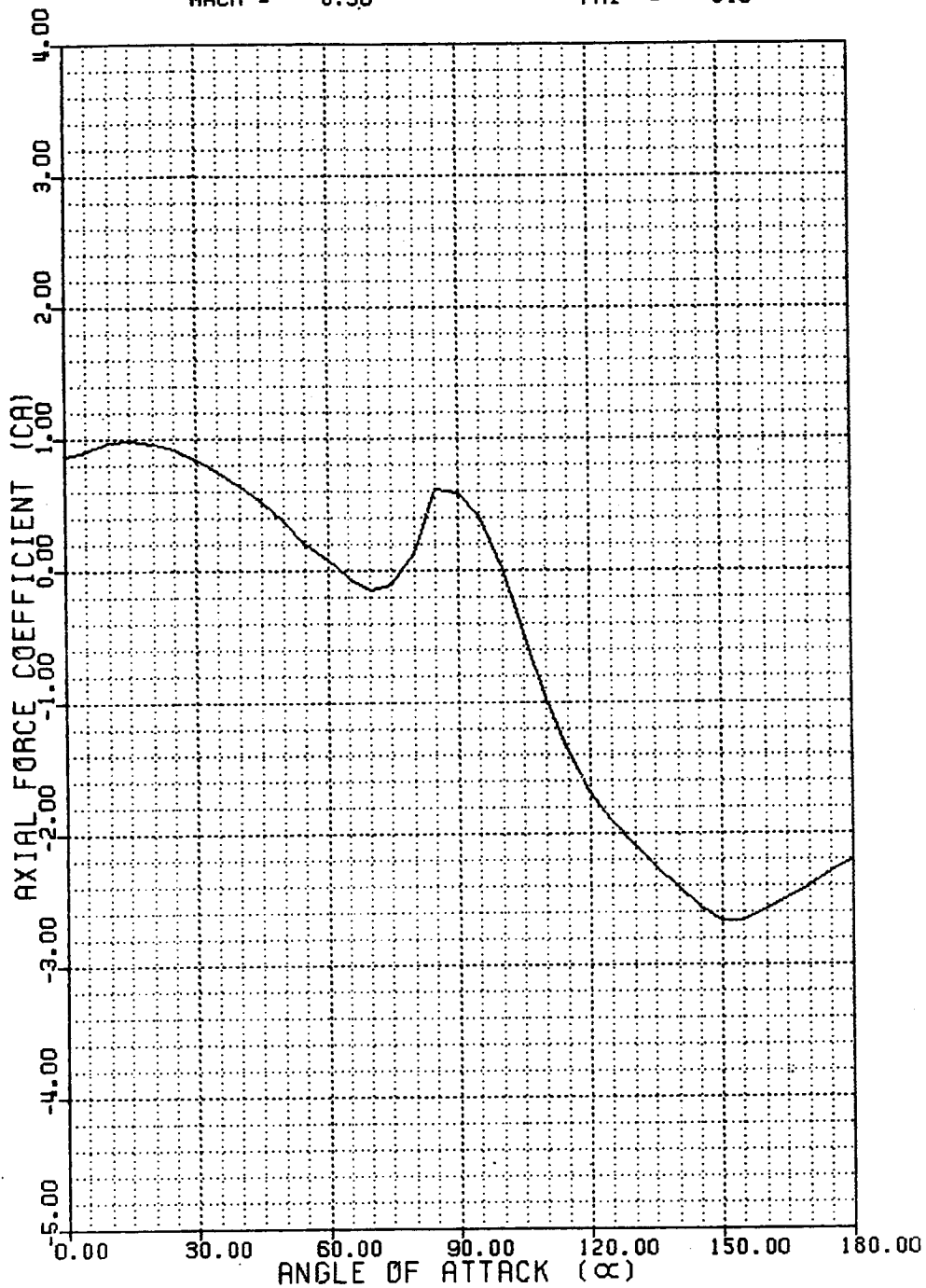


B-592

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 315

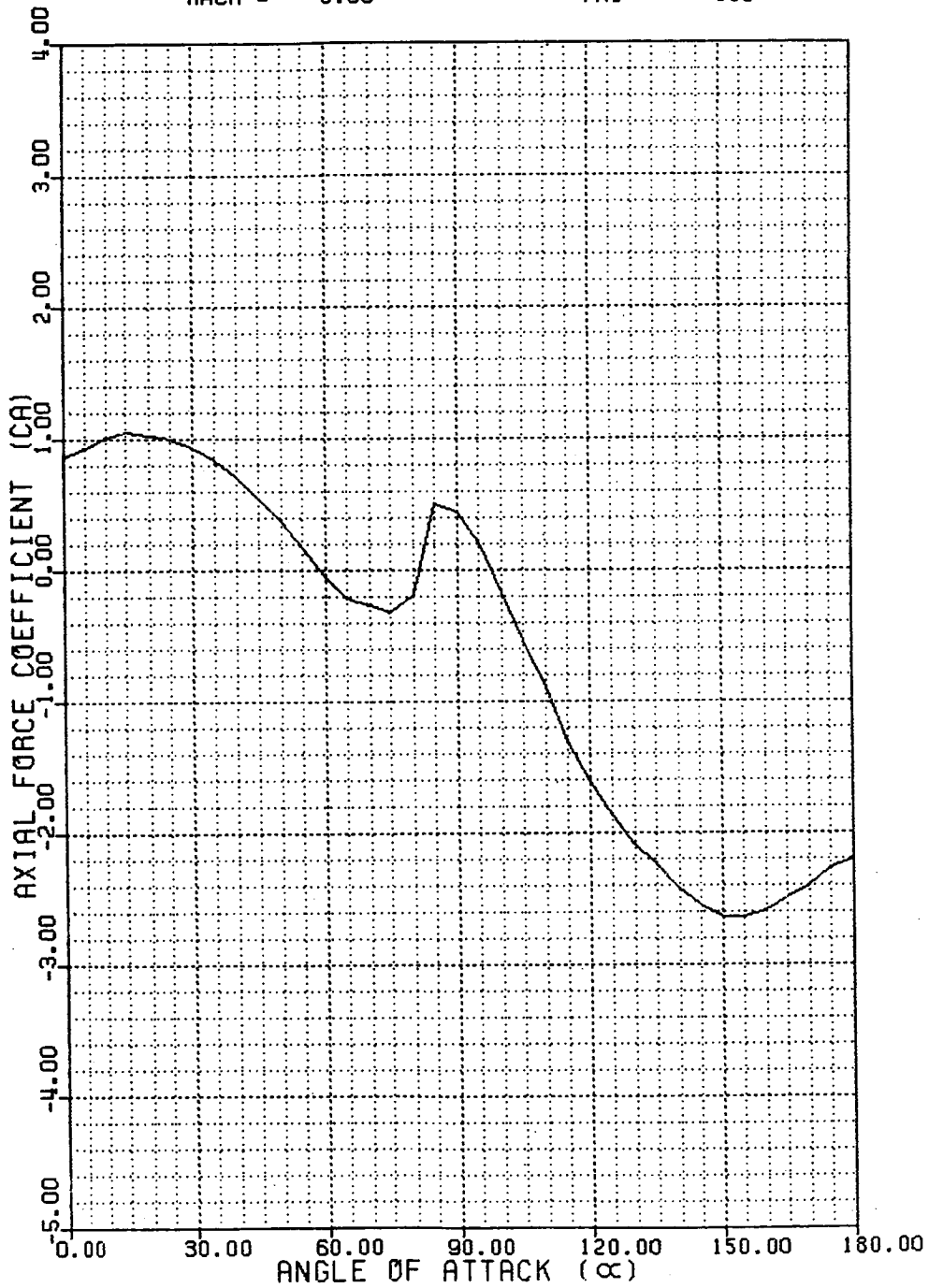


B-593

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 360

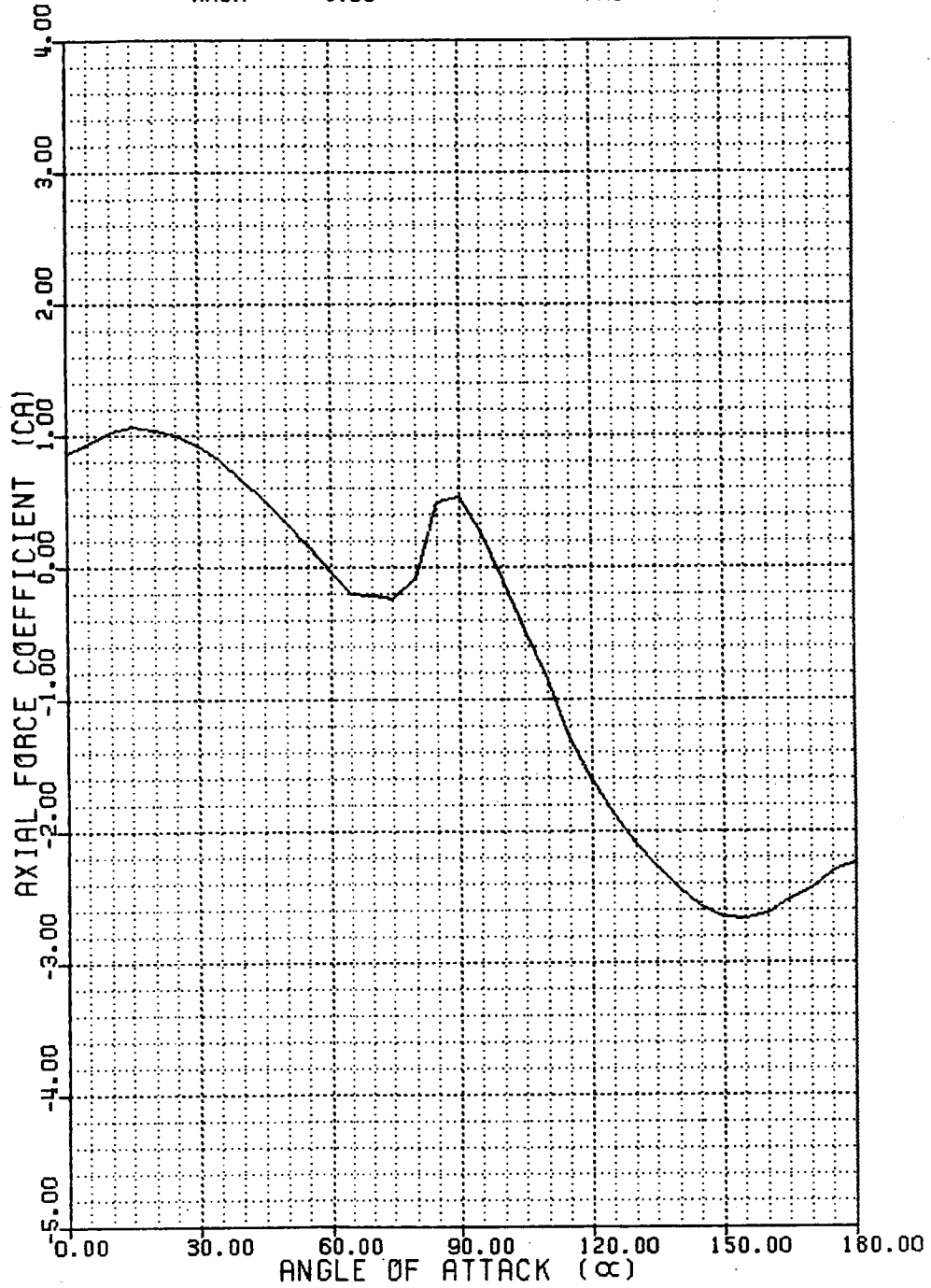


B-594

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 0



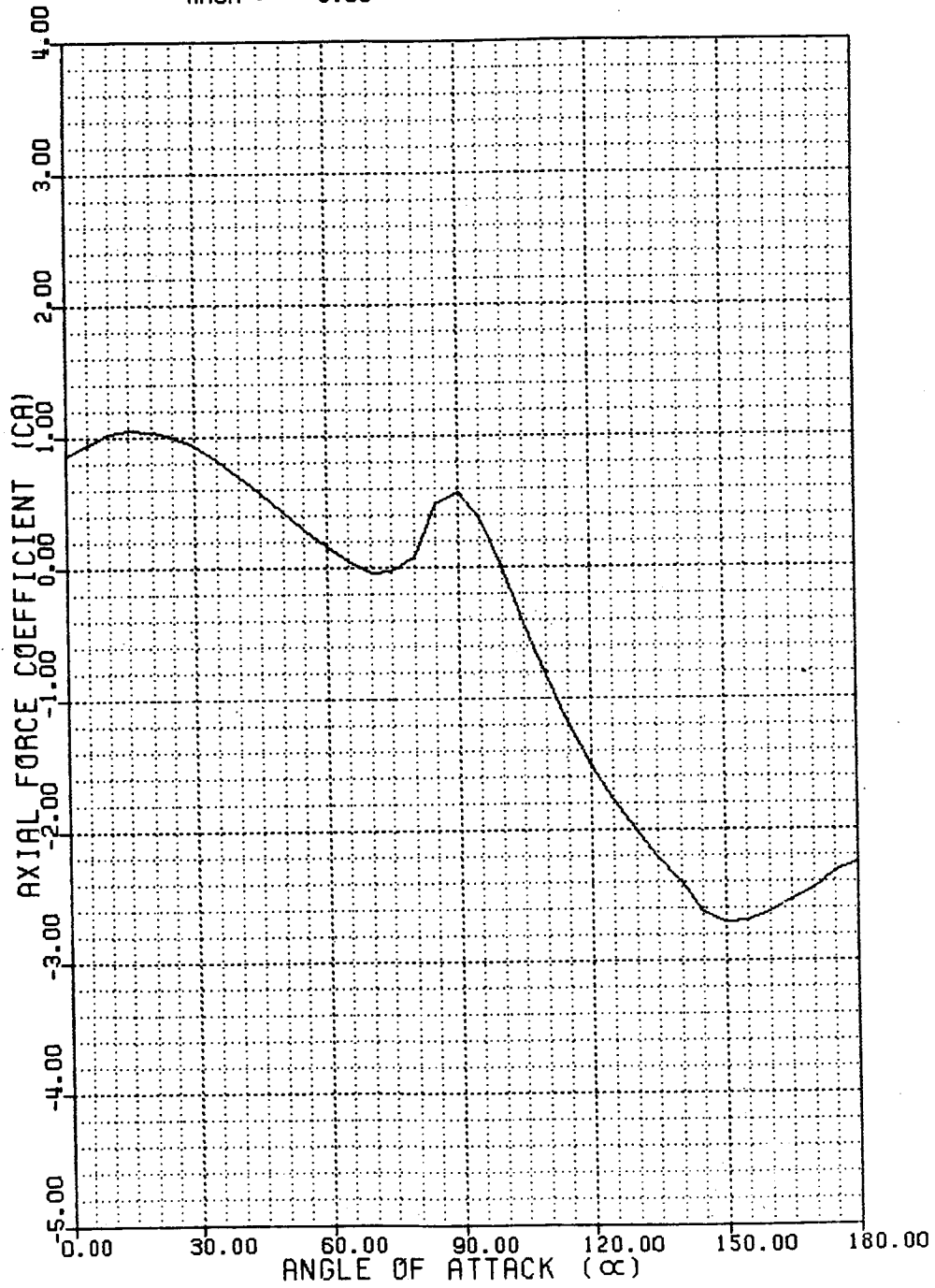
B-595

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 45



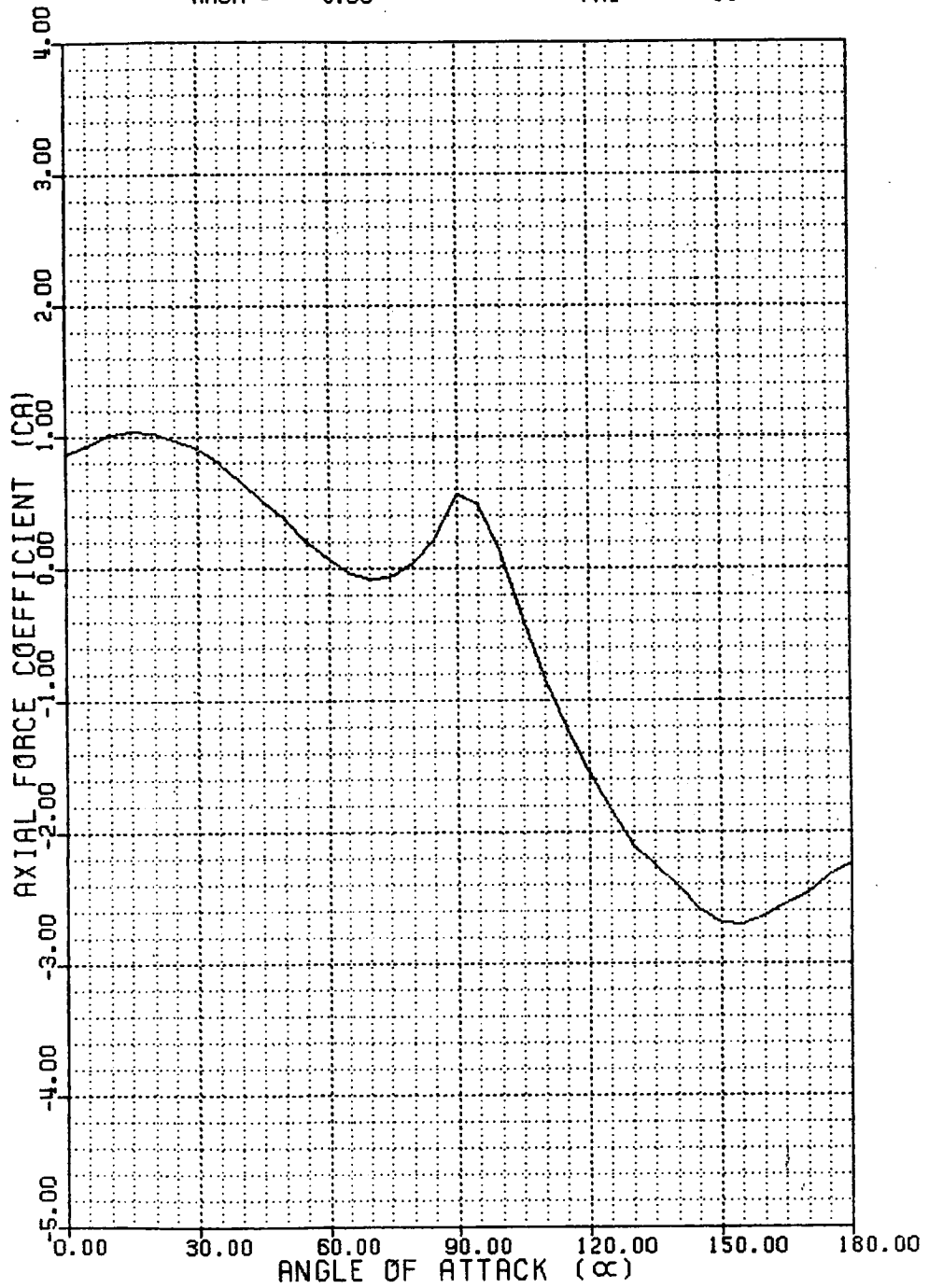
B-596

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 90



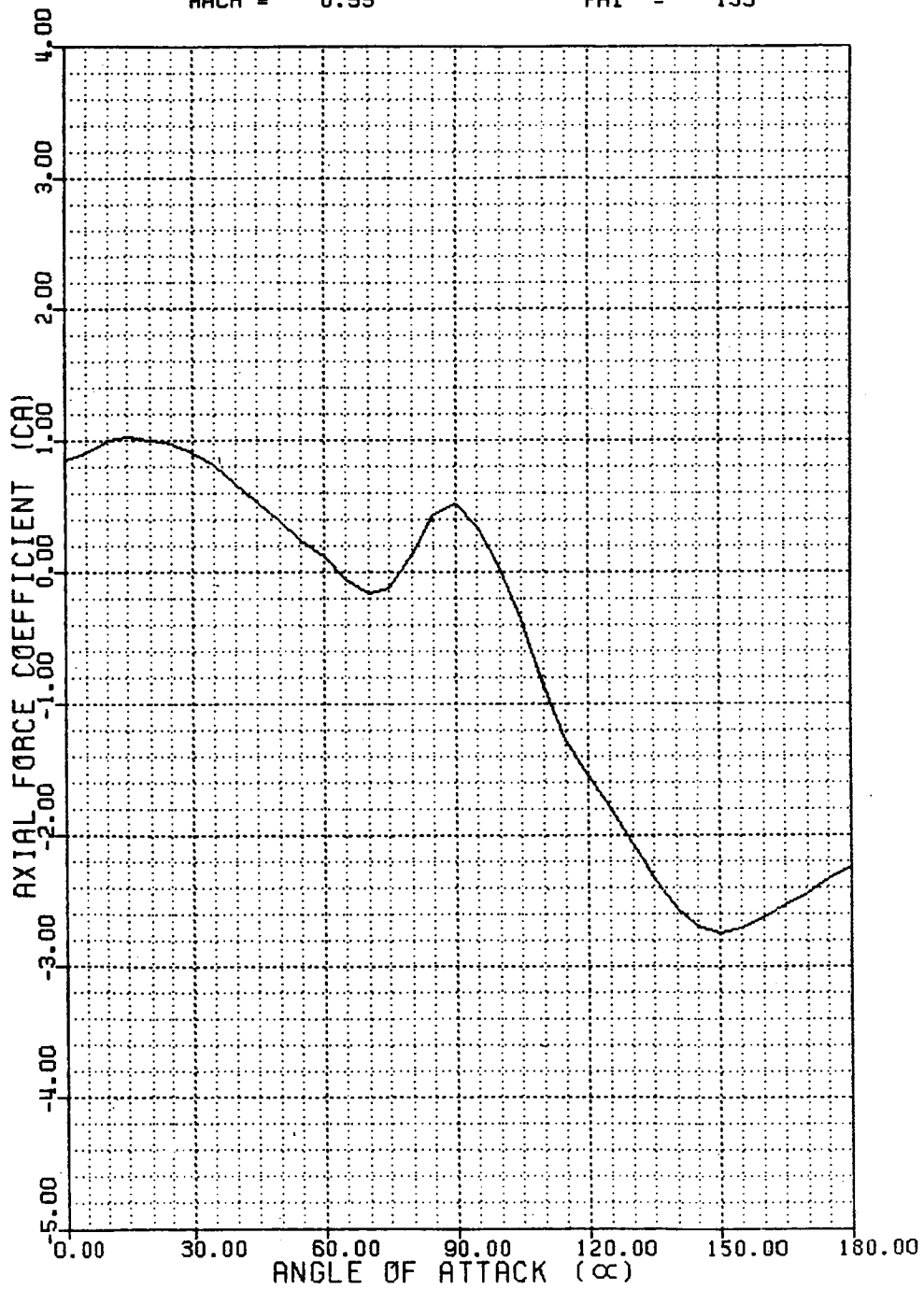
B-597

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 135



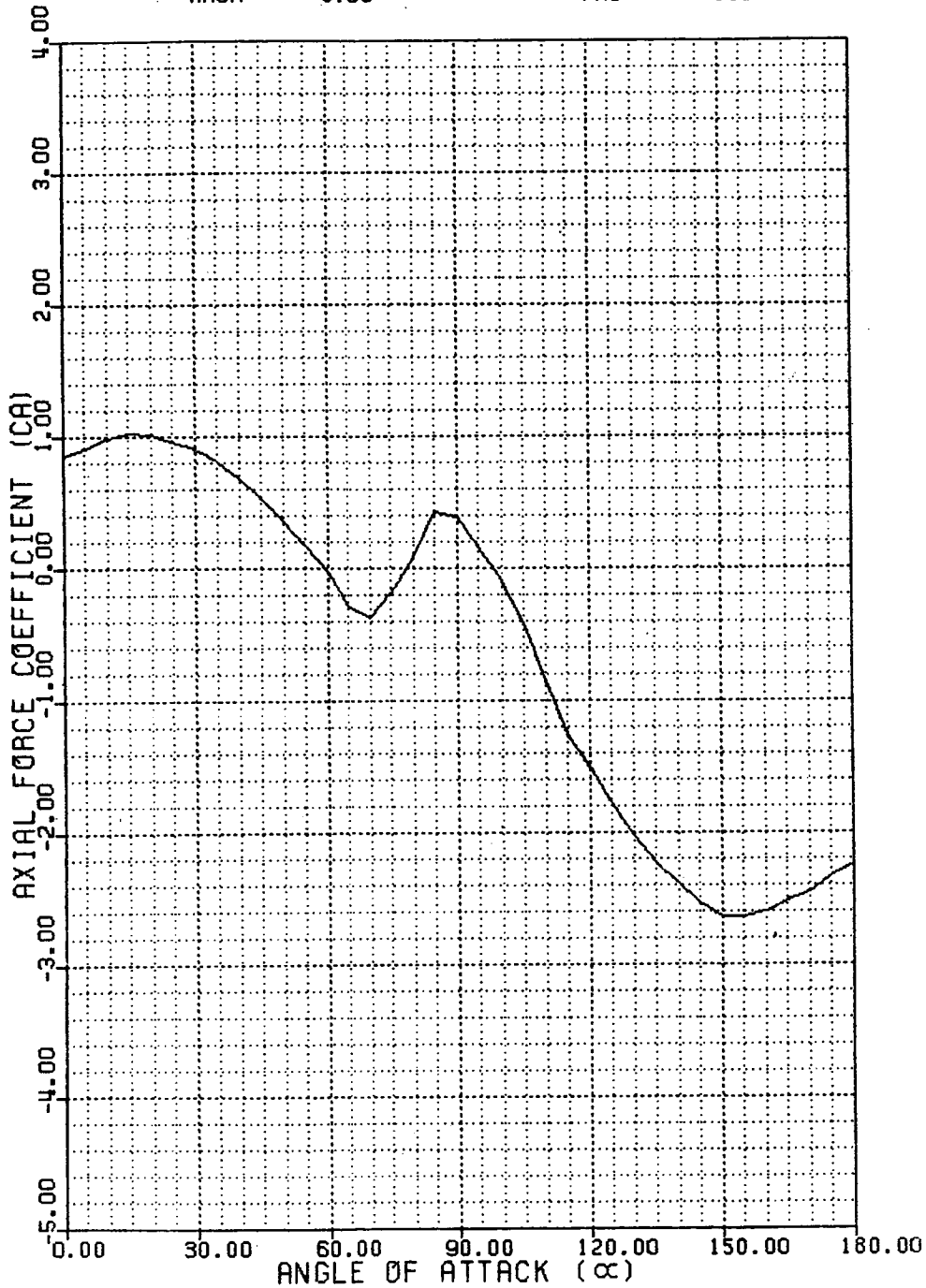
B-598



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 180



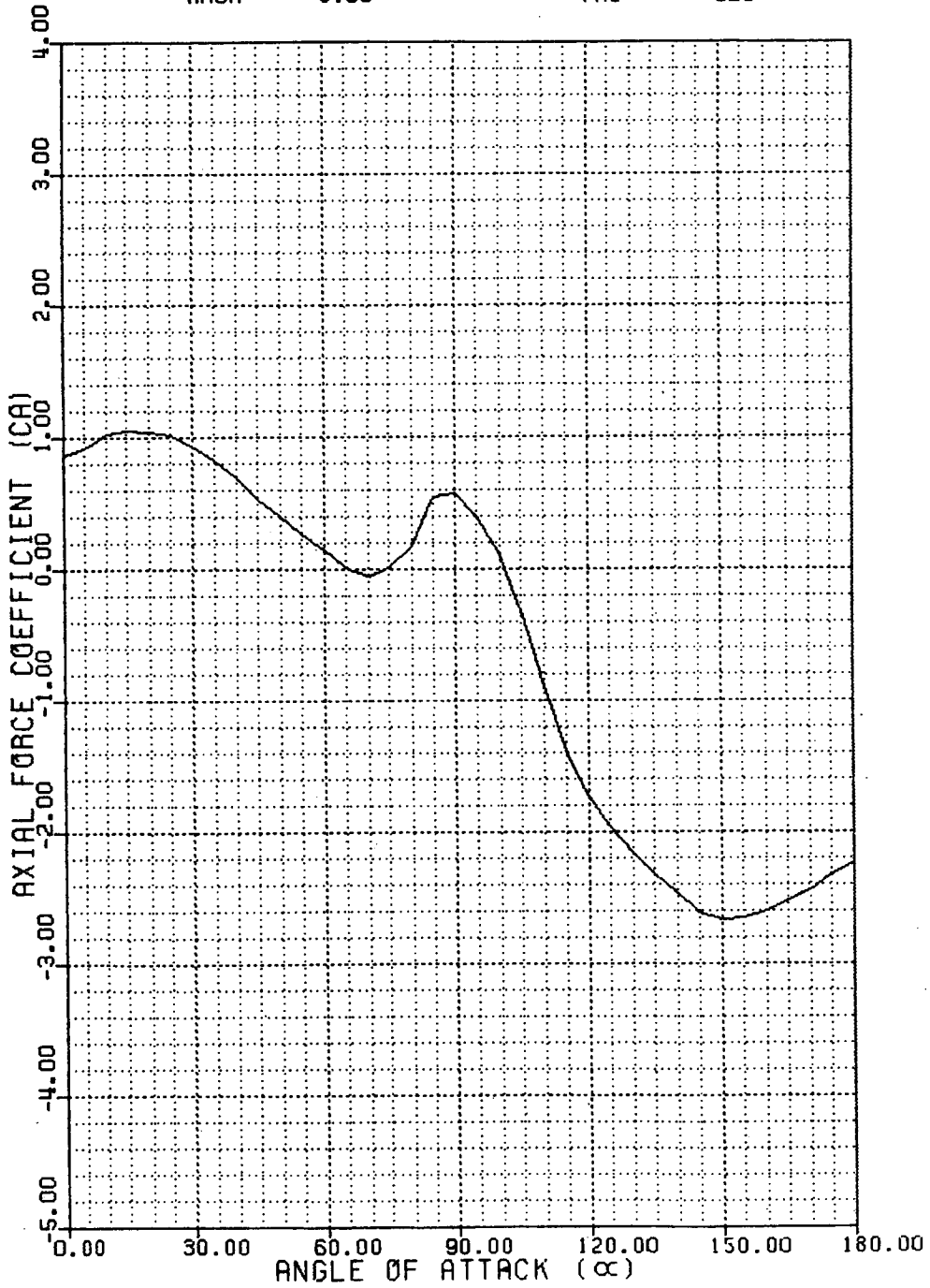
B-599

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 225



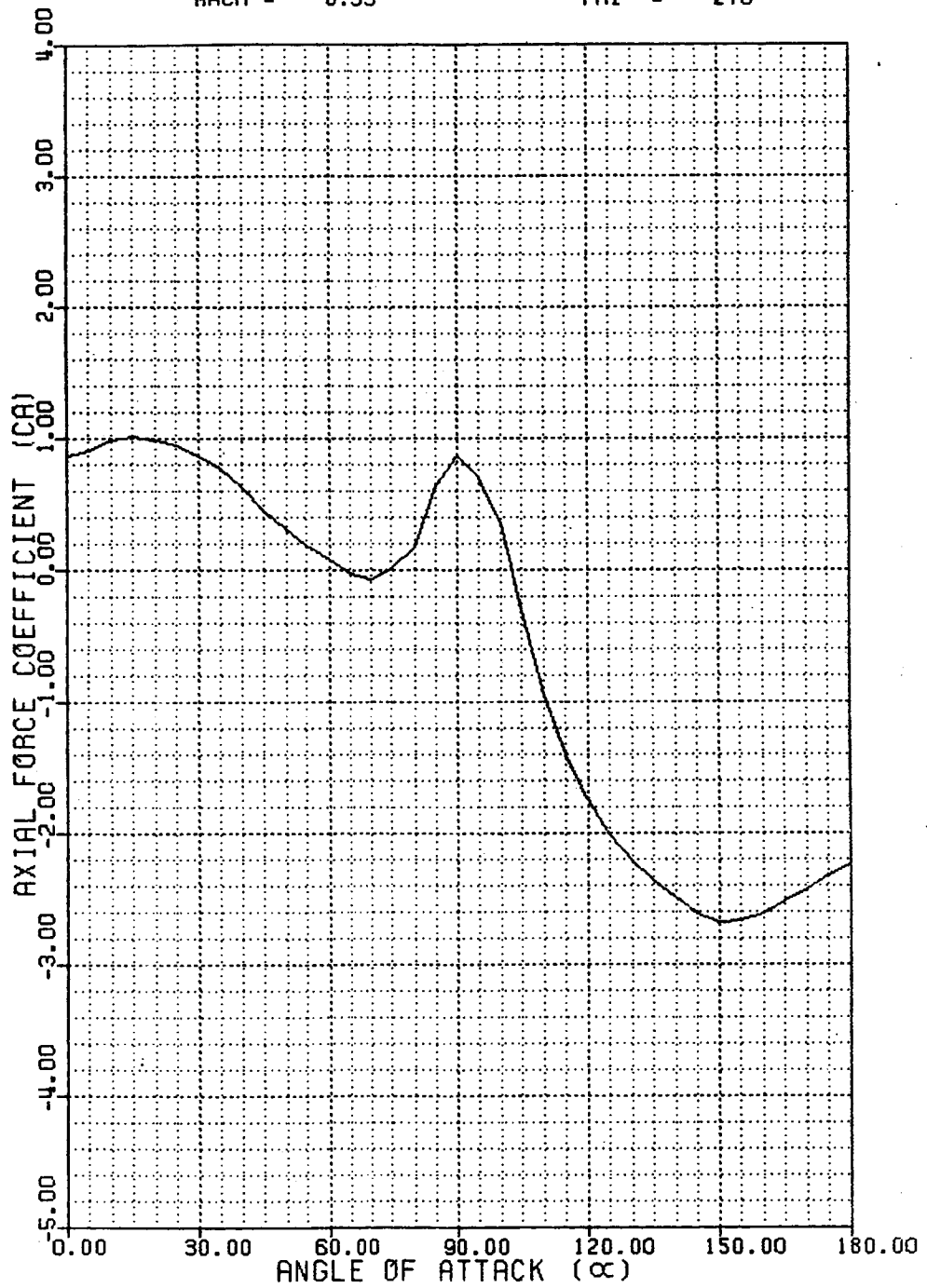
B-600

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 270



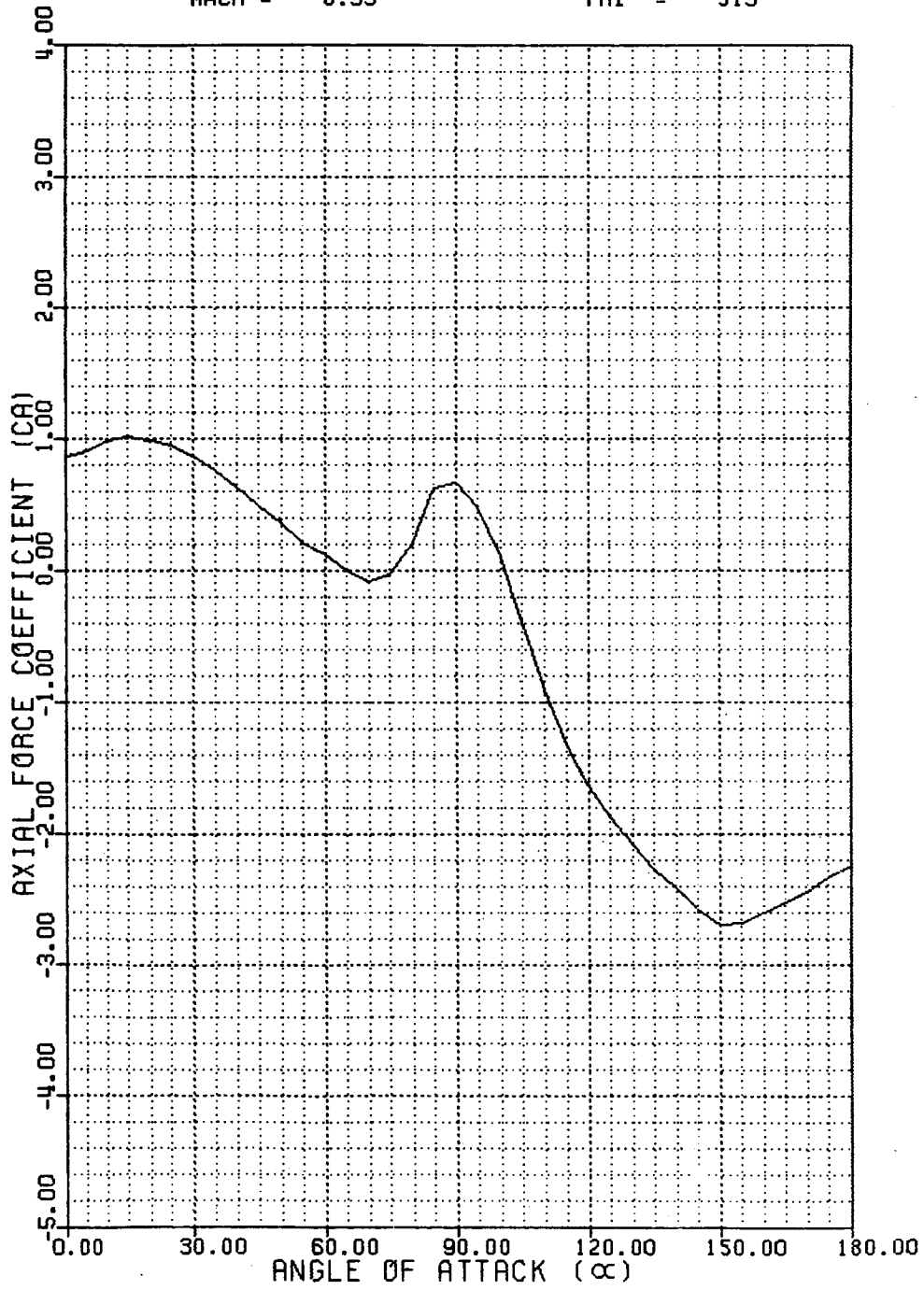
B-601

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 315

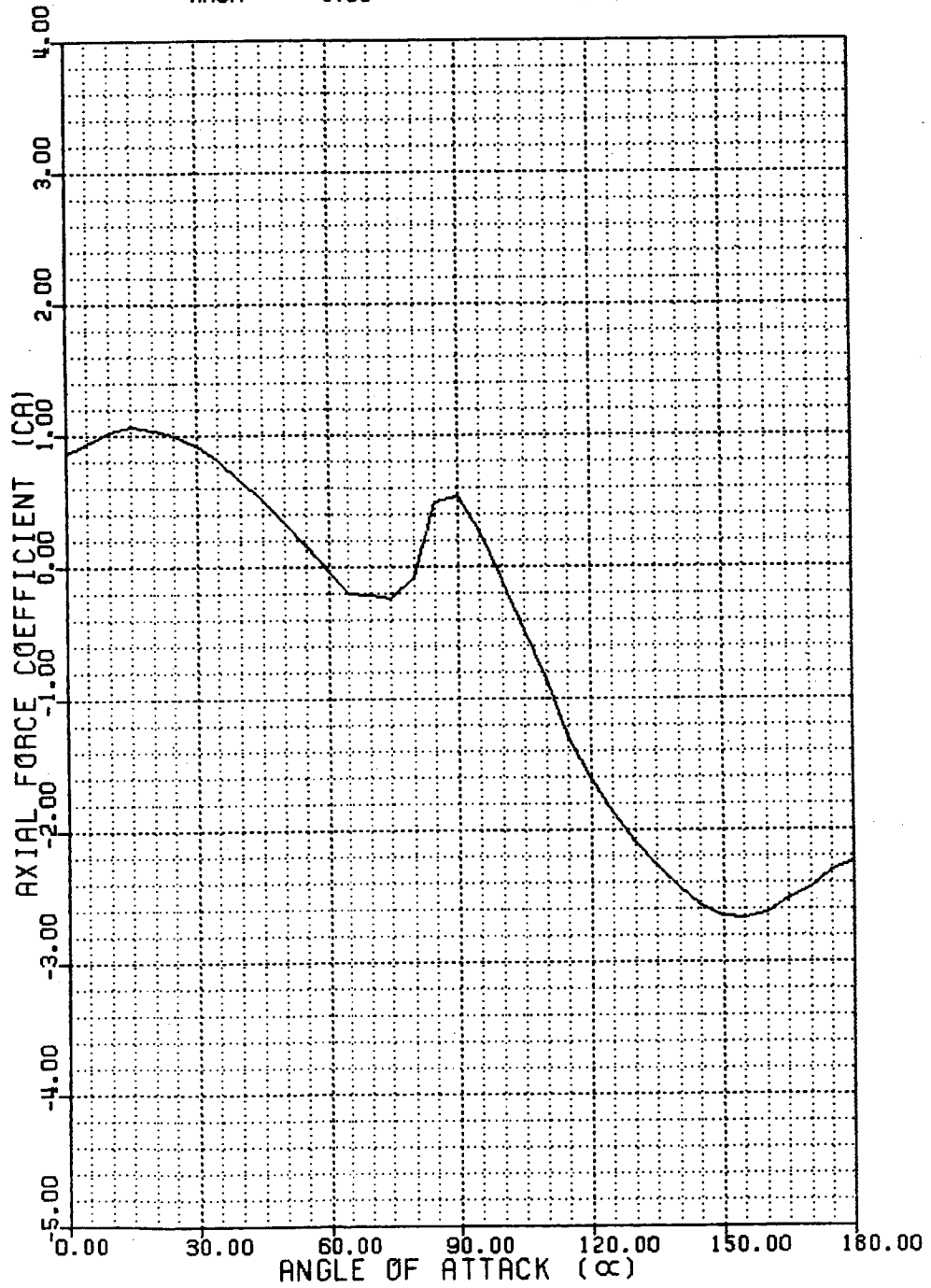


B-602

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 360



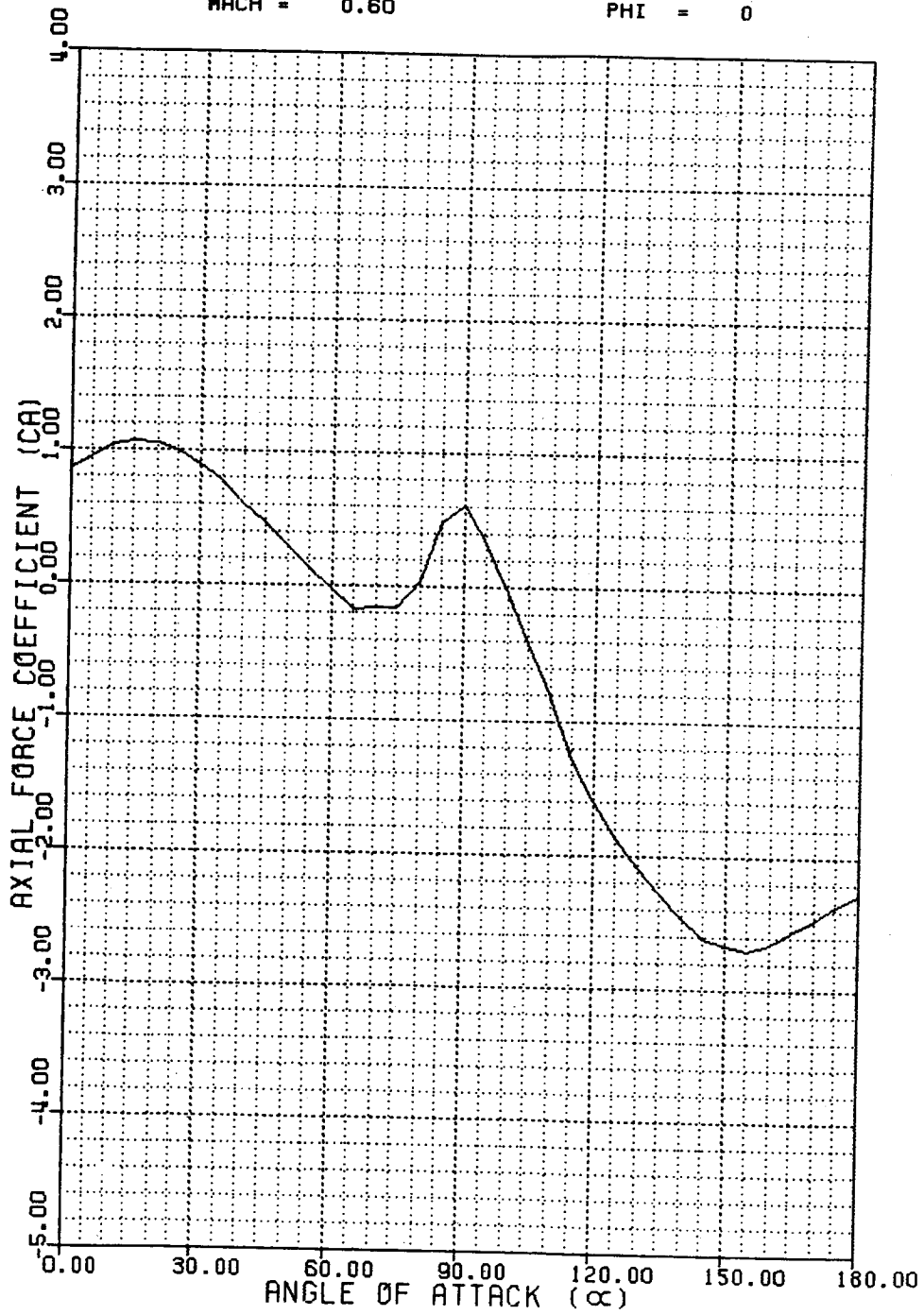
B-603

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 0

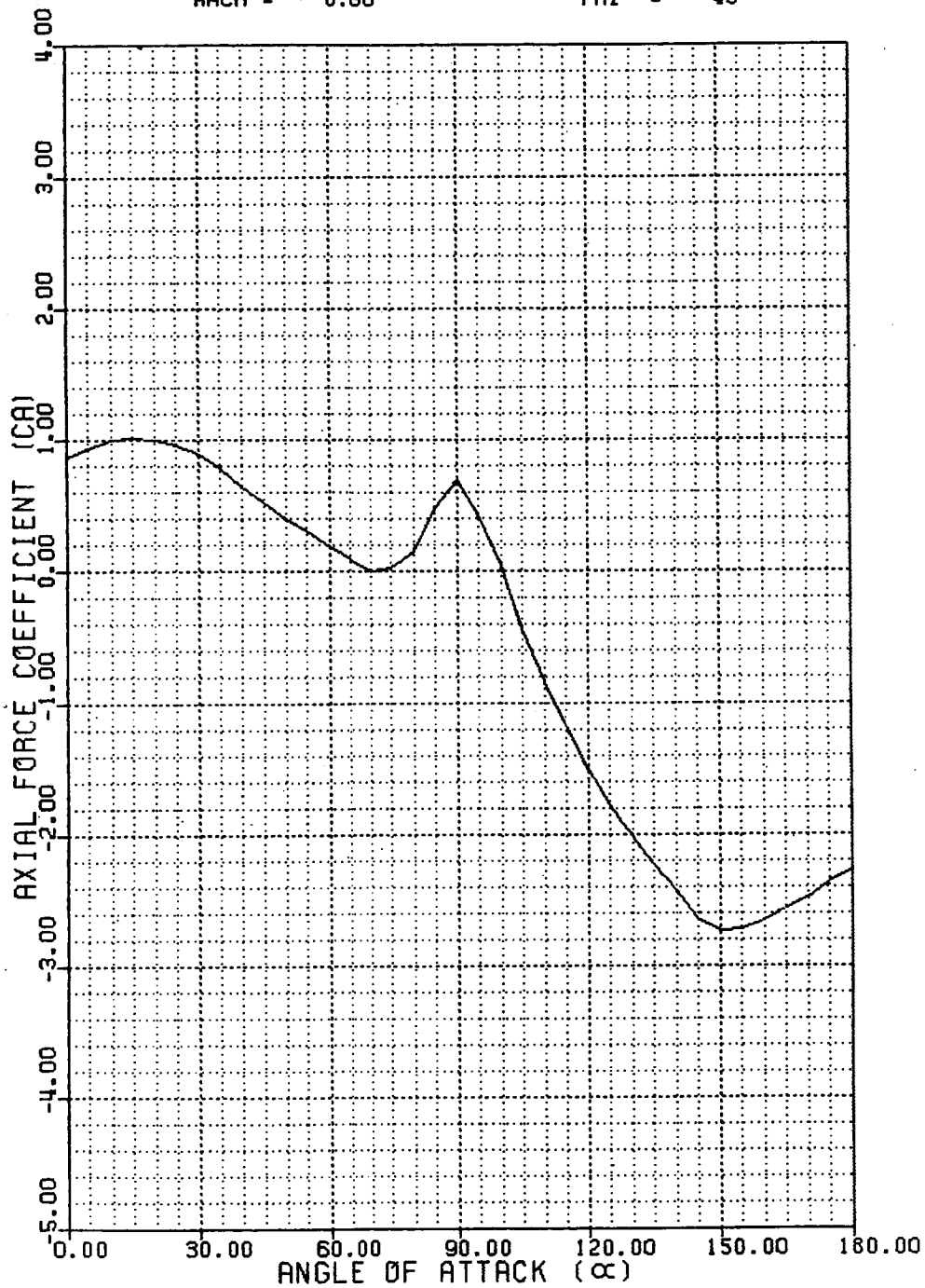


B-604

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 45



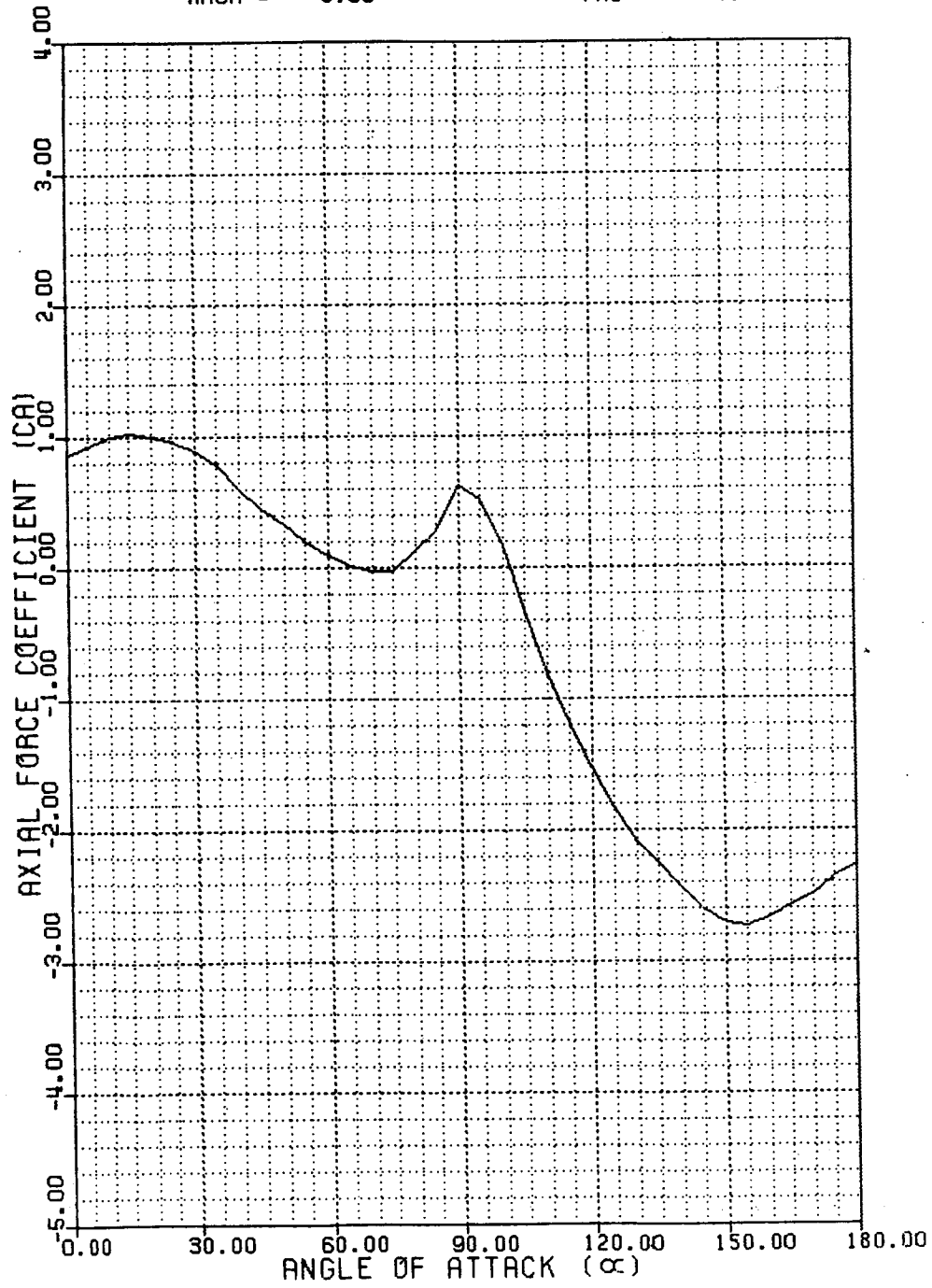
B-605

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 90



B-606

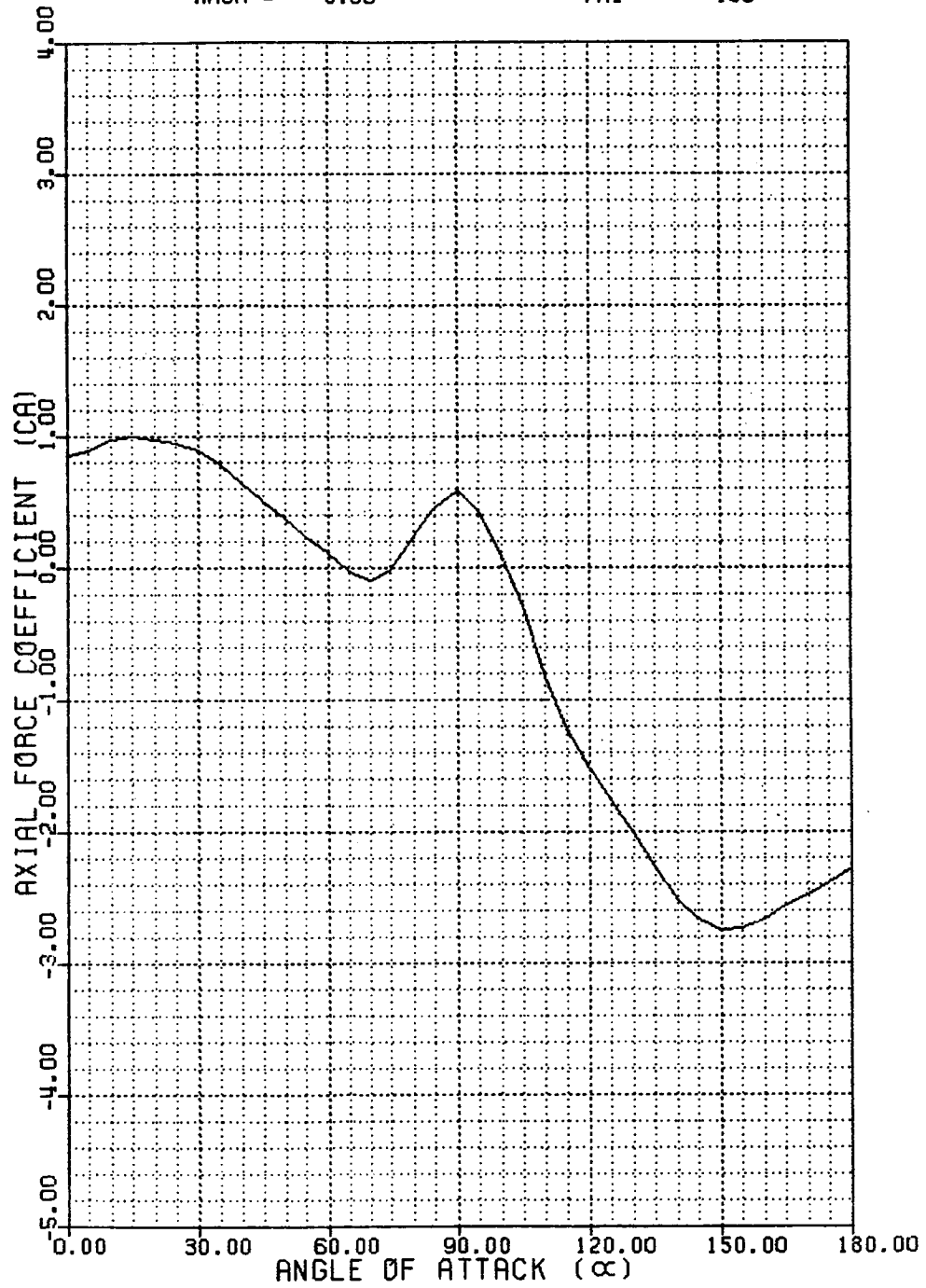
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.60

PHI = 135



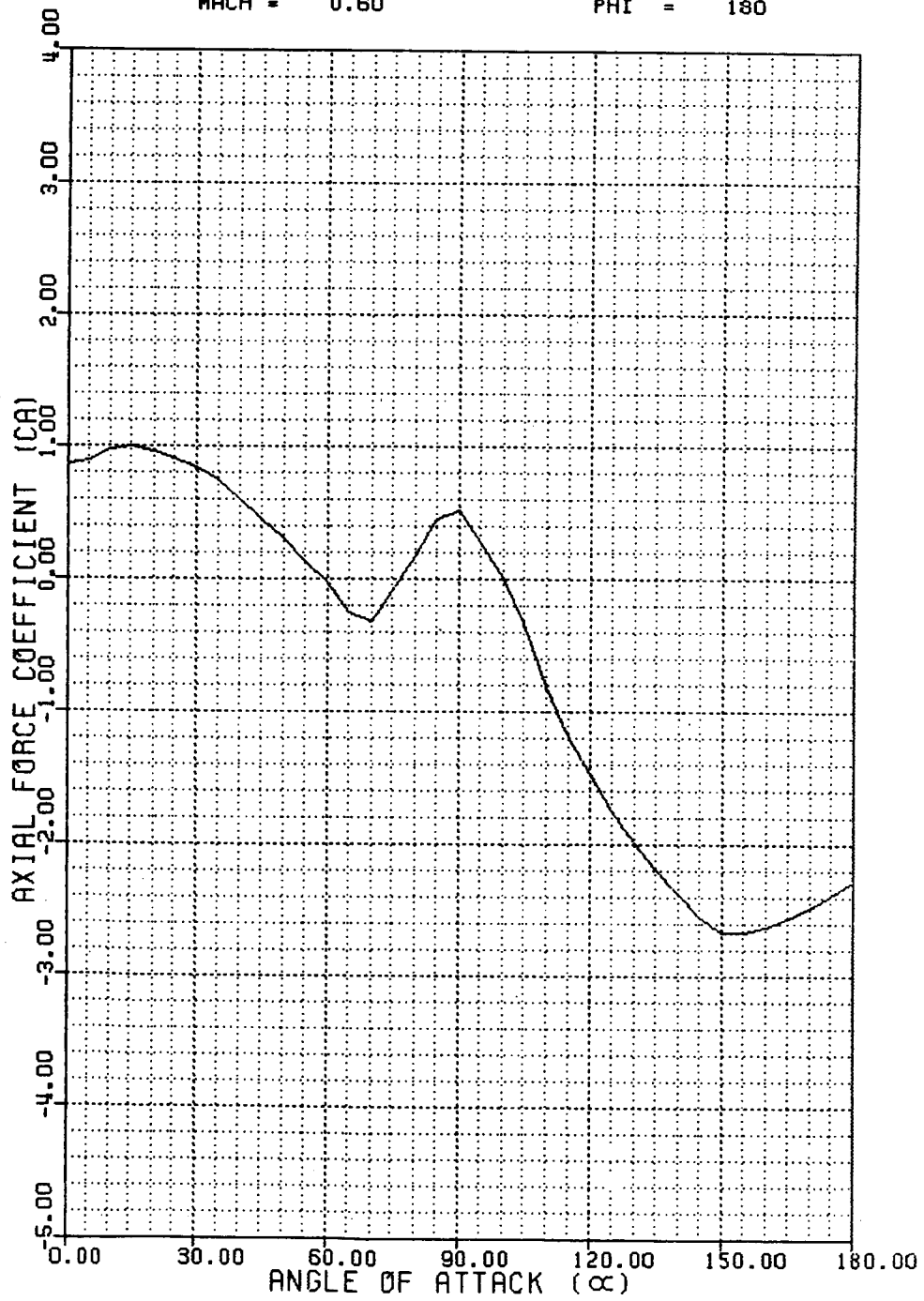
B-607

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 180

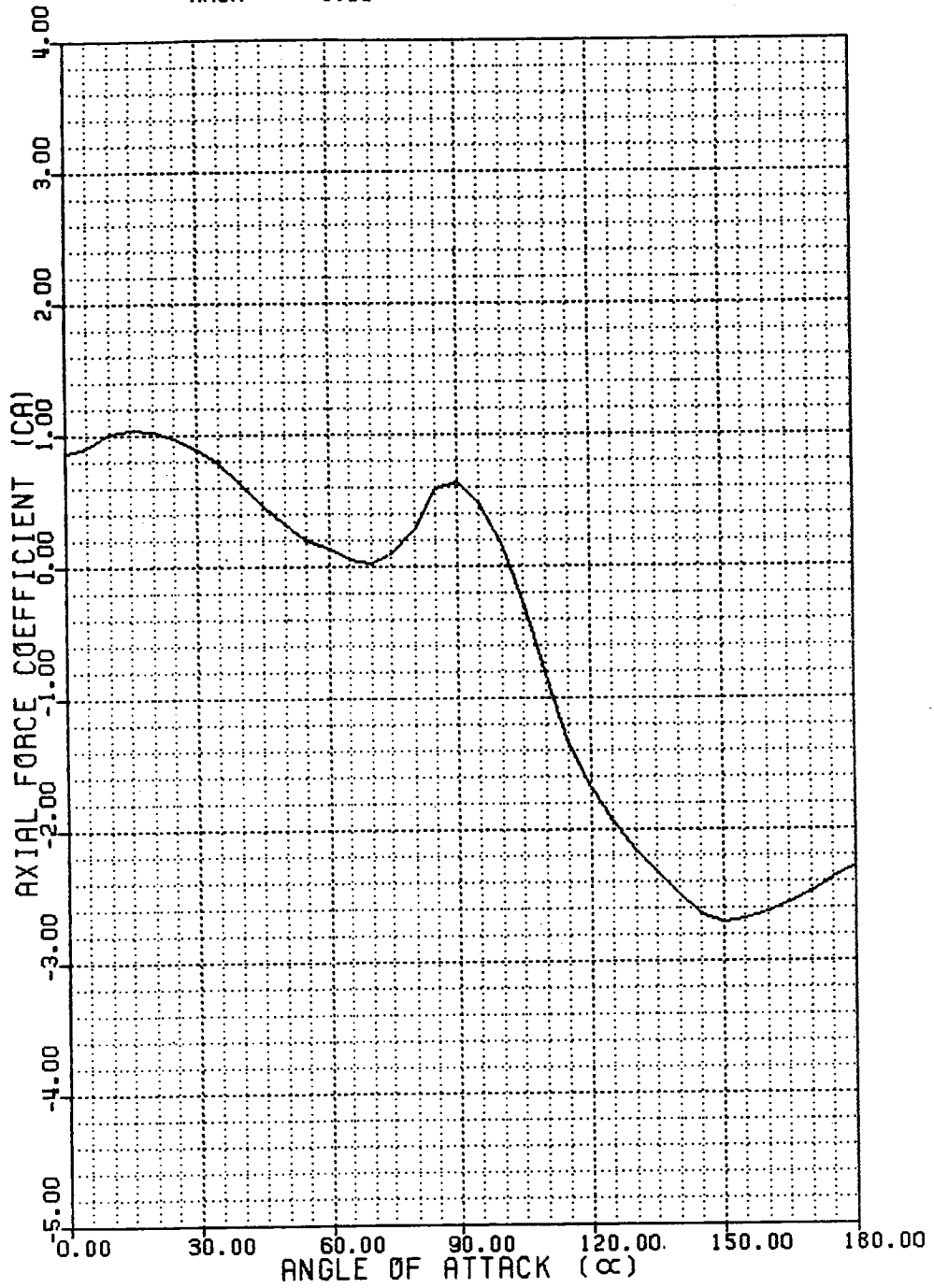


B-608

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 225



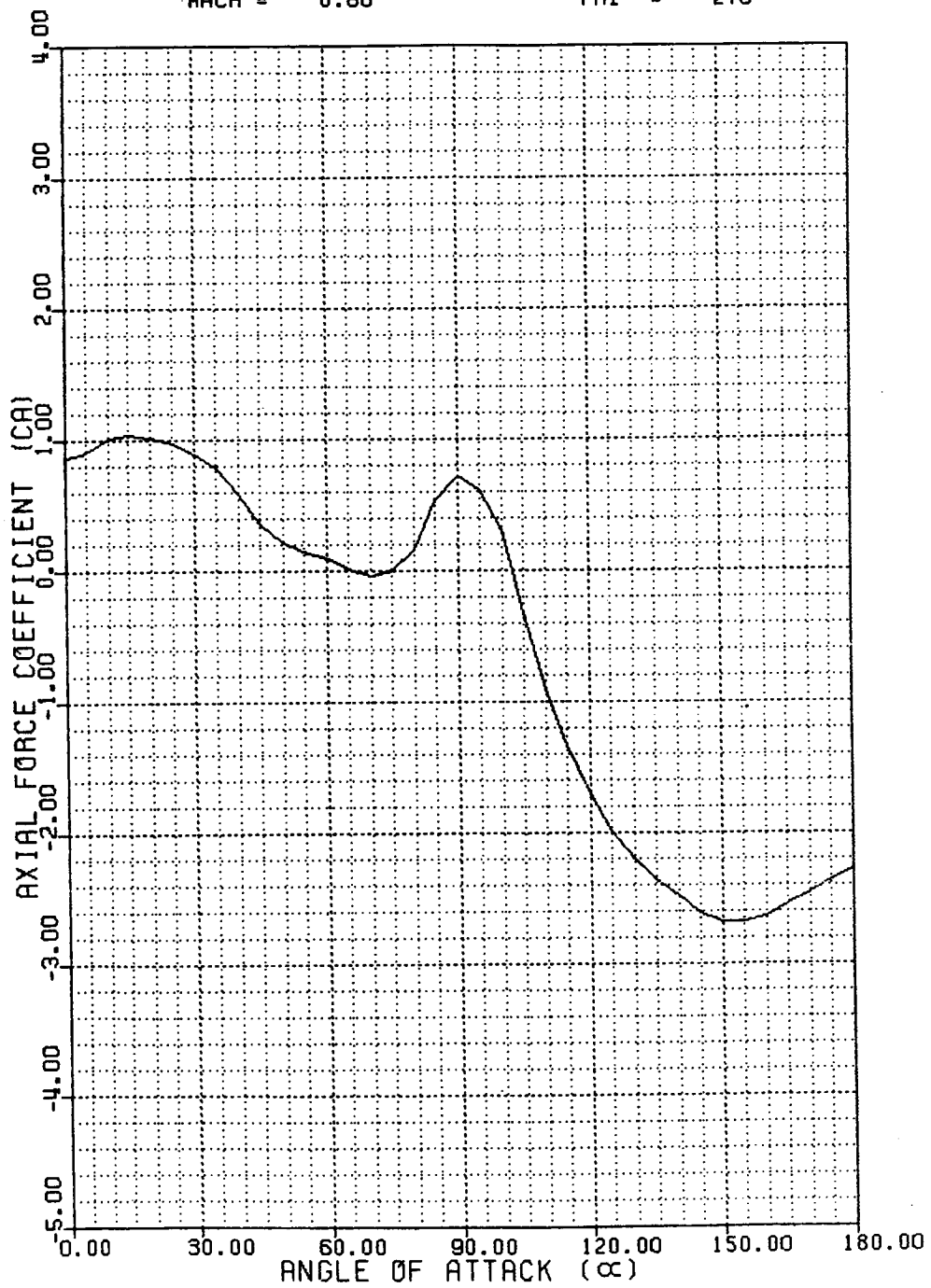
B-609

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 270



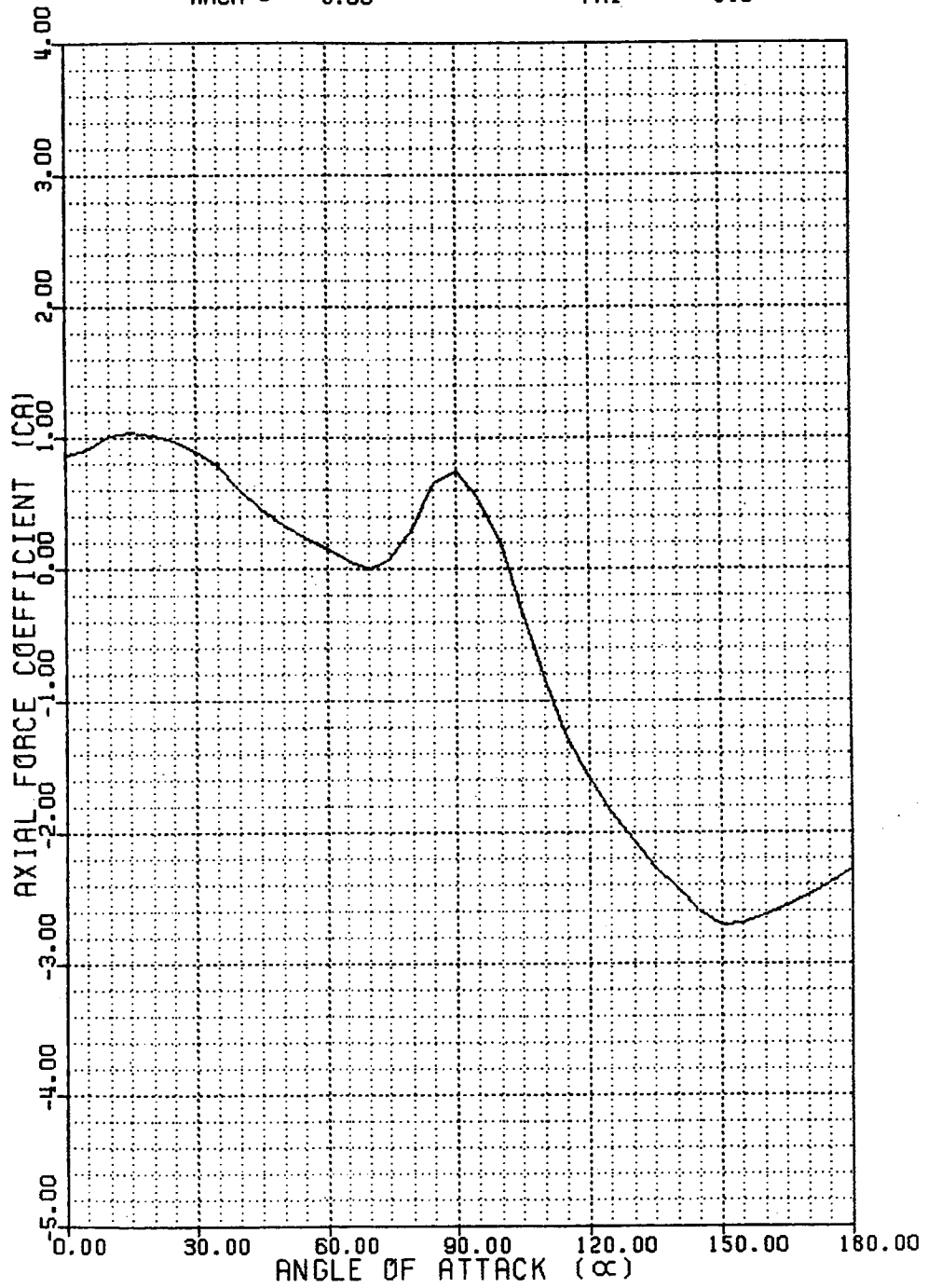
B-610

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 315



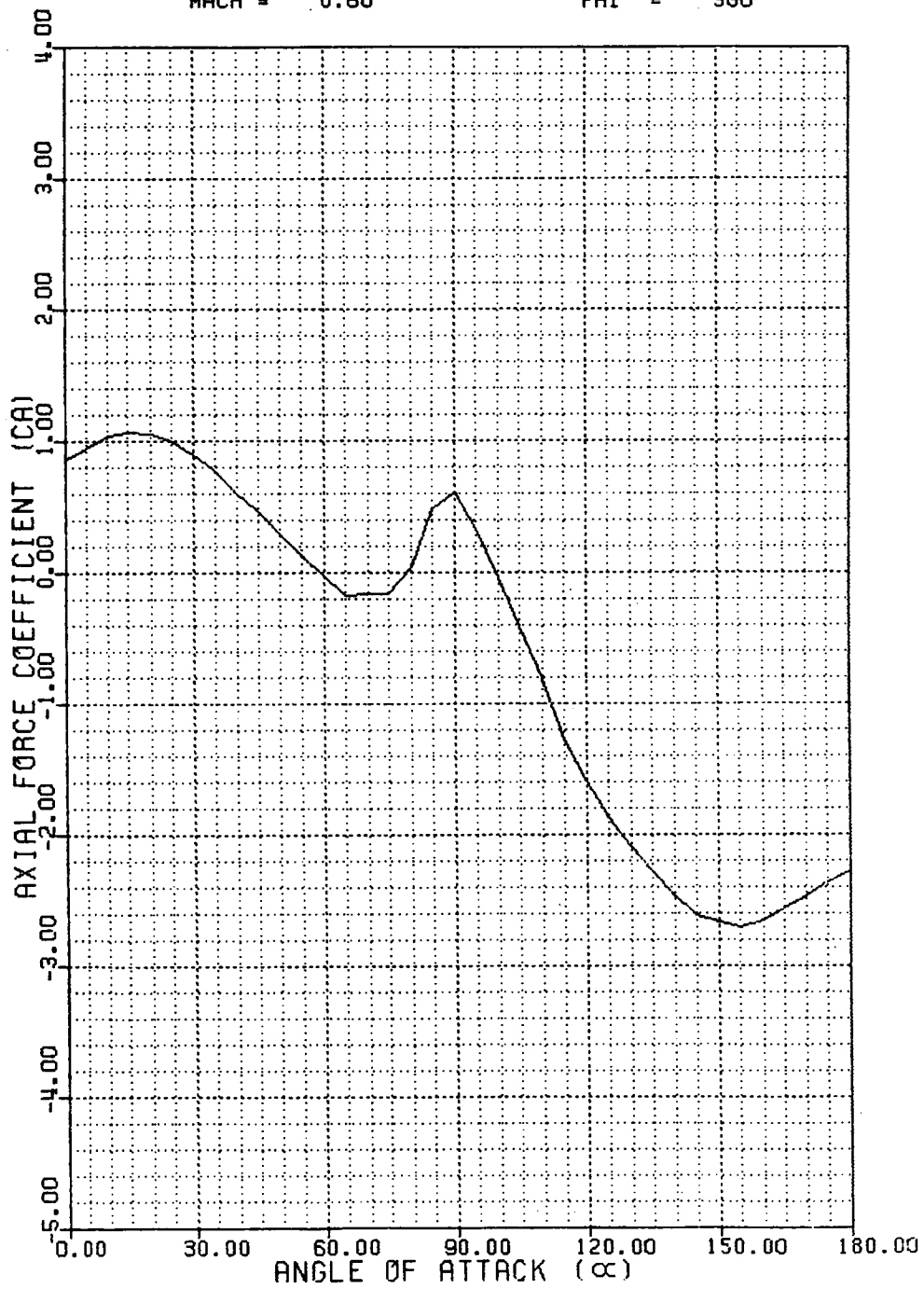
B-611

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 360



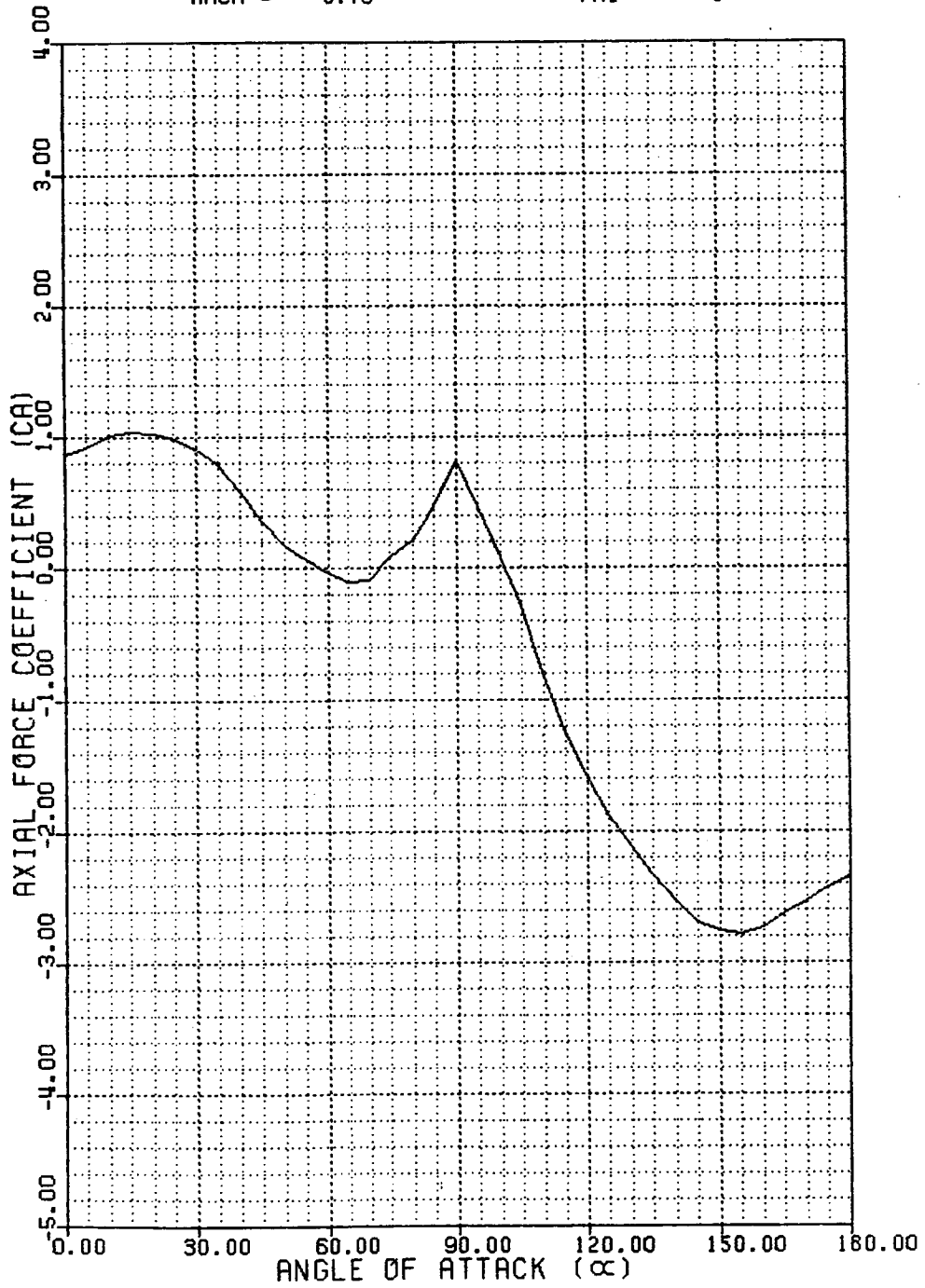
B-612

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 0



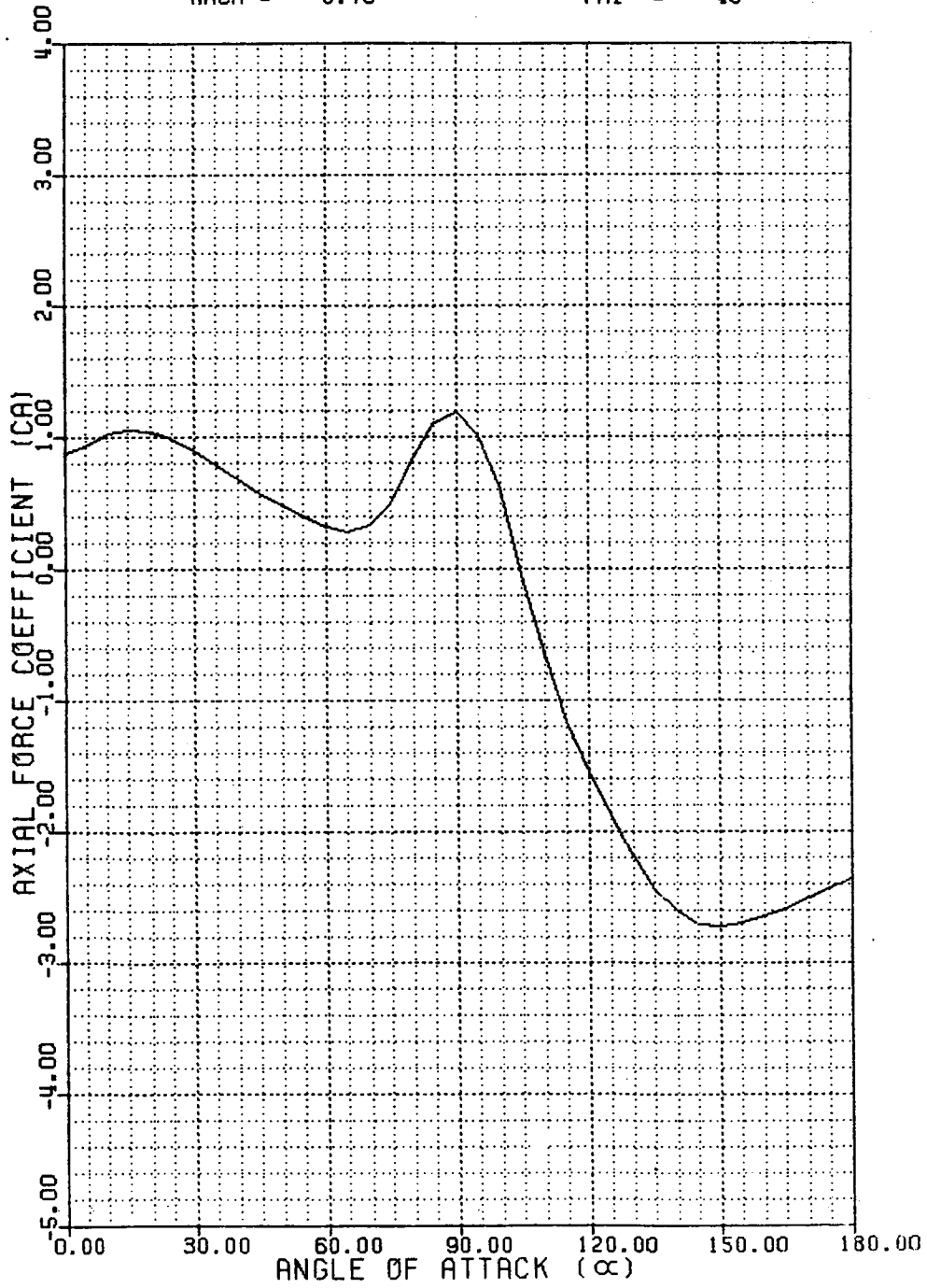
B-613

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 45



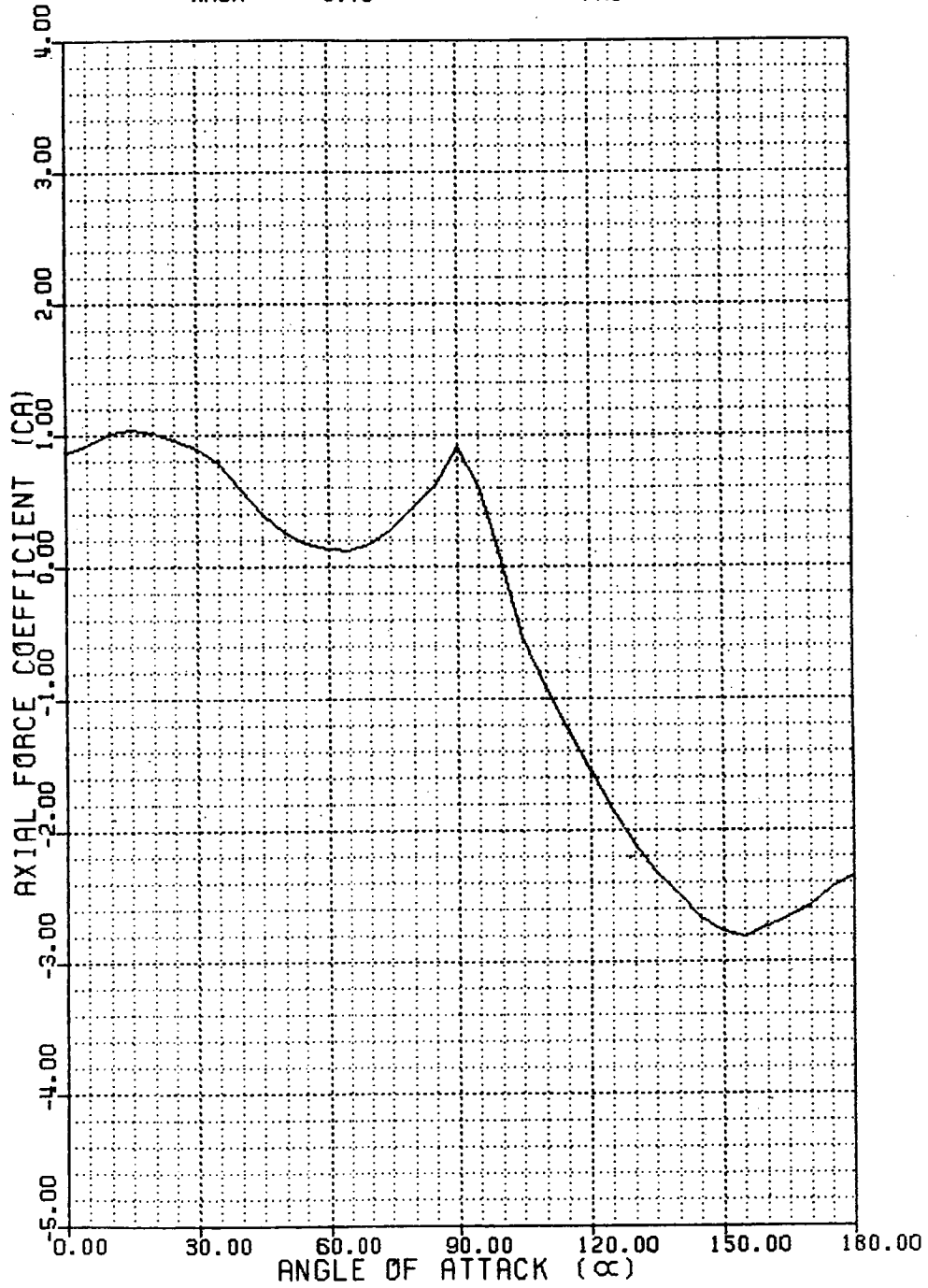
B-614



# SRB TAPE 8 DATA

MACH = 0.70

PHI = 90



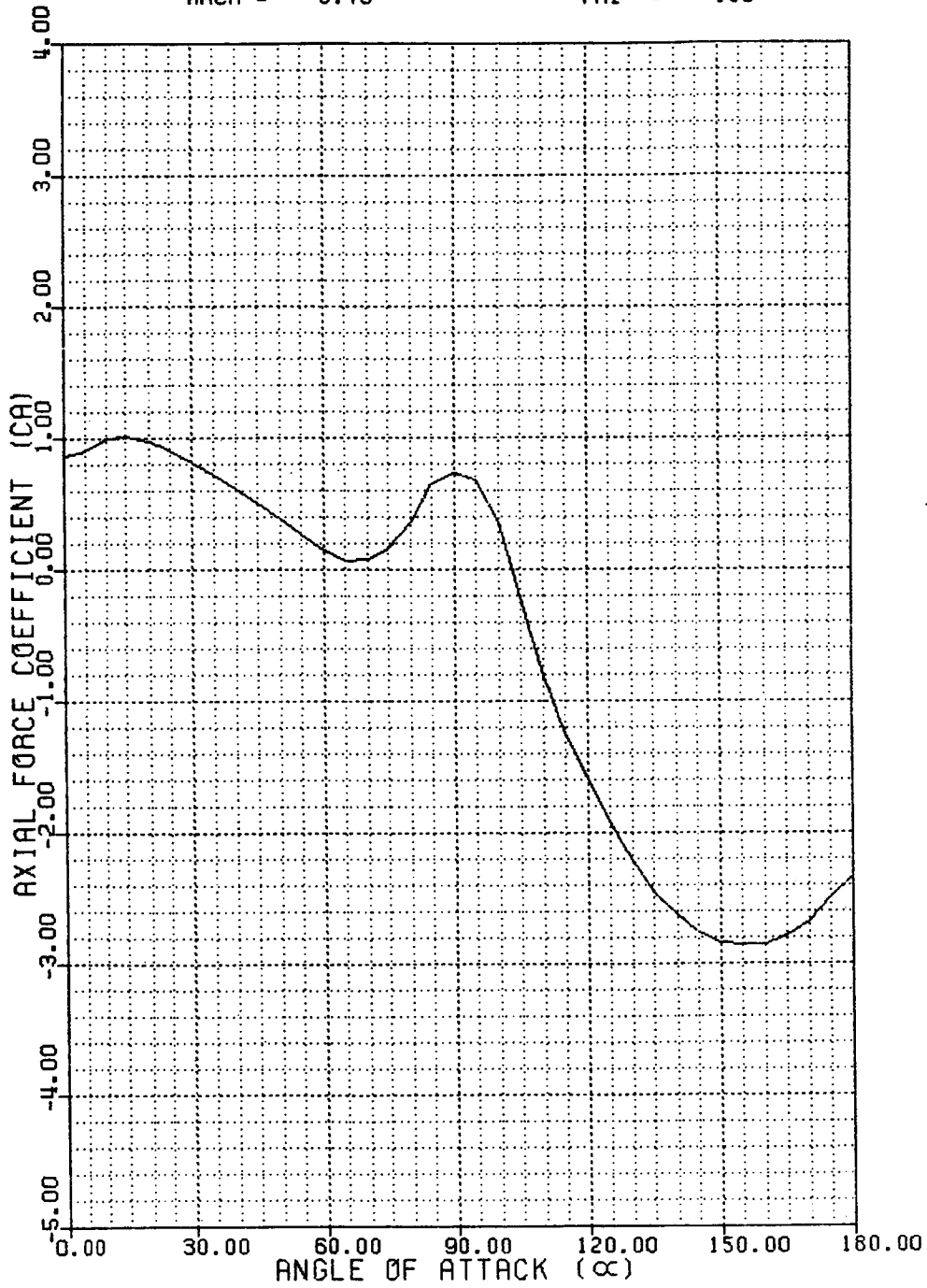
B-615

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 135



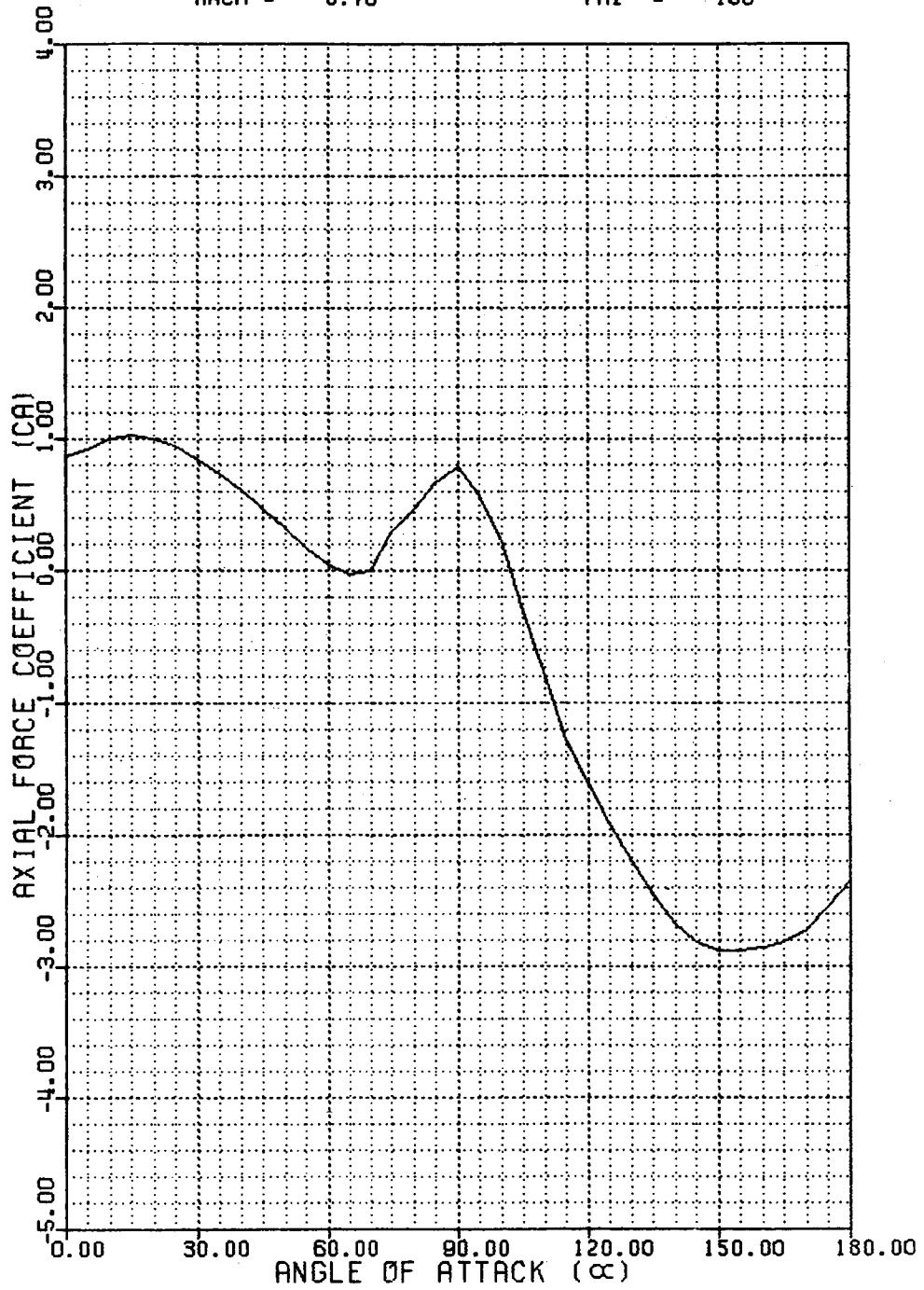
B-616

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 180



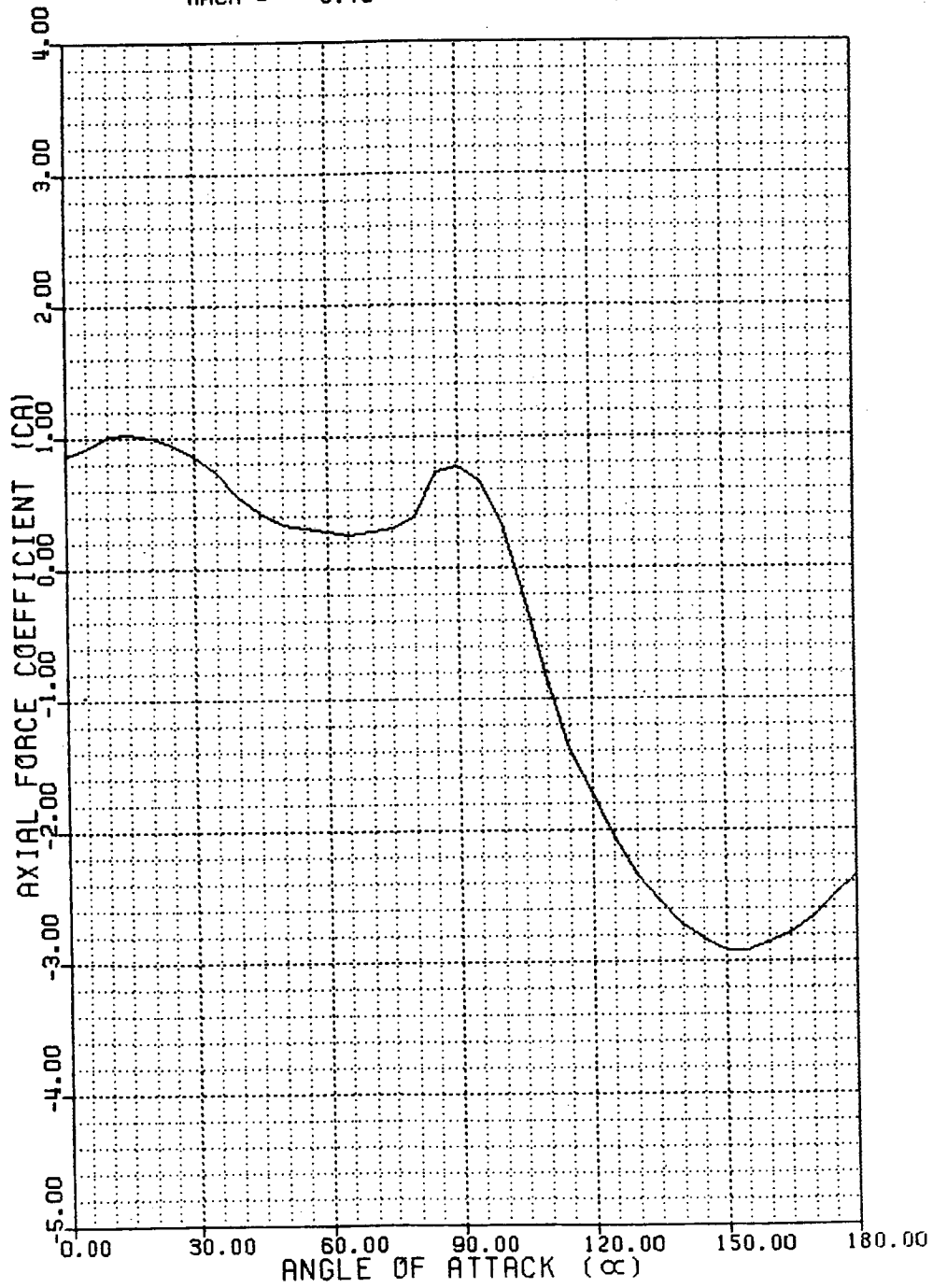
B-617

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 225



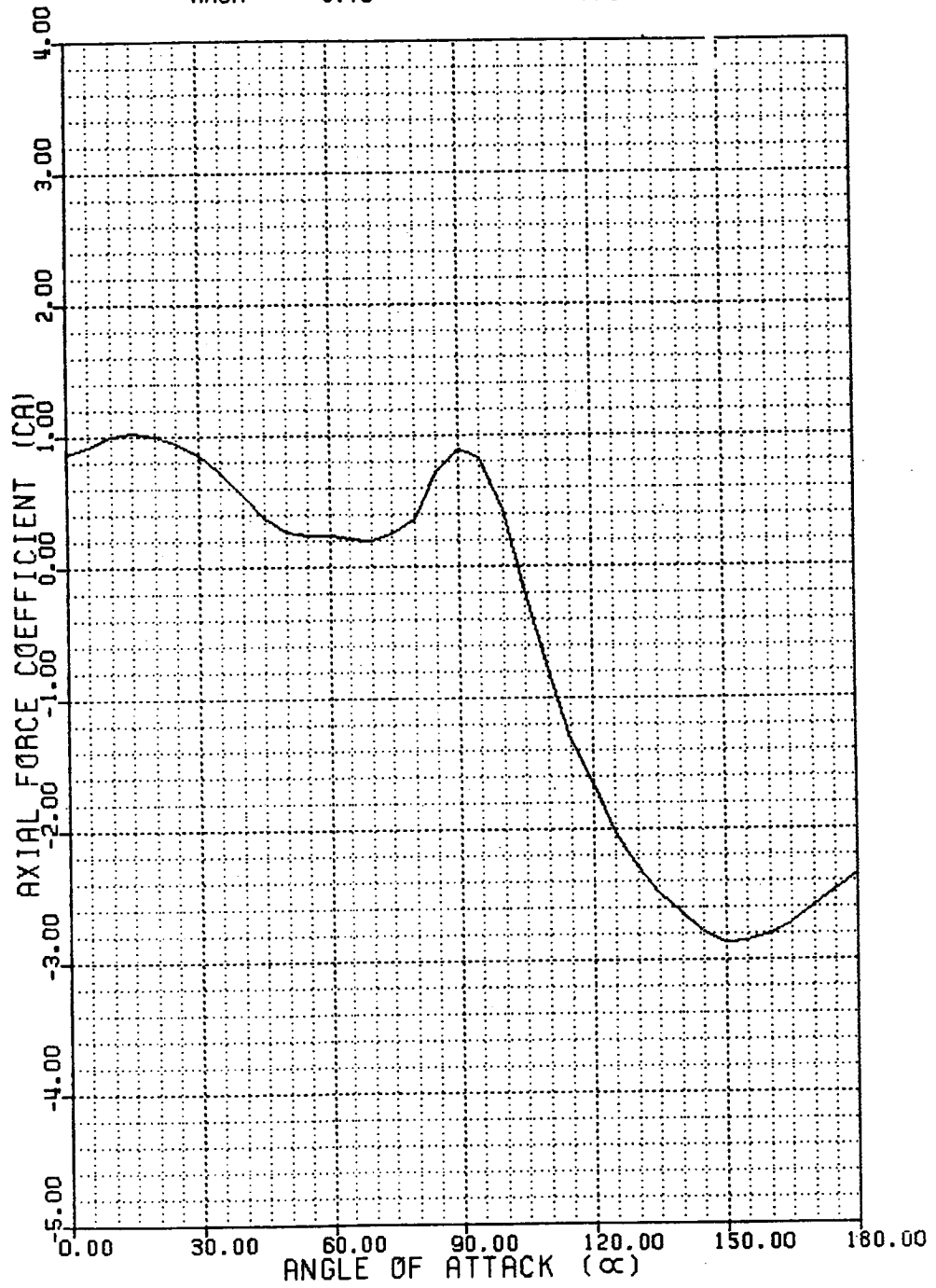
B-618

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 270



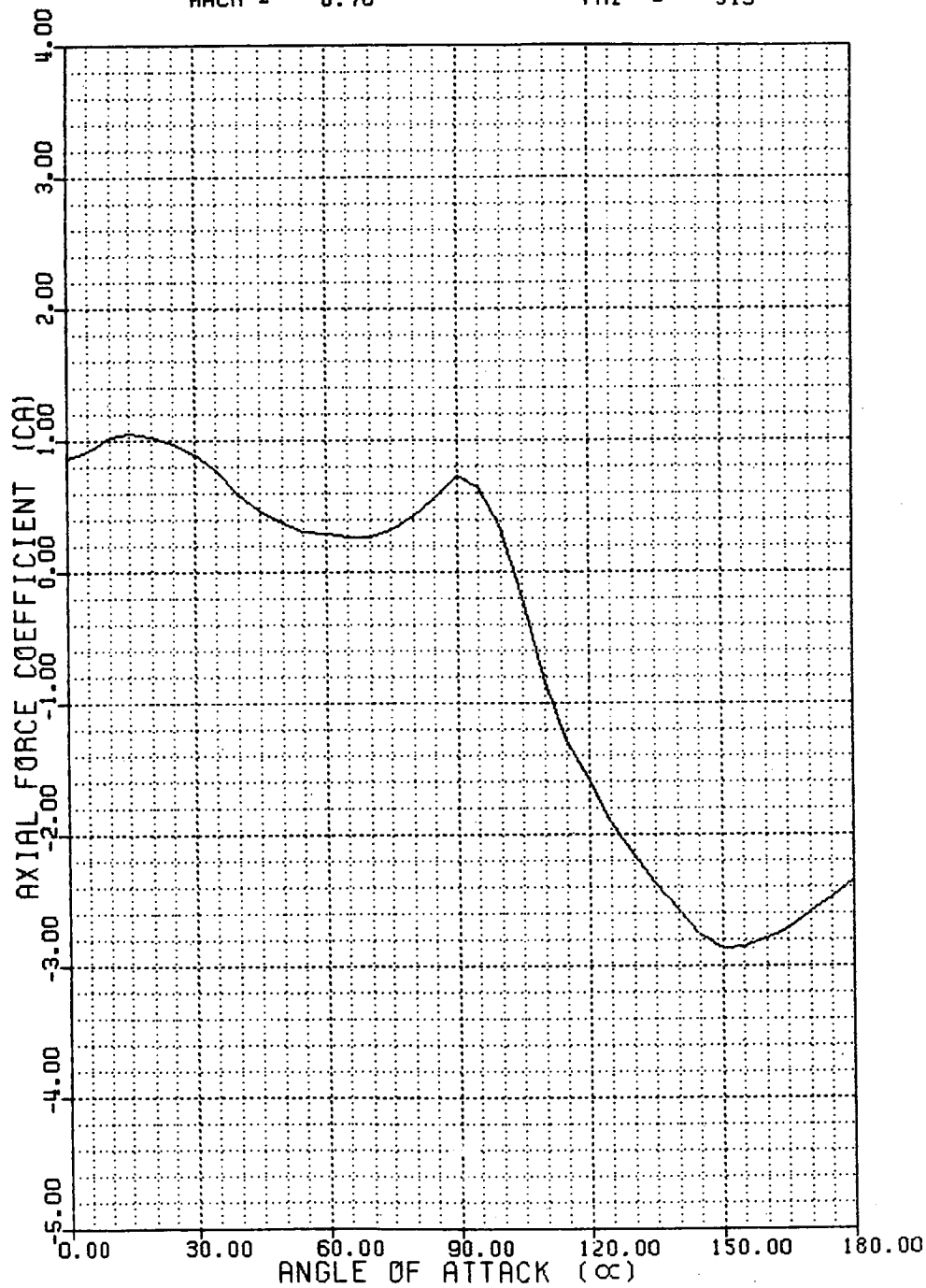
B-619

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 315

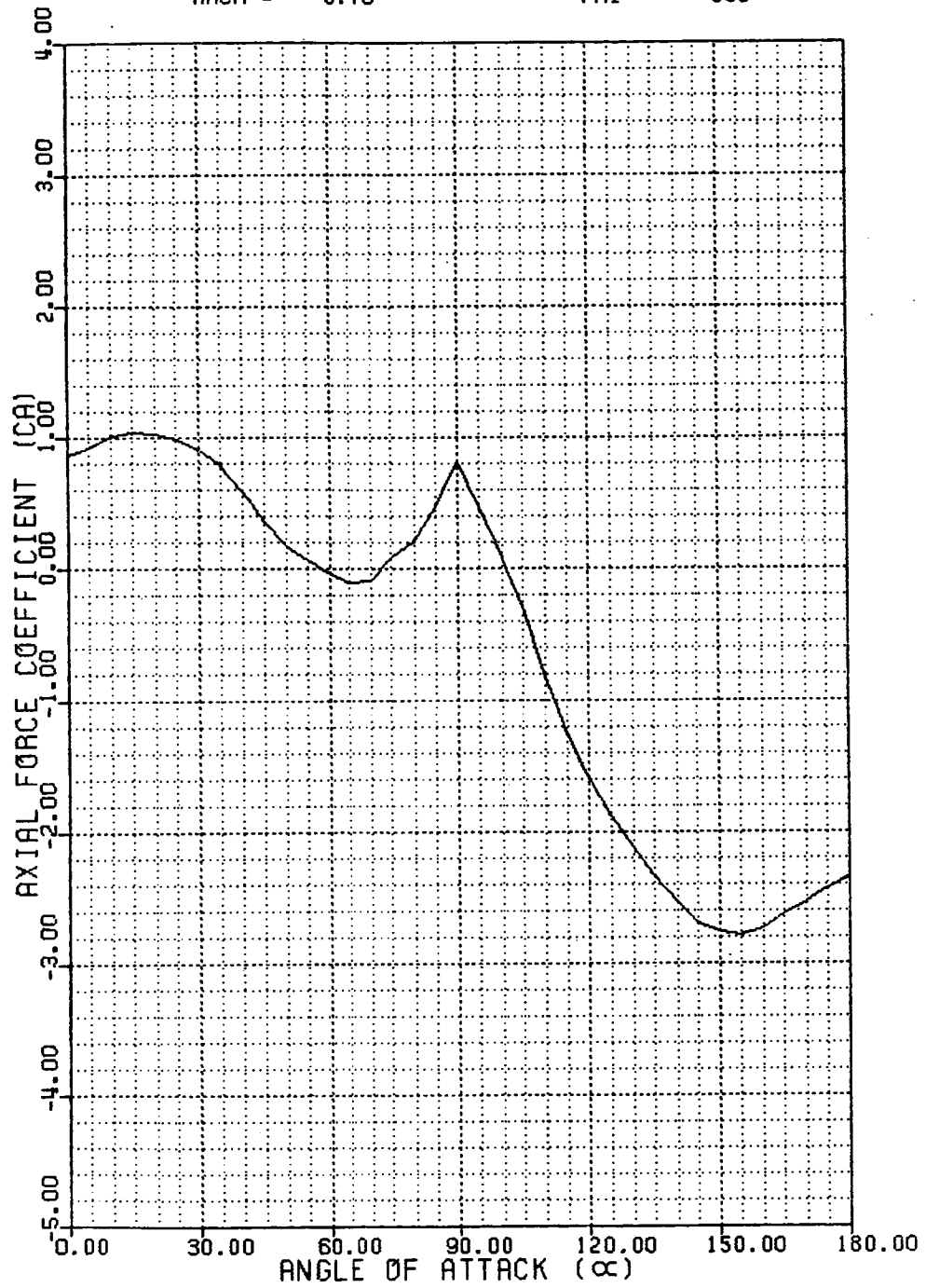


B-620

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 360

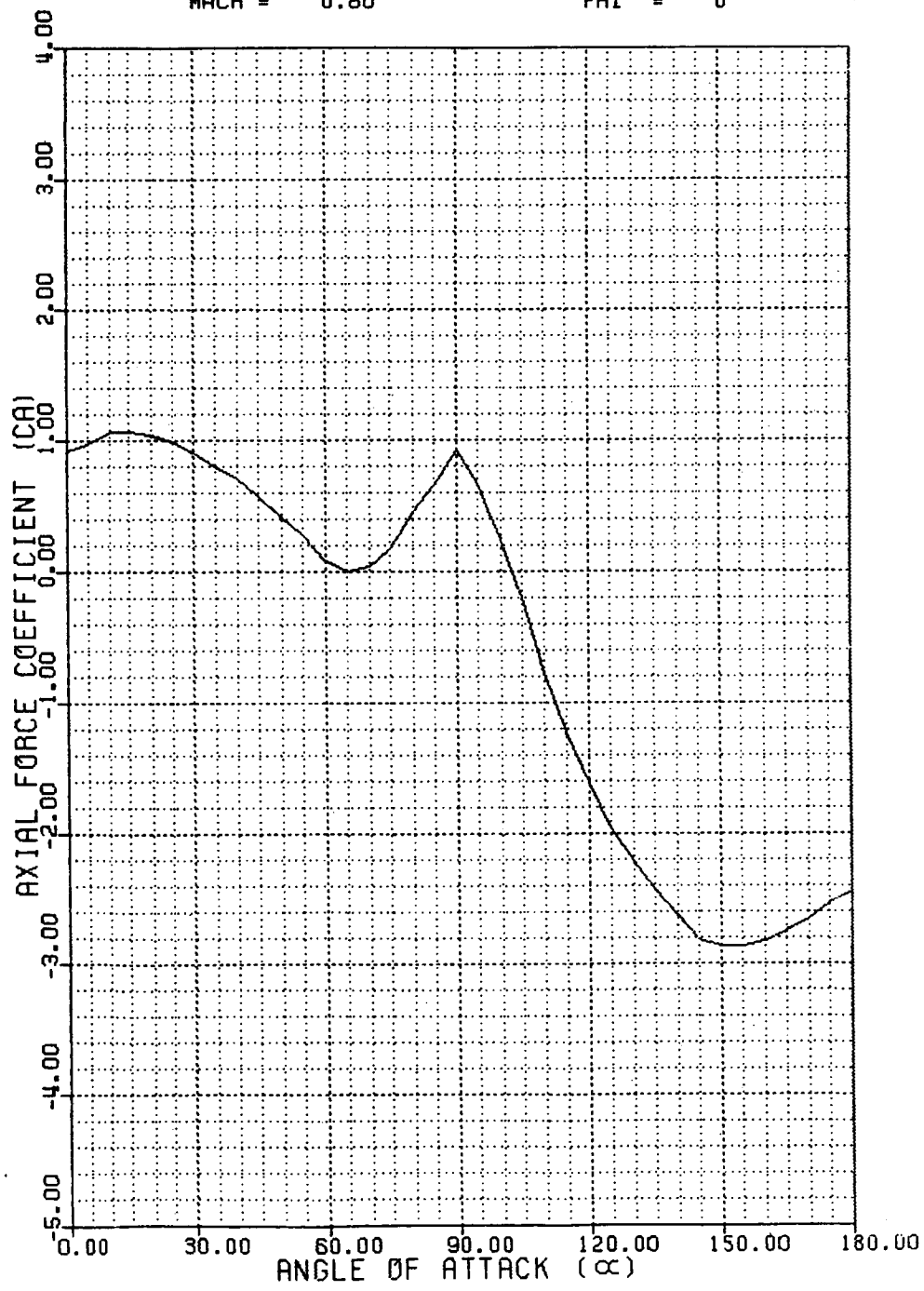


B-621

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 0



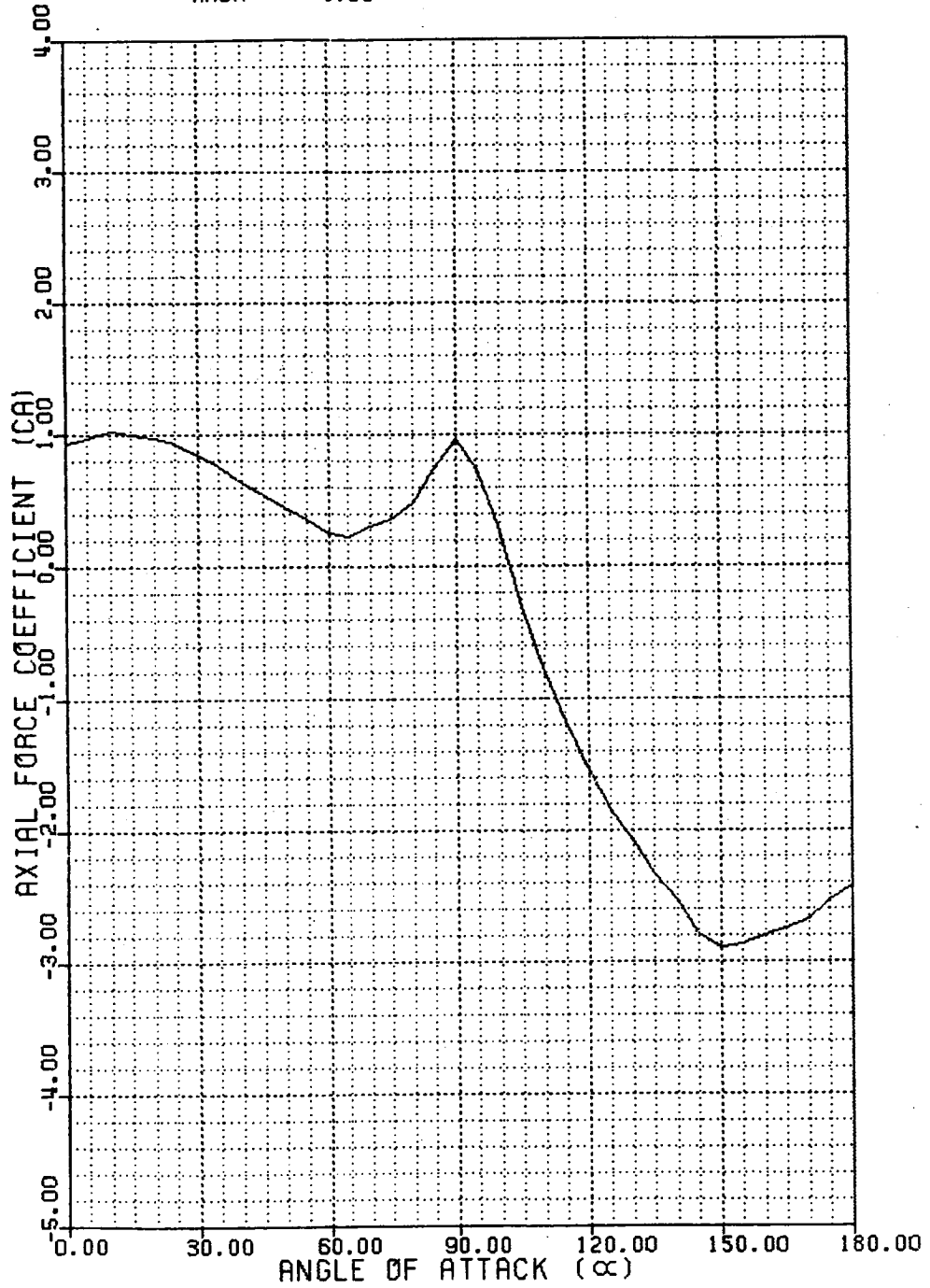
B-622



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 45



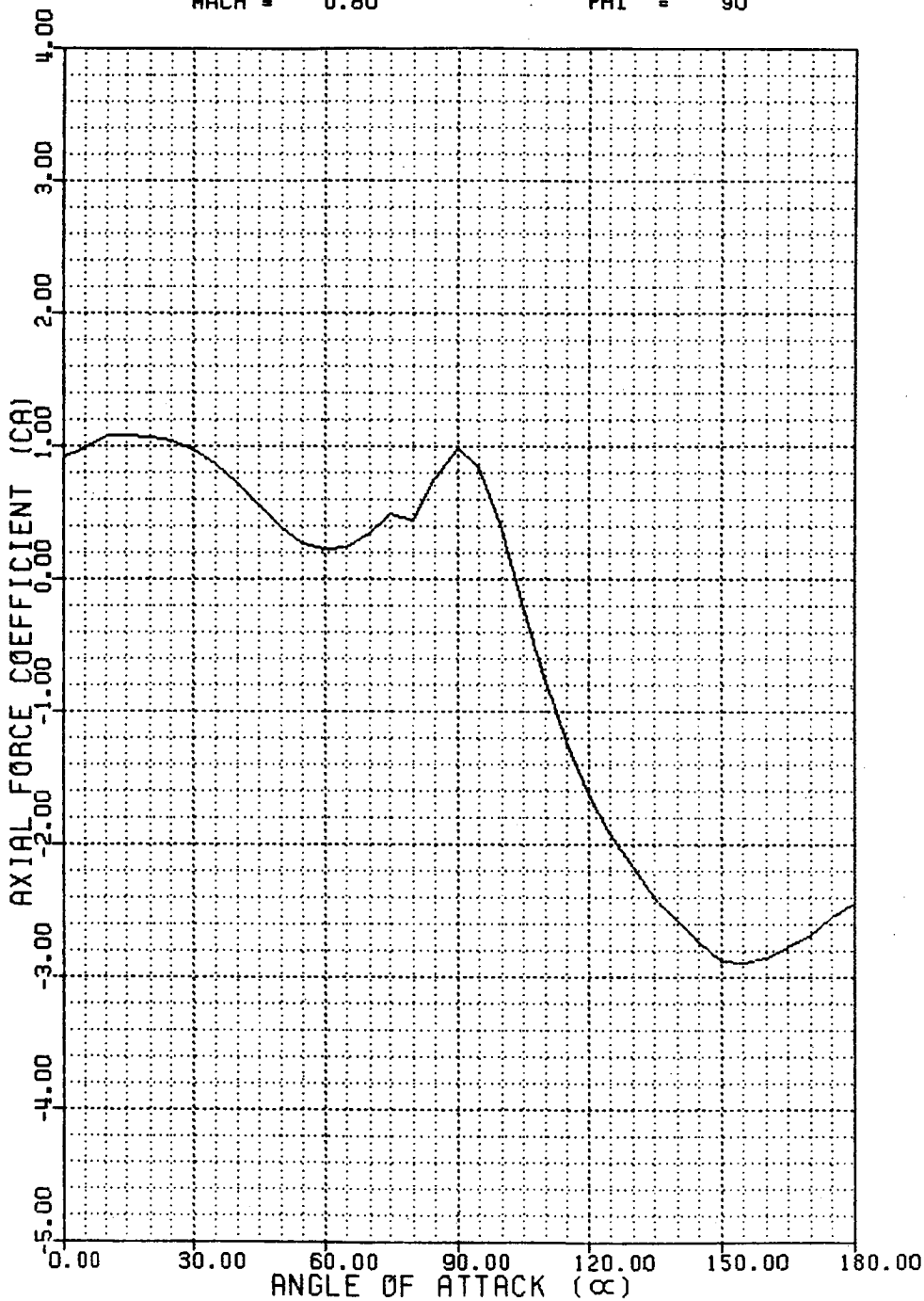
B-623

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 90

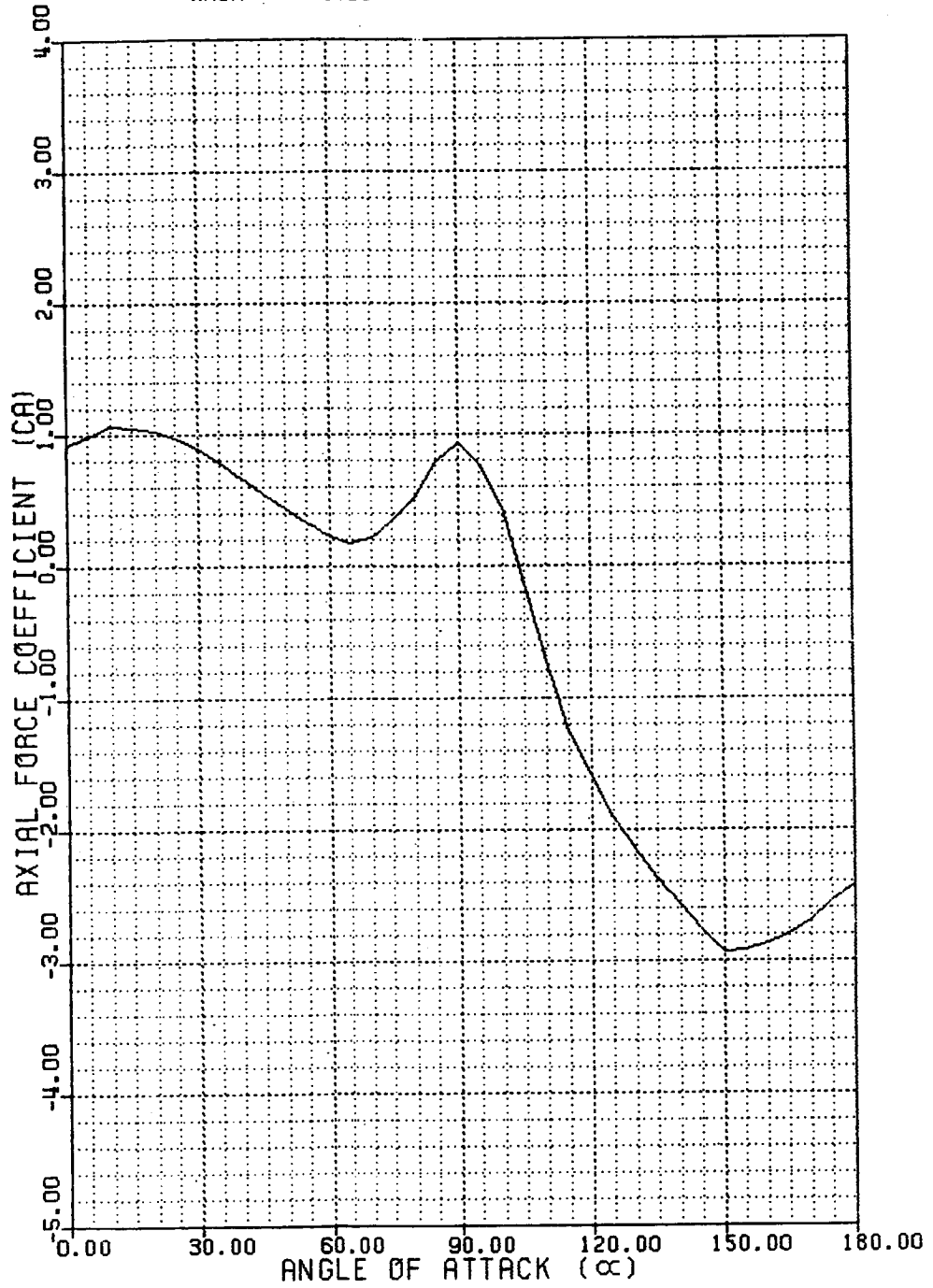


B-624

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 135



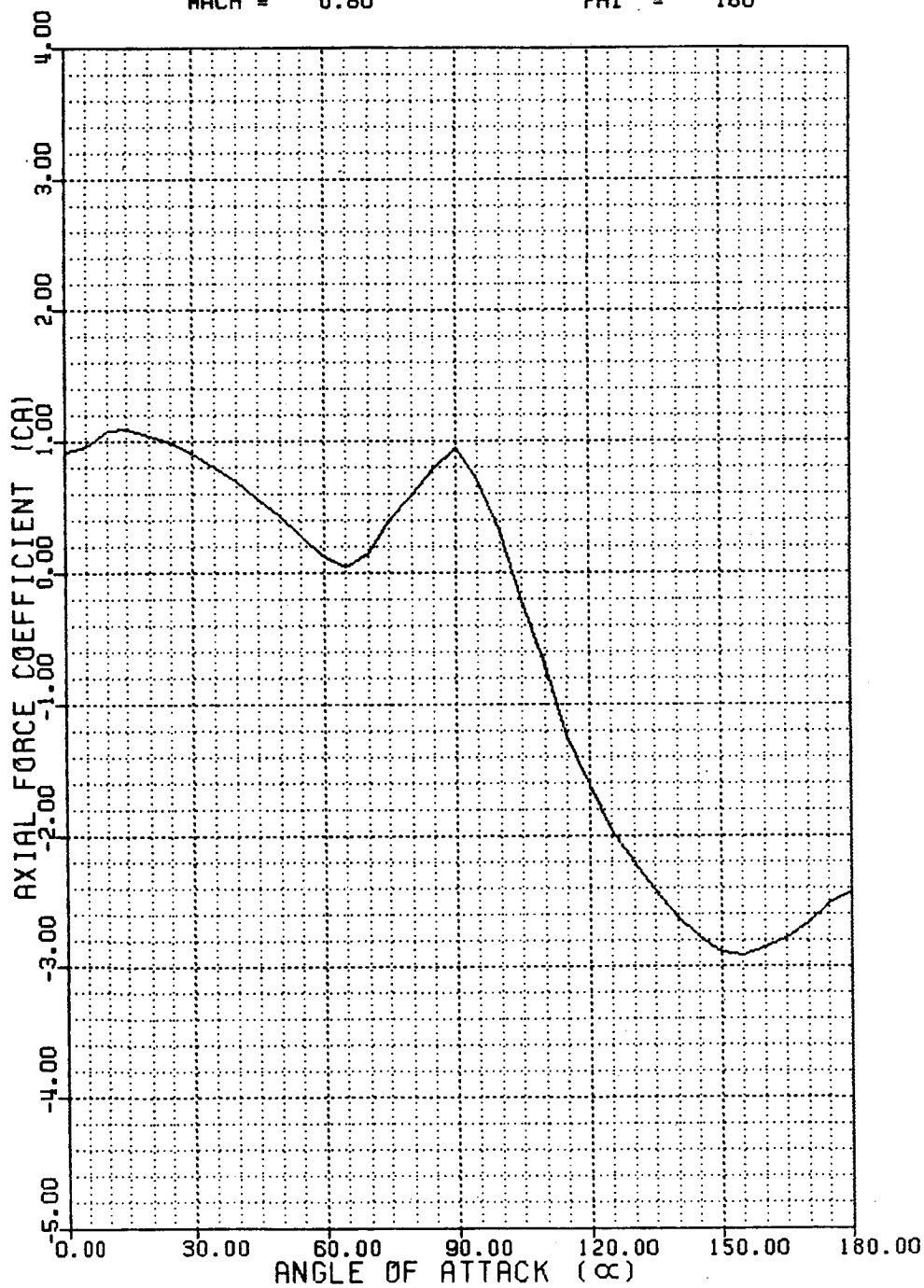
B-625

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 180

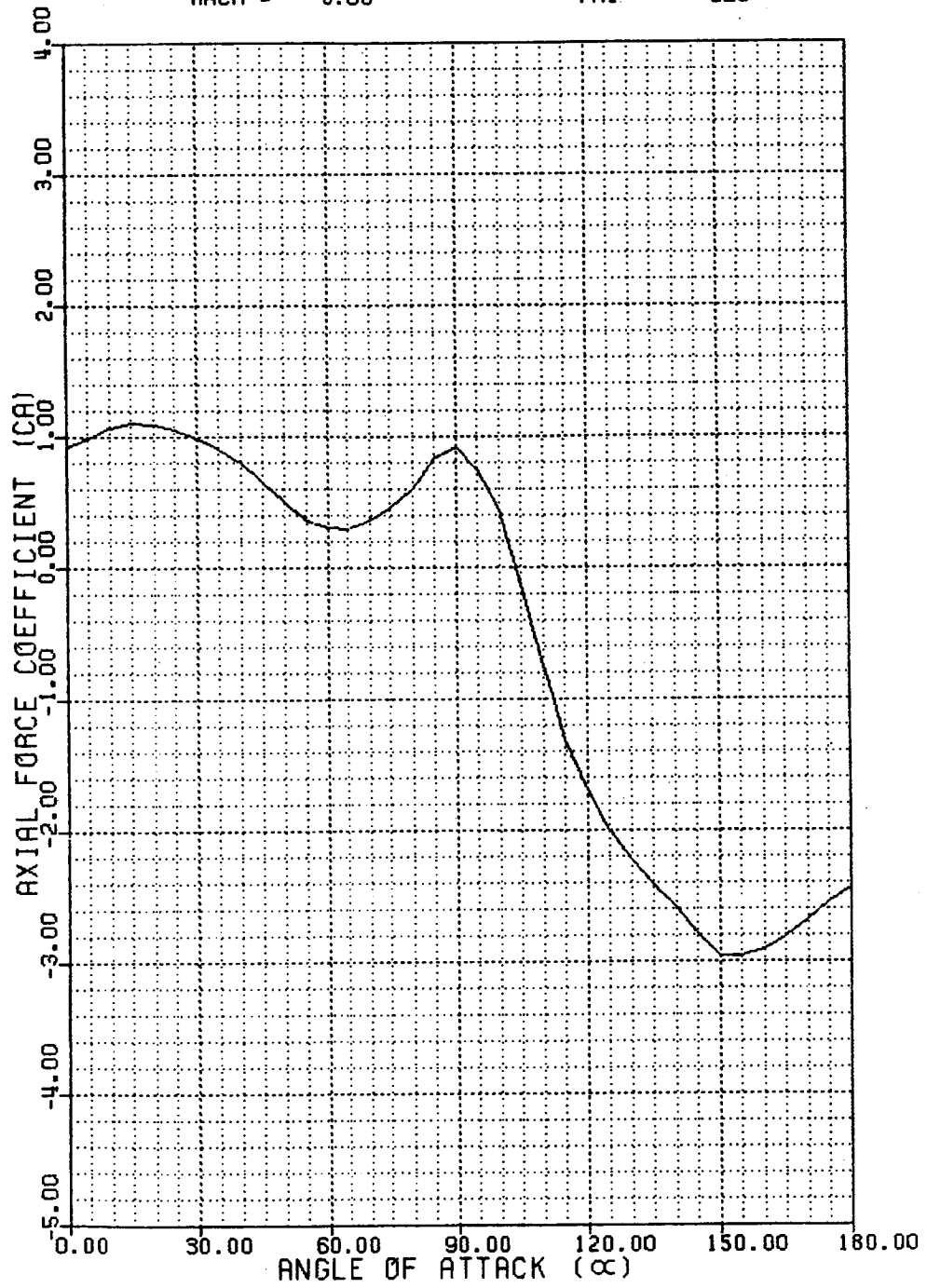


B-626

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 225



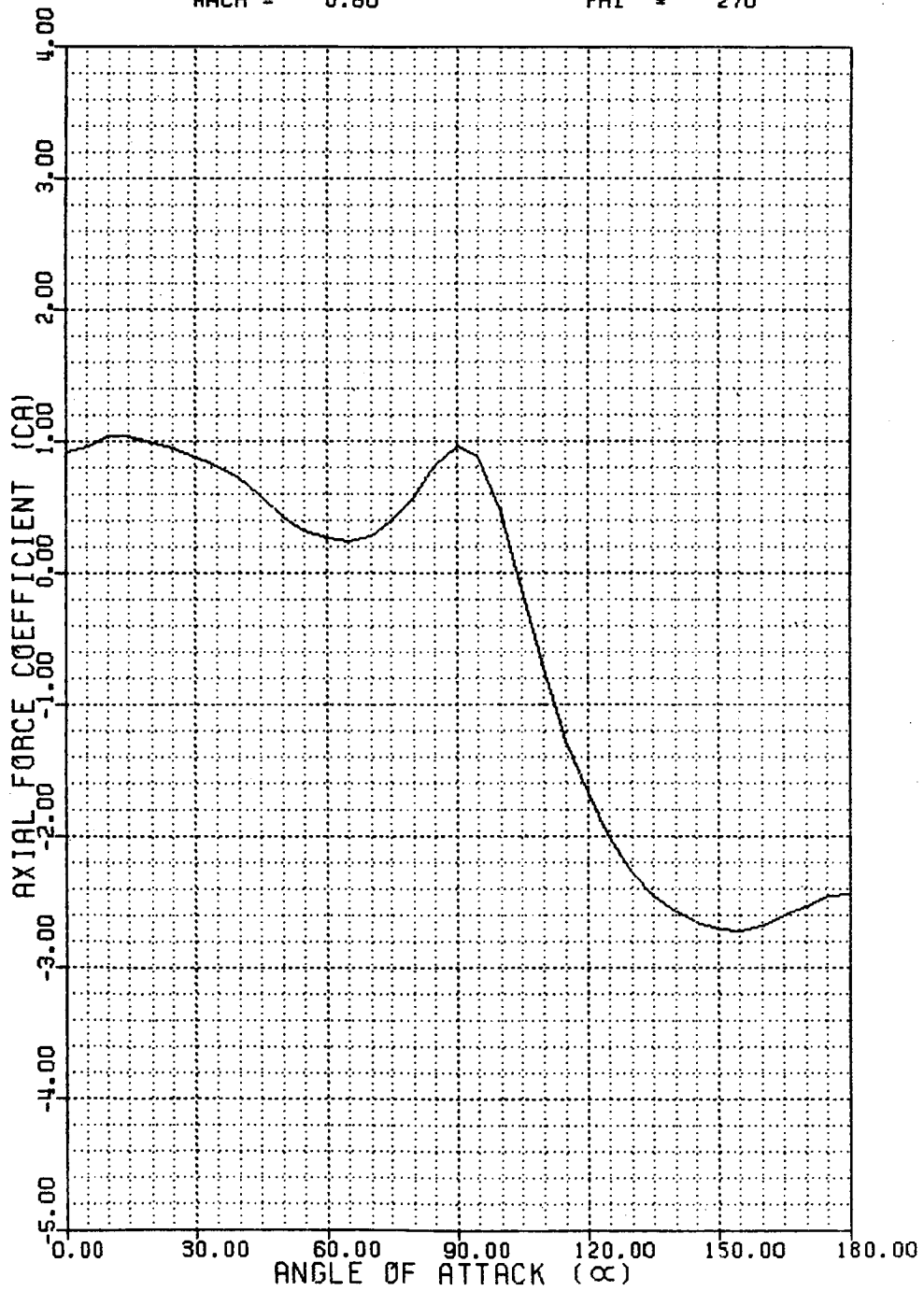
B-627

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270

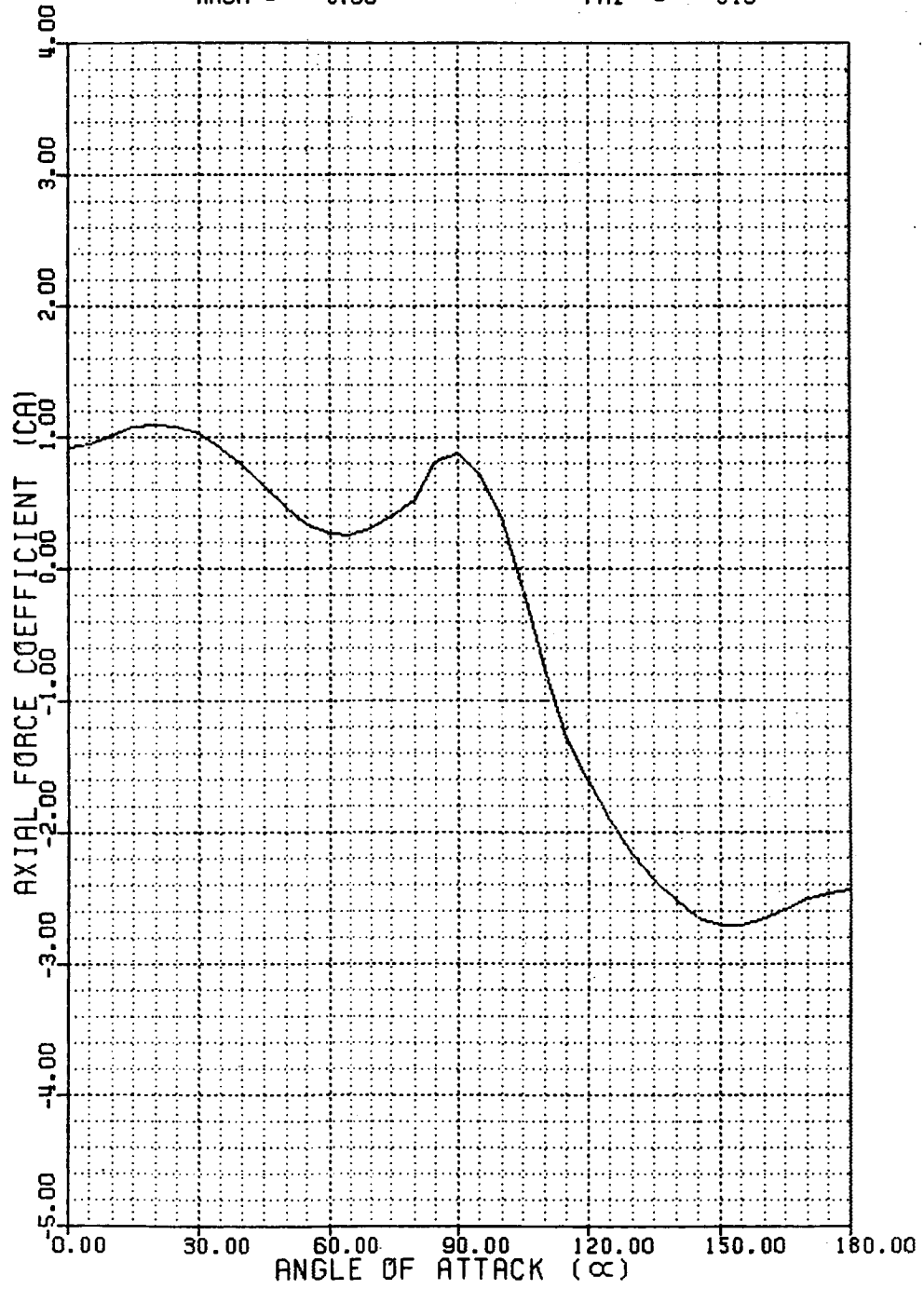


B-628

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 315

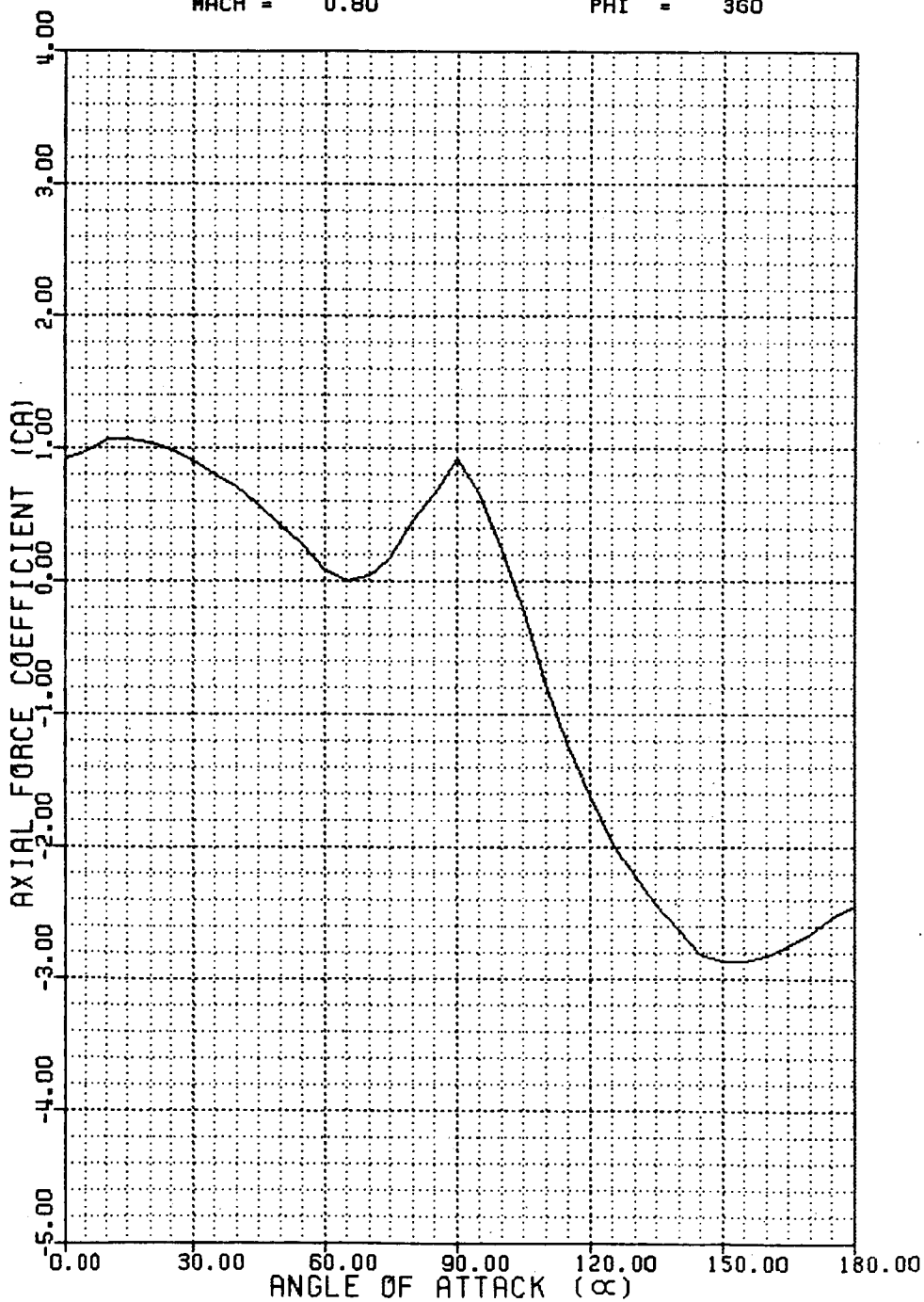


B-629

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360



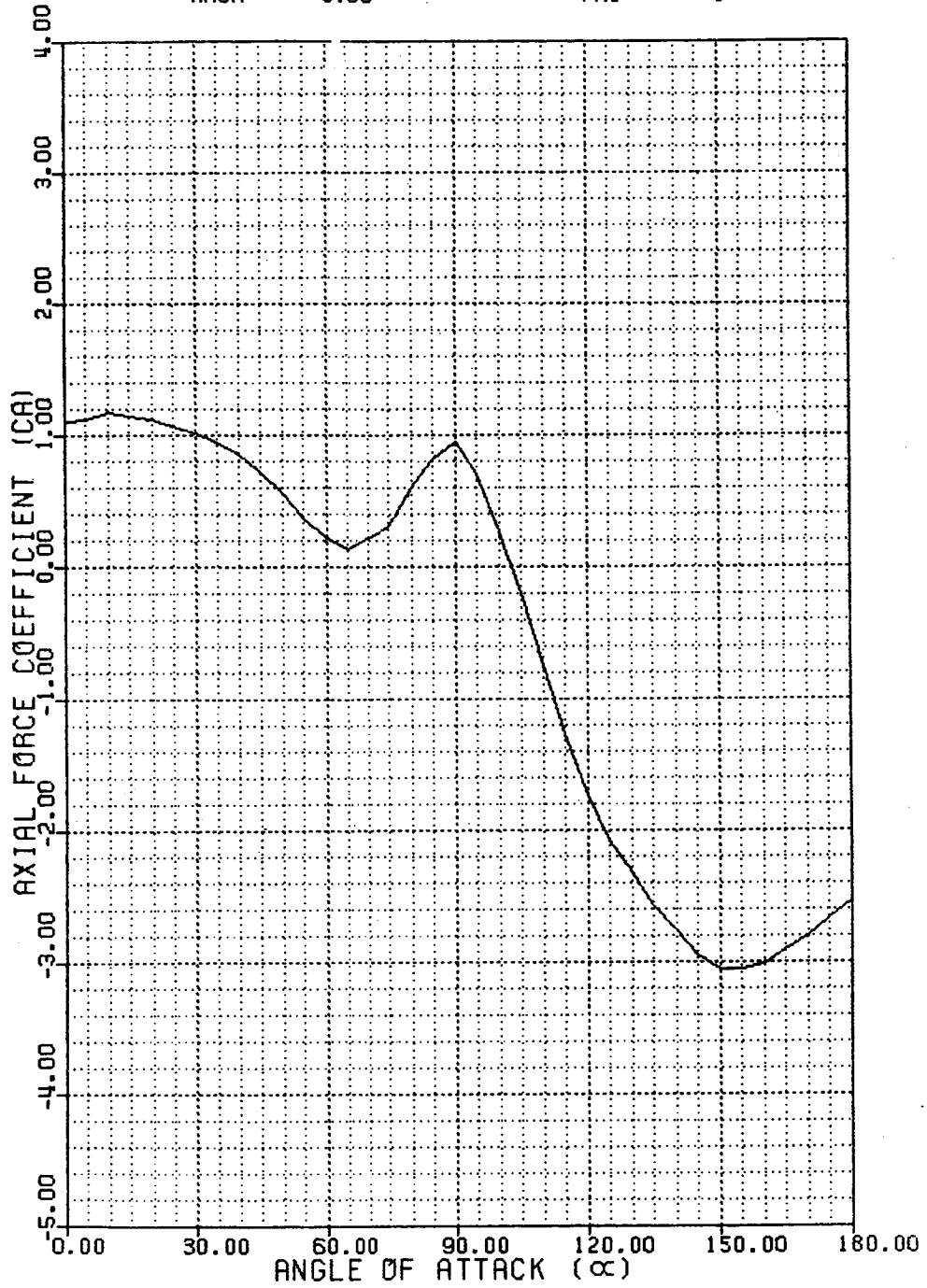
B-630



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0



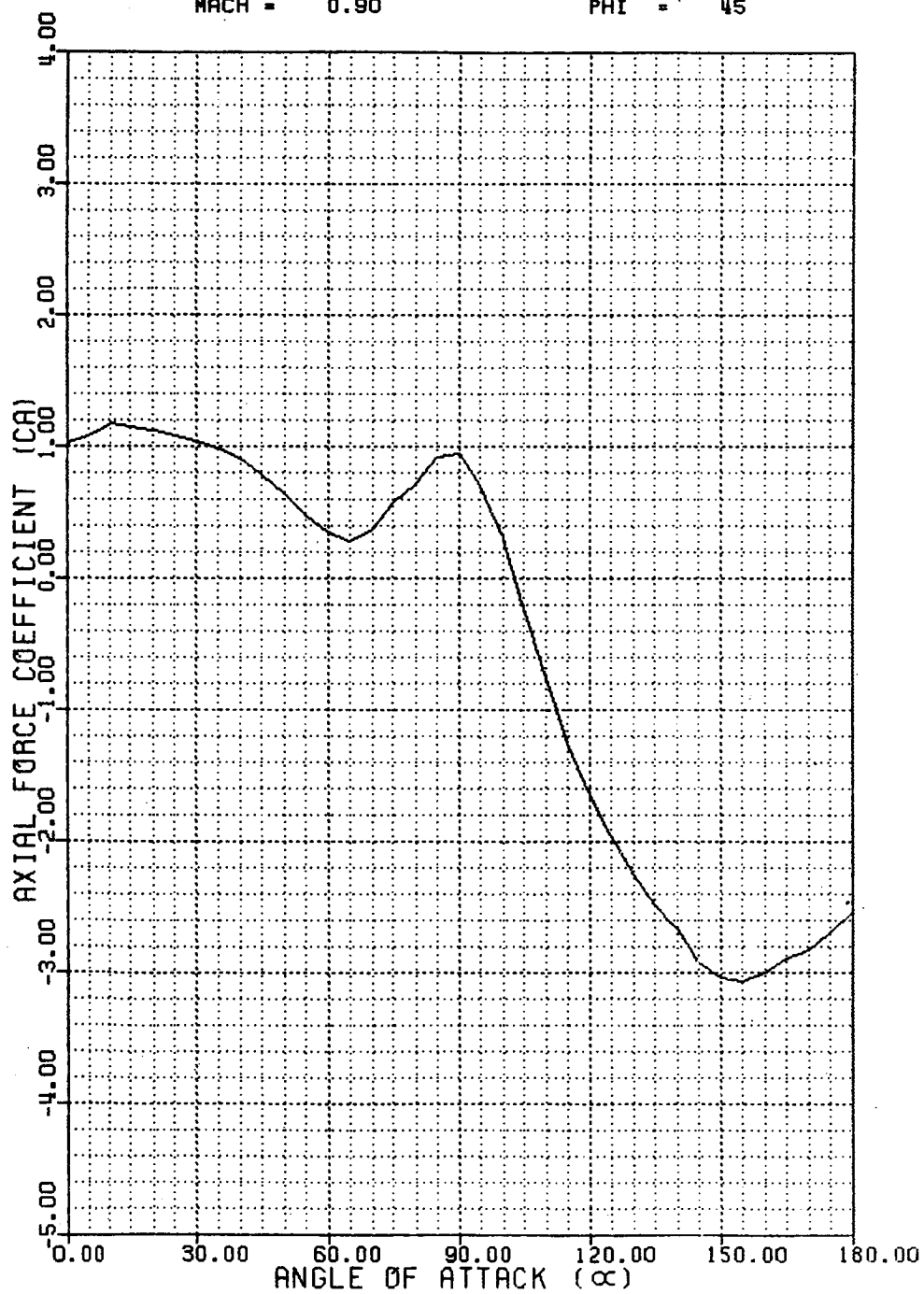
B-631

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45

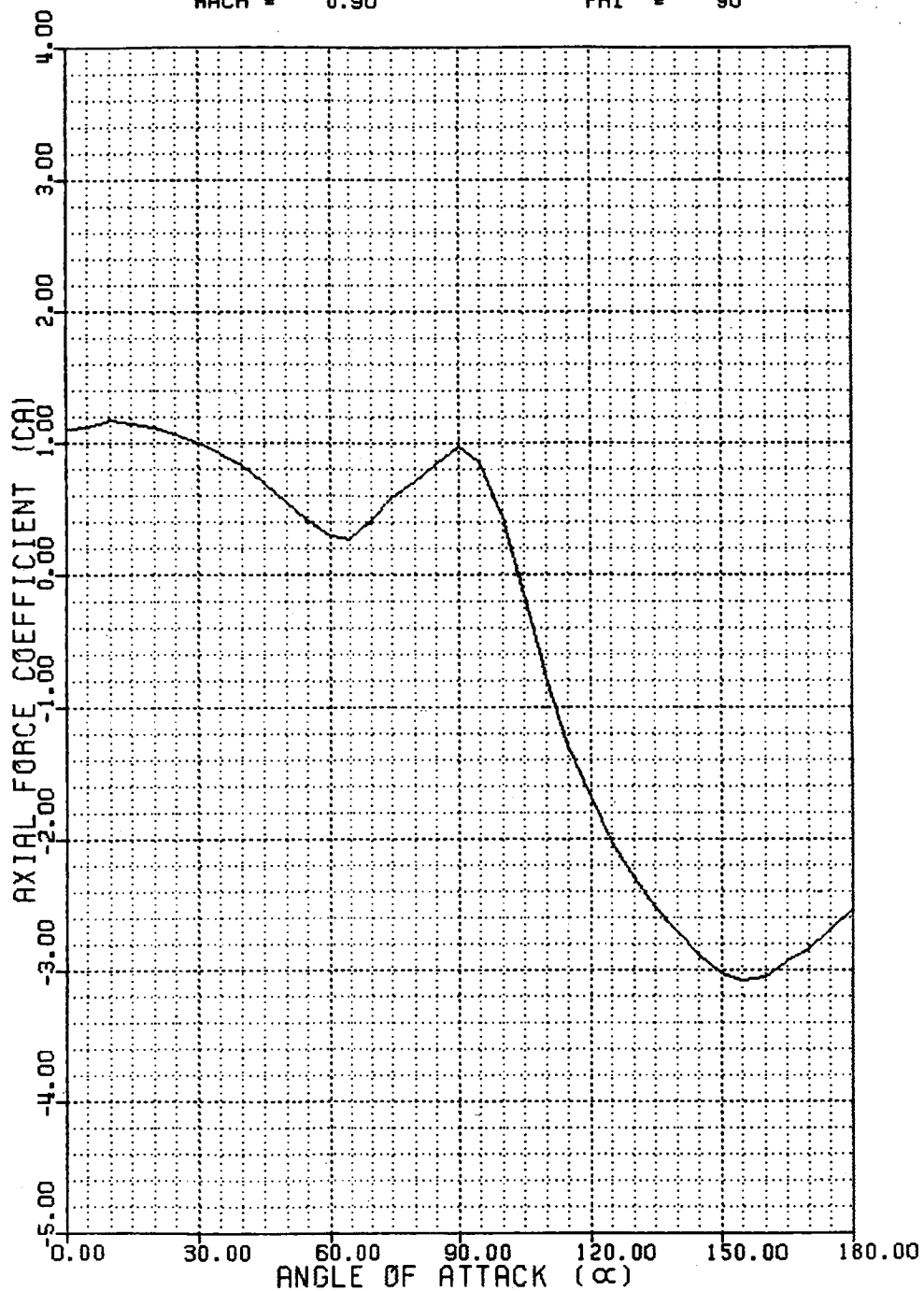


B-632

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 90

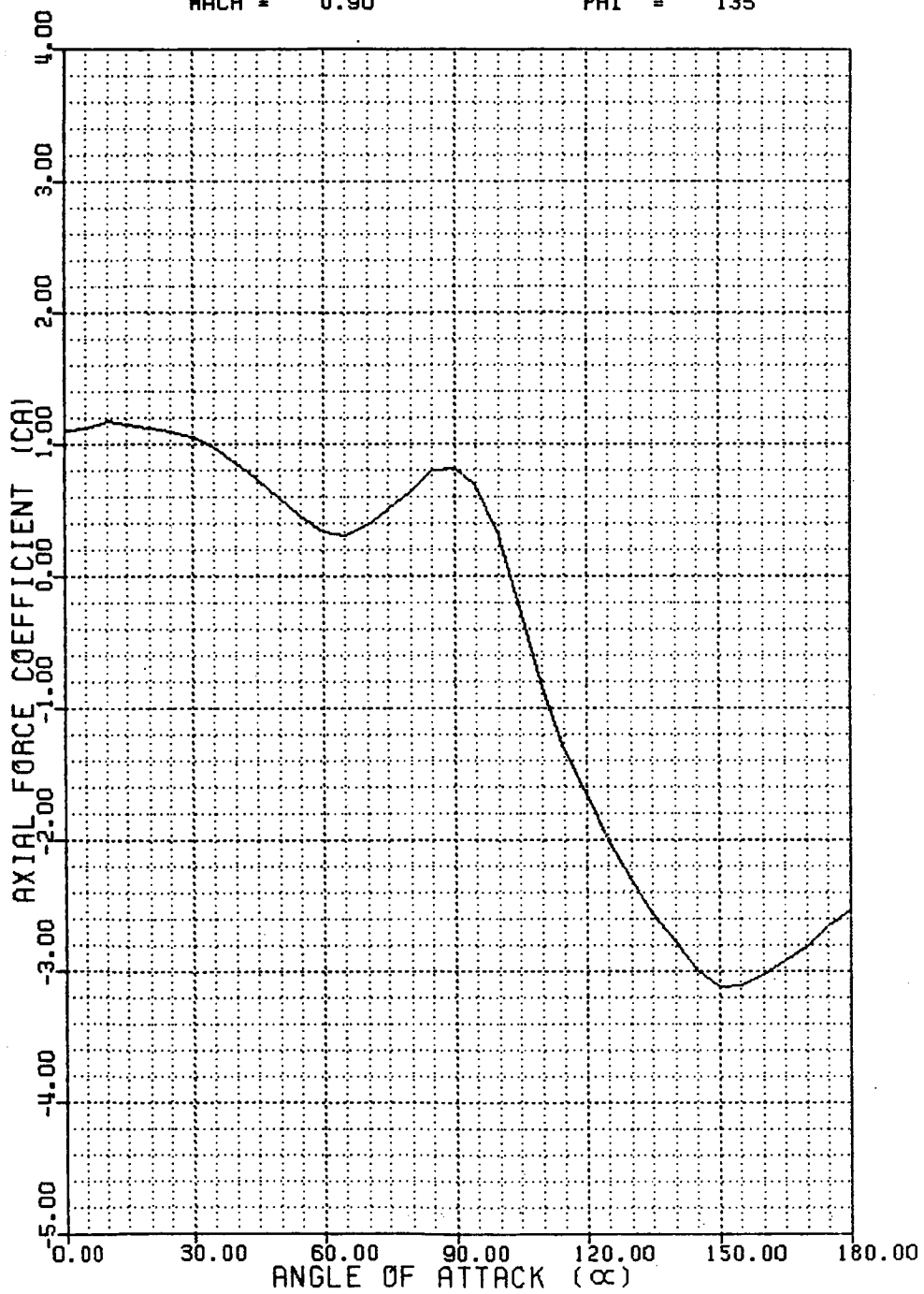


B-633

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135

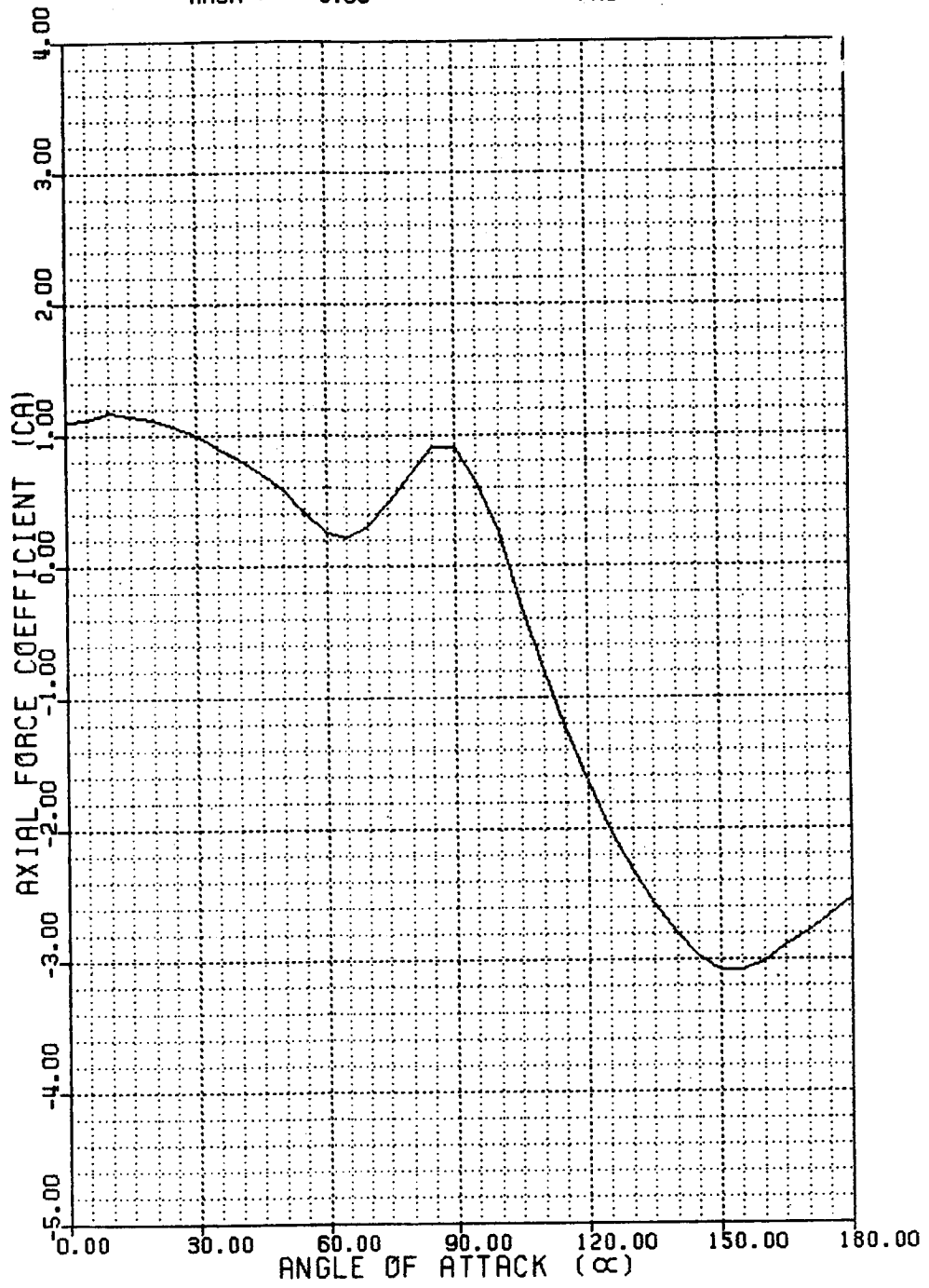


B-634

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180



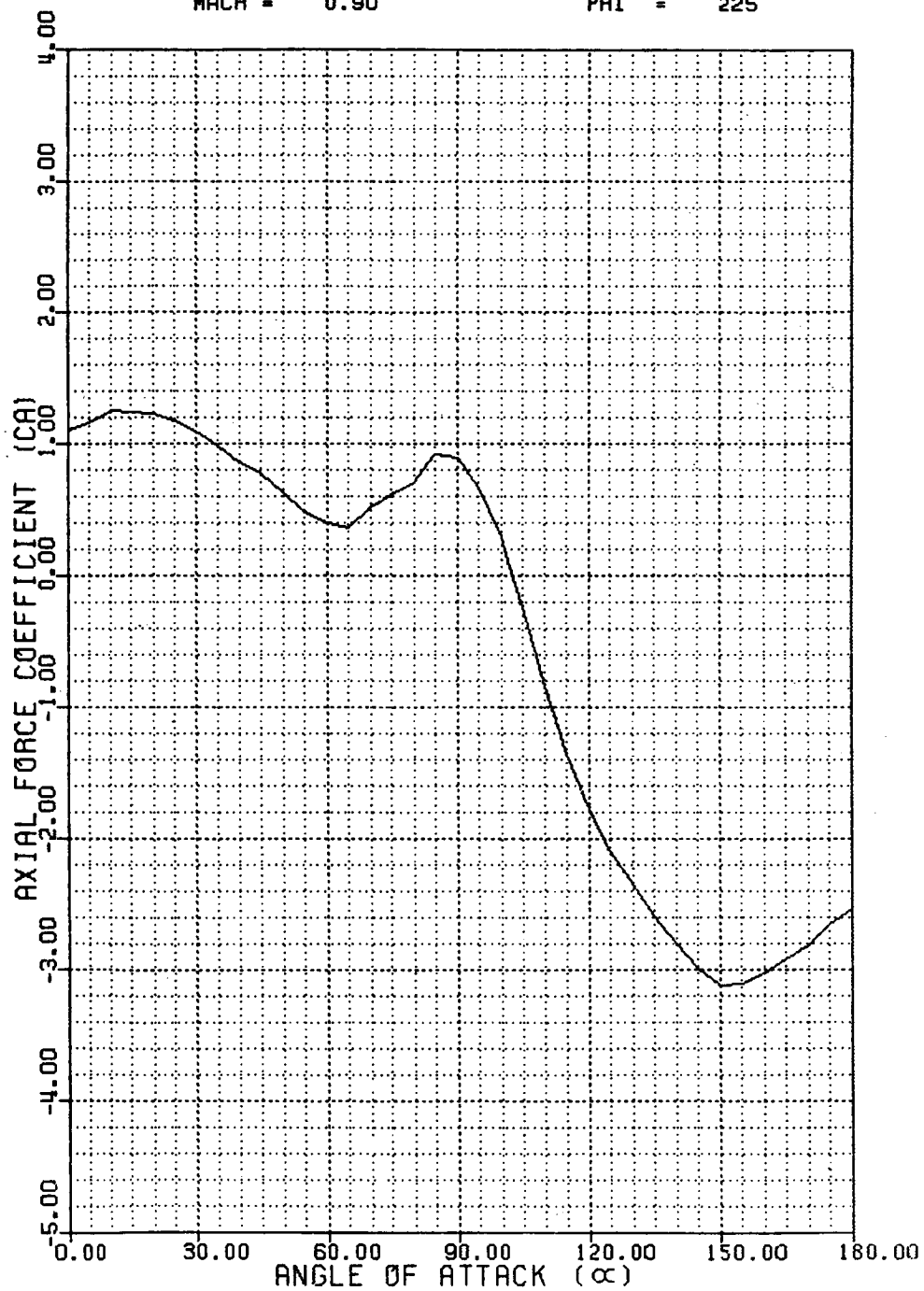
B-695

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225

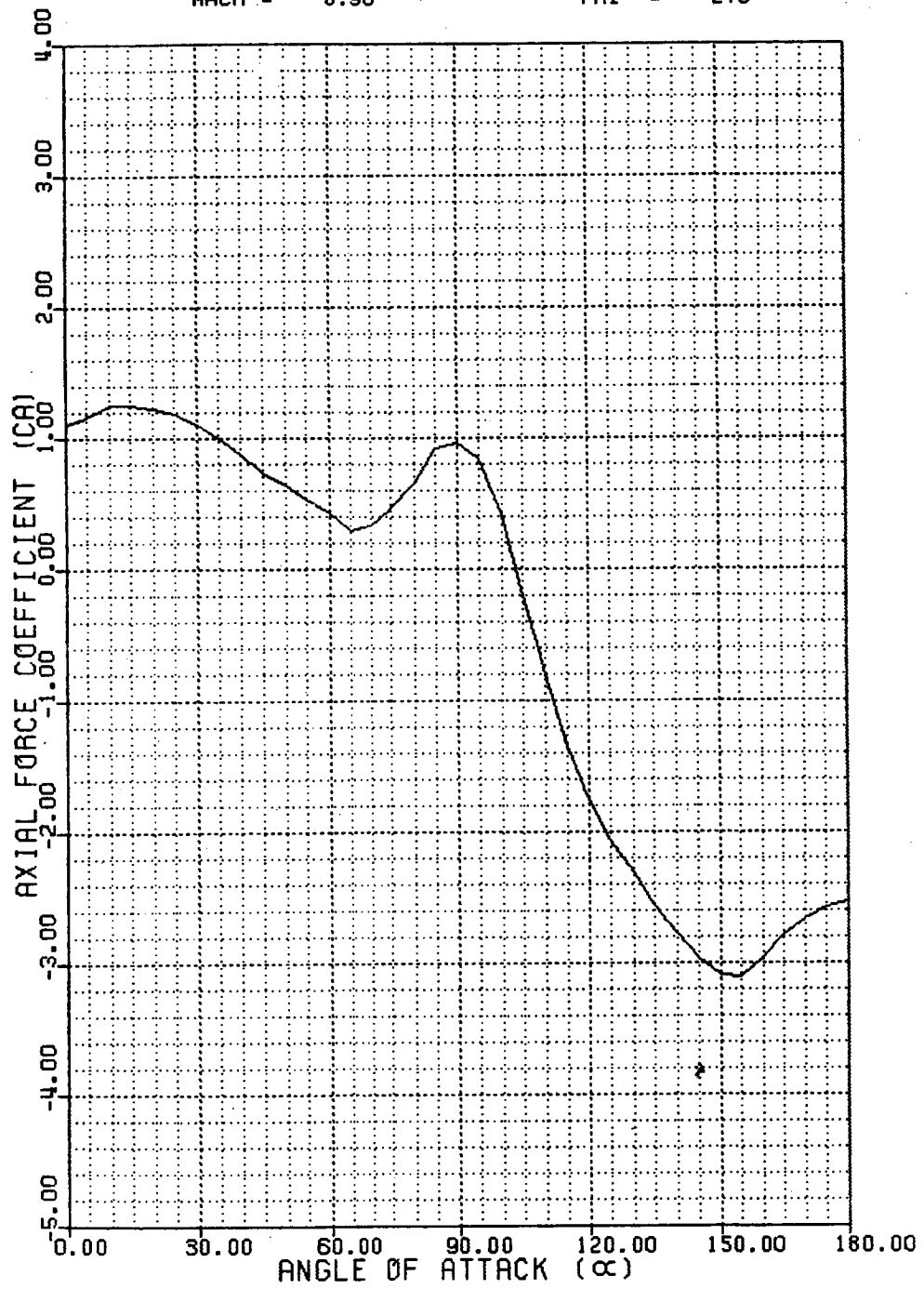


B-636

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270

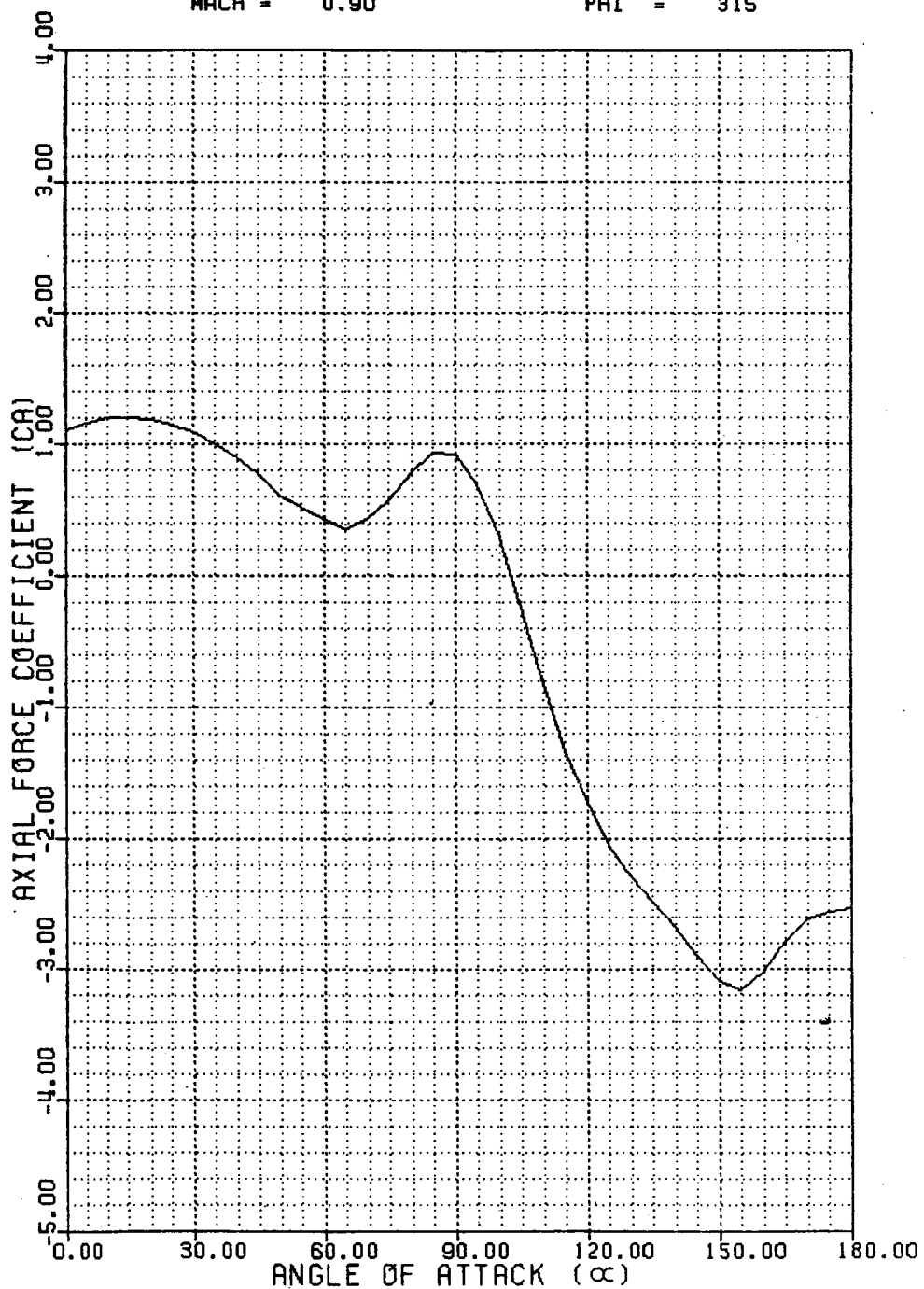


B-637

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 315



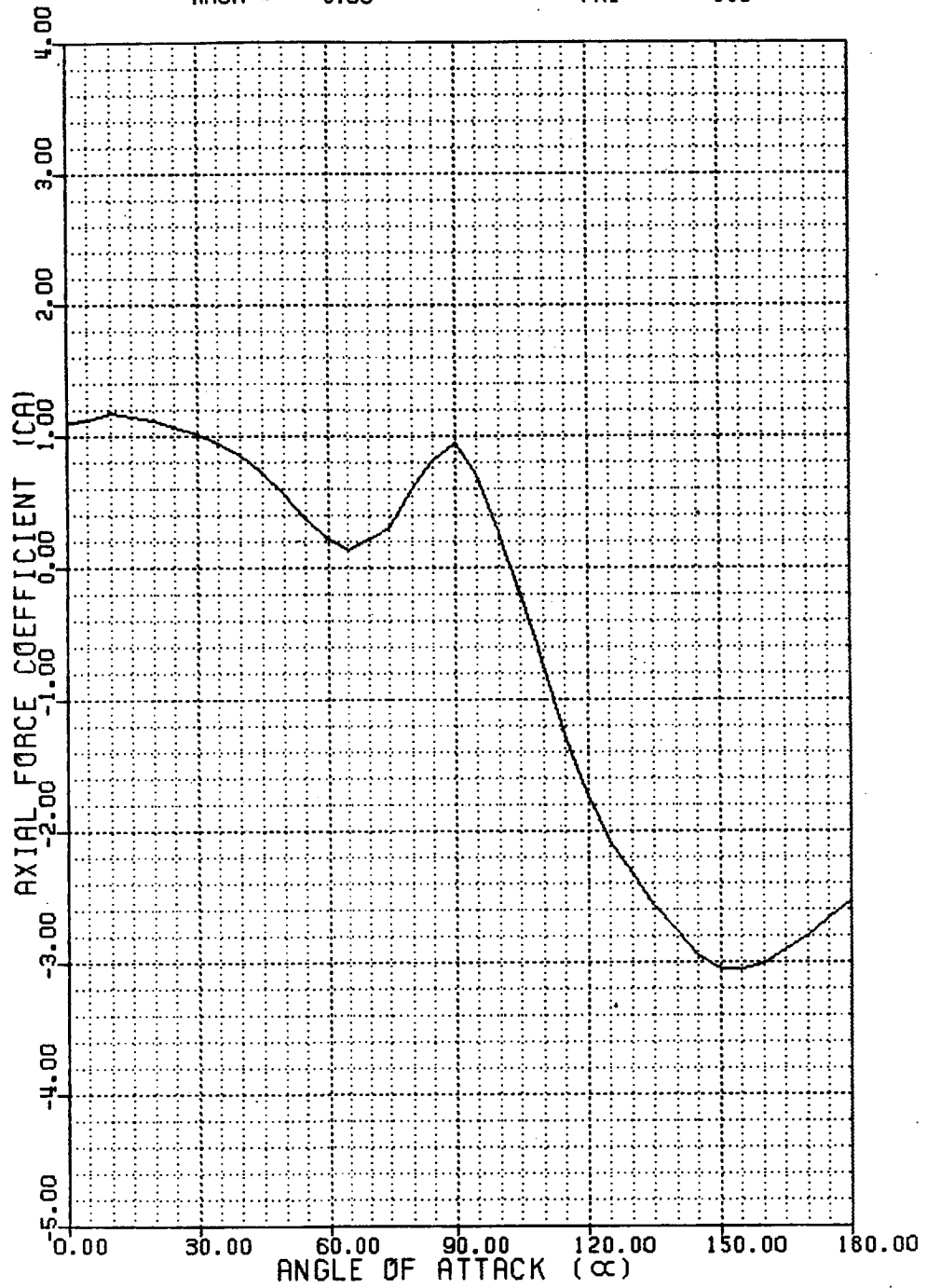
B-638



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360

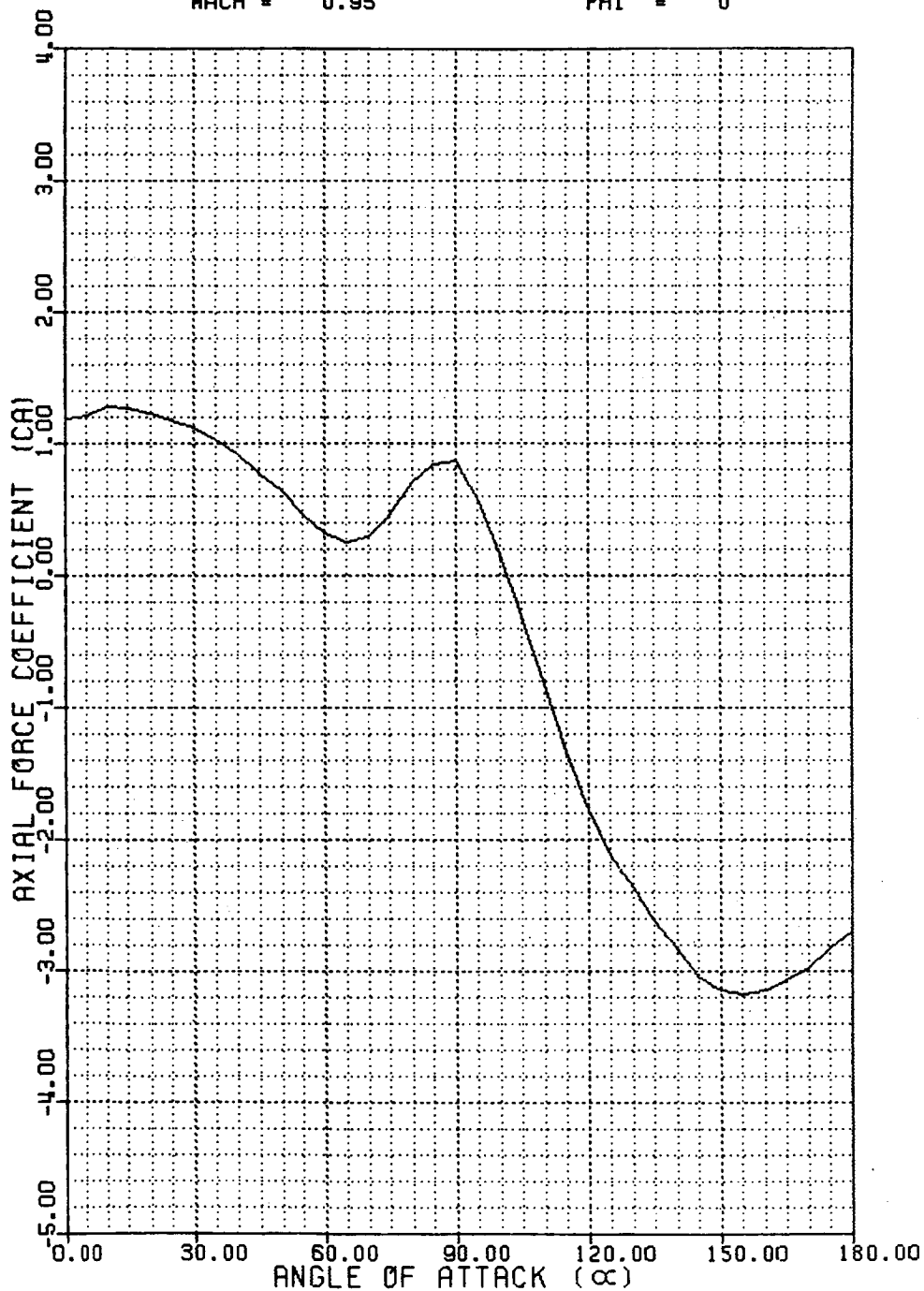


B-639

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0

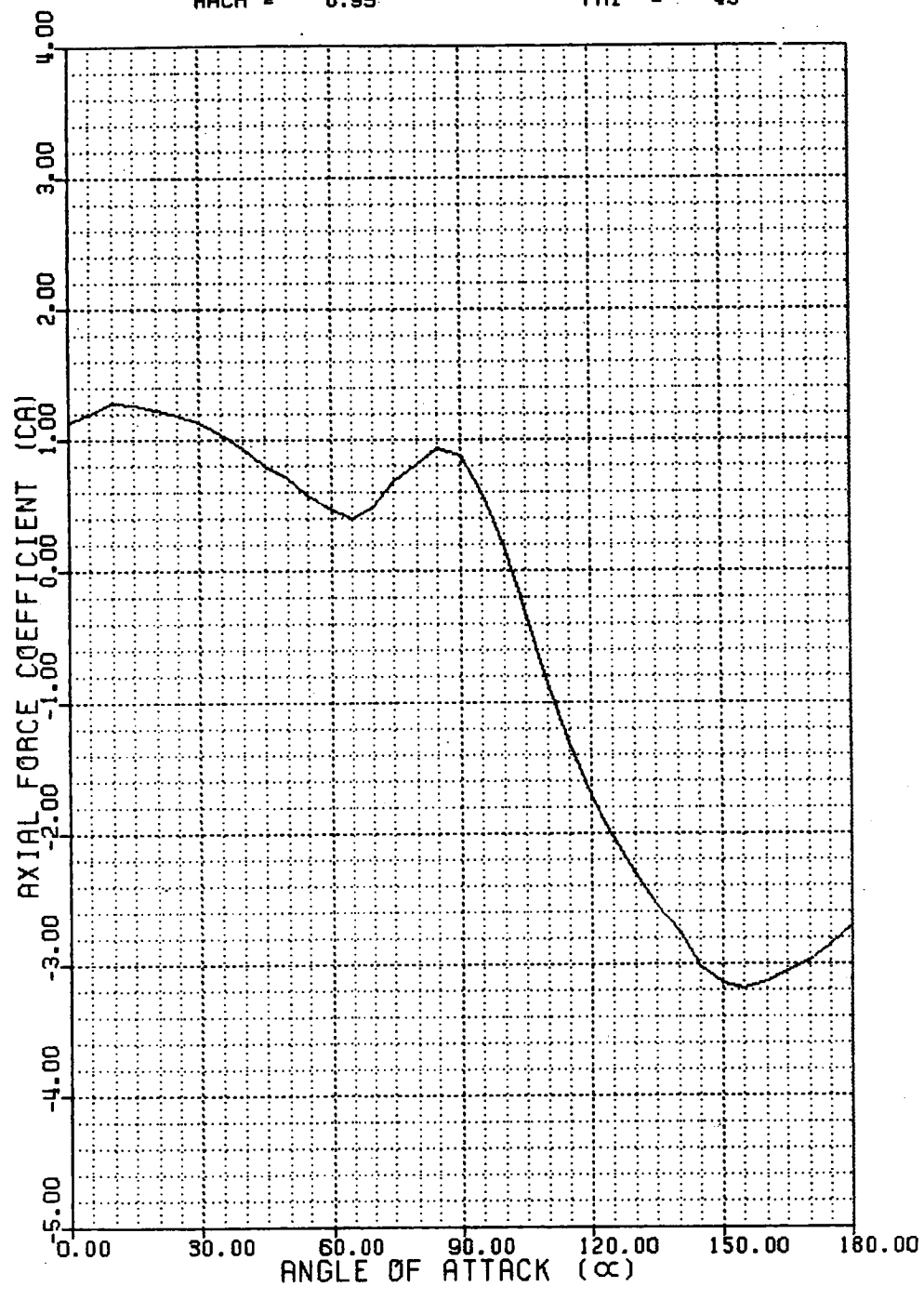


B-640

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45

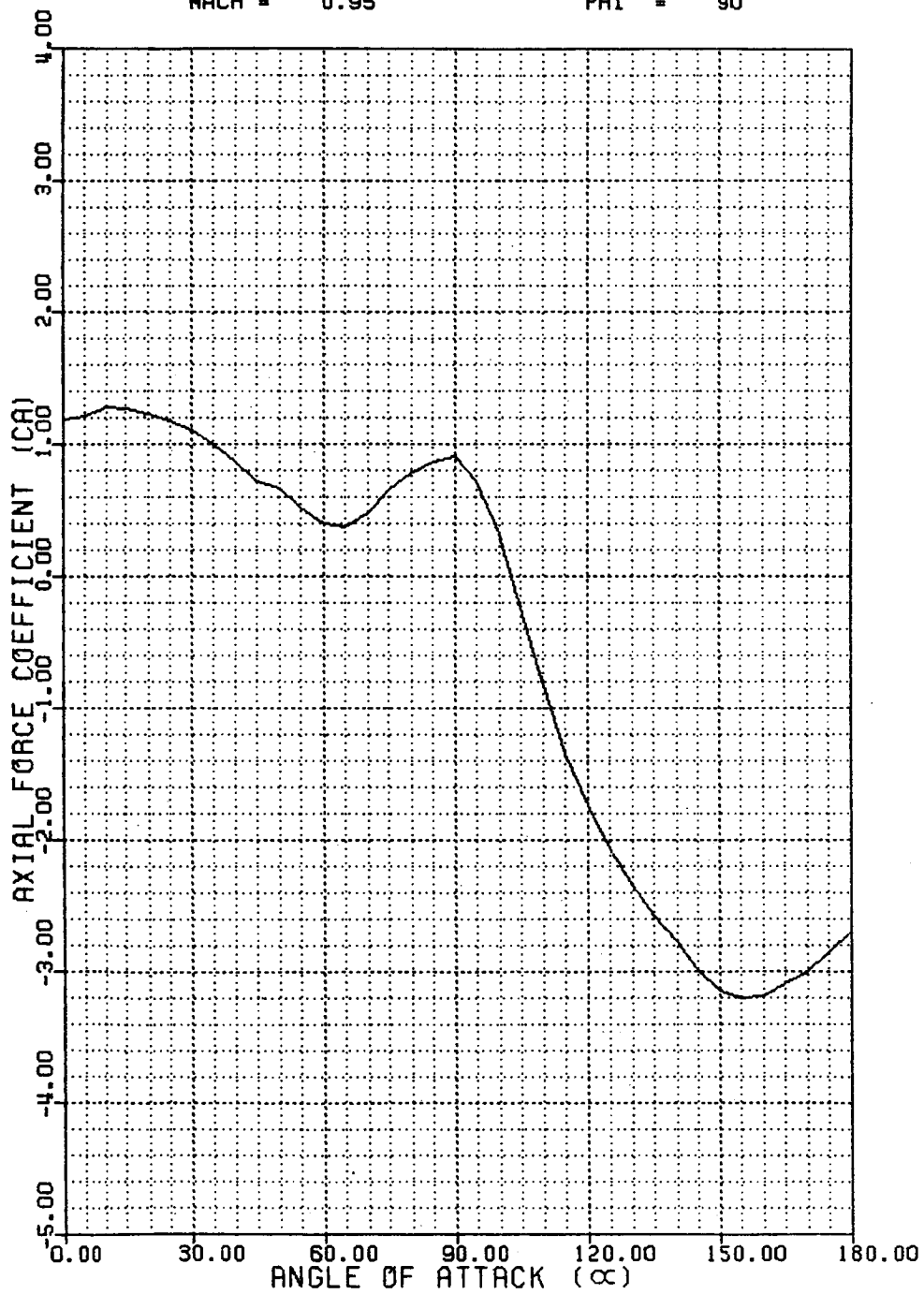


B-641

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90

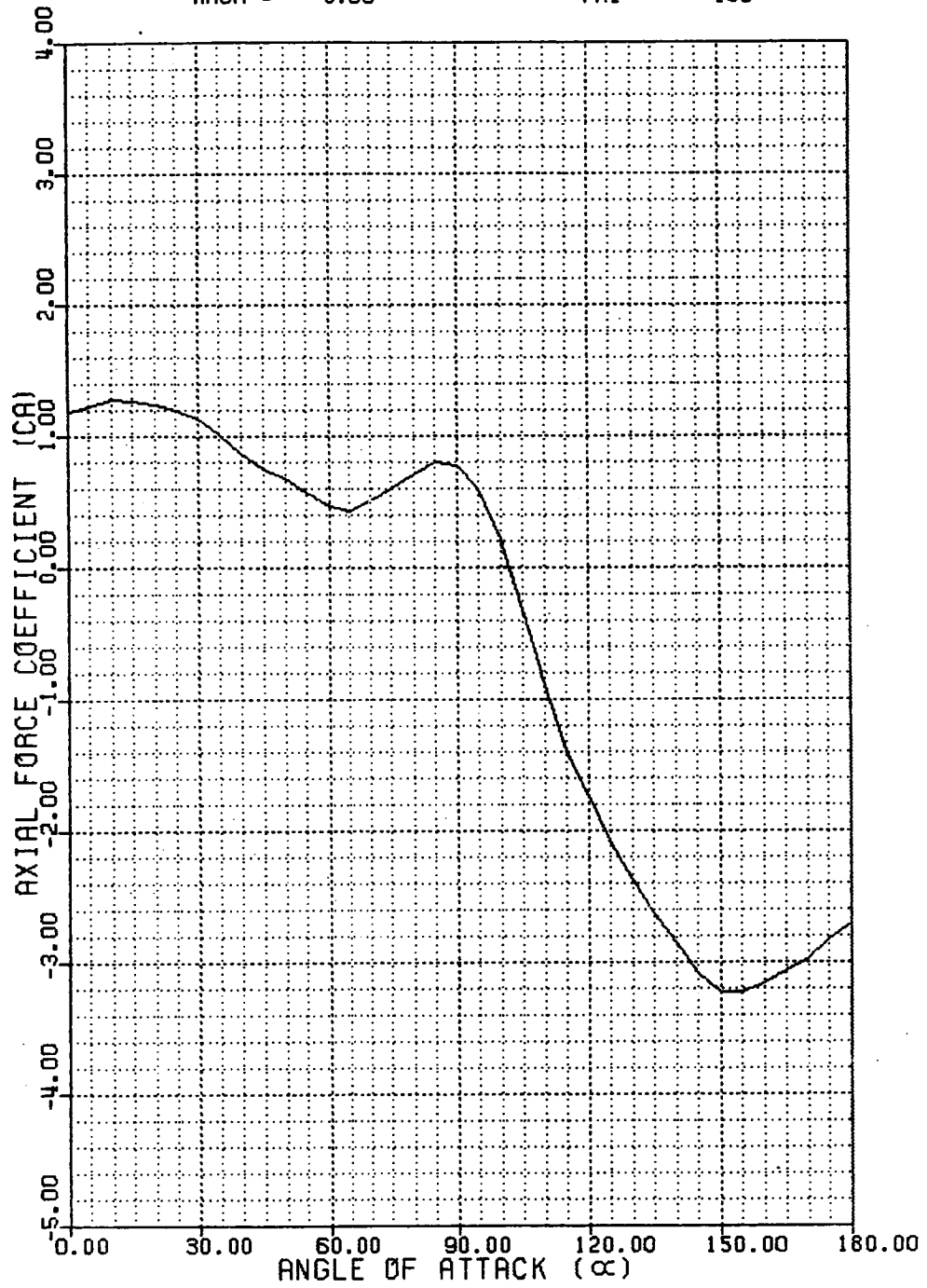


B-642

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135

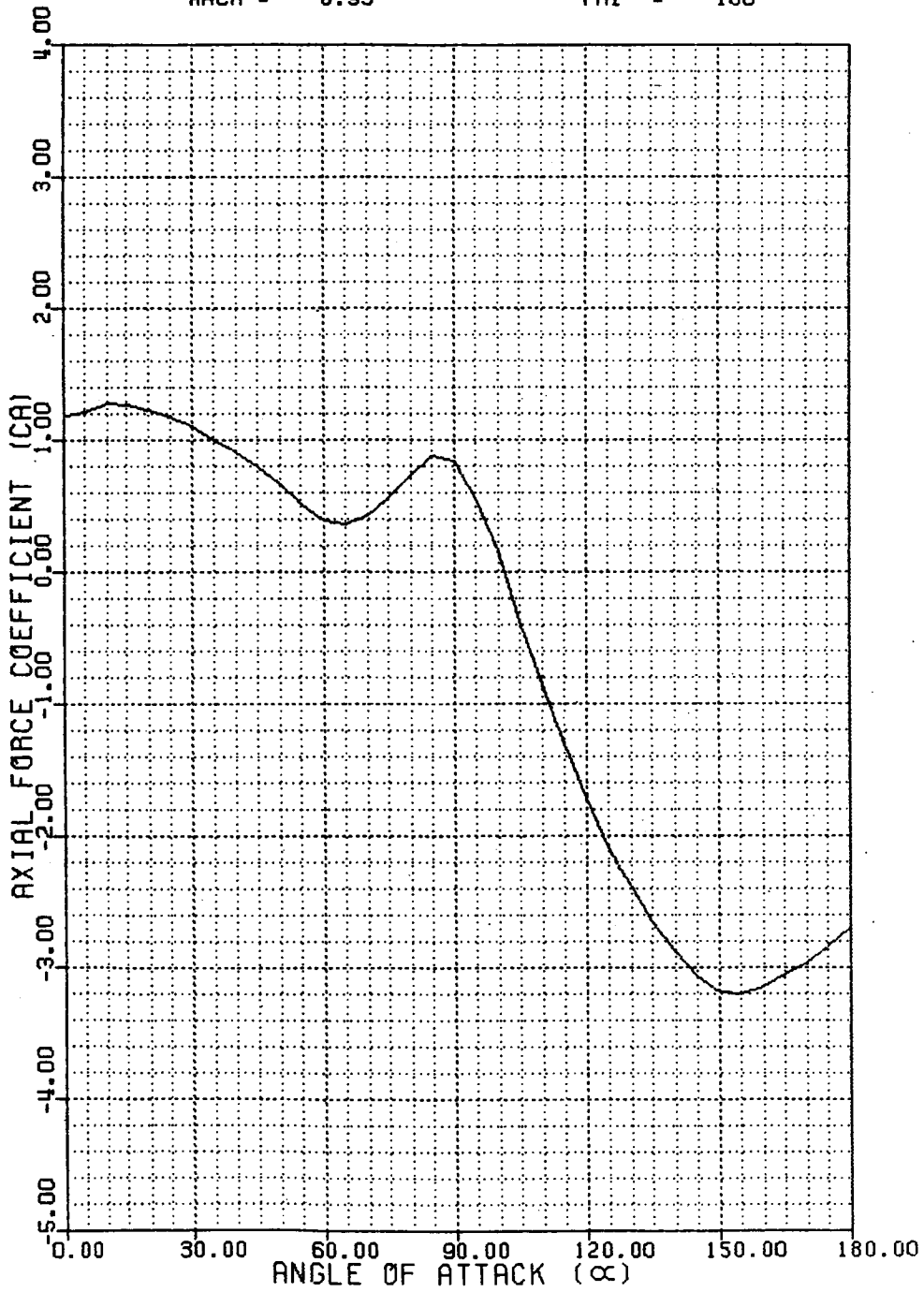


B-643

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180

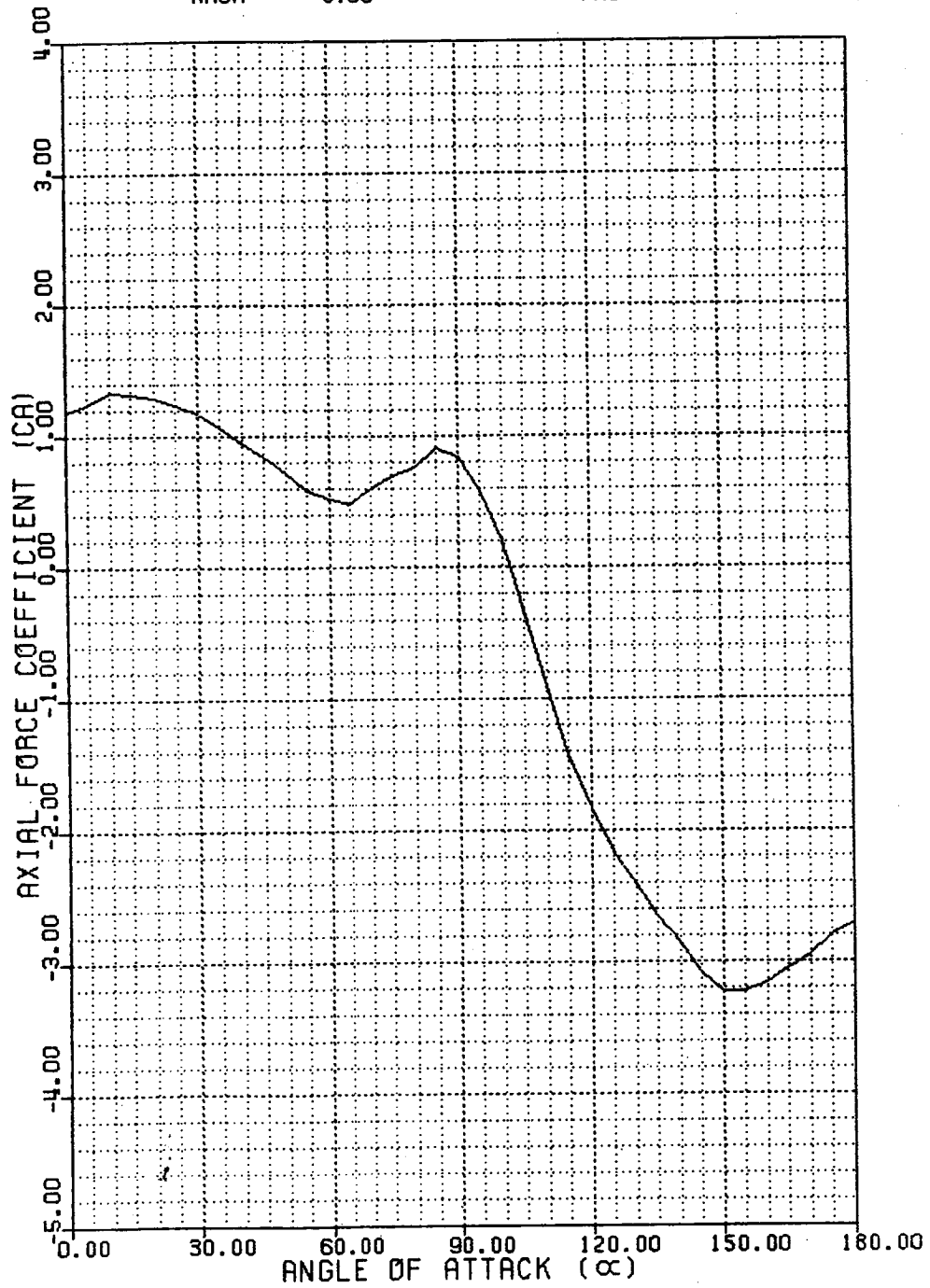


B-644

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 225



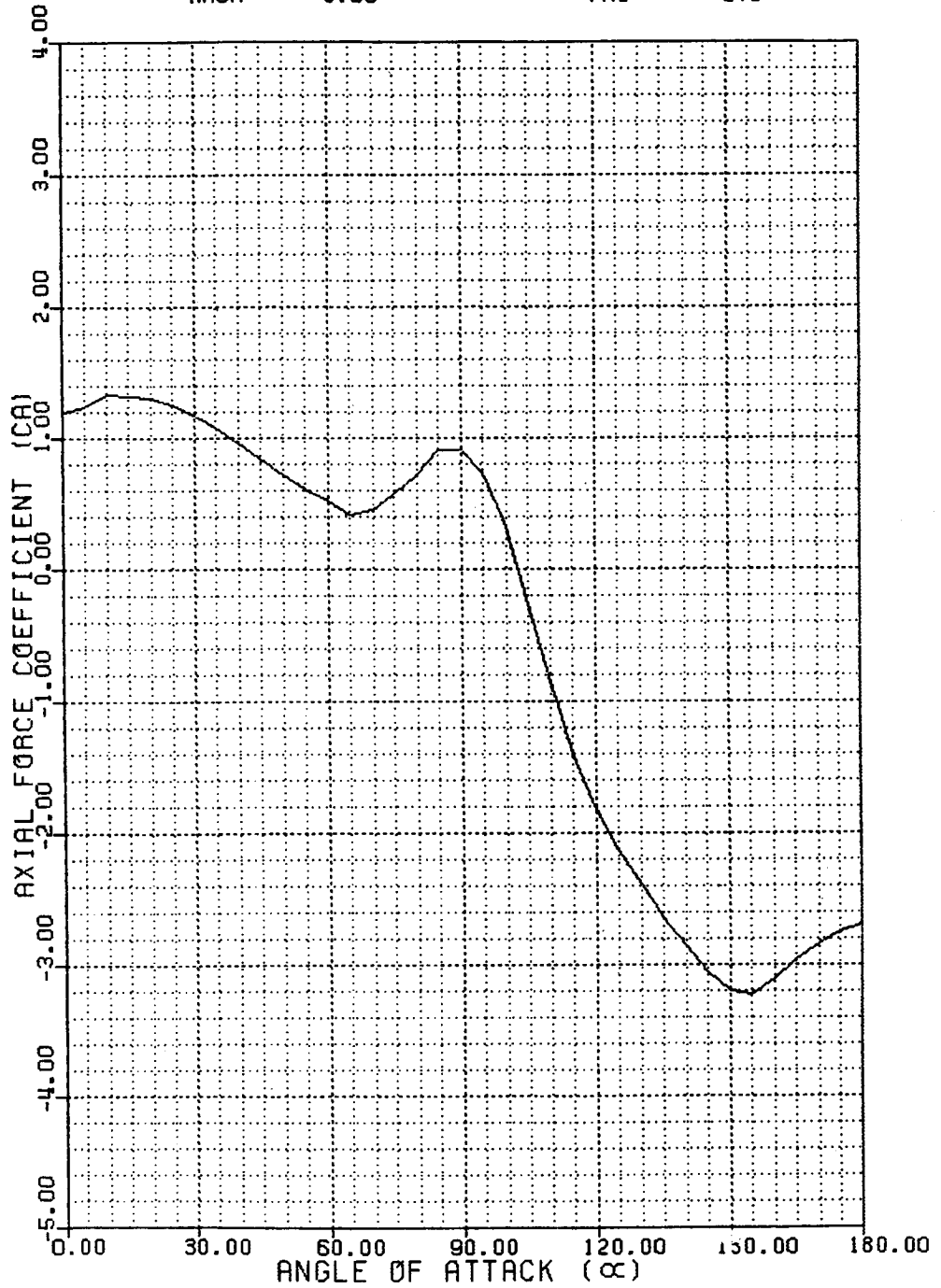
B-645

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270



B-646

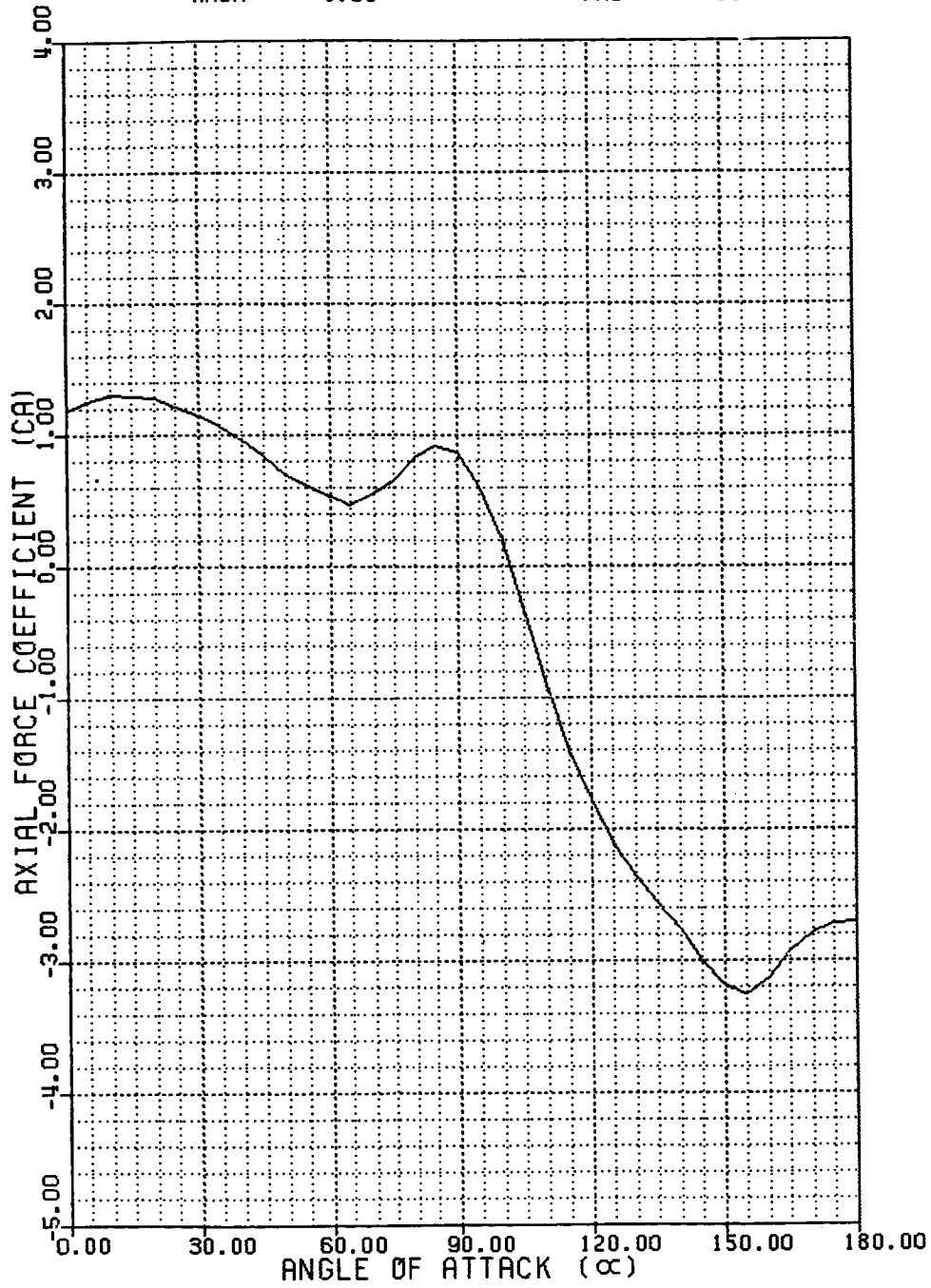
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 31°



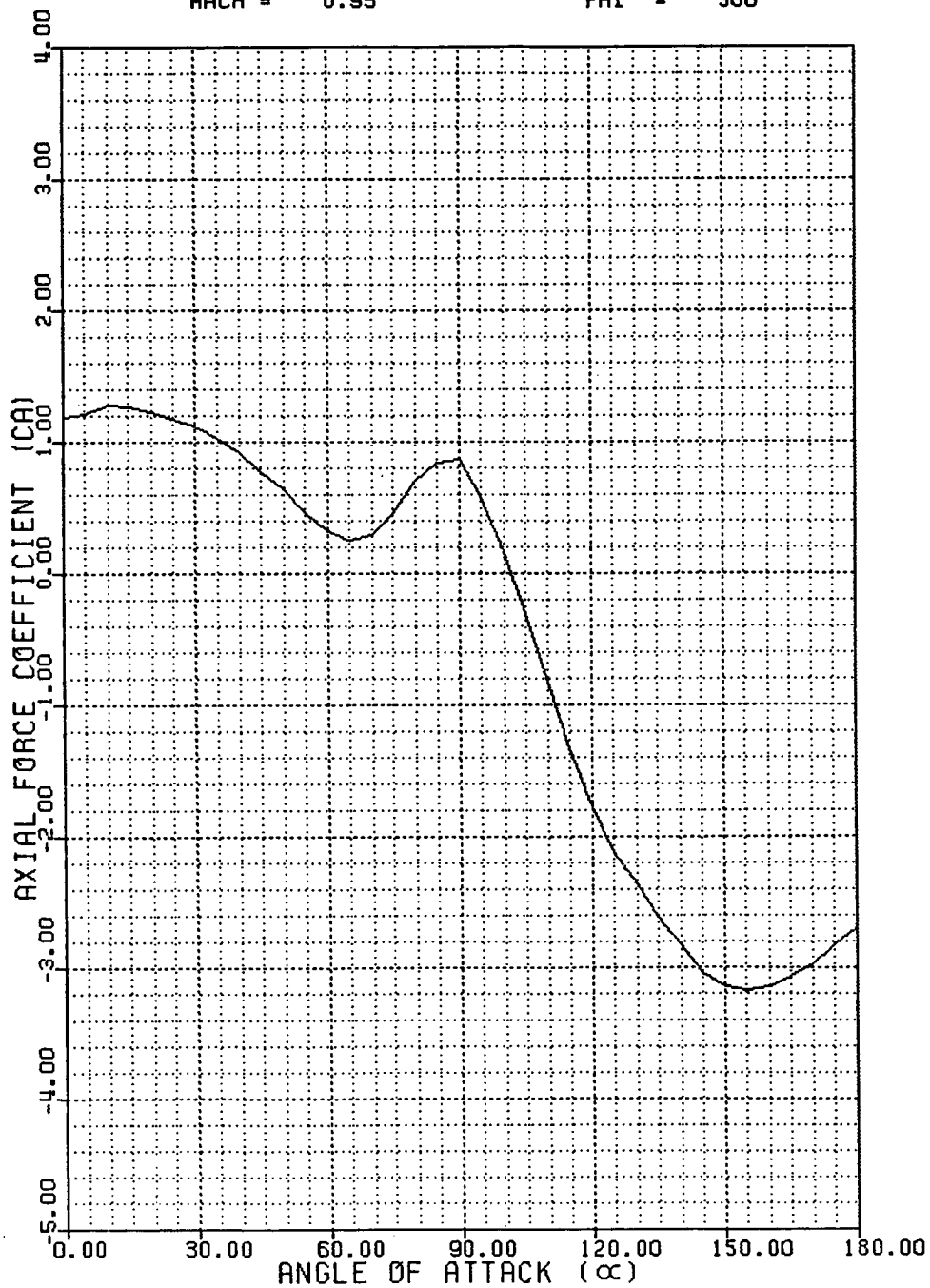
B-647

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360



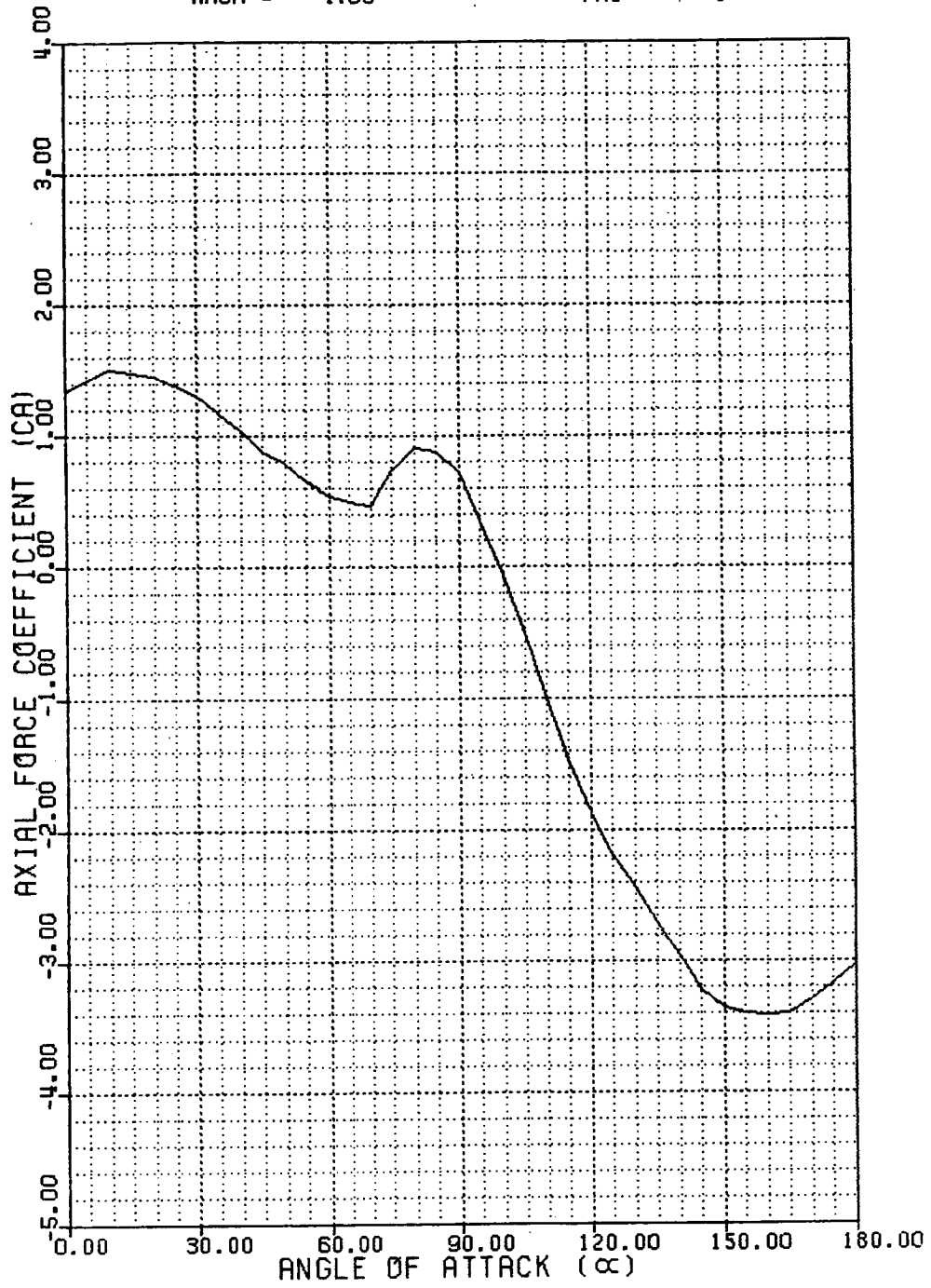
B-648

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0



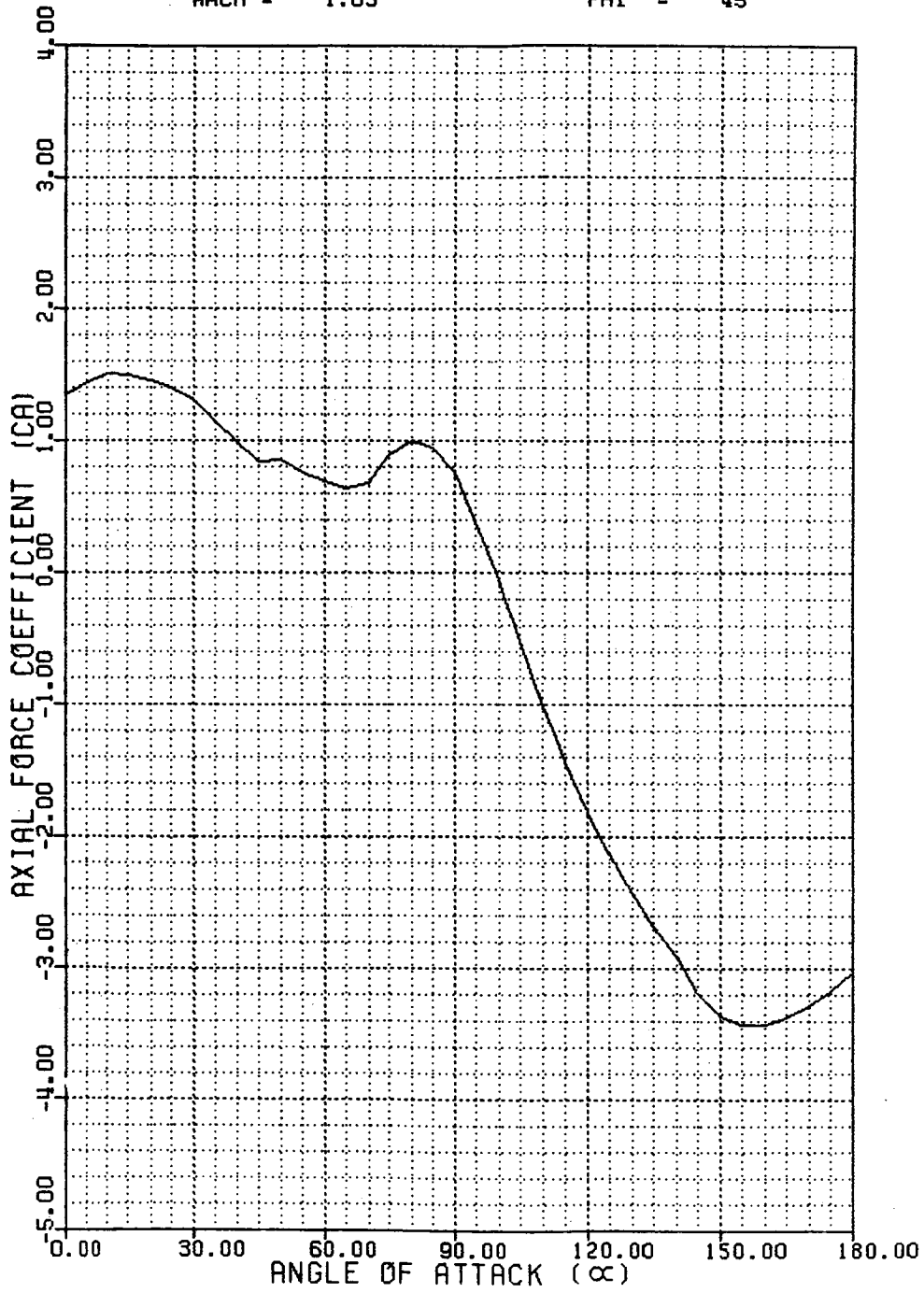
B-649

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



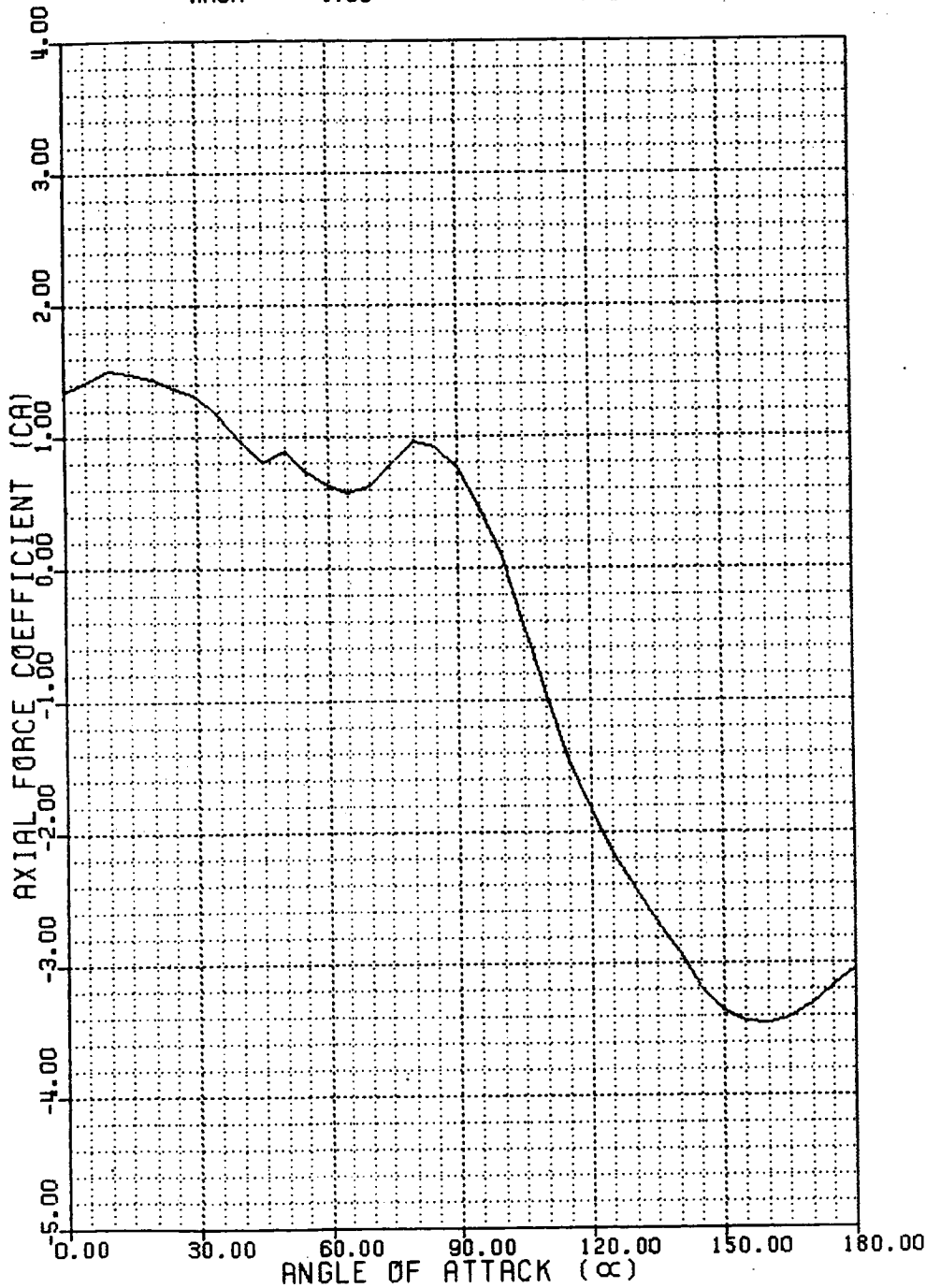
B-650

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90



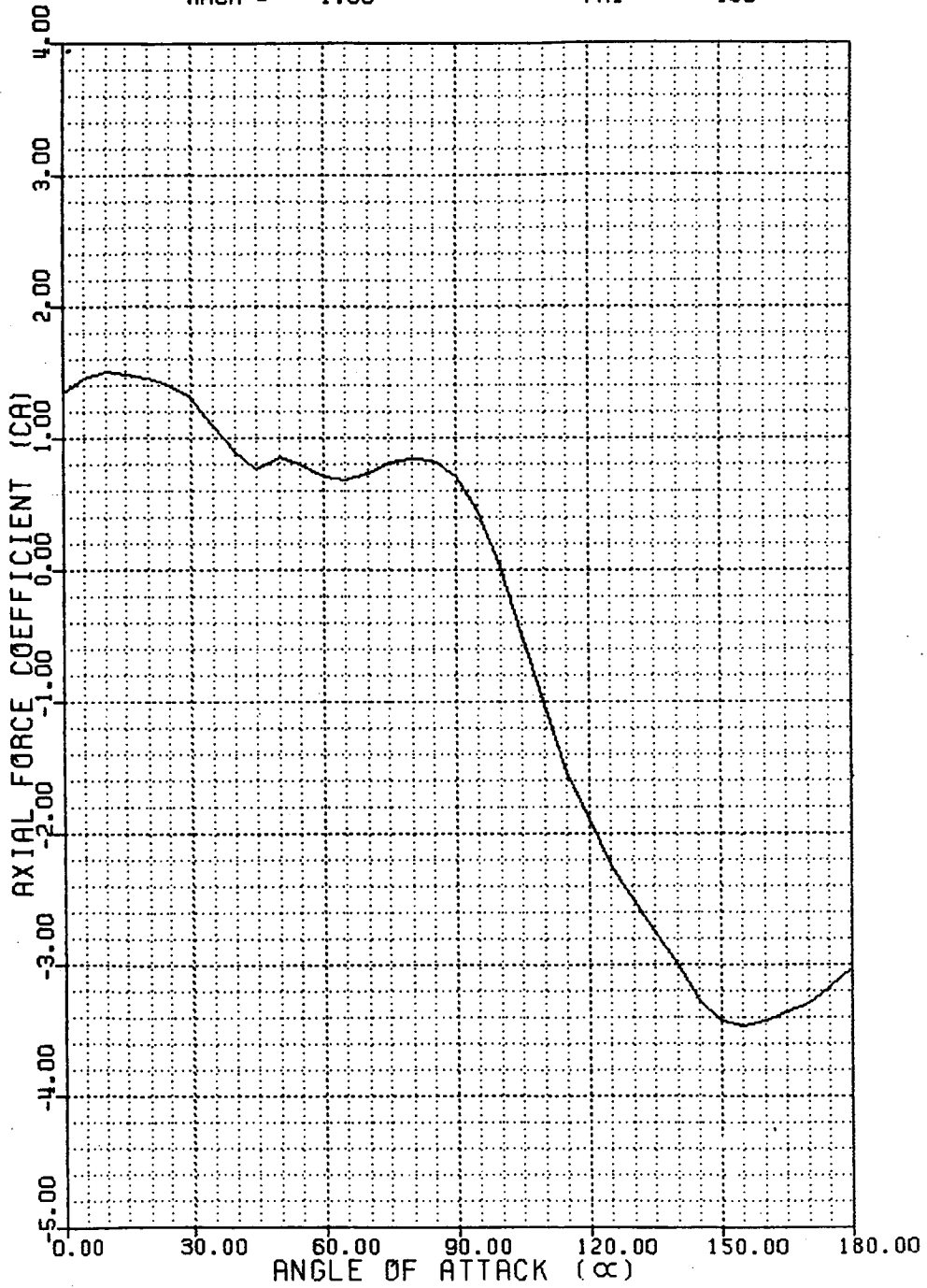
B-651

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135

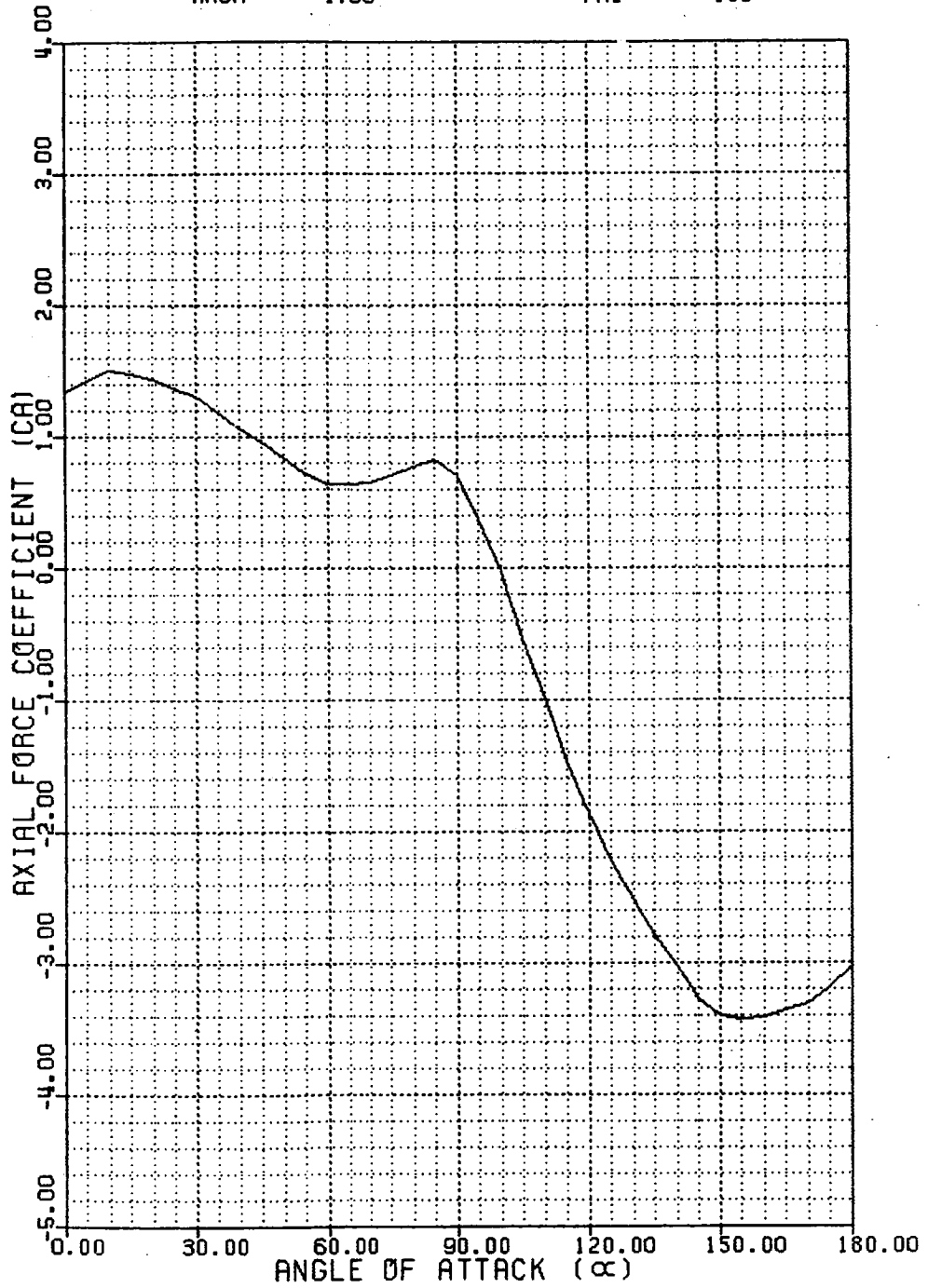


B-652

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180



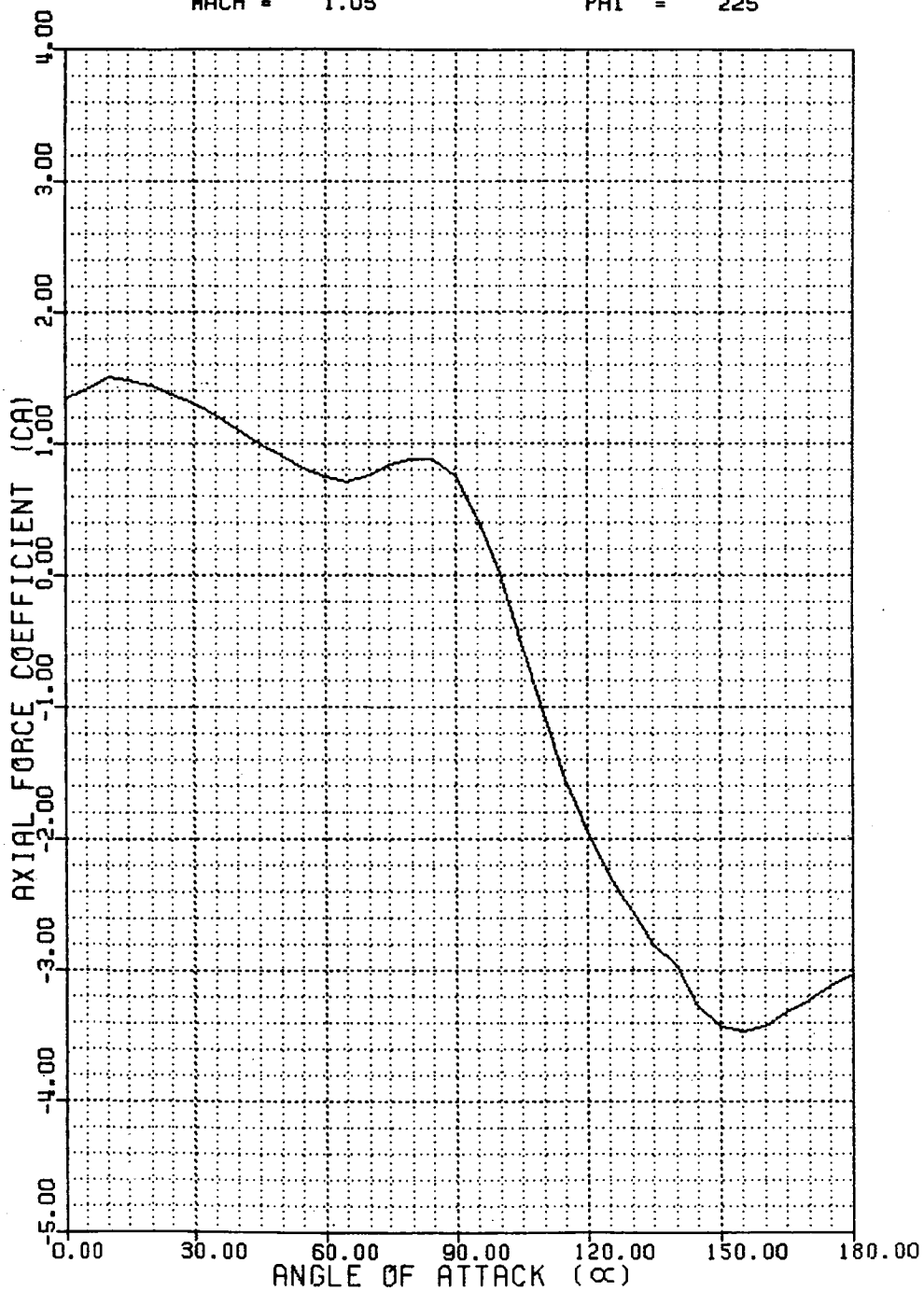
B-653

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225



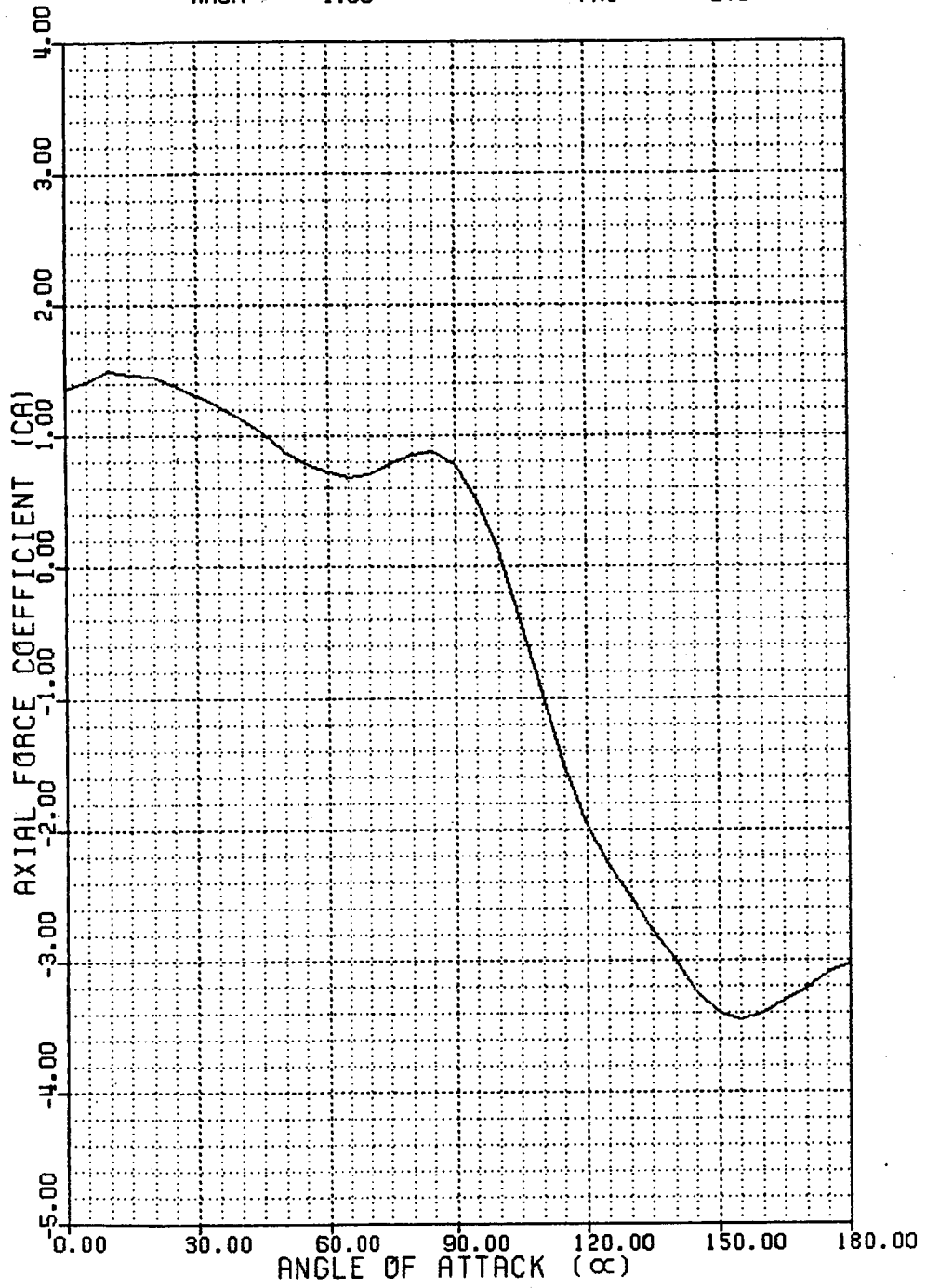
B-654



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270



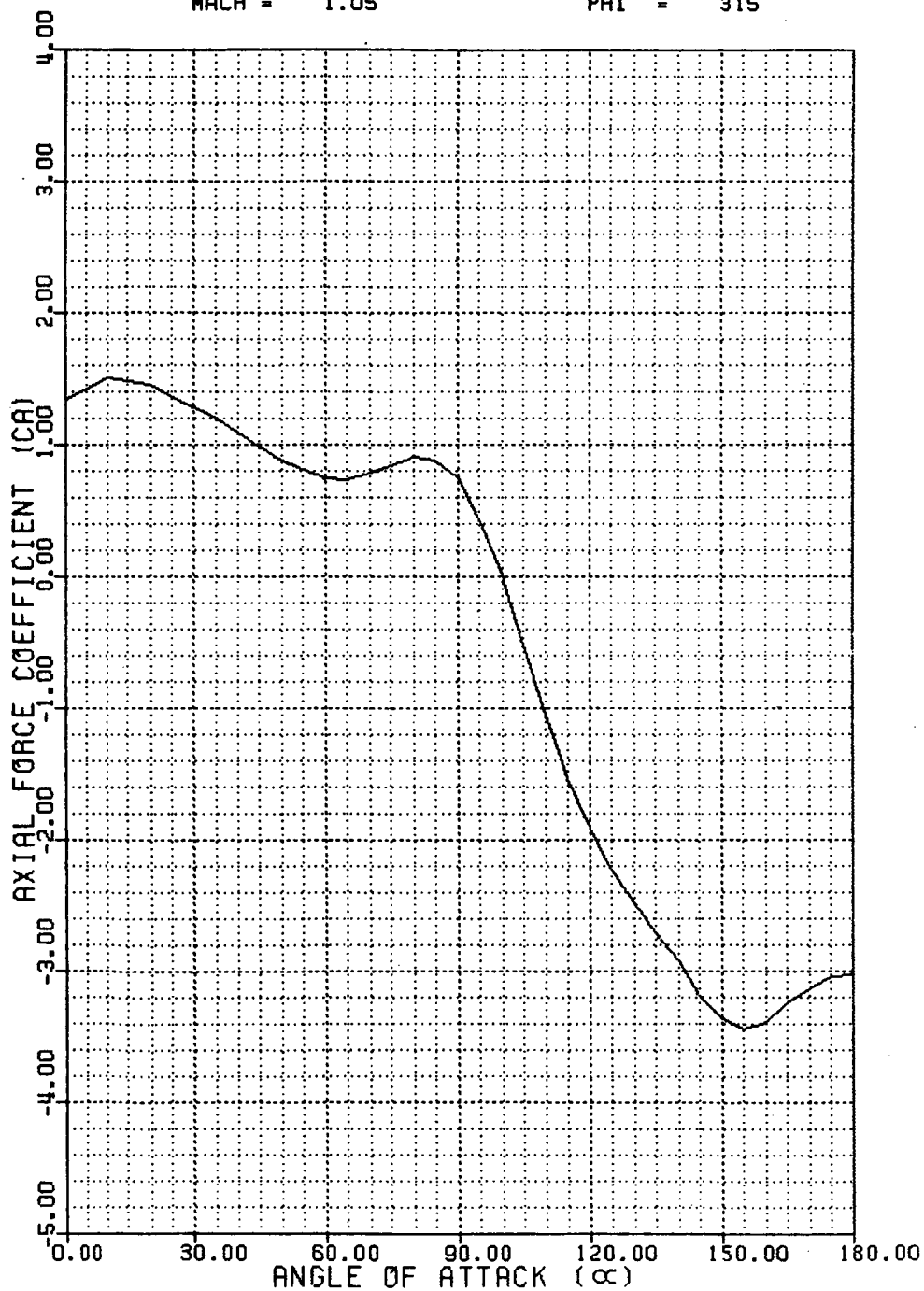
B-655

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315

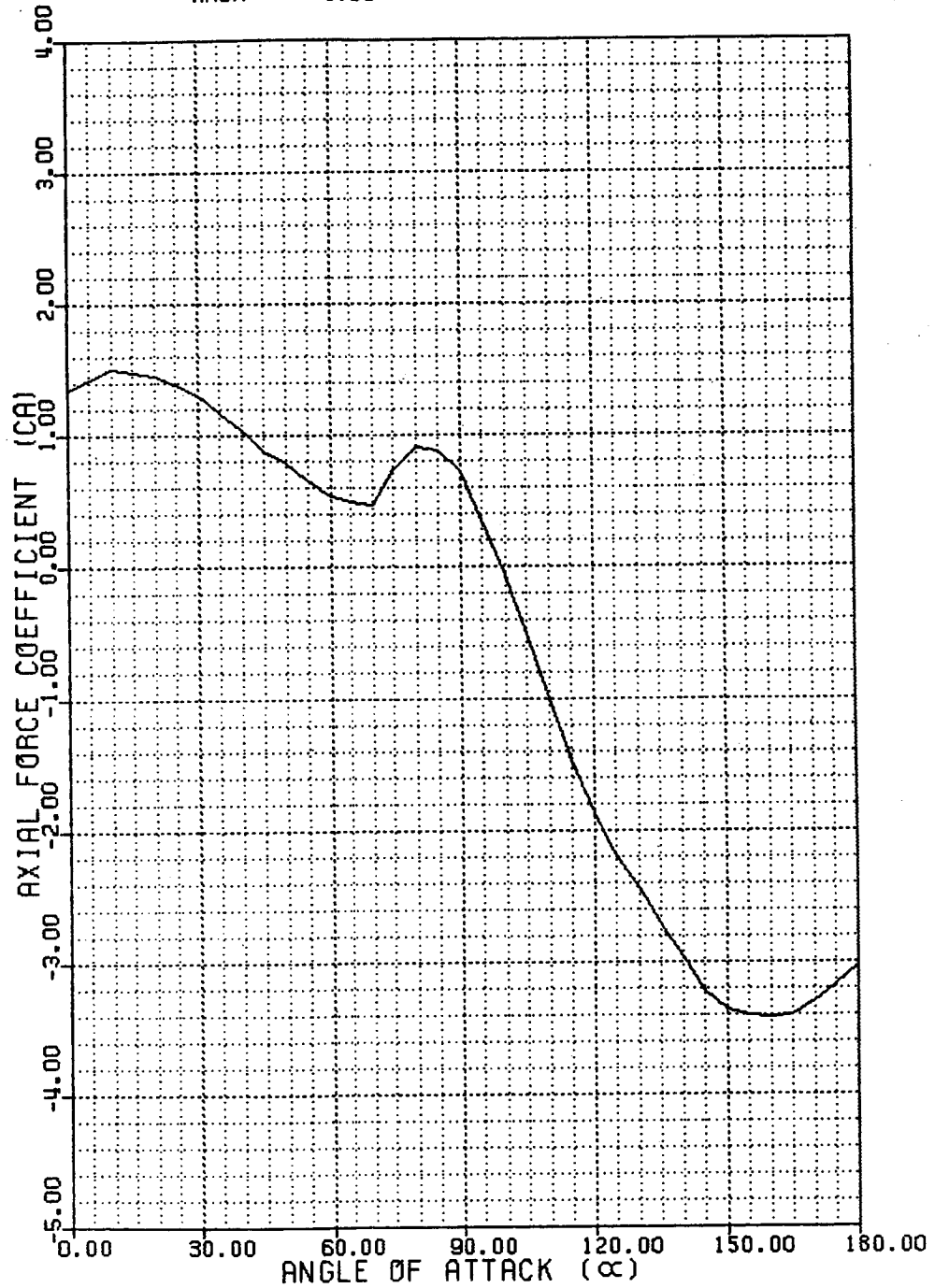


B-656

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 360



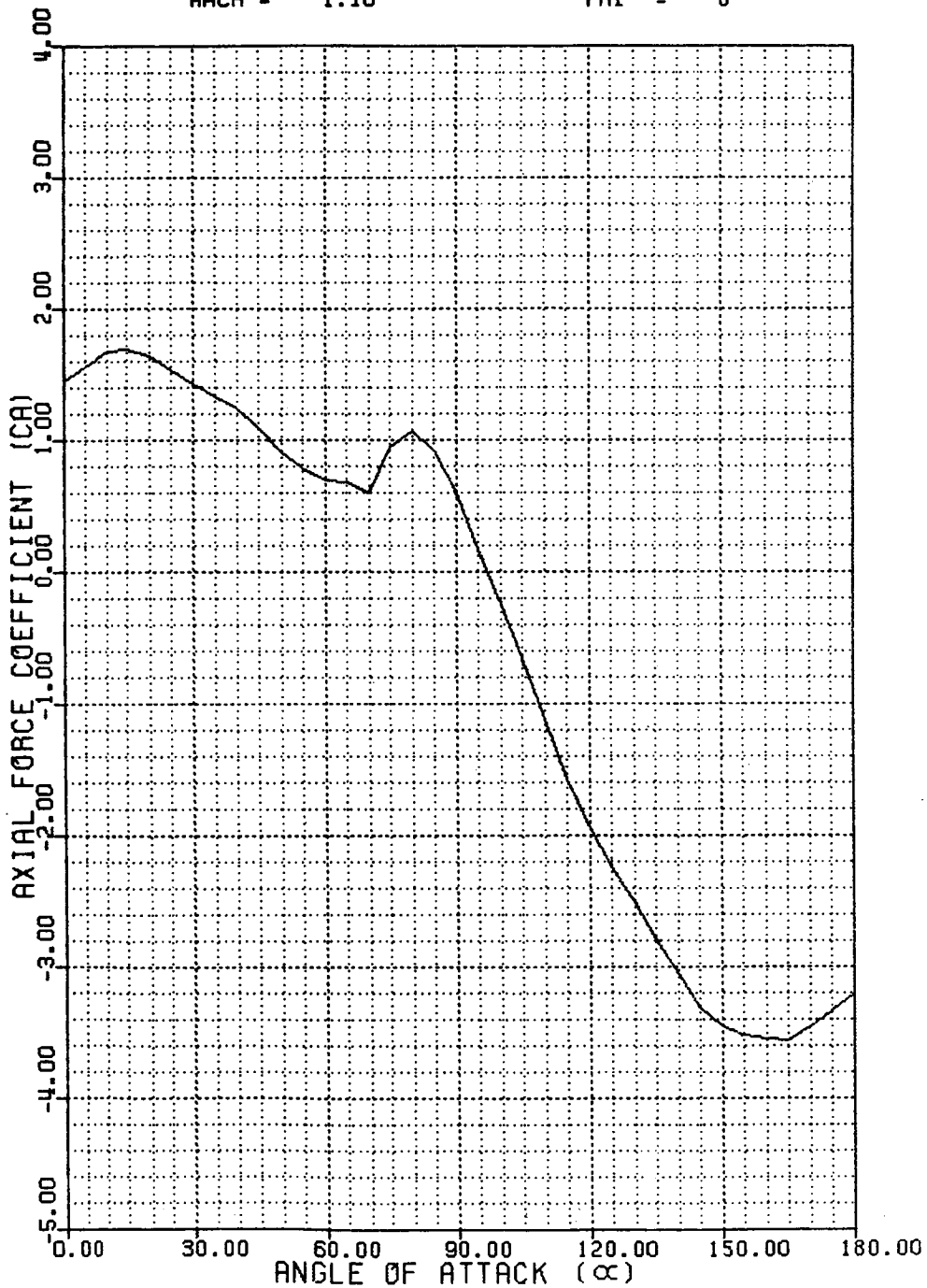
B-657

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0



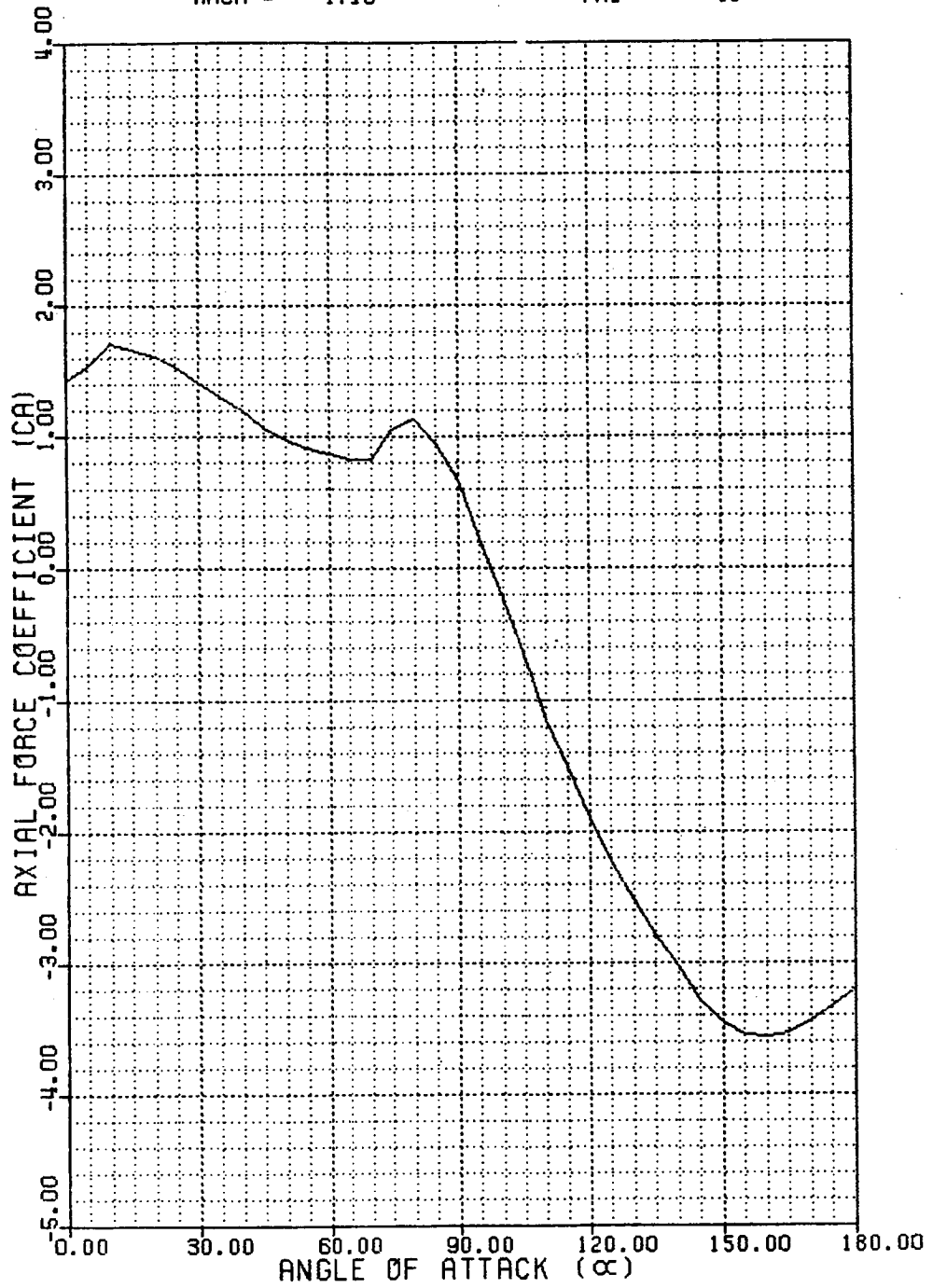
B-658

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 45



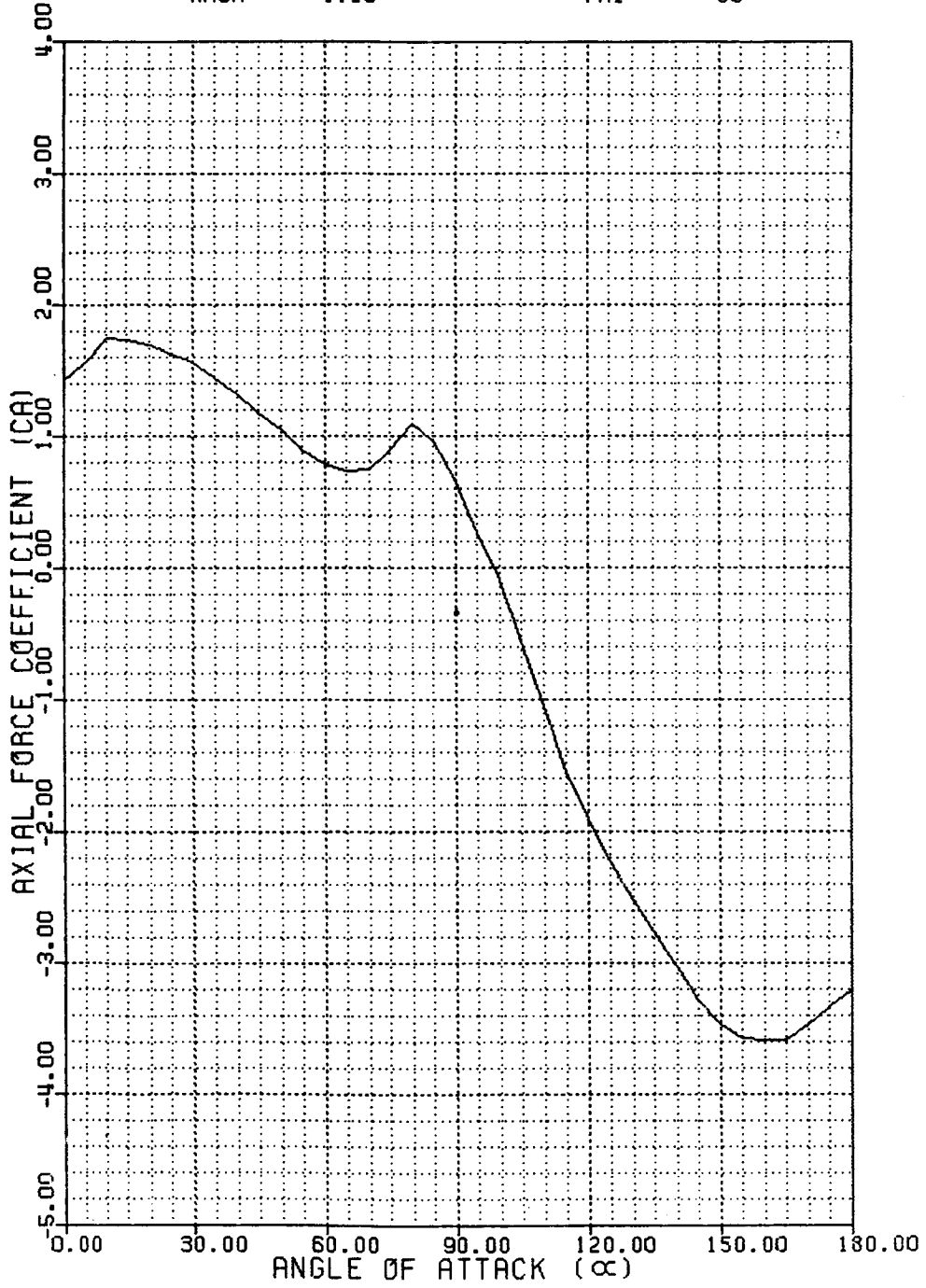
B-659

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90



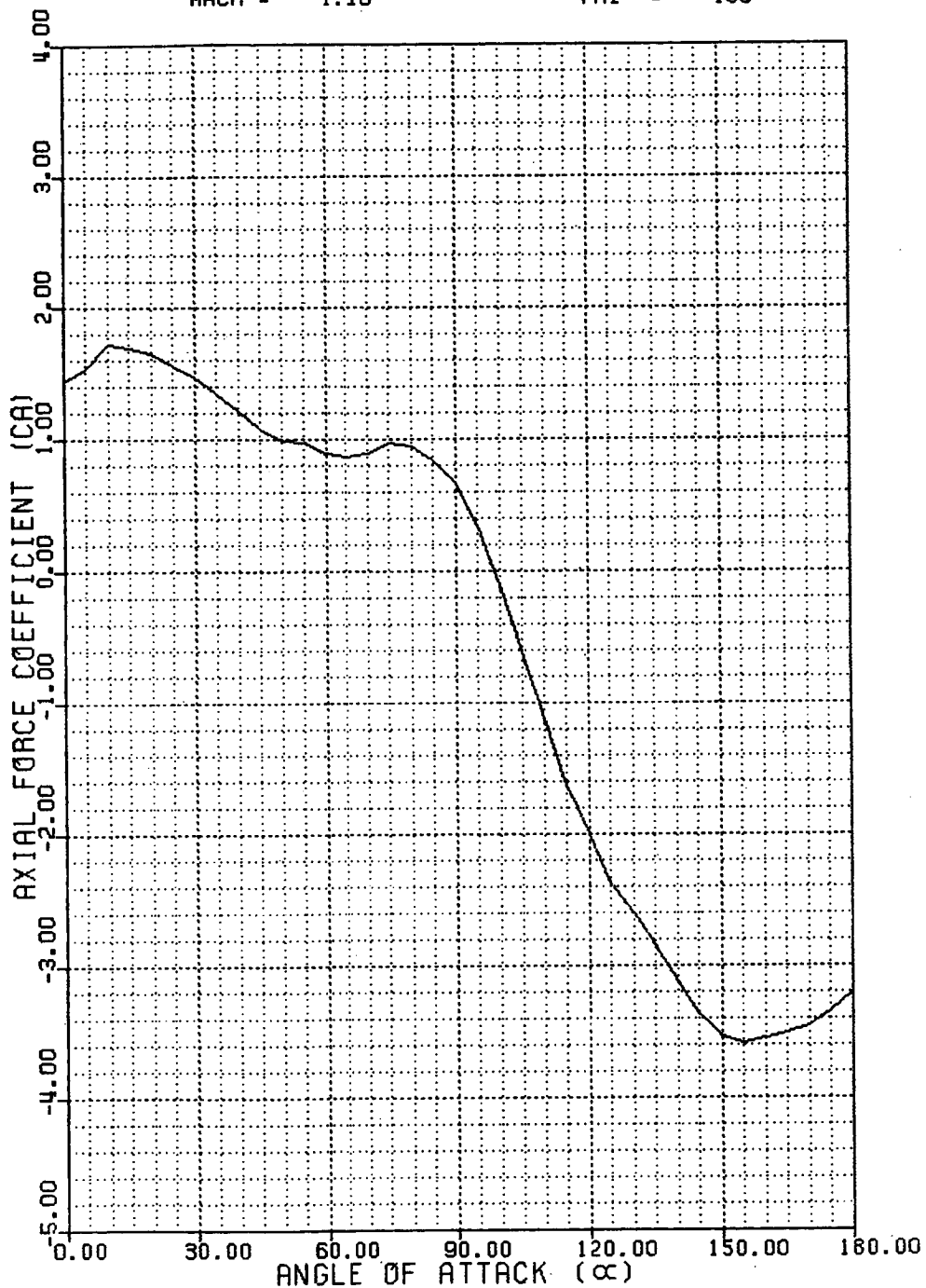
B-860

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135



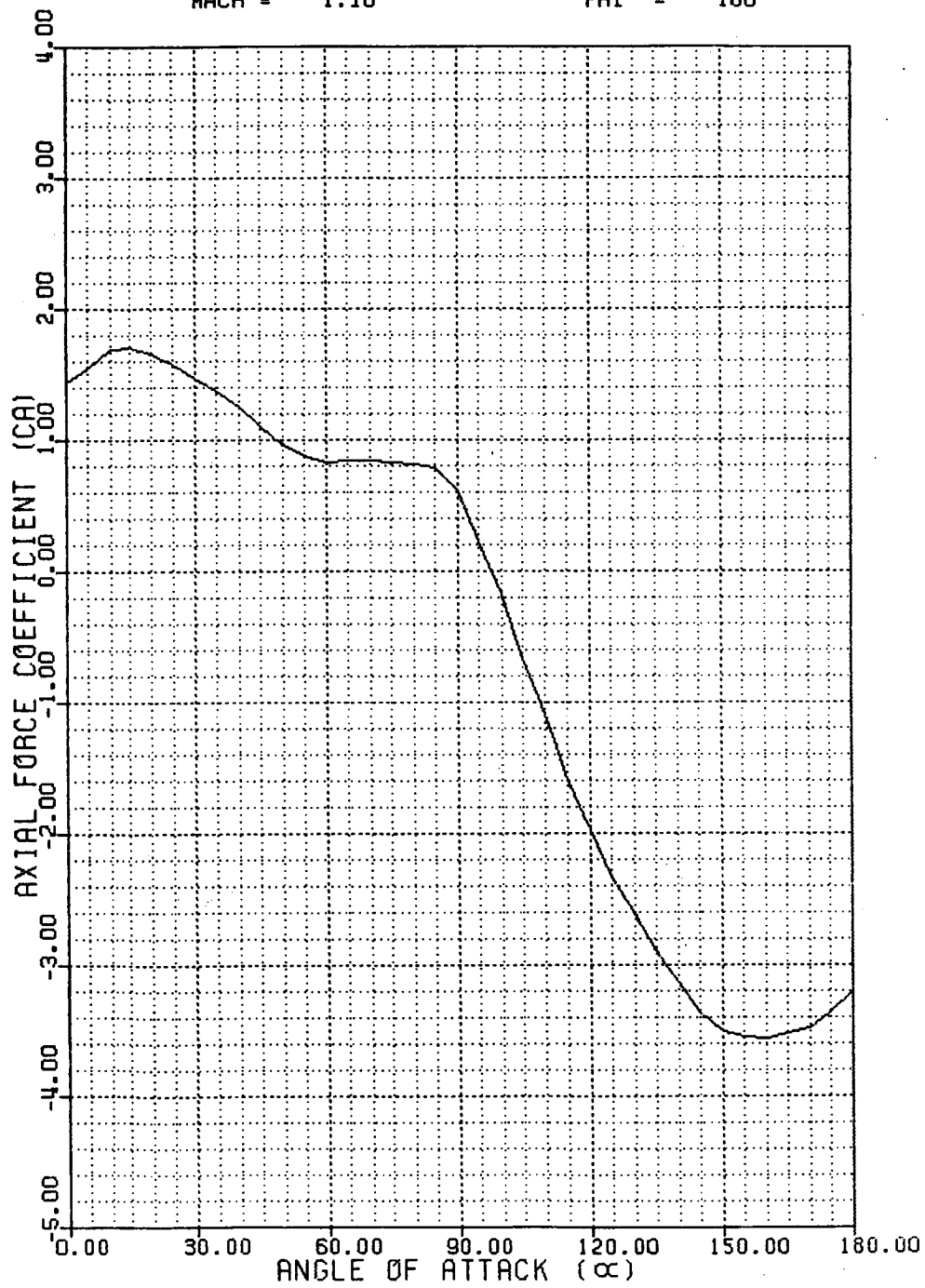
B-661

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180



B-662

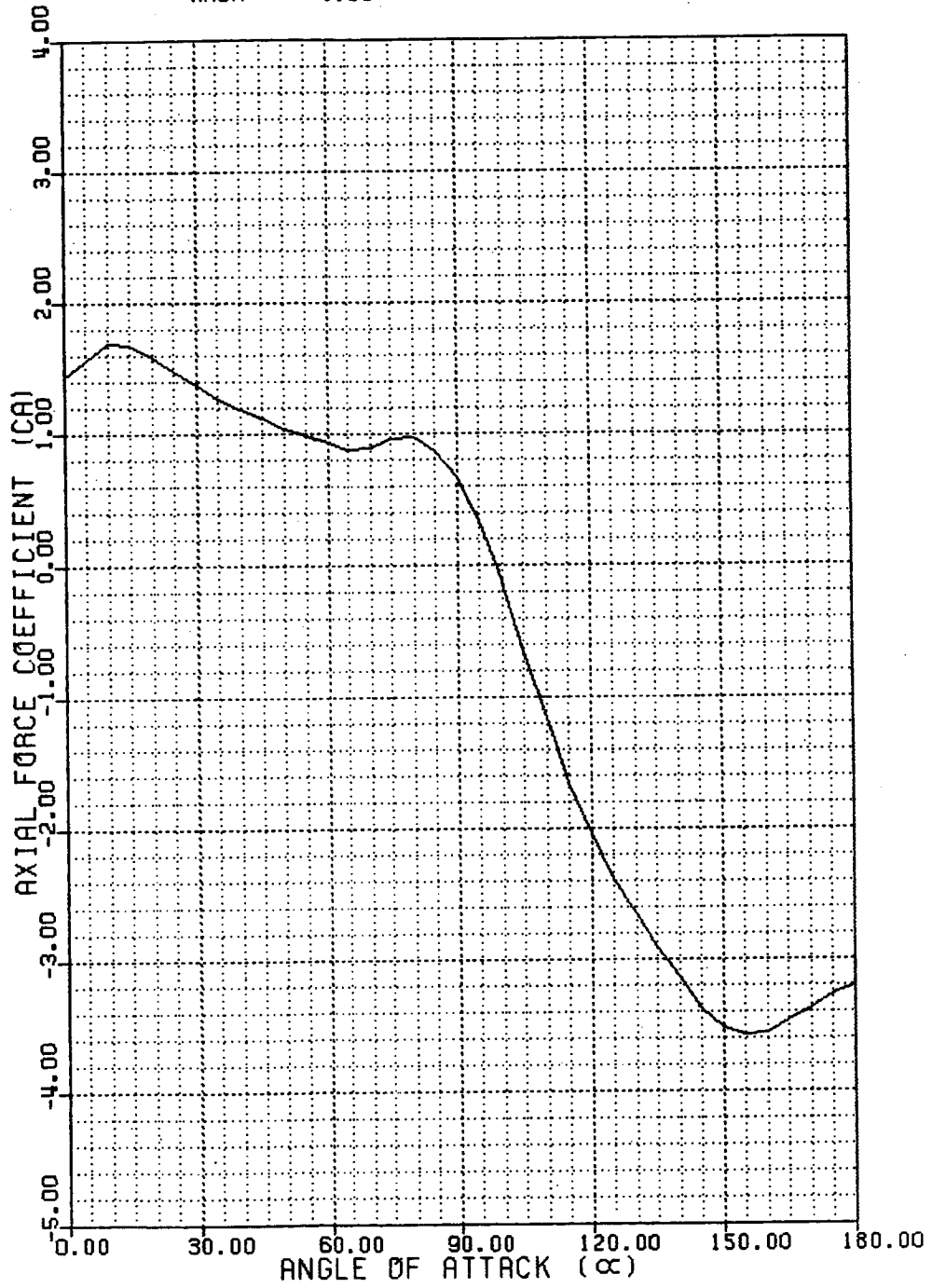
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225

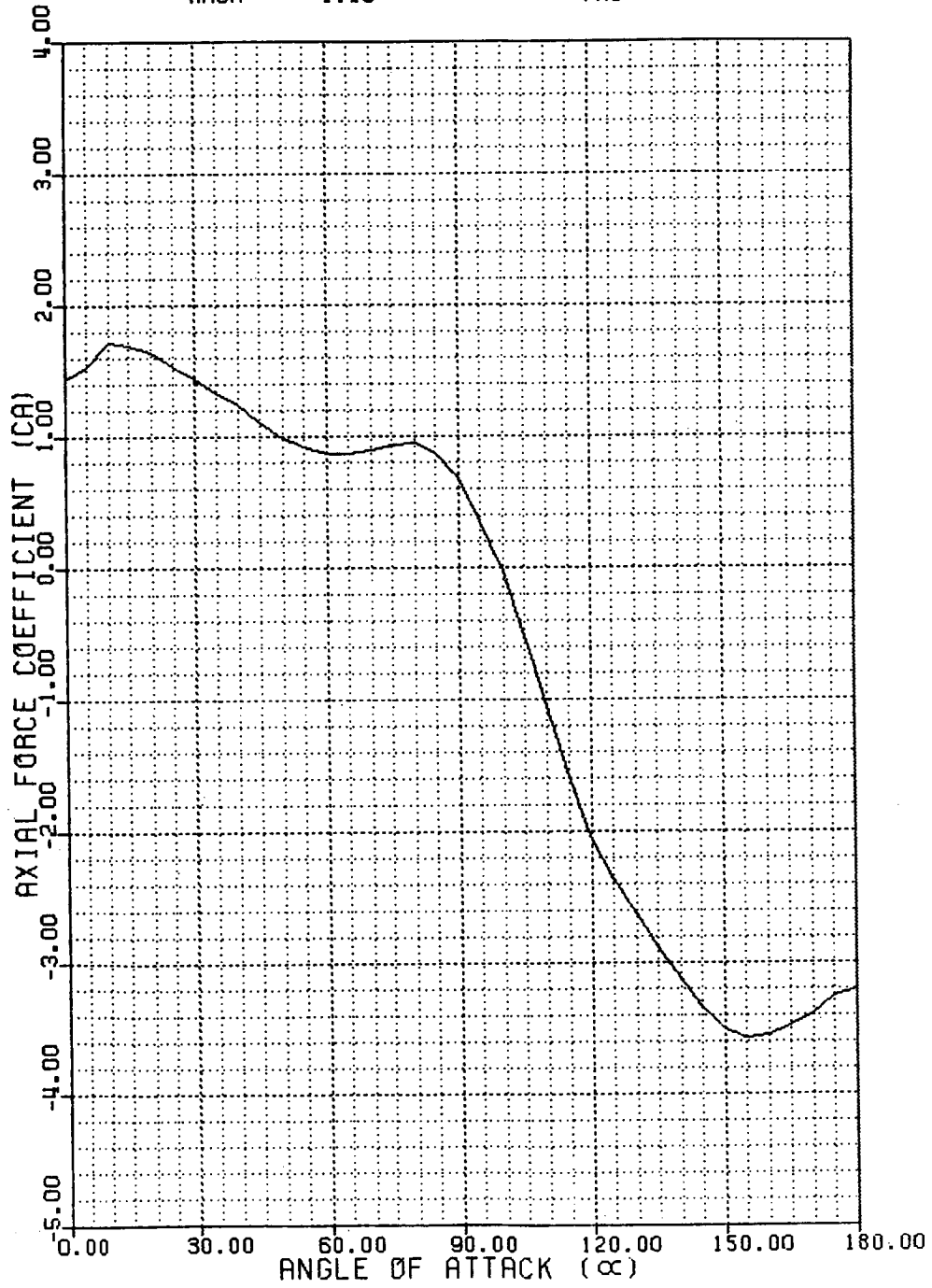


B-663

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270



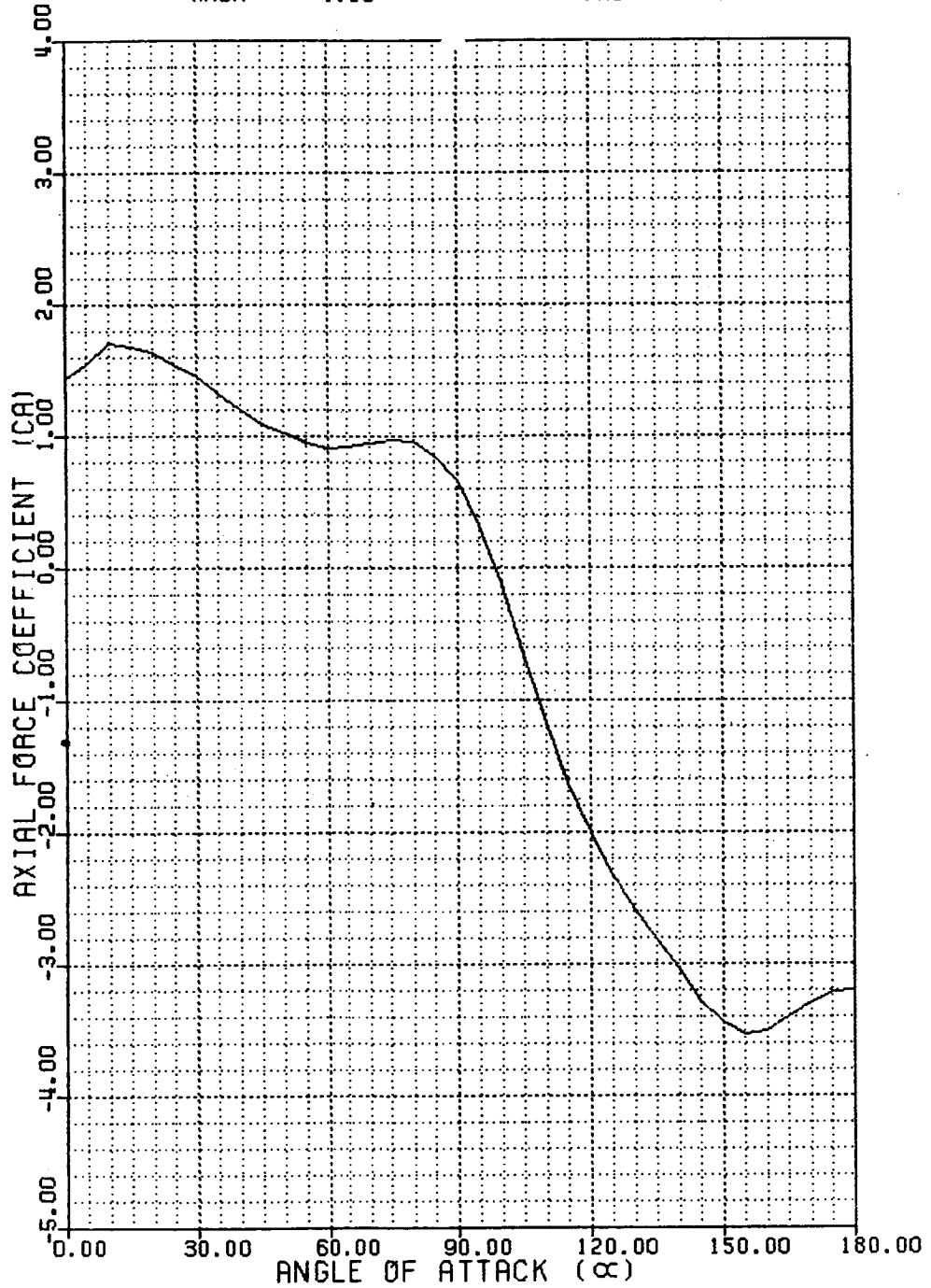
B-664

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315

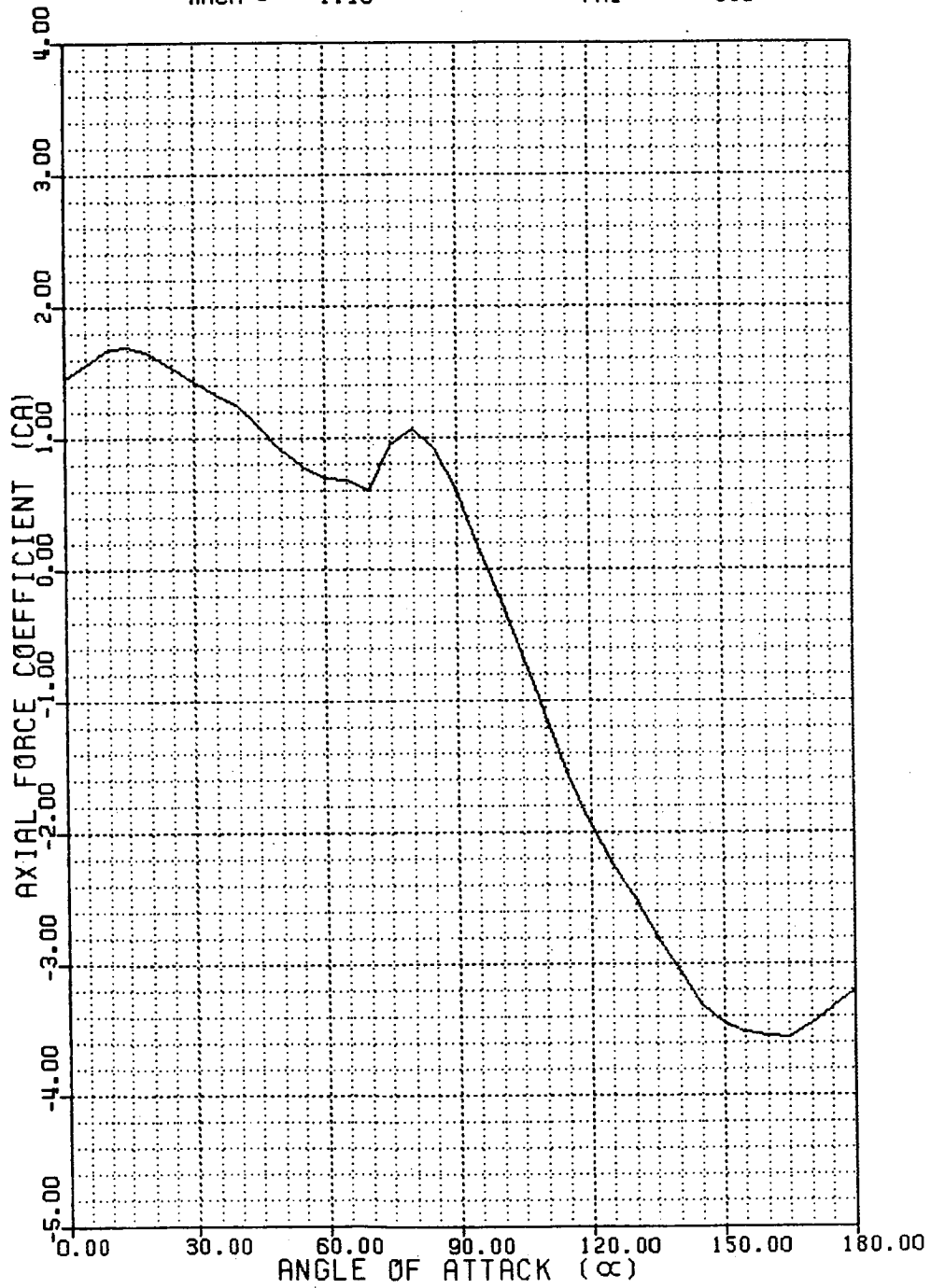


B-665

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360



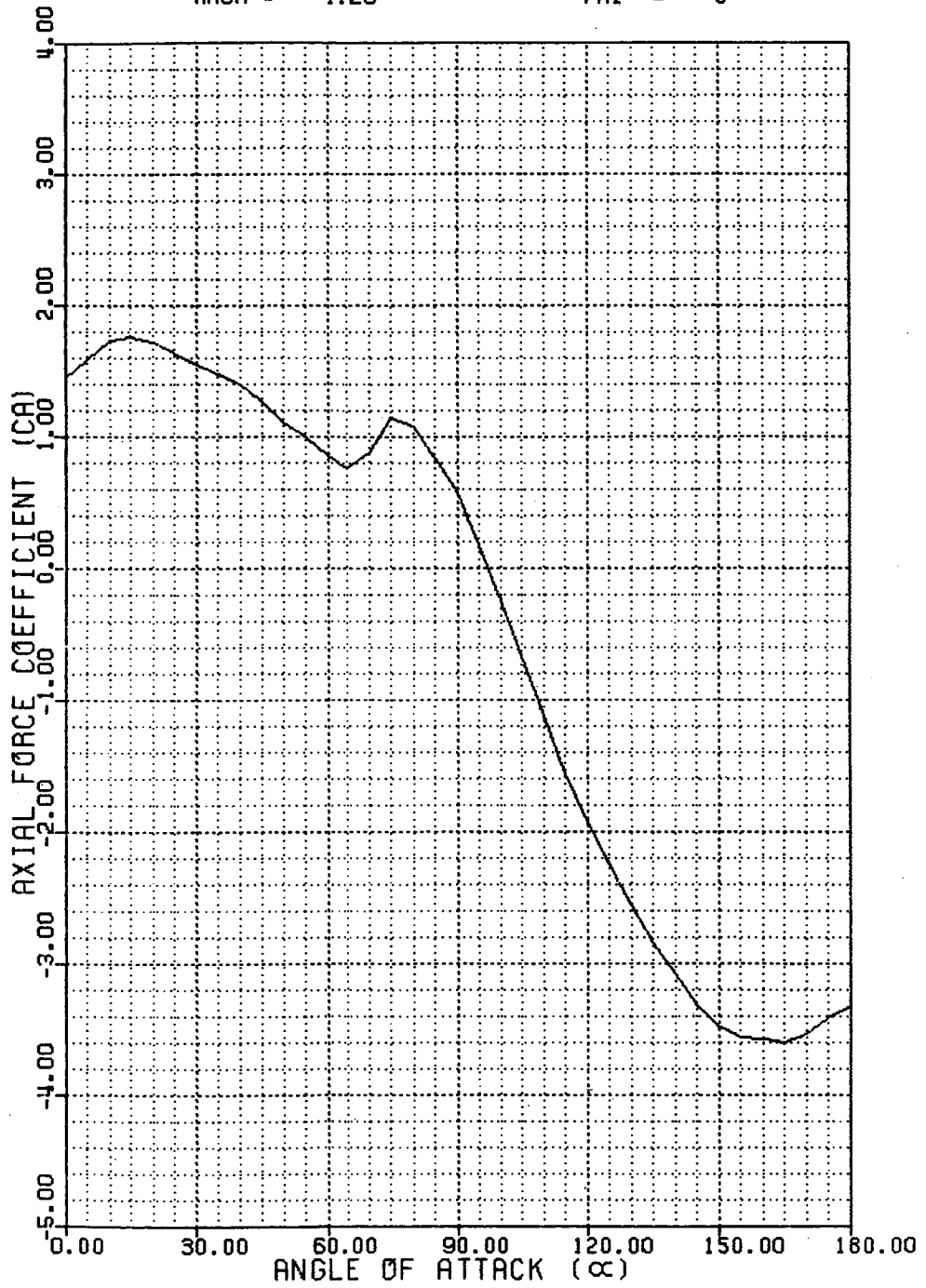
B-866

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0



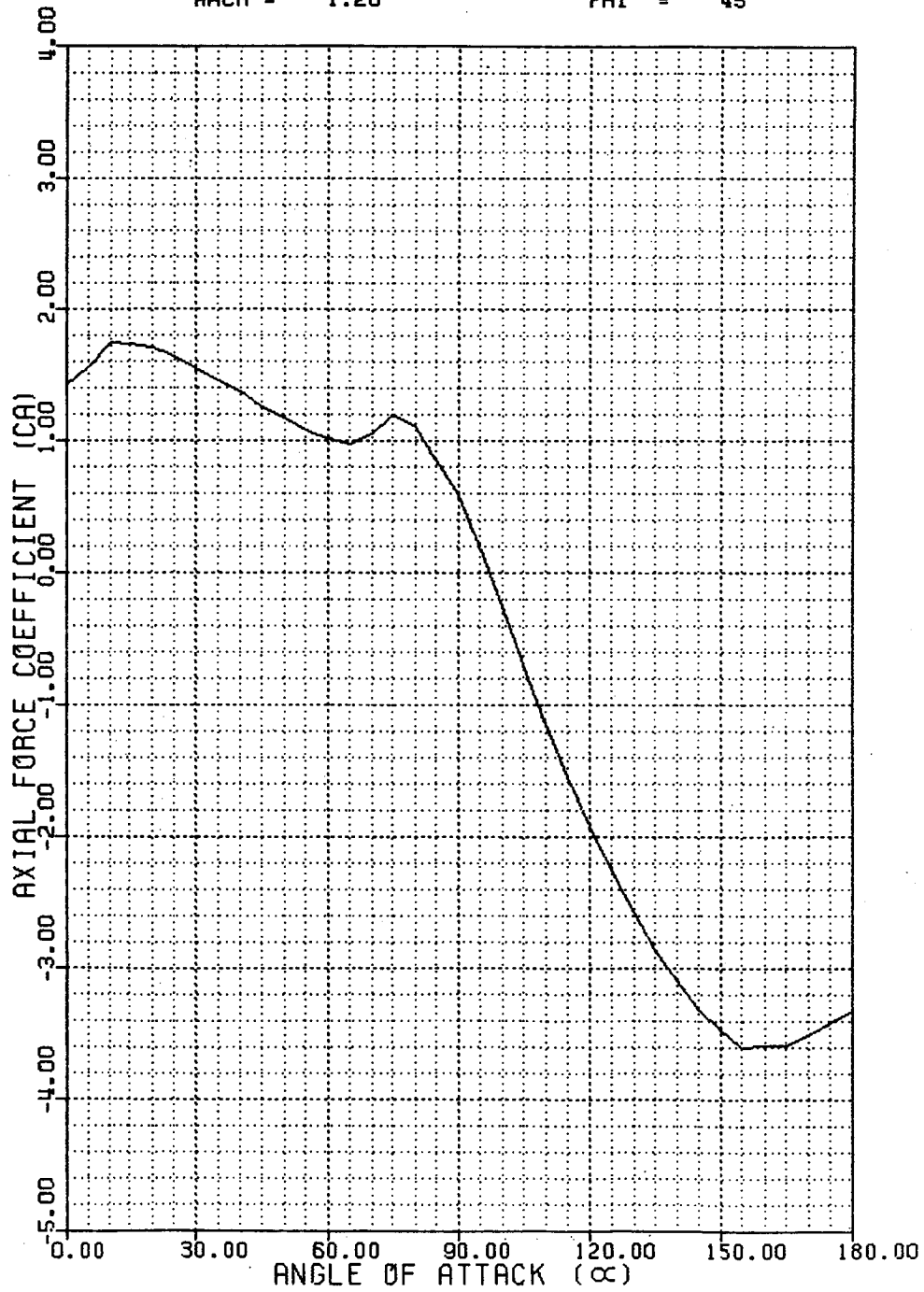
B-667

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



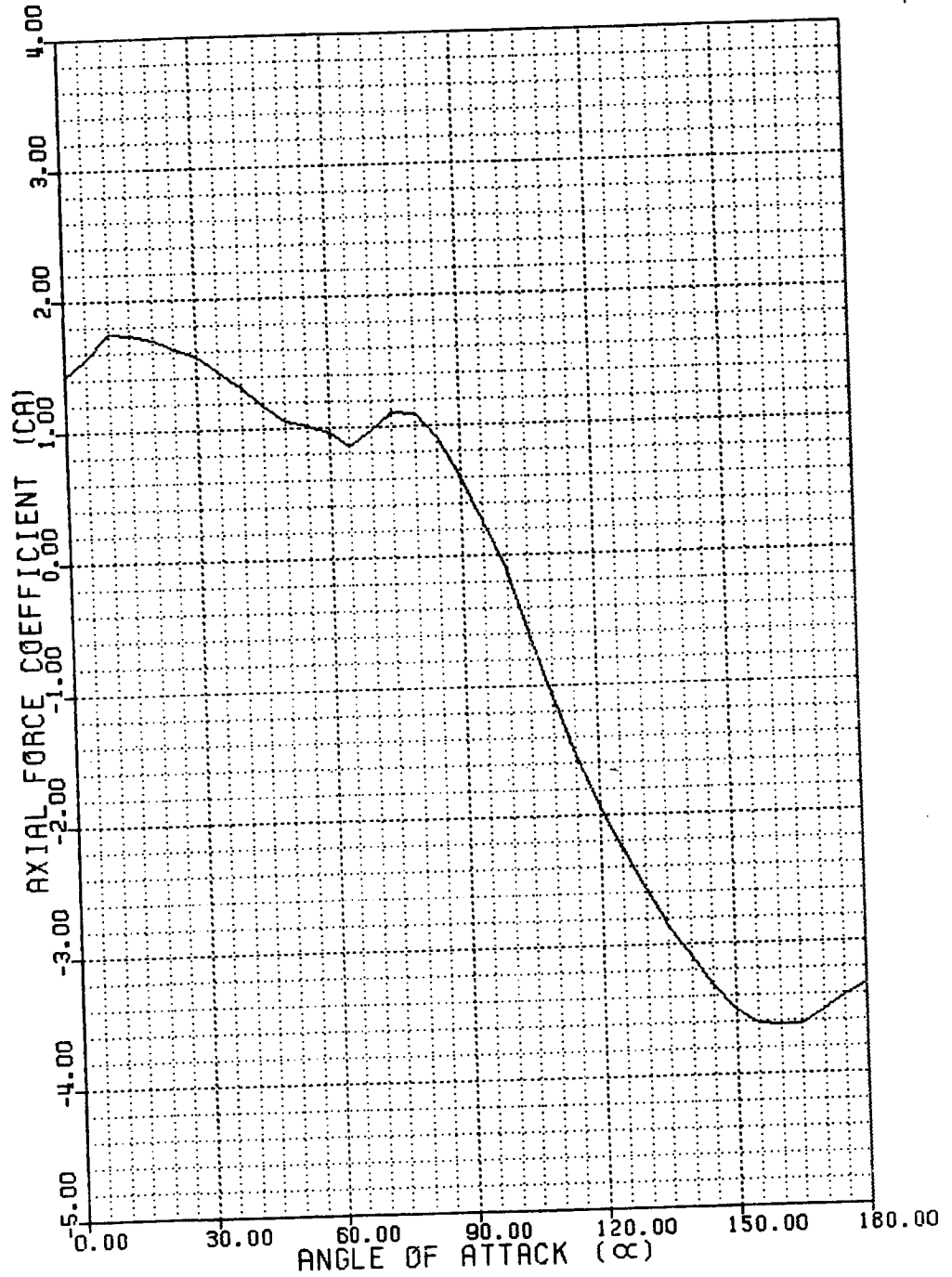
B-668

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90

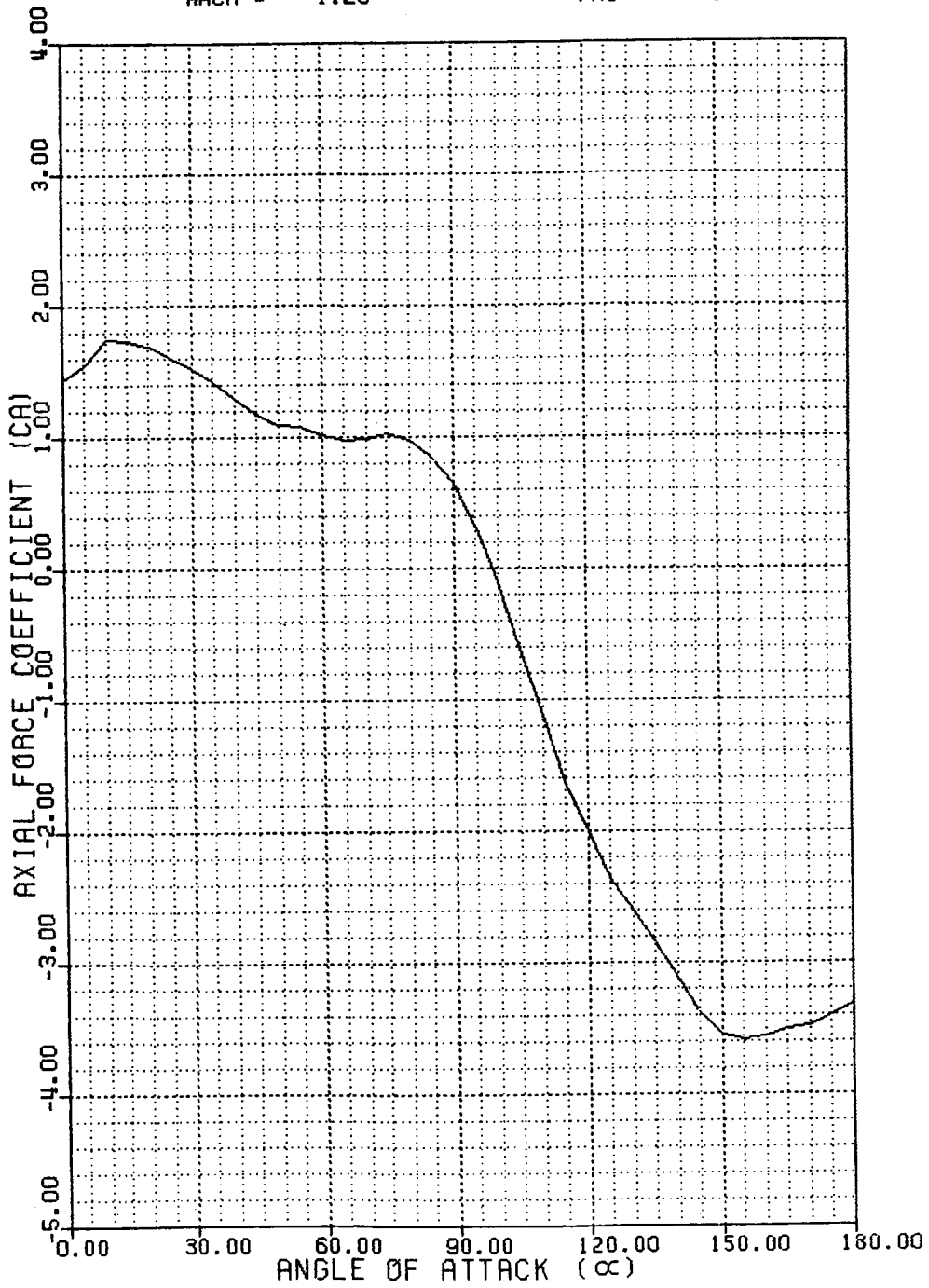


B-669

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135



B-670

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

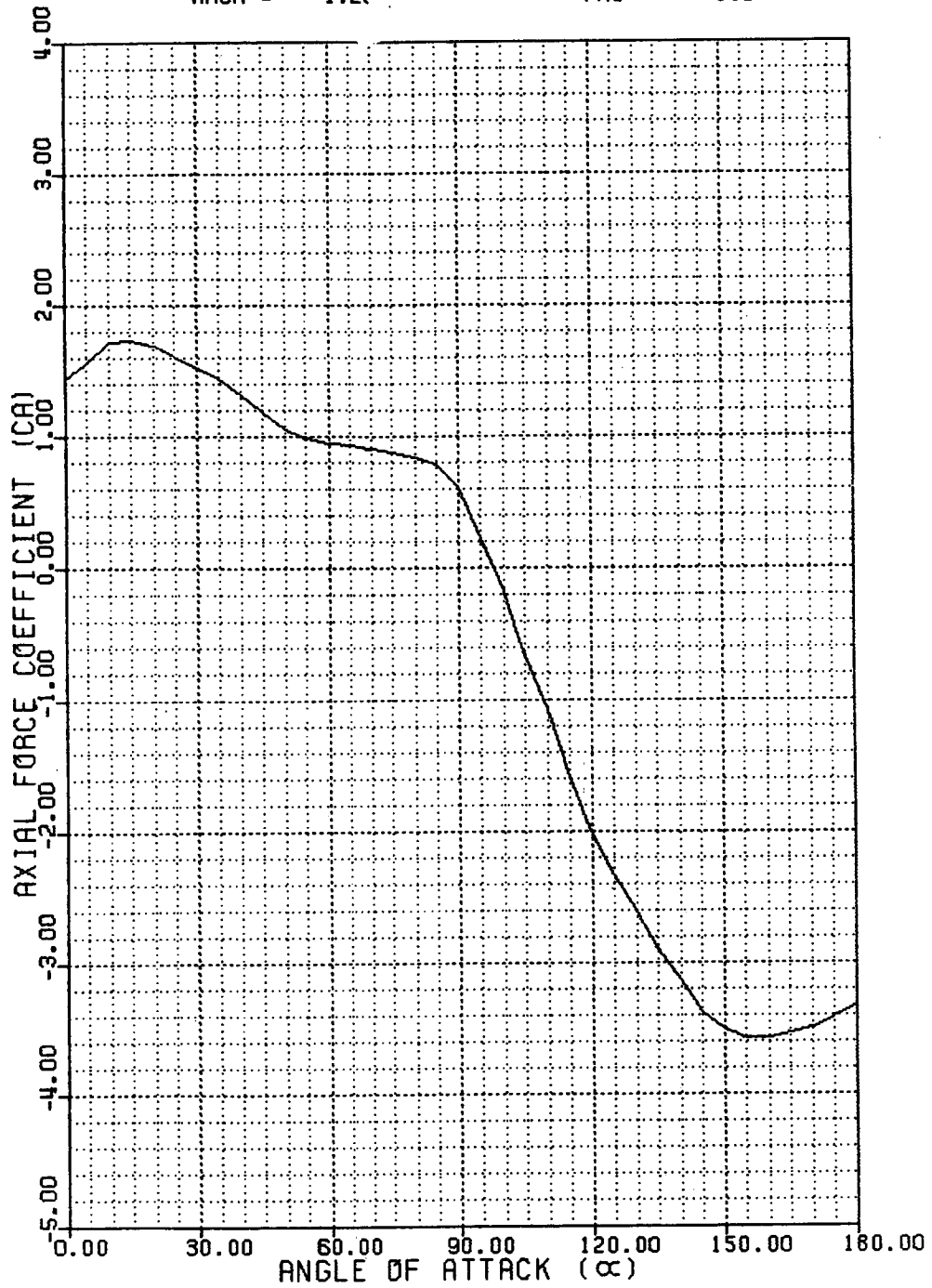
C-8



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180



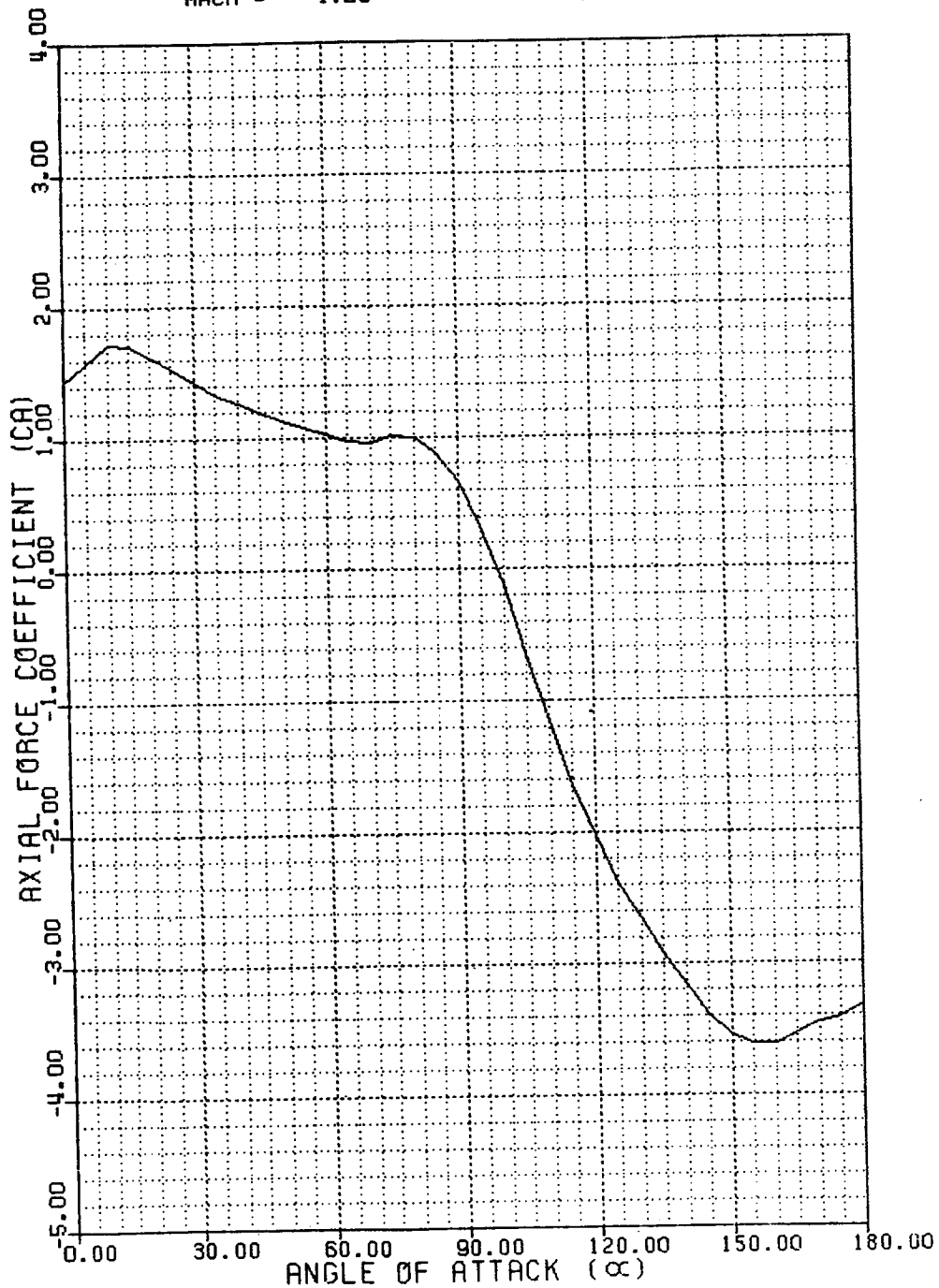
B-671

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225

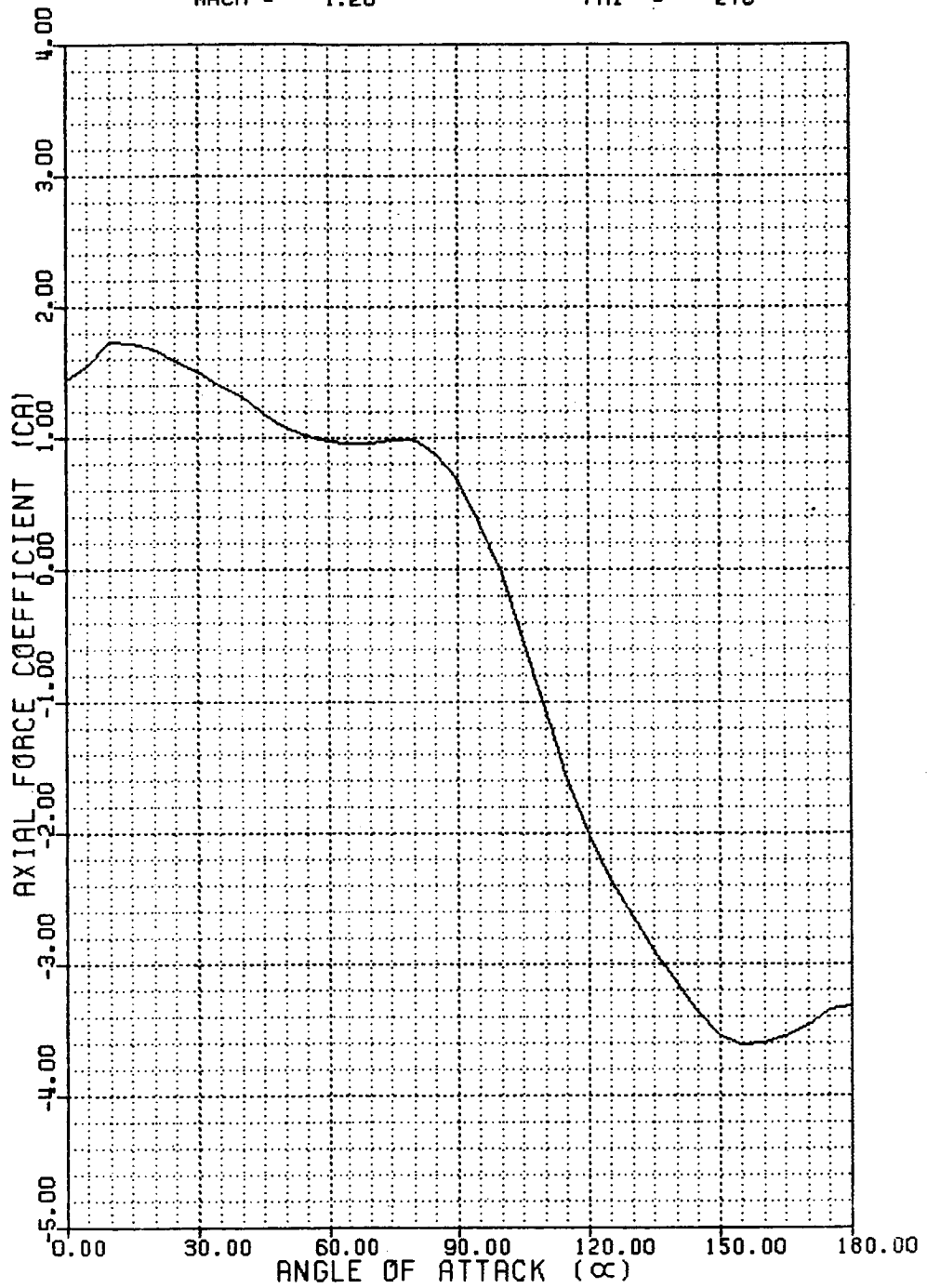


B-672

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 270



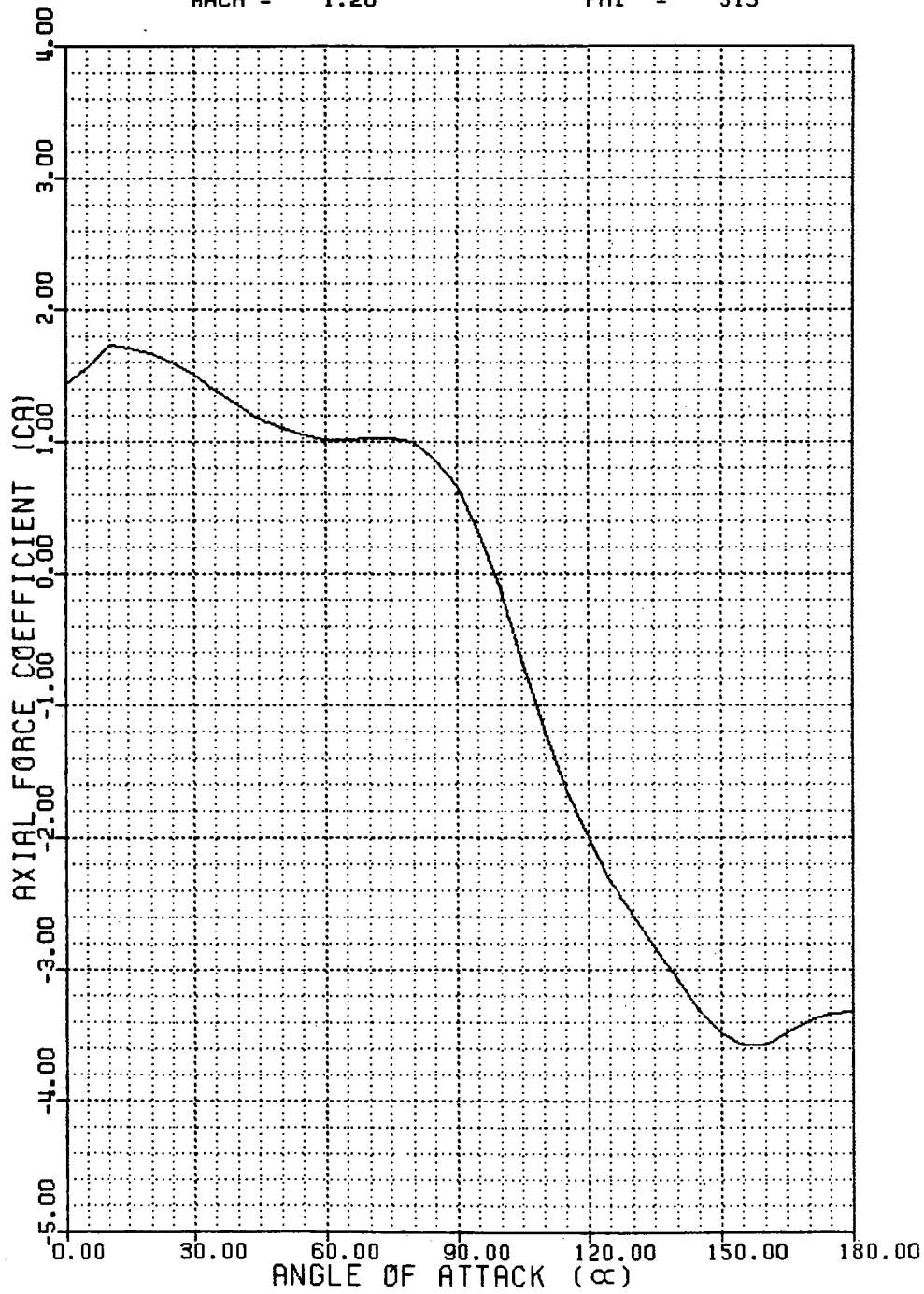
B-673

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 315



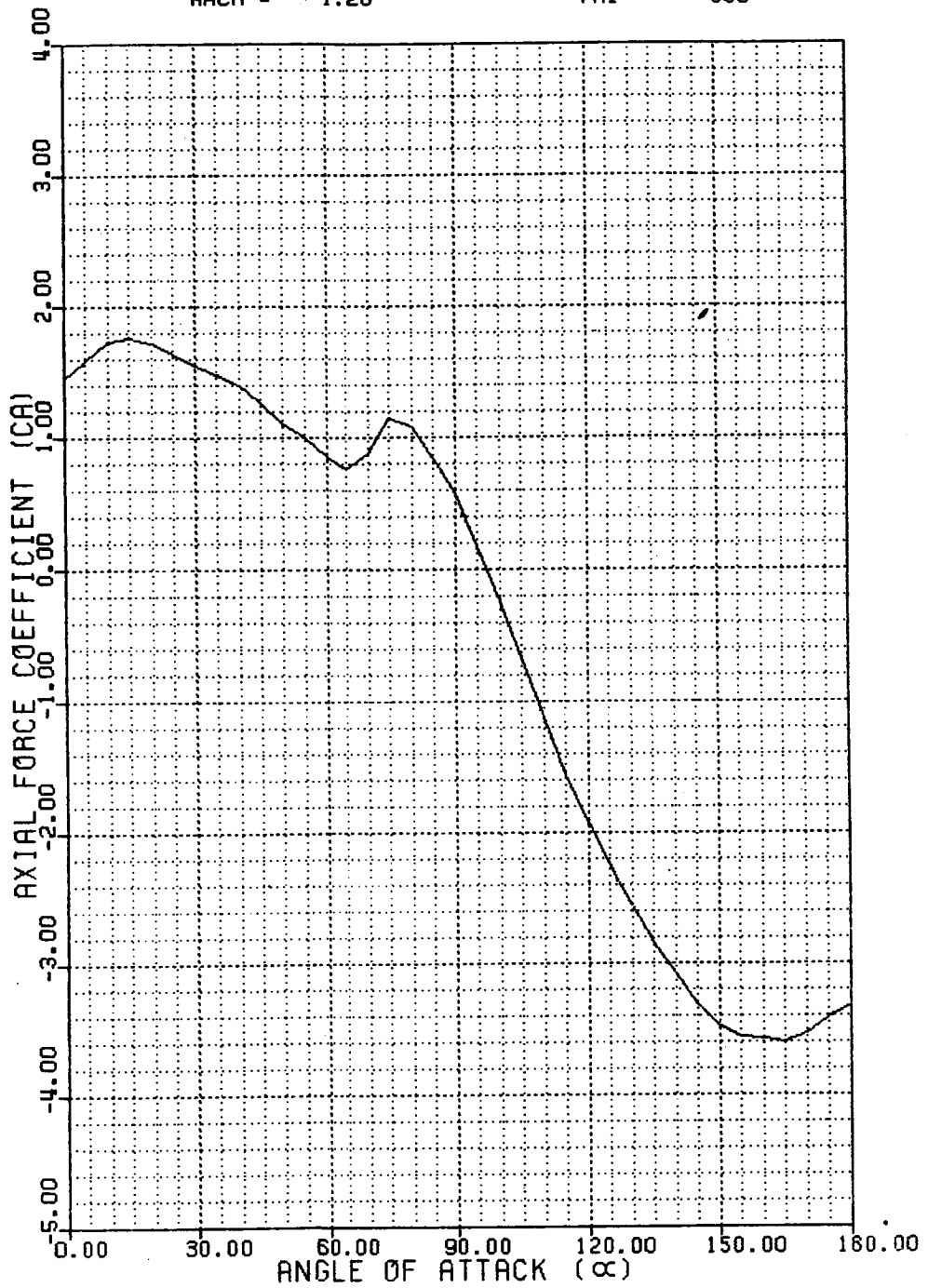
B-674

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360



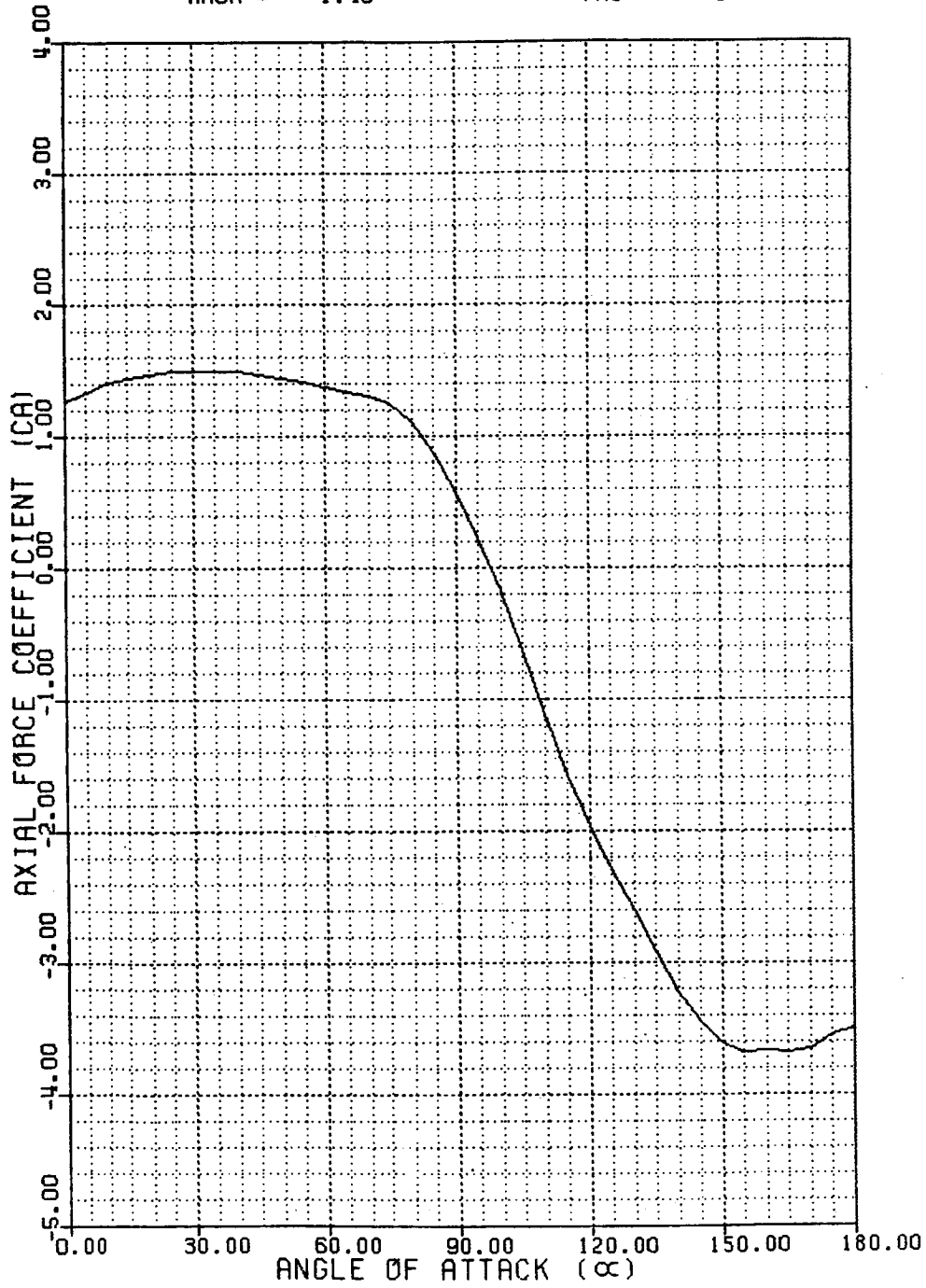
B-675

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0



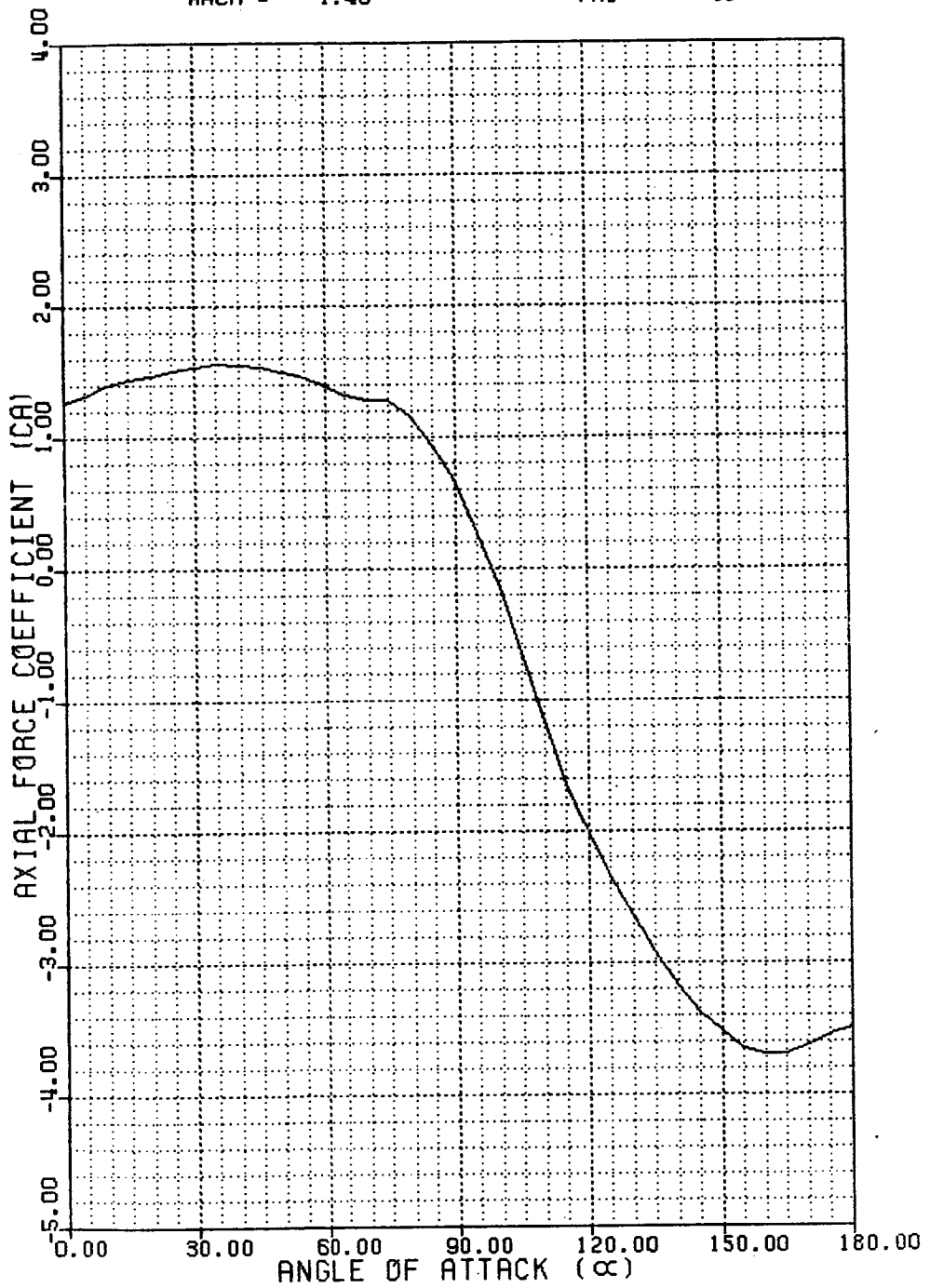
B-676

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45



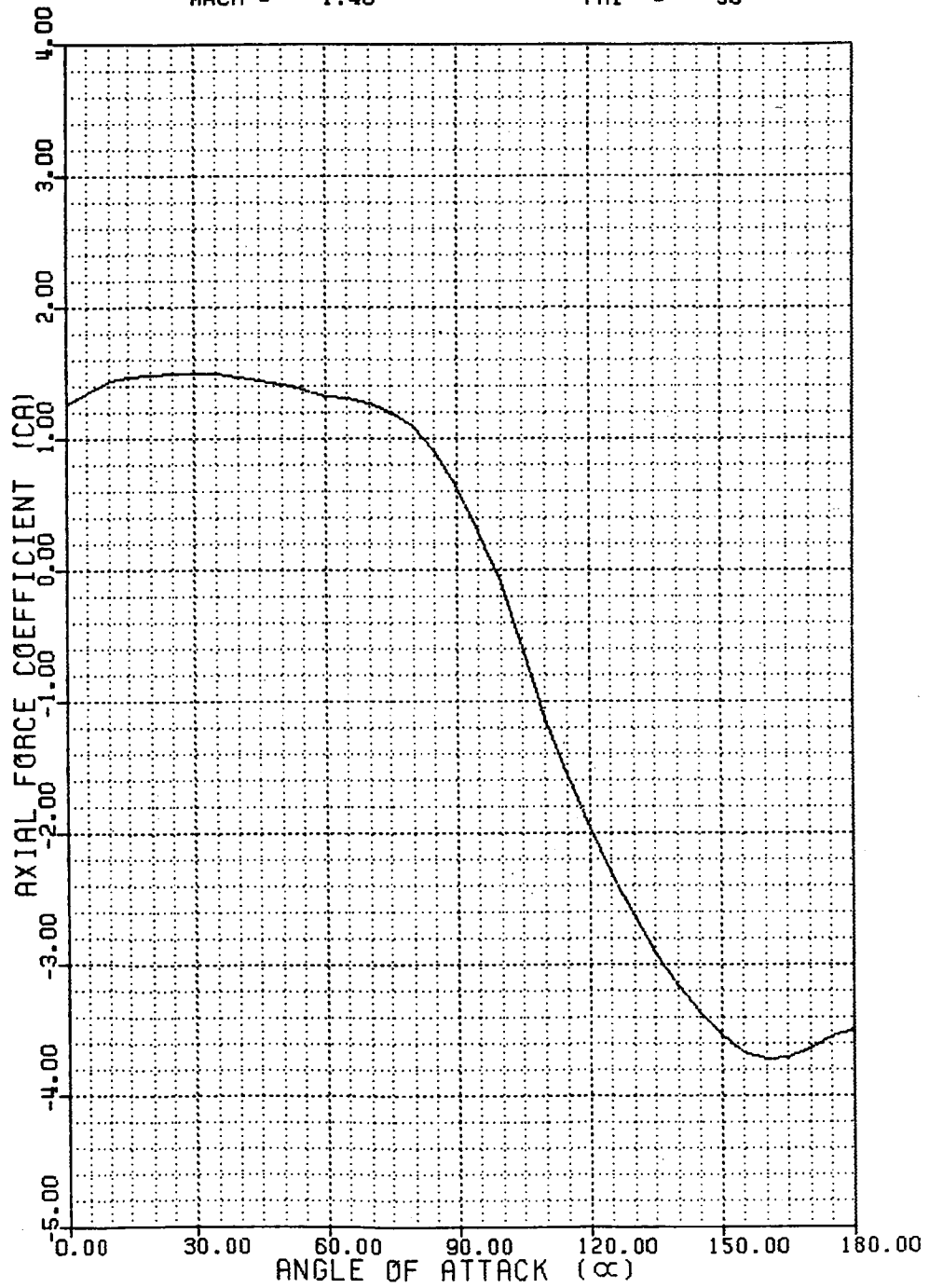
B-677

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90



B-678

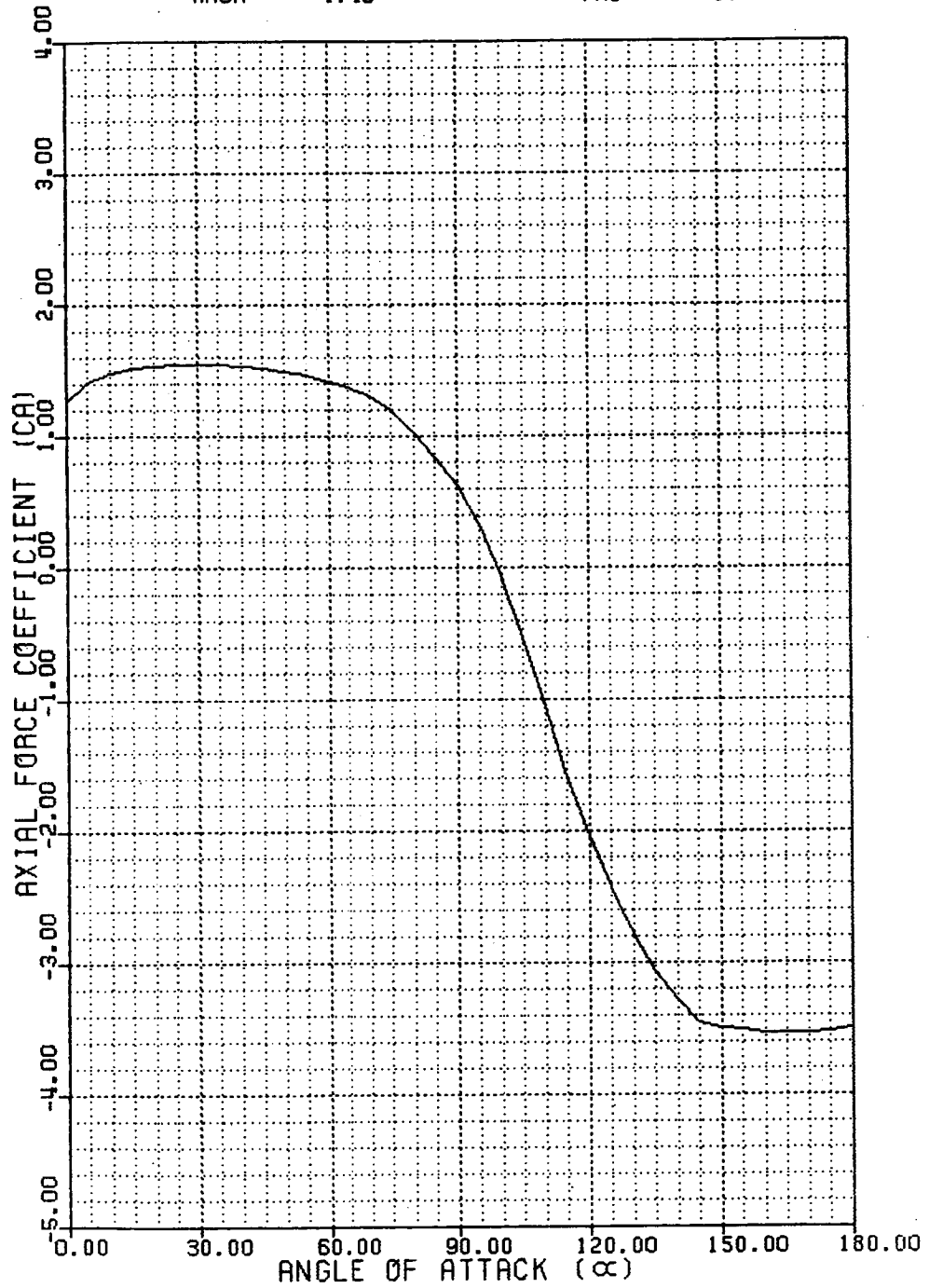
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135



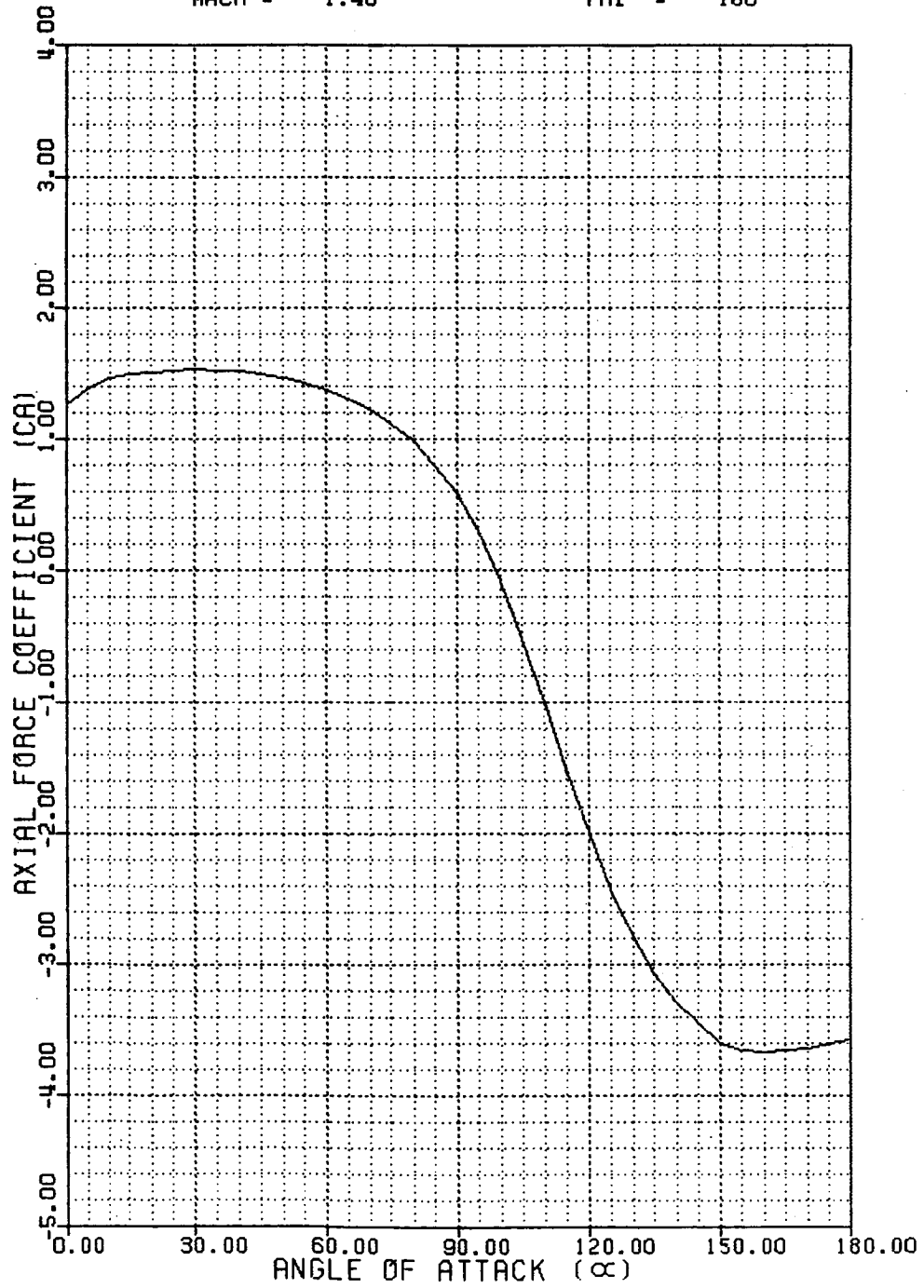
B-679

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 180



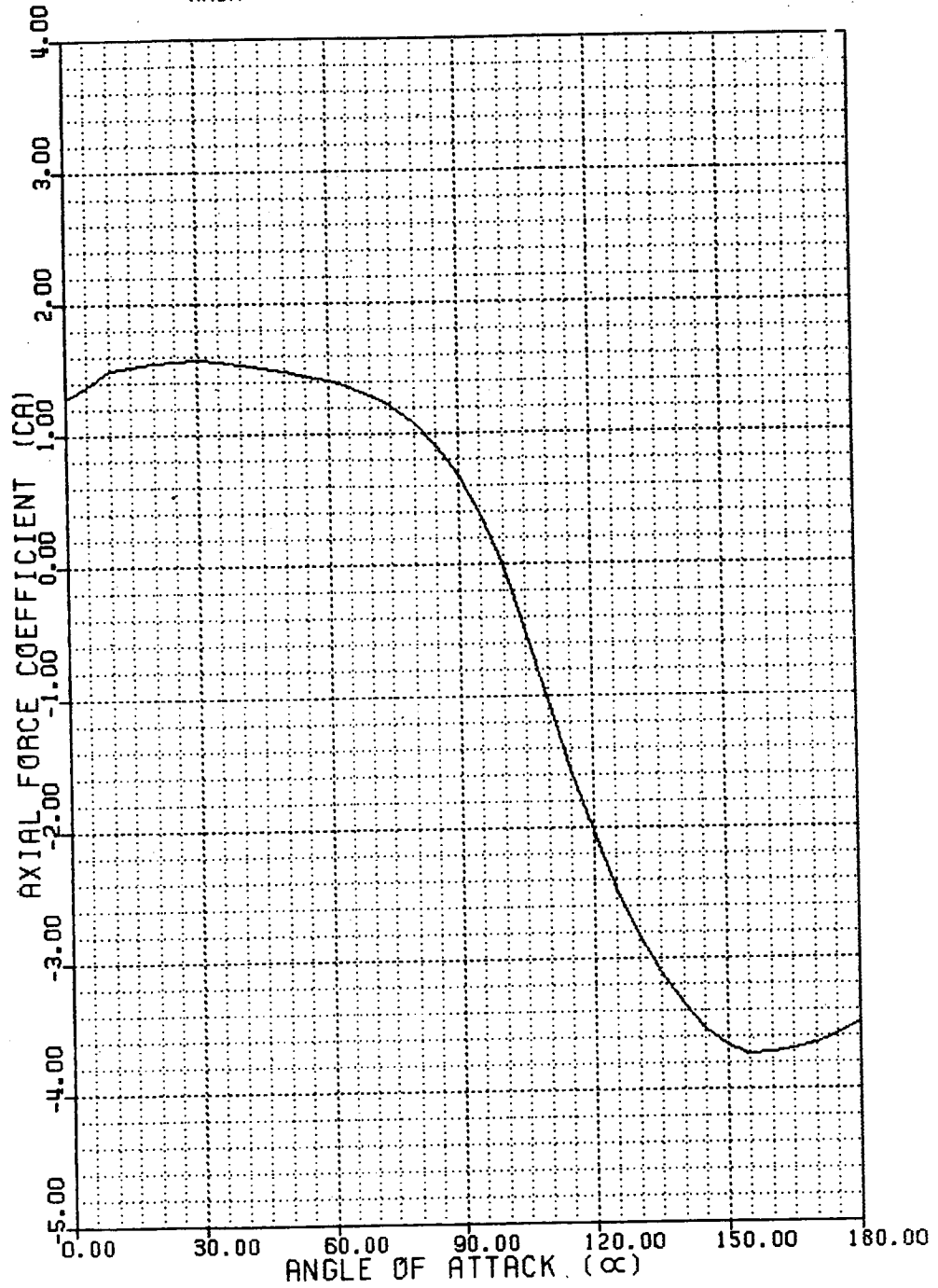
B-680

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225



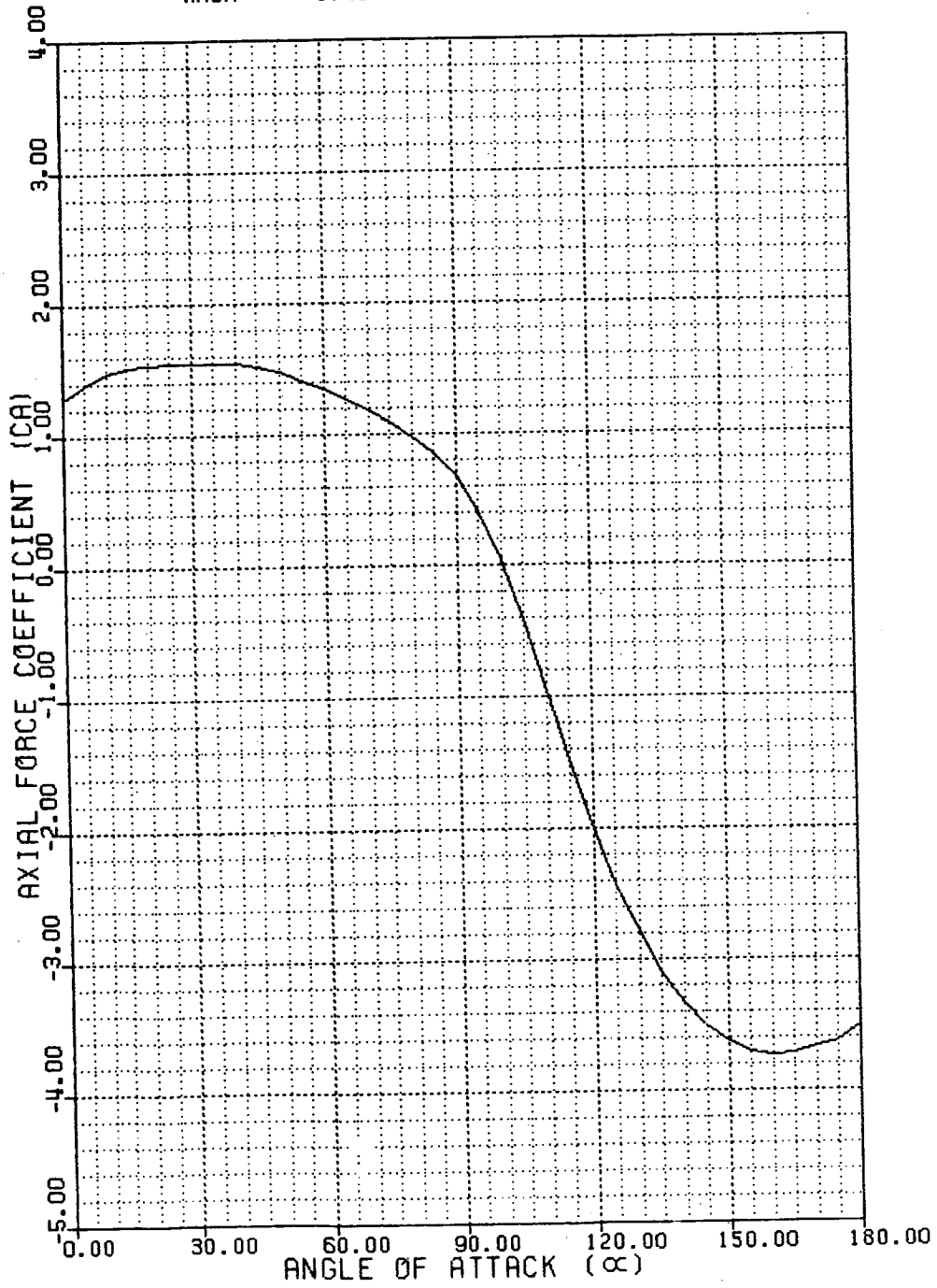
B-681

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270



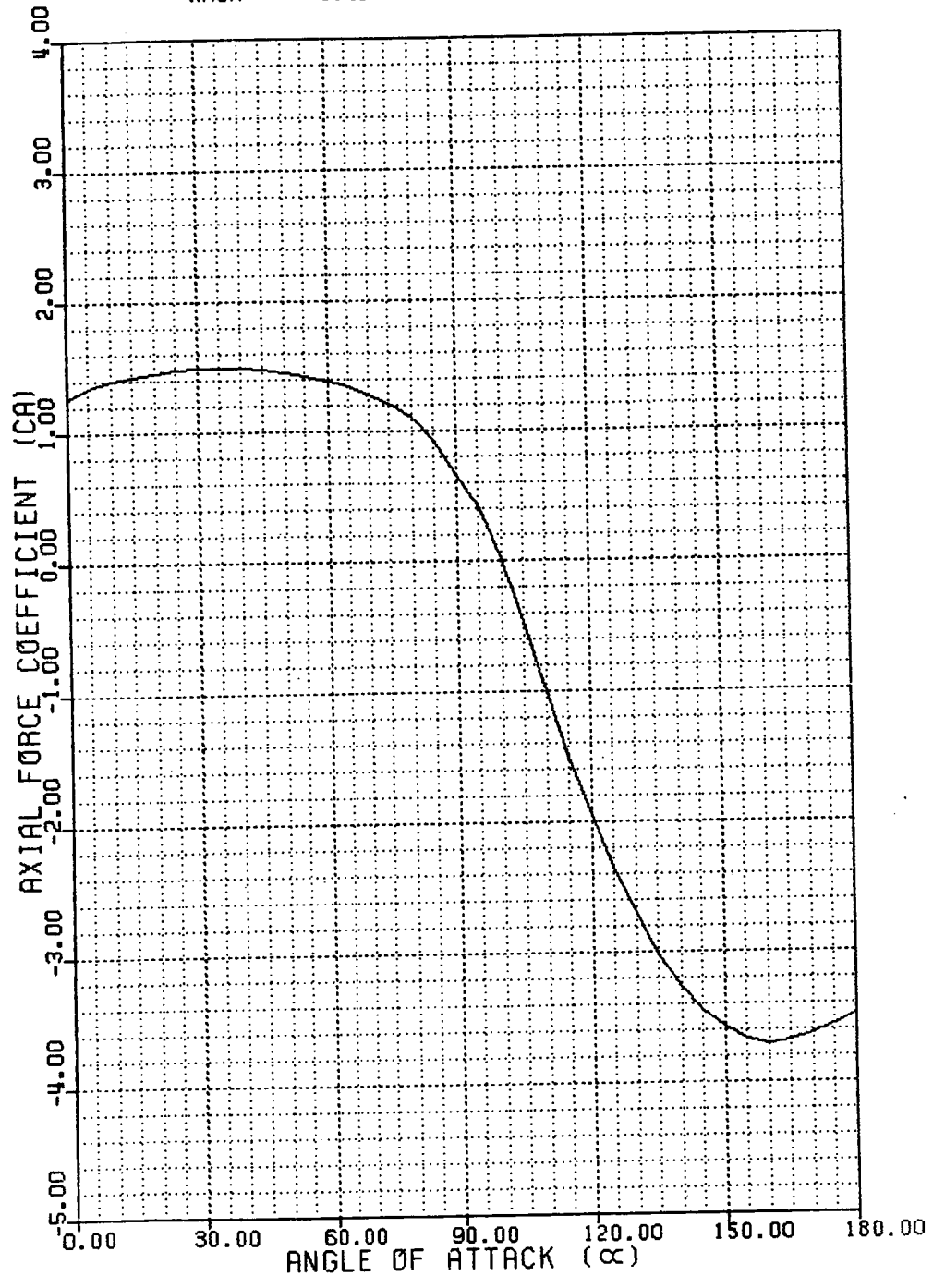
B-682

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 315

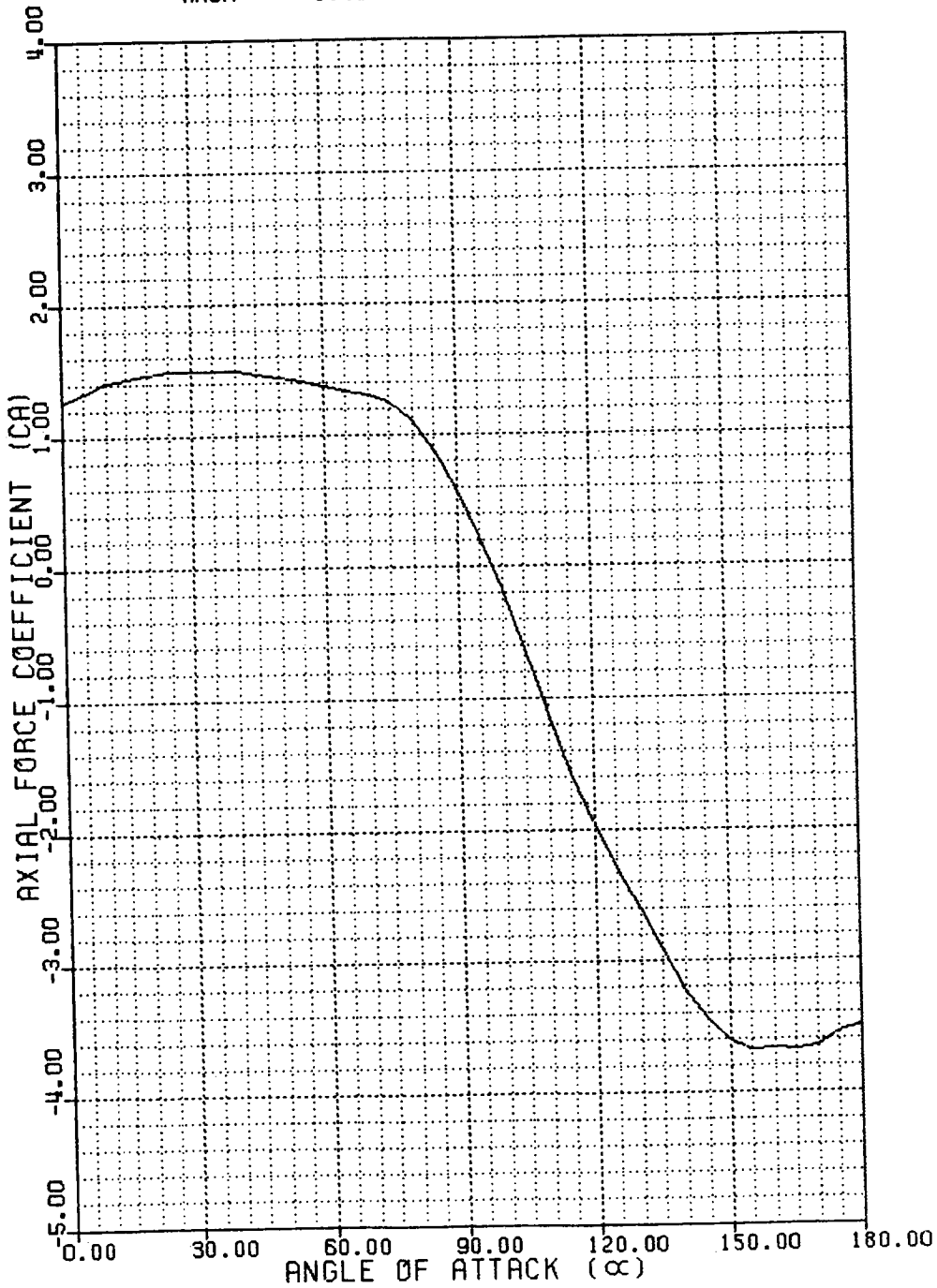


B-683

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360



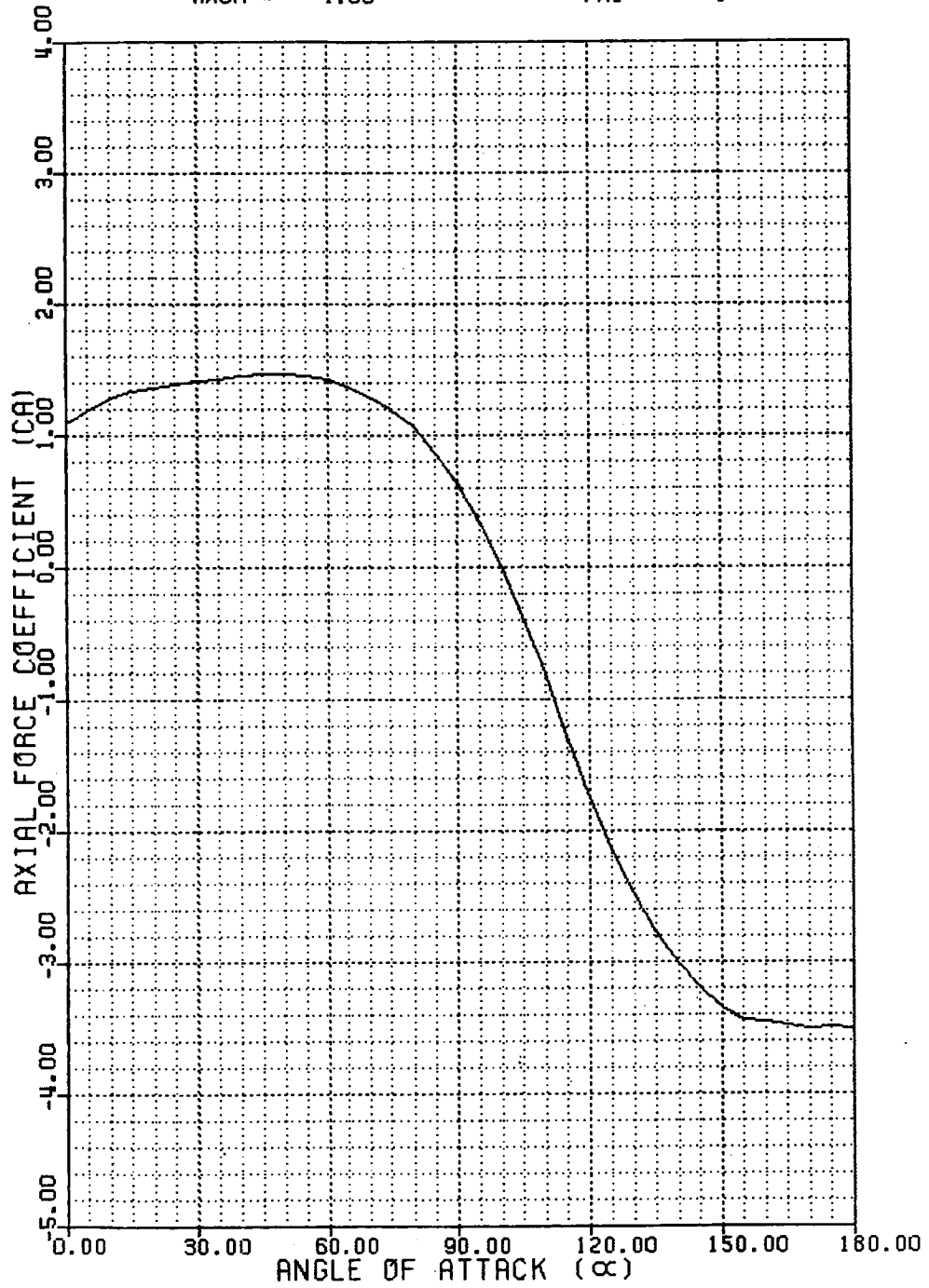
B-684

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 0



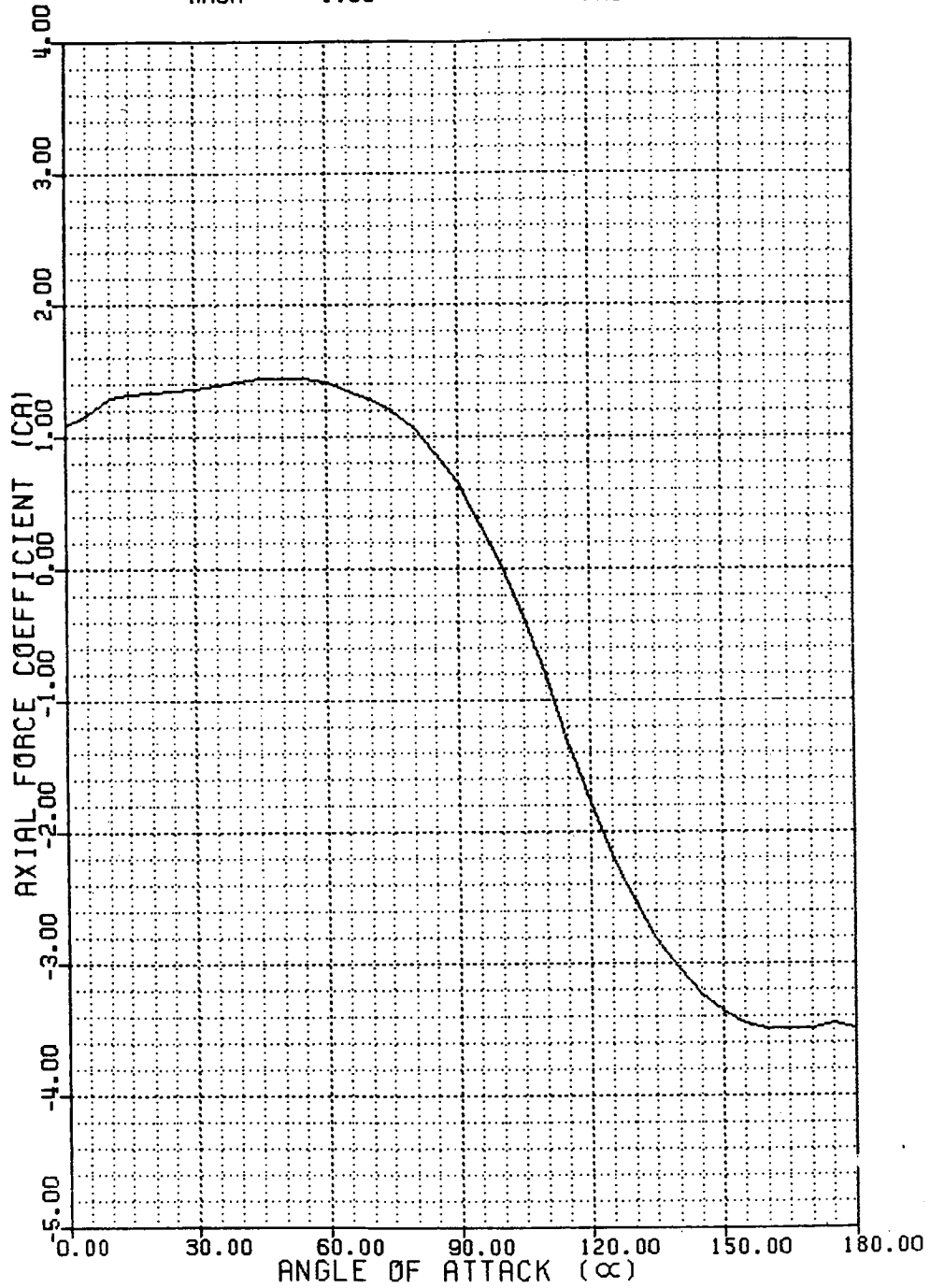
B-685

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45



B-686

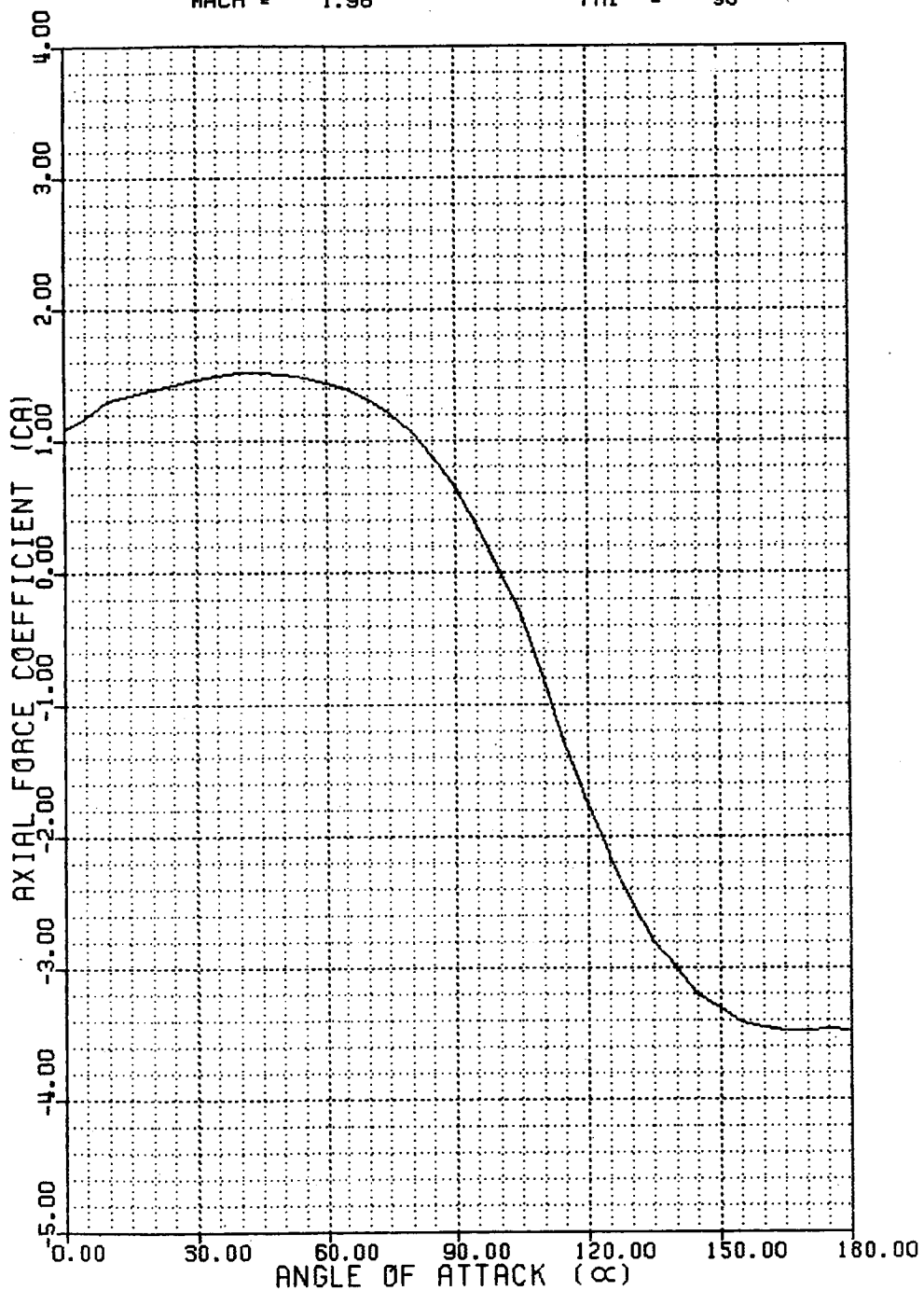
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90

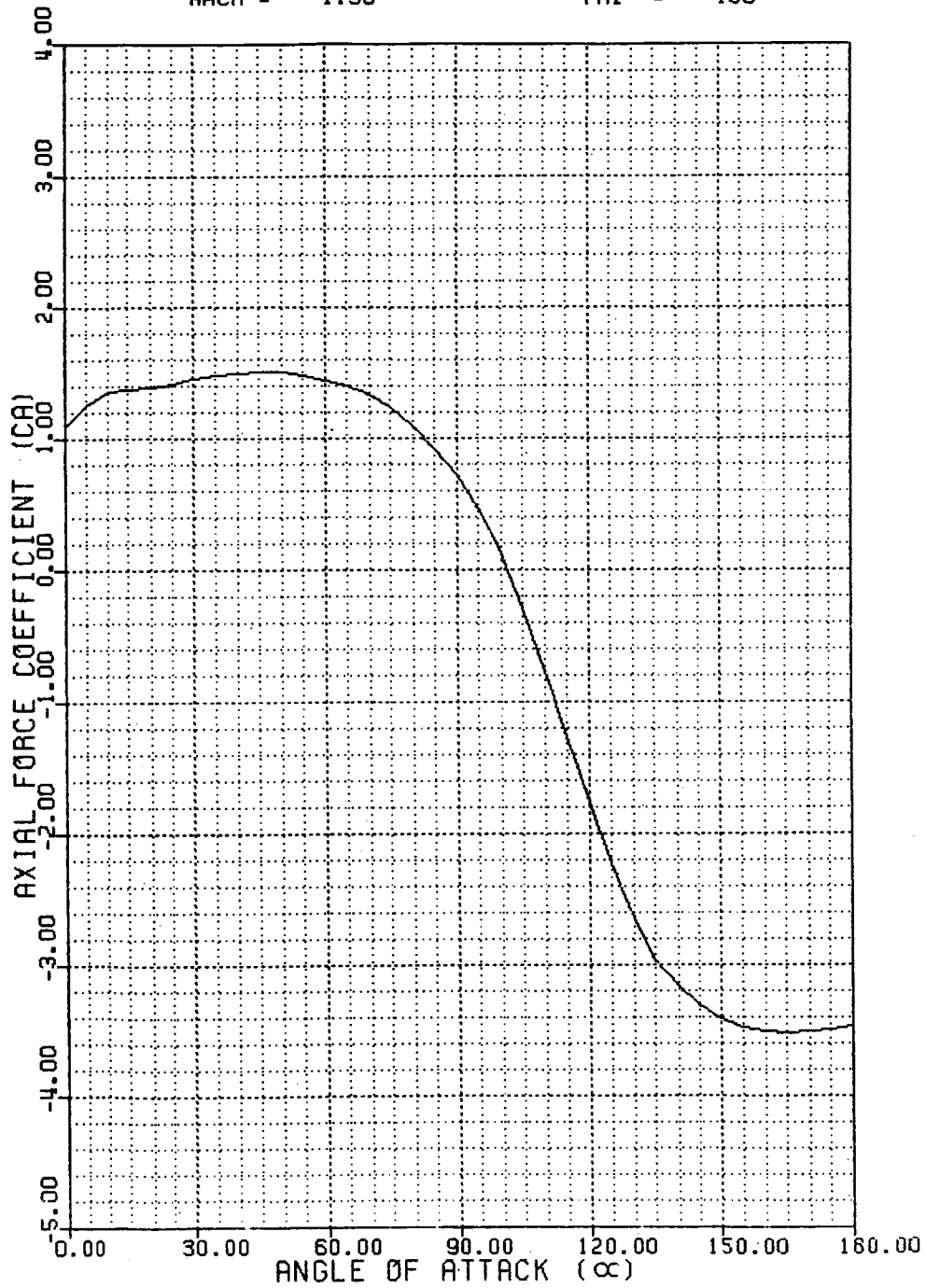


B-687

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135



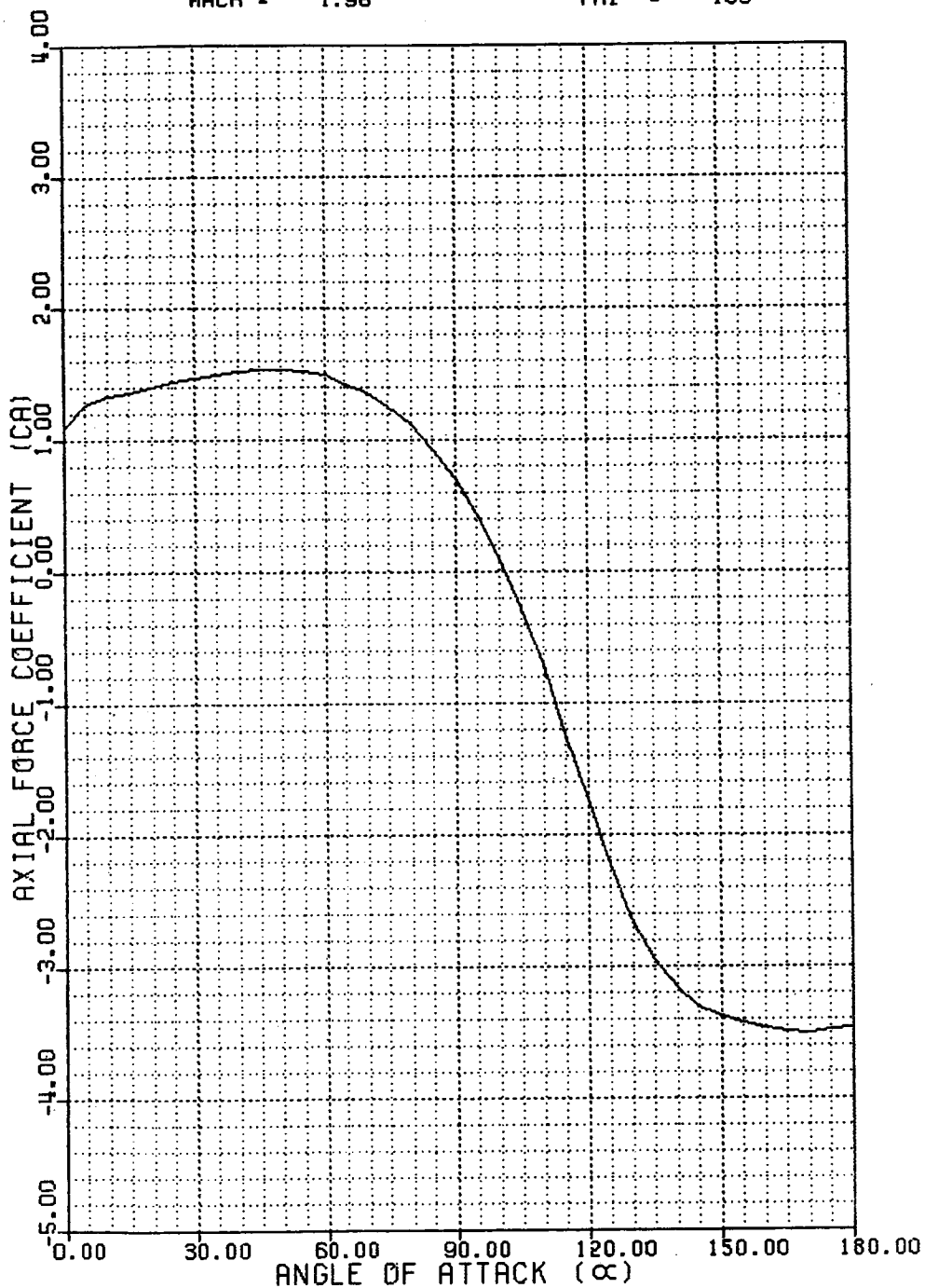
B-688

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180

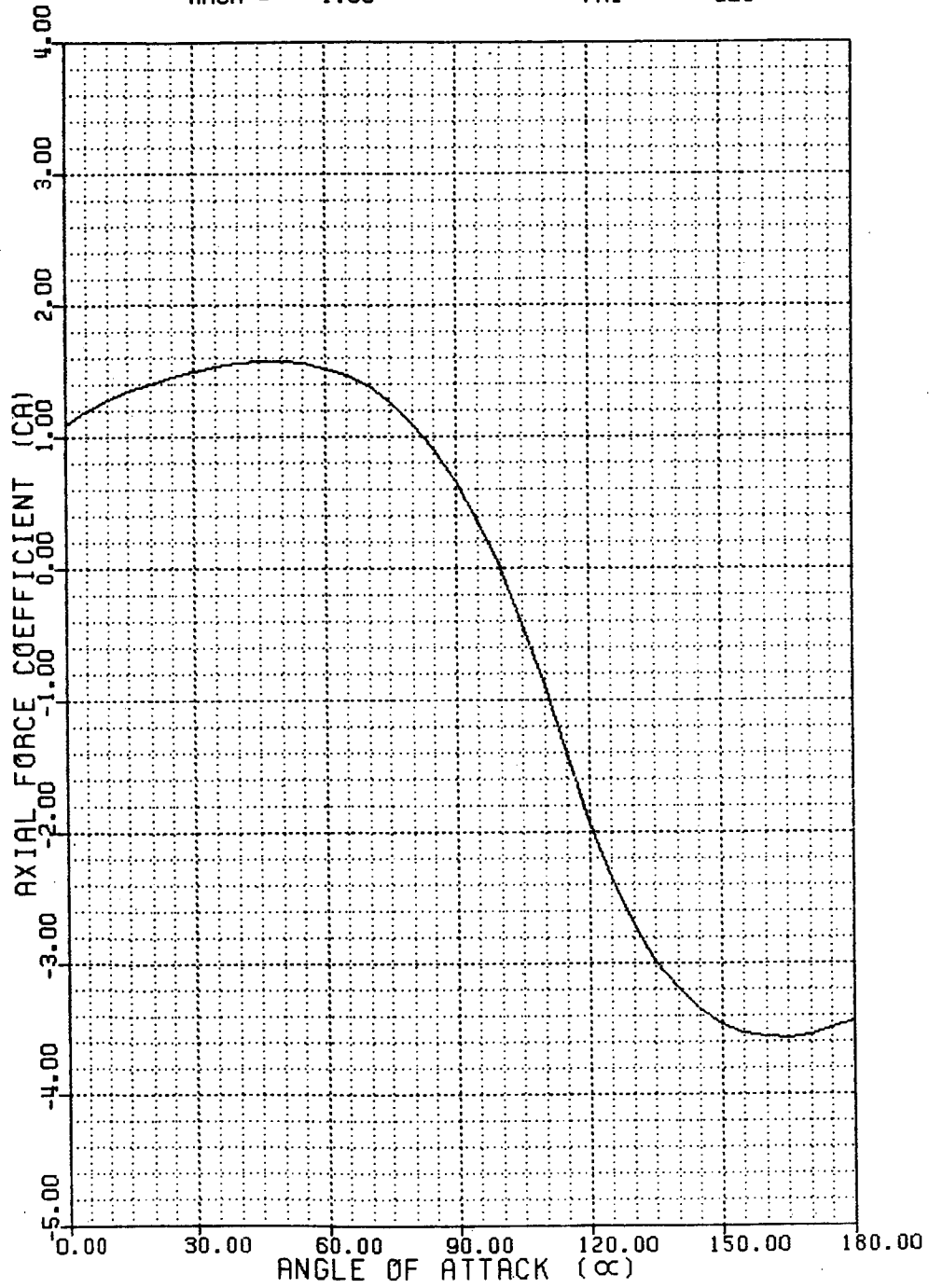


B-689

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225



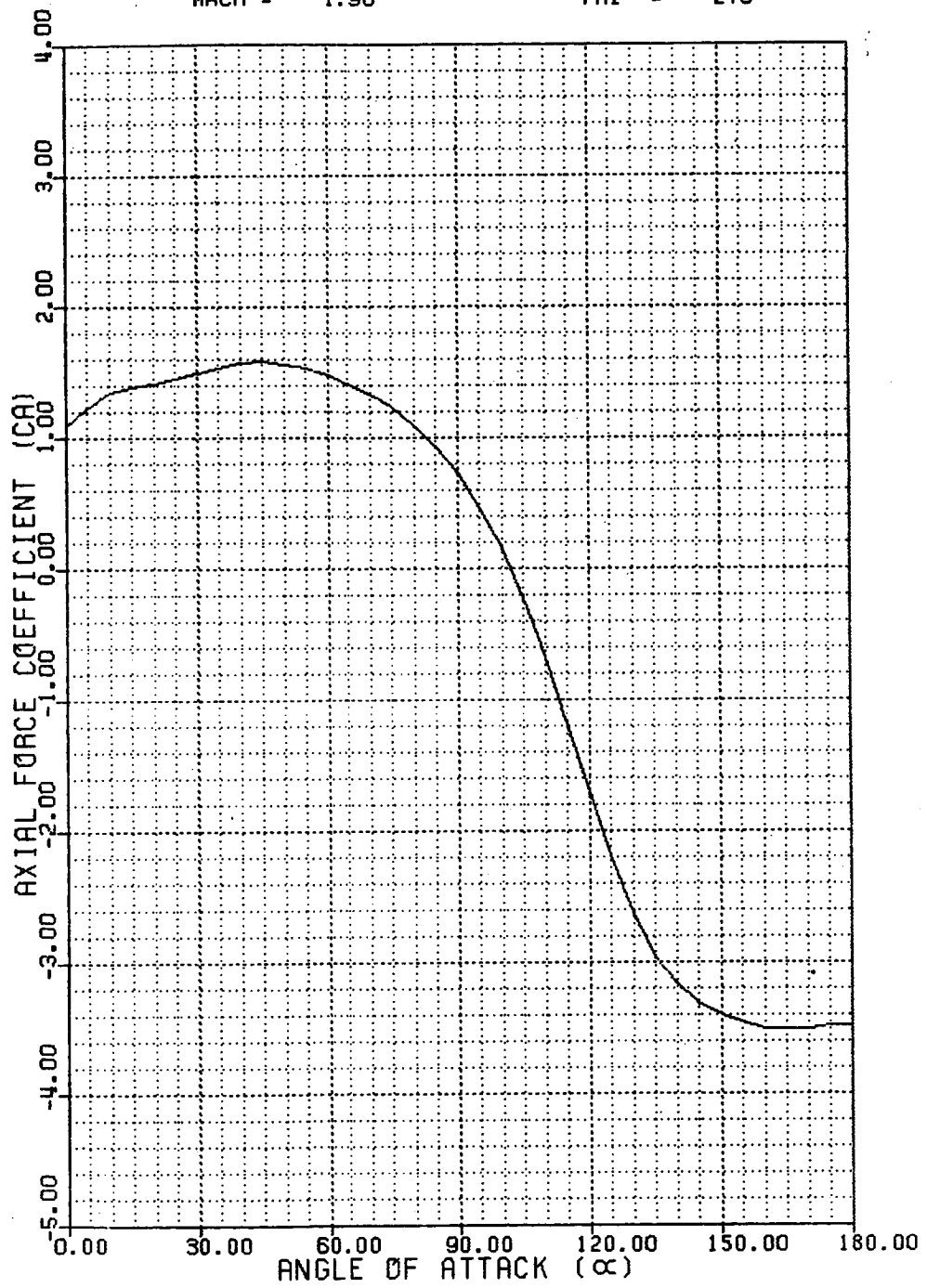
B-690

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270



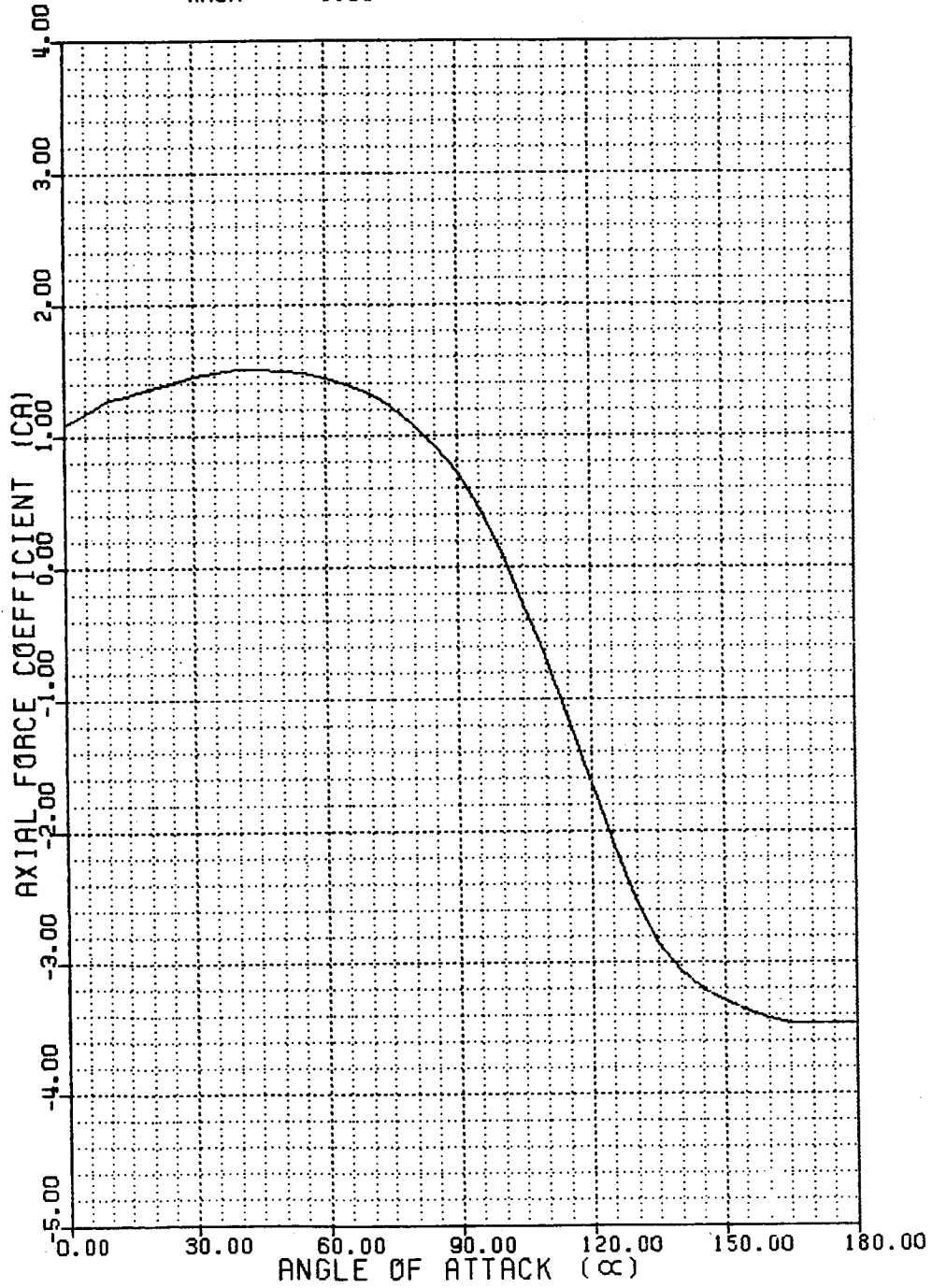
B-691

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315



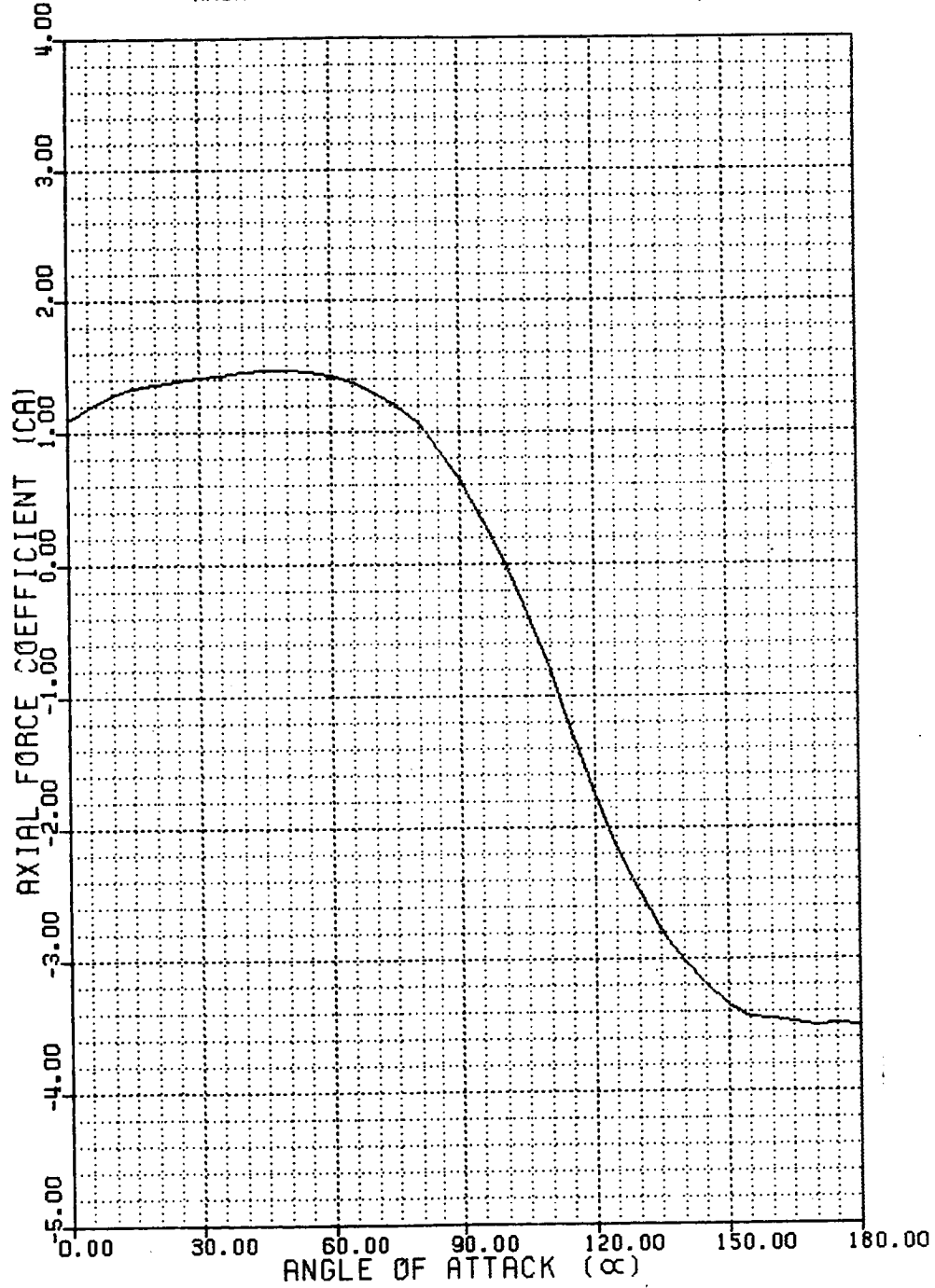
B-692

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 36°

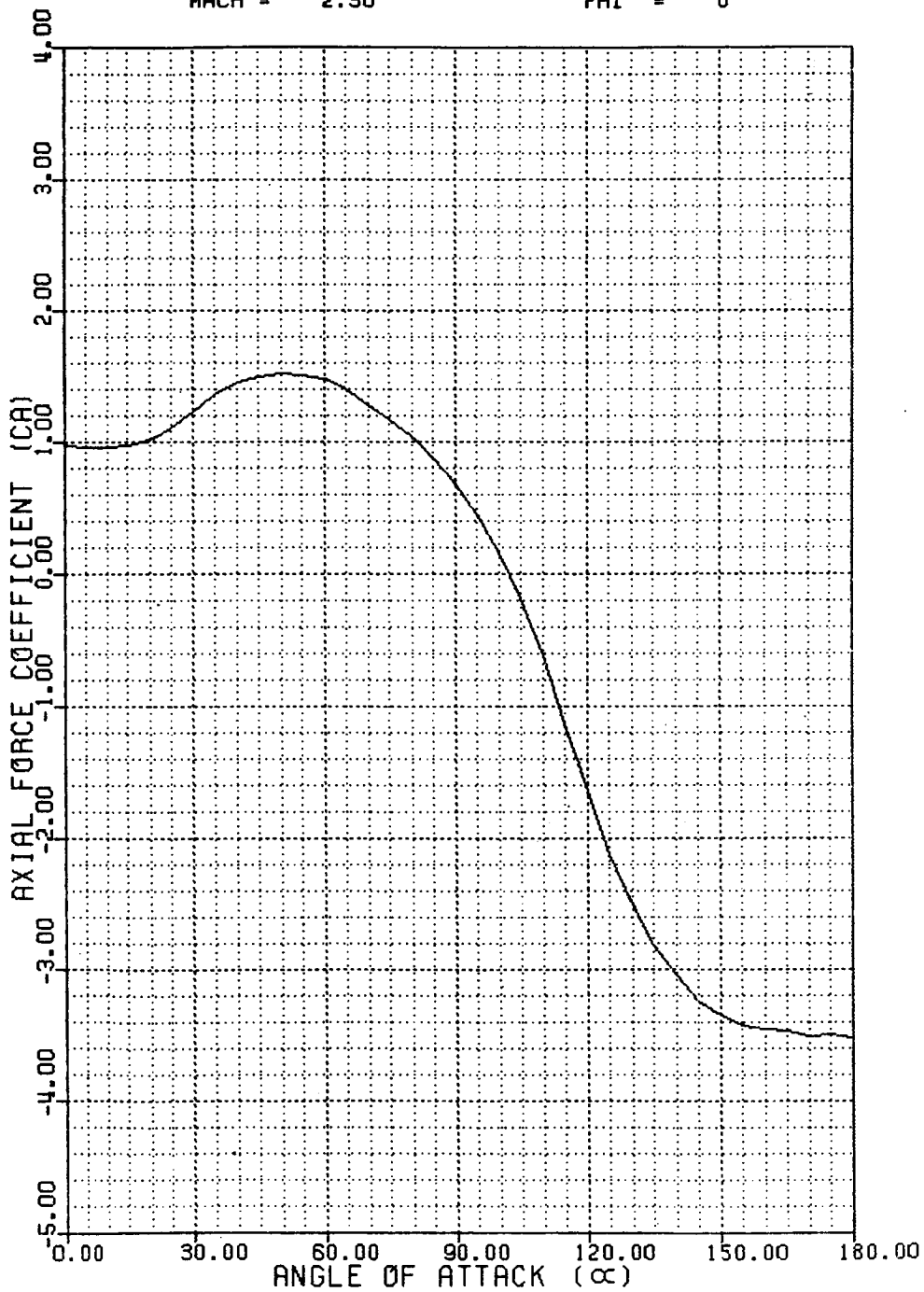


B-693

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



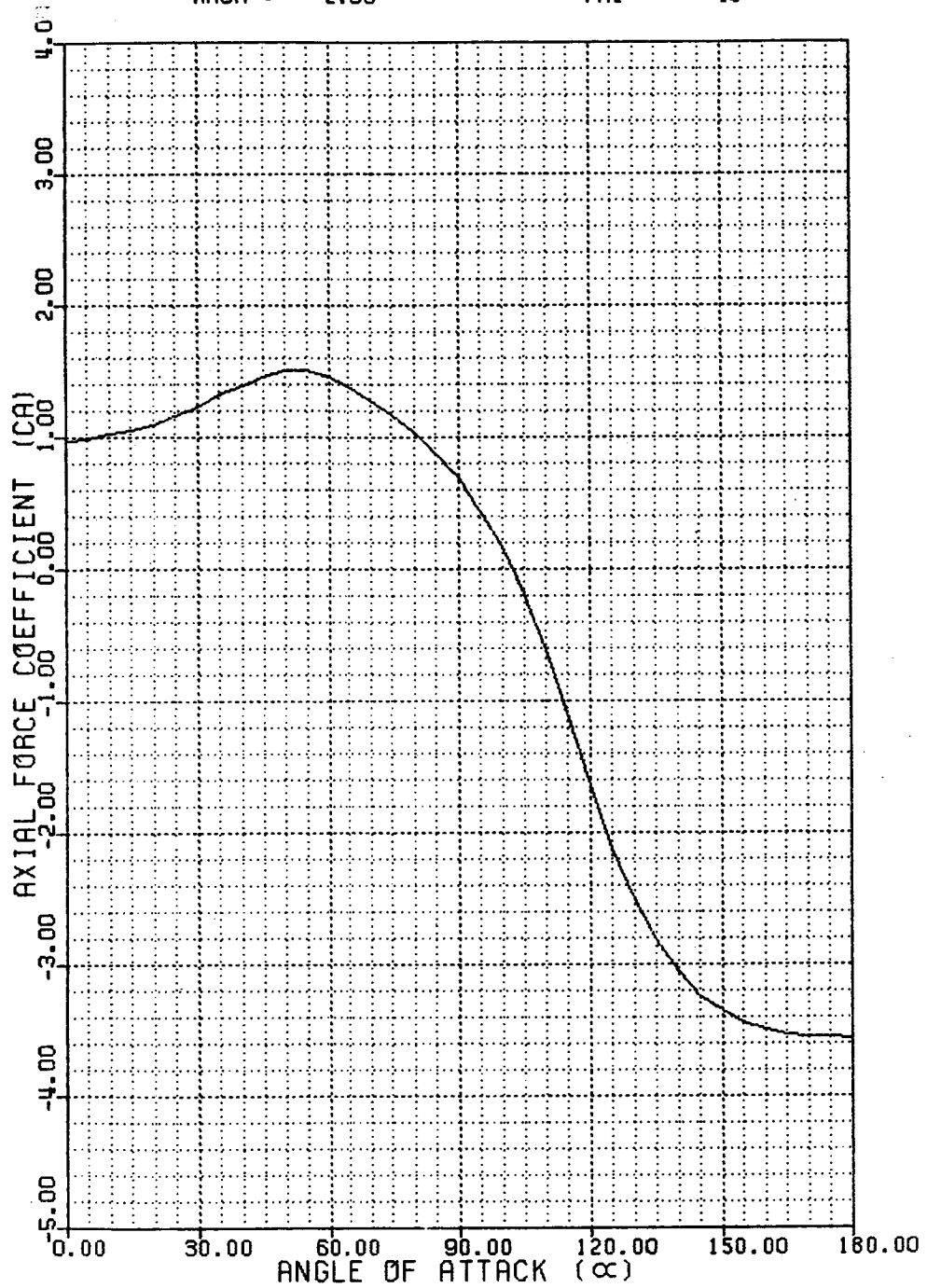
B-694



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 45



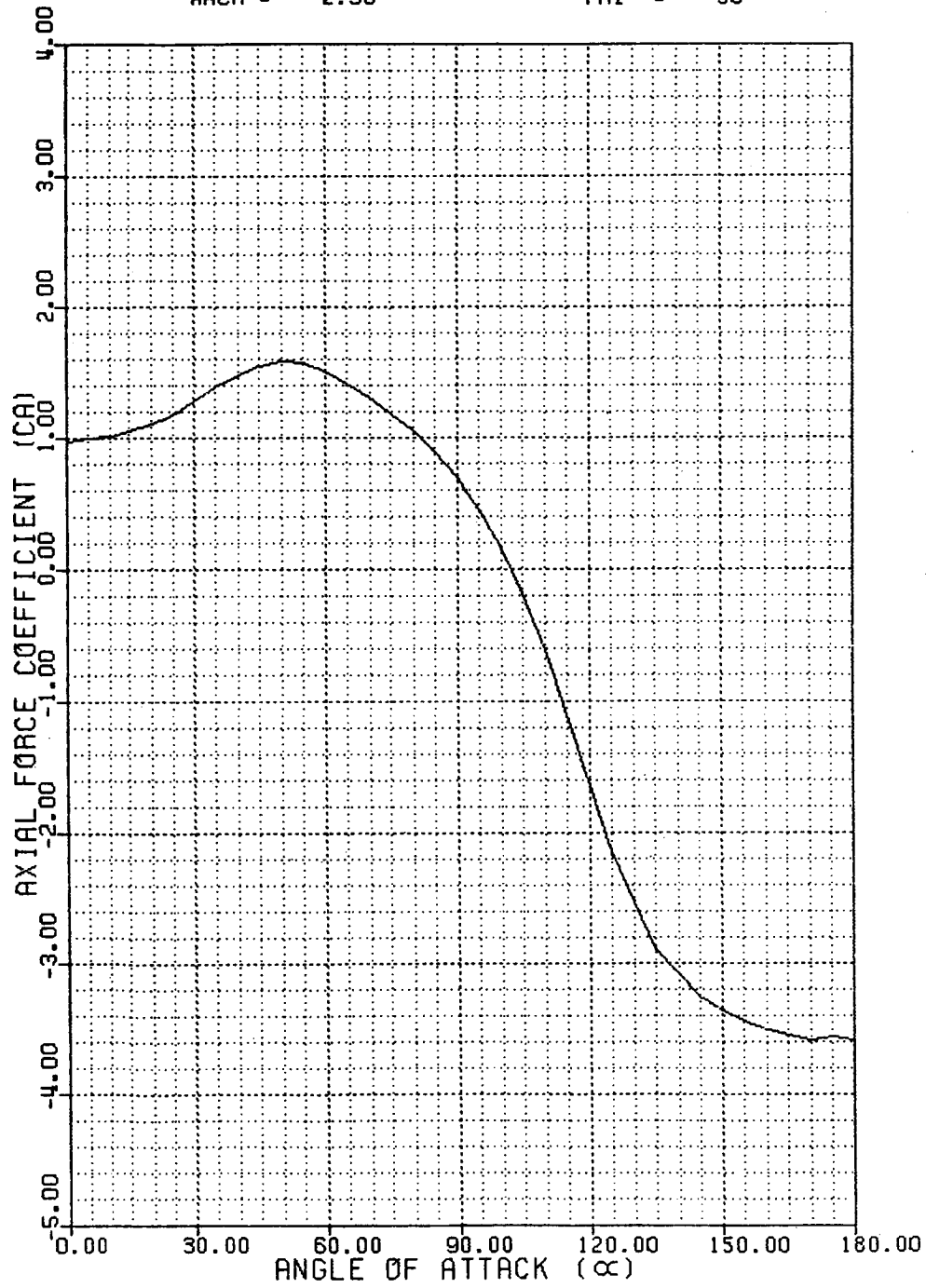
B-695

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90



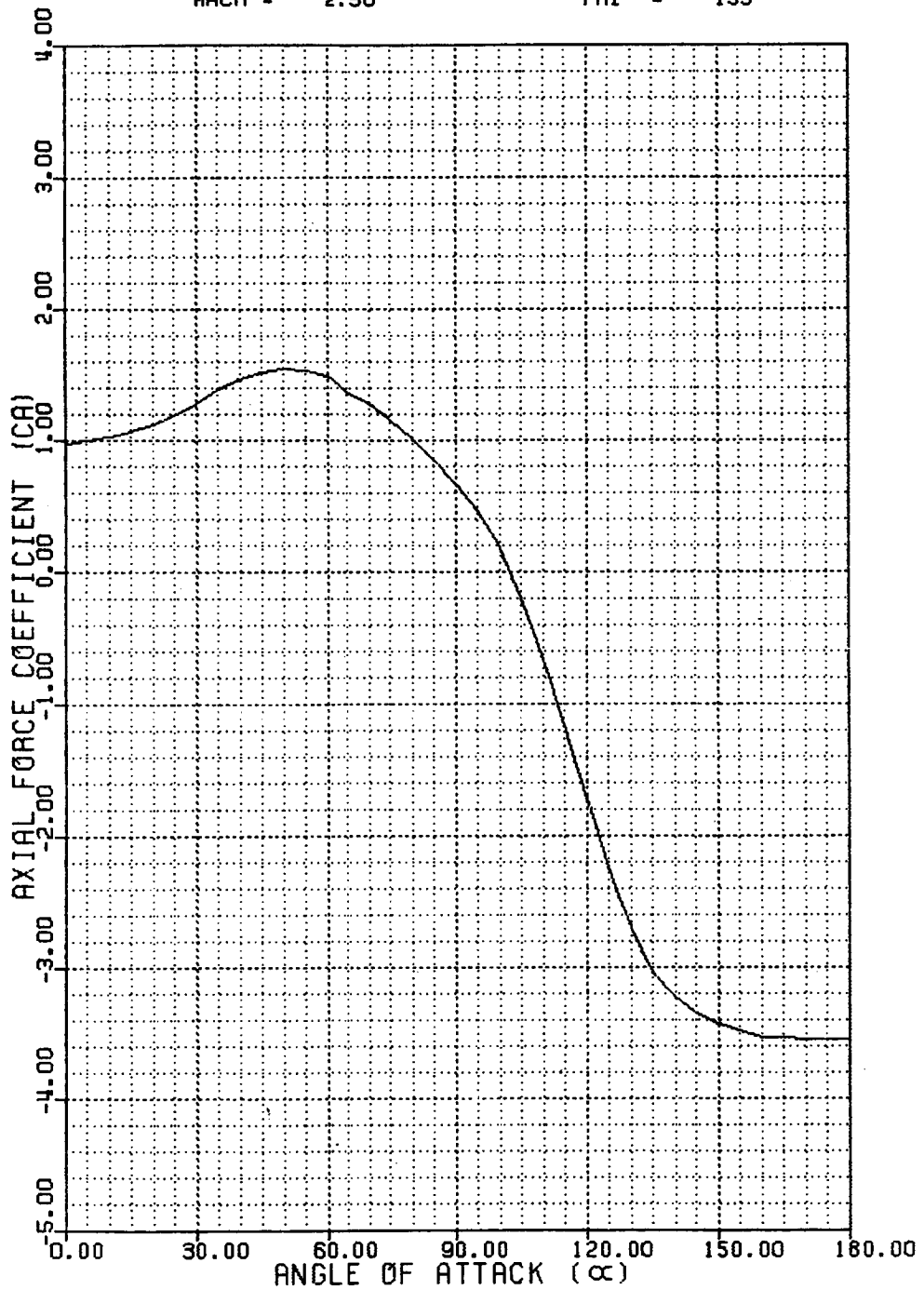
B-696

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135



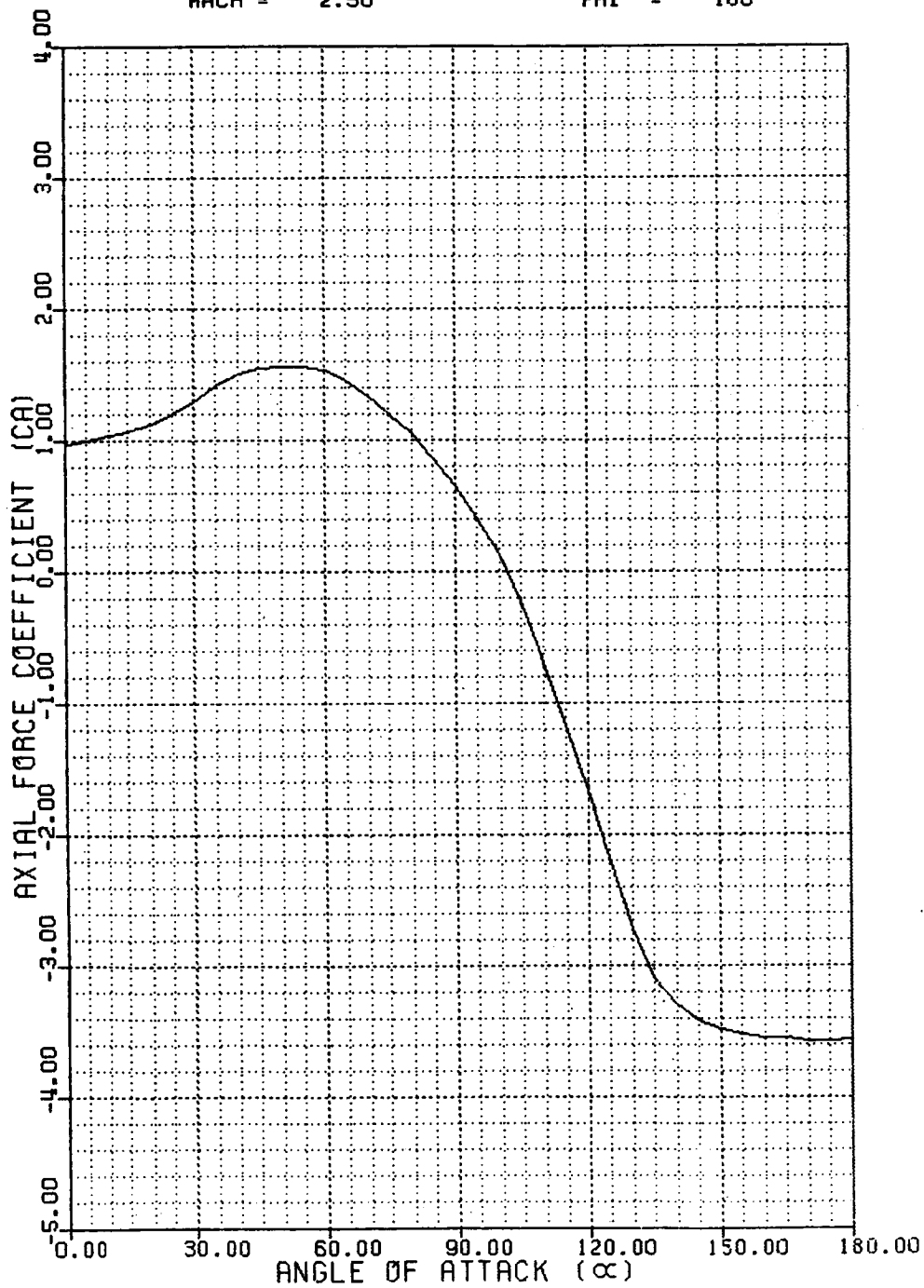
B-697

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



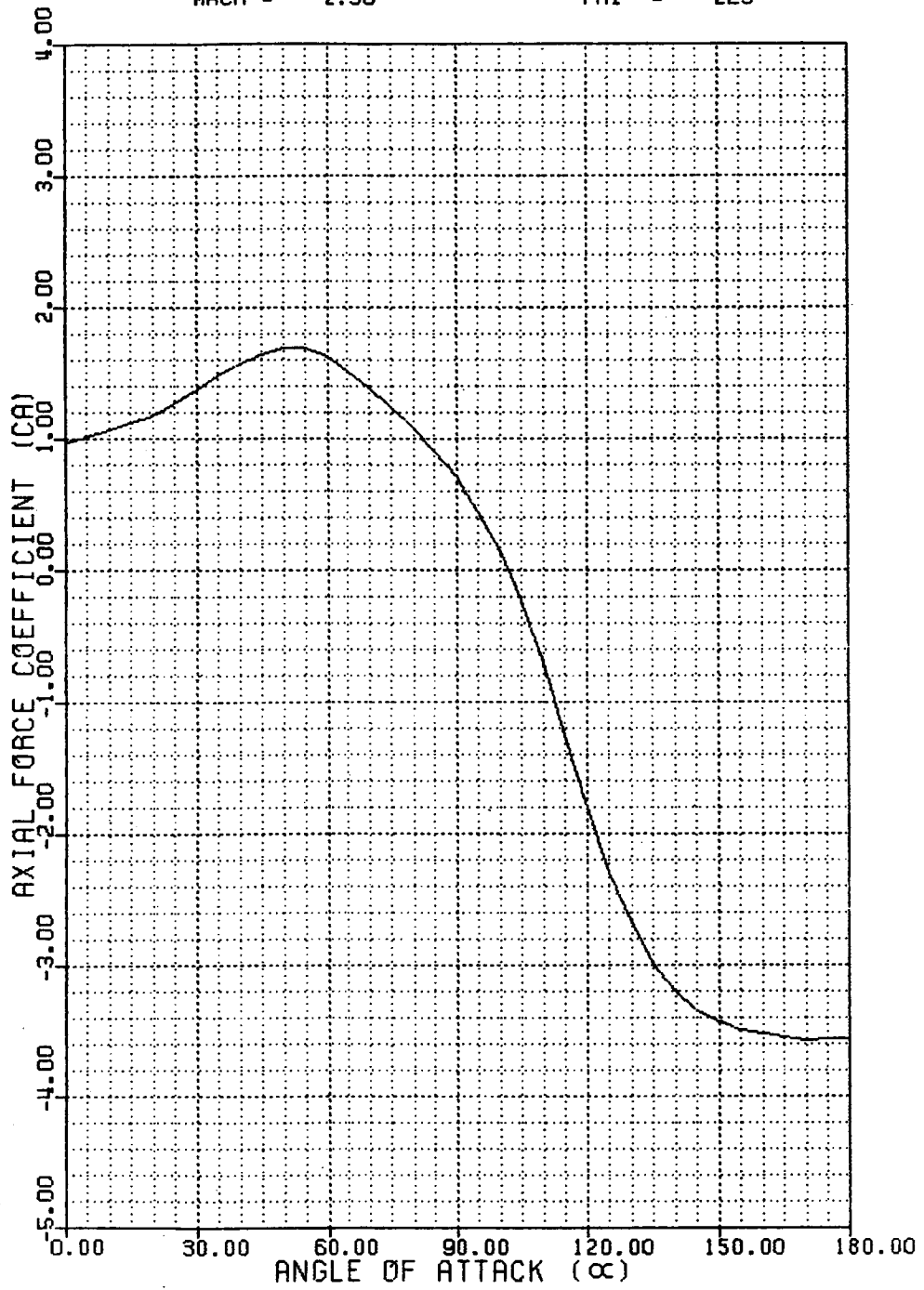
B-698

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225

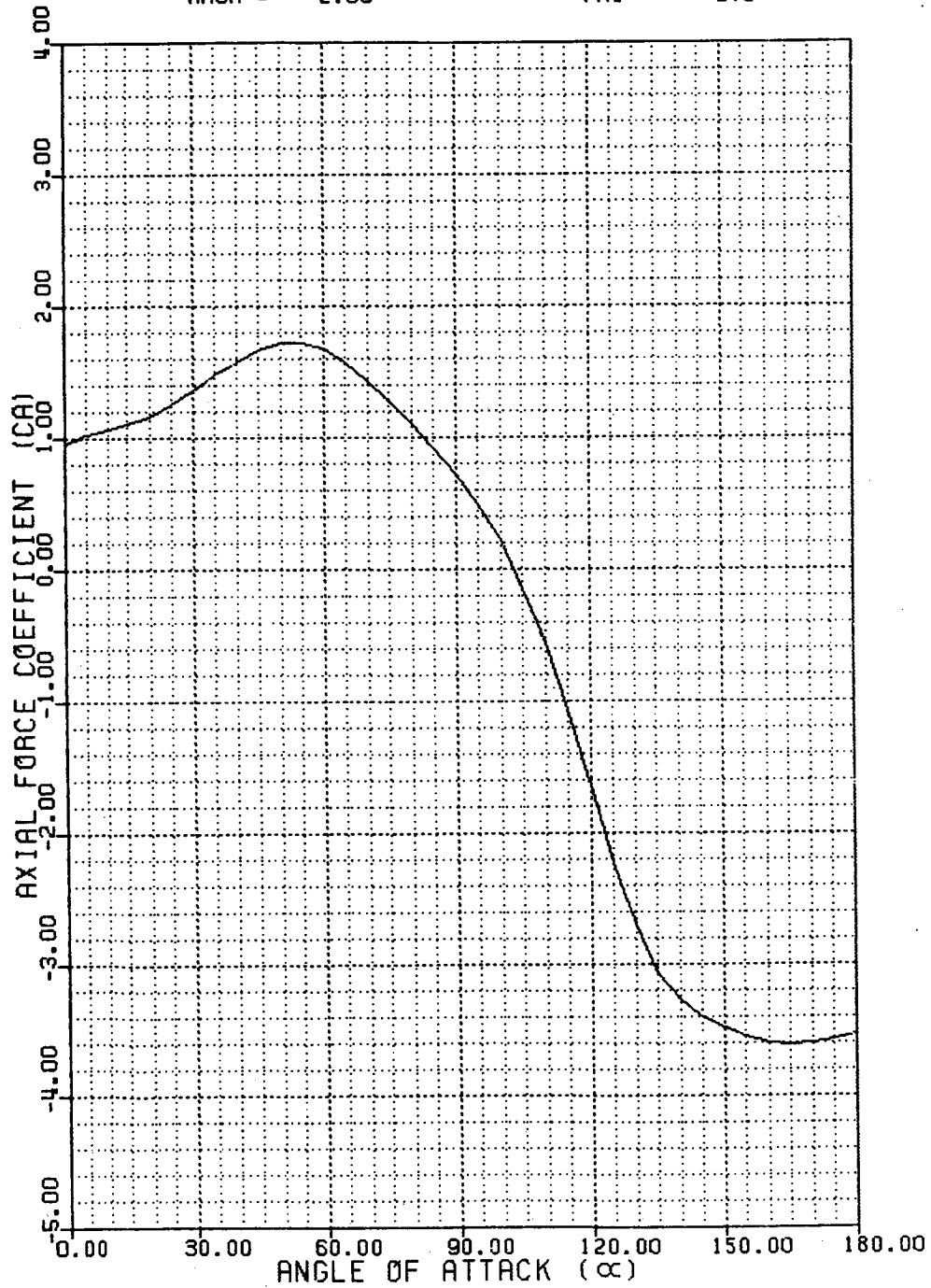


B-699

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270



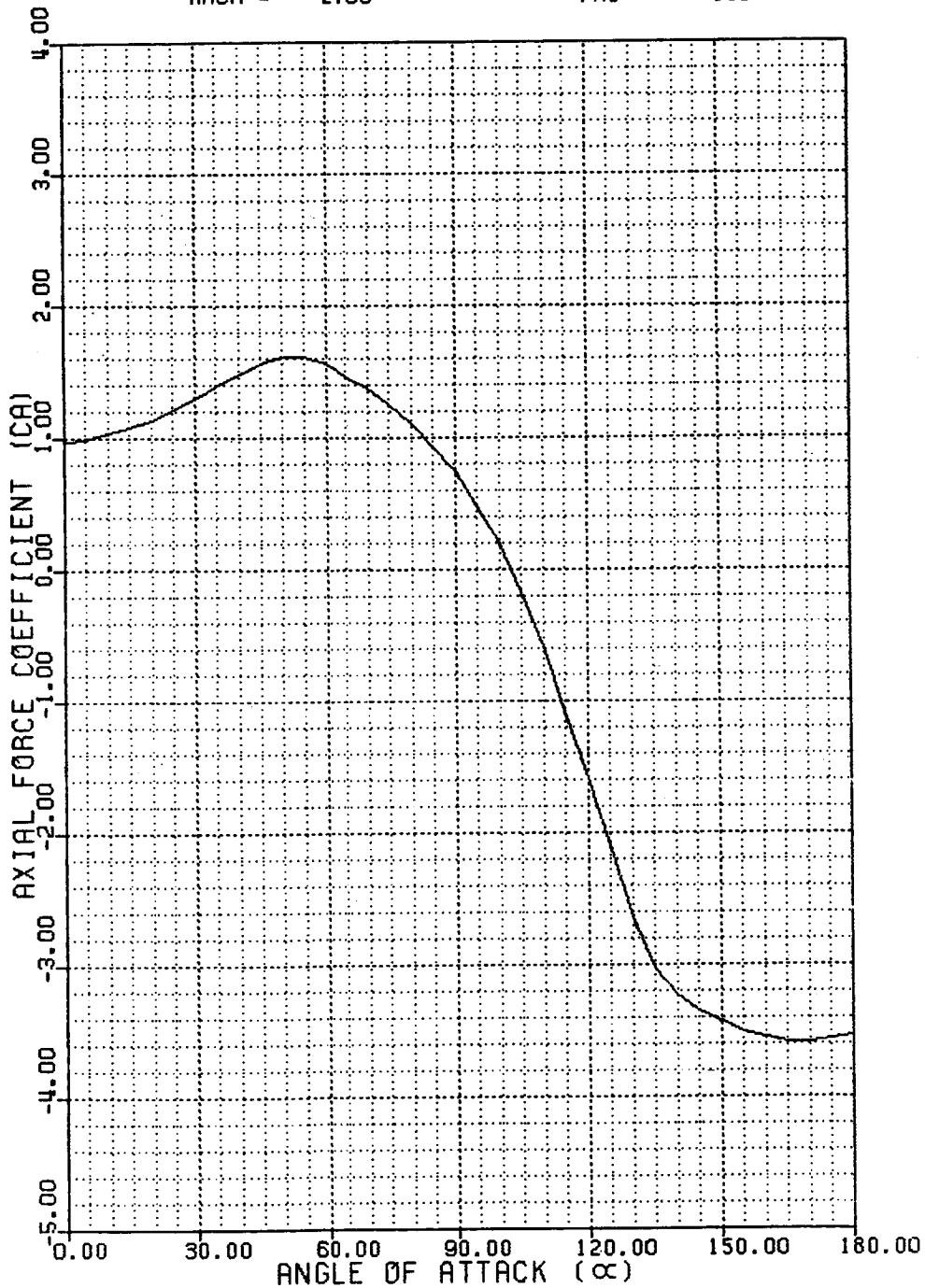
B-700

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315

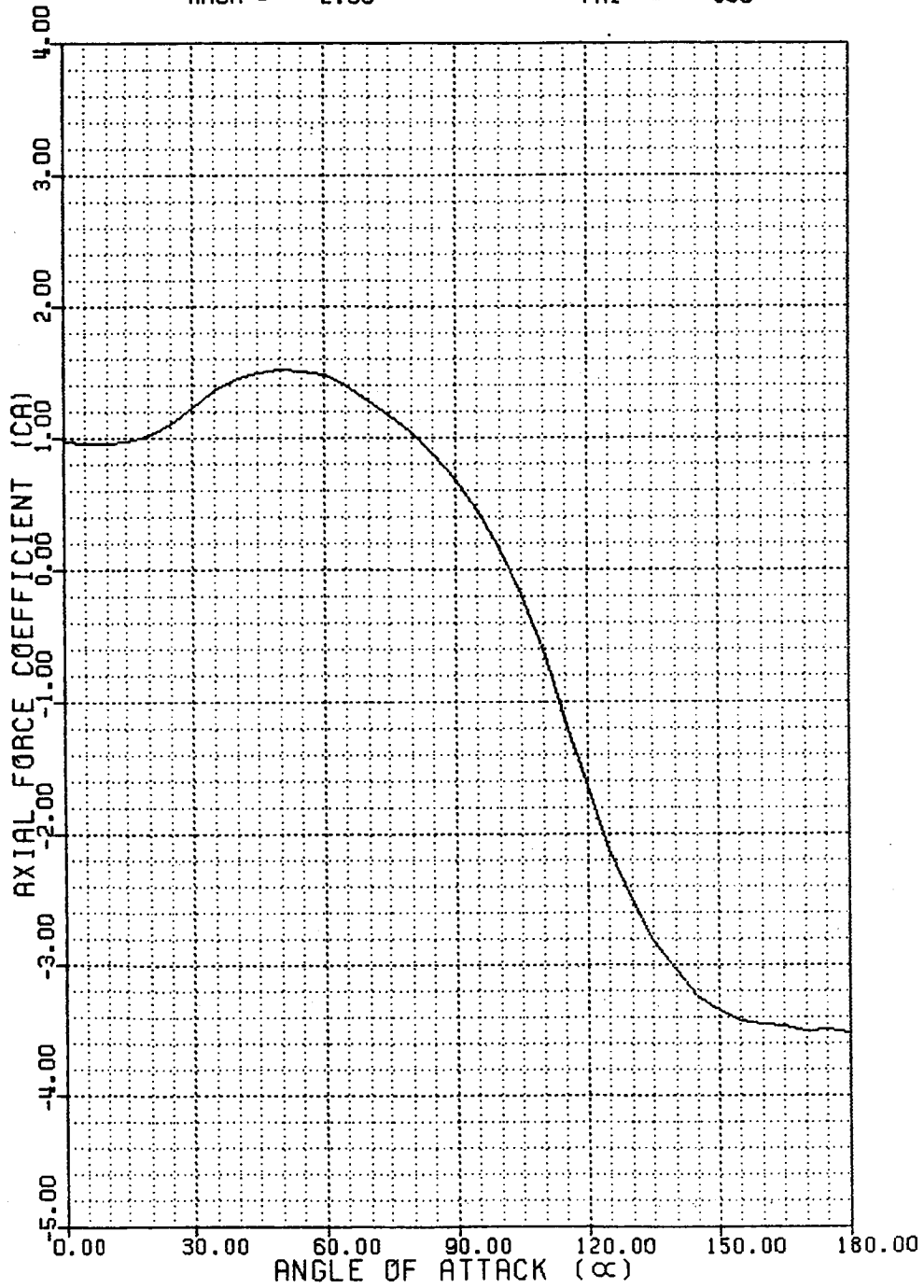


B-701

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360



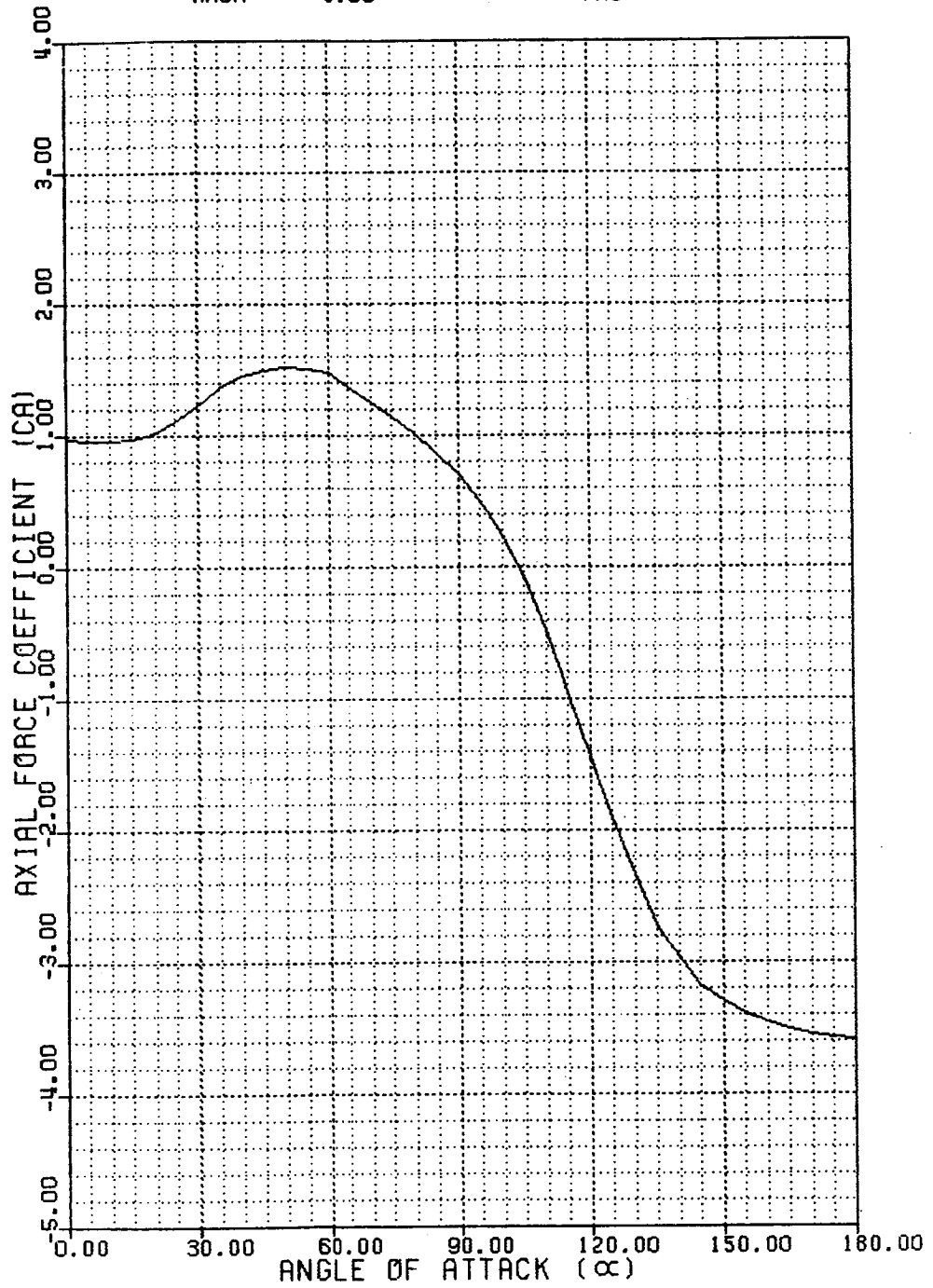
B-702



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0



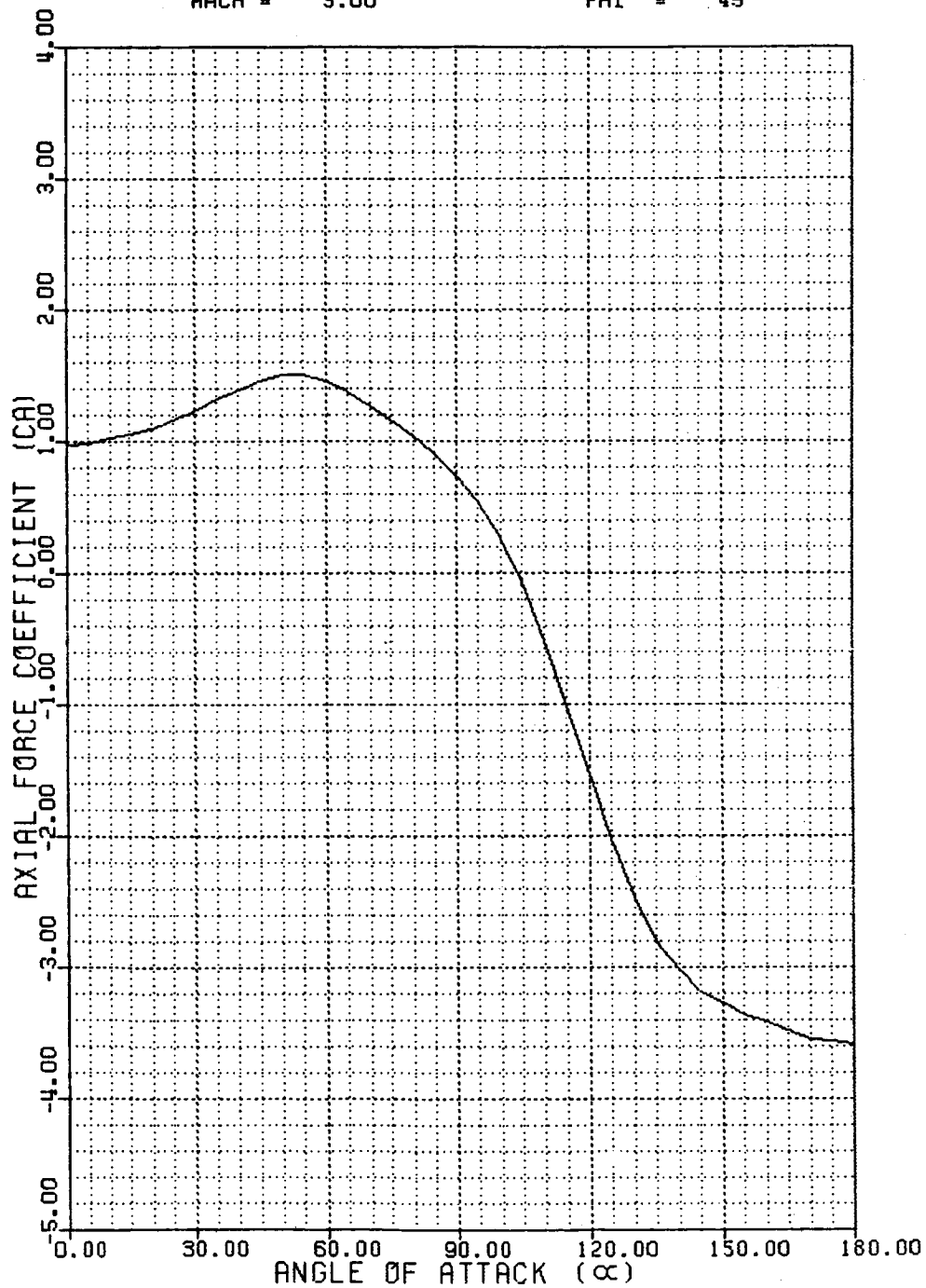
B-703

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45



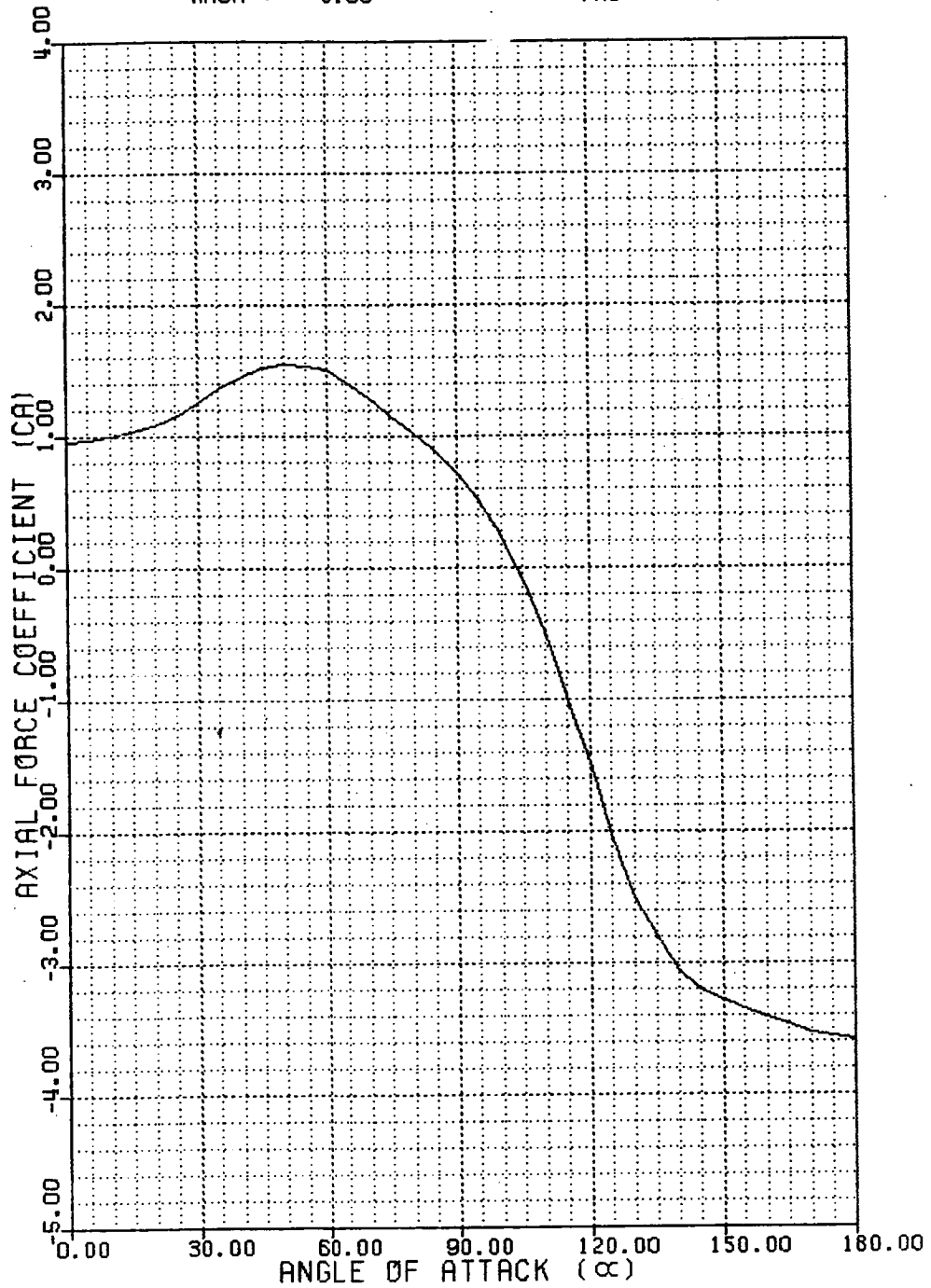
B-704

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90

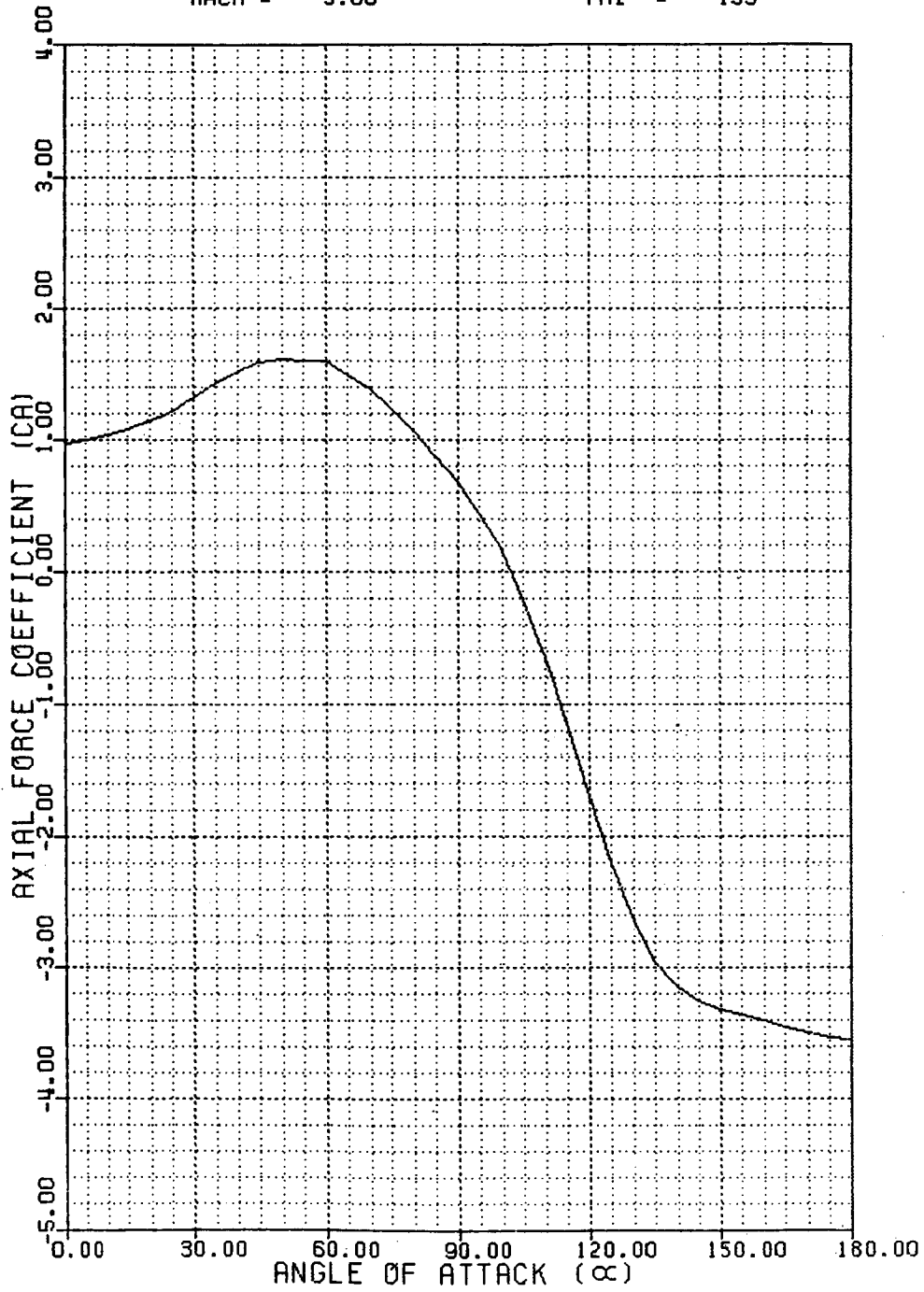


B-705

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



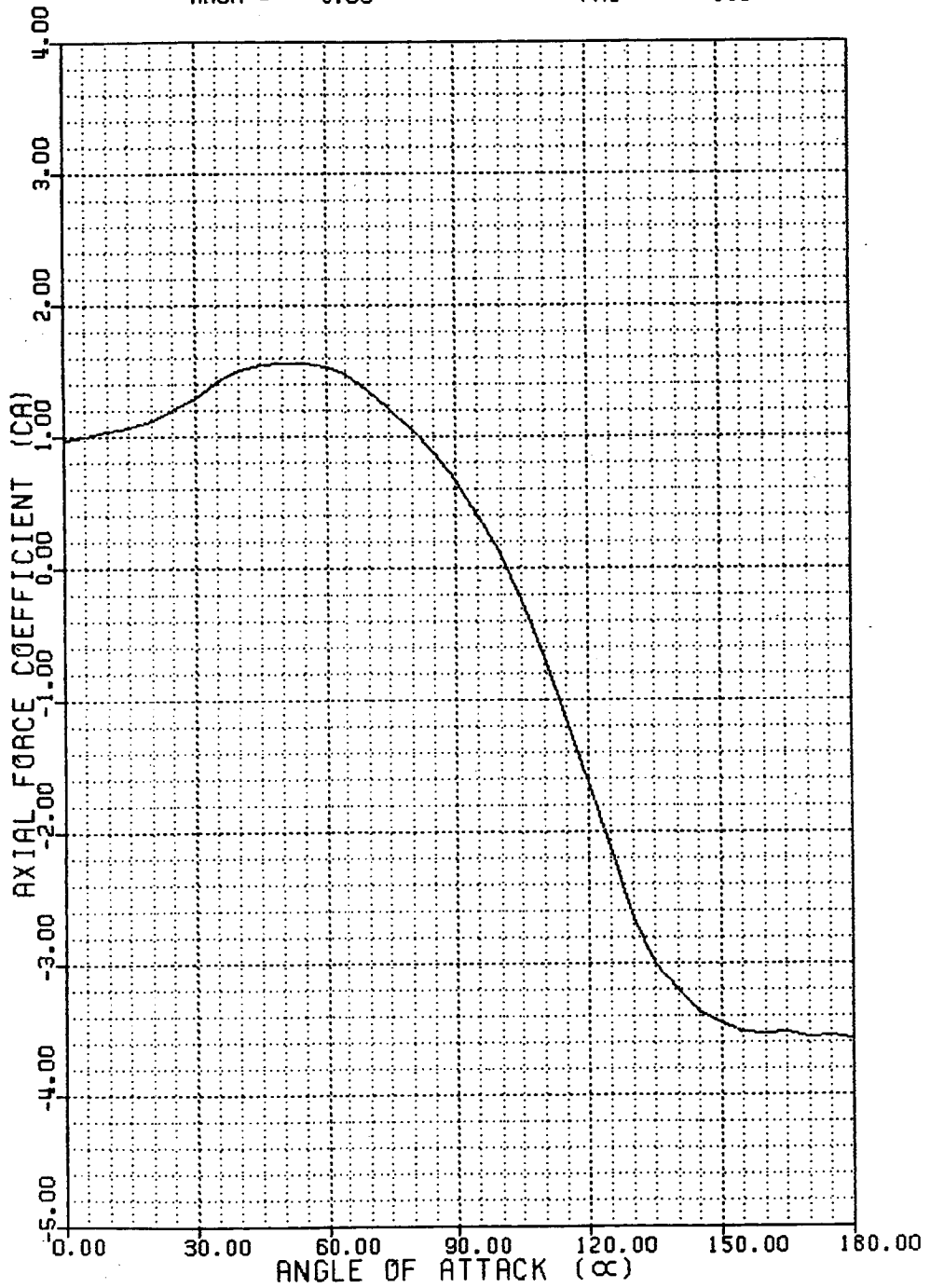
B-706

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 180



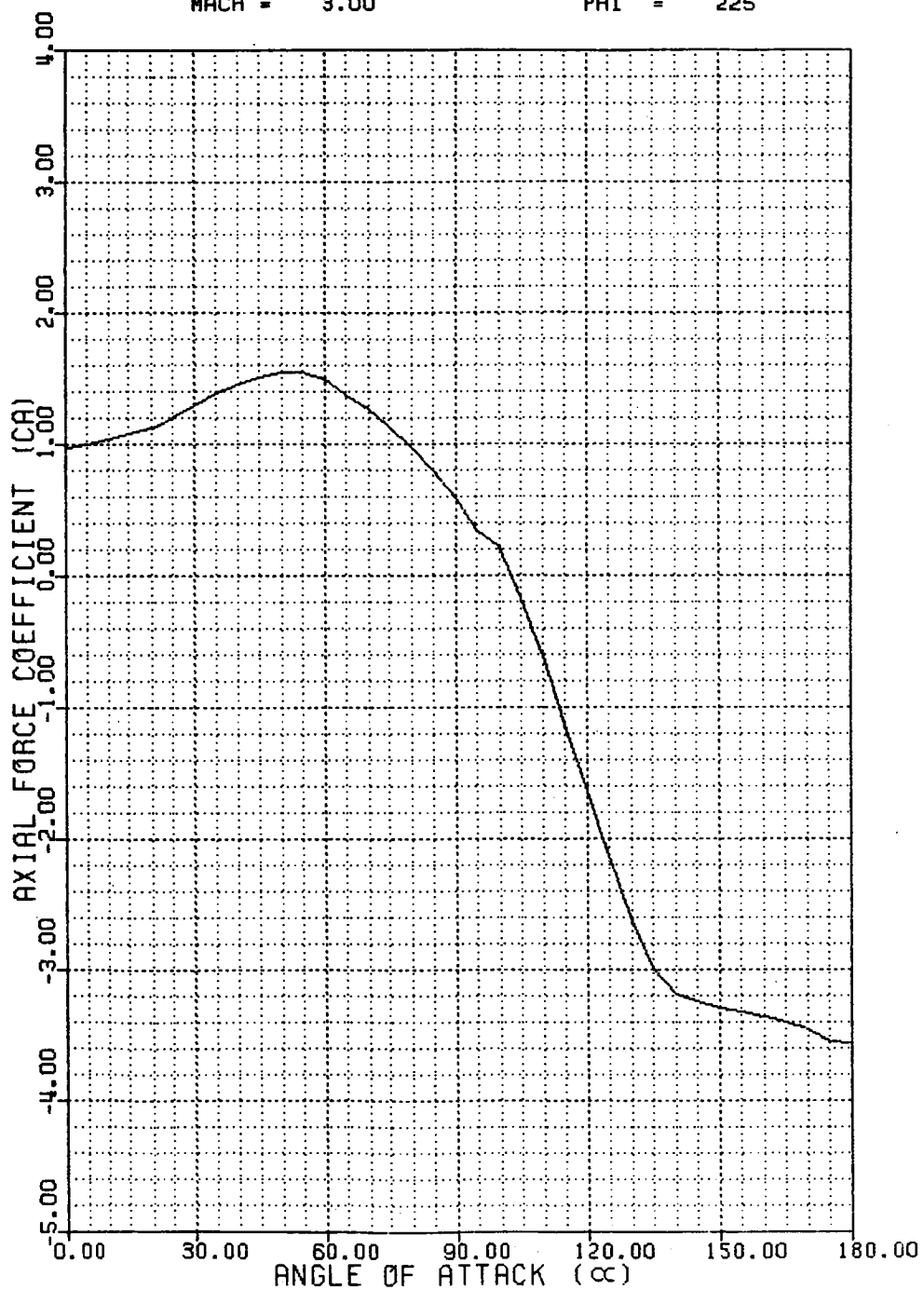
B-707

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225



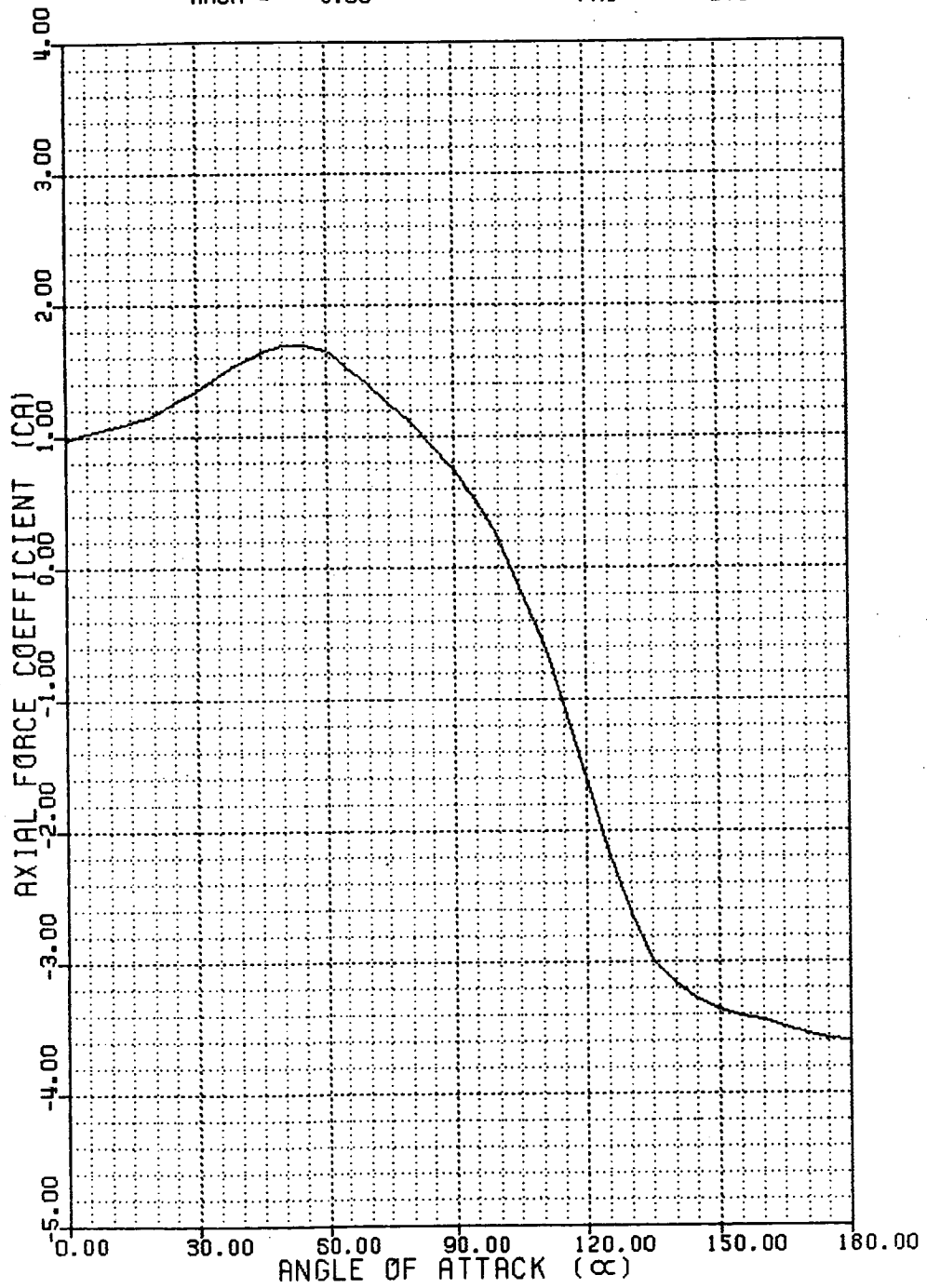
B-708

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270



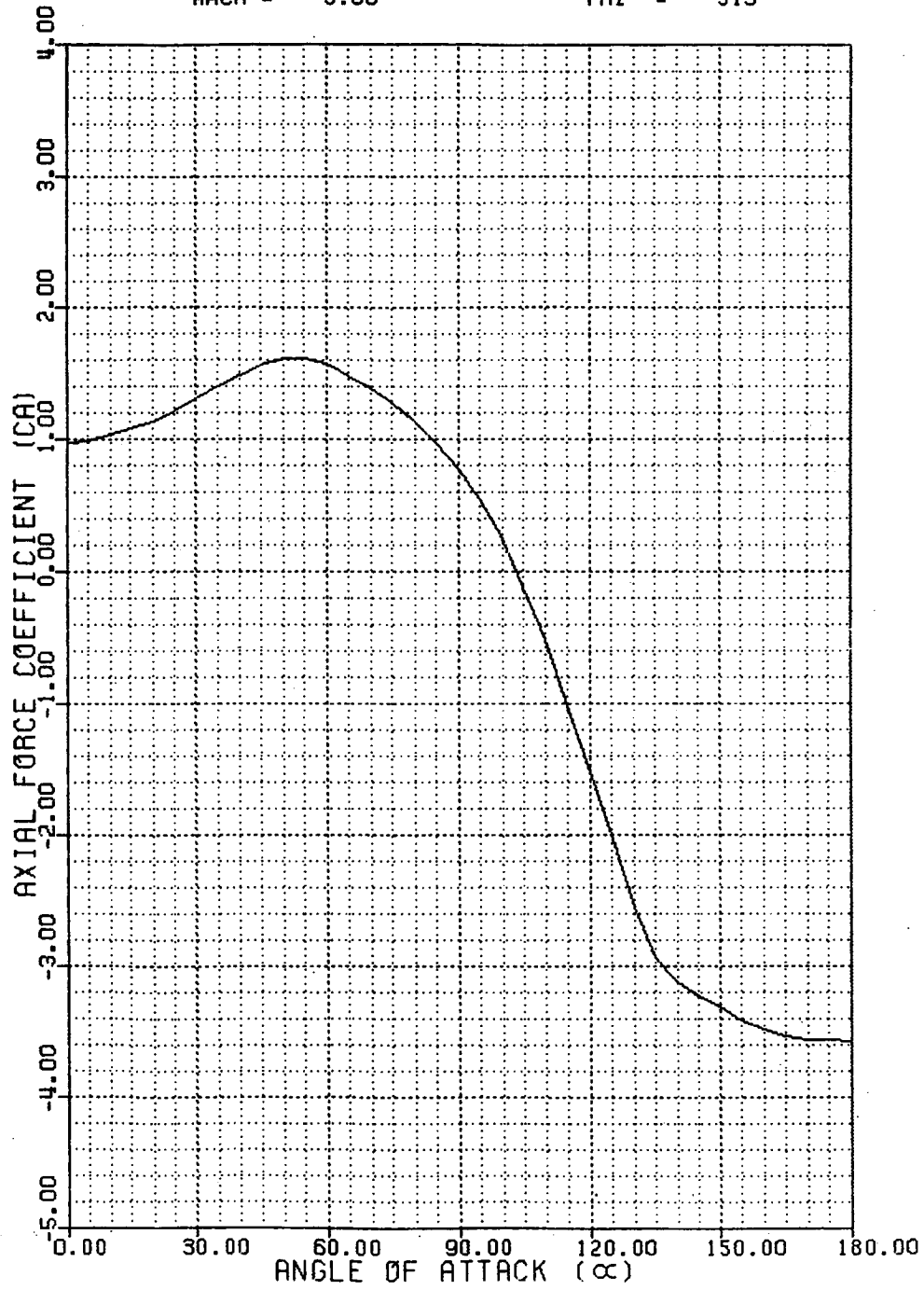
B-709

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315



B-710

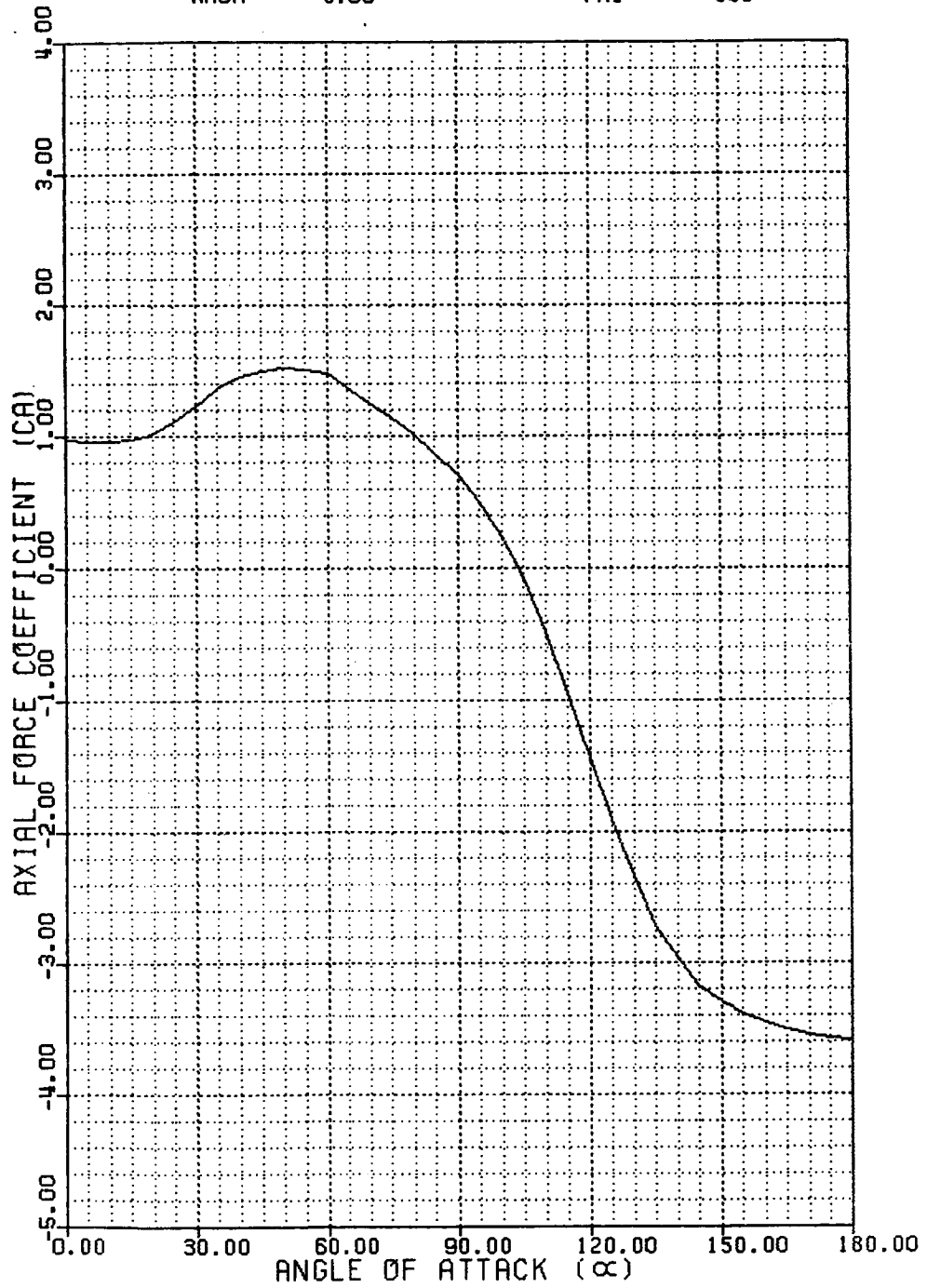
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360



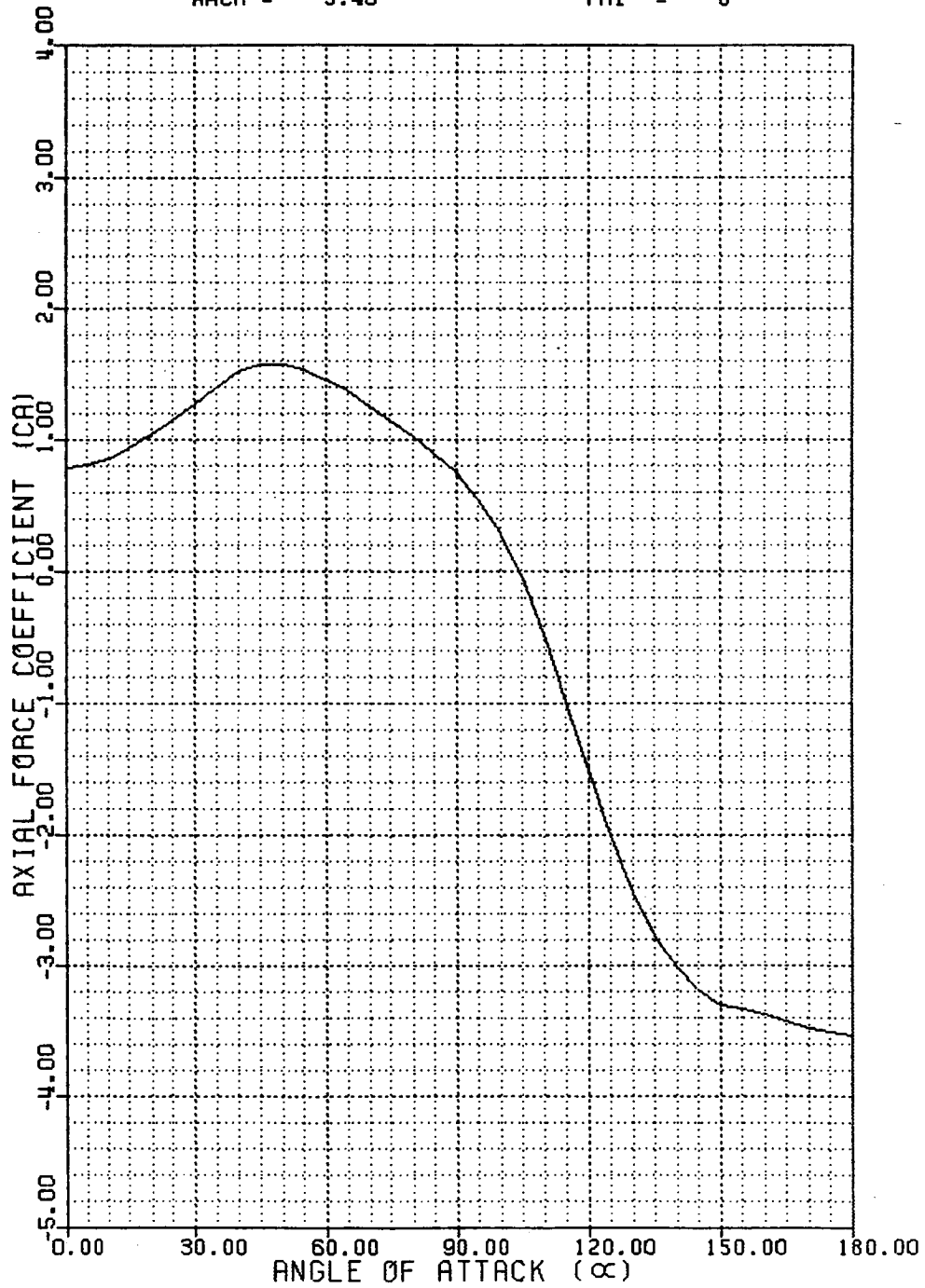
B-711

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 0



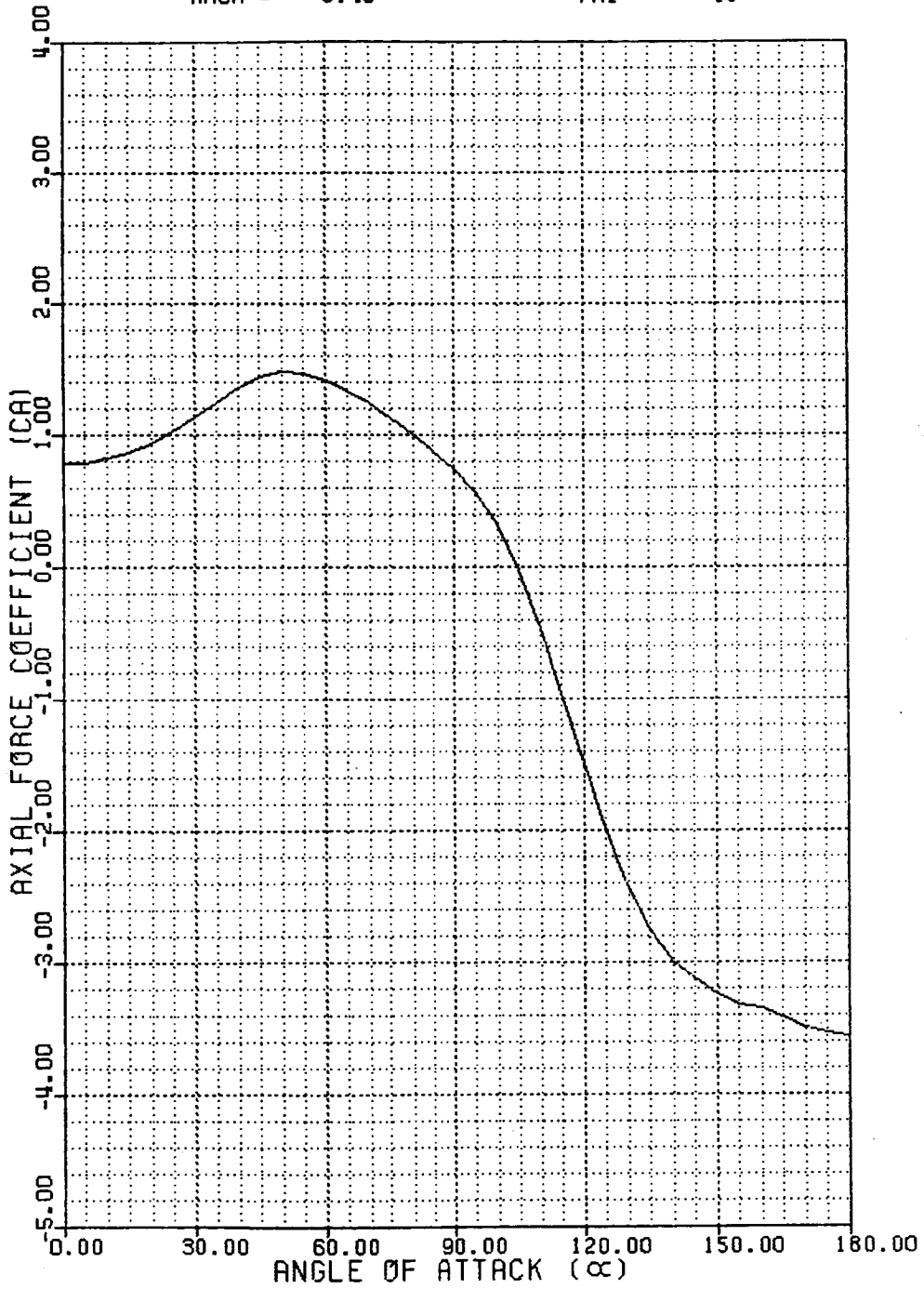
B-712

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 45

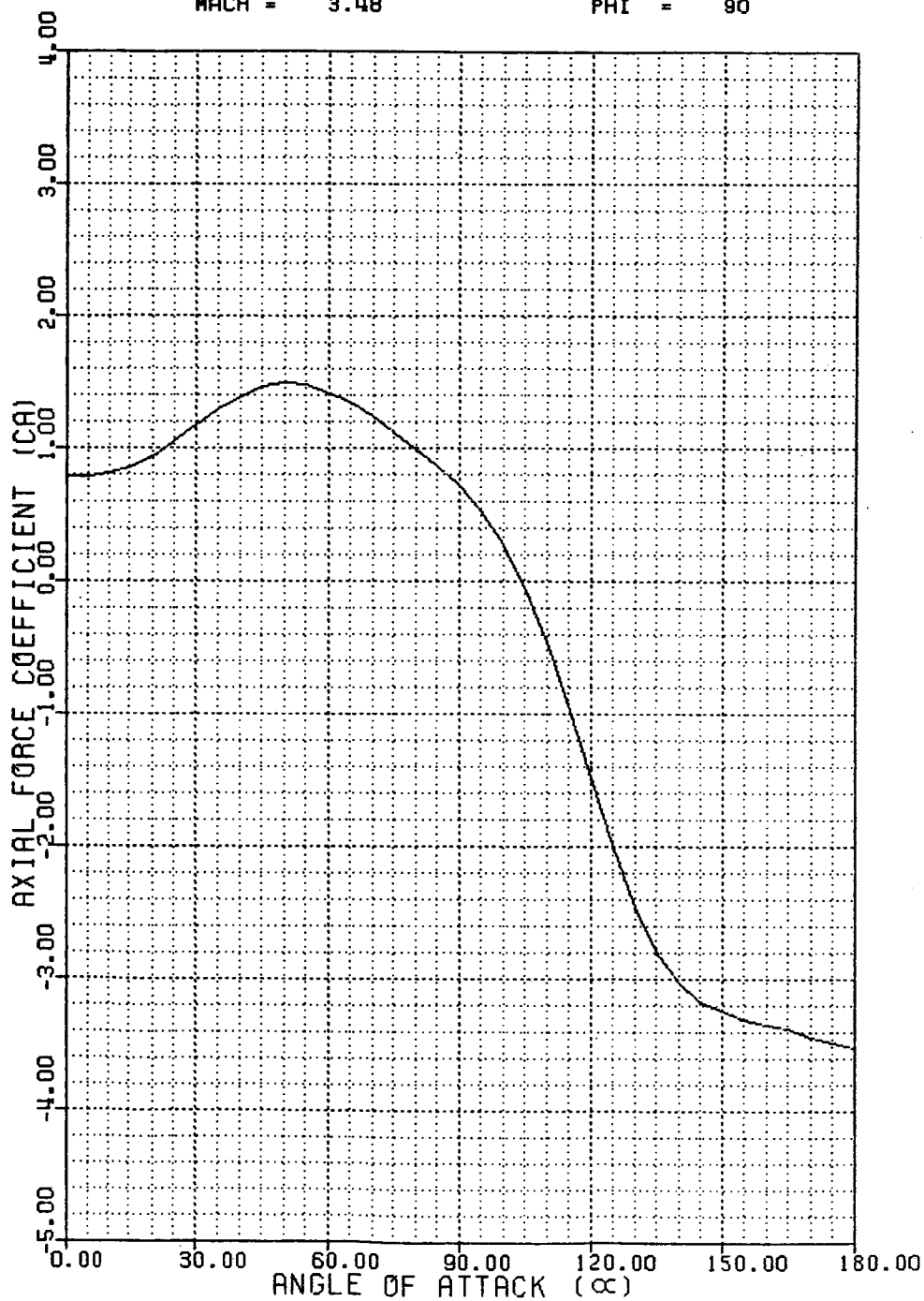


B-713

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90



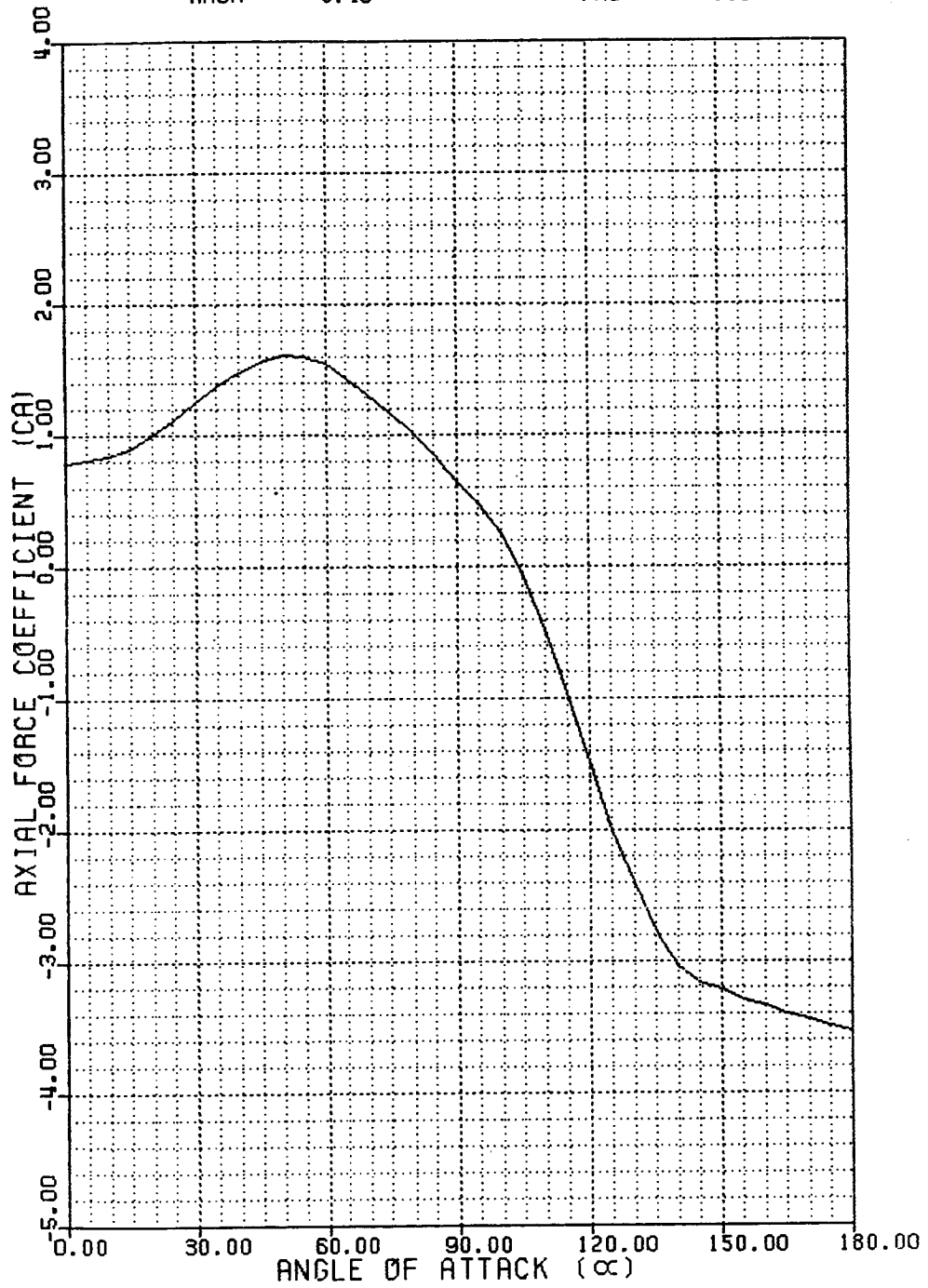
B-714

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 135

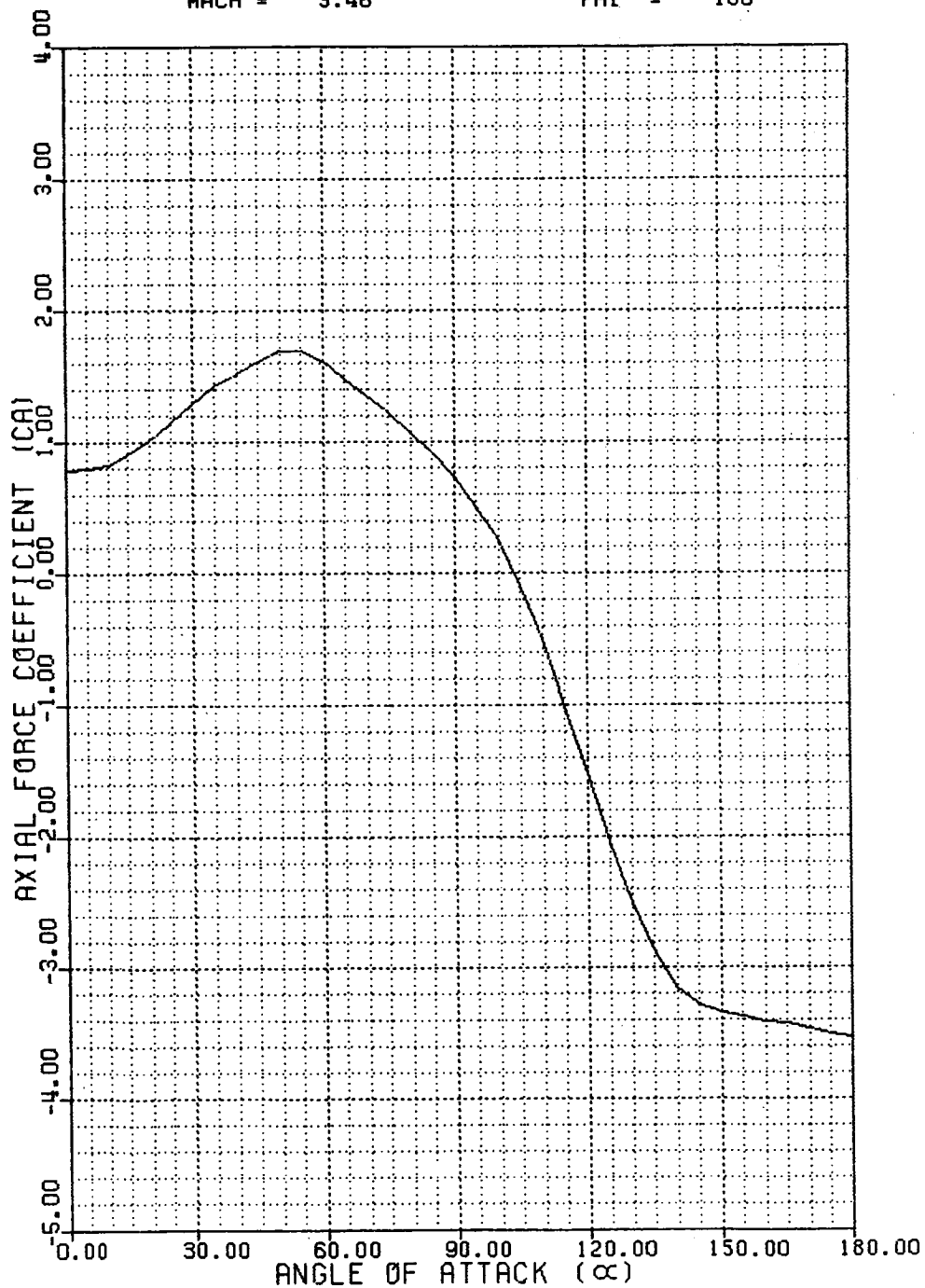


B-715

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180

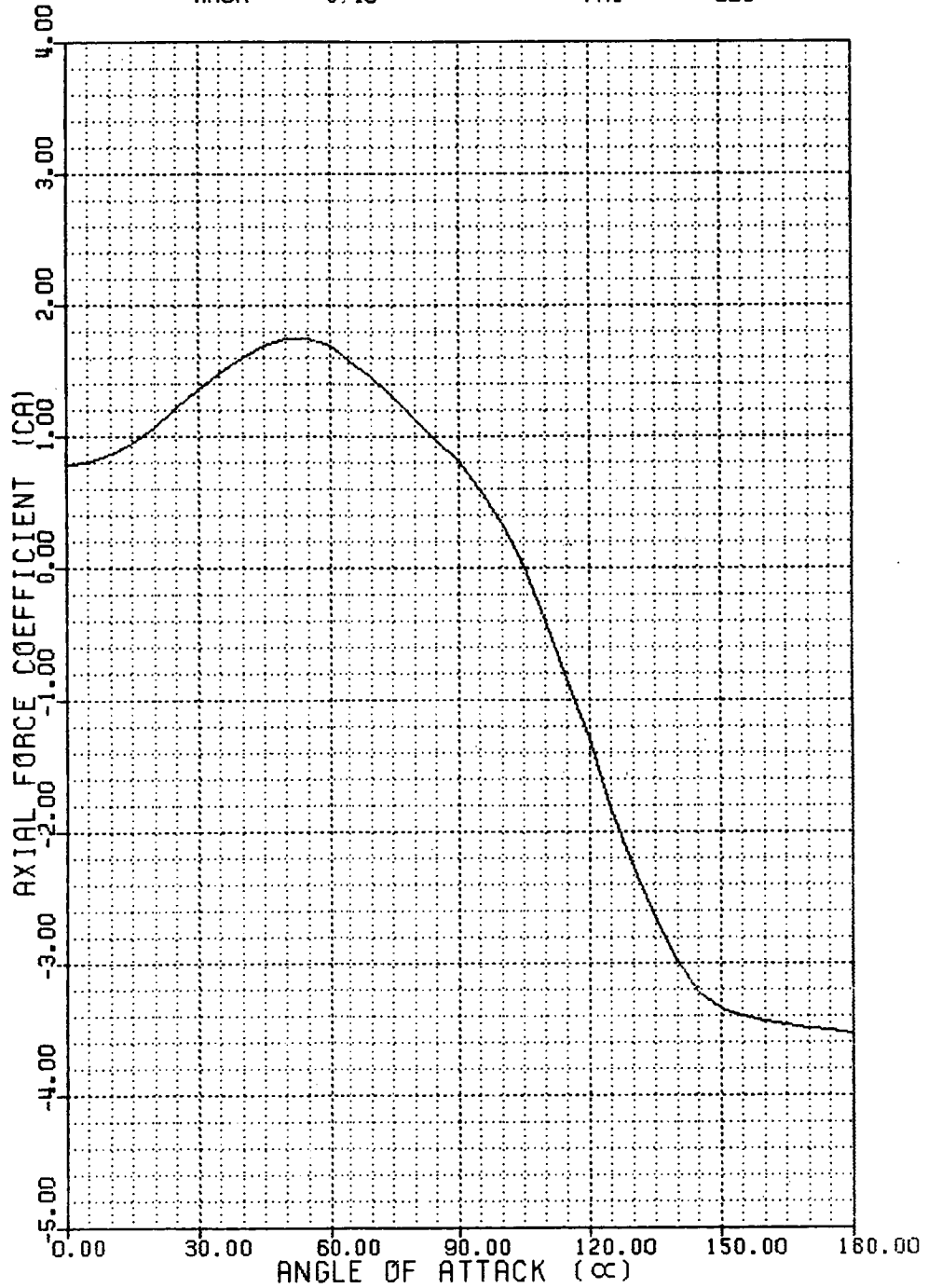


B-716

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225

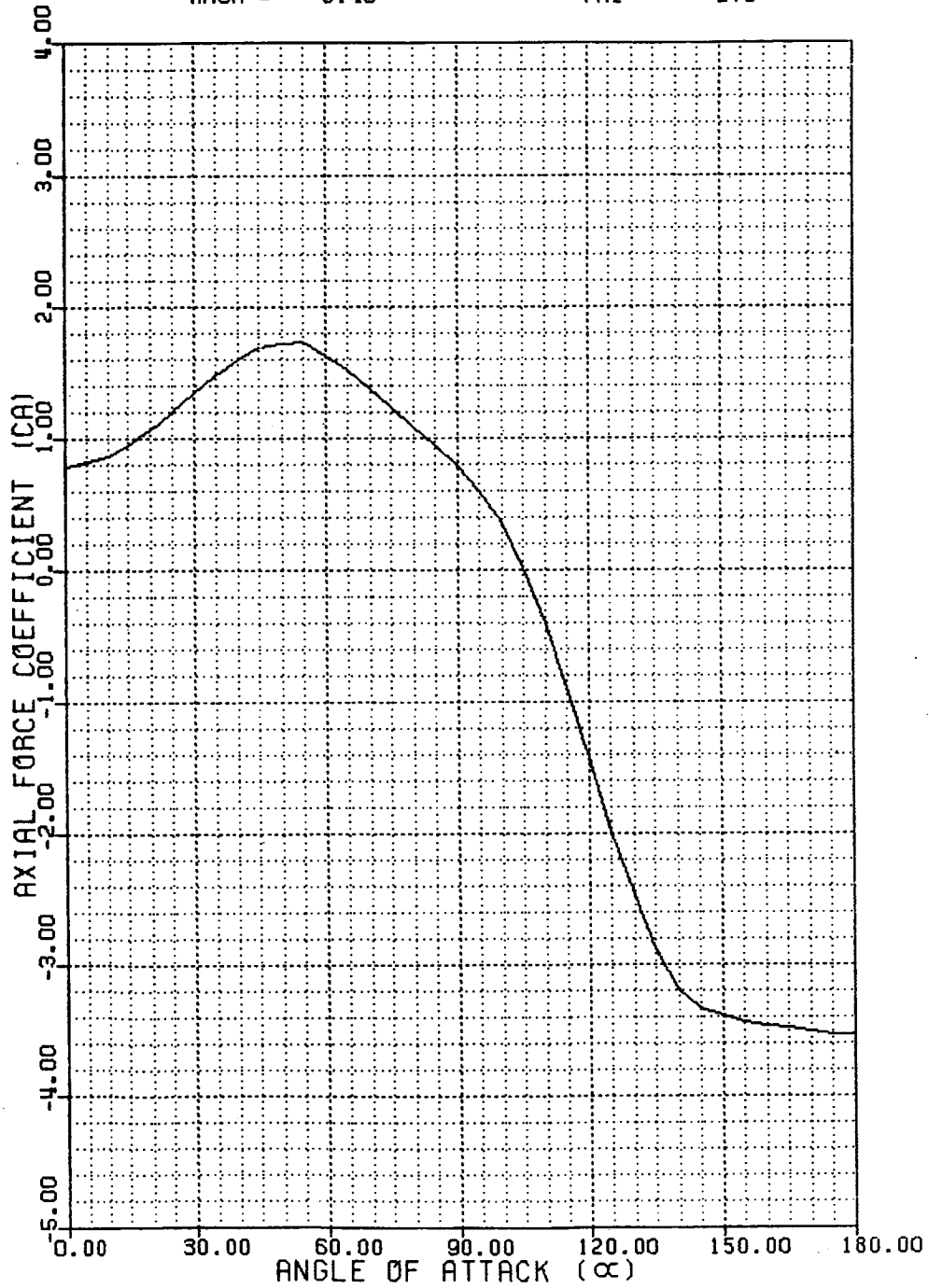


B-717

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270



B-718

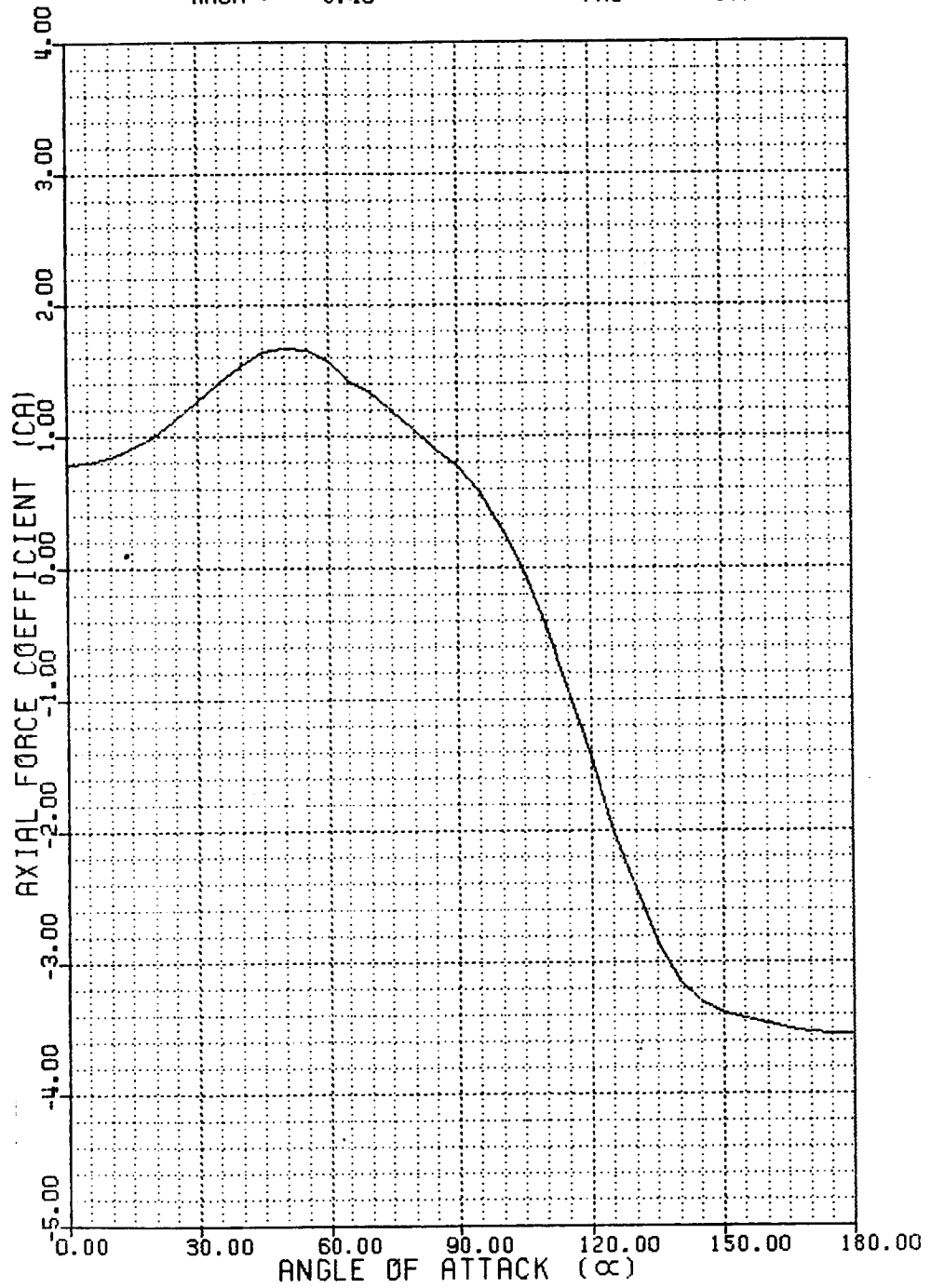
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 315



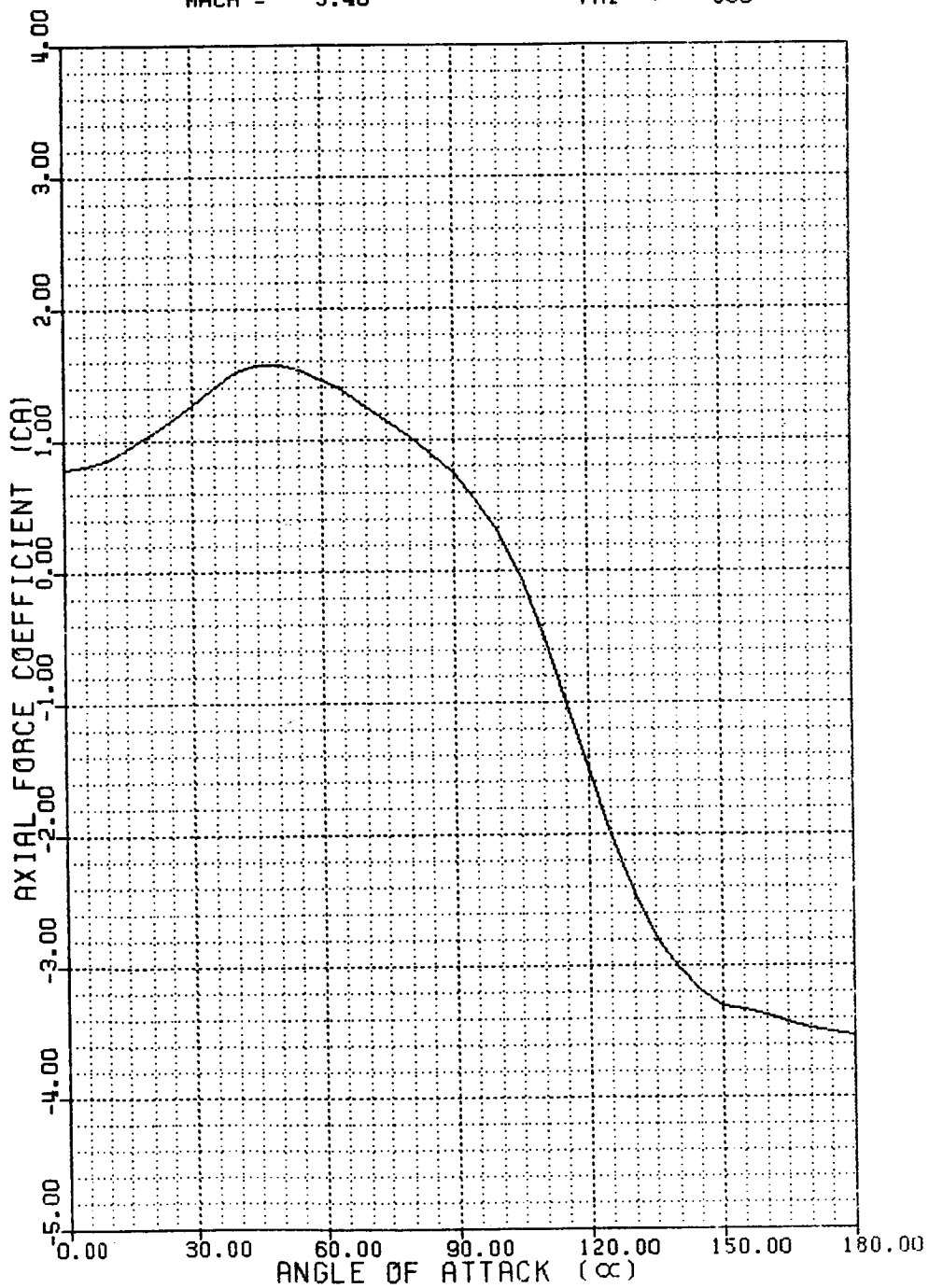
B-719

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-720

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

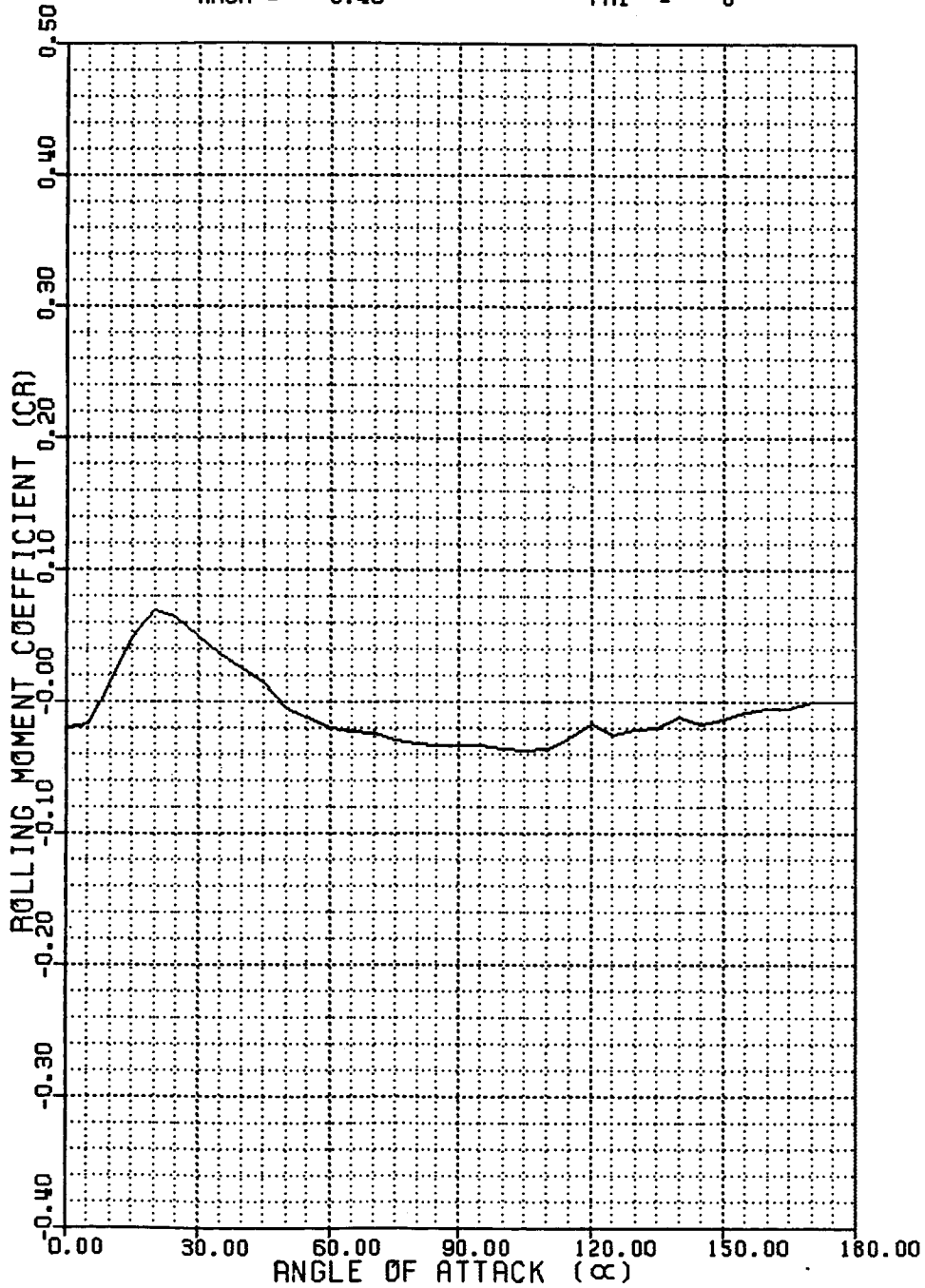
**ROLLING MOMENT (CR)**

<u>Mach Number</u>	<u>Page</u>
0.4	B-721
0.5	B-730
0.55	B-739
0.6	B-748
0.7	B-757
0.8	B-766
0.9	B-775
0.95	B-784
1.05	B-793
1.1	B-802
1.2	B-811
1.4	B-820
1.96	B-829
2.5	B-838
3.0	B-847
3.48	B-856

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 0

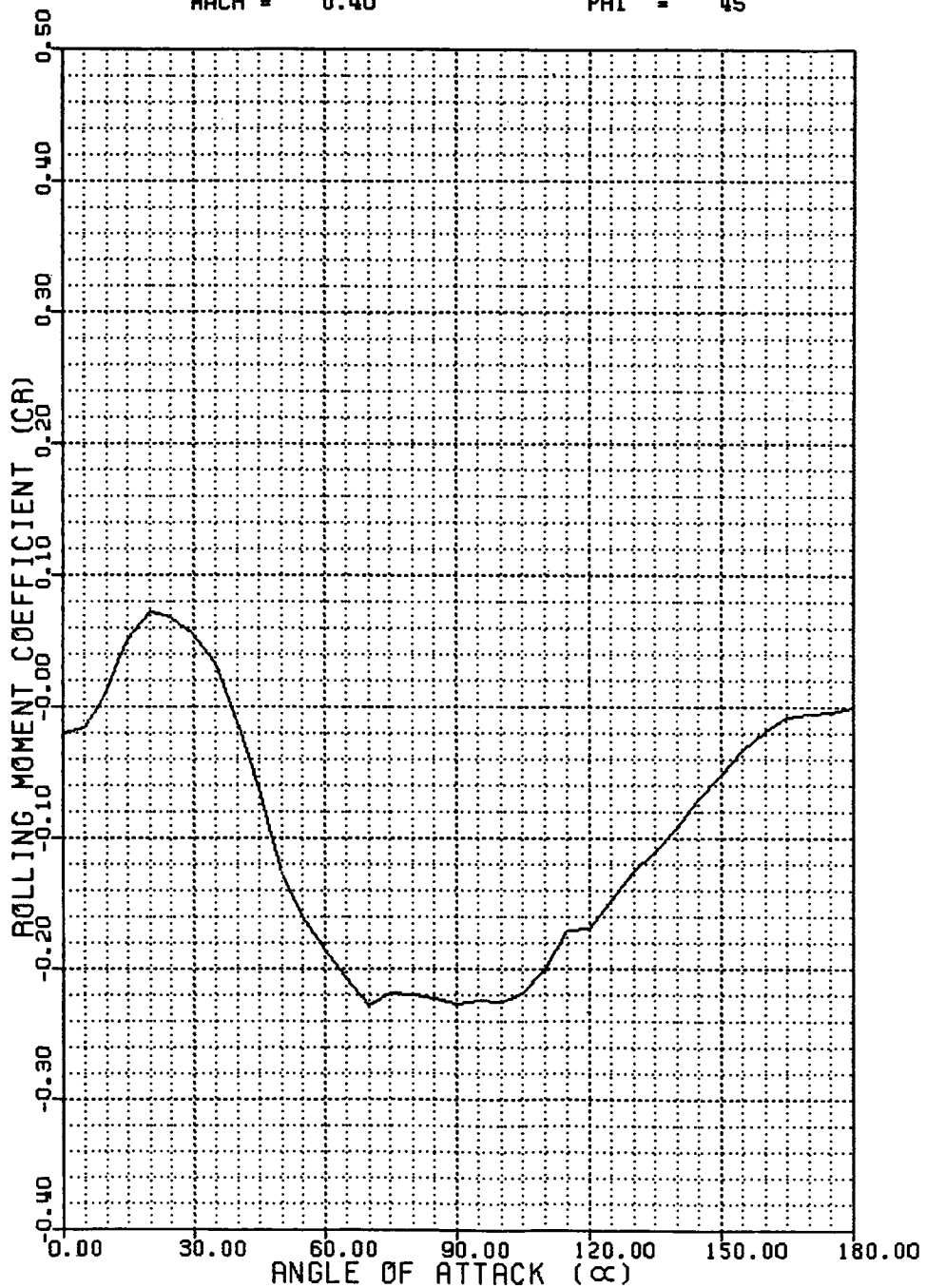


B-721

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 45



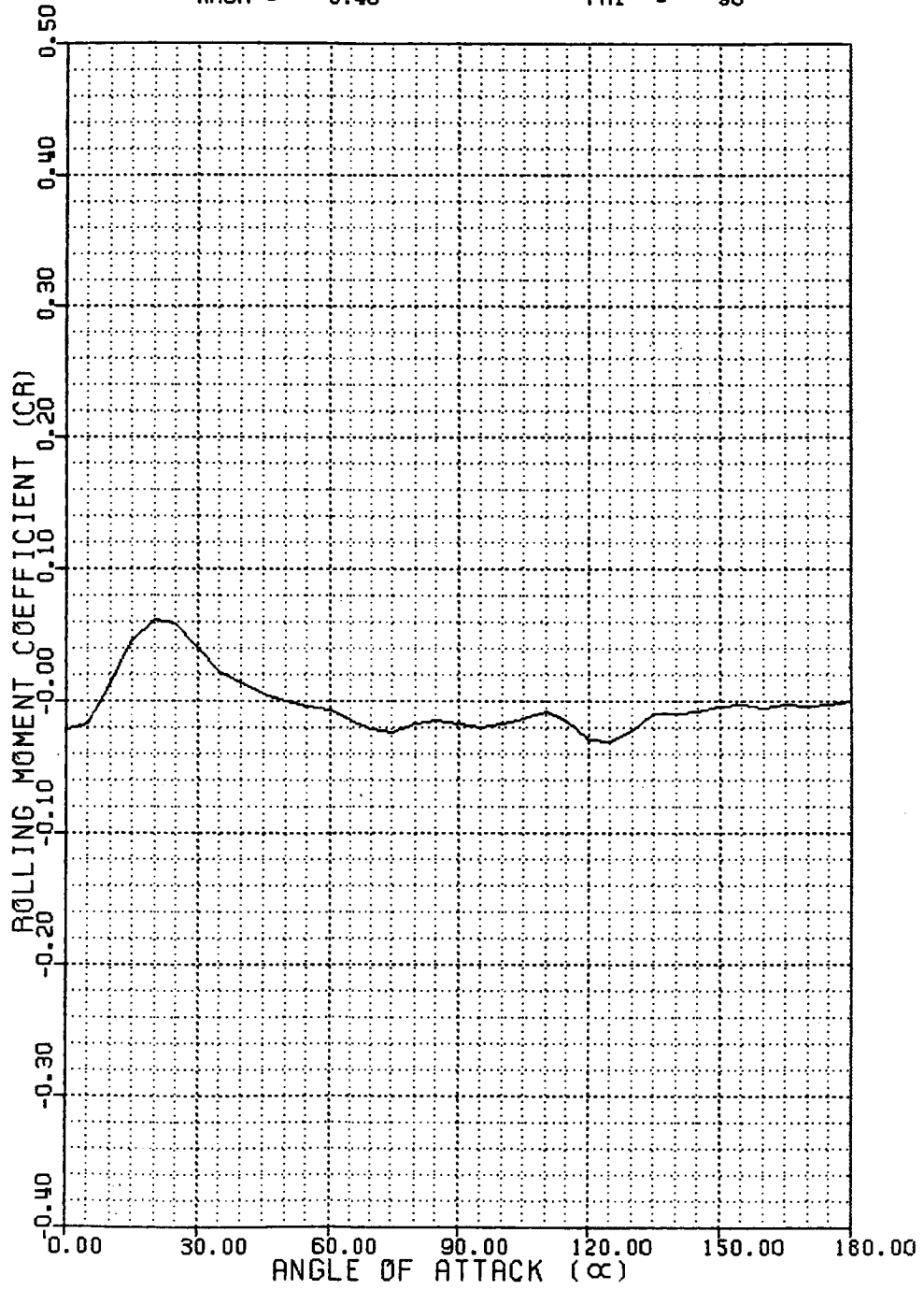
B-722

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 90

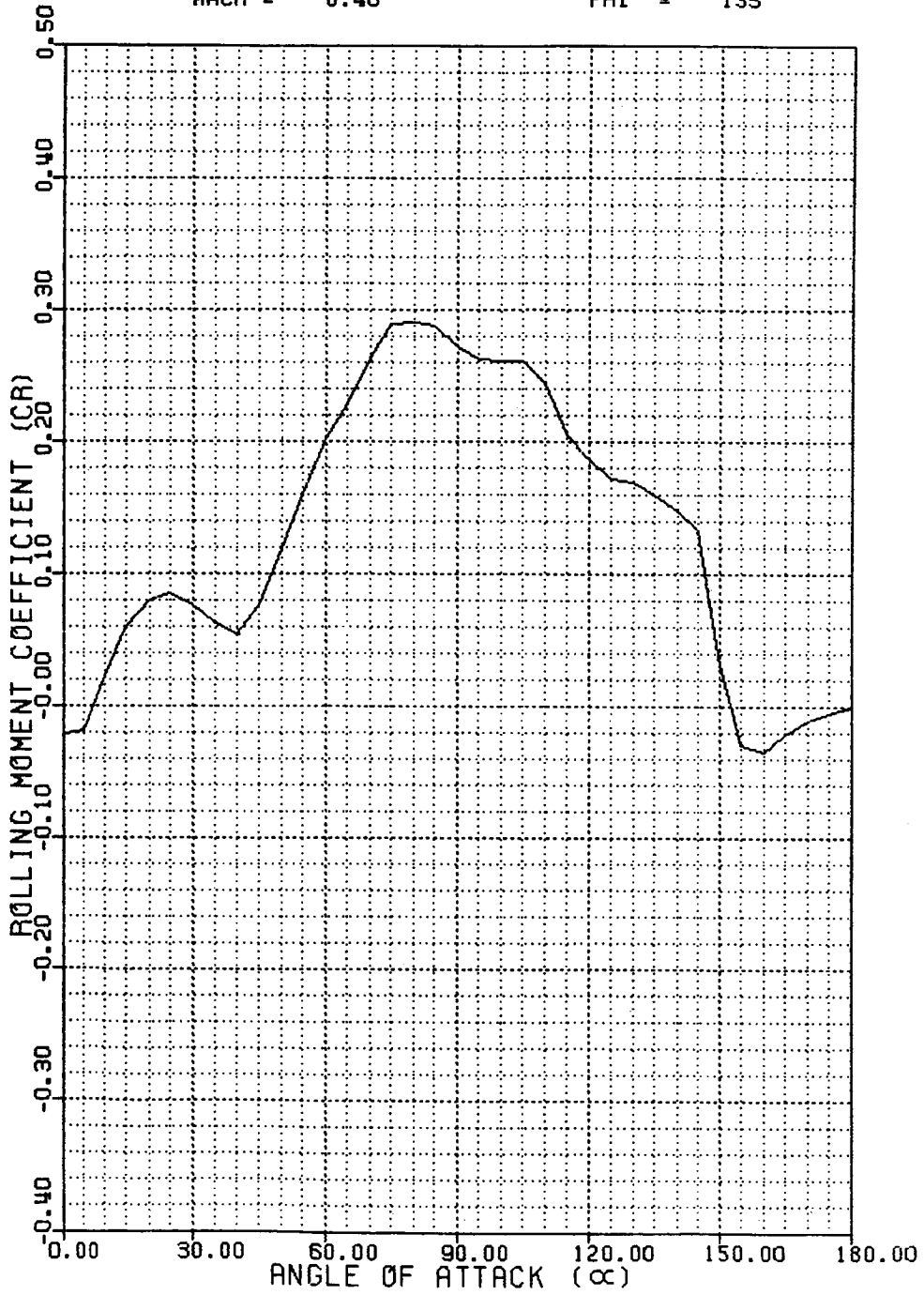


B-723

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 135

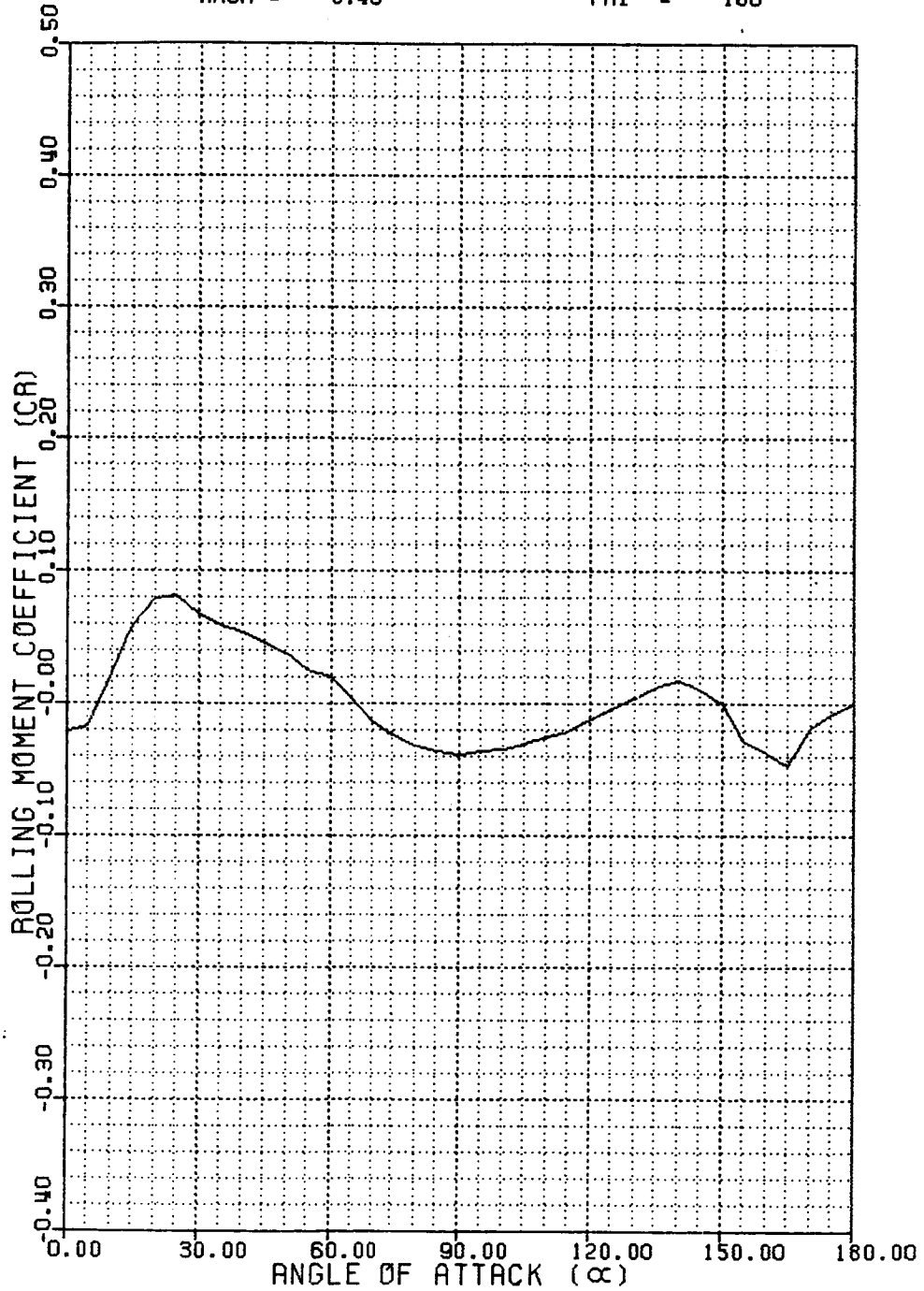


B-724

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 180



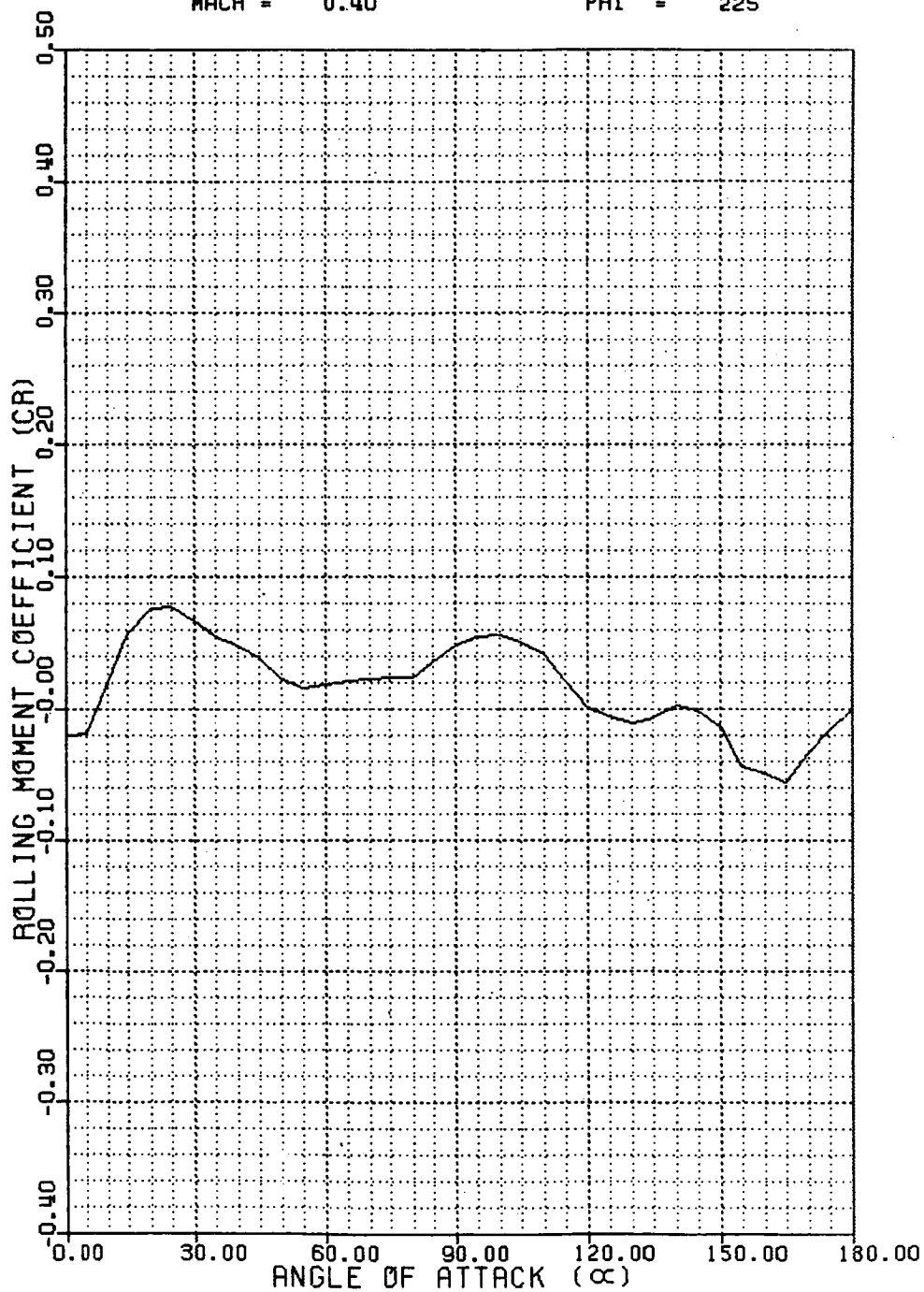
B-725



# SRB TAPE 8 DATA

MACH = 0.40

PHI = 225

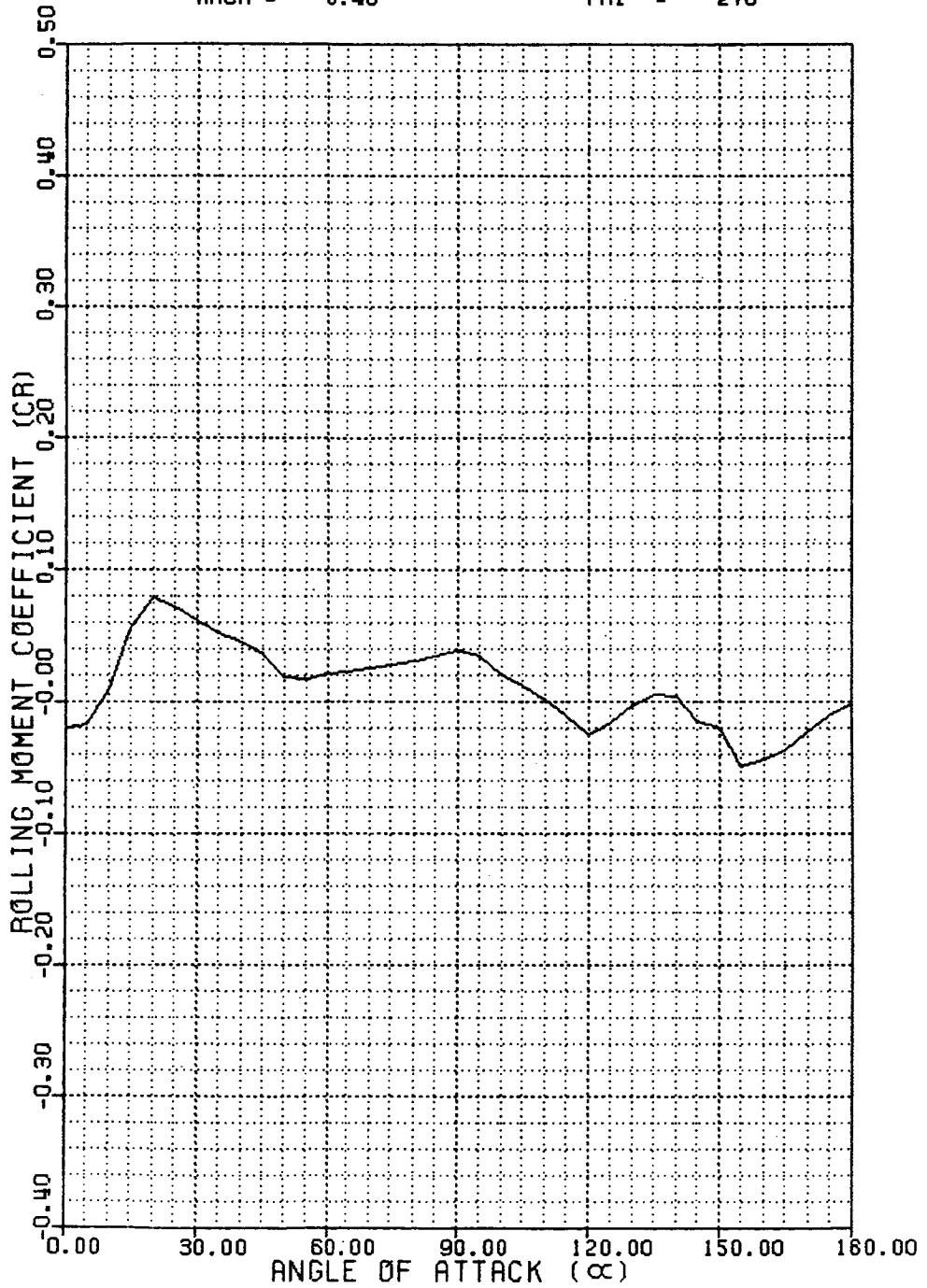


B-726

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 270

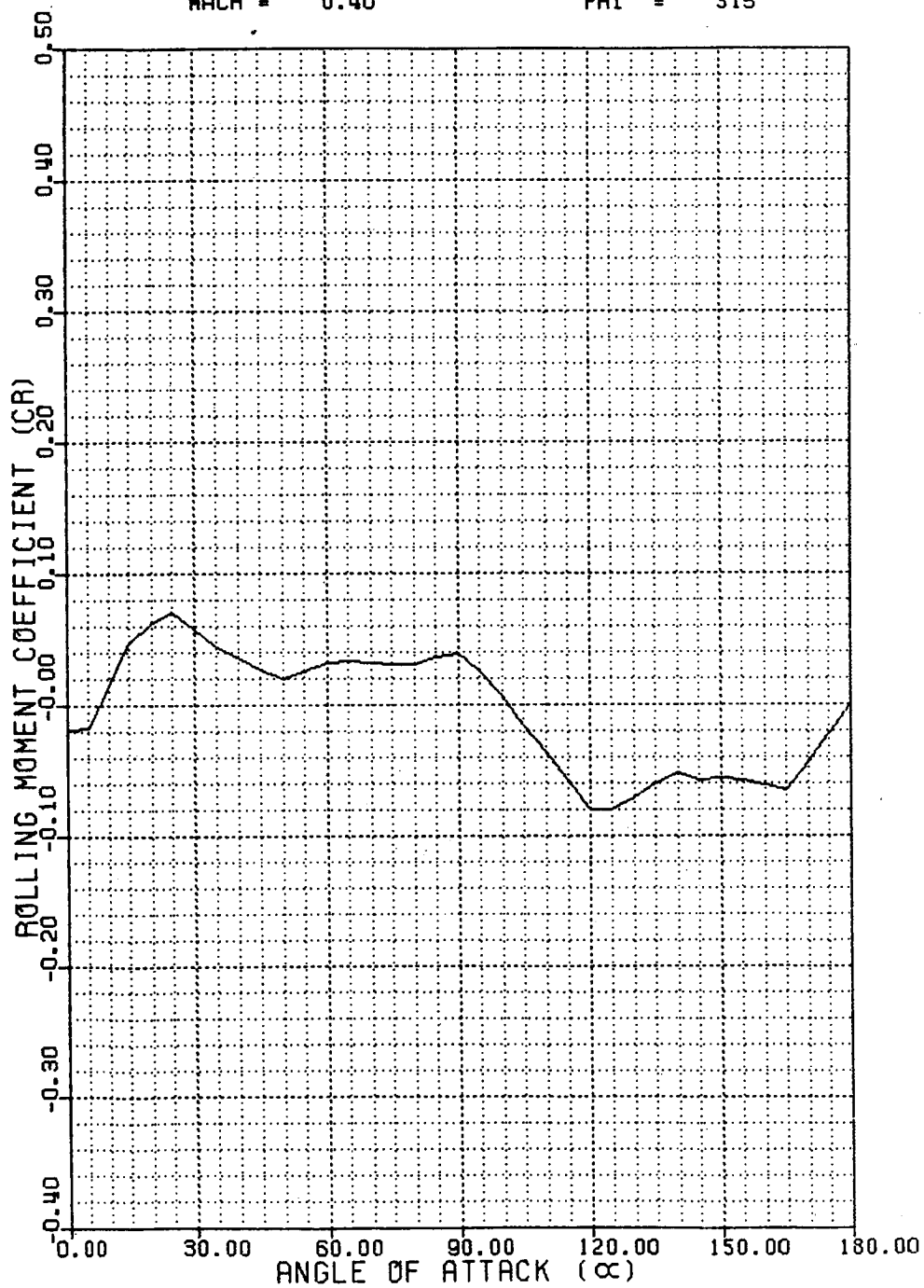


B-727

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 315

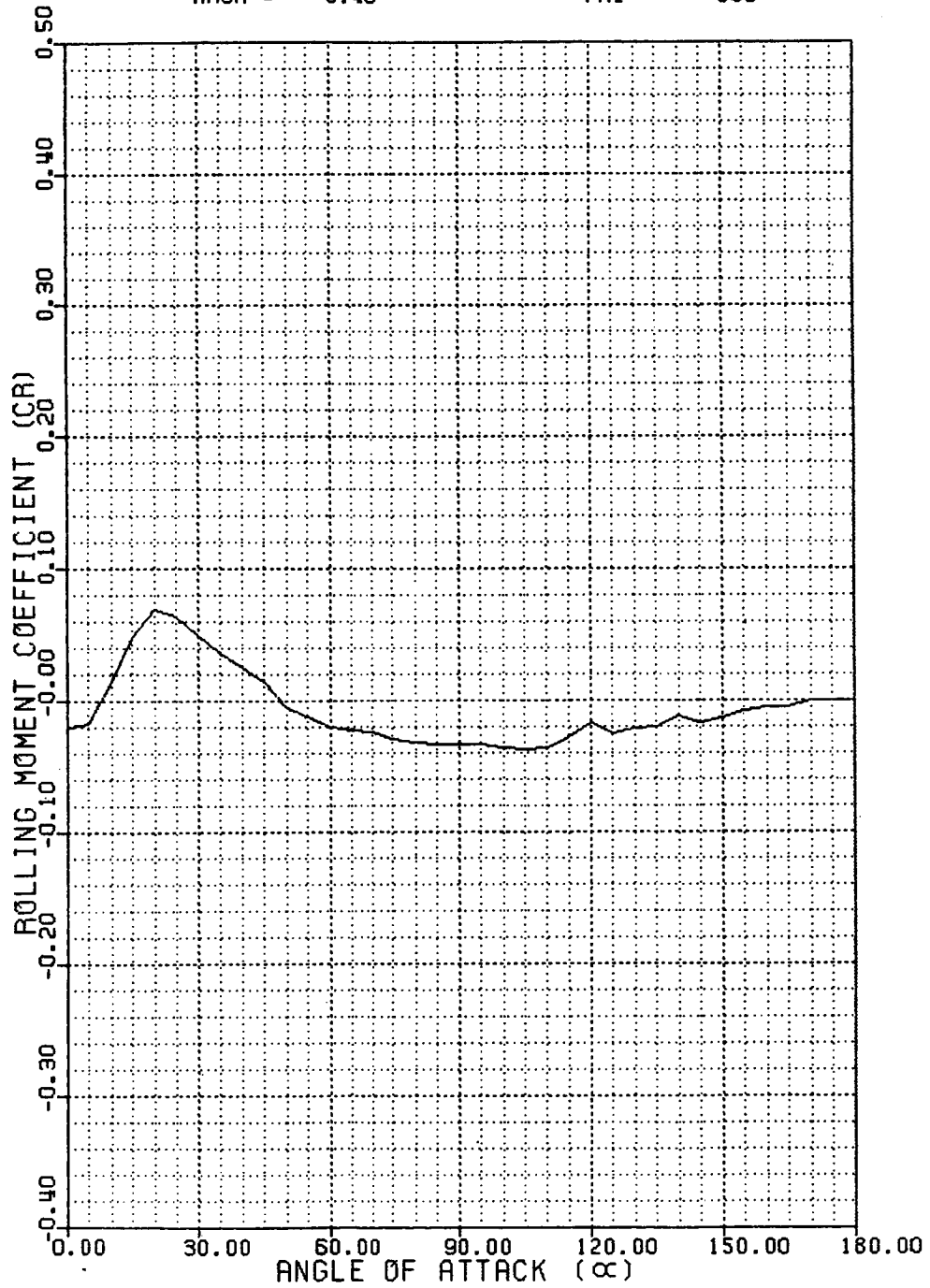


B-728

# SRB TAPE 8 DATA

MACH = 0.40

PHI = 360

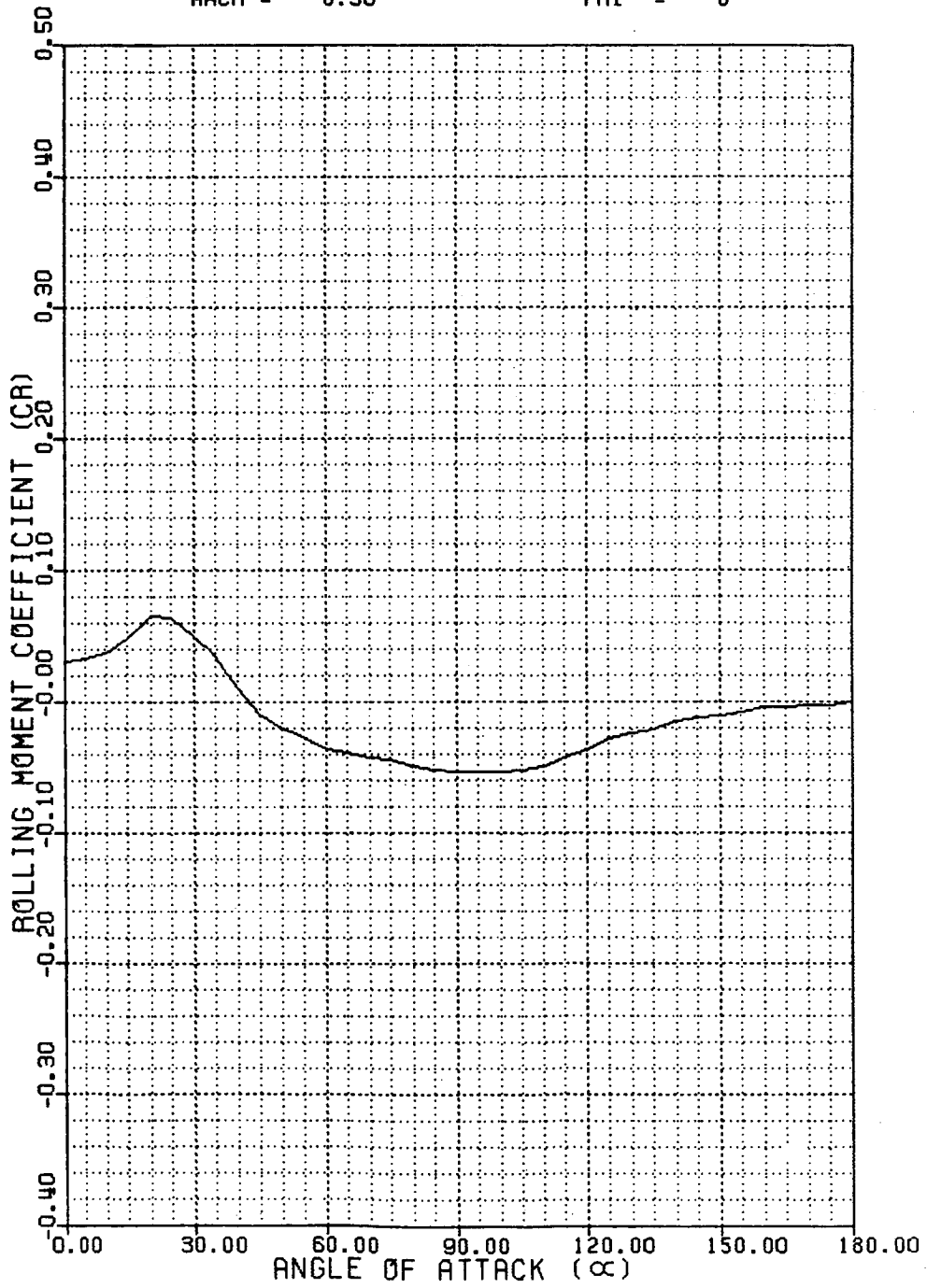


B-729

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 0



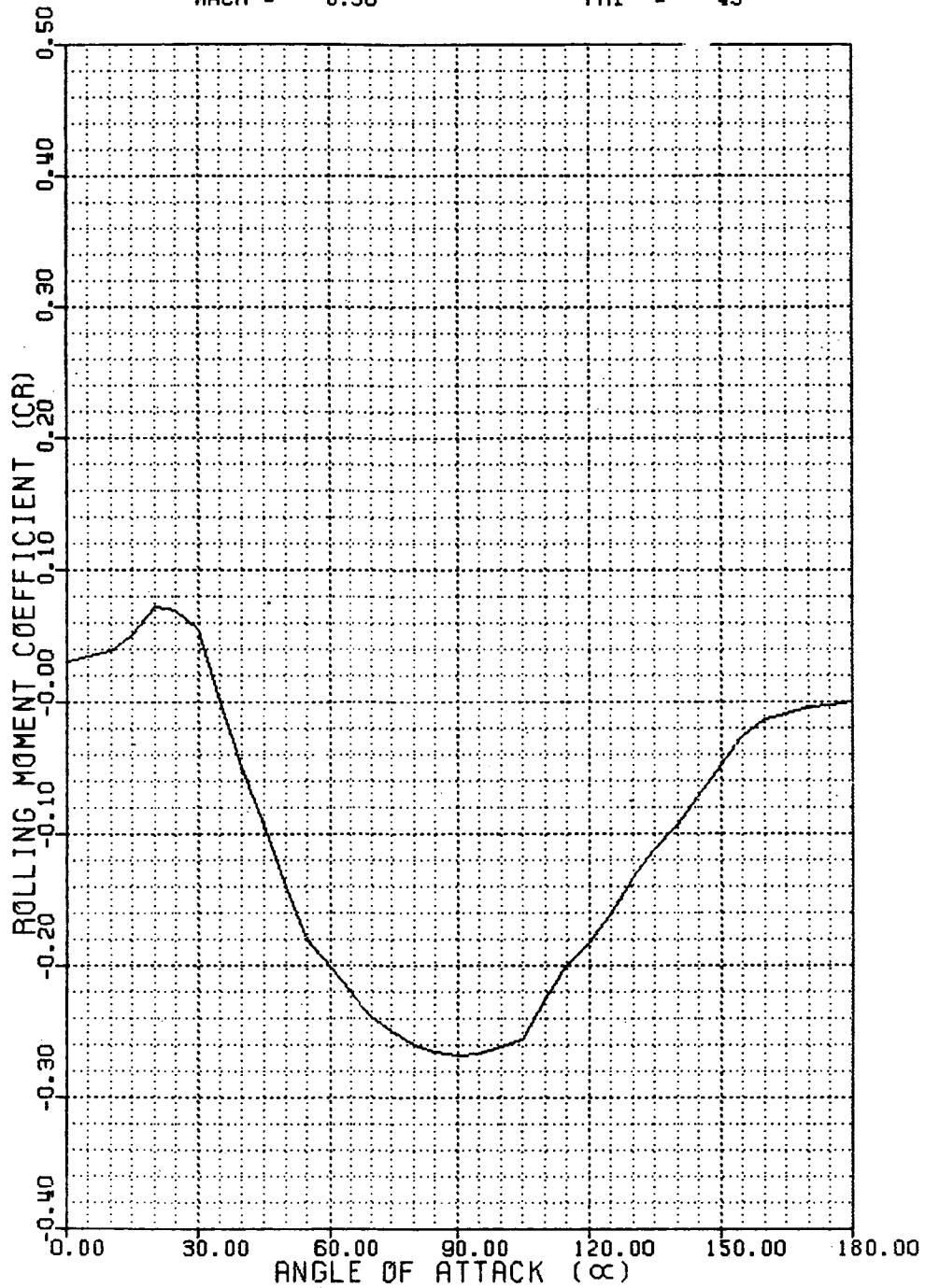
B-790

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 45

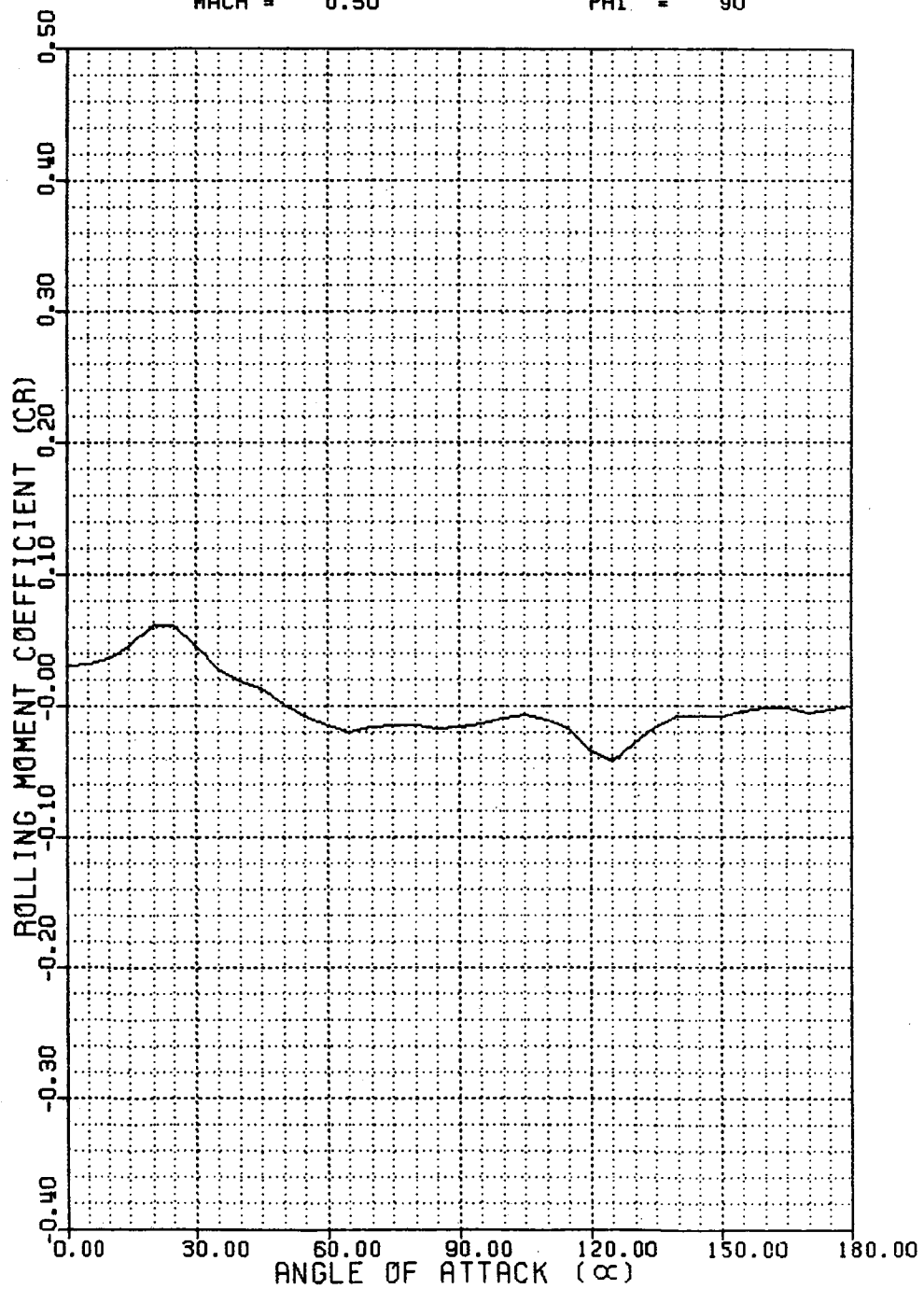


B-731

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 90

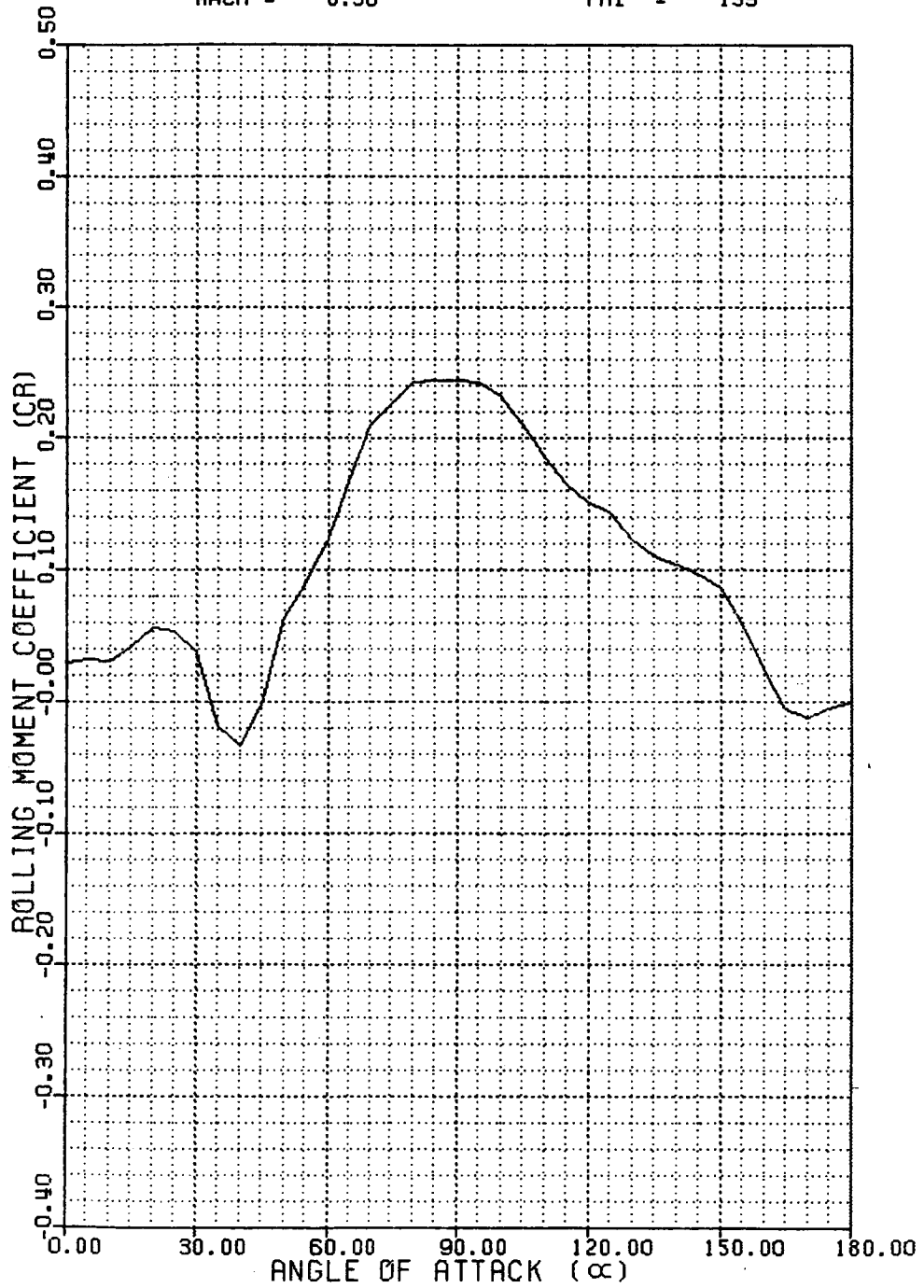


B-732

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 135



B-793

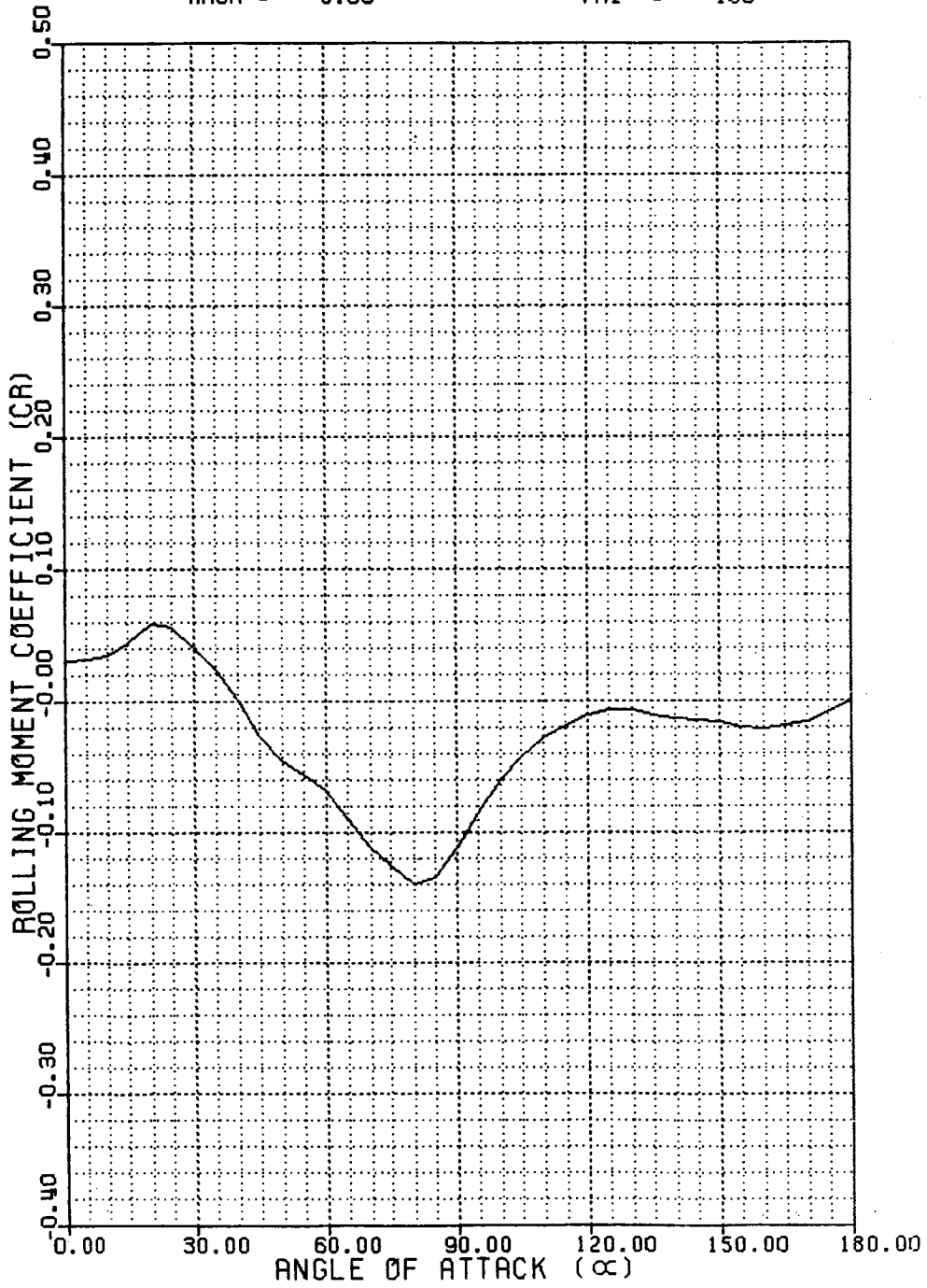
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.50

PHI = 180

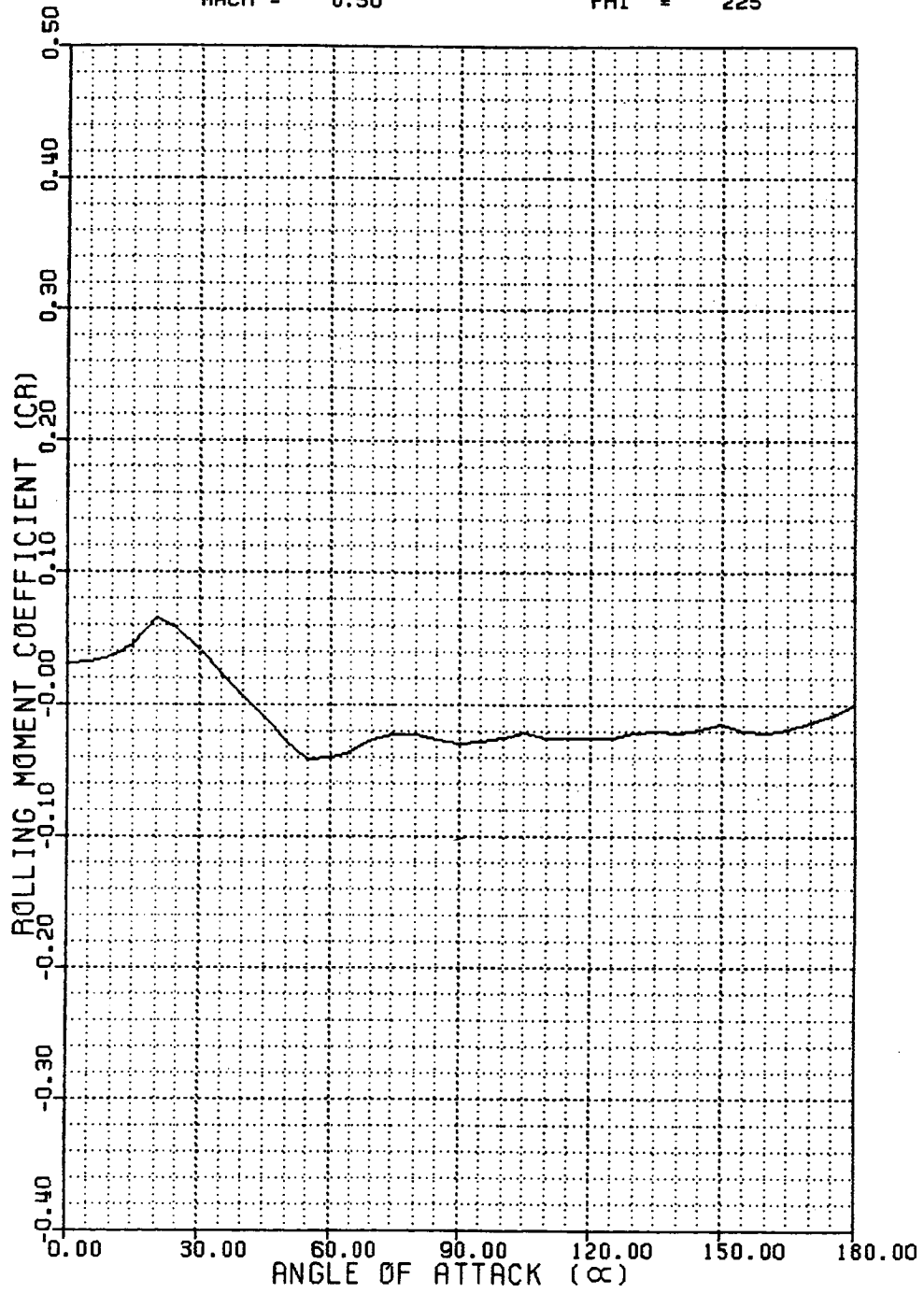


B-734

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 225

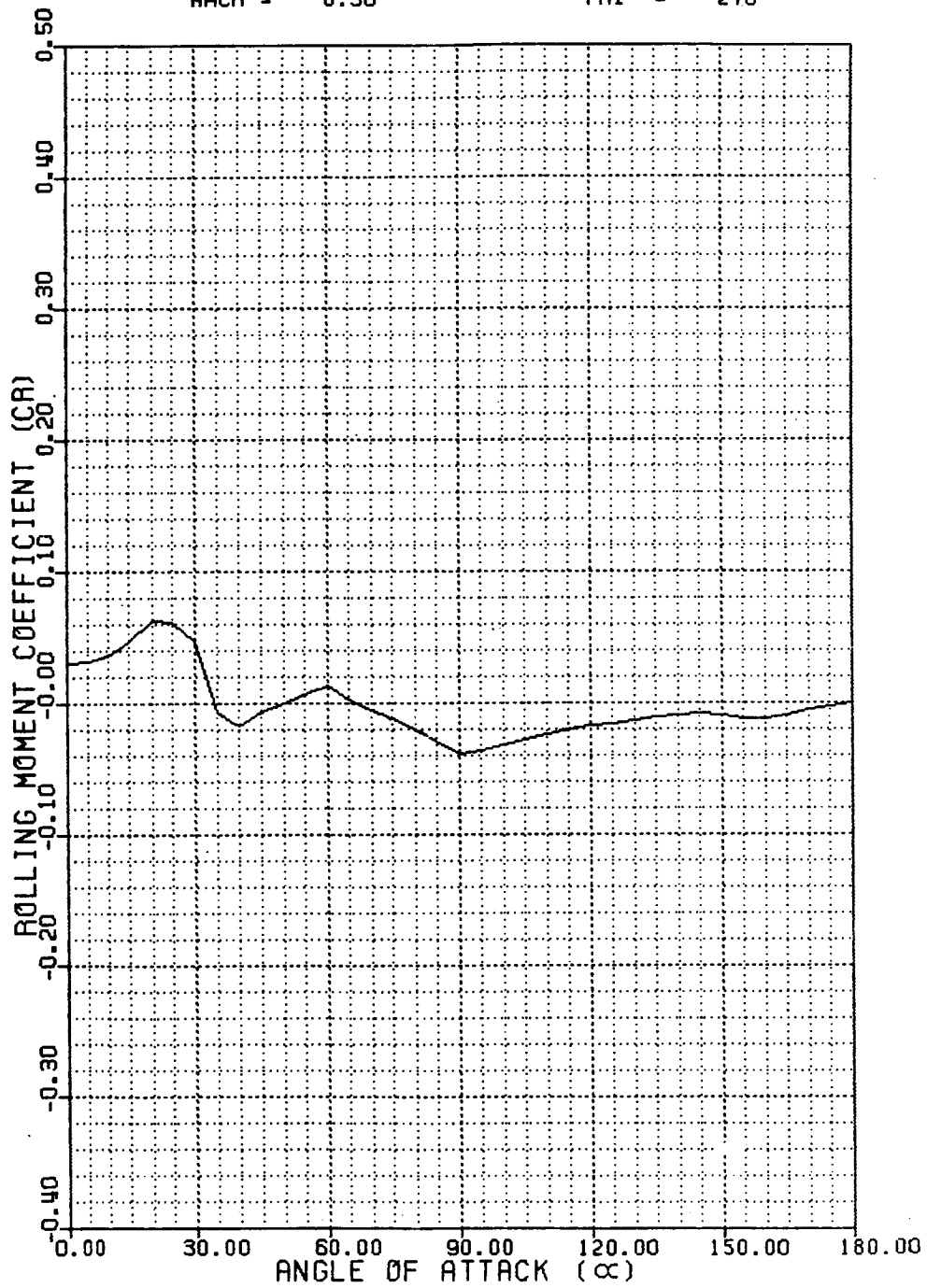


B-735

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 270

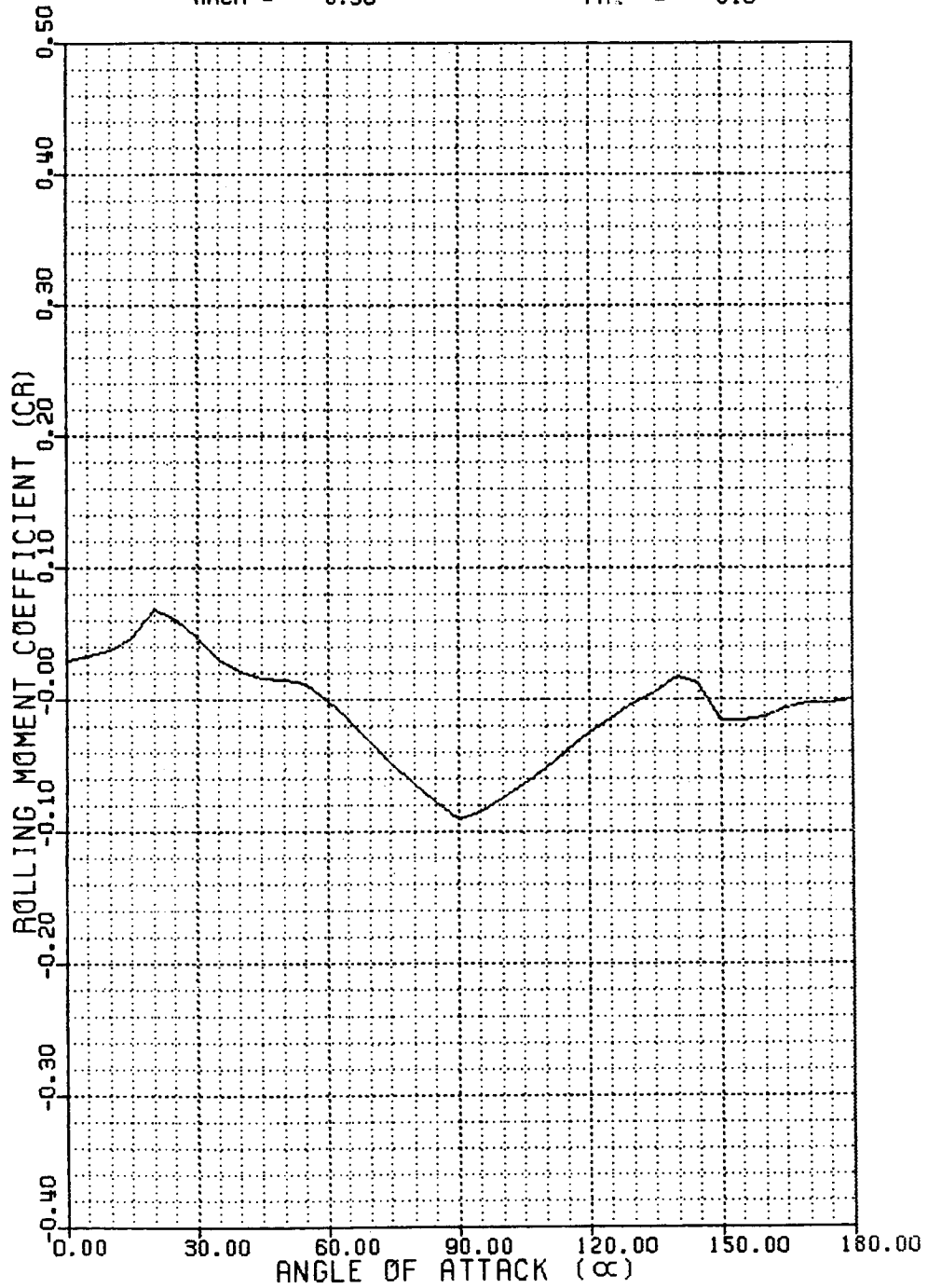


B-796

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 315



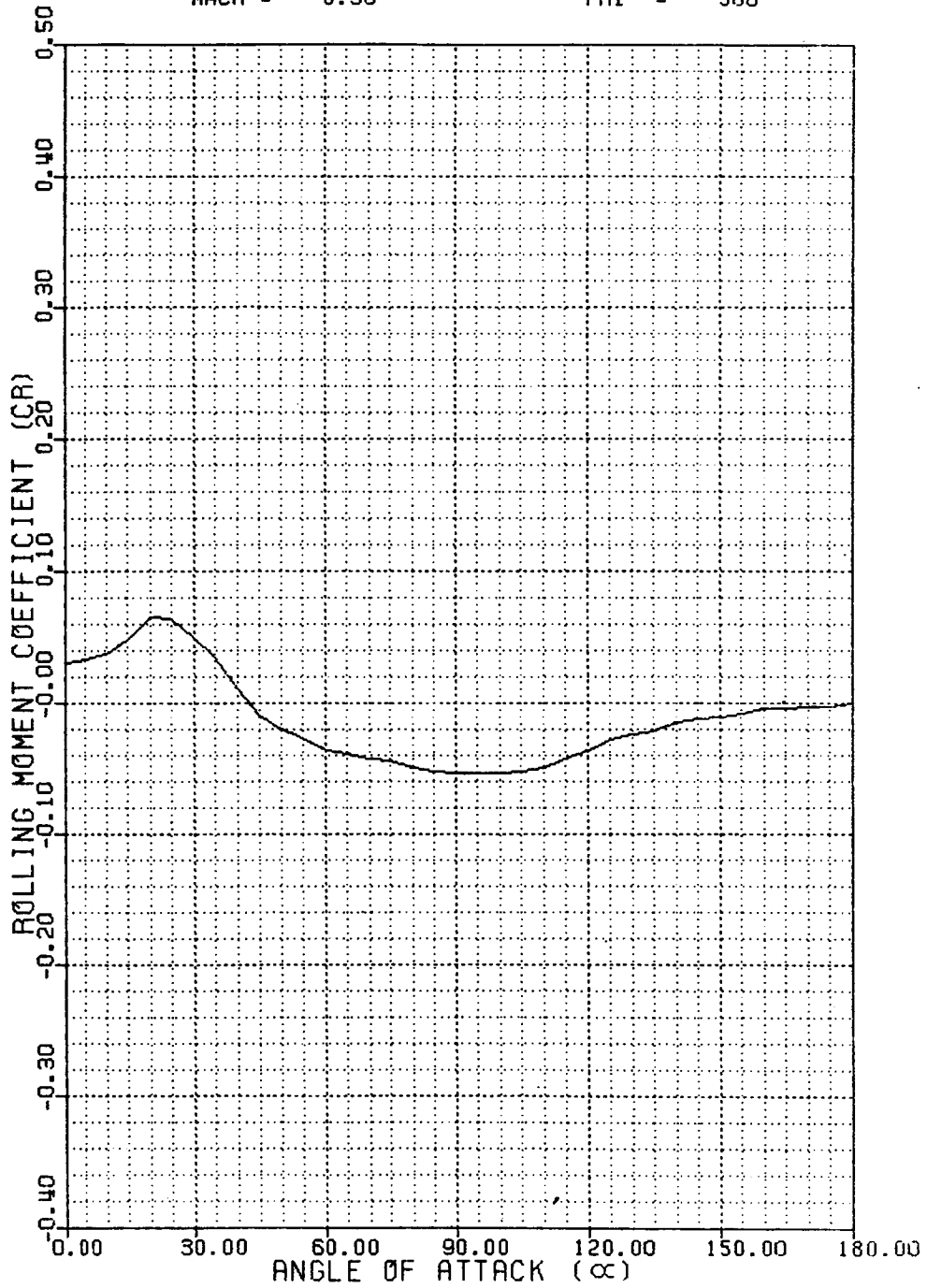
B-797

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.50

PHI = 360

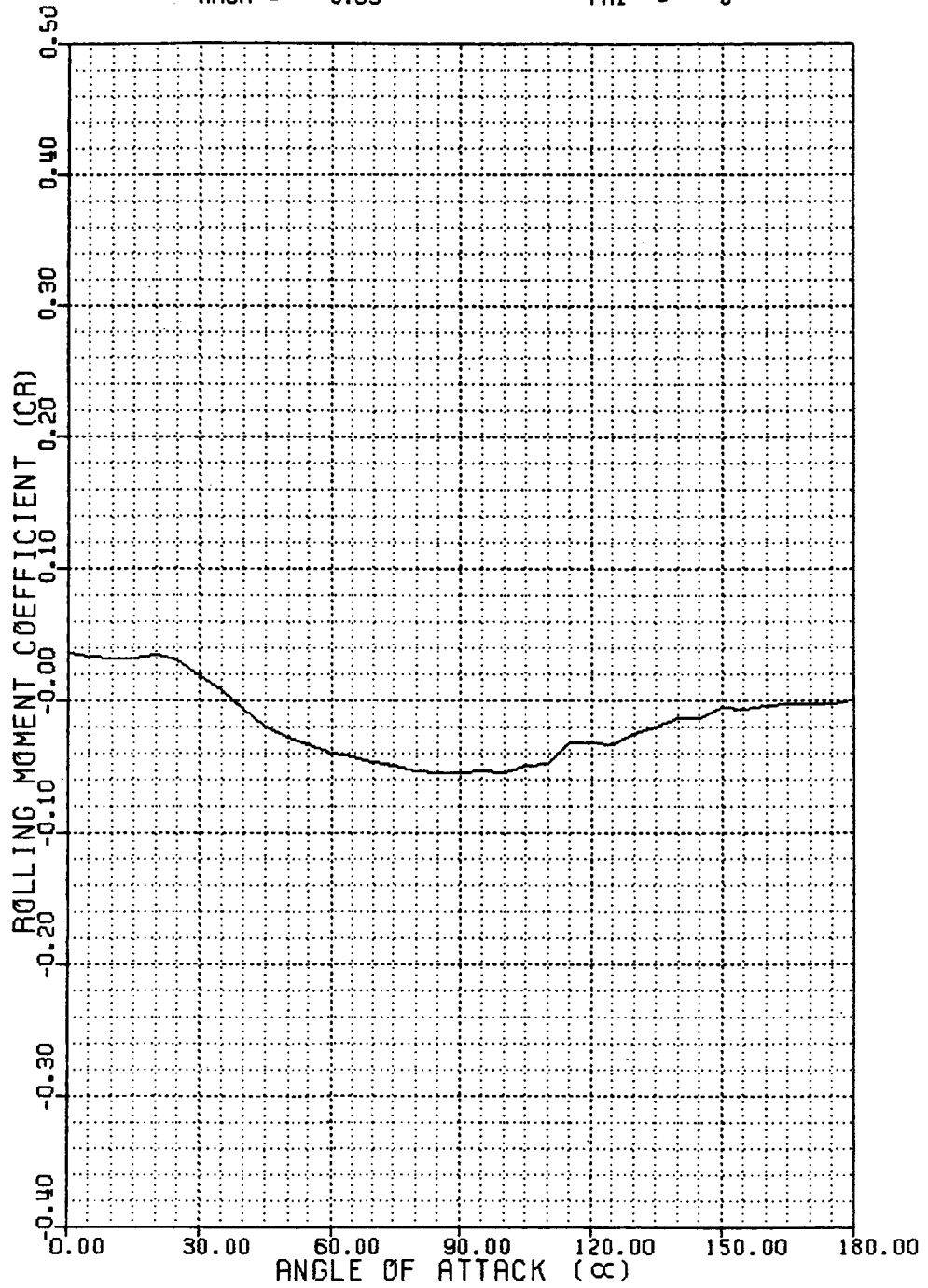


B-738

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 0

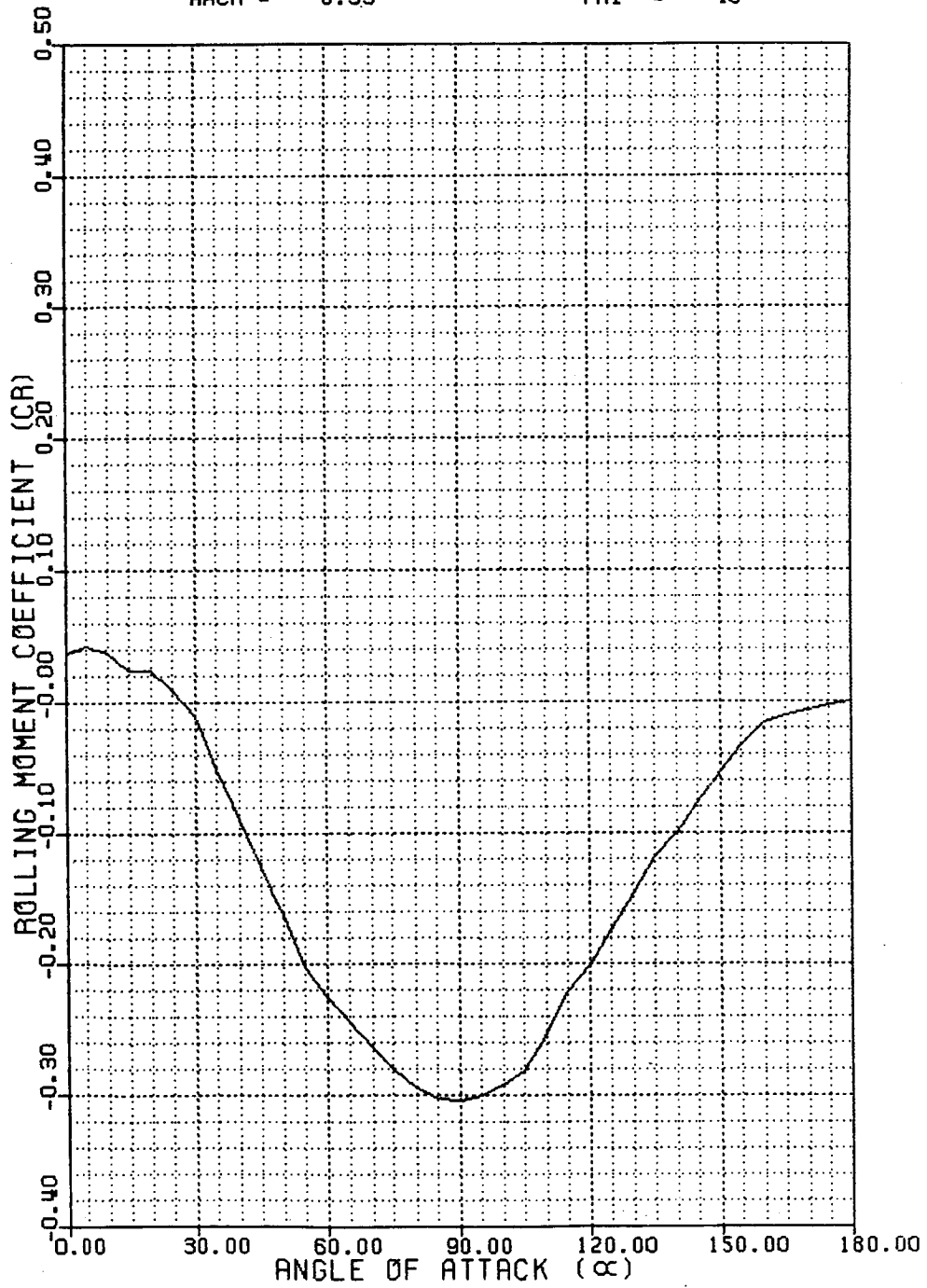


B-739

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 45



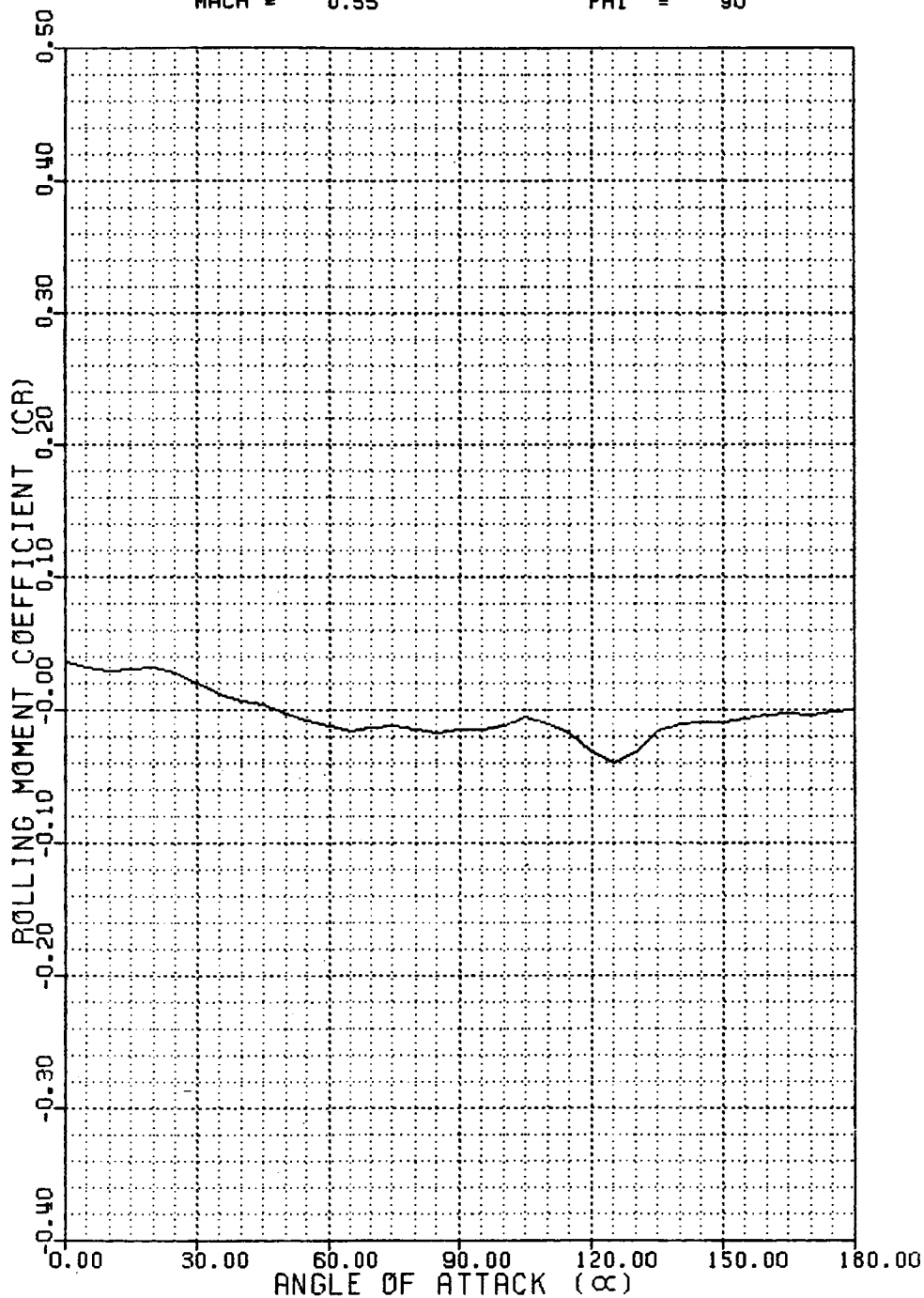
B-740

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 90



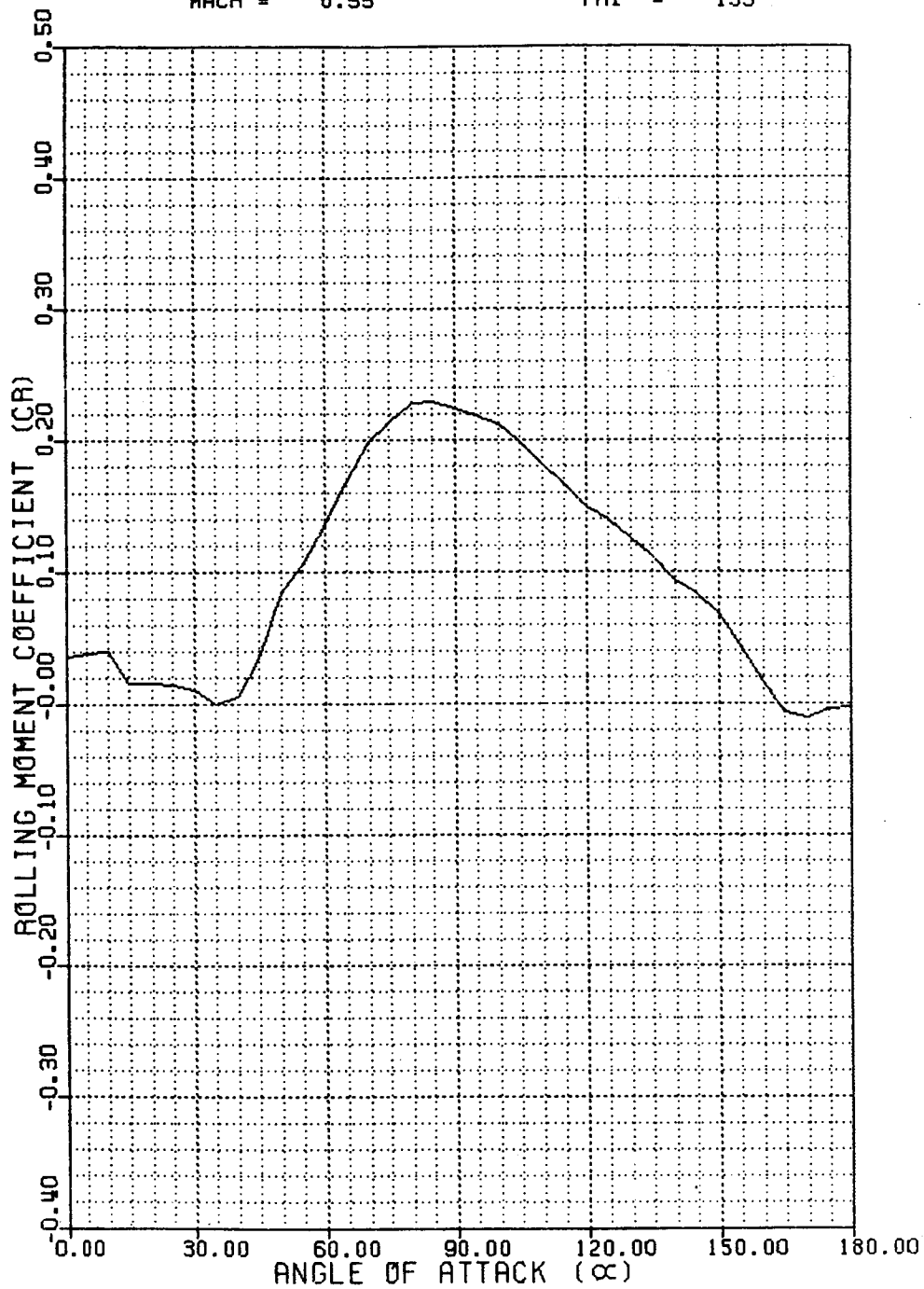
B-741



# SRB TAPE 8 DATA

MACH = 0.55

PHI = 135



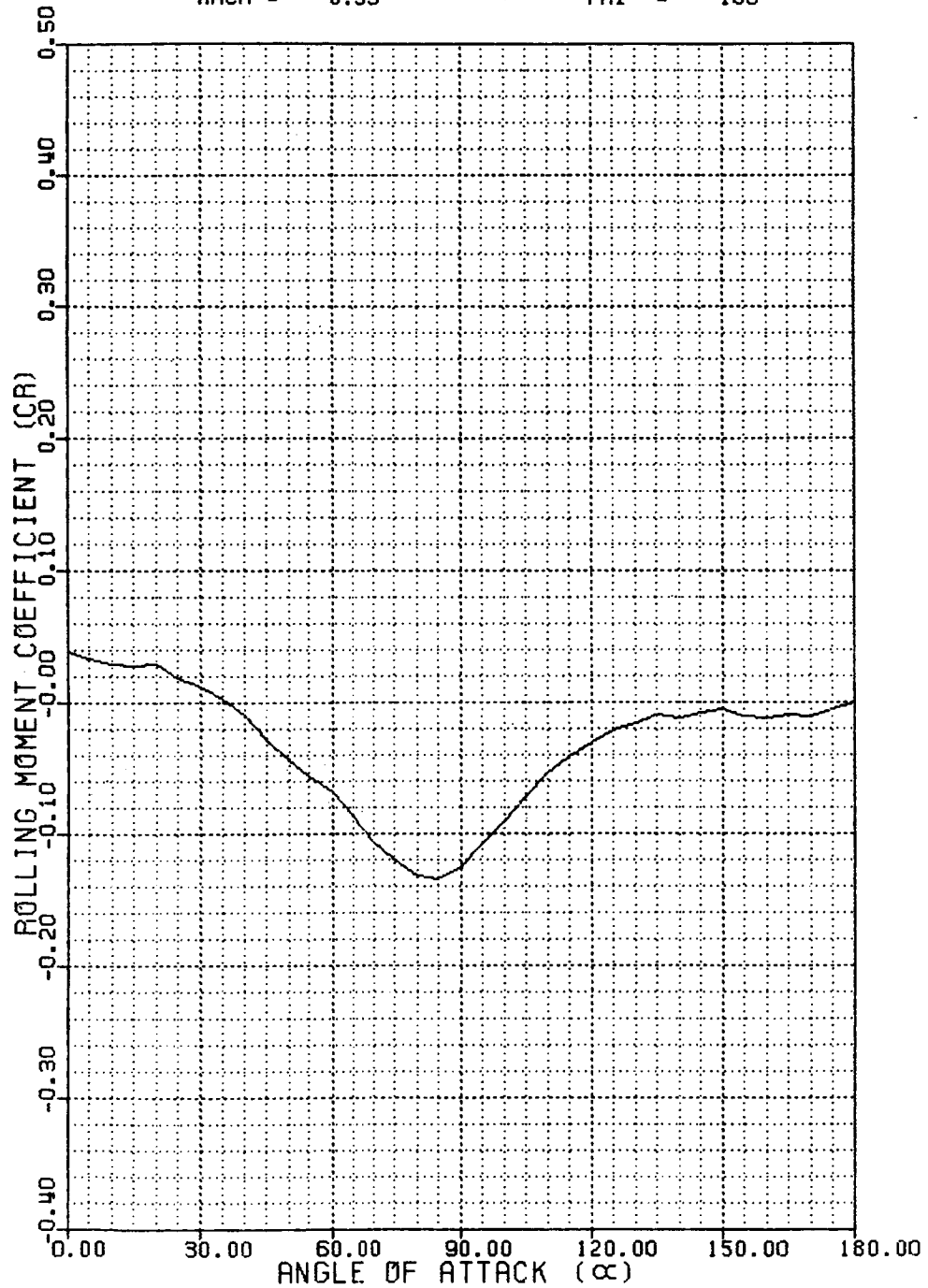
B-742

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 180

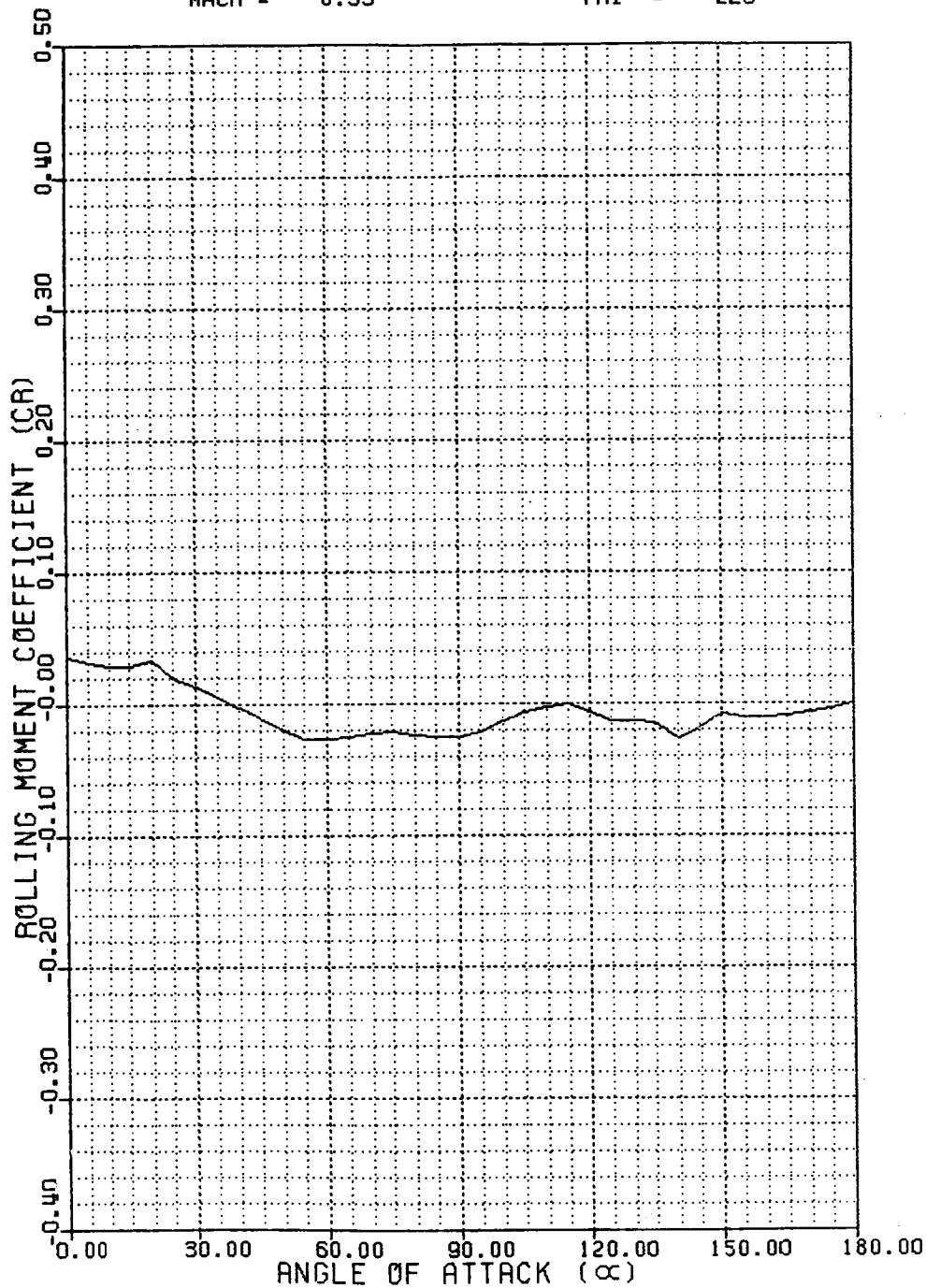


B-743

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 225

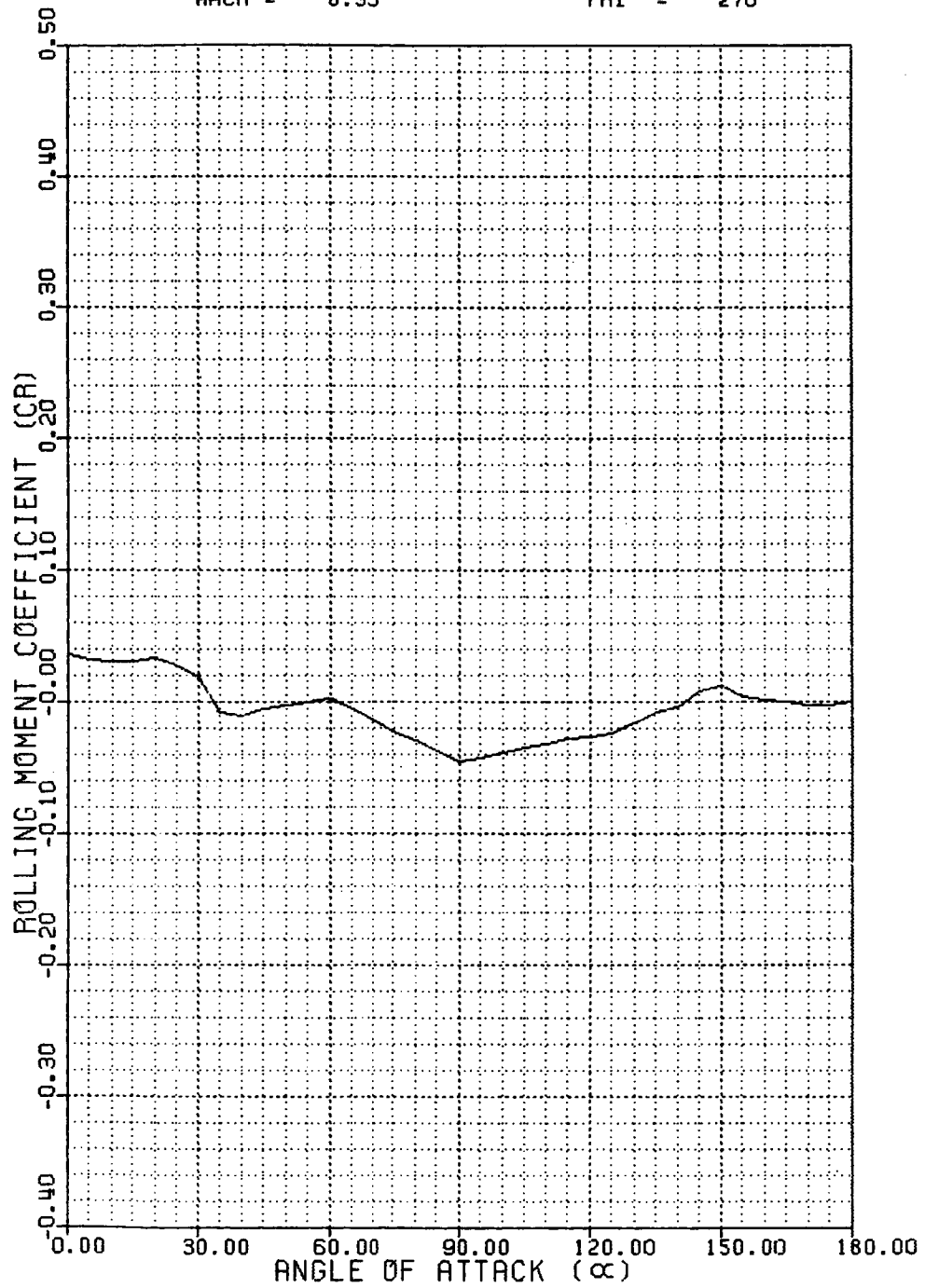


B-744

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 270

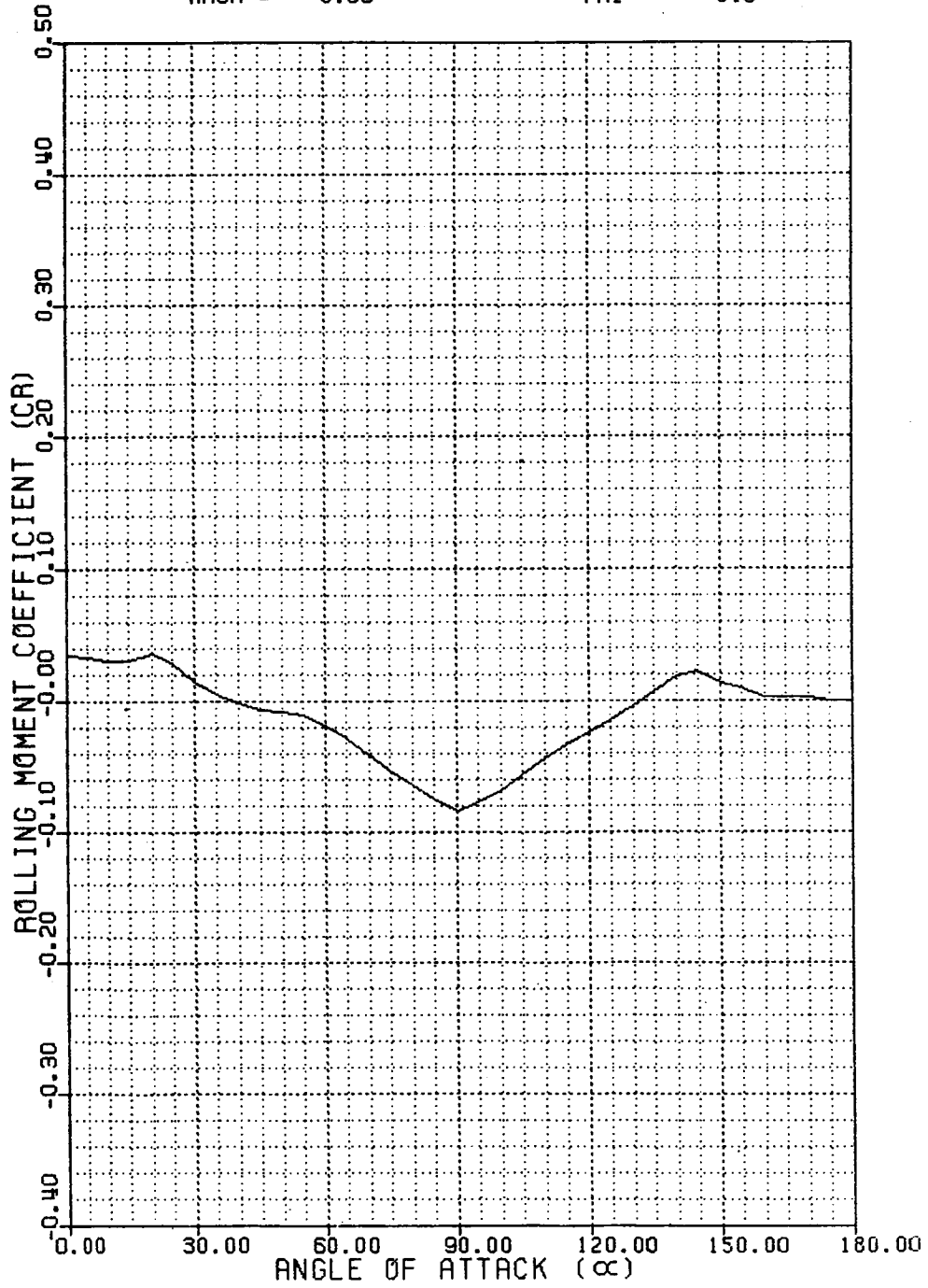


B-745

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 315

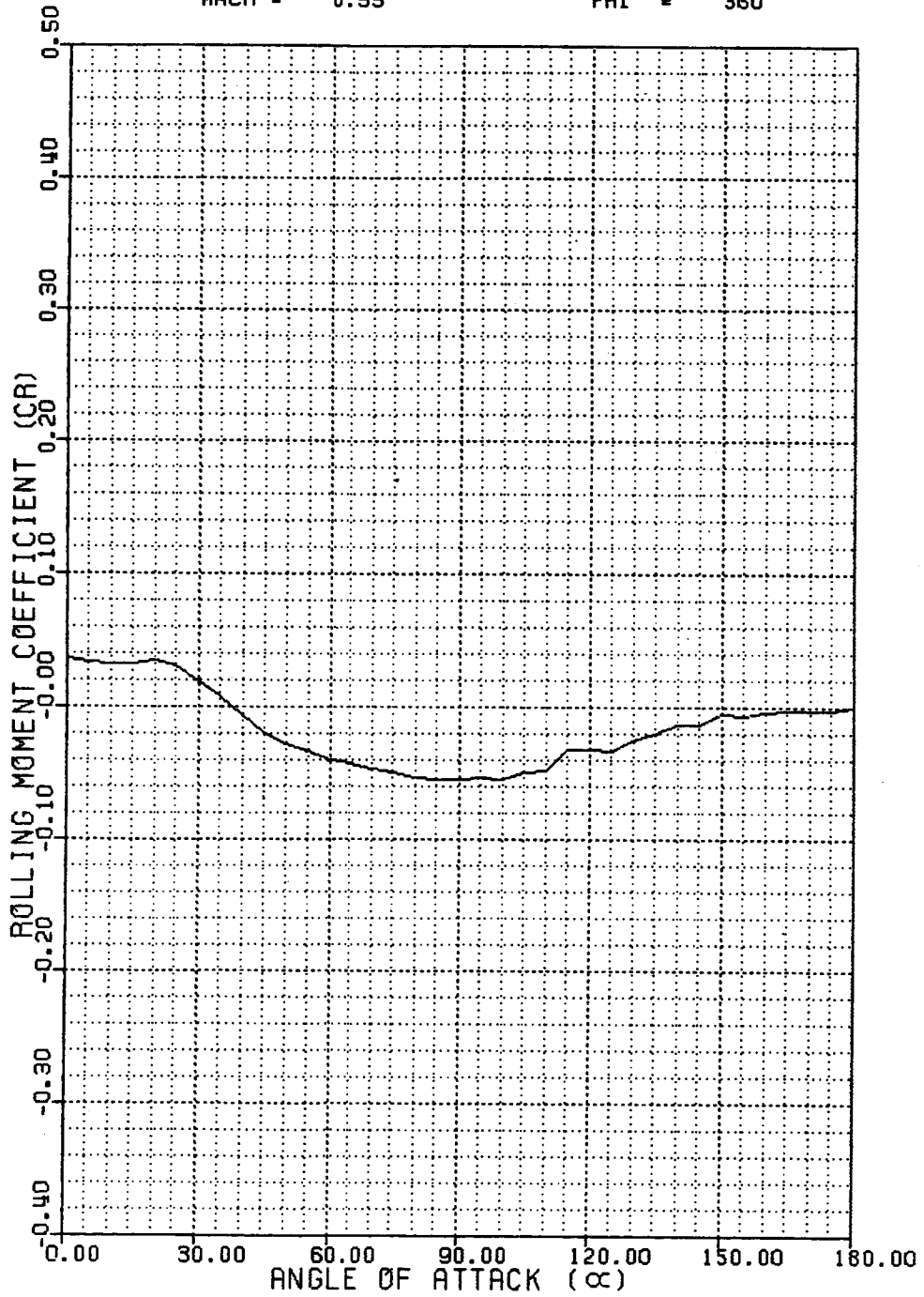


B-746

# SRB TAPE 8 DATA

MACH = 0.55

PHI = 360



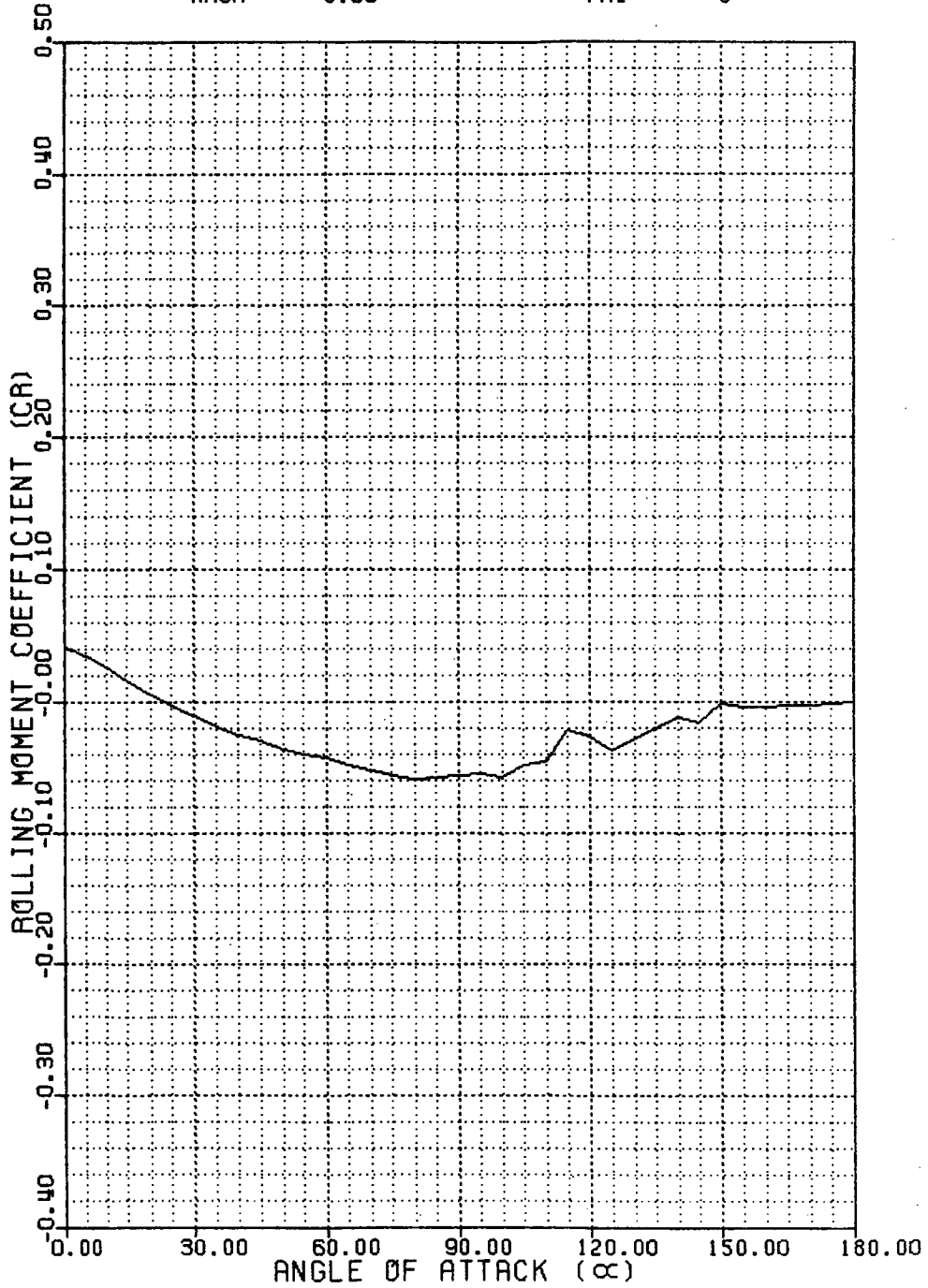
B-747

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 0

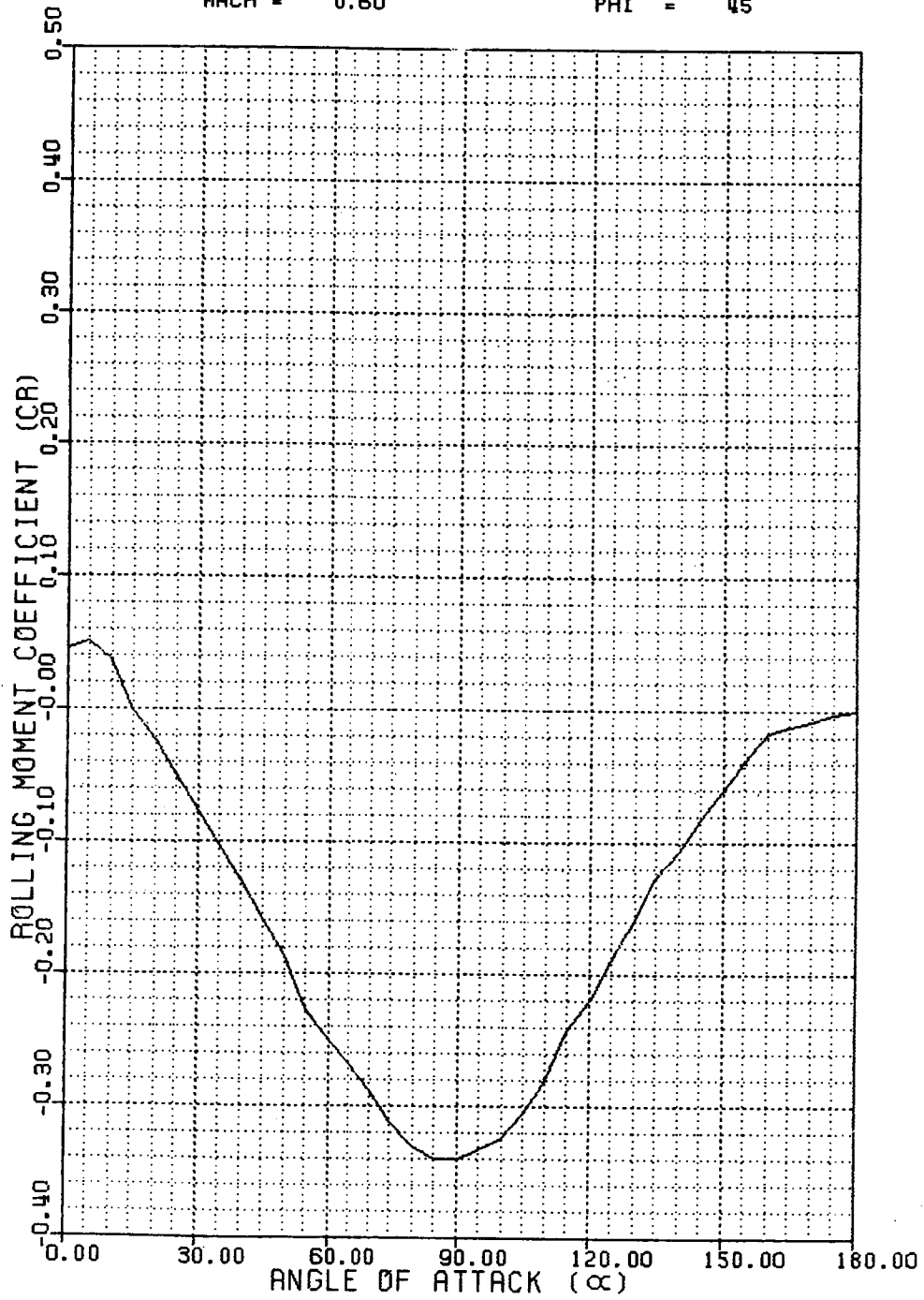


B-748

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 45



B-749

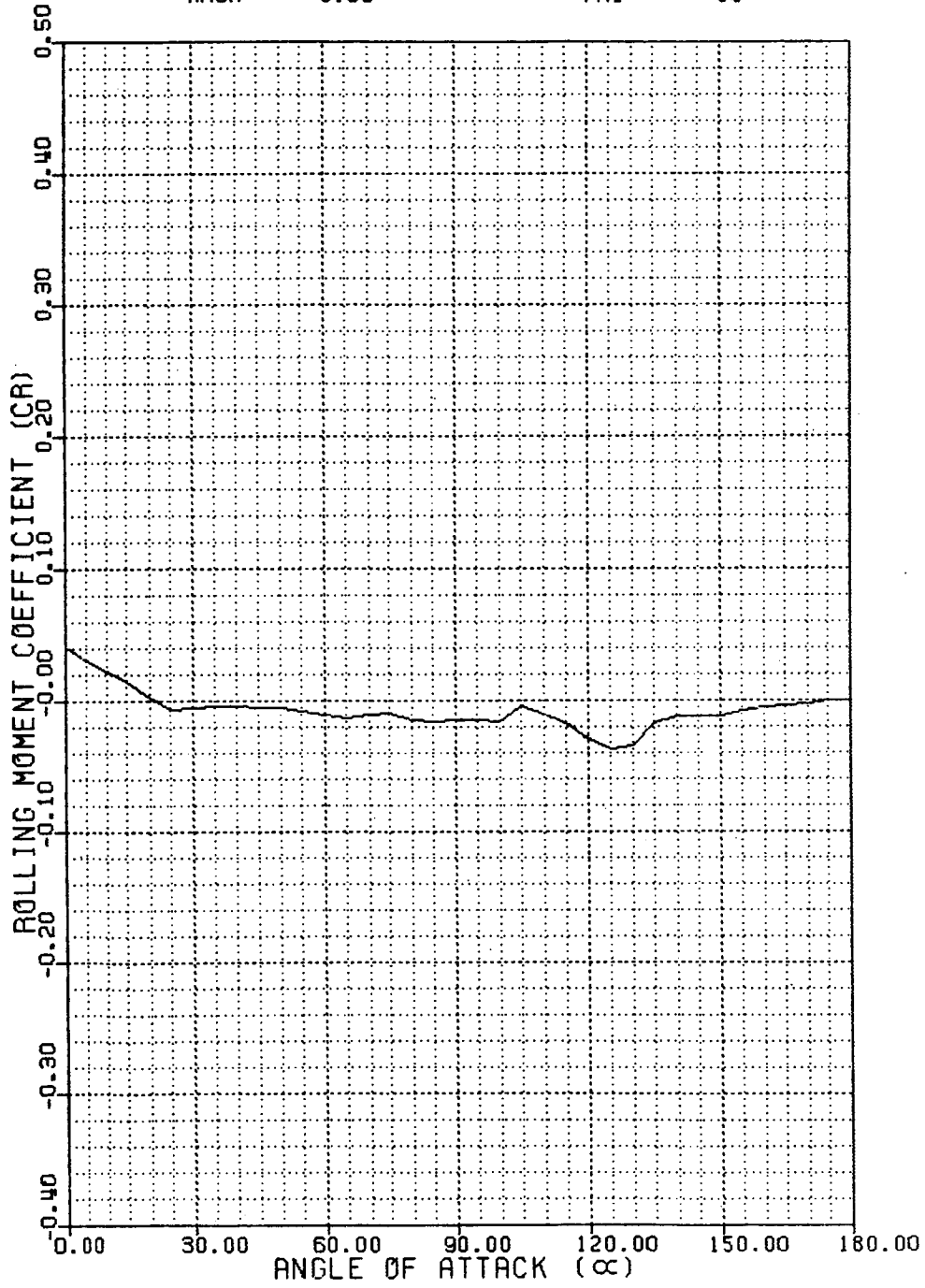
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.60

PHI = 90



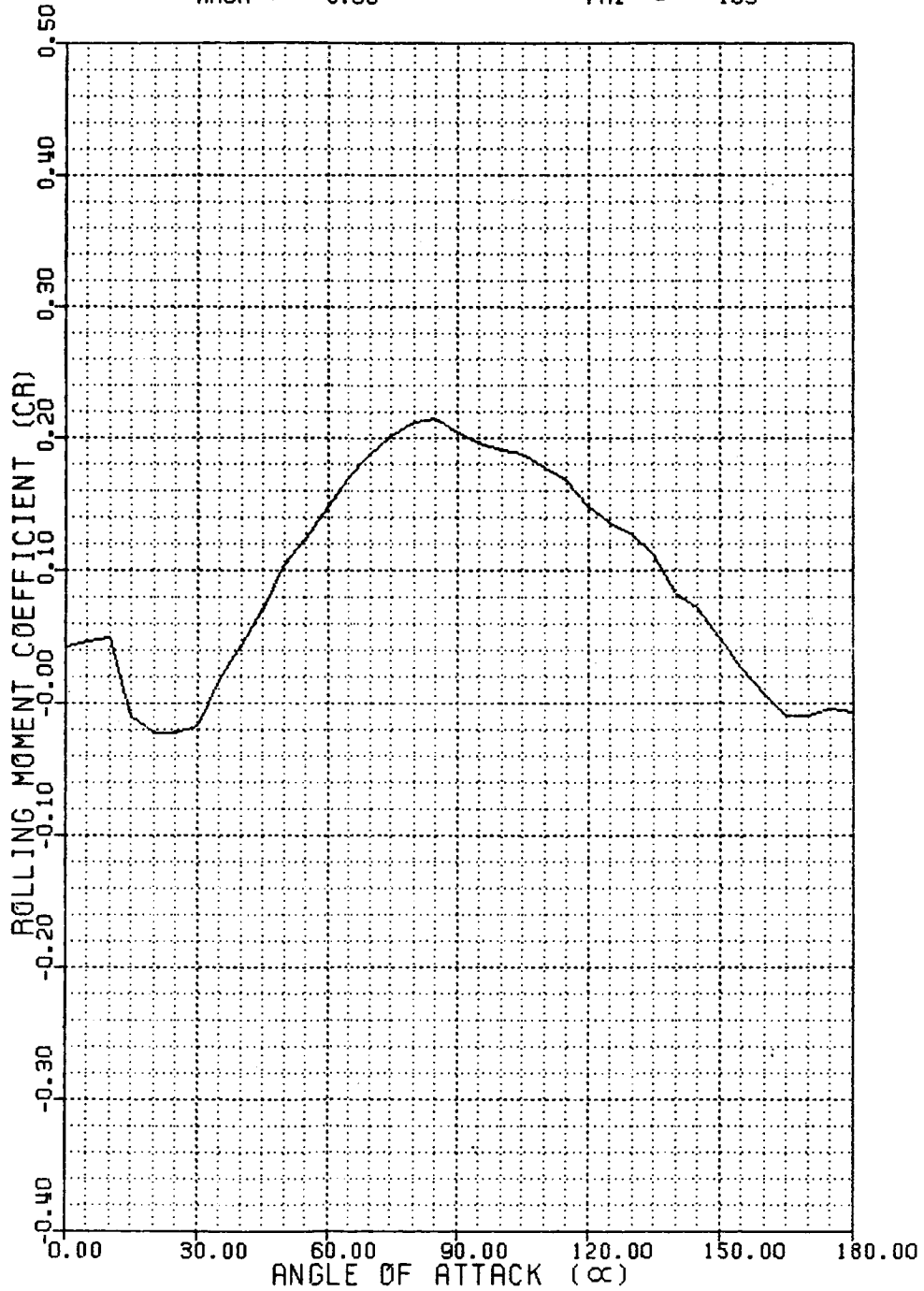
B-750

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 135

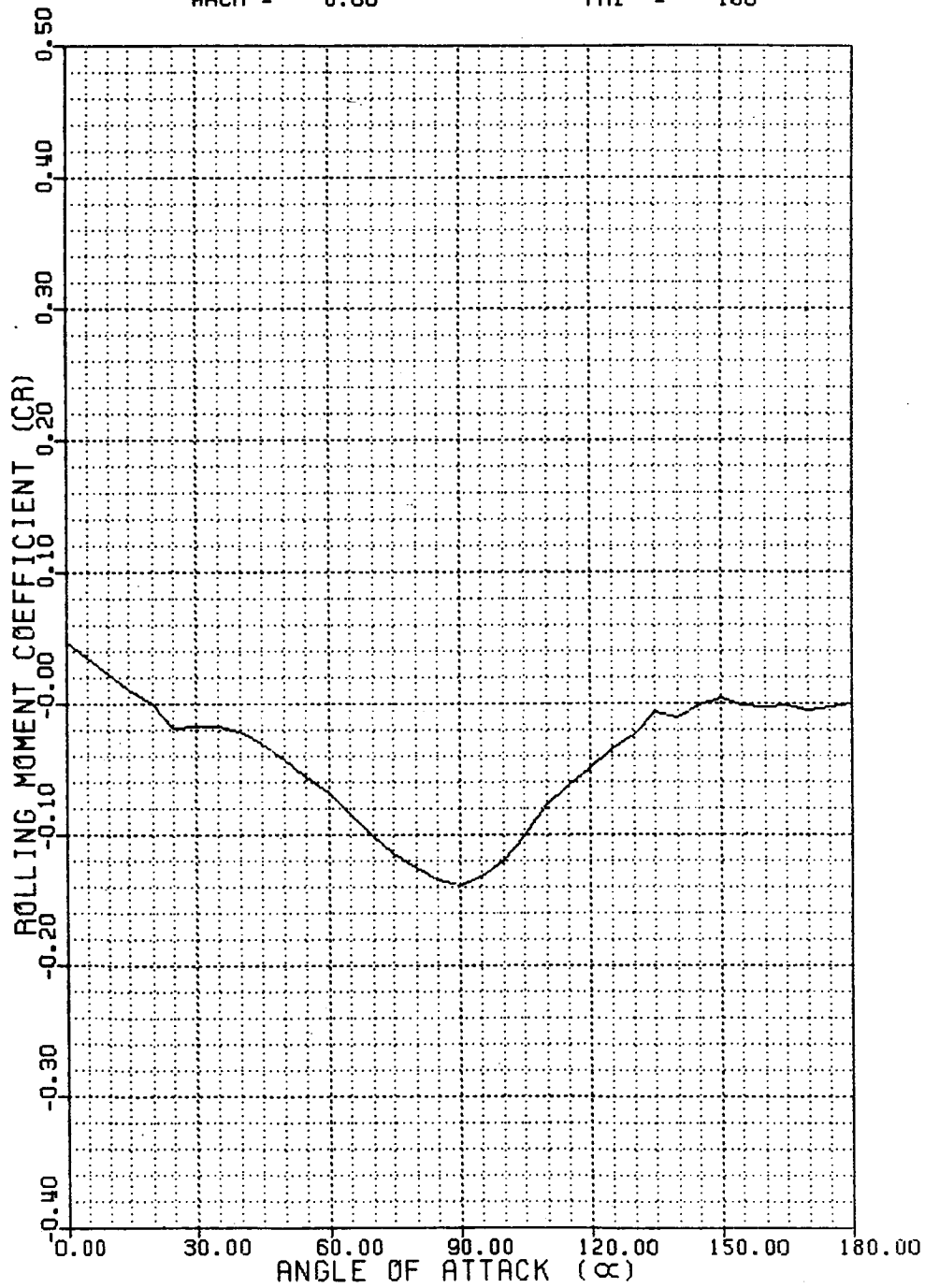


B-751

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 180

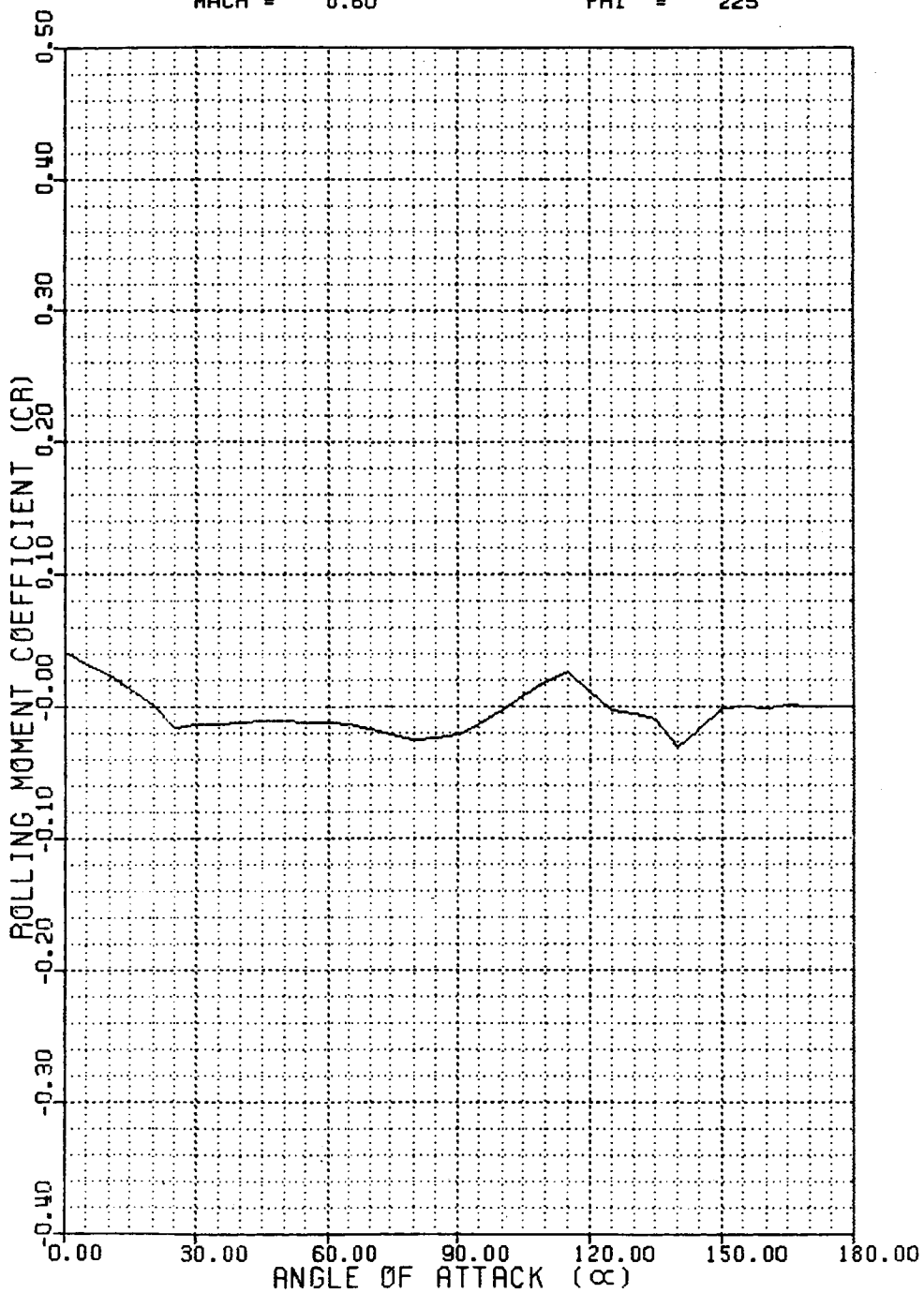


B-752

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 225

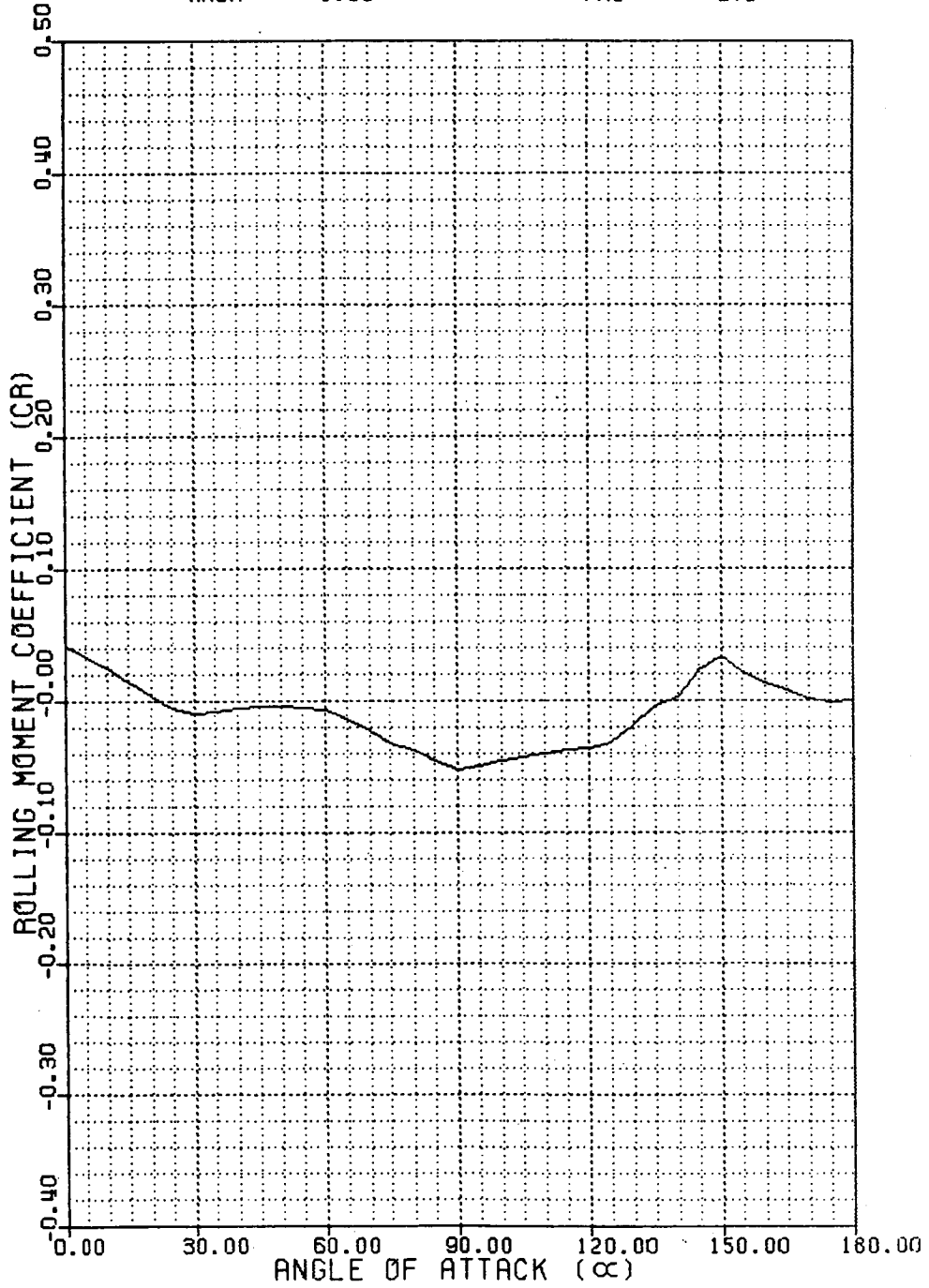


B-753

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 270

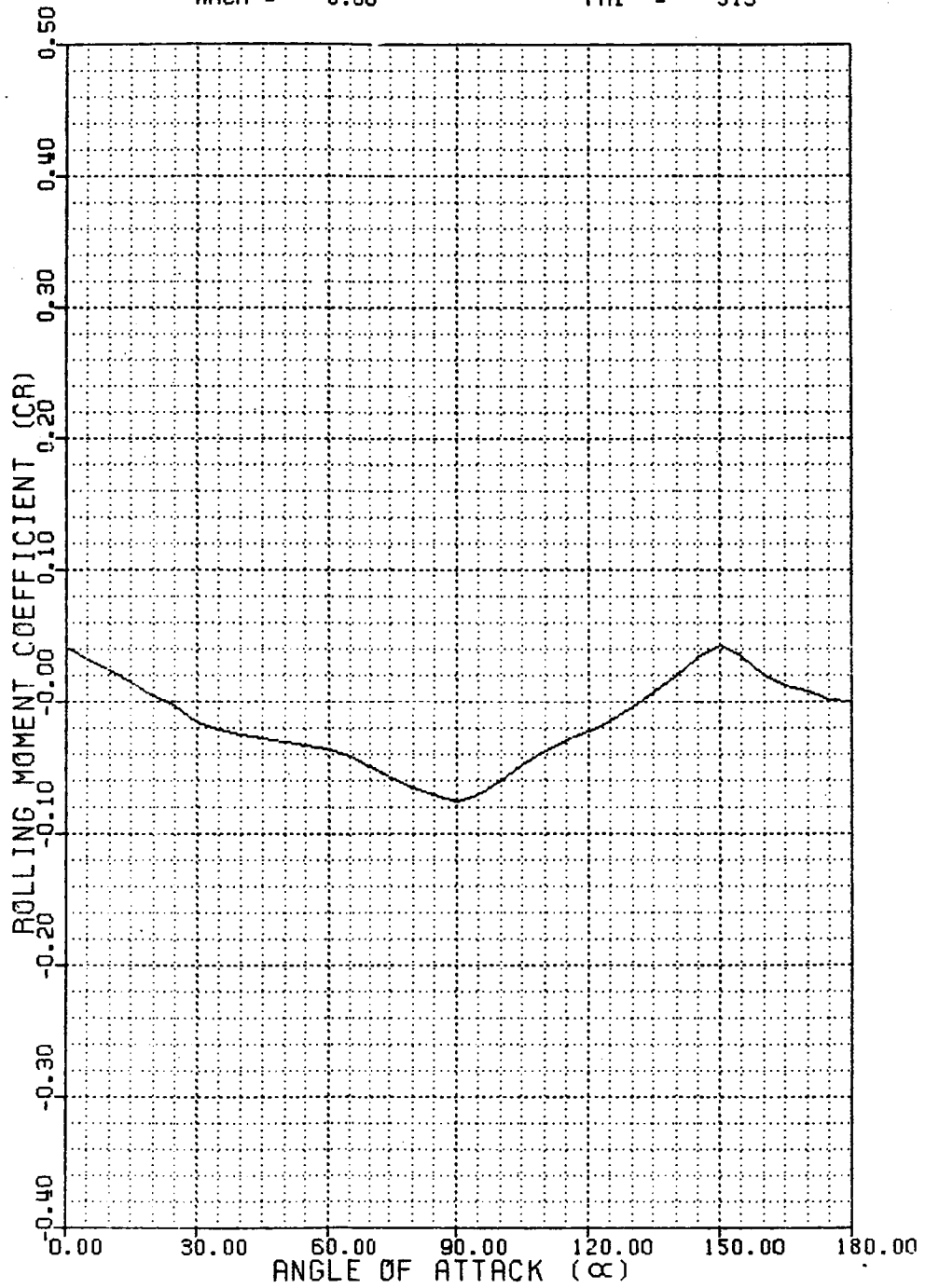


B-754

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 315



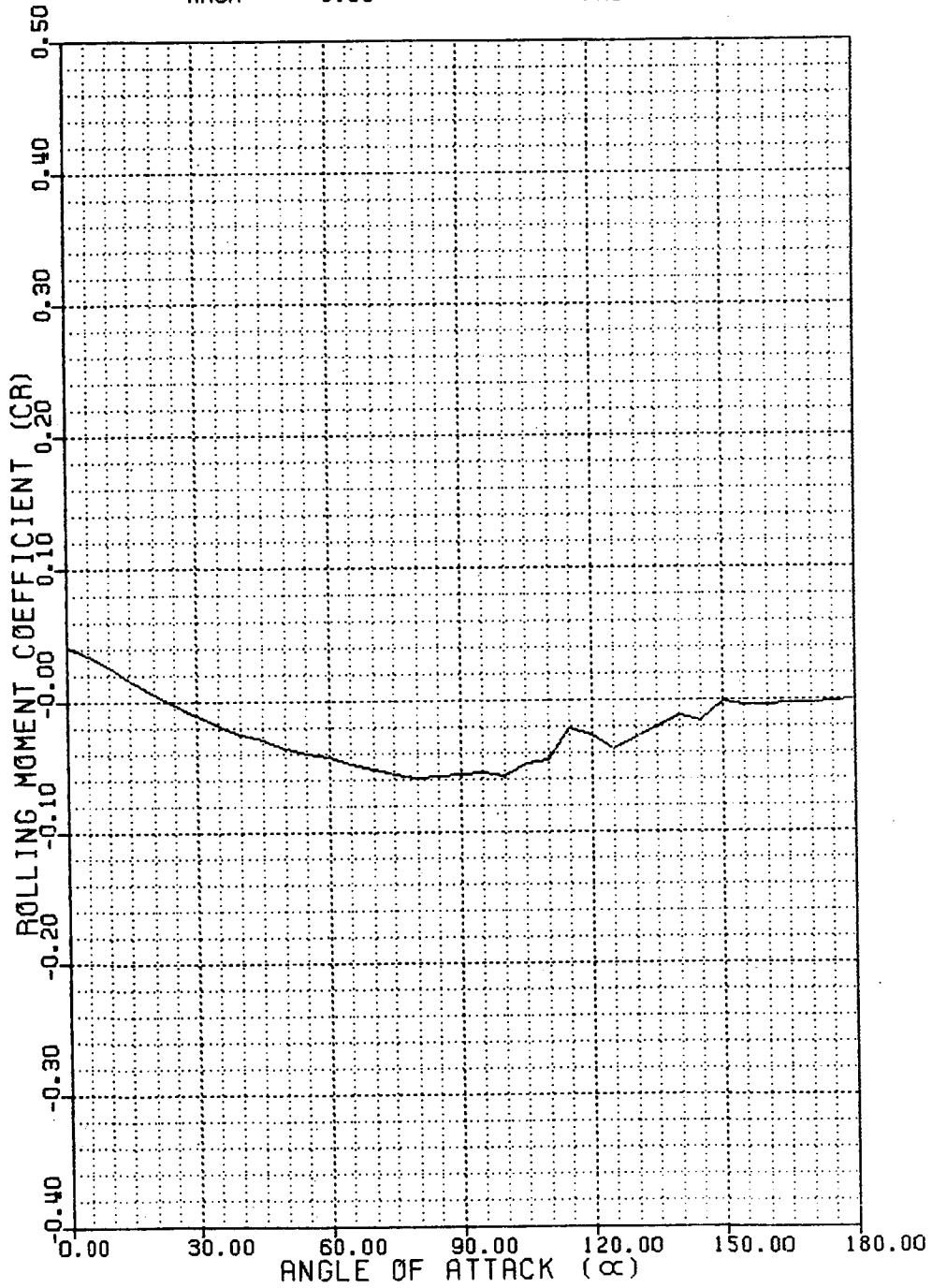
B-755

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.60

PHI = 360



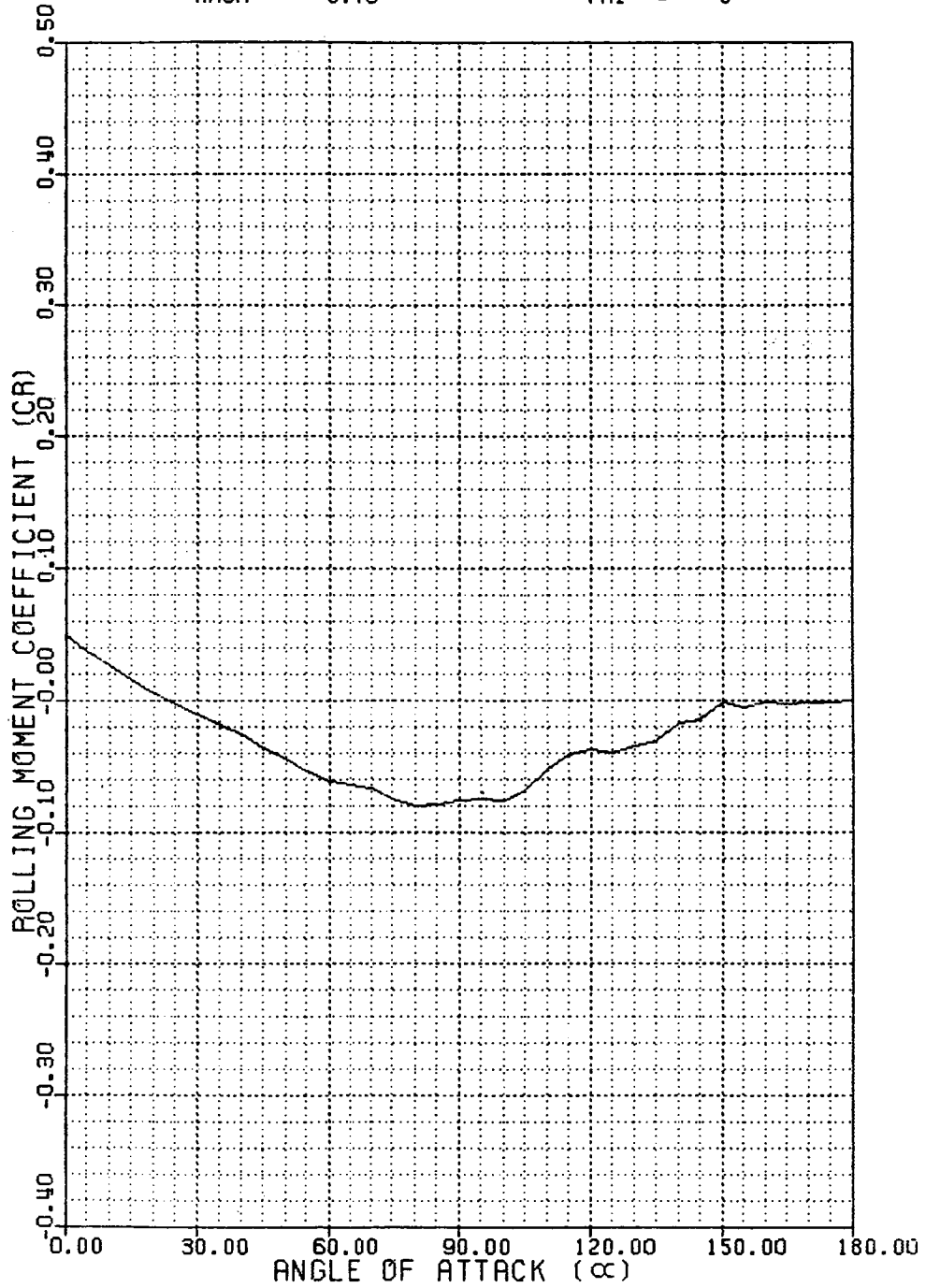
B-756

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 0



B-757

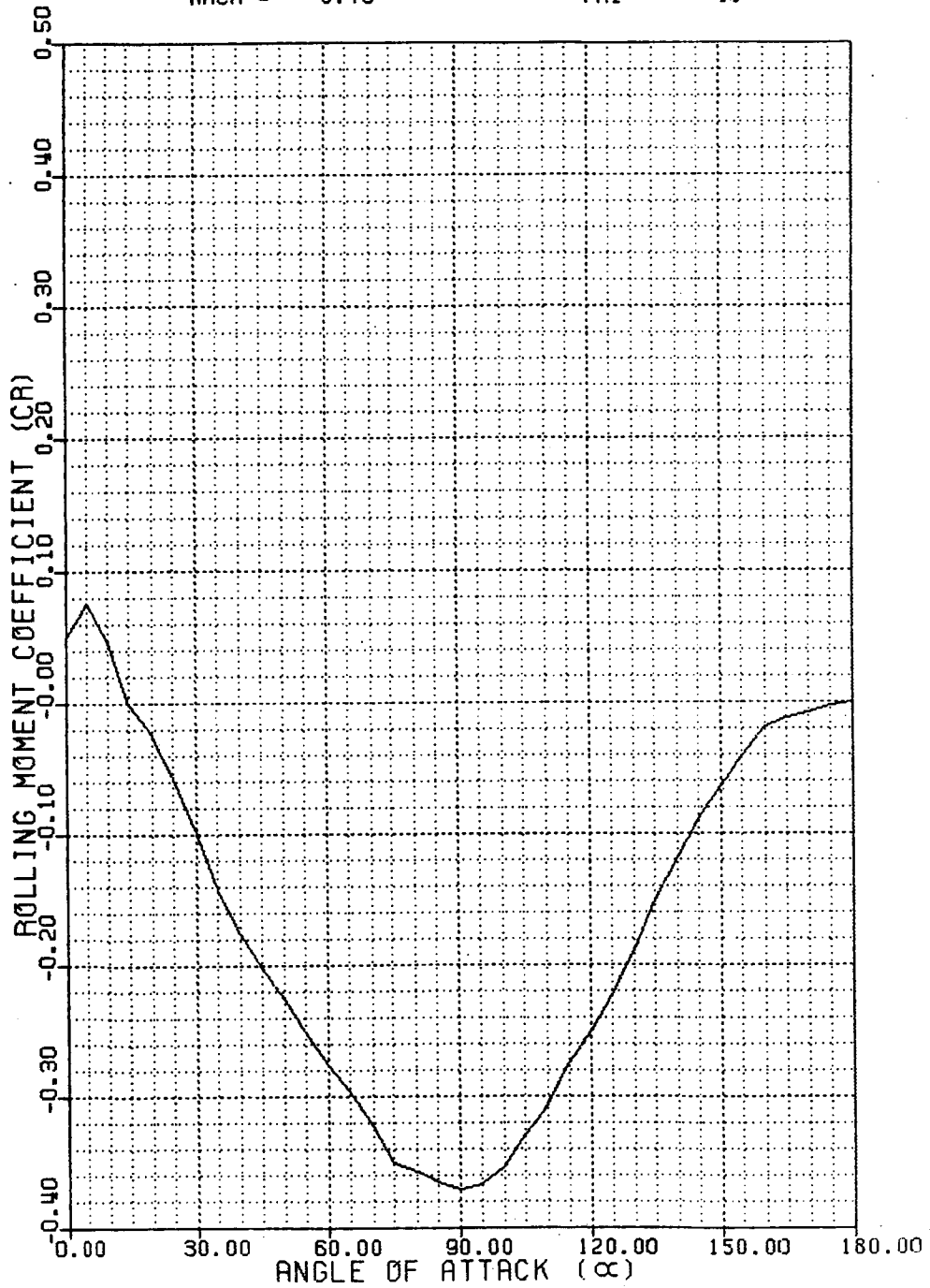
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 0.70

PHI = 45



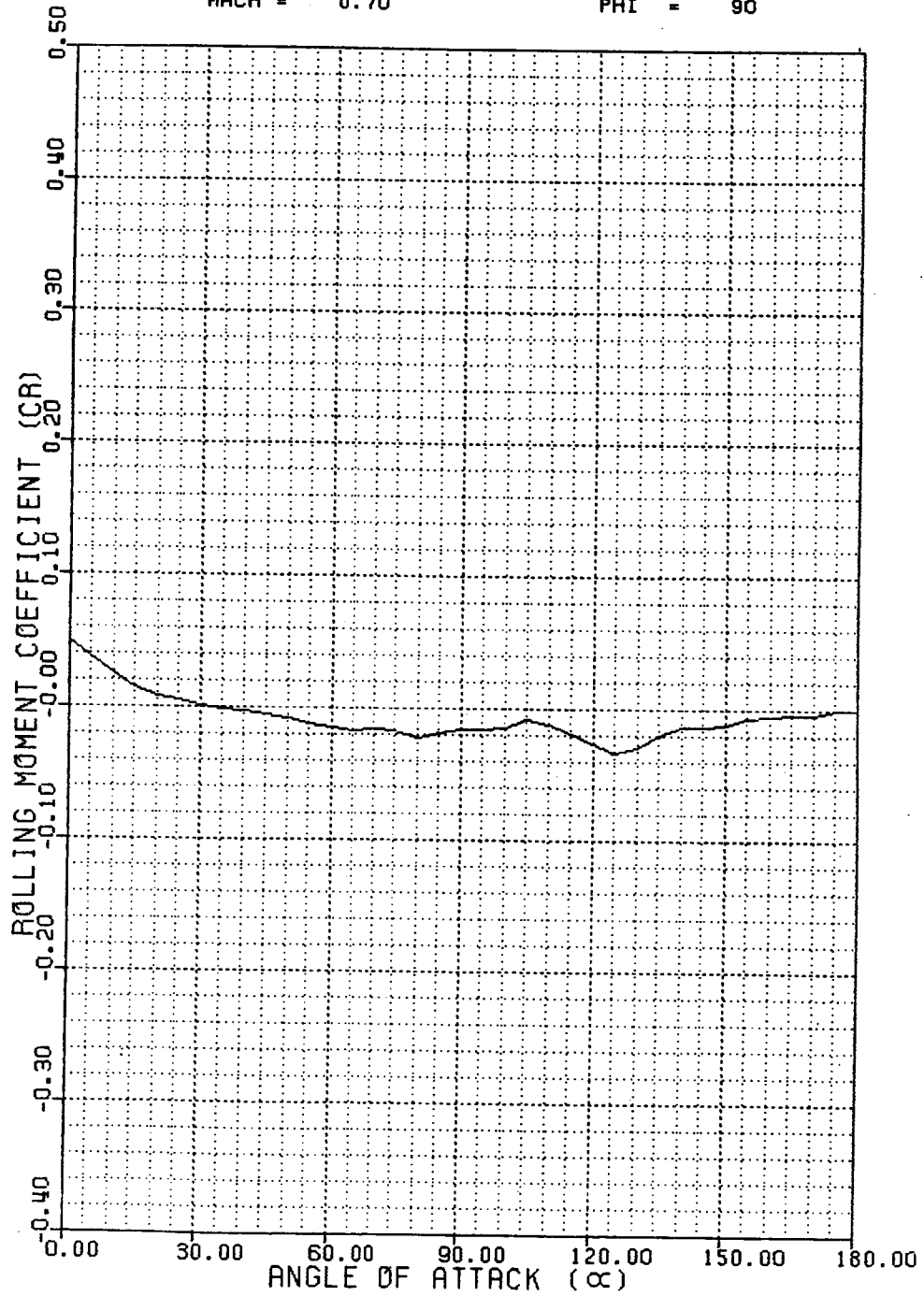
B-758

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 90



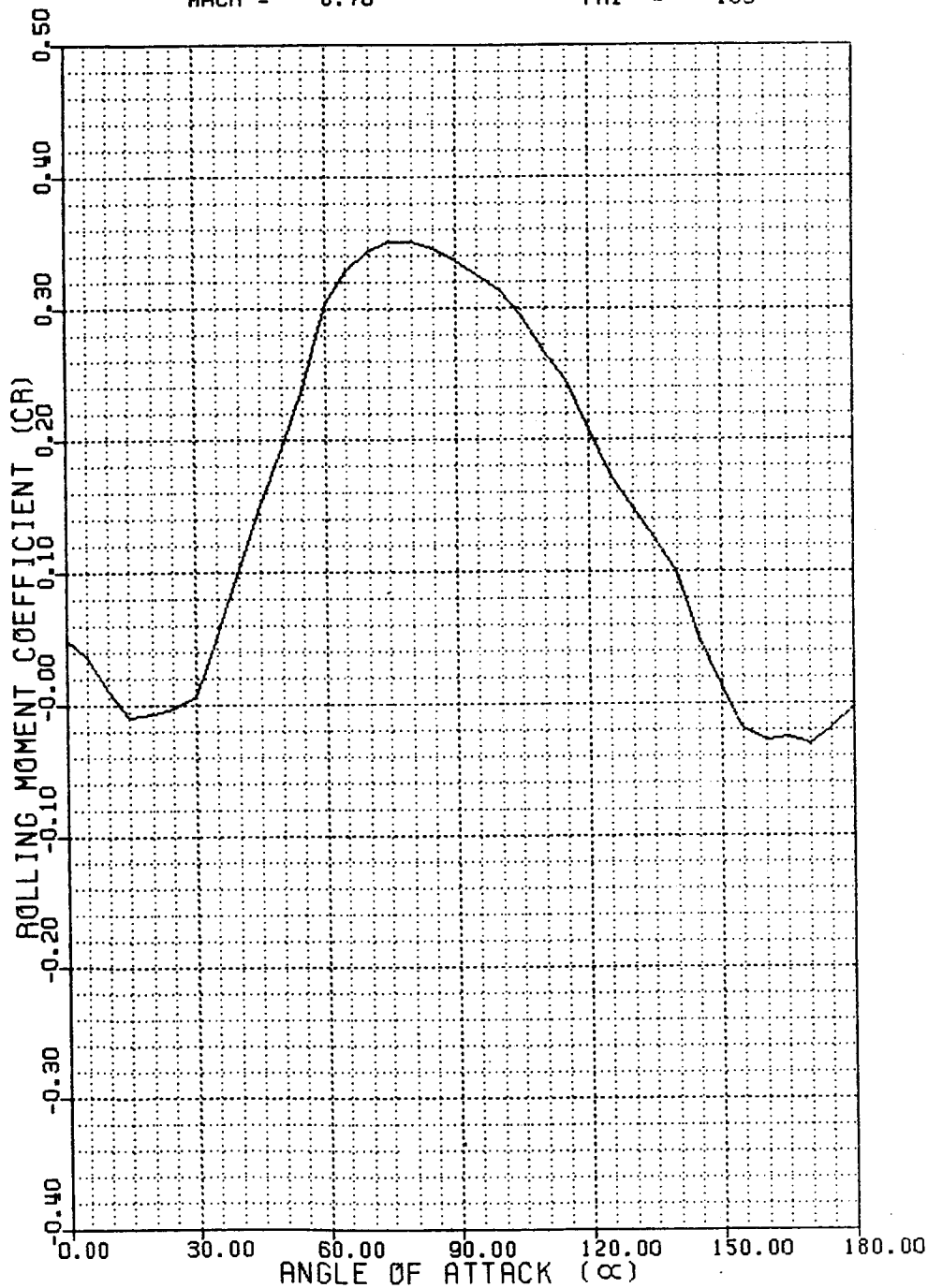
B-759

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 135



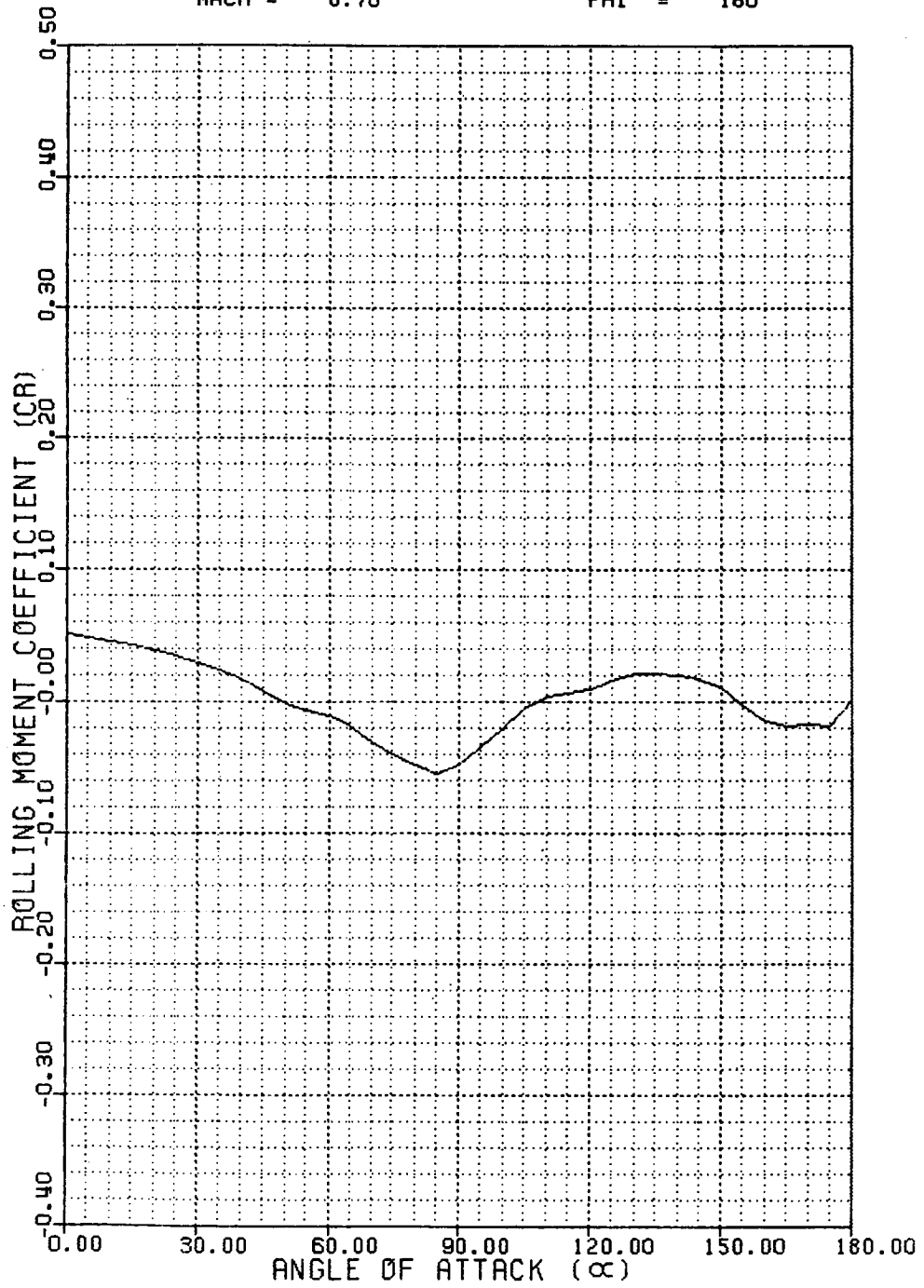
B-760

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 180

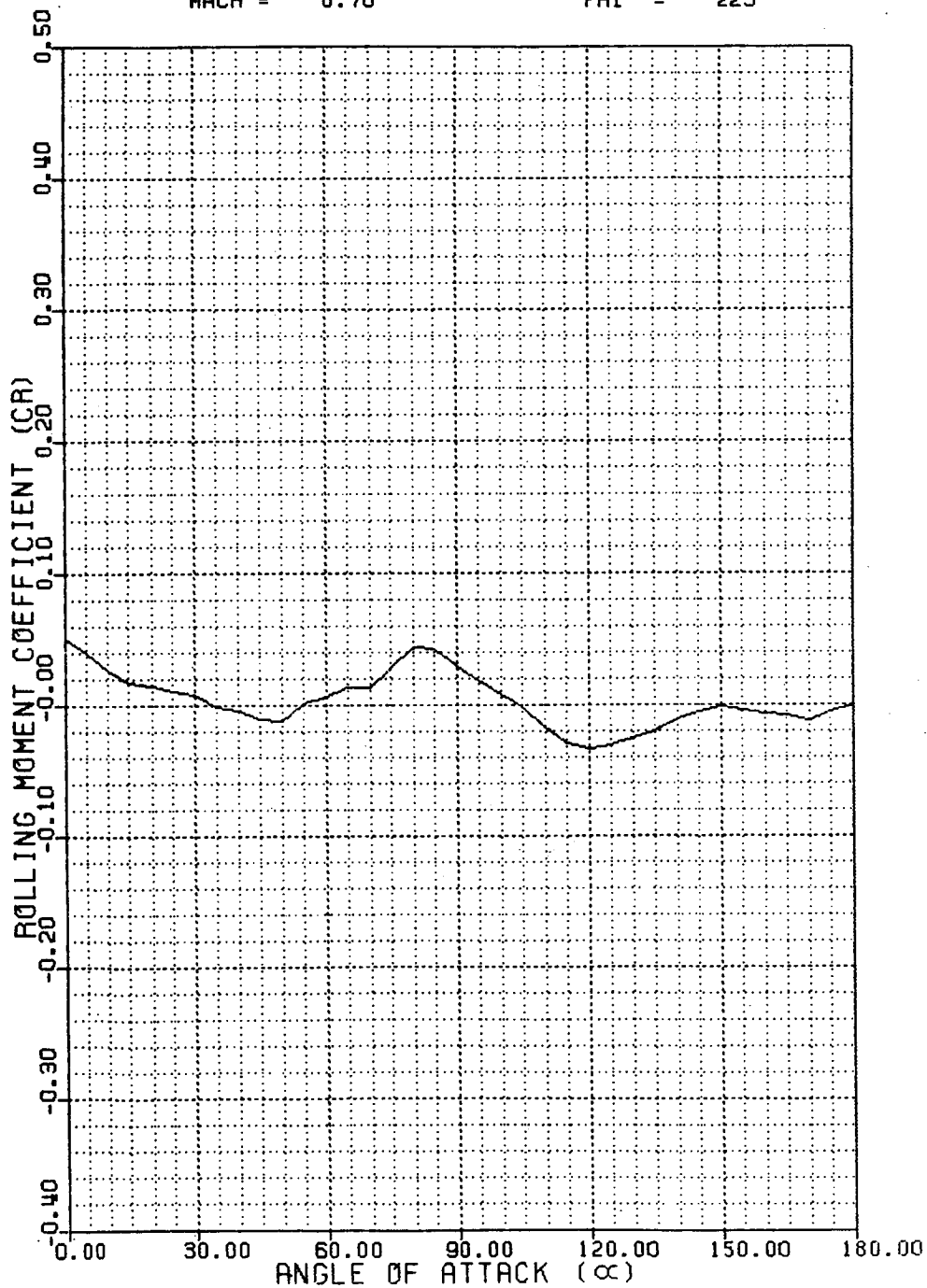


B-761

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 225

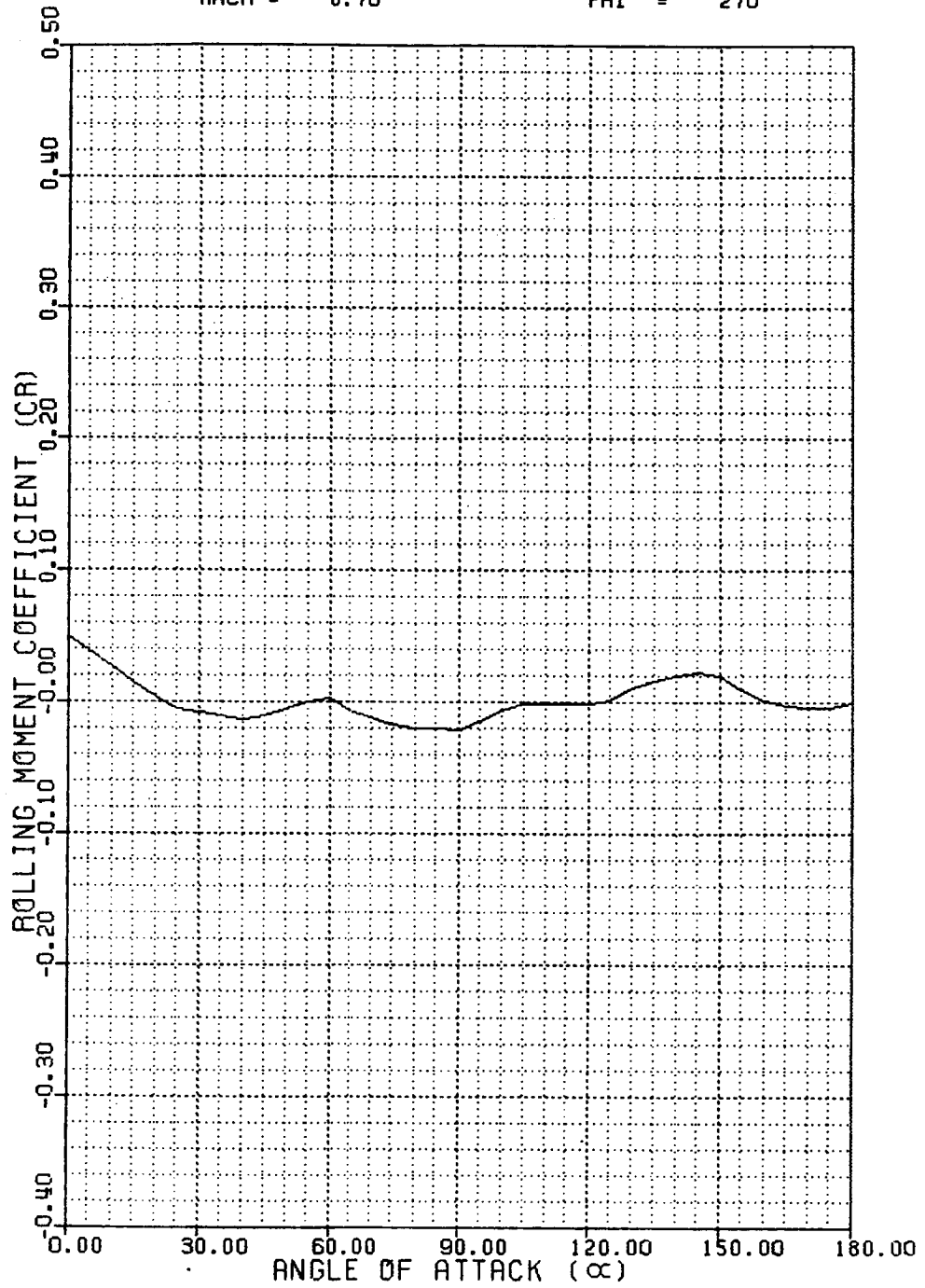


B-762

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 270

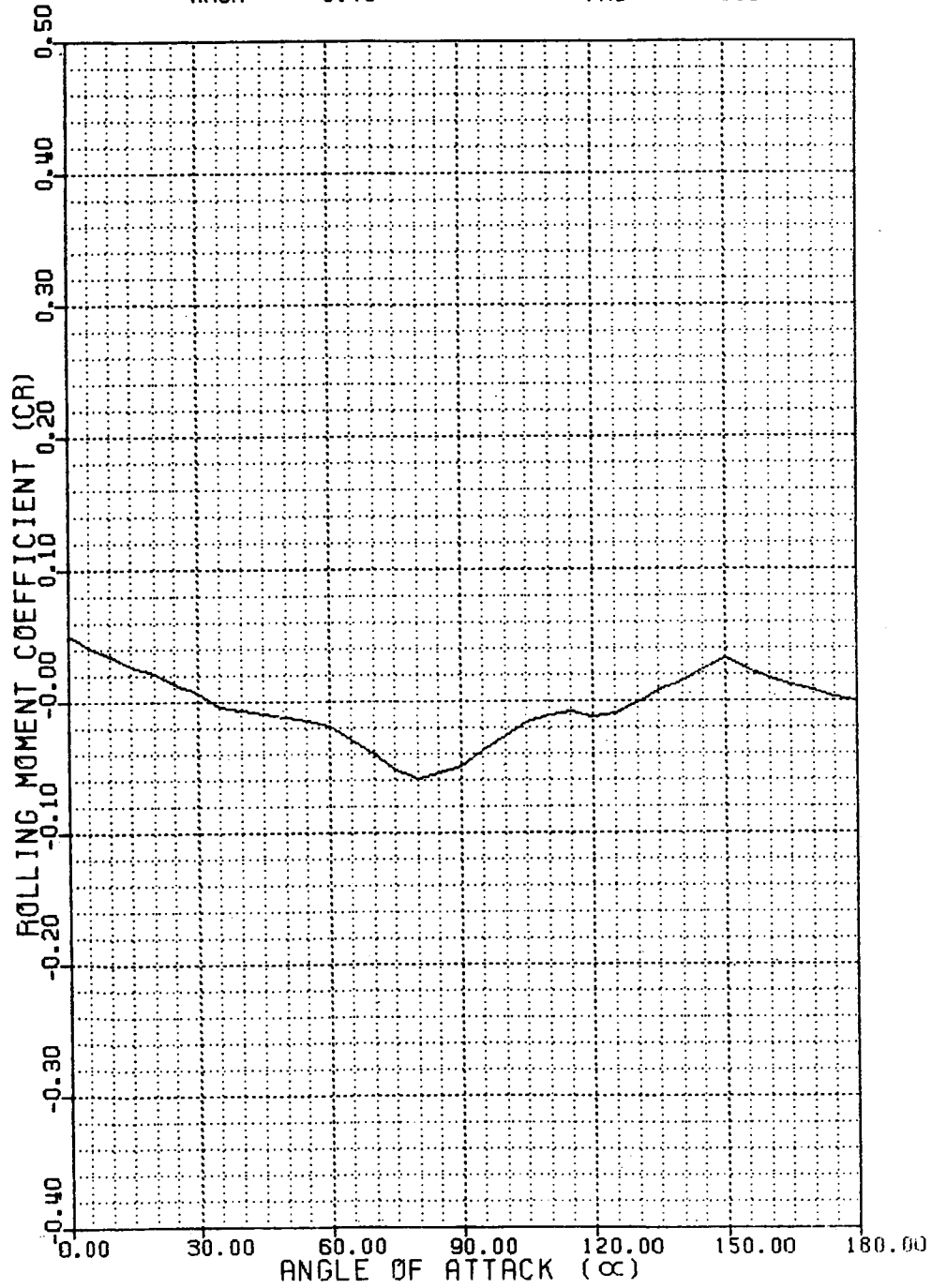


B-763

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 315



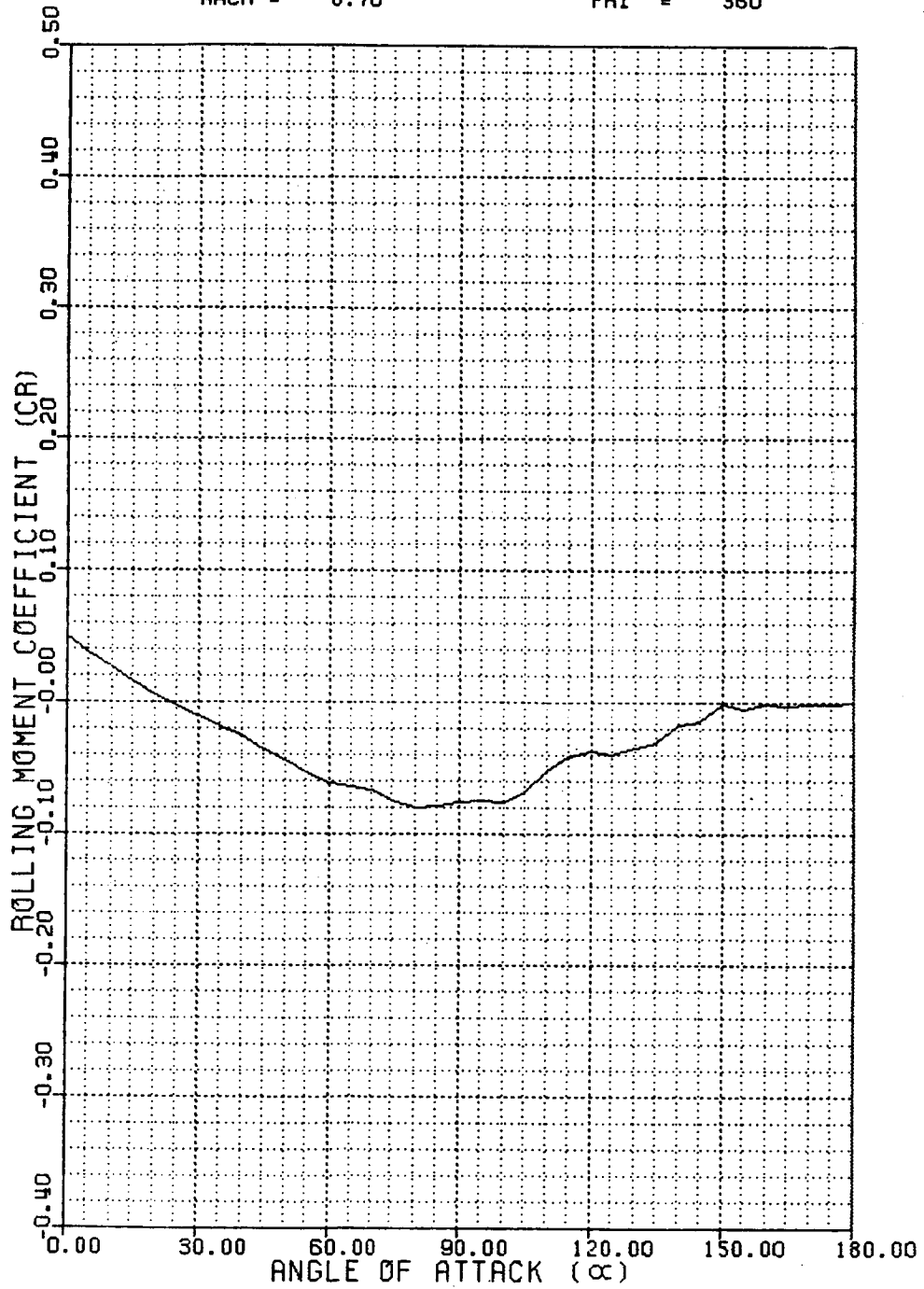
B-764

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.70

PHI = 360



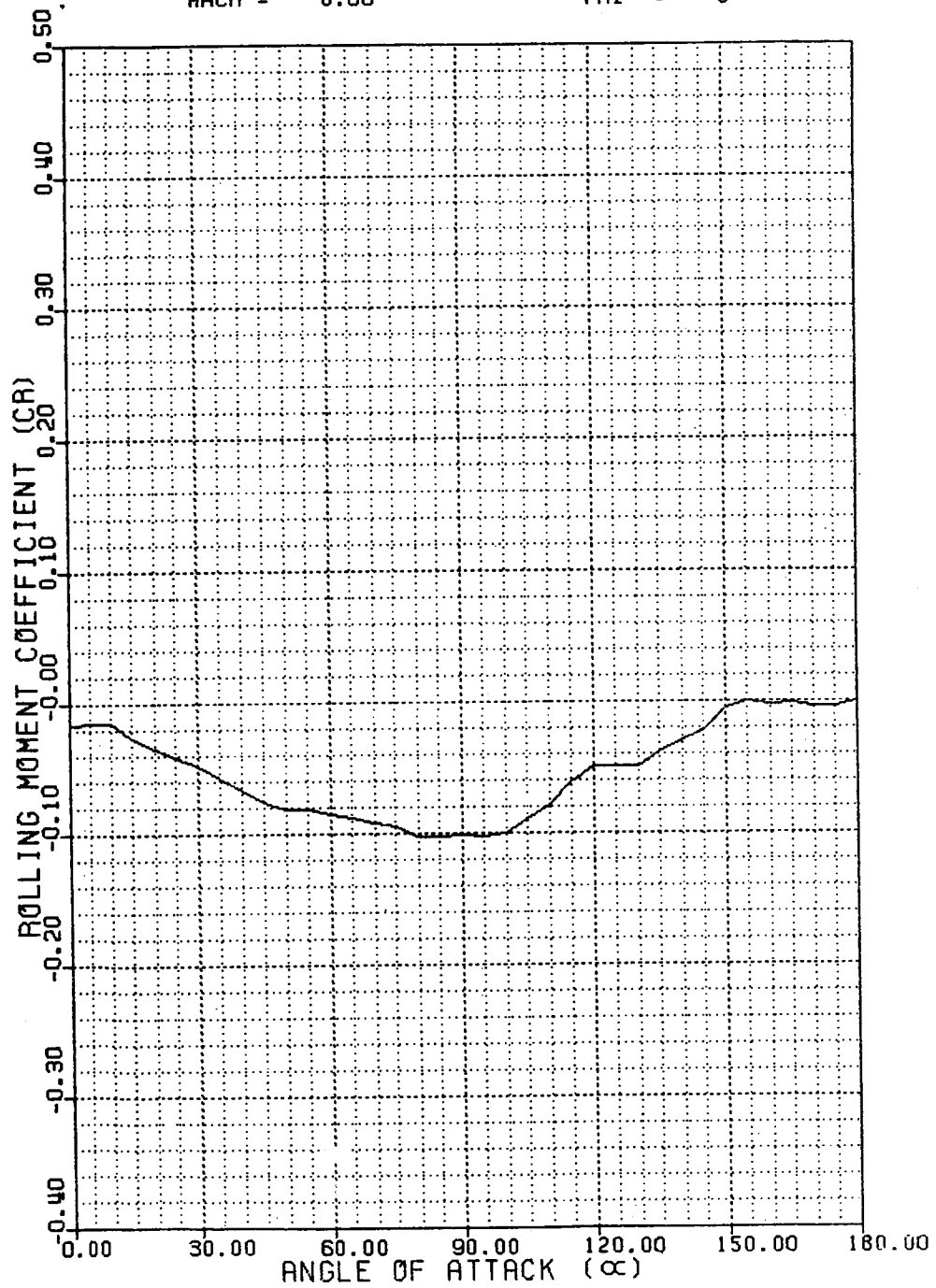
B-765



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 0



B-766

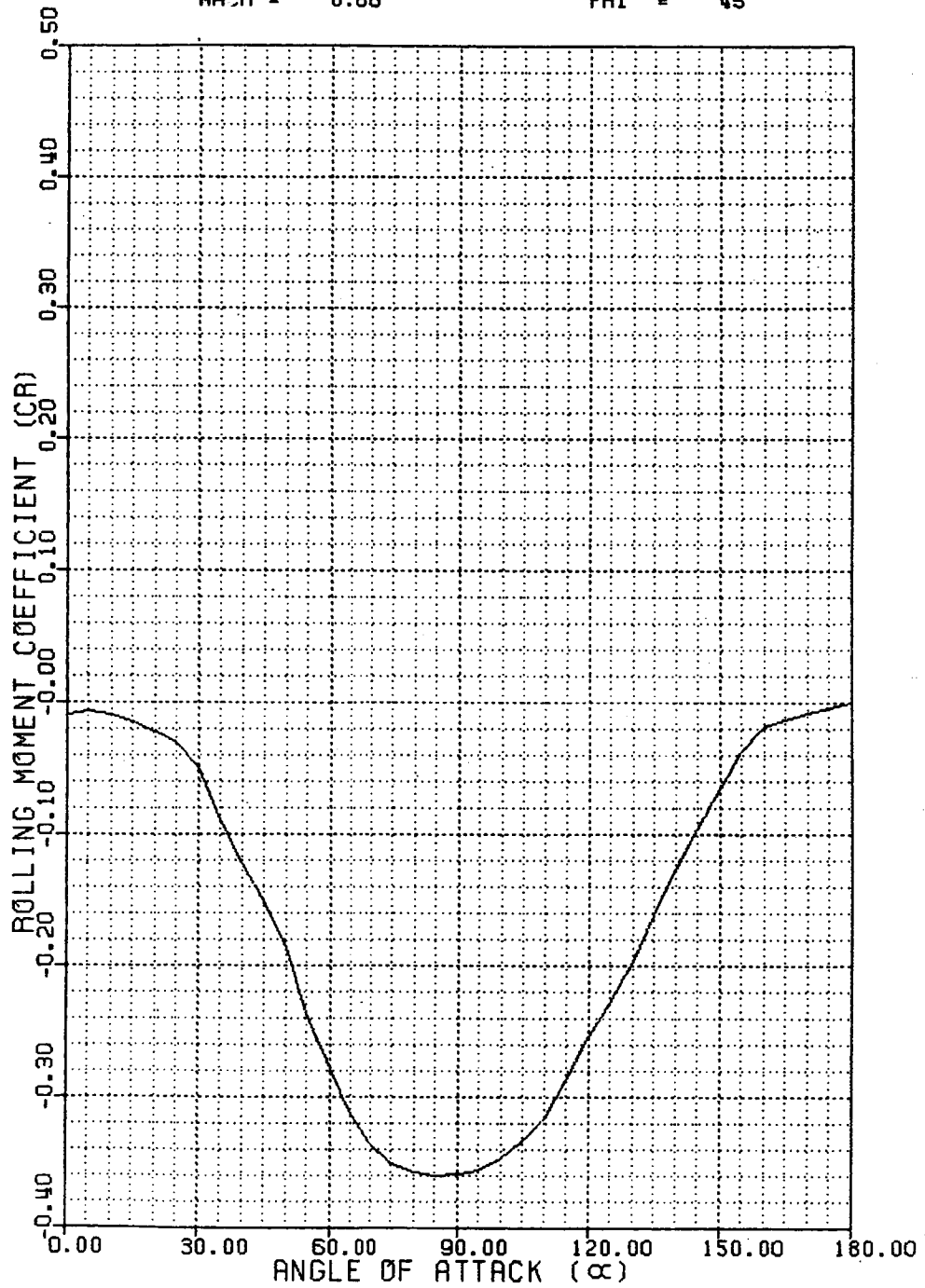
LOCKHEED-HUNTSVILLE ENGINEERING CENTER

C-9

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 45



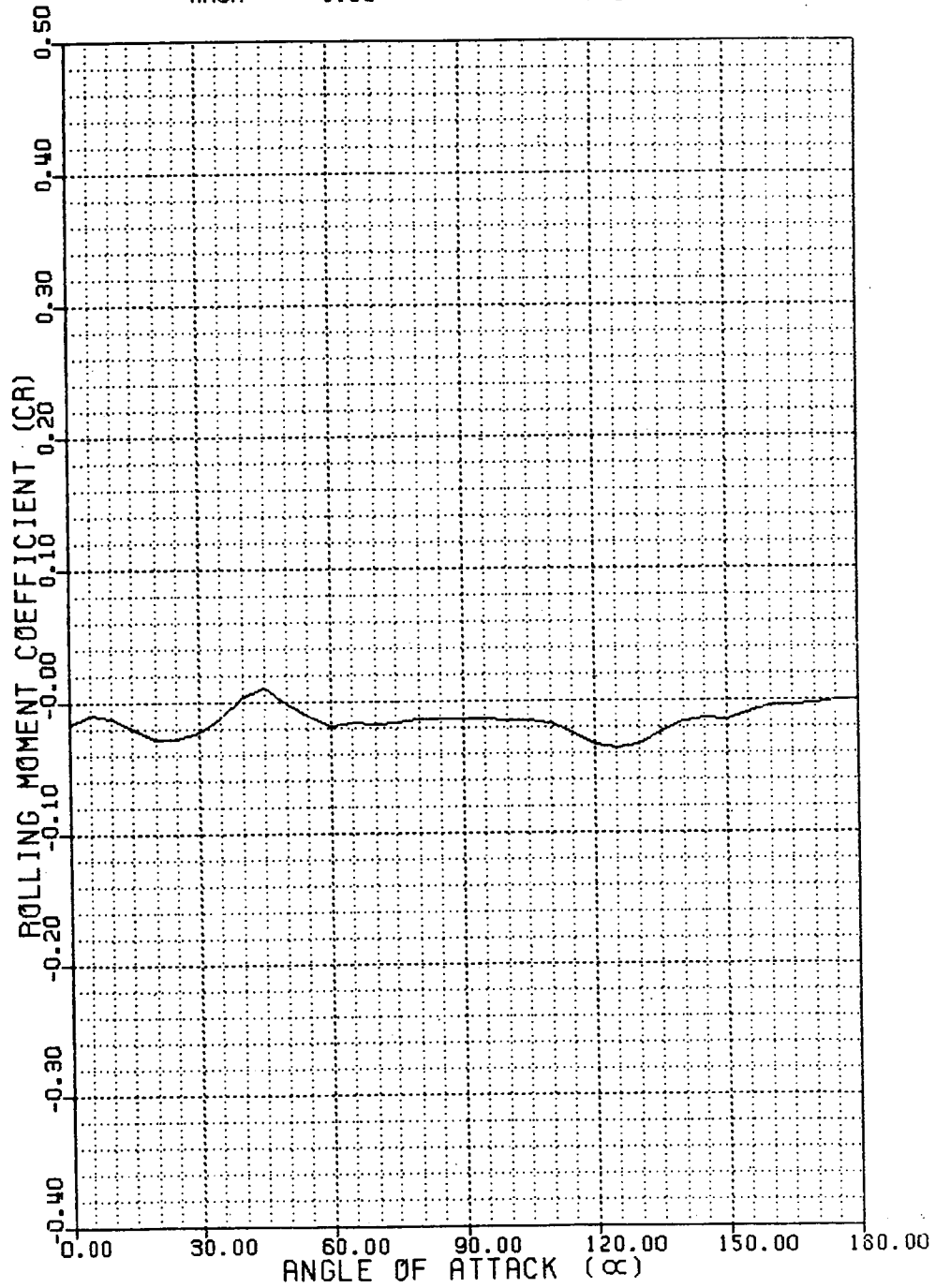
B-767

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 90



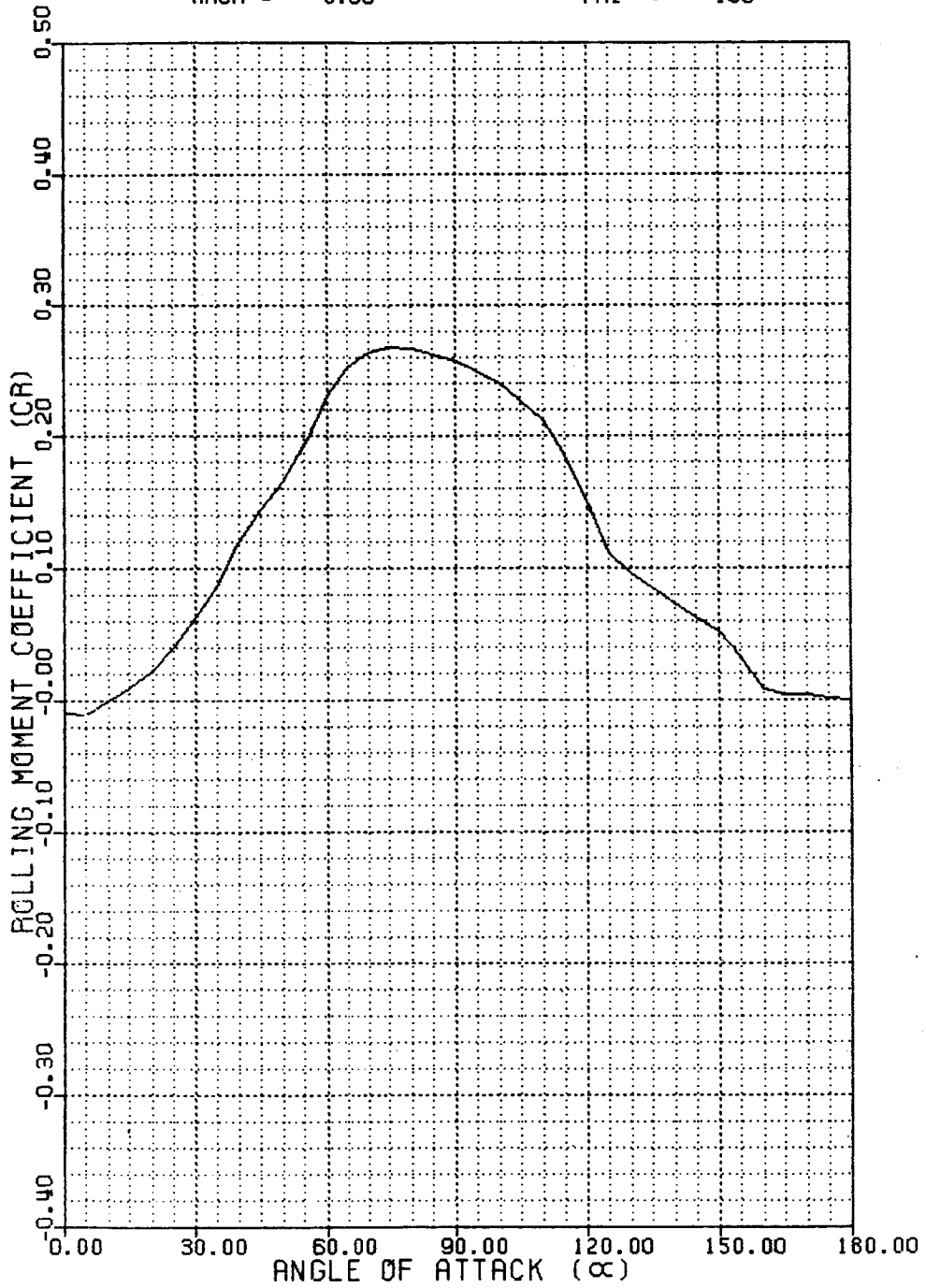
B-768

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 135

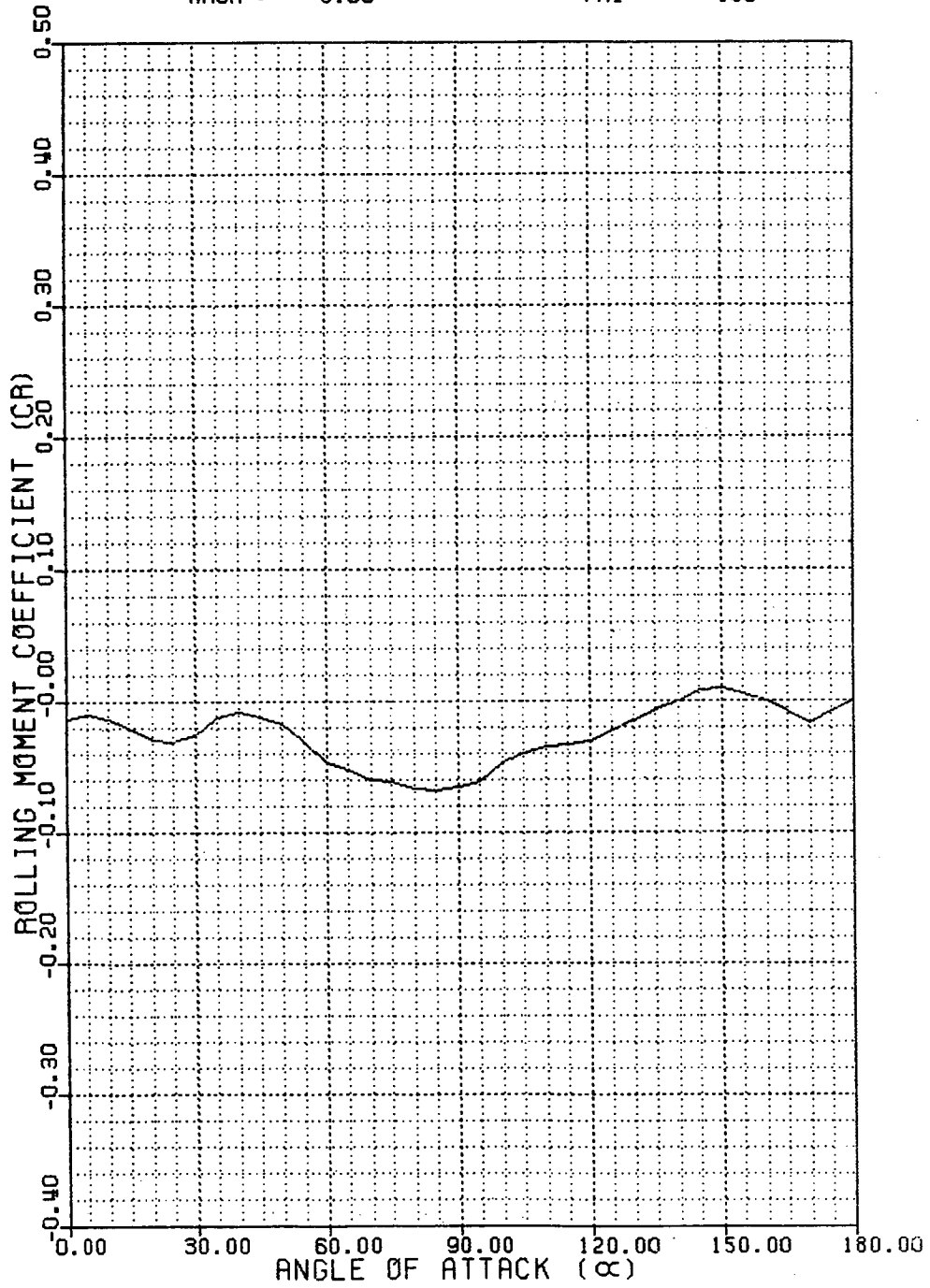


B-769

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 180



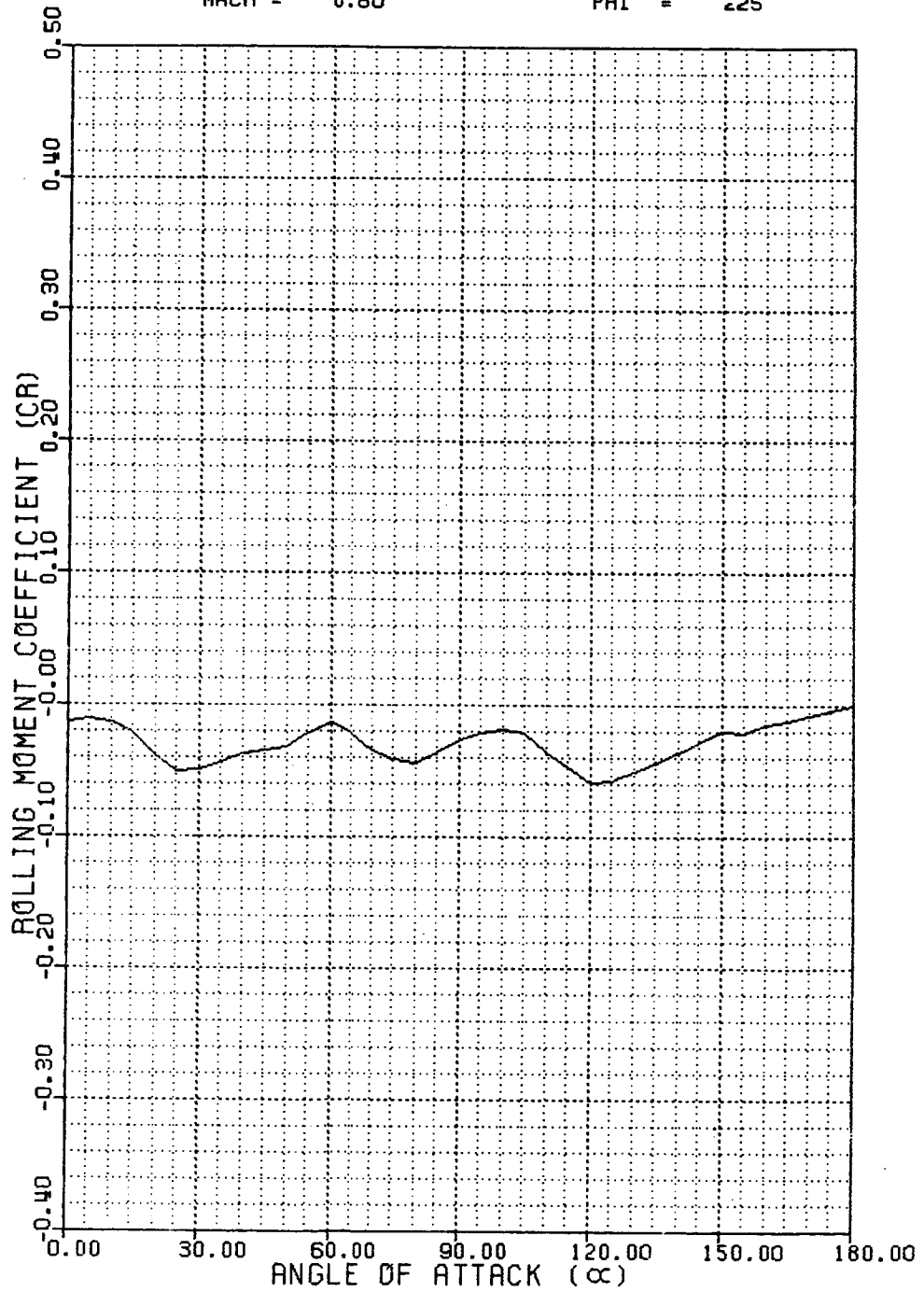
B-770

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 225

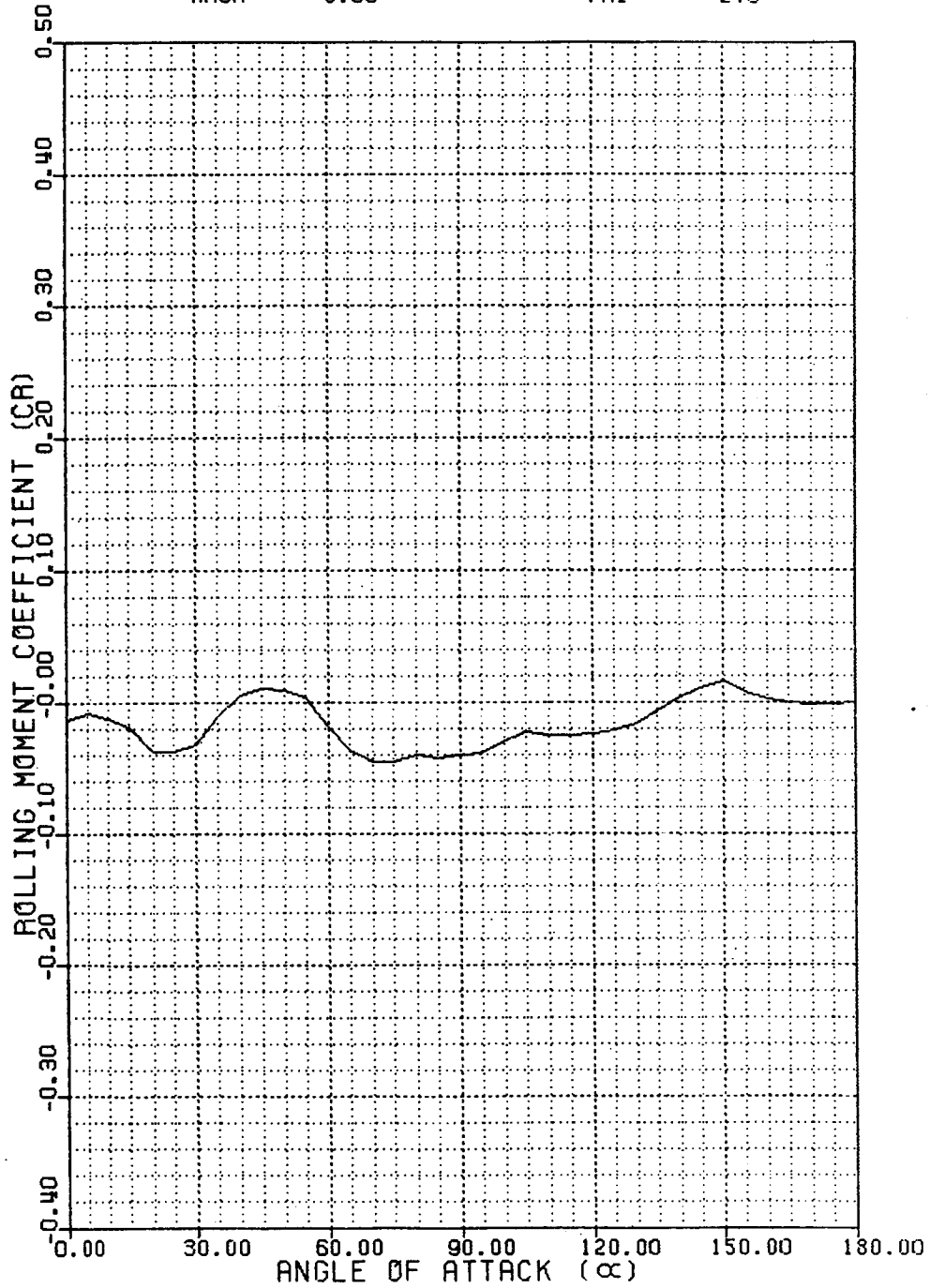


B-771

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 270



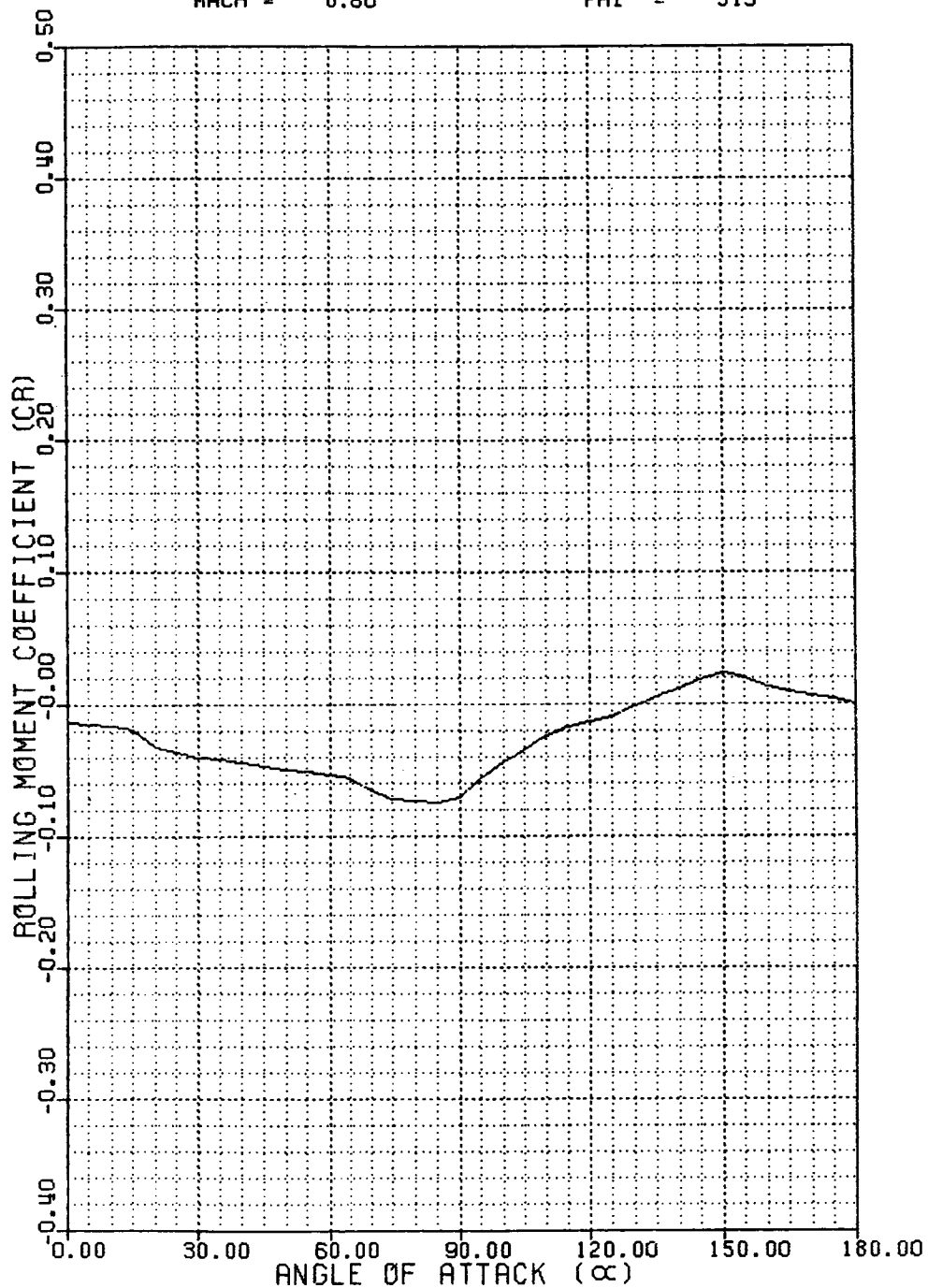
B-772

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.80

PHI = 315



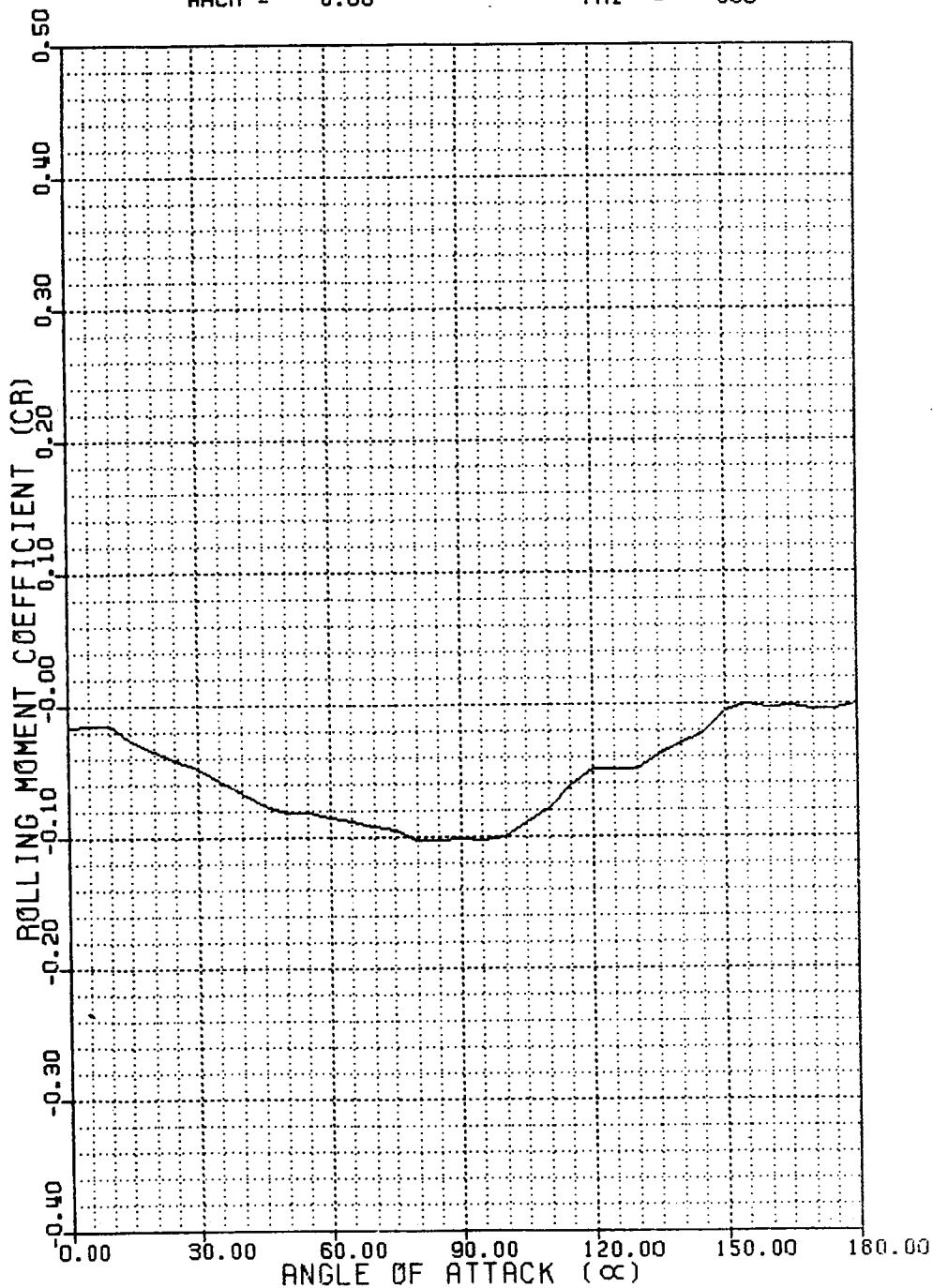
B-773



# SRB TAPE 8 DATA

MACH = 0.80

PHI = 360

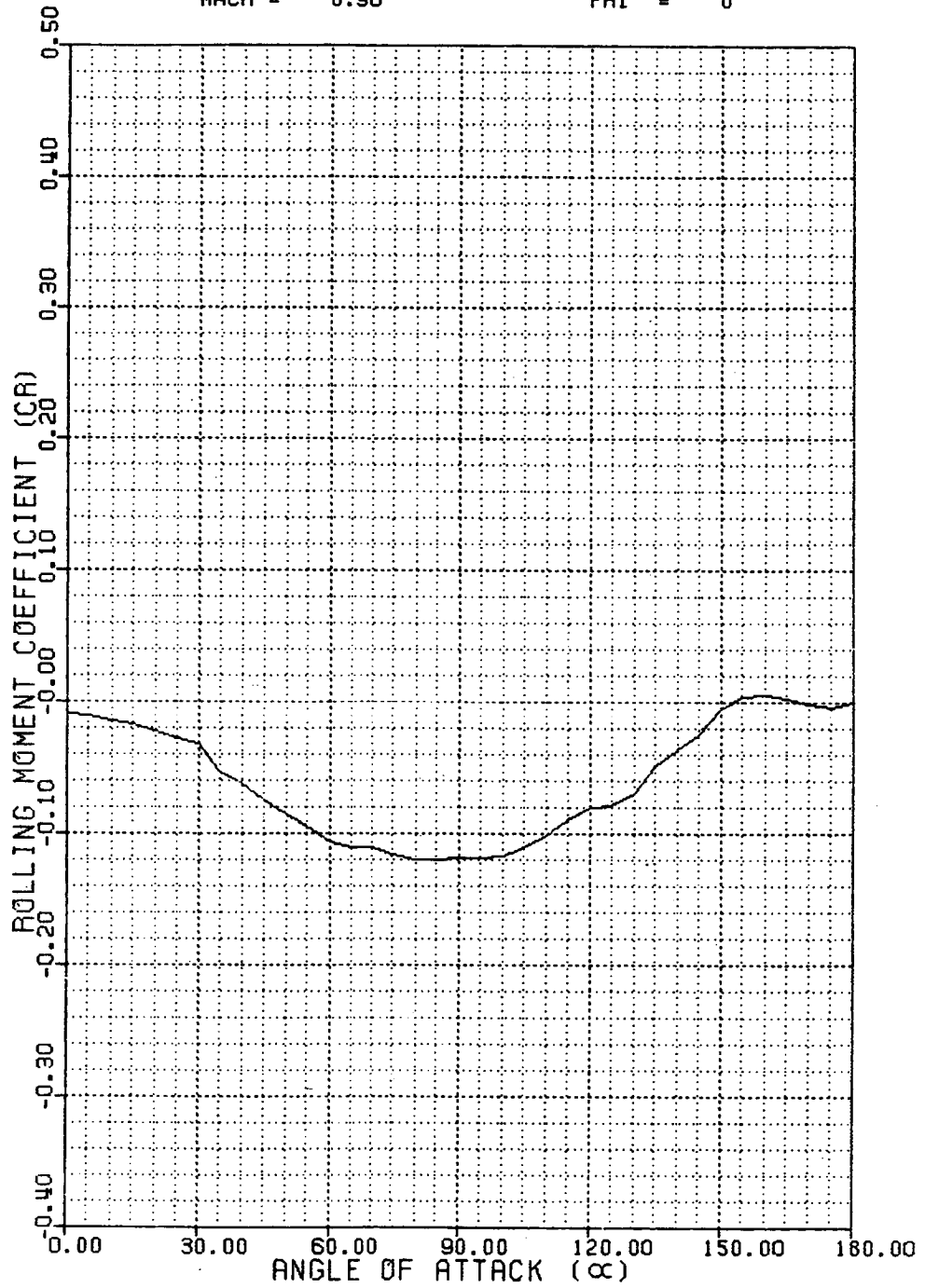


B-774

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 0

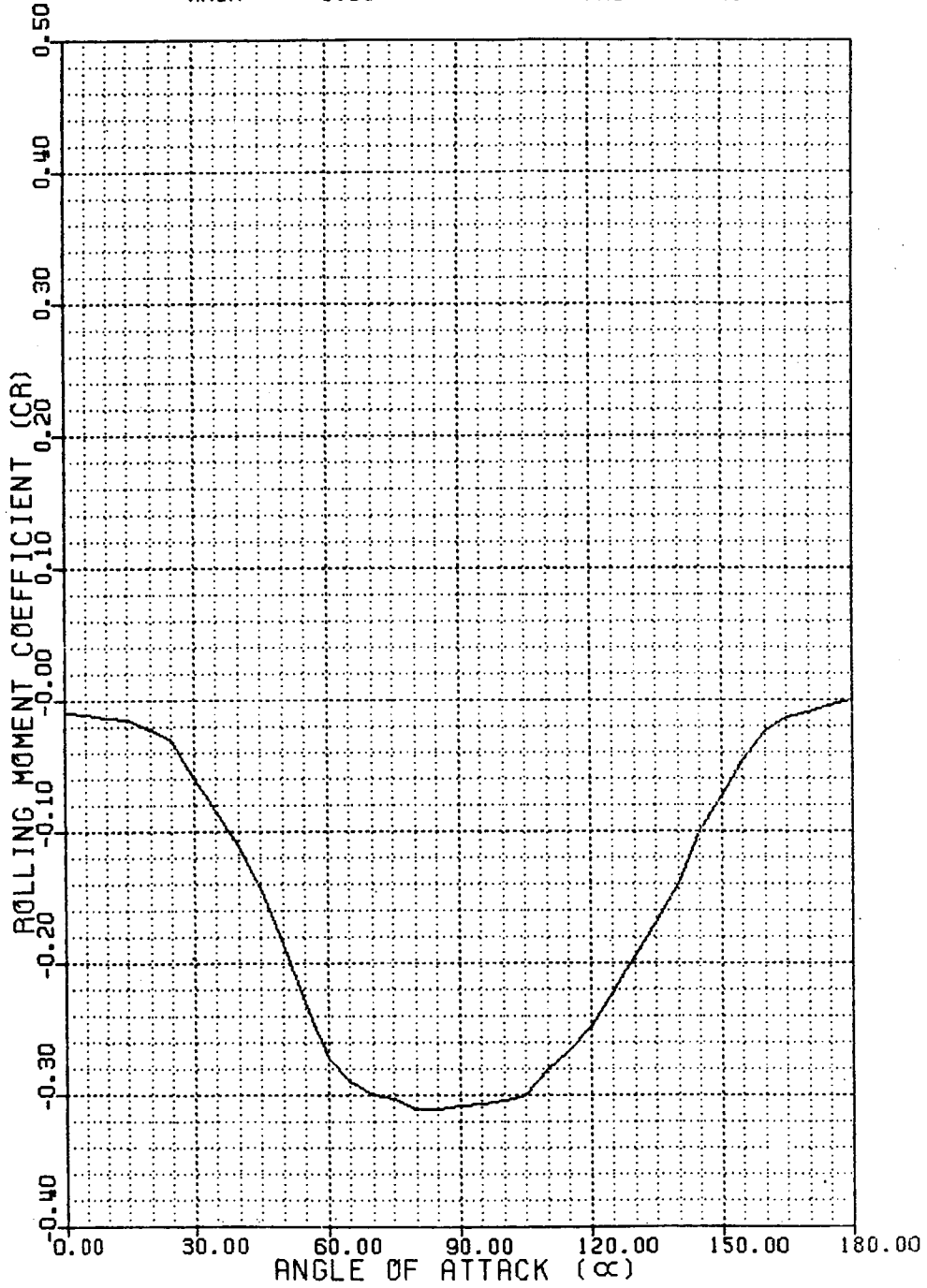


B-775

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 45



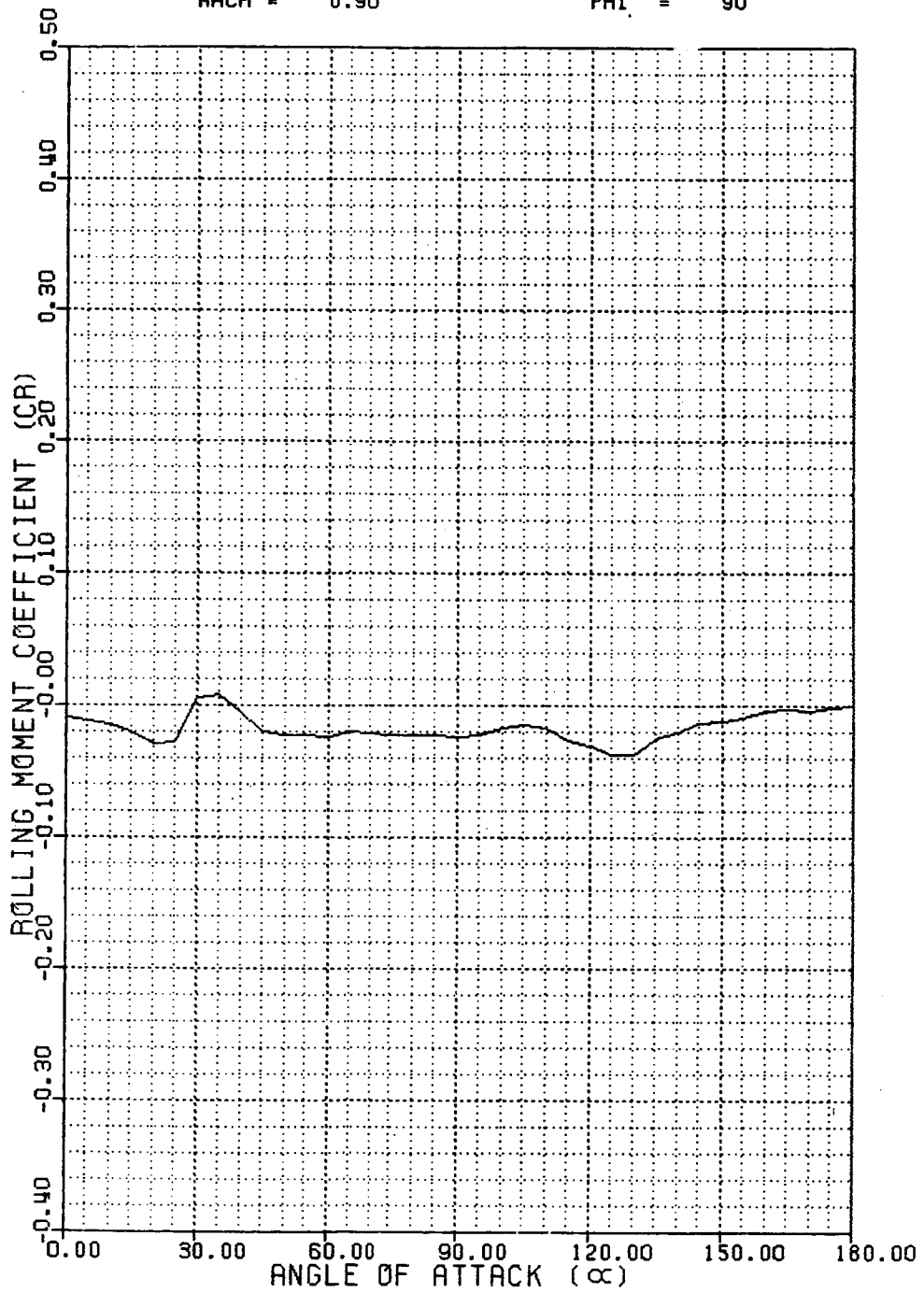
B-776

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 90

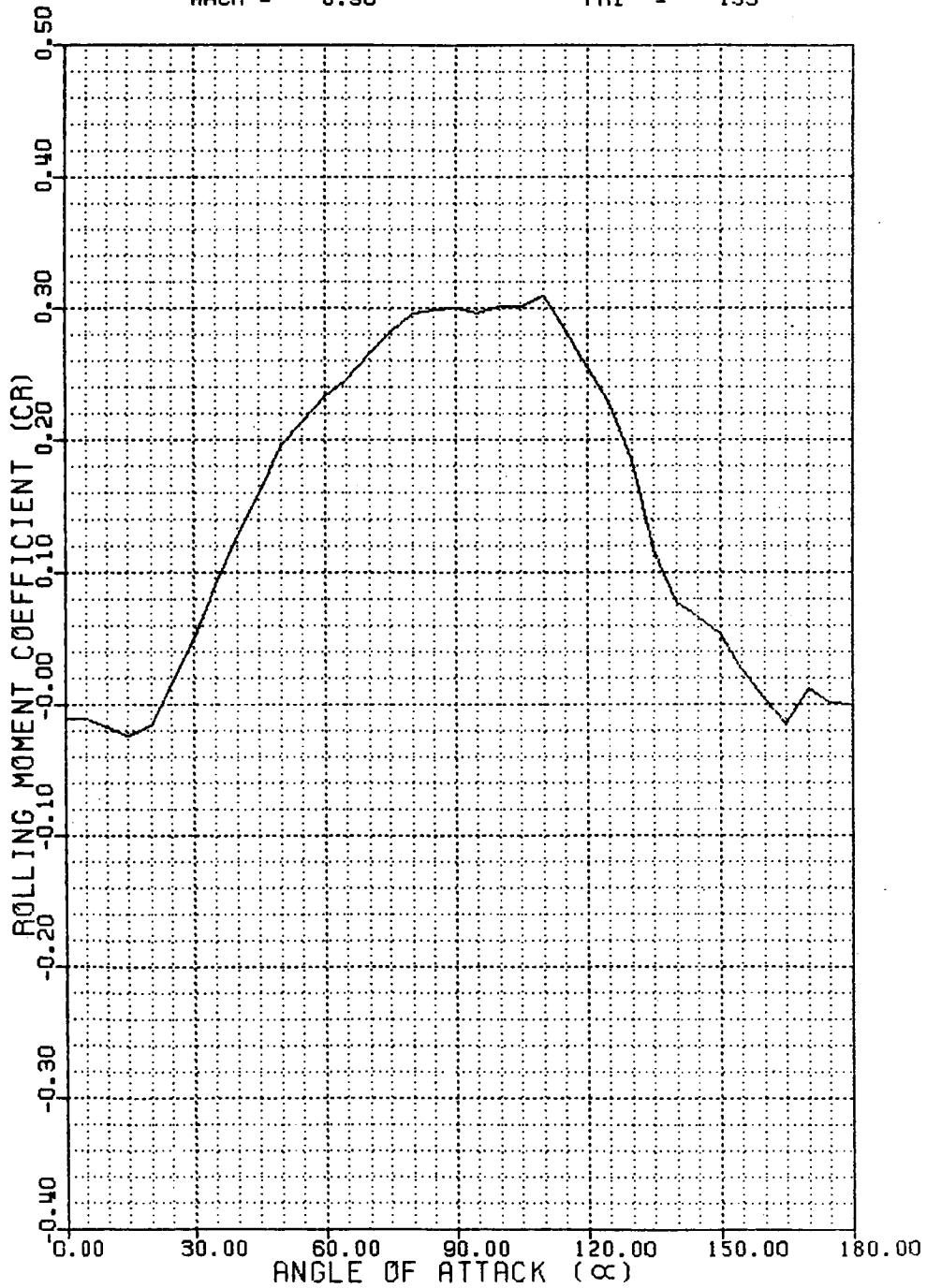


B-777

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 135

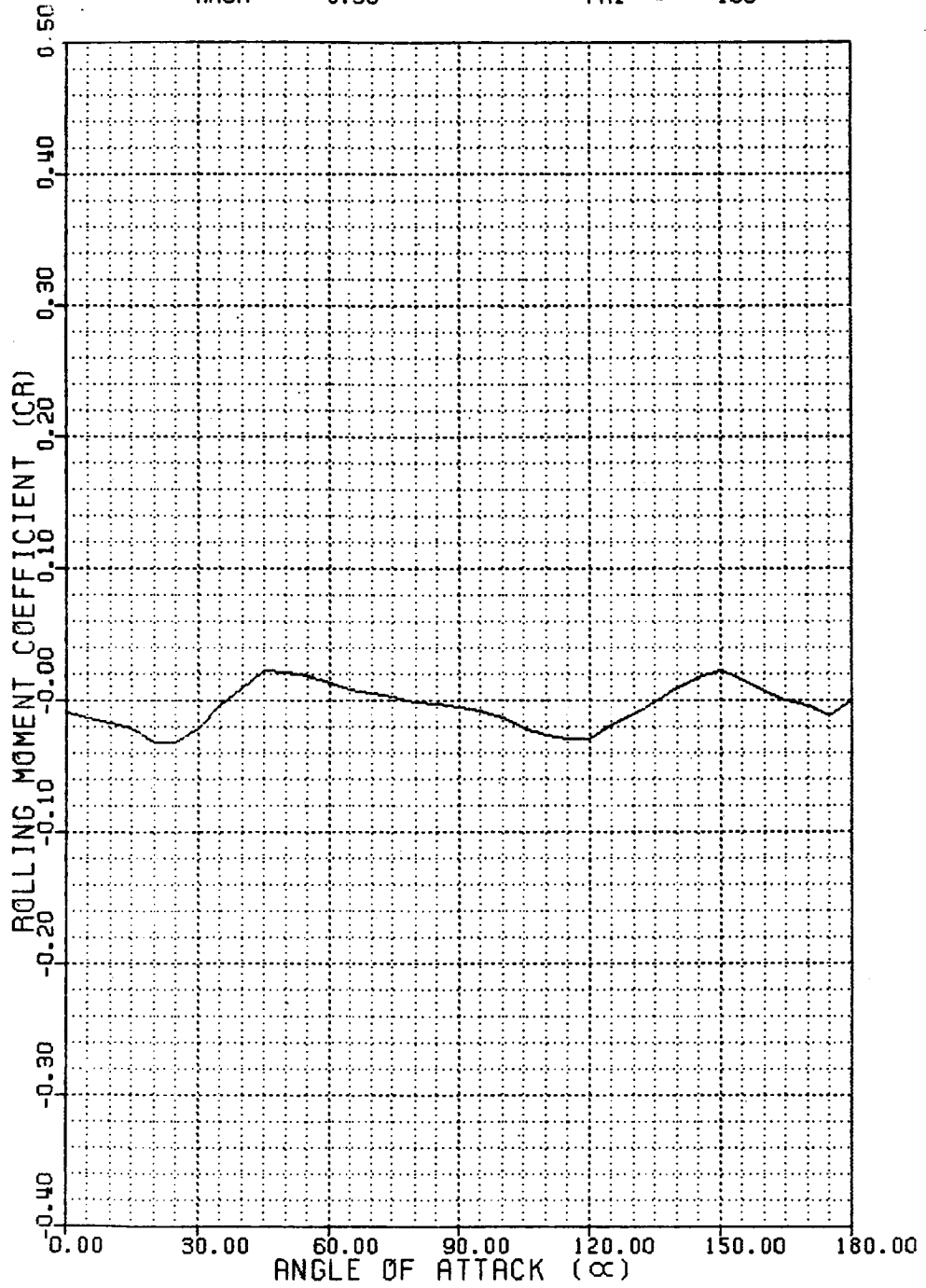


B-778

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 180

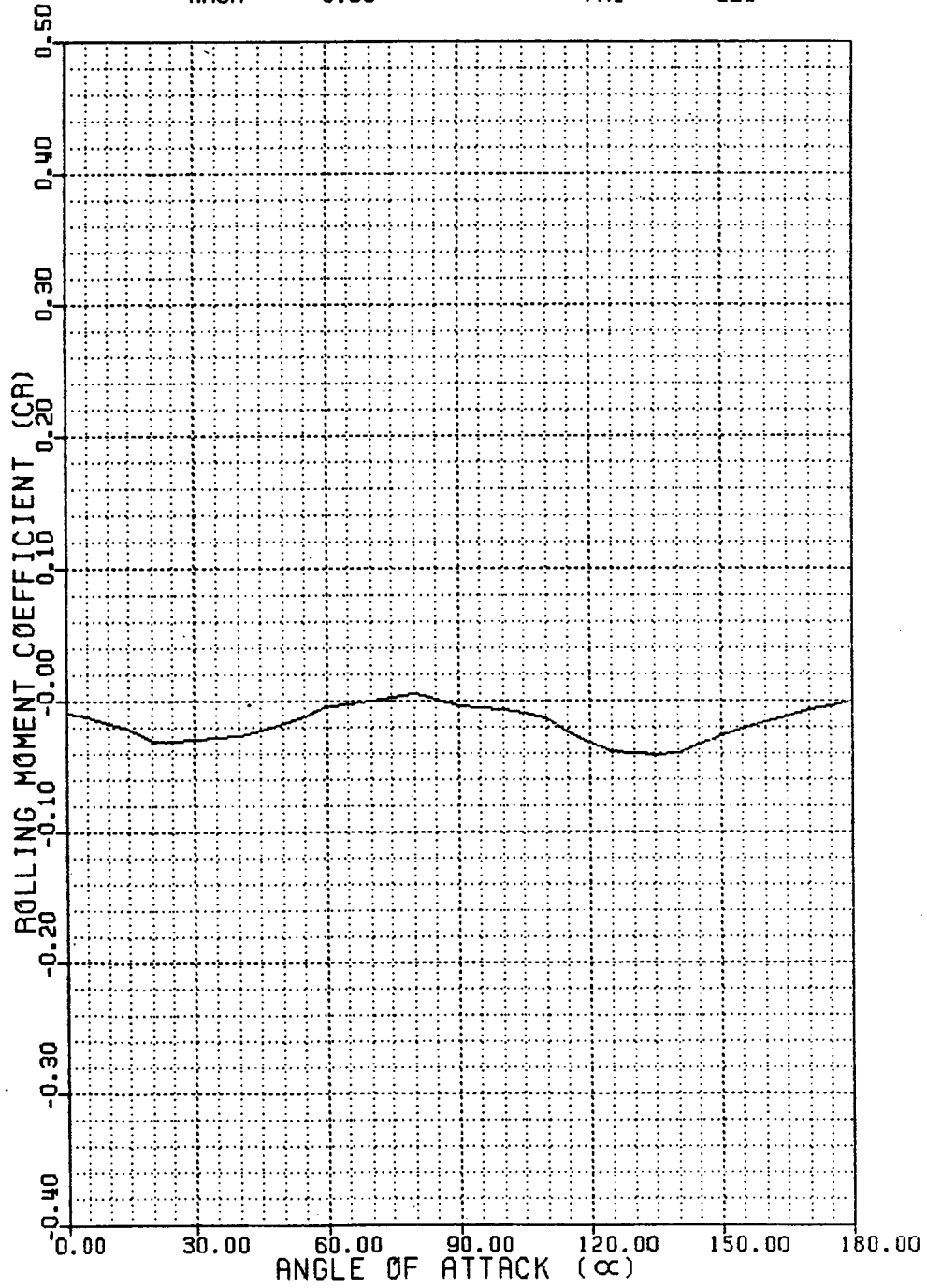


B-779

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 225



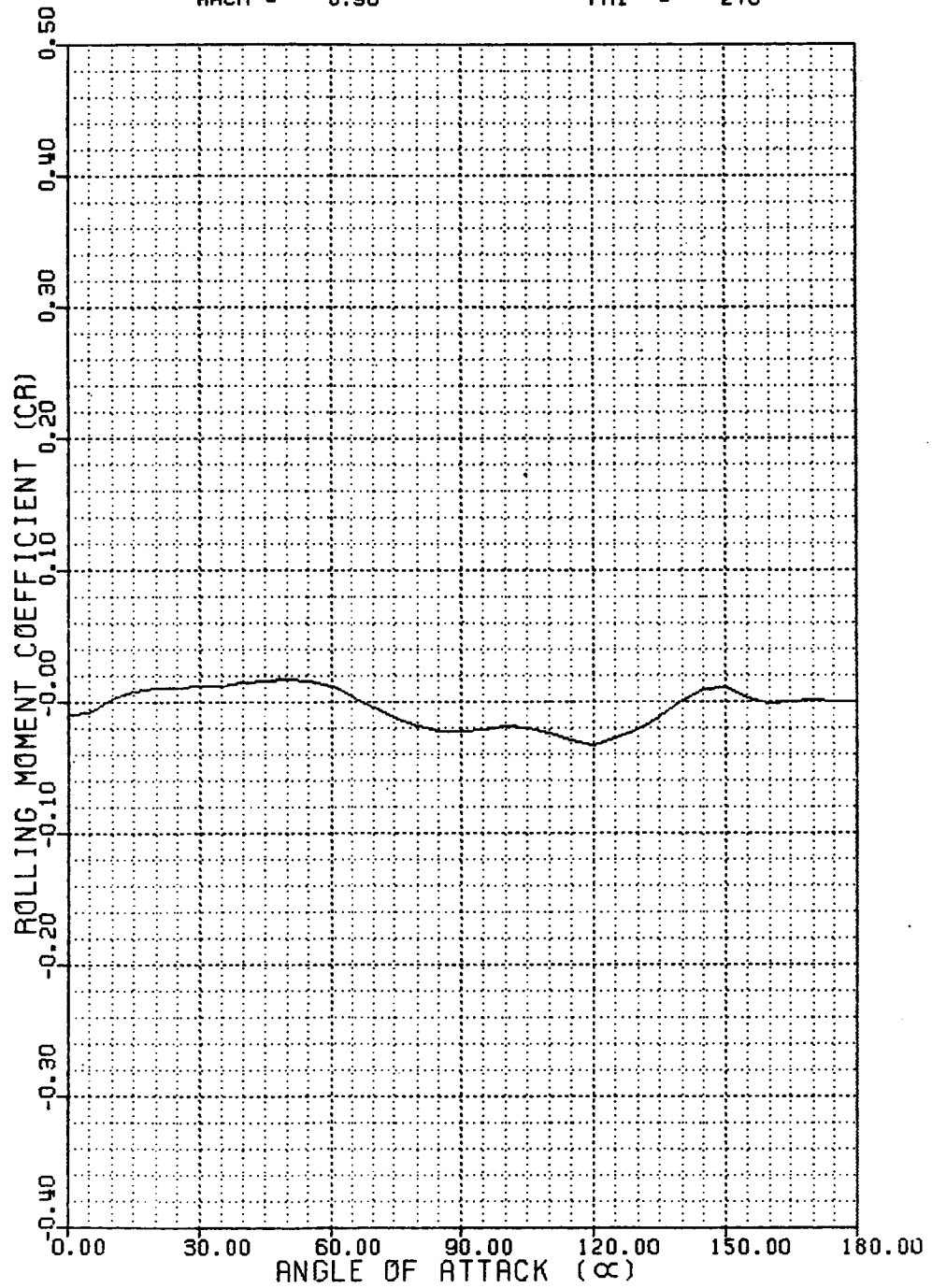
B-780

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 270



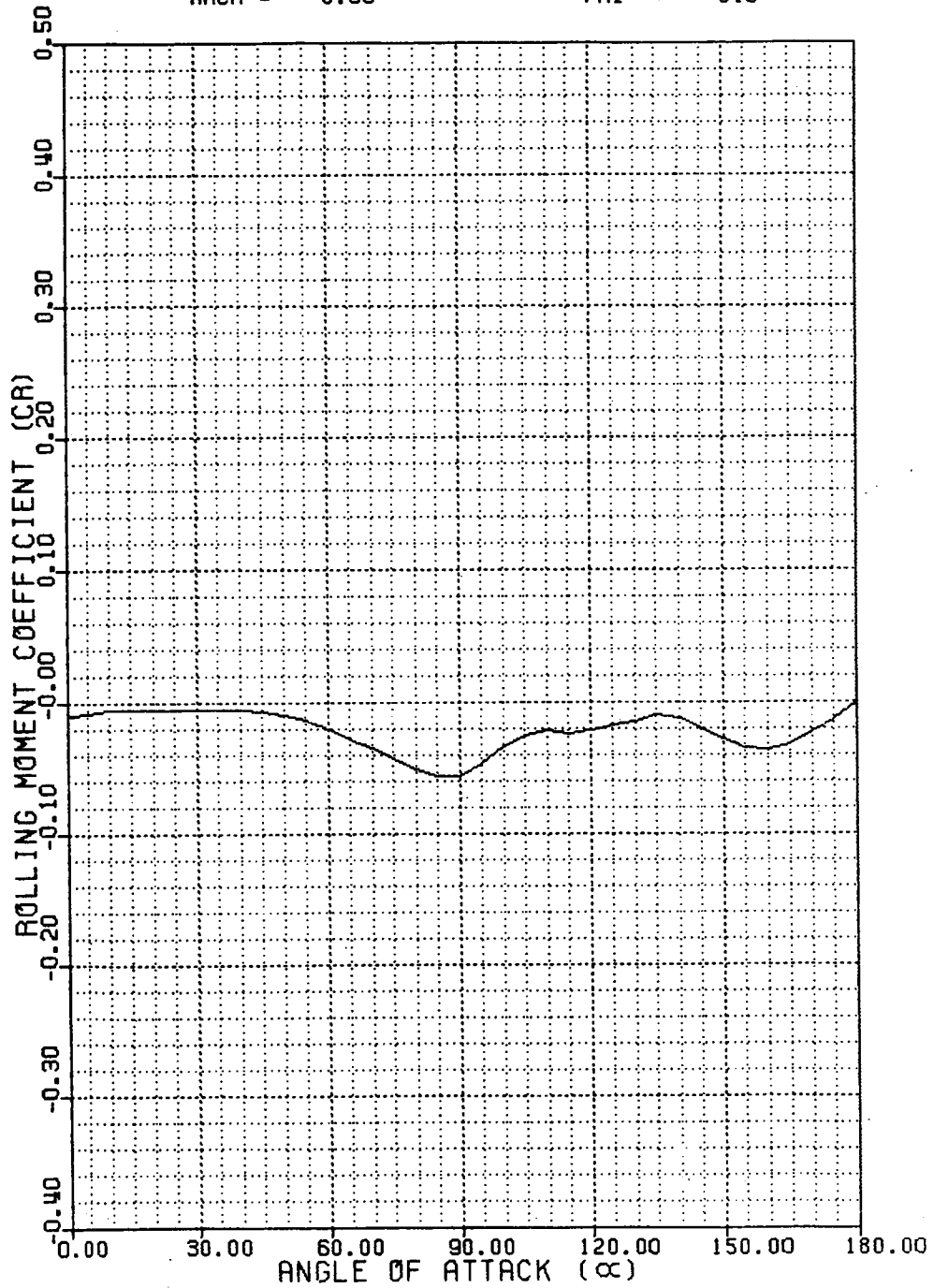
B-781



# SRB TAPE 8 DATA

MACH = 0.90

PHI = 315



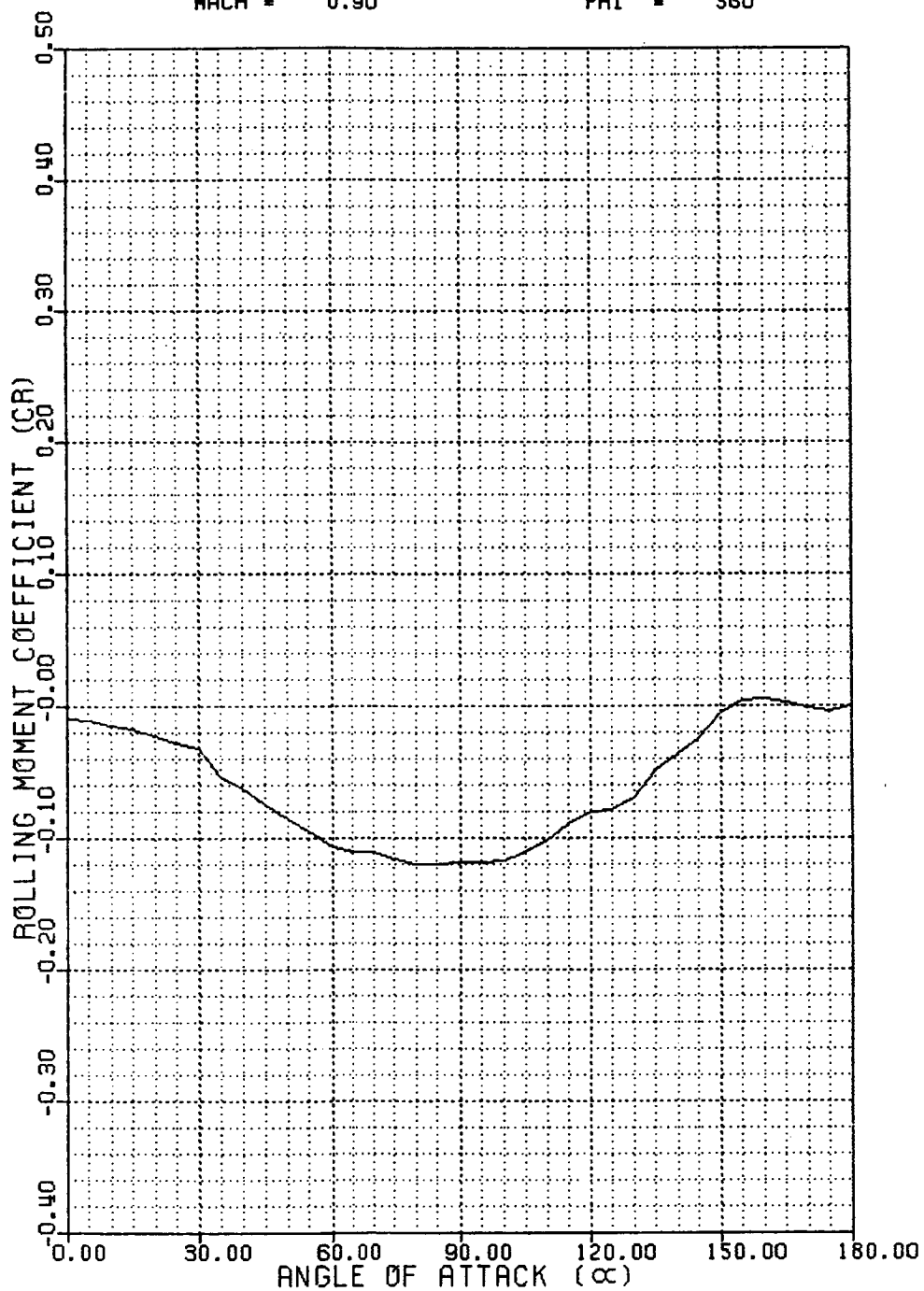
B-782

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.90

PHI = 360

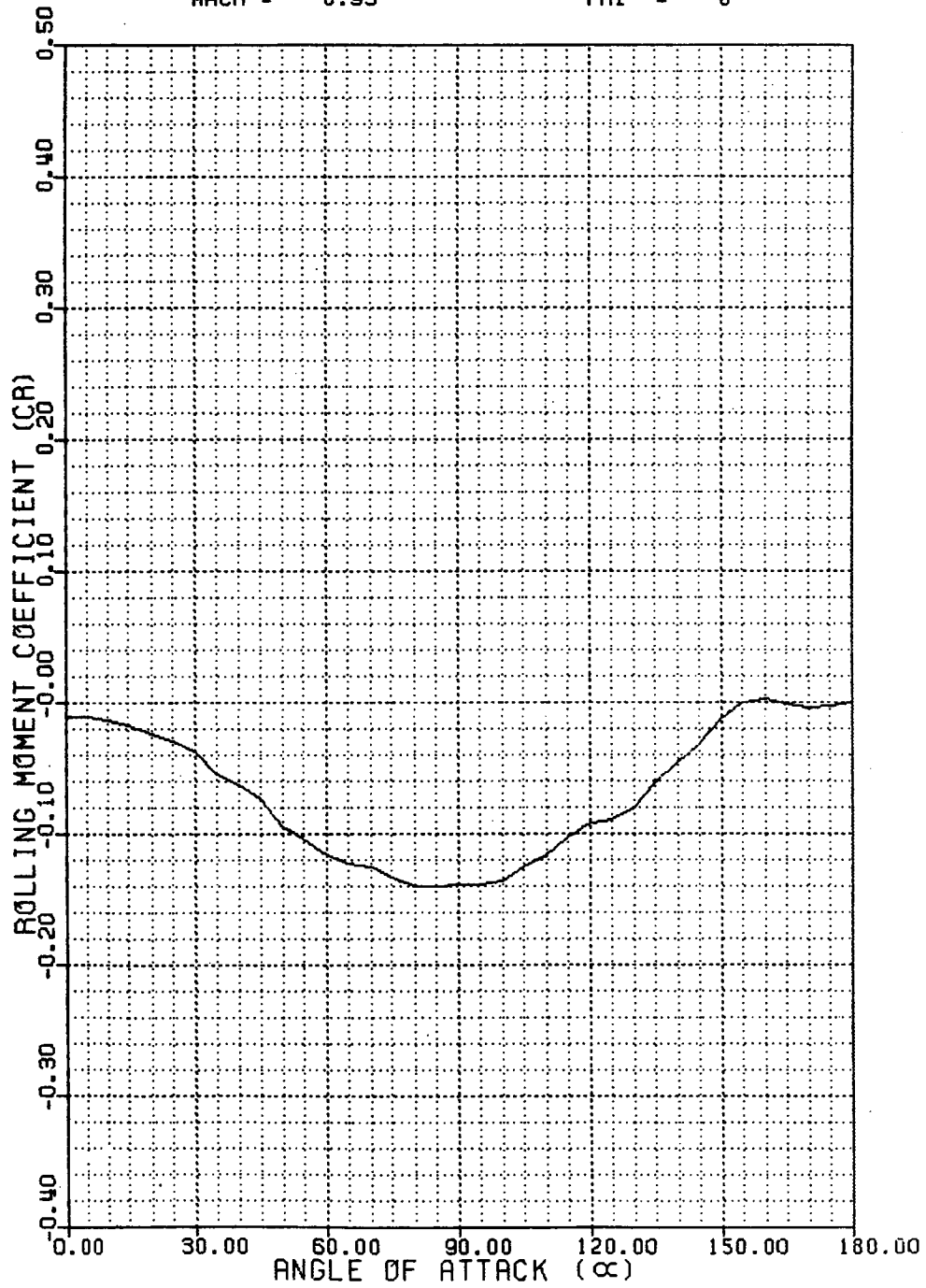


B-783

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 0

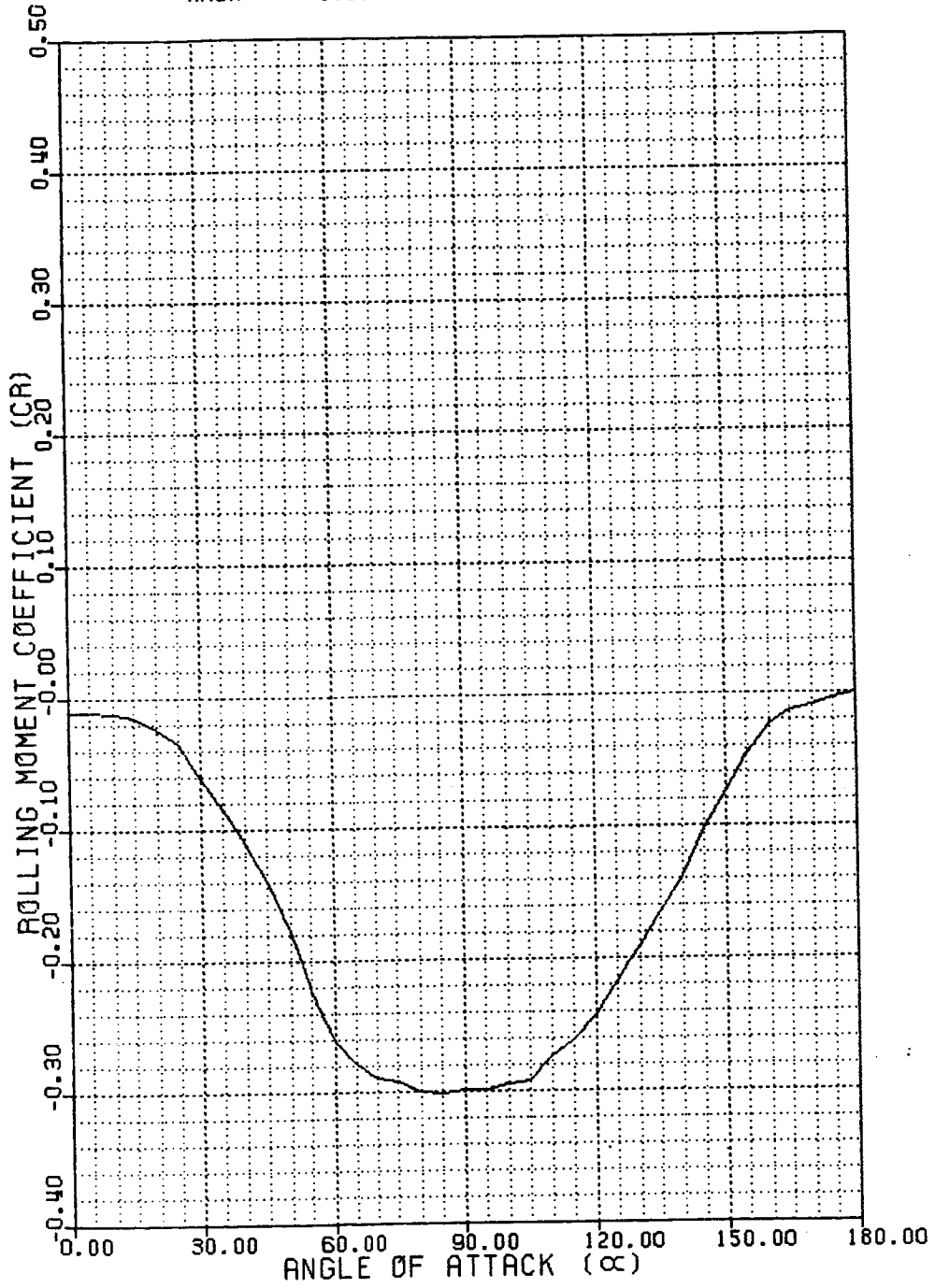


B-784

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 45



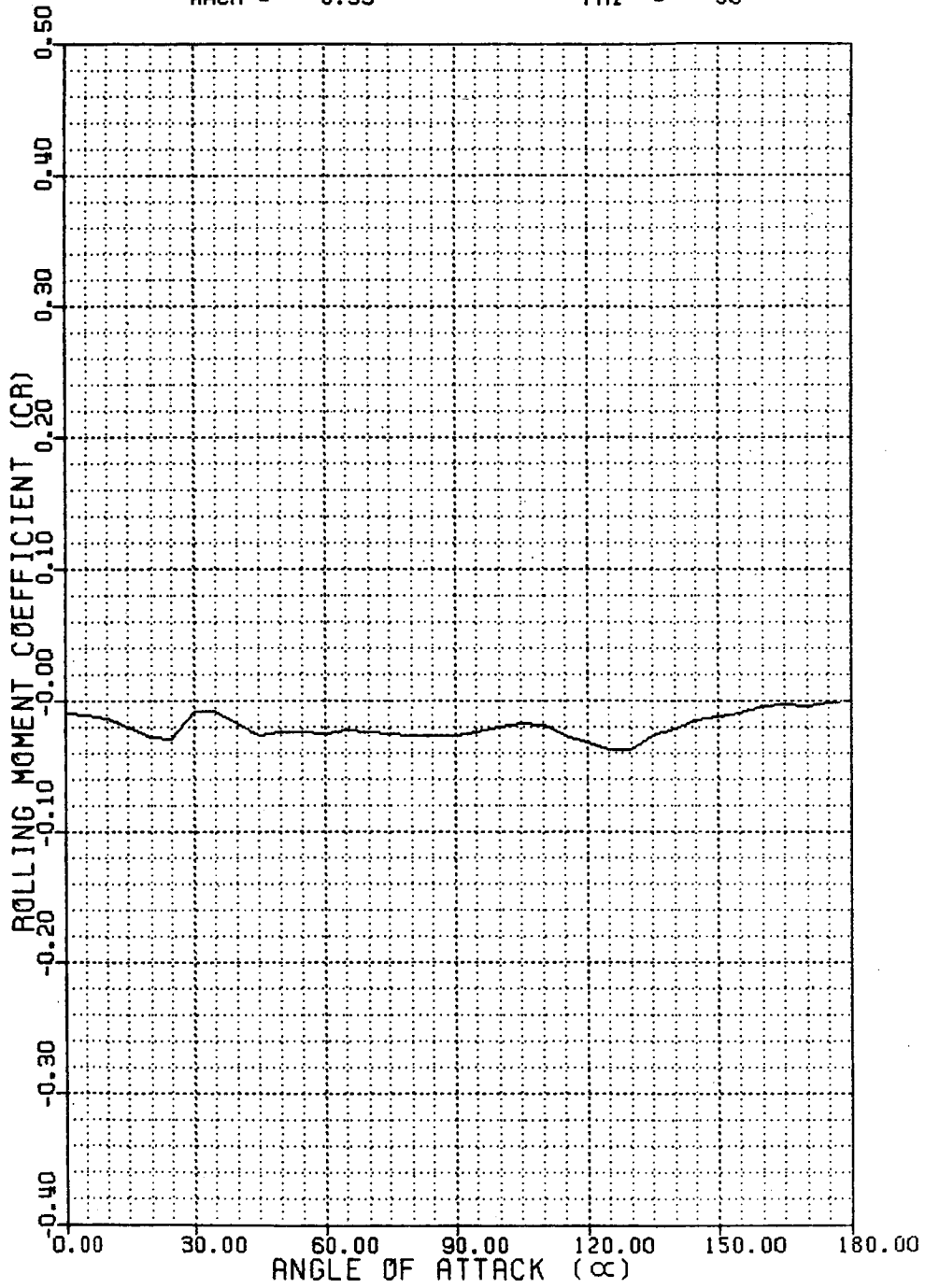
B-785

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 90

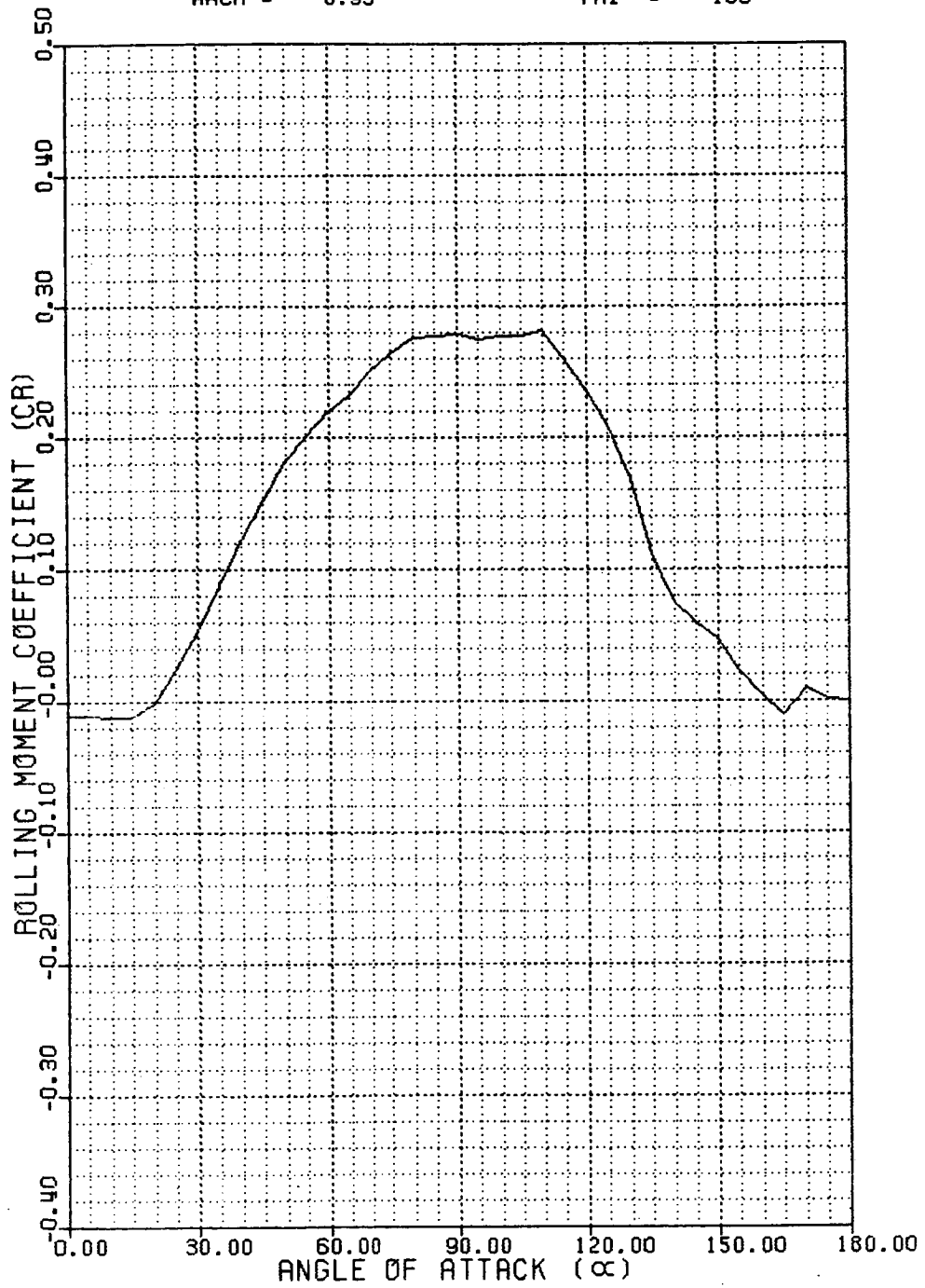


B-786

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 135

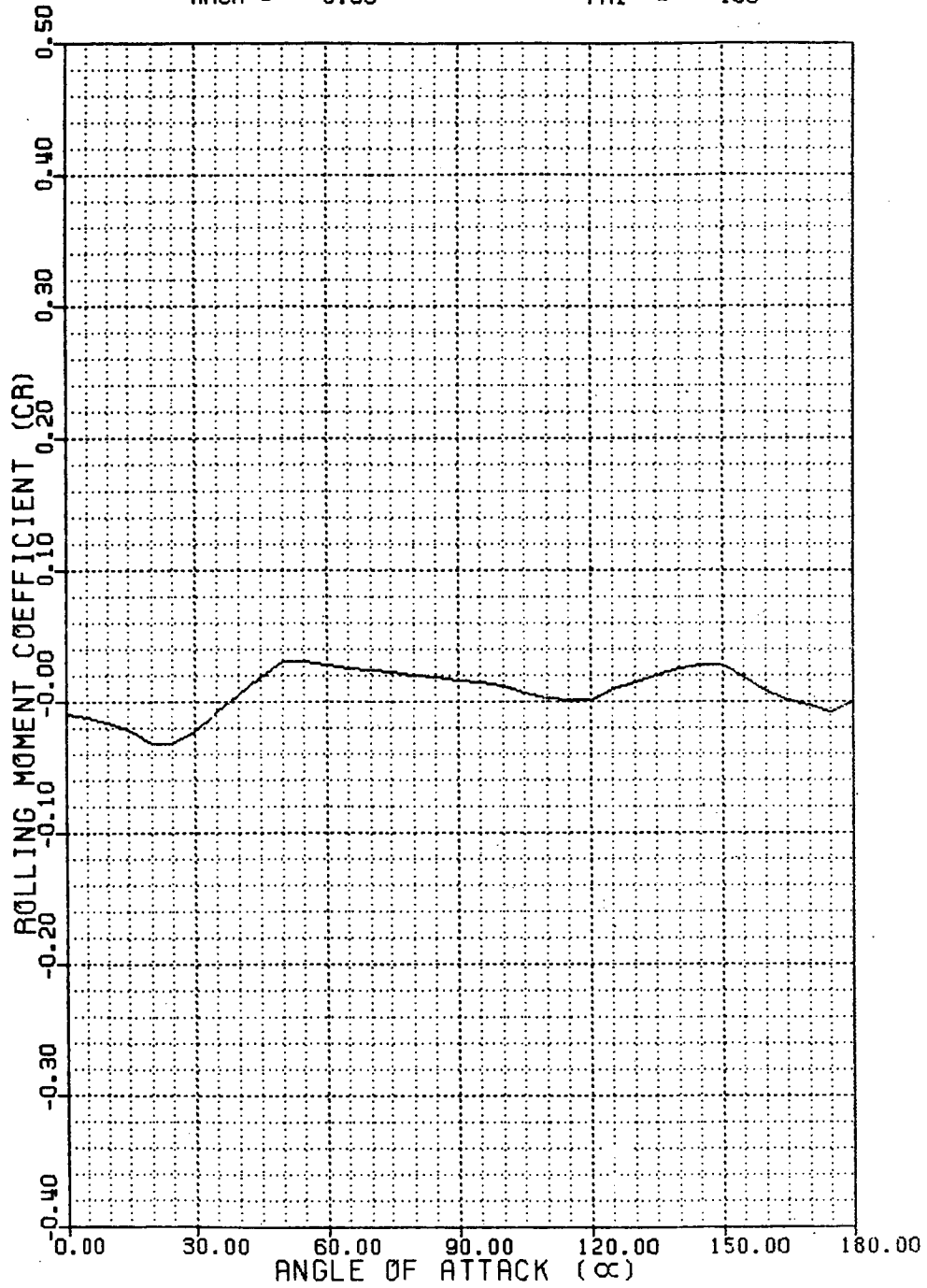


B-787

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 180



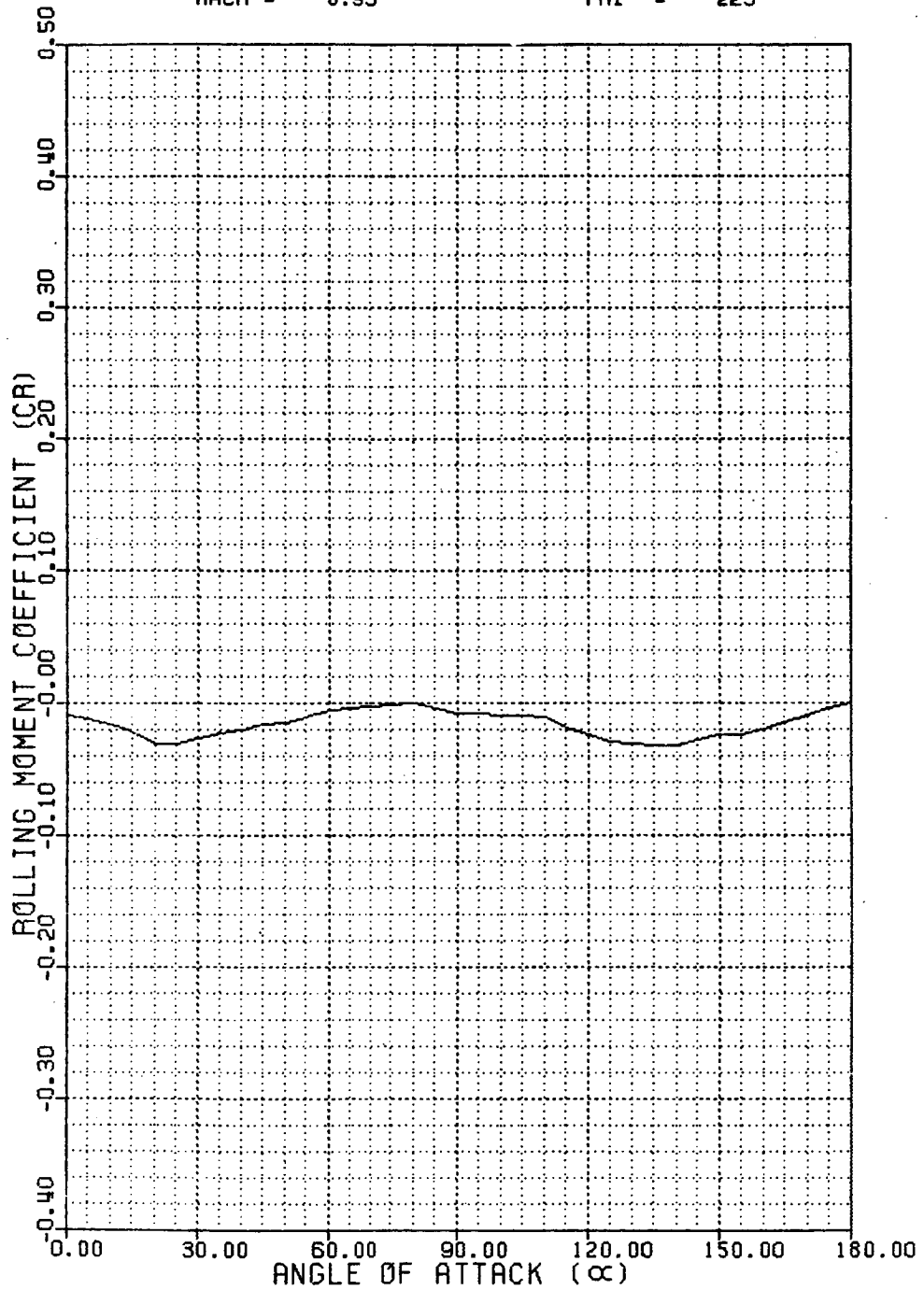
B-788

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 225



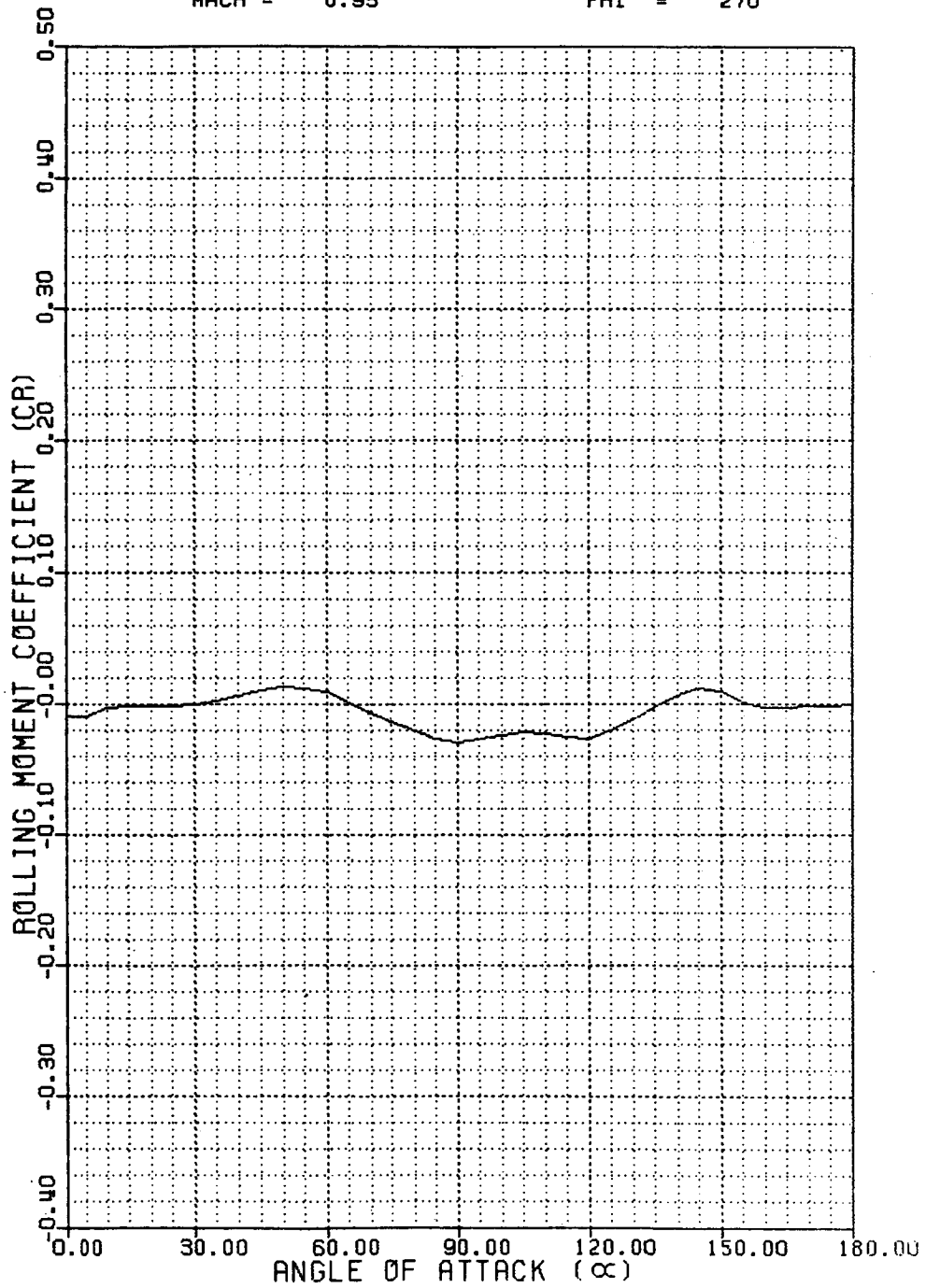
B-789



# SRB TAPE 8 DATA

MACH = 0.95

PHI = 270



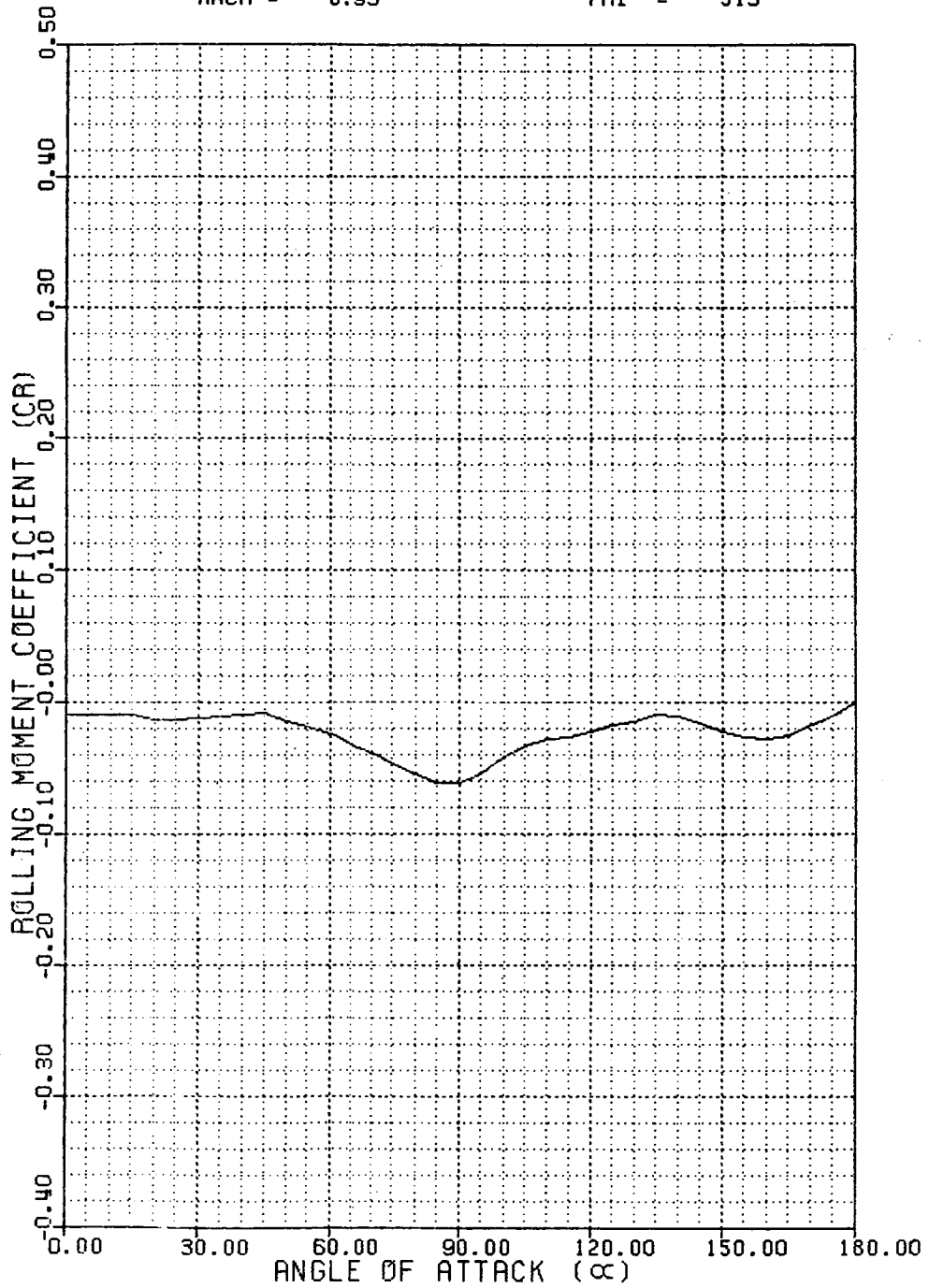
B-790

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 315

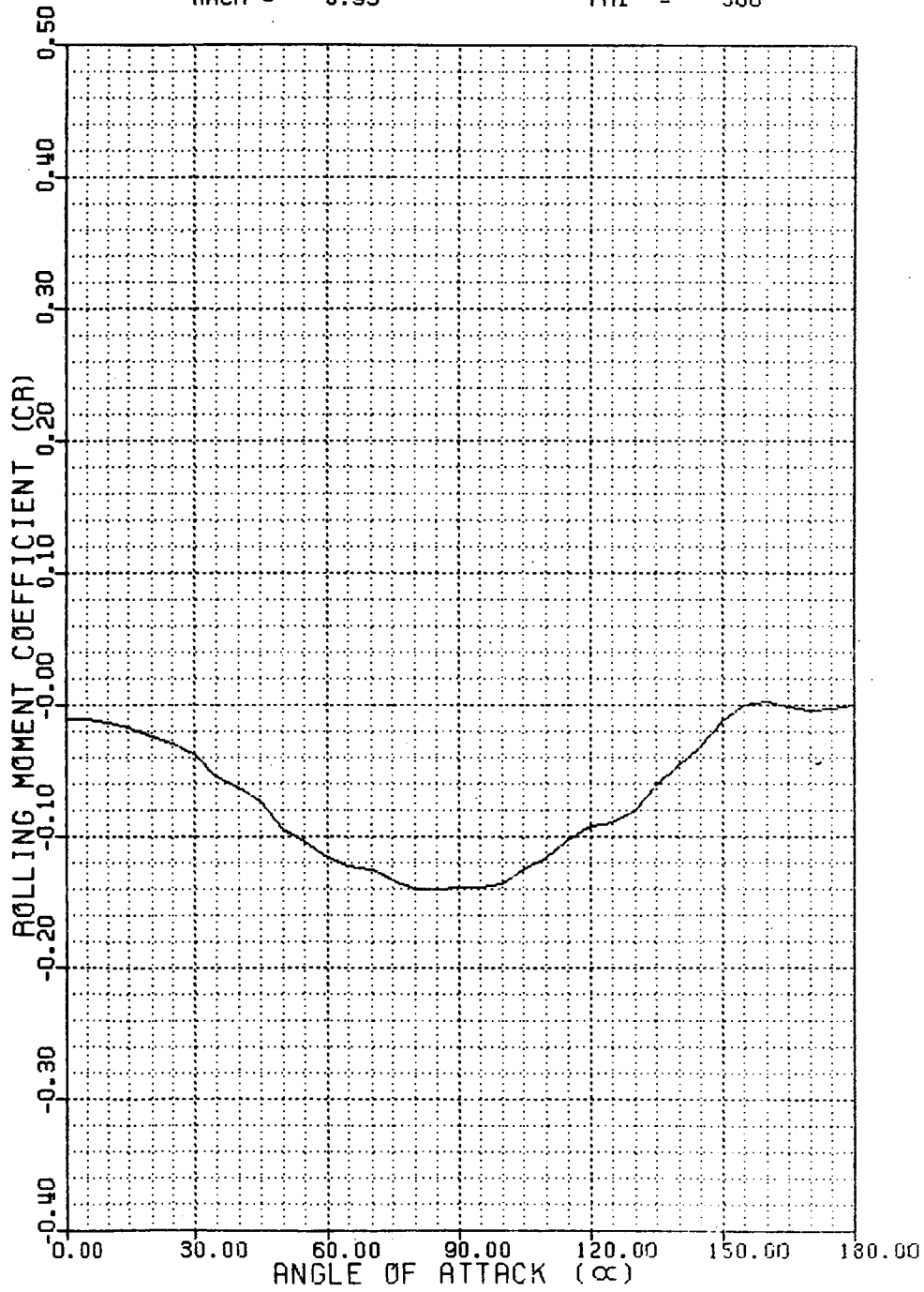


B-791

# SRB TAPE 8 DATA

MACH = 0.95

PHI = 360



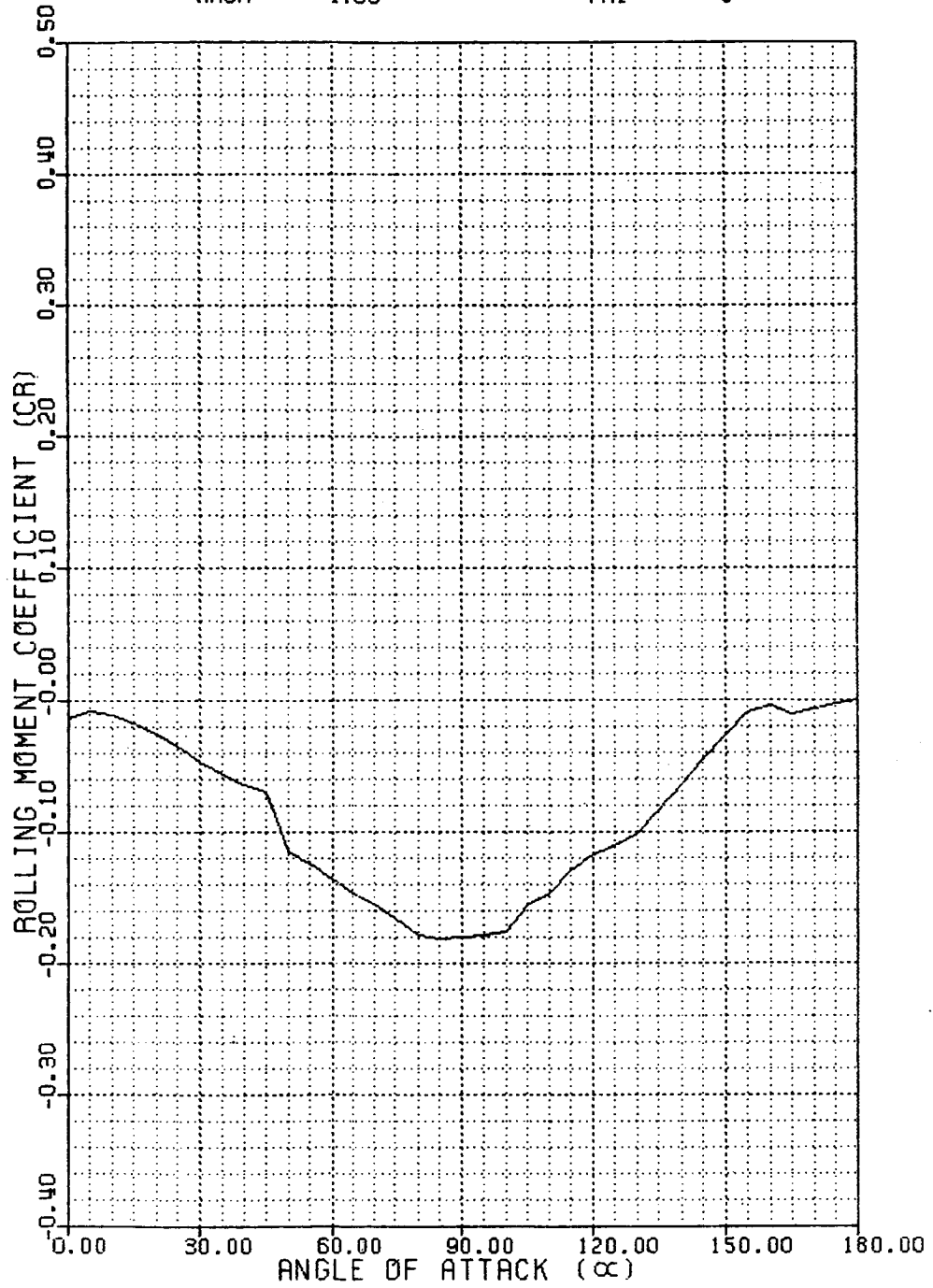
B-792

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 0

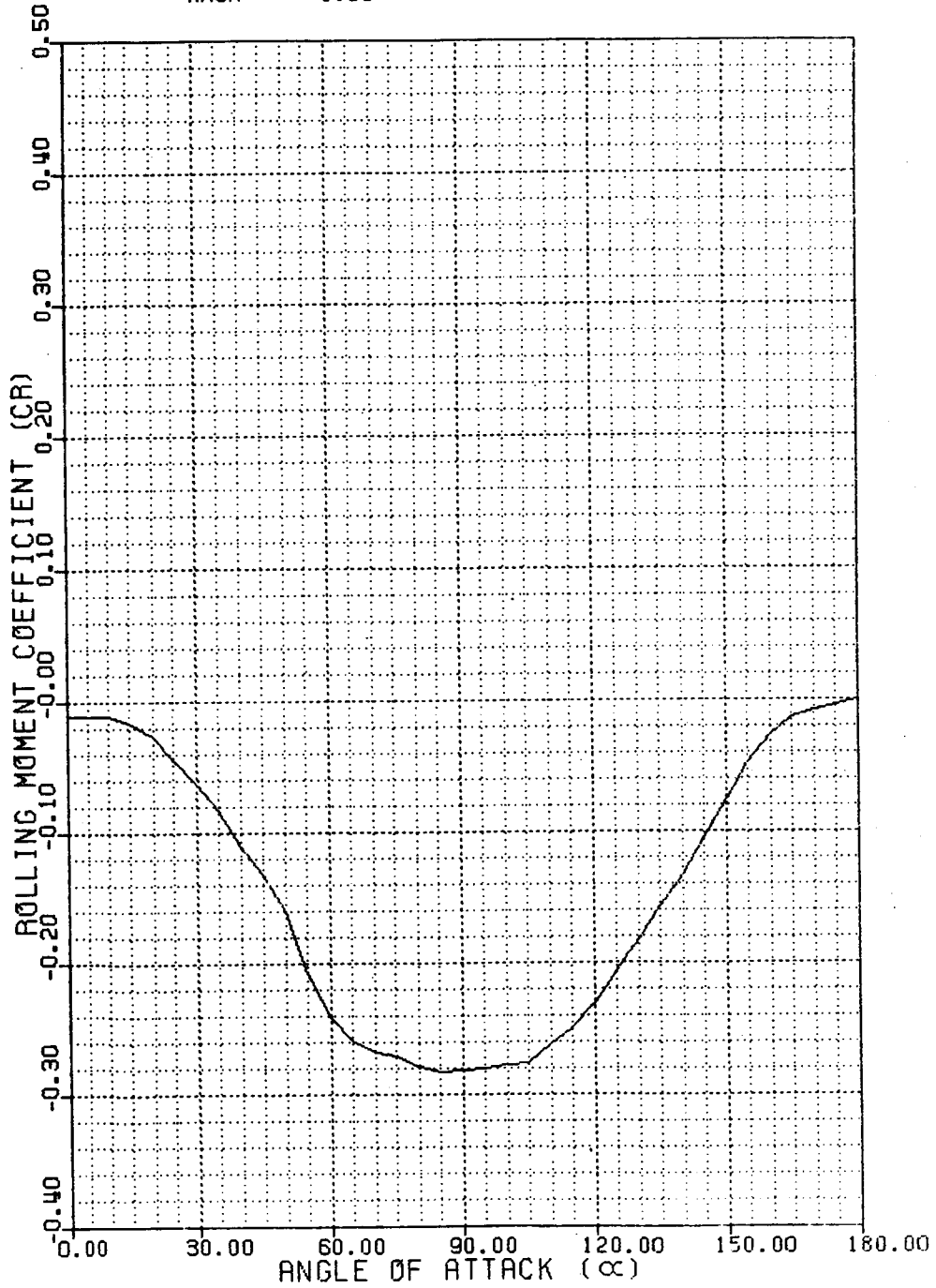


B-793

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 45



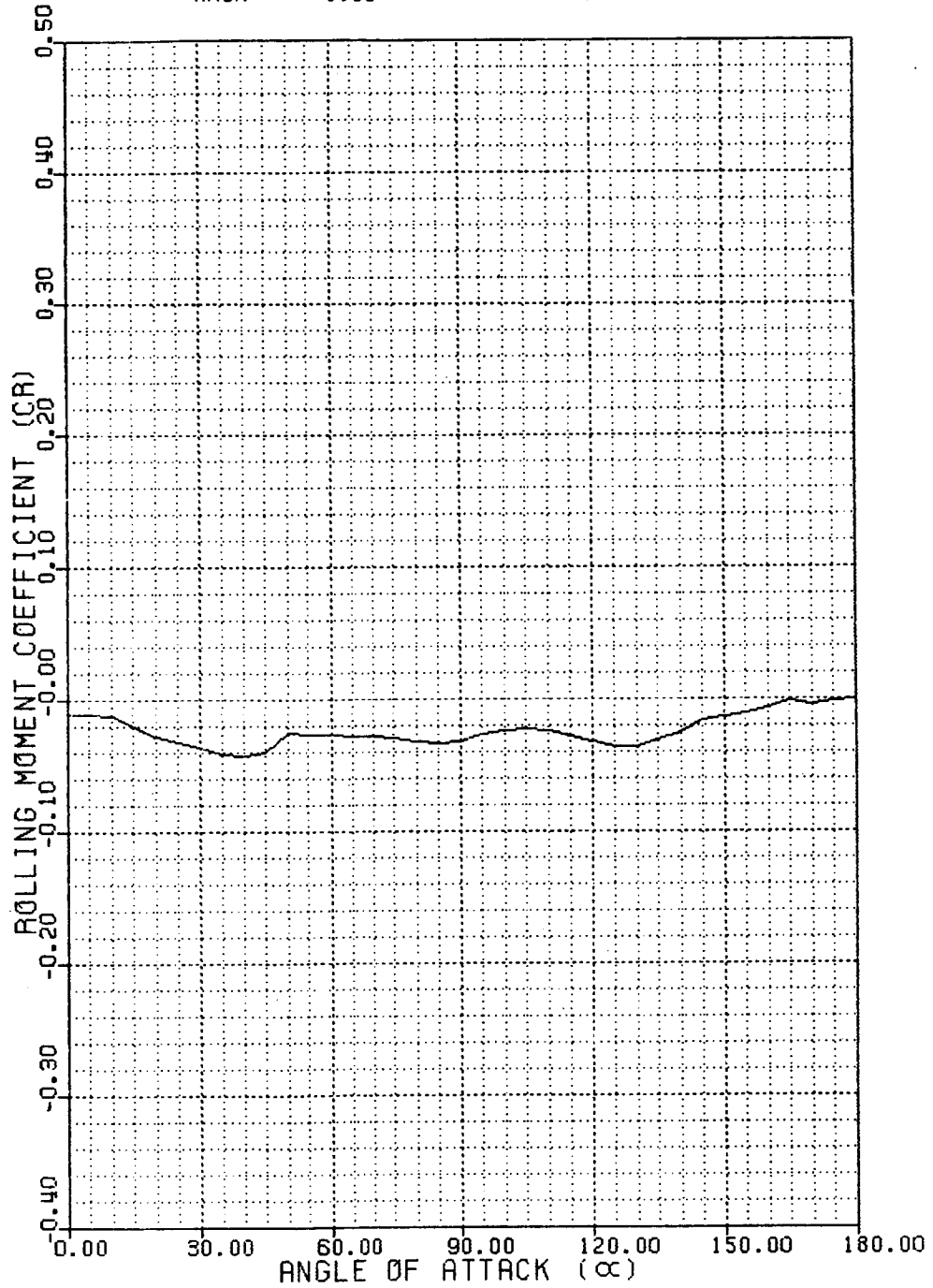
B-794

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 90

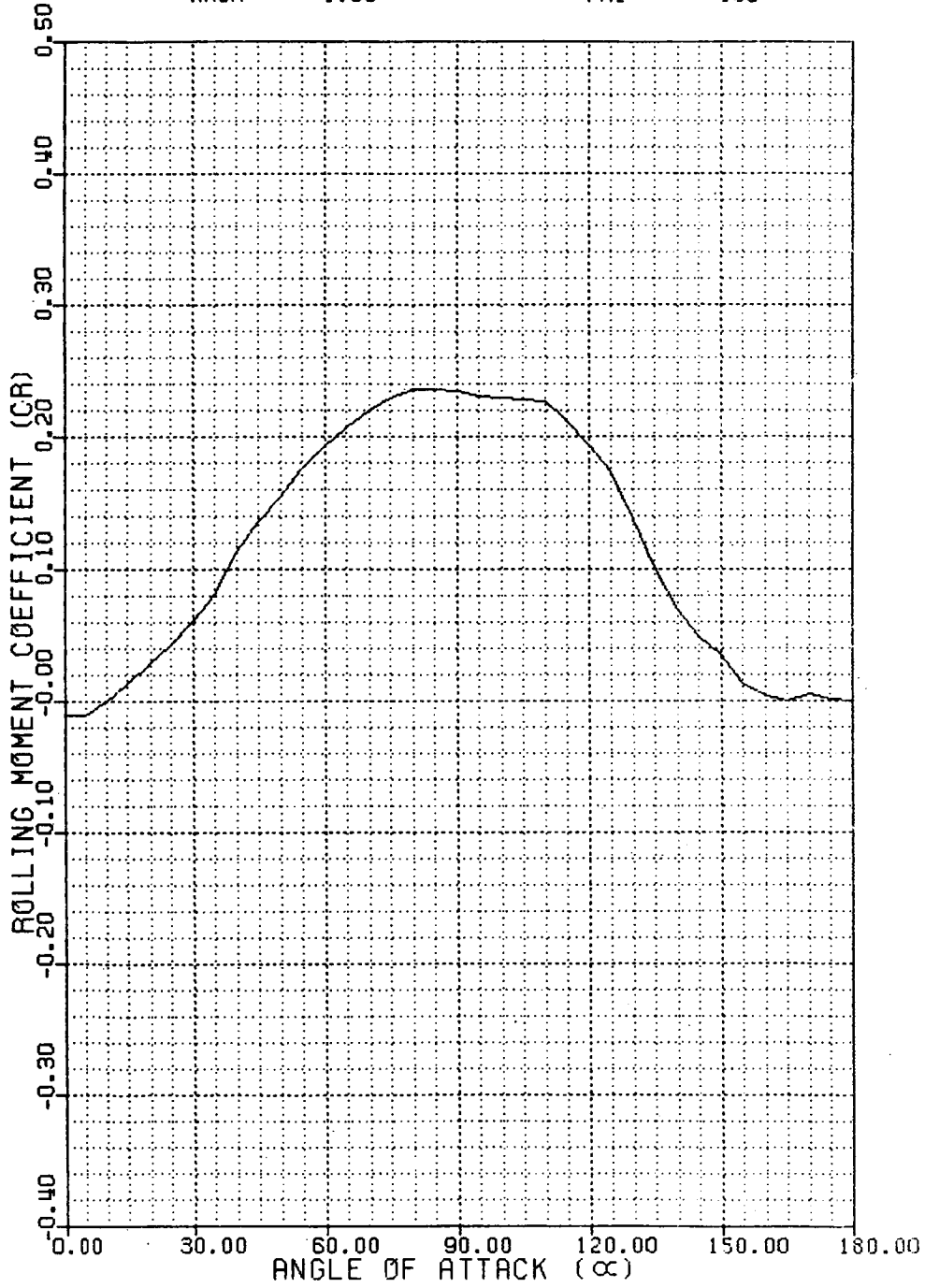


B-795

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 135

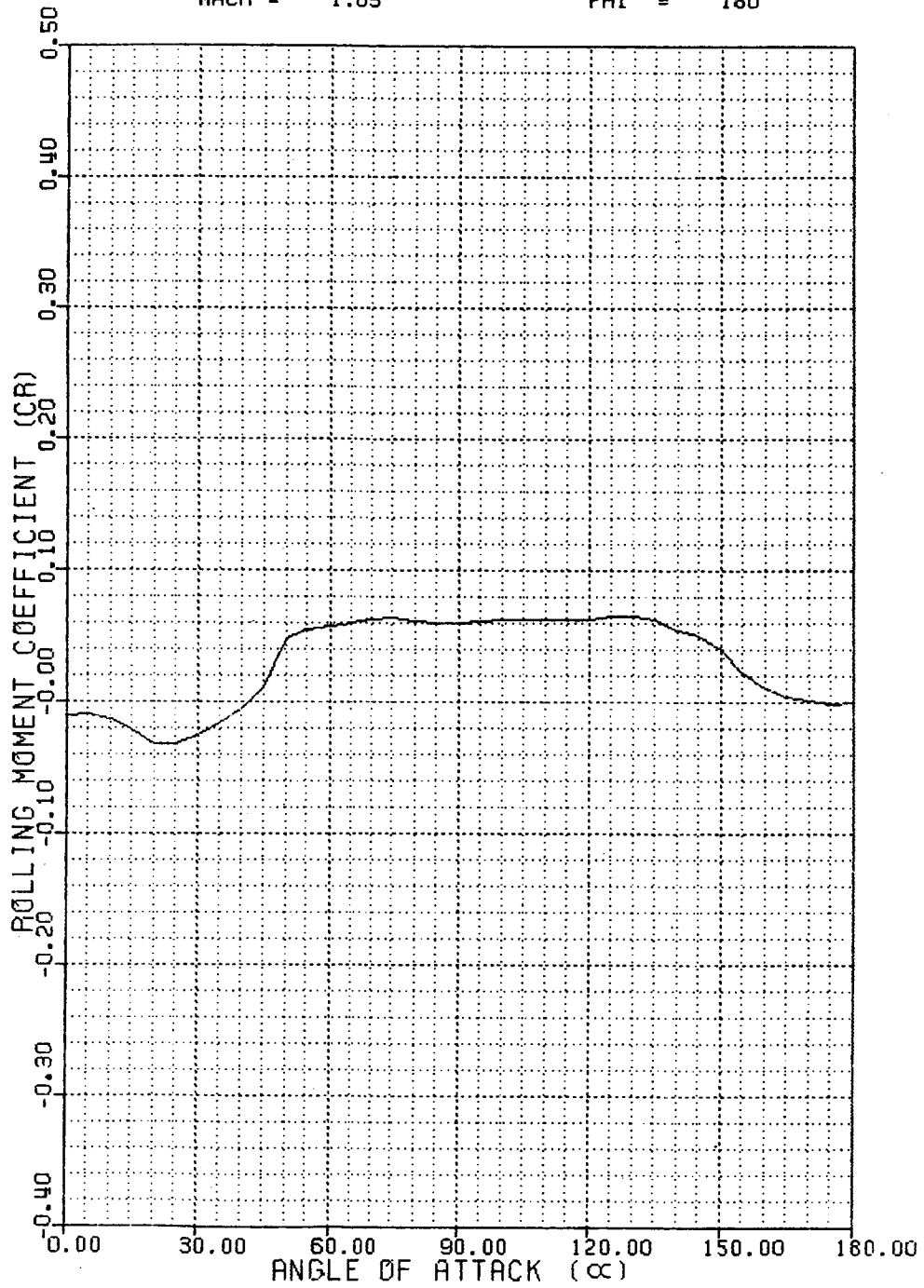


B-796

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 180



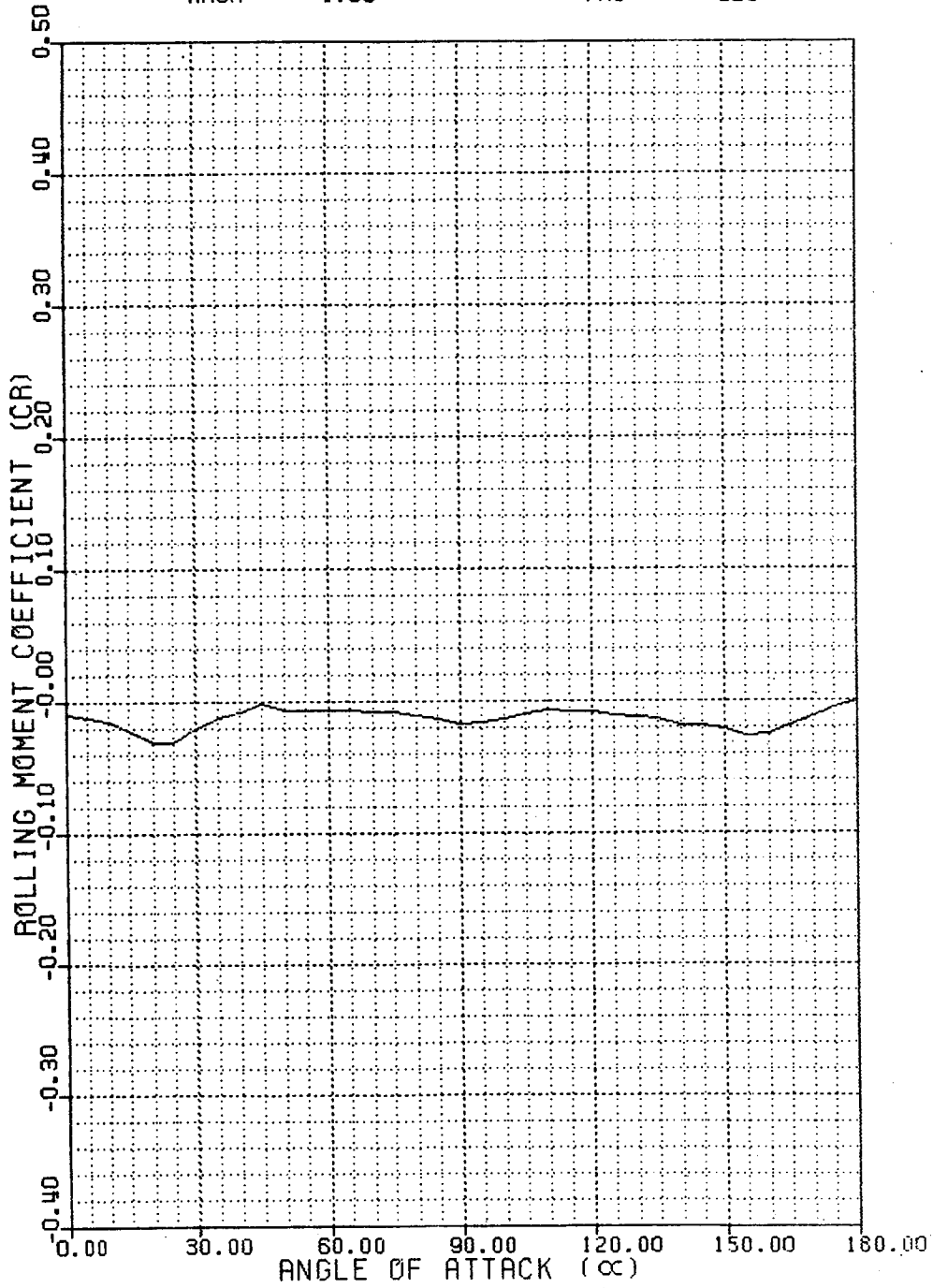
B-797



# SRB TAPE 8 DATA

MACH = 1.05

PHI = 225



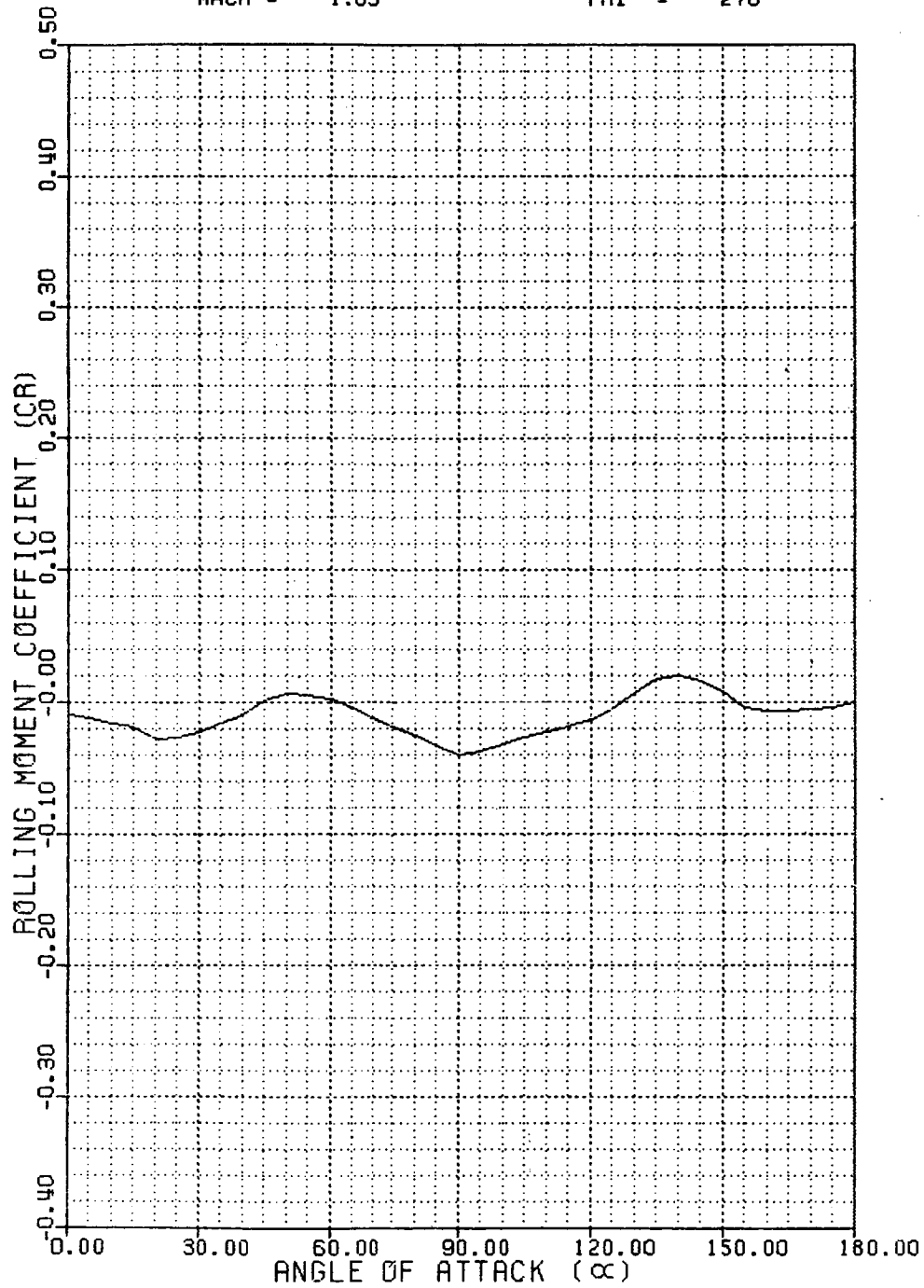
B-798

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 270

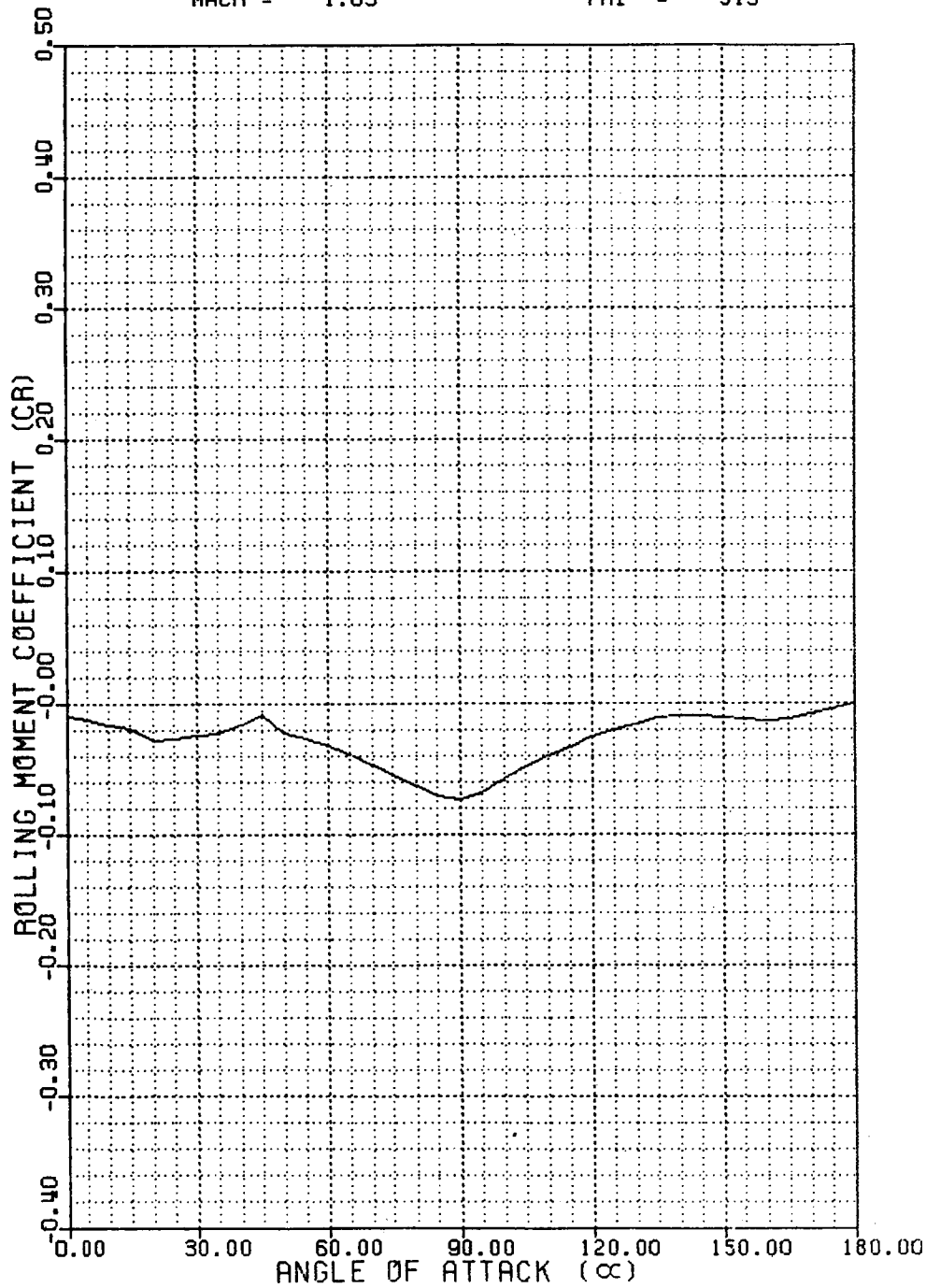


B-799

# SRB TAPE 8 DATA

MACH = 1.05

PHI = 315



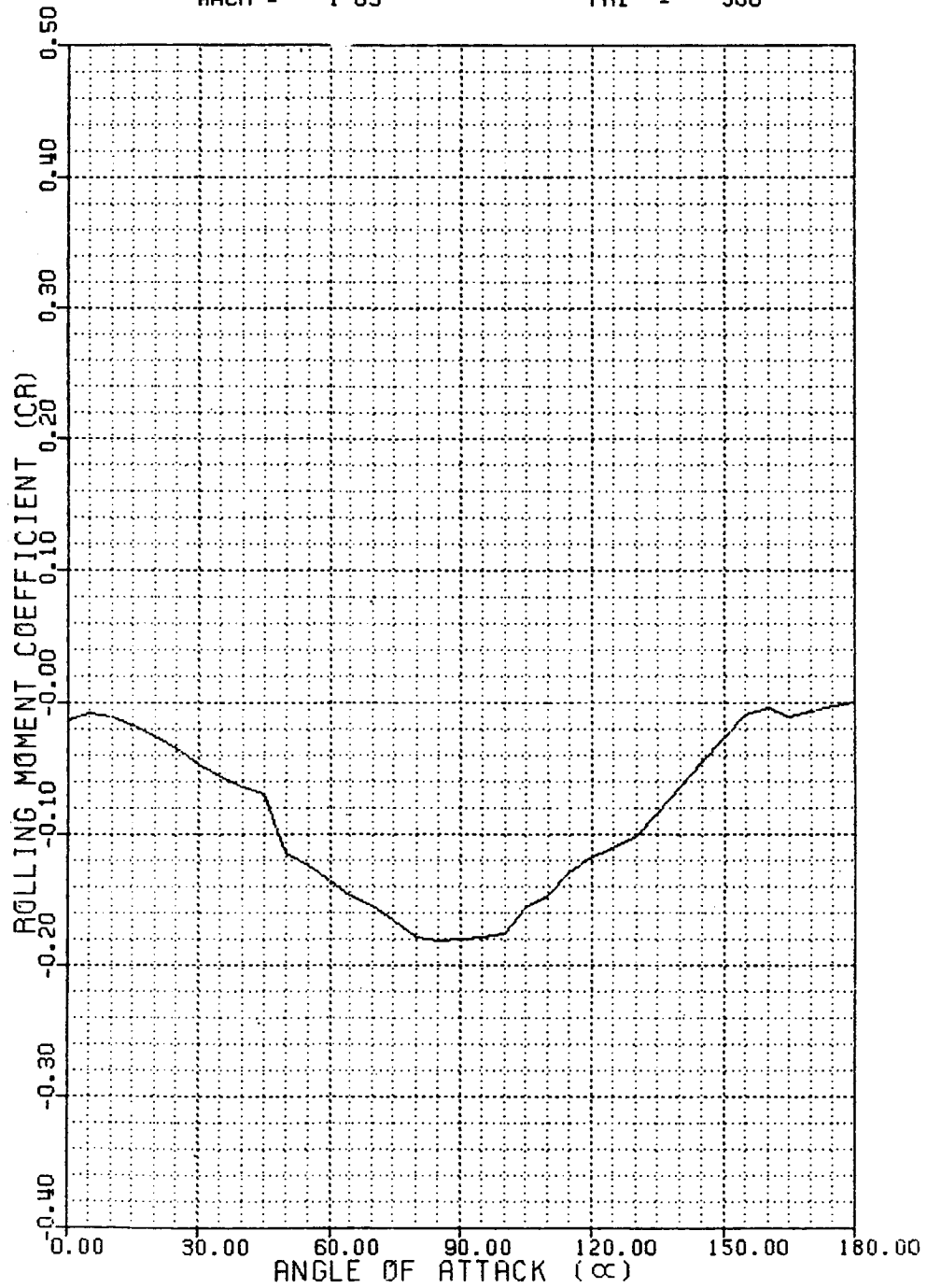
B-800

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1 05

PHI = 360



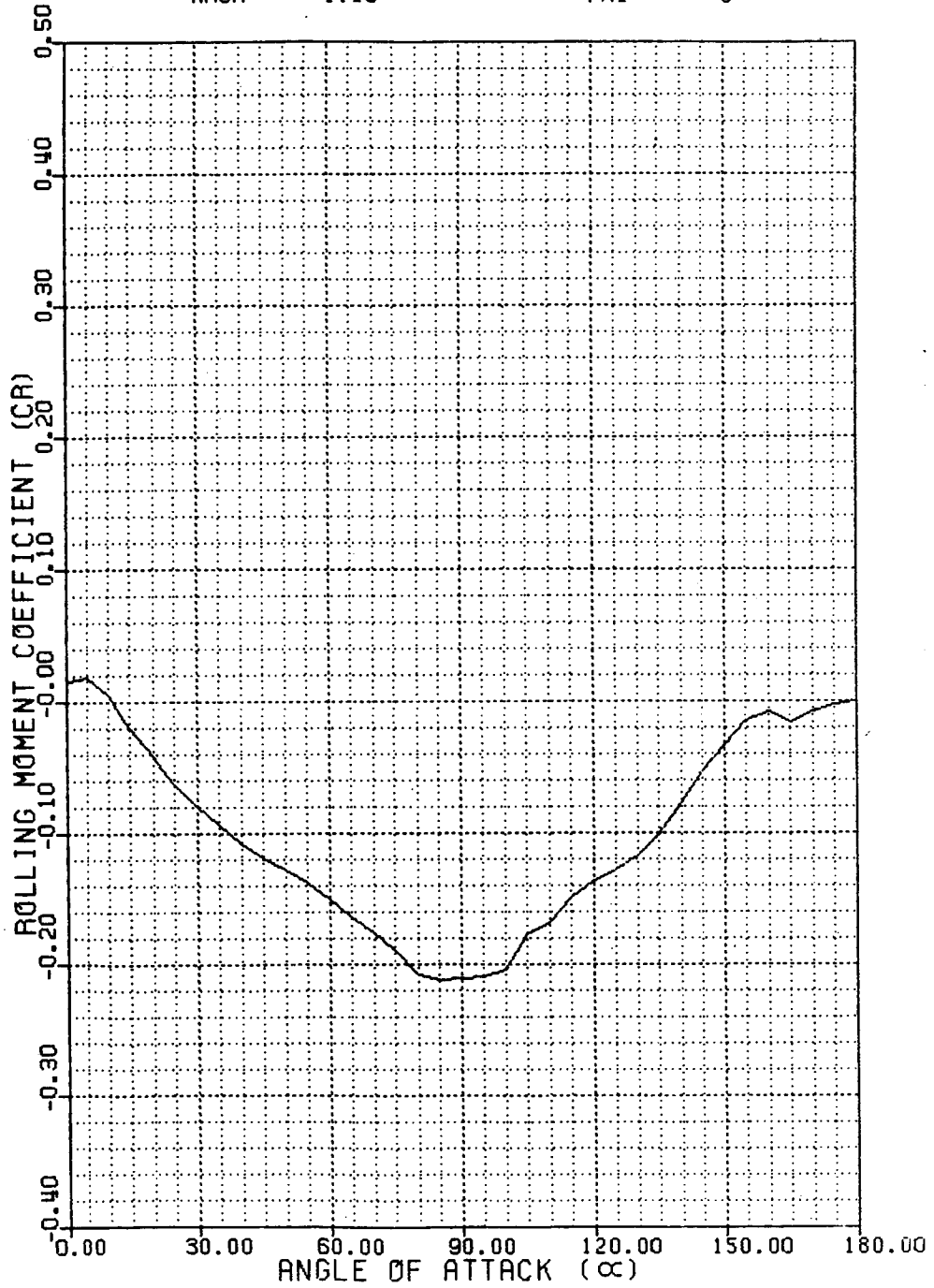
B-801

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 0



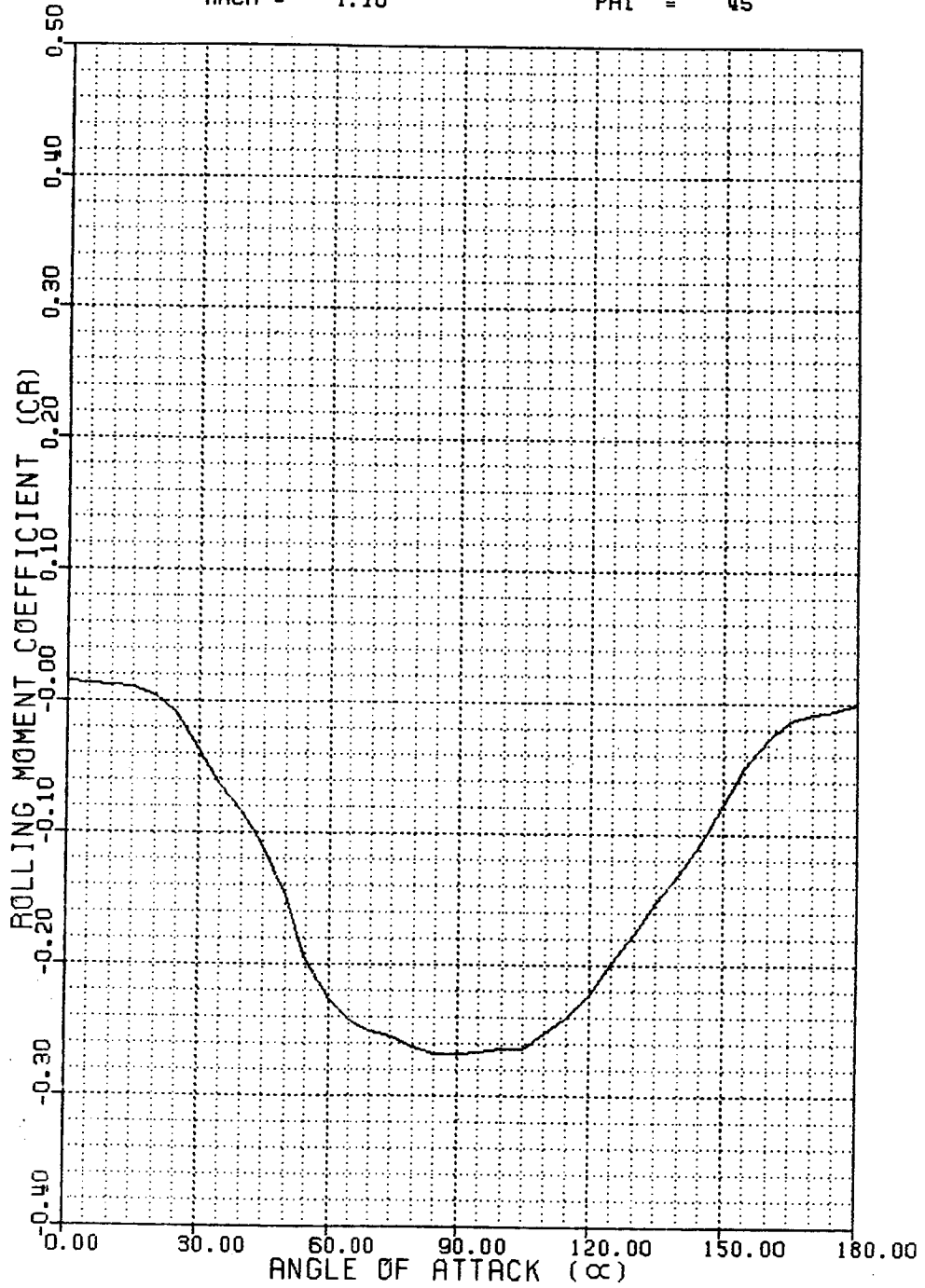
B-802

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 45



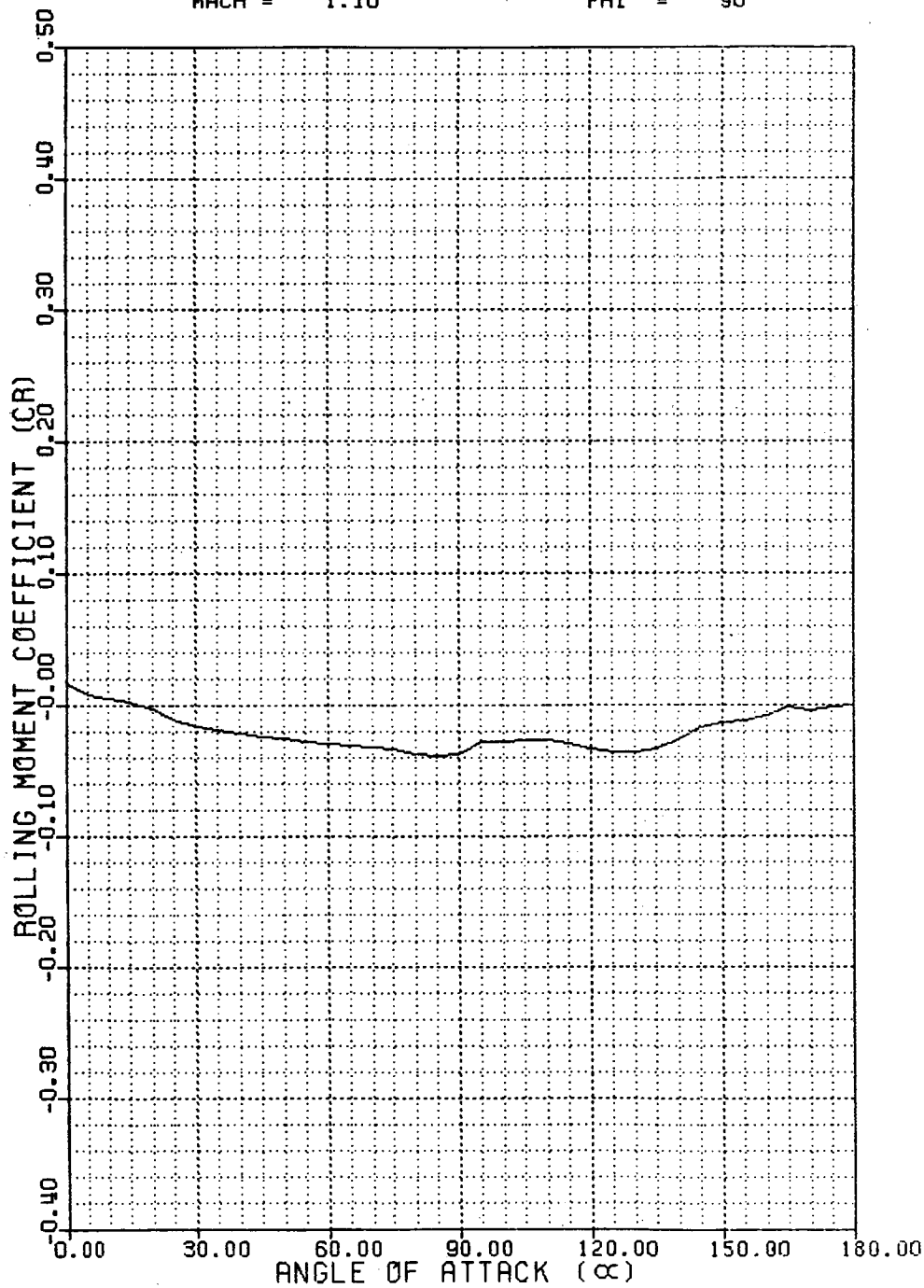
B-803

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 90

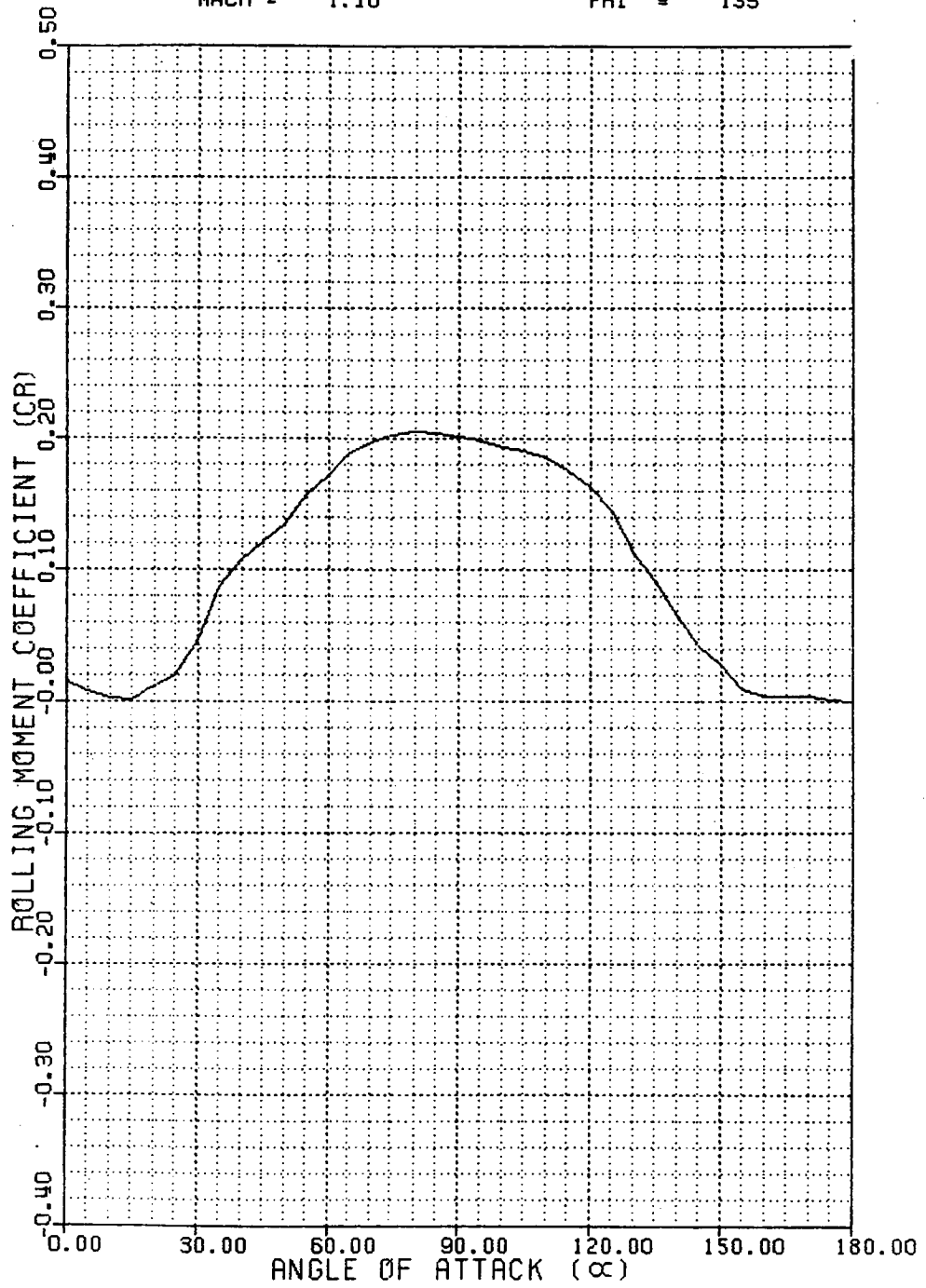


B-804

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 135



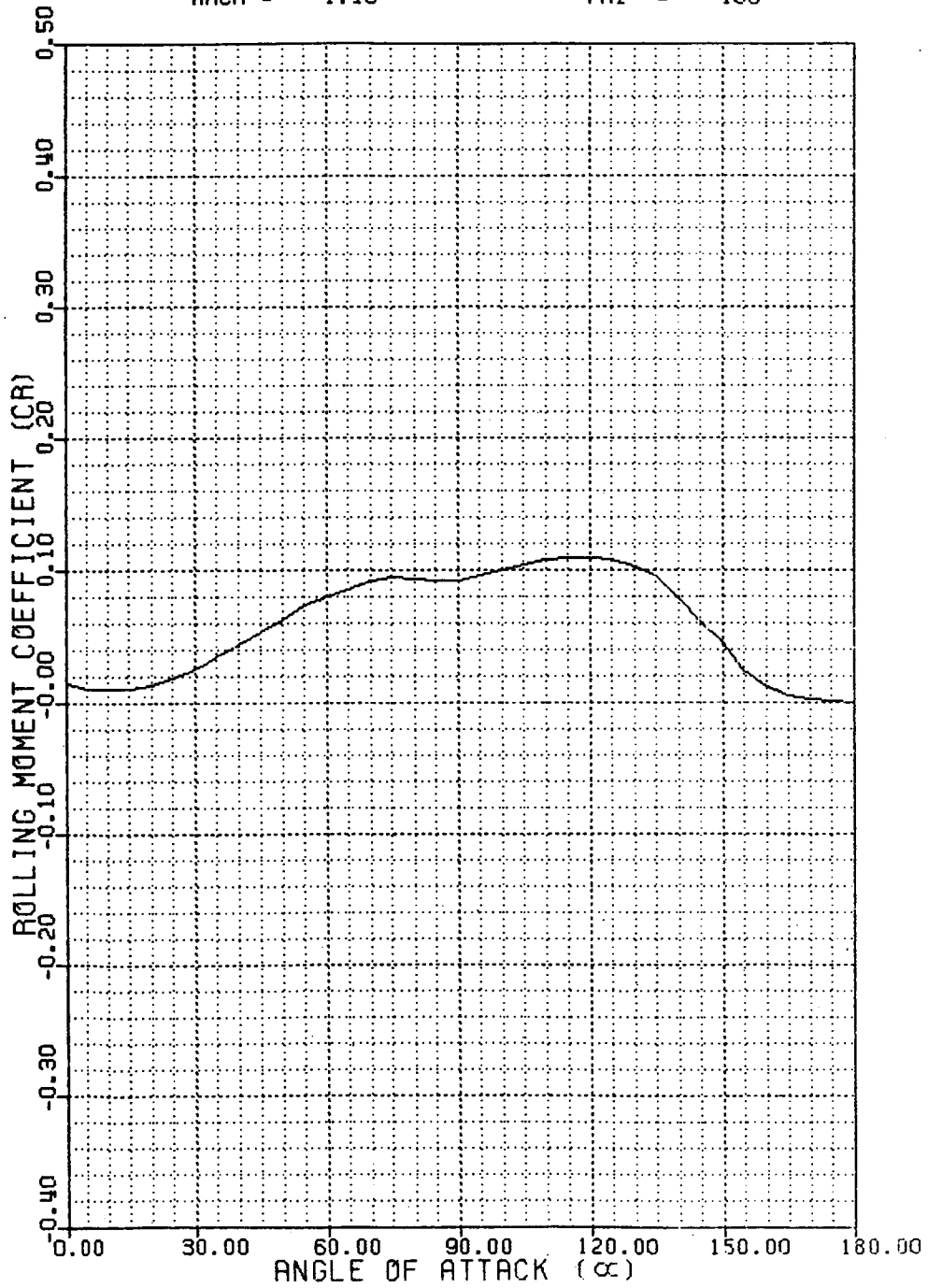
B-805



# SRB TAPE 8 DATA

MACH = 1.10

PHI = 180



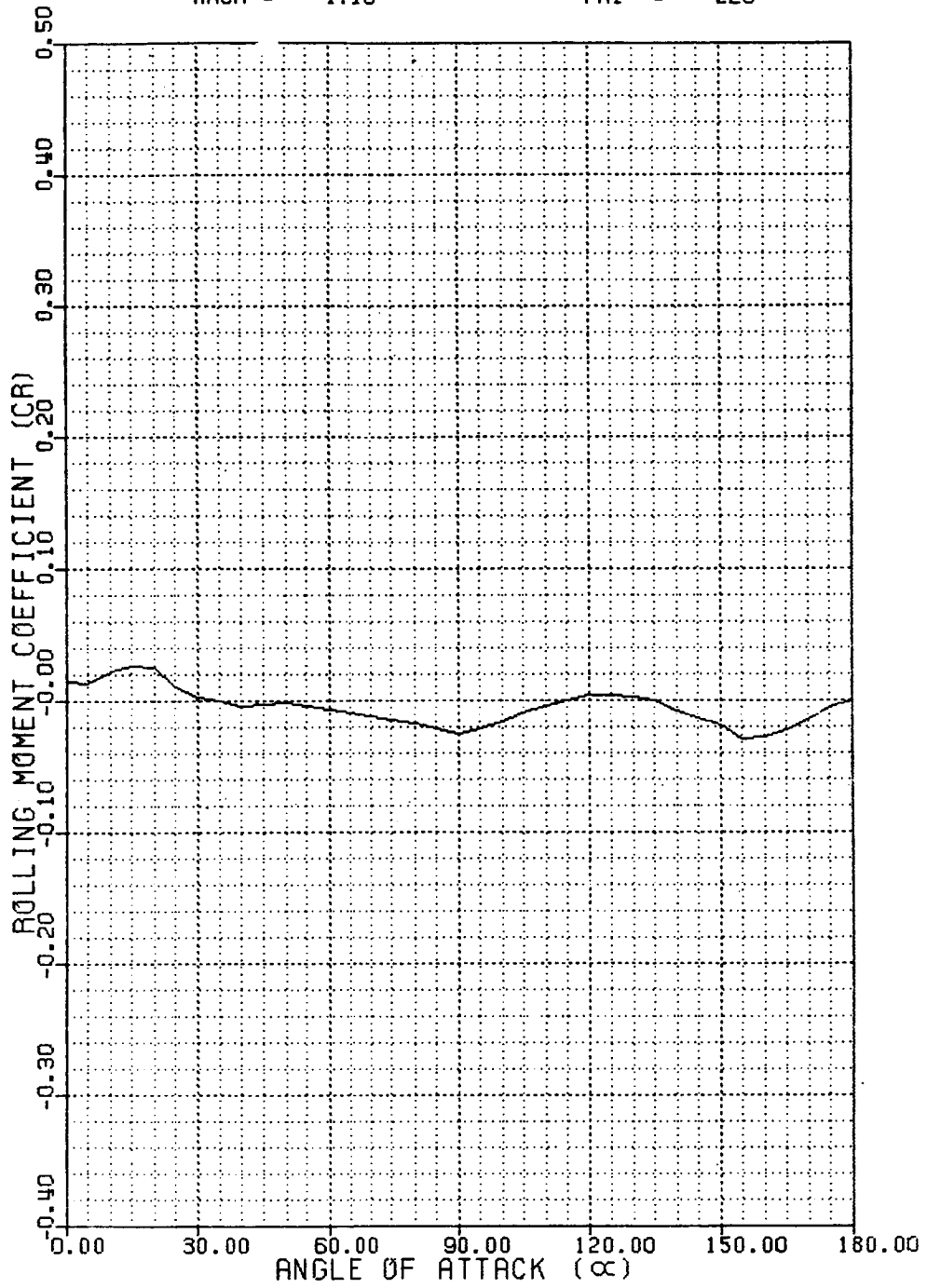
B-806

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 225



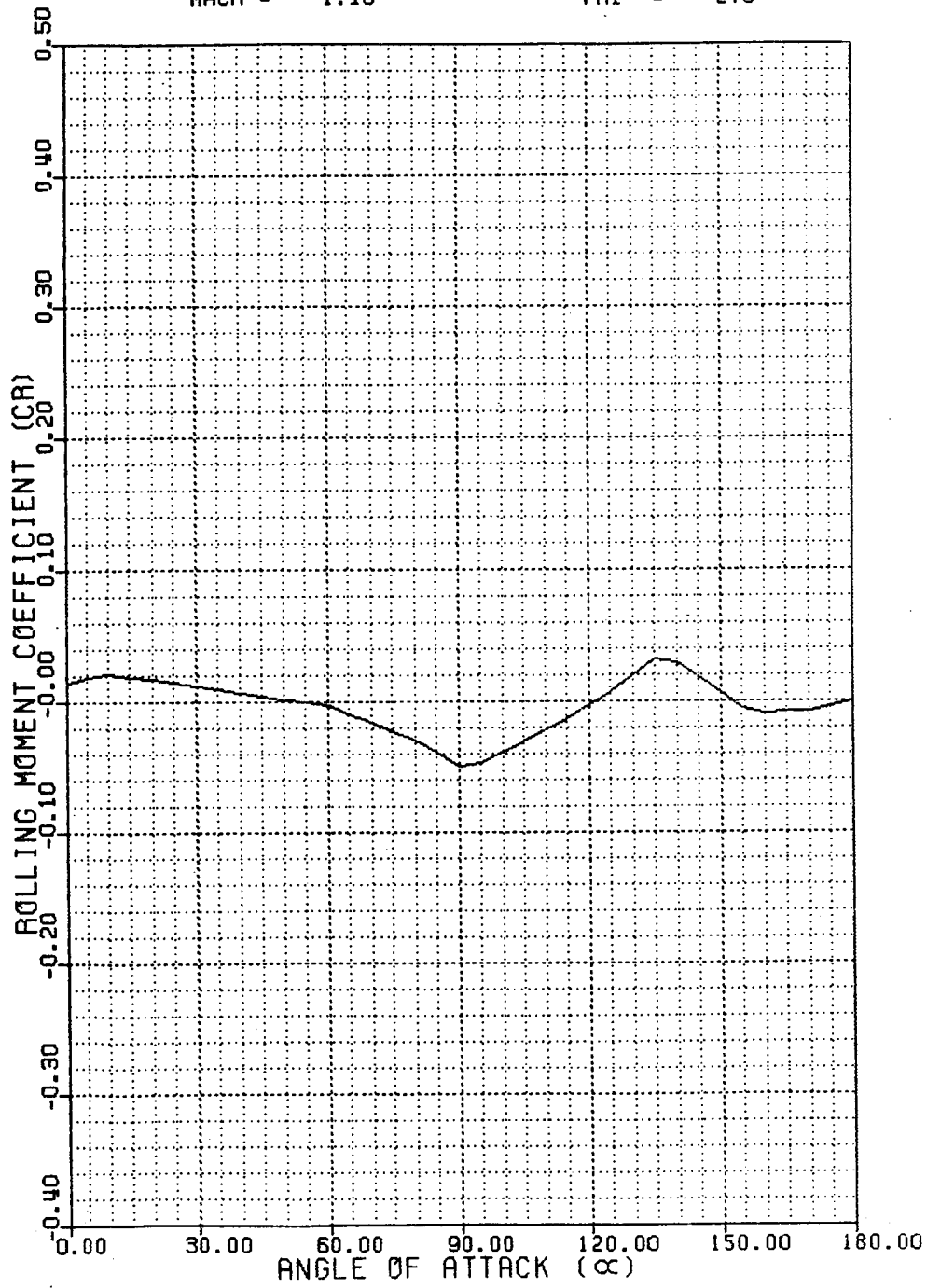
B-807

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 270



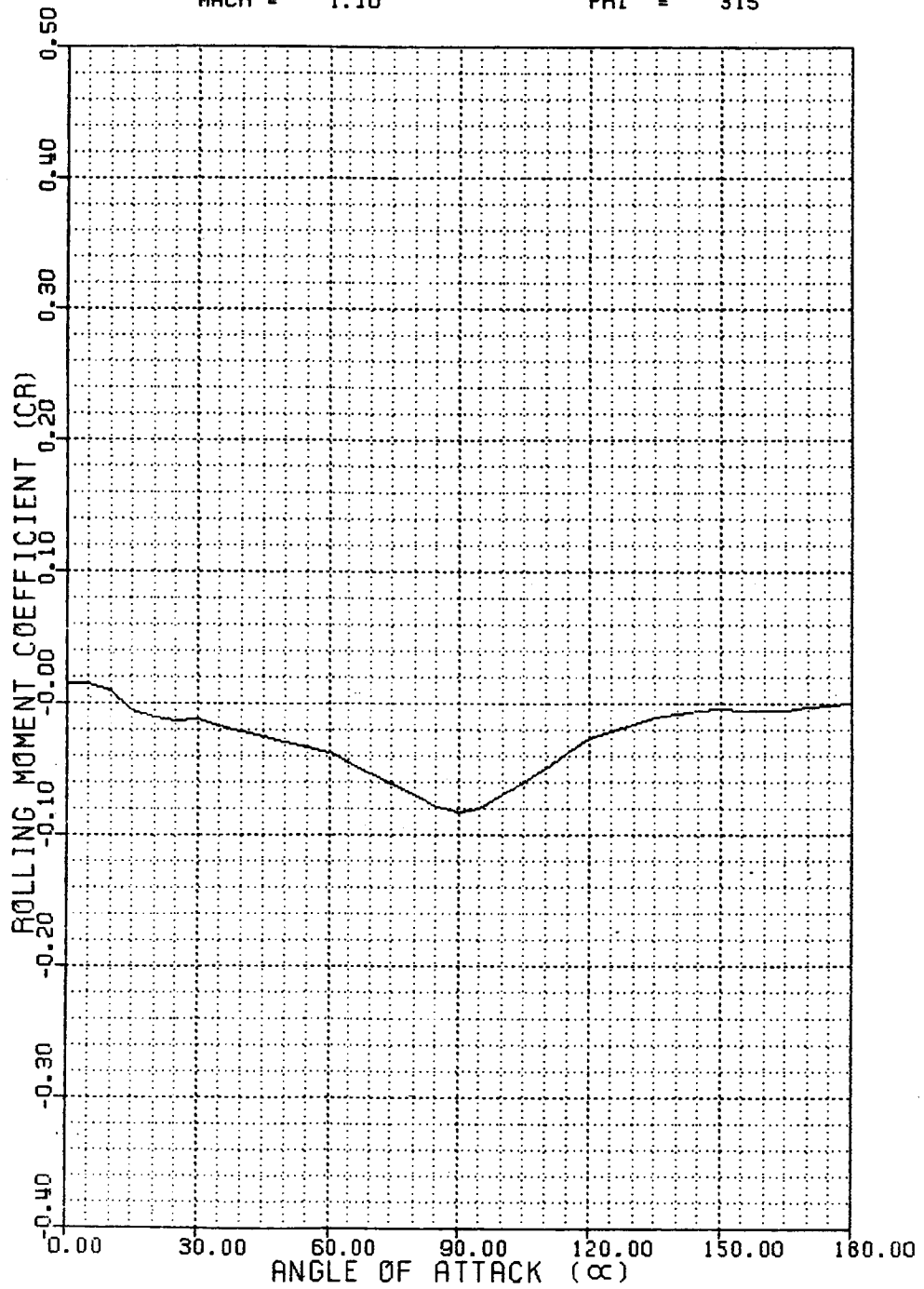
B-808

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 315

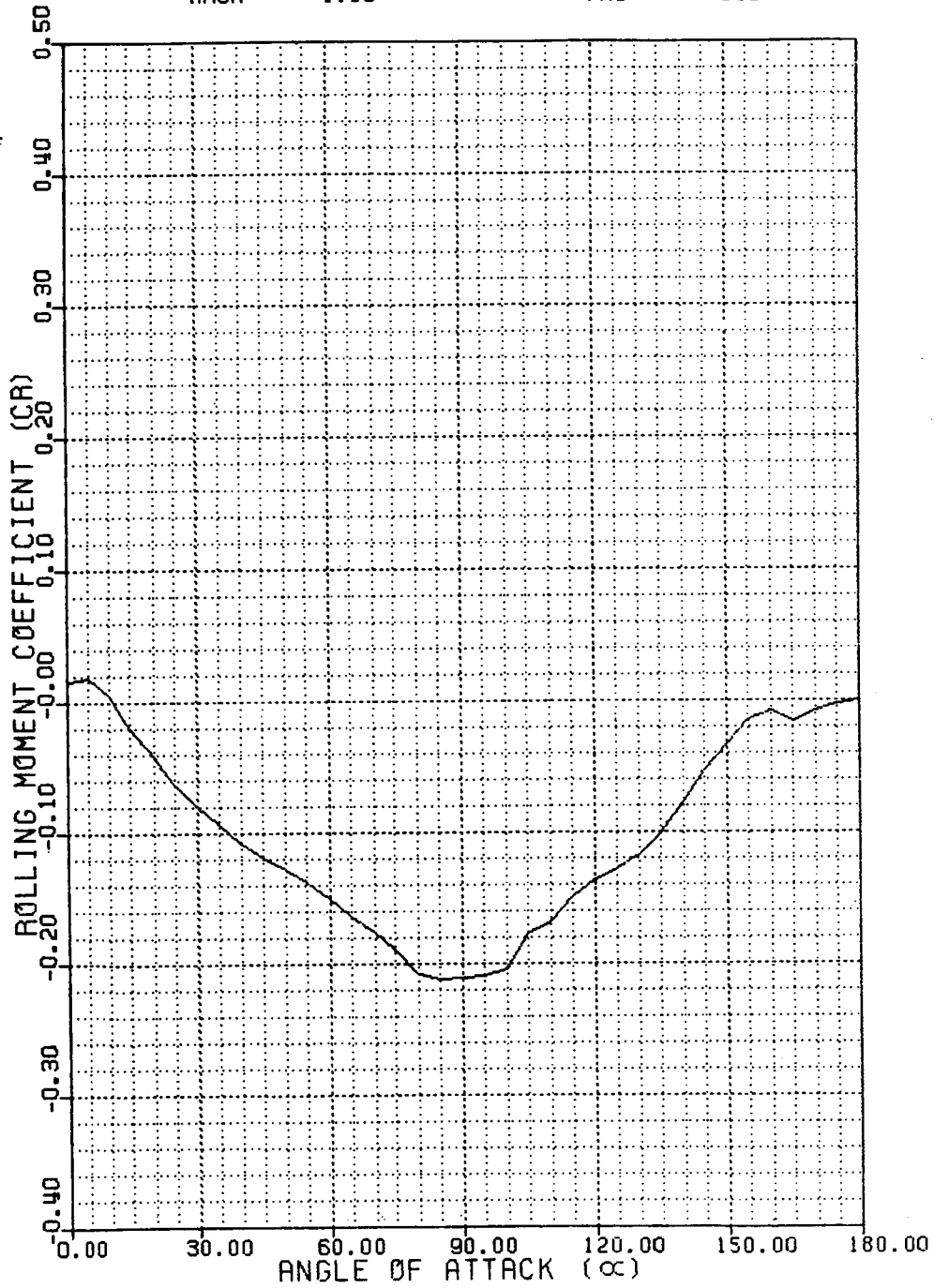


B-809

# SRB TAPE 8 DATA

MACH = 1.10

PHI = 360



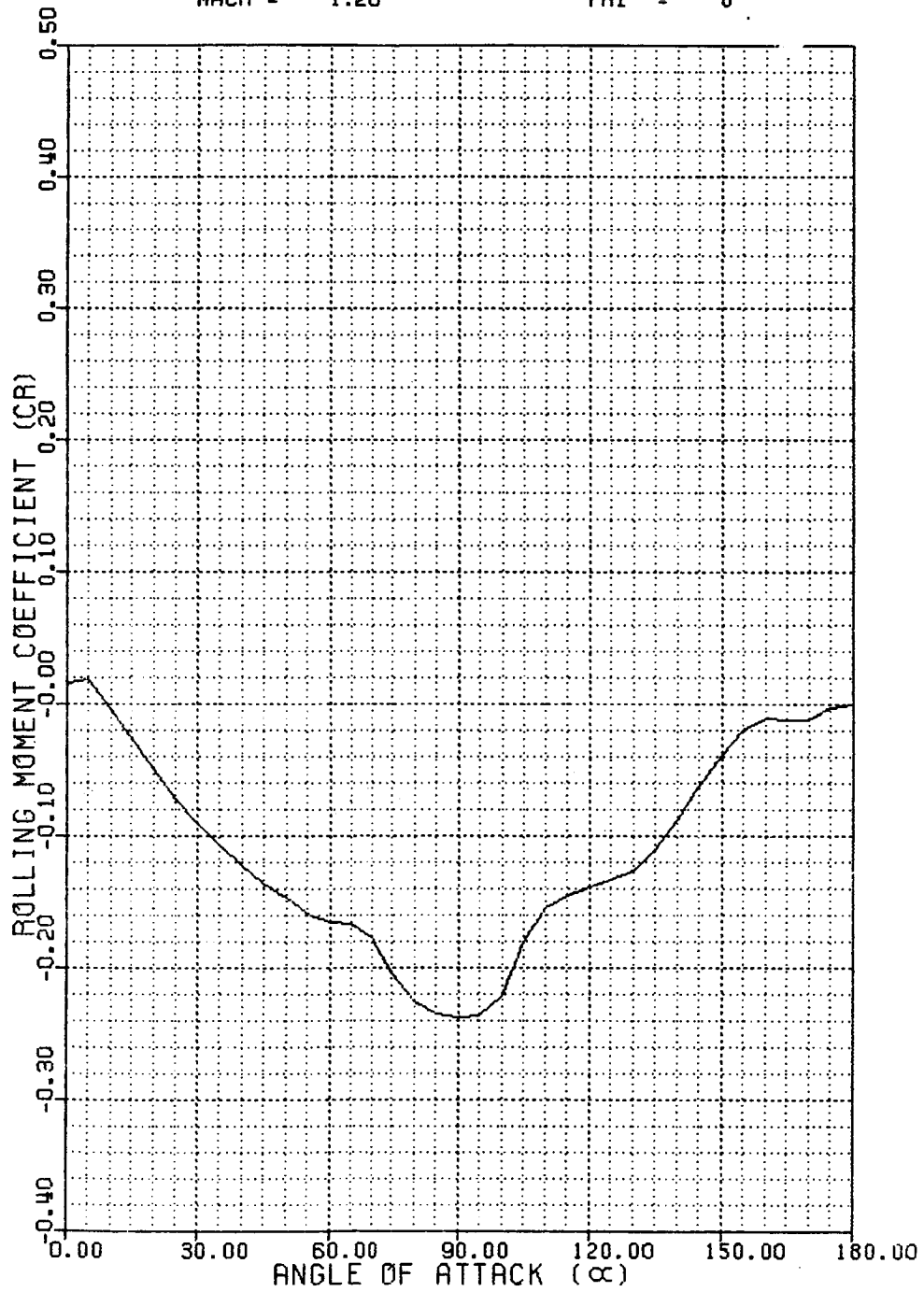
B-810

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 0

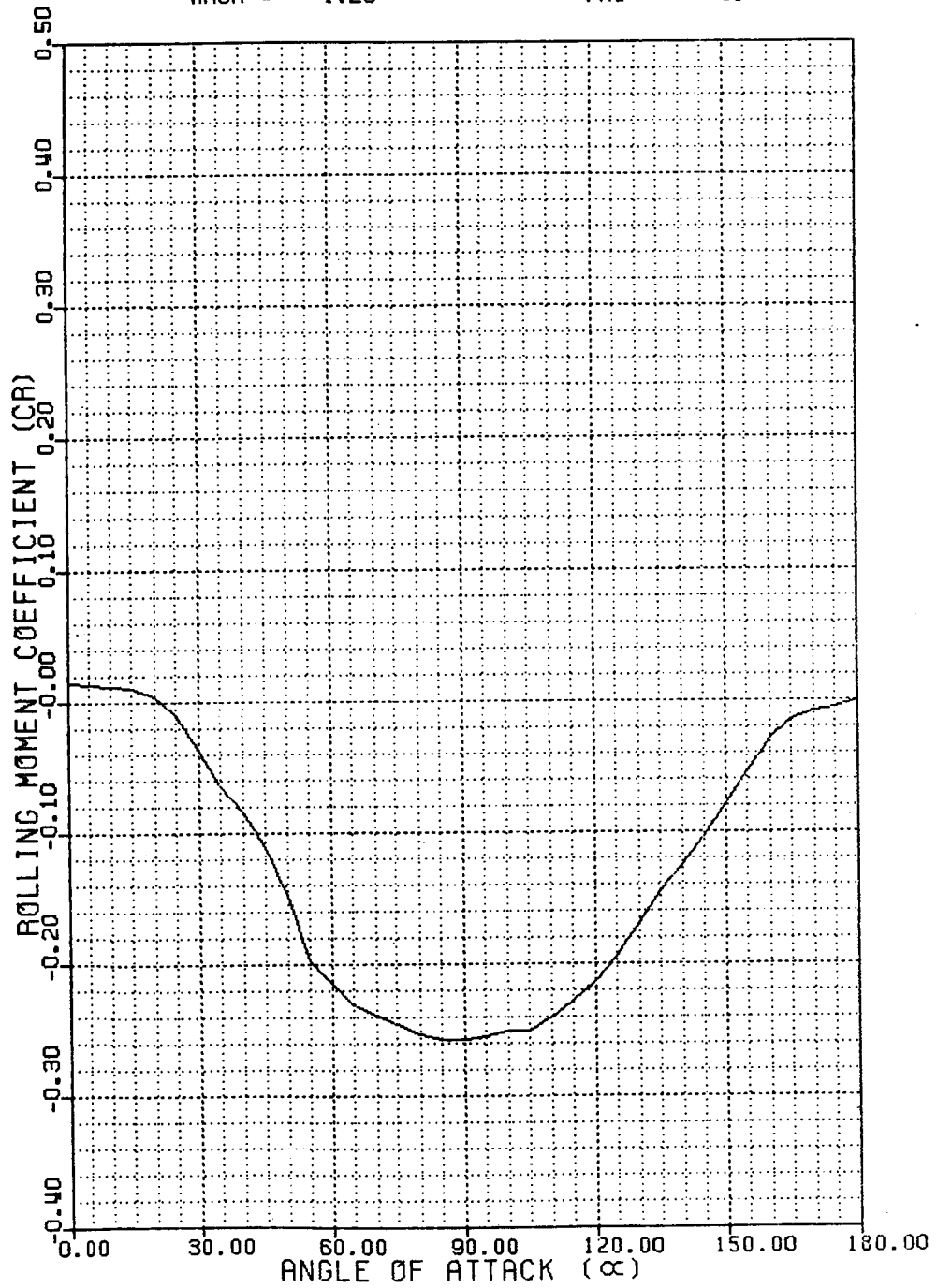


B-811

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 45



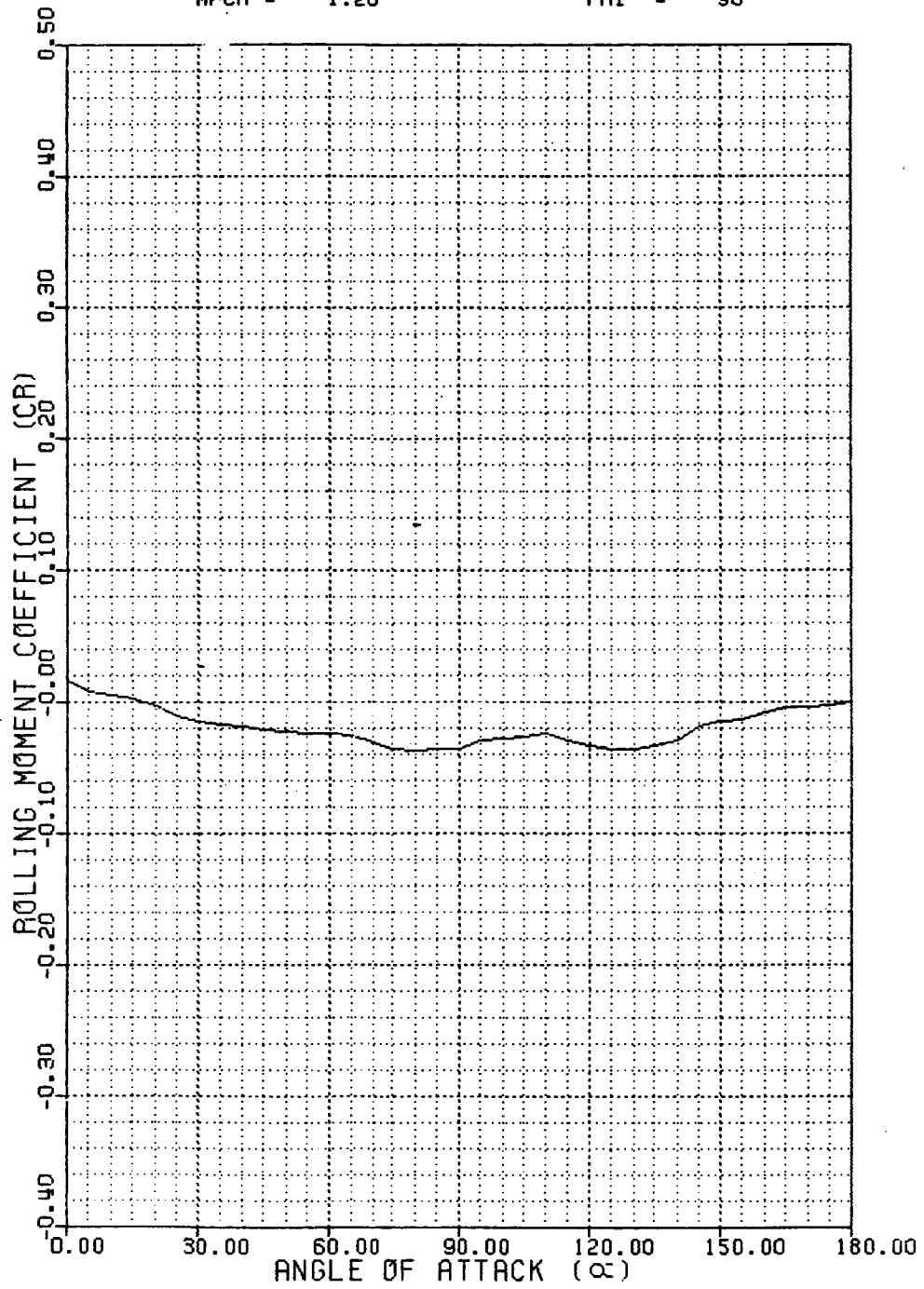
B-812

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 90



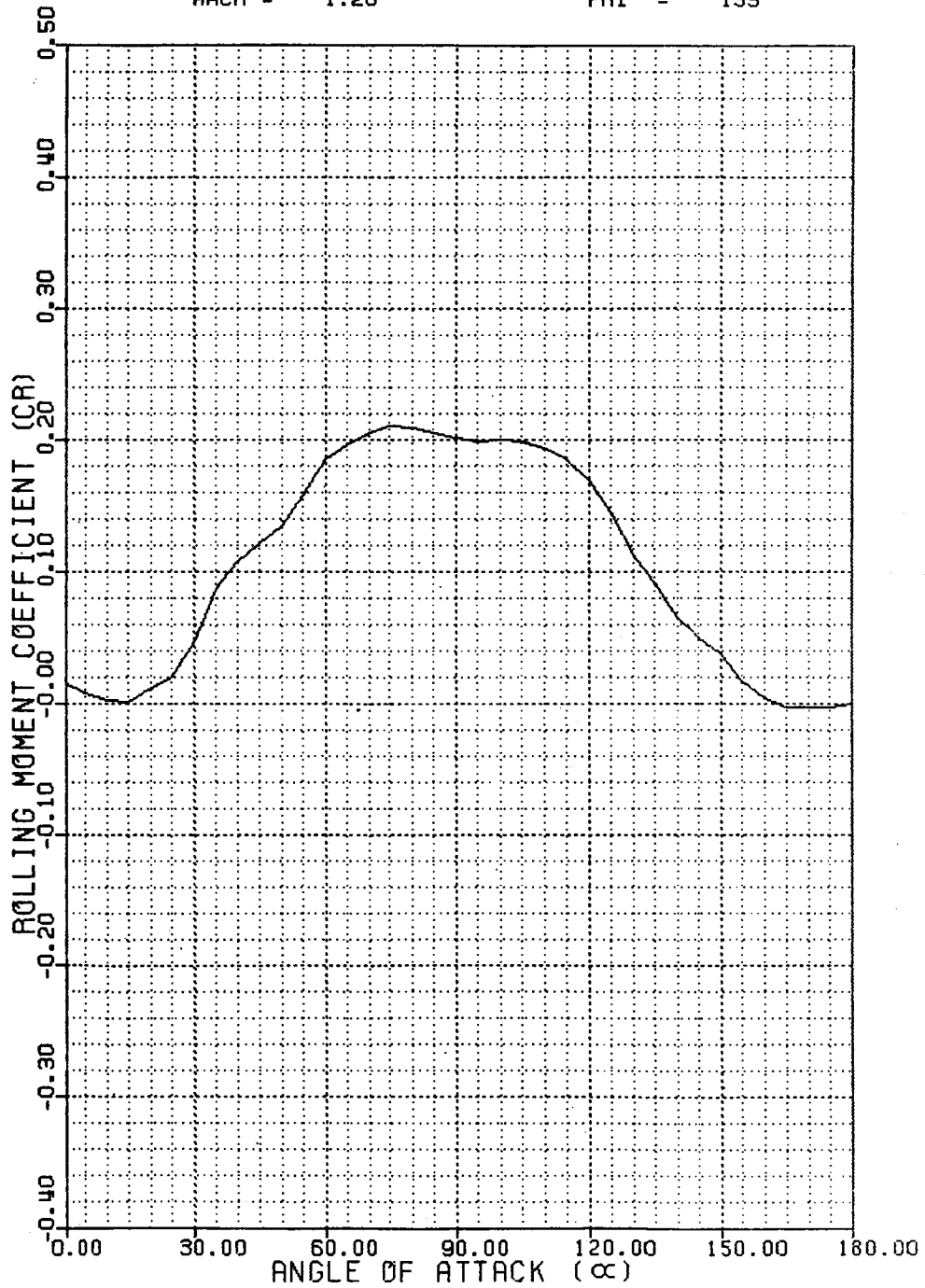
B-813



# SRB TAPE 8 DATA

MACH = 1.20

PHI = 135



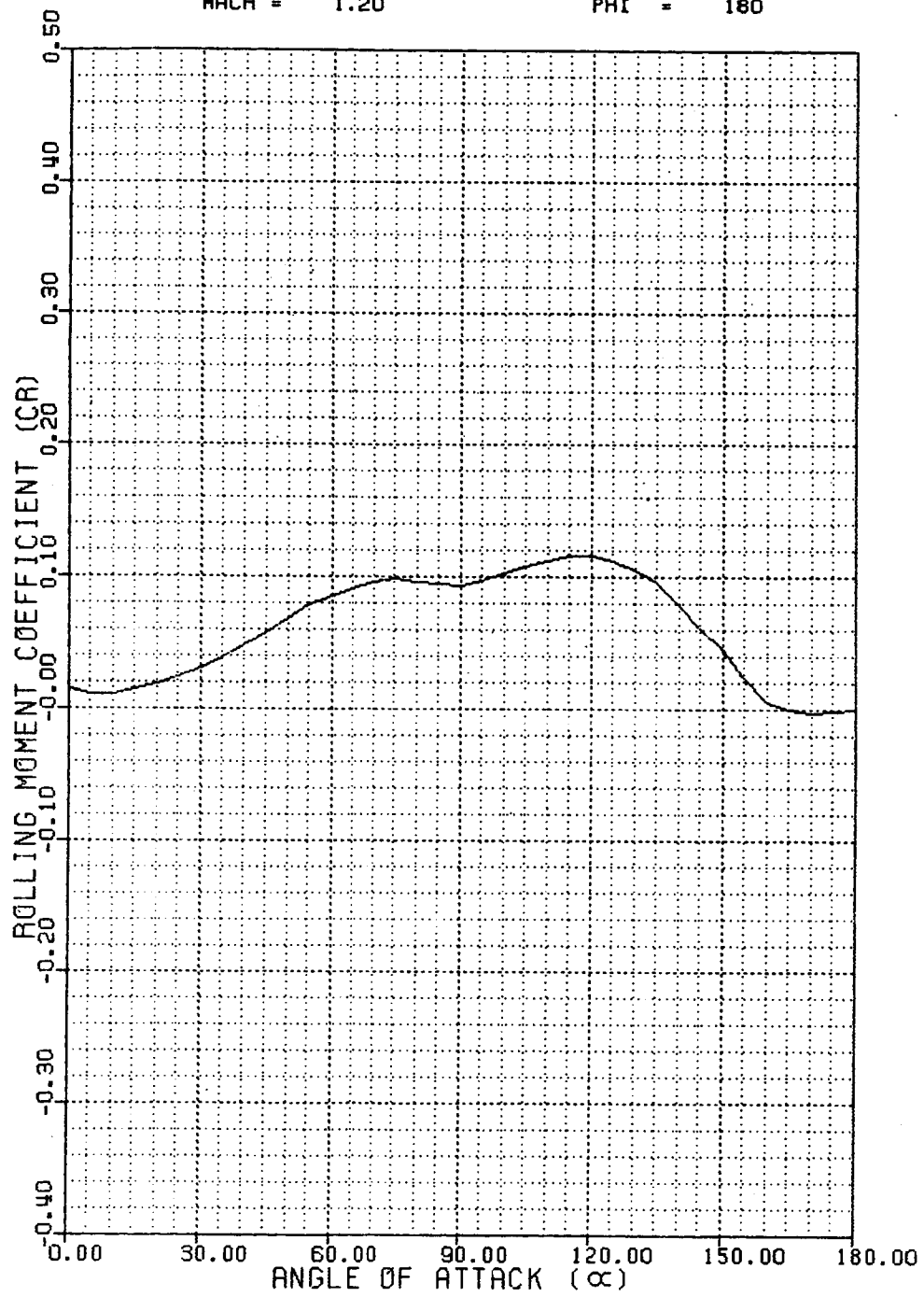
B-814

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 180

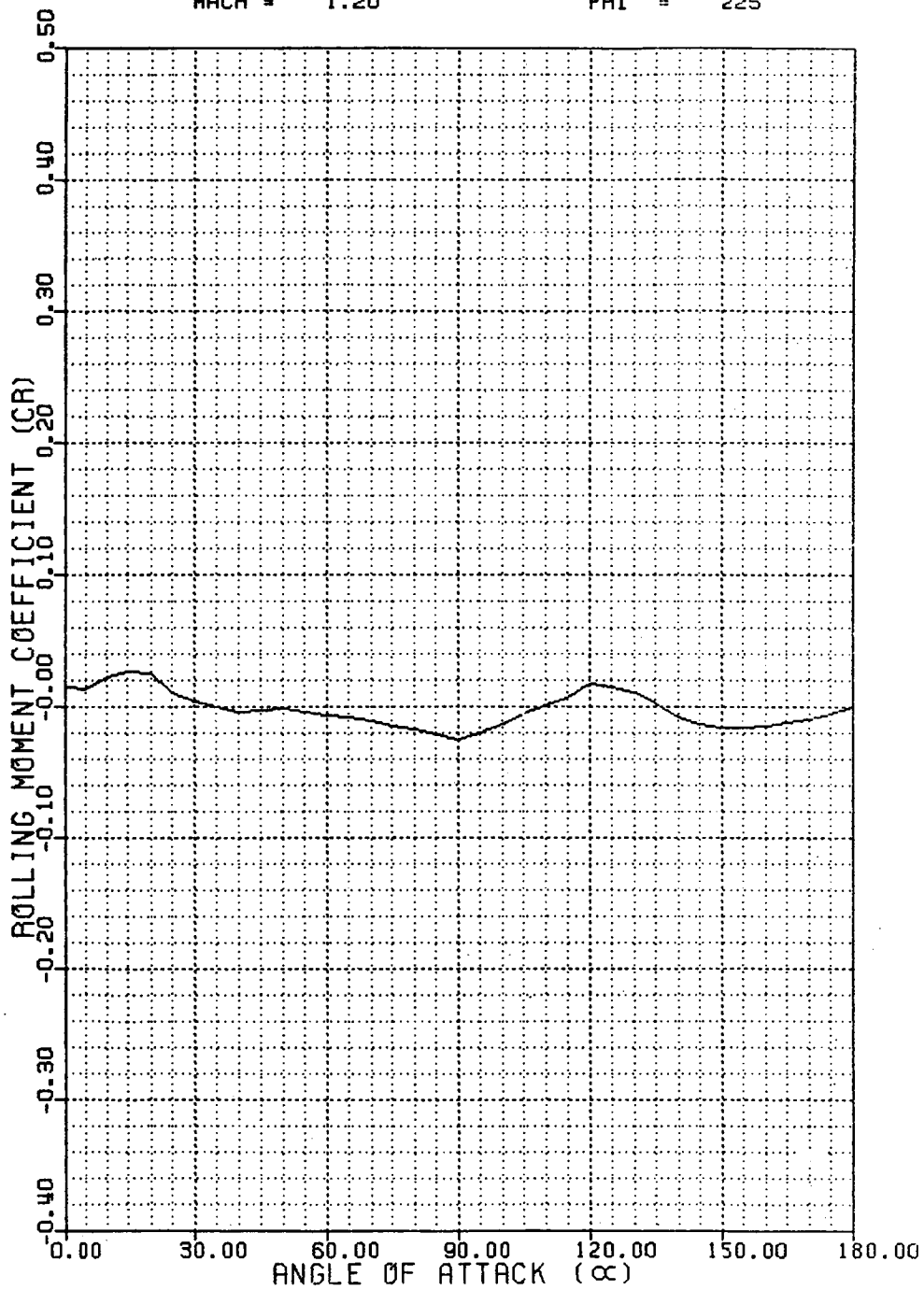


B-815

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 225



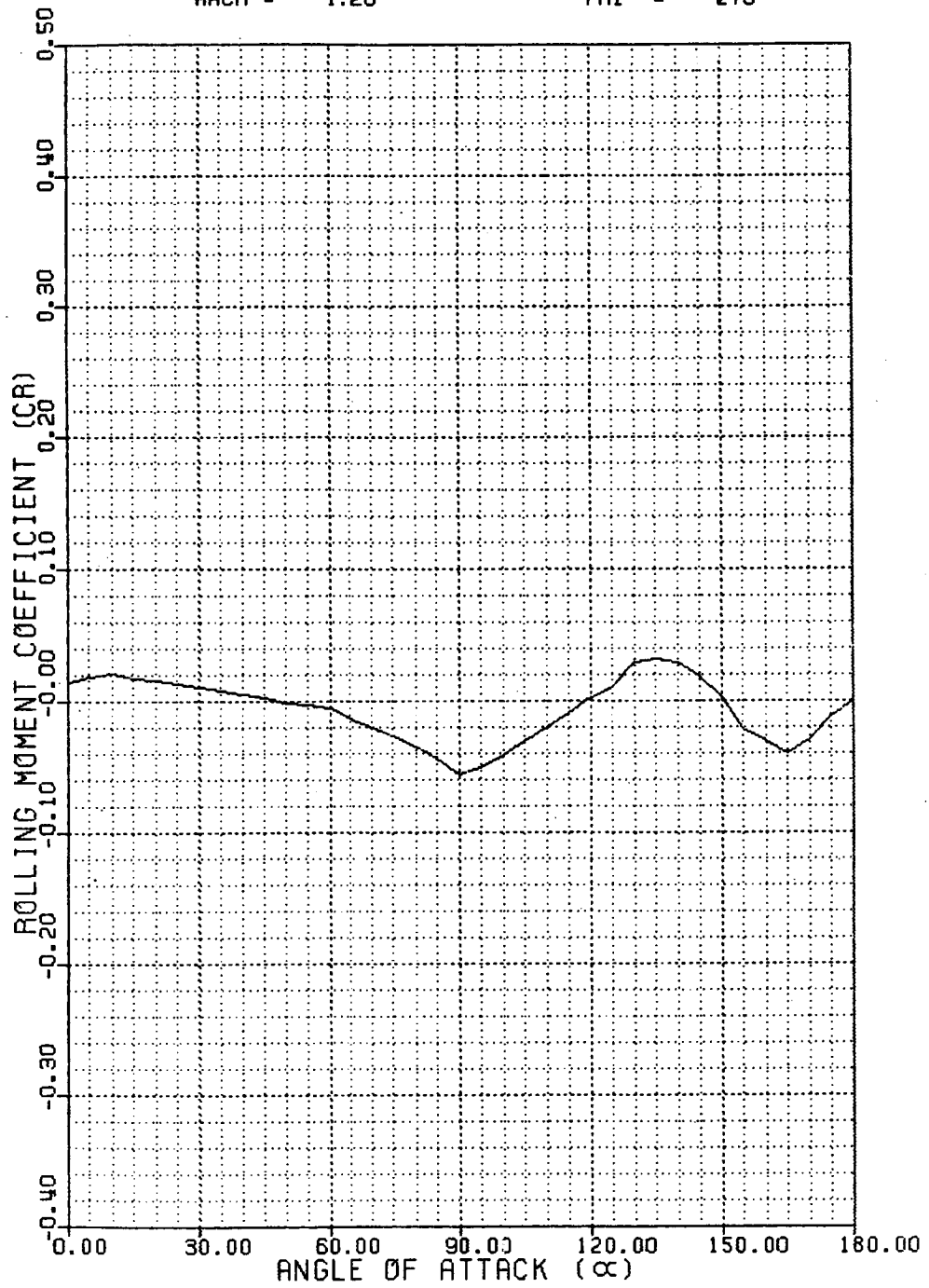
B-816

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OF POOR QUALITY

### SRB TAPE 8 DATA

MACH = 1.20

PHI = 270

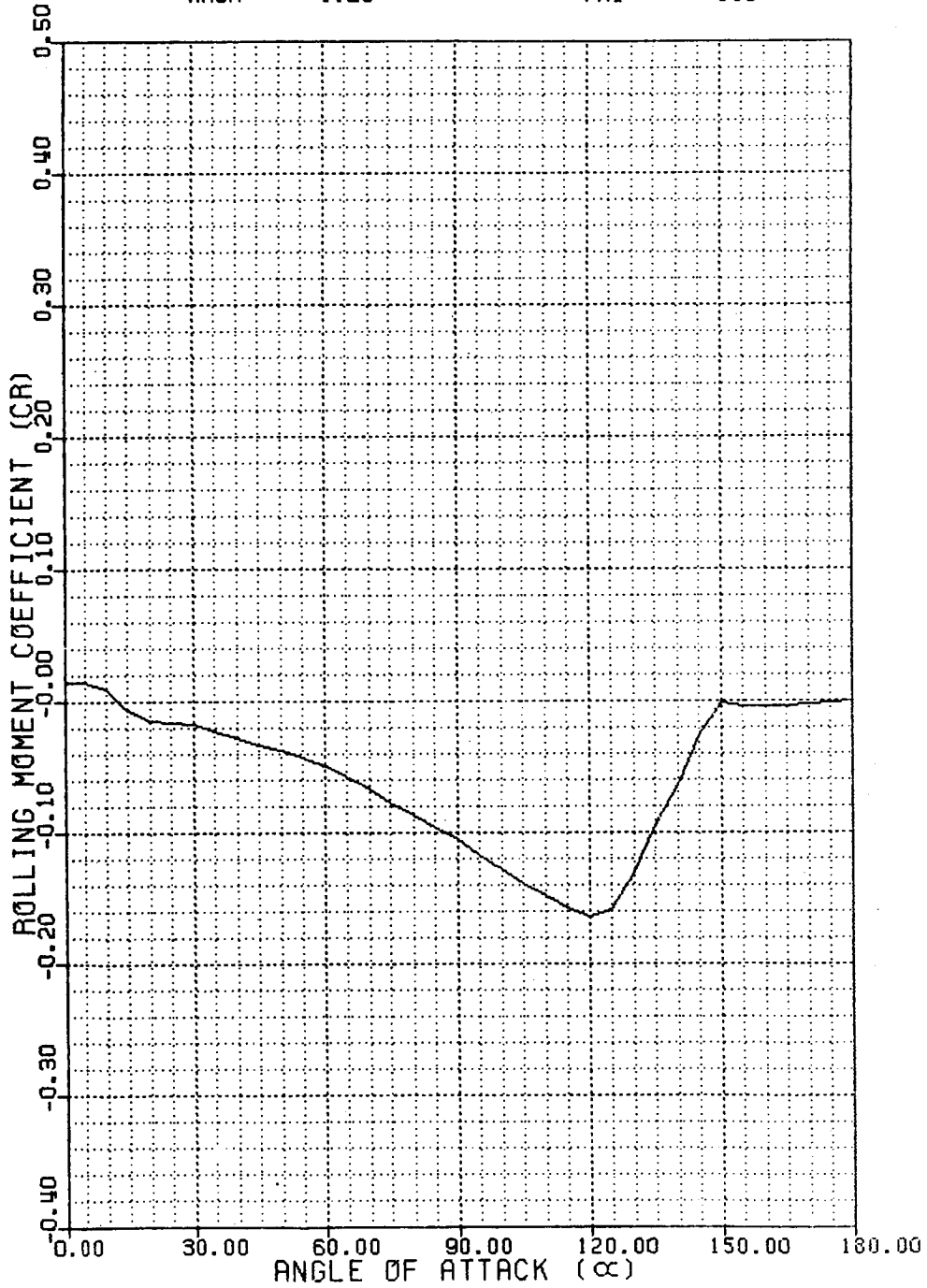


B-817

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 315



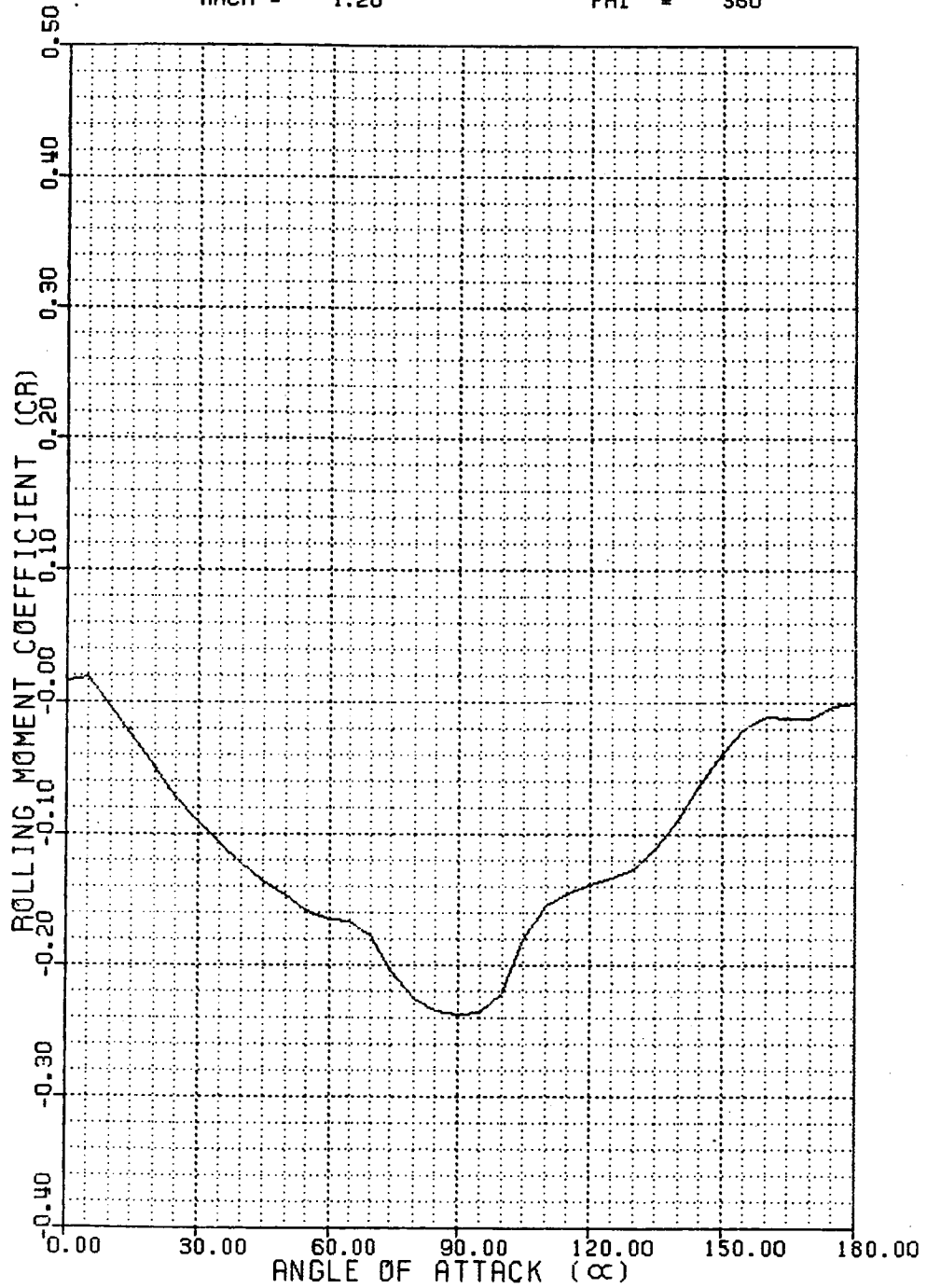
B-818

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.20

PHI = 360

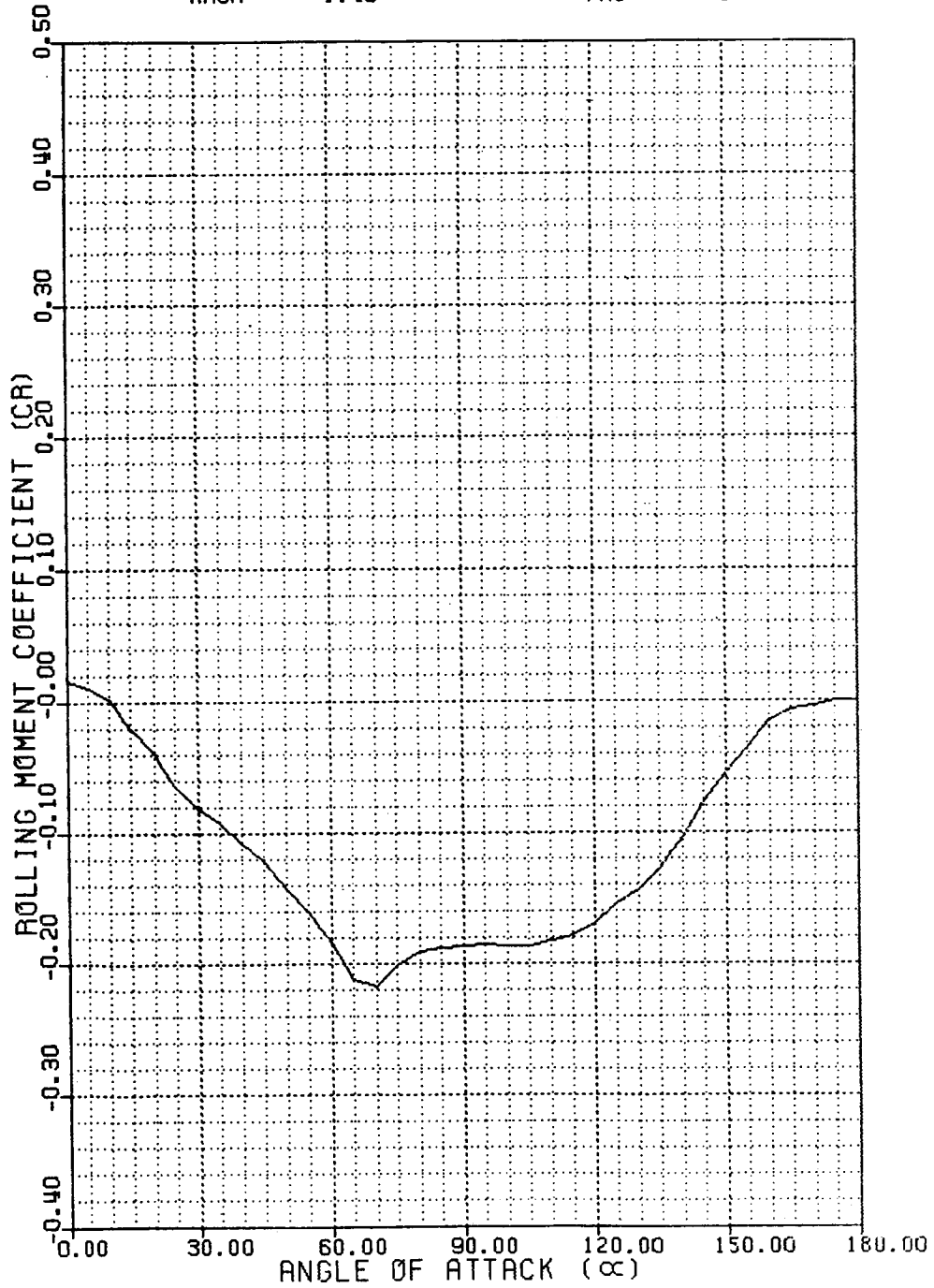


B-819

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 0



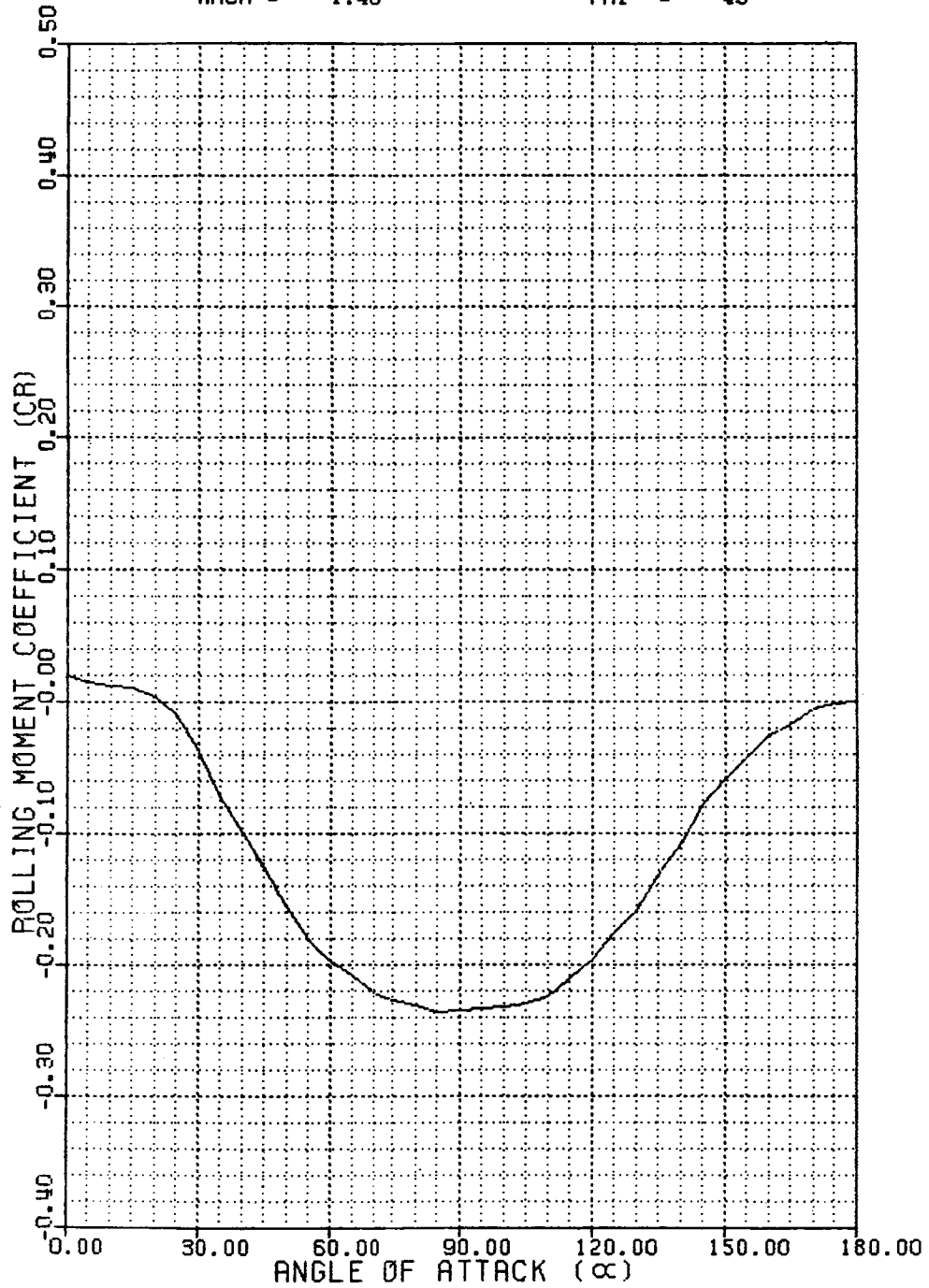
B-820

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 45



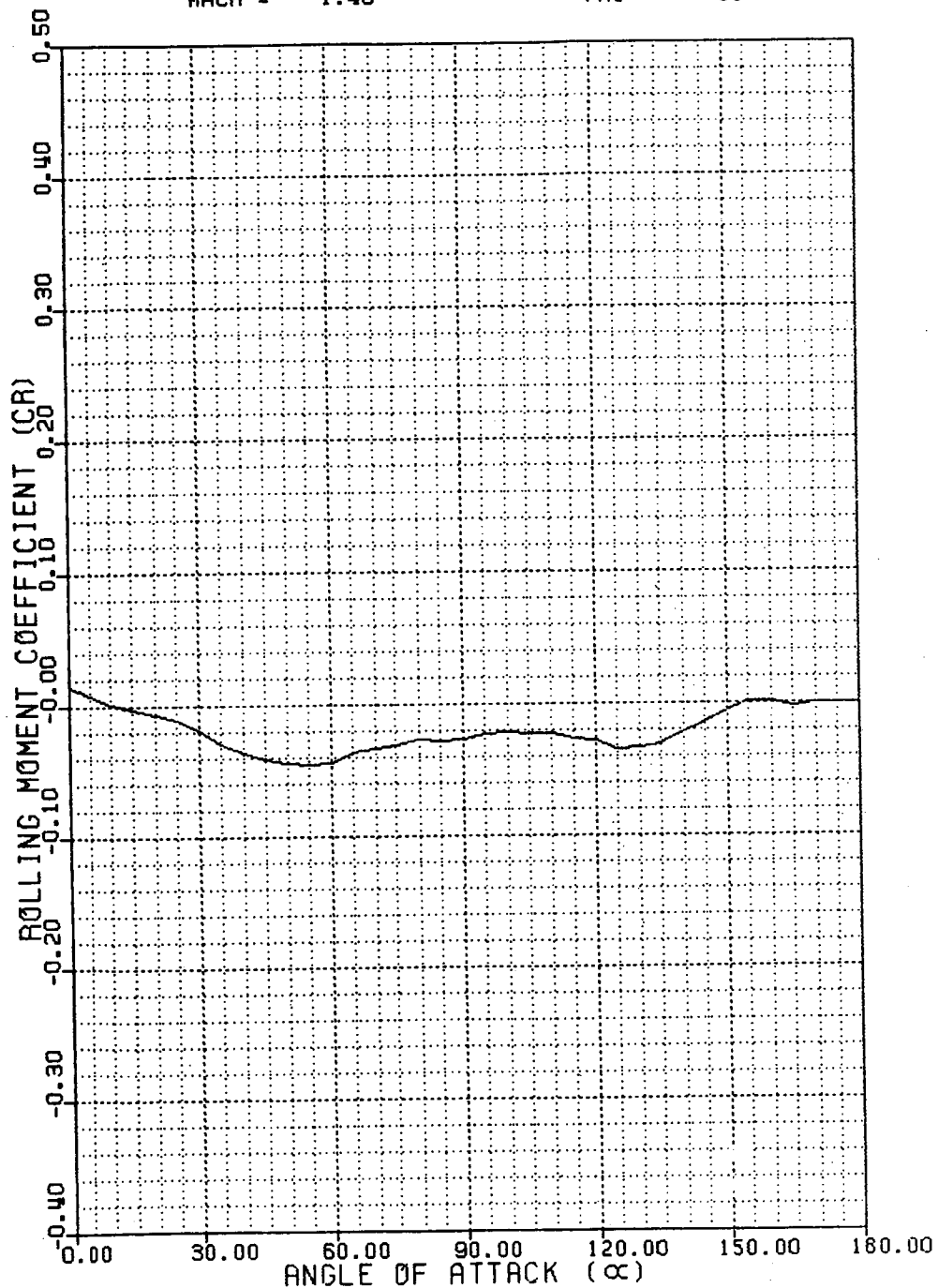
B-821



# SRB TAPE 8 DATA

MACH = 1.40

PHI = 90

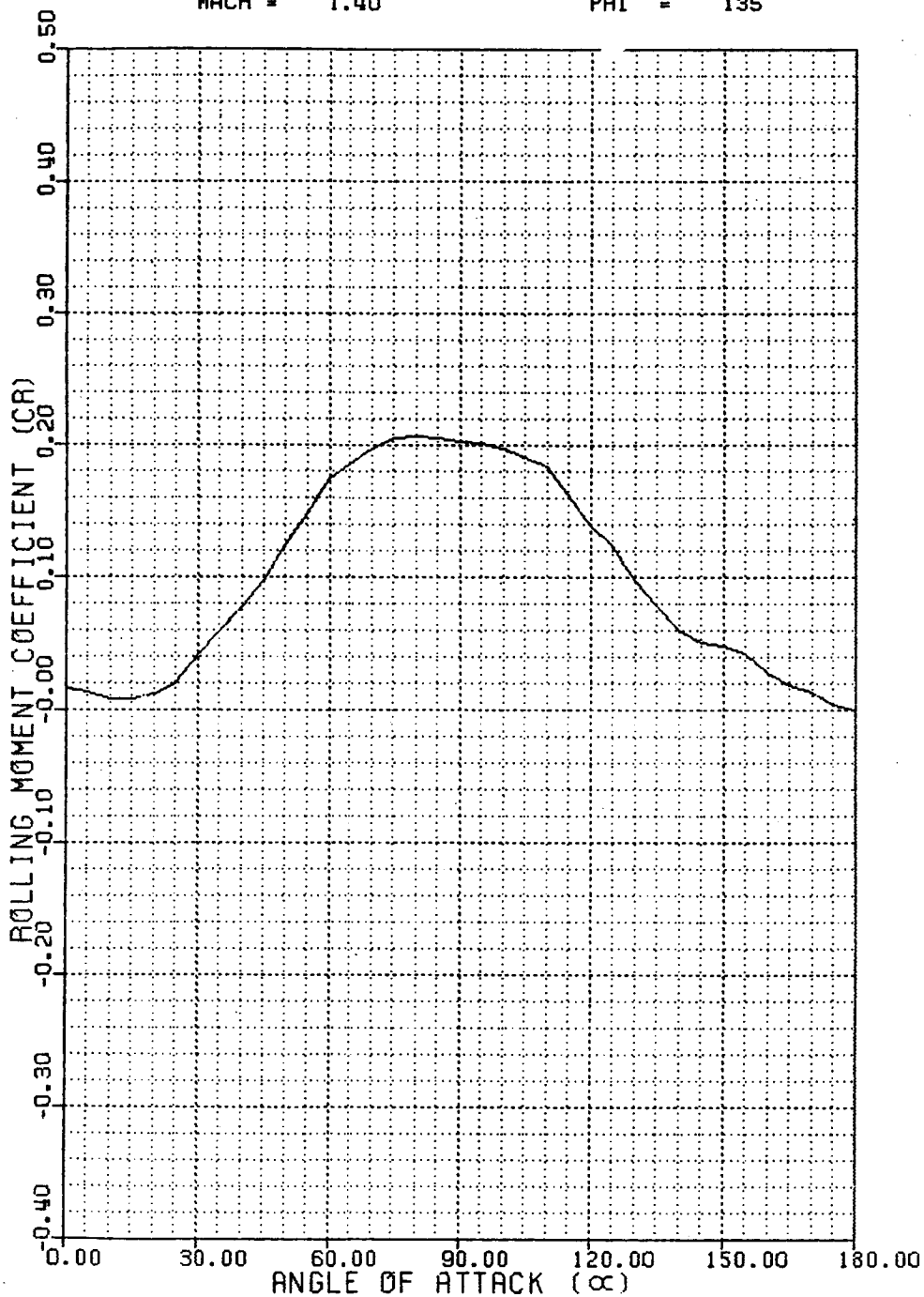


B-822

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 135



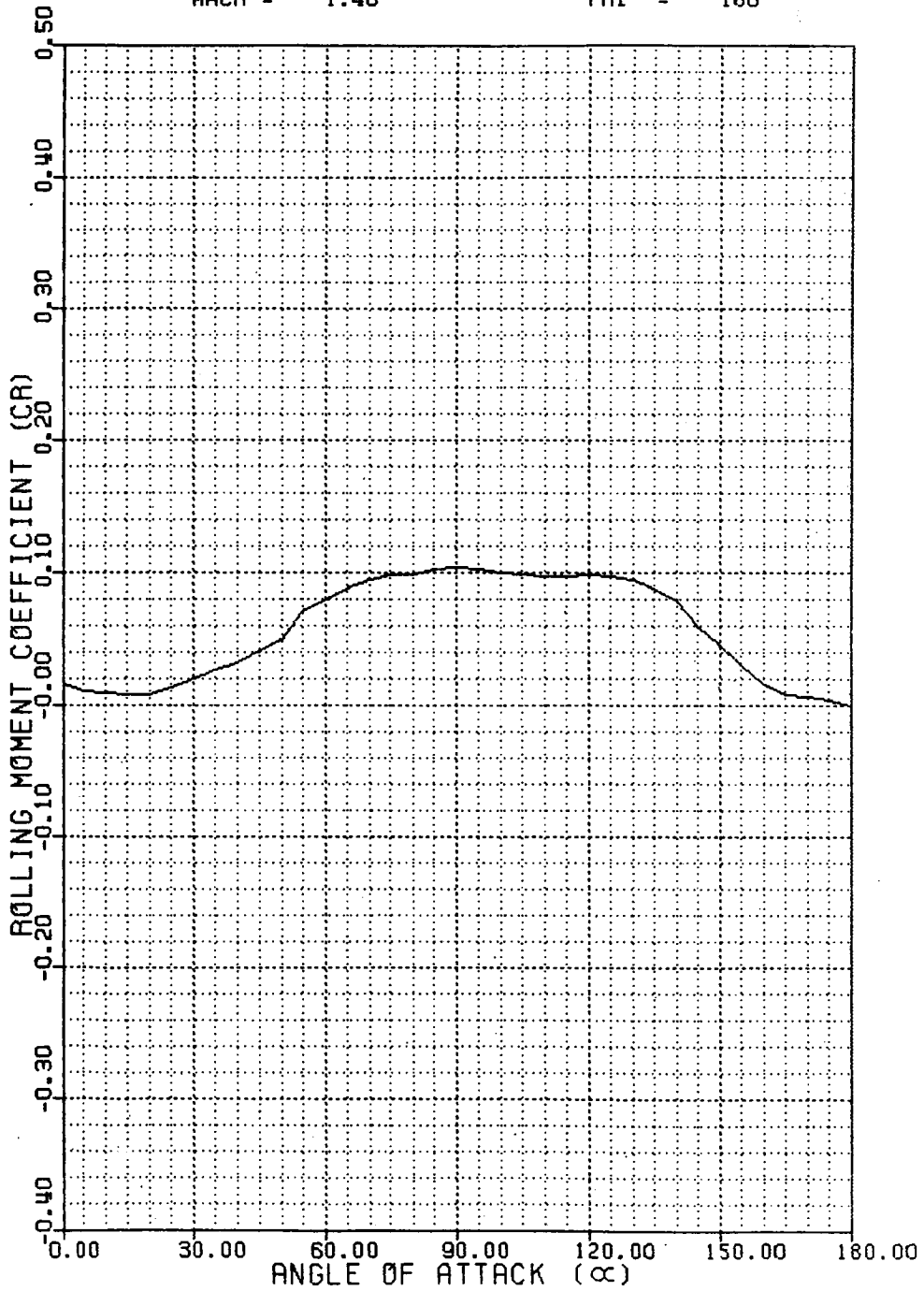
B-823

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 130



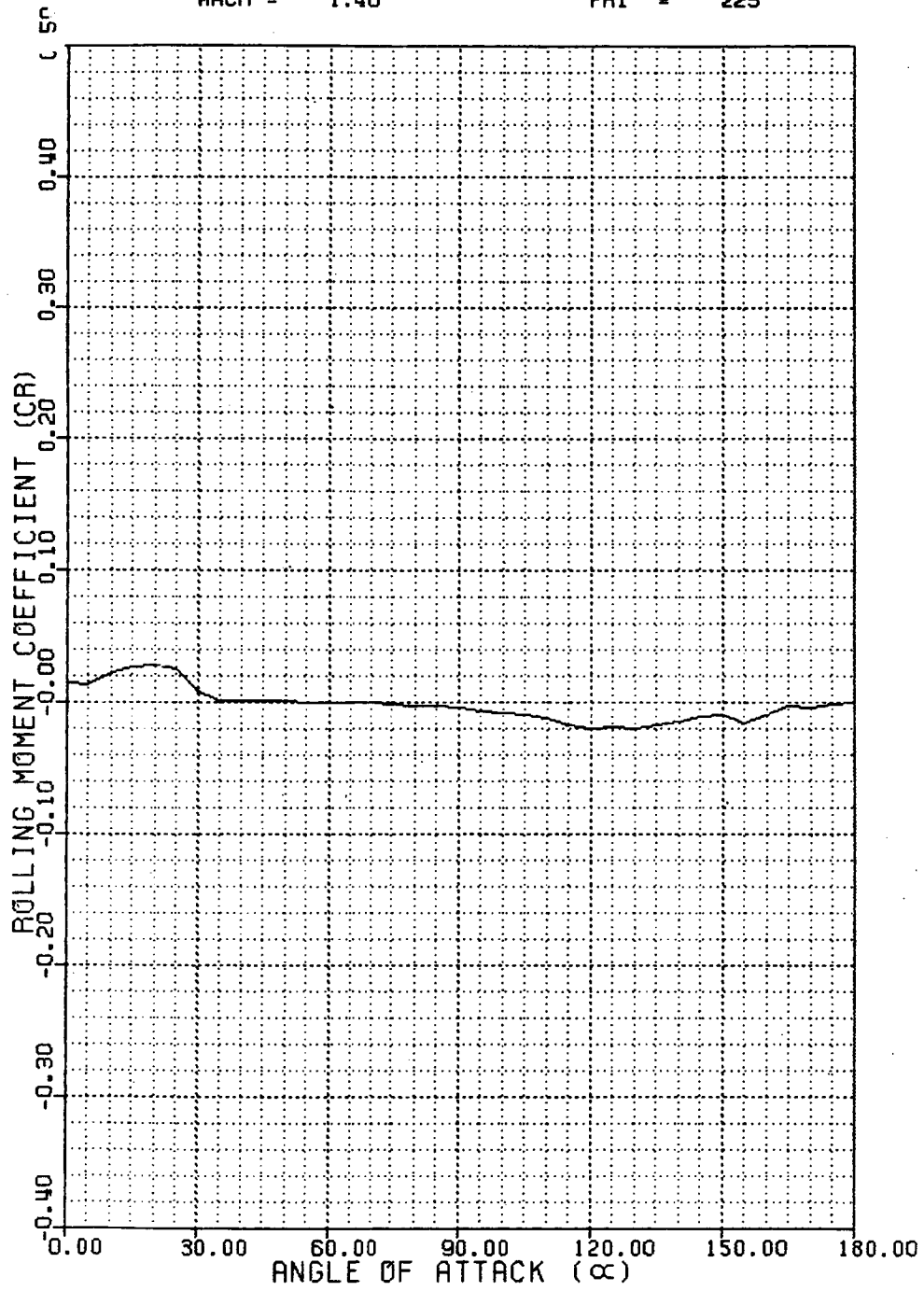
B-824

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 225



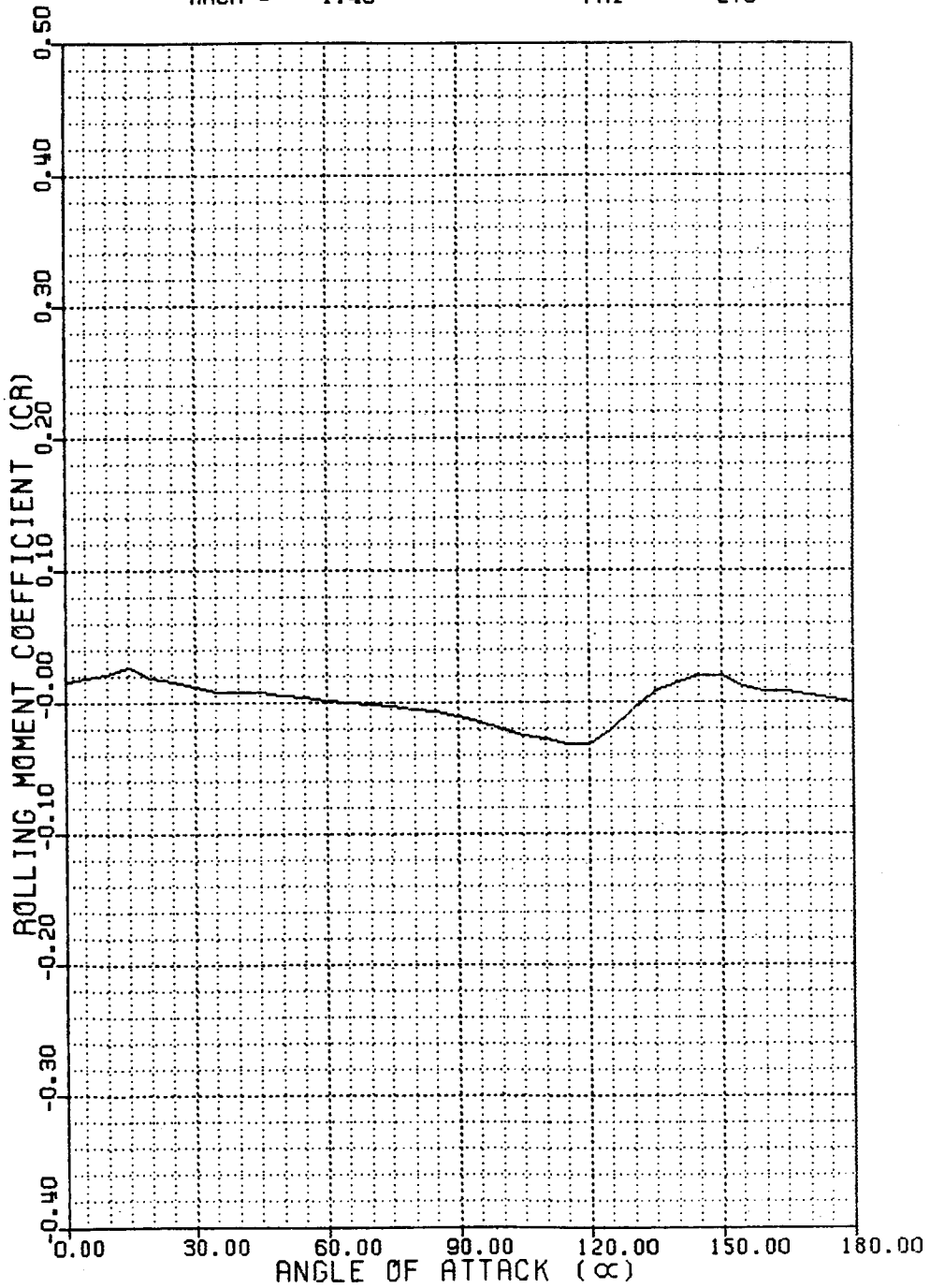
B-825

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 270

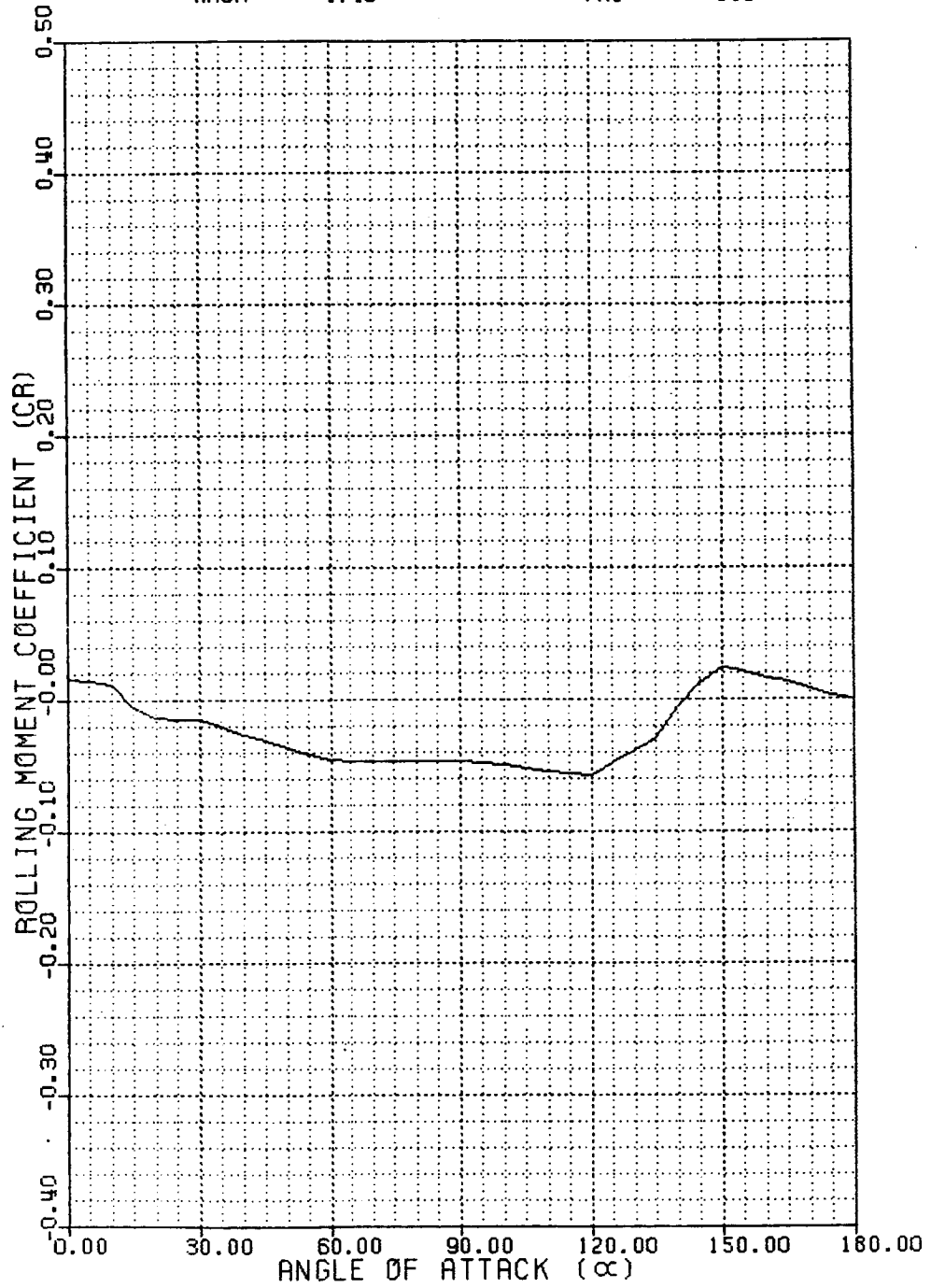


B-826

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 315



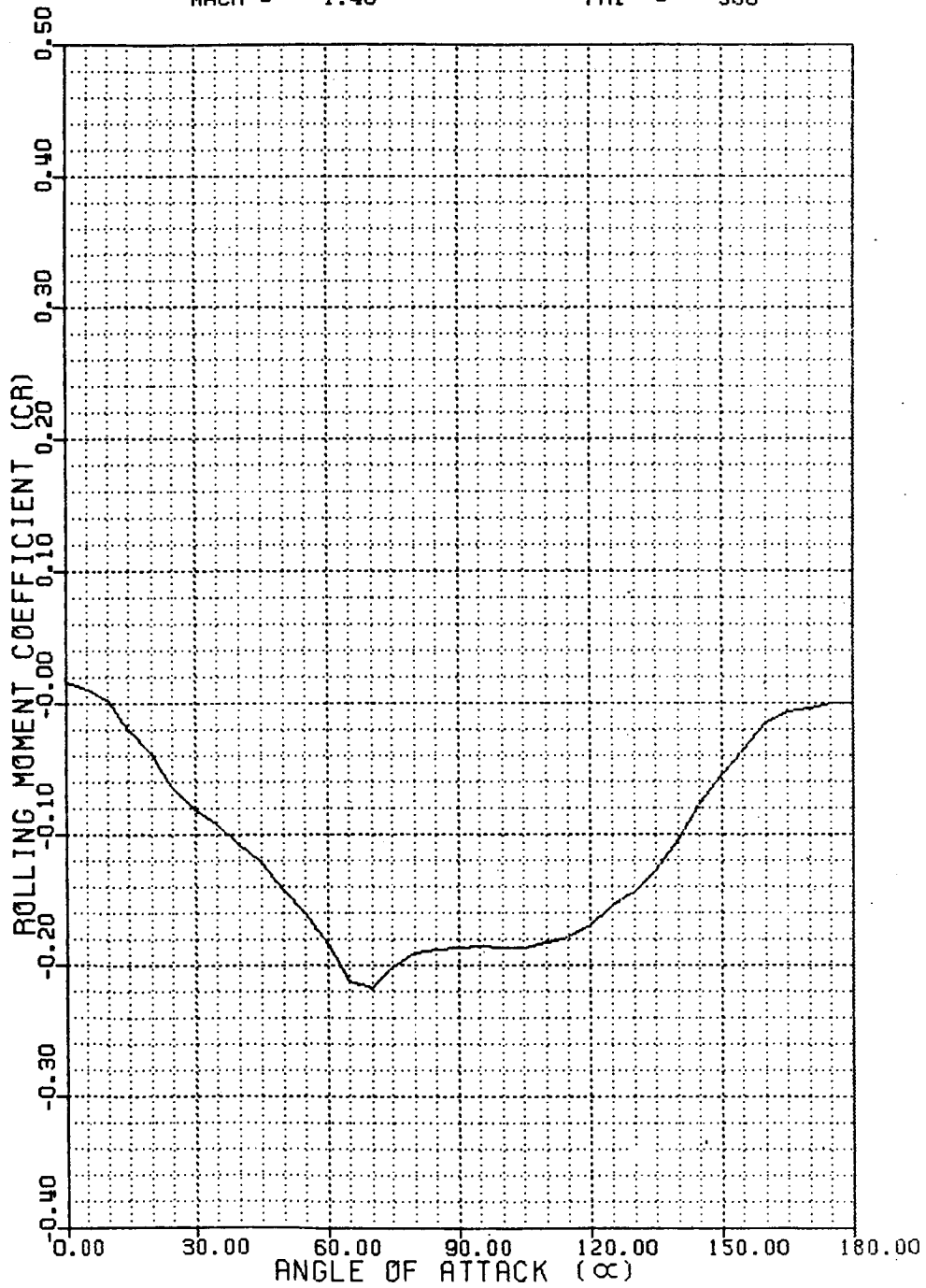
B-827

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.40

PHI = 360



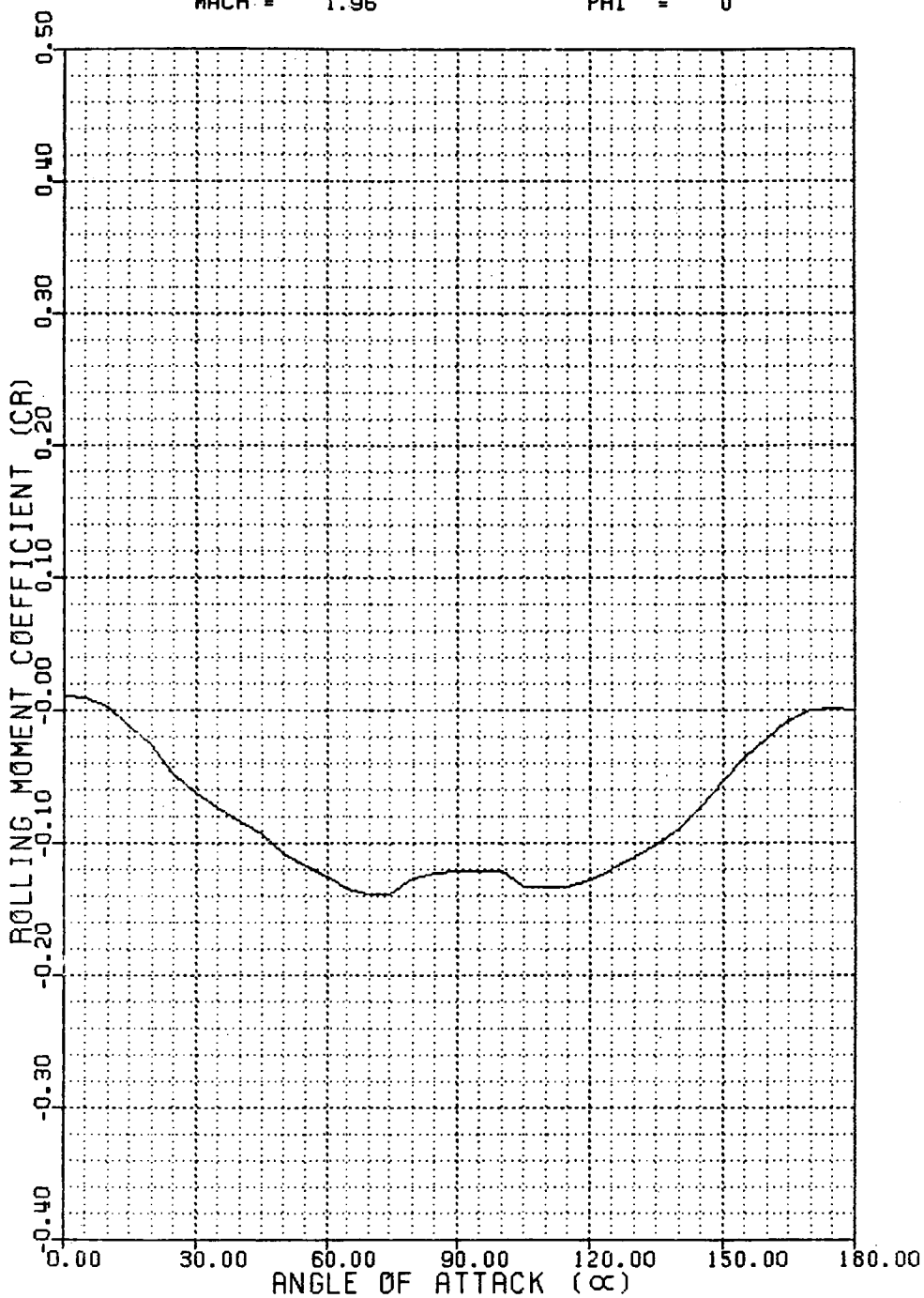
B-828

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 0



B-829

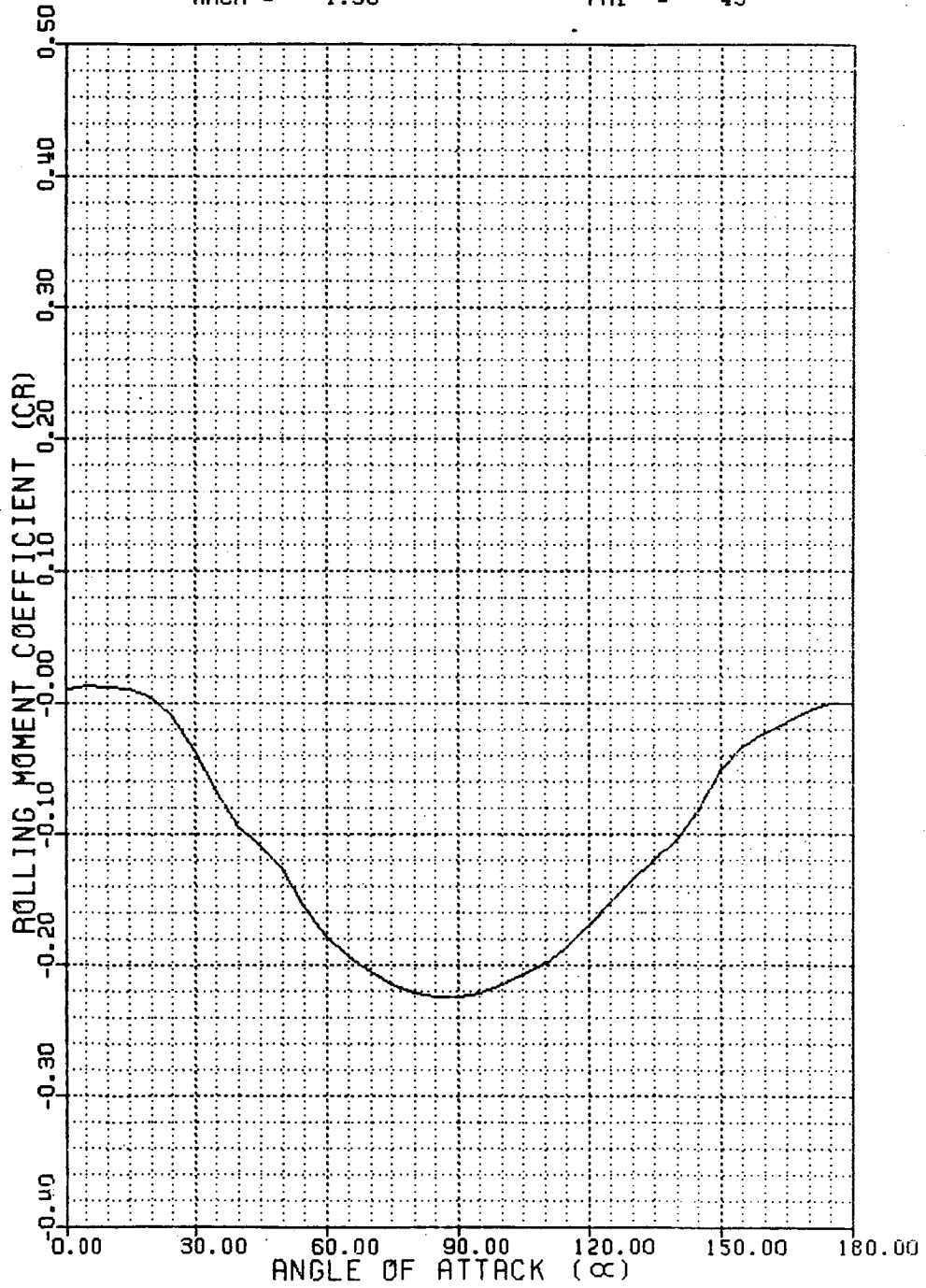
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 1.96

PHI = 45



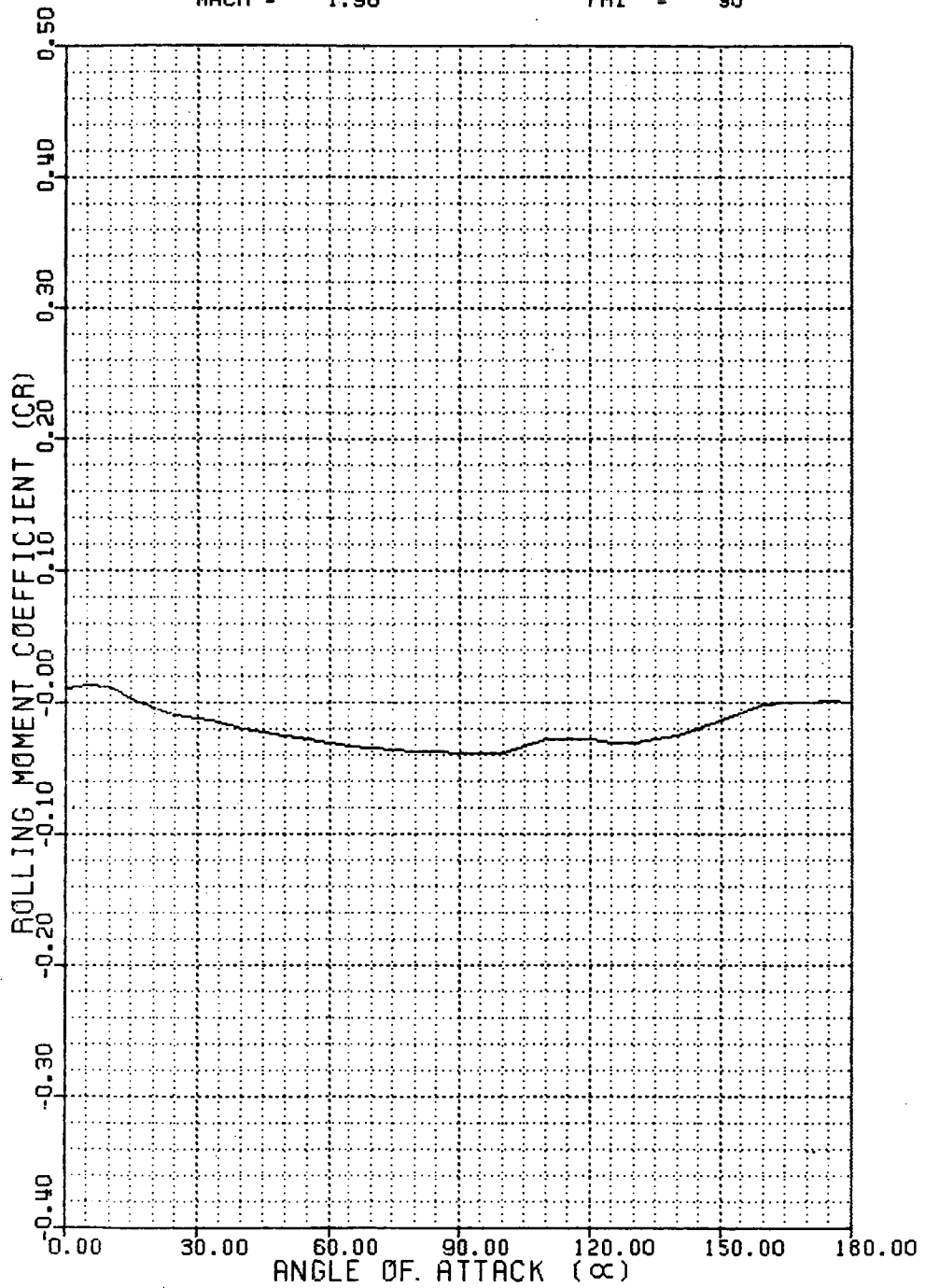
B-830

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 90



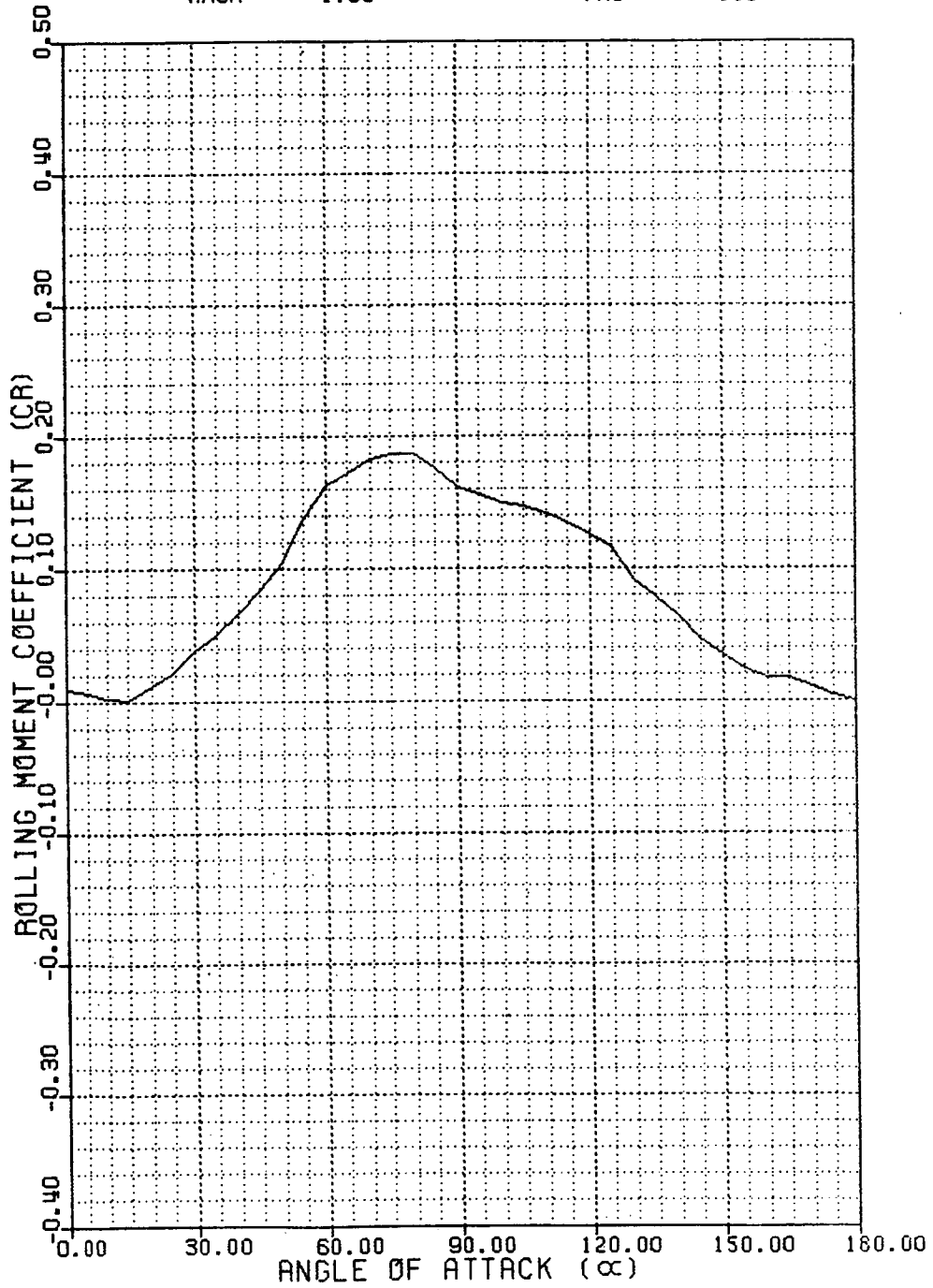
B-831

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 135



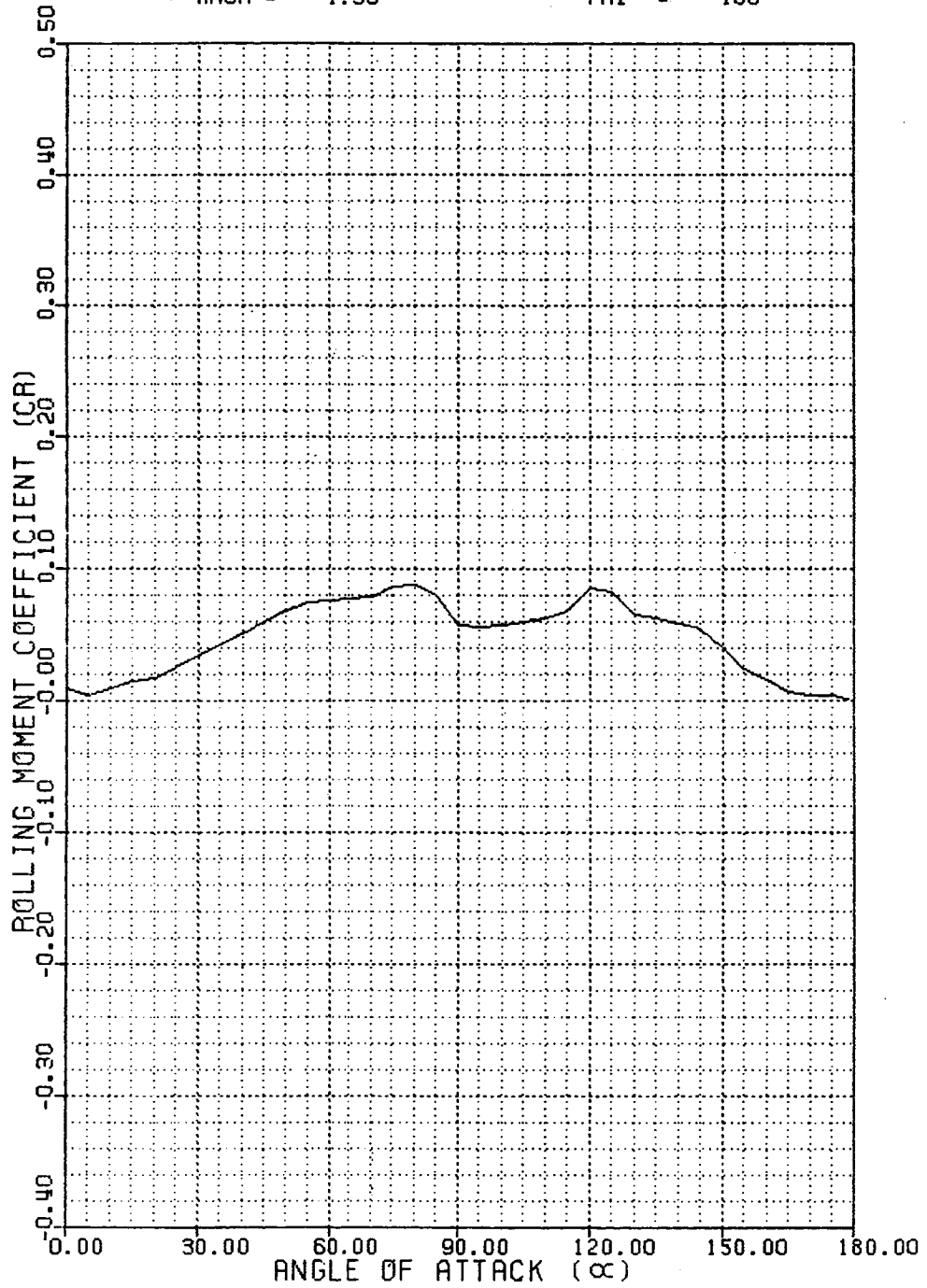
B-892

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 180

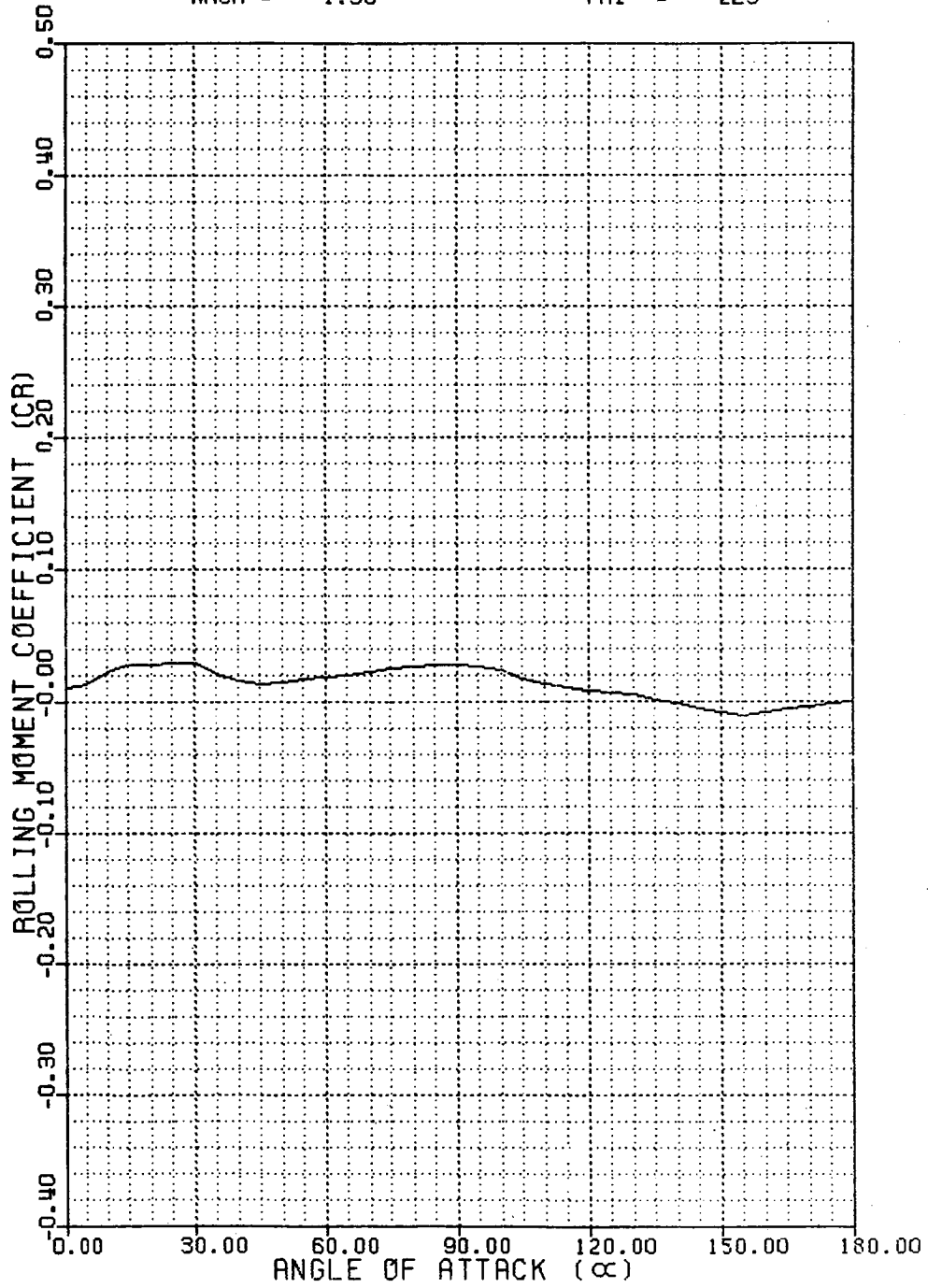


B-833

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 225

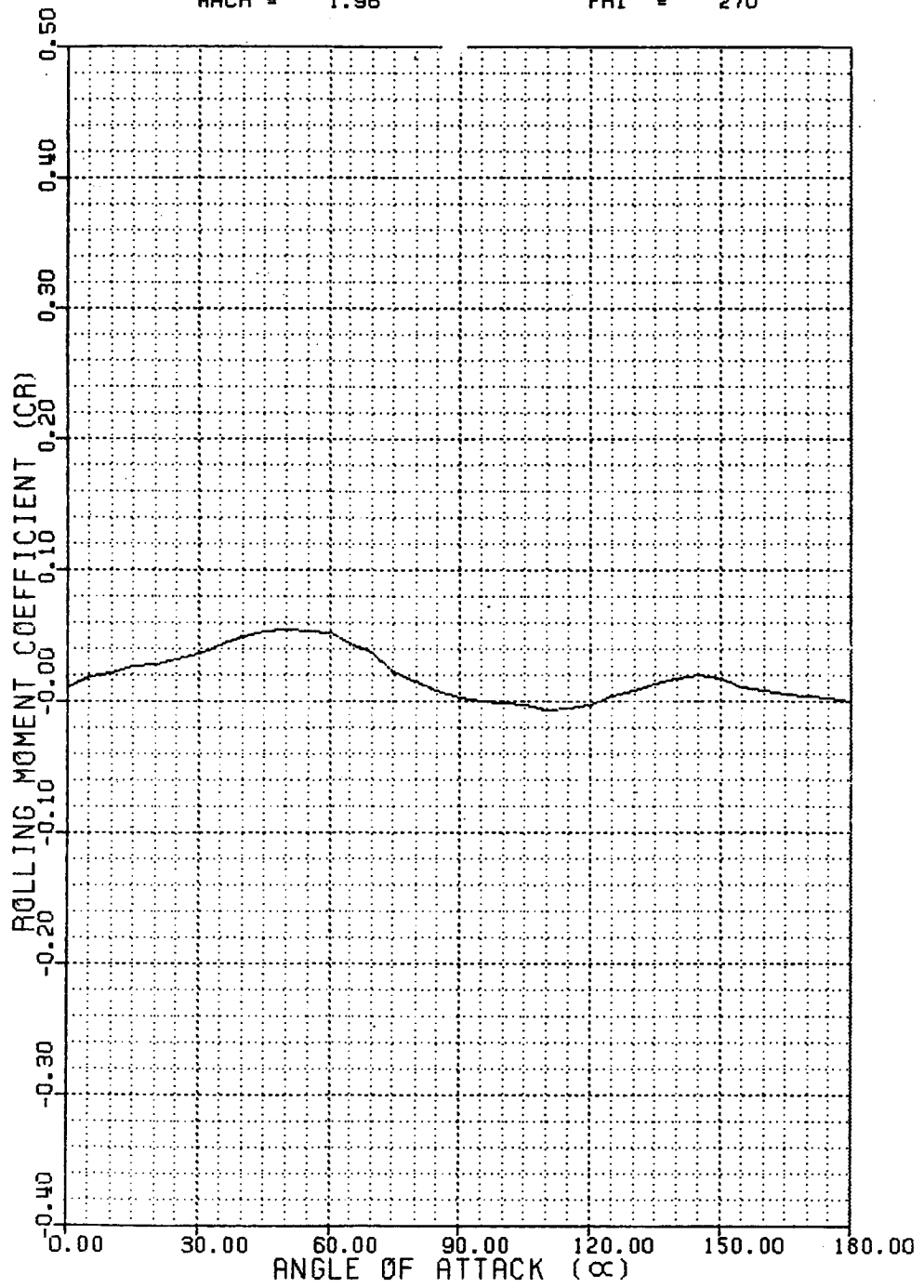


B-834

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 270

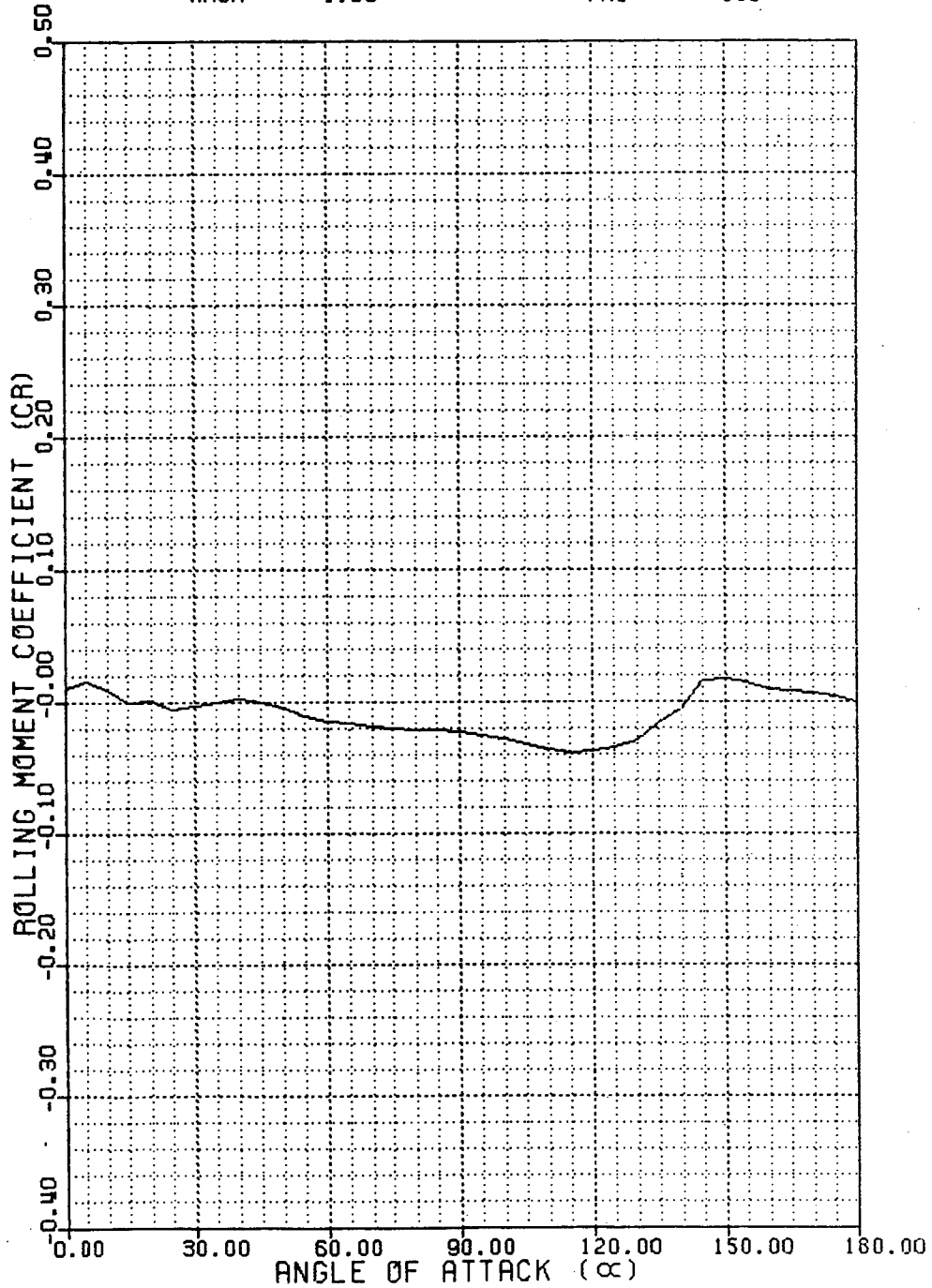


B-835

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 315



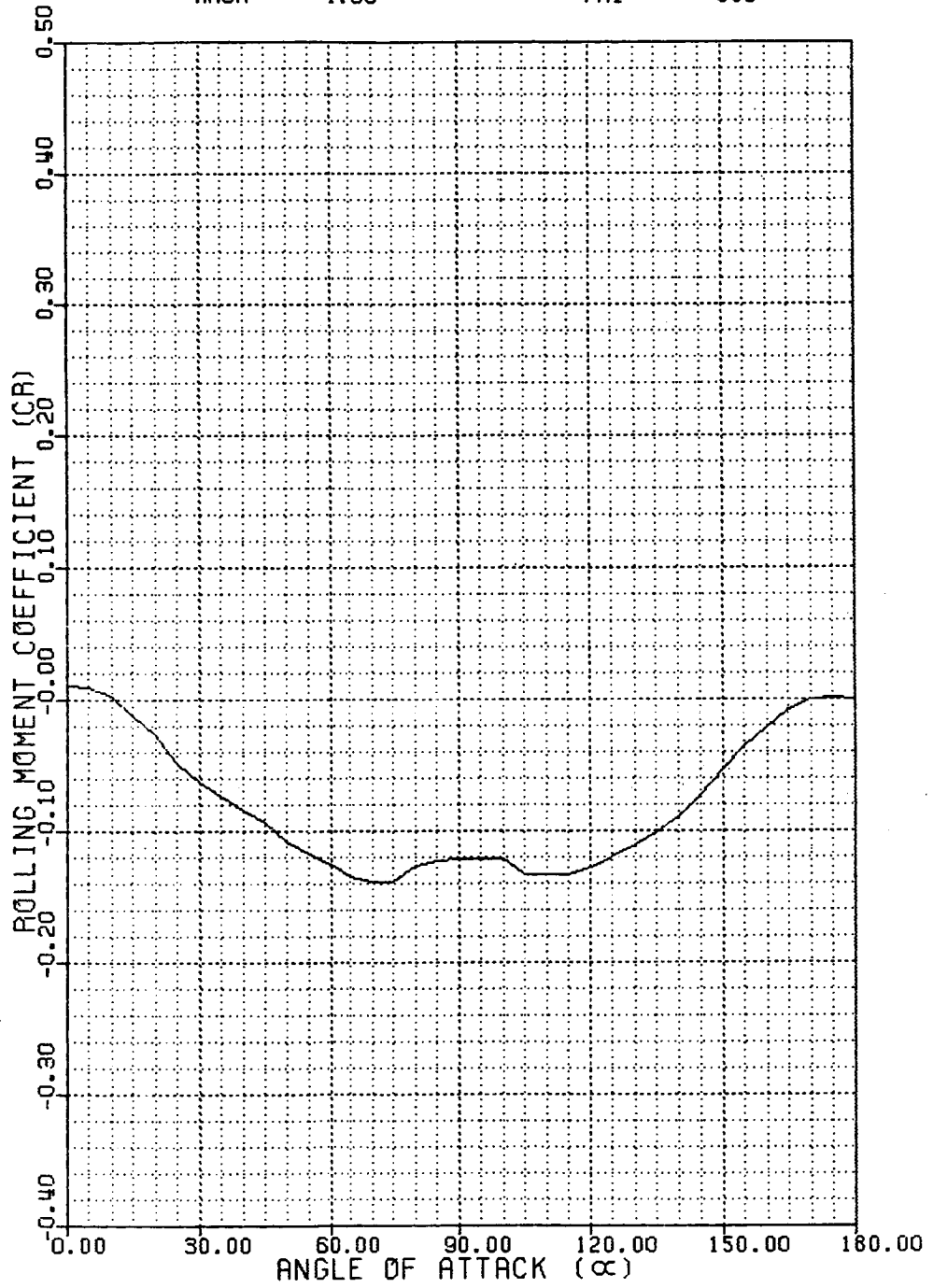
B-836

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 1.96

PHI = 360



B-857

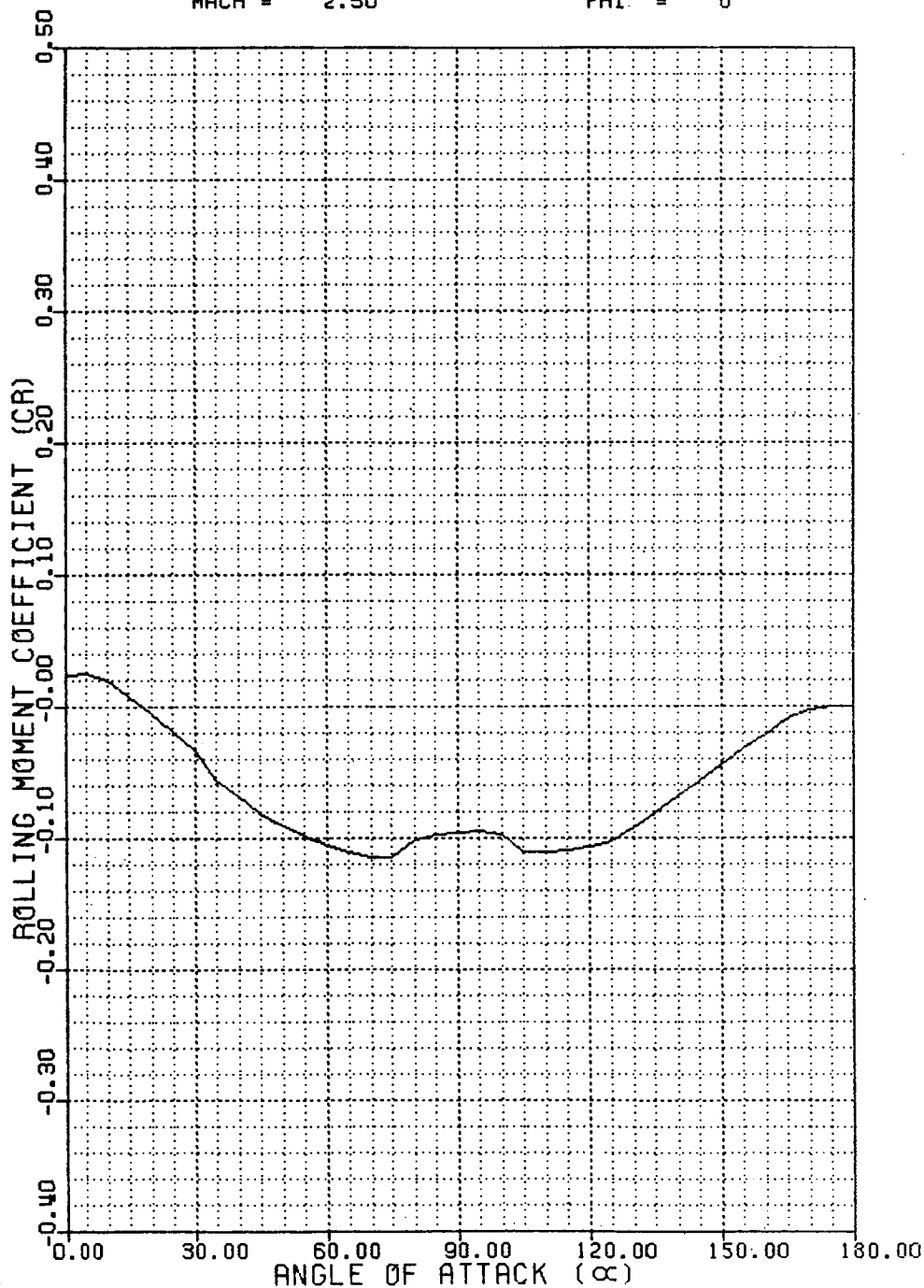
LOCKHEED-HUNTSVILLE ENGINEERING CENTER



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 0



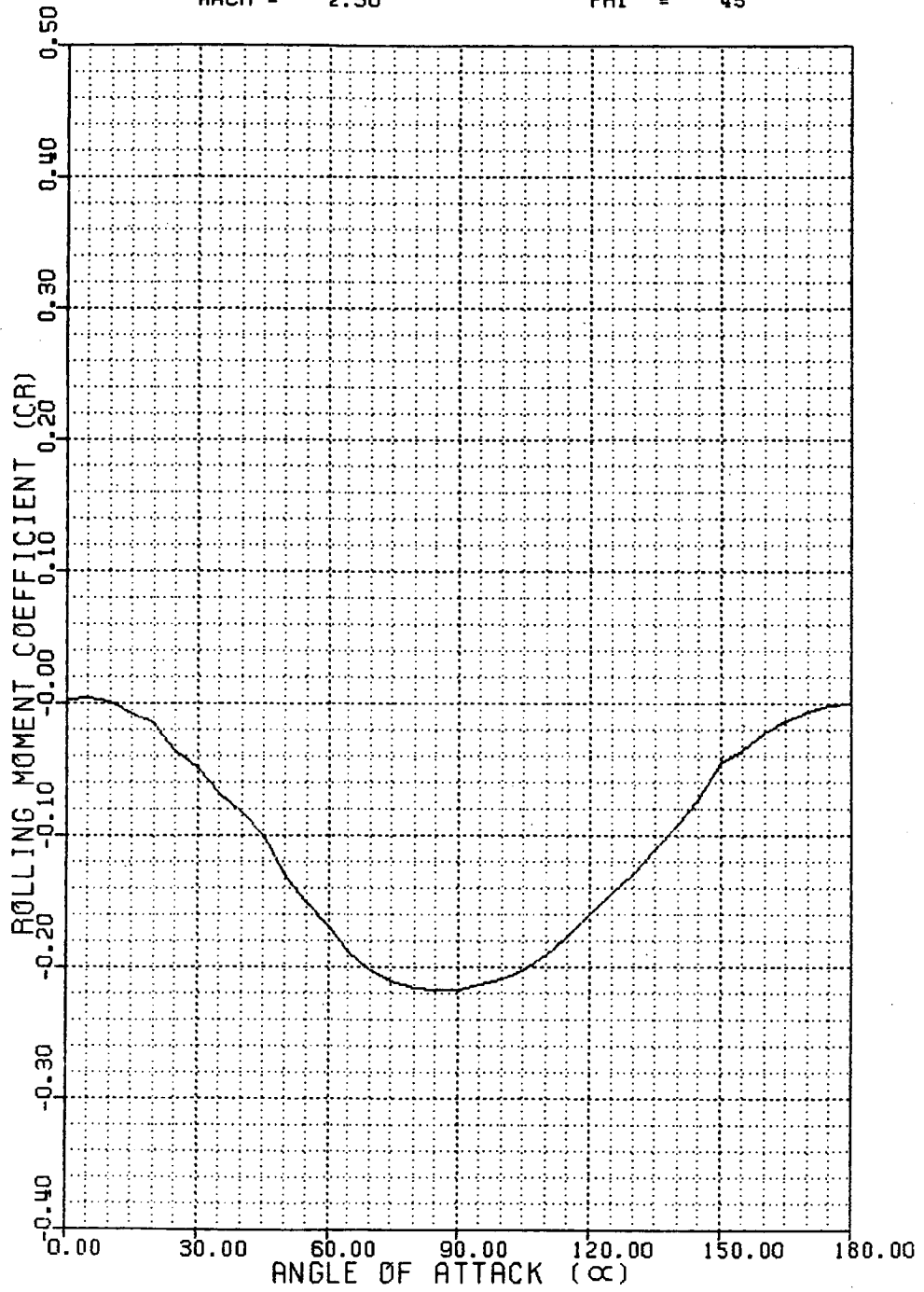
B-838

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 45

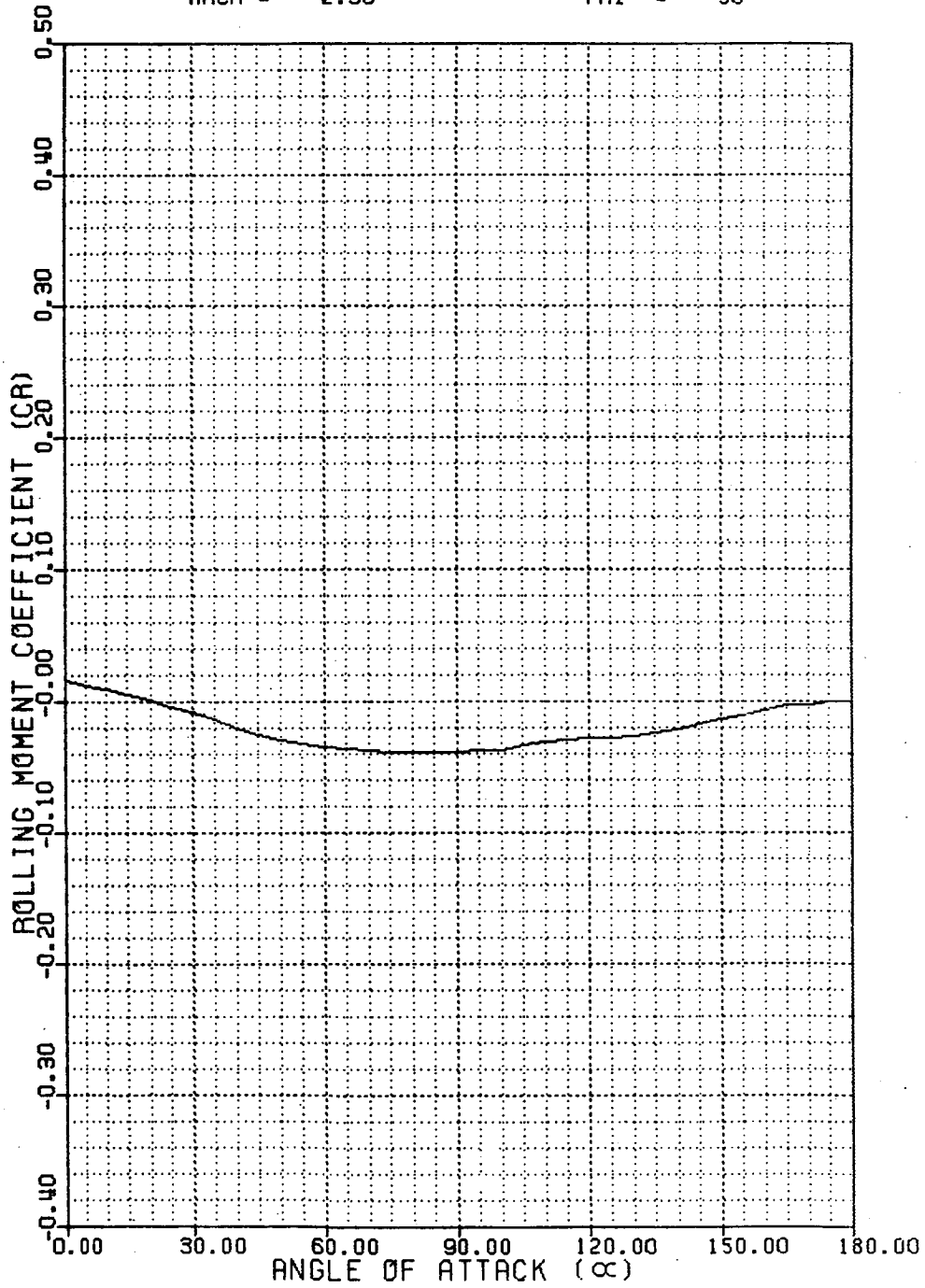


B-899

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 90

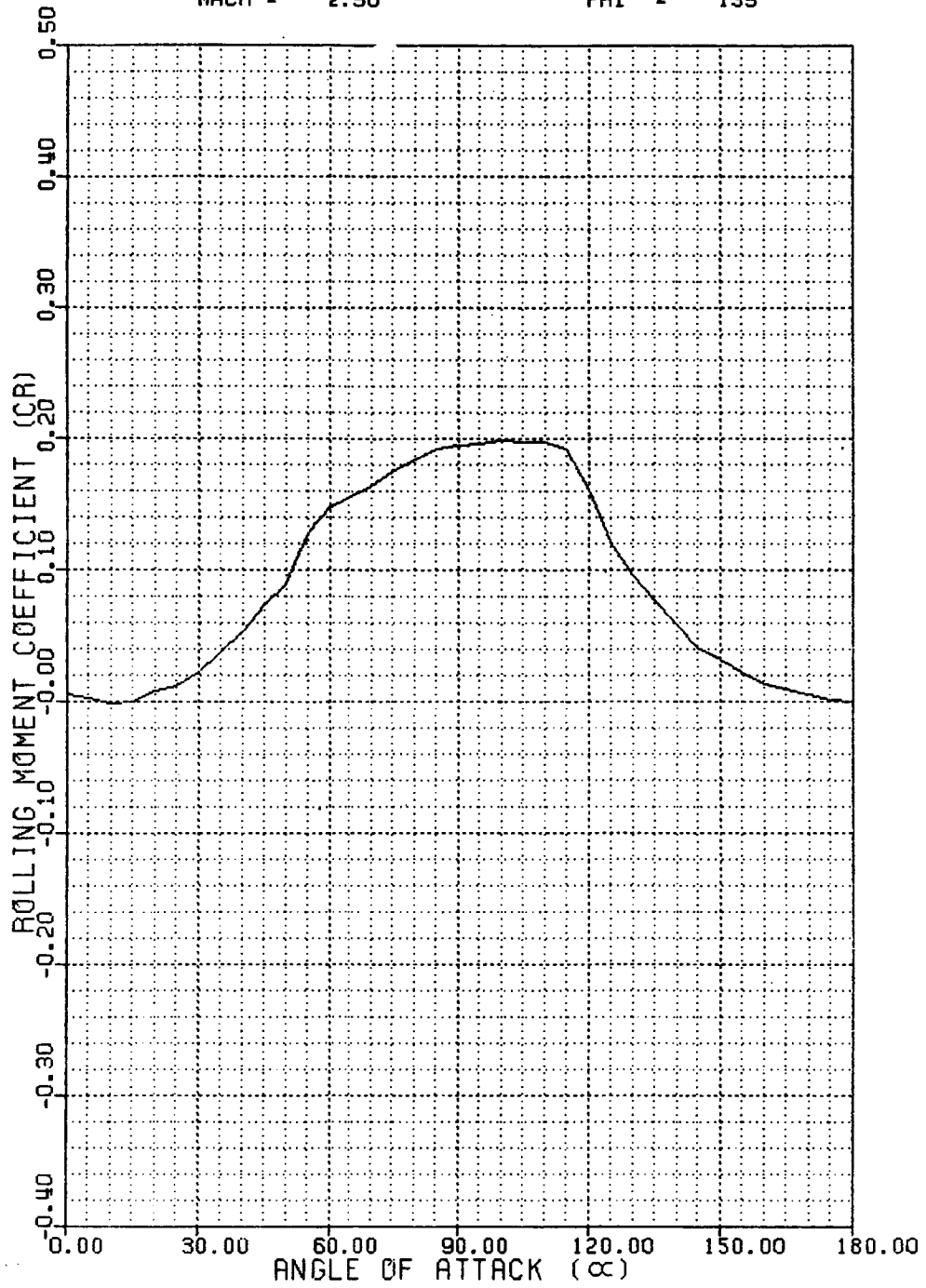


B-840

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 135



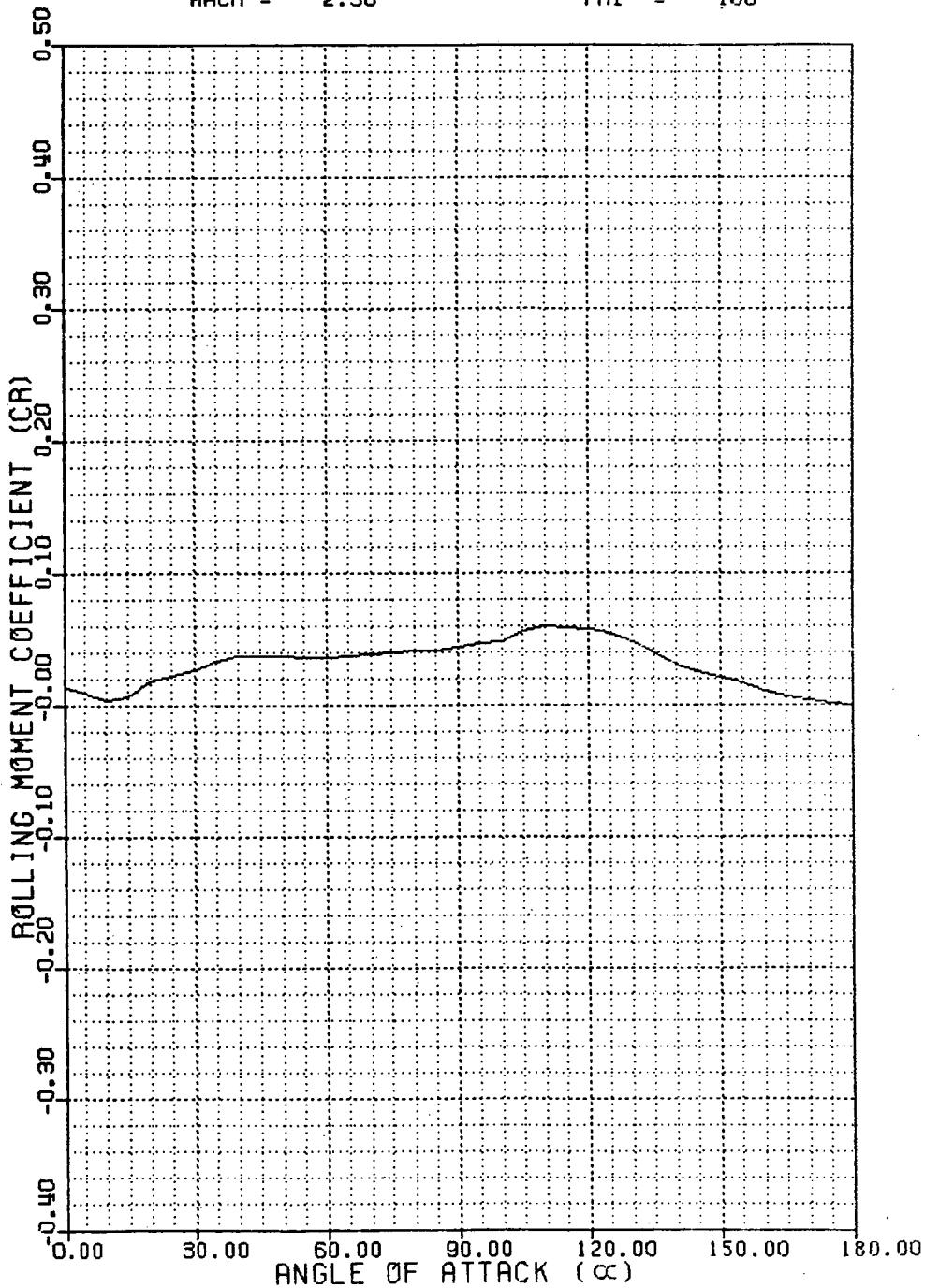
B-841

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 180



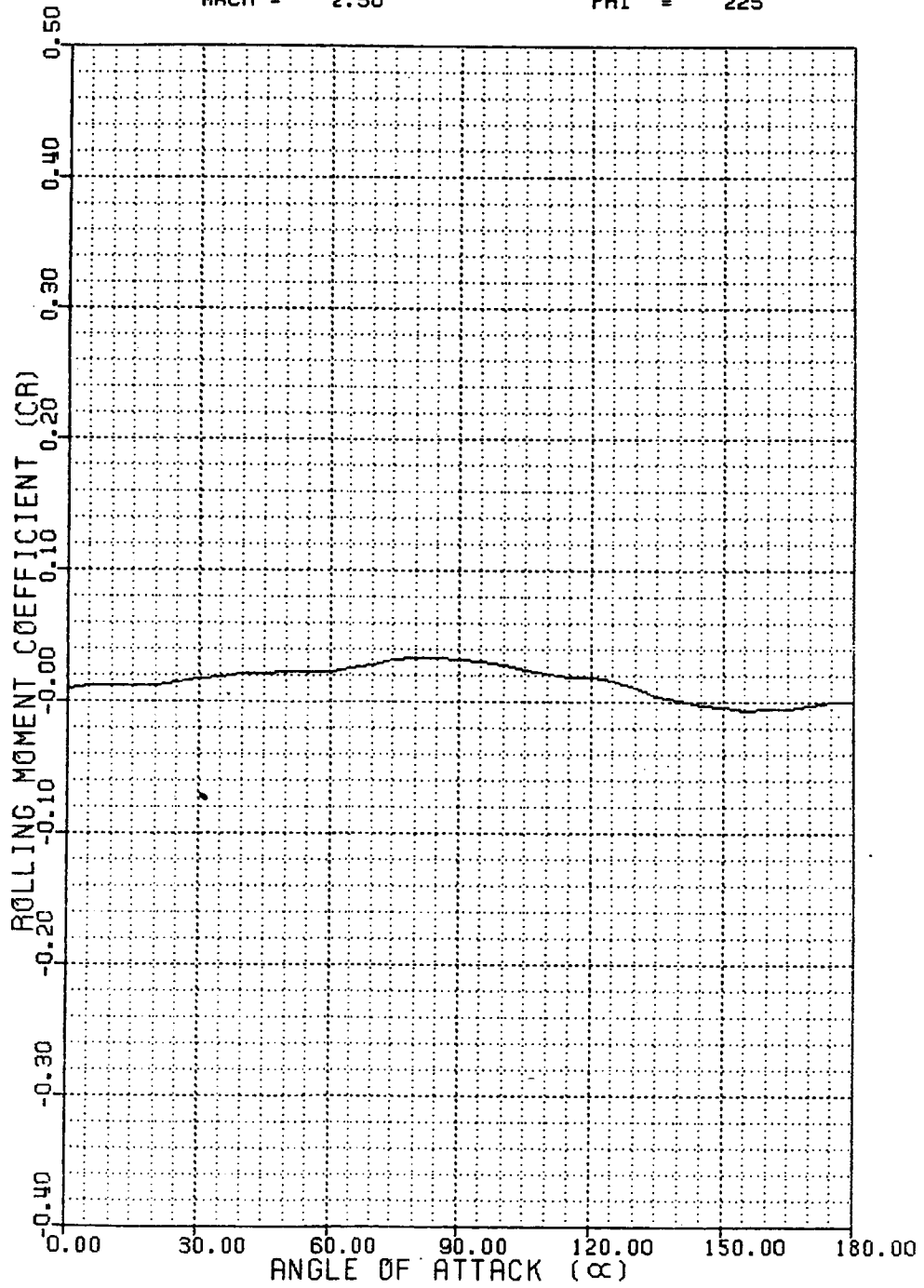
B-842

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 225



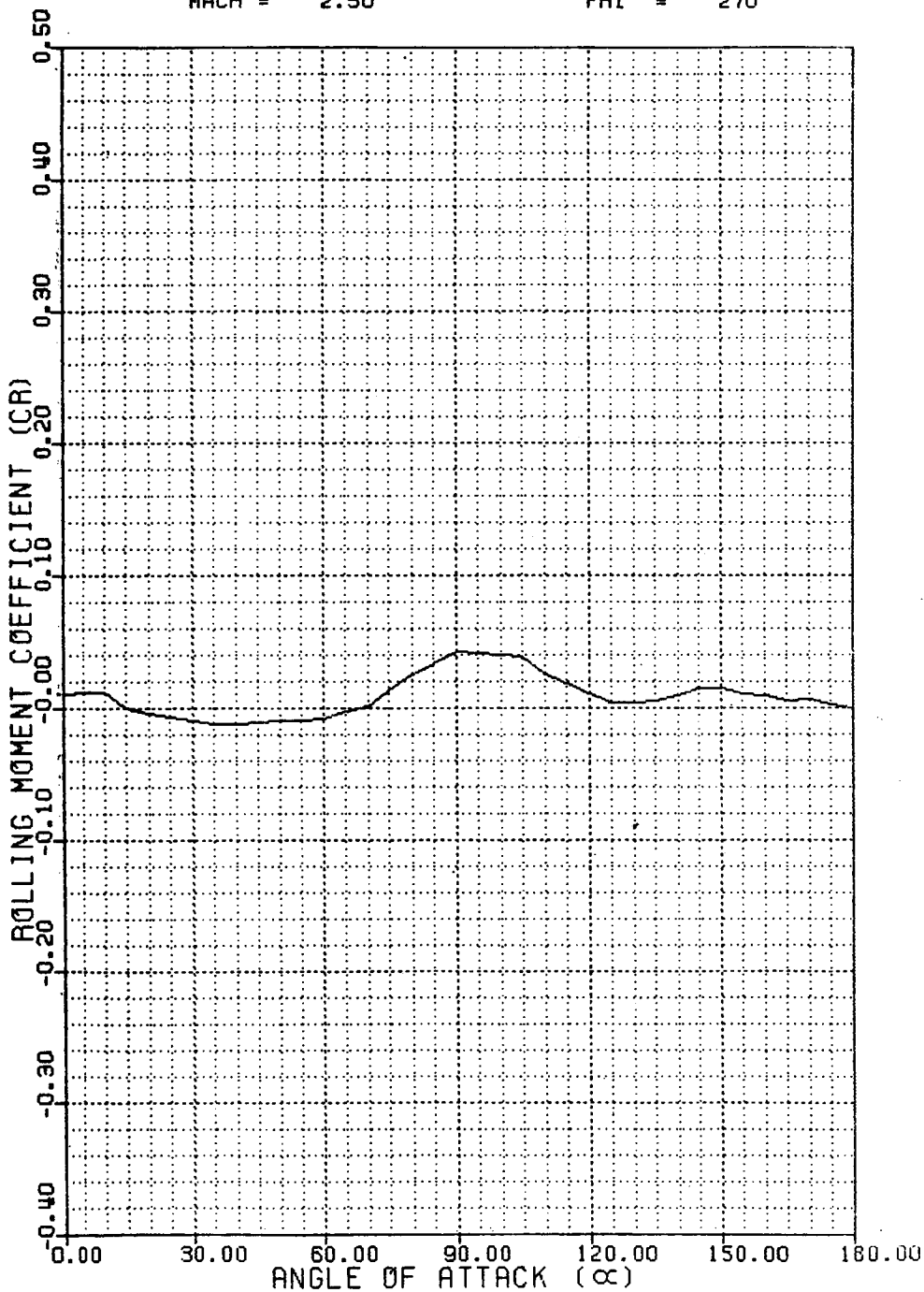
B-843

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 270

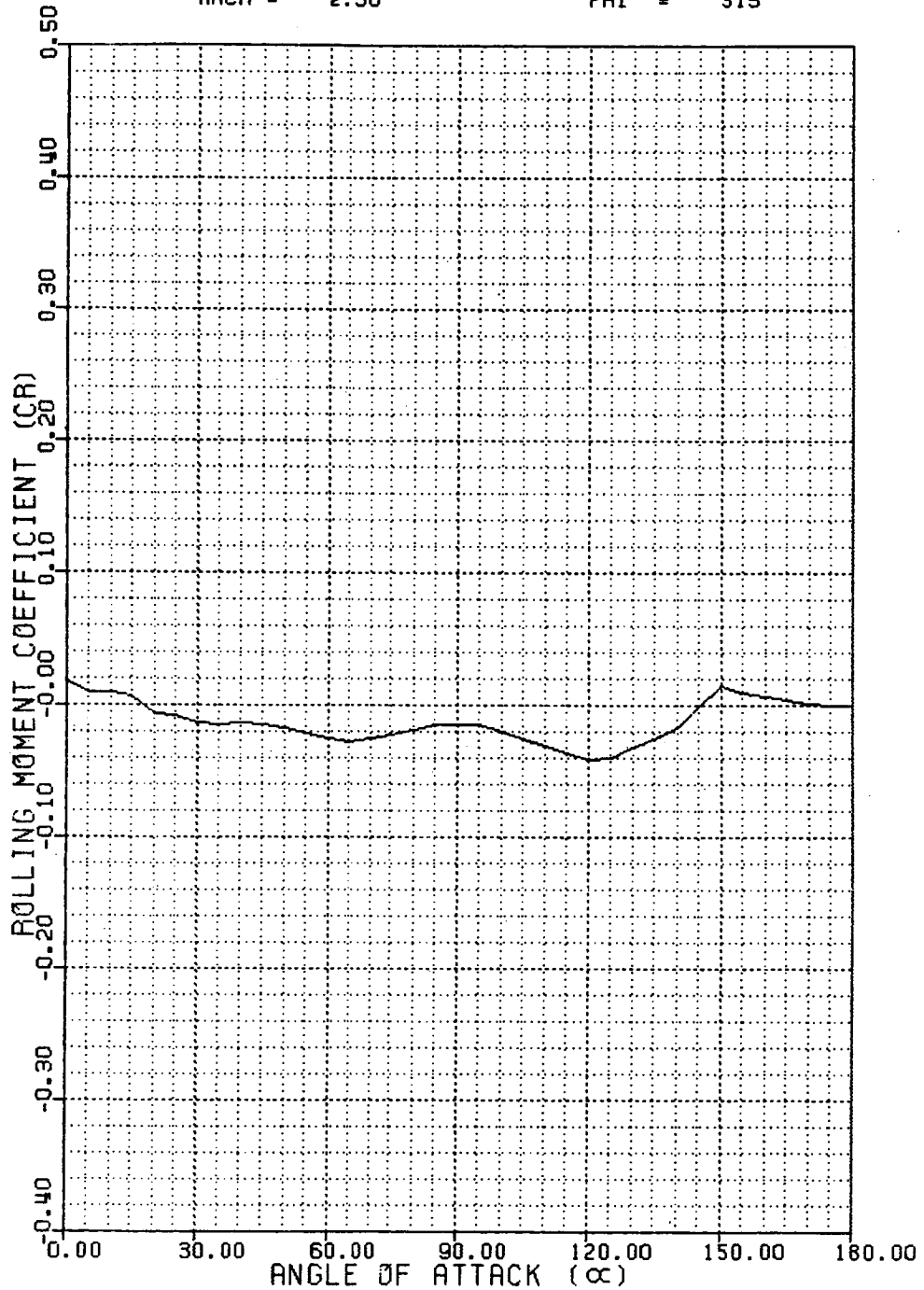


B-844

# SRB TAPE 8 DATA

MACH = 2.50

PHI = 315



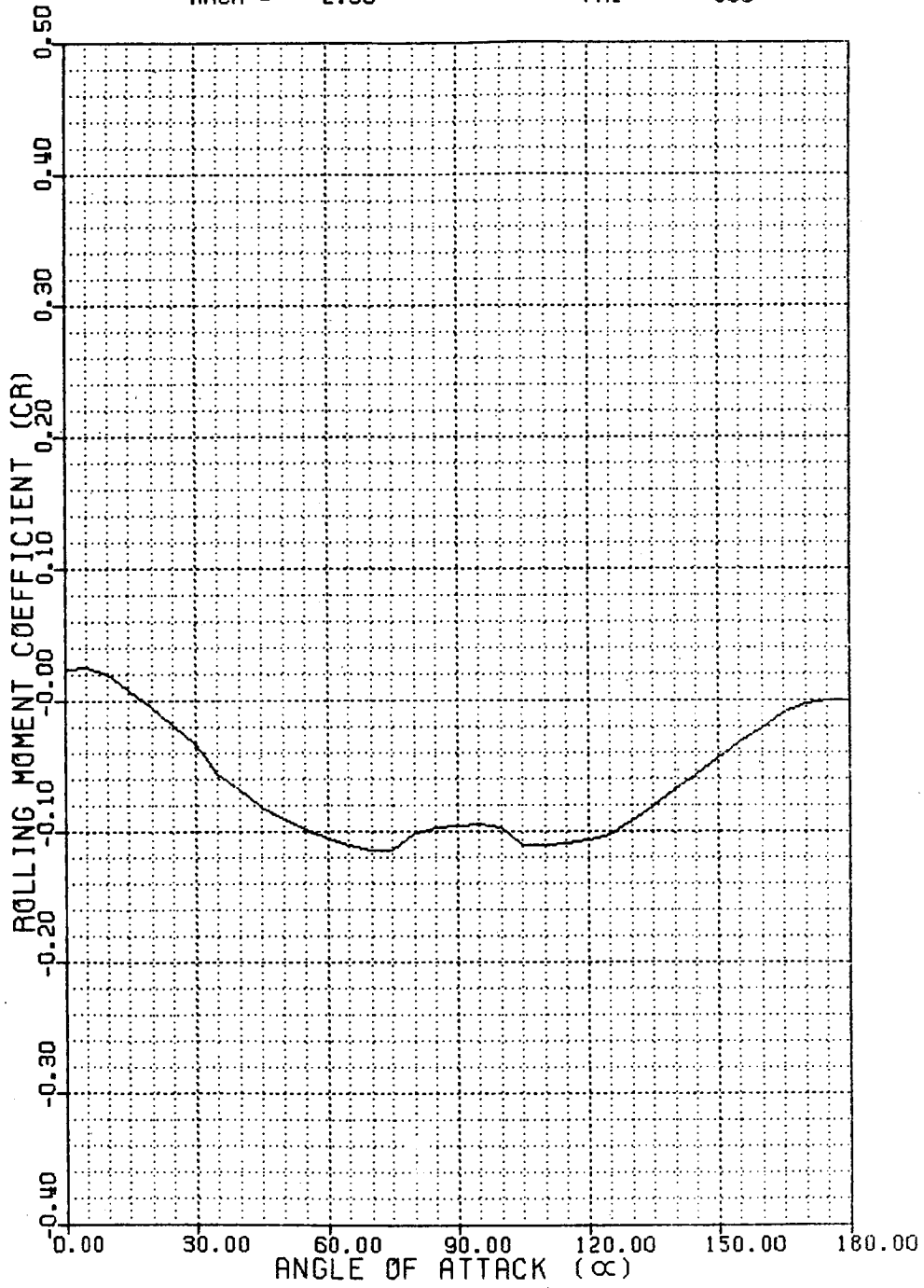
B-845



# SRB TAPE 8 DATA

MACH = 2.50

PHI = 360

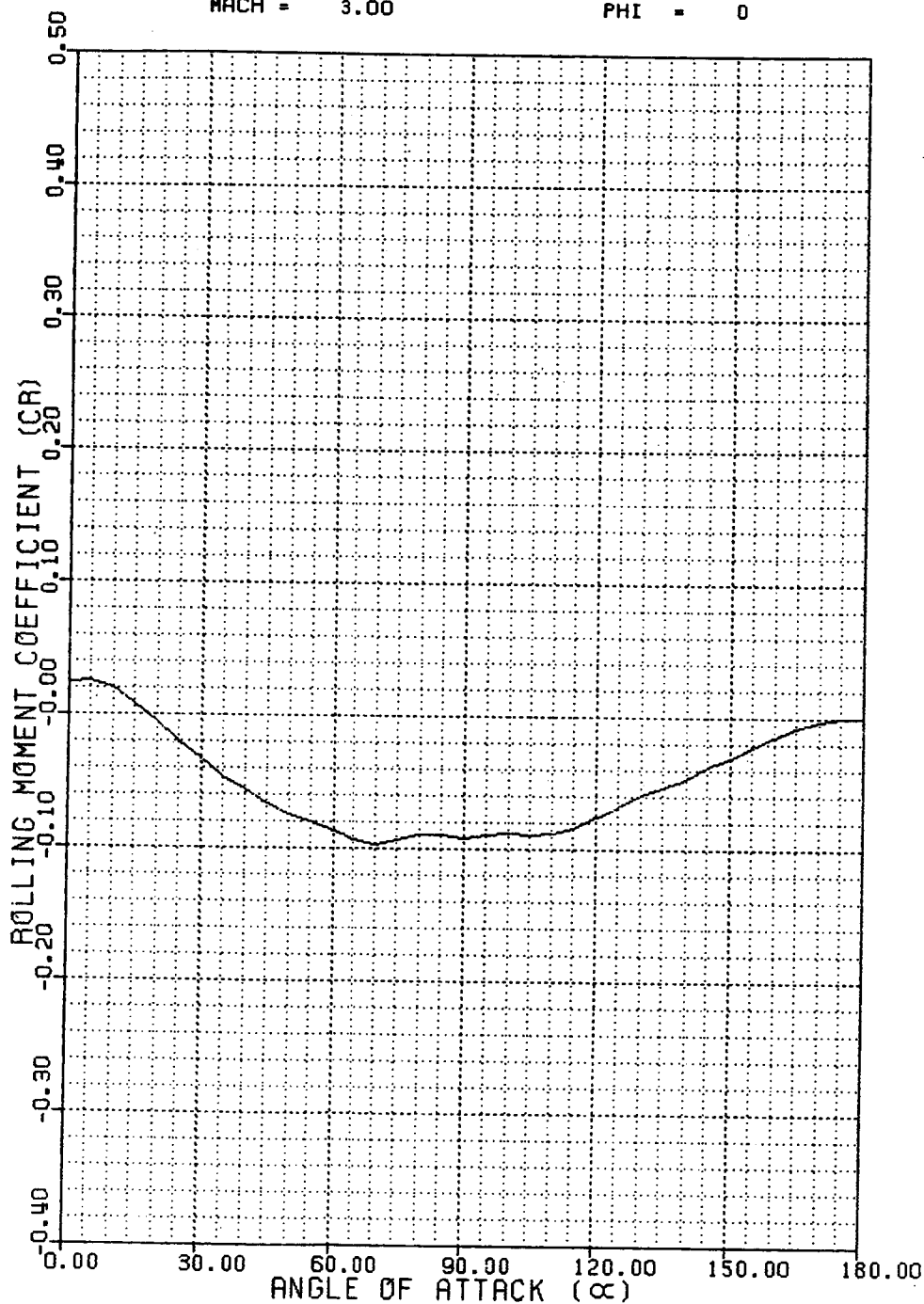


B-846

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 0

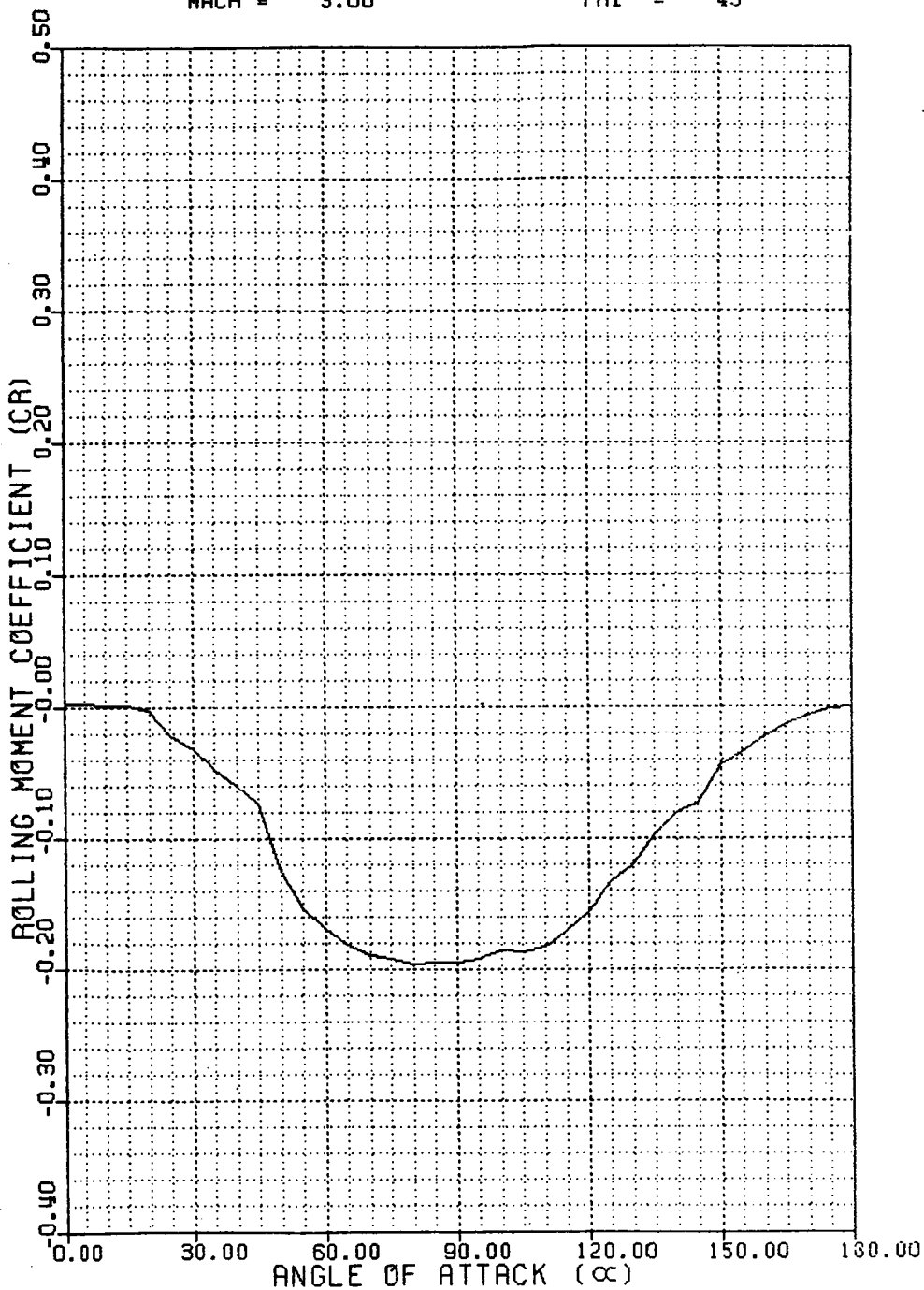


B-847

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 45

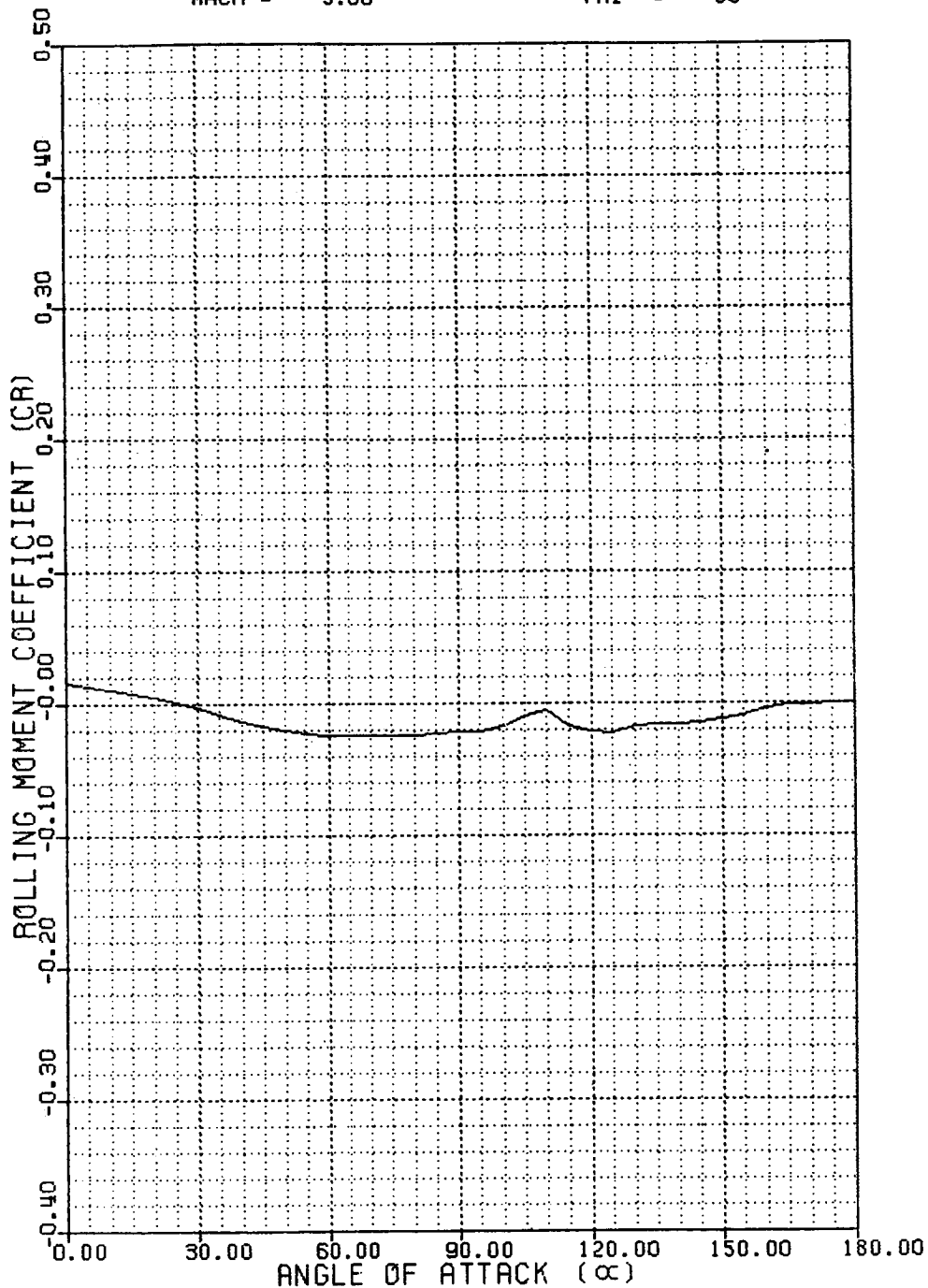


B-848

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 90

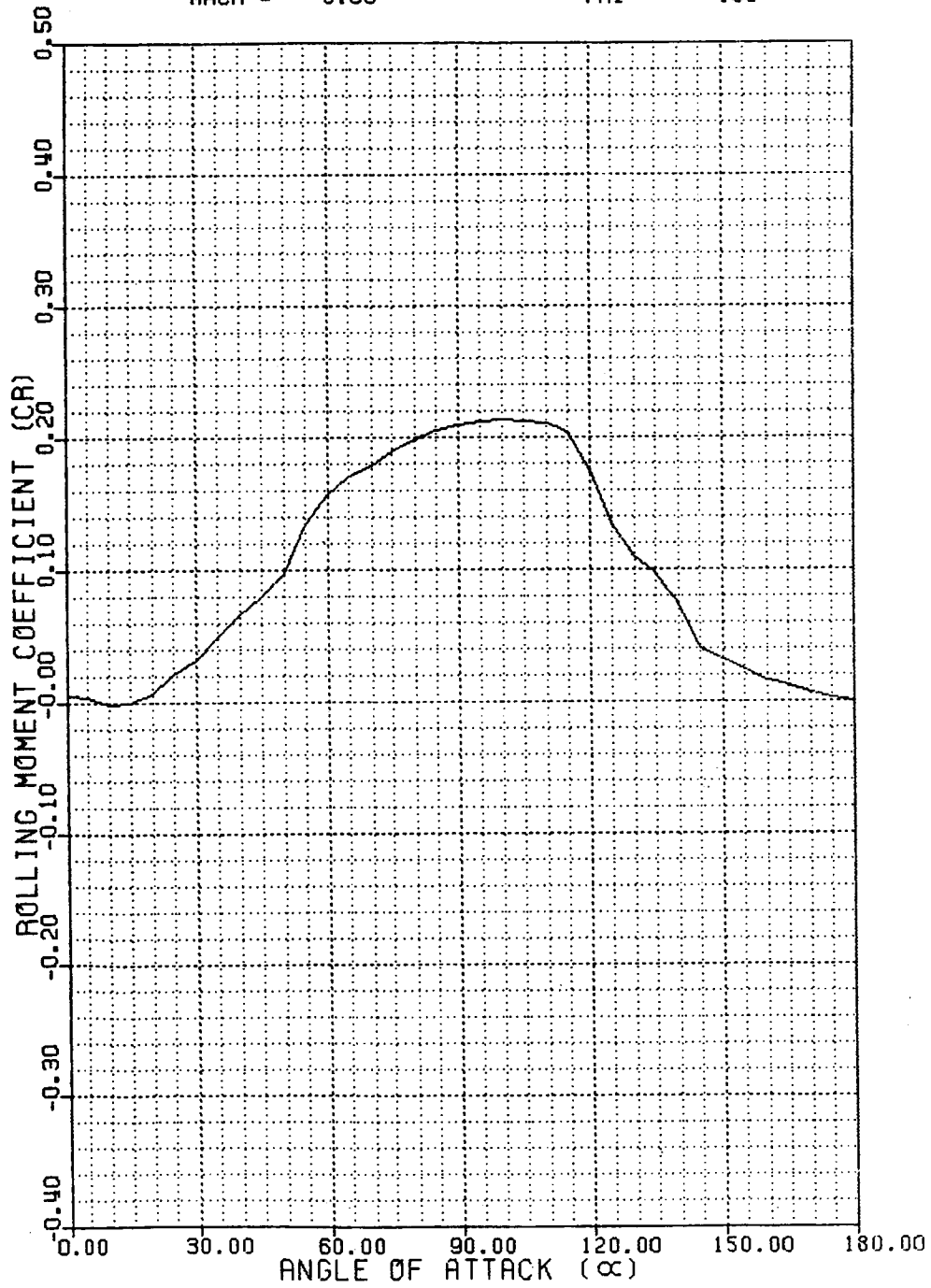


B-849

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 135



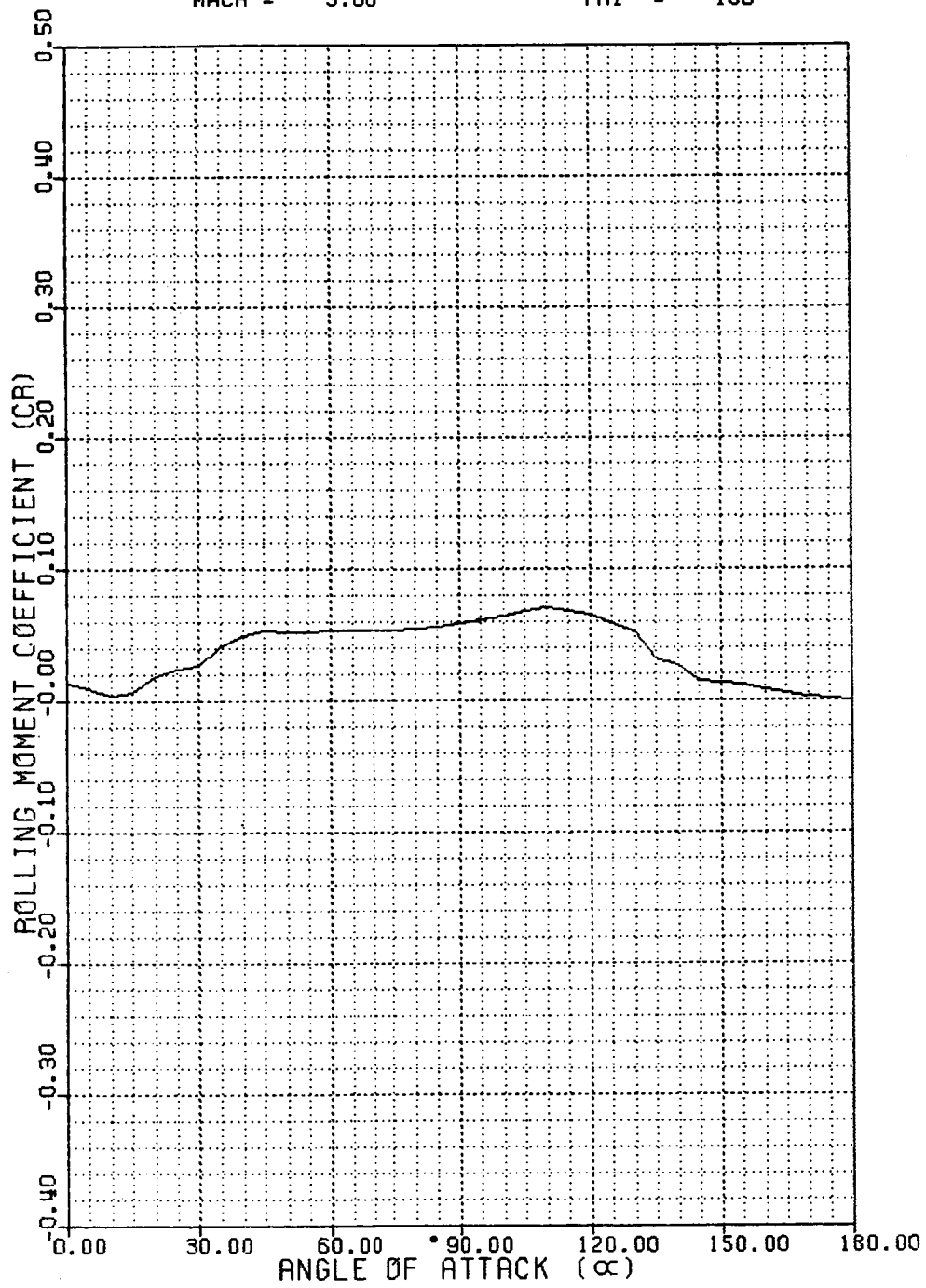
B-850

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 180

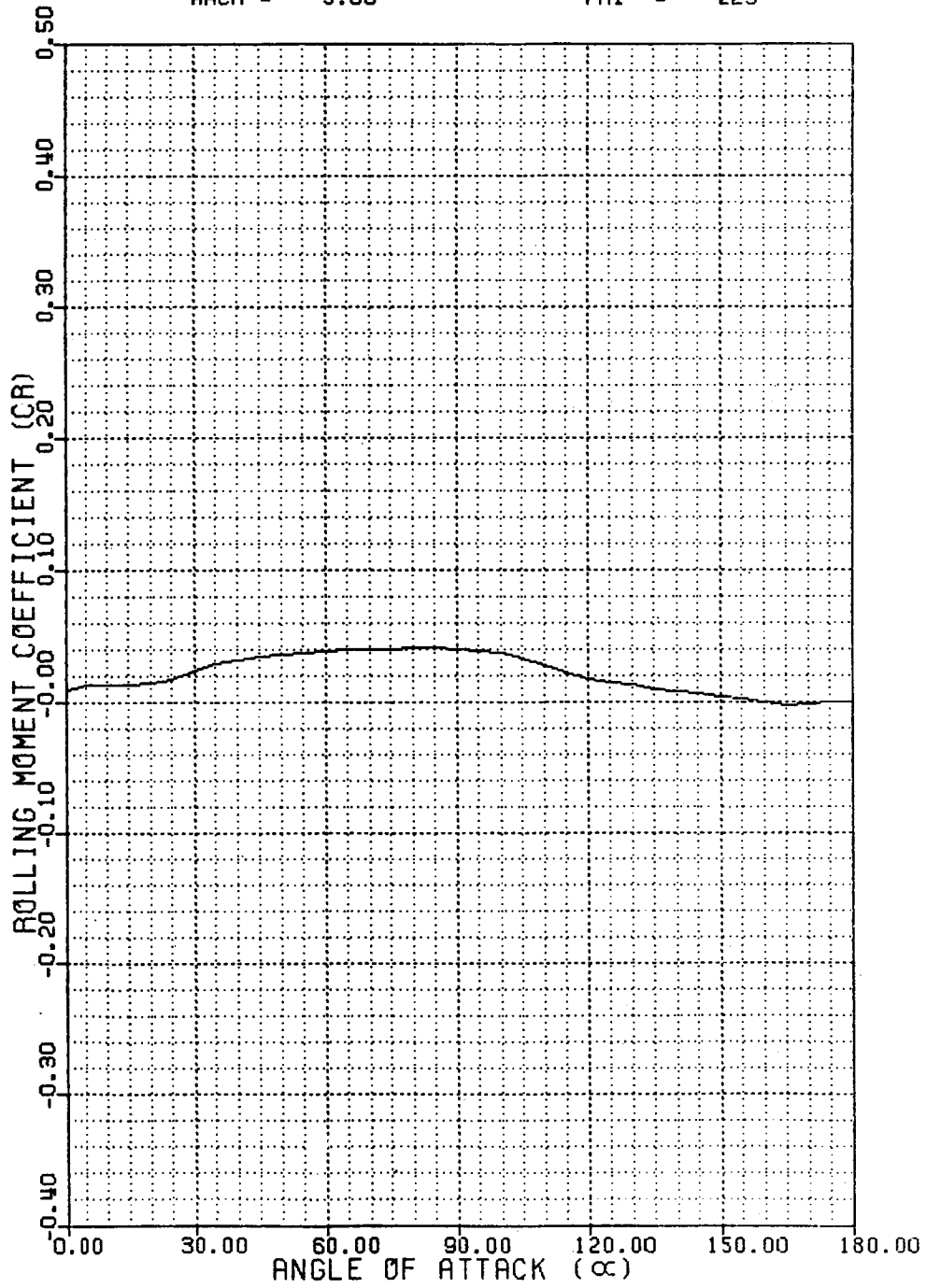


B-851

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 225

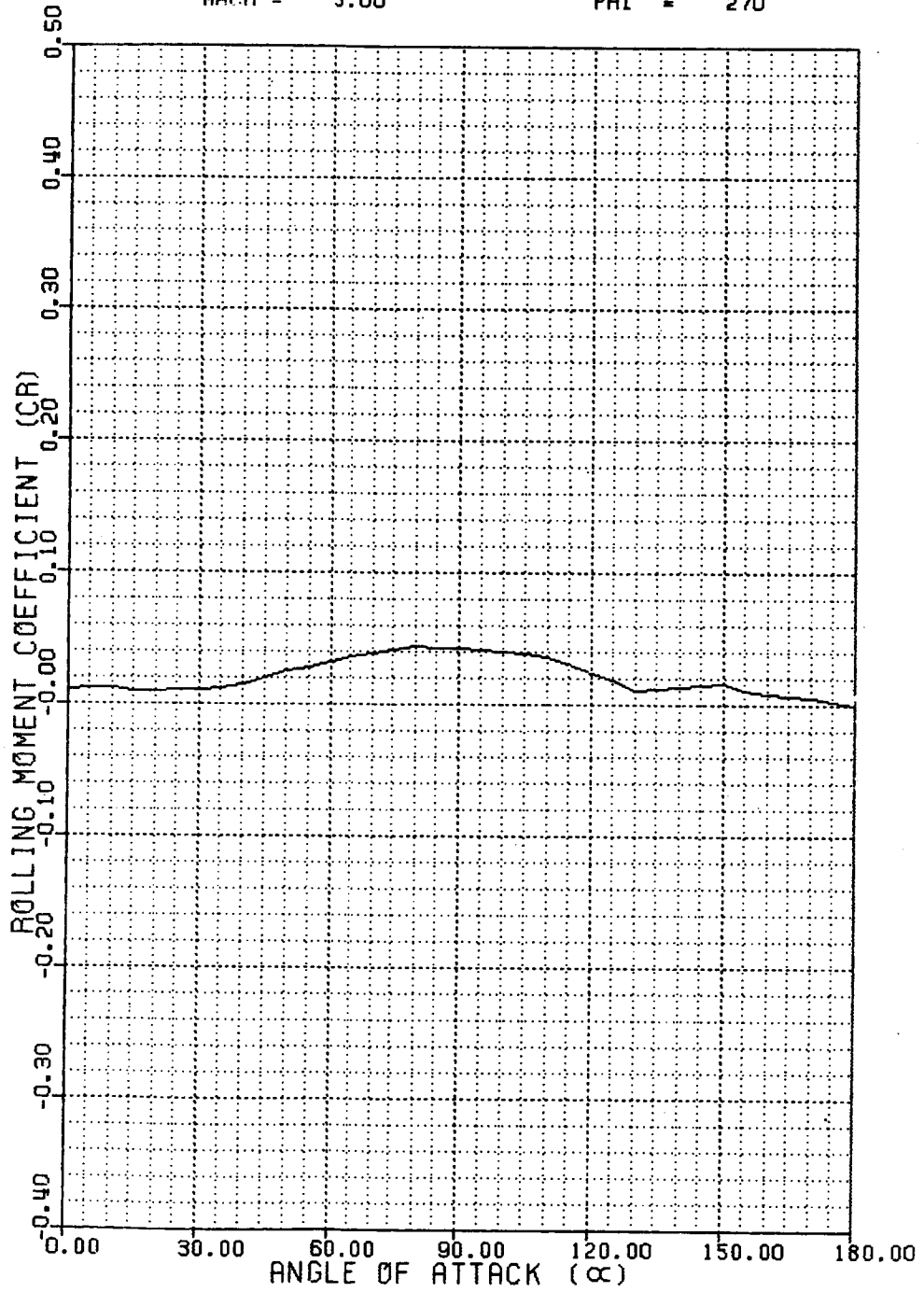


B-852

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 270



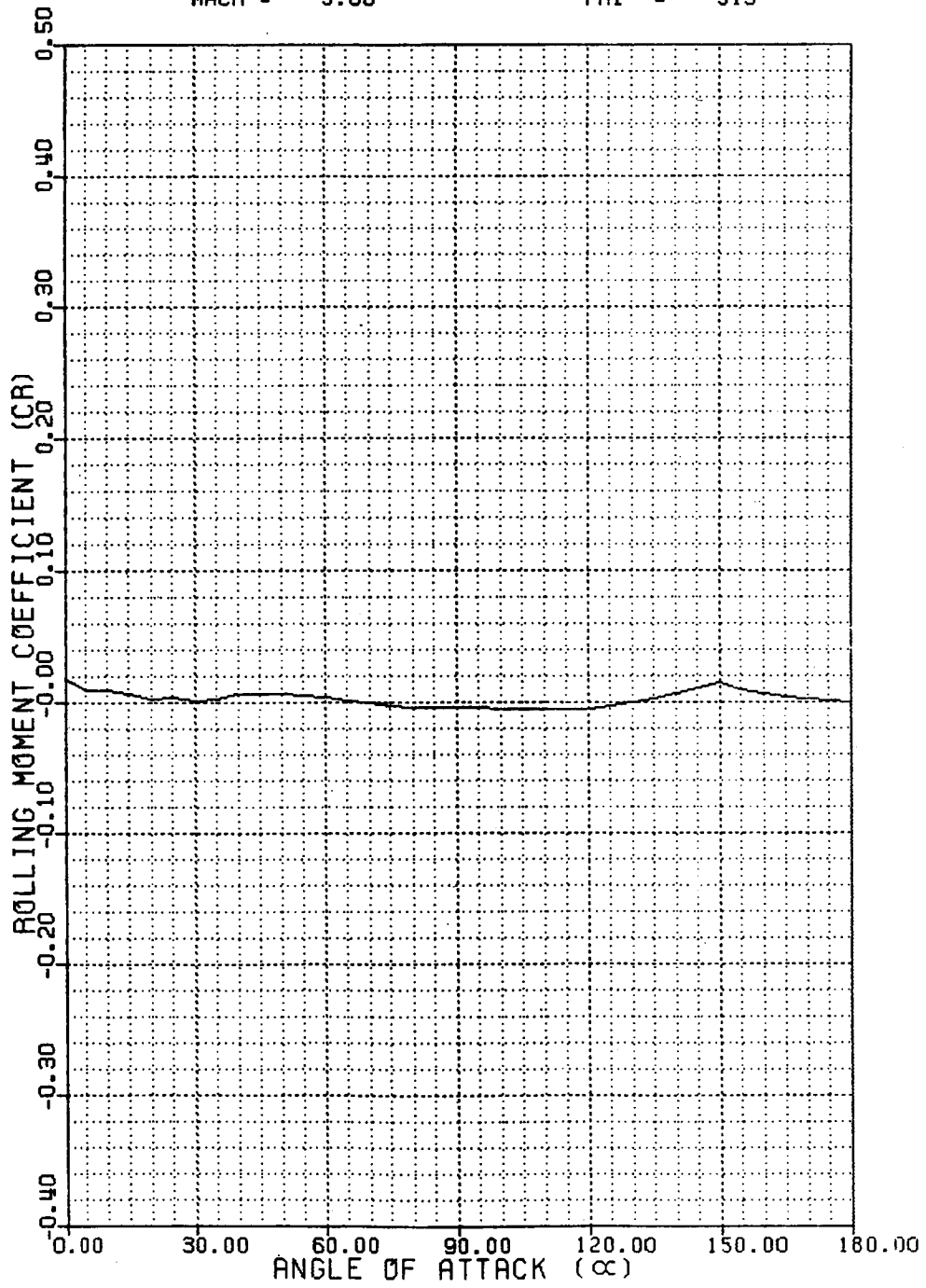
B-853



# SRB TAPE 8 DATA

MACH = 3.00

PHI = 315

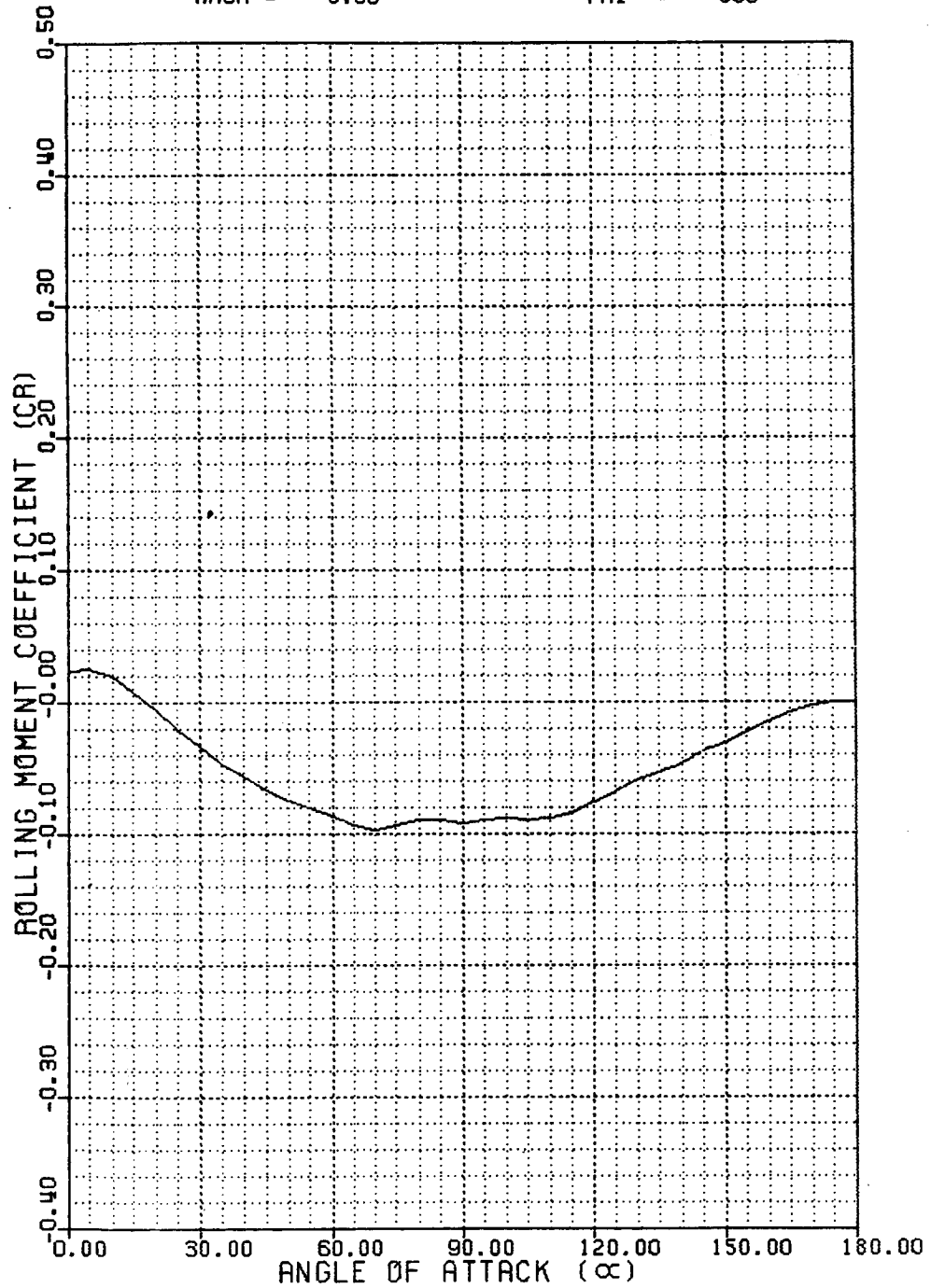


B-854

# SRB TAPE 8 DATA

MACH = 3.00

PHI = 360

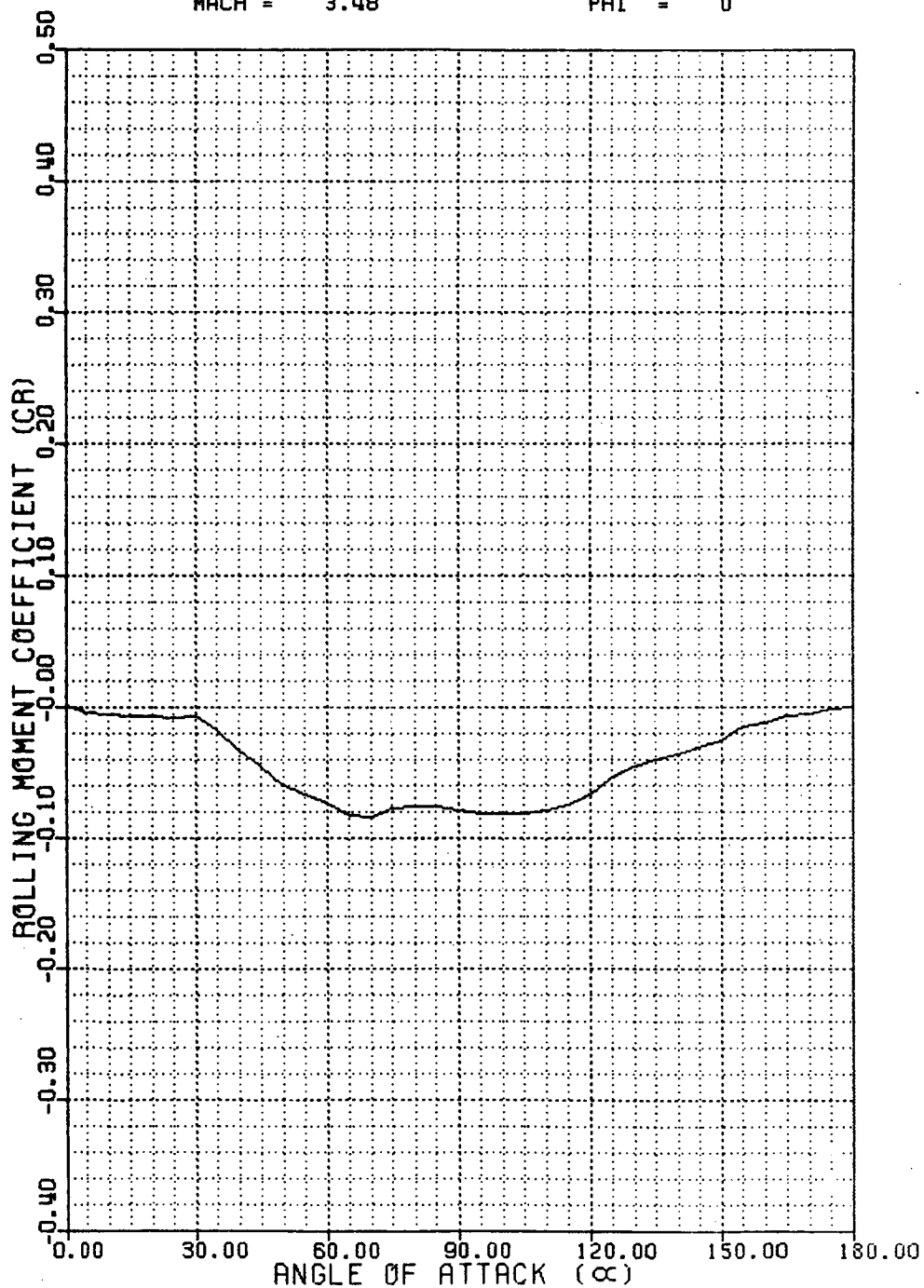


B-855

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 0

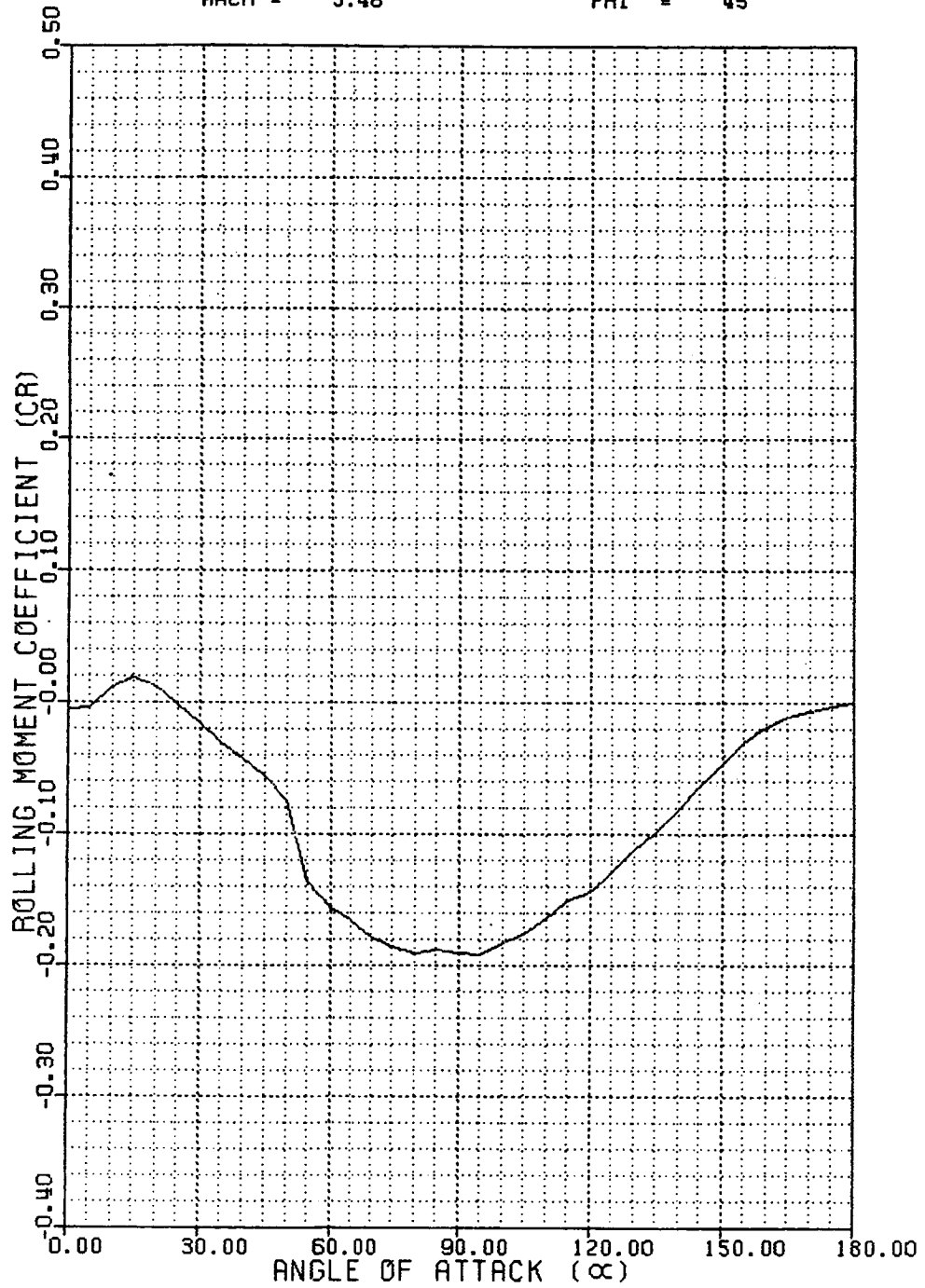


B-856

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 45



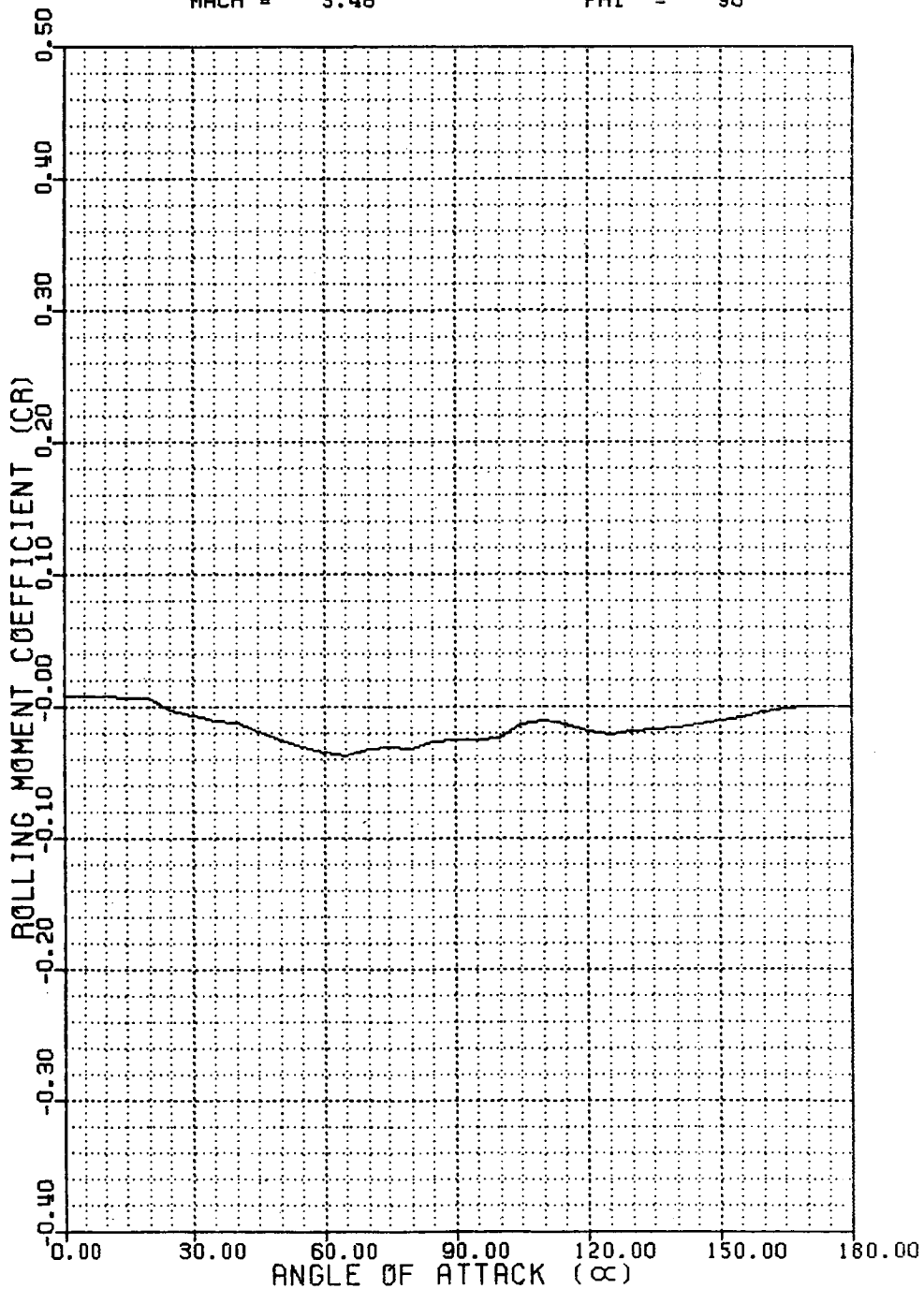
B-857

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 90

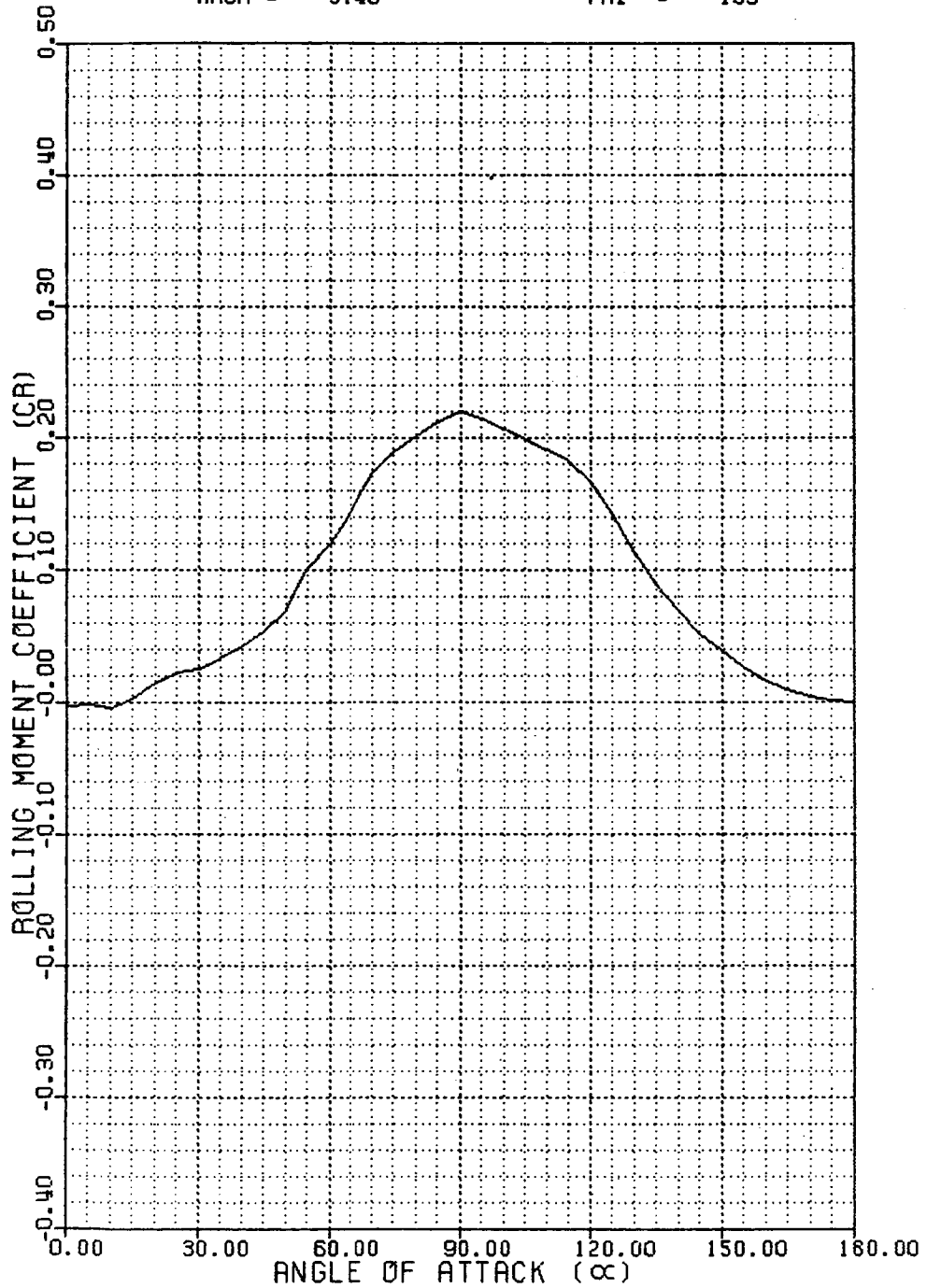


B-858

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 135

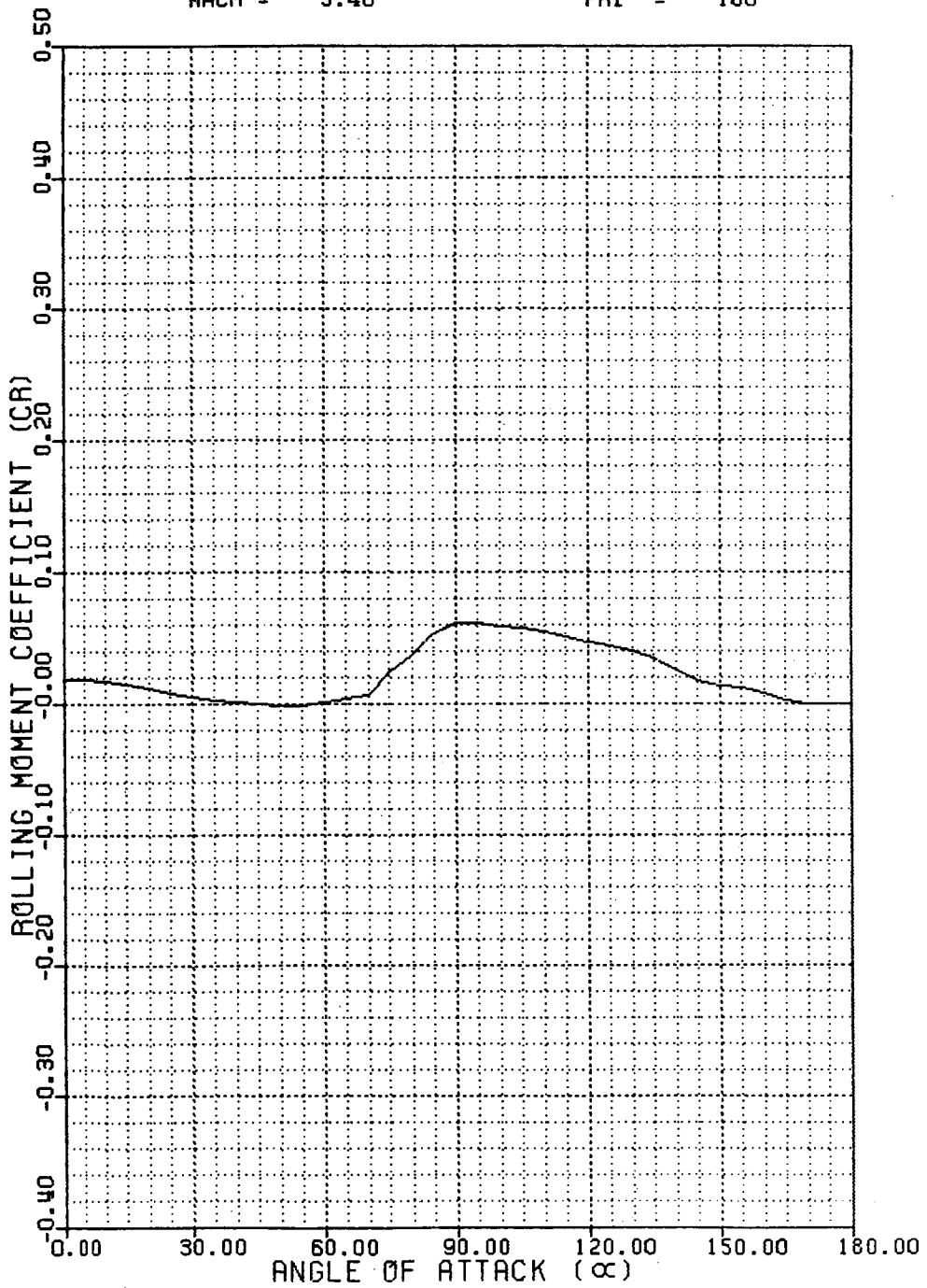


B-859

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 180



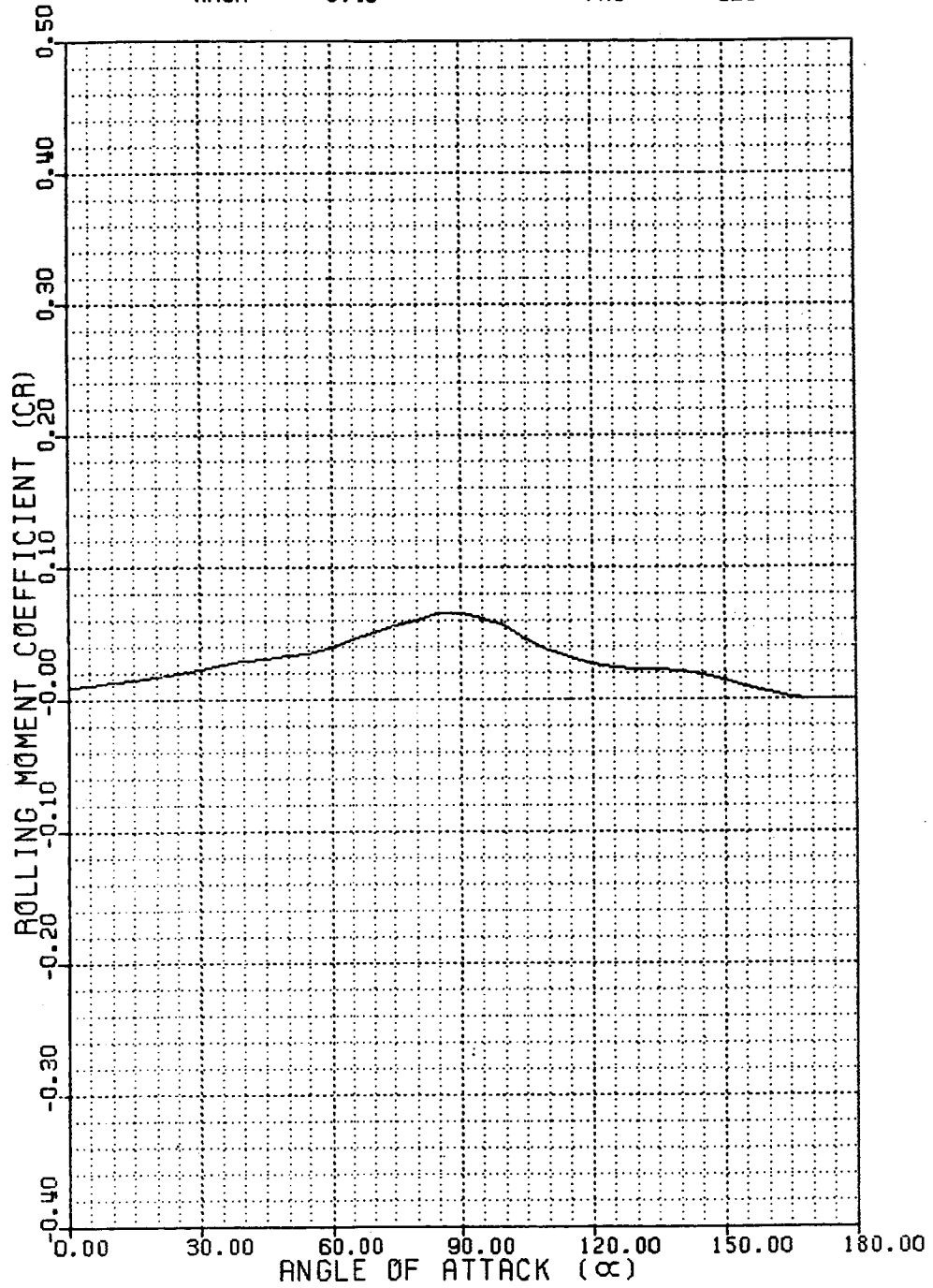
B-880

LOCKHEED-HUNTSVILLE ENGINEERING CENTER

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 225



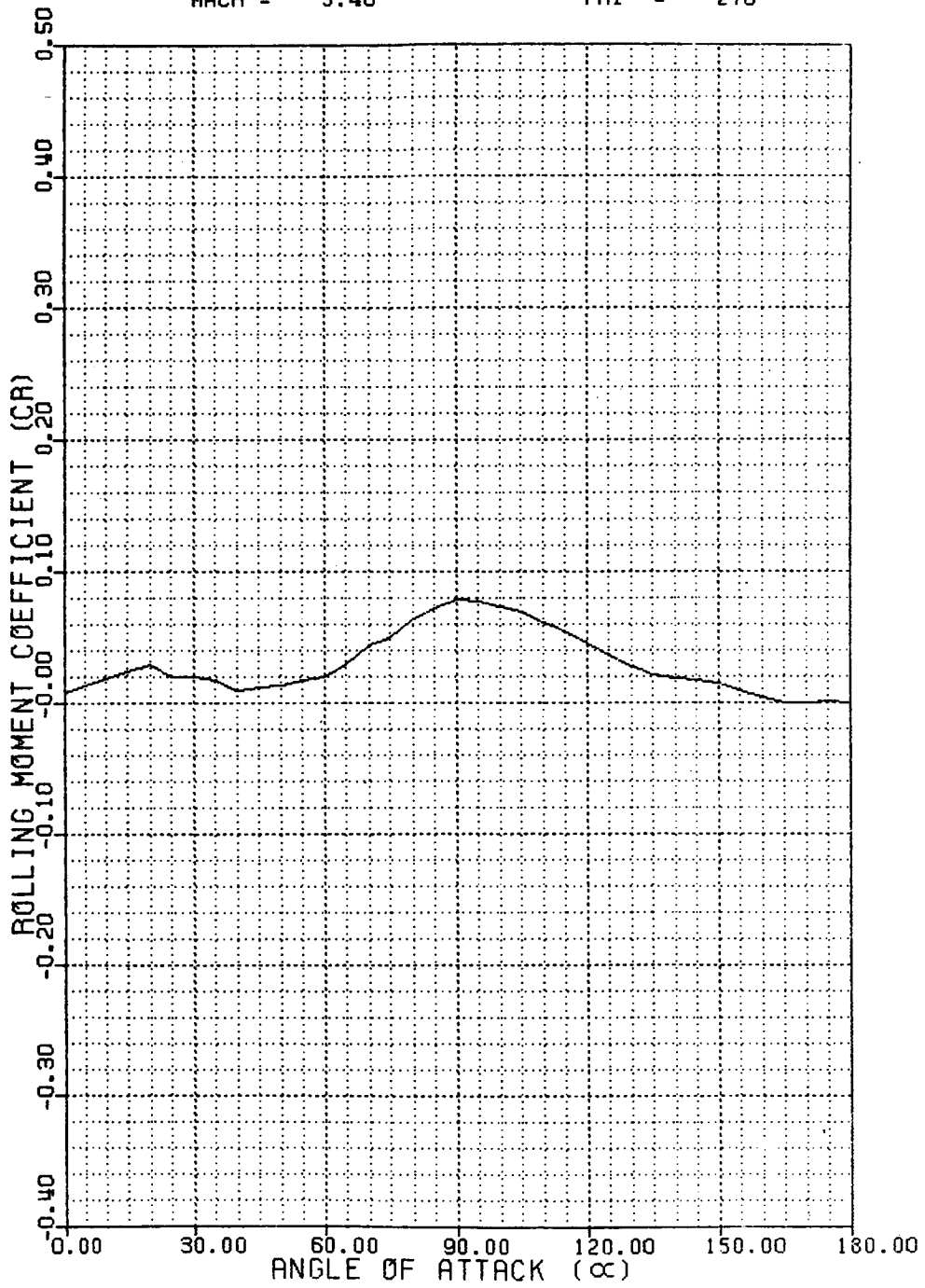
B-861



# SRB TAPE 8 DATA

MACH = 3.48

PHI = 270



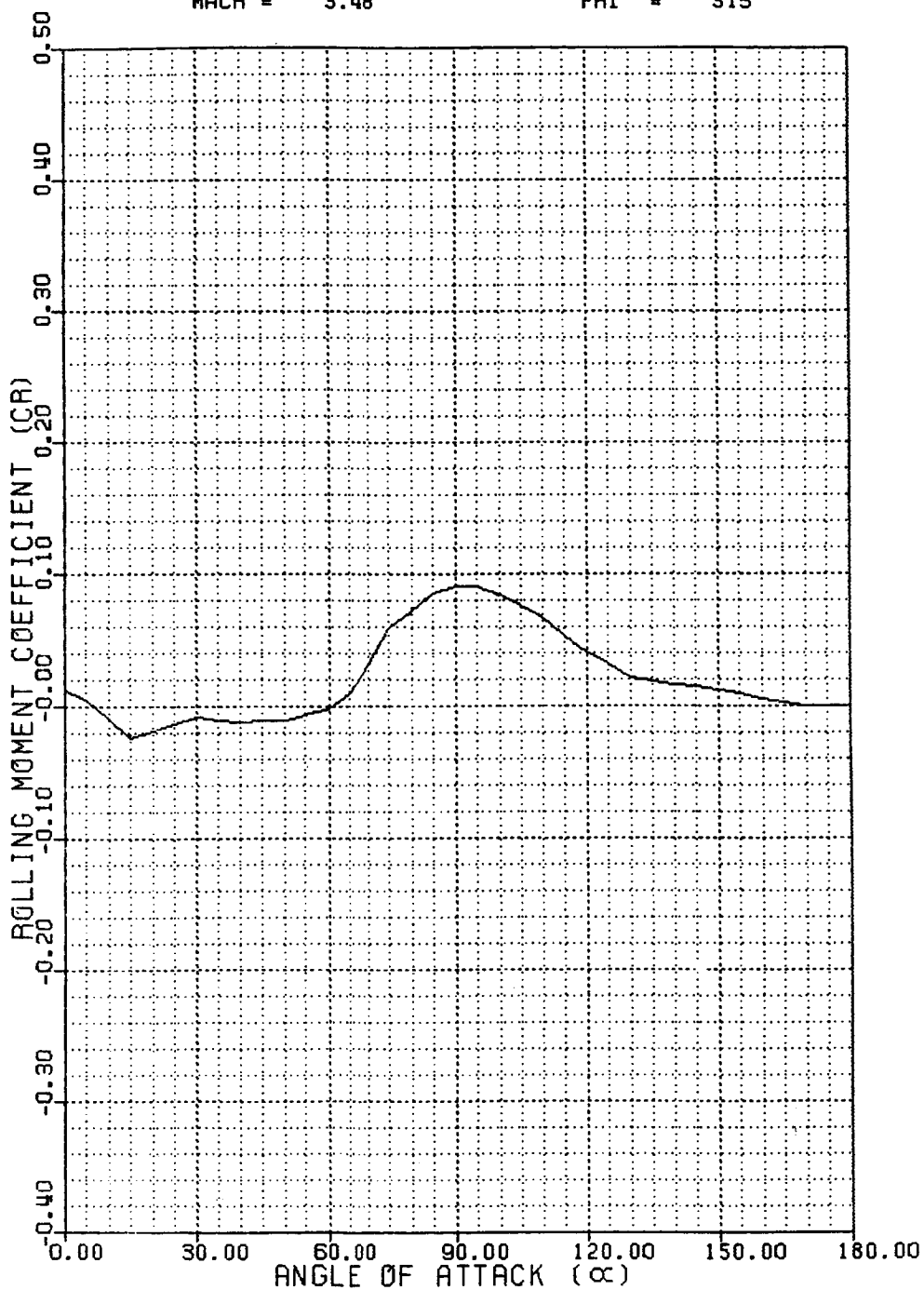
B-862

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### SRB TAPE 8 DATA

MACH = 3.48

PHI = 315



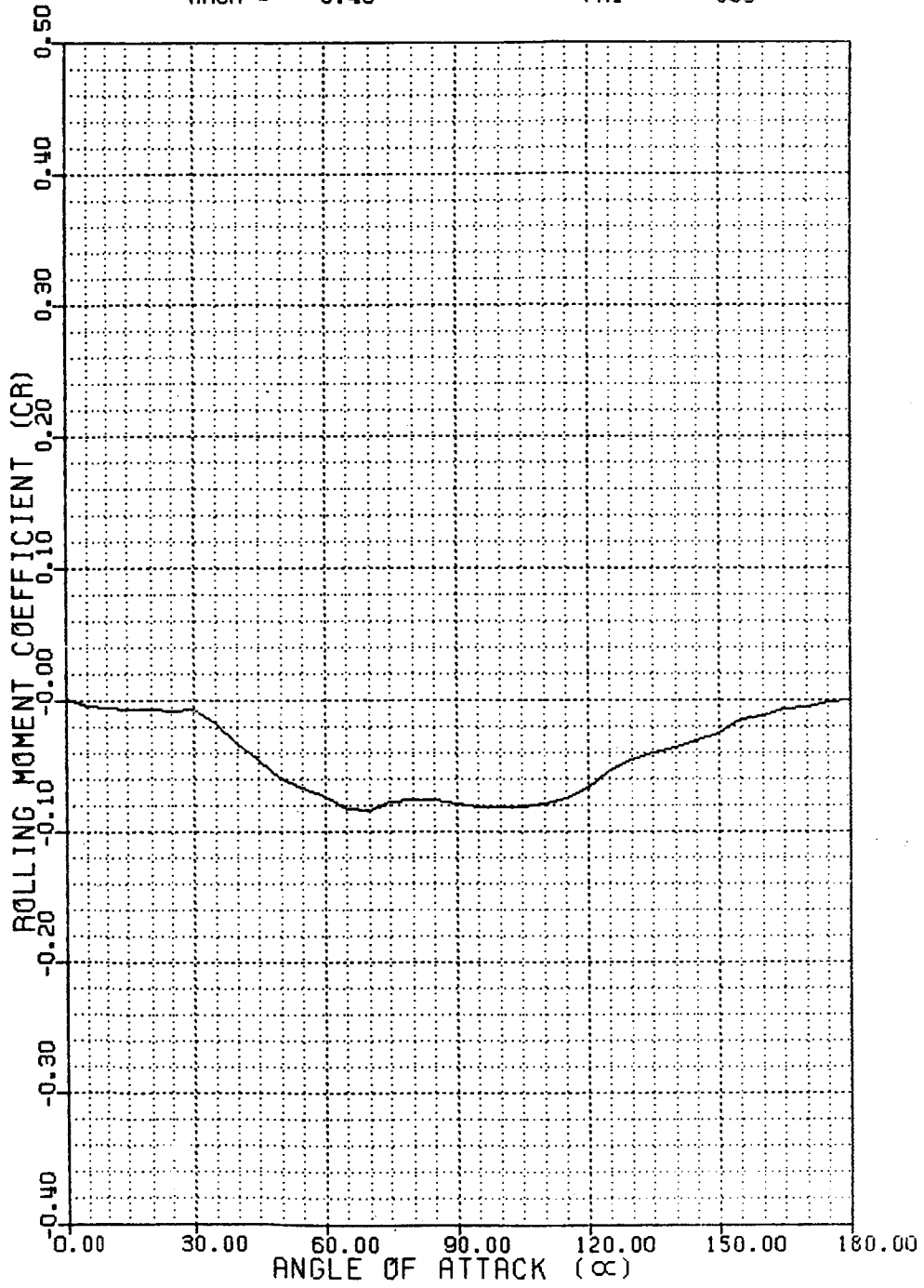
B-863

C-10

# SRB TAPE 8 DATA

MACH = 3.48

PHI = 360



B-864