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AUTHORITY
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MC REPORT 011
Volume 14

AD 916557

**ACOUSTIC ENVIRONMENTAL SCENARIOS
AND
PREDICTIONS FOR ASW**

**VOLUME 14
AREA 5, WINTER
PREDICTIONS FOR PASSIVE SONAR**

October 1972

AD No. _____
DDC FILE COPY

LONG RANGE ACOUSTIC PROPAGATION PROJECT



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**OCEAN SCIENCE PROGRAM
MAURY CENTER FOR OCEAN SCIENCE
Department of the Navy
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6
ACOUSTIC ENVIRONMENTAL SCENARIOS AND PREDICTIONS
FOR ASW.

Volume XIV. Area 5 WINTER
PREDICTIONS FOR PASSIVE SONAR.

Vol - 10

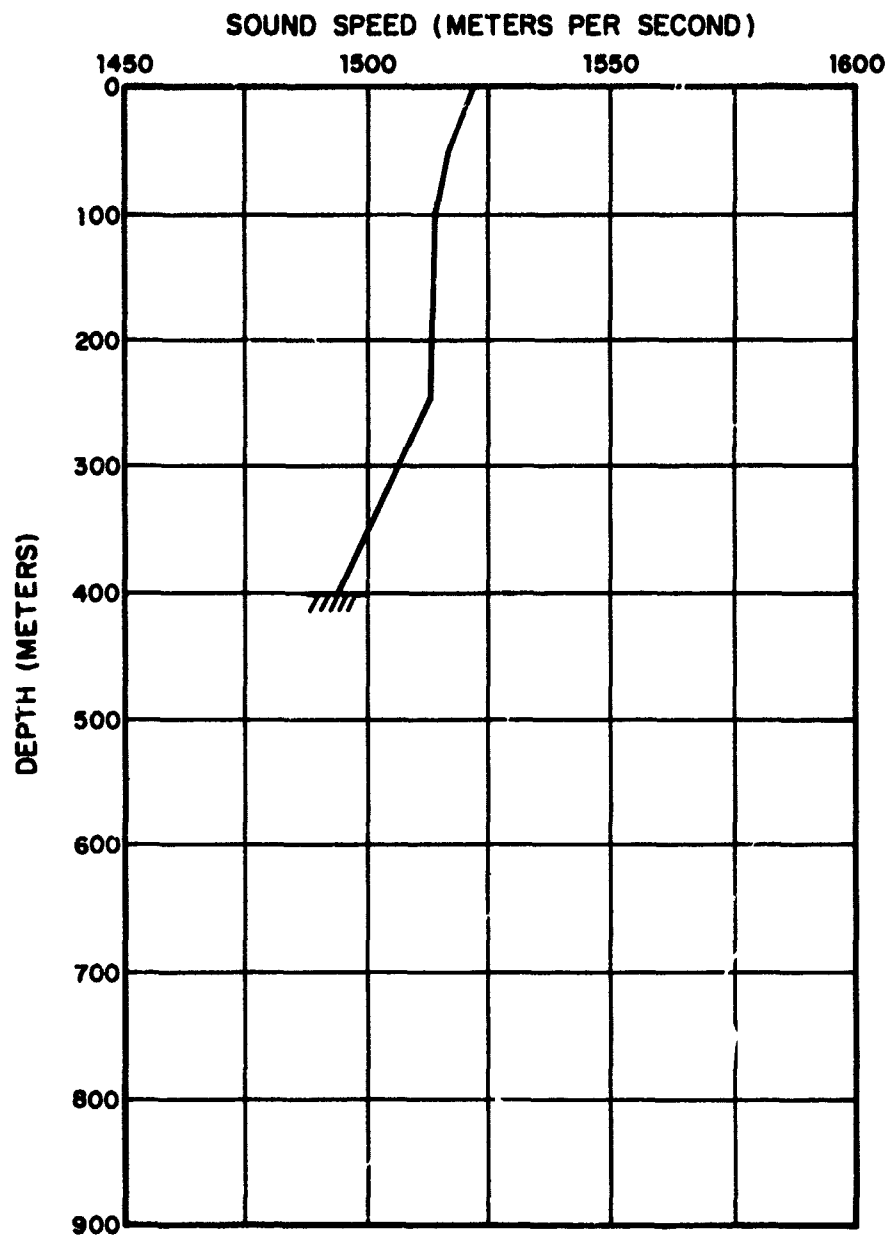
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Vol 14

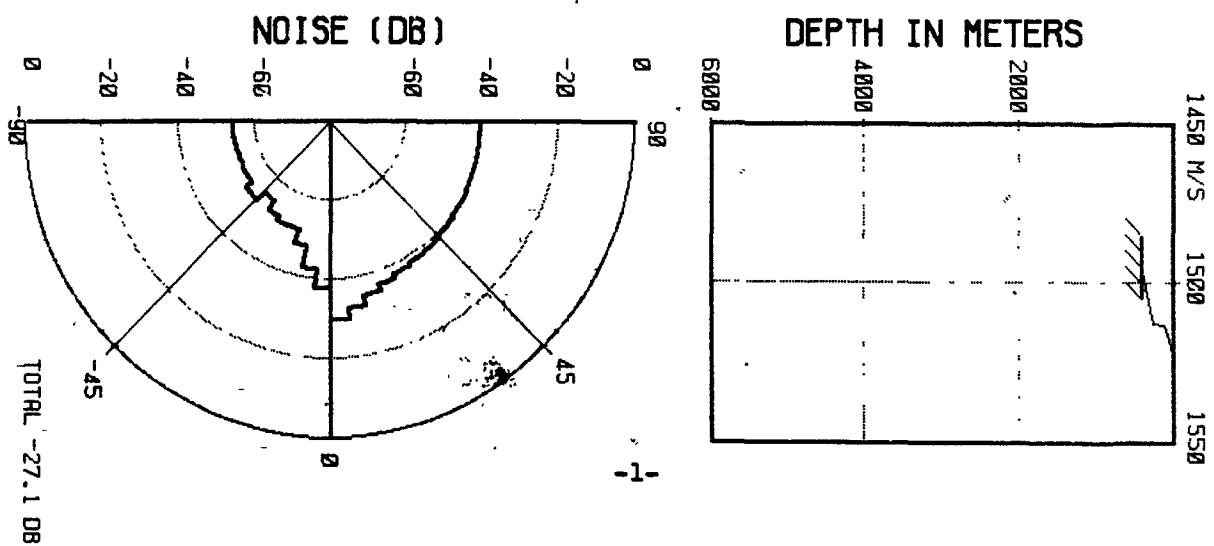
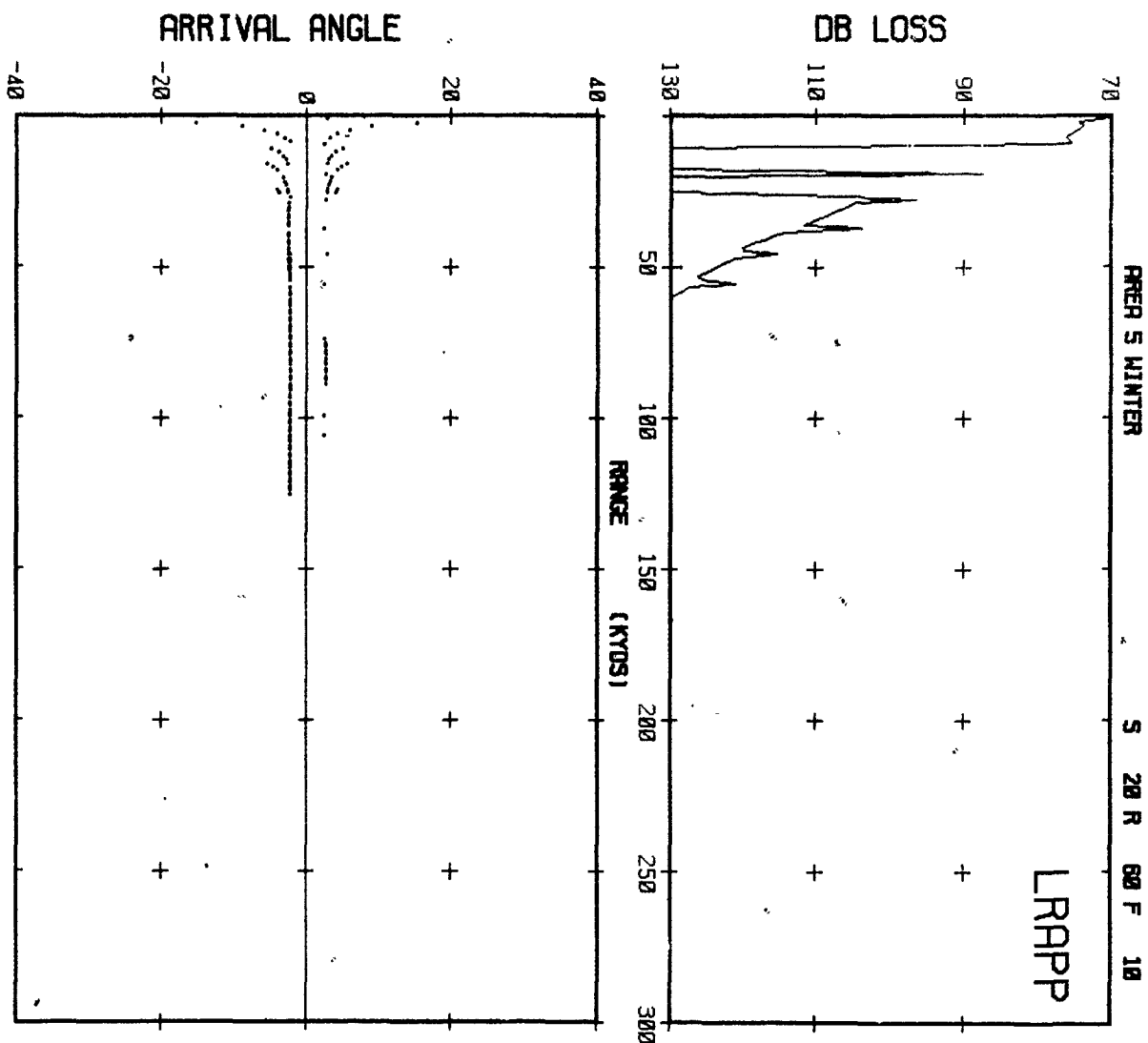
Refer to Volume I of this report for an explanation of the plot format and descriptions of models and ocean areas.

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**SOUND SPEED PROFILE
AREA 5, WINTER**

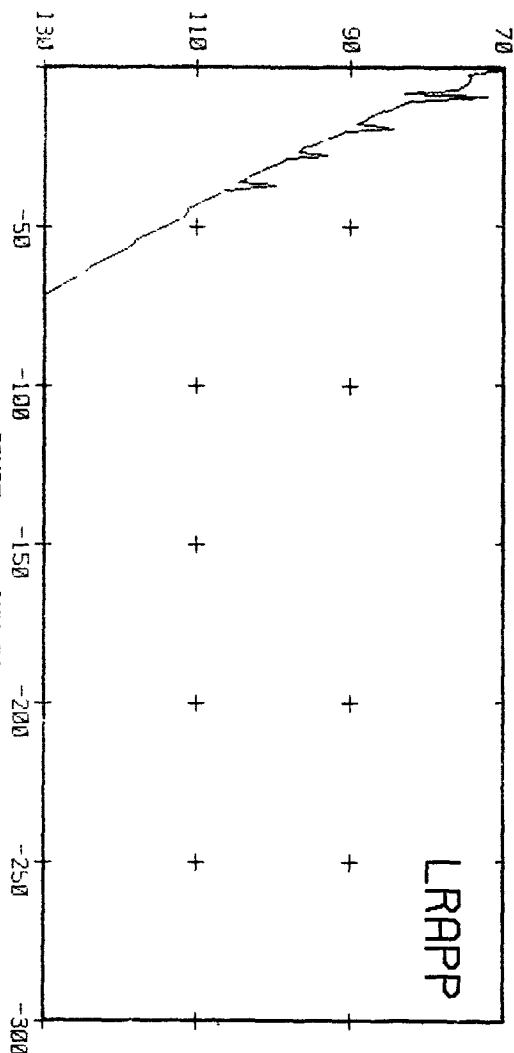


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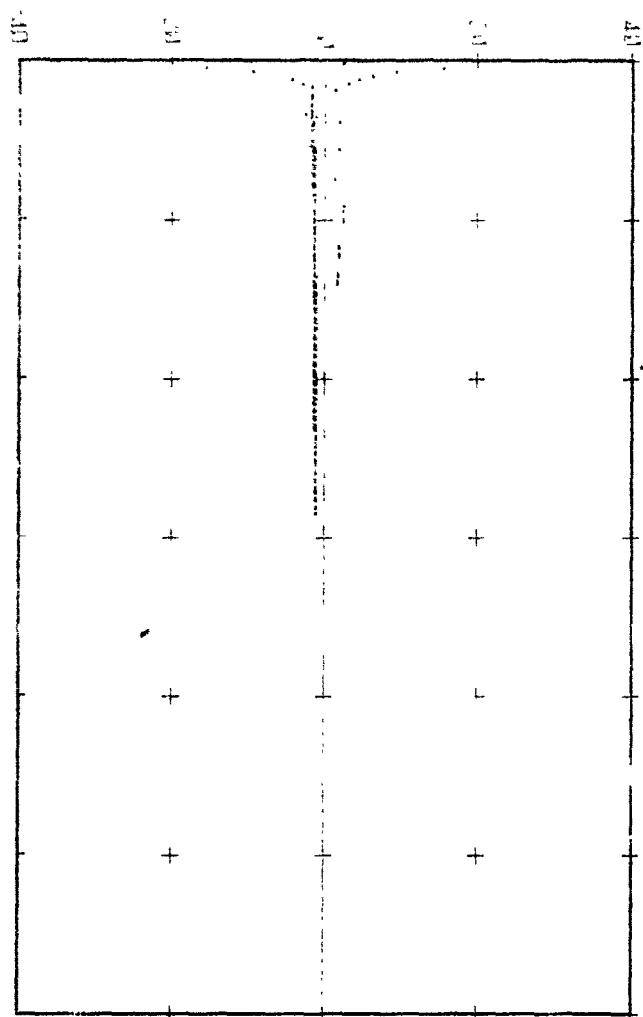
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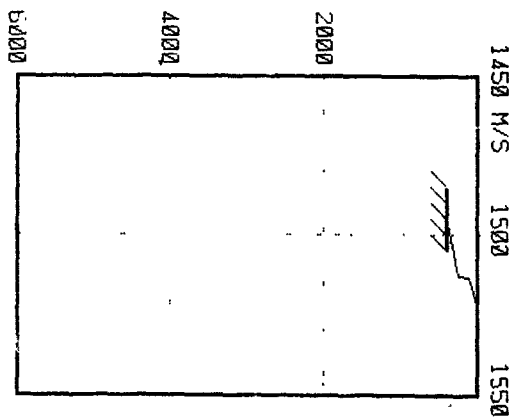
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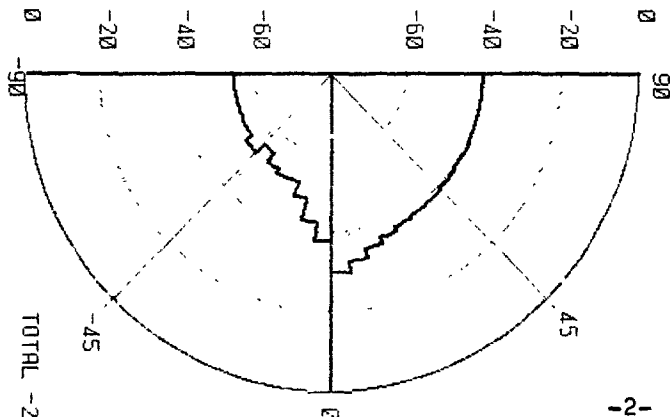
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DEPTH IN METERS



NOISE (DB)



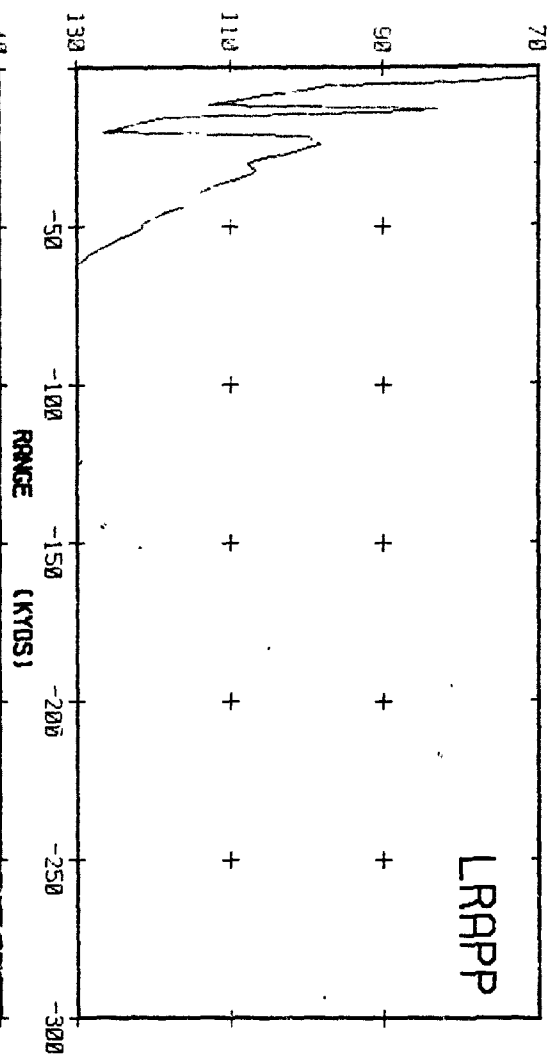
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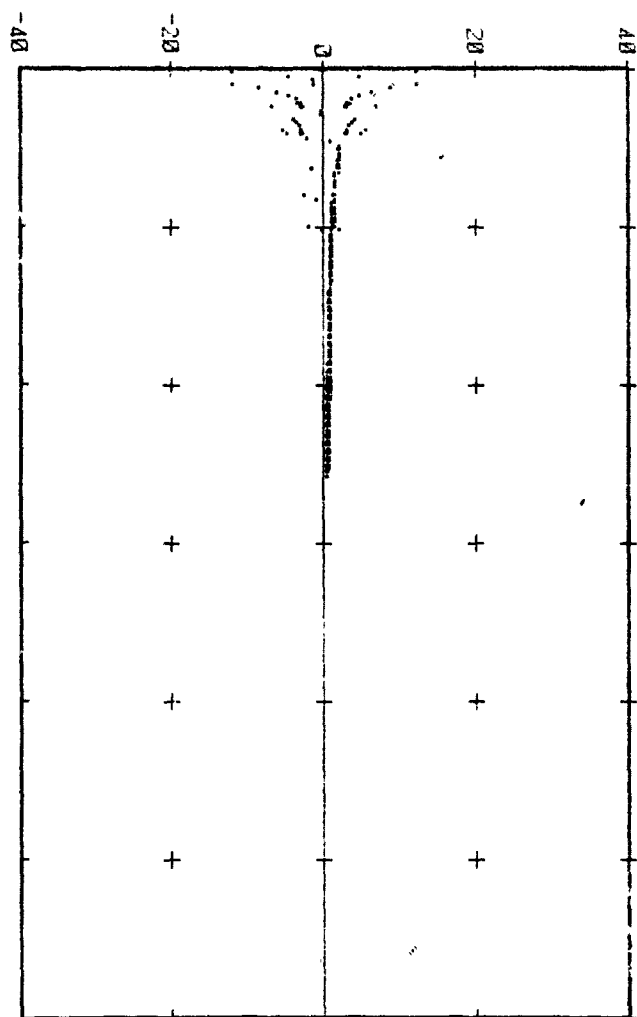
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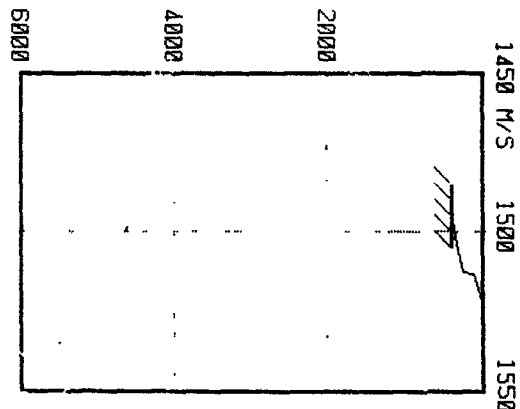
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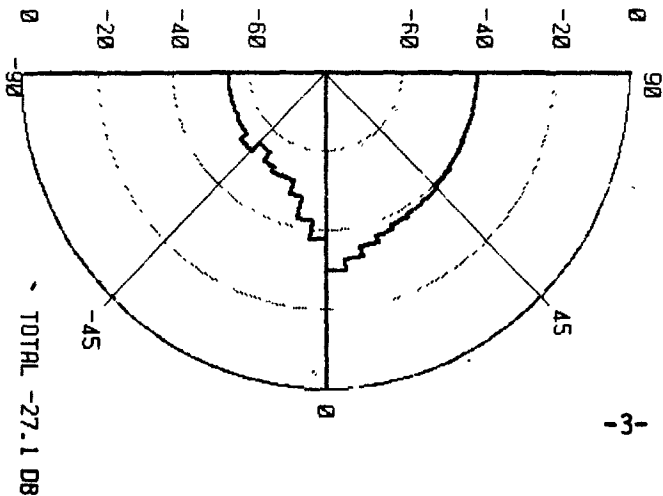
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DEPTH IN METERS



NOISE (DB)



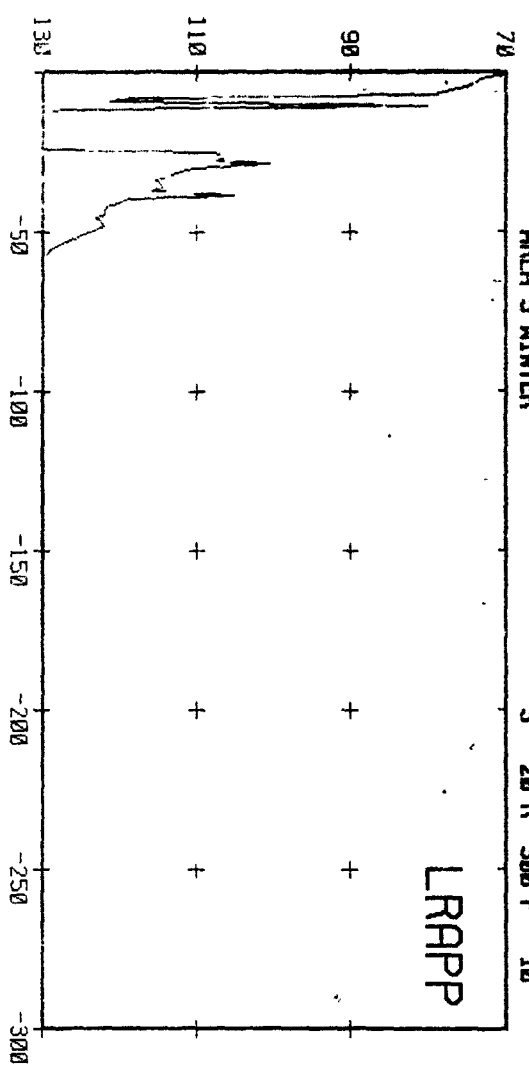
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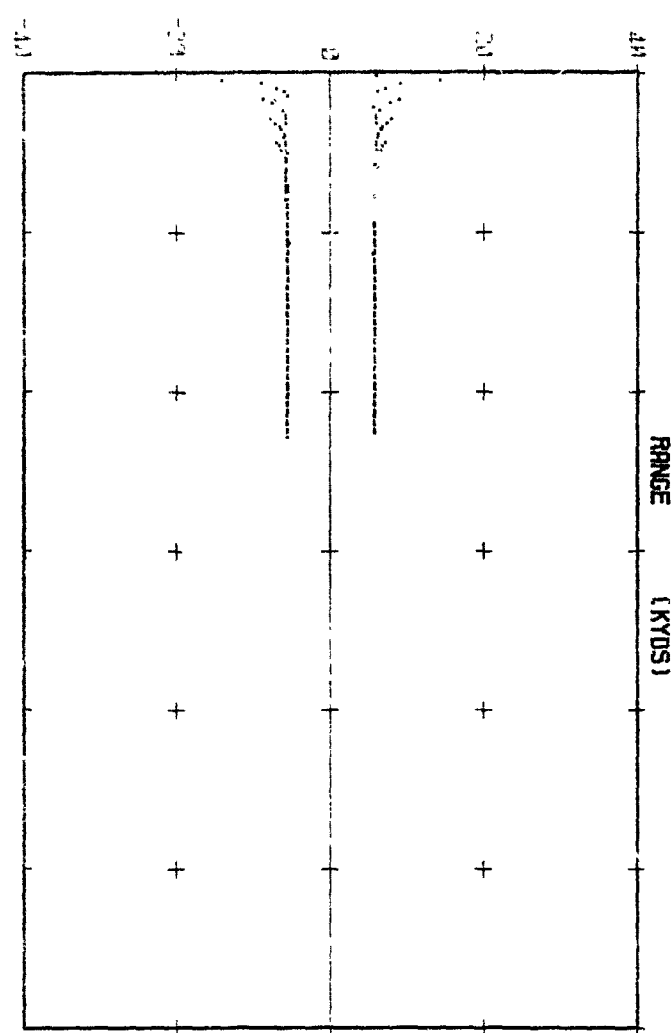
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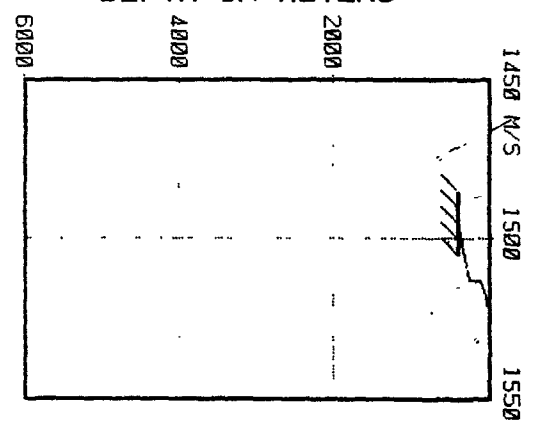
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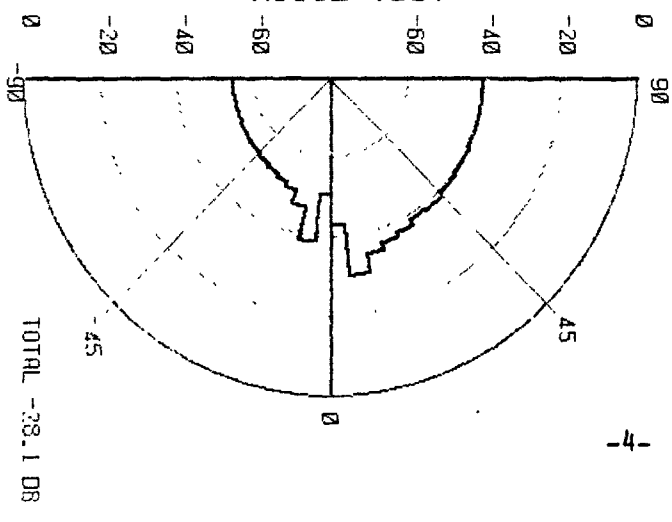
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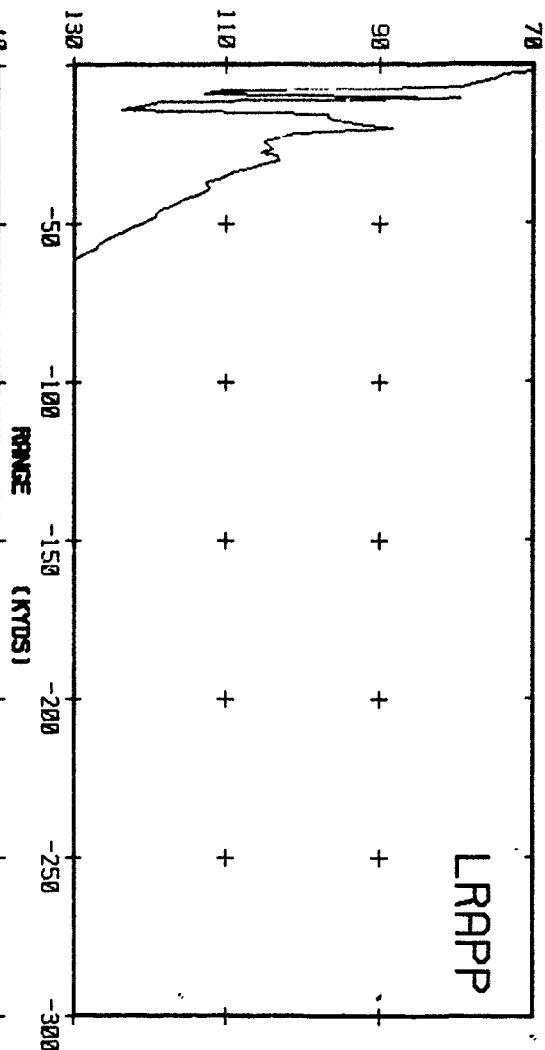


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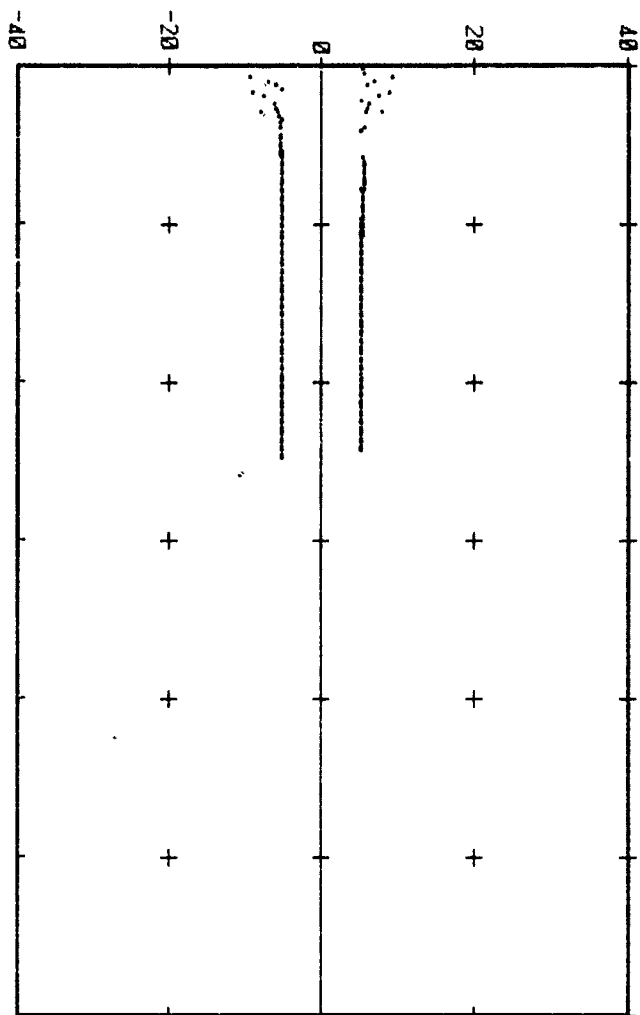
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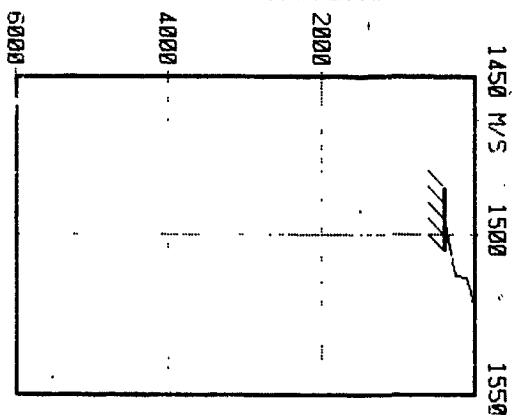
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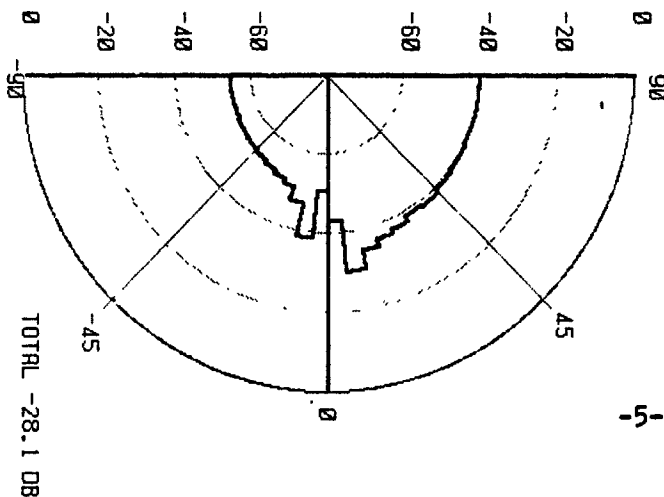
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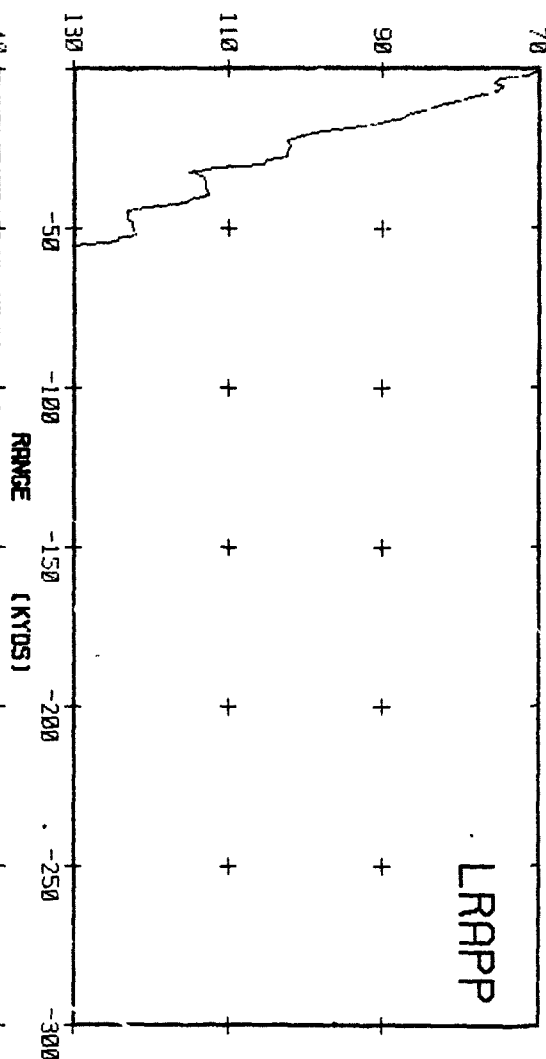


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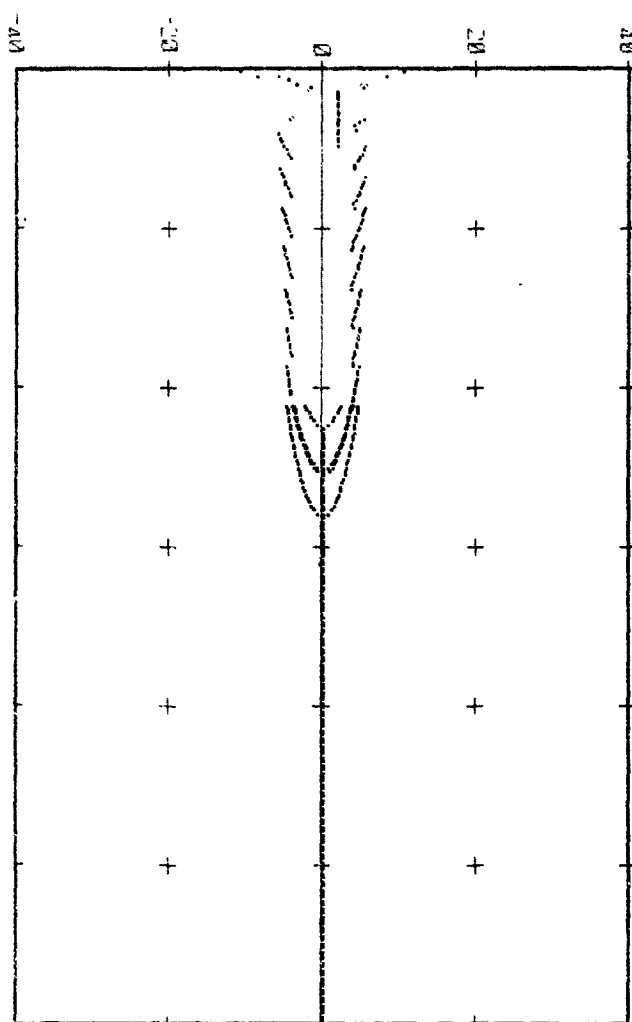
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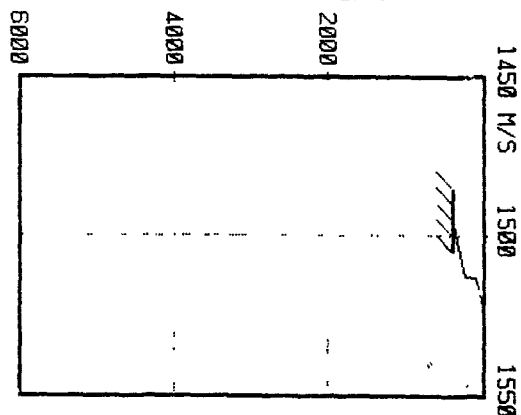
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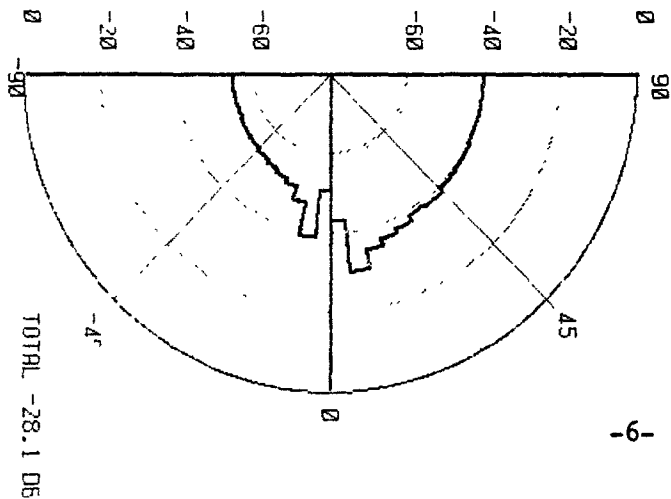
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DEPTH IN METERS



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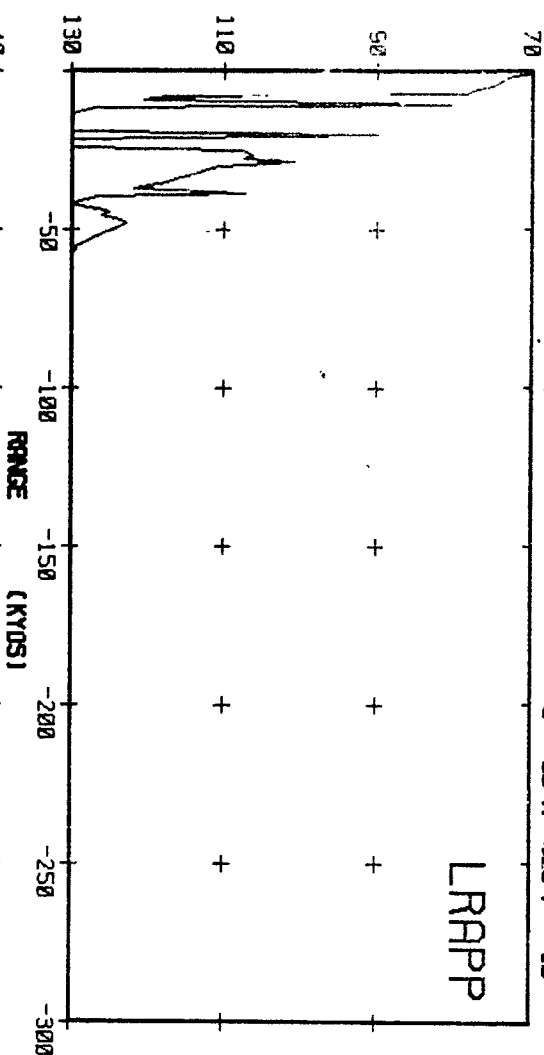


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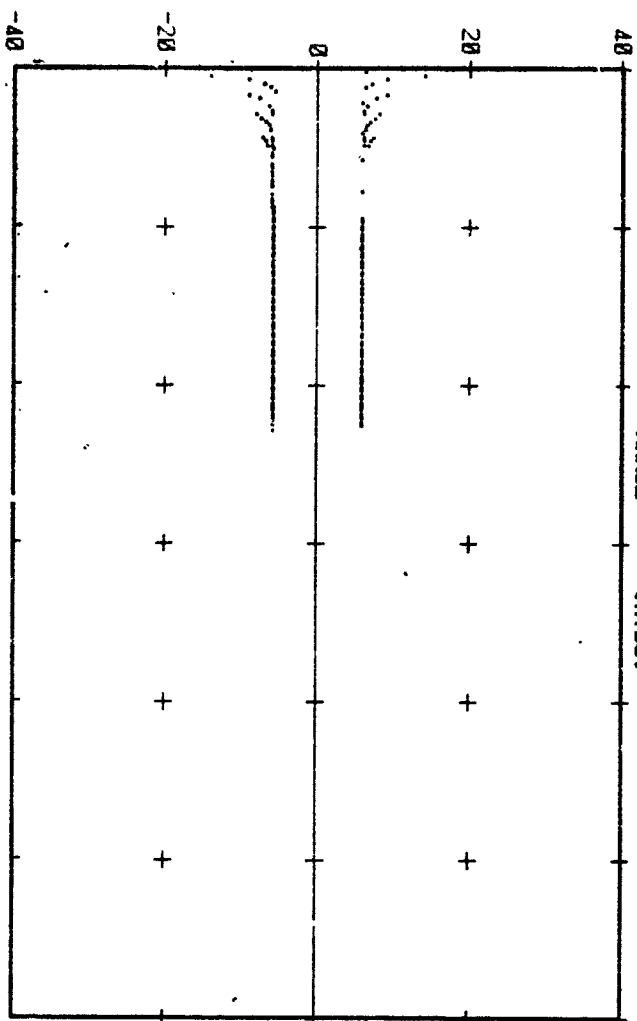
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1450 M/S 1500 1550

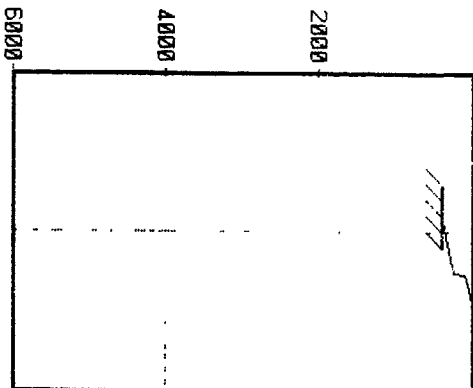
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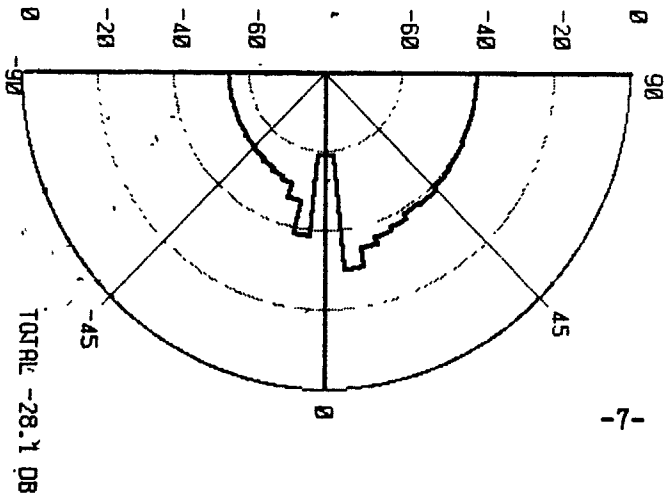
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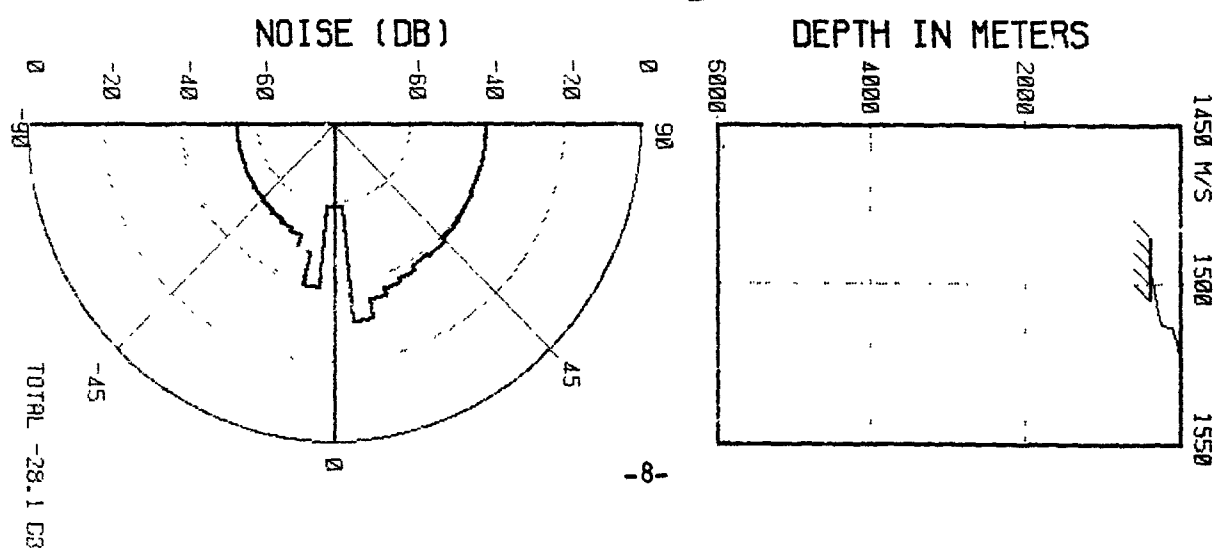
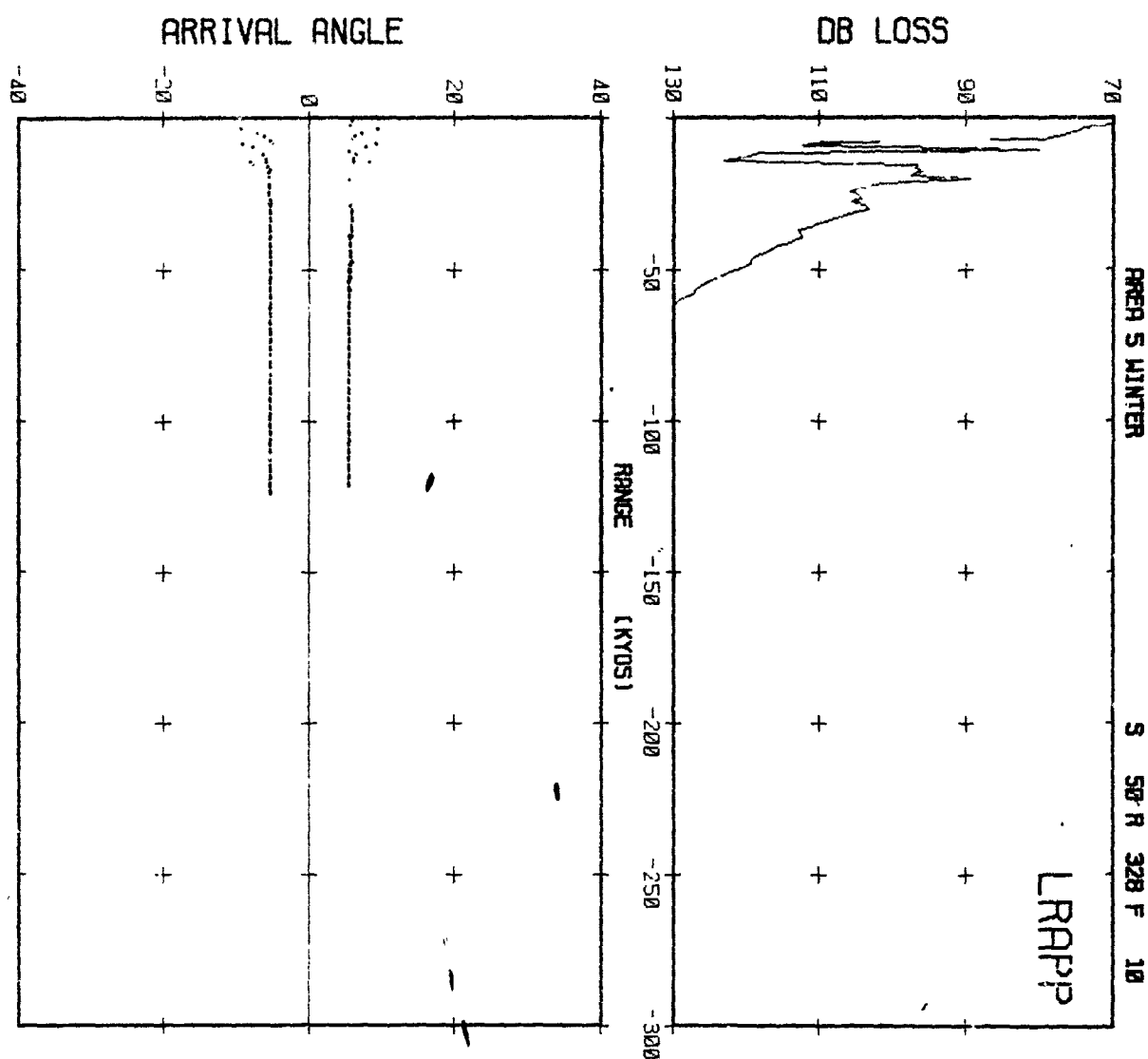


DEPTH IN METERS



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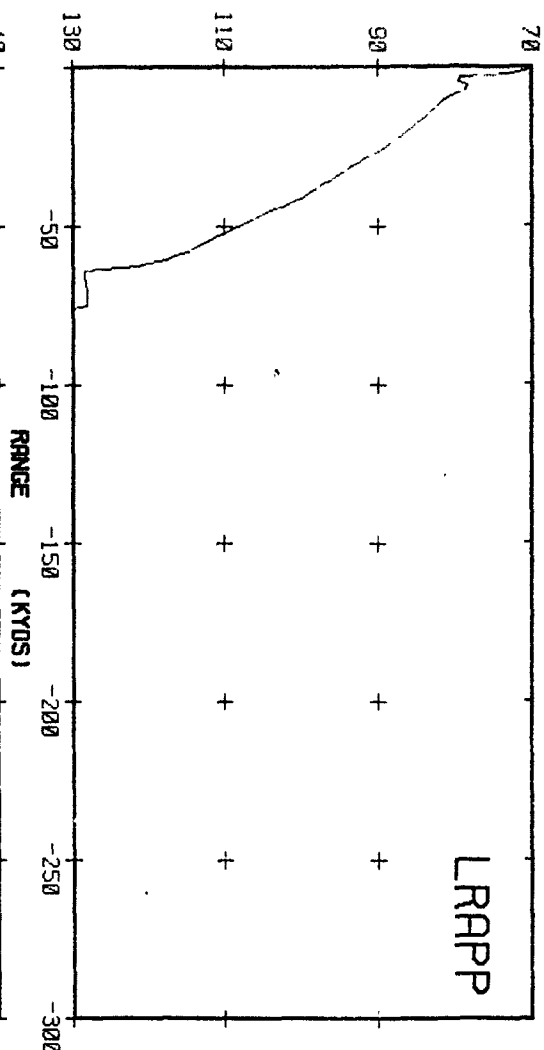


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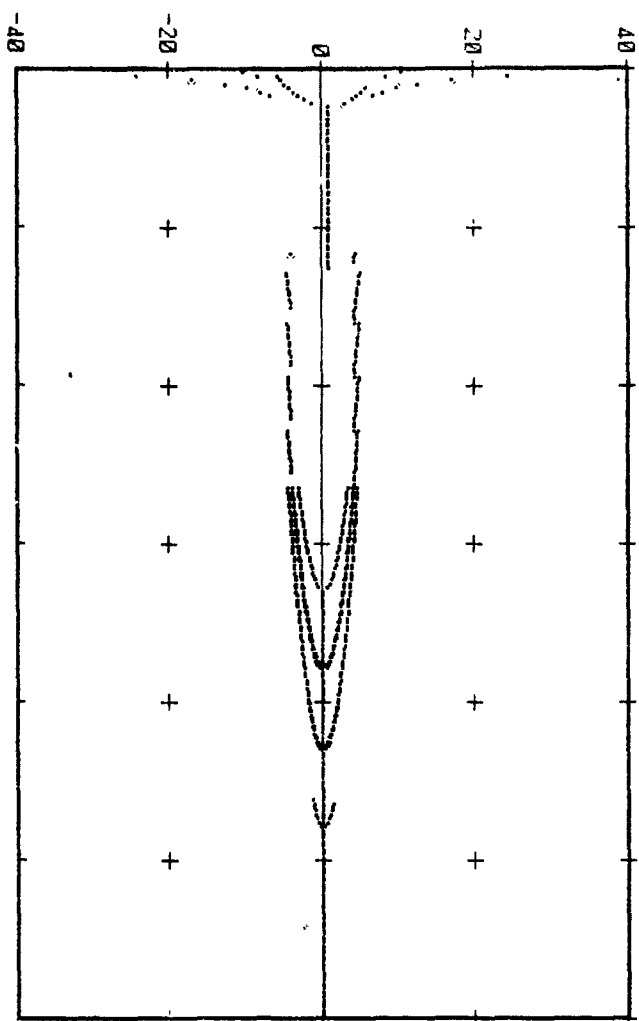
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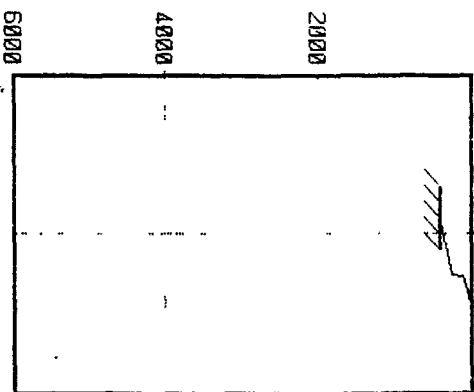
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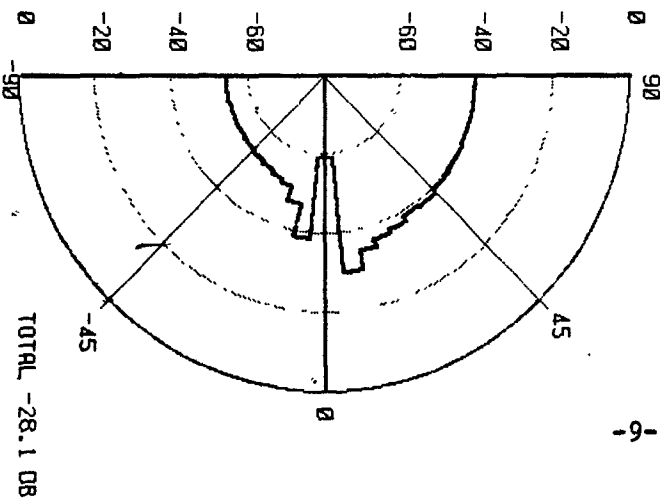
ARRIVAL ANGLE



DEPTH IN METERS

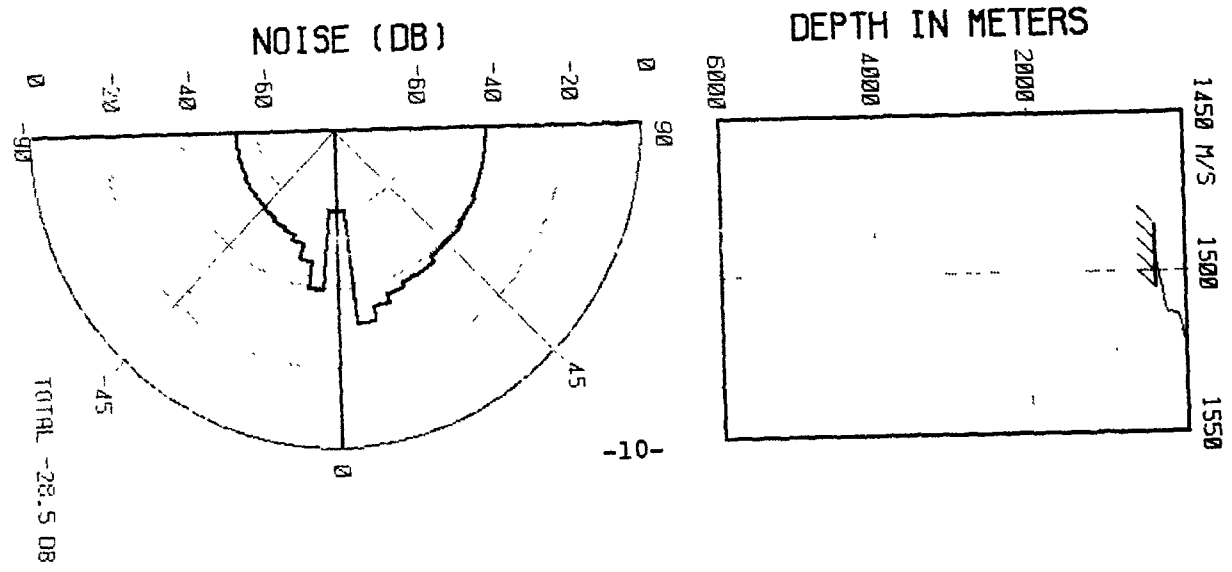
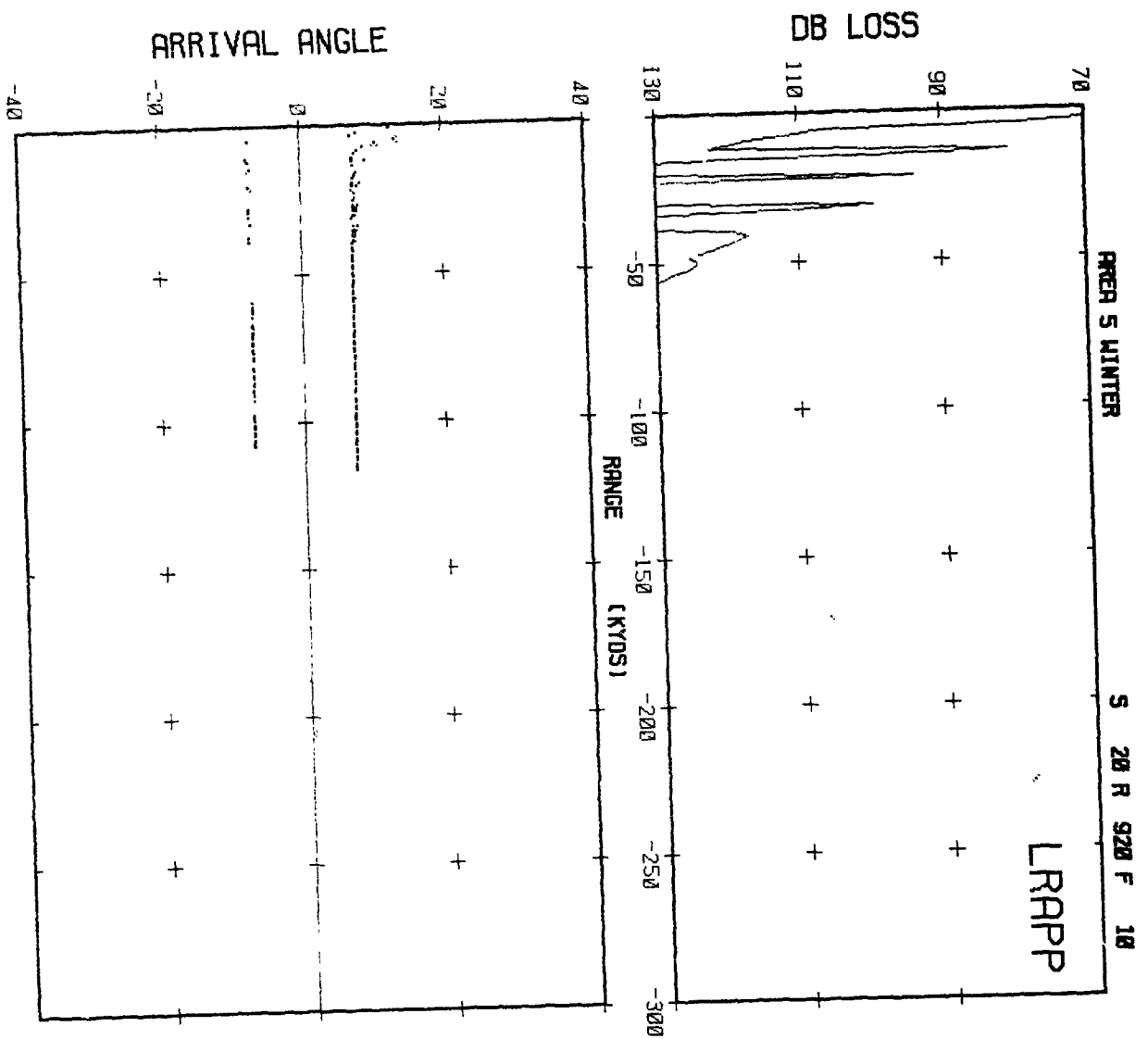


NOISE (DB)



TOTAL -28.1 DB

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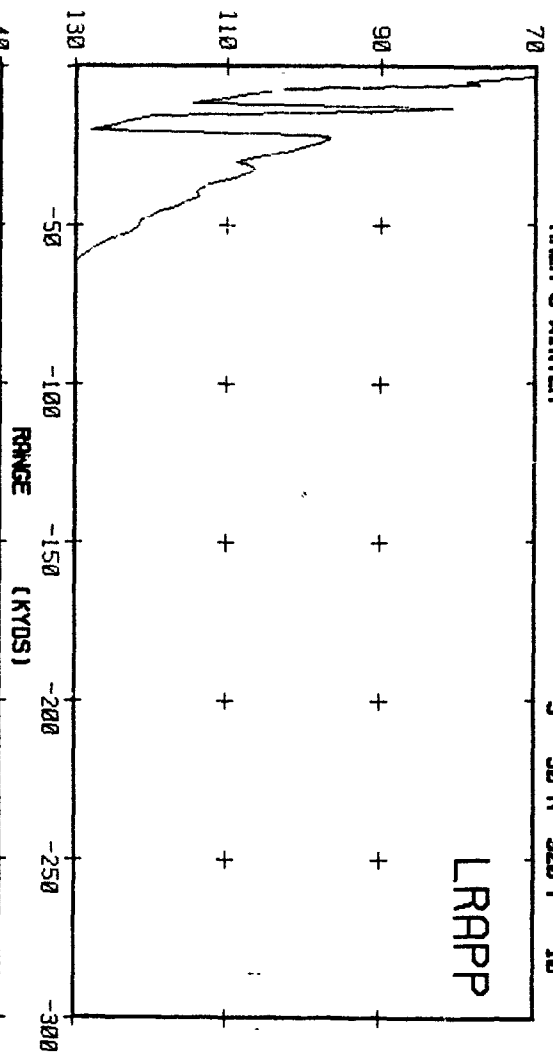


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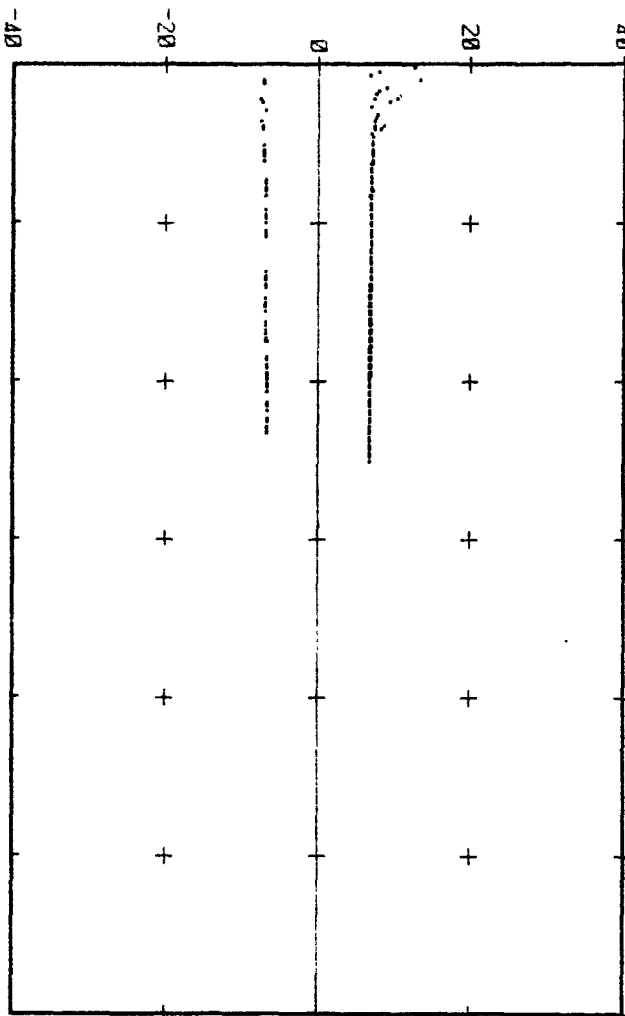
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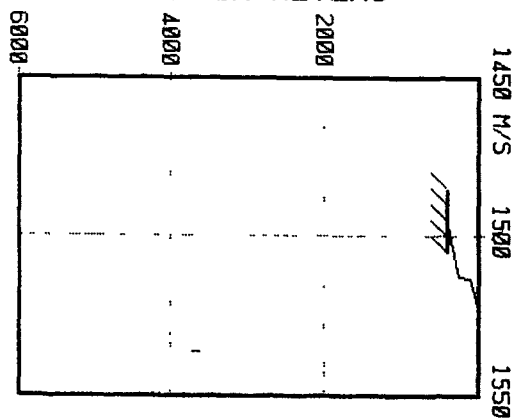
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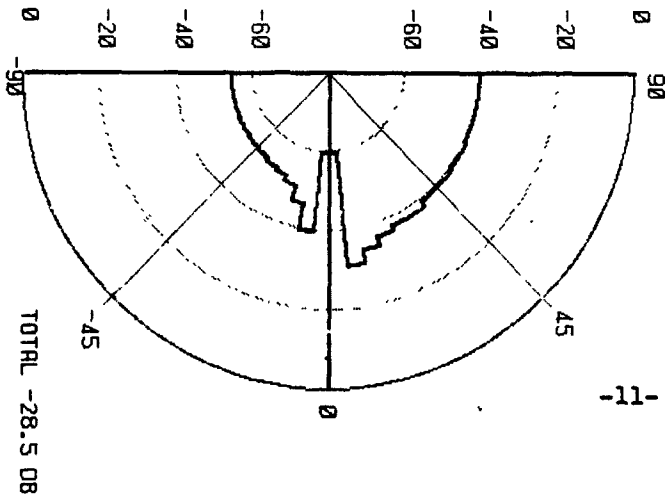
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DEPTH IN METERS



NOISE (DB)



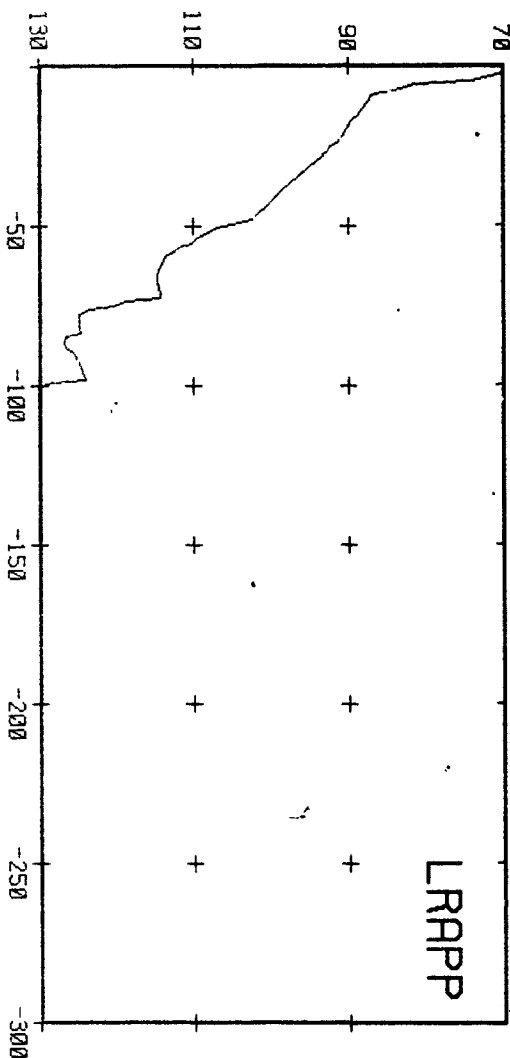
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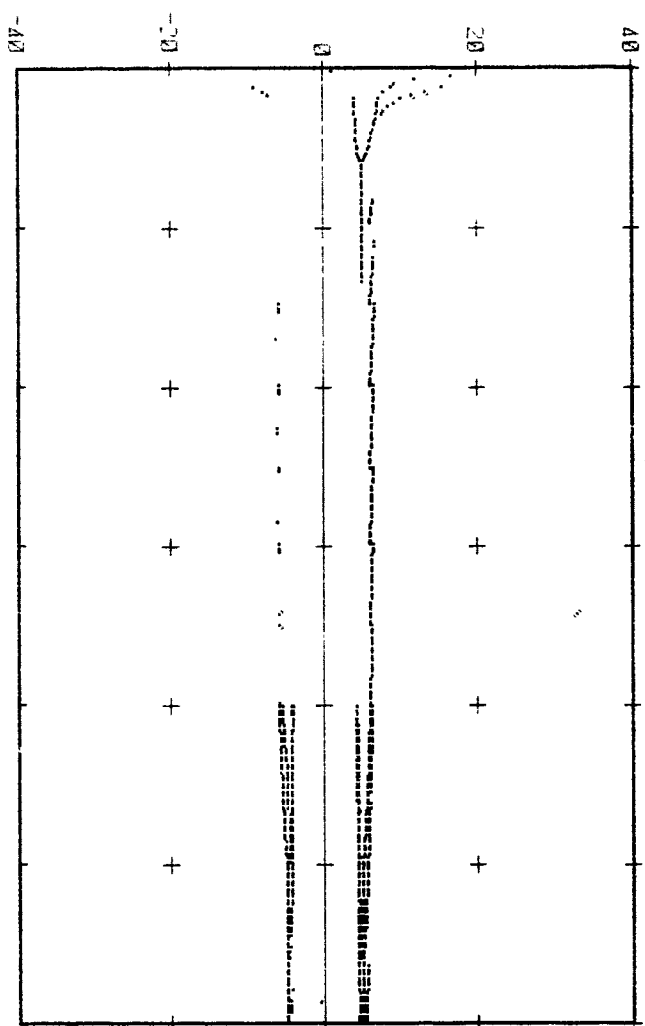
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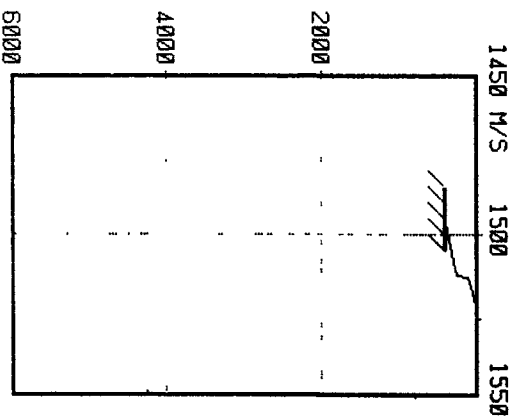
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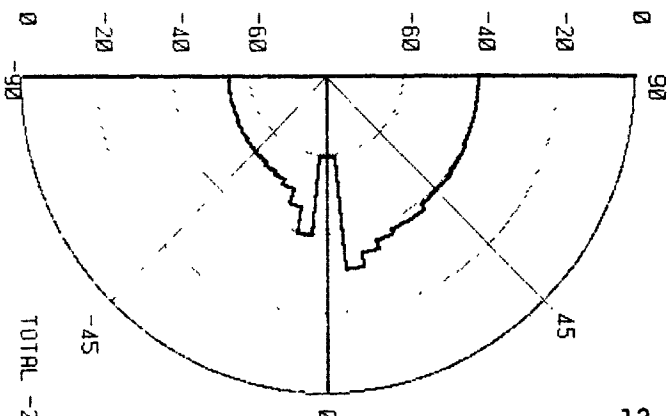
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



1450 M/S 1500 1550

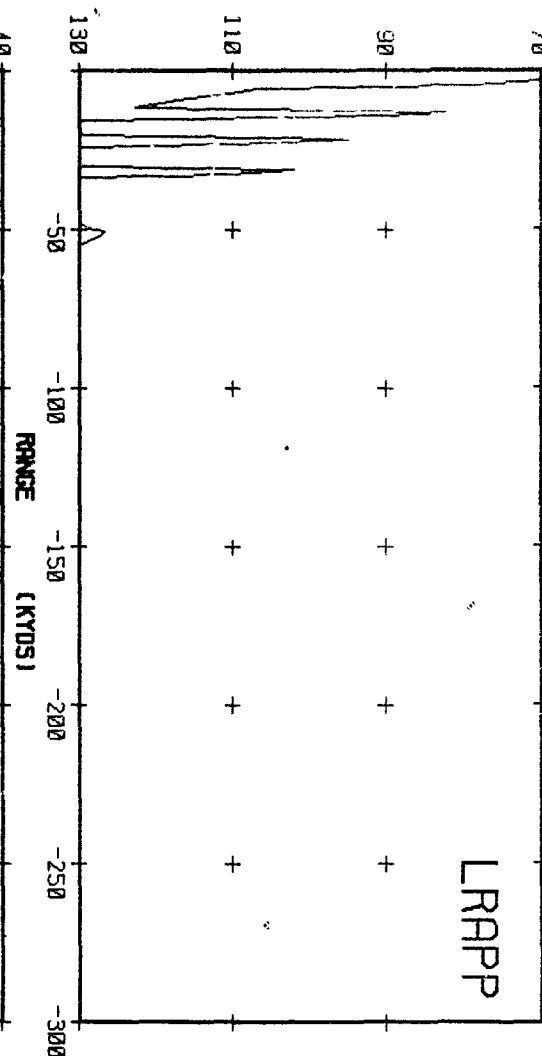
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AREA 5 WINTER

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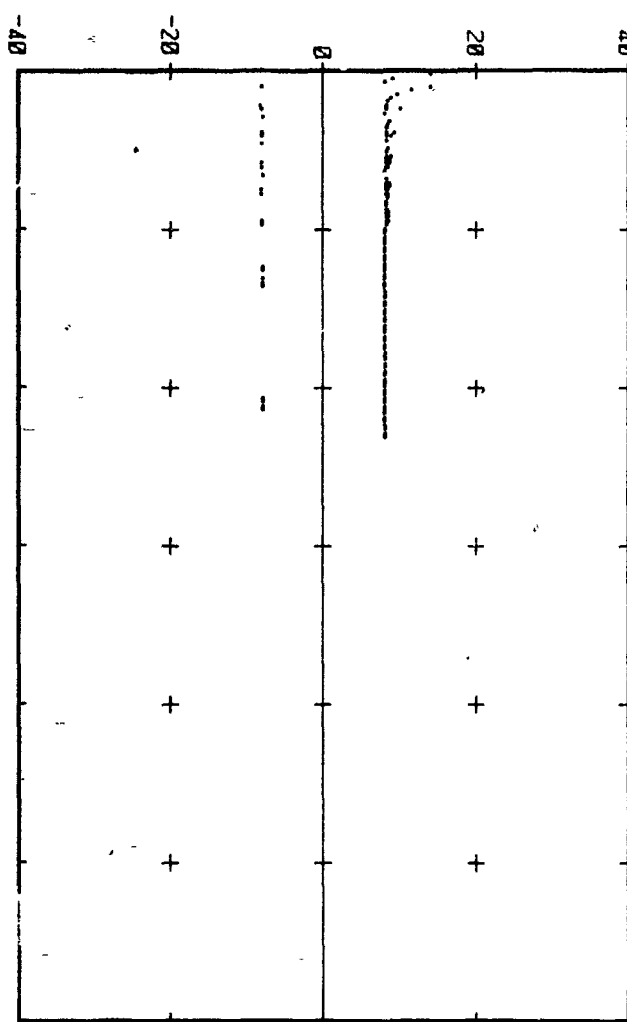
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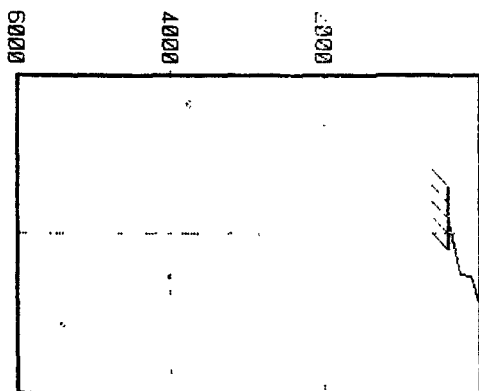


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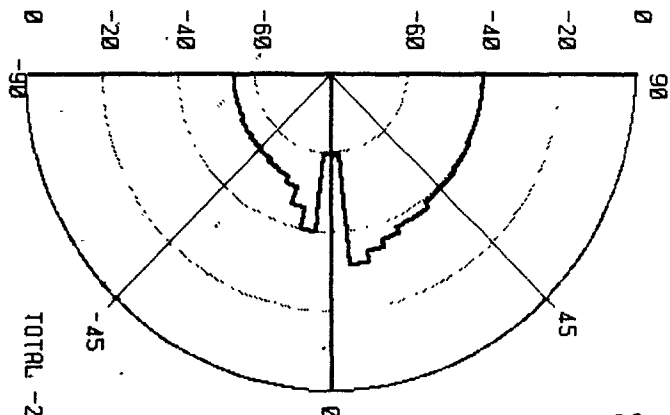
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DEPTH IN METERS



NOISE (DB)

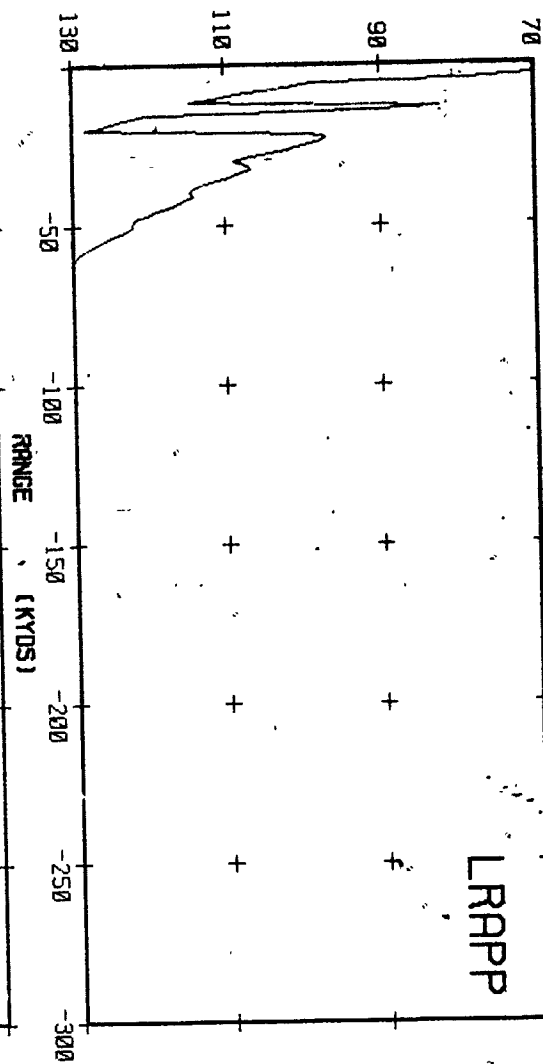


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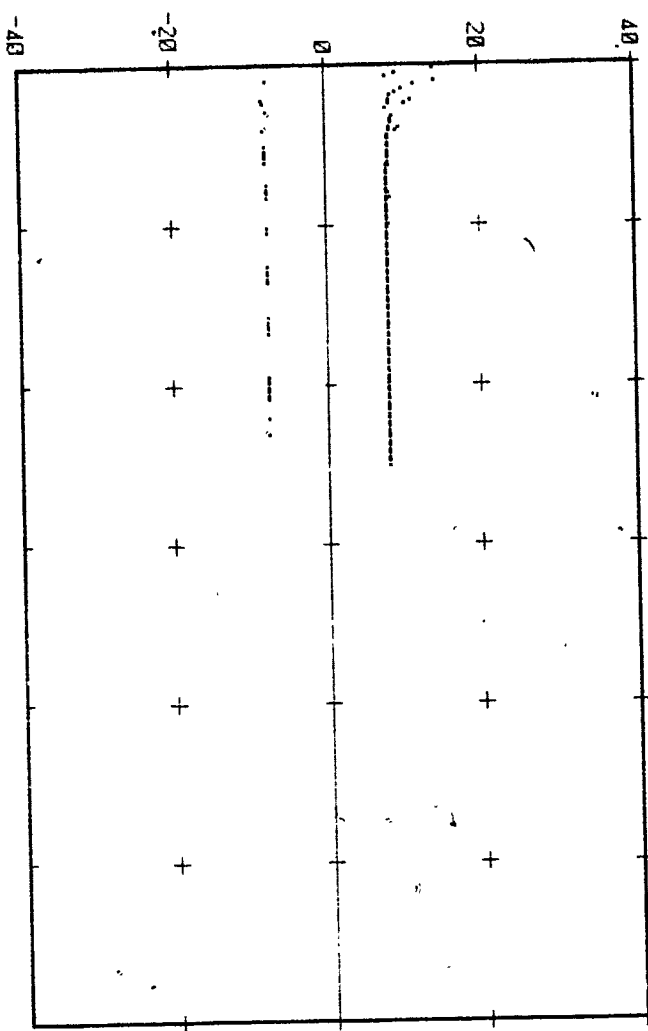
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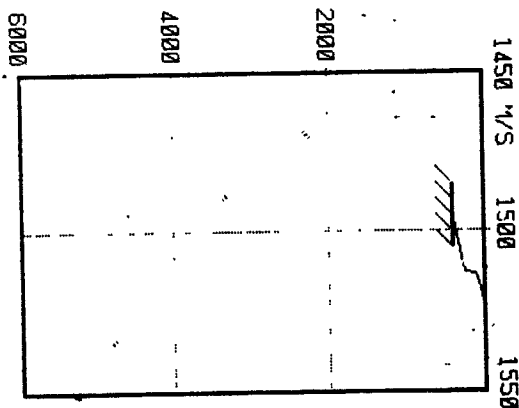
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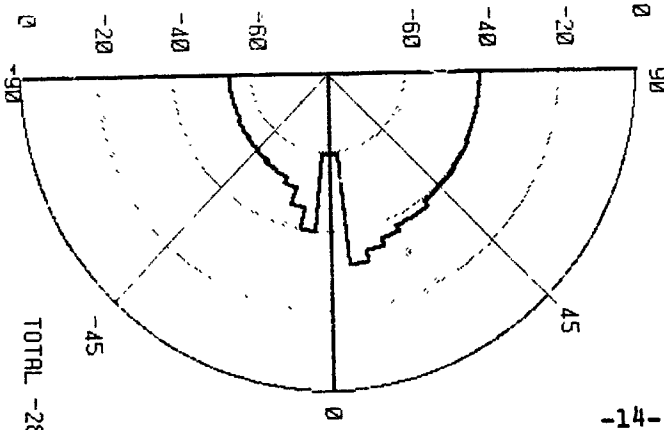
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -28.6 DB

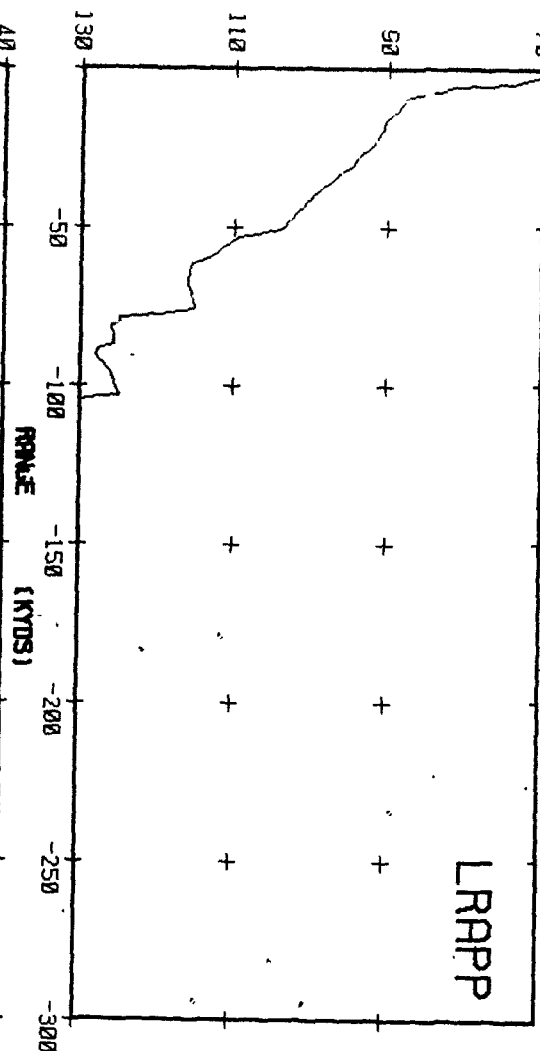
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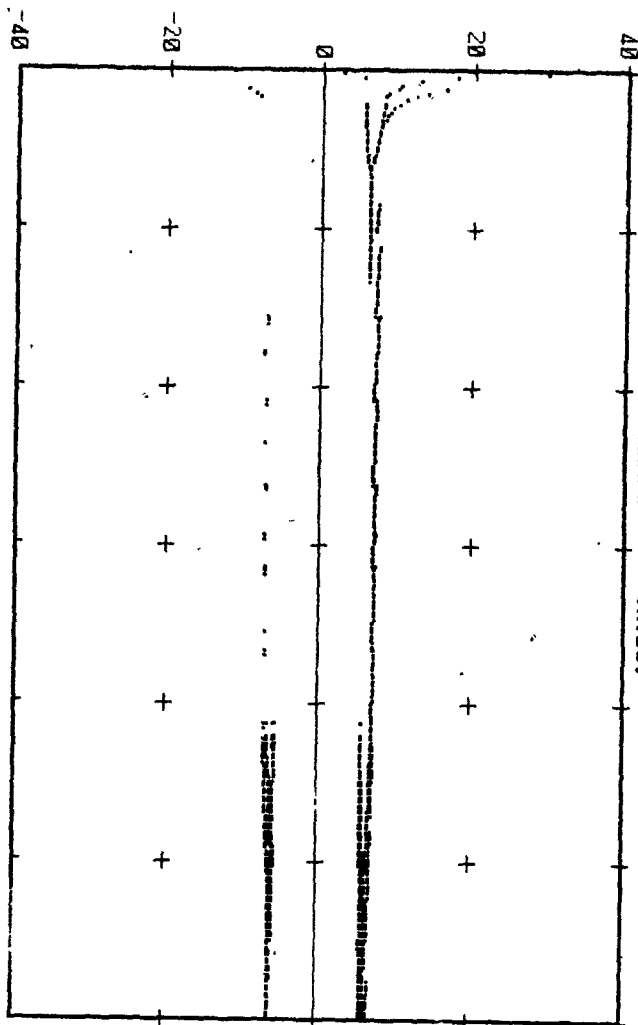
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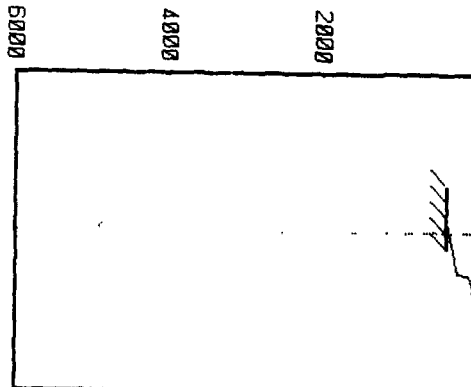
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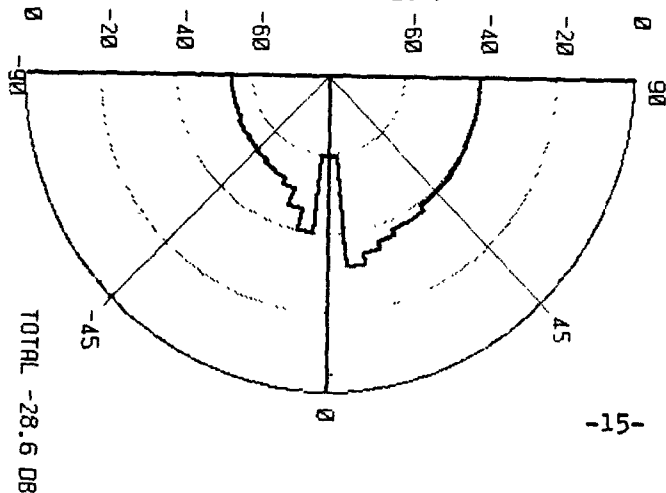
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

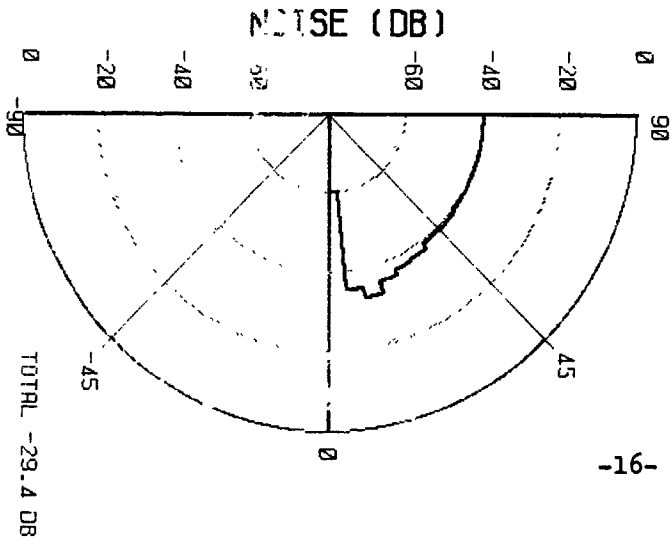
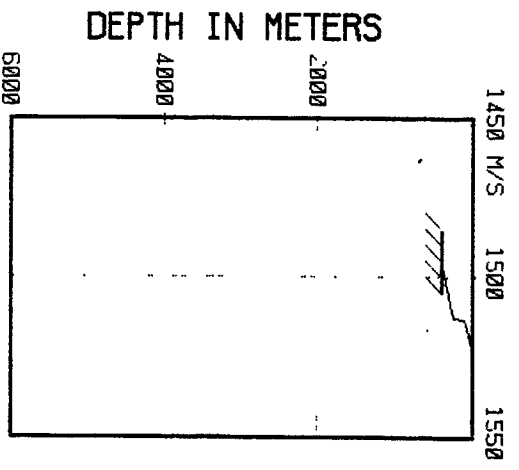
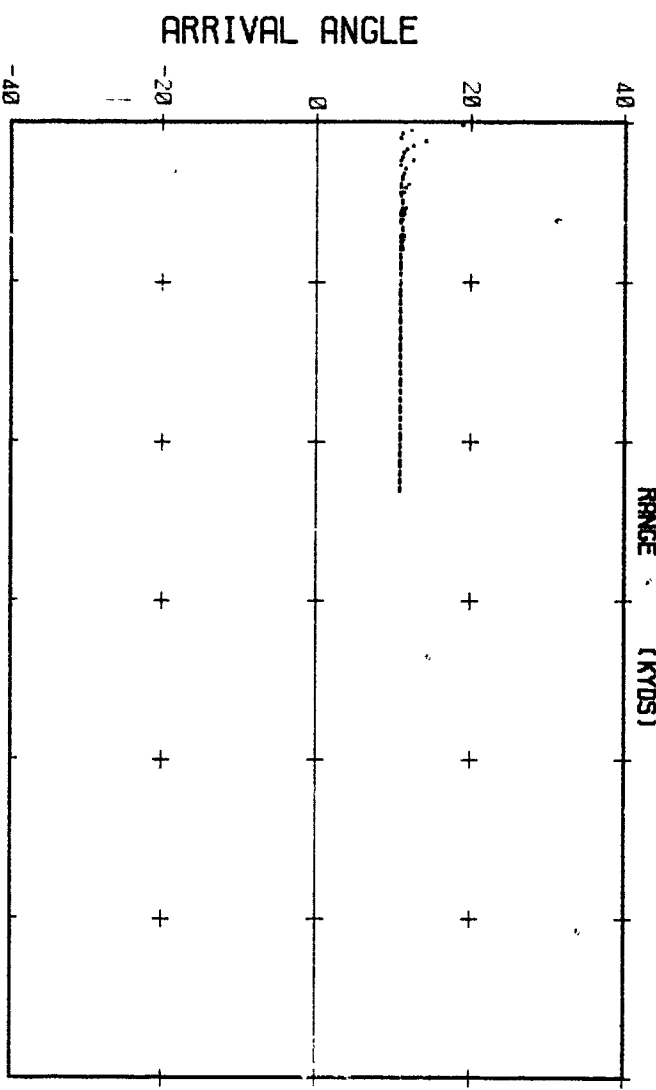
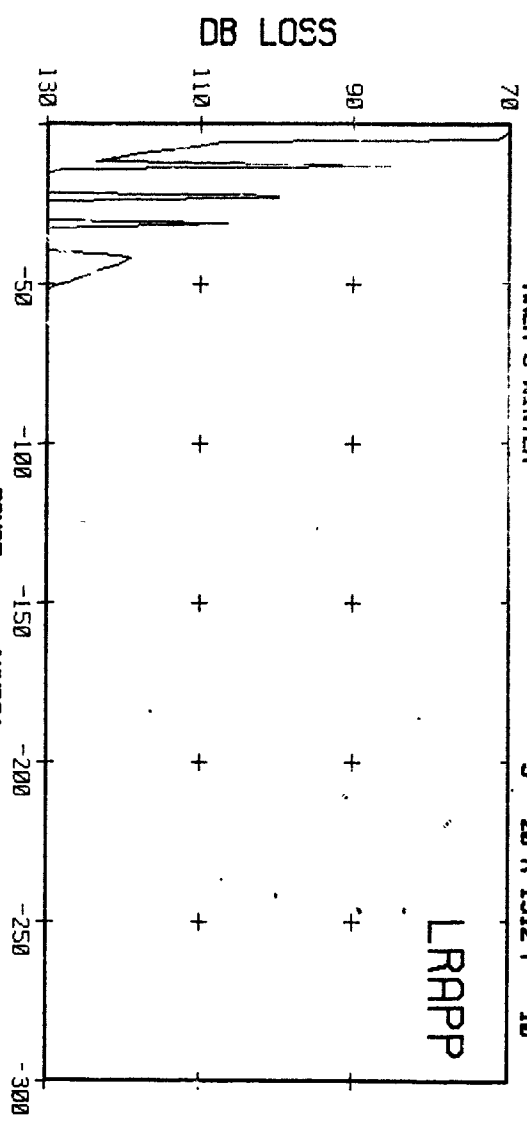


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RPER S WINTER S 20 R 1312 F 10

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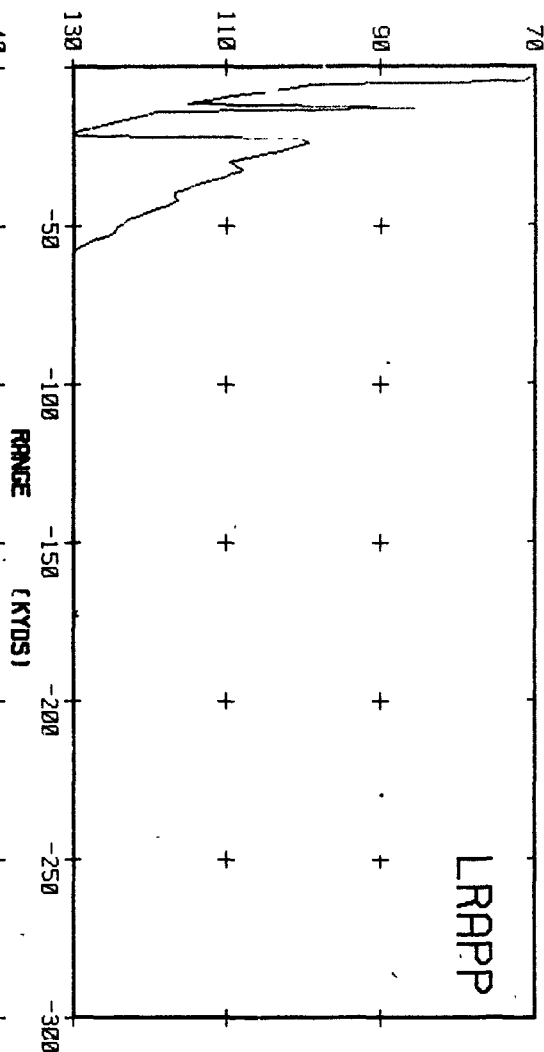


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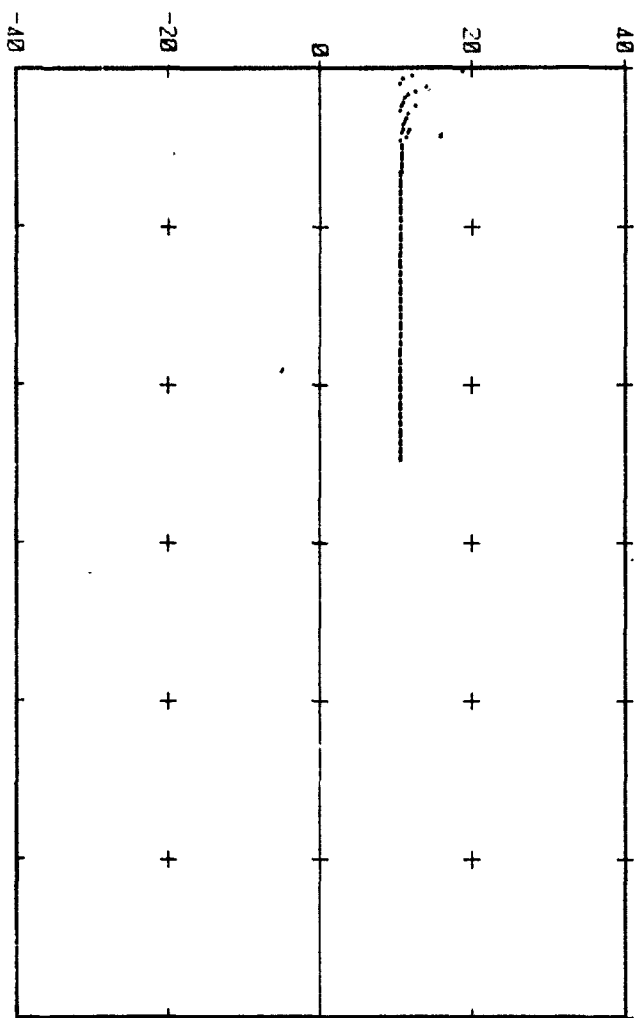
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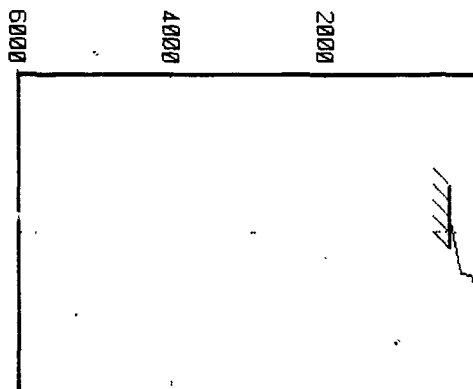
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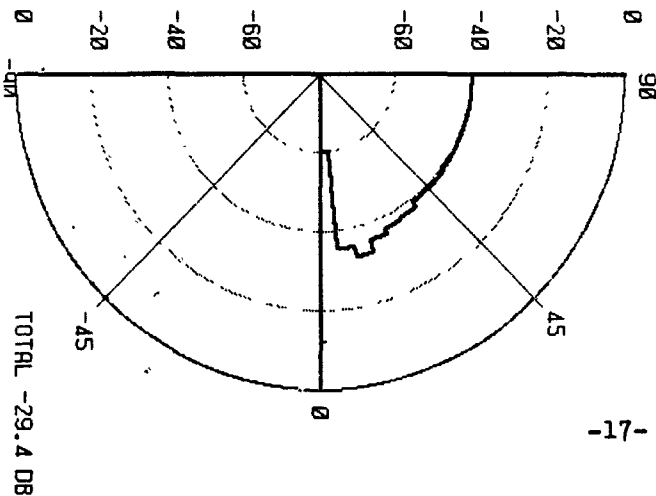
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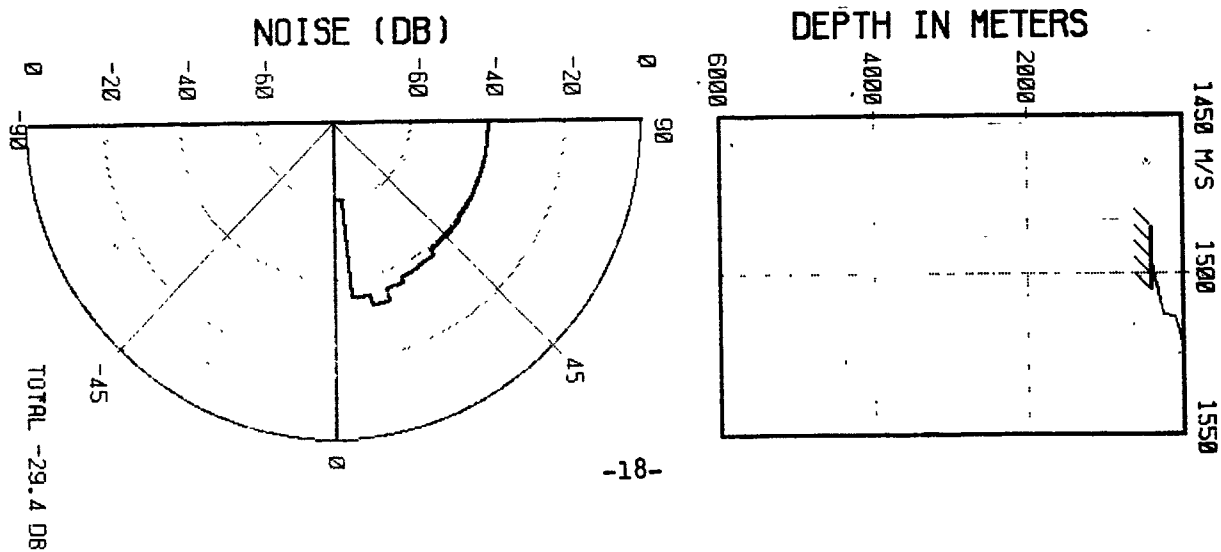
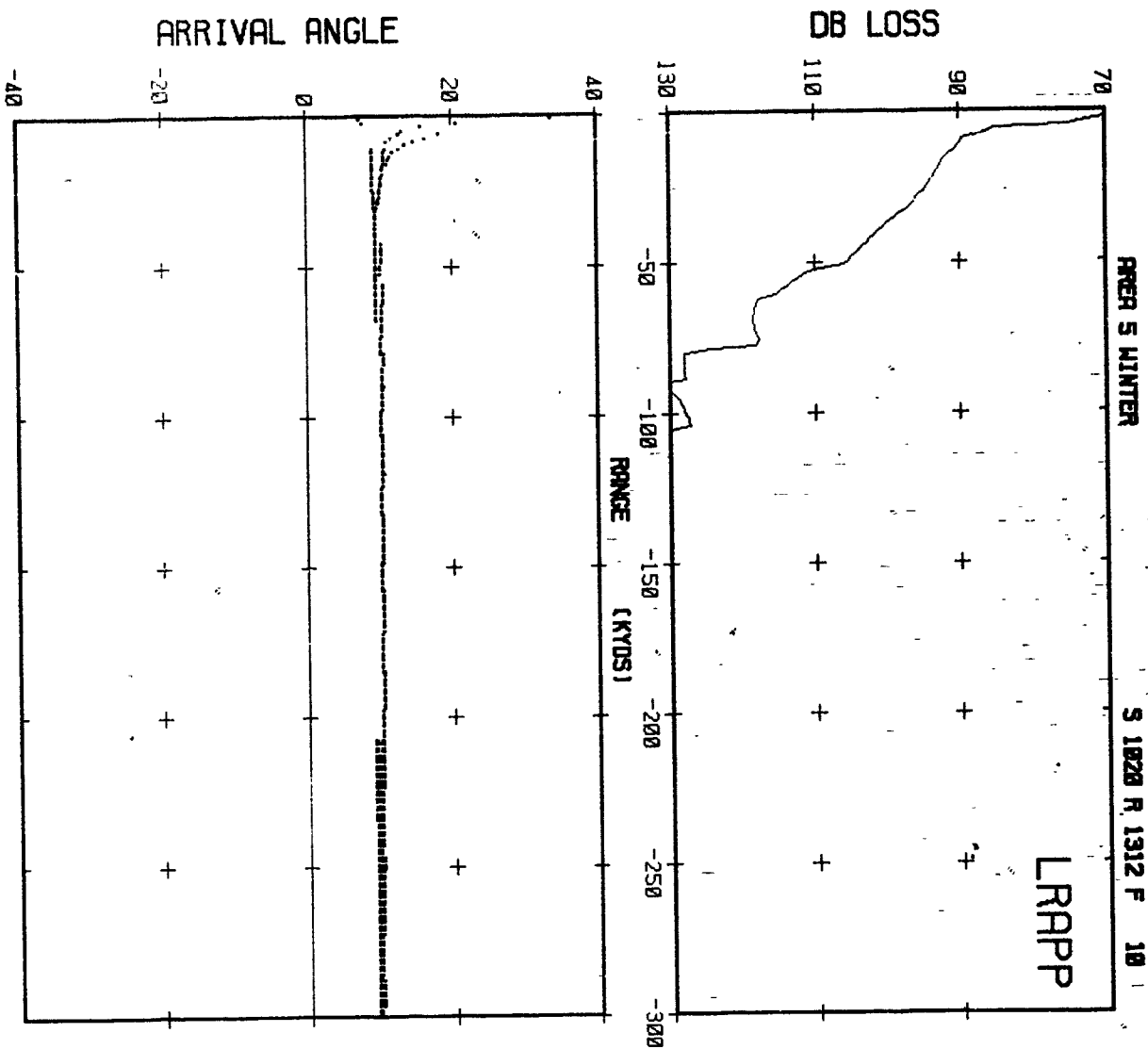


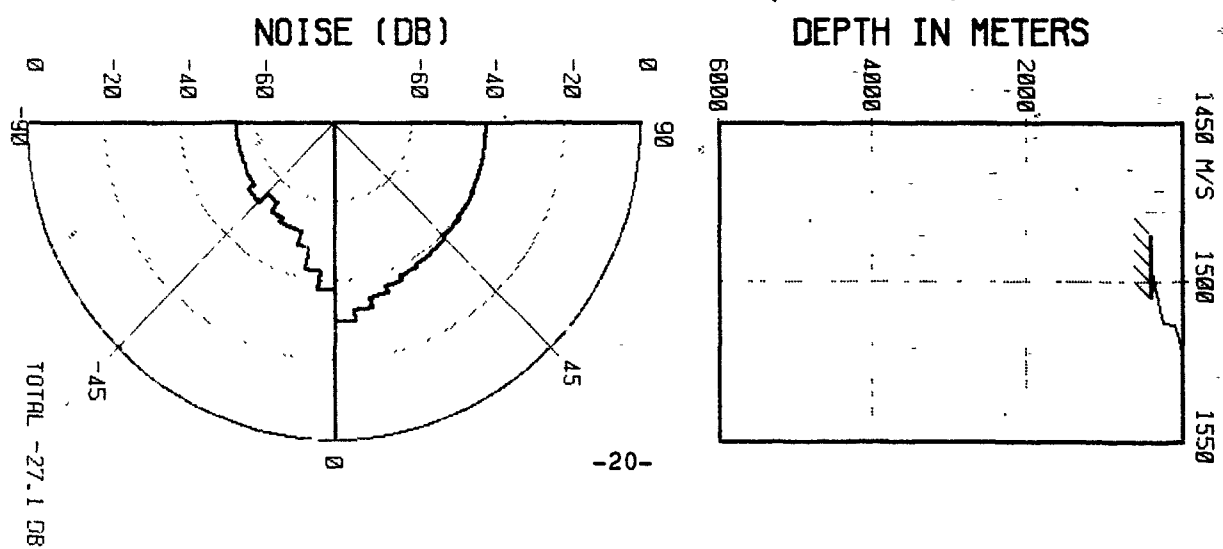
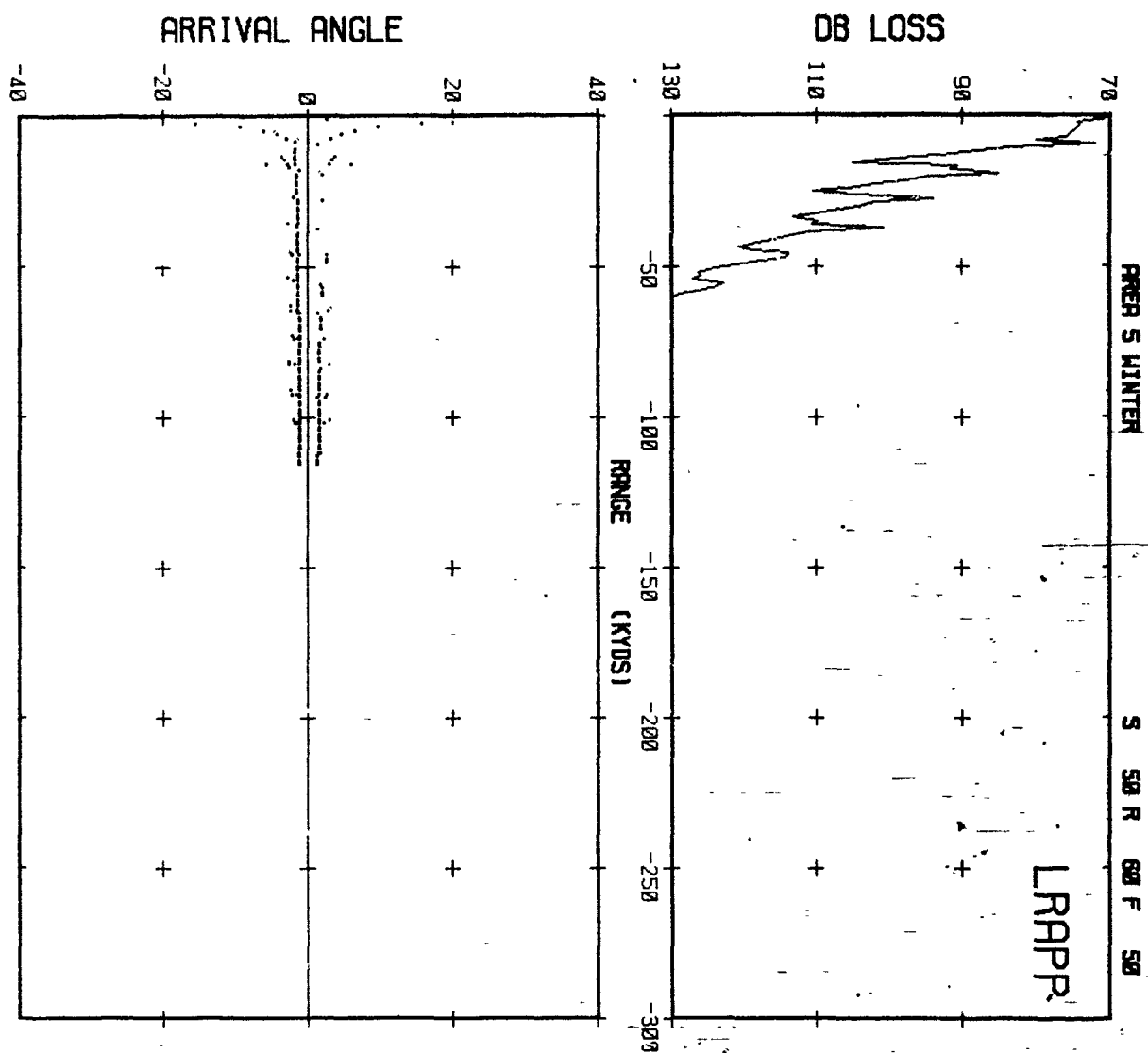
DEPTH IN METERS



NOISE (DB)





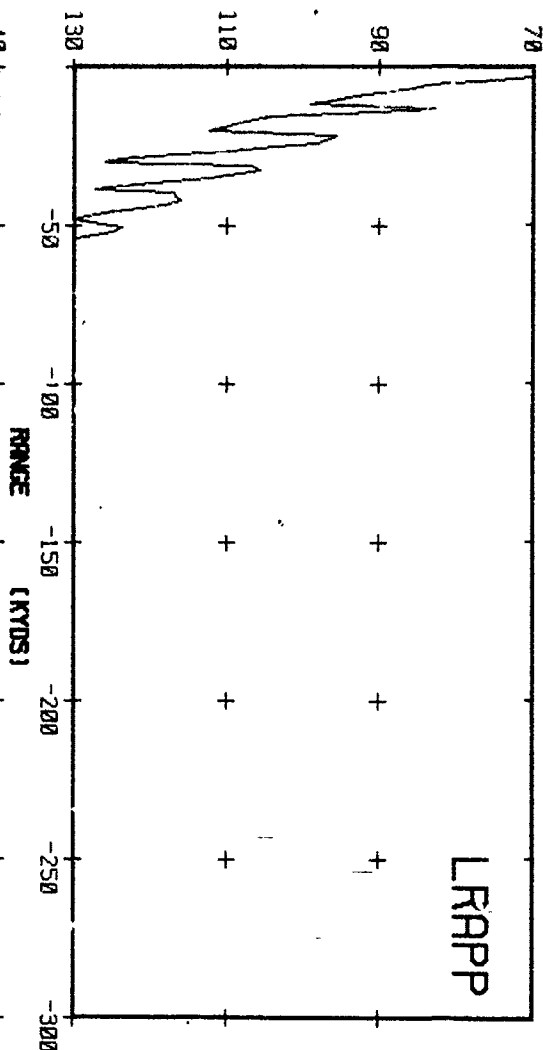


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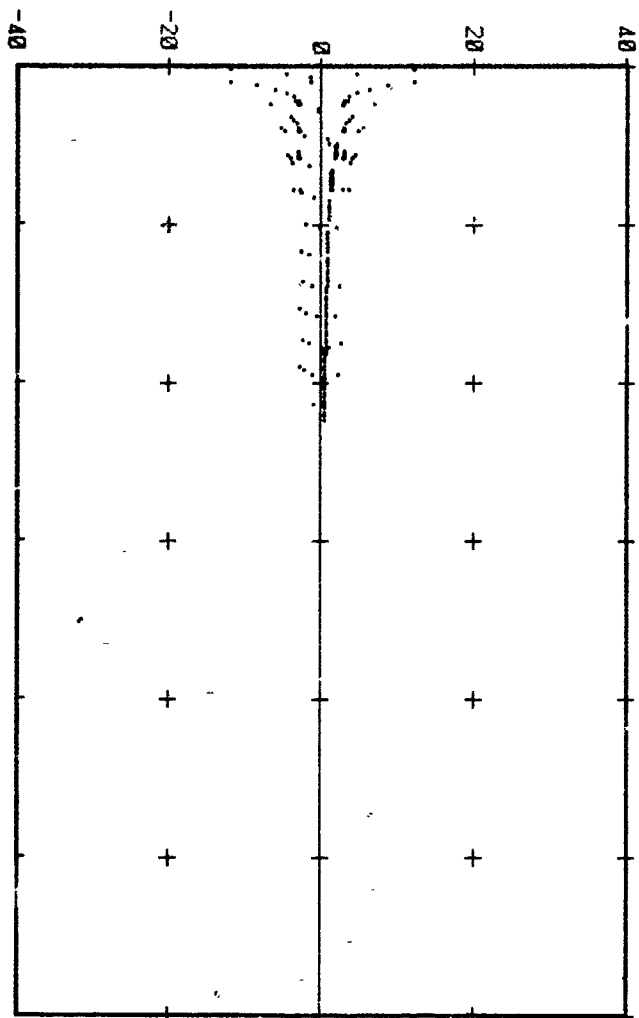
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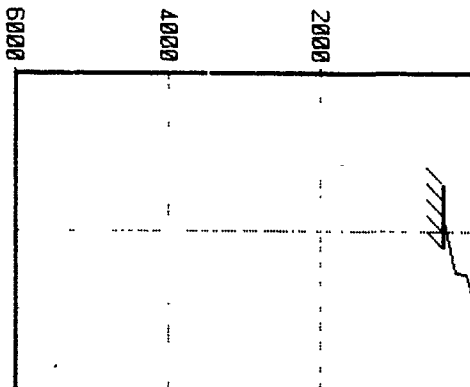
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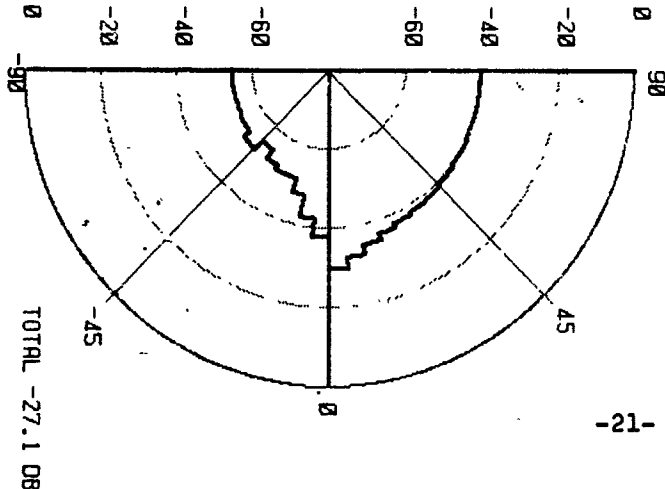
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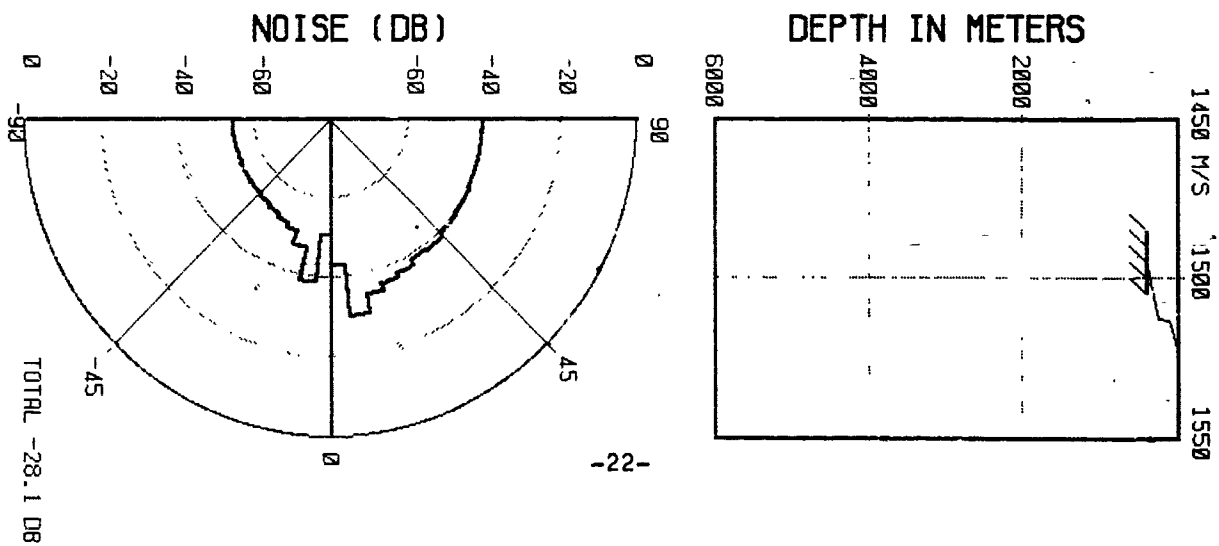
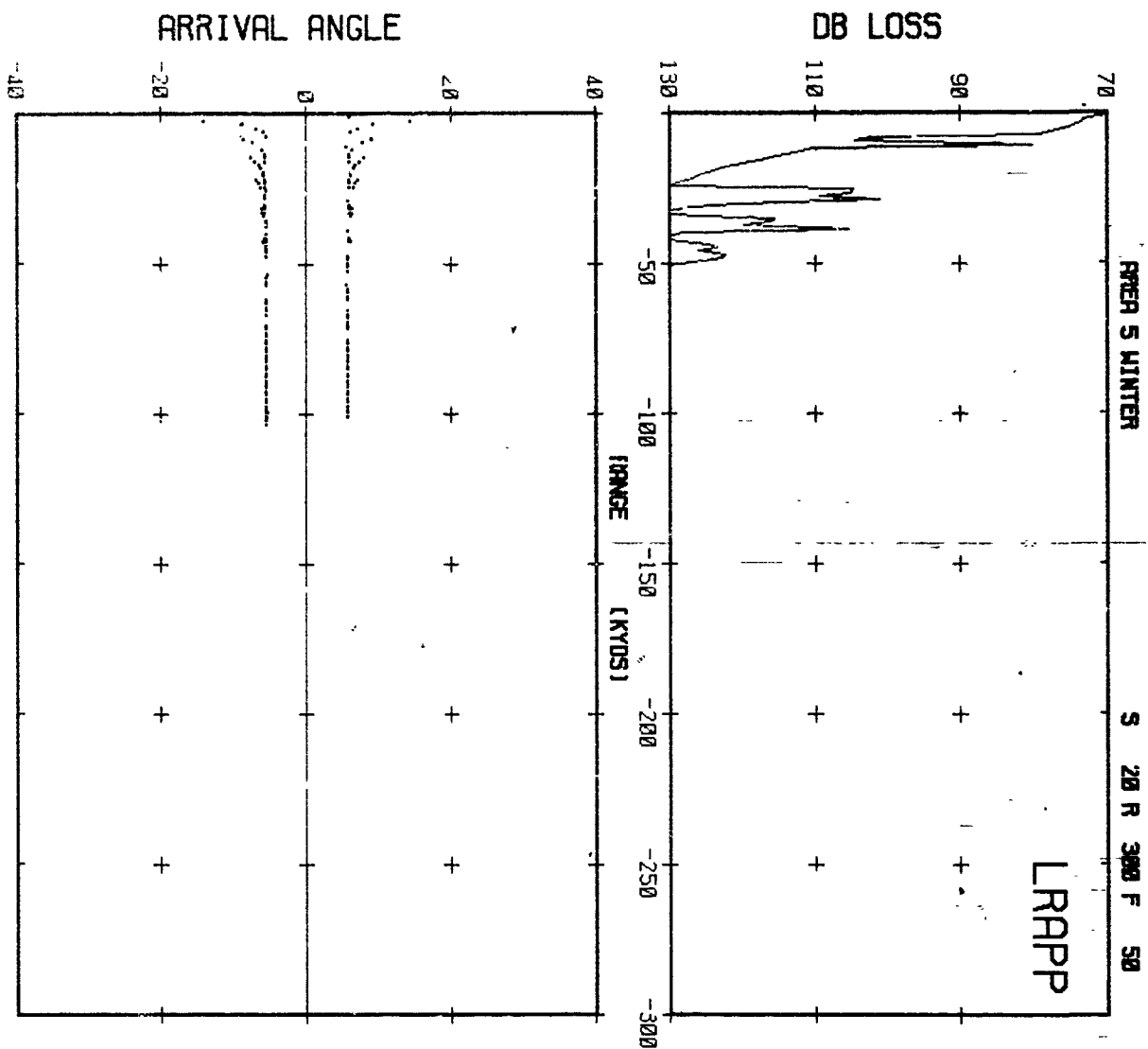


DEPTH IN METERS



NOISE (DB)



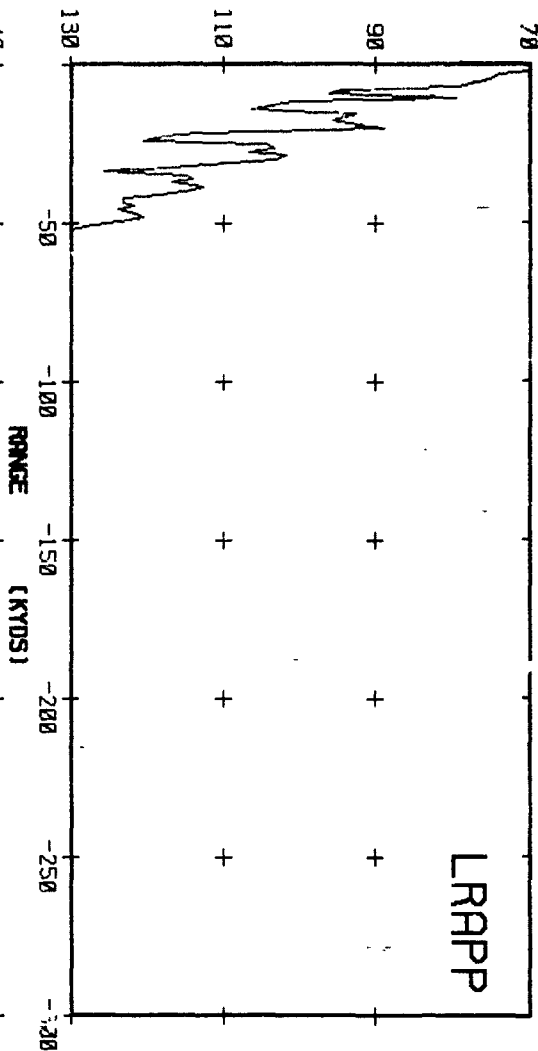


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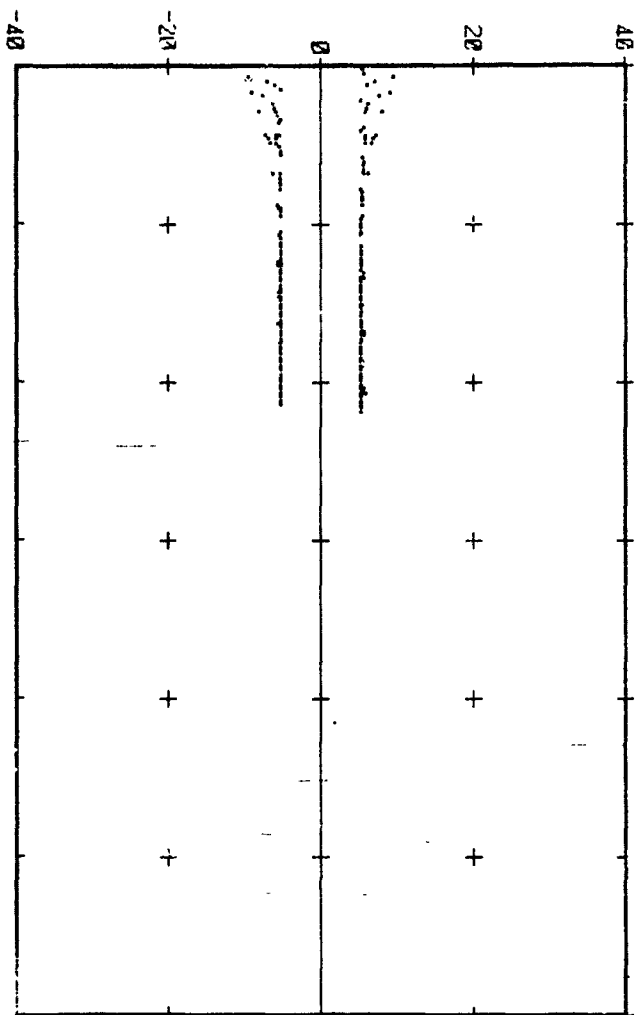
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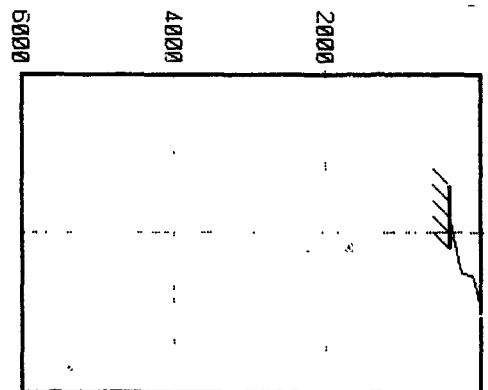
DB LOSS



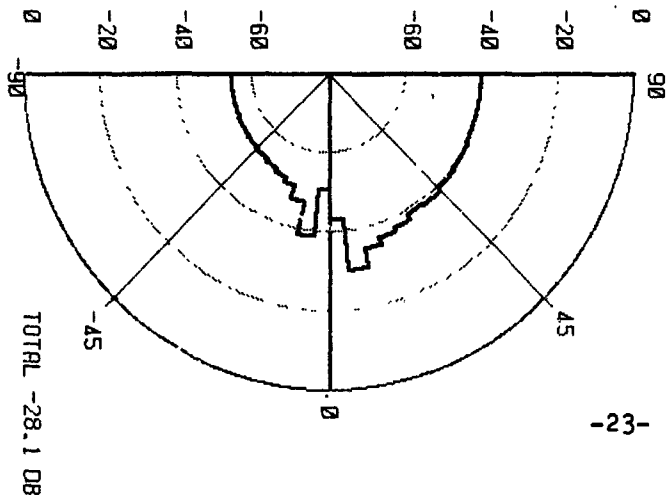
ARRIVAL ANGLE

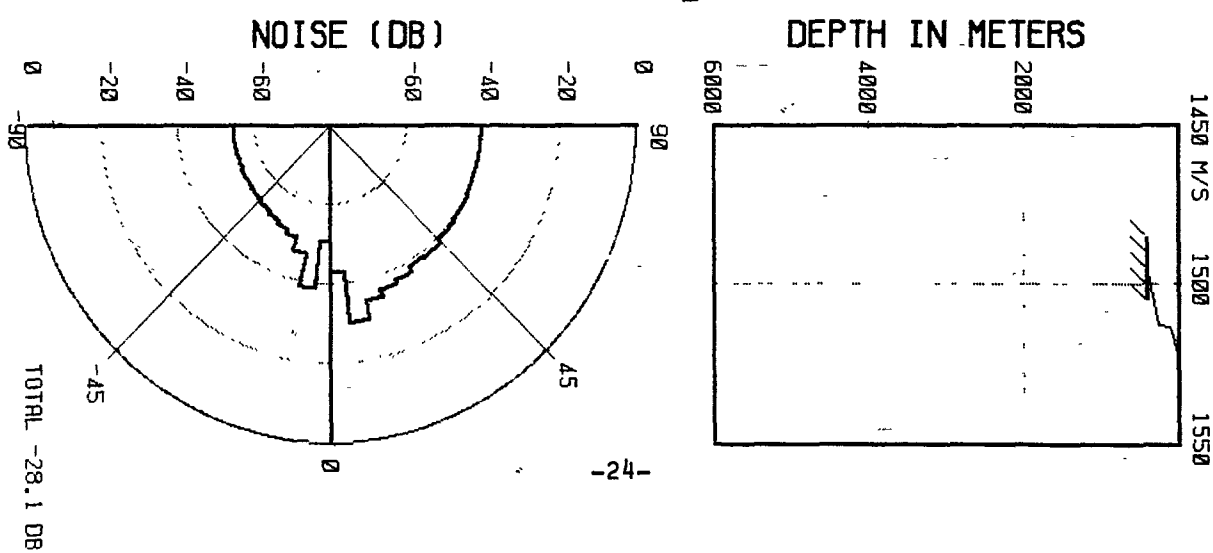
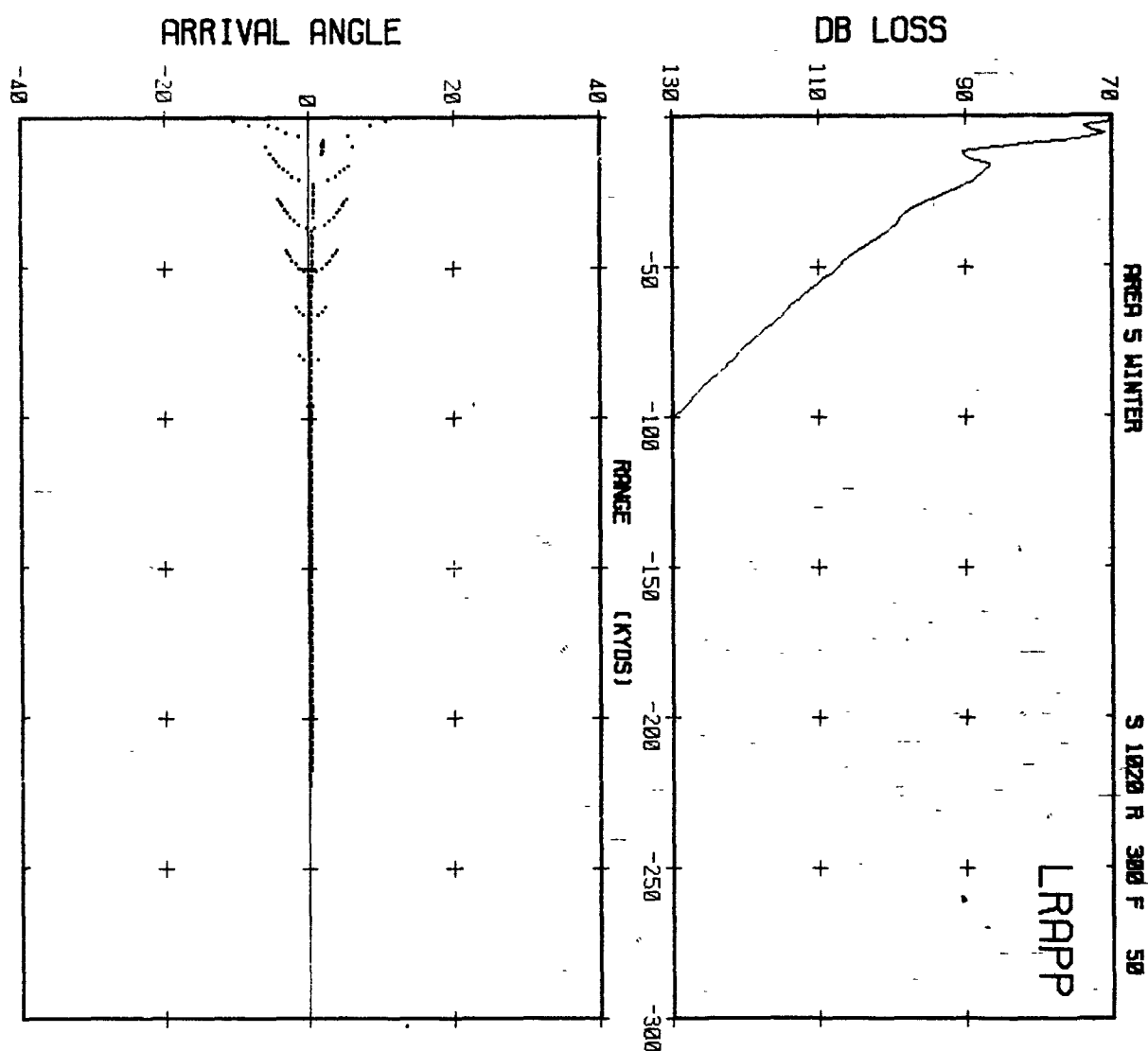


DEPTH IN METERS



NOISE (DB)



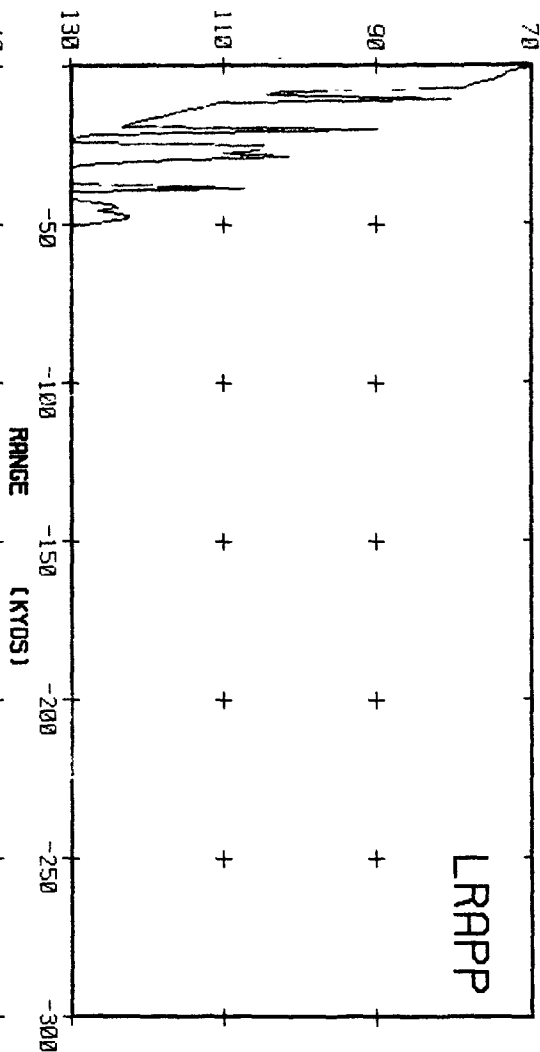


AREA 5 KINTER

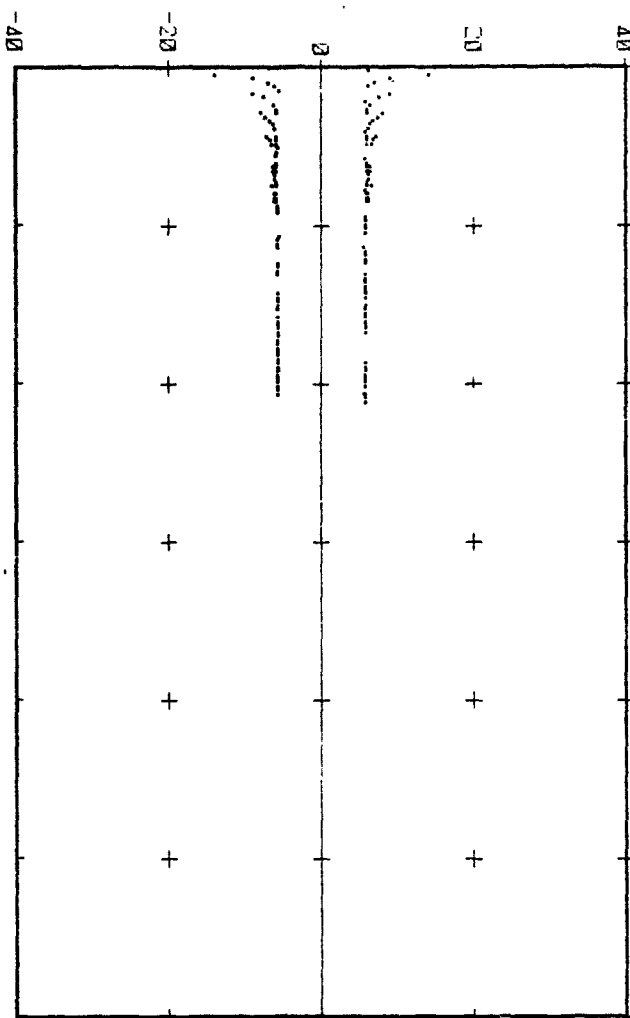
S 28 R 328 F 50

1450 M/S 1500 1550

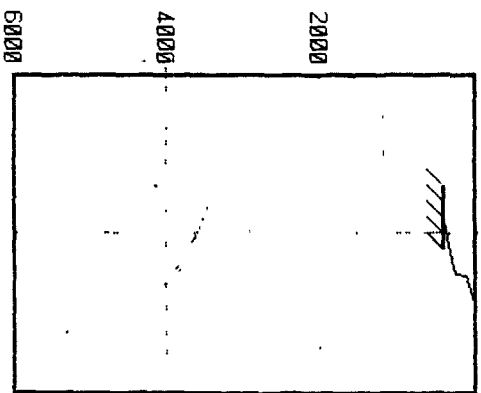
DB LOSS



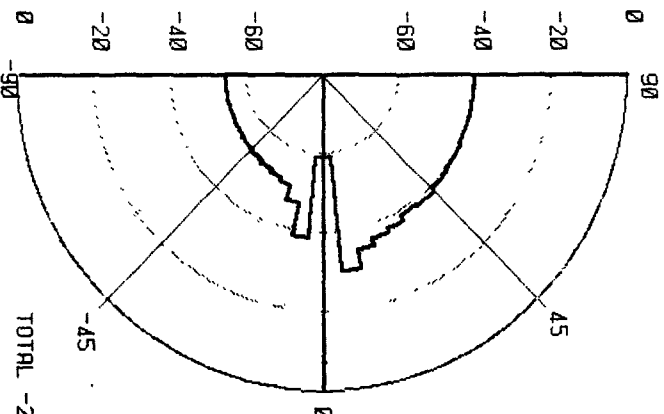
ARRIVAL ANGLE



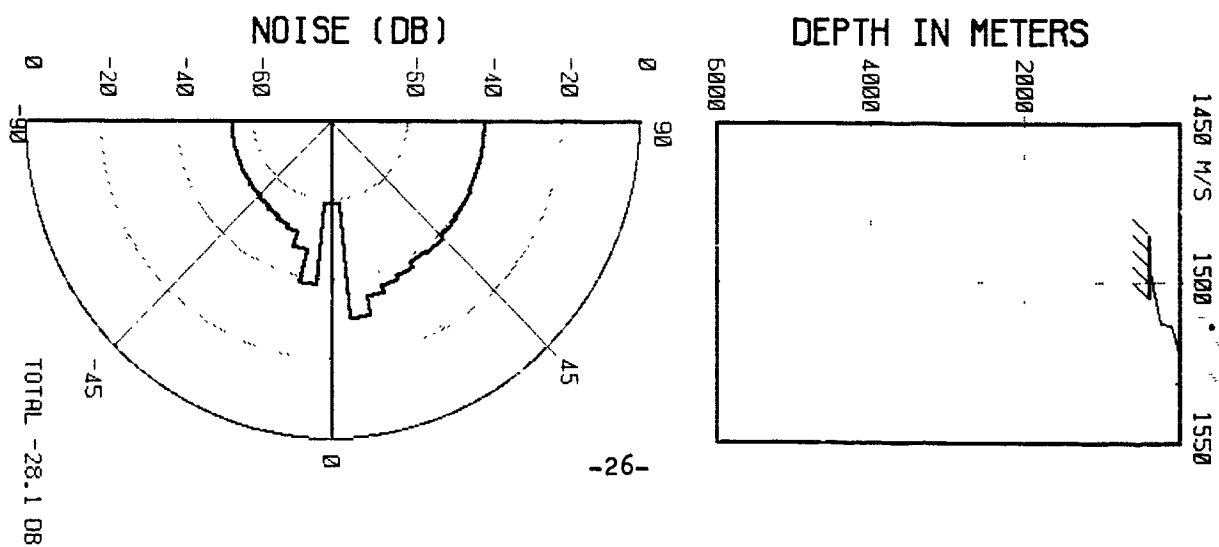
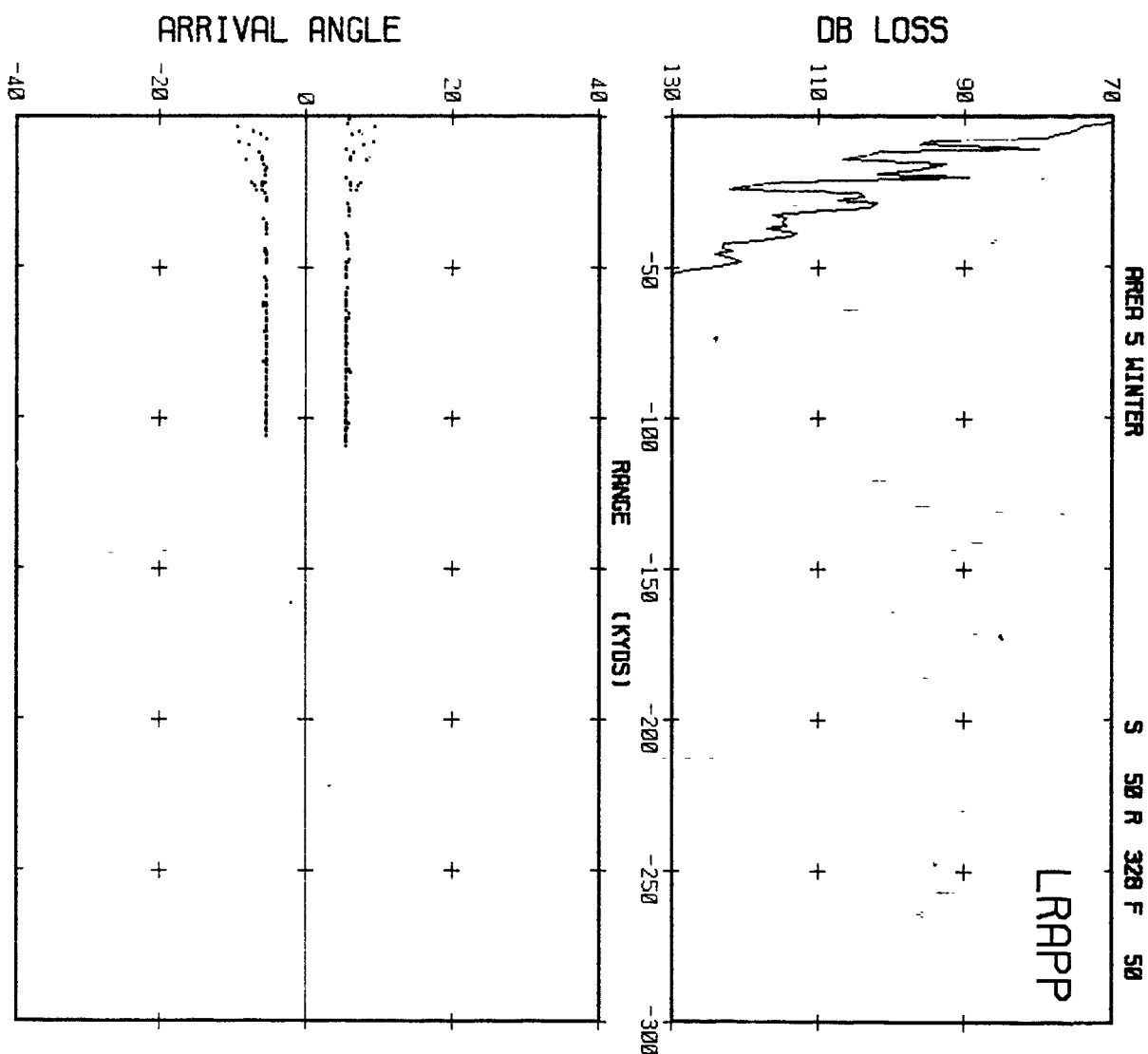
DEPTH IN METERS

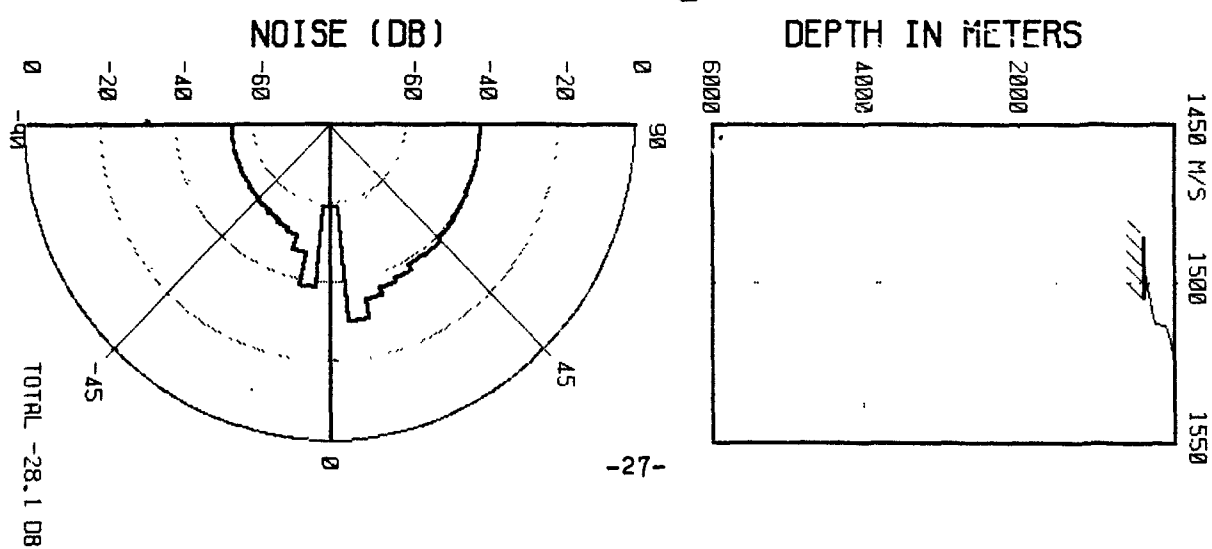
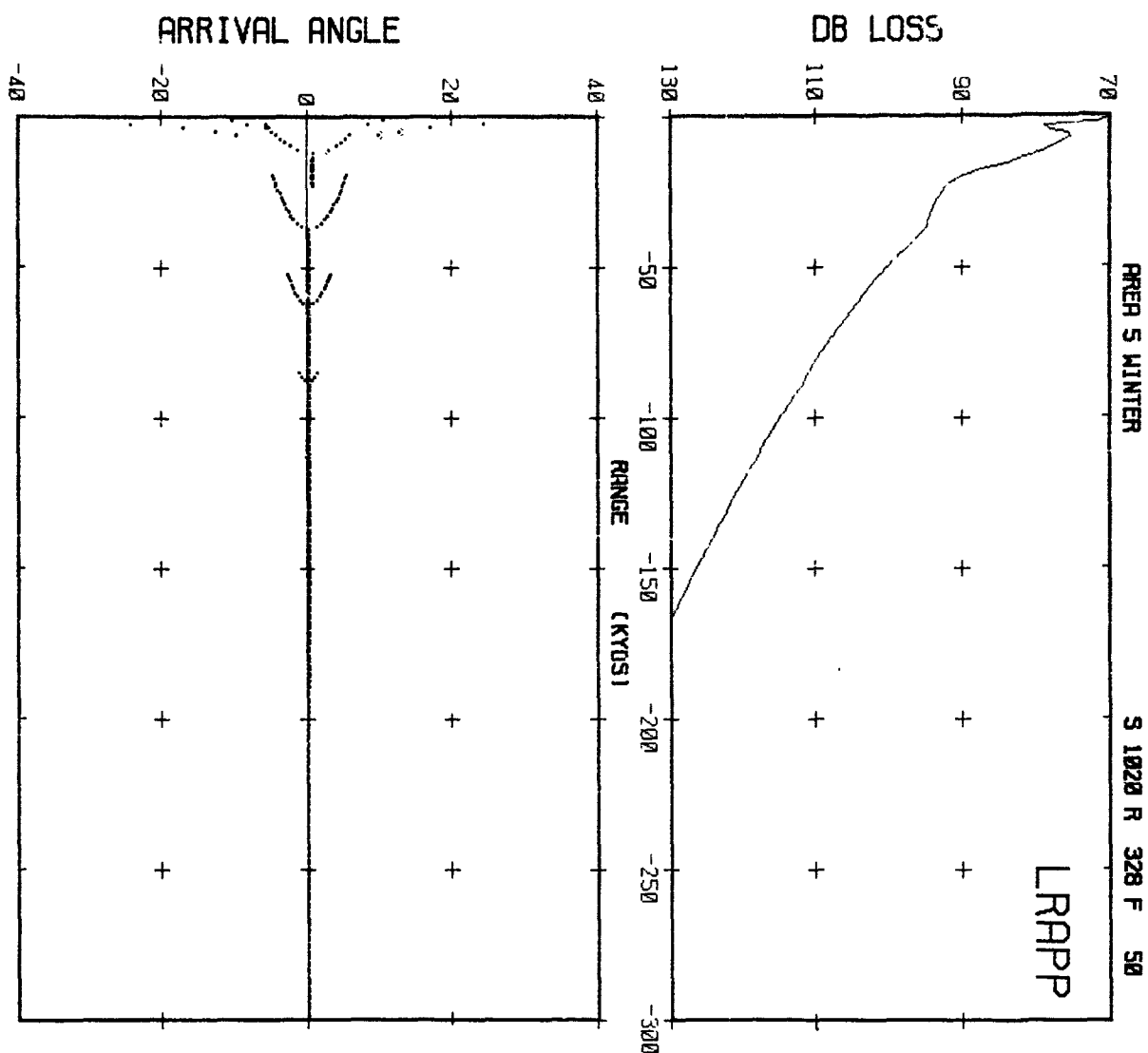


NOISE (DB)



TOTAL -28.1 DB



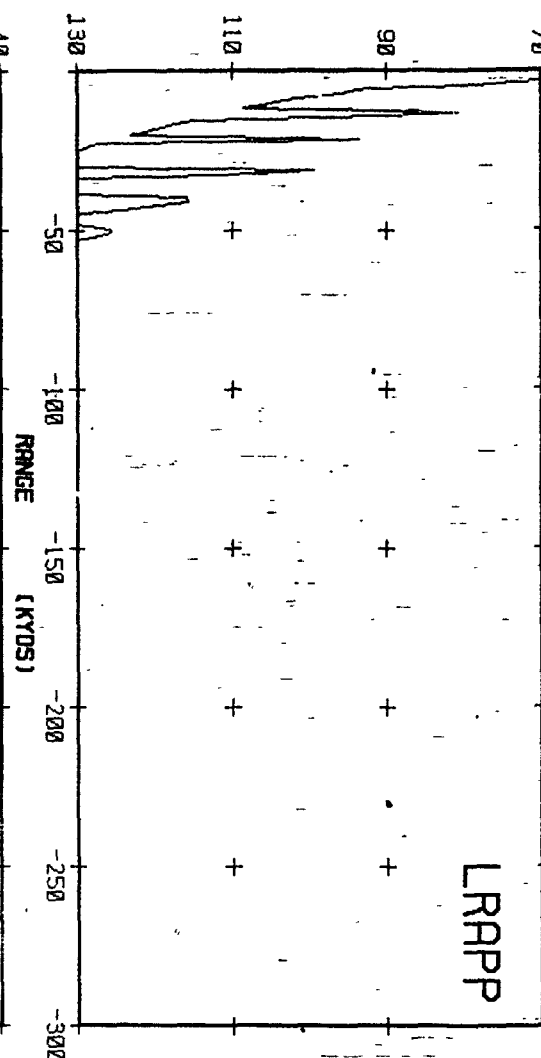


AREA 5 WINTER

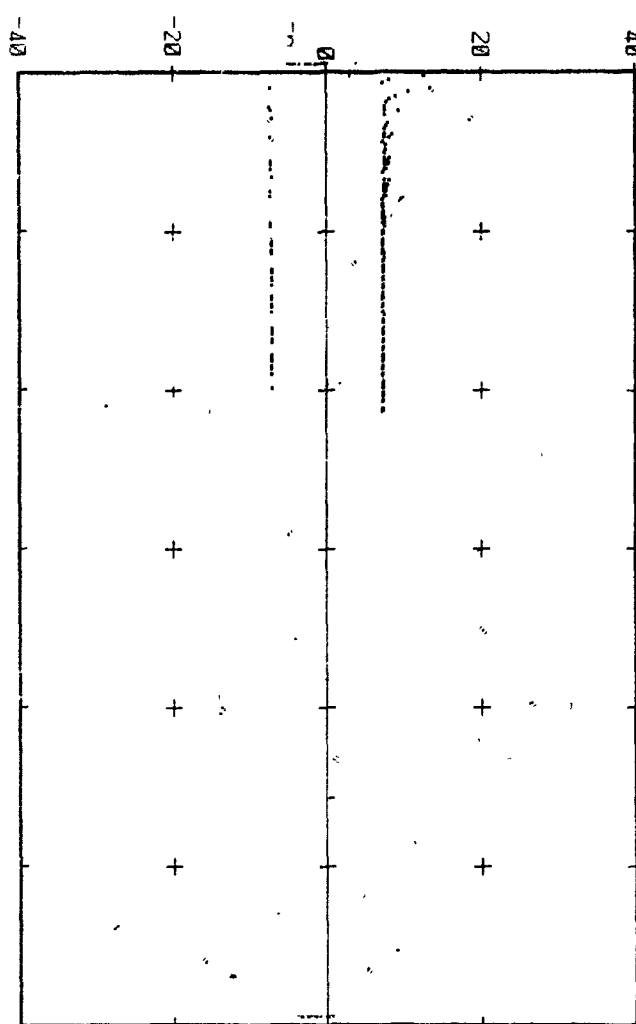
S 20 R 920 F 50

1450 M/S 1500 1550

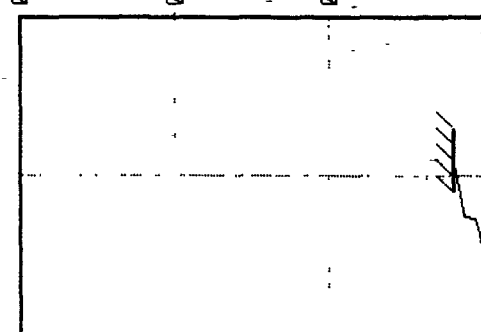
DB LOSS



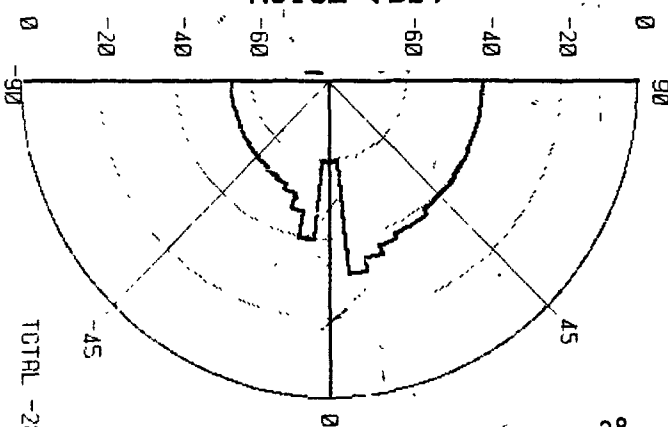
ARRIVAL ANGLE



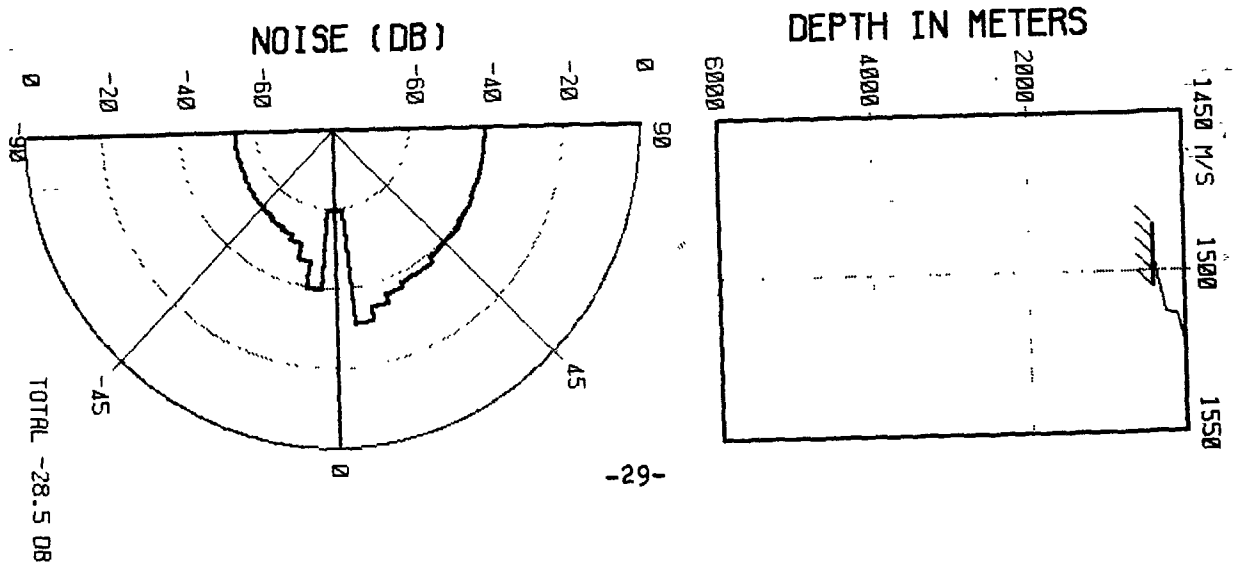
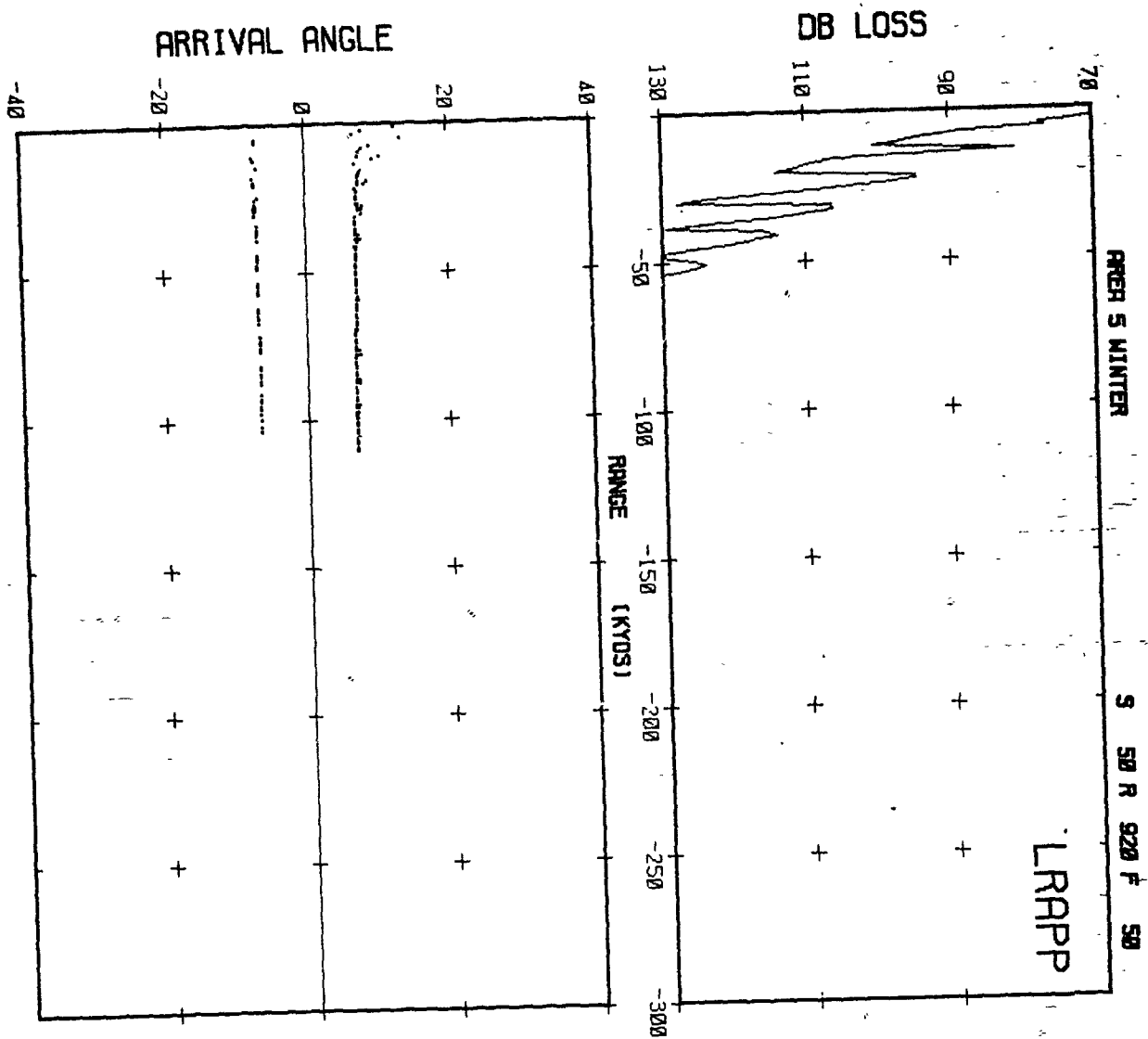
DEPTH IN METERS

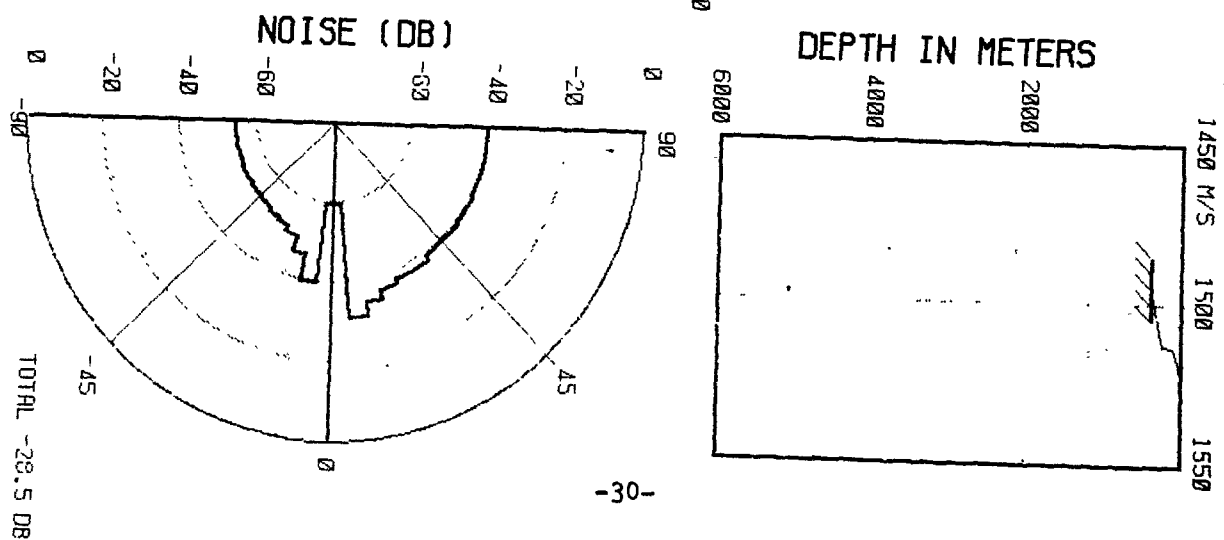
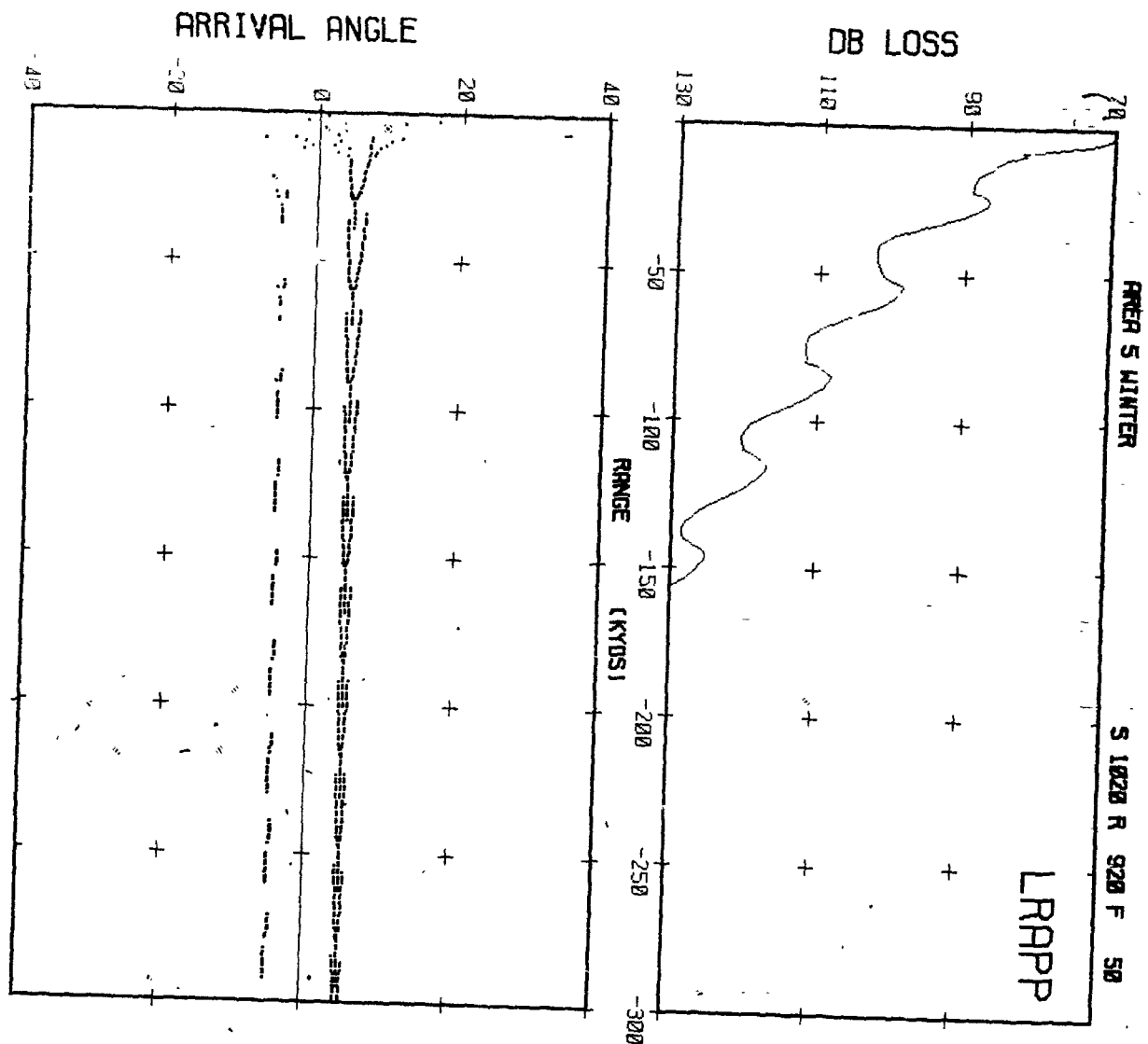


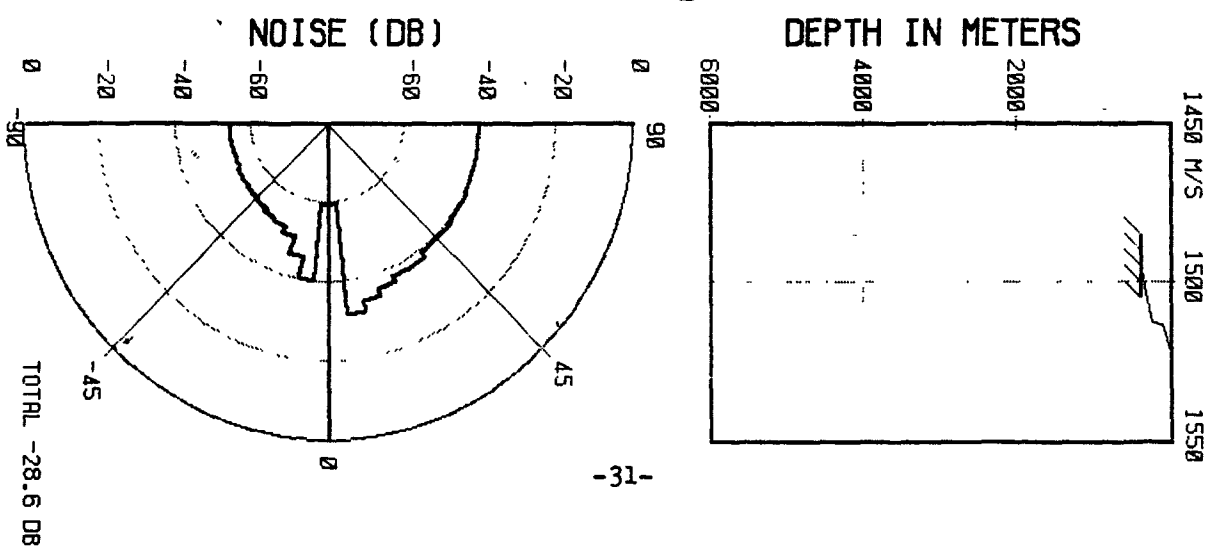
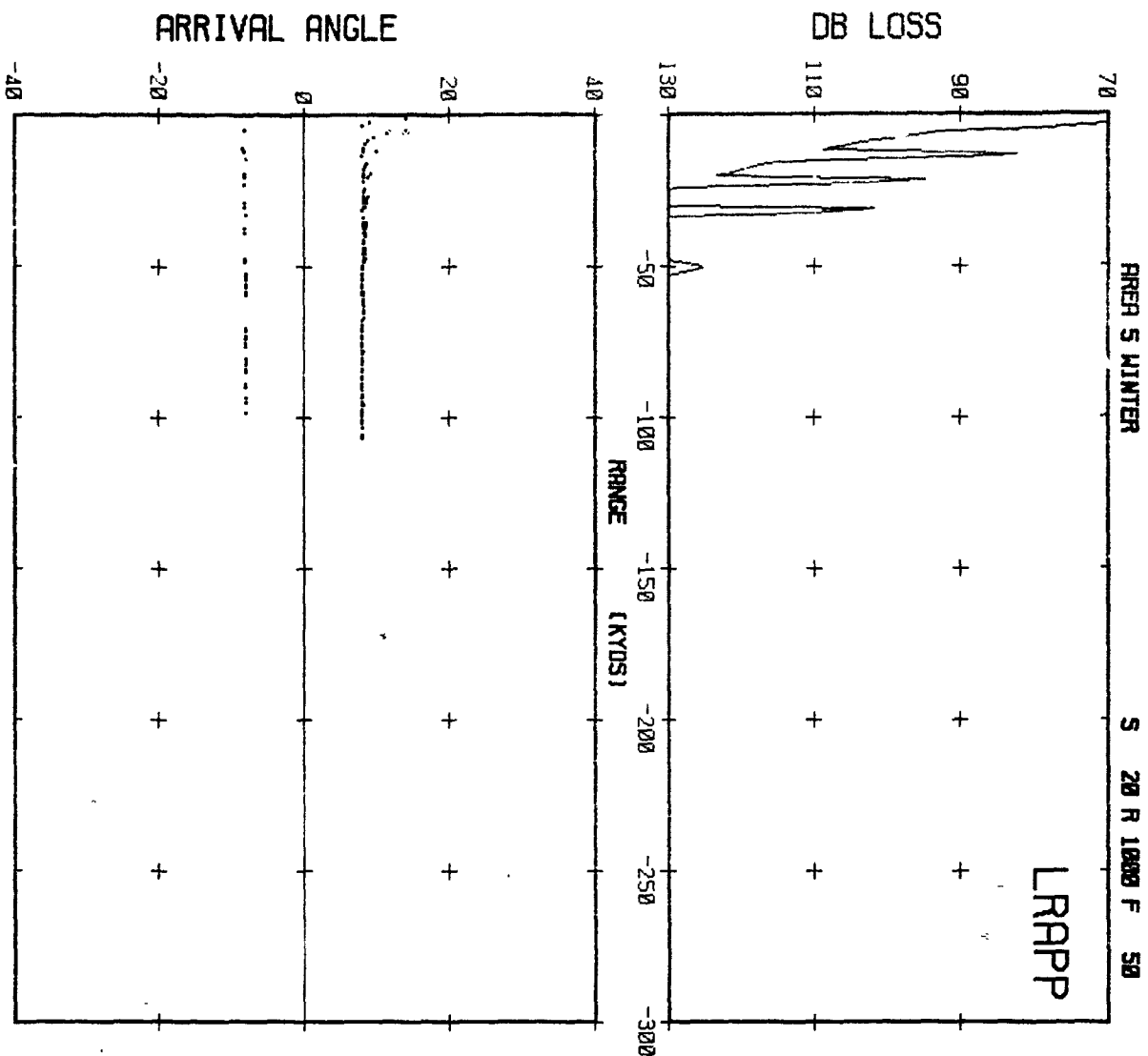
NOISE (DB)



TOTAL -28.5 DB



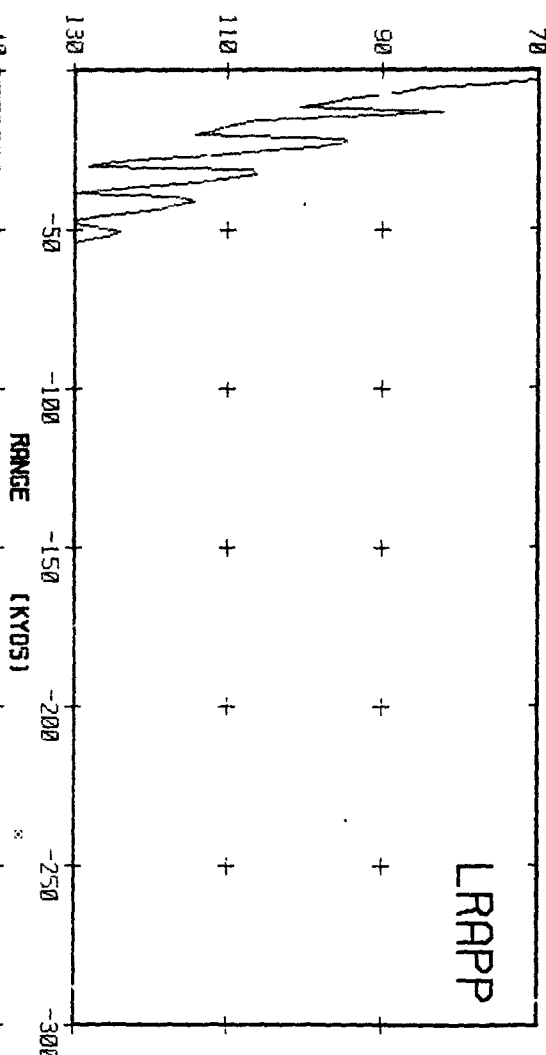




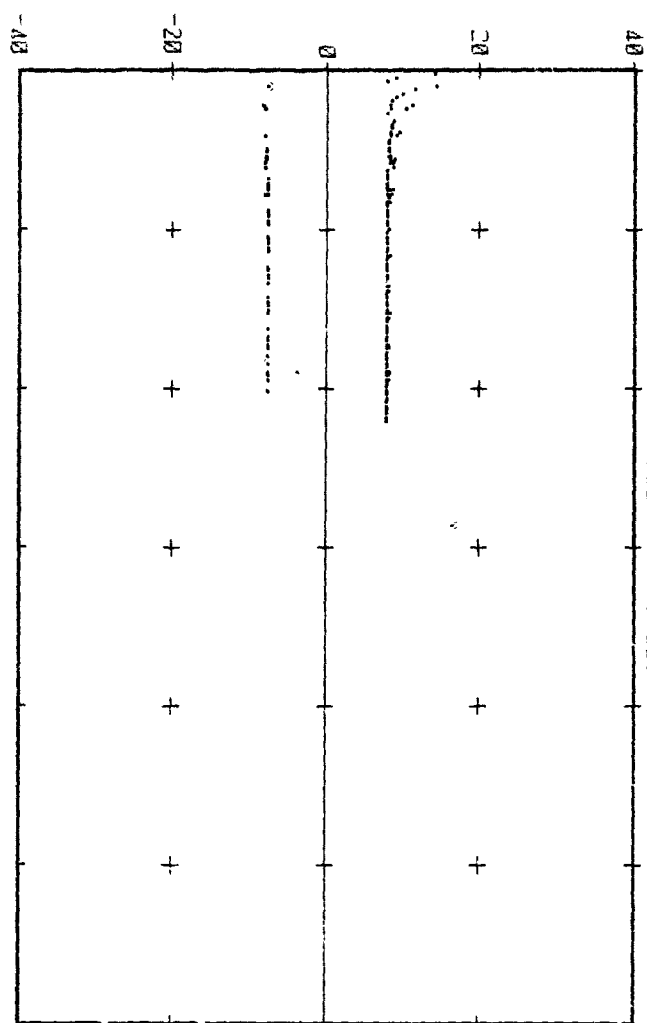
AREA 5 WINTER

S 50 R 1000 F 50

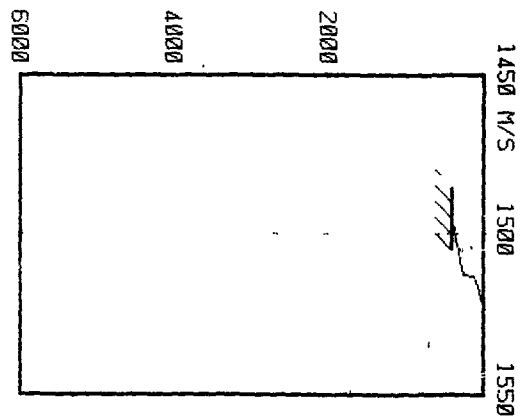
DB LOSS



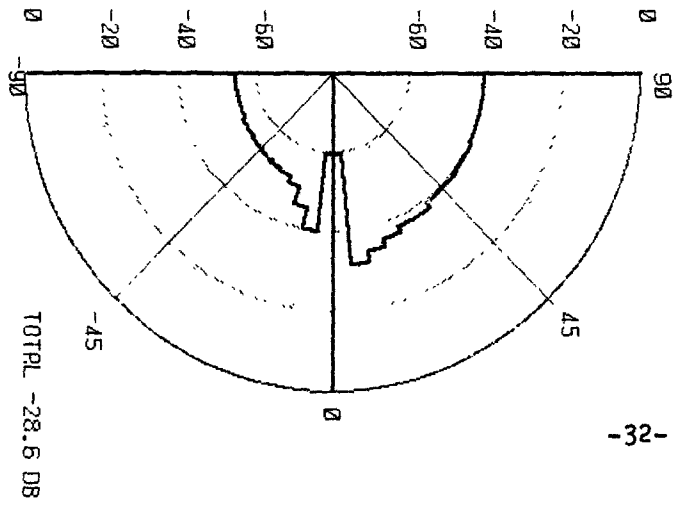
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

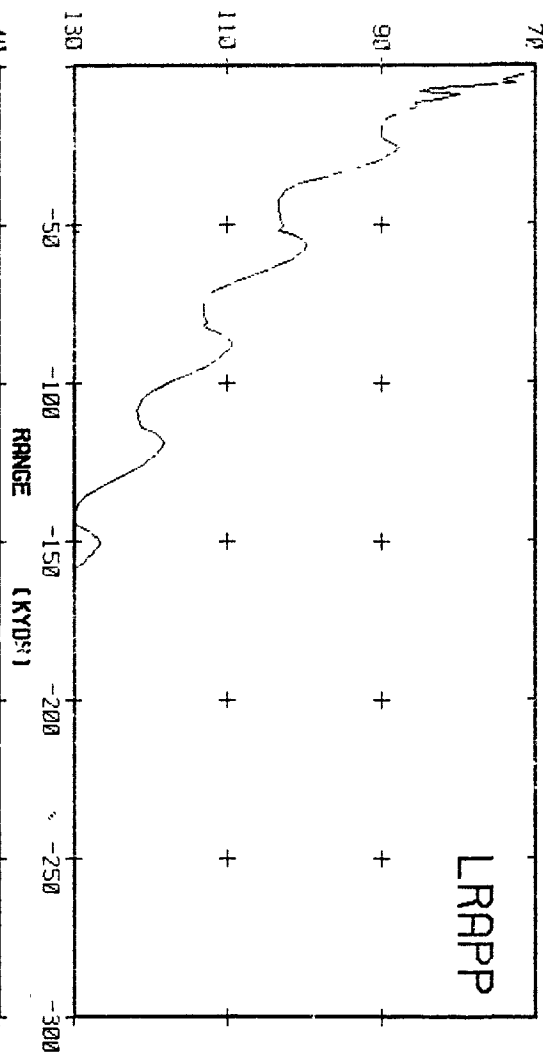


AREA 5 WINTER

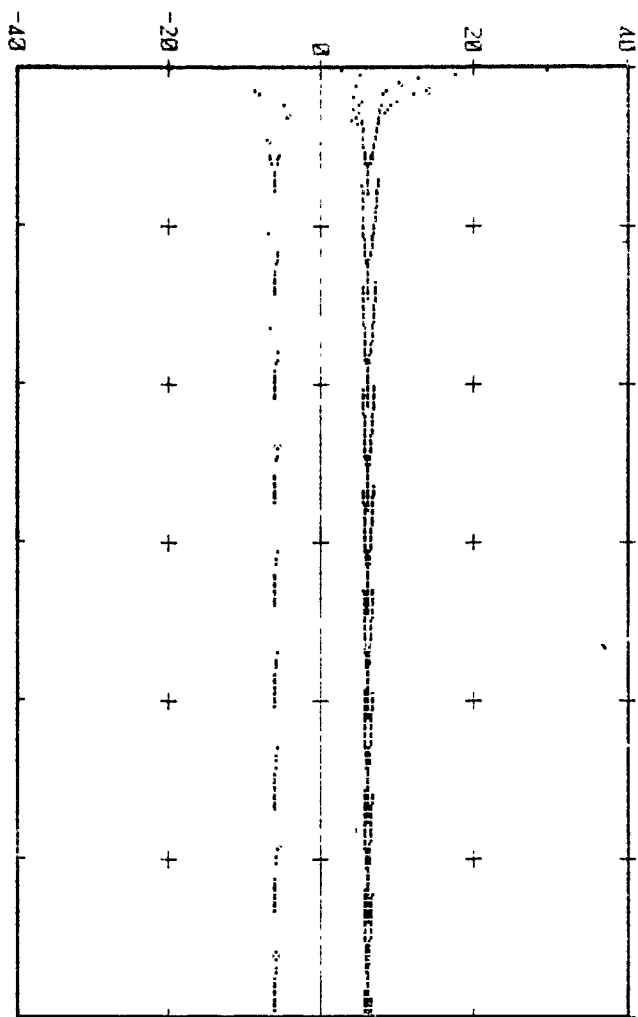
S 1020 R 1000 F 50

1450 M/S 1500 1550

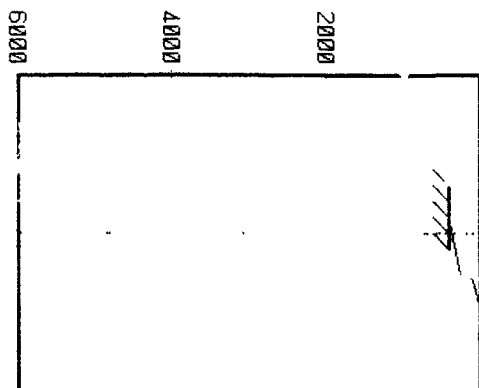
DB LOSS



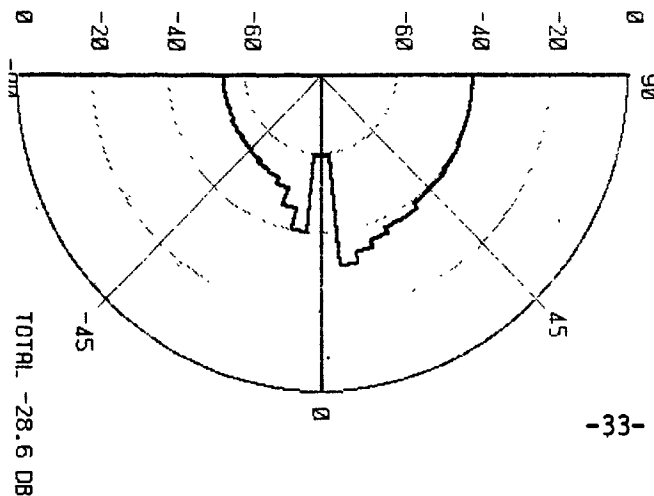
ARRIVAL ANGLE



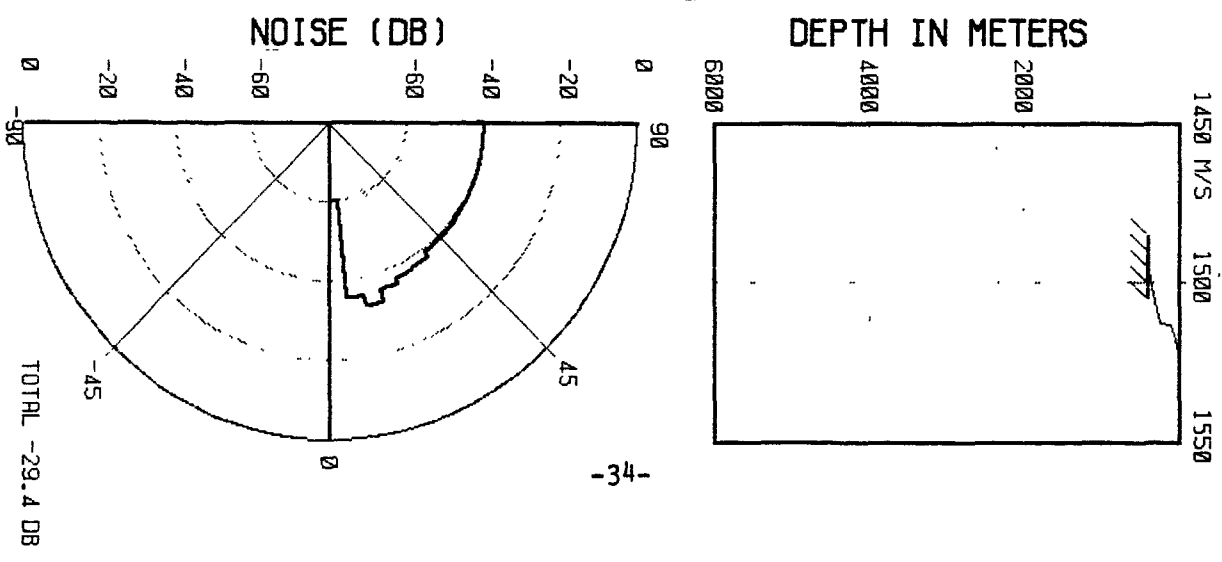
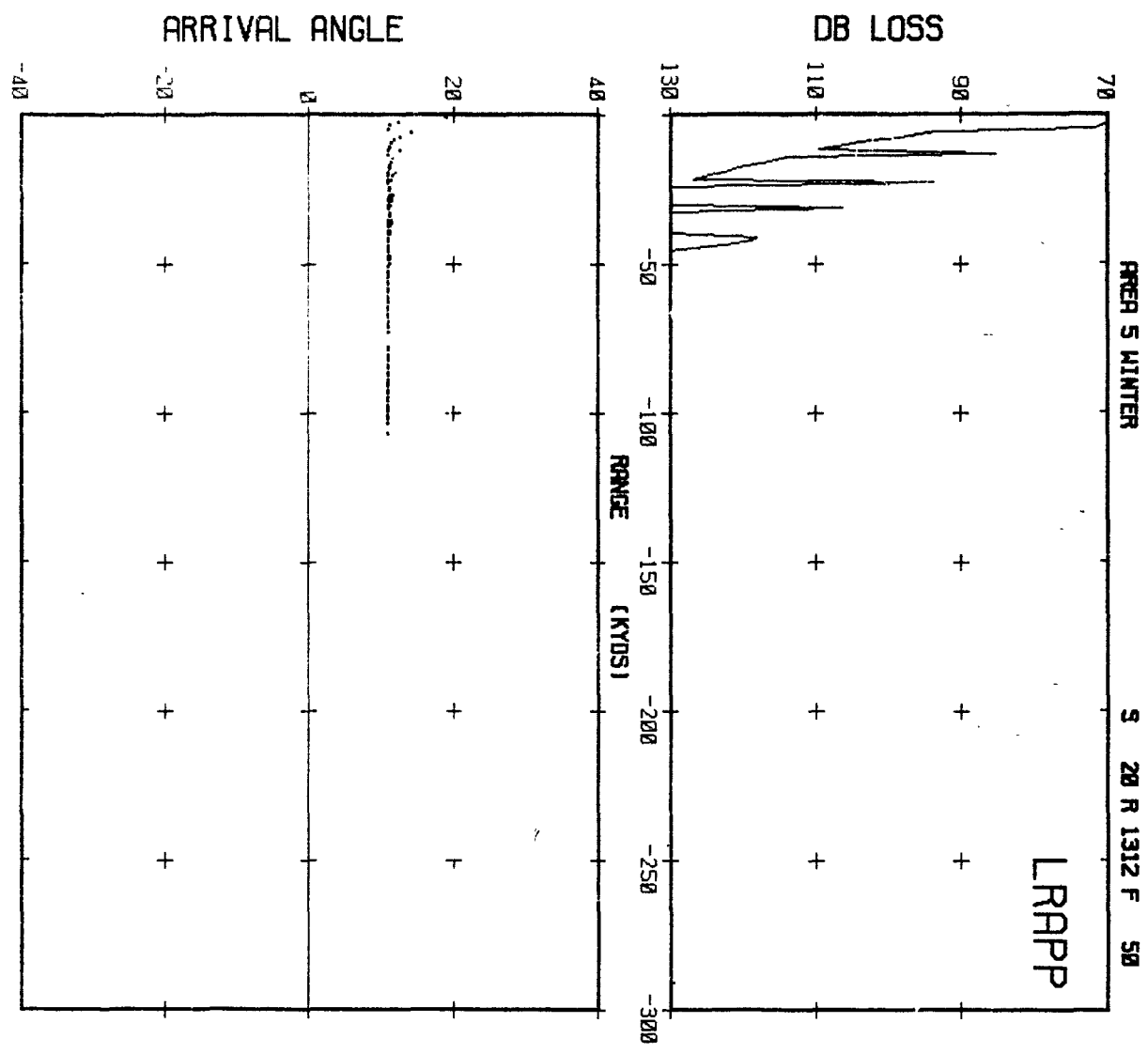
DEPTH IN METERS



NOISE (DB)



1. Date
 2. Time
 3. Location
 4. Name

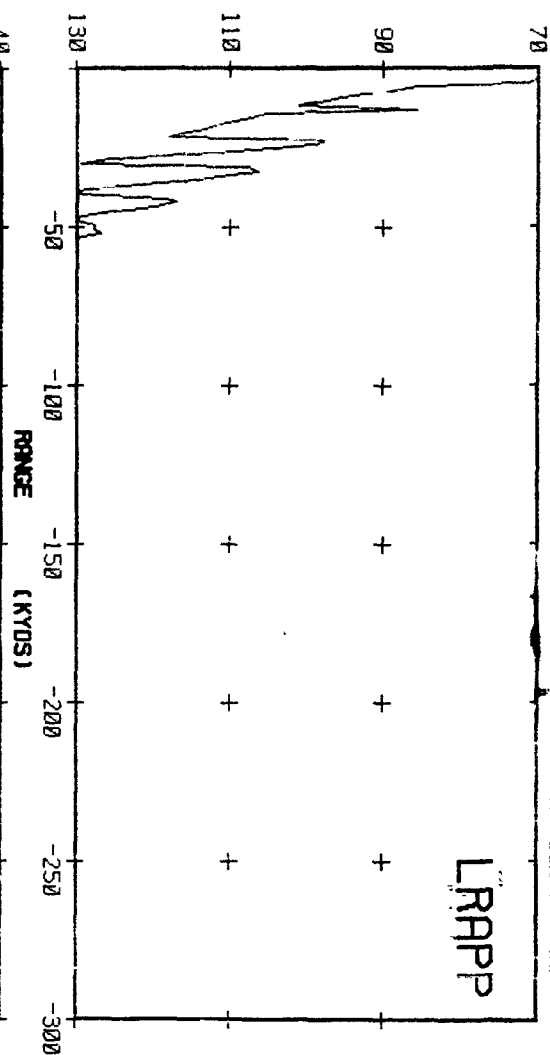


ARRER S WINTER

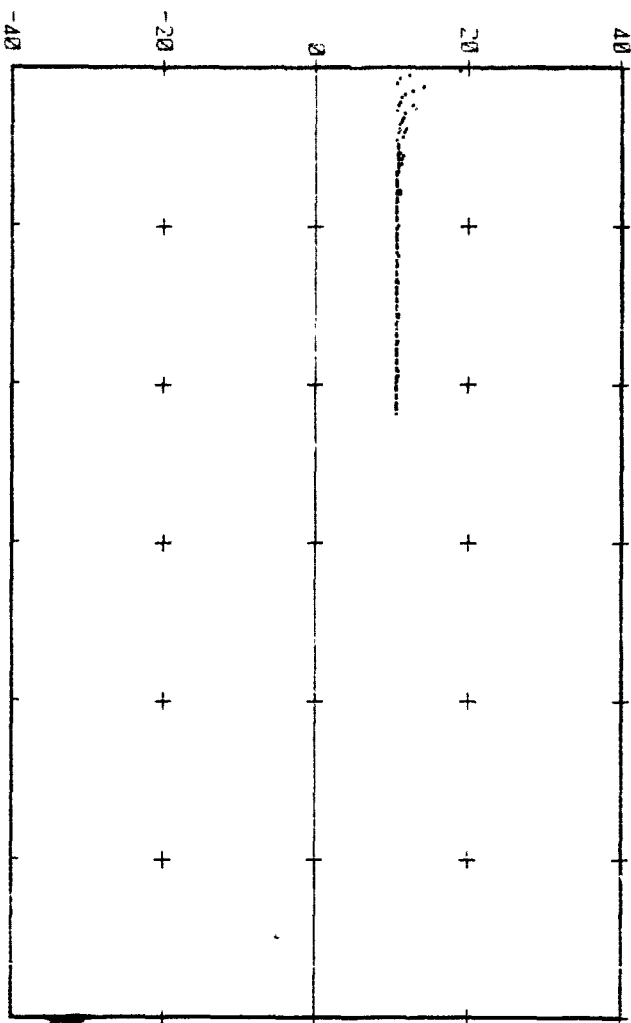
S 50 R 1312 F 50

LRAPP

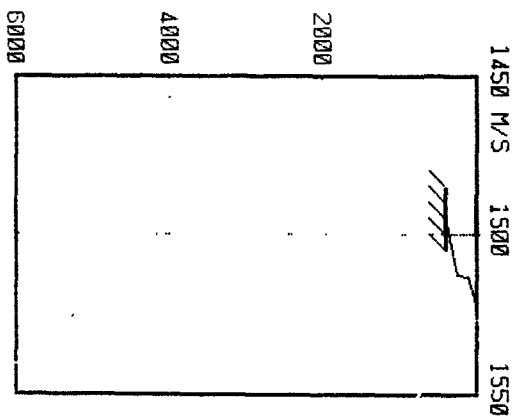
DB LOSS



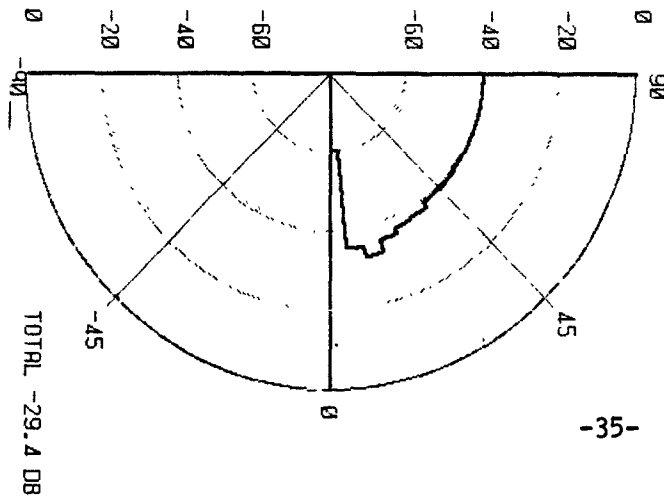
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



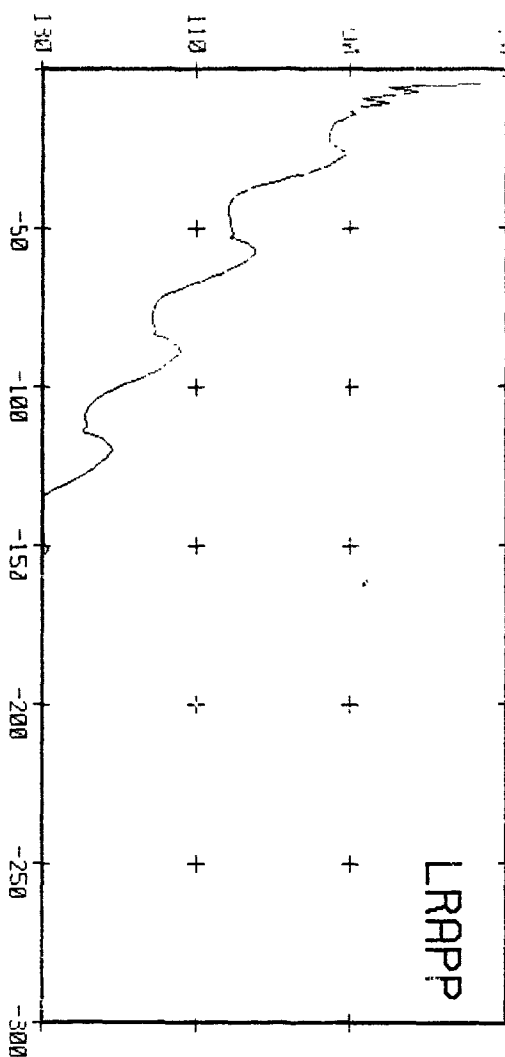
AREA 5 WINTER

S 1020 R 1312 F 50

1450 M/S 1500

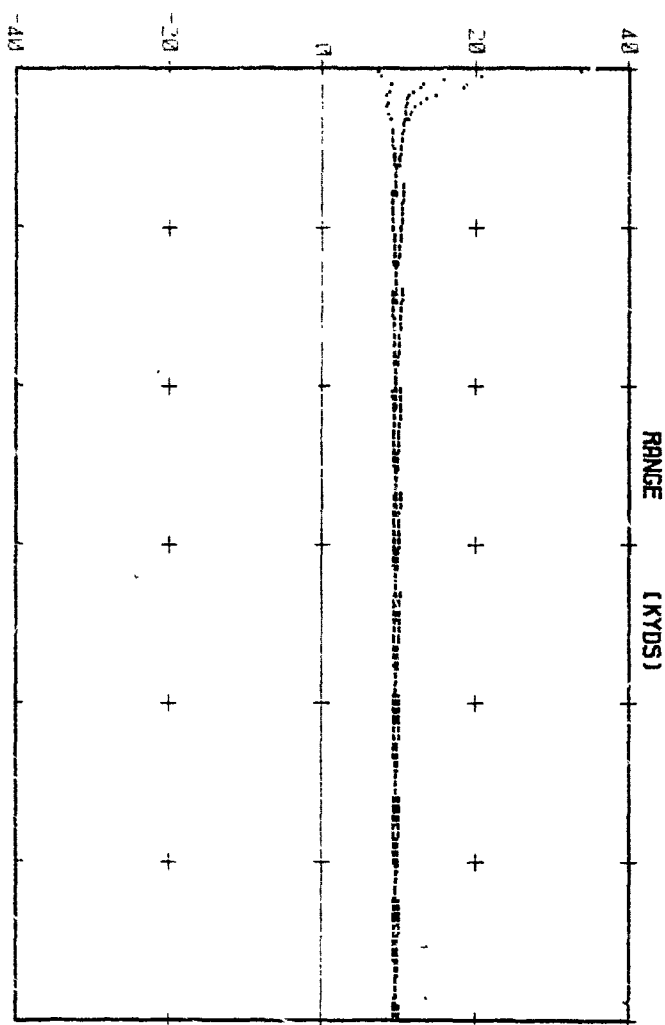
1550

OB LOSS

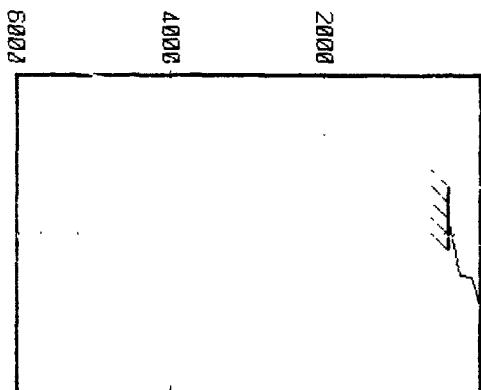


LRAPP

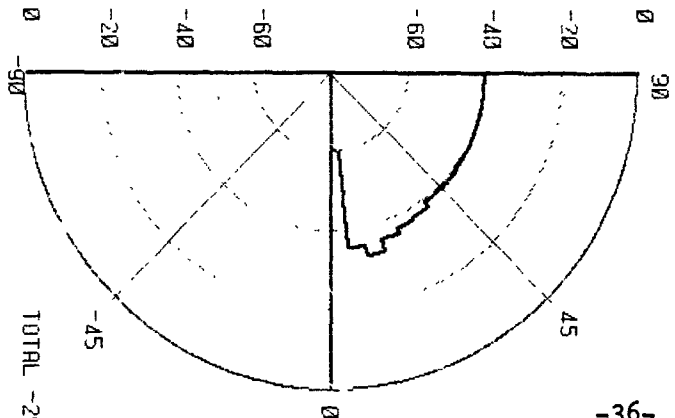
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



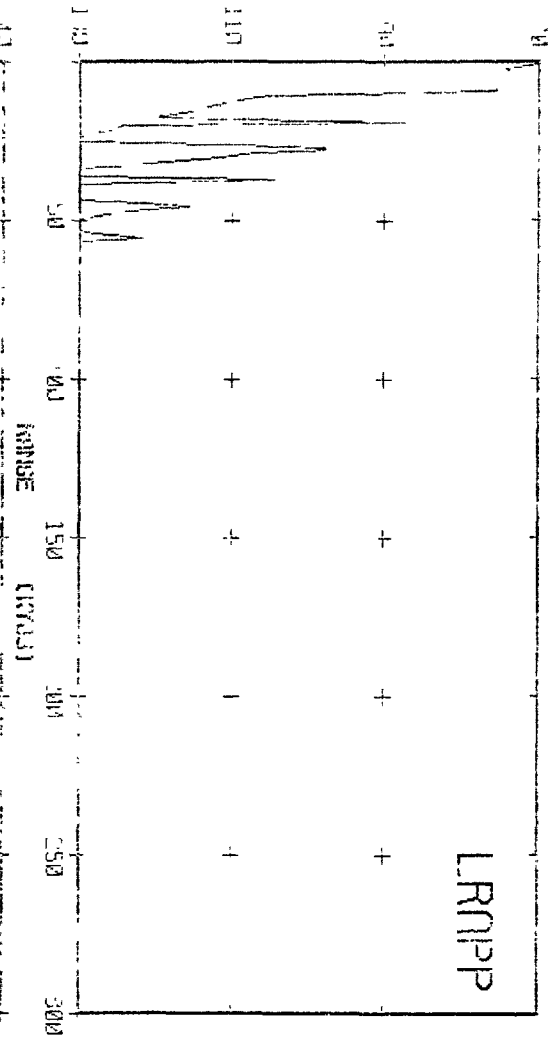
TOTAL -29.4 DB

AREA 5 WINTER

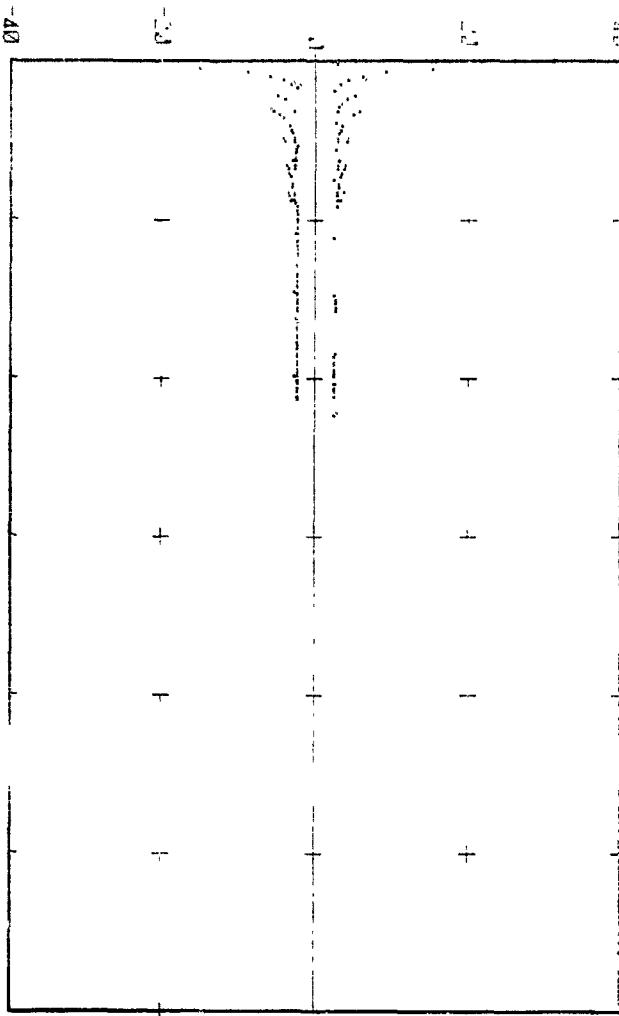
S 20 R 60 F 70

1450 H/S 1500 1550

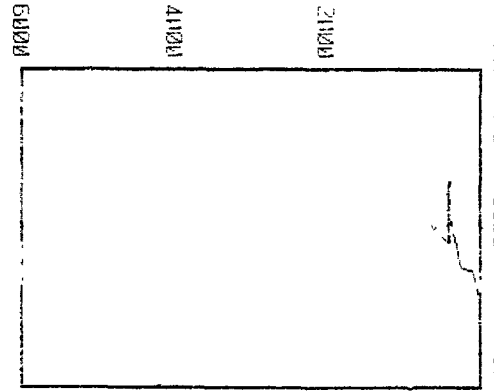
DB LOSS



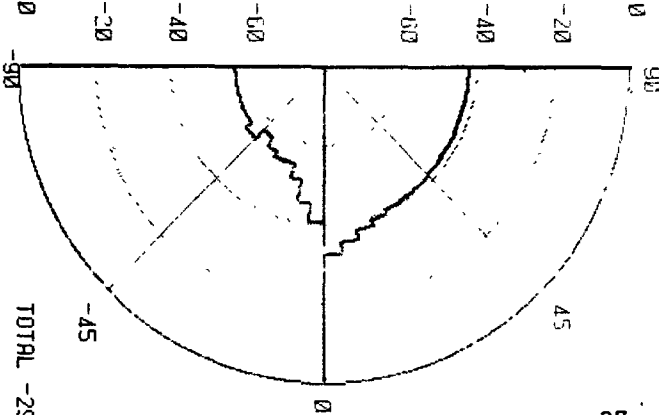
ARRIVAL ANGLE



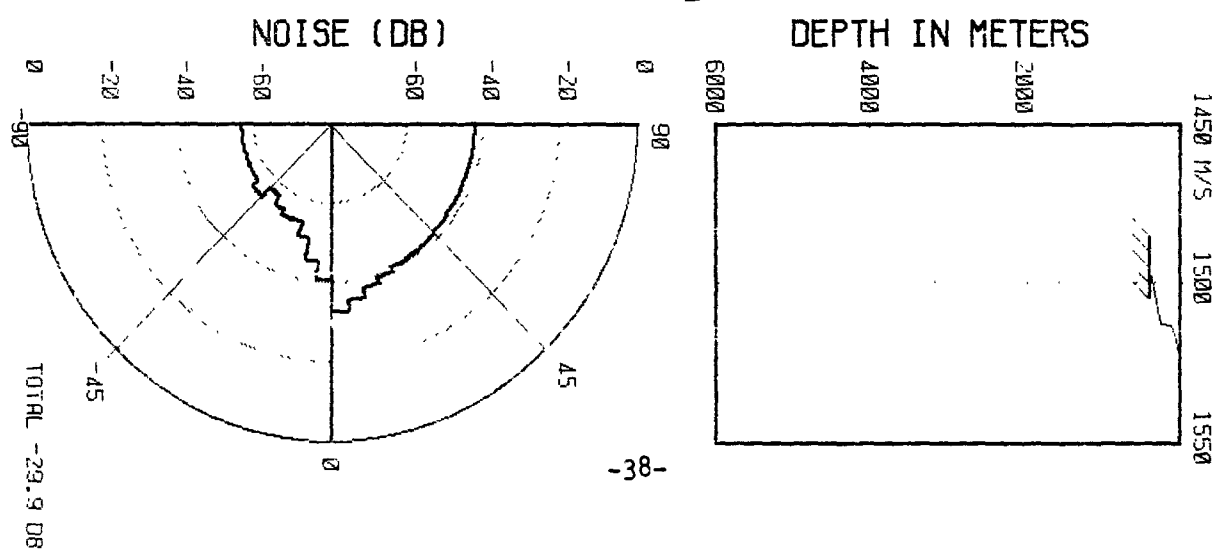
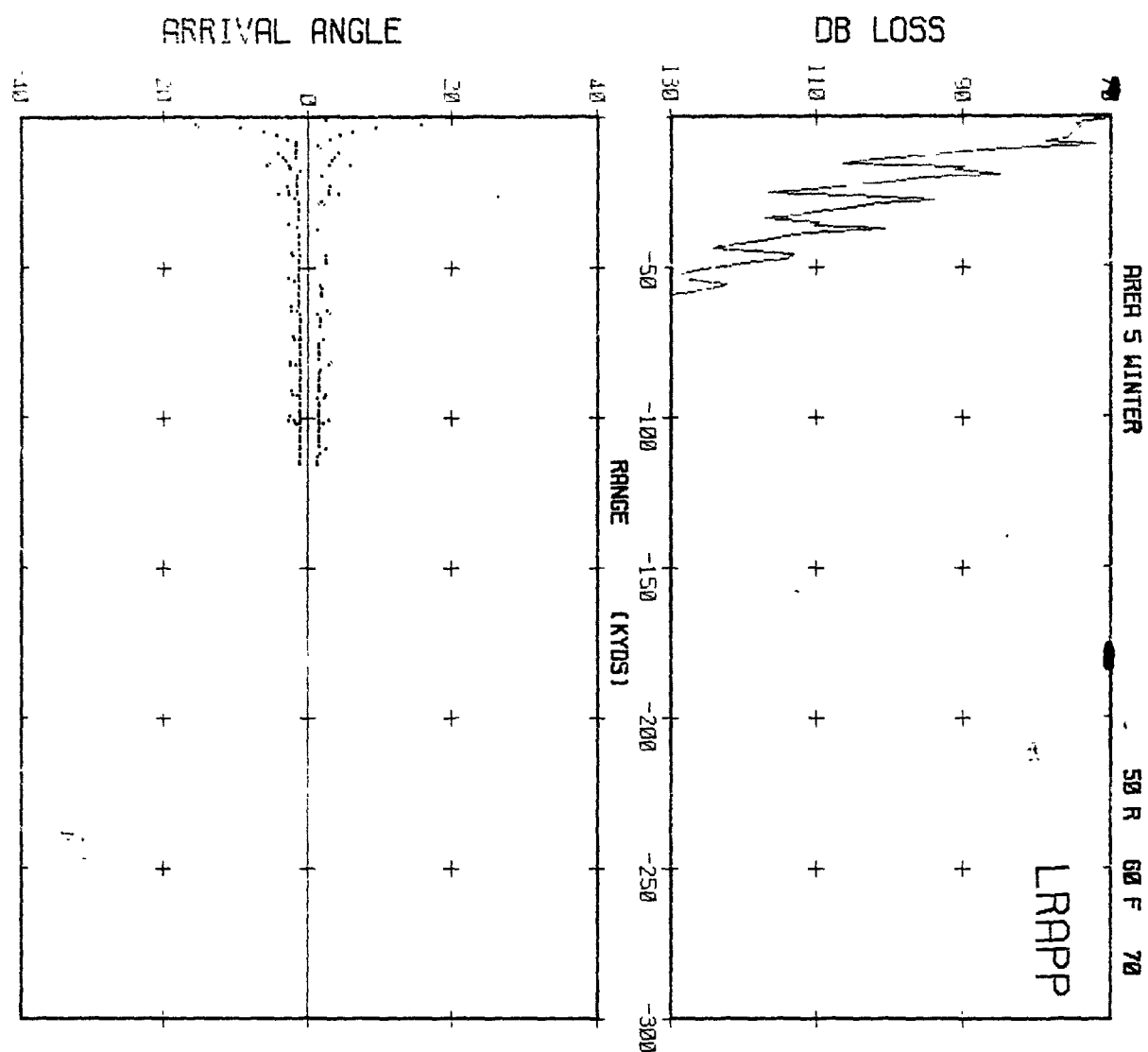
DEPTH IN METERS



NOISE (DB)



TOTAL -29.9 dB

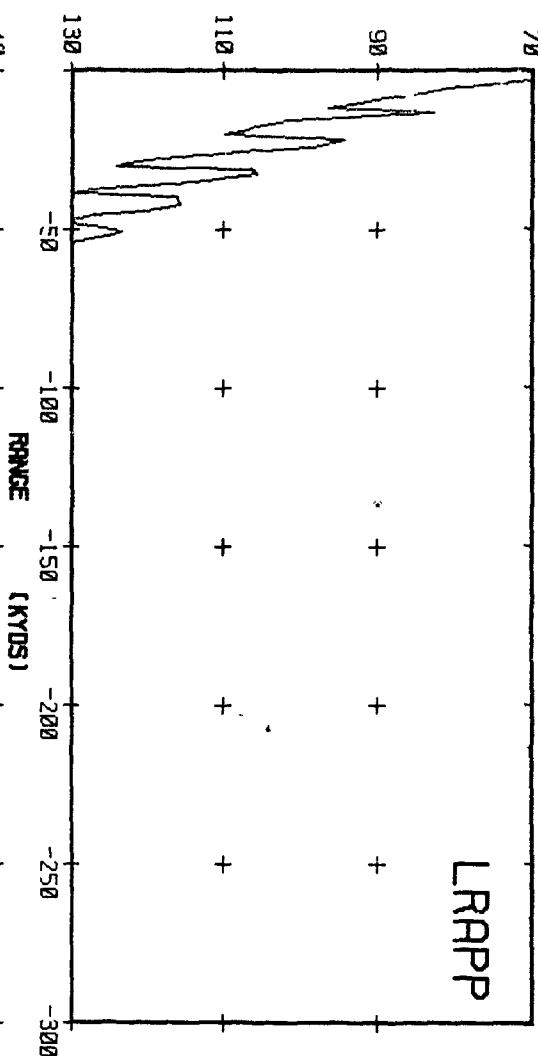


AREA 5 WINTER

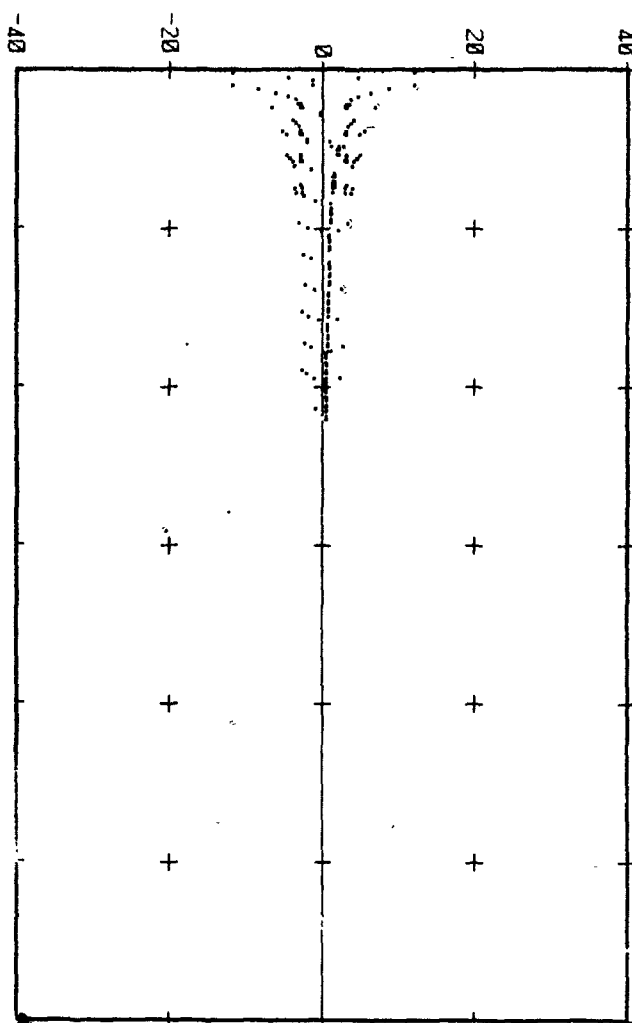
S 1020 R 00 F 70

1450 M/S 1500 1550

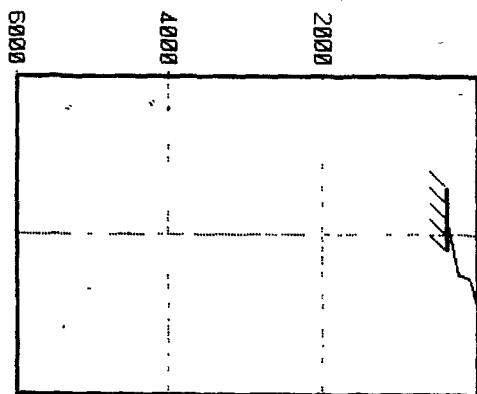
DB LOSS



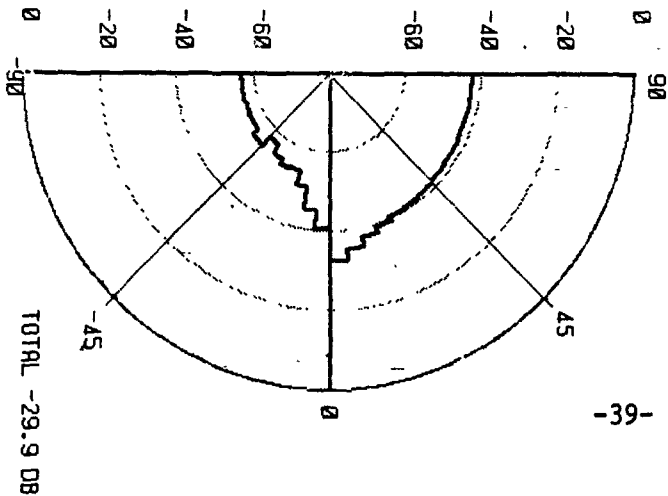
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

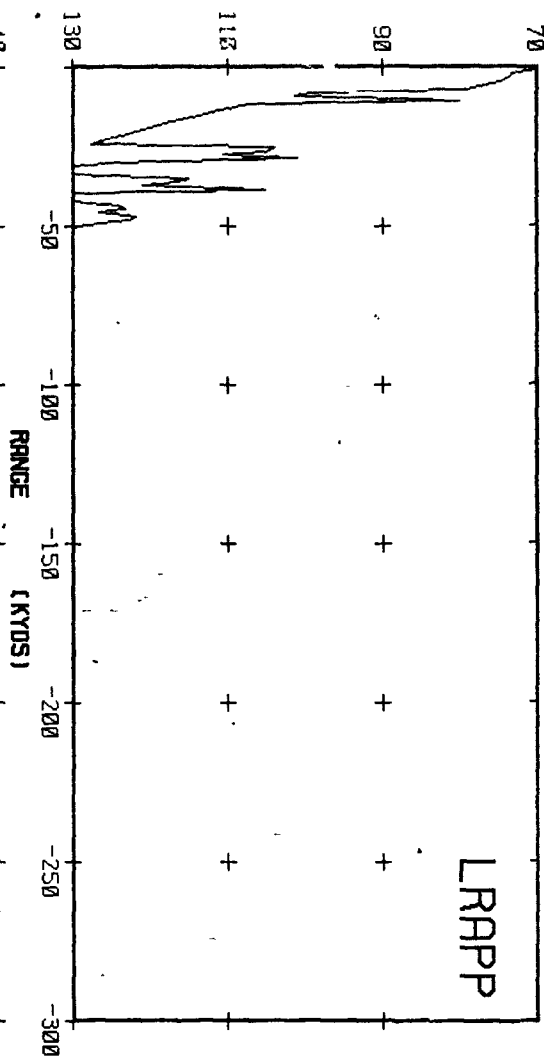


AREA 5 WINTER

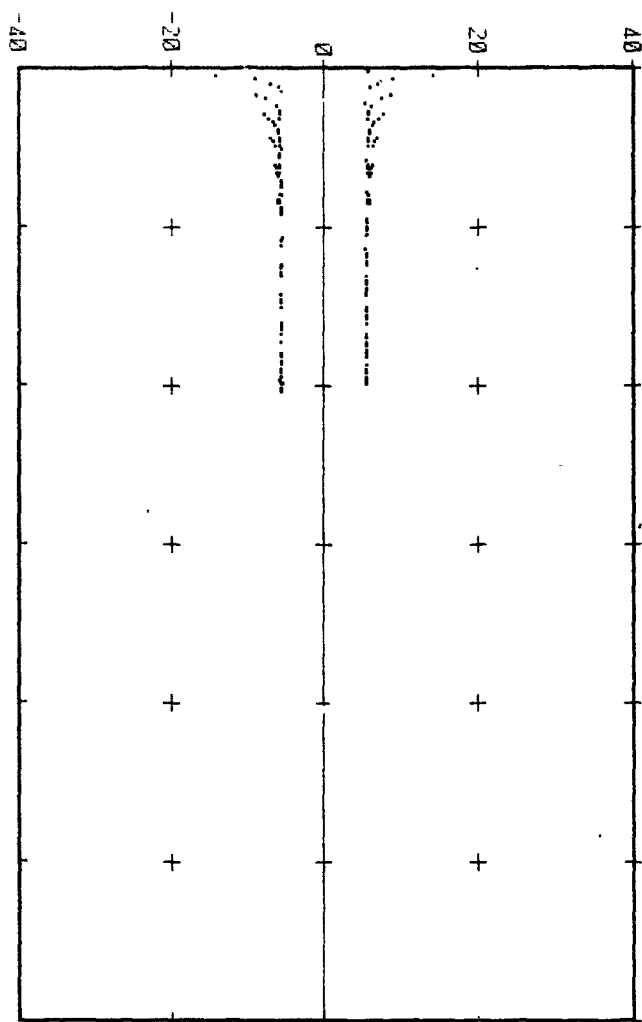
S 20 R 300 F 70

LRAPP

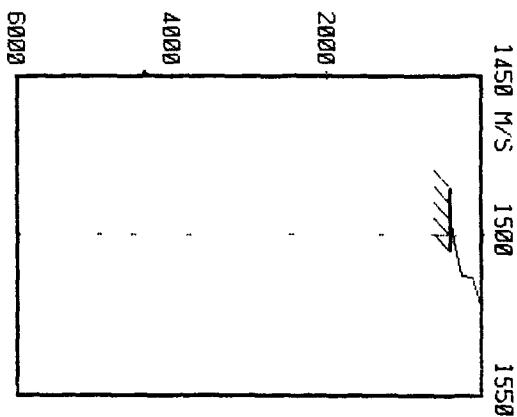
DB LOSS



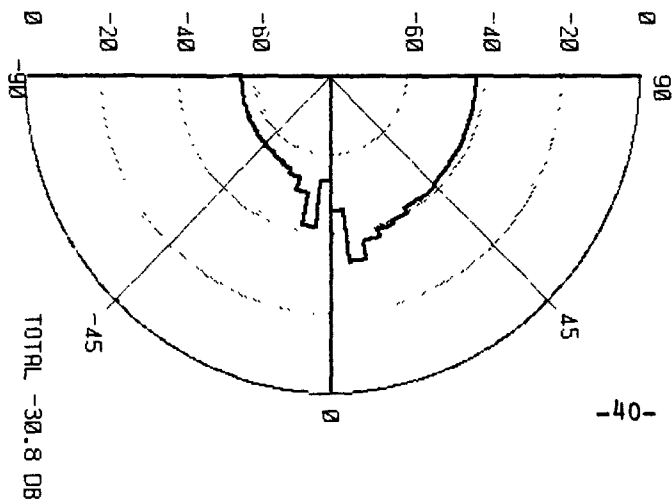
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



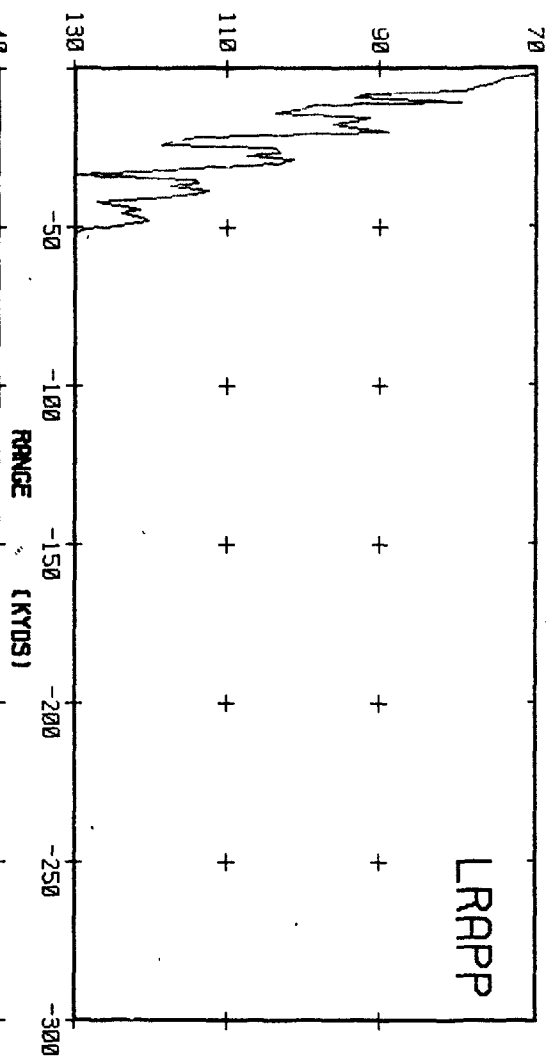
TOTAL -30.8 DB

AREA 5 WINTER

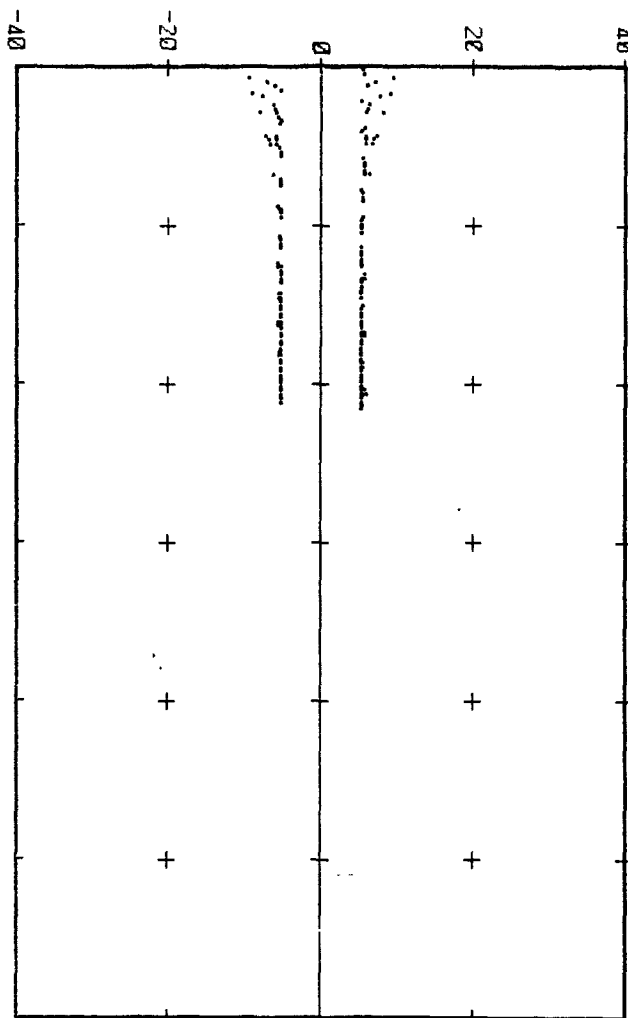
S 50 R 300 F 70

1450 M/S 1500 1550

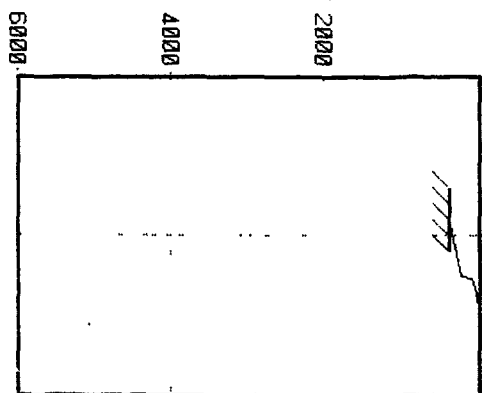
DB LOSS



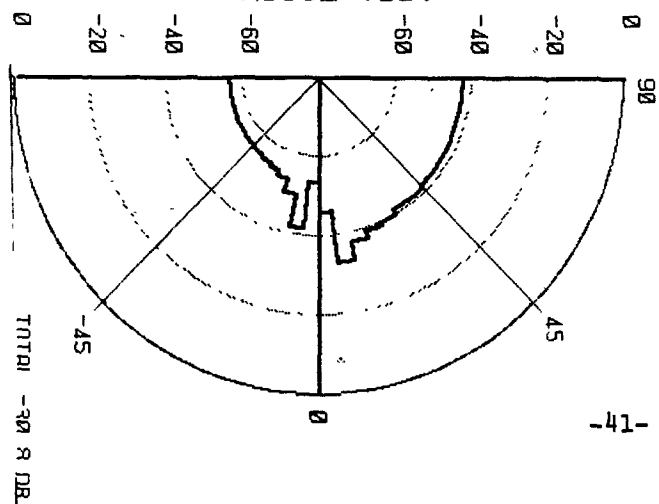
ARRIVAL ANGLE

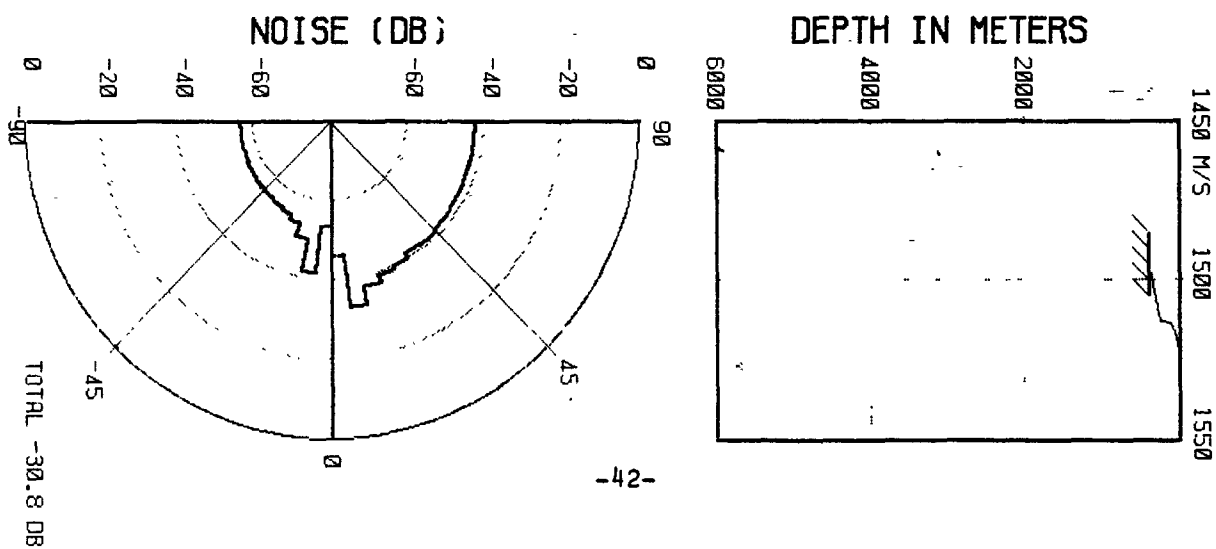
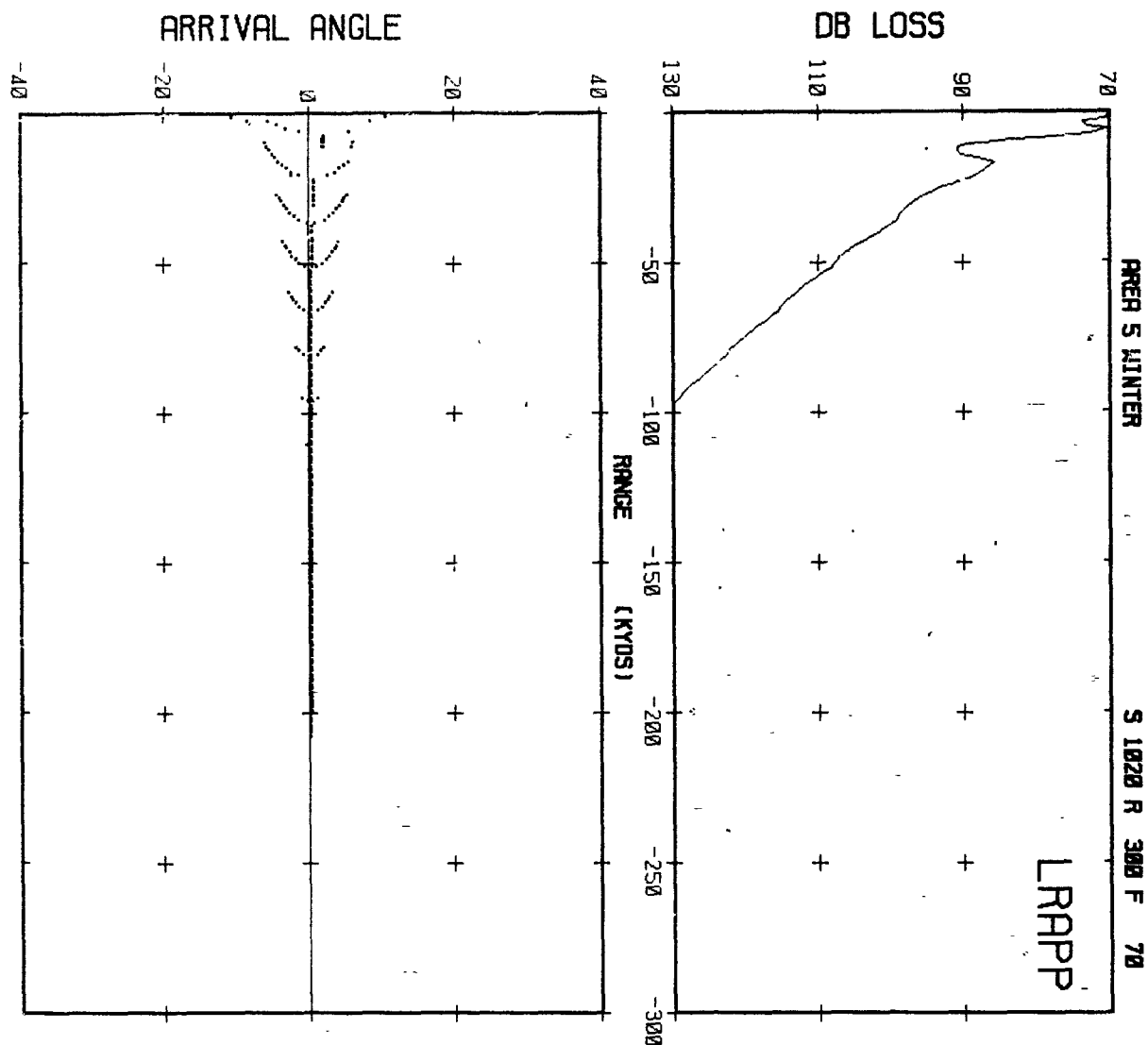


DEPTH IN METERS



NOISE (DB)





I

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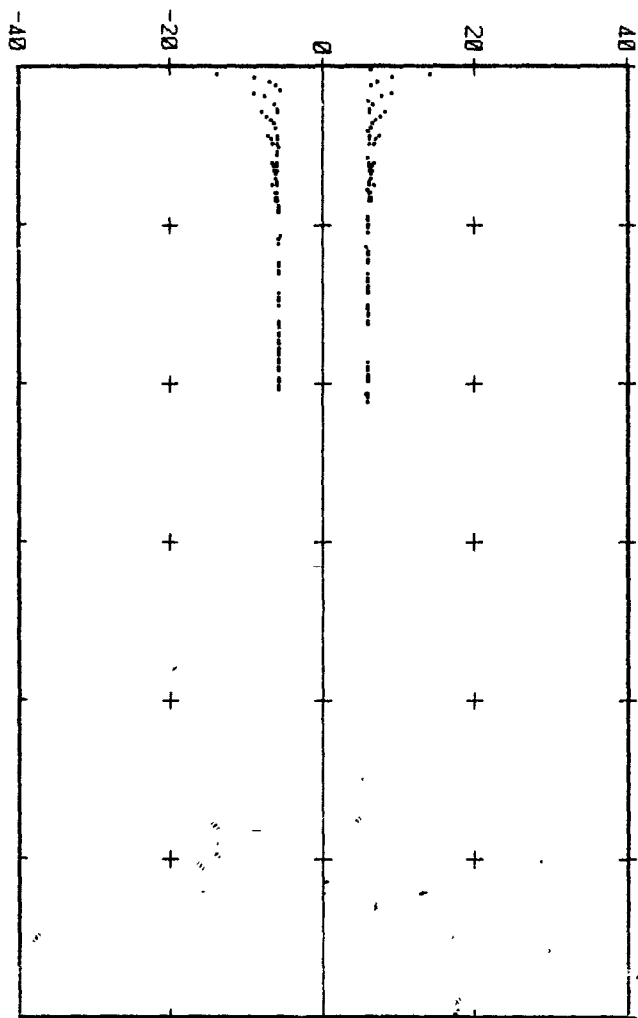
24

25

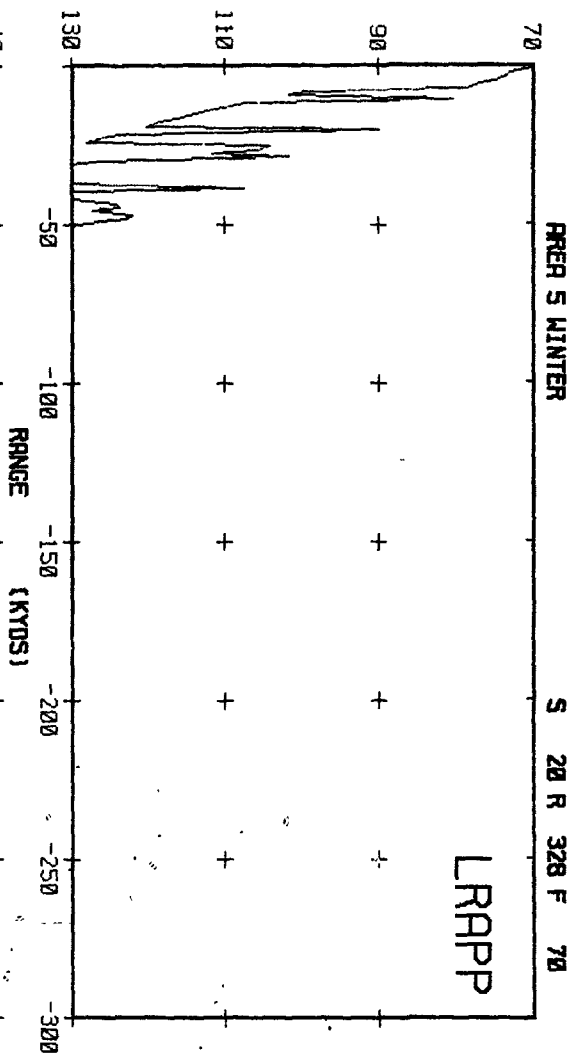
26

27

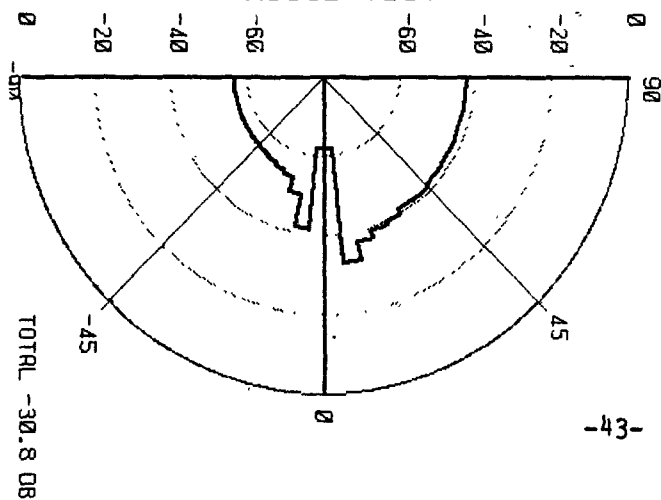
ARRIVAL ANGLE



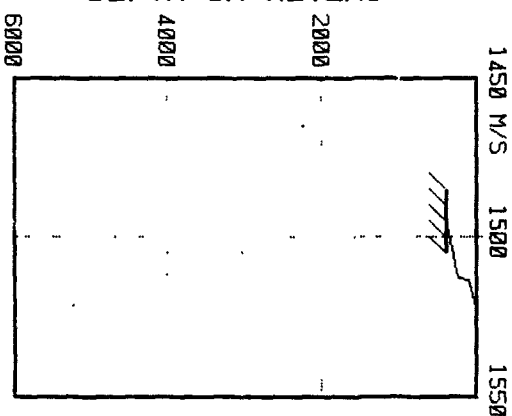
DB LOSS



NOISE (DB)



DEPTH IN METERS

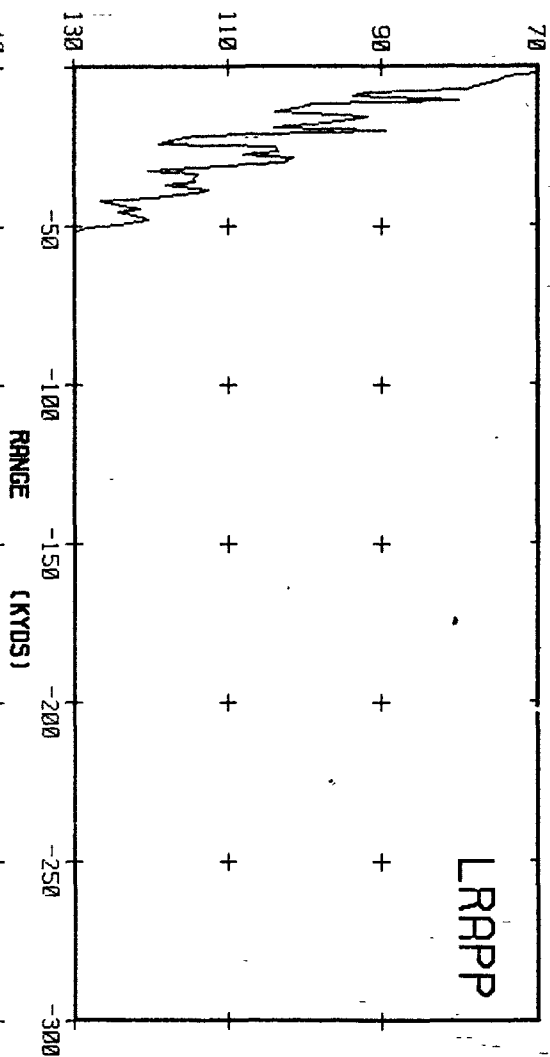


AREA 5 WINTER

S 50 R 328 F 70

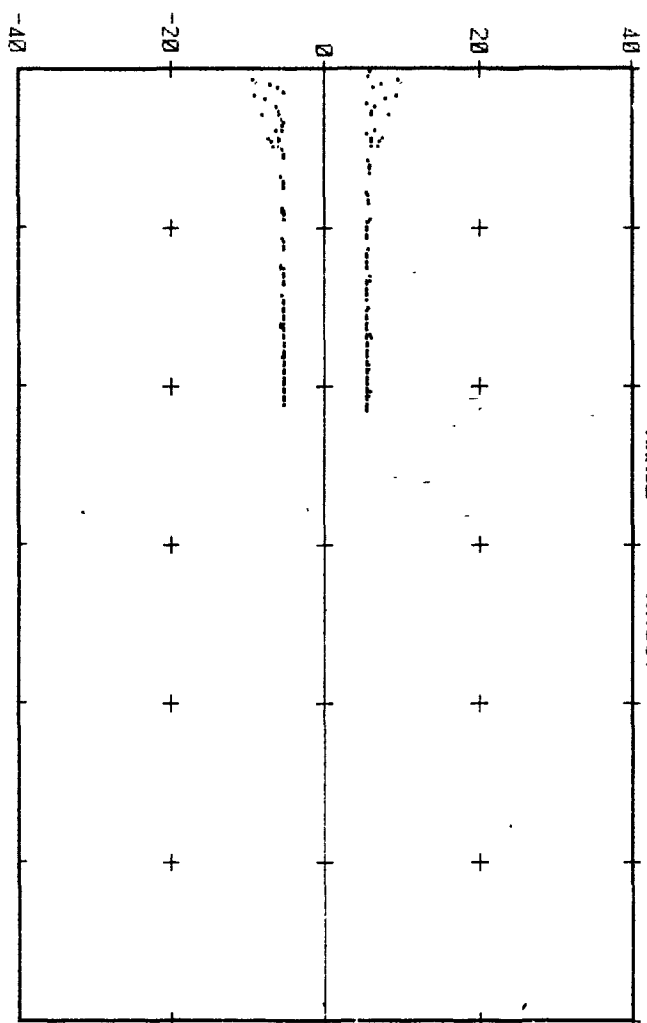
1450 M/S 1500 1550

DB LOSS

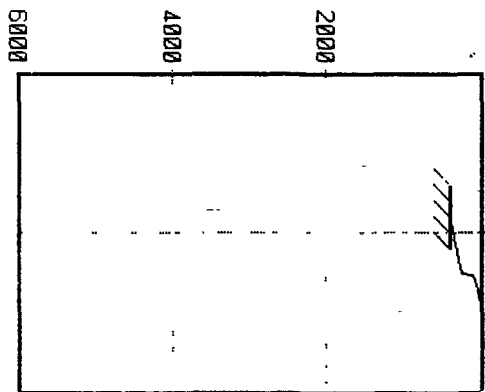


LRAPP

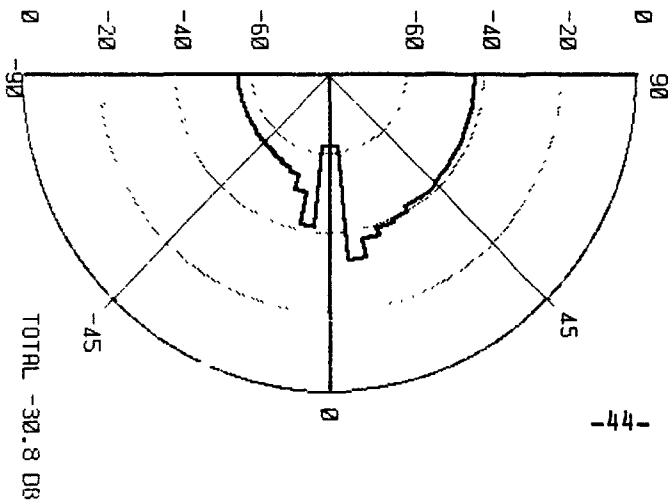
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



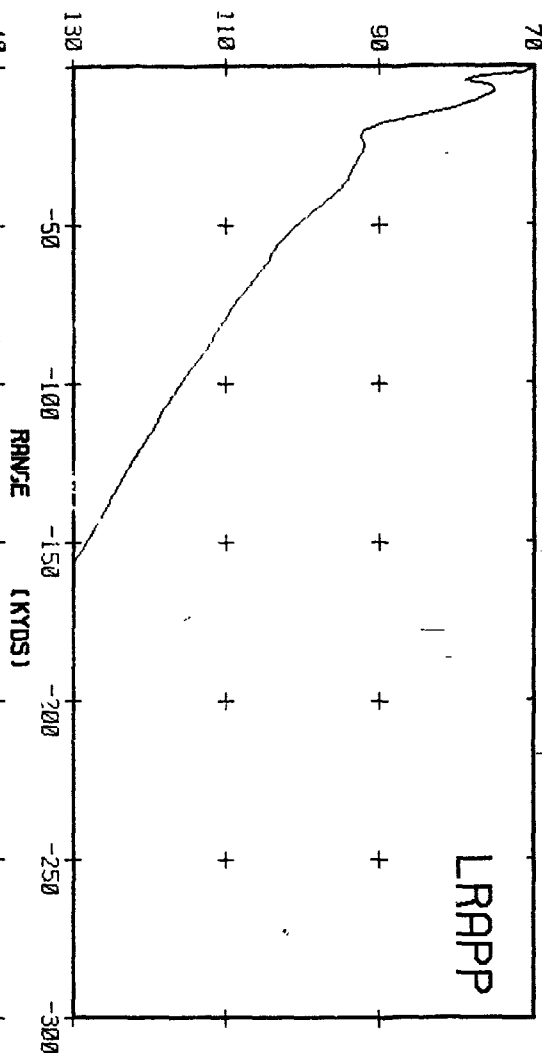
TOTAL -30.8 DB

AREA 5 MINTER

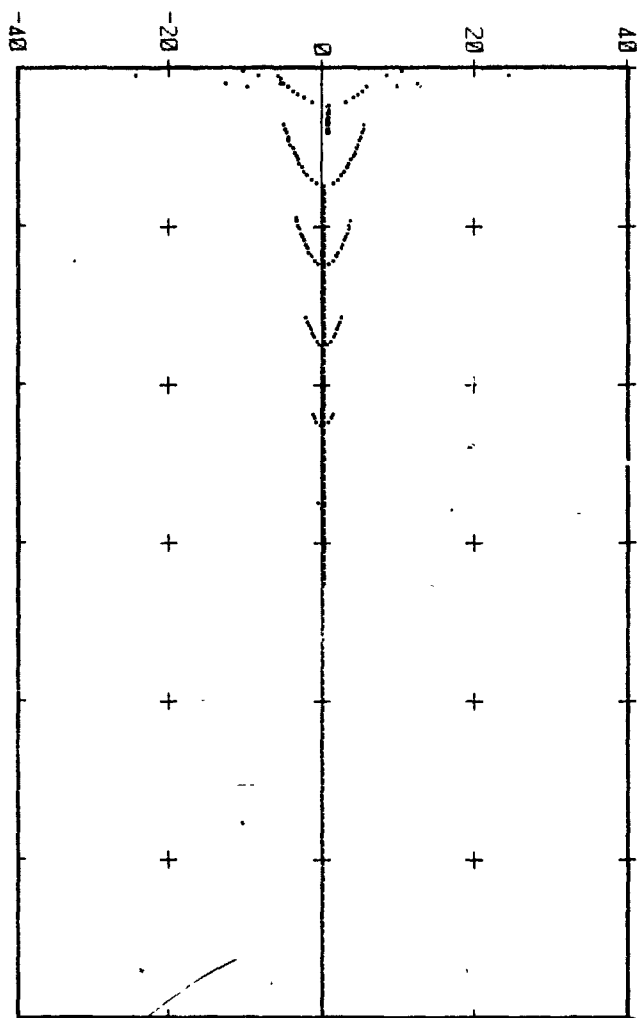
S 1020 R 328 F 70

LRAPP

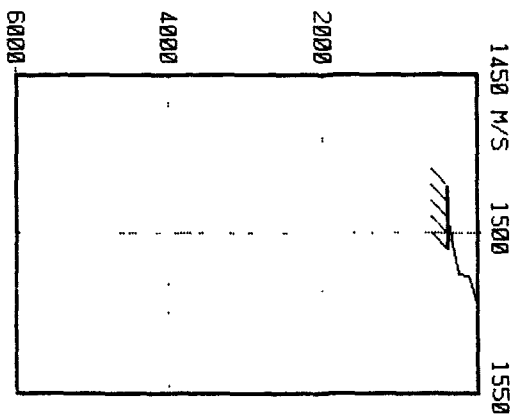
DB LOSS



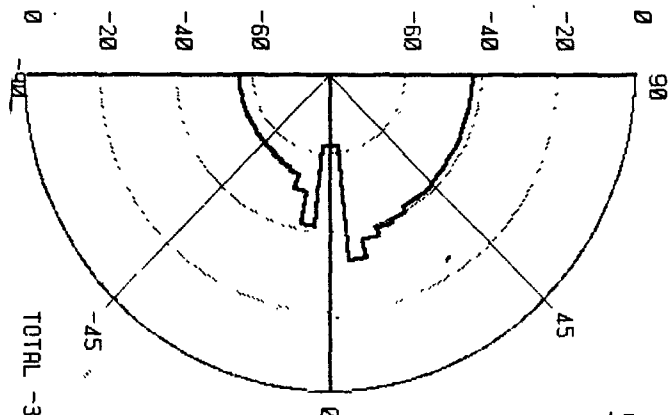
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



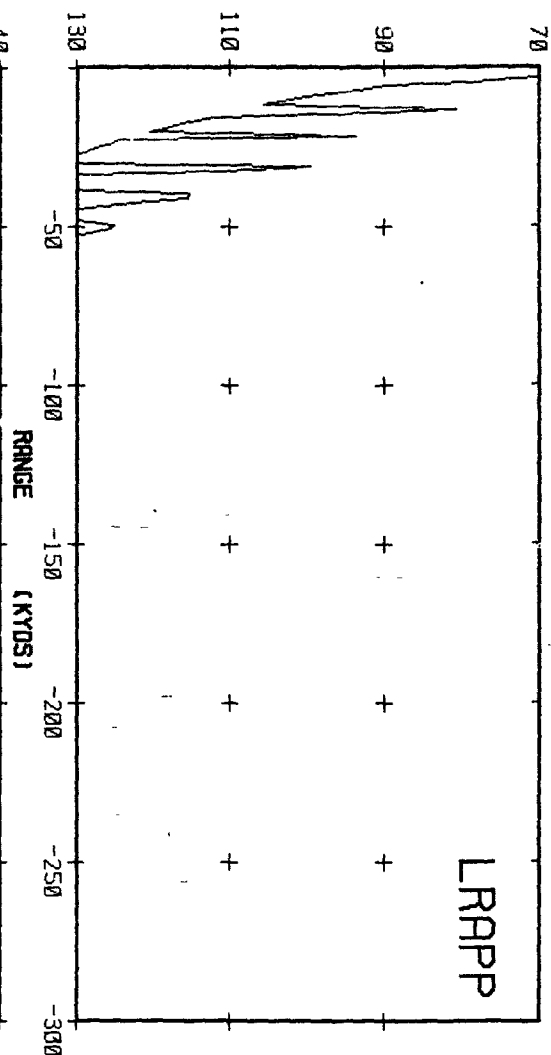
TOTAL -30.8 DB

AREA 5 WINTER

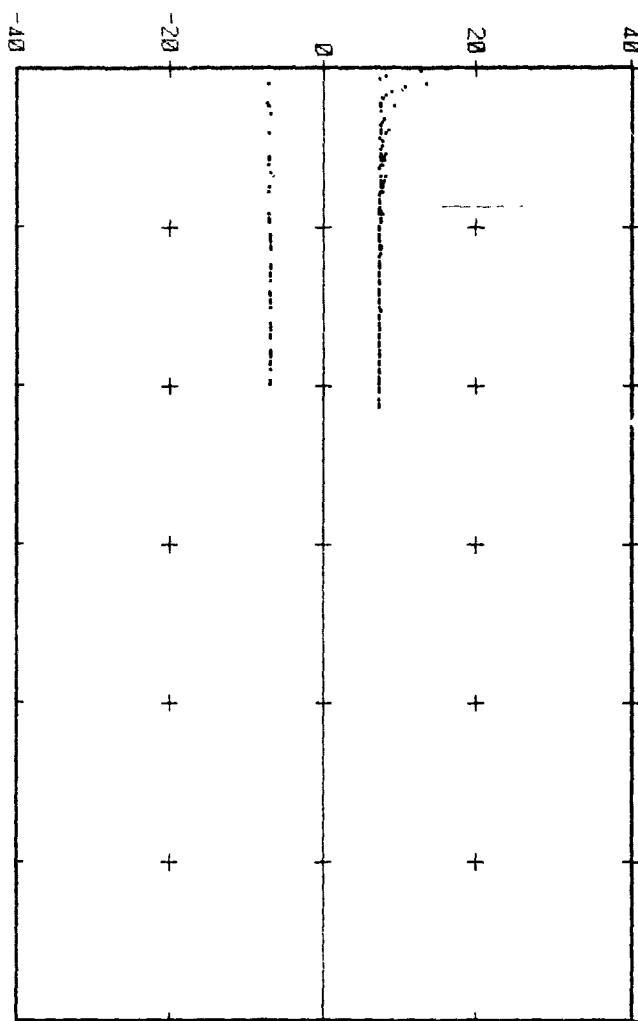
S 20 R 920 F 70

1450 M/S 1500 1550

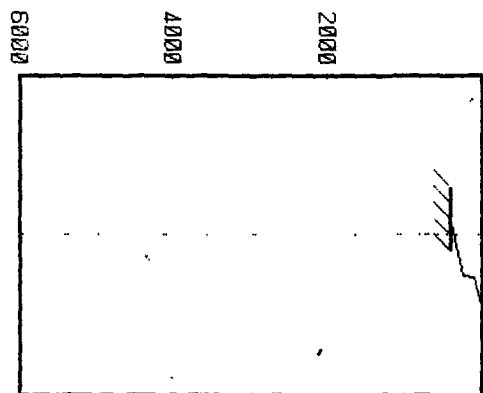
DB LOSS



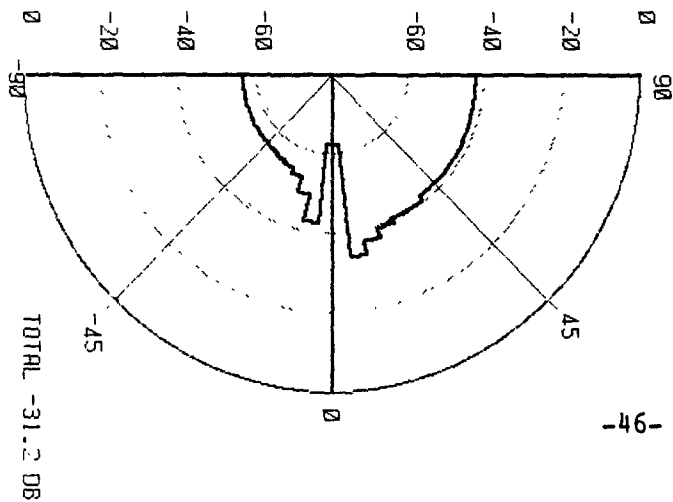
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

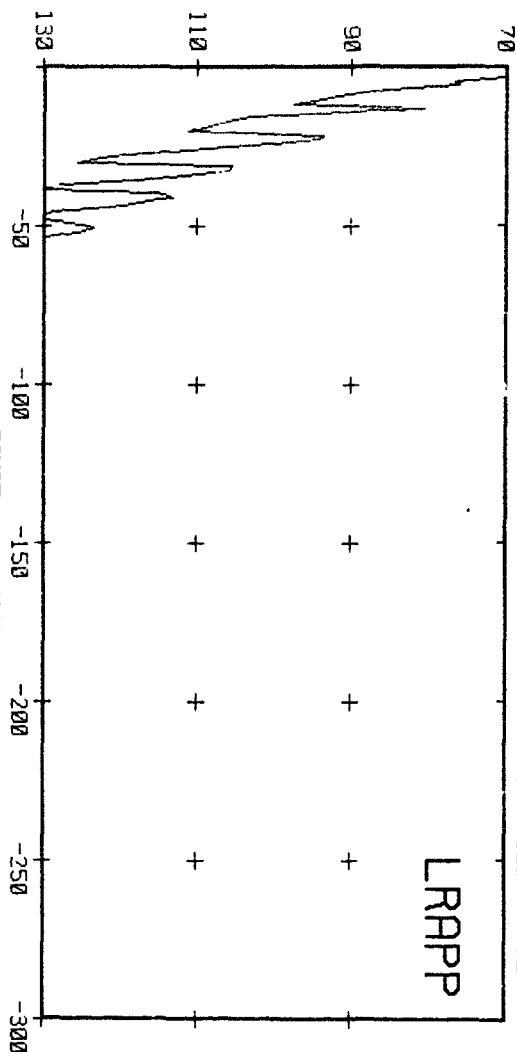


FREE S WINTER

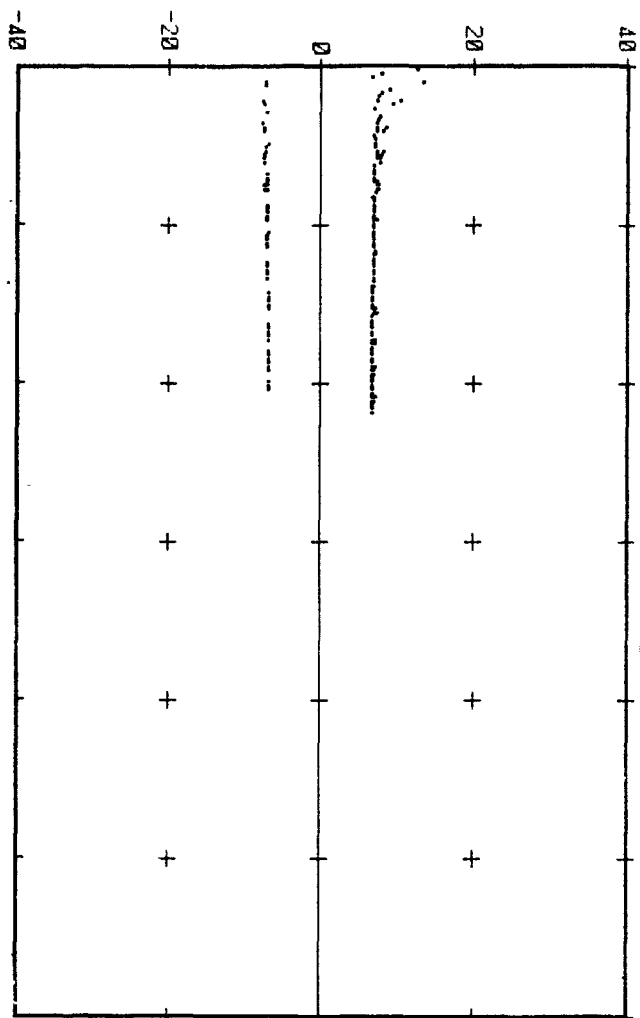
S 50 R 920 F 70

1450 M/S 1500 1550

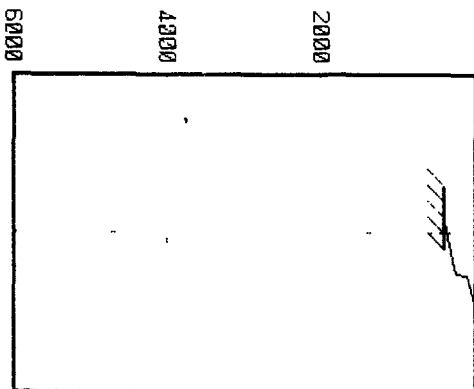
DB LOSS



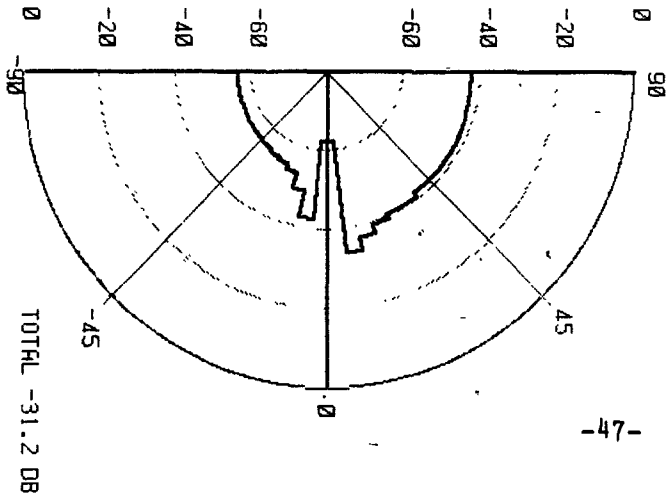
ARRIVAL ANGLE

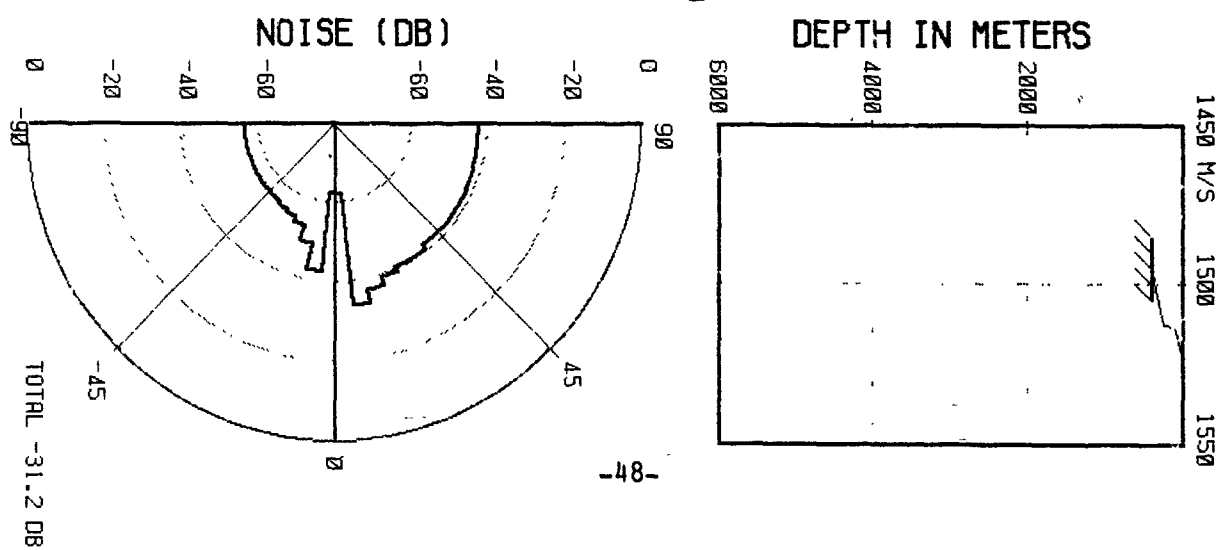
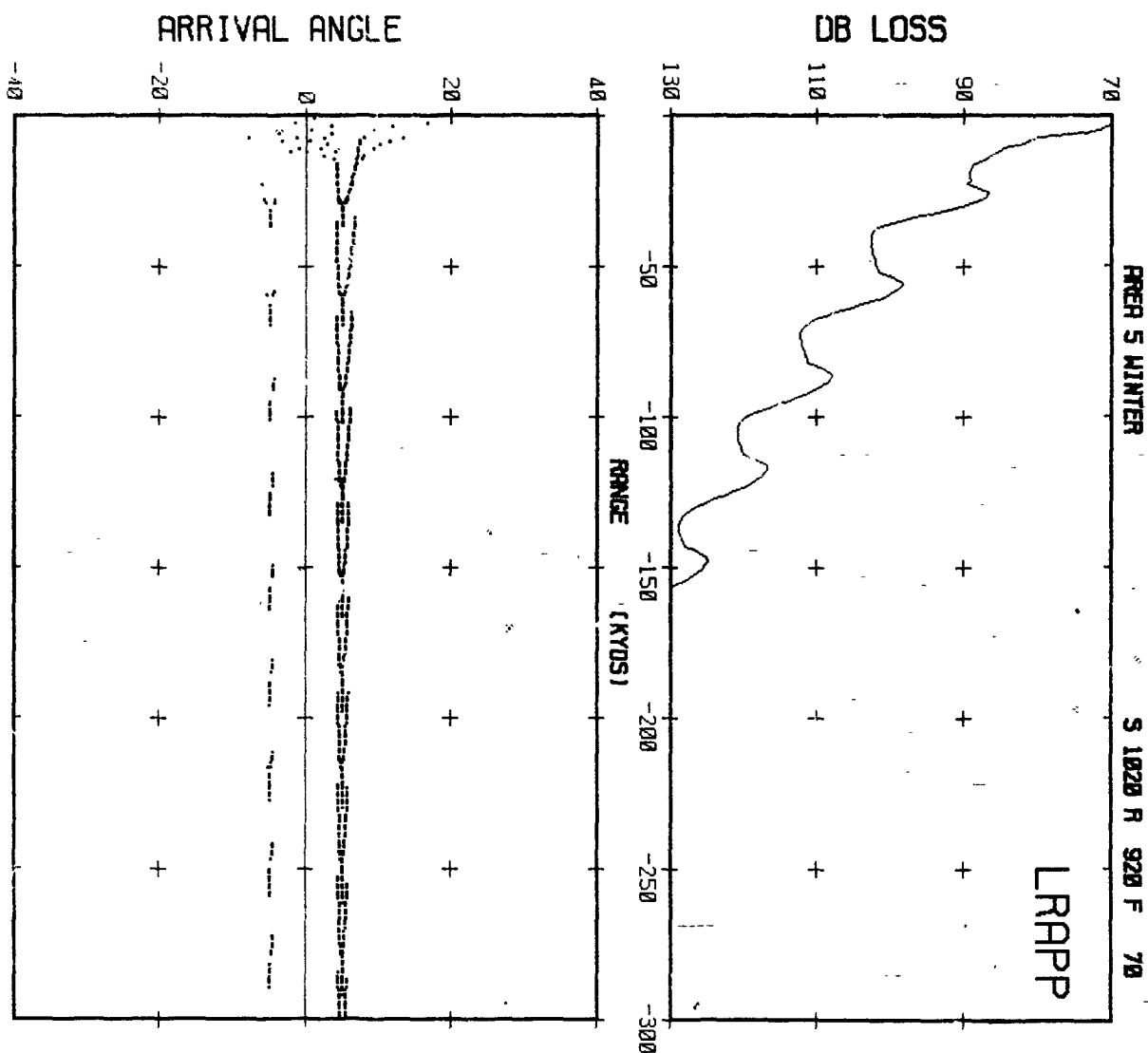


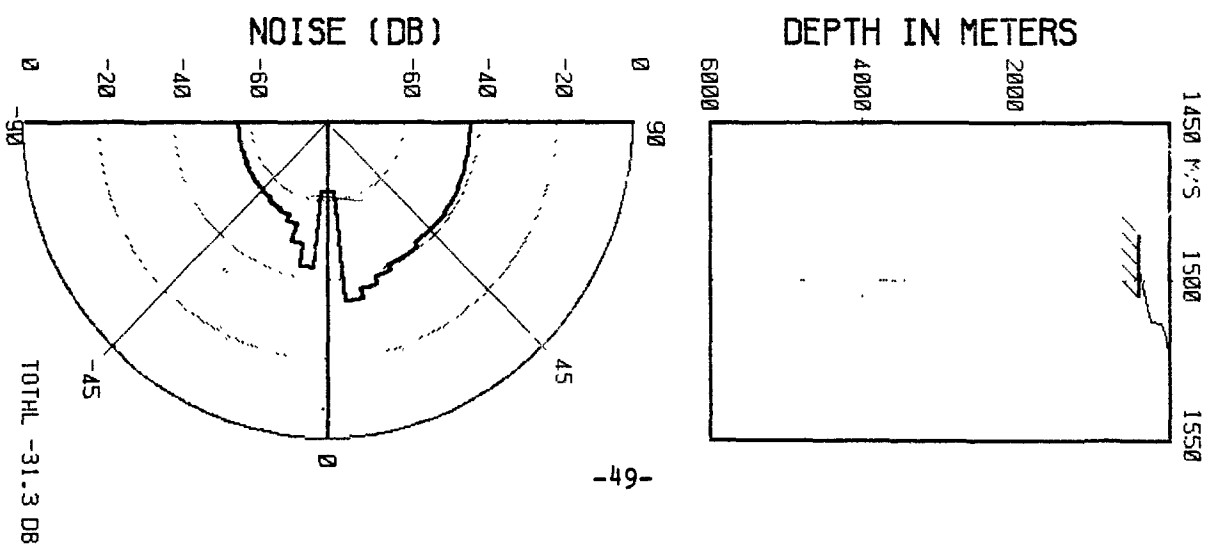
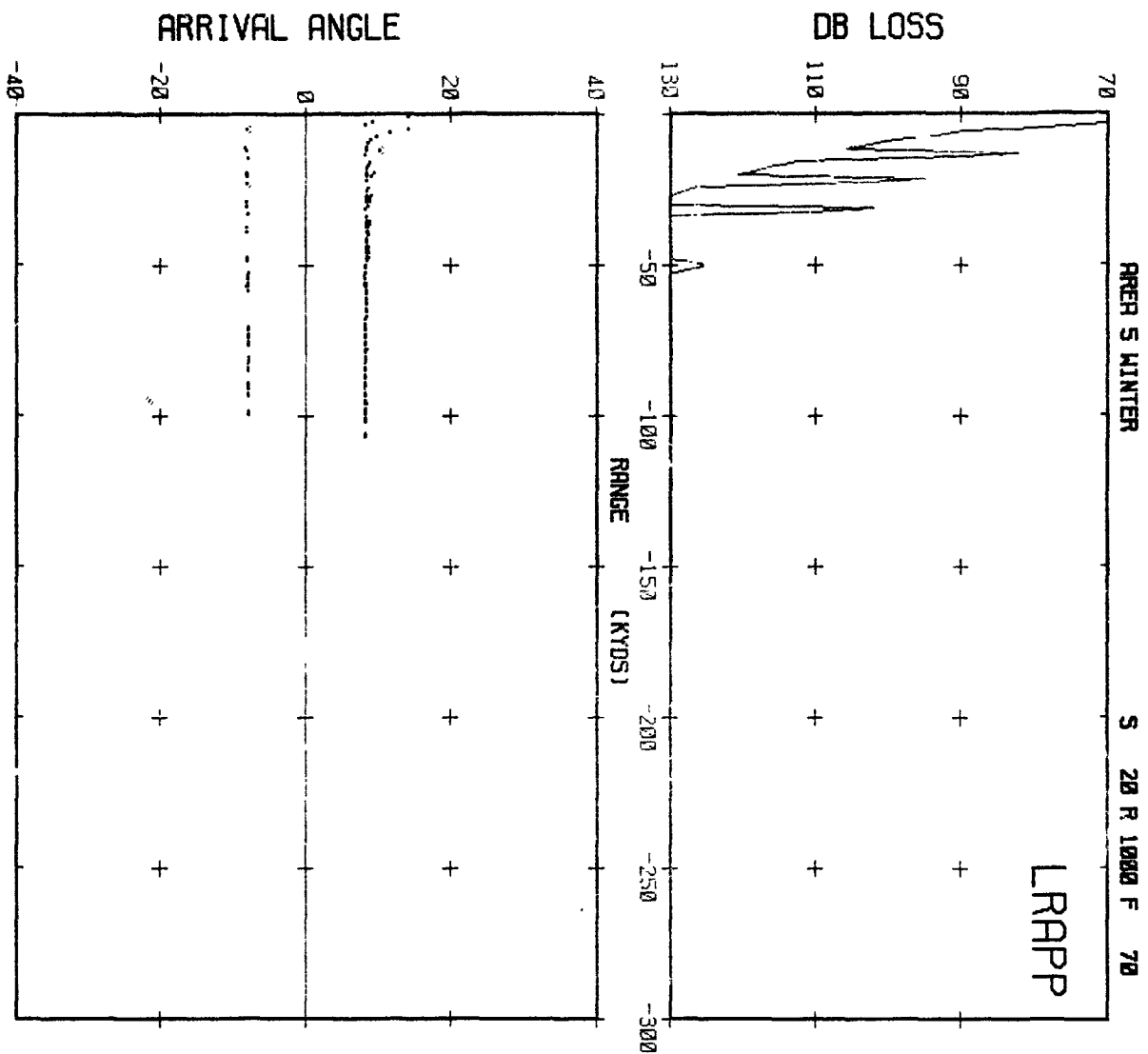
DEPTH IN METERS



NOISE (DB)





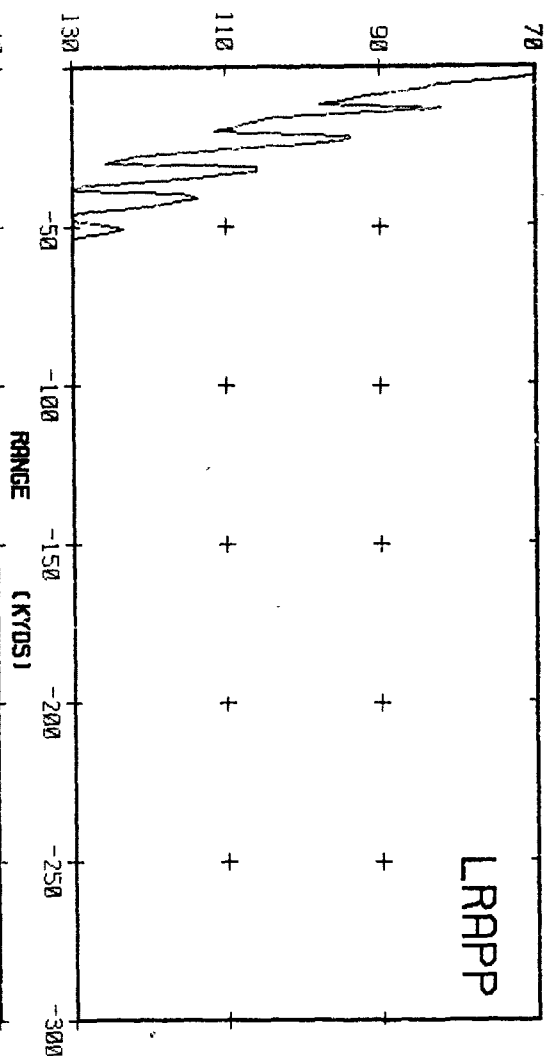


AREA 5 WINTER

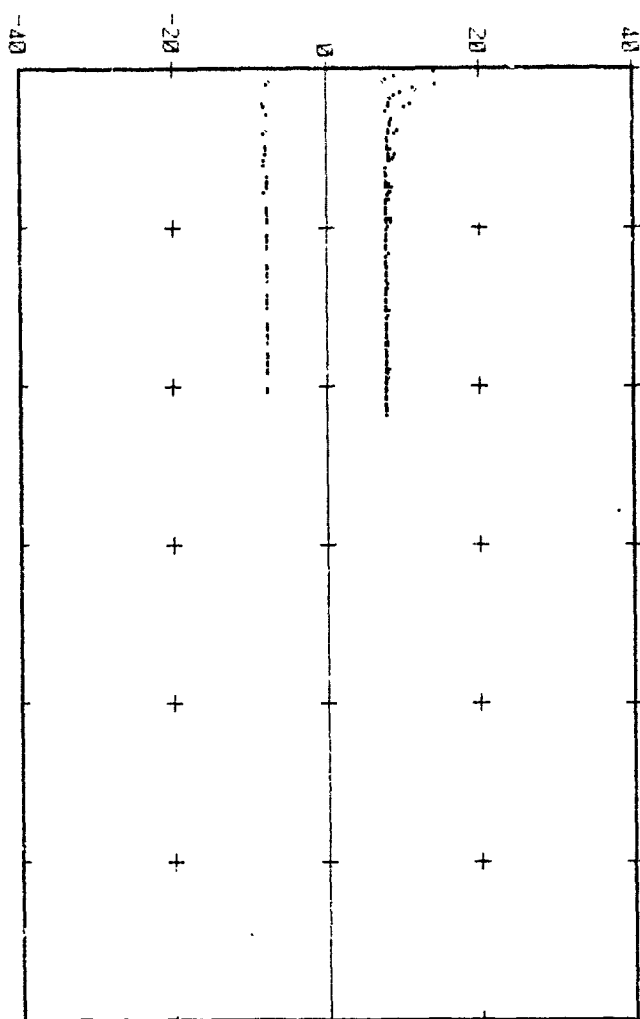
S 50 R 1000 F 70

LRAPP

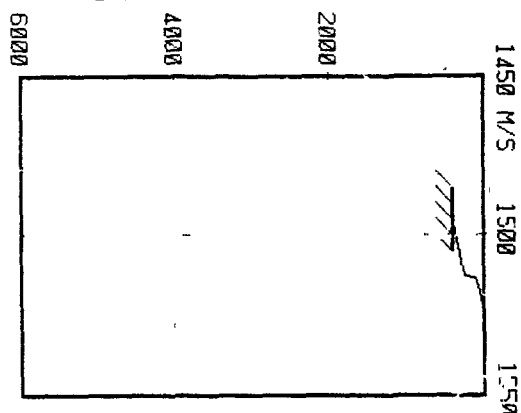
DB LOSS



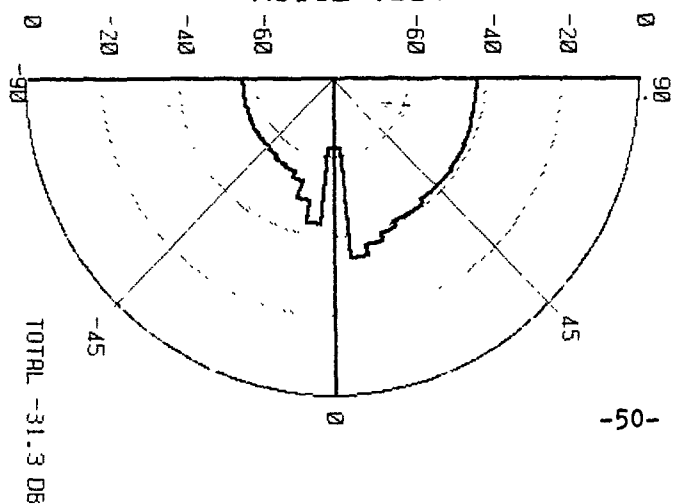
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

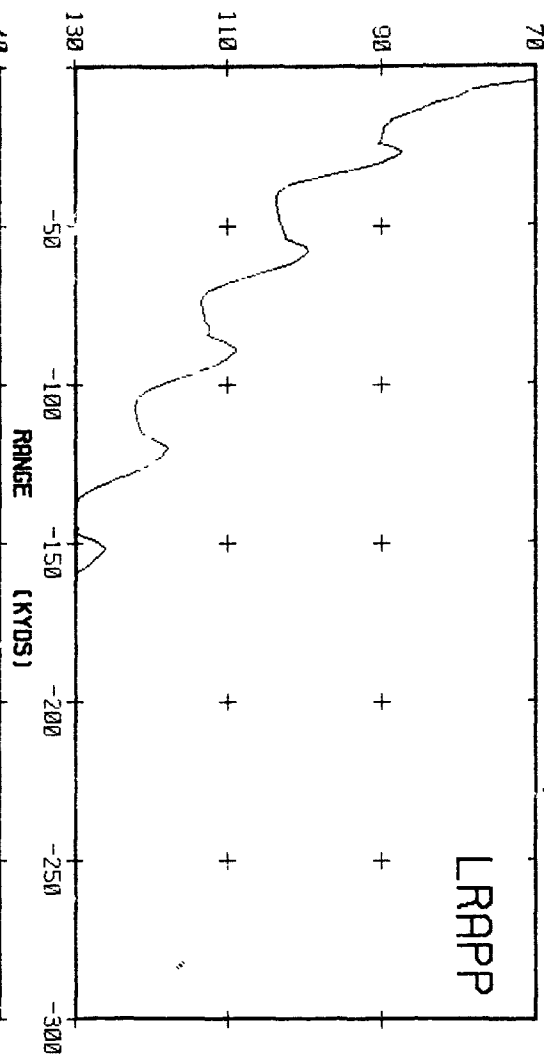


AREA 5 WINTER

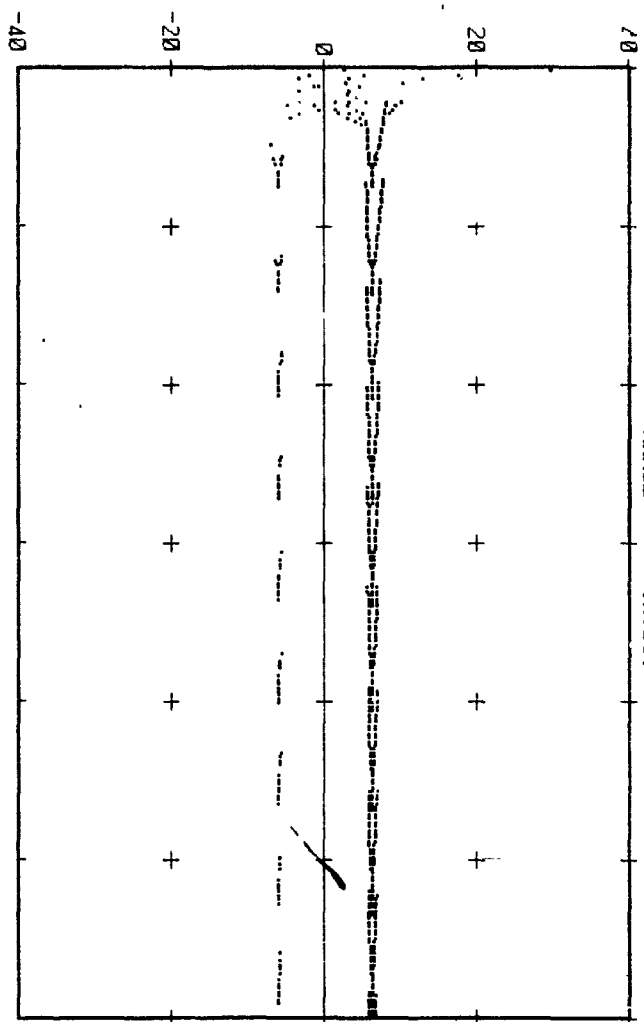
S 1020 R 1000 F 70

LRAPP

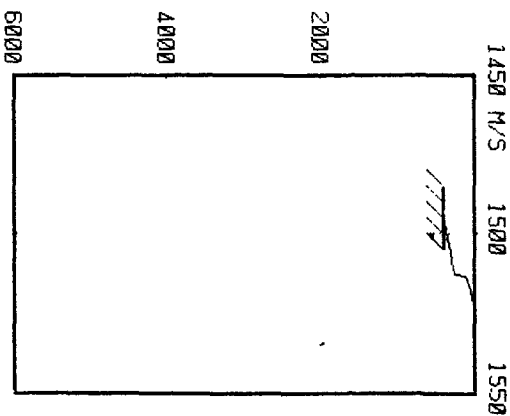
DB LOSS



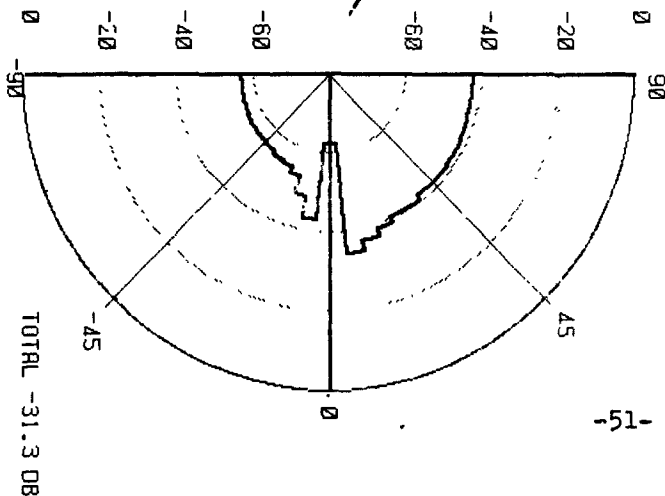
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



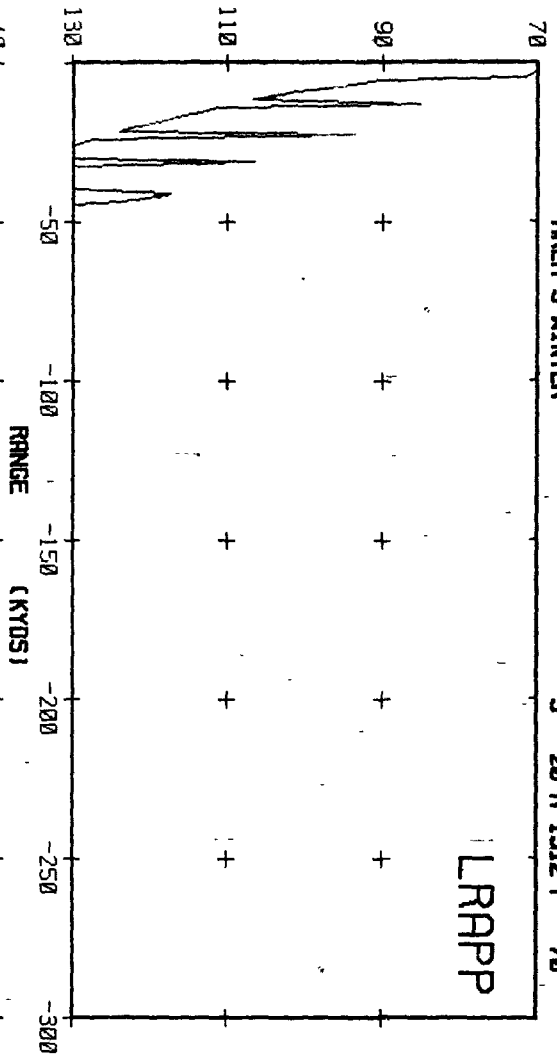
TOTAL -31.3 DB

PRER 5 WINTER

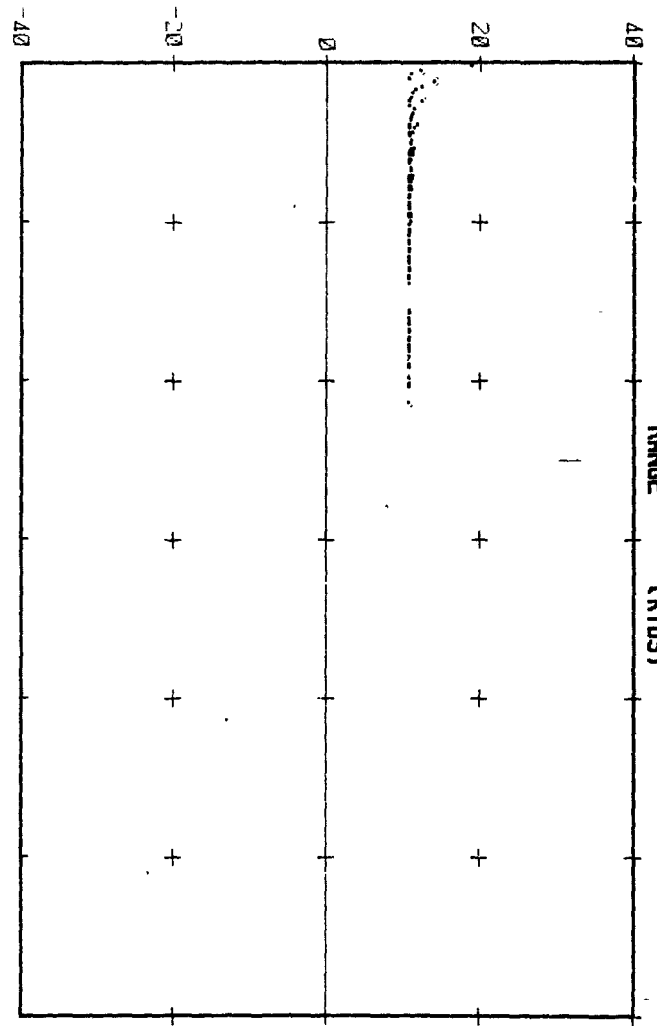
S 20 R 1312 F 70

1450 M/S 1500 1550

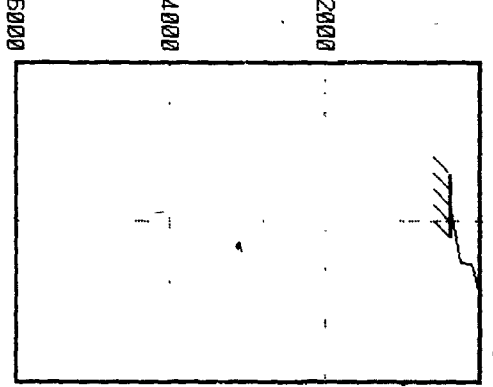
DB LOSS



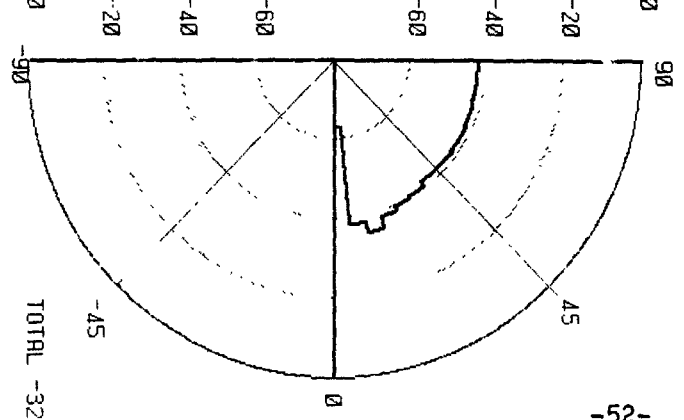
ARRIVAL ANGLE



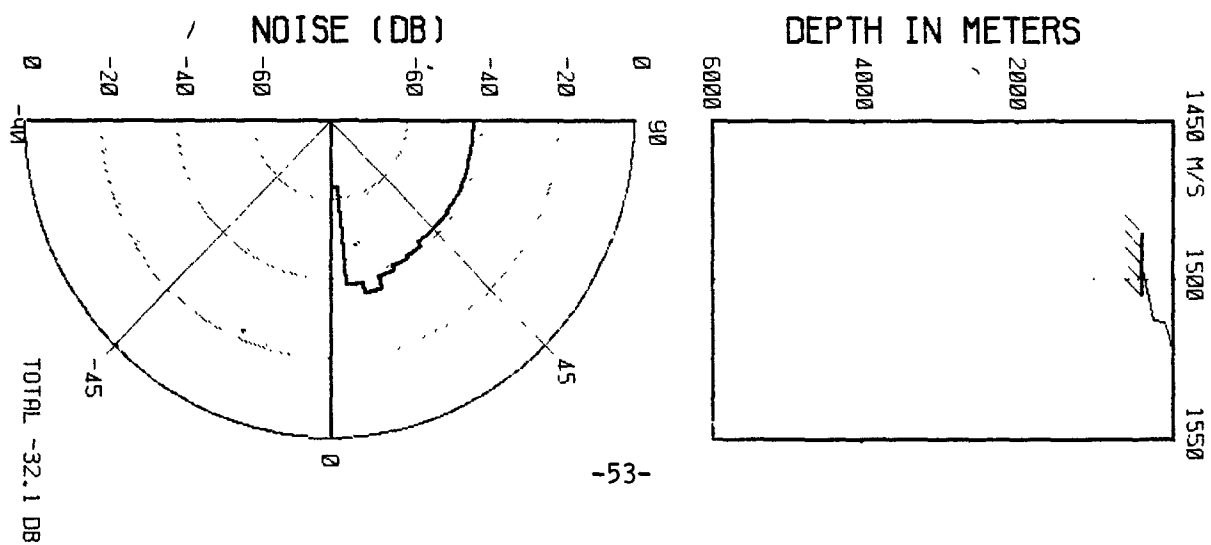
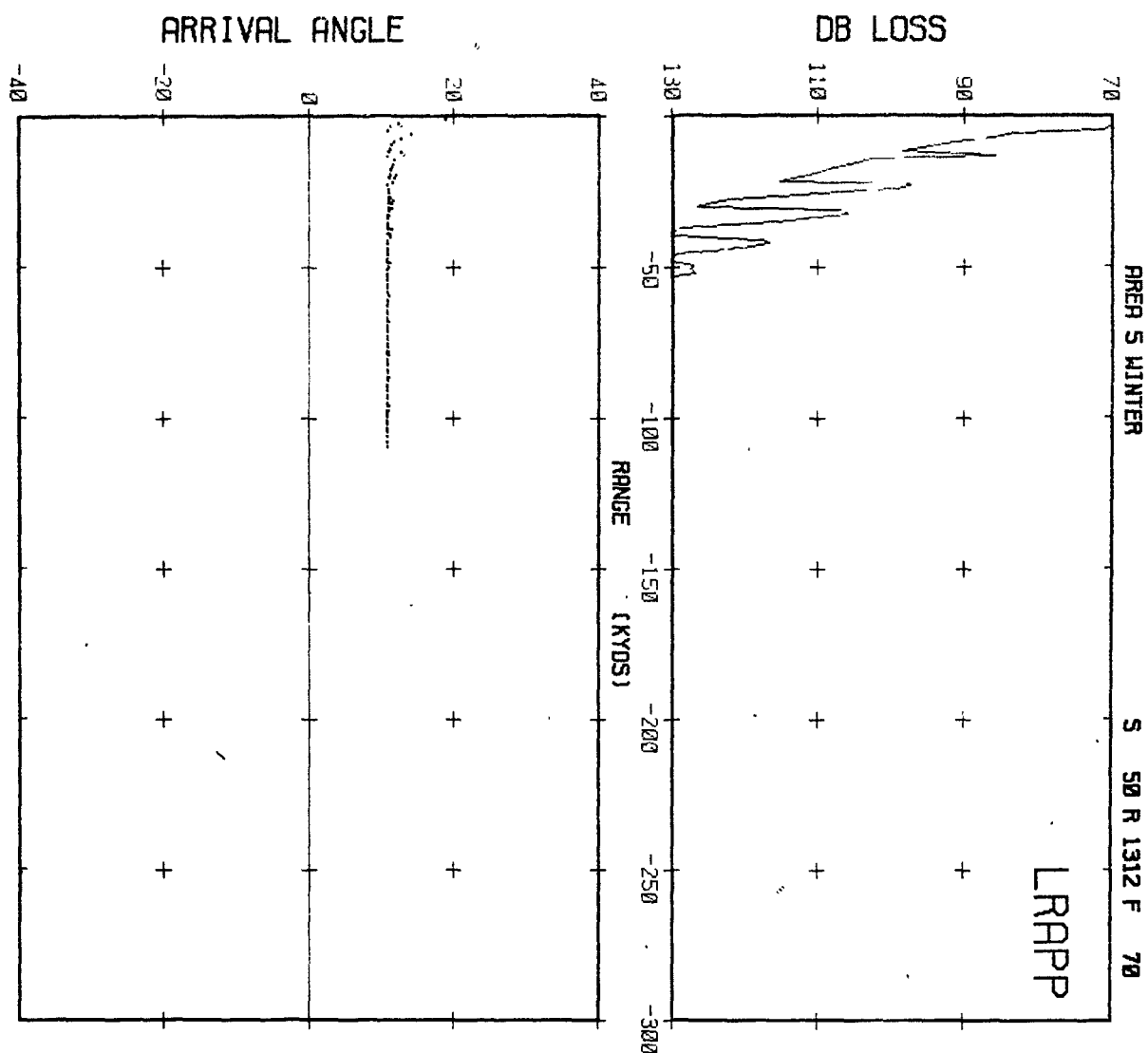
DEPTH IN METERS



NOISE (DB)



TOTAL -32.1 DB

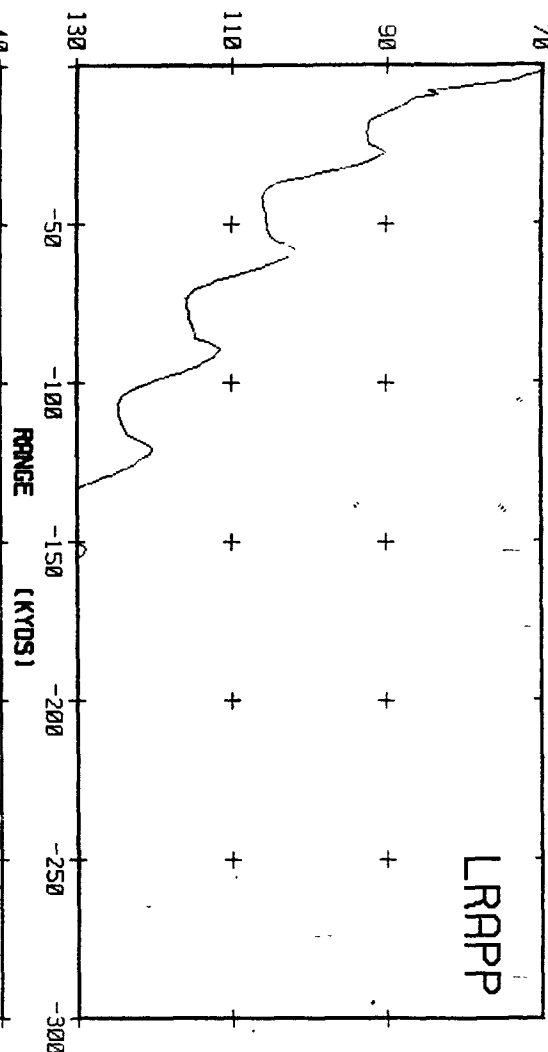


AREA 5 WINTER

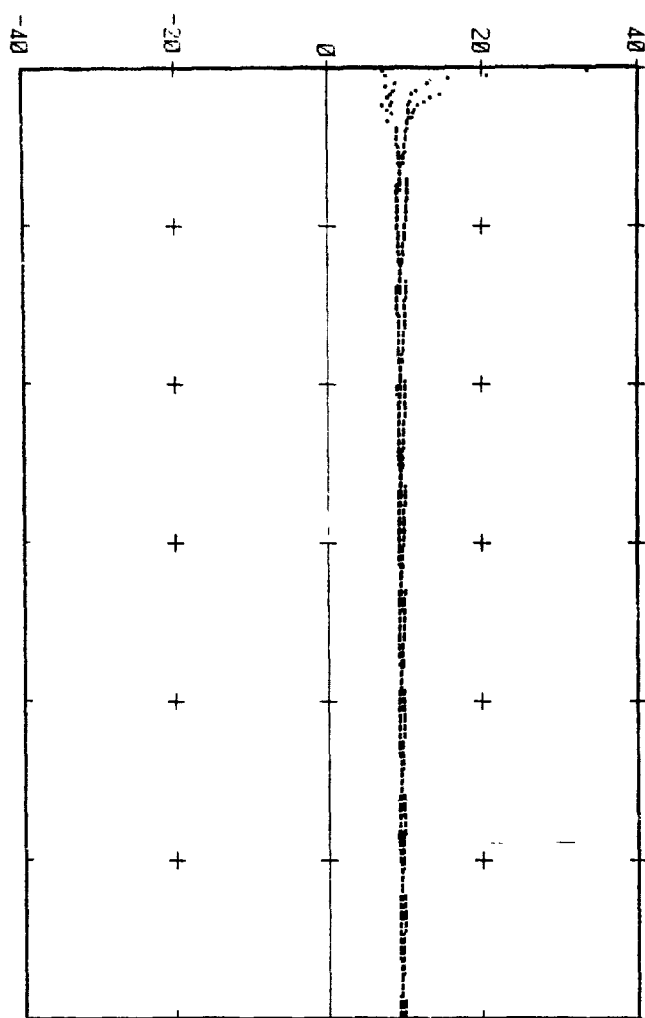
S 1020 R 1312 F 70

LRAPP

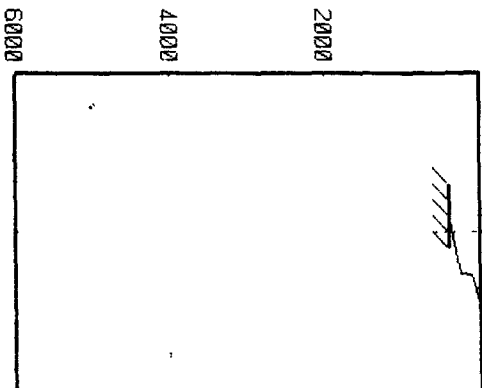
DB LOSS



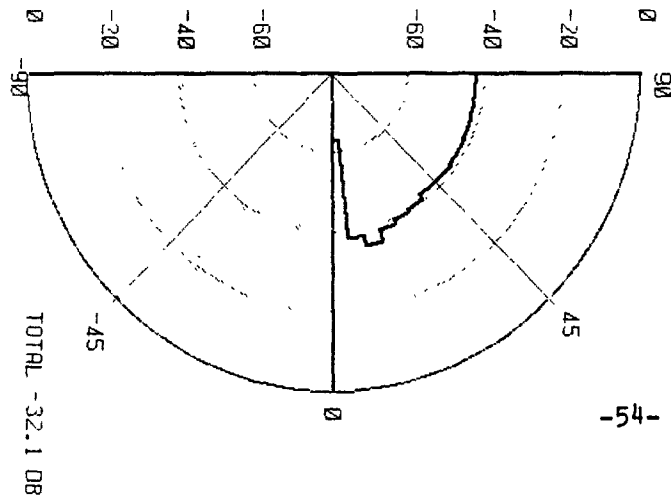
ARRIVAL ANGLE



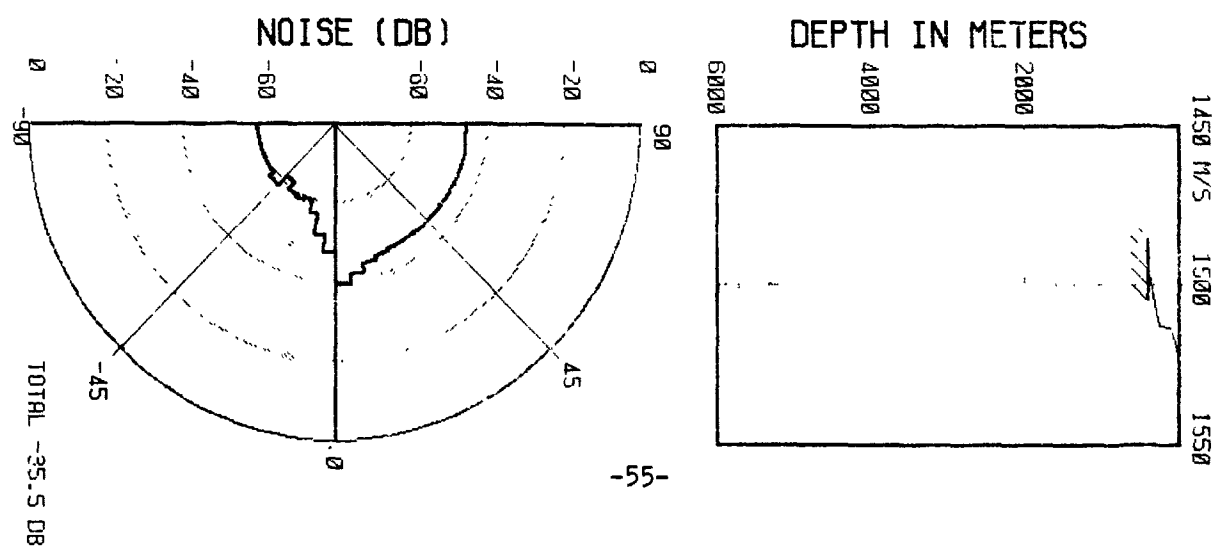
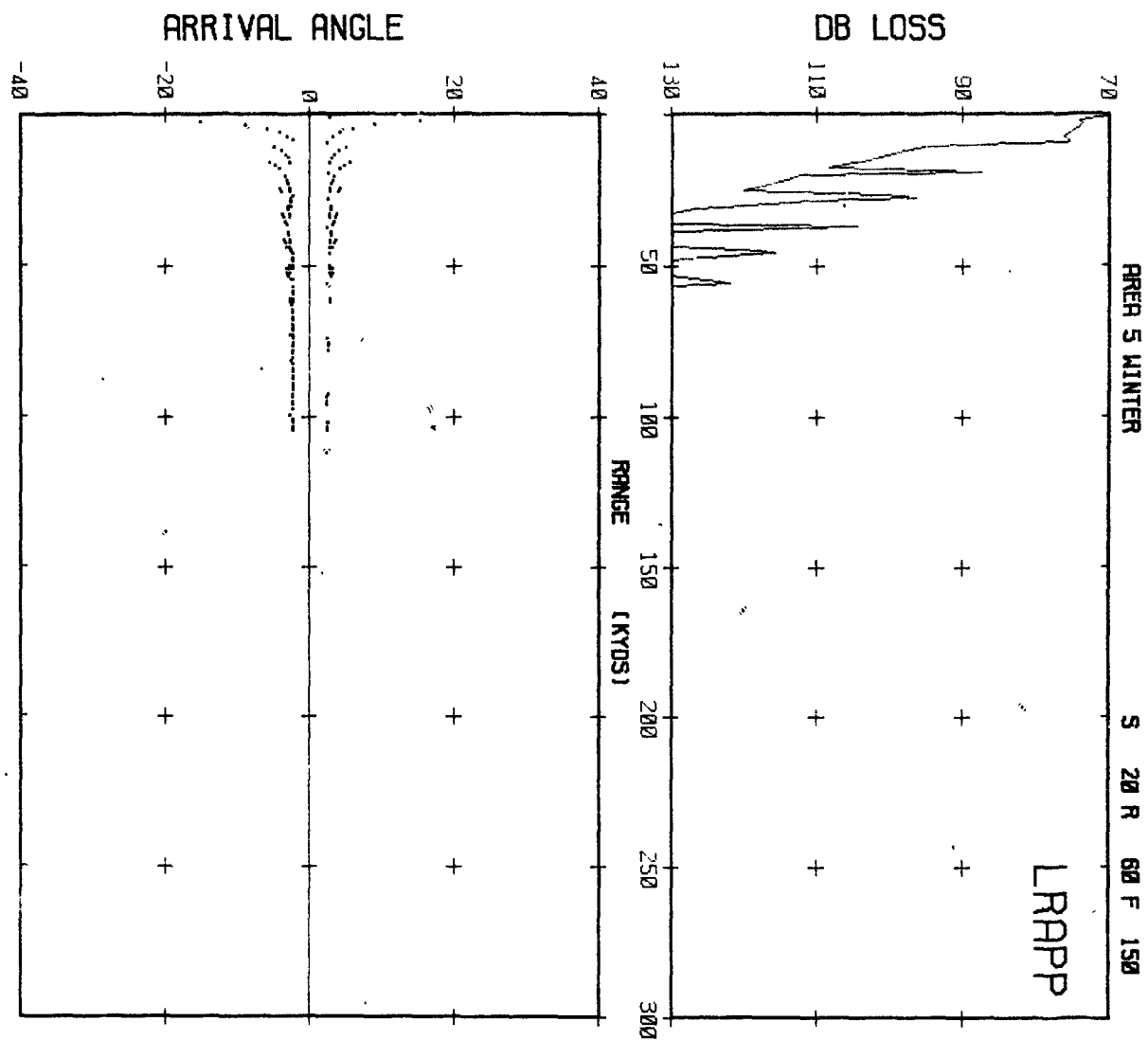
DEPTH IN METERS

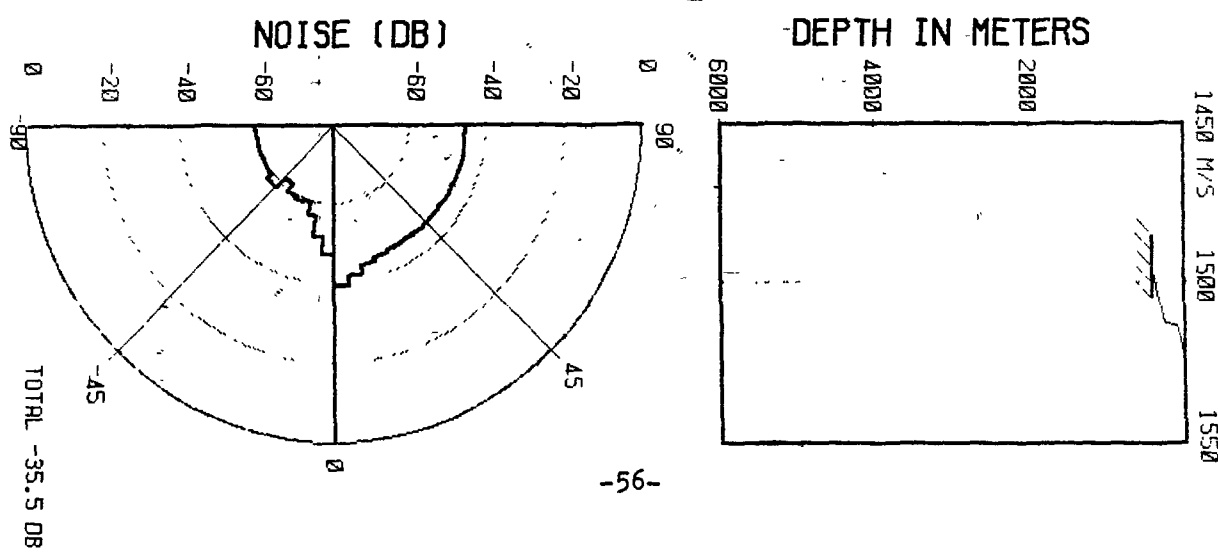
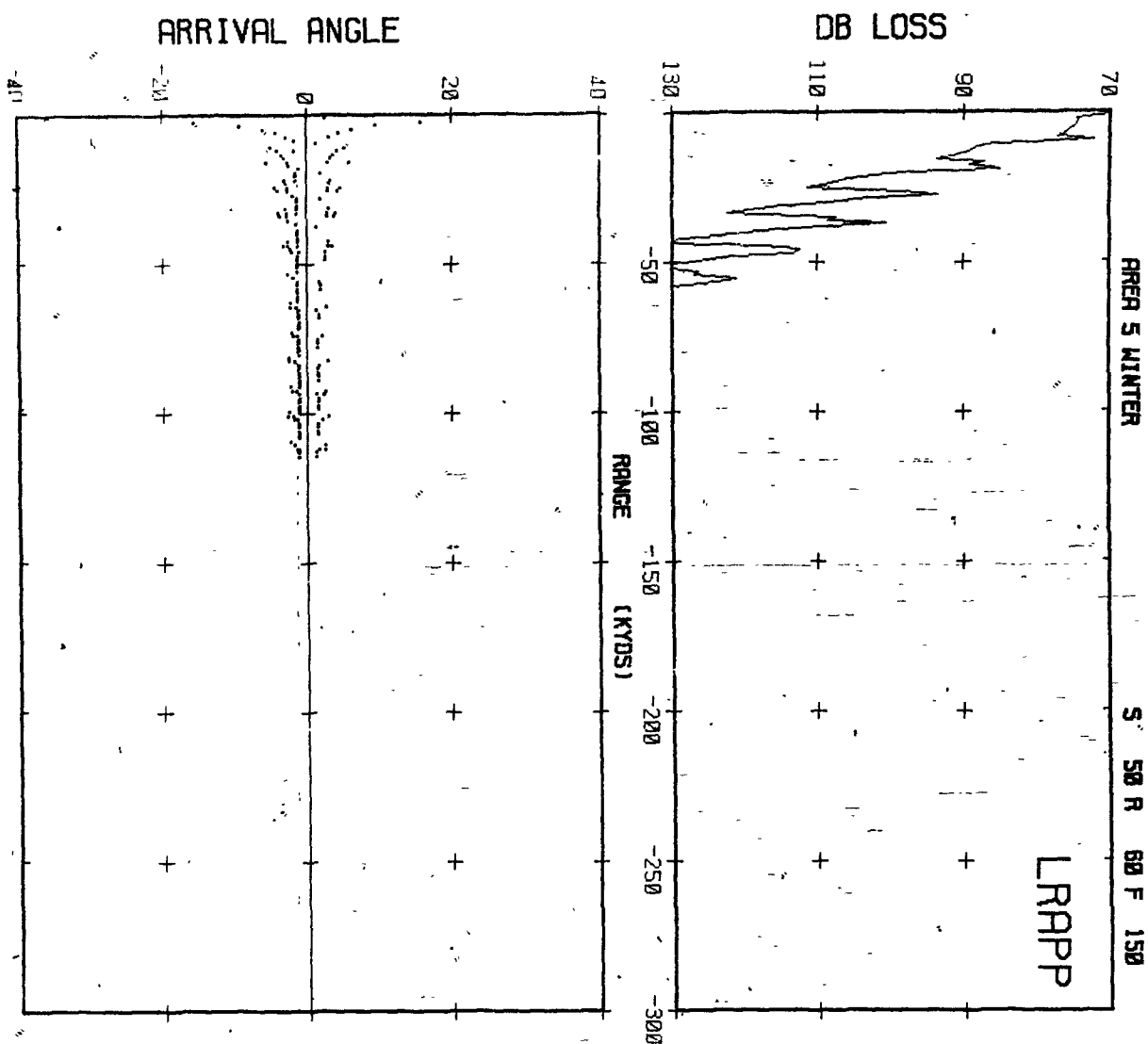


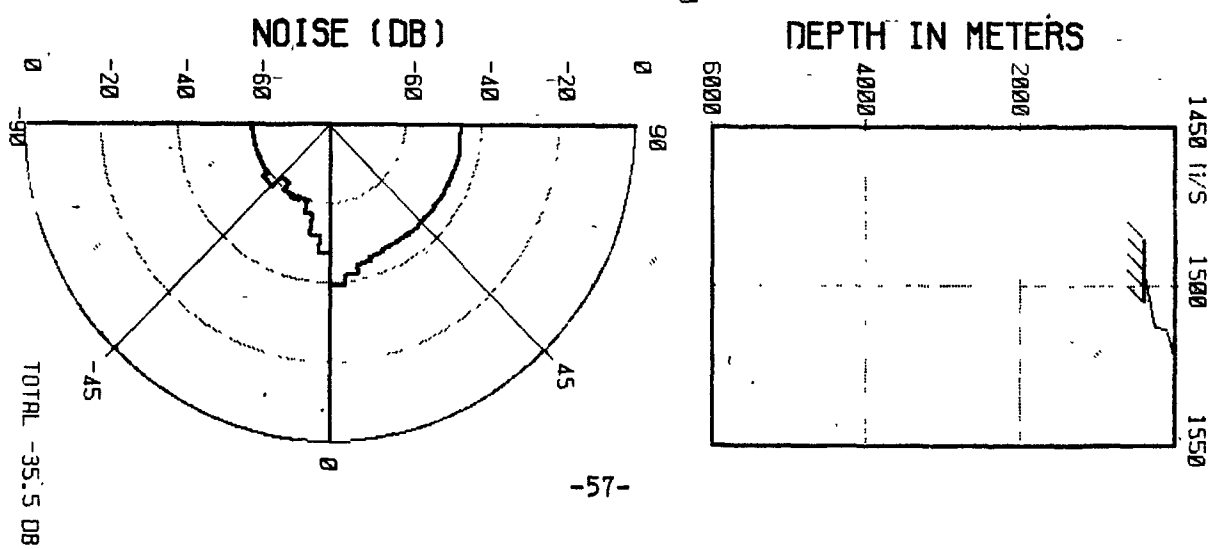
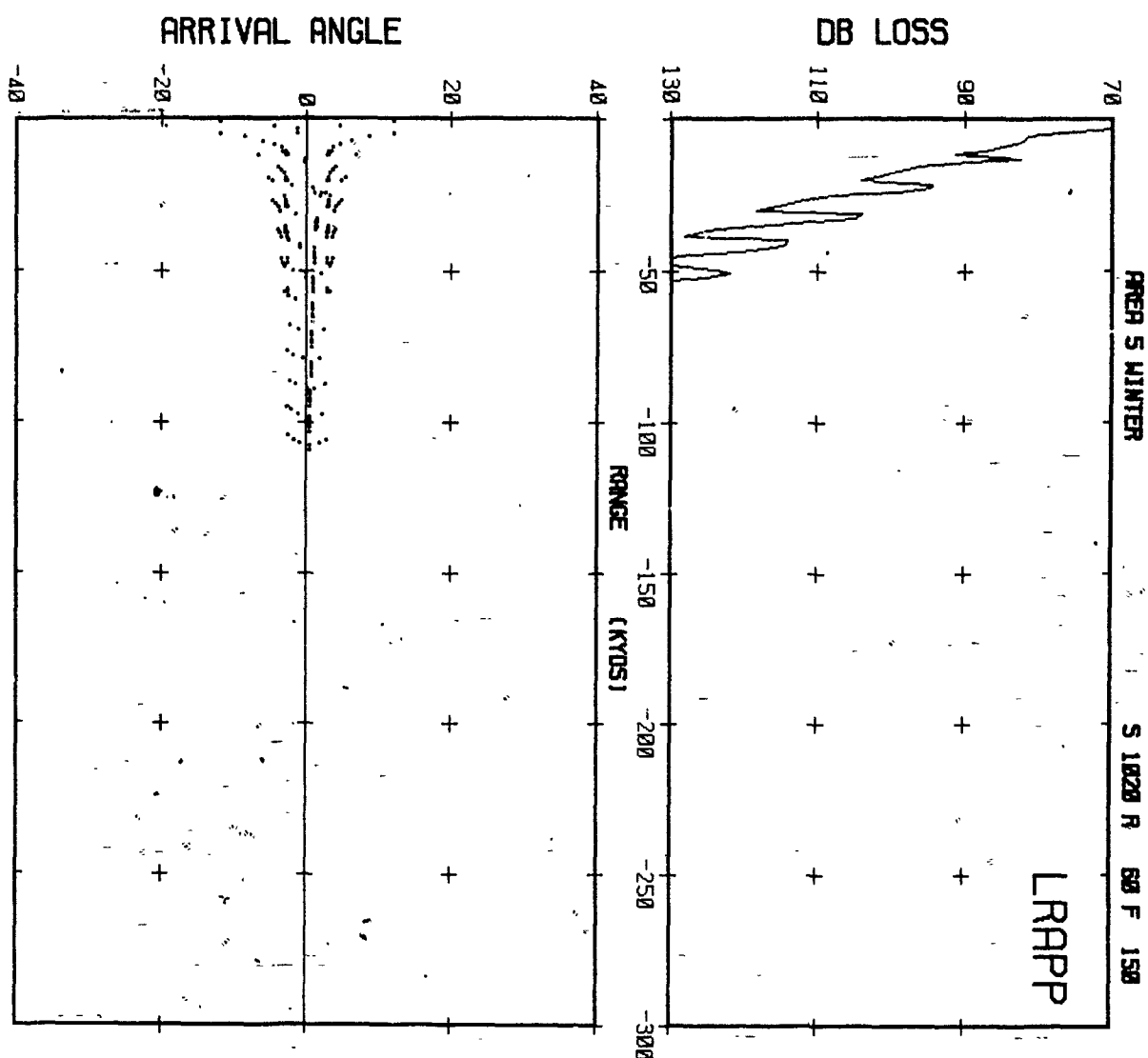
NOISE (DB)



1450 M/S 1500 1550





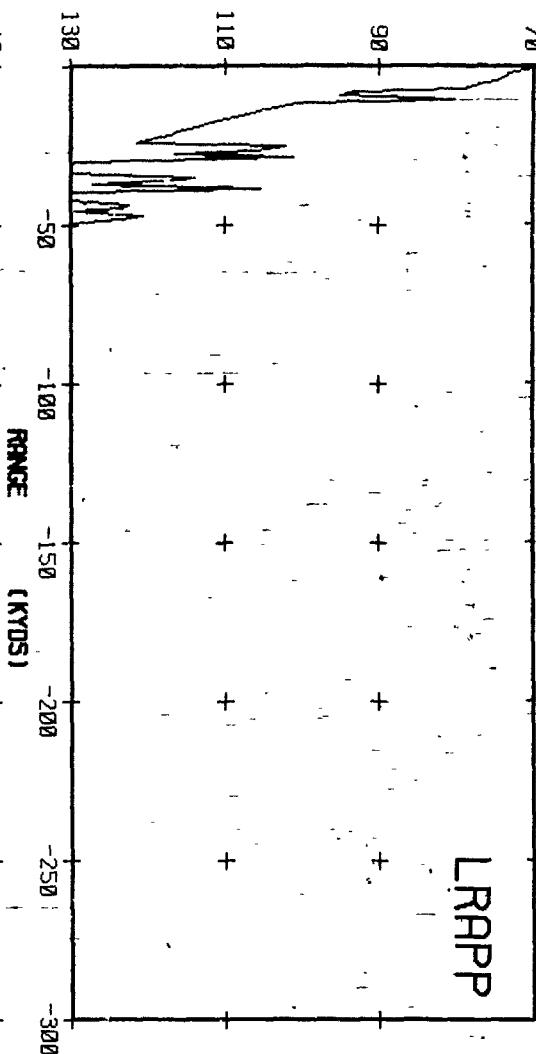


AREA 5 WINTER

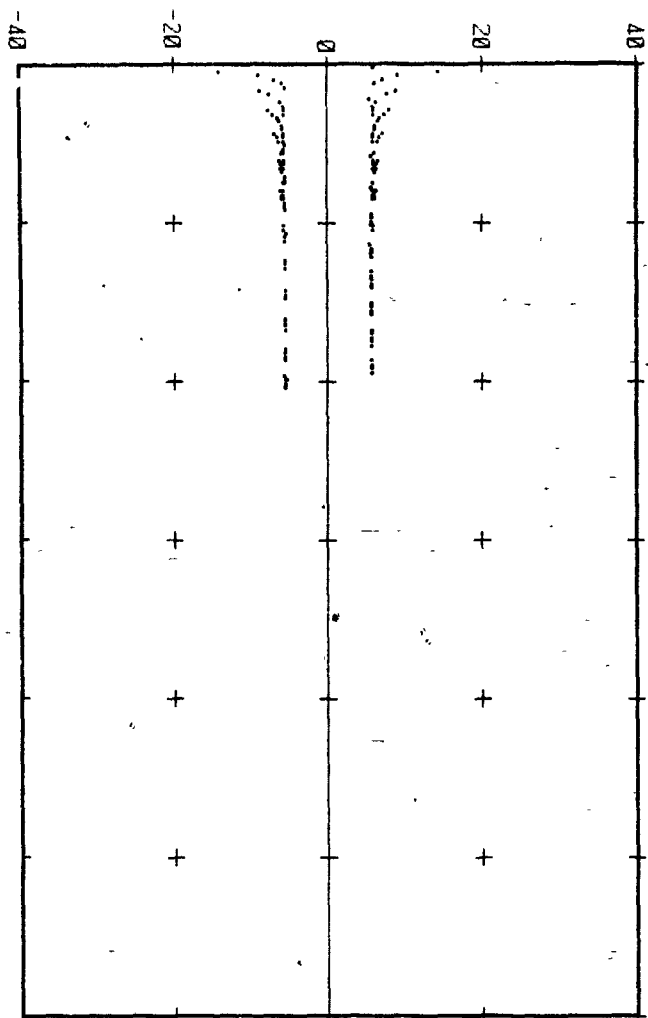
S 20 R 300 F 150

LRAPP

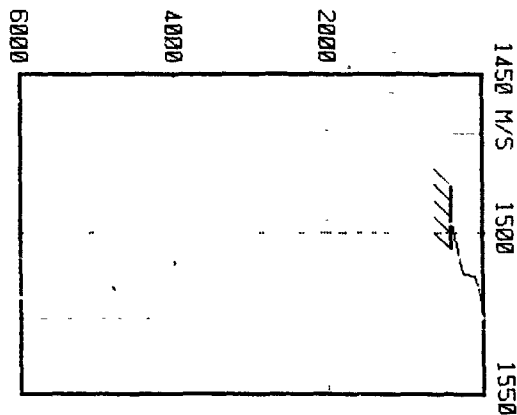
DB LOSS



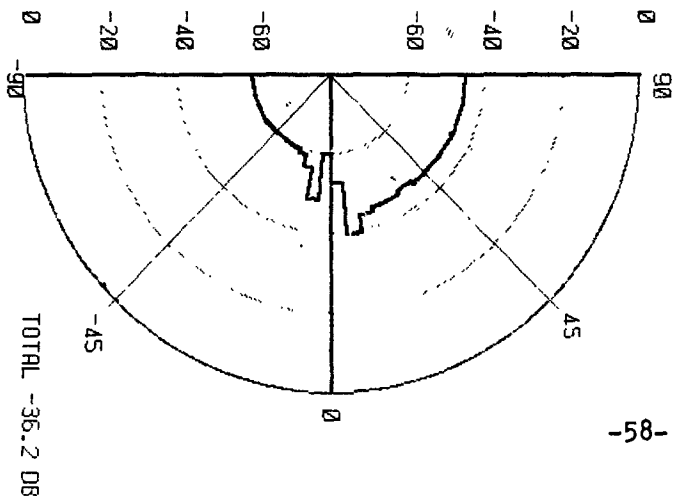
ARRIVAL ANGLE

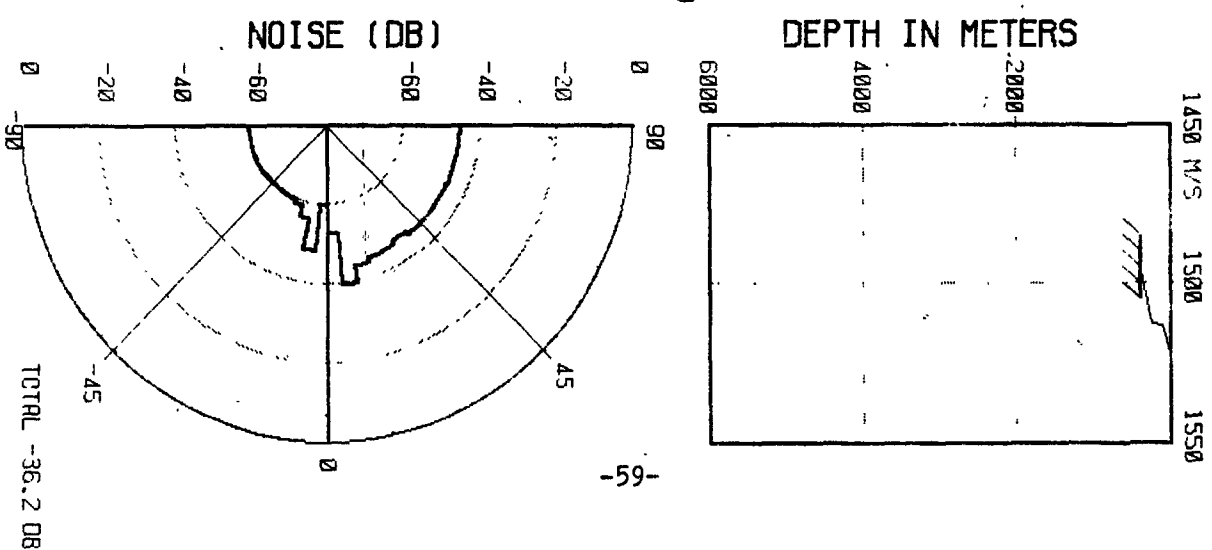
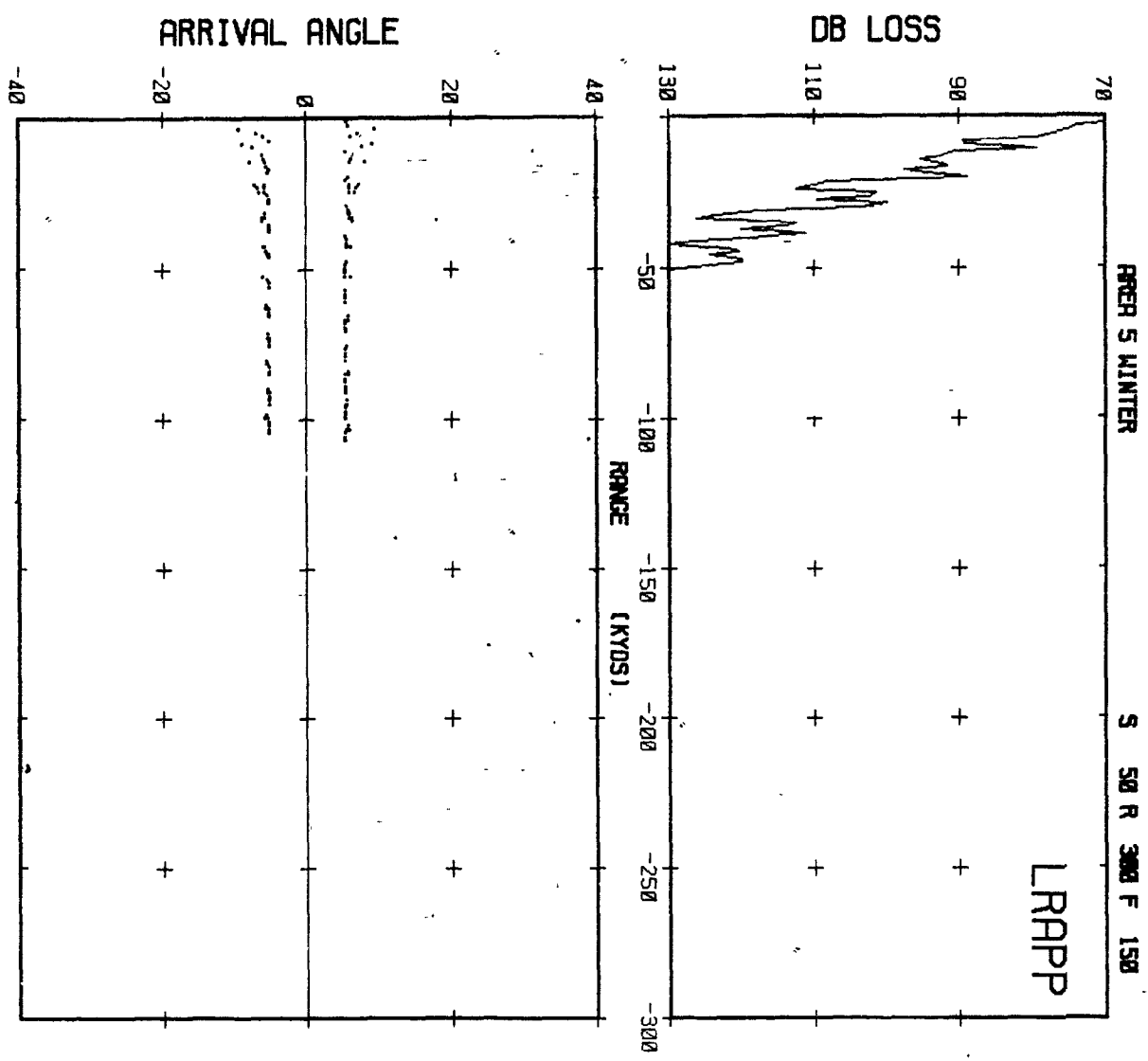


DEPTH IN METERS



NOISE (DB)

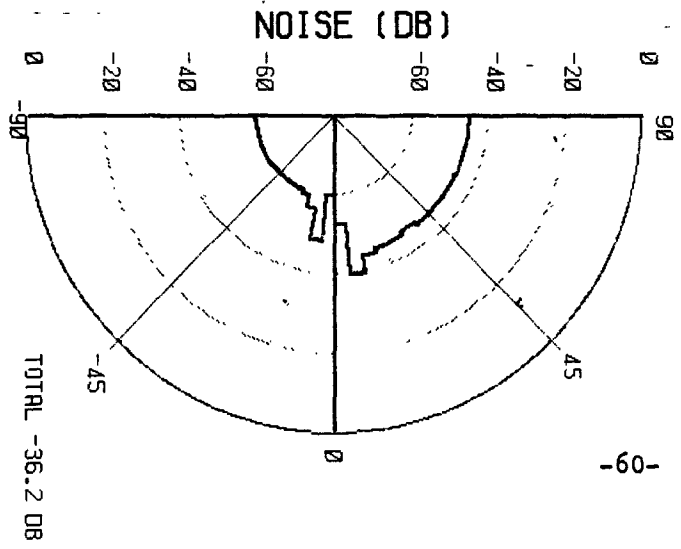
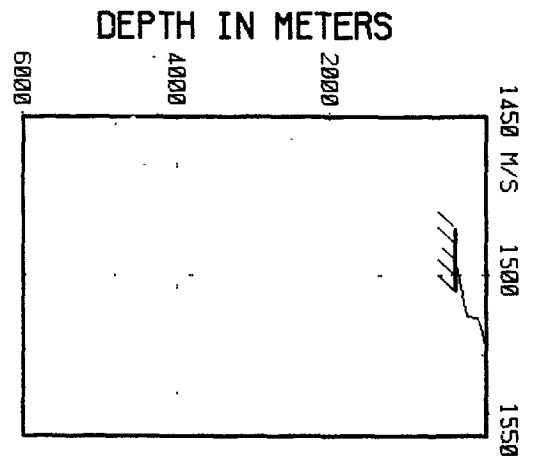
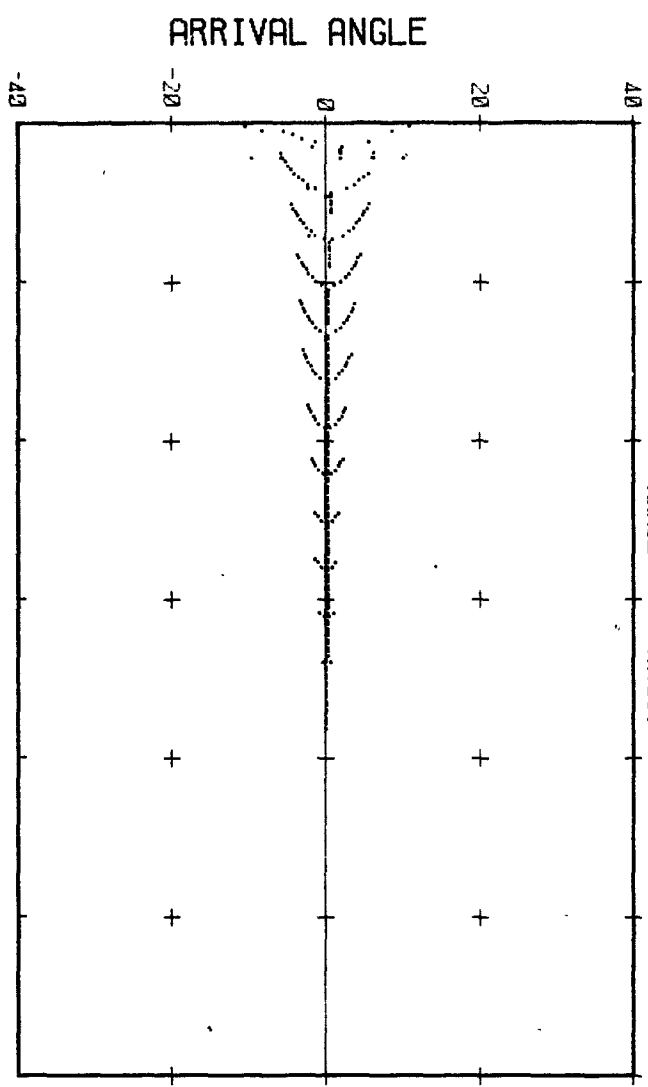
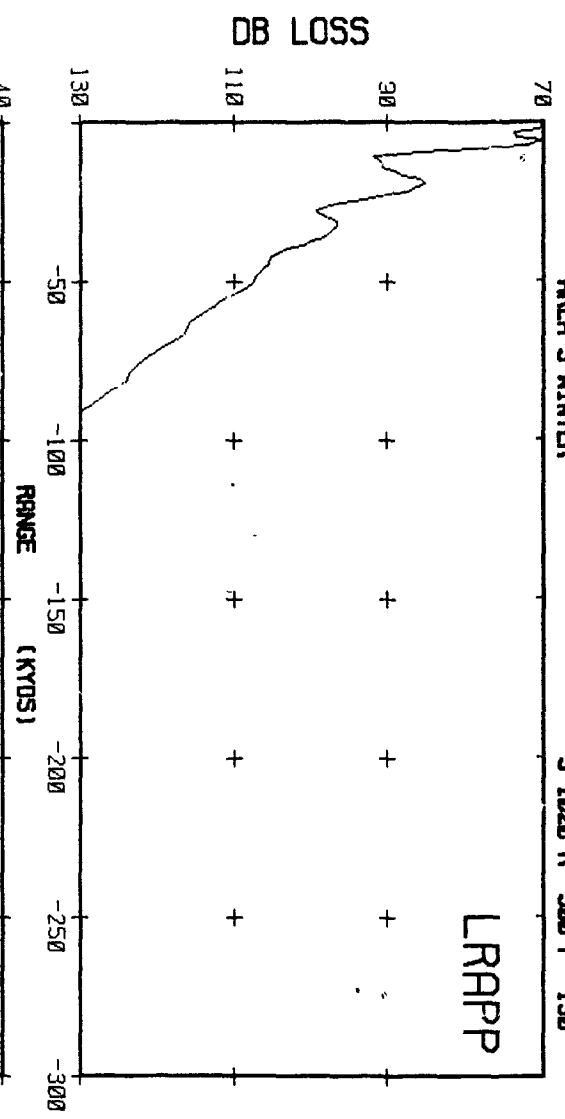




154700Z APR 70
FM JCRC
TO: JCRC
INFO: JCRC
SUBJ: LRAPP

AREA 5 HINTER S 1020 R 300 F 150

LRAPP

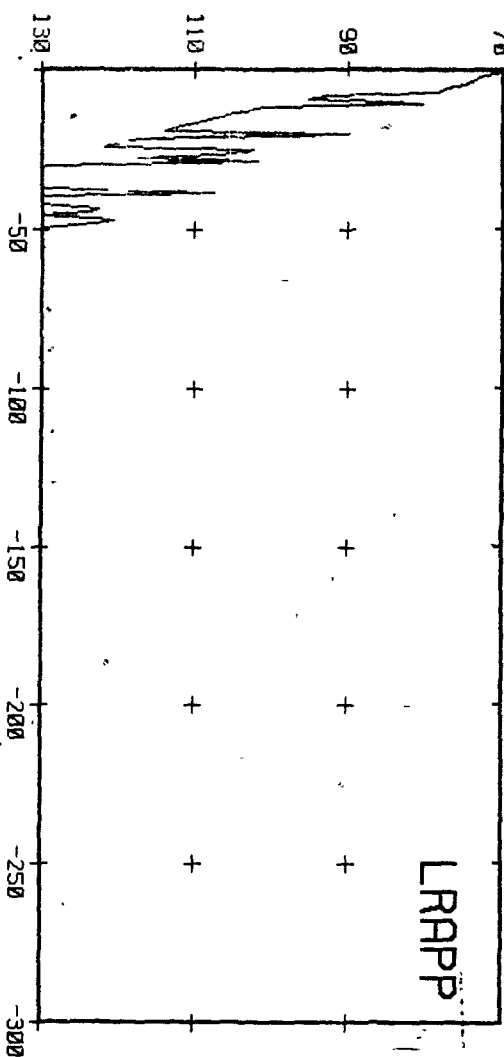


AREA 5 WINTER

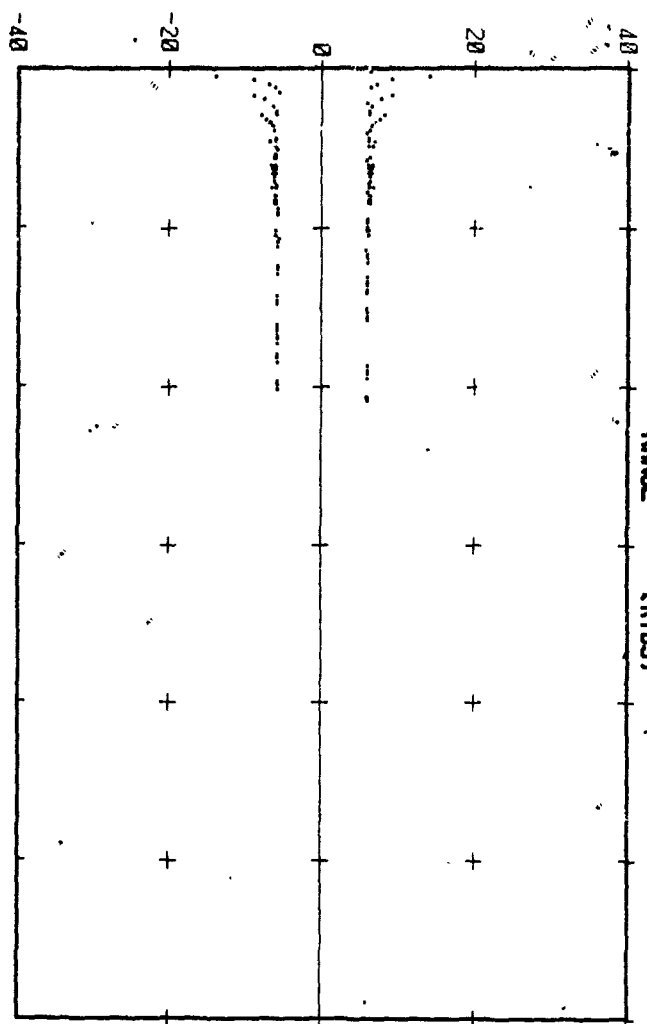
S 20 R 328 F 150

1450 M/S 1500 1550

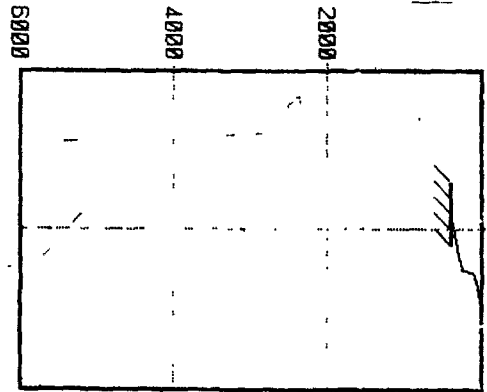
DB LOSS



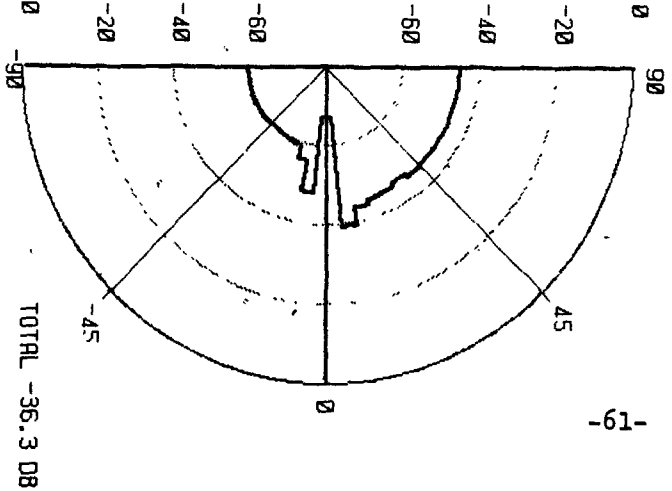
ARRIVAL ANGLE

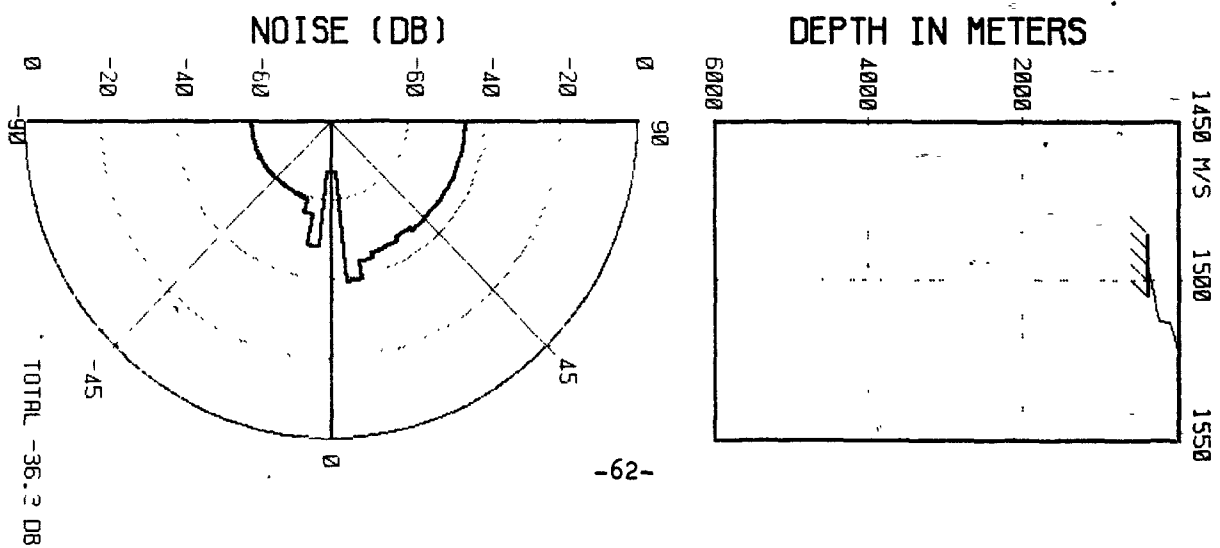
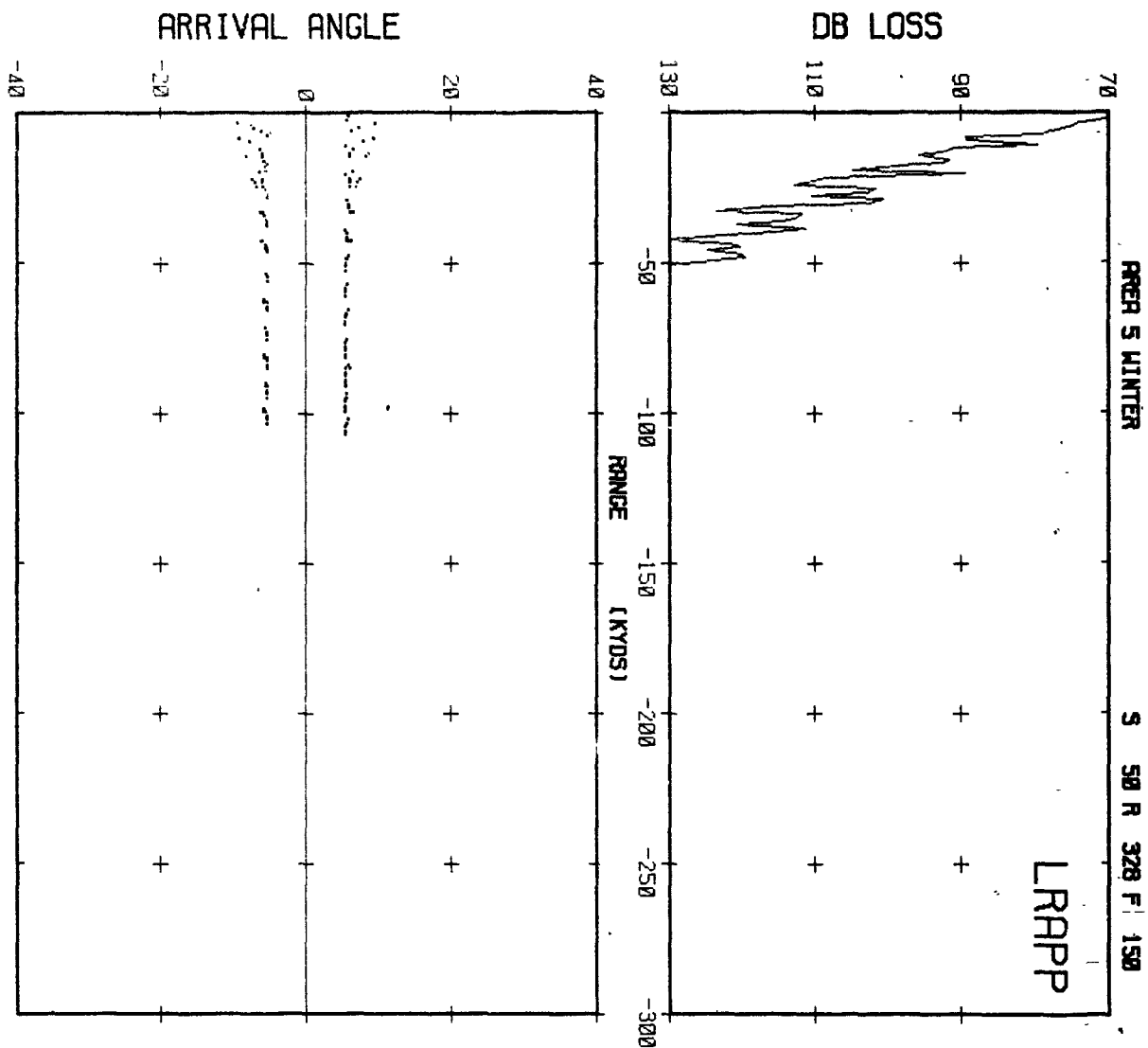


DEPTH IN METERS



NOISE (DB)



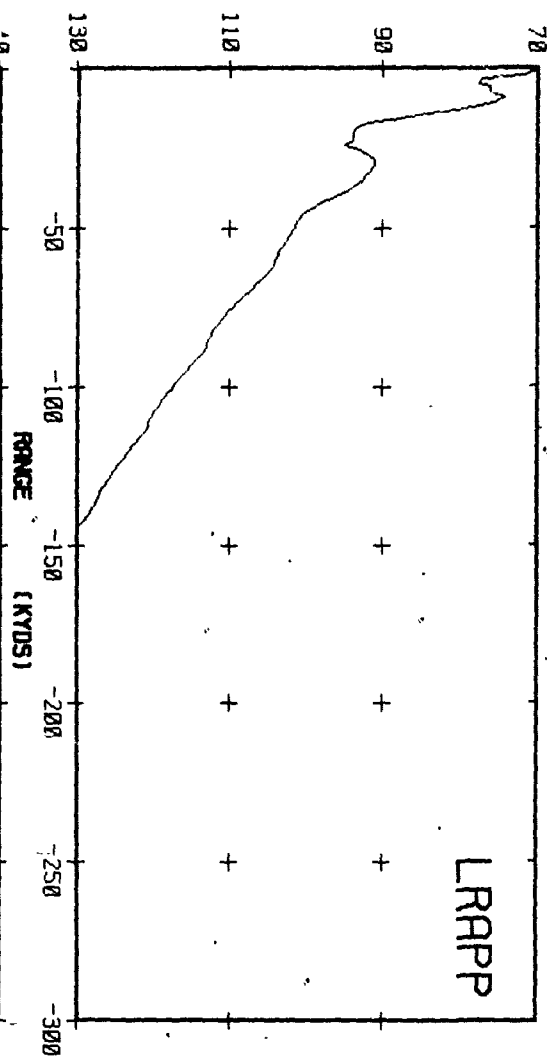


RRER 5 WINTER

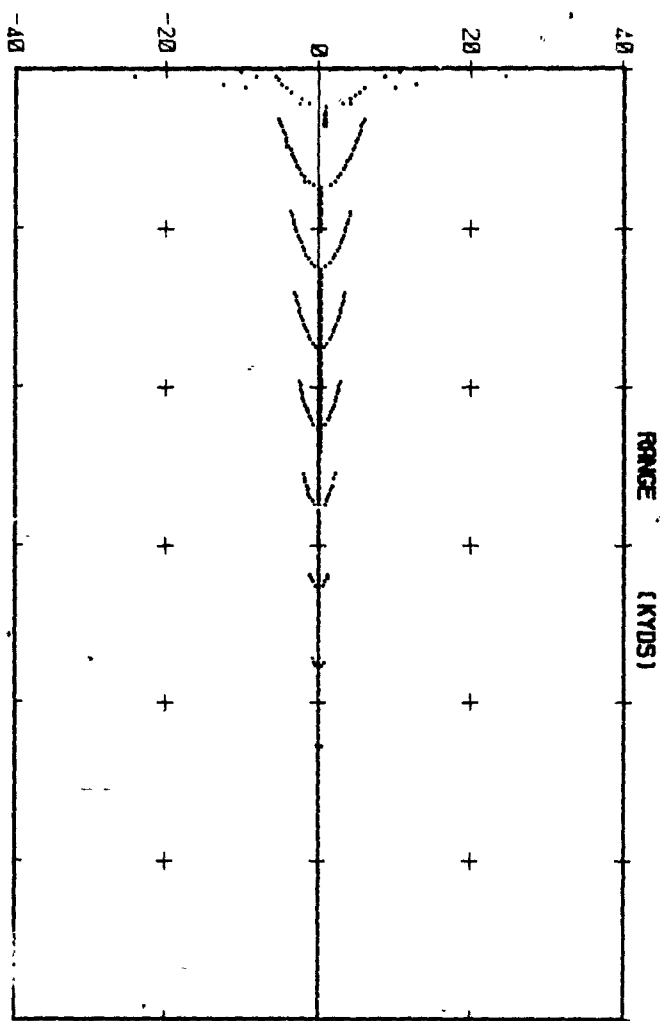
S 1026 R 328 F 150

LRAPP

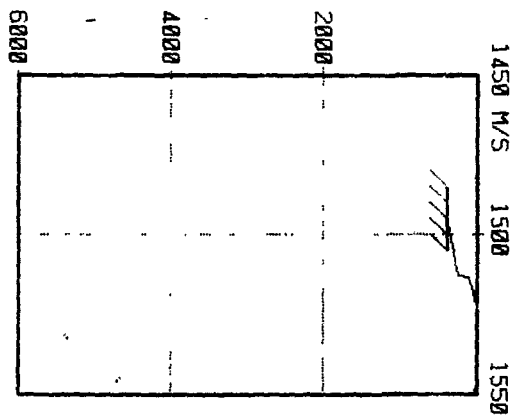
DB LOSS



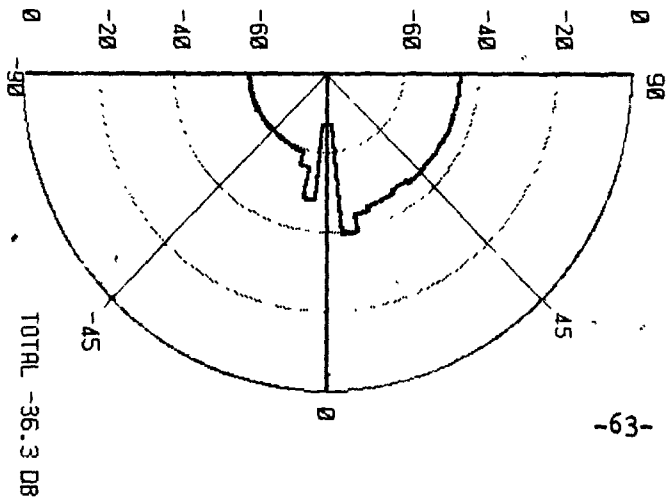
ARRIVAL ANGLE



DEPTH IN METERS

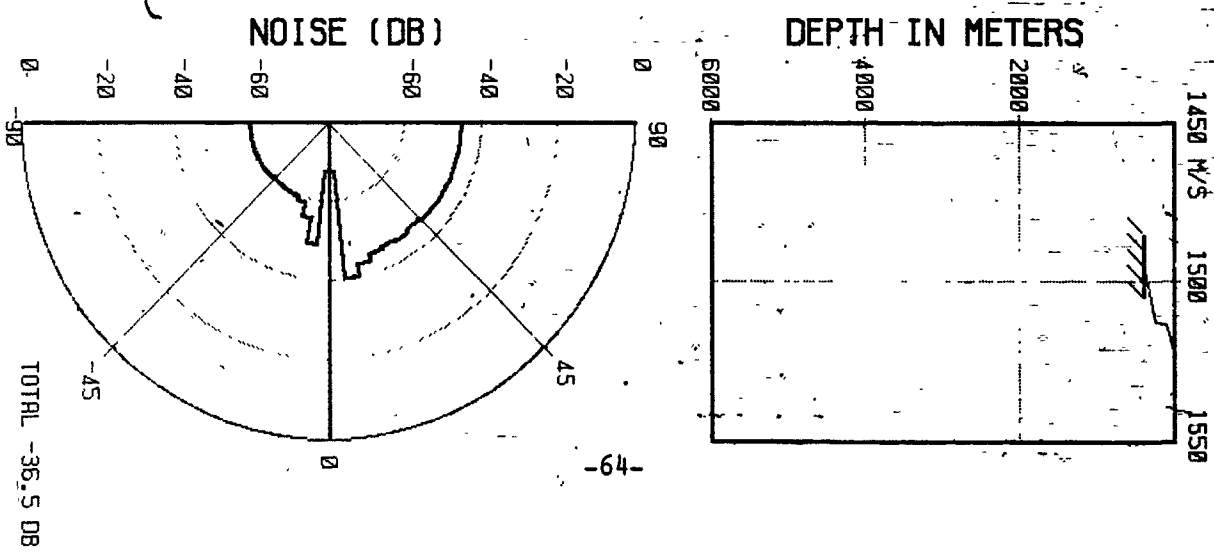
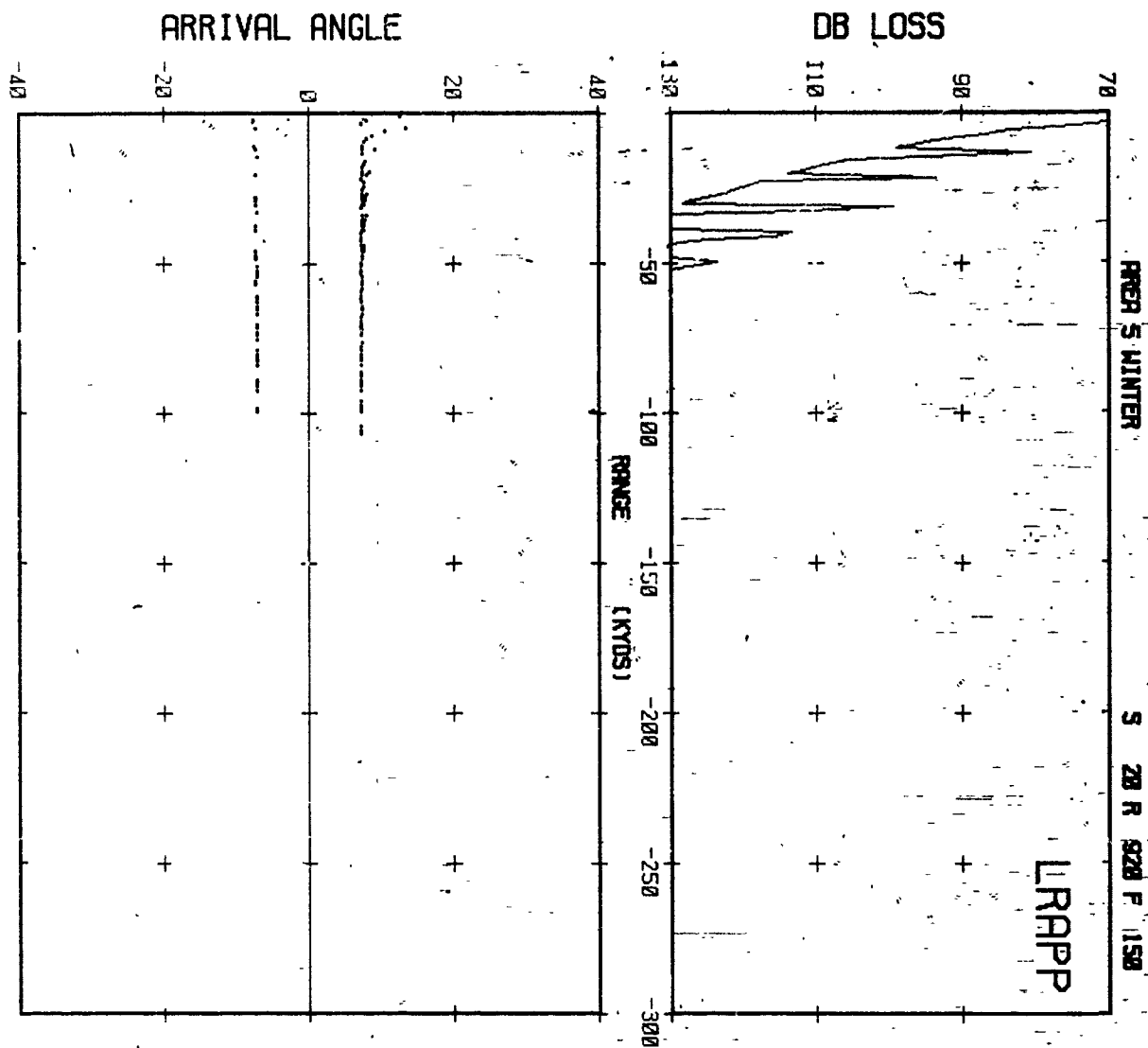


NOISE (DB)



TOTAL -36.3 DB

1. 1000 Hz
 2. 100 Hz
 3. 10 Hz



AREA 5 WINTER

S 20 R 920 F 1150

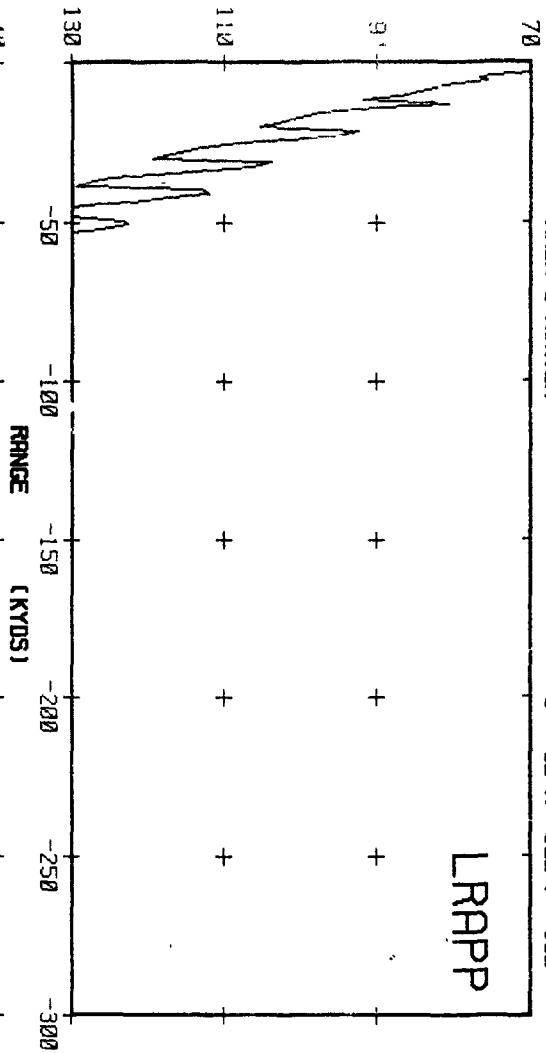
1450 H/S 1500 1550

PRER 5 WINTER

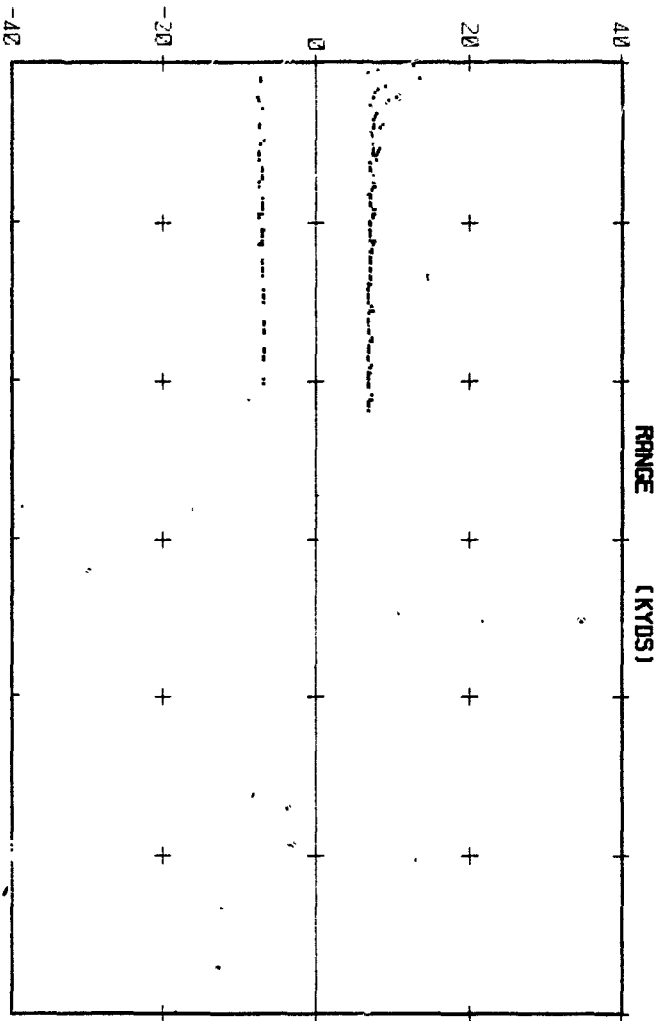
S 50 R 920 F 150

LRAPP

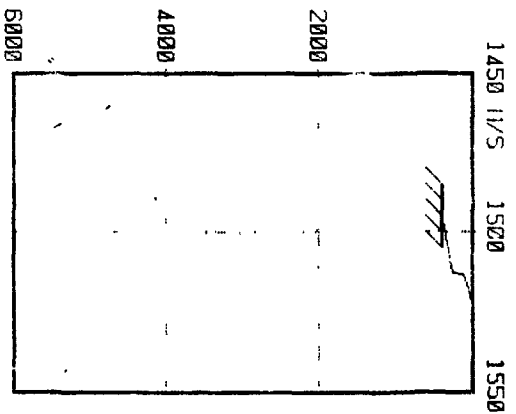
DB LOSS



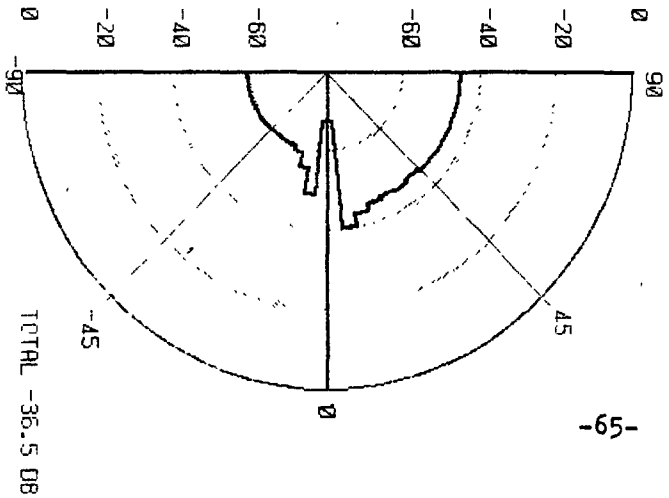
ARRIVAL ANGLE

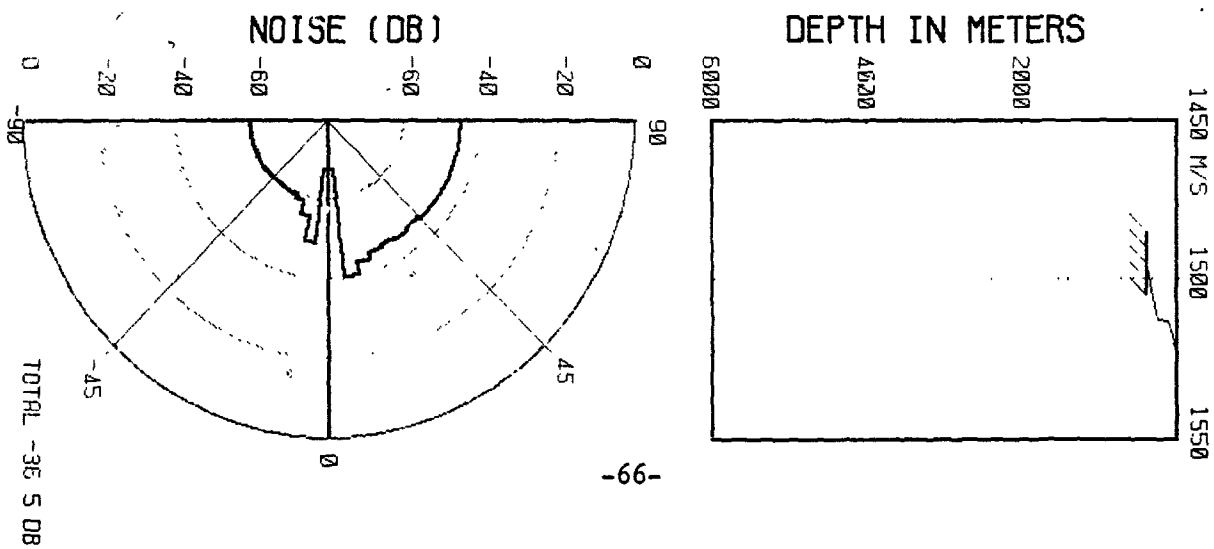
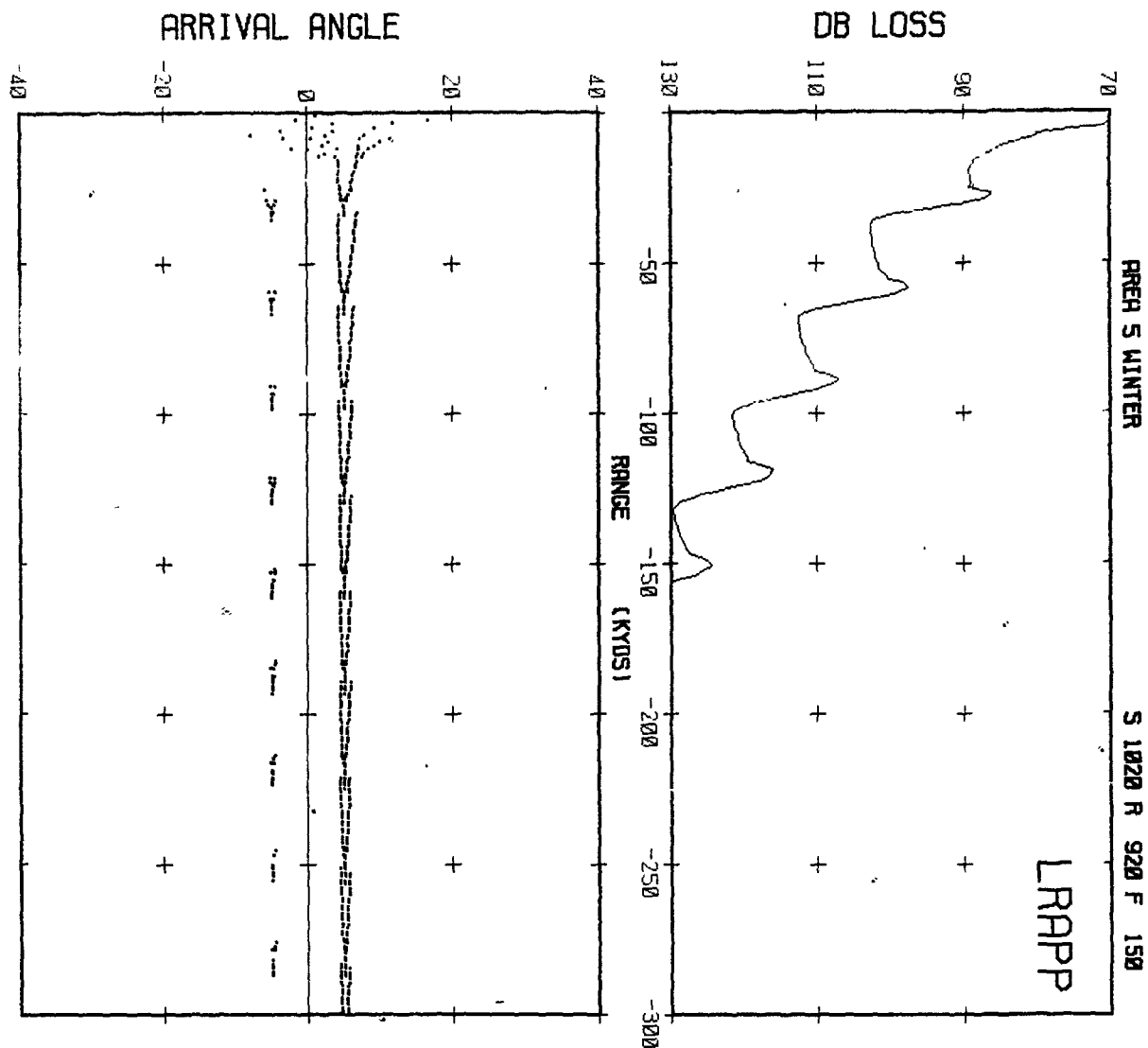


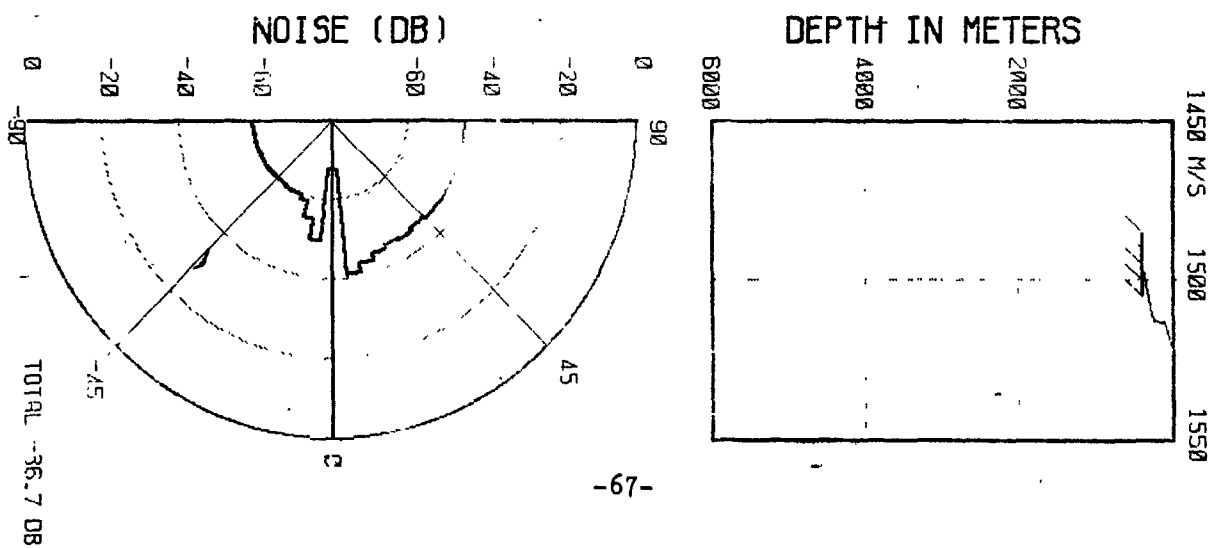
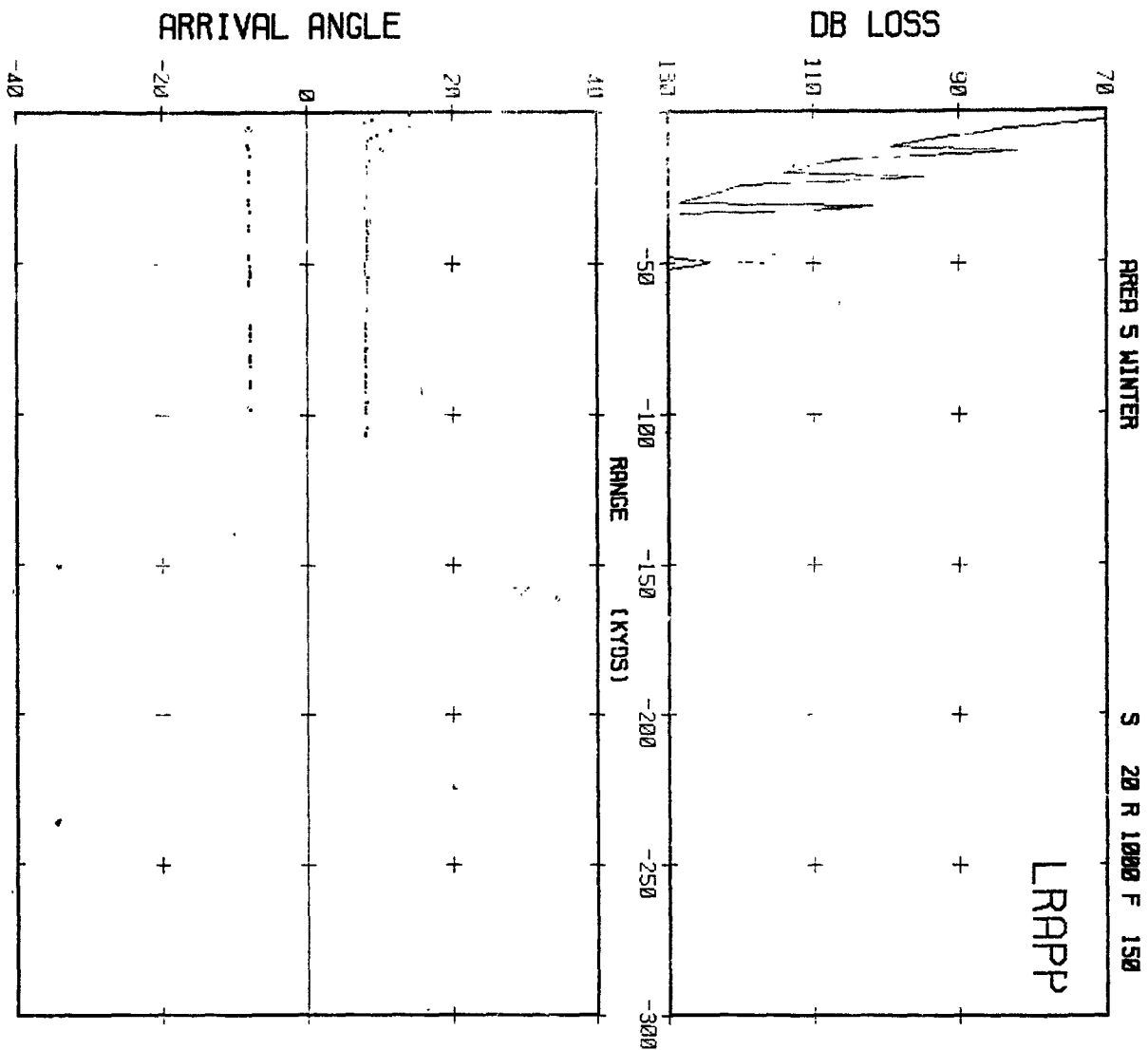
DEPTH IN METERS

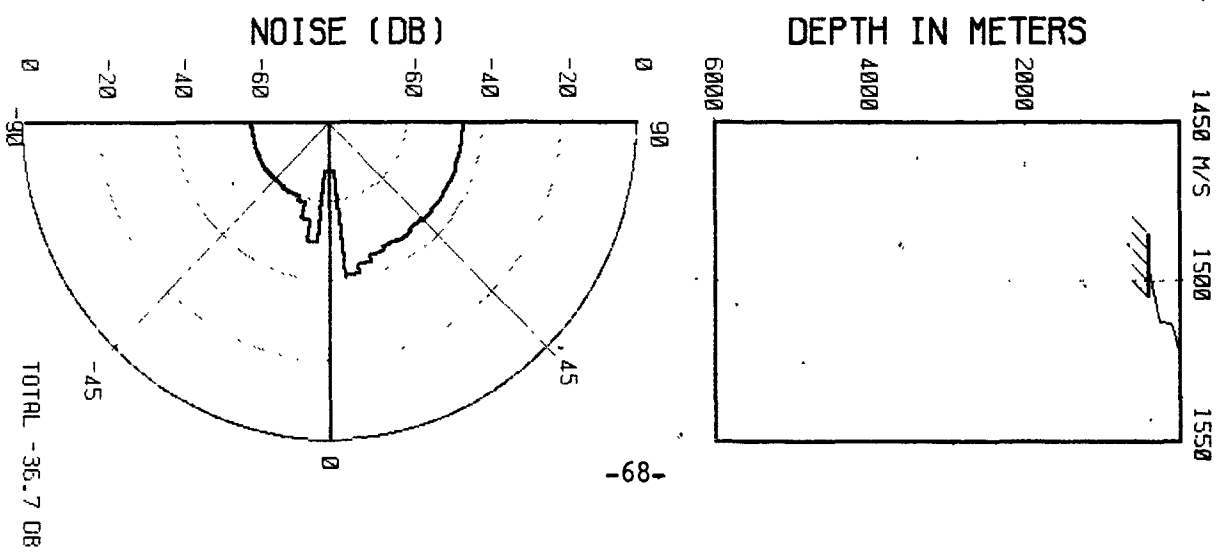
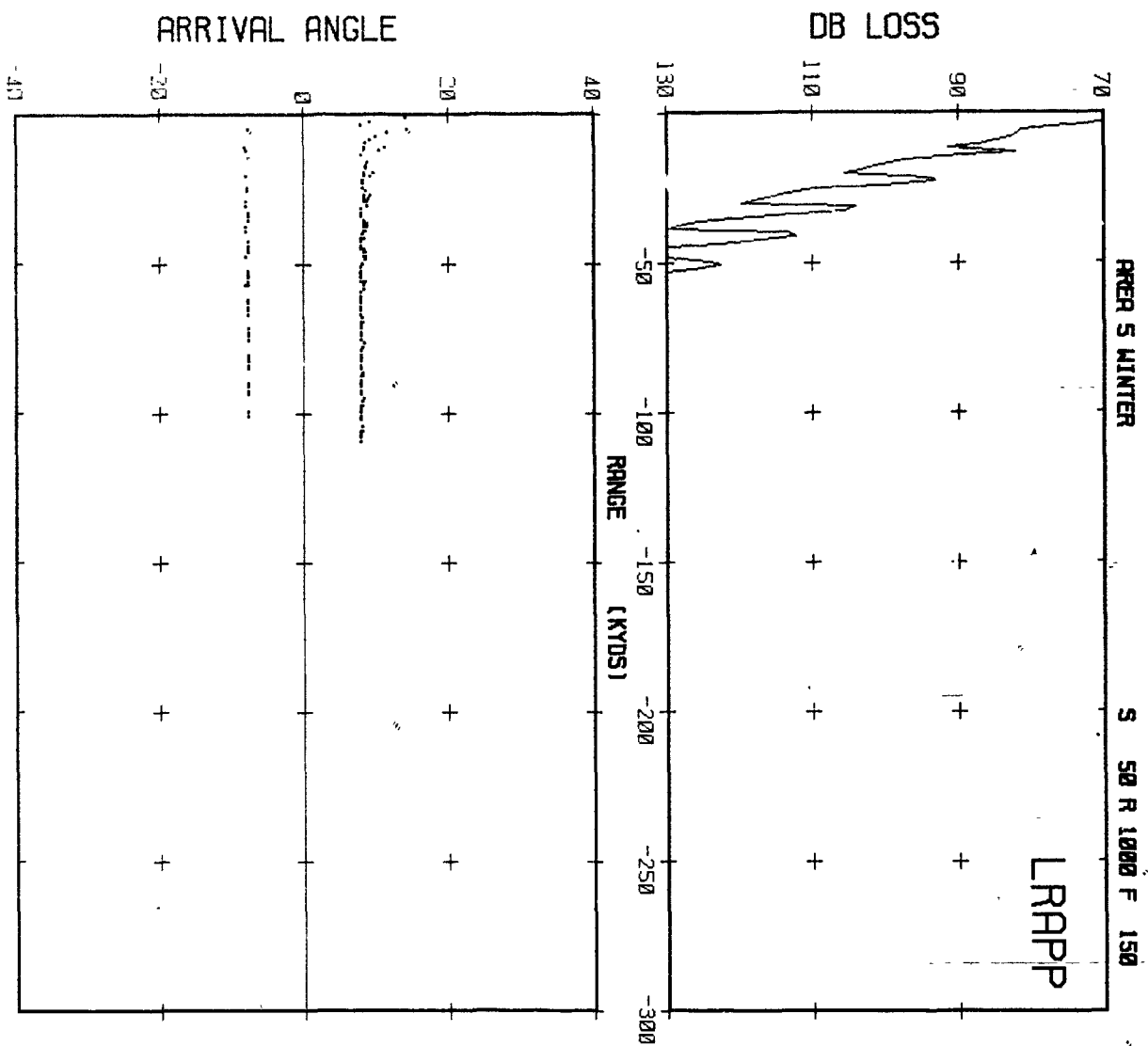


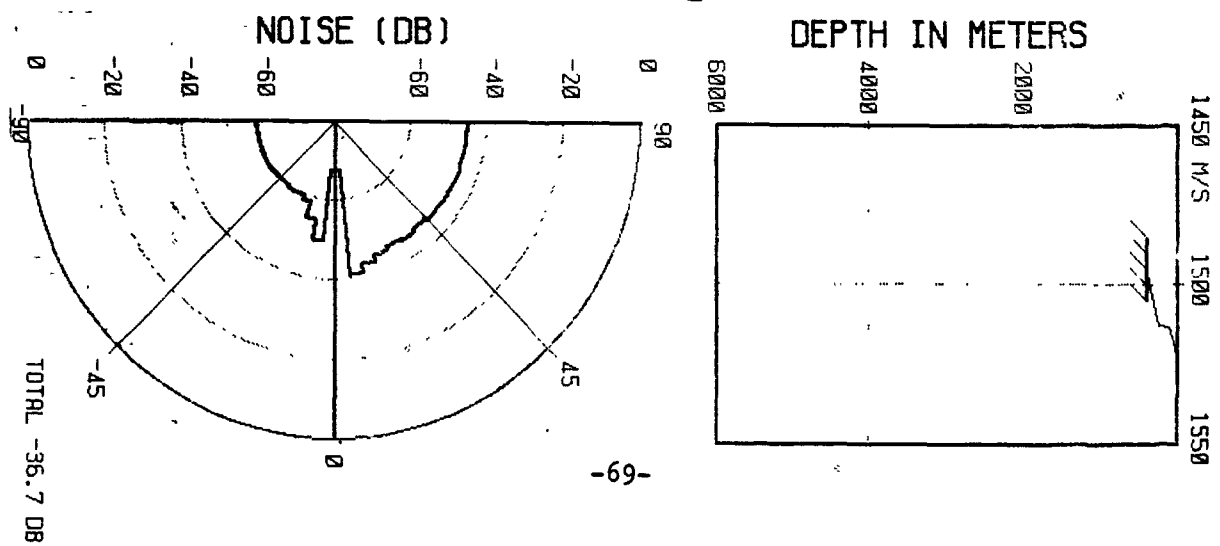
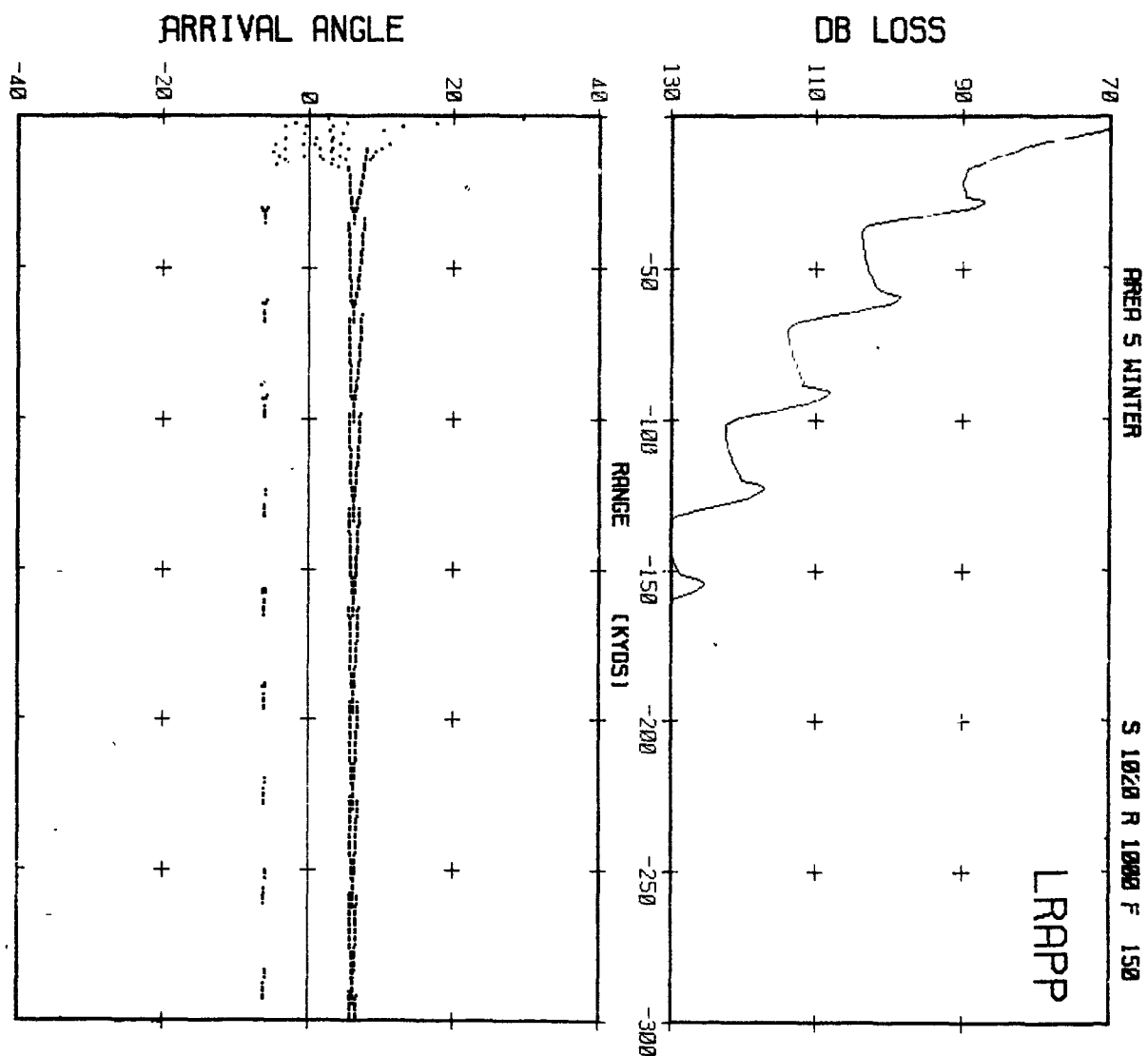
NOISE (DB)













AREA 5 WINTER

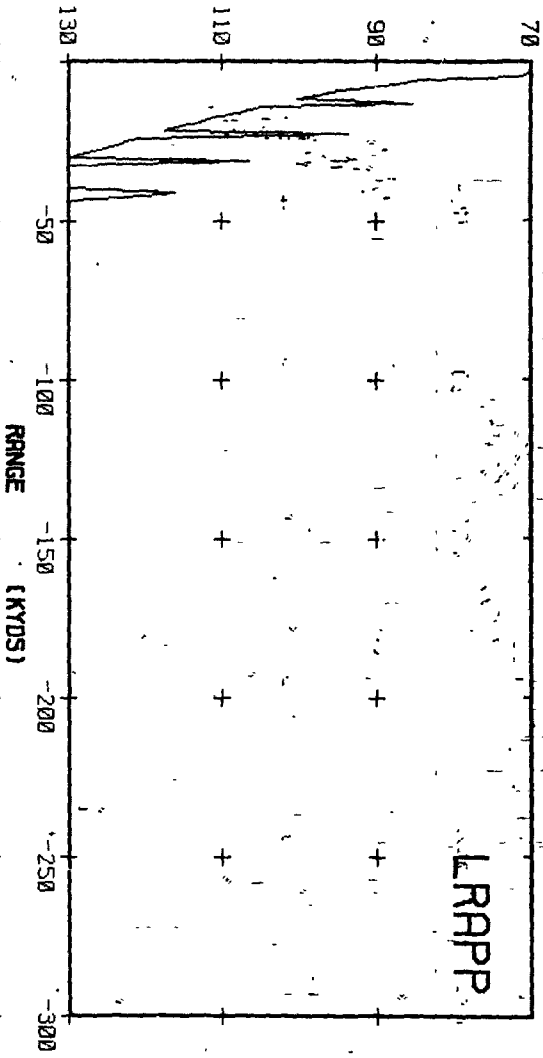
S 20 R 1312 F 150

1450 M/S

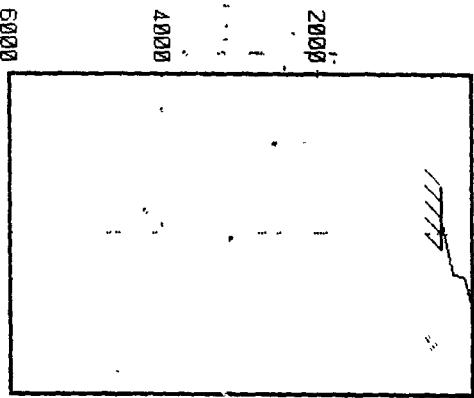
1500

1550

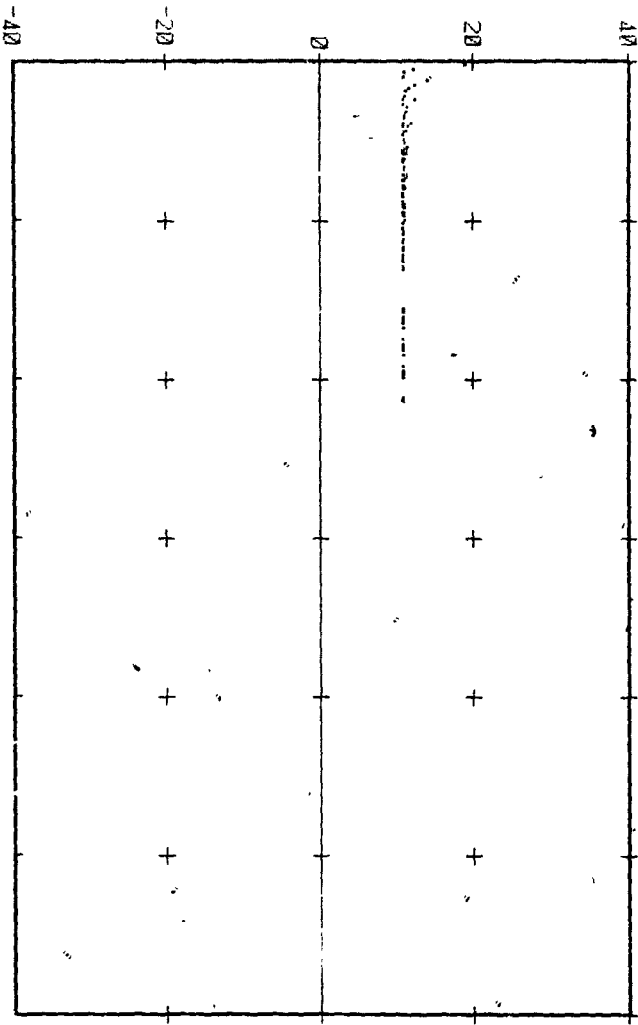
DB LOSS



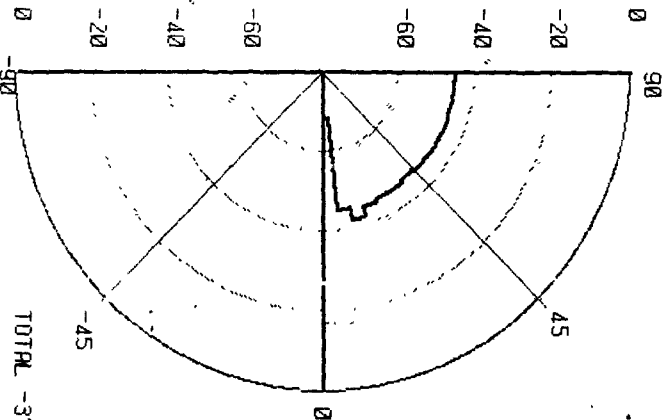
DEPTH IN METERS



ARRIVAL ANGLE



NOISE (DB)



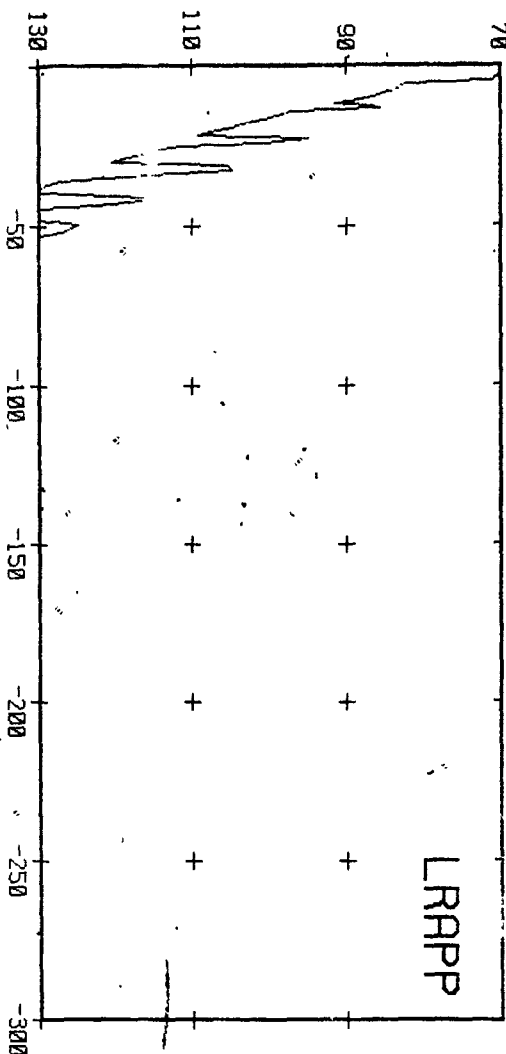
TOTAL -37.3 DB

AREA 5 WINTER

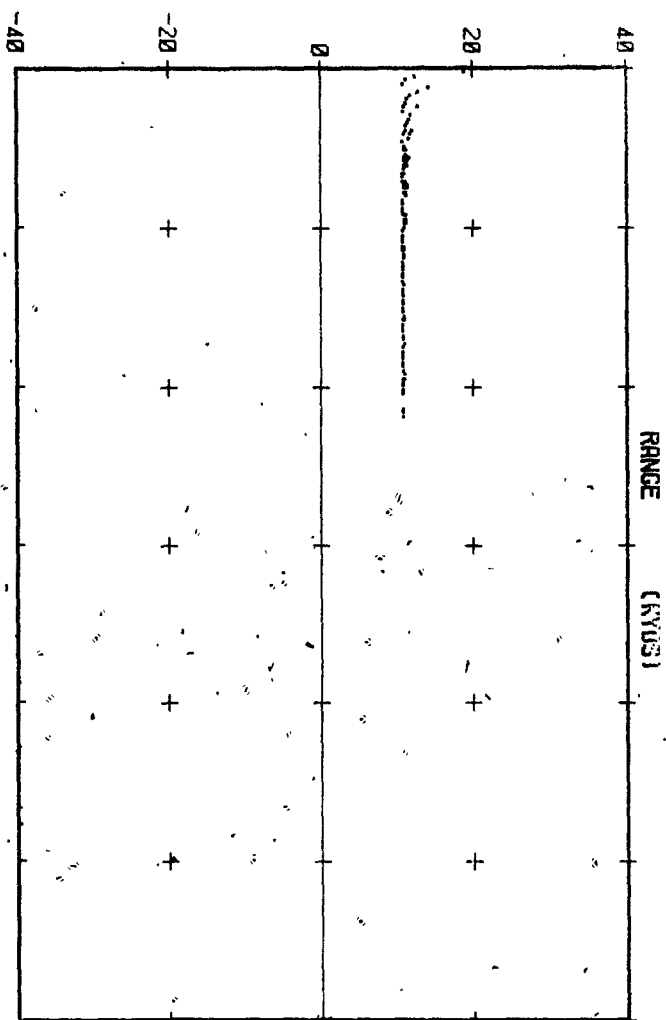
S 50 R 1312 F 150

1450 M/S 1500 1550

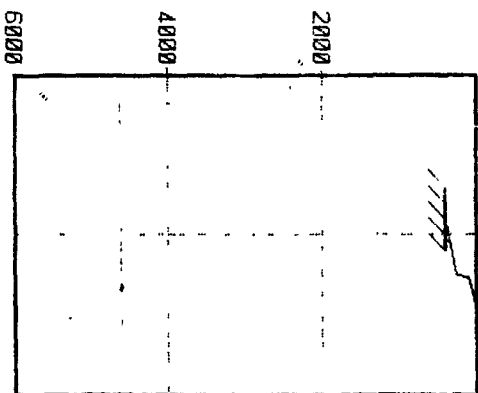
DB LOSS'



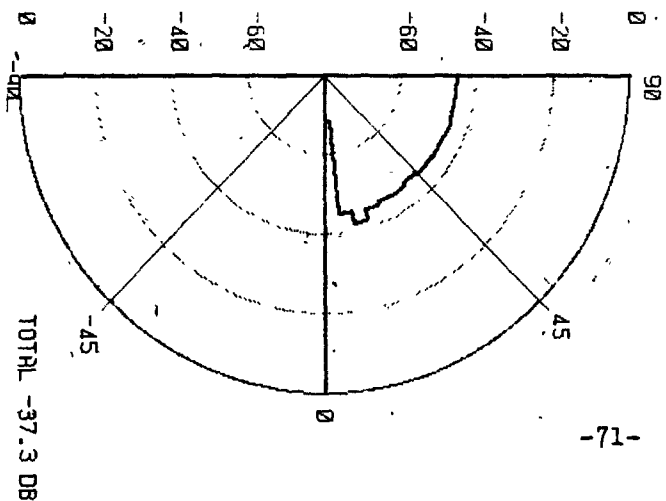
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

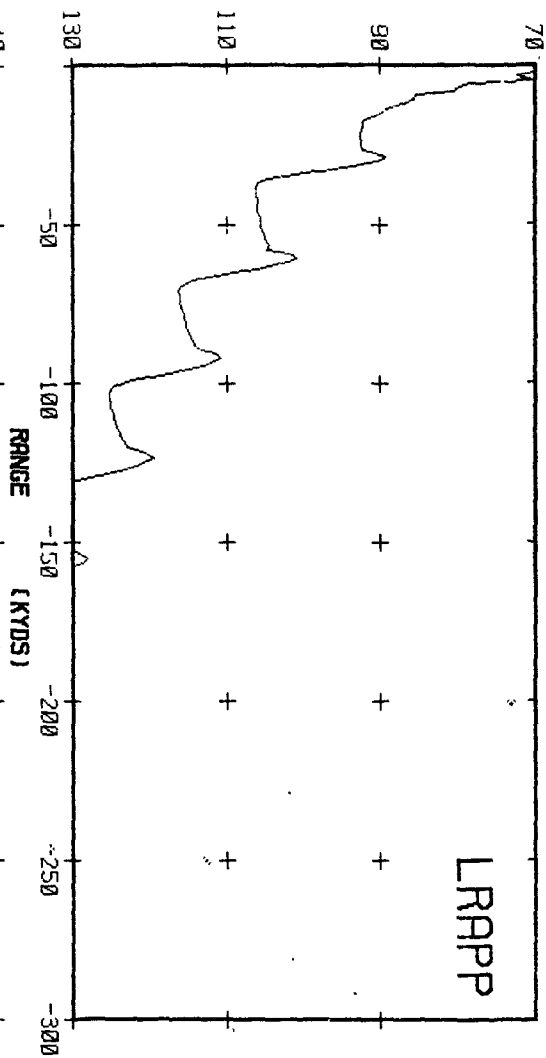


AREA 5 HINTER

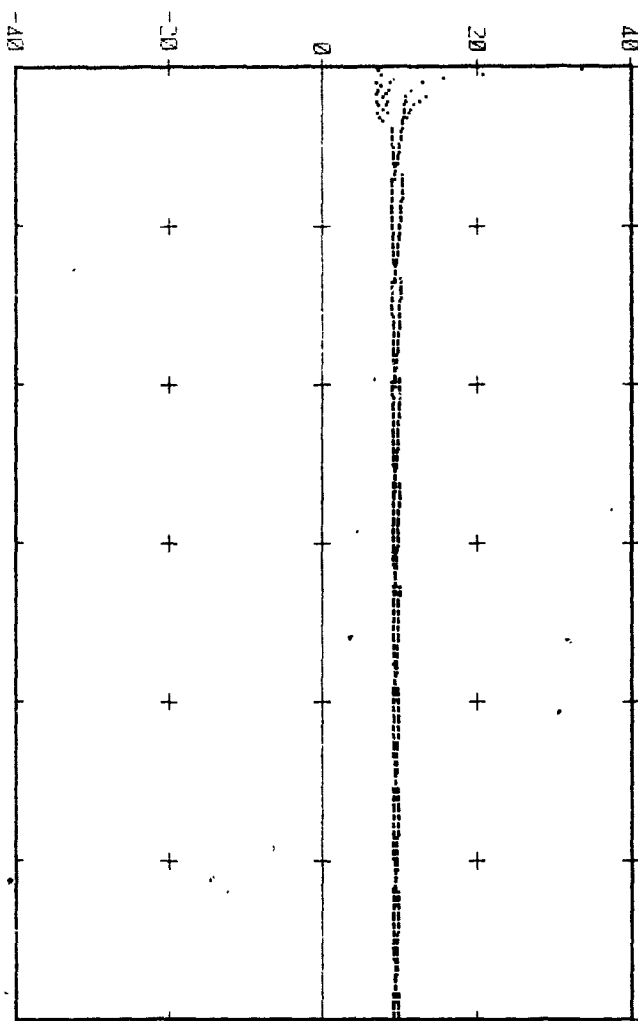
S 1020 R 1312 F 150

1450 M/S 1500 1550

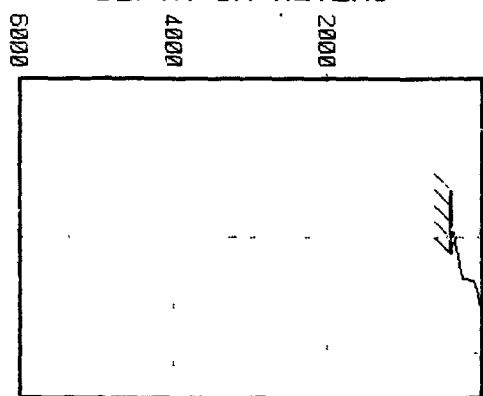
DB LOSS



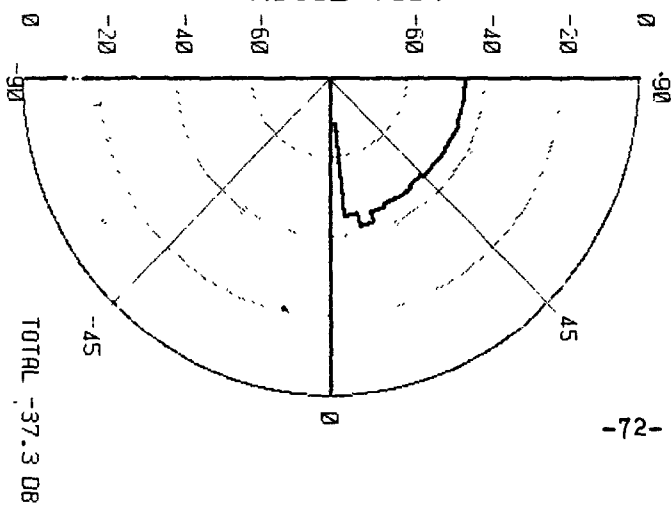
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

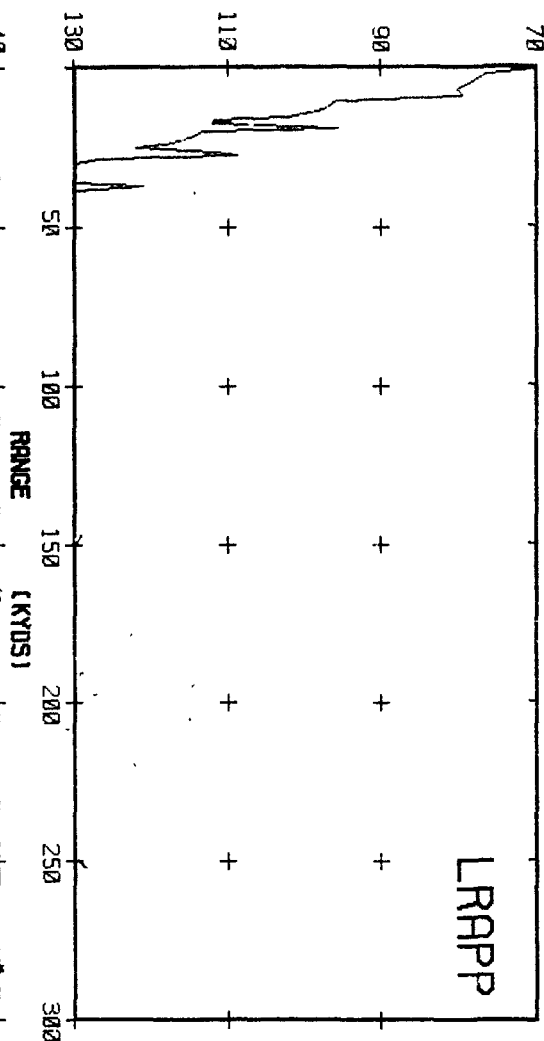


ARRR S WINTER

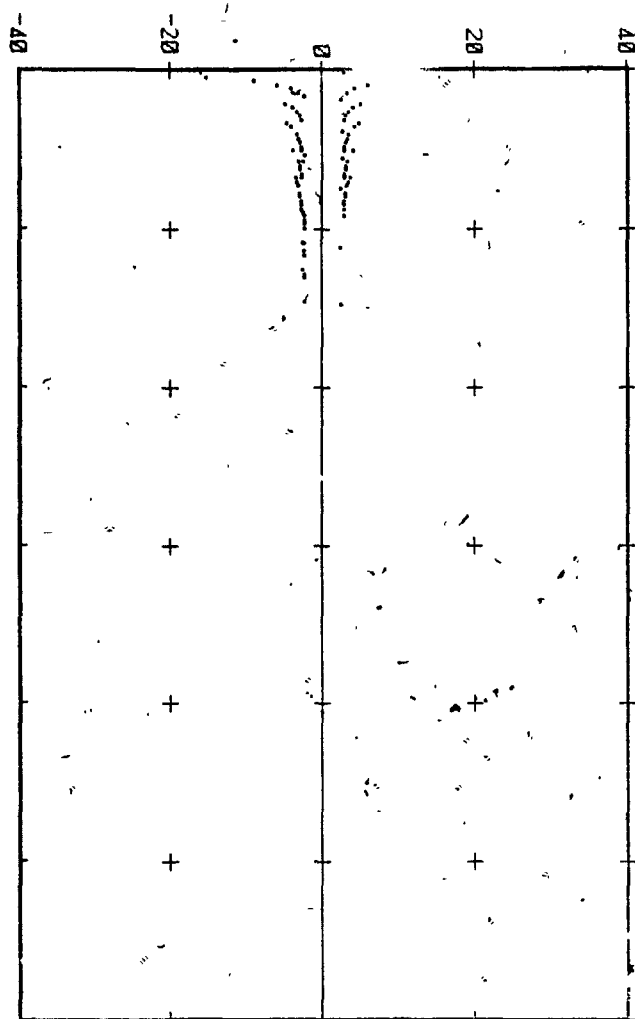
S 20 R 60 F 300

LRAPP

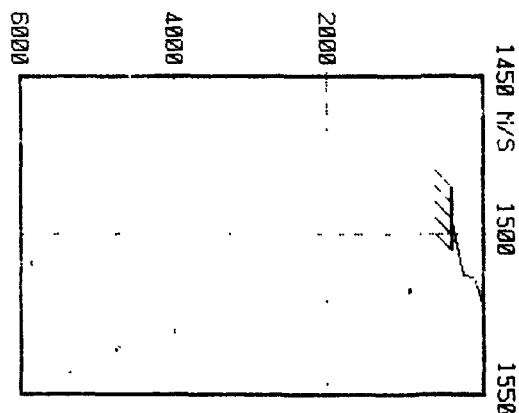
DB LOSS



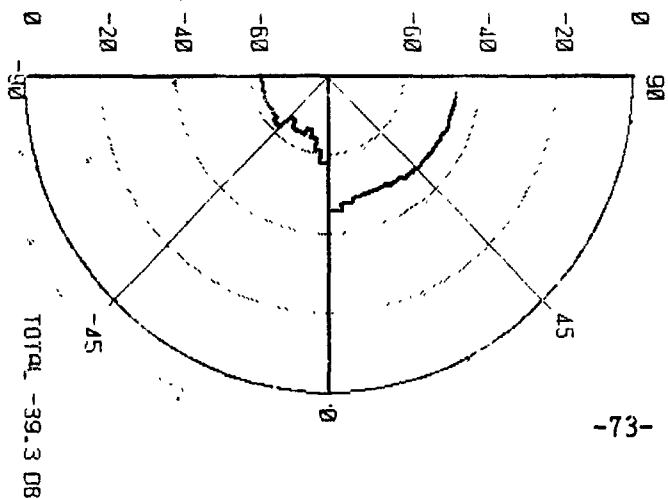
ARRIVAL ANGLE



DEPTH IN METERS

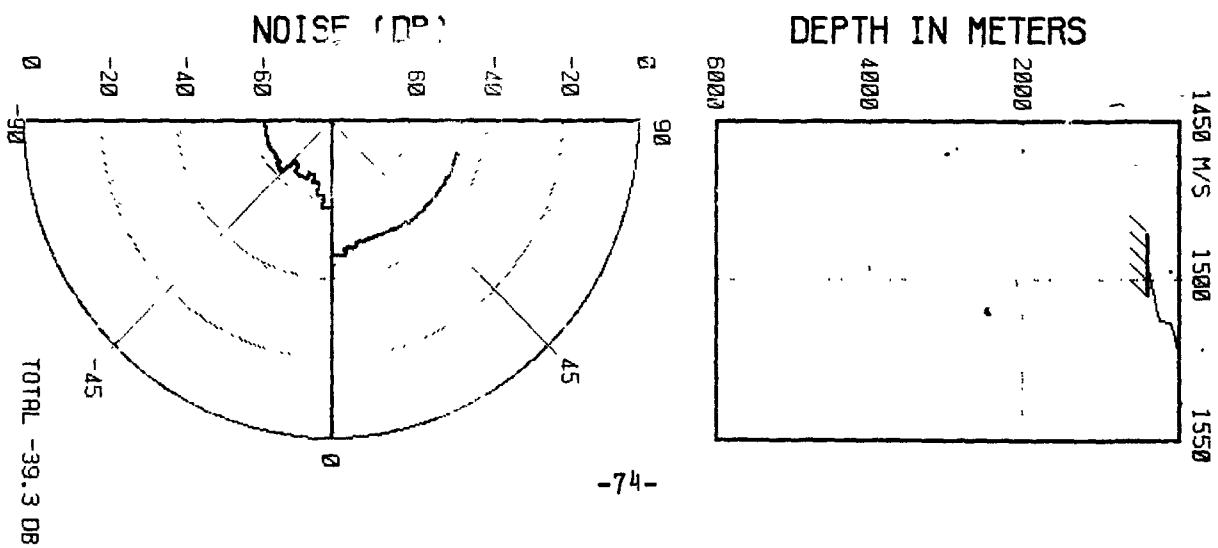
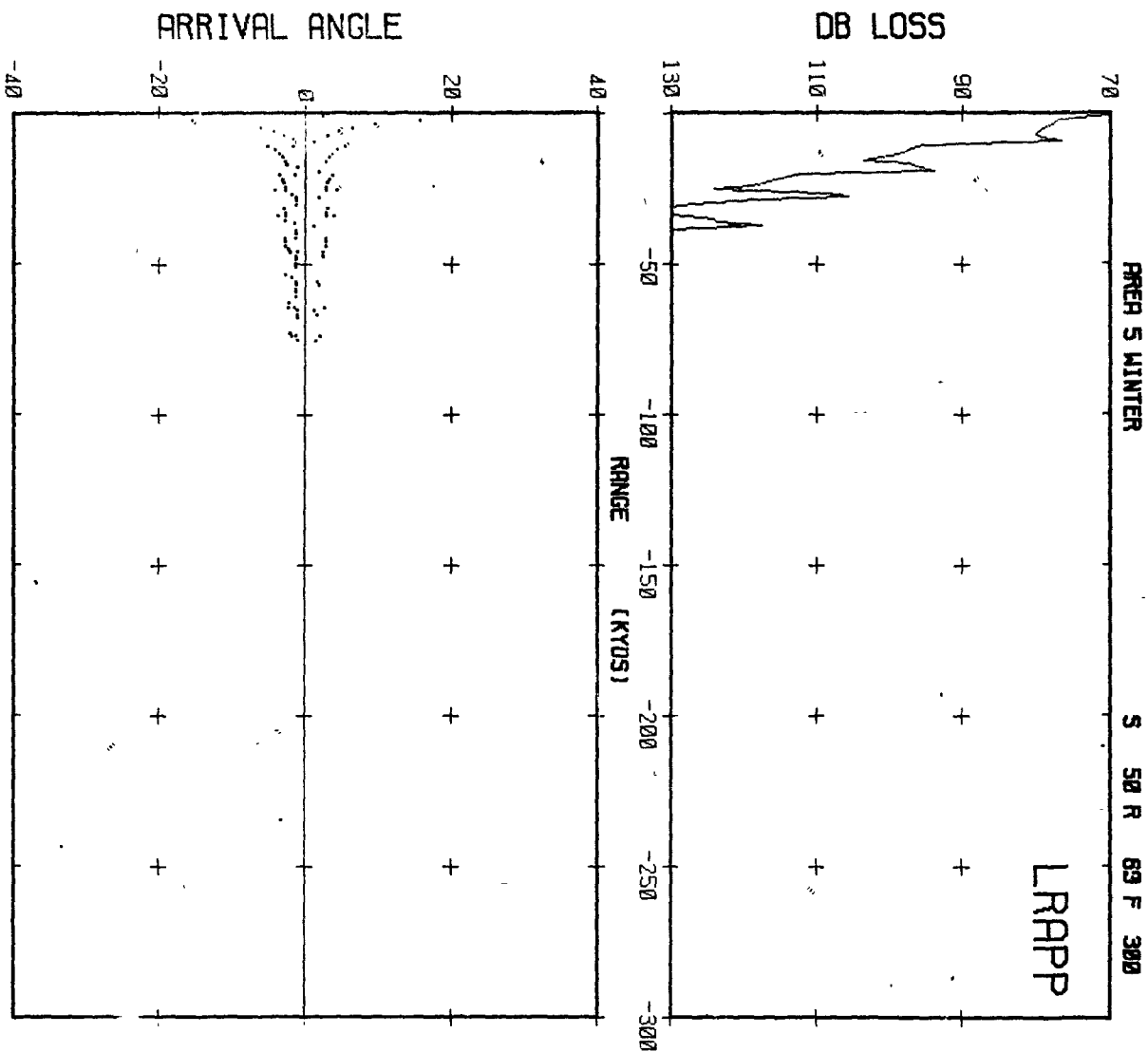


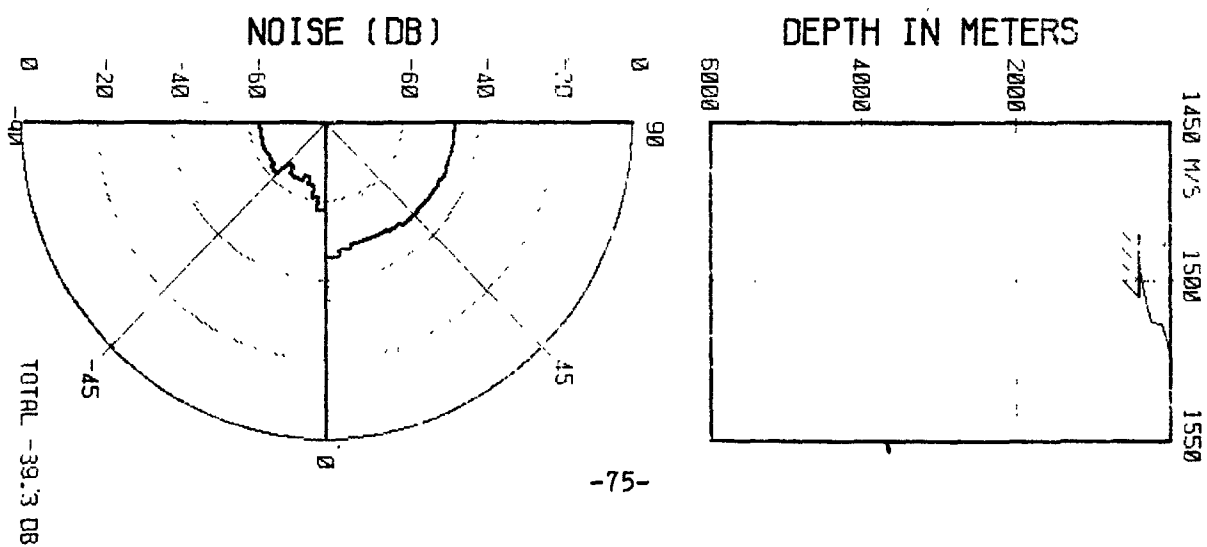
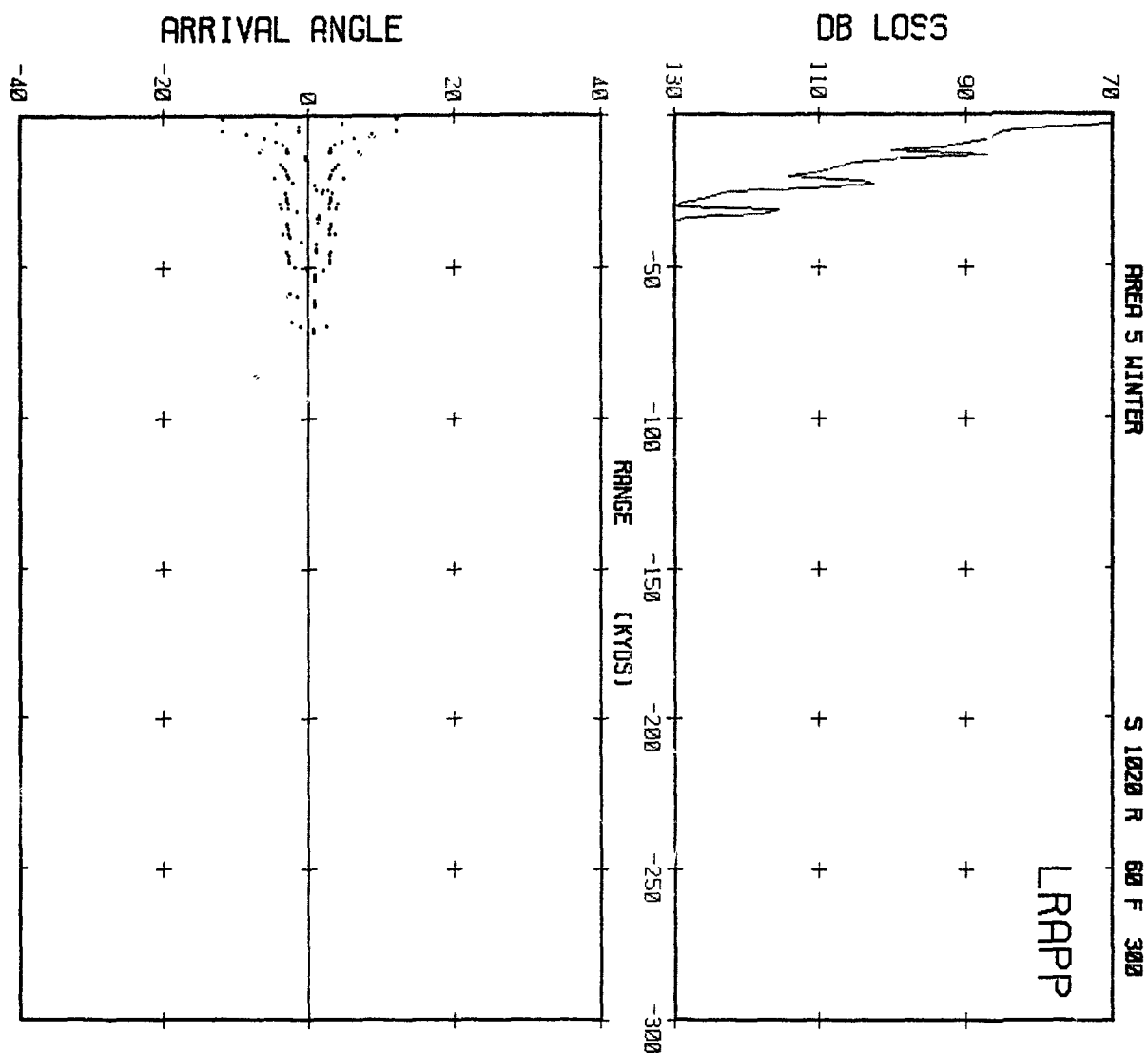
NOISE (DB)



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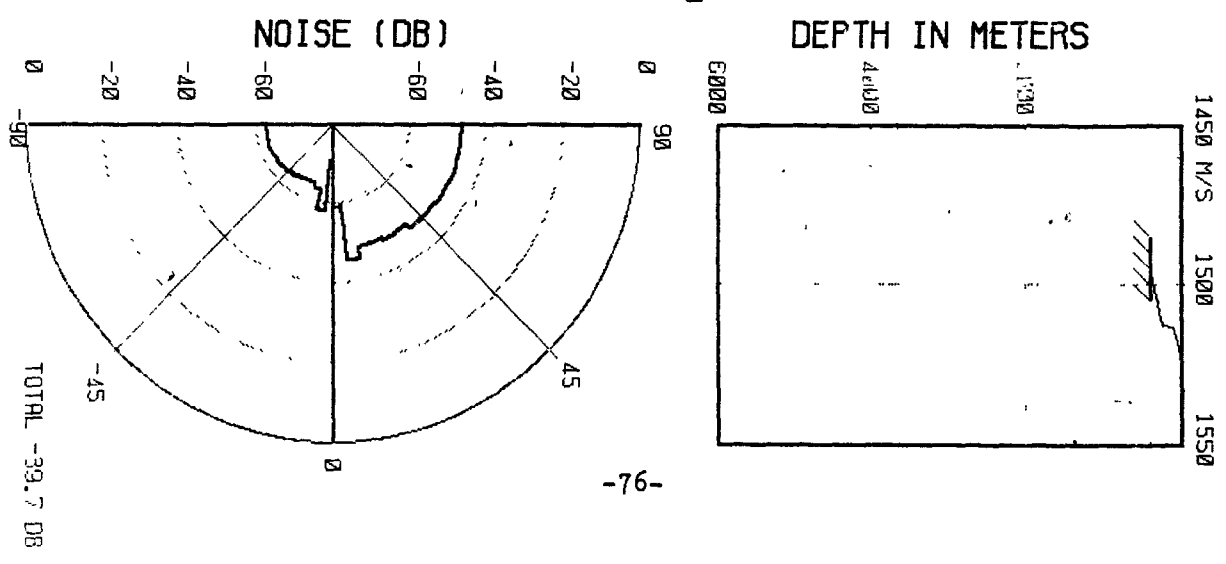
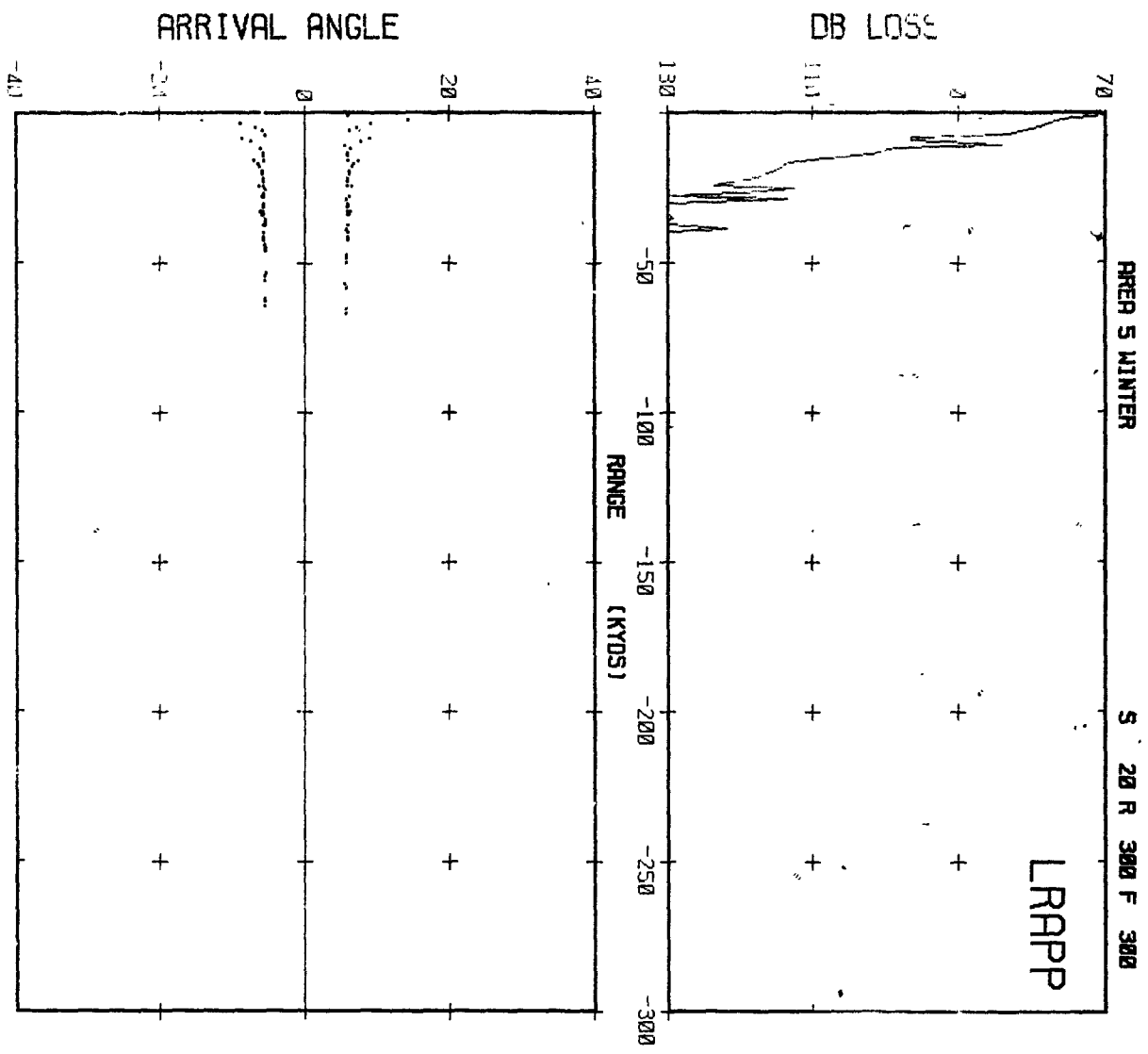
TOTAL -39.3 DB





111

111

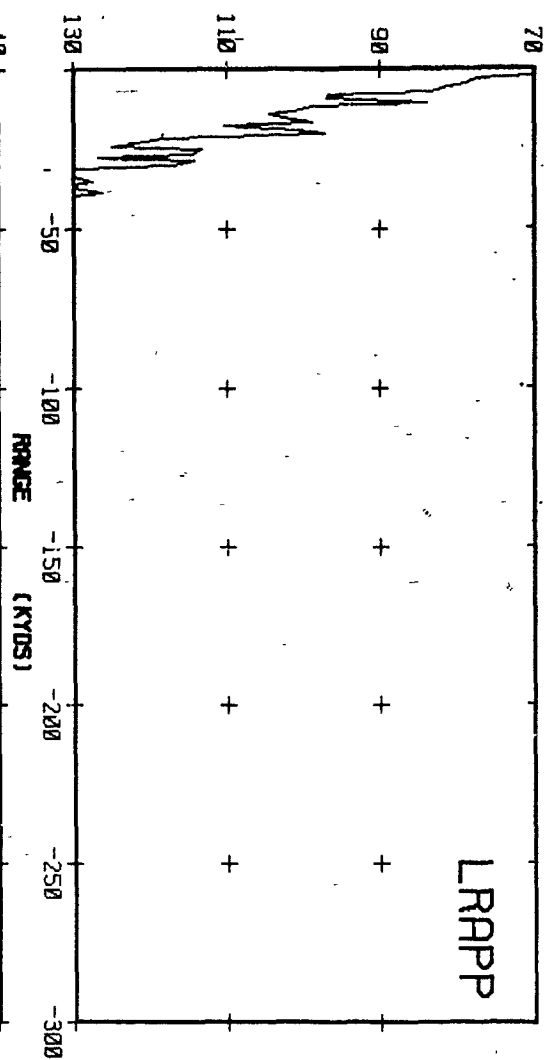


AREA 5 WINTER

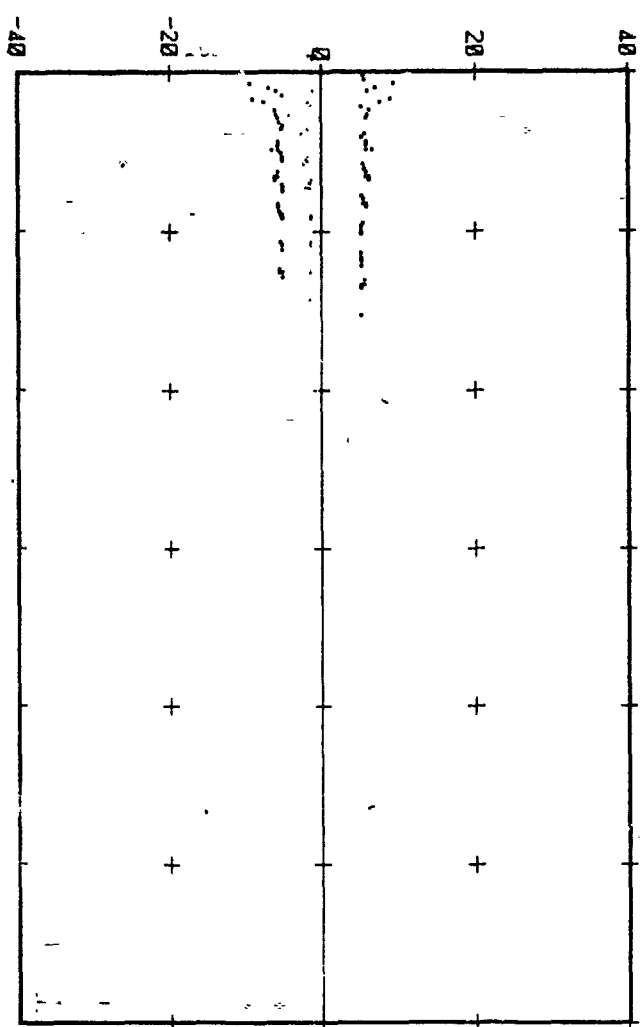
S 50 R 300 F 300

1450 M/S 1500 1550

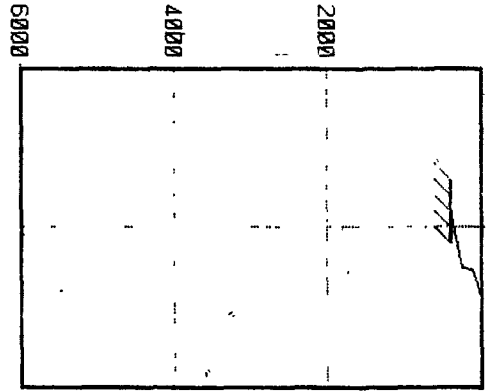
DB LOSS



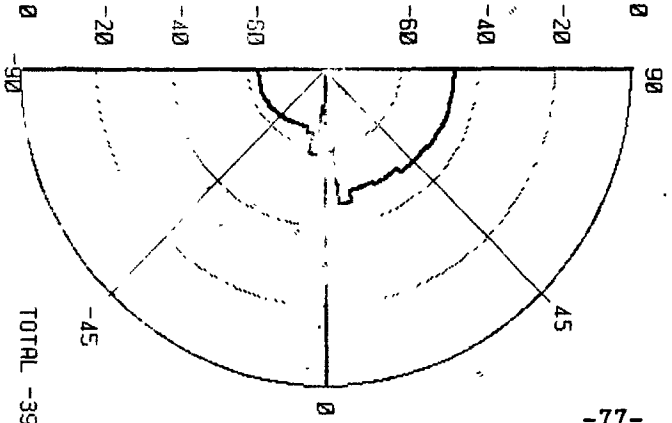
ARRIVAL ANGLE



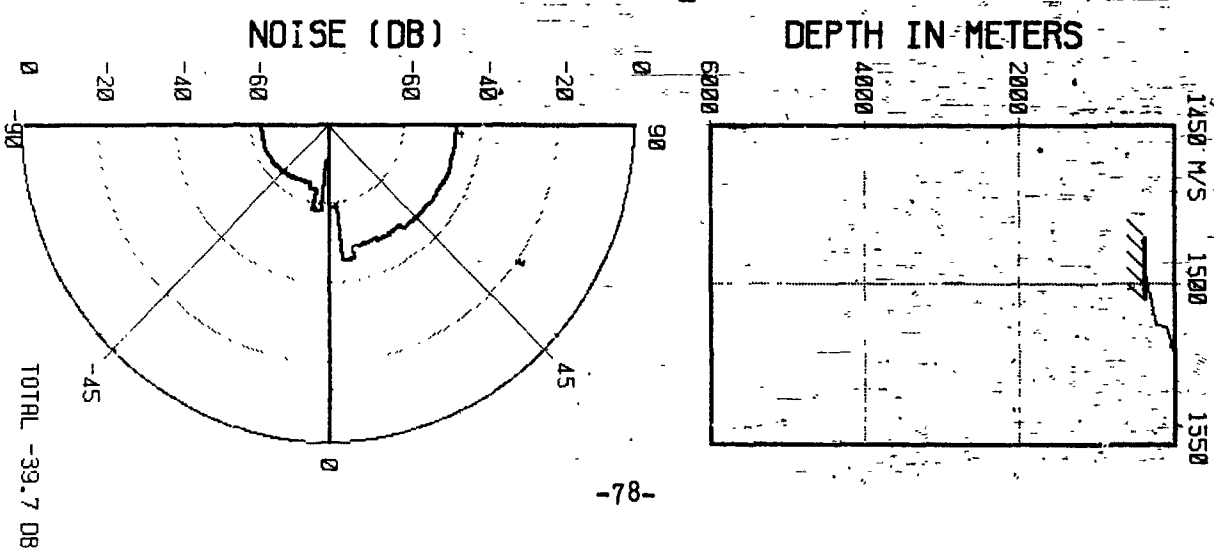
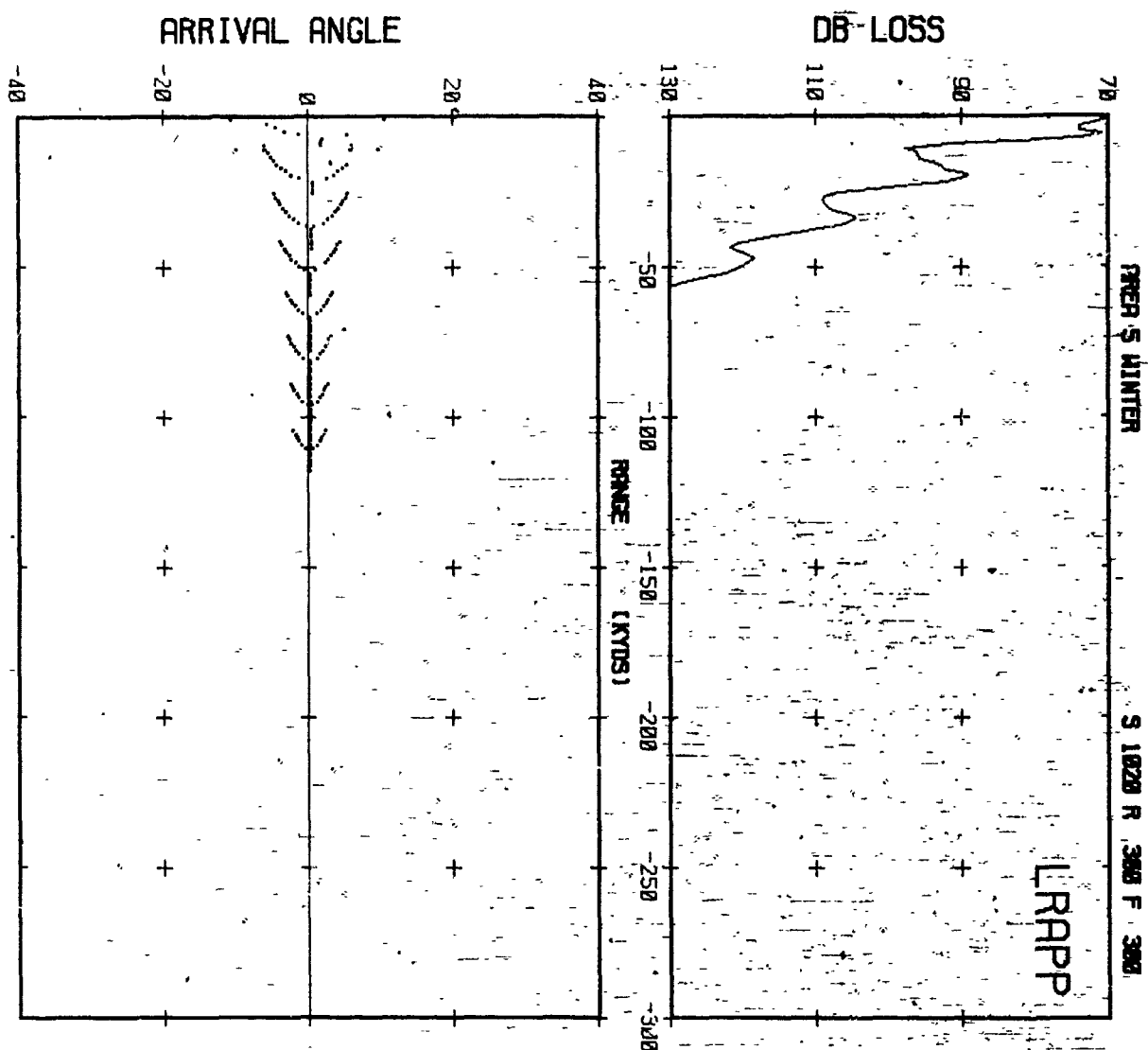
DEPTH IN METERS



NOISE (DB)



7

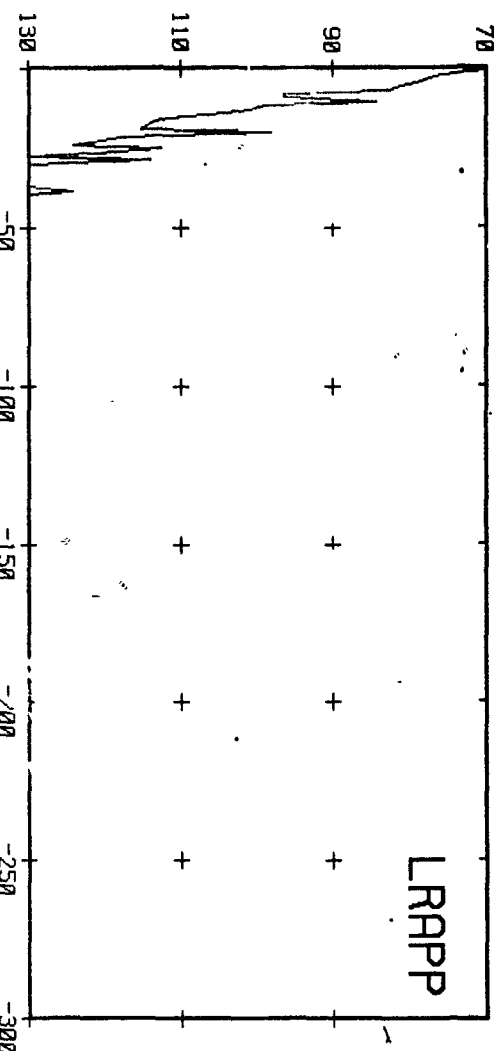


PRER 5 WINTER

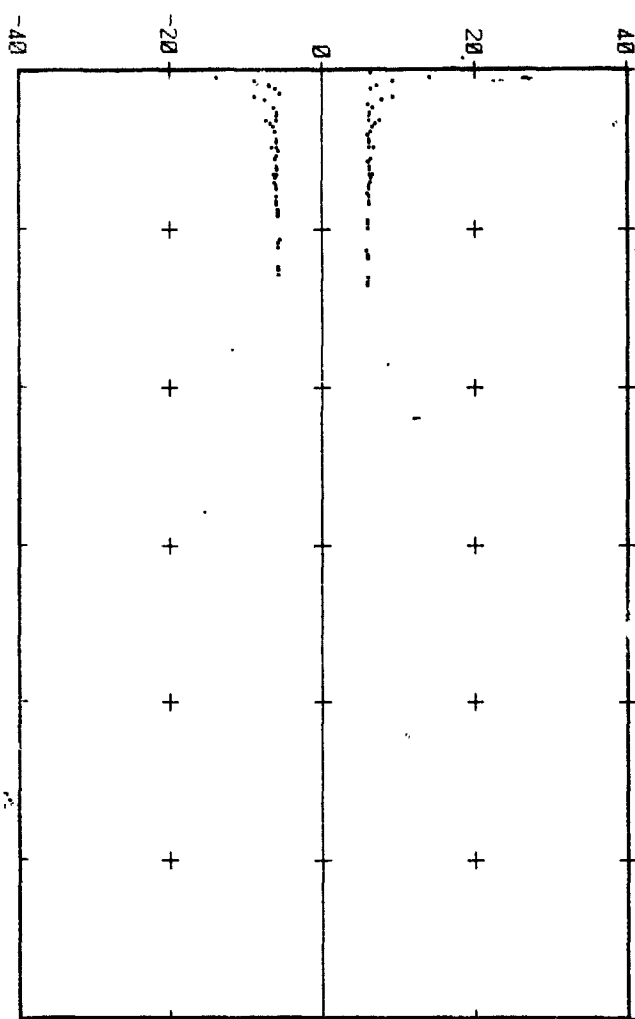
S. 20 R 328 F 300

LRAPP

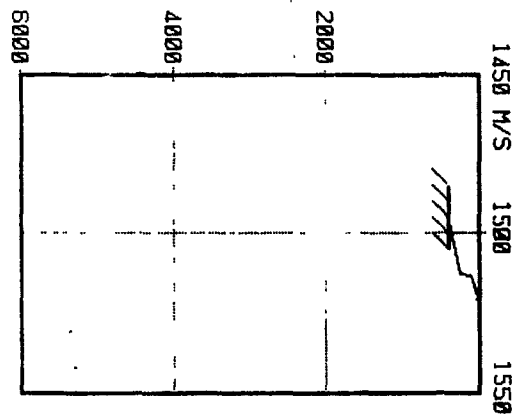
DB LOSS



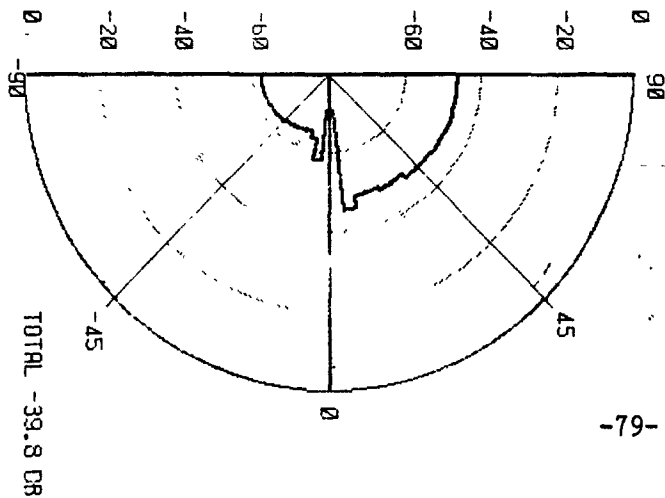
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



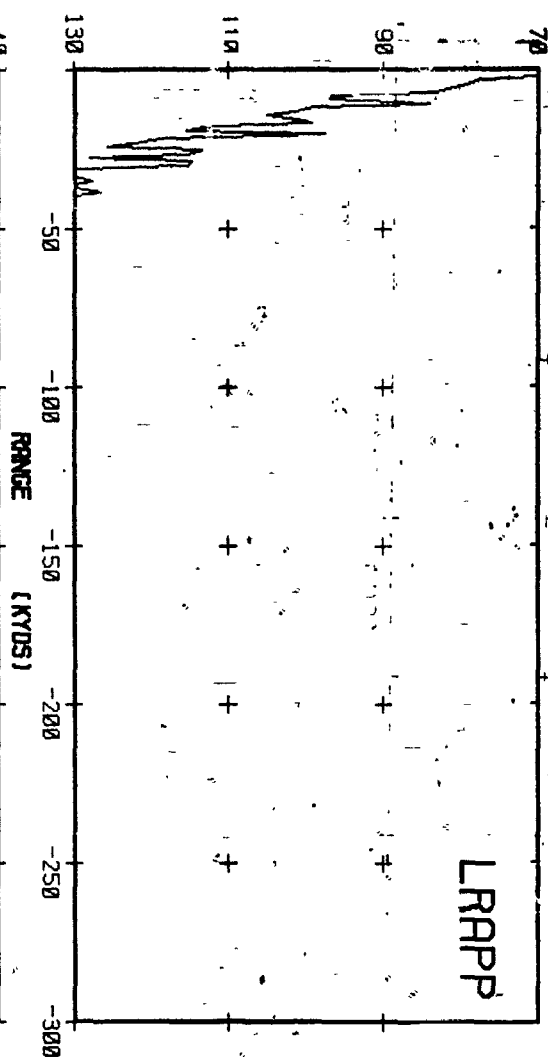
TOTAL -39.8 DB

AREA 5 WINTER

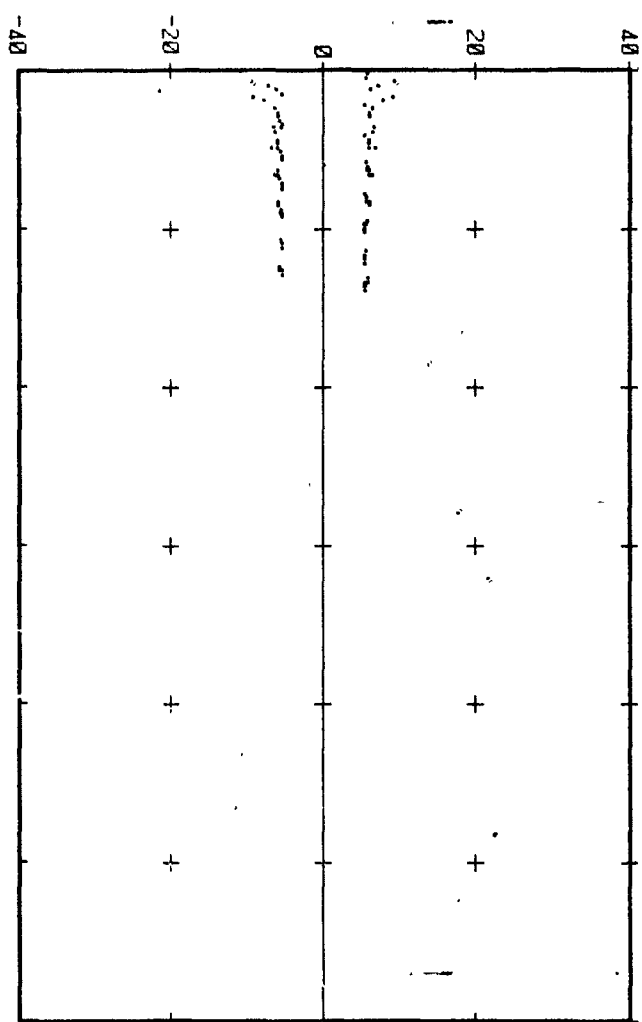
S 50 R 328 F 300

LRAPP

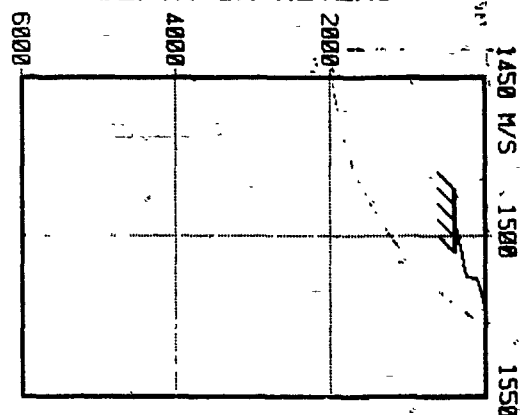
DB LOSS



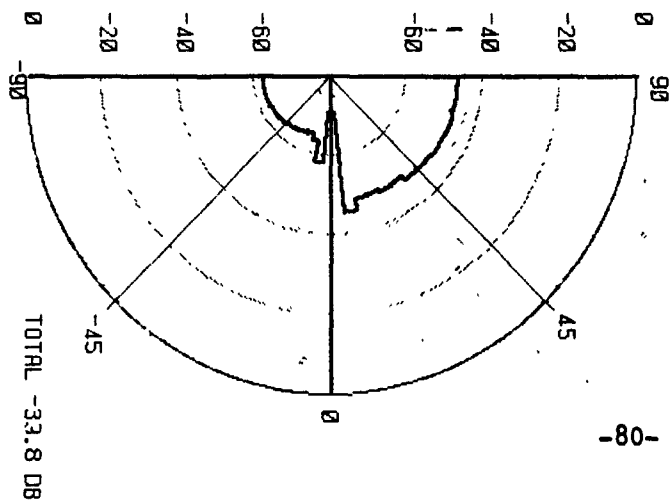
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

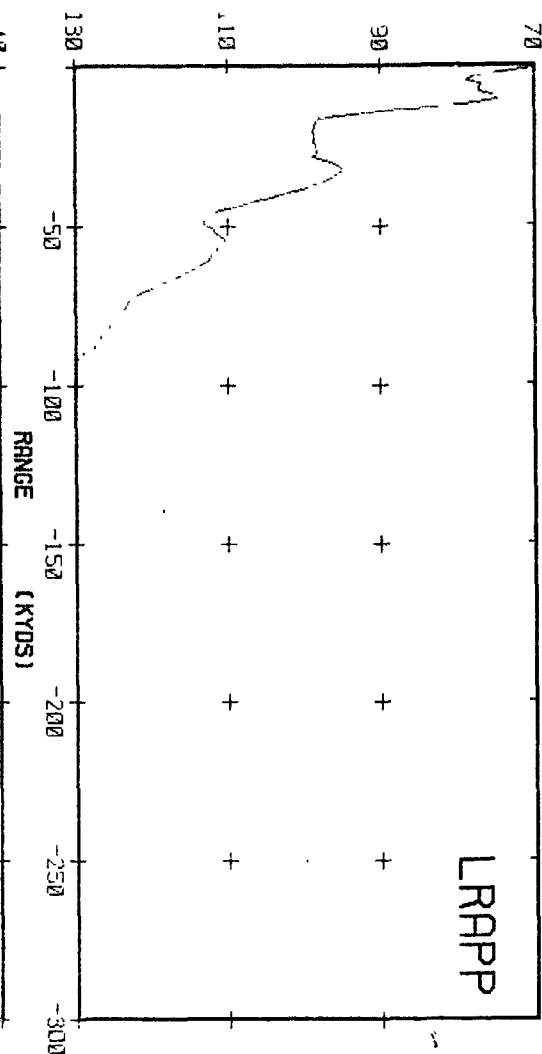


AREA 5 WINTER

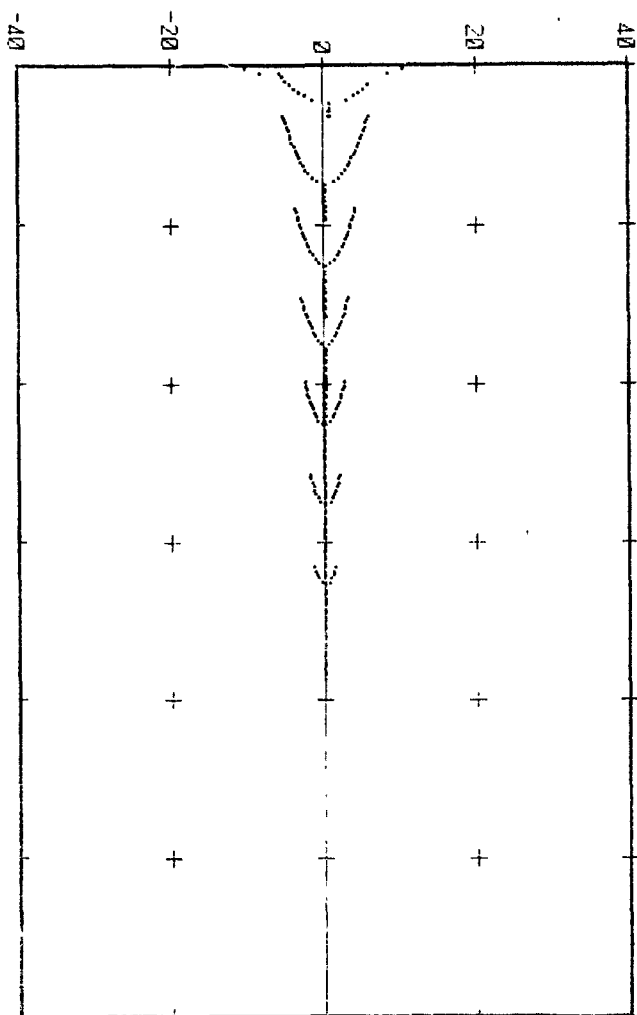
S 1020 R 328 F 300

1450 M/S 1500 1550

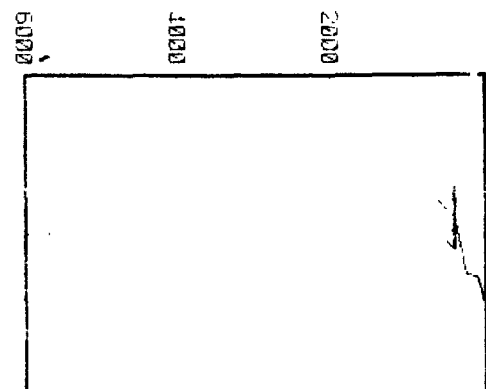
DB LOSS



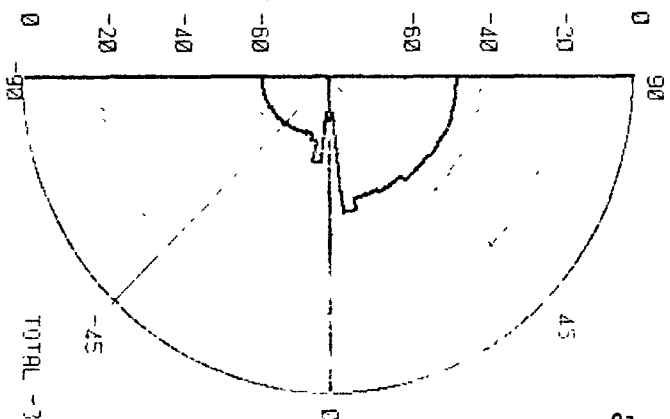
ARRIVAL ANGLE

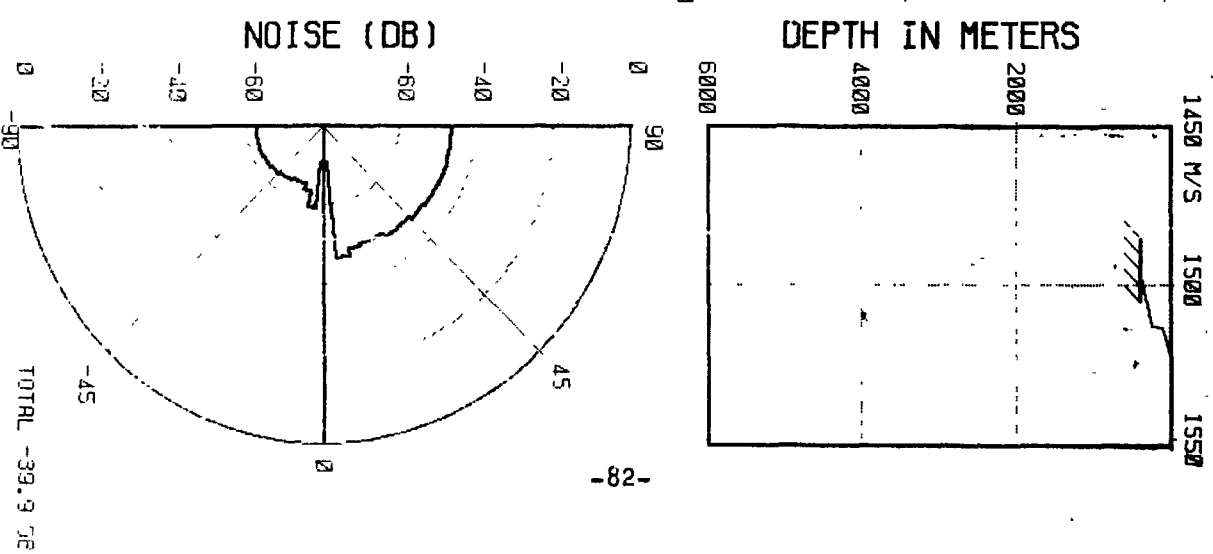
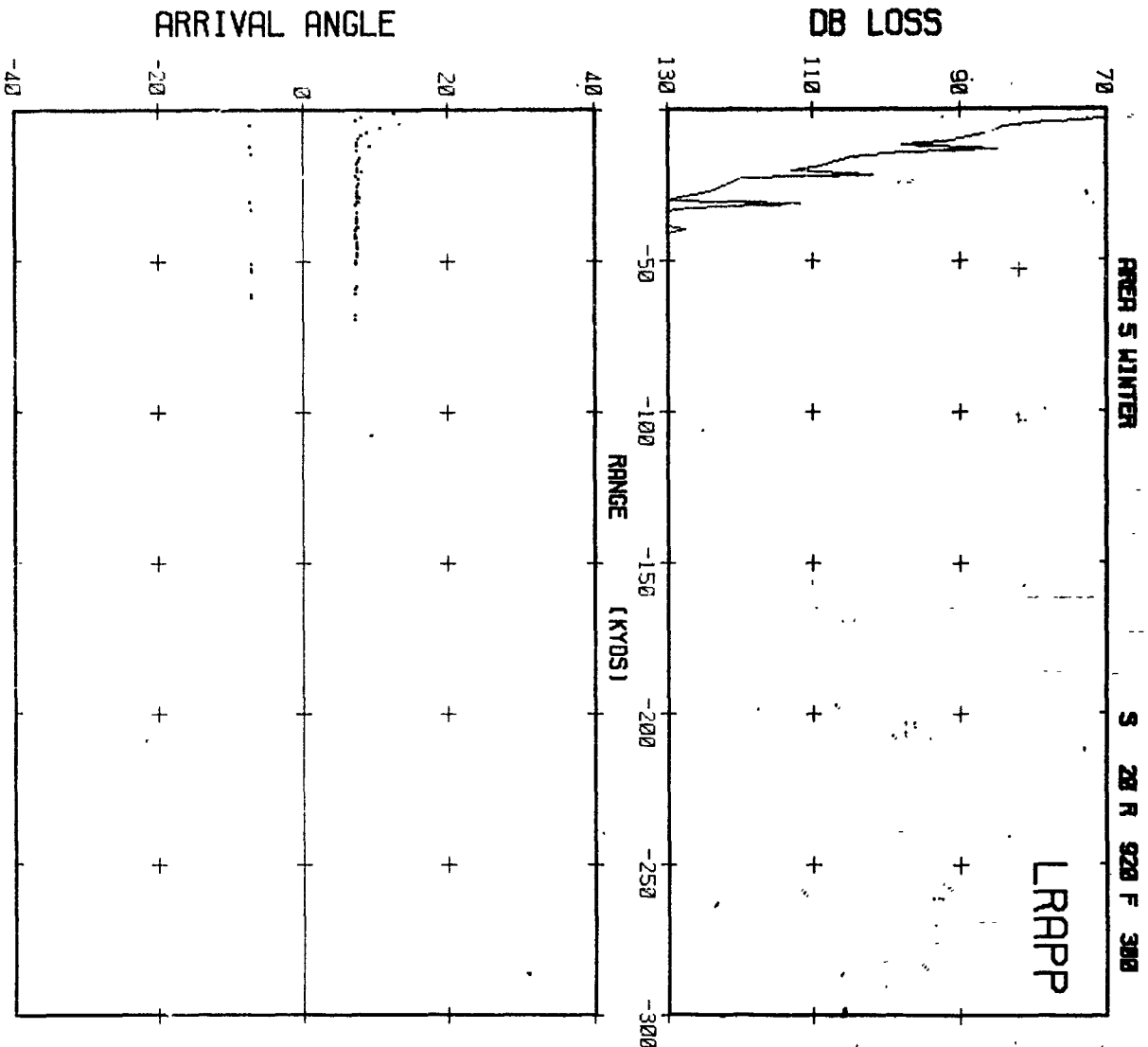


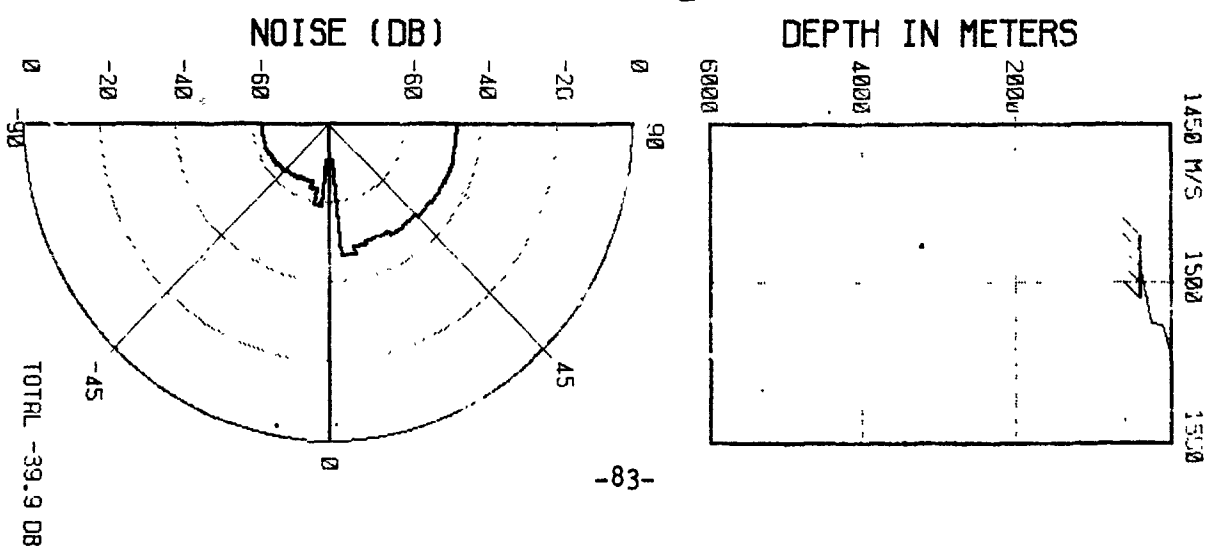
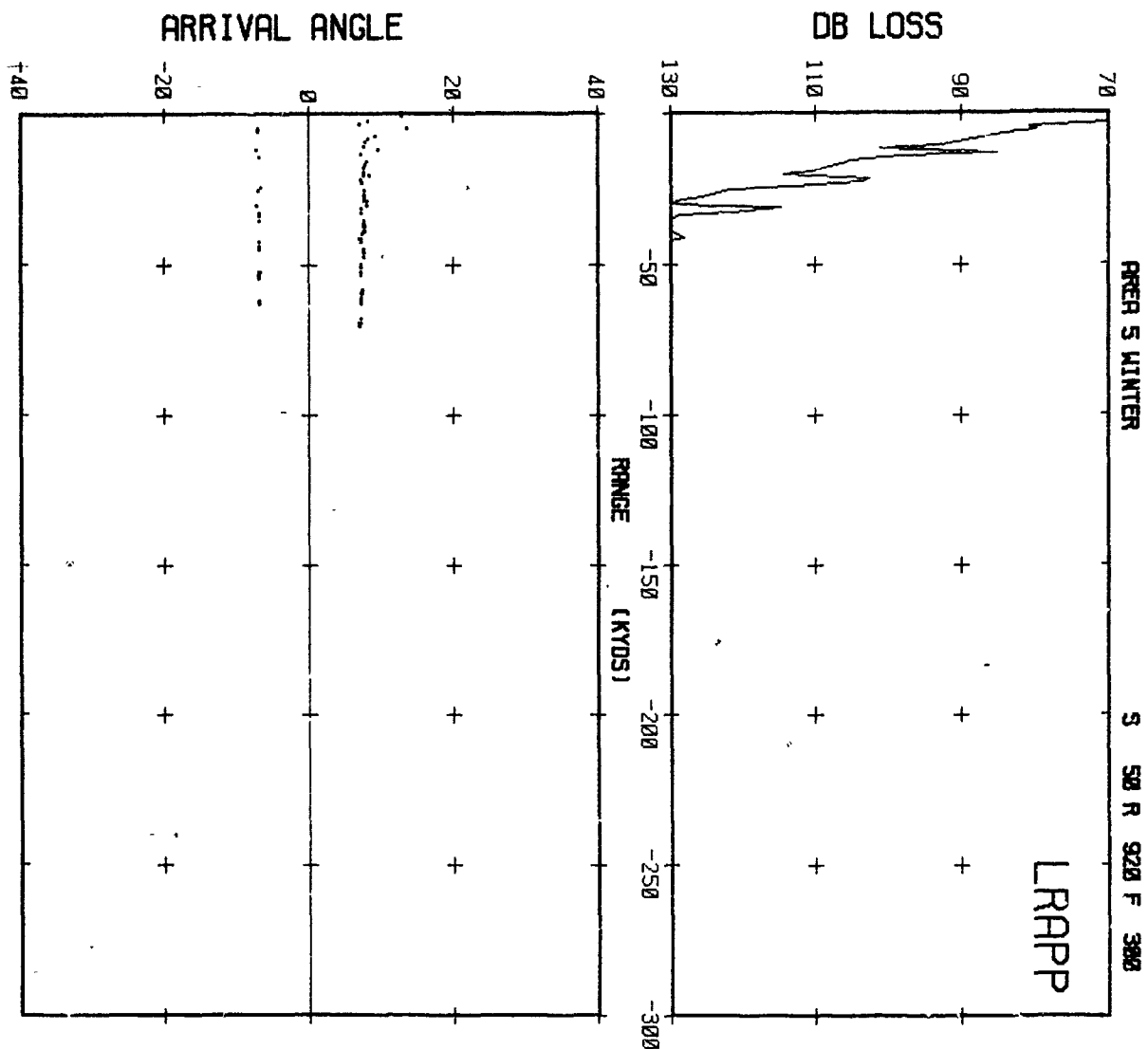
DEPTH IN METERS



NOISE (DB)







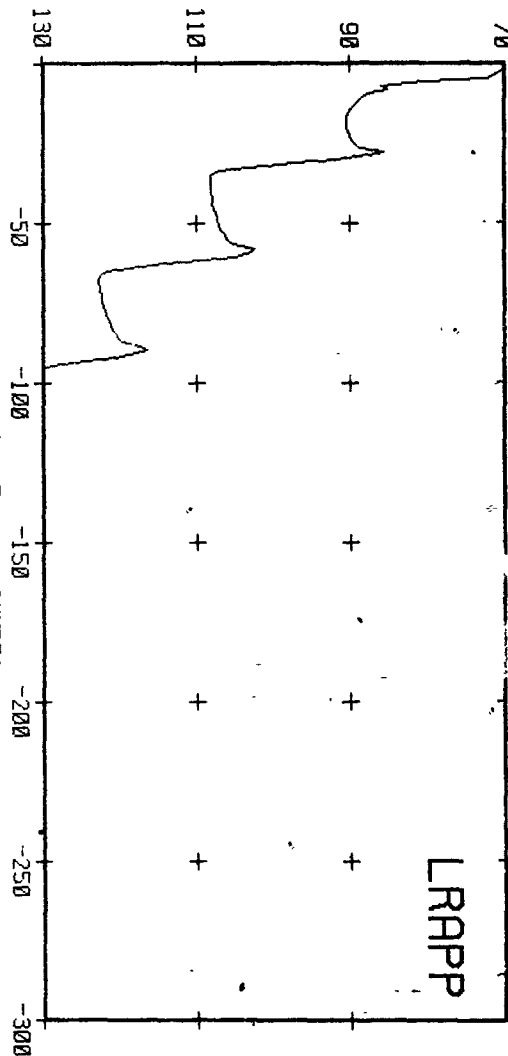
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AREA 5 JITTER

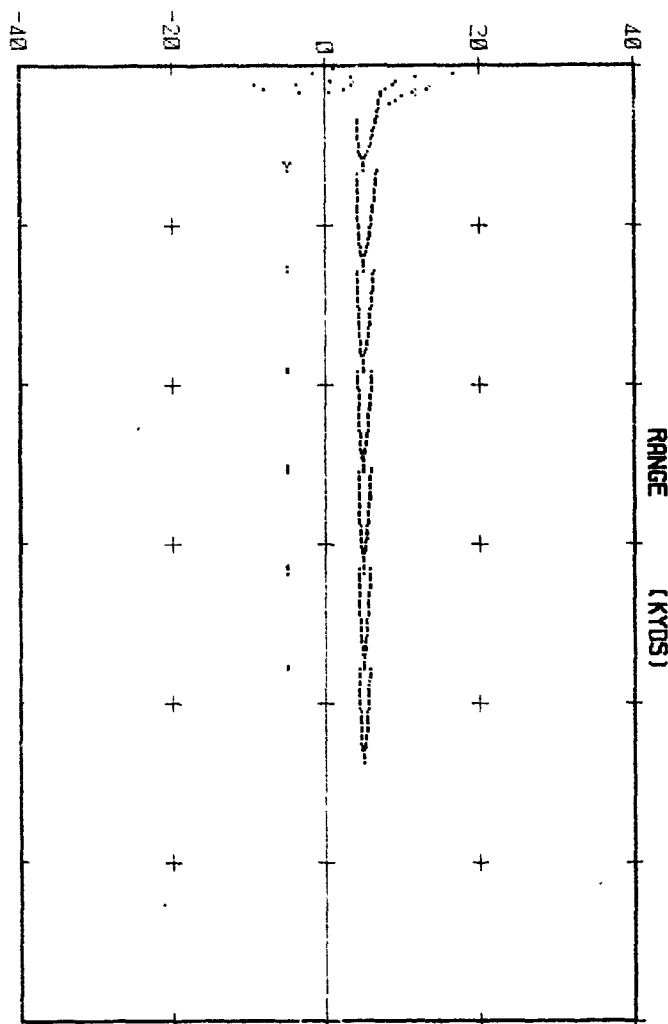
S 1020 R 920 F 300

LRAPP

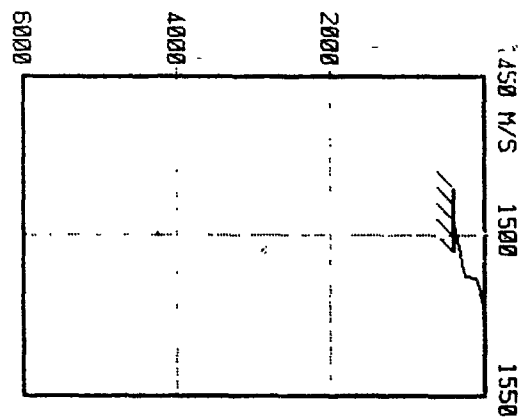
DB LOSS



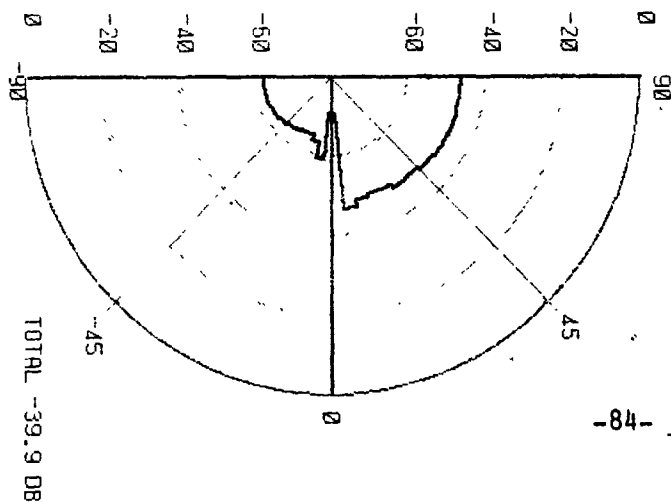
ARRIVAL ANGLE



DEPTH IN METERS

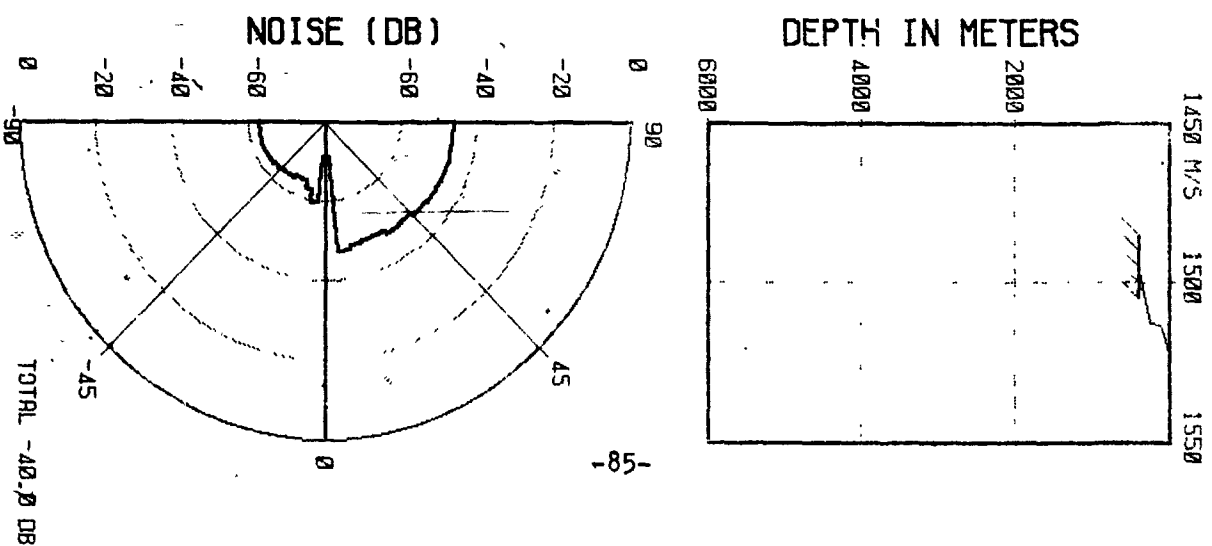
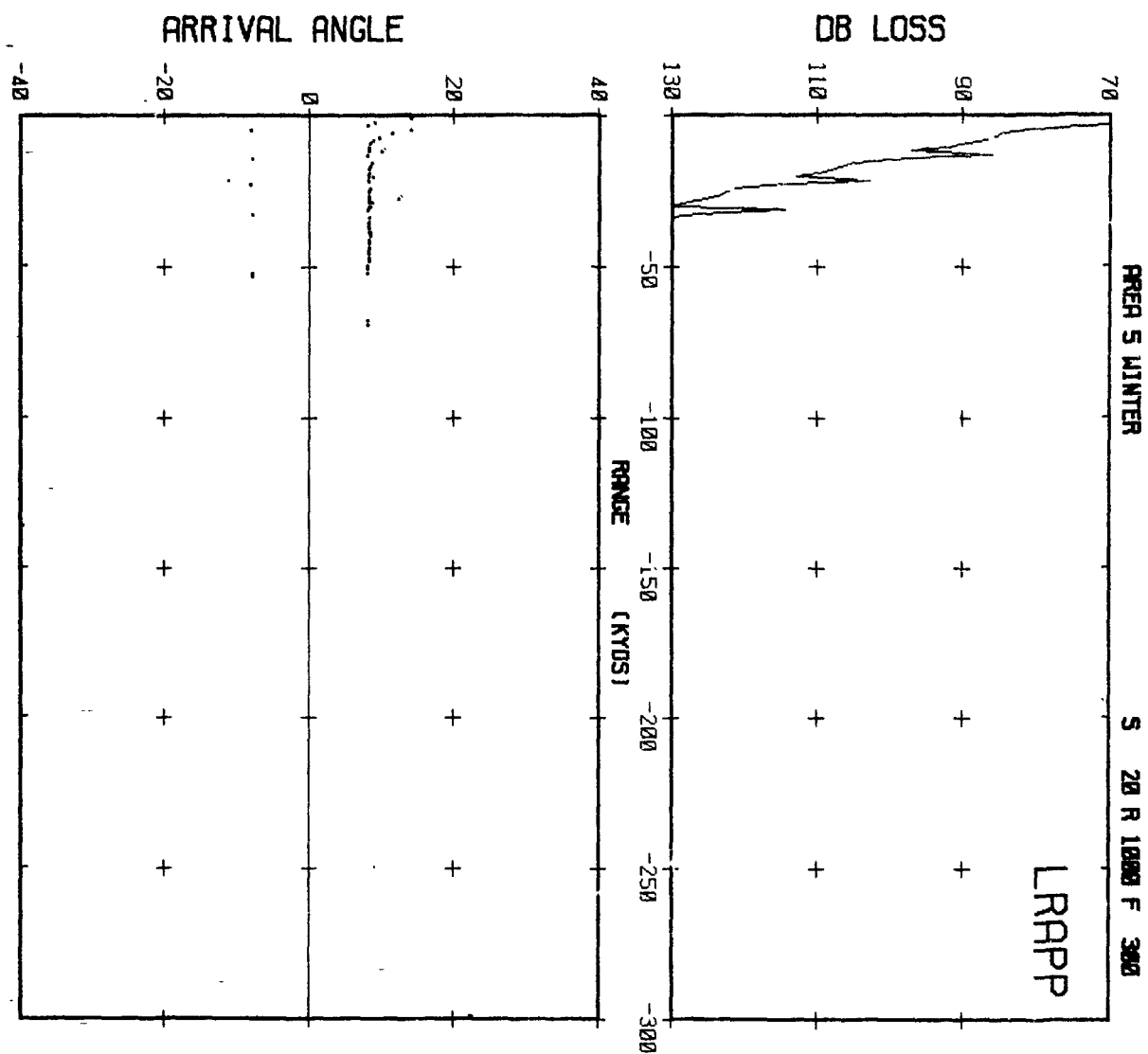


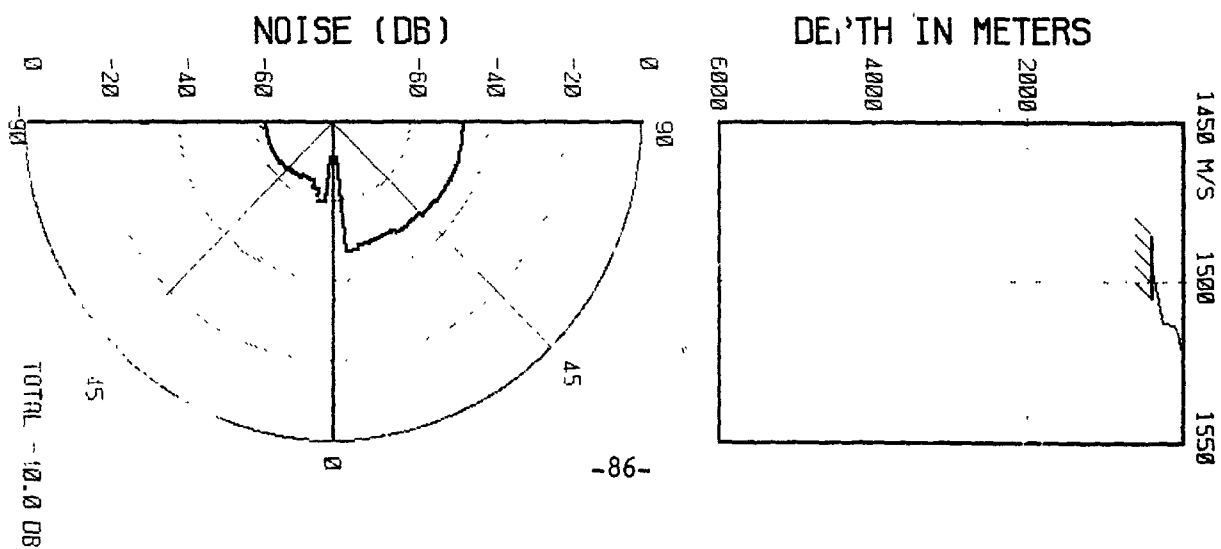
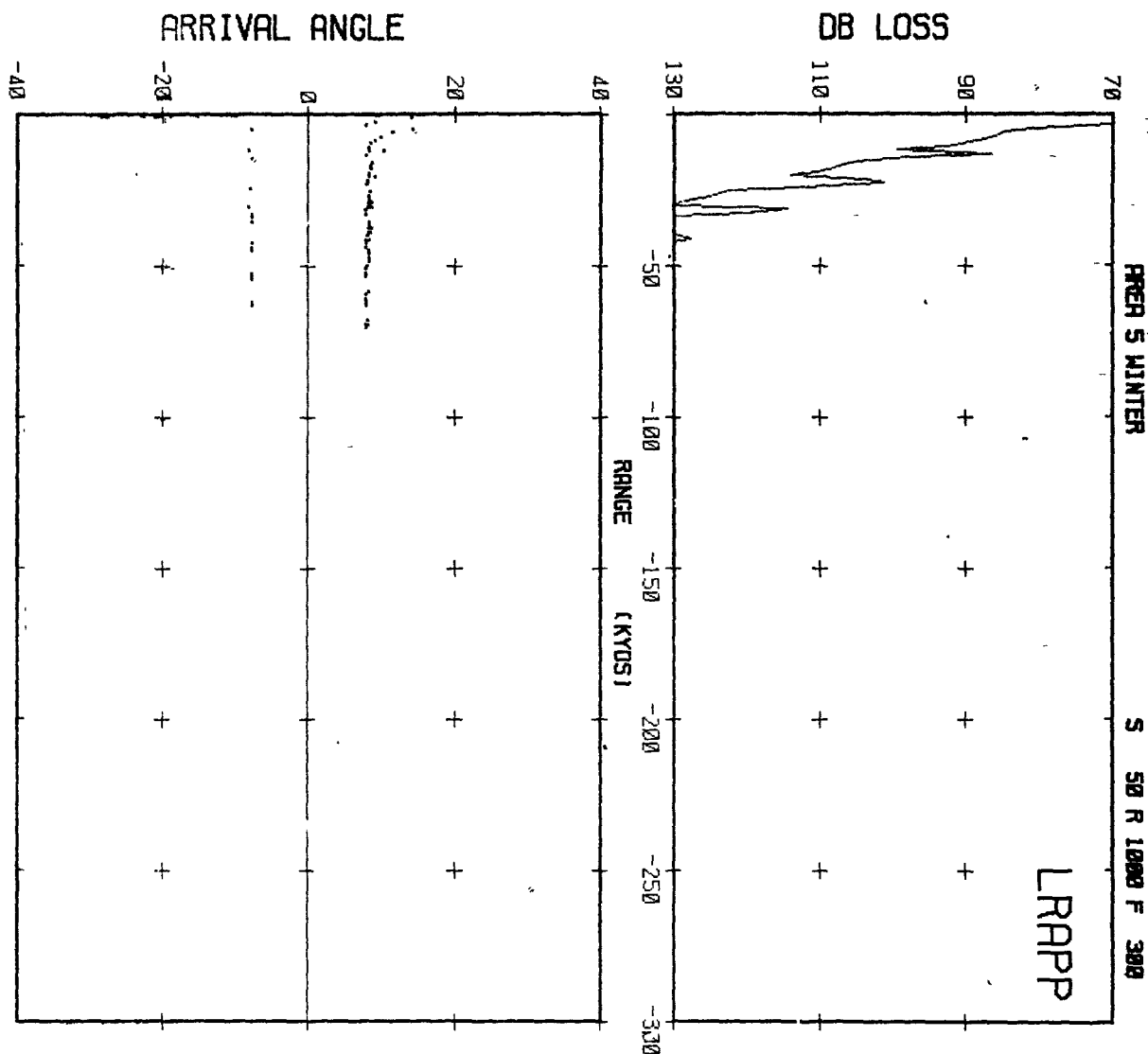
NOISE (DB)



TOTAL -39.9 DB

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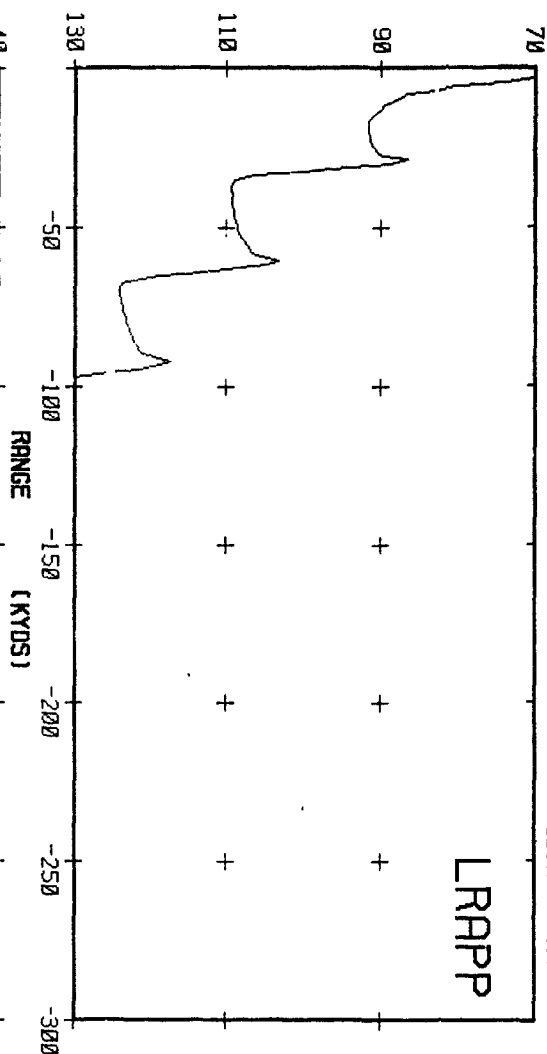


PREP 5 WINTER

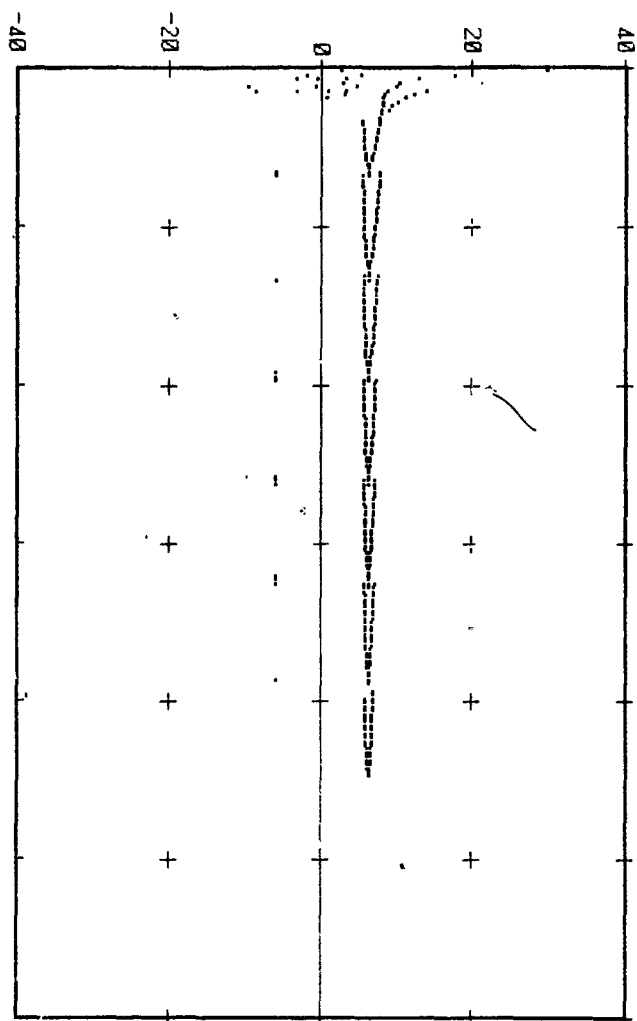
S 1020 R 1000 F 300

LRAPP

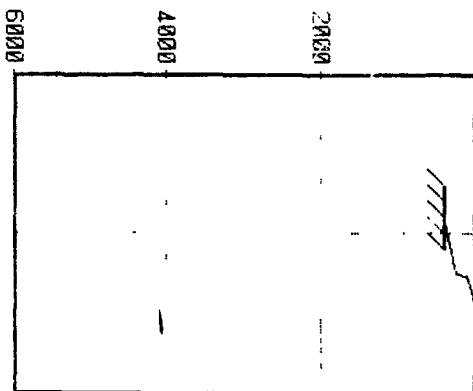
DB LOSS



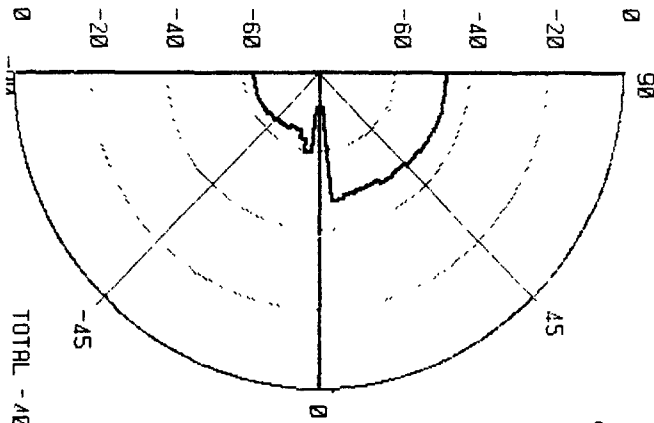
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



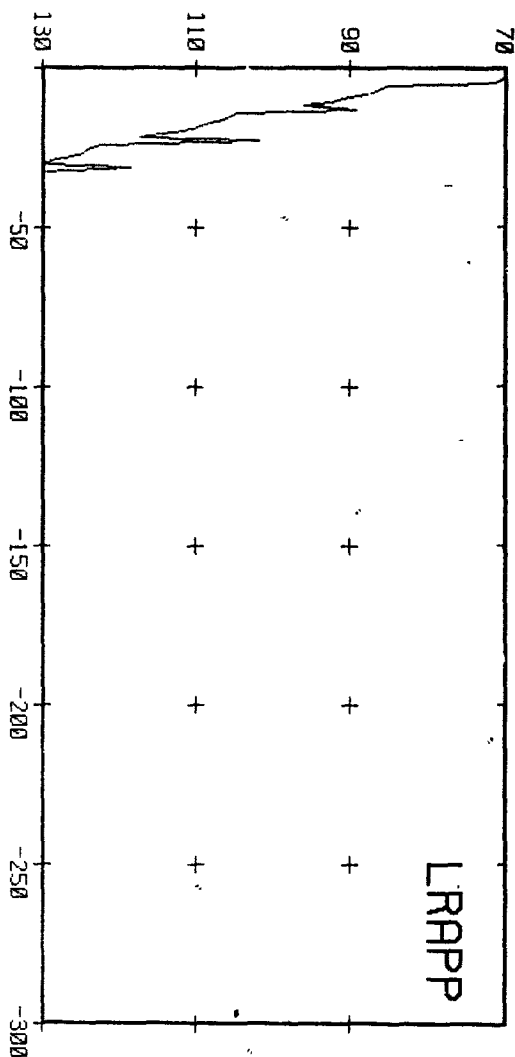
TOTAL -40.0 DB

PREA 5 WINTER

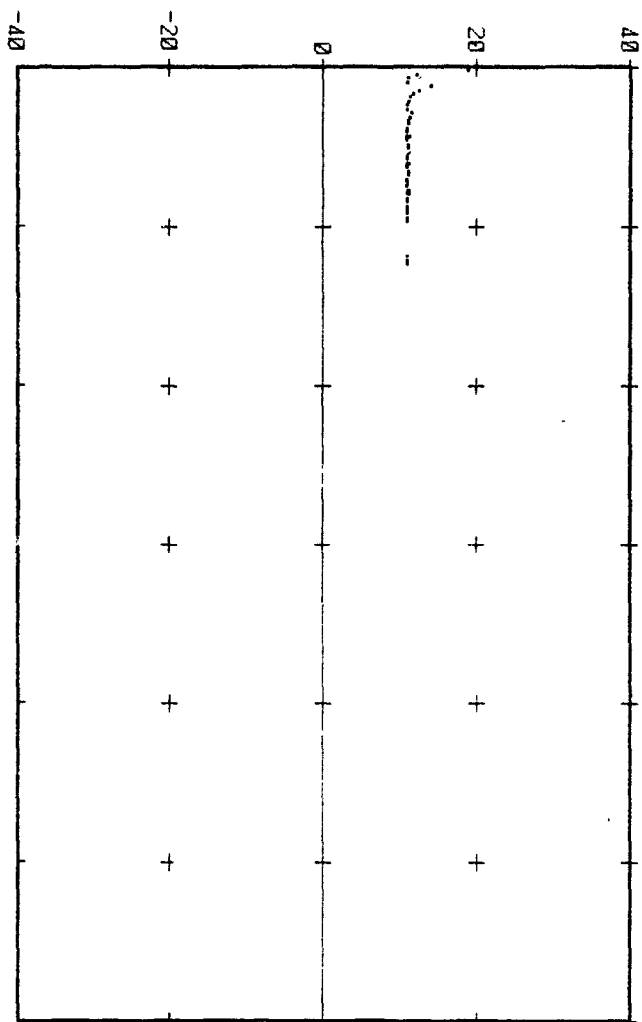
S 20 R 1312 F 300

LRAPP

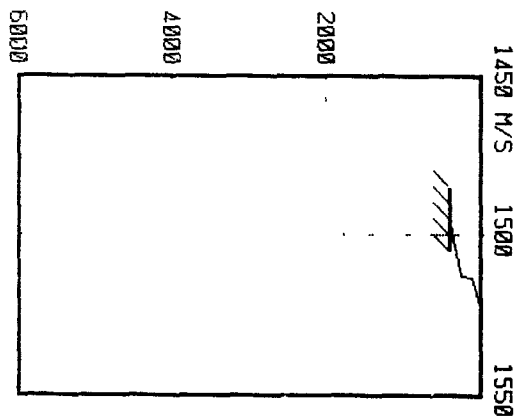
DB LOSS



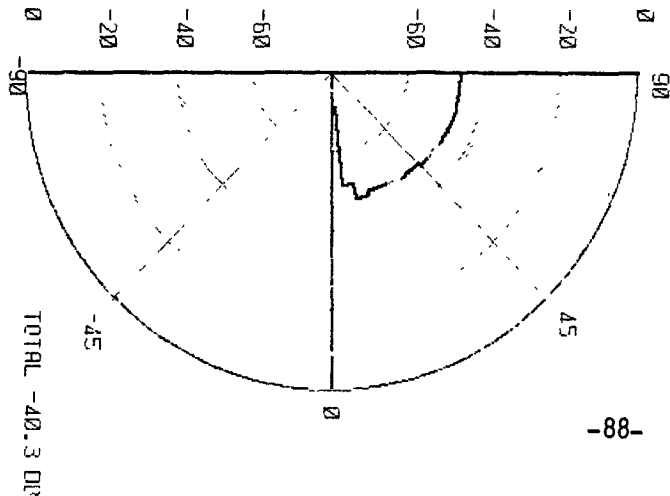
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

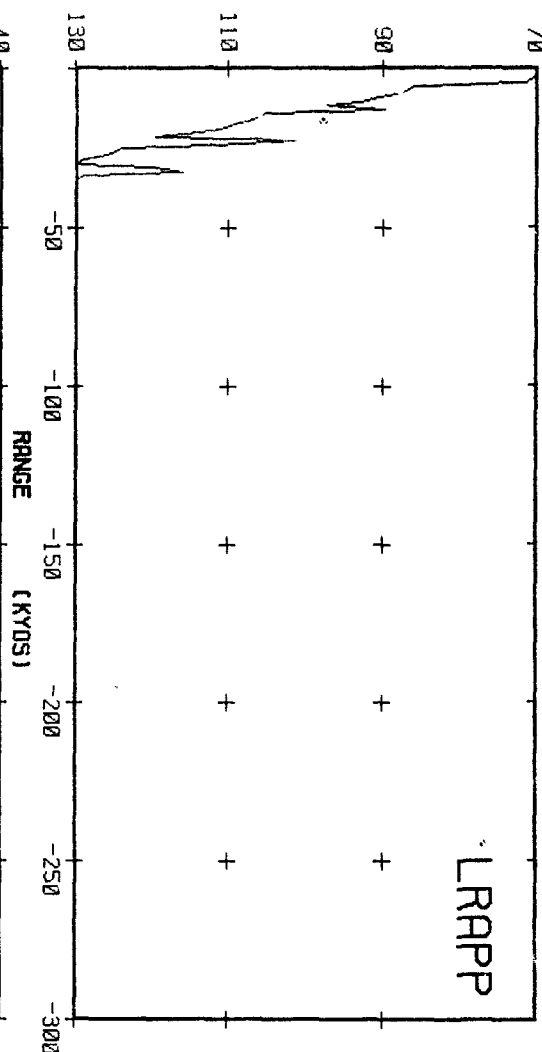


AREA 5 WINTER

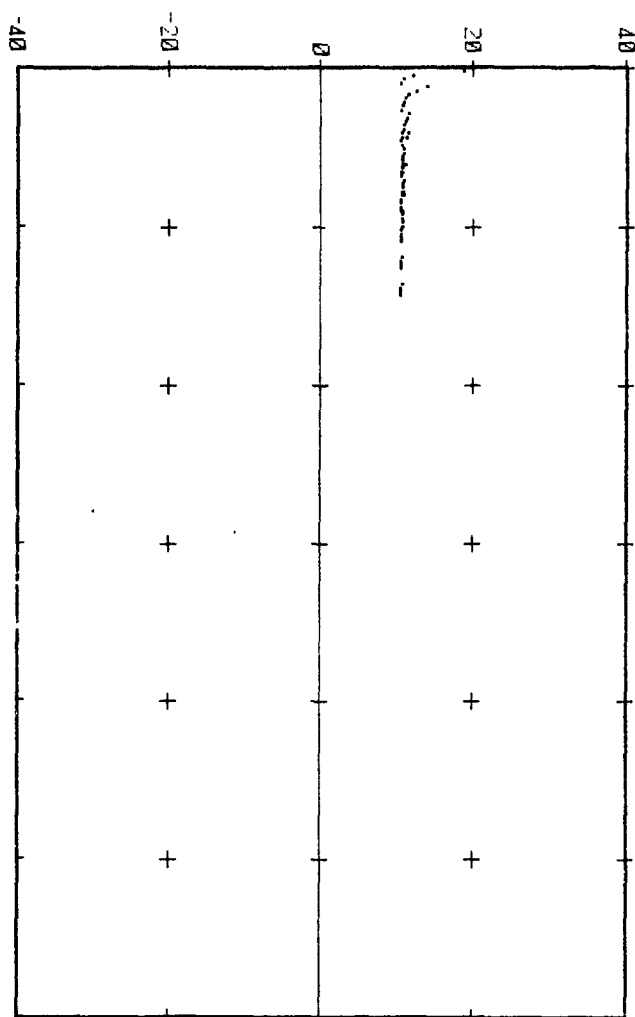
S 50 R 1312 F 300

LRAPP

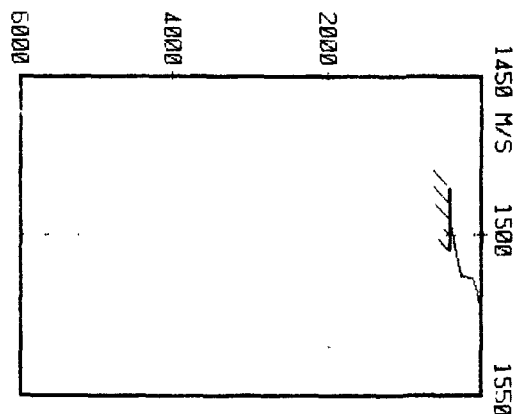
DB LOSS



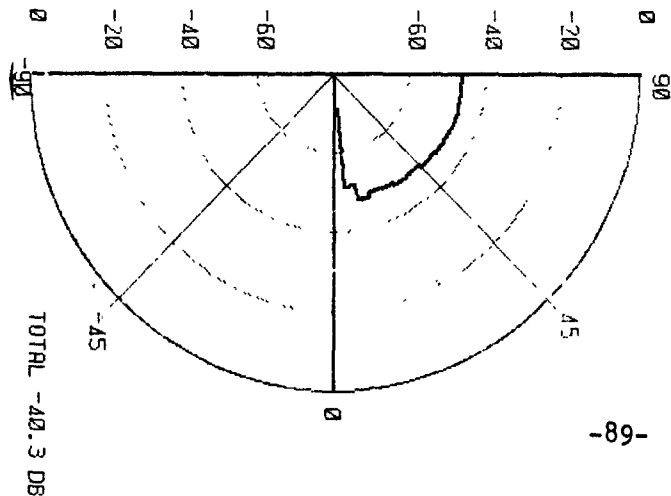
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -40.3 DB

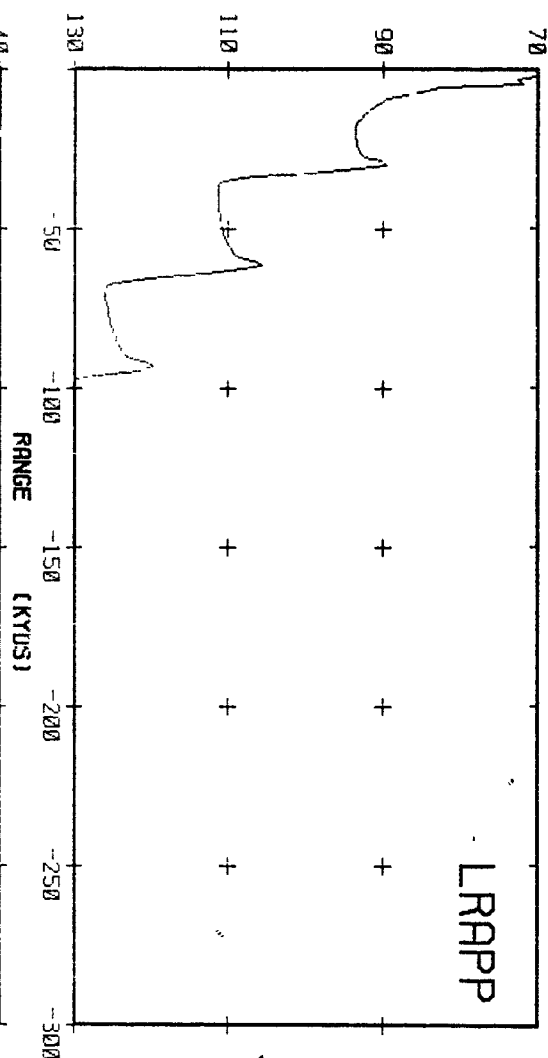
-89-

AREA 5 WINTER

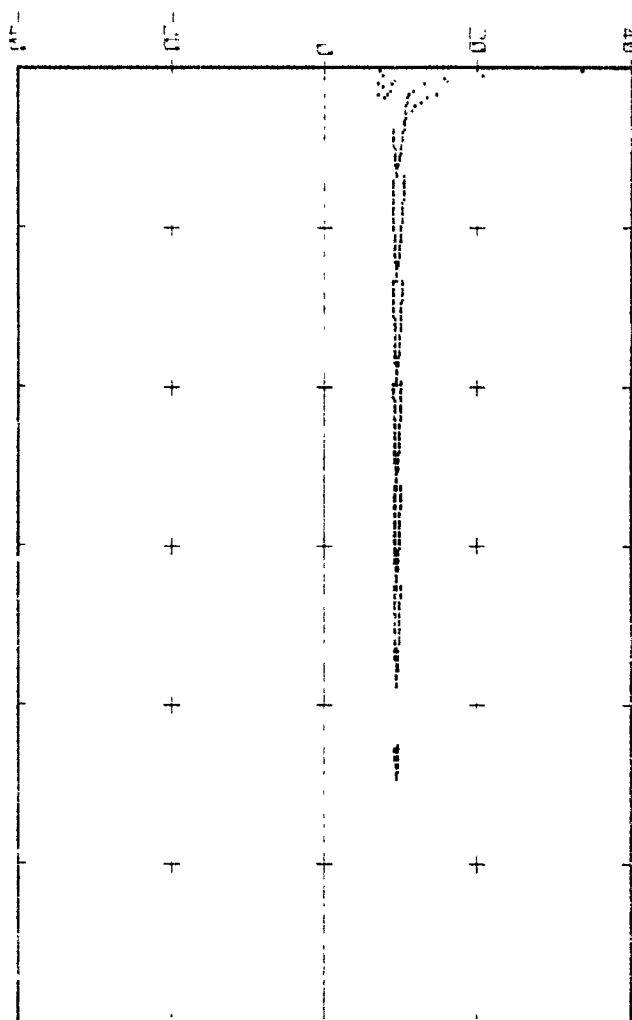
S 1020 R 1312 F 300

LRAPP

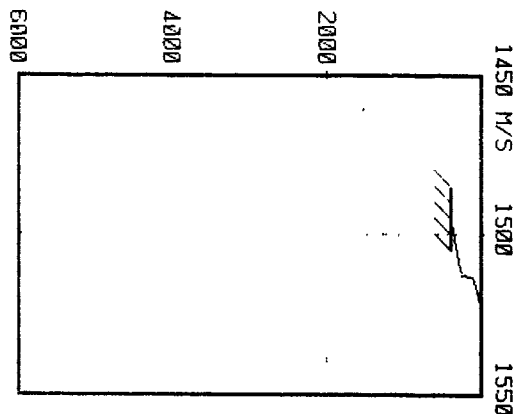
DB LOSS



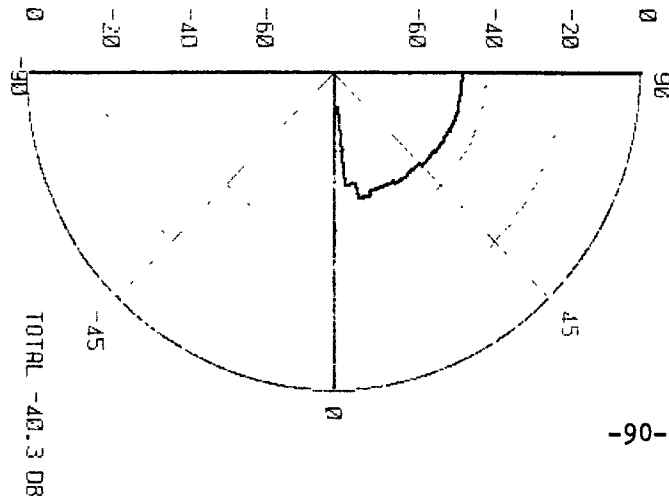
ARRIVAL ANGLE



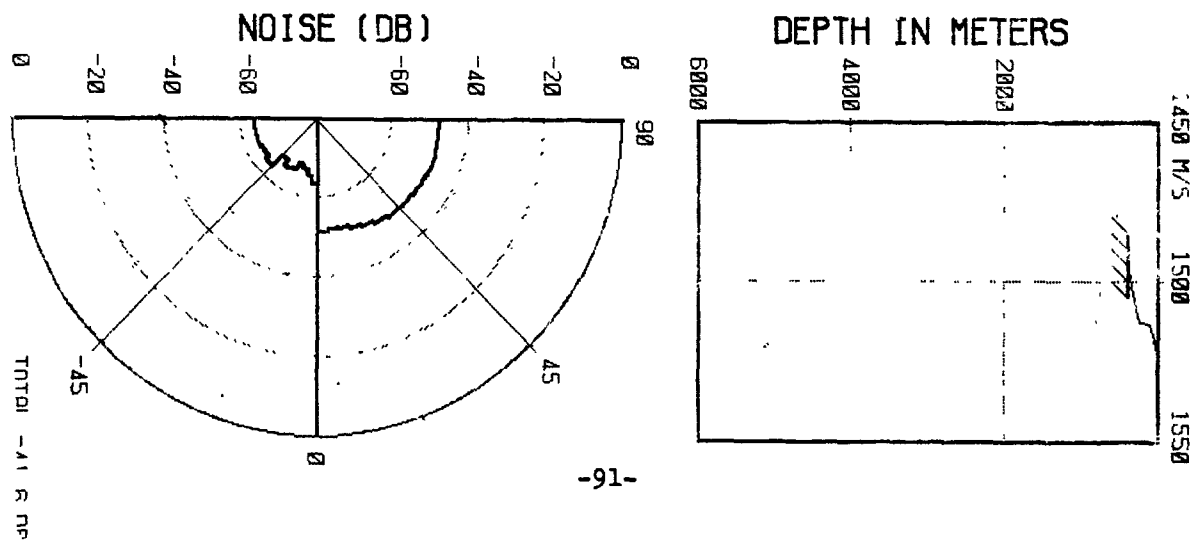
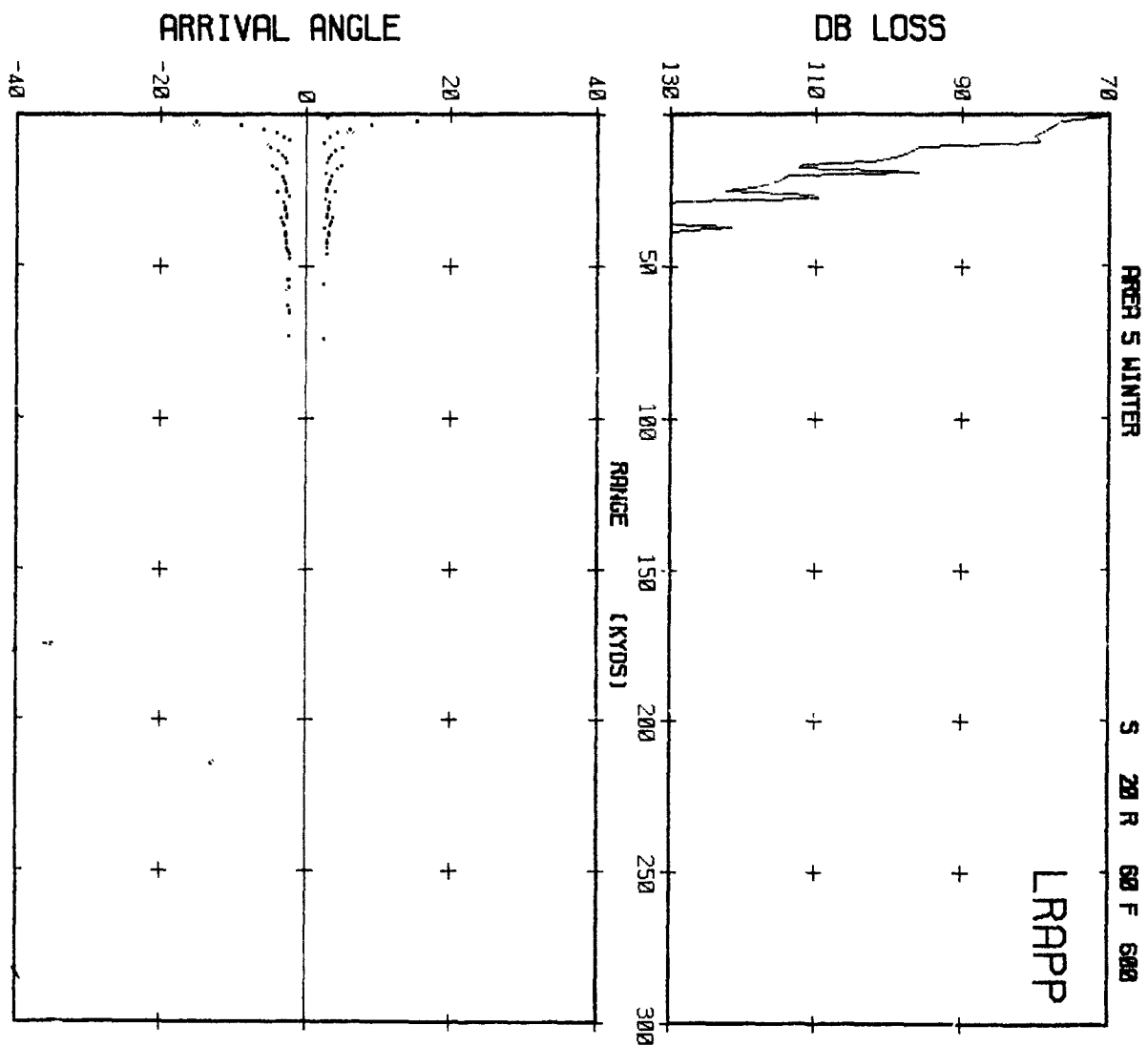
DEPTH IN METERS



NOISE (DB)



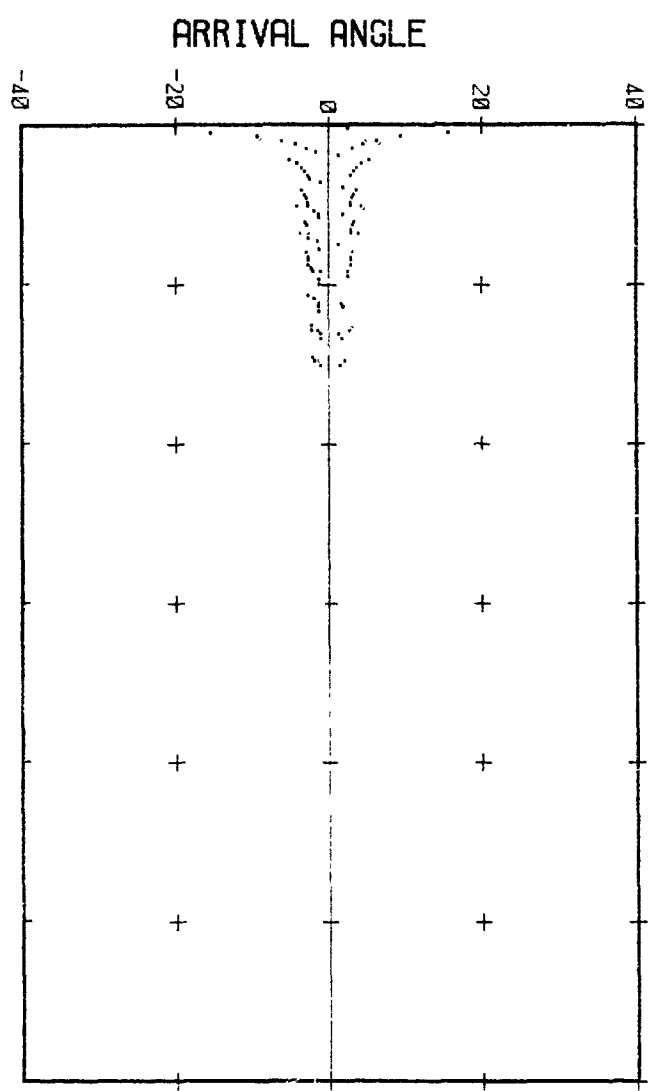
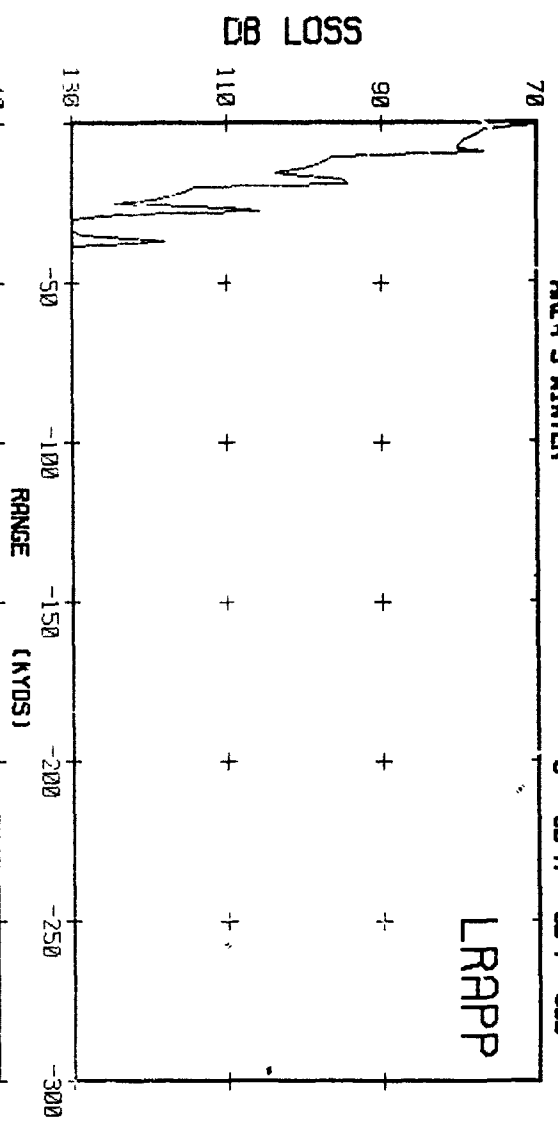
TOTAL -40.3 DB



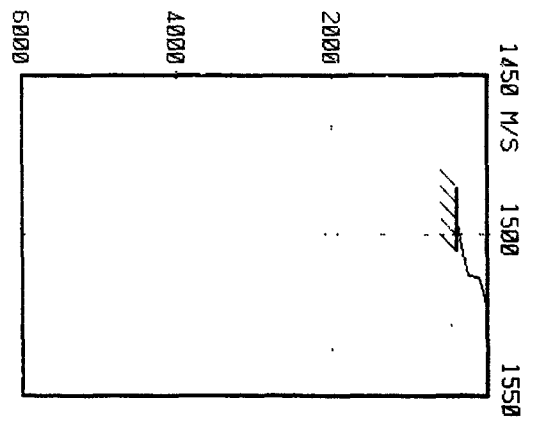
1. 0.1
 2. 0.2
 3. 0.3
 4. 0.4
 5. 0.5
 6. 0.6
 7. 0.7
 8. 0.8
 9. 0.9
 10. 1.0

AREA 5 WINTER S 50 R 60 F 680

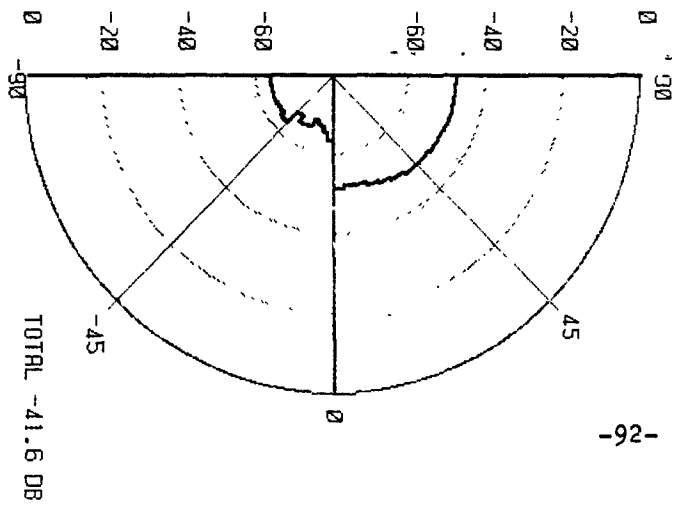
LRAPP



DEPTH IN METERS



NOISE (DB)



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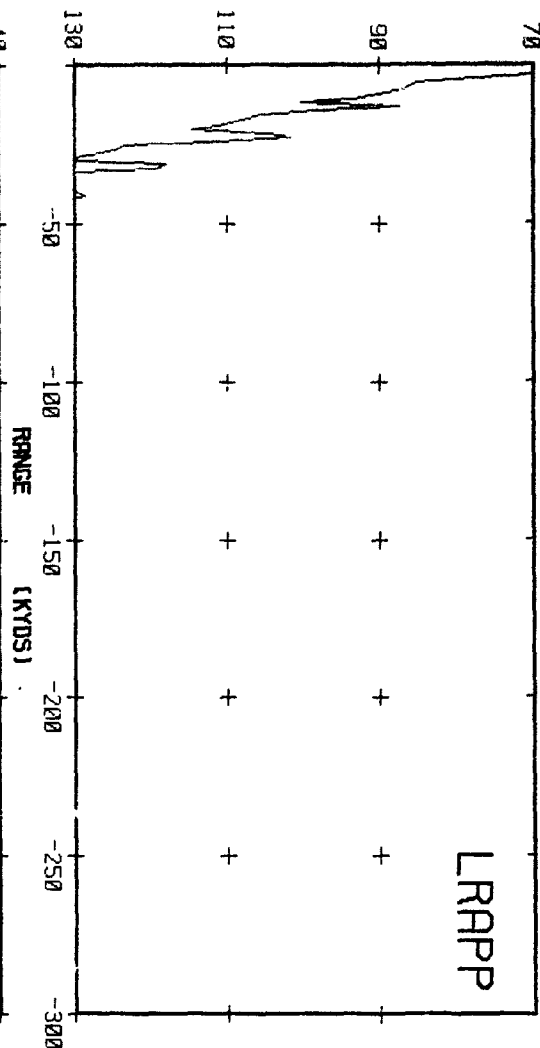
TOTAL -41.6 DB

PREP 5 WINTER

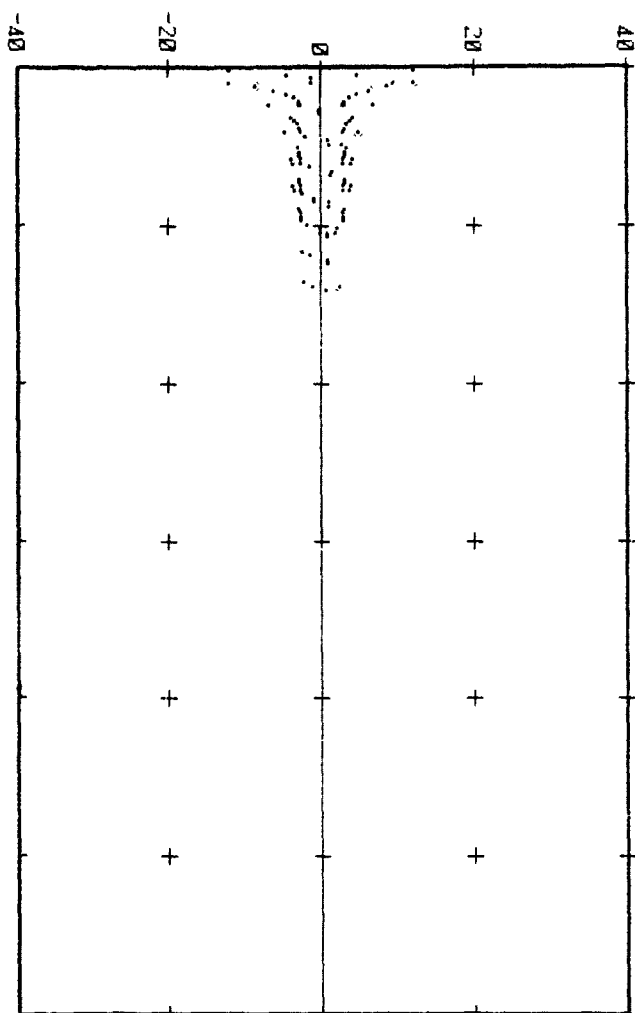
S 1020 R 60 F 600

1450 M/S 1500 1550

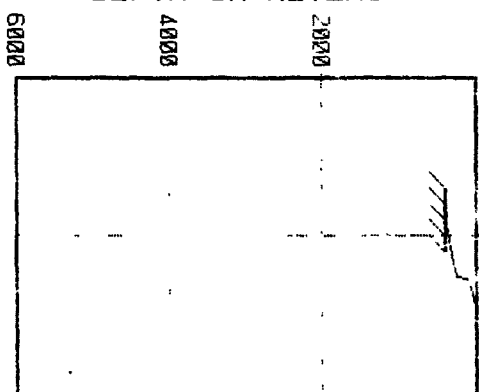
DB LOSS



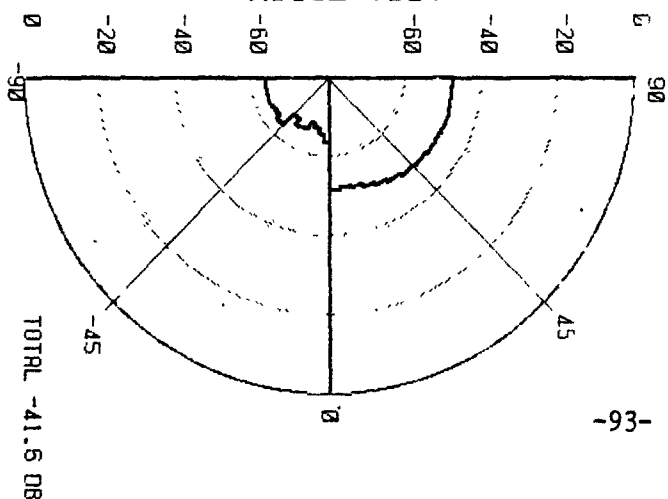
ARRIVAL ANGLE

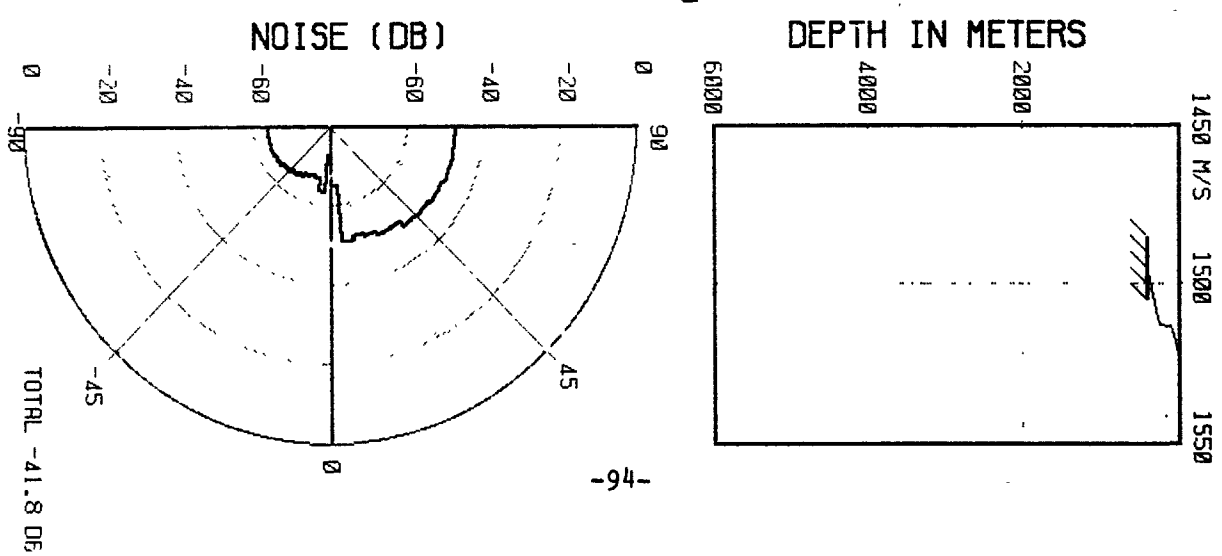
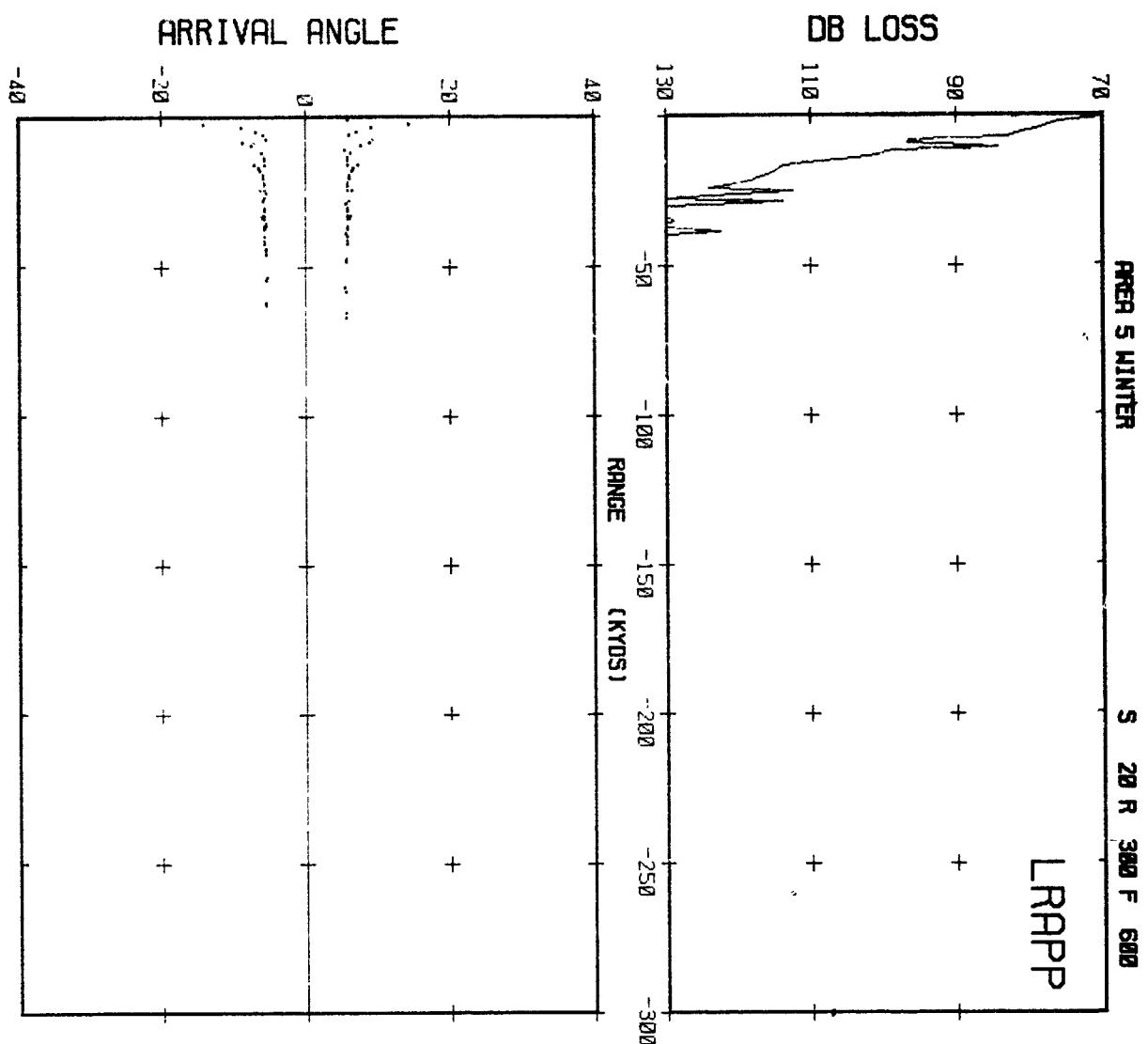


DEPTH IN METERS



NOISE (DB)





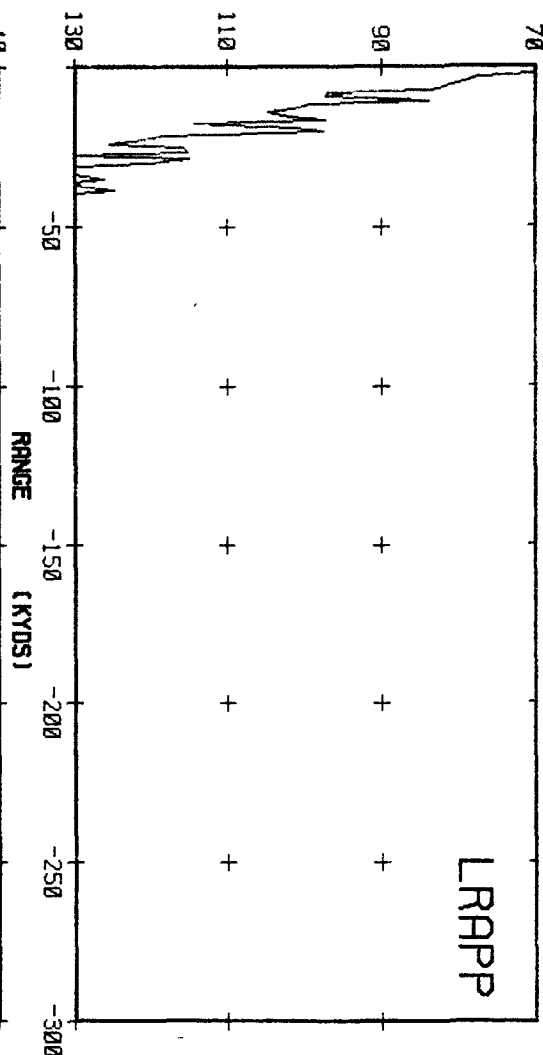
TOTAL -41.8 DB

AREA 5 WINTER

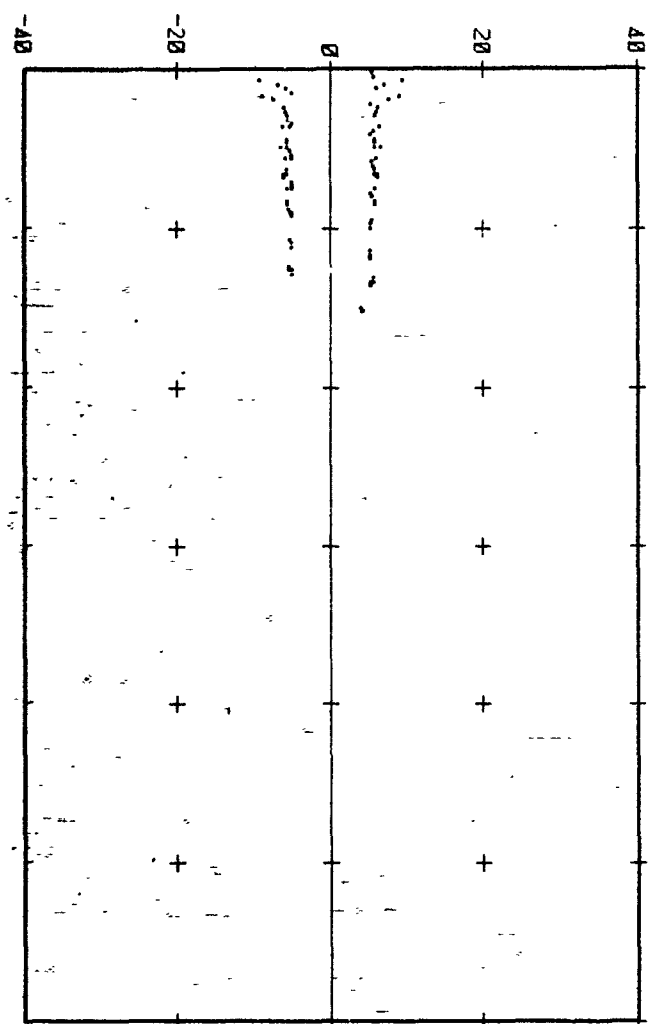
S 50 R 300 F 600

1450 M/S 1500 1550

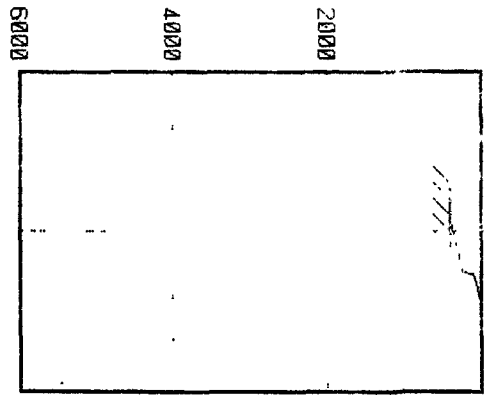
DB LOSS



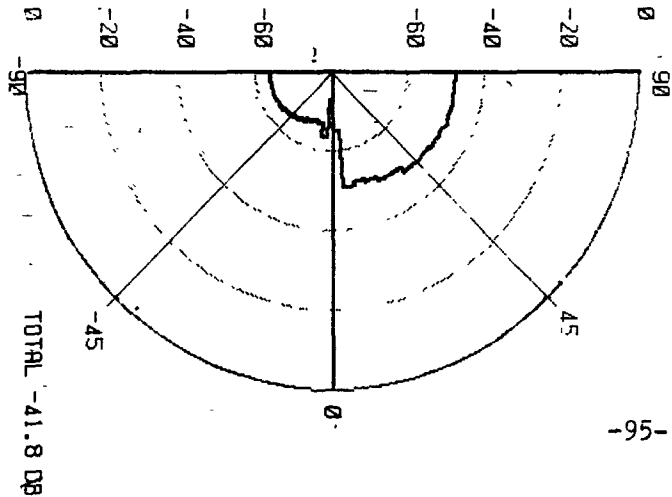
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

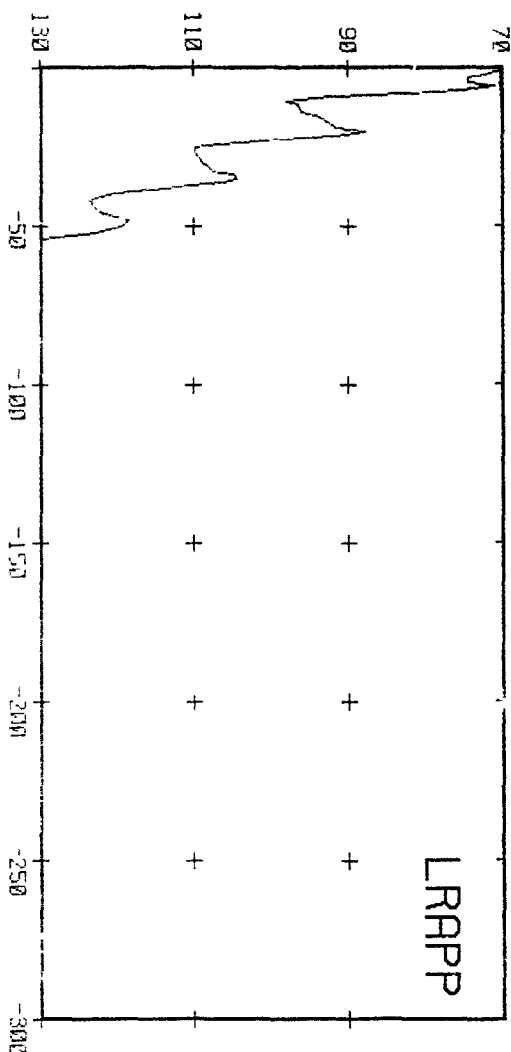


AREA 5 WINTER

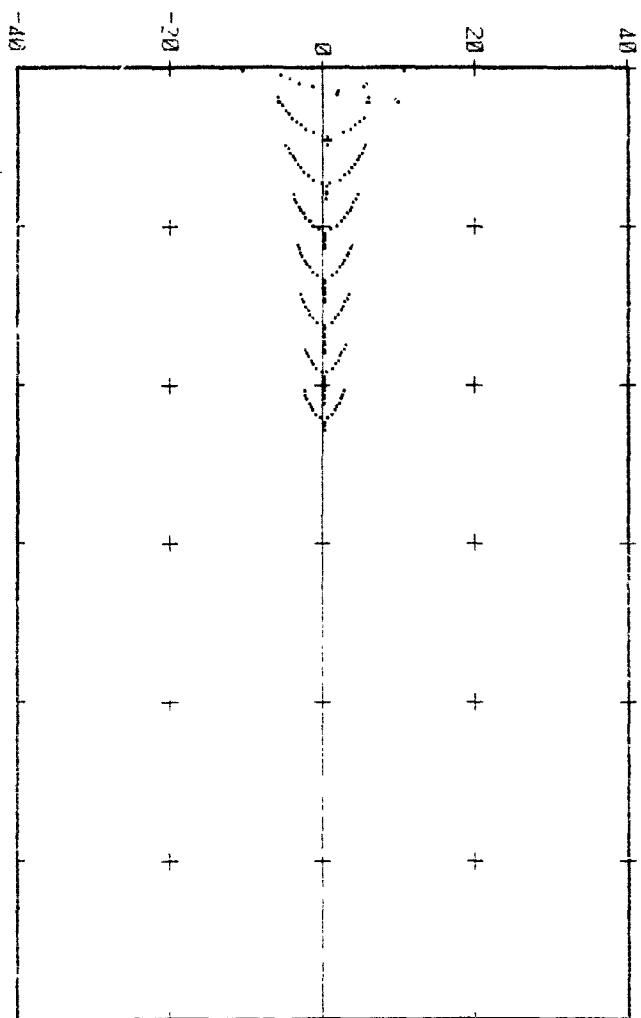
S 1020 R 300 F 600

LRAPP

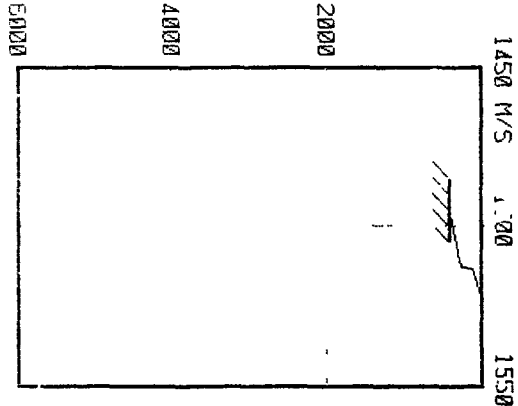
DB LOSS



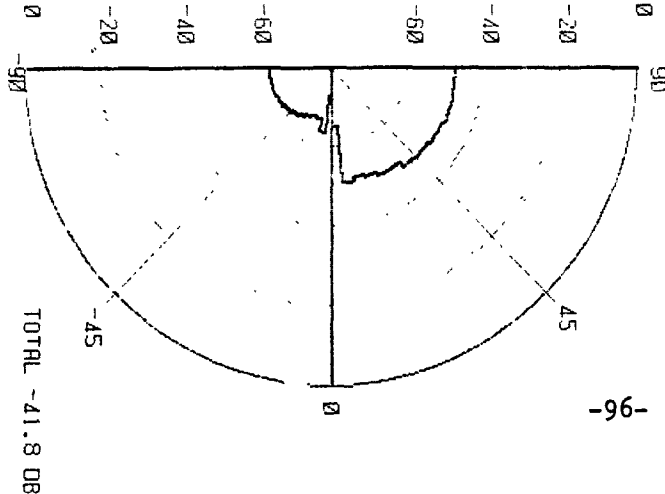
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -41.8 DB

AREA 5 WINTER

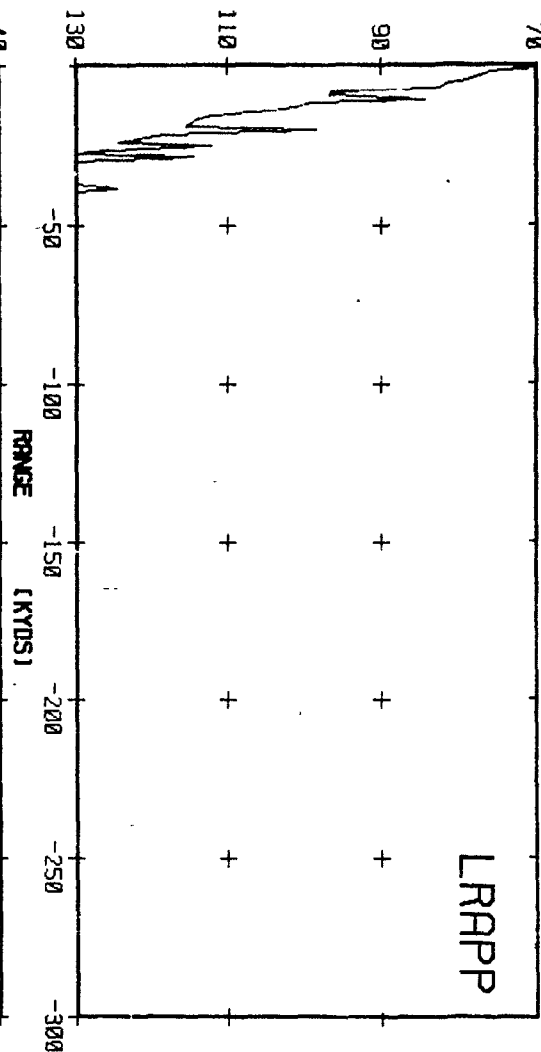
S 20 R 328 F 600

1450 M/S 1500

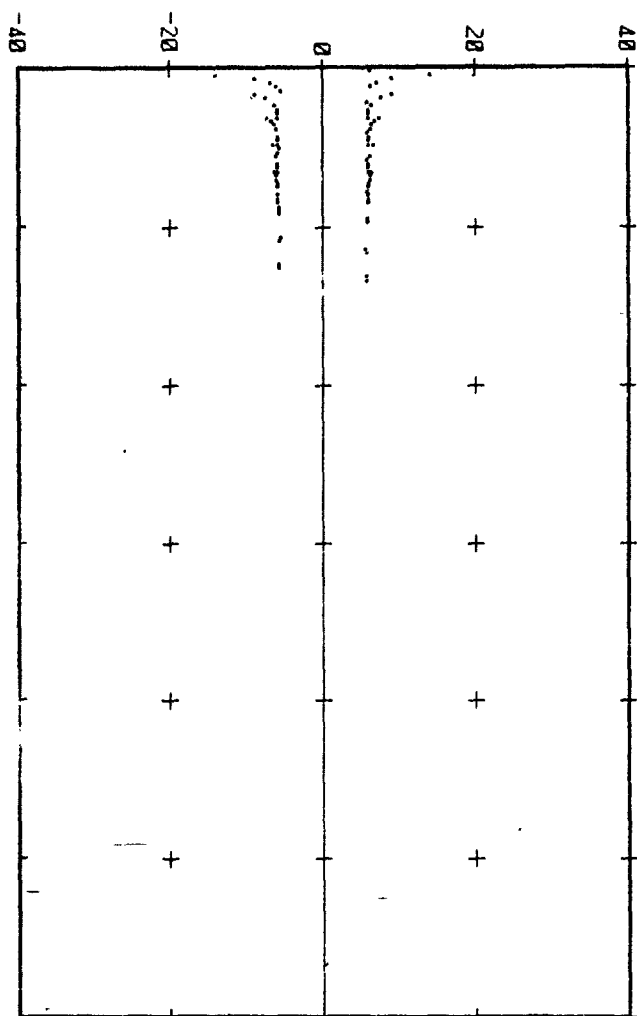
1550

LRAPP

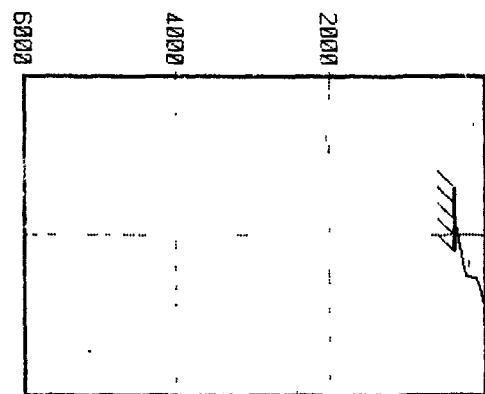
DB LOSS



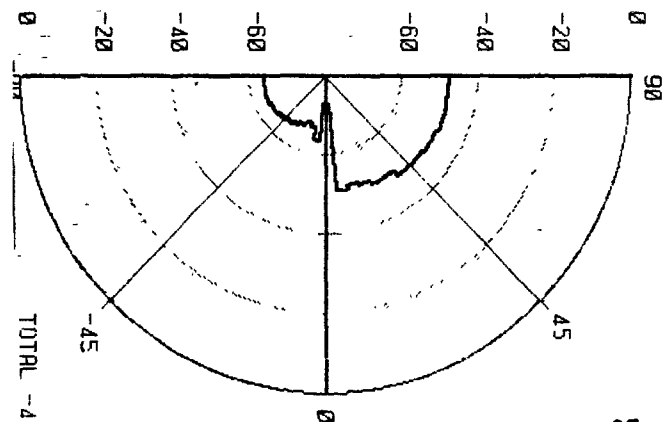
ARRIVAL ANGLE



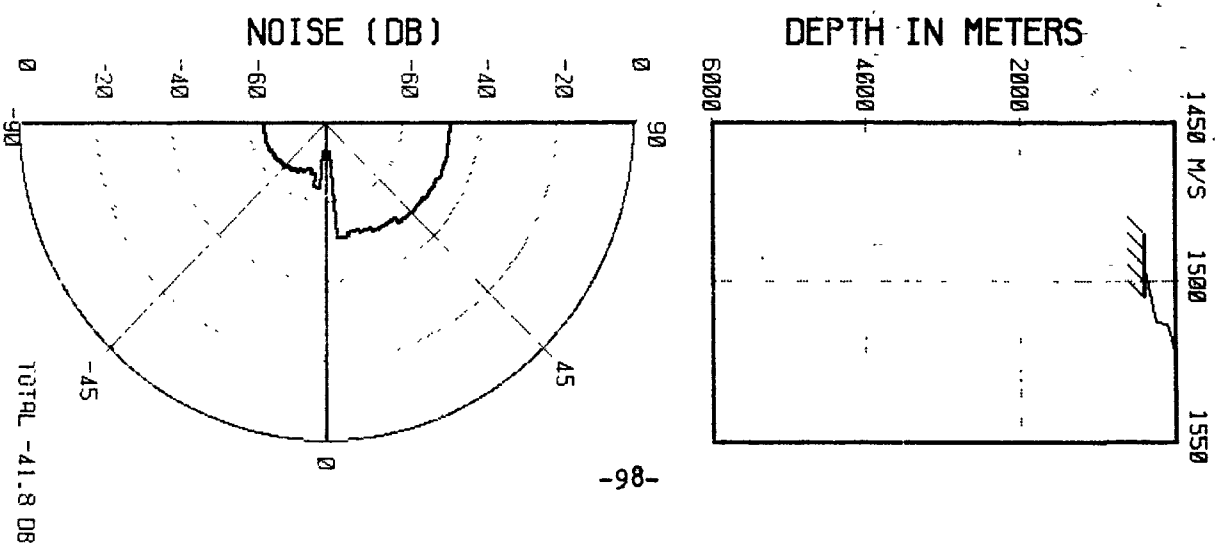
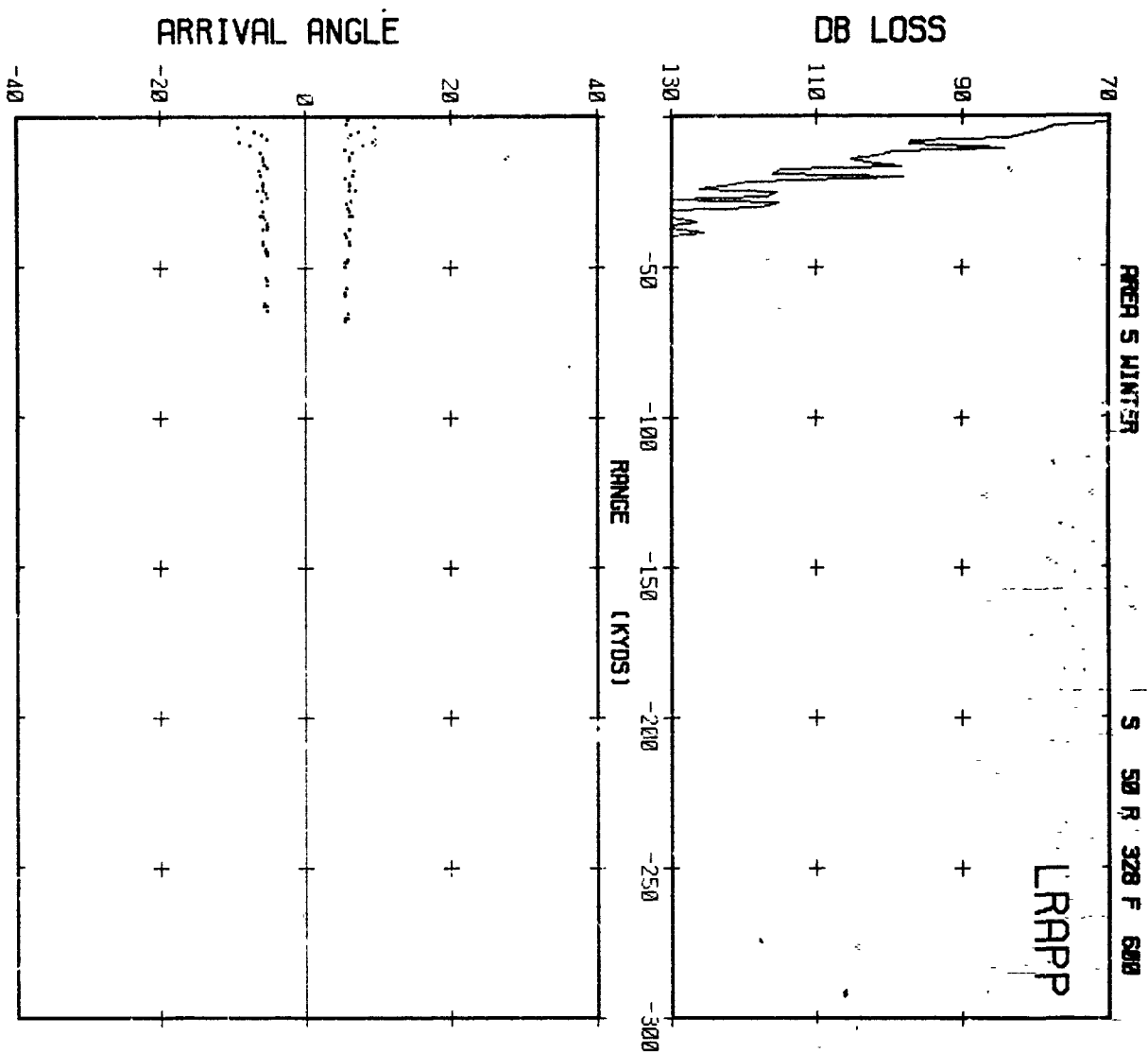
DEPTH IN METERS



NOISE (DB)



TOTAL -41.8 DB

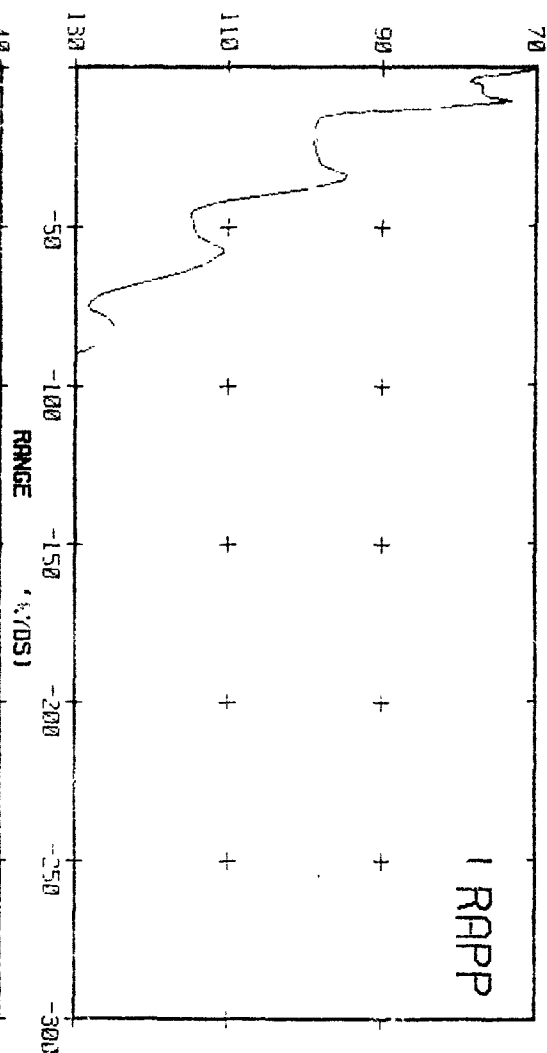


AREA 5 WINTER

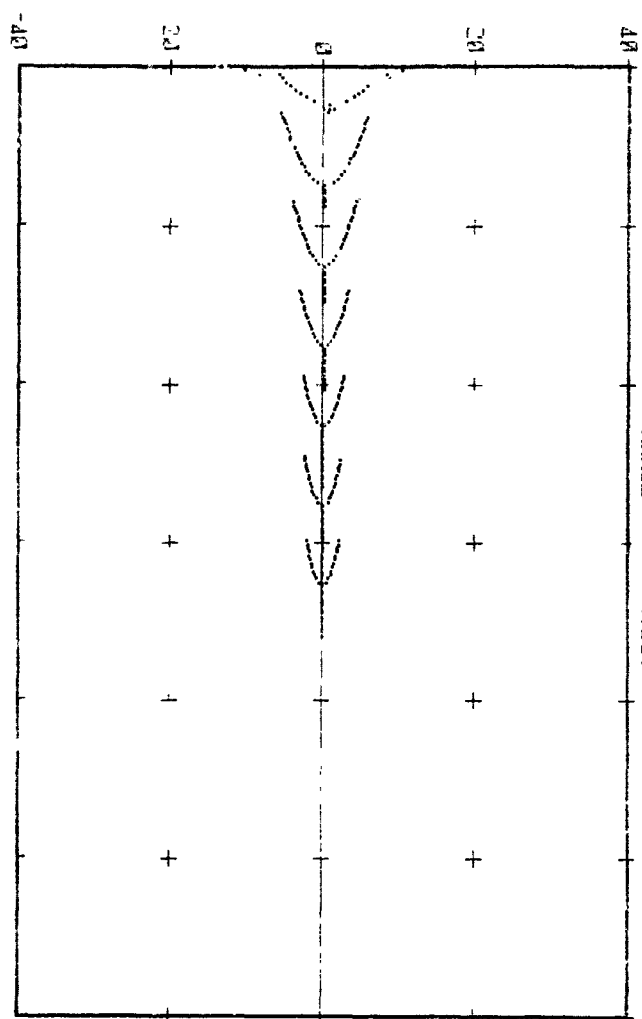
S 1020 R 328 F 500

1 RAPP

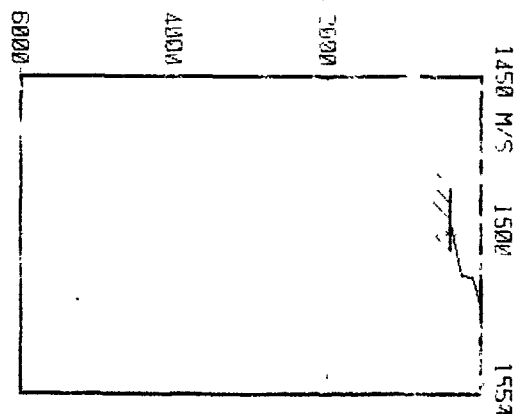
DB LOSS



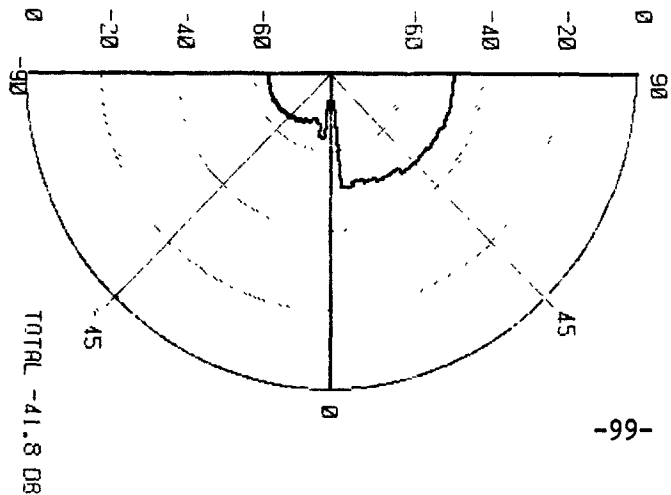
ARRIVAL ANGLE



DEPTH IN METERS

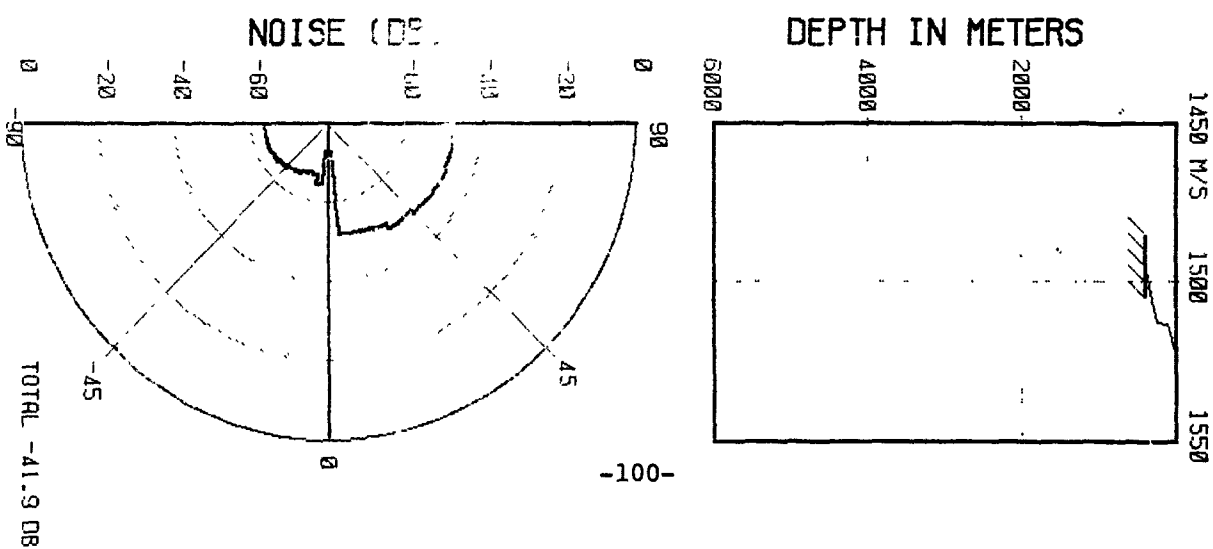
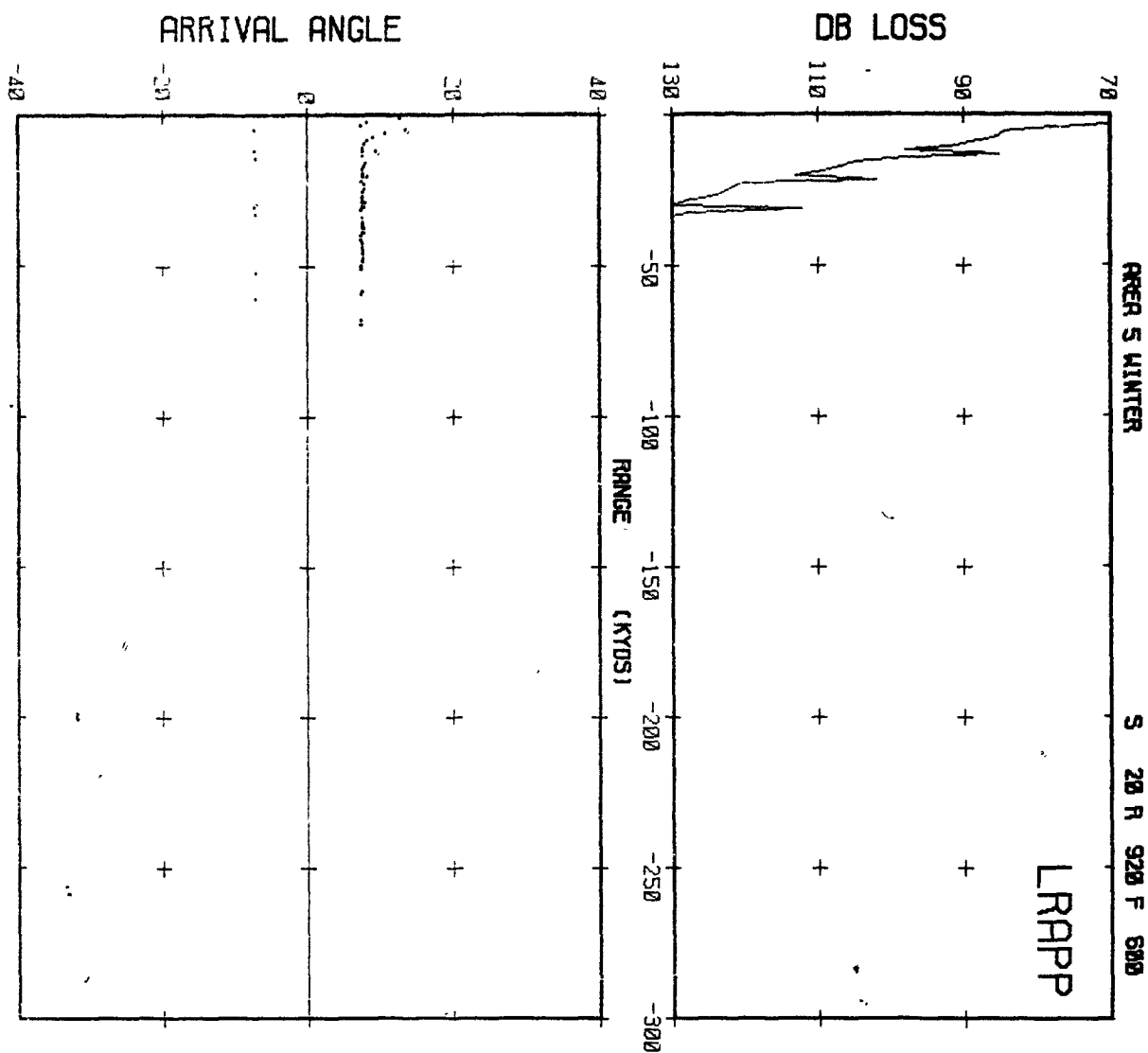


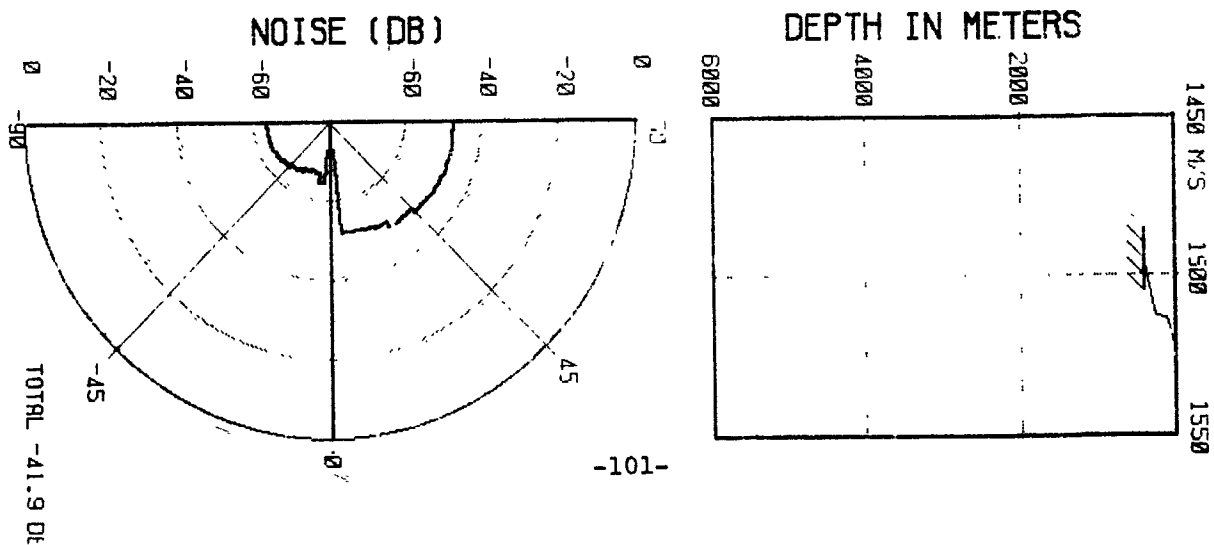
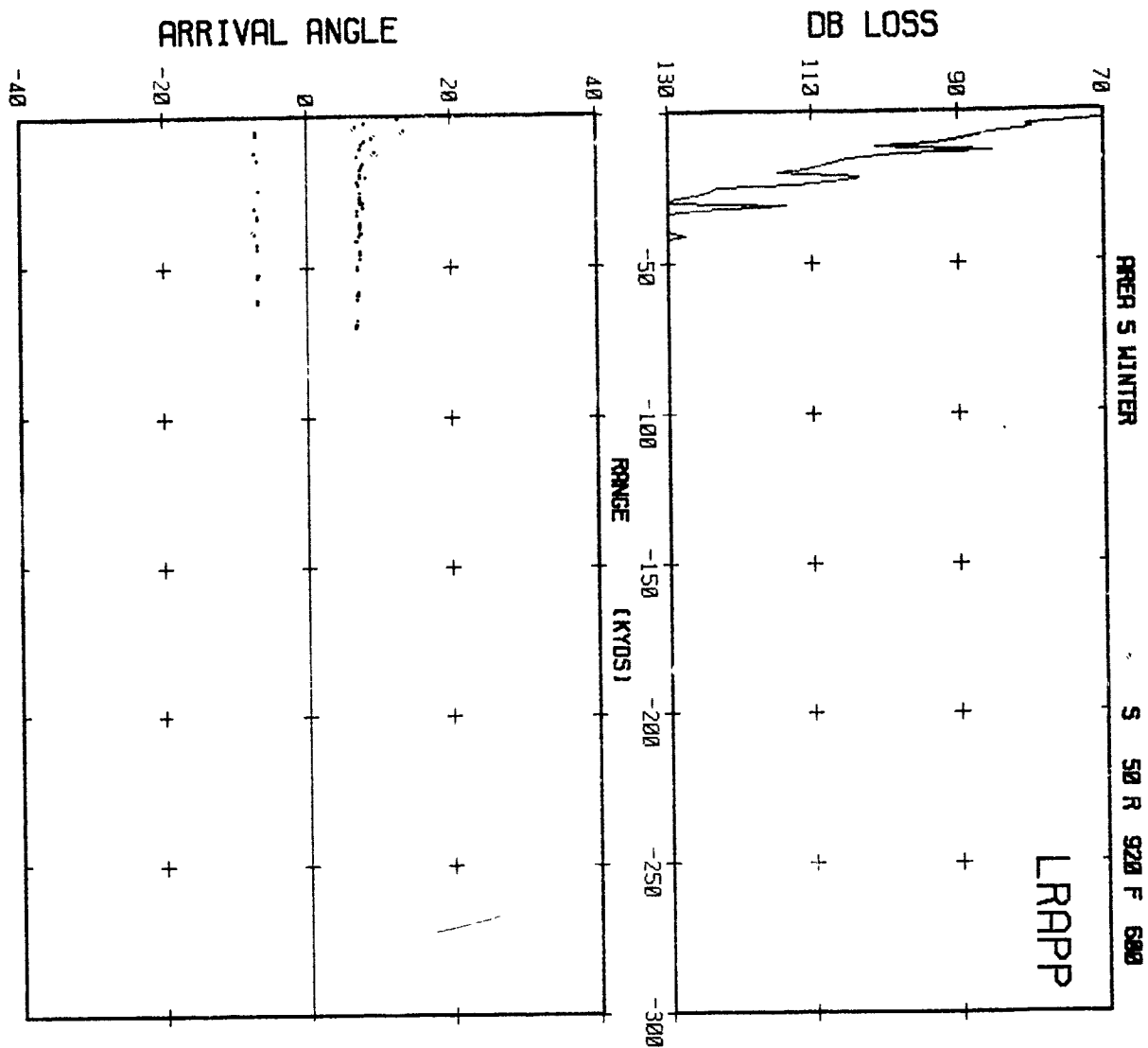
NOISE (DB)



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Date: _____
 Time: _____
 Location: _____



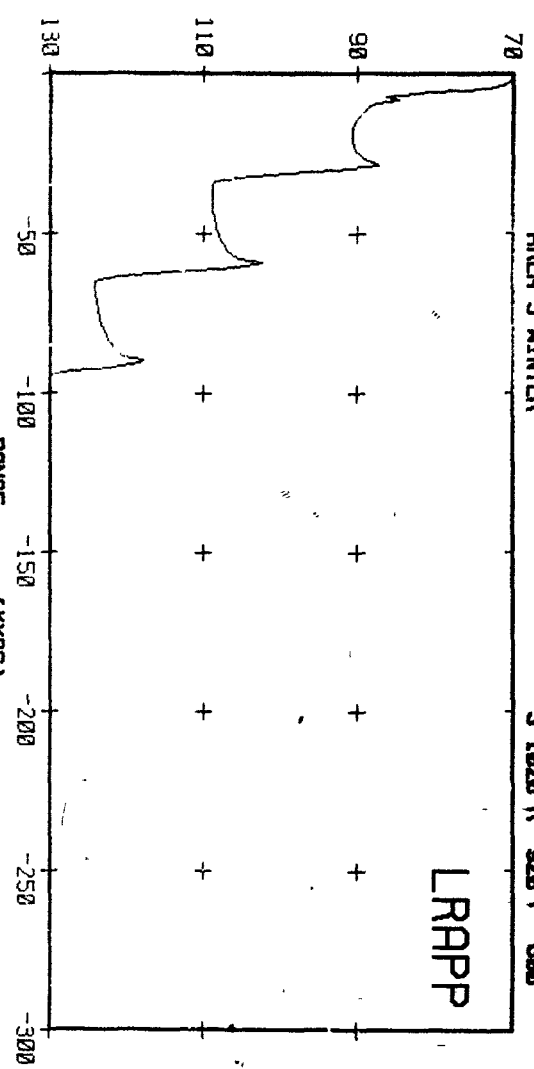




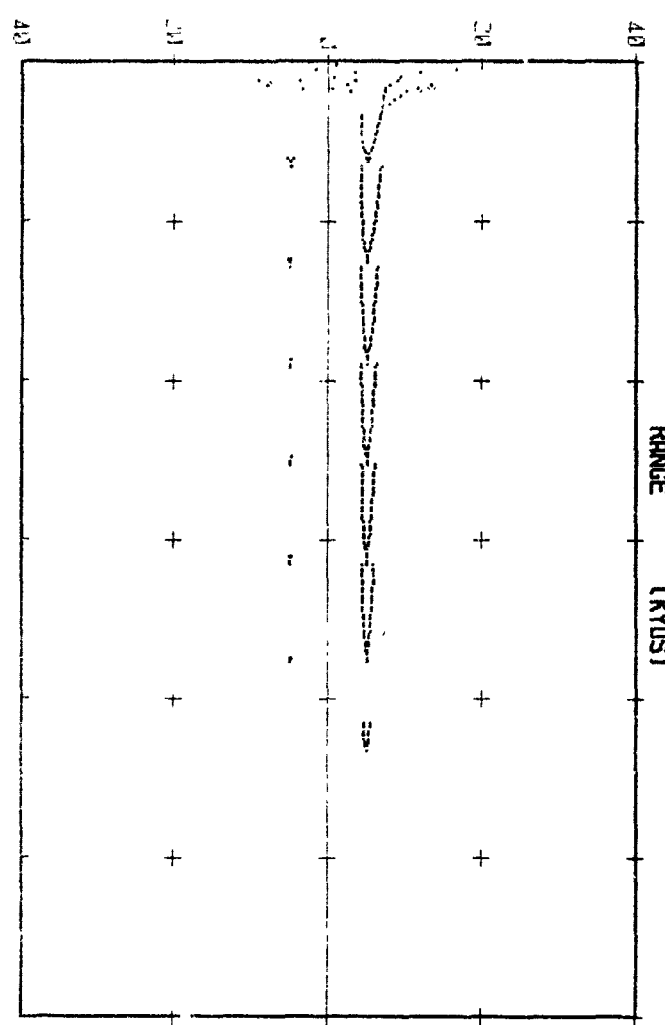
AREA 5 WINTER S 1028 R 928 F 688

LRAPP

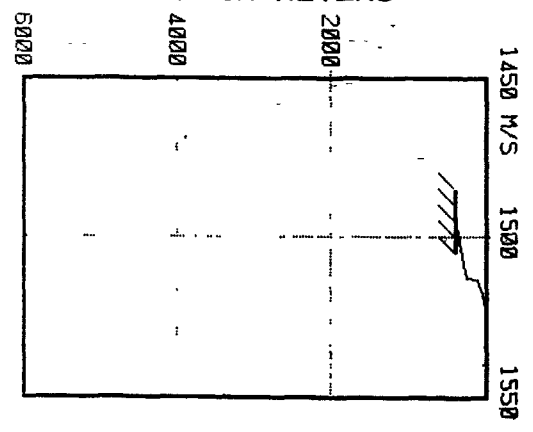
DB LOSS



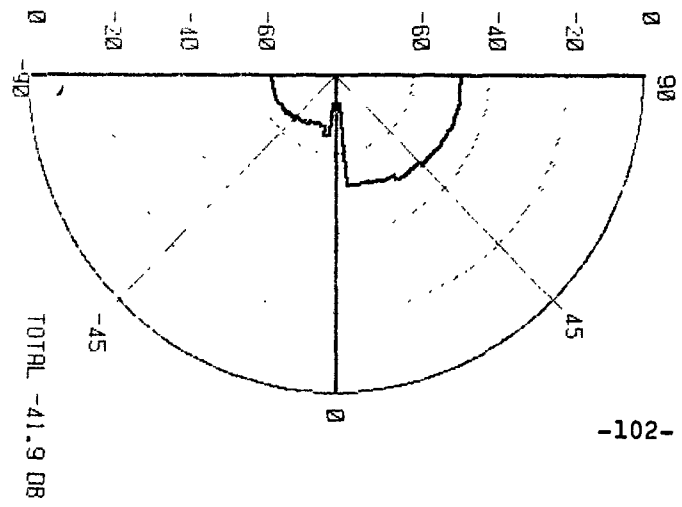
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

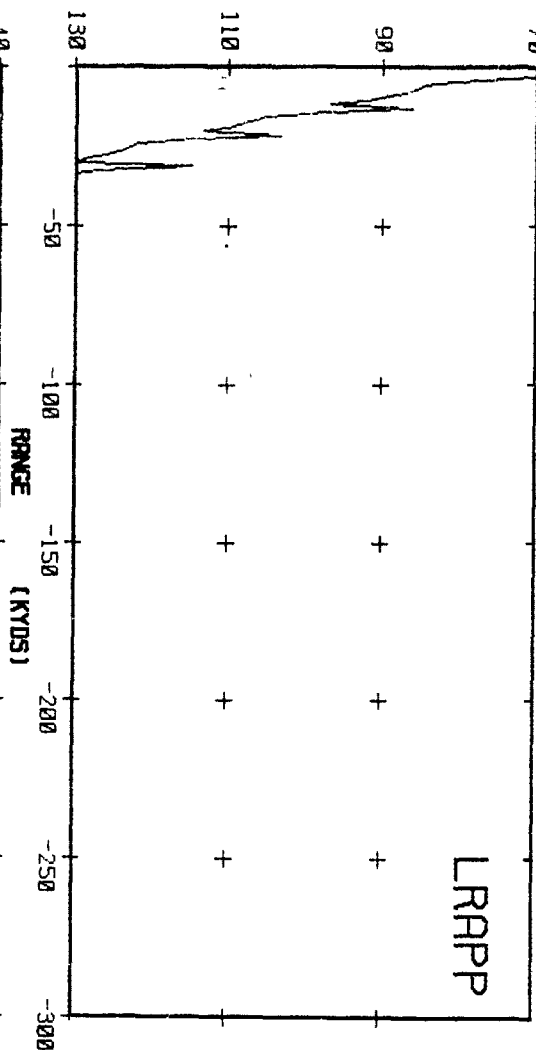


ARRER 5 MINTER

S 20 R 1000 F 600

1450 M/S 1500 1550

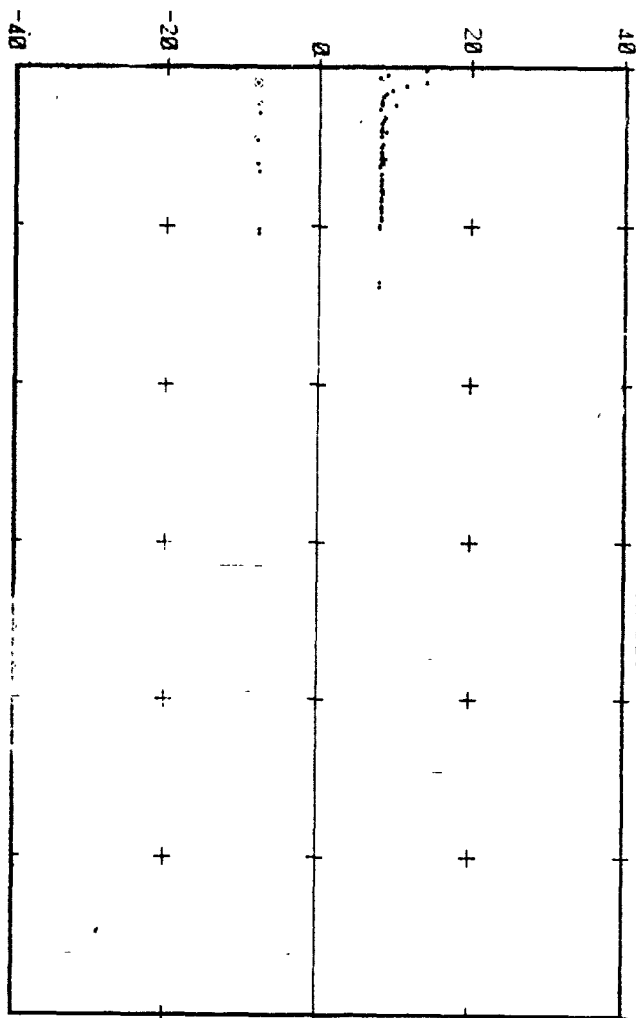
DB LOSS



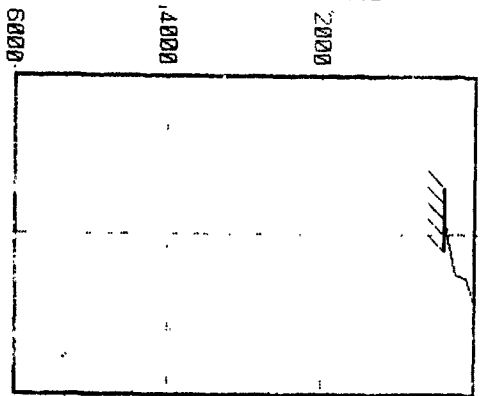
LRAPP

RANGE
(KYDS)

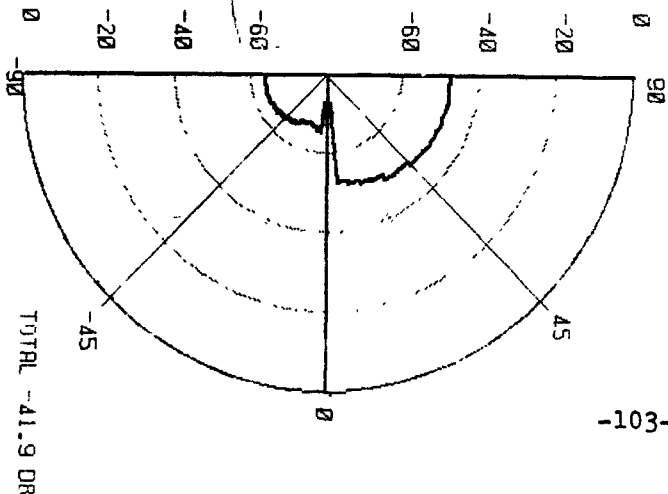
ARRIVAL ANGLE



DEPTH IN METERS

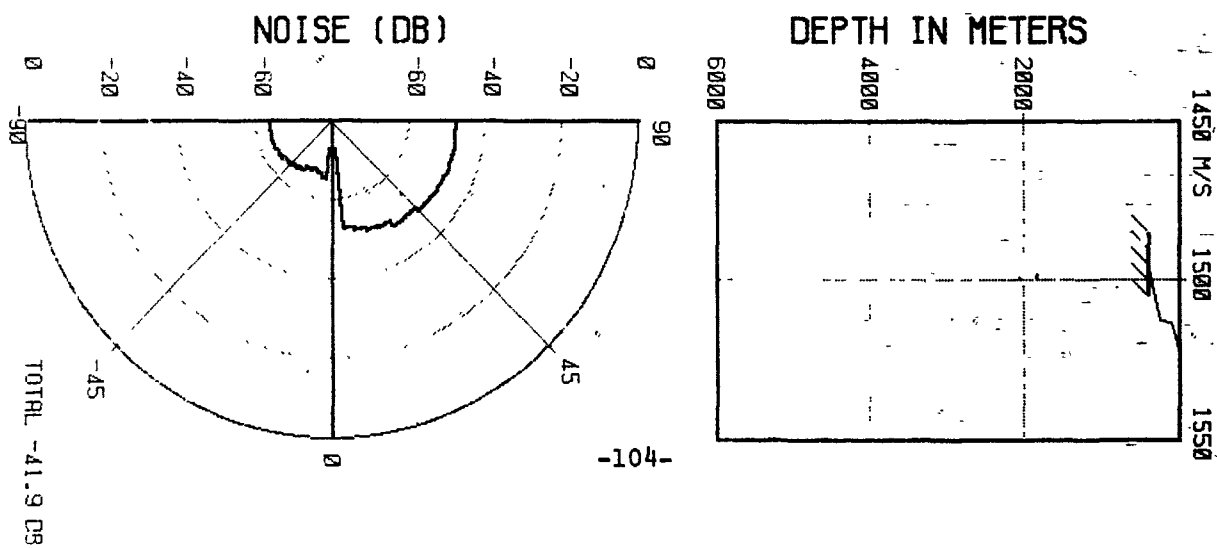
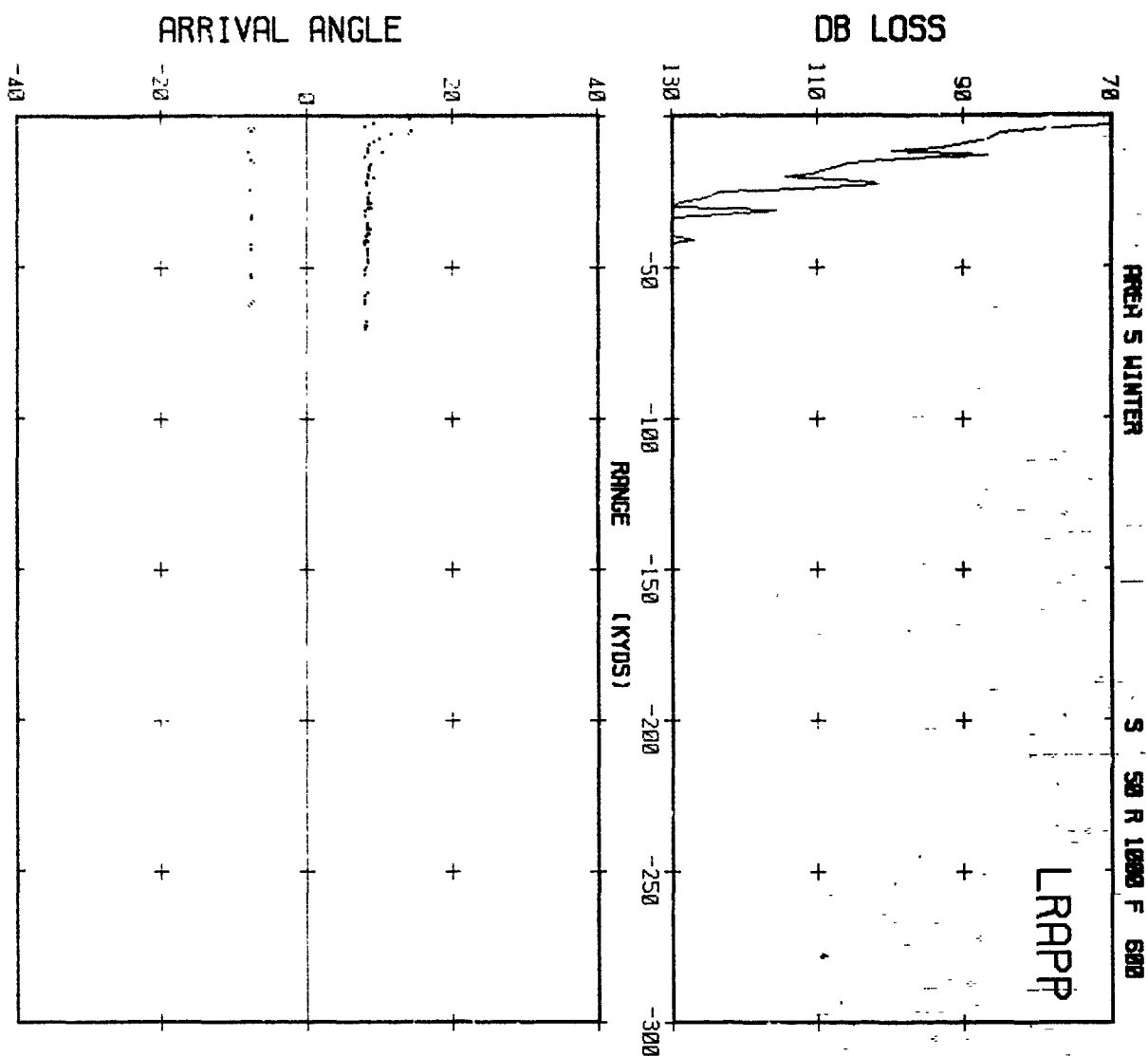


NOISE (DB)



TOTAL -41.9 DB

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PRER 5 WINTER

S 1920 R 1000 F 600

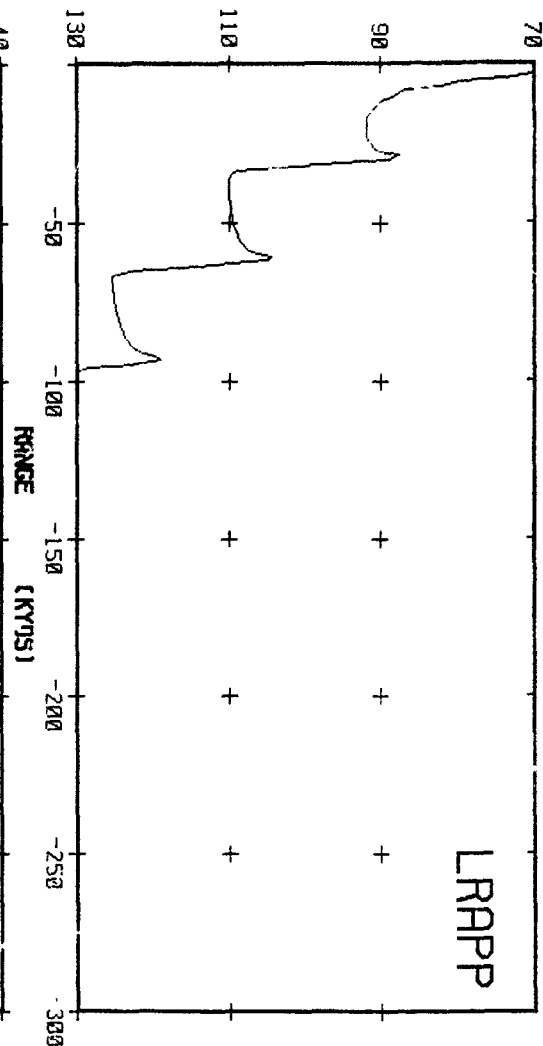
1450 M/S

1500

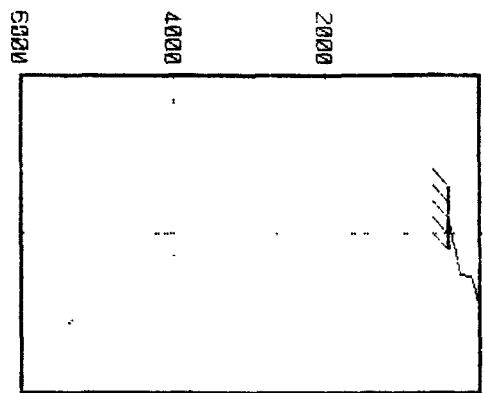
1550

LRAPP

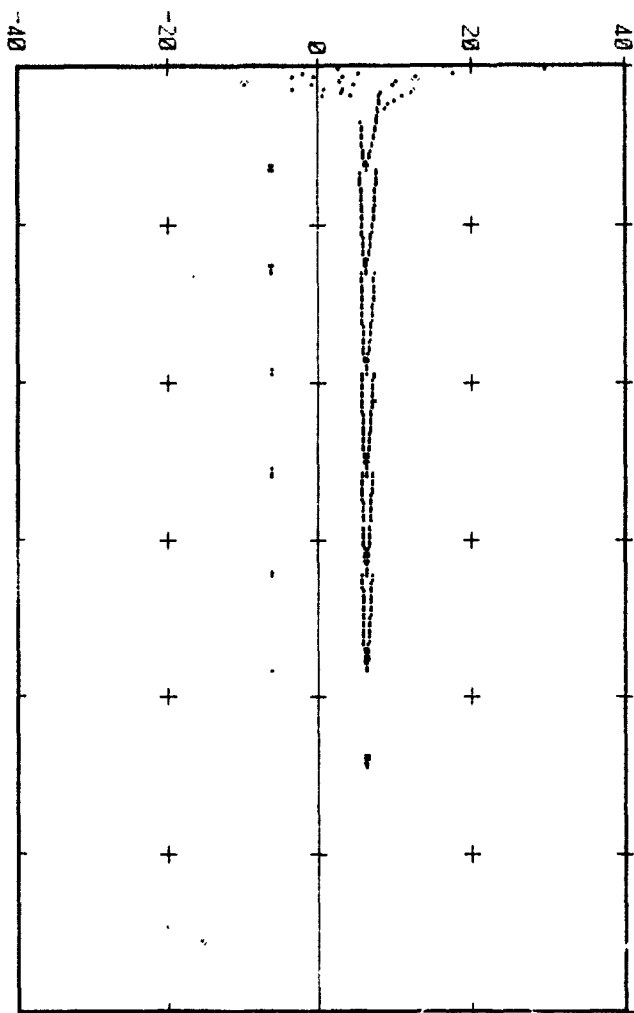
DB LOSS



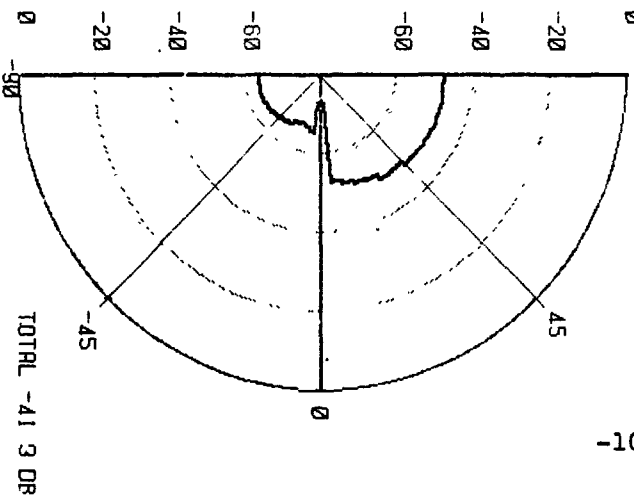
DEPTH IN METERS



ARRIVAL ANGLE



NOISE (DB)

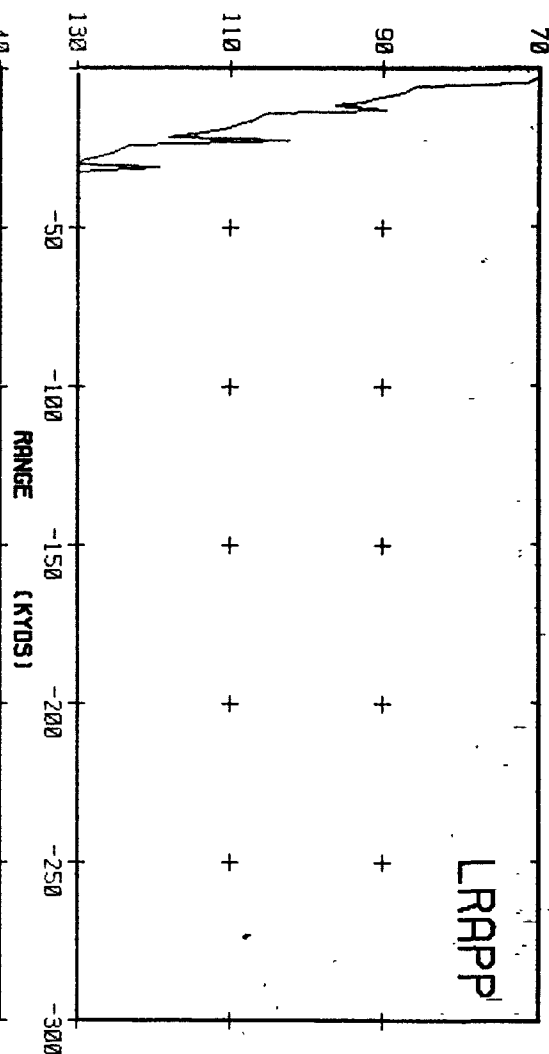


FREE S WINTER

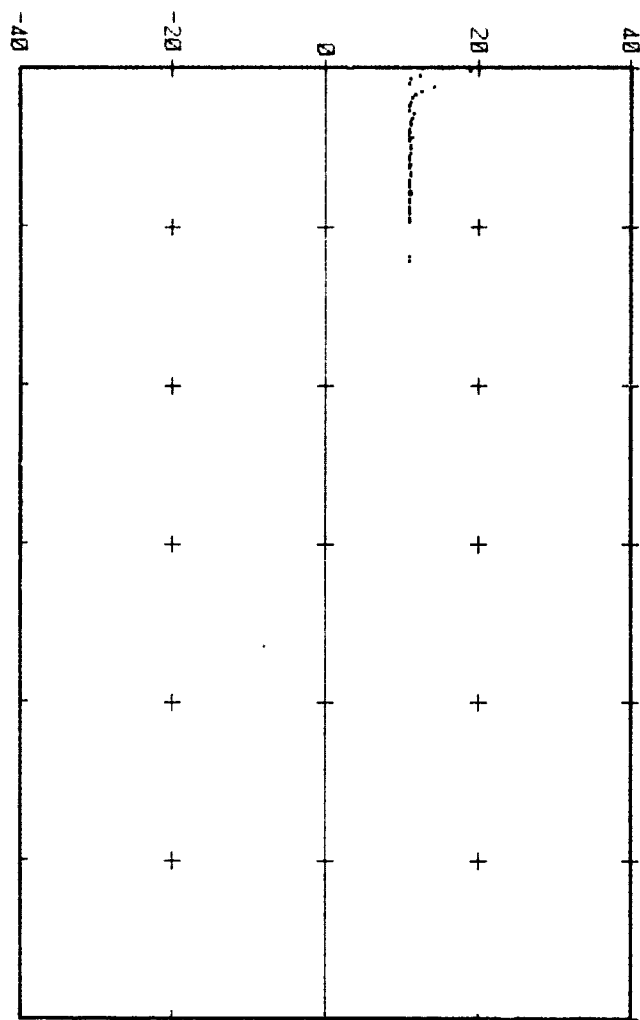
S. 20 R 1312 F 600

1450 M/S 1500 1550

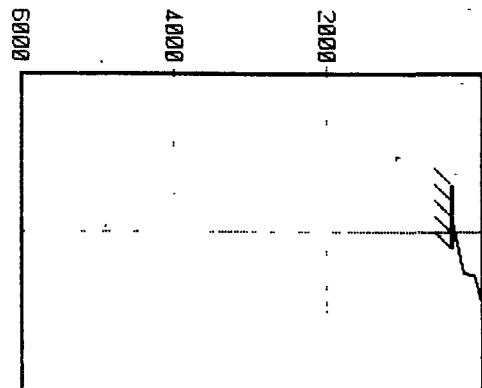
DB LOSS



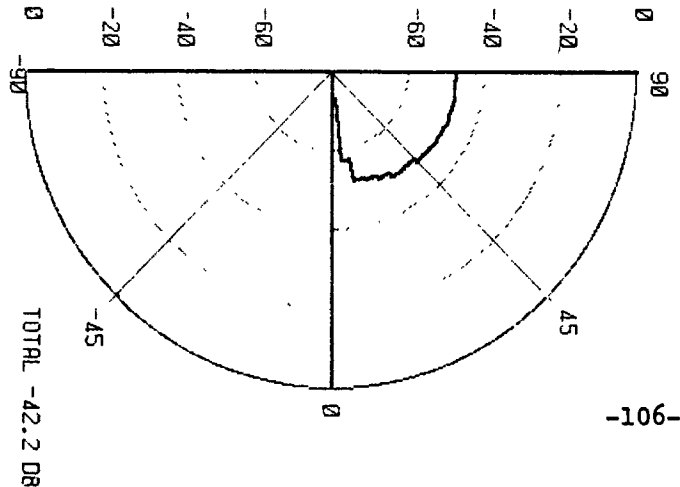
ARRIVAL ANGLE



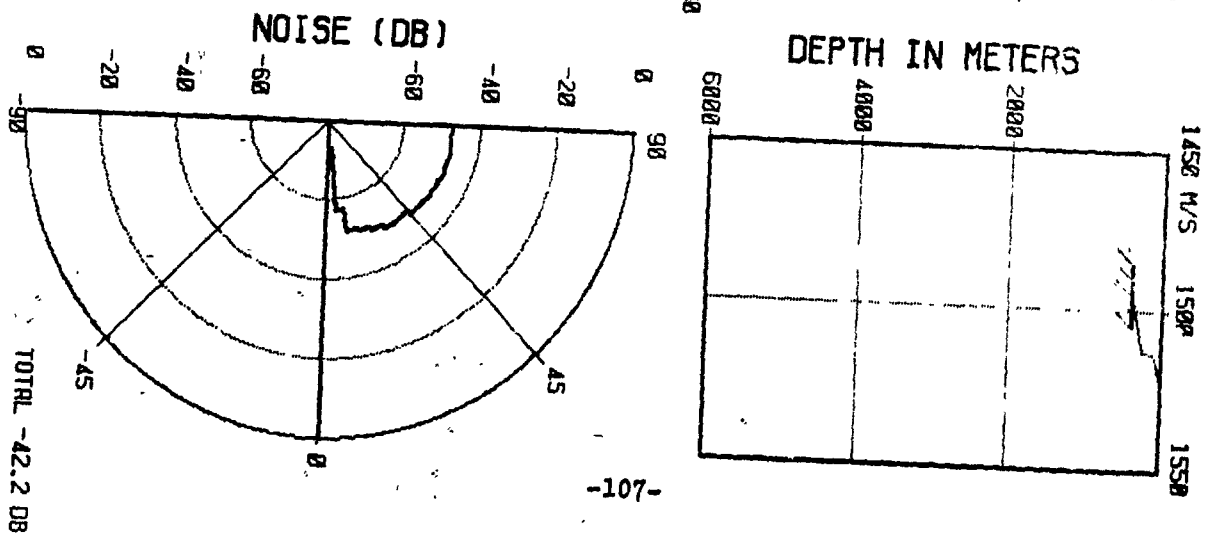
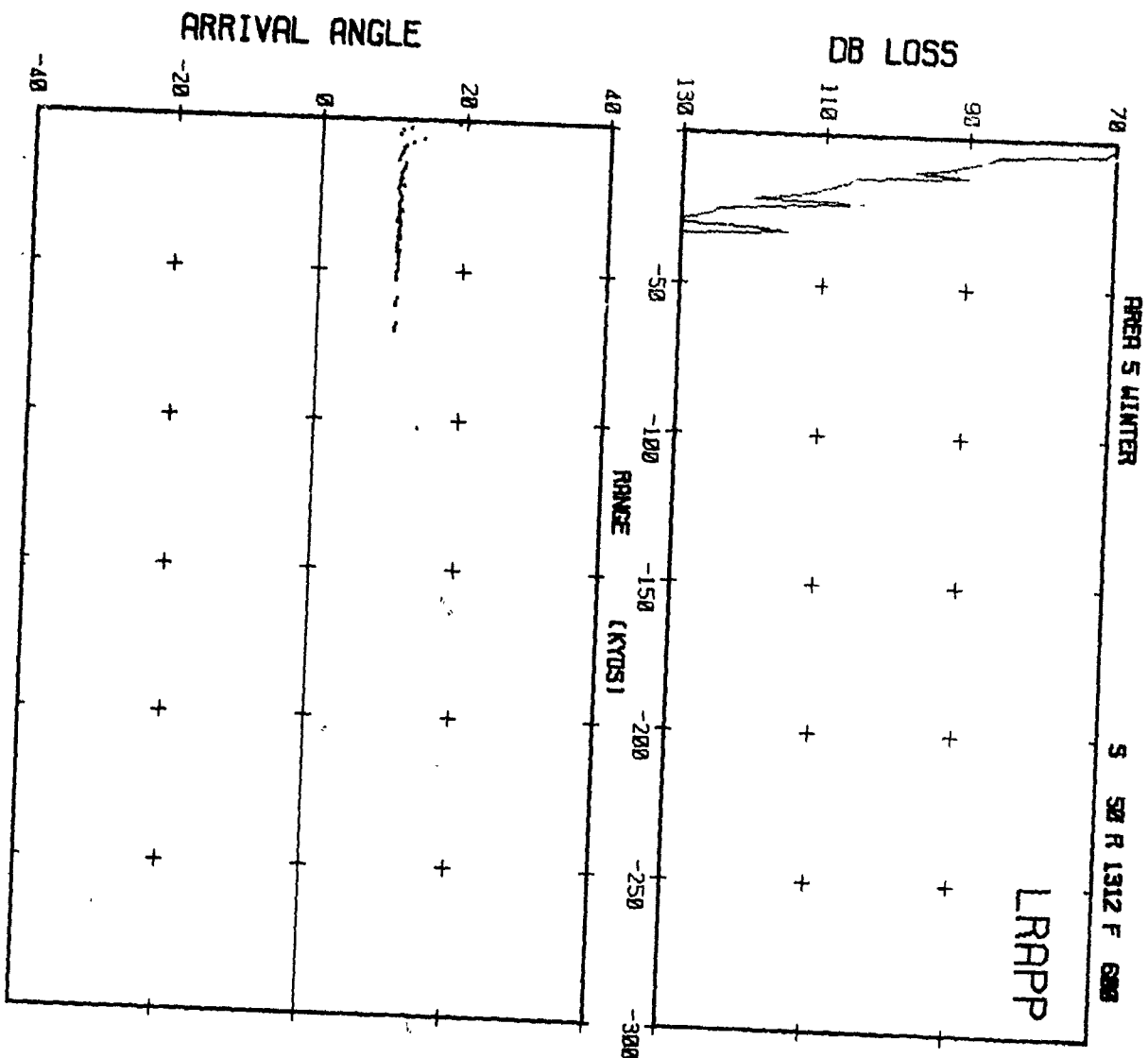
DEPTH IN METERS



NOISE (DB)



-106-



1 2 3 4 5 6 7 8 9 10 11 12

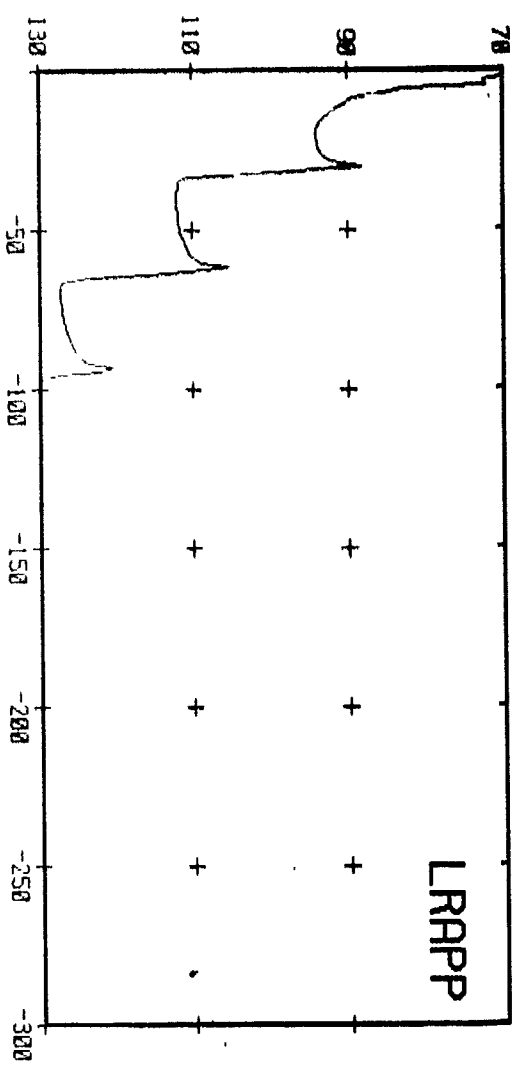
1 2 3 4 5 6 7 8 9 10 11 12

AREA 5 HINTER

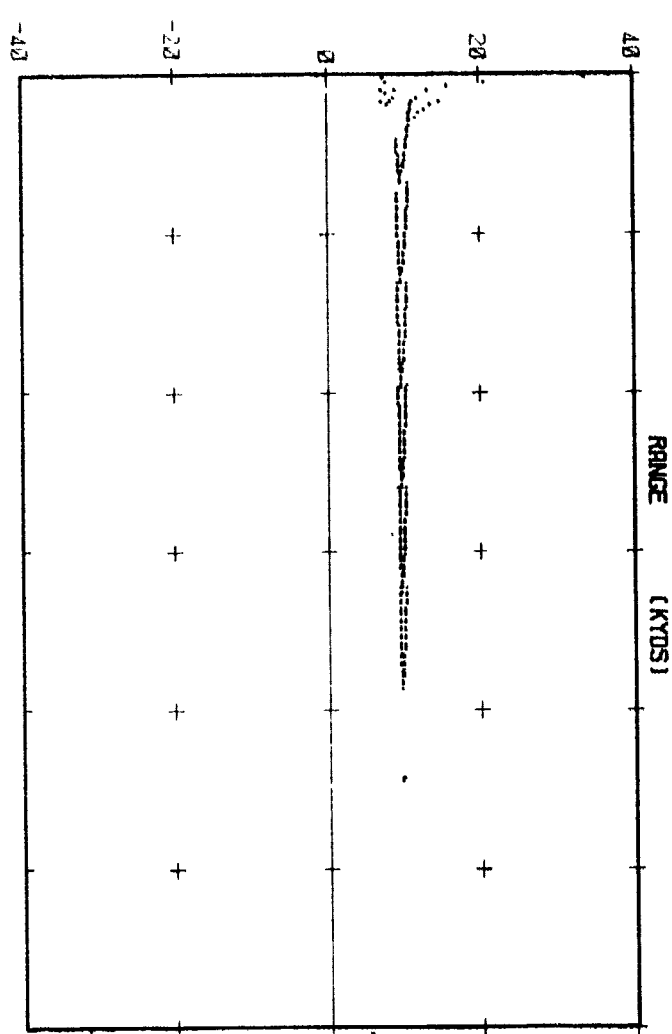
S 1020 R 1312 F 600

1450 H/S 1500 1550

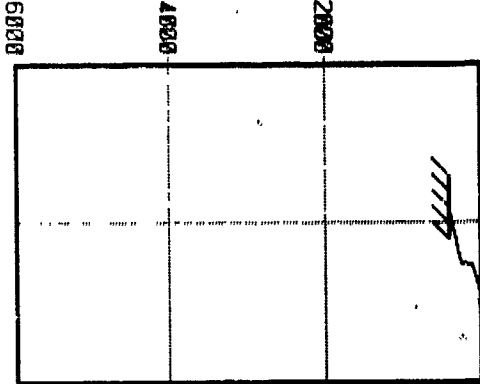
DB LOSS



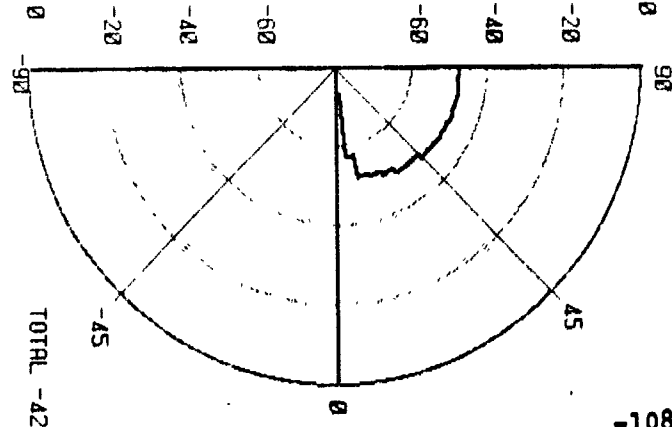
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -42.2 DB

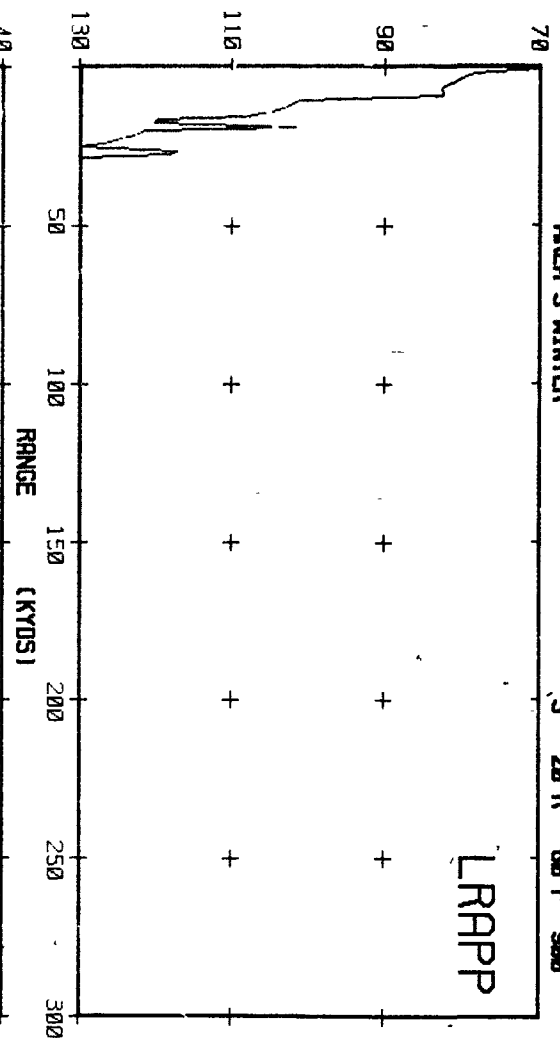
-108-

AREA 5 HINTER

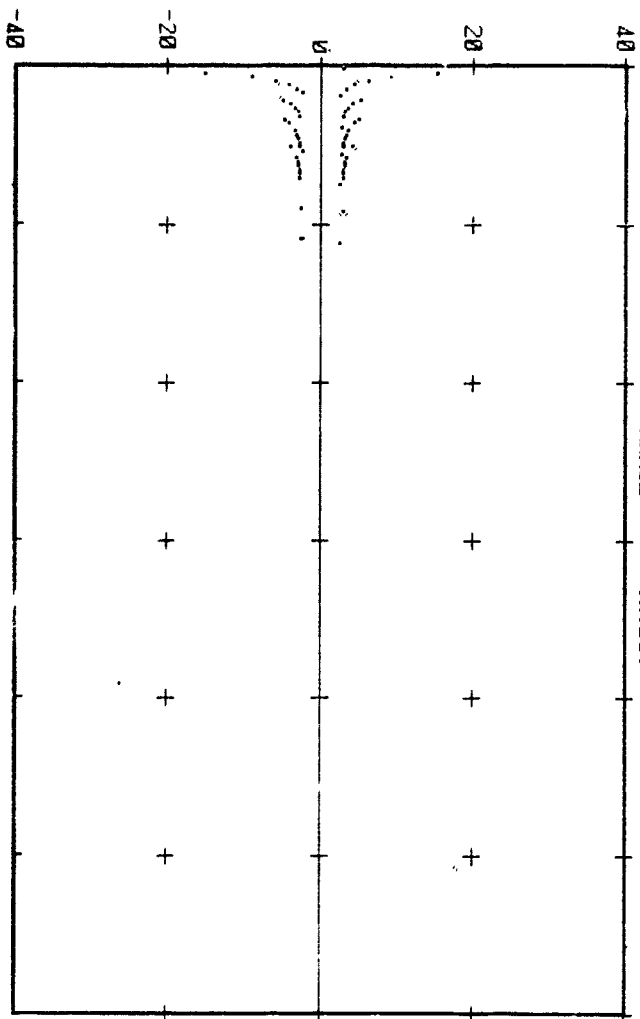
S 20 R 60 F 900

LRAPP

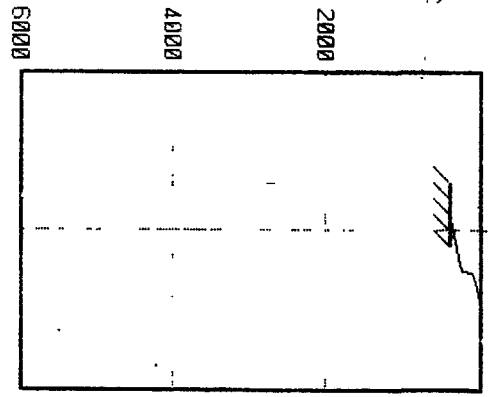
DB LOSS



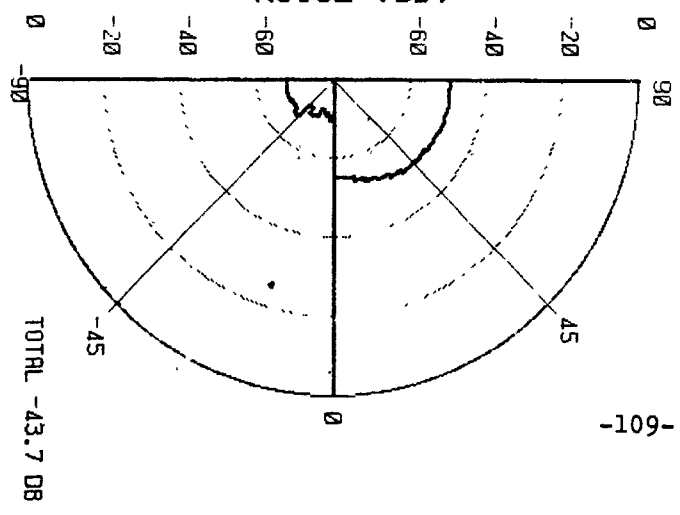
ARRIVAL ANGLE

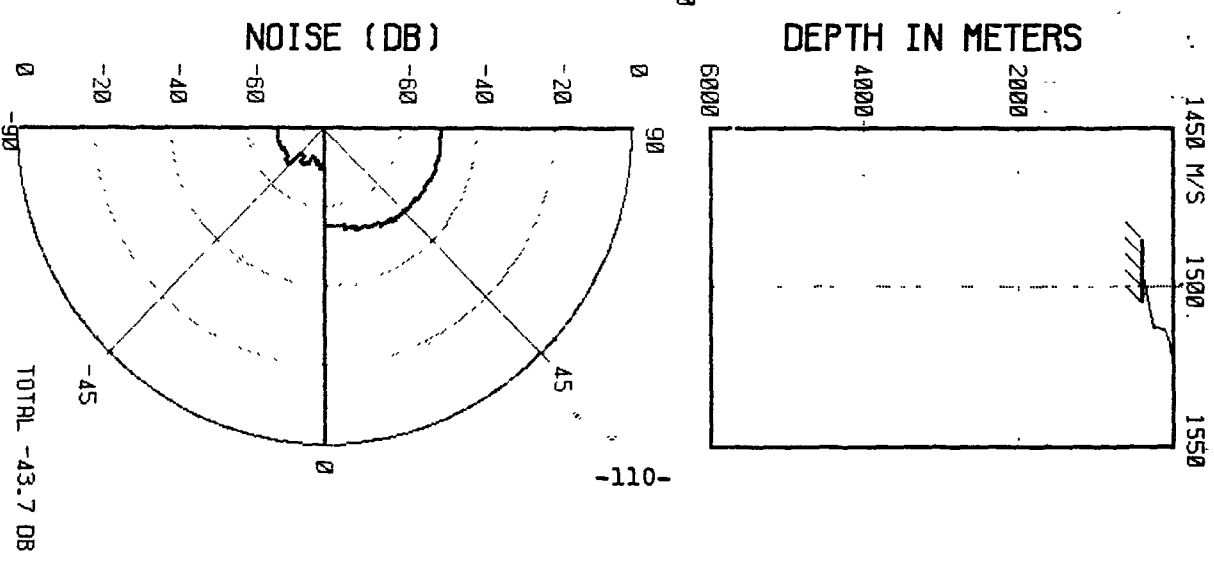
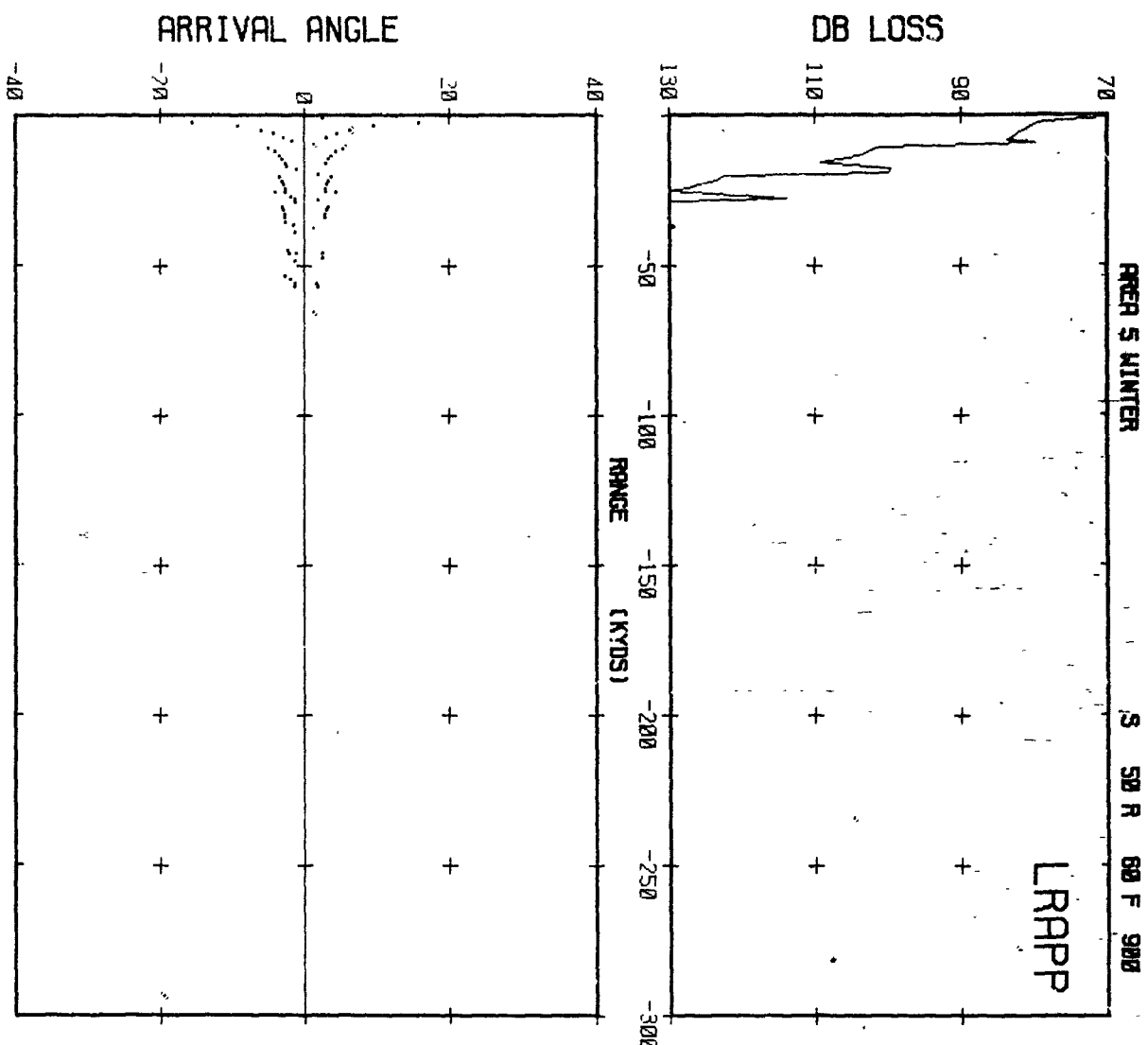


DEPTH IN METERS

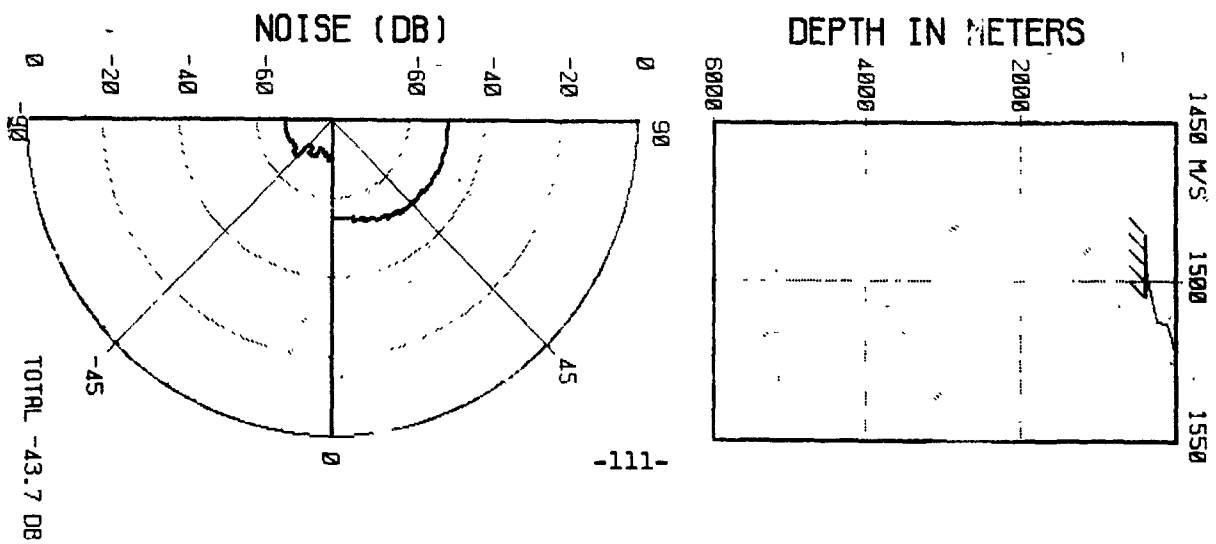
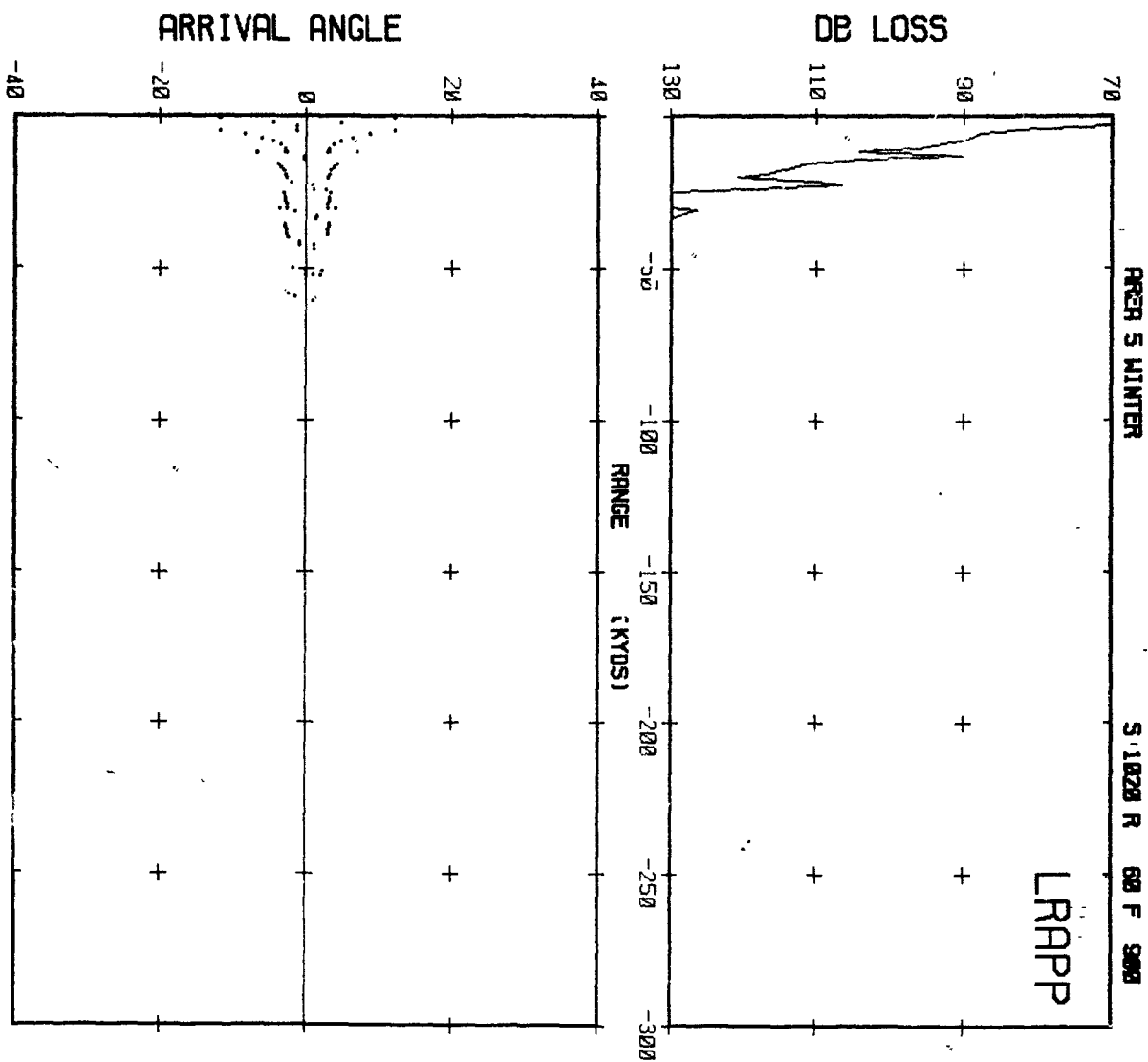


NOISE (DB)





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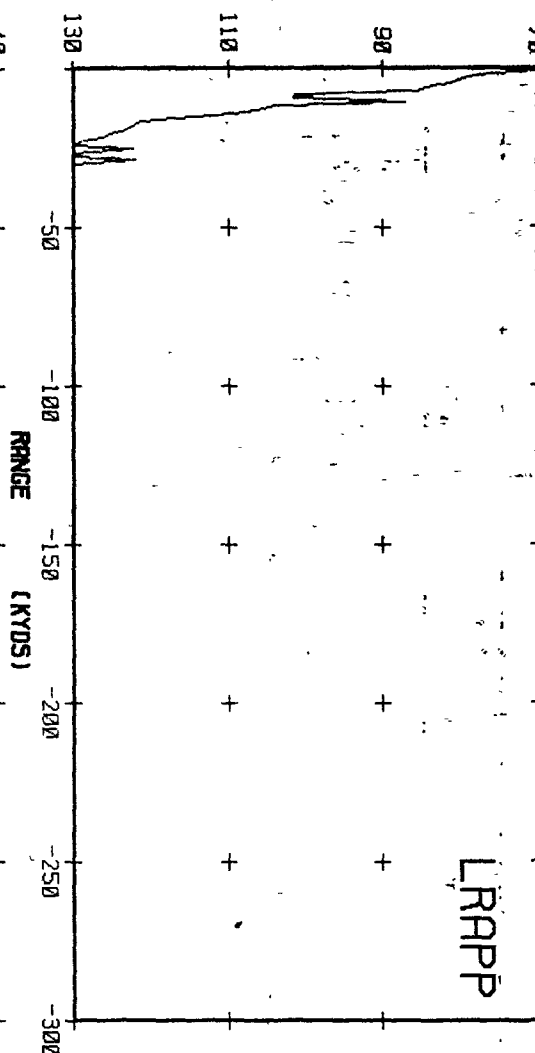


AREA 5 WINTER

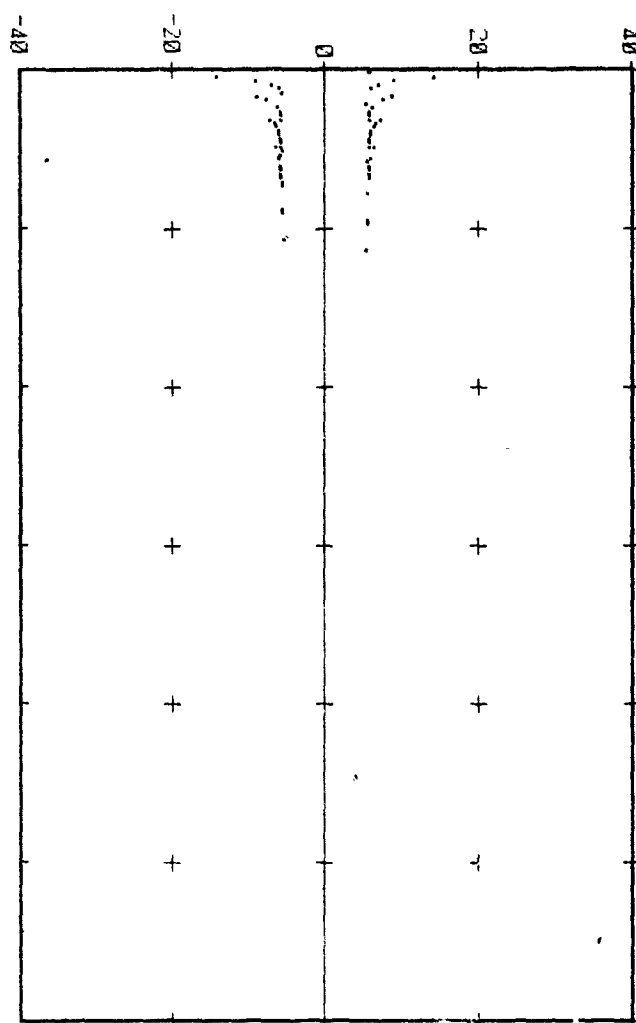
S 20 R 300 F 900

1450 M/S 1500 1550

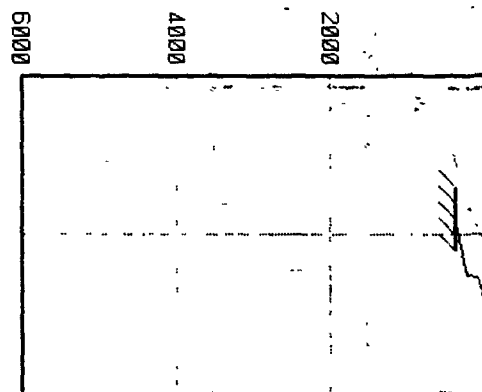
DB LOSS



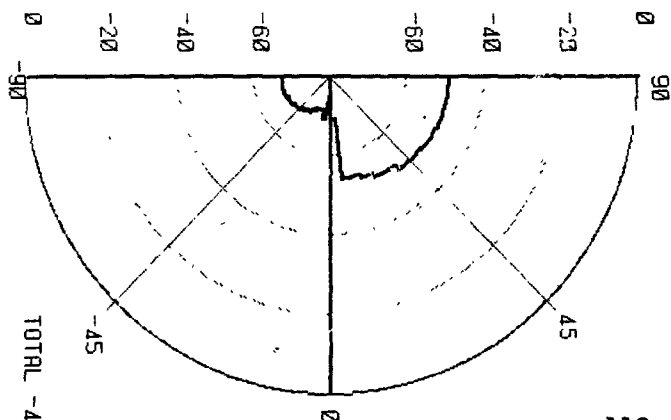
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



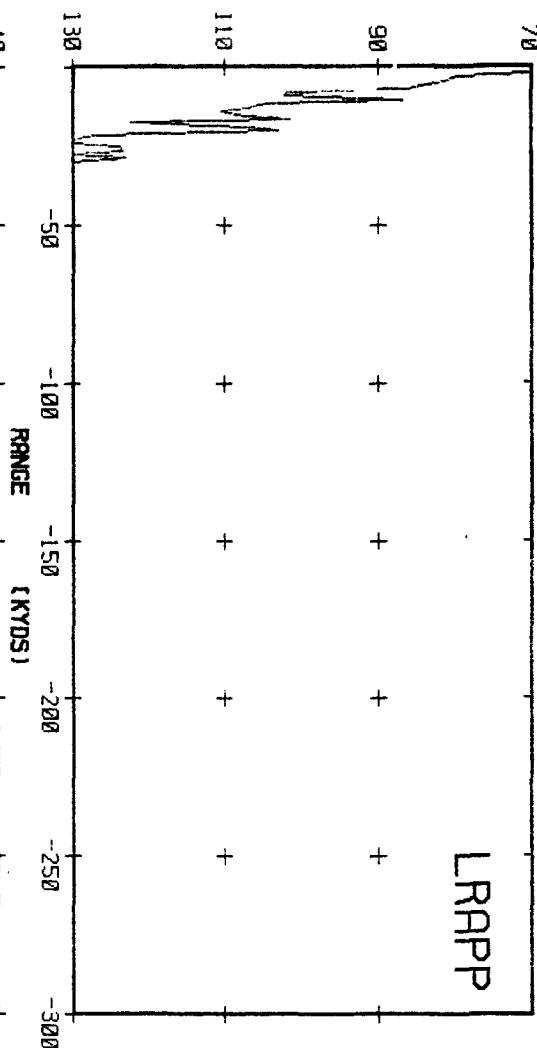
TOTAL -43.8 DB

PRER 5 WINTER

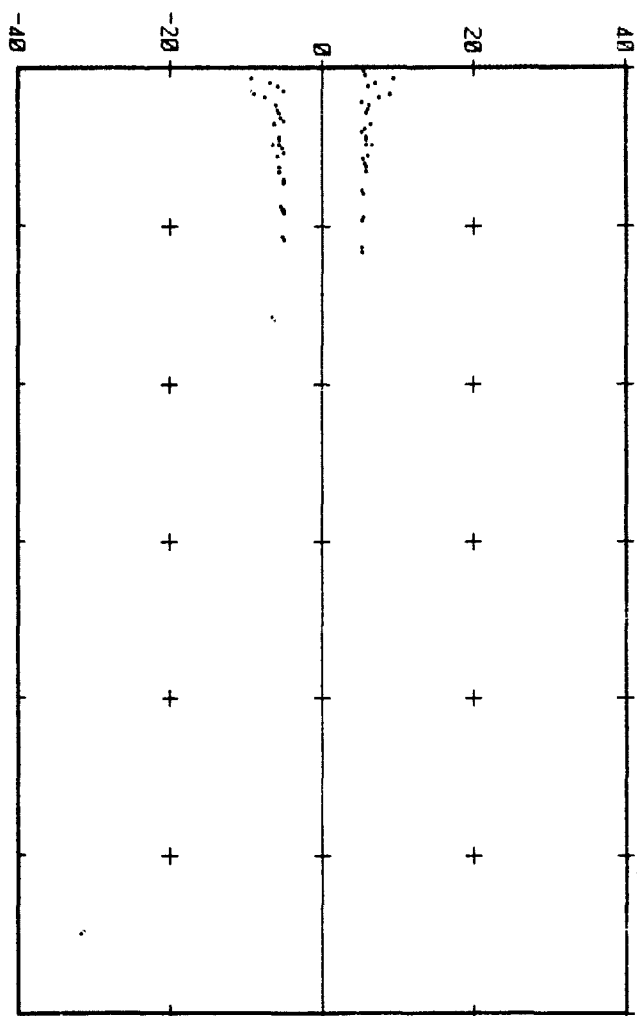
S 50 R 300 F 900

1450 M/S 1500 1550

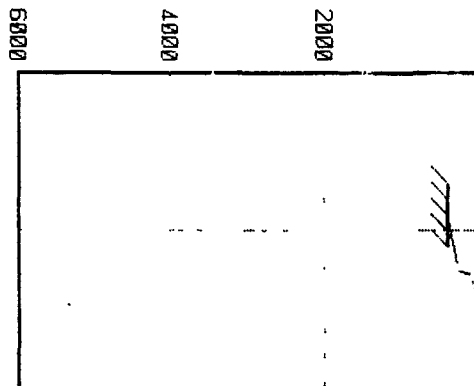
DB LOSS



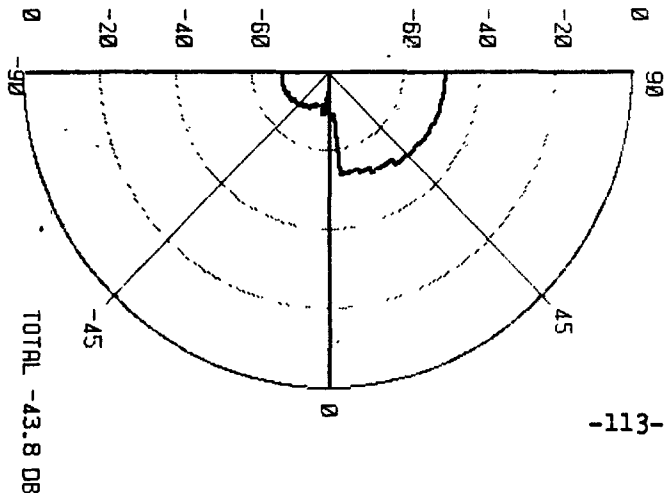
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



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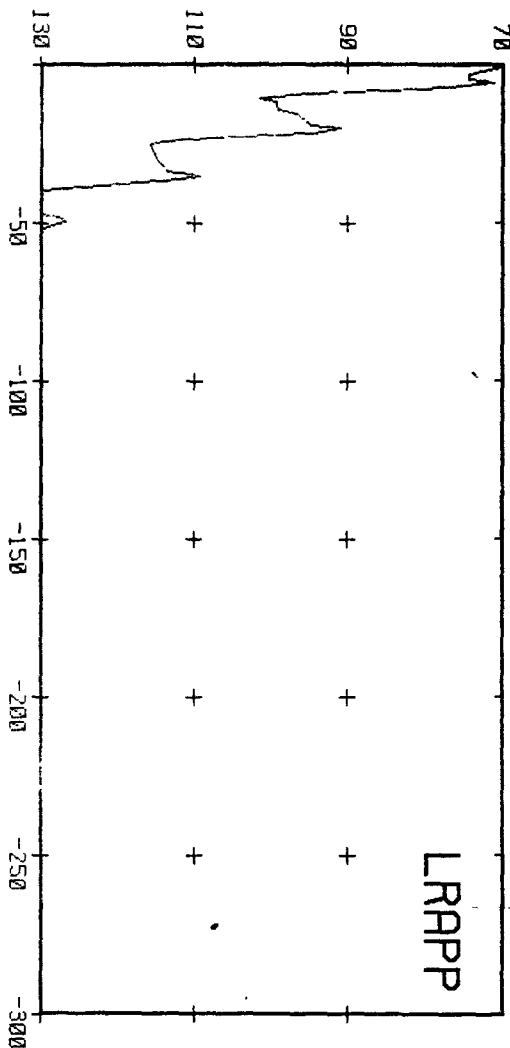
AREA 5 WINTER

S 1020 R 300 F 900

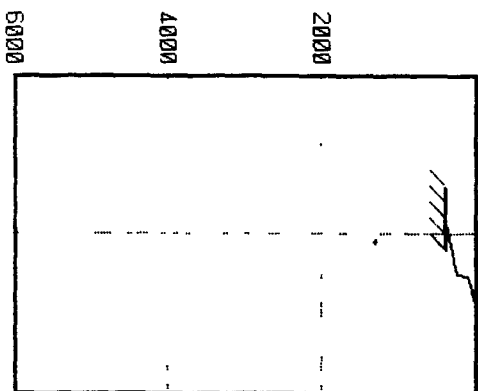
1450 M/S 1500 1550

LRAPP

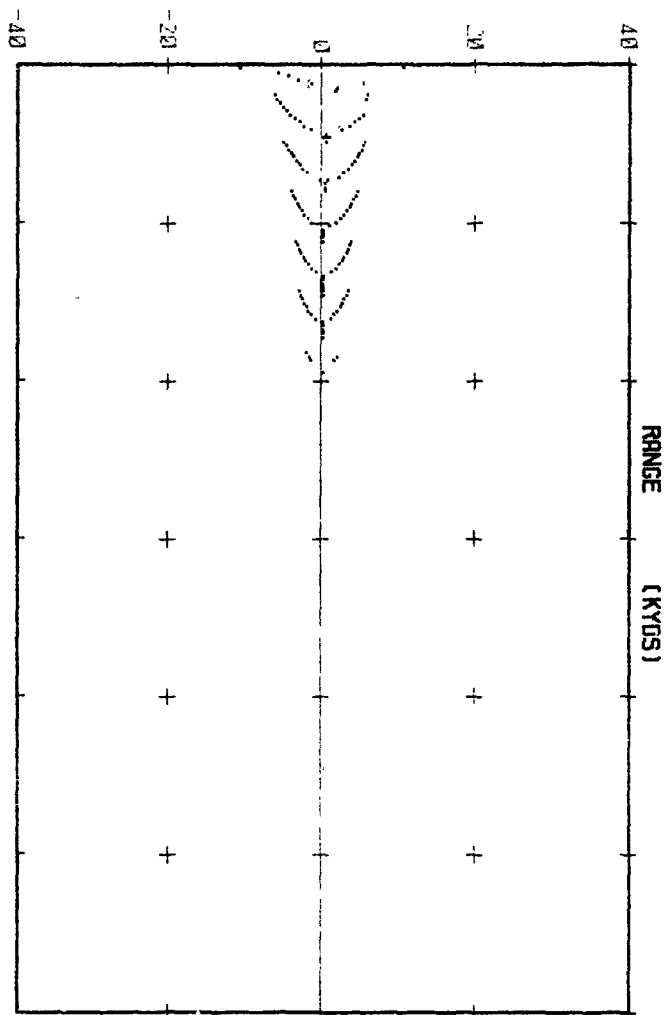
DB LOSS



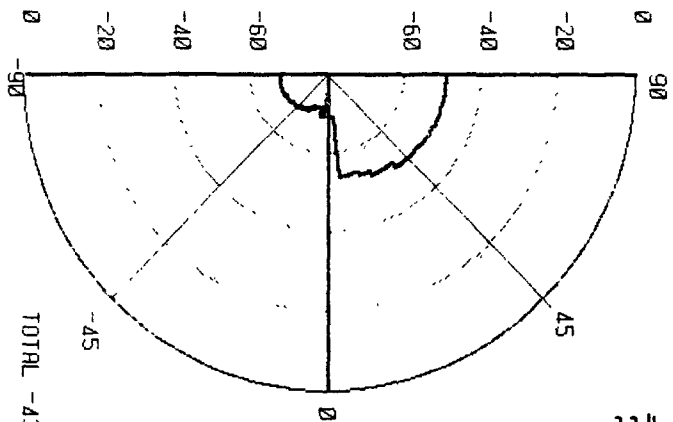
DEPTH IN METERS



ARRIVAL ANGLE



NOISE (DB)



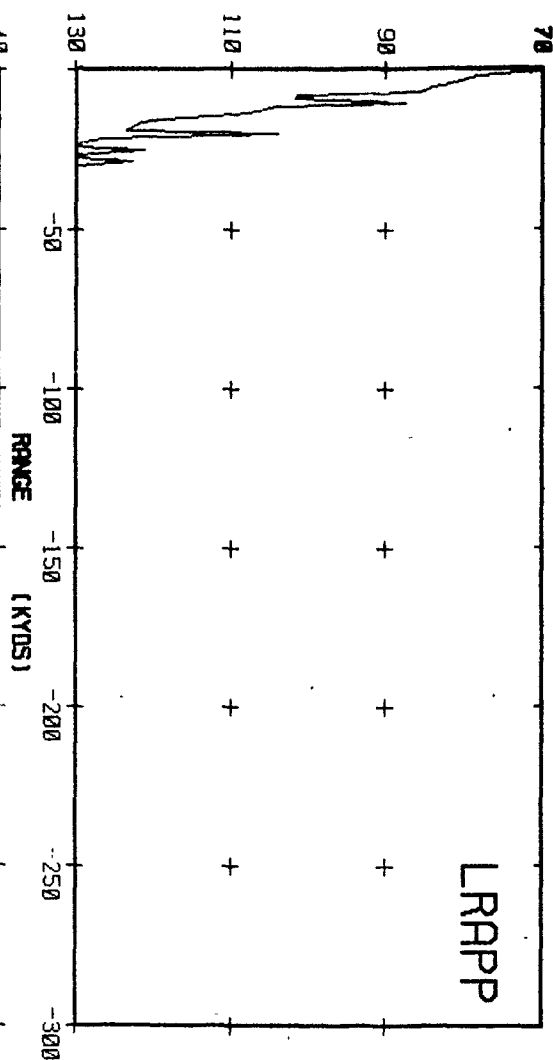
TOTAL -43.8 DB

AREA 5 WINTER

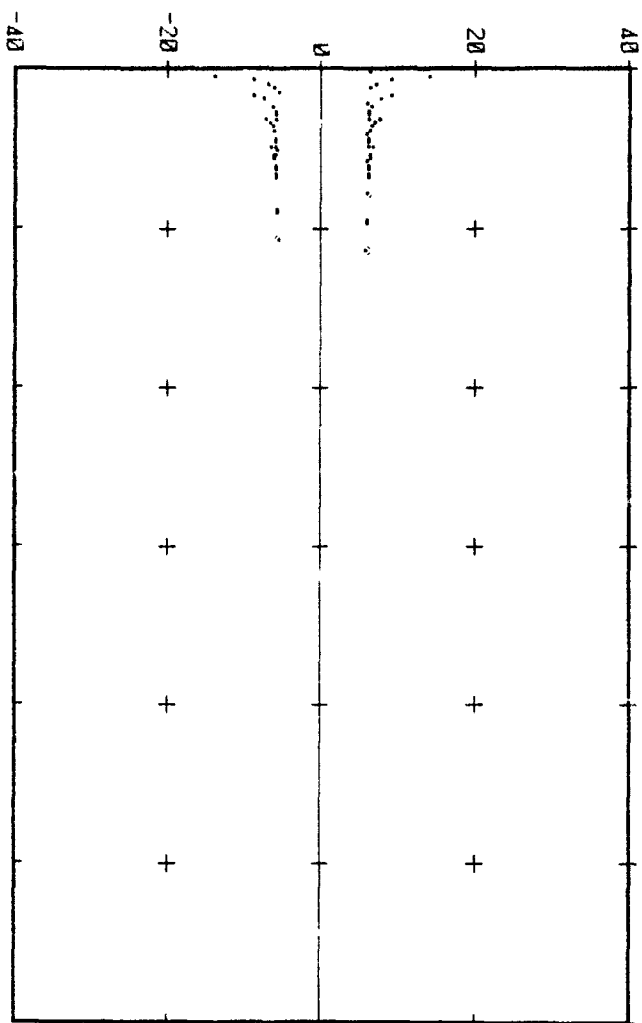
S 20 R 328 F 900

LRAPP

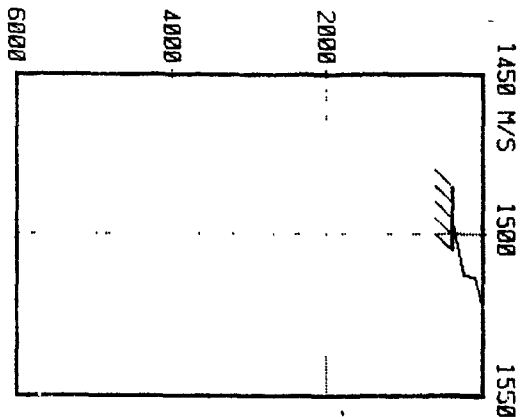
DB LOSS



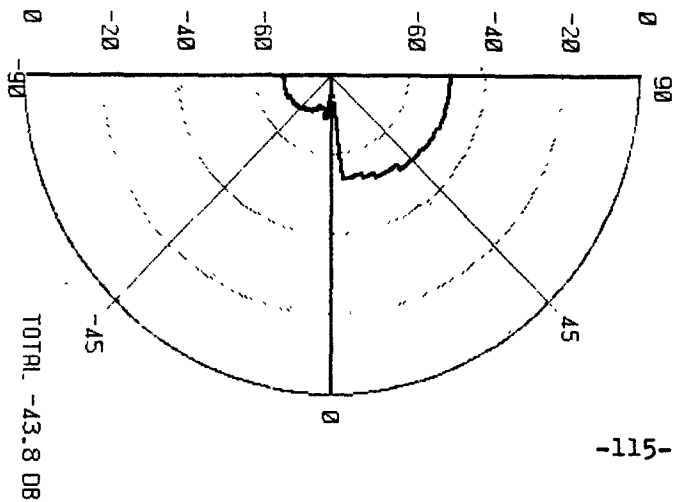
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



1

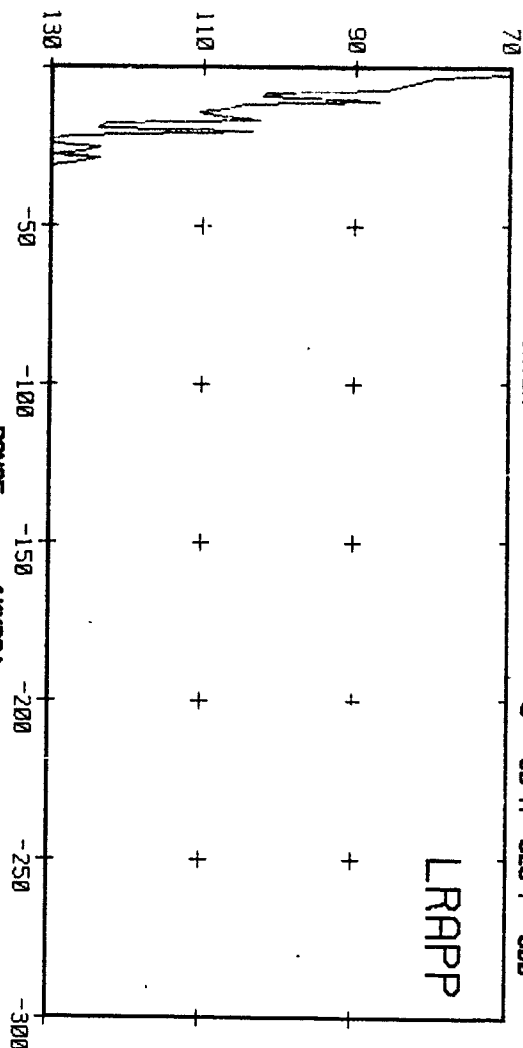
AREA 5 WINTER

S 50 R 328 F 900

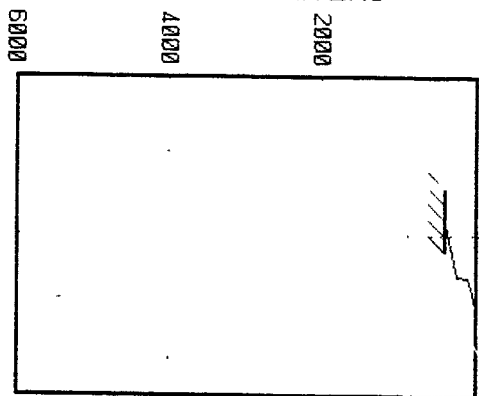
1450 M/S 1500

1550

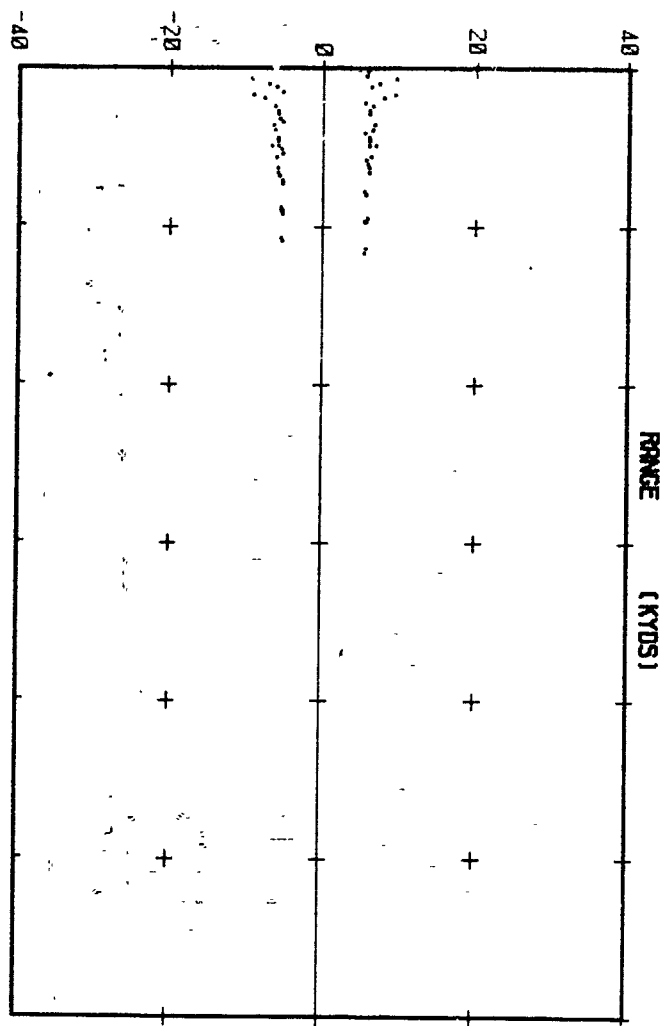
DB LOSS



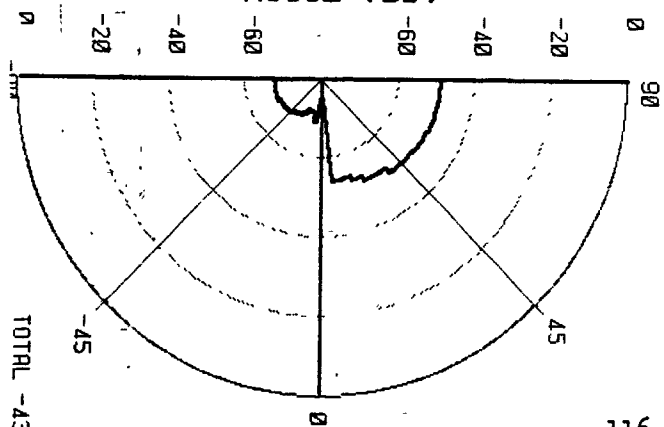
DEPTH IN METERS



ARRIVAL ANGLE



NOISE (DB)



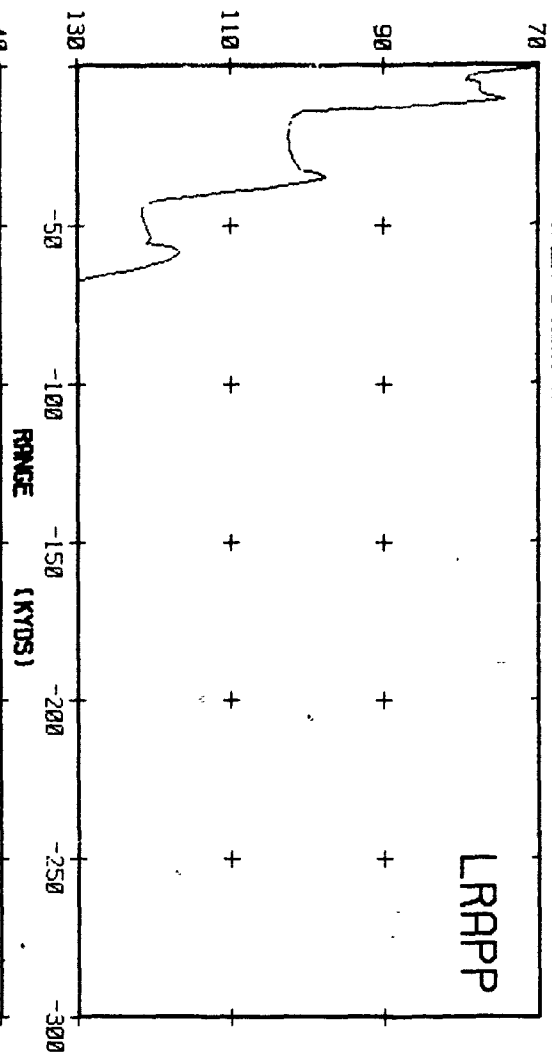
TOTRL -43.8 DB

AREA 5 WINTER

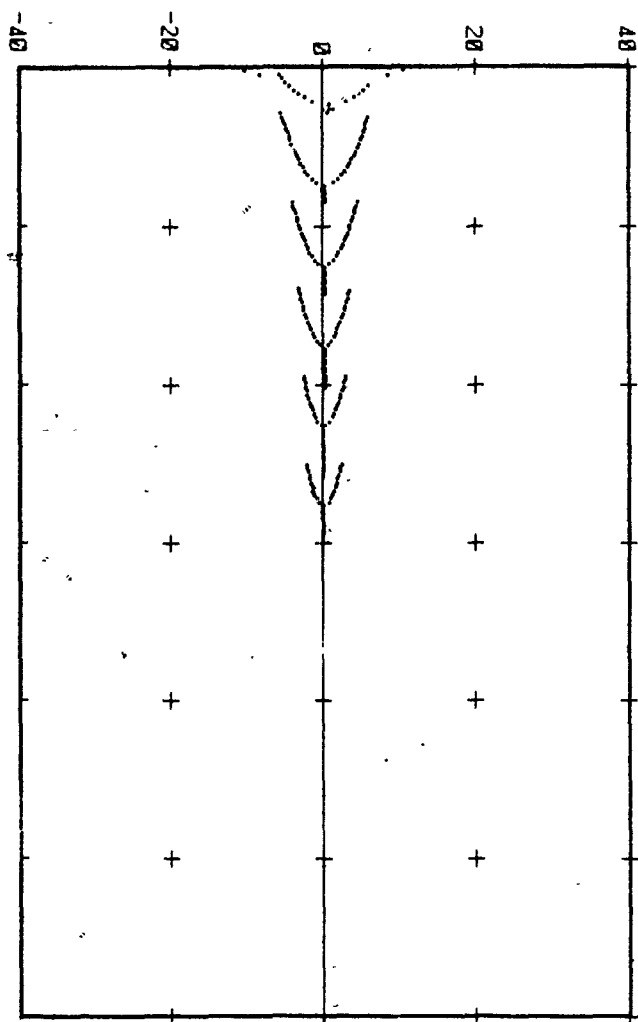
S 1020 R 328 F 900

LRAPP

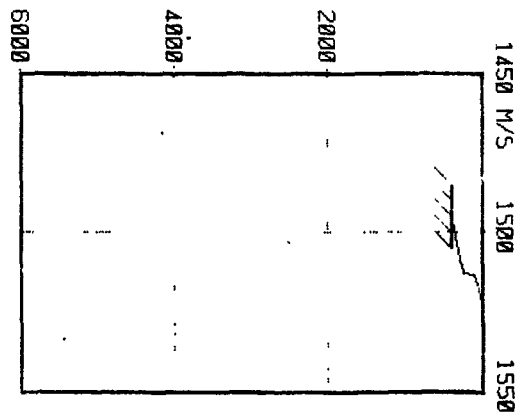
DB LOSS



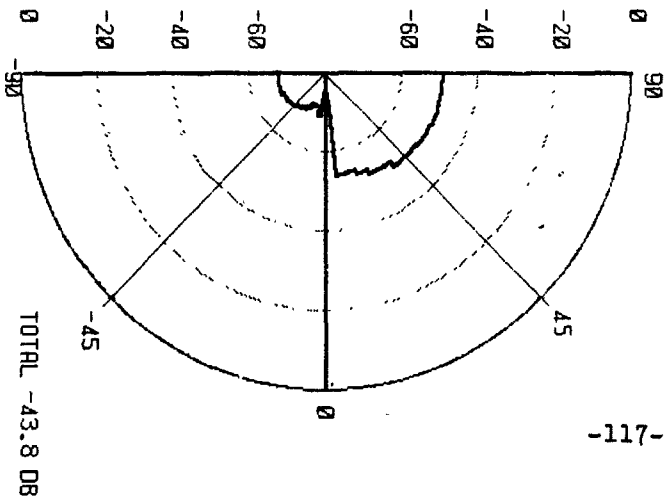
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



AREA 5 WINTER

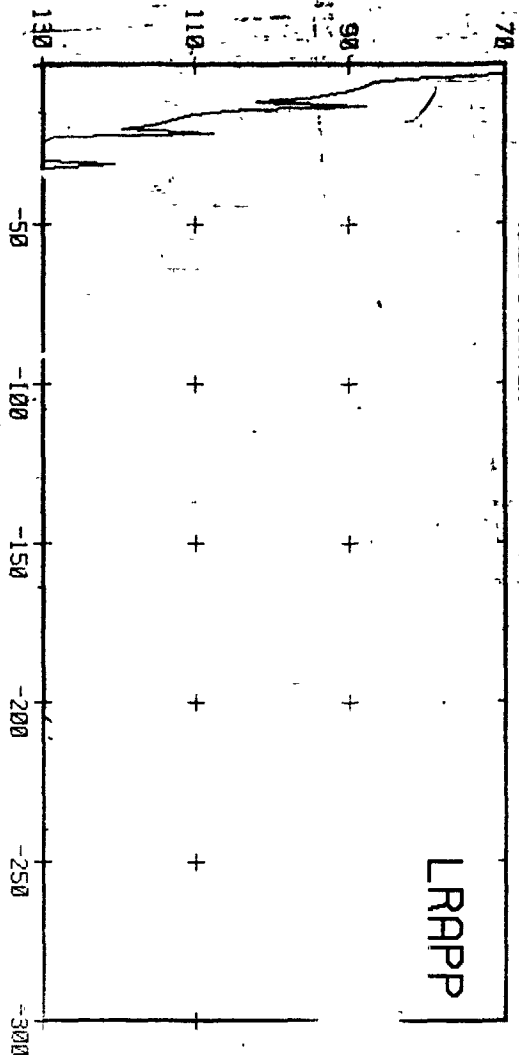
S 20 R 920 F 900

1450 M/S 1500

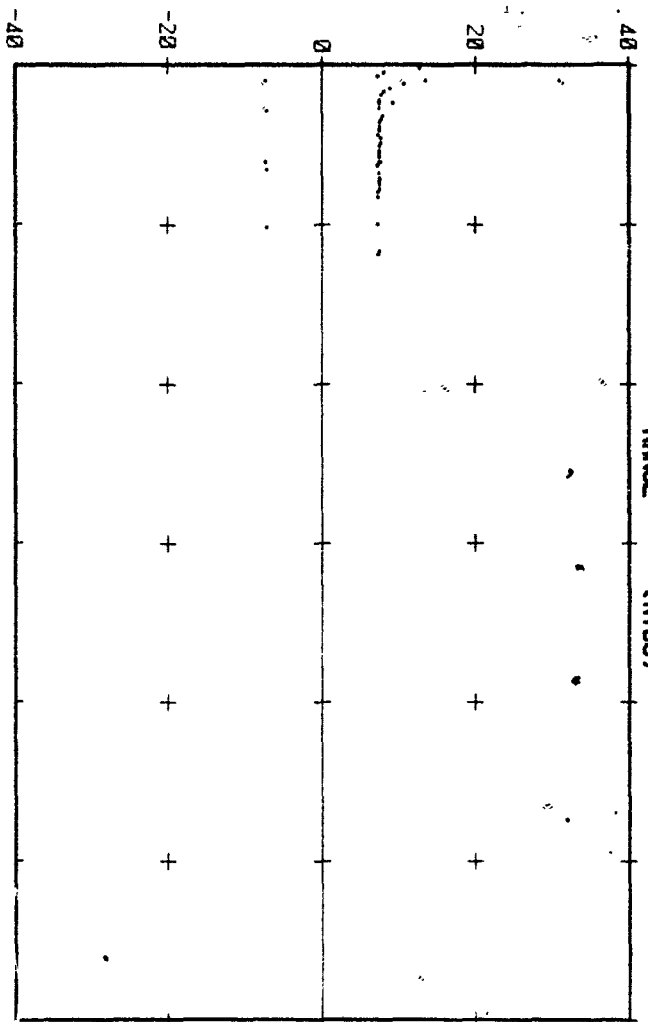
1550

LRAPP

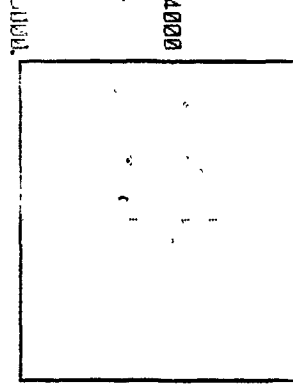
DB LOSS



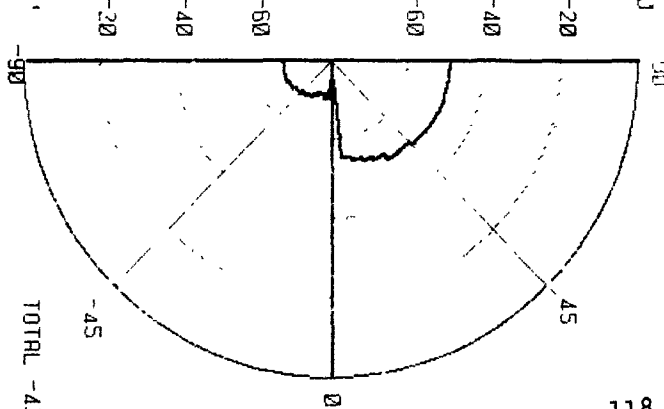
ARRIVAL ANGLE



DEPTH IN K



NOISE (DB)



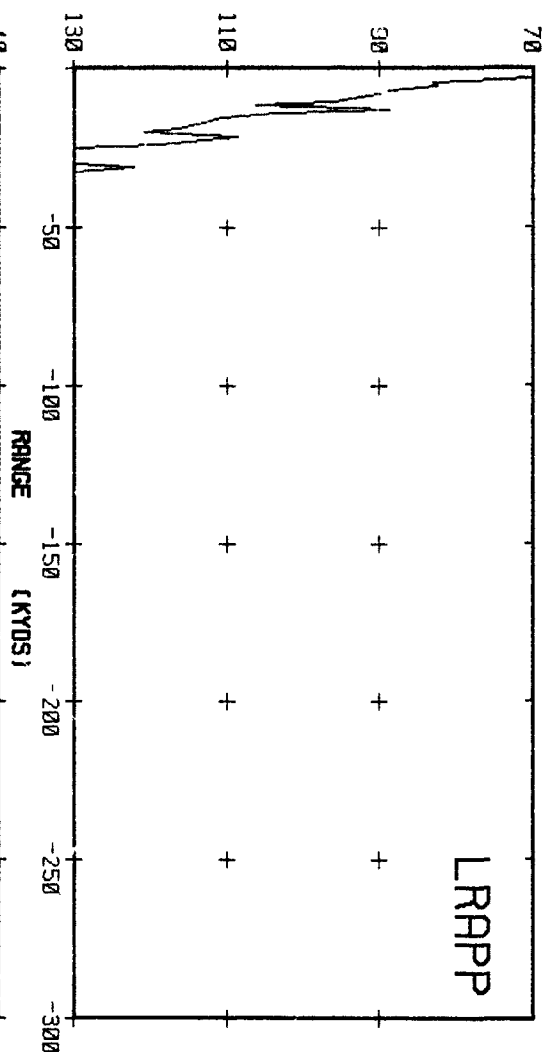
TOTAL -43.9 DB

AREA 5 WINTER

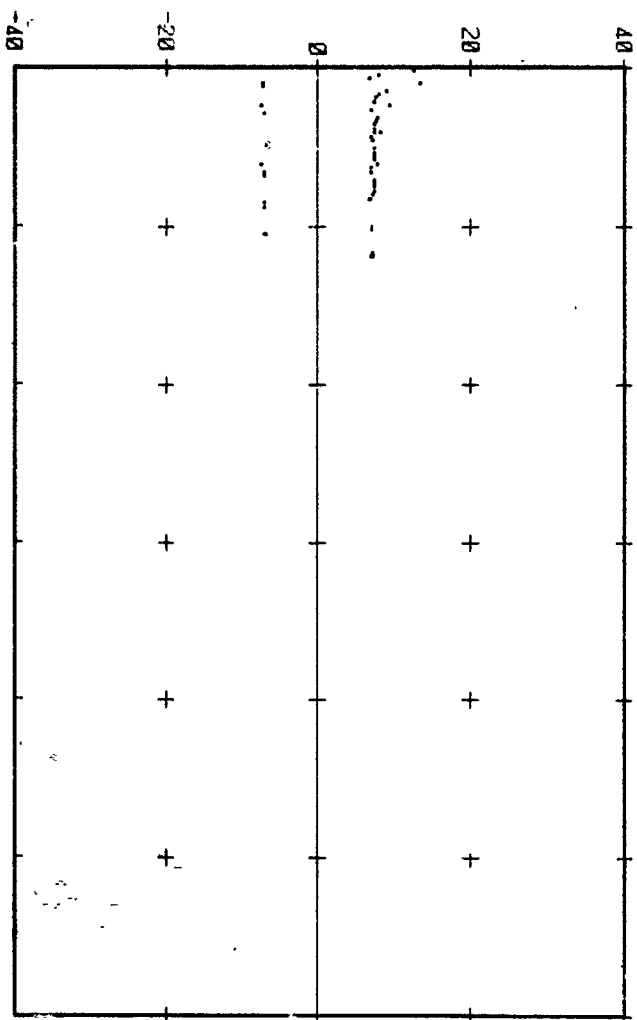
S 50 R 920 F 980

LRAPP

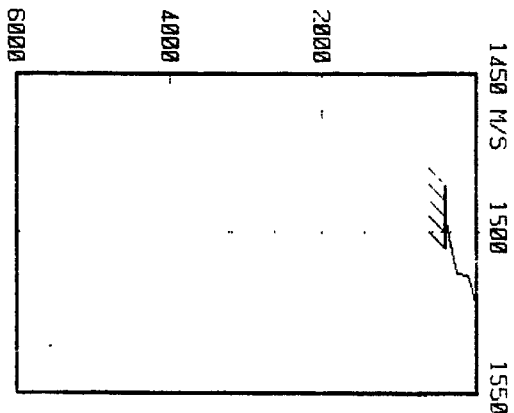
DB LOSS



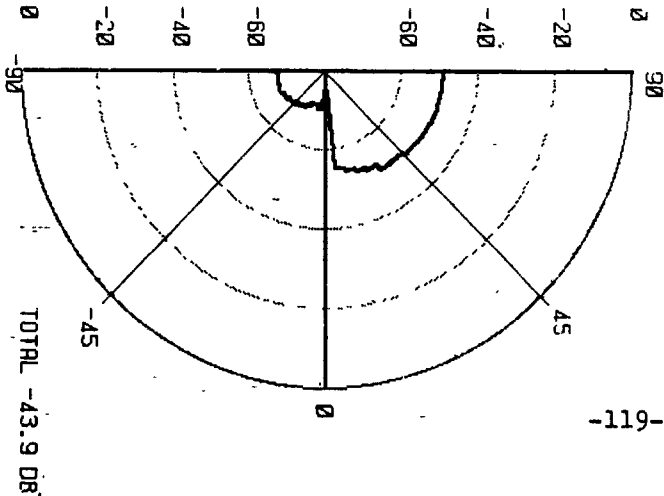
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



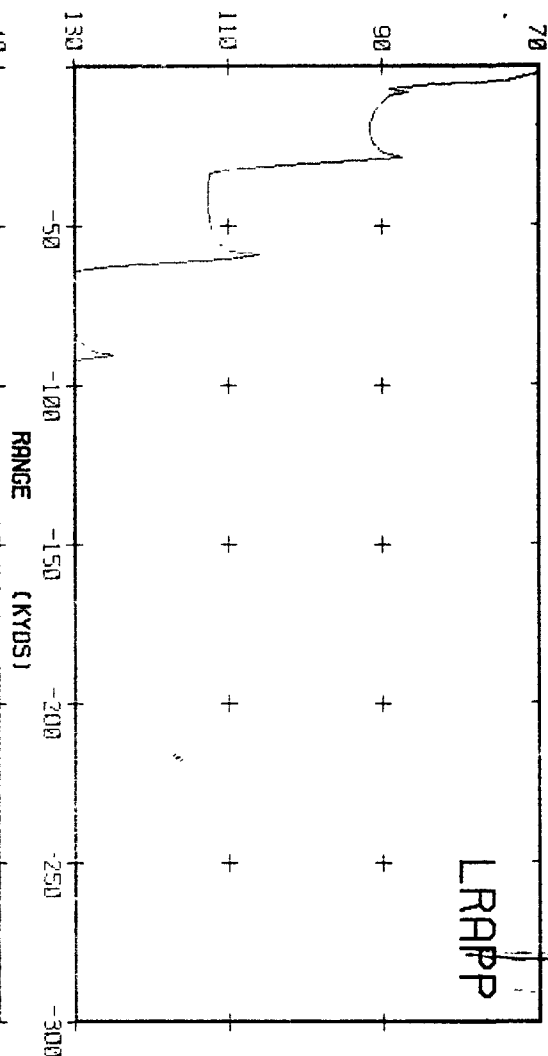
TOTAL -43.9 DB

AREA 5 WINTER

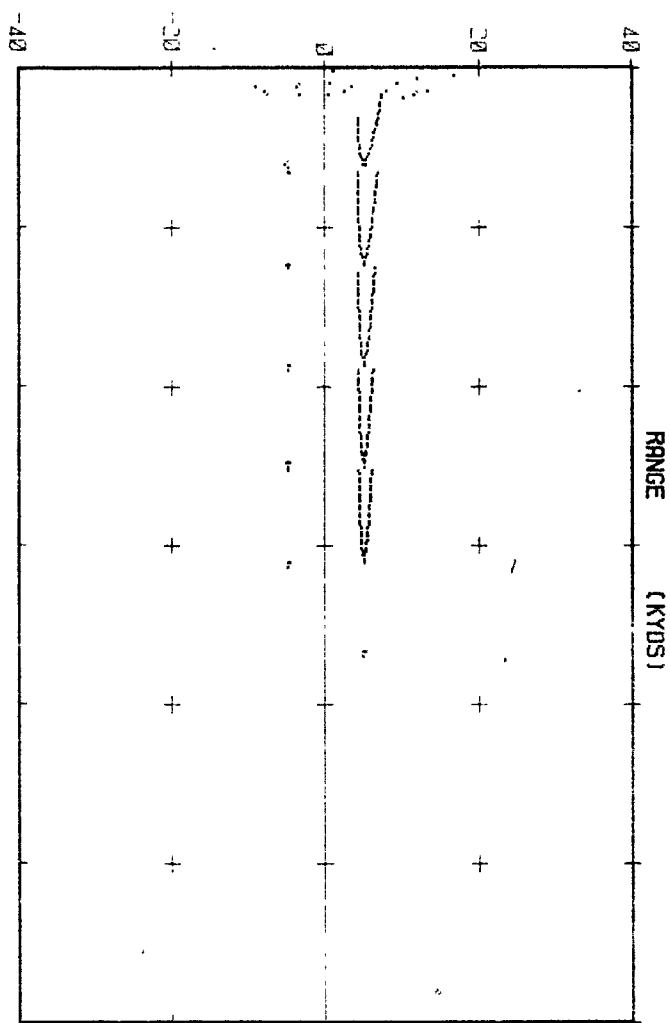
S 1020 R 920 F 900

LRAPP

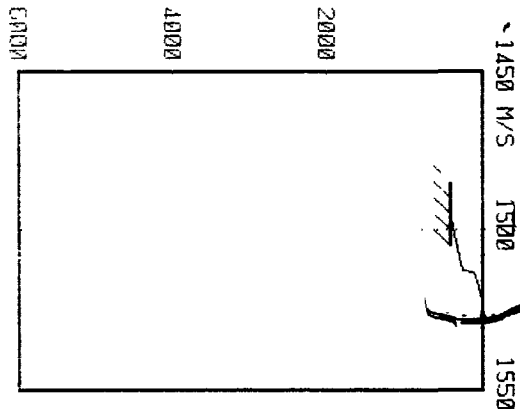
DB LOSS



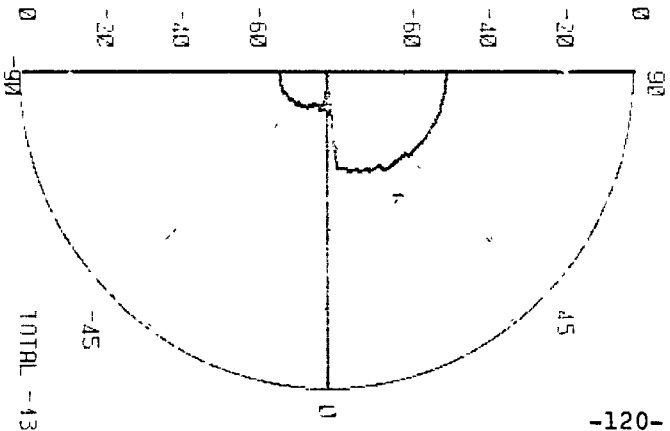
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



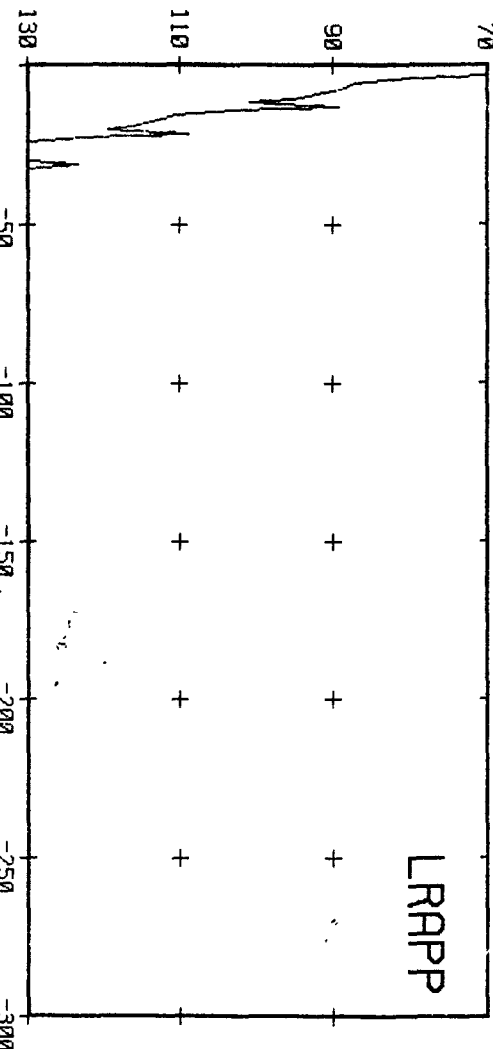
TOTAL -13.9 DB

PRER 5 WINTER

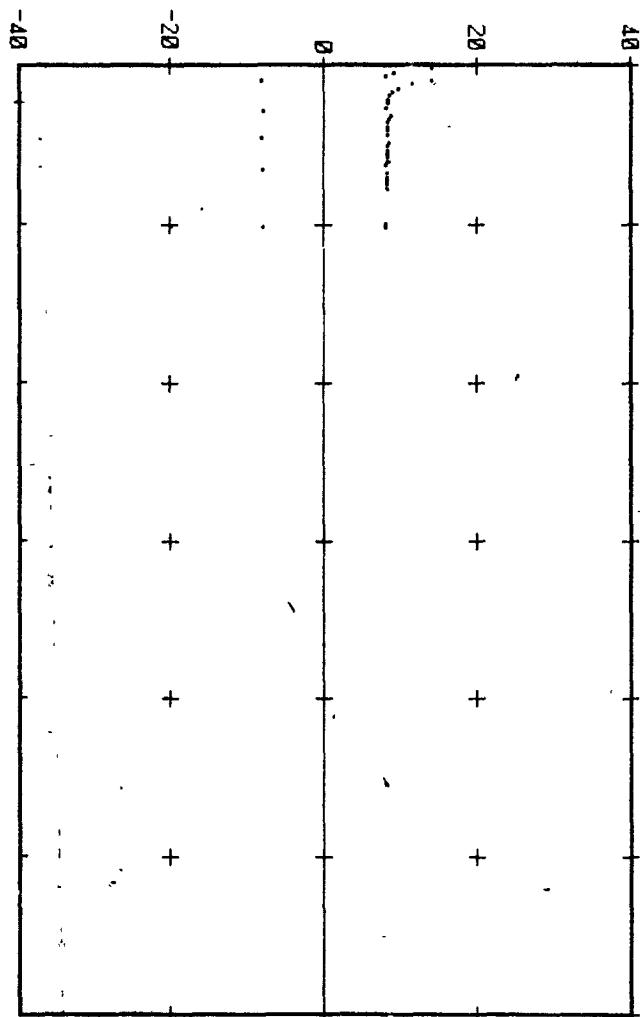
S 20 R 1000 F 900

1450 M/S 1500 1550

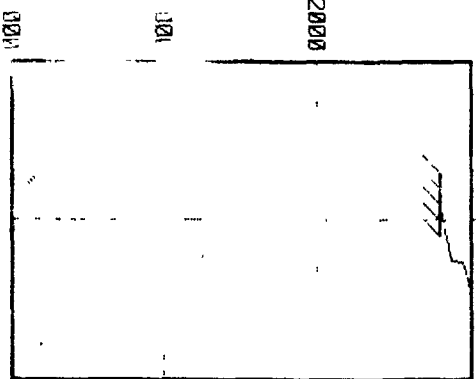
DB LOSS



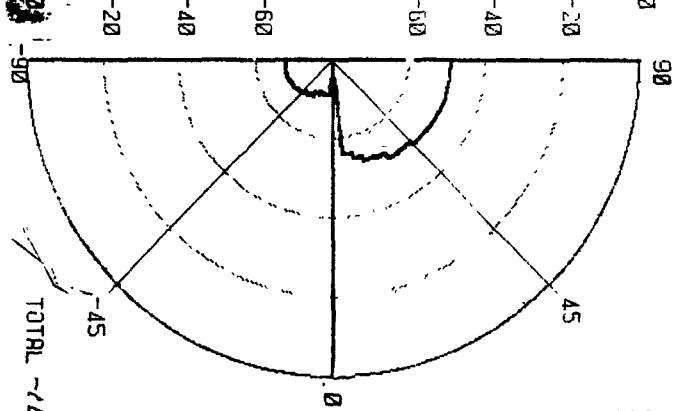
ARRIVAL ANGLE

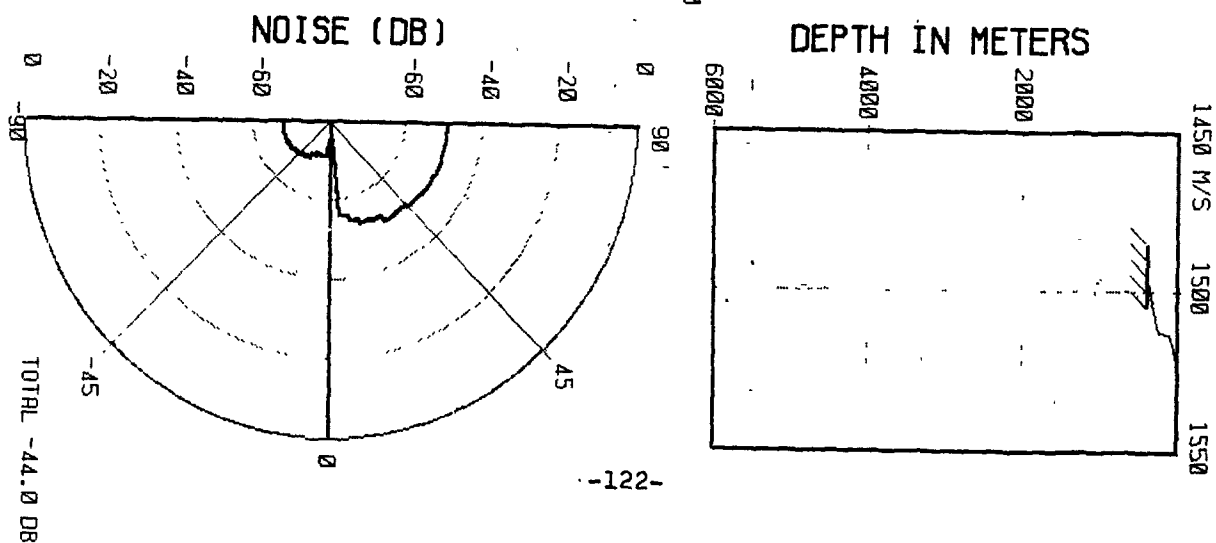
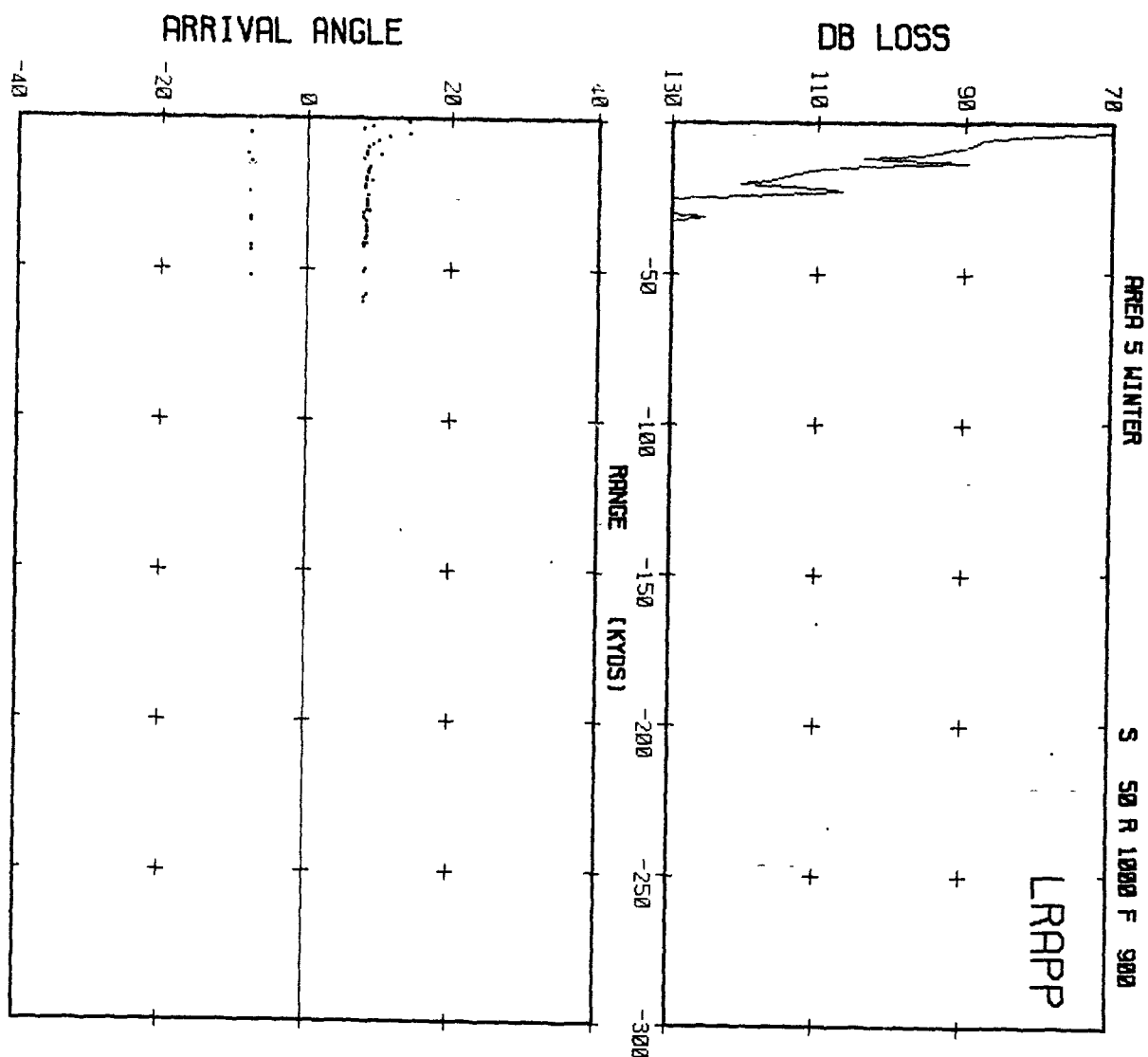


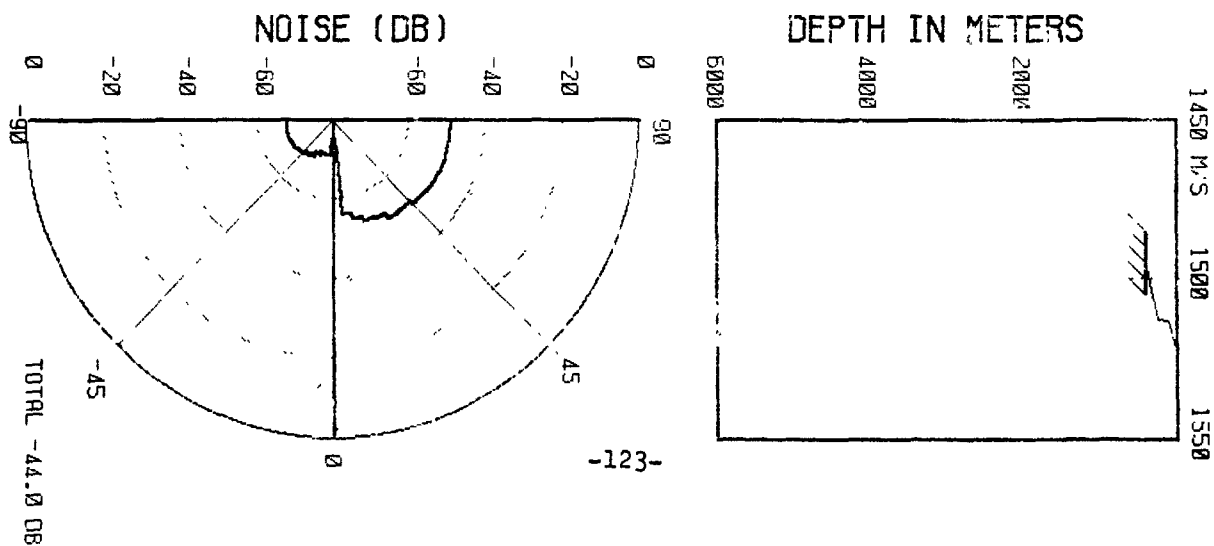
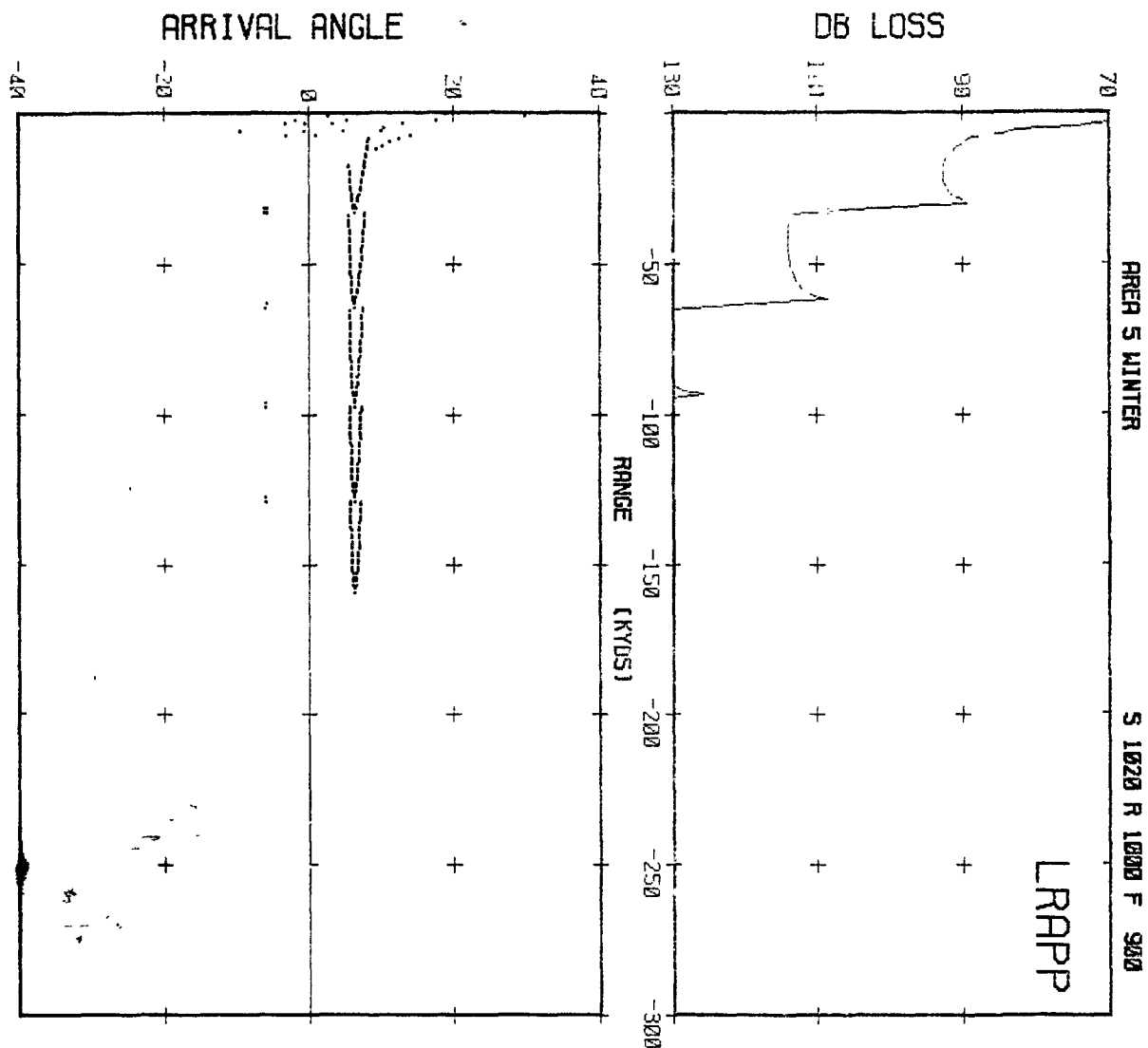
IN METERS



NOISE (DB)





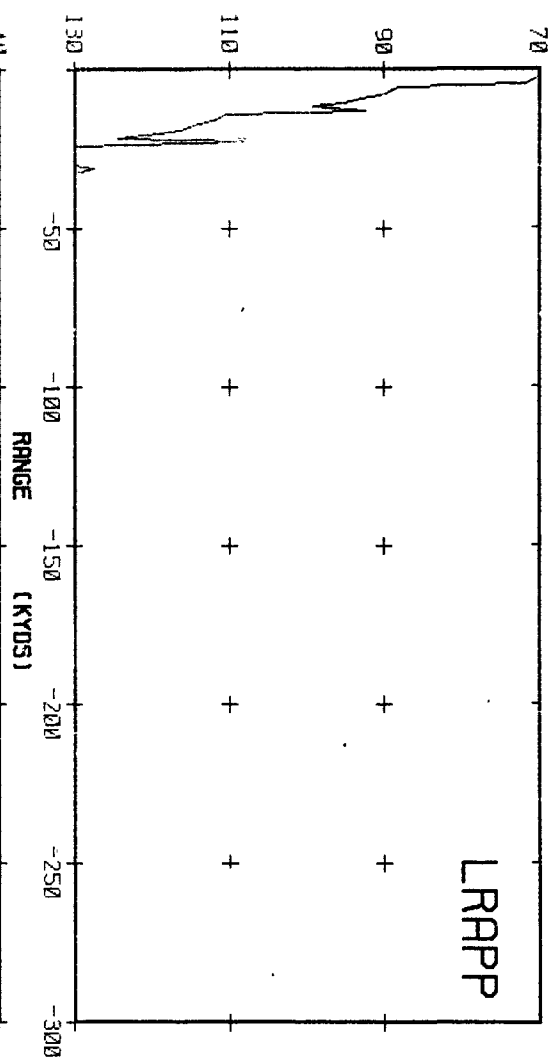


AREA 5 MINTER

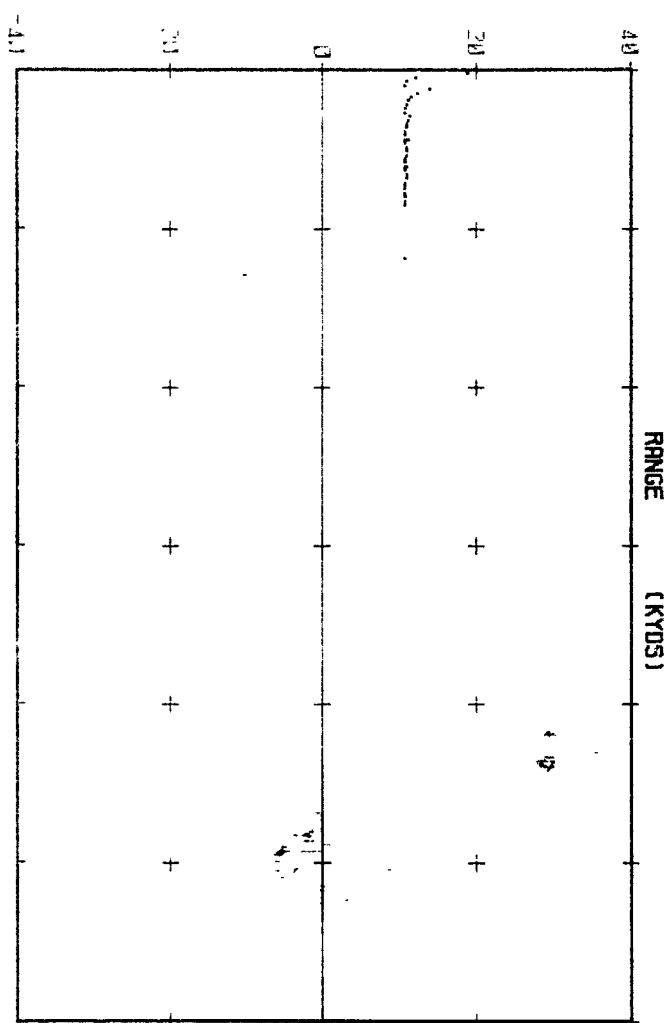
S 20 R 1312 F 900

1450 M/S 1500 1550

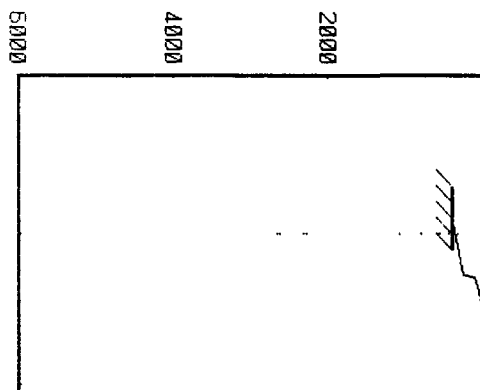
DB LOSS



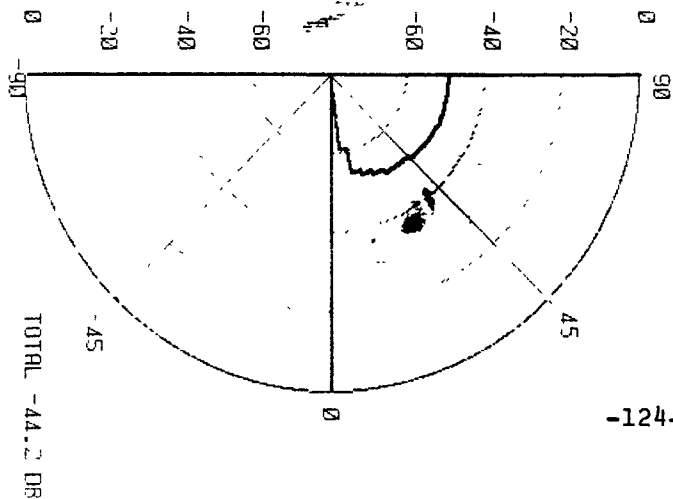
ARRIVAL ANGLE

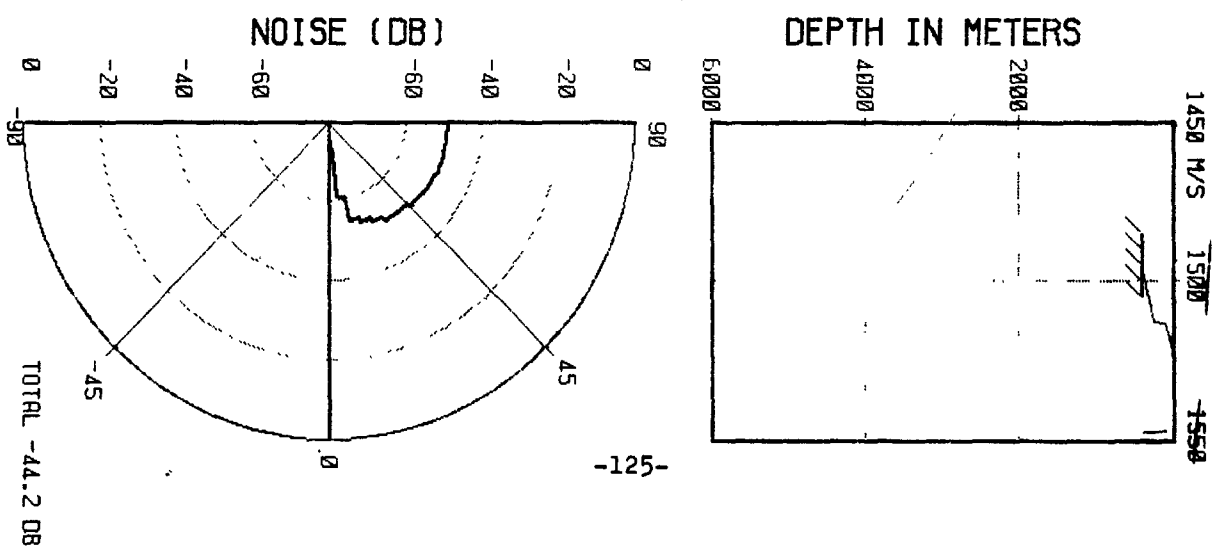
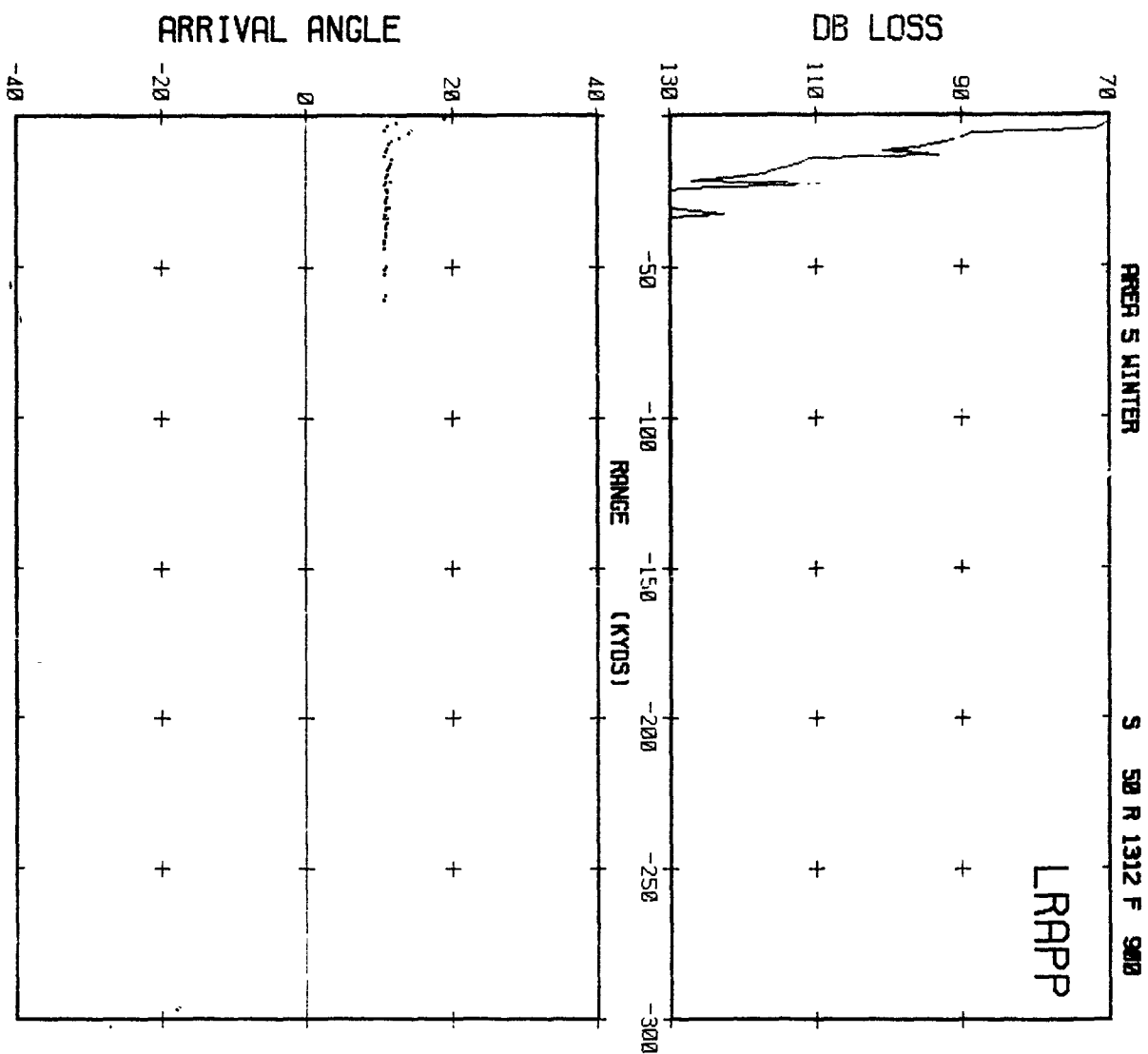


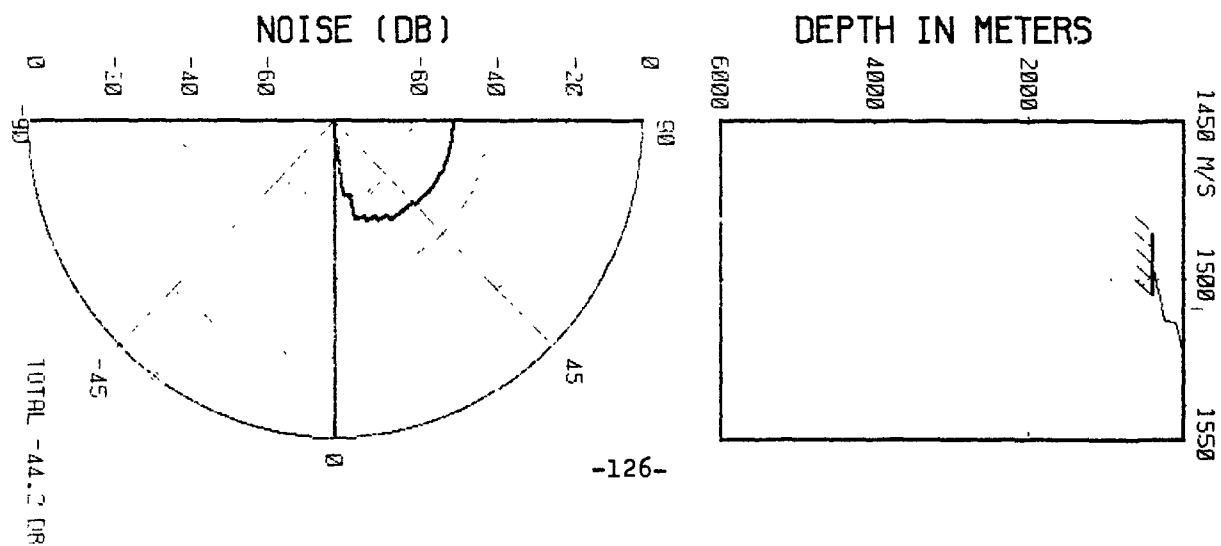
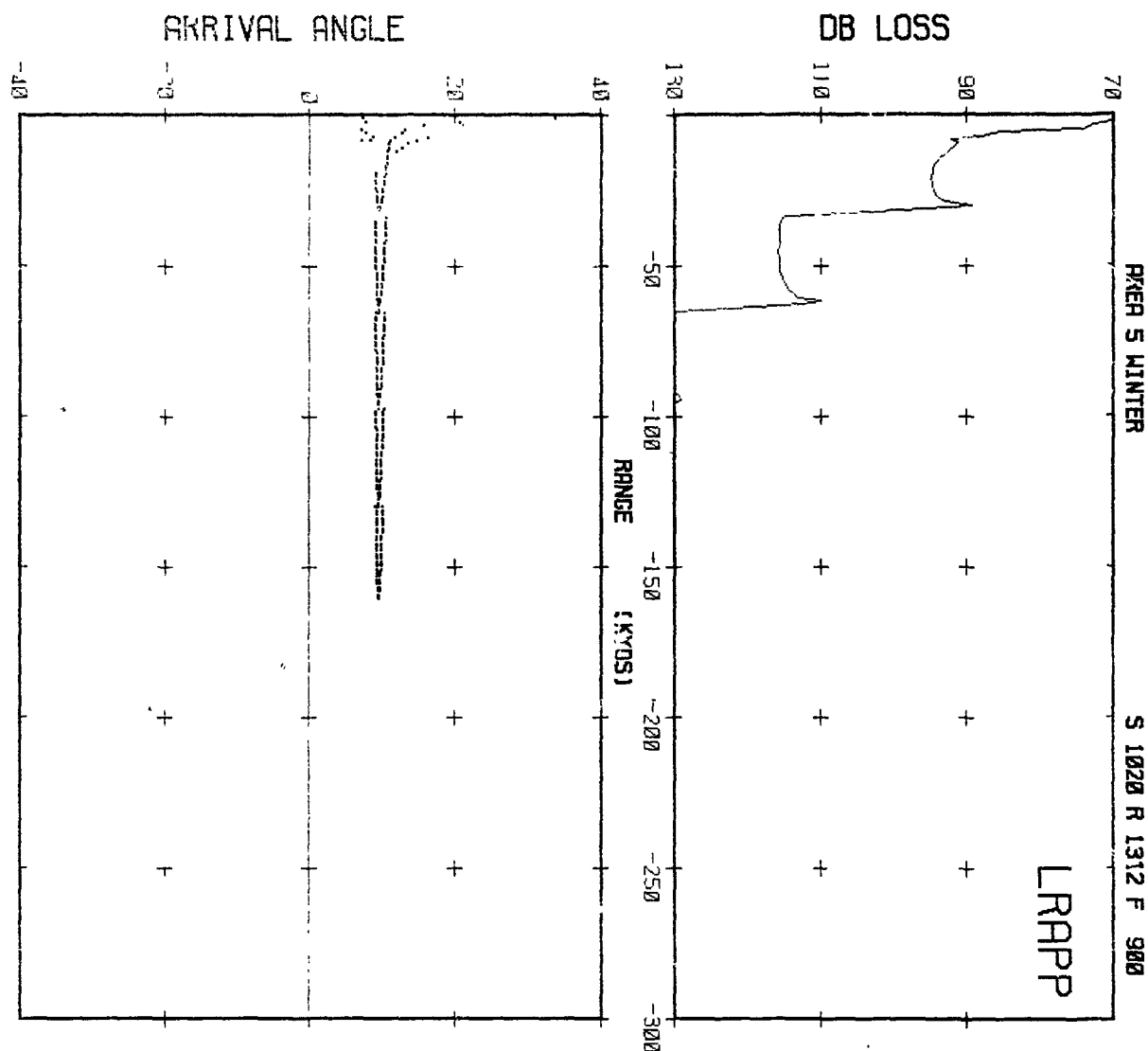
DEPTH IN METERS

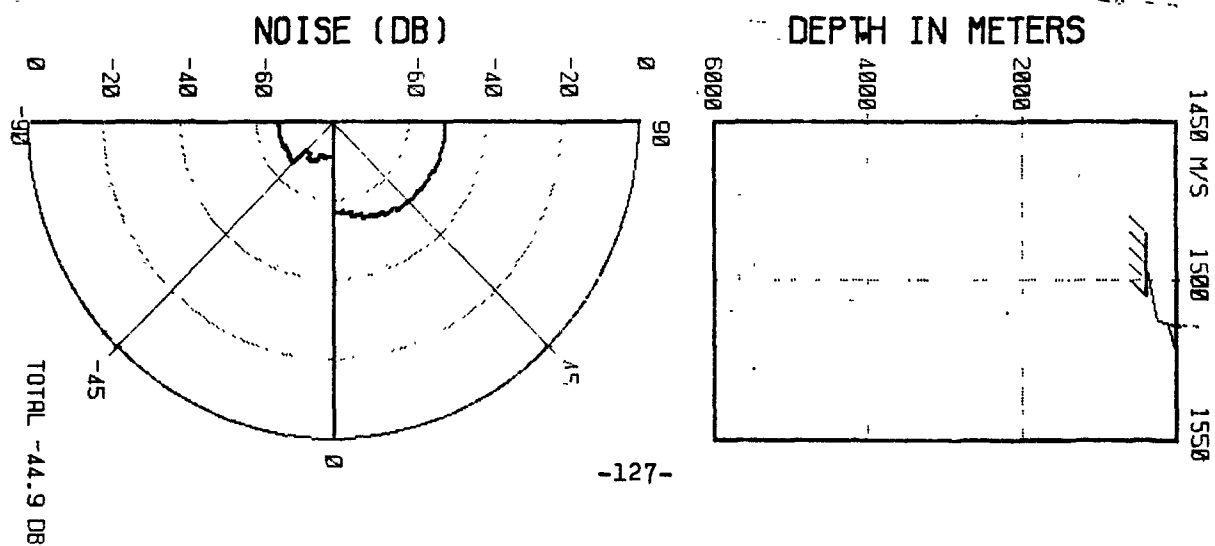
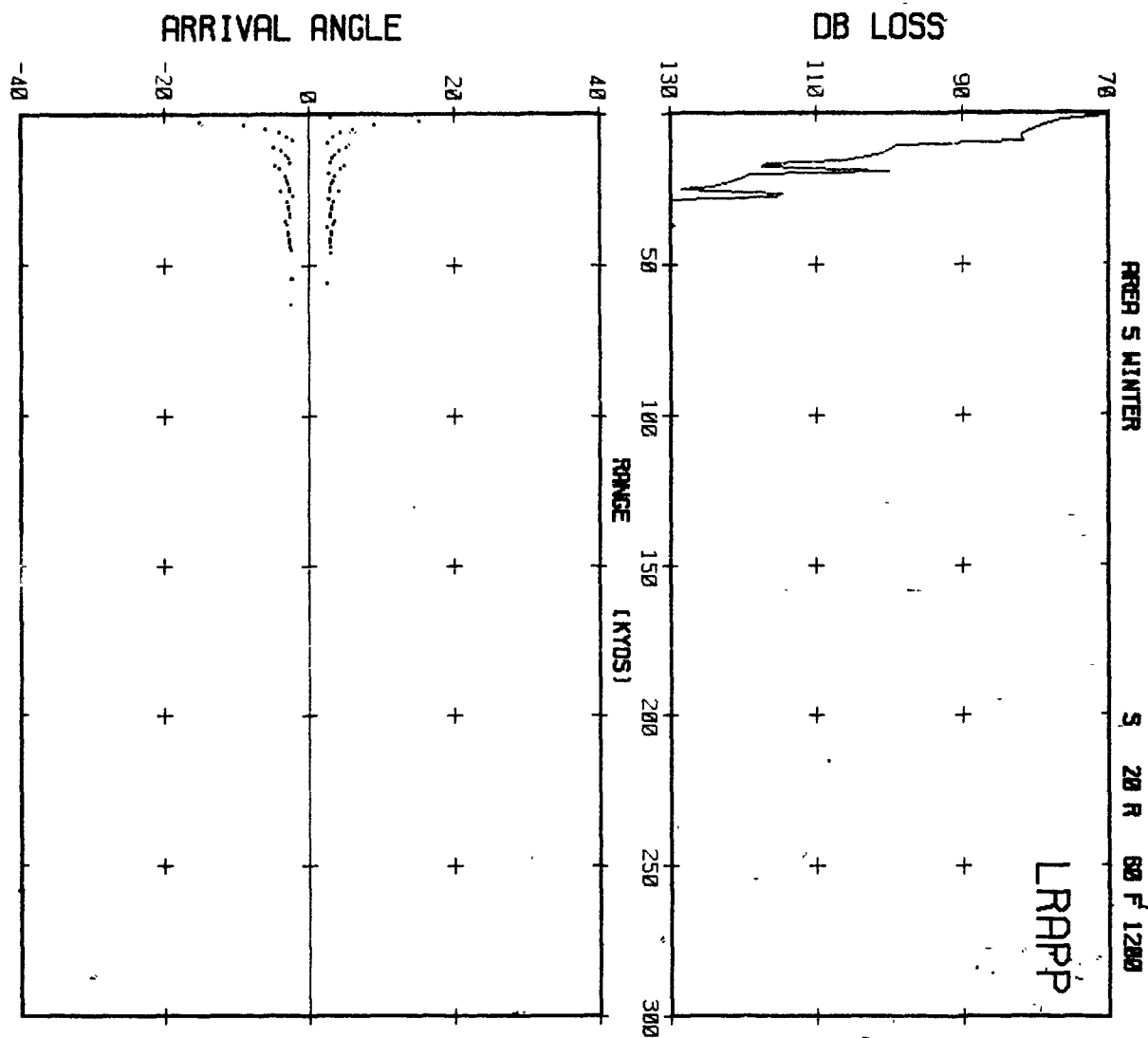


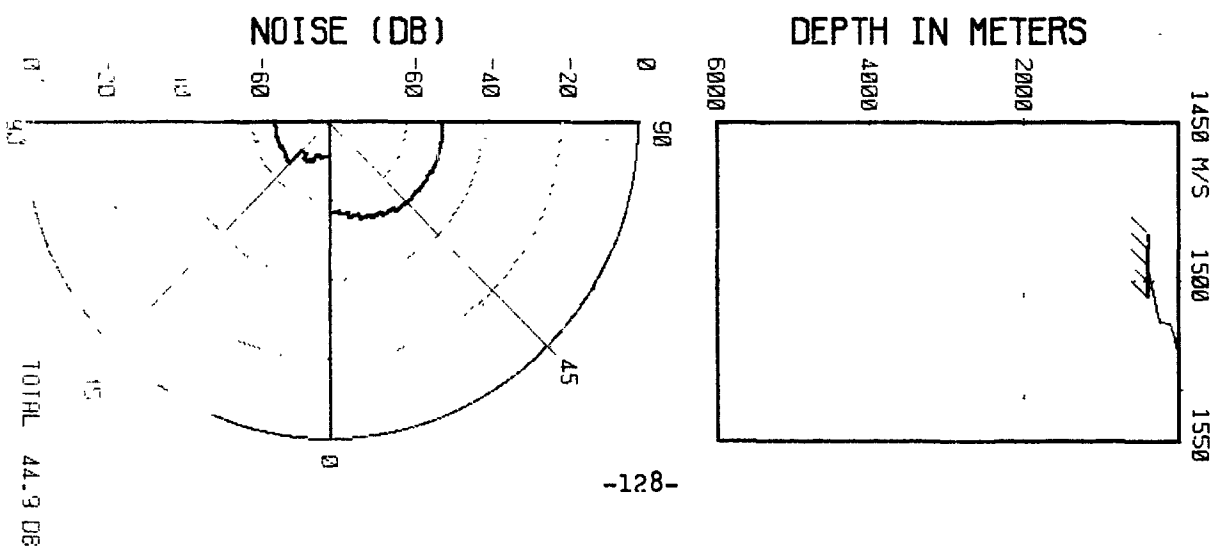
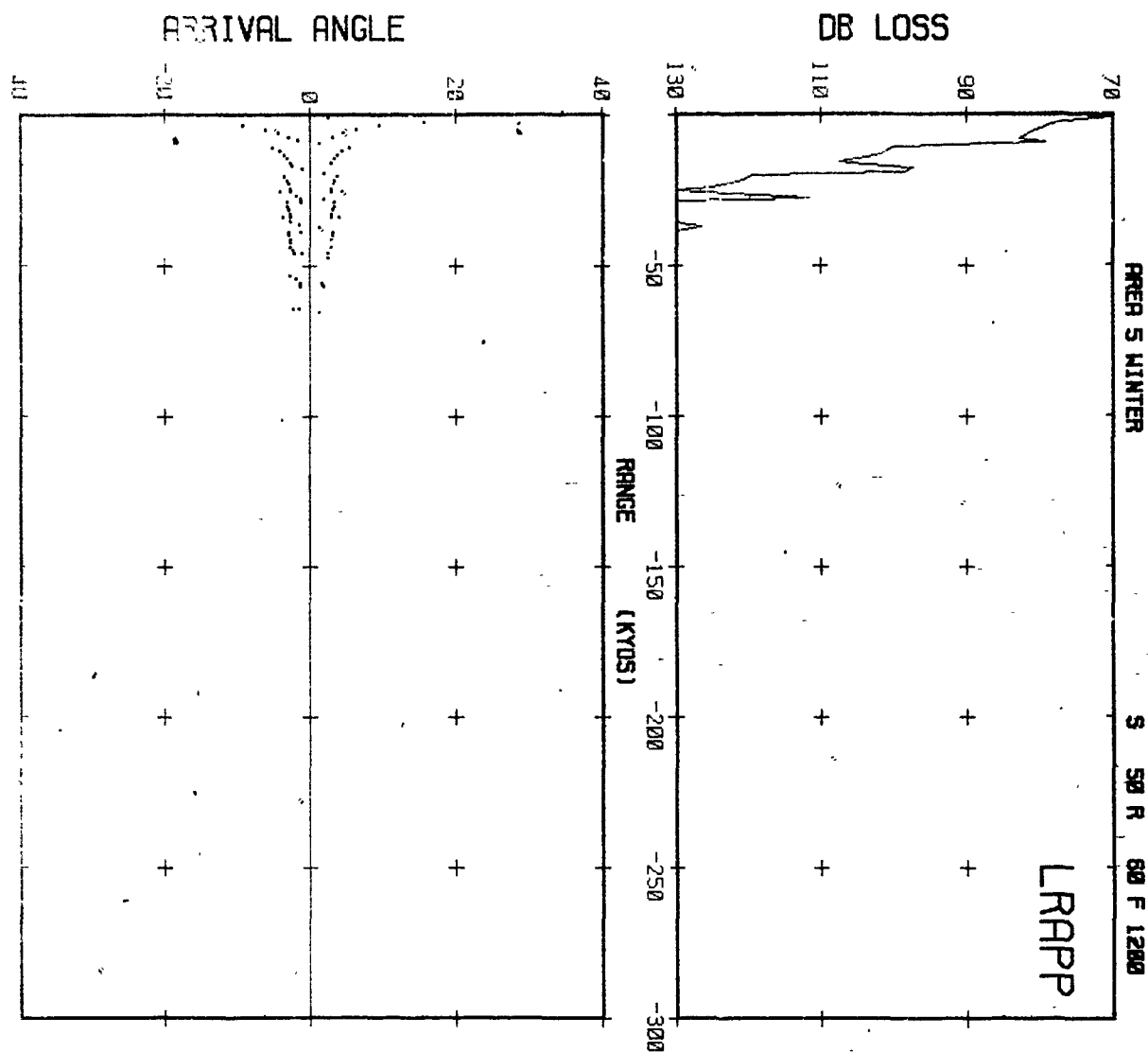
NOISE (DB)









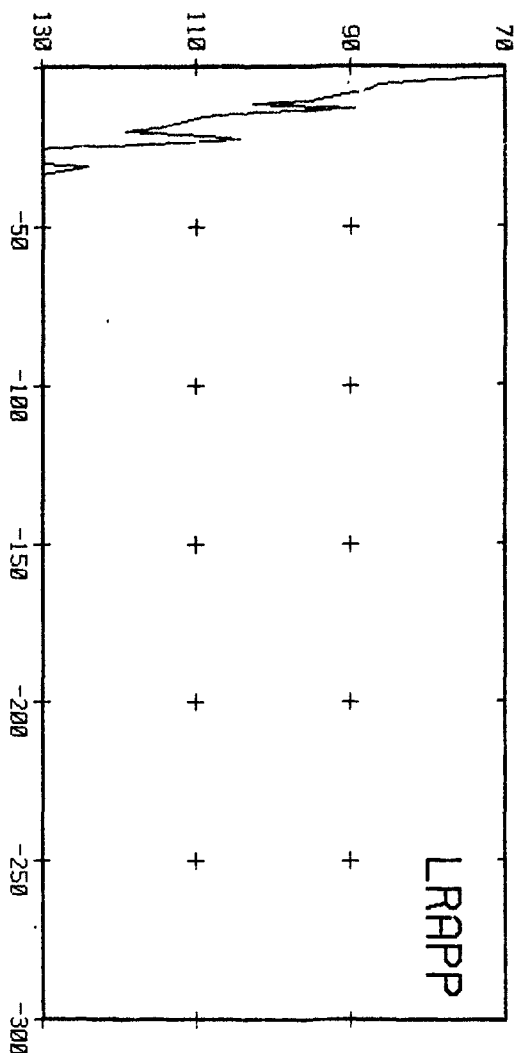


AREA 5 WINTER

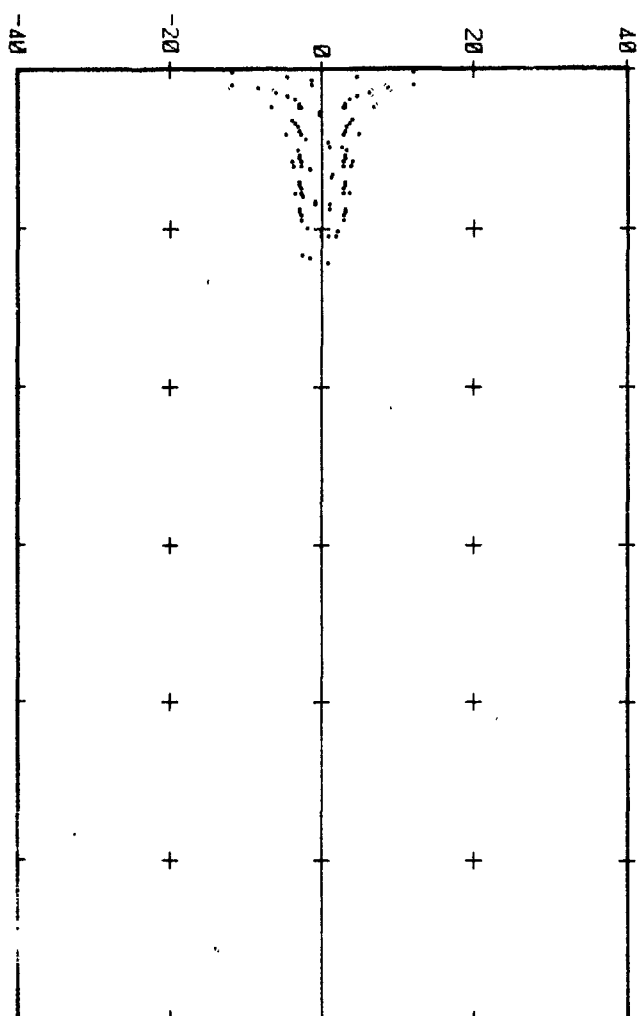
S 1020 R 60 F 1200

1450 M/S 1500 1550

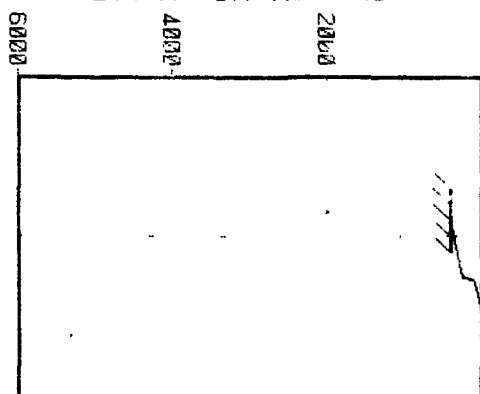
DB LOSS



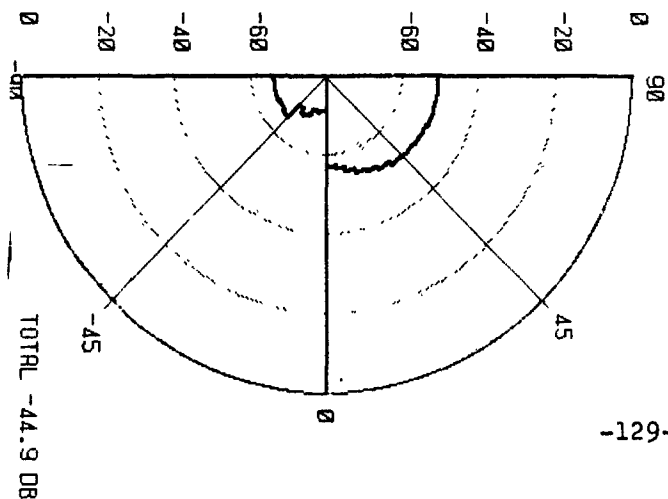
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

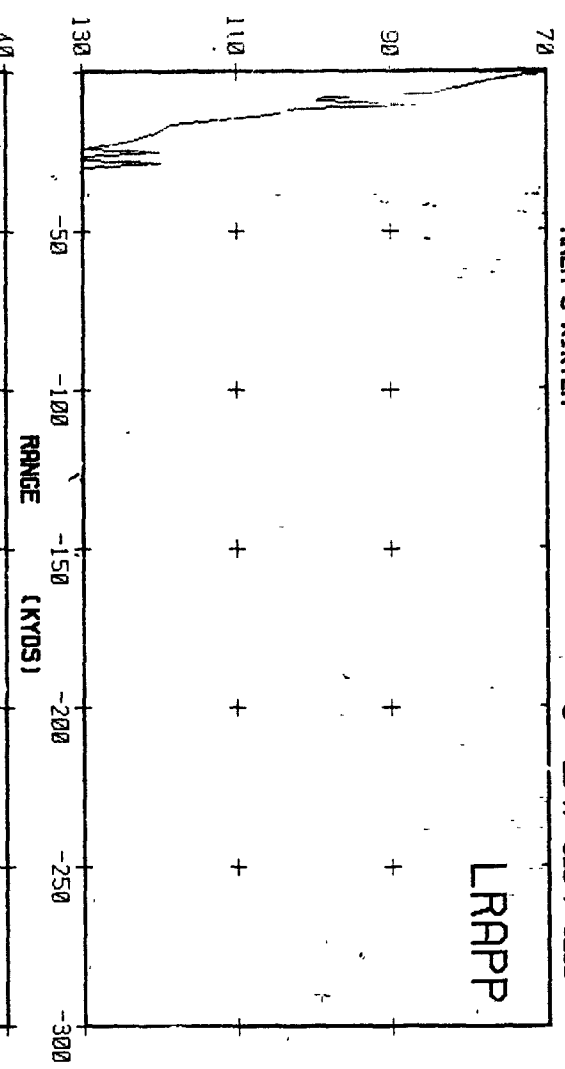


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 0.1

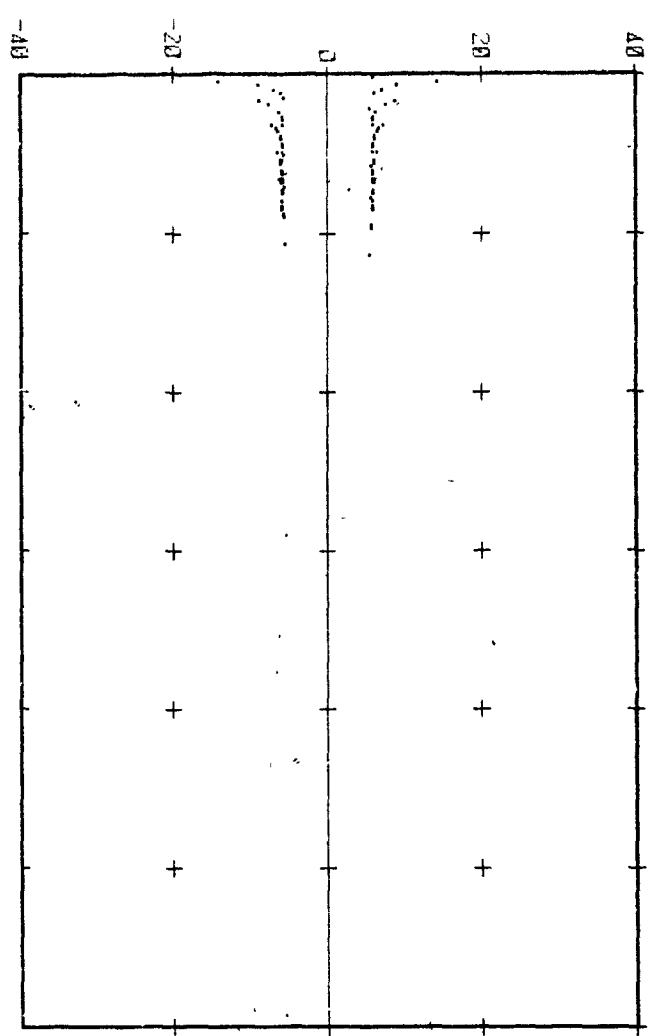
AREA 5 WINTER S 20 R 300 F 1200

LRAPP

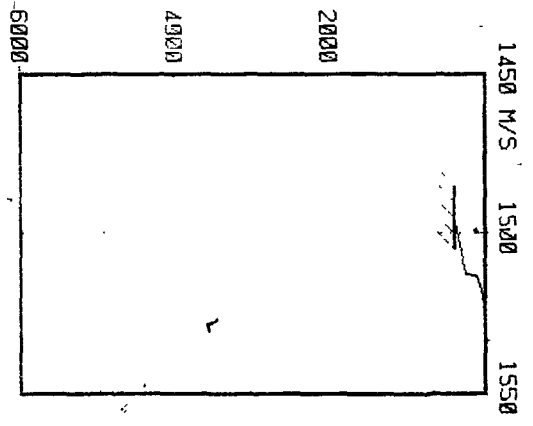
DB LOSS



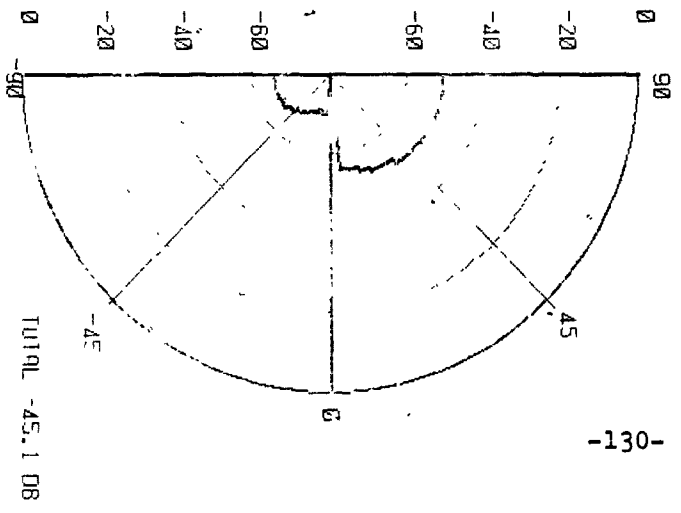
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

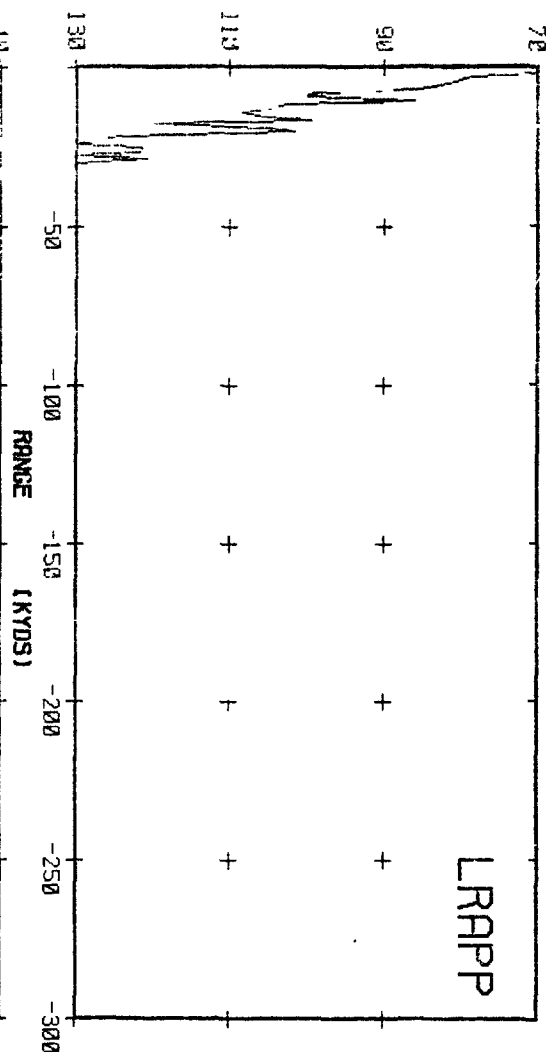


SIRER 5 WINTER

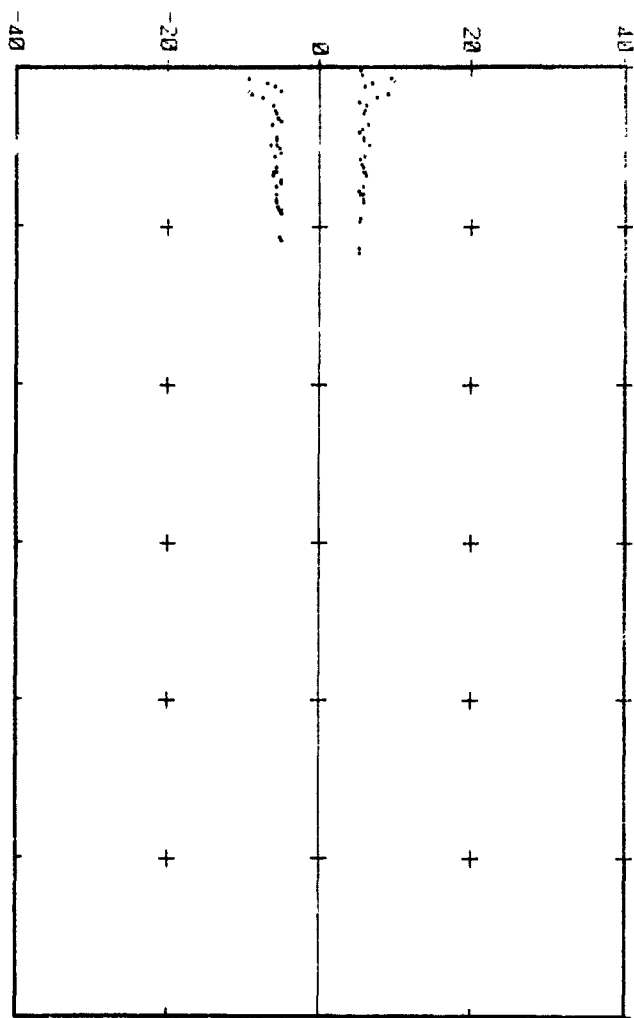
S 50 R 300 F 1200

1450 M/S 1500 1550

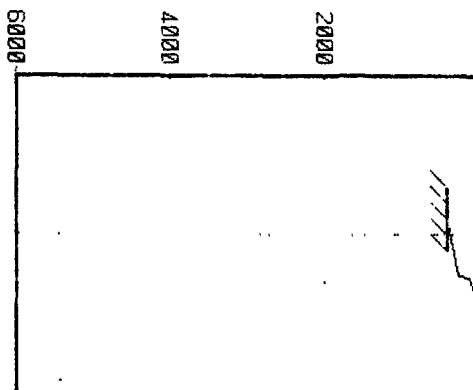
DB LOSS



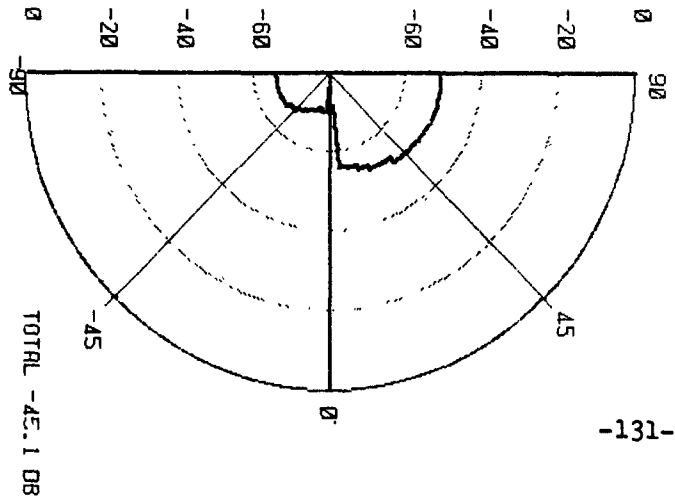
ARRIVAL ANGLE



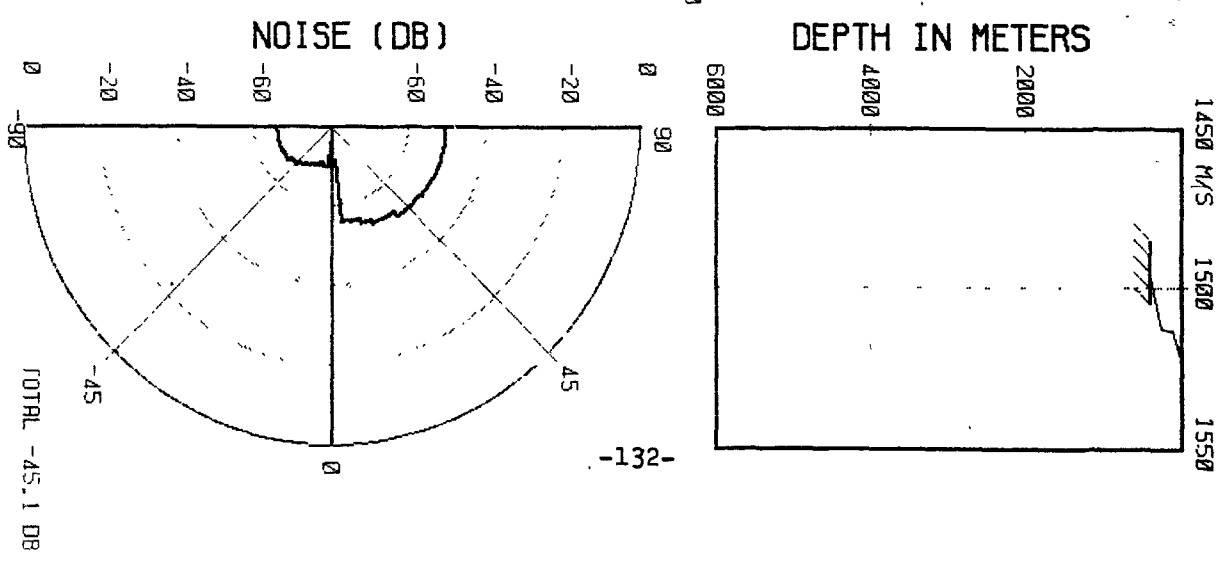
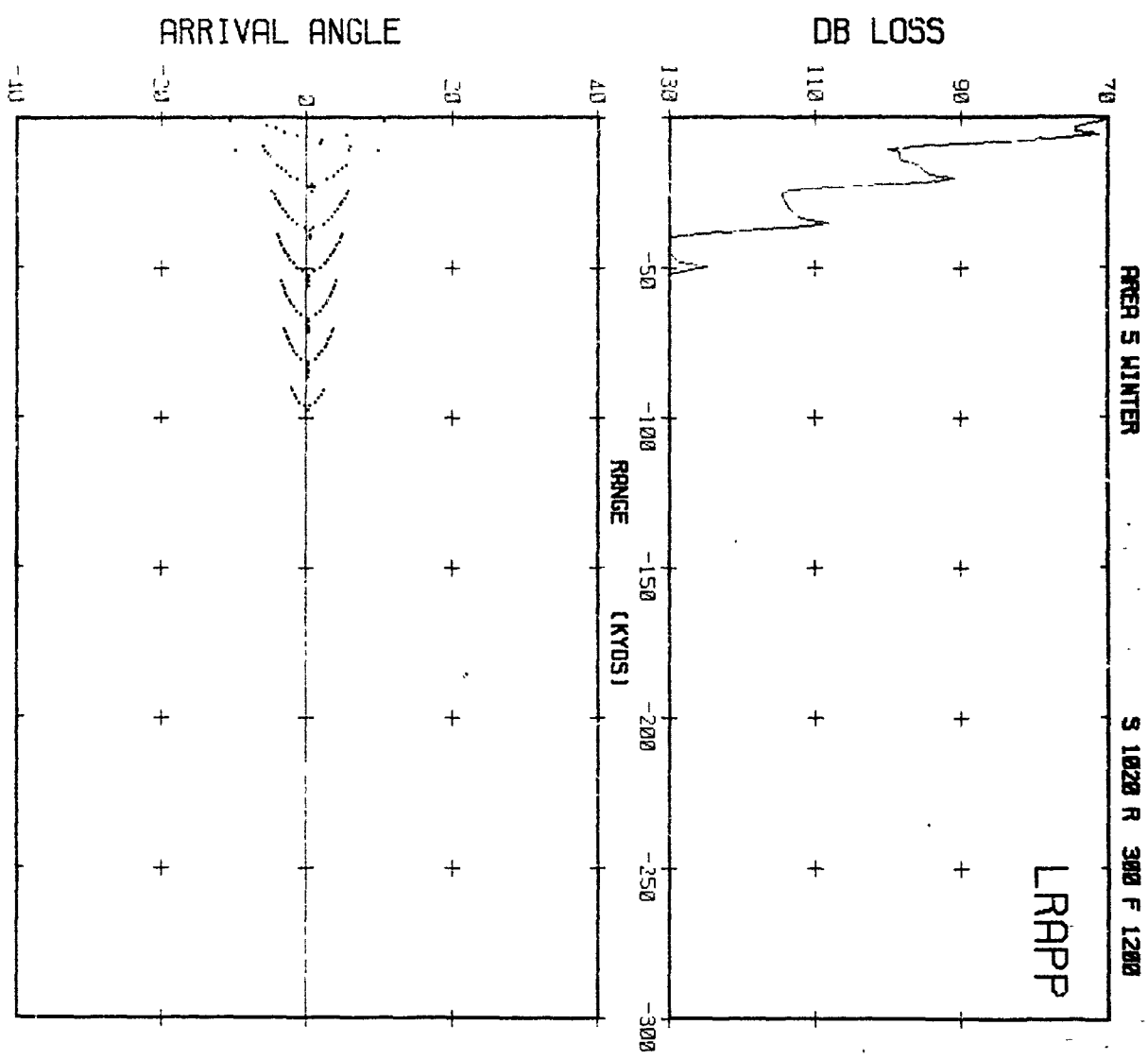
DEPTH IN METERS



NOISE (DB)



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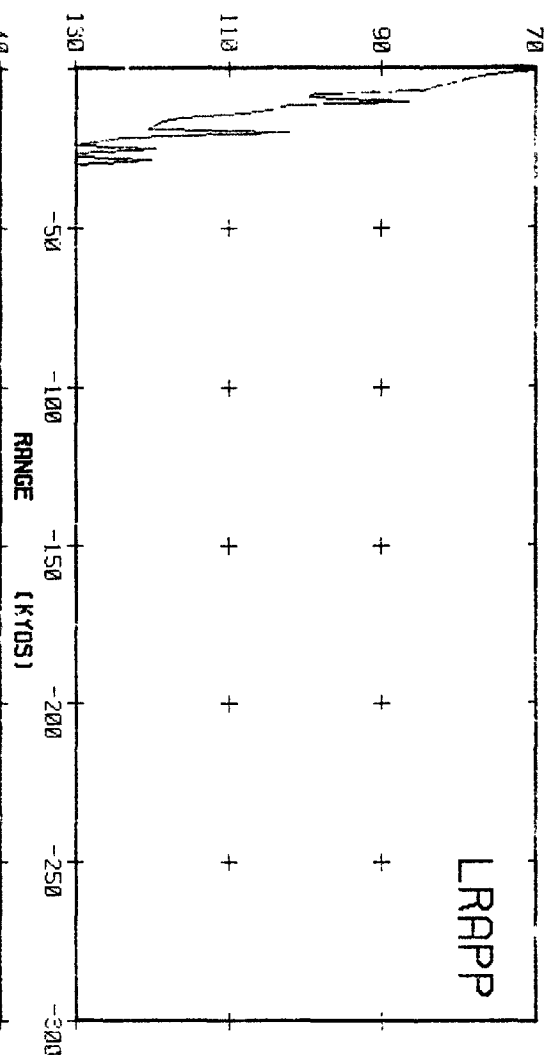


AREA 5 WINTER

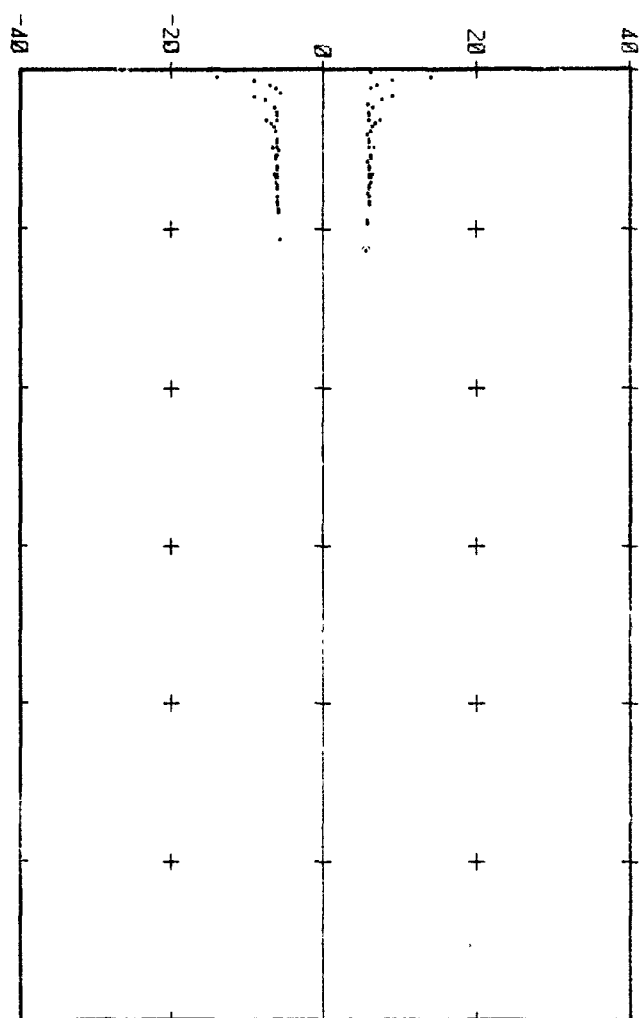
S 20 R 328 F 1200

LRAPP

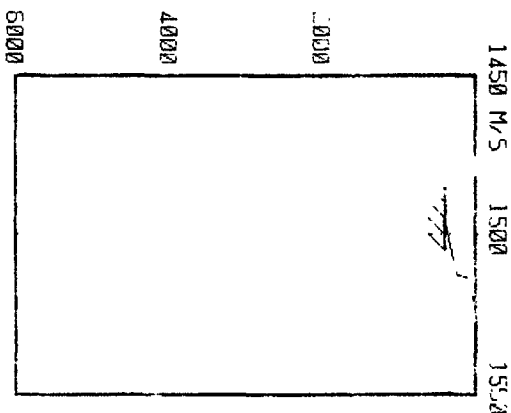
DB LOSS



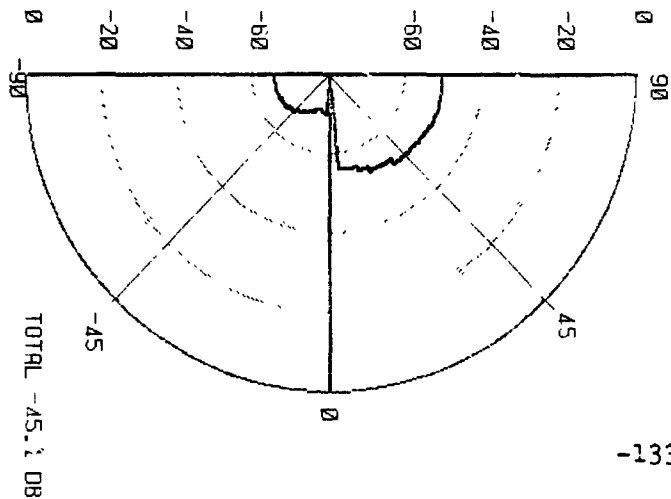
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

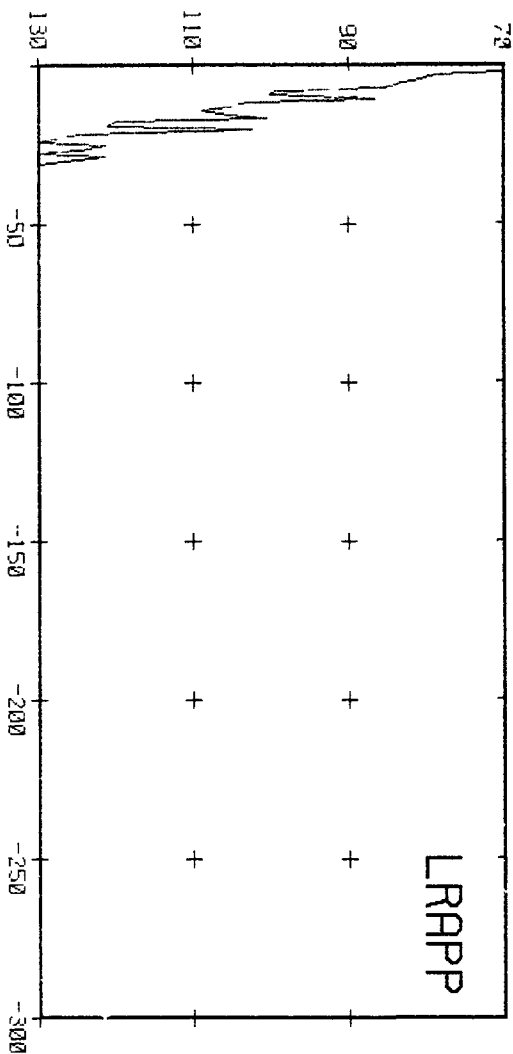


AREA 5 WINTER

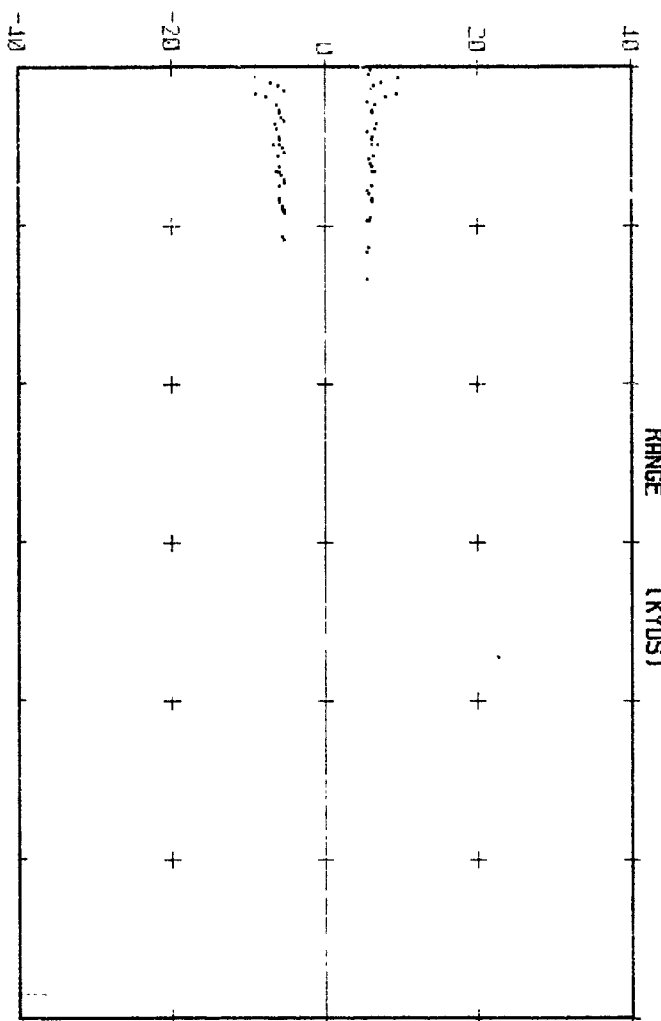
S 50 R 328 F 1200

1450 M/S 1500 1550

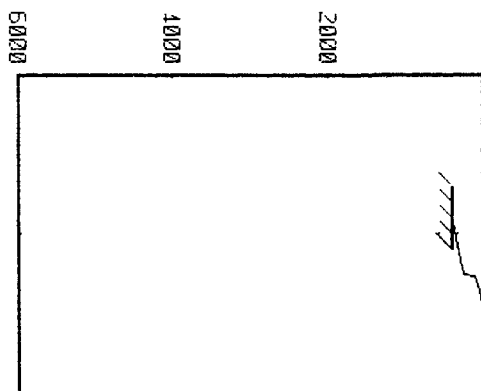
DB LOSS



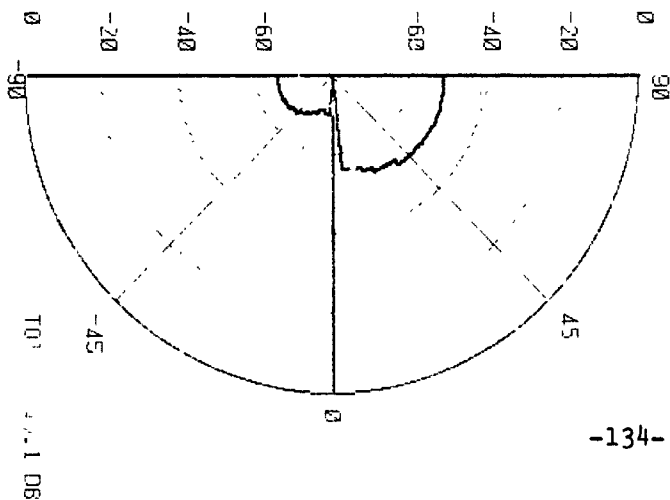
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

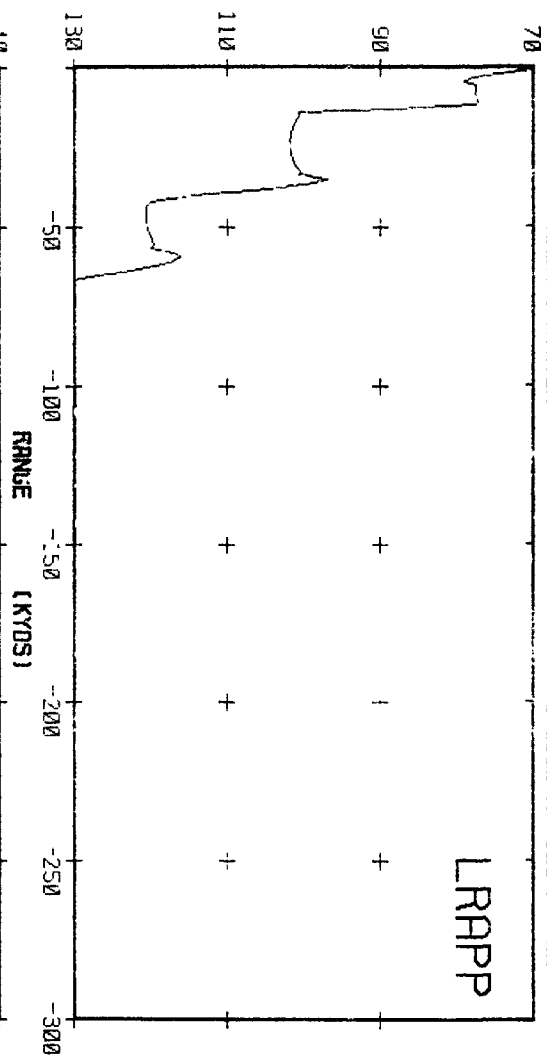


AREA 5 WINTER

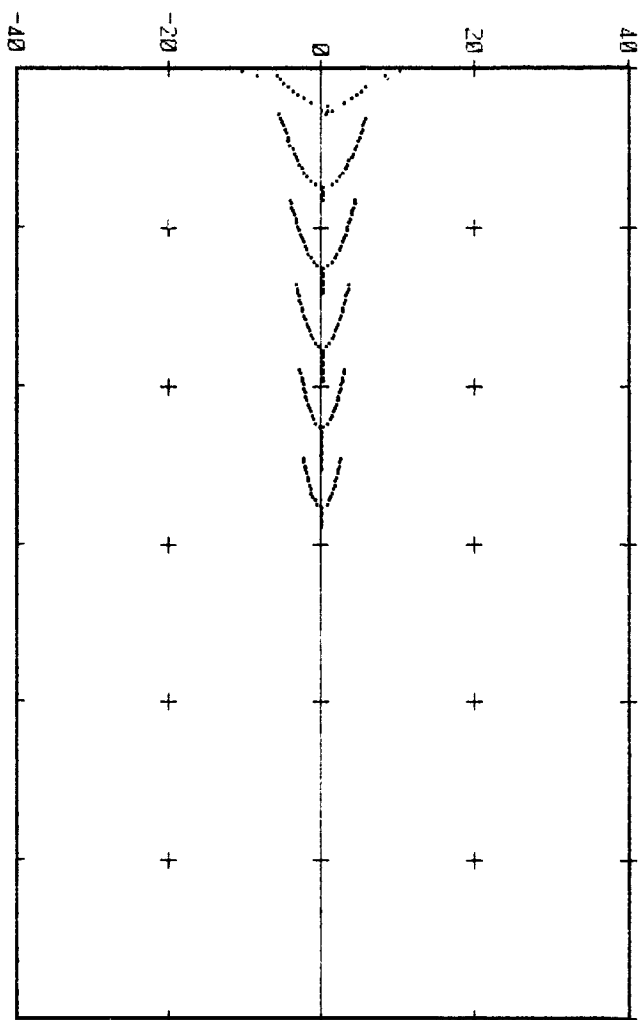
S 1020 R 328 F 1200

LRAPP

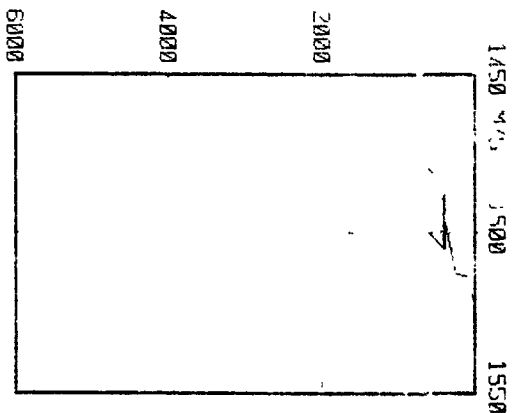
DB LOSS



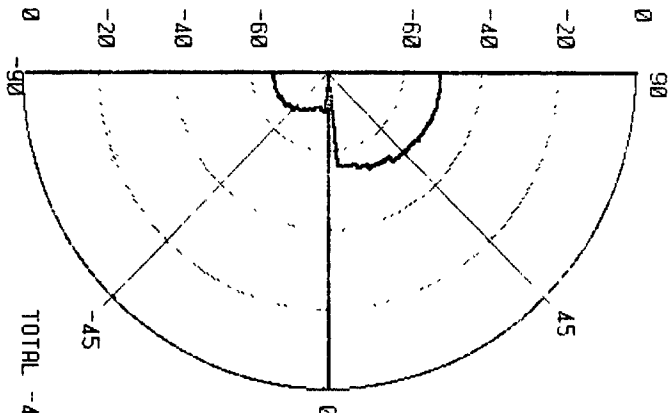
ARRIVAL ANGLE



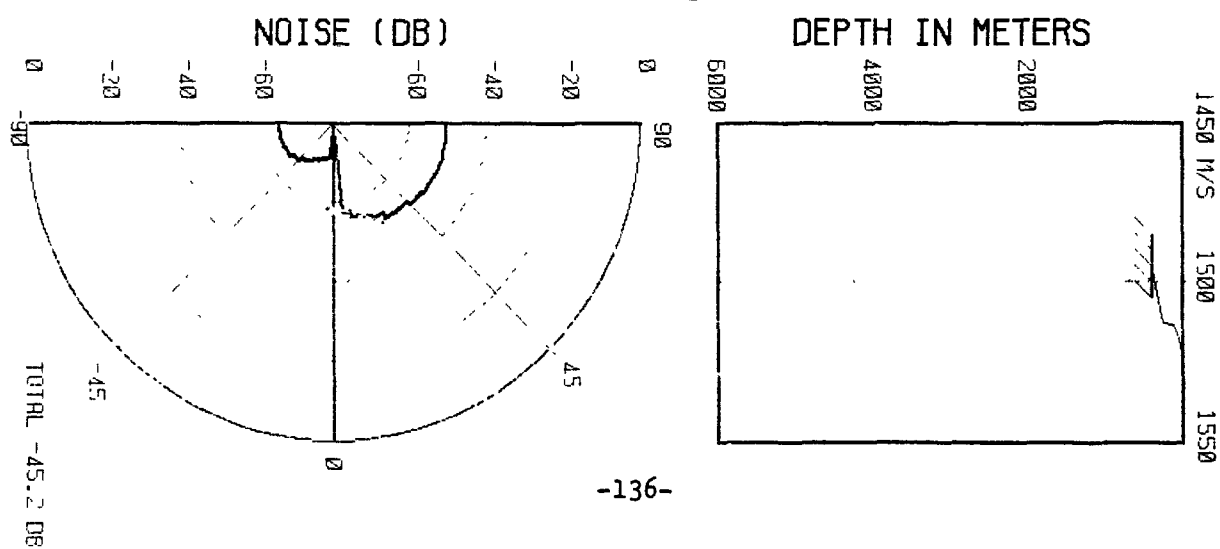
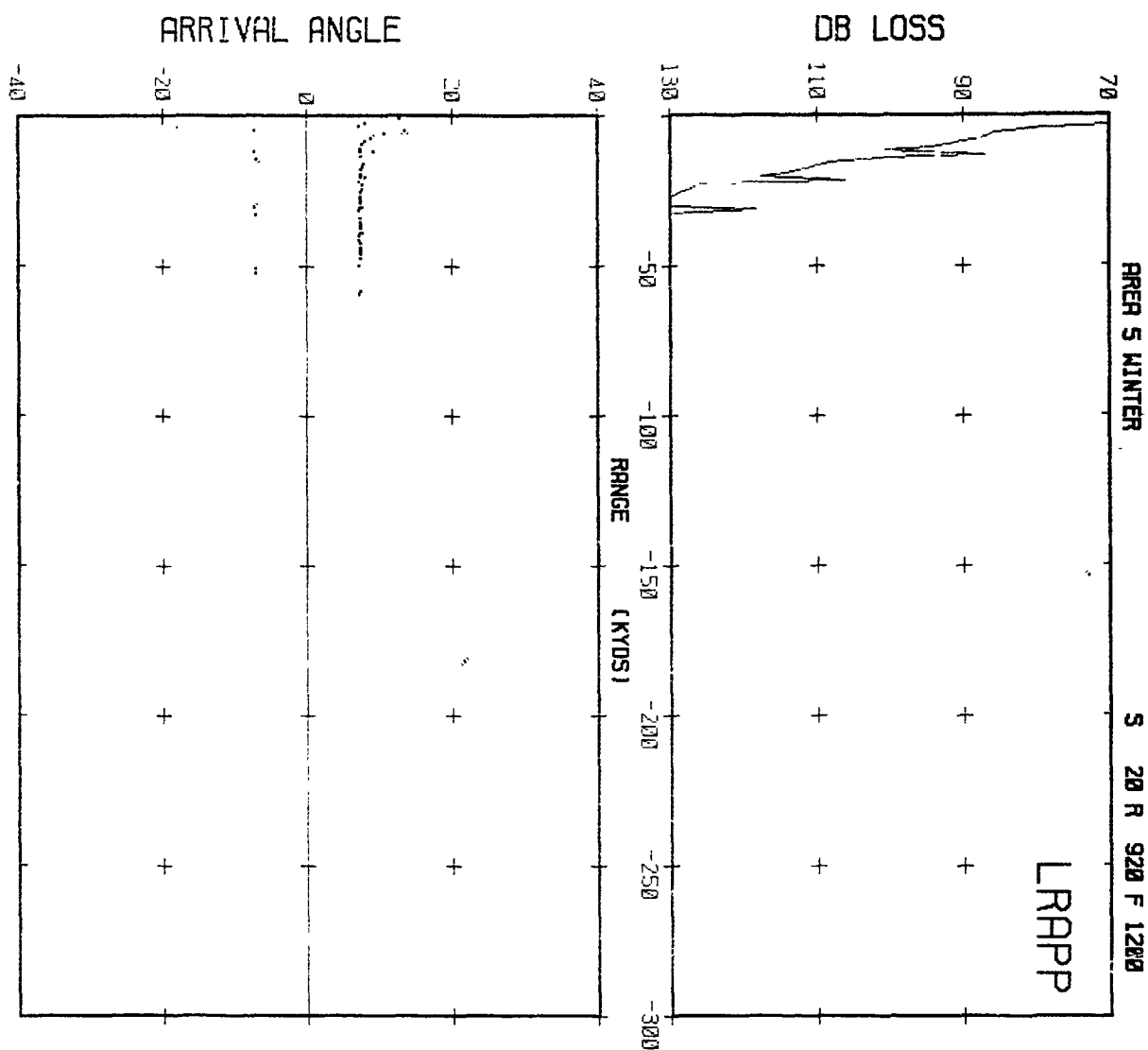
DEPTH IN METERS

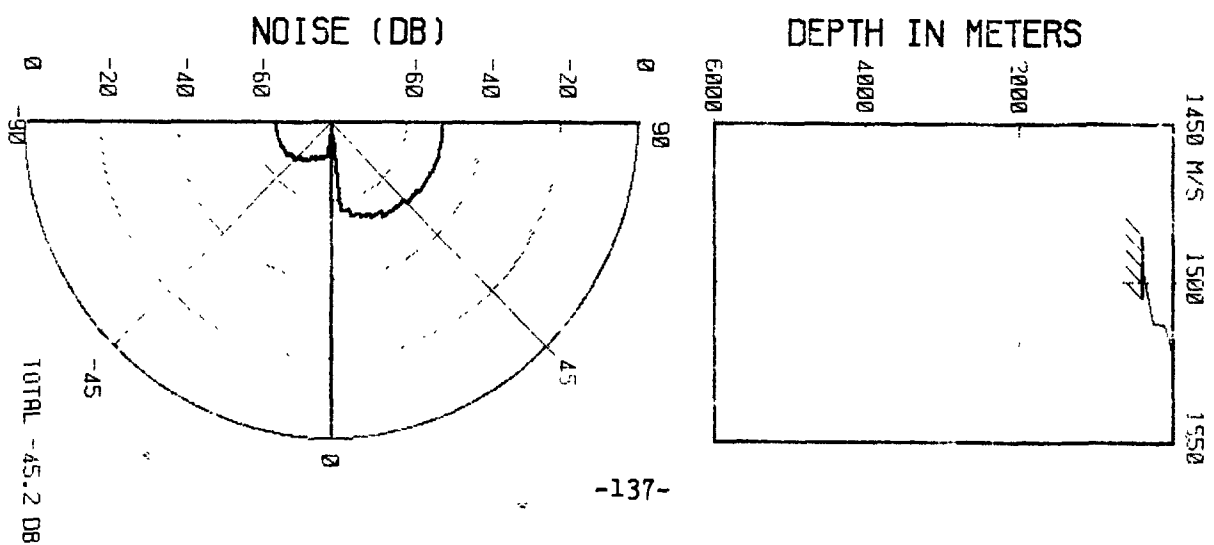
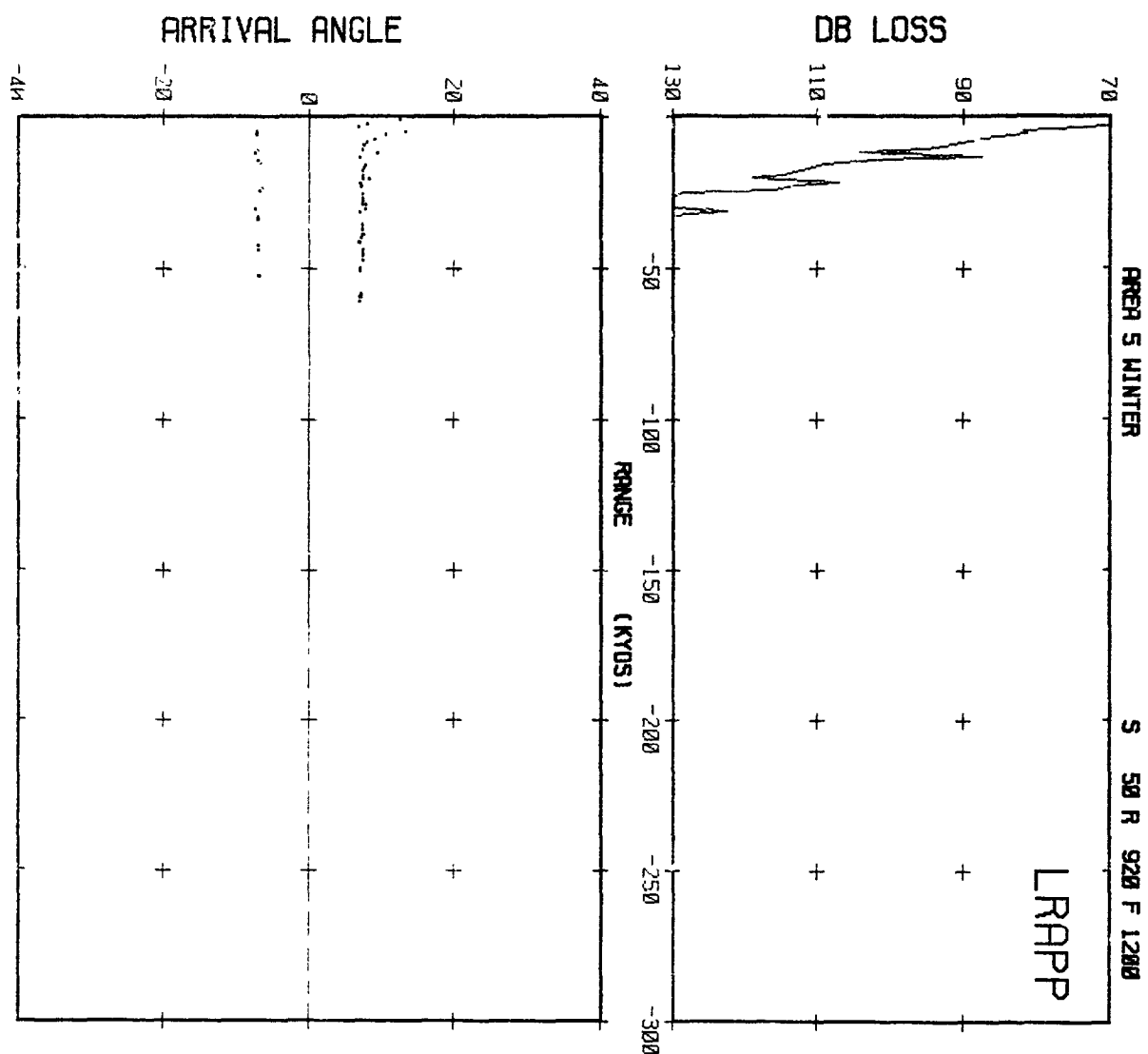


NOISE (DB)



TOTAL -45.1 DB





1

2

3

4

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6

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8

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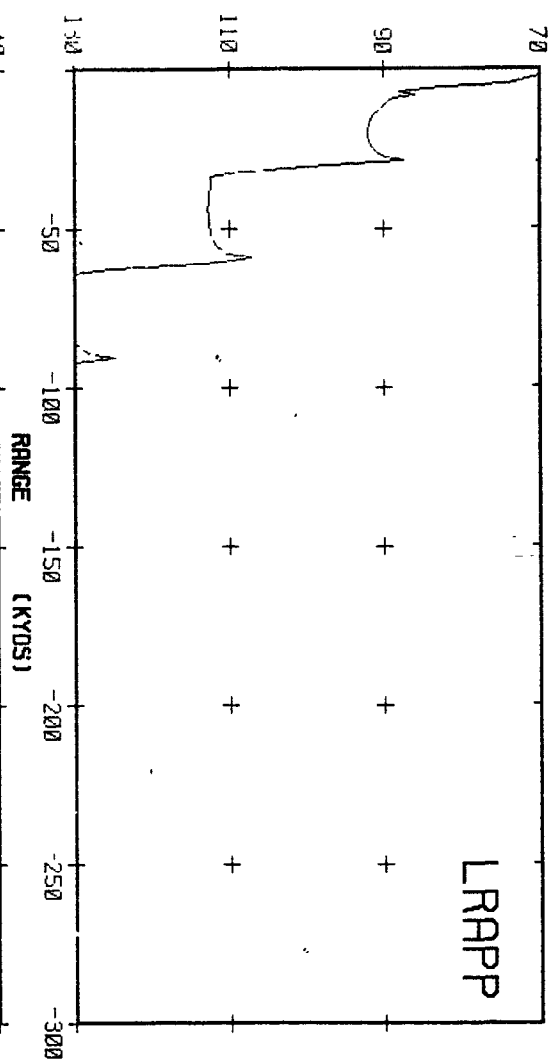
19

AREA 5 WINTER

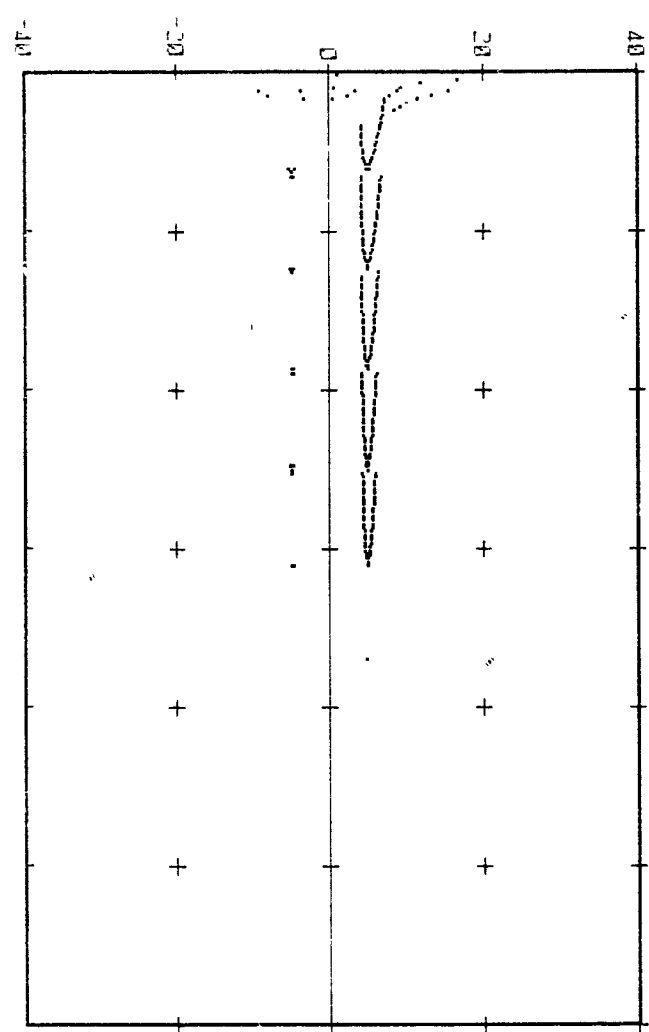
S 1020 R 920 F 1200

LRAPP

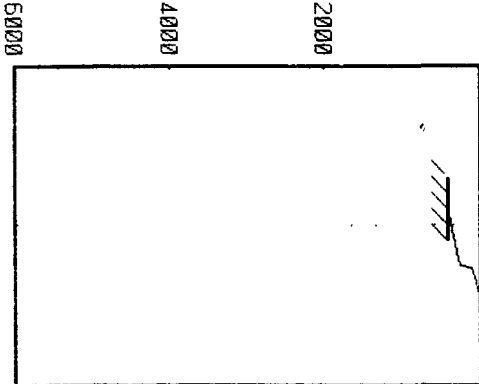
DB LOSS



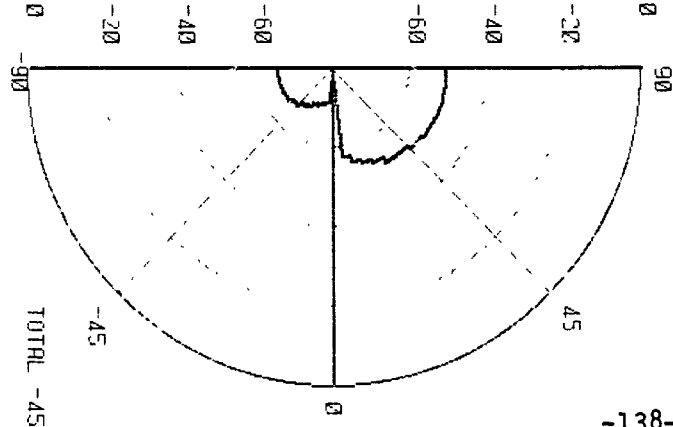
ARRIVAL ANGLE



DEPTH IN METERS

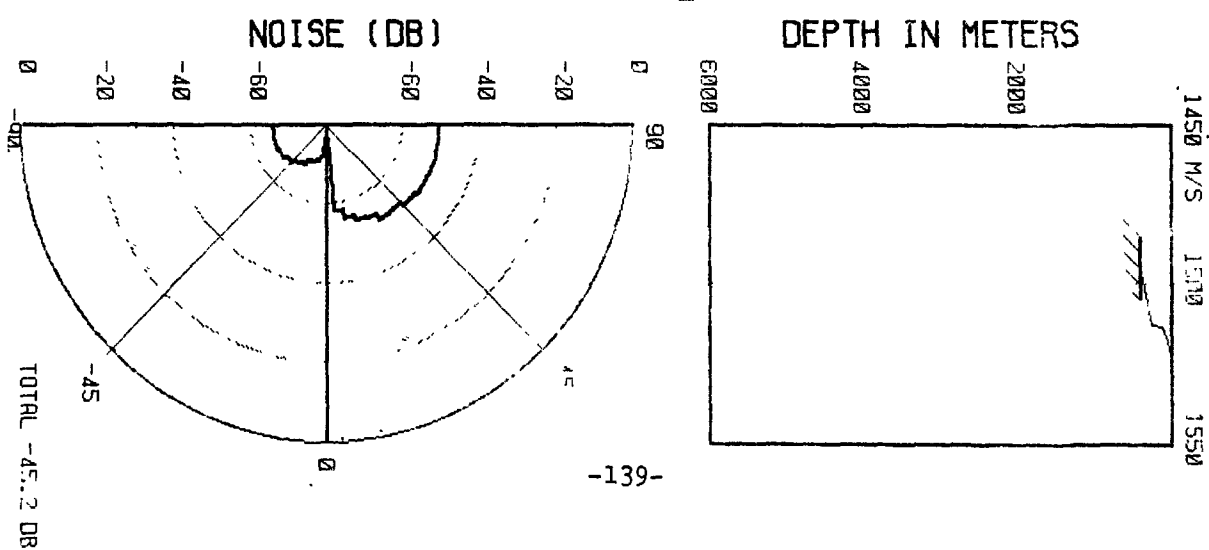
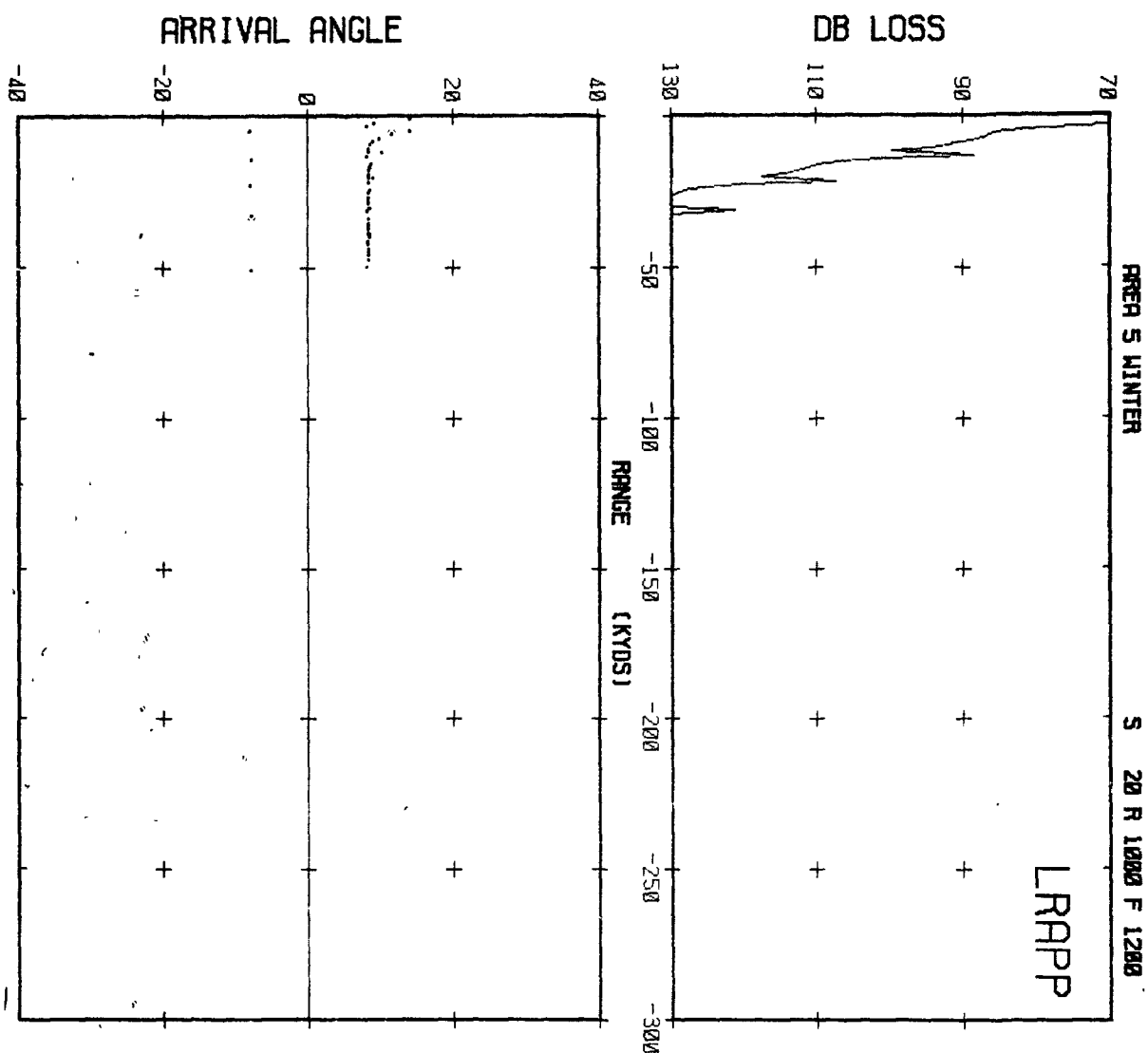


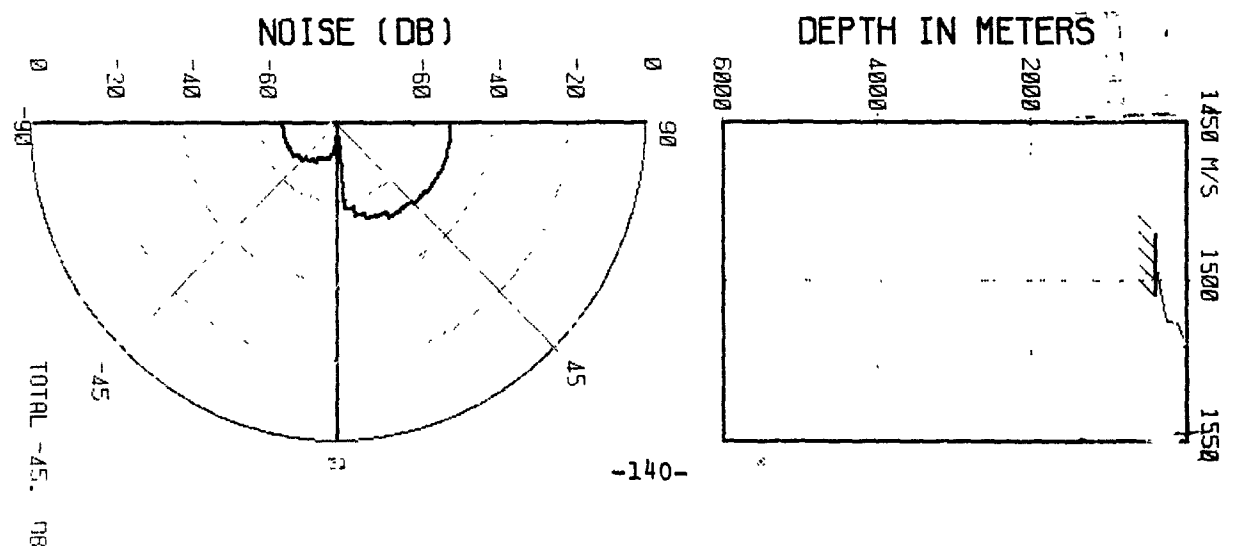
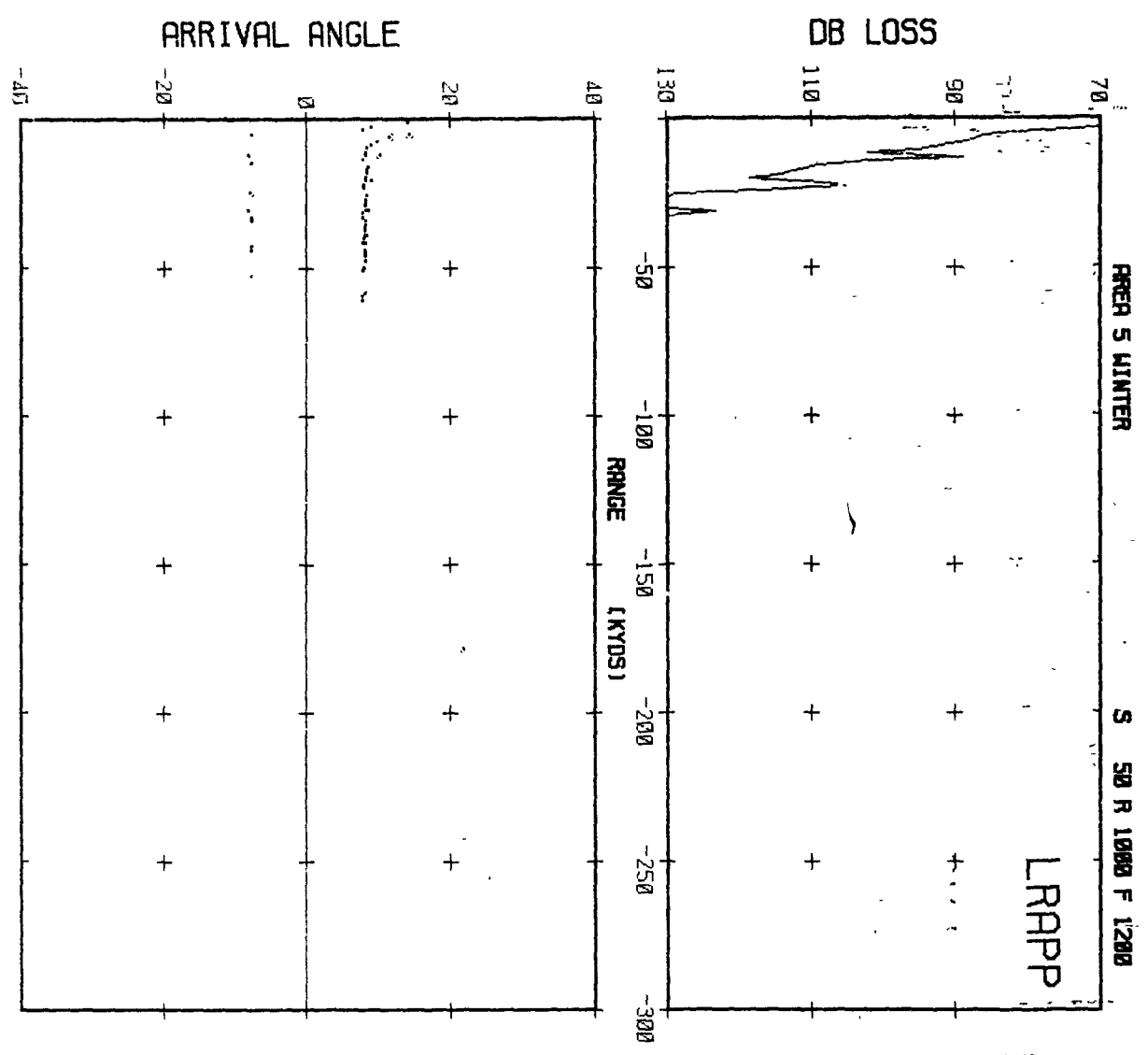
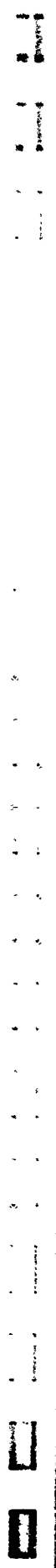
NOISE (DB)



TOTAL -45.2 DB

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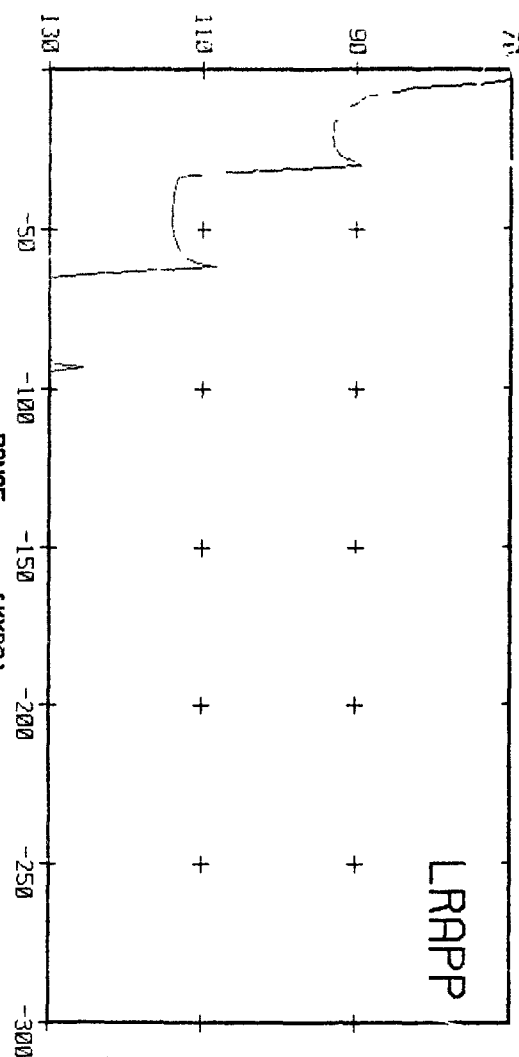


AREA 5 WINTER

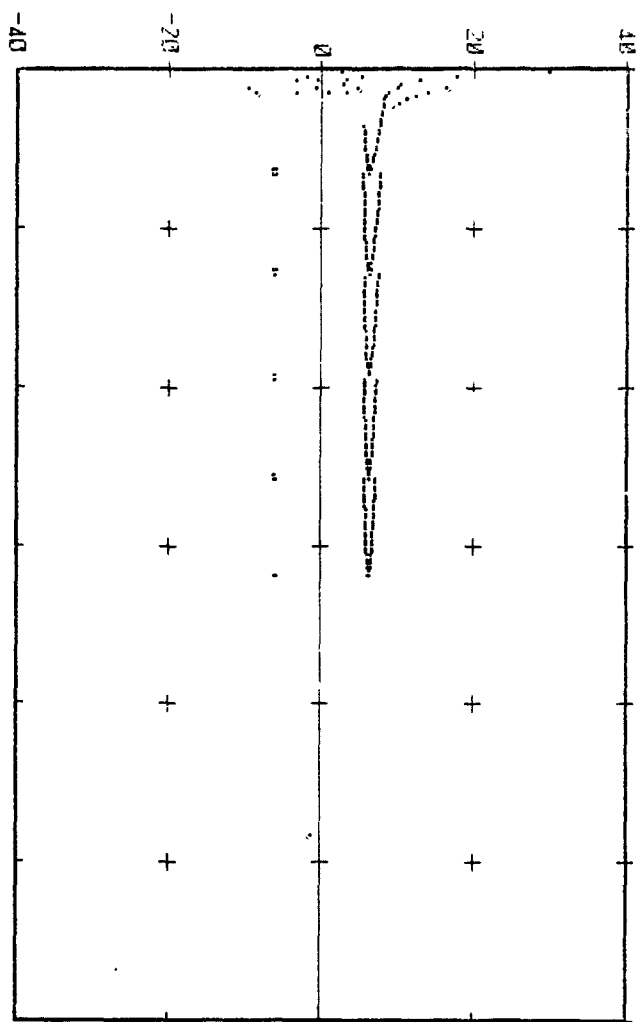
S 1020 R 1000 F 1200

1450 M/S 1500 1550

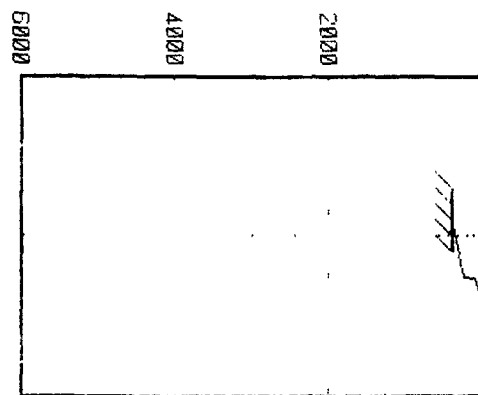
DB LOSS



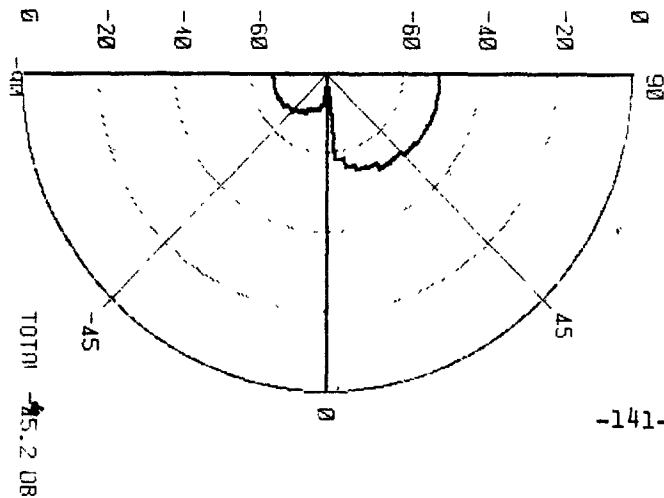
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



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11

11

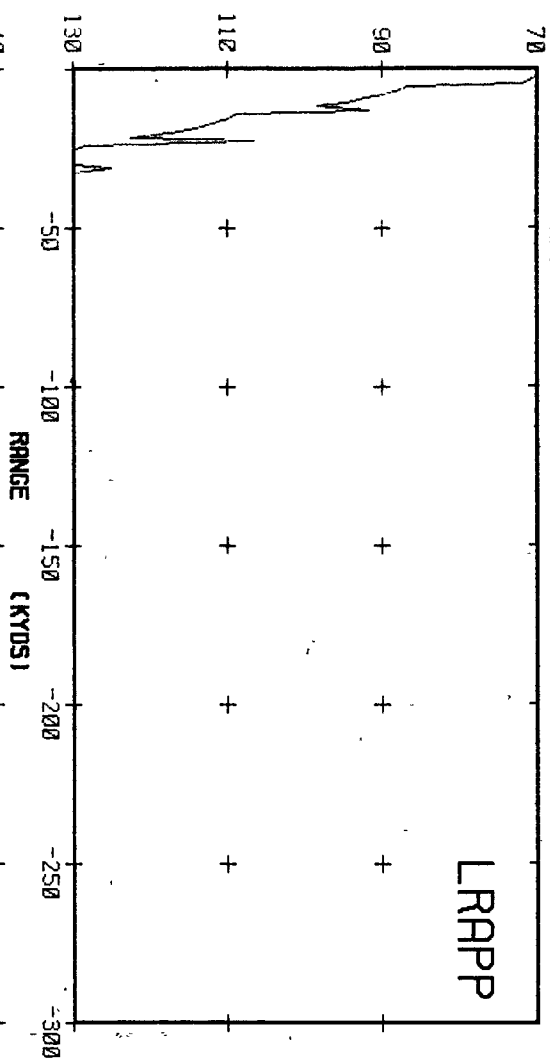
11

PRER 5 WINTER

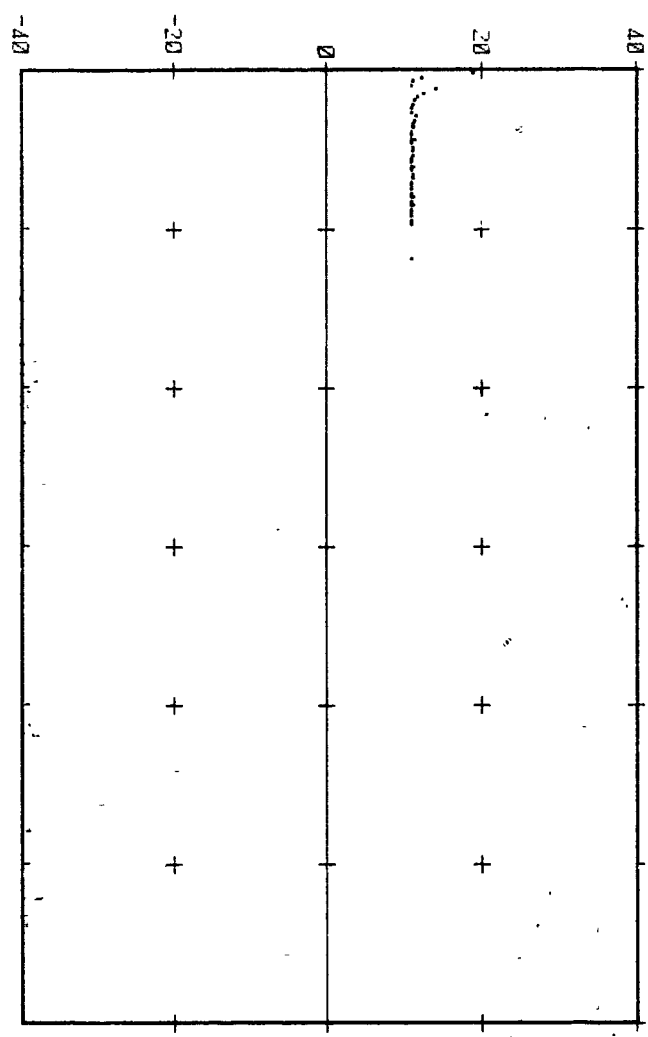
S 20 R 1312 F 1200

1450 M/S 1500 1550

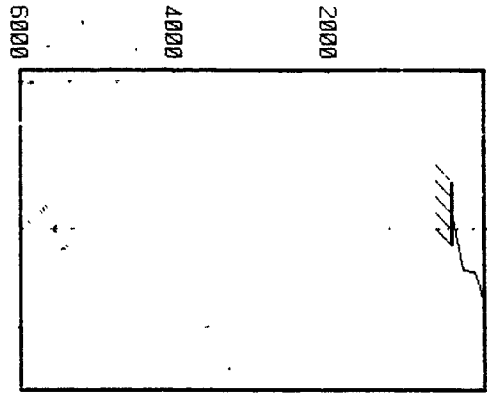
DB LOSS



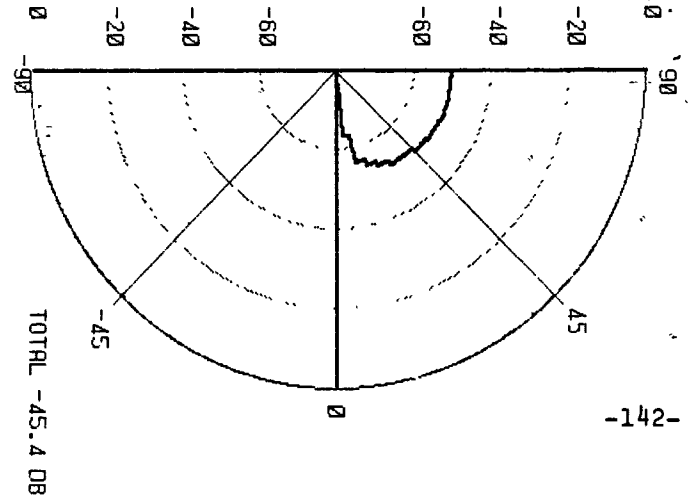
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



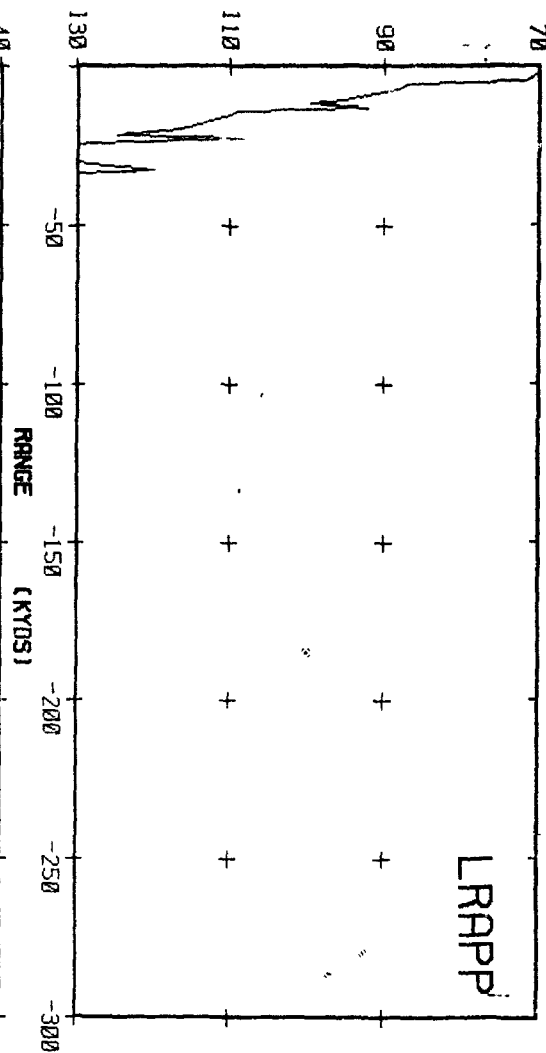
-142-

AREA 5 WINTER

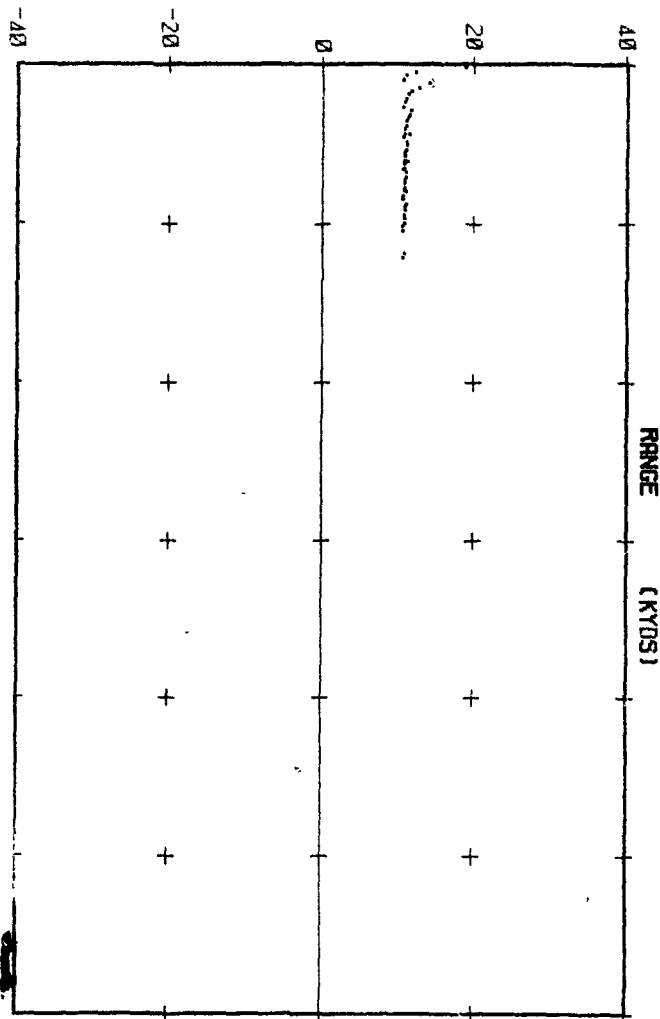
S 50 R 1312 F 1200

1450 M/S 1500 1550

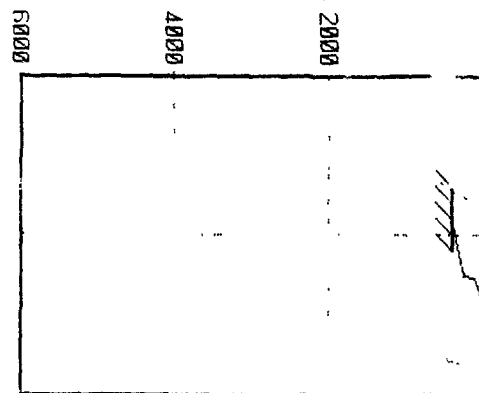
DB LOSS



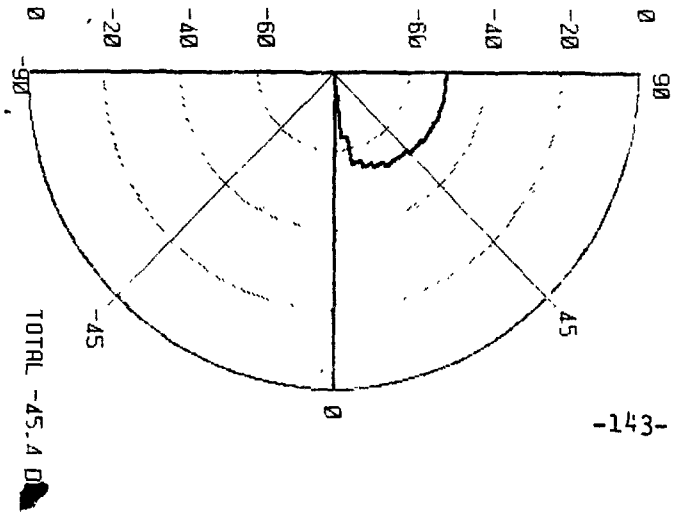
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



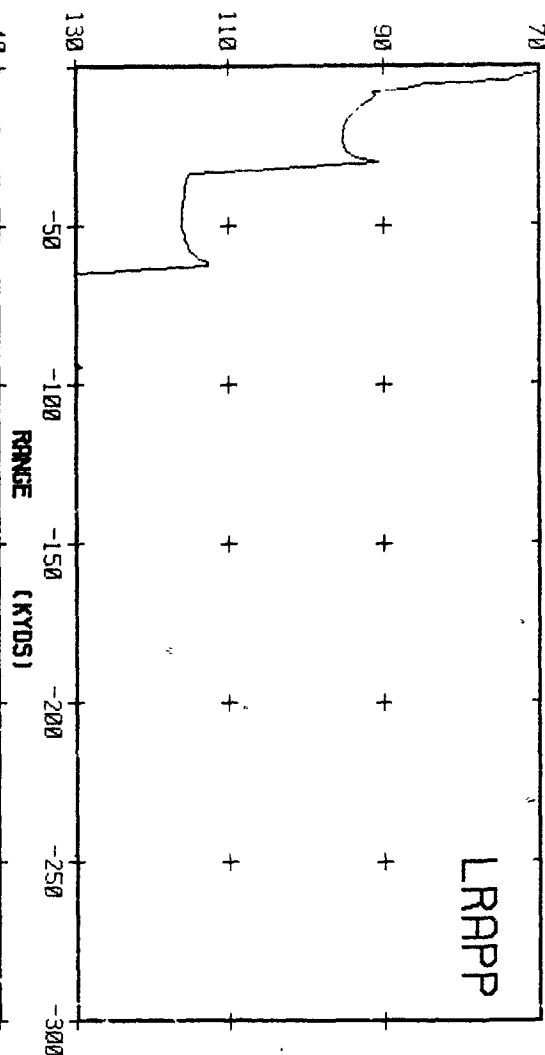
AREA 5 WINTER

S 1020 R 1312 F 1200

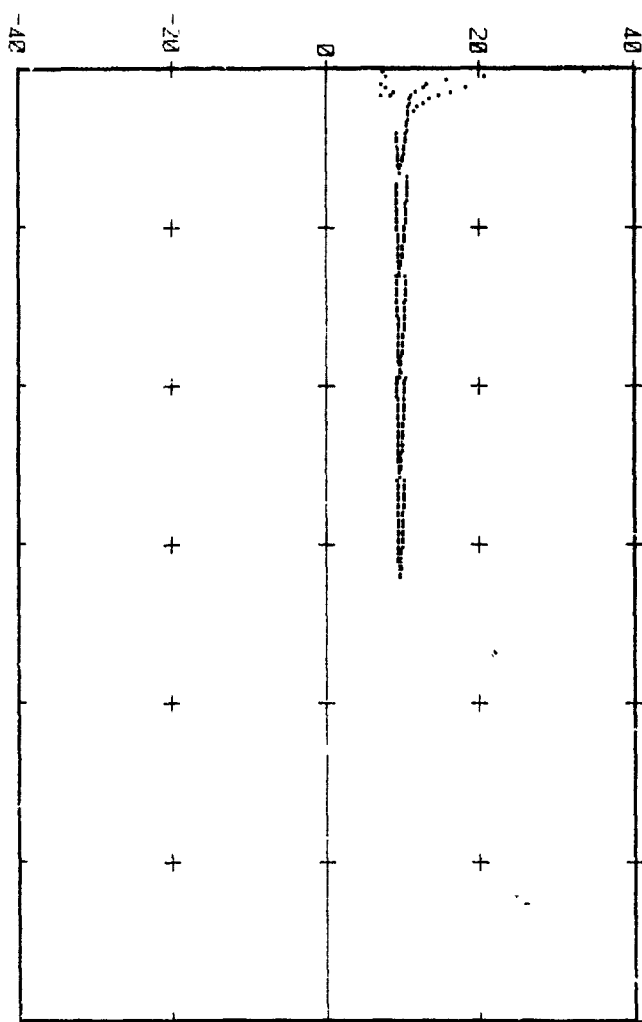
1450 M/S 1500 1550

LRAPP

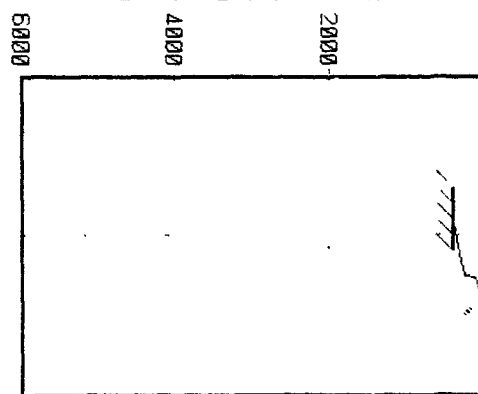
DB LOSS



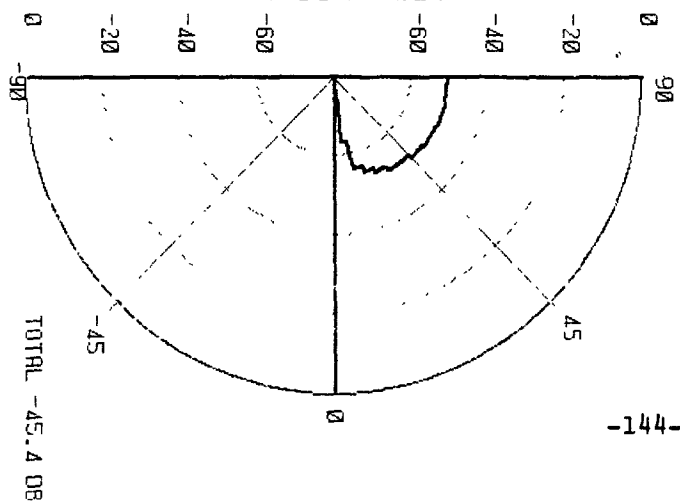
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



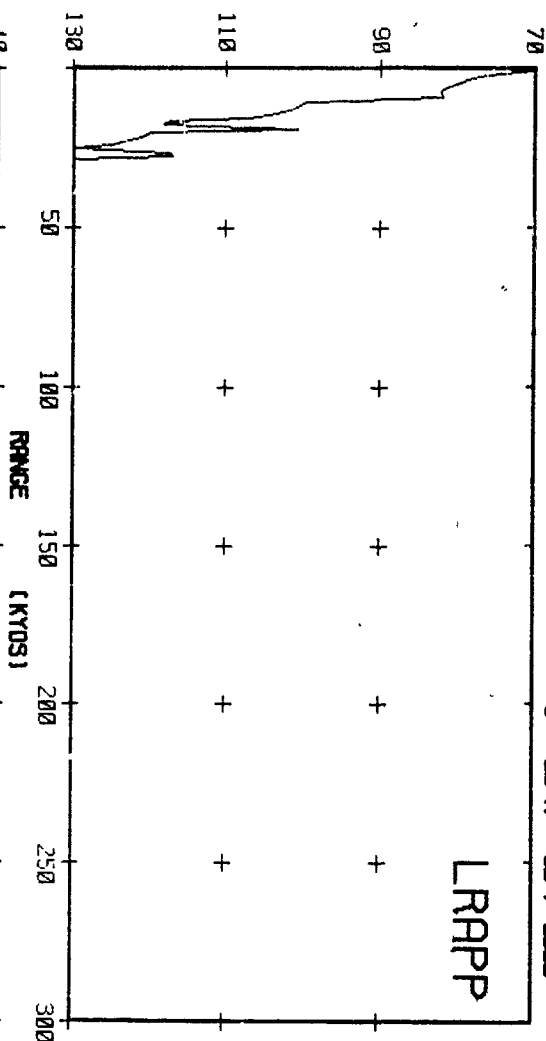
-144-

AREA 5 WINTER

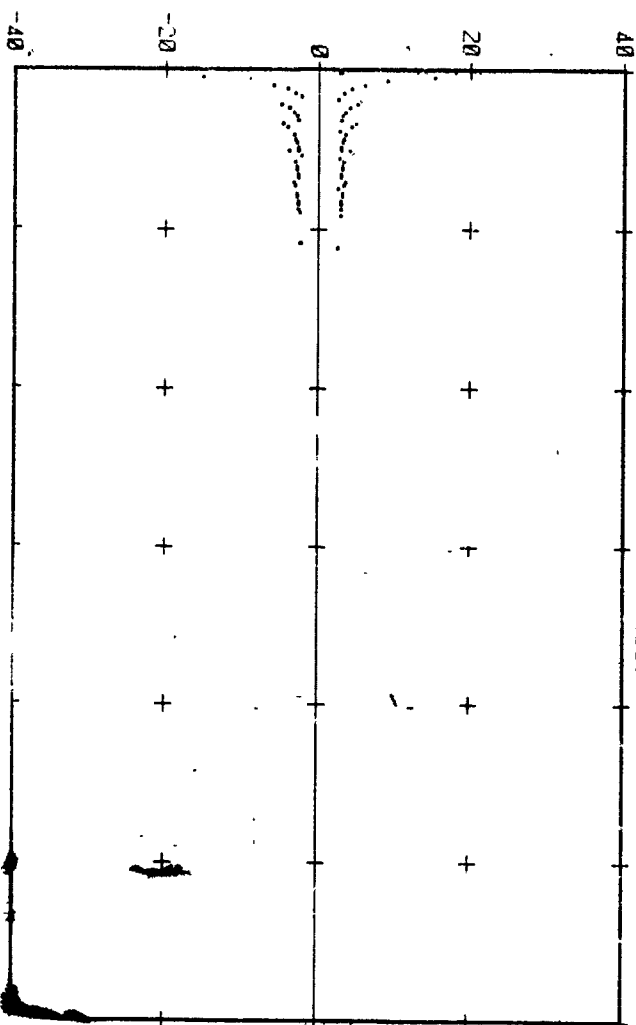
S 20 R 60 F 2000

LRAPP

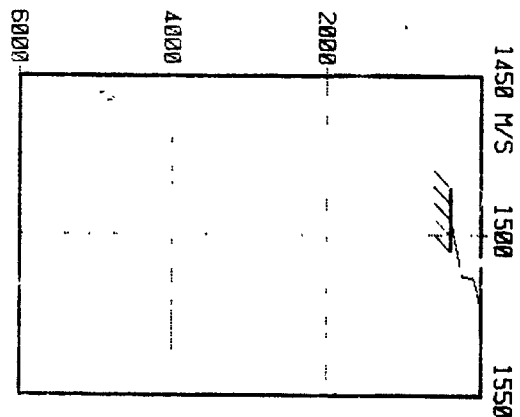
DB LOSS



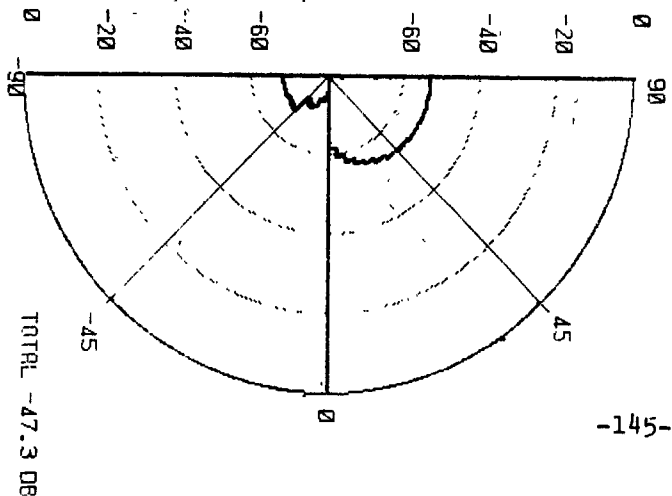
ARRIVAL ANGLE

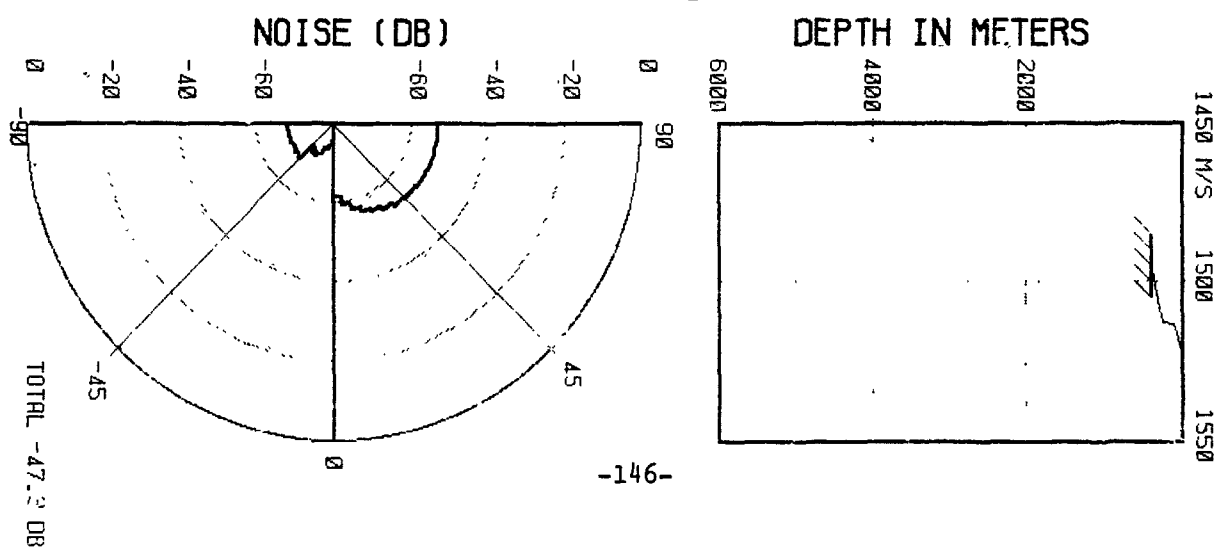
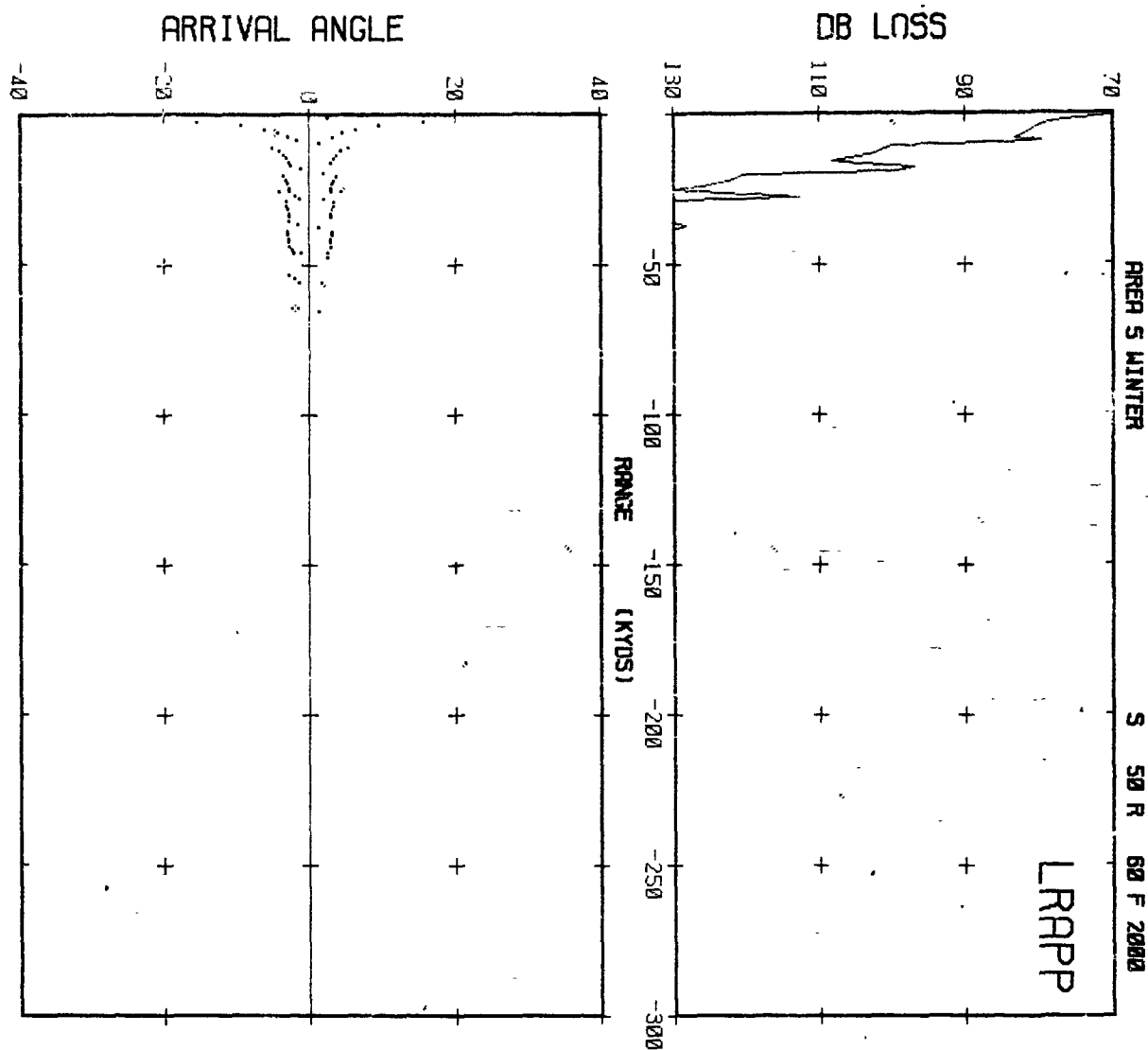


DEPTH IN METERS



NOISE (DB)



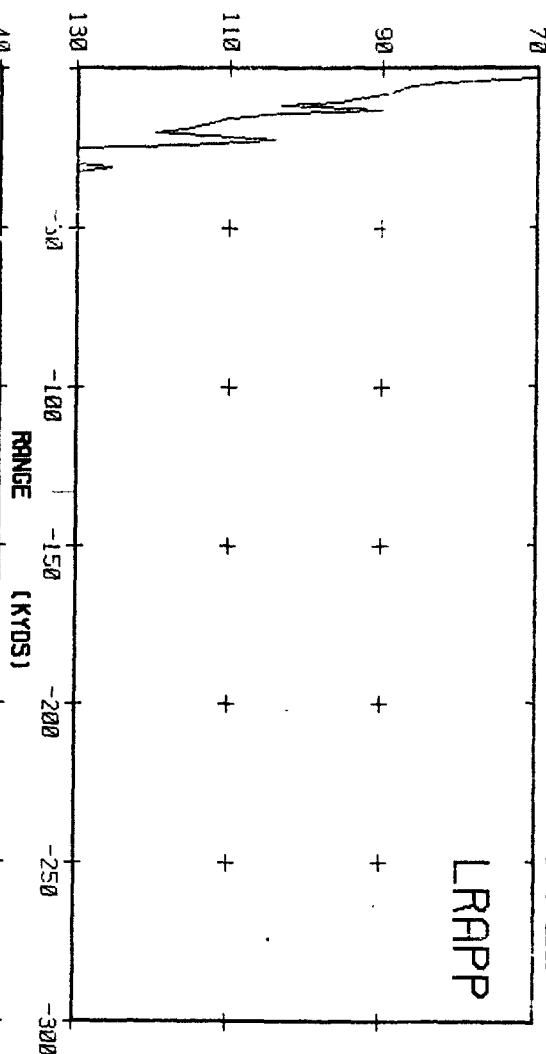


AREA 5 WINTER

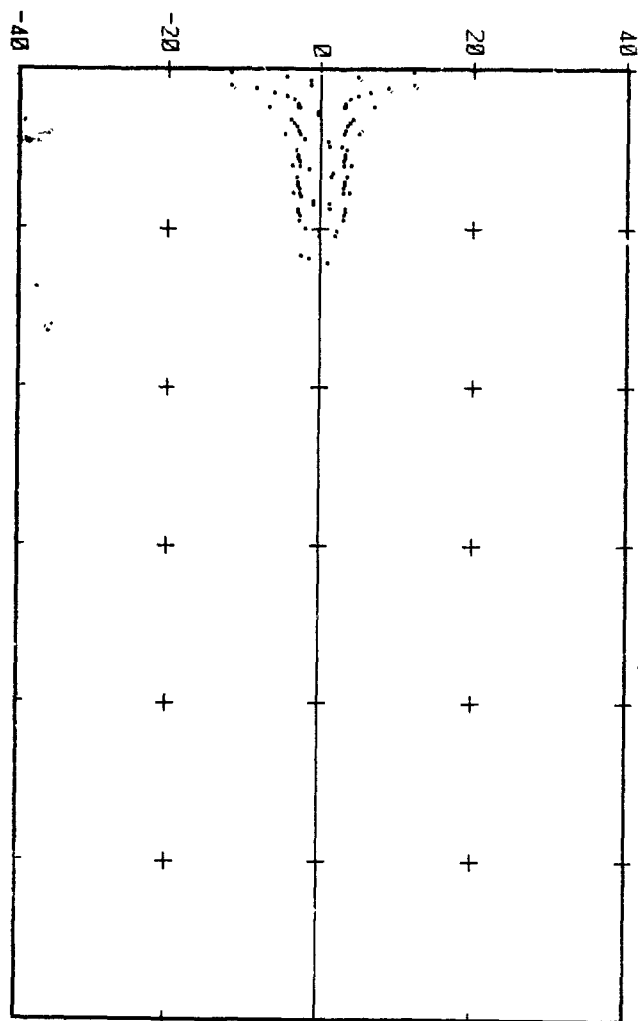
S 1020 R 60 F 200P

LRAPP

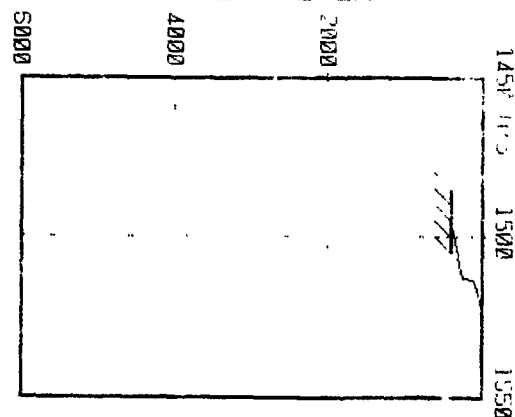
DB LOSS



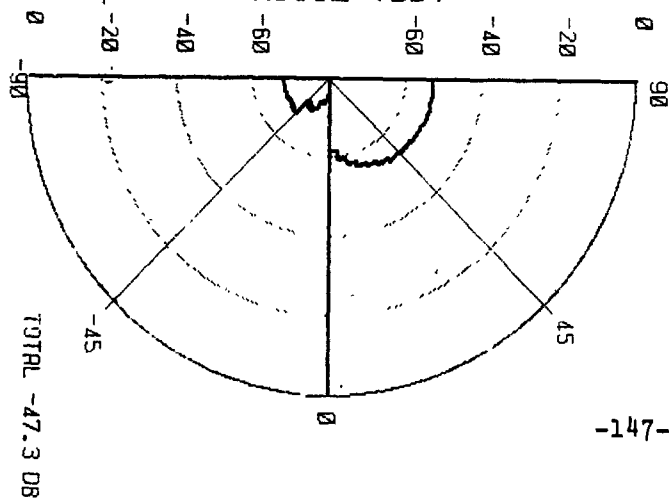
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



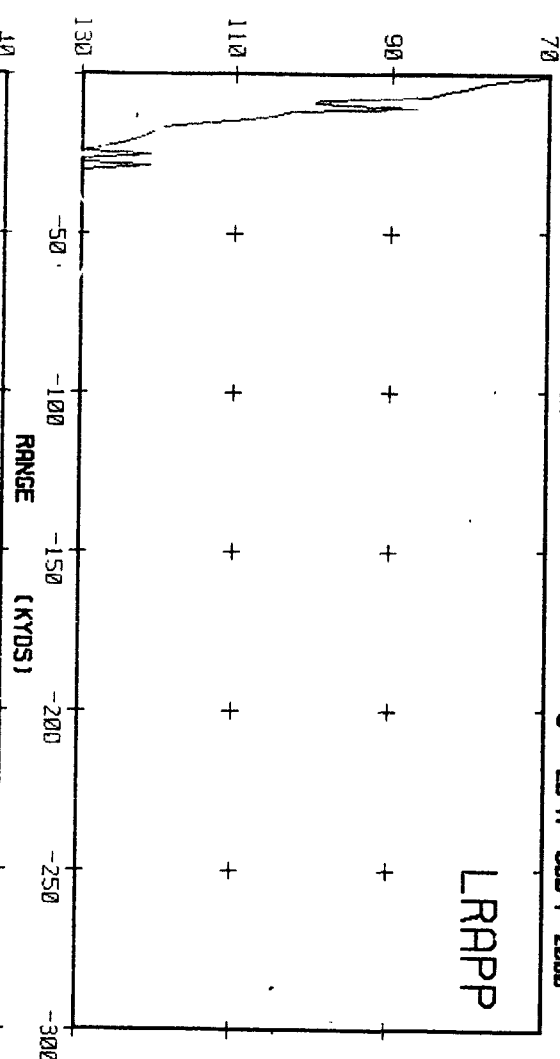
-147-

RRR S WINTER

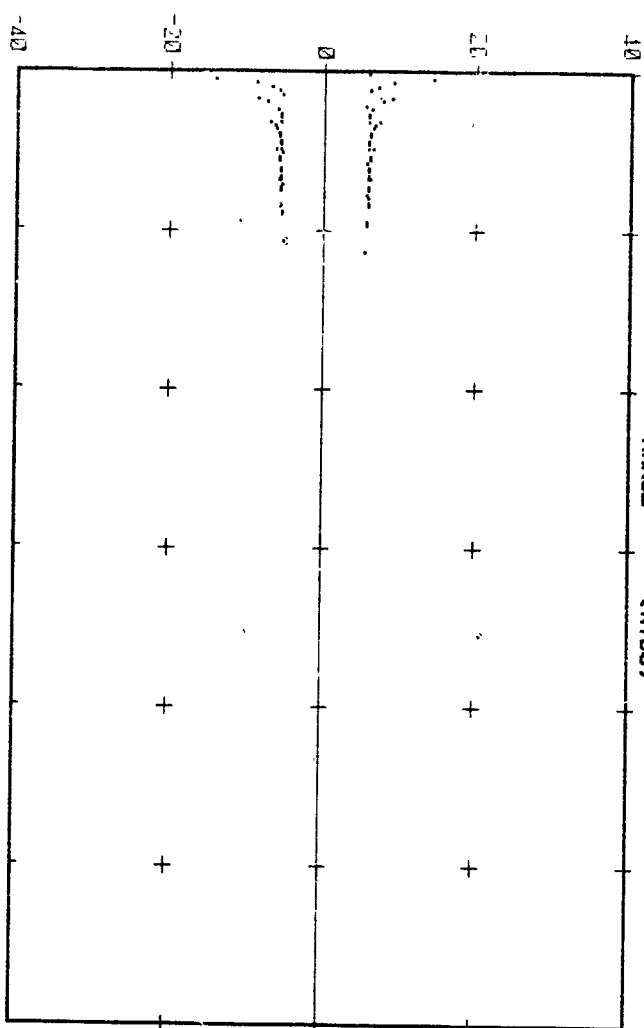
S 20 R 300 F 2000

LRAPP

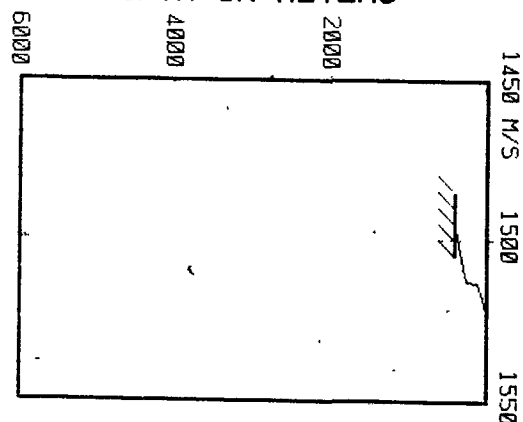
DB LOSS



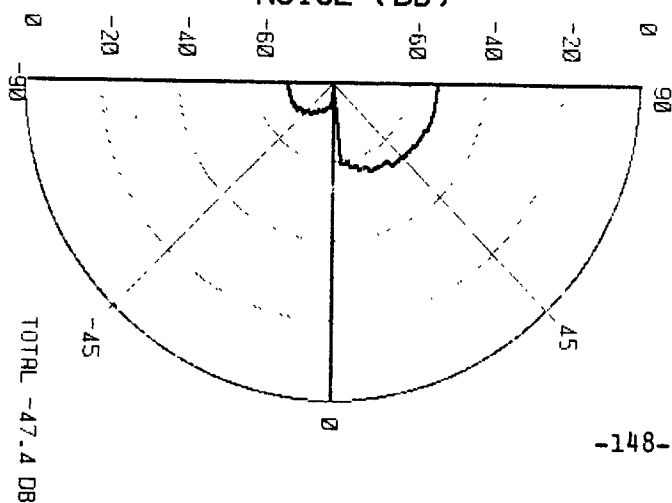
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



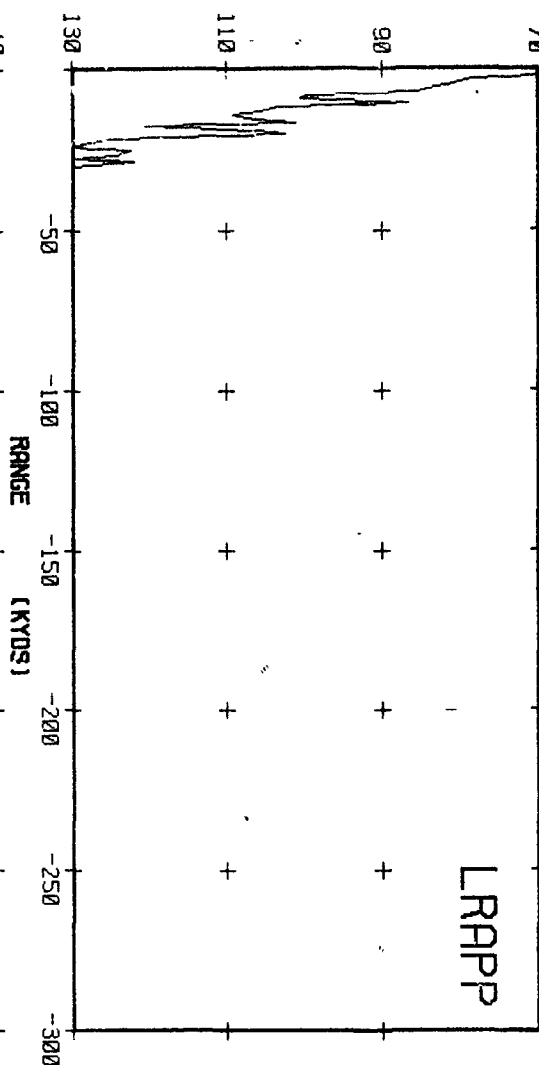
1450 M/S 1500 1550

RRR 5 WINTER

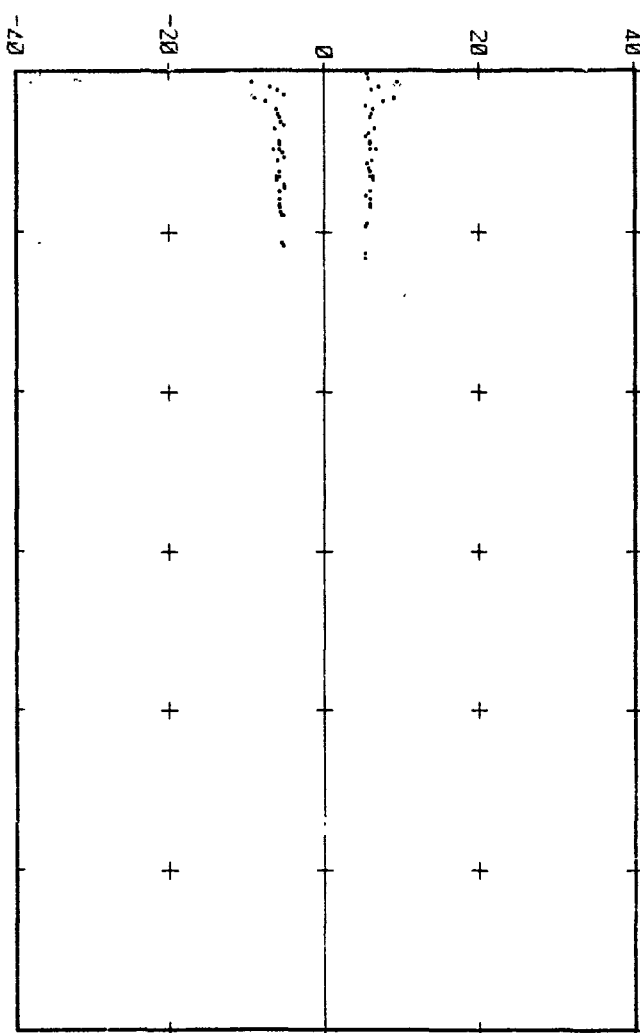
S 50 R 300 F 2000

1450 M/S 1500 1550

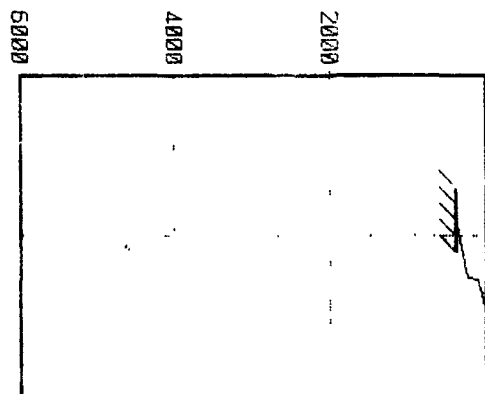
DB LOSS



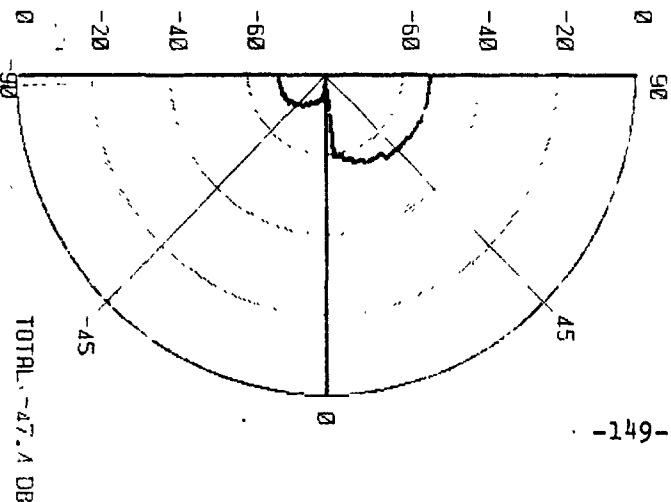
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

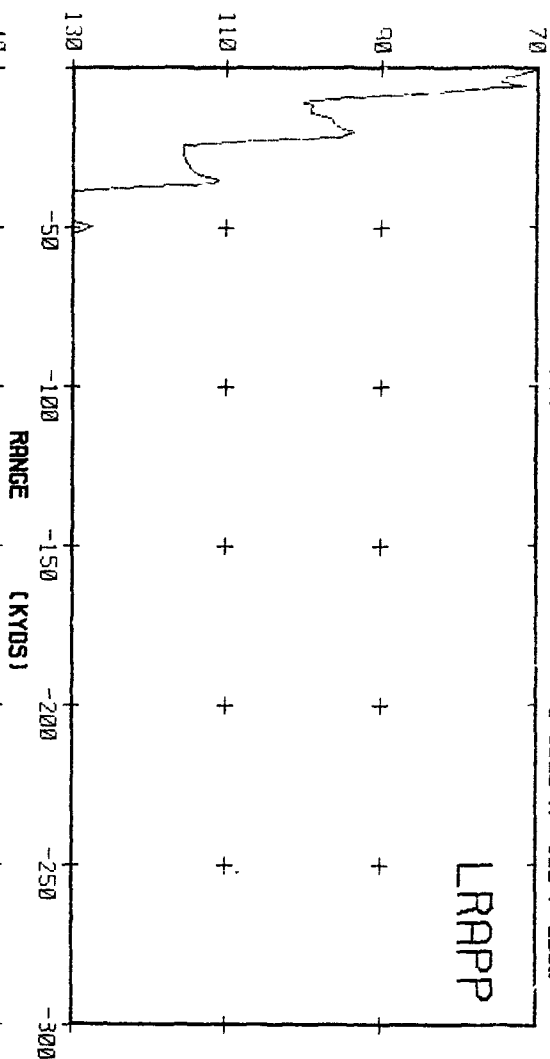


AREA 5 MINIER

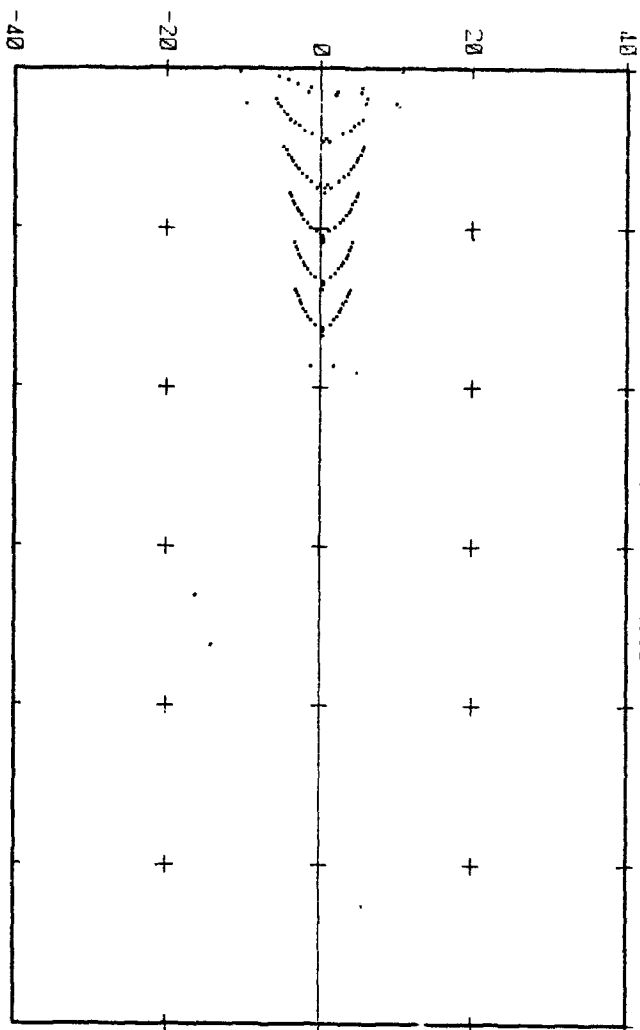
S 1020 R 300 F 2063

LRAPP

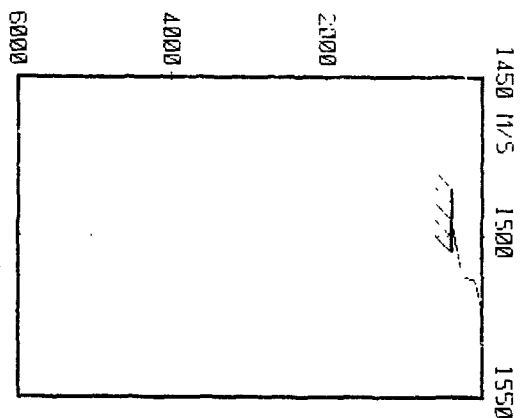
DB LOSS



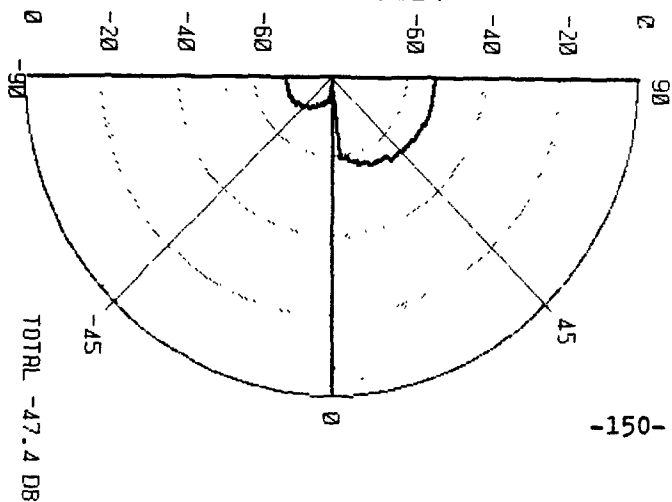
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

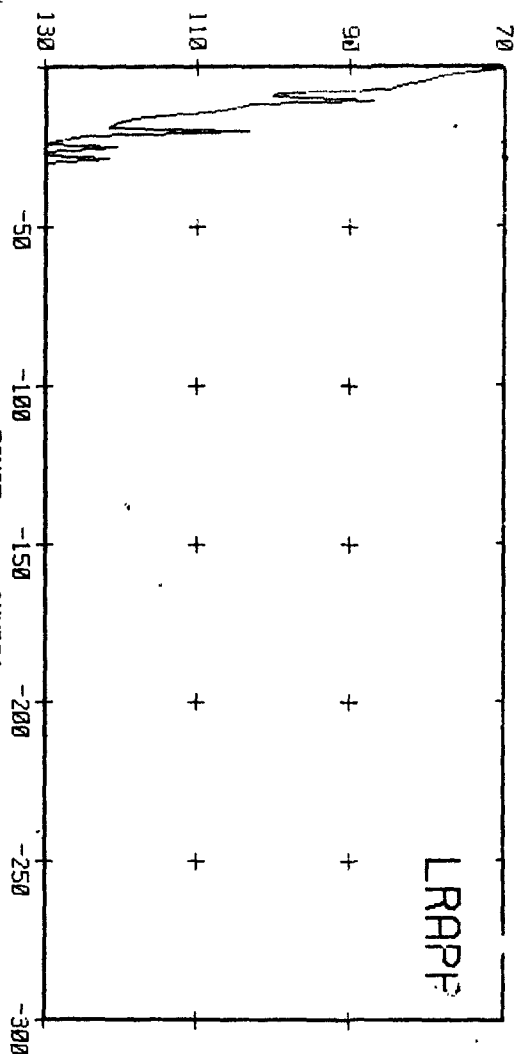


AREA 5 WINTER

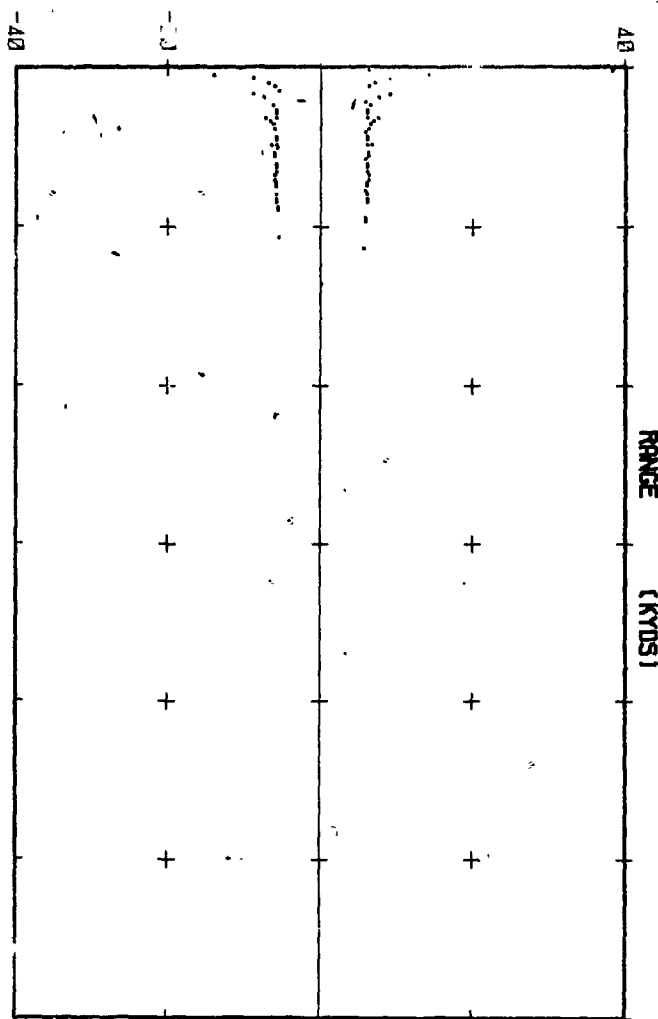
S 20 R 328 F 2100

1450 M/S 1500 1550

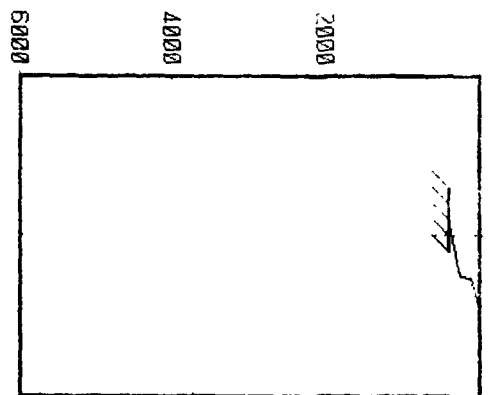
DB LOSS



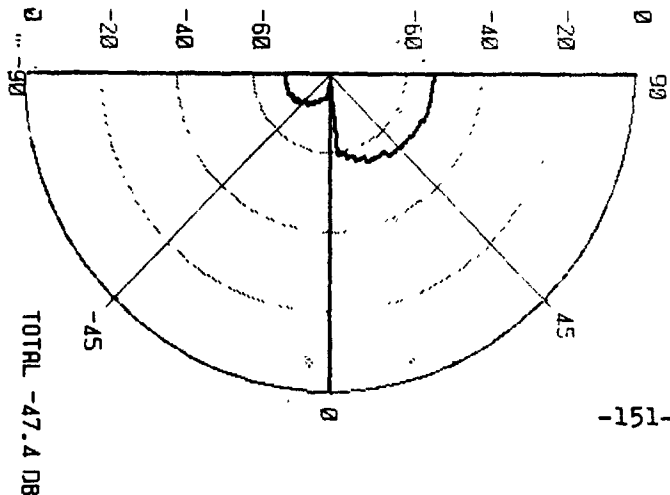
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



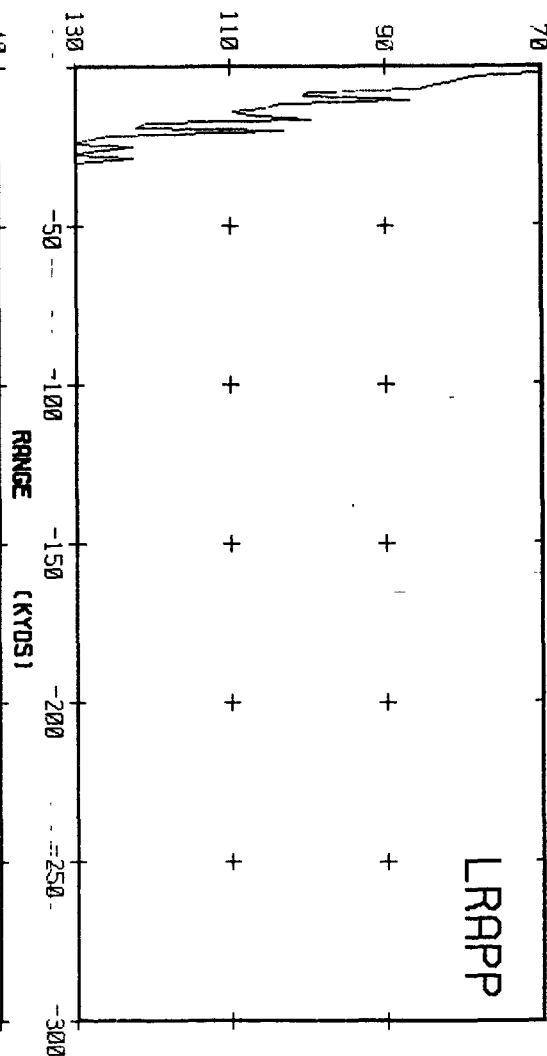
-151-

AREA 5 HINTER

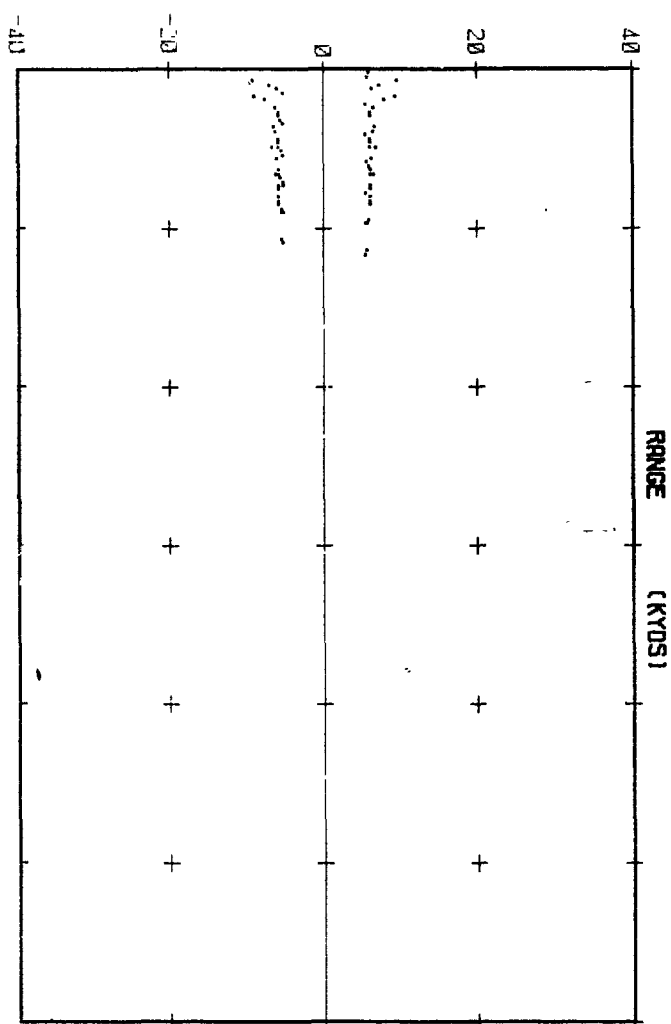
S 50 R 328 F 2000

LRAPP

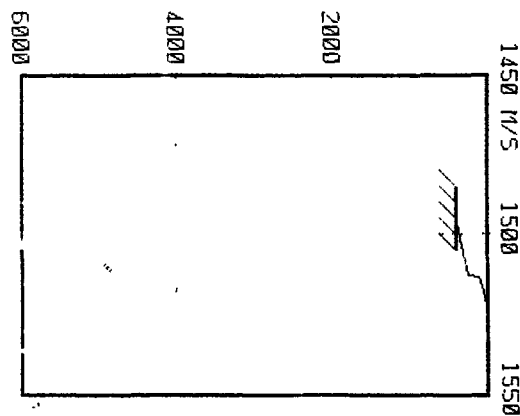
DB LOSS



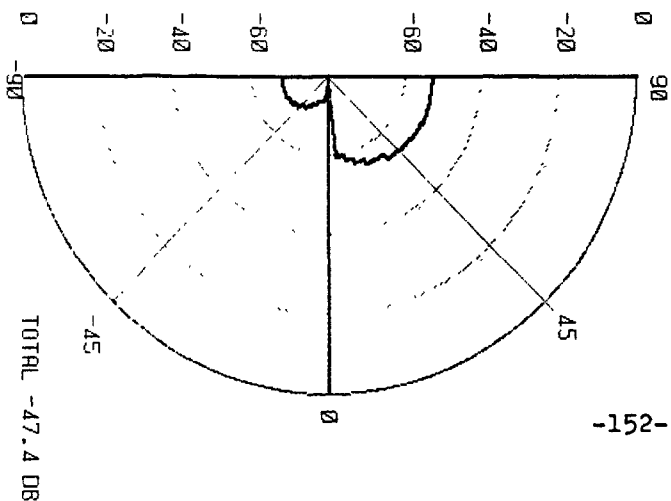
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



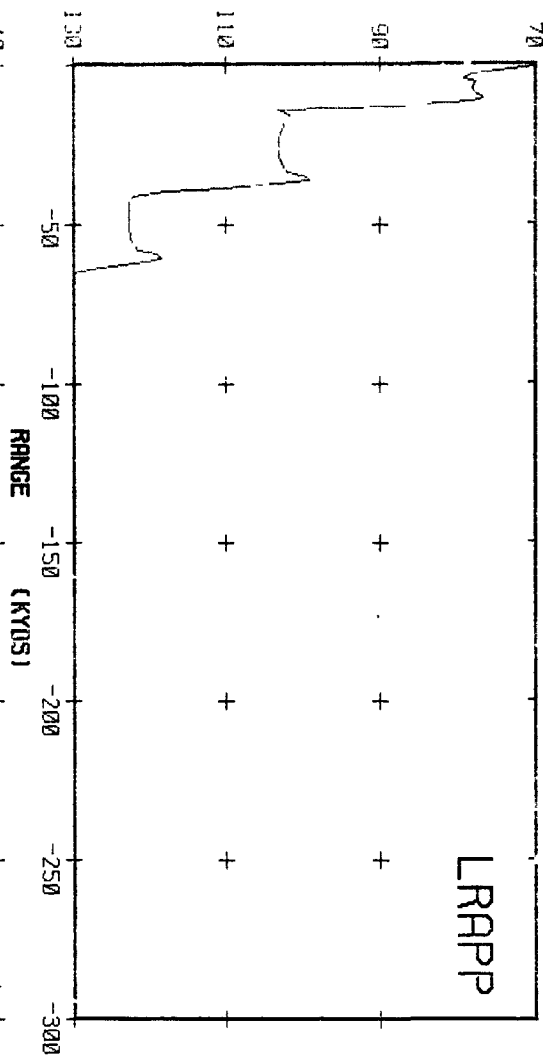
TOTAL -47.4 DB

AREA 5 WINTER

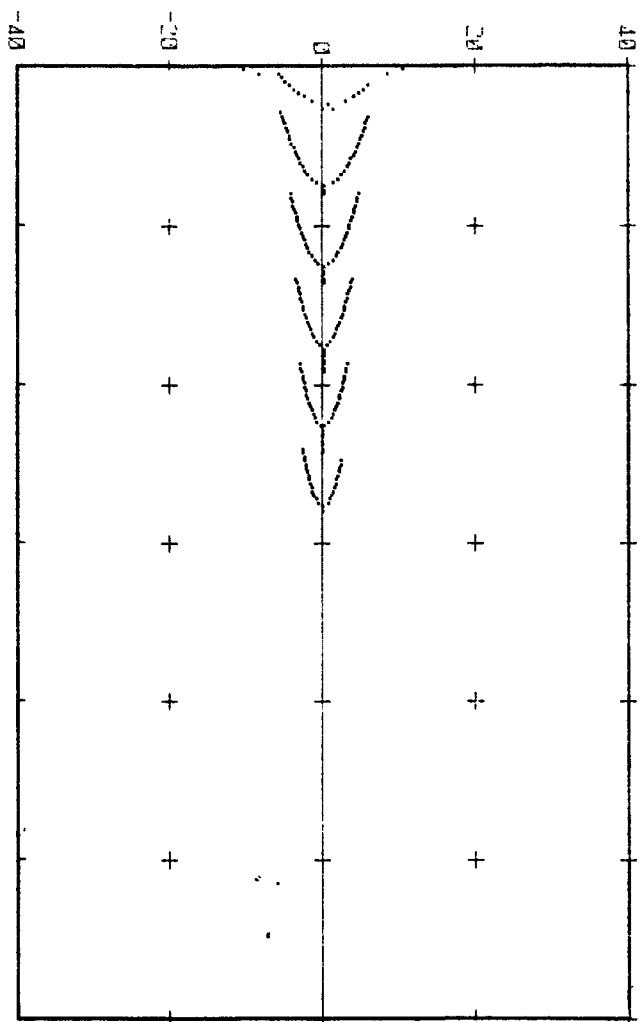
S 1020 R 328 F 2000

LRAPP

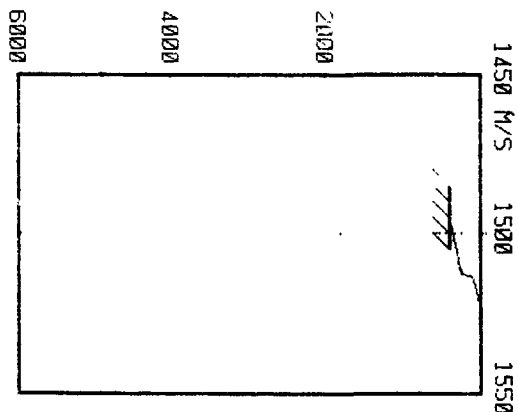
DB LOSS



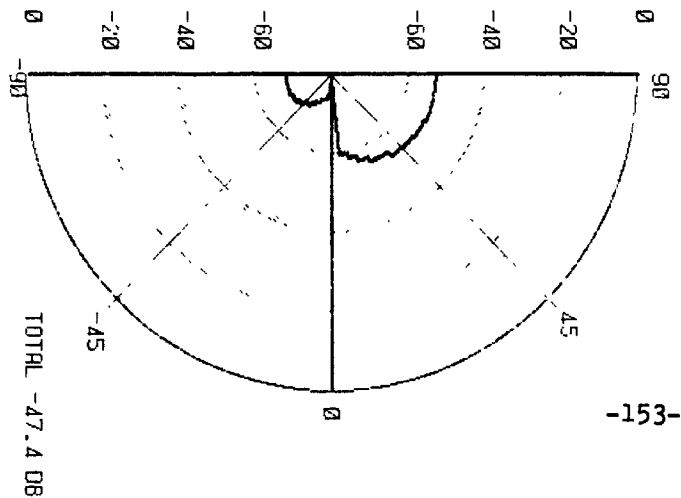
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



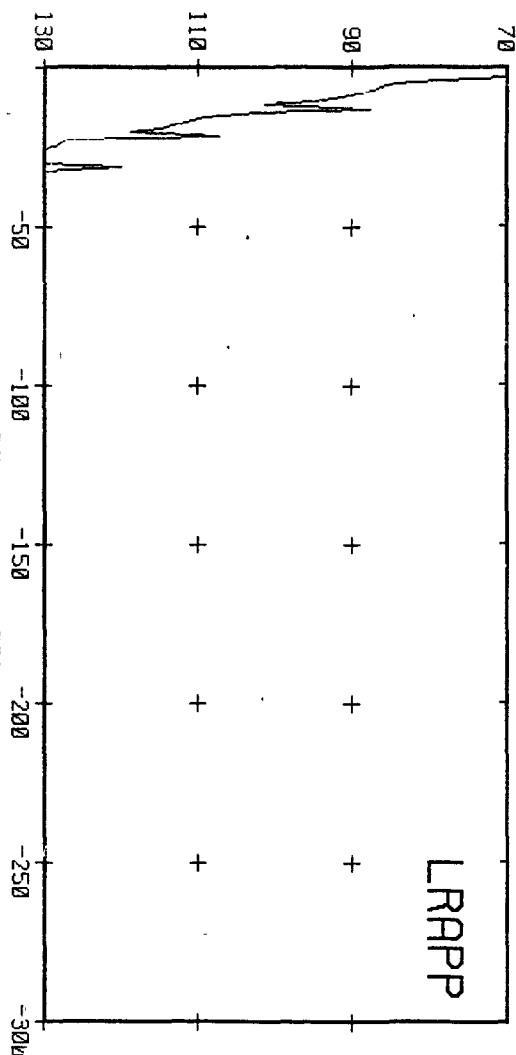
TOTAL -47.4 DB

AREA 5 WINTER

S 20 R 920 F 2000

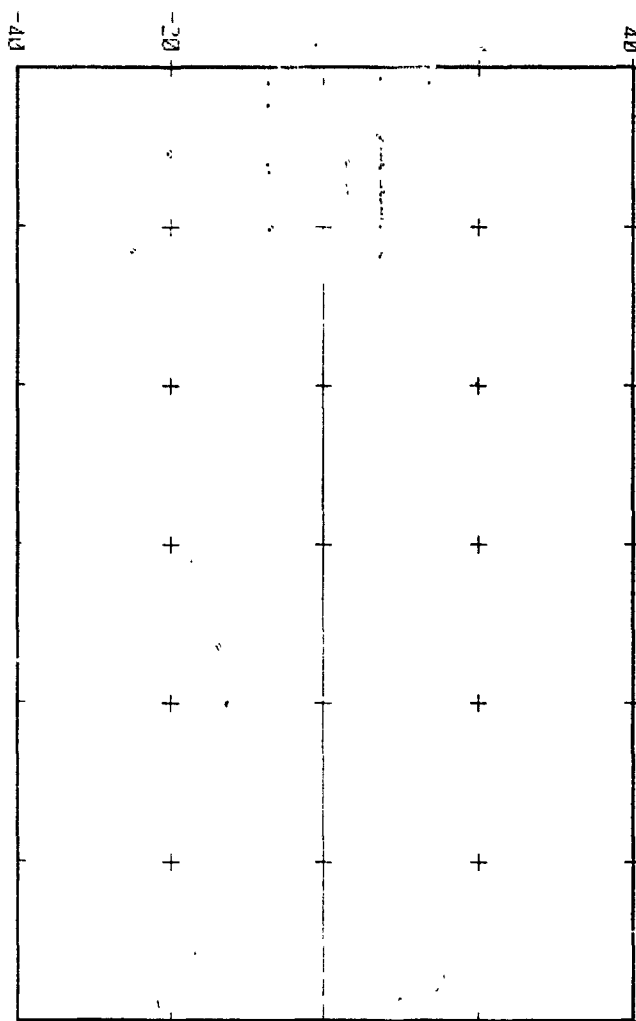
1450 M/S 1500 1550

DB LOSS

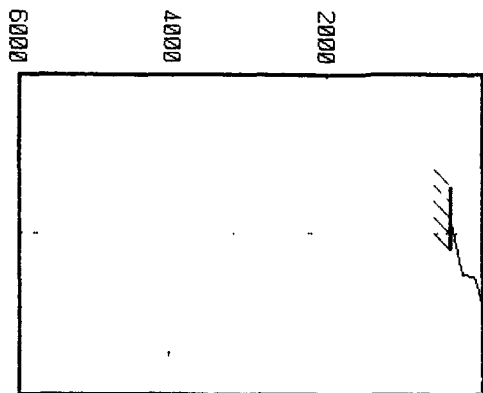


RANGE (KYDOS)

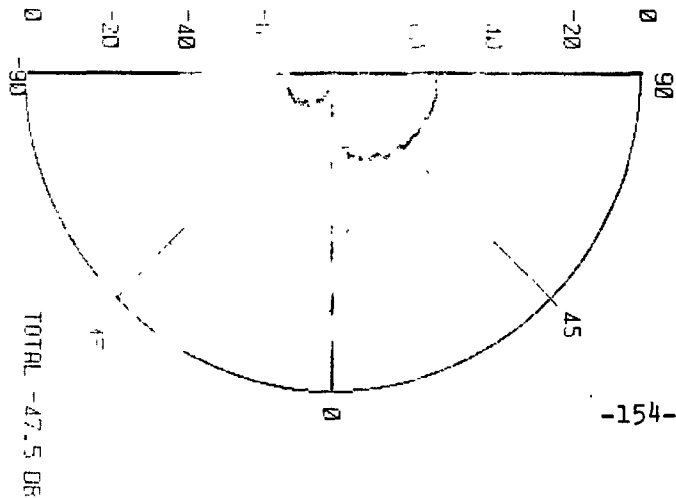
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



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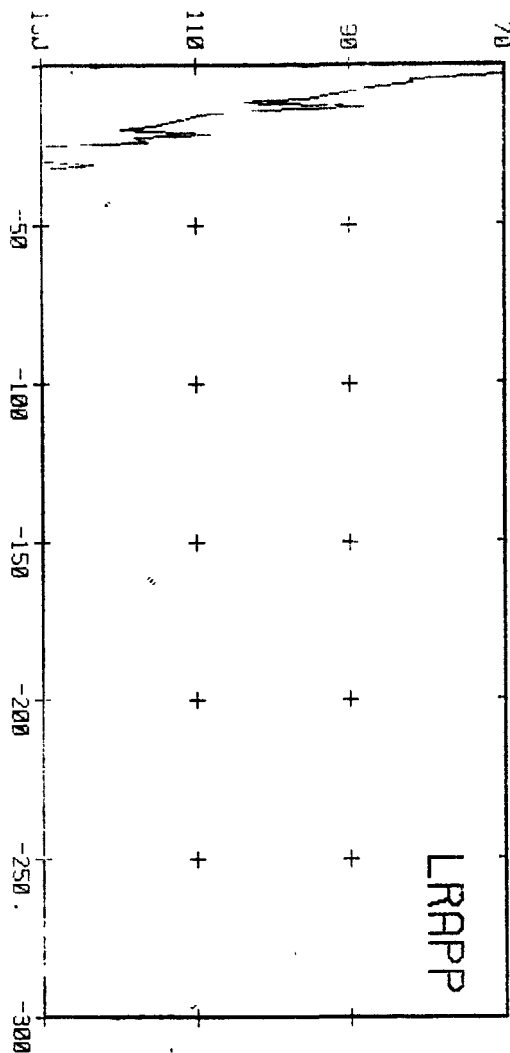
TOTAL -47.5 DB

AREA 5 WINTER

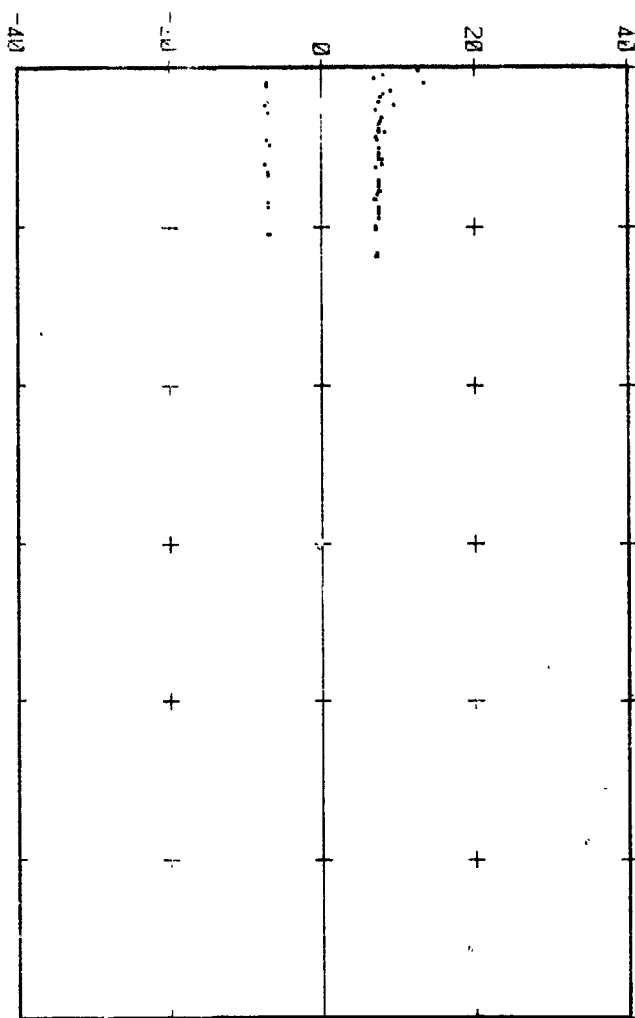
S 50 R 920 F 2000

1450 M/S 1500 1550

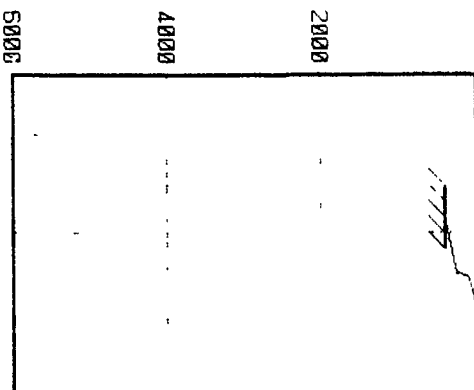
DB LOSS



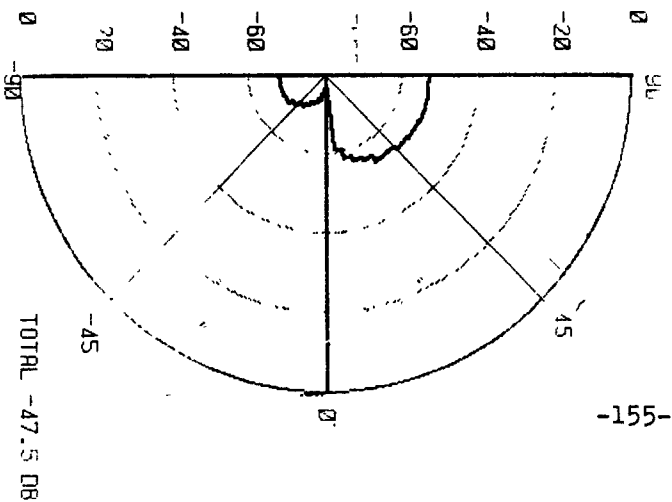
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

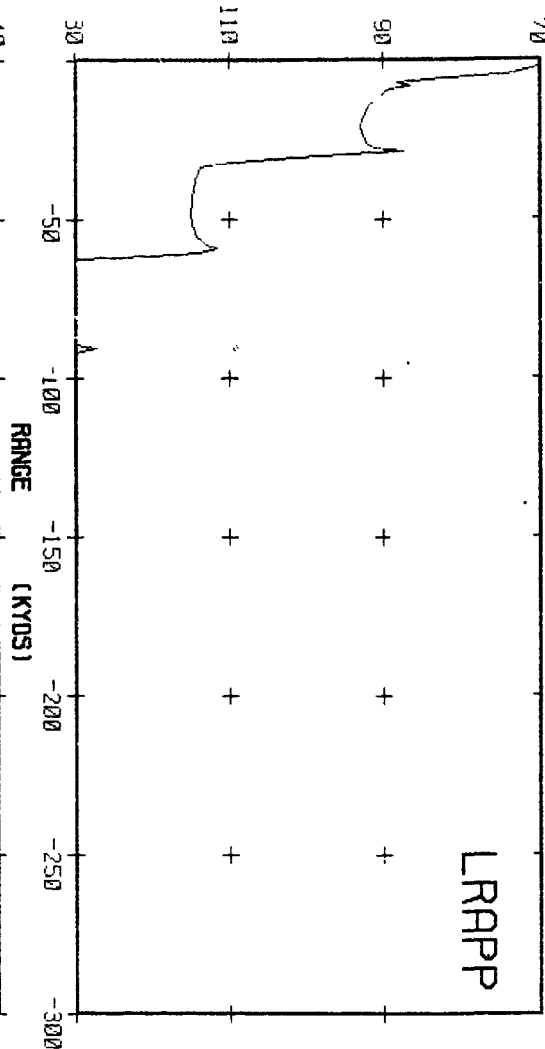


AREA 5 WINTER

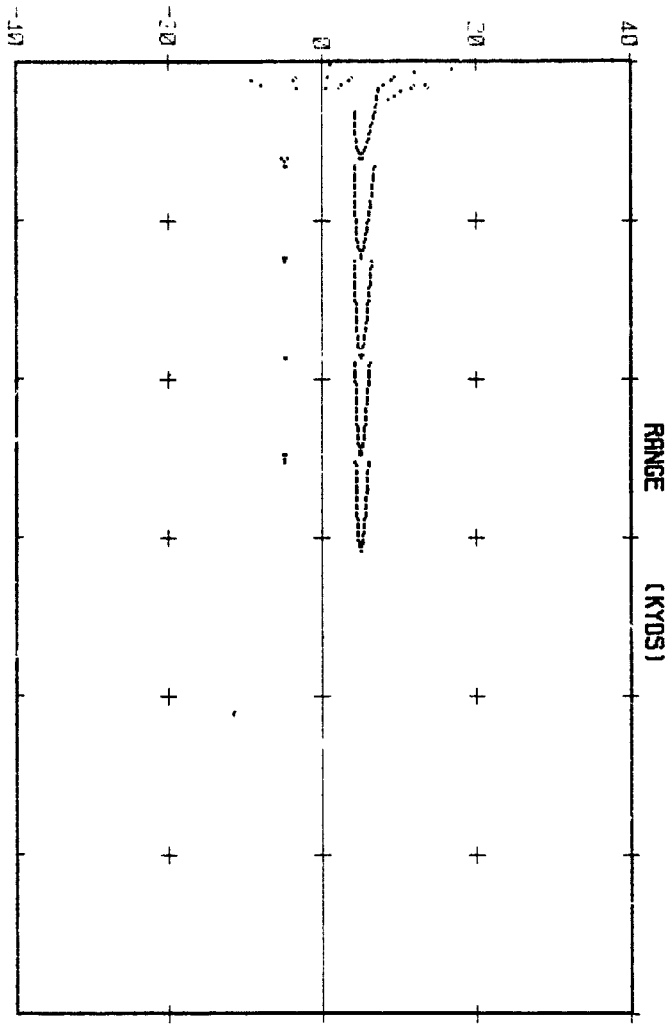
S 1020 R 920 F 2000

LRAPP

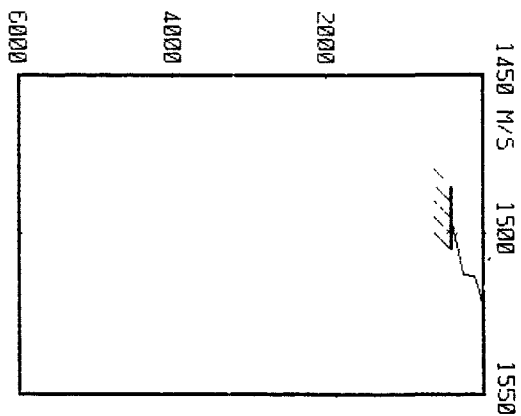
DB LOSS



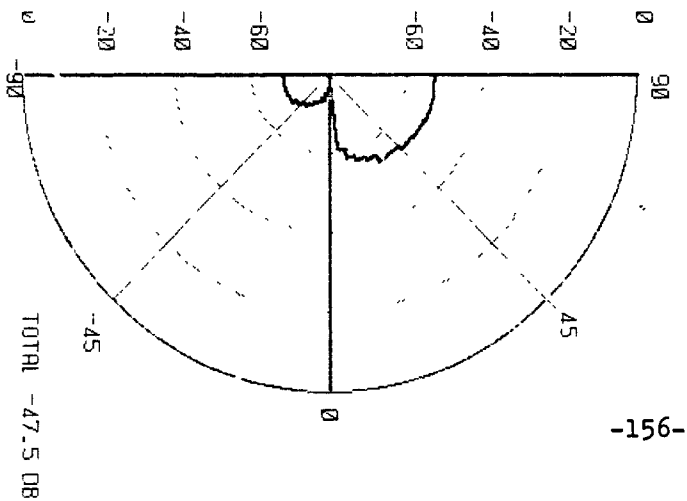
ARRIVAL ANGLE



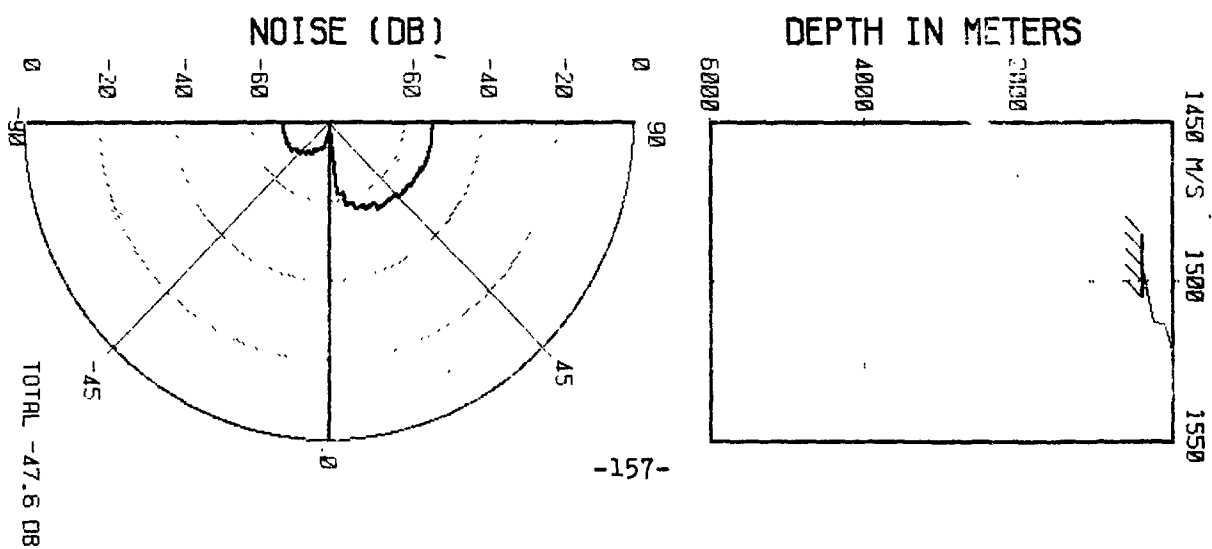
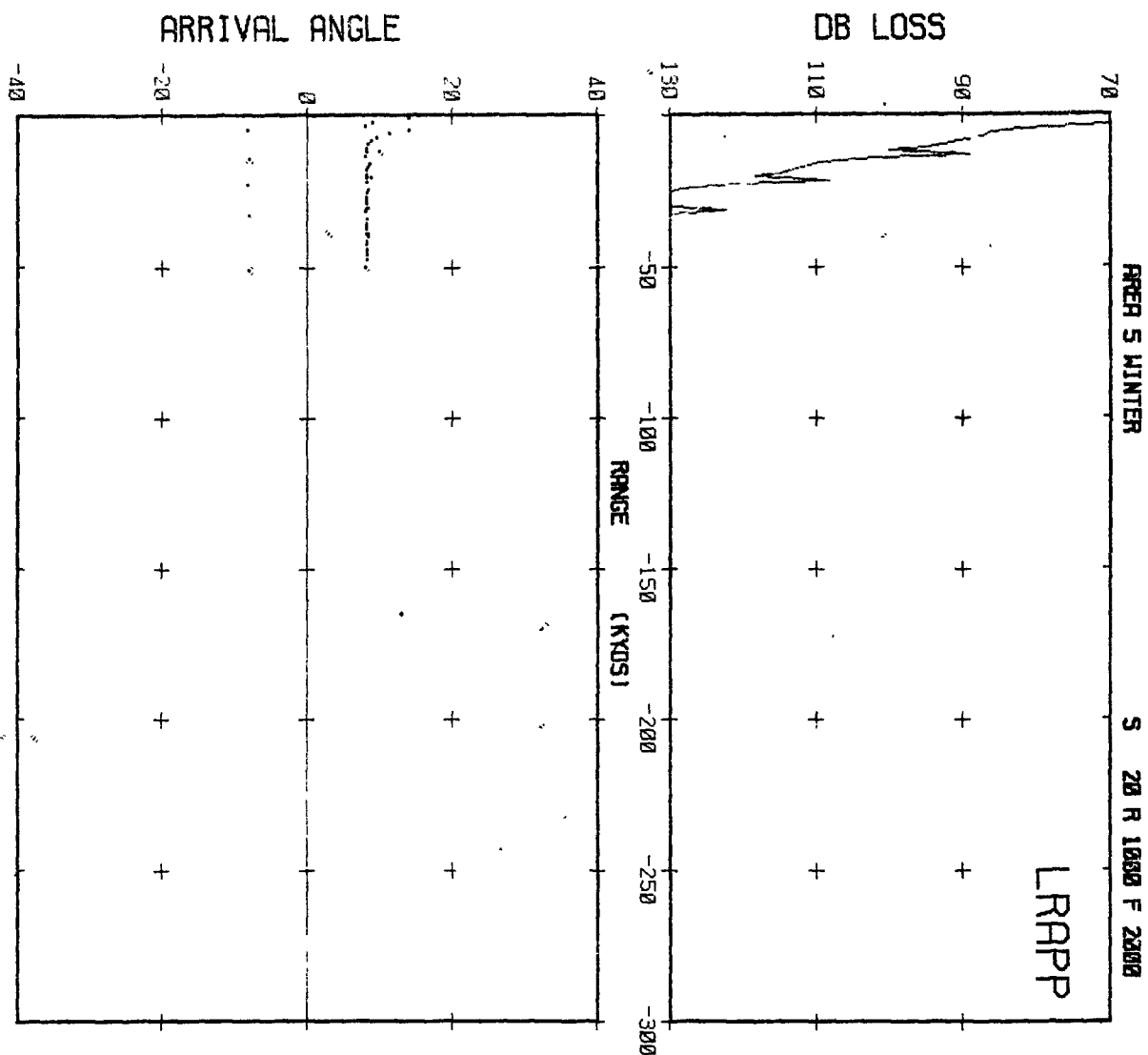
DEPTH IN METERS



NOISE (DB)



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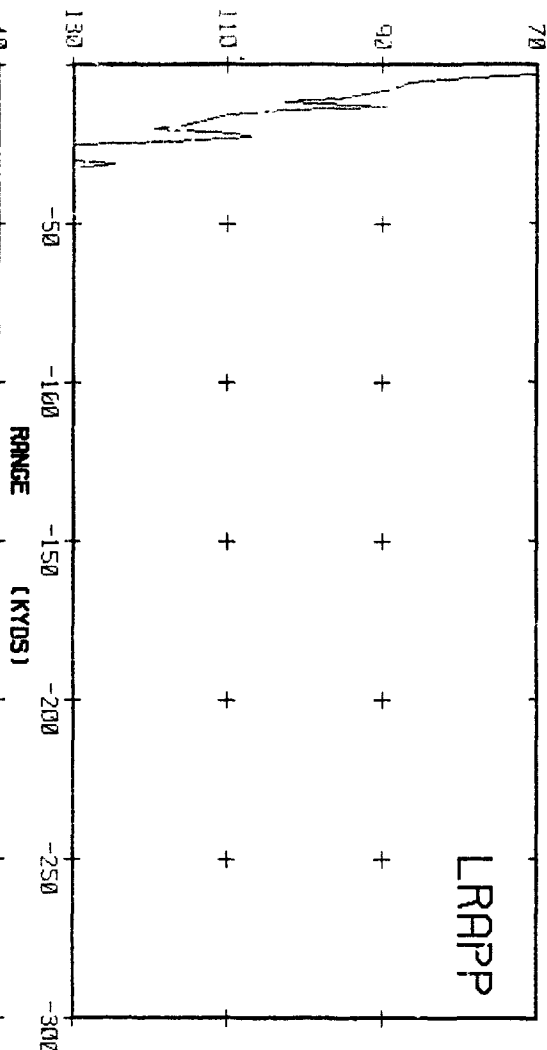


PRER 5 WINTER

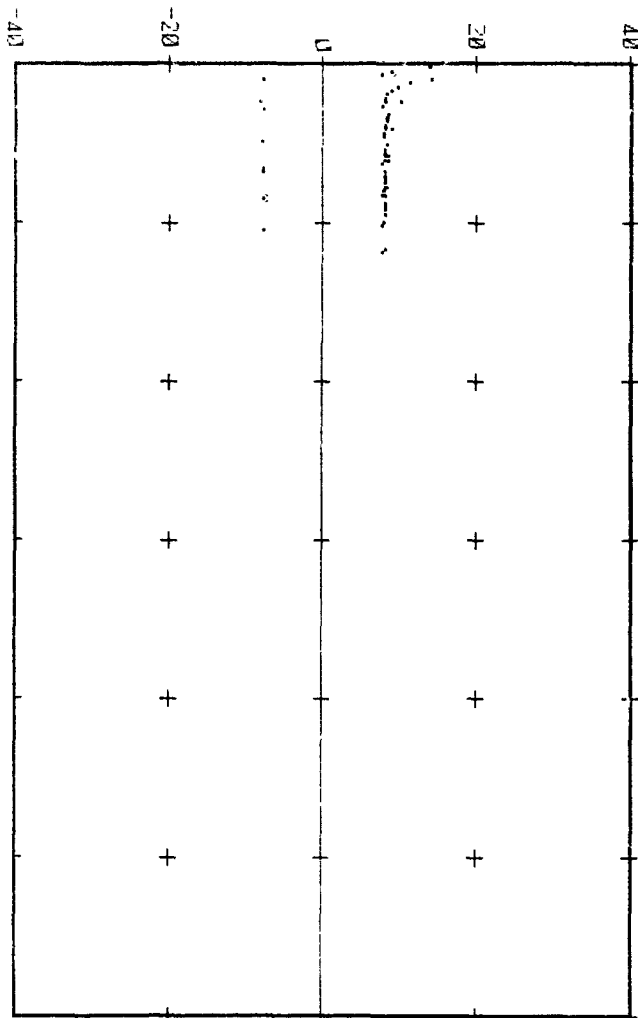
S 50 R 1000 F 2000

LRAPP

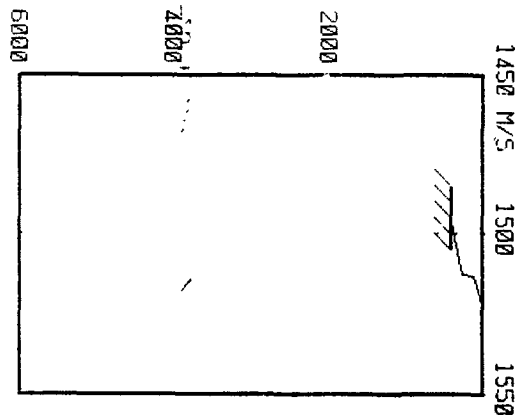
DB LOSS



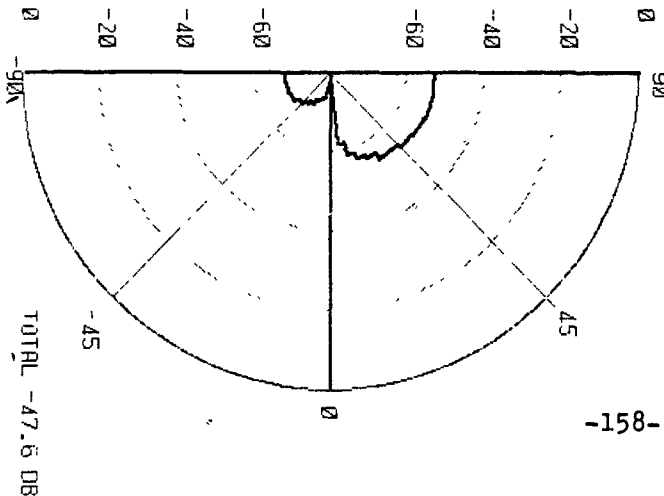
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



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TOTAL -47.6 DB

AREA 5 WINTER

S 1020 R 1000 F 2000

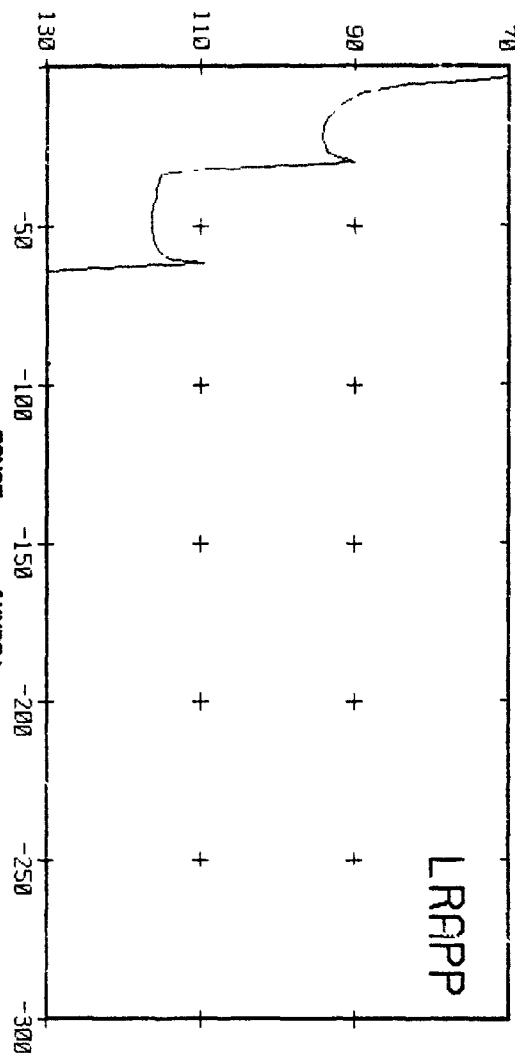
1450 M/S

1500

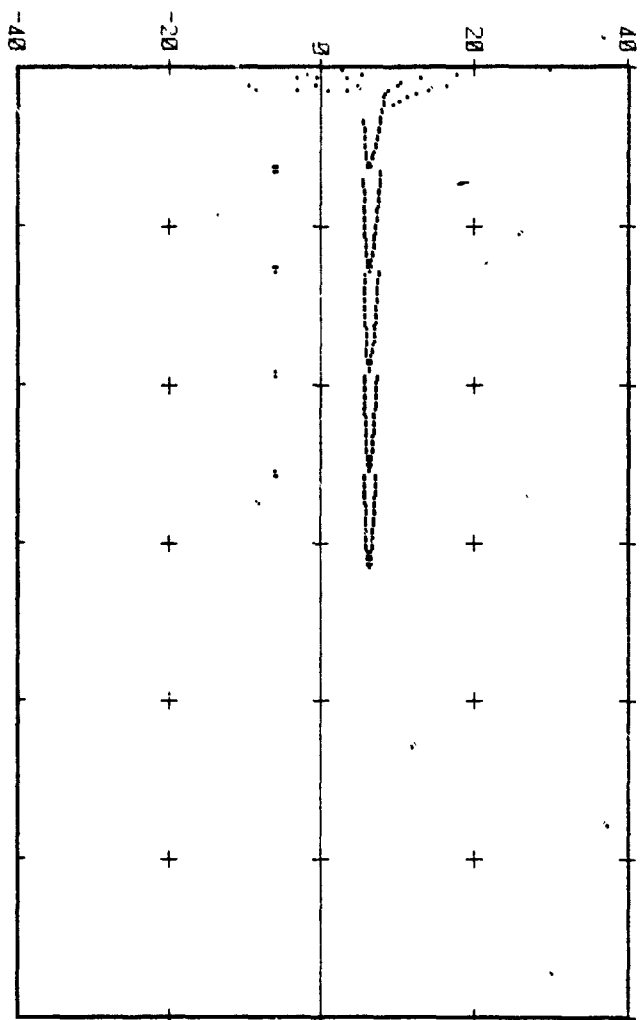
1550

LRAPP

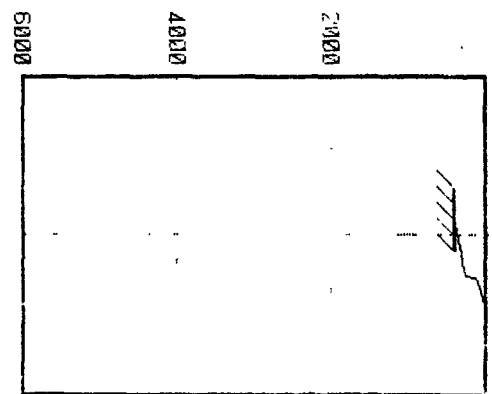
DB LOSS



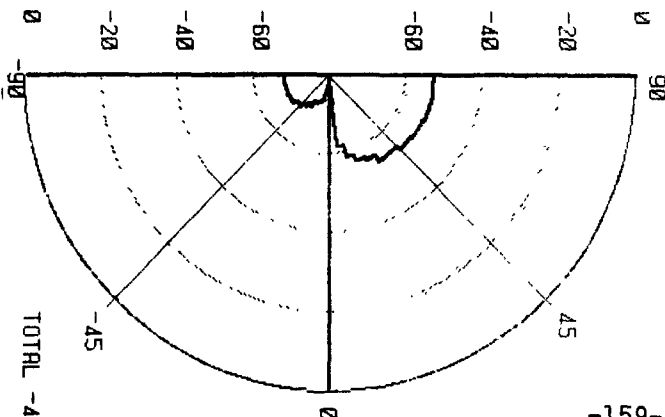
ARRIVAL ANGLE



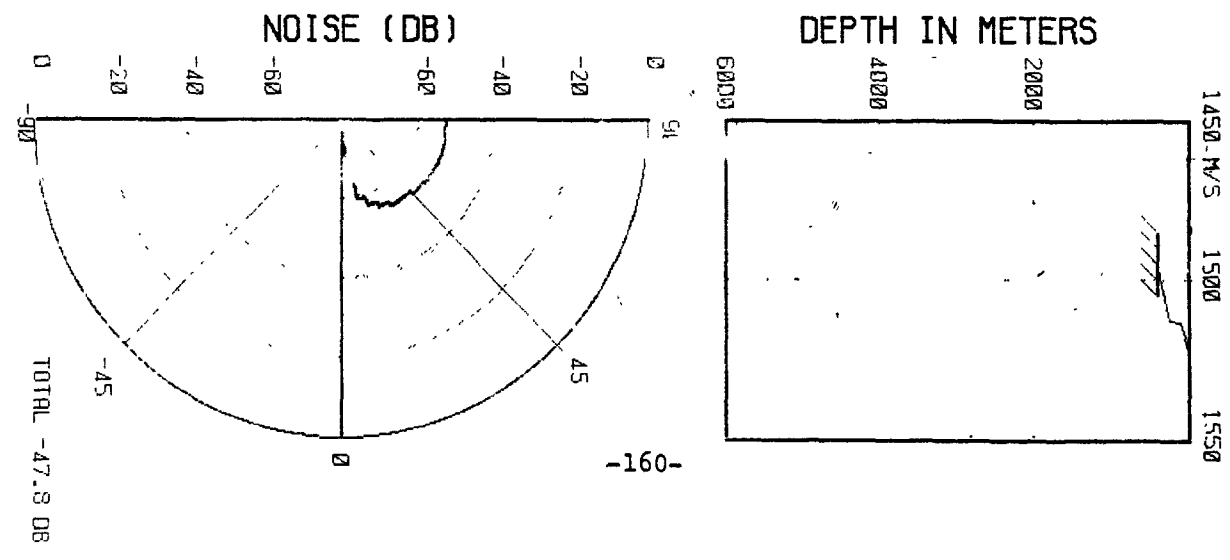
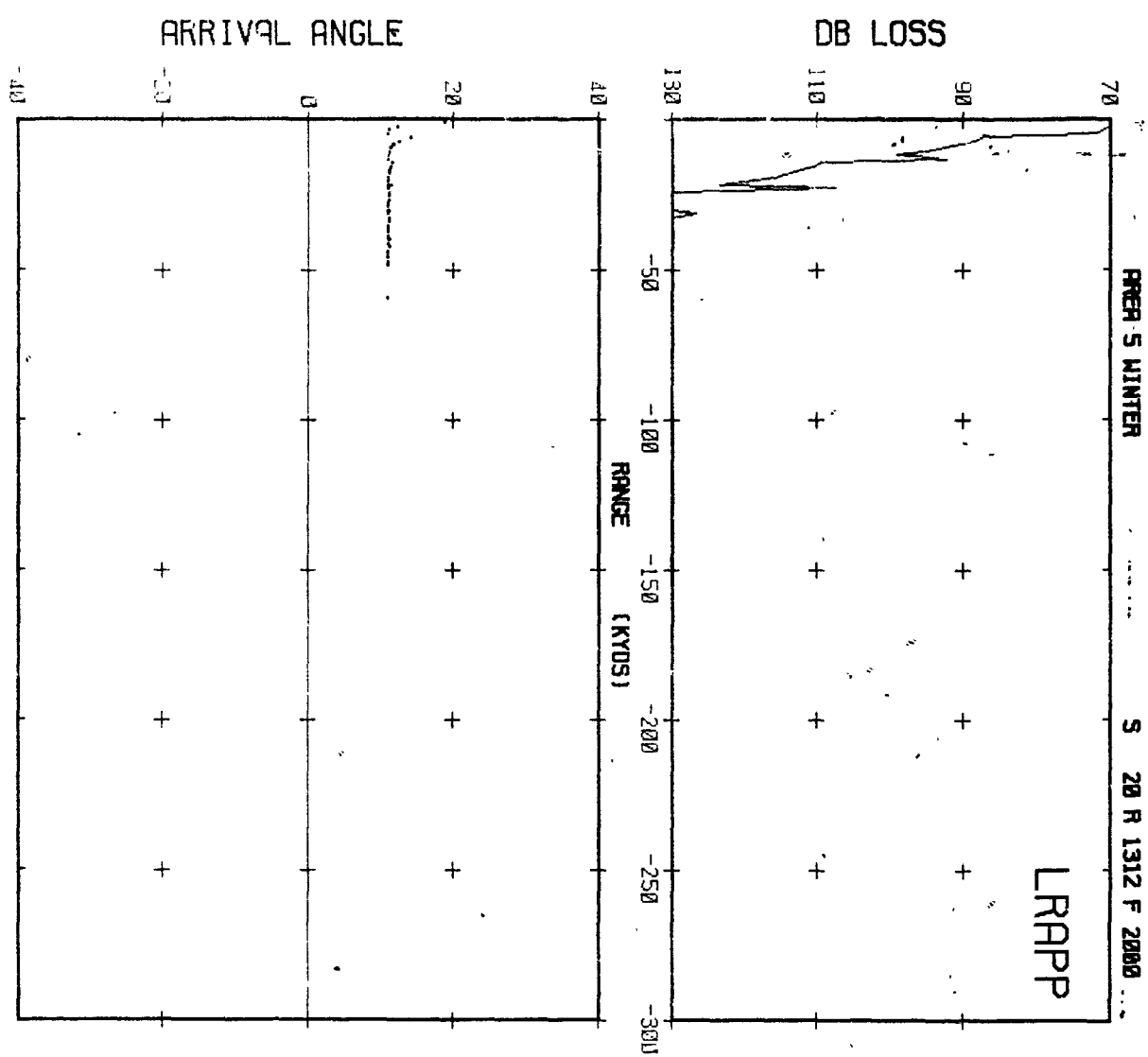
DEPTH IN METERS



NOISE (DB)



TOTAL -47.6 DB



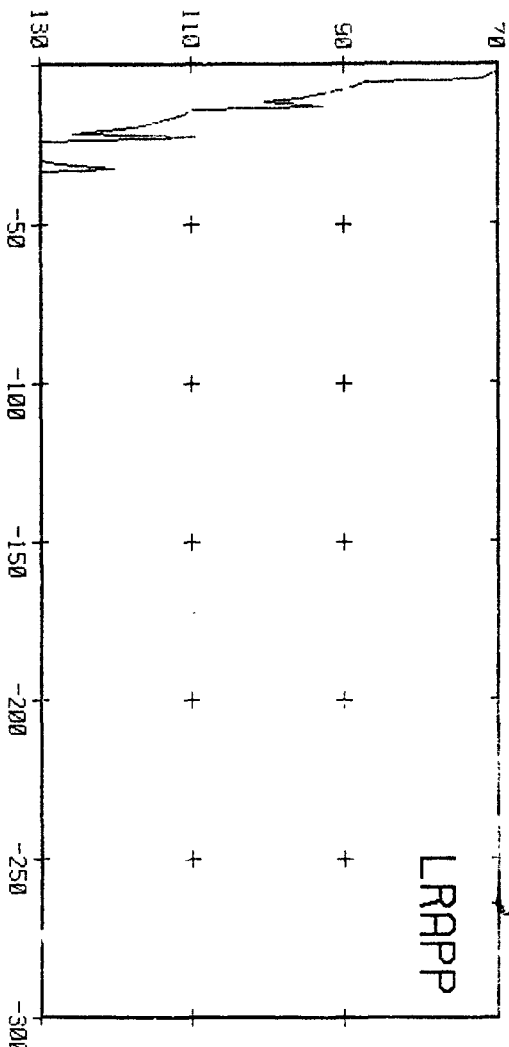
AREA S WINTER

S 50 R 1312 F 2000

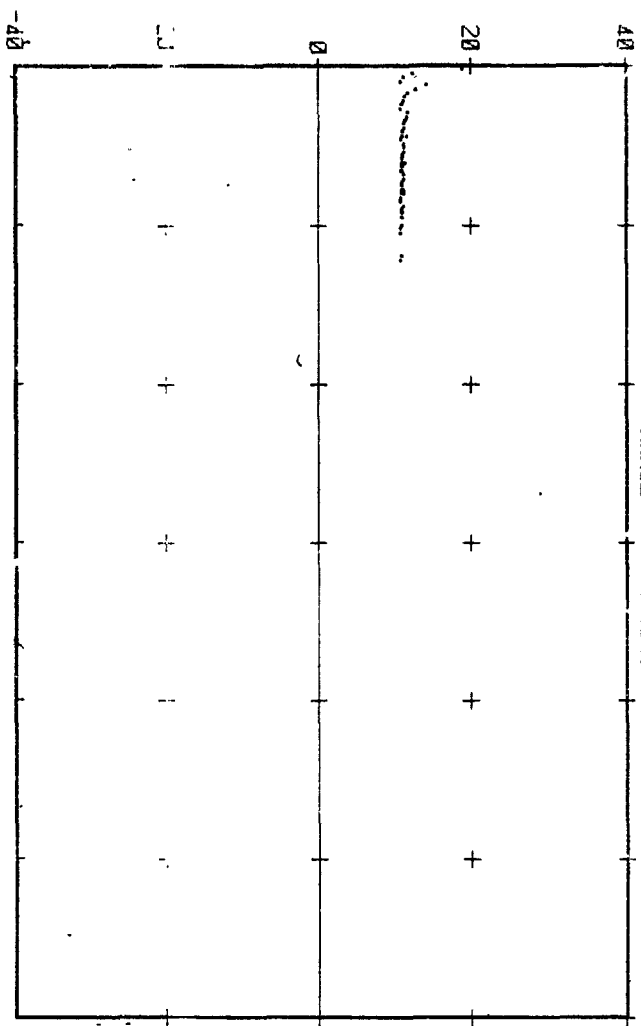
1450 M/S 1500 1550

LRAPP

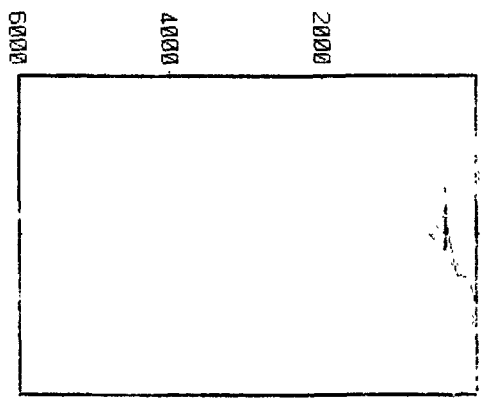
DB LOSS



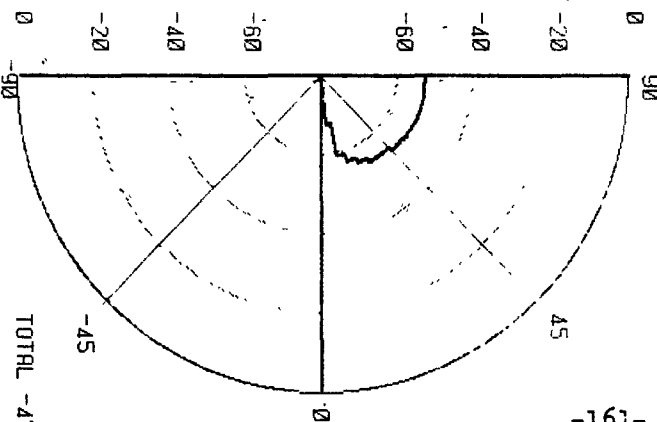
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -47.8 DB

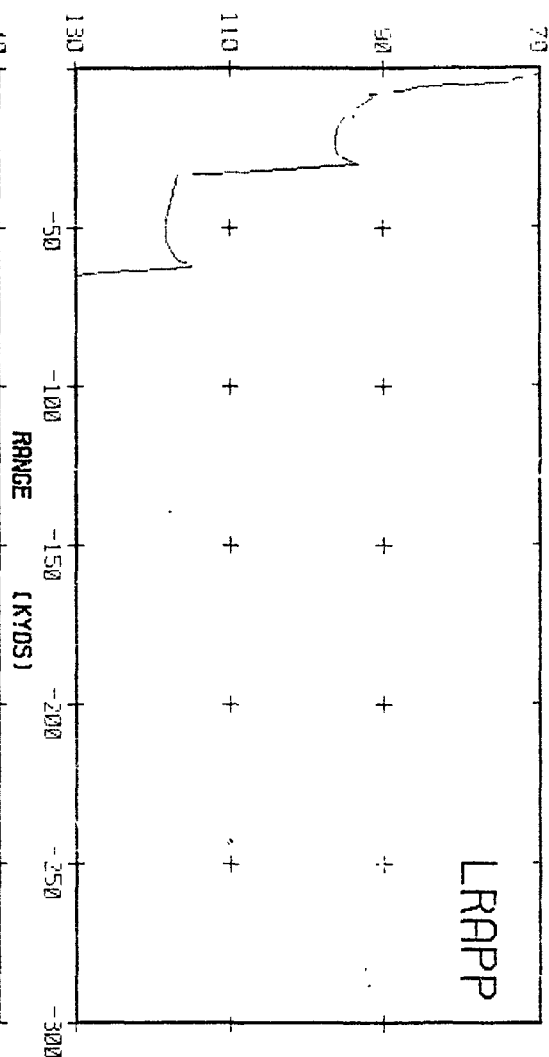
-161-

RRR 5 WINTER

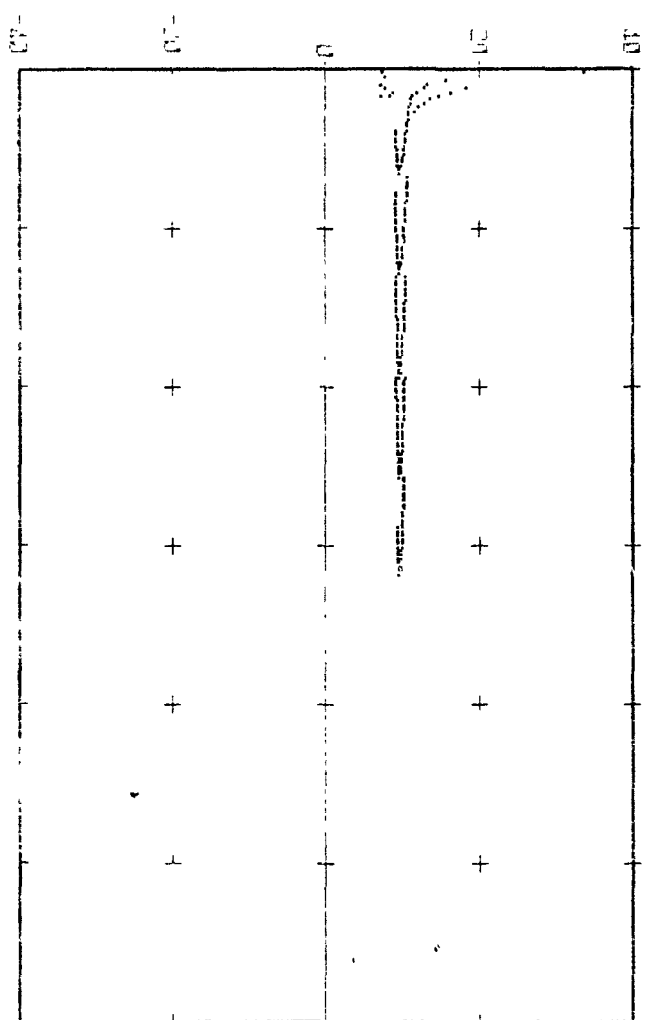
S 1020 R 1312 F 2000

1450 N/S 1500 1550

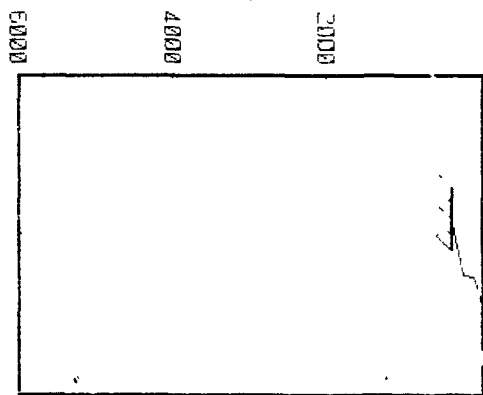
DB LOSS



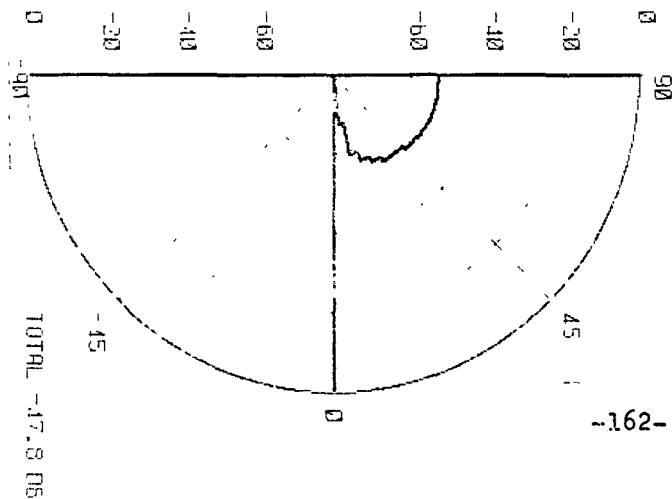
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

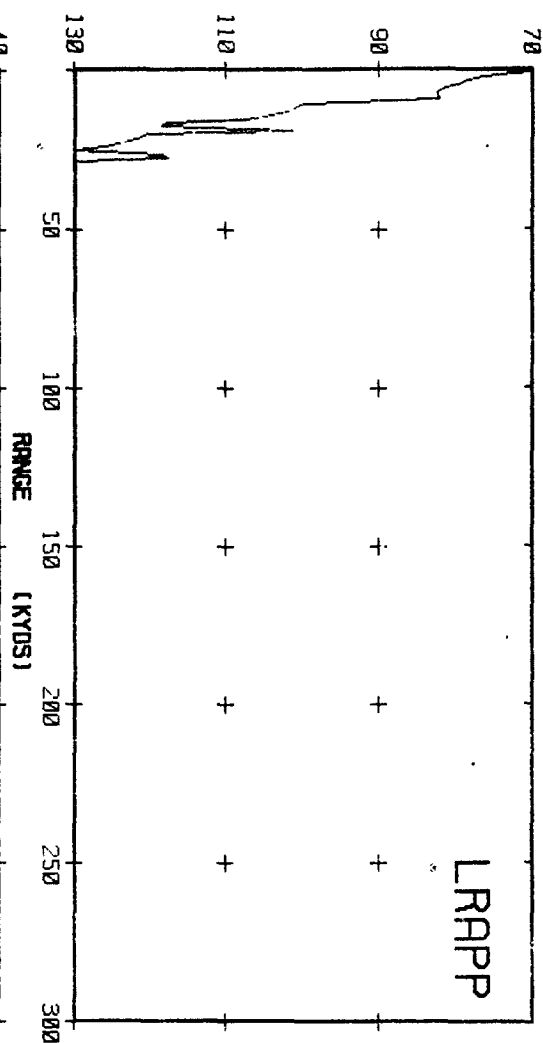


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AREA 5 WINTER

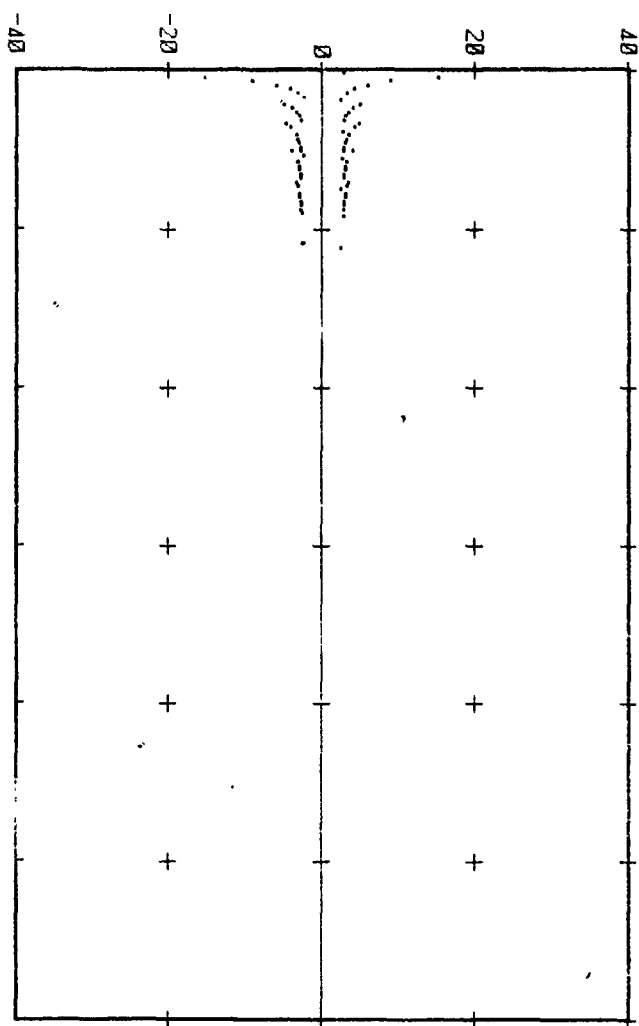
S 20 R 60 F 2500

DB LOSS

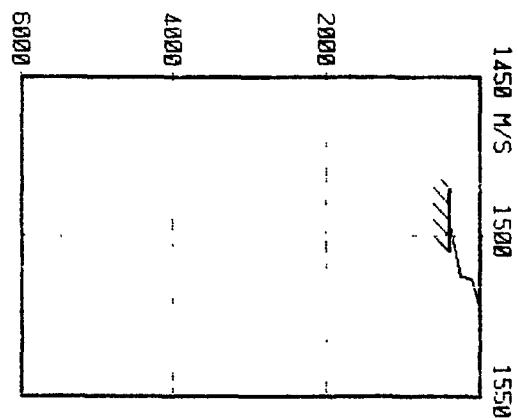


LRAPP

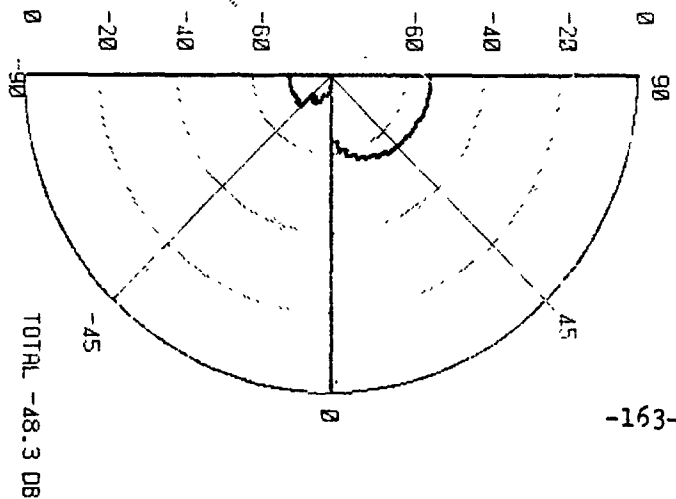
ARRIVAL ANGLE



DEPTH IN METERS

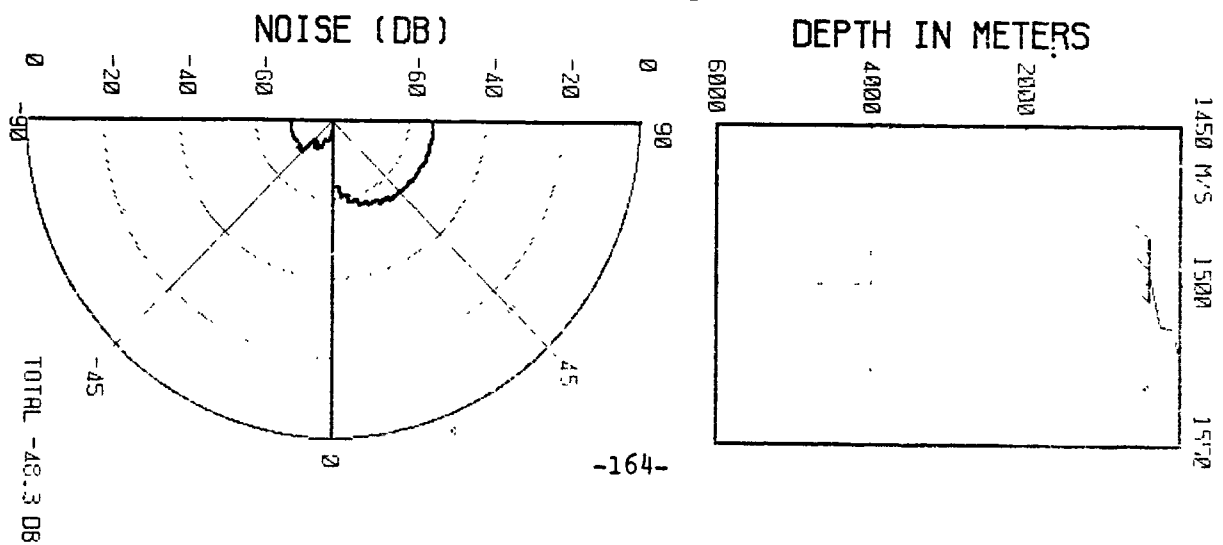
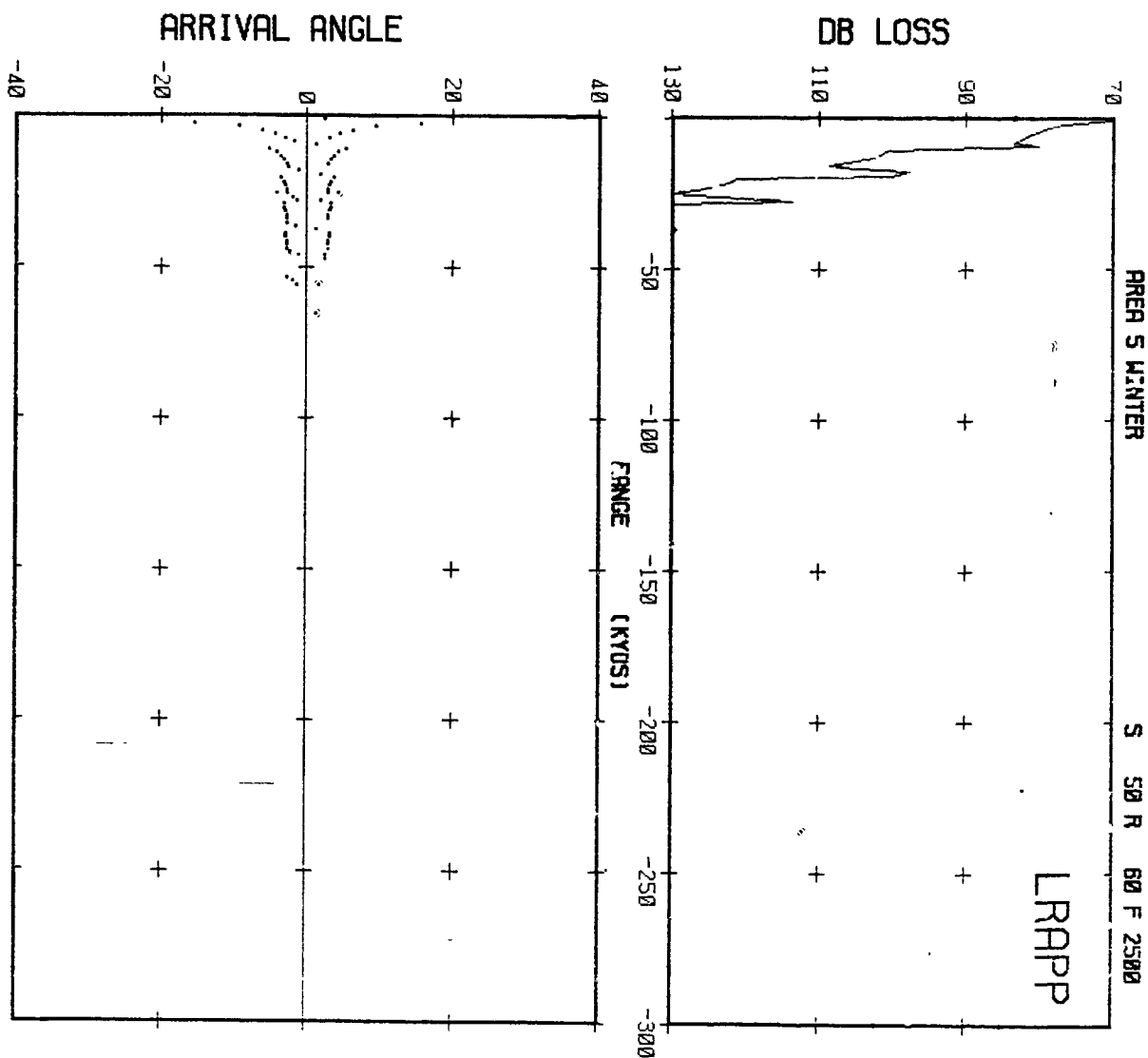


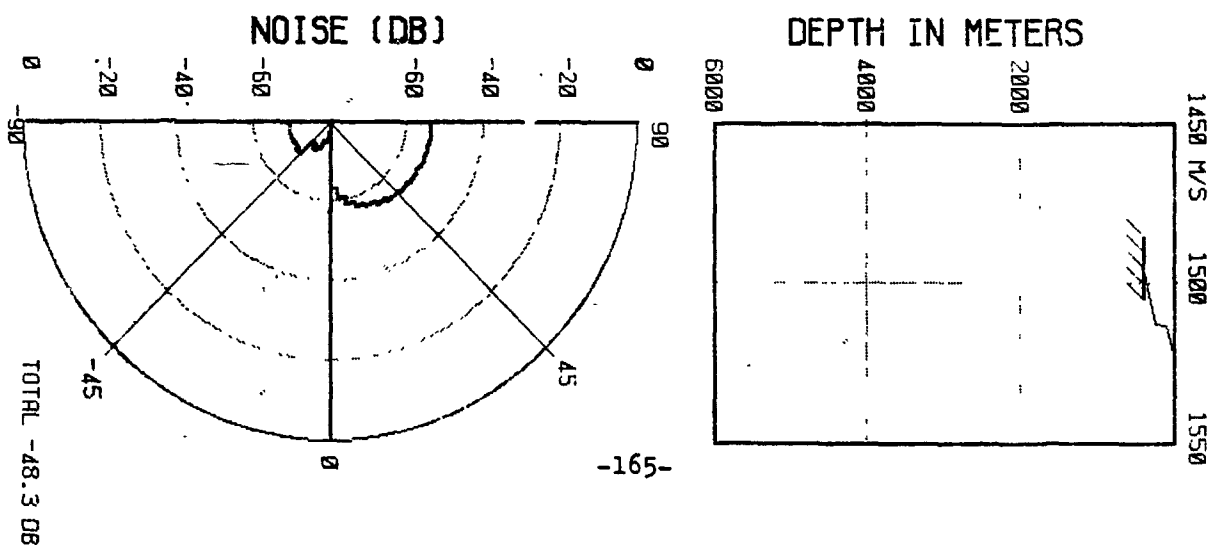
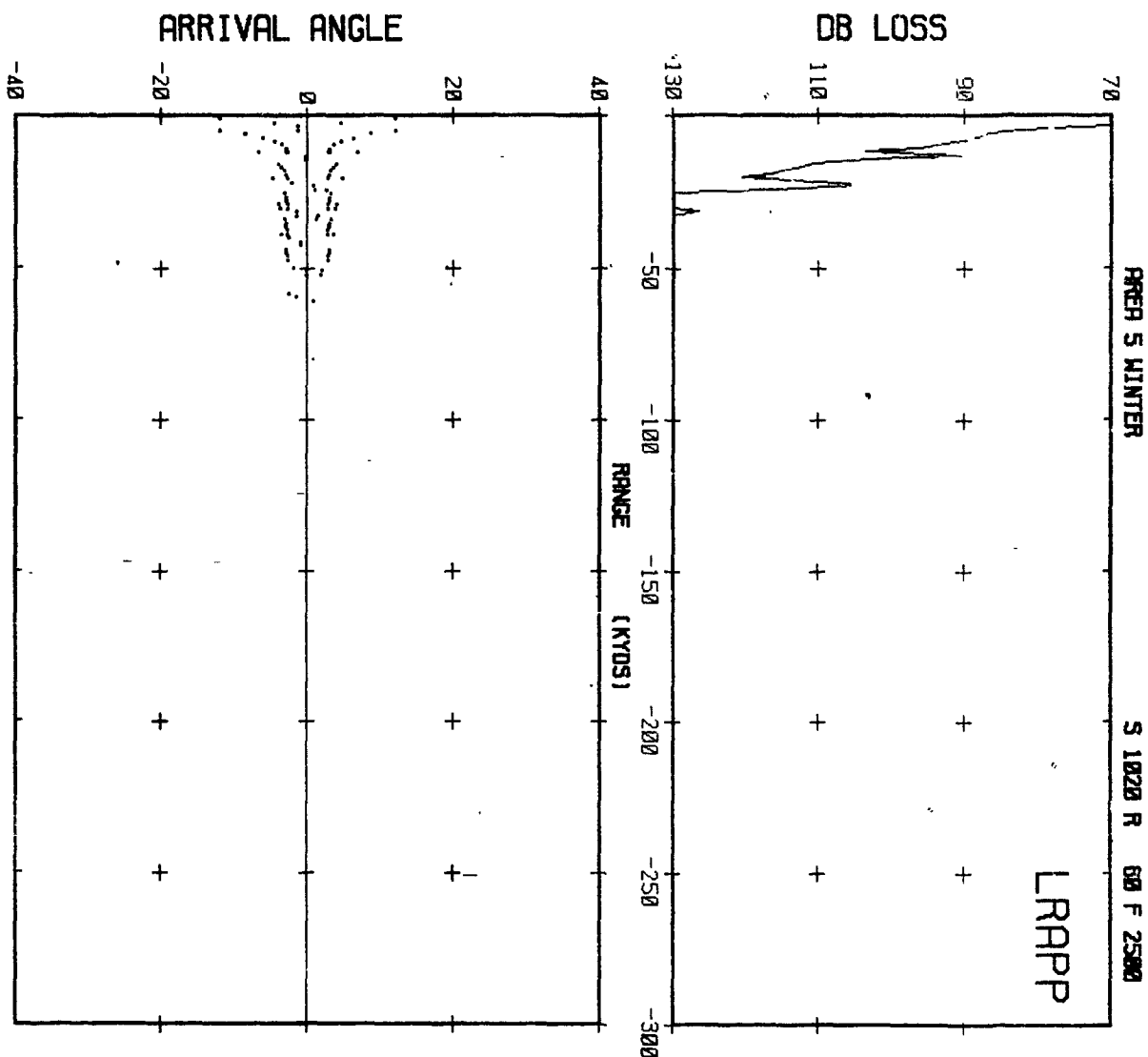
NOISE (DB)

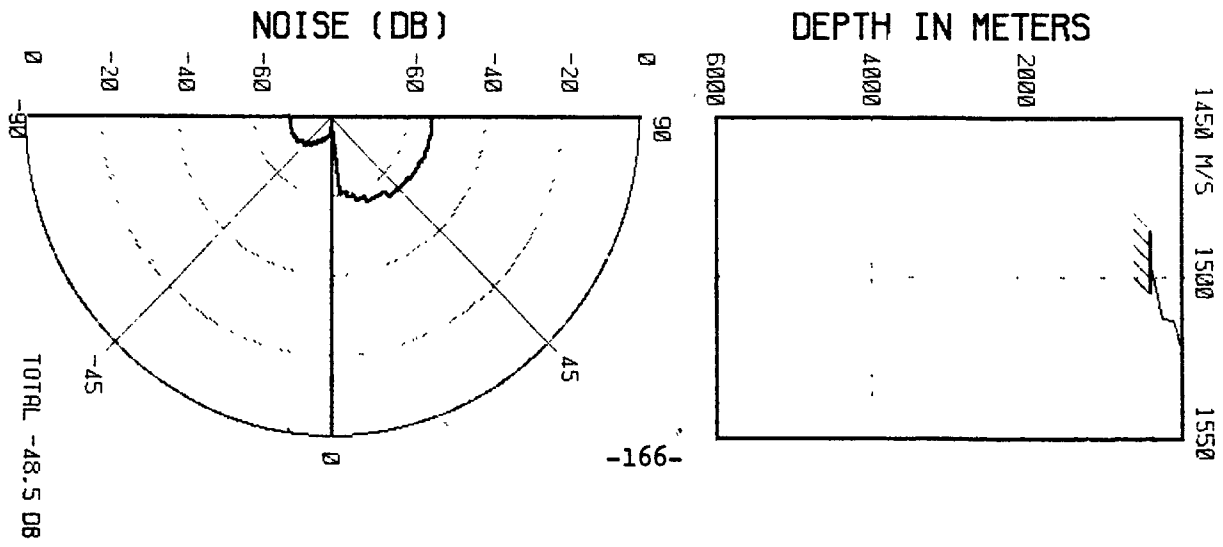
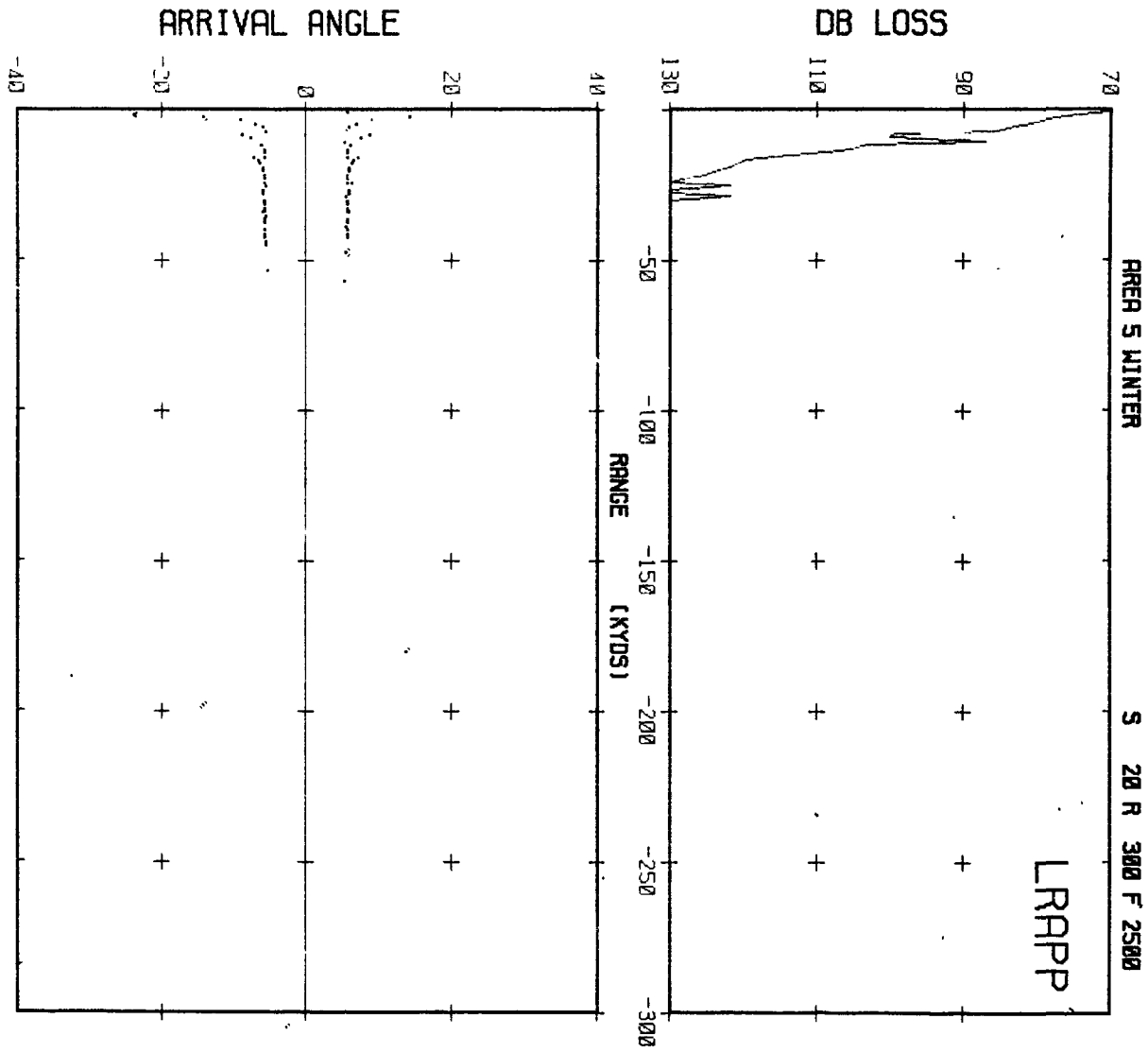


TOTAL -48.3 DB

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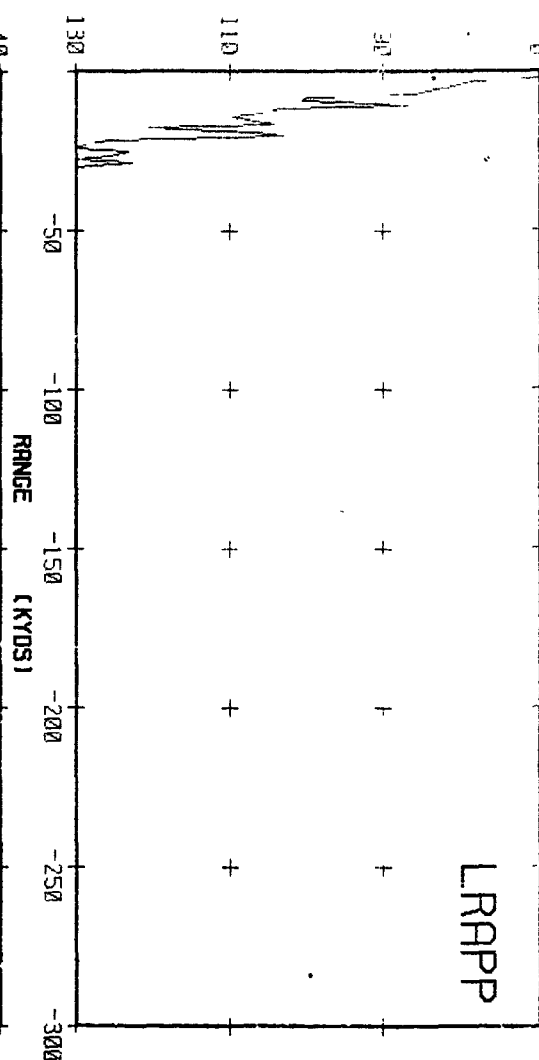


AREA 5 WINTER

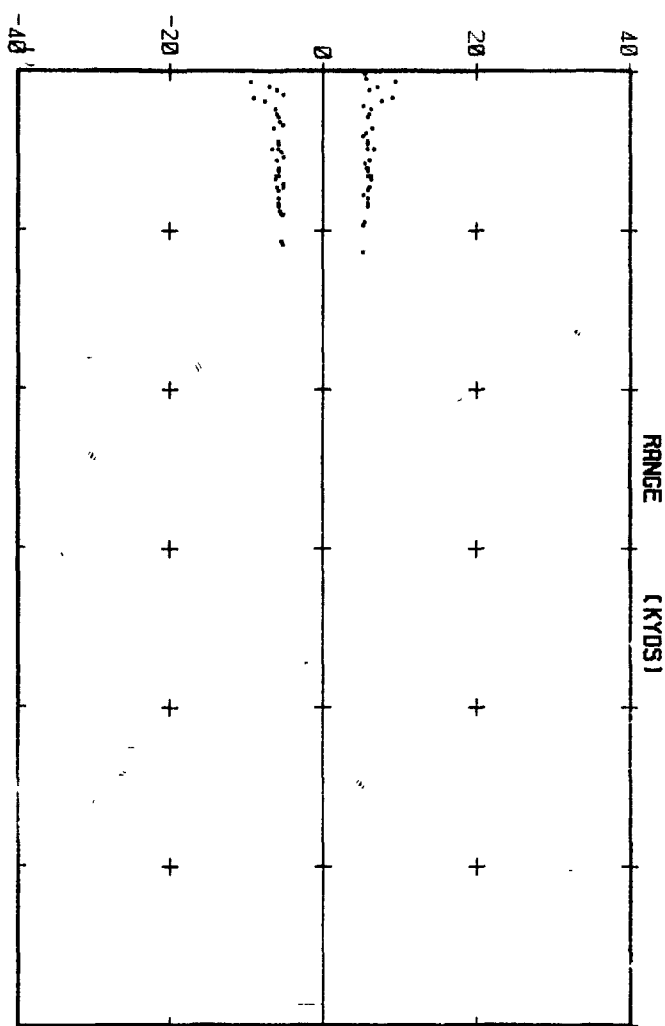
S 50 R 300 F 2500

1450 M/S 1500 1550

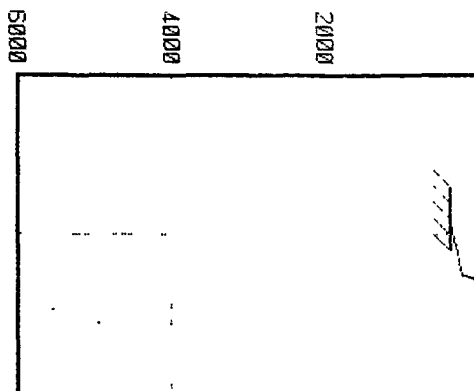
DB LOSS



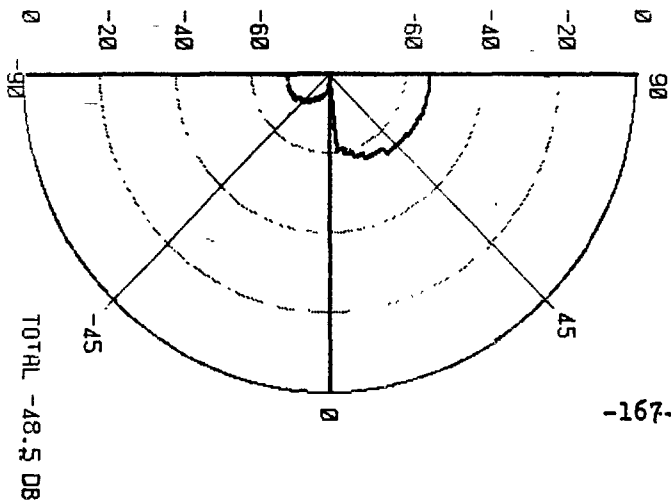
ARRIVAL ANGLE

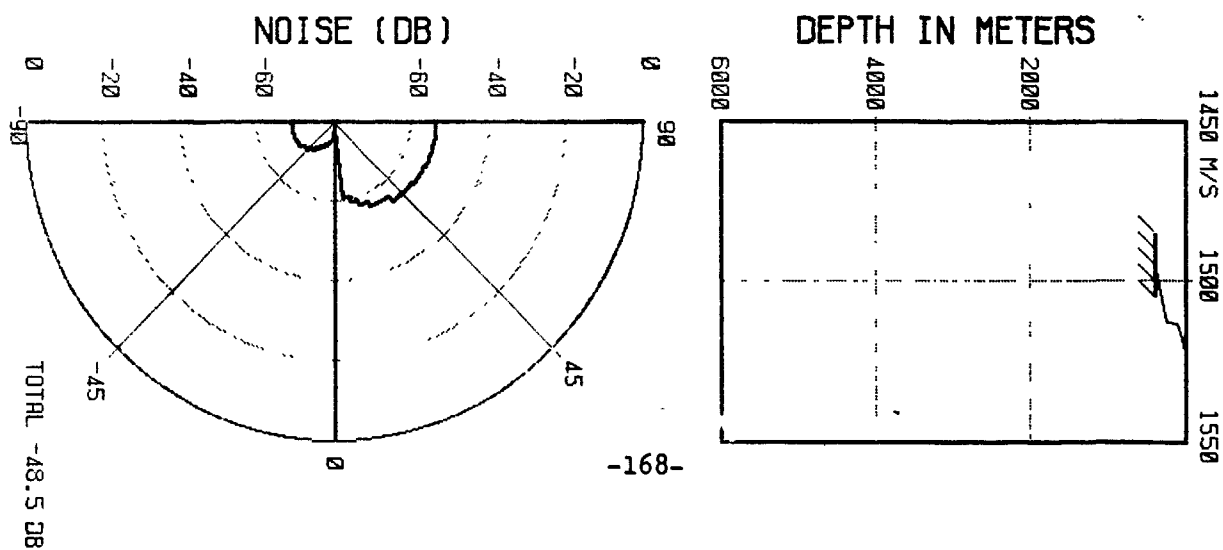
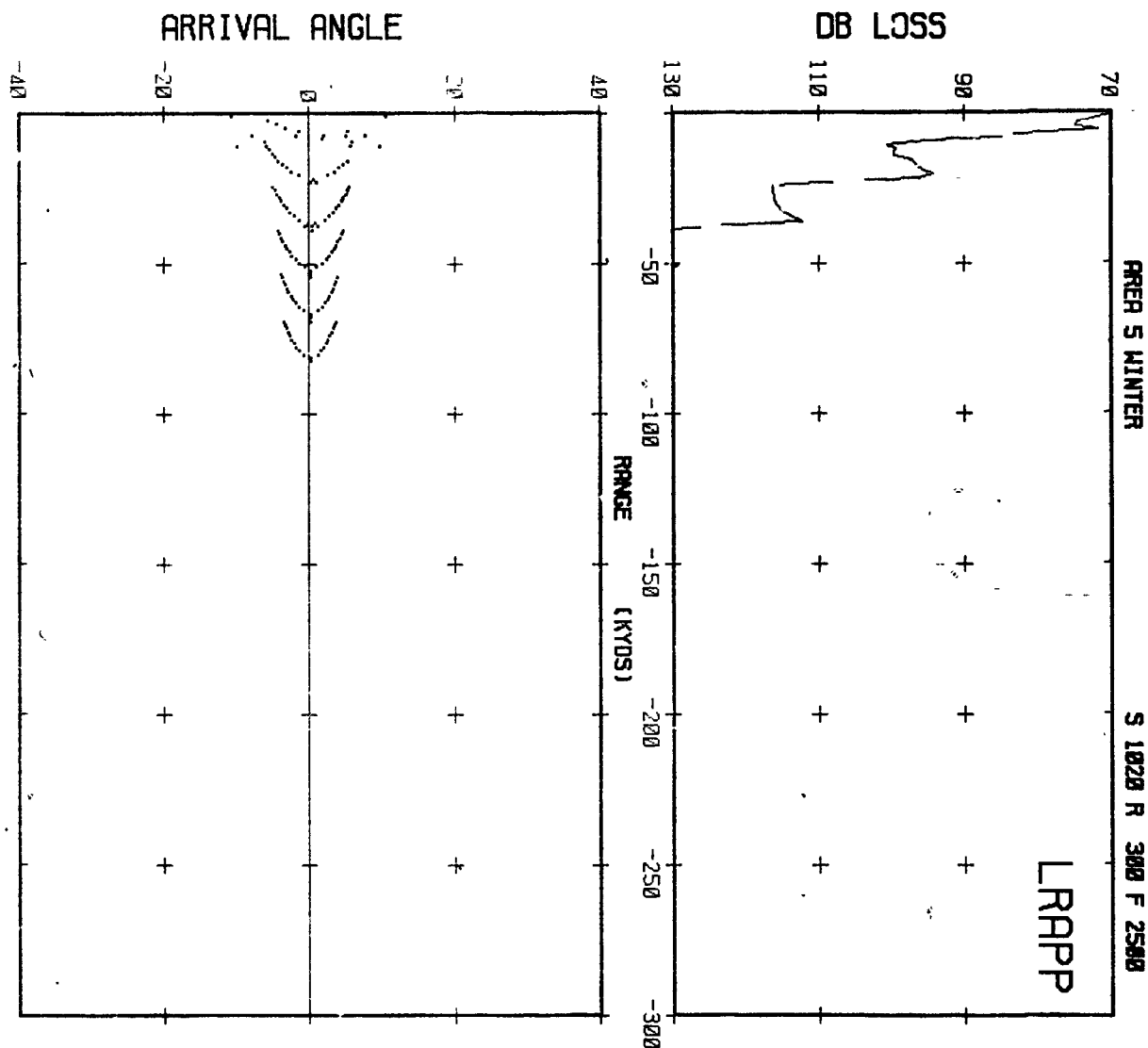


DEPTH IN METERS



NOISE (DB)



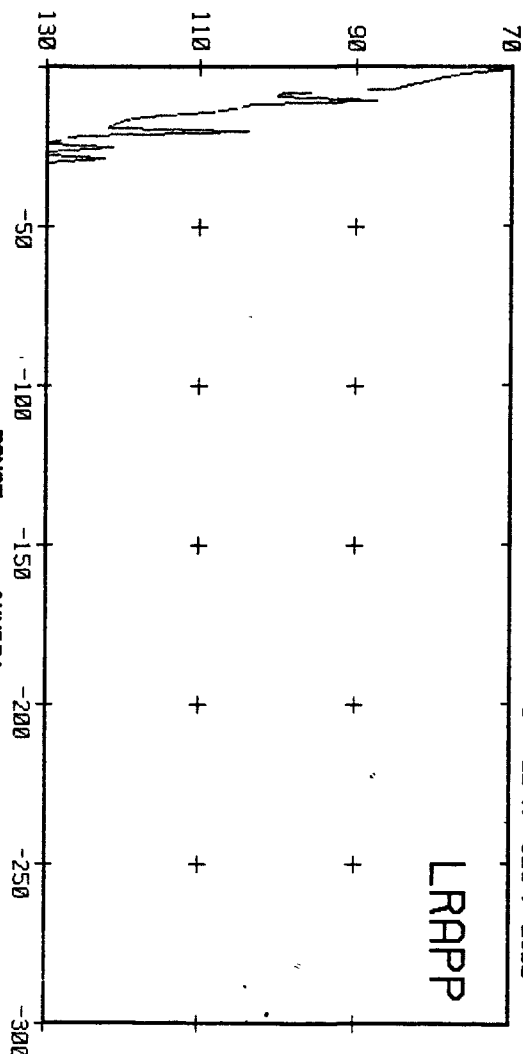


AREA 5 WINTER

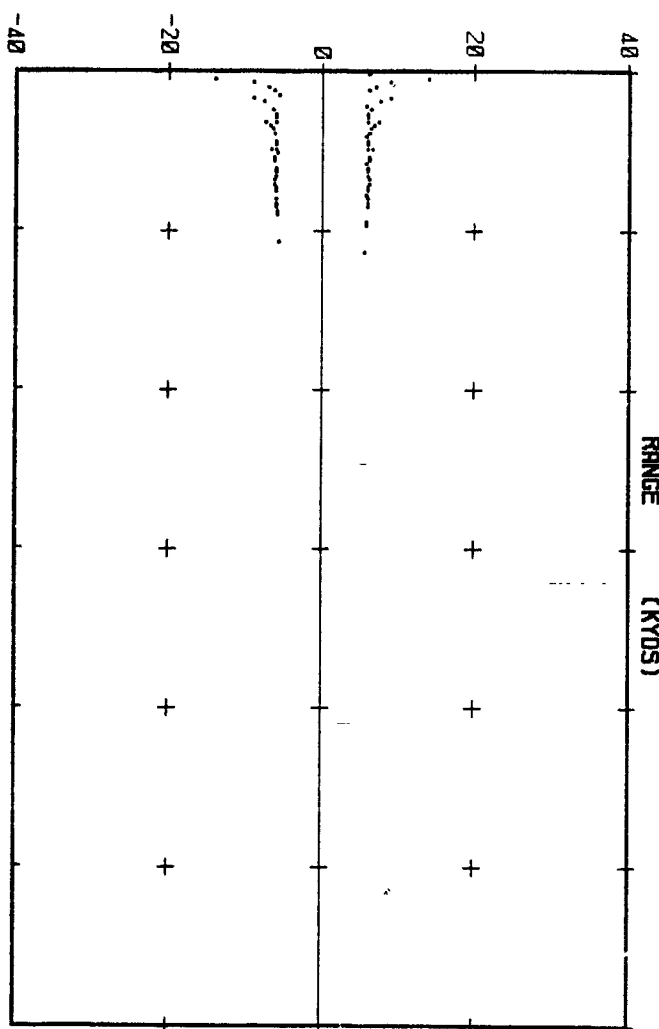
S 20 R 328 F 2500

1450 M/S 1500 1550

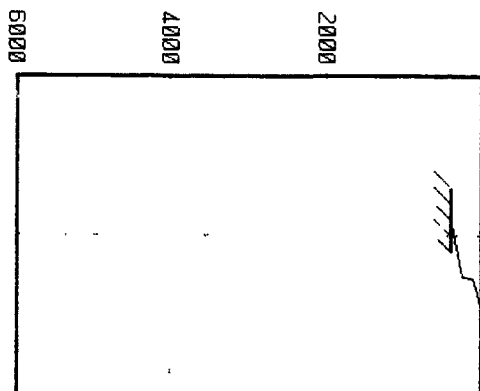
DB LOSS



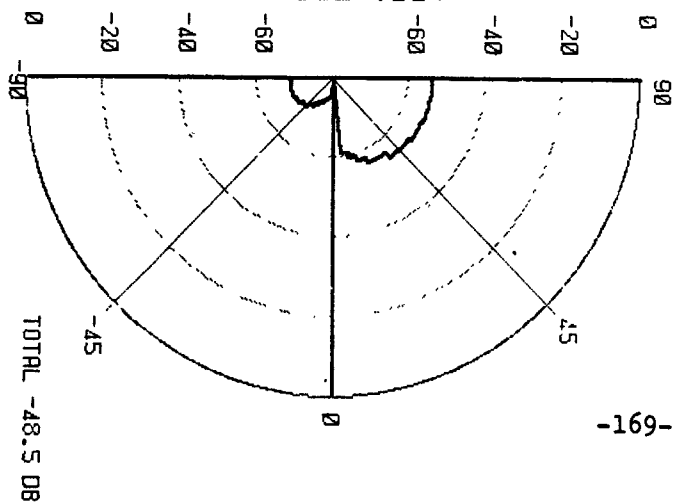
ARRIVAL ANGLE

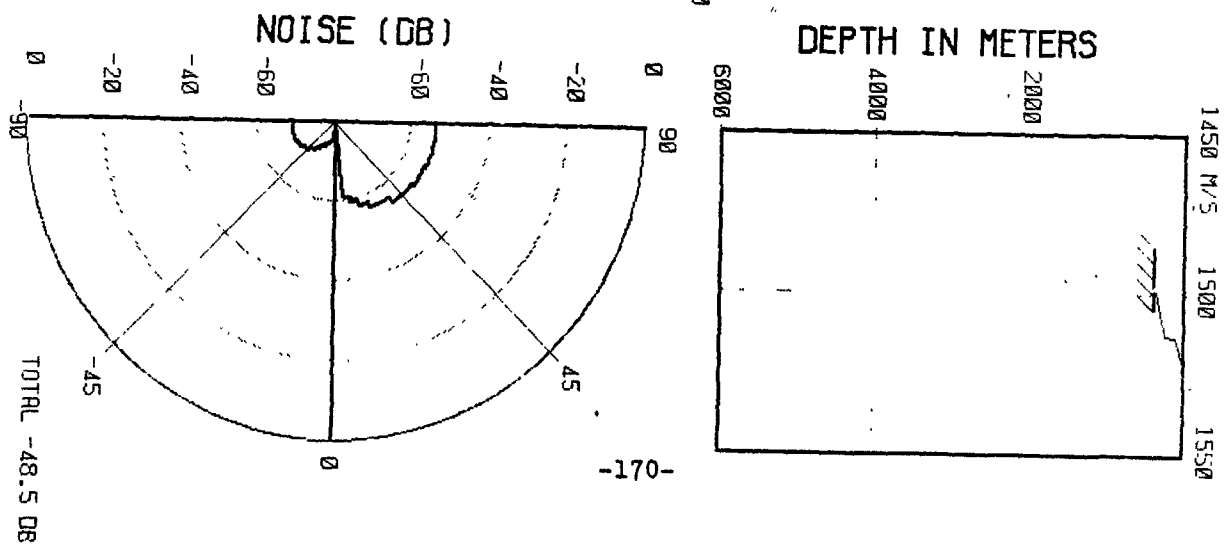
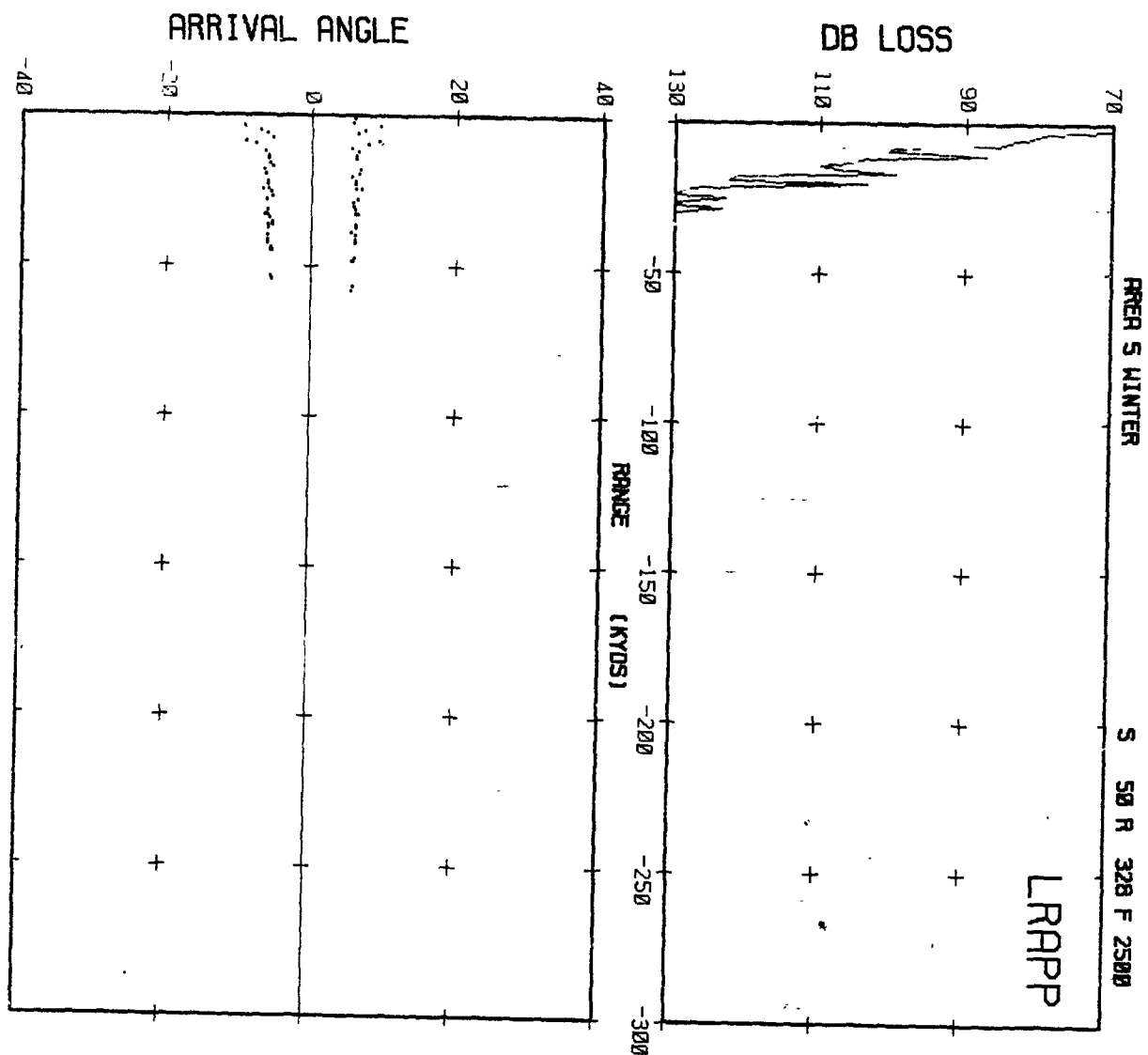


DEPTH IN METERS



NOISE (DB)



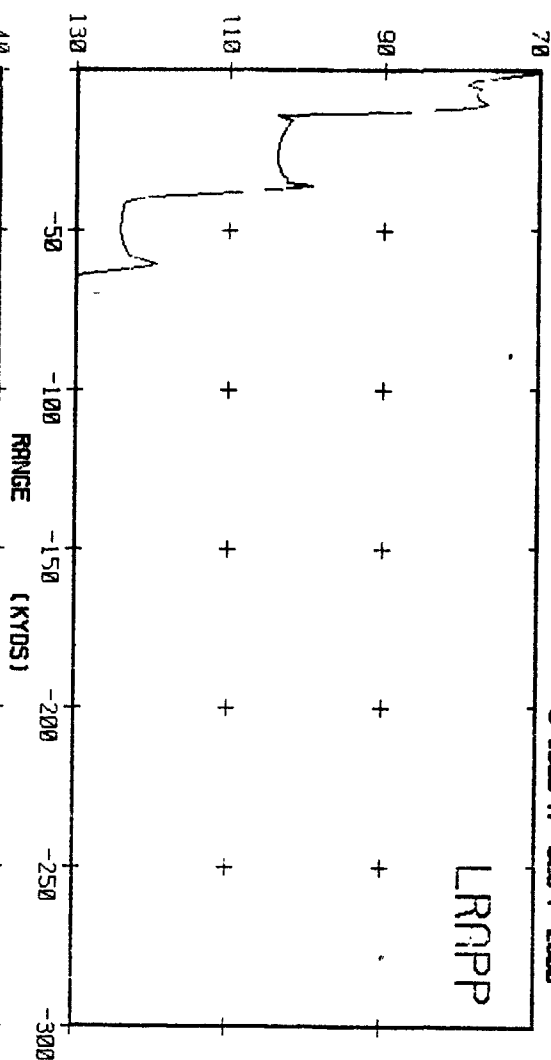


AREA 5 WINTER

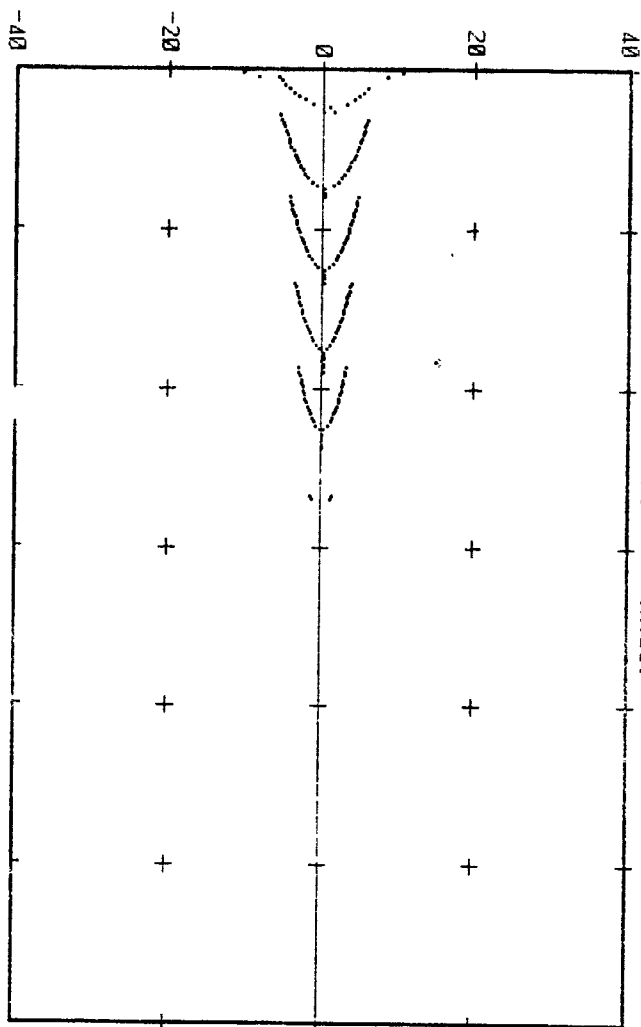
S 1020 R 328 F 2500

LRNPP

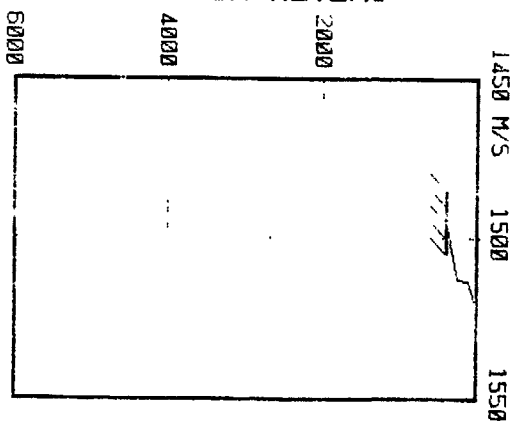
DB LOSS



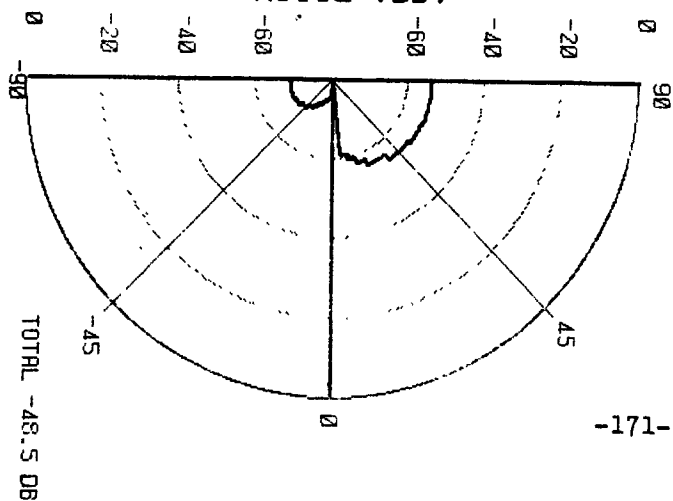
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)

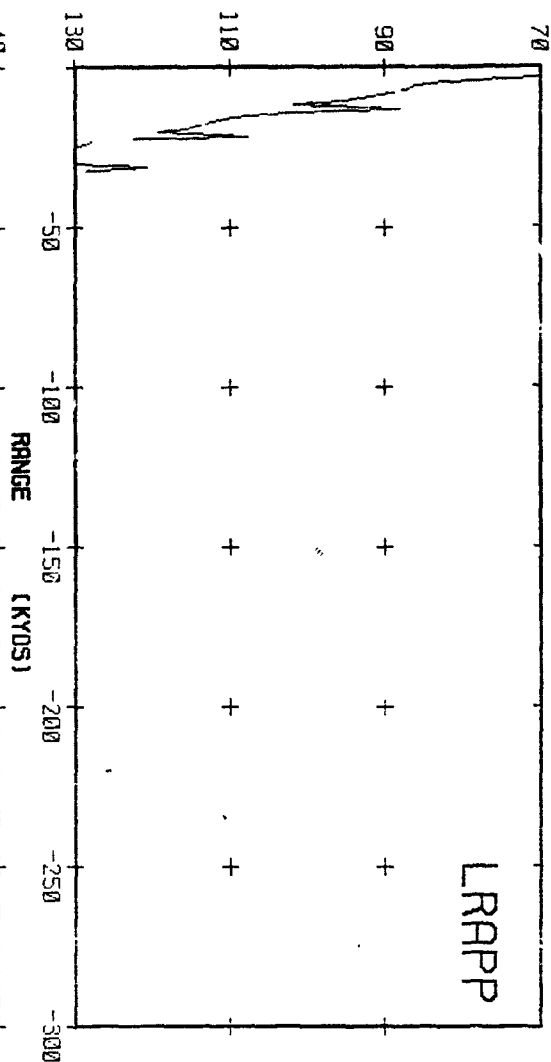


TOTAL -48.5 DB

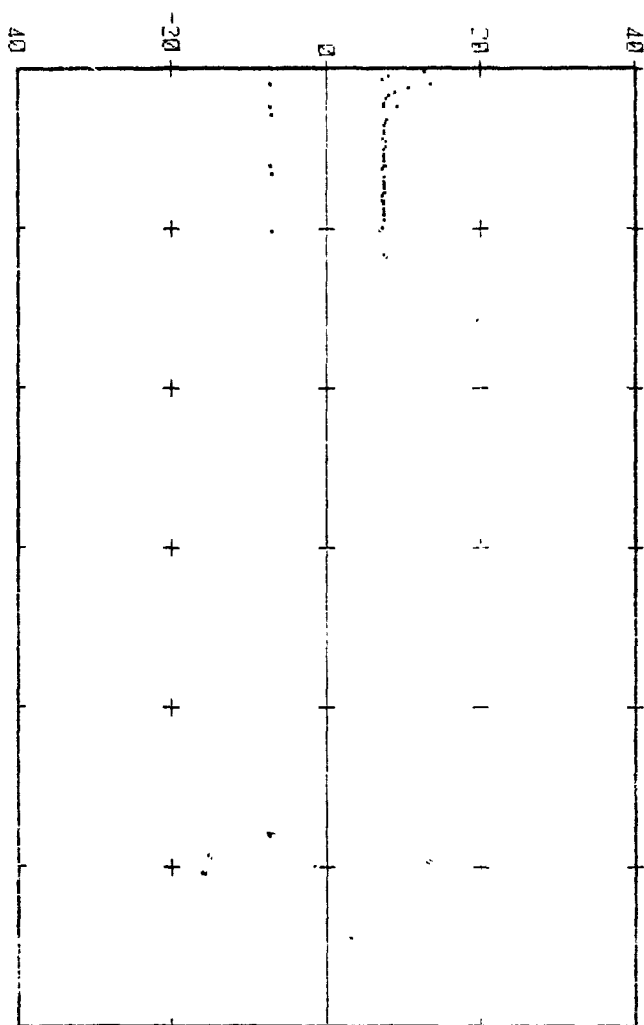
AREA 3 WINTER

S 20 R 920 F 2500

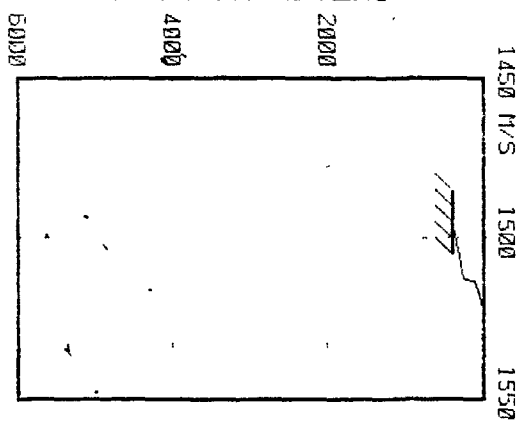
DB LOSS



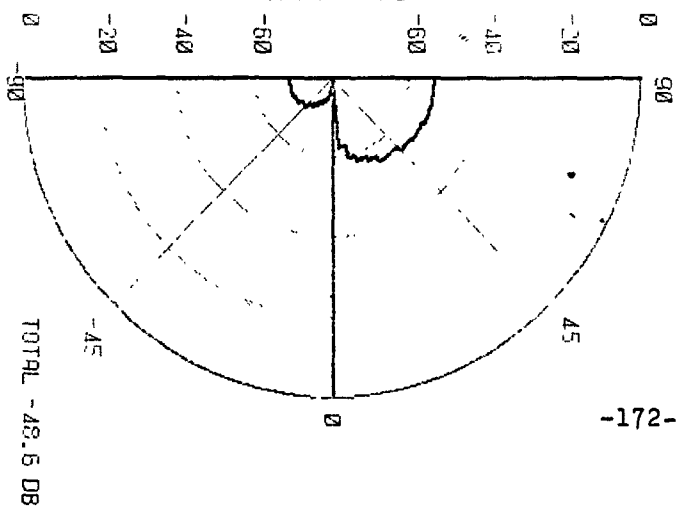
ARRIVAL ANGLE

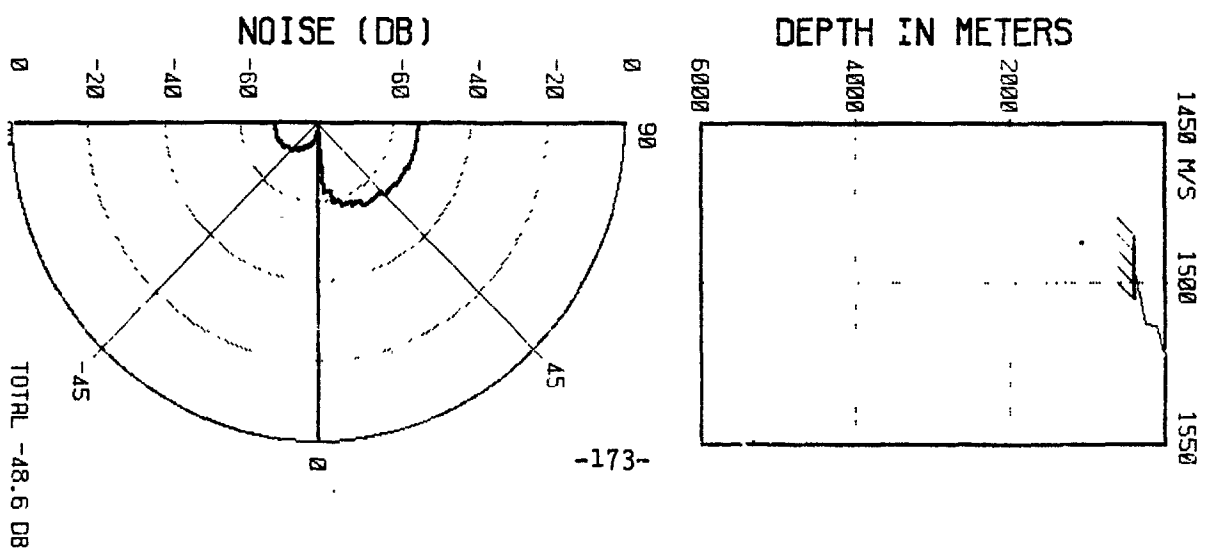
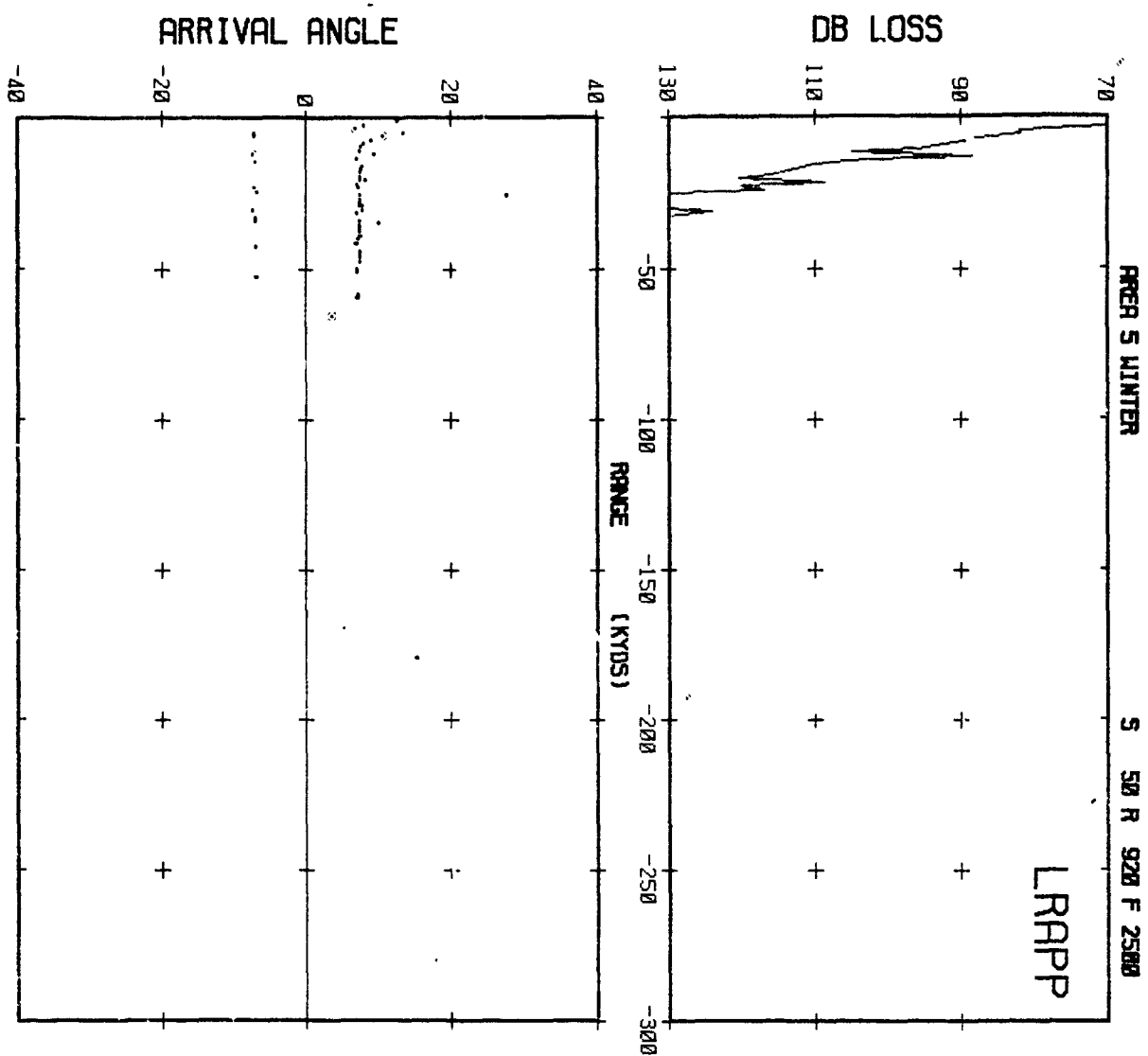


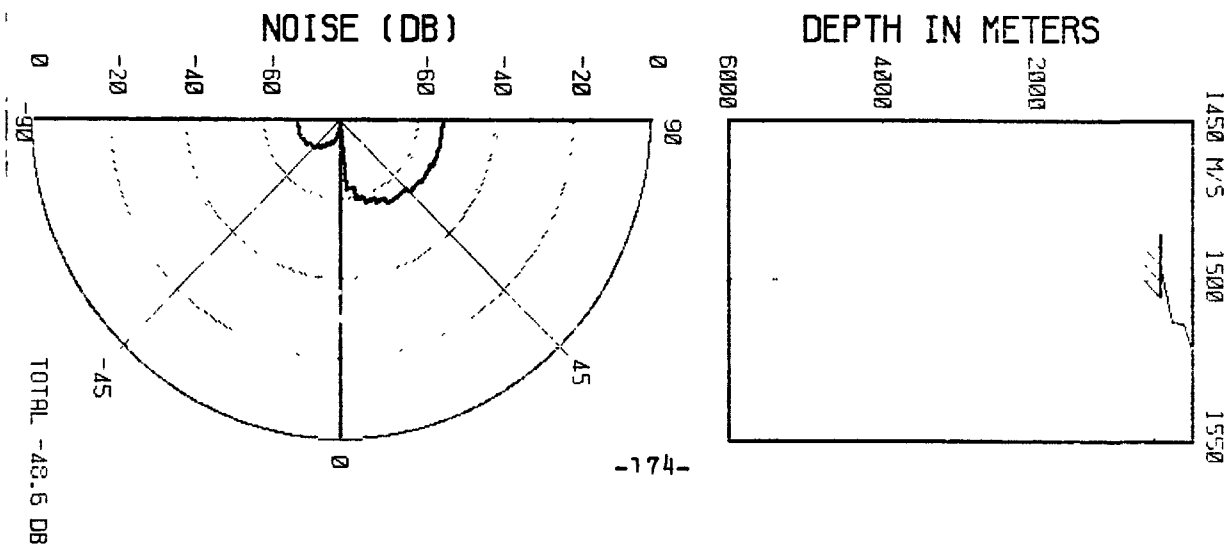
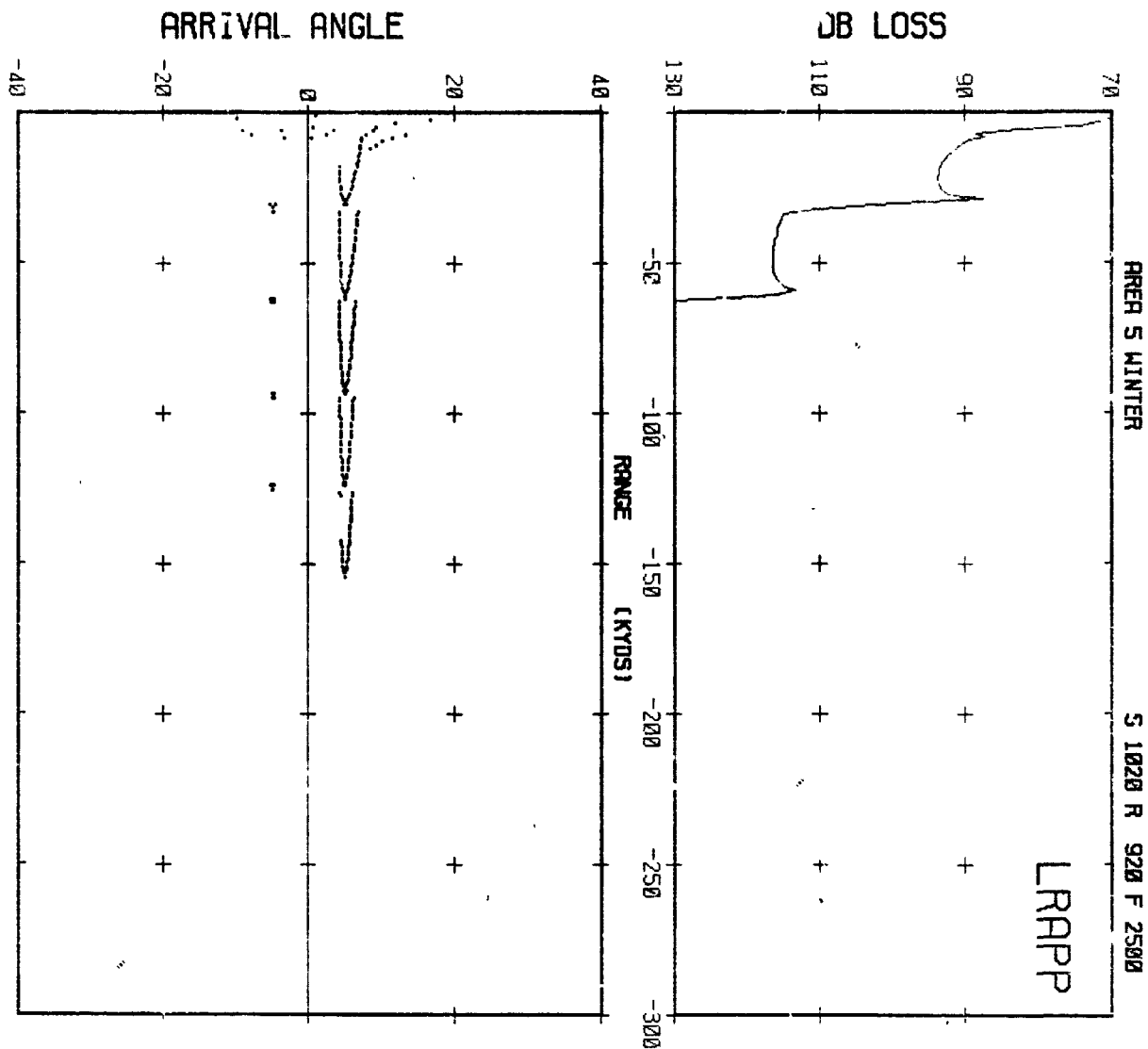
DEPTH IN METERS



NOISE (DB)





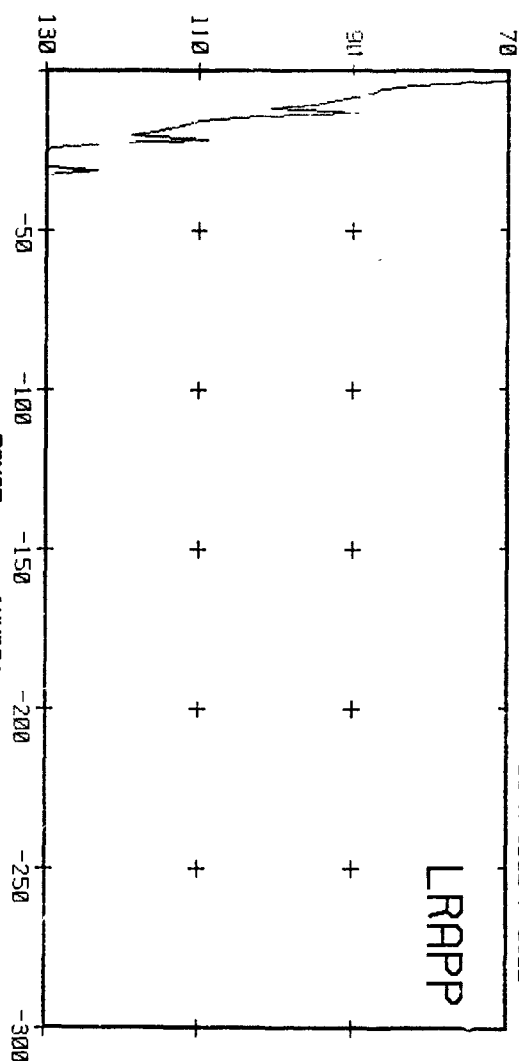


AREA 5 WINTER

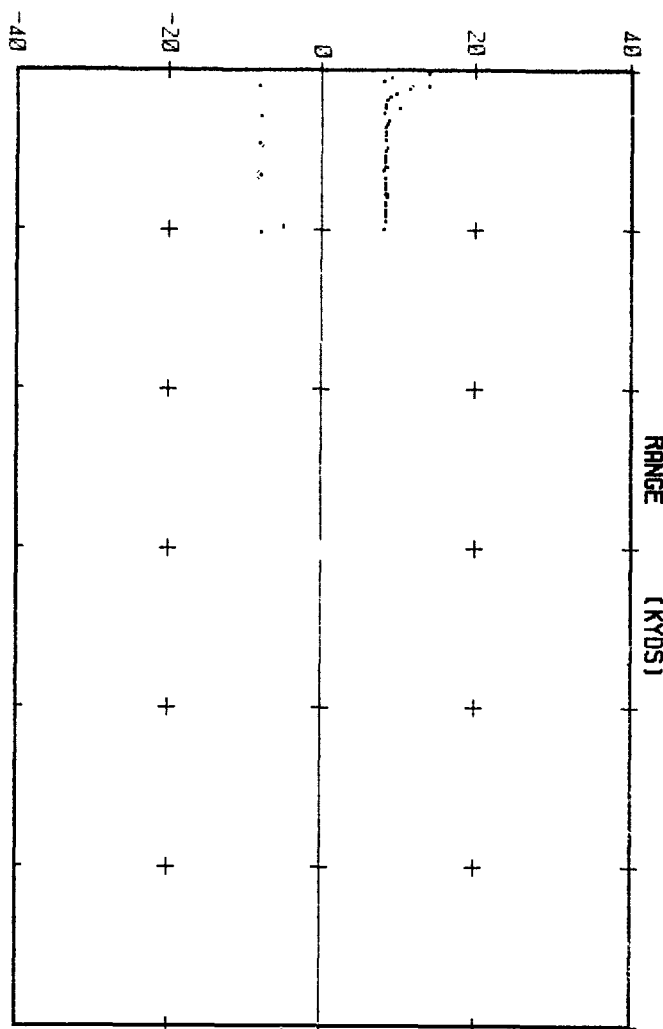
S 20 R 1000 F 2500

1450 M/S 1500 1550

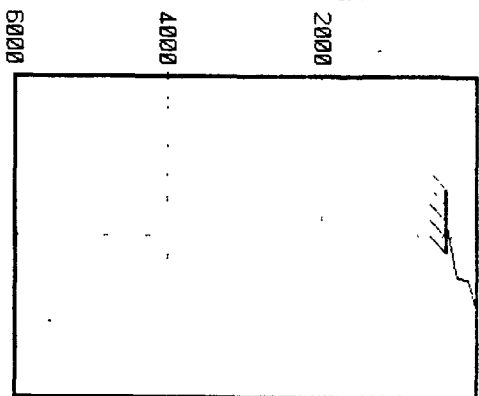
DB LOSS



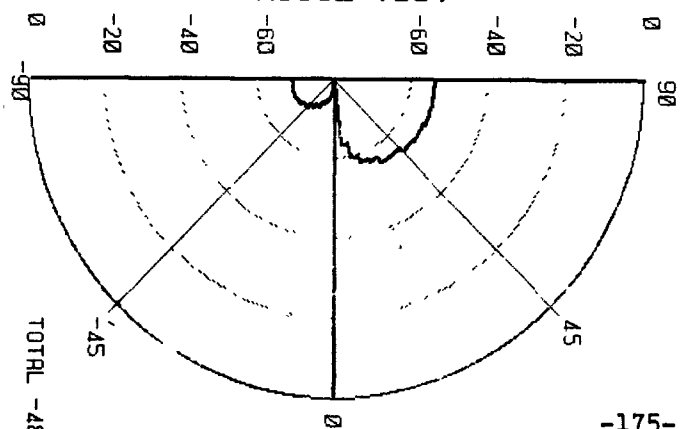
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



TOTAL -48.6 DB

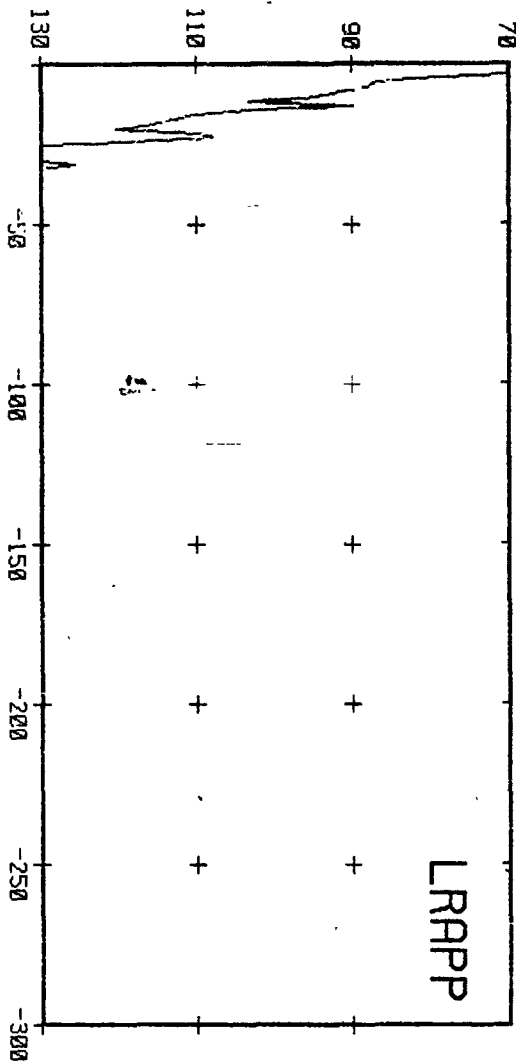
AREA 5 WINTER

S 50 R 1000 F 2500

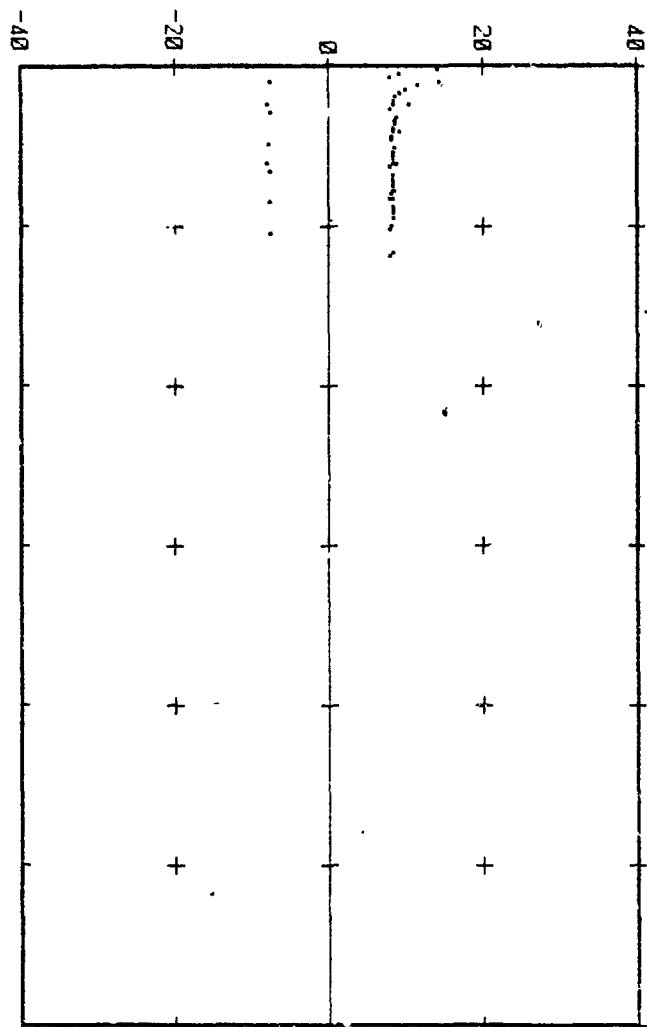
1450 M/S 1500 1550

LRAPP

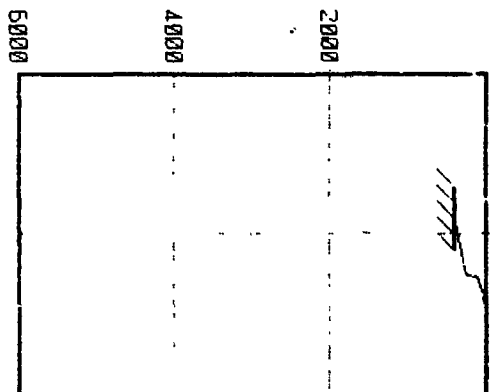
DB LOSS



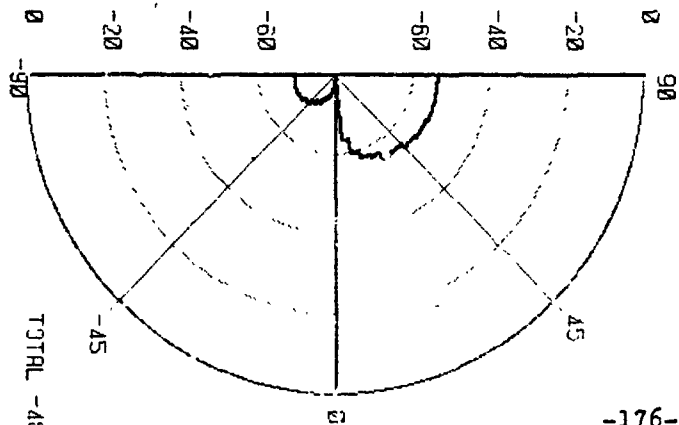
ARRIVAL ANGLE



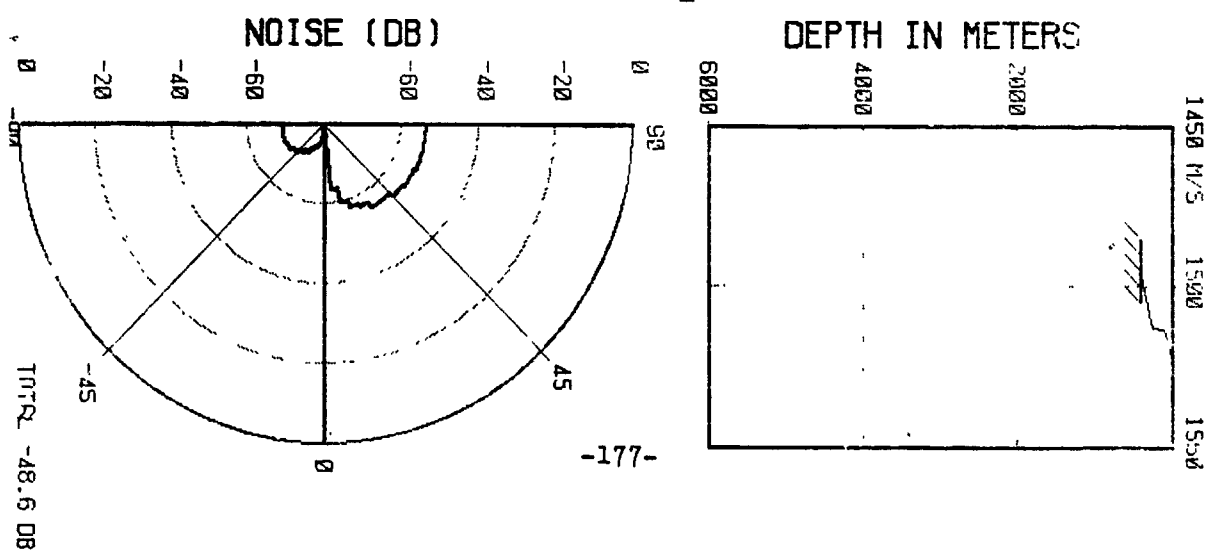
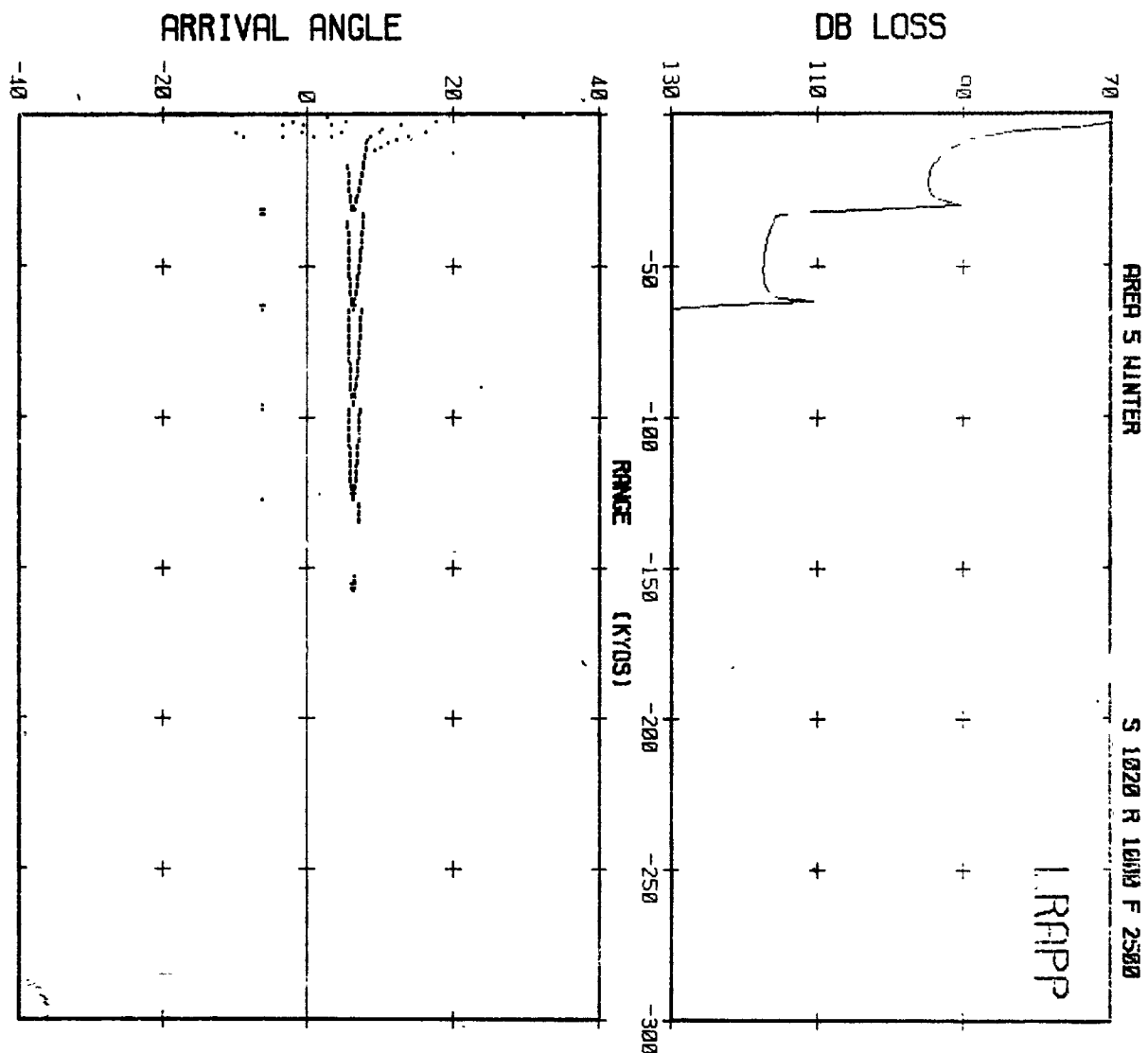
DEPTH IN METERS



NOISE (DB)



TOTAL -48.6 DB

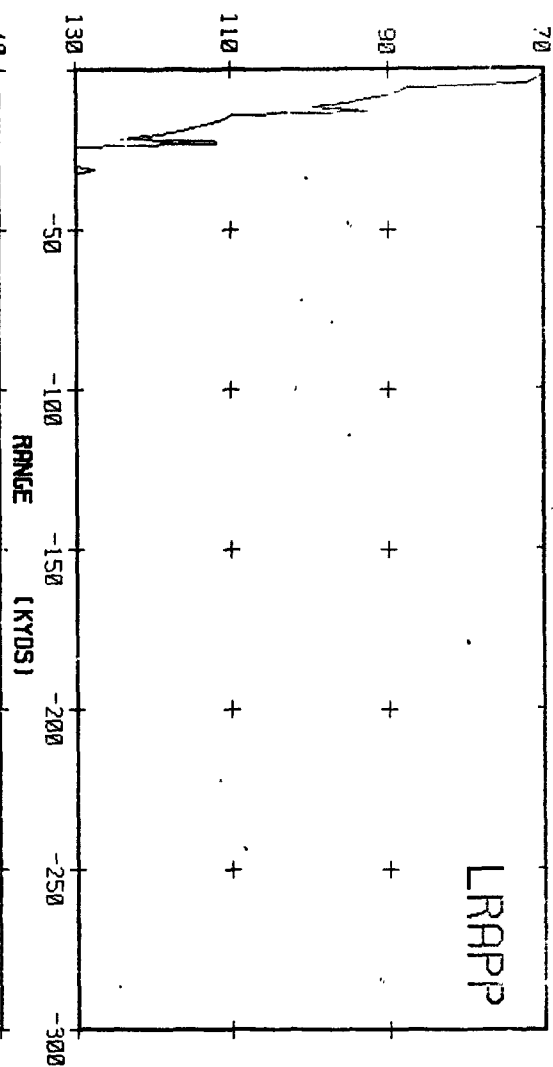


AREA 5 WINTER

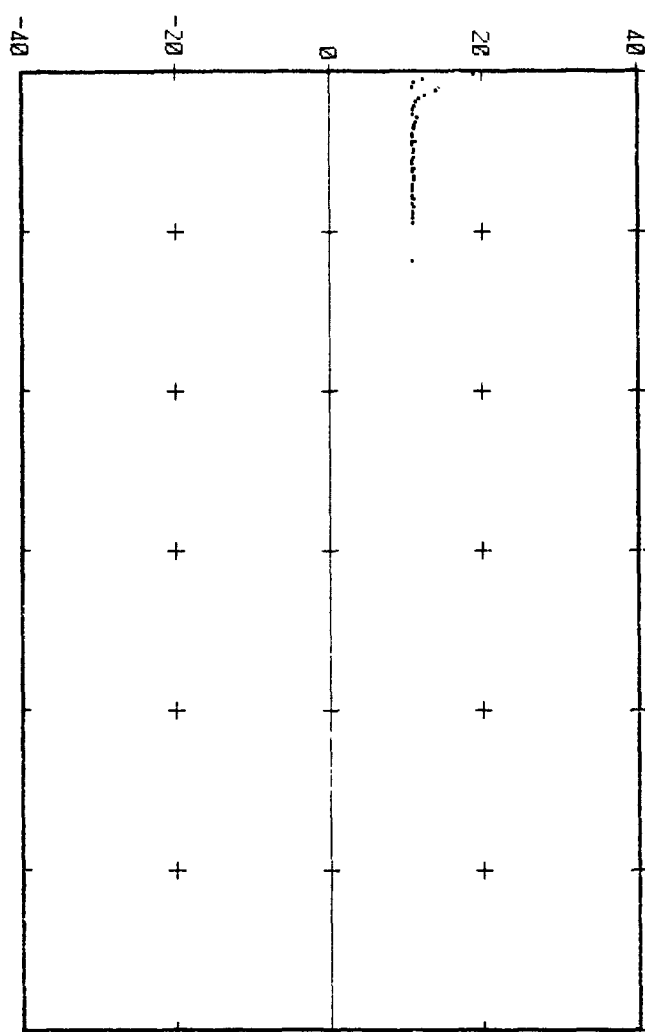
S 20 R 1312 F 2500

LRAPP

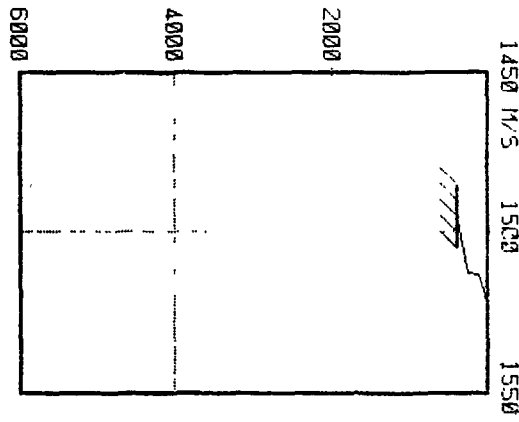
DB LOSS



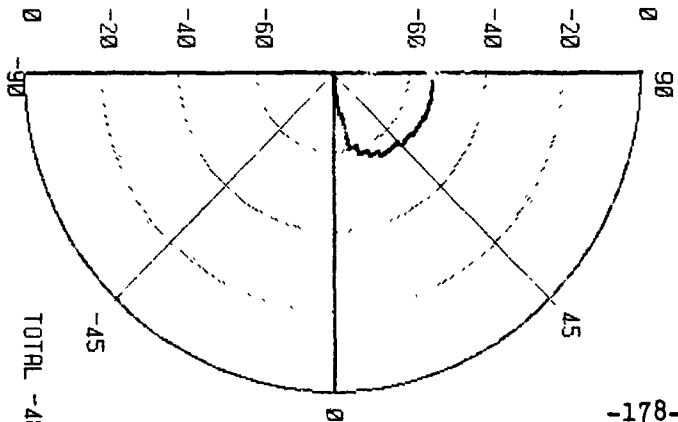
ARRIVAL ANGLE



DEPTH IN METERS



NOISE (DB)



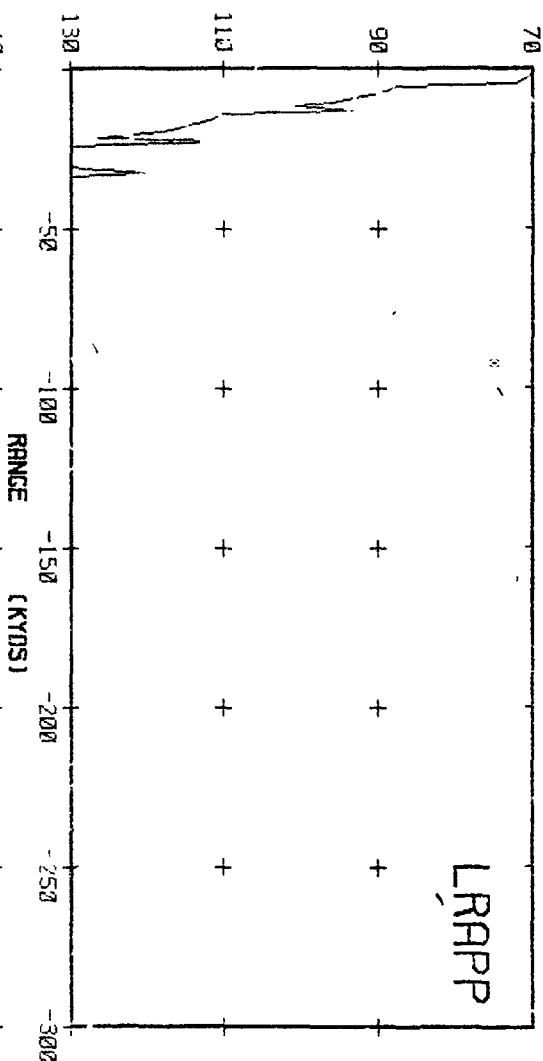
TOTAL -48.8 DB

AREA 5 WINTER

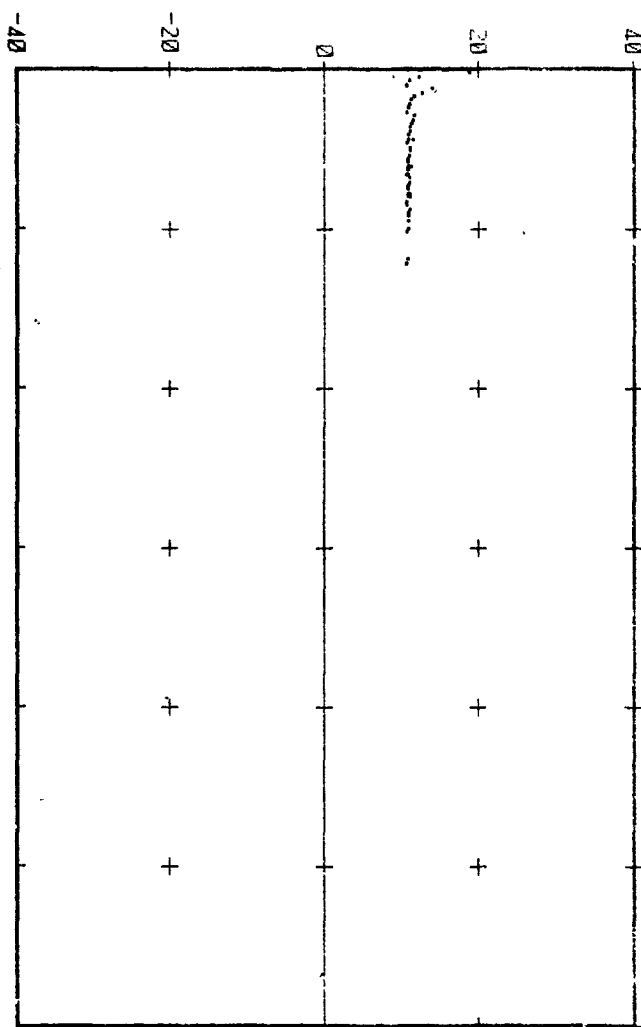
S 50 R 1312 F 2500

1450 M/S 1500 1550

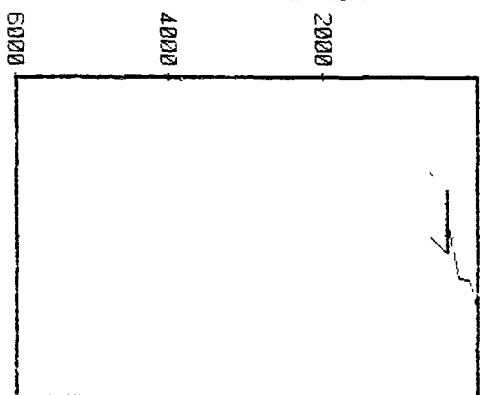
DB LOSS



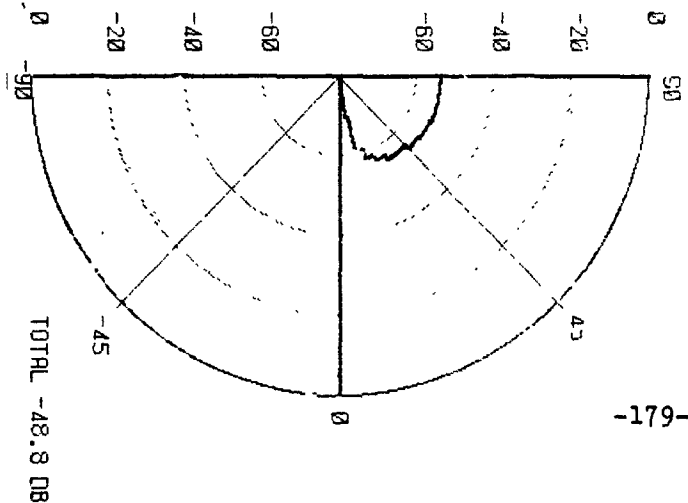
ARRIVAL ANGLE



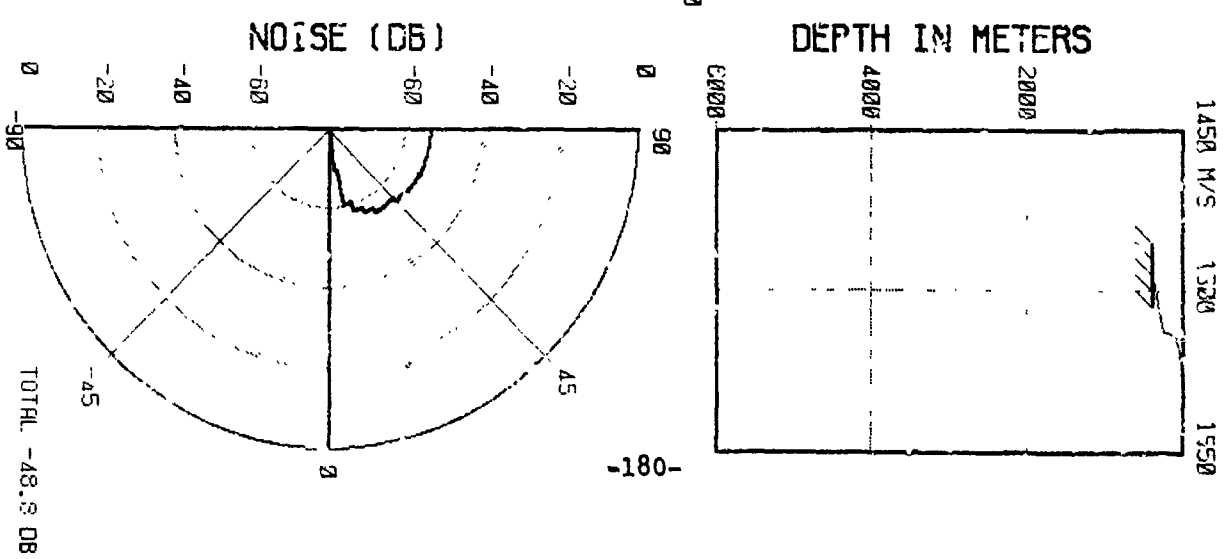
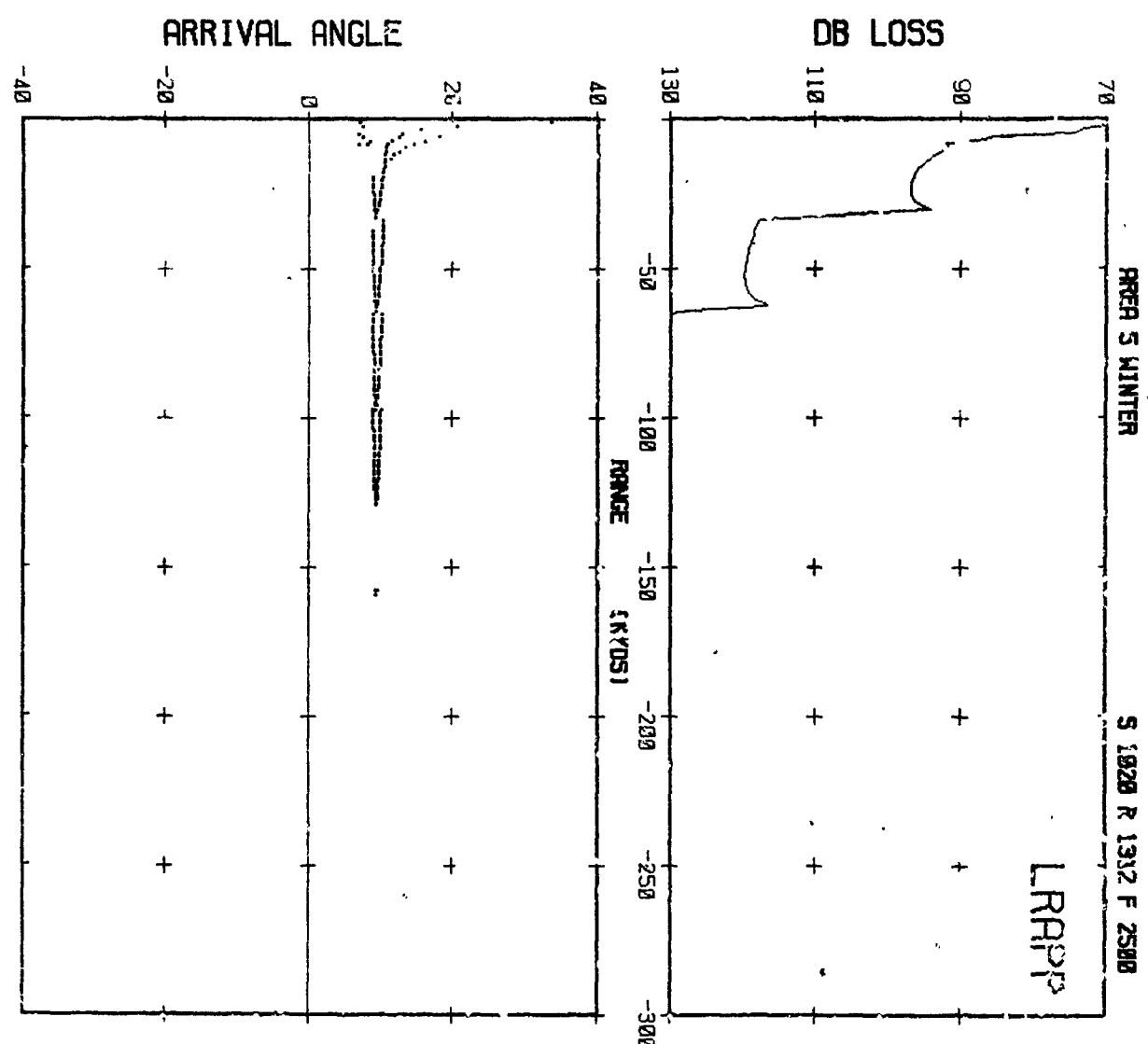
DEPTH IN METERS



NOISE (DB)



1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.





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