

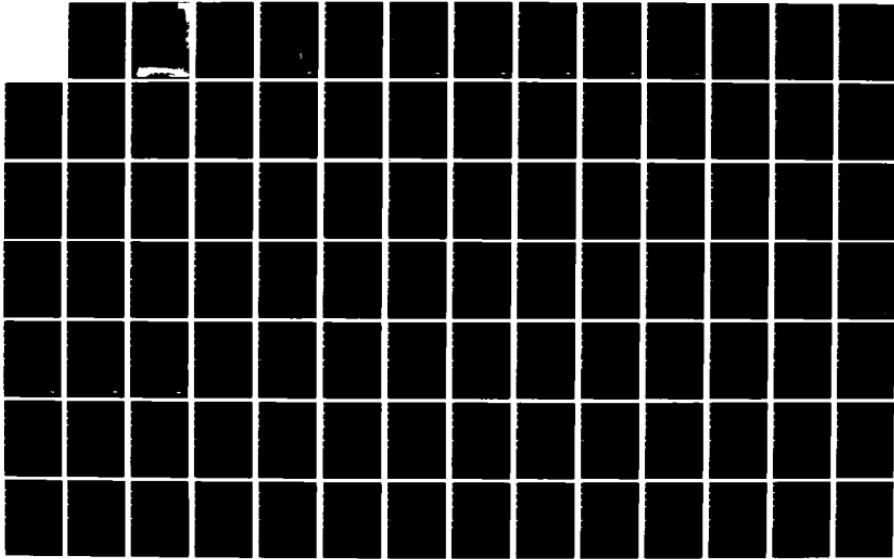
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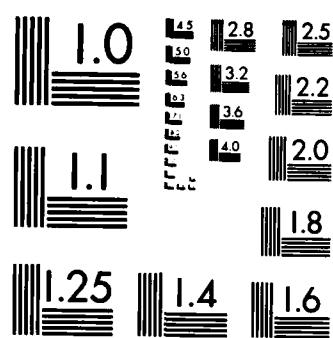
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A Study of Sea Ice  
Kinematics and Their  
Relationships to Arctic  
Ambient Noise

Part 3  
Section 1 - Ambient Noise

Part 3  
Section 2 - Ambient Noise

Science Applications International Corp.

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A STUDY OF SEA ICE KINEMATICS  
AND THEIR RELATIONSHIPS  
TO ARCTIC AMBIENT NOISE

PART 3, SECTION 1 - AMBIENT NOISE



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A STUDY OF SEA ICE KINEMATICS  
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TO ARCTIC AMBIENT NOISE

PART 3, SECTION 1 - AMBIENT NOISE

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  This report details the kinematic analysis of sea ice motion data collected during the Arctic Ice Dynamics Joint Experiment (AIDJEX) in the Beaufort Sea. In addition, relationships between the ice kinematic parameters and associated ambient noise are presented. These relationships were determined by an extensive correlation process between the noise and ice motion time histories. Time scales of the various modes of ice motion were calculated by season. Also, seasonal time and space scales were calculated for ambient noise at 10 Hz, 32 Hz, and 1000 Hz.		

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## Appendix A

### Seasonal Arctic Ambient Noise Temporal Variations, Beaufort Sea, 1975-1976

This appendix presents the plots of some of the temporal variations of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz ambient noise signals (at 3 hr intervals). Plots are presented for each station at which noise data were available. One month of data is plotted, and each season is represented:

Summer - noise data from August 1975,  
Fall - noise data from November 1975,  
Winter - noise data from February 1976, and  
Spring - noise data from May 1976.

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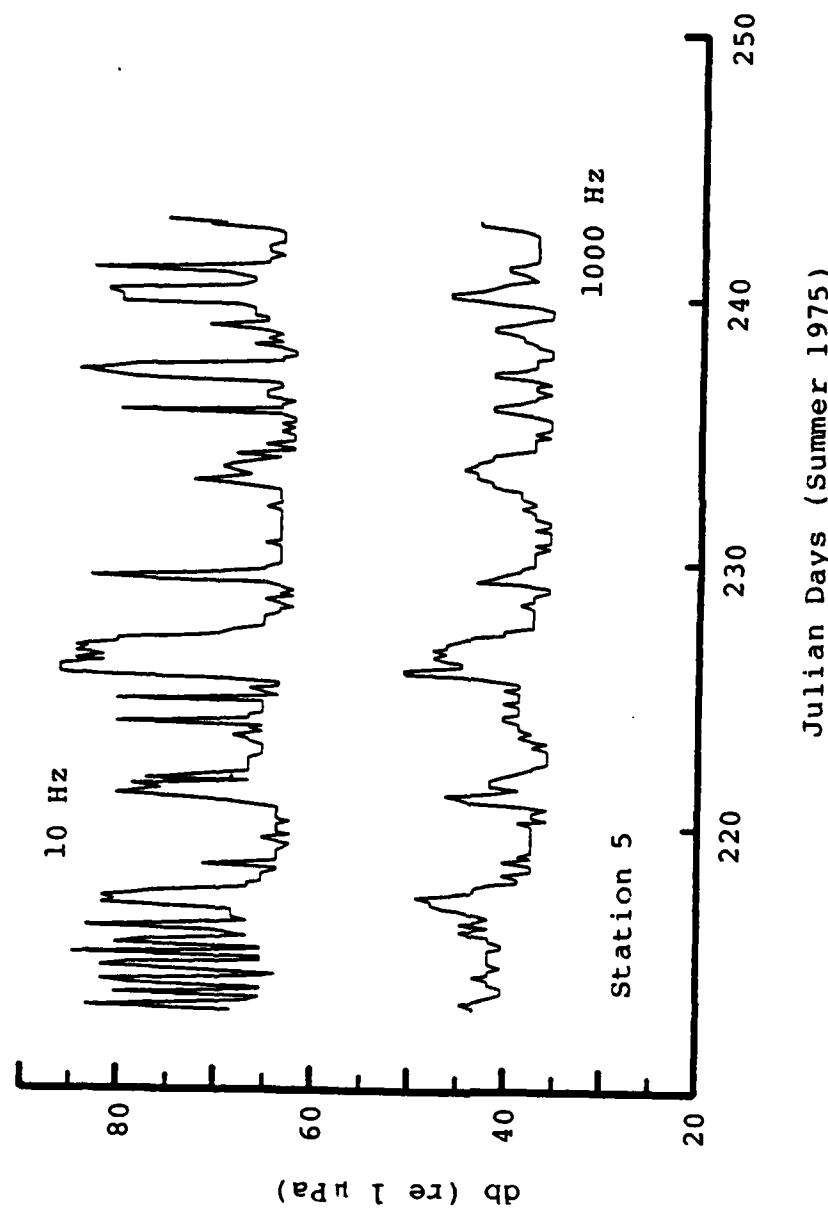


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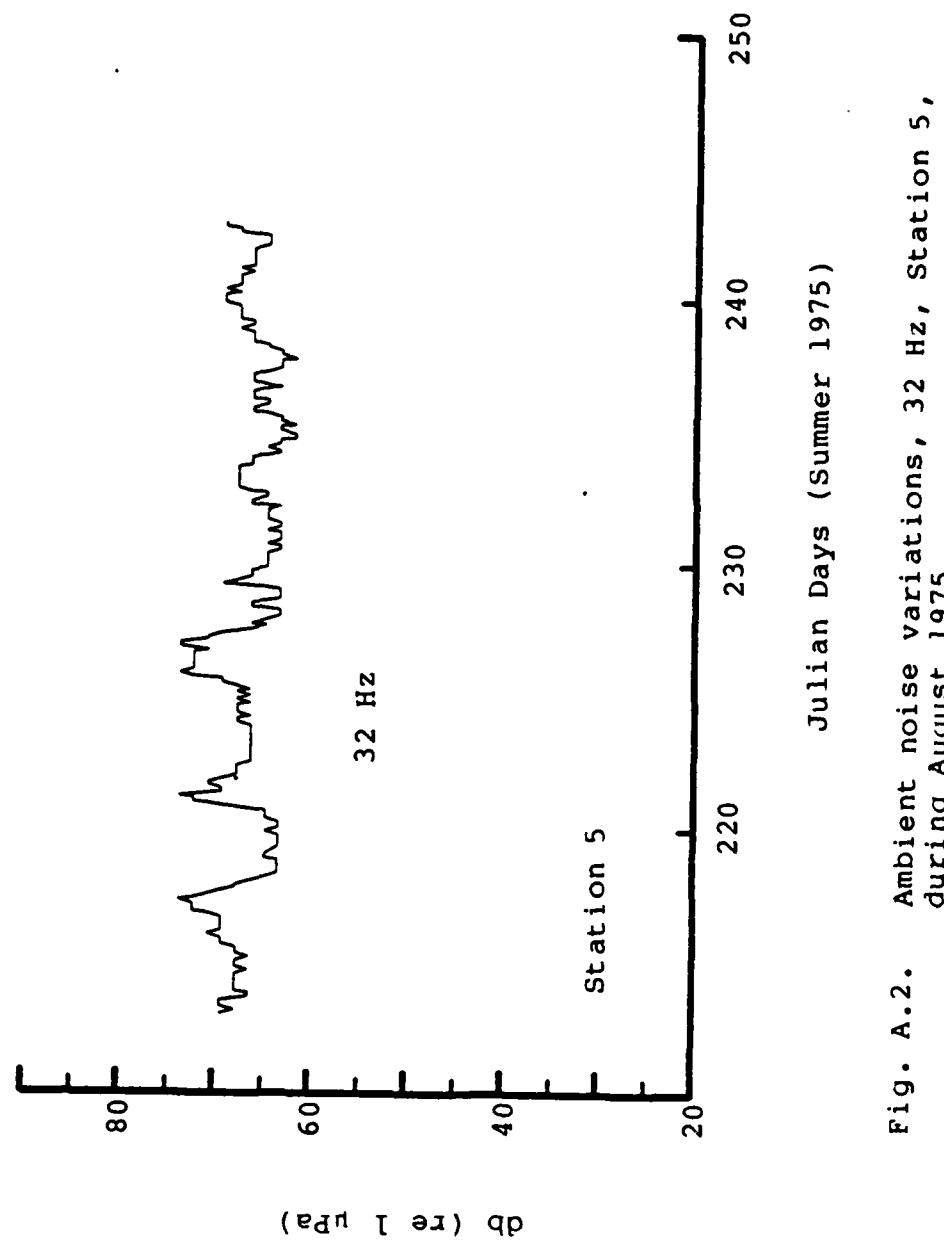
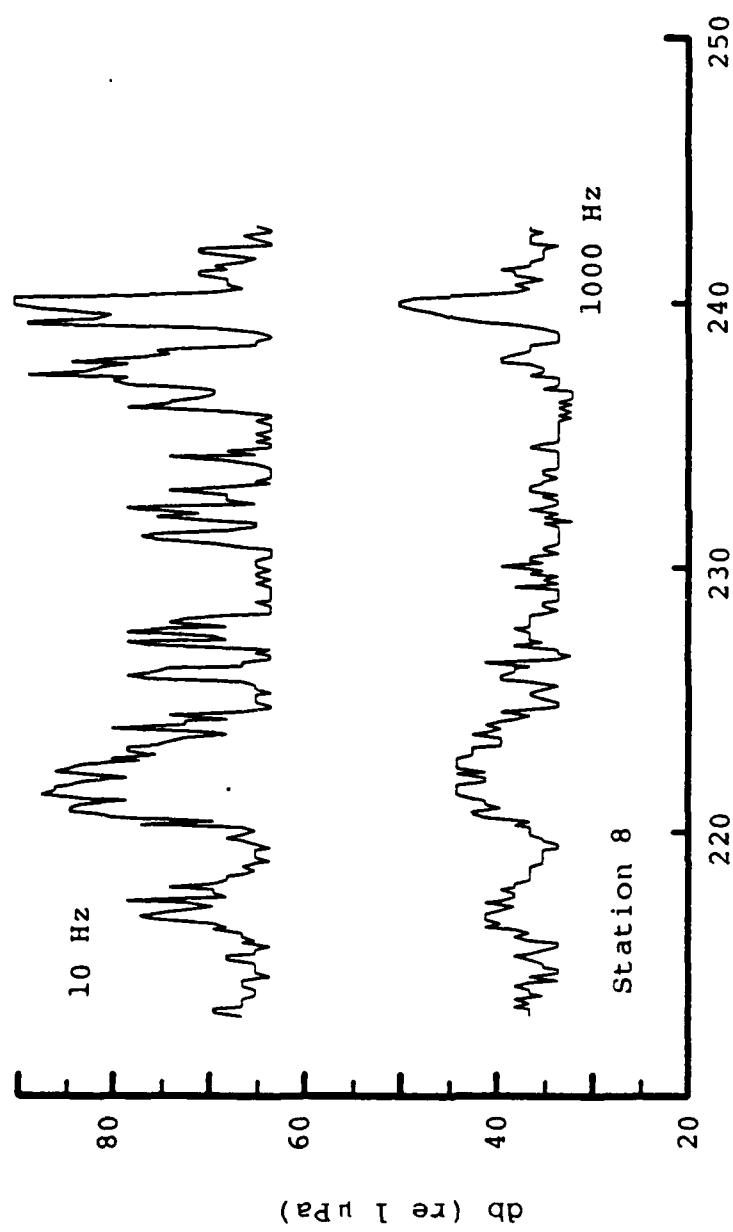


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Julian Days (Summer 1975)

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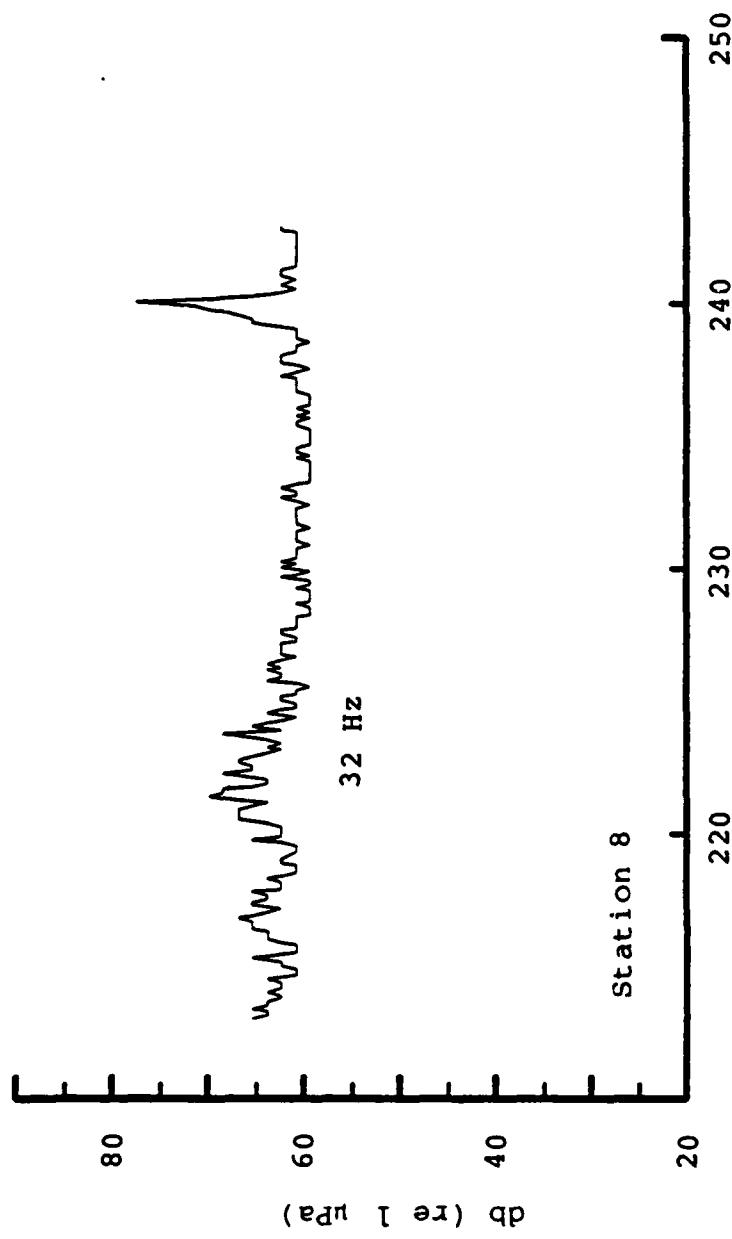


Fig. A.4. Ambient noise variations, 32 Hz, Station 8,  
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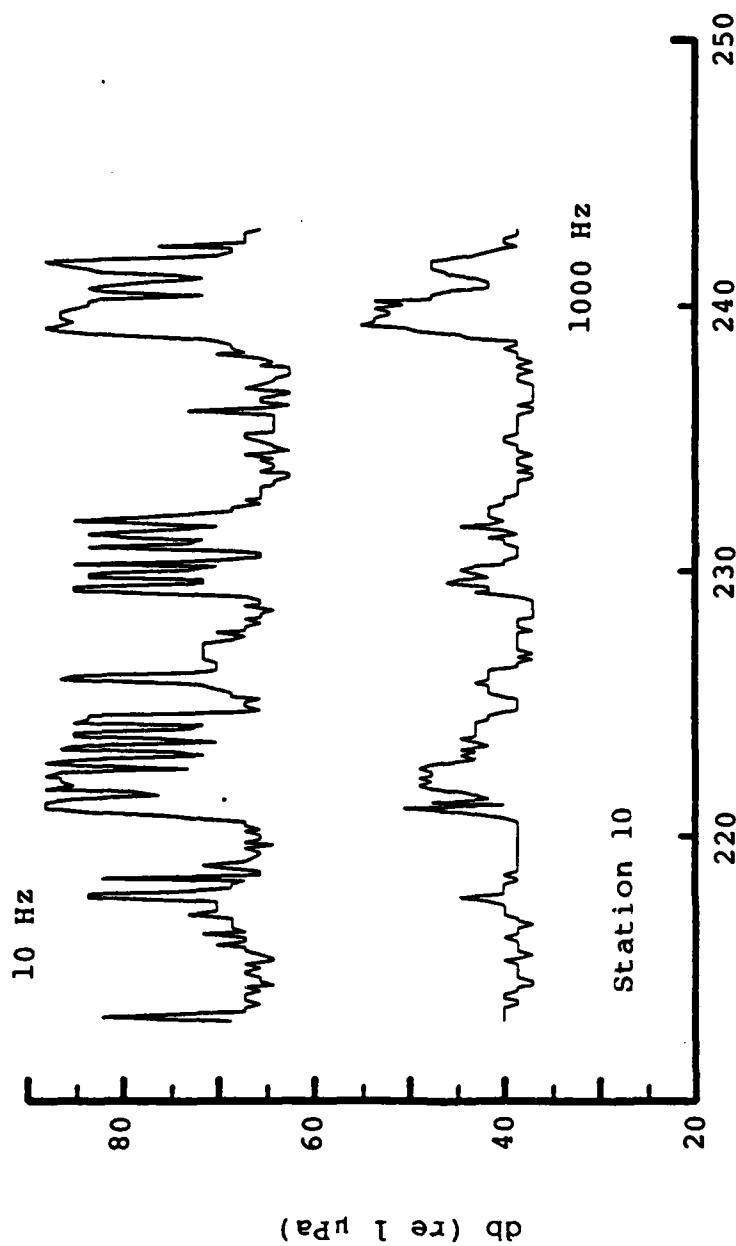


Fig. A.5. Ambient noise variations, 10 Hz and 1000 Hz,  
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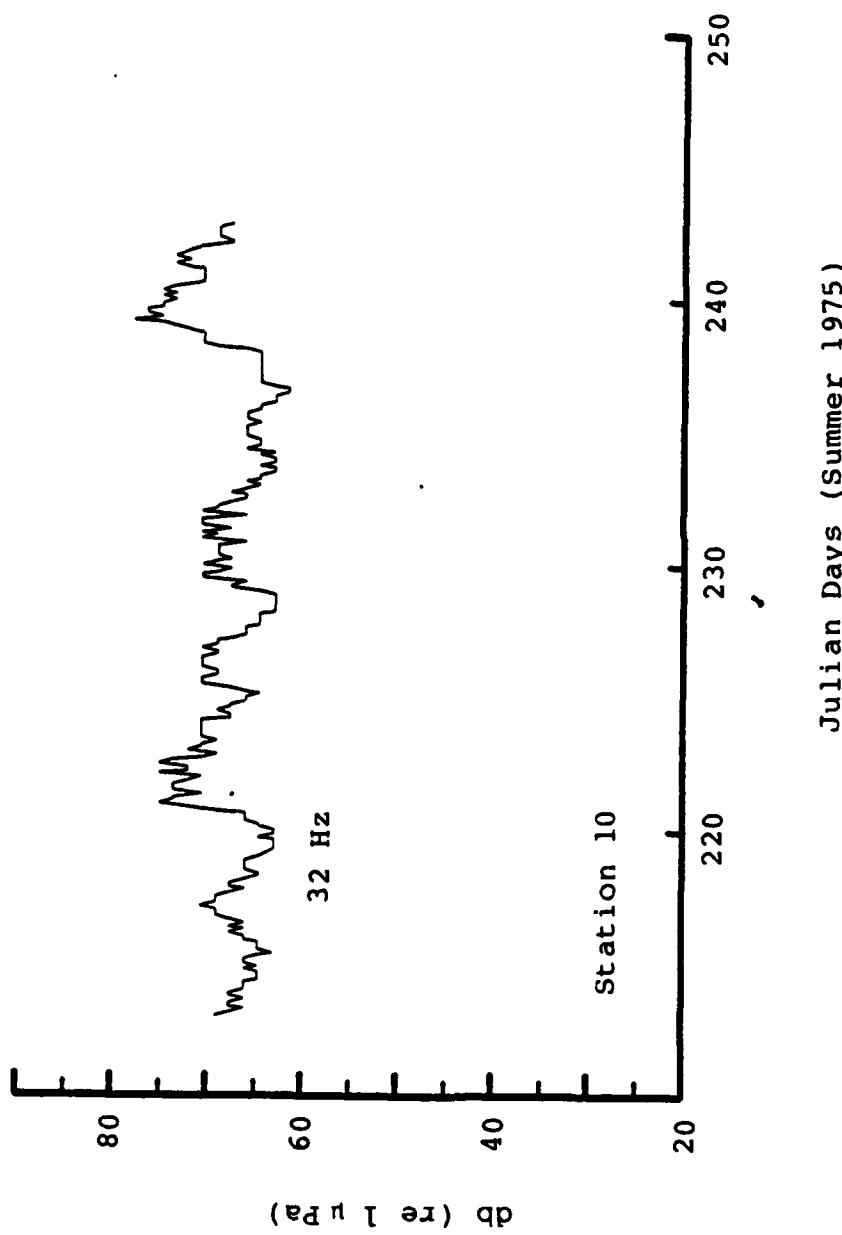


Fig. A.6. Ambient noise variations, 32 Hz, Station 10,  
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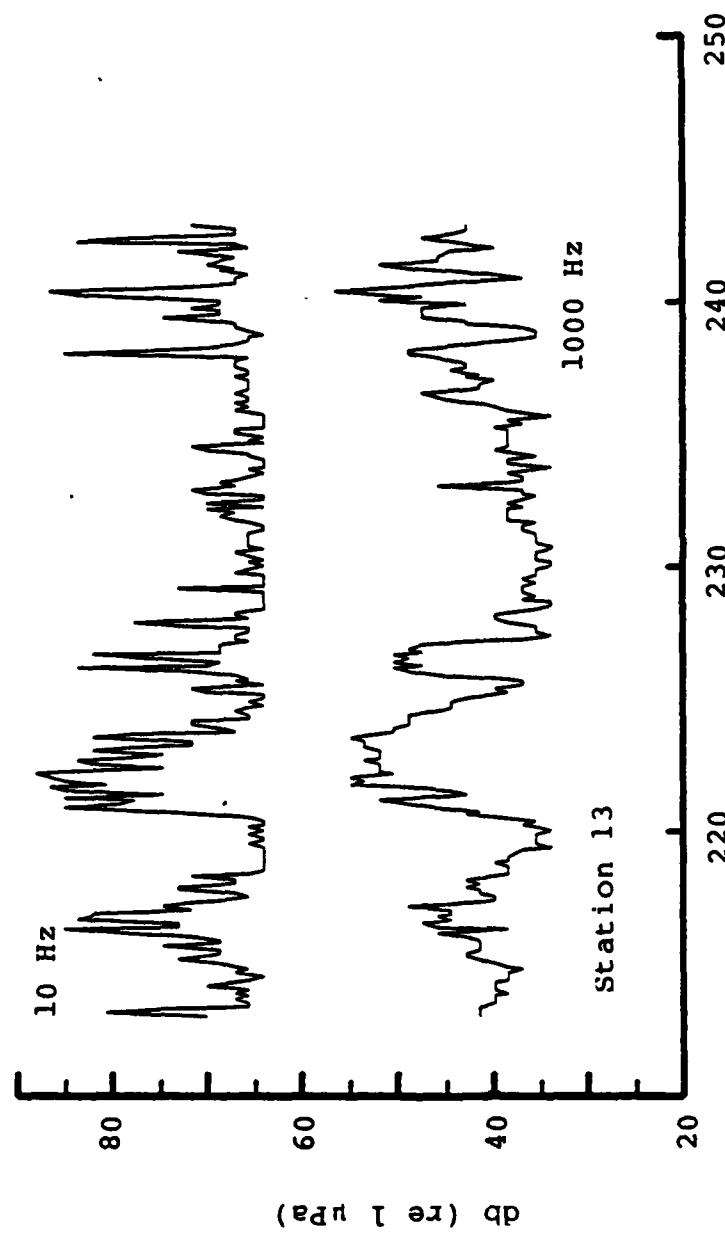


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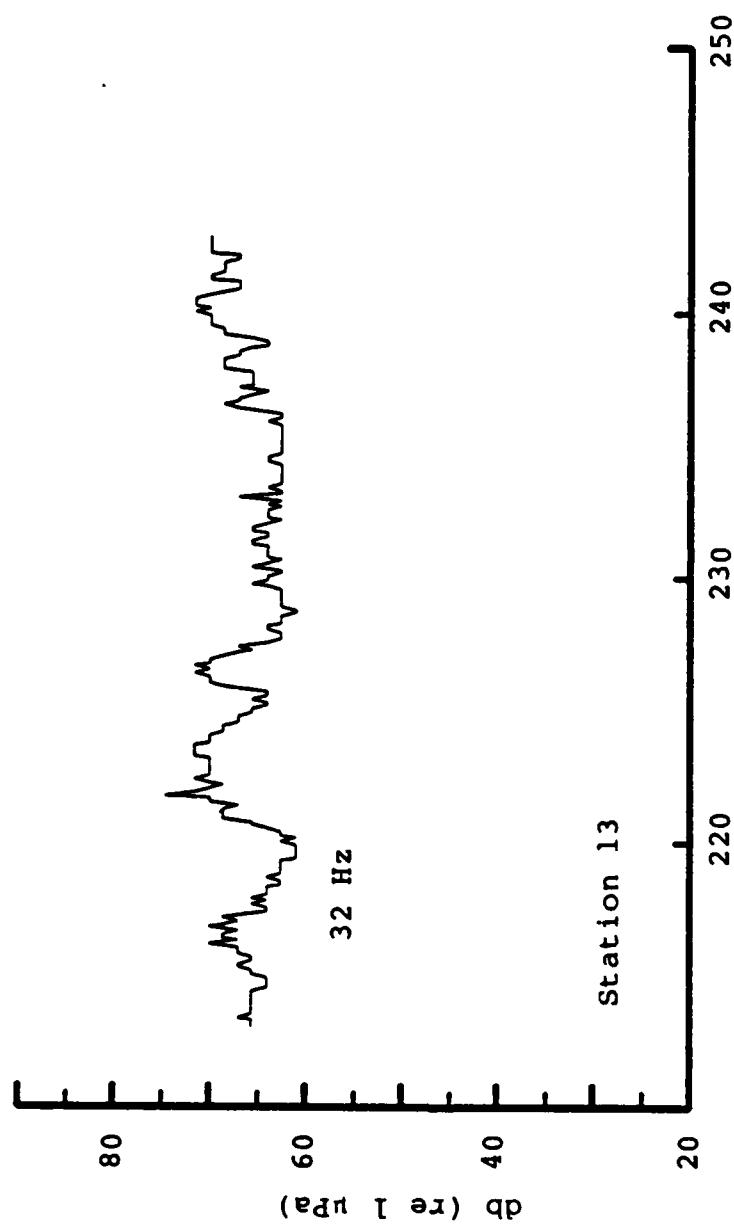


Fig. A.8. Ambient noise variations, 32 Hz, Station 13,  
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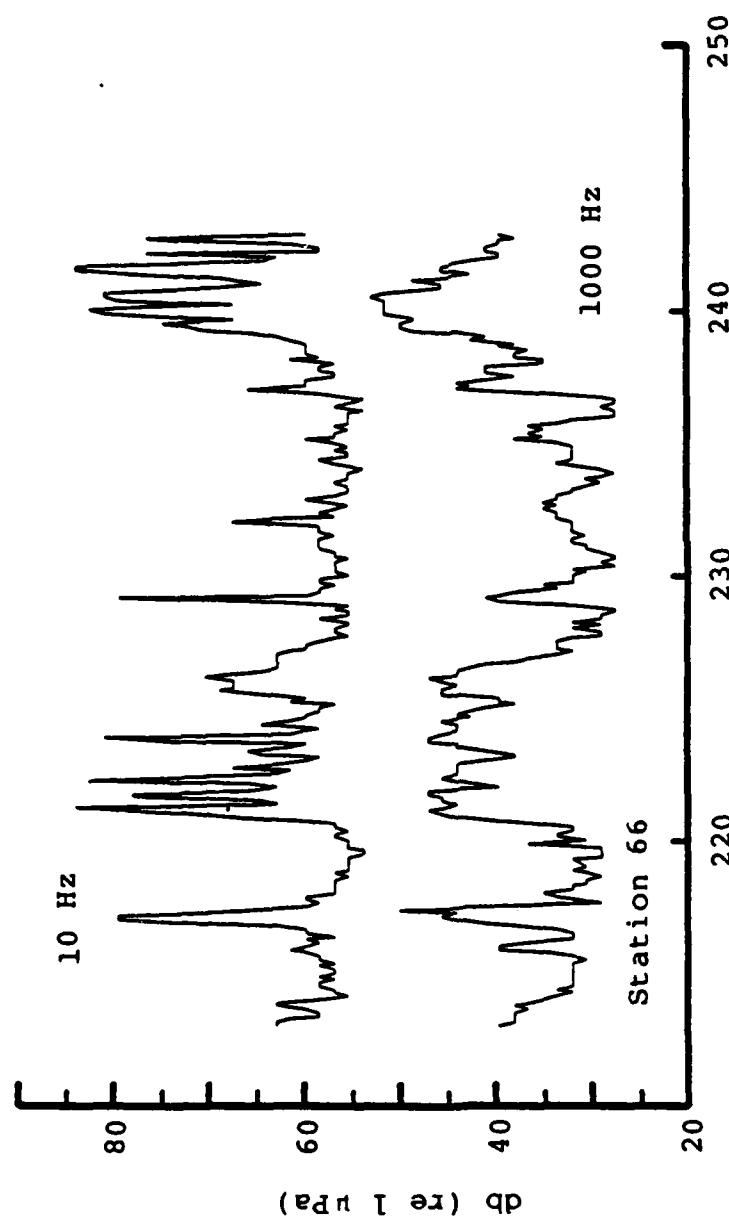


Fig. A.9. Ambient noise variations, 10 Hz and 1000 Hz,  
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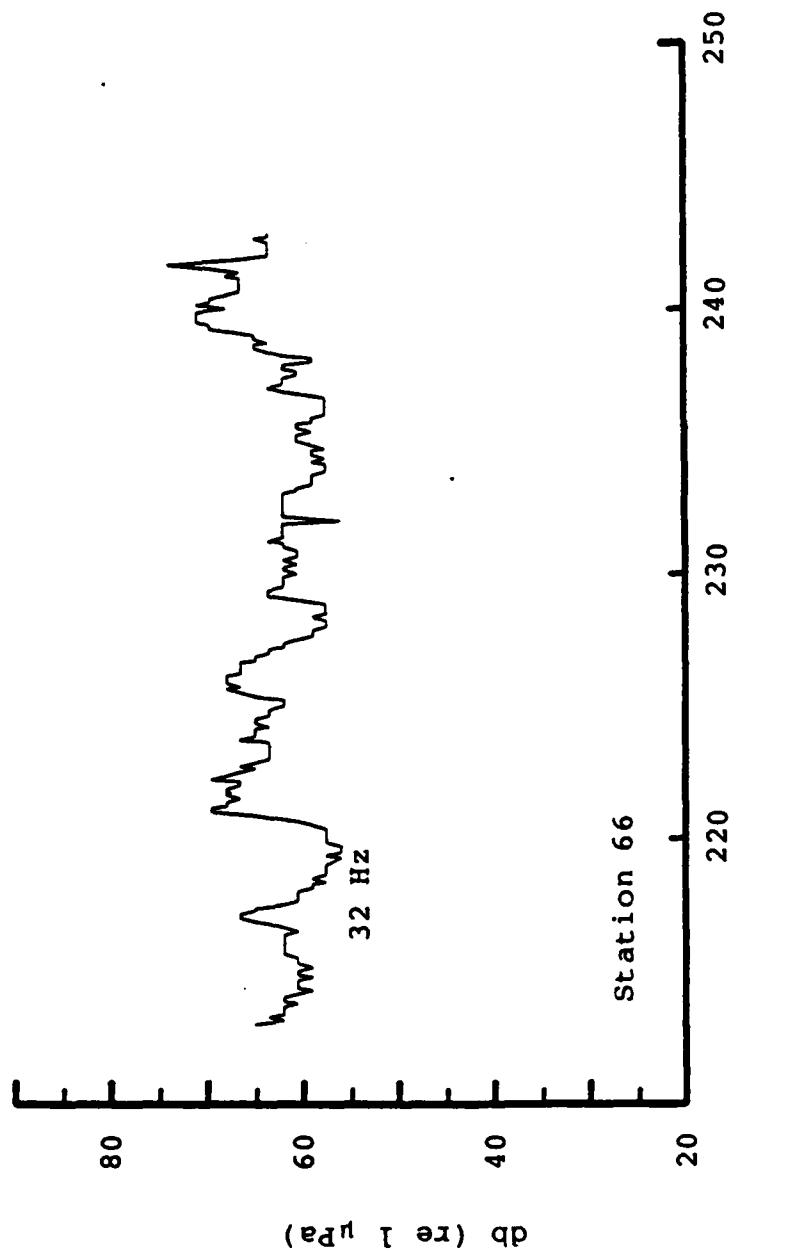


Fig. A.10. Ambient noise variations, 32 Hz, Station 66,  
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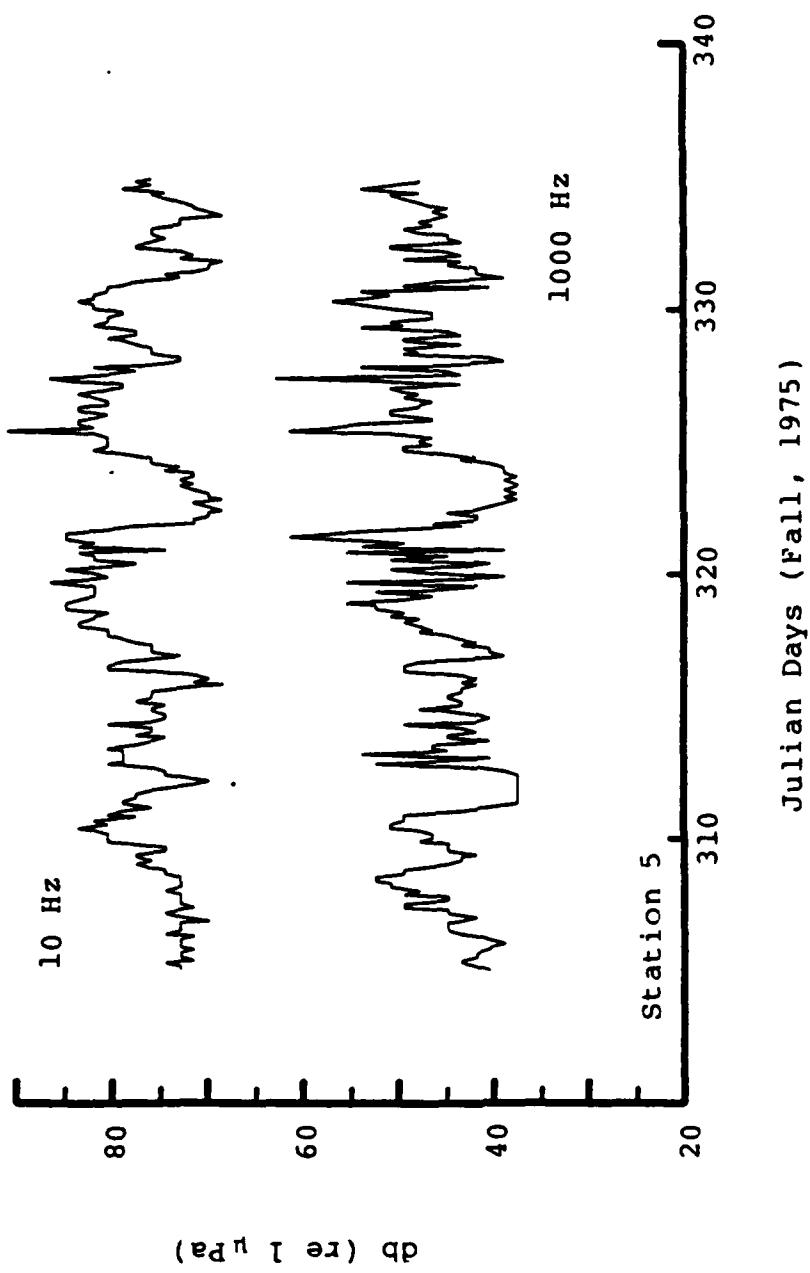


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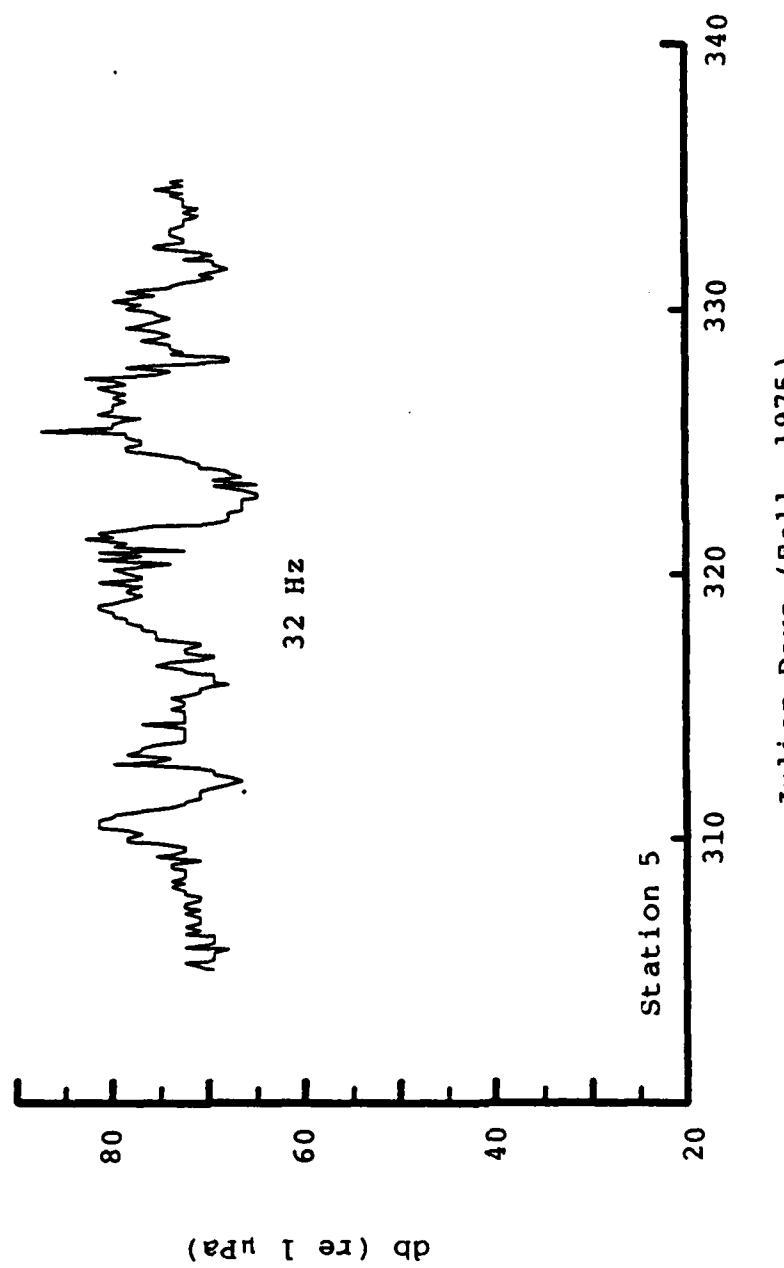


Fig. A.12. Ambient noise variations, 32 Hz, Station 5,  
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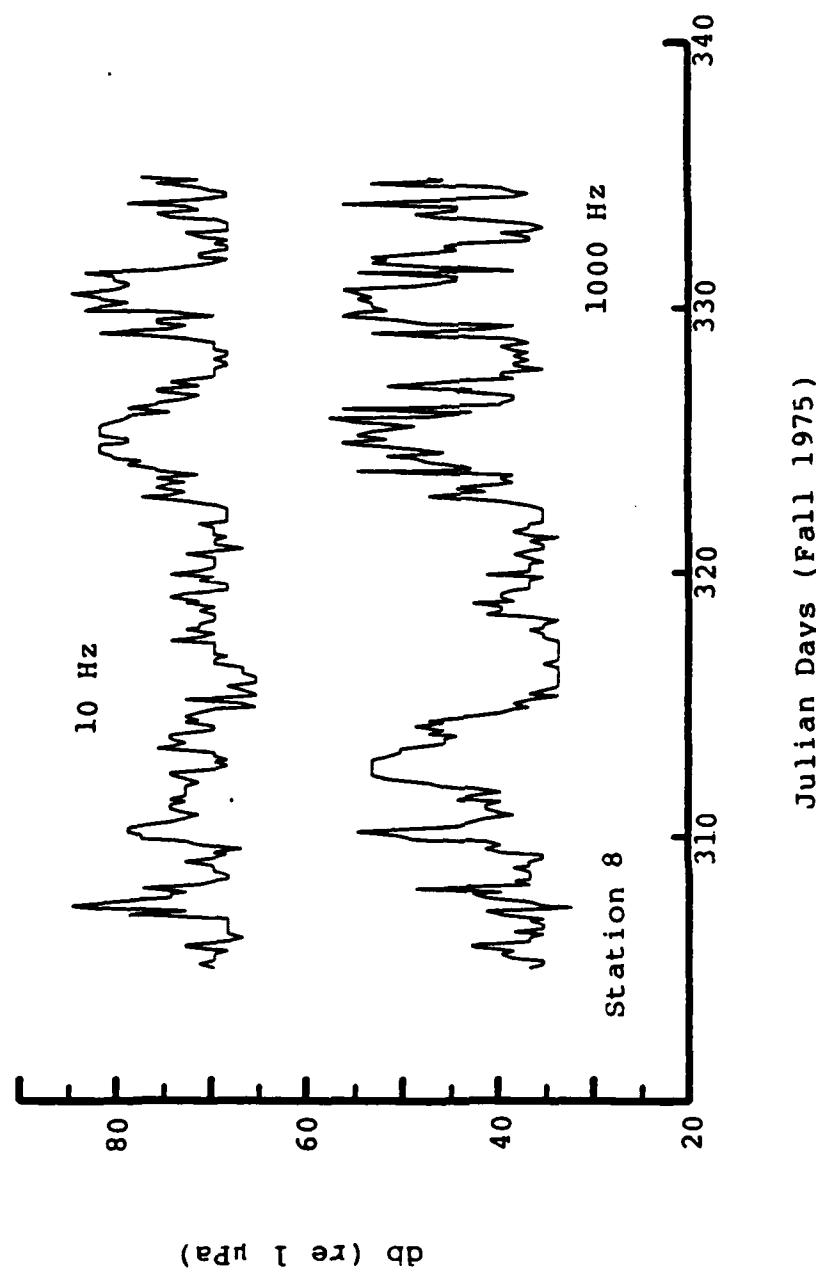


Fig. A.13. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 8, during November 1975

Julian Days (Fall 1975)

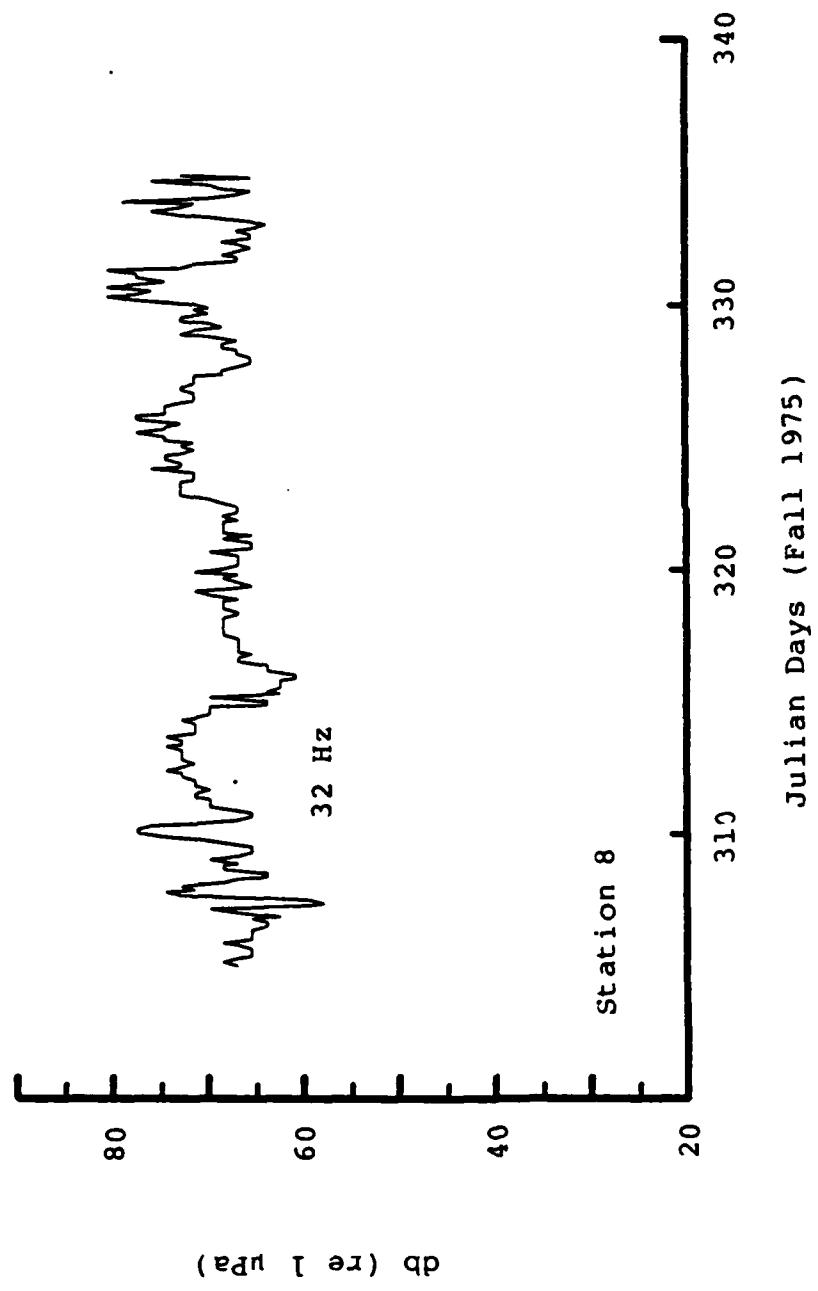


Fig. A.14. Ambient noise variations, 32 Hz, Station 8,  
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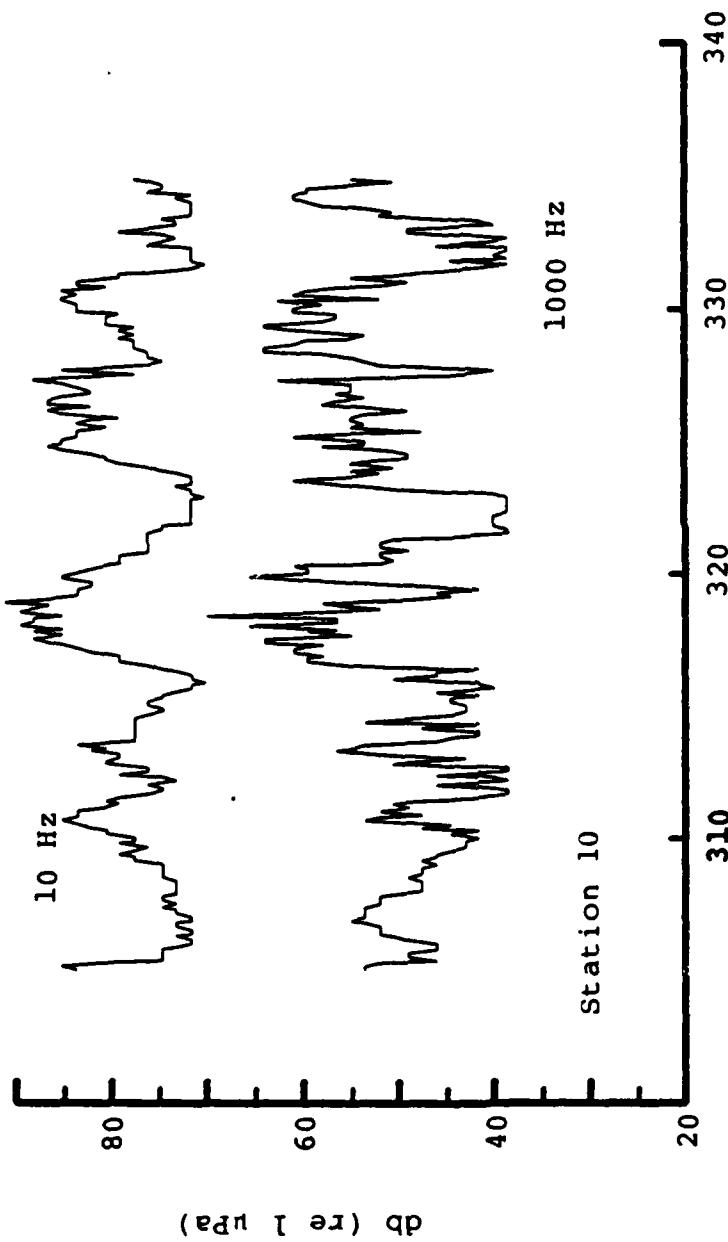


Fig. A.15. Ambient noise variations, 10 Hz and 1000 Hz,  
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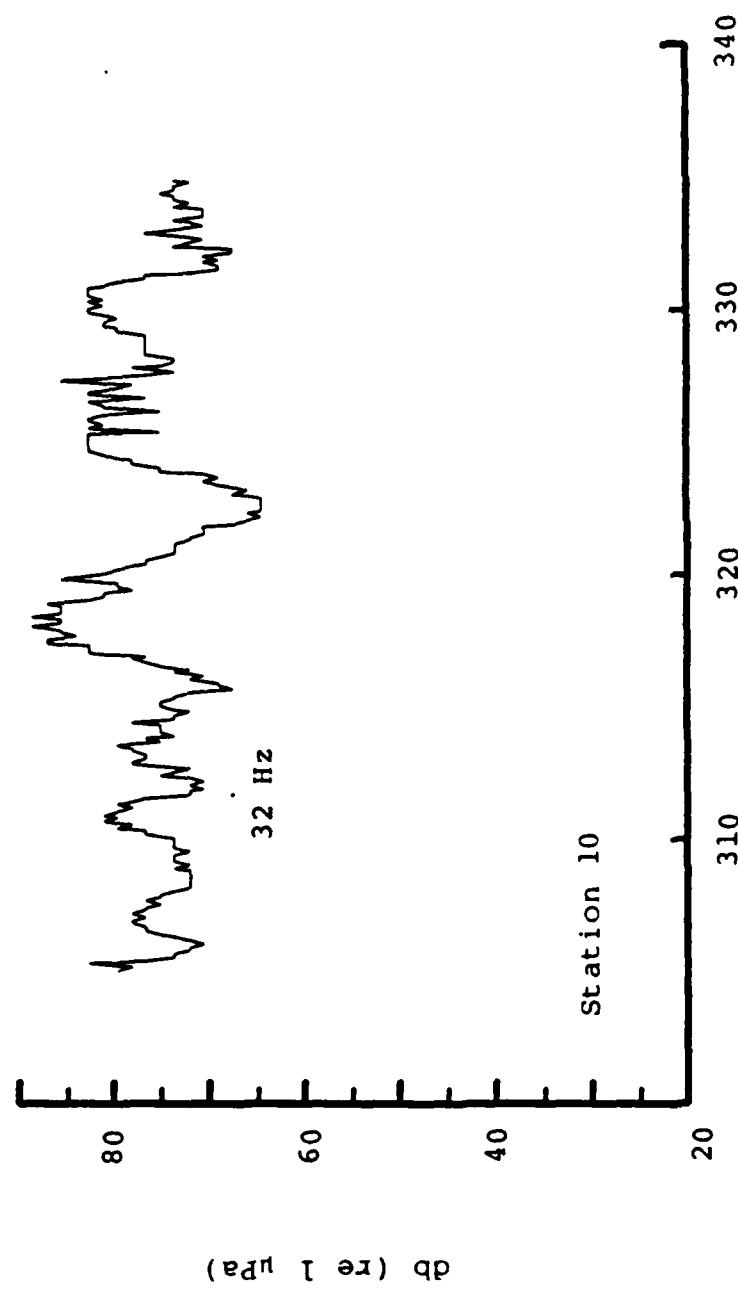


Fig. A.16. Ambient noise variations, 32 Hz, Station 10, during November 1975

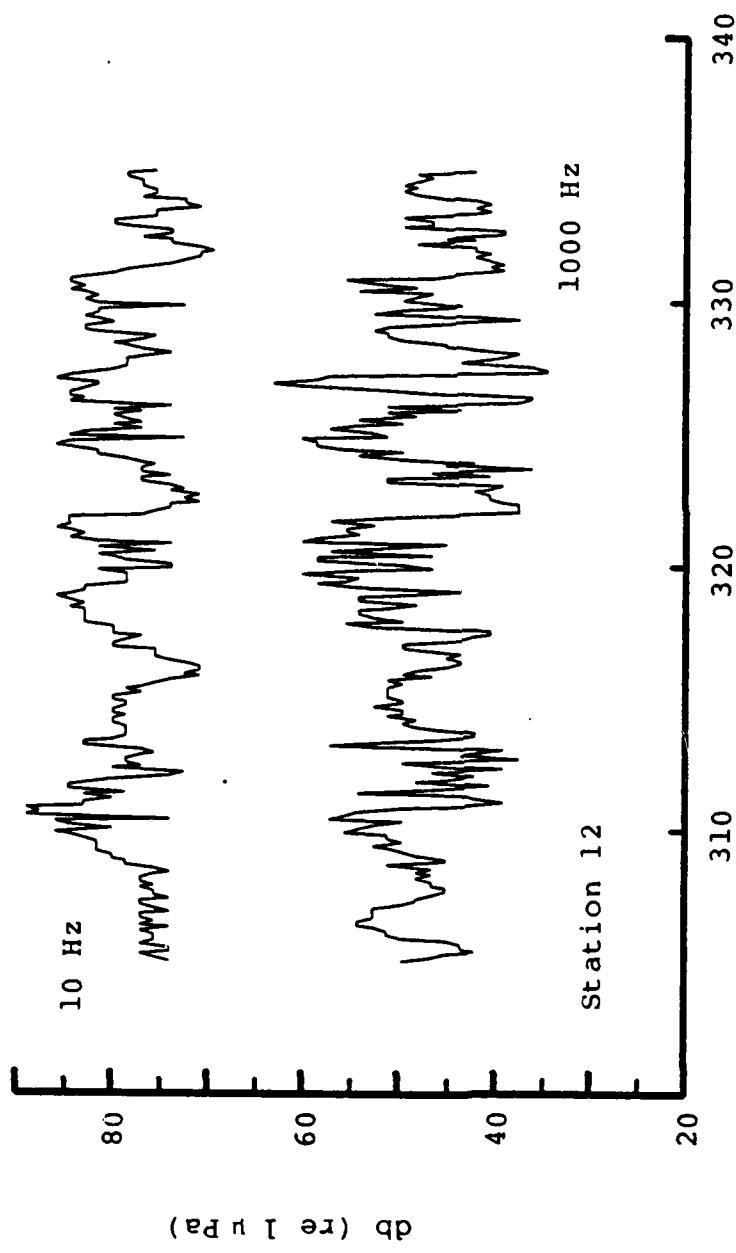


Fig. A.17. Ambient noise variations, 10 Hz and 1000 Hz, Station 12, during November 1975,

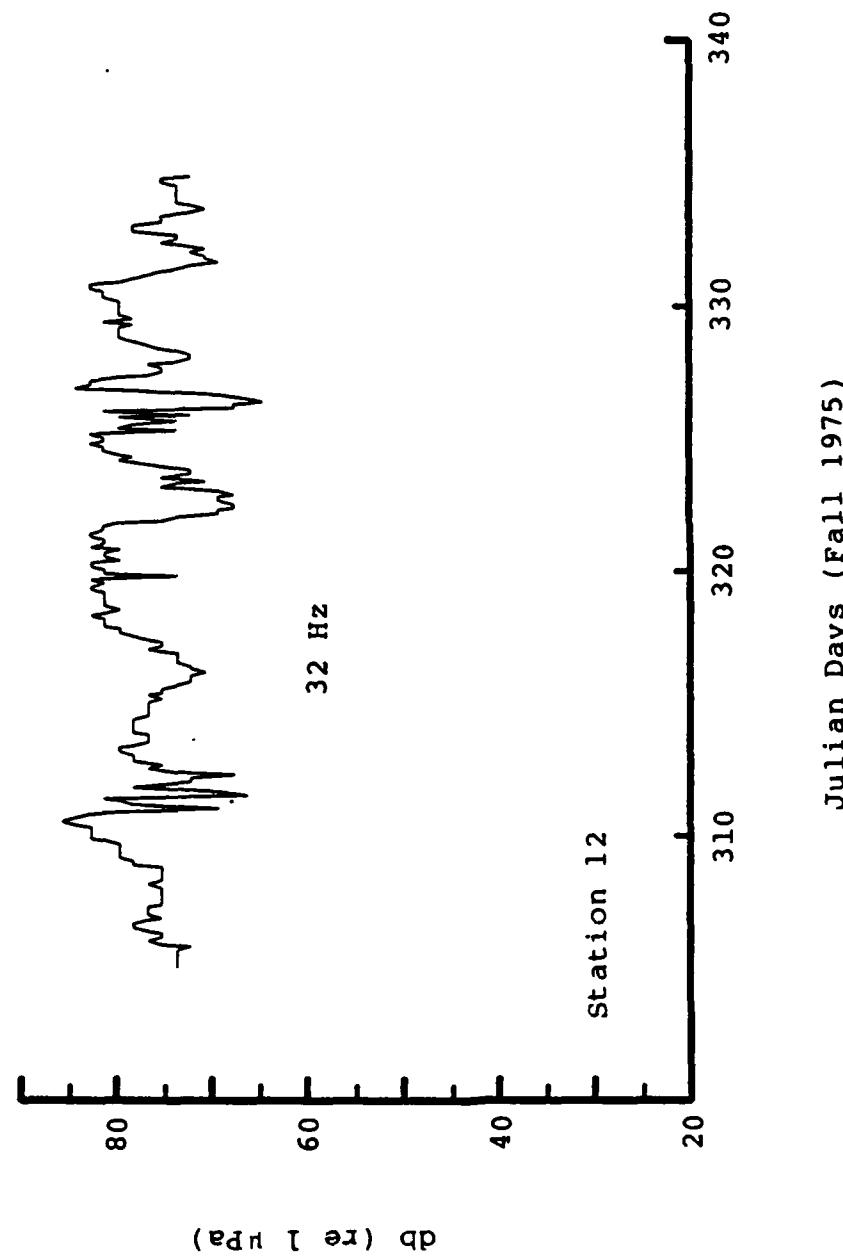


Fig. A.18. Ambient noise variations, 32 Hz, Station 12,  
during November 1975

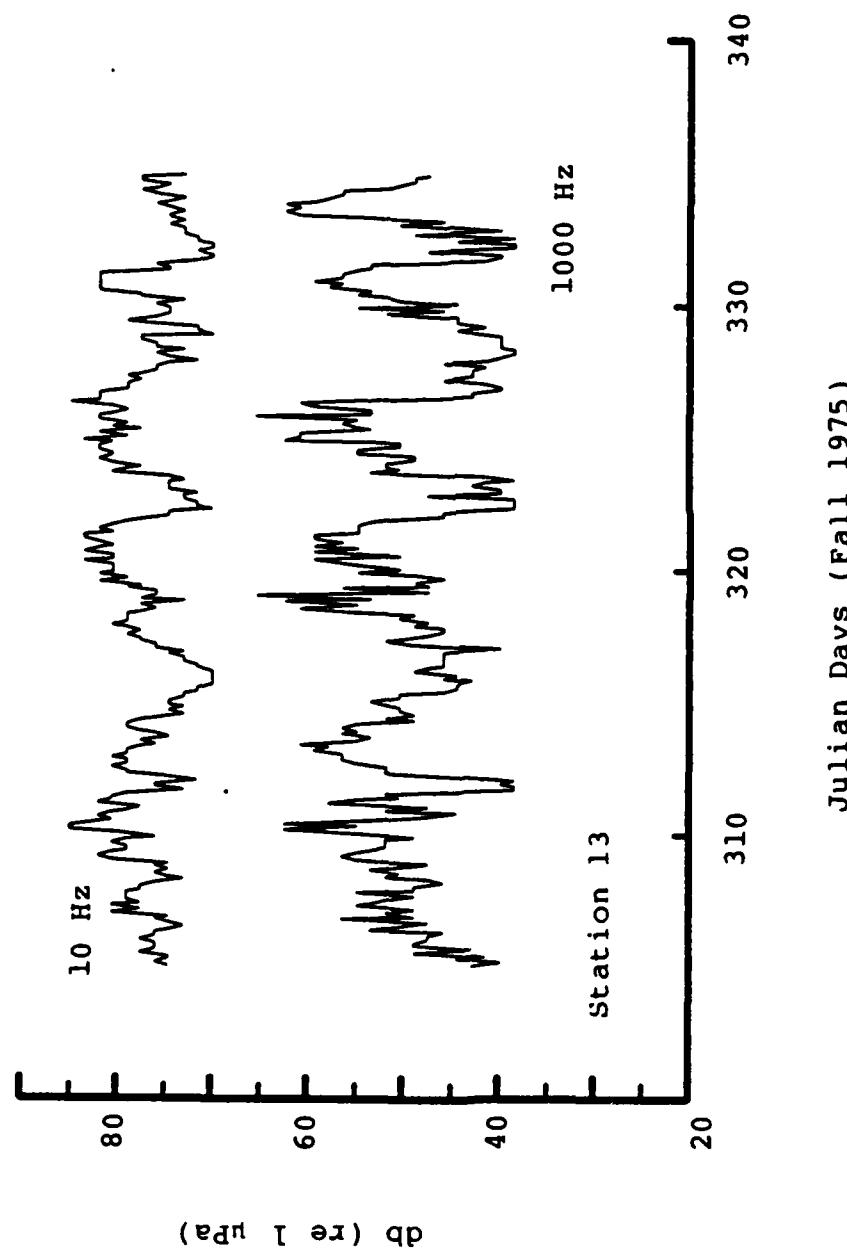


Fig. A.19. Ambient noise variations, 10 Hz and 1000 Hz, Station 13, during 1975,

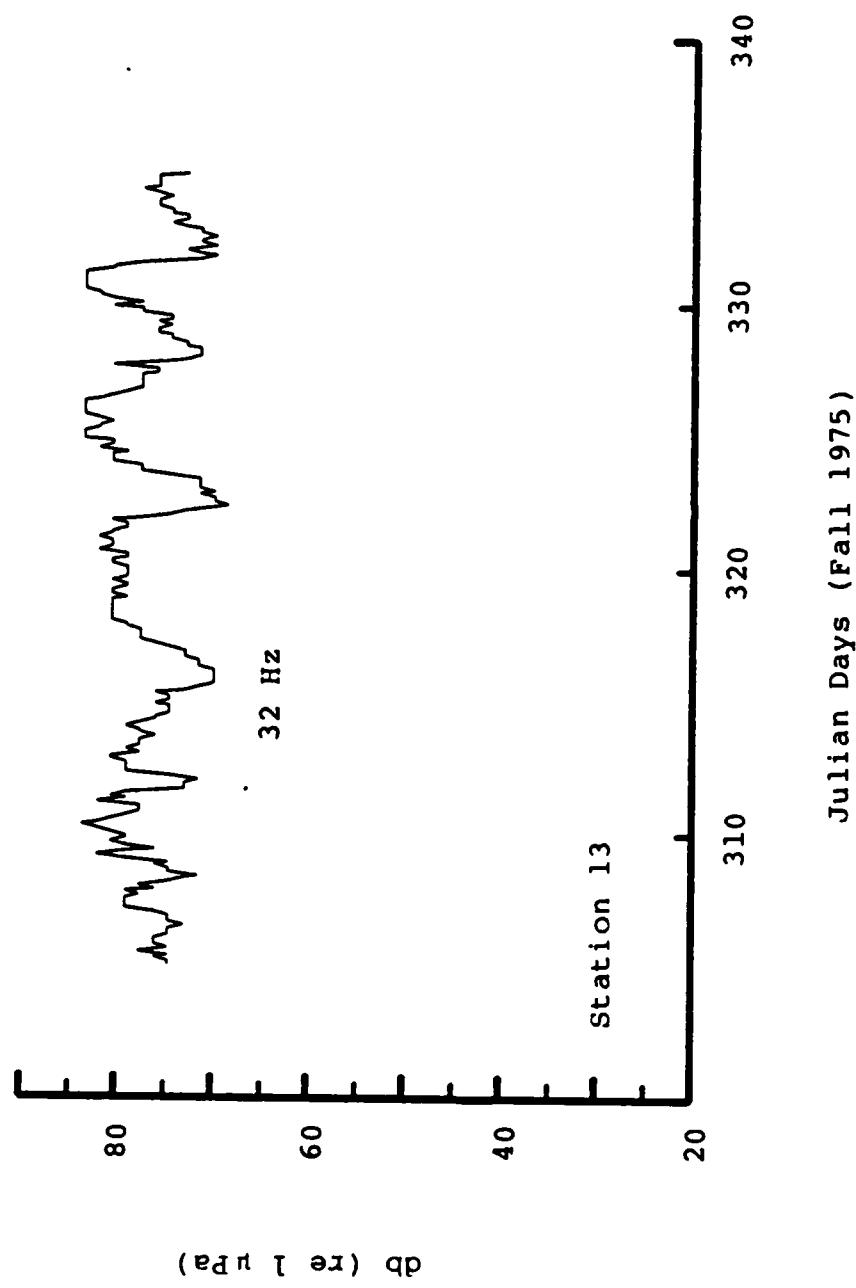


Fig. A.20. Ambient noise variations, 32 Hz, Station 13,  
during November 1975

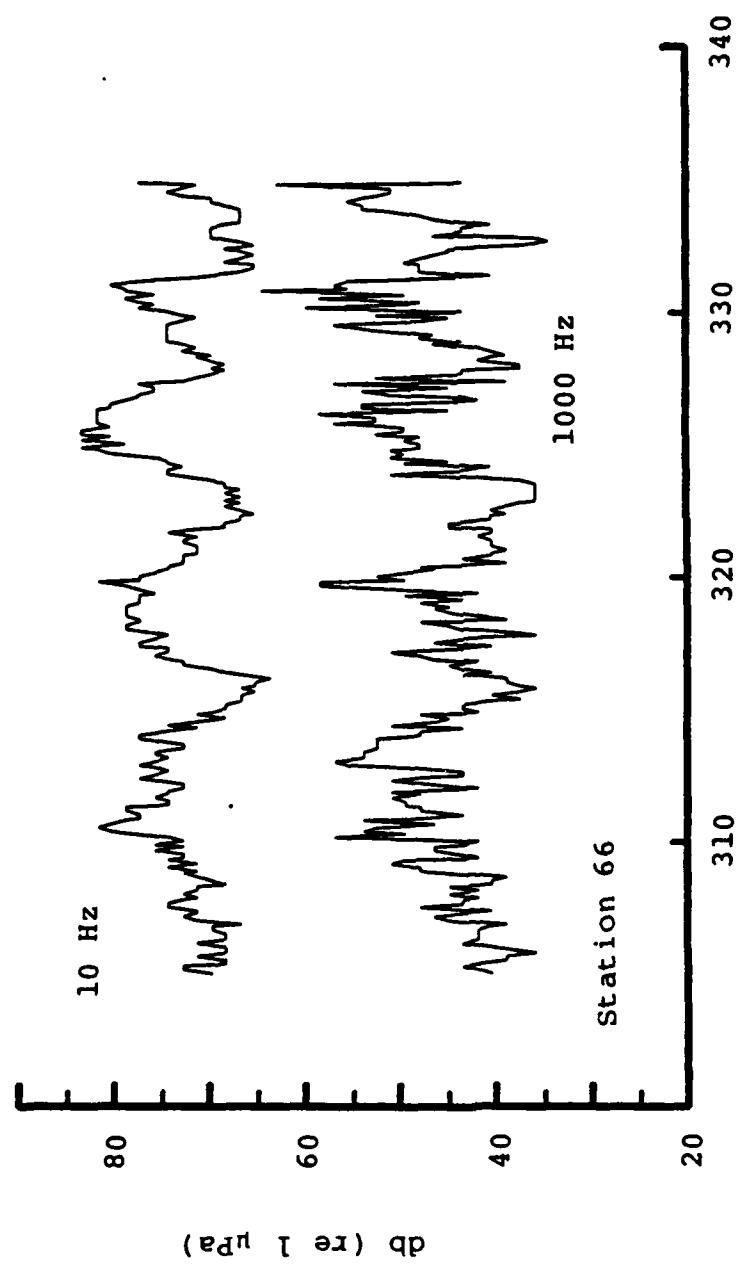


Fig. A.21. Ambient noise variations, 10 Hz and 1000 Hz, Station 66, during November 1975

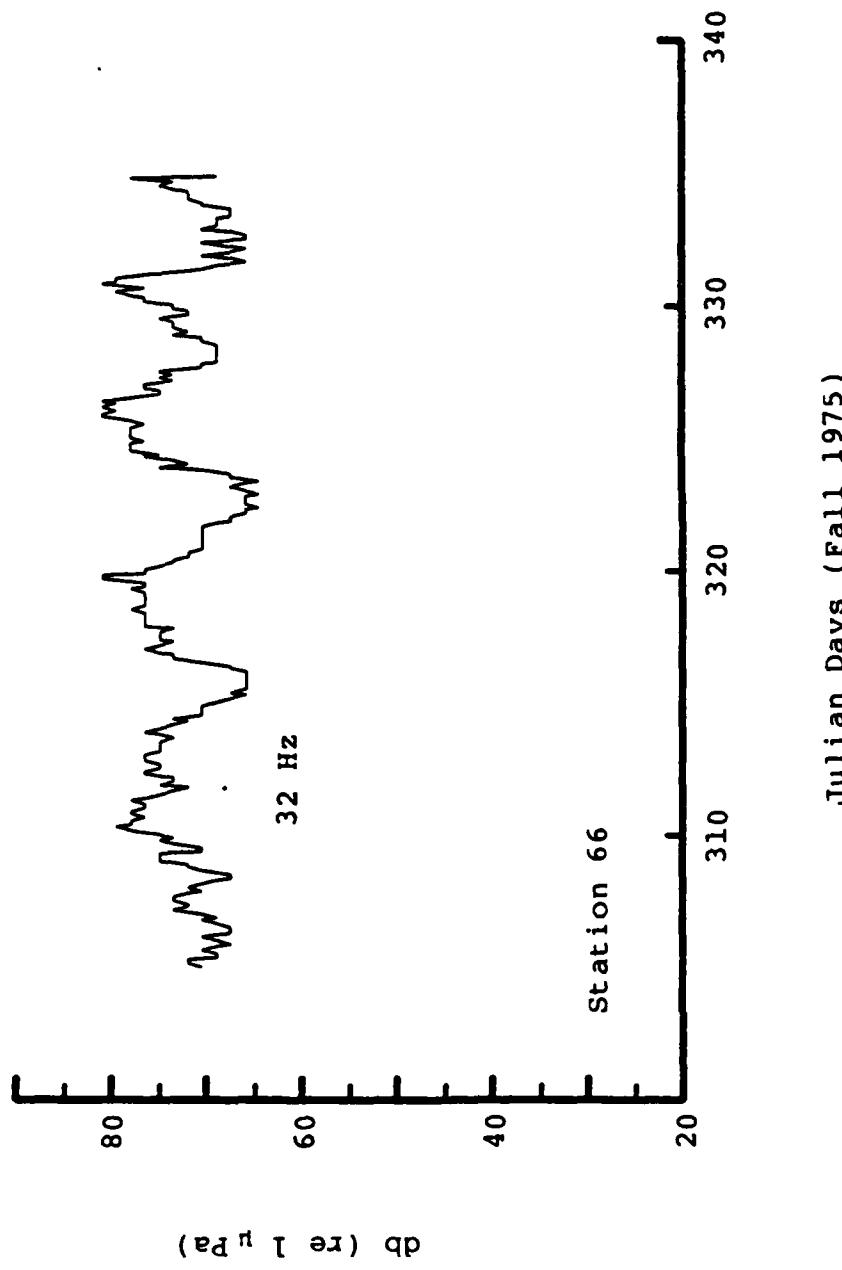


Fig. A.22. Ambient noise variations, 32 Hz, Station 66,  
during November 1975

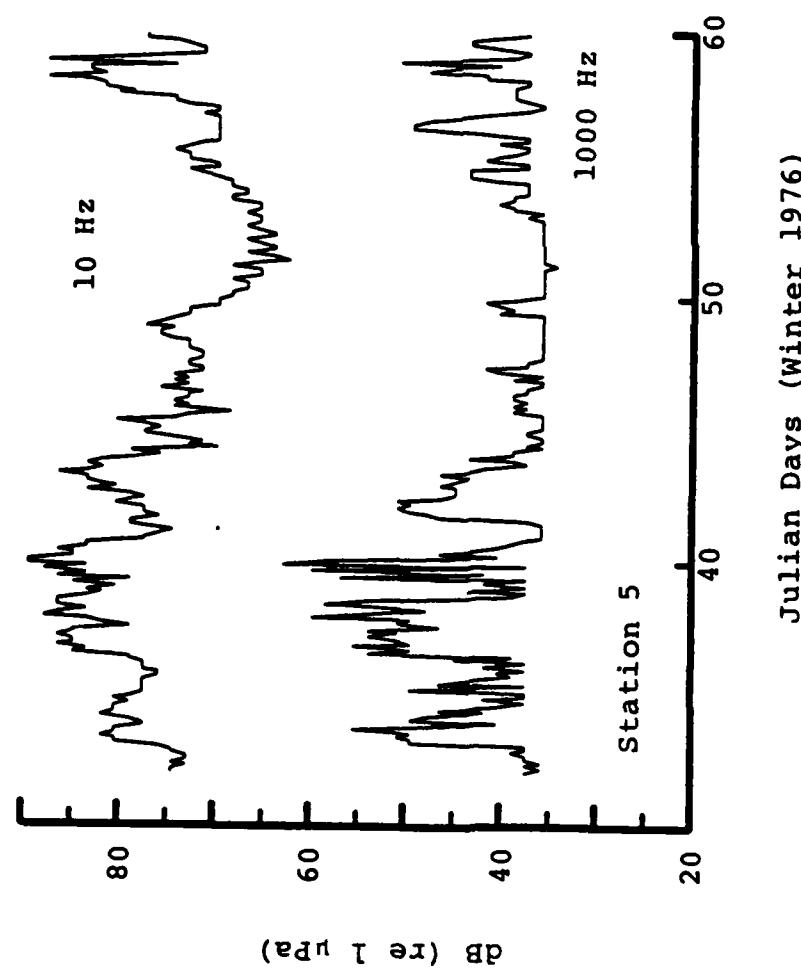


Fig. A.23. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 5, during February 1976

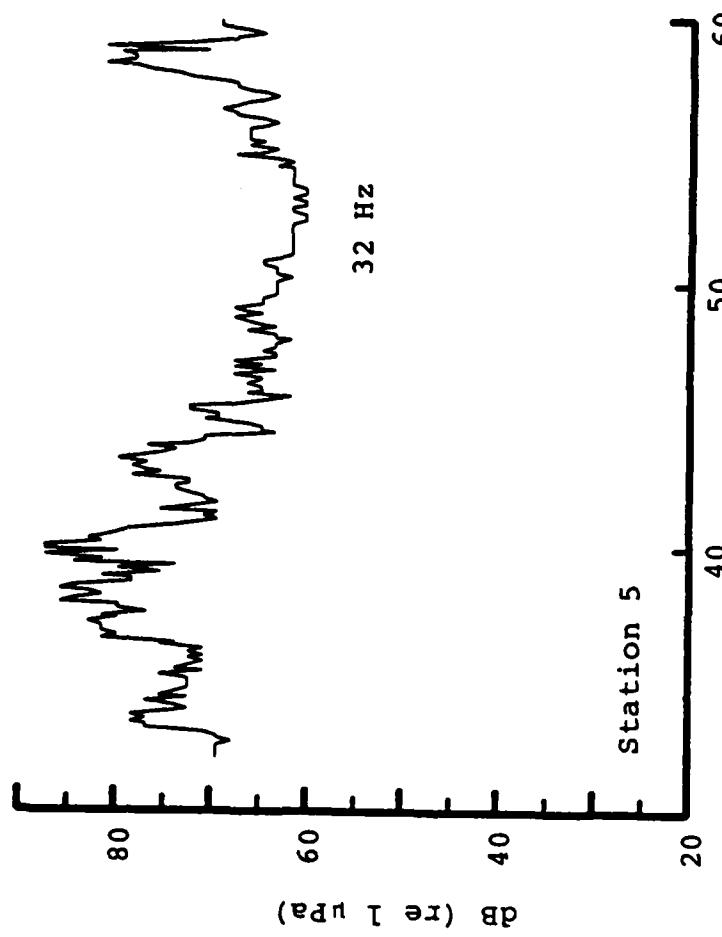


Fig. A.24. Ambient noise variations, 32 Hz, Station 5, during February 1976

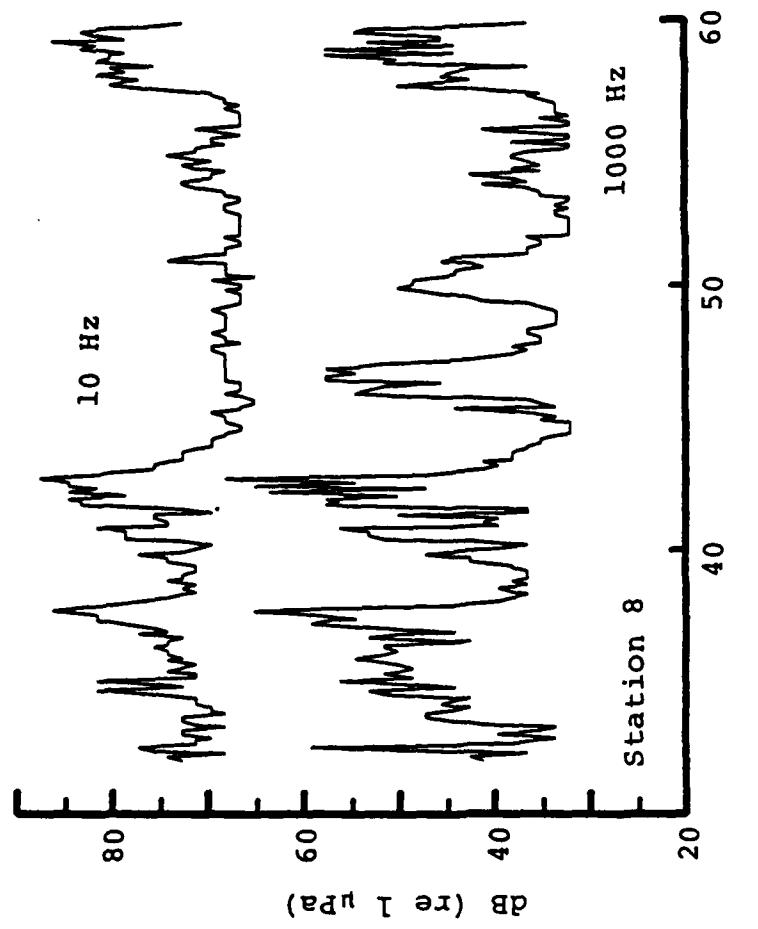


Fig. A.25. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 8, during February 1976

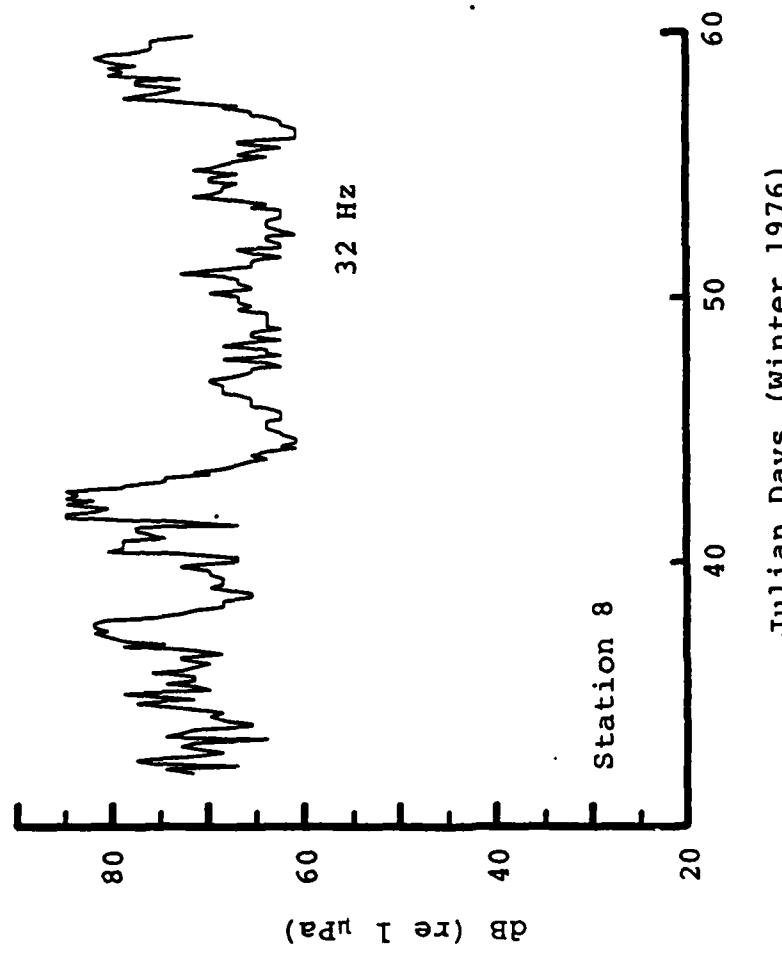


Fig. A.26. Ambient noise variations, 32 Hz, Station 8,  
during February 1976

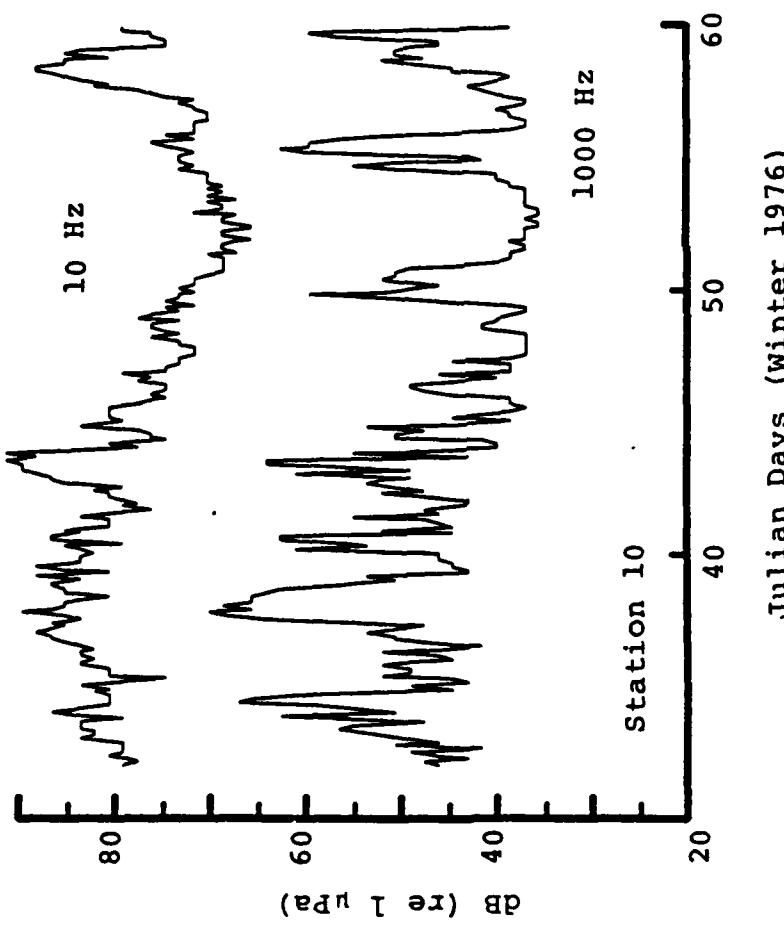


Fig. A.27. Ambient noise variations, 10 Hz and 1000 Hz,  
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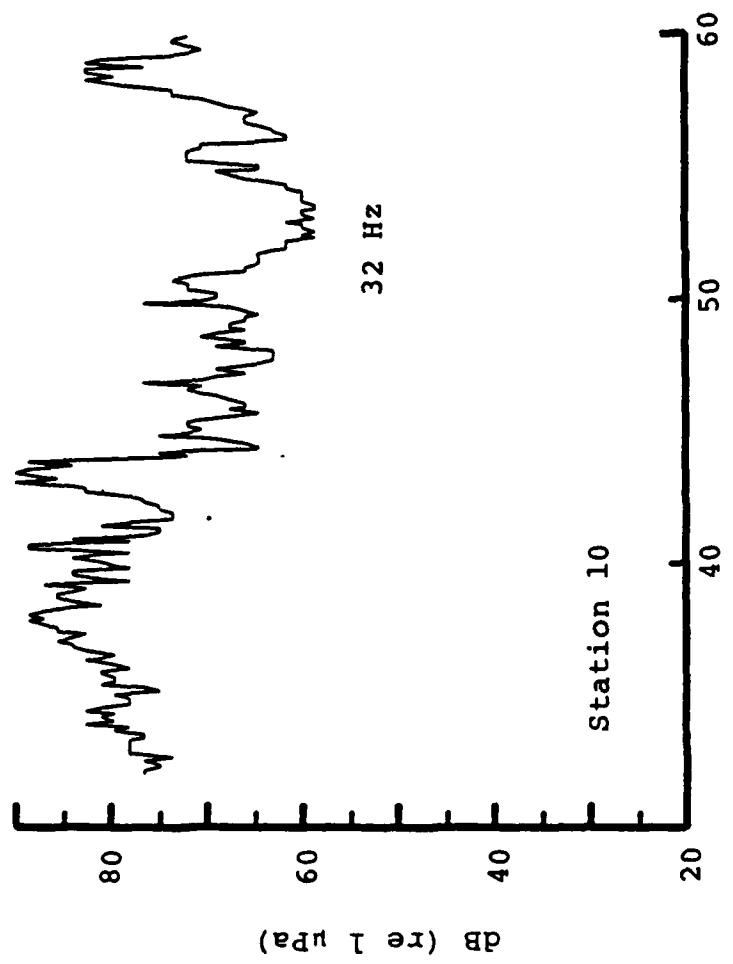


Fig. A.28. Ambient noise variations, 32 Hz, Station 10,  
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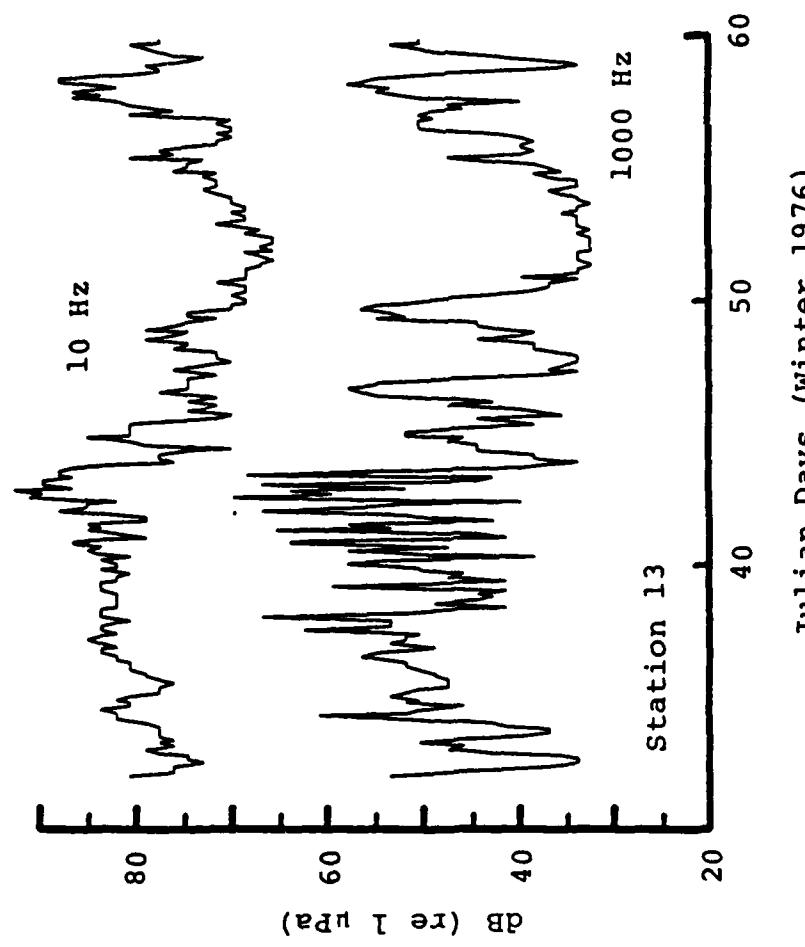


Fig. A.29. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 13, during February 1976

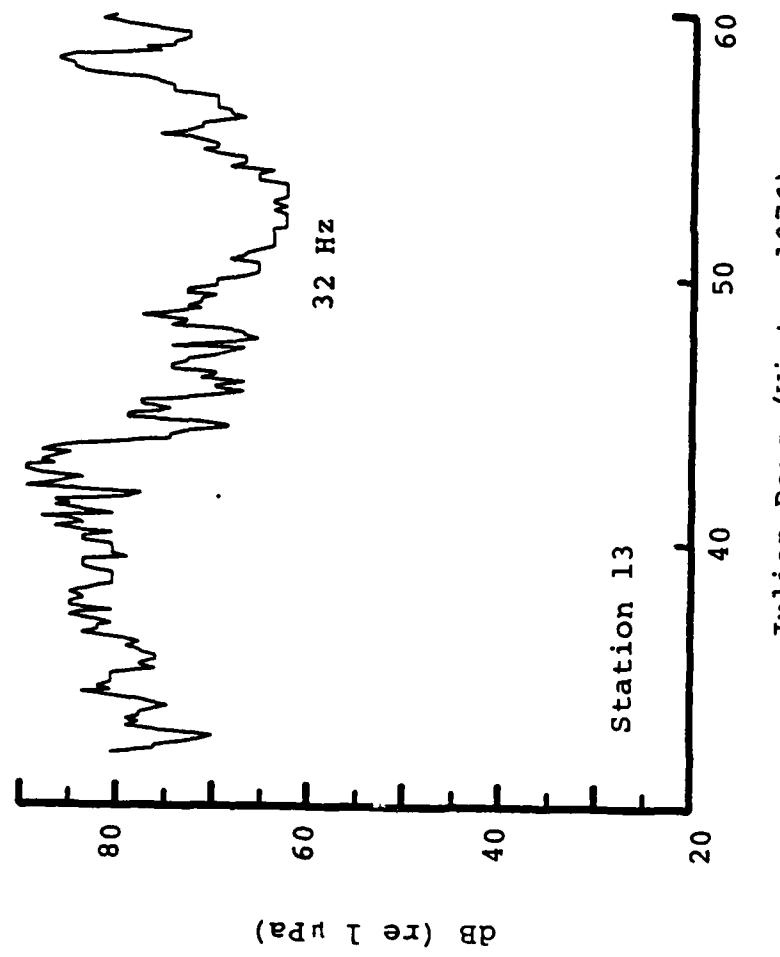


Fig. A.30. Ambient noise variations, 32 Hz, Station 13,  
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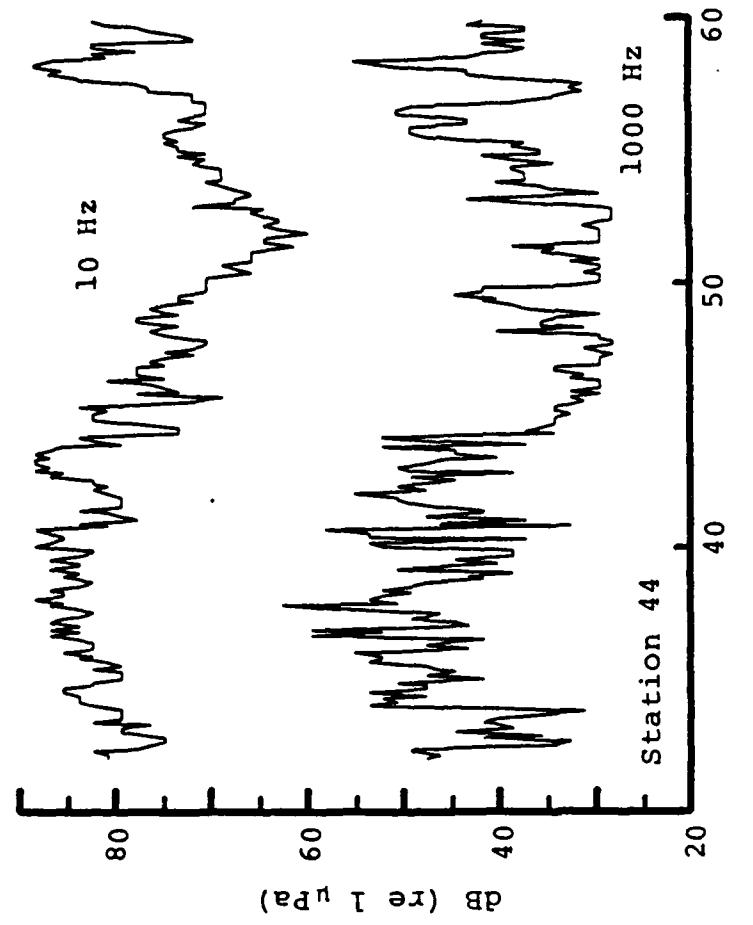


Fig. A.31. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 44, during February 1976

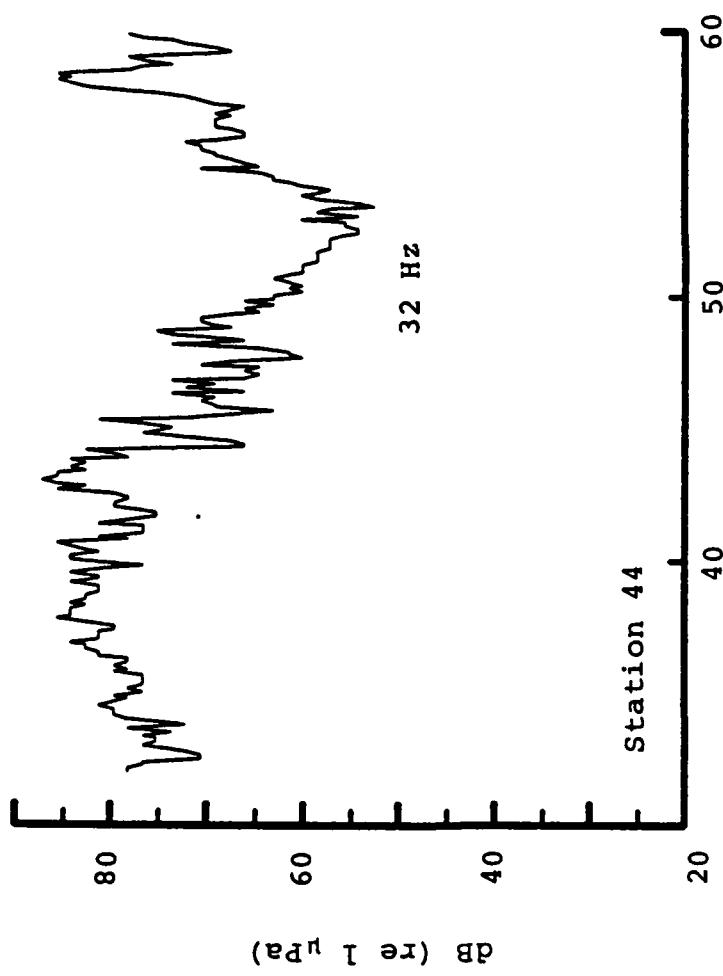


Fig. A.32. Ambient noise variations, 32 Hz, Station 44, during February 1976

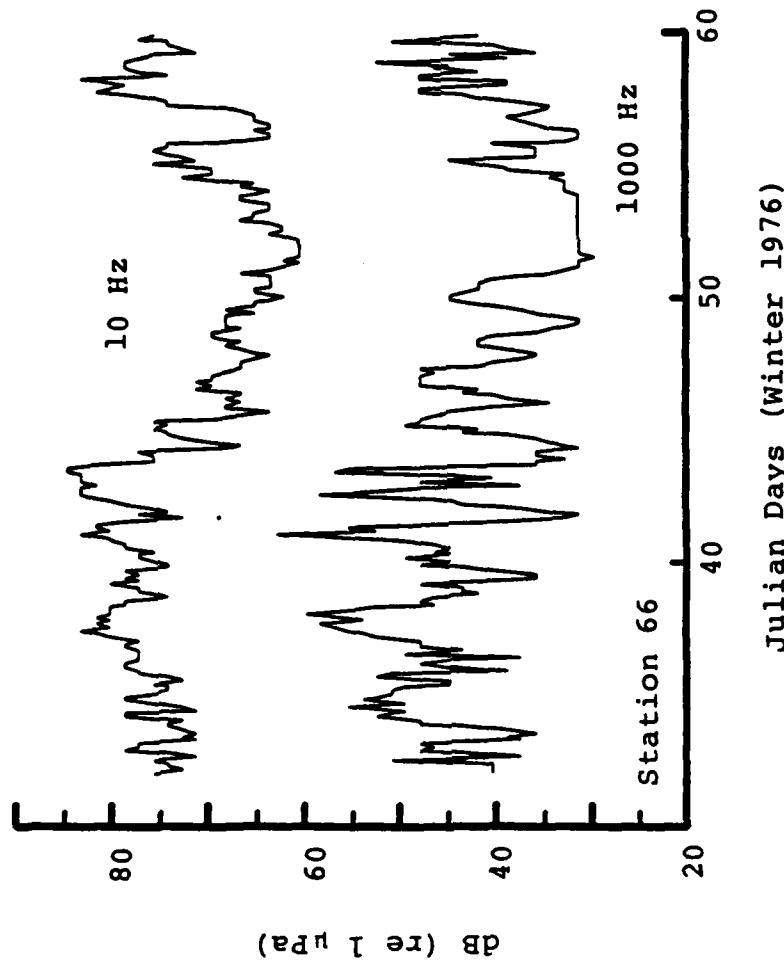


Fig. A.33. Ambient noise variations, 10 Hz and 1000 Hz, Station 66, during February 1976

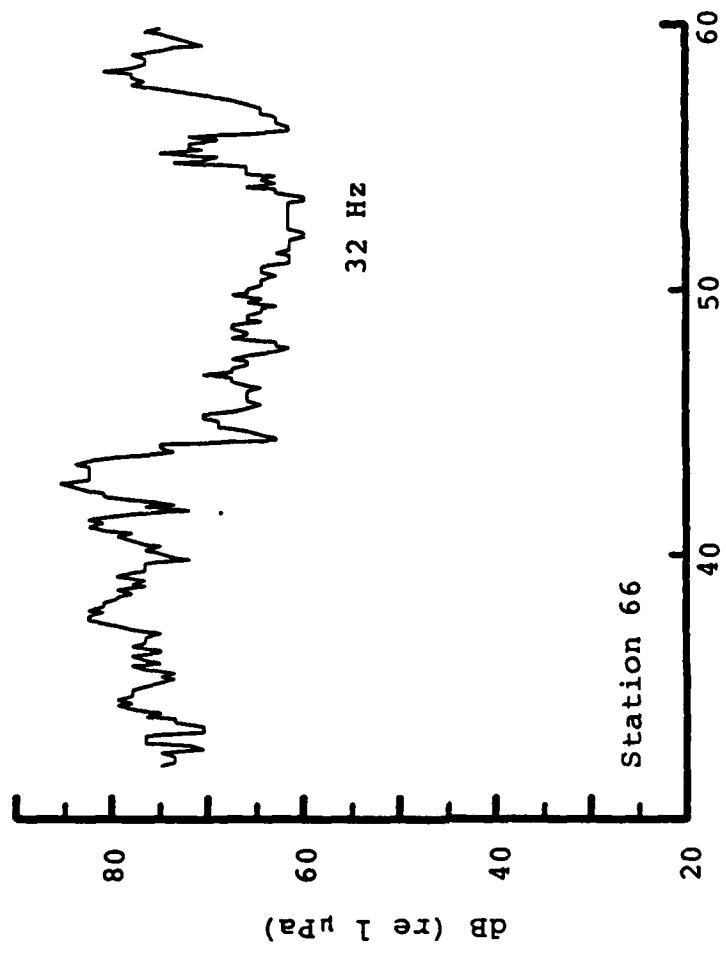


Fig. A.34. Ambient noise variations, 32 Hz, Station 66,  
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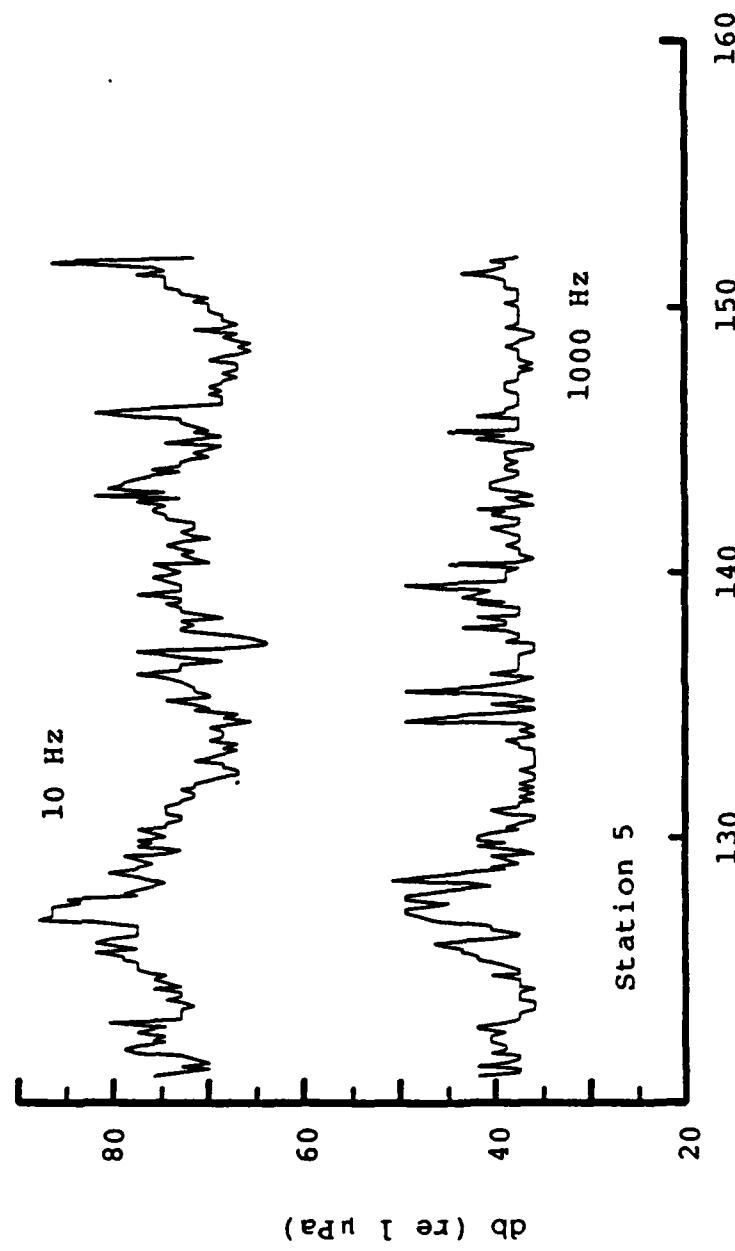


Fig. A.35. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 5, during May 1976

Julian Days (Spring 1976)

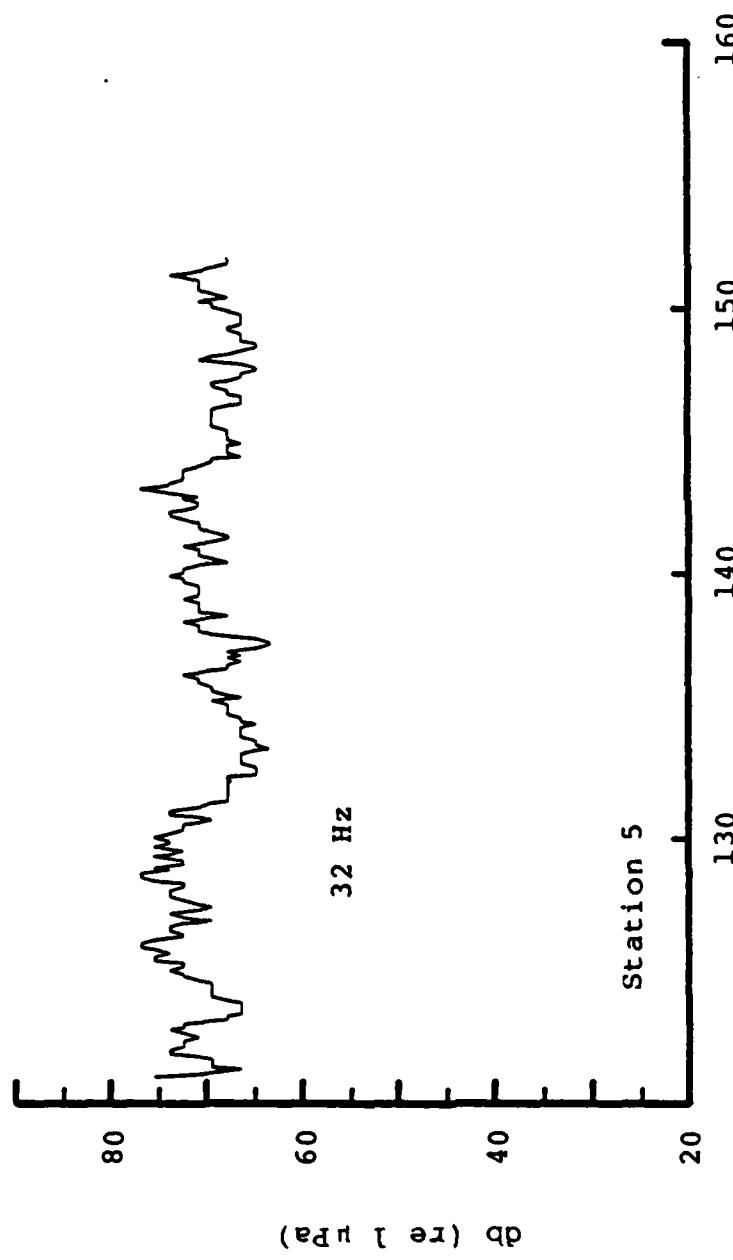
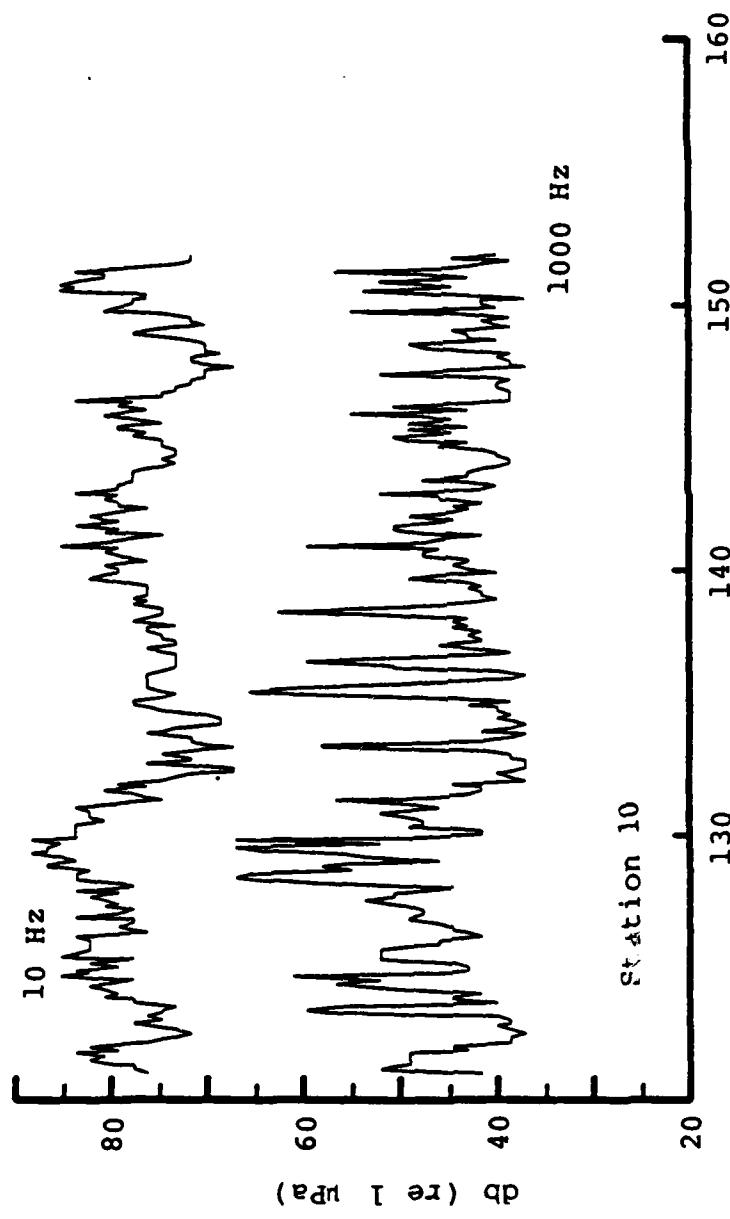


Fig. A.36. Ambient noise variations, 32 Hz, Station 5, during May 1976

Julian Days (Spring 1976)



Julian Days (Spring 1976)

Fig. A.37. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 10, during May 1976

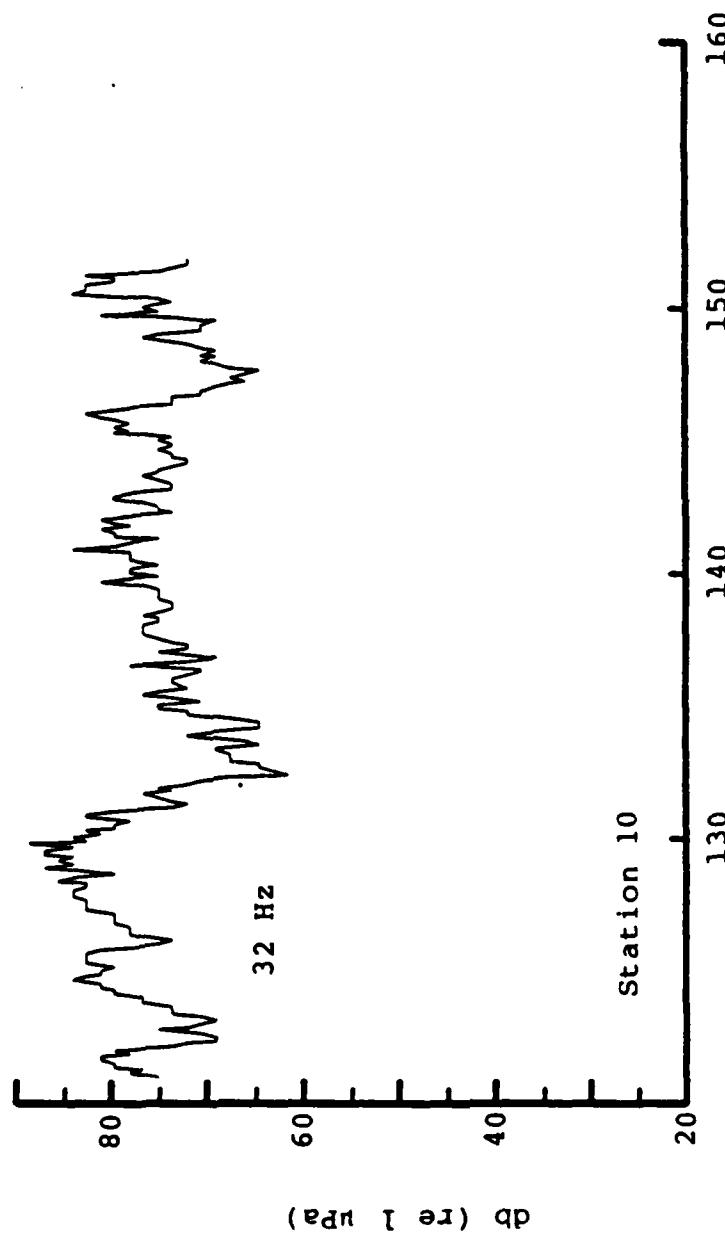
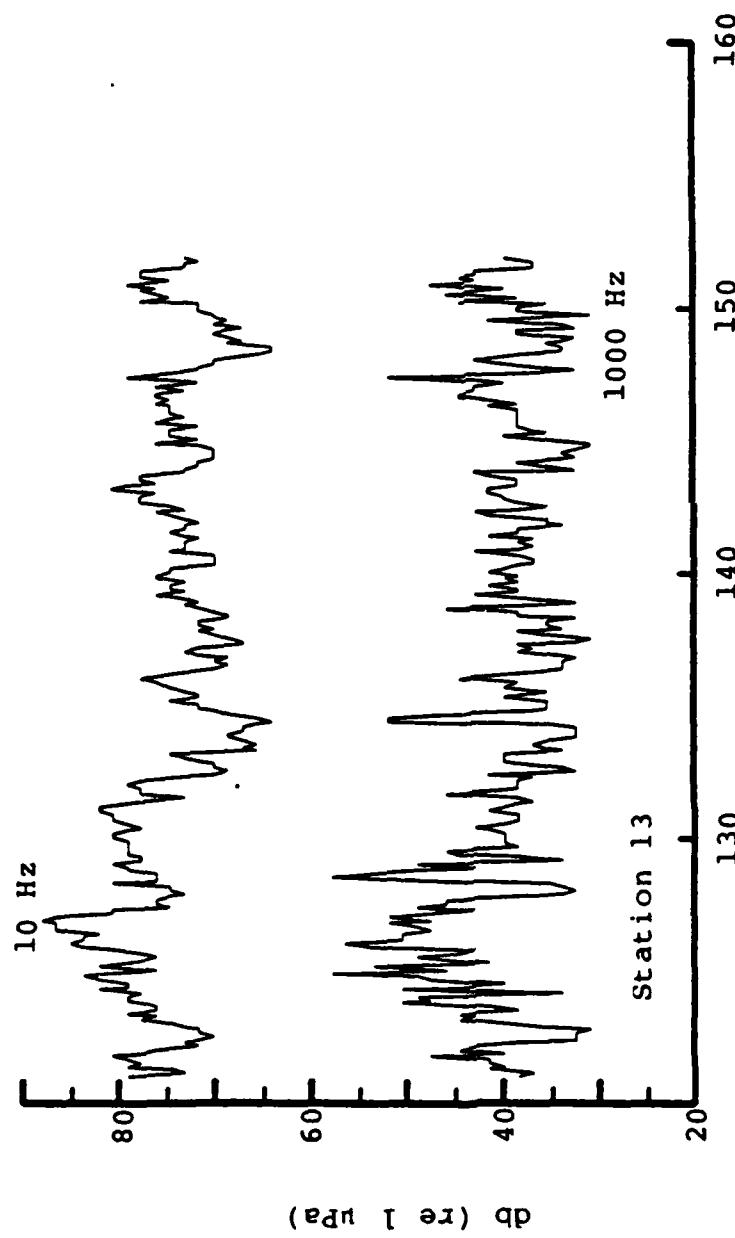


Fig. A.38. Ambient noise variations, 32 Hz, station 10,  
during May 1976



Julian Days (Spring 1976)

Fig. A.39. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 13, during May 1976

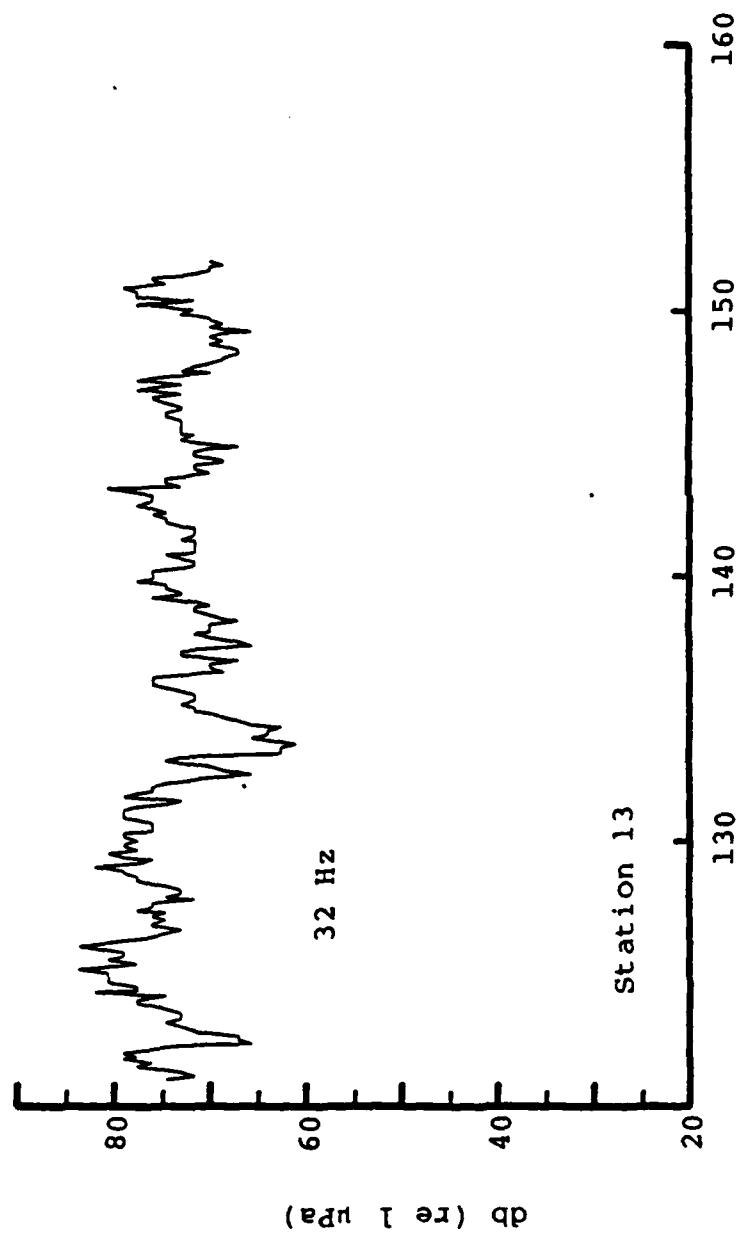
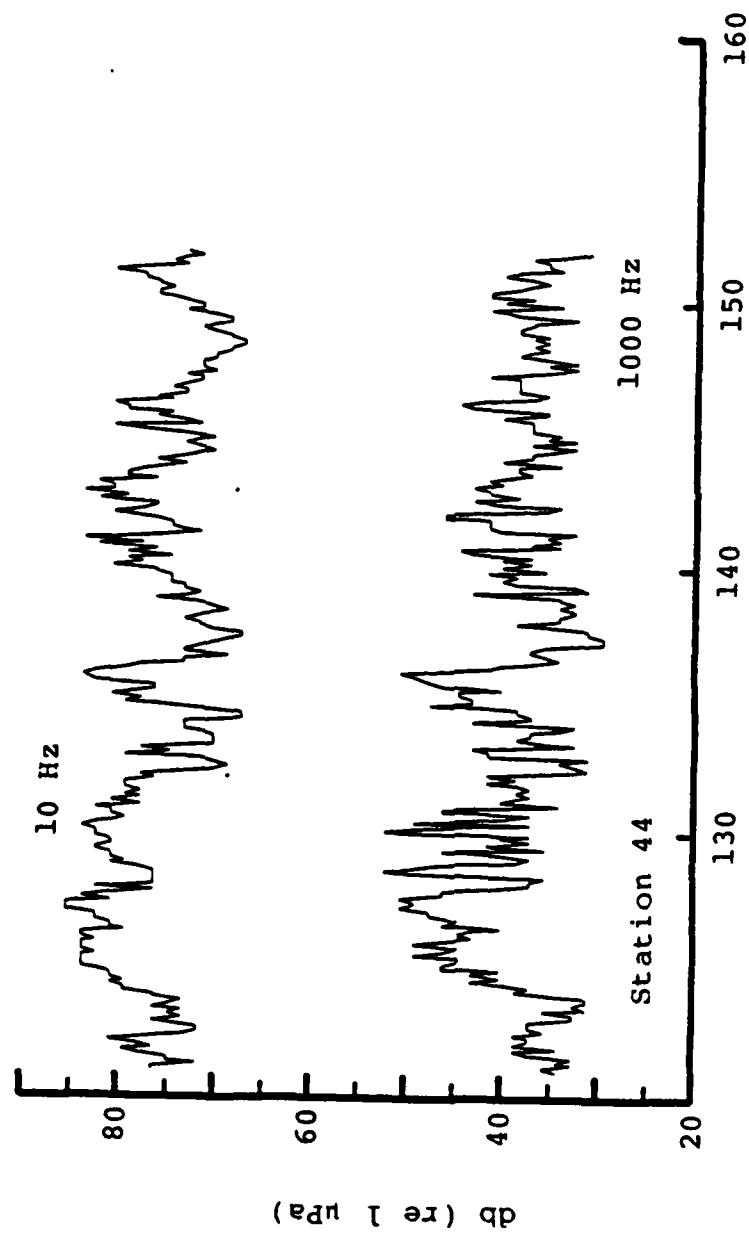


Fig. A.40. Ambient noise variations, 32 Hz, Station 13,  
during May 1976



Julian Days (Spring 1976)

Fig. A.41. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 44, during May 1976

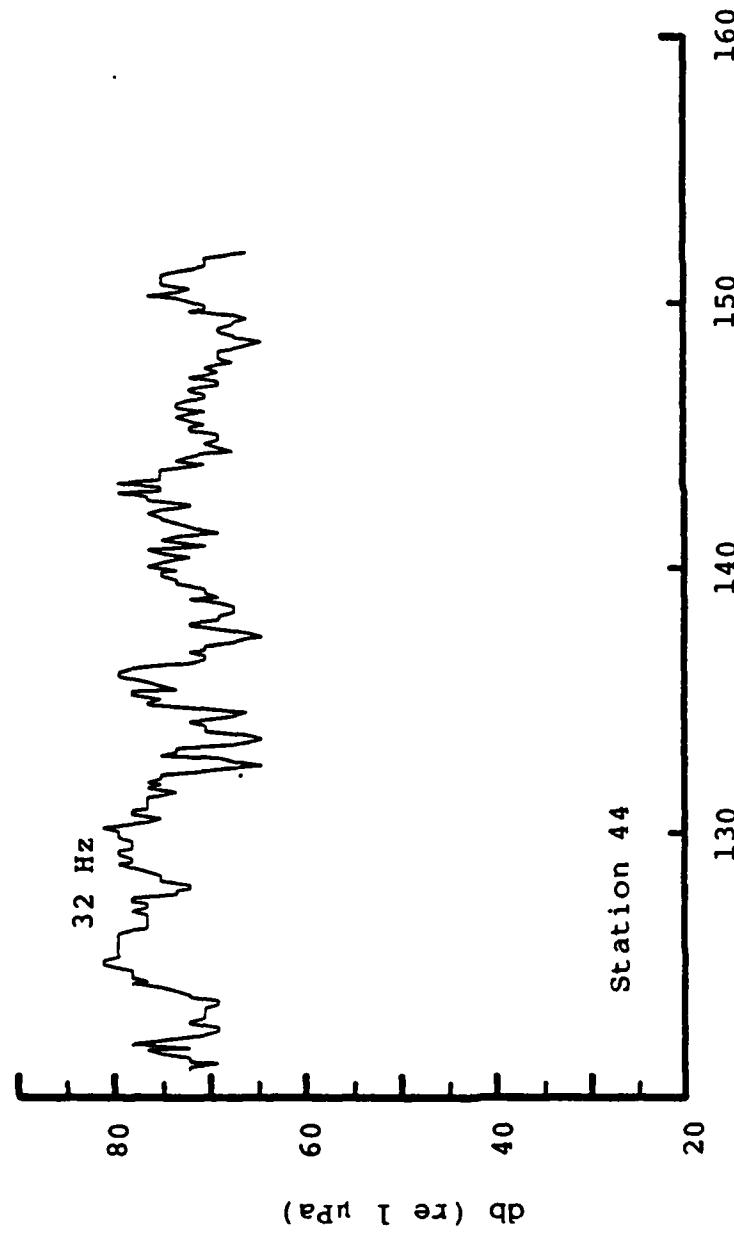
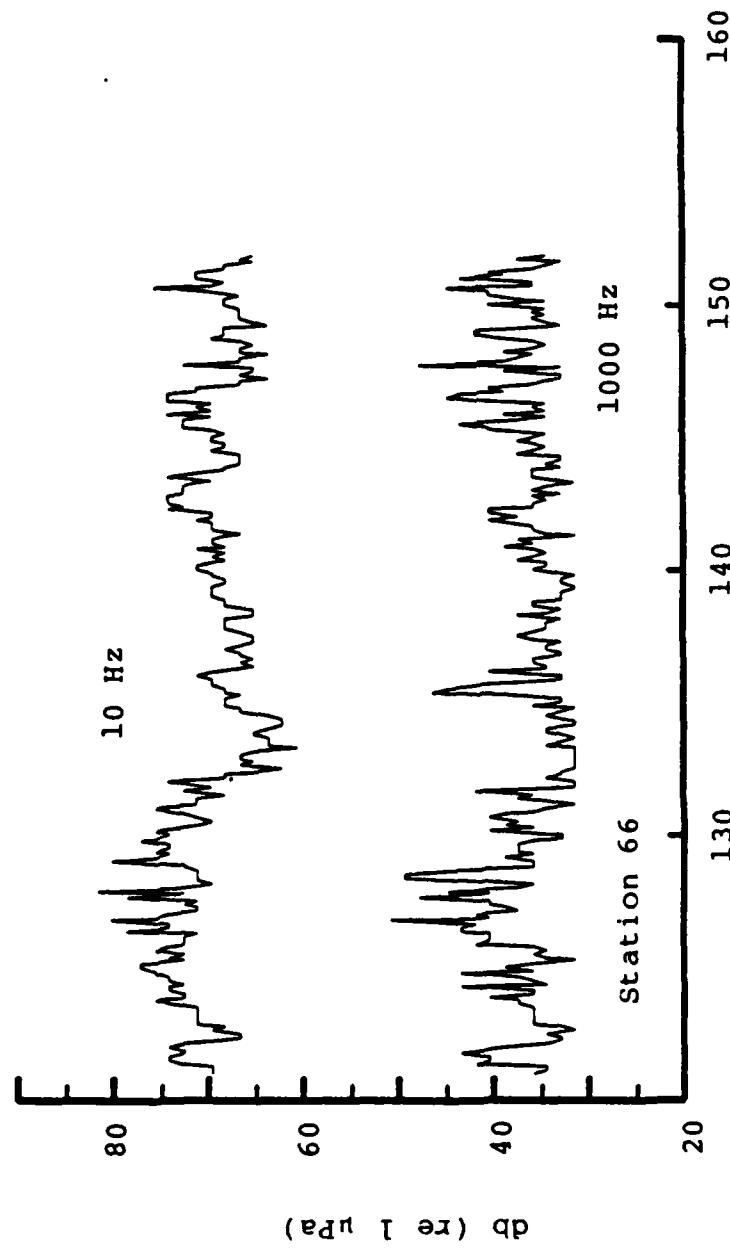


Fig. A.42. Ambient noise variations, 32 Hz, Station 44,  
during May 1976



Julian Days (Spring 1976)

Fig. A.43. Ambient noise variations, 10 Hz and 1000 Hz,  
Station 66, during May 1976

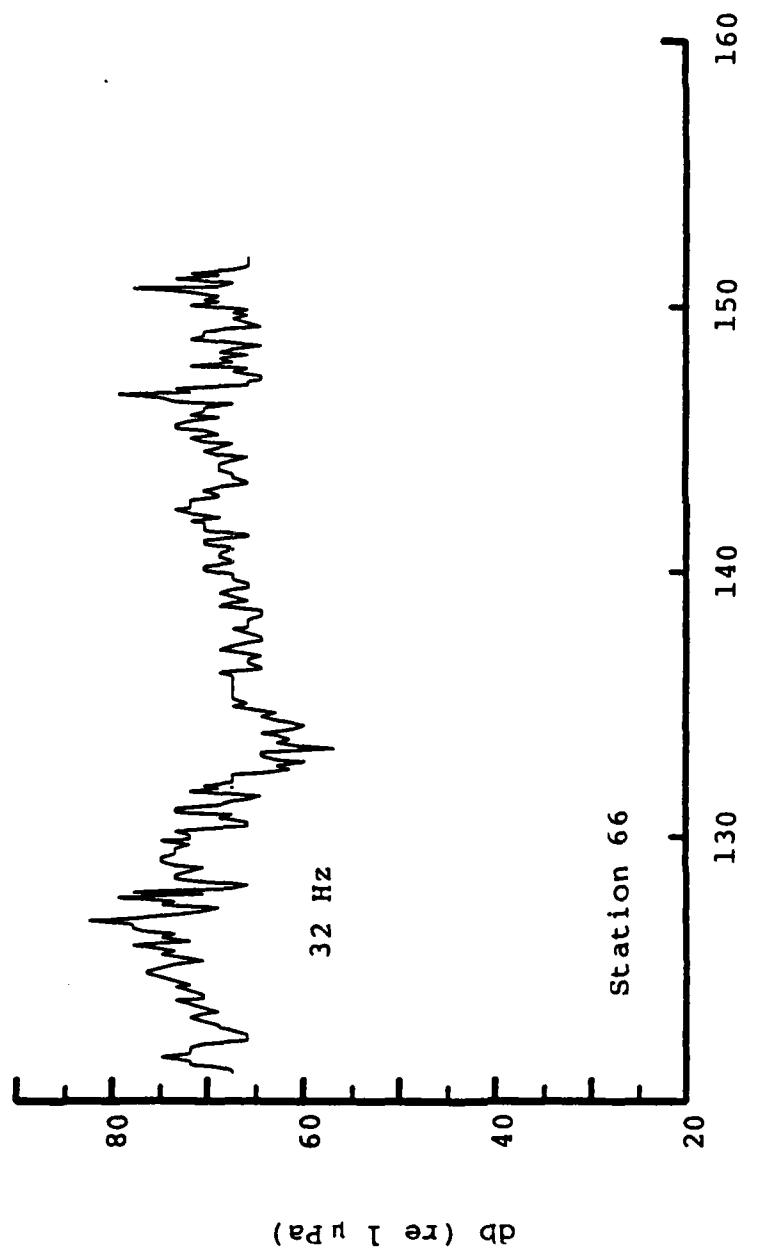


Fig. A.44. Ambient noise variations, 32 Hz, Station 66, during May 1976

## Appendix B

Two-Dimensional Contour Maps of Arctic  
Ambient Noise Variations, 8-9 August 1975  
(Summer)

This appendix contains the two-dimensional contour maps of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz noise signals for the 48 hour period of 8-9 August 1975. The contour maps show the spatial variations of the ambient noise signals at 3 hr intervals, the units of the noise being decibells. The 8-9 August 1975 time period was chosen since the noise increased significantly during 8 August (Julian day 220) and began oscillating at several stations at the inertial frequency ( $\sim 12.5$  hrs) during 9 August (Julian day 221).

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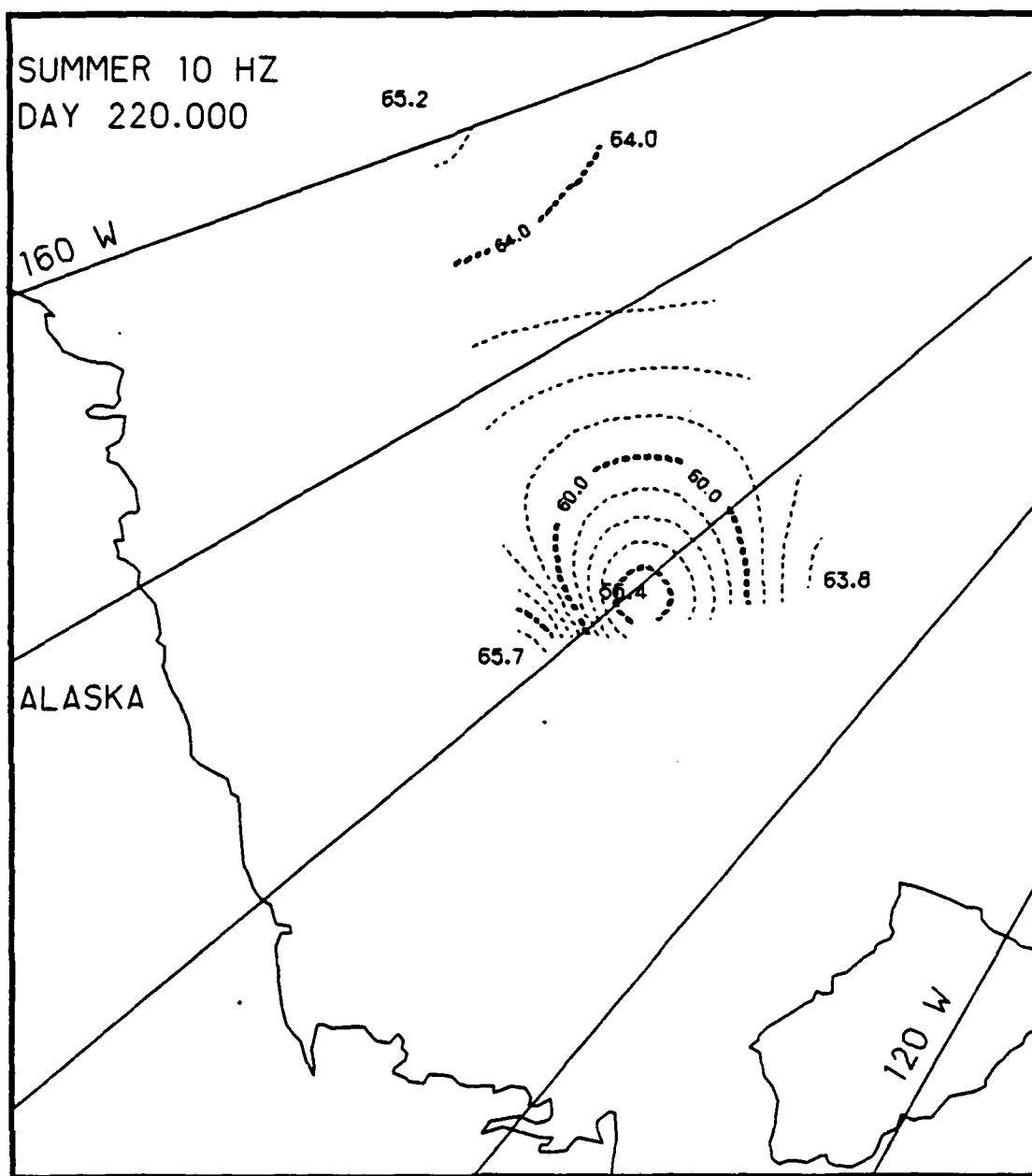


Fig. B.1. Spatial noise variations, day 220.0, based on the AIDJEX 10 Hz noise data.

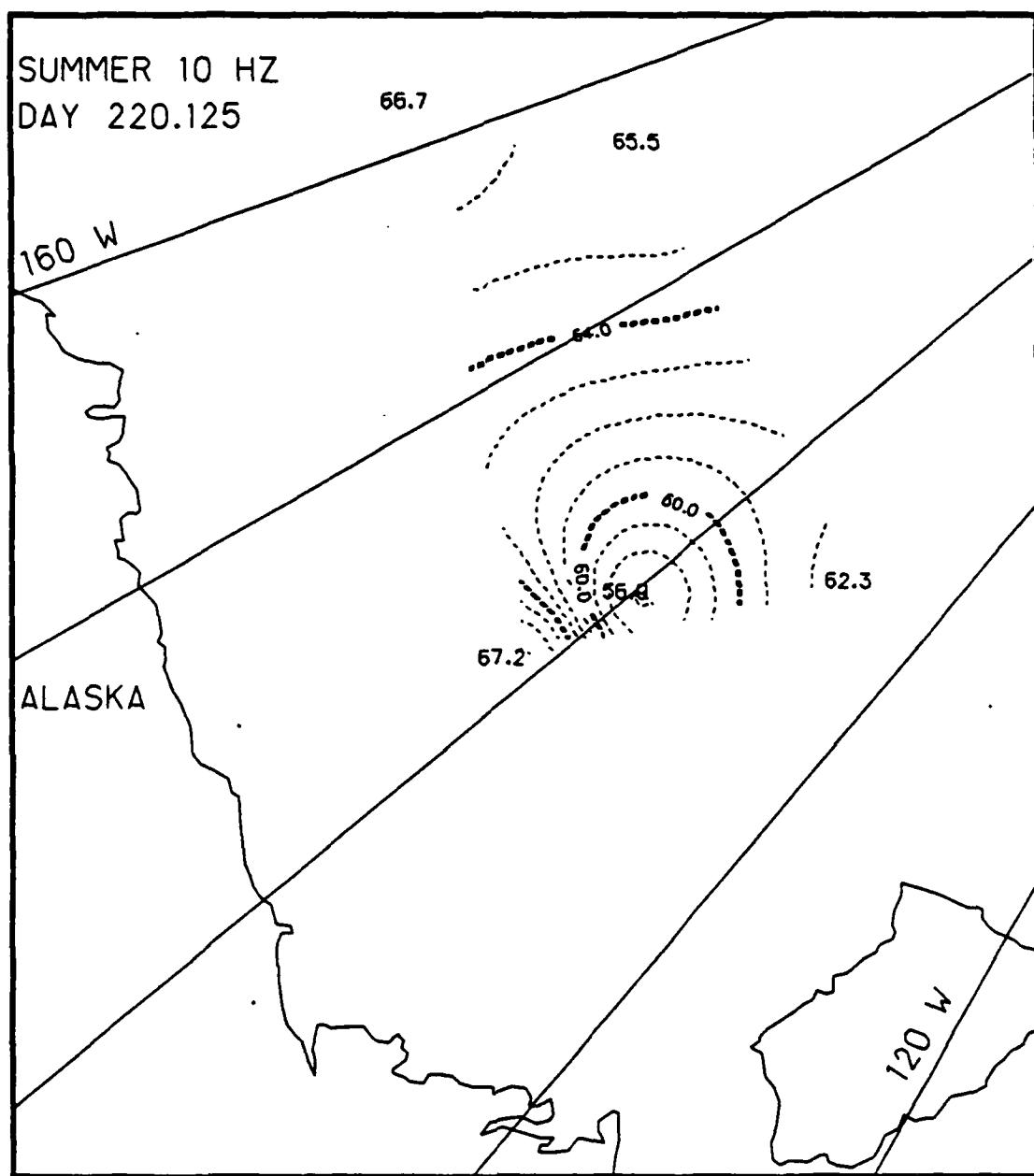


Fig. B.2. Spatial noise variations, day 220.125, based on the AIDJEX 10 Hz noise data.

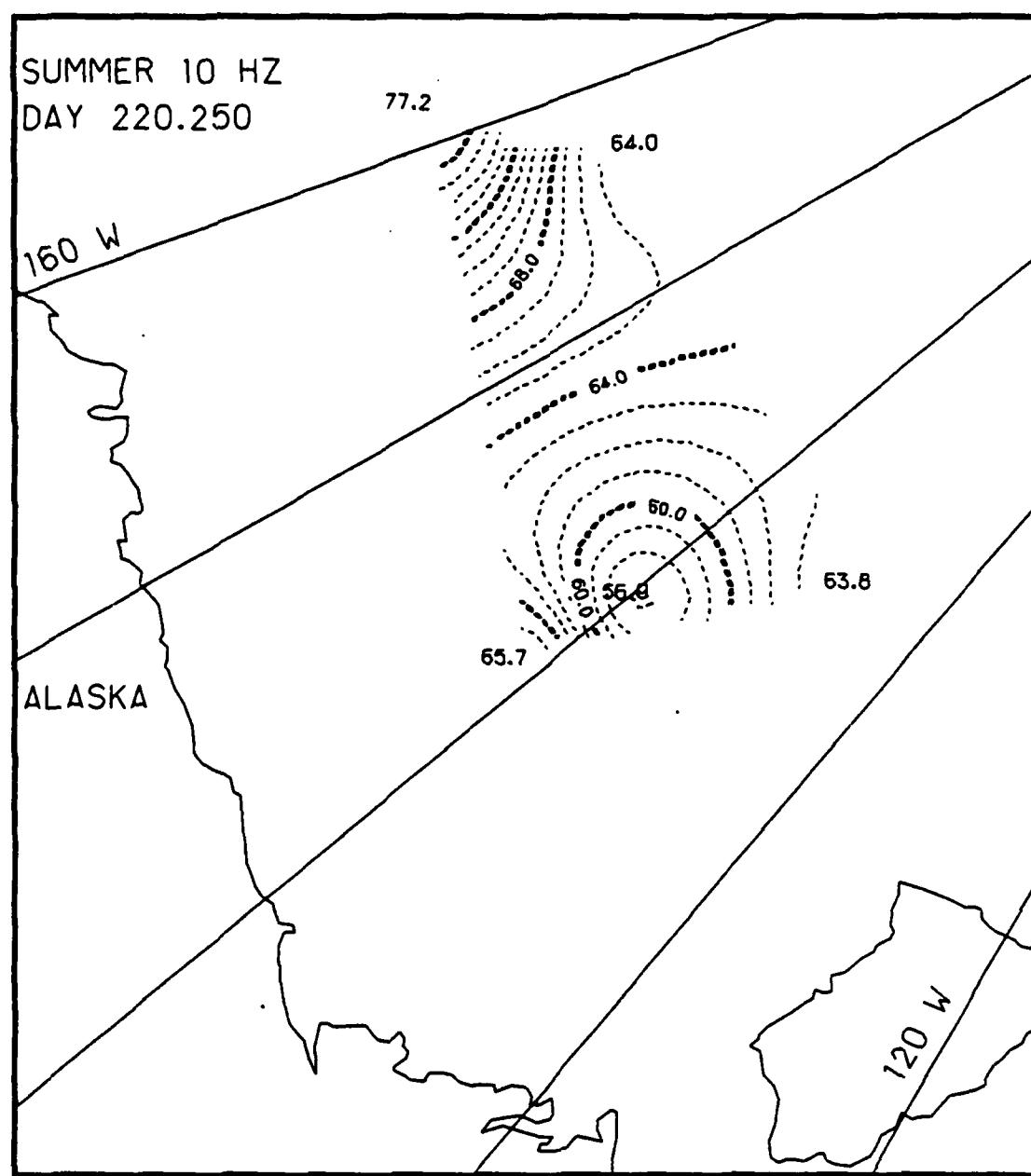


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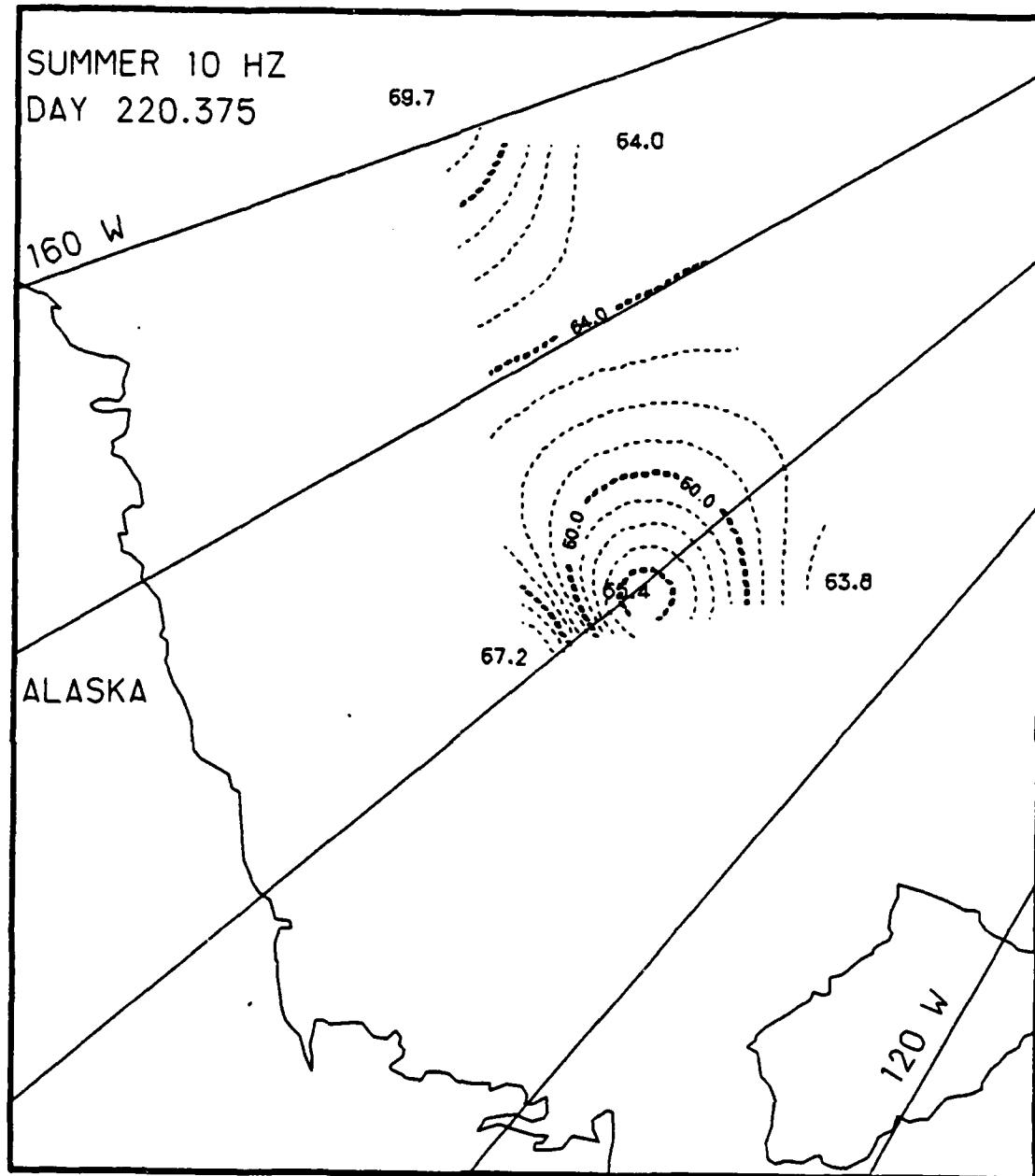


Fig. B.4. Spatial noise variations, day 220.375, based on the AIDJEX 10 Hz noise data.

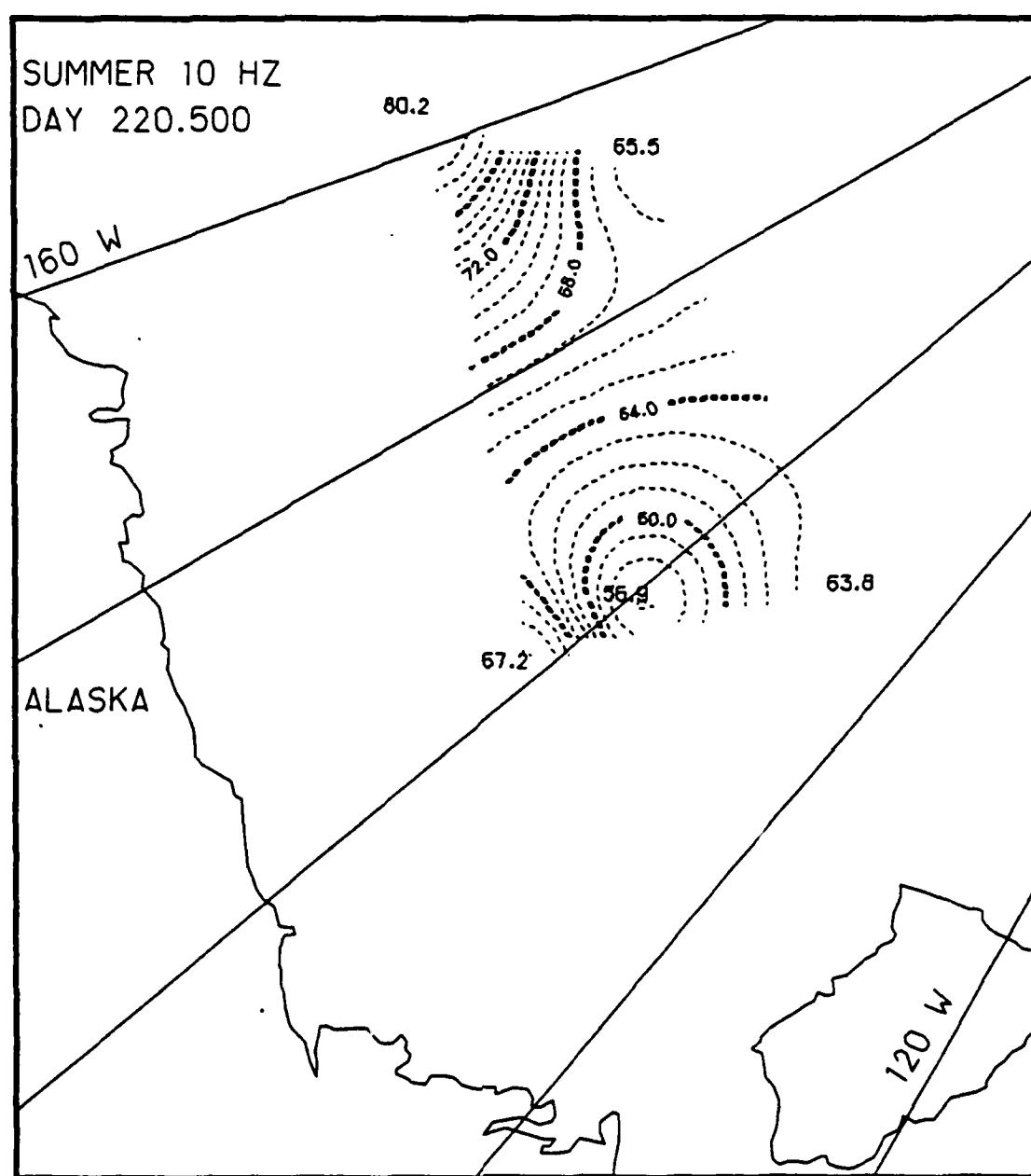


Fig. 8.5. Spatial noise variations, day 220.5, based on the AIDJEX 10 Hz noise data.

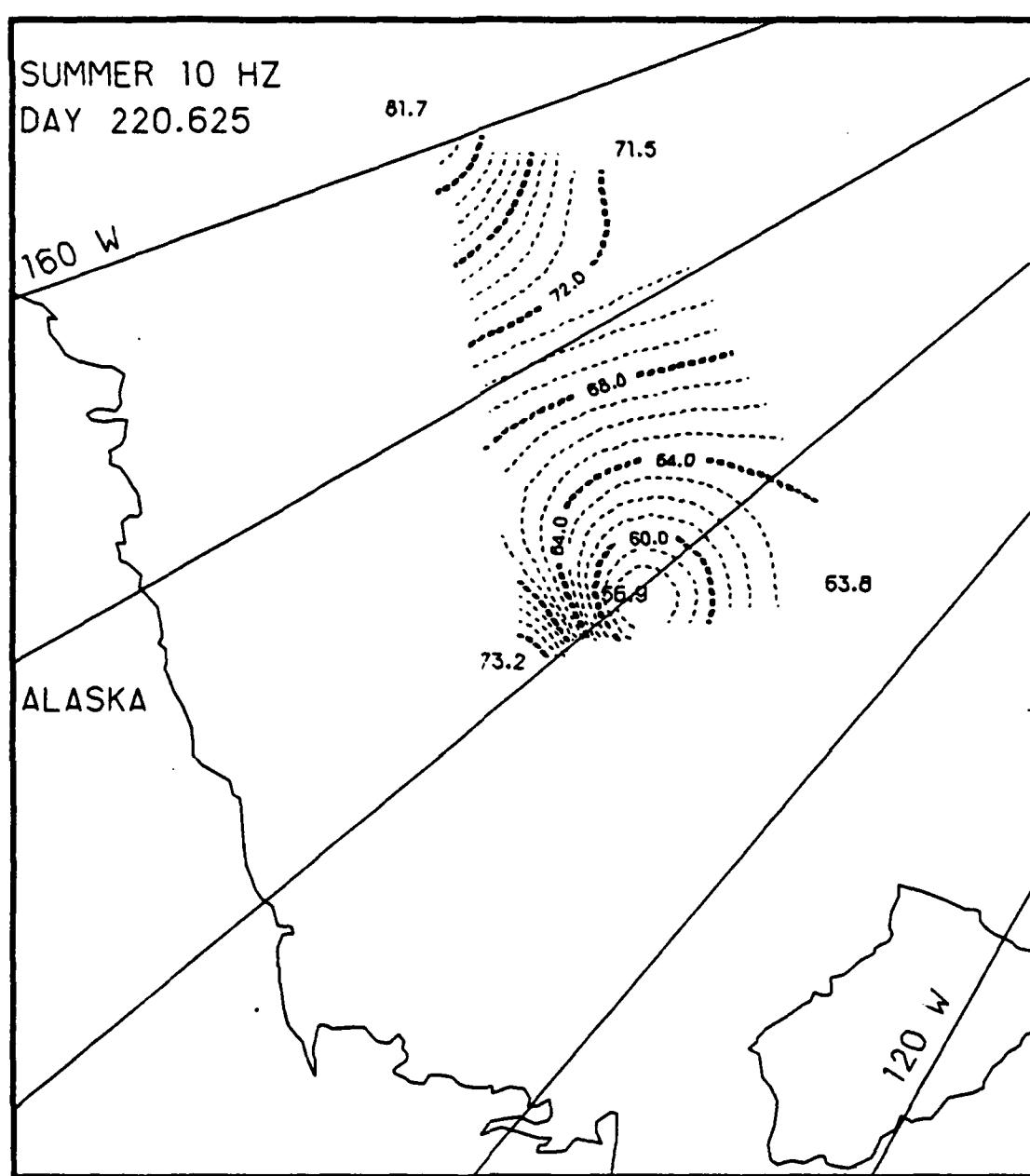


Fig. B.6. Spatial noise variations, day 220.625, based on the AIDJEX 10 Hz noise data.

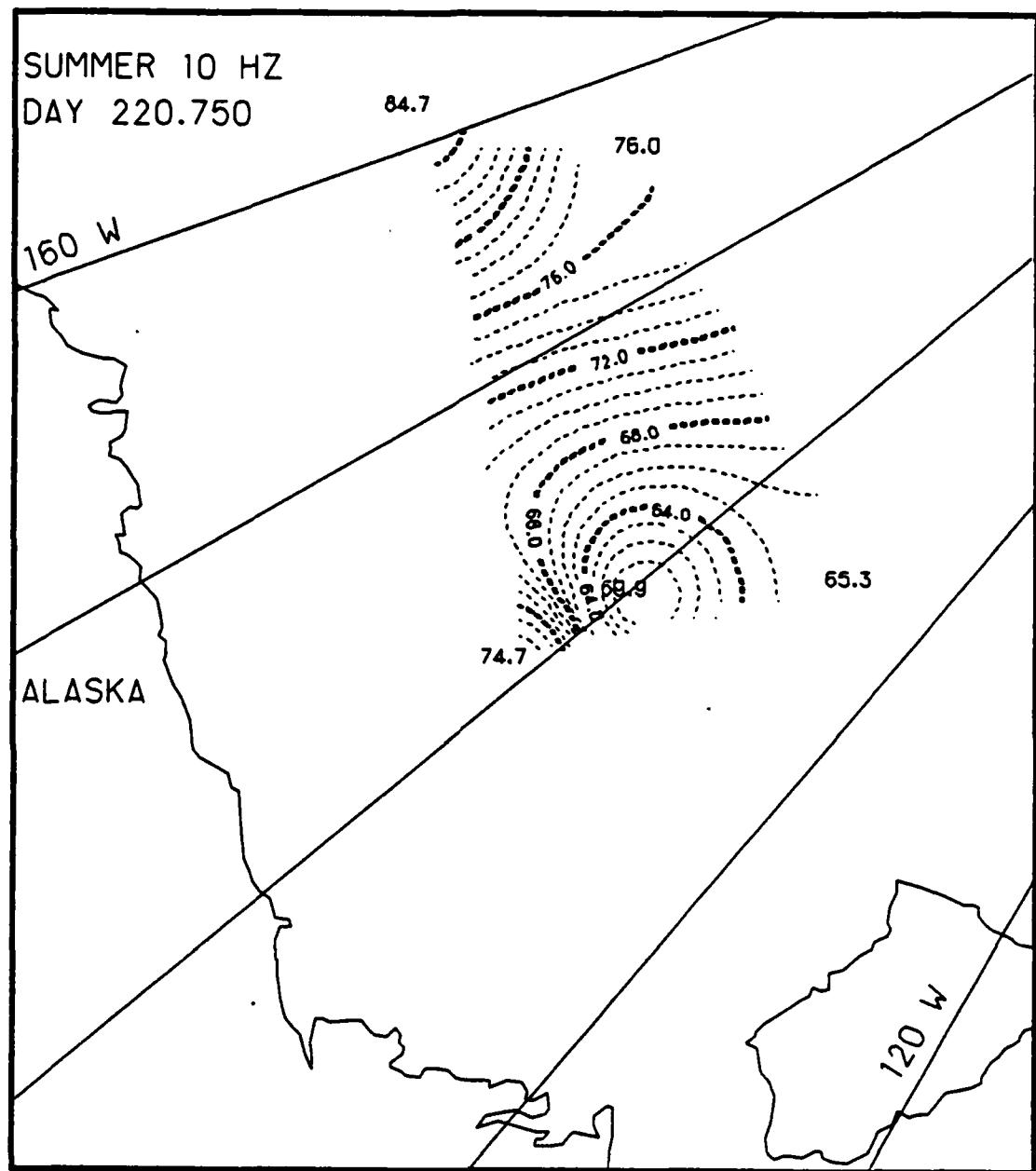


Fig. B.7. Spatial noise variations, day 220.75, based on the AIDJEX 10 Hz noise data.

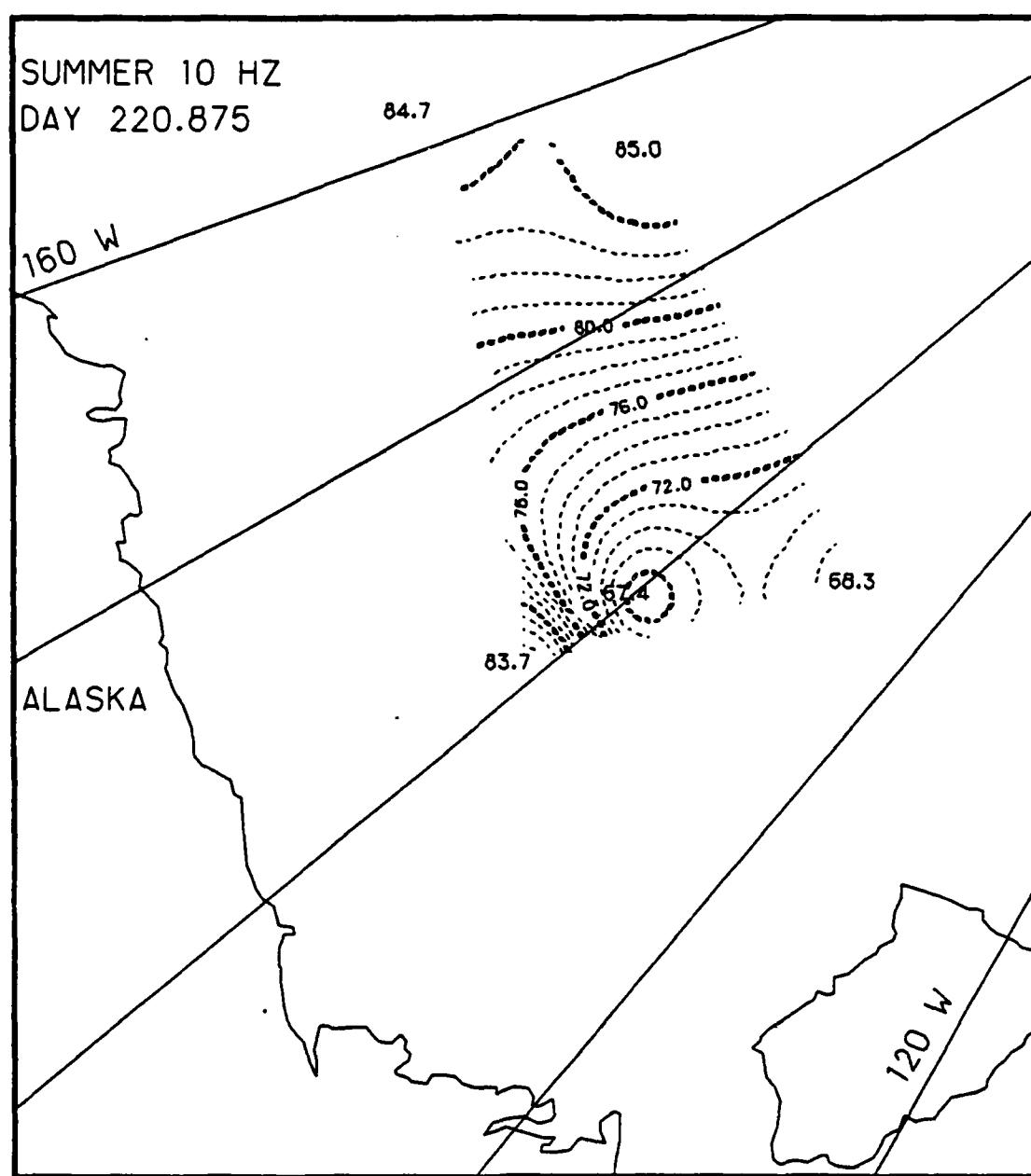


Fig. B.8. Spatial noise variations, day 220.875, based on the AIDJEX 10 Hz noise data.

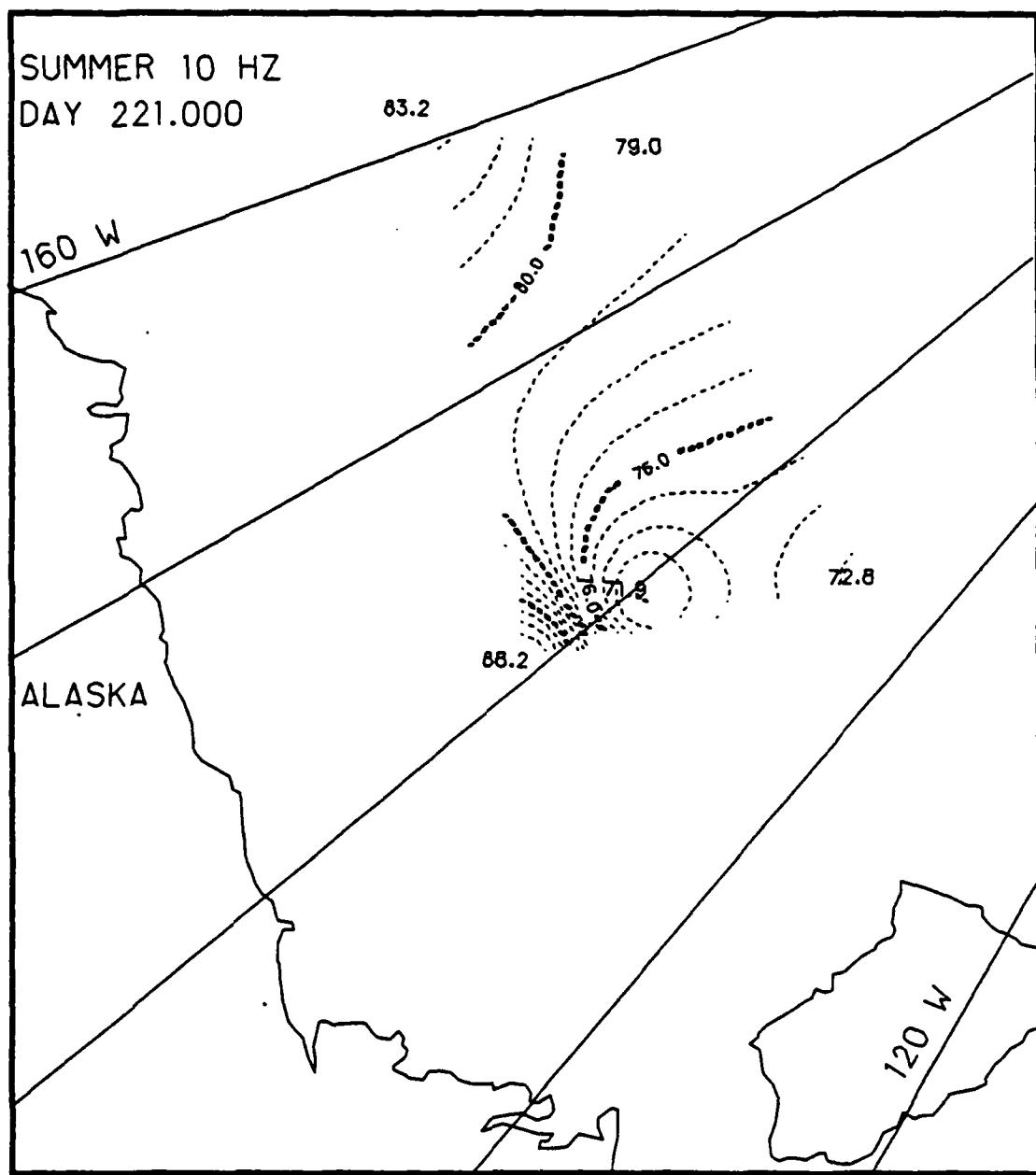


Fig. B.9. Spatial noise variations, day 221.0, based on the AIDJEX 10 Hz noise data.

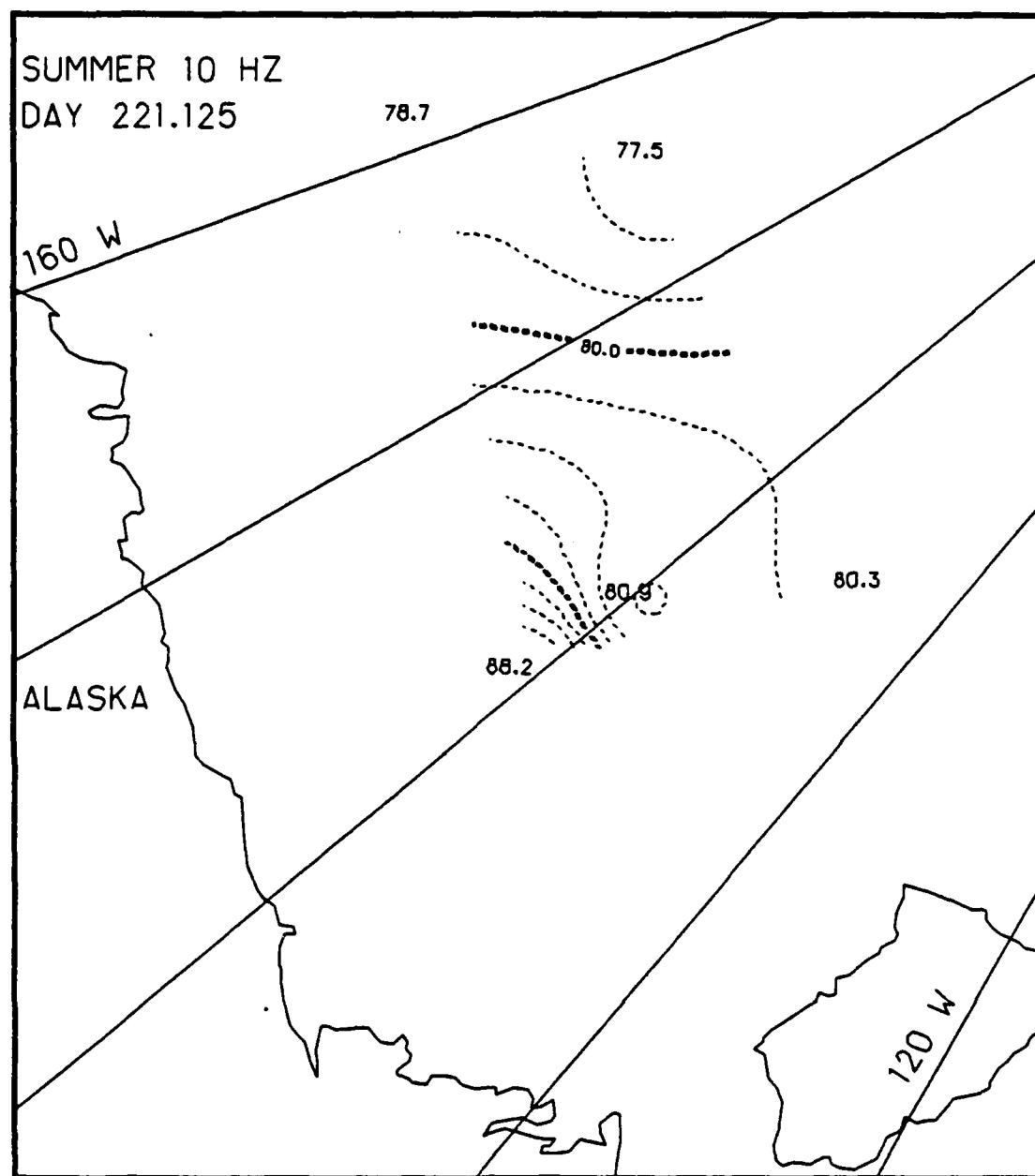


Fig. B.10. Spatial noise variations, day 221.125, based on the AIDJEX 10 Hz noise data.

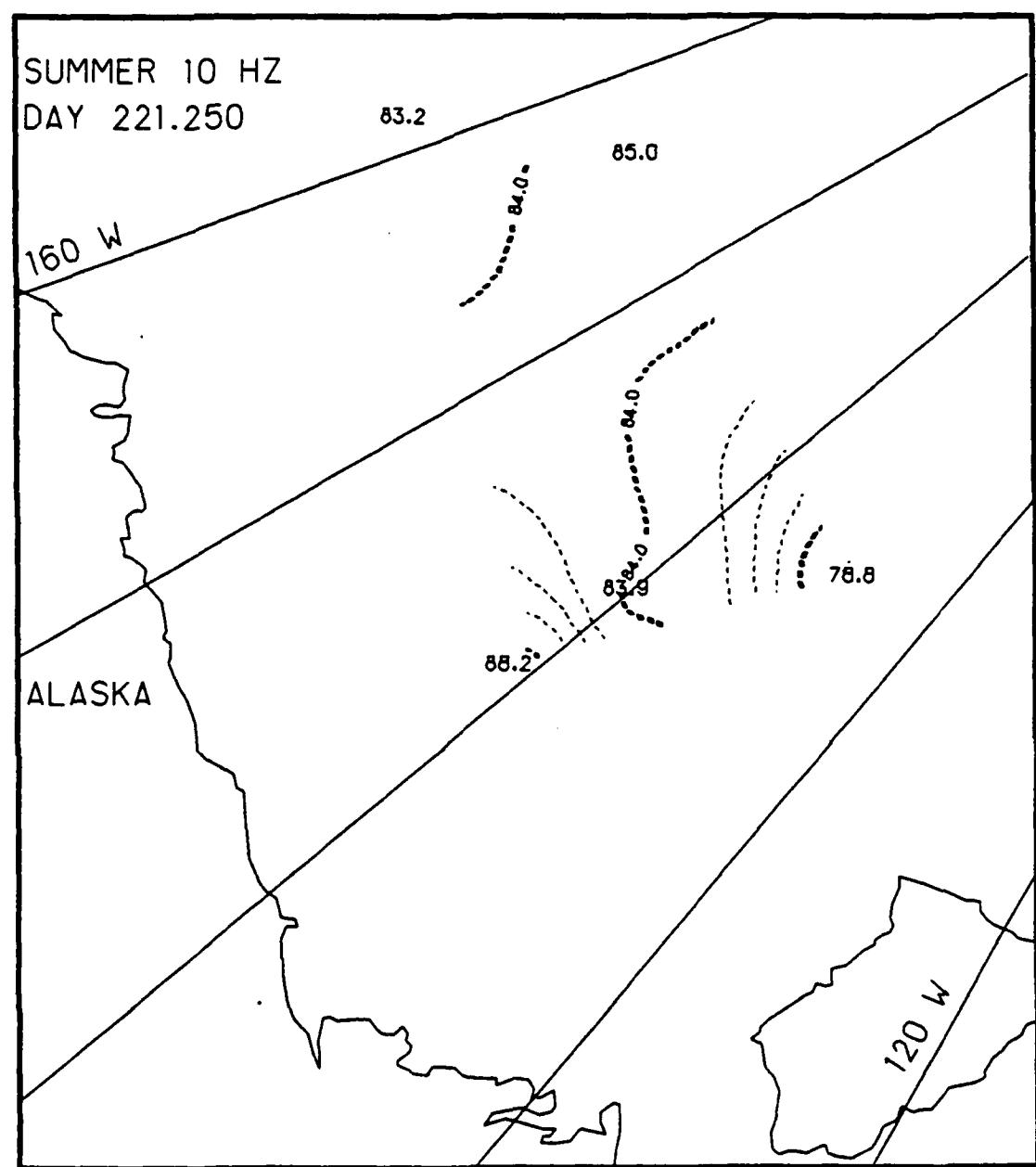


Fig. B.11. Spatial noise variations, day 221.25, based on the AIDJEX 10 Hz noise data.

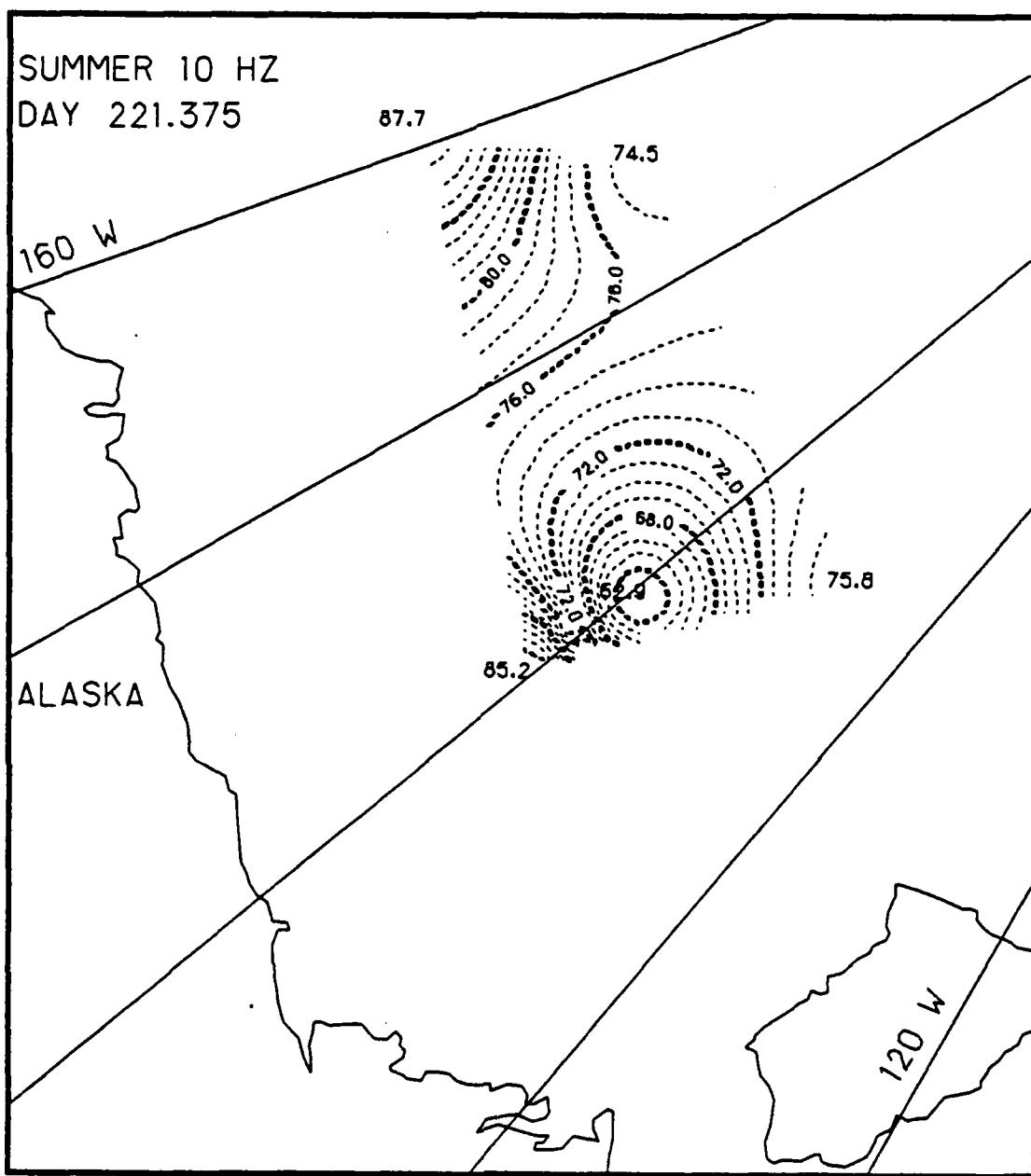


Fig. B.12. Spatial noise variations, day 221.375, based on the AIDJEX 10 Hz noise data.

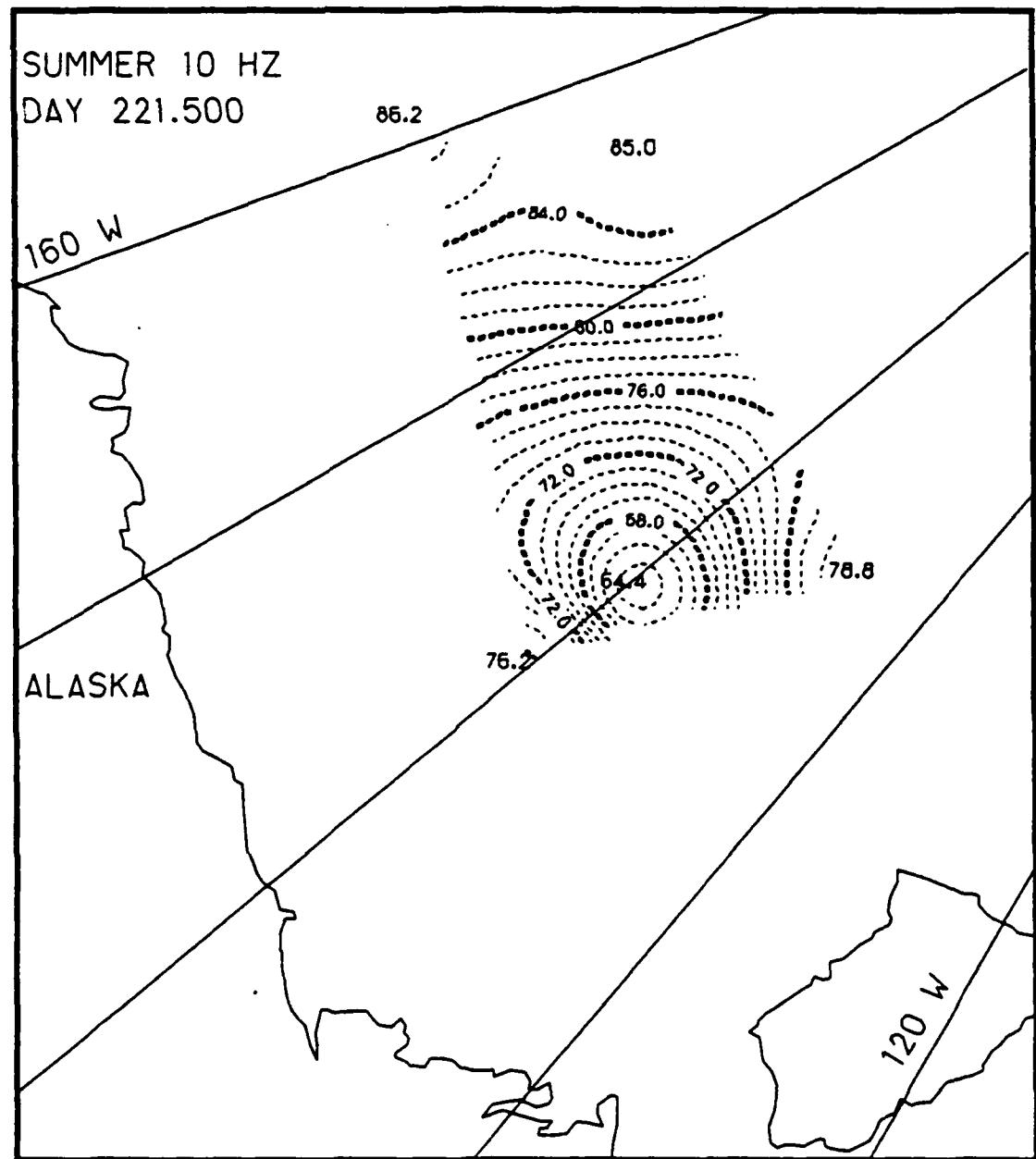


Fig. B.13. Spatial noise variations, day 221.5, based on the AIDJEX 10 Hz noise data.

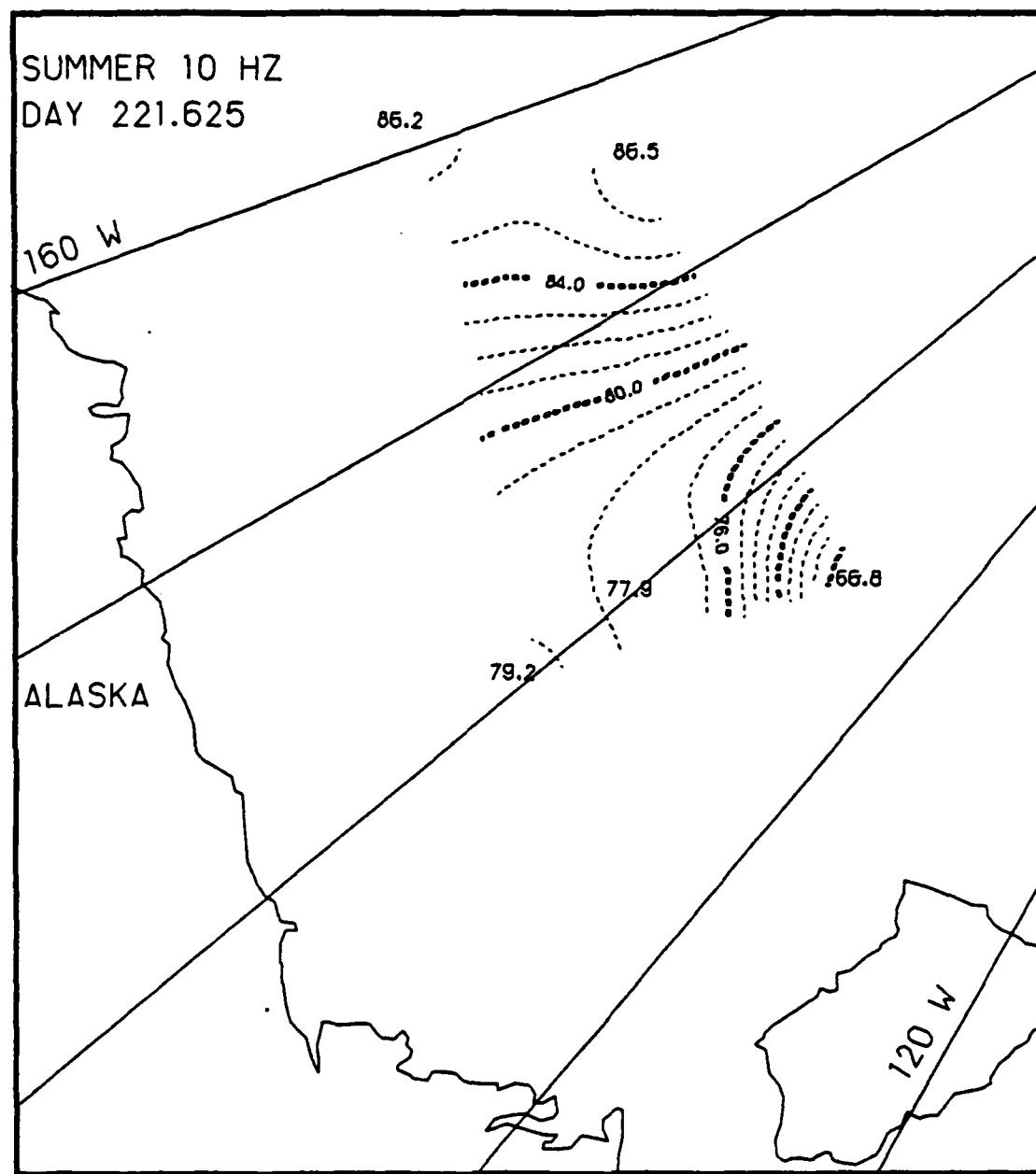


Fig. B.14. Spatial noise variations, day 221.625, based on the AIDJEX 10 Hz noise data.

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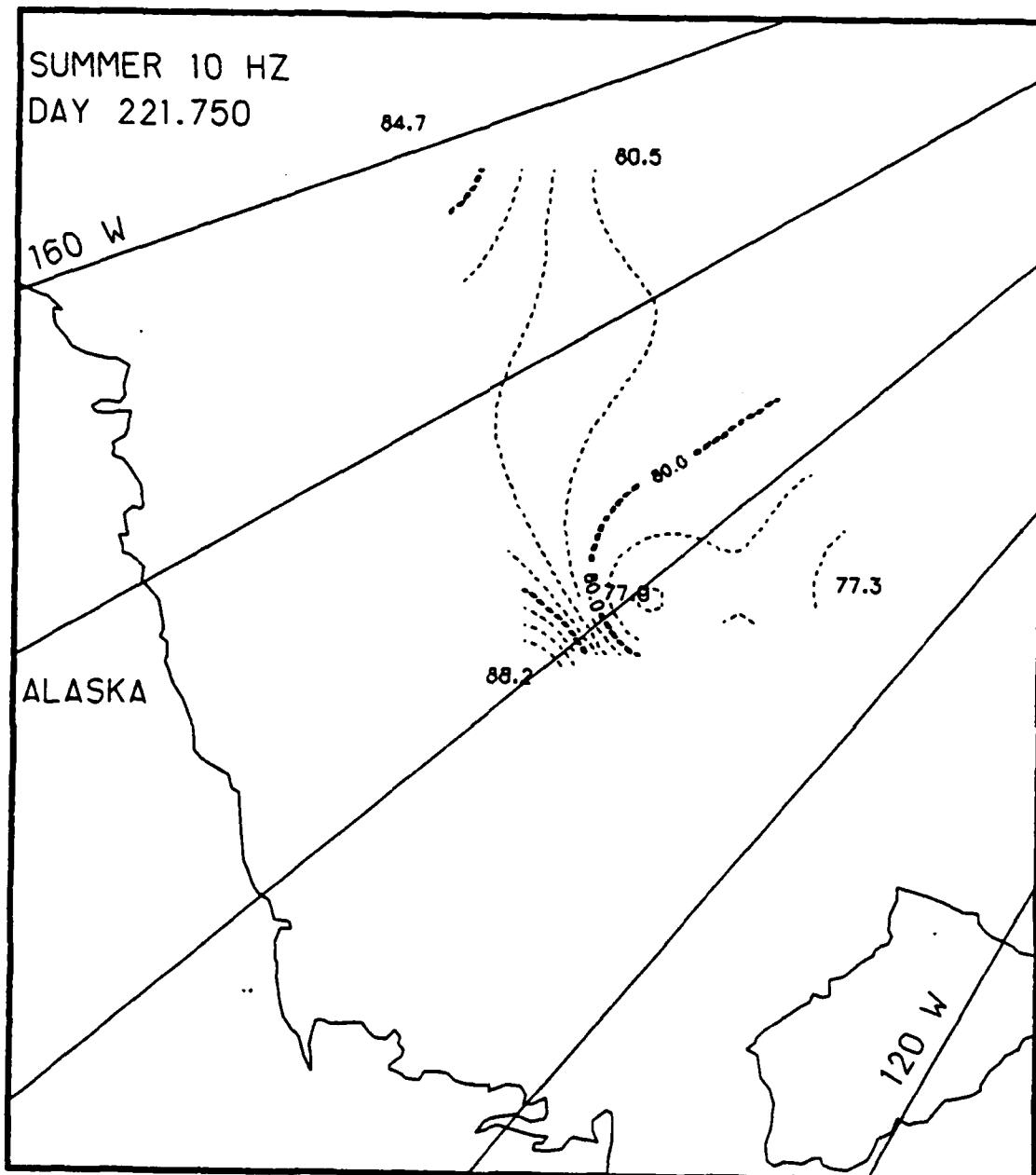


Fig. B.15. Spatial noise variations, day 221.75, based on the AIDJEX 10 Hz noise data.

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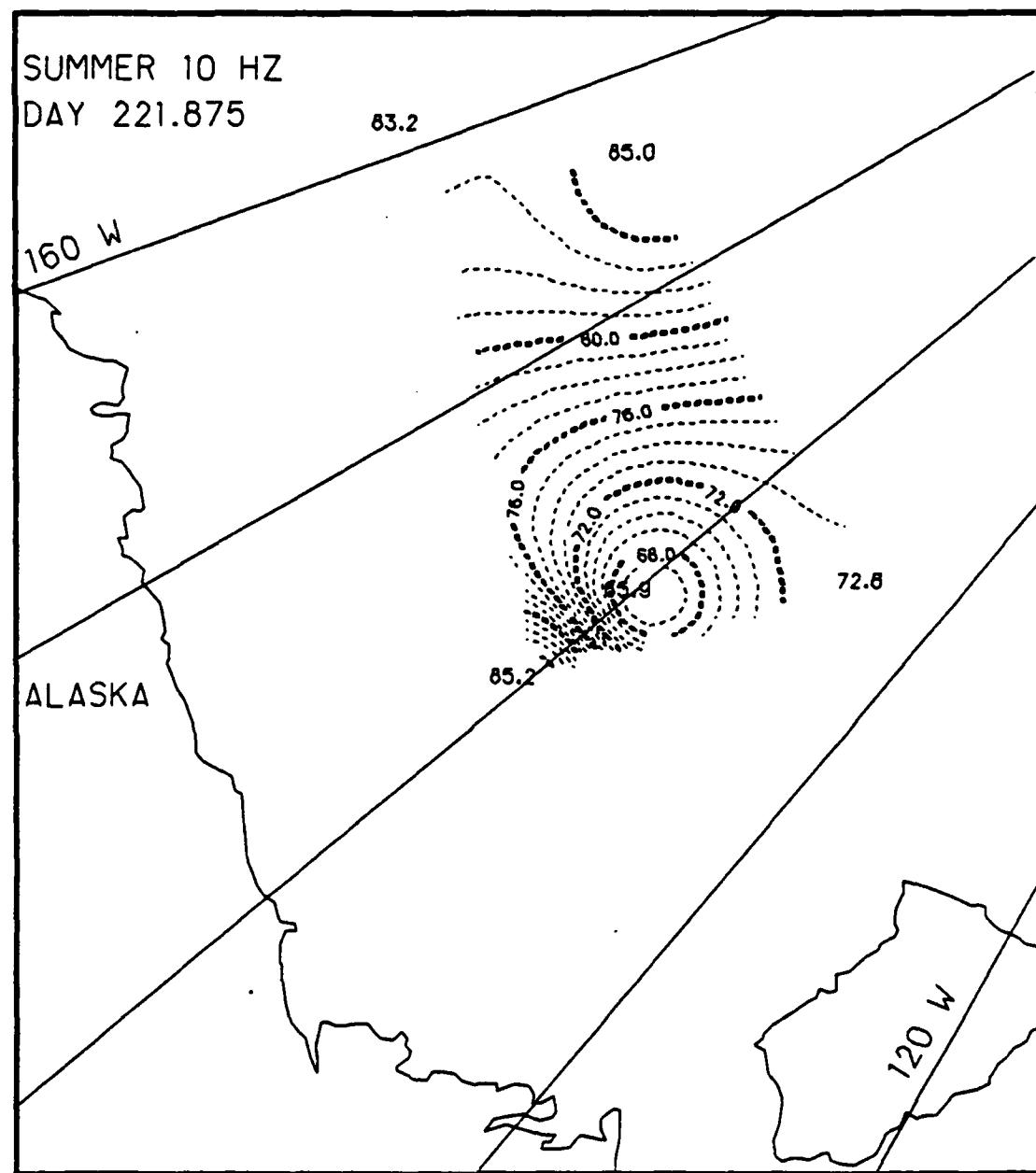


Fig. B.16. Spatial noise variations, day 221.875, based on the AIDJEX 10 Hz noise data.

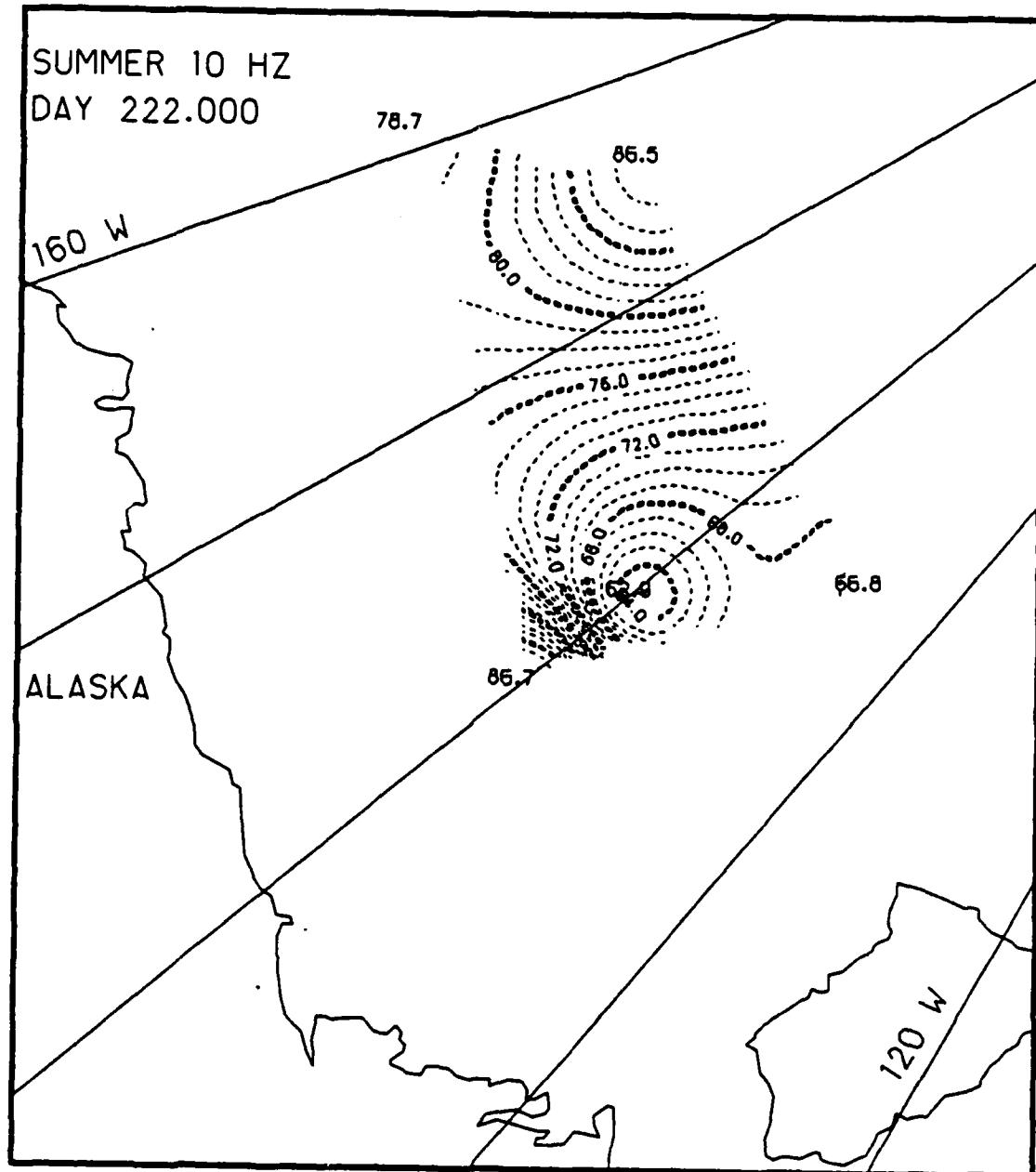


Fig. B.17. Spatial noise variations, day 222.0, based on the AIDJEX 10 Hz noise data.

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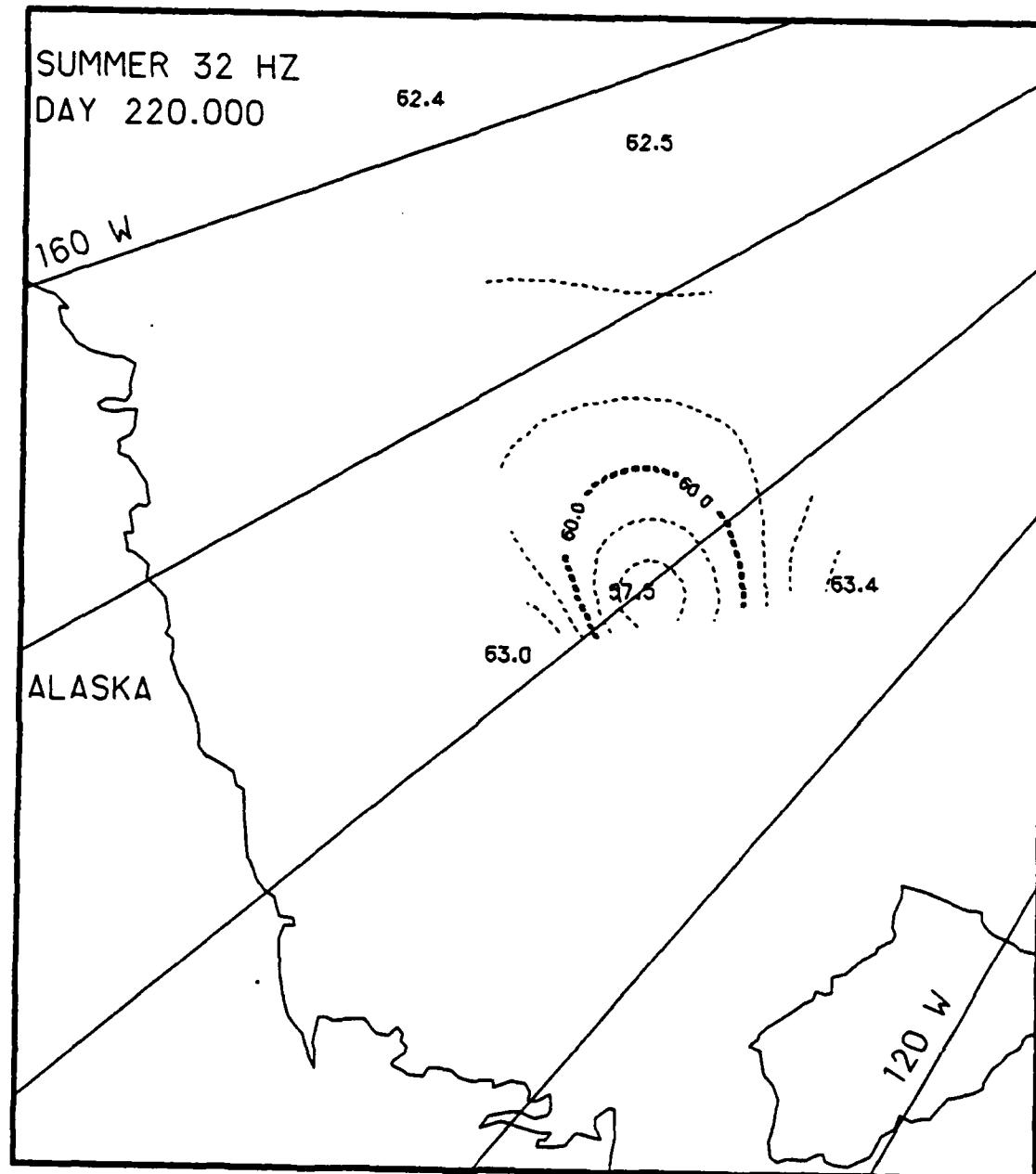


Fig. B.18. Spatial noise variations, day 220.0, based on the AIDJEX 32 Hz noise data.

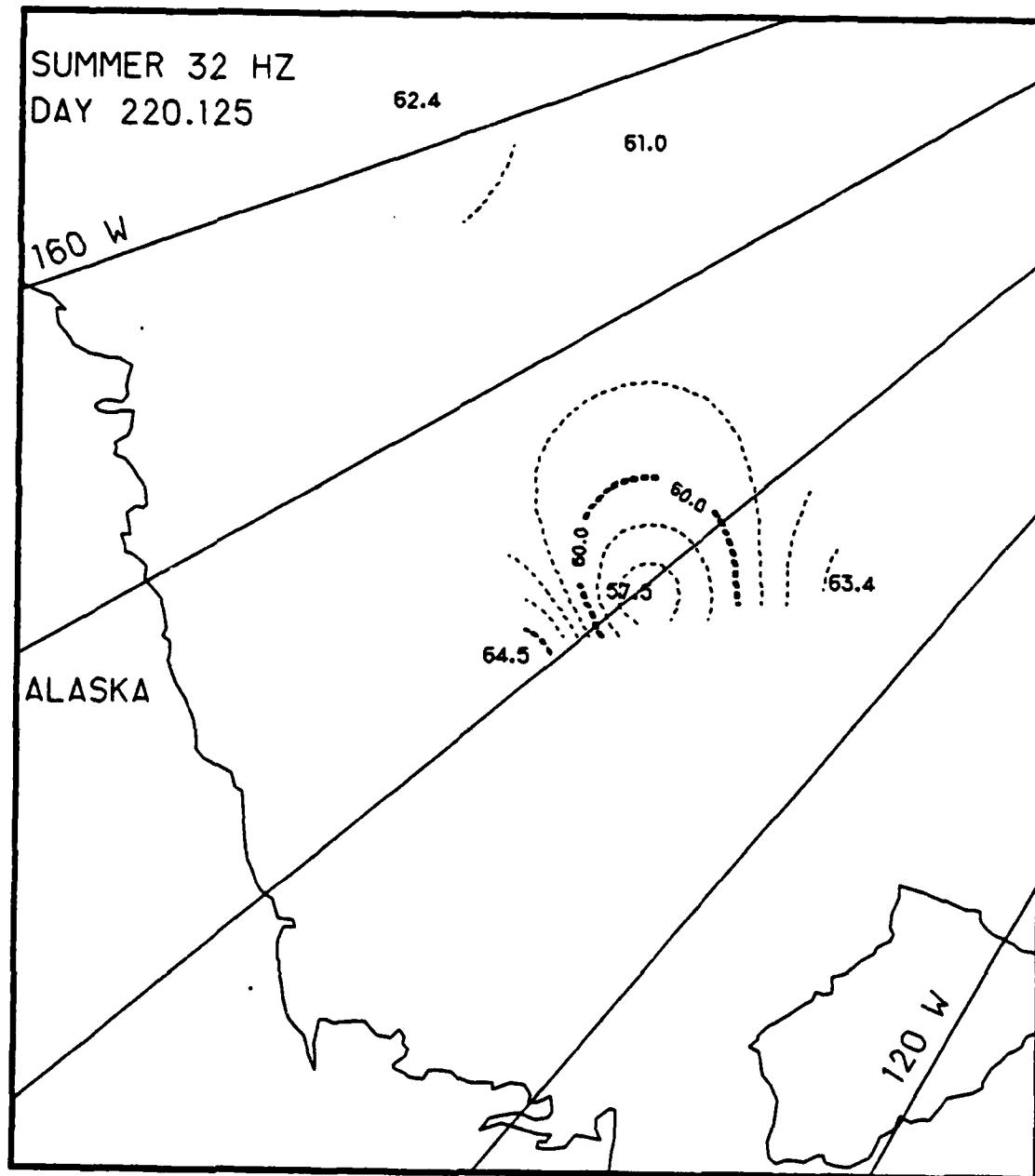


Fig. B.19. Spatial noise variations, day 220.125, based on the AIDJEX 32 Hz noise data.

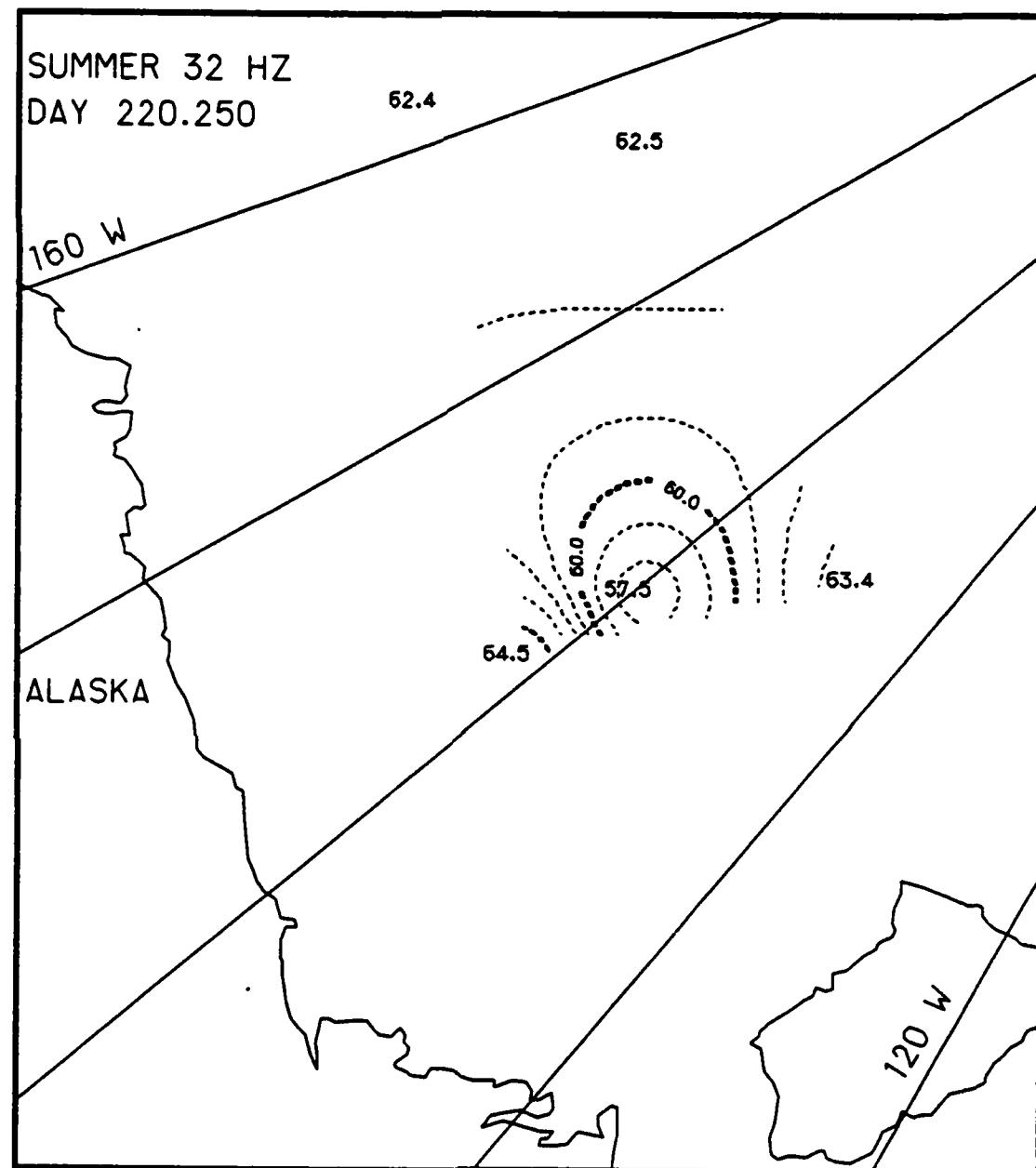


Fig. B.20. Spatial noise variations, day 220.25, based on the AIDJEX 32 Hz noise data.

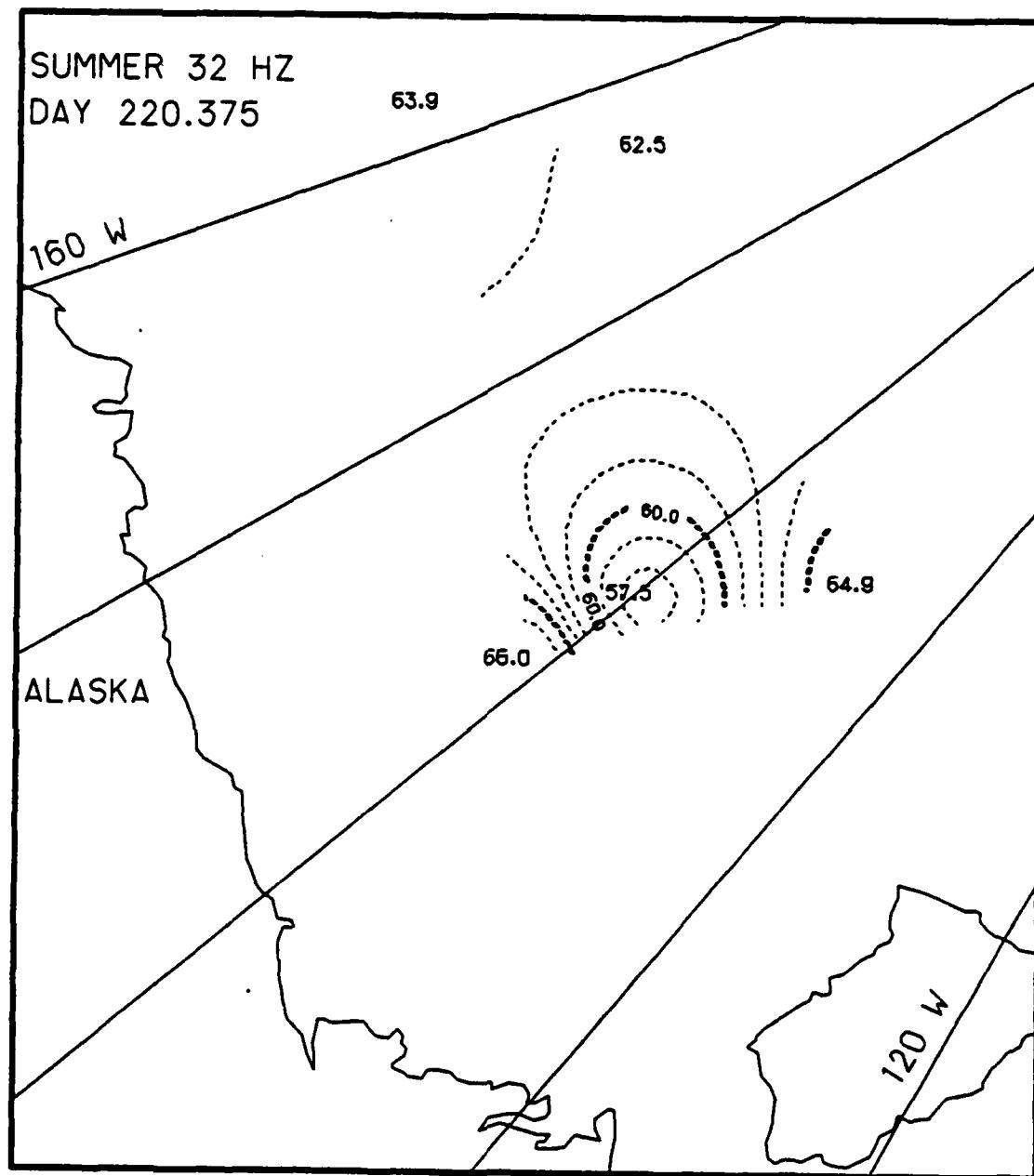


Fig. B.21. Spatial noise variations, day 220.375, based on the AIDJEX 32 Hz noise data.

3.1-74

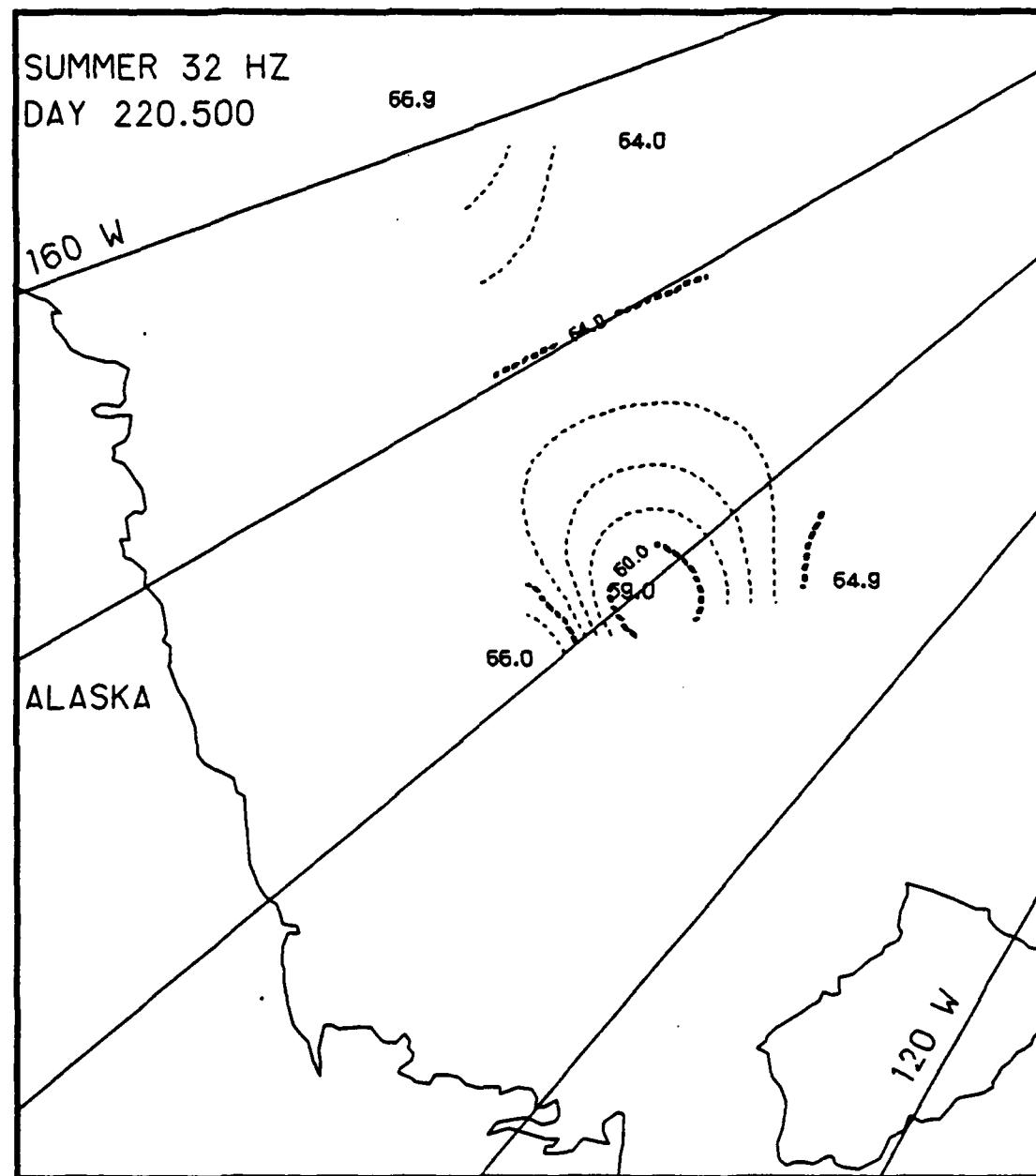


Fig. B.22. Spatial noise variations, day 220.5, based on the AIDJEX 32 Hz noise data.

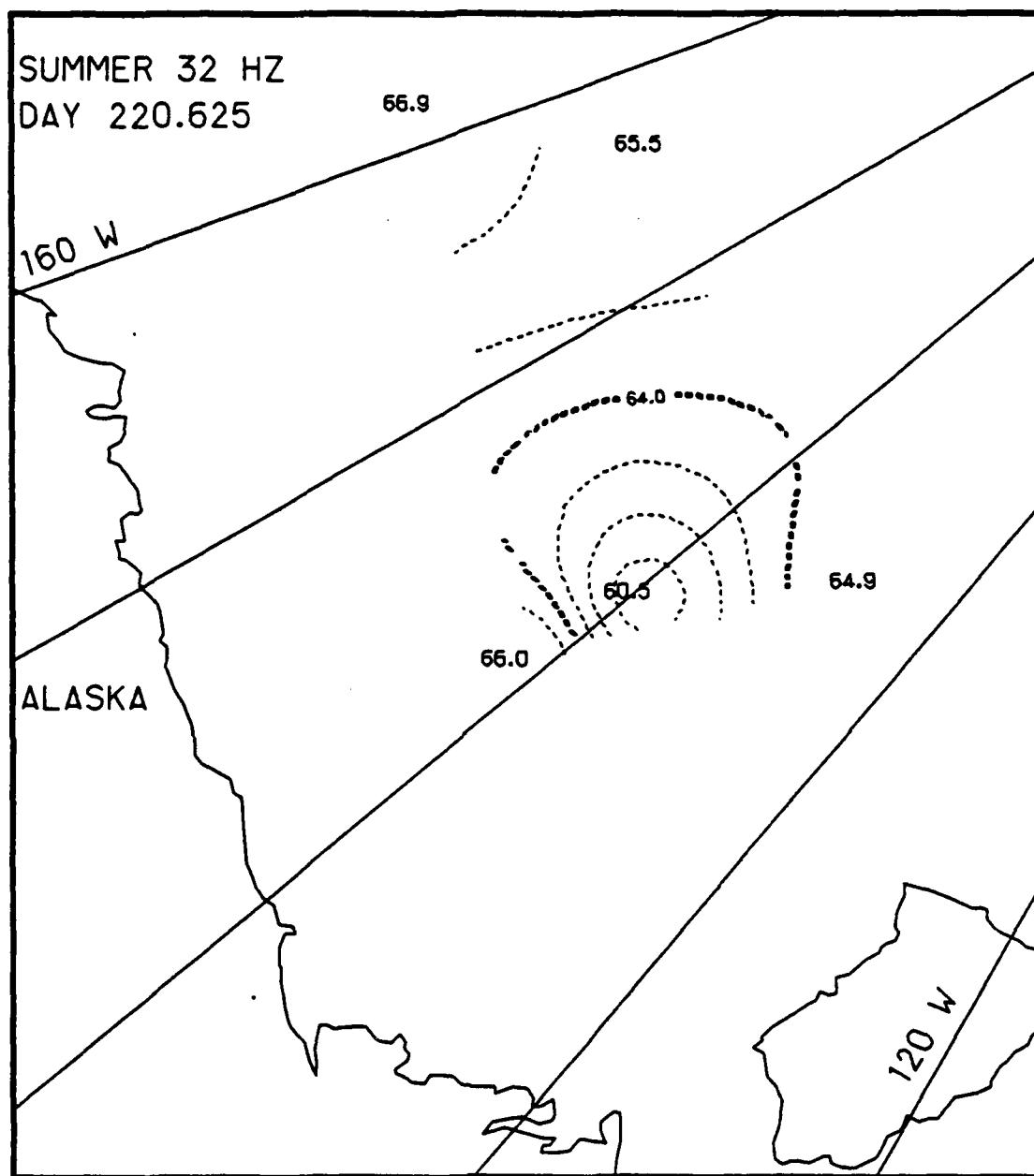


Fig. B.23. Spatial noise variations, day 220.625, based on the AIDJEX 32 Hz noise data.

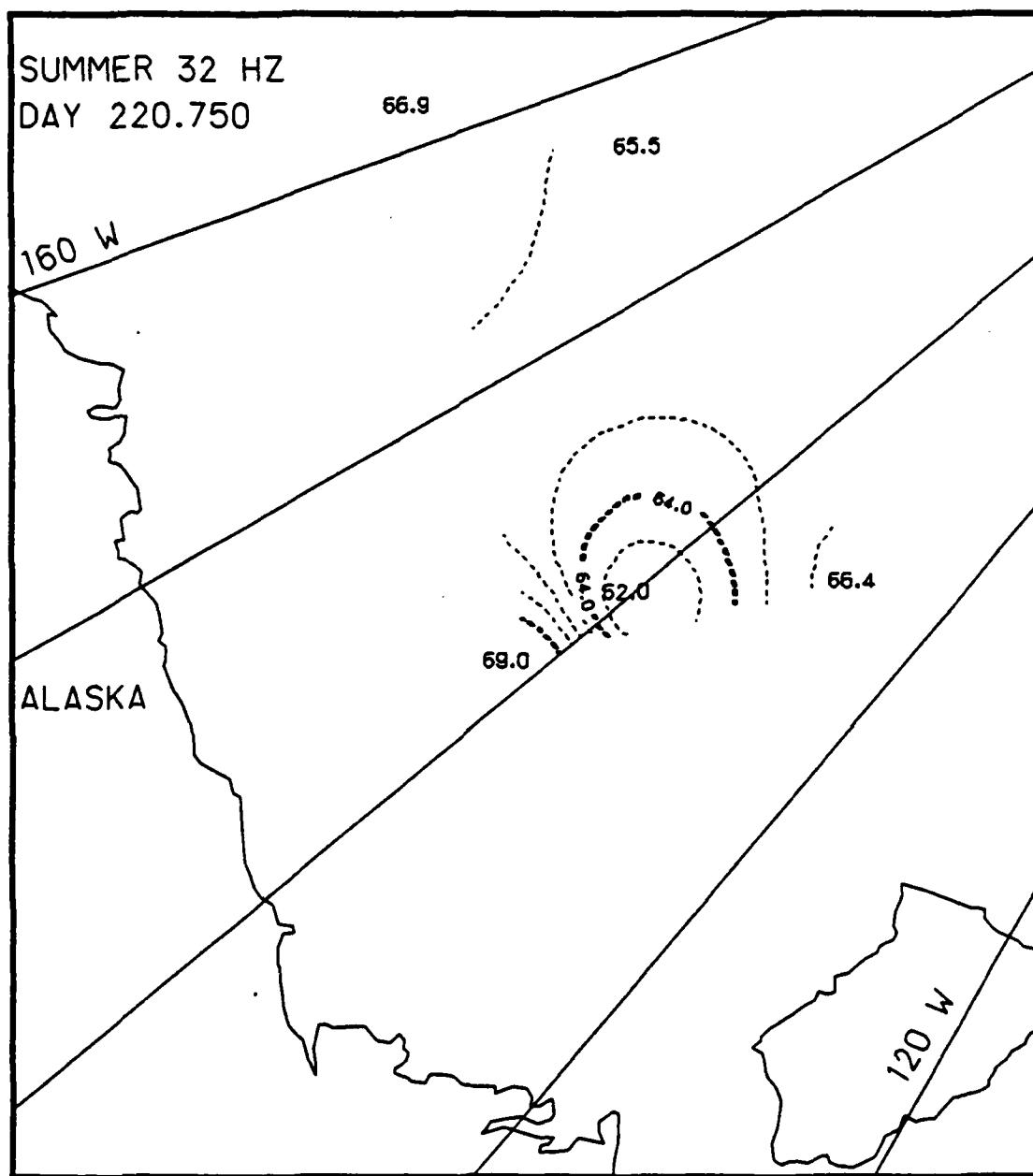


Fig. B.24. Spatial noise variations, day 220.75, based on the AIDJEX 32 Hz noise data.

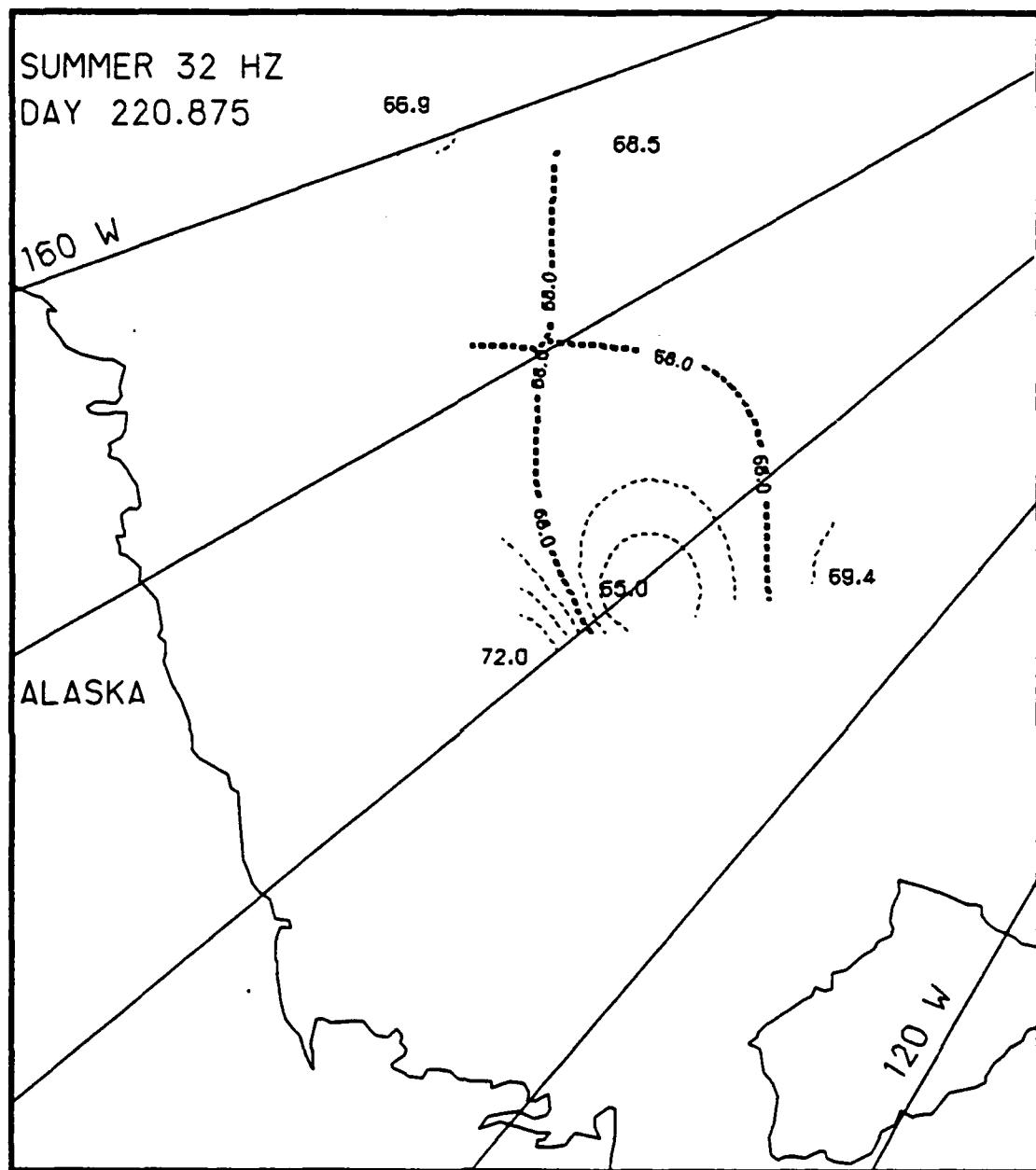


Fig. B.25. Spatial noise variations, day 220.875, based on the AIDJEX 32 Hz noise data.

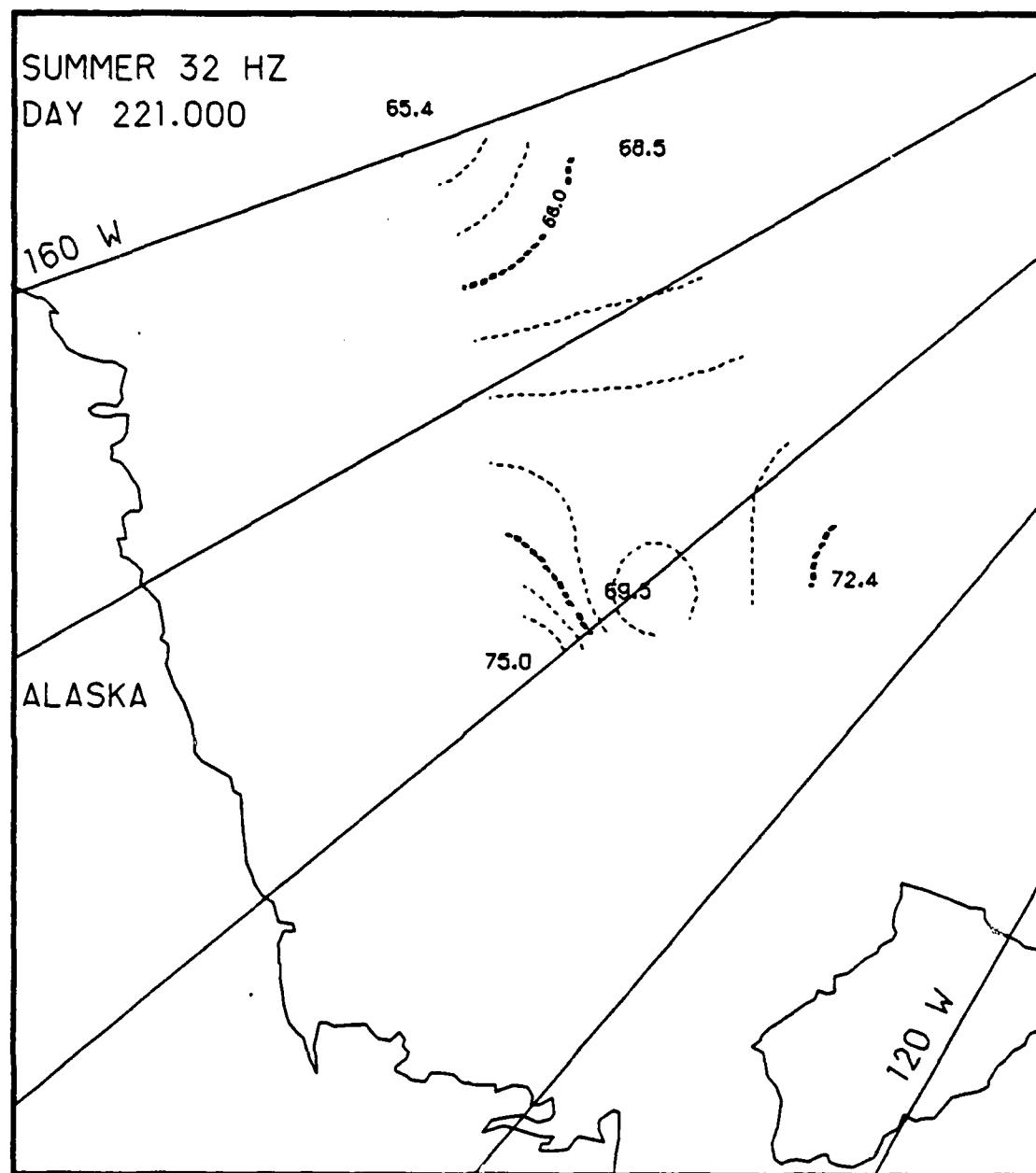


Fig. B.26. Spatial noise variations, day 221.0, based on the AIDJEX 32 Hz noise data.

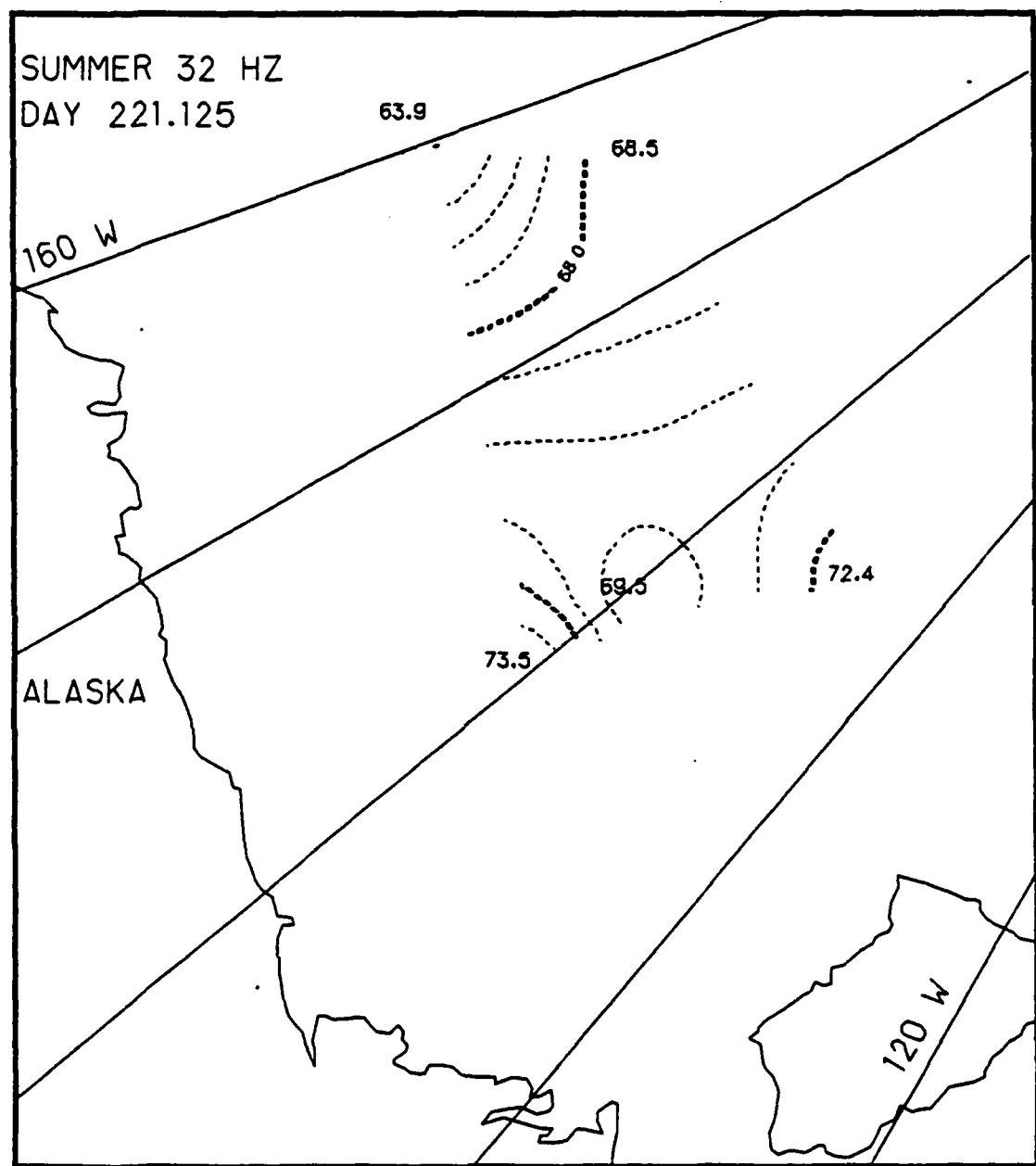


Fig. B.27. Spatial noise variations, day 221.125, based on the AIDJEX 32 Hz noise data.

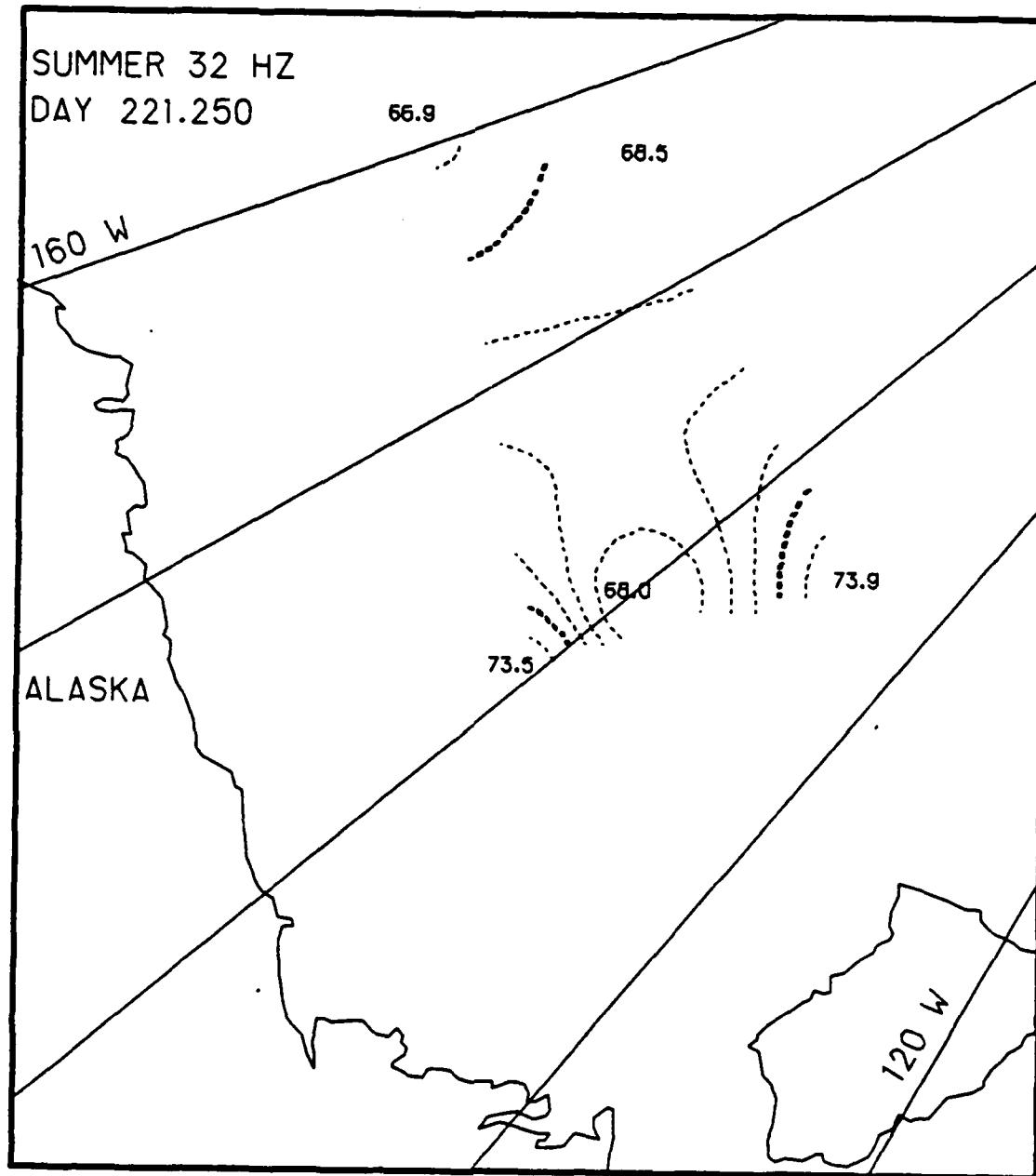


Fig. B.28. Spatial noise variations, day 221.25, based on the AIDJEX 32 Hz noise data.

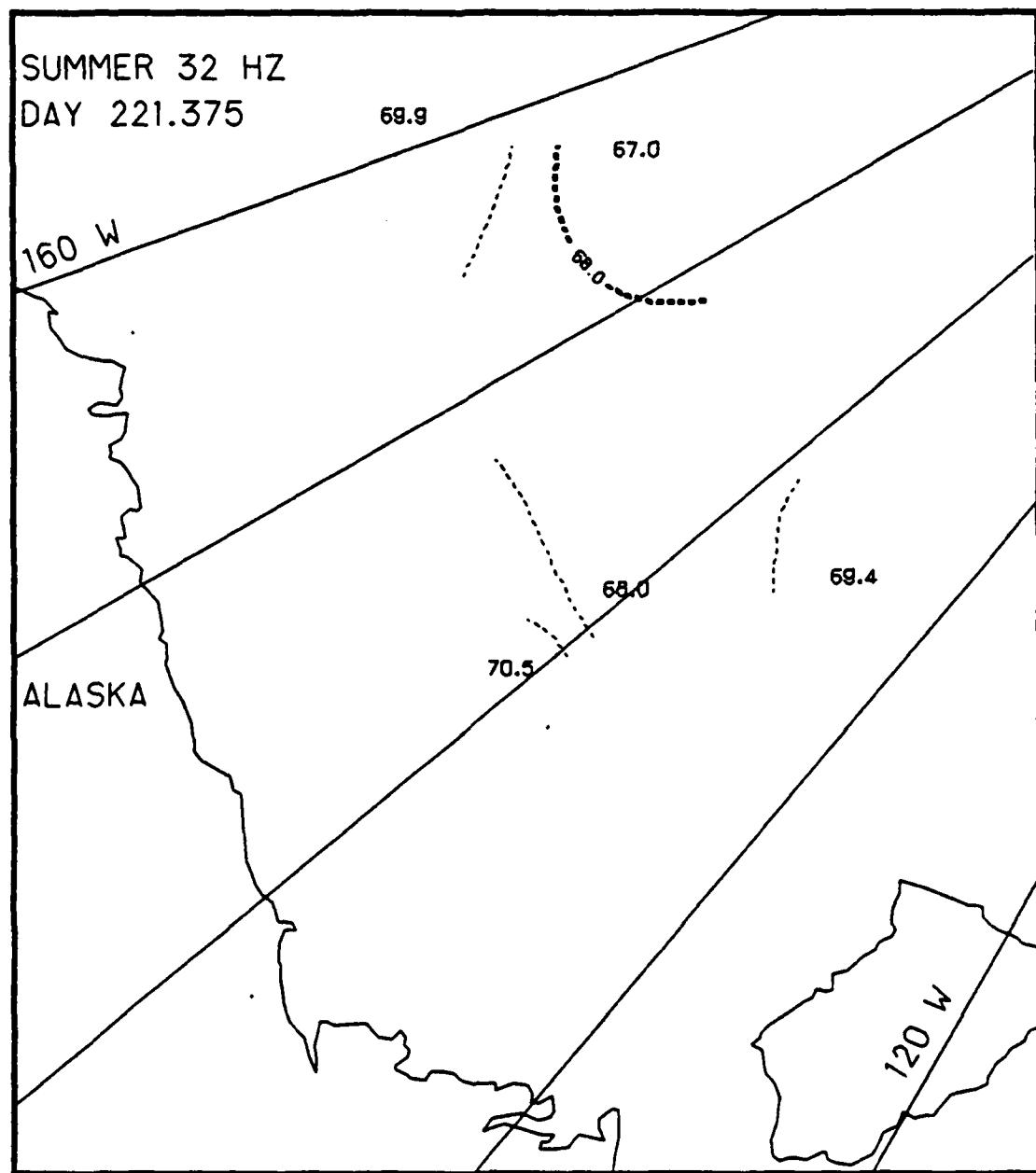


Fig. B.29. Spatial noise variations, day 221.375, based on the AIDJEX 32 Hz noise data.

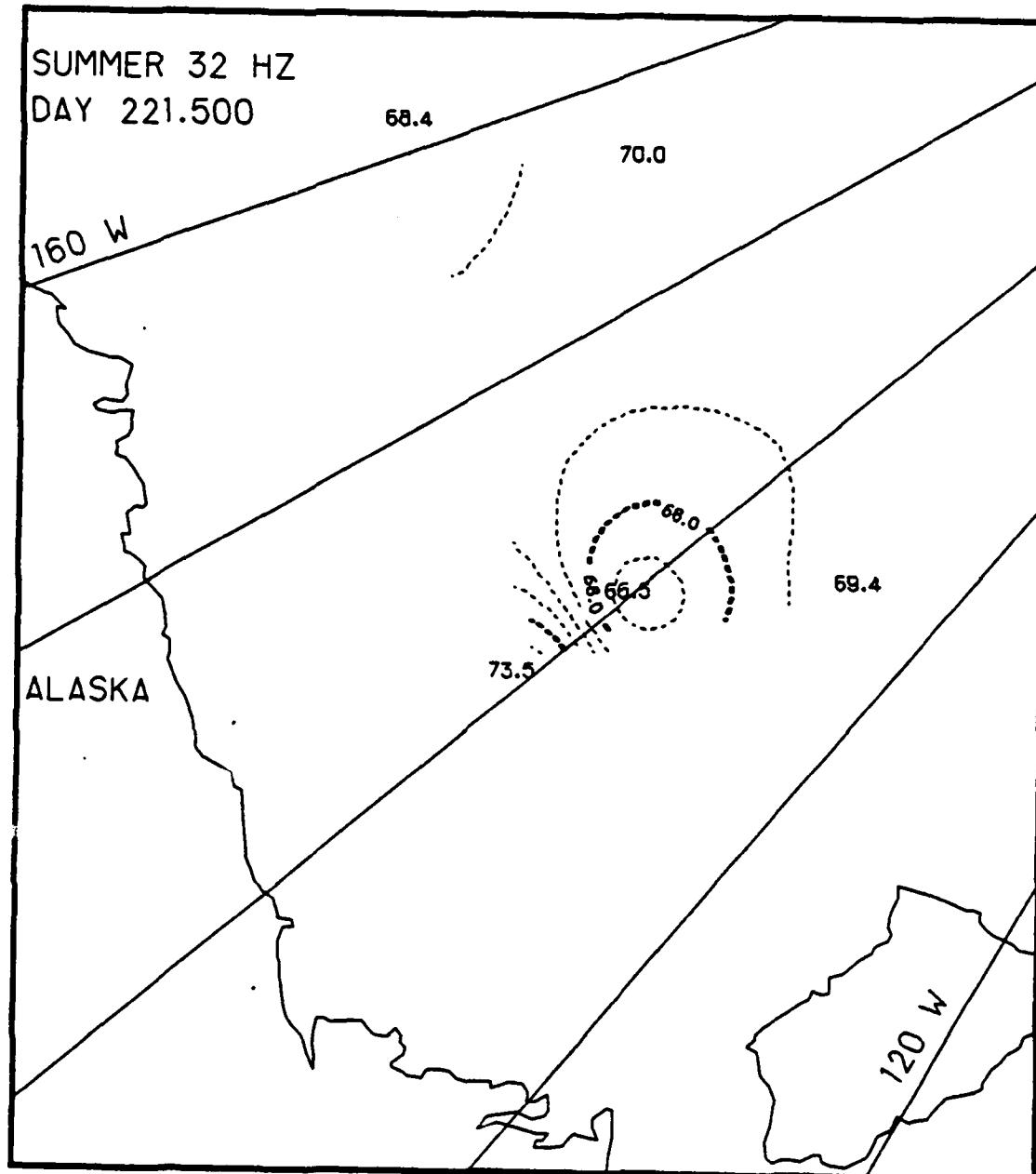


Fig. B.30. Spatial noise variations, day 221.5, based on the AIDJEX 32 Hz noise data.

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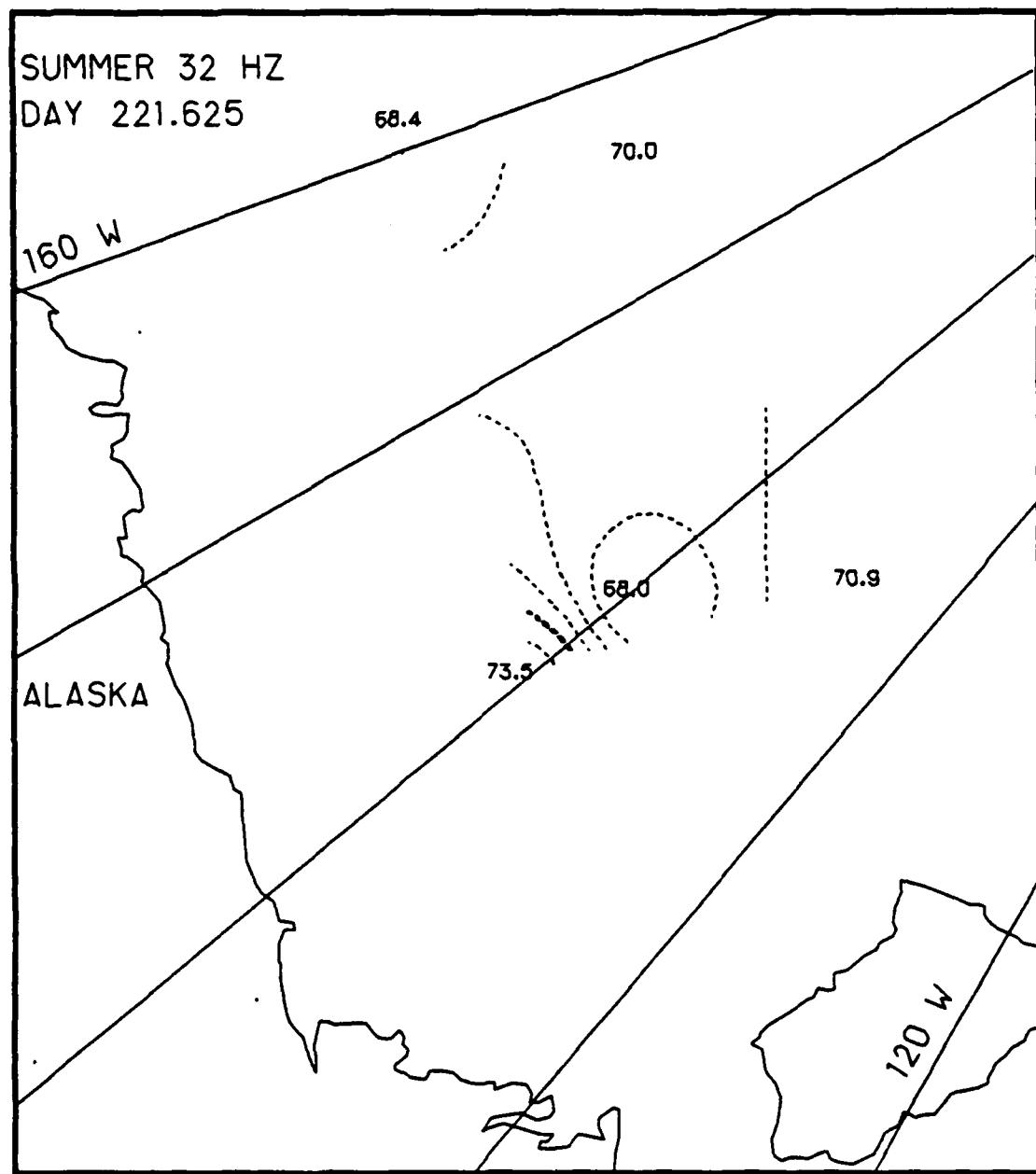


Fig. B.31. Spatial noise variations, day 221.625, based on the AIDJEX 32 Hz noise data.

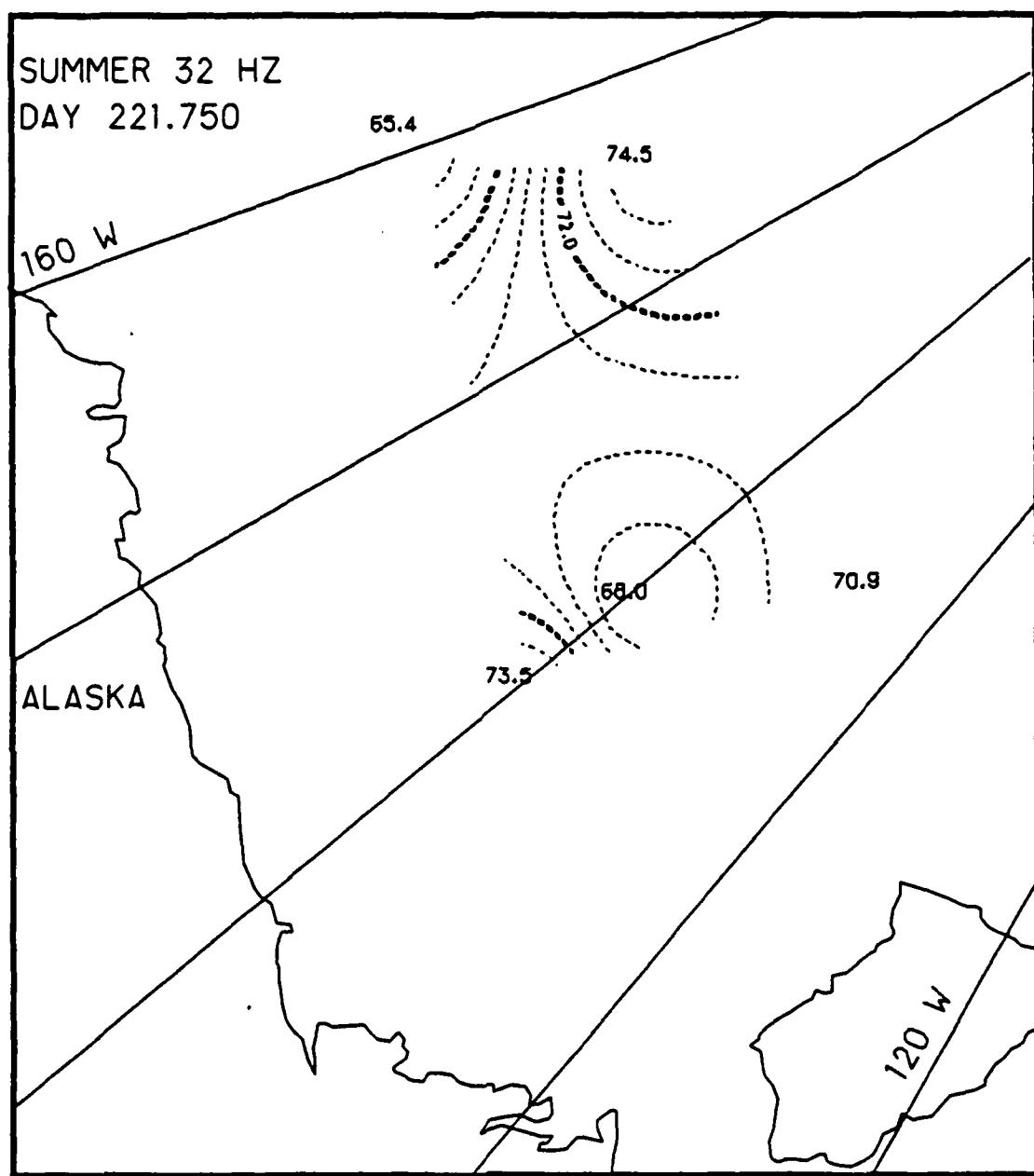


Fig. B.32. Spatial noise variations, day 221.75, based on the  
AIDJEX 32 Hz noise data.

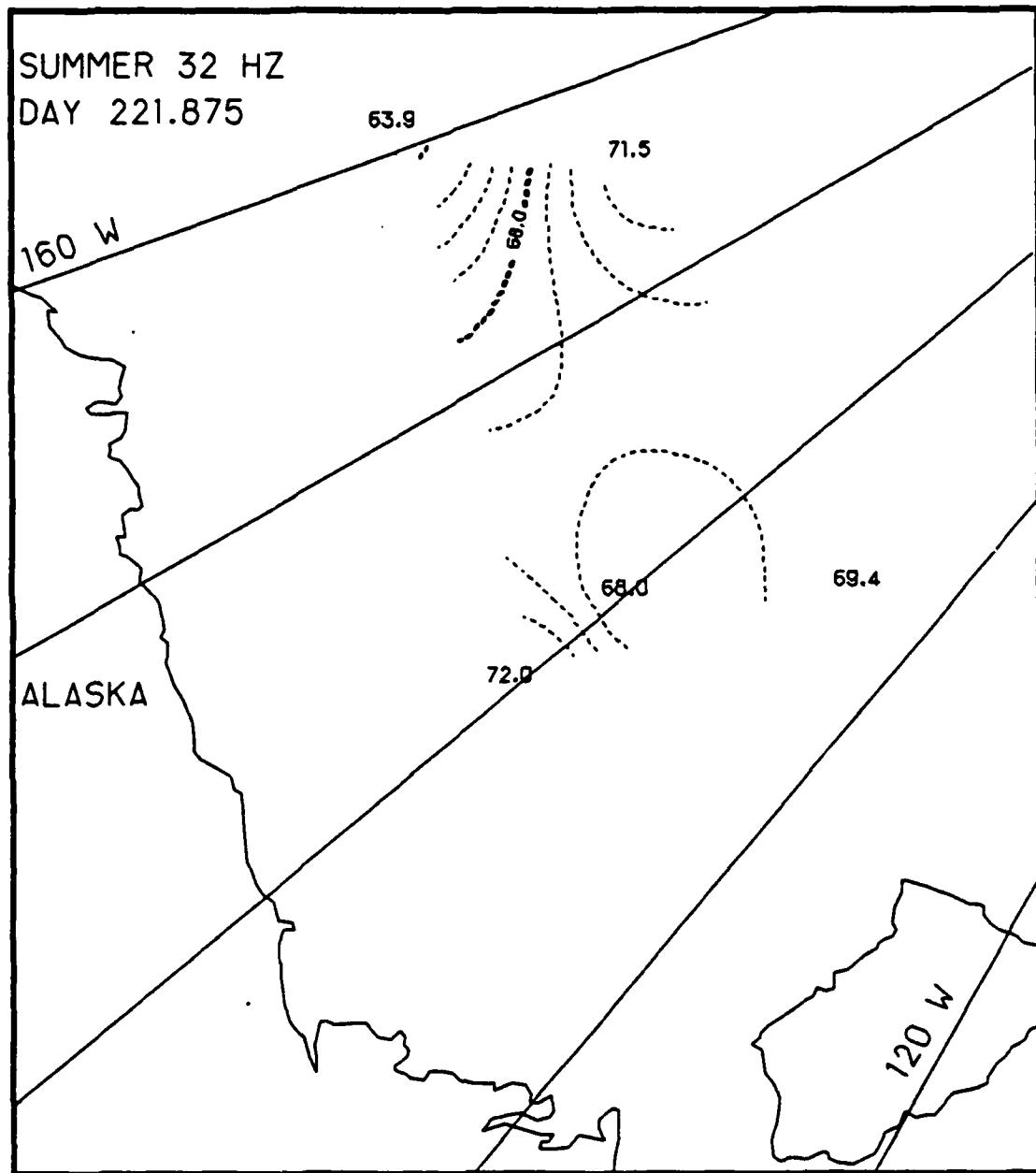


Fig. B.33. Spatial noise variations, day 221.875, based on the AIDJEX 32 Hz noise data.

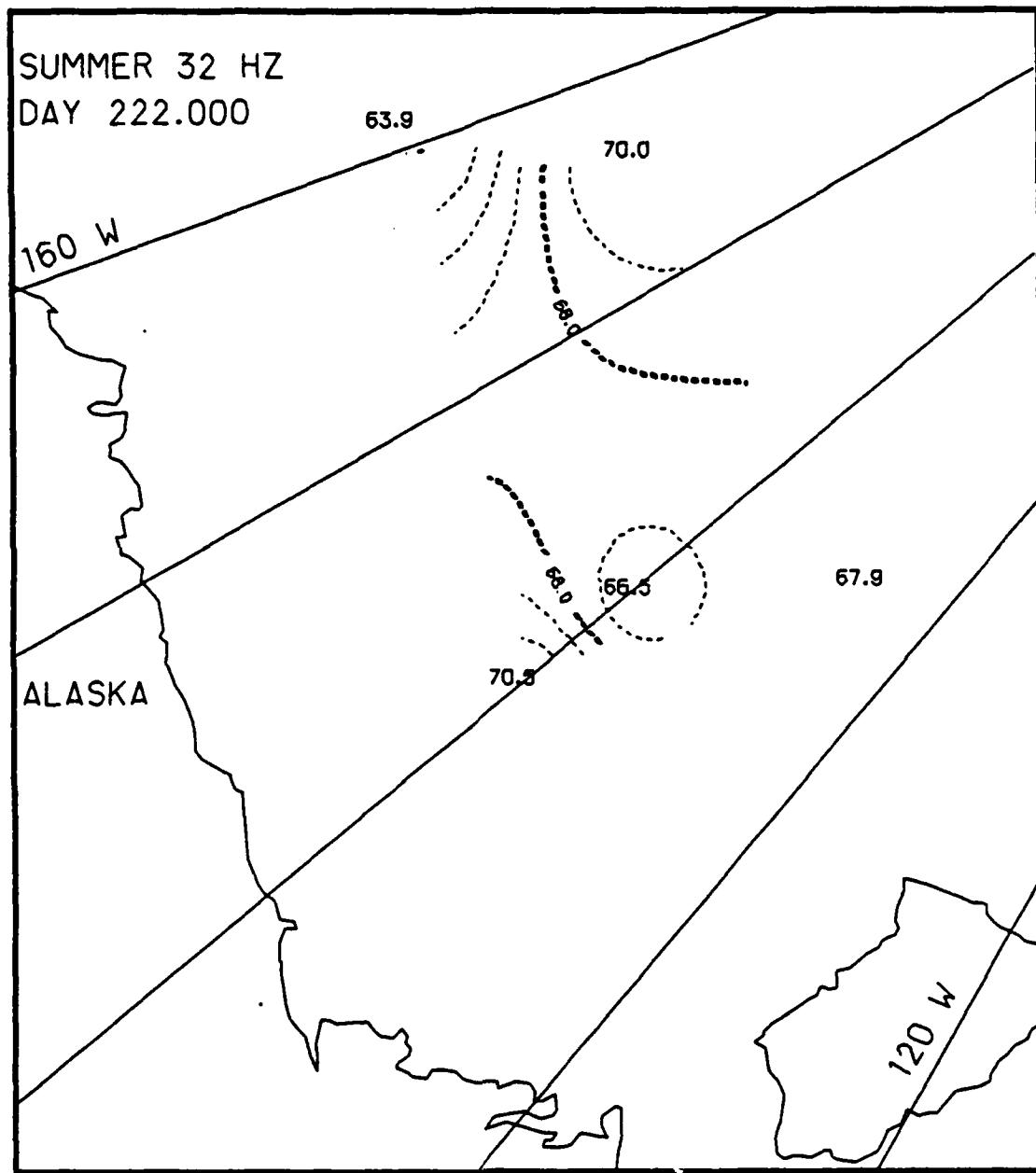


Fig. B.34. Spatial noise variations, day 222.0, based on the AIDJEX 32 Hz noise data.

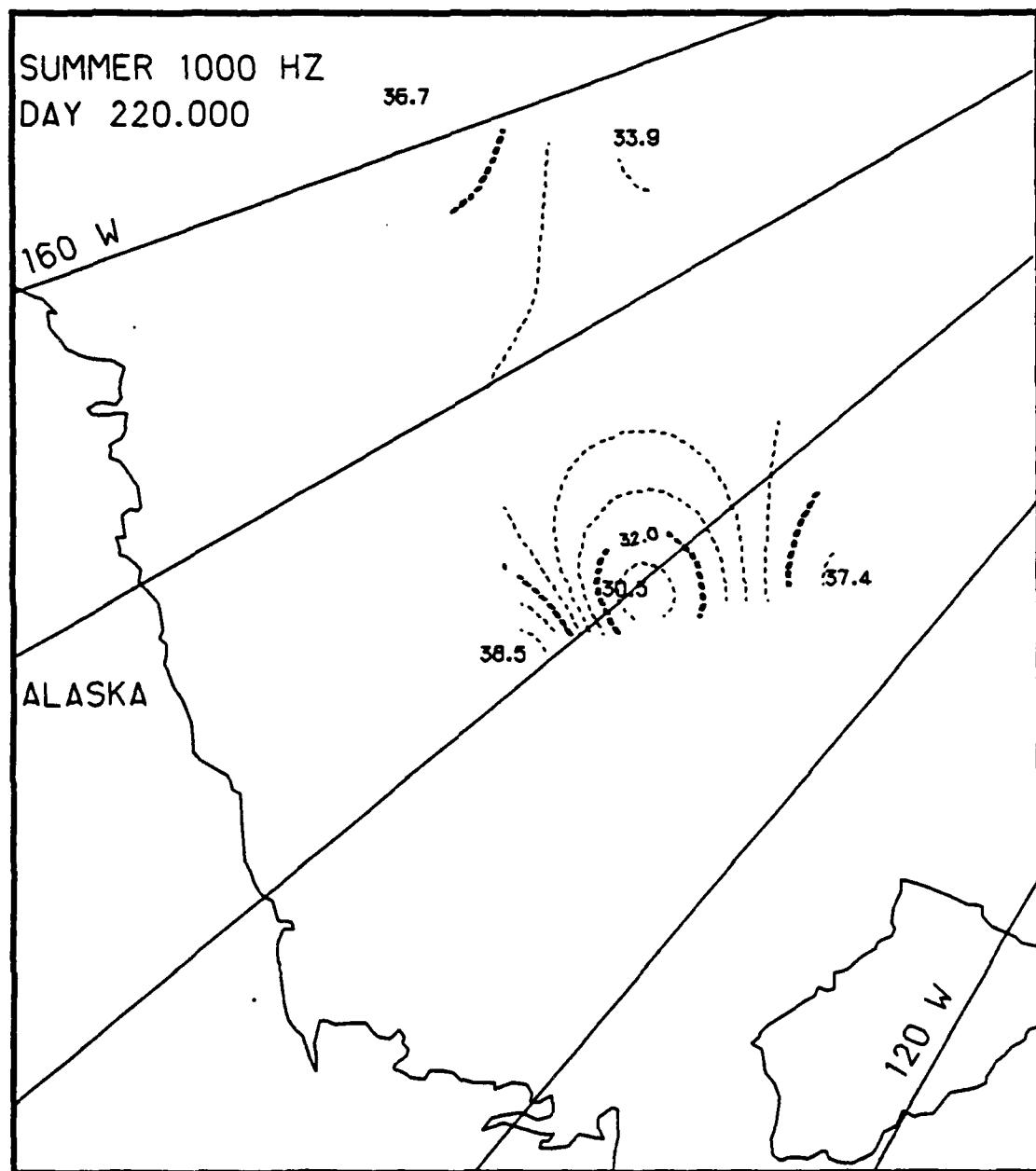


Fig. B.35. Spatial noise variations, day 220.0, based on the AIDJEX 1000 Hz noise data.

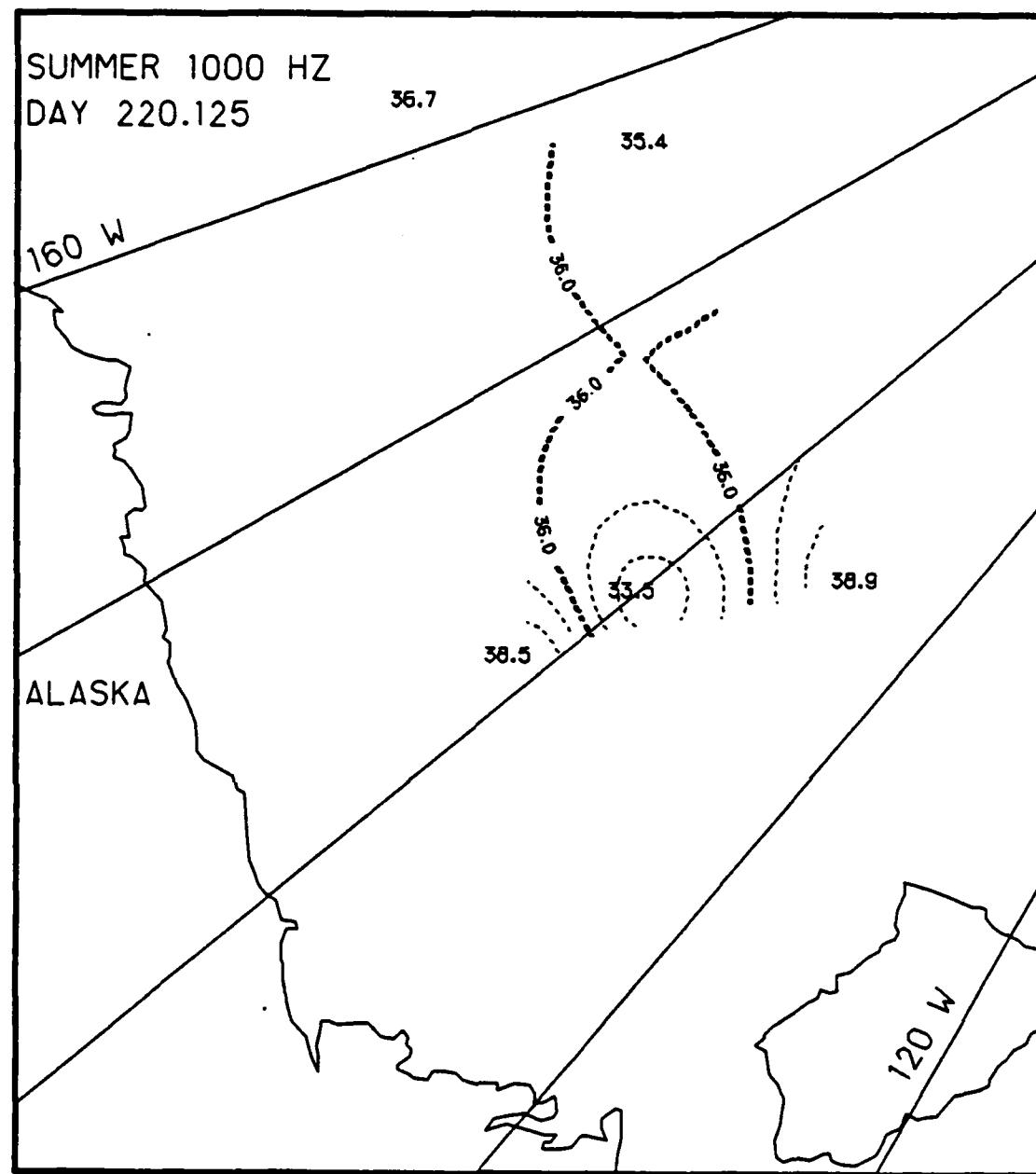


Fig. B.36. Spatial noise variations, day 220.125, based on the AIDJEX 1000 Hz noise data.

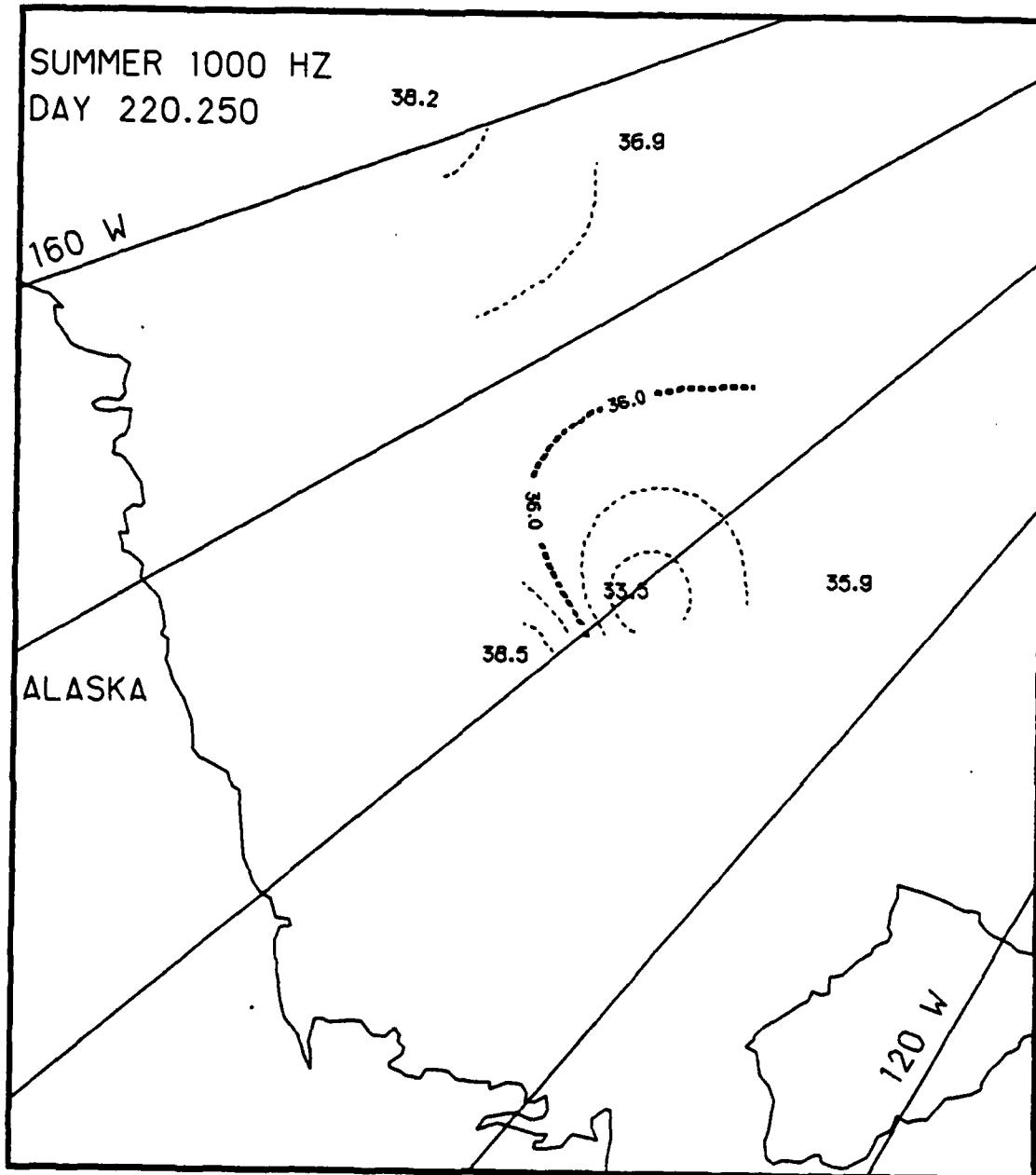


Fig. B.37. Spatial noise variations, day 220.25, based on the AIDJEX 1000 Hz noise data.

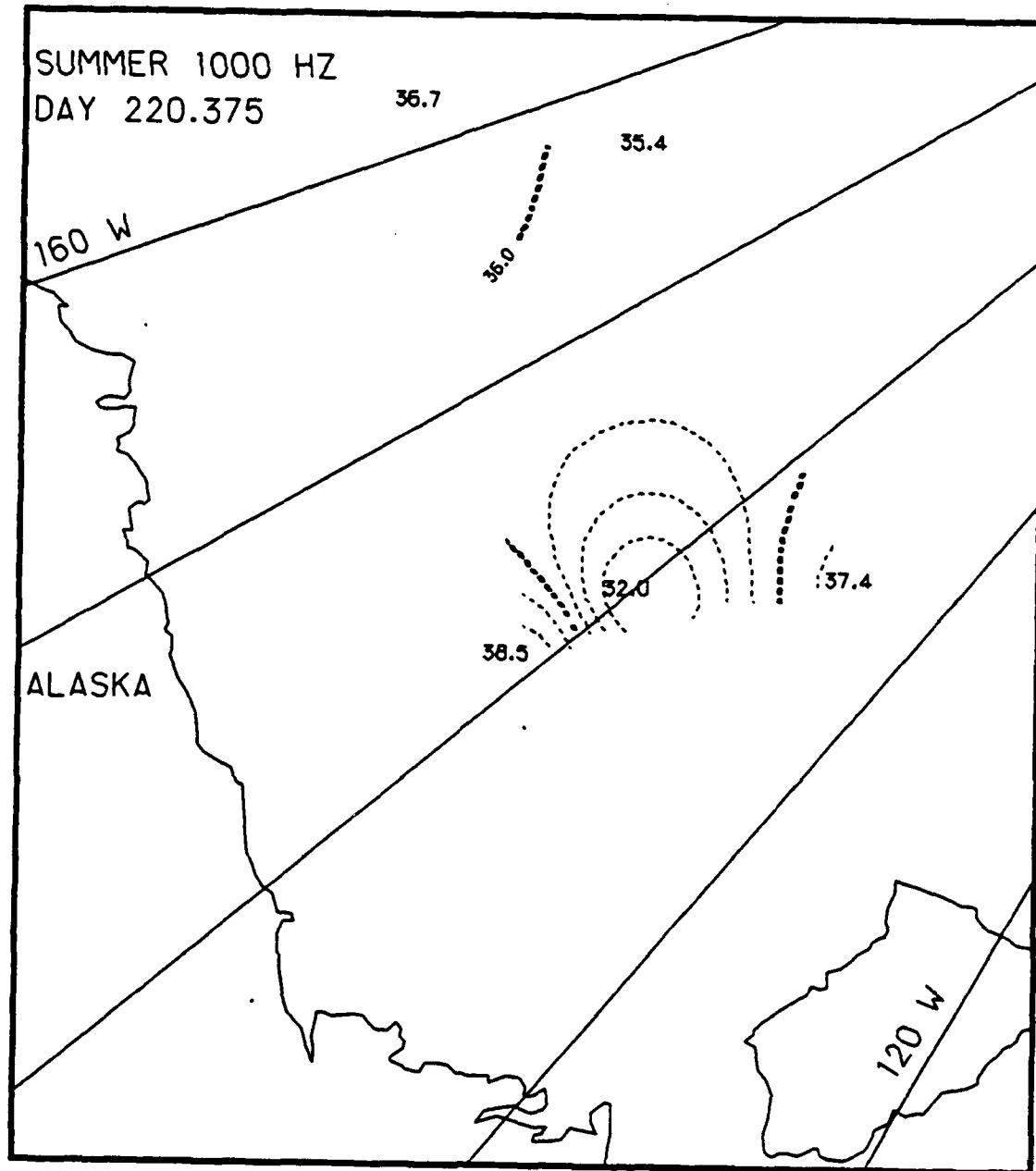


Fig. B.38. Spatial noise variations, day 220.375, based on the AIDJEX 1000 Hz noise data.

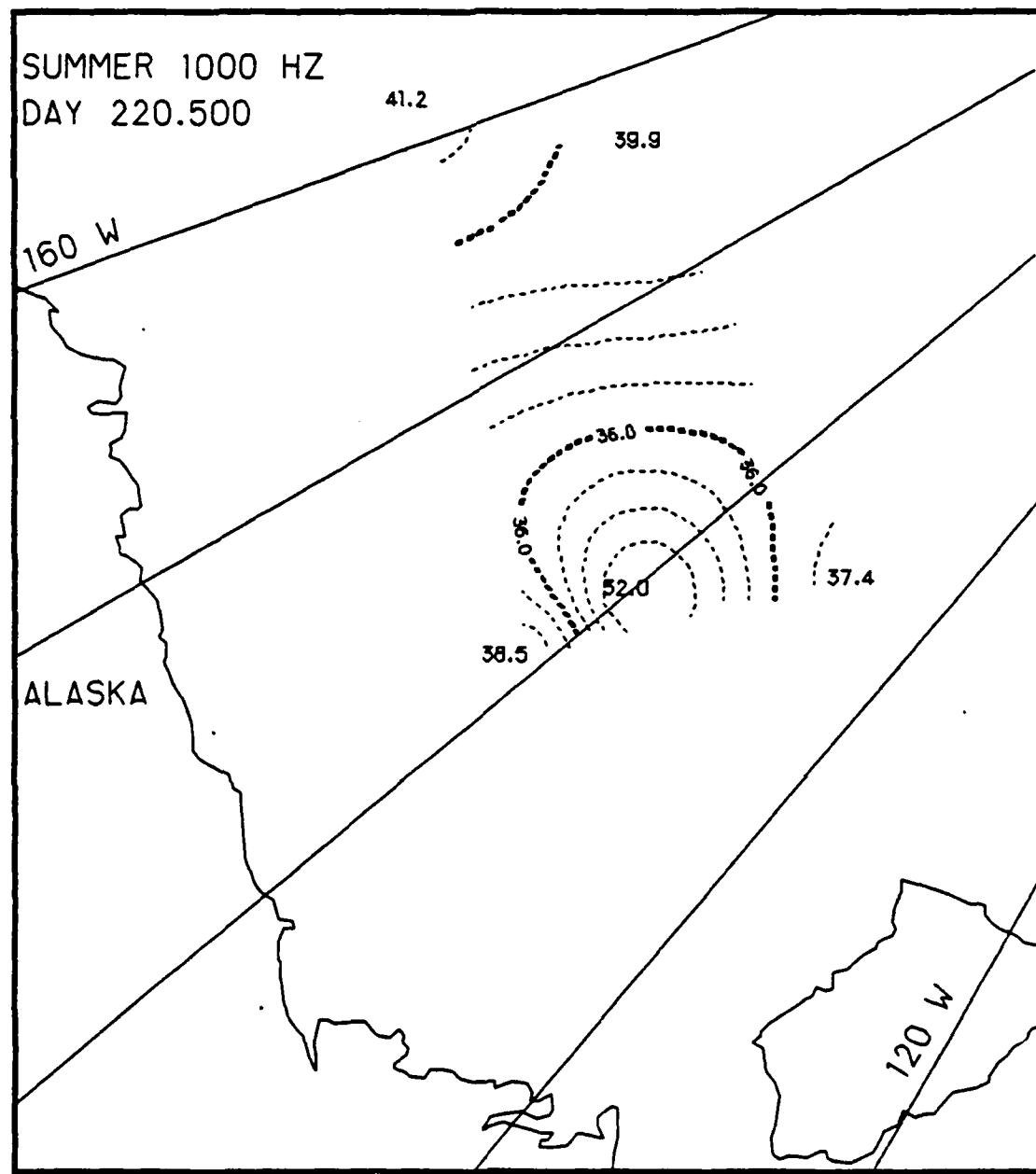


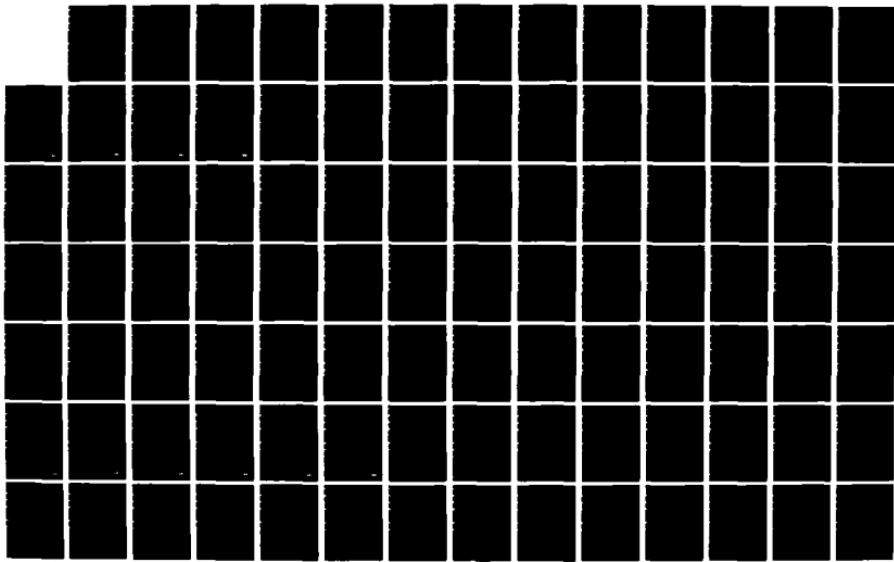
Fig. B.39. Spatial noise variations, day 220.5, based on the AIDJEX 1000 Hz noise data.

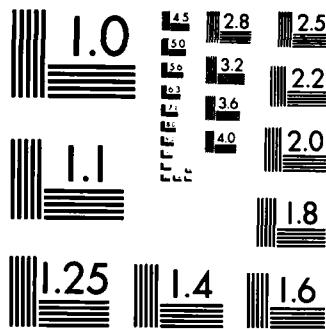
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ARCTIC AMBIENT NO. (U) HONEYWELL INC DUARTE CA ORDNANCE  
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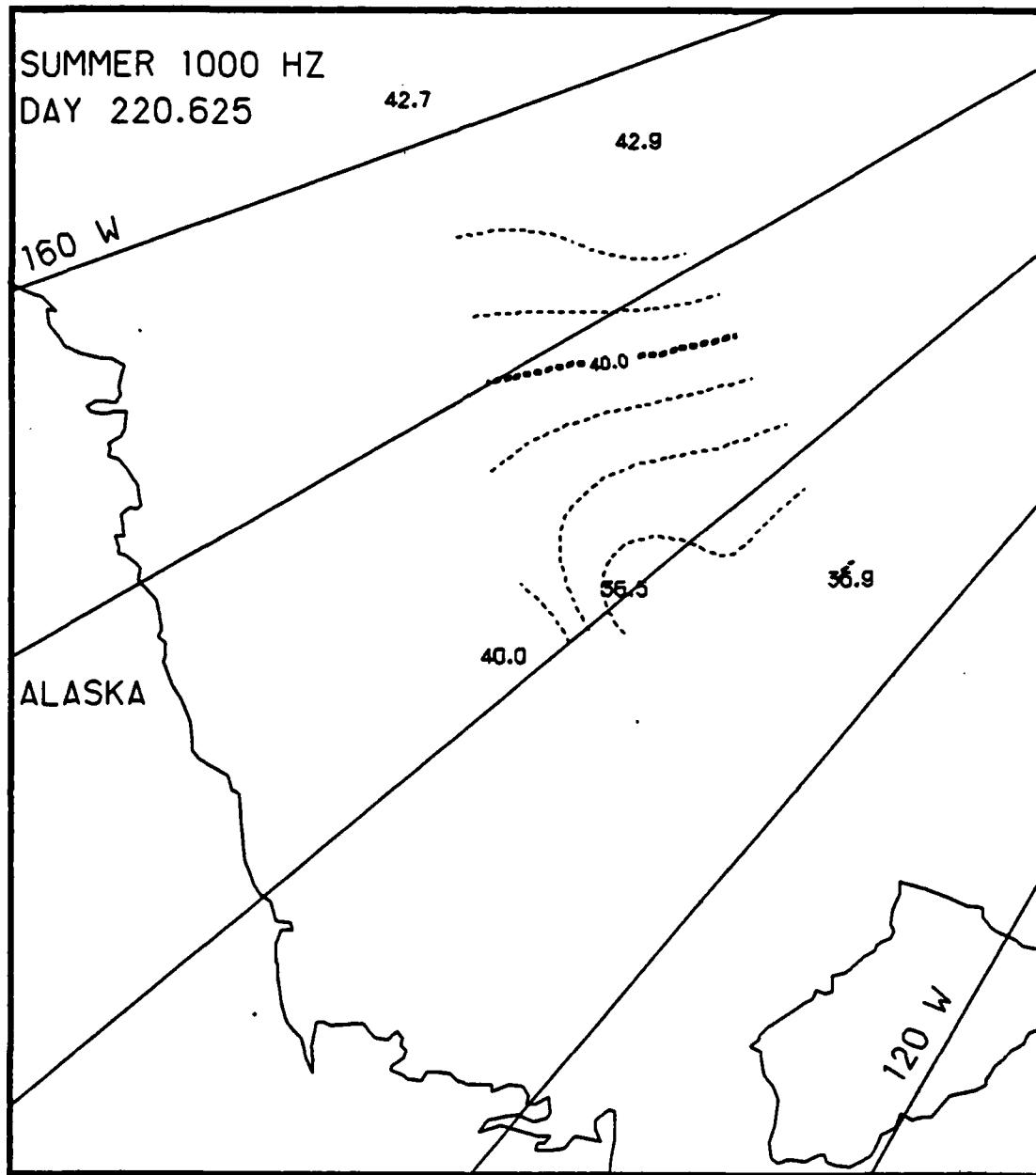


Fig. B.40. Spatial noise variations, day 220.625, based on the AIDJEX 1000 Hz noise data.

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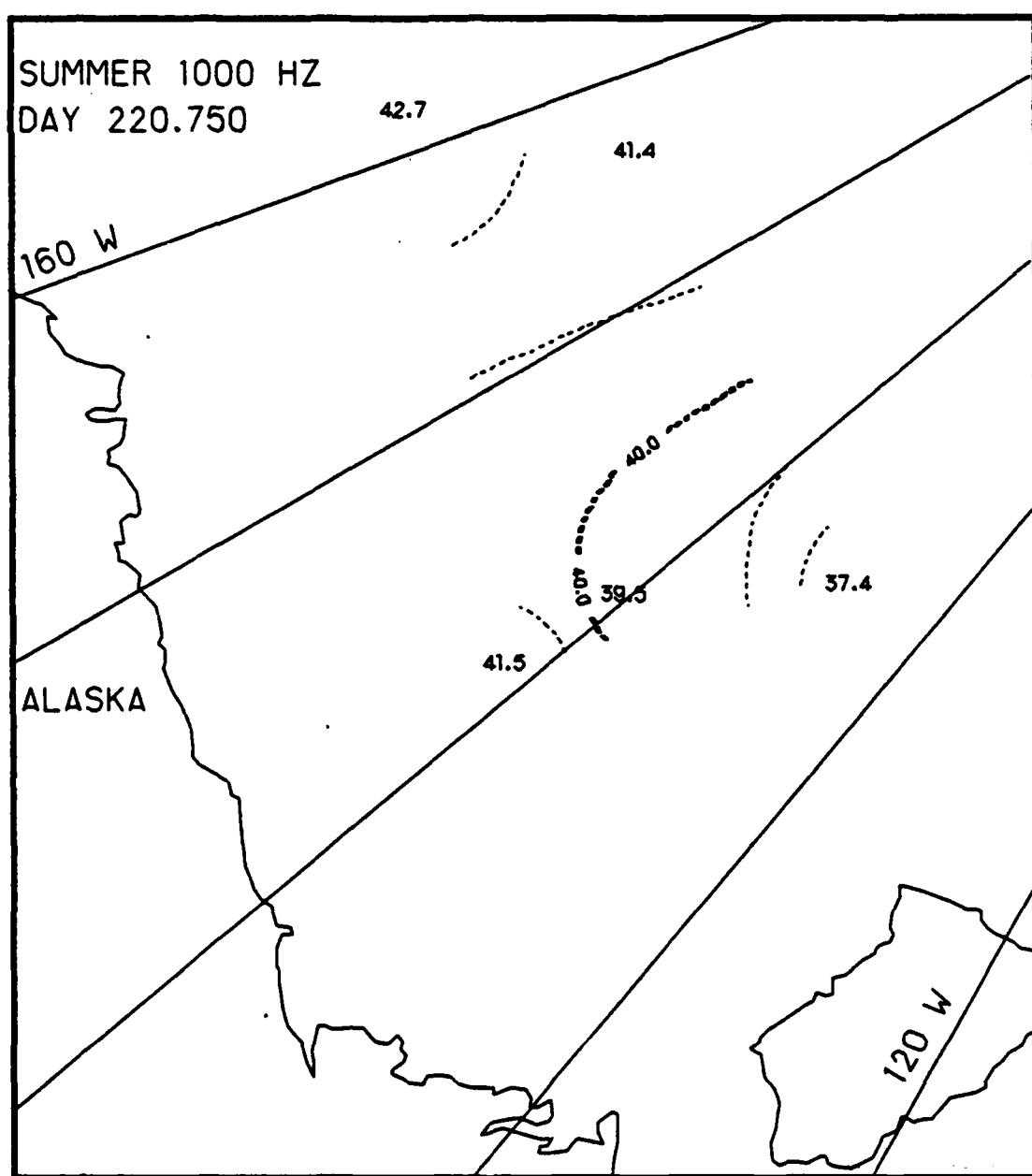


Fig. B.41. Spatial noise variations, day 220.75, based on the AIDJEX 1000 Hz noise data.

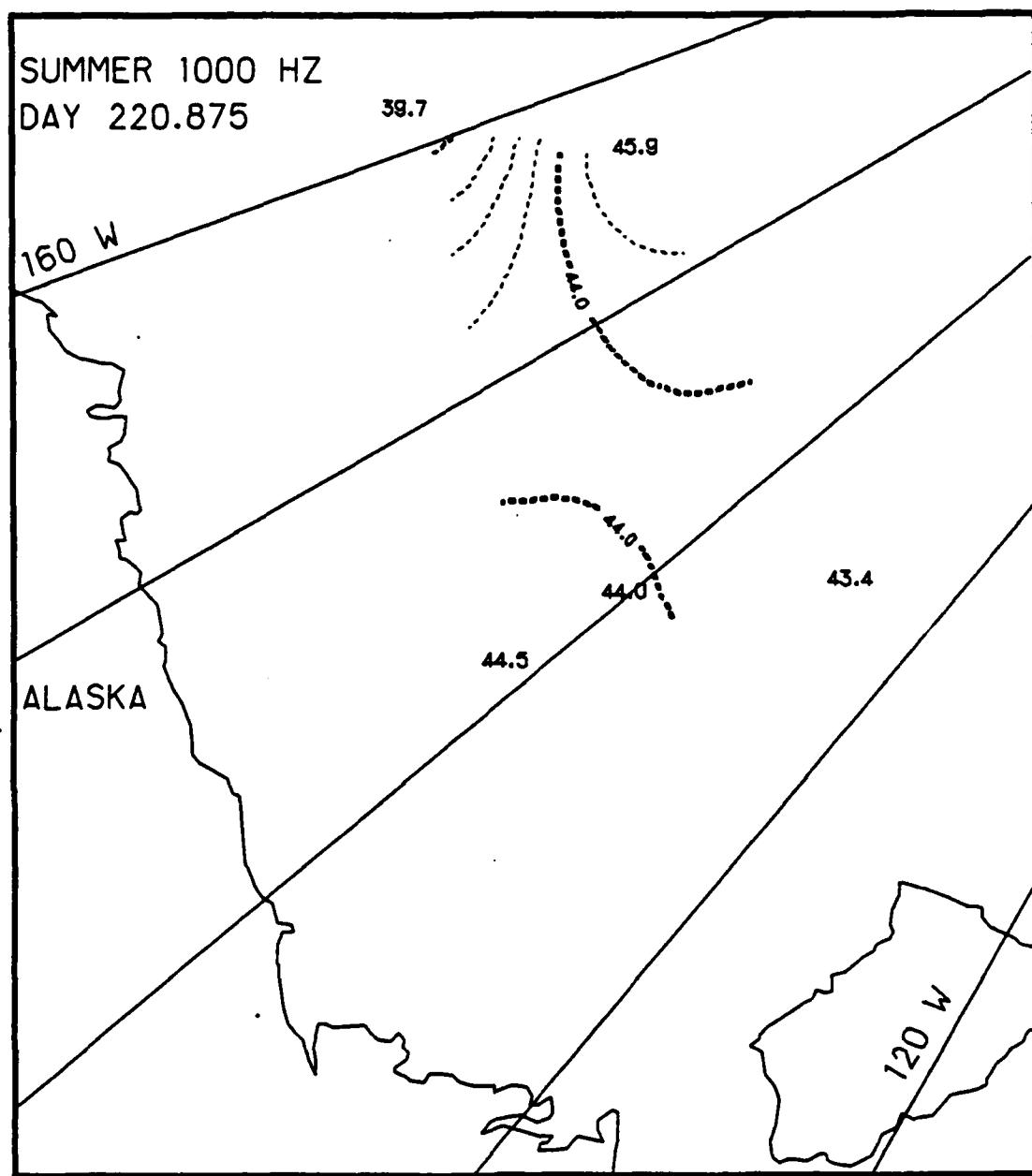


Fig. B.42. Spatial noise variations, day 220.875, based on the AIDJEX 1000 Hz noise data.

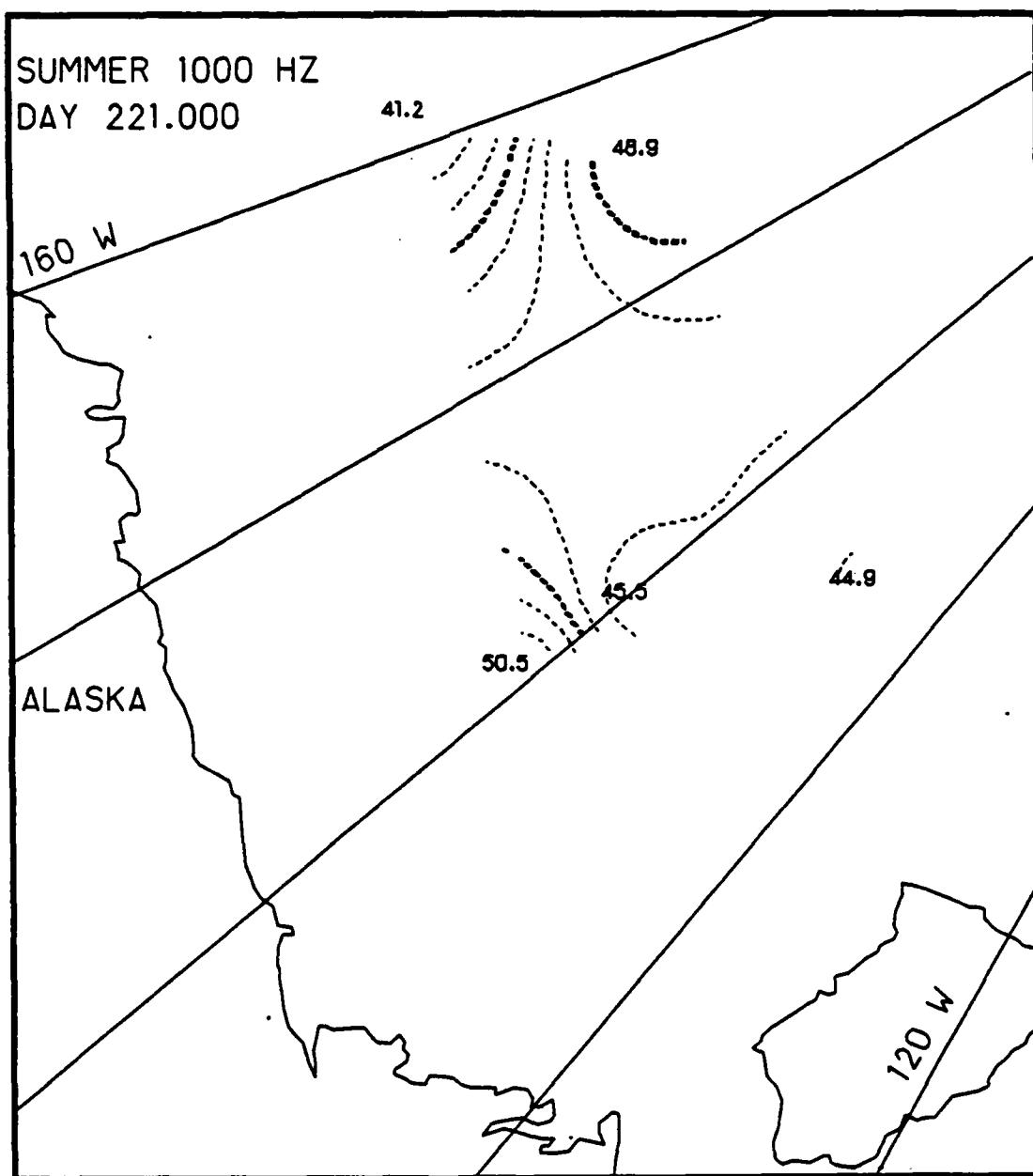


Fig. B.43. Spatial noise variations, day 221.0, based on the AIDJEX 1000 Hz noise data.

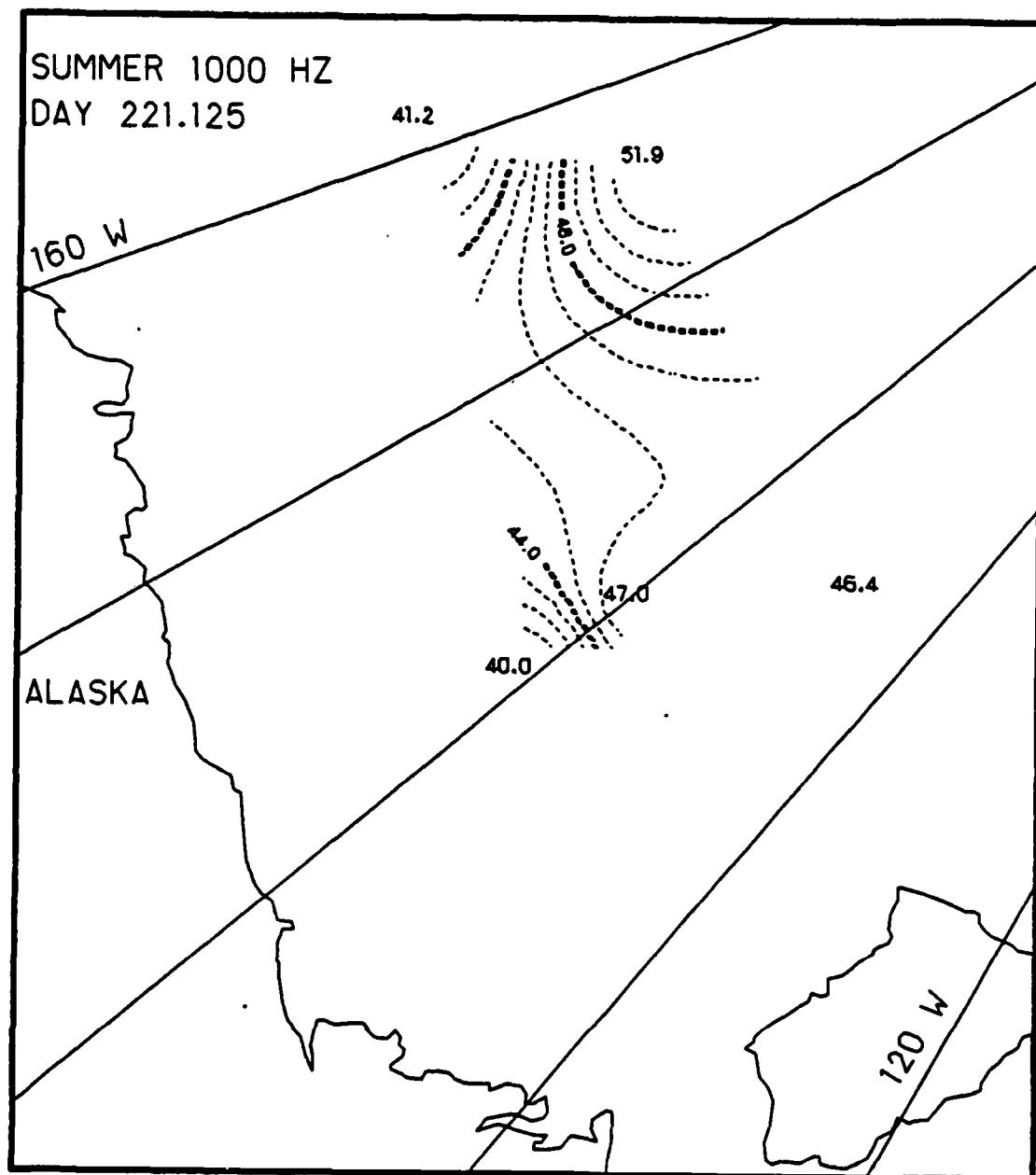


Fig. B.44. Spatial noise variations, day 221.125, based on the AIDJEX 1000 Hz noise data.

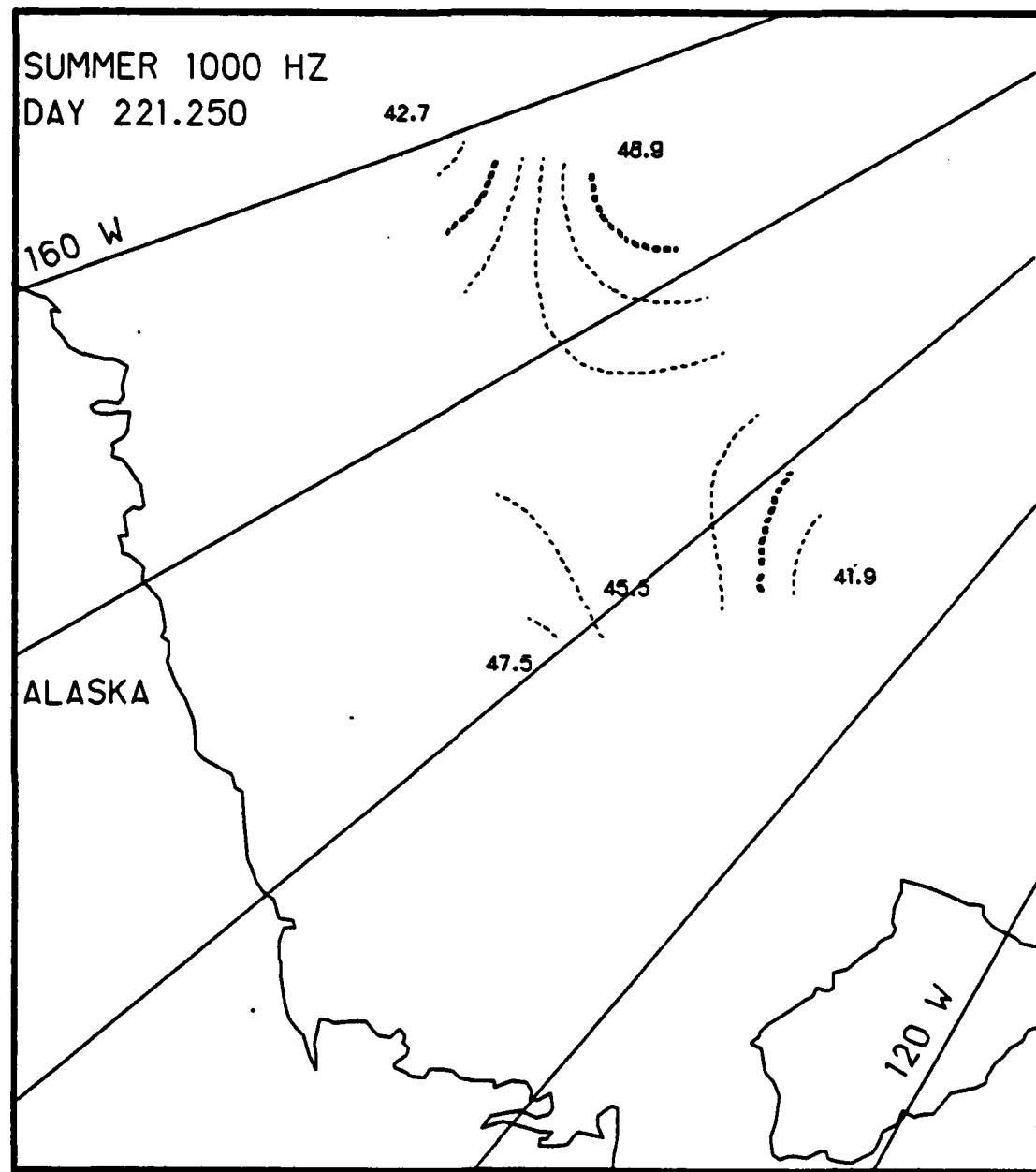


Fig. B.45. Spatial noise variations, day 221.25, based on the AIDJEX 1000 Hz noise data.

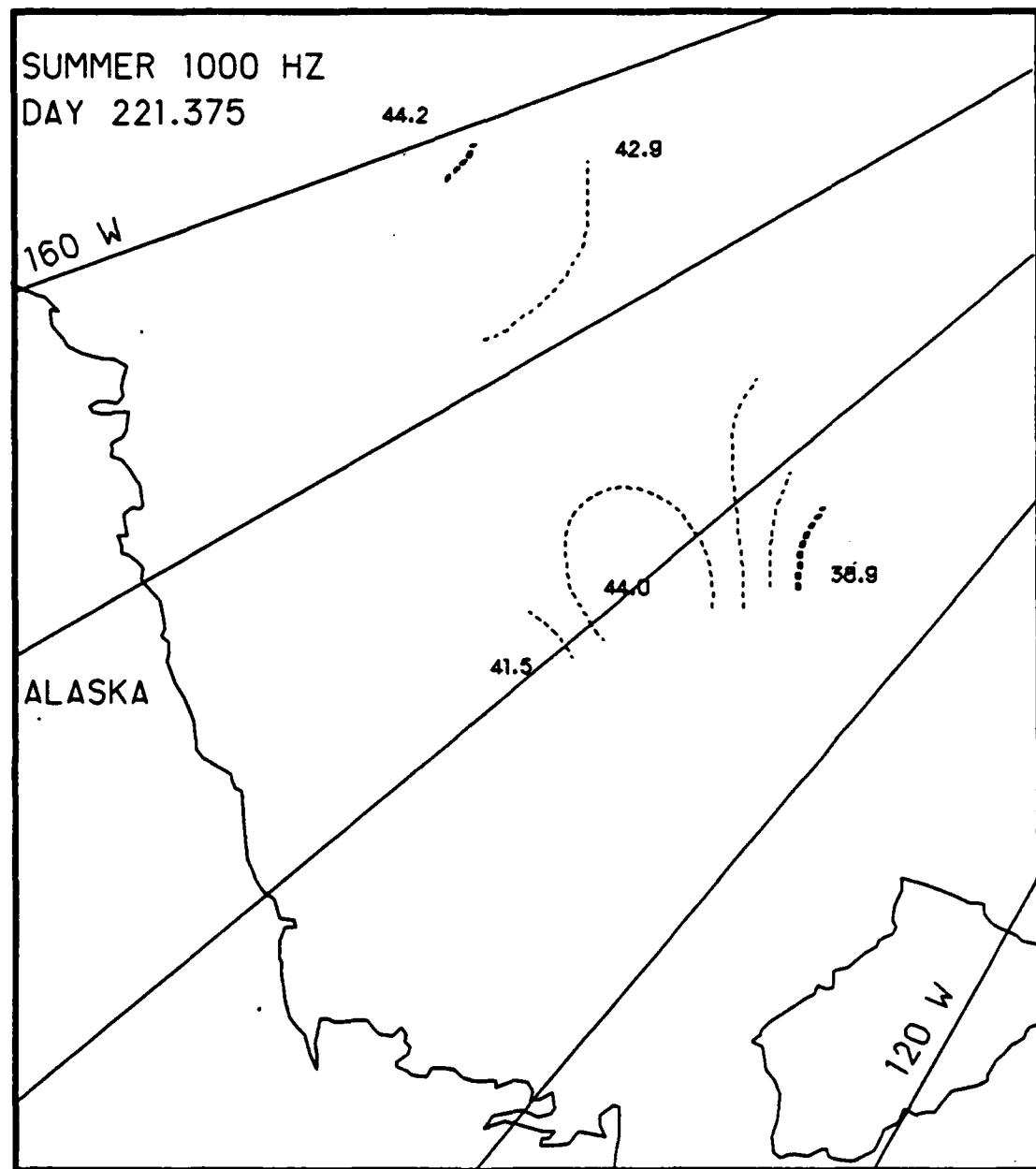


Fig. B.46. Spatial noise variations, day 221.375, based on the AIDJEX 1000 Hz noise data.

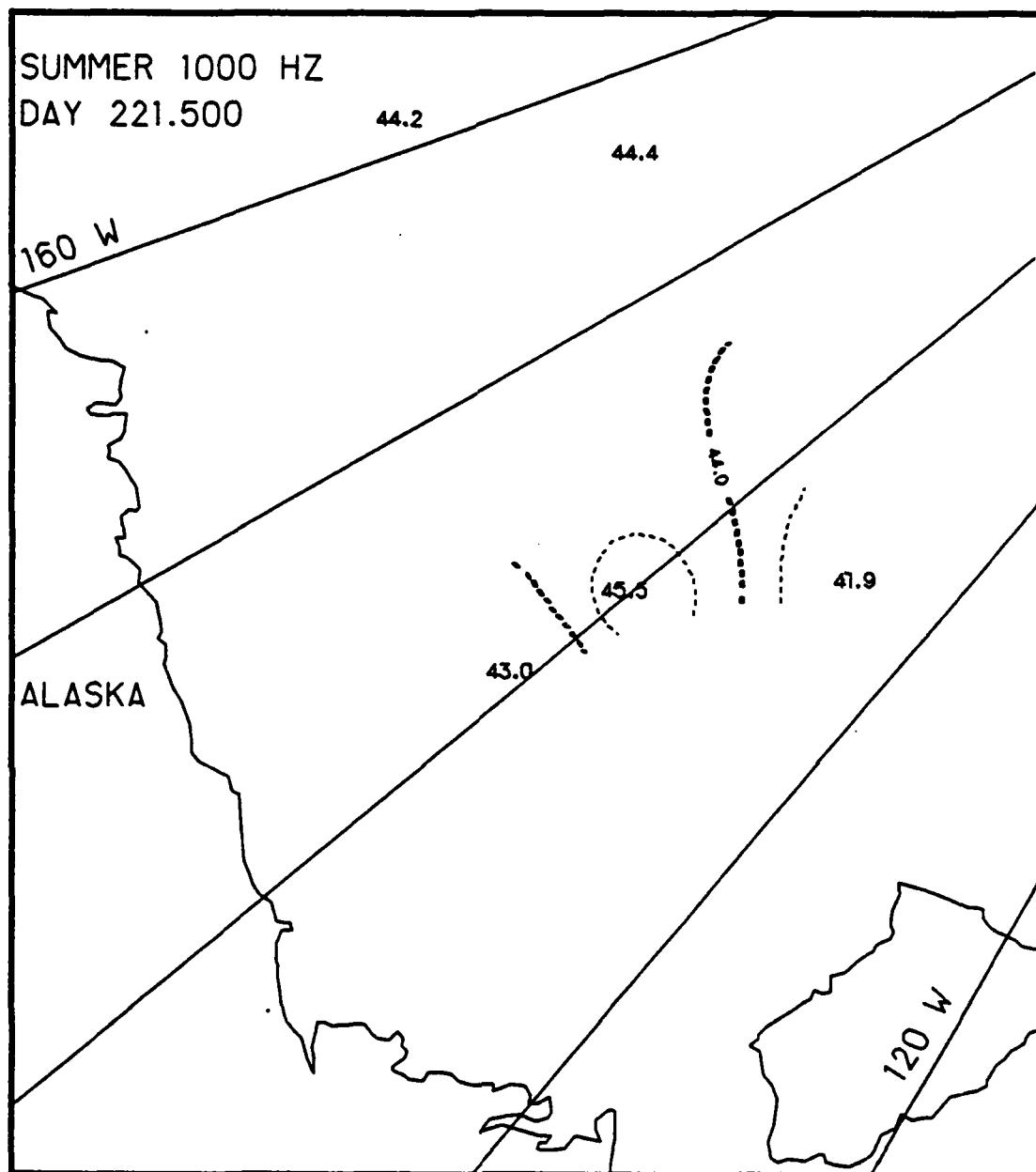


Fig. B.47. Spatial noise variations, day 221.5, based on the AIDJEX 1000 Hz noise data.

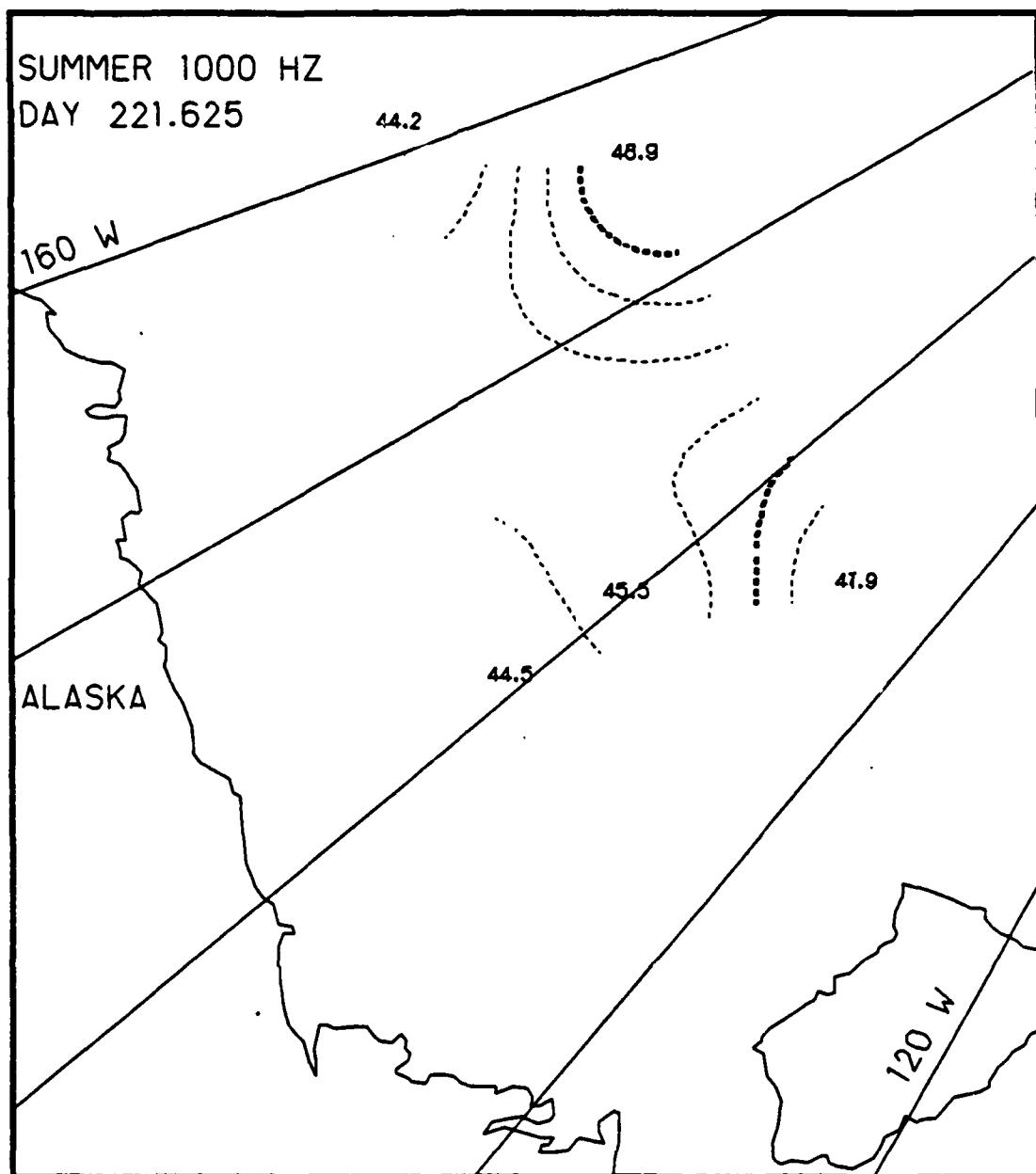


Fig. B.48. Spatial noise variations, day 221.625, based on the AIDJEX 1000 Hz noise data.

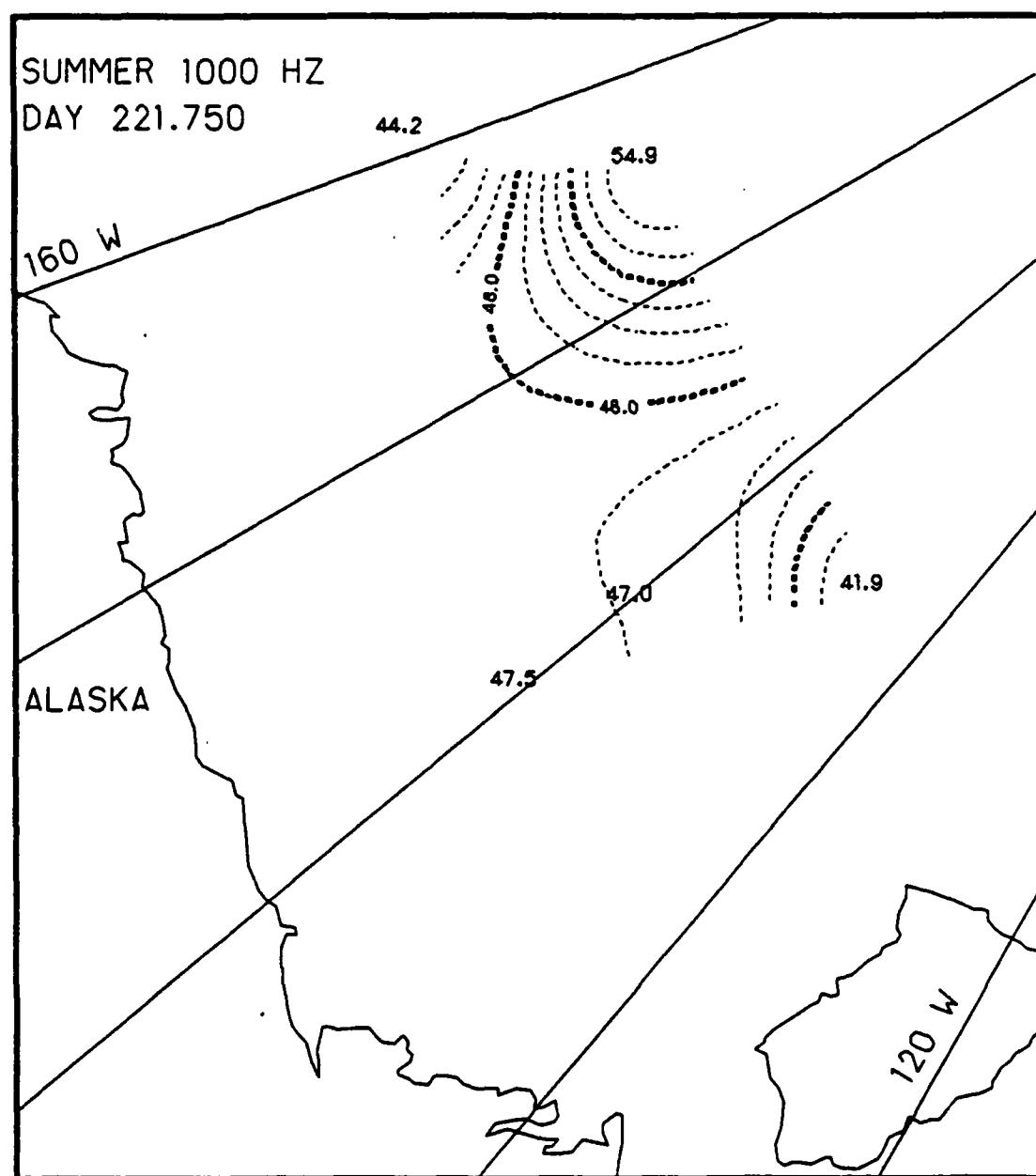


Fig. B.49. Spatial noise variations, day 221.75, based on the AIDJEX 1000 Hz noise data.

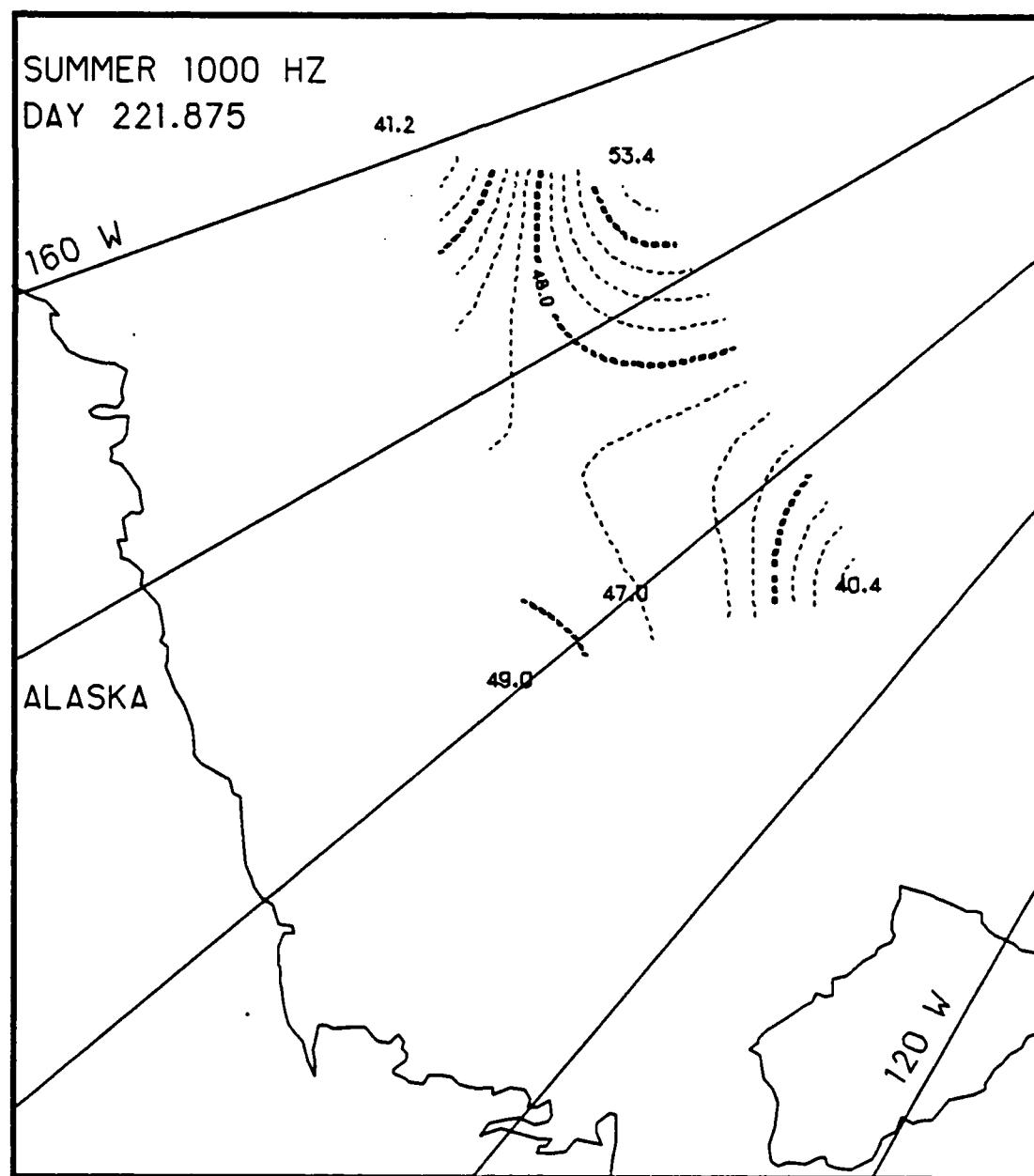


Fig. B.50. Spatial noise variations, day 221.875, based on the AIDJEX 1000 Hz noise data.

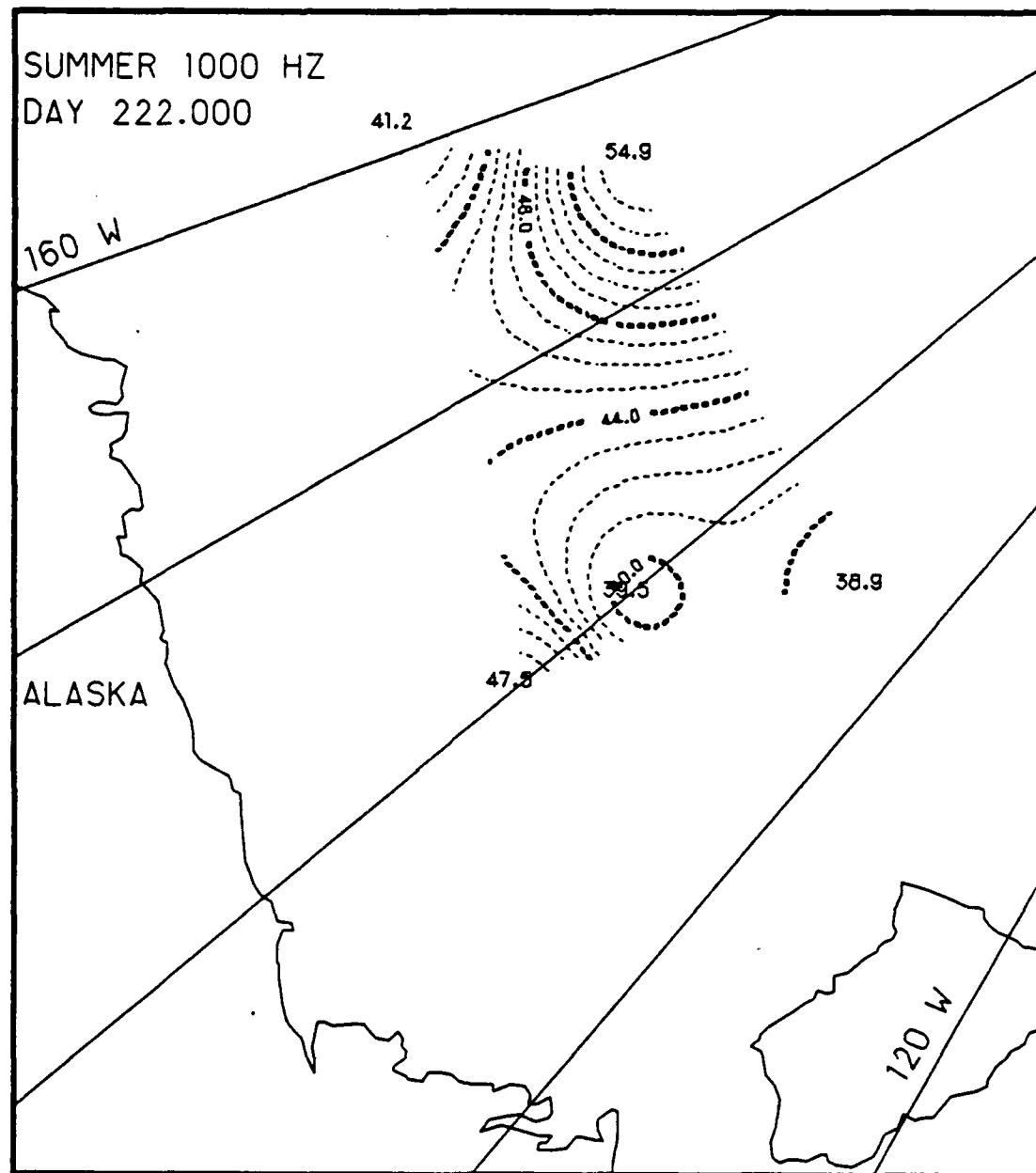


Fig. B.51. Spatial noise variations, day 222.0, based on the AIDJEX 1000 Hz noise data.

## Appendix C

### Two-Dimensional Contour Maps of Arctic Ambient Noise Variations, 16-17 November 1975 (Fall)

This appendix contains the two-dimensional contour maps of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz noise signals for the 48 hour period of 16-17 November 1975. The contour maps show the spatial variations of the ambient noise signals at 3 hr intervals, the units of the noise being decibells. The Julian day for 16 November is day 320, and the Julian day for 17 November is day 321.

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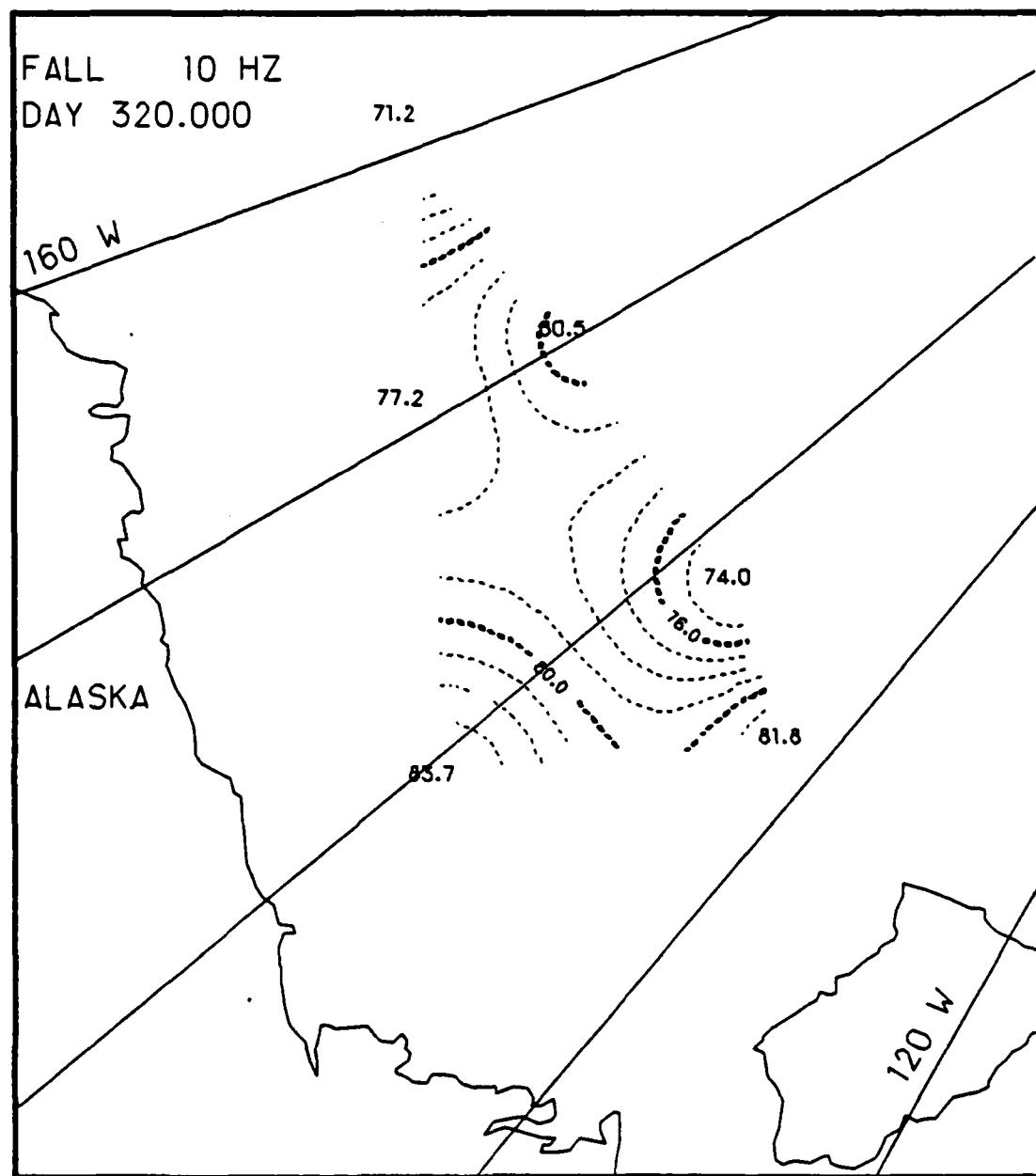


Fig. C.1. Spatial noise variations, day 320.0, based on the AIDJEX 10 Hz noise data.

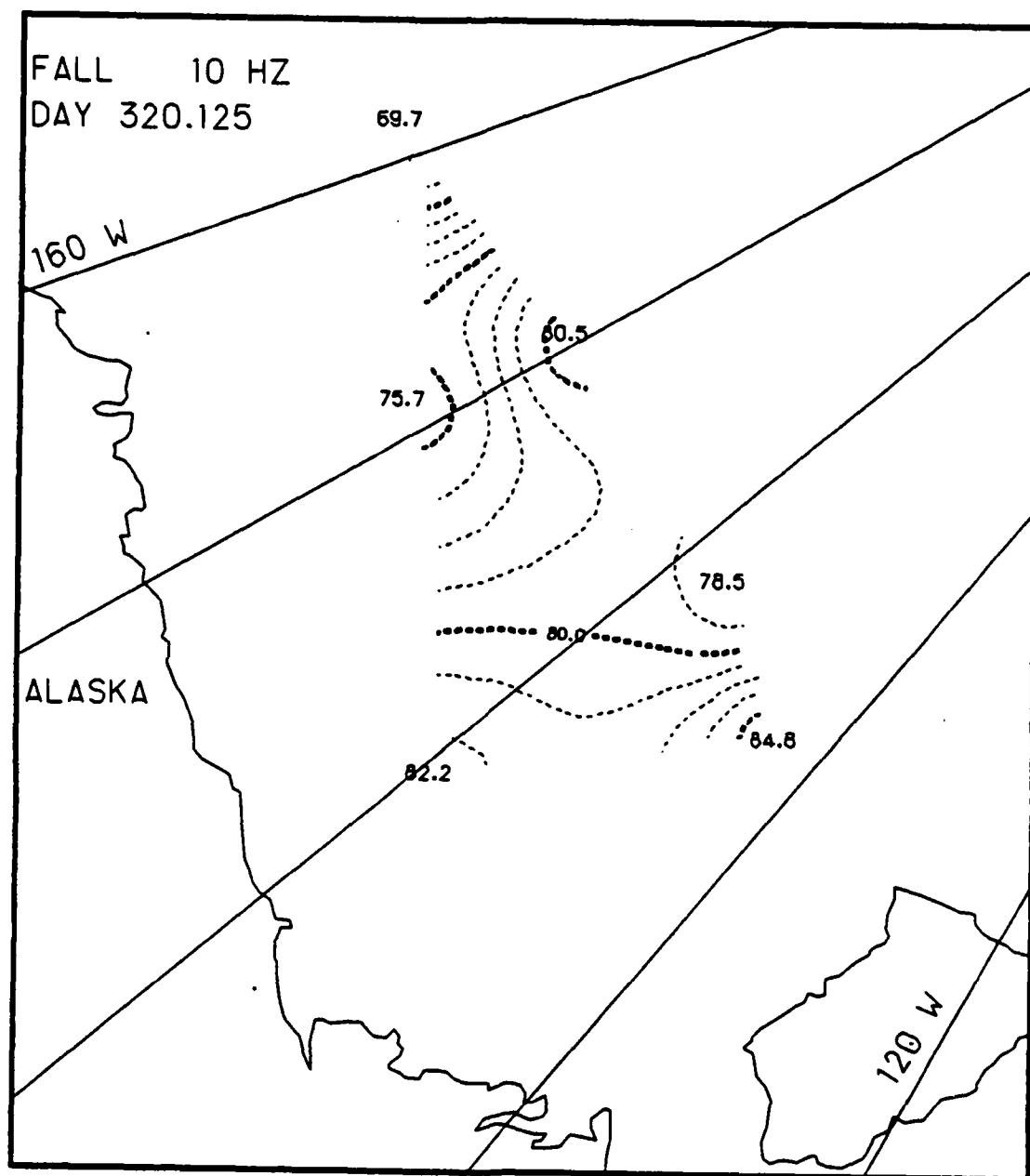


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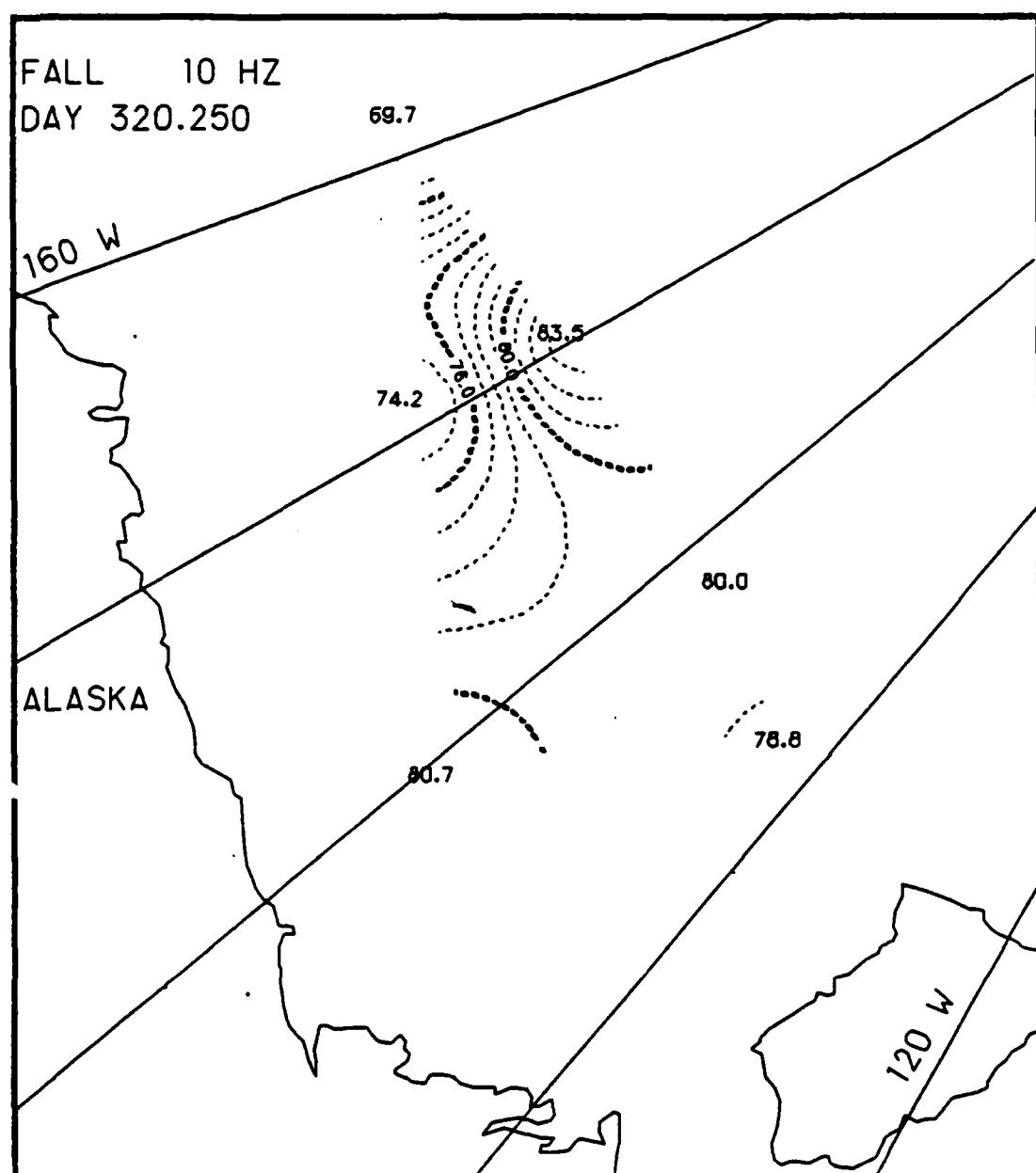


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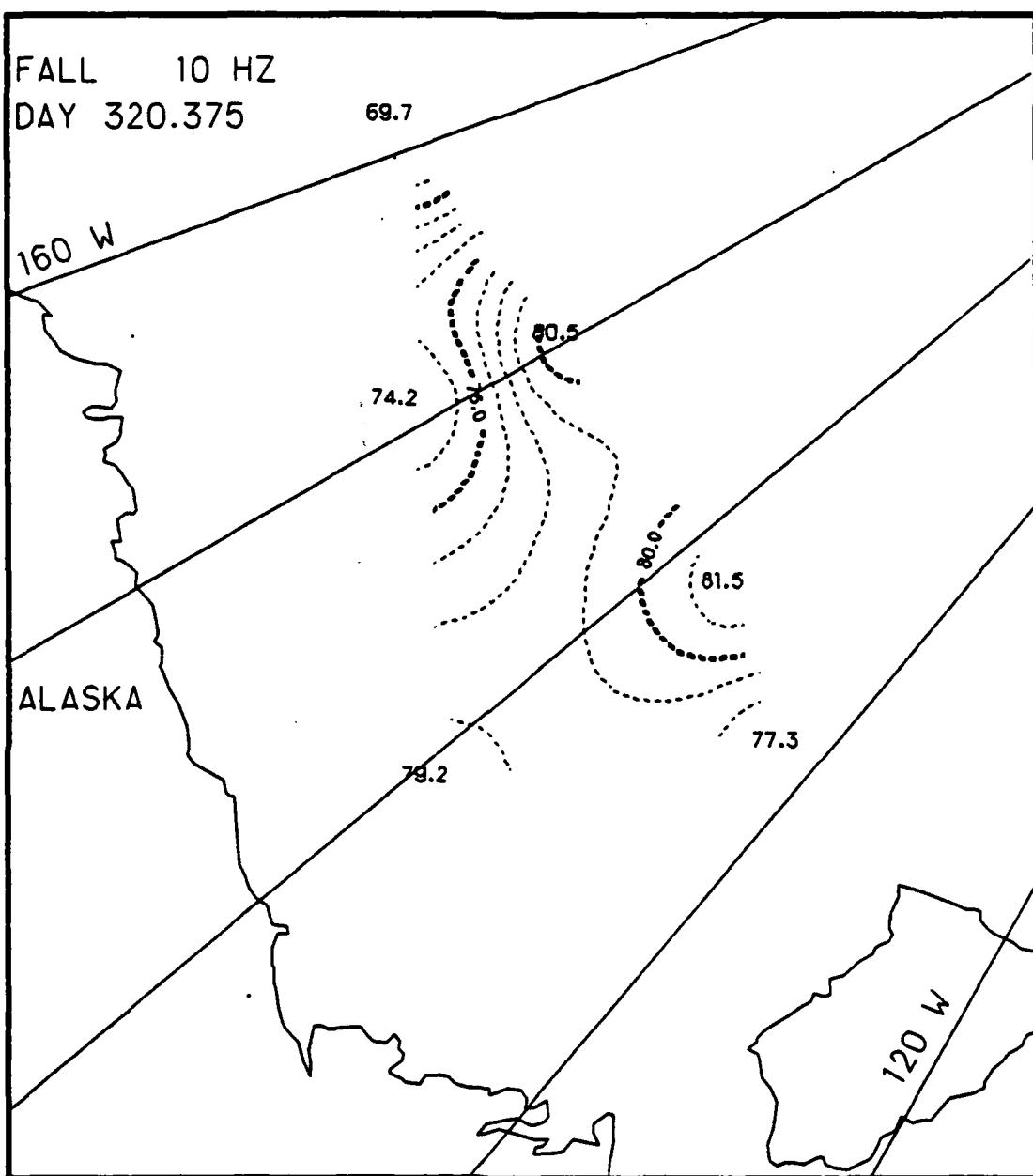


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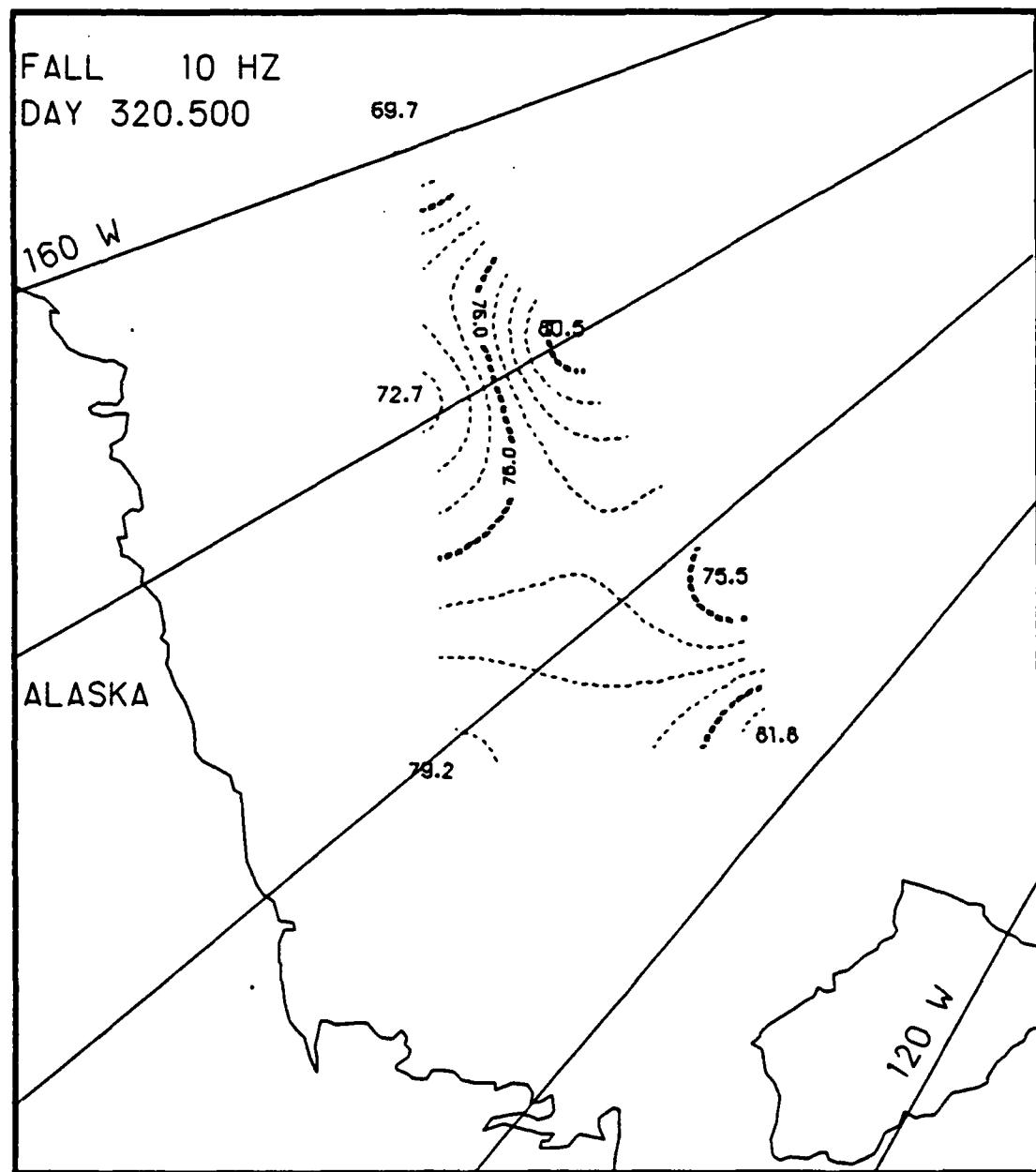


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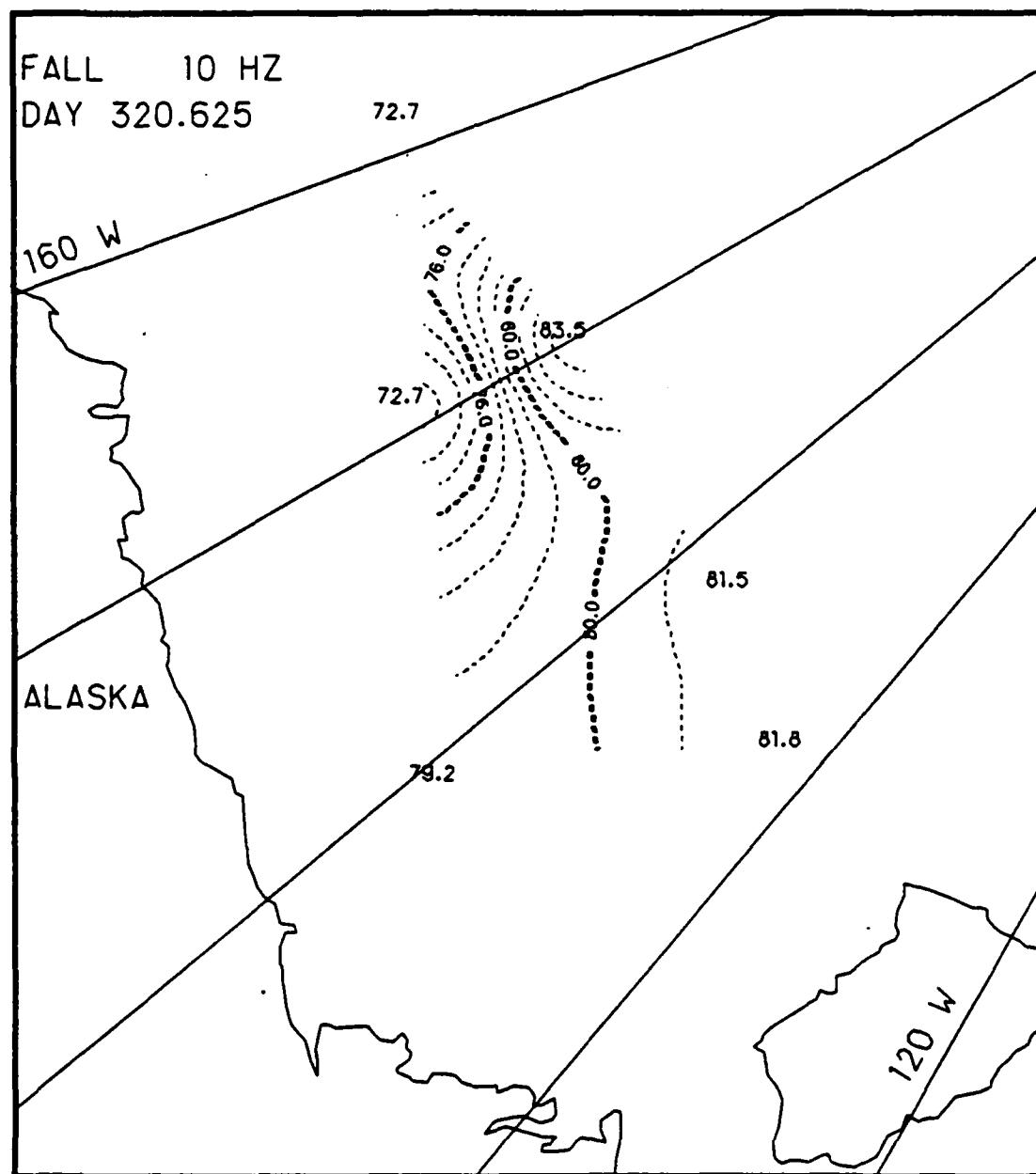


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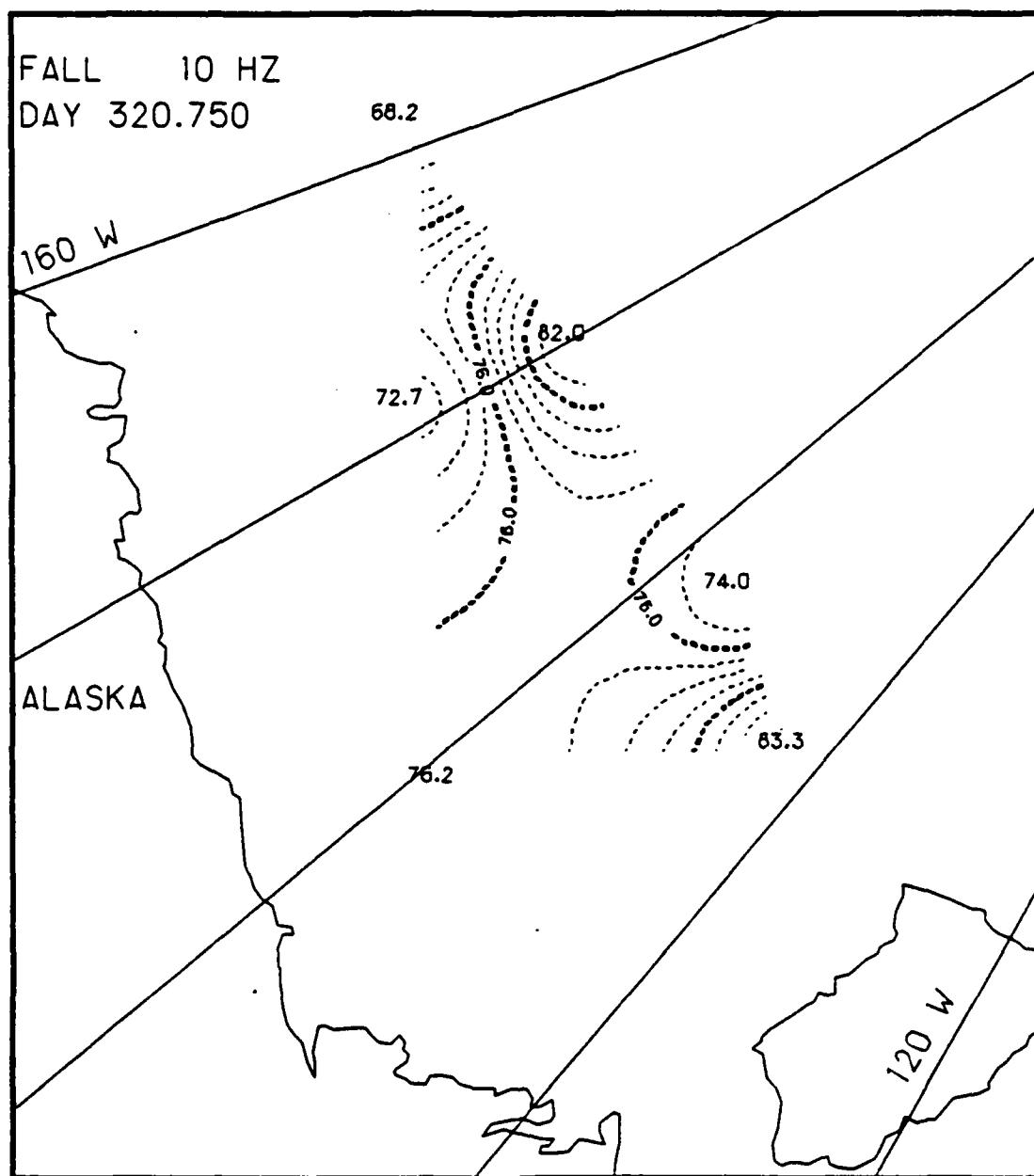


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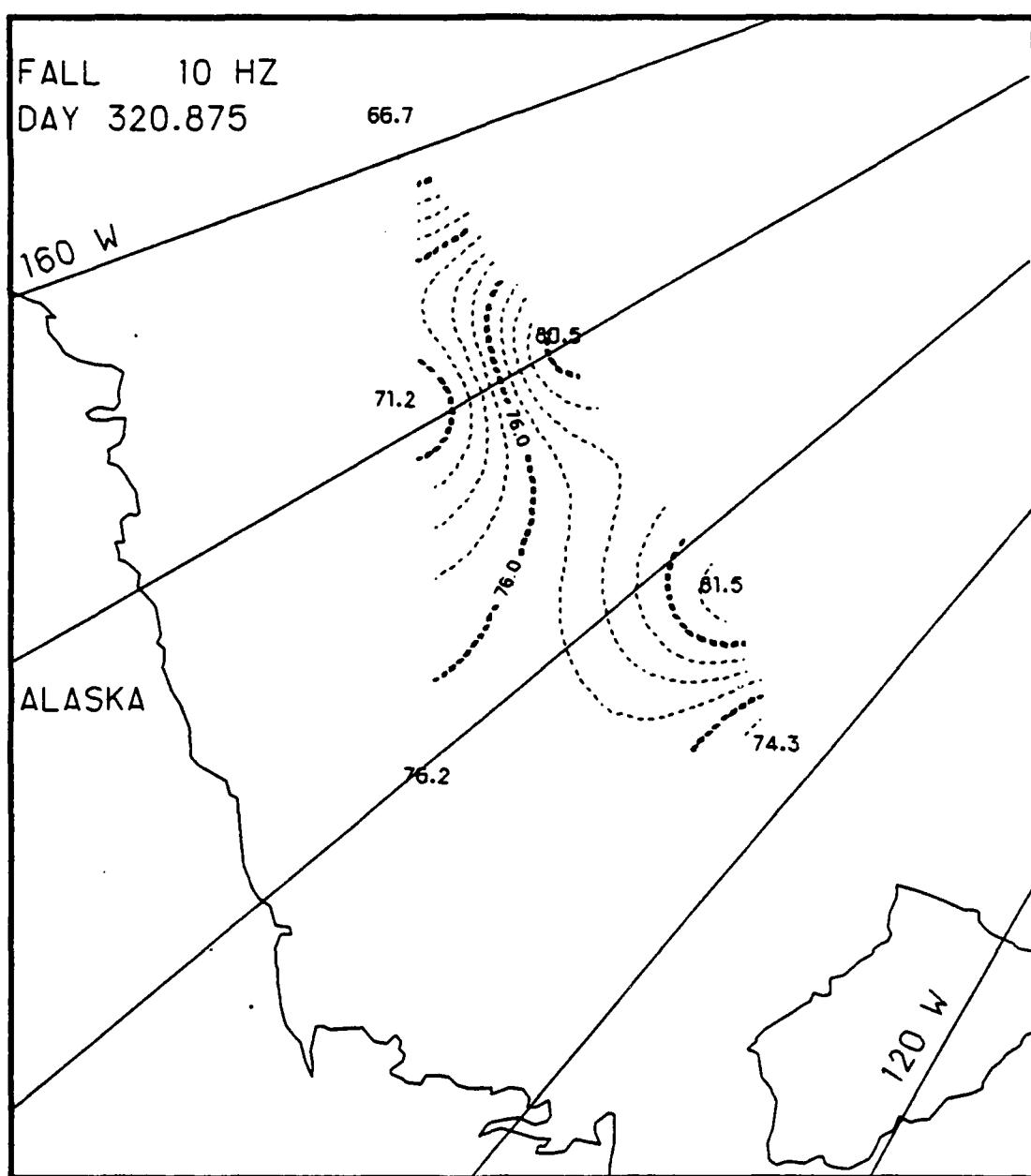


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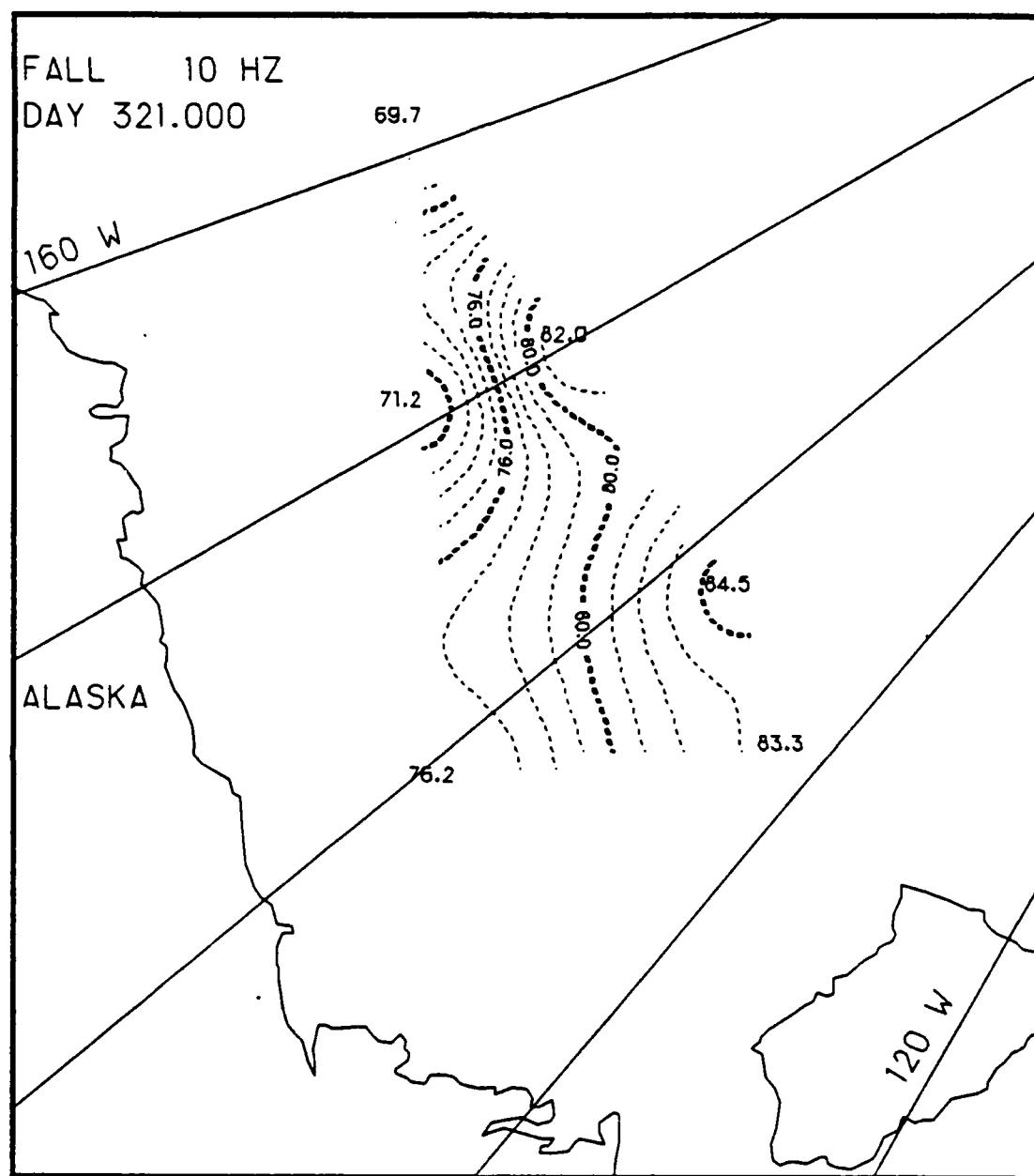


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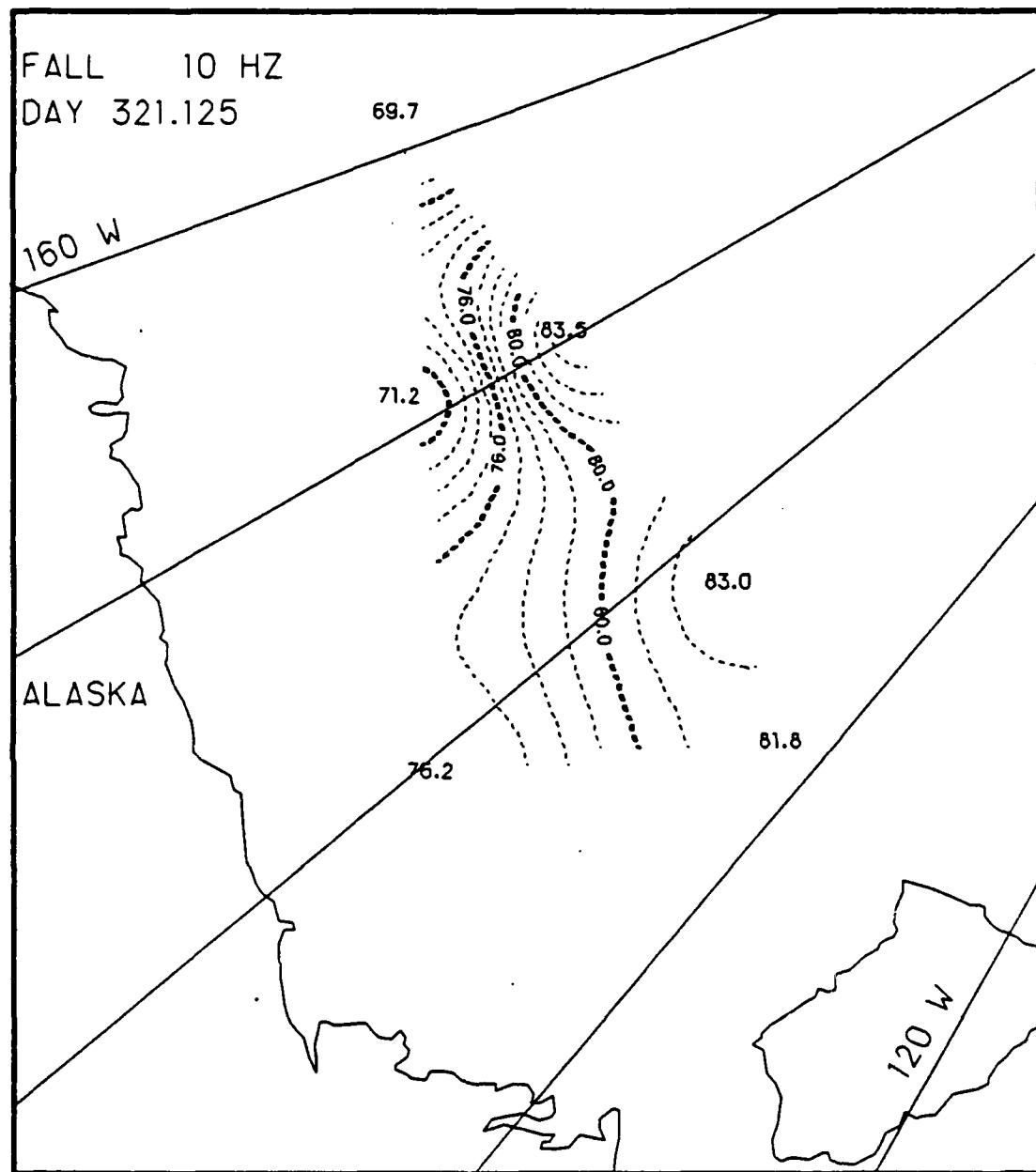


Fig. C.10. Spatial noise variations, day 321.125, based on the AIDJEX 10 Hz noise data.

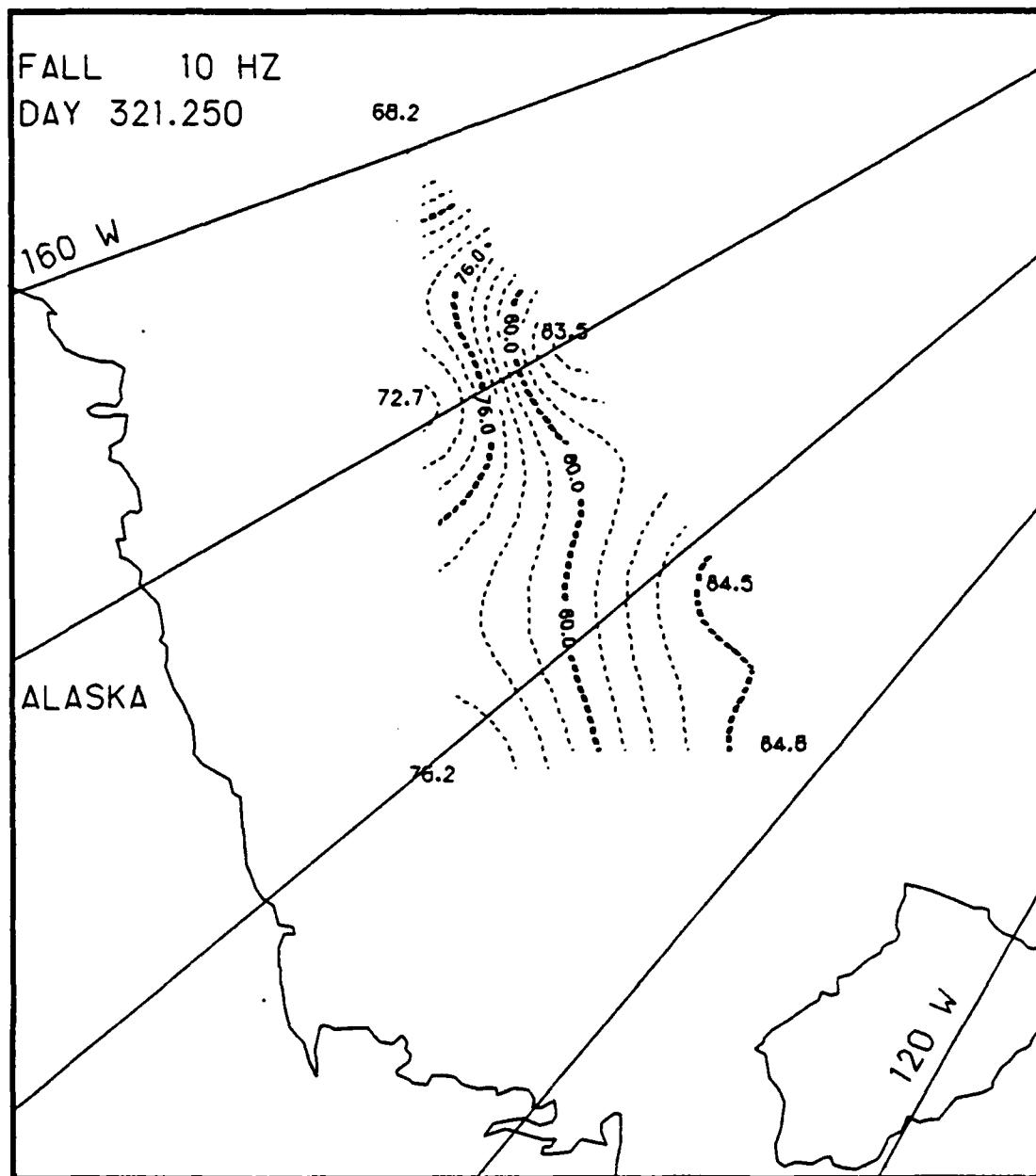


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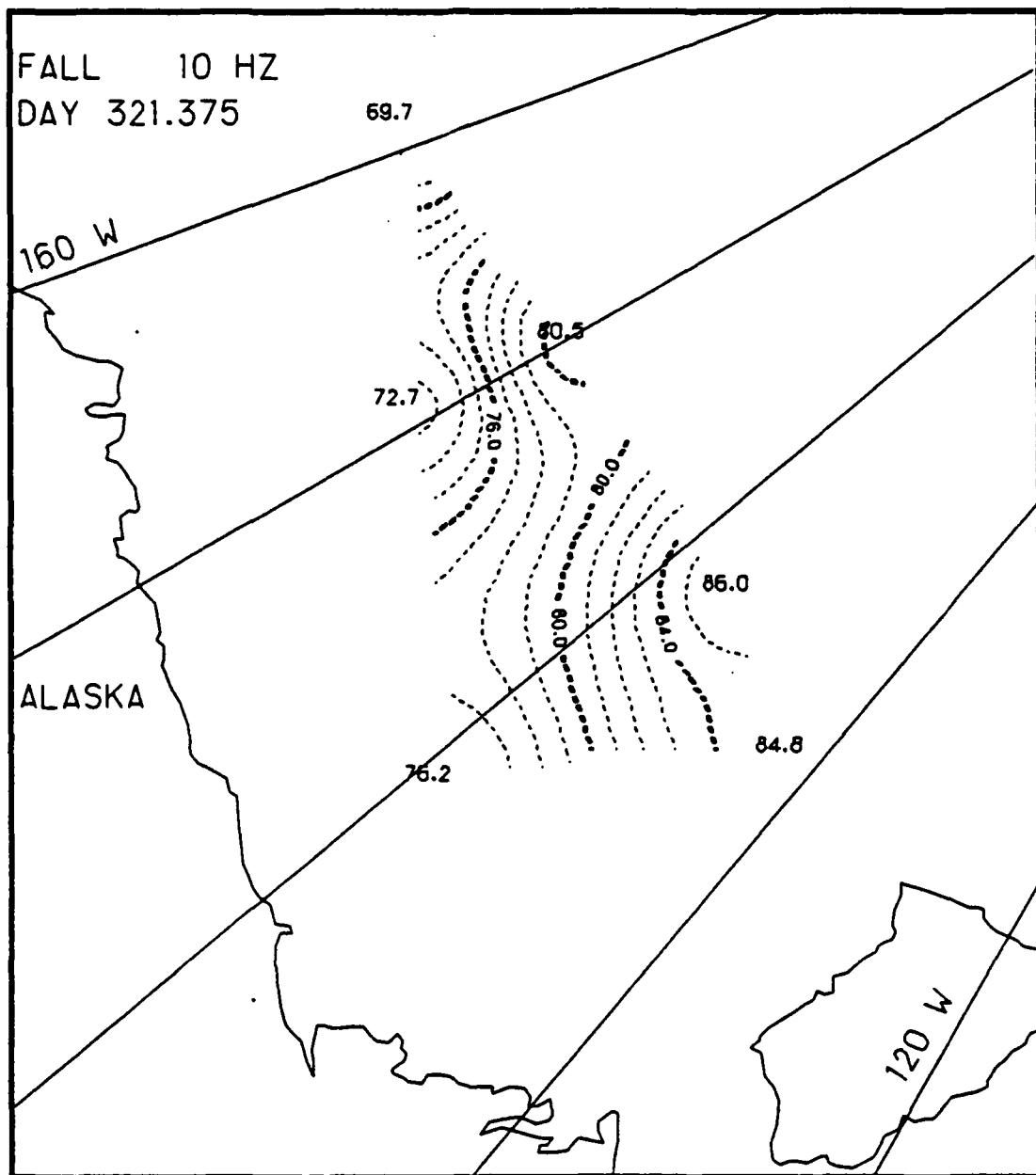


Fig. C.12. Spatial noise variations, day 321.375, based on the AIDJEX 10 Hz noise data.

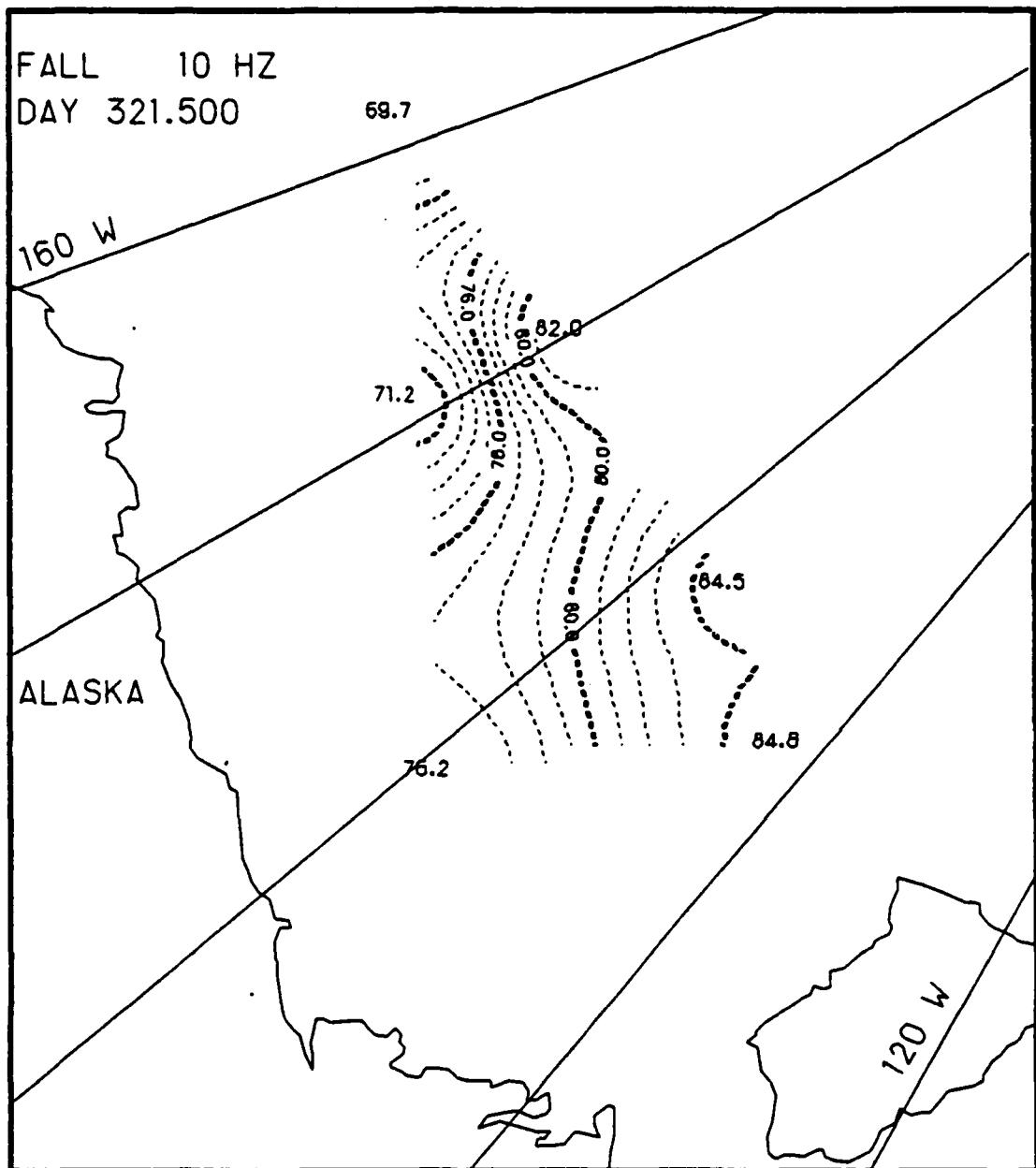


Fig. C.13. Spatial noise variations, day 321.5, based on the AIDJEX 10 Hz noise data.

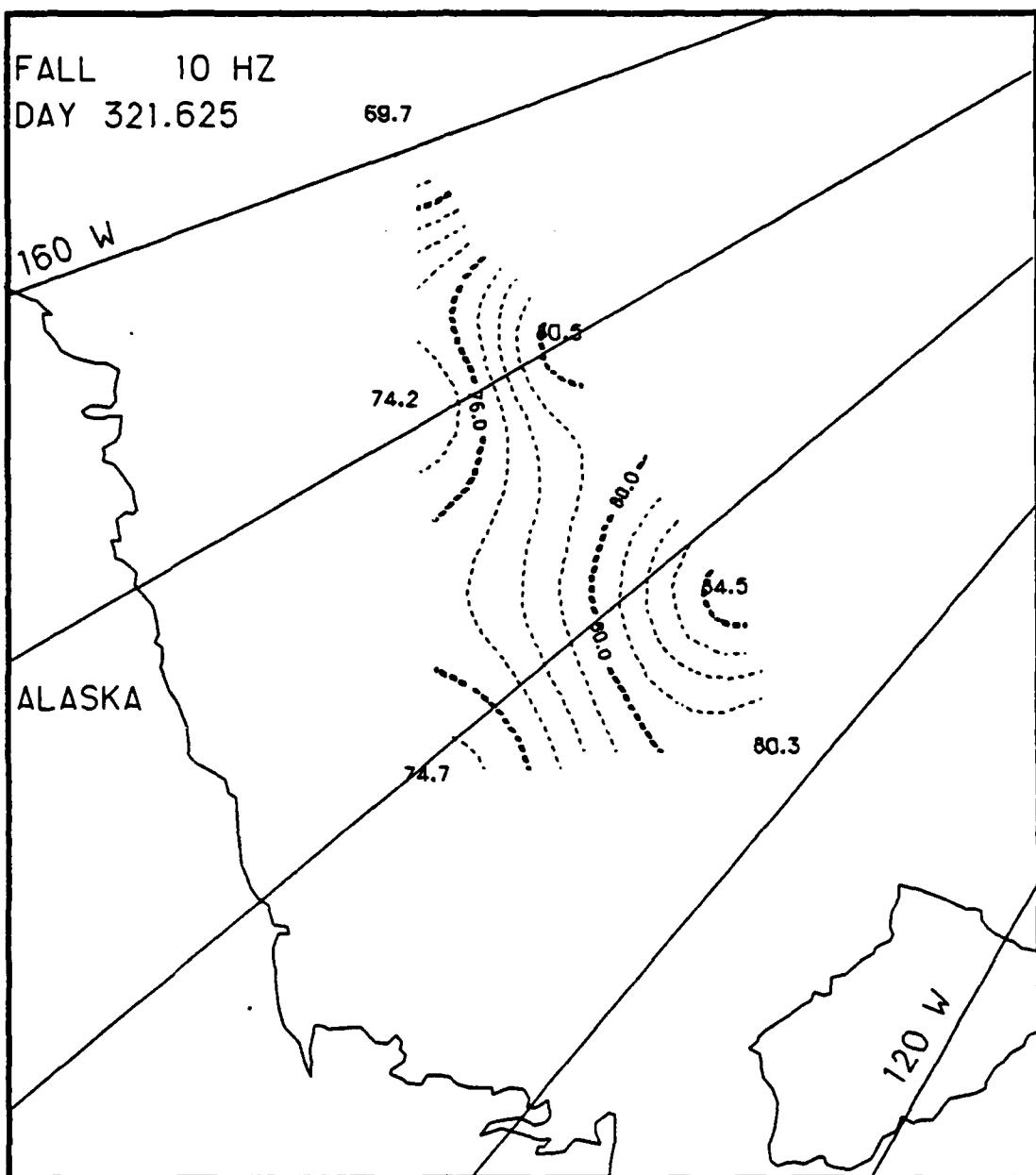


Fig. C.14. Spatial noise variations, day 321.625, based on the AIDJEX 10 Hz noise data.

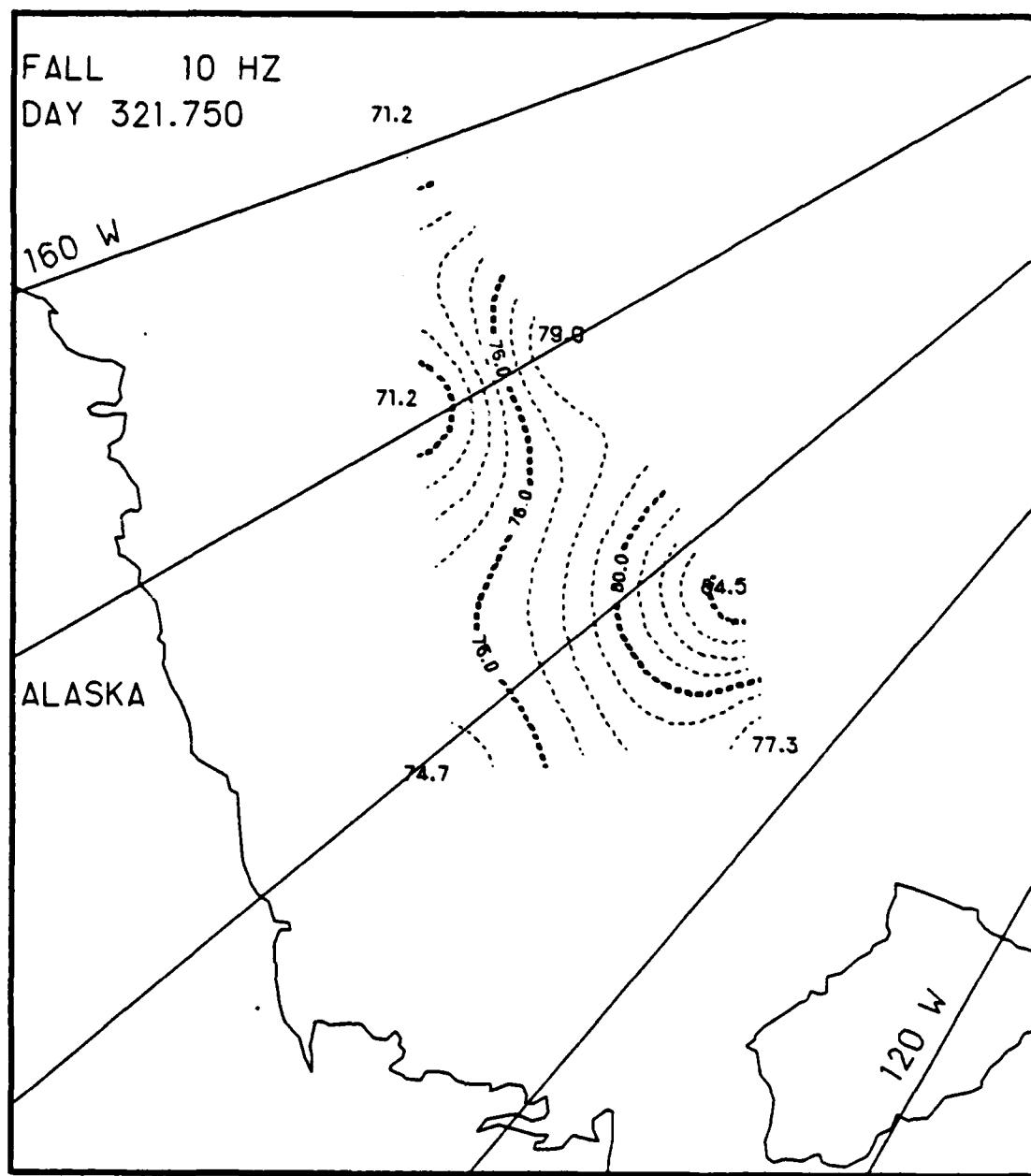


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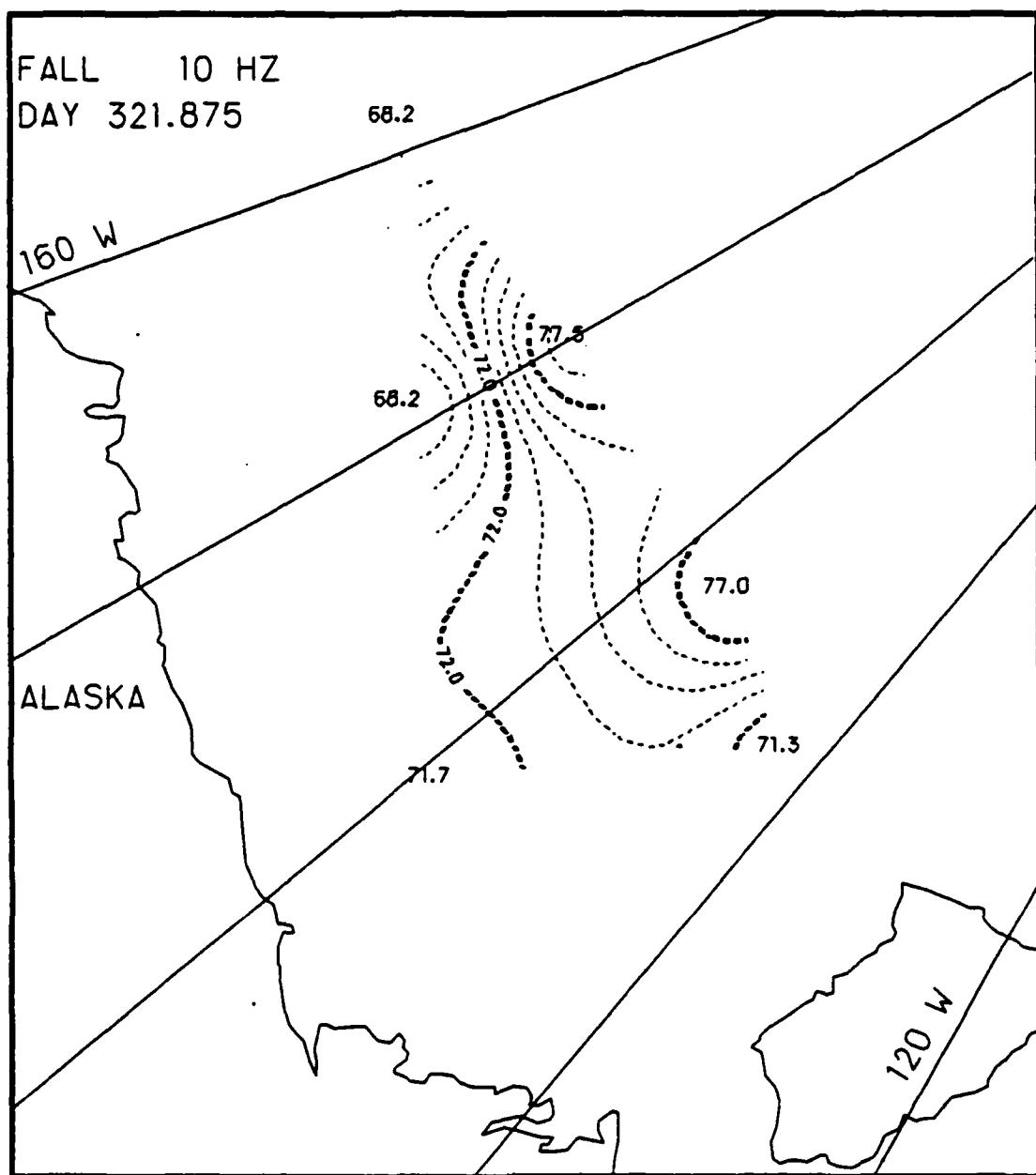


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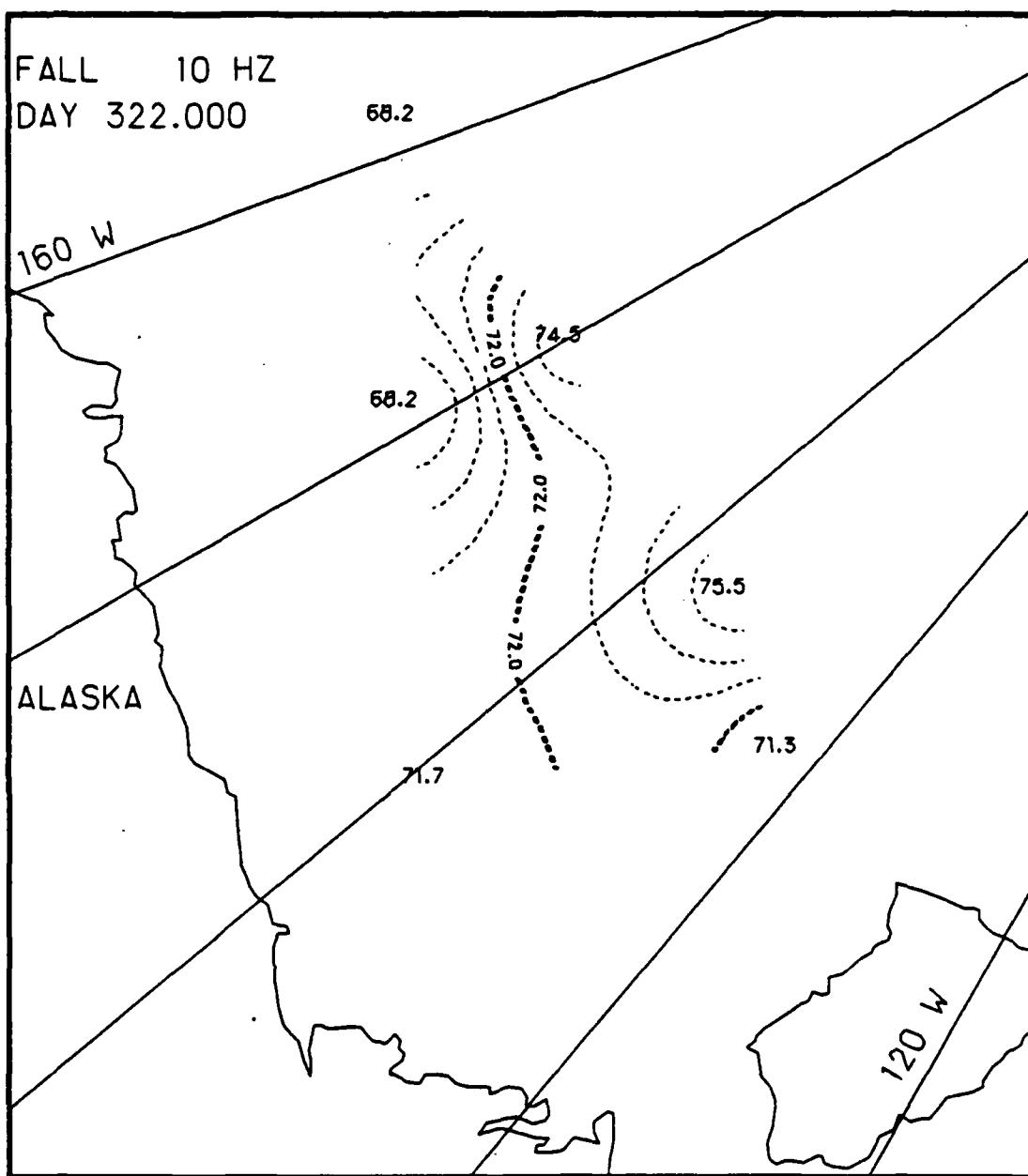


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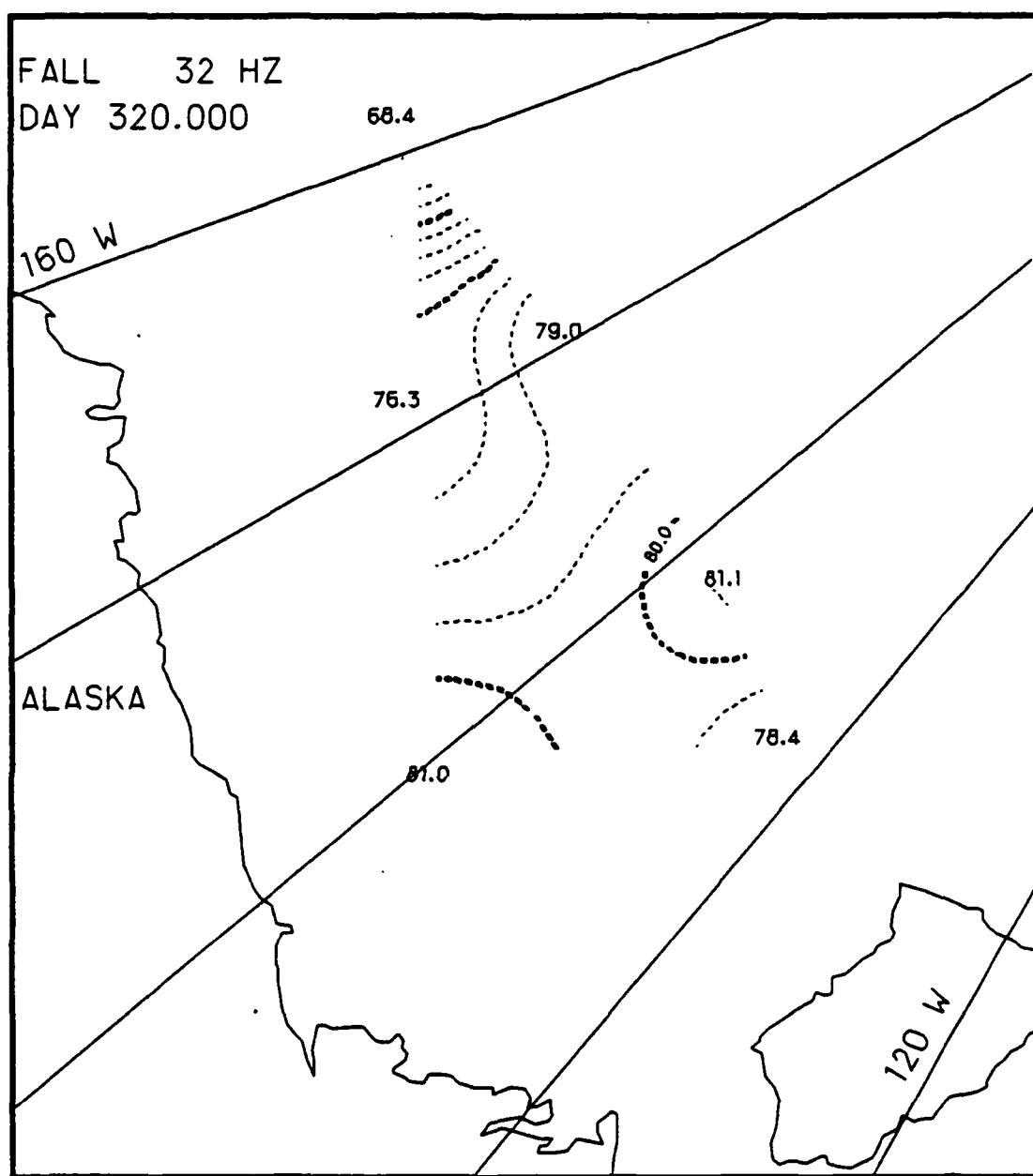


Fig. C.18. Spatial noise variations, day 320.0, based on the AIDJEX 32 Hz noise data.

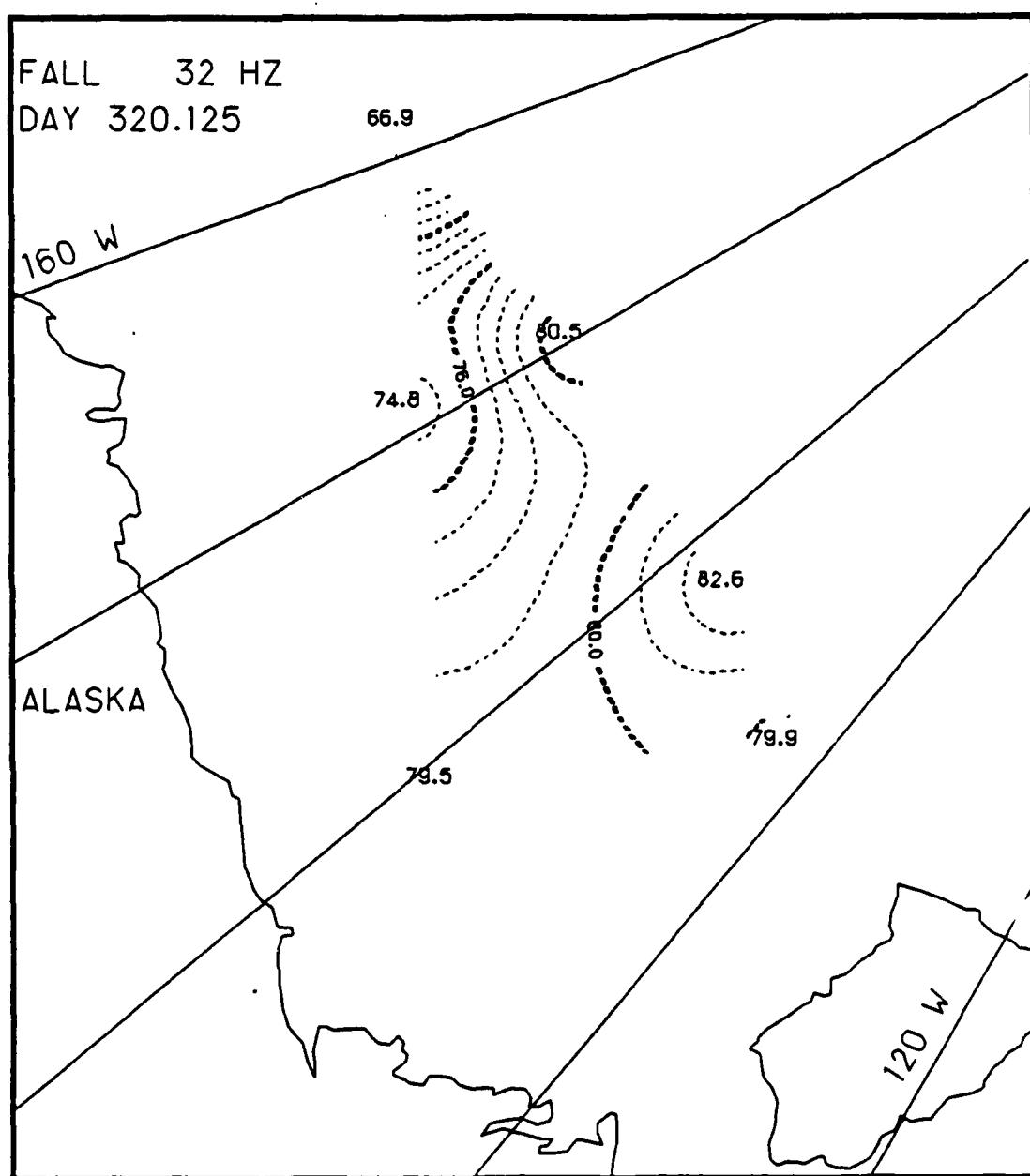


Fig. C.19. Spatial noise variations, day 320.125, based on the AIDJEX 32 Hz noise data.

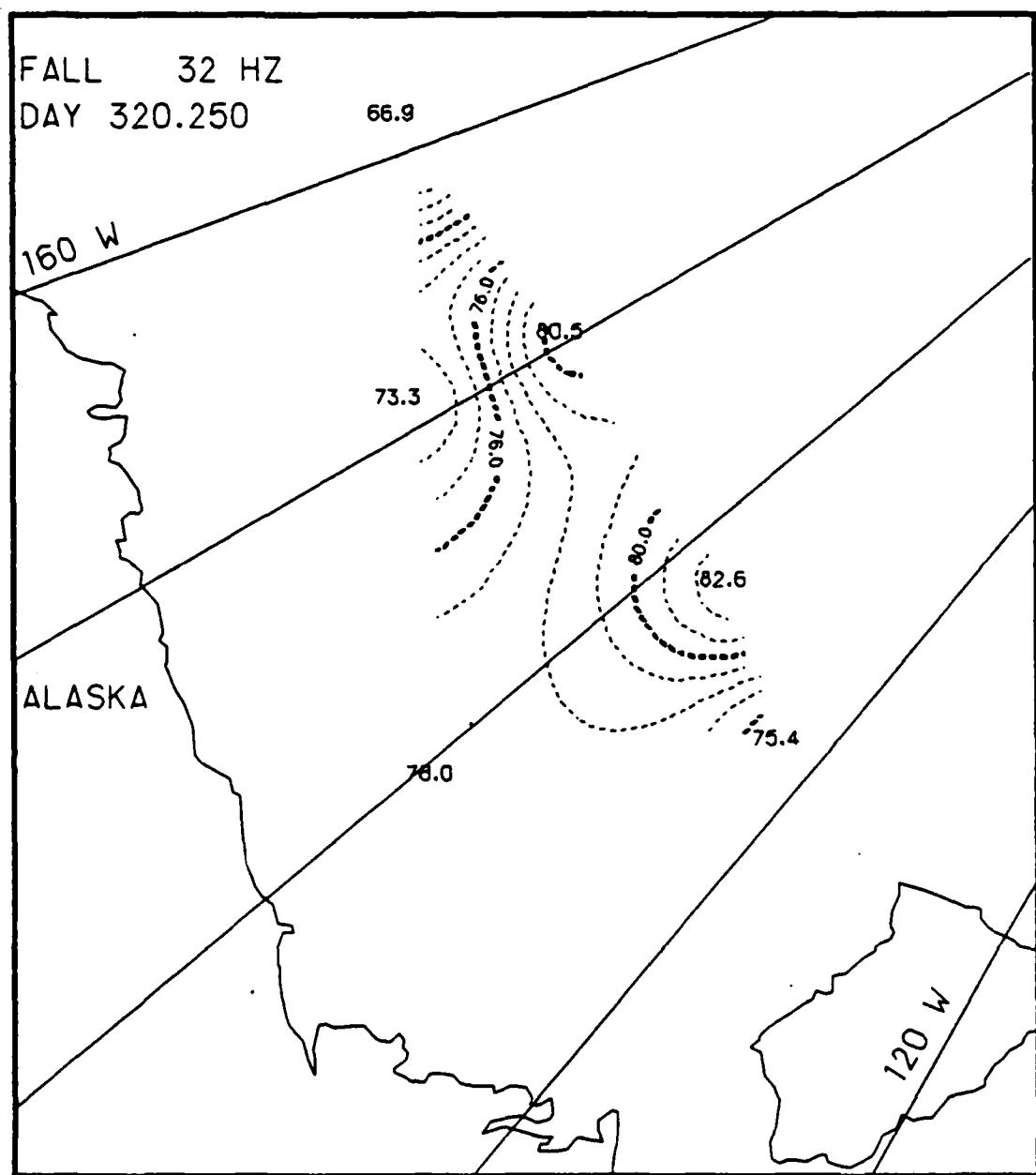


Fig. C.20. Spatial noise variations, day 320.25, based on the AIDJEX 32 Hz noise data.

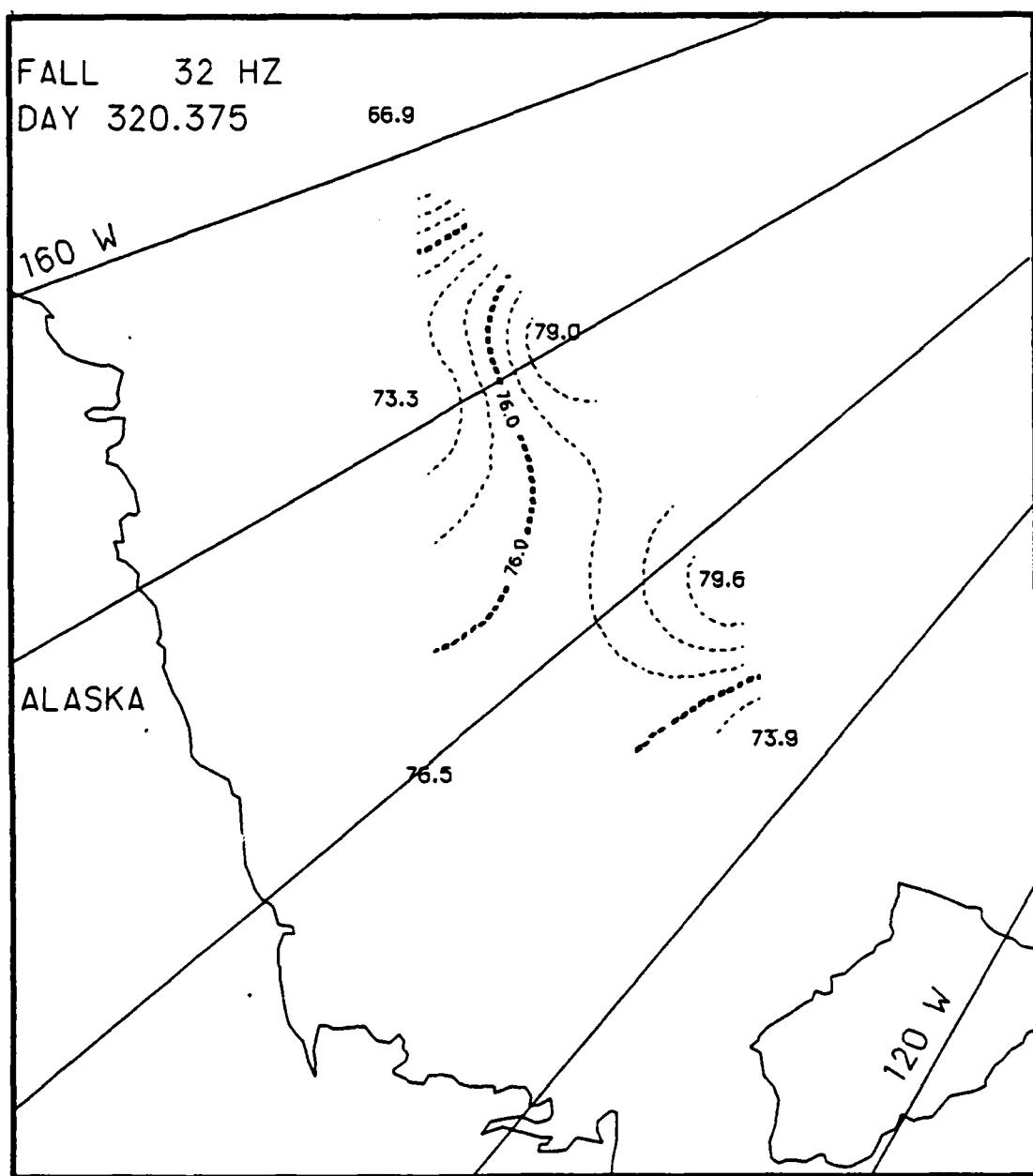


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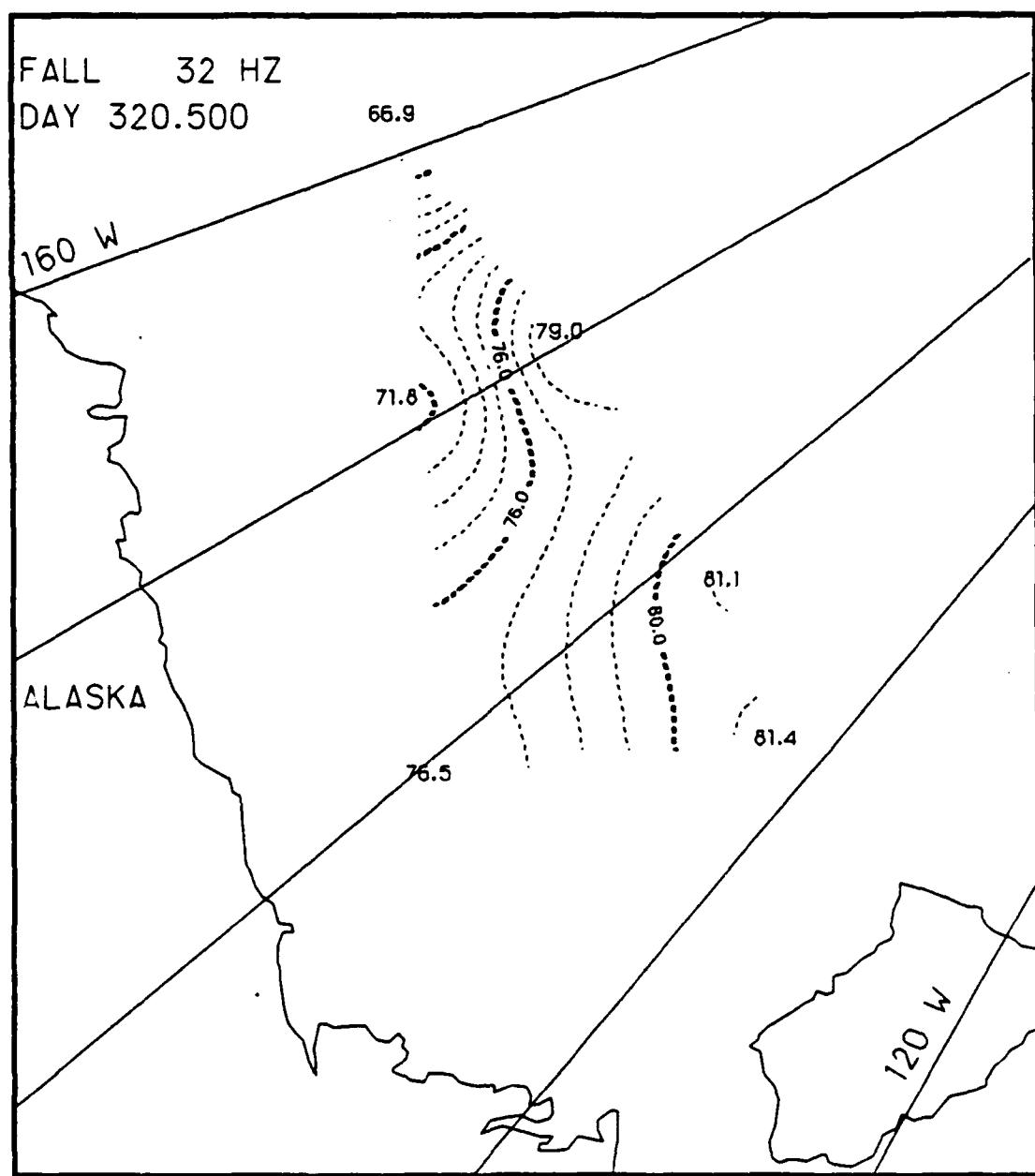


Fig. C.22. Spatial noise variations, day 320.5, based on the AIDJEX 32 Hz noise data.

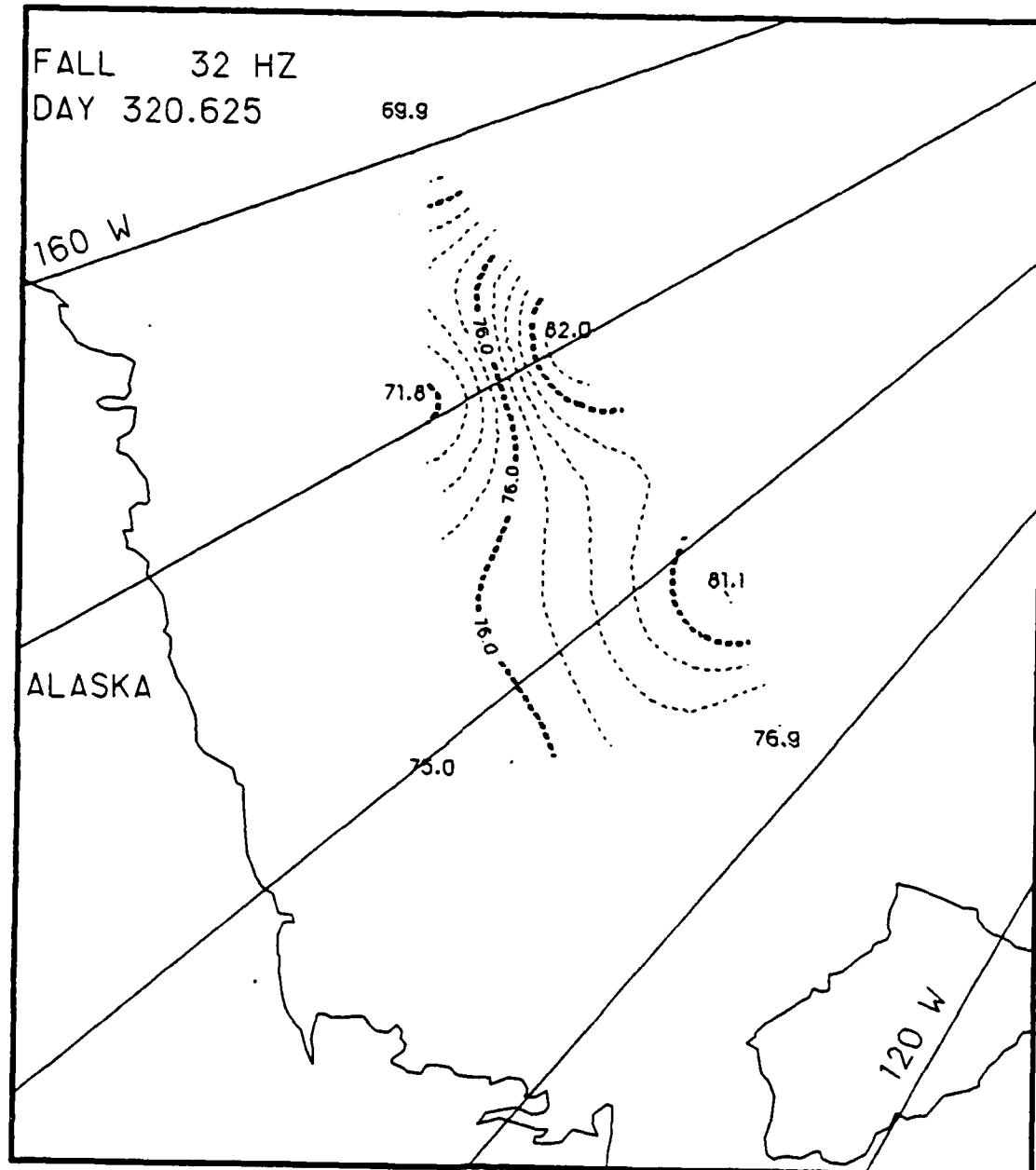


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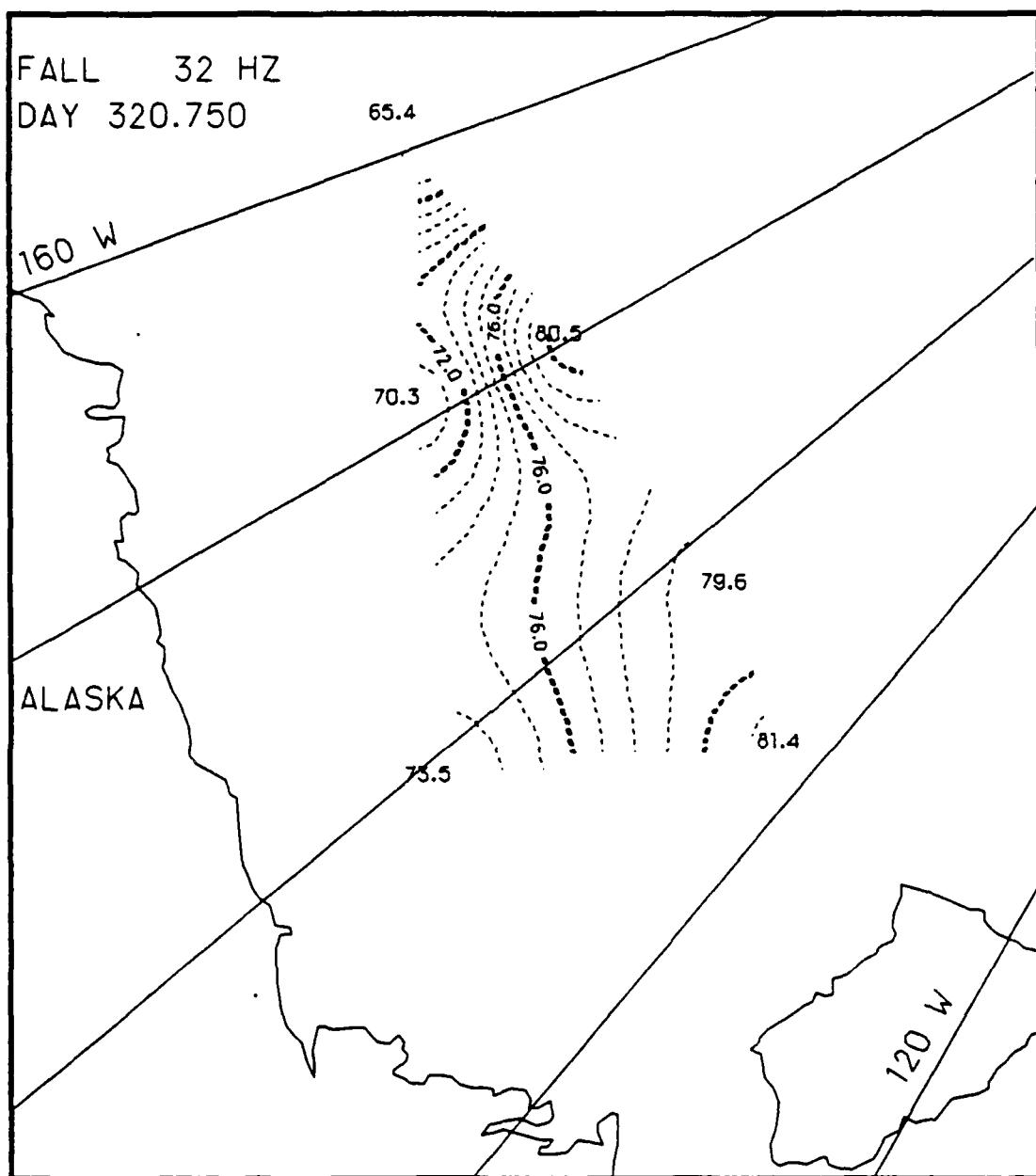


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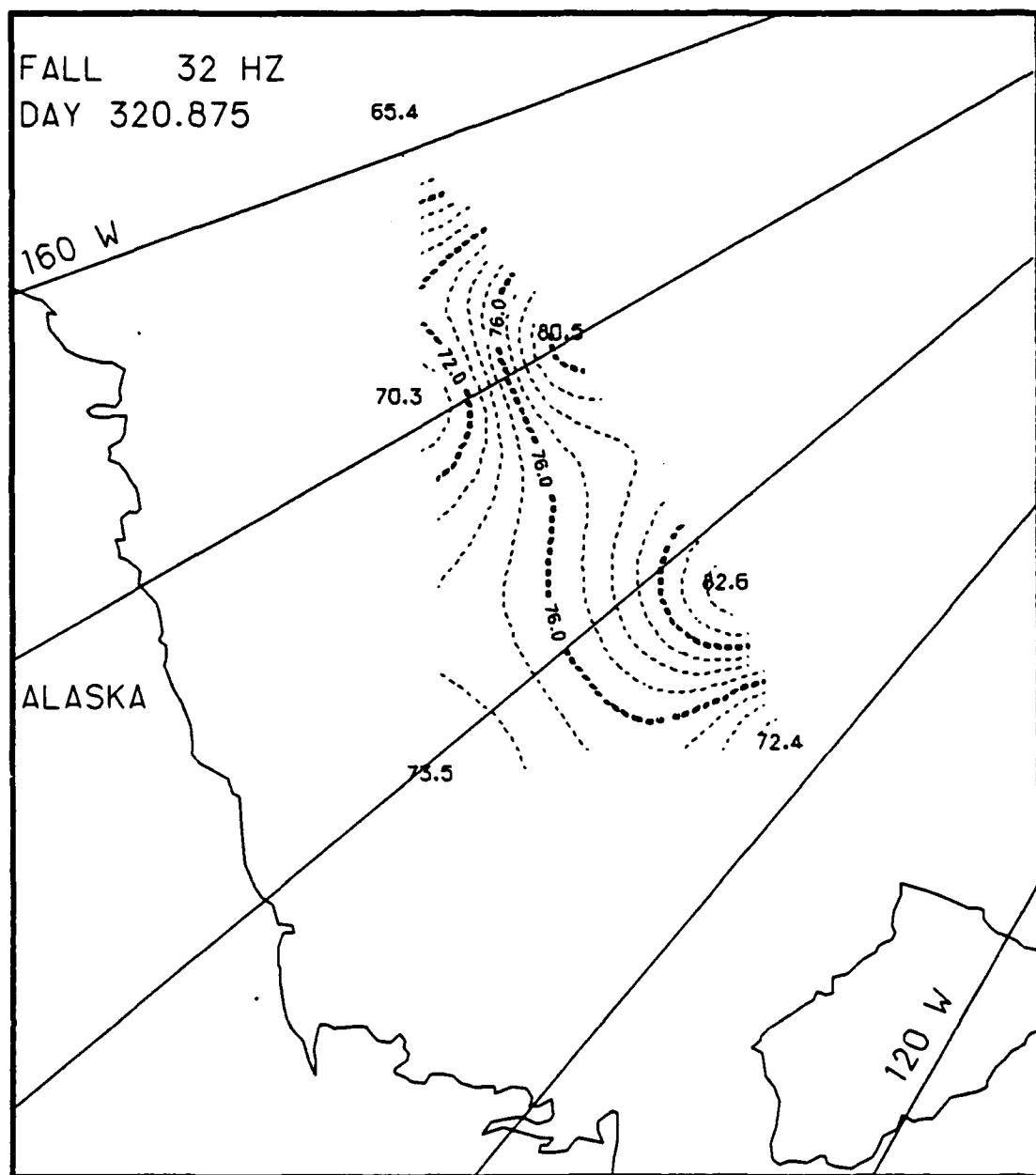


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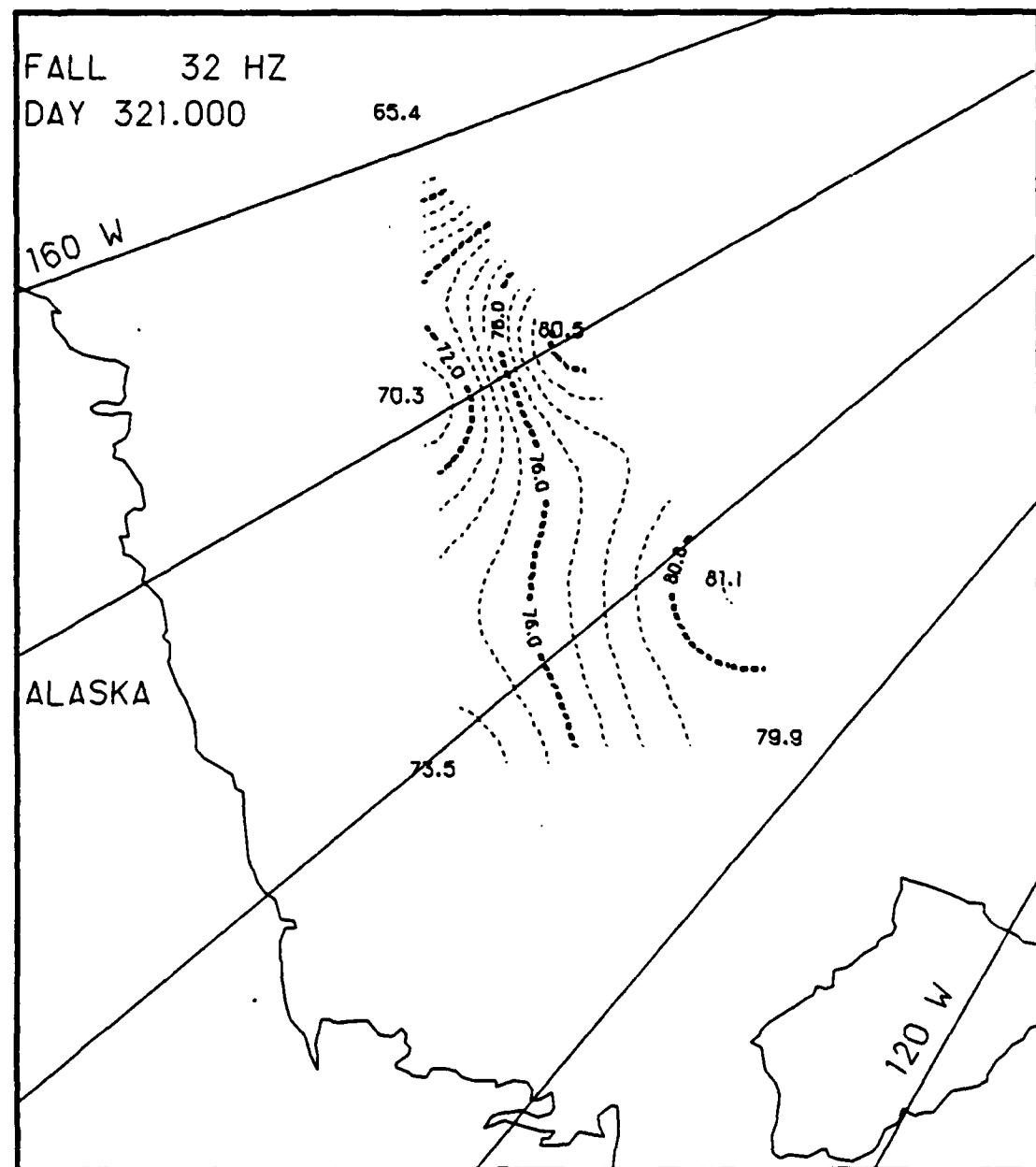


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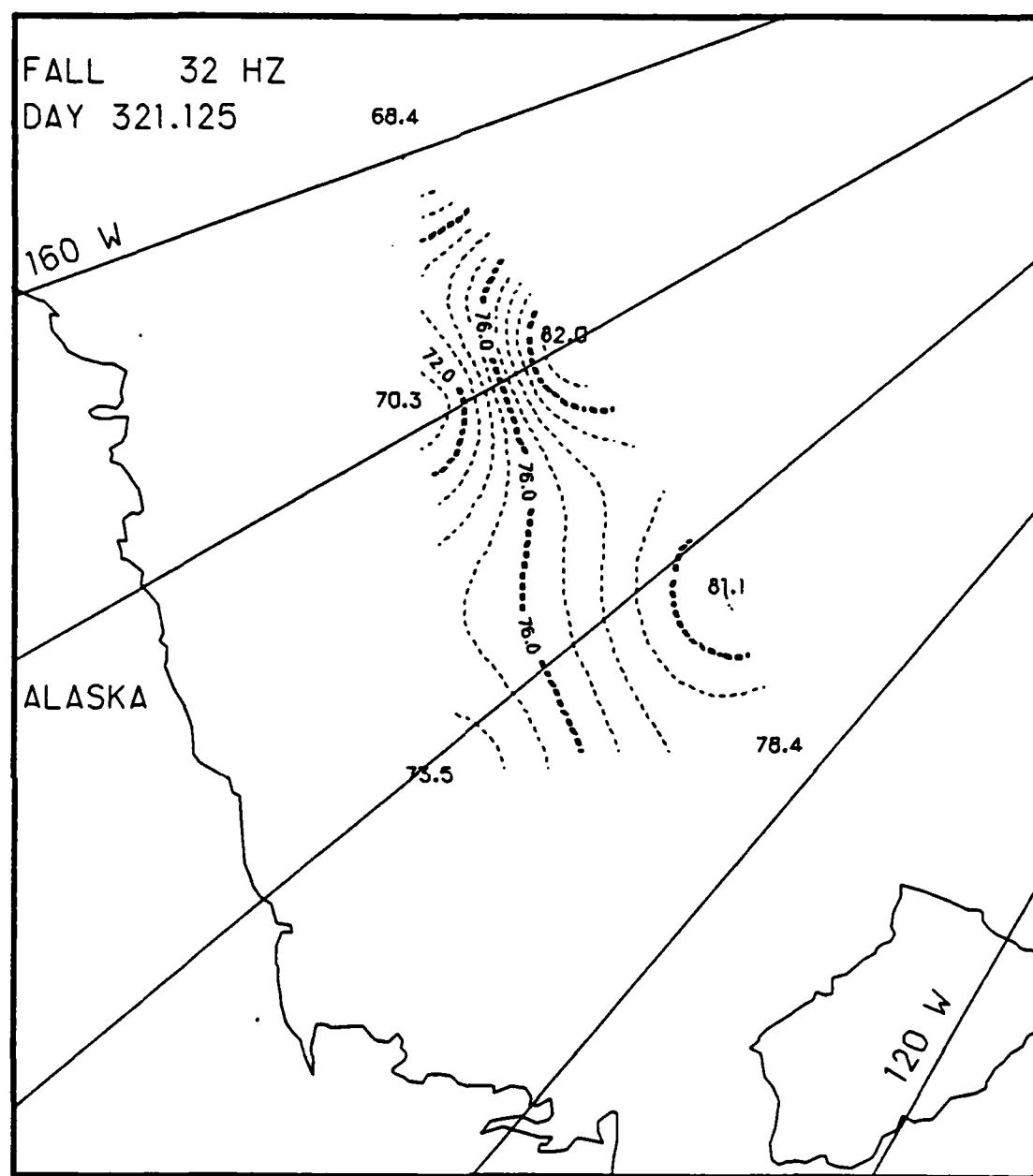


Fig. C.27. Spatial noise variations, day 321.125, based on the AIDJEX 32 Hz noise data.

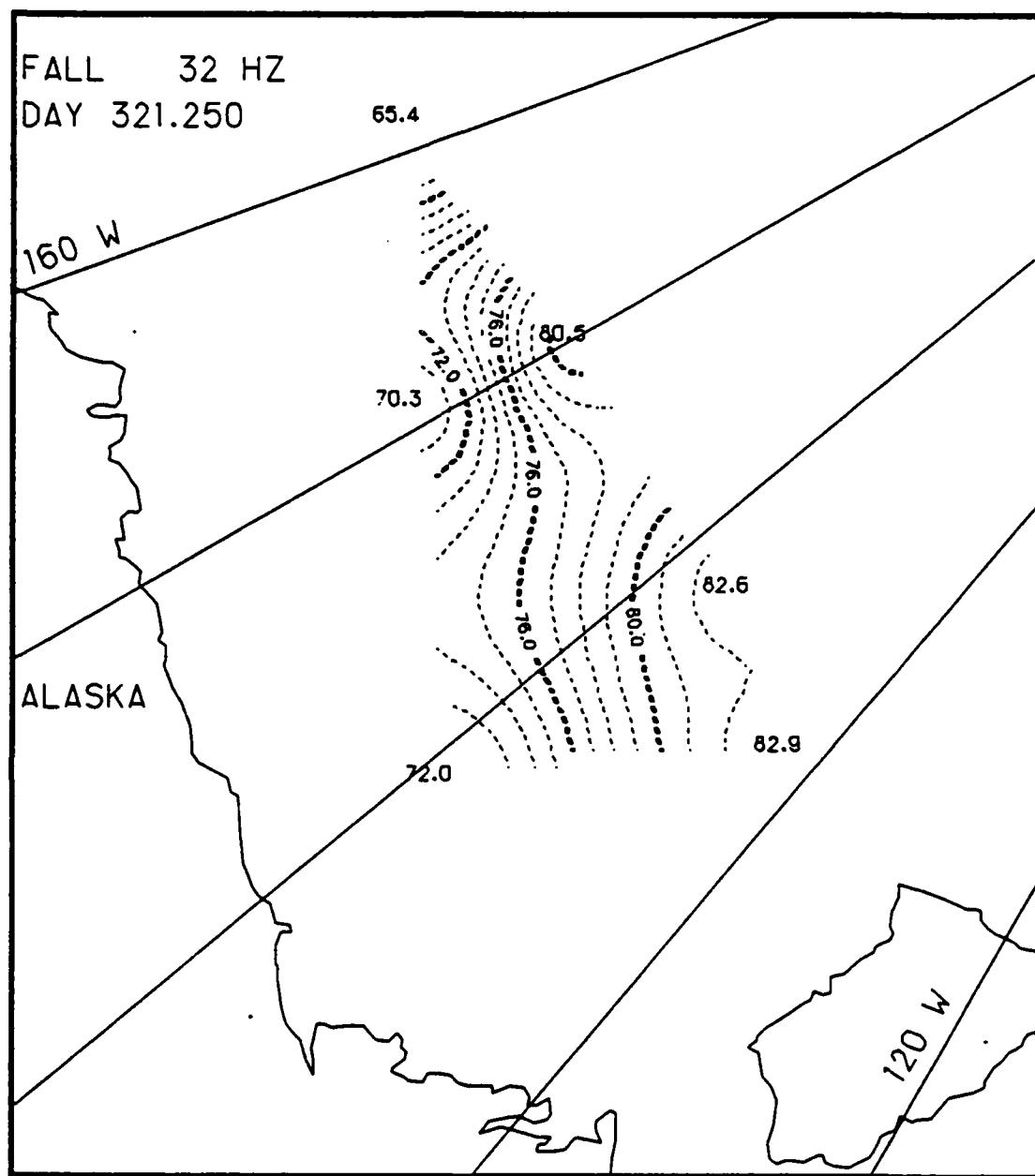


Fig. C.28. Spatial noise variations, day 321.25, based on the AIDJEX 32 Hz noise data.

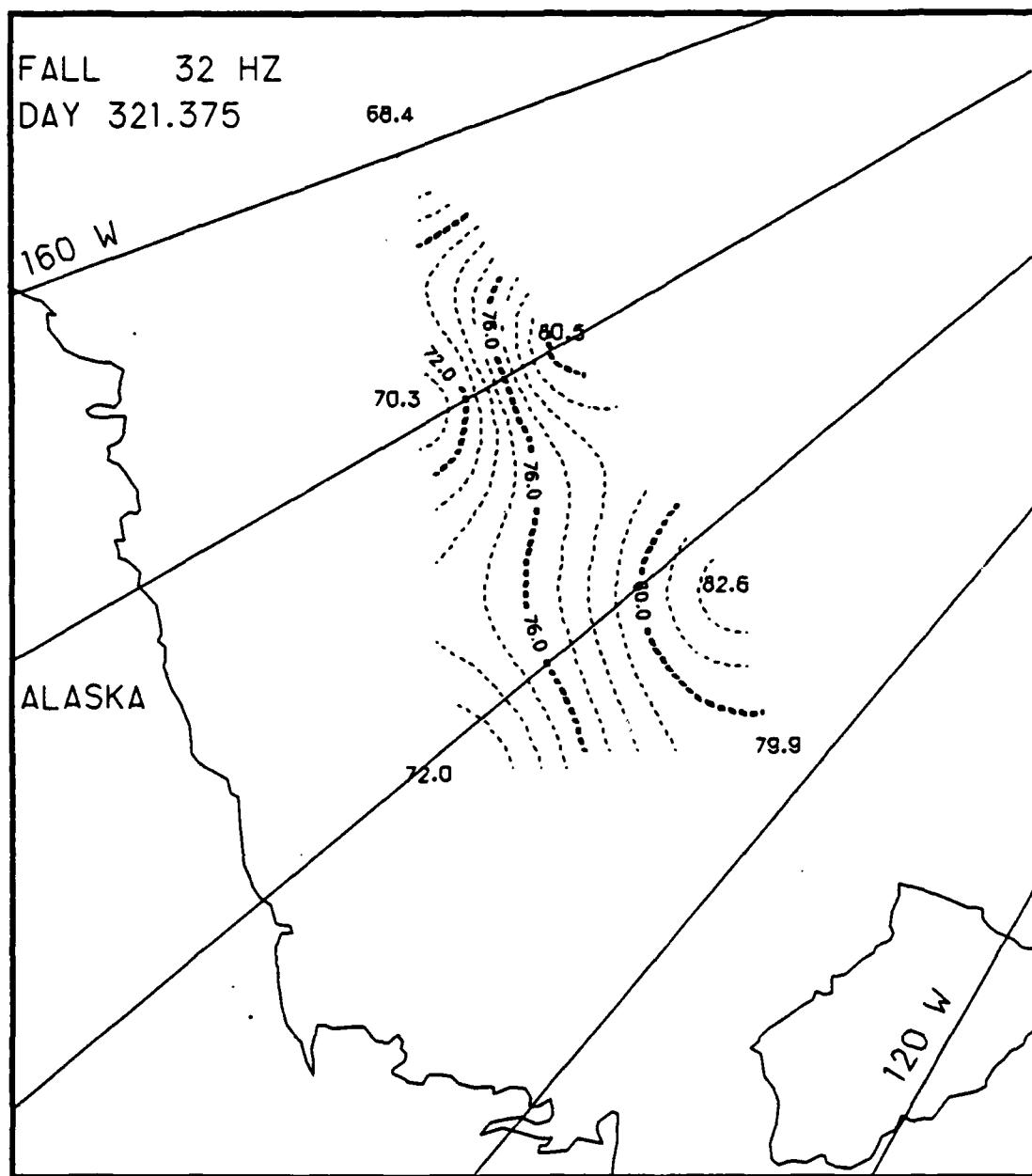


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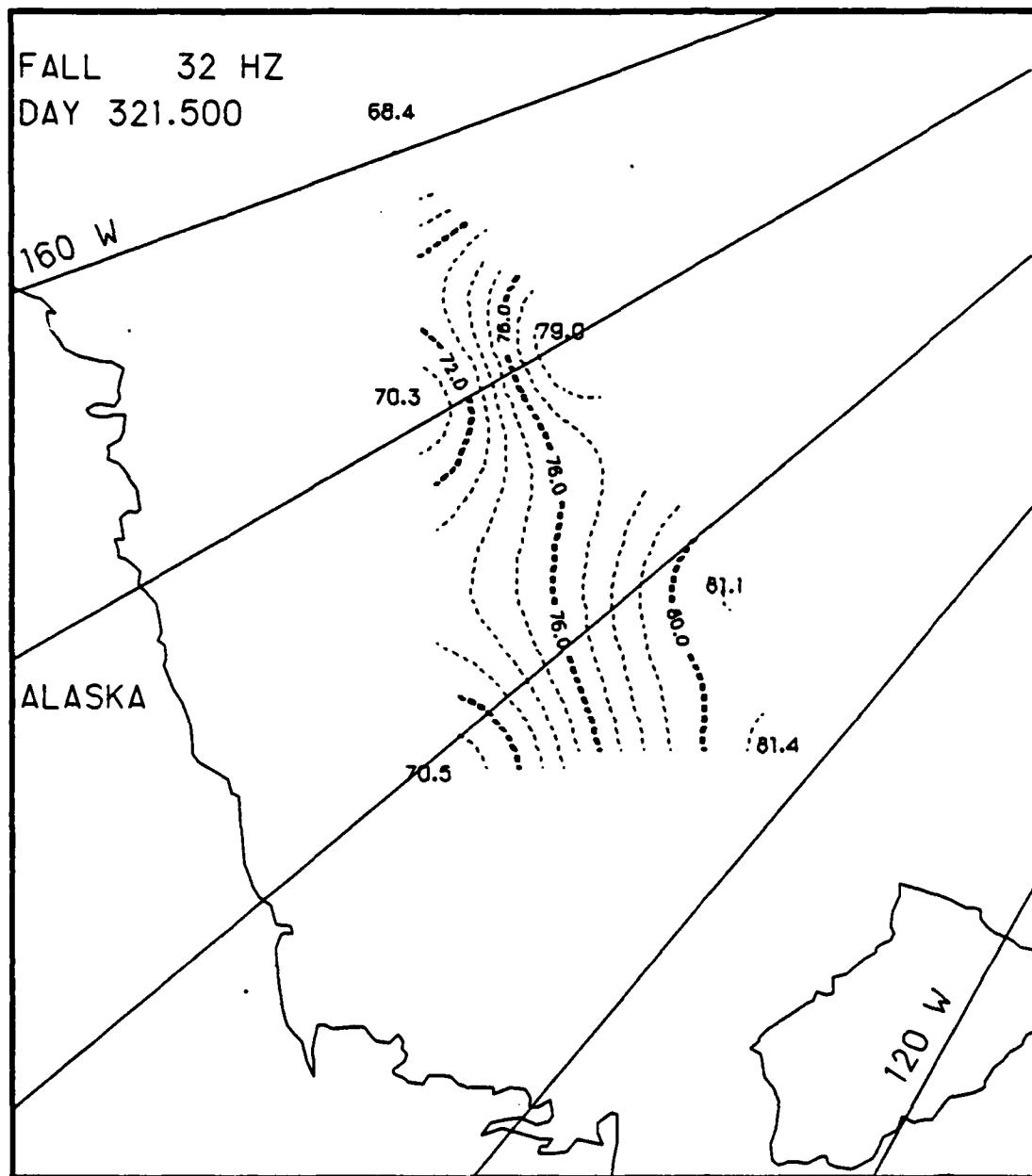


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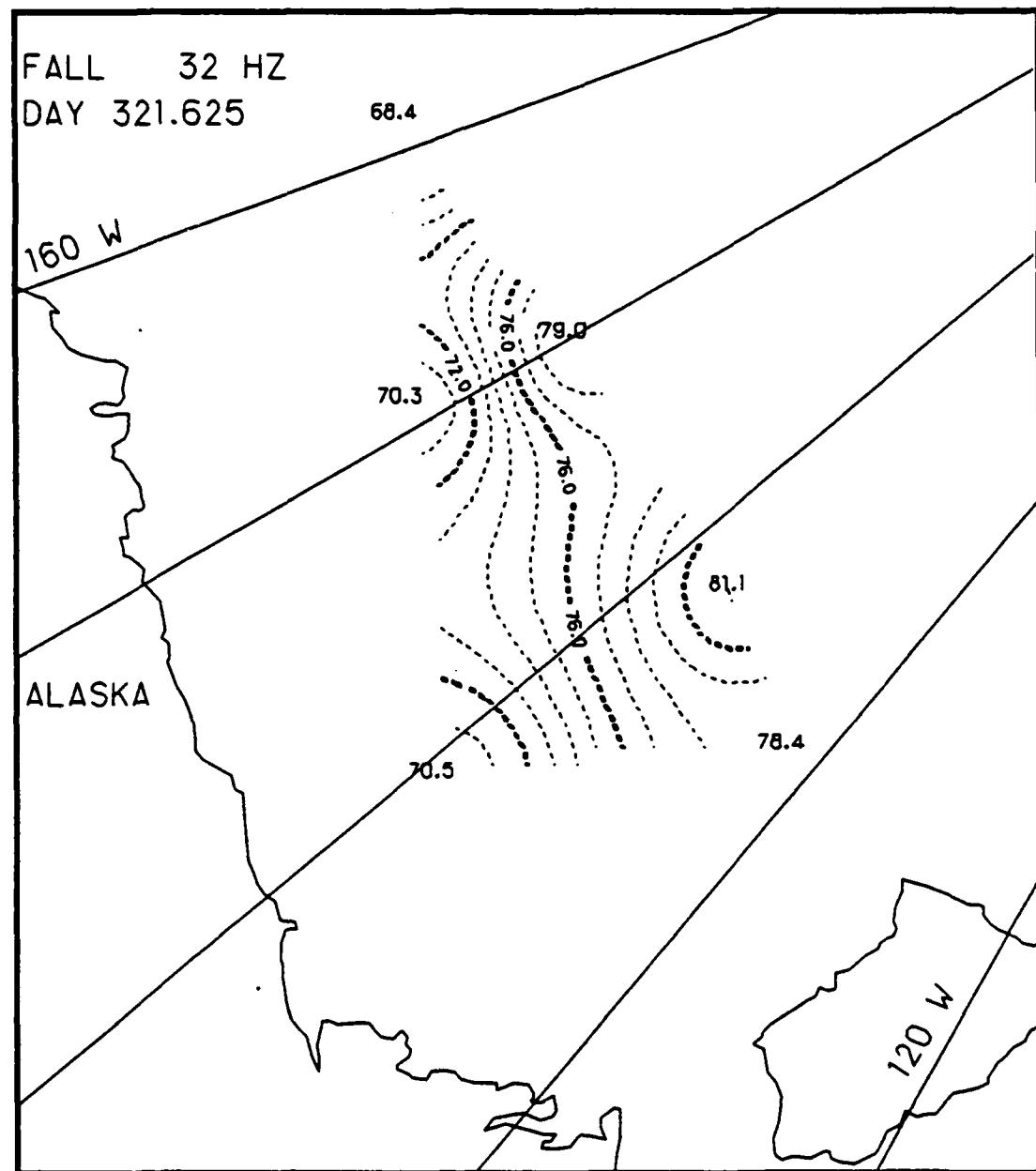


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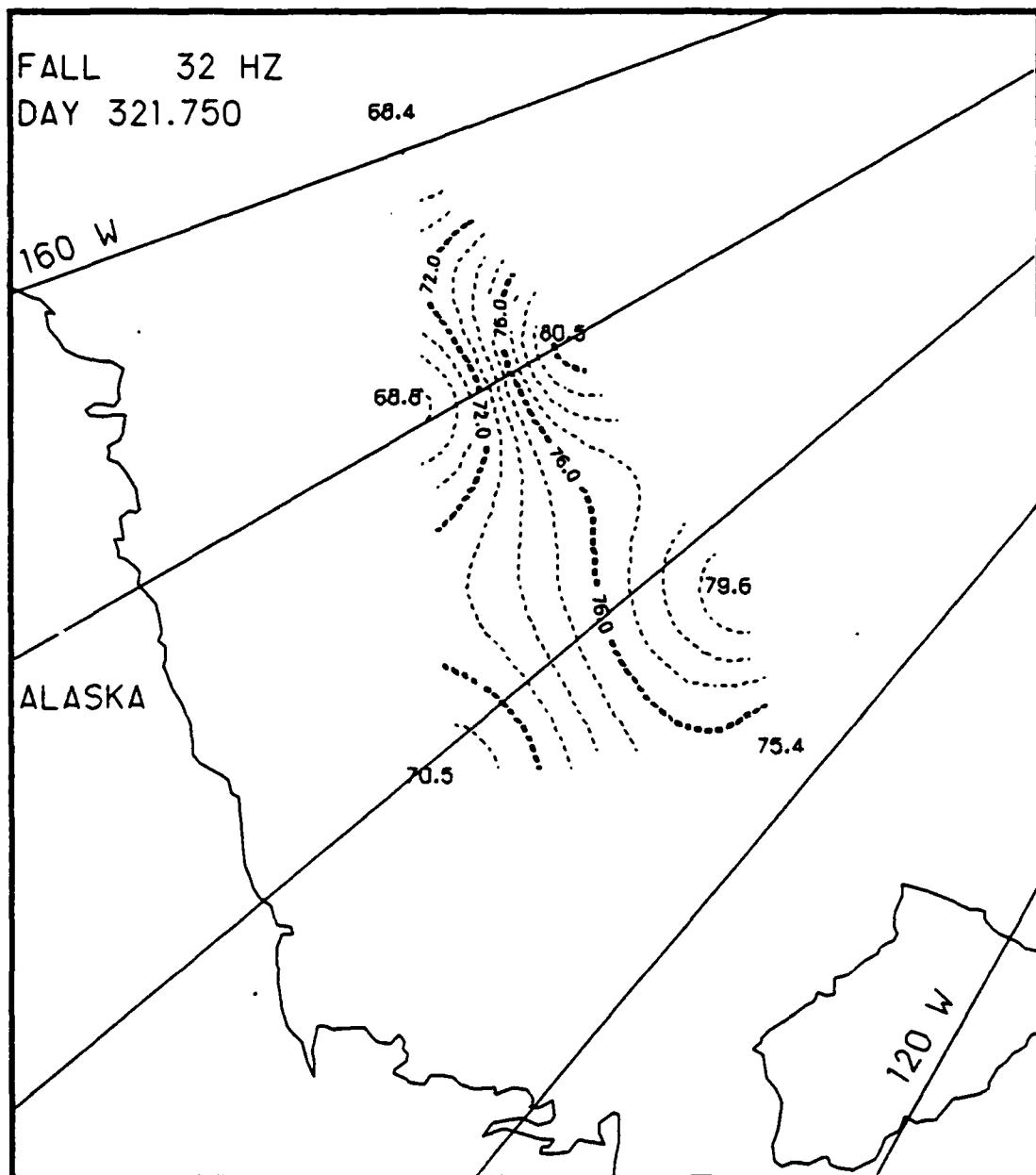


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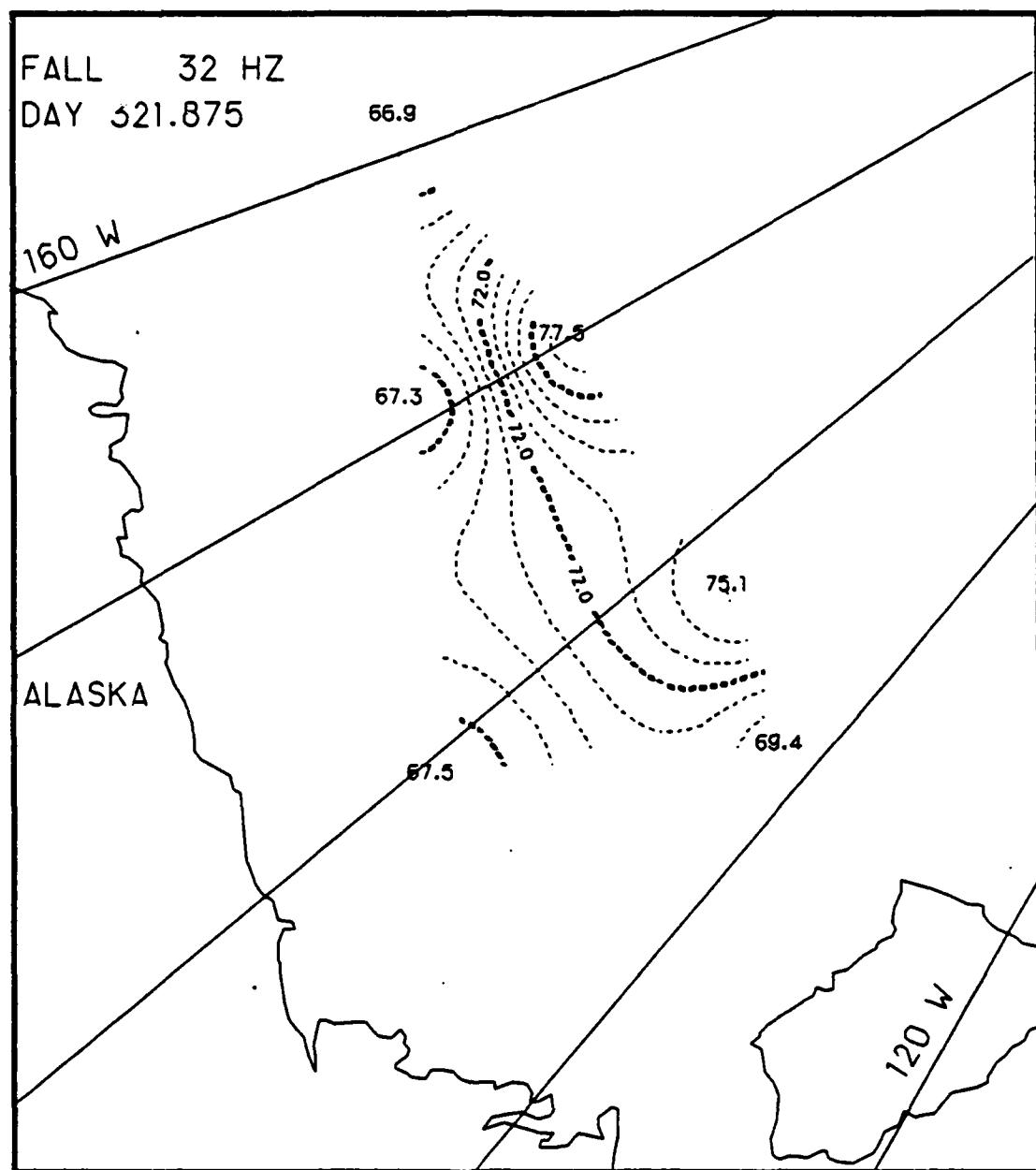


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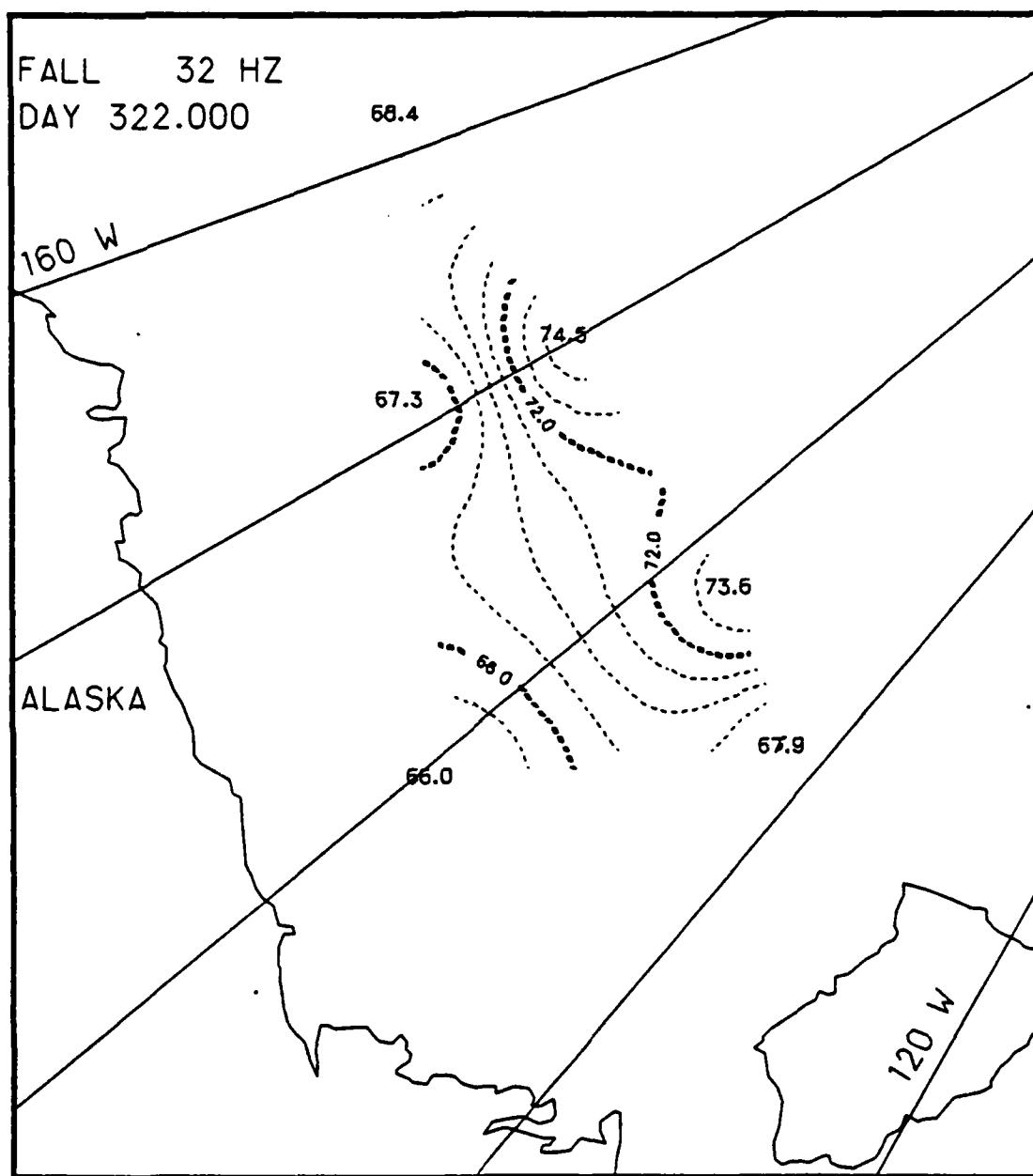


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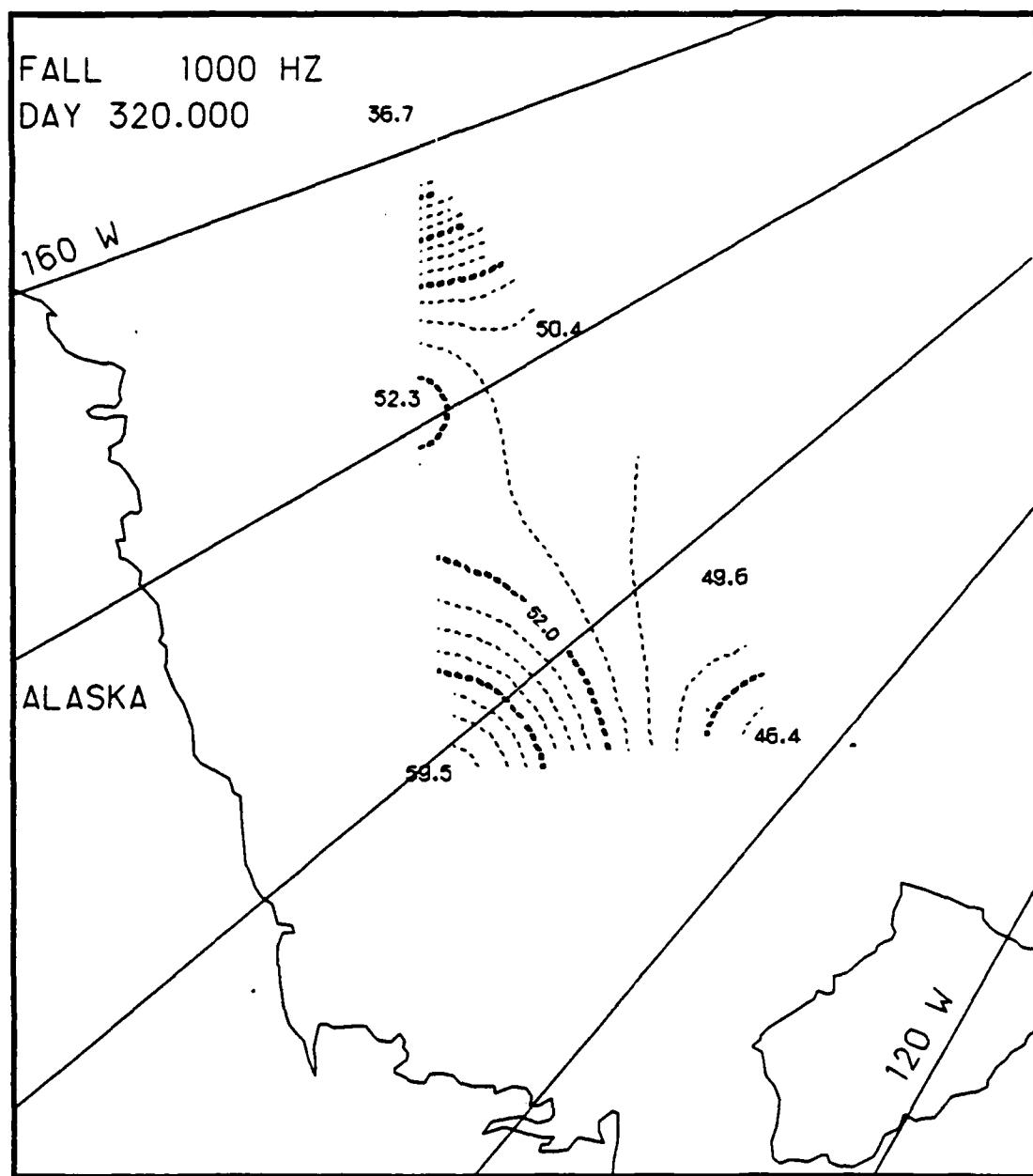


Fig. C.35. Spatial noise variations, day 320.0, based on the AIDJEX 1000 Hz noise data.

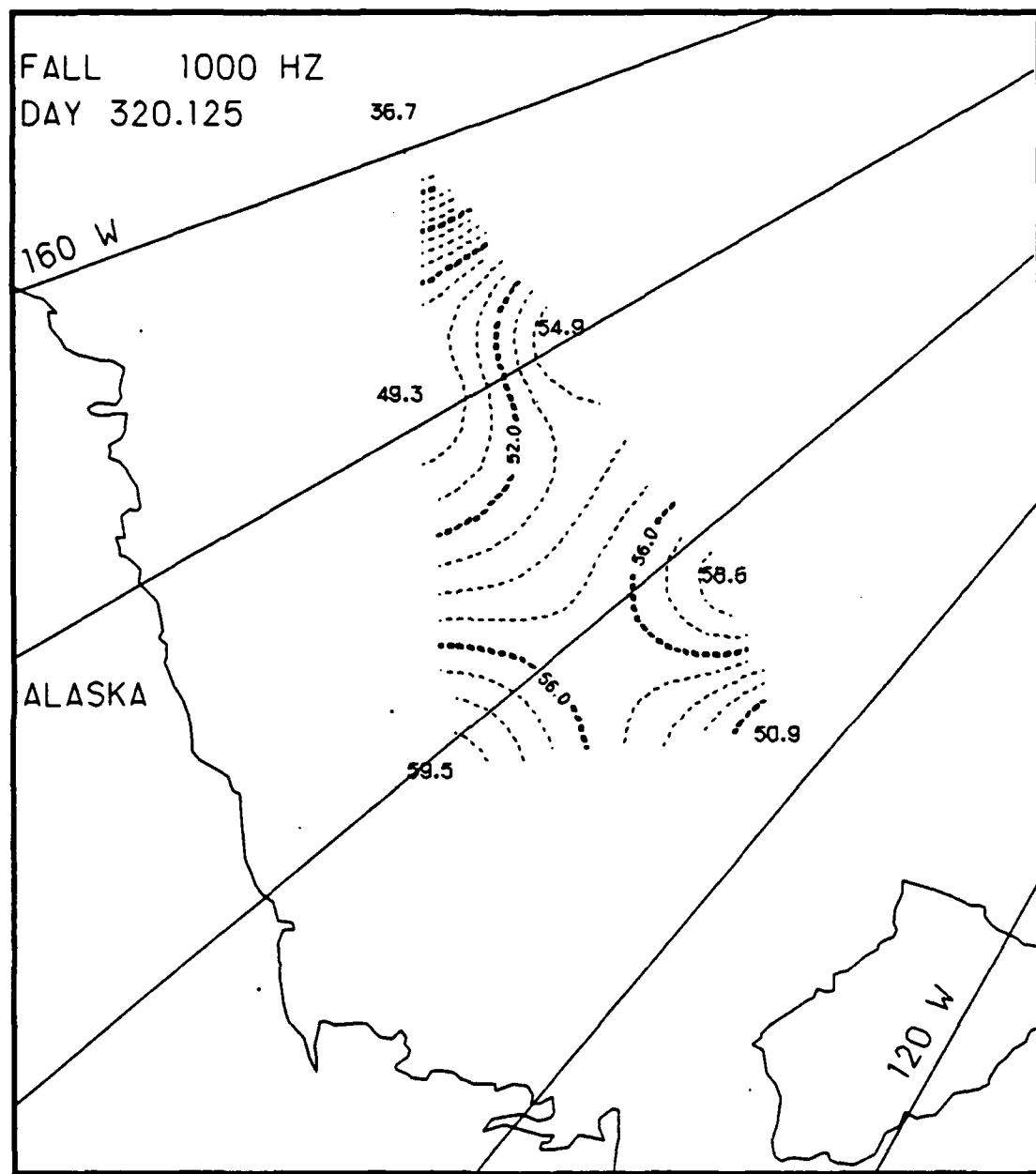


Fig. C.36. Spatial noise variations, day 320.125, based on the AIDJEX 1000 Hz noise data.

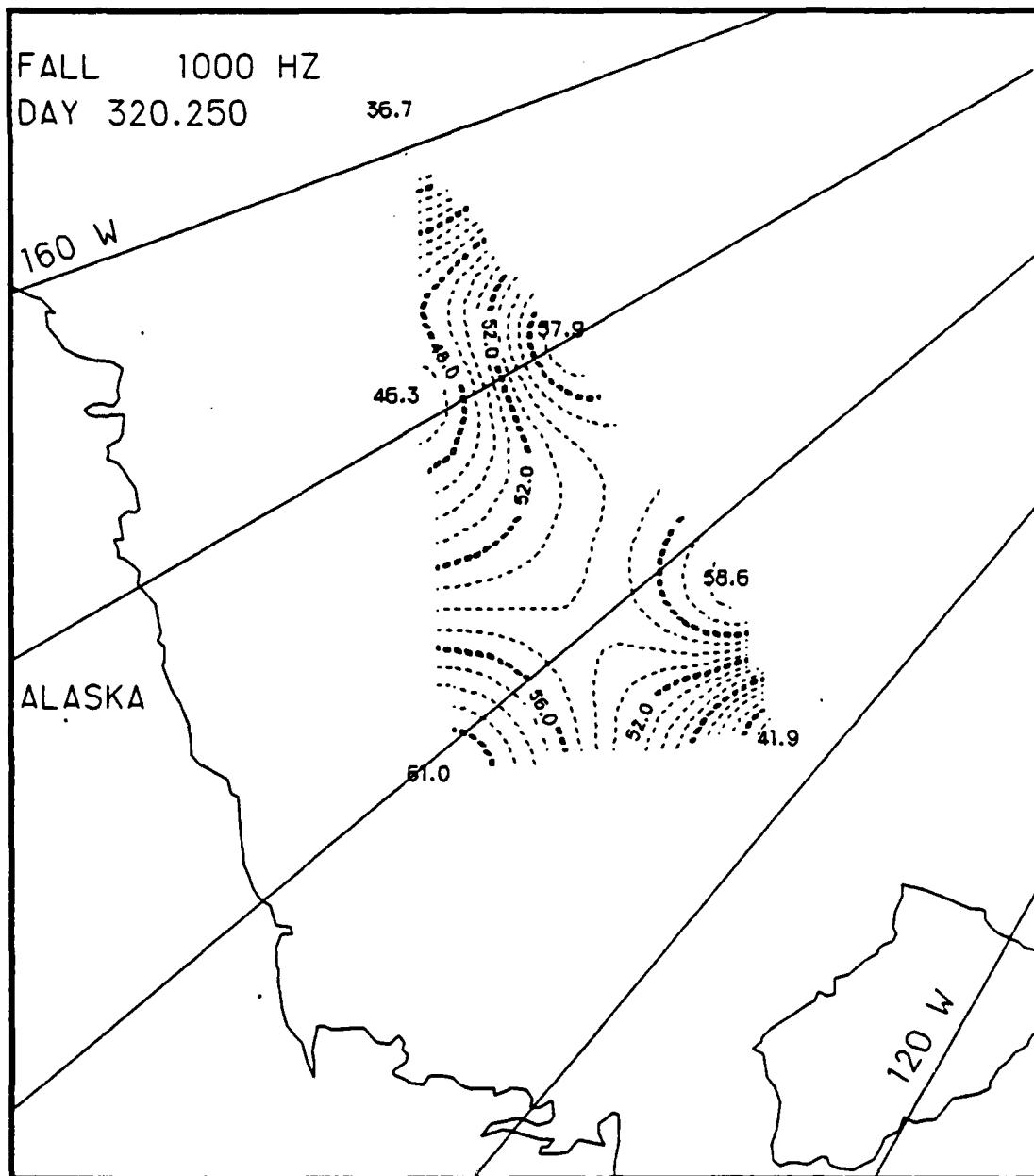


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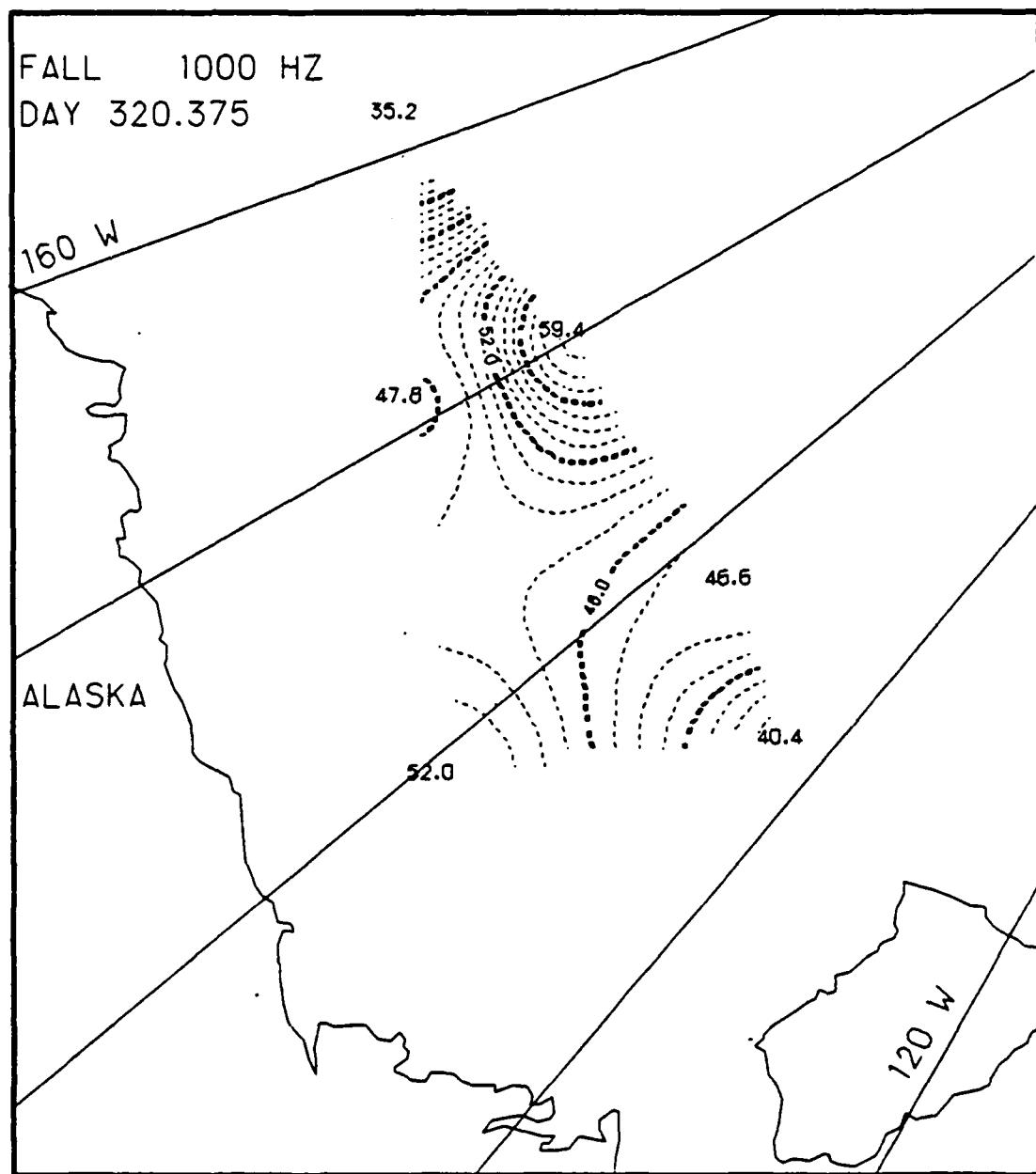


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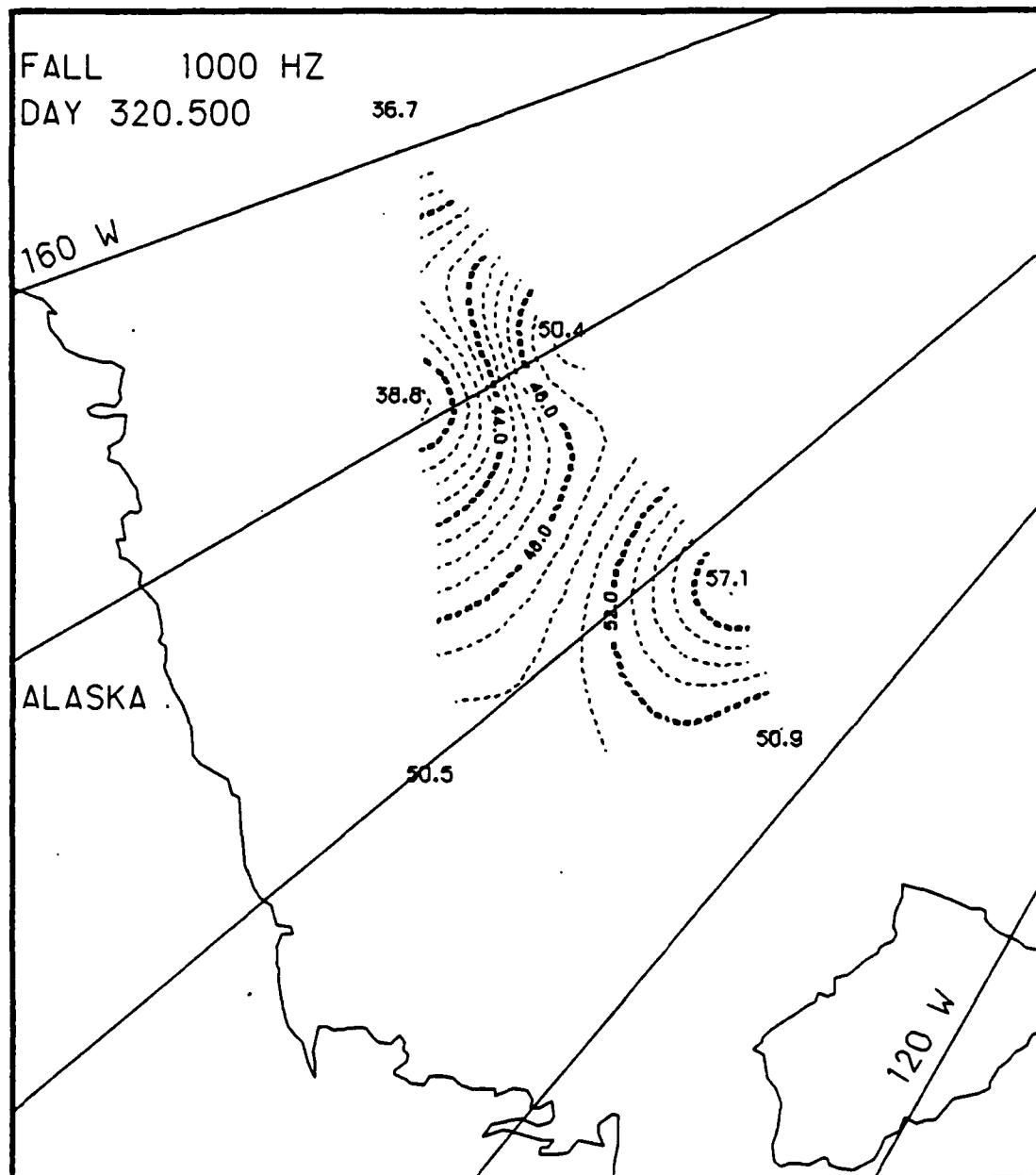


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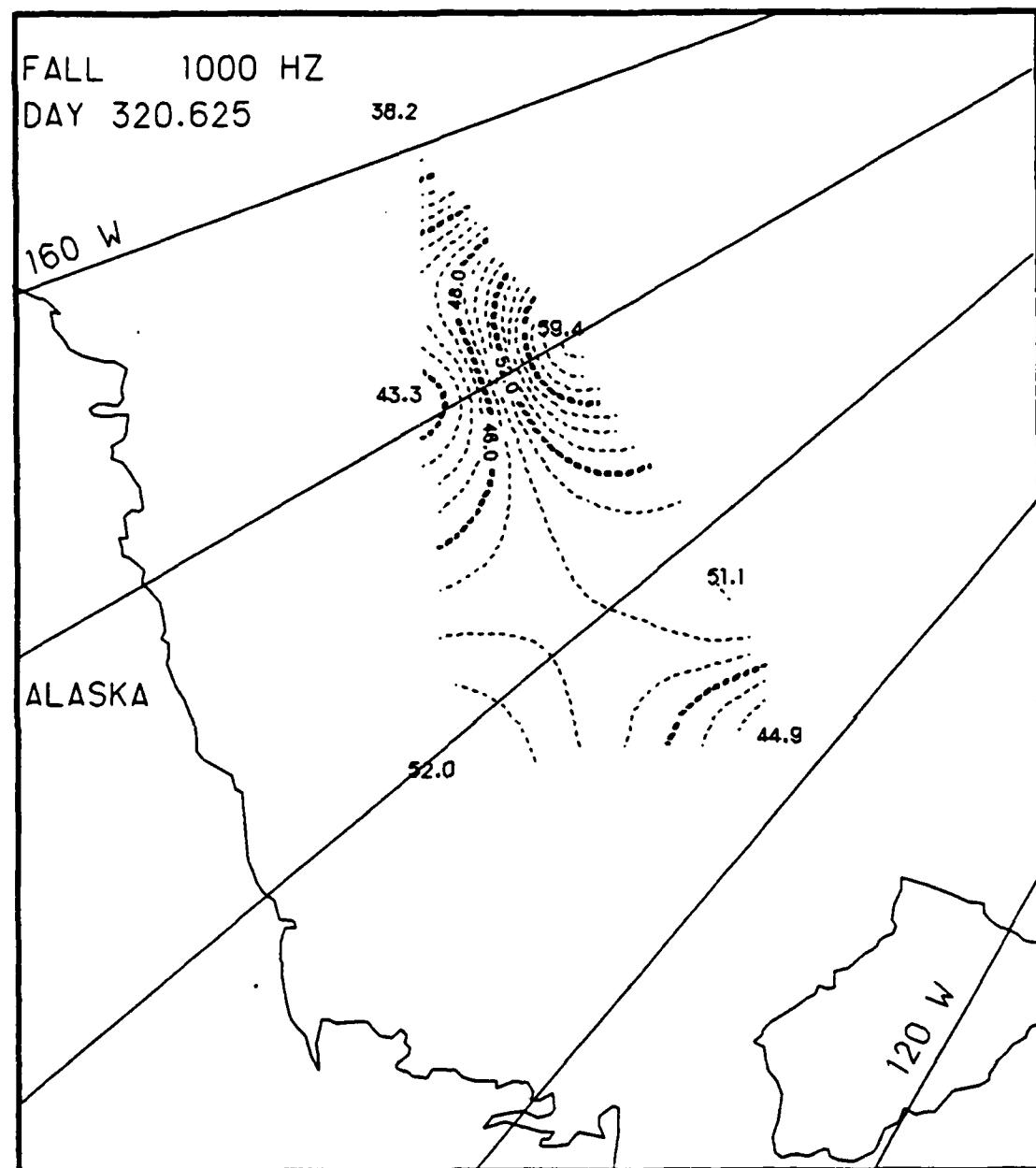


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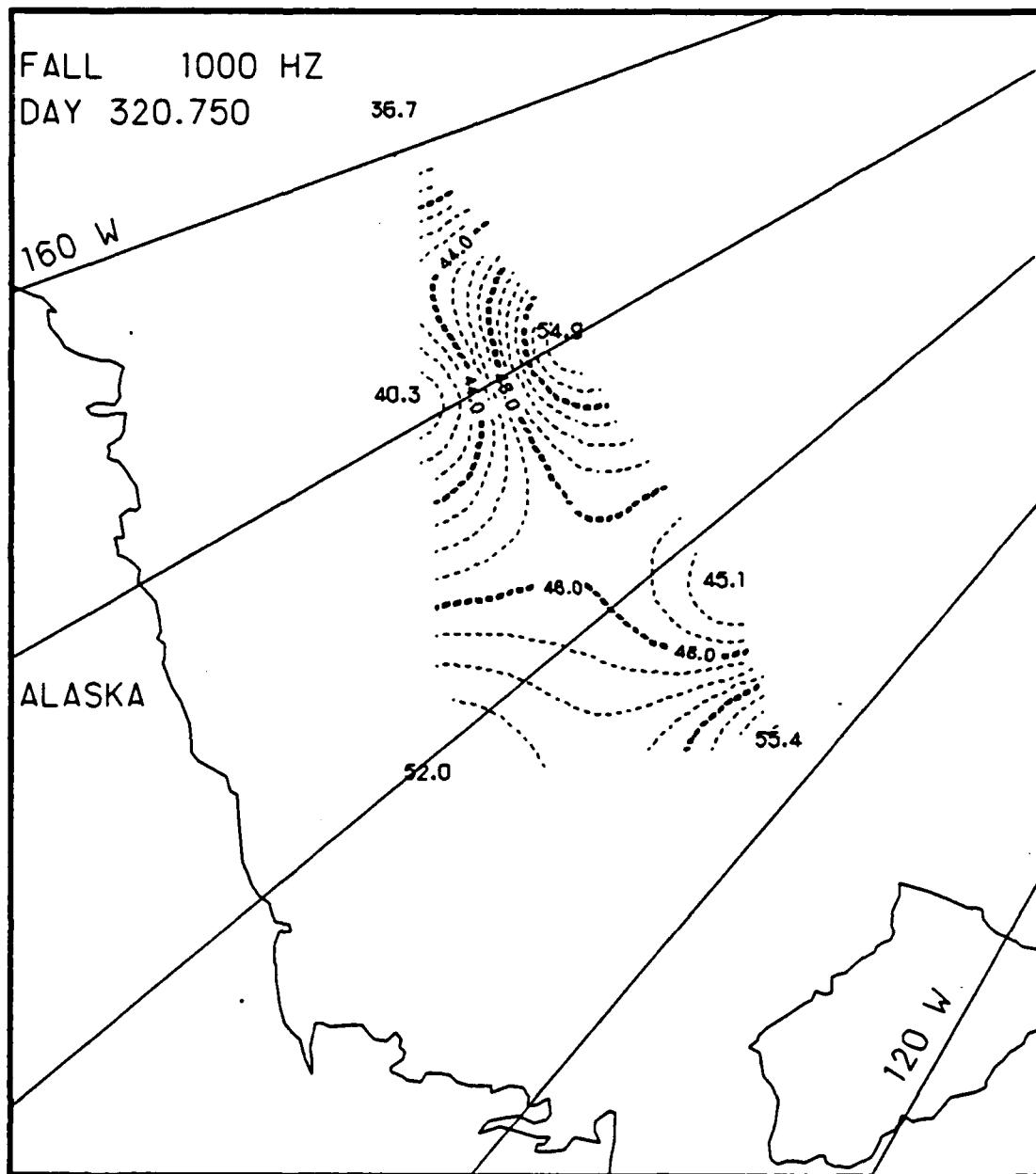


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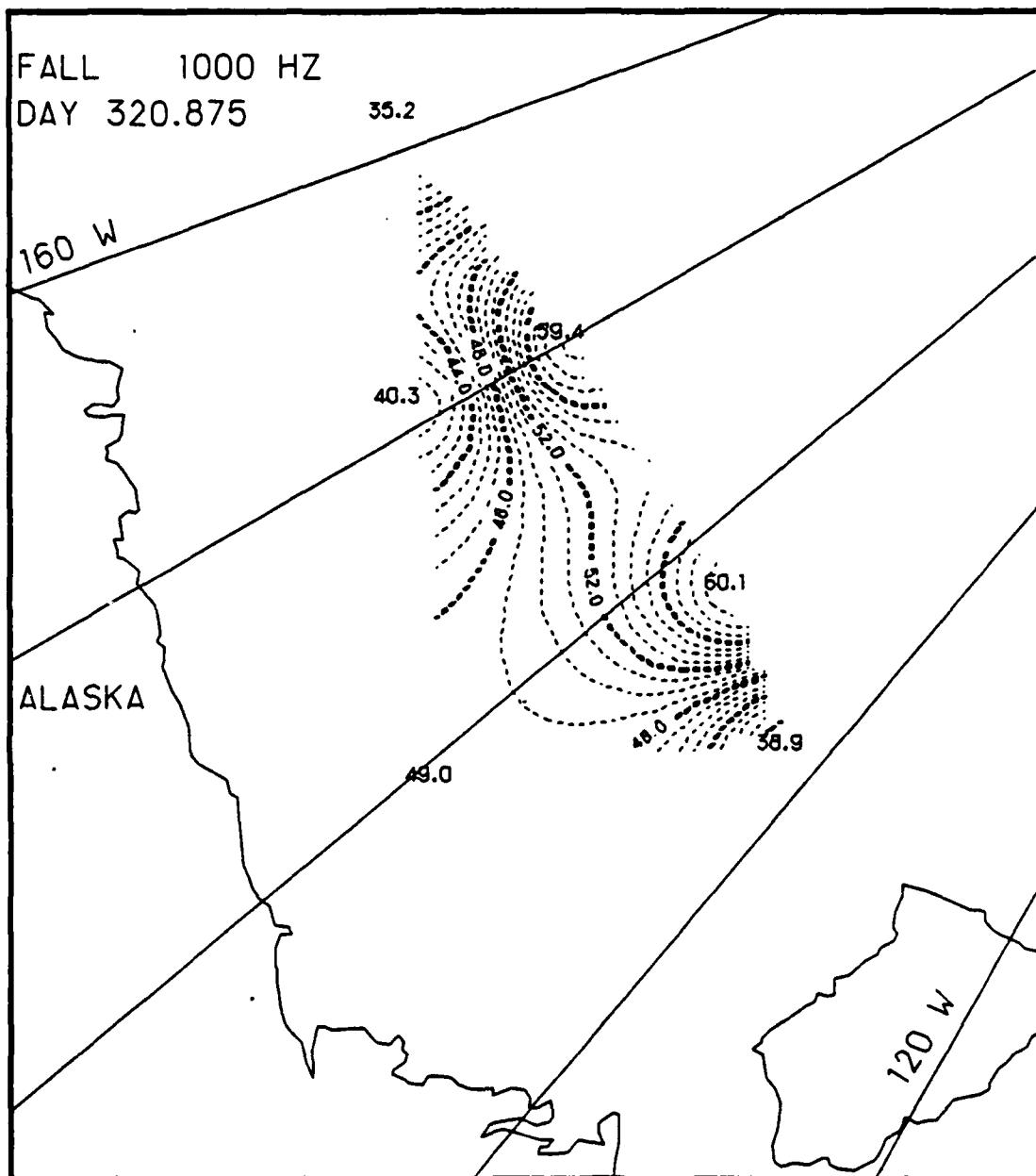


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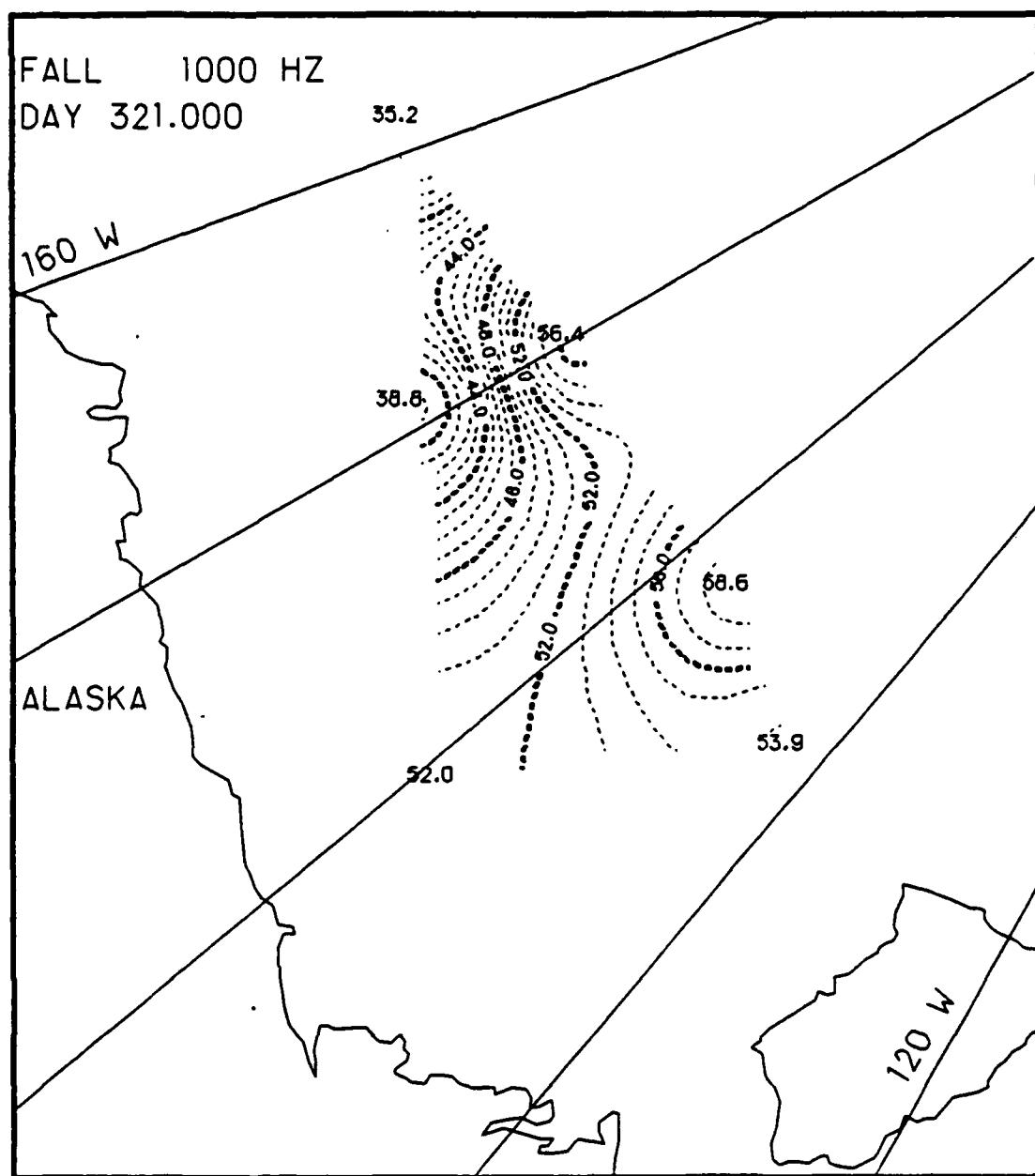


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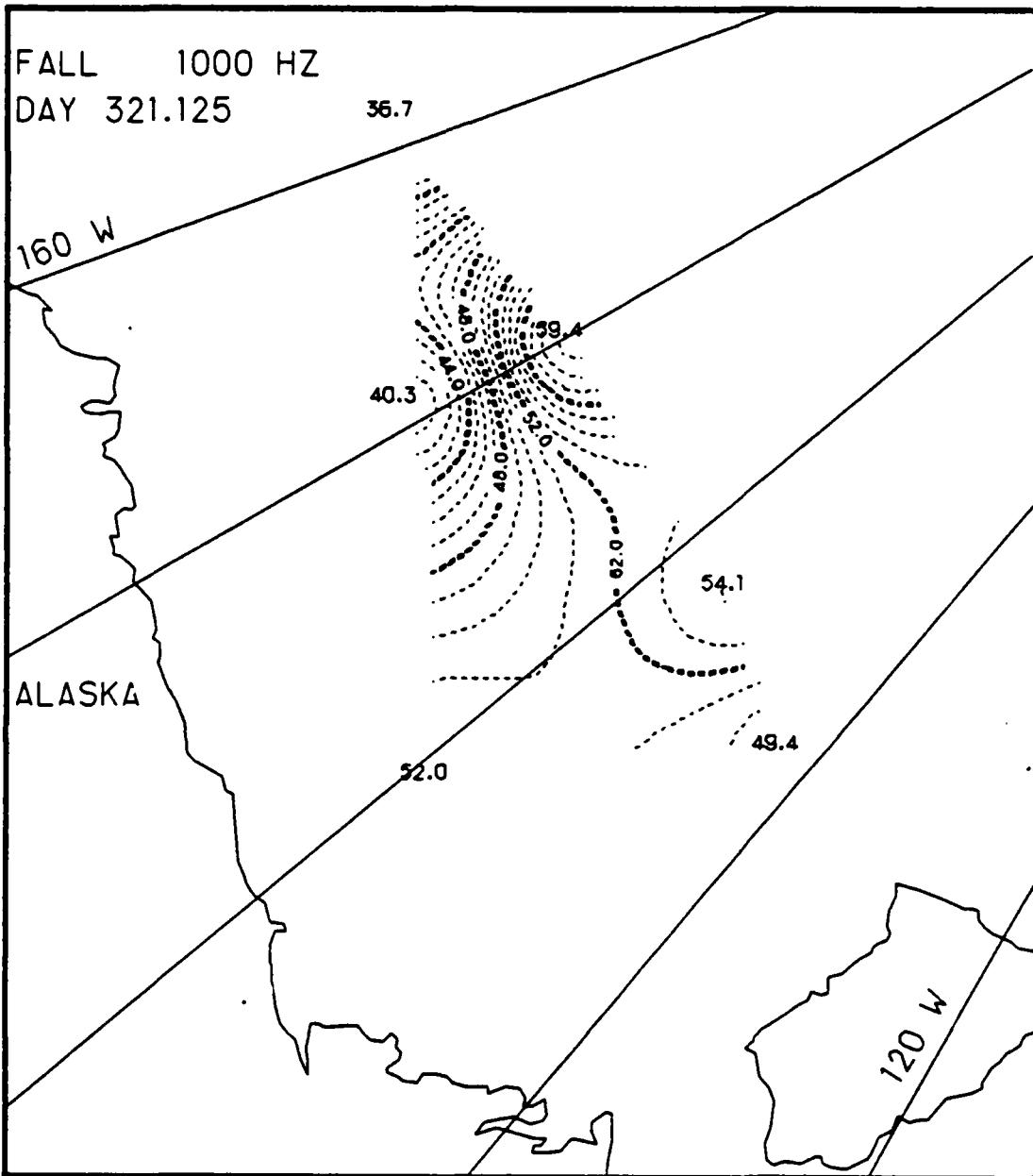


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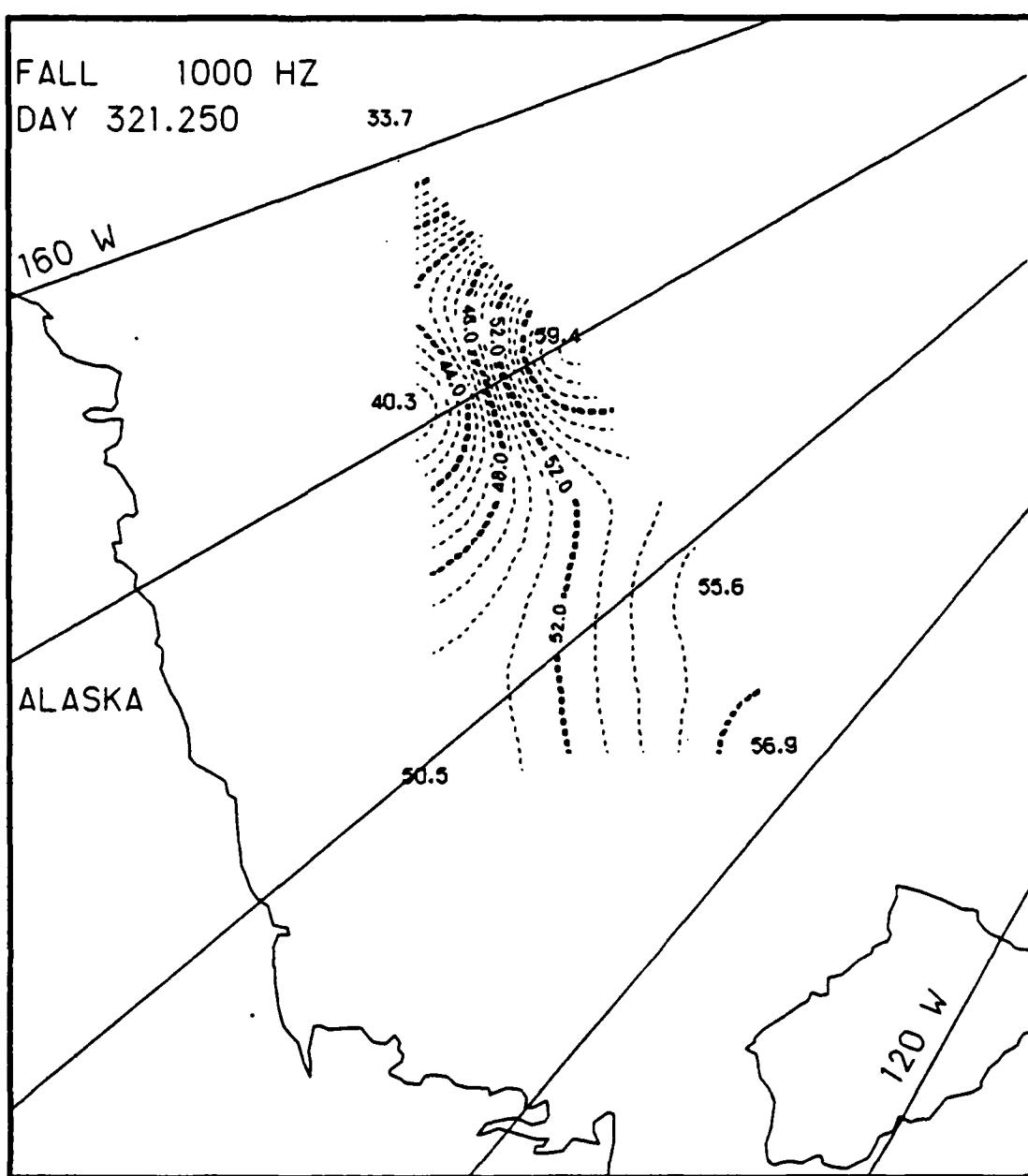


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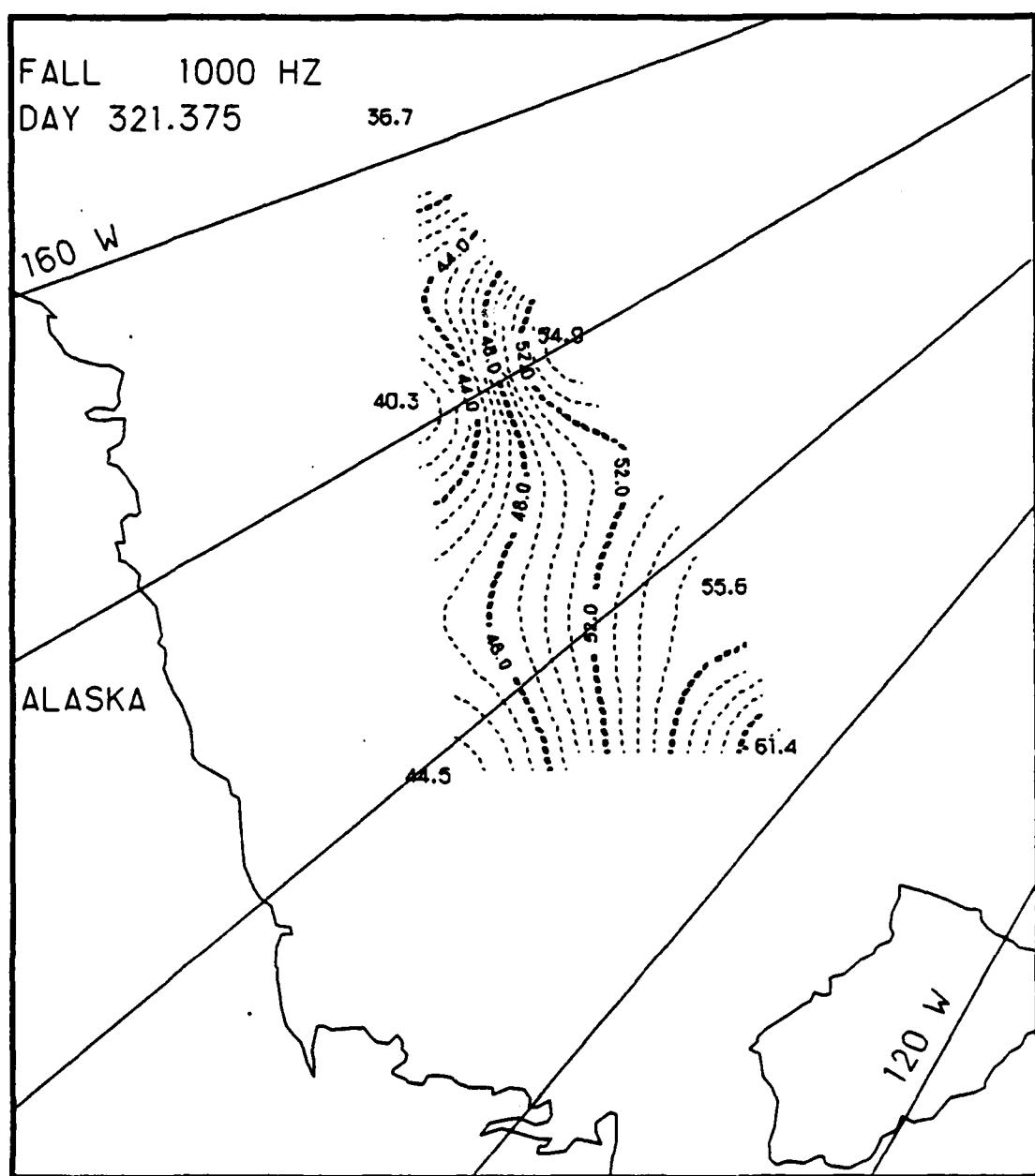


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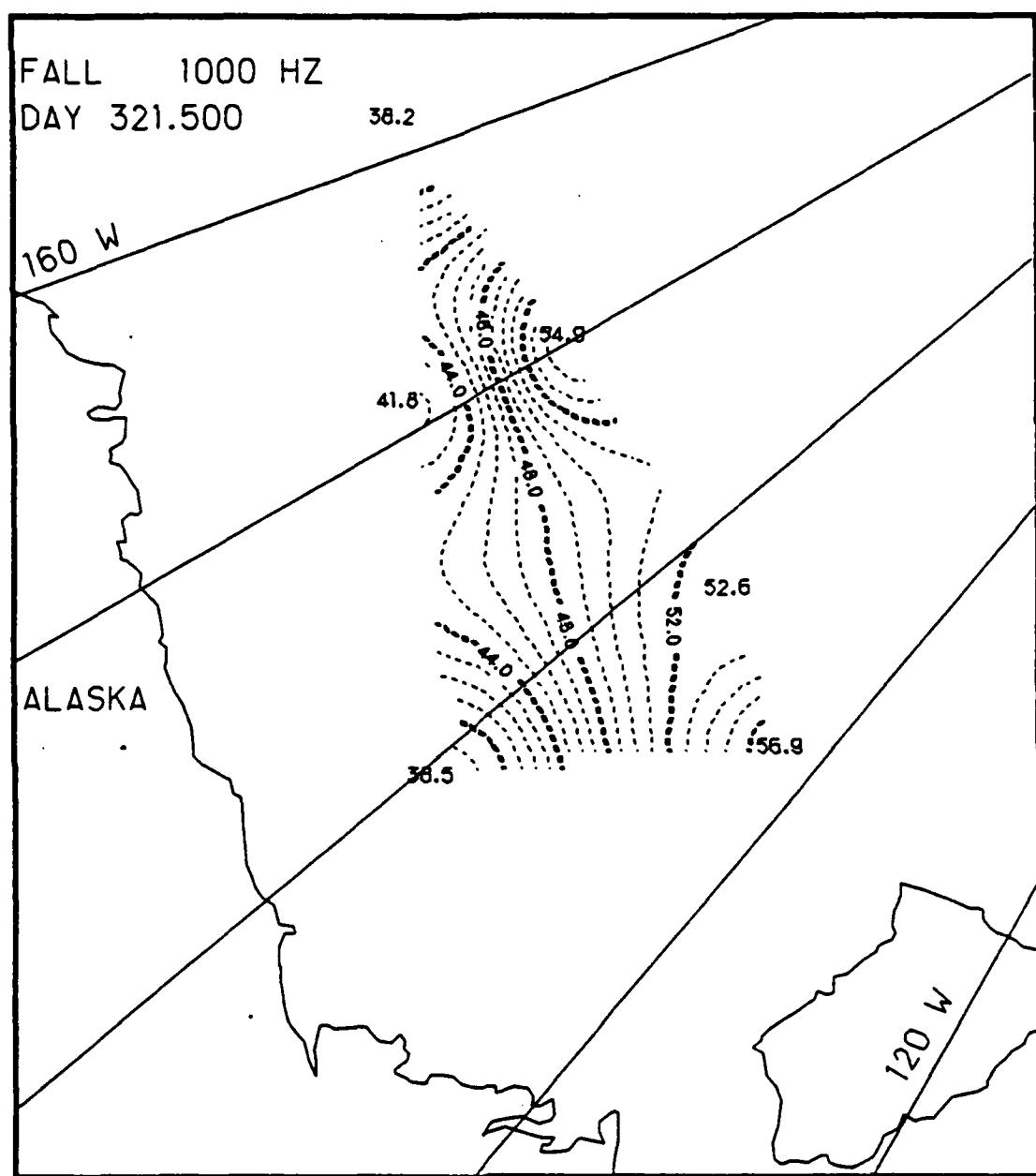


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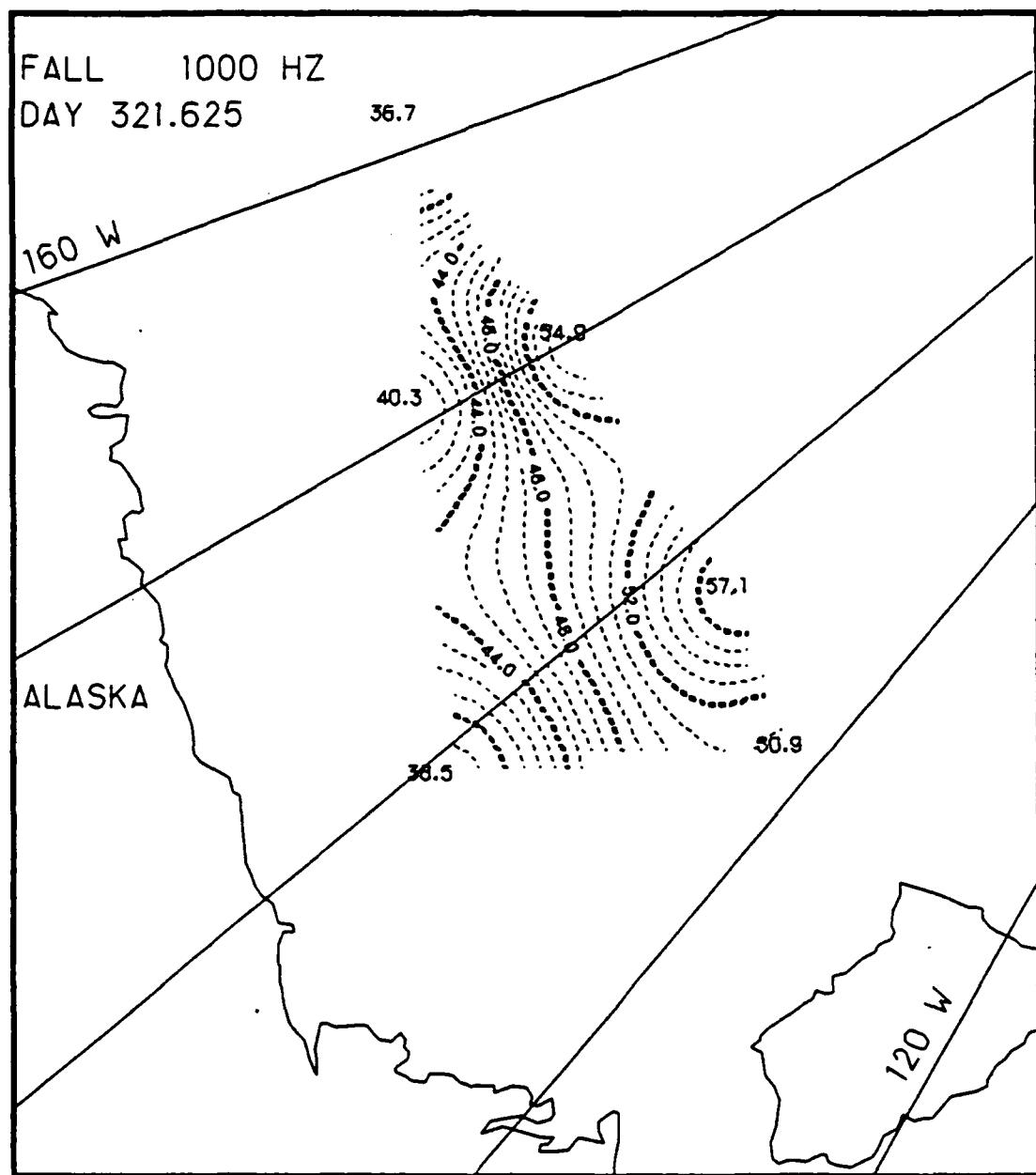


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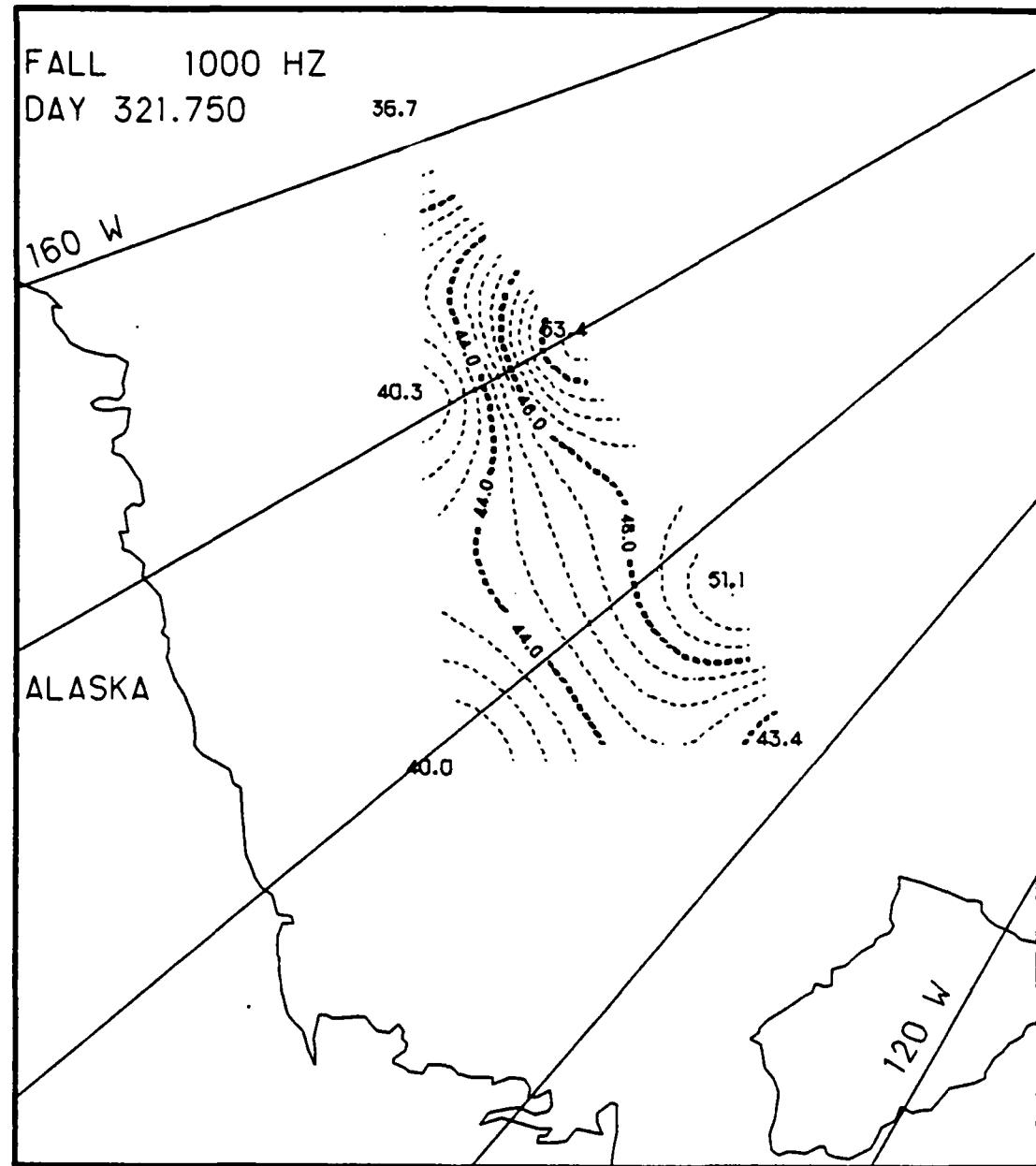


Fig. C.49. Spatial noise variations, day 321.75, based on the AIDJEX 1000 Hz noise data.

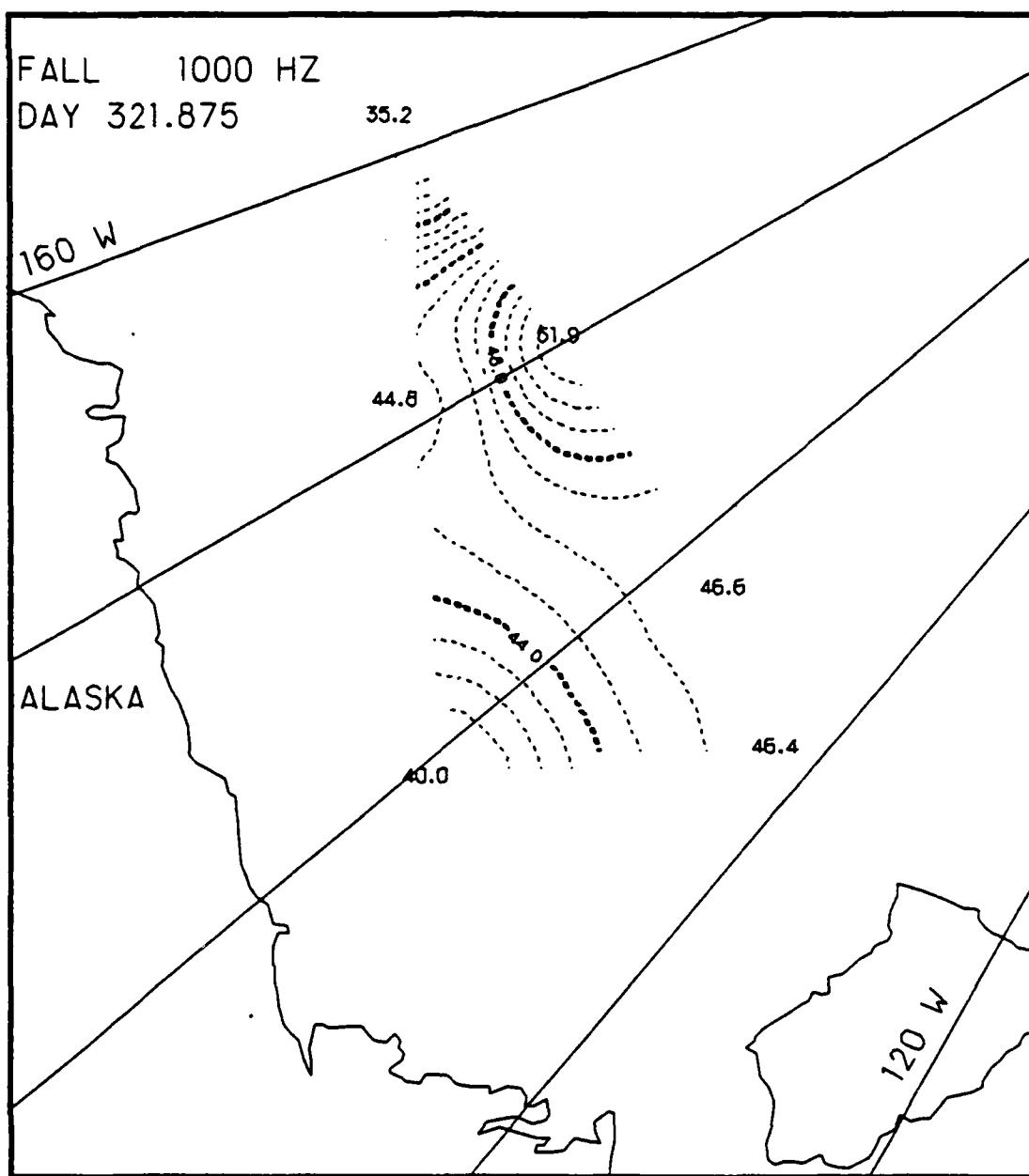


Fig. C.50. Spatial noise variations, day 321.875, based on the AIDJEX 1000 Hz noise data.

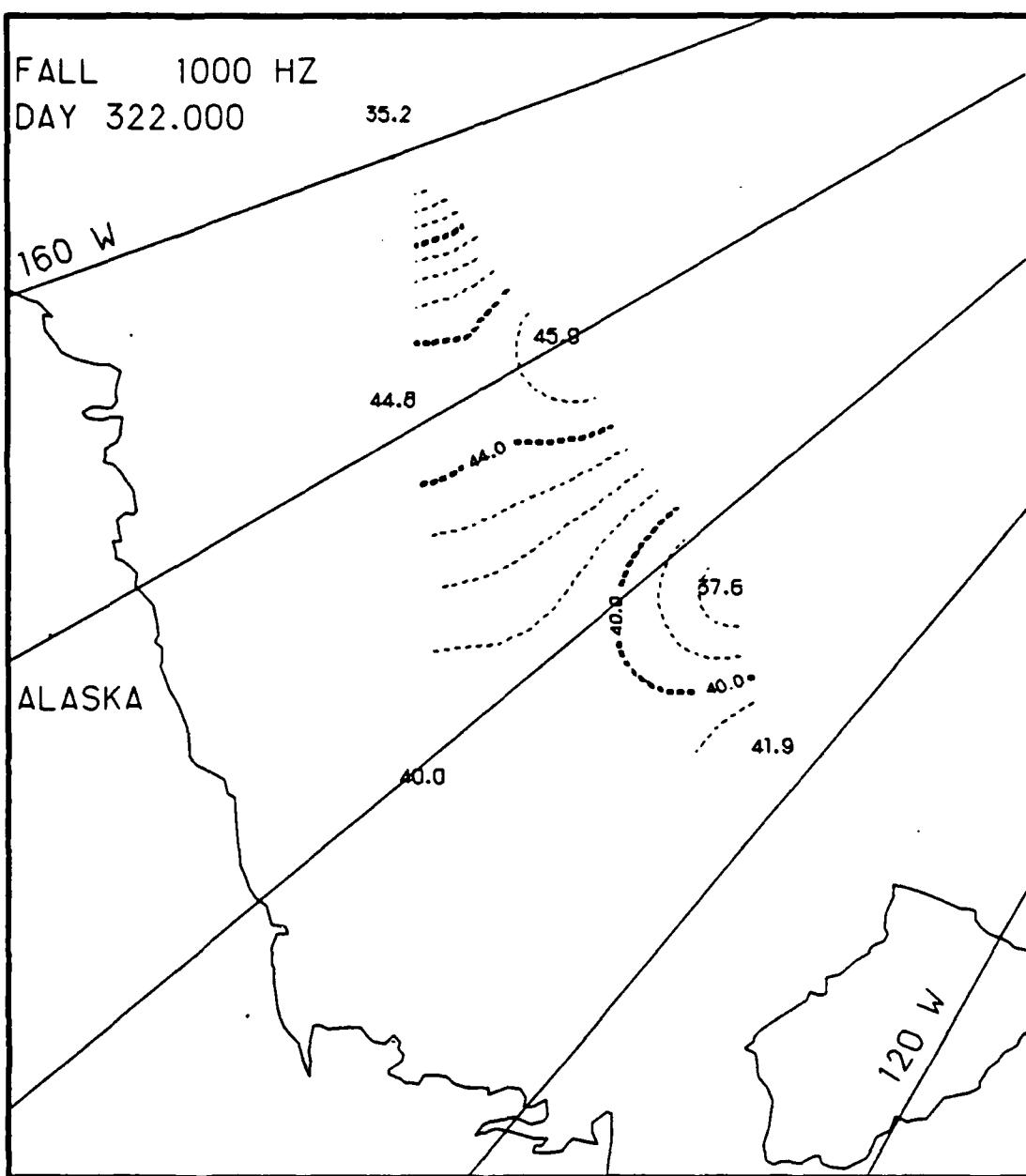


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*Science Applications International Corporation*

A STUDY OF SEA ICE KINEMATICS  
AND THEIR RELATIONSHIPS  
TO ARCTIC AMBIENT NOISE

PART 3, SECTION 2 - AMBIENT NOISE

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## Appendix D

### Two-Dimensional Contour Maps of Arctic Ambient Noise Variations, 9-10 February 1976 (Winter)

This appendix contains the two-dimensional contour maps of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz noise signals for the 48 hour period of 9-10 February 1976. The contour maps show the spatial variations of the ambient noise signals at 3 hr intervals, the unit of noise being decibells. The Julian day for 9 February is day 39, and the Julian day for 10 February is day 40.

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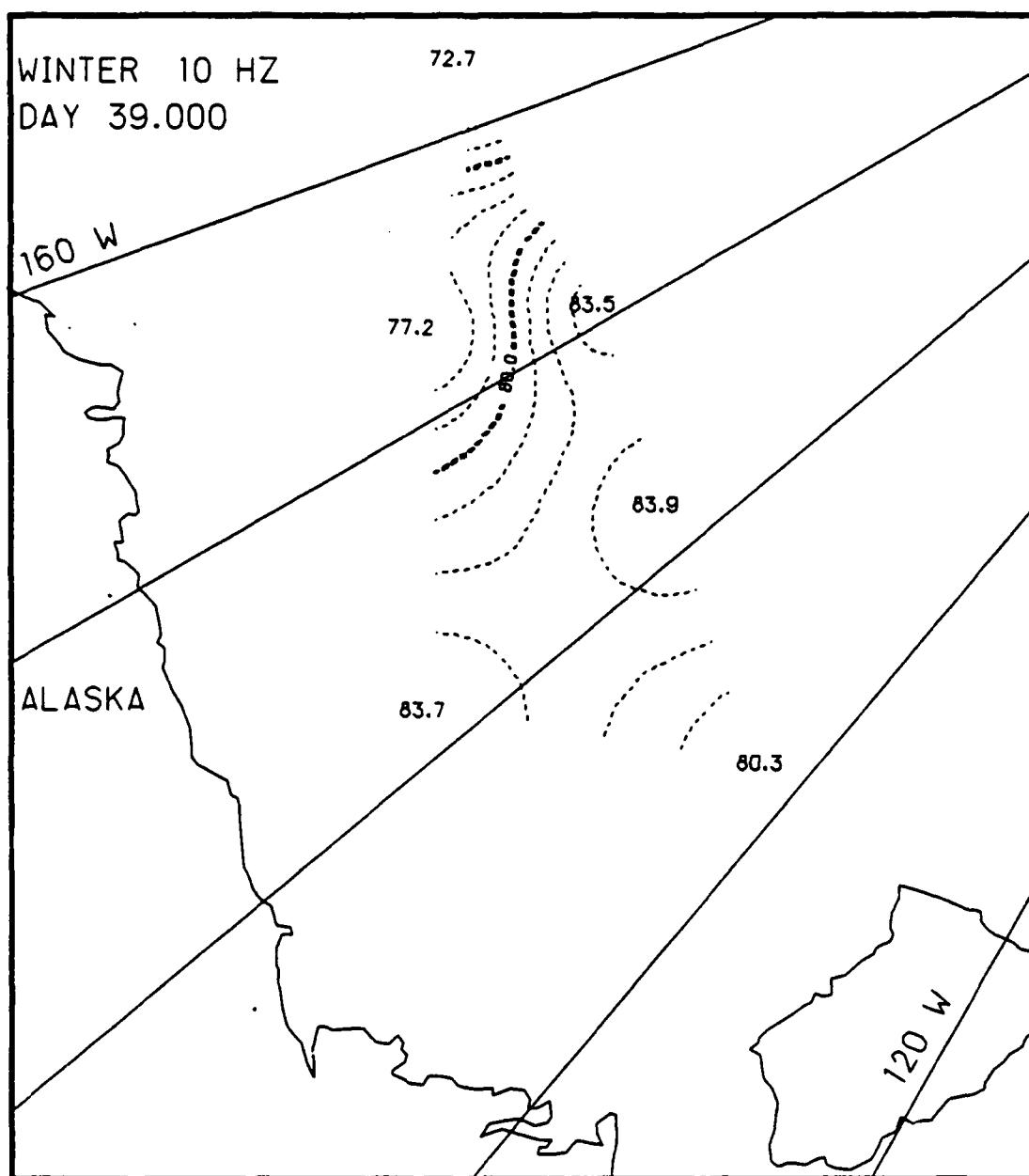


Fig. D.1. Spatial noise variations, day 39.0, based on the AIDJEX 10 Hz noise data.

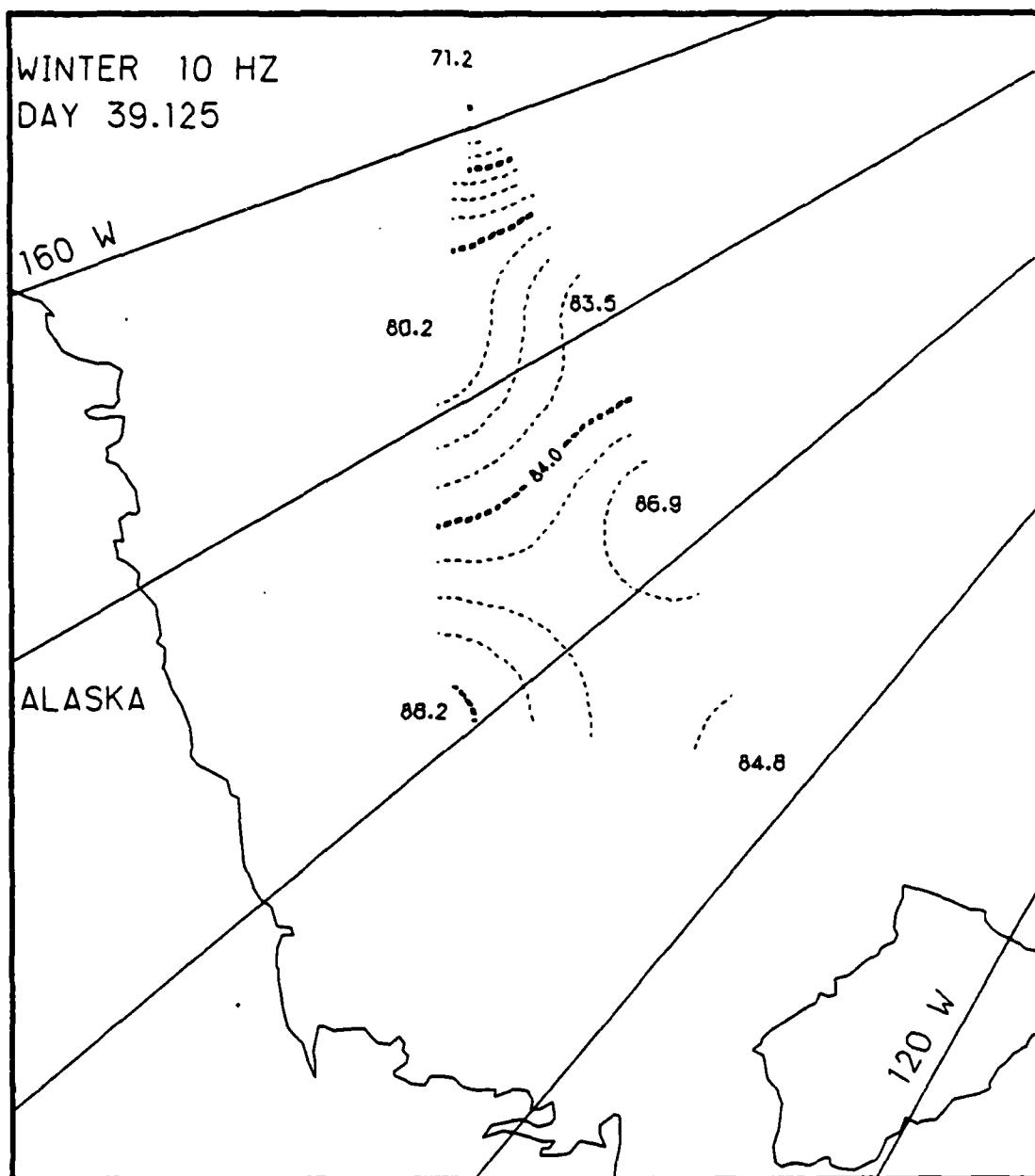


Fig. D.2. Spatial noise variations, day 39.125, based on the AIDJEX 10 Hz noise data.

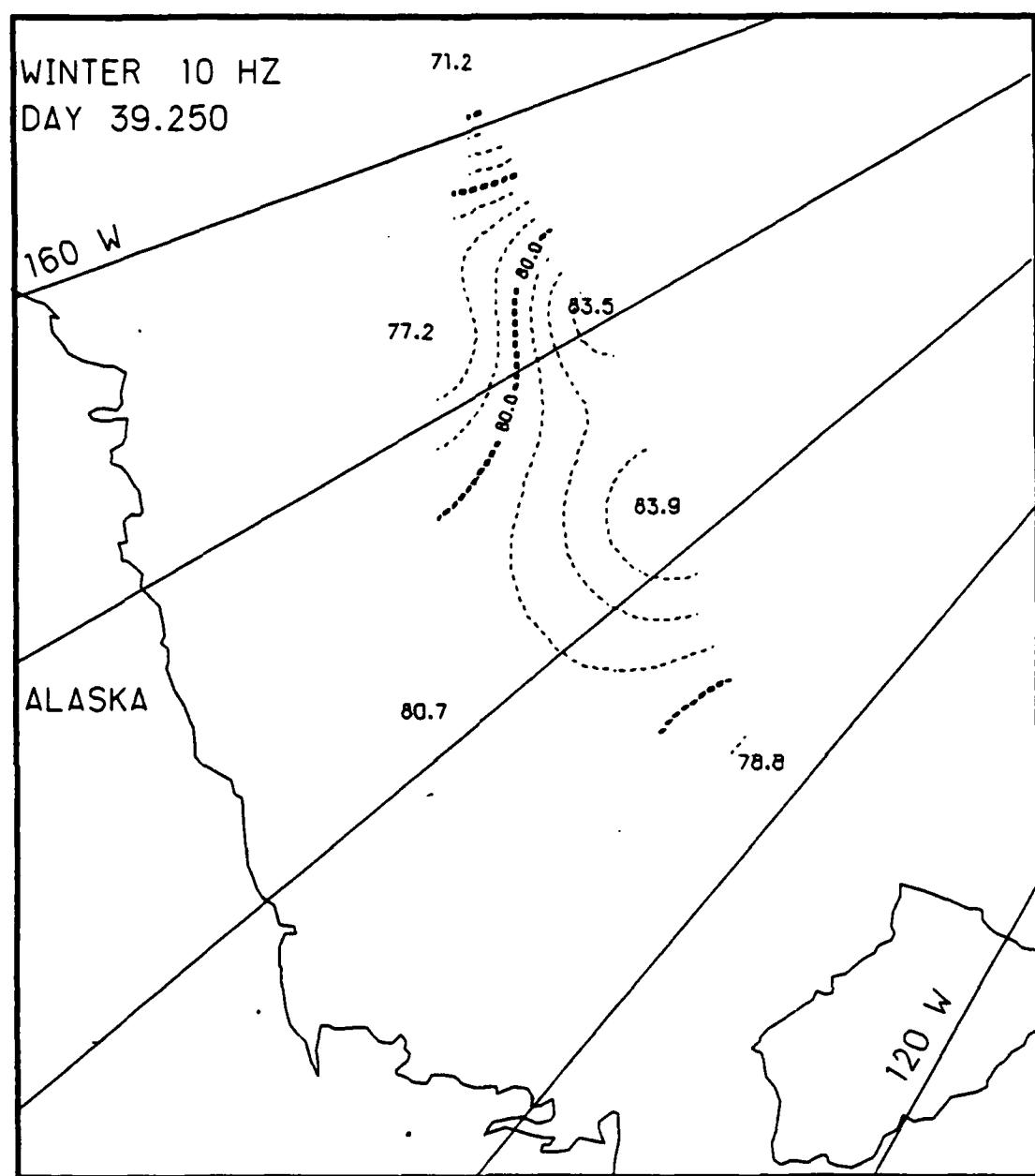


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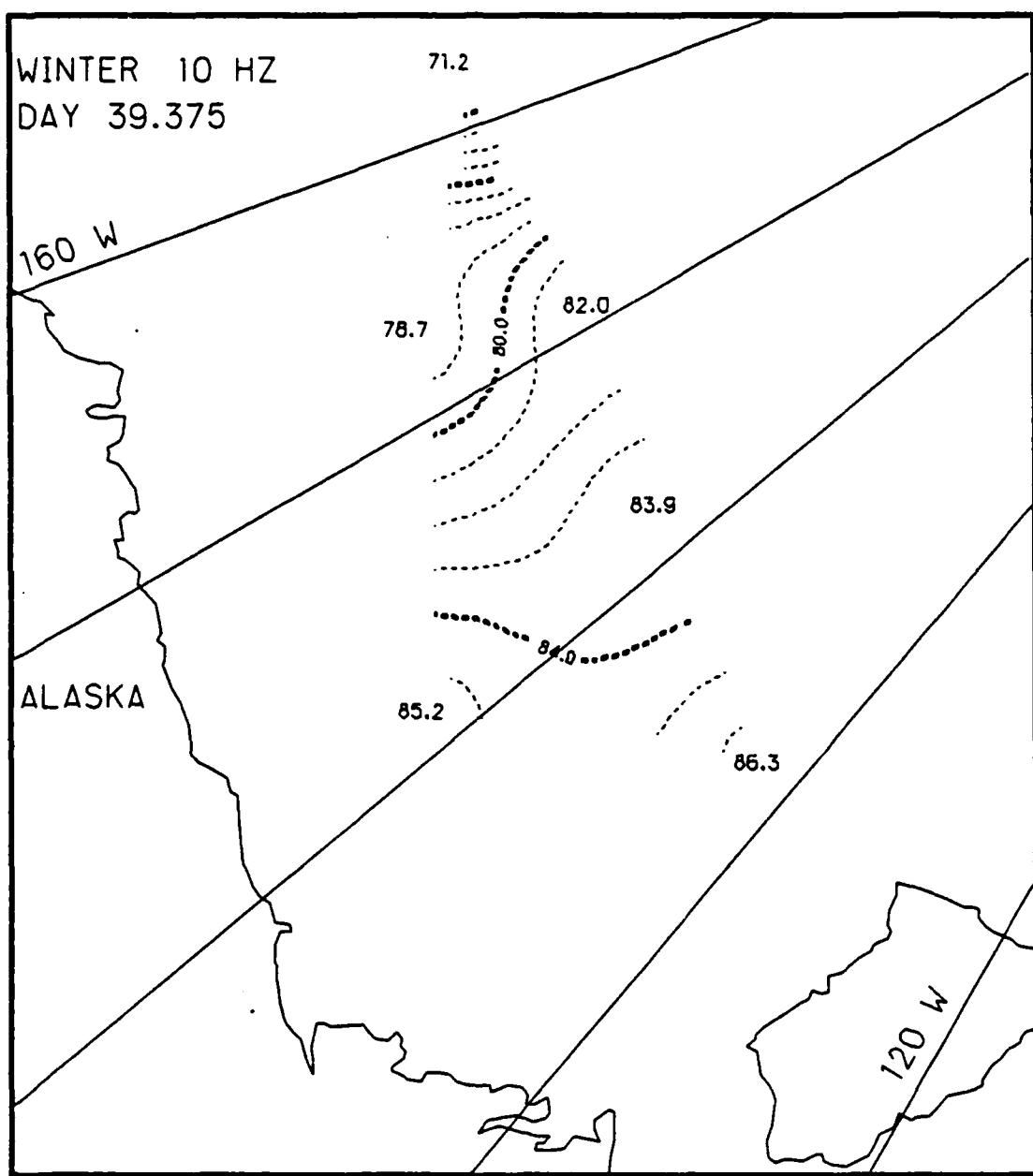


Fig. D.4. Spatial noise variations, day 39.375, based on the AIDEX 10 Hz noise data.

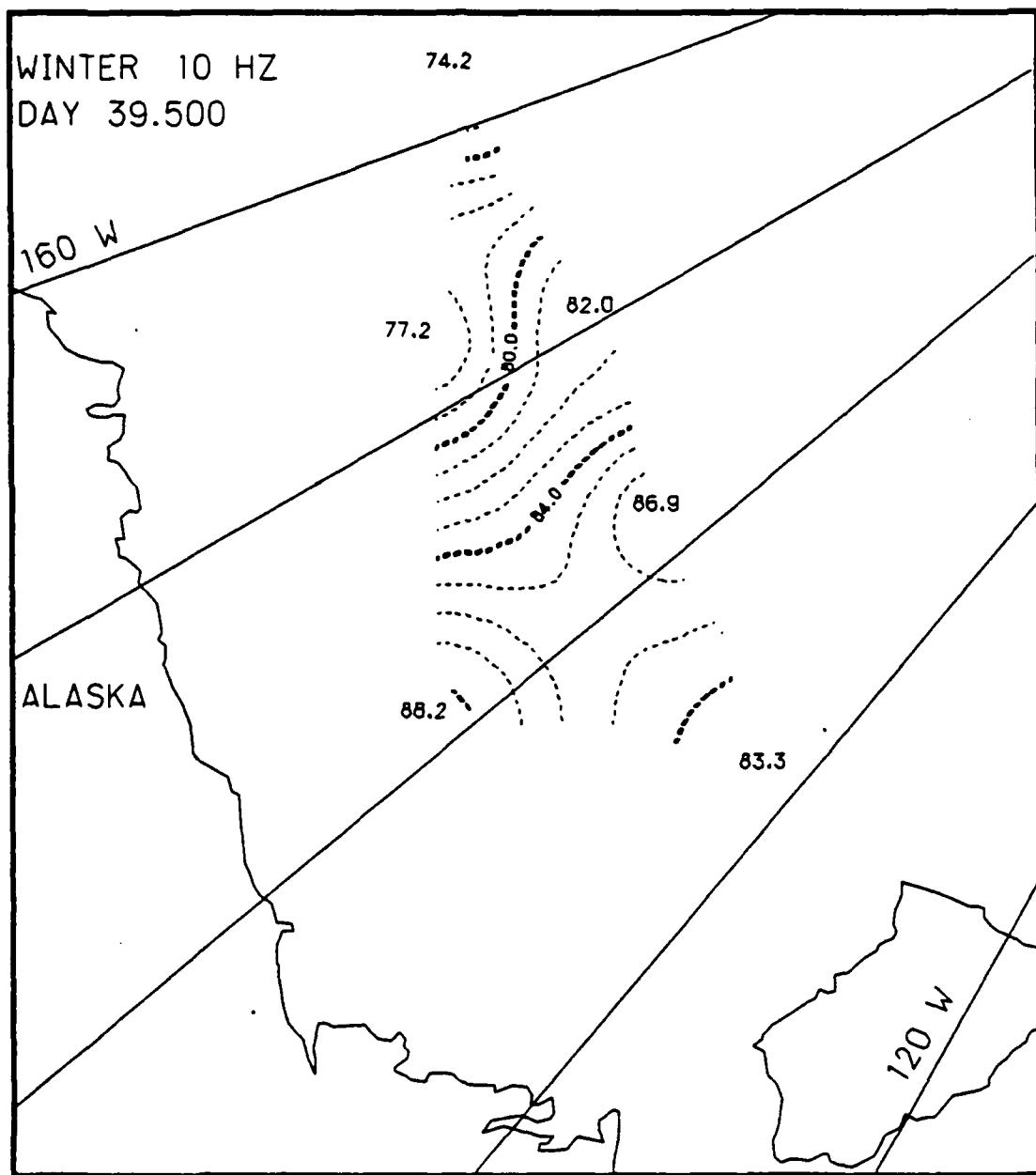


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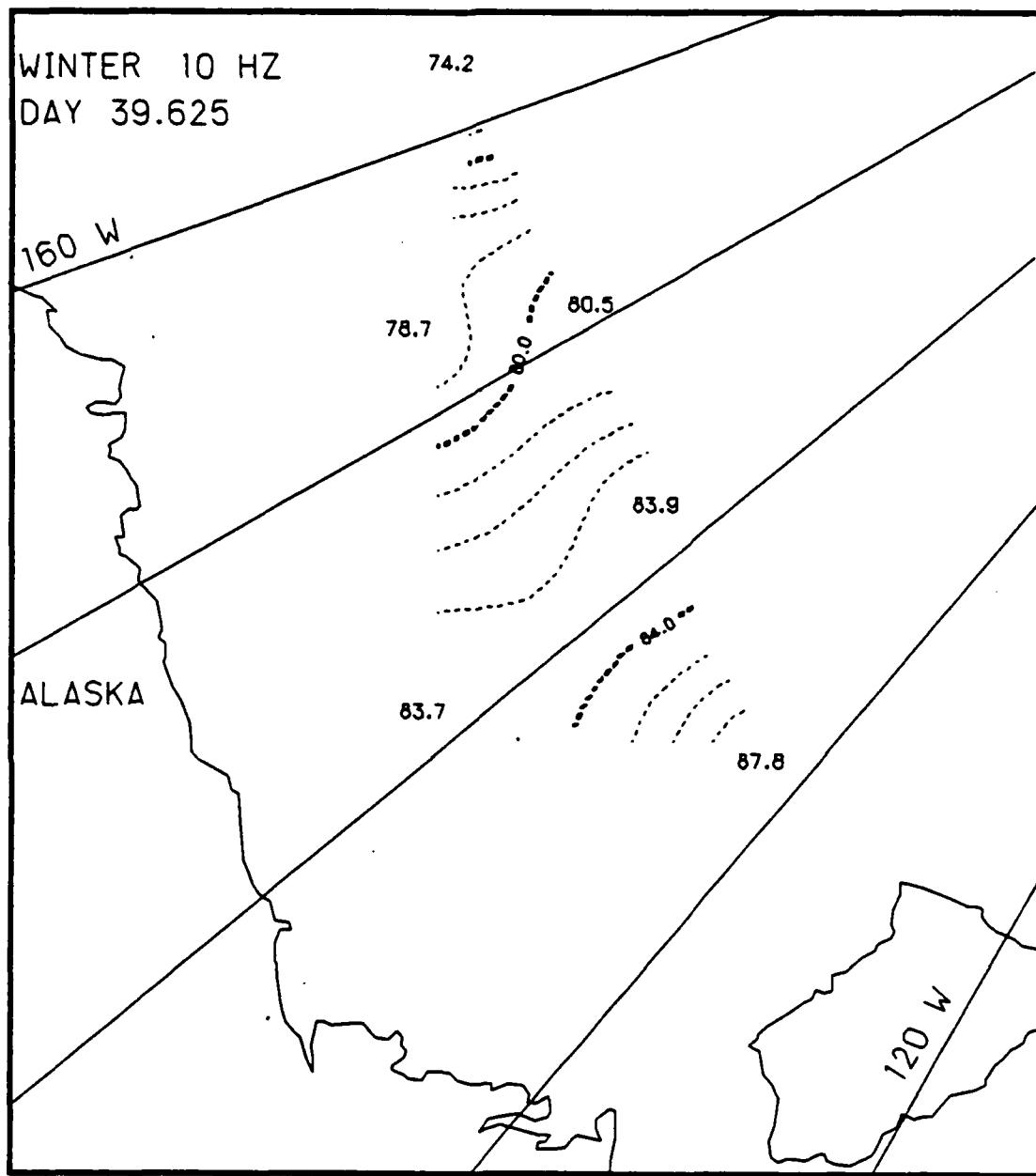


Fig. D.6. Spatial noise variations, day 39.625, based on the AIDJEX 10 Hz noise data.

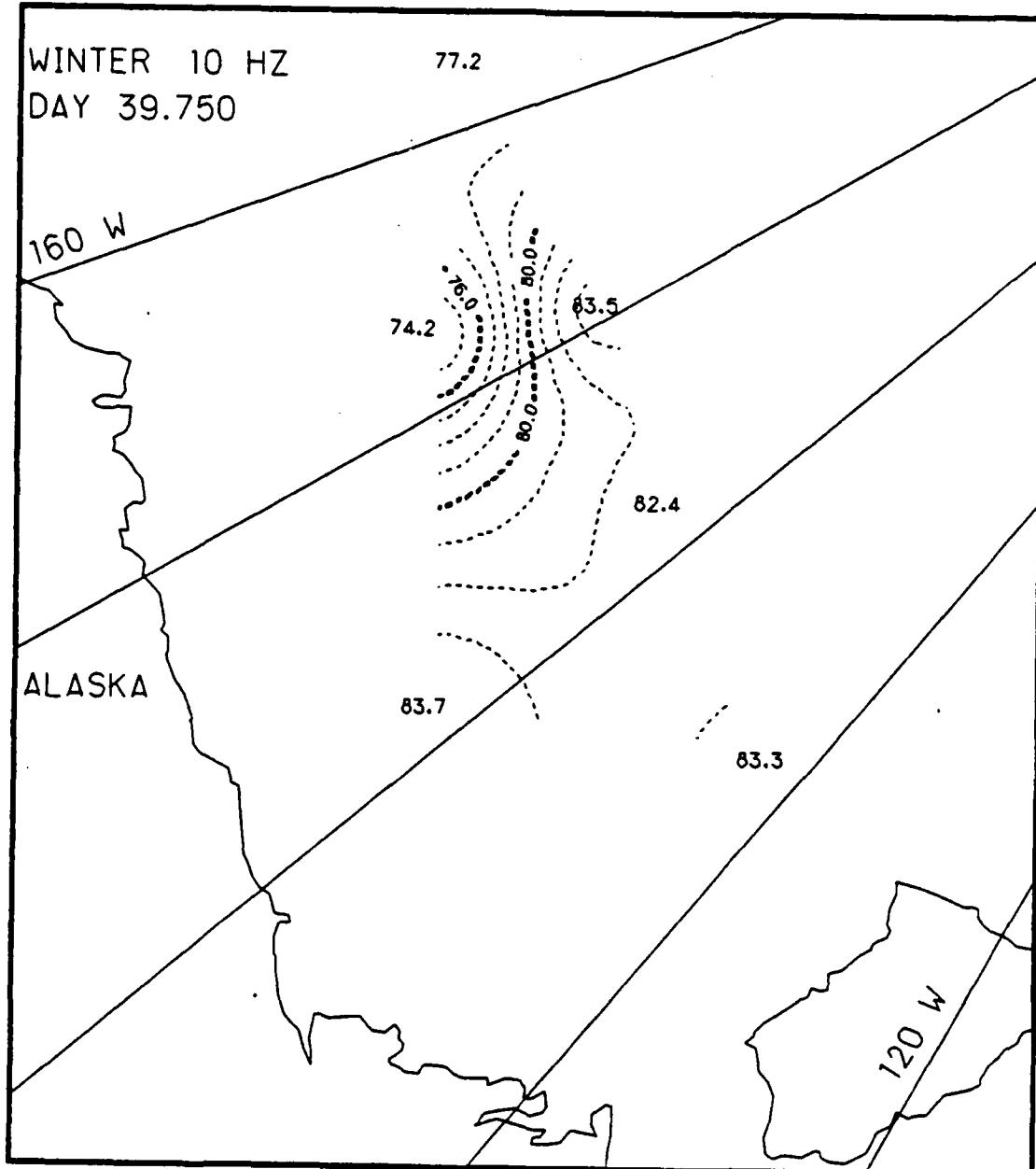


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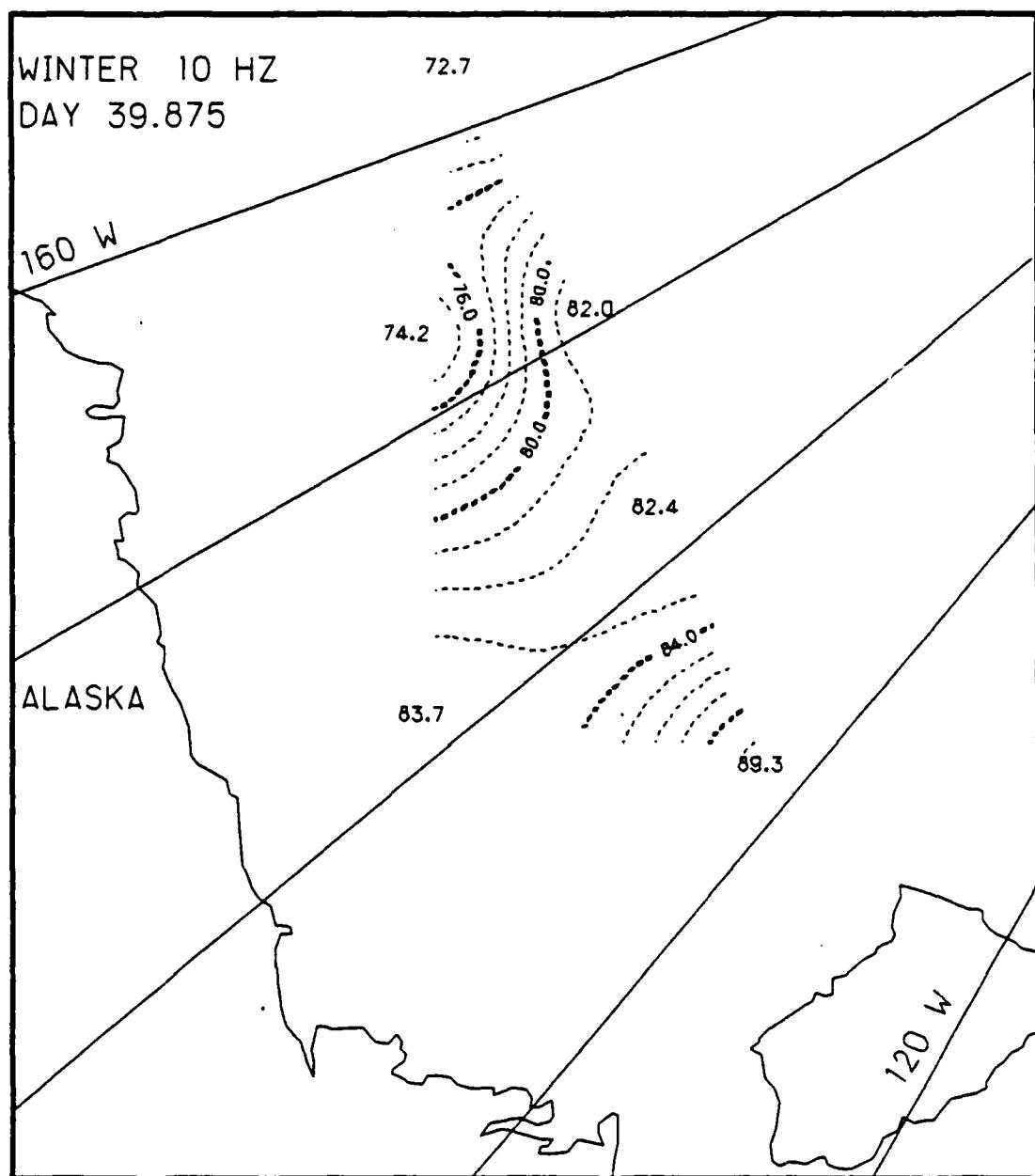


Fig. D.8. Spatial noise variations, day 39.875, based on the AIDJEX 10 Hz noise data.

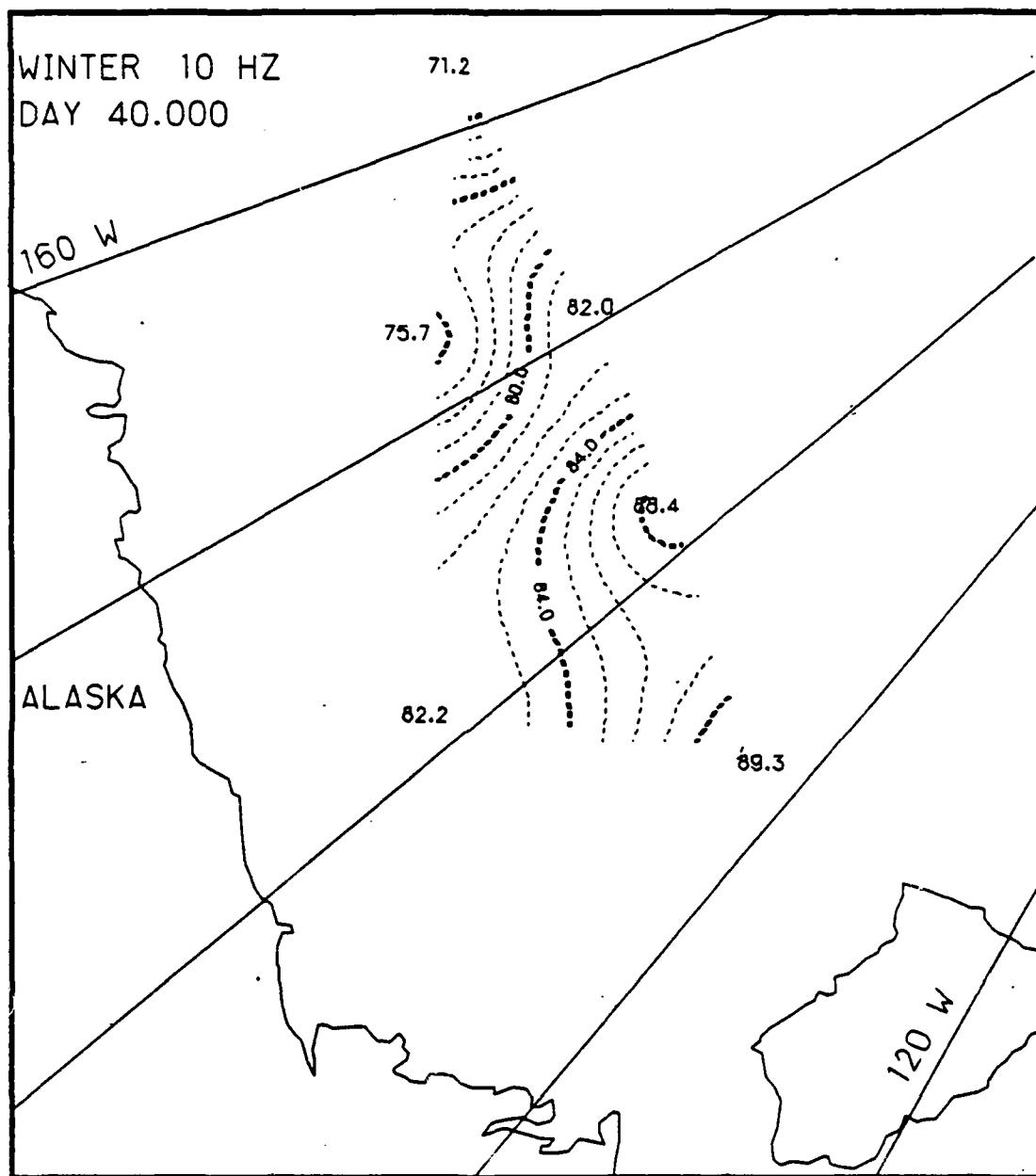


Fig. D.9. Spatial noise variations, day 40.0, based on the AIDJEX 10 Hz noise data.

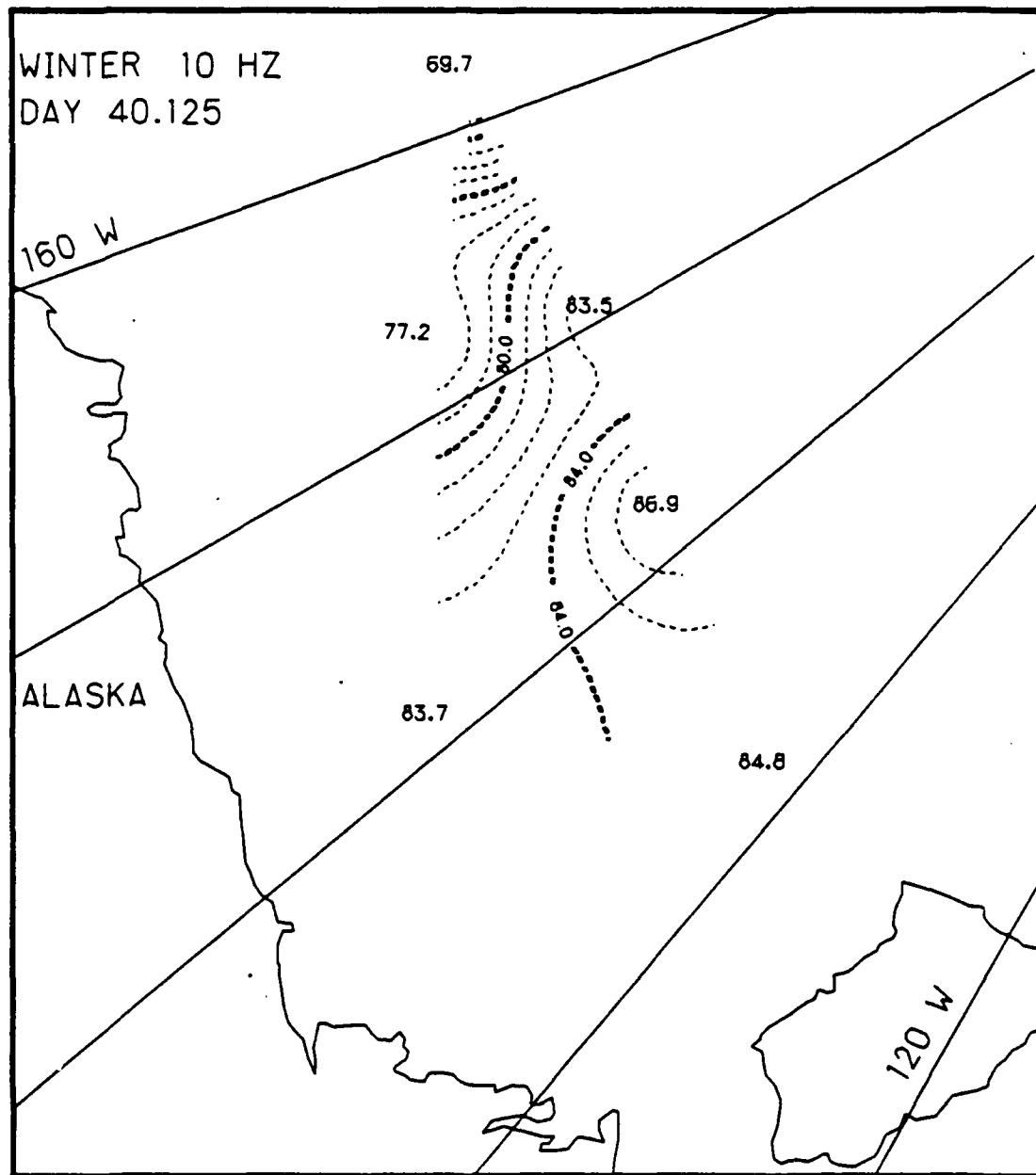


Fig. D.10. Spatial noise variations, day 40.125, based on the AIDJEX 10 Hz noise data.

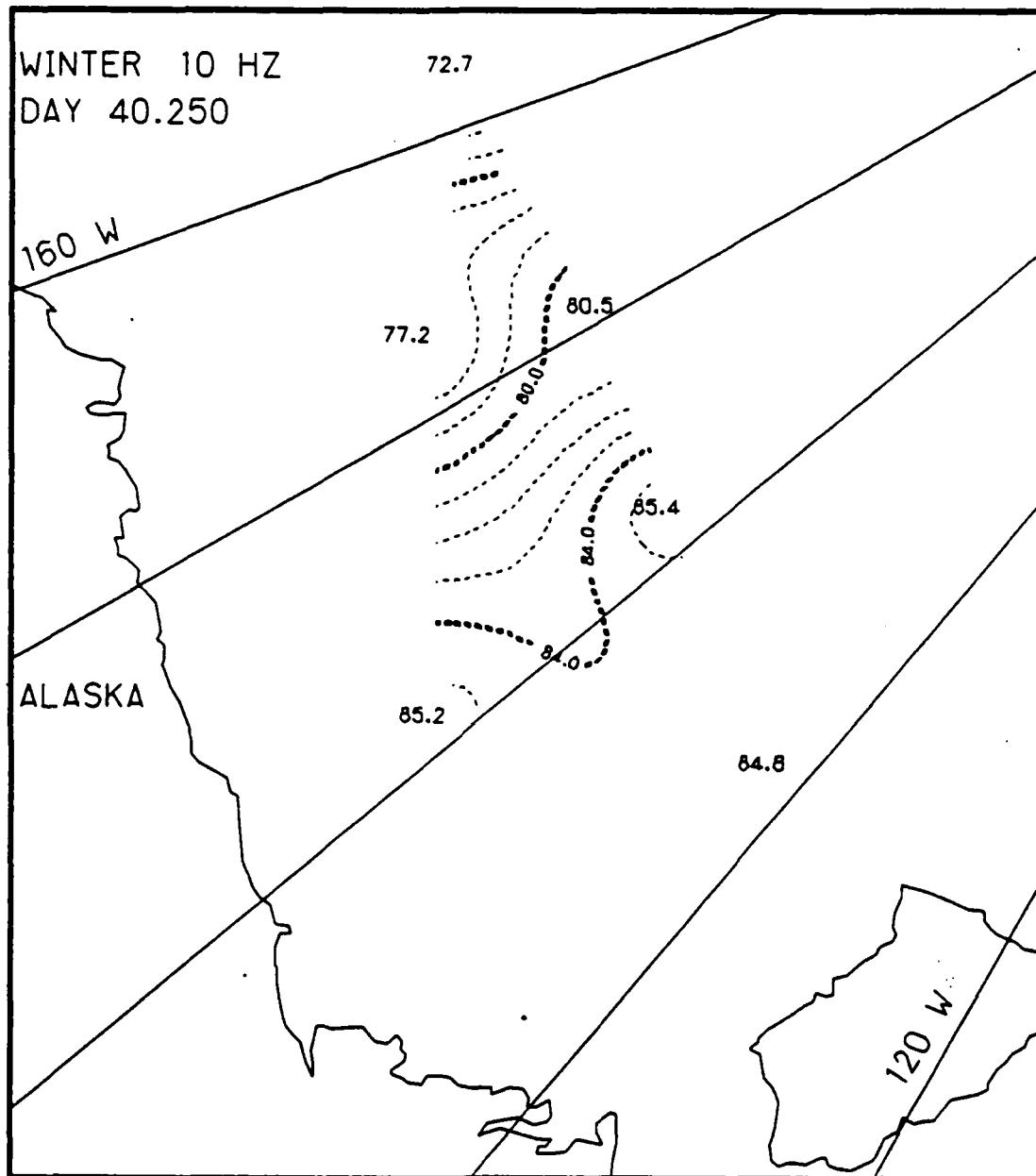


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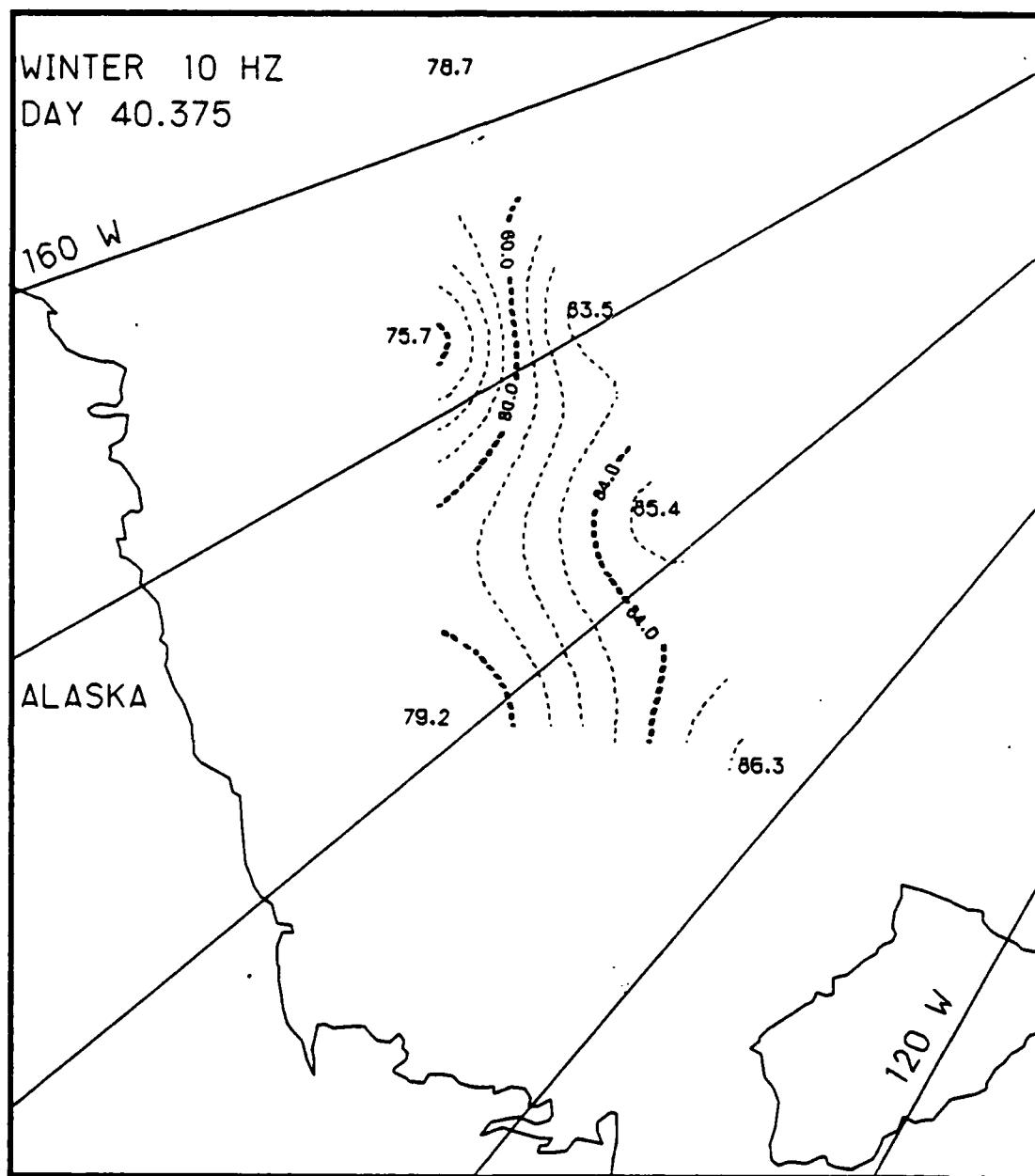


Fig. D.12. Spatial noise variations, day 40.375, based on the AIDJEX 10 Hz noise data.

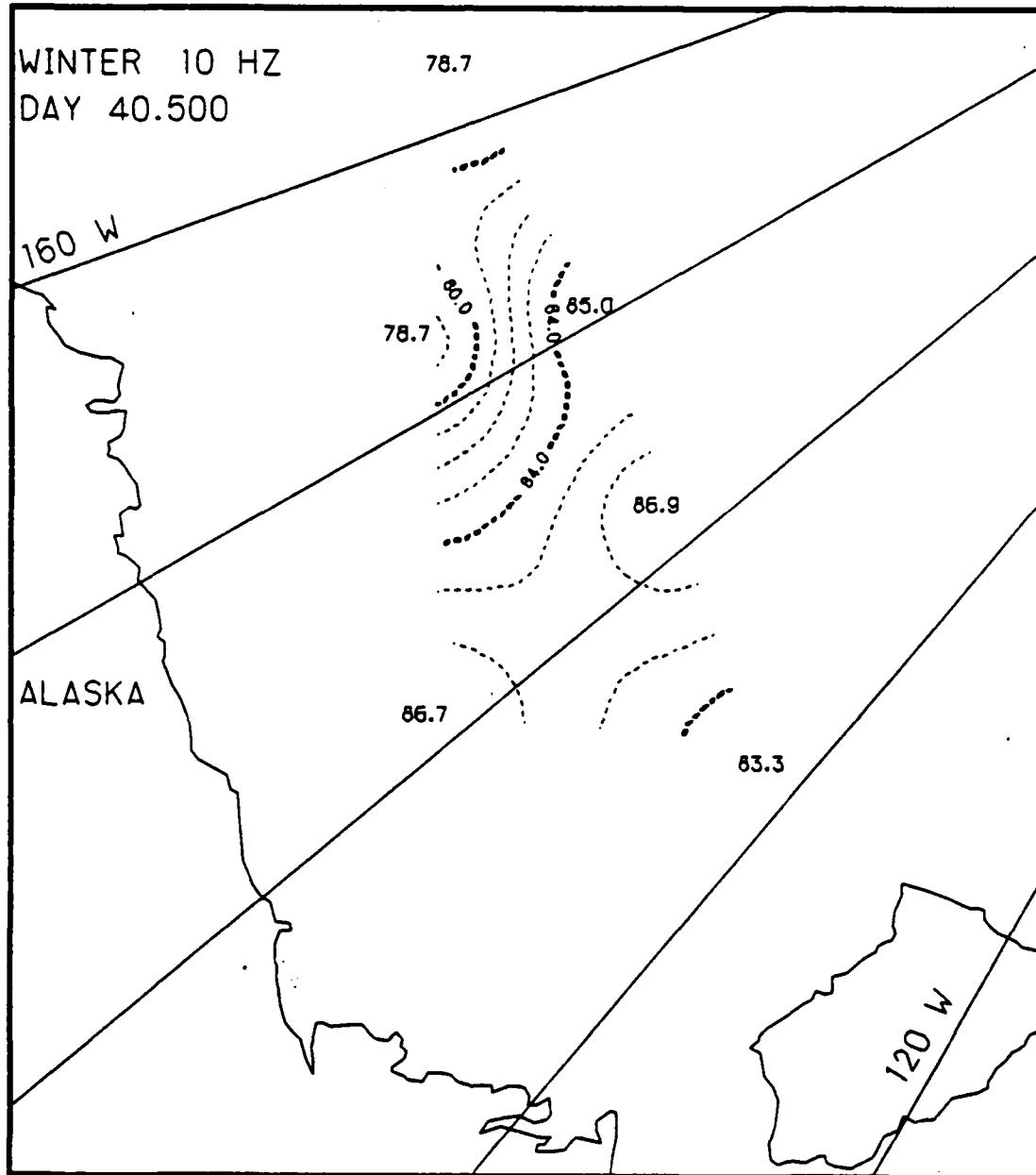


Fig. D.13. Spatial noise variations, day 40.5, based on the AIDJEX 10 Hz noise data.

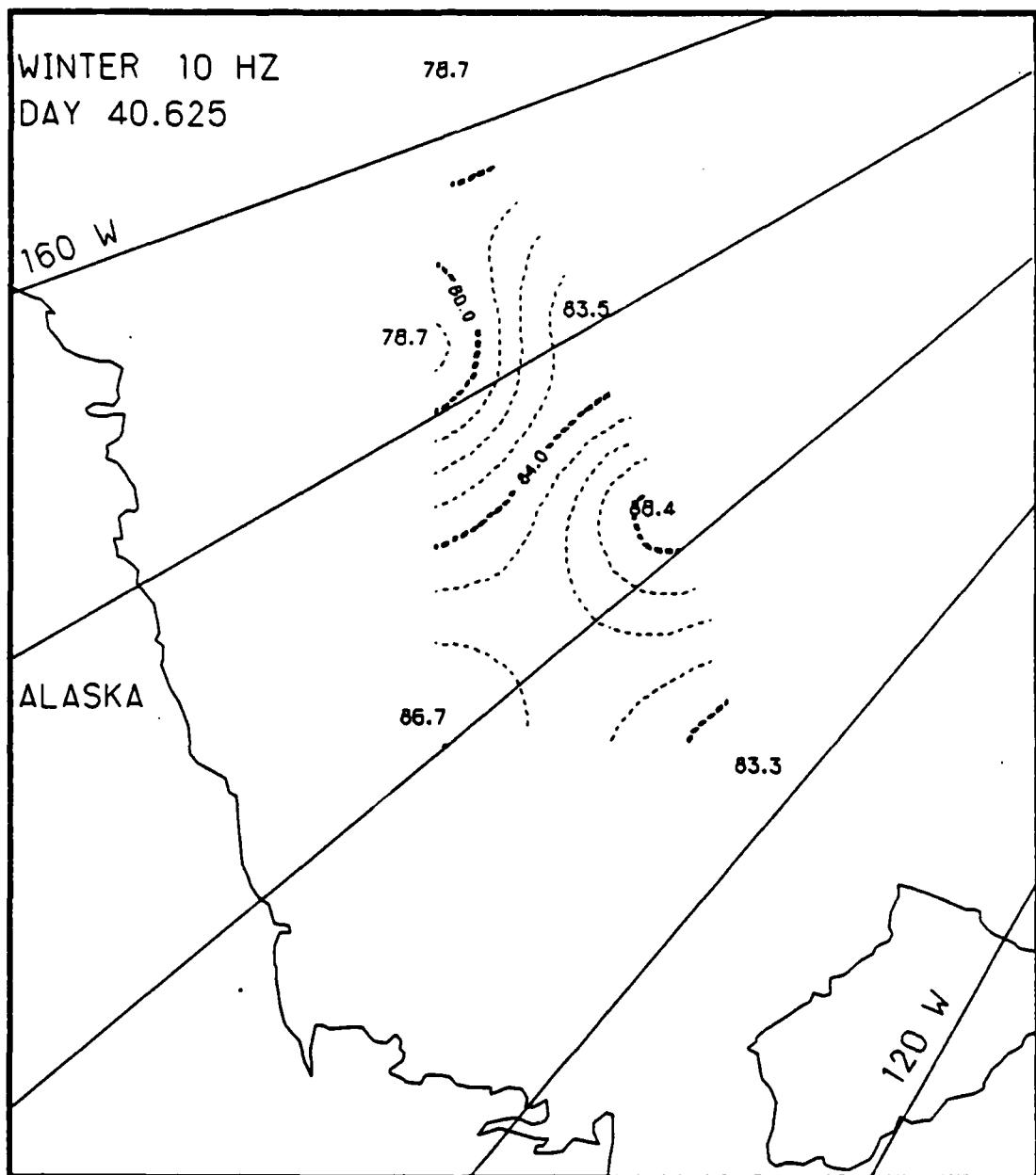


Fig. D.14. Spatial noise variations, day 40.625, based on the AIDJEX 10 Hz noise data.

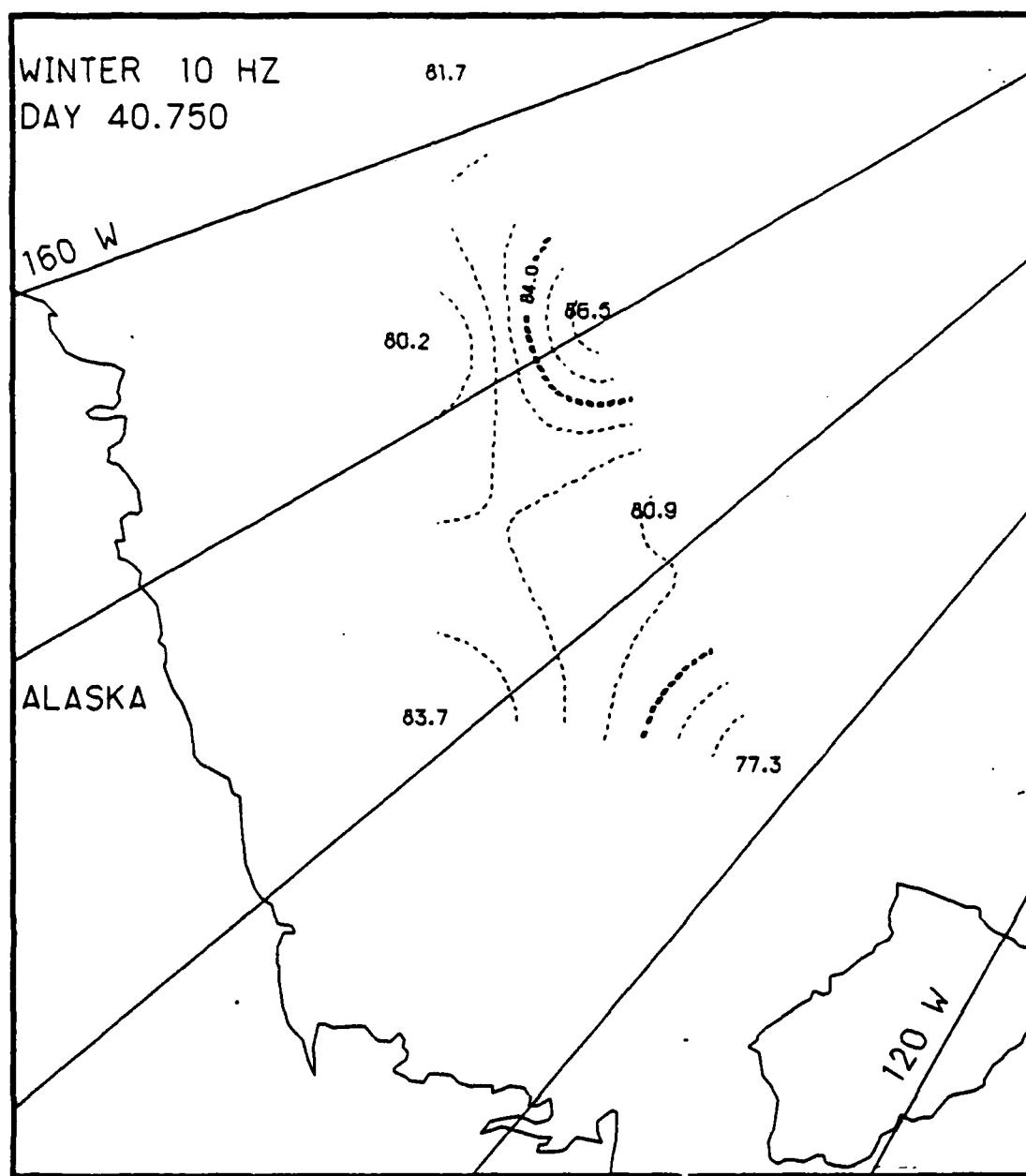


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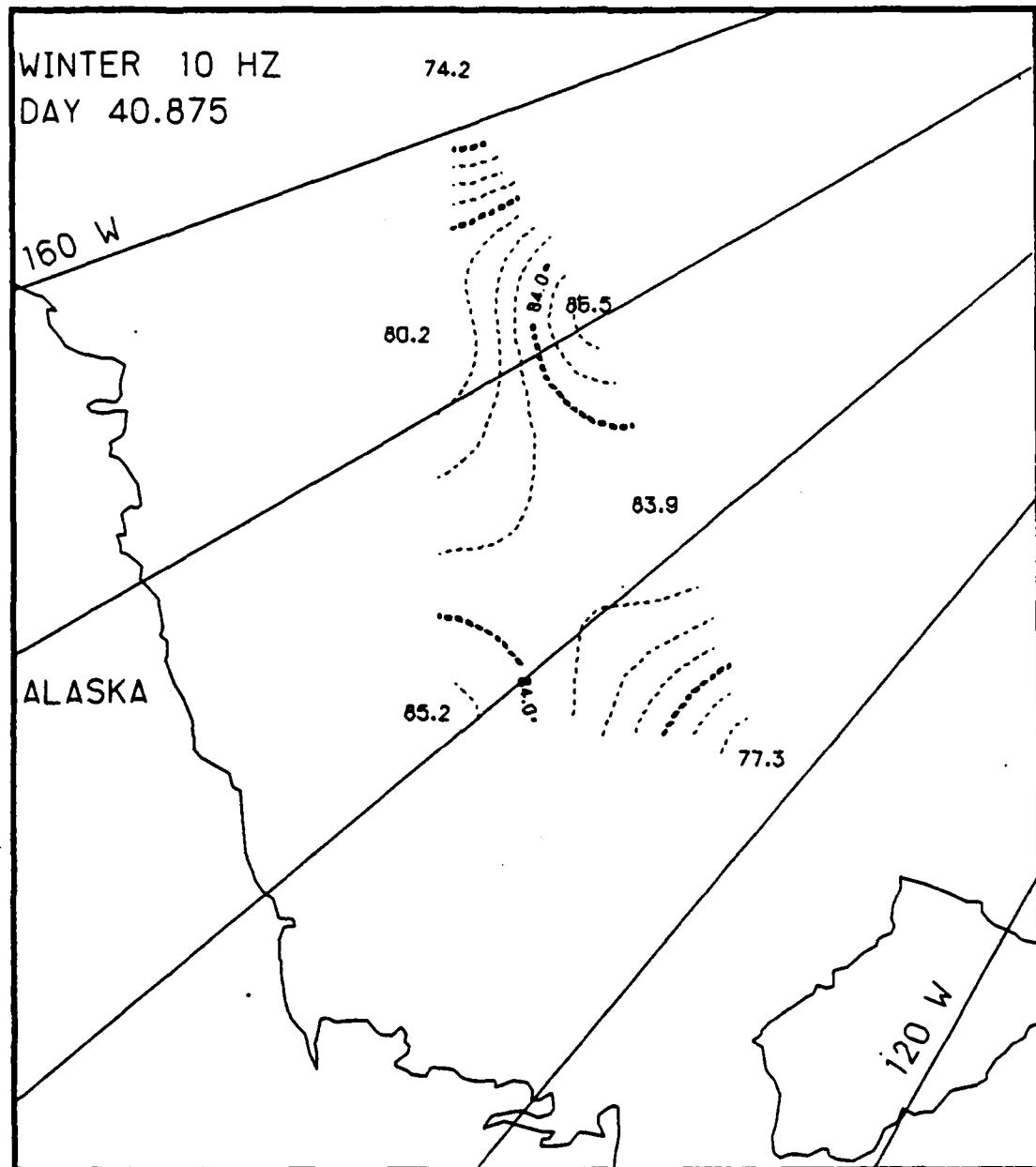


Fig. D.16. Spatial noise variations, day 40.875, based on the AIDJEX 10 Hz noise data.

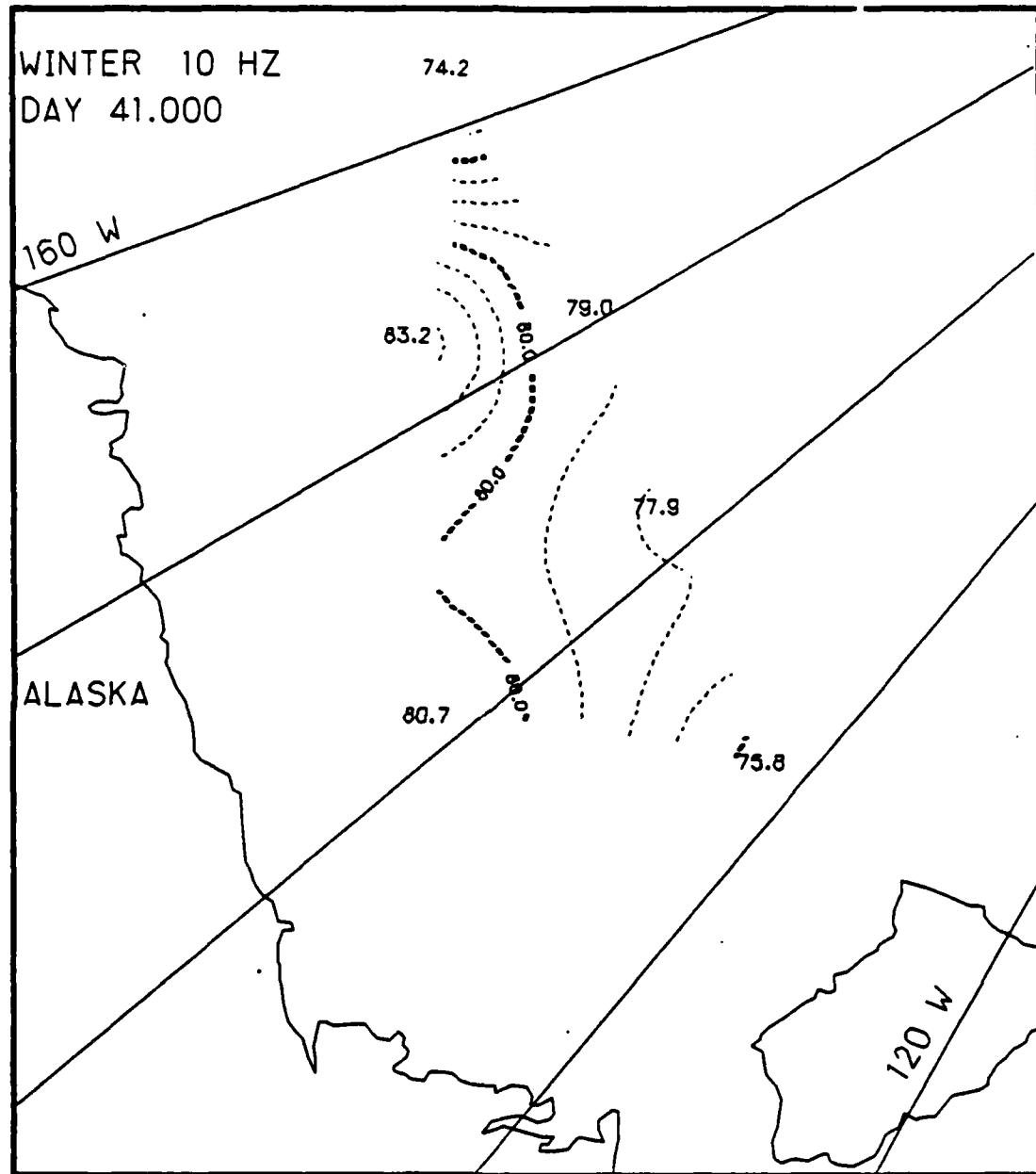


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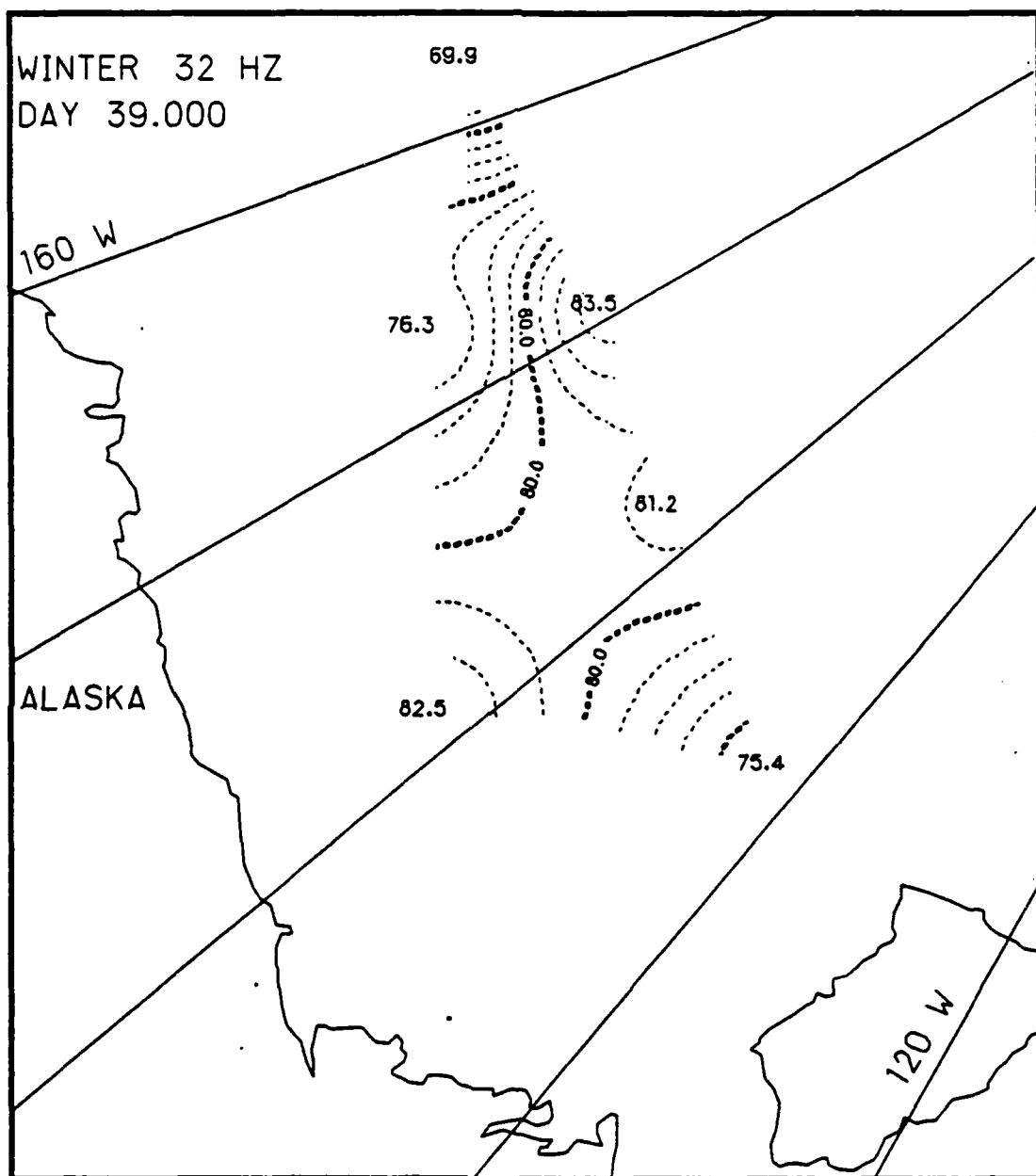


Fig. D.18. Spatial noise variations, day 39.0, based on the AIDJEX 32 Hz noise data.

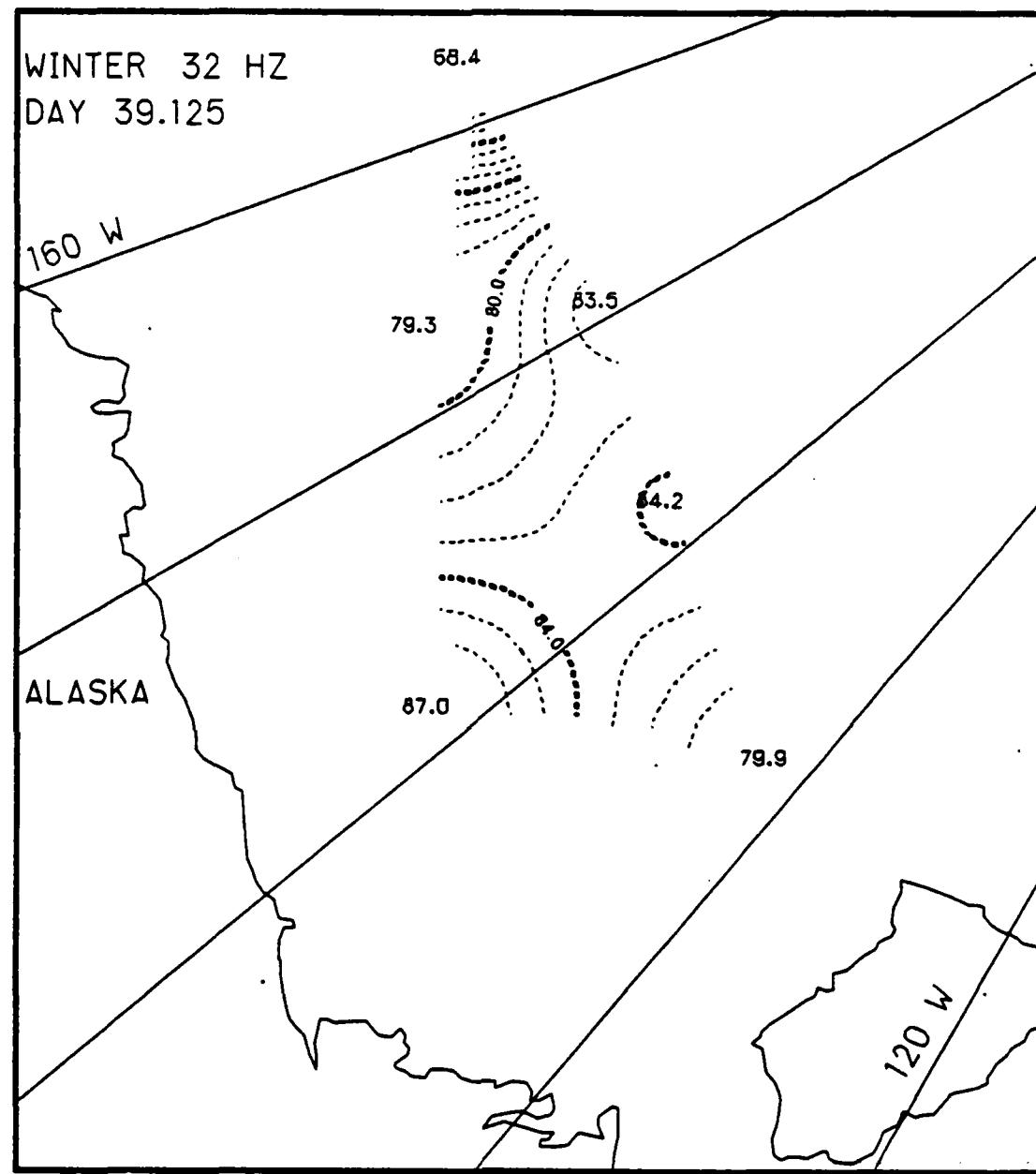


Fig. D.19. Spatial noise variations, day 39.125, based on the AIDJEX 32 Hz noise data.

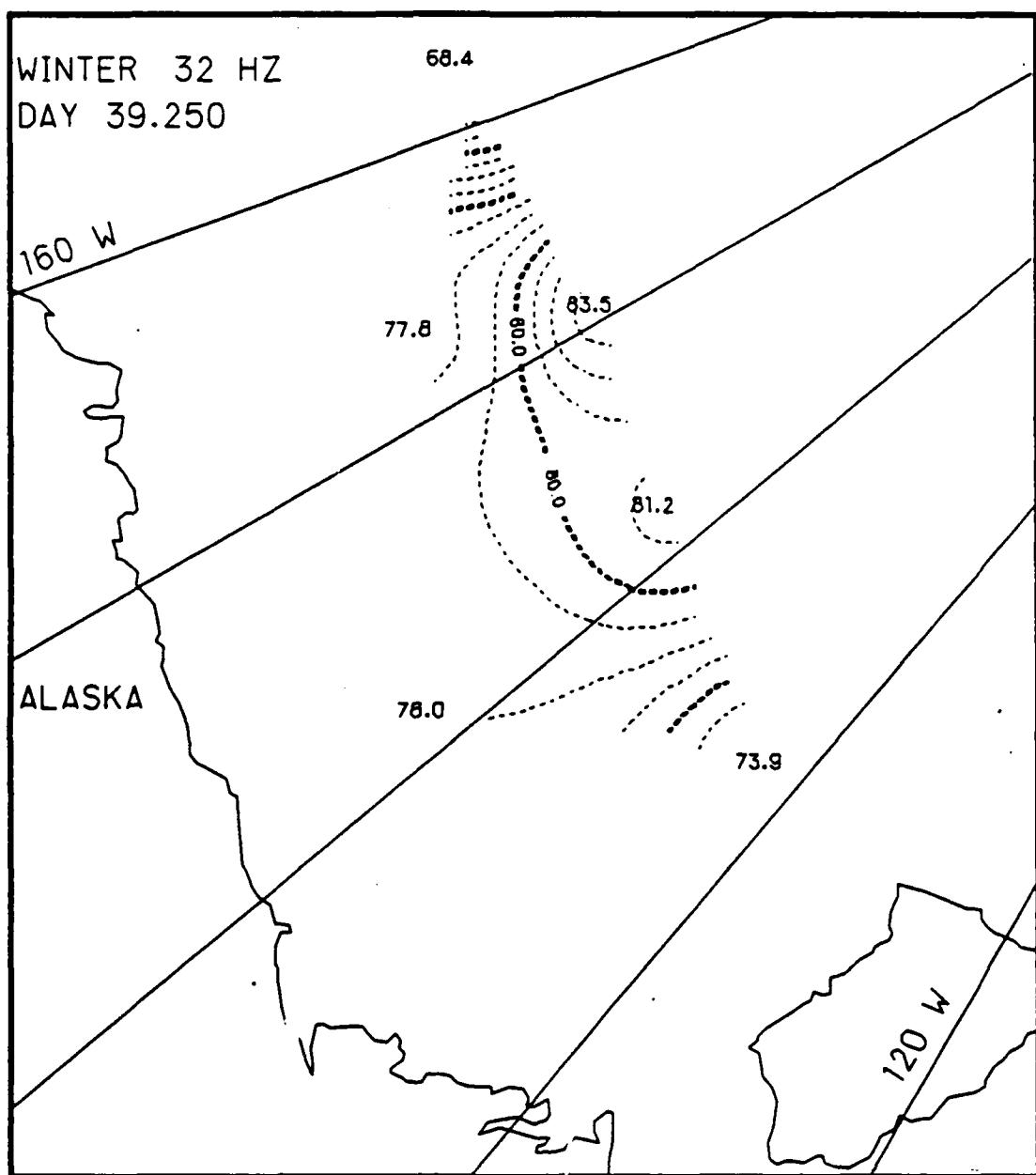


Fig. D.20. Spatial noise variations, day 39.25, based on the AIDJEX 32 Hz noise data.

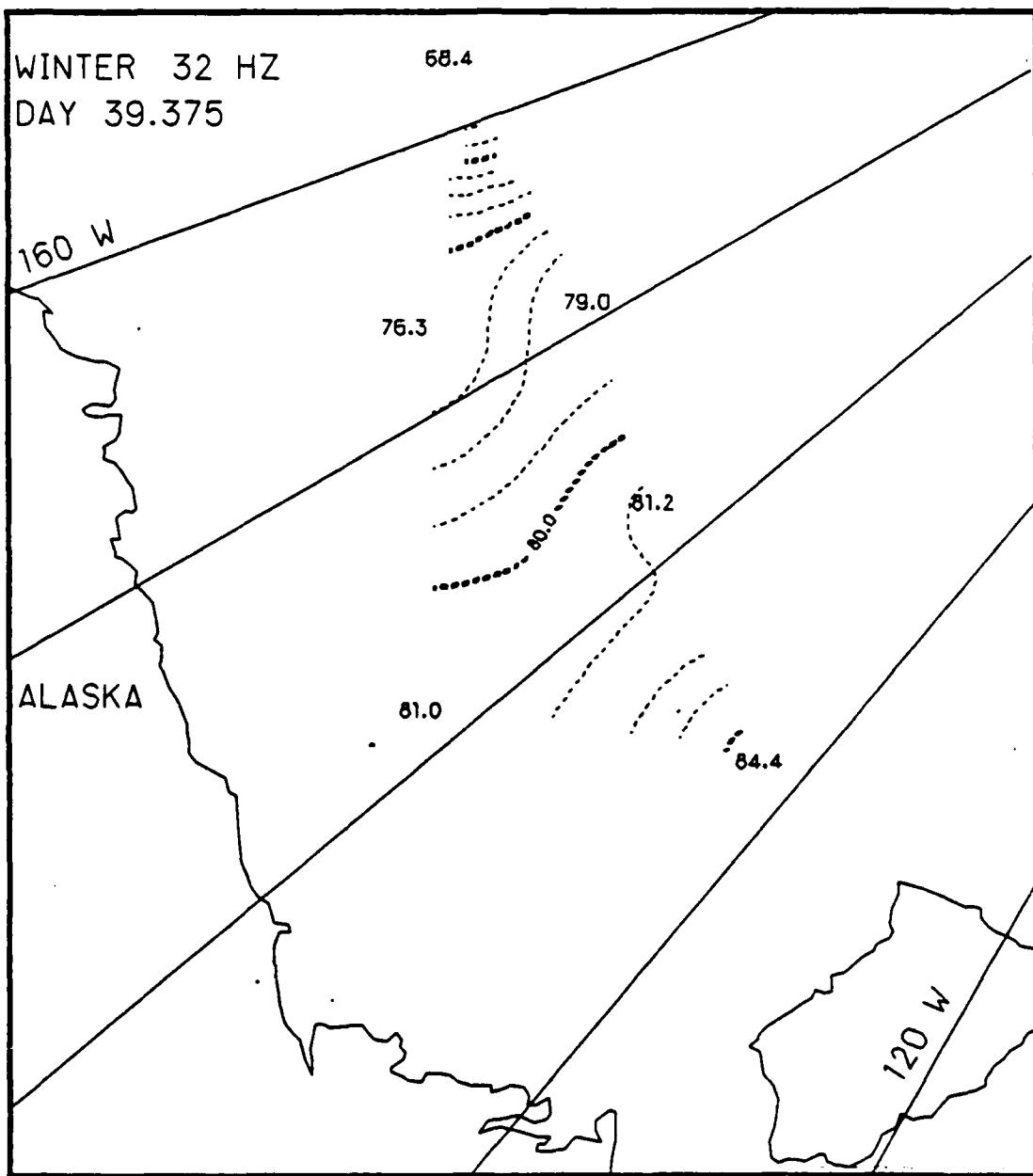


Fig. D.21. Spatial noise variations, day 39.375, based on the AIDJEX 32 Hz noise data.

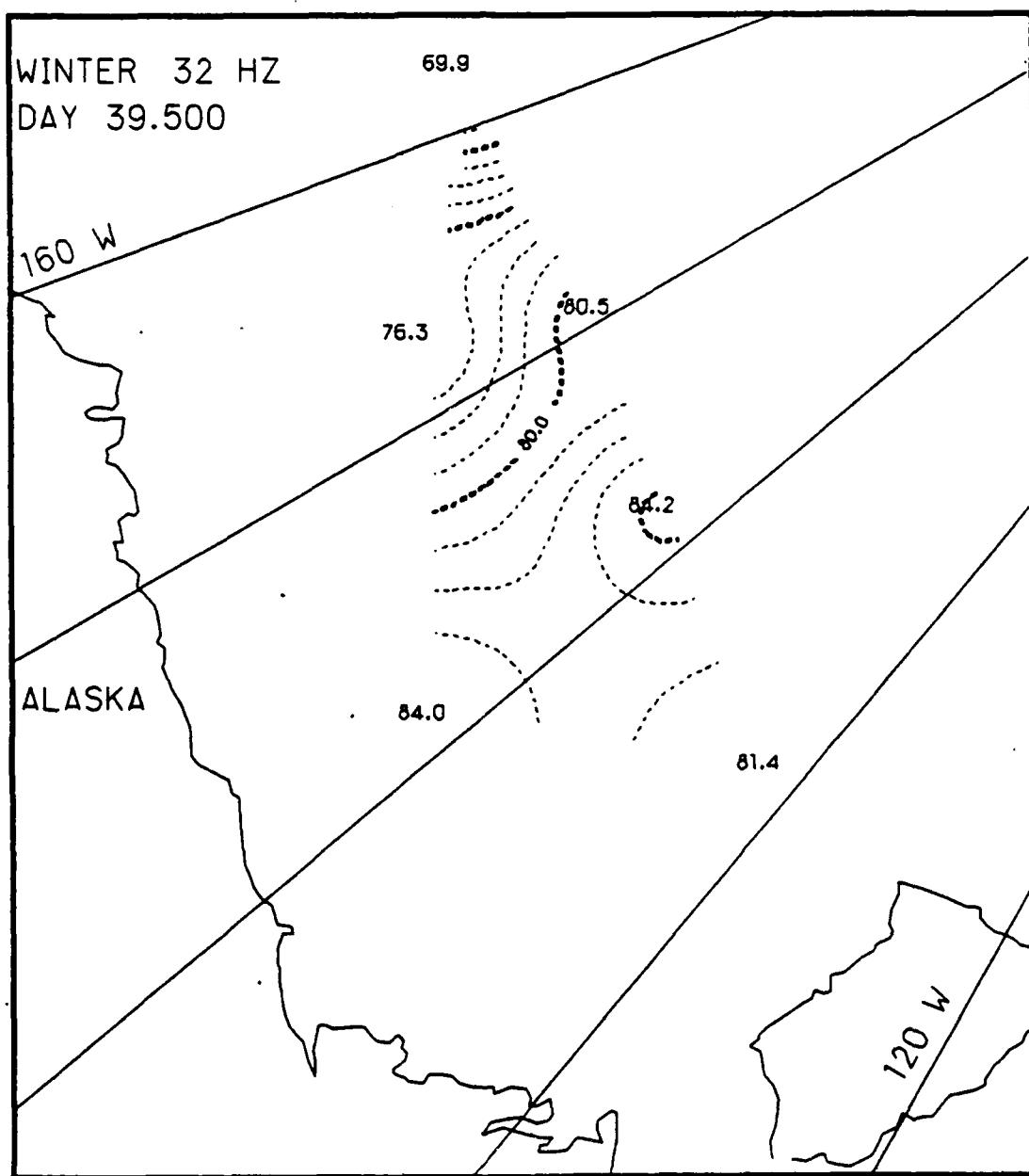


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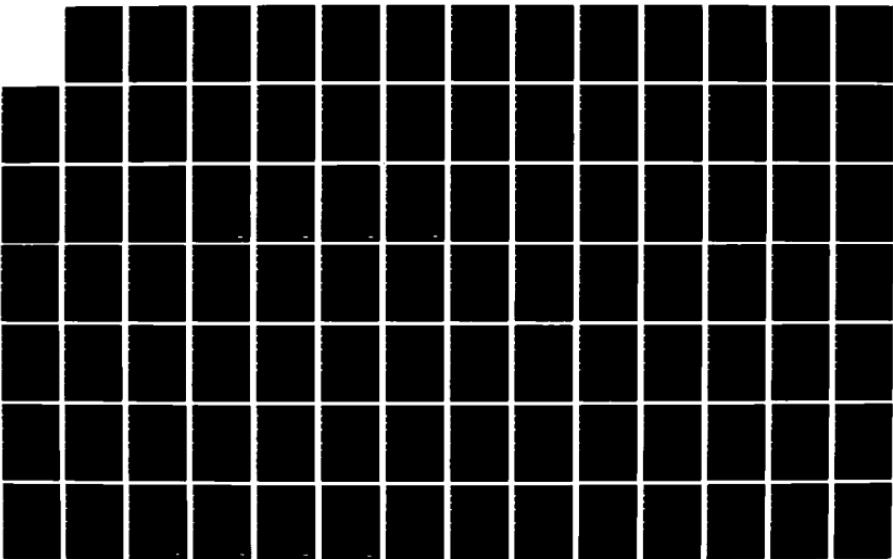
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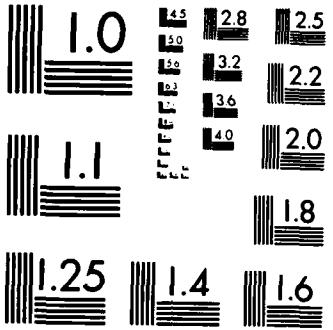
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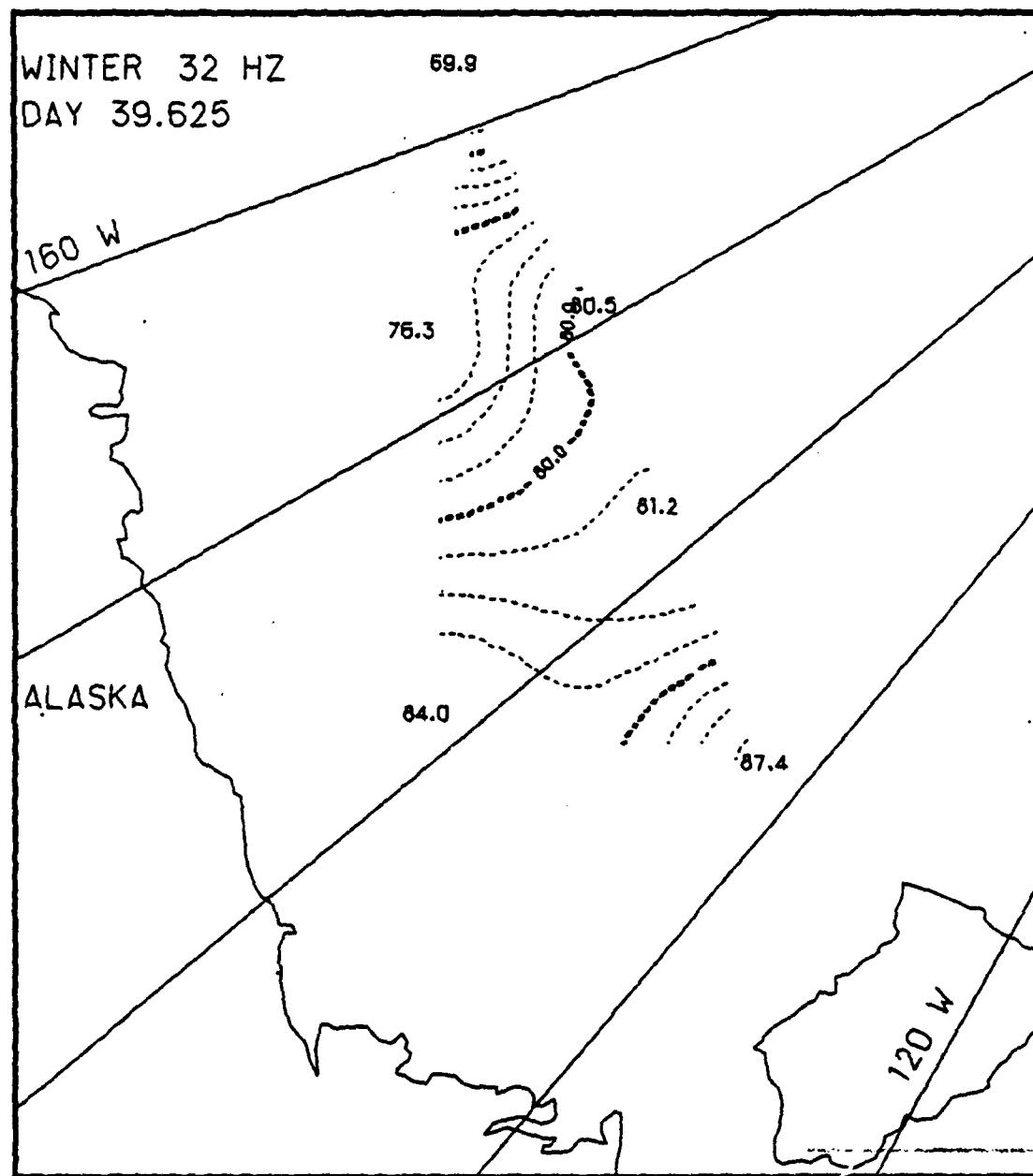


Fig. D.23. Spatial noise variations, day 39.625, based on the AIDJEX 32 Hz noise data.

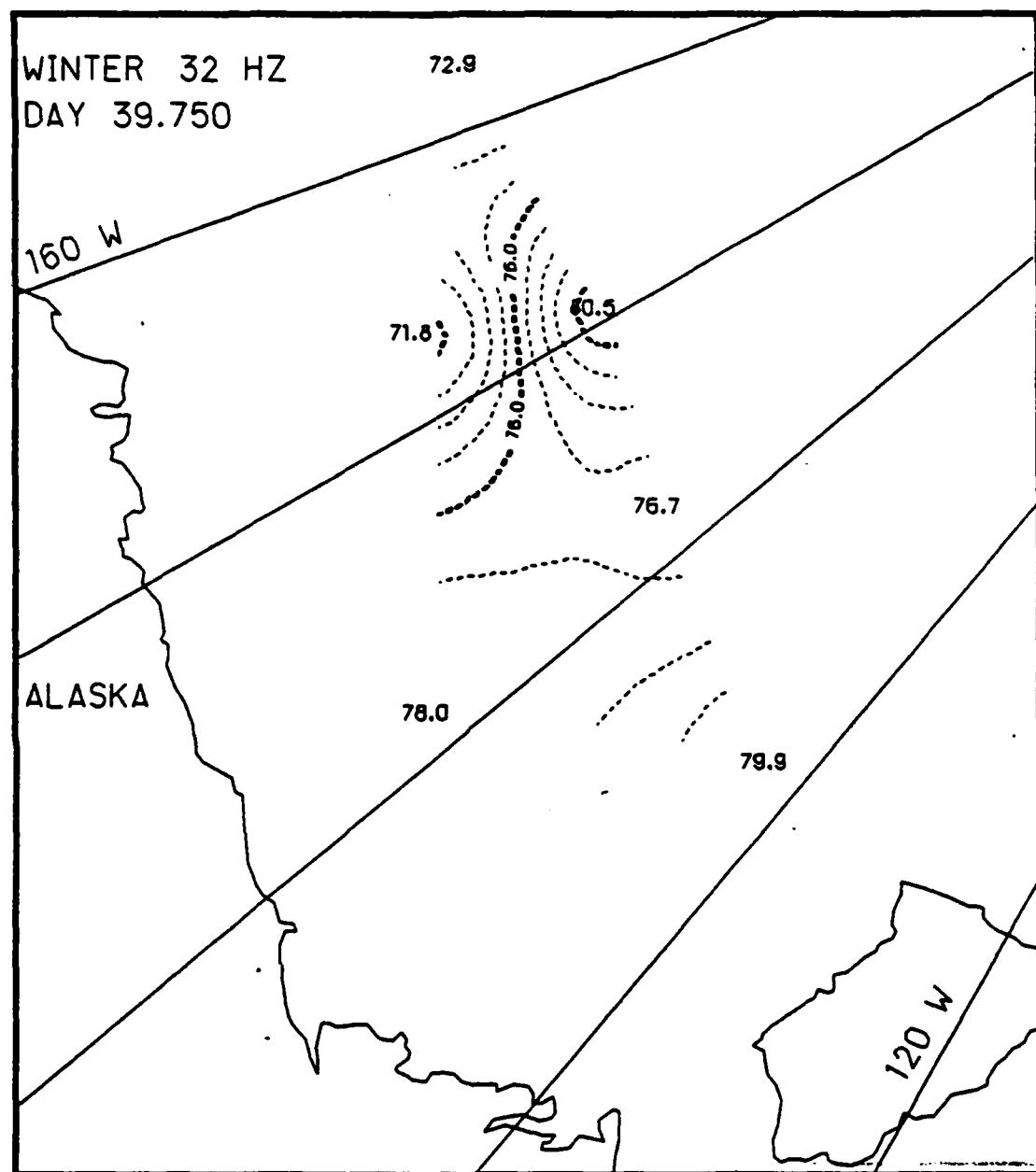


Fig. D.24. Spatial noise variations, day 39.75, based on the AIDJEX 32 HZ noise data.

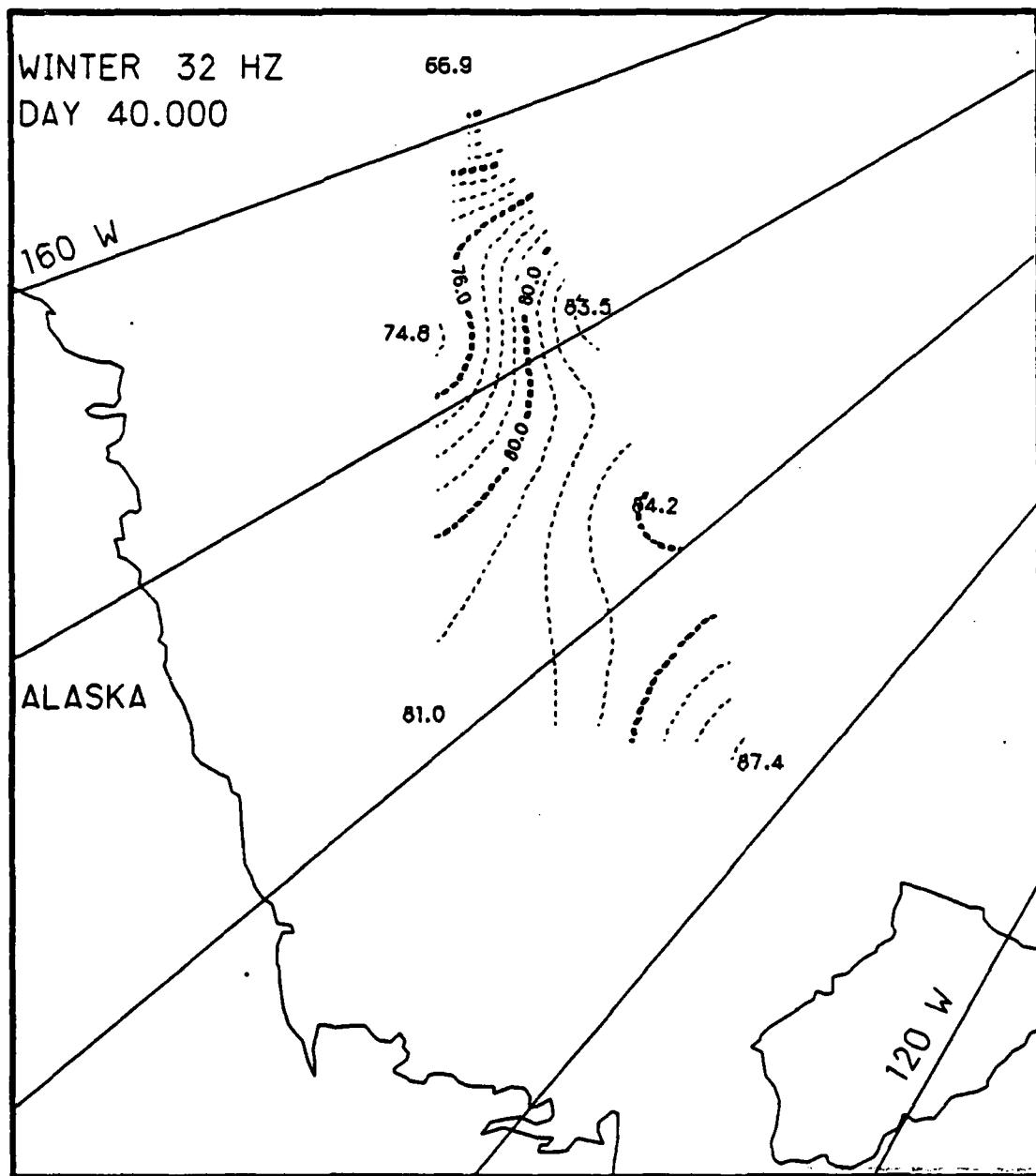


Fig. D.25. Spatial noise variations, day 39.875, based on the AIDJEX 32 Hz noise data.

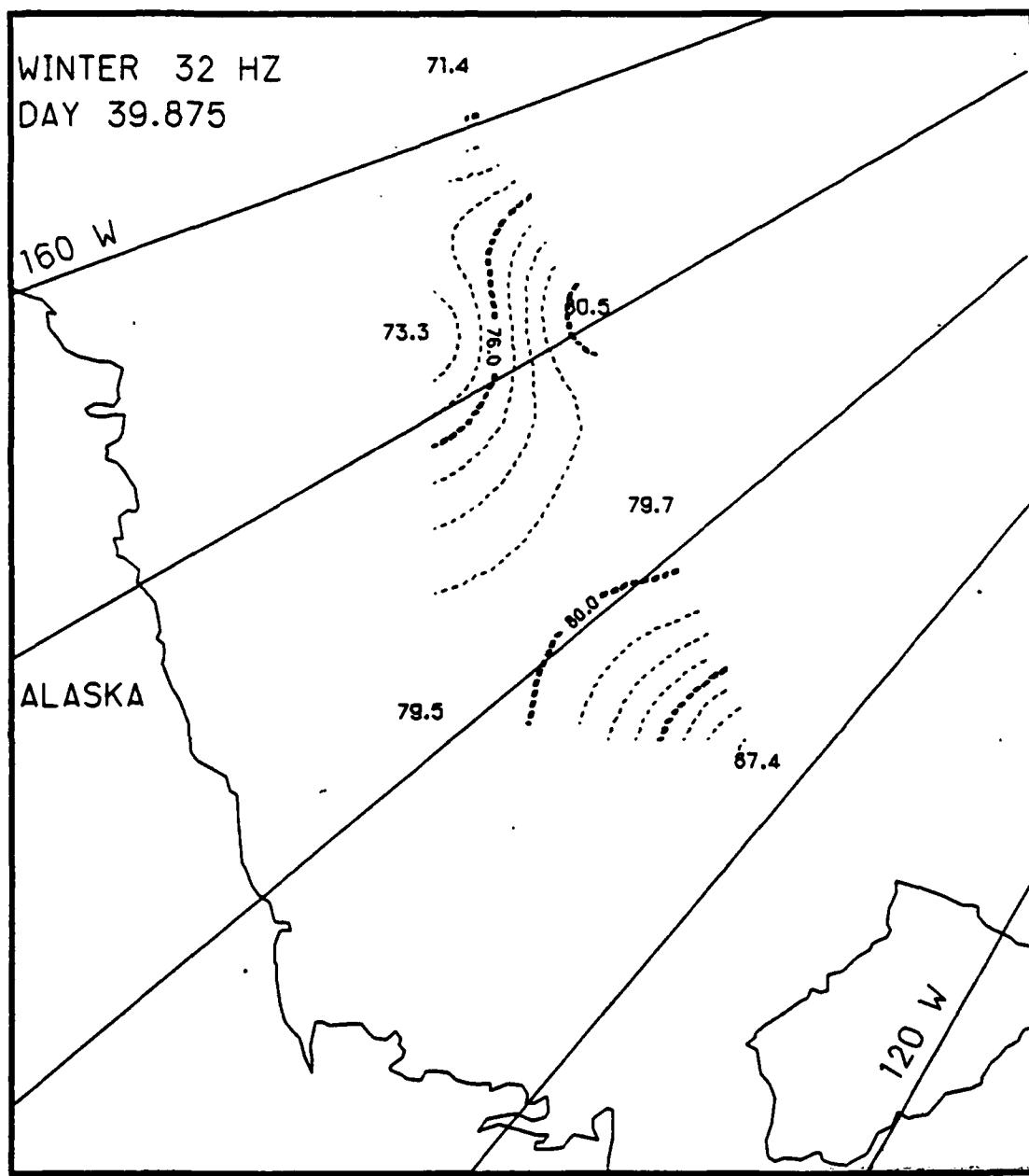


Fig. D.26. Spatial noise variations, day 40.0, based on the AIDJEX 32 Hz noise data.

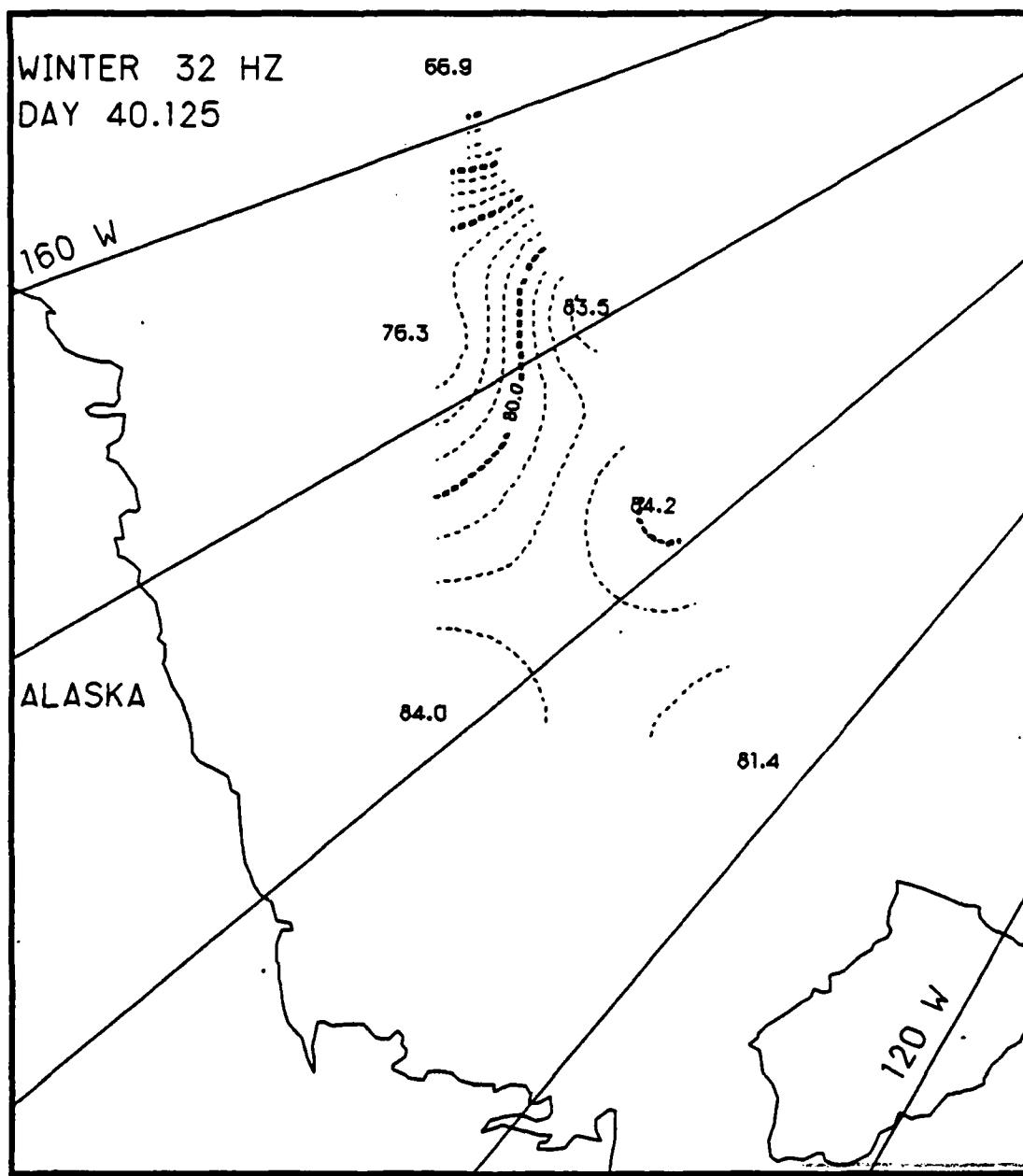


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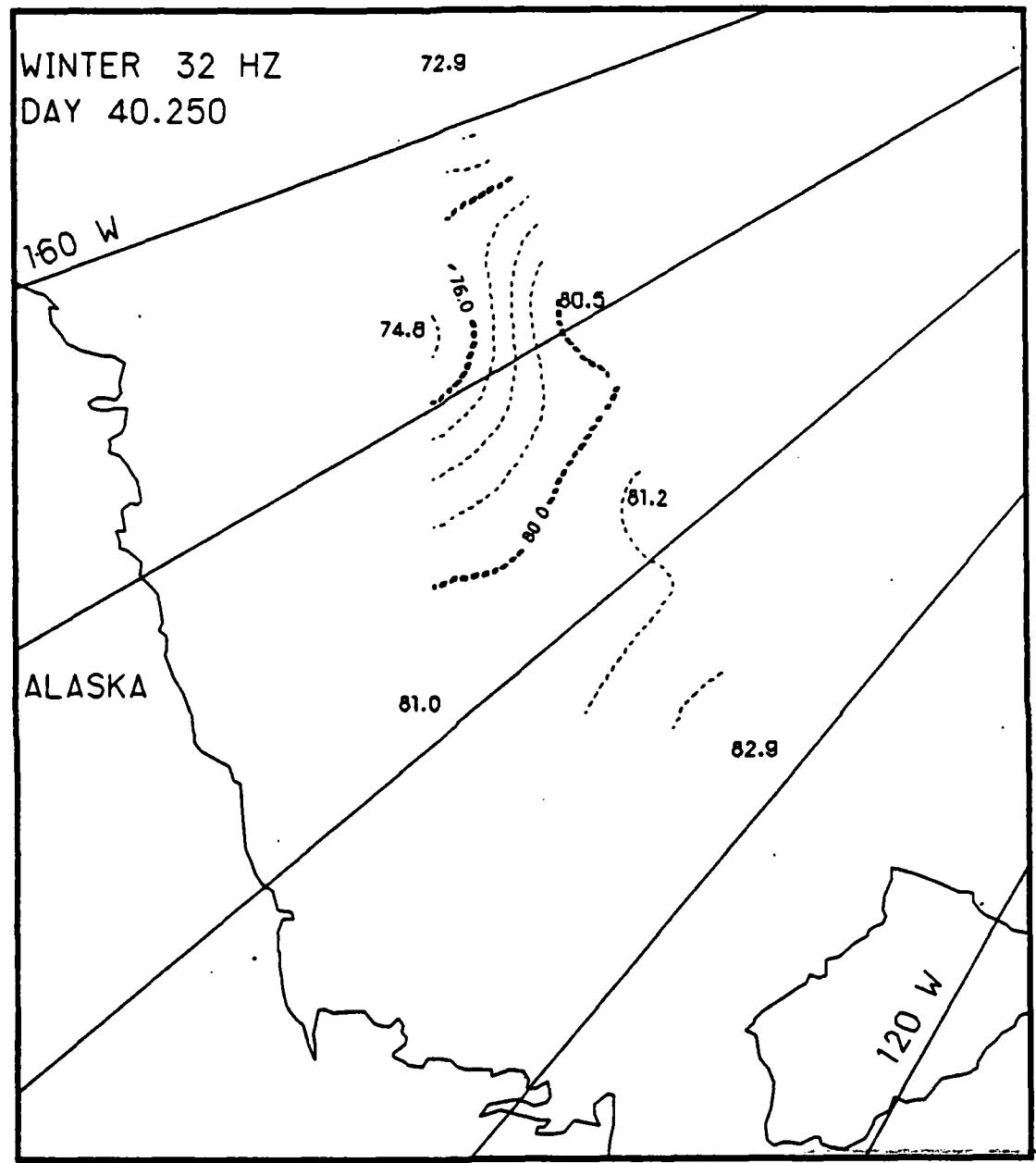


Fig. D.28. Spatial noise variations, day 40.25, based on the AIDJEX 32 Hz noise data.

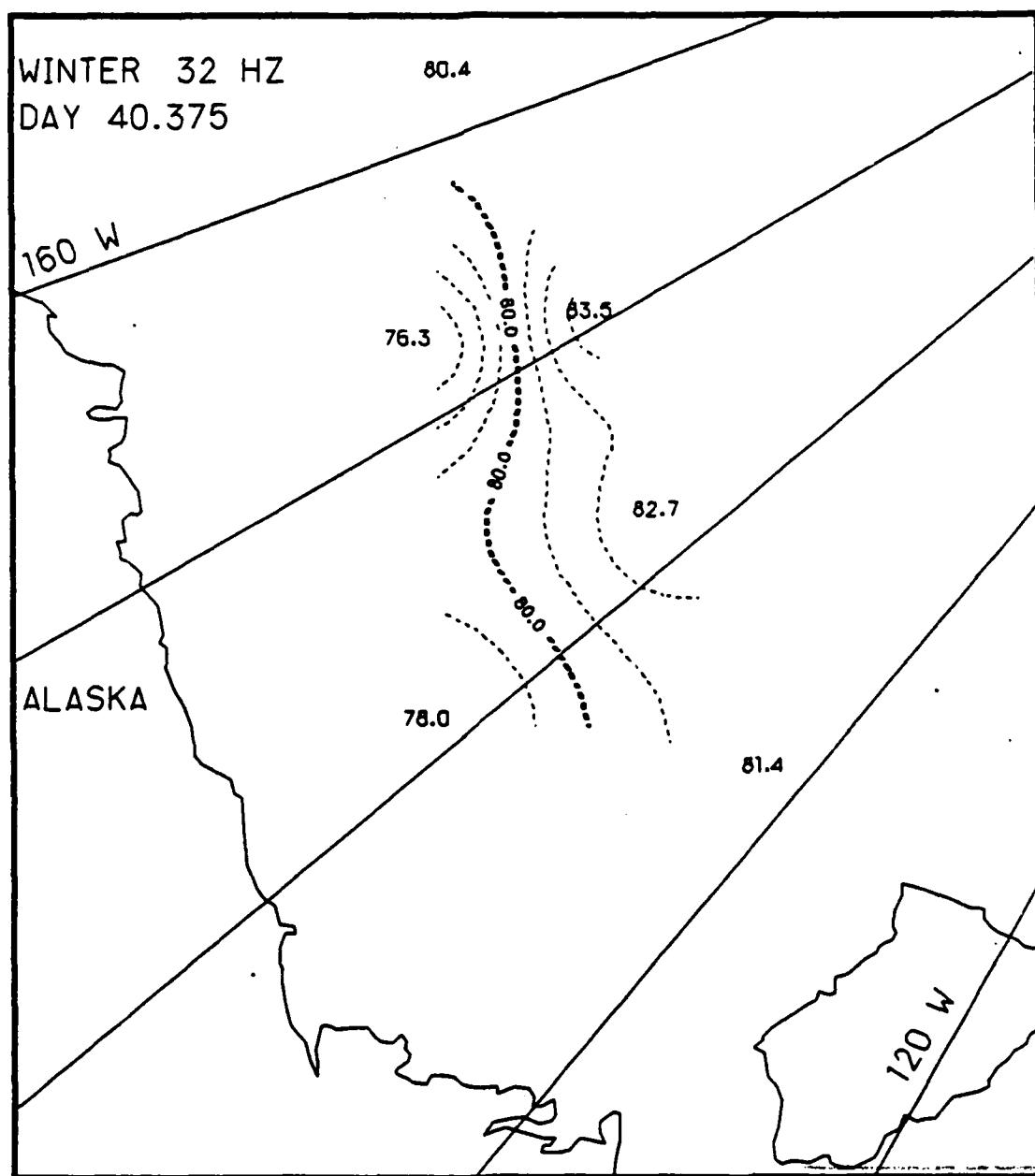


Fig. D.29. Spatial noise variations, day 40.375, based on the AIDJEX 32 Hz noise data.

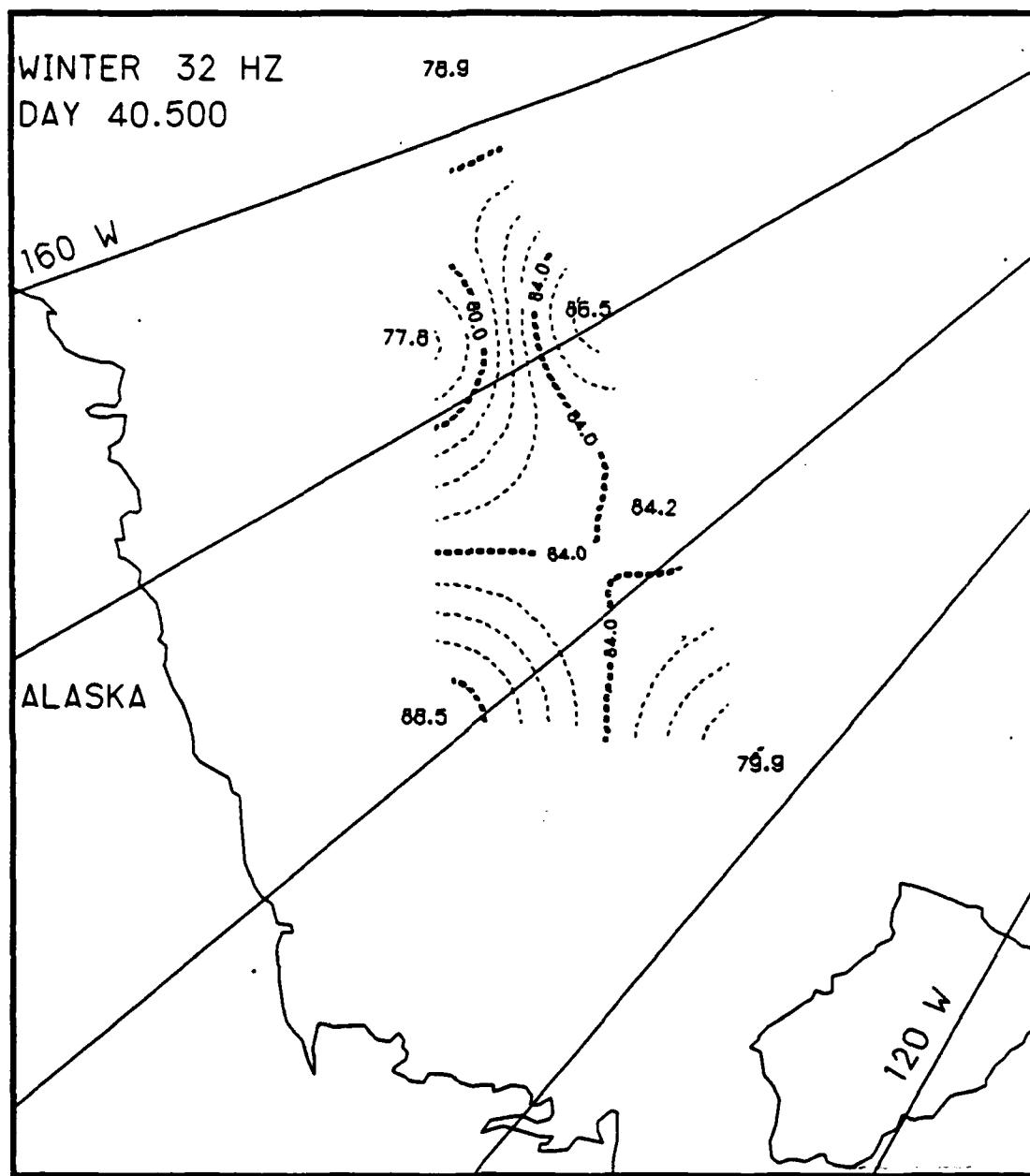


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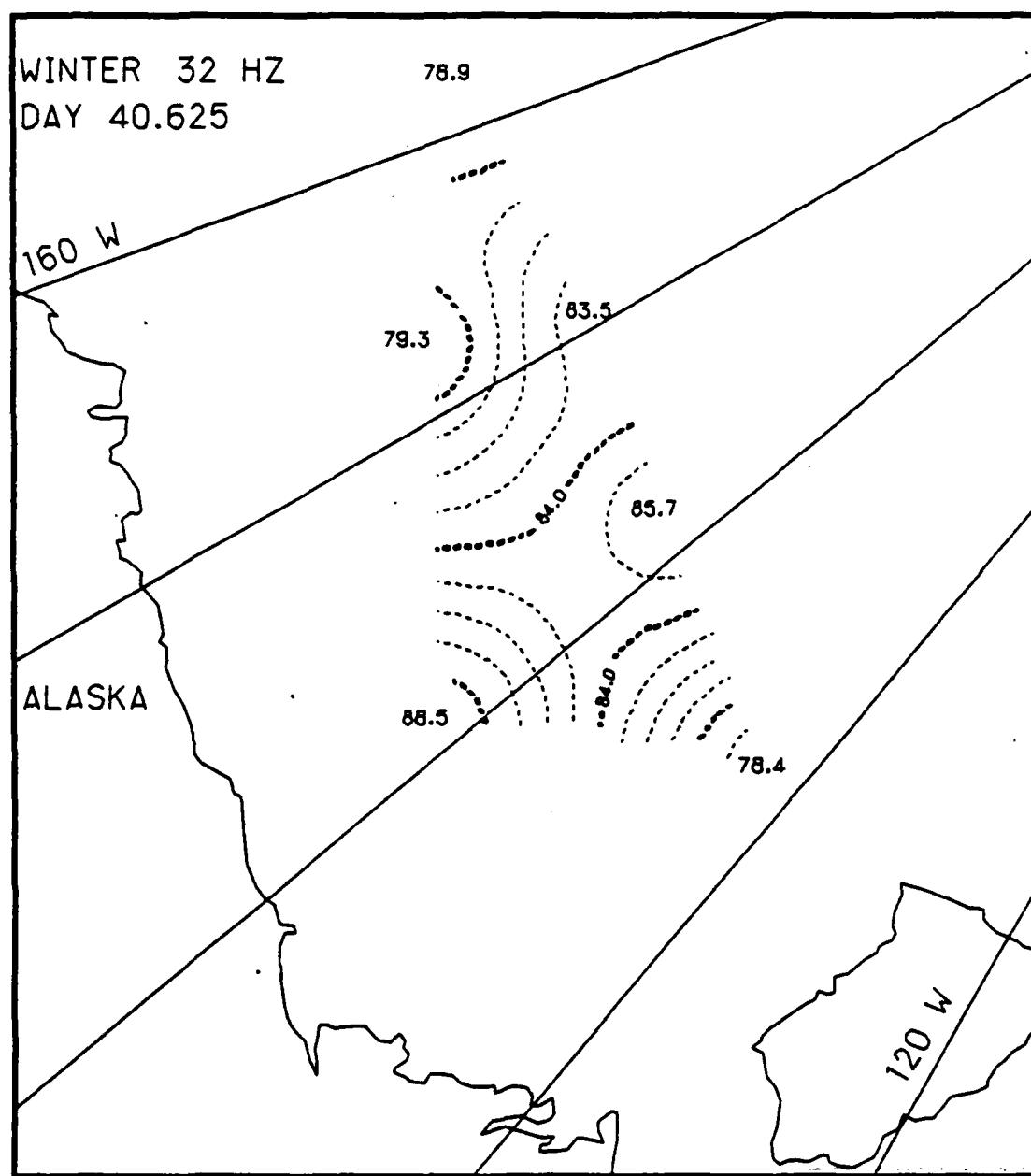


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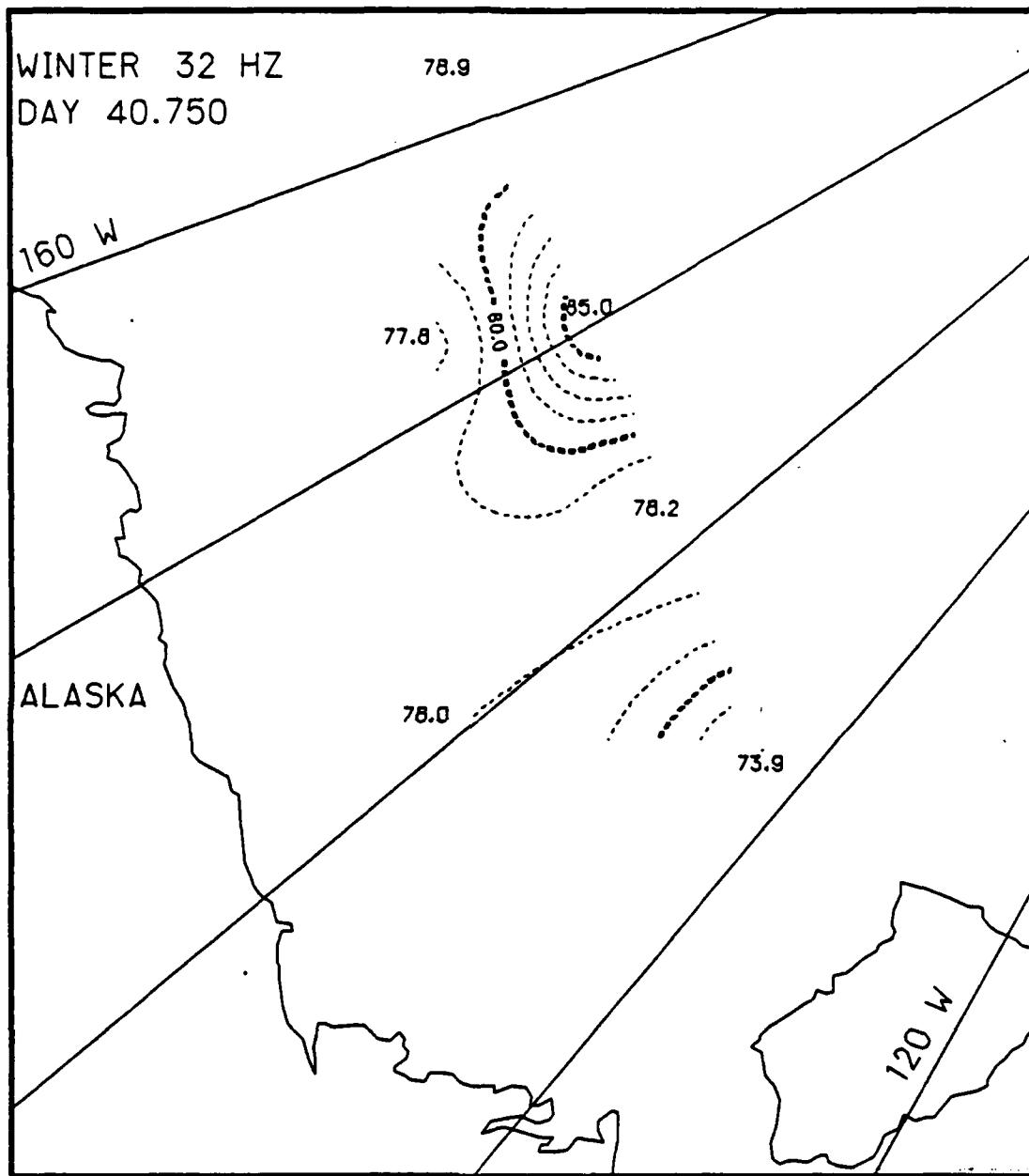


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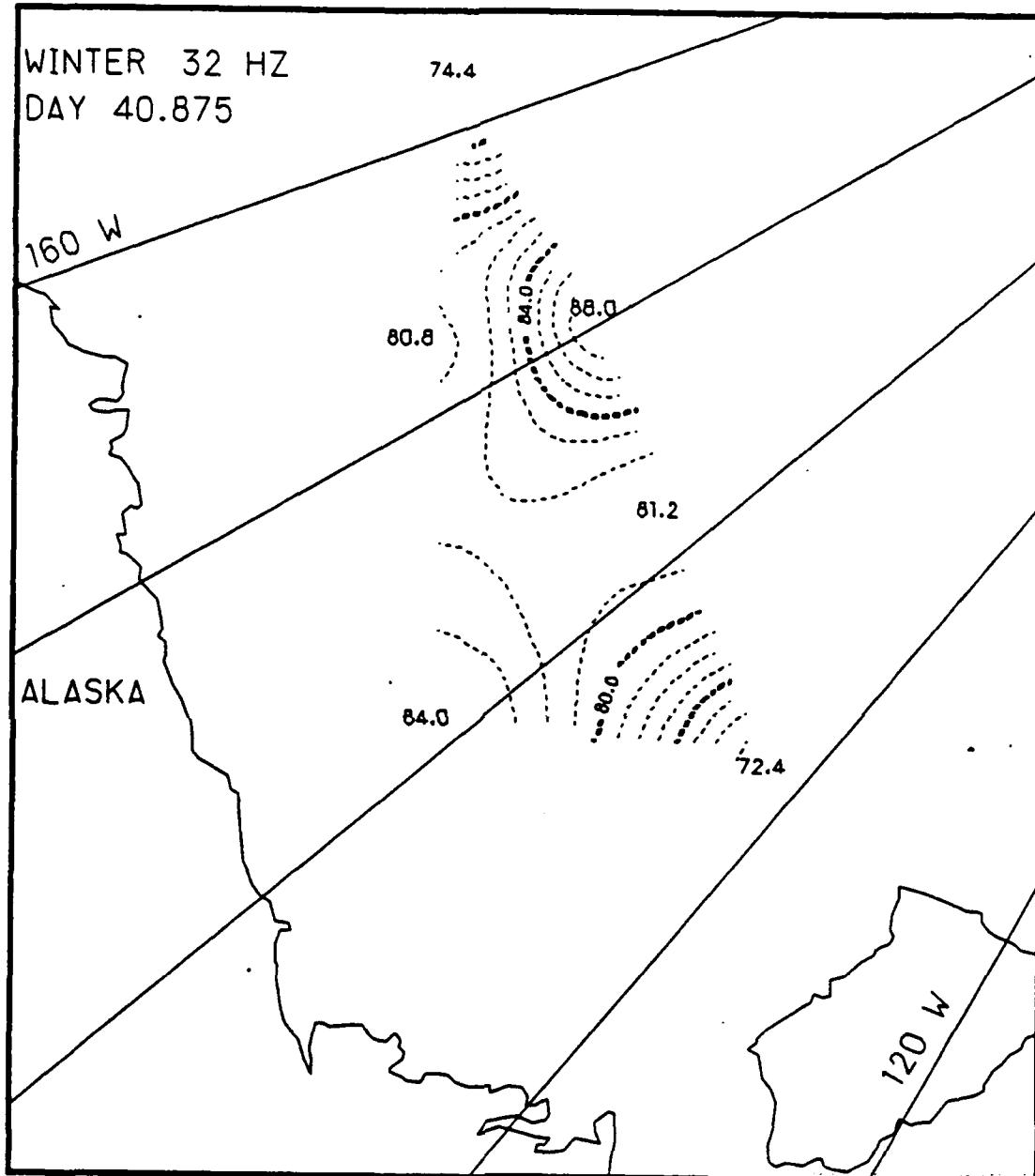


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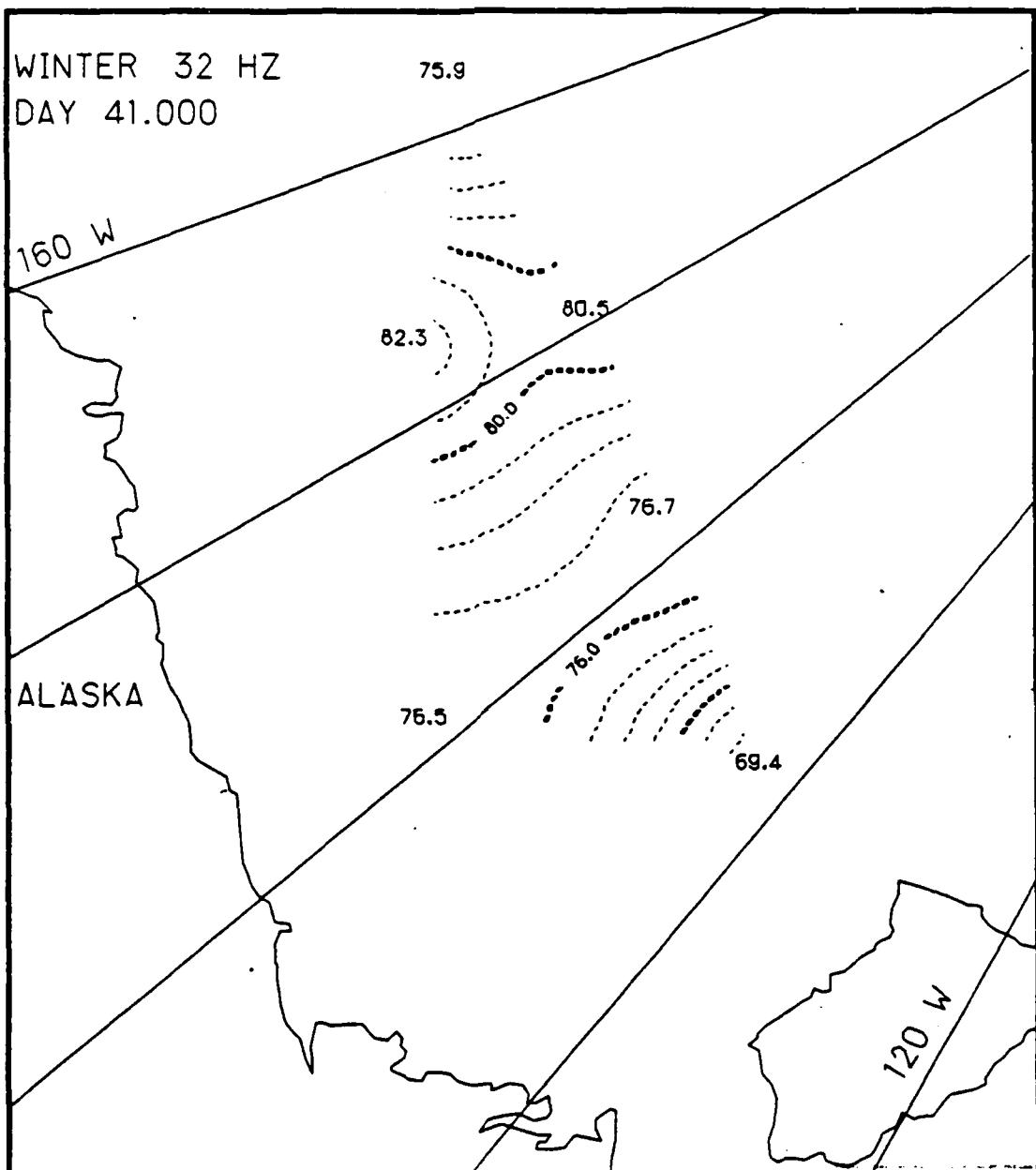


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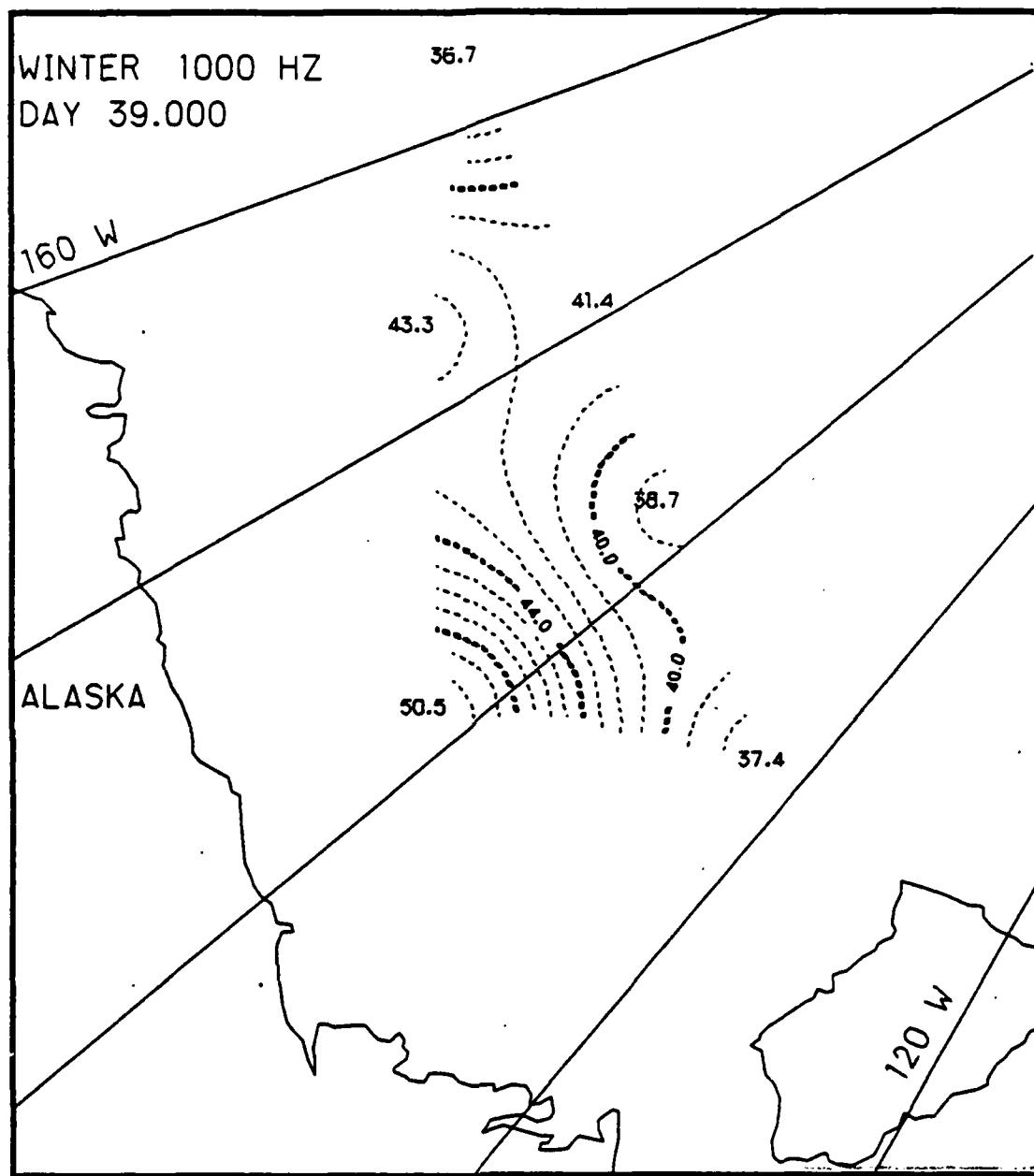


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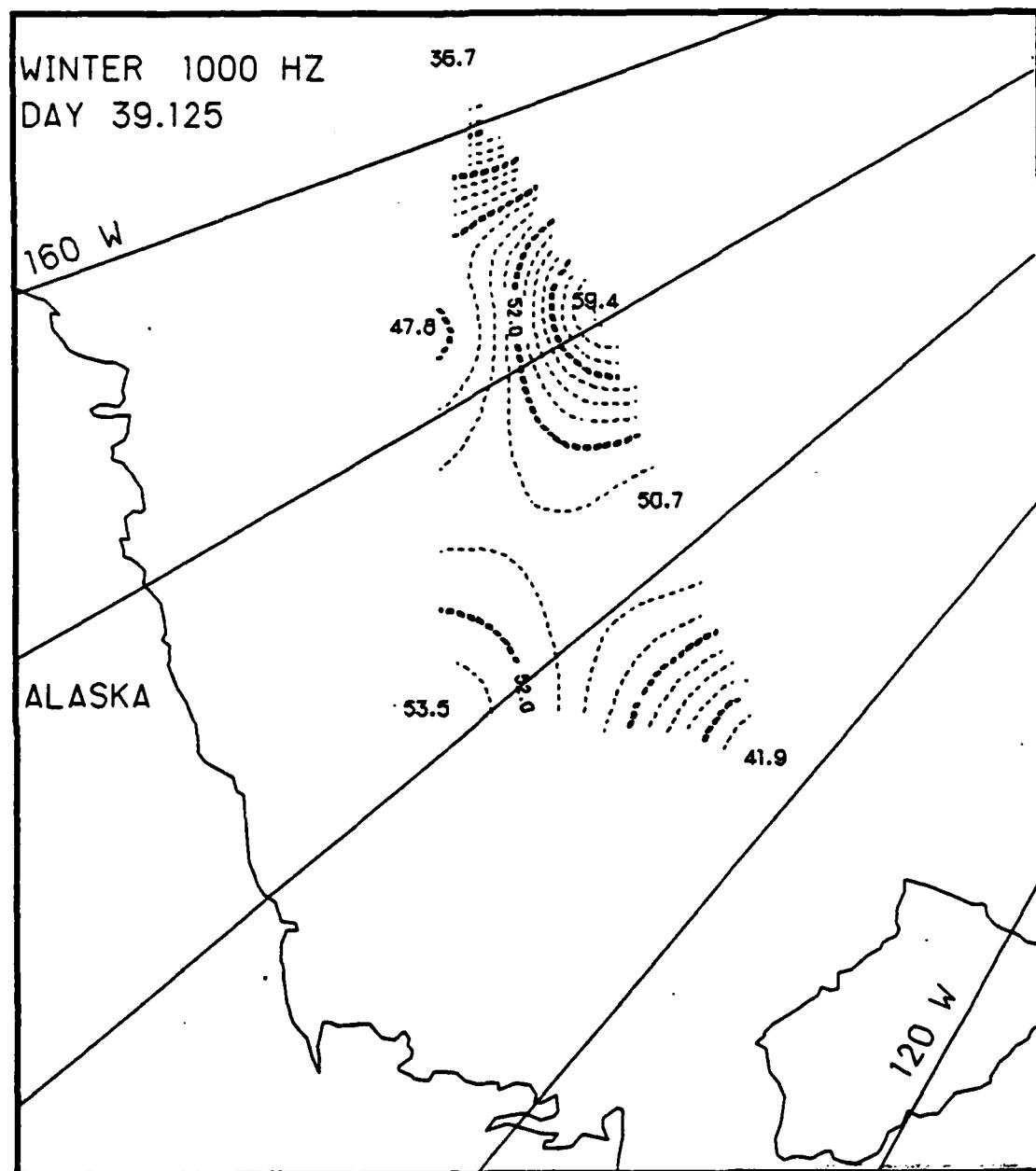


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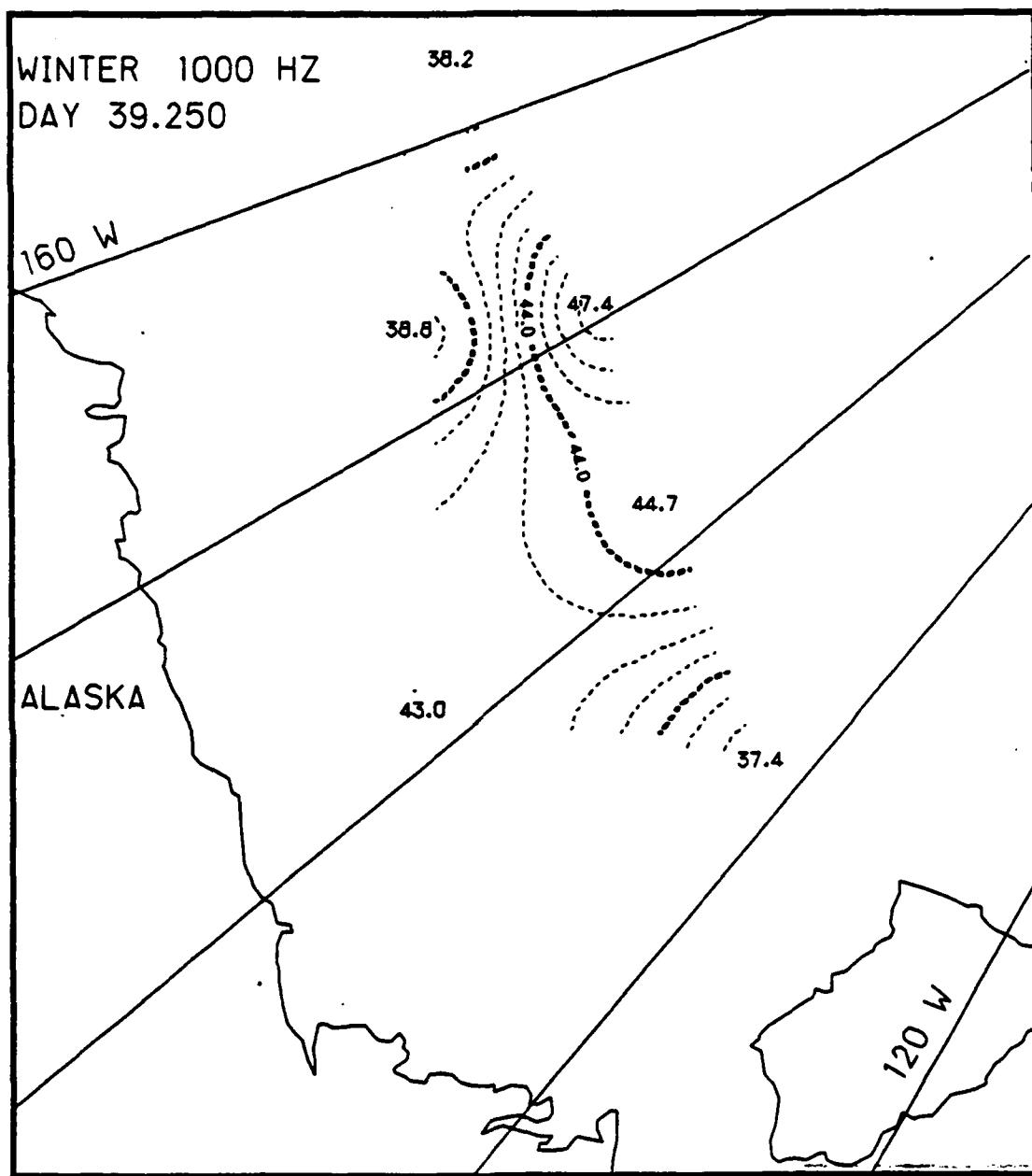


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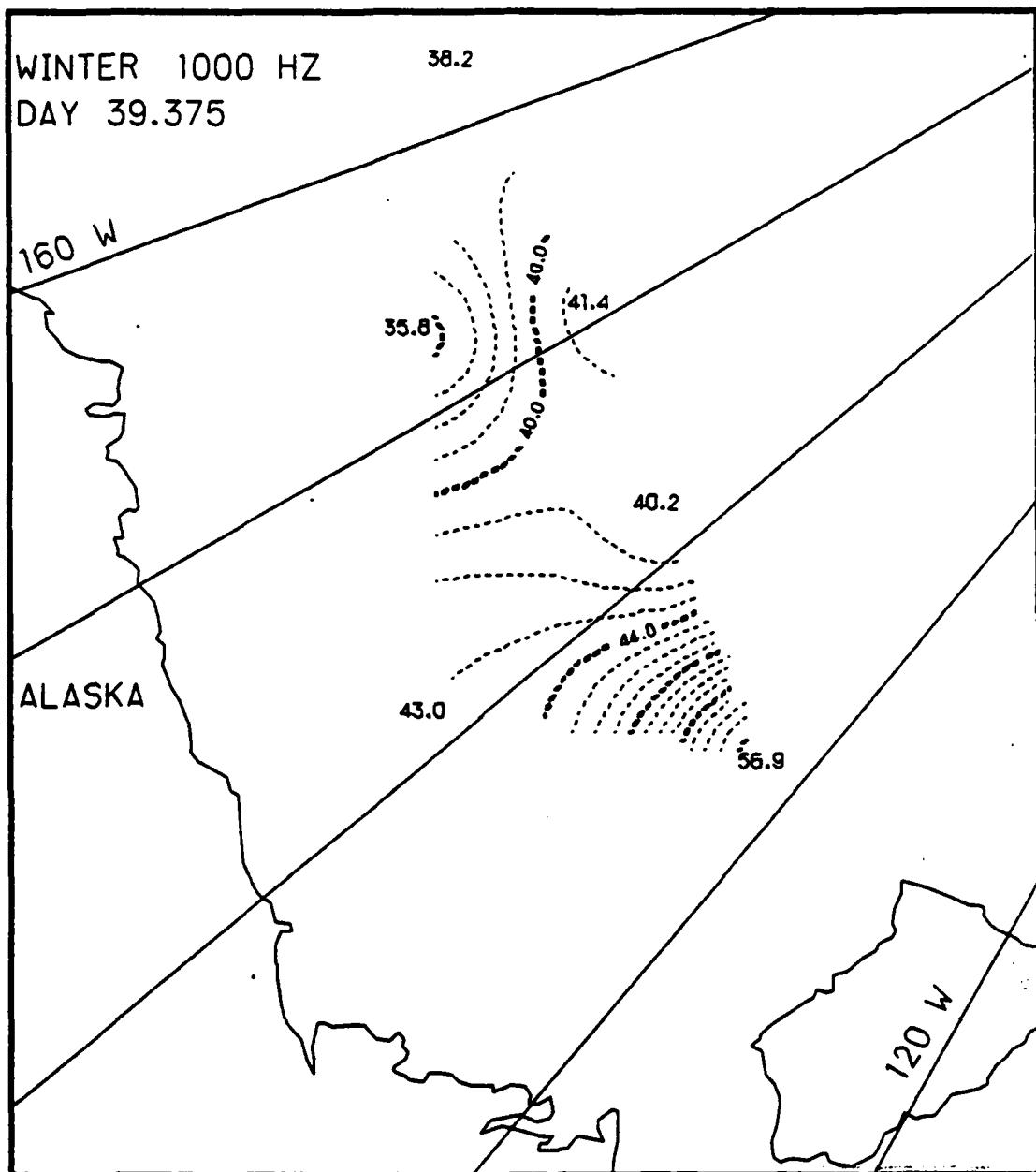


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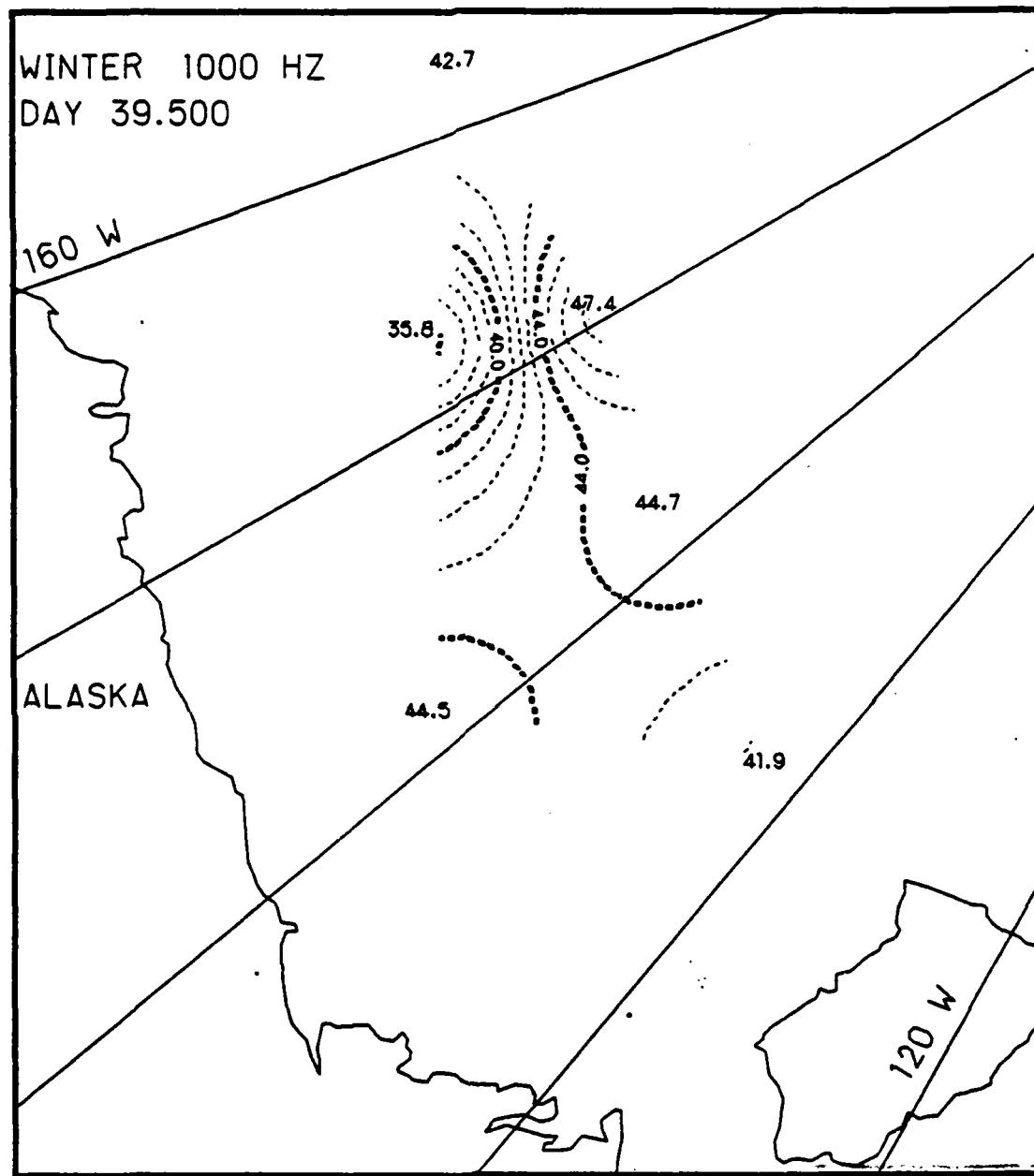


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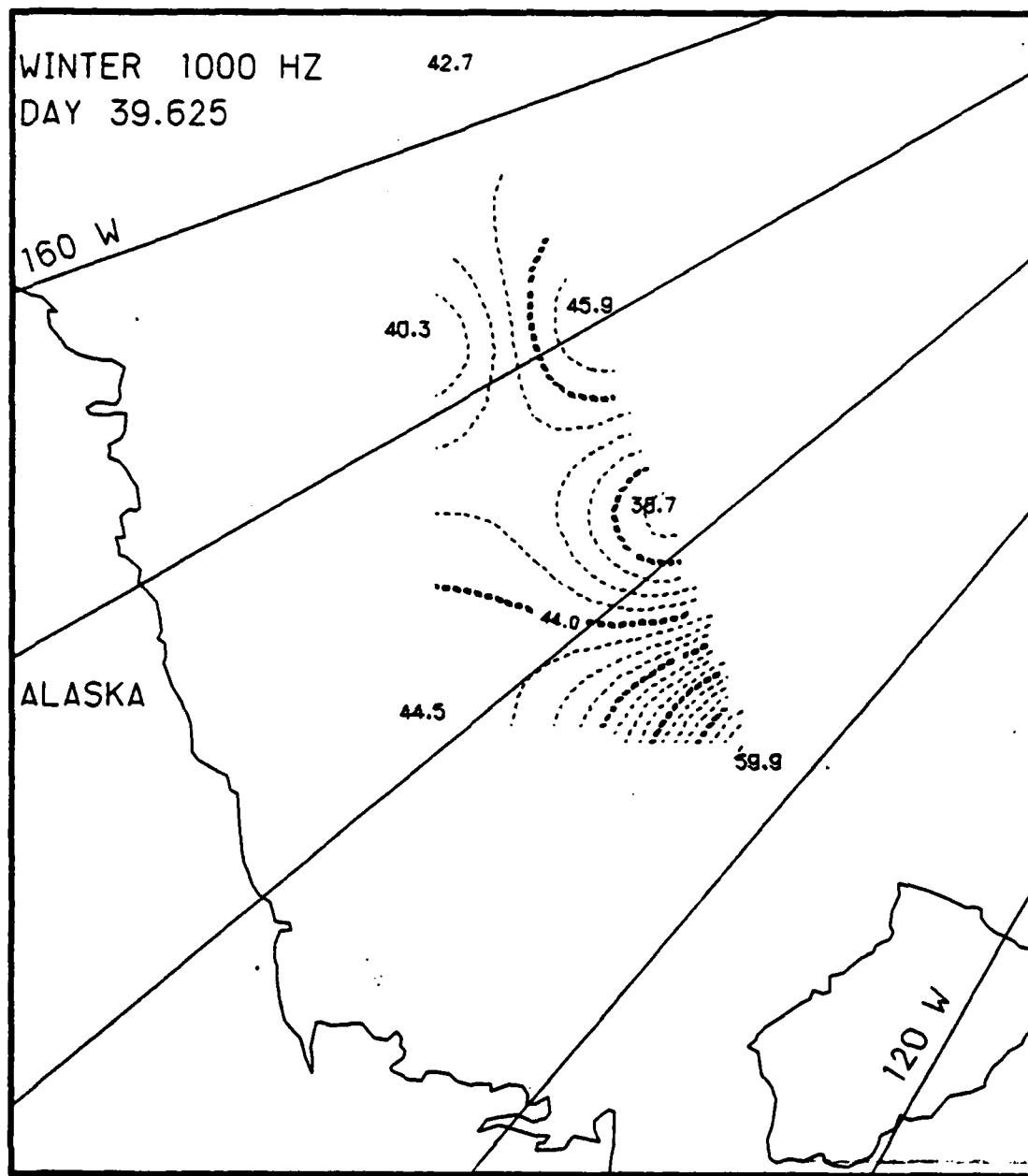


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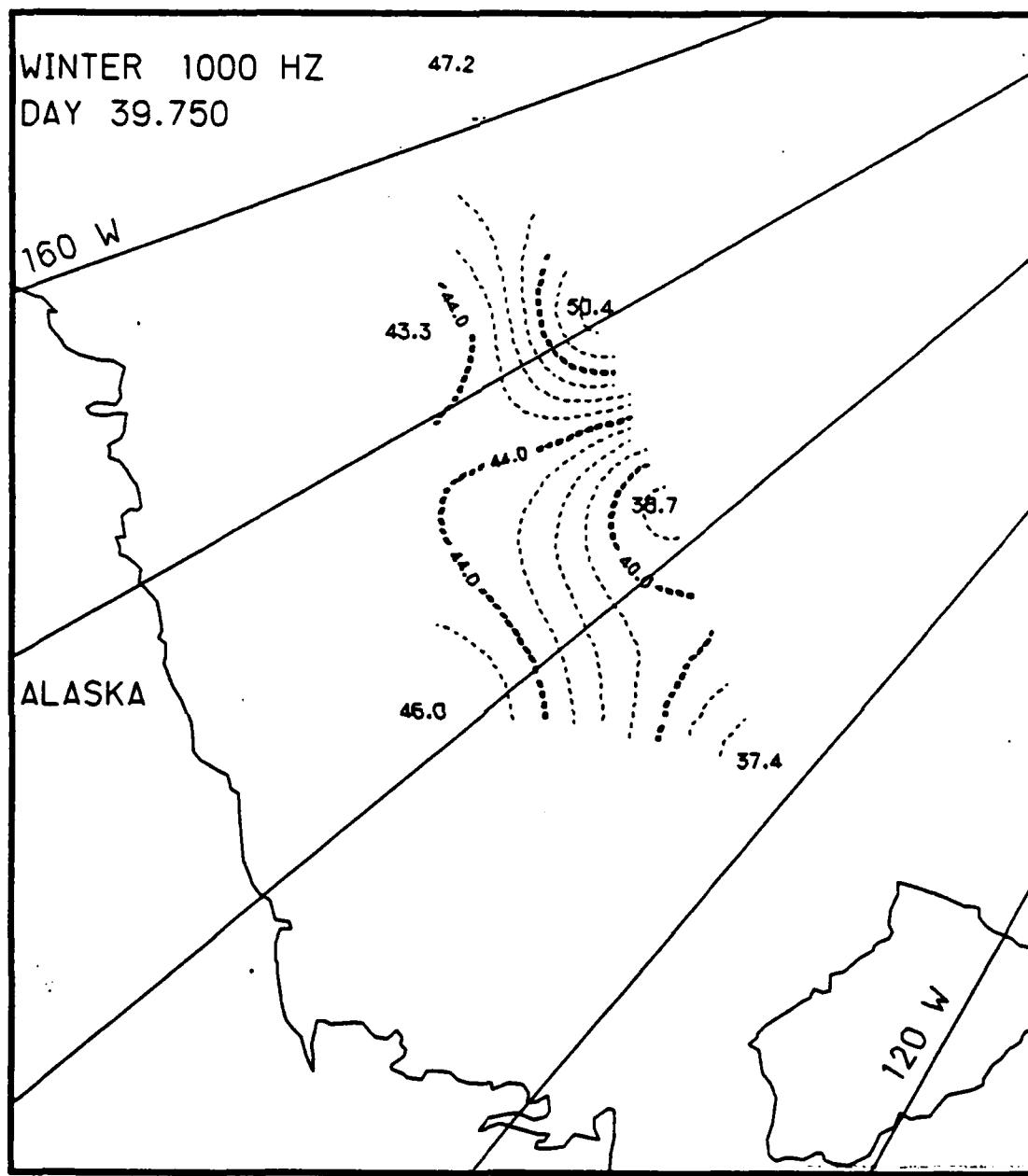


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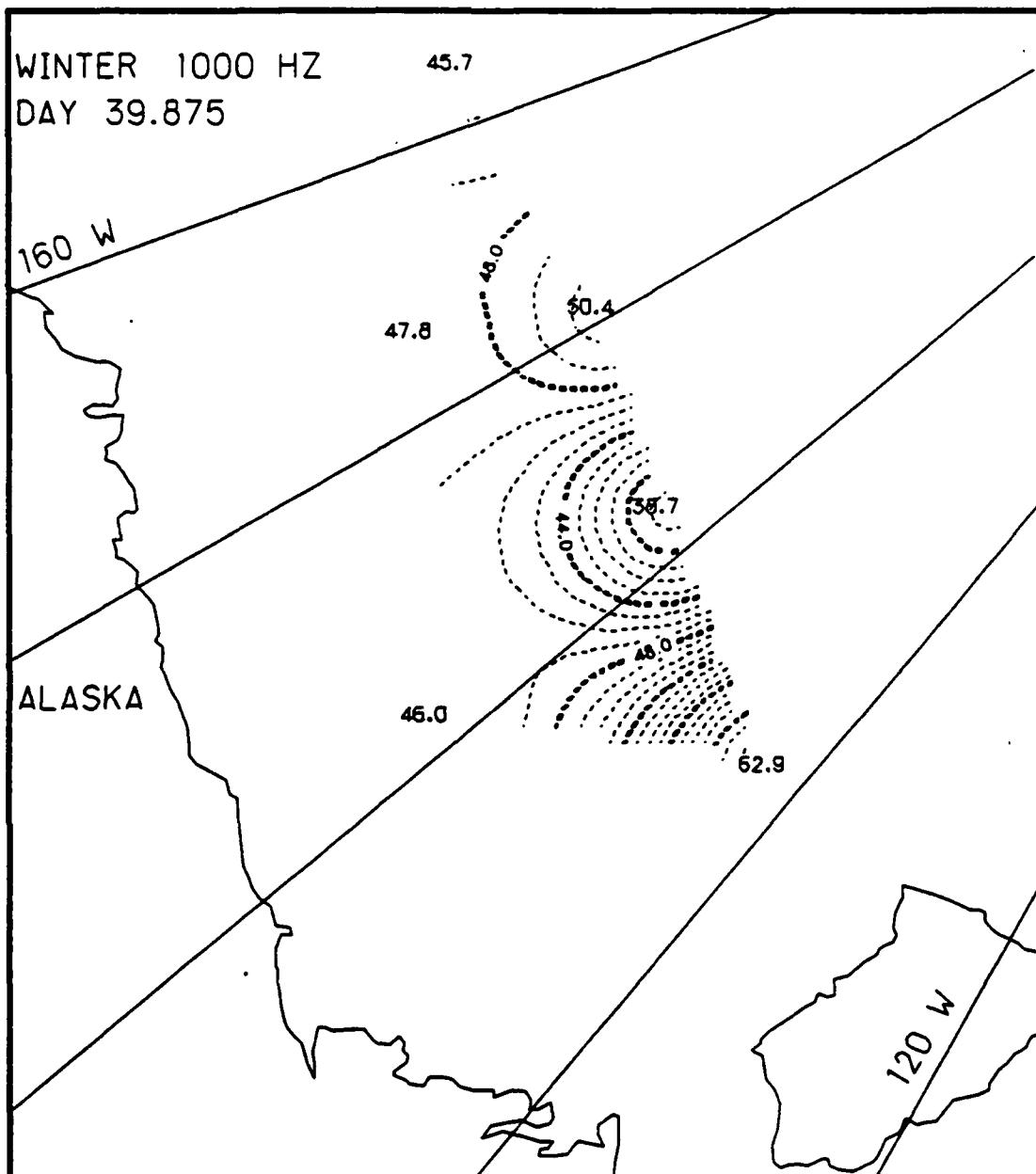


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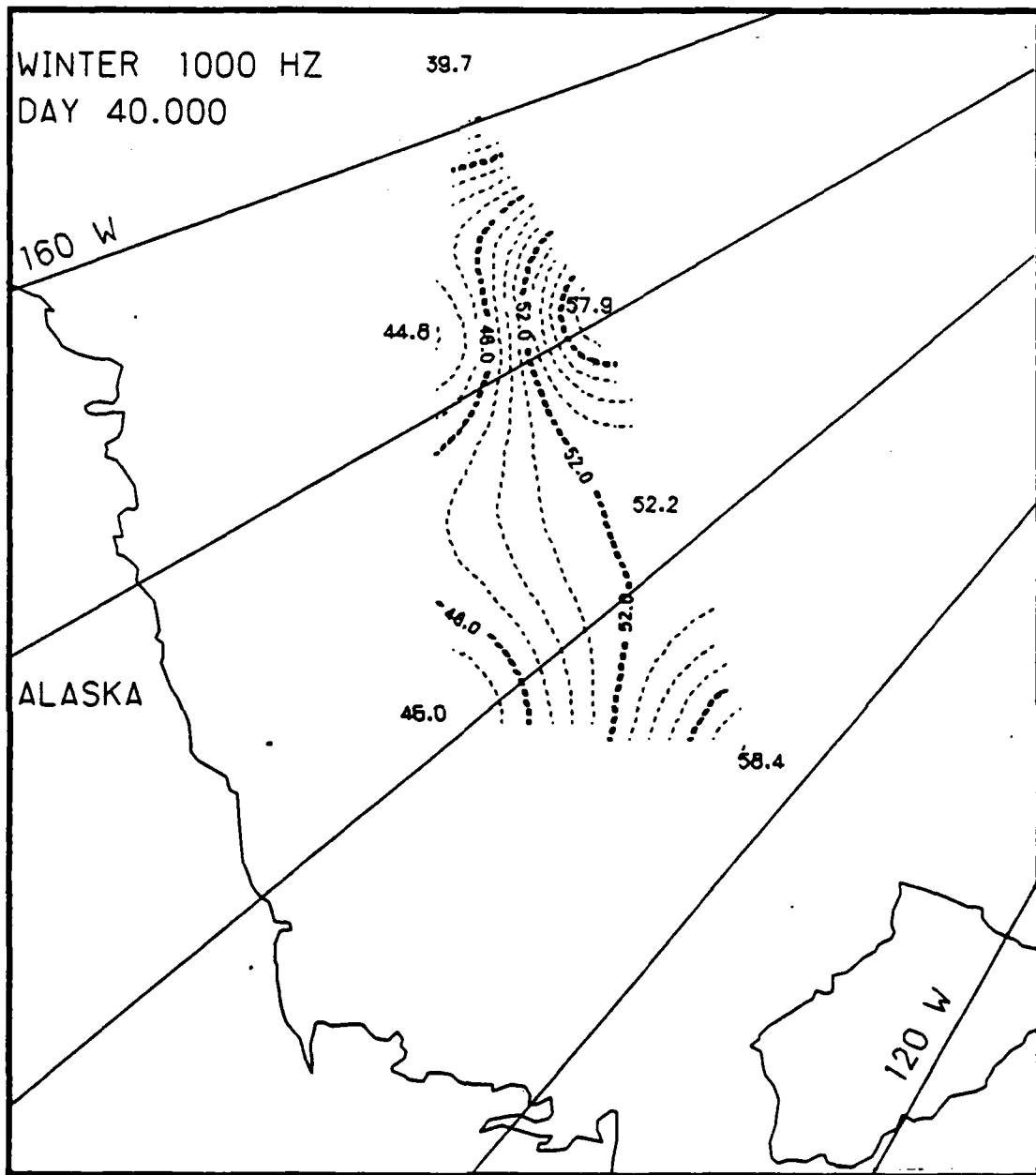


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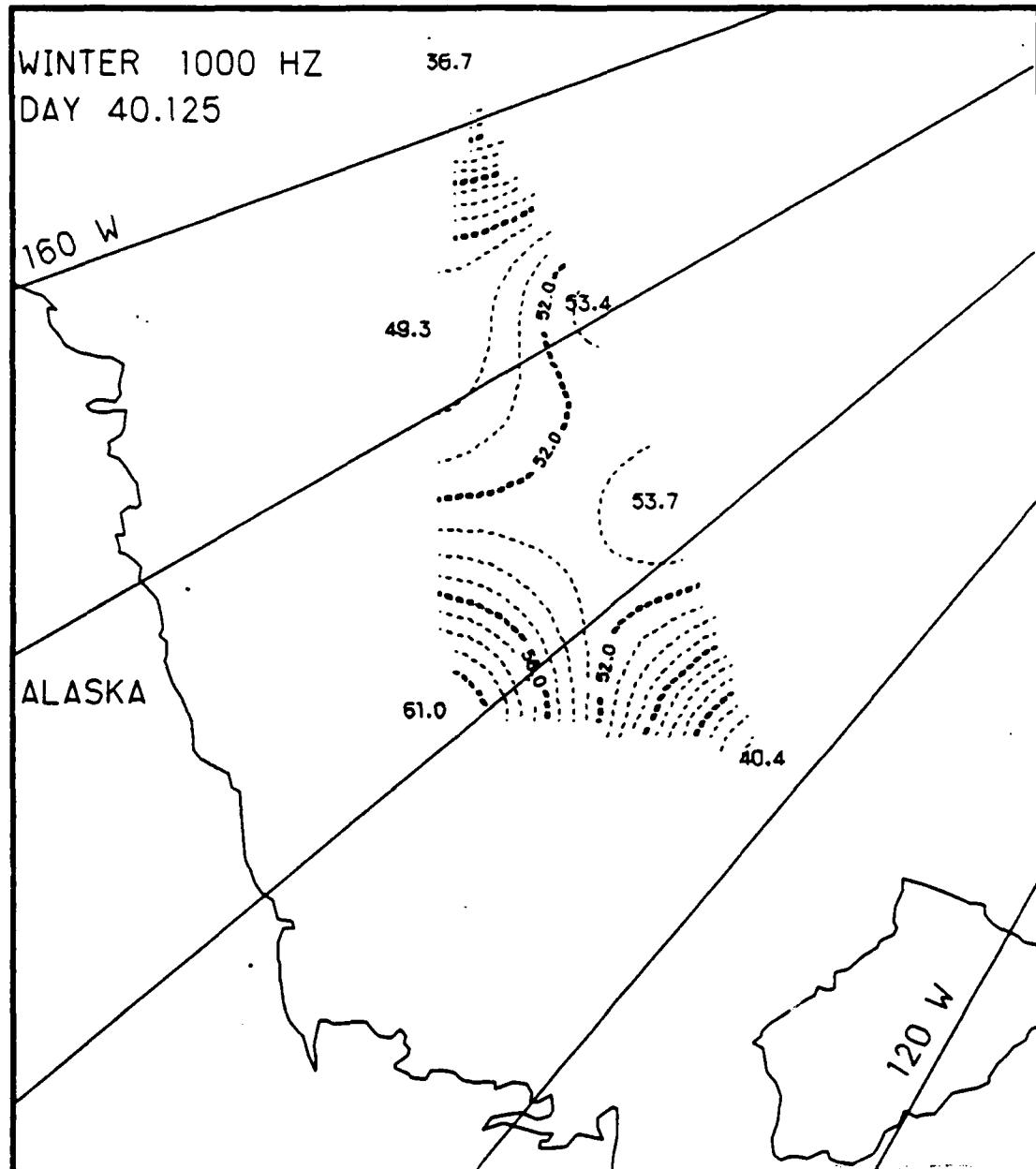


Fig. D.44. Spatial noise variations, day 40.125, based on the AIDJEX 1000 Hz noise data.

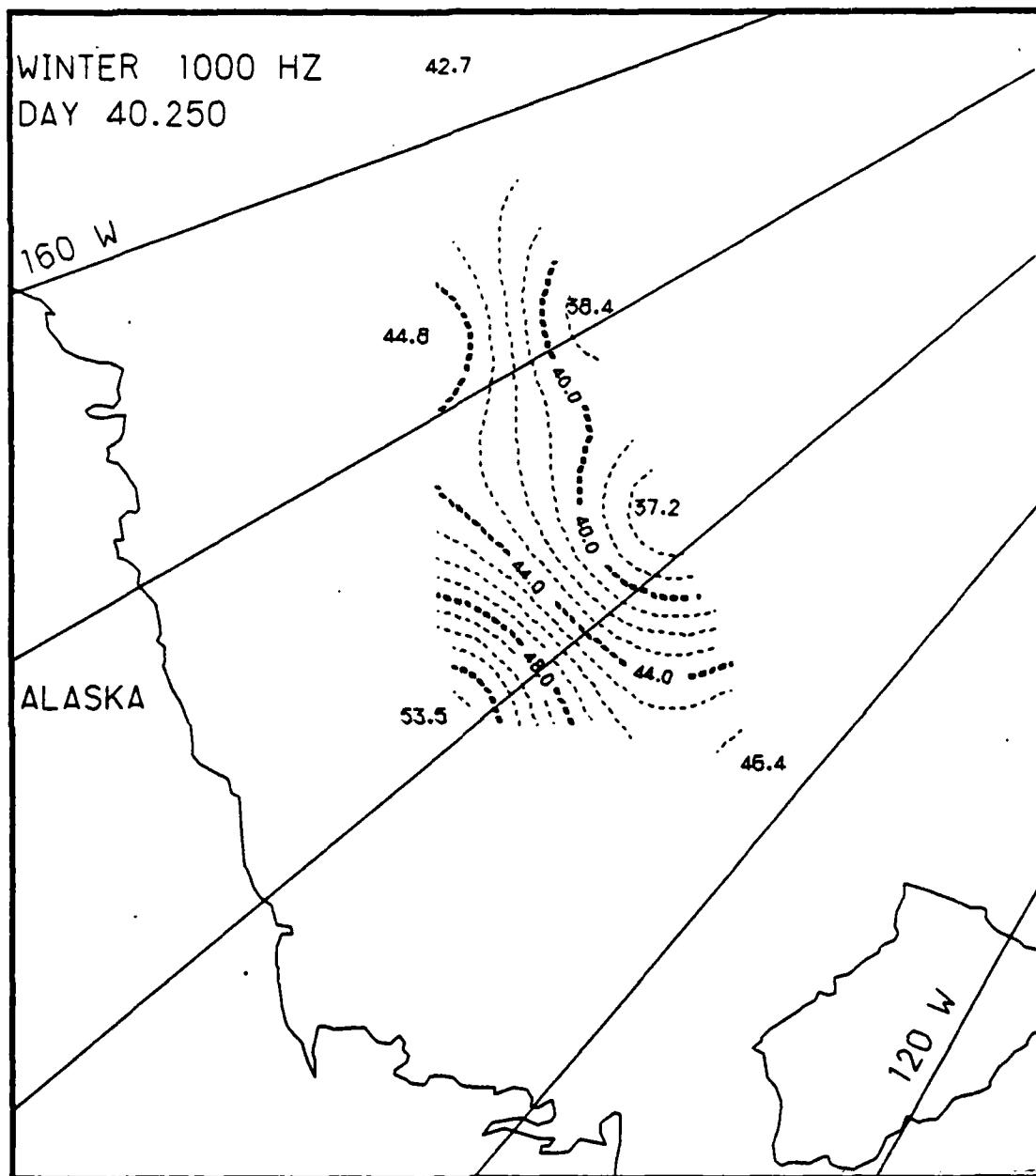


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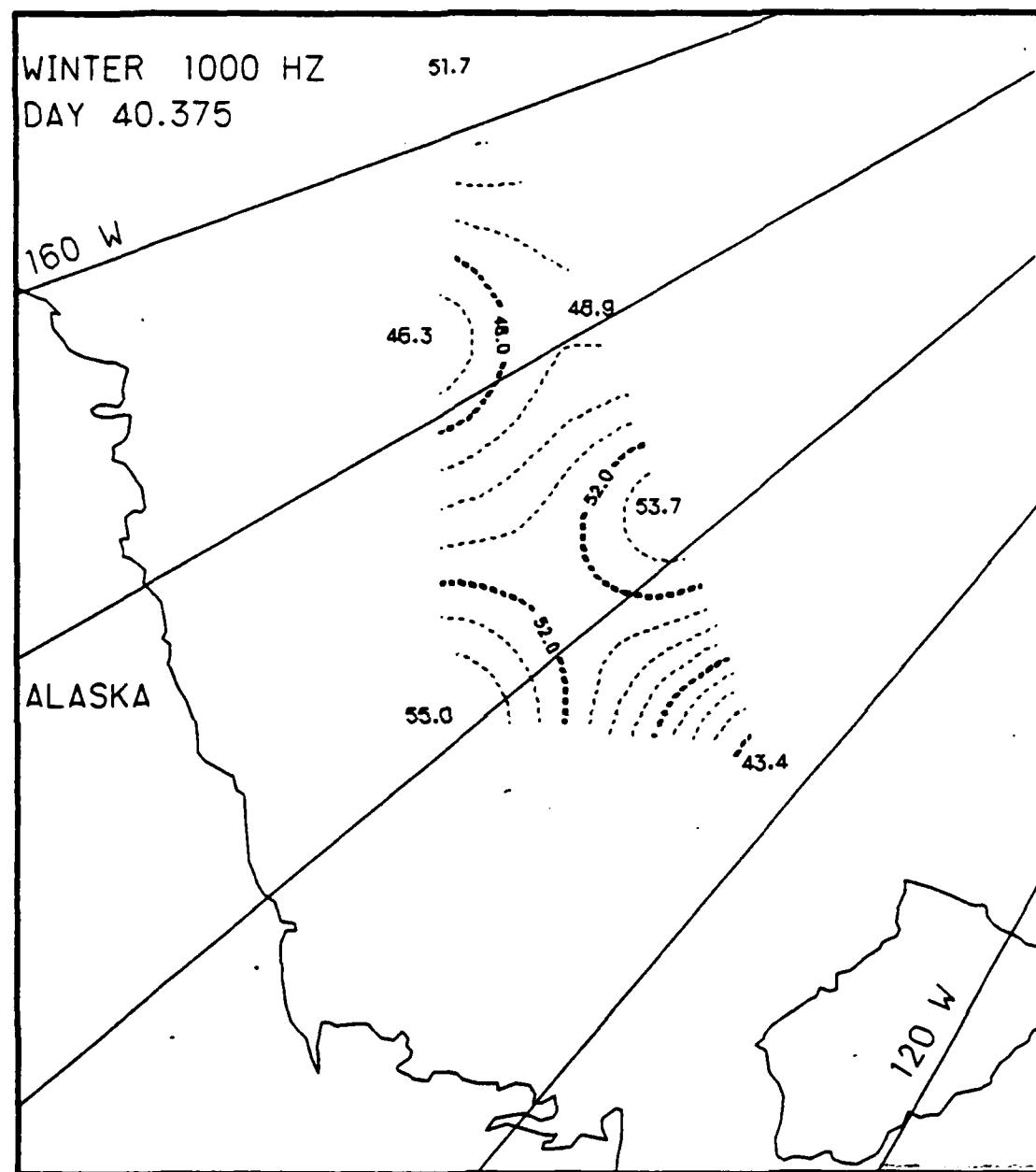


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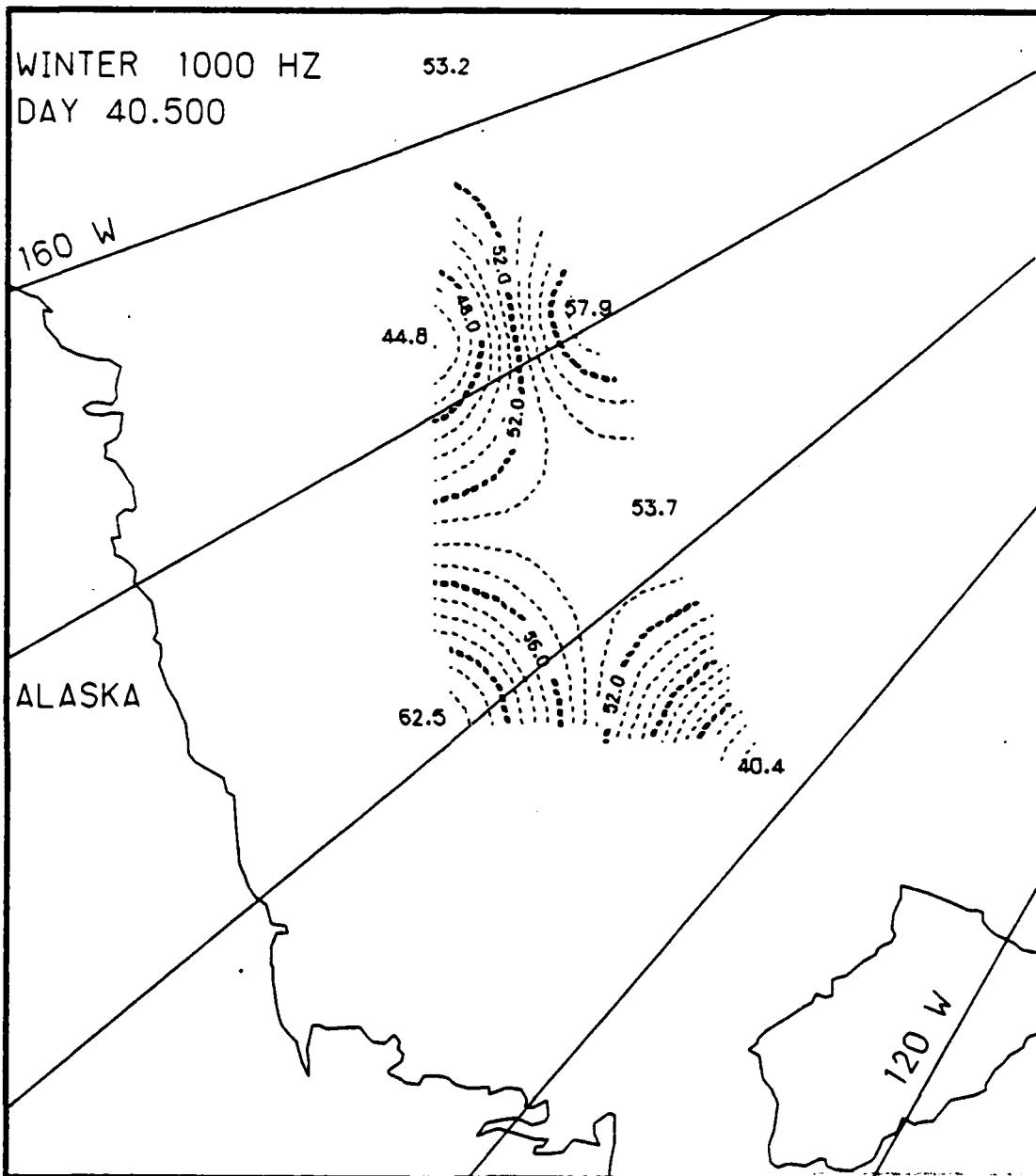


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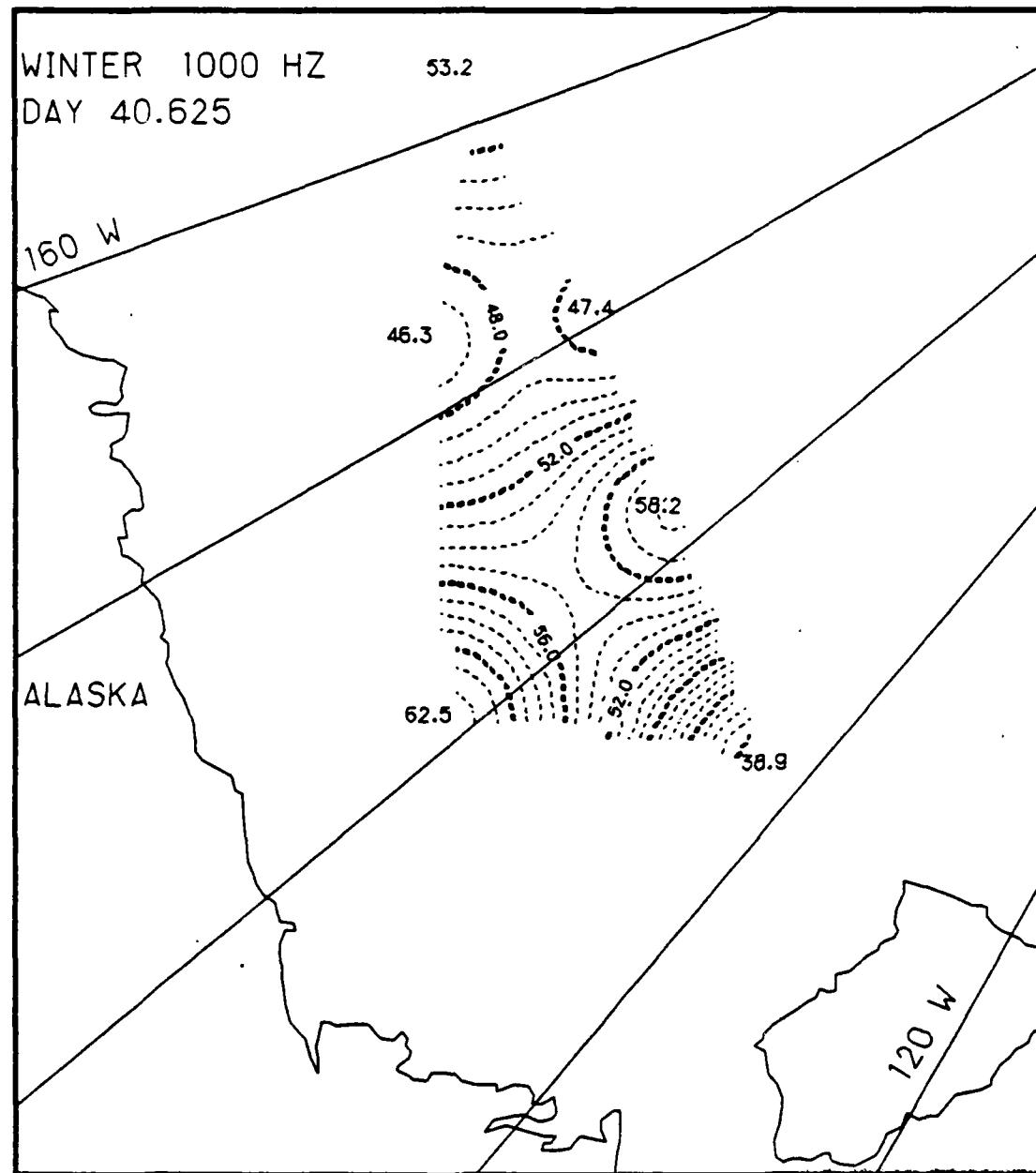


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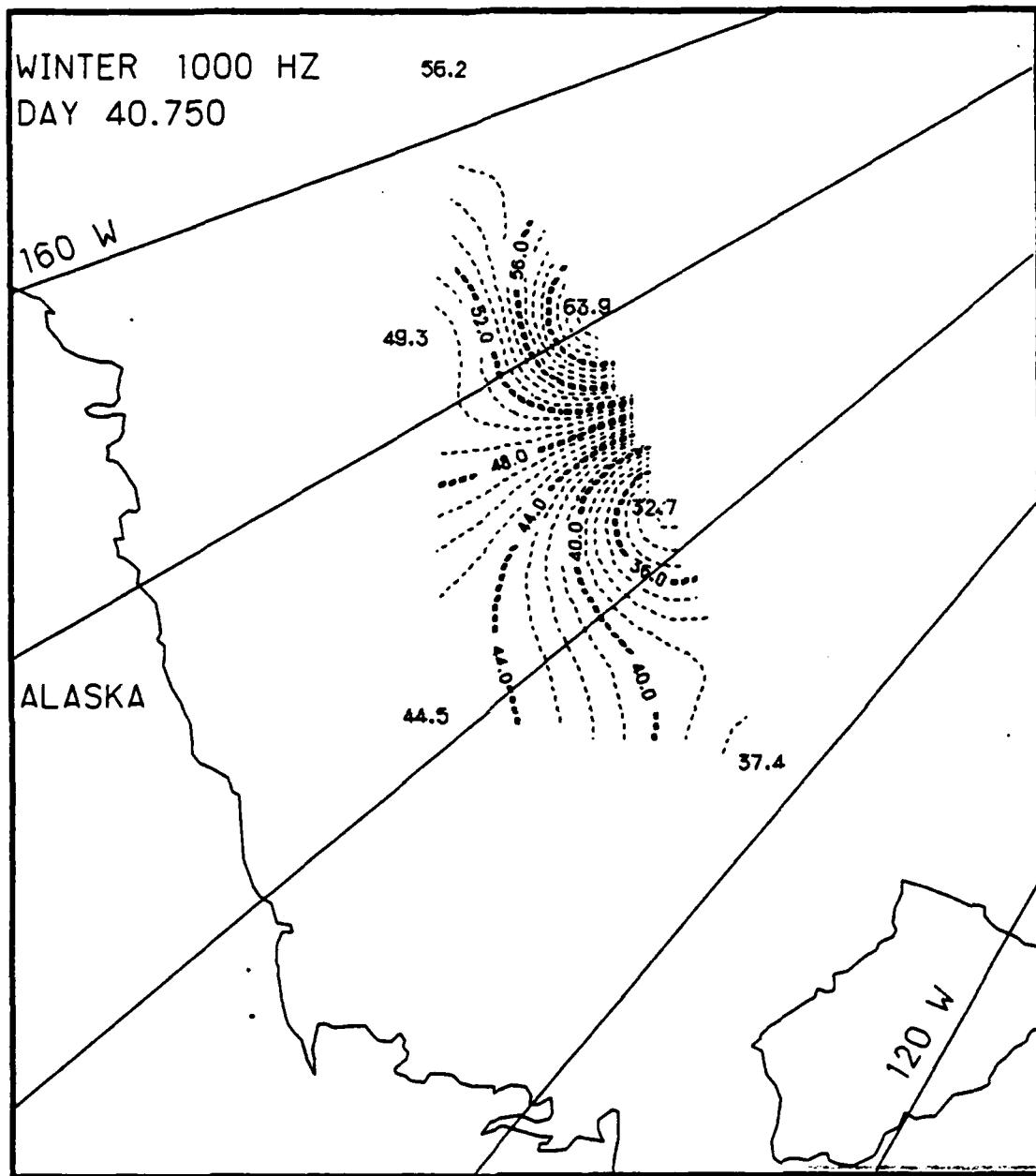


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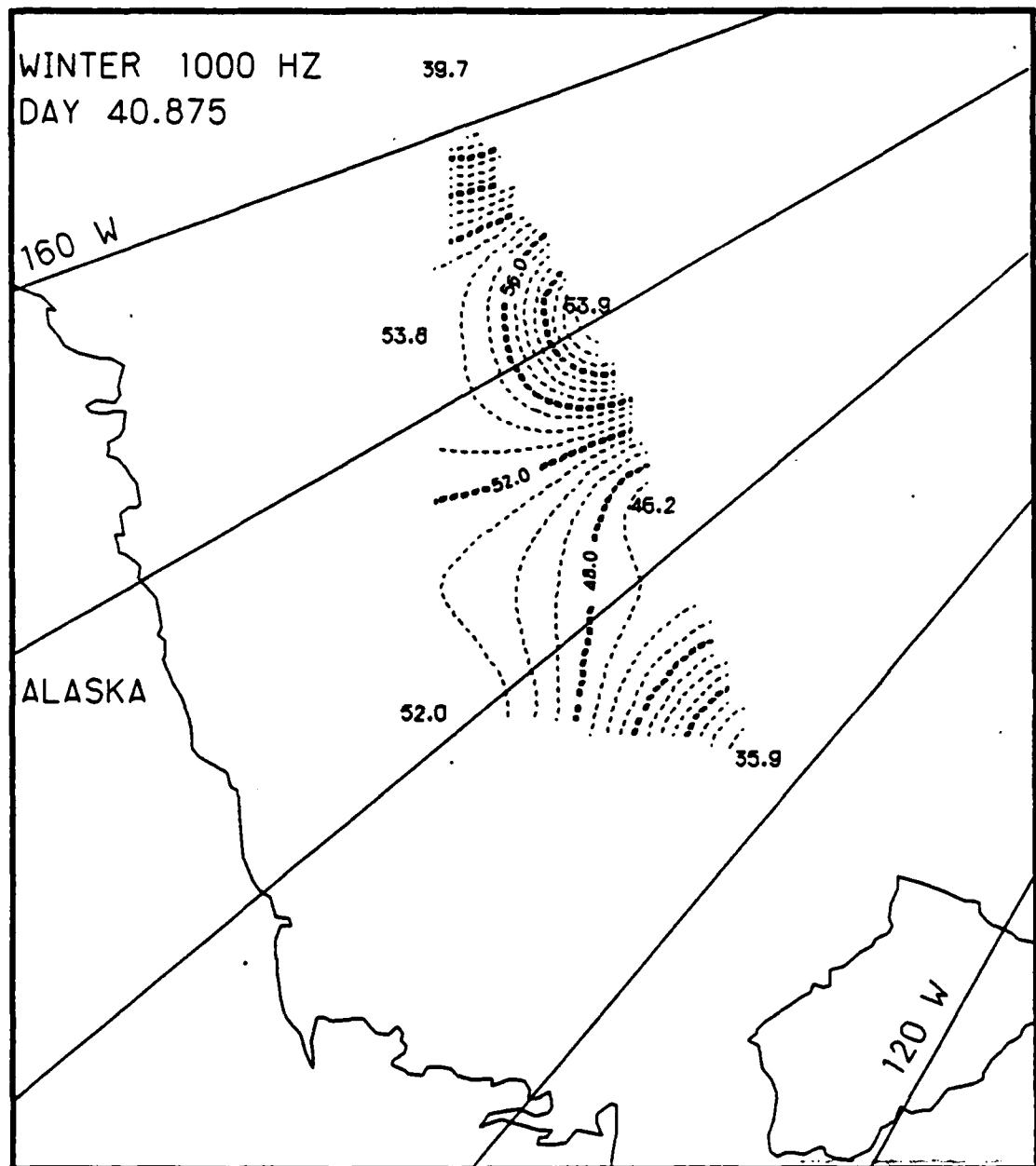


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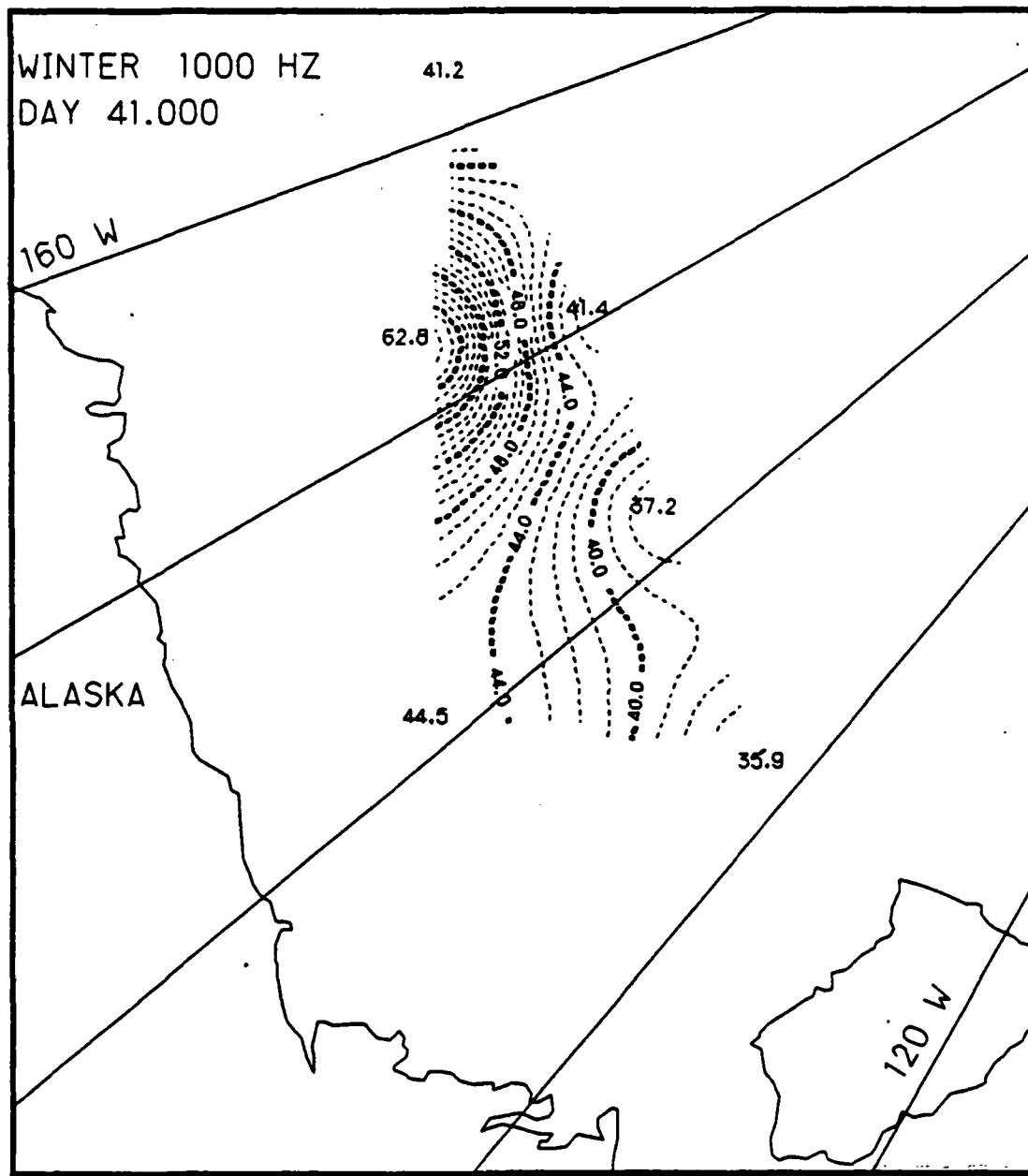


Fig. D.51. Spatial noise variations, day 41.0, based on the AIDJEX 1000 Hz noise data.

## Appendix E

**Two-Dimensional Contour Maps of Arctic  
Ambient Noise Variations, 21-22 February 1976  
(Winter)**

This appendix contains the two-dimensional contour maps of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz noise signals for the 48 hour period of 21-22 February 1976. The contour maps show the spatial variations of the ambient noise signals at 3 hr intervals, the units of noise being decibells. This time period (Julian days 51 and 52) was chosen since the noise levels at all three frequencies showed unusually low intensities.

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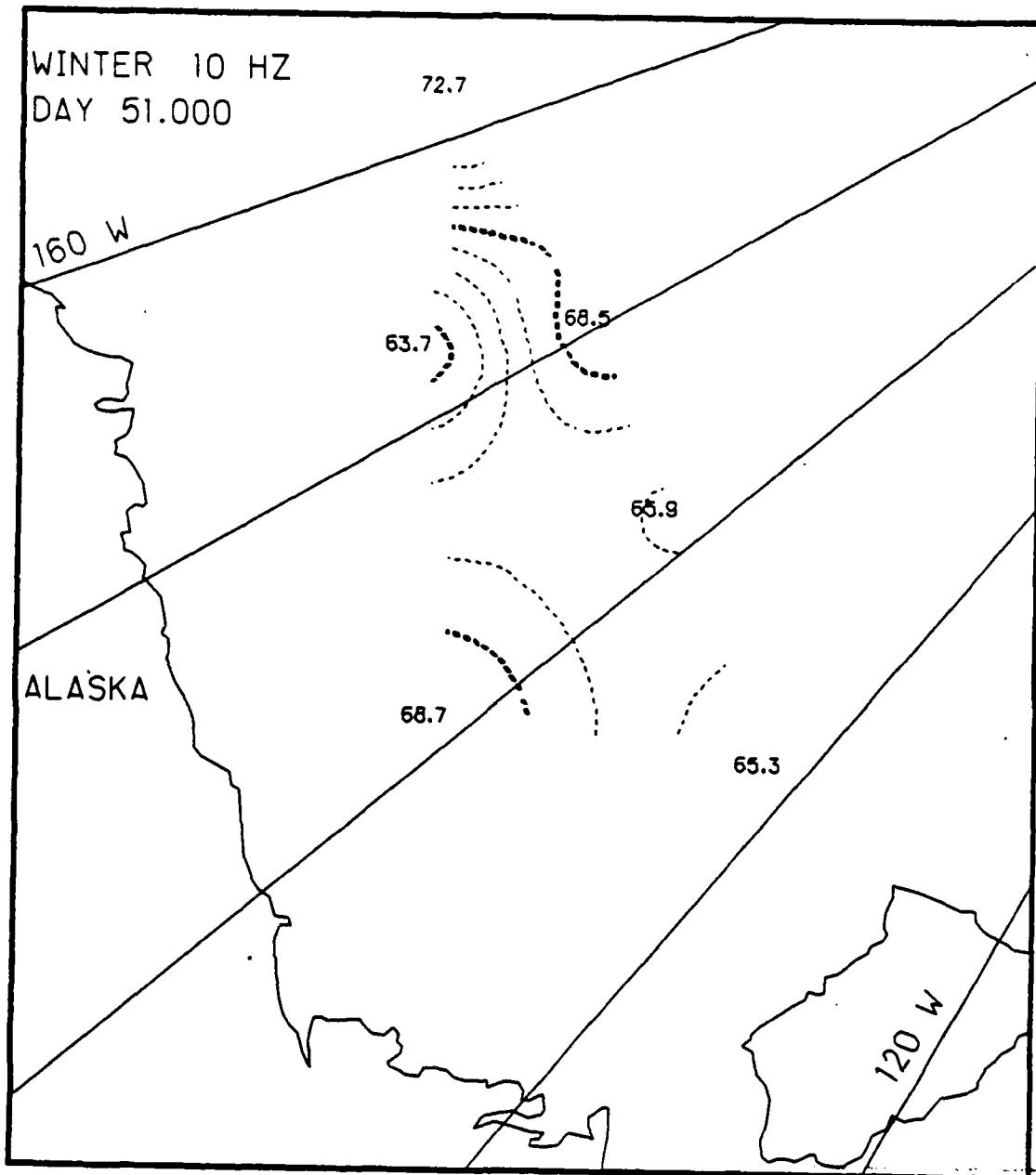


Fig. E.1. Spatial noise variations, day 51.0, based on the AIDJEX 10 Hz noise data.

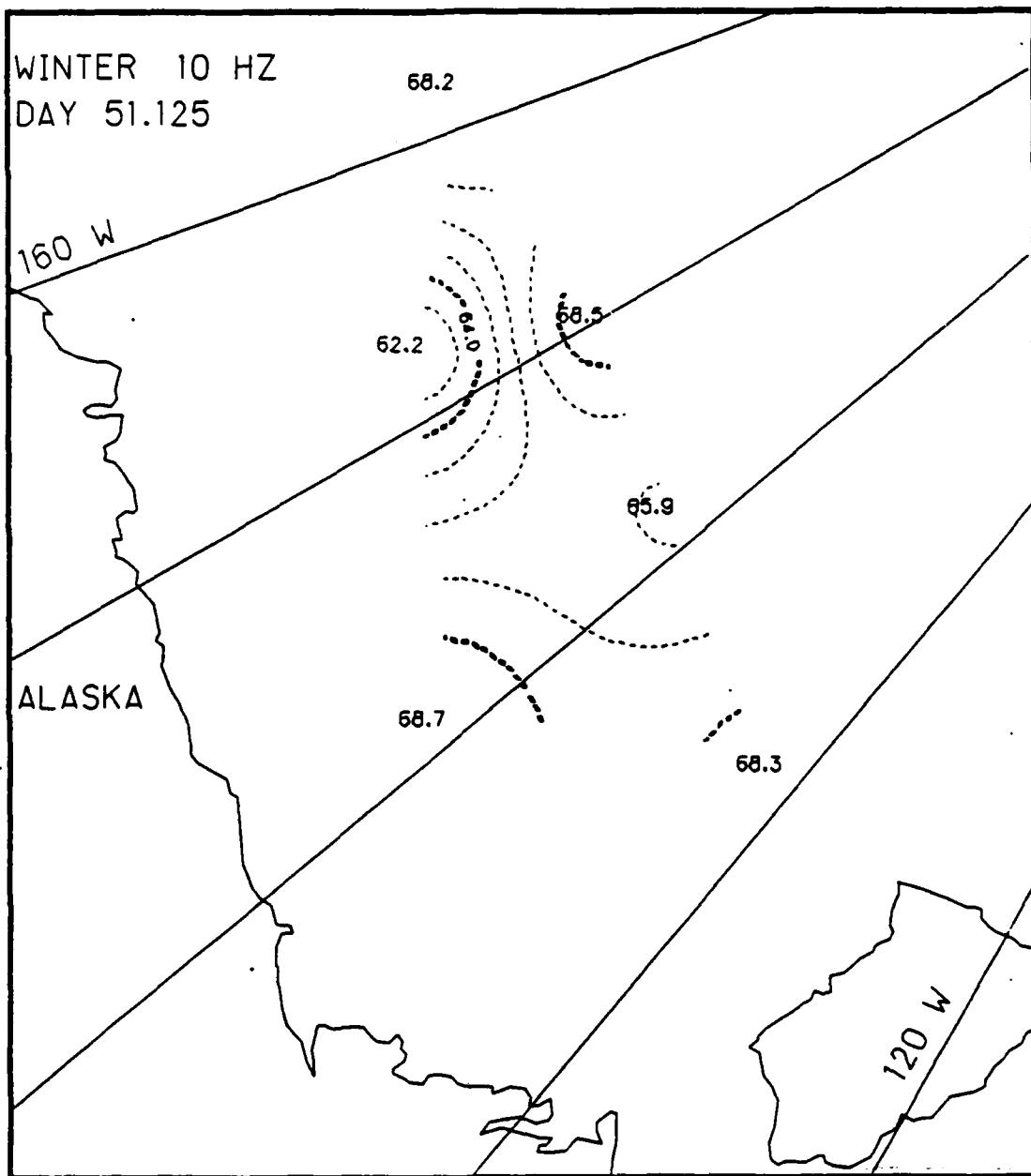


Fig. E.2. Spatial noise variations, day 51.125, based on the AIDJEX 10 Hz noise data.

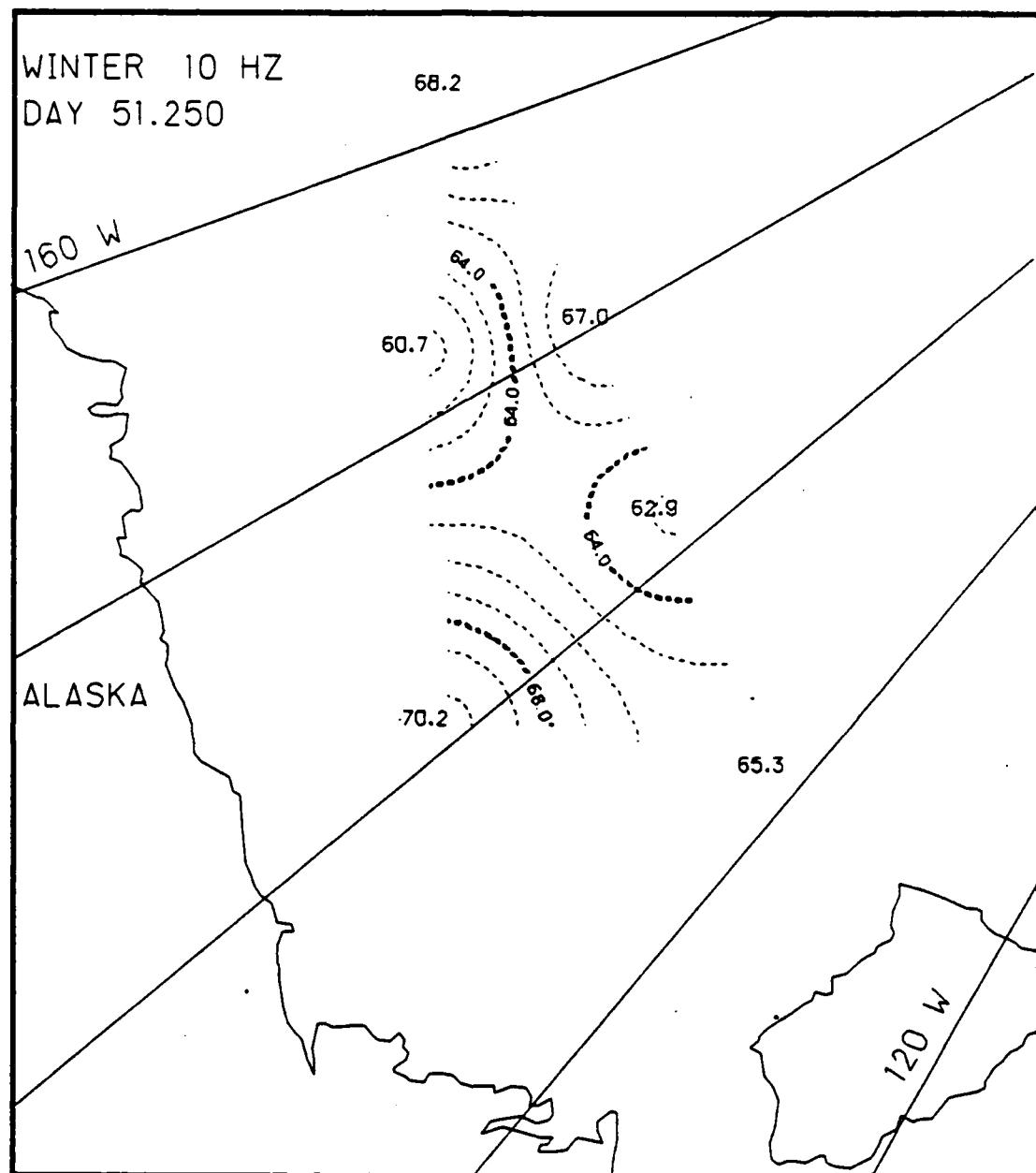


Fig. E.3. Spatial noise variations, day 51.25, based on the AIDJEX 10 Hz noise data.

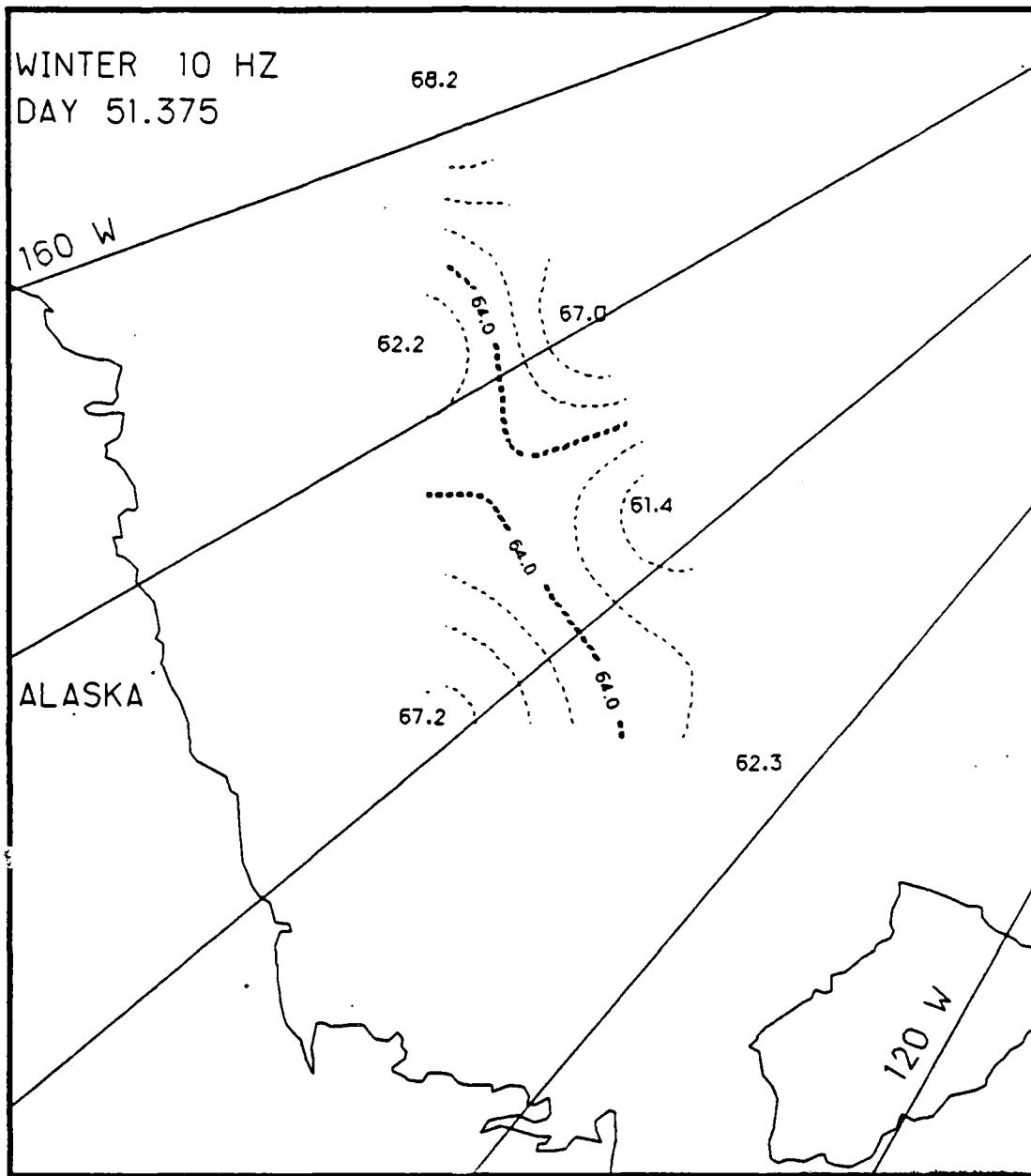


Fig. E.4. Spatial noise variations, day 51.375, based on the AIDJEX 10 Hz noise data.

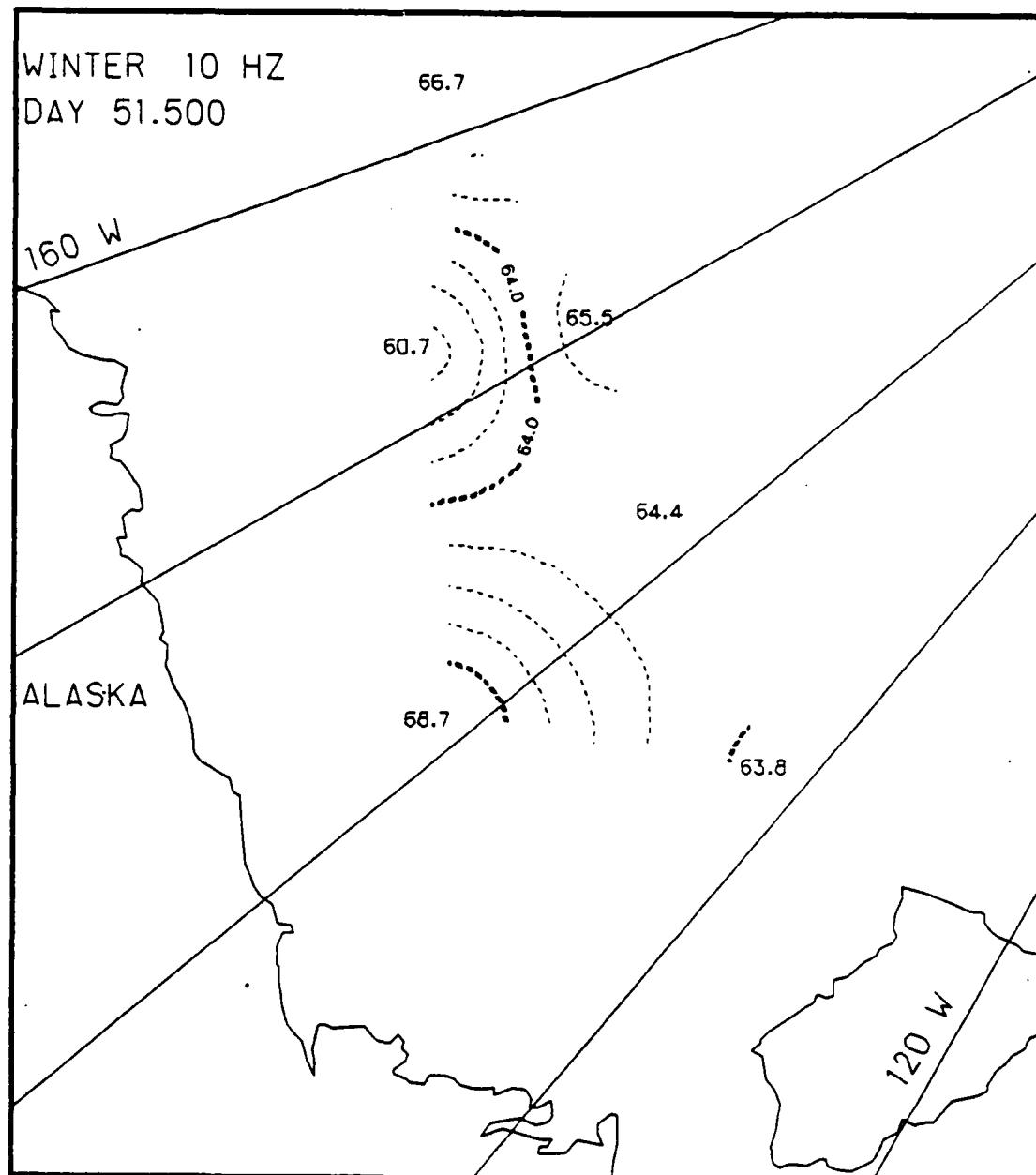


Fig. E.5. Spatial noise variations, day 51.5, based on the AIDJEX 10 Hz noise data.

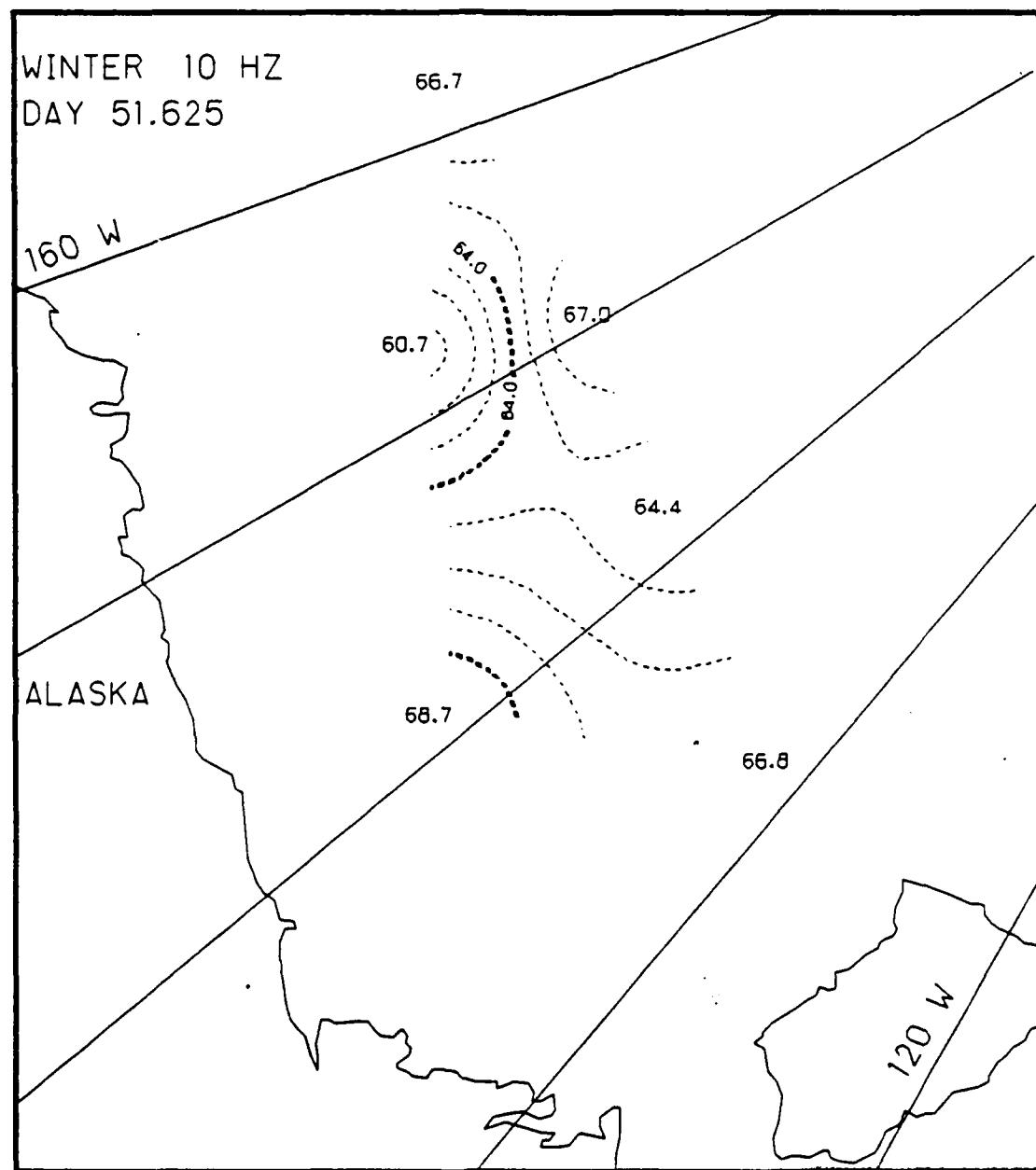


Fig. E.6. Spatial noise variations, day 51.625, based on the AIDJEX 10 Hz noise data.

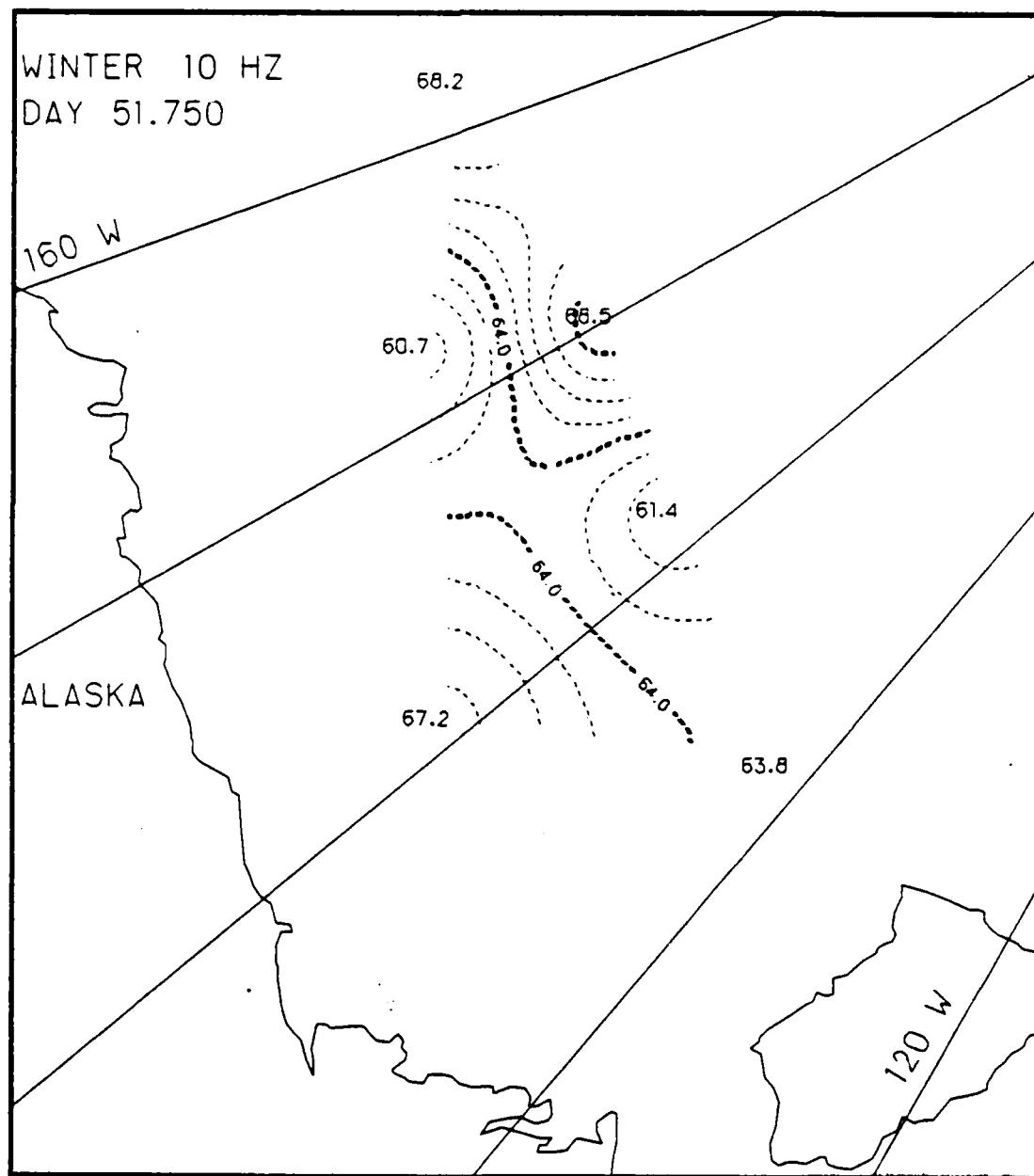


Fig. E.7. Spatial noise variations, day 51.75, based on the AIDJEX 10 Hz noise data.

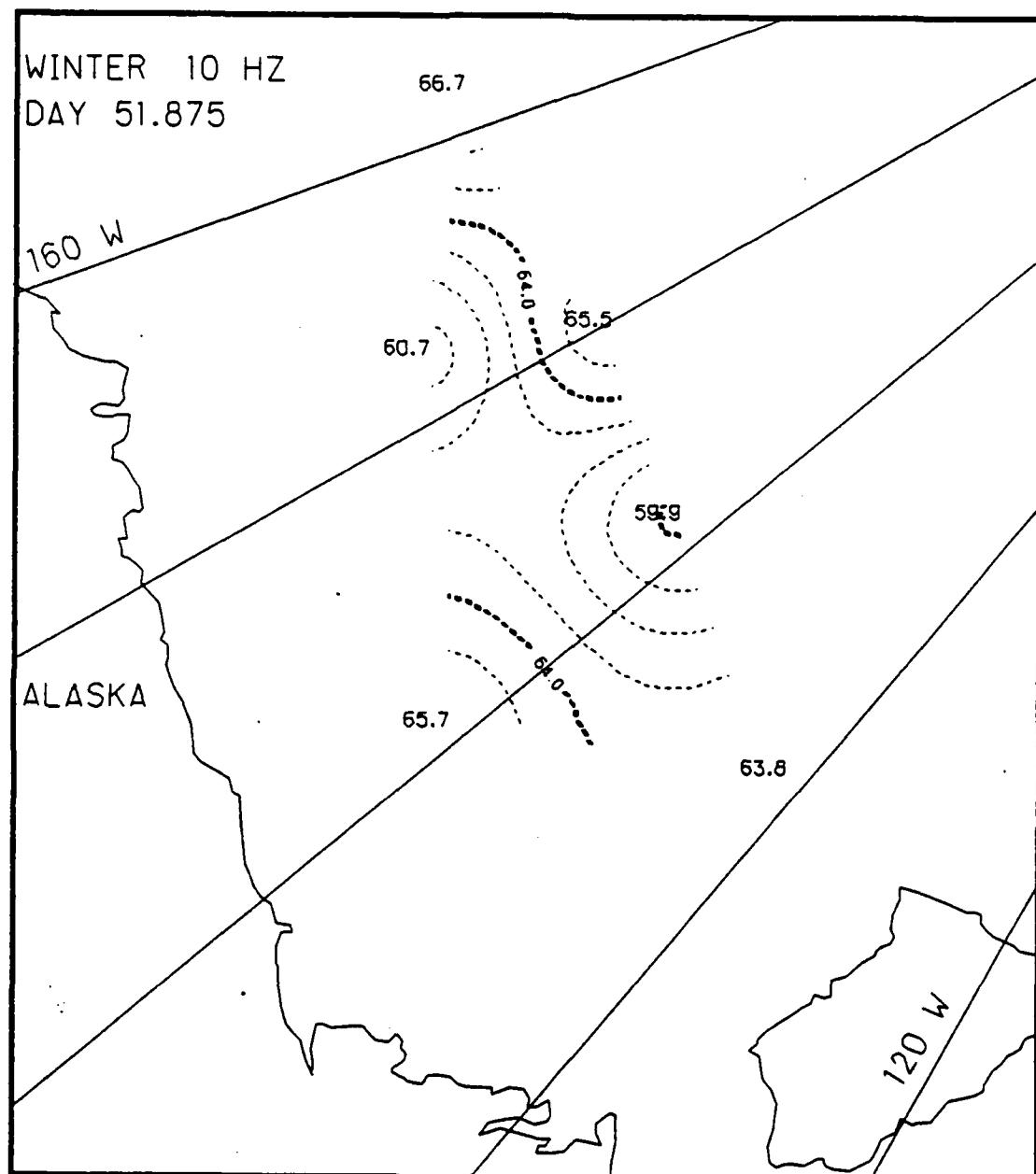


Fig. E.8. Spatial noise variations, day 51.875, based on the AIDJEX 10 Hz noise data.

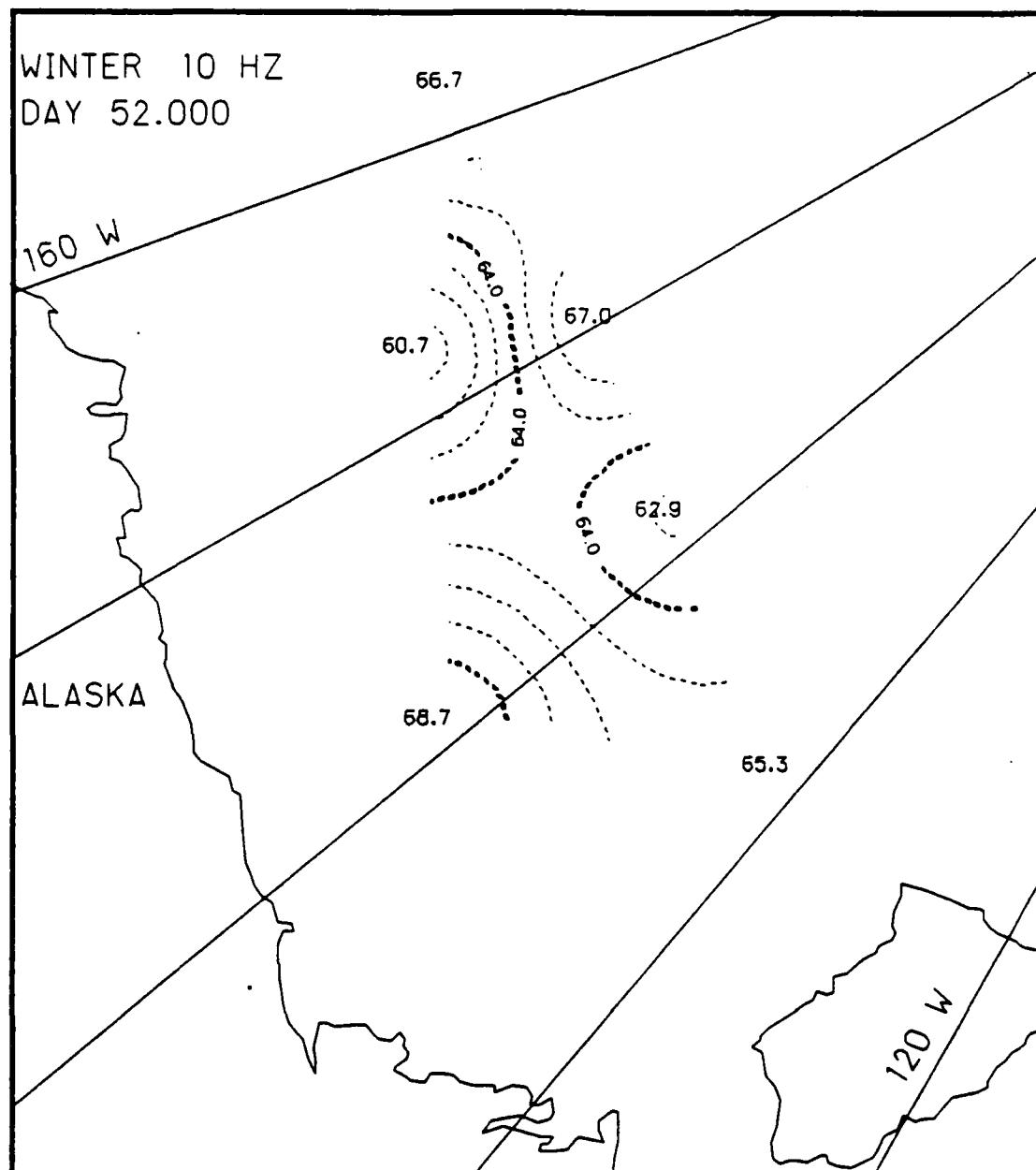


Fig. E.9. Spatial noise variations, day 52.0, based on the AIDJEX 10 Hz noise data.

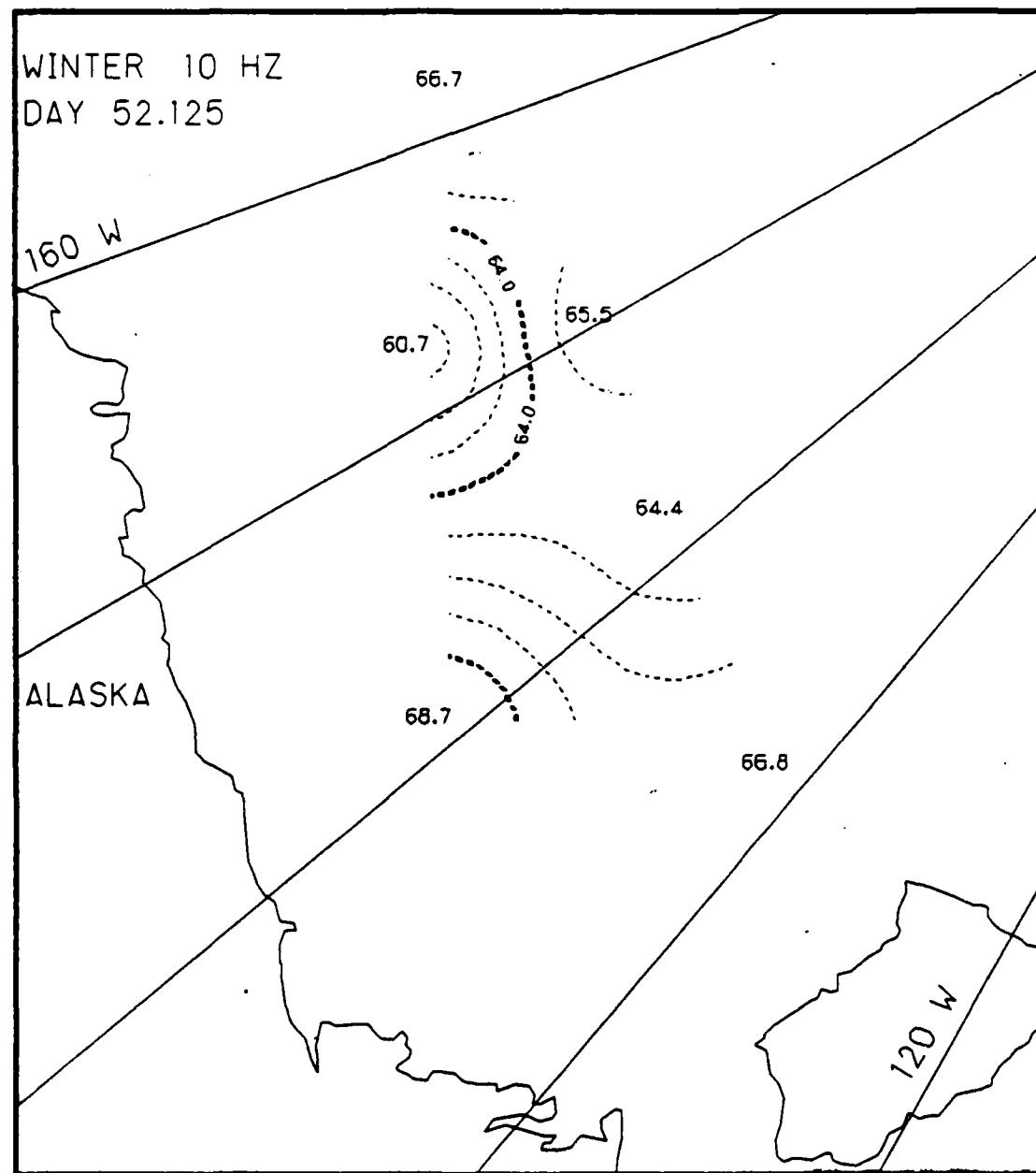


Fig. E.10. Spatial noise variations, day 52.125, based on the AIDJEX 10 Hz noise data.

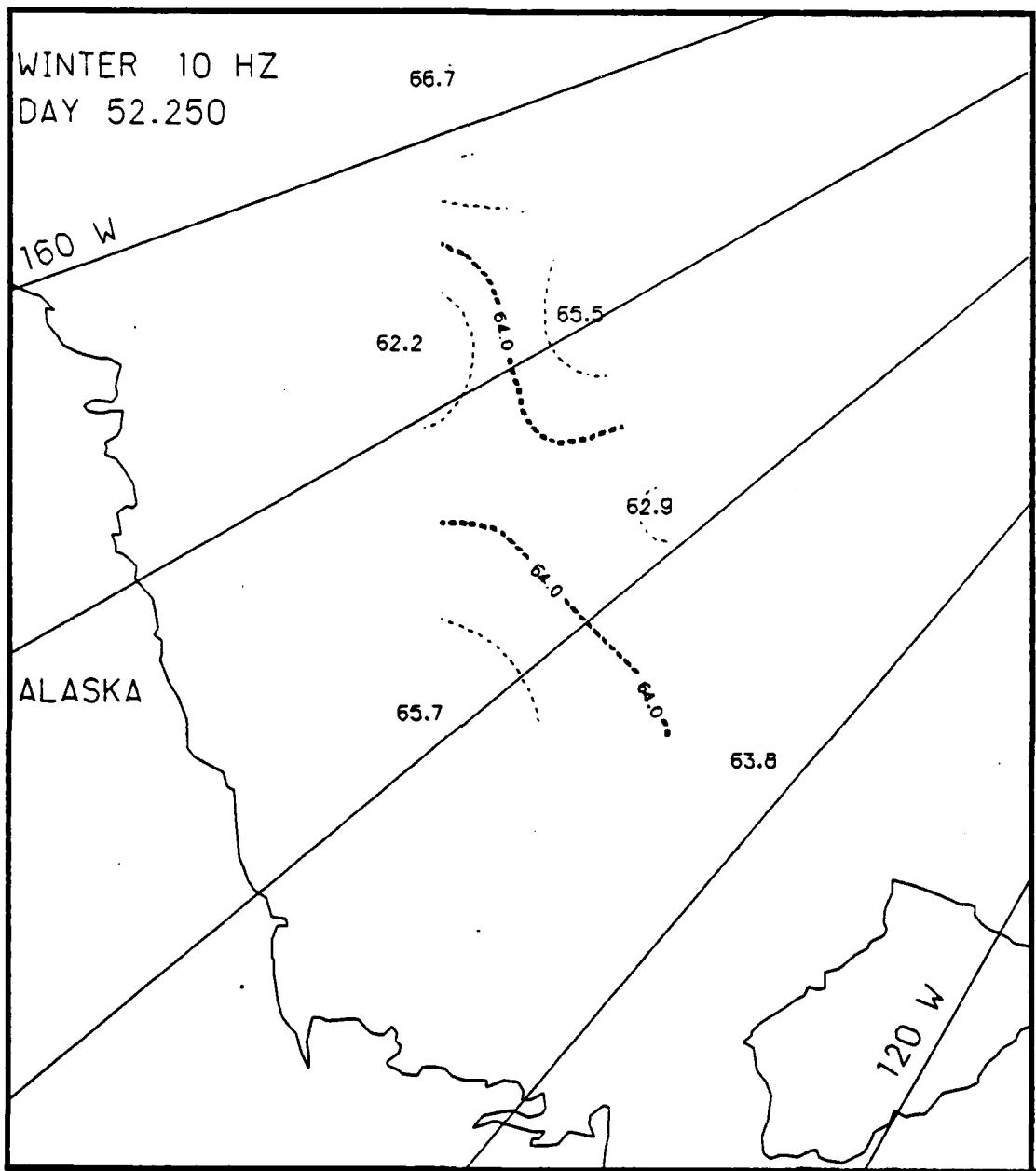


Fig. E.11. Spatial noise variations, day 52.25, based on the AIDJEX 10 Hz noise data.

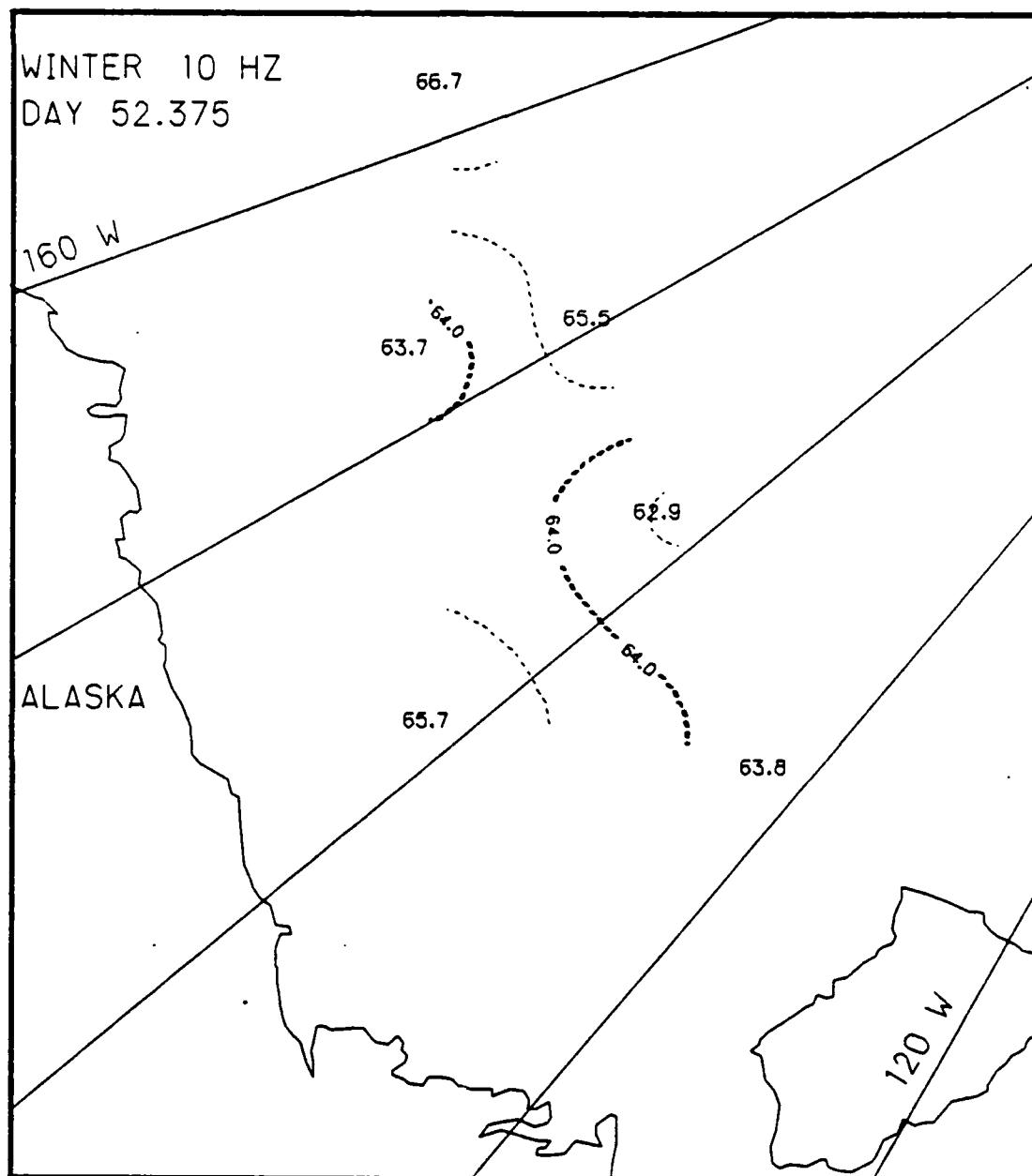


Fig. E.12. Spatial noise variations, day 52.375, based on the AIDJEX 10 Hz noise data.

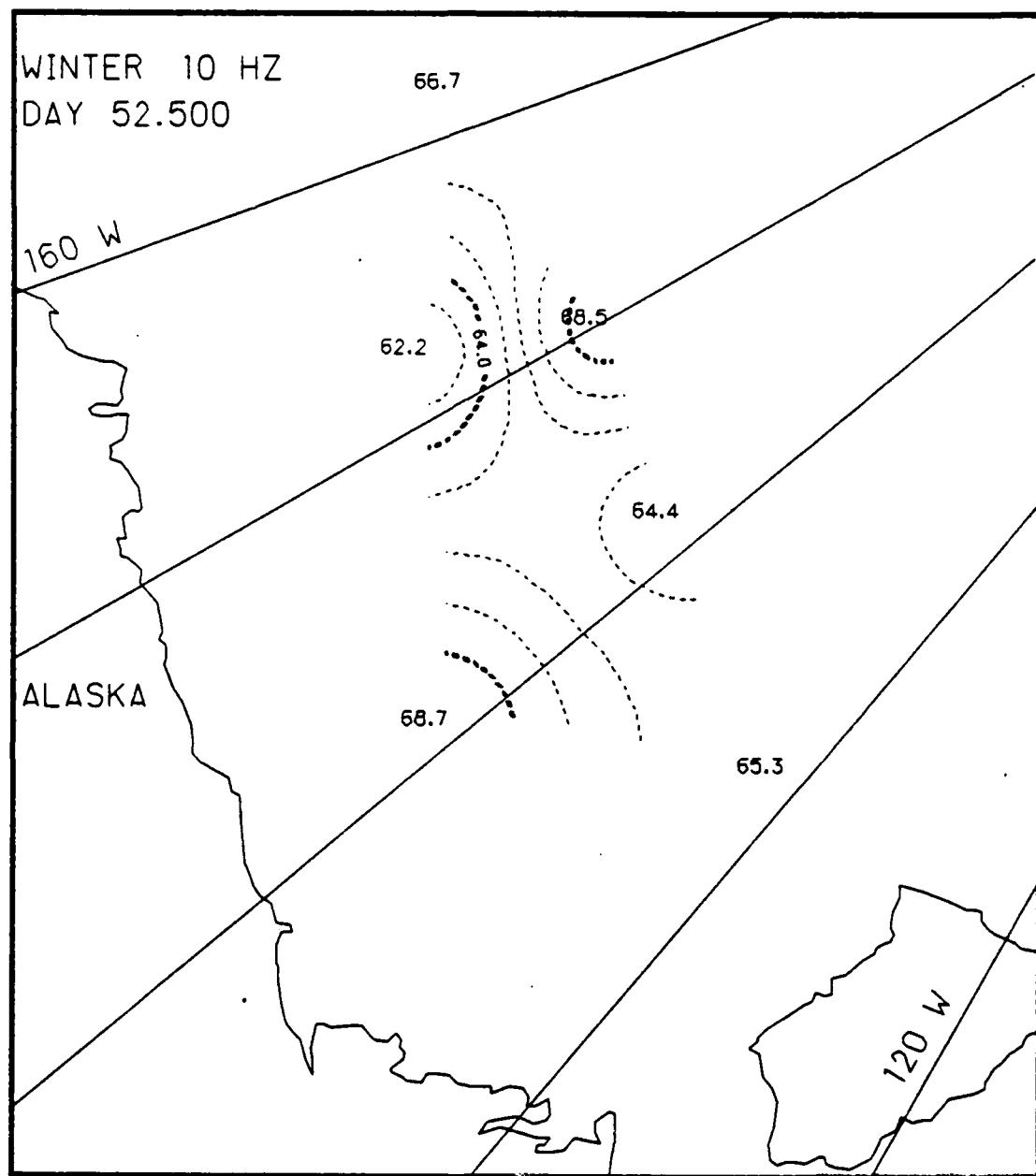


Fig. E.13. Spatial noise variations, day 52.5, based on the AIDJEX 10 Hz noise data.

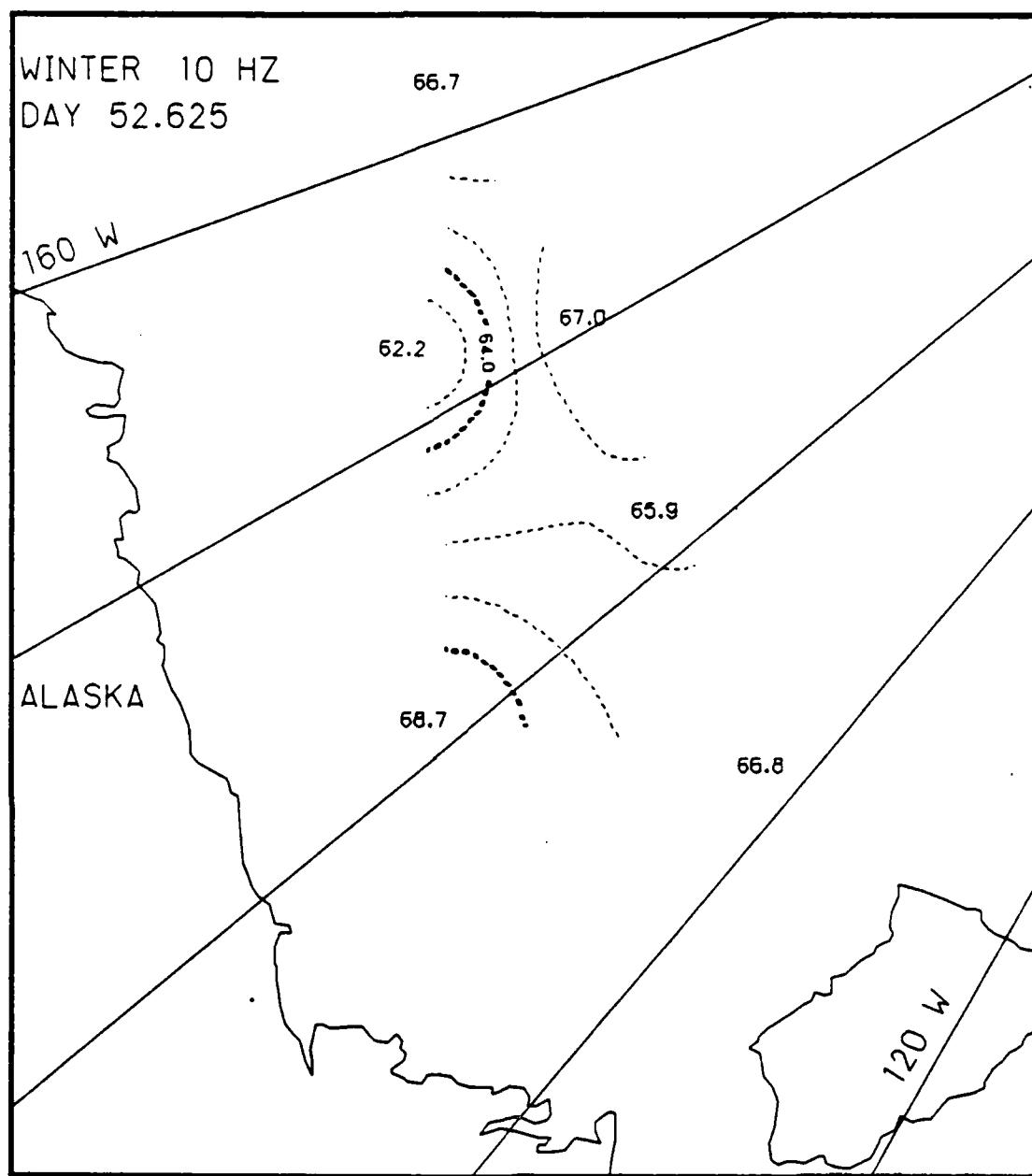


Fig. E.14. Spatial noise variations, day 52.625, based on the AIDJEX 10 Hz noise data.

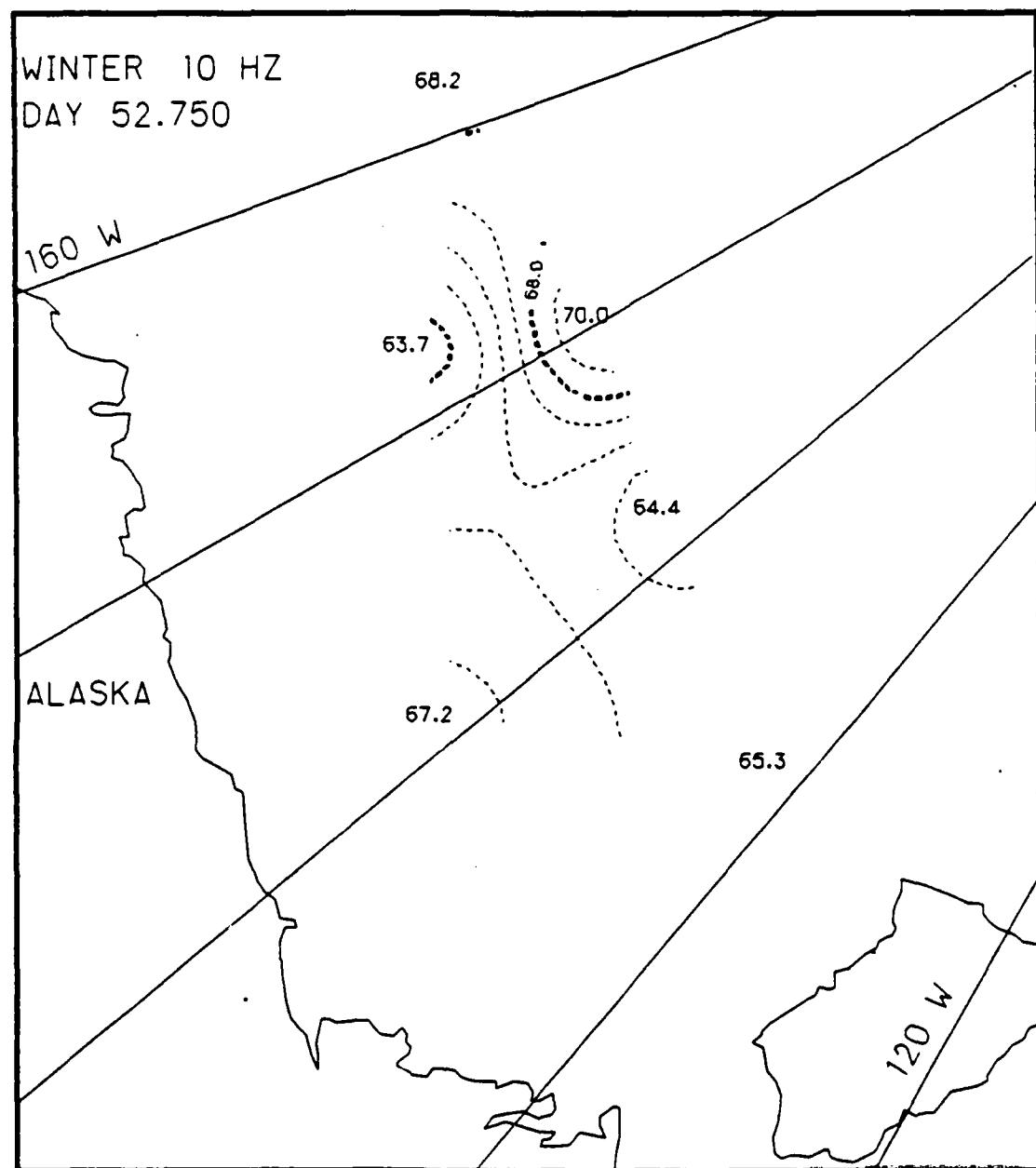


Fig. E.15. Spatial noise variations, day 52.75, based on the AIDJEX 10 Hz noise data.

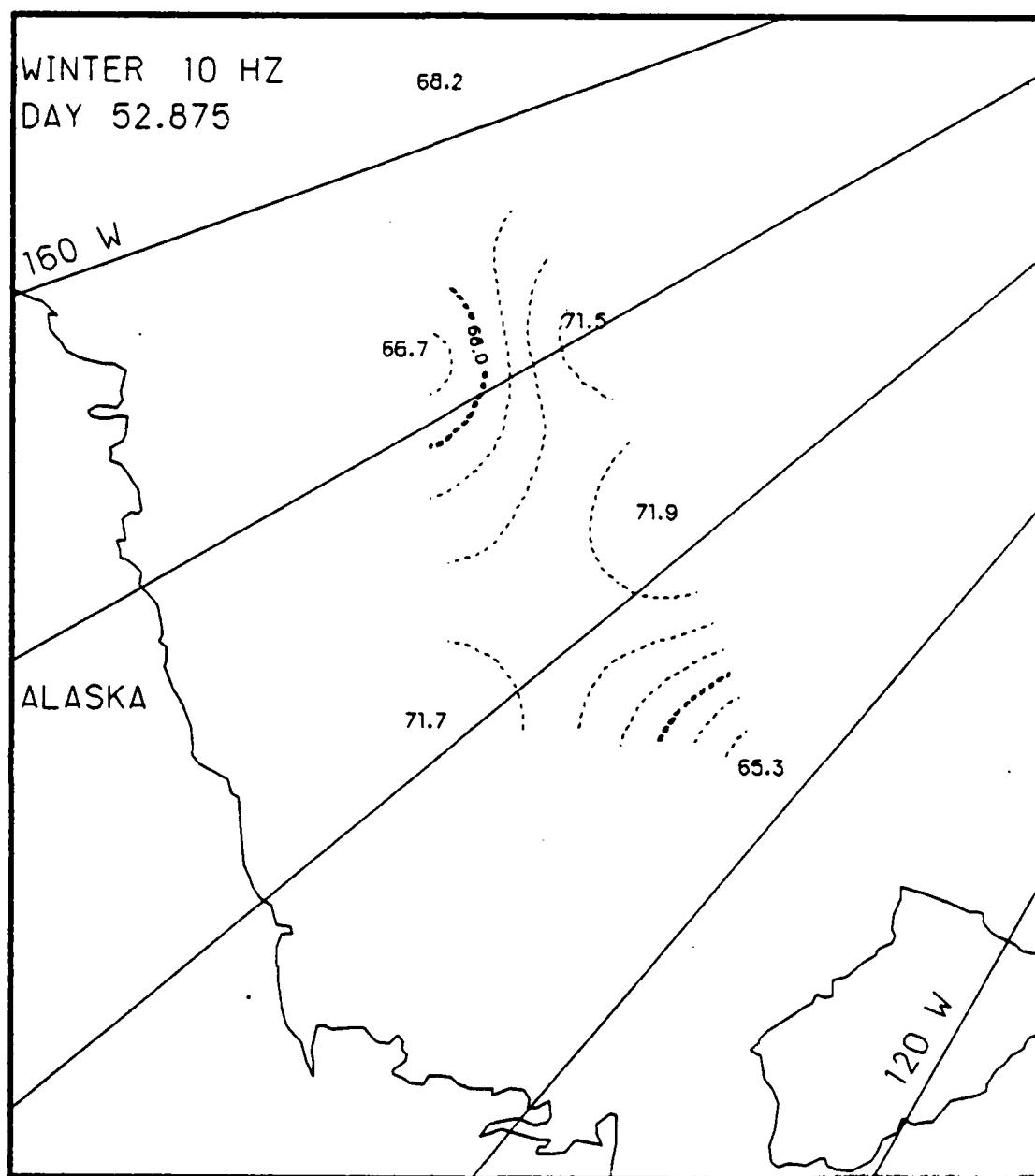


Fig. E.16. Spatial noise variations, day 52.875, based on the AIDJEX 10 Hz noise data.

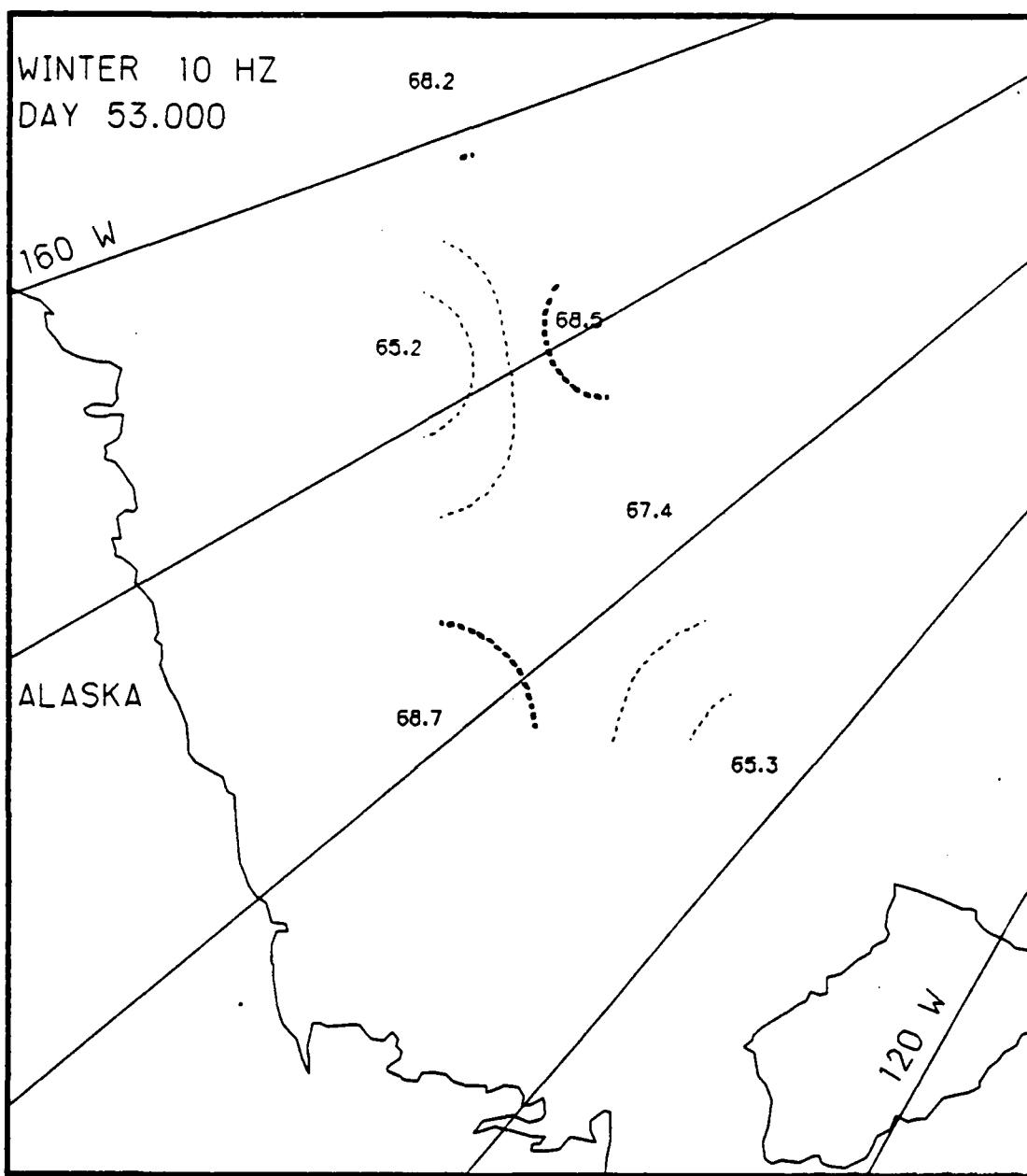


Fig. E.17. Spatial noise variations, day 53.0, based on the AIDJEX 10 Hz noise data.

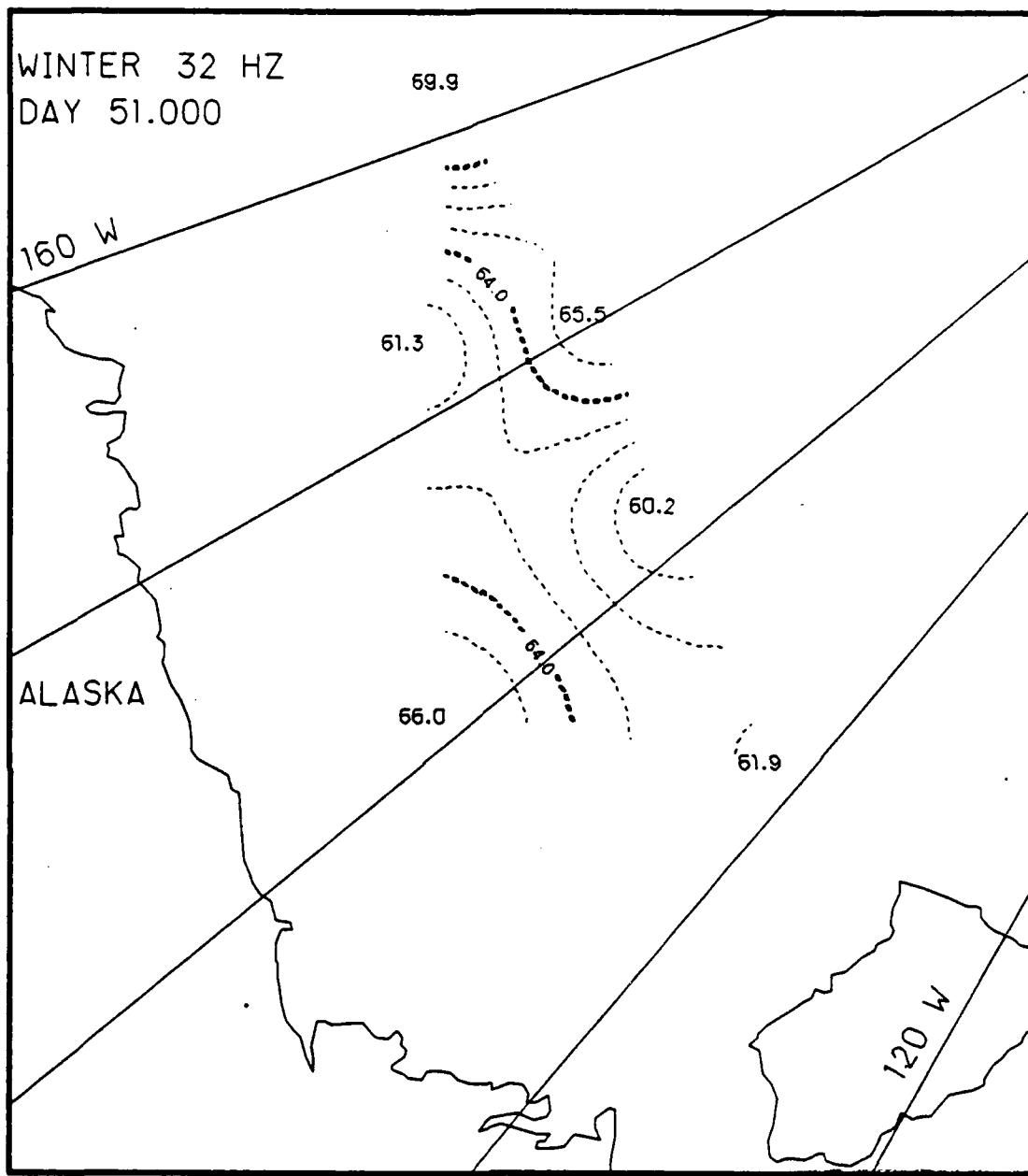


Fig. E.18. Spatial noise variations, day 51.0, based on the AIDJEX 32 Hz noise data.

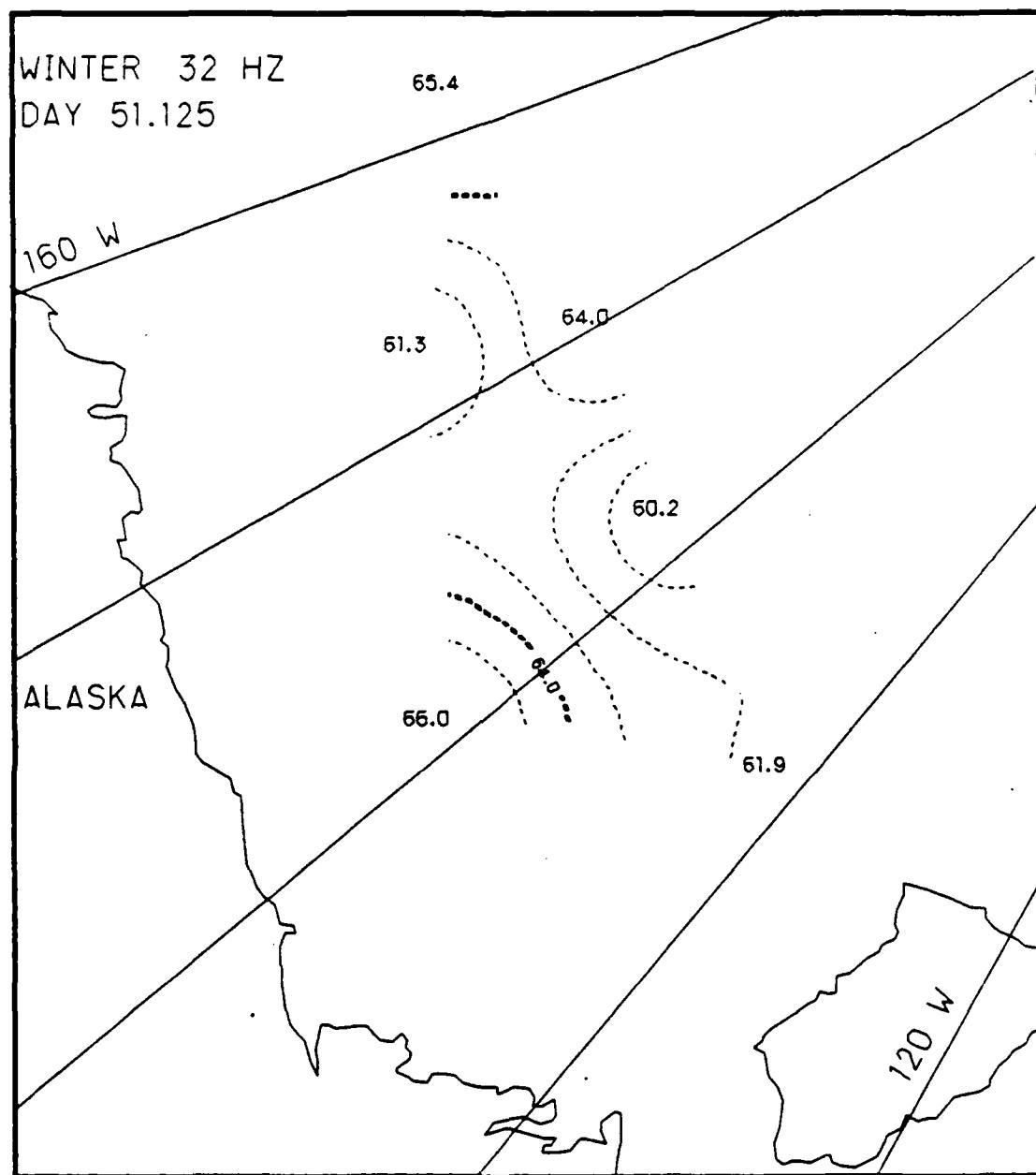


Fig. E.19. Spatial noise variations, day 51.125, based on the AIDJEX 32 Hz noise data.

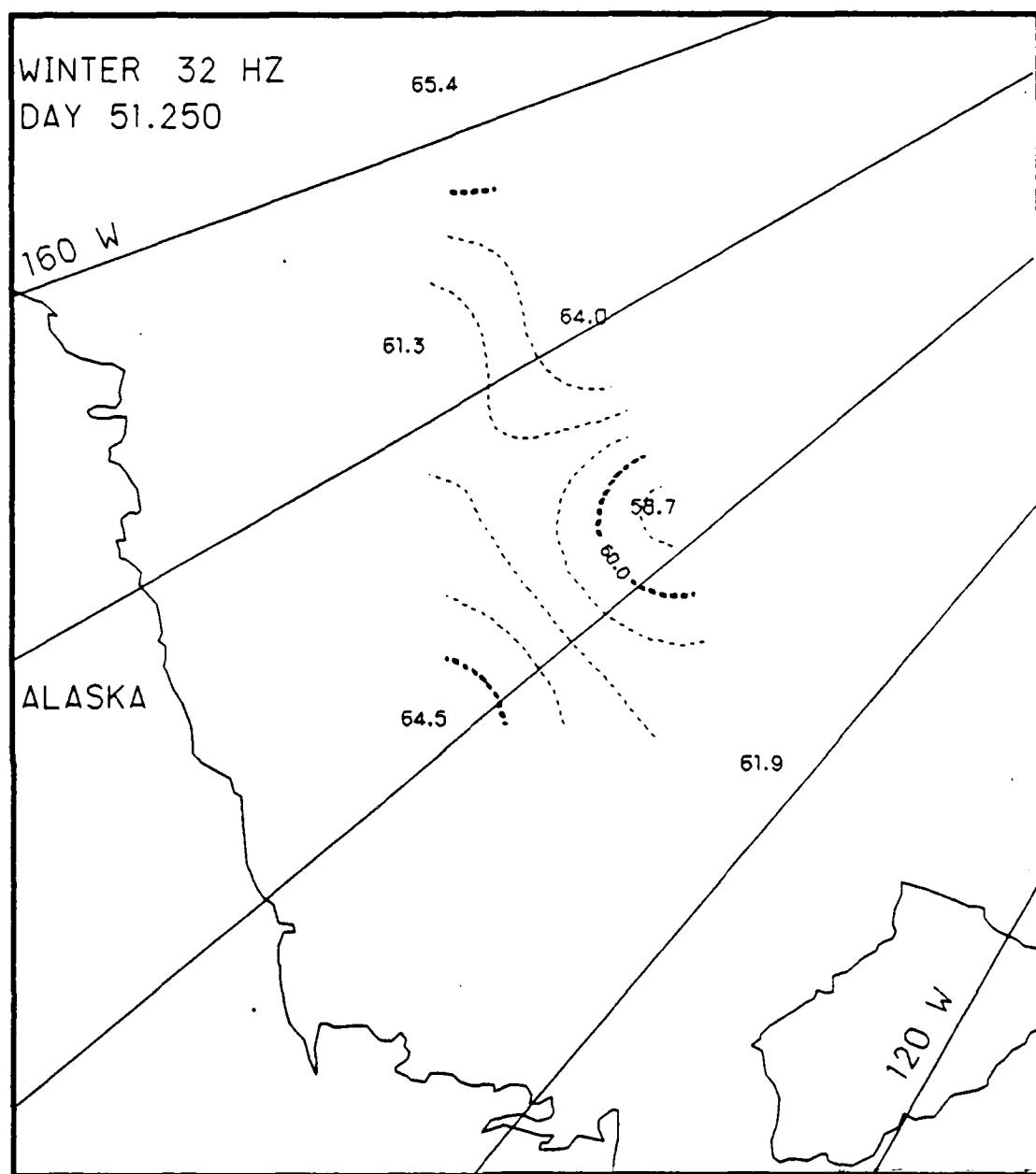


Fig. E.20. Spatial noise variations, day 51.25, based on the AIDJEX 32 Hz noise data.

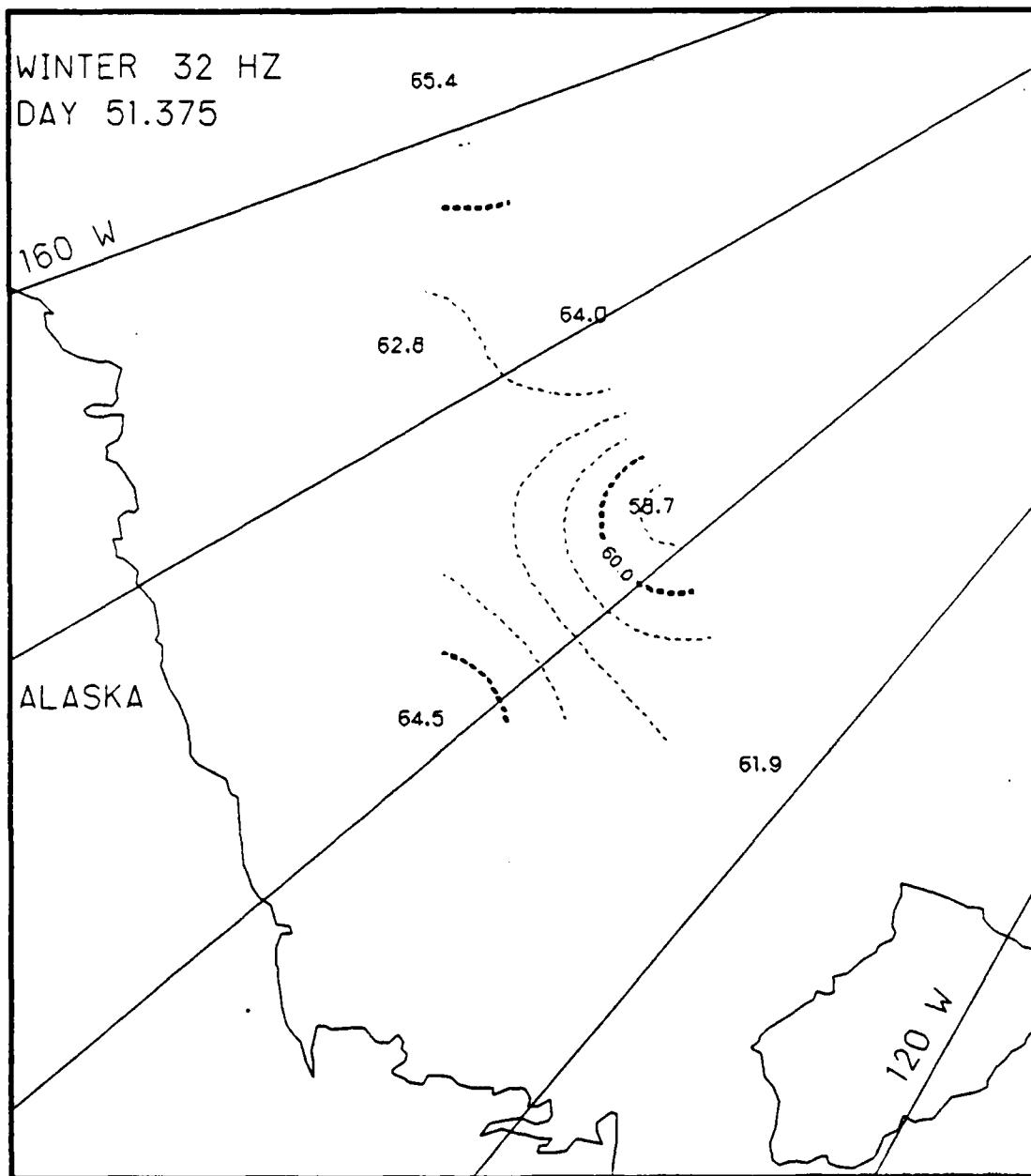


Fig. E.21. Spatial noise variations, day 51.375, based on the AIDJEX 32 Hz noise data.

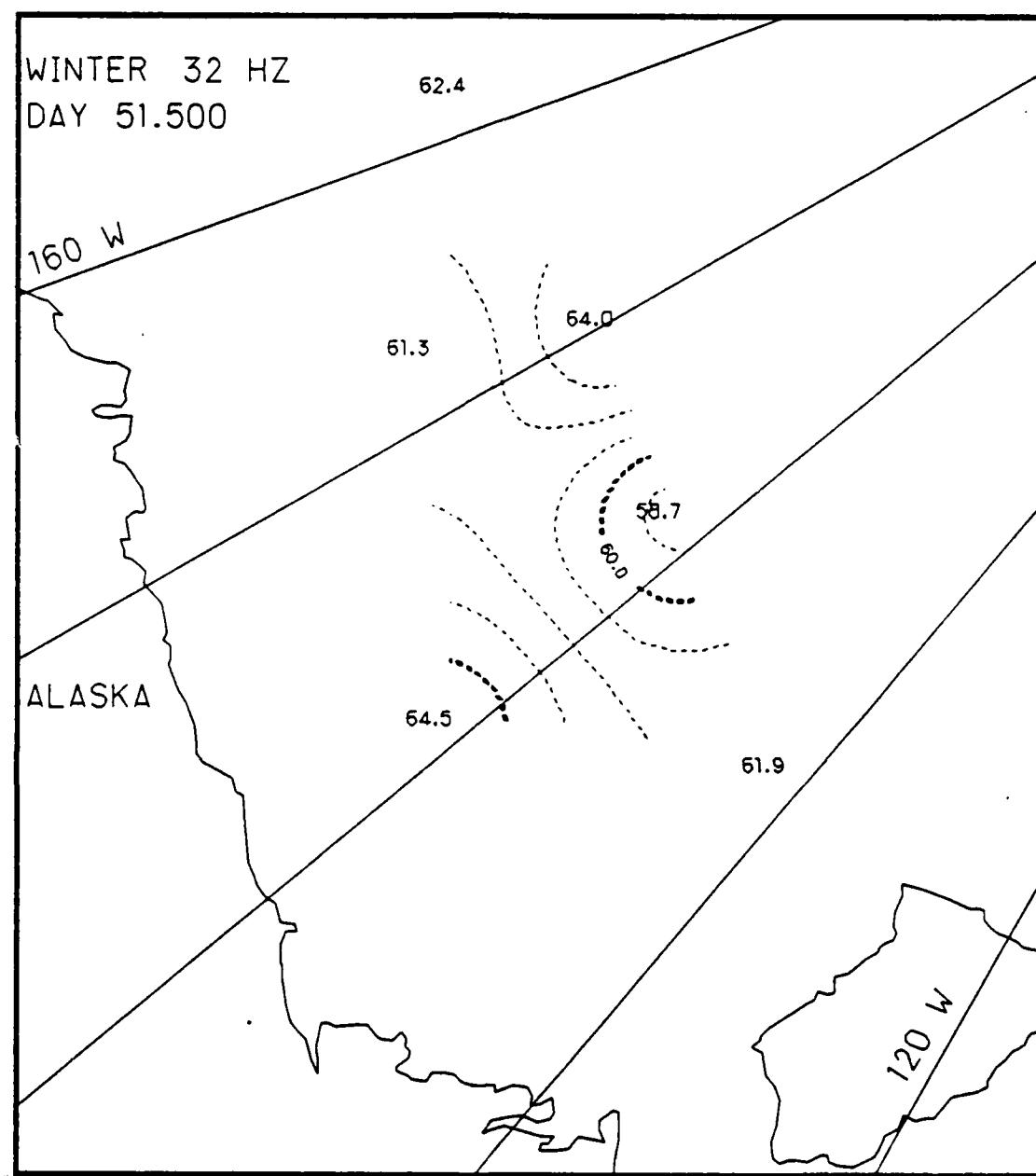


Fig. E.22. Spatial noise variations, day 51.5, based on the AIDJEX 32 Hz noise data.

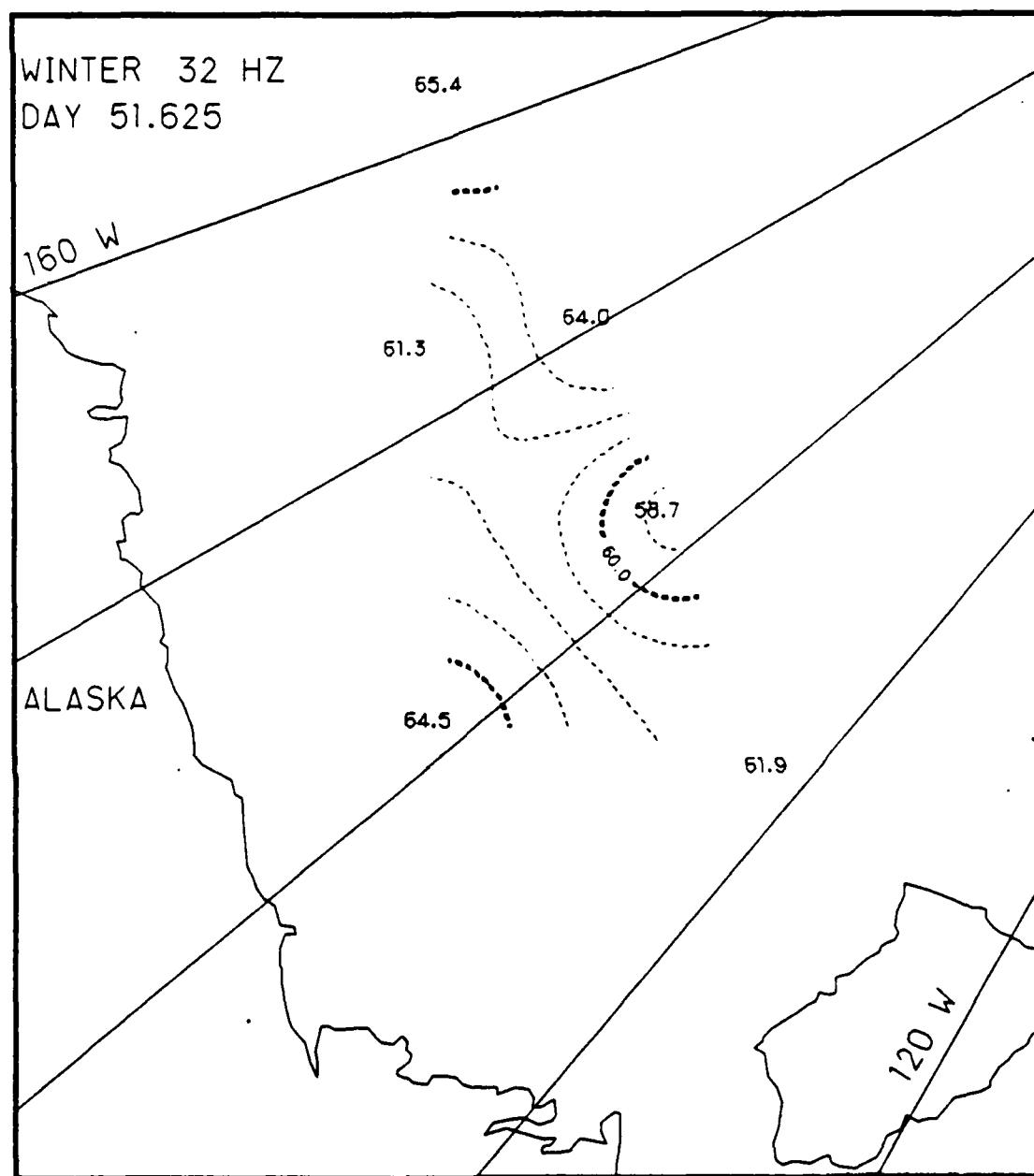


Fig. E.23. Spatial noise variations, day 51.625, based on the AIDJEX 32 Hz noise data.

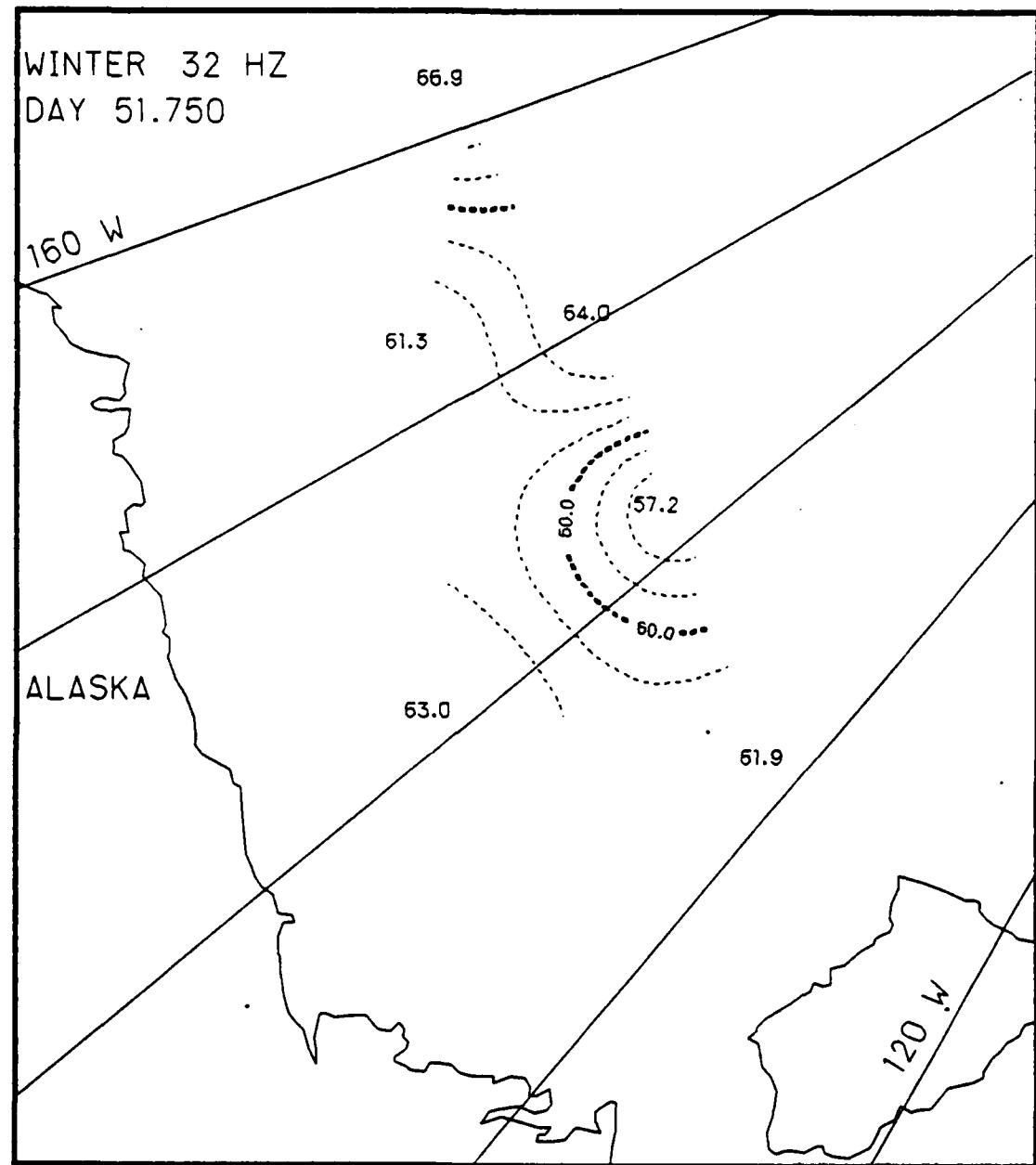


Fig. E.24. Spatial noise variations, day 51.75, based on the AIDJEX 32 Hz noise data.

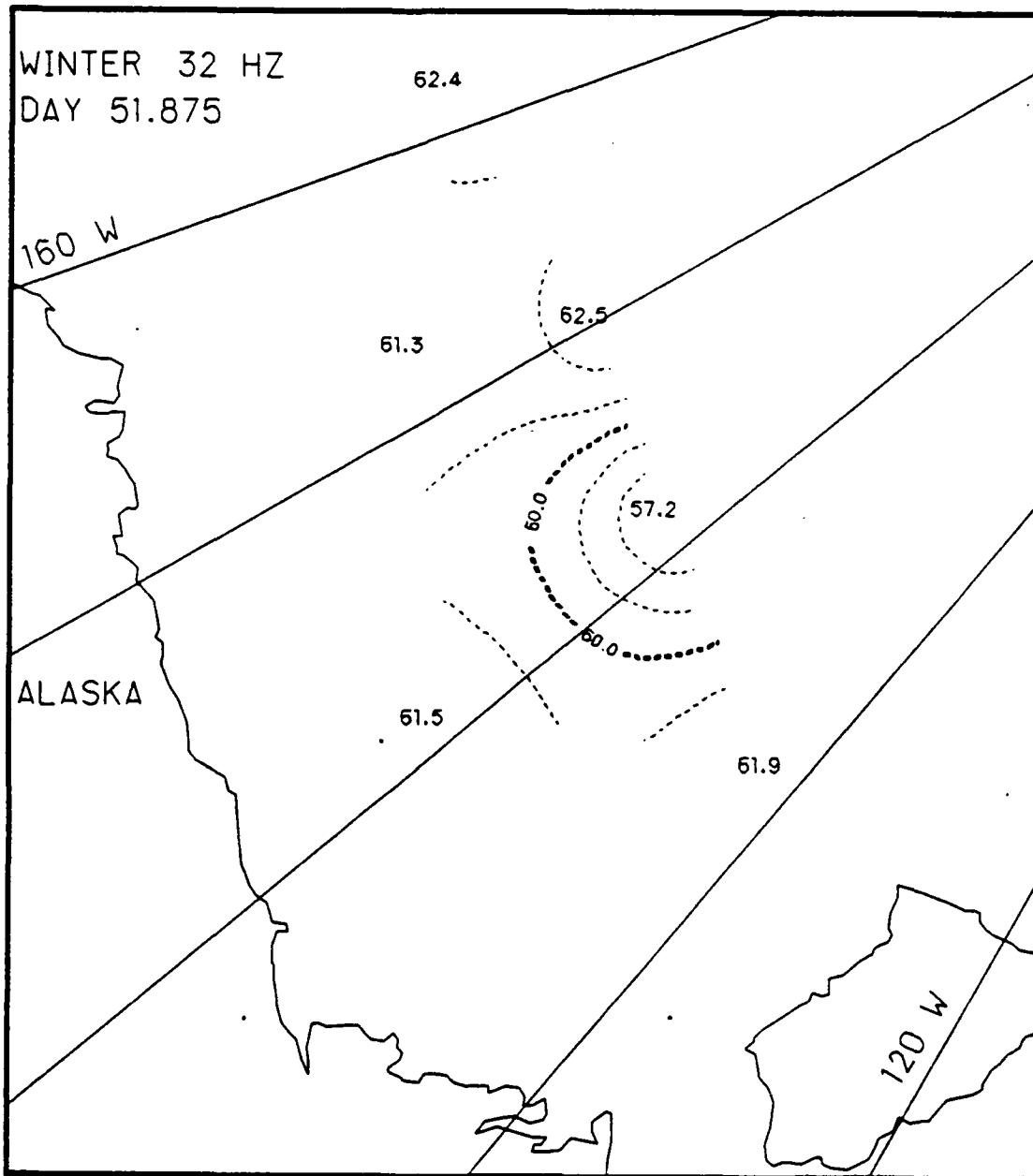


Fig. E.25. Spatial noise variations, day 51.875, based on the AIDJEX 32 Hz noise data.

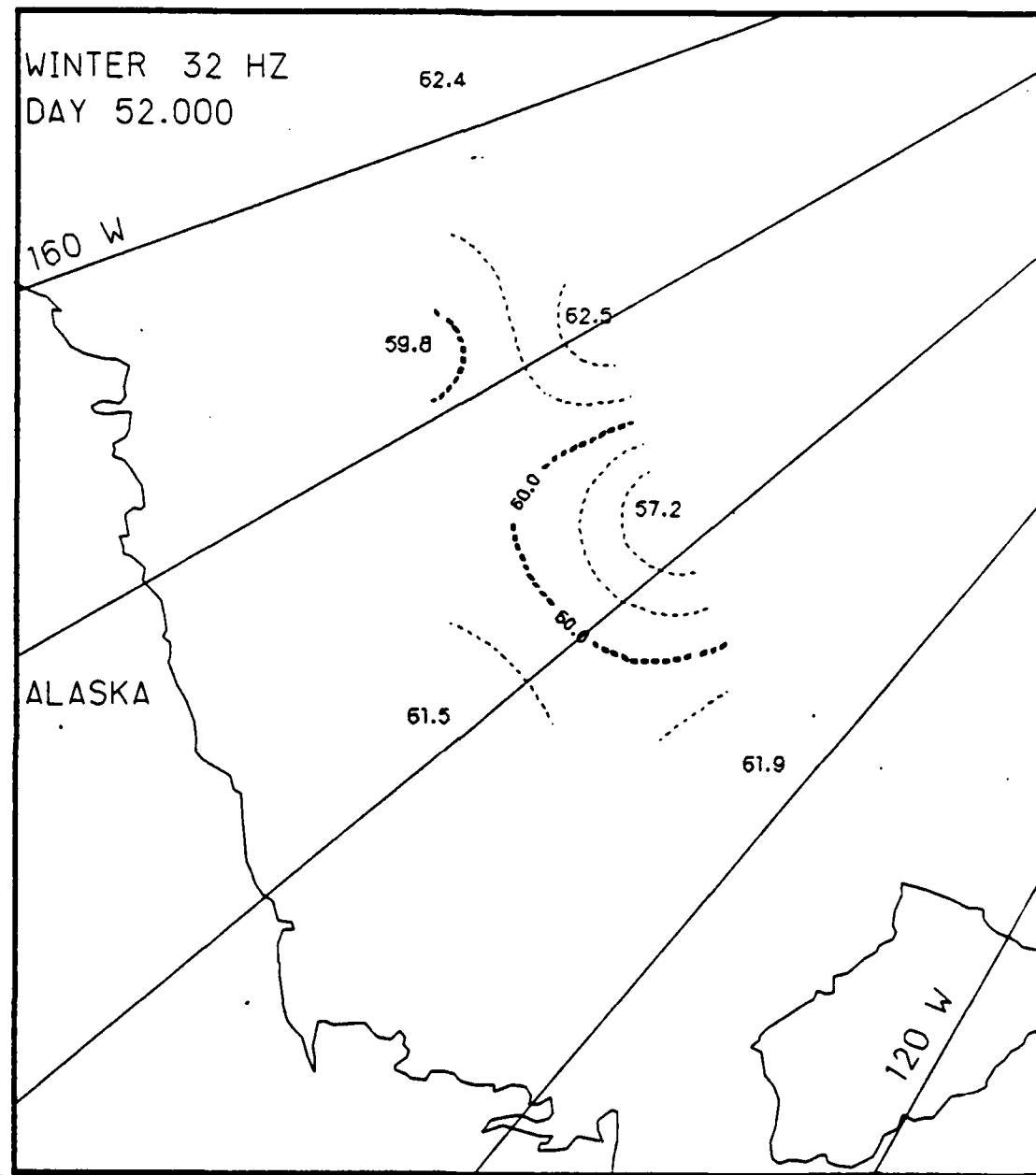


Fig. E.26. Spatial noise variations, day 52.0, based on the AIDJEX 32 Hz noise data.

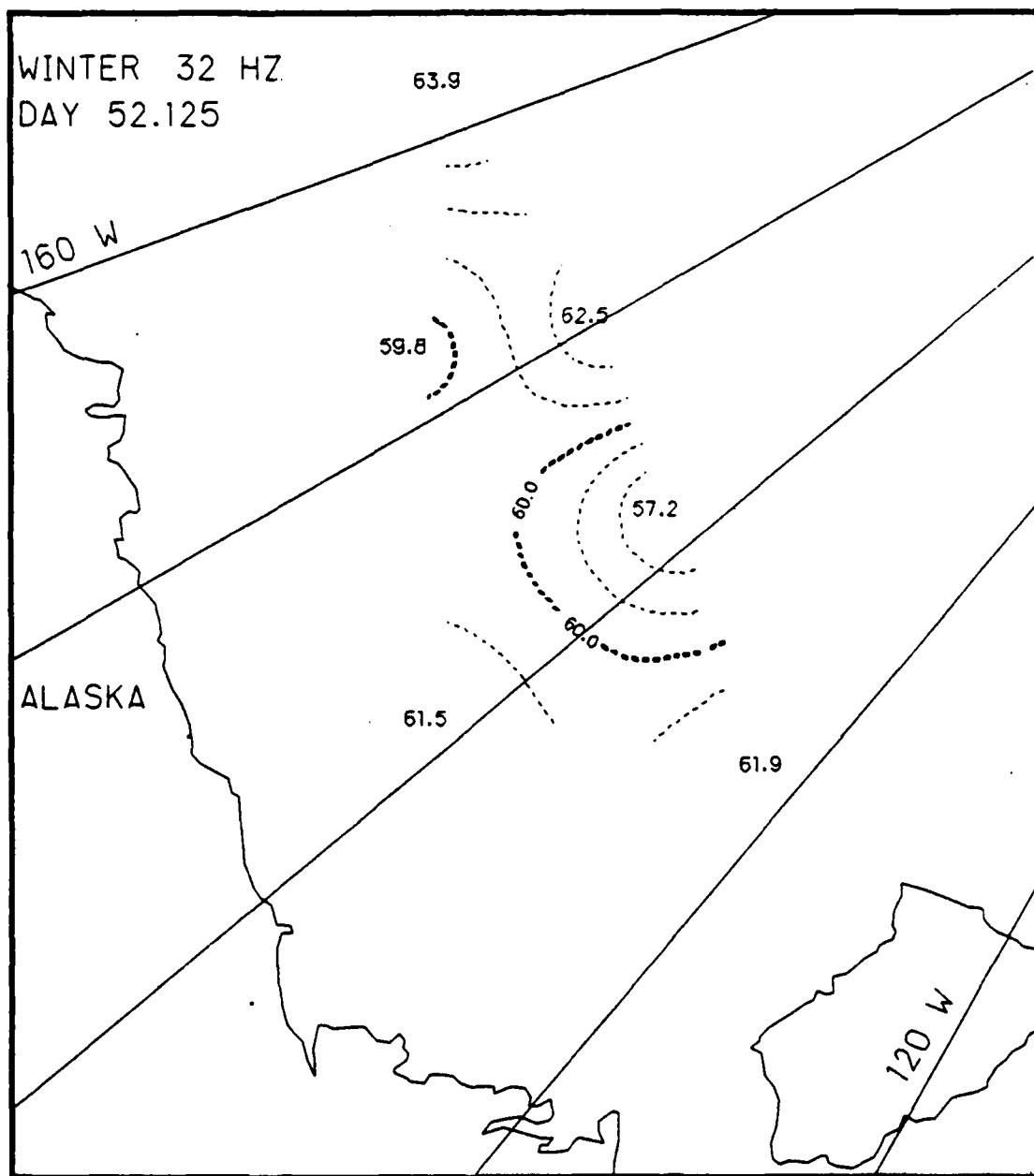


Fig. E.27. Spatial noise variations, day 52.125, based on the AIDJEX 32 Hz noise data.

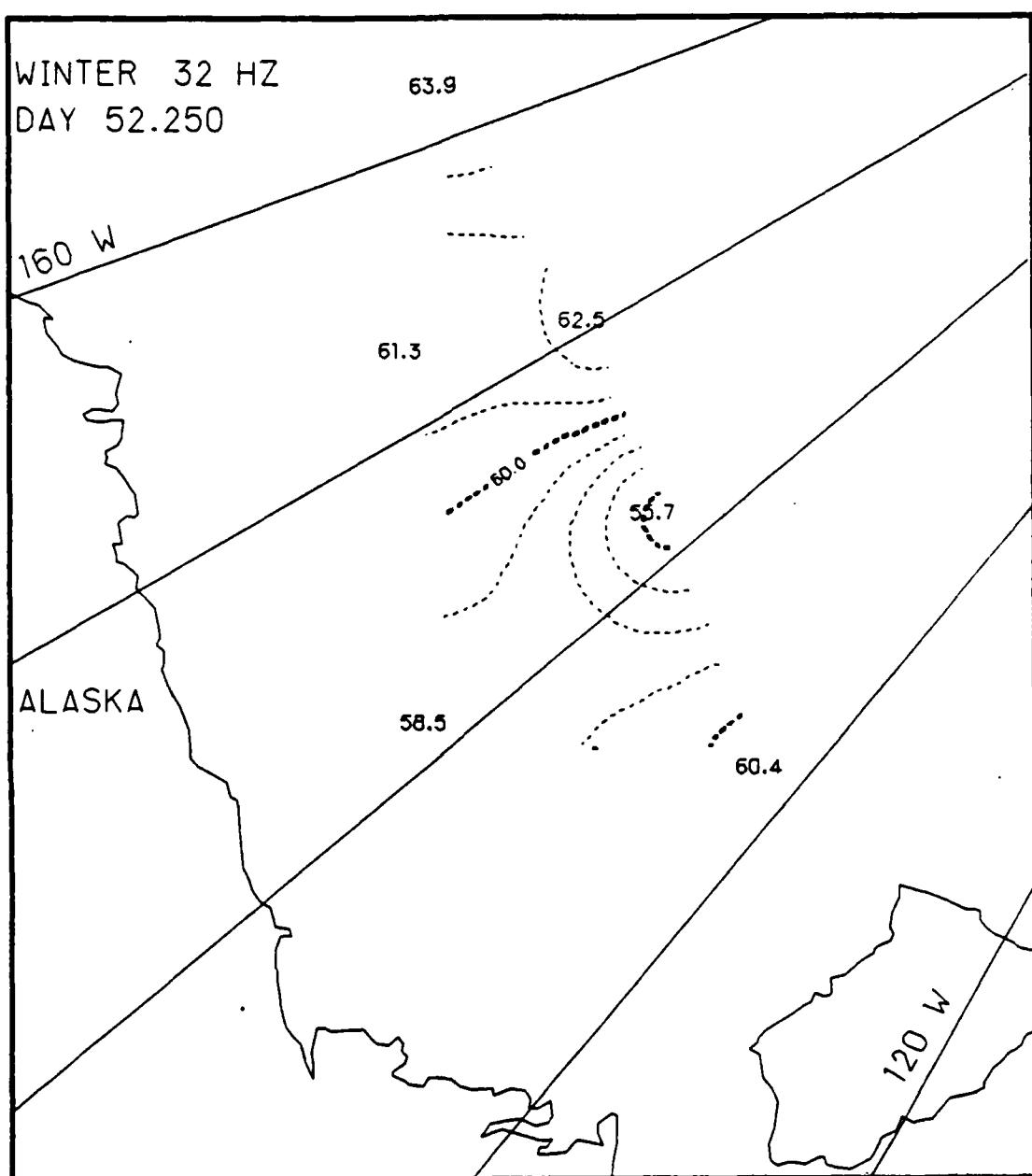


Fig. E.28. Spatial noise variations, day 52.25, based on the AIDJEX 32 Hz noise data.

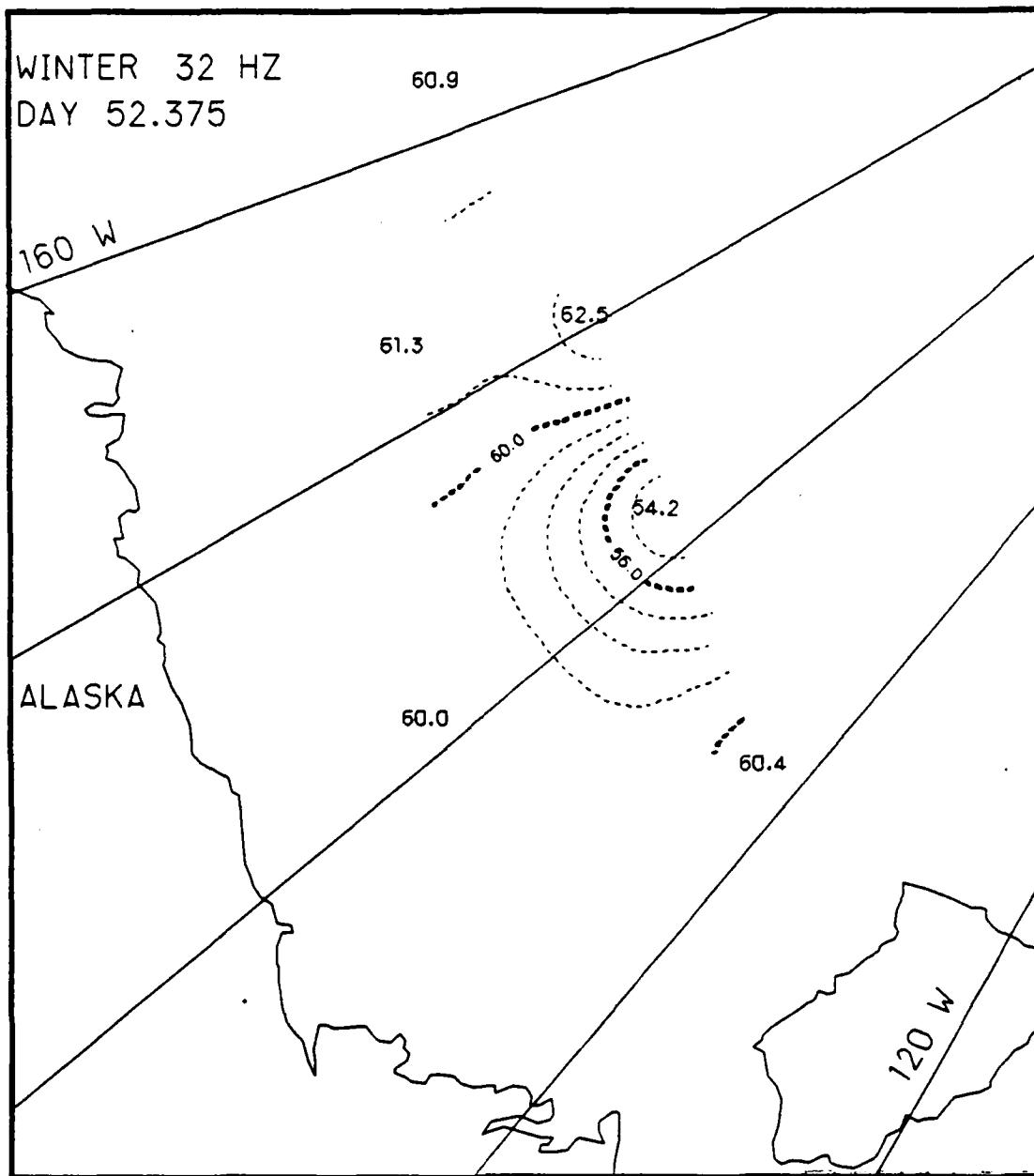


Fig. E.29. Spatial noise variations, day 52.375, based on the AIDJEX 32 Hz noise data.

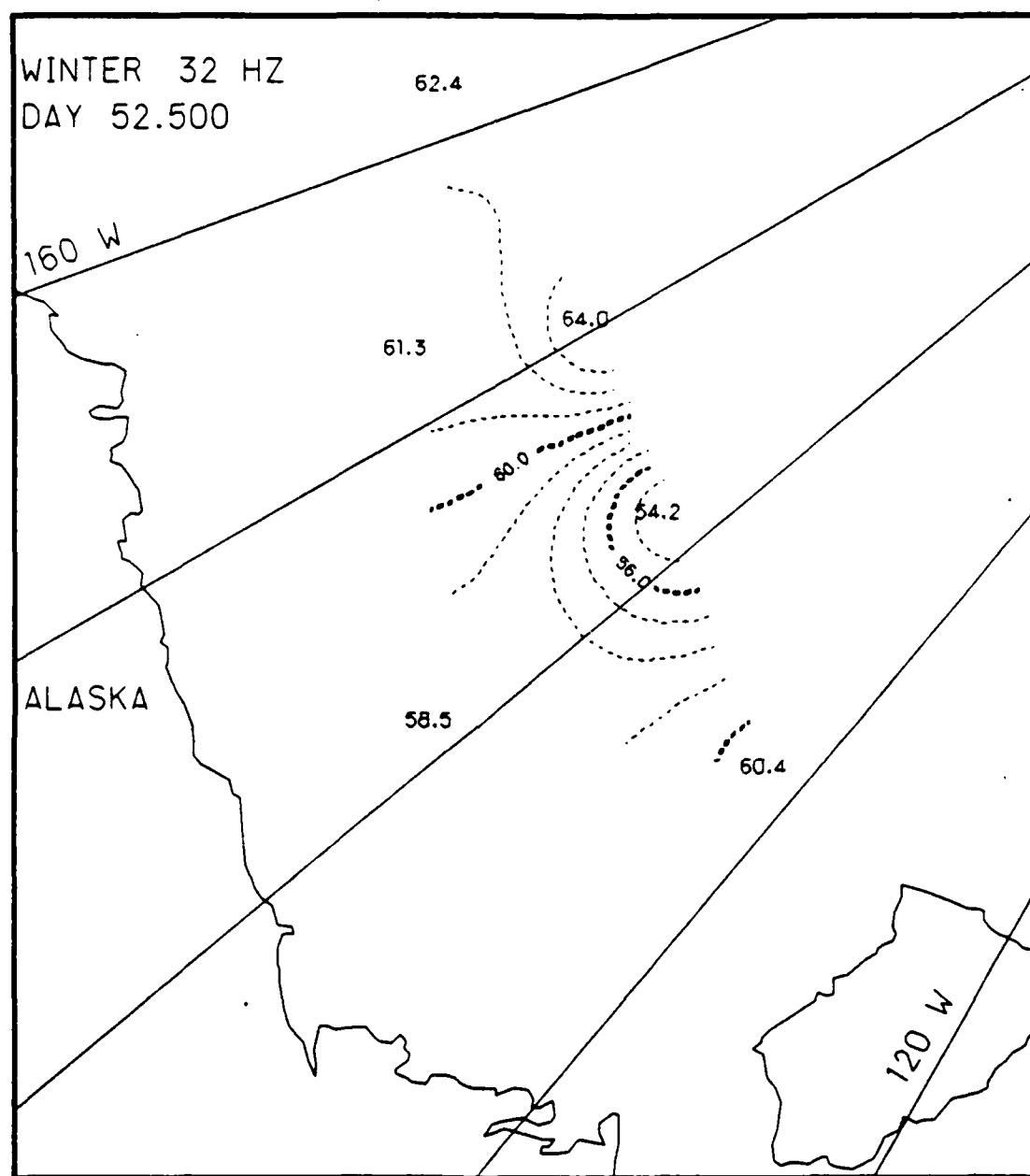


Fig. E.30. Spatial noise variations, day 52.5, based on the AIDJEX 32 Hz noise data.

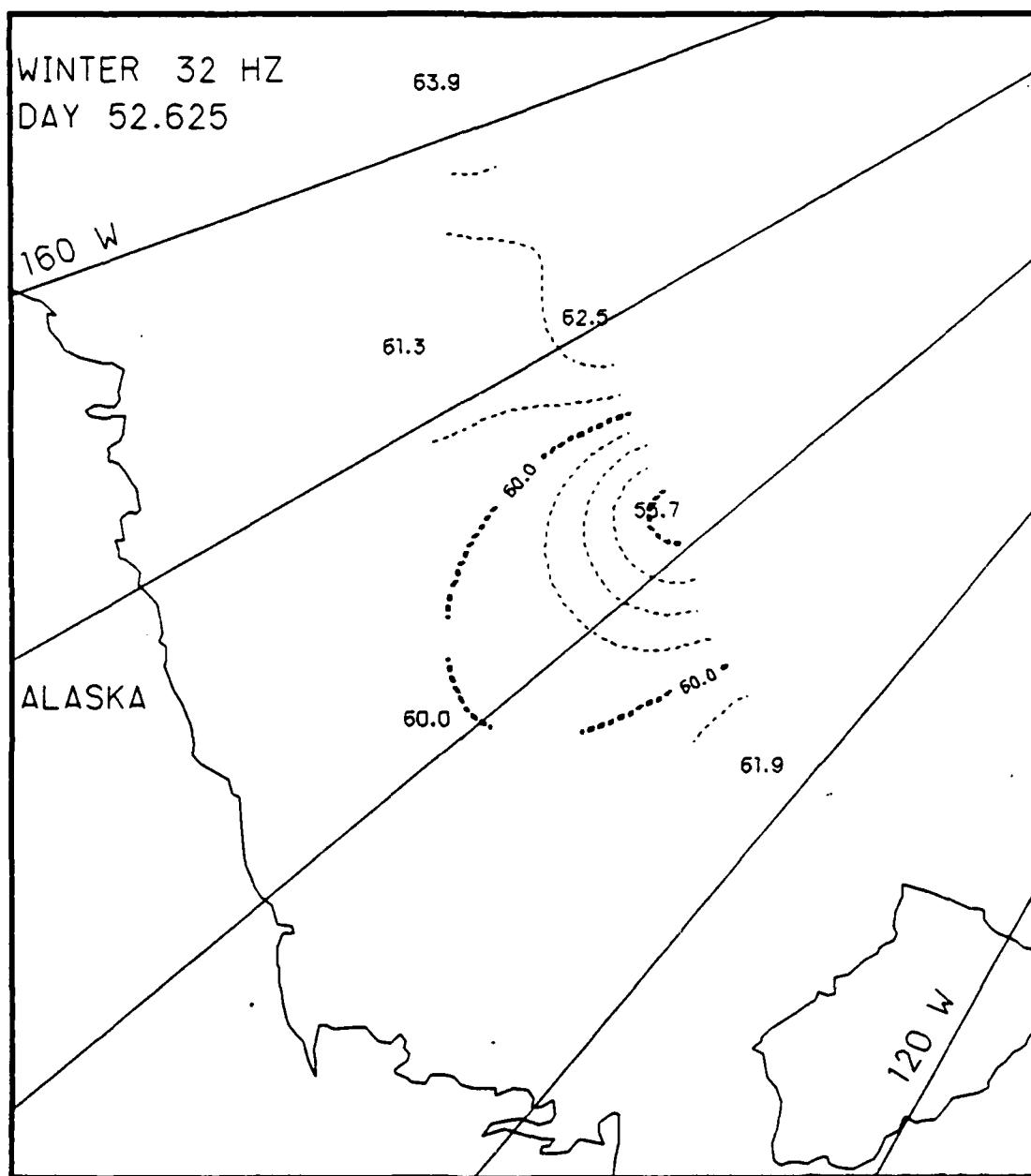


Fig. E.31. Spatial noise variations, day 52.625, based on the AIDJEX 32 Hz noise data.

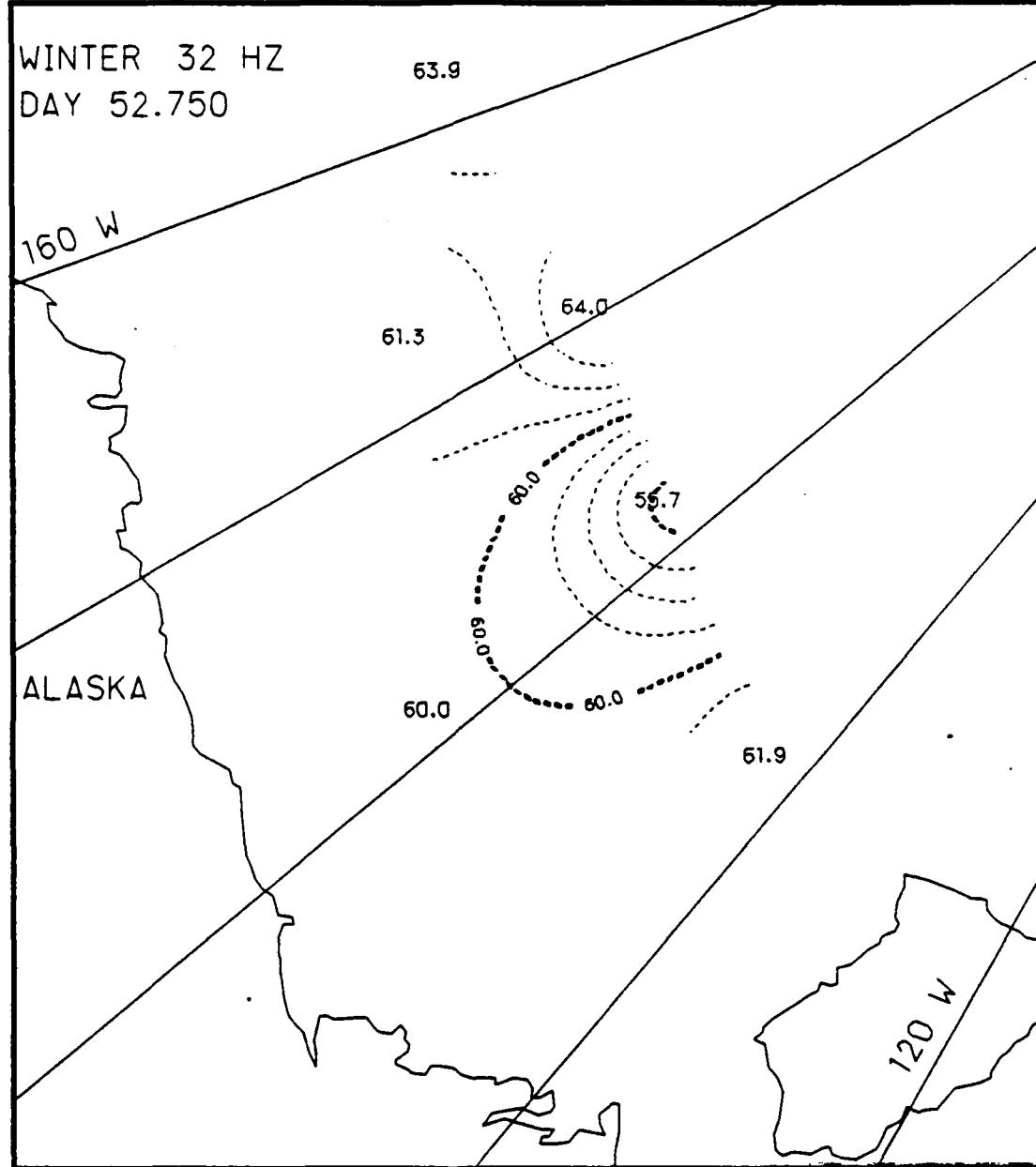


Fig. E.32. Spatial noise variations, day 52.75, based on the AIDJEX 32 Hz noise data.

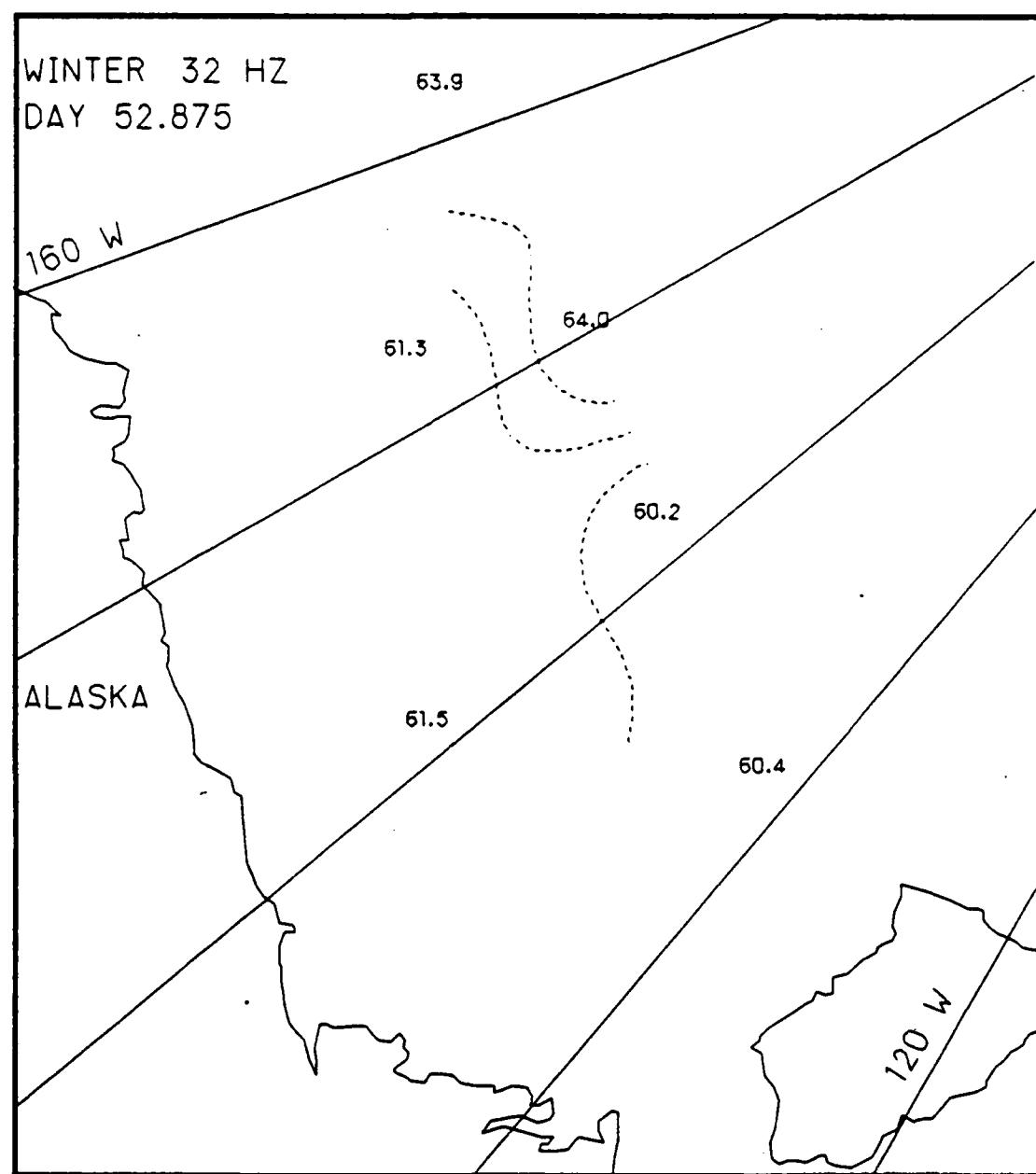


Fig. E.33. Spatial noise variations, day 52.875, based on the AIDJEX 32 Hz noise data.

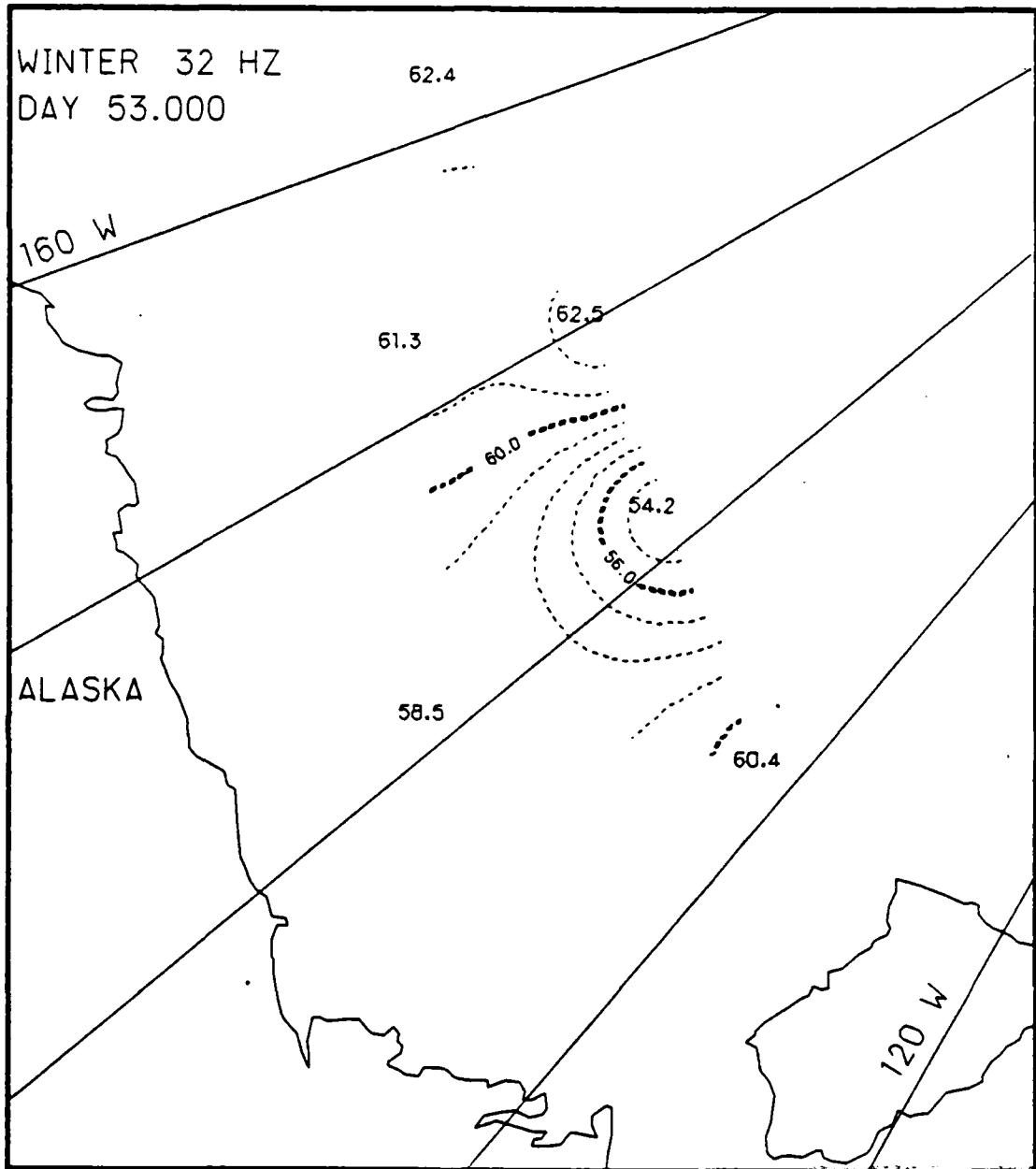


Fig. E.34. Spatial noise variations, day 53.0, based on the AIDJEX 32 Hz noise data.

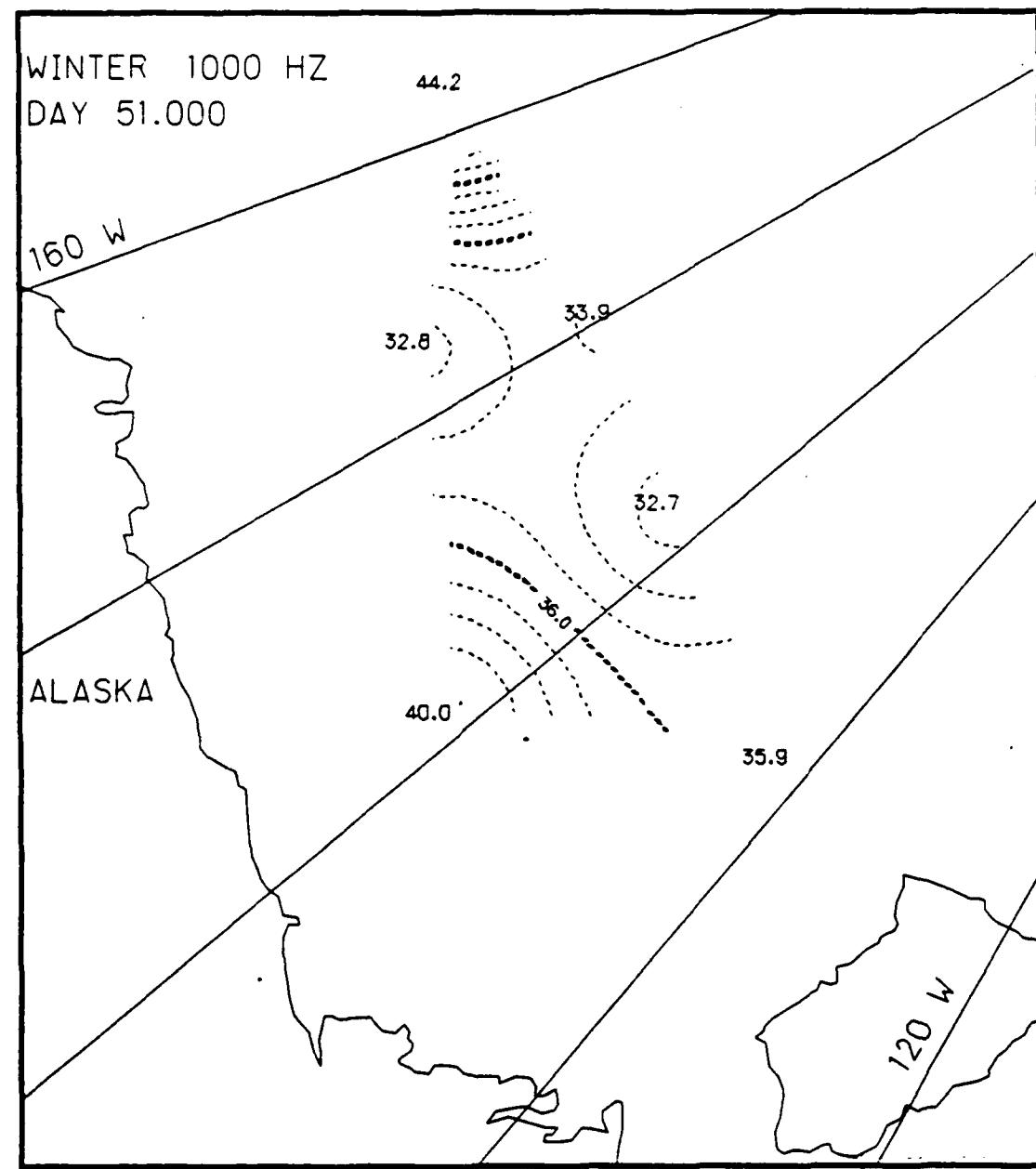


Fig. E.35. Spatial noise variations, day 51.0, based on the AIDJEX 1000 Hz noise data.

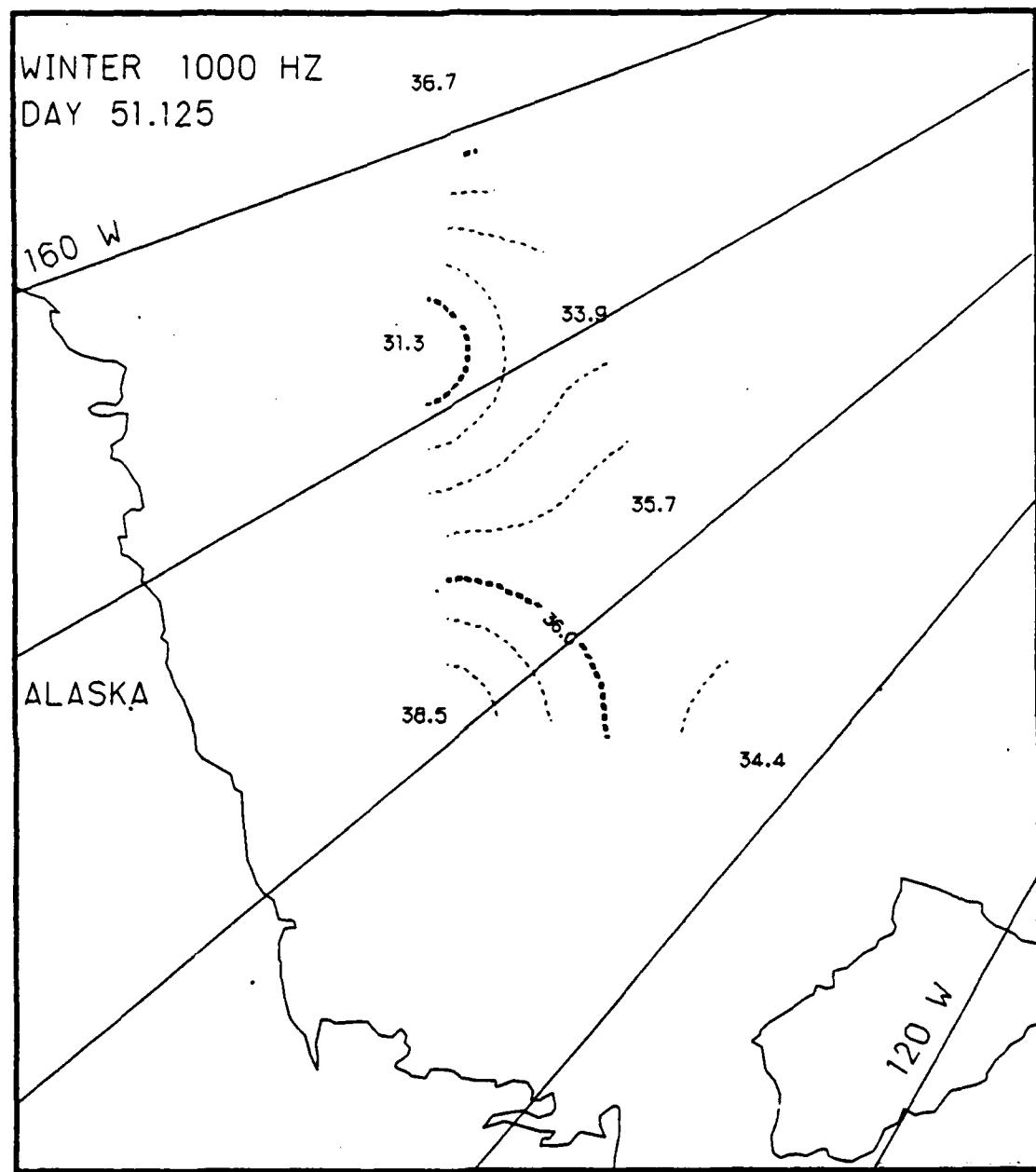


Fig. E.36. Spatial noise variations, day 51.125, based on the AIDJEX 1000 Hz noise data.

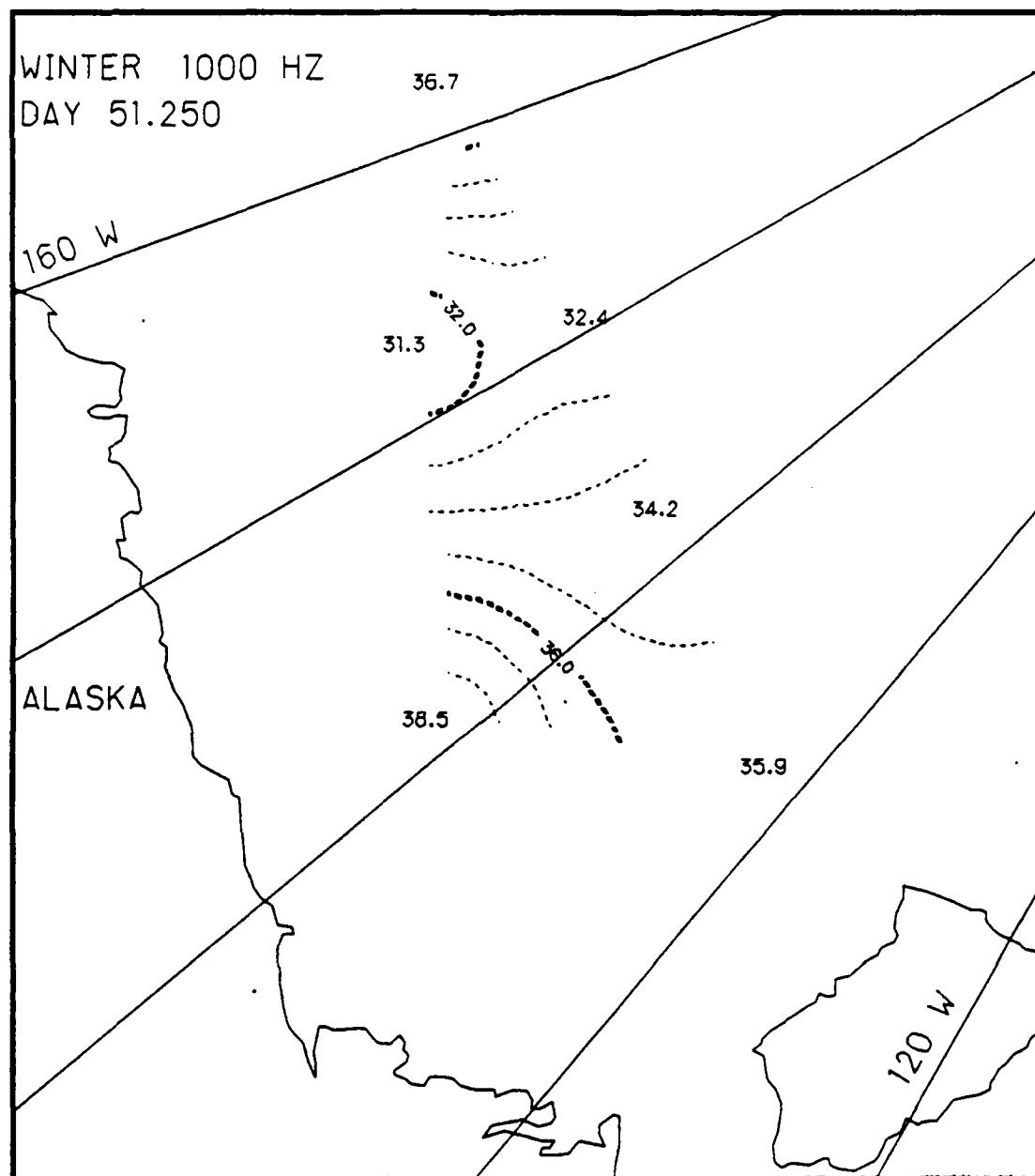


Fig. E.37. Spatial noise variations, day 51.25, based on the AIDJEX 1000 Hz noise data.

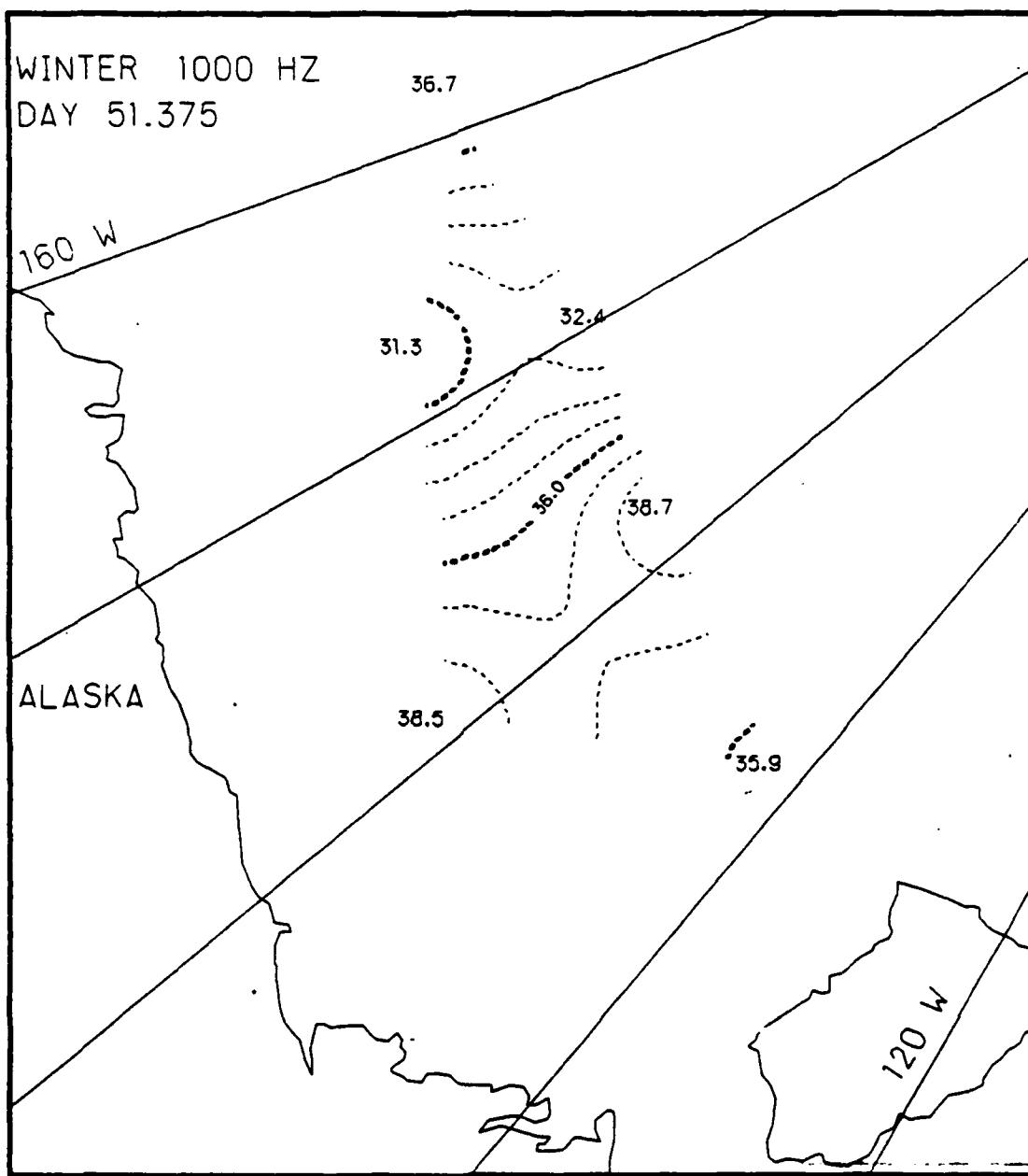


Fig. E.38. Spatial noise variations, day 51.375, based on the AIDJEX 1000 Hz noise data.

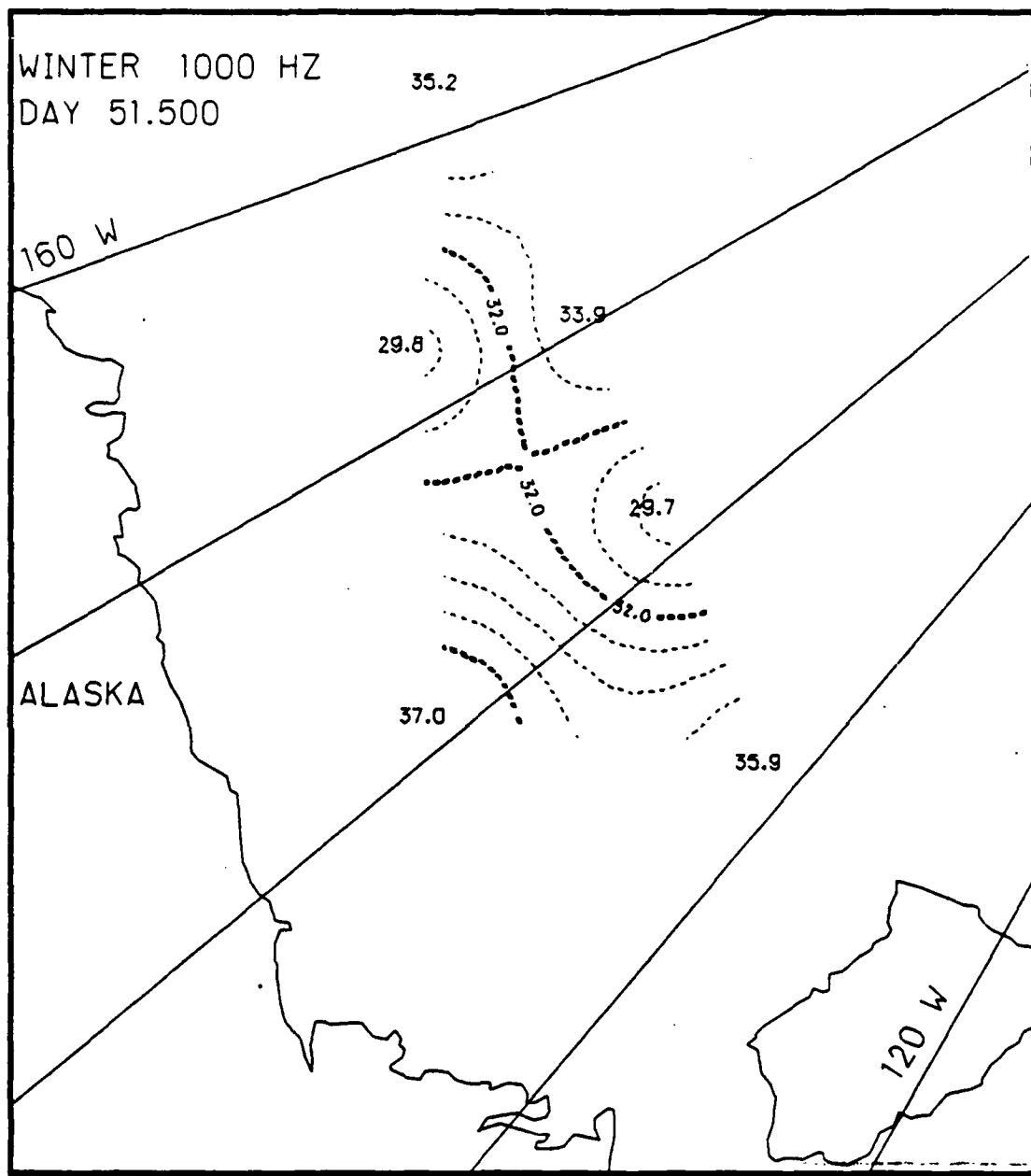


Fig. E.39. Spatial noise variations, day 51.5, based on the AIDJEX 1000 Hz noise data.

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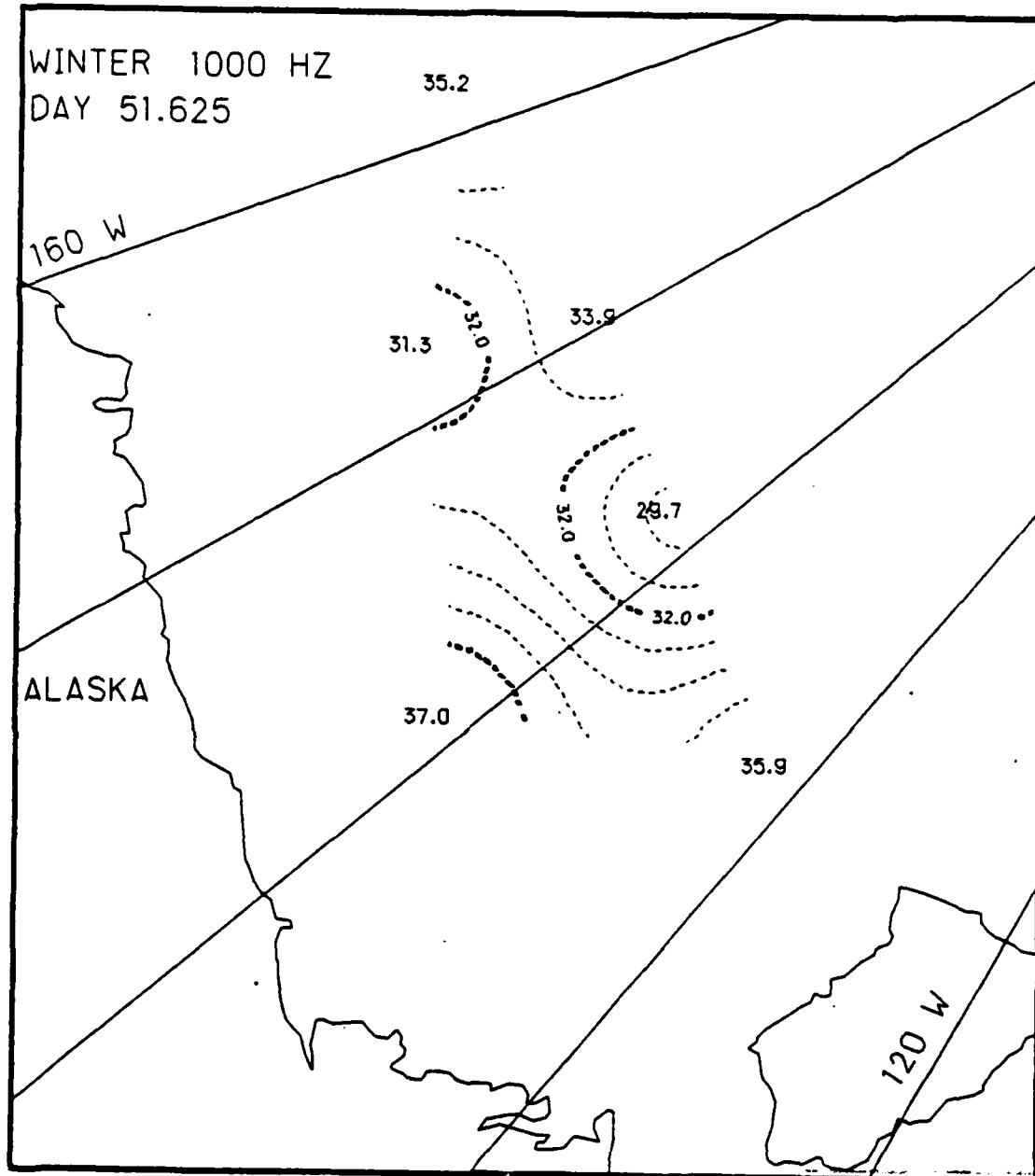


Fig. E.40. Spatial noise variations, day 51.625, based on the AIDJEX 1000 Hz noise data.

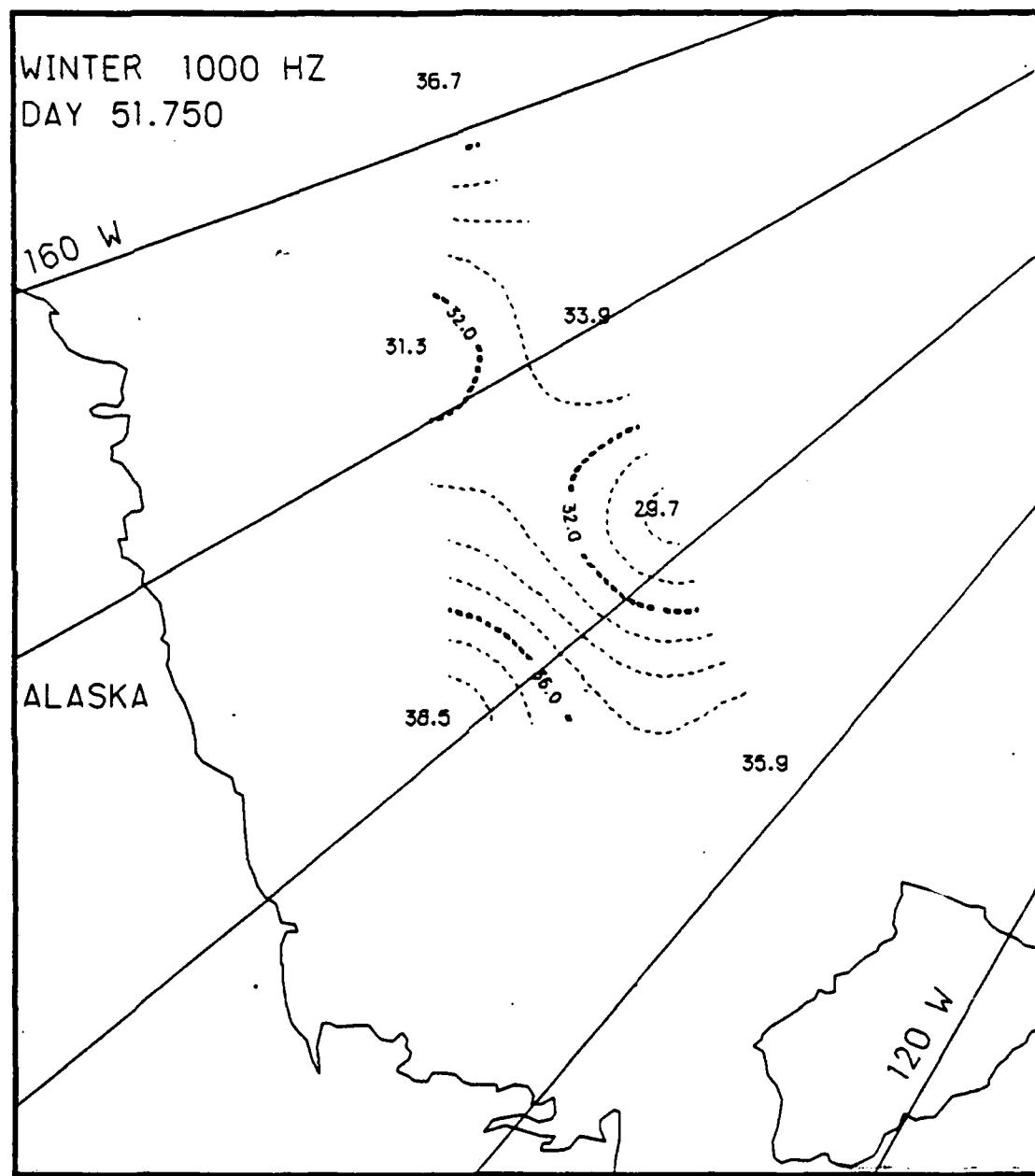


Fig. E.41. Spatial noise variations, day 51.75, based on the AIDJEX 1000 Hz noise data.

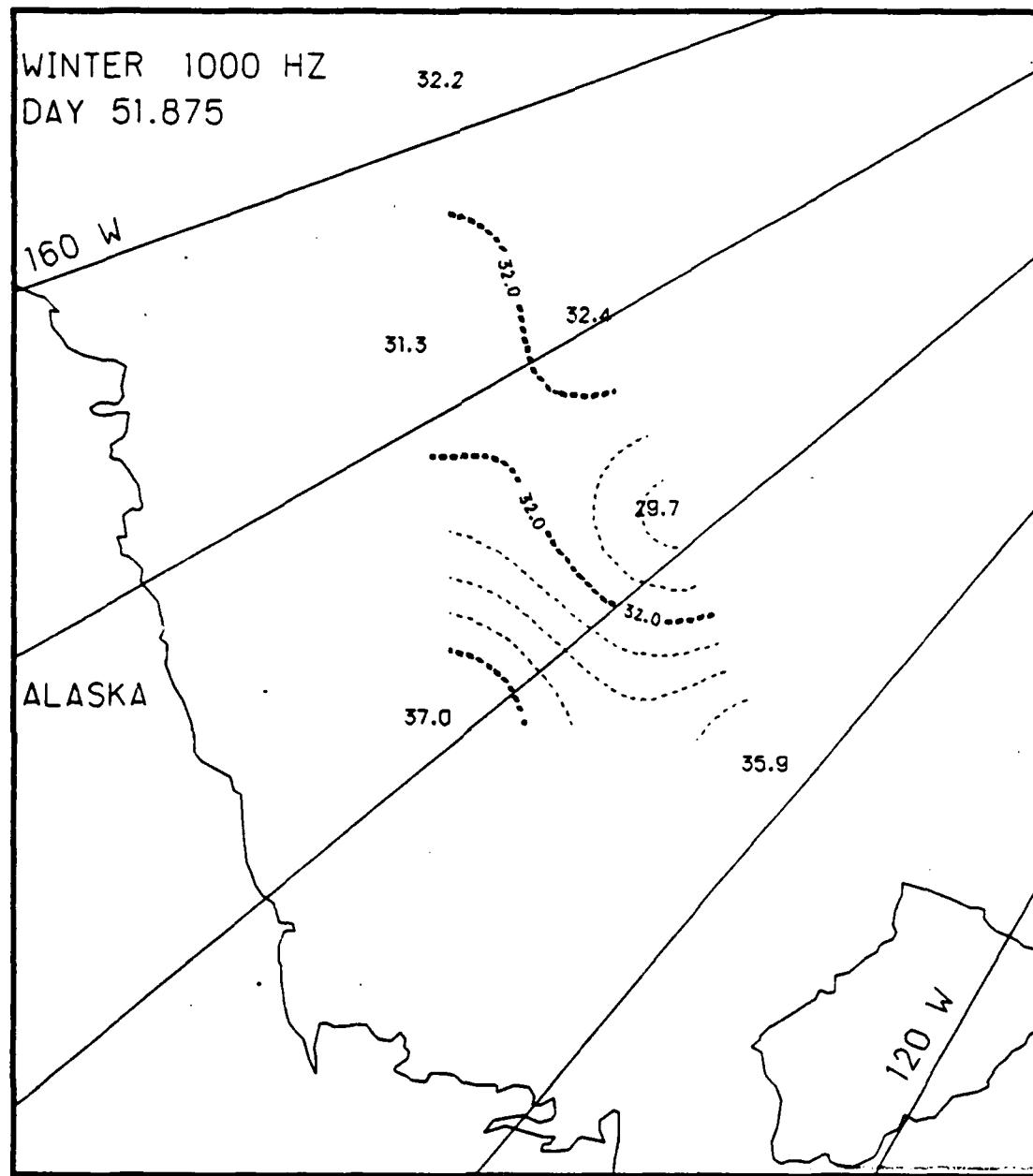


Fig. E.42. Spatial noise variations, day 51.875, based on the AIDJEX 1000 Hz noise data.

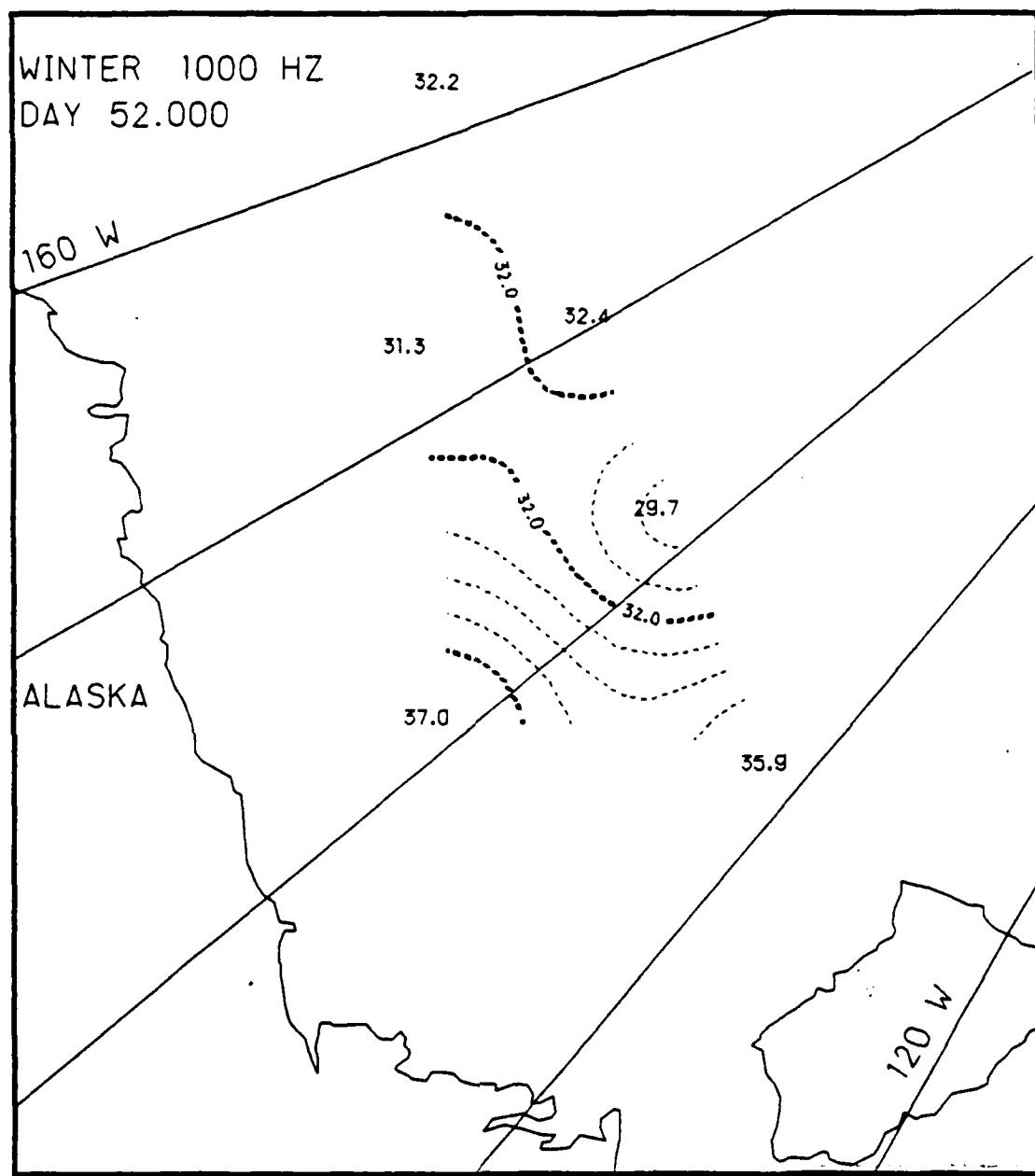


Fig. E.43. Spatial noise variations, day 52.0, based on the AIDJEX 1000 Hz noise data.

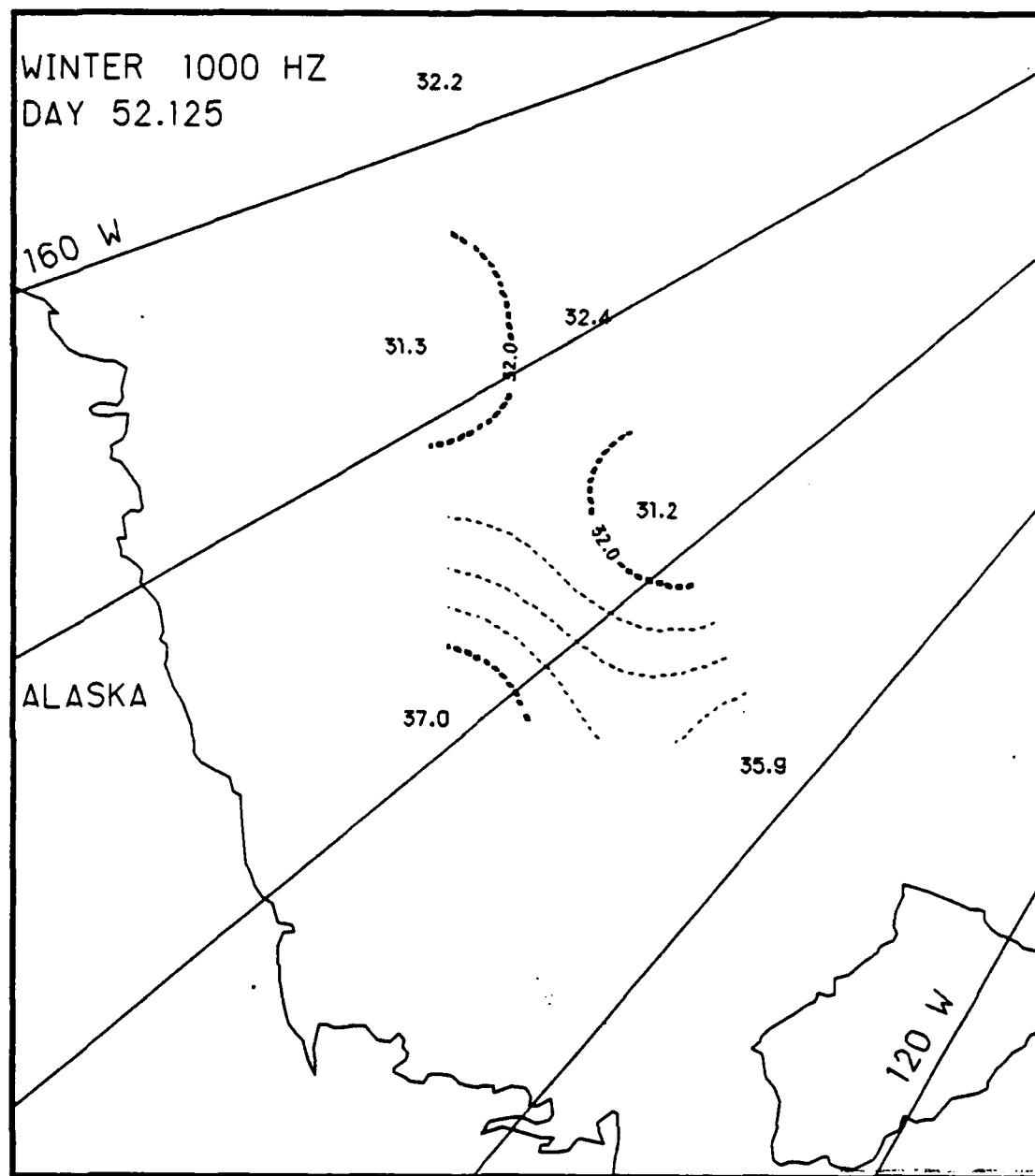


Fig. E.44. Spatial noise variations, day 52.125, based on the AIDJEX 1000 Hz noise data.

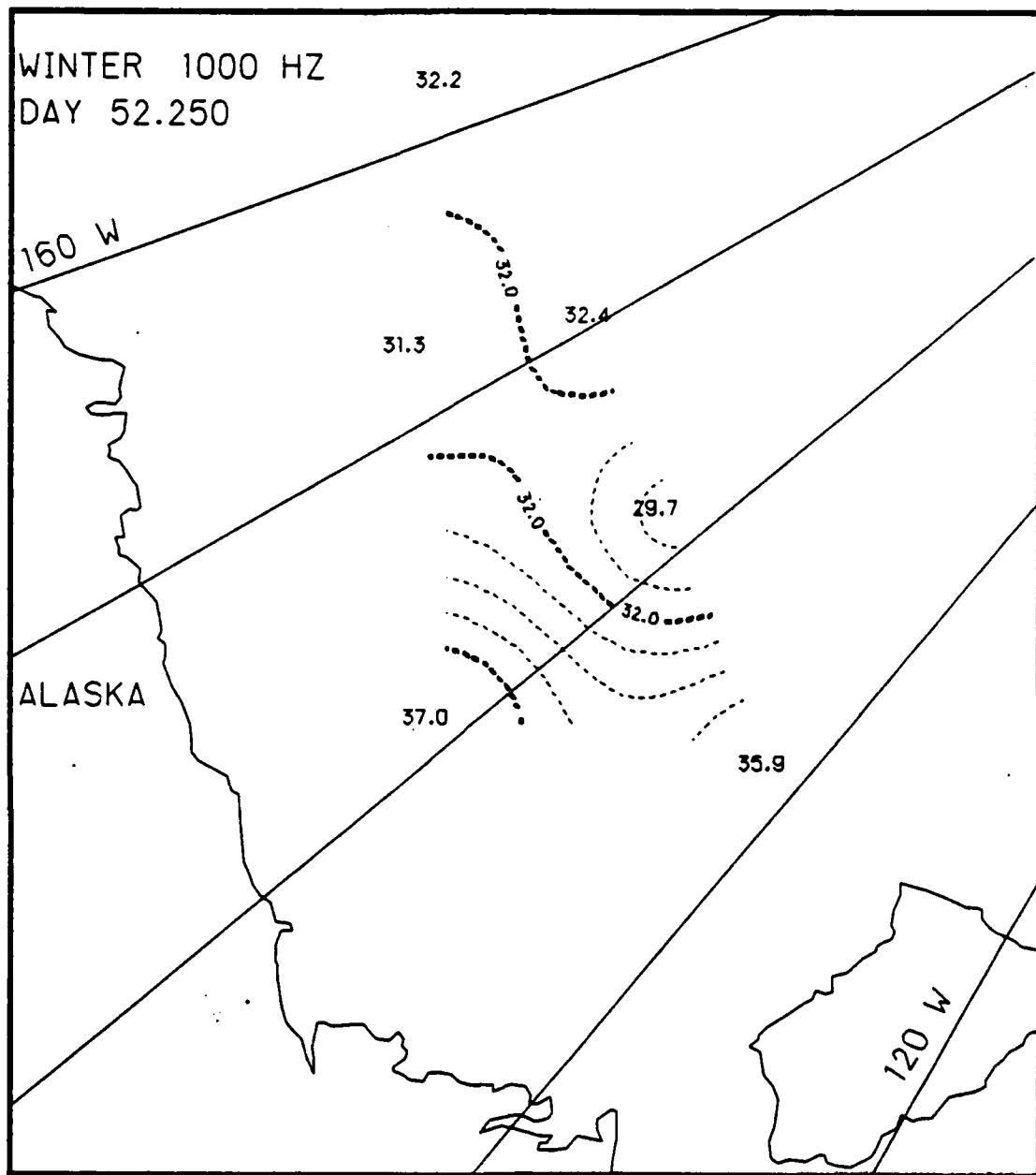


Fig. E.45. Spatial noise variations, day 52.25, based on the AIDJEX 1000 Hz noise data.

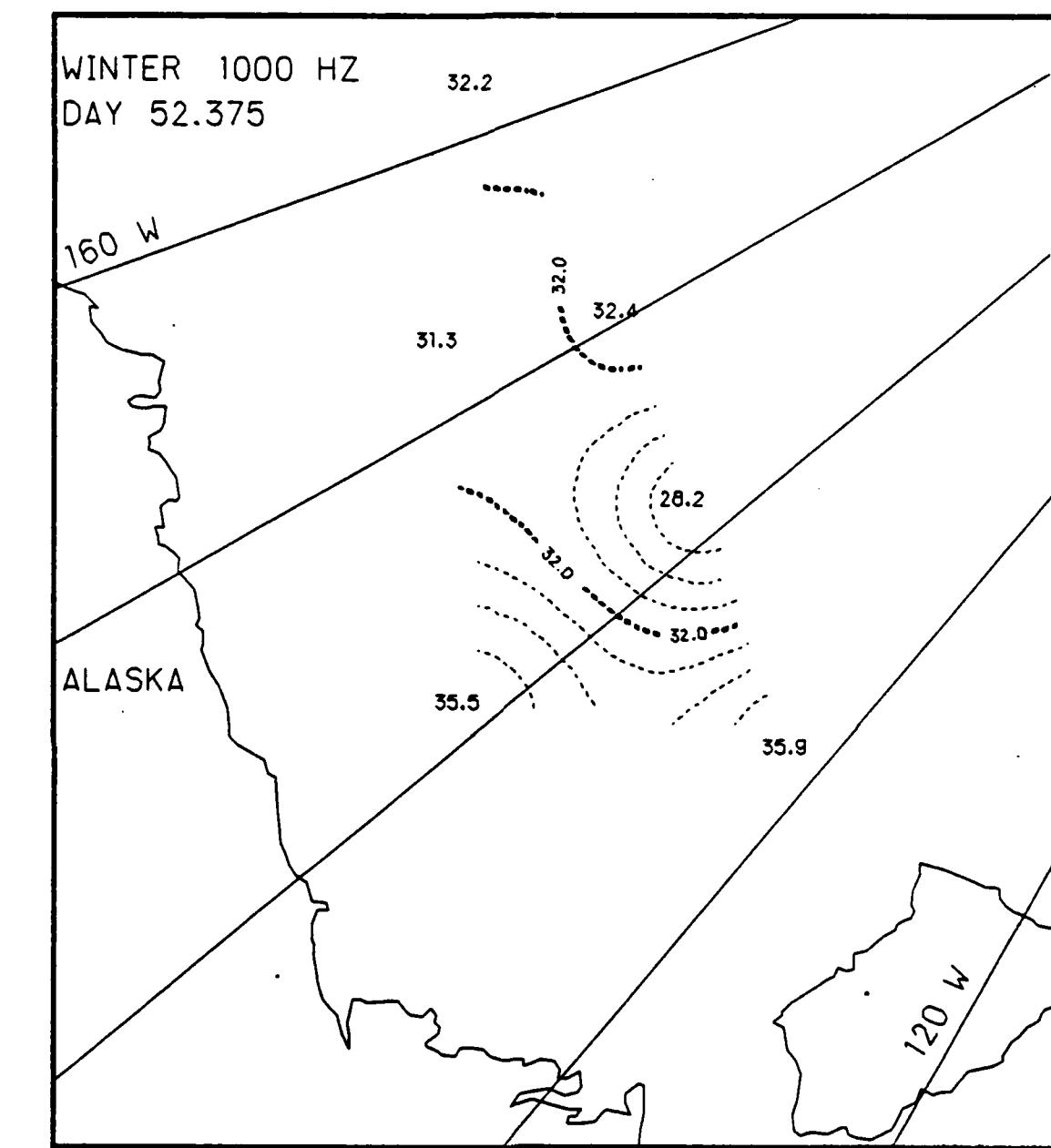


Fig. E.46. Spatial noise variations, day 52.375, based on the AIDJEX 1000 Hz noise data.

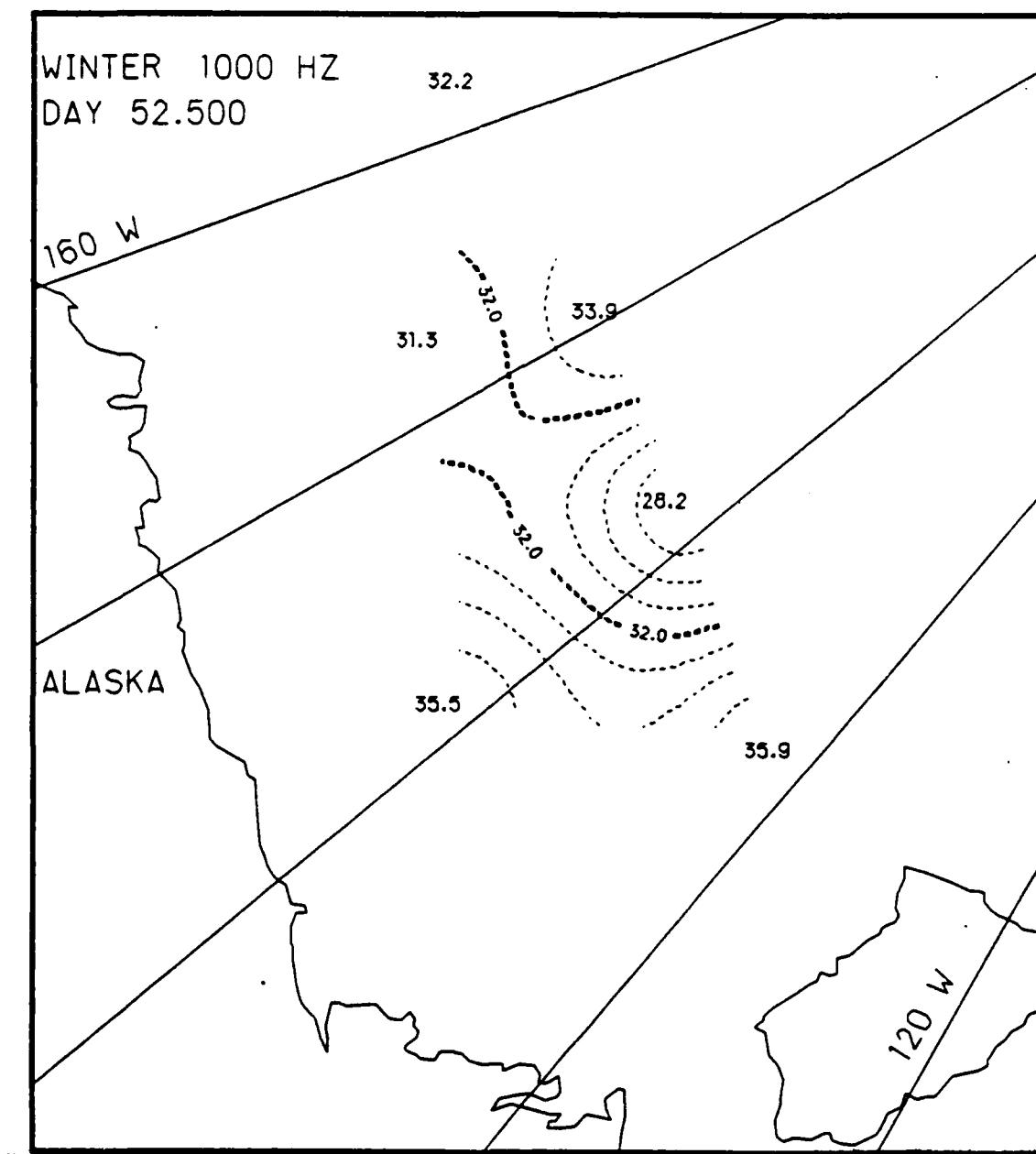


Fig. E.47. Spatial noise variations, day 52.5, based on the AIDJEX 1000 Hz noise data.

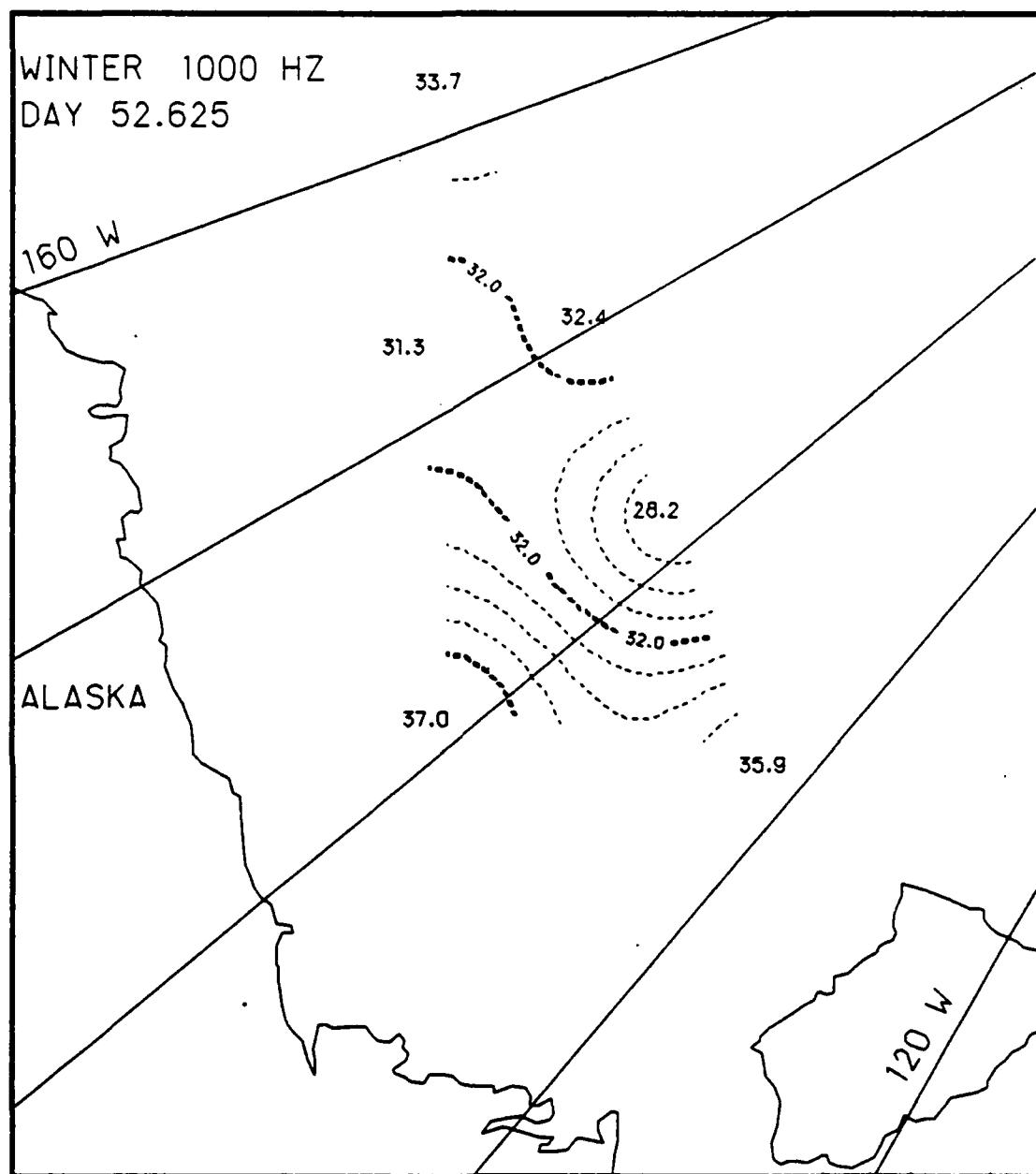


Fig. E.48. Spatial noise variations, day 52.625, based on the AIDJEX 1000 Hz noise data.

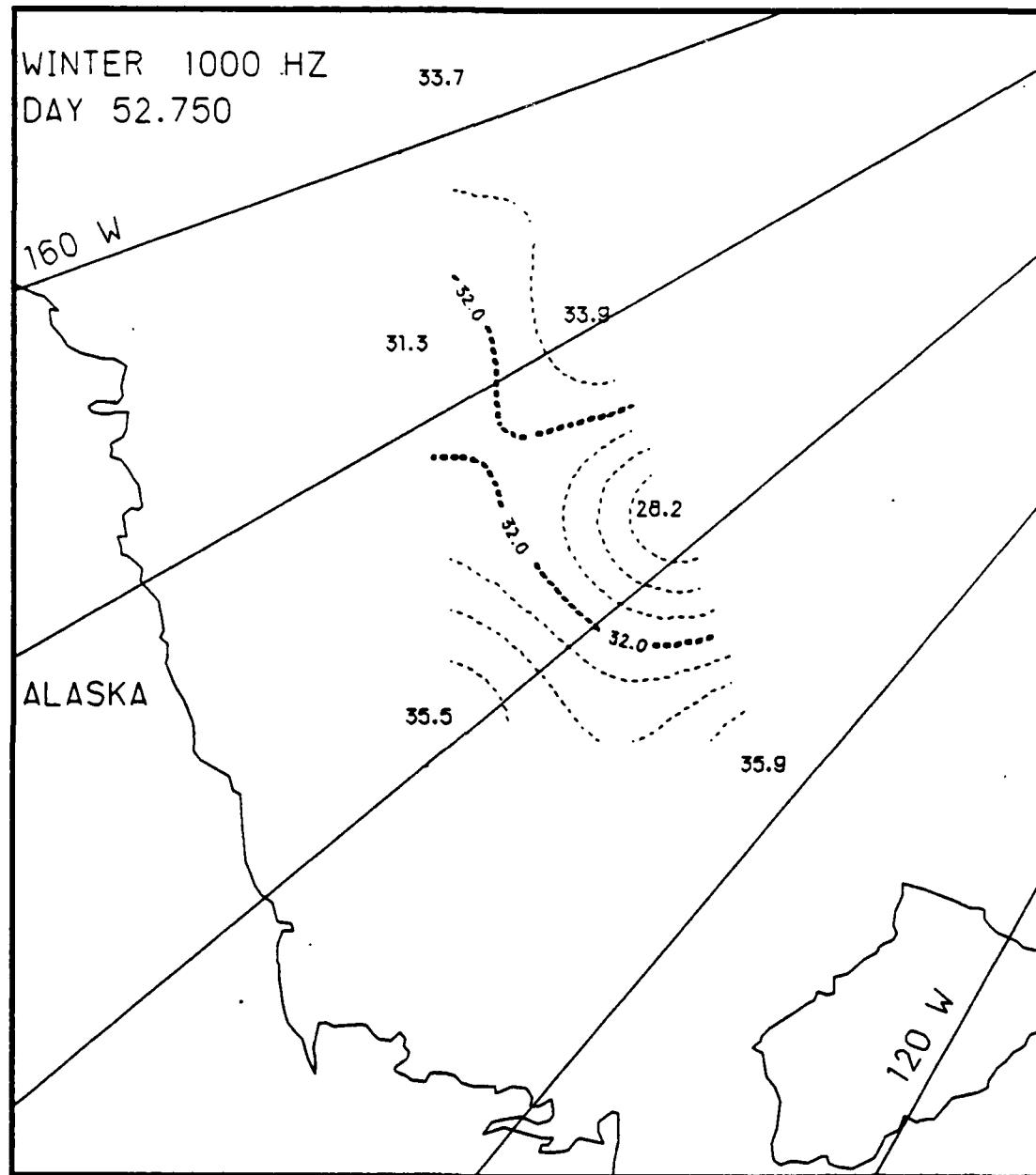


Fig. E.49. Spatial noise variations, day 52.75, based on the AIDJEX 1000 Hz noise data.

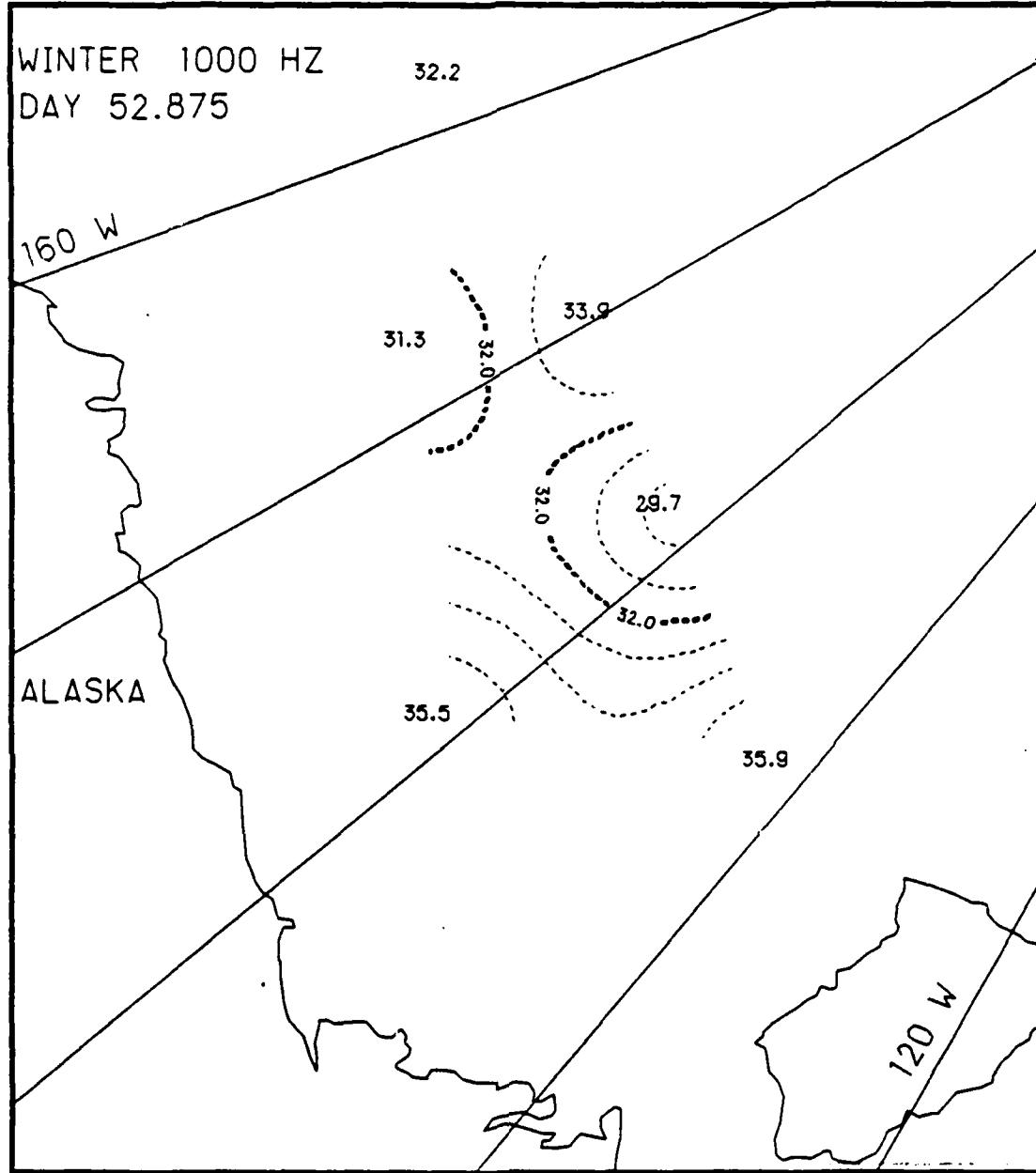


Fig. E.50. Spatial noise variations, day 52.875, based on the AIDJEX 1000 Hz noise data.

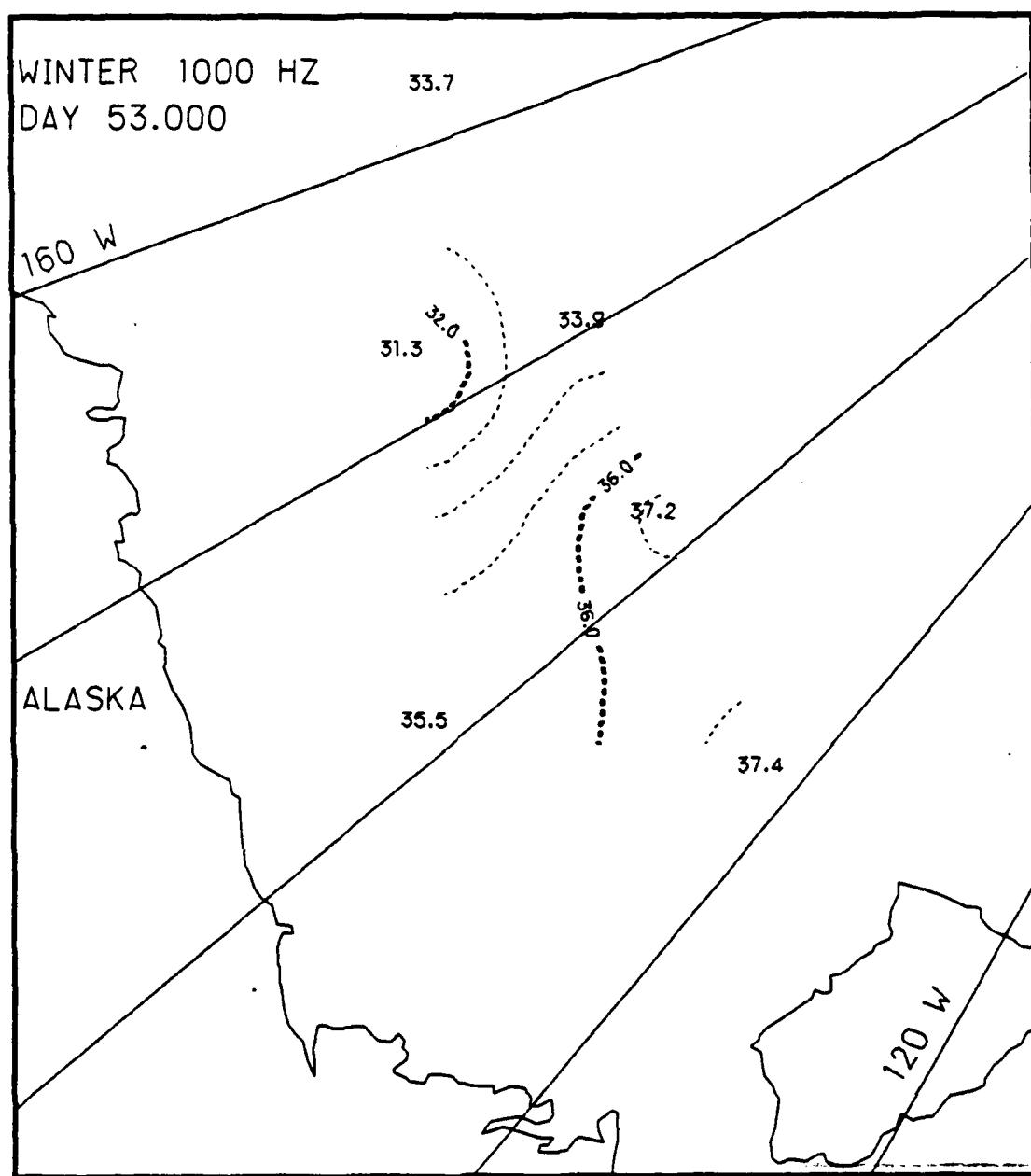


Fig. E.51. Spatial noise variations, day 53.0, based on the AIDJEX 1000 Hz noise data.

## Appendix F

Two-Dimensional Contour Maps of Arctic  
Ambient Noise Variations, 16-17 May 1976  
(Spring)

This appendix contains the two-dimensional contour maps of the AIDJEX 10 Hz, 32 Hz, and 1000 Hz noise signals for the 48 hour period of 16-17 May 1976. The contour maps show the spatial variations of the ambient noise signals at 3 hr intervals, the units of noise being decibells. The Julian day for 16 May is 135, and the Julian day for 17 May is day 136. The contour maps for day 135.75 were not generated as a result of a lack of data.

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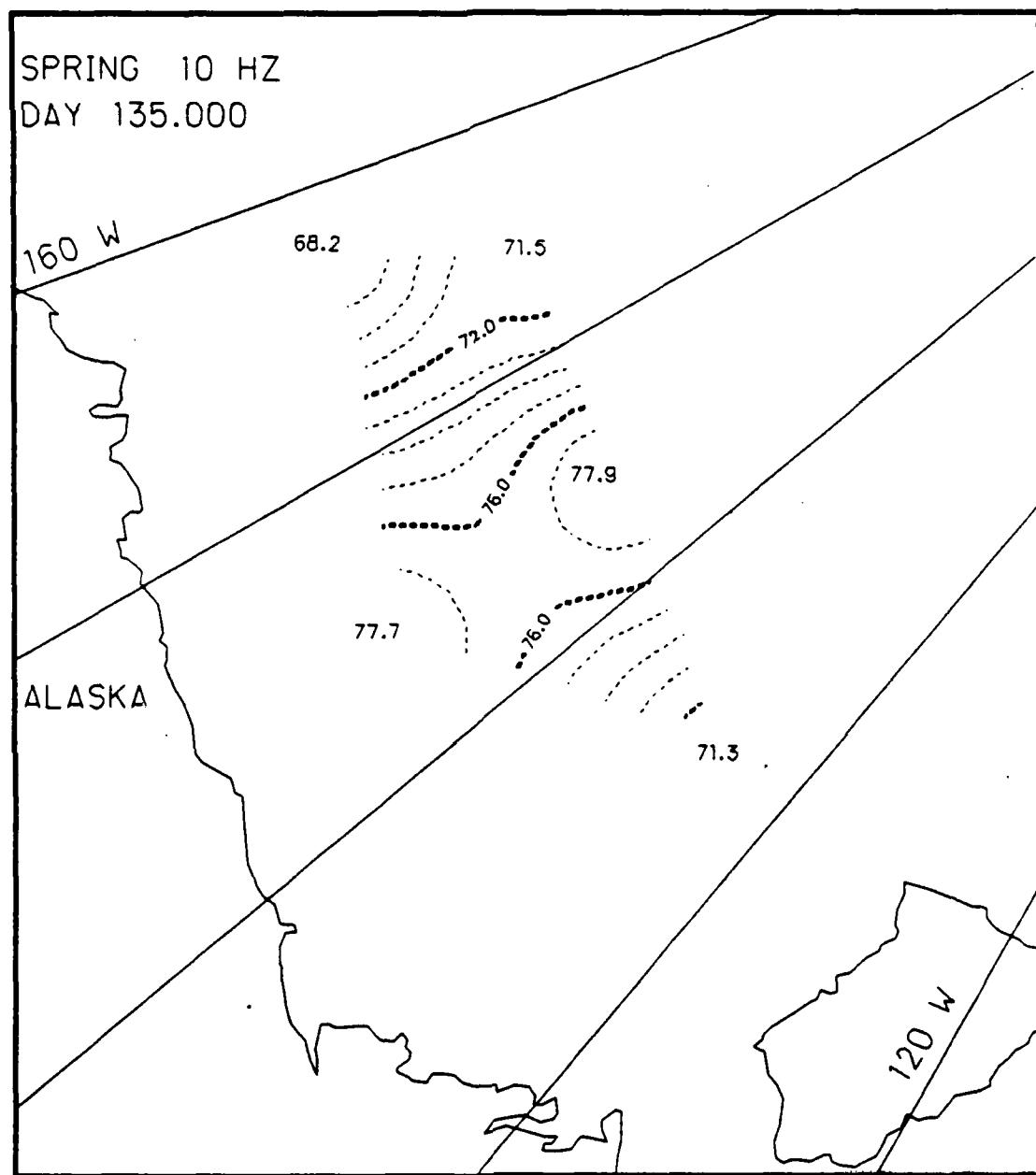


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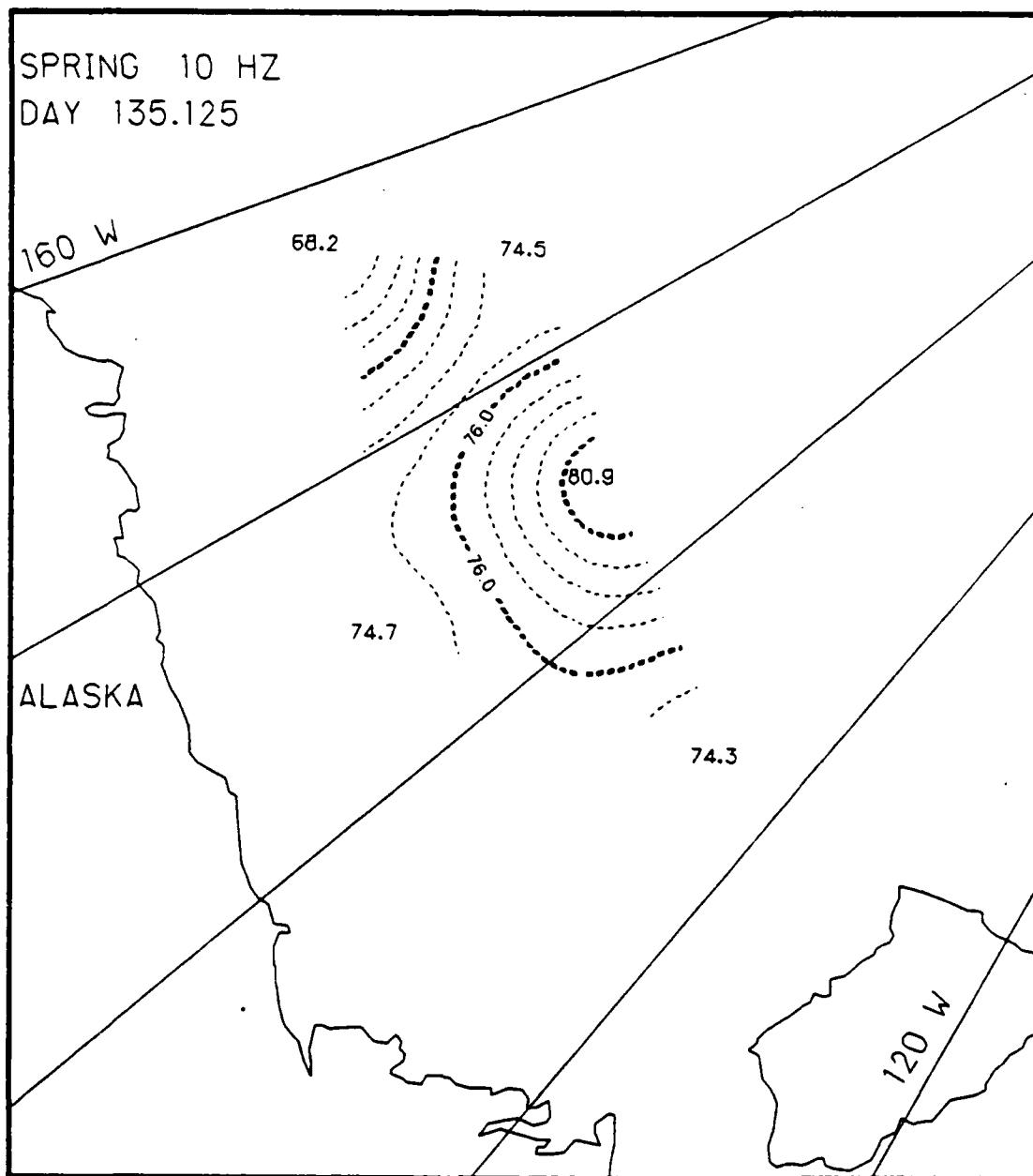


Fig. F.2. Spatial noise variations, day 135.125, based on the AIDJEX 10 Hz noise data.

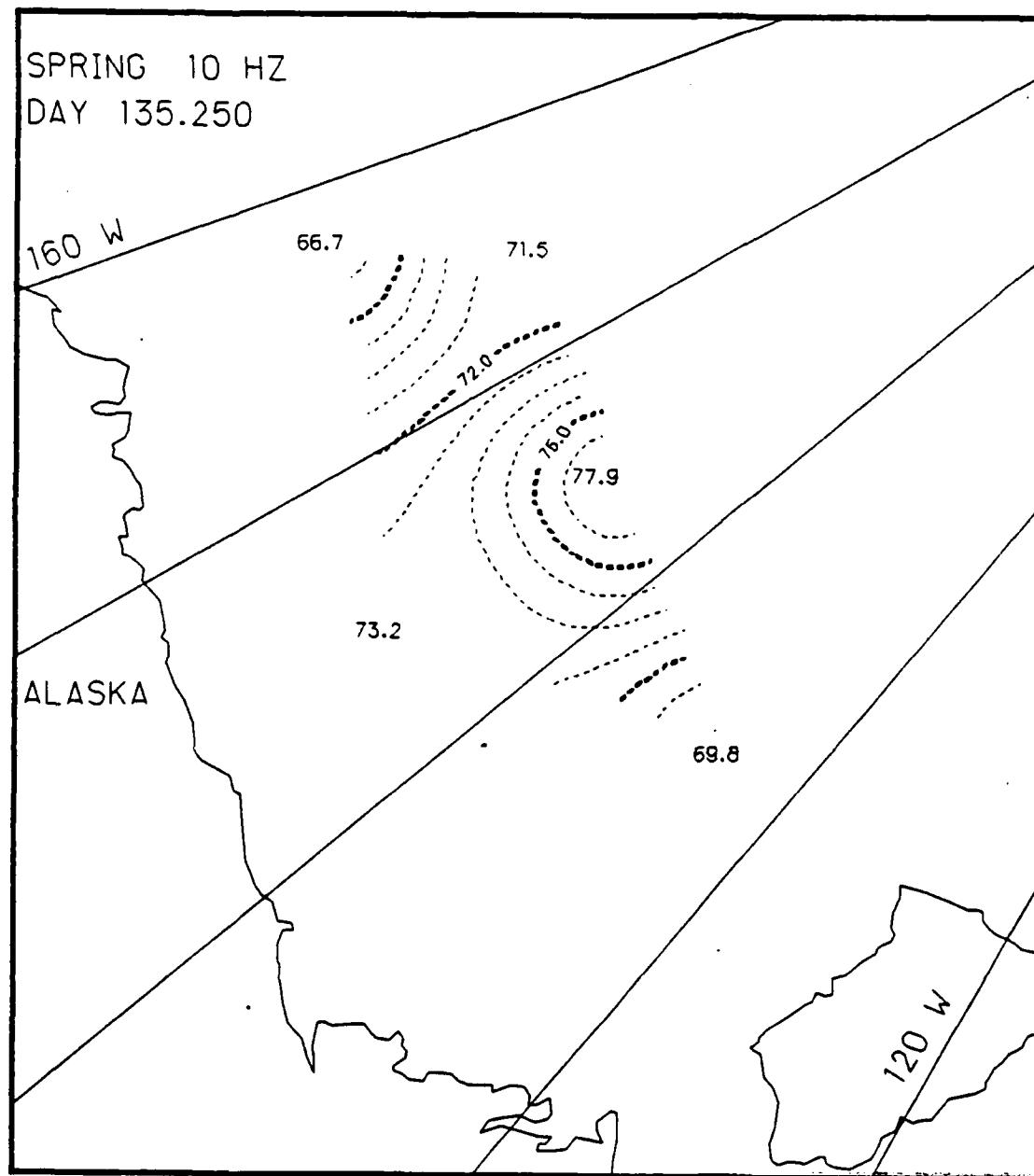


Fig. F.3. Spatial noise variations, day 135.25, based on the AIDJEX 10 Hz noise data.

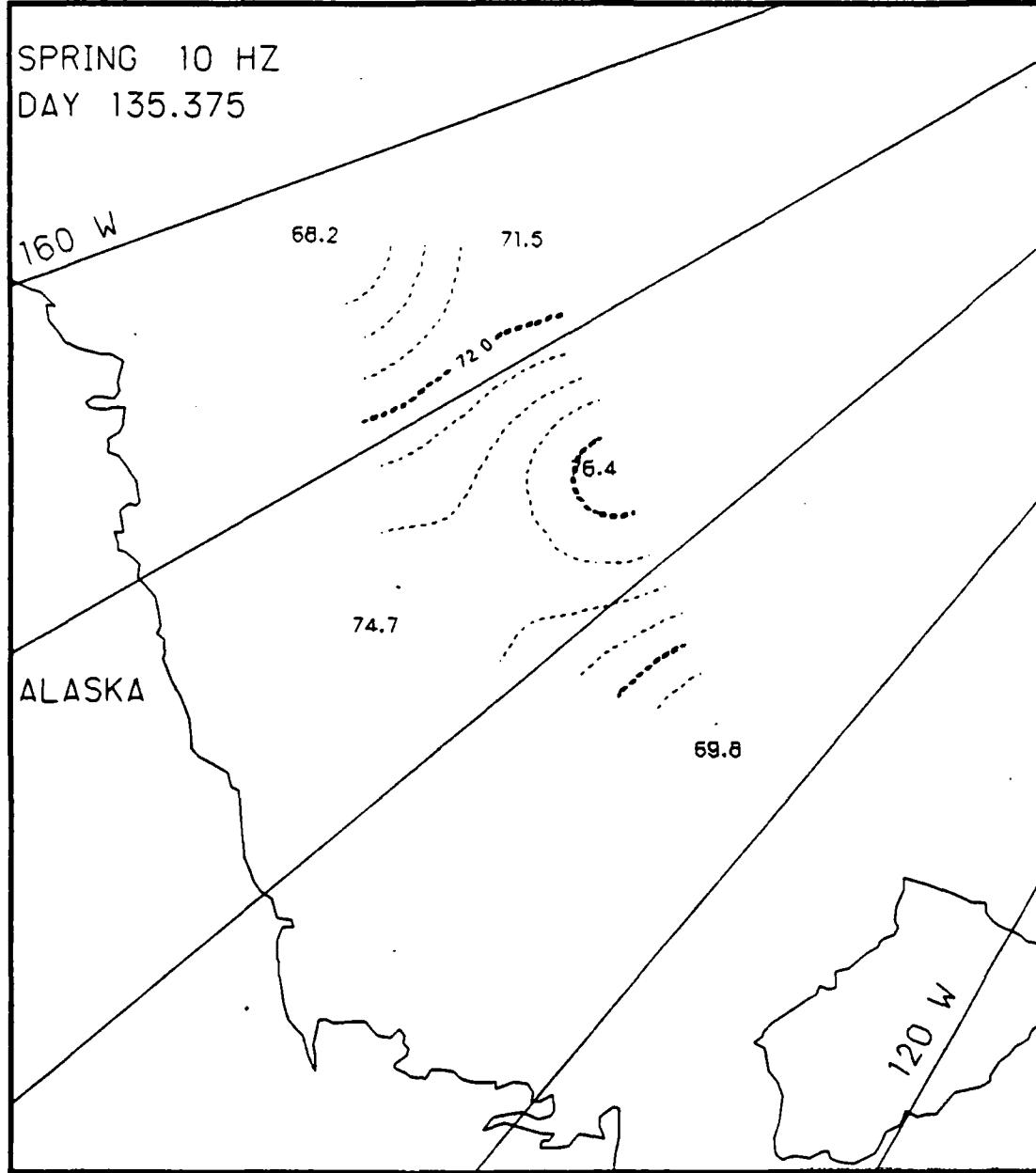


Fig. F.4. Spatial noise variations, day 135.375, based on the AIDJEX 10 Hz noise data.

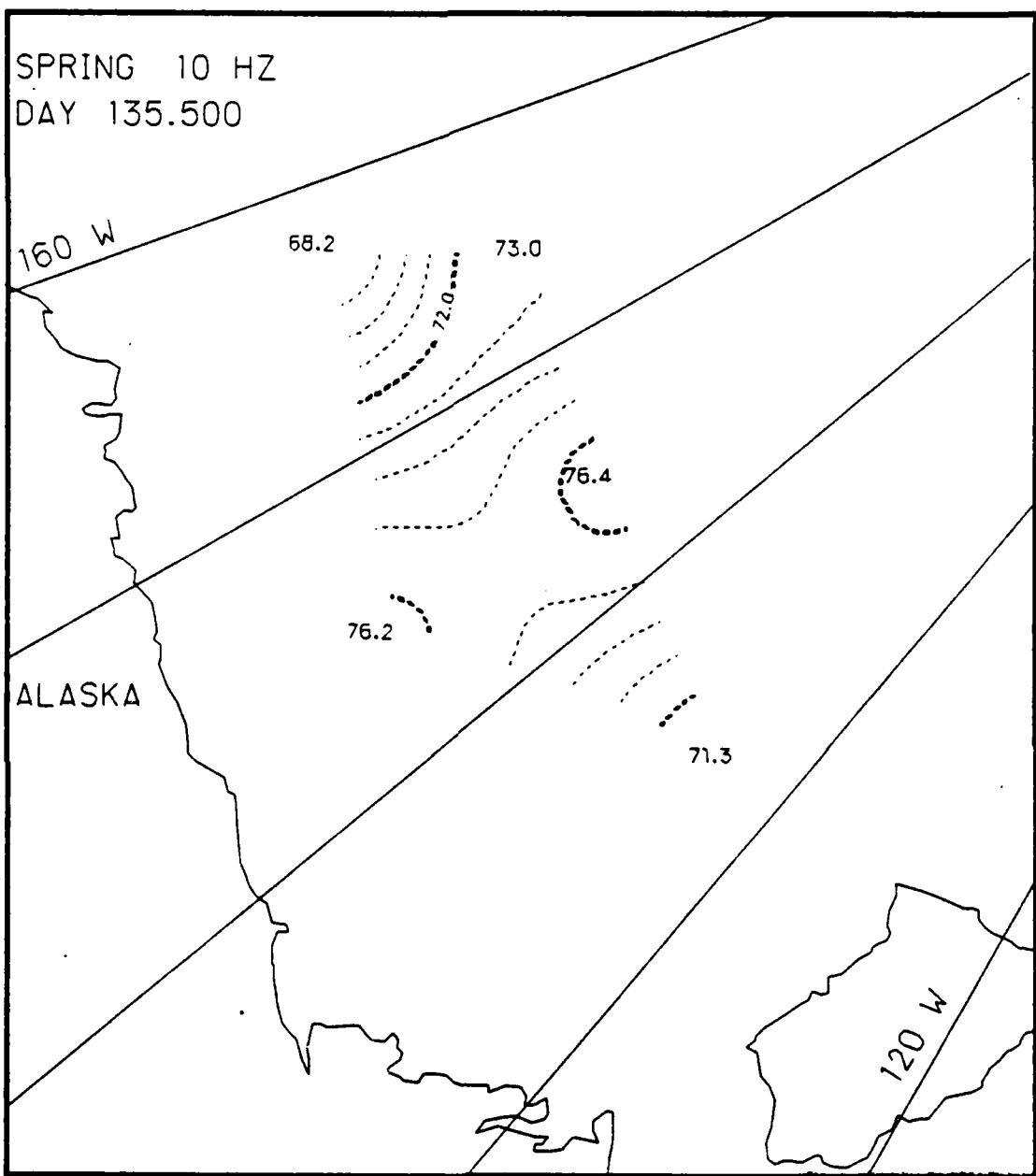


Fig. F.5. Spatial noise variations, day 135.5, based on the AIDJEX 10 Hz noise data.

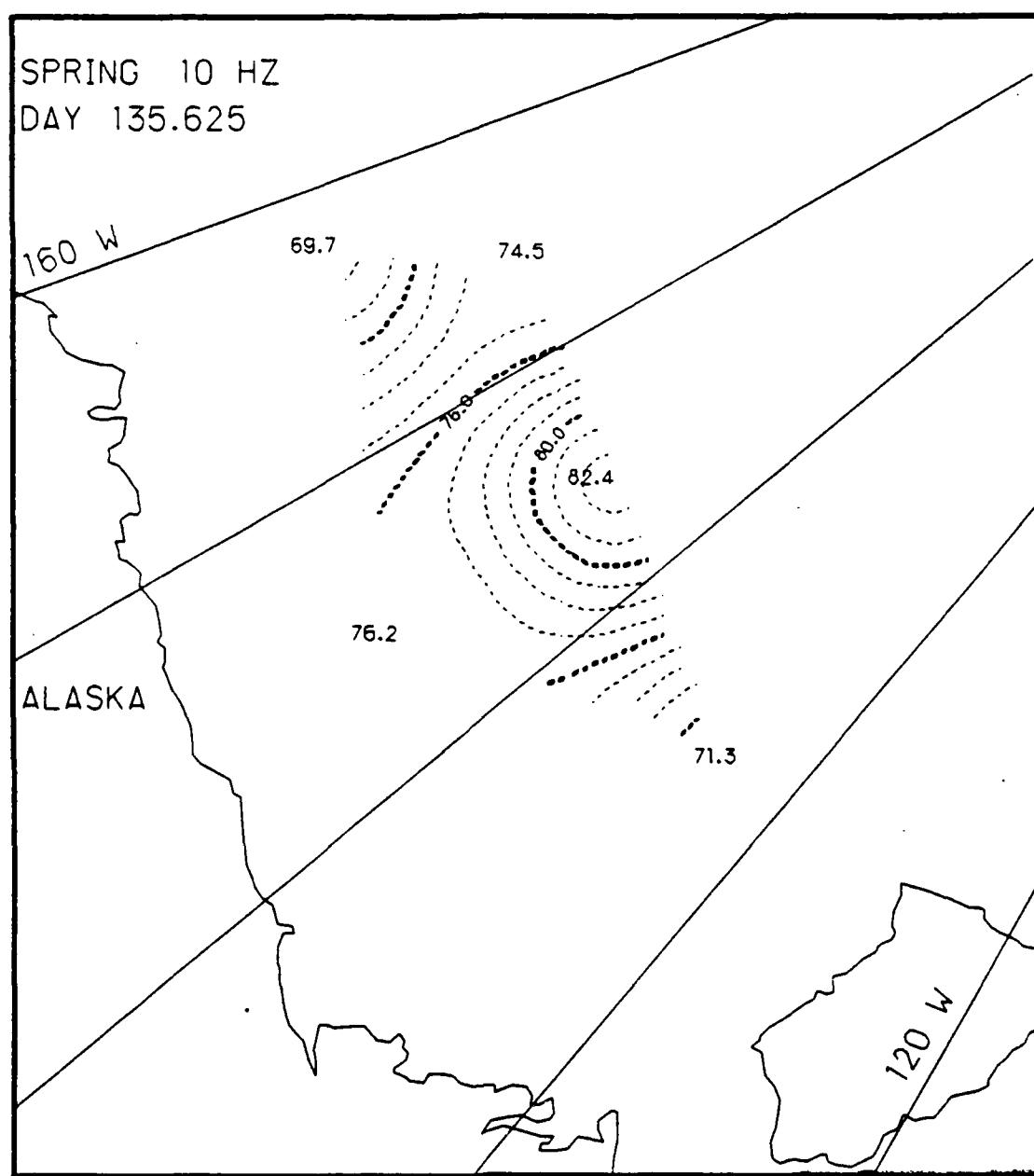


Fig. F.6. Spatial noise variations, day 135.625, based on the AIDJEX 10 Hz noise data.

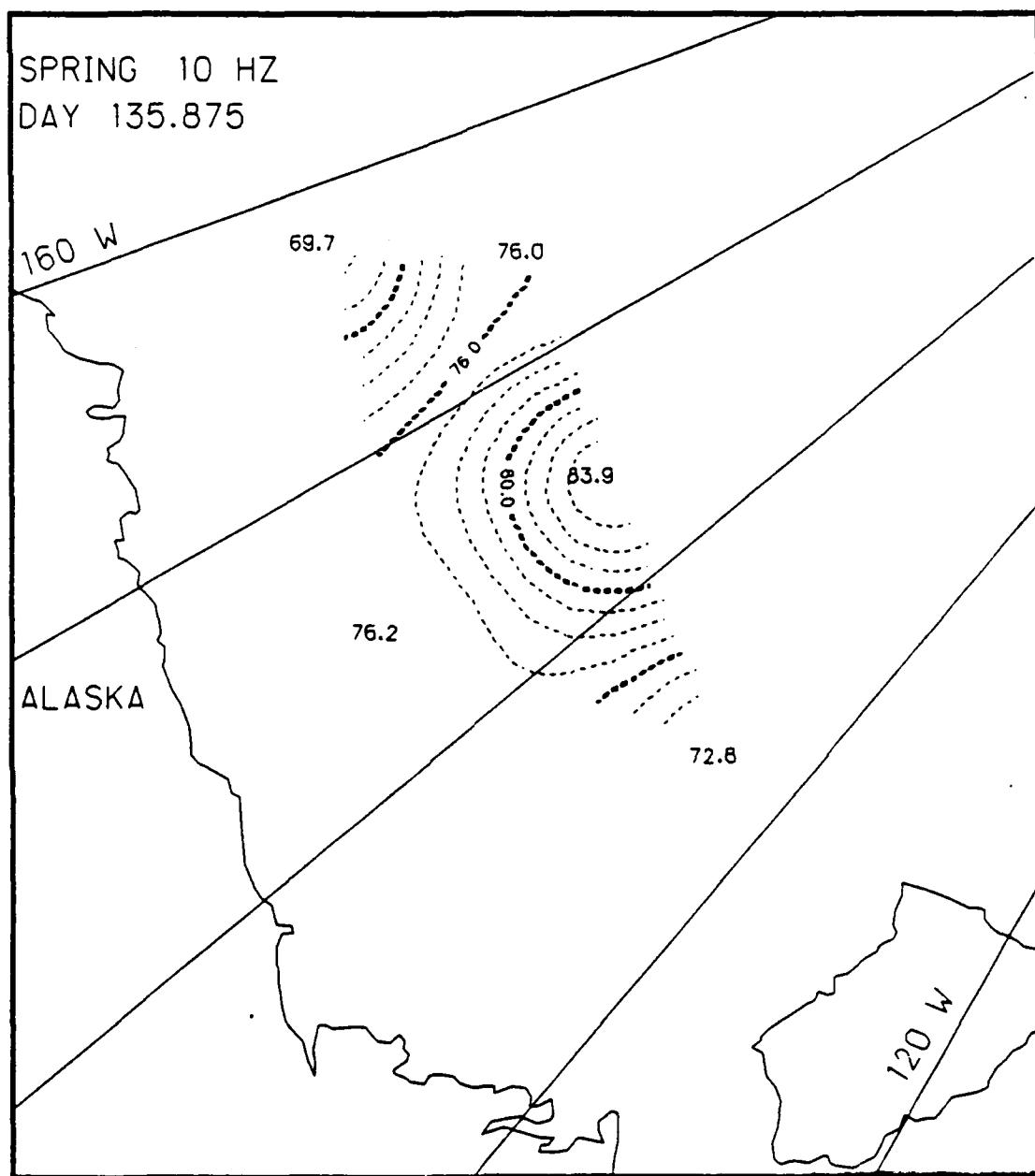


Fig. F.7. Spatial noise variations, day 135.875, based on the AIDJEX 10 Hz noise data.

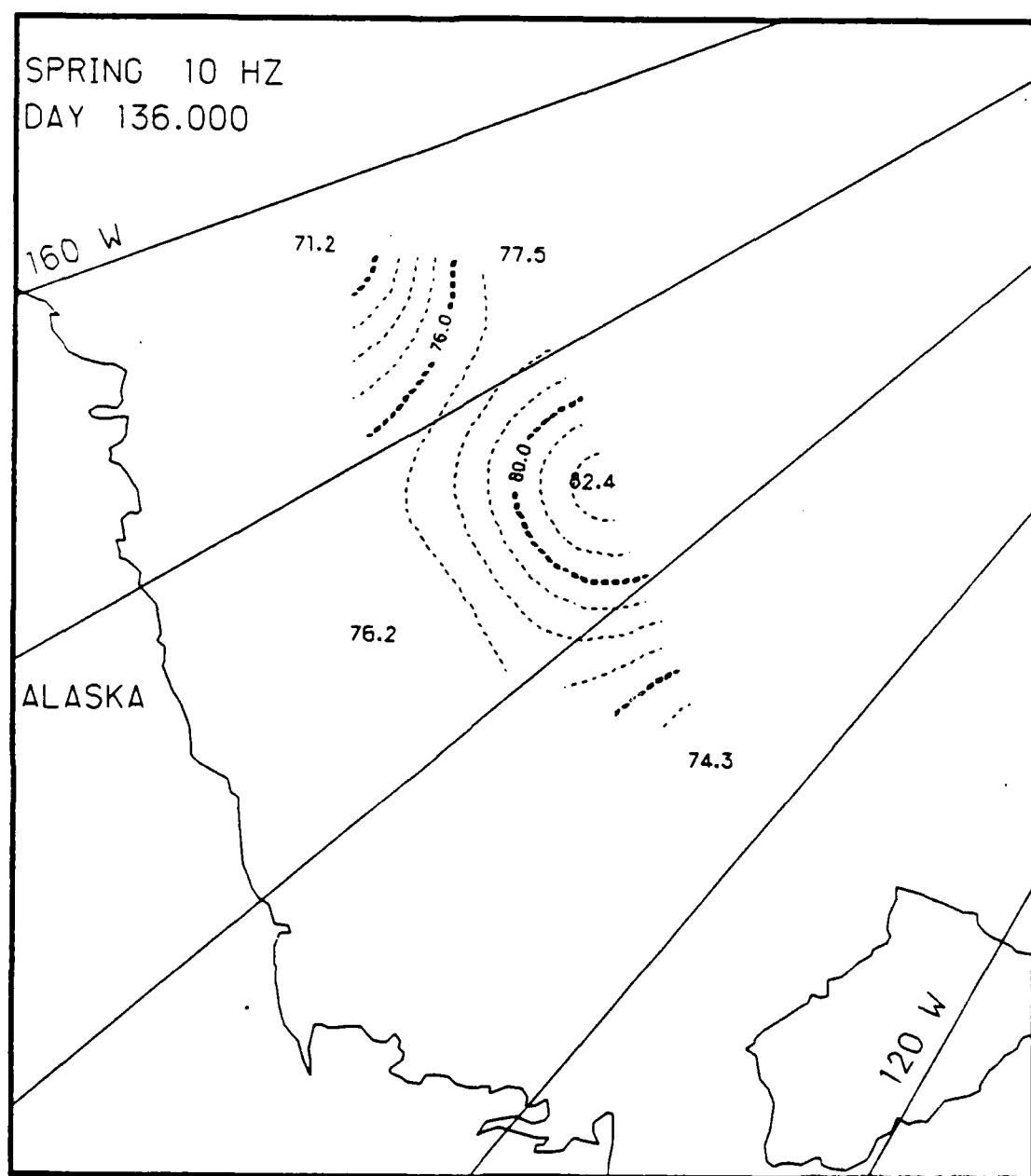


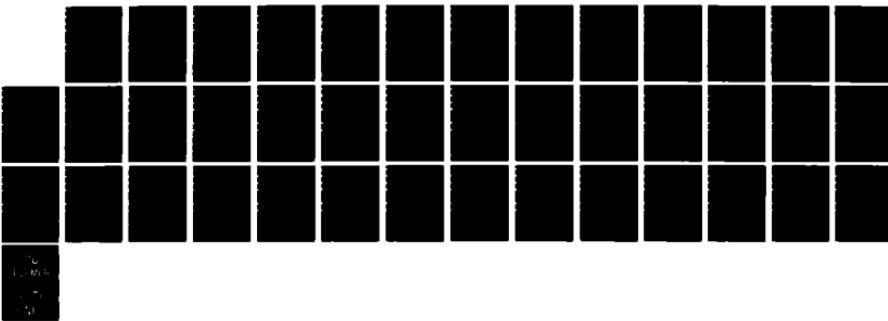
Fig. F.8. Spatial noise variations, day 136.0, based on the AIDJEX 10 Hz noise data.

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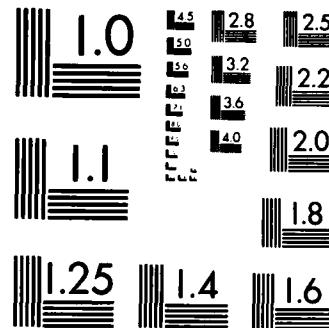
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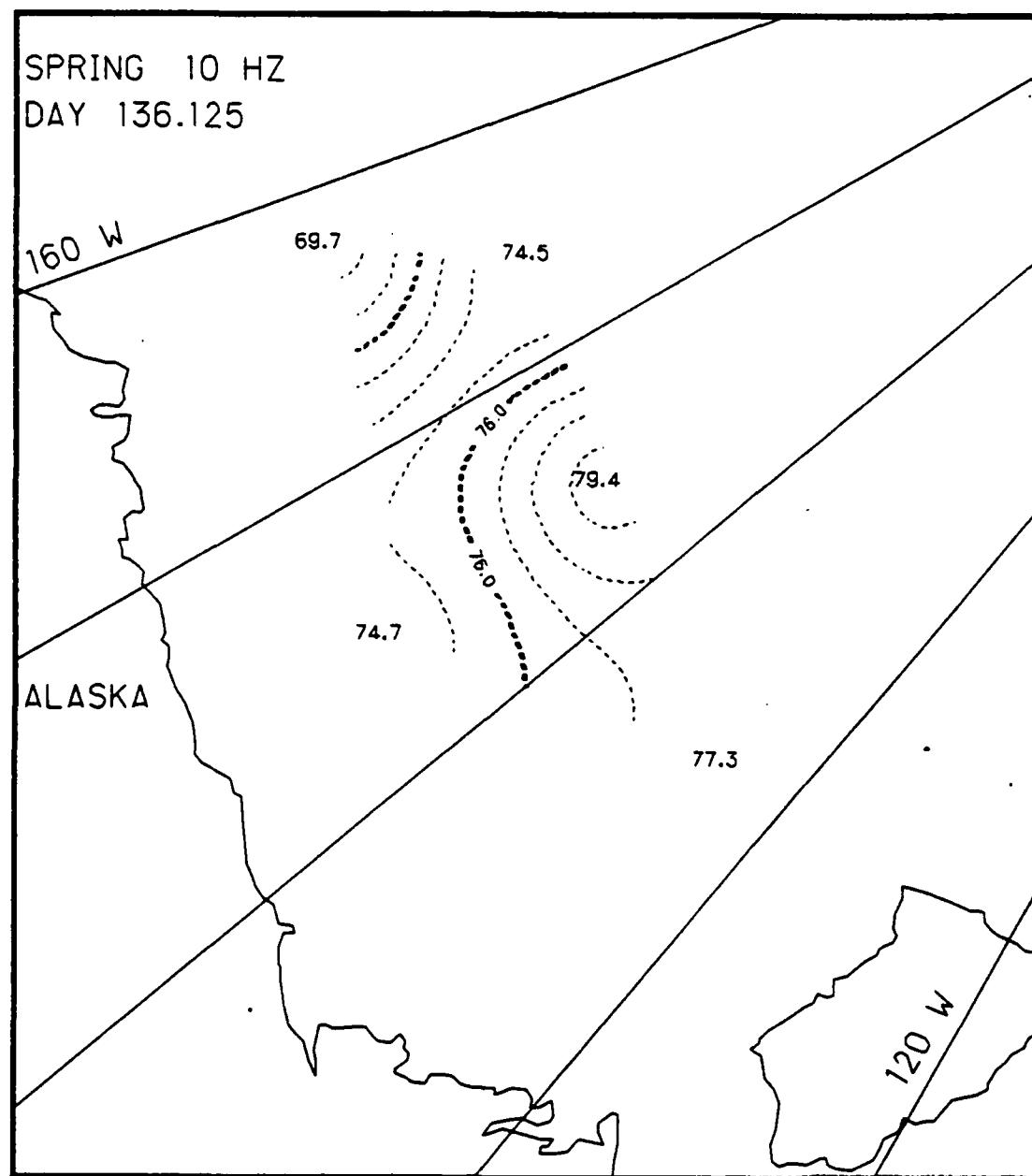


Fig. F.9. Spatial noise variations, day 136.125, based on the AIDJEX 10 Hz noise data.

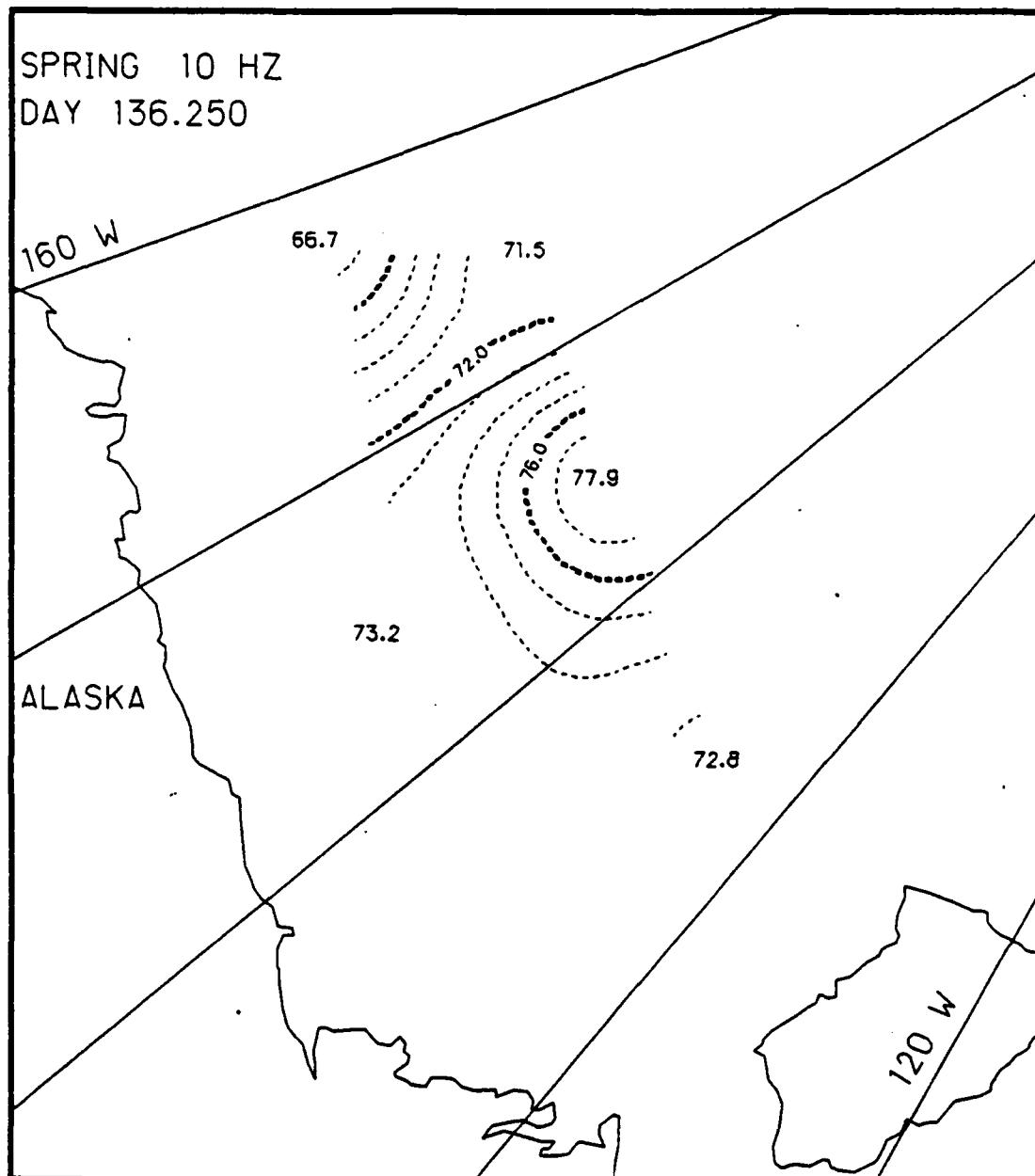


Fig. F.10. Spatial noise variations, day 136.25, based on the AIDJEX 10 Hz noise data.

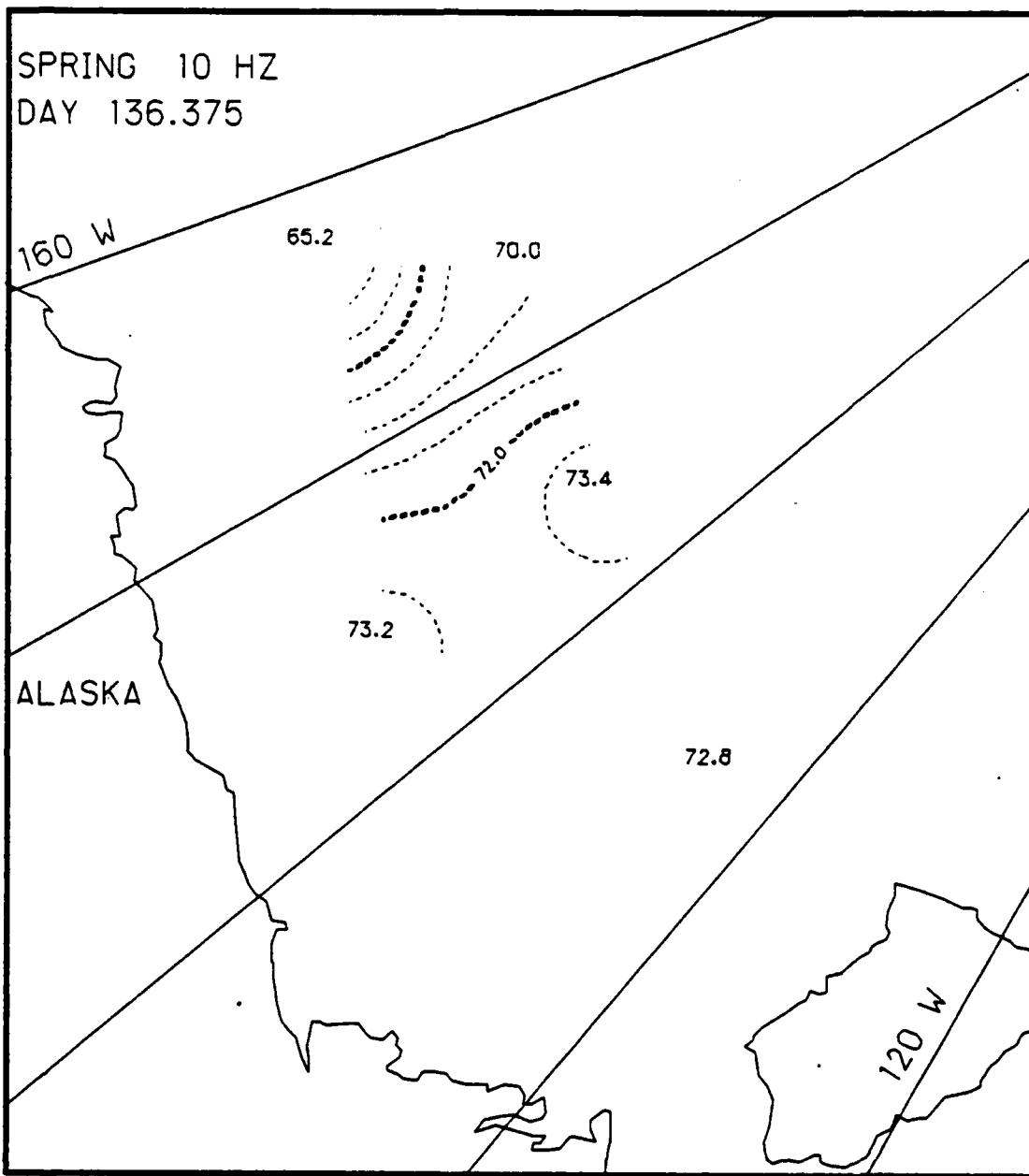


Fig. F.11. Spatial noise variations, day 136.375, based on the AIDJEX 10 Hz noise data.

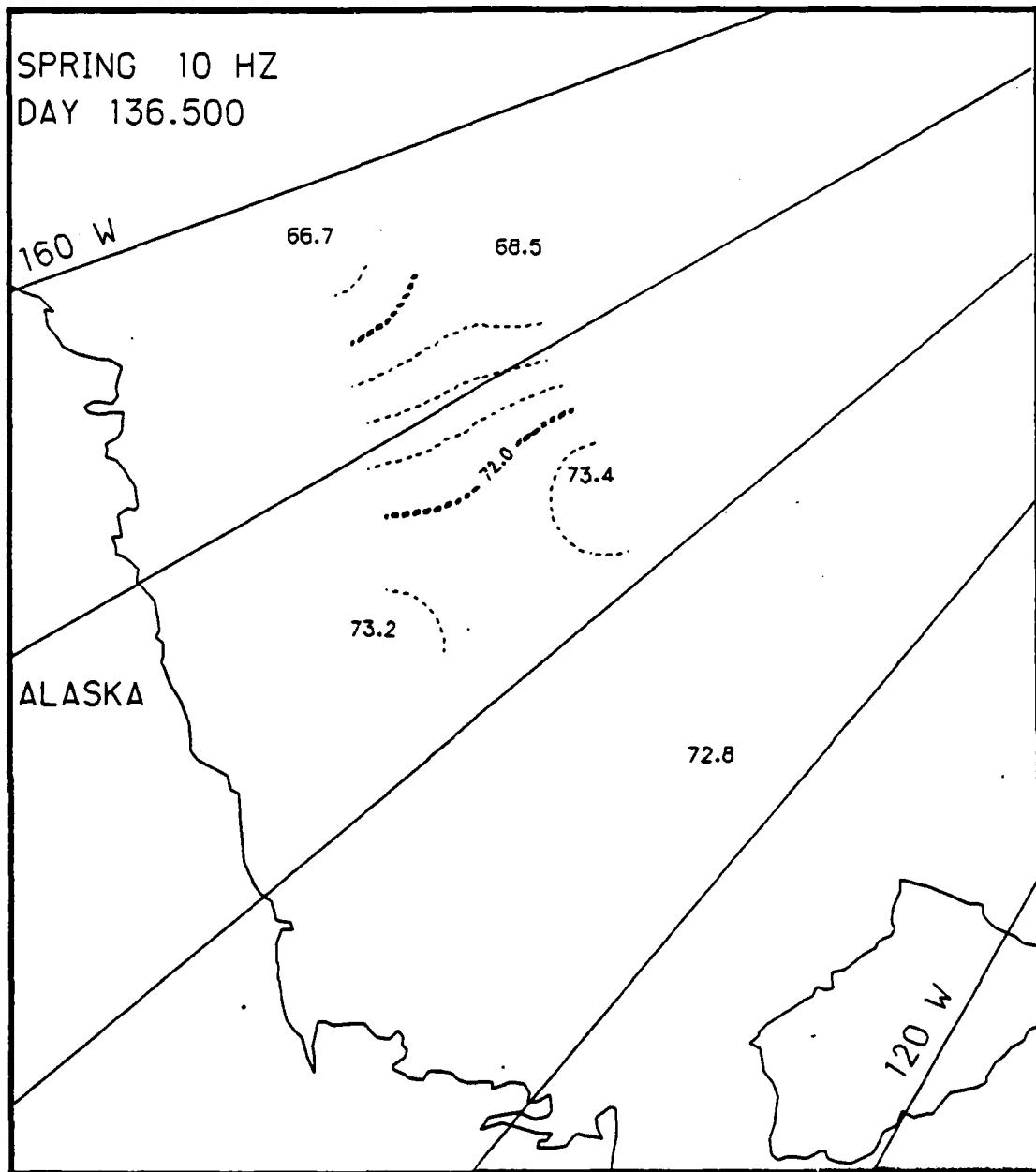


Fig. F.12. Spatial noise variations, day 136.5, based on the AIDJEX 10 Hz noise data.

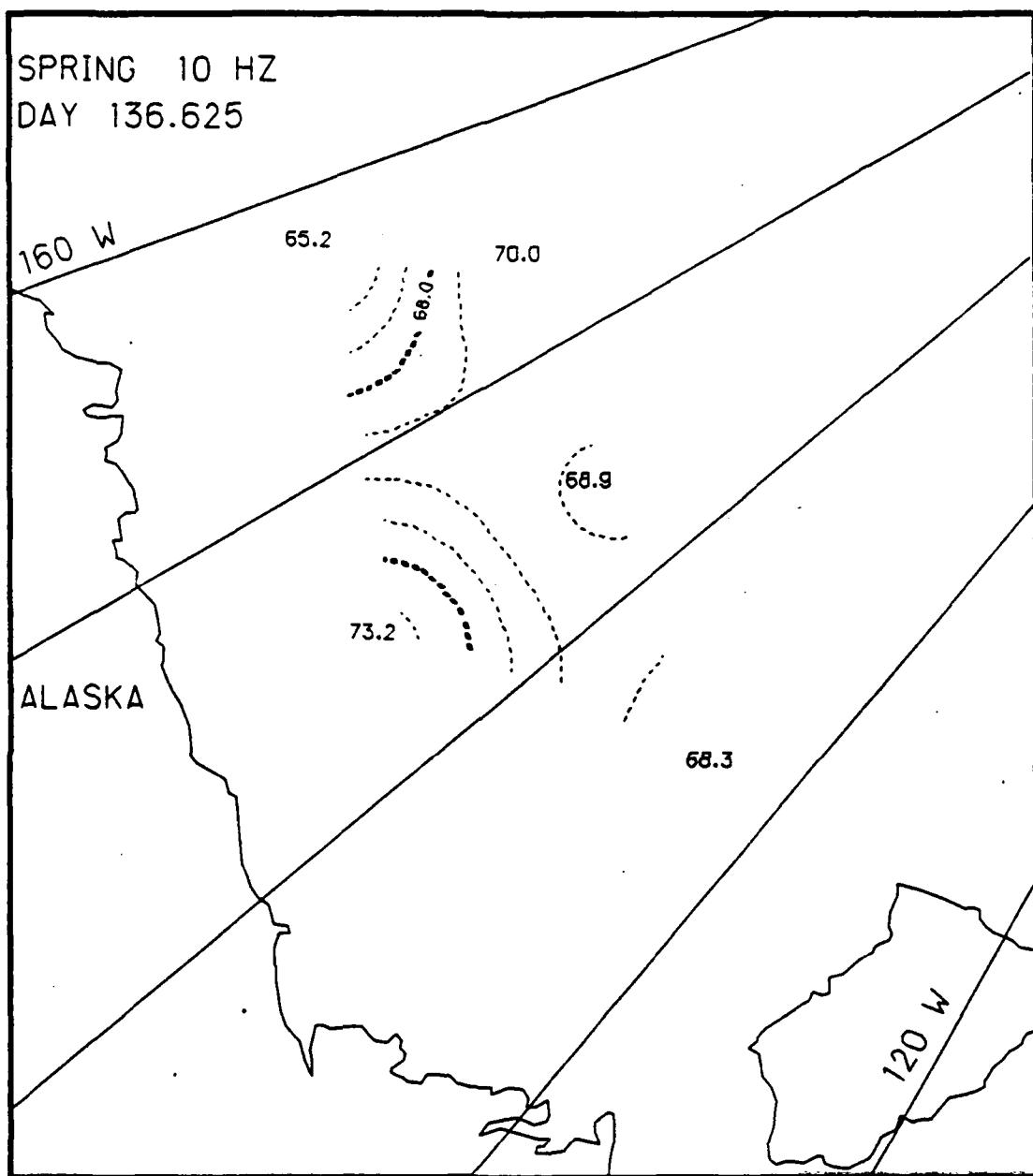


Fig. F.13. Spatial noise variations, day 136.625, based on the AIDJEX 10 Hz noise data.

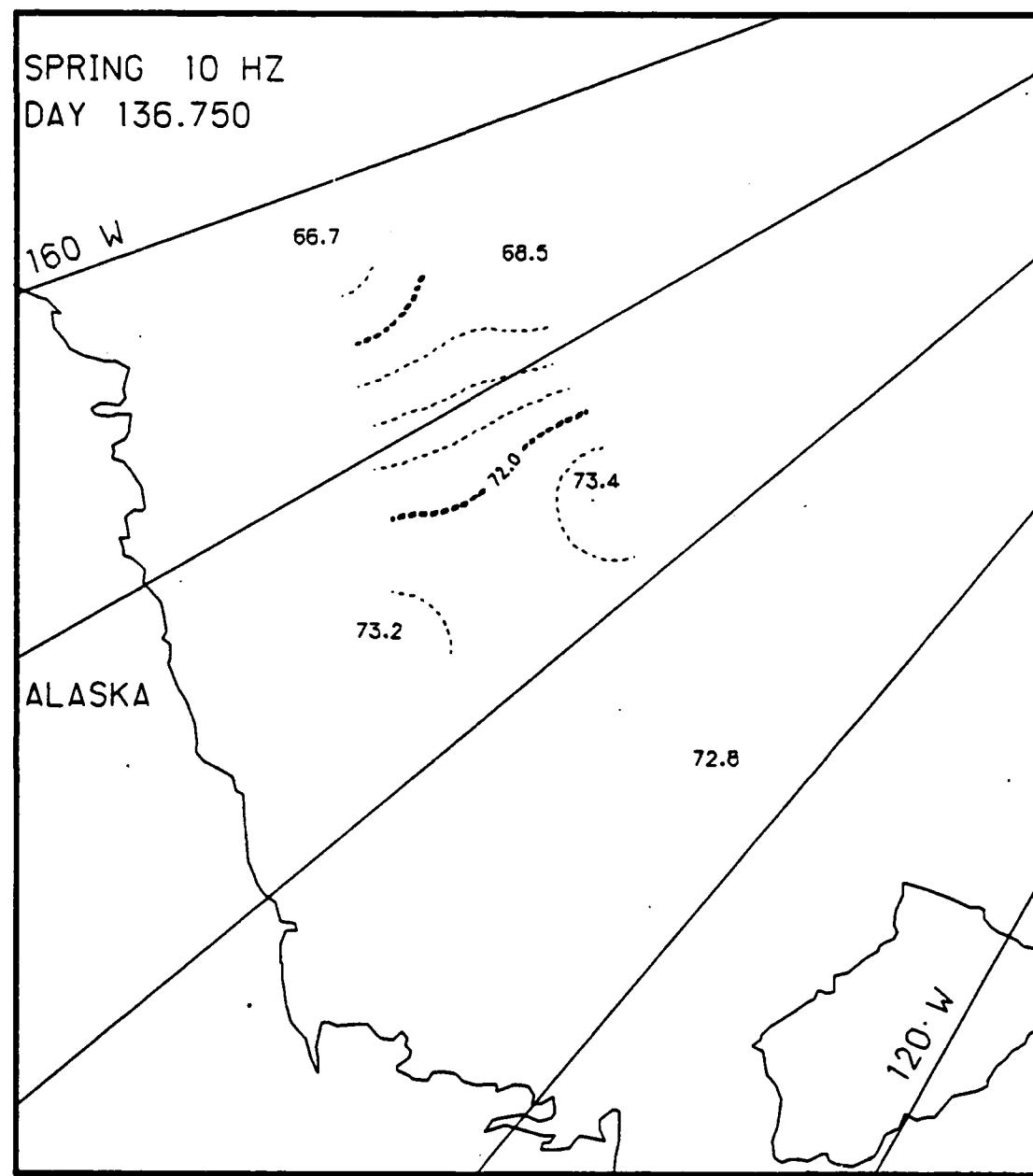


Fig. F.14. Spatial noise variations, day 136.75, based on the AIDJEX 10 Hz noise data.

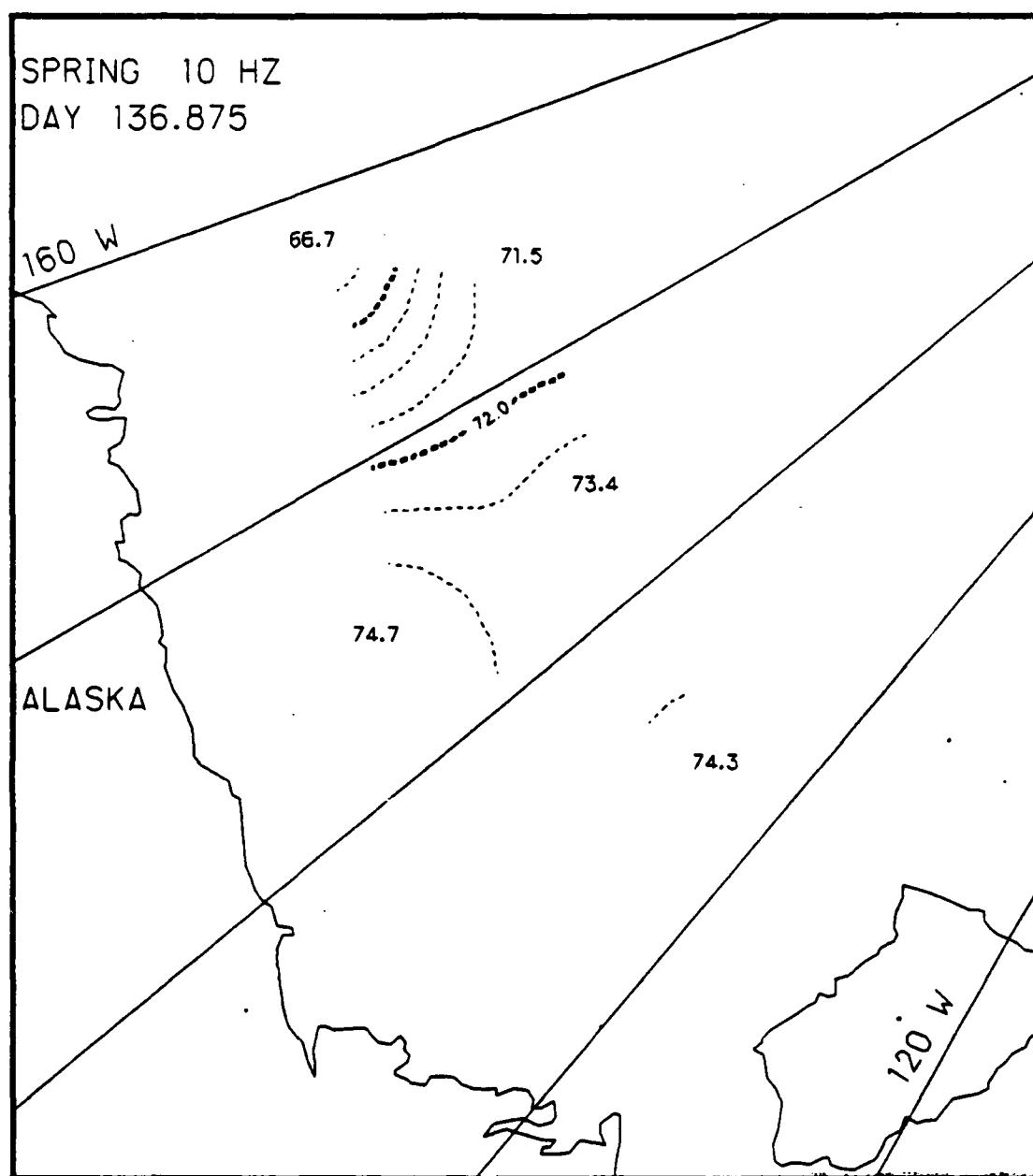


Fig. F.15. Spatial noise variations, day 136.875, based on the AIDJEX 10 Hz noise data.

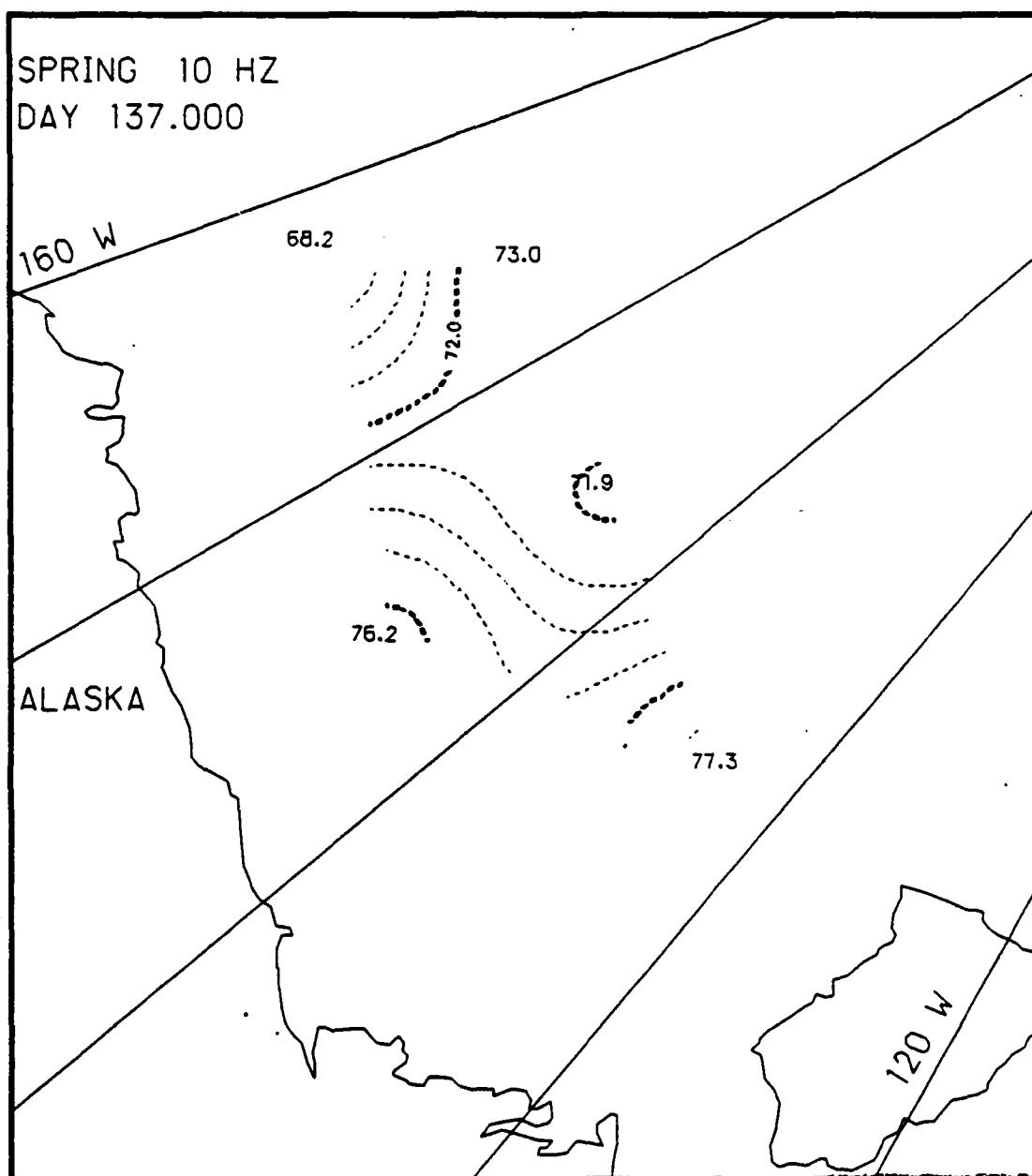


Fig. F.16. Spatial noise variations, day 137.0, based on the AIDJEX 10 Hz noise data.

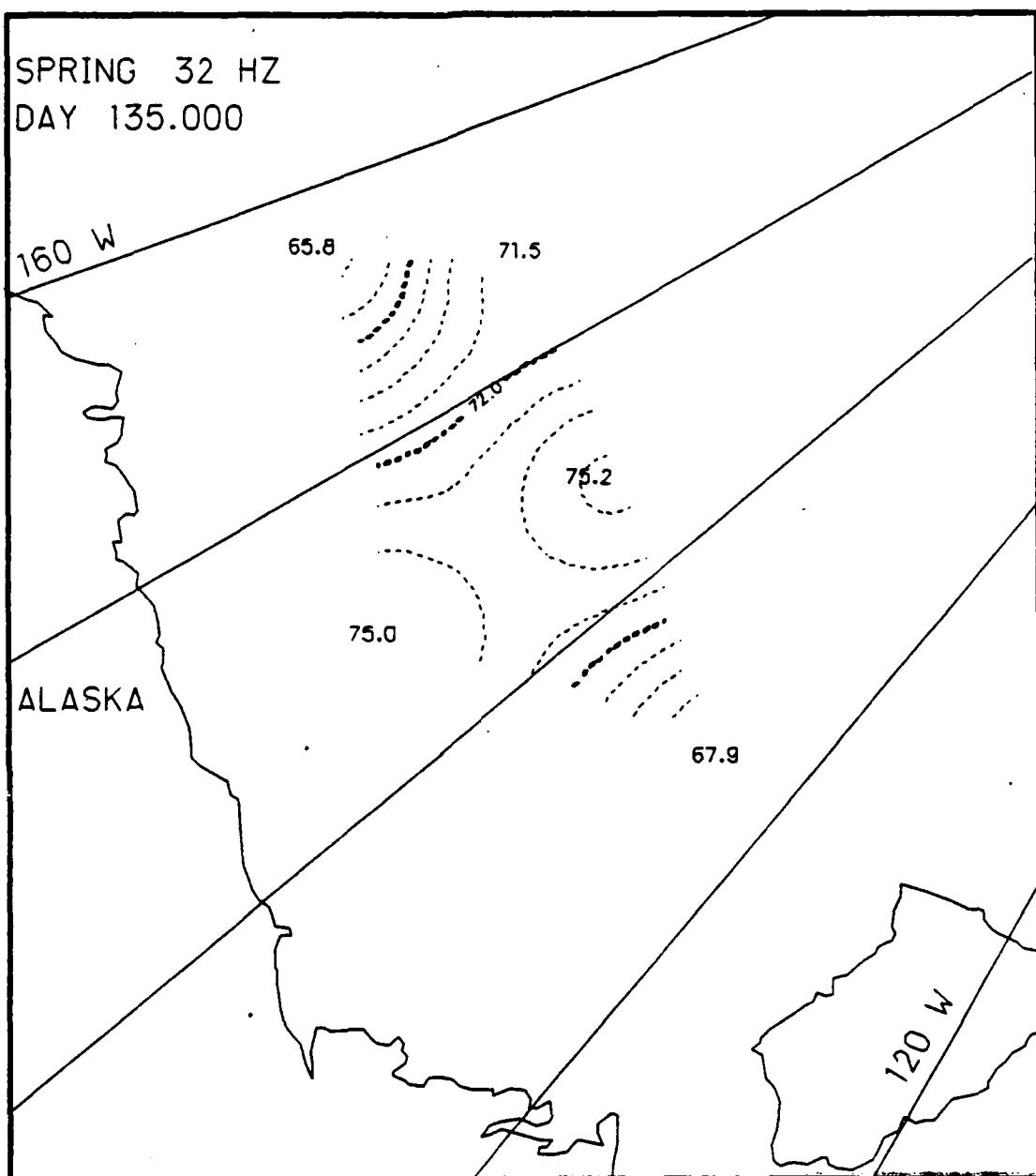


Fig. F.17. Spatial noise variations, day 135.0, based on the AIDJEX 32 Hz noise data.

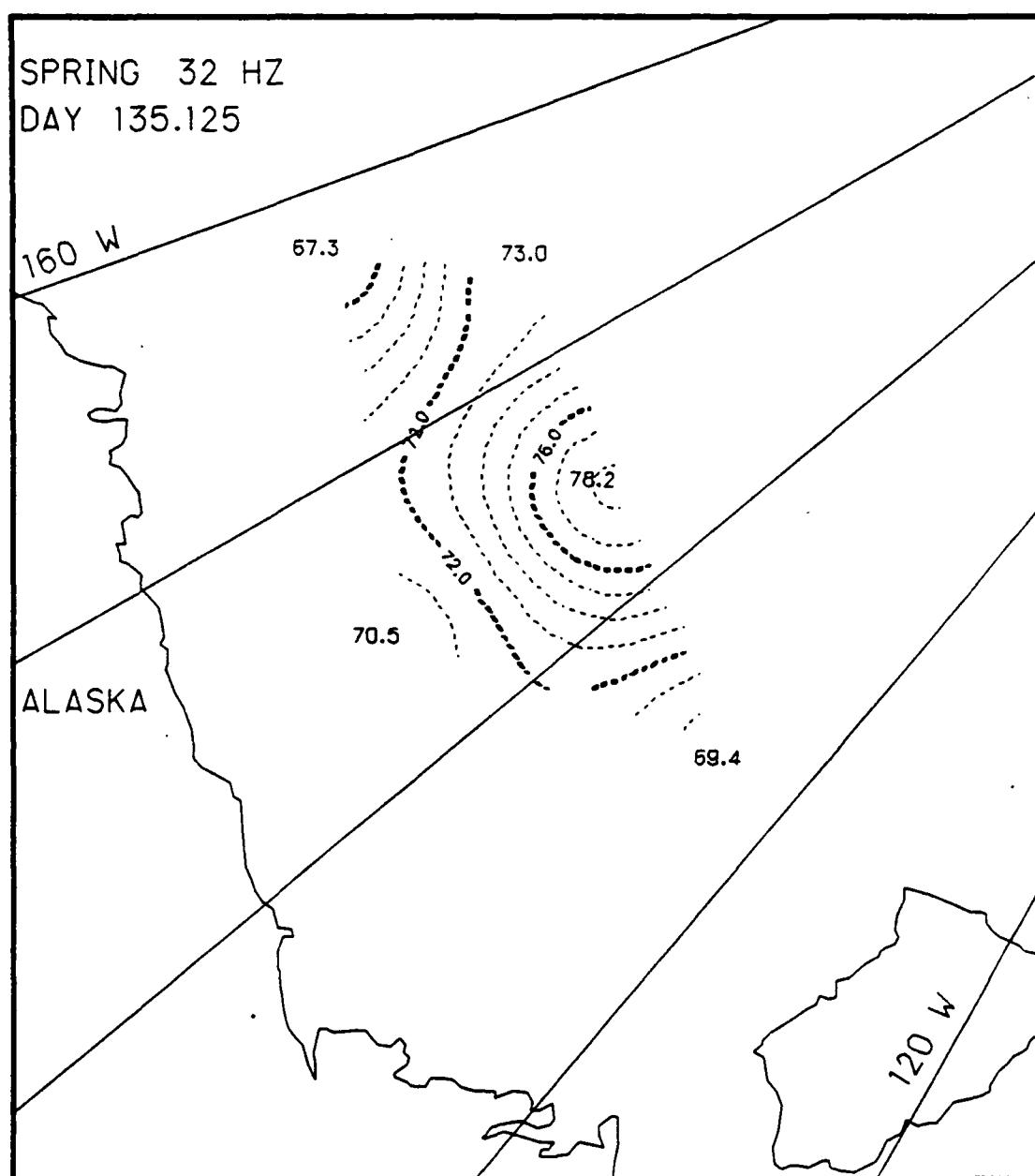


Fig. F.18. Spatial noise variations, day 135.125, based on the AIDJEX 32 Hz noise data.

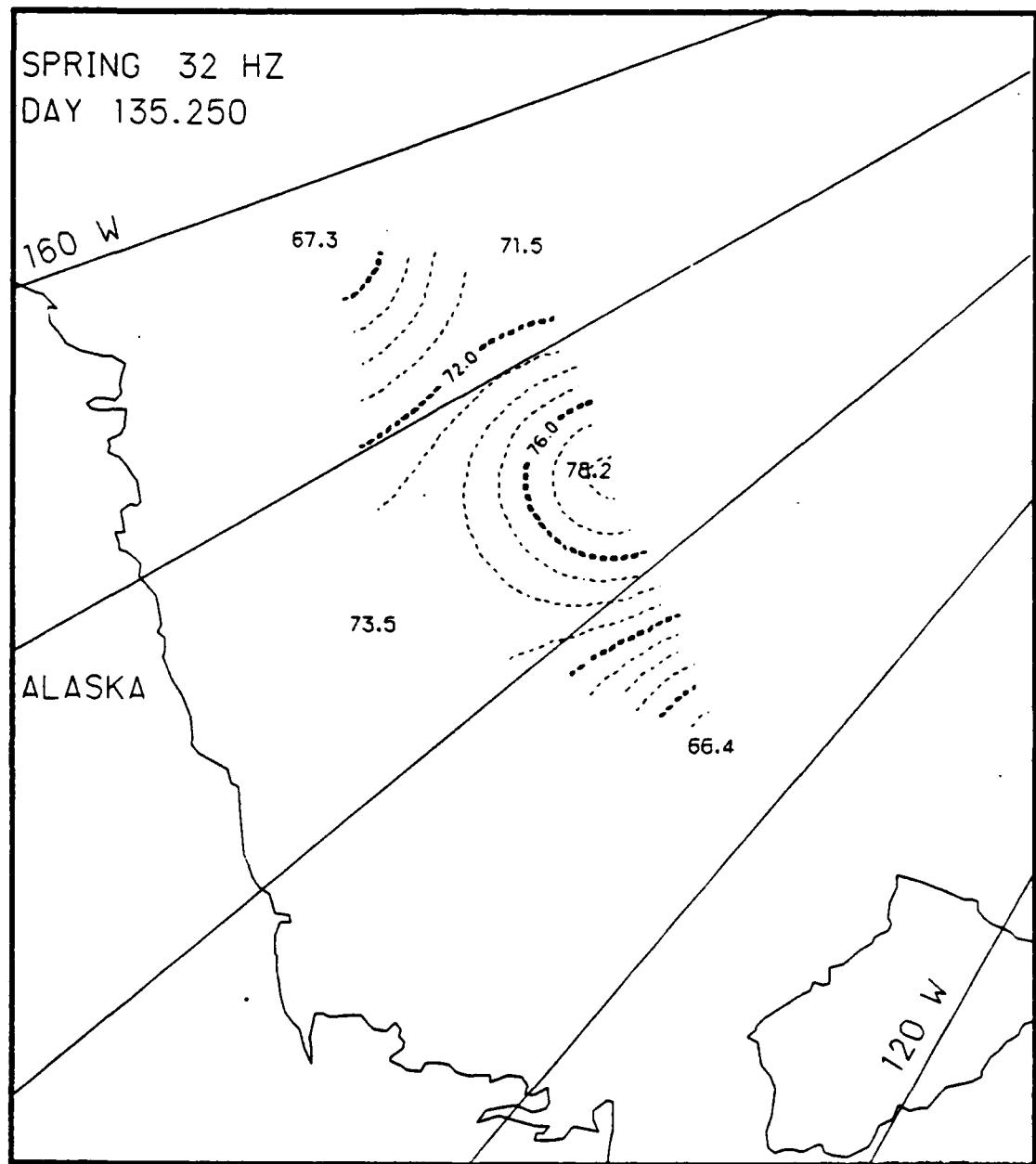


Fig. F.19. Spatial noise variations, day 135.25, based on the AIDJEX 32 Hz noise data.

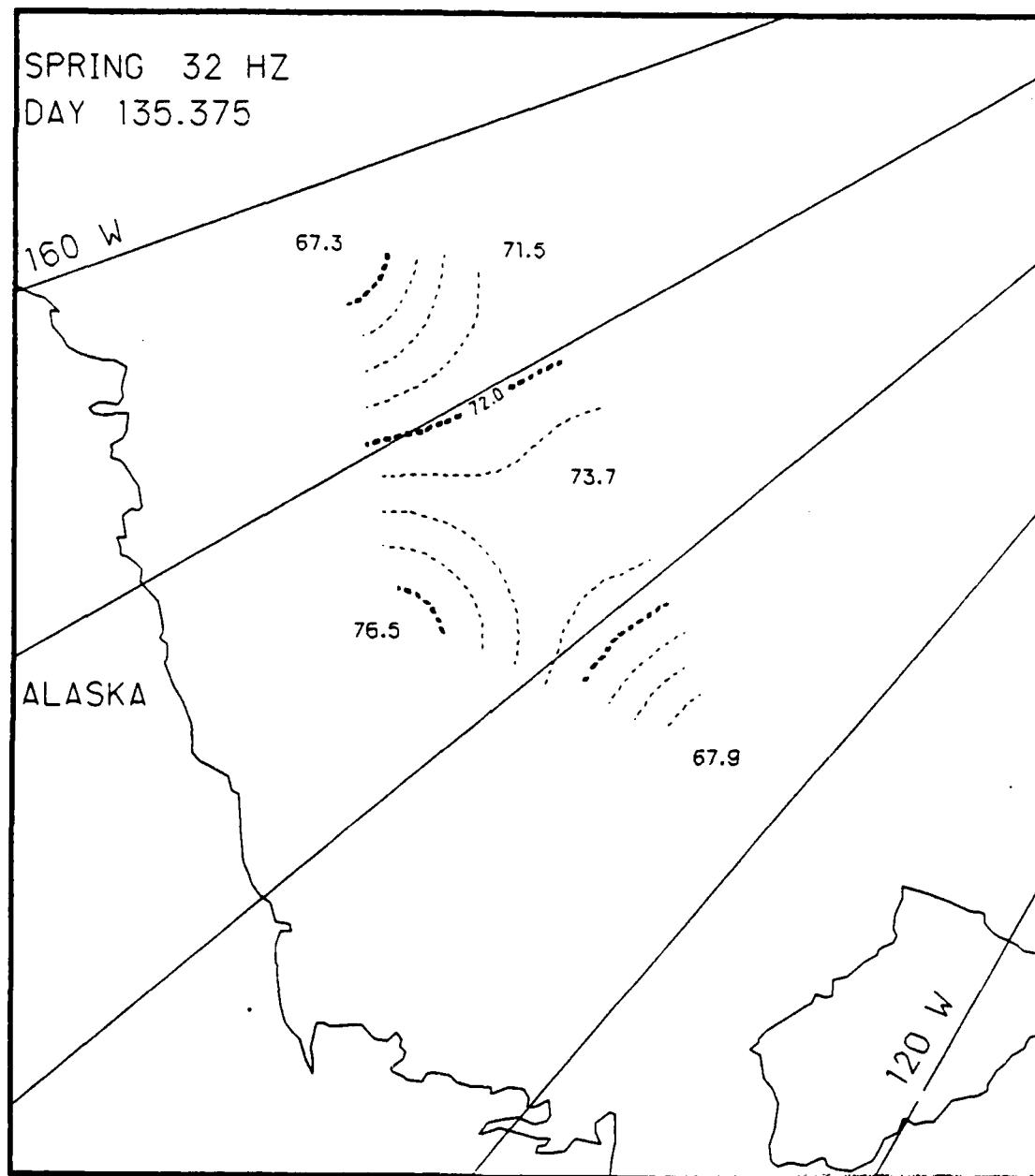


Fig. F.20. Spatial noise variations, day 135.375, based on the AIDJEX 32 Hz noise data.

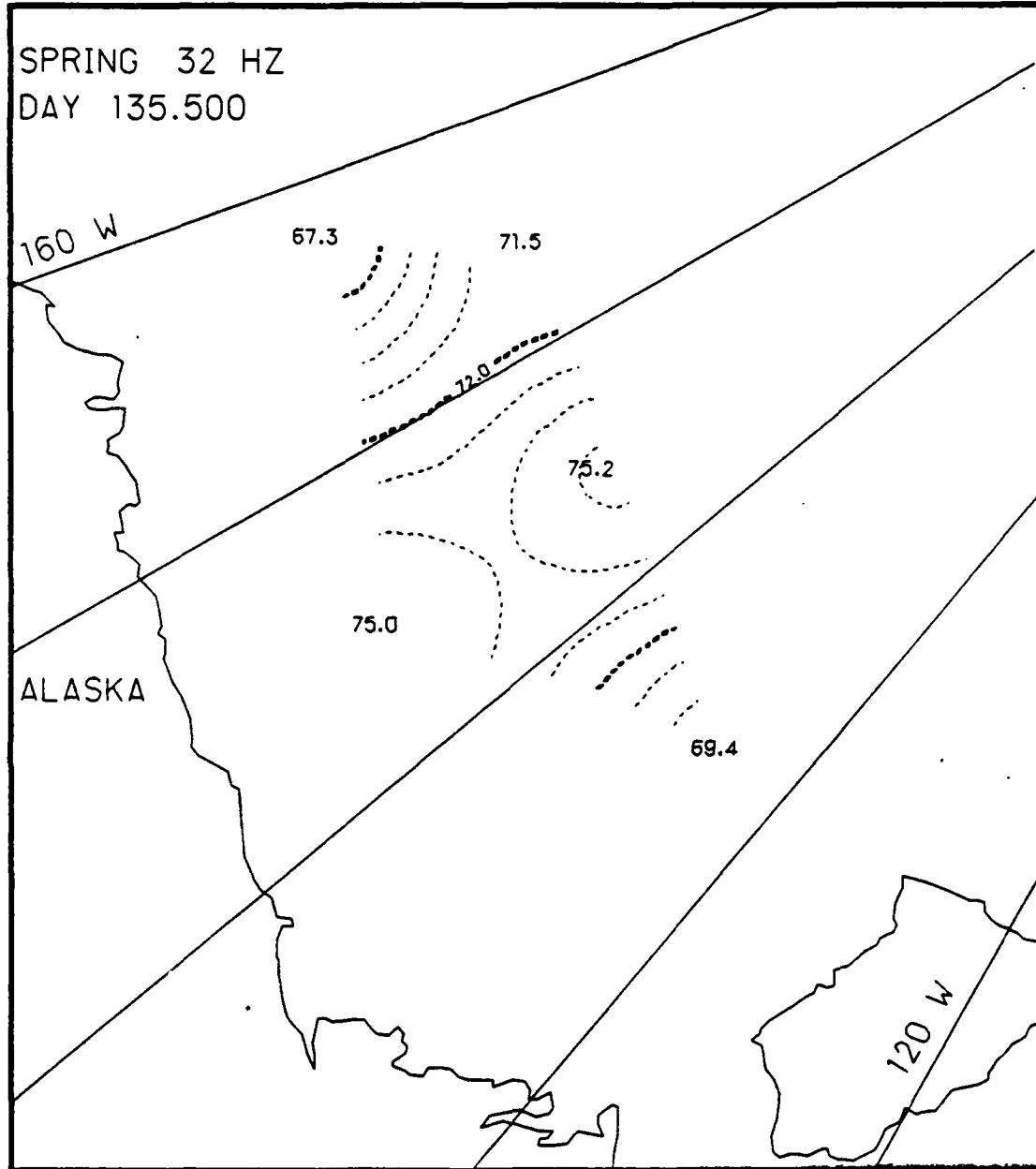


Fig. F.21. Spatial noise variations, day 135.5, based on the AIDJEX 32 Hz noise data.

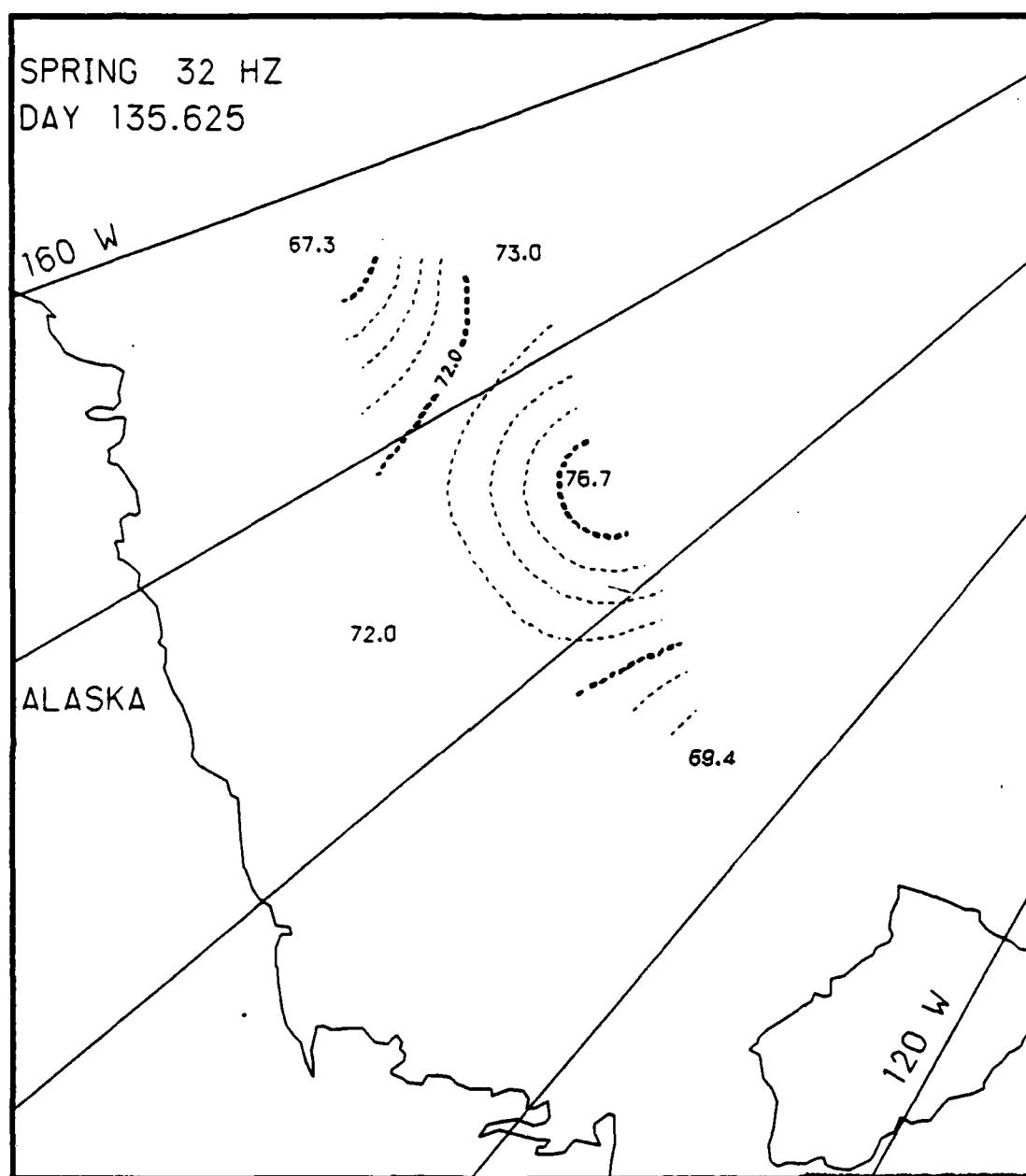


Fig. F.22. Spatial noise variations, day 135.625, based on the AIDJEX 32 Hz noise data.

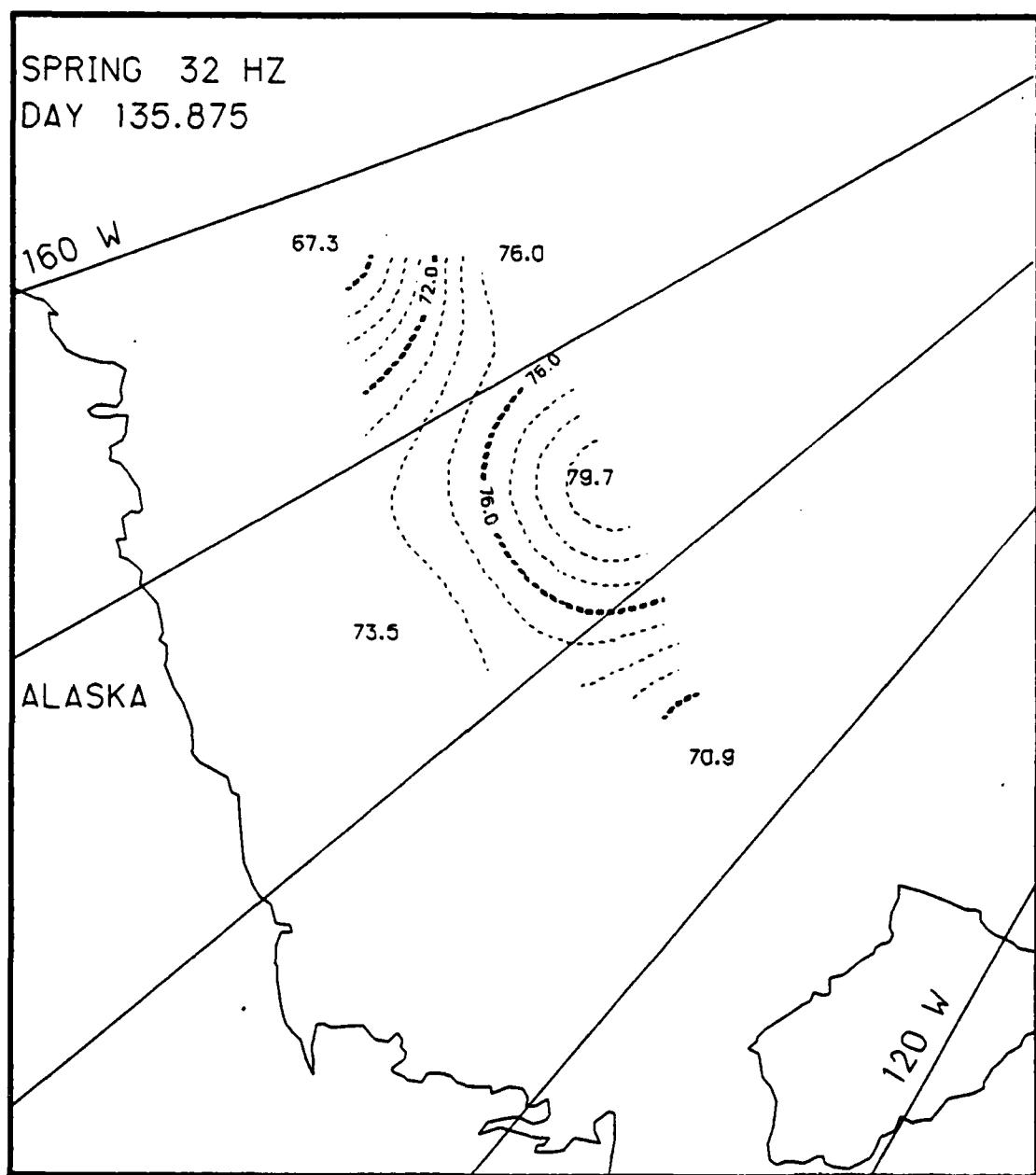


Fig. F.23. Spatial noise variations, day 135.875, based on the AIDJEX 32 Hz noise data.

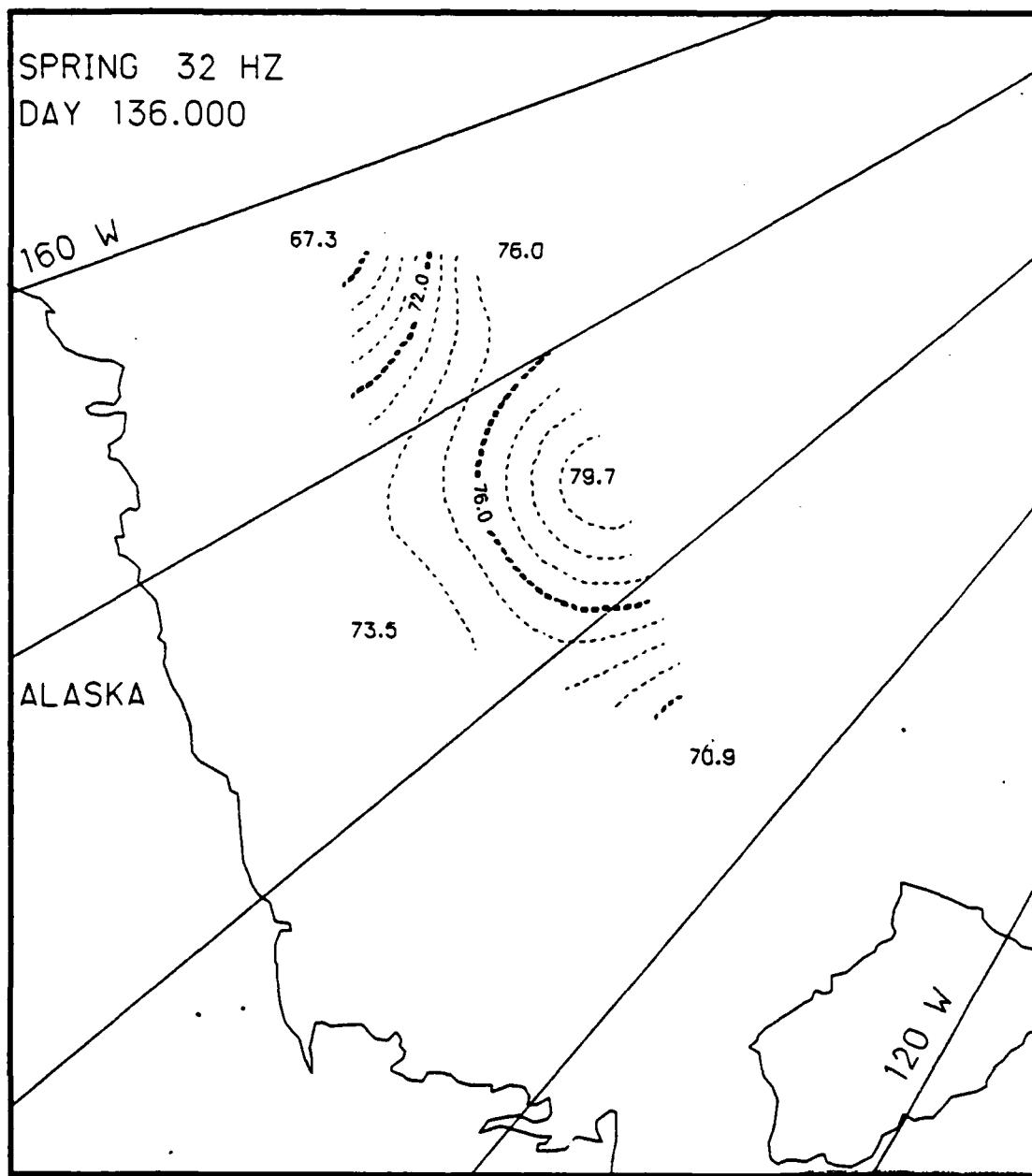


Fig. F.24. Spatial noise variations, day 136.0, based on the AIDJEX 32 Hz noise data.

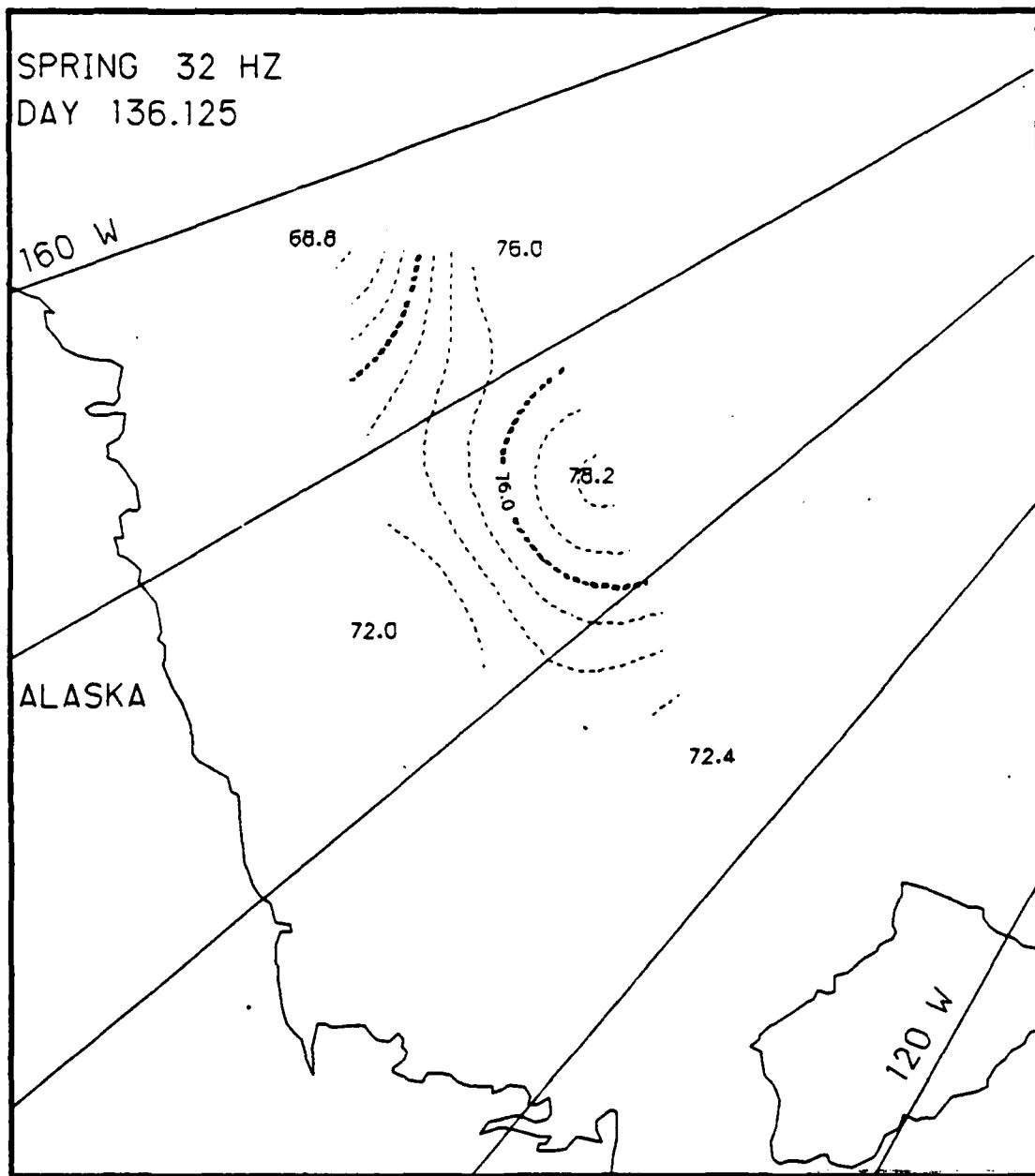


Fig. F.25. Spatial noise variations, day 136.125, based on the AIDJEX 32 Hz noise data.

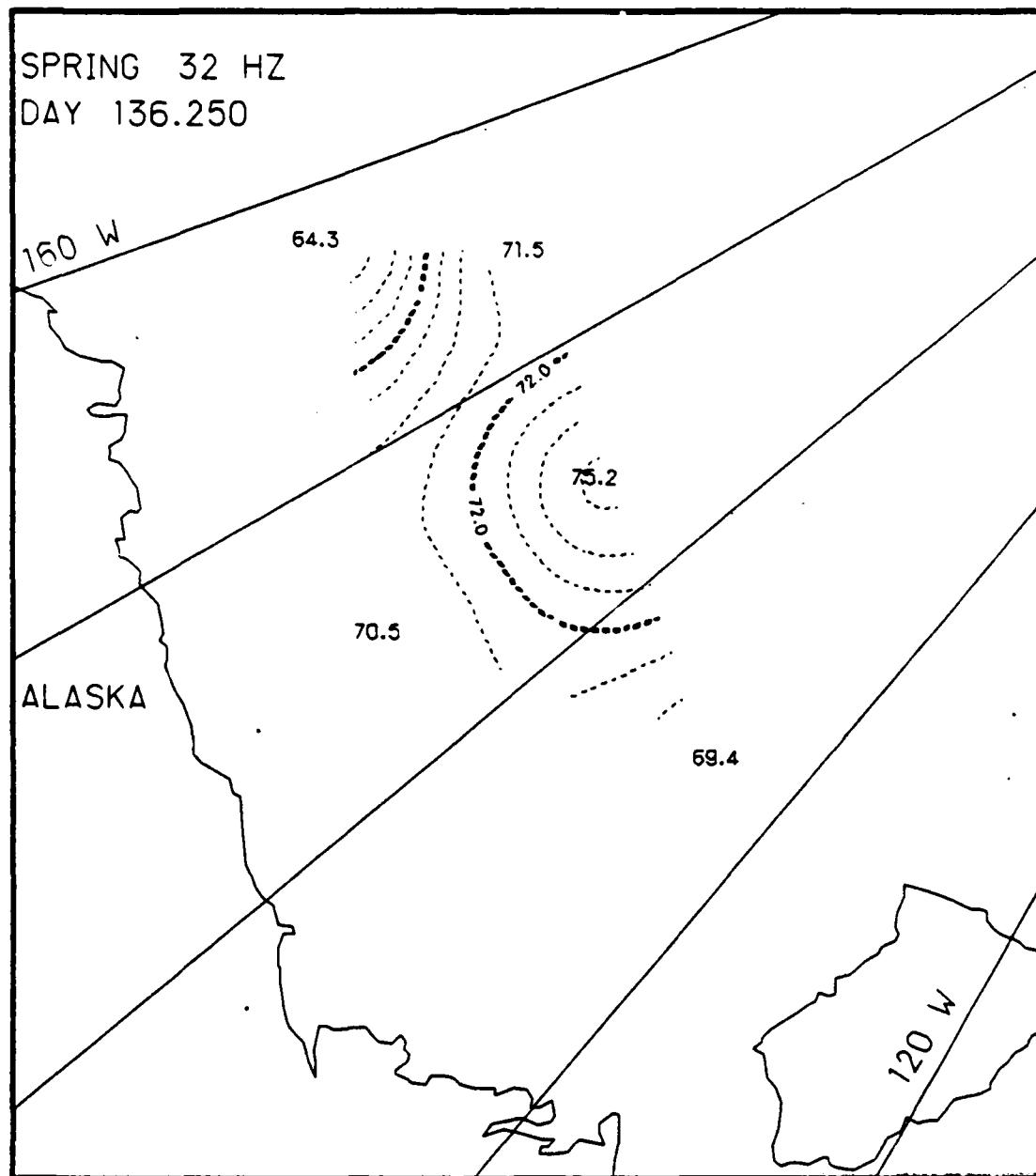


Fig. F.26. Spatial noise variations, day 136.25, based on the AIDJEX 32 Hz noise data.

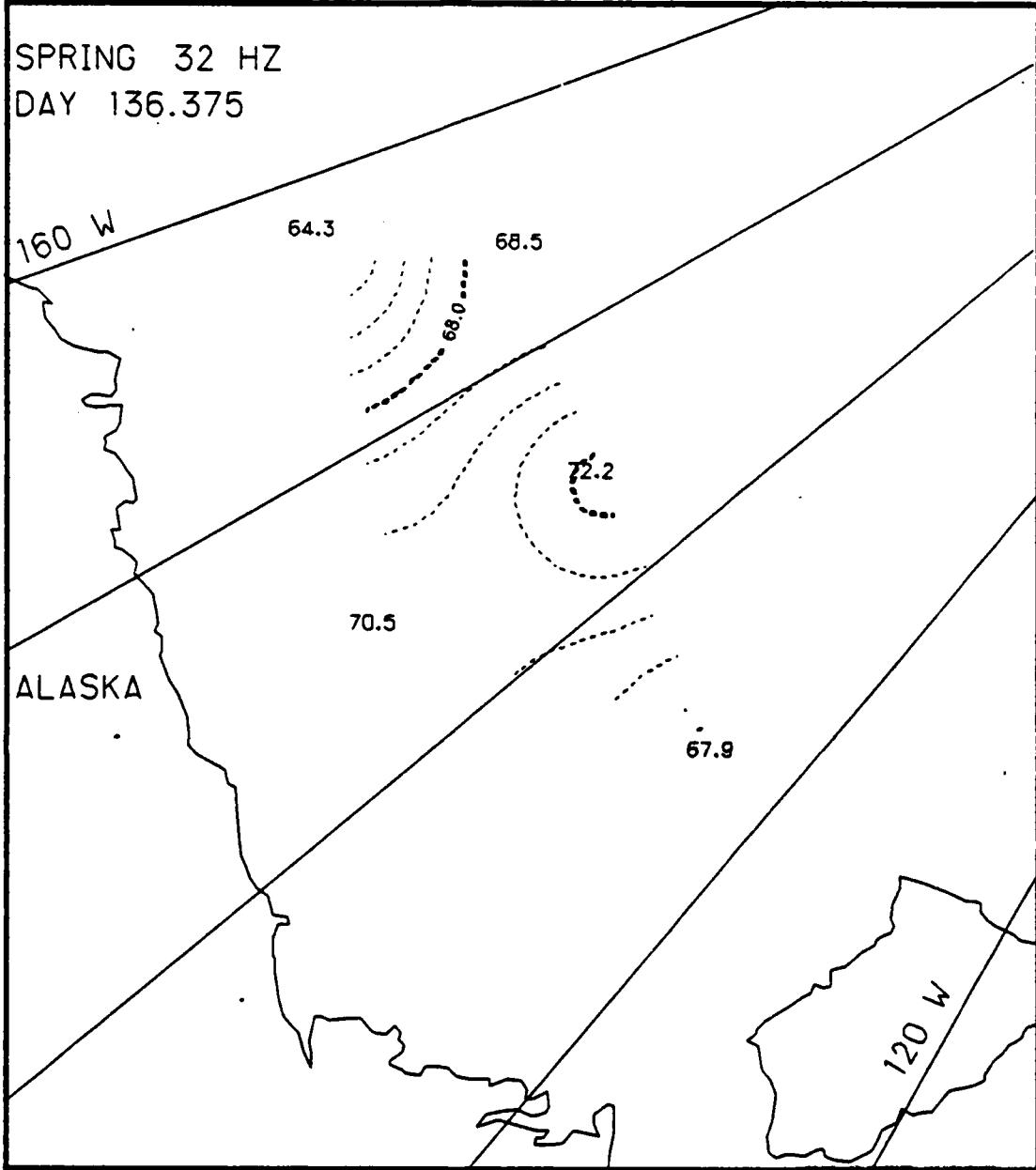


Fig. F.27. Spatial noise variations, day 136.375, based on the AIDJEX 32 Hz noise data.

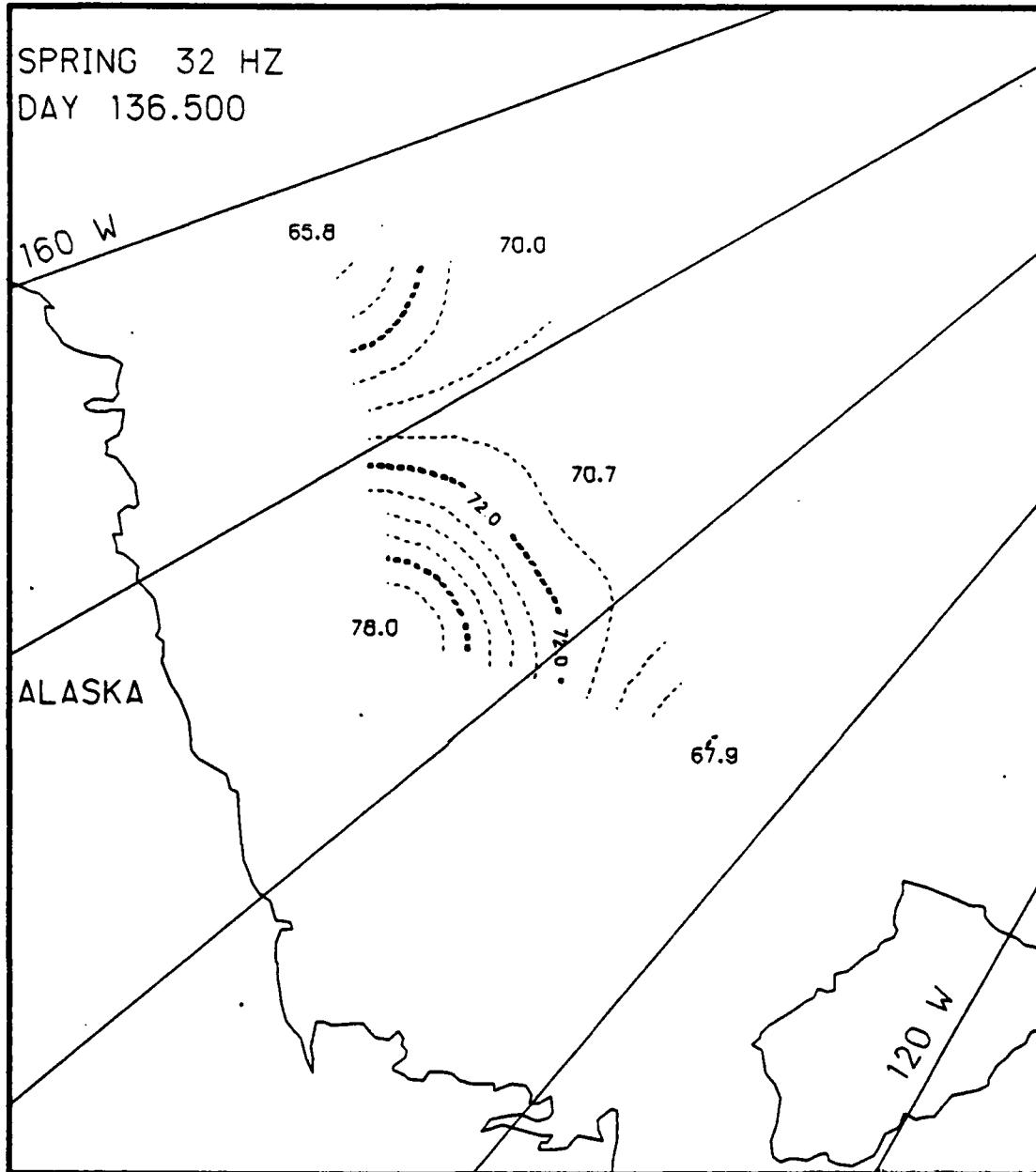


Fig. F.28. Spatial noise variations, day 136.5, based on the AIDJEX 32 Hz noise data.

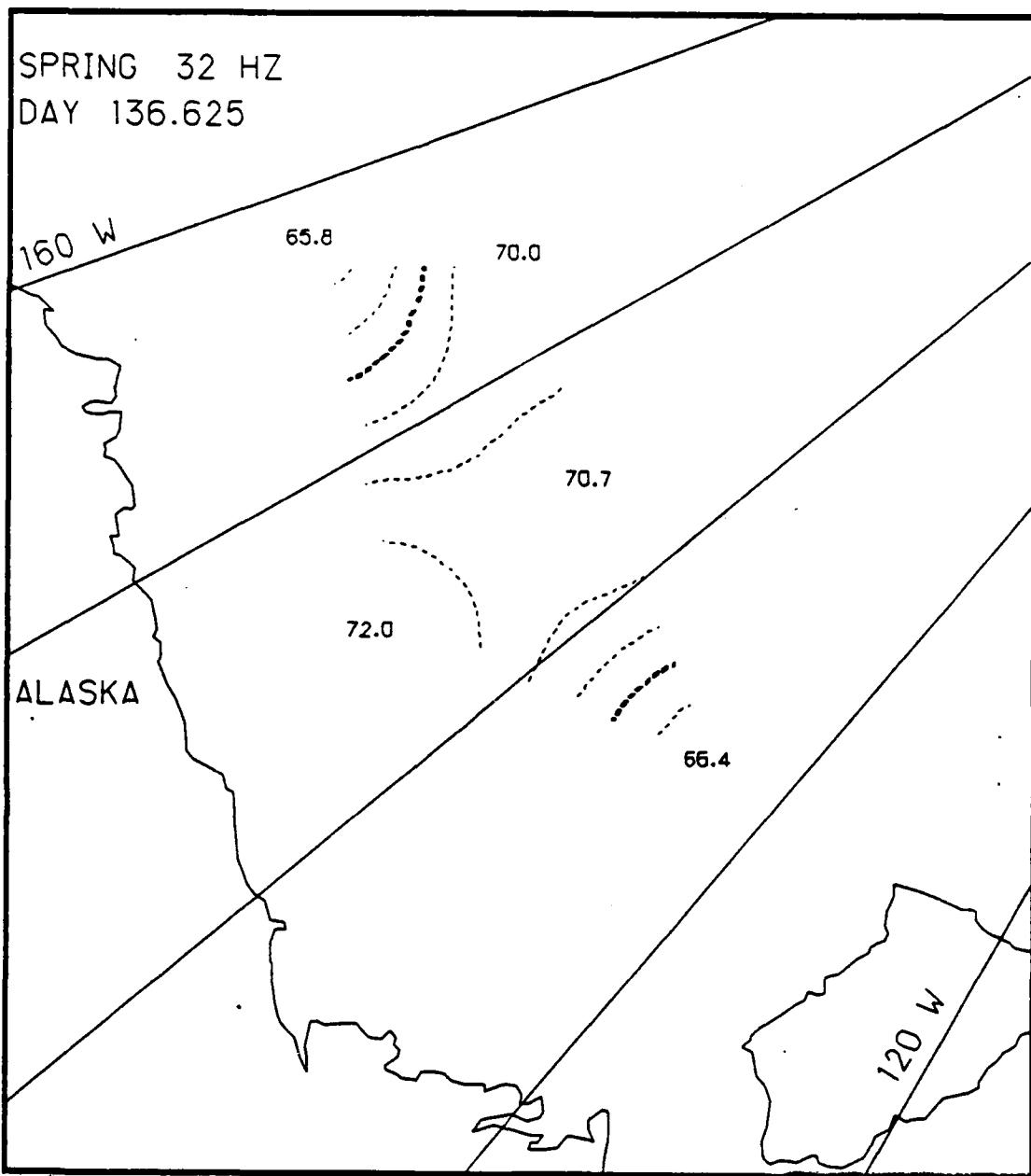


Fig. F.29. Spatial noise variations, day 136.625, based on the AIDJEX 32 Hz noise data.

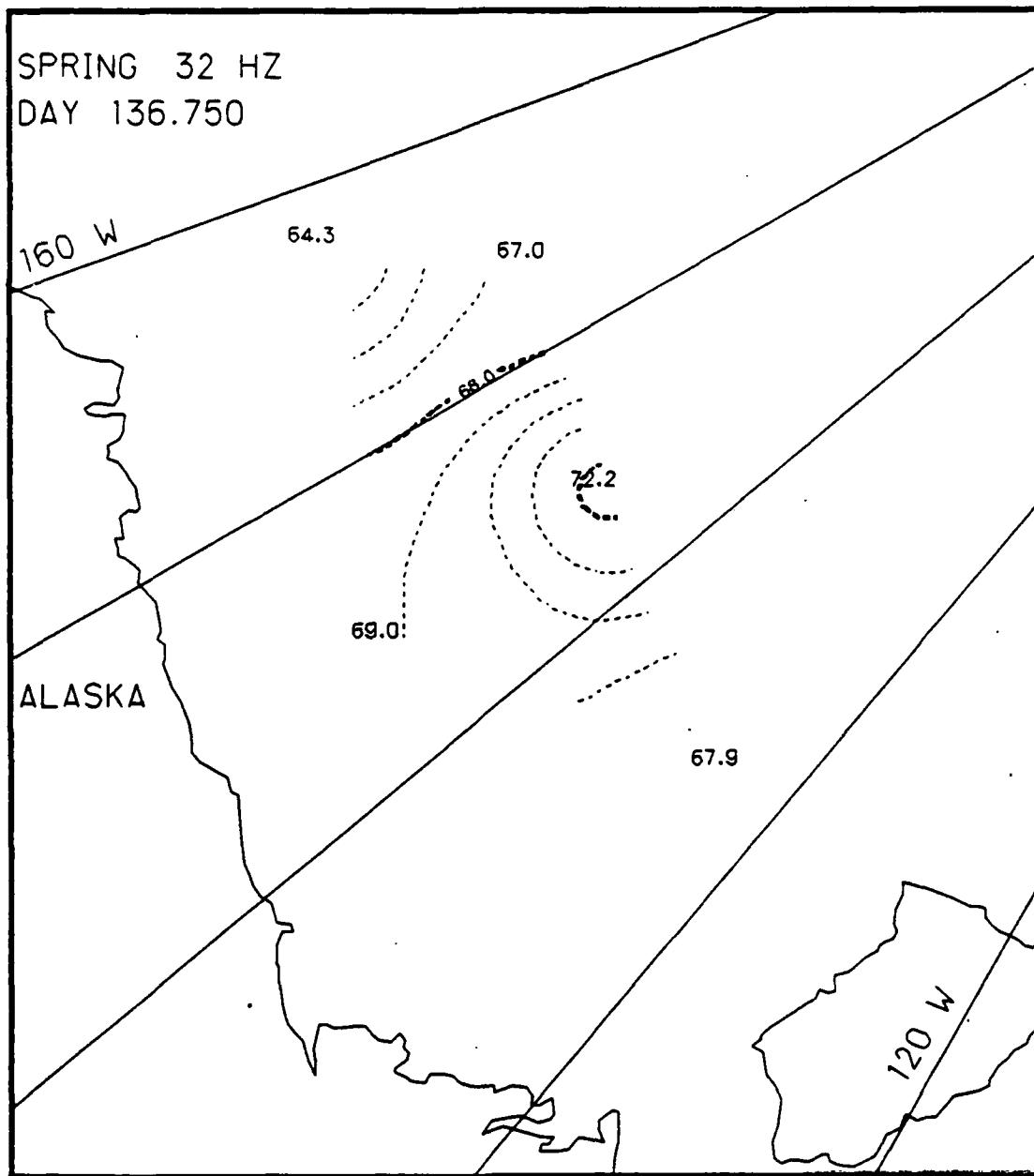


Fig. F.0. Spatial noise variations, day 136.75, based on the AIDJEX 32 Hz noise data.

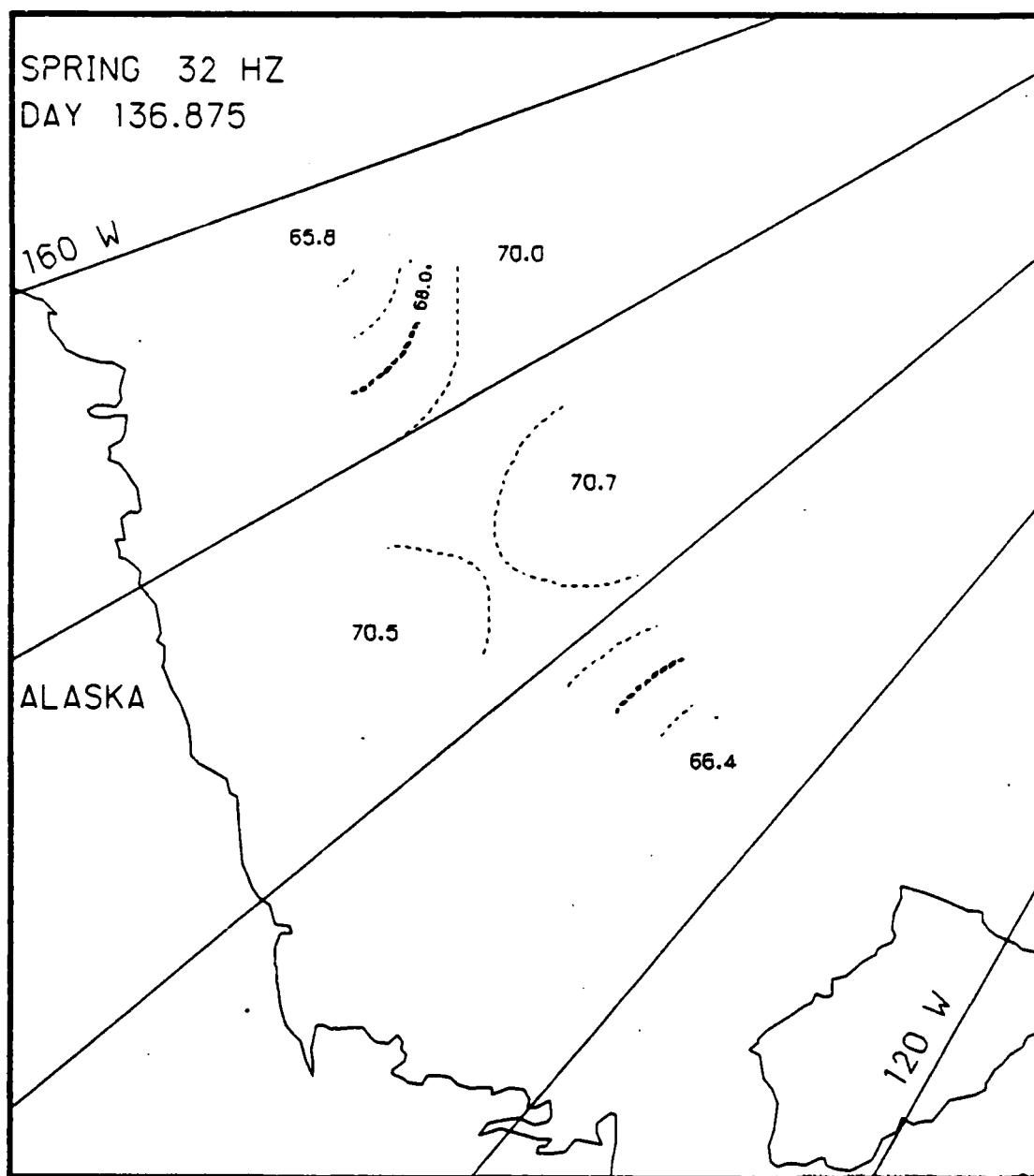


Fig. F.31. Spatial noise variations, day 136.875, based on the AIDJEX 32 Hz noise data.

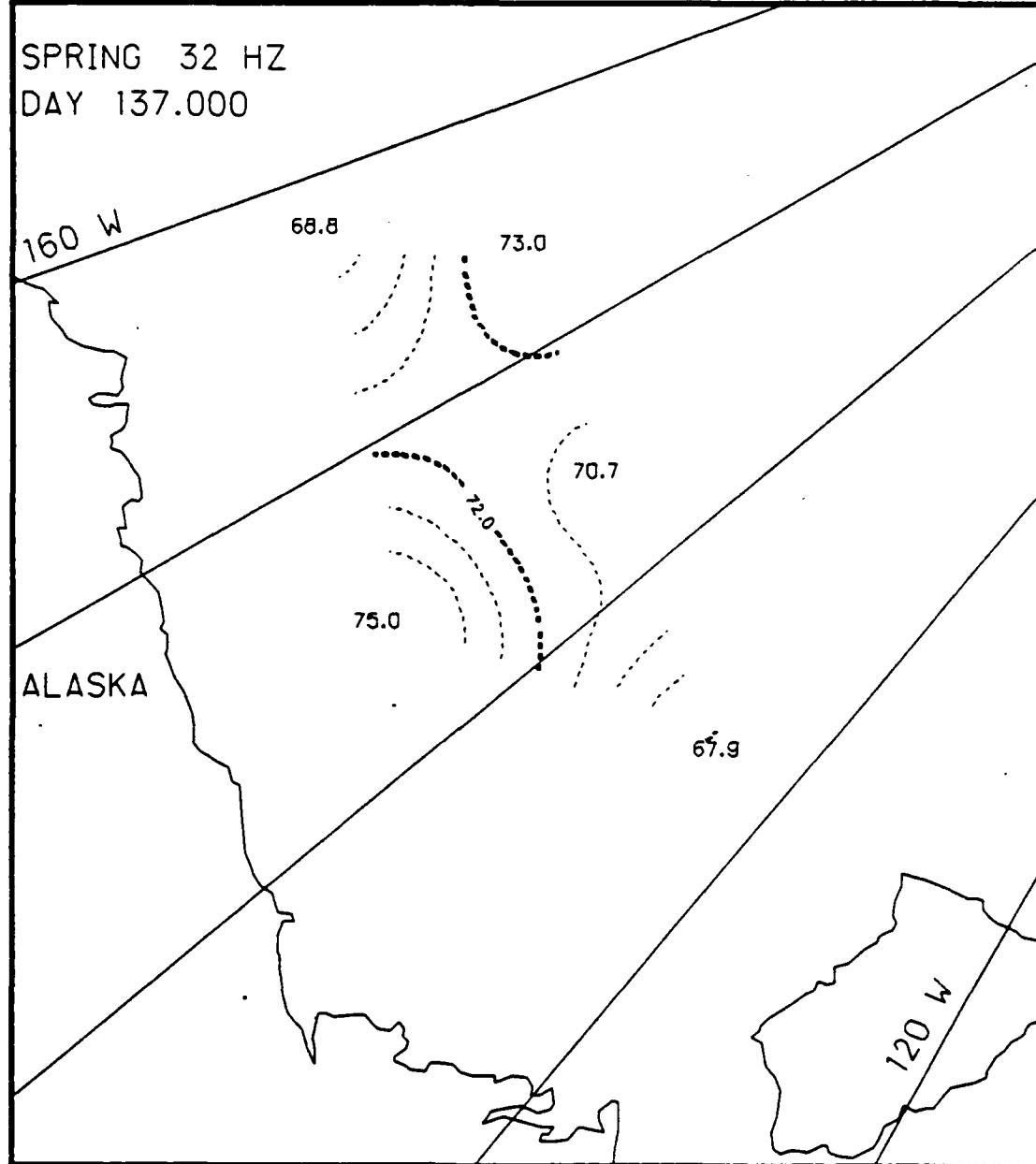


Fig. F.32. Spatial noise variations, day 137.0, based on the AIDJEX 32 Hz noise data.

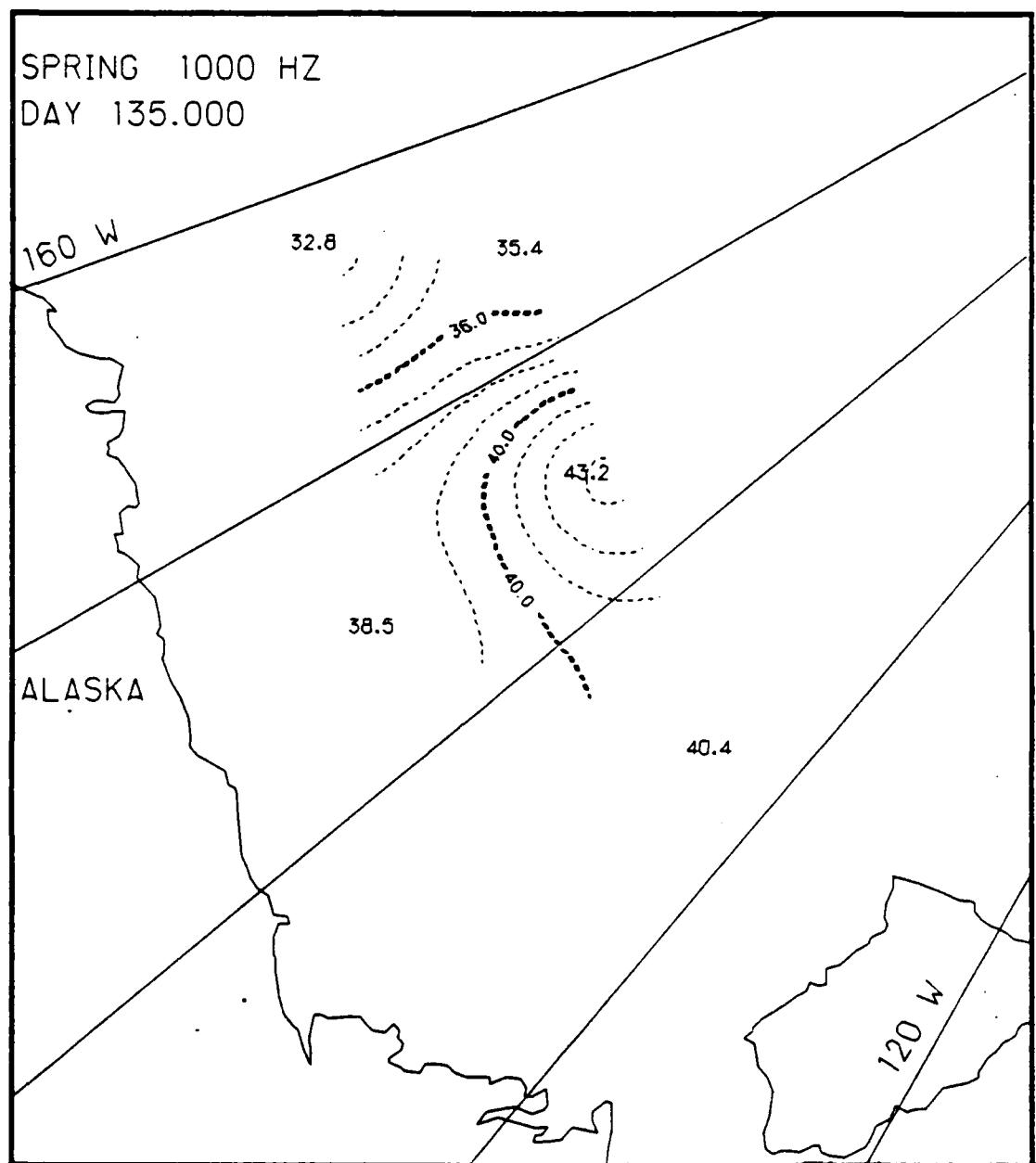


Fig. F.33. Spatial noise variations, day 135.0, based on the AIDJEX 1000 Hz noise data.

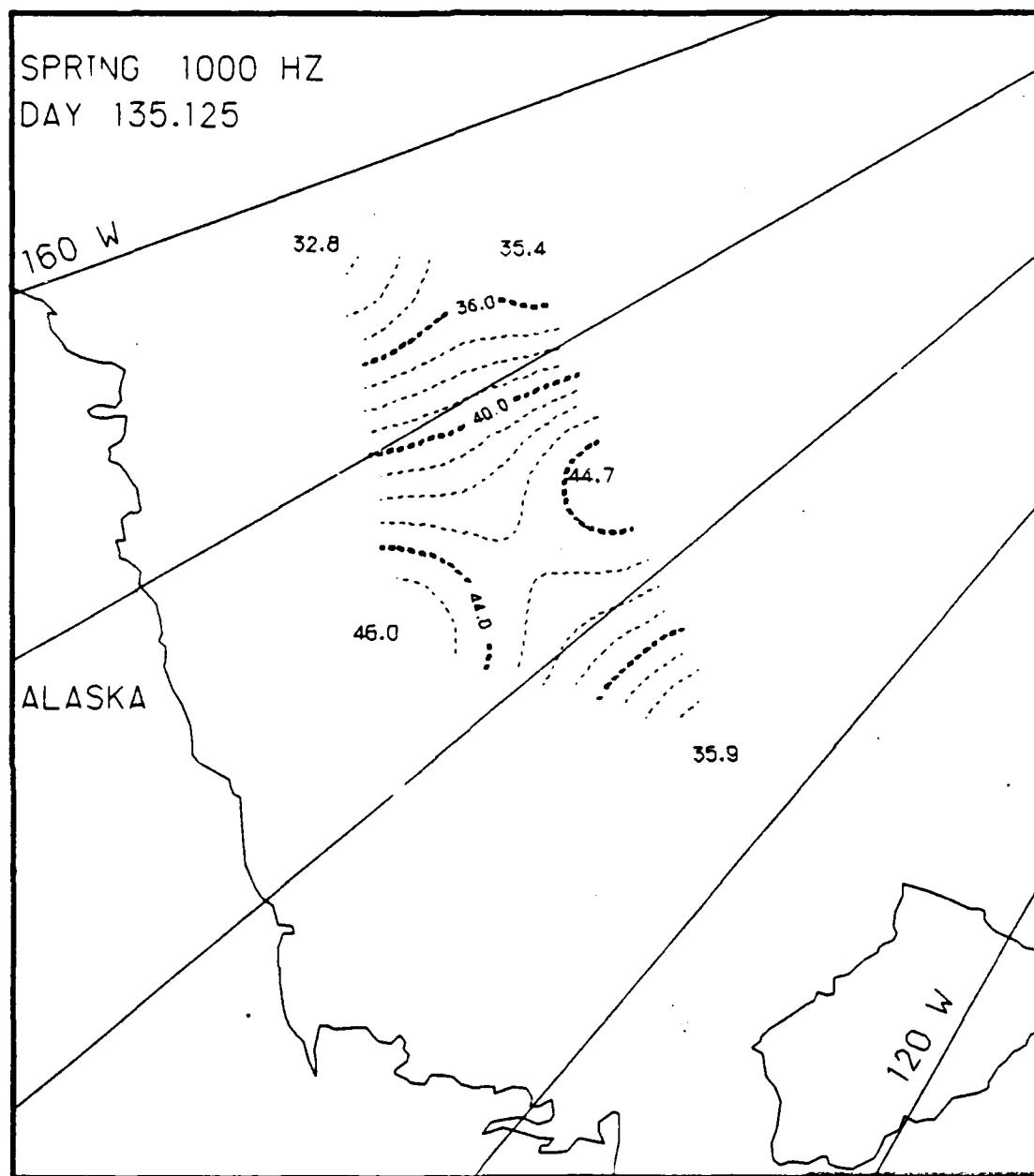


Fig. F.34. Spatial noise variations, day 135.125, based on the AIDJEX 1000 Hz noise data.

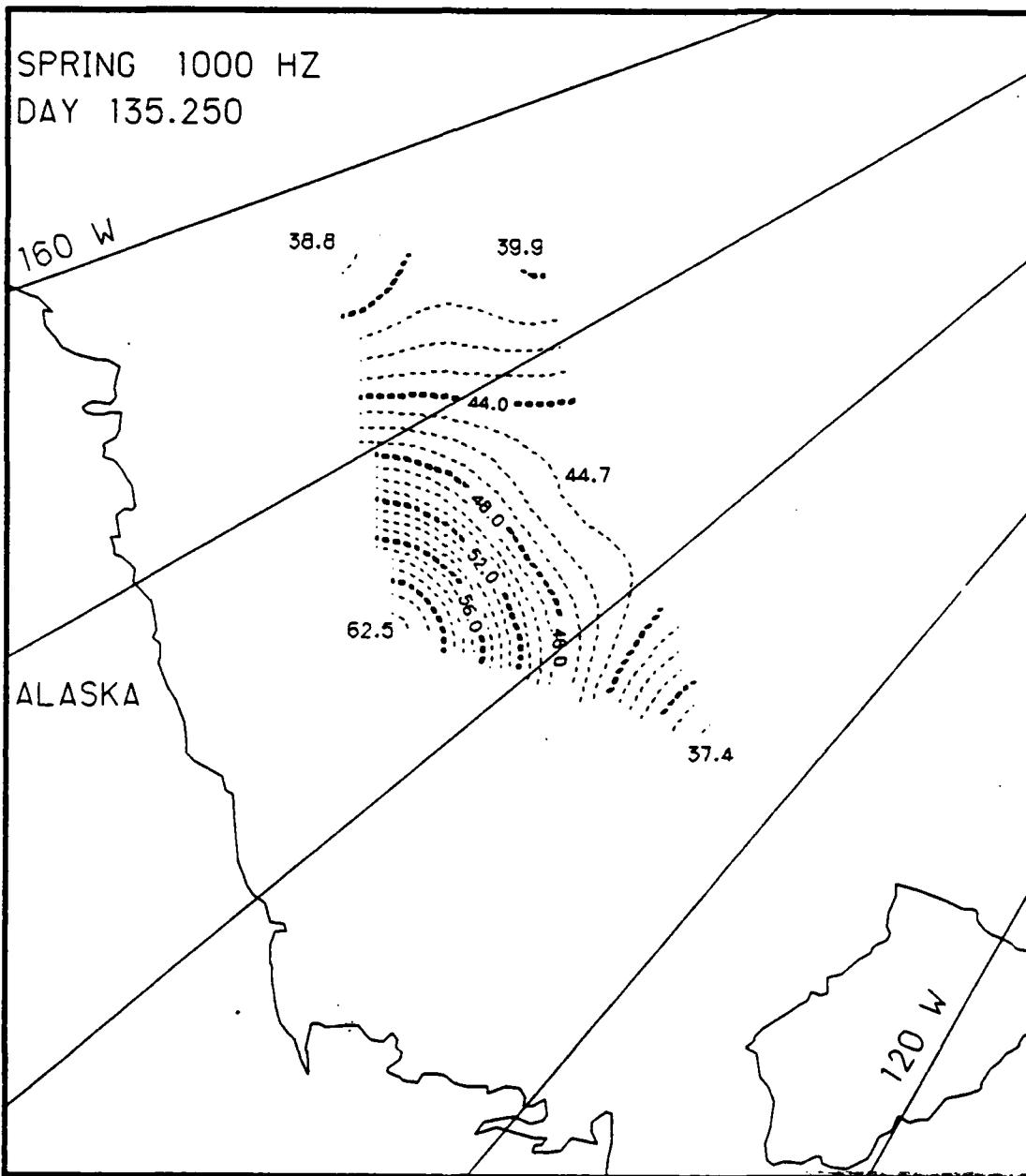


Fig. F.35. Spatial noise variations, day 135.25, based on the AIDJEX 1000 Hz noise data.

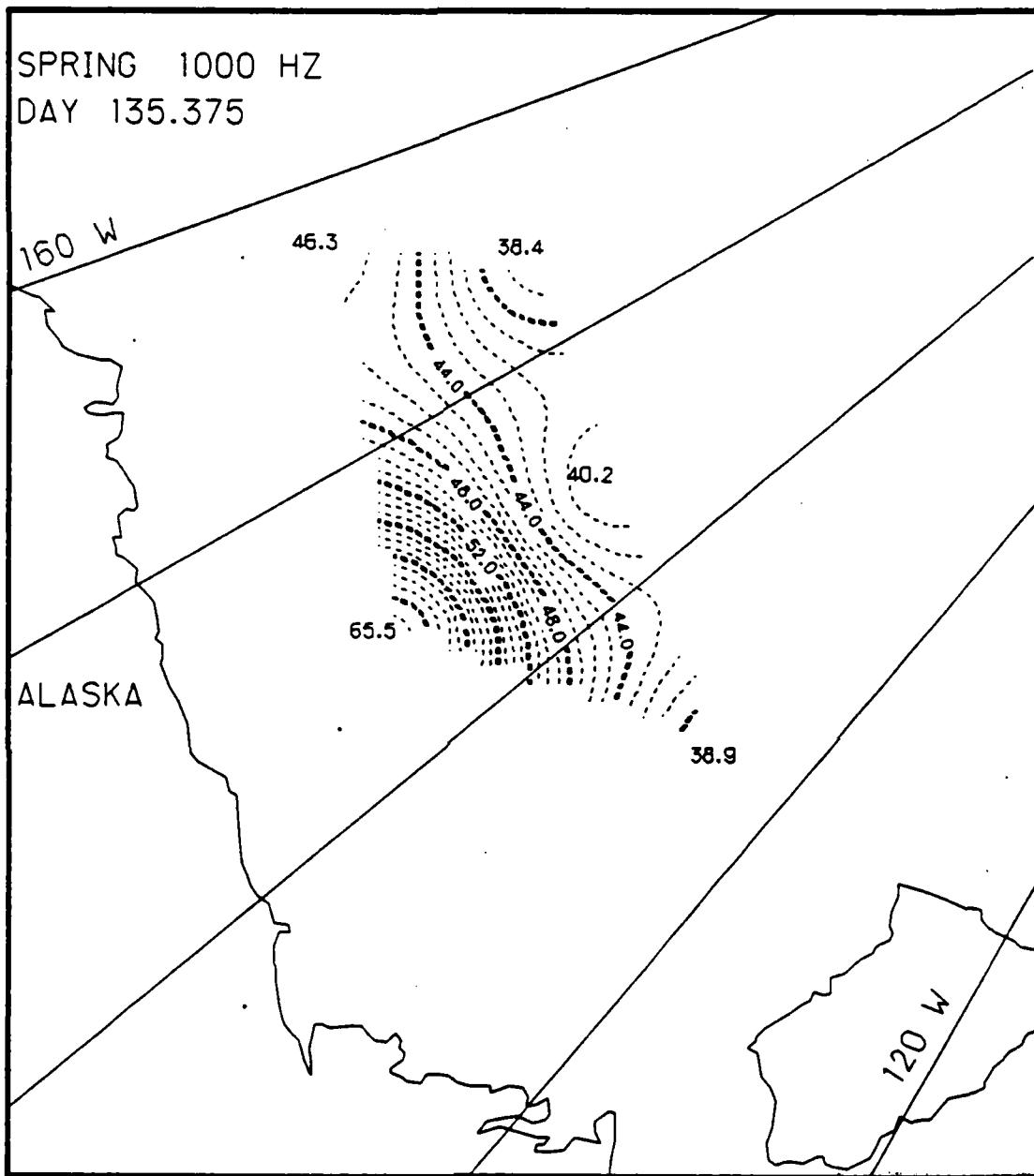


Fig. F.36. Spatial noise variations, day 135.375, based on the AIDJEX 1000 Hz noise data.

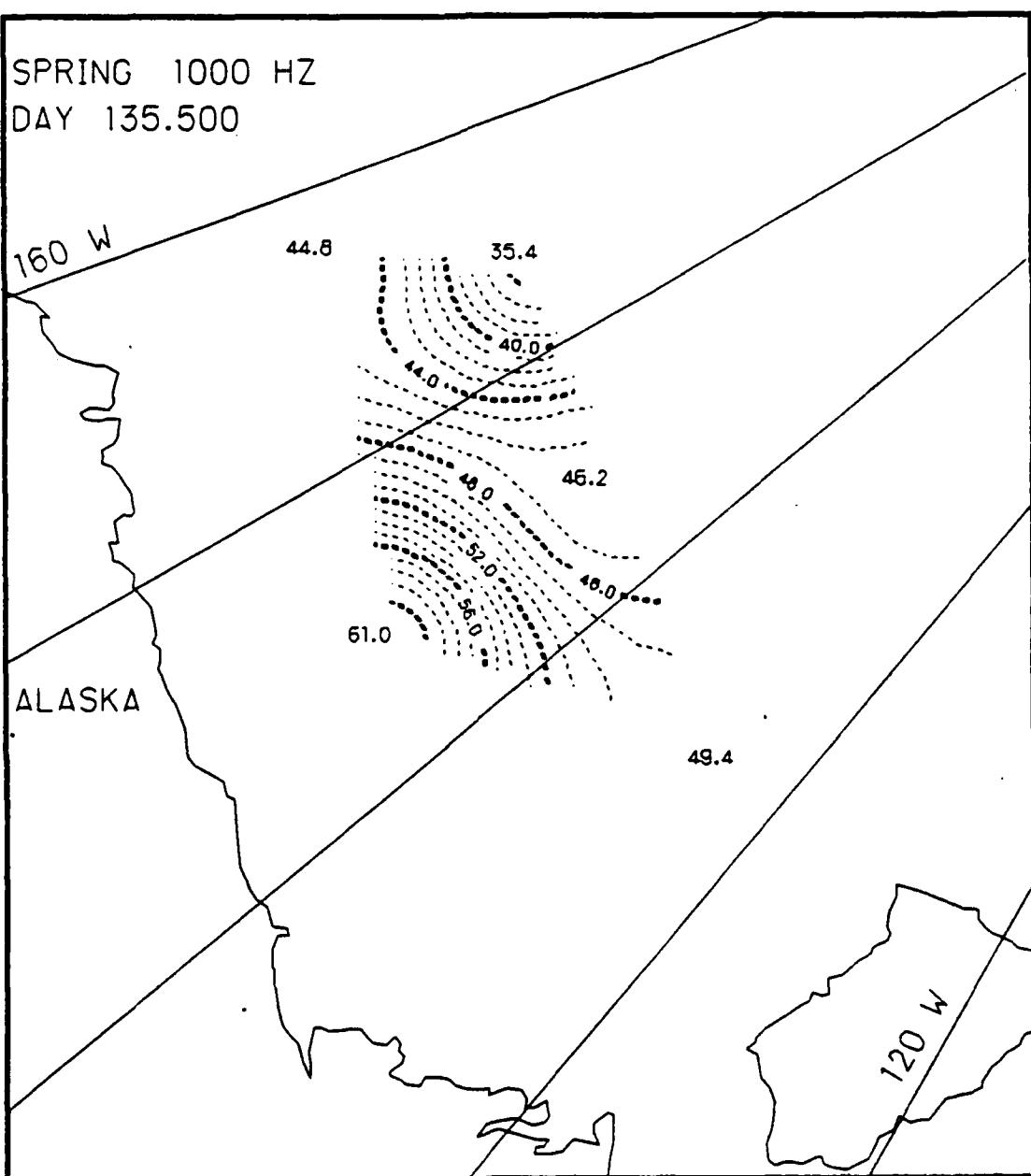


Fig. F.37. Spatial noise variations, day 135.5, based on the AIDJEX 1000 Hz noise data.

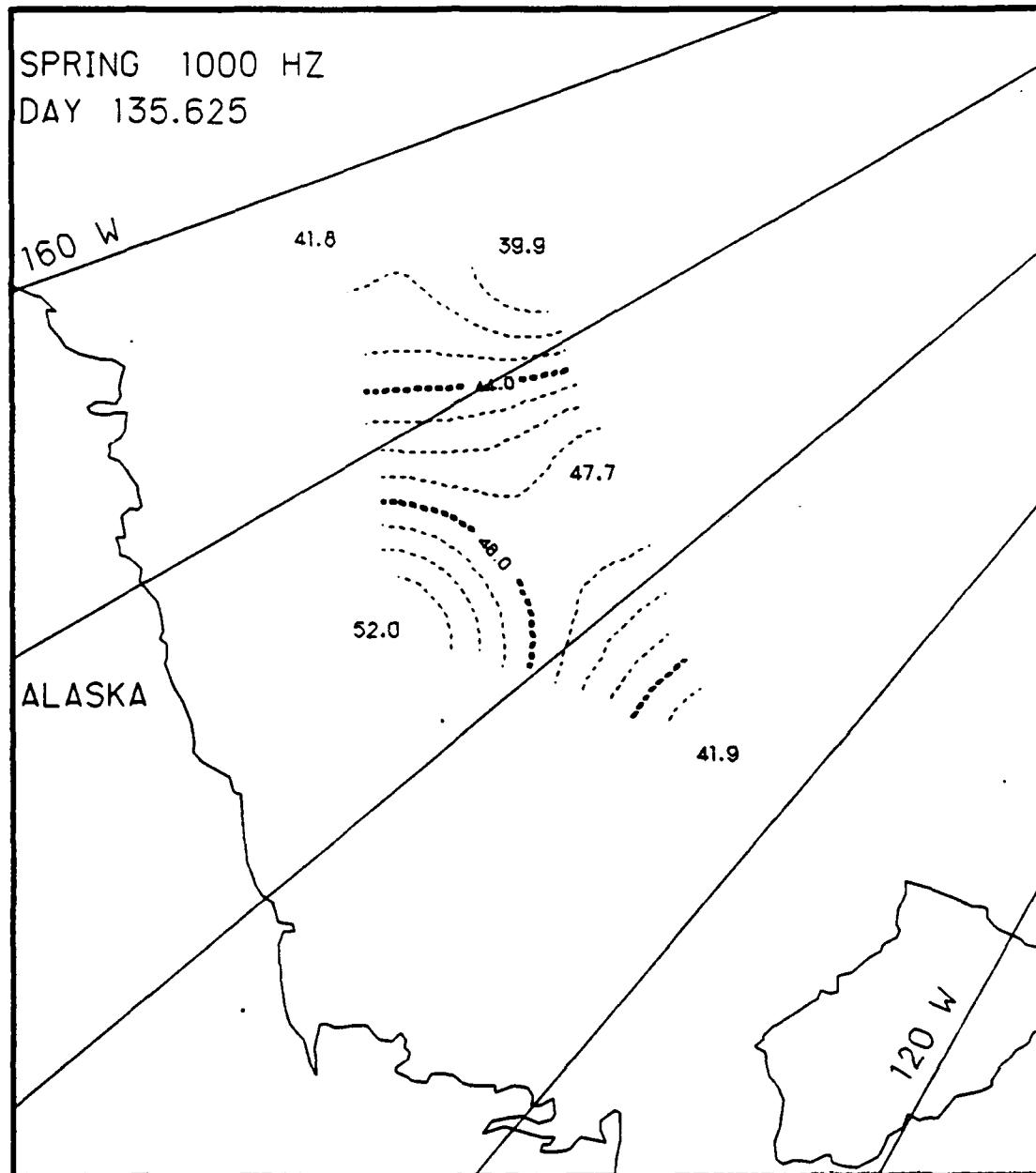


Fig. F.38. Spatial noise variations, day 135.625, based on the AIDJEX 1000 Hz noise data.

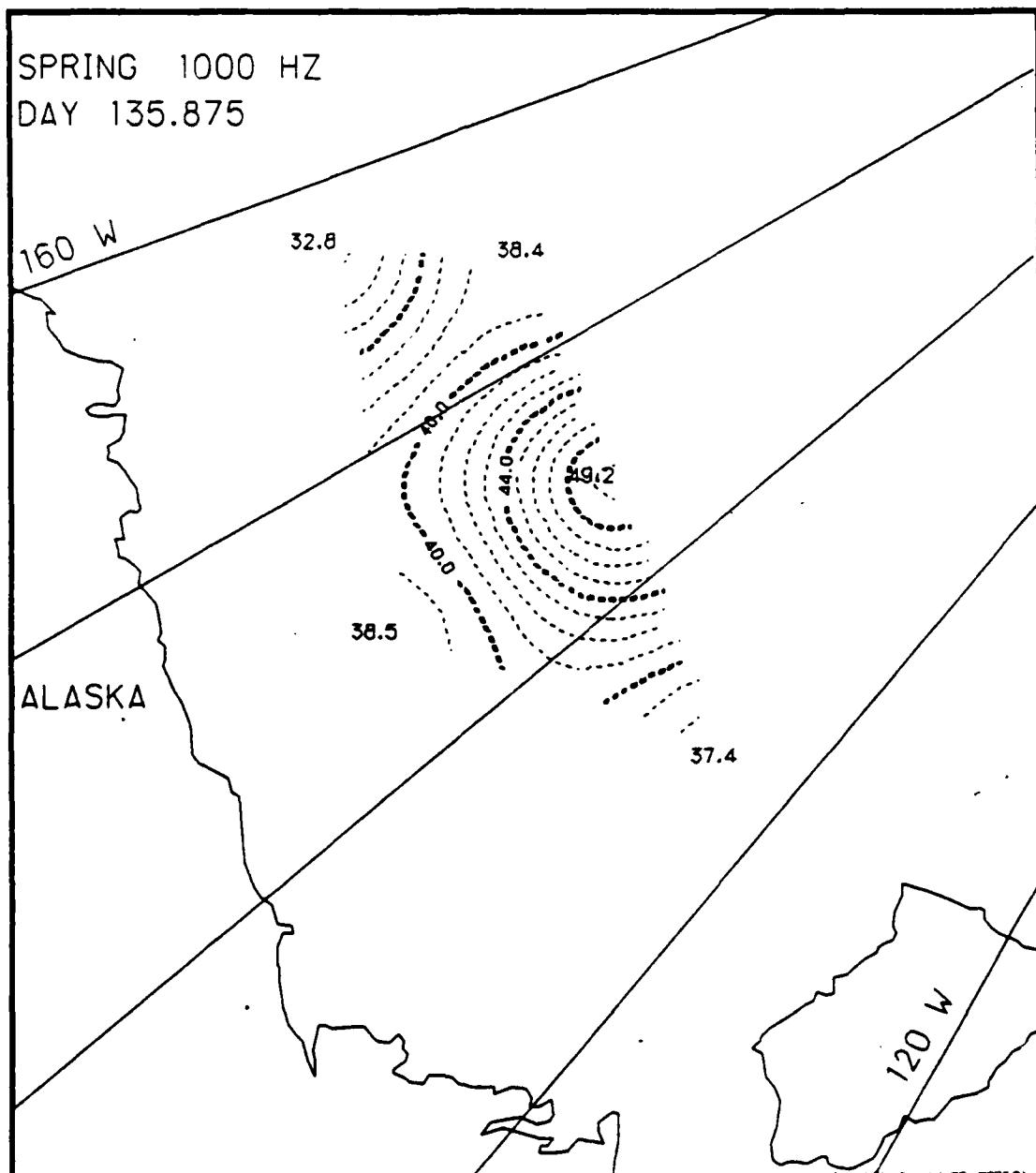


Fig. F.39. Spatial noise variations, day 135.875, based on the AIDJEX 1000 Hz noise data.

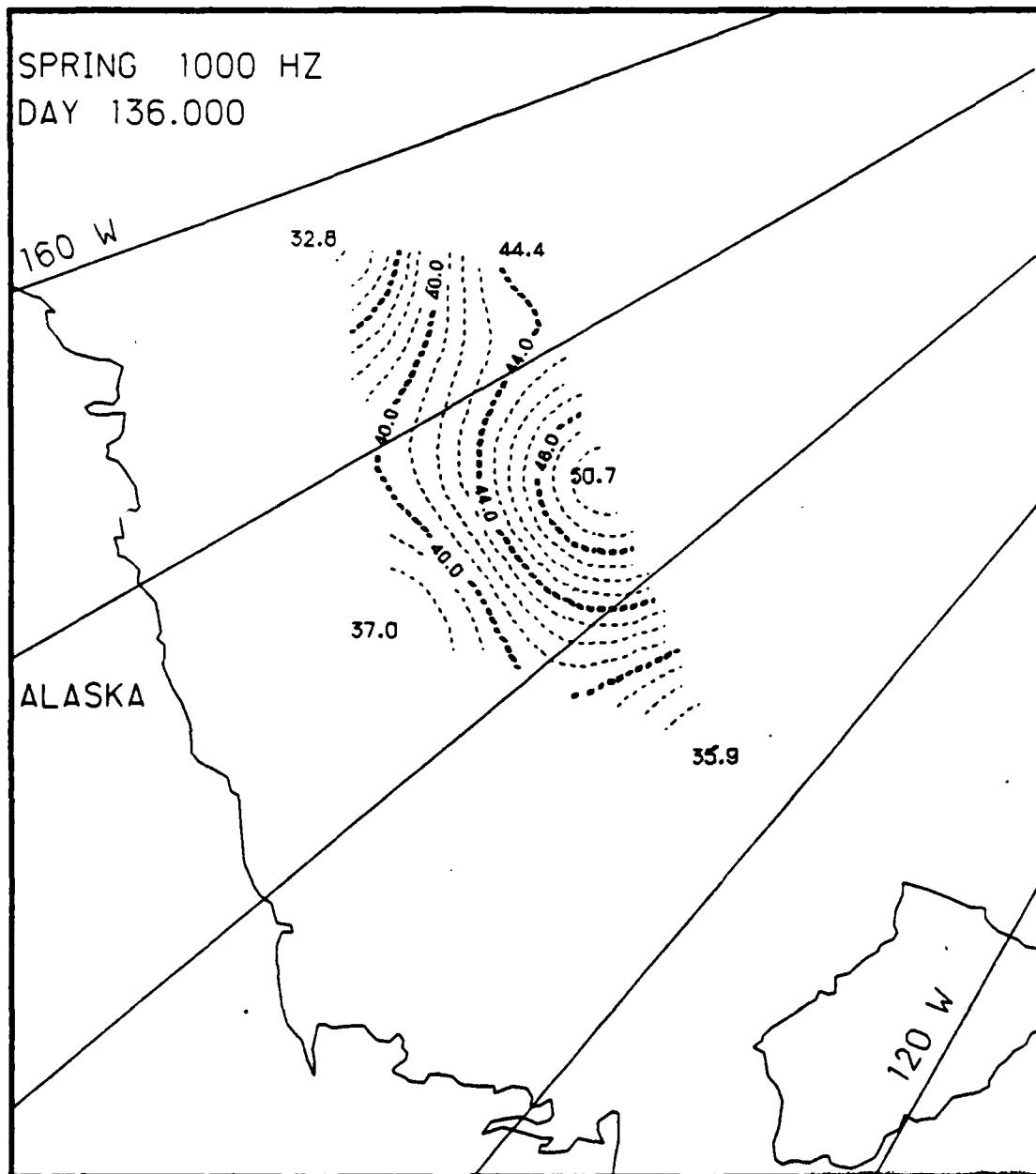


Fig. F.40. Spatial noise variations, day 136.0, based on the AIDJEX 1000 Hz noise data.

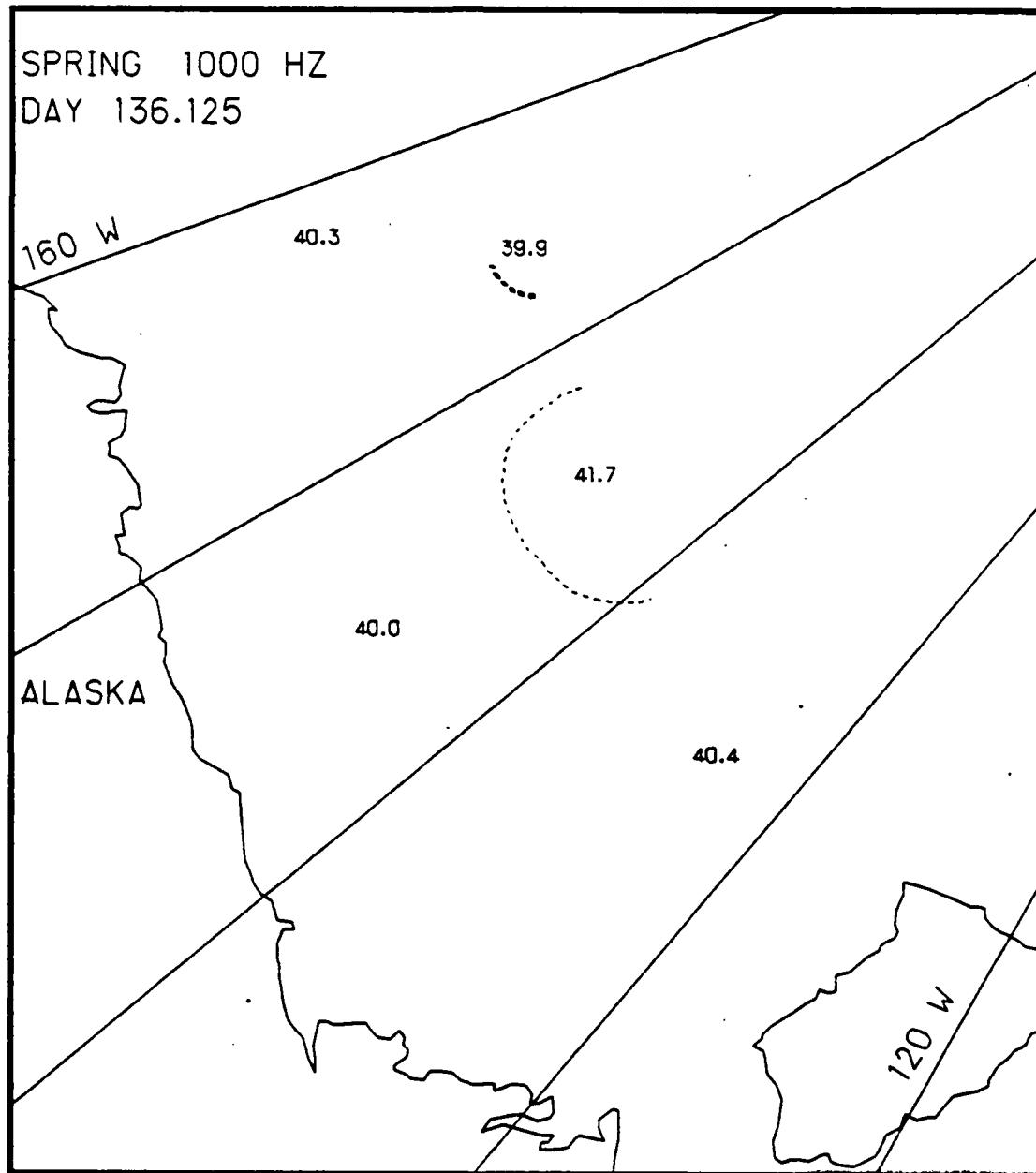


Fig. F.41. Spatial noise variations, day 136.125, based on the AIDJEX 1000 Hz noise data.

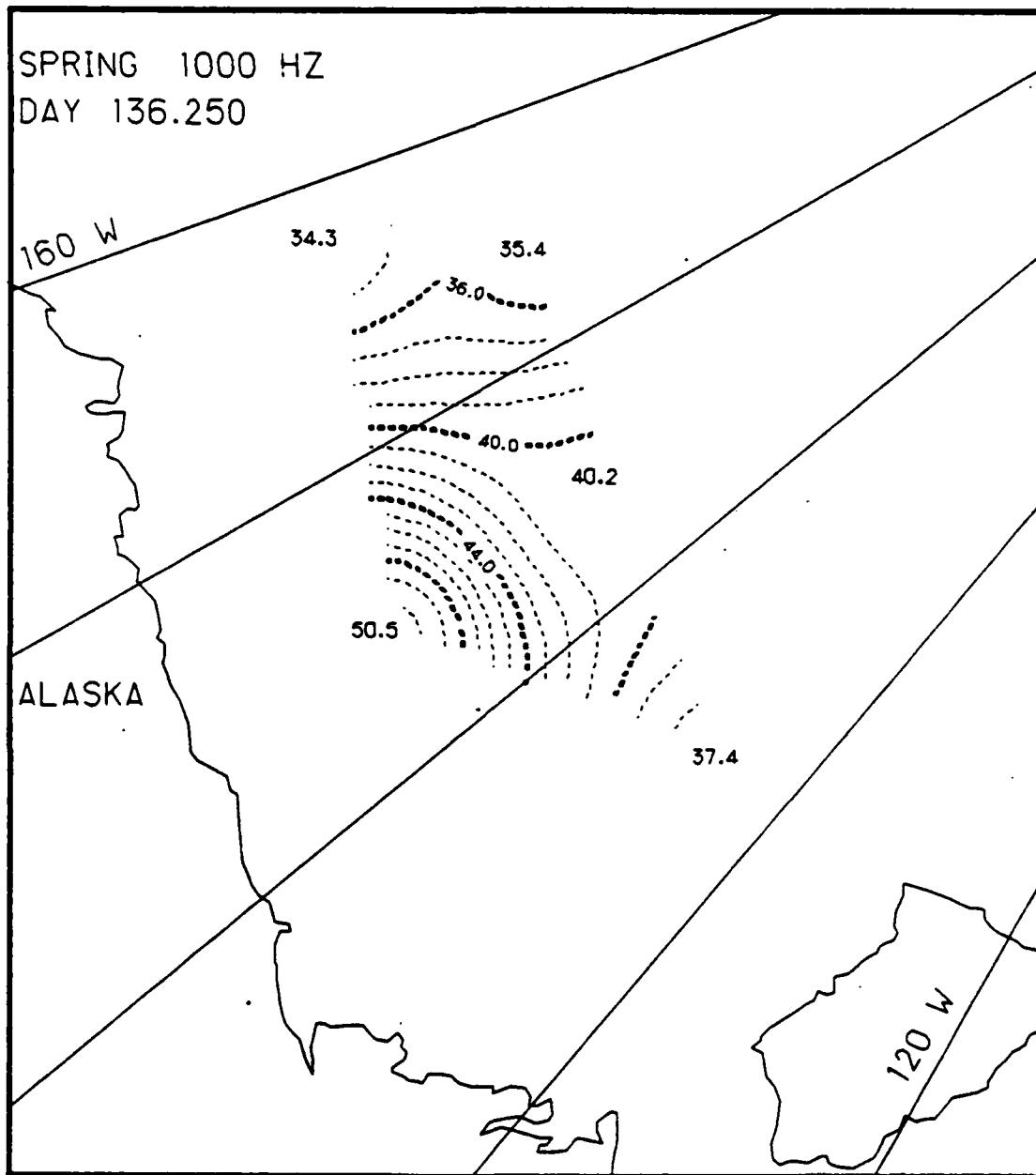


Fig. F.42. Spatial noise variations, day 136.25, based on the AIDJEX 1000 Hz noise data.

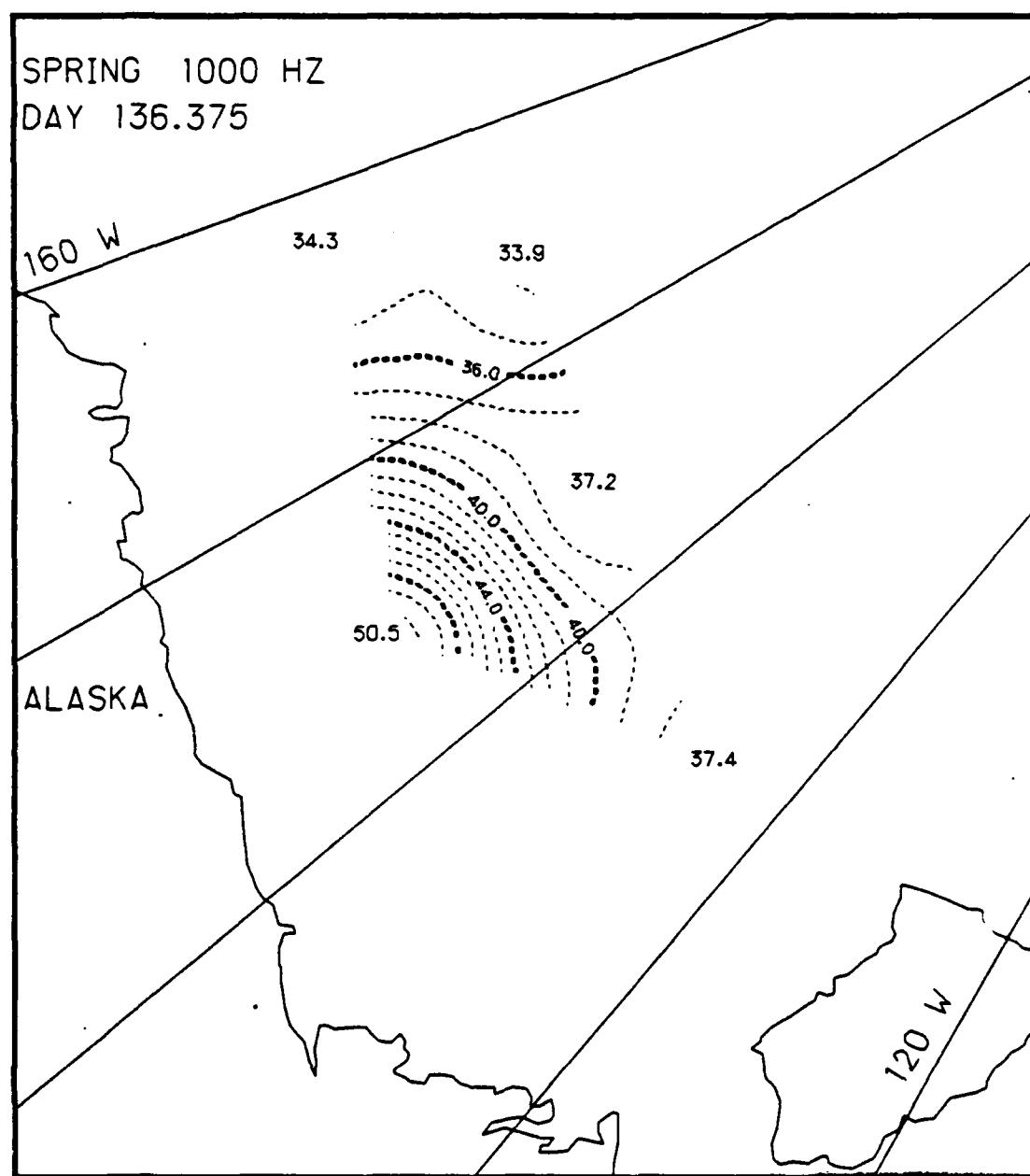


Fig. F.43. Spatial noise variations, day 136.375, based on the AIDJEX 1000 Hz noise data.

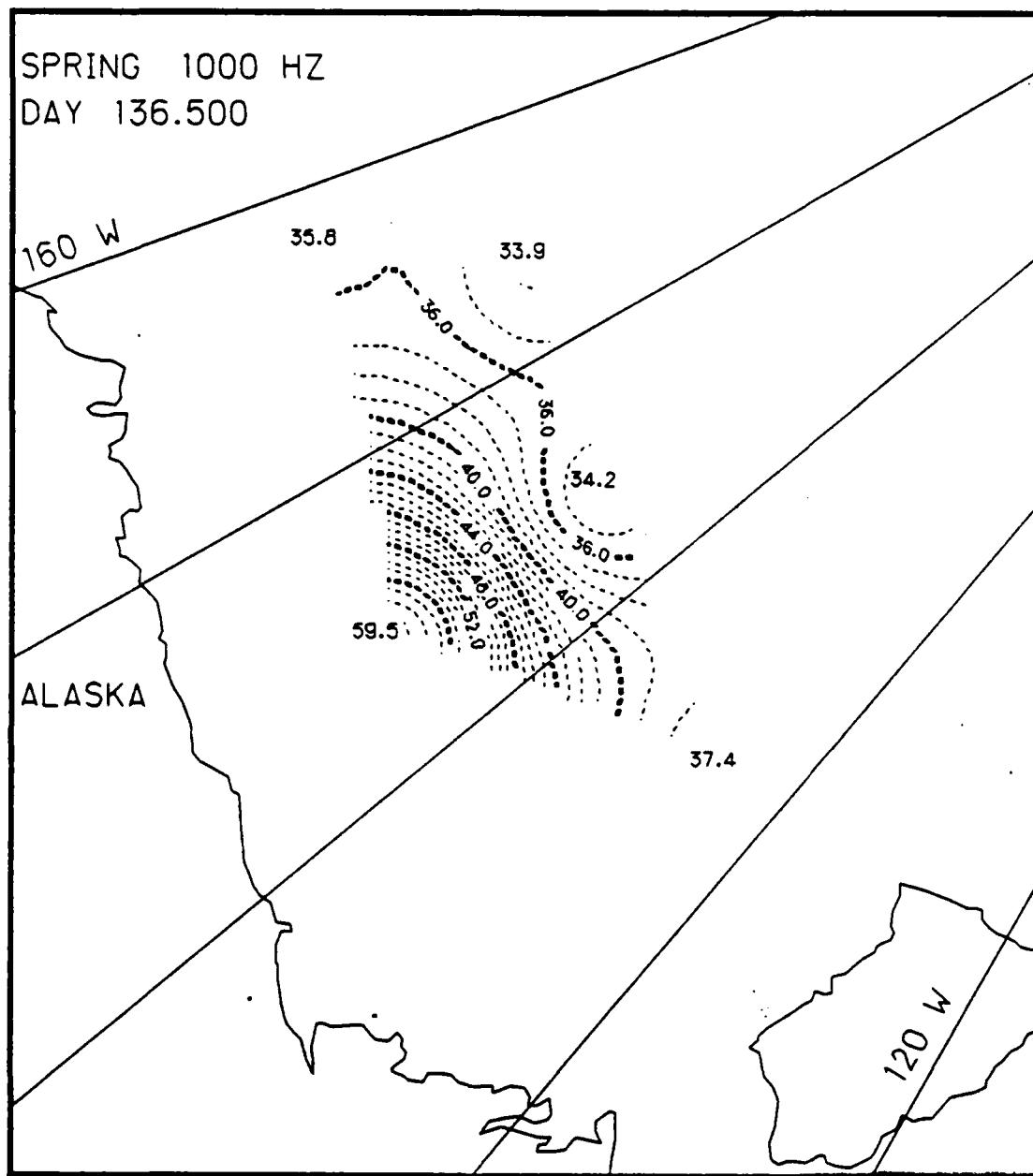
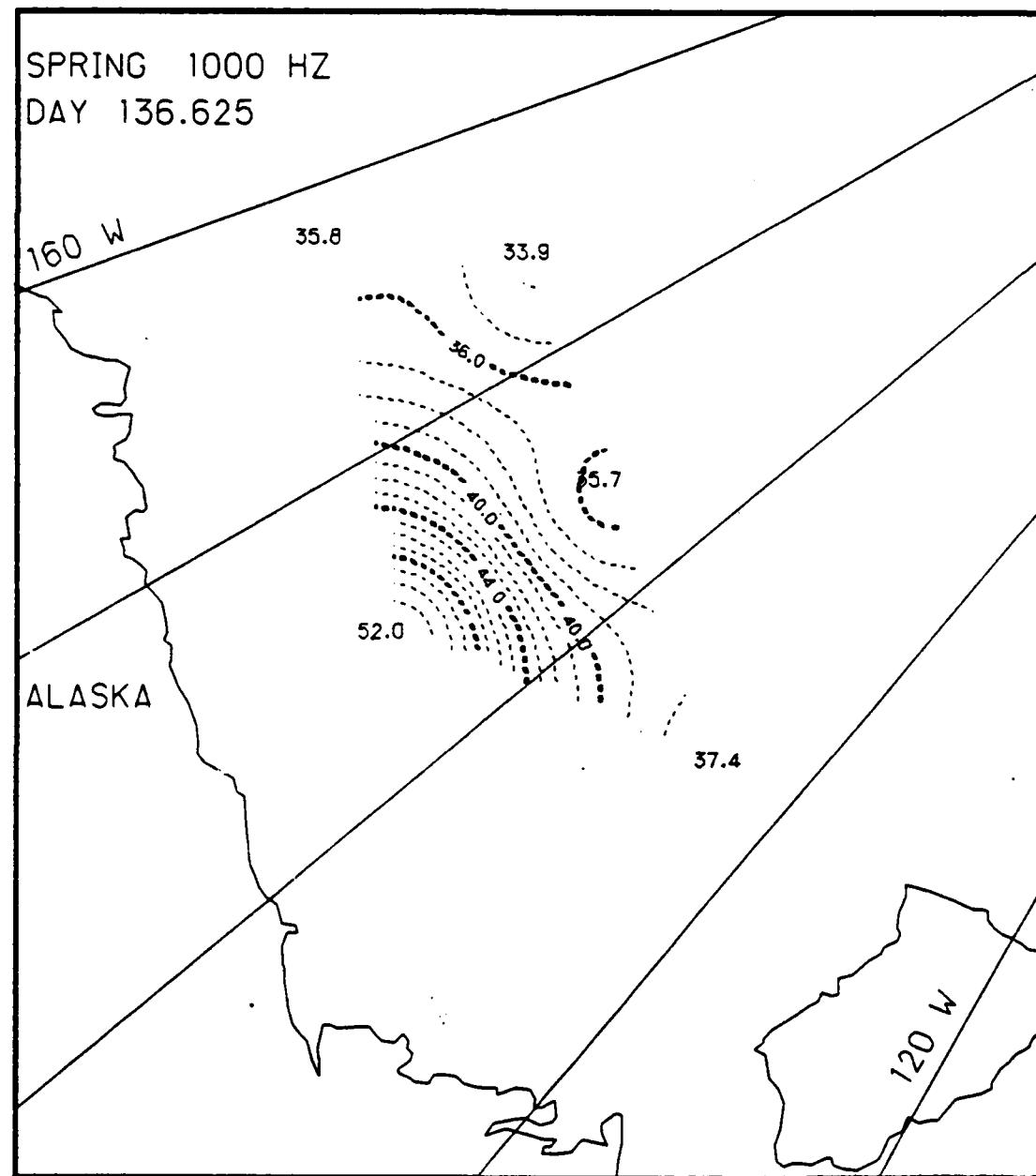


Fig. F.44. Spatial noise variations, day 136.5, based on the AIDJEX 1000 Hz noise data.



**Fig. F.45.** Spatial noise variations, day 136.625, based on the AIDJEX 1000 Hz noise data.

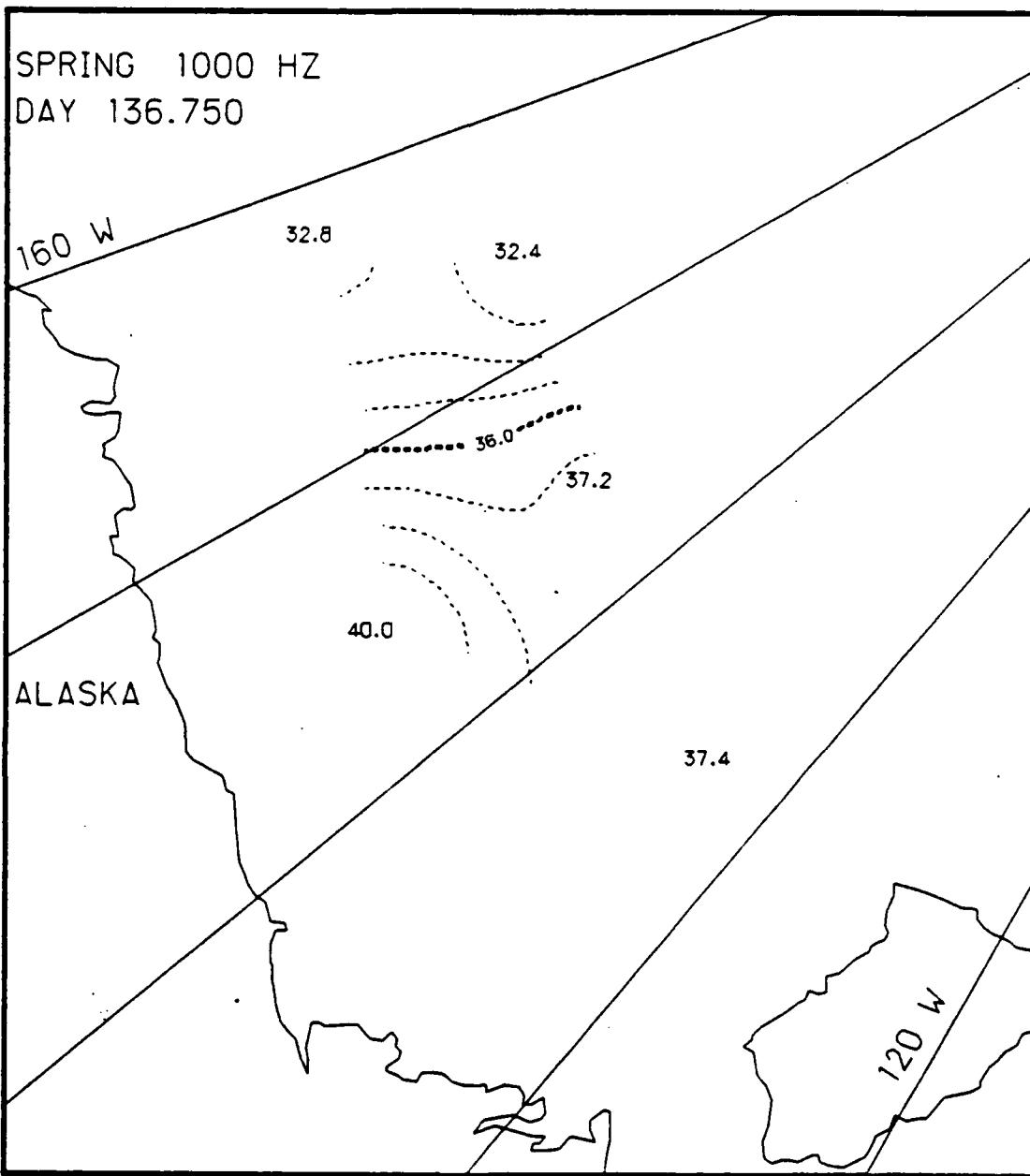


Fig. F.46. Spatial noise variations, day 136.75, based on the AIDJEX 1000 Hz noise data.

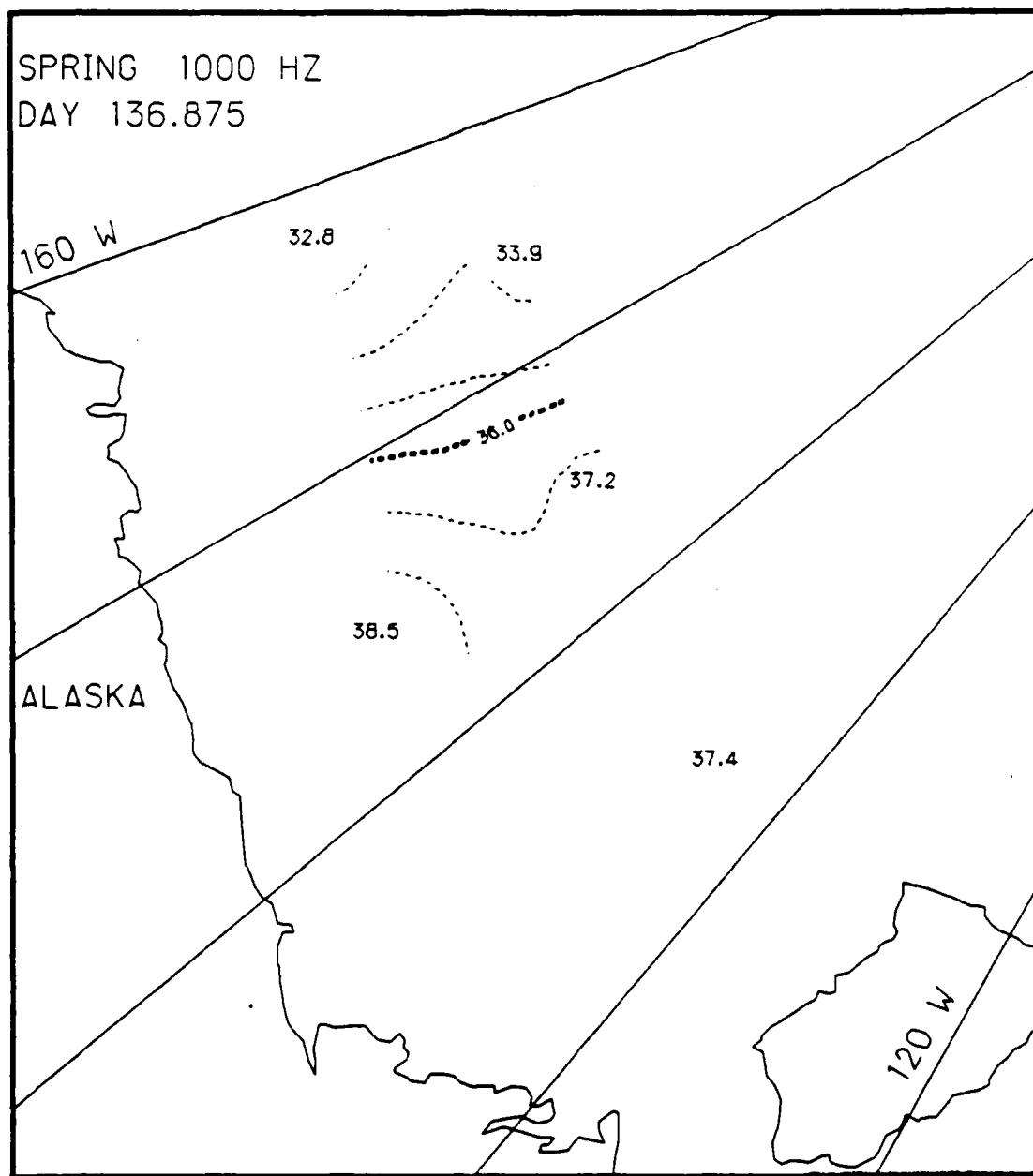


Fig. F.47. Spatial noise variations, day 136.875, based on the AIDJEX 1000 Hz noise data.

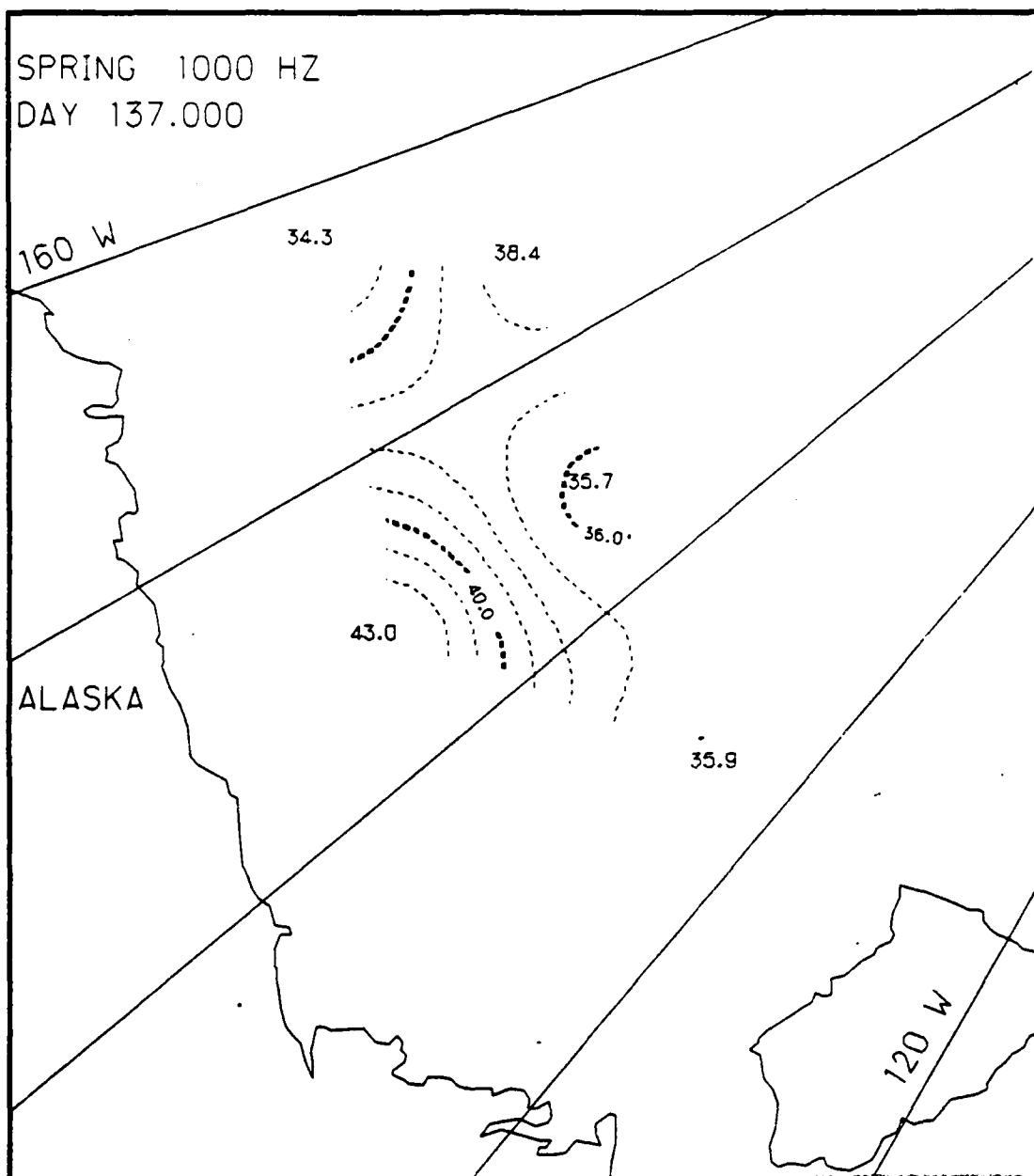


Fig. F.48. Spatial noise variations, day 137.0, based on the AIDJEX 1000 Hz noise data.

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