

Figure 44. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_0b), for March, April, May, 1600-2000 hours.

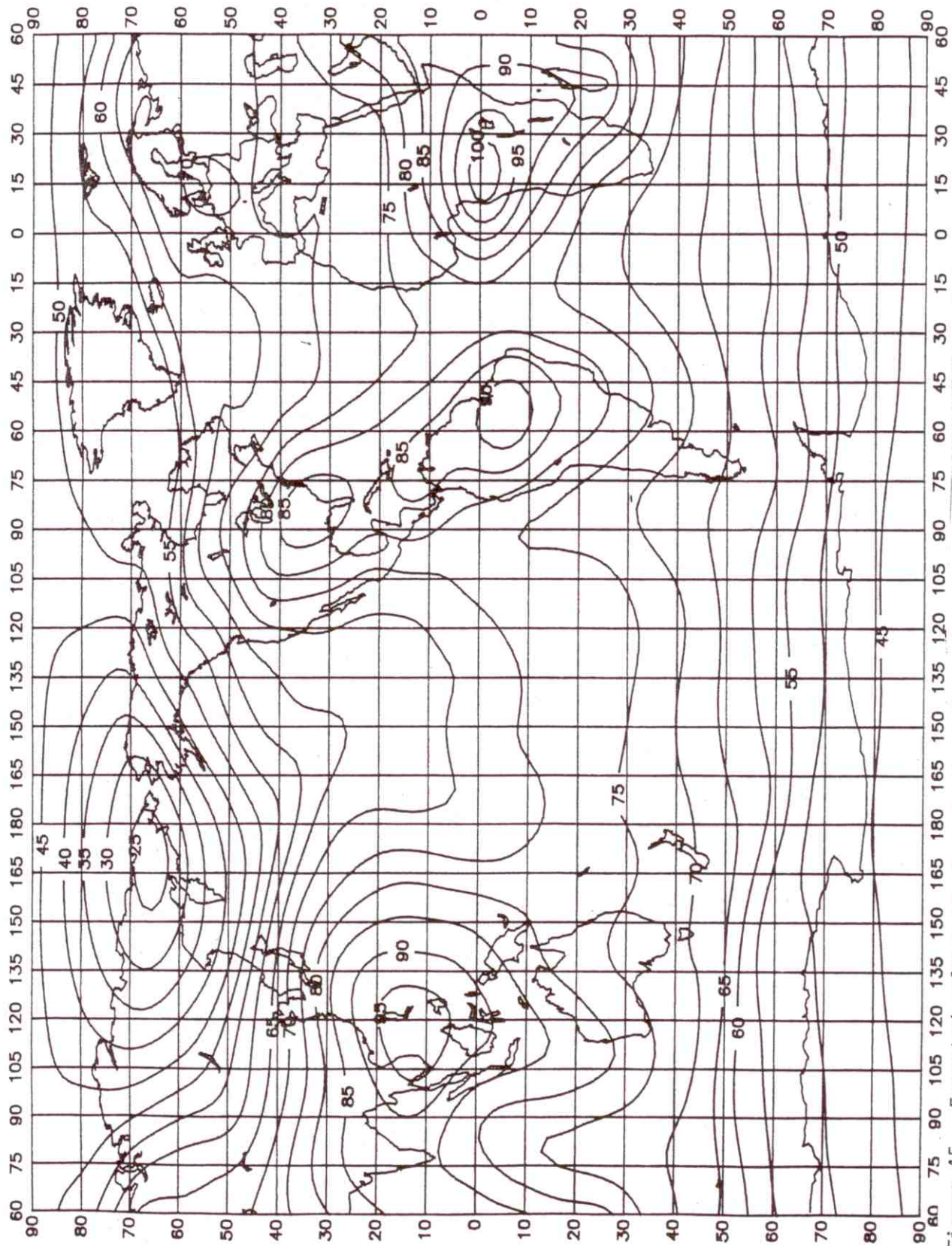


Figure 45. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_0b), for March, April, May, 2000-2400 hours.

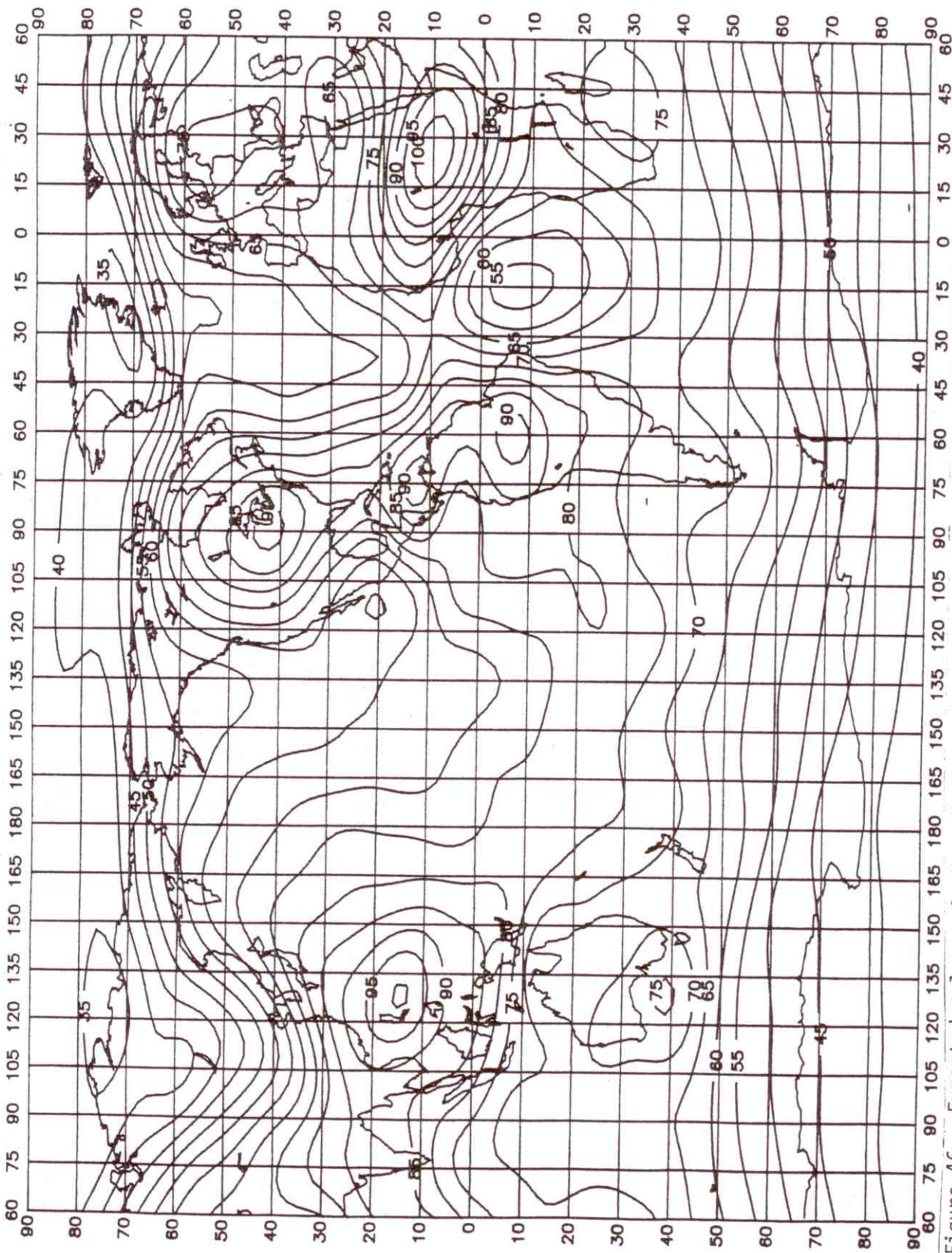


Figure 46. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_{0b}), for June, July, August, 0000-0400 hours.

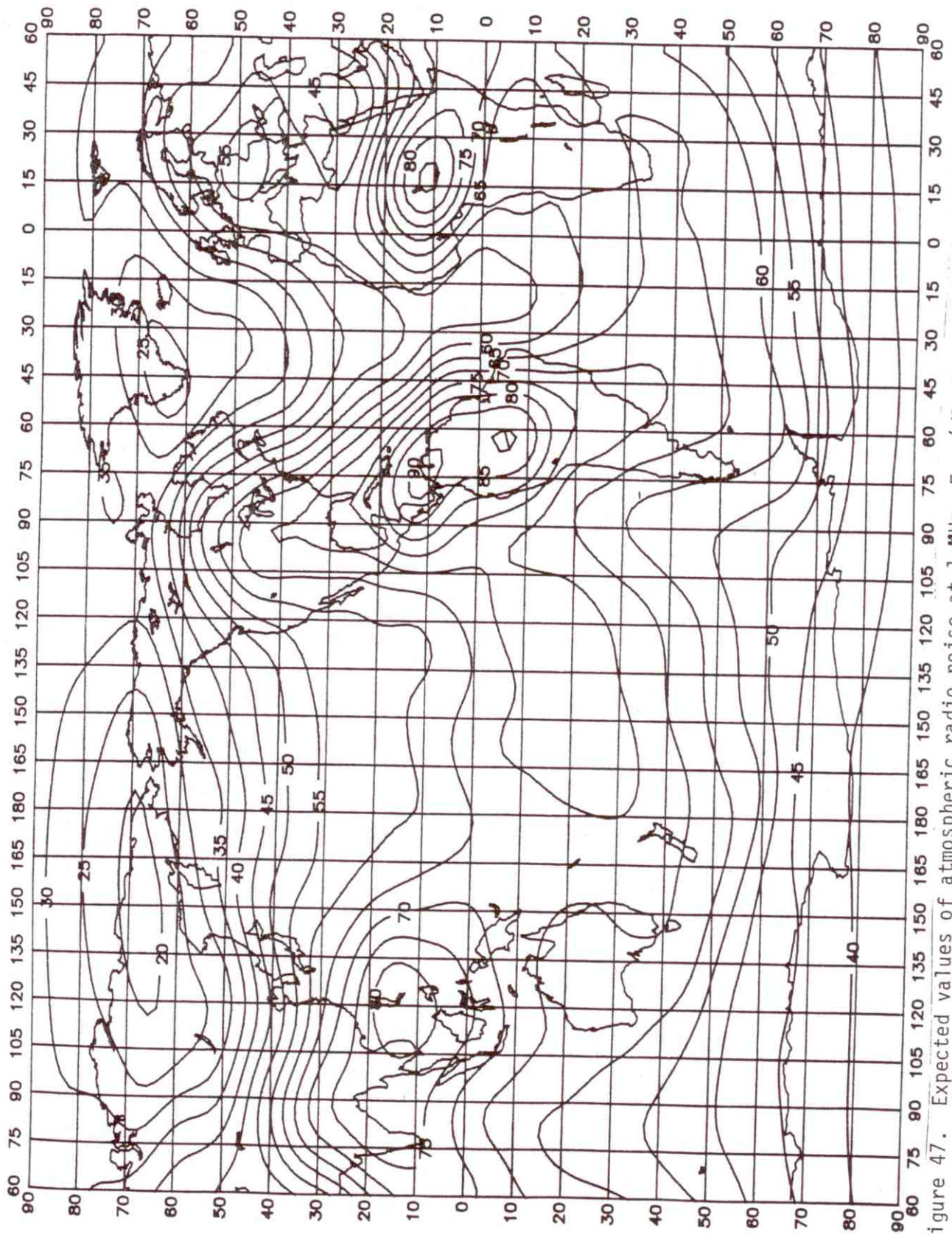


Figure 47. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above $kT_0 b$), for June, July, August, 0400-0300 hours.

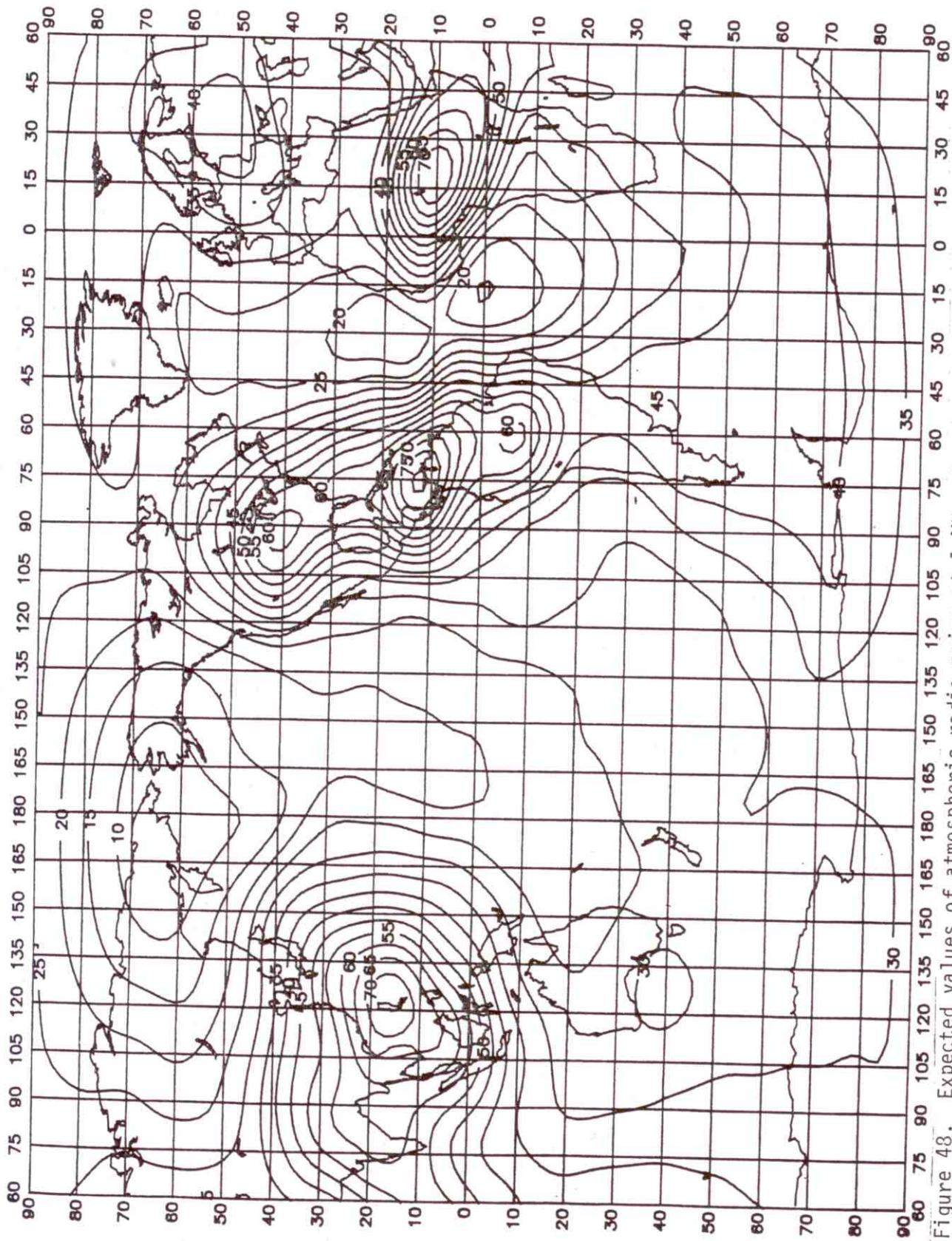


Figure 48. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_{0b}), for June, July, August, 0800-1200 hours.

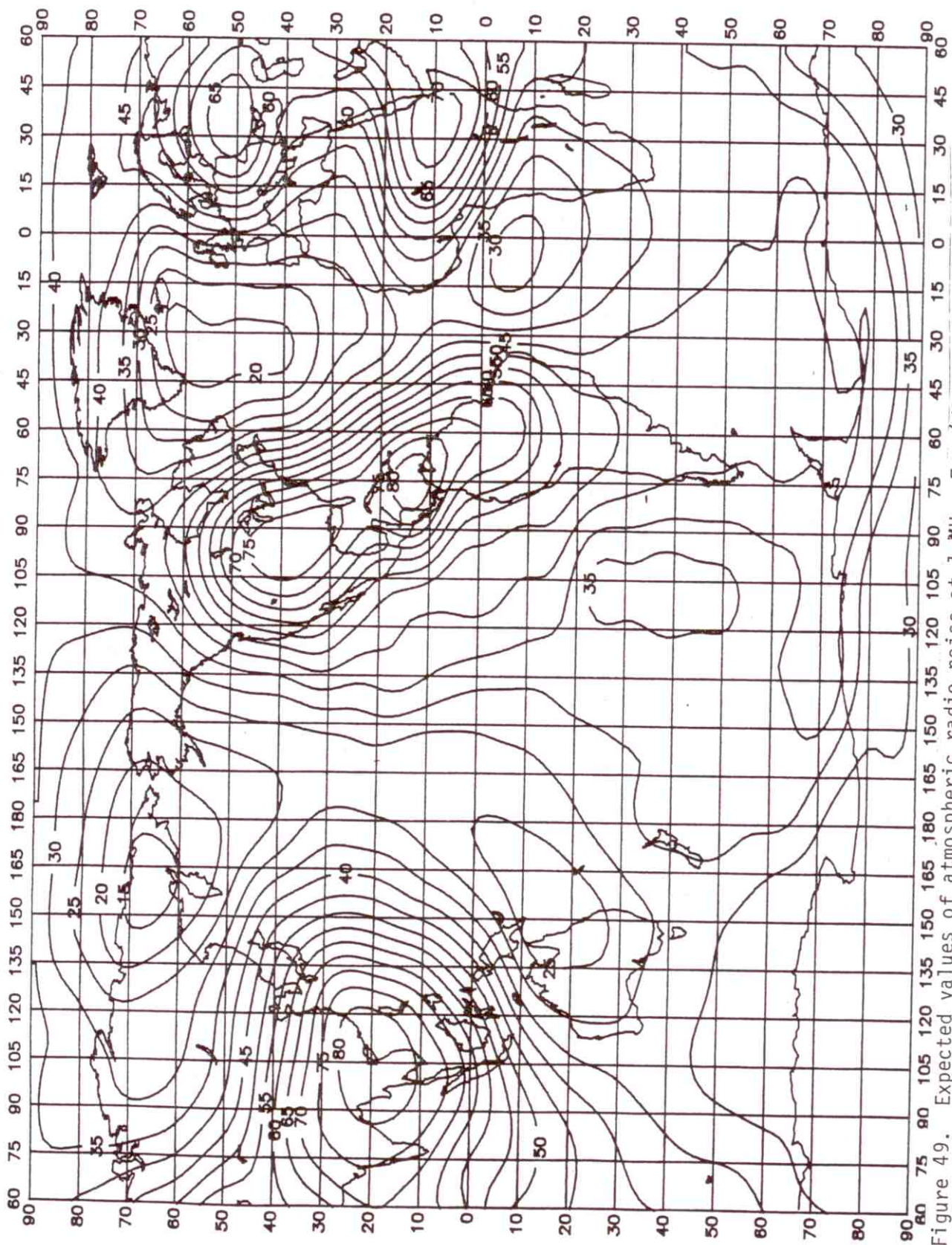


Figure 49. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_0b), for June, July, August, 1200-1600 hours.

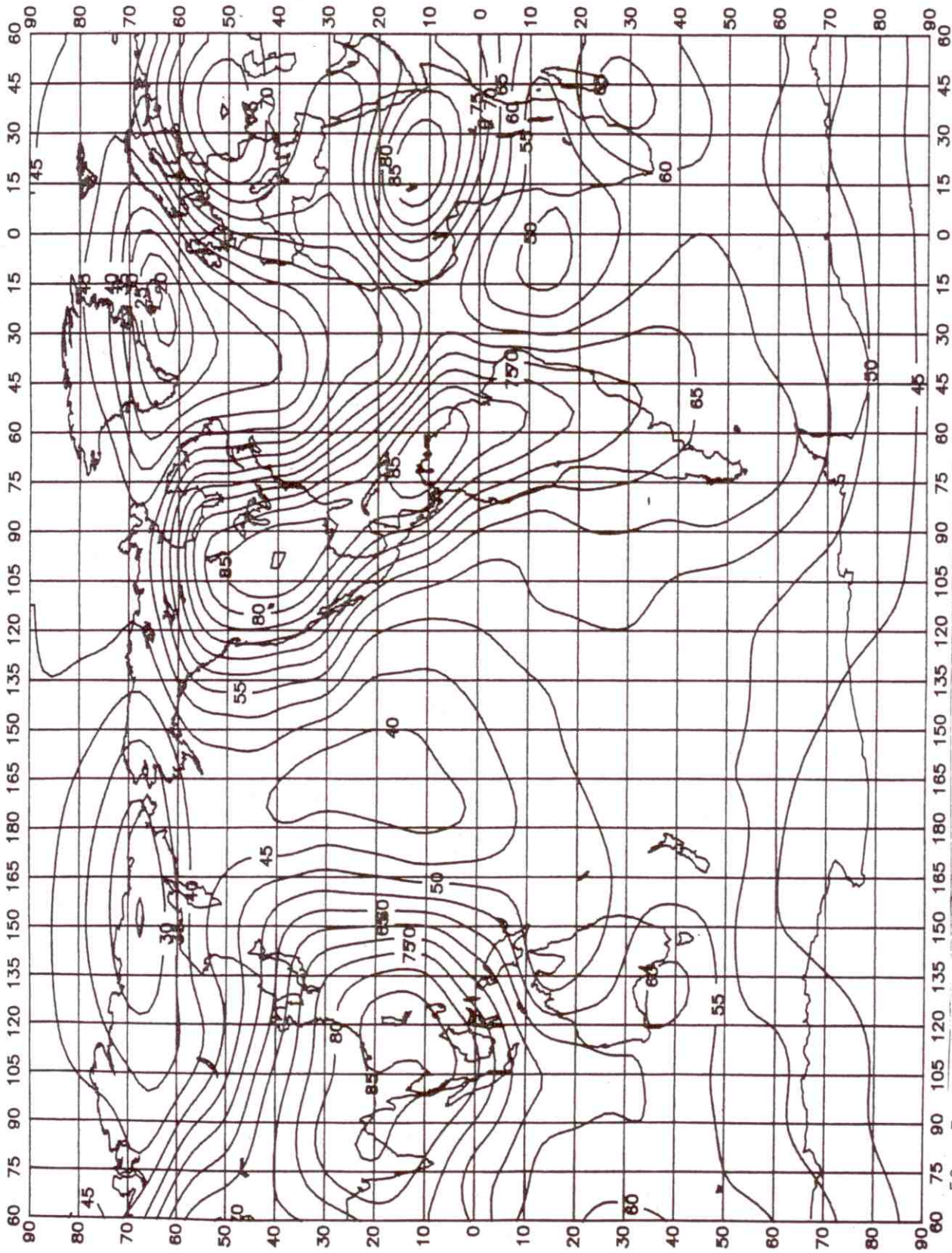


Figure 50. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above $kT_0 b$), for June, July, August, 1600-2000 hours.

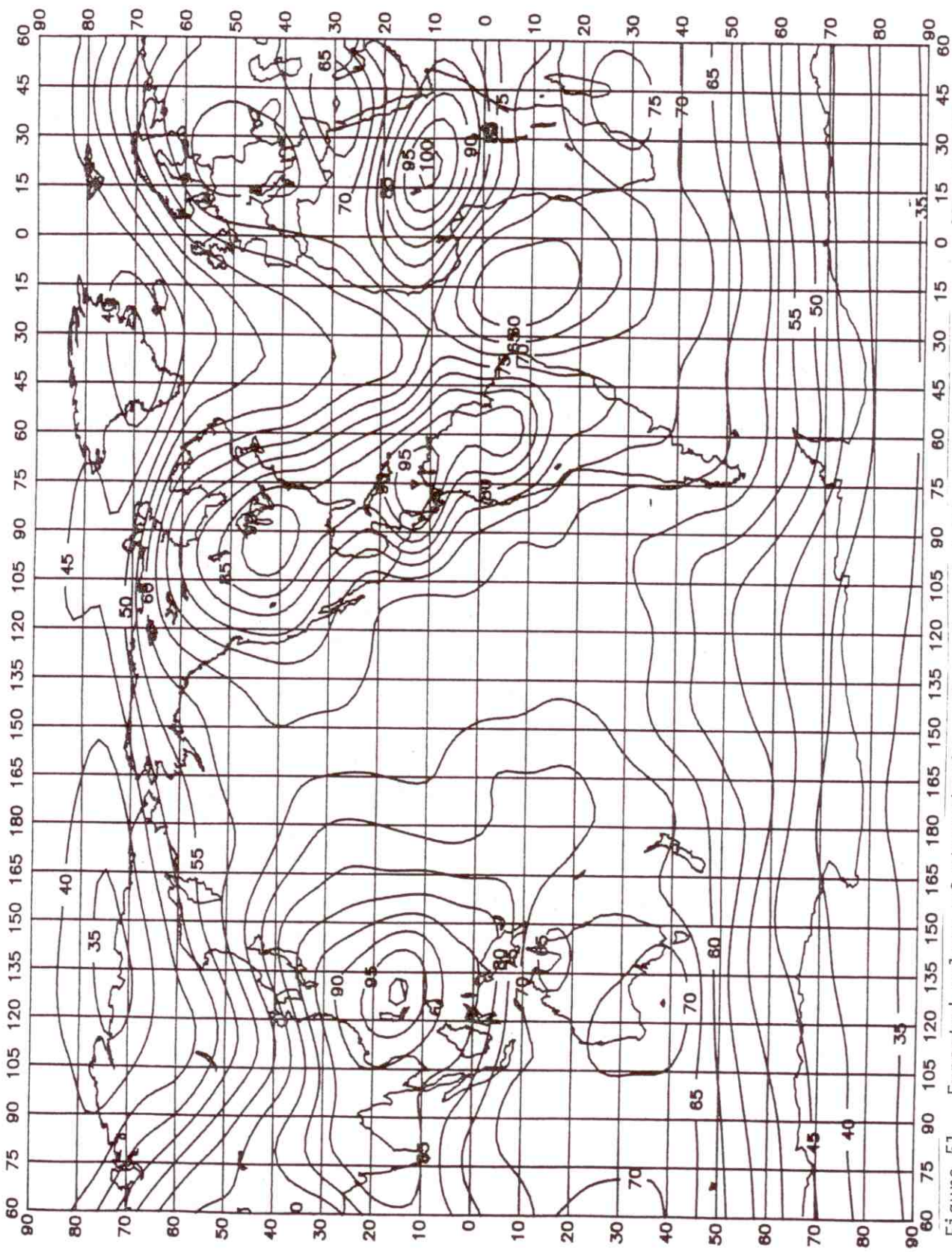


Figure 51. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_0b), for June, July, August, 2000-2400 hours.

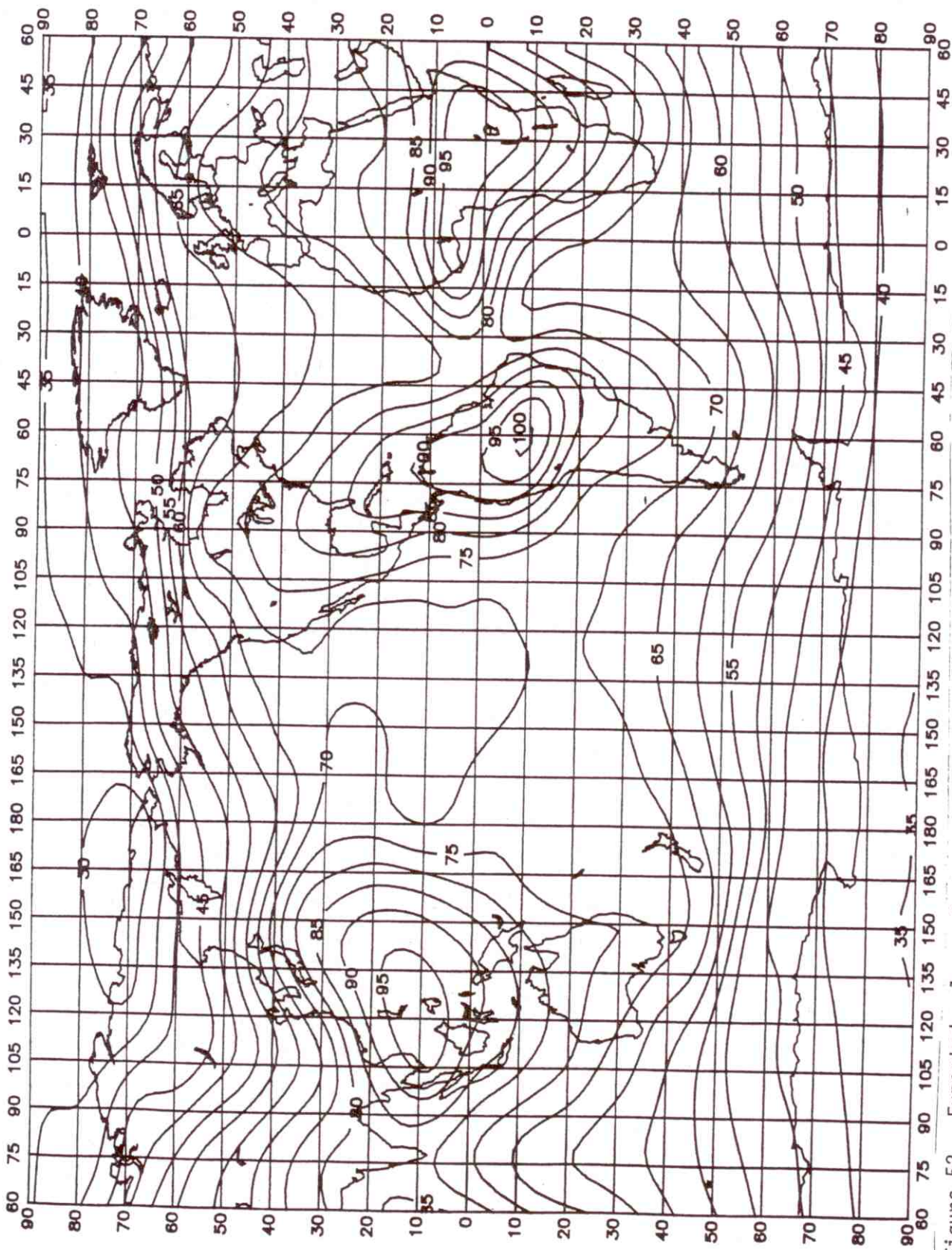


Figure 52. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_{0b}), for September, October, November, 0000-0400 hours.

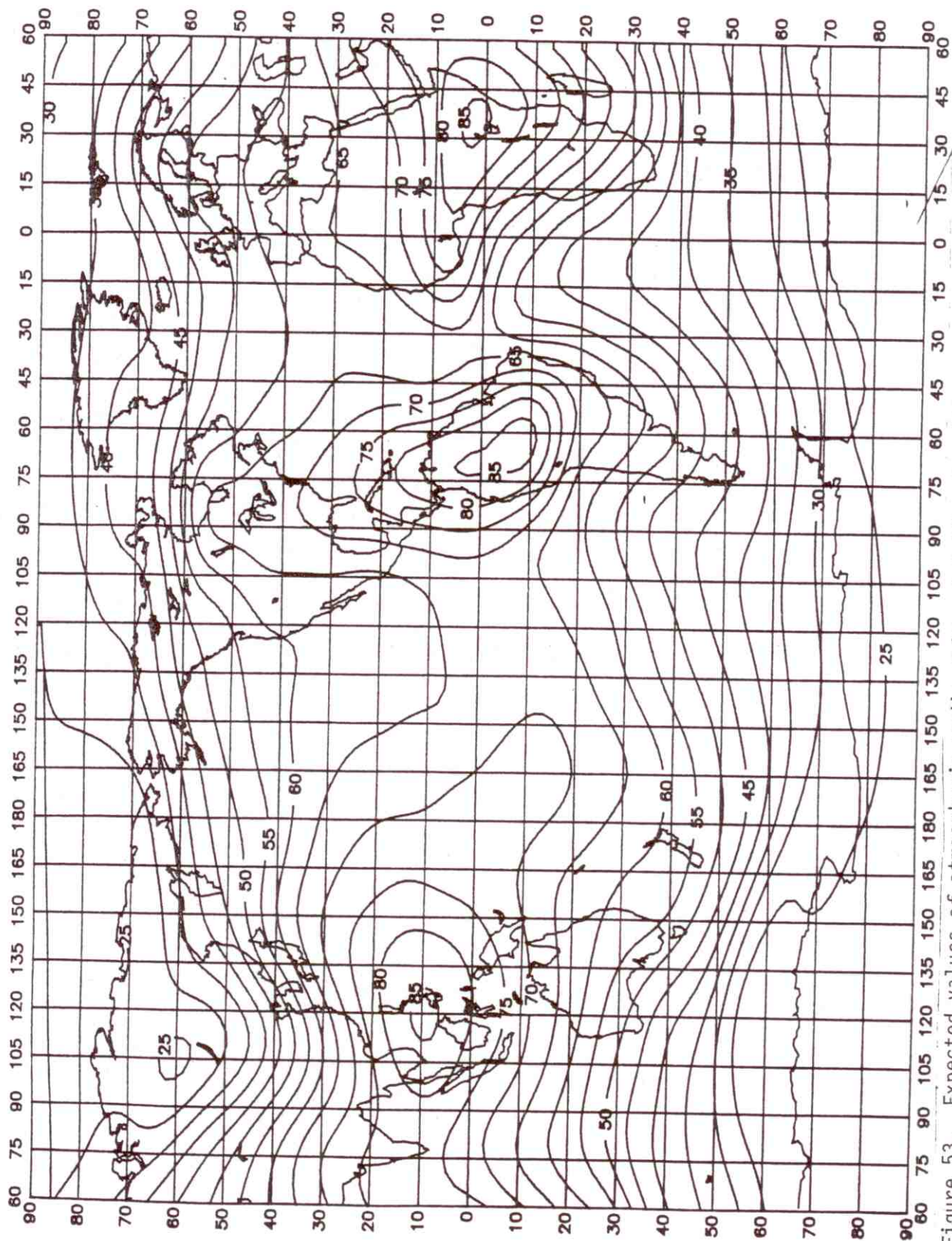


Figure 53. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_0), for September, October, November, 0400-0800 hours.

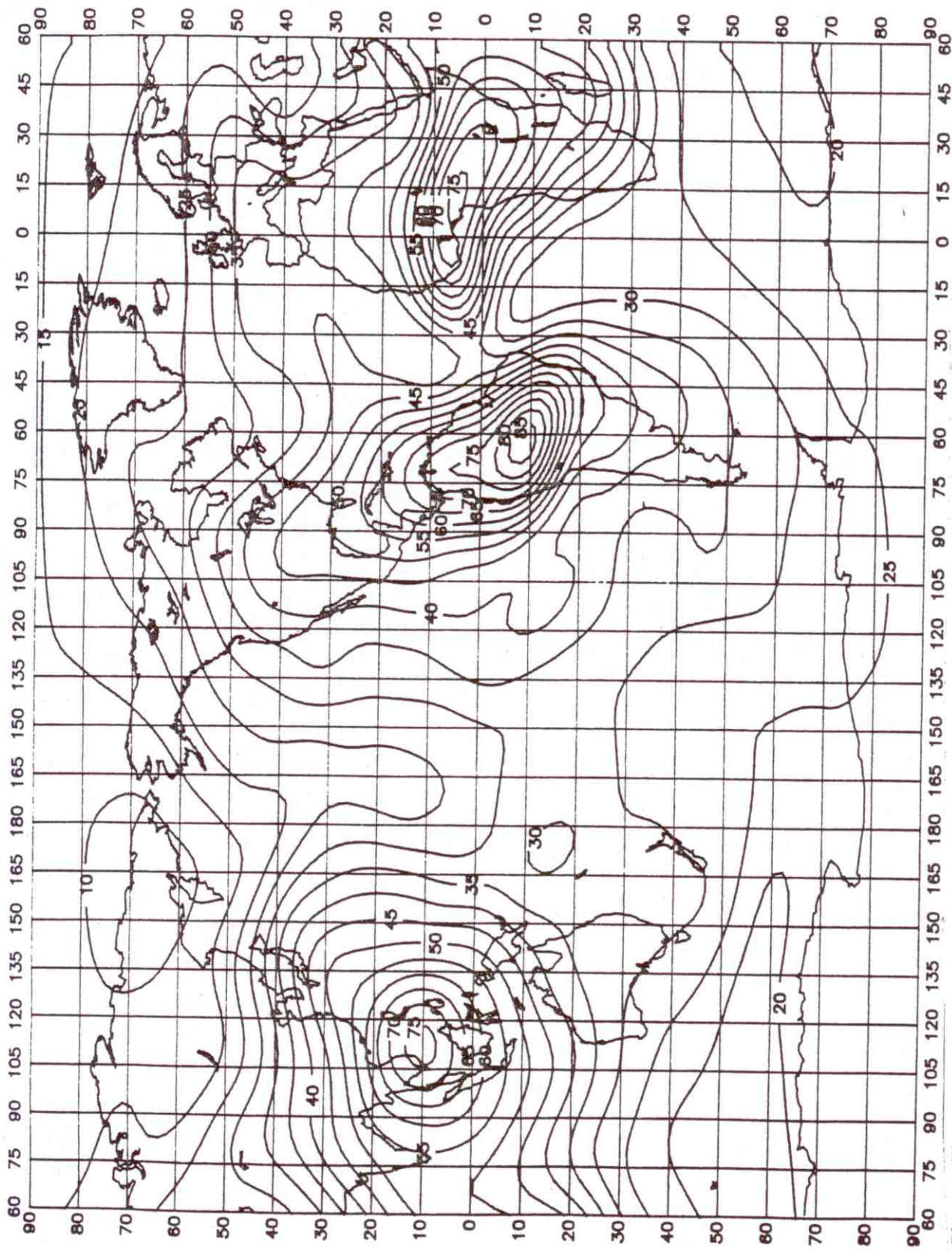


Figure 54. Expected values of atmospheric radio noise at 1 MHz, $F_{0.1}$ (dB above $kT_{0.1}$), for September, October, November, 0800-1200 hours.

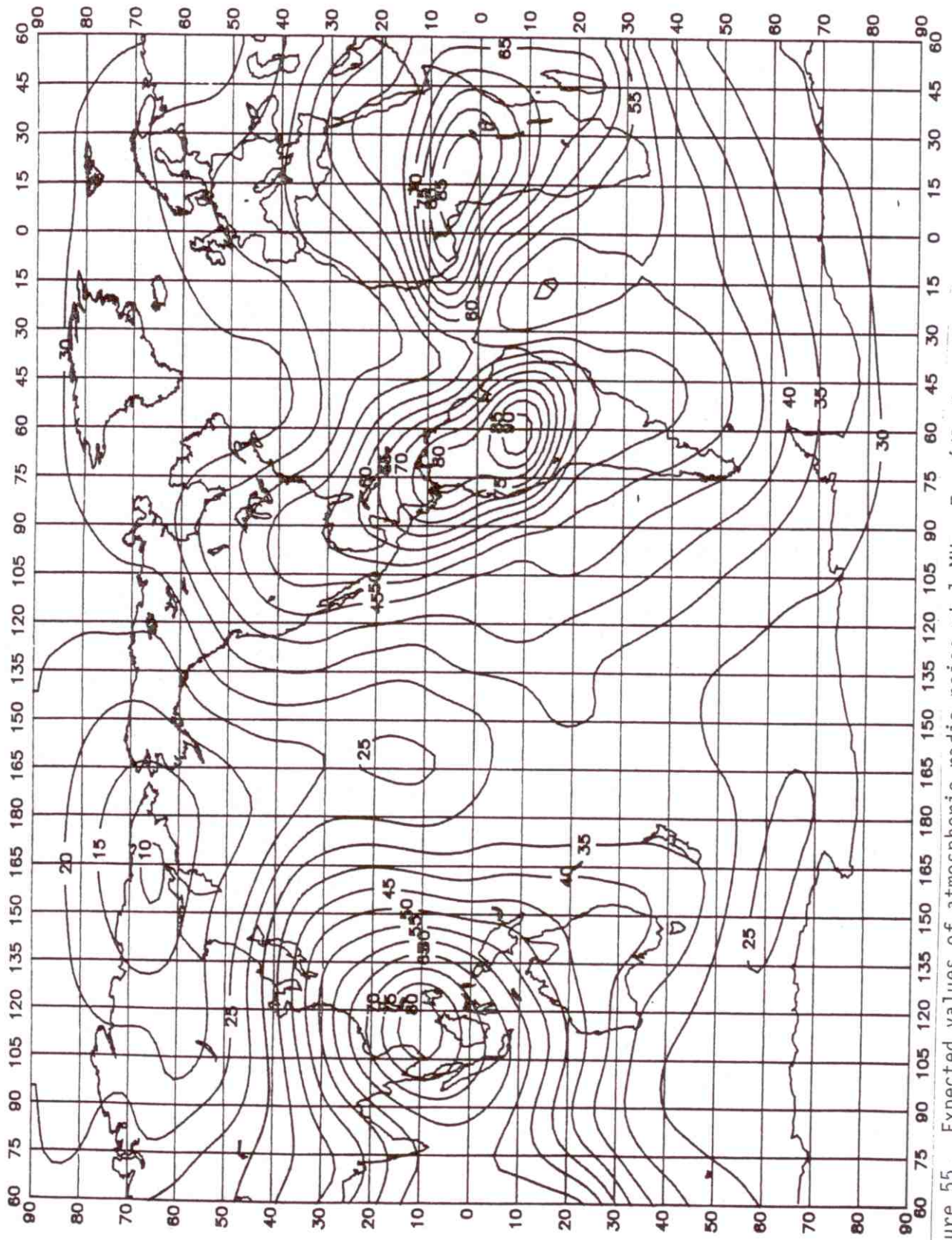


Figure 55. Expected values of atmospheric radio noise at 1 MHz, F (dB above kT_0b), for September, October, November, 1200-1600 hours.

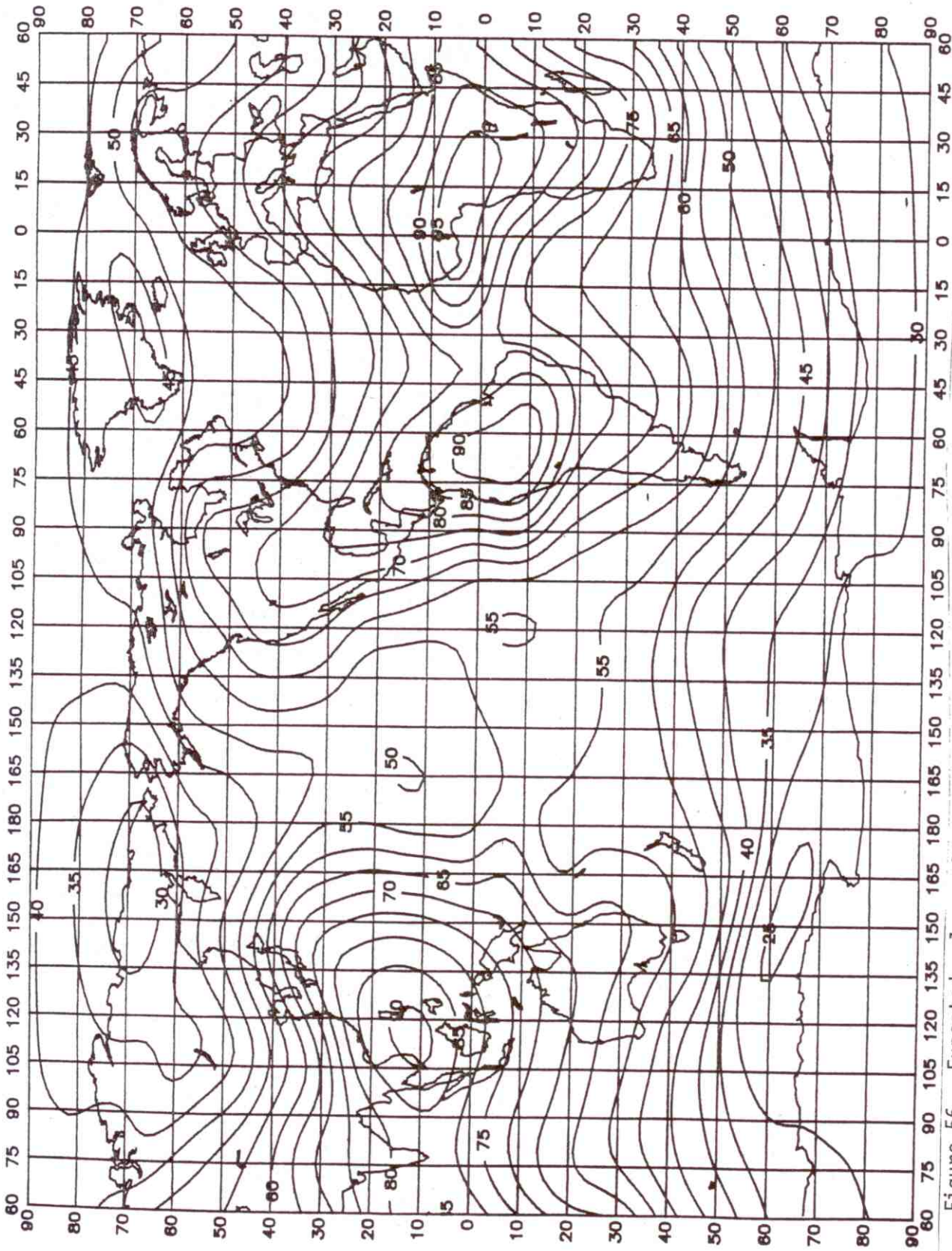


Figure 56. Expected values of atmospheric radio noise at 1 MHz, F_{am} (dB above kT_{0b}), for September and October, November, 1600-2000 hours.

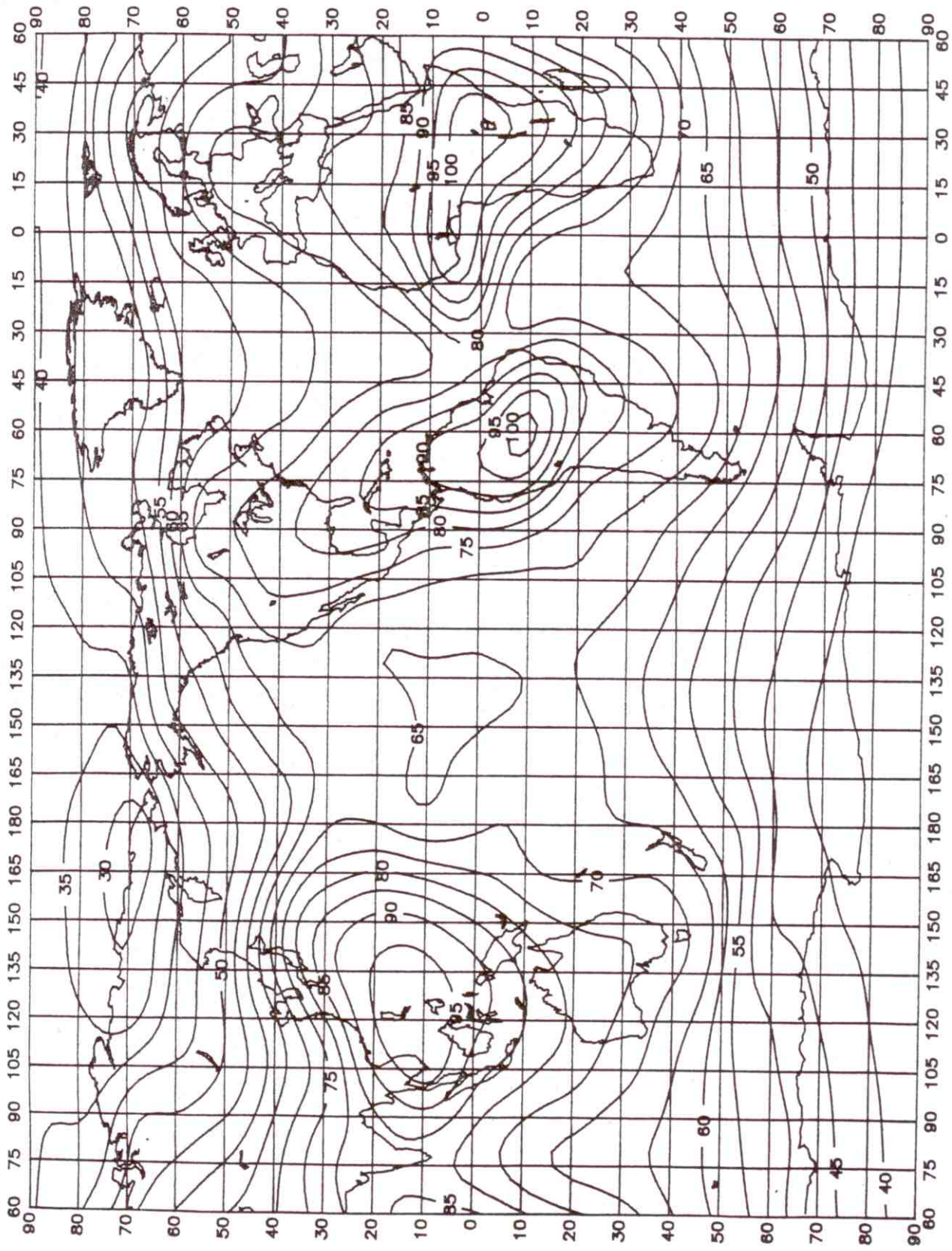


Figure 57. Expected values of atmospheric radio noise at 1 MHz, $F_{01\text{MHz}}$ (dB above kT_0b), for September, October, November, 2000-2400 hours.

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SUBROUTINE NOISE(KJ,ALAT,ALONG,FAM)
C THIS SUBROUTINE EVALUATES THE 1MHZ FAM ATMOSPHERIC NOISE
C VALUE AT THE LATITUDE ALAT AND THE LONGITUDE ALONG USING
C THE FOURIER COEFFICIENTS IN THE ARRAYS ABP AND P.
C ALAT IS THE LATITUDE IN DEGREES, + = NORTH AND - = SOUTH.
C ALONG IS THE LONGITUDE IN DEGREES EAST OF GREENWICH.
C KJ IS FOR THE 4 HOUR TIME BLOCKS, 1=00-04, 2=04-08,
C ETC, KJ=1,6.
DIMENSION SX(15),ZZ(29),P(29,16,6),ABP(2,6)
COMMON ABP,P
PI = 3.141592654
ALPHA = ABP(1,KJ)
BETA = ABP(2,KJ)
Q = ALONG*PI/360.
S1 = SIN(Q)
C1 = COS(Q)
SX(1) = S1
CX = C1
DO 20 I=2,15
TX = SX(I-1)
SX(I) = TX*C1+CX*S1
CX = CX*C1-TX*S1
20 CONTINUE
DO 40 J=1,29
R = 0.
DO 30 K=1,15
R = R+SX(K)*P(J,K,KJ)
30 CONTINUE
ZZ(J) = R+P(J,16,KJ)
40 CONTINUE
C THE ZZ ARRAY IS THE 29 B COEFFICIENTS.
Q = (ALAT+90.)*PI/180.
S1 = SIN(Q)
C1 = COS(Q)
SX = S1
CX = C1
SUM = 0.
DO 50 L=1,29
SUM = SUM+SX*ZZ(L)
SS = SX*C1+CX*S1
CX = CX*C1-SX*S1
SX = SS
50 CONTINUE
FAM = SUM+ALPHA+BETA*Q
RETURN
END

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