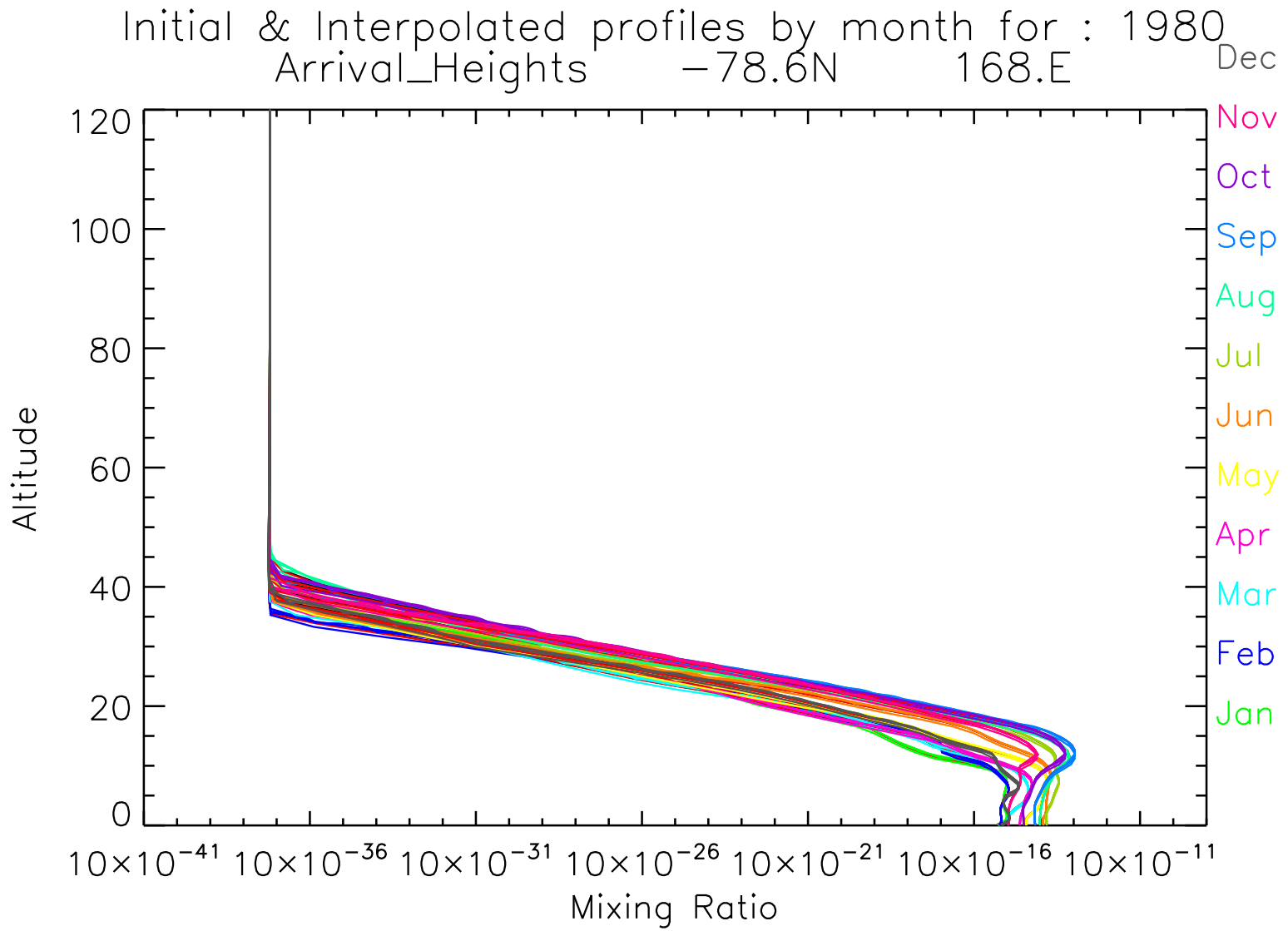
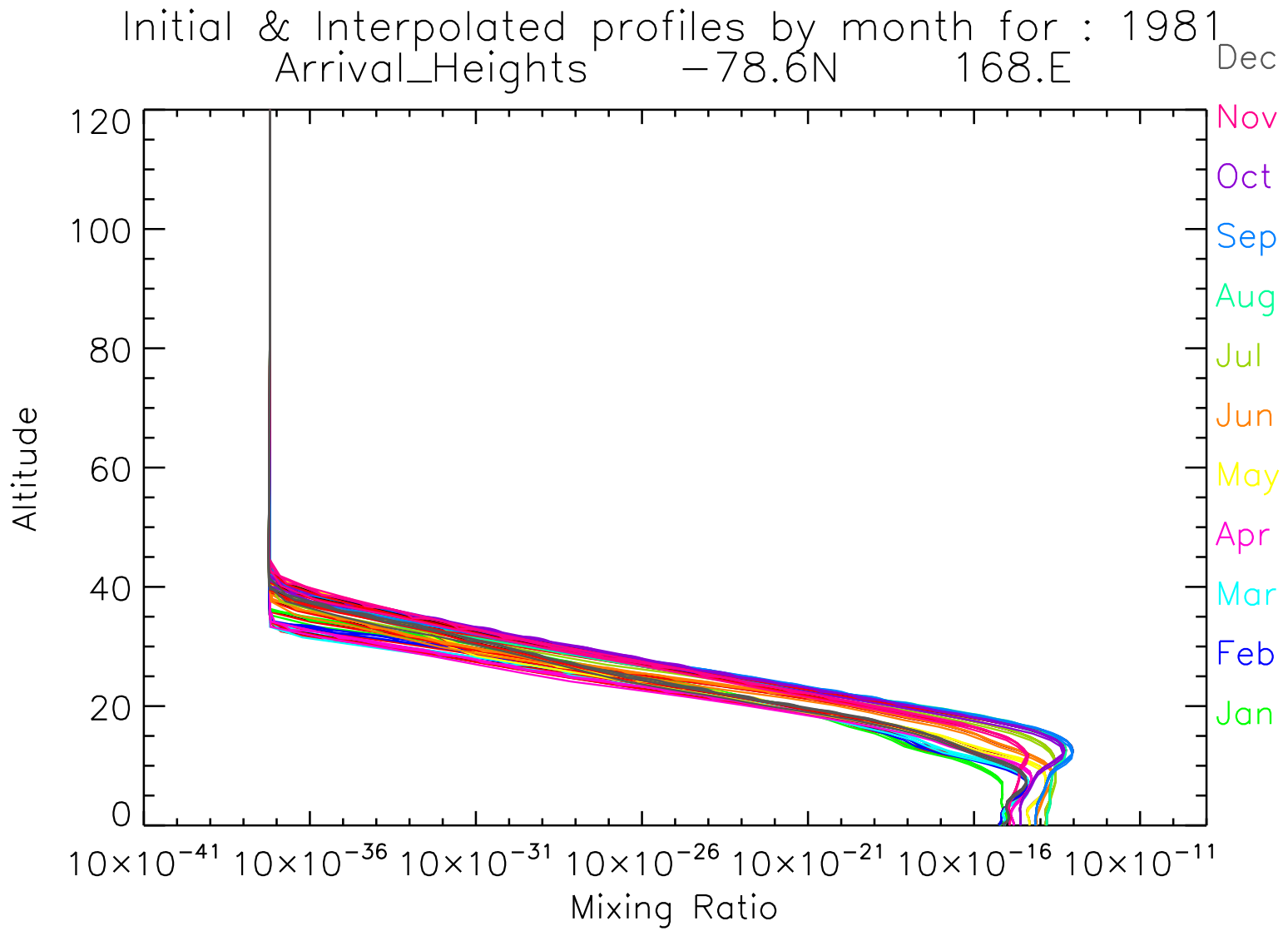
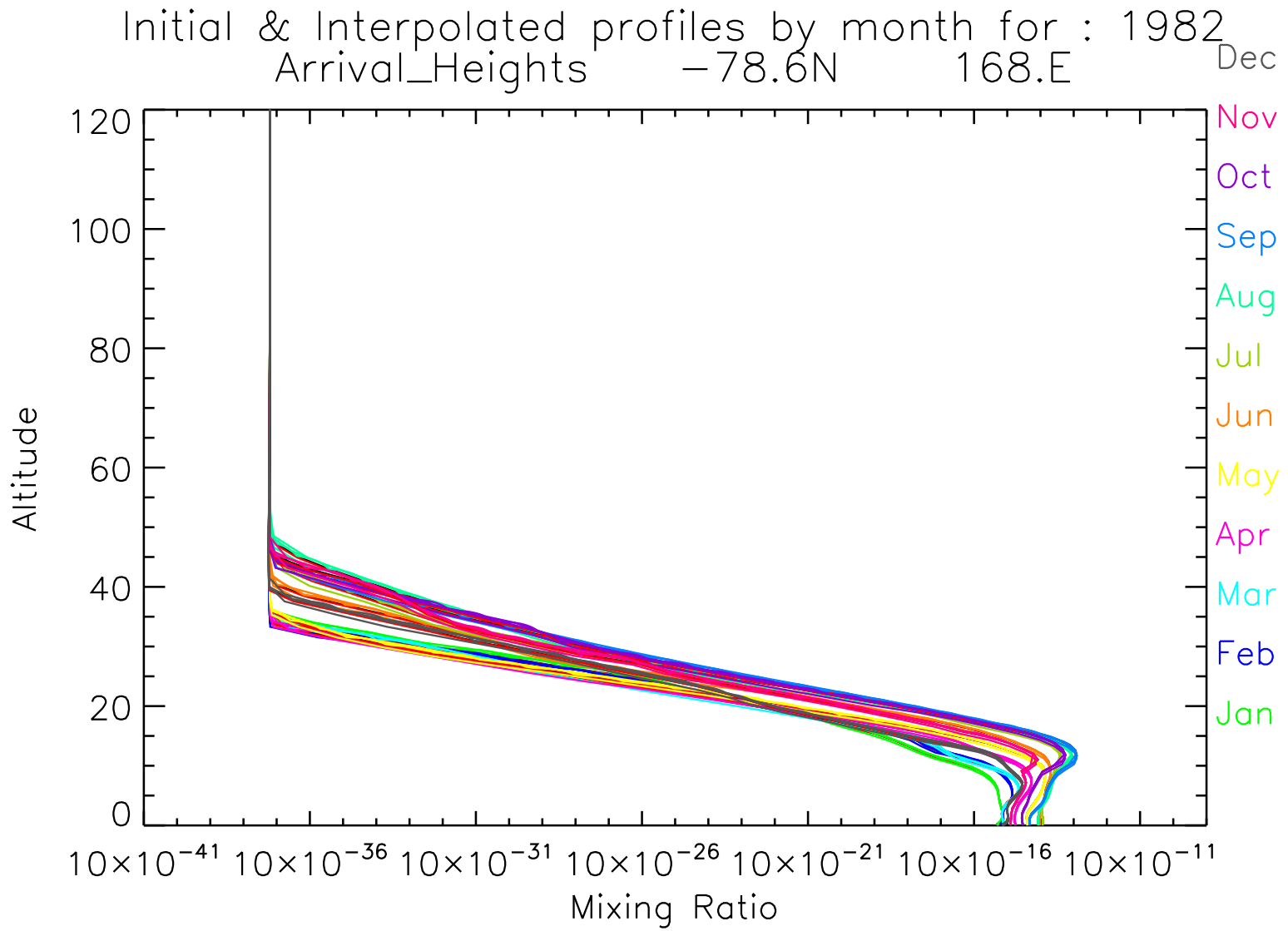
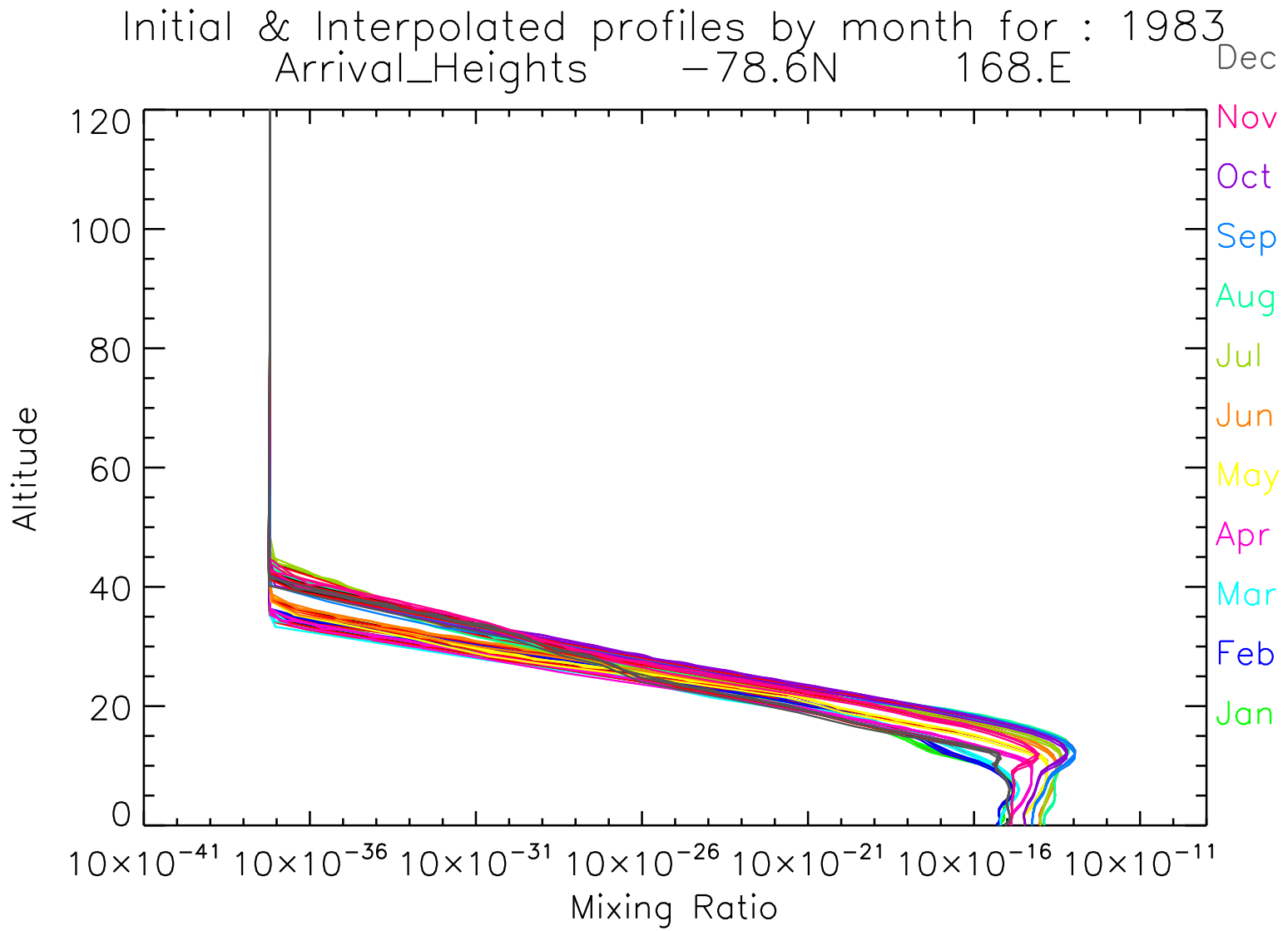

Initial & Interpolated profiles by month for : 1980
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
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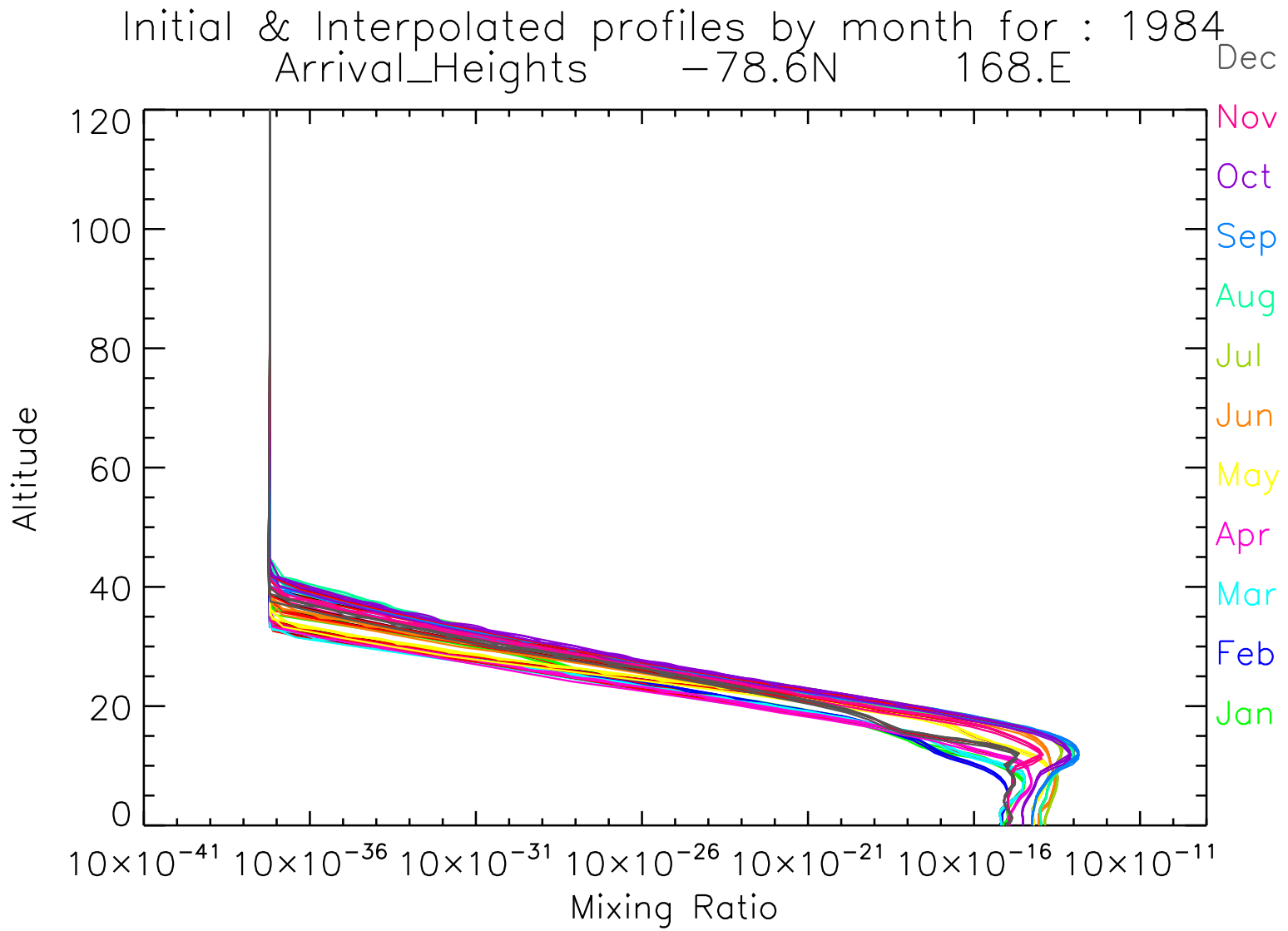
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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60
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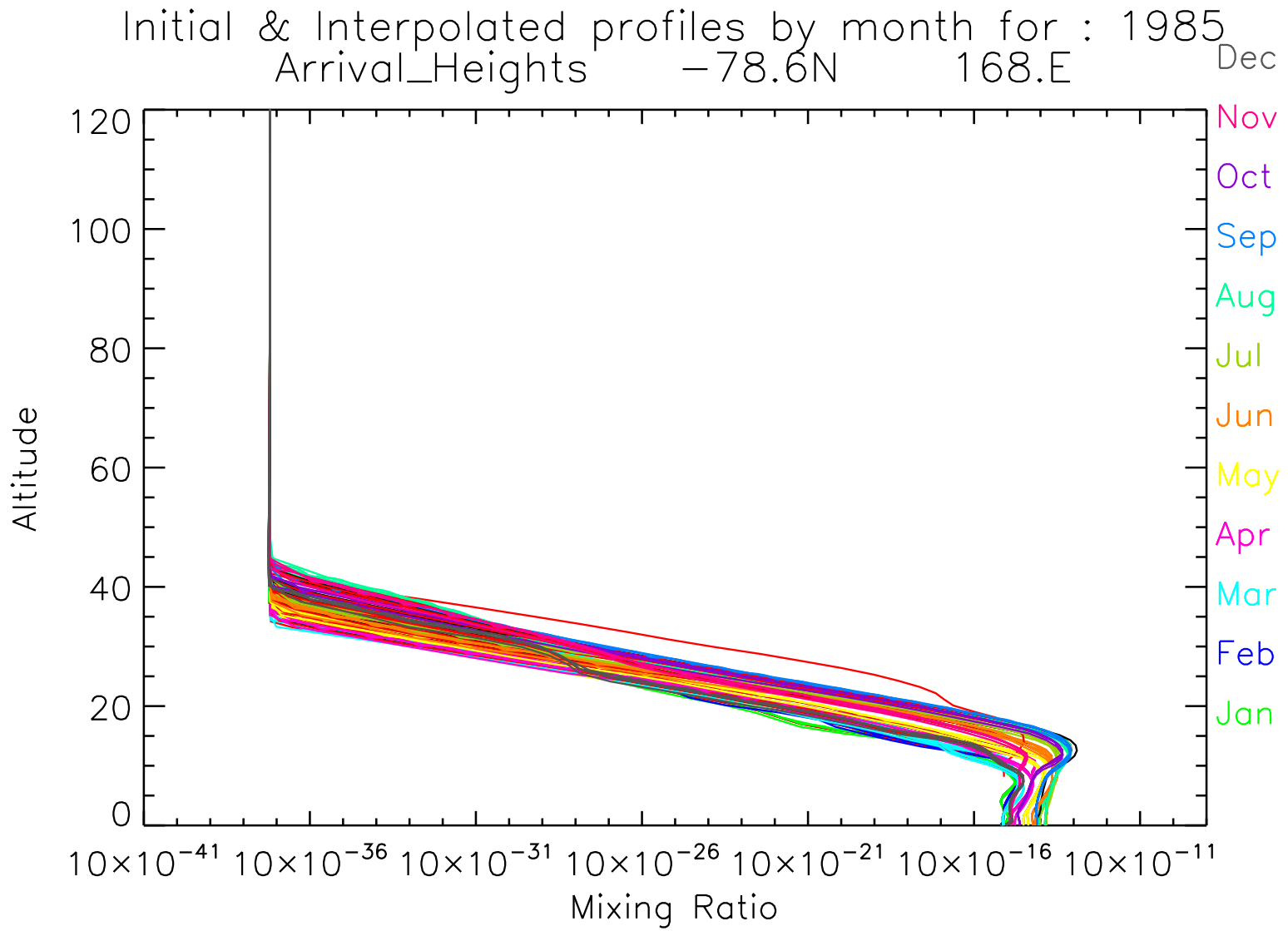
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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60
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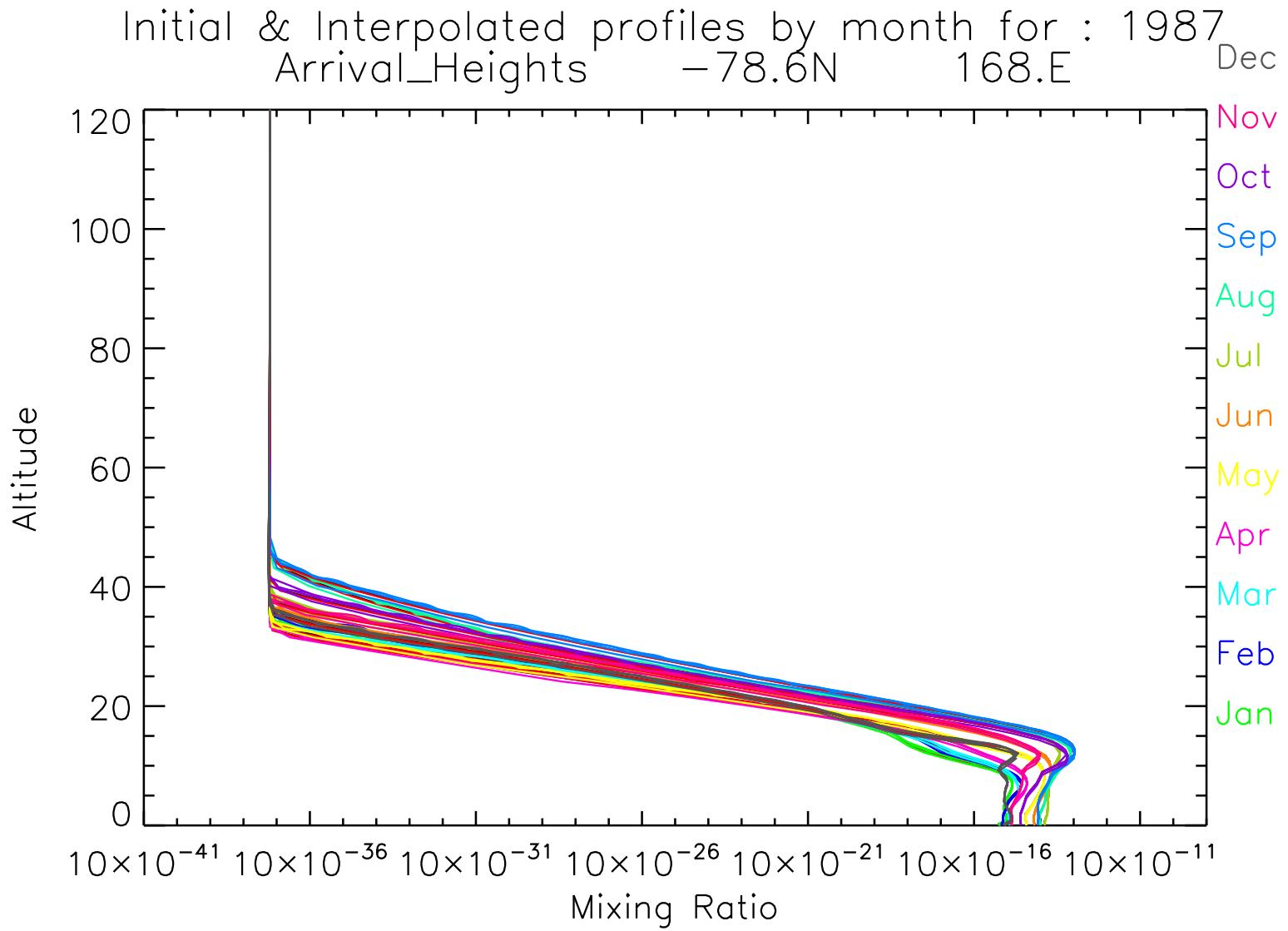
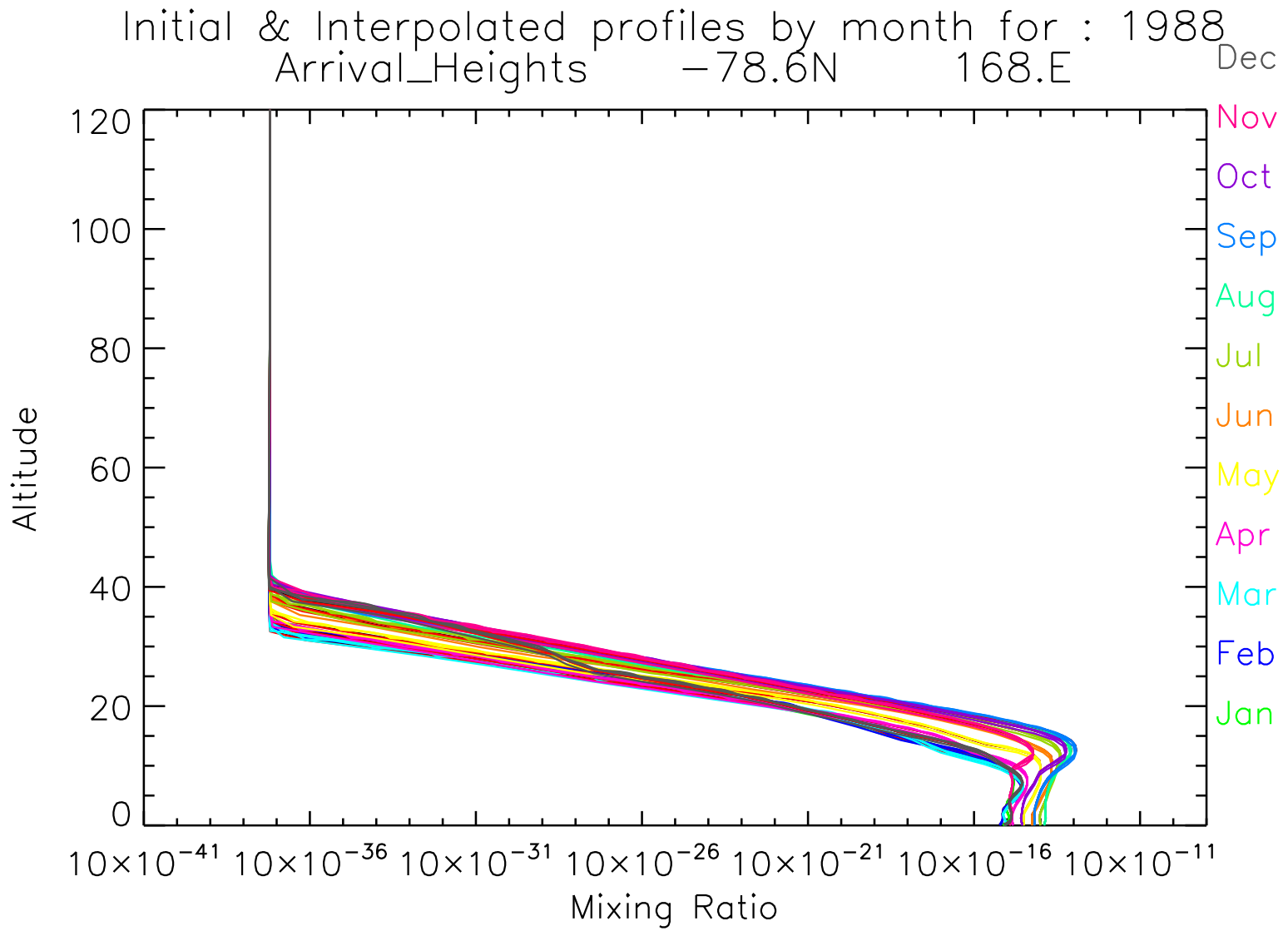
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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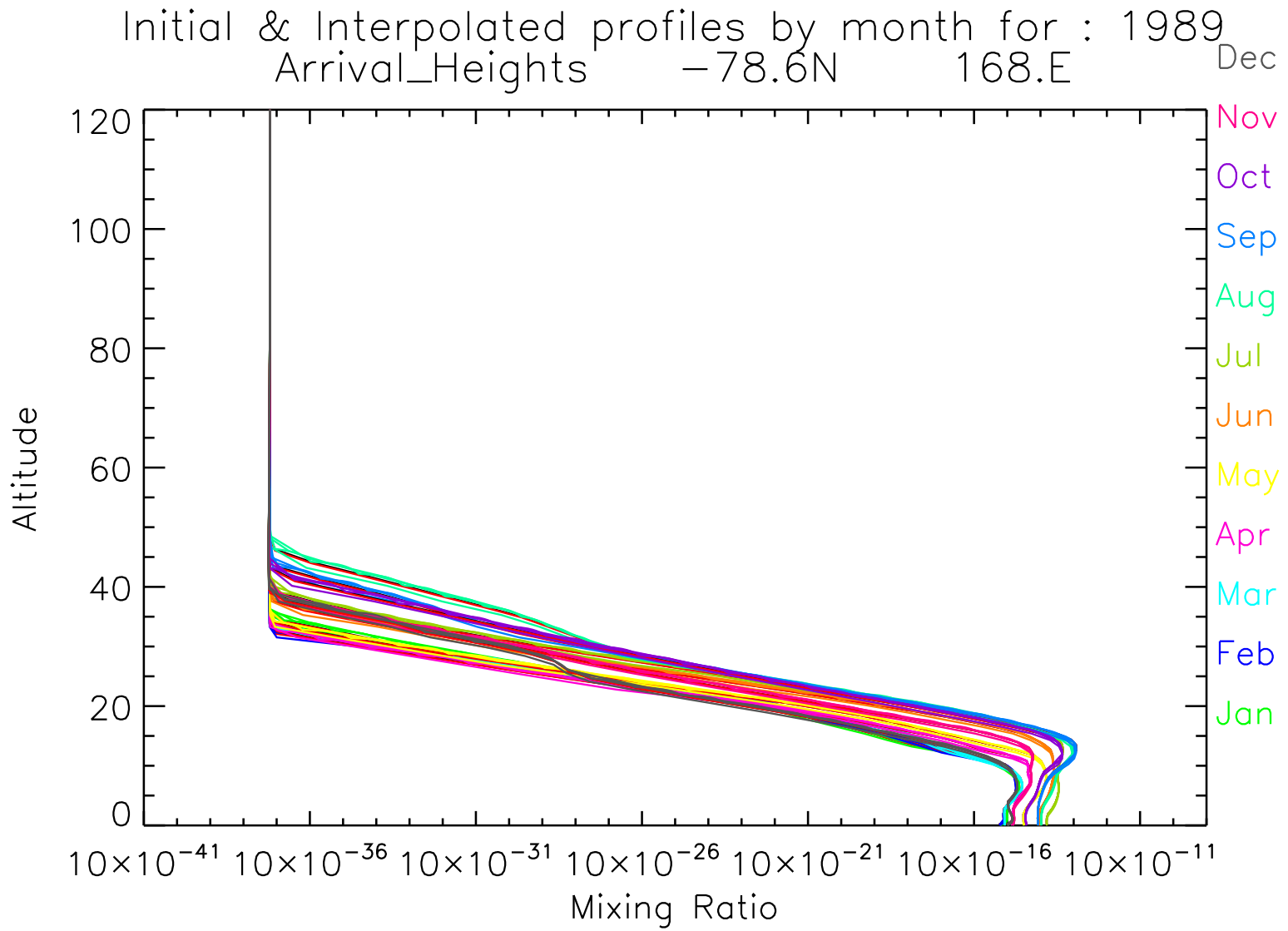
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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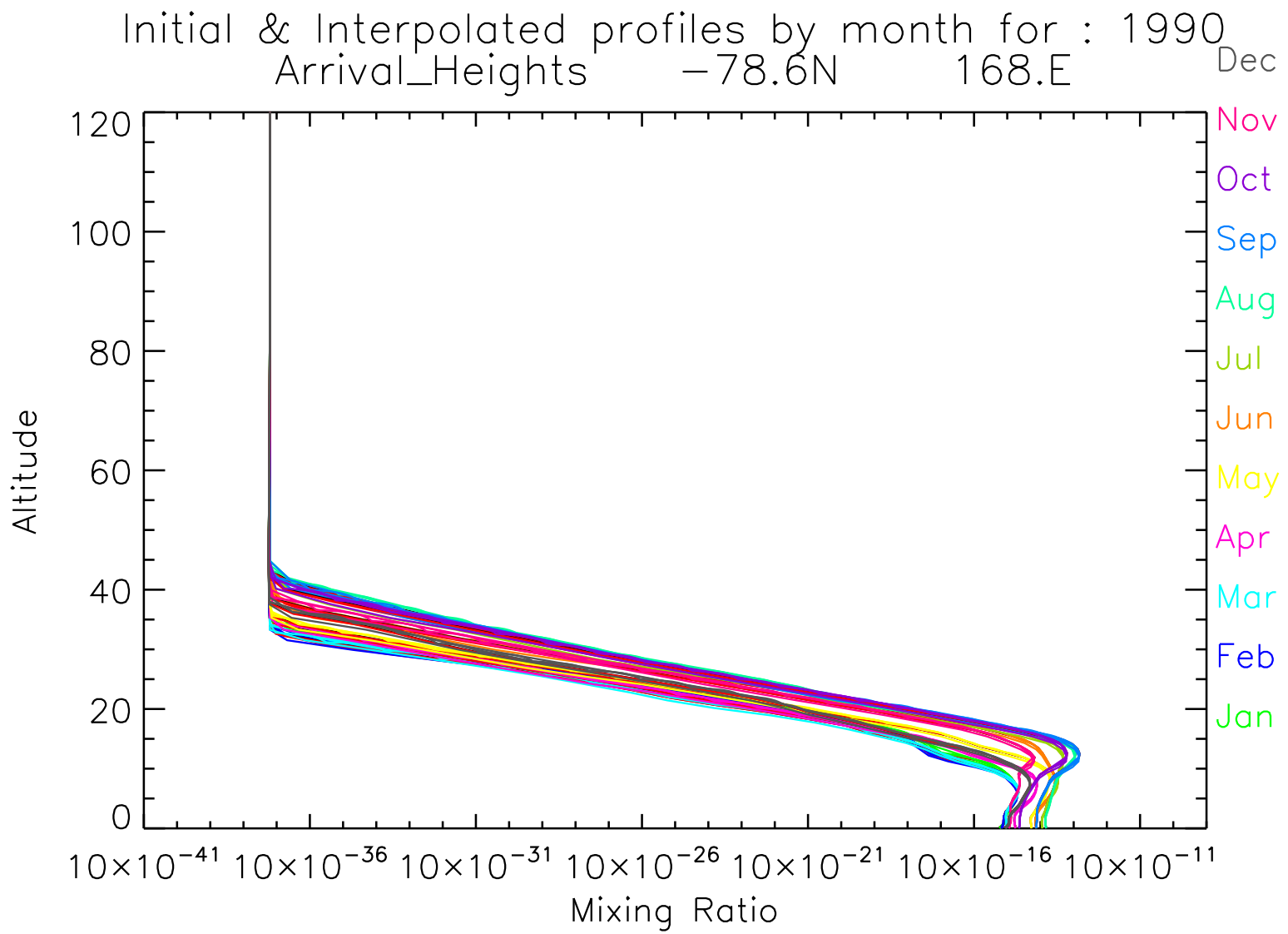
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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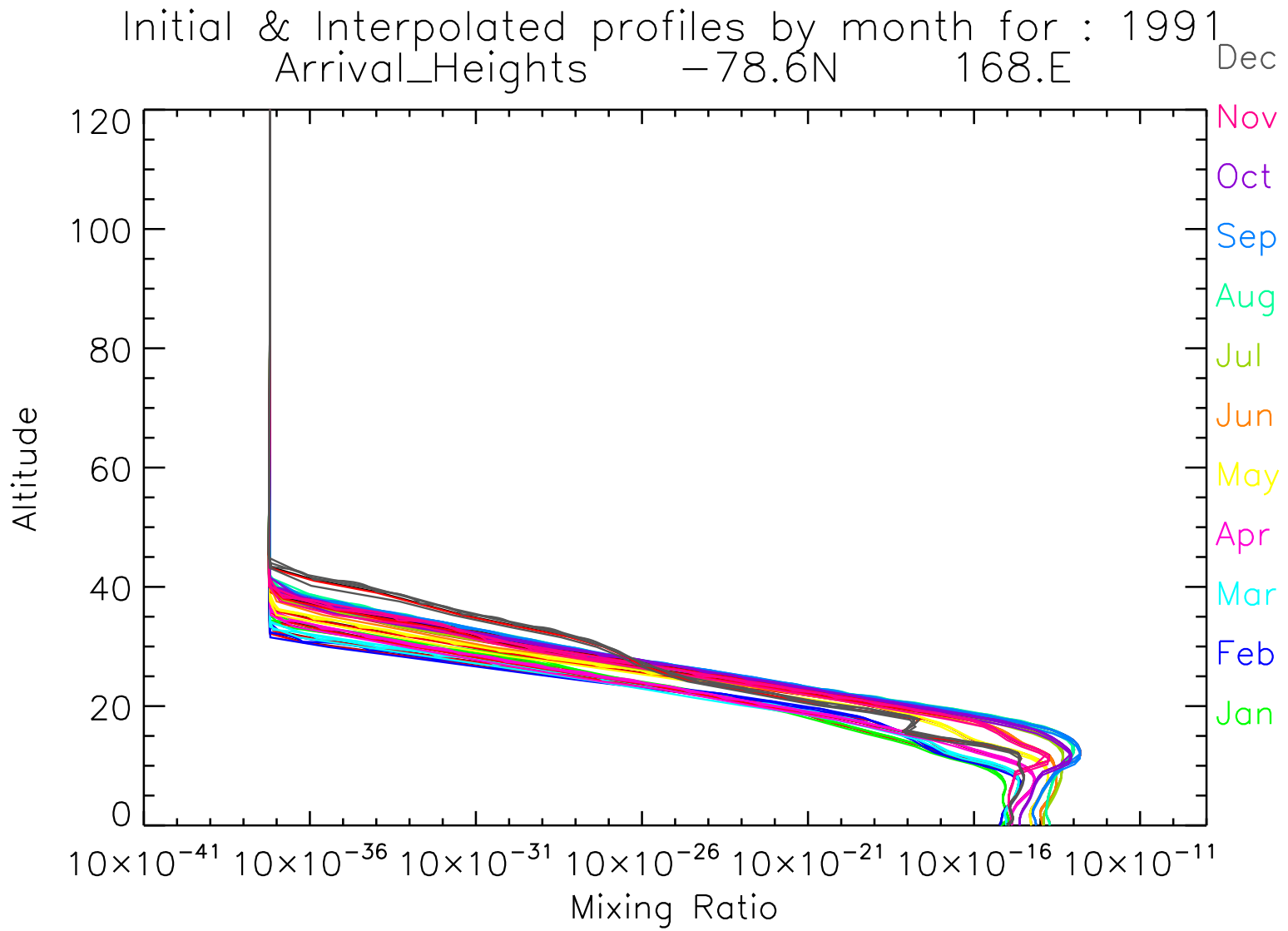
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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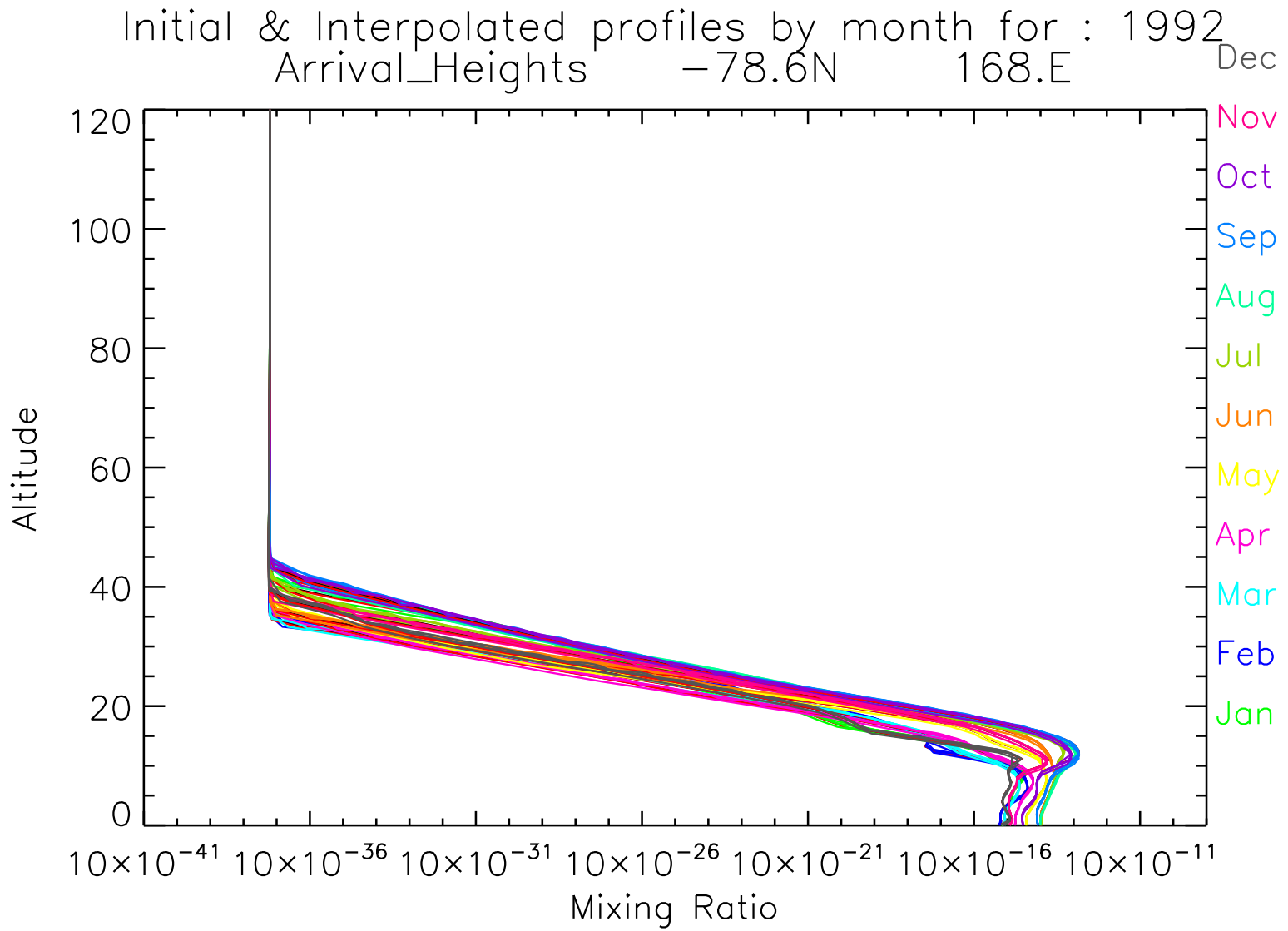
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
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Jul
Jun
May
Apr
Mar
Feb
Jan
120
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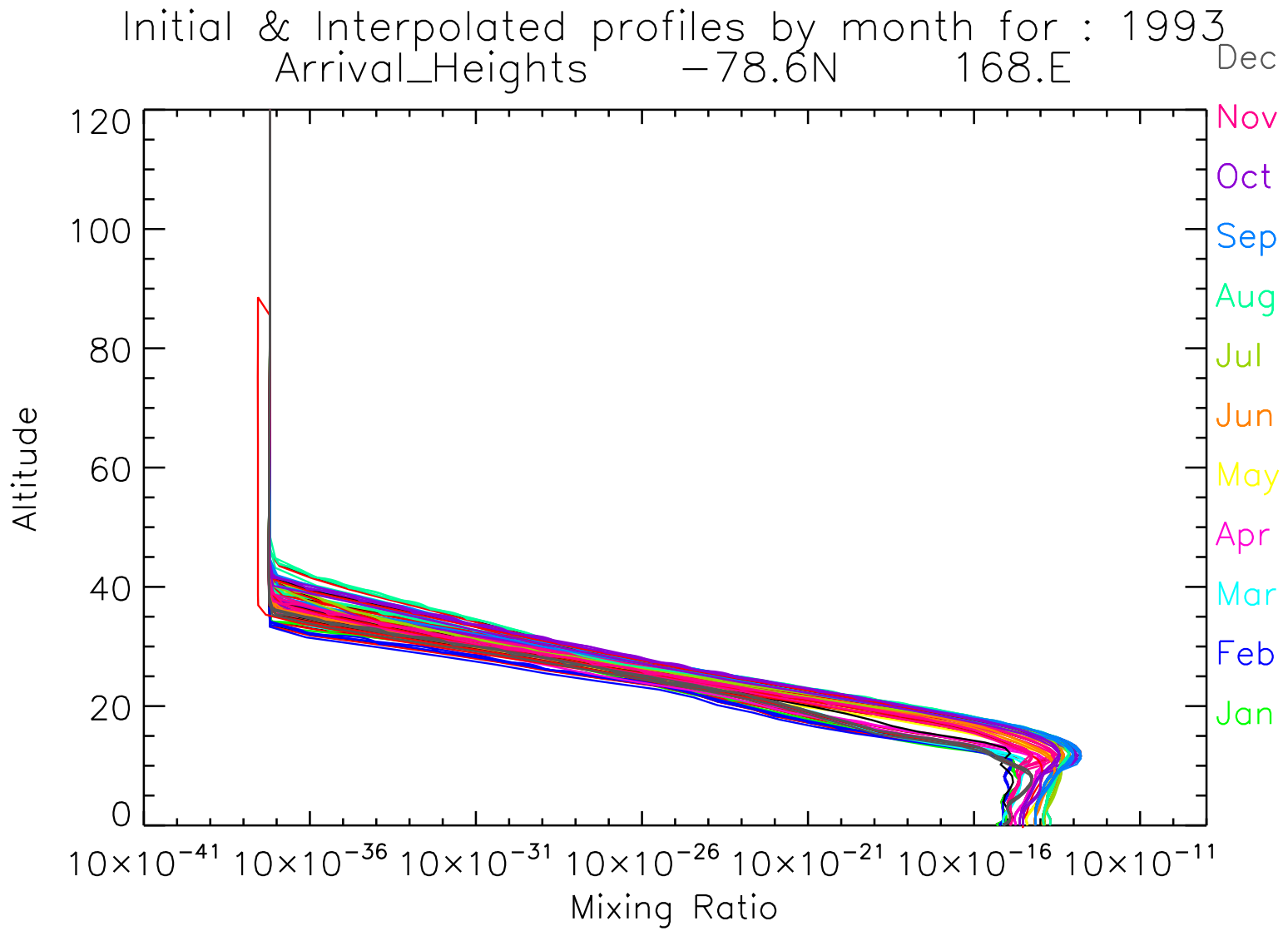
Altitude
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Arrival_Heights −78.6N 168.E
Dec
Nov
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Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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40
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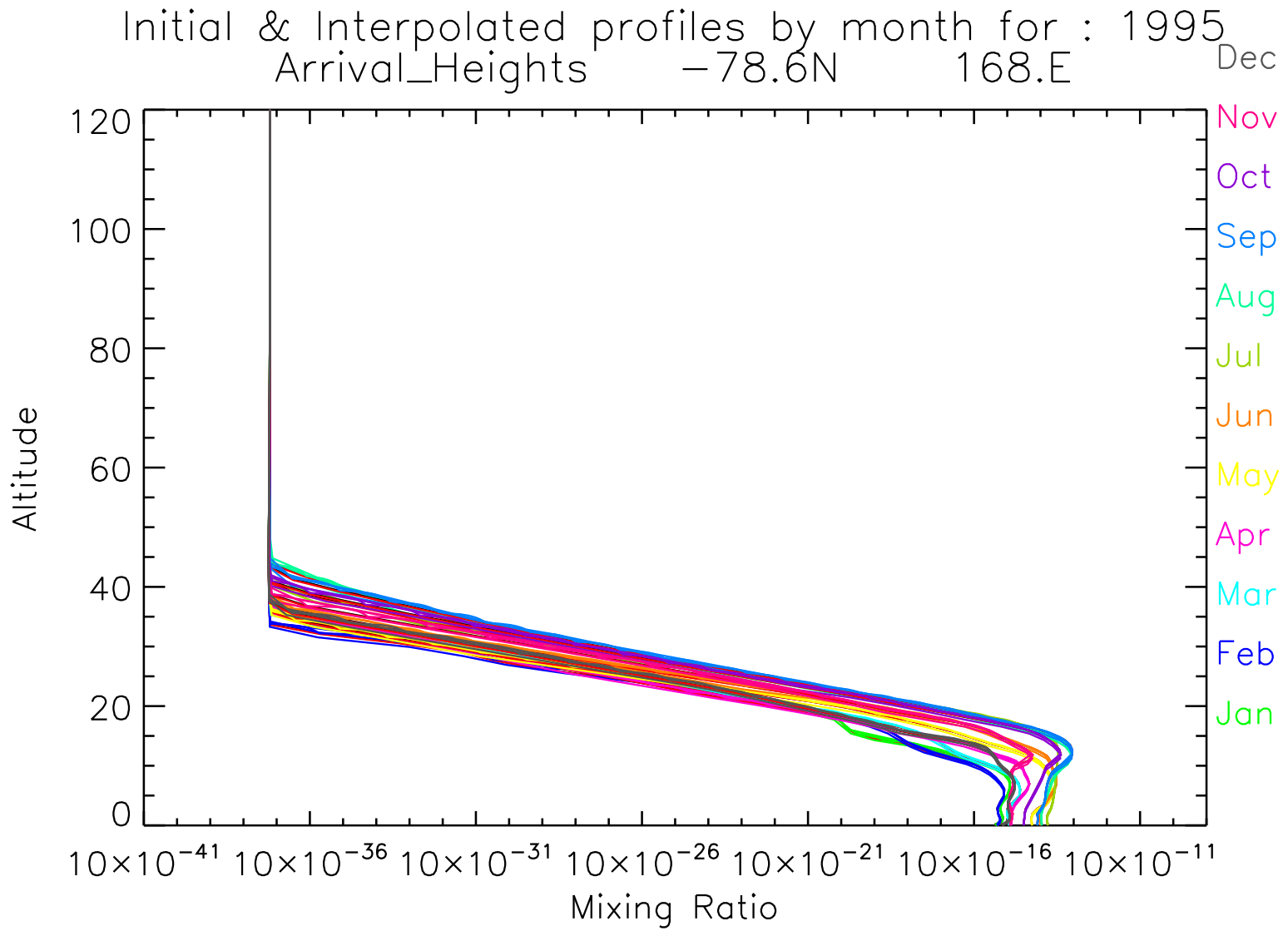
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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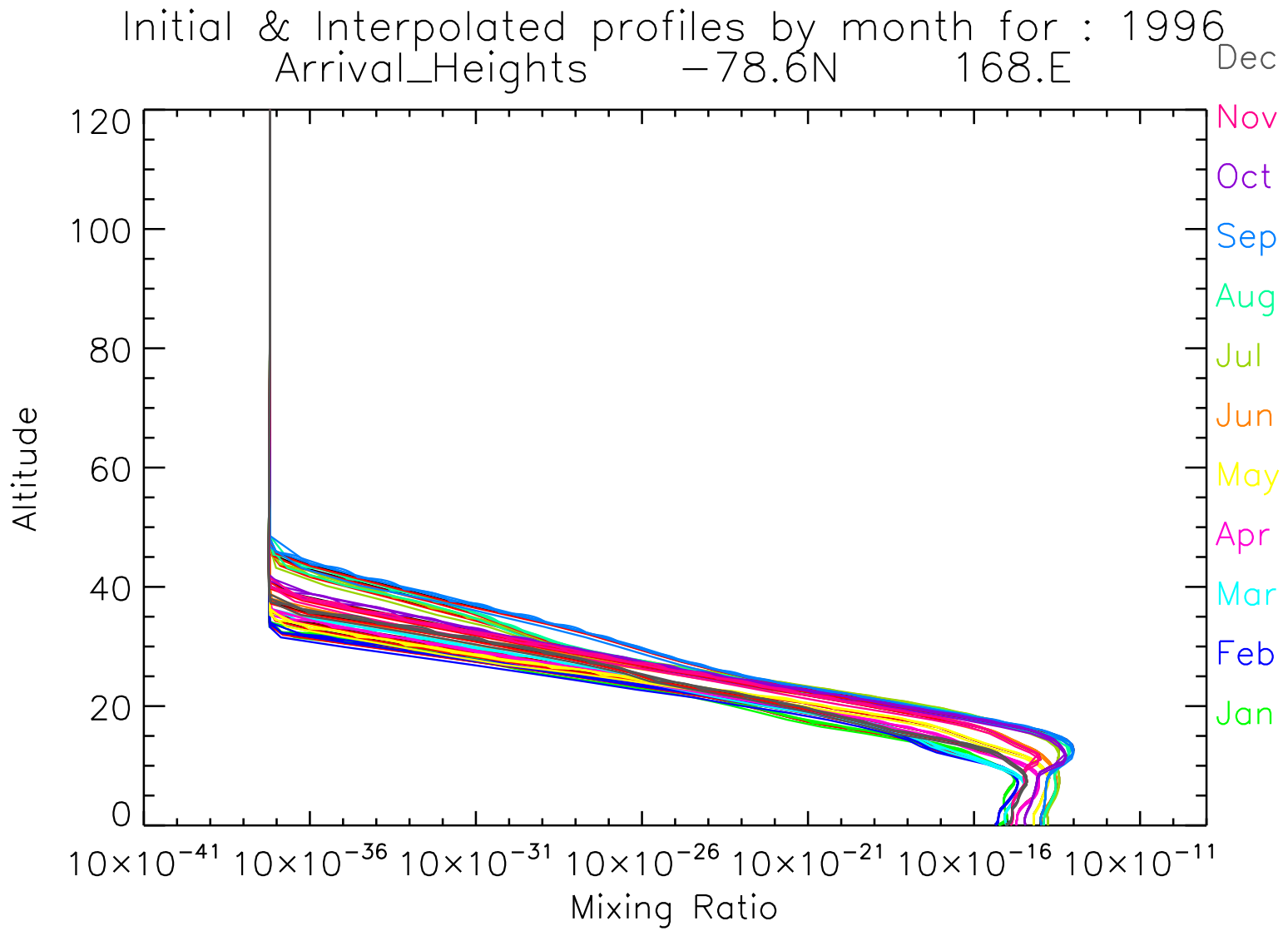
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
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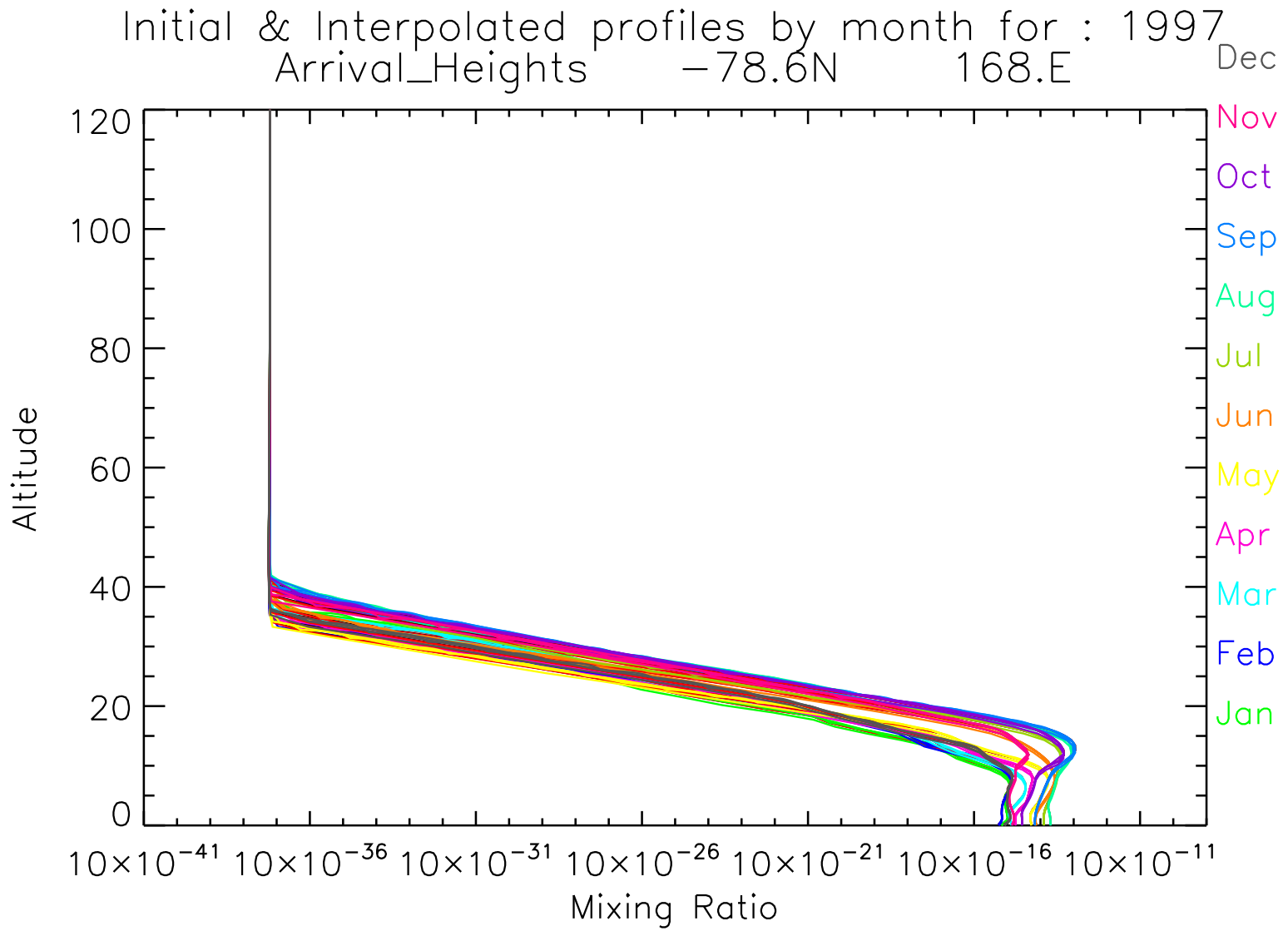
0
Altitude
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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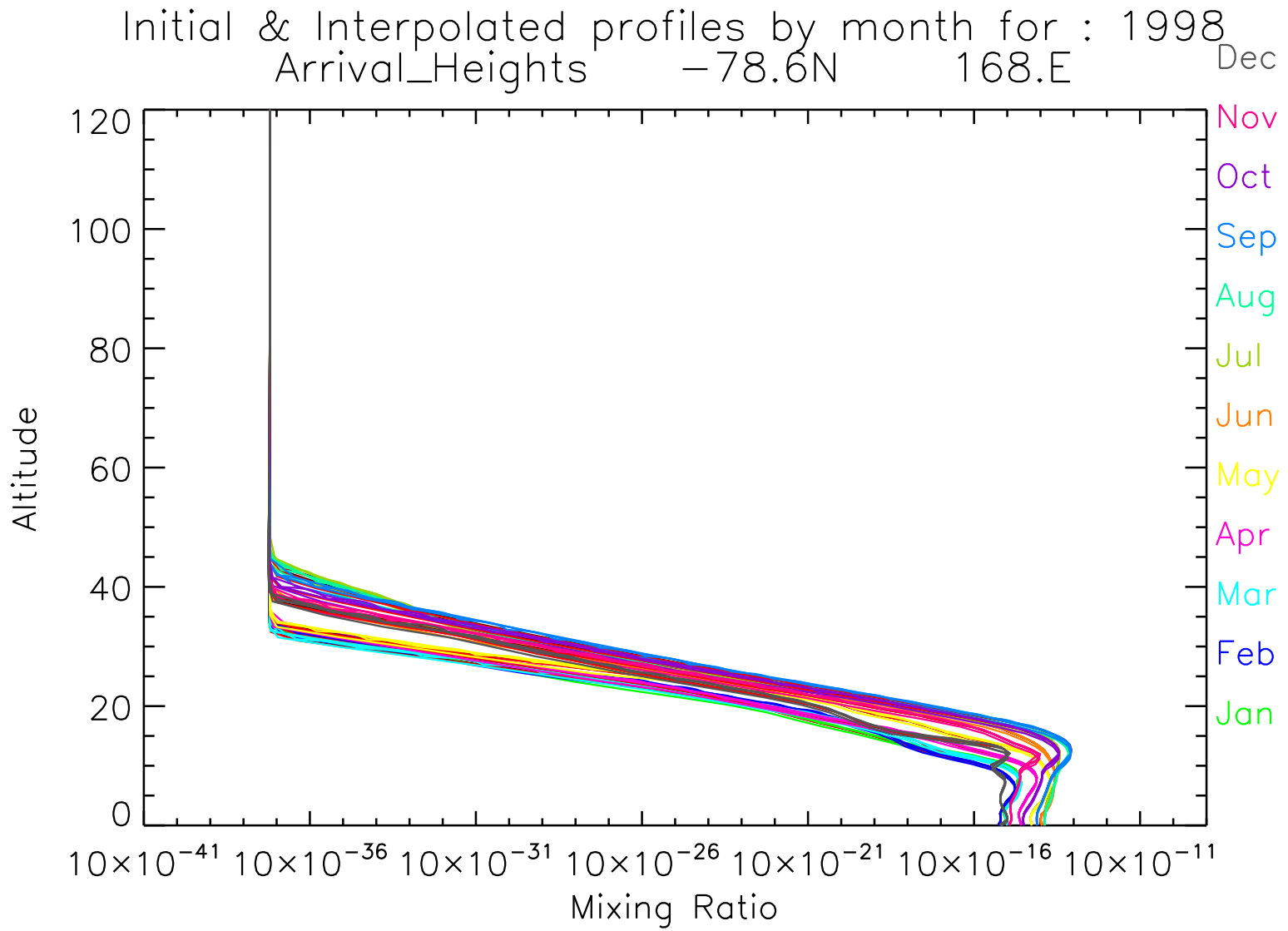
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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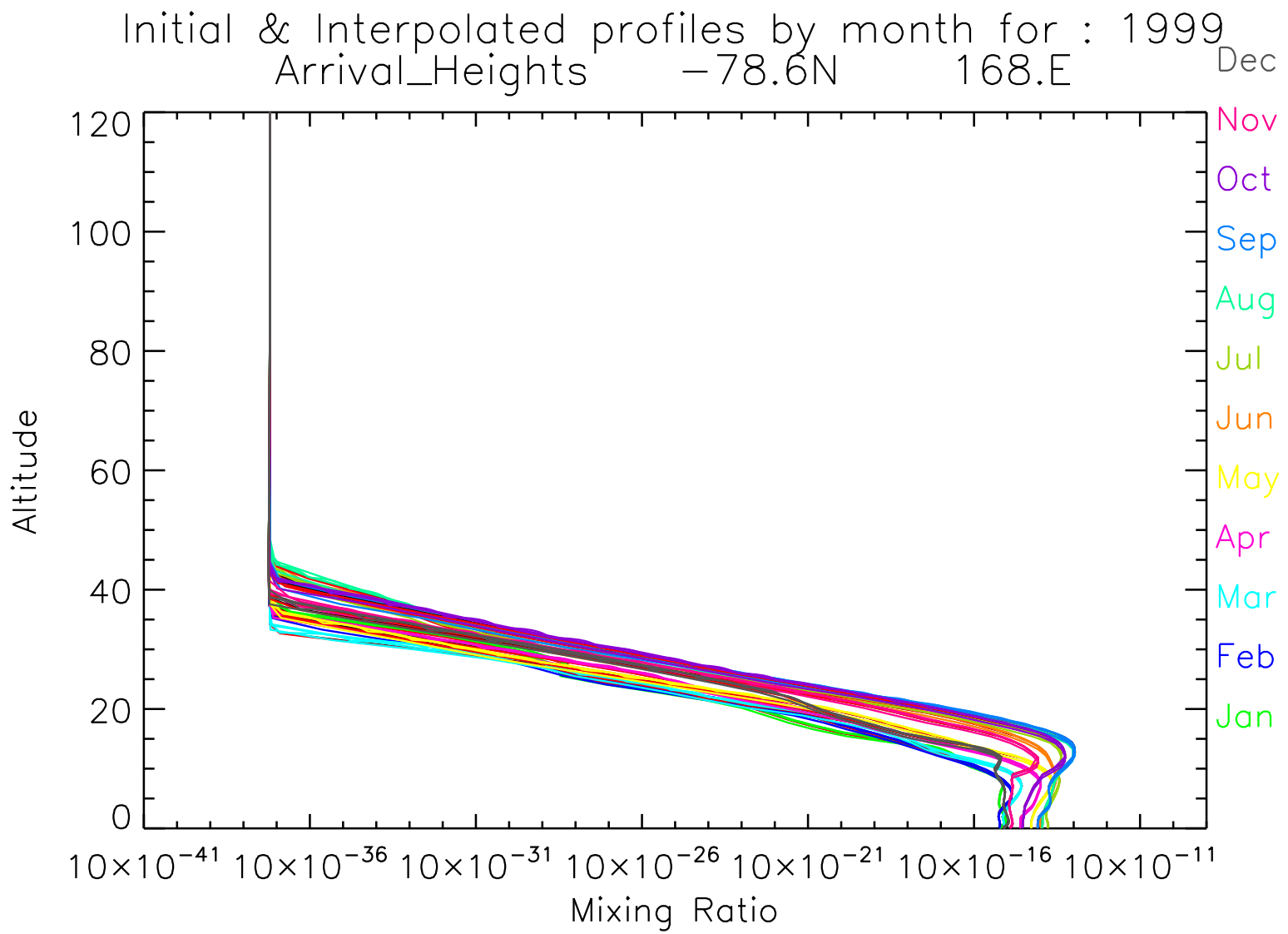
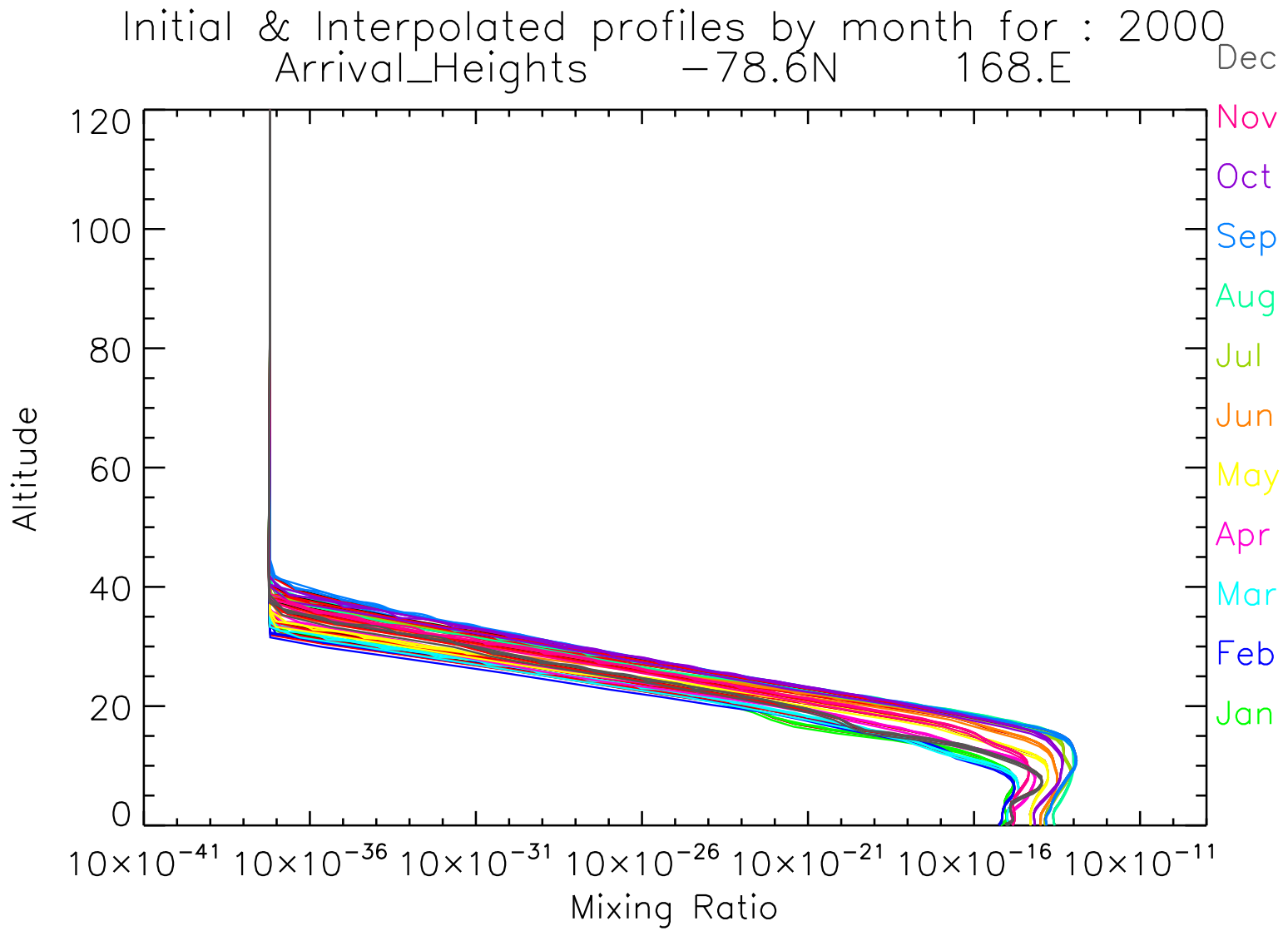
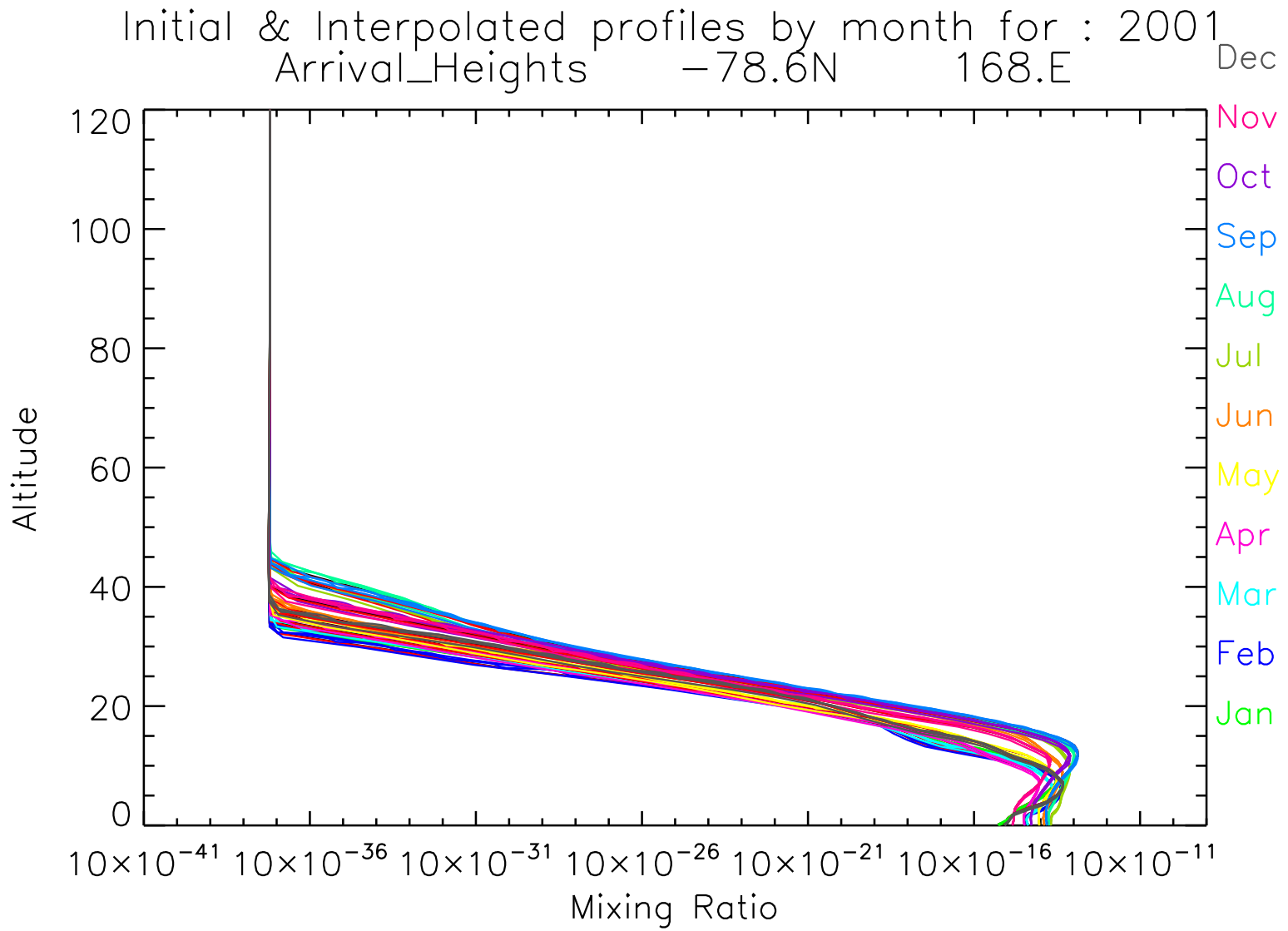
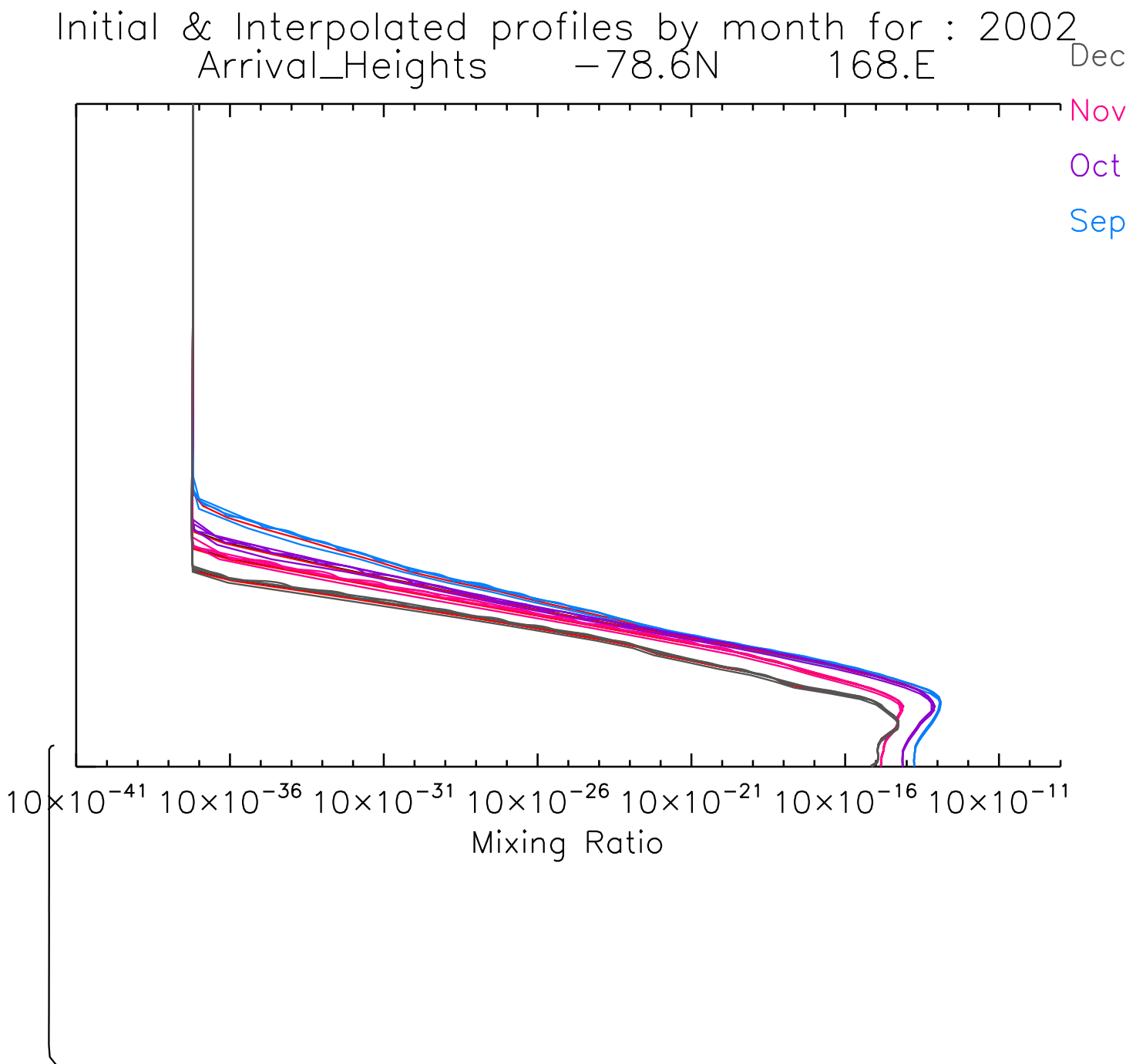
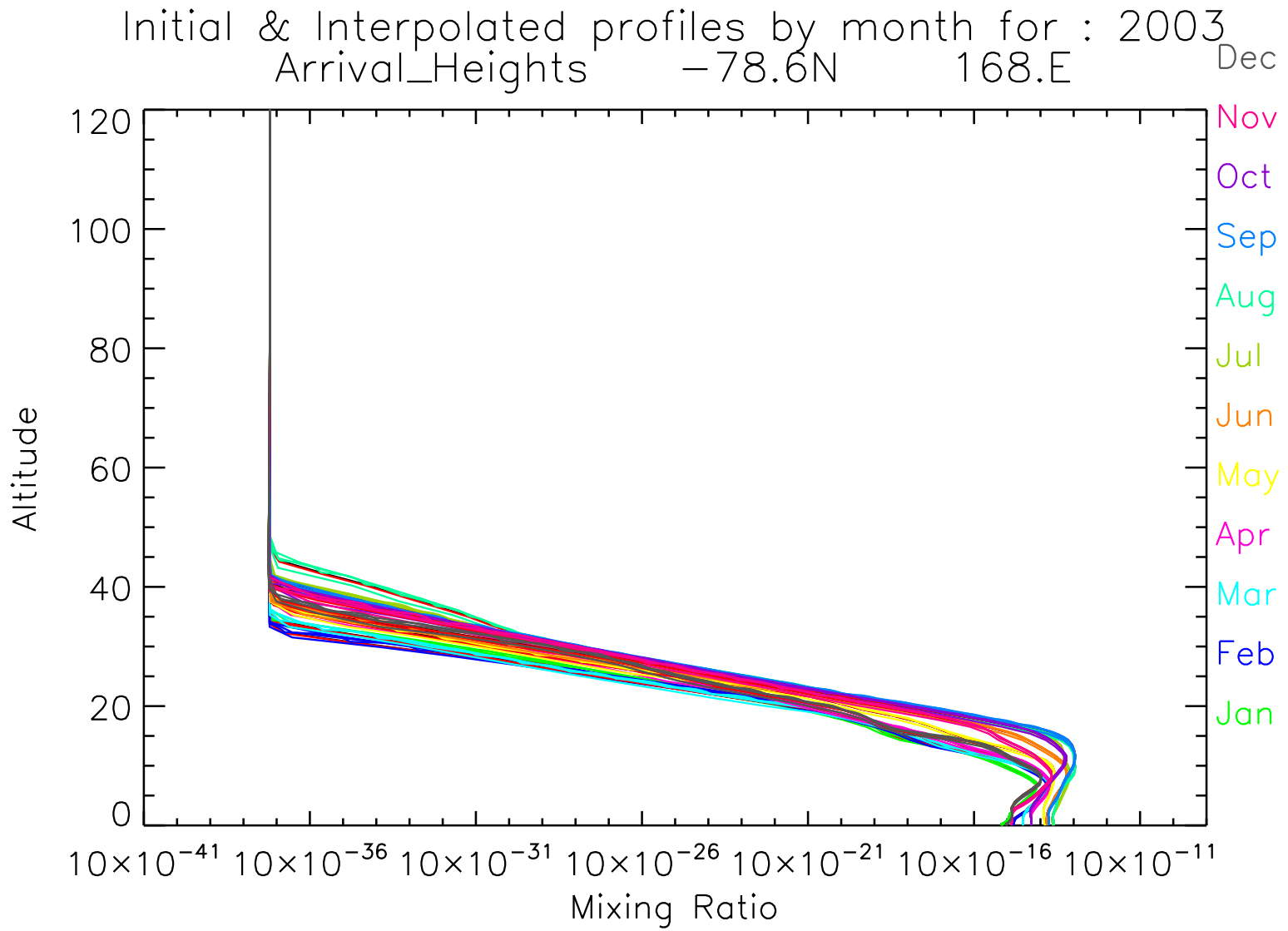
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

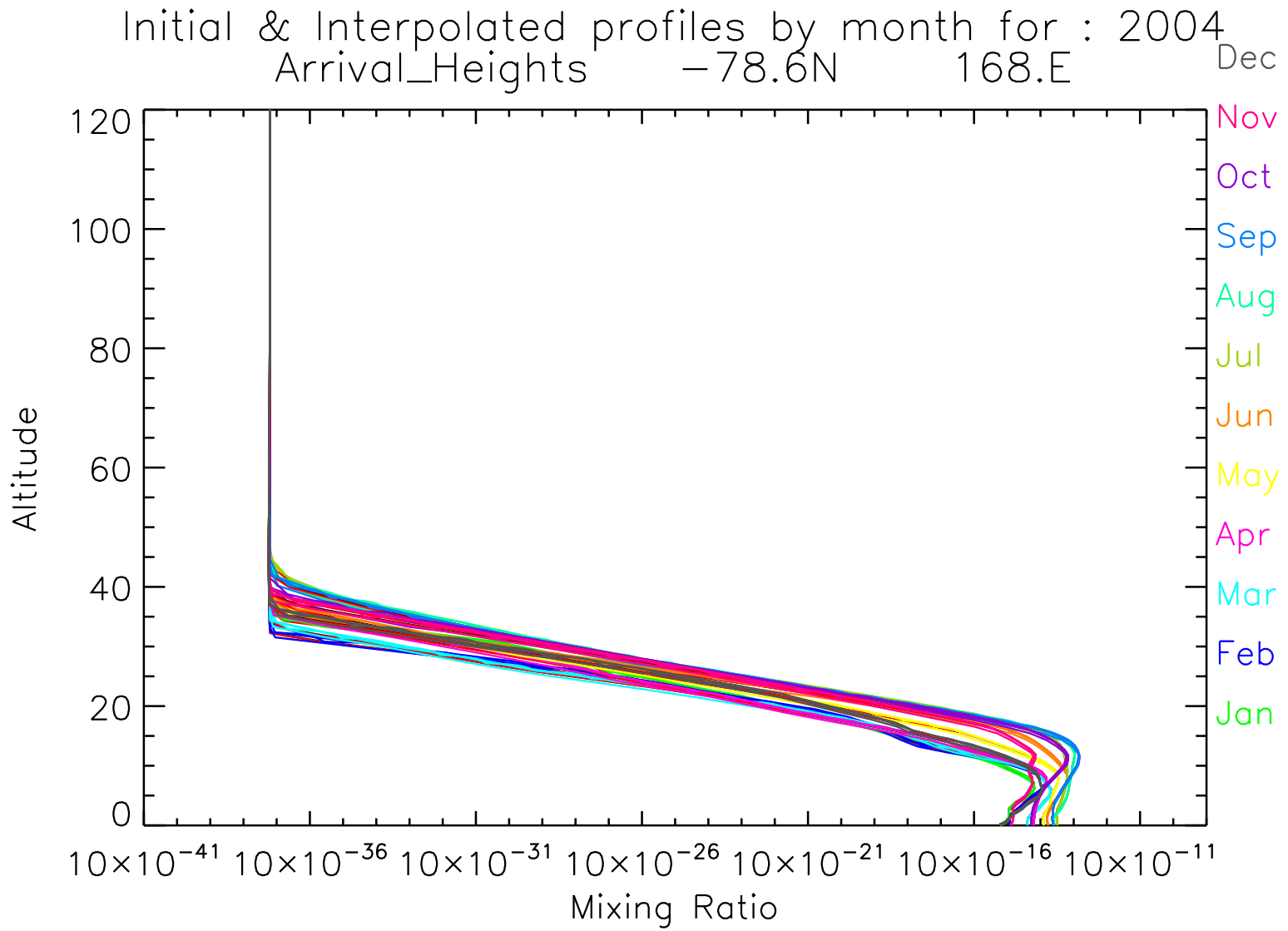

Initial & Interpolated profiles by month for : 1999
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

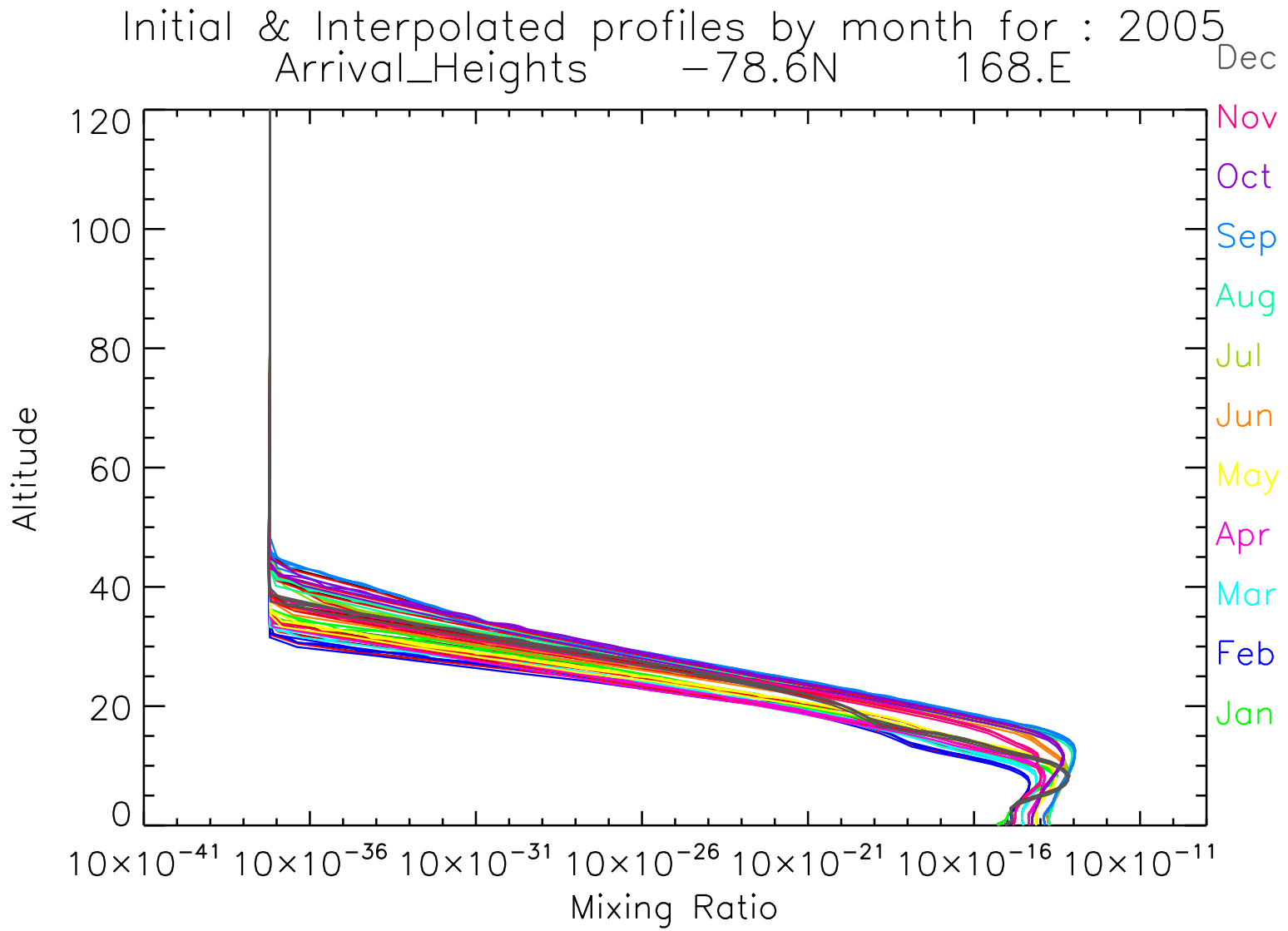

Initial & Interpolated profiles by month for : 2000
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

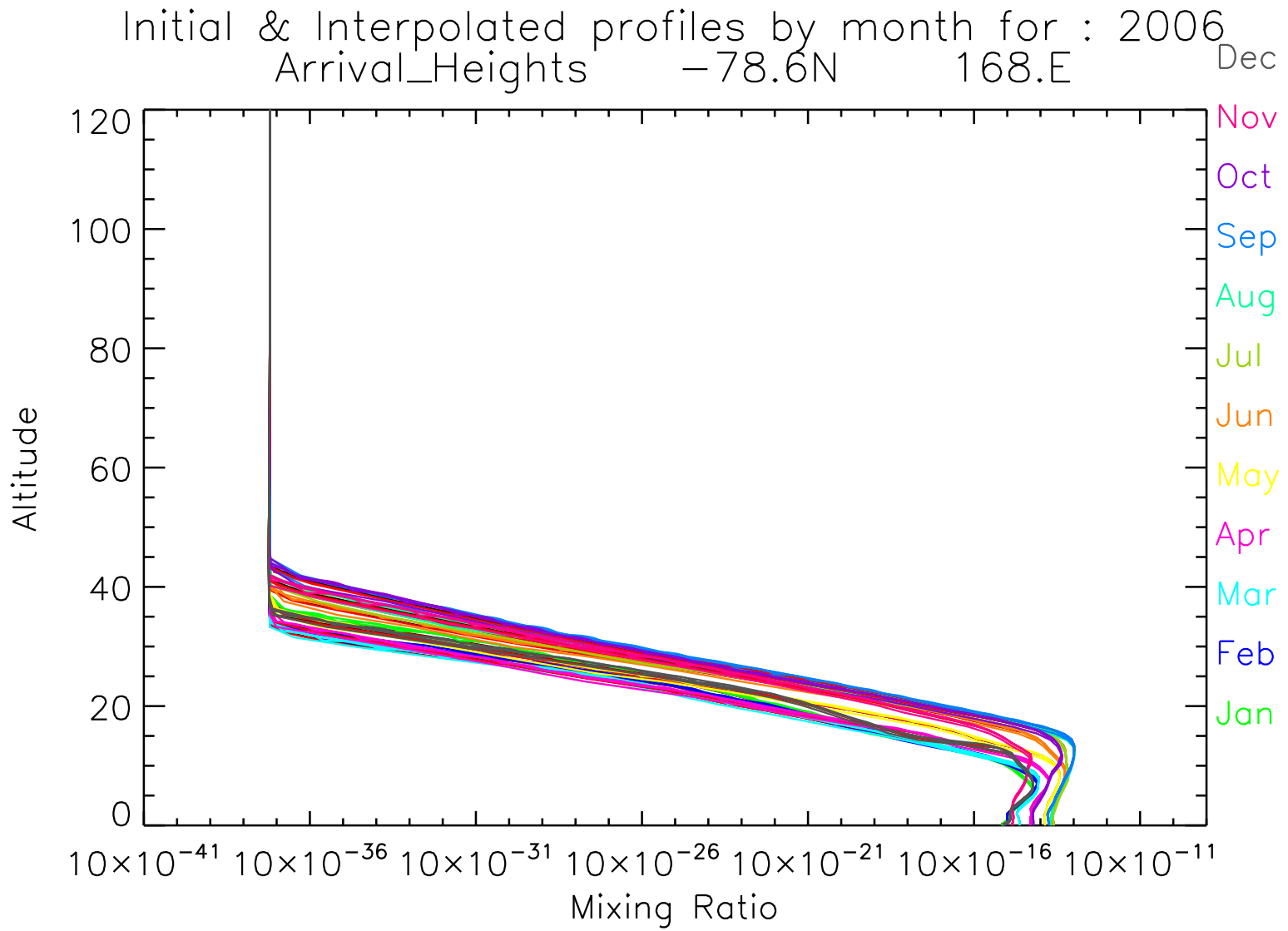

Initial & Interpolated profiles by month for : 2001
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
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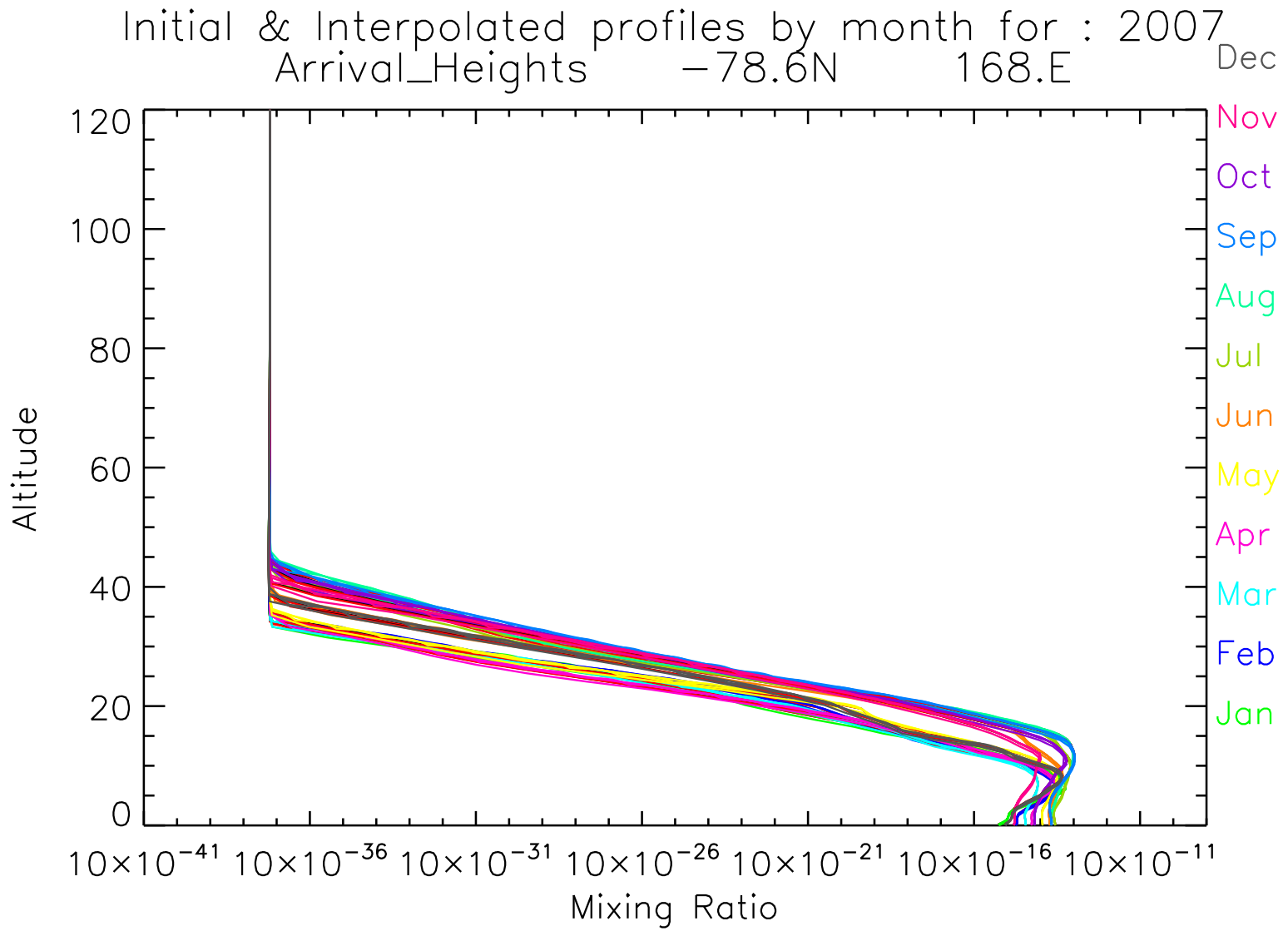
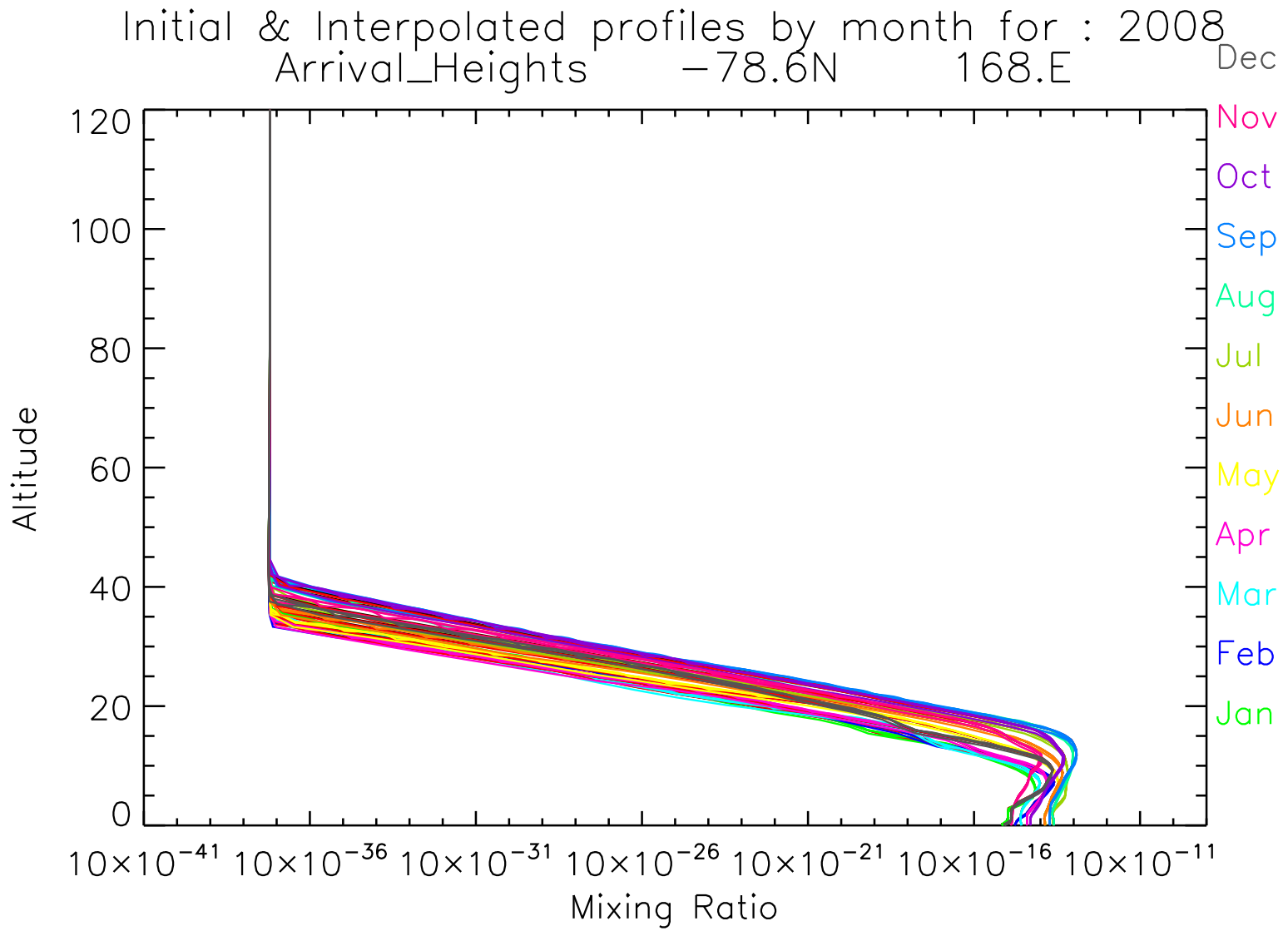
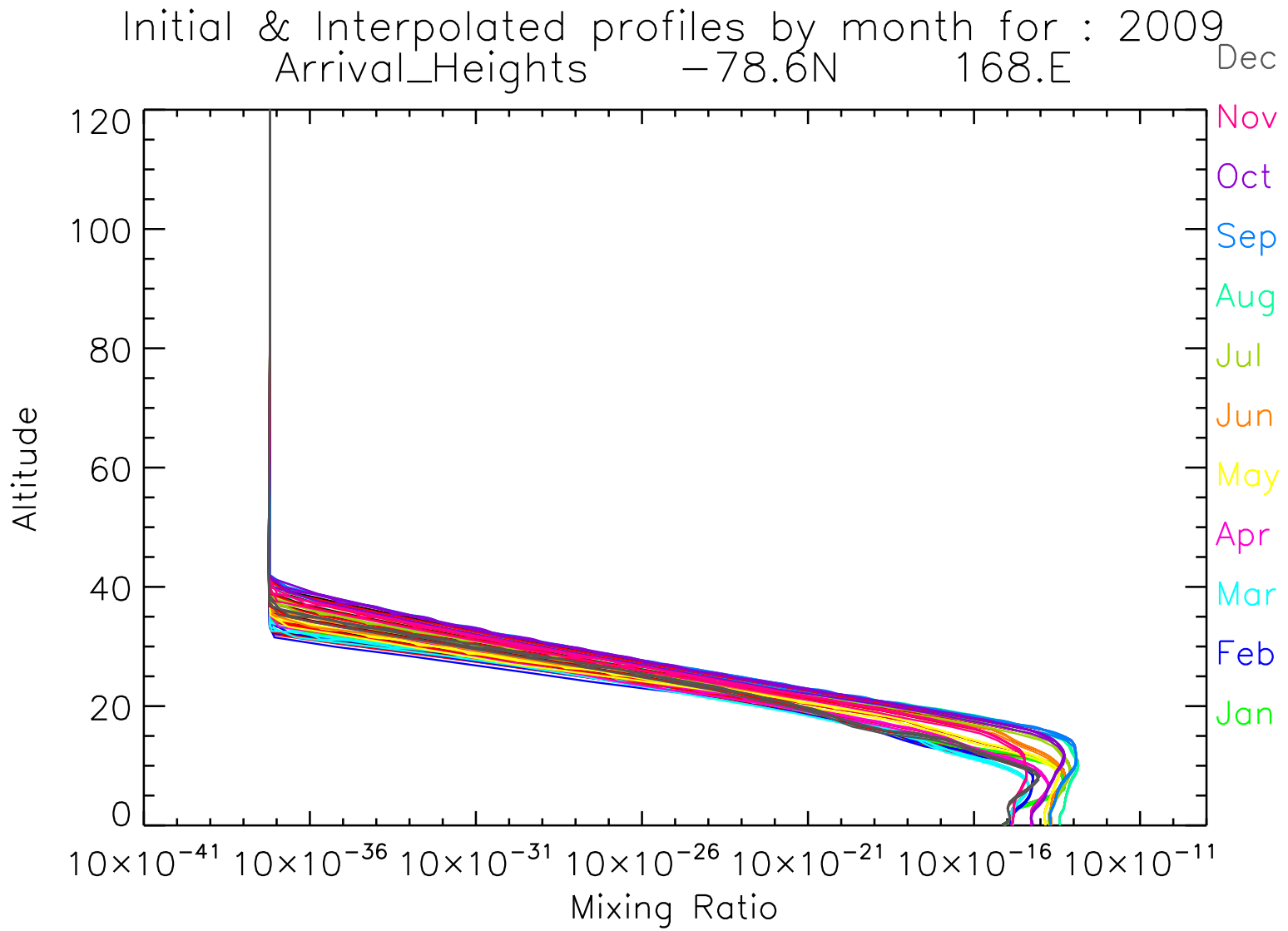
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
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Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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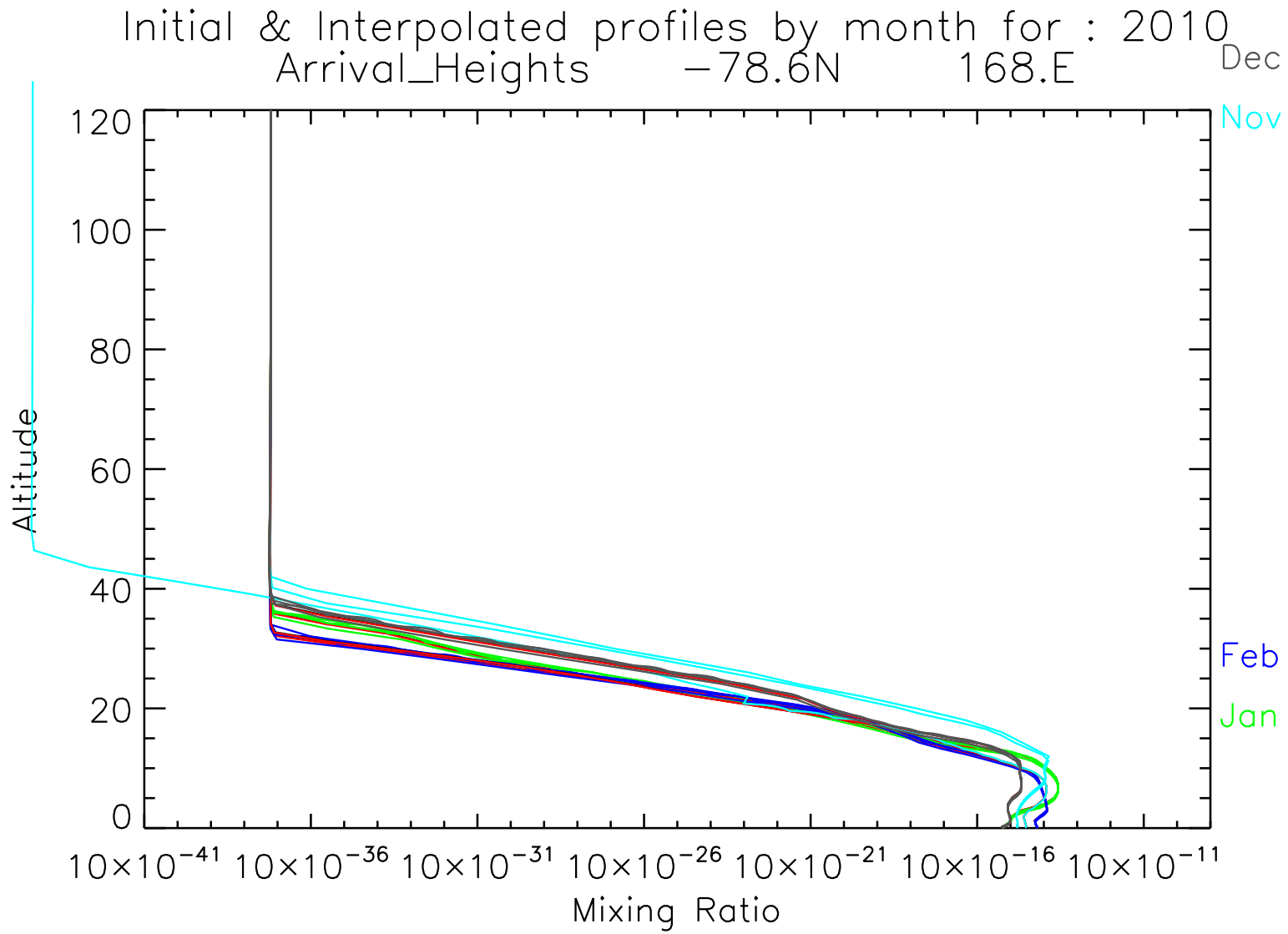
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Arrival_Heights −78.6N 168.E
Dec
Nov
Feb
Jan
Altitude
120
100
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60
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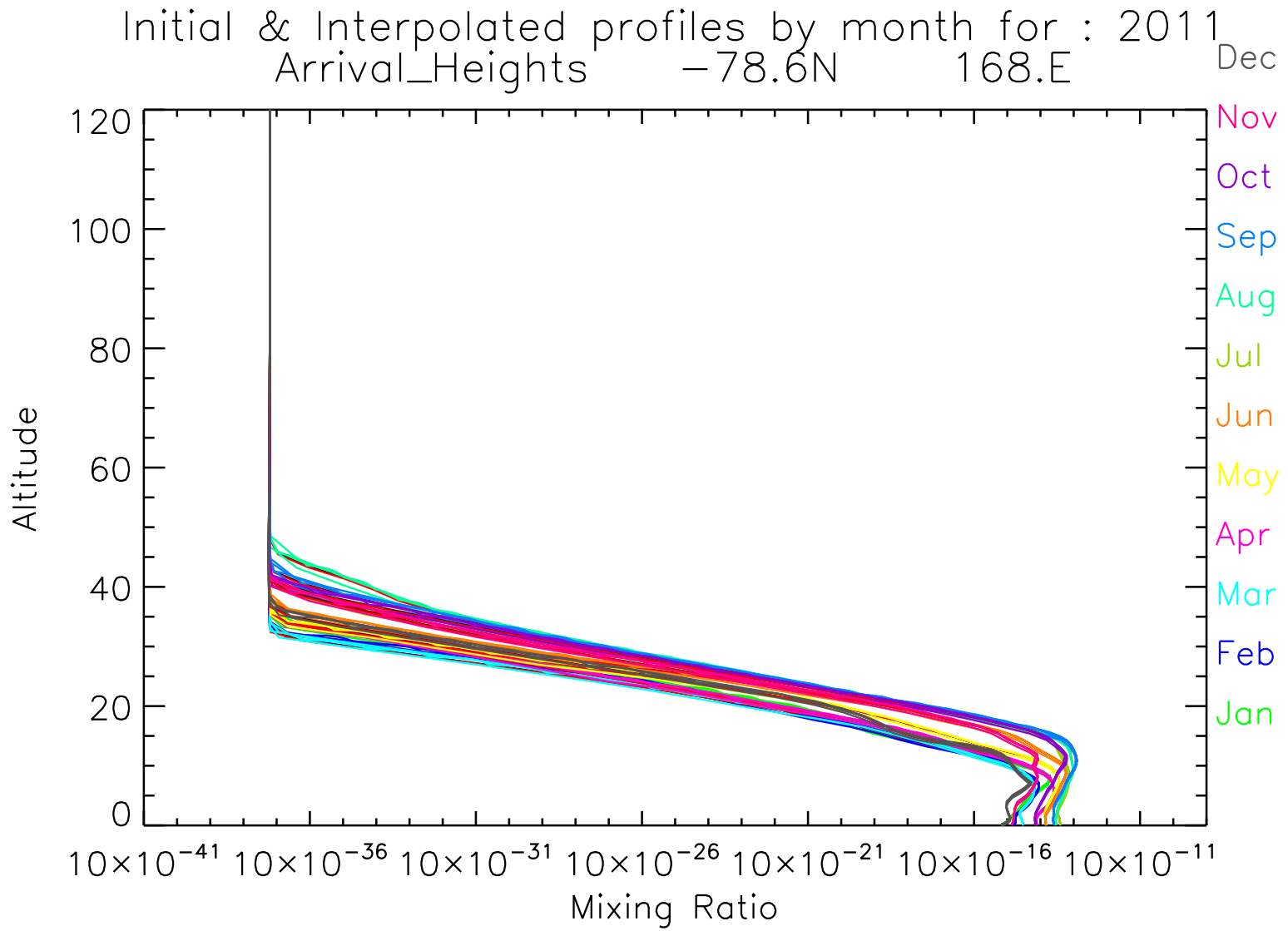
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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60
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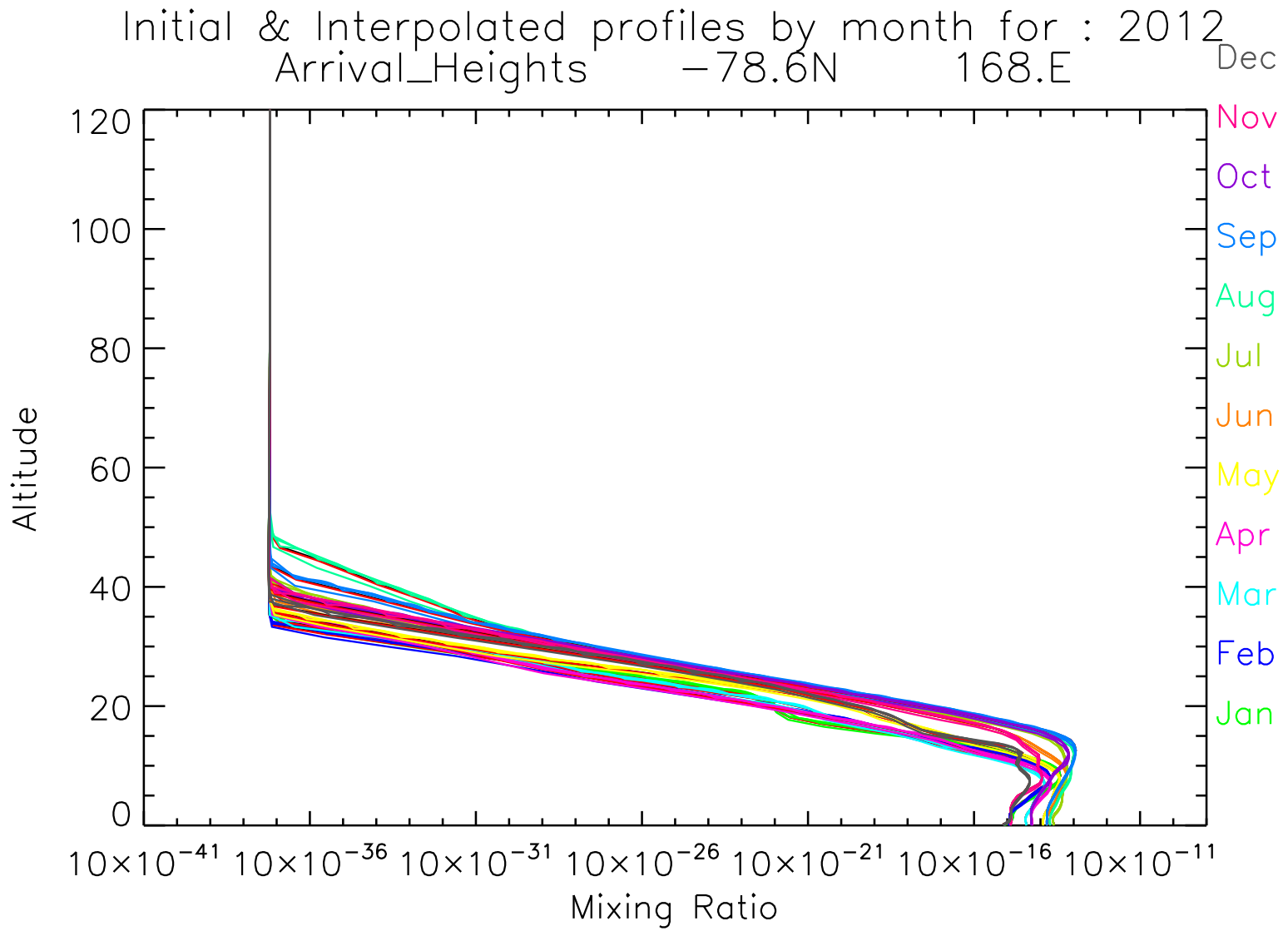
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2012
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
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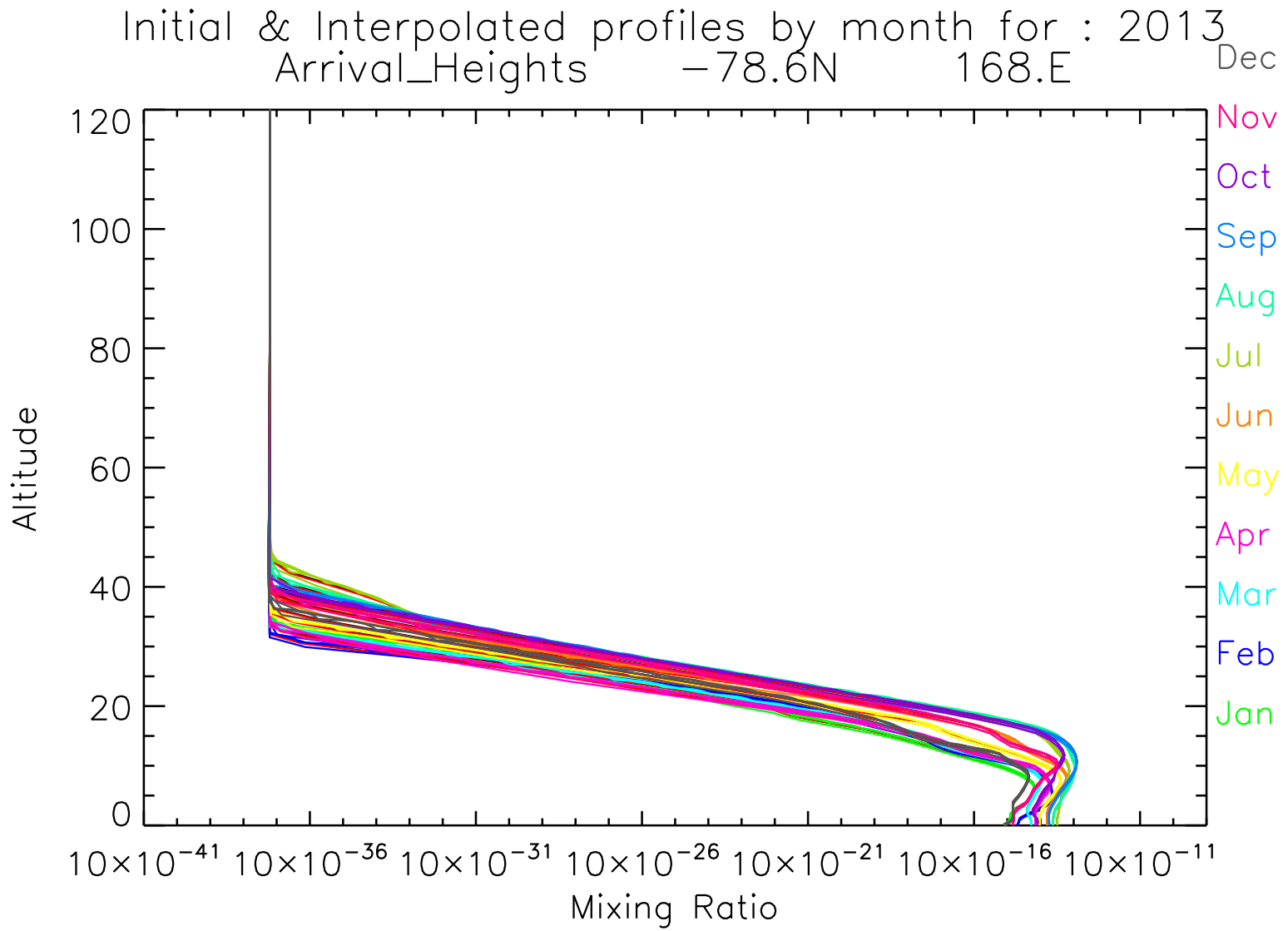
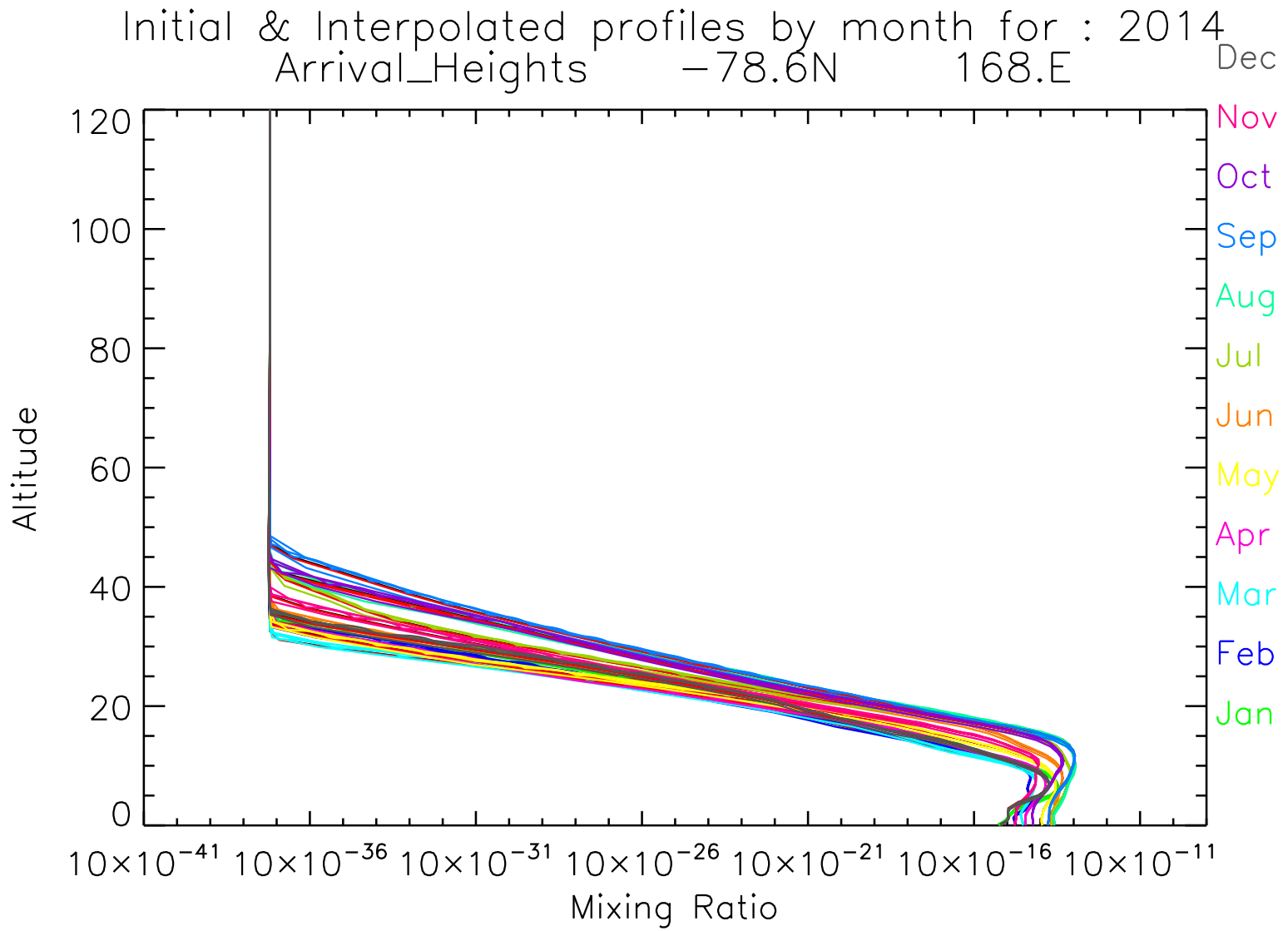
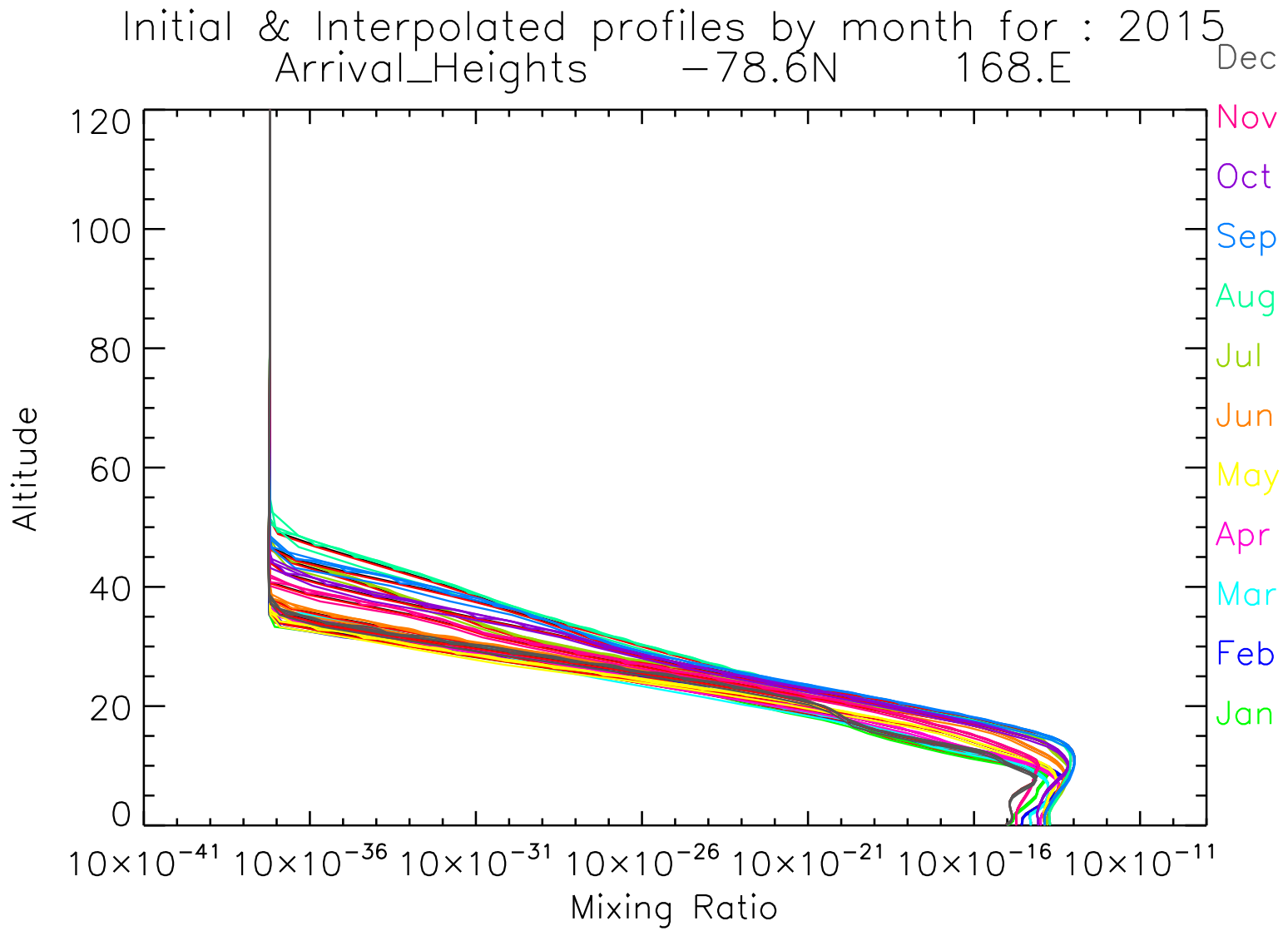
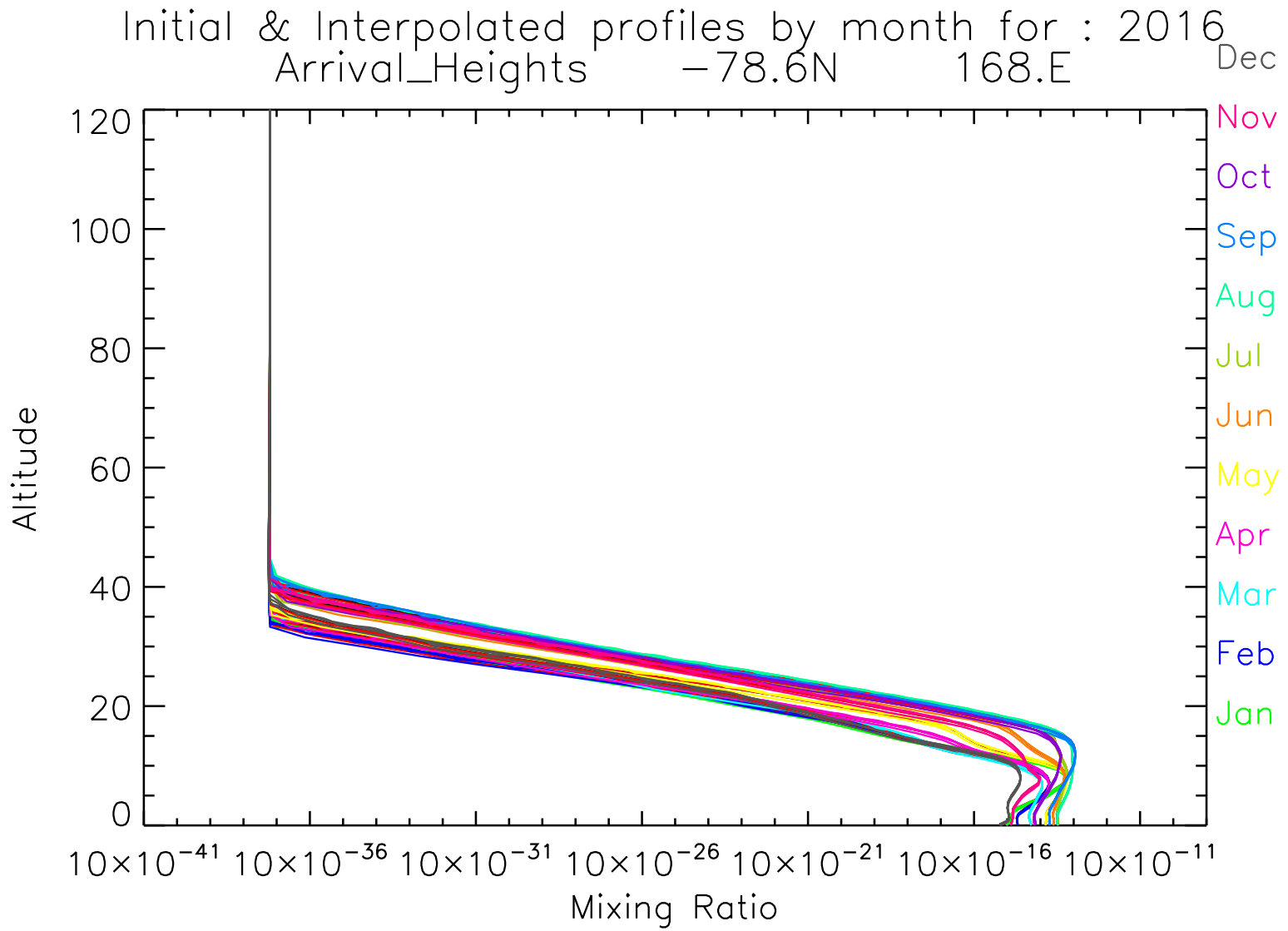
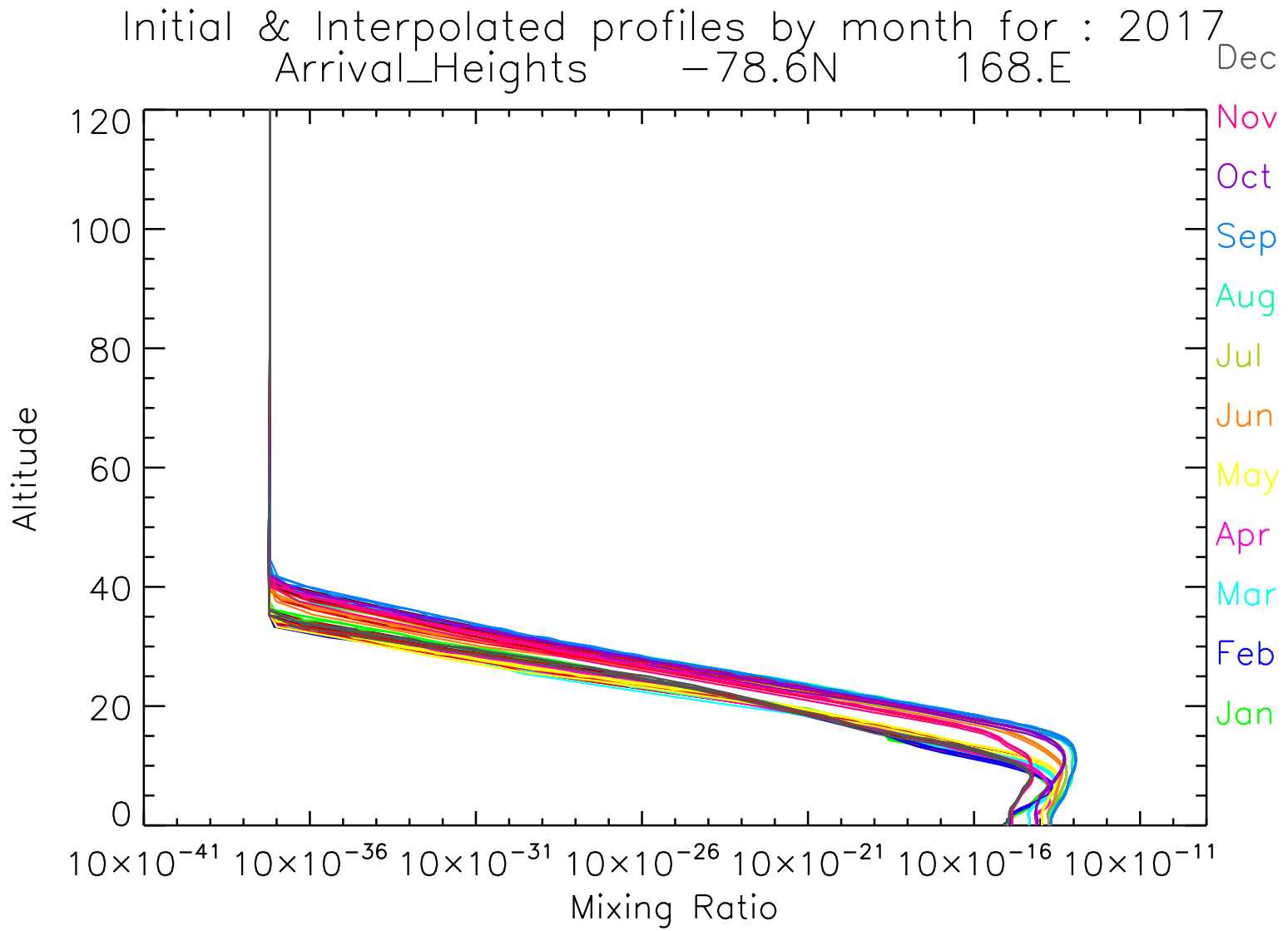
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

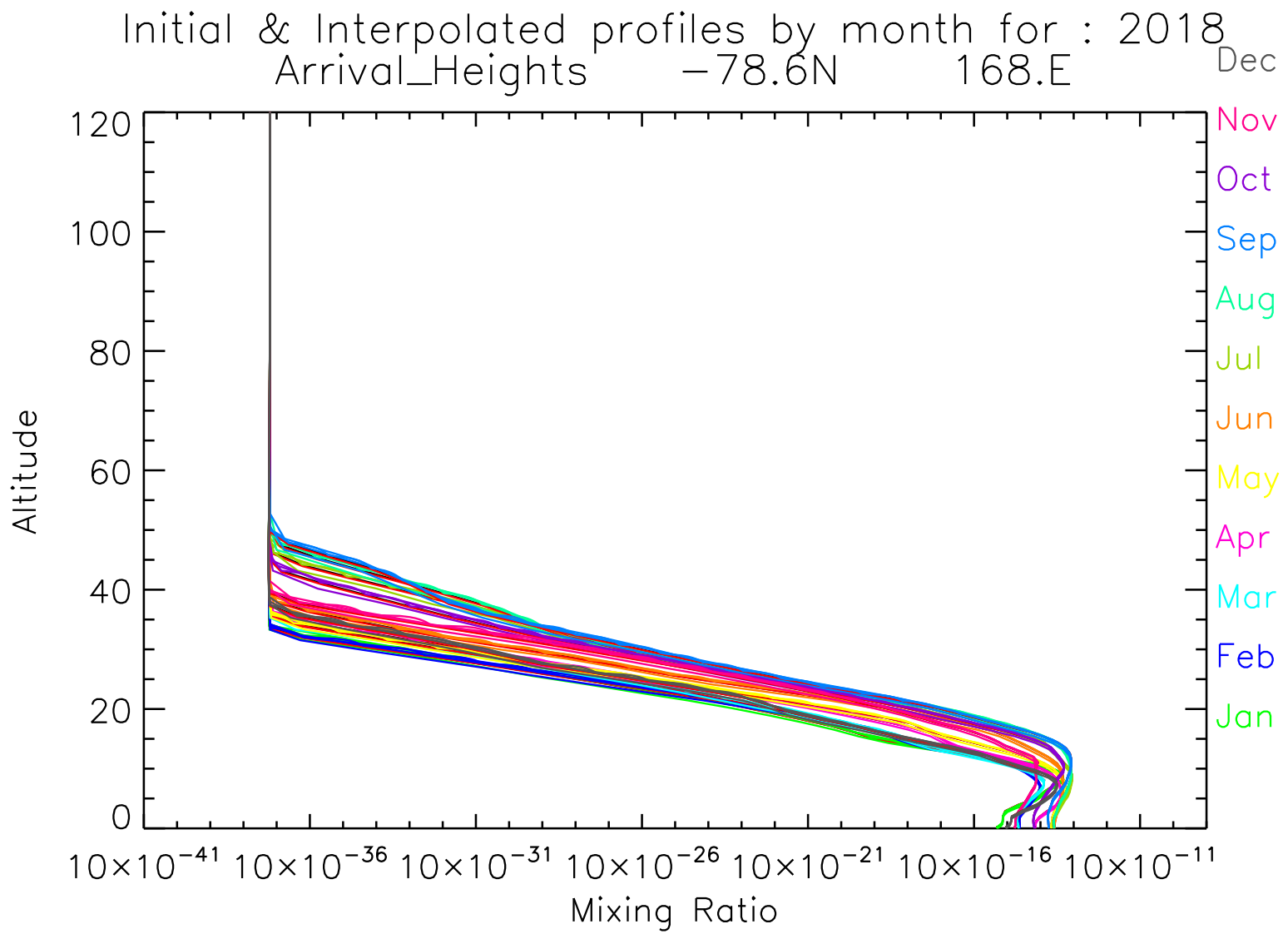

Initial & Interpolated profiles by month for : 2013
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

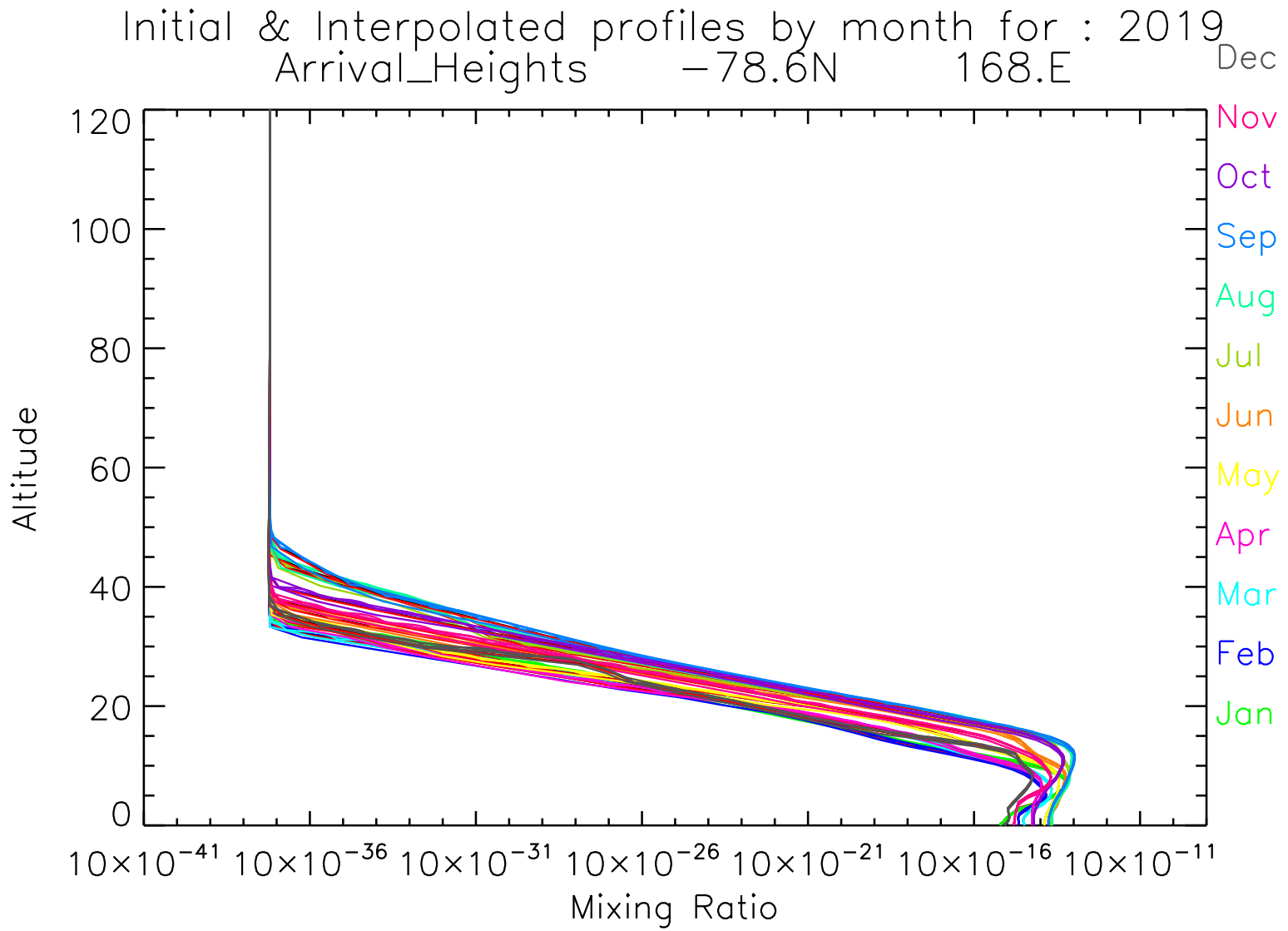

Initial & Interpolated profiles by month for : 2014
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

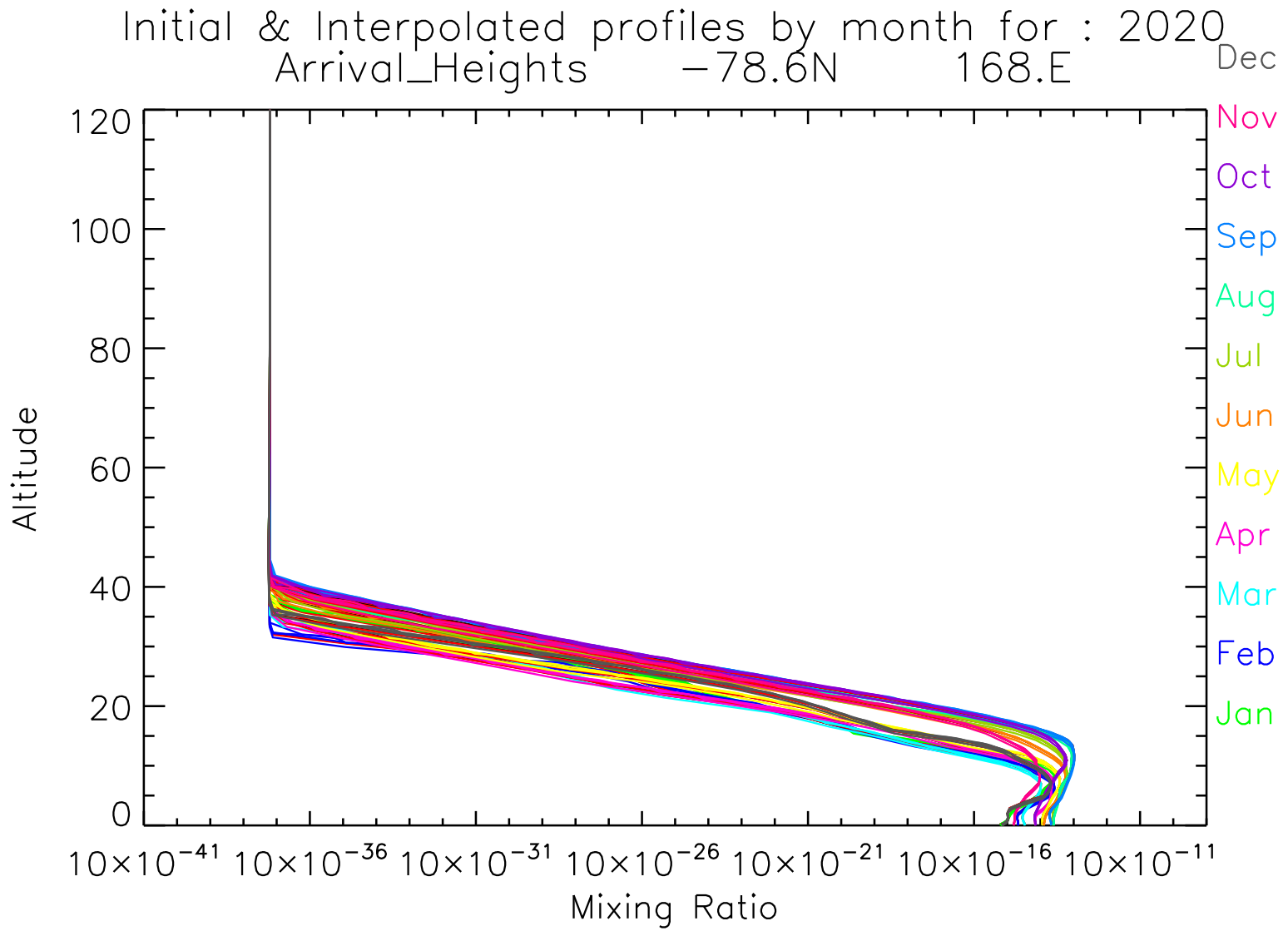

Initial & Interpolated profiles by month for : 2015
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

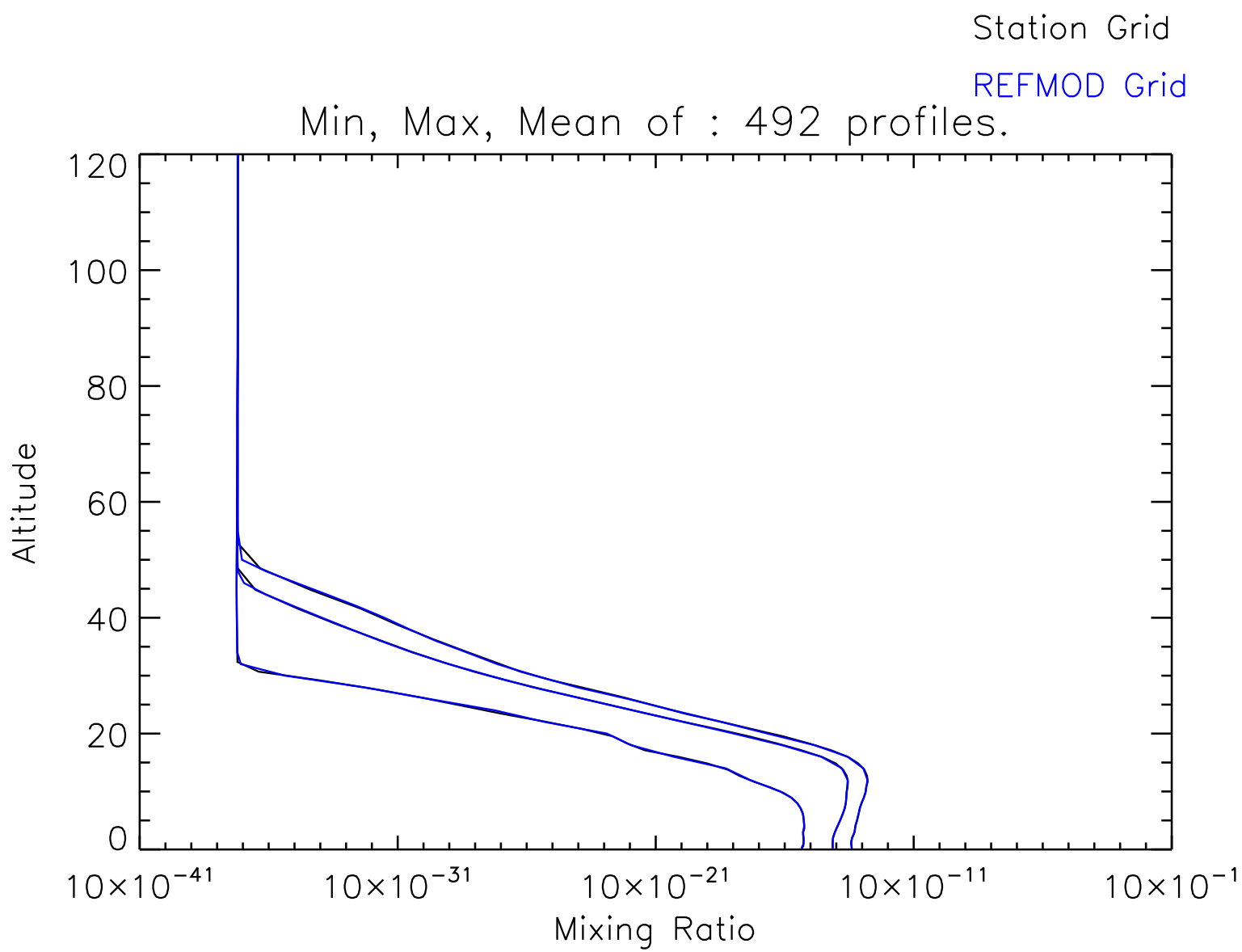

Initial & Interpolated profiles by month for : 2016
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

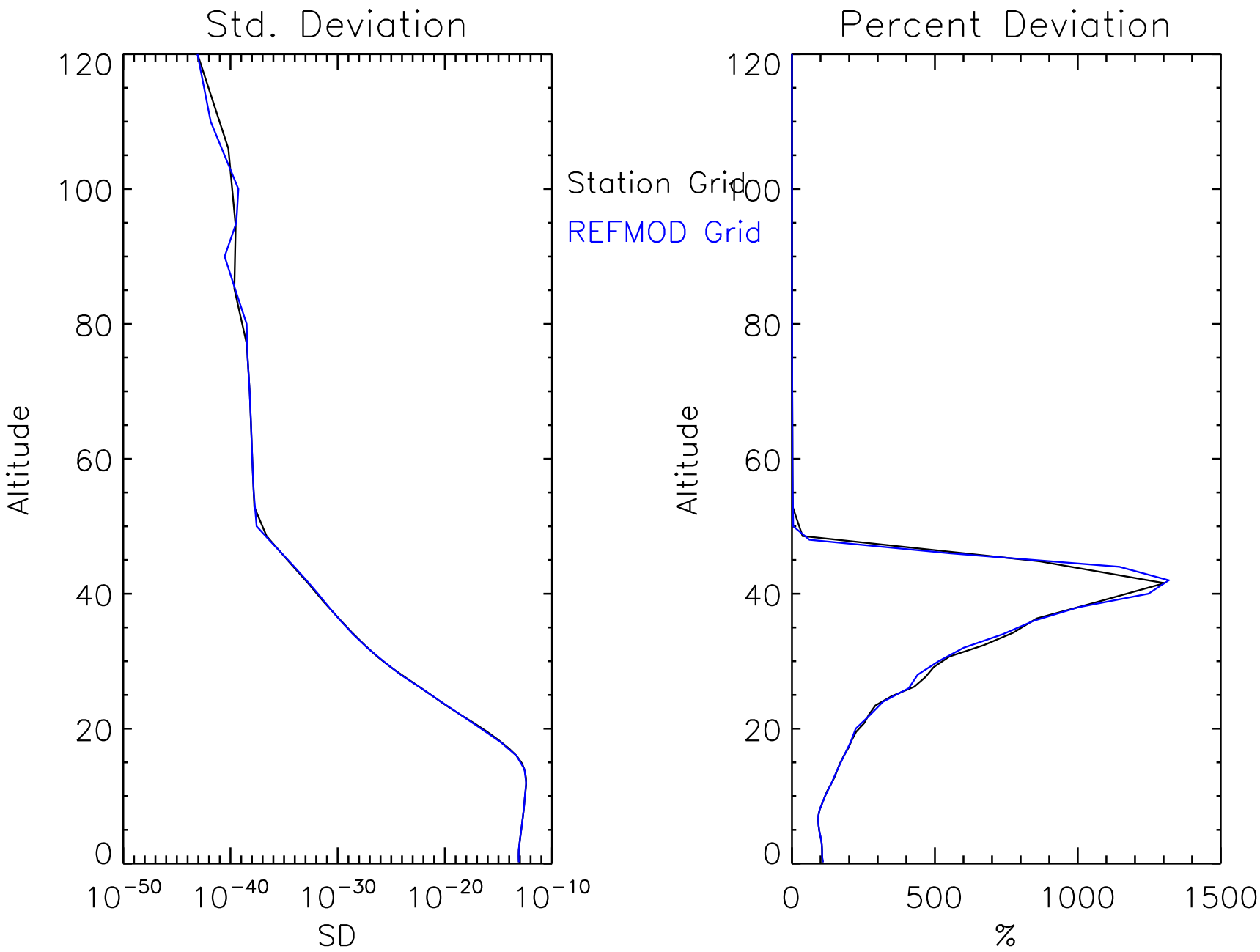

Initial & Interpolated profiles by month for : 2017
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

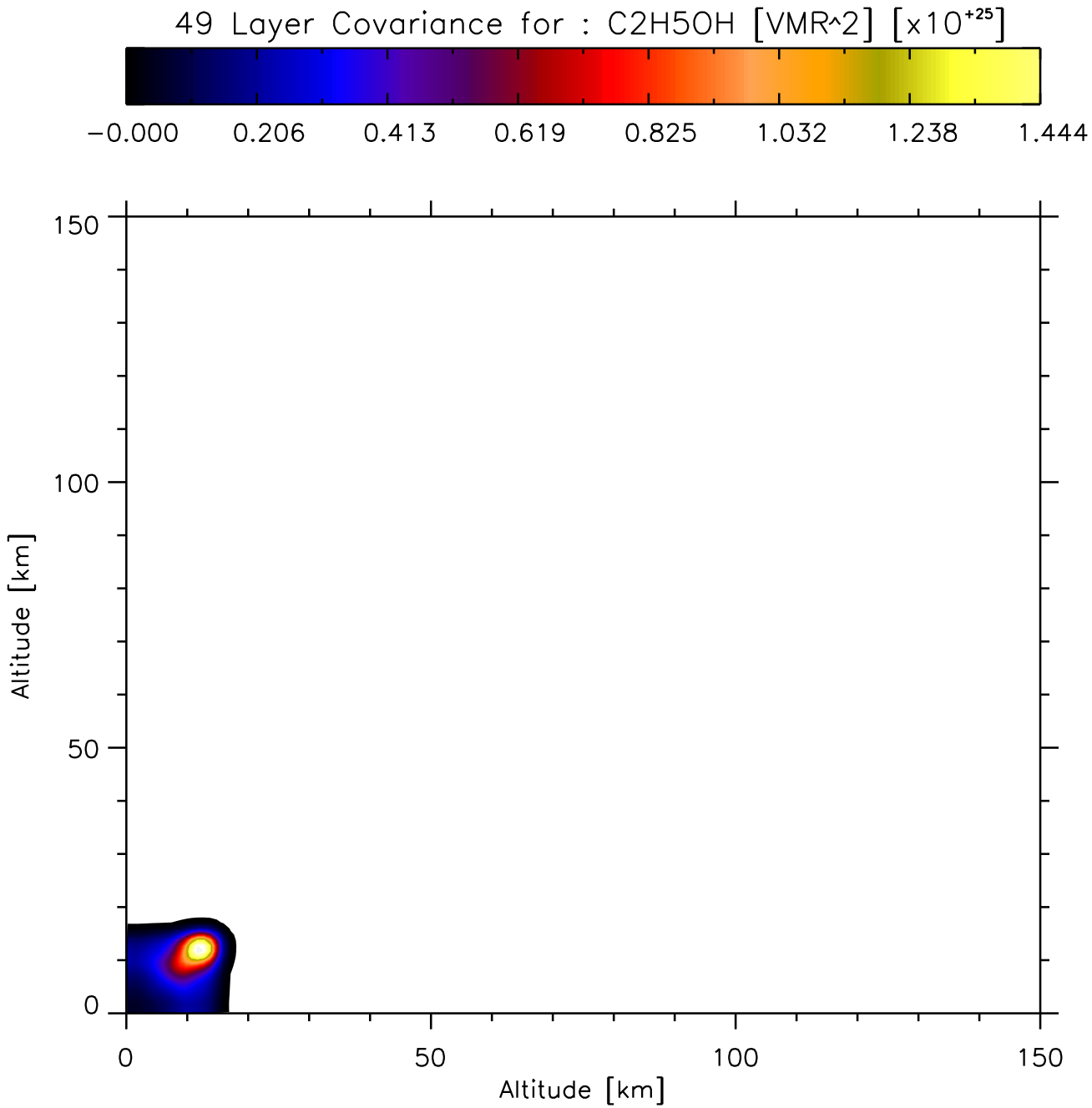

Initial & Interpolated profiles by month for : 2018
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Initial & Interpolated profiles by month for : 2019
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio

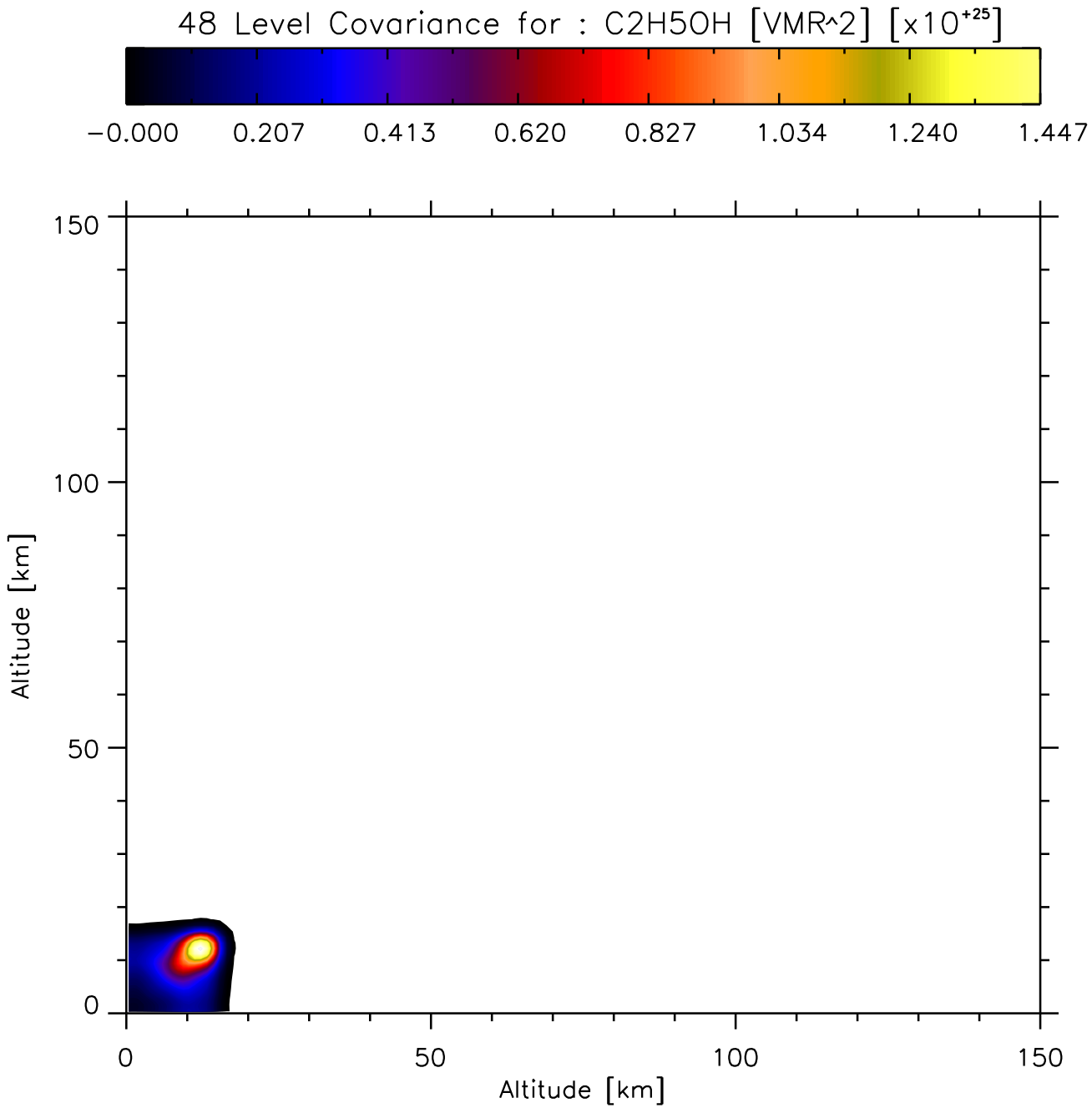
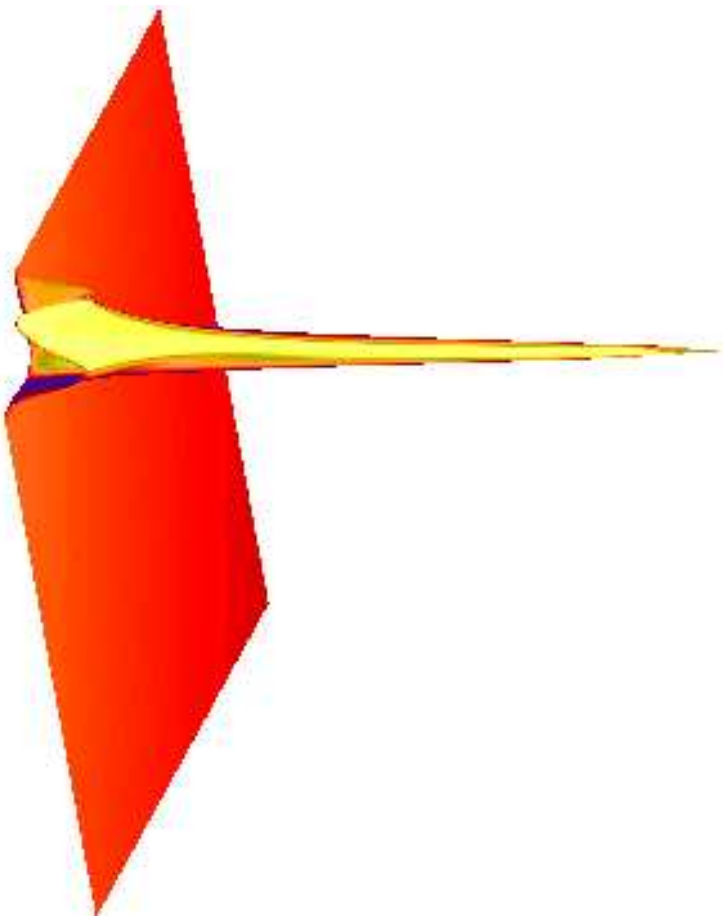

Initial & Interpolated profiles by month for : 2020
Arrival_Heights −78.6N 168.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10−41 10×10−36 10×10−31 10×10−26 10×10−21 10×10−16 10×10−11
Mixing Ratio


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10×10^-41
10×10^-31
10×10^-21
10×10^-11
10×10^-1
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-50}
10^{-40}
10^{-30}
10^{-20}
10^{-10}
SD
0
500
1000
1500
%


49 Layer Covariance for : C2H5OH [VMR^2] [x10^+25]
−0.000
0.206
0.413
0.619
0.825
1.032
1.238
1.444
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

49 Layer Covariance for : C2H5OH [VMR^2] [x10^+25]
0.0
0.5
1.0
1.5
Y Altitude
0
50
100
0
50
X Altitude
100


48 Level Covariance for : C2H5OH [VMR^2] [x10^+25]
−0.000
0.207
0.413
0.620
0.827
1.034
1.240
1.447
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]