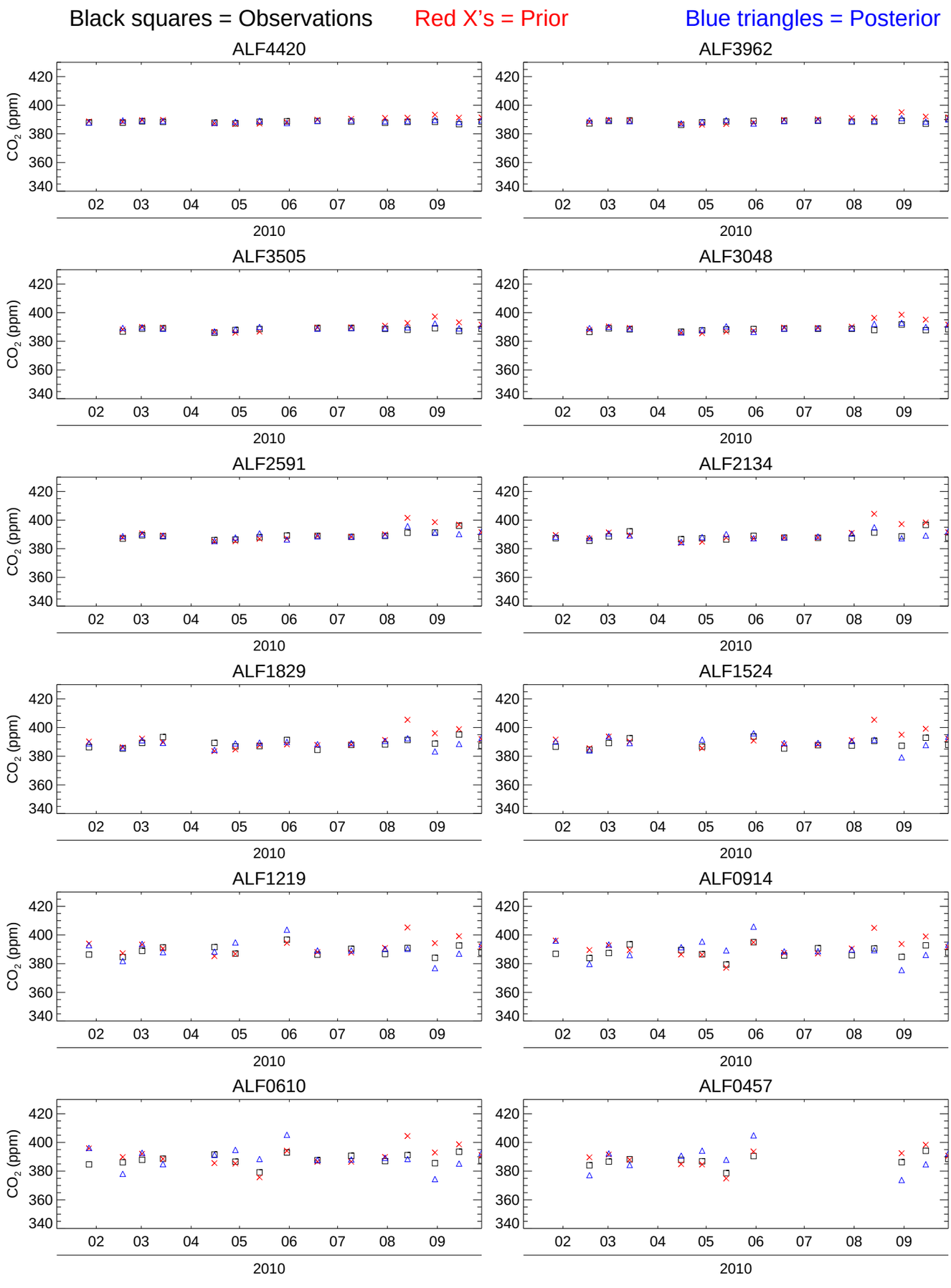
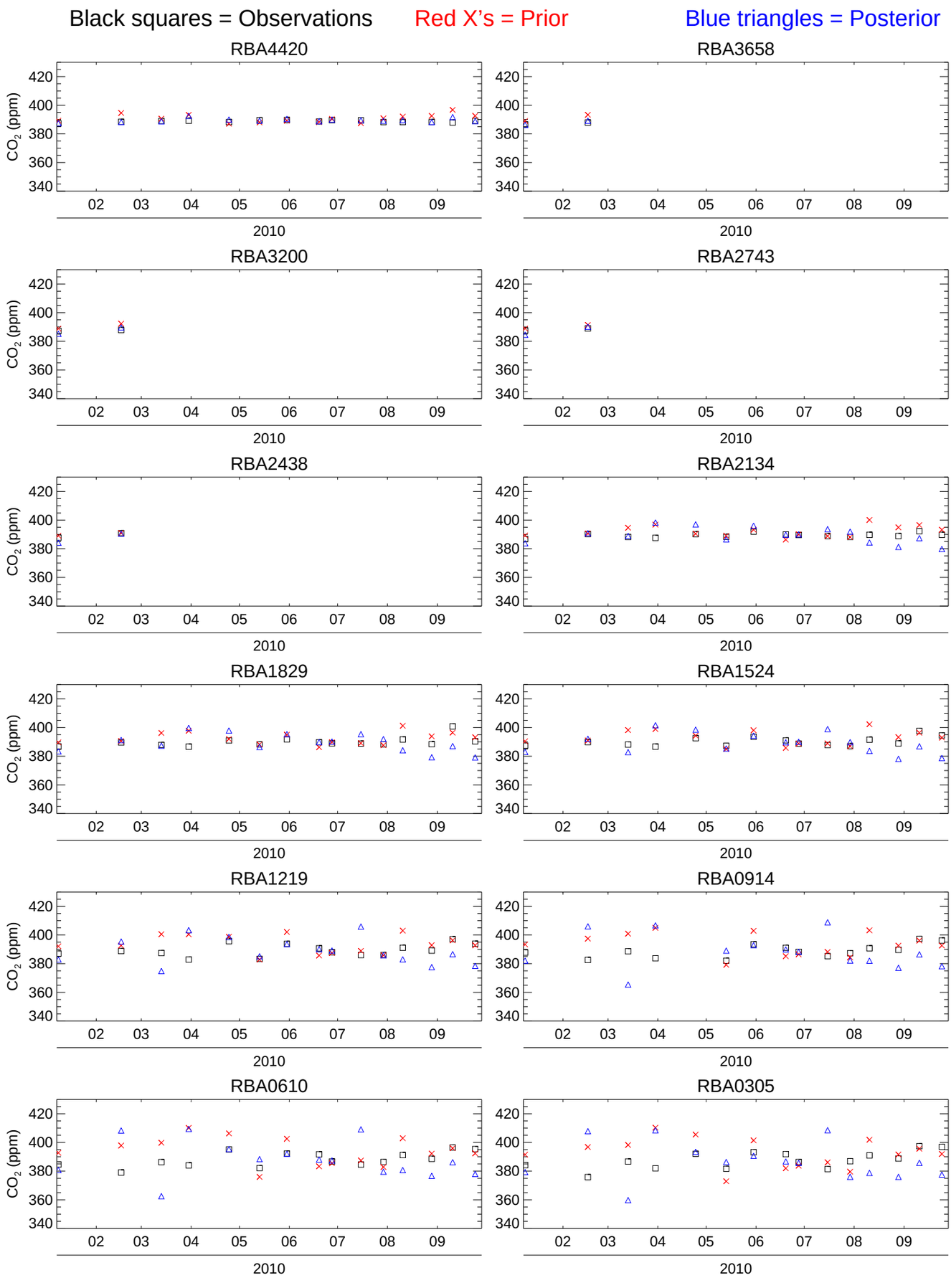
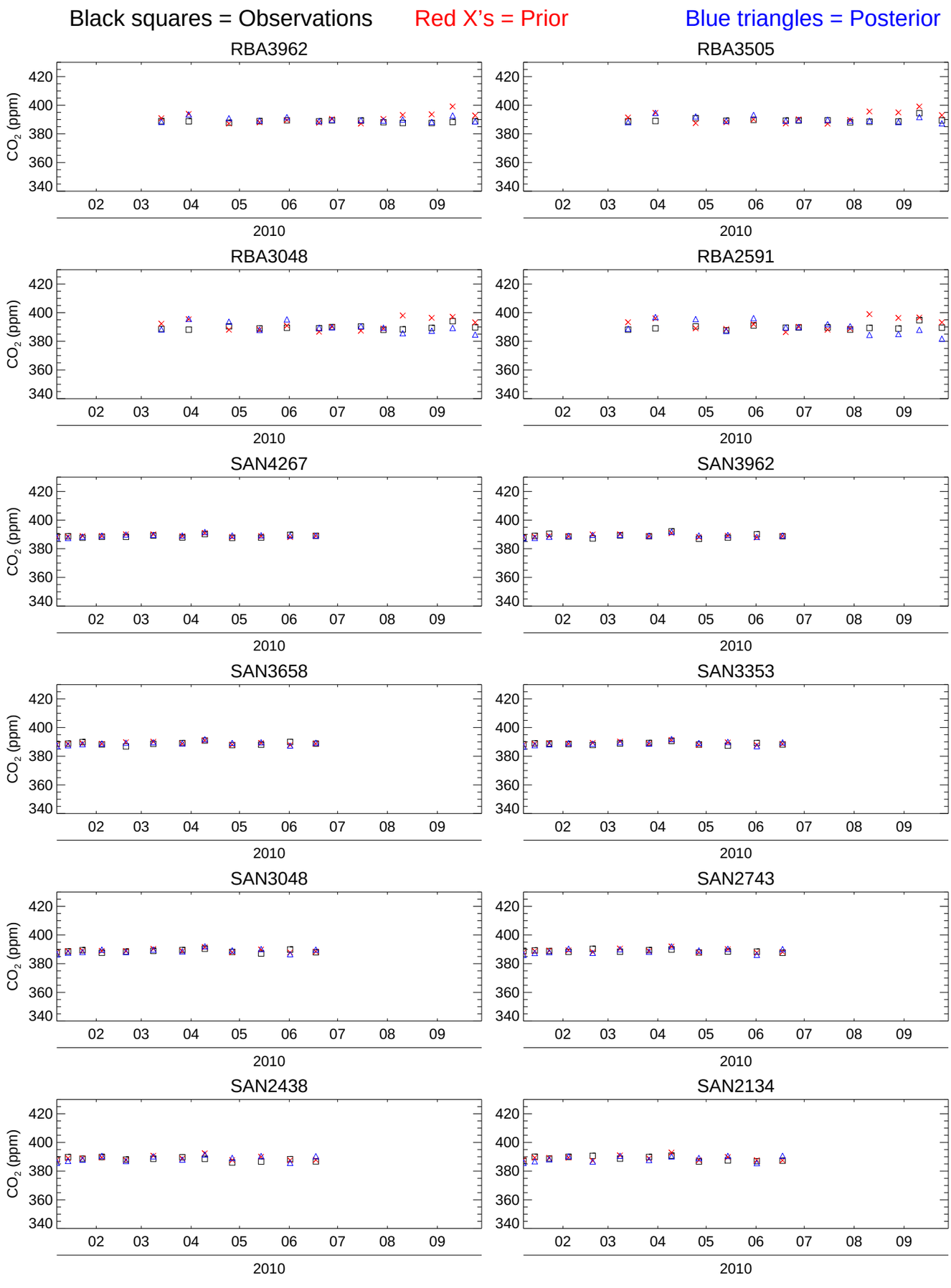
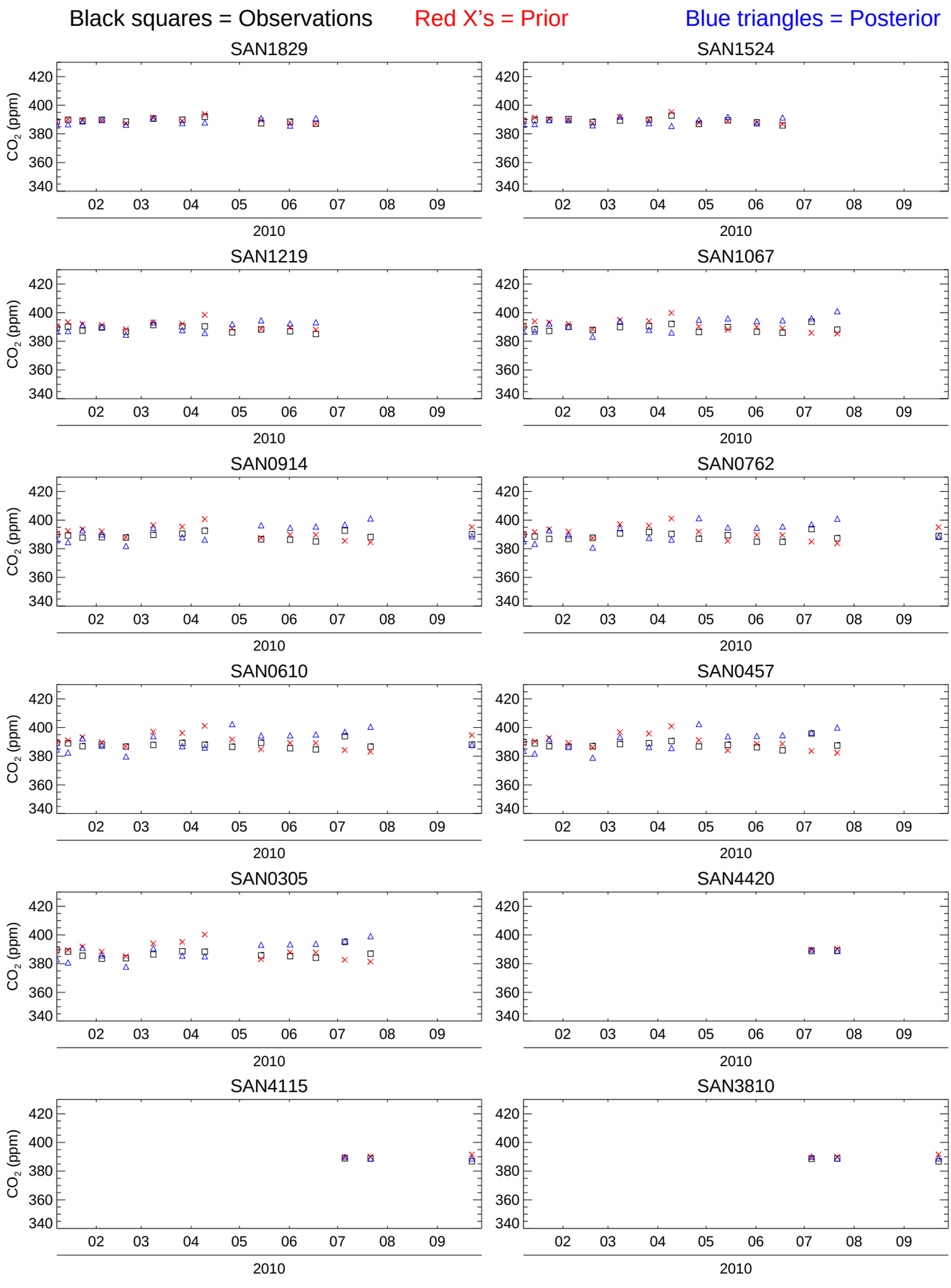
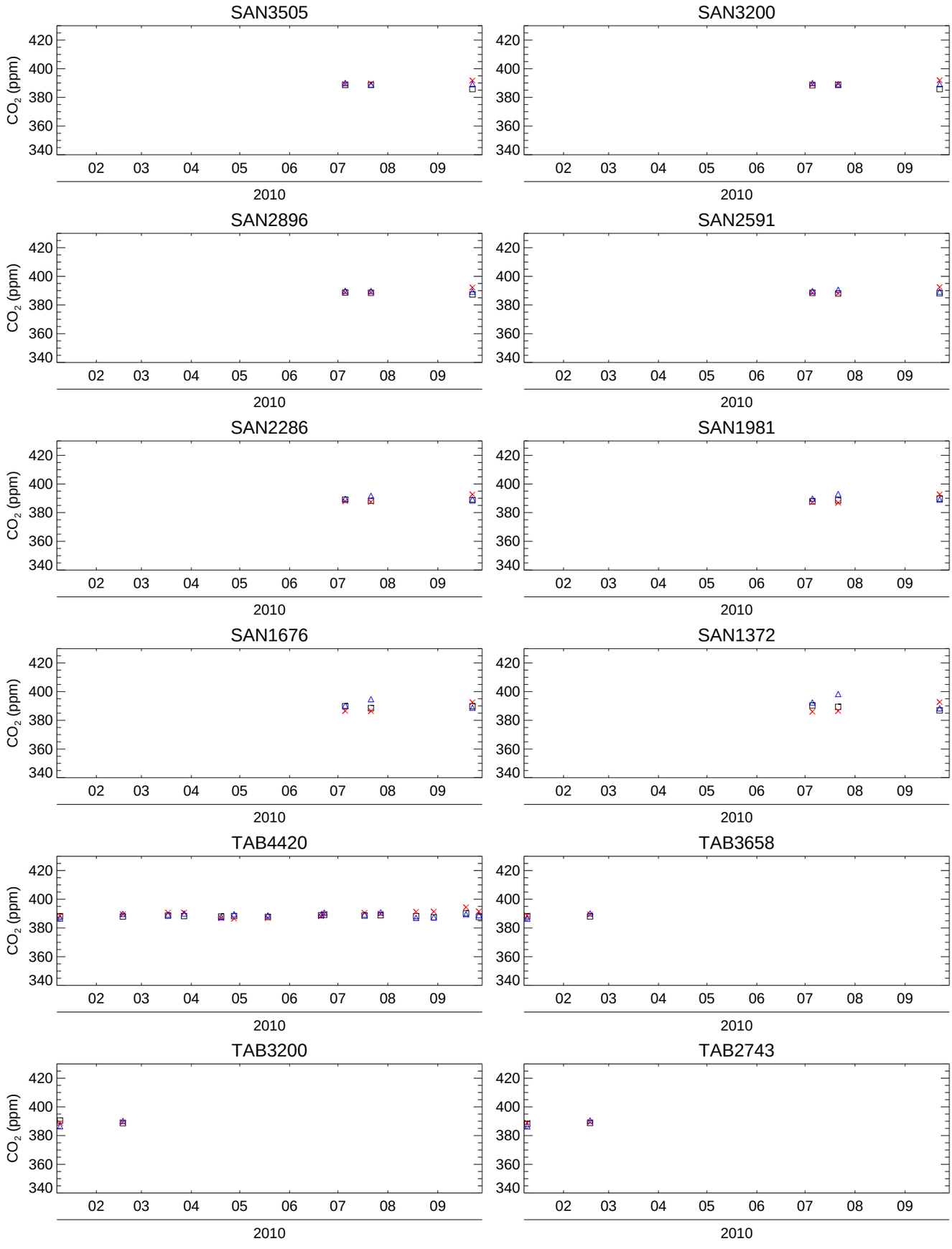

Black squares = Observations
Red X's = Prior
Blue triangles = Posterior
ALF4420
ALF3962
ALF3505
ALF3048
ALF2591
ALF2134
ALF1829
ALF1524
ALF1219
ALF0914
ALF0610
ALF0457
CO2 (ppm)
420
400
380
360
340
02
03
04
05
06
07
08
09
2010

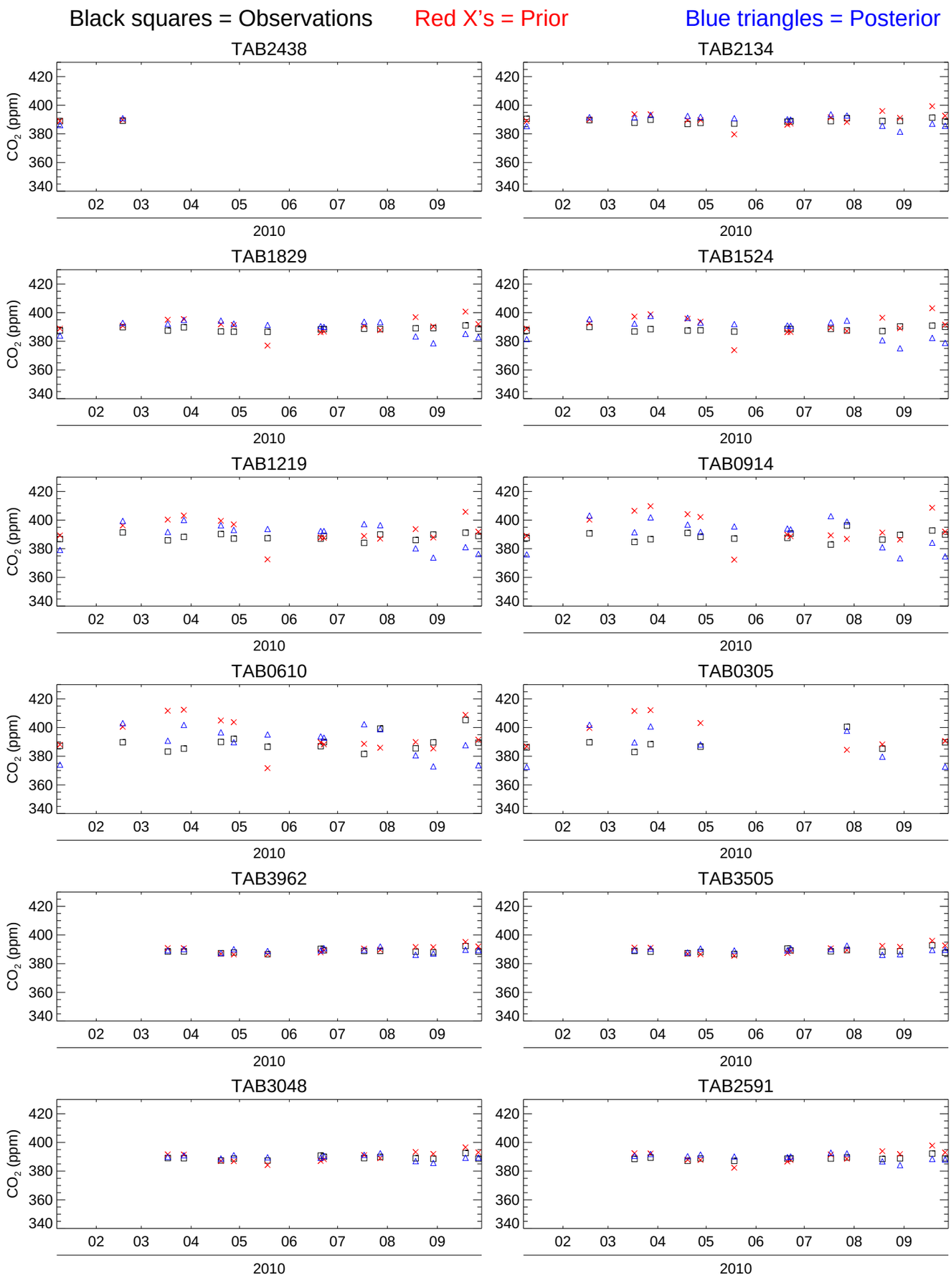

Black squares = Observations
Red X's = Prior
Blue triangles = Posterior
RBA4420
RBA3658
RBA3200
RBA2743
RBA2438
RBA2134
RBA1829
RBA1524
RBA1219
RBA0914
RBA0610
RBA0305
CO2 (ppm)
420
400
380
360
340
02
03
04
05
06
07
08
09
2010

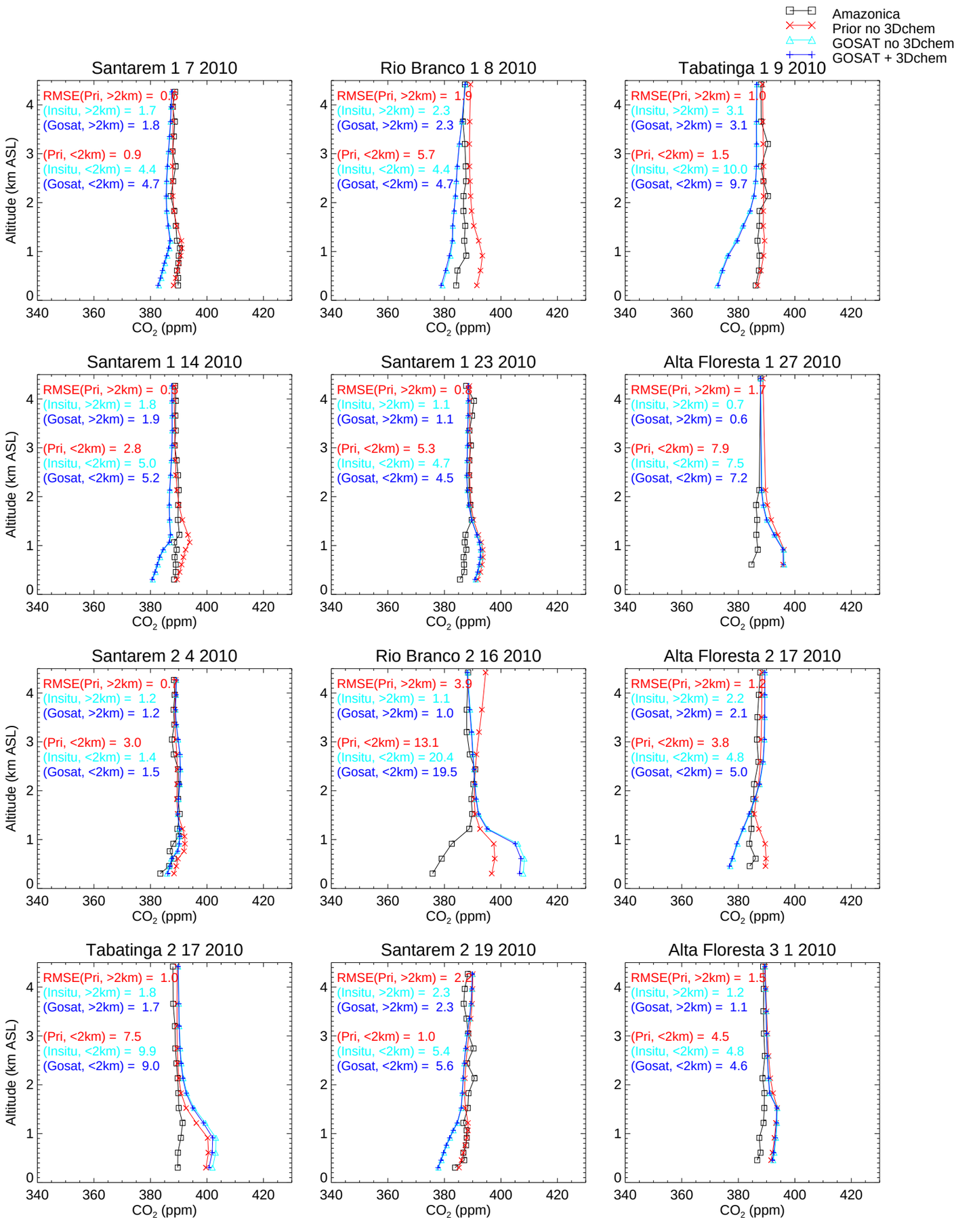

Black squares = Observations
Red X's = Prior
Blue triangles = Posterior
RBA3962
RBA3505
RBA3048
RBA2591
SAN4267
SAN3962
SAN3658
SAN3353
SAN3048
SAN2743
SAN2438
SAN2134
CO2 (ppm)
420
400
380
360
340
02
03
04
05
06
07
08
09
2010

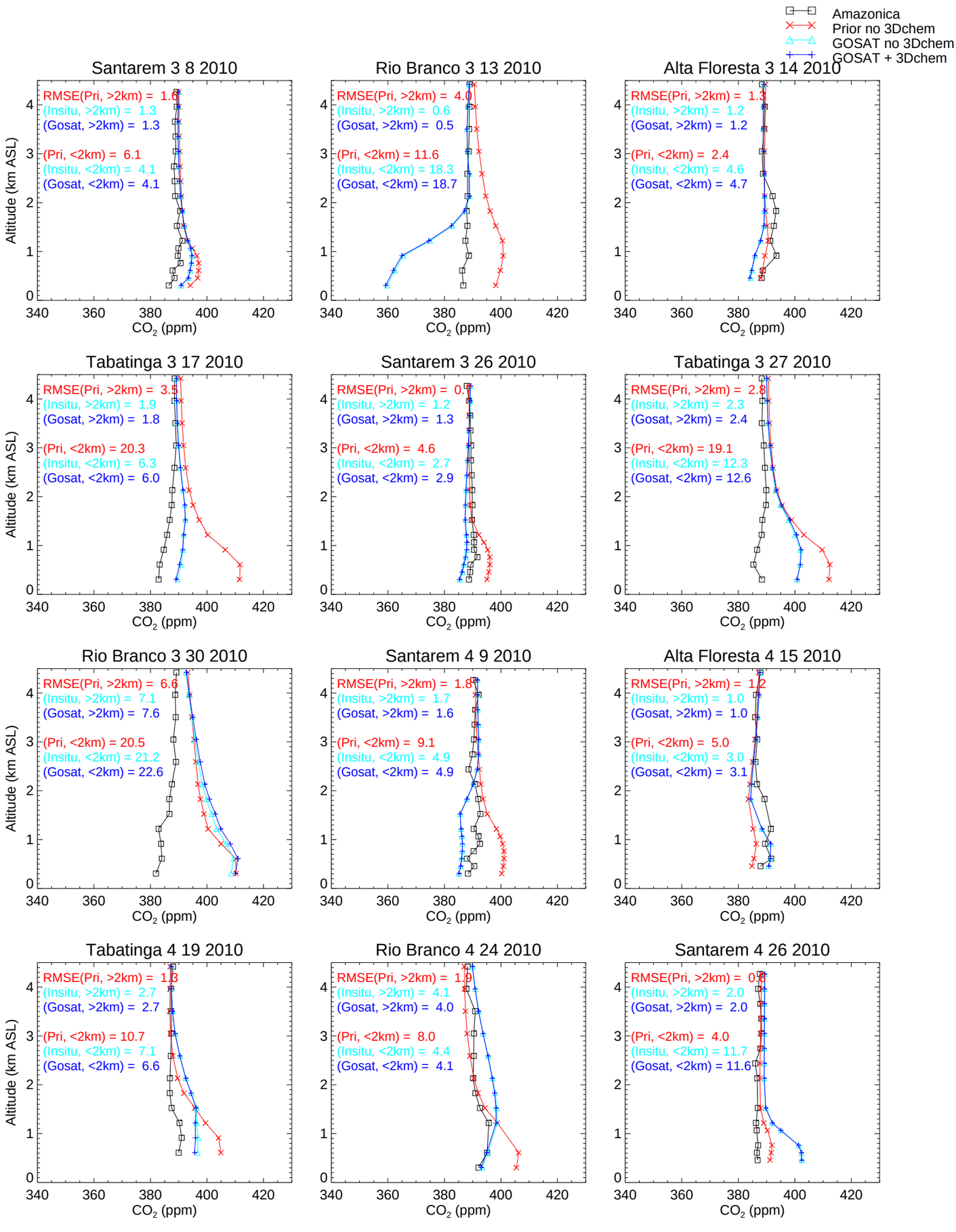

Black squares = Observations
Red X's = Prior
Blue triangles = Posterior
SAN1829
SAN1524
SAN1219
SAN1067
SAN0914
SAN0762
SAN0610
SAN0457
SAN0305
SAN4420
SAN4115
SAN3810
CO2 (ppm)
420
400
380
360
340
02
03
04
05
06
07
08
09
2010

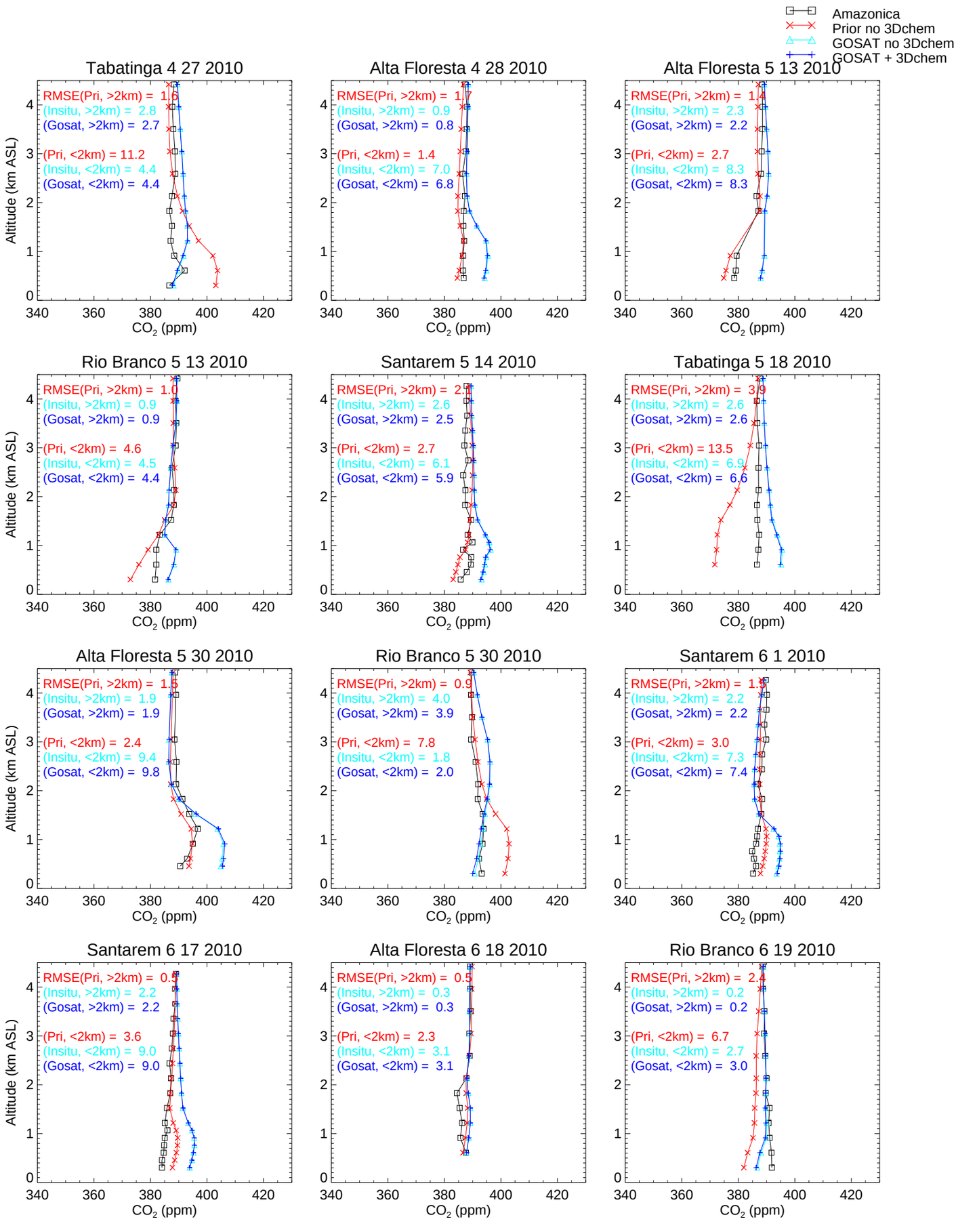
Black squares = Observations Red X's = Prior Blue triangles = Posterior

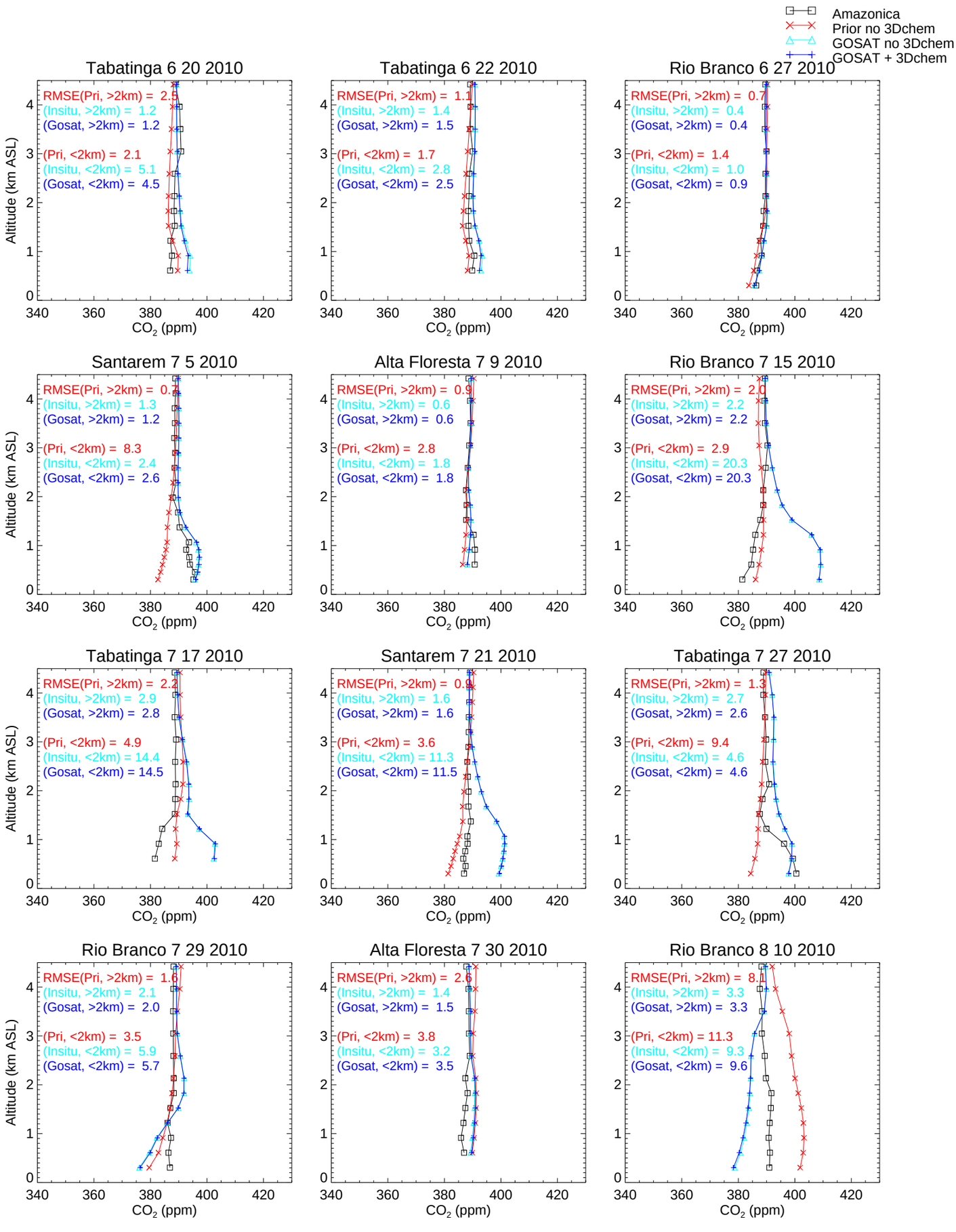


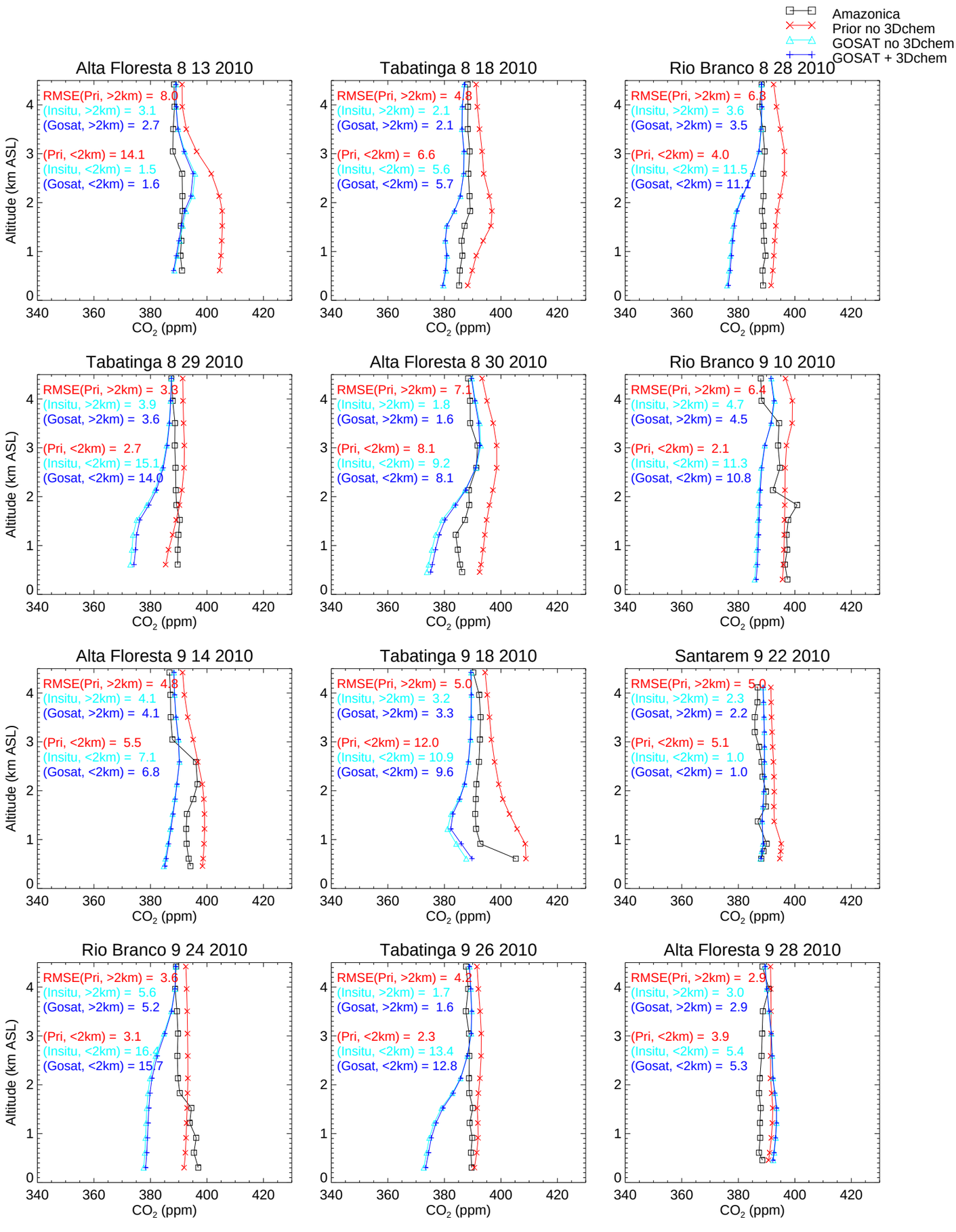

Black squares = Observations
Red X's = Prior
Blue triangles = Posterior
TAB2438
TAB2134
TAB1829
TAB1524
TAB1219
TAB0914
TAB0610
TAB0305
TAB3962
TAB3505
TAB3048
TAB2591
CO2 (ppm)
420
400
380
360
340
02
03
04
05
06
07
08
09
2010


Amazonica
Prior no 3Dchem
GOSAT no 3Dchem
GOSAT + 3Dchem
Santarem 1 7 2010
RMSE(Pri, >2km) = 0.6
(Insitu, >2km) = 1.7
(Gosat, >2km) = 1.8
(Pri, <2km) = 0.9
(Insitu, <2km) = 4.4
(Gosat, <2km) = 4.7
Rio Branco 1 8 2010
RMSE(Pri, >2km) = 1.9
(Insitu, >2km) = 2.3
(Gosat, >2km) = 2.3
(Pri, <2km) = 5.7
(Insitu, <2km) = 4.4
(Gosat, <2km) = 4.7
Tabatinga 1 9 2010
RMSE(Pri, >2km) = 1.0
(Insitu, >2km) = 3.1
(Gosat, >2km) = 3.1
(Pri, <2km) = 1.5
(Insitu, <2km) = 10.0
(Gosat, <2km) = 9.7
Santarem 1 14 2010
RMSE(Pri, >2km) = 0.5
(Insitu, >2km) = 1.8
(Gosat, >2km) = 1.9
(Pri, <2km) = 2.8
(Insitu, <2km) = 5.0
(Gosat, <2km) = 5.2
Santarem 1 23 2010
RMSE(Pri, >2km) = 0.8
(Insitu, >2km) = 1.1
(Gosat, >2km) = 1.1
(Pri, <2km) = 5.3
(Insitu, <2km) = 4.7
(Gosat, <2km) = 4.5
Alta Floresta 1 27 2010
RMSE(Pri, >2km) = 1.7
(Insitu, >2km) = 0.7
(Gosat, >2km) = 0.6
(Pri, <2km) = 7.9
(Insitu, <2km) = 7.5
(Gosat, <2km) = 7.2
Santarem 2 4 2010
RMSE(Pri, >2km) = 0.7
(Insitu, >2km) = 1.2
(Gosat, >2km) = 1.2
(Pri, <2km) = 3.0
(Insitu, <2km) = 1.4
(Gosat, <2km) = 1.5
Rio Branco 2 16 2010
RMSE(Pri, >2km) = 3.9
(Insitu, >2km) = 1.1
(Gosat, >2km) = 1.0
(Pri, <2km) = 13.1
(Insitu, <2km) = 20.4
(Gosat, <2km) = 19.5
Alta Floresta 2 17 2010
RMSE(Pri, >2km) = 1.2
(Insitu, >2km) = 2.2
(Gosat, >2km) = 2.1
(Pri, <2km) = 3.8
(Insitu, <2km) = 4.8
(Gosat, <2km) = 5.0
Tabatinga 2 17 2010
RMSE(Pri, >2km) = 1.0
(Insitu, >2km) = 1.8
(Gosat, >2km) = 1.7
(Pri, <2km) = 7.5
(Insitu, <2km) = 9.9
(Gosat, <2km) = 9.0
Santarem 2 19 2010
RMSE(Pri, >2km) = 2.2
(Insitu, >2km) = 2.3
(Gosat, >2km) = 2.3
(Pri, <2km) = 1.0
(Insitu, <2km) = 5.4
(Gosat, <2km) = 5.6
Alta Floresta 3 1 2010
RMSE(Pri, >2km) = 1.5
(Insitu, >2km) = 1.2
(Gosat, >2km) = 1.1
(Pri, <2km) = 4.5
(Insitu, <2km) = 4.8
(Gosat, <2km) = 4.6
Altitude (km ASL)
CO2 (ppm)


Amazonica
Prior no 3Dchem
GOSAT no 3Dchem
GOSAT + 3Dchem
Santarem 3 8 2010
RMSE(Pri, >2km) = 1.6
(Insitu, >2km) = 1.3
(Gosat, >2km) = 1.3
(Pri, <2km) = 6.1
(Insitu, <2km) = 4.1
(Gosat, <2km) = 4.1
Rio Branco 3 13 2010
RMSE(Pri, >2km) = 4.0
(Insitu, >2km) = 0.6
(Gosat, >2km) = 0.5
(Pri, <2km) = 11.6
(Insitu, <2km) = 18.3
(Gosat, <2km) = 18.7
Alta Floresta 3 14 2010
RMSE(Pri, >2km) = 1.3
(Insitu, >2km) = 1.2
(Gosat, >2km) = 1.2
(Pri, <2km) = 2.4
(Insitu, <2km) = 4.6
(Gosat, <2km) = 4.7
Tabatinga 3 17 2010
RMSE(Pri, >2km) = 3.5
(Insitu, >2km) = 1.9
(Gosat, >2km) = 1.8
(Pri, <2km) = 20.3
(Insitu, <2km) = 6.3
(Gosat, <2km) = 6.0
Santarem 3 26 2010
RMSE(Pri, >2km) = 0.7
(Insitu, >2km) = 1.2
(Gosat, >2km) = 1.3
(Pri, <2km) = 4.6
(Insitu, <2km) = 2.7
(Gosat, <2km) = 2.9
Tabatinga 3 27 2010
RMSE(Pri, >2km) = 2.8
(Insitu, >2km) = 2.3
(Gosat, >2km) = 2.4
(Pri, <2km) = 19.1
(Insitu, <2km) = 12.3
(Gosat, <2km) = 12.6
Rio Branco 3 30 2010
RMSE(Pri, >2km) = 6.6
(Insitu, >2km) = 7.1
(Gosat, >2km) = 7.6
(Pri, <2km) = 20.5
(Insitu, <2km) = 21.2
(Gosat, <2km) = 22.6
Santarem 4 9 2010
RMSE(Pri, >2km) = 1.8
(Insitu, >2km) = 1.7
(Gosat, >2km) = 1.6
(Pri, <2km) = 9.1
(Insitu, <2km) = 4.9
(Gosat, <2km) = 4.9
Alta Floresta 4 15 2010
RMSE(Pri, >2km) = 1.2
(Insitu, >2km) = 1.0
(Gosat, >2km) = 1.0
(Pri, <2km) = 5.0
(Insitu, <2km) = 3.0
(Gosat, <2km) = 3.1
Tabatinga 4 19 2010
RMSE(Pri, >2km) = 1.3
(Insitu, >2km) = 2.7
(Gosat, >2km) = 2.7
(Pri, <2km) = 10.7
(Insitu, <2km) = 7.1
(Gosat, <2km) = 6.6
Rio Branco 4 24 2010
RMSE(Pri, >2km) = 1.9
(Insitu, >2km) = 4.1
(Gosat, >2km) = 4.0
(Pri, <2km) = 8.0
(Insitu, <2km) = 4.4
(Gosat, <2km) = 4.1
Santarem 4 26 2010
RMSE(Pri, >2km) = 0.8
(Insitu, >2km) = 2.0
(Gosat, >2km) = 2.0
(Pri, <2km) = 4.0
(Insitu, <2km) = 11.7
(Gosat, <2km) = 11.6
Altitude (km ASL)
CO2 (ppm)


Amazonica
Prior no 3Dchem
GOSAT no 3Dchem
GOSAT + 3Dchem
Tabatinga 4 27 2010
RMSE(Pri, >2km) = 1.6
(Insitu, >2km) = 2.8
(Gosat, >2km) = 2.7
(Pri, <2km) = 11.2
(Insitu, <2km) = 4.4
(Gosat, <2km) = 4.4
Alta Floresta 4 28 2010
RMSE(Pri, >2km) = 1.7
(Insitu, >2km) = 0.9
(Gosat, >2km) = 0.8
(Pri, <2km) = 1.4
(Insitu, <2km) = 7.0
(Gosat, <2km) = 6.8
Alta Floresta 5 13 2010
RMSE(Pri, >2km) = 1.4
(Insitu, >2km) = 2.3
(Gosat, >2km) = 2.2
(Pri, <2km) = 2.7
(Insitu, <2km) = 8.3
(Gosat, <2km) = 8.3
Rio Branco 5 13 2010
RMSE(Pri, >2km) = 1.0
(Insitu, >2km) = 0.9
(Gosat, >2km) = 0.9
(Pri, <2km) = 4.6
(Insitu, <2km) = 4.5
(Gosat, <2km) = 4.4
Santarem 5 14 2010
RMSE(Pri, >2km) = 2.1
(Insitu, >2km) = 2.6
(Gosat, >2km) = 2.5
(Pri, <2km) = 2.7
(Insitu, <2km) = 6.1
(Gosat, <2km) = 5.9
Tabatinga 5 18 2010
RMSE(Pri, >2km) = 3.9
(Insitu, >2km) = 2.6
(Gosat, >2km) = 2.6
(Pri, <2km) = 13.5
(Insitu, <2km) = 6.9
(Gosat, <2km) = 6.6
Alta Floresta 5 30 2010
RMSE(Pri, >2km) = 1.5
(Insitu, >2km) = 1.9
(Gosat, >2km) = 1.9
(Pri, <2km) = 2.4
(Insitu, <2km) = 9.4
(Gosat, <2km) = 9.8
Rio Branco 5 30 2010
RMSE(Pri, >2km) = 0.9
(Insitu, >2km) = 4.0
(Gosat, >2km) = 3.9
(Pri, <2km) = 7.8
(Insitu, <2km) = 1.8
(Gosat, <2km) = 2.0
Santarem 6 1 2010
RMSE(Pri, >2km) = 1.5
(Insitu, >2km) = 2.2
(Gosat, >2km) = 2.2
(Pri, <2km) = 3.0
(Insitu, <2km) = 7.3
(Gosat, <2km) = 7.4
Santarem 6 17 2010
RMSE(Pri, >2km) = 0.5
(Insitu, >2km) = 2.2
(Gosat, >2km) = 2.2
(Pri, <2km) = 3.6
(Insitu, <2km) = 9.0
(Gosat, <2km) = 9.0
Alta Floresta 6 18 2010
RMSE(Pri, >2km) = 0.5
(Insitu, >2km) = 0.3
(Gosat, >2km) = 0.3
(Pri, <2km) = 2.3
(Insitu, <2km) = 3.1
(Gosat, <2km) = 3.1
Rio Branco 6 19 2010
RMSE(Pri, >2km) = 2.4
(Insitu, >2km) = 0.2
(Gosat, >2km) = 0.2
(Pri, <2km) = 6.7
(Insitu, <2km) = 2.7
(Gosat, <2km) = 3.0
Altitude (km ASL)
CO2 (ppm)


Amazonica
Prior no 3Dchem
GOSAT no 3Dchem
GOSAT + 3Dchem
Tabatinga 6 20 2010
RMSE(Pri, >2km) = 2.5
(Insitu, >2km) = 1.2
(Gosat, >2km) = 1.2
(Pri, <2km) = 2.1
(Insitu, <2km) = 5.1
(Gosat, <2km) = 4.5
Tabatinga 6 22 2010
RMSE(Pri, >2km) = 1.1
(Insitu, >2km) = 1.4
(Gosat, >2km) = 1.5
(Pri, <2km) = 1.7
(Insitu, <2km) = 2.8
(Gosat, <2km) = 2.5
Rio Branco 6 27 2010
RMSE(Pri, >2km) = 0.7
(Insitu, >2km) = 0.4
(Gosat, >2km) = 0.4
(Pri, <2km) = 1.4
(Insitu, <2km) = 1.0
(Gosat, <2km) = 0.9
Santarem 7 5 2010
RMSE(Pri, >2km) = 0.7
(Insitu, >2km) = 1.3
(Gosat, >2km) = 1.2
(Pri, <2km) = 8.3
(Insitu, <2km) = 2.4
(Gosat, <2km) = 2.6
Alta Floresta 7 9 2010
RMSE(Pri, >2km) = 0.9
(Insitu, >2km) = 0.6
(Gosat, >2km) = 0.6
(Pri, <2km) = 2.8
(Insitu, <2km) = 1.8
(Gosat, <2km) = 1.8
Rio Branco 7 15 2010
RMSE(Pri, >2km) = 2.0
(Insitu, >2km) = 2.2
(Gosat, >2km) = 2.2
(Pri, <2km) = 2.9
(Insitu, <2km) = 20.3
(Gosat, <2km) = 20.3
Tabatinga 7 17 2010
RMSE(Pri, >2km) = 2.2
(Insitu, >2km) = 2.9
(Gosat, >2km) = 2.8
(Pri, <2km) = 4.9
(Insitu, <2km) = 14.4
(Gosat, <2km) = 14.5
Santarem 7 21 2010
RMSE(Pri, >2km) = 0.9
(Insitu, >2km) = 1.6
(Gosat, >2km) = 1.6
(Pri, <2km) = 3.6
(Insitu, <2km) = 11.3
(Gosat, <2km) = 11.5
Tabatinga 7 27 2010
RMSE(Pri, >2km) = 1.3
(Insitu, >2km) = 2.7
(Gosat, >2km) = 2.6
(Pri, <2km) = 9.4
(Insitu, <2km) = 4.6
(Gosat, <2km) = 4.6
Rio Branco 7 29 2010
RMSE(Pri, >2km) = 1.6
(Insitu, >2km) = 2.1
(Gosat, >2km) = 2.0
(Pri, <2km) = 3.5
(Insitu, <2km) = 5.9
(Gosat, <2km) = 5.7
Alta Floresta 7 30 2010
RMSE(Pri, >2km) = 2.6
(Insitu, >2km) = 1.4
(Gosat, >2km) = 1.5
(Pri, <2km) = 3.8
(Insitu, <2km) = 3.2
(Gosat, <2km) = 3.5
Rio Branco 8 10 2010
RMSE(Pri, >2km) = 8.1
(Insitu, >2km) = 3.3
(Gosat, >2km) = 3.3
(Pri, <2km) = 11.3
(Insitu, <2km) = 9.3
(Gosat, <2km) = 9.6
Altitude (km ASL)
CO2 (ppm)


Amazonica
Prior no 3Dchem
GOSAT no 3Dchem
GOSAT + 3Dchem
Alta Floresta 8 13 2010
RMSE(Pri, >2km) = 8.0
(Insitu, >2km) = 3.1
(Gosat, >2km) = 2.7
(Pri, <2km) = 14.1
(Insitu, <2km) = 1.5
(Gosat, <2km) = 1.6
Tabatinga 8 18 2010
RMSE(Pri, >2km) = 4.8
(Insitu, >2km) = 2.1
(Gosat, >2km) = 2.1
(Pri, <2km) = 6.6
(Insitu, <2km) = 5.6
(Gosat, <2km) = 5.7
Rio Branco 8 28 2010
RMSE(Pri, >2km) = 6.3
(Insitu, >2km) = 3.6
(Gosat, >2km) = 3.5
(Pri, <2km) = 4.0
(Insitu, <2km) = 11.5
(Gosat, <2km) = 11.1
Tabatinga 8 29 2010
RMSE(Pri, >2km) = 3.3
(Insitu, >2km) = 3.9
(Gosat, >2km) = 3.6
(Pri, <2km) = 2.7
(Insitu, <2km) = 15.1
(Gosat, <2km) = 14.0
Alta Floresta 8 30 2010
RMSE(Pri, >2km) = 7.1
(Insitu, >2km) = 1.8
(Gosat, >2km) = 1.6
(Pri, <2km) = 8.1
(Insitu, <2km) = 9.2
(Gosat, <2km) = 8.1
Rio Branco 9 10 2010
RMSE(Pri, >2km) = 6.4
(Insitu, >2km) = 4.7
(Gosat, >2km) = 4.5
(Pri, <2km) = 2.1
(Insitu, <2km) = 11.3
(Gosat, <2km) = 10.8
Alta Floresta 9 14 2010
RMSE(Pri, >2km) = 4.8
(Insitu, >2km) = 4.1
(Gosat, >2km) = 4.1
(Pri, <2km) = 5.5
(Insitu, <2km) = 7.1
(Gosat, <2km) = 6.8
Tabatinga 9 18 2010
RMSE(Pri, >2km) = 5.0
(Insitu, >2km) = 3.2
(Gosat, >2km) = 3.3
(Pri, <2km) = 12.0
(Insitu, <2km) = 10.9
(Gosat, <2km) = 9.6
Santarem 9 22 2010
RMSE(Pri, >2km) = 5.0
(Insitu, >2km) = 2.3
(Gosat, >2km) = 2.2
(Pri, <2km) = 5.1
(Insitu, <2km) = 1.0
(Gosat, <2km) = 1.0
Rio Branco 9 24 2010
RMSE(Pri, >2km) = 3.6
(Insitu, >2km) = 5.6
(Gosat, >2km) = 5.2
(Pri, <2km) = 3.1
(Insitu, <2km) = 16.4
(Gosat, <2km) = 15.7
Tabatinga 9 26 2010
RMSE(Pri, >2km) = 4.2
(Insitu, >2km) = 1.7
(Gosat, >2km) = 1.6
(Pri, <2km) = 2.3
(Insitu, <2km) = 13.4
(Gosat, <2km) = 12.8
Alta Floresta 9 28 2010
RMSE(Pri, >2km) = 2.9
(Insitu, >2km) = 3.0
(Gosat, >2km) = 2.9
(Pri, <2km) = 3.9
(Insitu, <2km) = 5.4
(Gosat, <2km) = 5.3
Altitude (km ASL)
CO2 (ppm)