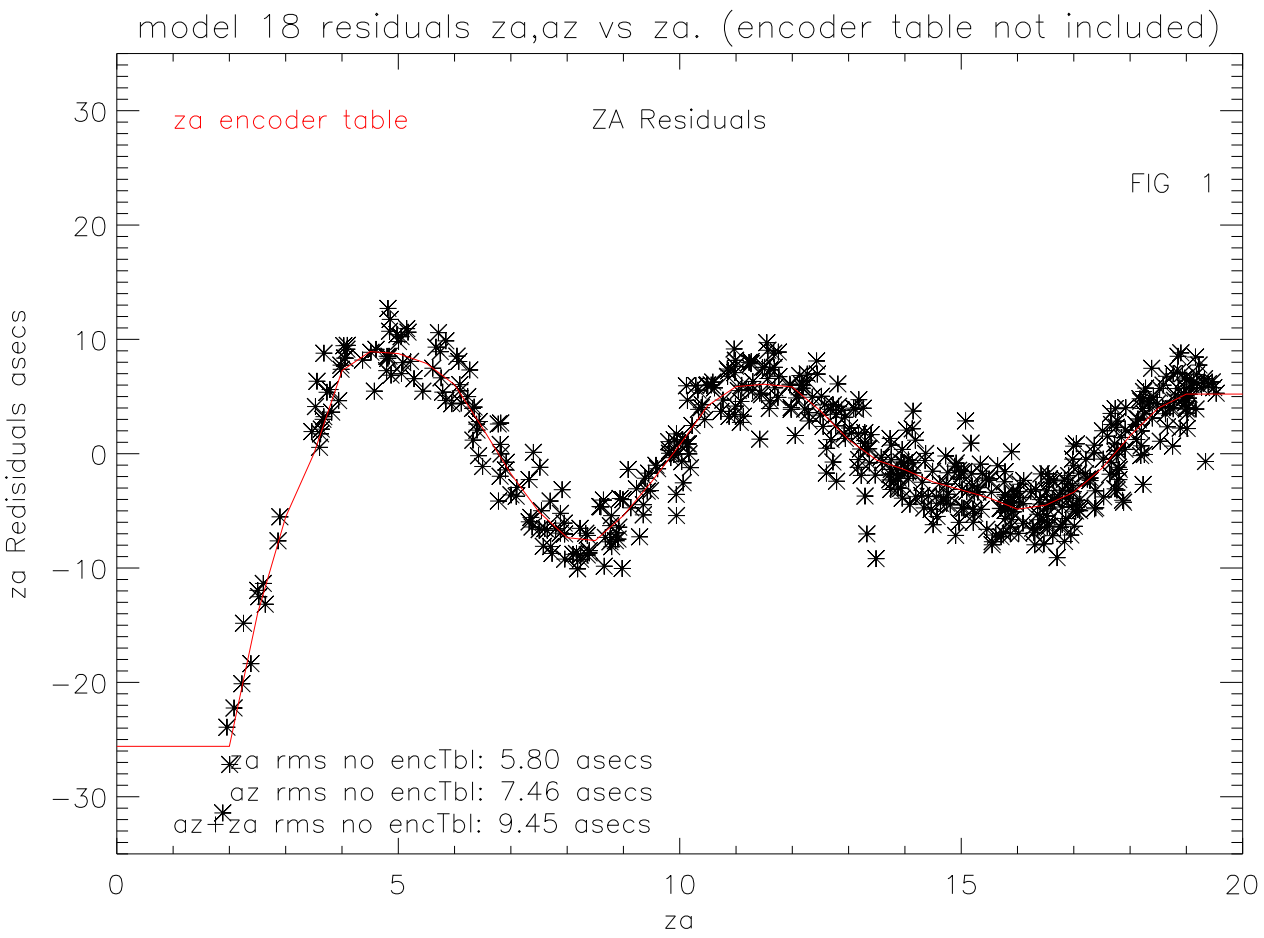
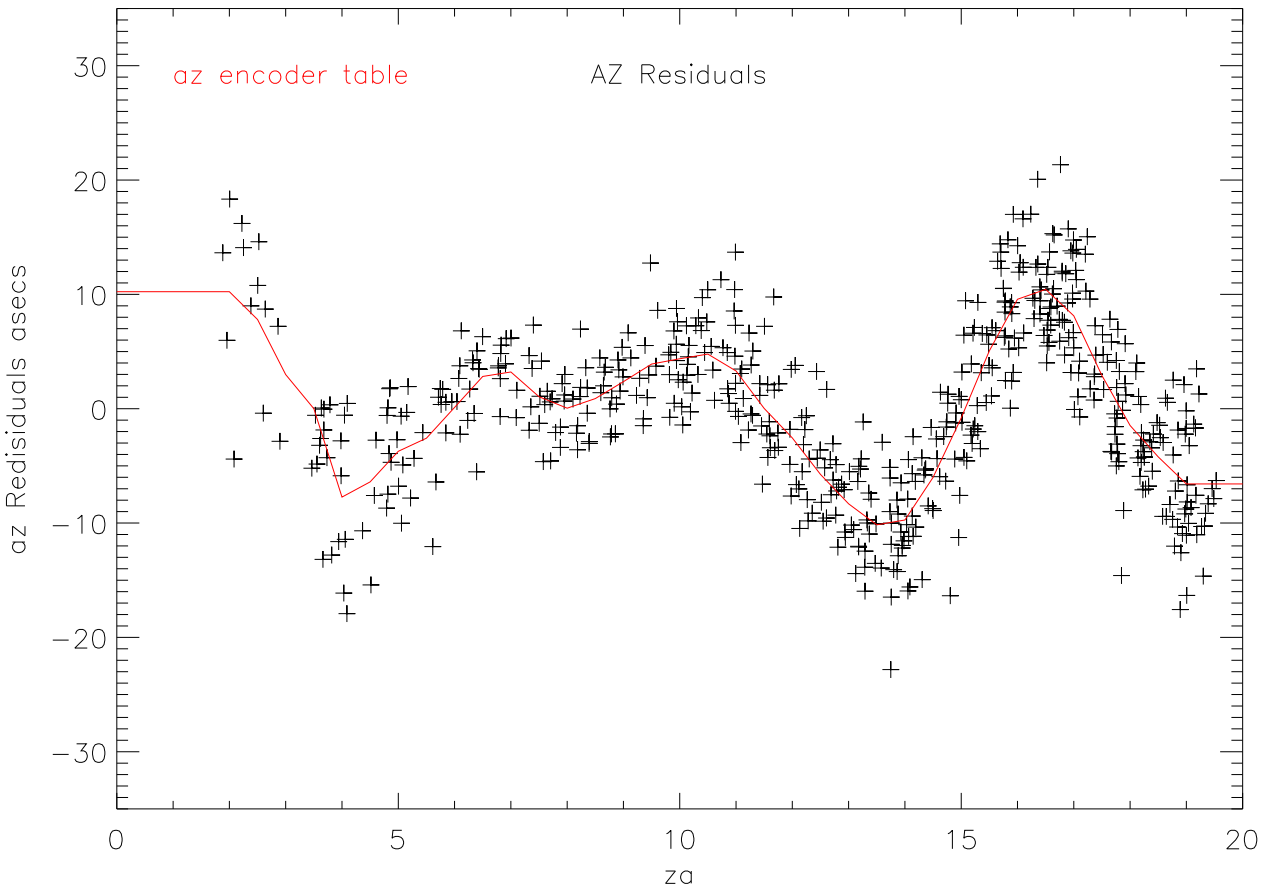
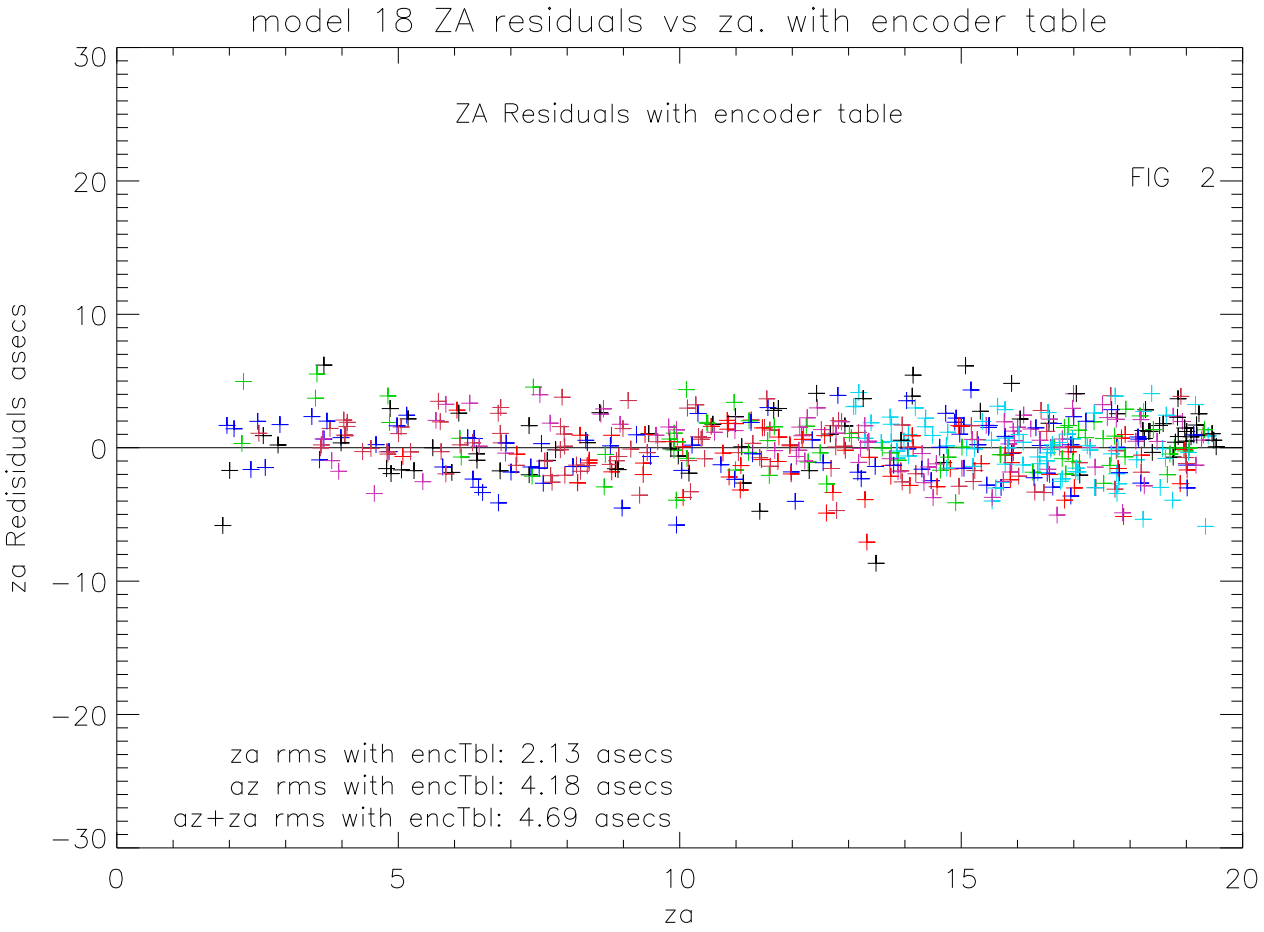
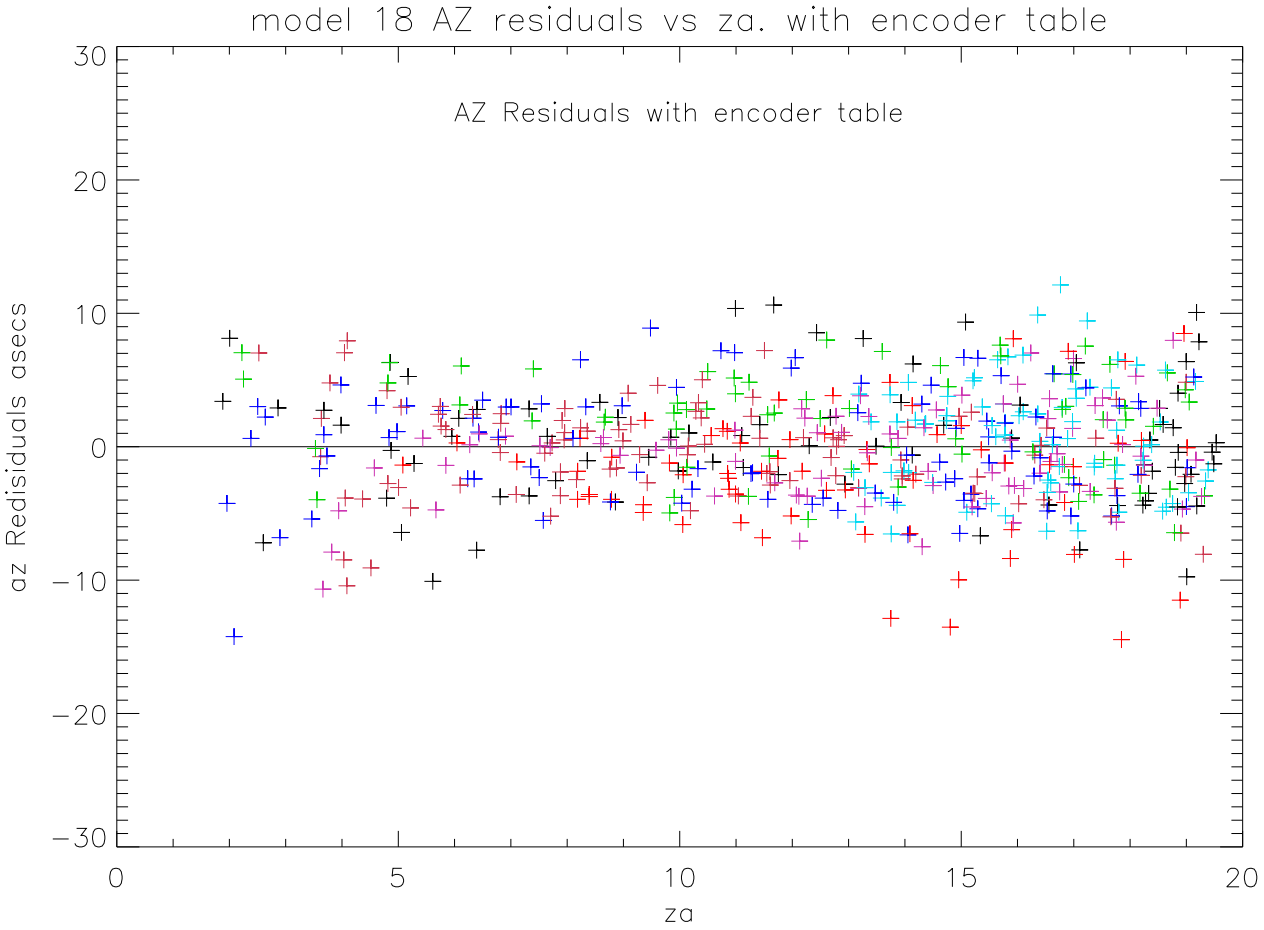

model 18 residuals za,az vs za. (encoder table not included)
za encoder table
ZA Residuals
FIG 1
za Redisiduals asecs
za rms no encTbl: 5.80 asecs
az rms no encTbl: 7.46 asecs
az+za rms no encTbl: 9.45 asecs
za


az encoder table
AZ Residuals
az Redisiduals asecs
za

J0530+135
J0745+101
J1221+282
J1520+202
J1737+240
J0403+260
J0624+320
J0815+365
J1021+219
J1058+015
J1224+035
J1352+025
J1540+147
J1658+052
J0318+164
J0532+075
J0738+177
J1042+120
J1331+305
J1745+173
J0304+338
J0519+277
J0238+166
J0521+166
J0534+194
J0603+219
J0823+223
J1006+349
J1150−003
J1143+221
J1445+099
J1619+062
J1840+240





J0530+135
J0745+101
J1221+282
J1520+202
J1737+240
J0403+260
J0624+320
J0815+365
J1021+219
J1058+015
J1224+035
J1352+025
J1540+147
J1658+052
J0318+164
J0532+075
J0738+177
J1042+120
J1331+305
J1745+173
J0304+338
J0519+277
J0238+166
J0521+166
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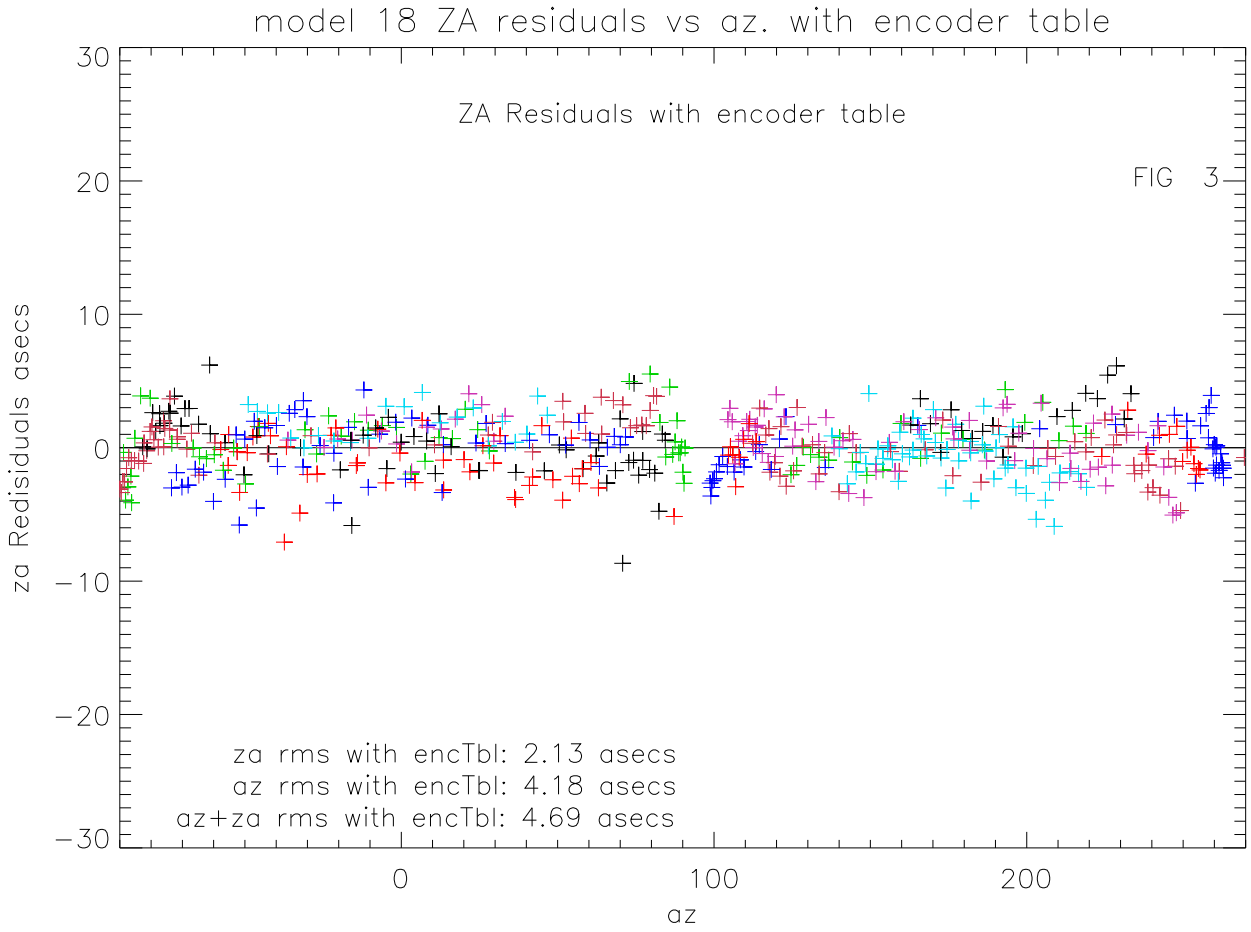
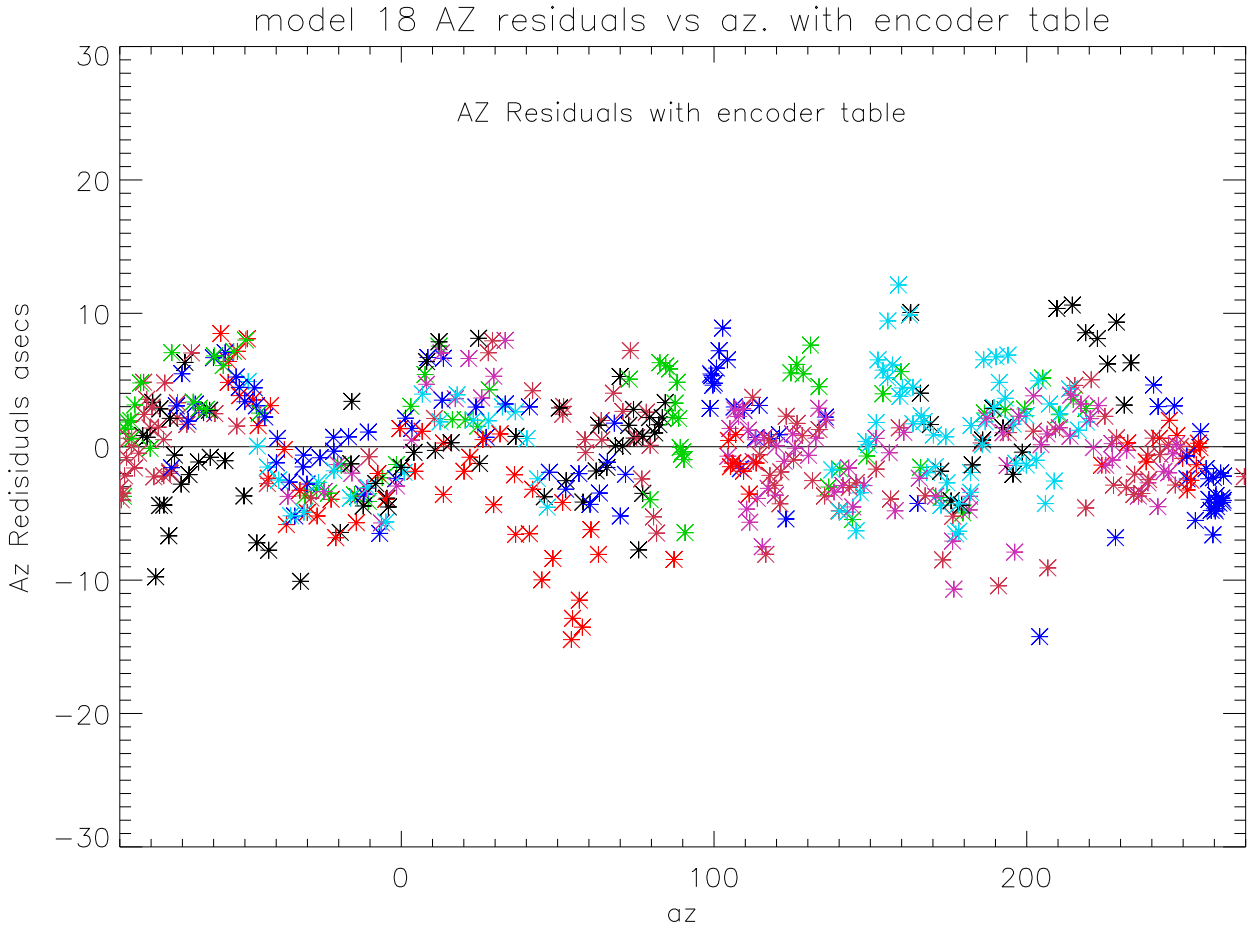
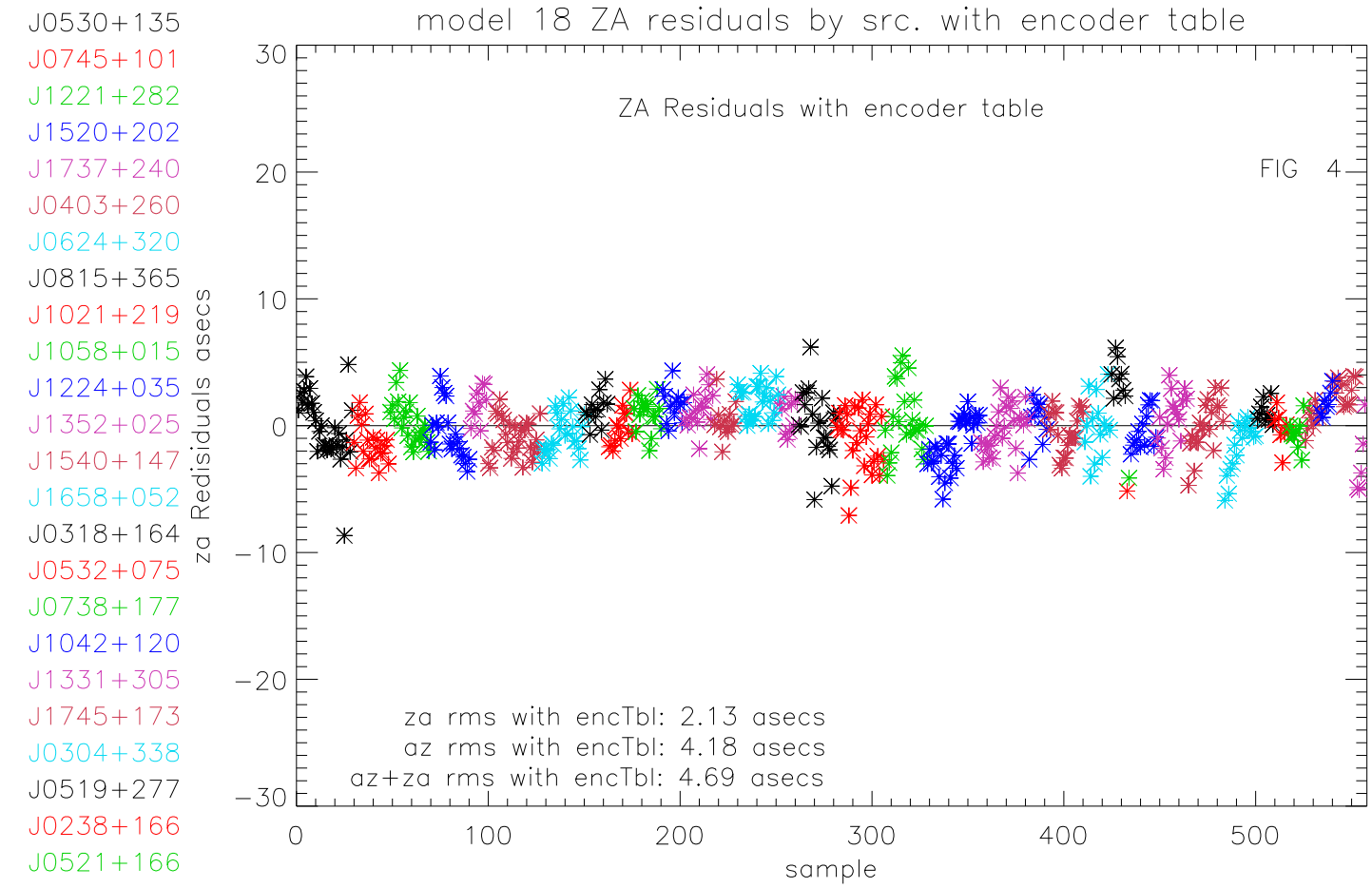
J0823+223
J1006+349
J1150−003
J1143+221
J1445+099
J1619+062
J1840+240






J0530+135
J0745+101
J1221+282
J1520+202
J1737+240
J0403+260
J0624+320
J0815+365
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J1058+015
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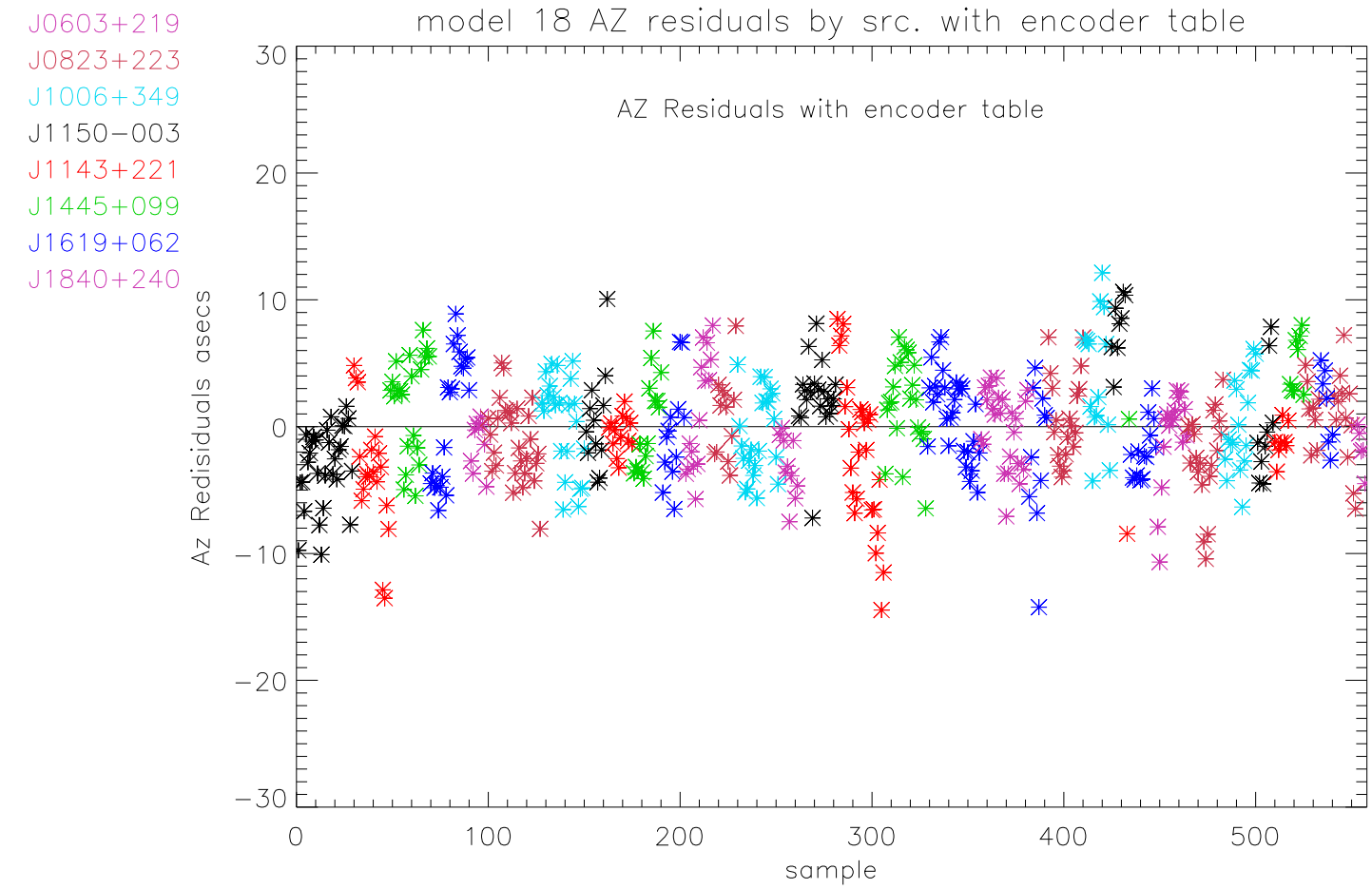
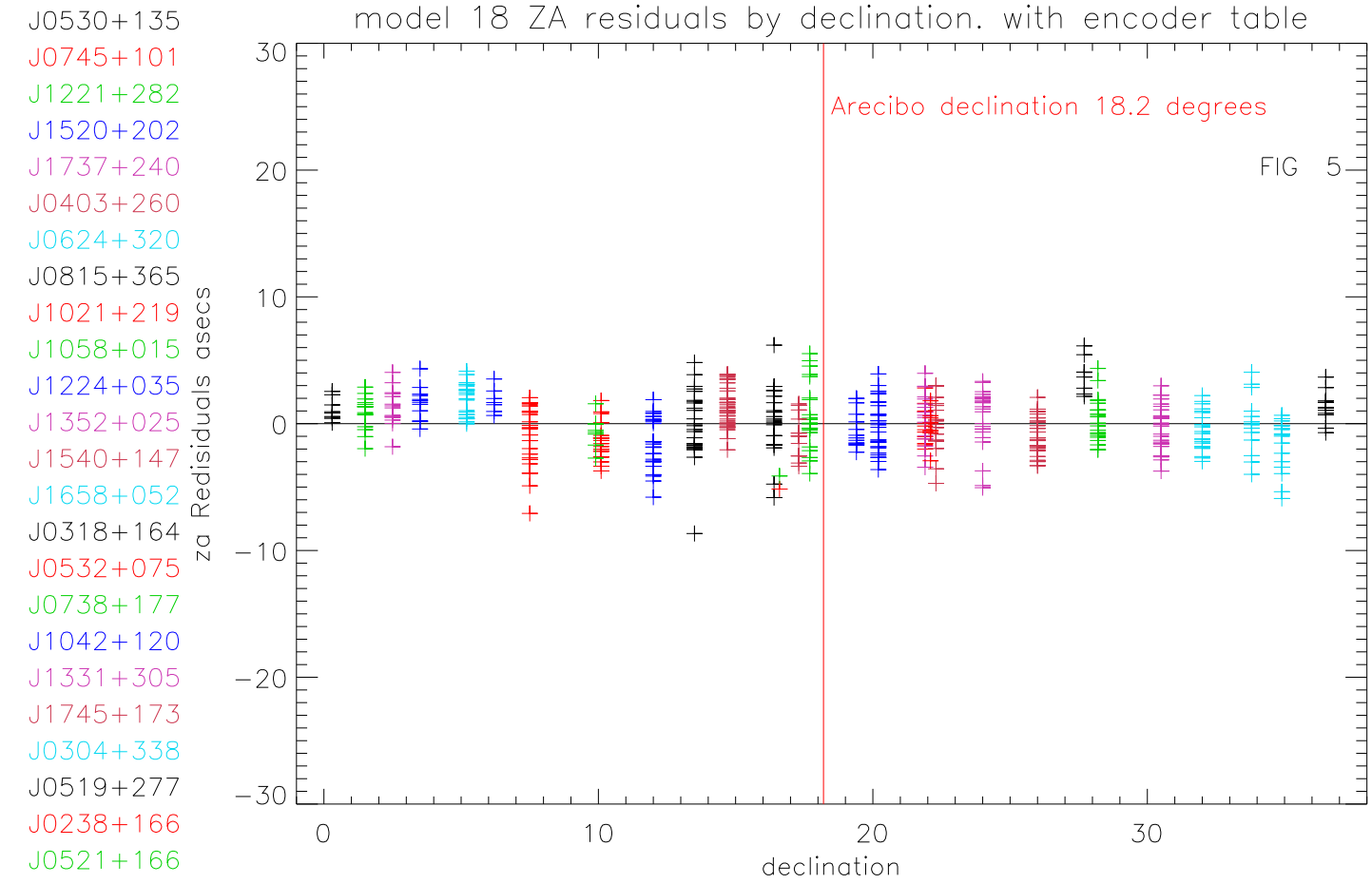
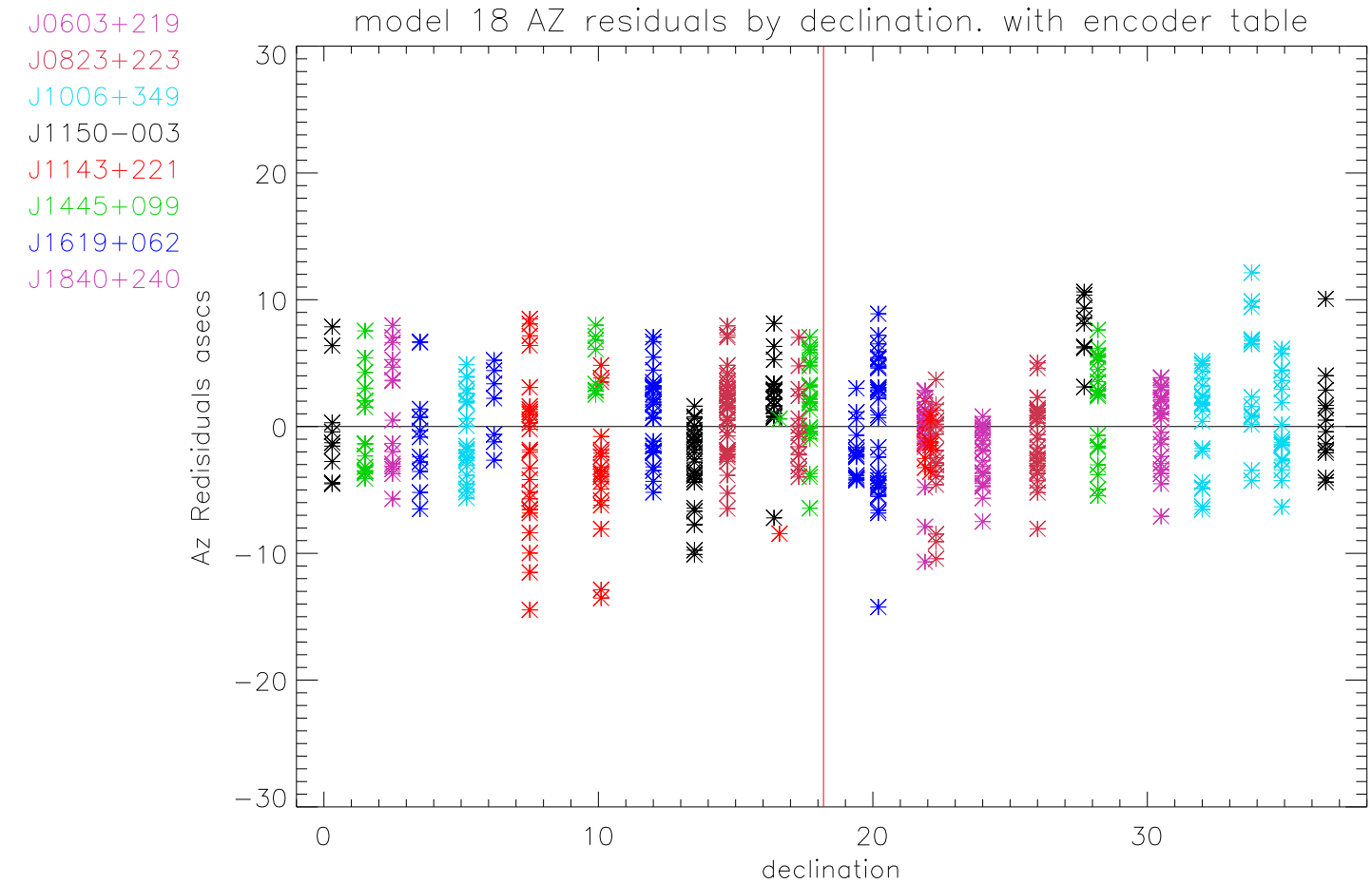
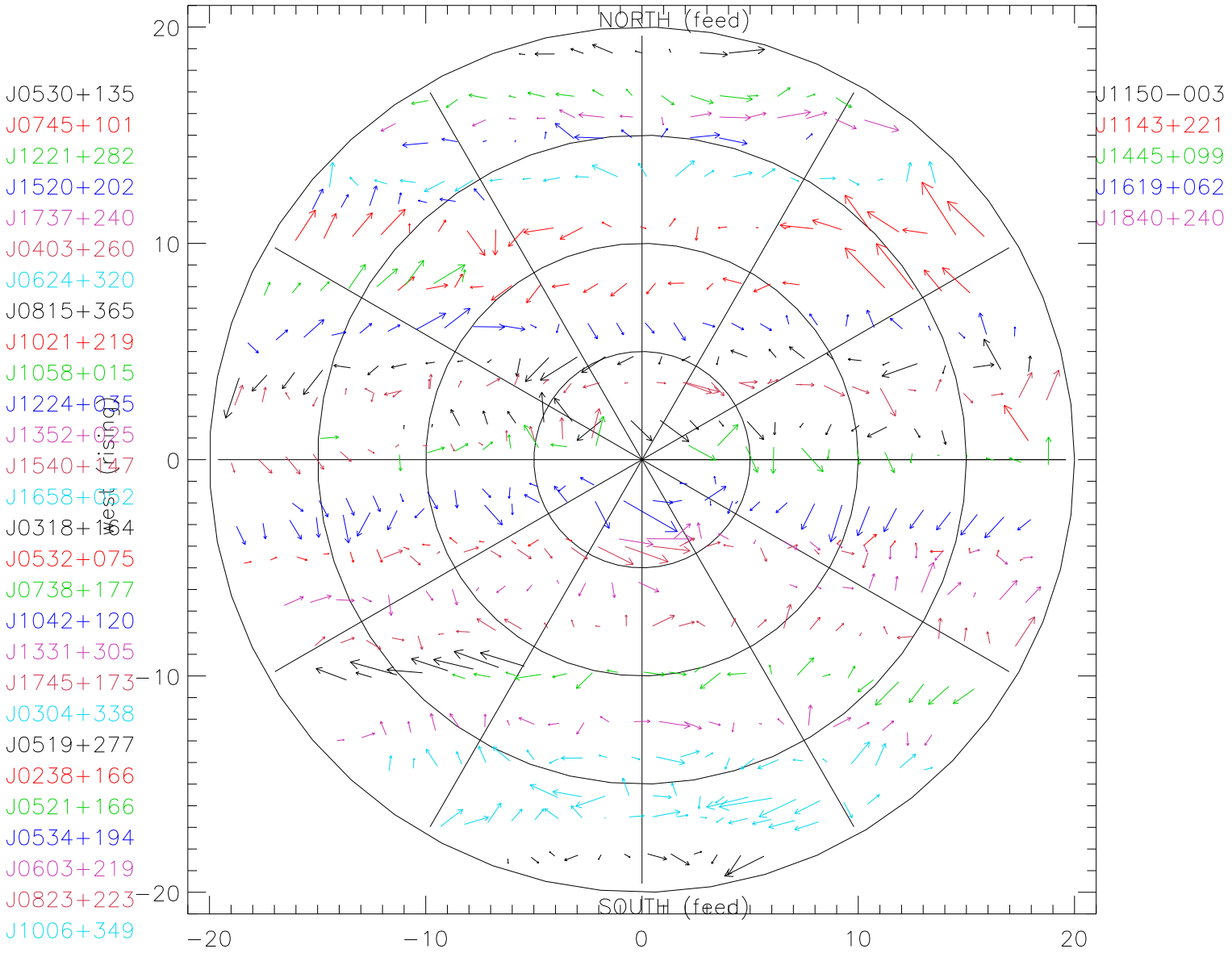
J1331+305
J1745+173
J0304+338
J0519+277
J0238+166
J0521+166
J0534+194
J0603+219
J0823+223
J1006+349
J1150−003
J1143+221
J1445+099
J1619+062
J1840+240
model 18 ZA residuals by src. with encoder table
ZA Residuals with encoder table
FIG 4
za Redisiduals asecs
za rms with encTbl: 2.13 asecs
az rms with encTbl: 4.18 asecs
az+za rms with encTbl: 4.69 asecs
sample


model 18 AZ residuals by src. with encoder table
AZ Residuals with encoder table
Az Redisiduals asecs
sample


J0530+135
J0745+101
J1221+282
J1520+202
J1737+240
J0403+260
J0624+320
J0815+365
J1021+219
J1058+015
J1224+035
J1352+025
J1540+147
J1658+052
J0318+164
J0532+075
J0738+177
J1042+120
J1331+305
J1745+173
J0304+338
J0519+277
J0238+166
J0521+166
J0534+194
J0603+219
J0823+223
J1006+349
J1150−003
J1143+221
J1445+099
J1619+062
J1840+240
model 18 ZA residuals by declination. with encoder table
Arecibo declination 18.2 degrees
FIG 5
za Redisiduals asecs
declination
30
20
10
0
−10
−20
−30
0
10
20
30


model 18 AZ residuals by declination. with encoder table
Az Redisiduals asecs
declination
30
20
10
0
−10
−20
−30
0
10
20
30



model 18 residuals errors [asecs] with encoder table vs az,za
1 div= 5.00Asecs
errors each 5.0deg

za	max	avg	rms
all	14.5	4.1	2.3
5	14.3	5.2	3.0
10	10.1	3.3	1.7
15	13.6	3.9	2.3
20	14.5	4.3	2.4

az	za	model coefficients
−34.92	−103.09	constant
−3.14	−97.13	cos(az)
93.49	−1.82	sin(az)
−715.60	132.62	sin(za)
−1089.56	721.35	sin(za)**2
−21.52	−10.25	cos(3az)
−10.85	−6.13	sin(3az)
18.25	−10.92	sin(za−balance)*cos(3az)
111.09	11.58	sin(za−balance)*sin(3az)
7.92	1.05	cos(2az)
0.13	−1.70	sin(2az)
−2.56	−0.26	cos(6az)
0.56	−0.12	sin(6az)

npts	chisqaz	chisqza	rmsAz	rmsZa	rmsTot	
557	30915.2	18717.6	7.46	5.80	9.45	model
			4.18	2.13	4.69	model + encTable