

KIC 007107762

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007107762-01	OBS	No	0.539329	131.983509	156.1	6.472	14.7	8.7	0.58	5088	0.81	1729.39

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007107762-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—HALO_GHOST

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

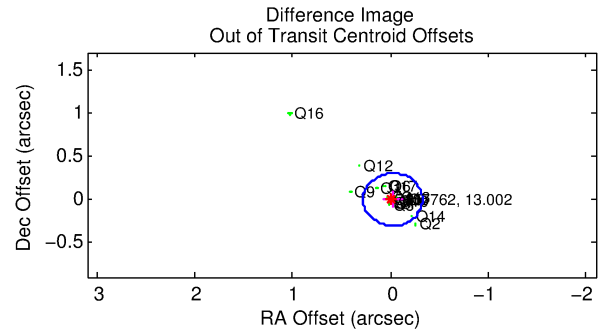
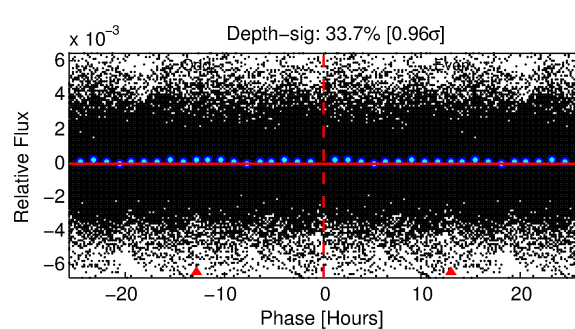
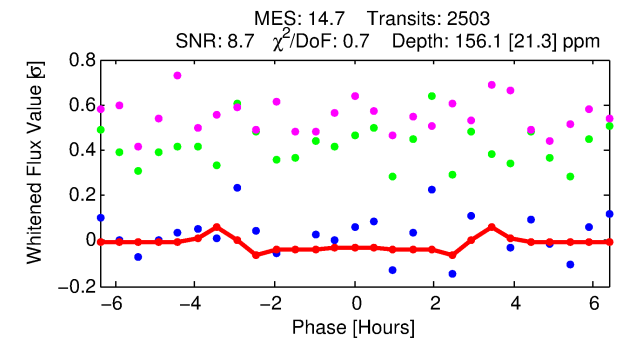
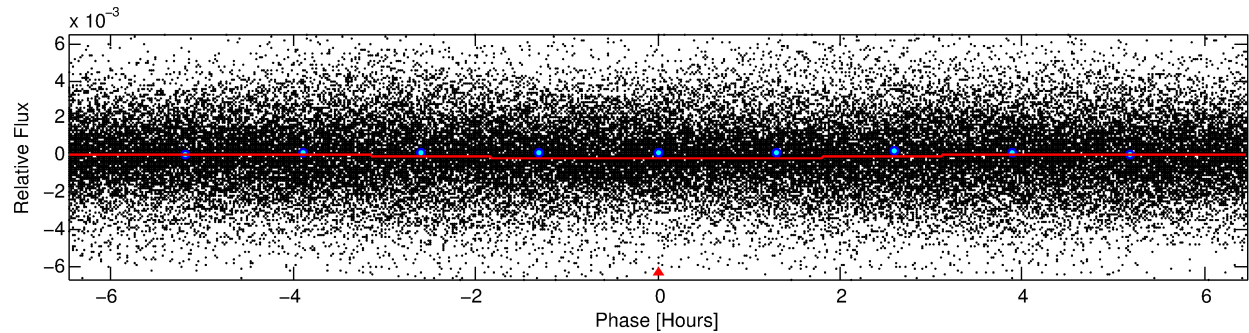
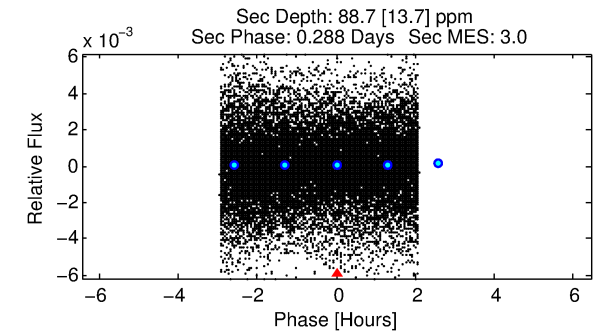
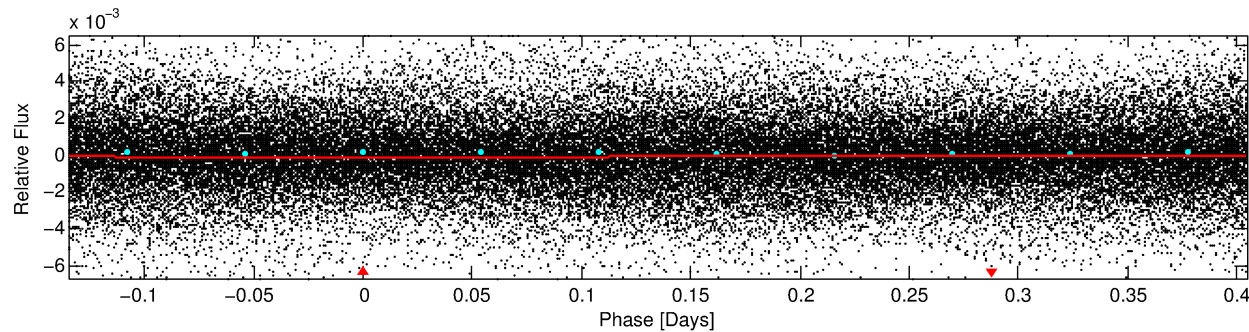
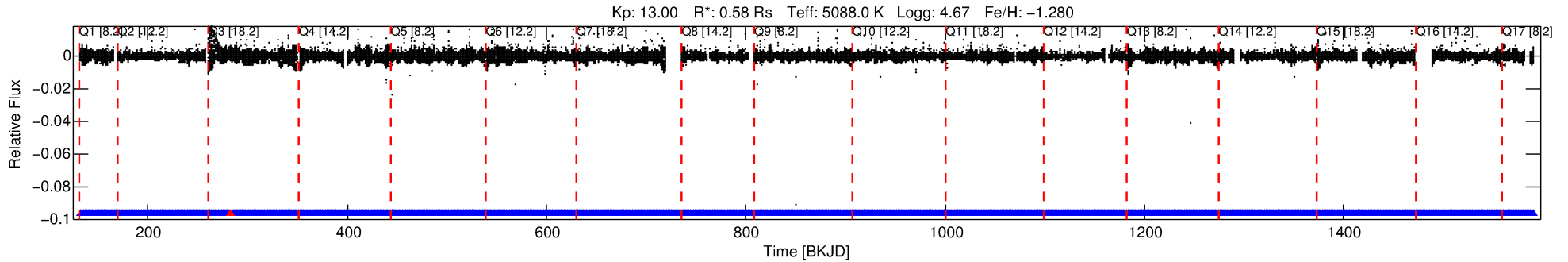
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007107762-01

No Significant Match Found

DV One-Page Summary

KIC: 7107762 Candidate: 1 of 1 Period: 0.539 d



DV Fit Results:

Period = 0.53933 [0.00001] d
Epoch = 131.9835 [0.0020] BKJD
Rp/R* = 0.0127 [0.0010]
a/R* = 1.00 [0.00]
b = 0.80 [0.09]
Seff = 1729.39 [275.74]
Teff = 1644 [66] K
Rp = 0.81 [0.08] Re
a = 0.0108 [0.0006] AU
Ag = 8.85 [2.13] [3.69σ]
Teffp = 4385 [284] K [9.39σ]

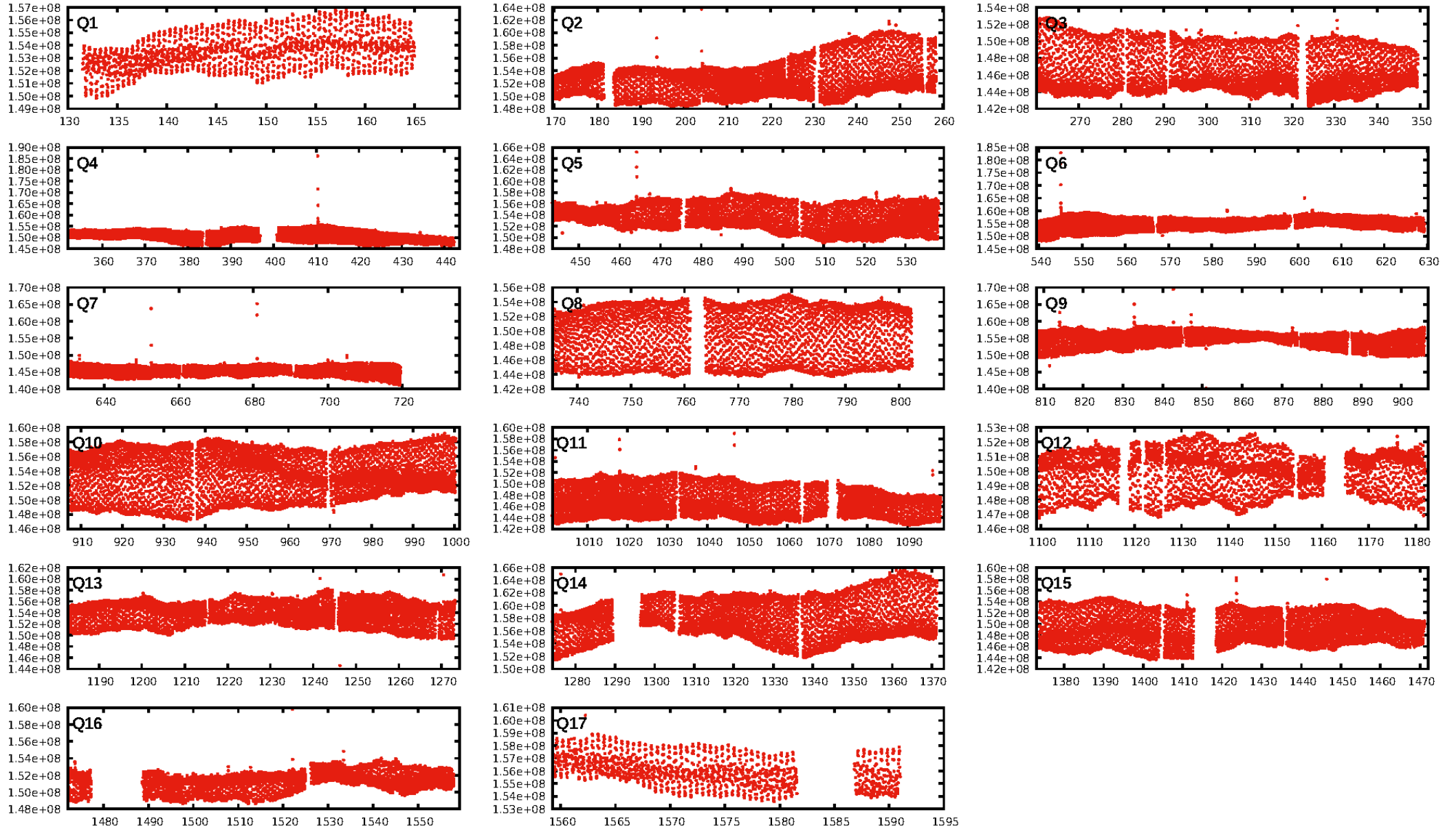
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2389/2390]
GhostDiagnostic-chr: -0.1242
Centroid-sig: 0.2%
Centroid-so: 0.101 arcsec [1.37σ]
OotOffset-rm: 0.023 arcsec [0.22σ]
KicOffset-rm: 0.127 arcsec [1.55σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.35 [6/17]
DiffImageOverlap-fno: 1.00 [17/17]

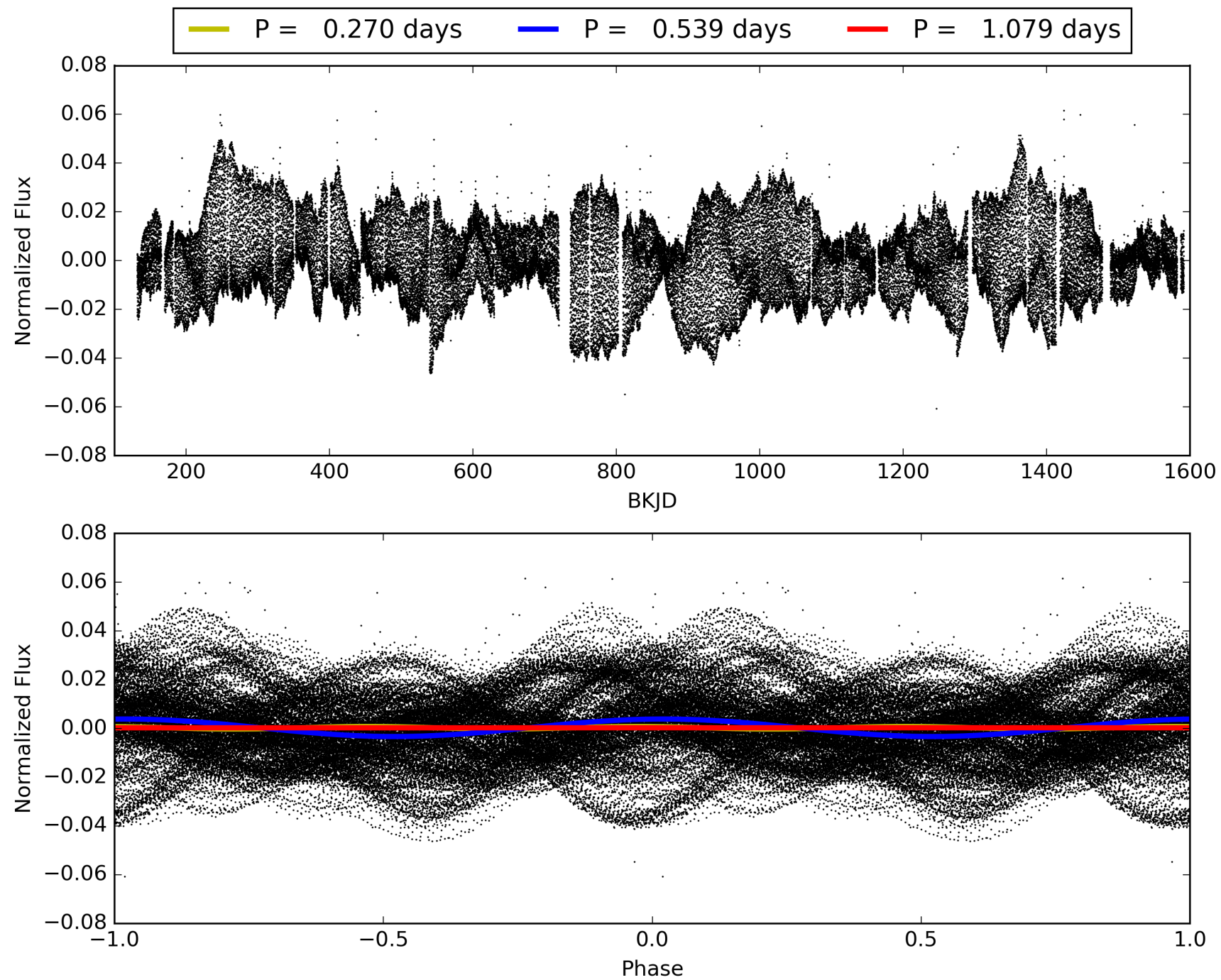
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 05:31:58 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007107762-01, PDC Light Curves

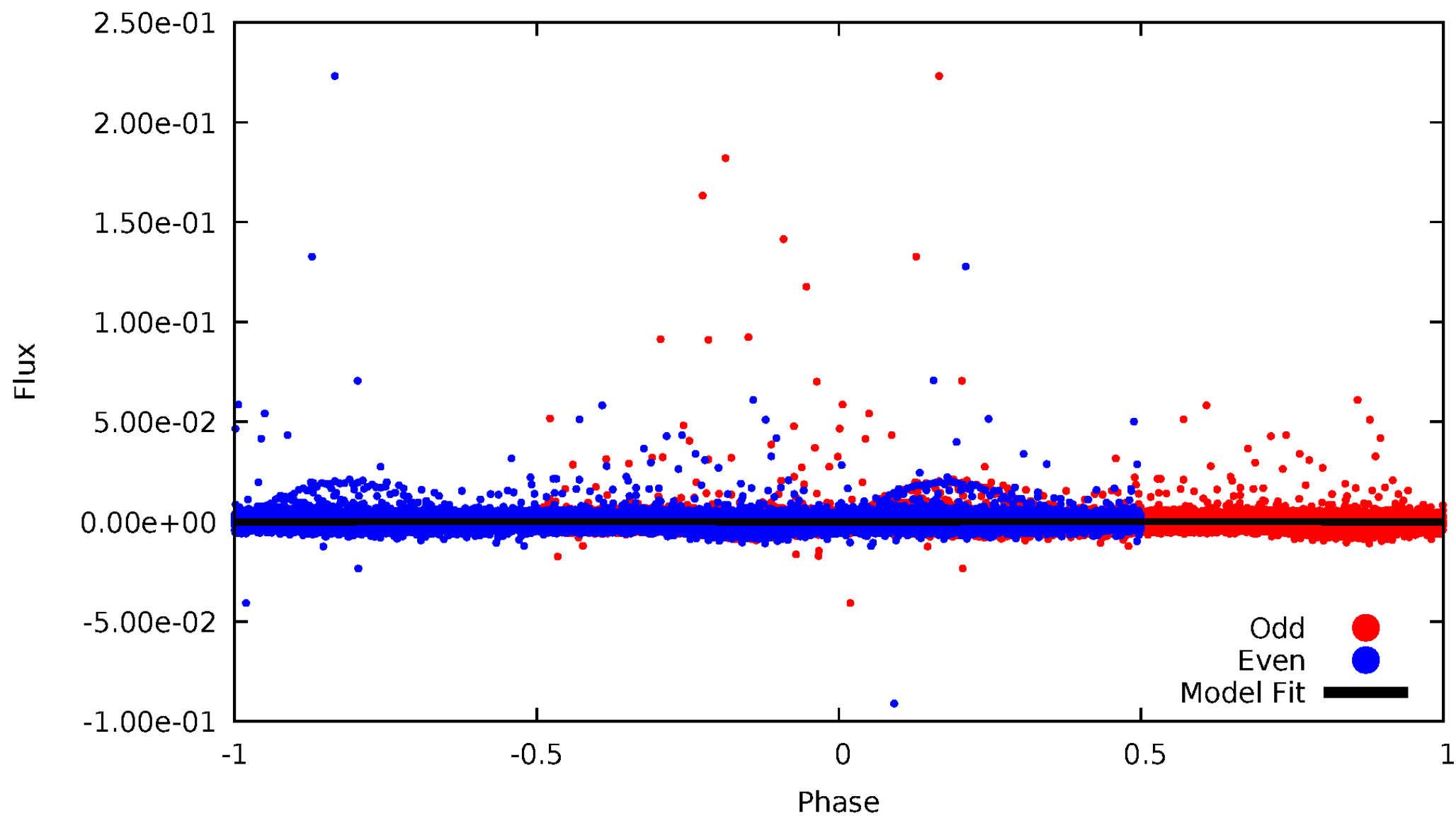


TCE 007107762-01



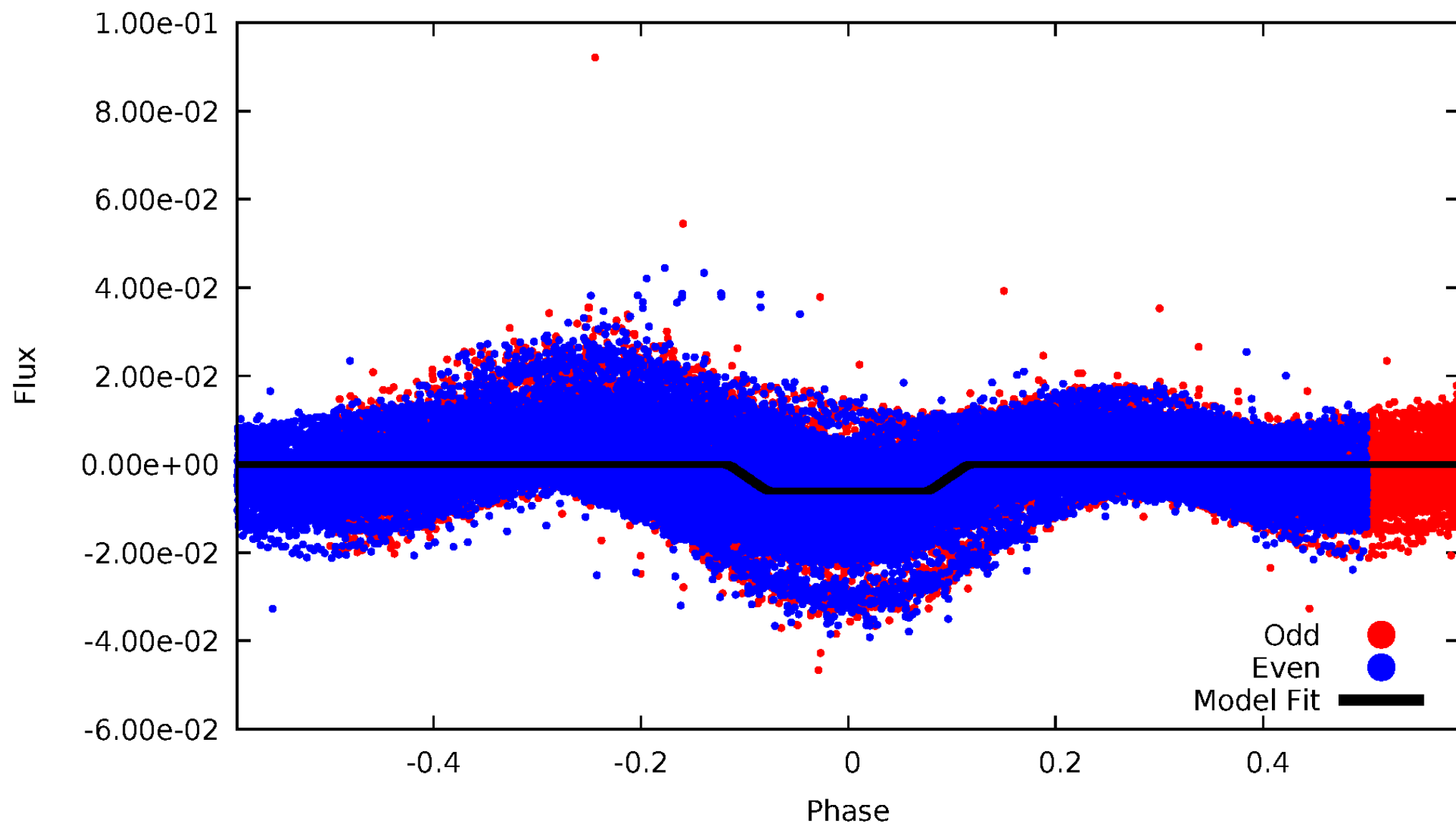
DV Odd/Even

TCE 007107762-01



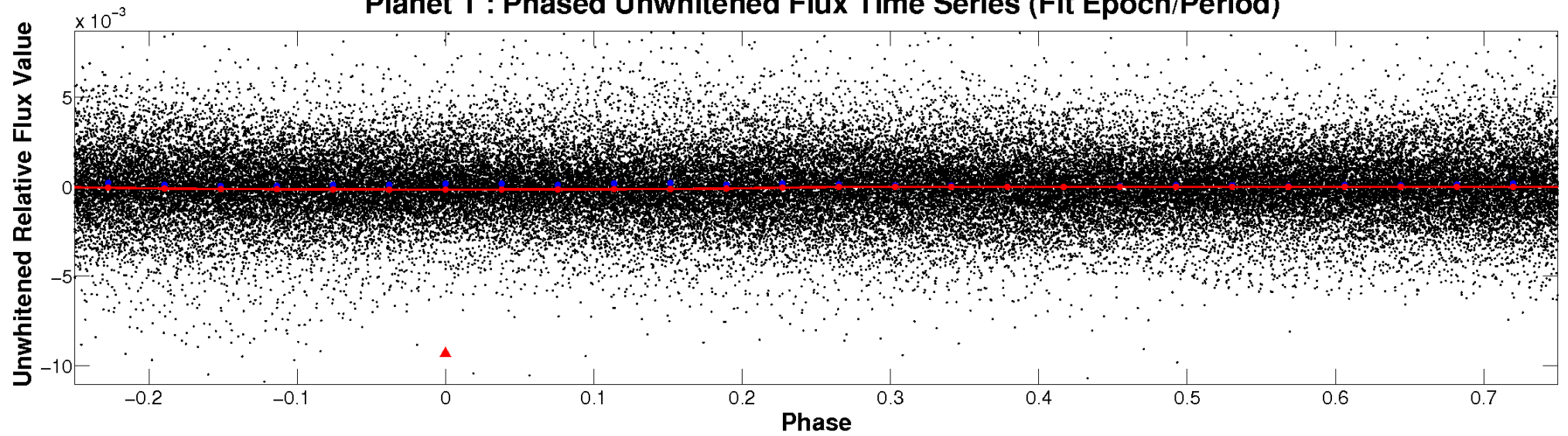
ALT Odd/Even

TCE 007107762-01

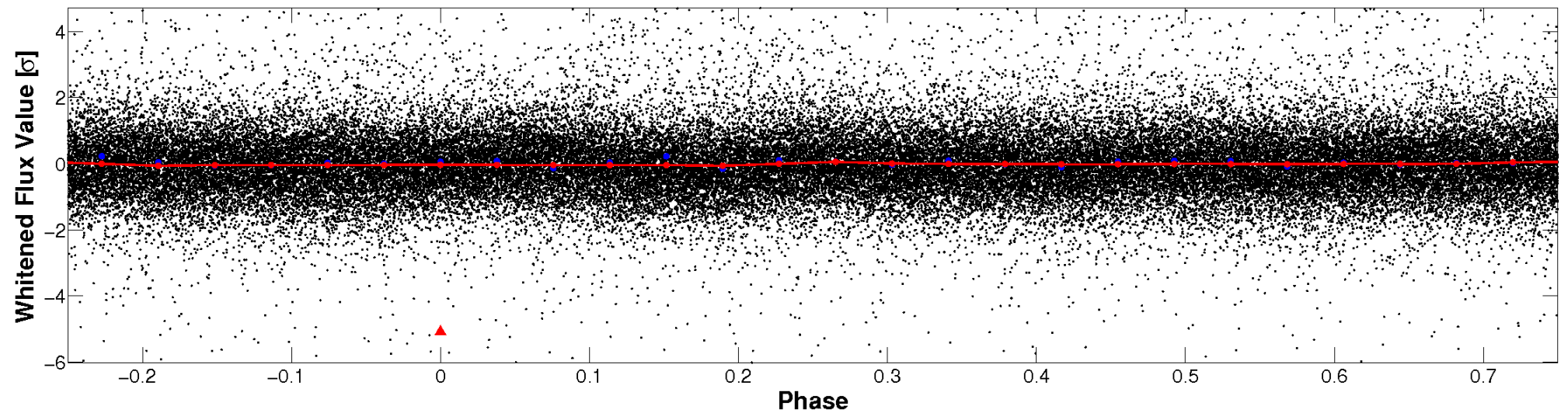


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

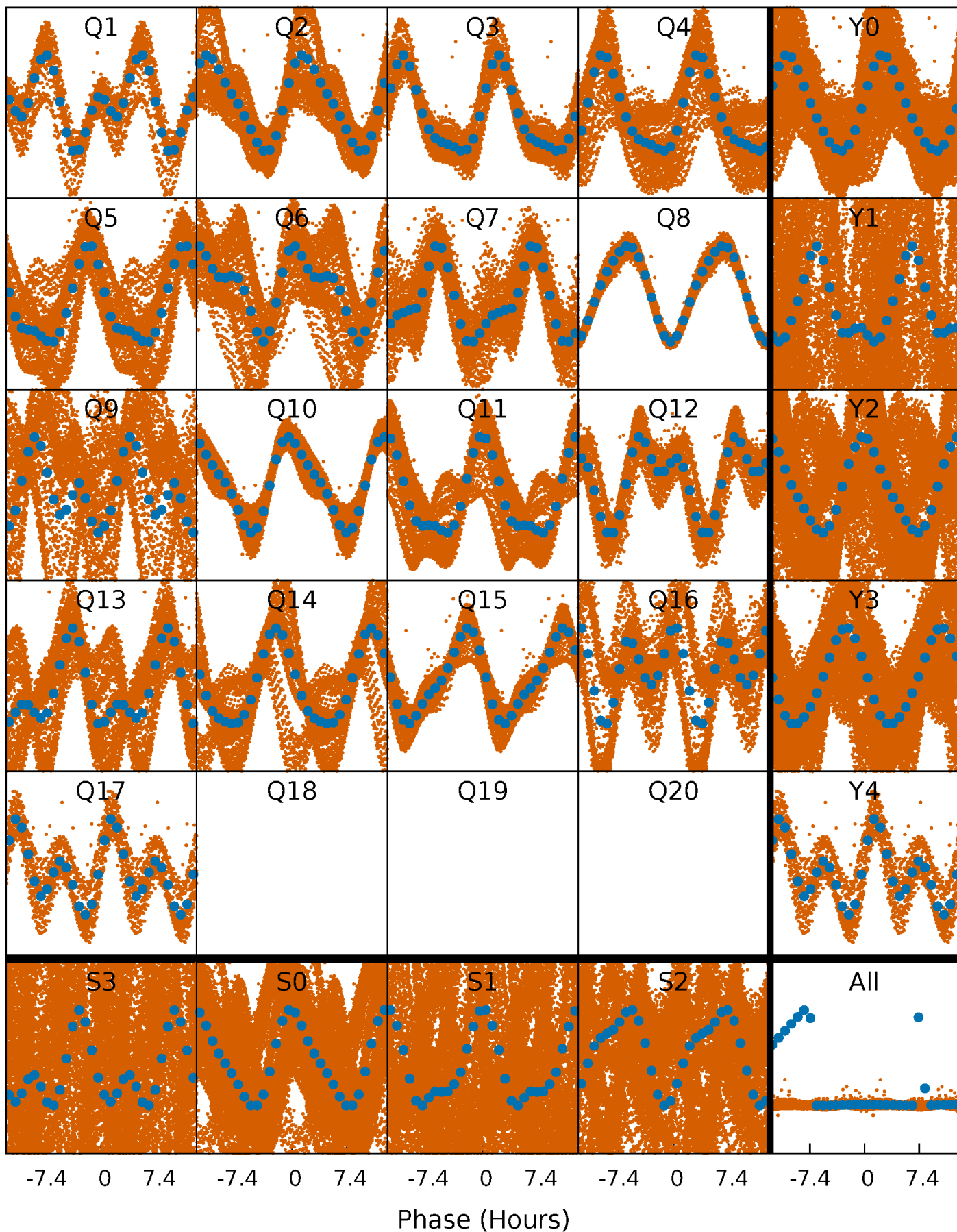


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



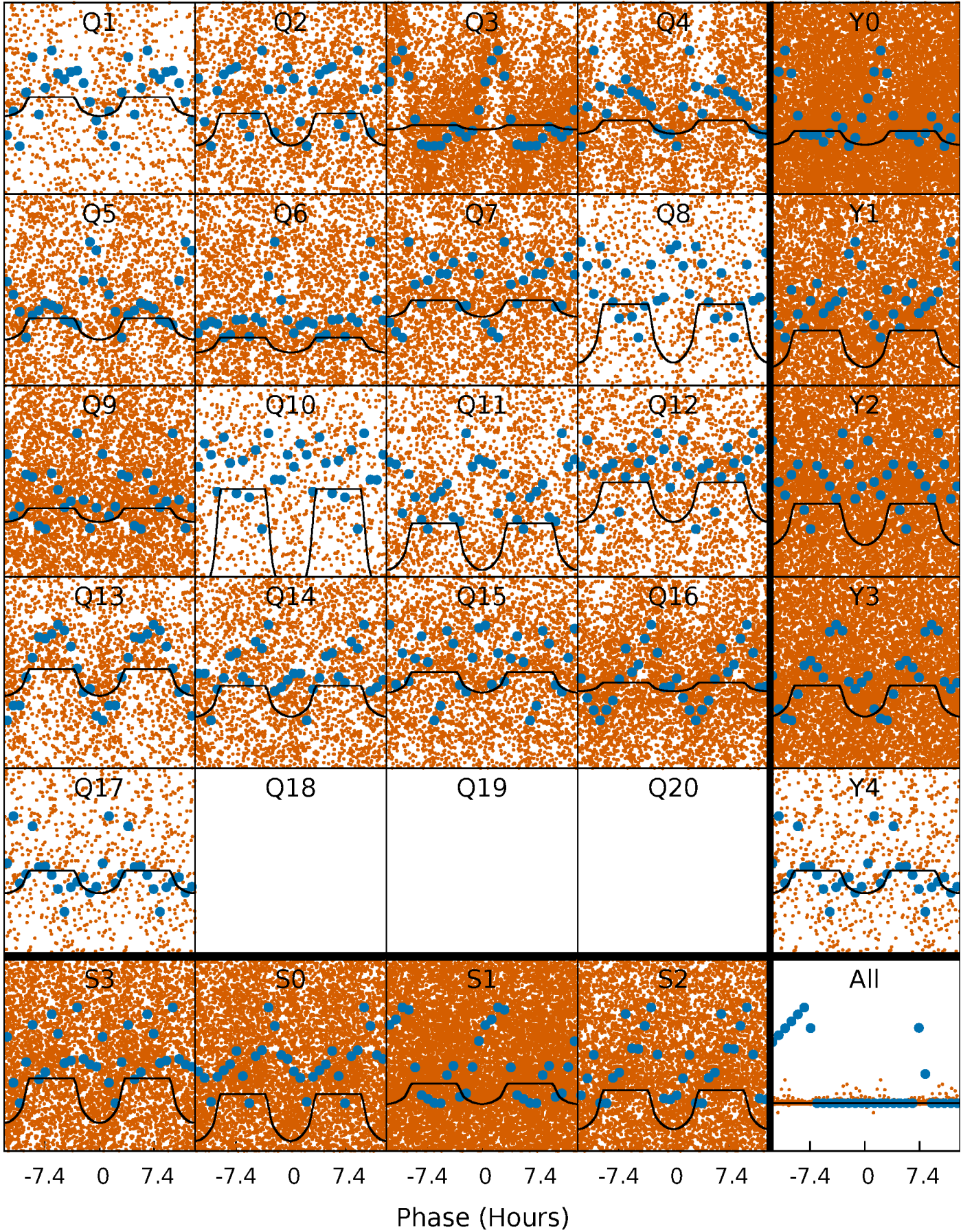
PDC Quarter-Phased Transit Curves

TCE 007107762-01 P= 0.539329 Days $T_0=131.983509$ (BKJD)



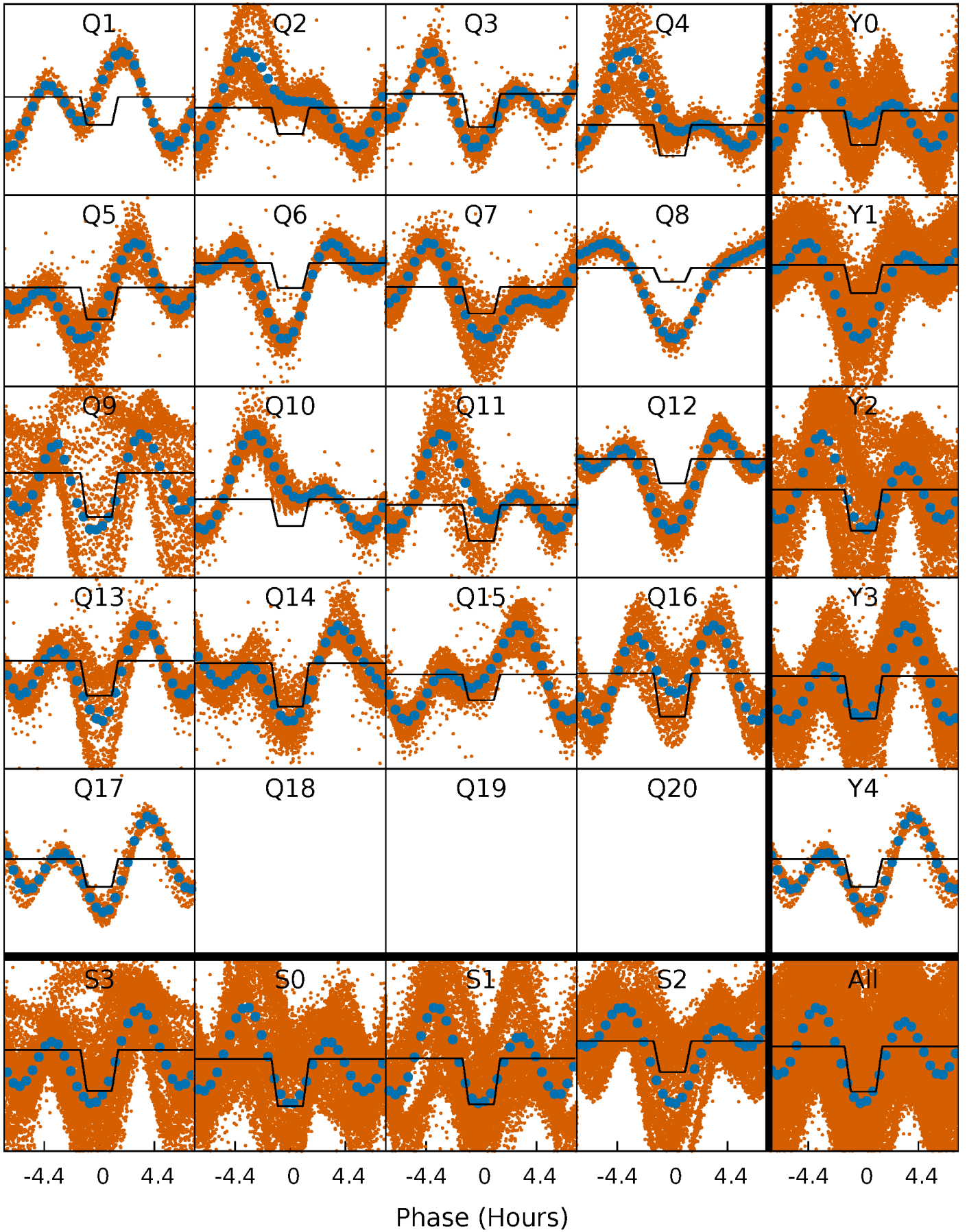
DV Quarter-Phased Transit Curves

TCE 007107762-01 P= 0.539329 Days $T_0=131.983509$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

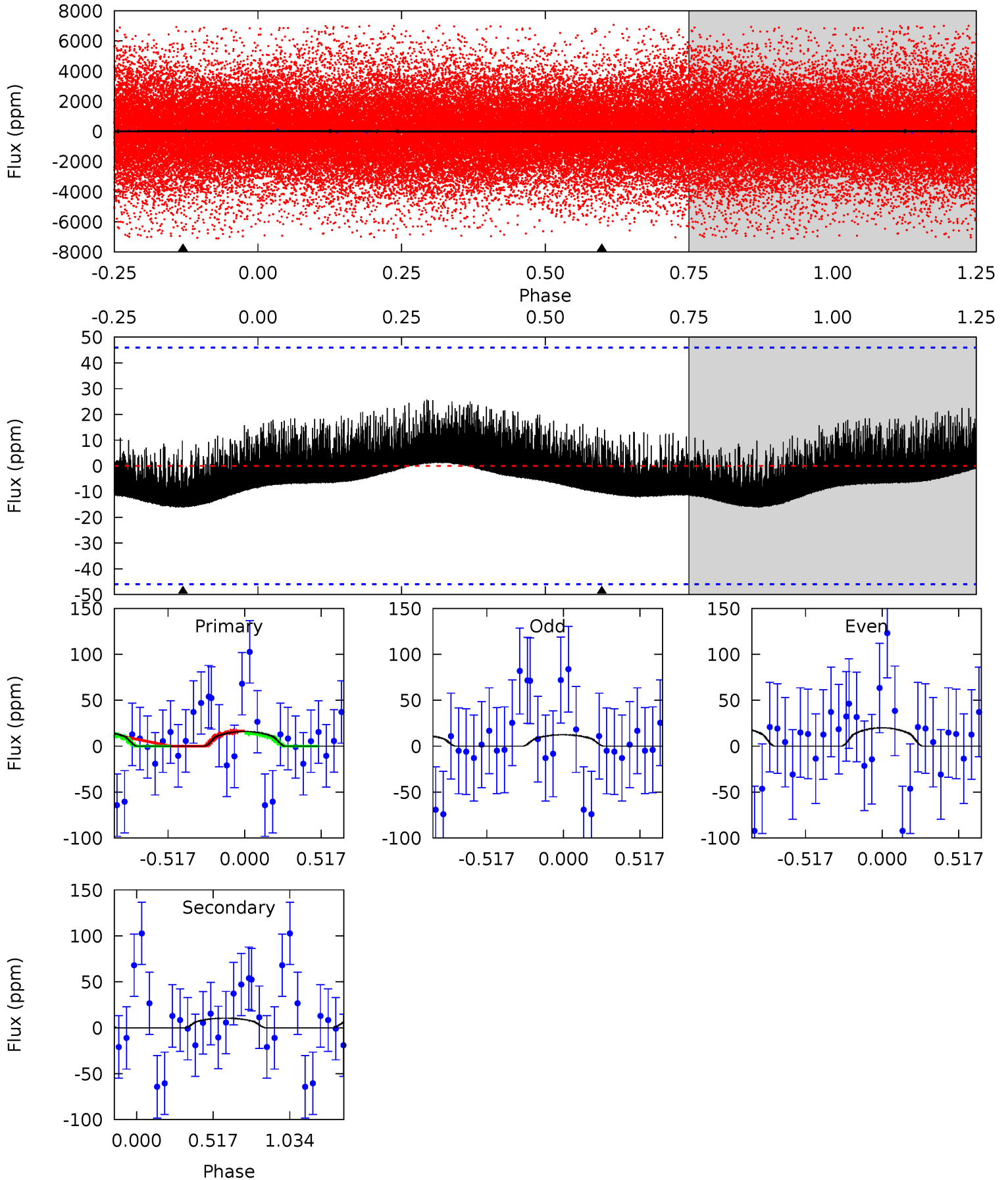
TCE 007107762-01 P= 0.539641 Days $T_0=131.588101$ (BKJD)



DV Model-Shift Uniqueness Test

007107762-01, P = 0.539329 Days, E = 131.444180 Days

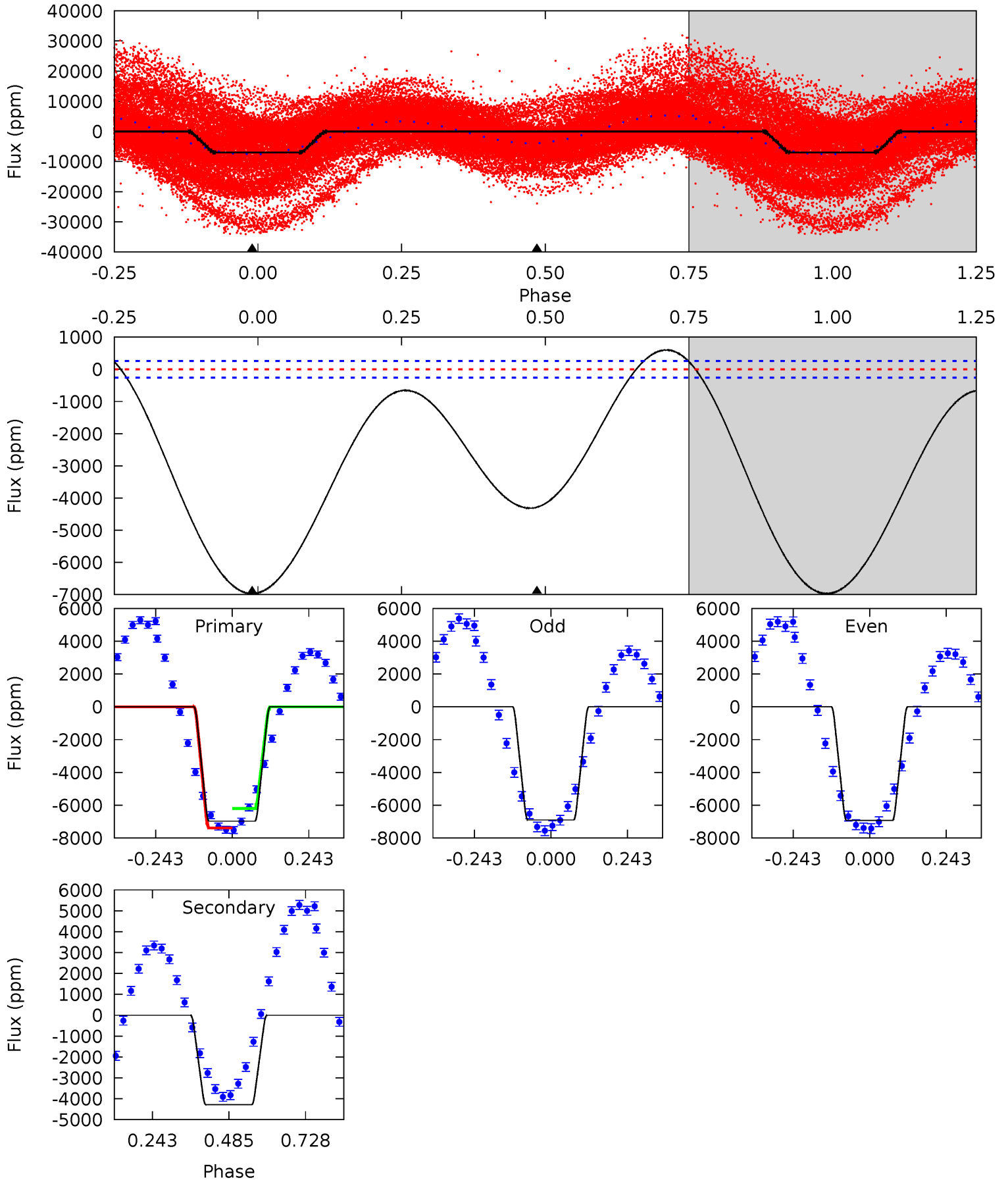
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.46	0.96	0	0	4.21	0.65	0.31	1.46	1.46	0.96	0.96	0.35	13.2	0.62	0.13



Alt Model-Shift Uniqueness Test

007107762-01, P = 0.539641 Days, E = 131.048460 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
117.9	72.5	0	0	4.38	1.17	9.97	117.9	117.9	72.5	72.5	0.29	1.27	0.08	10.2



Stellar Parameters For KIC 007107762

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5088^{+168}_{-153}	$4.675^{+0.052}_{-0.032}$	$-1.280^{+0.300}_{-0.300}$	$0.582^{+0.035}_{-0.035}$	$0.585^{+0.044}_{-0.018}$	$4.173^{+0.820}_{-0.470}$
	+3%/-3%	+1%/-1%	+23%/-23%	+6%/-6%	+8%/-3%	+20%/-11%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007107762-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-10 ± 11	$0.81^{+0.07}_{-0.07}$	2287^{+88}_{-77}	2994^{+439}_{-556}	$1.062^{+1.138}_{-0.992}$
Alt.	-4285 ± 59	$4.96^{+0.20}_{-0.19}$	2294^{+79}_{-84}	4706^{+142}_{-142}	11^{+1}_{-1}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

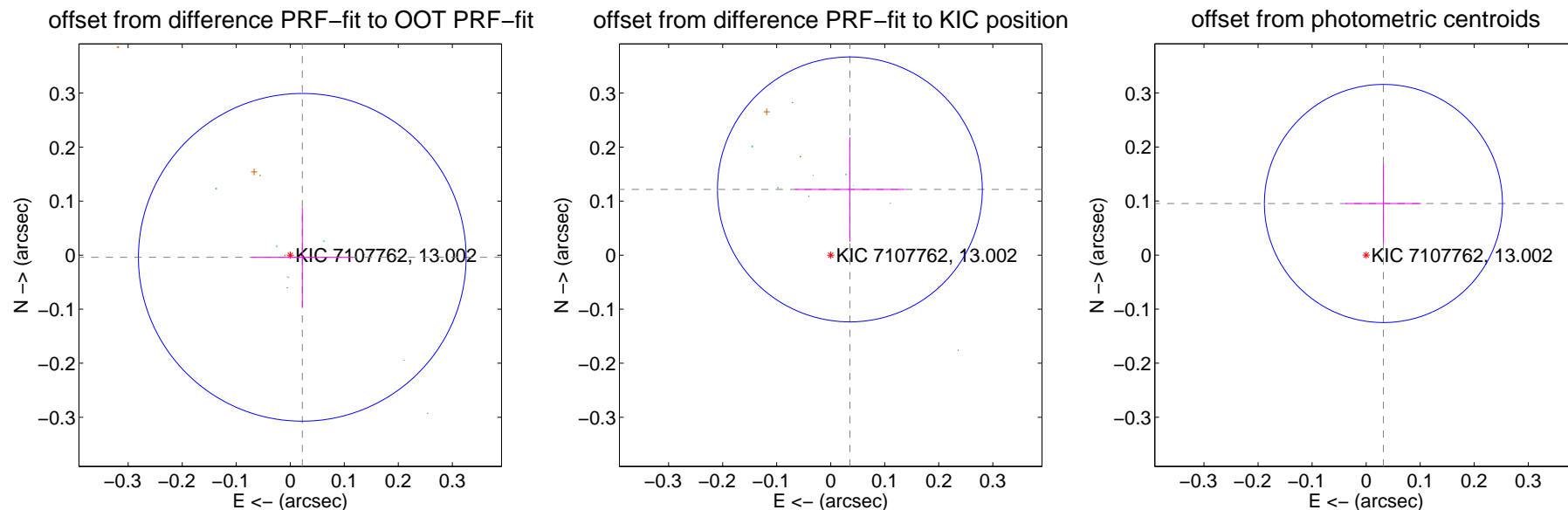
DV Centroid Data

Supplemental centroid analysis for 007107762-01. Kepler magnitude: 13.00. Transit SNR 8.74

There are 6 quarters with good PRF difference image offsets

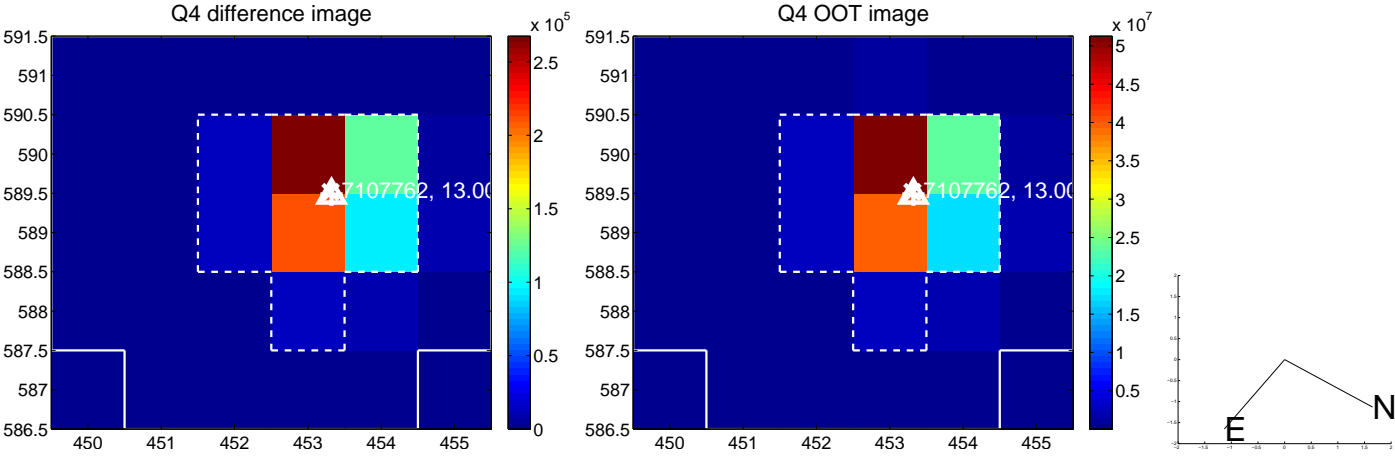
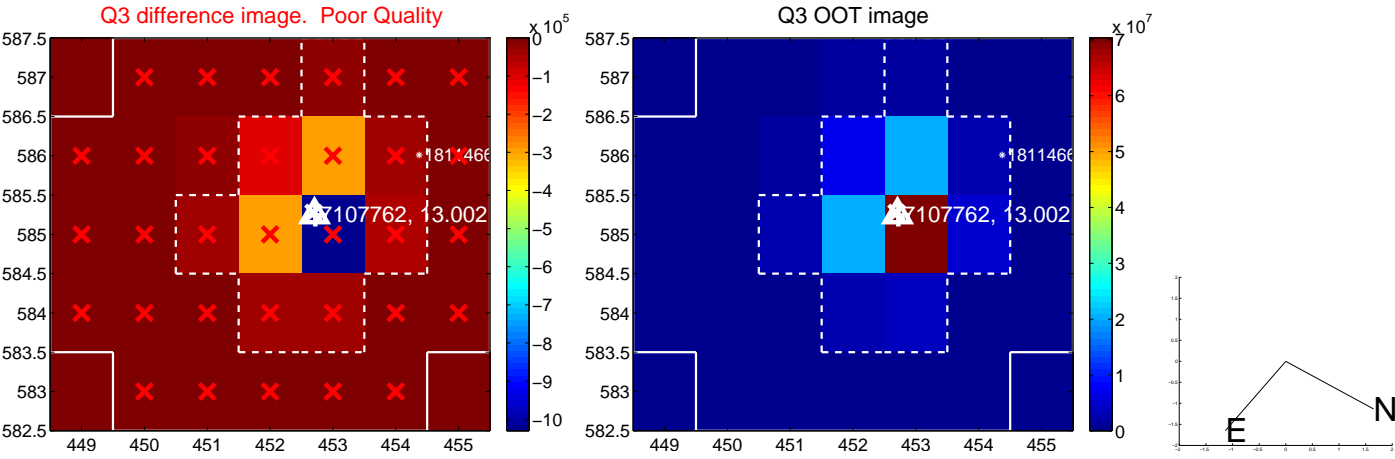
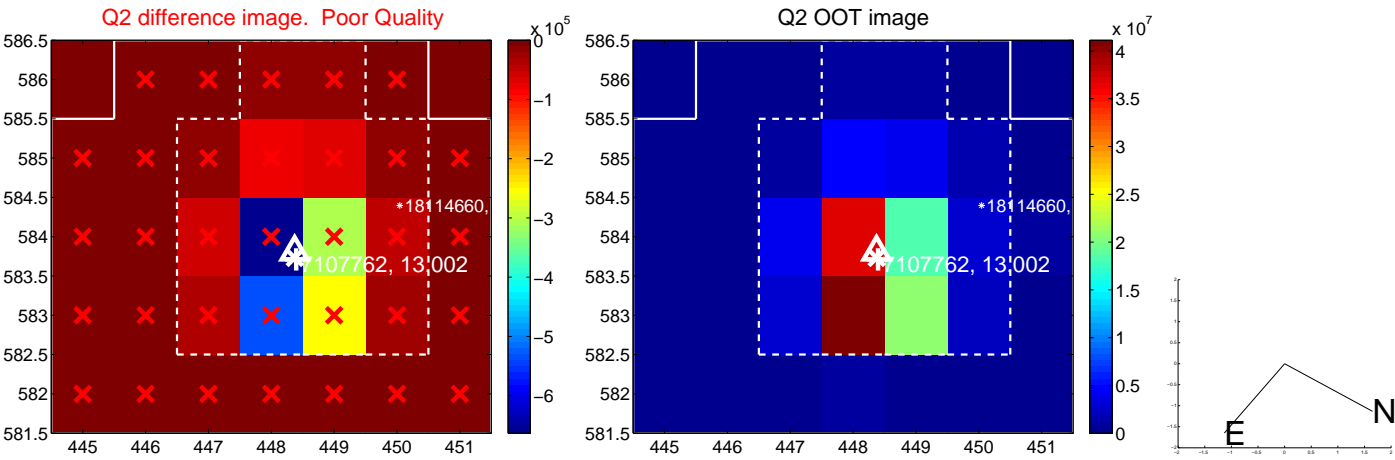
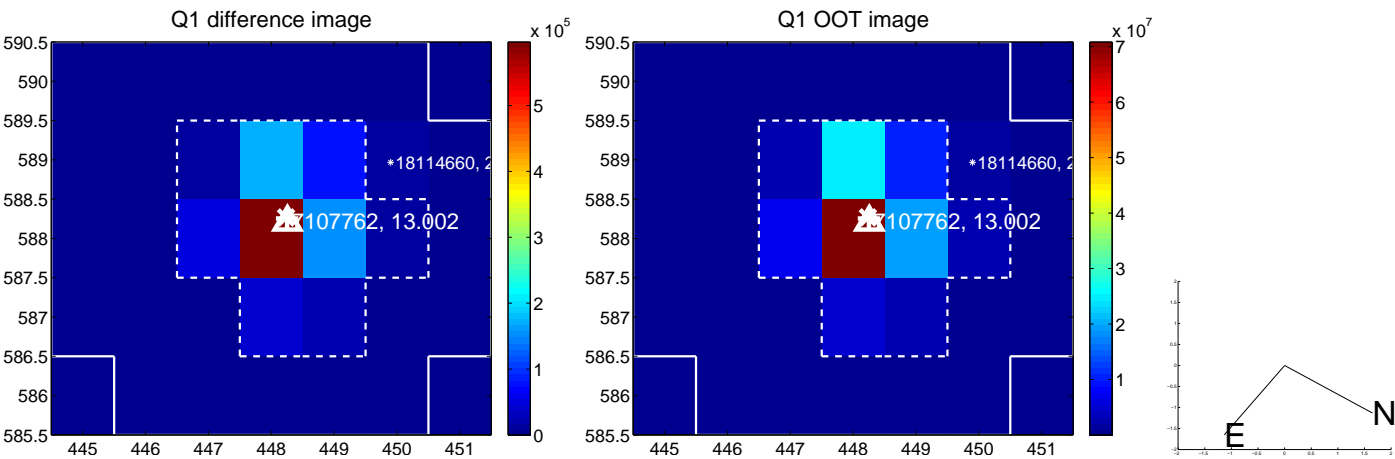
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.023 ± 0.101	0.22	-0.022 ± 0.094	-0.004 ± 0.092
PRF-fit source offset from KIC position	0.127 ± 0.082	1.55	-0.035 ± 0.102	0.122 ± 0.097
photometric centroid source offset	0.10 ± 0.07	1.37	-0.03 ± 0.07	0.10 ± 0.07

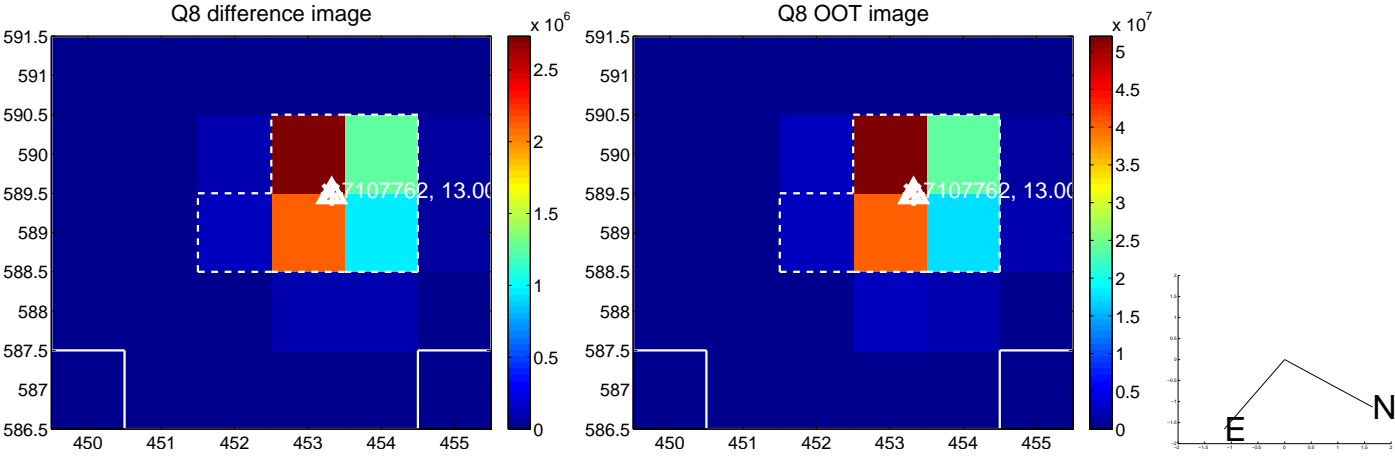
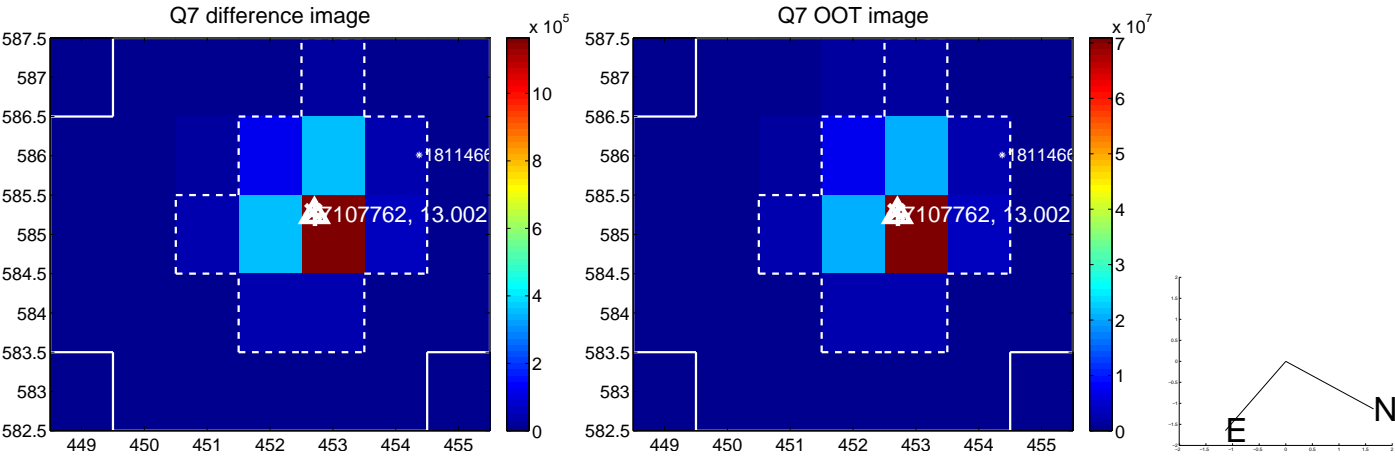
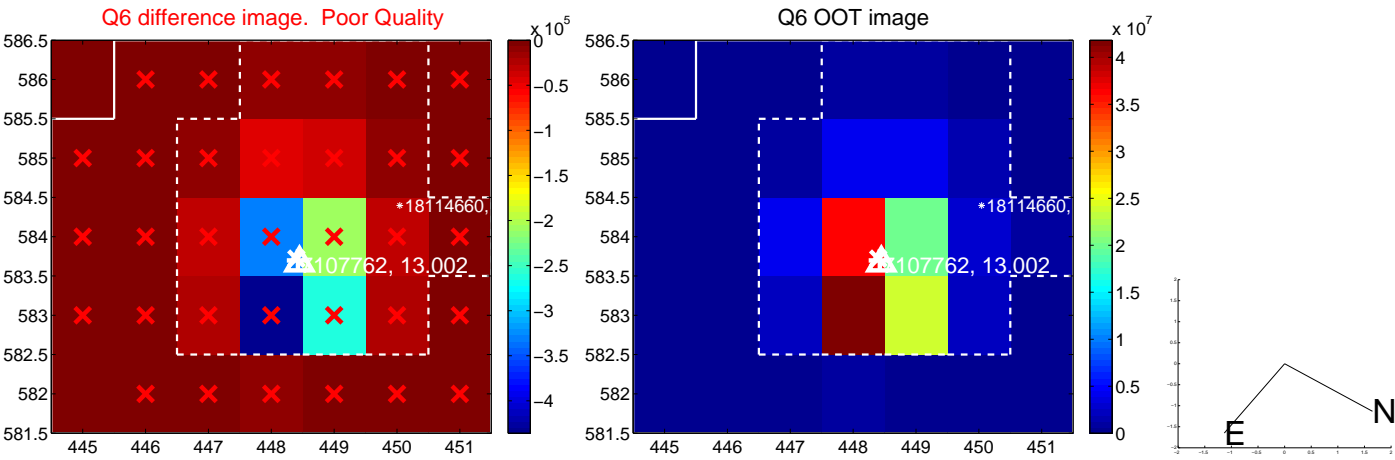
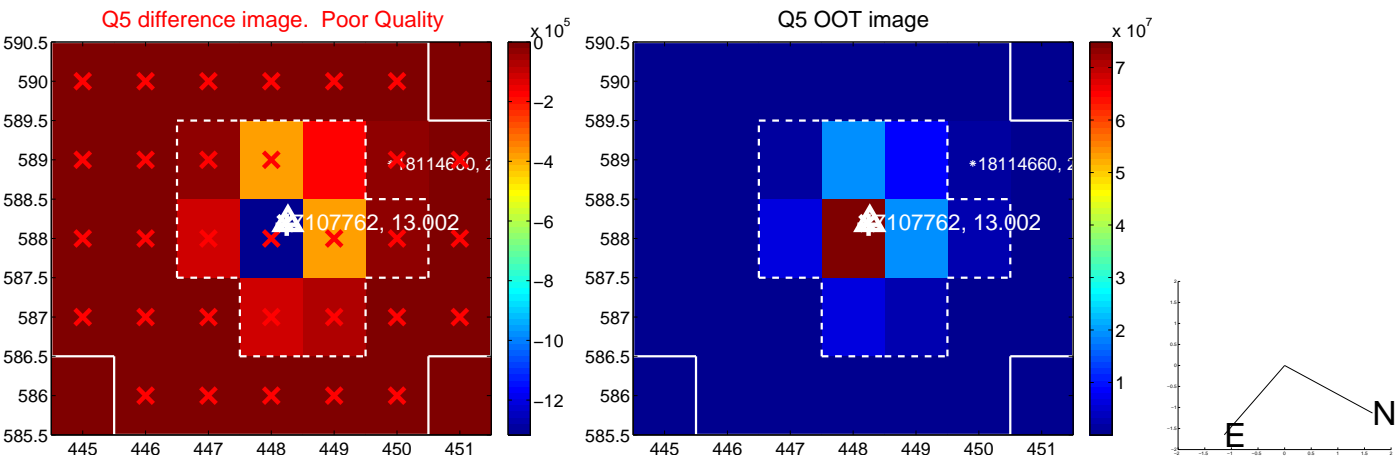


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

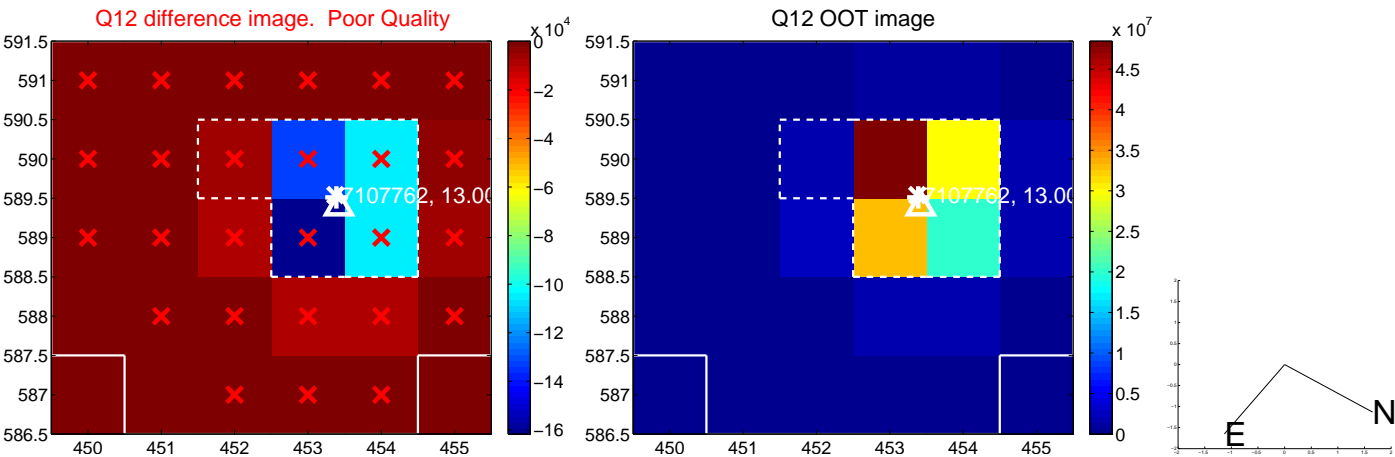
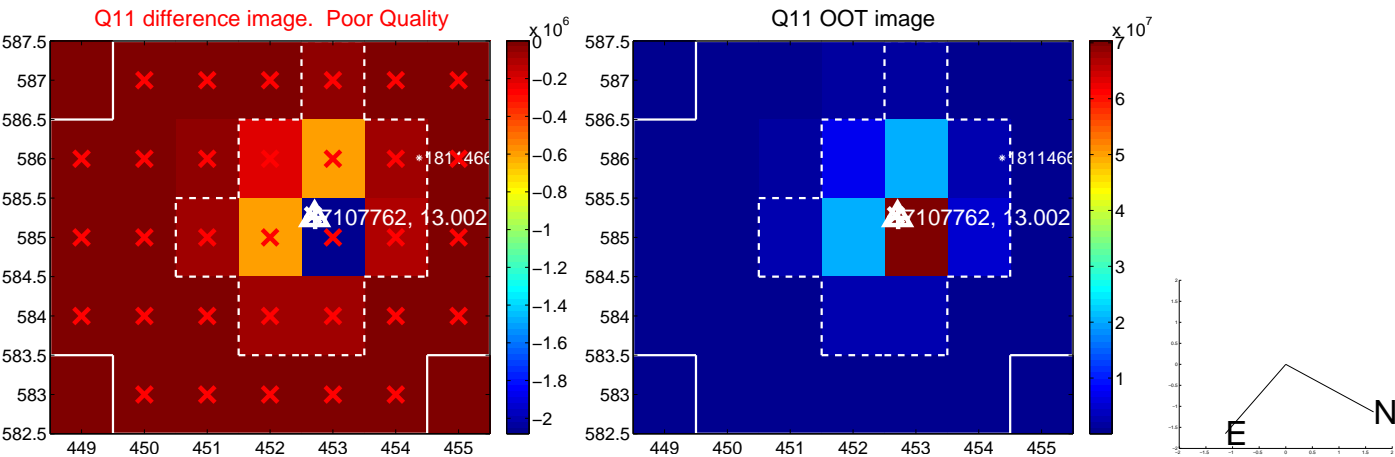
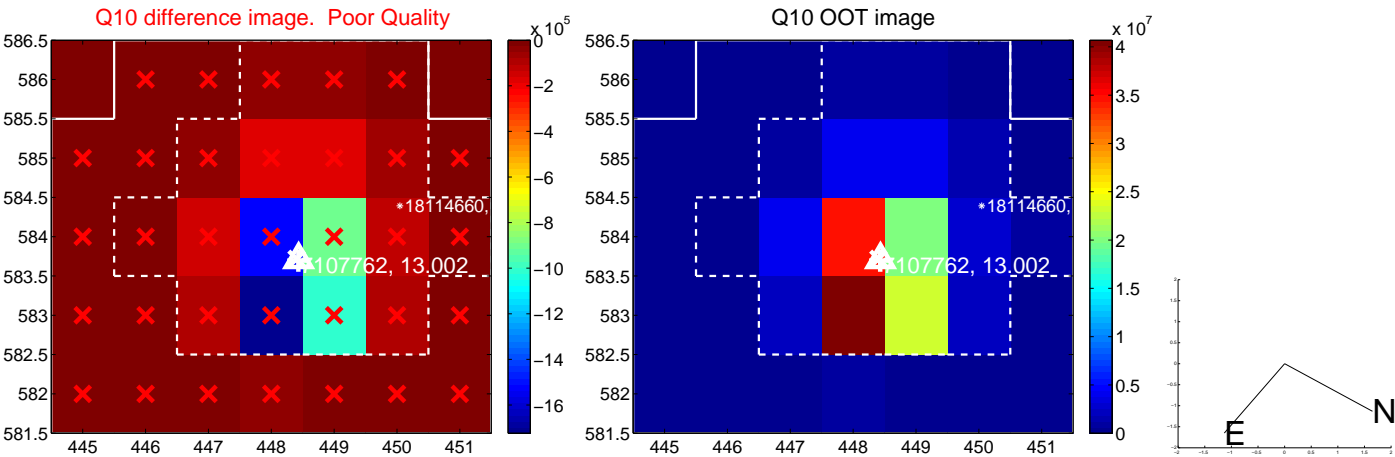
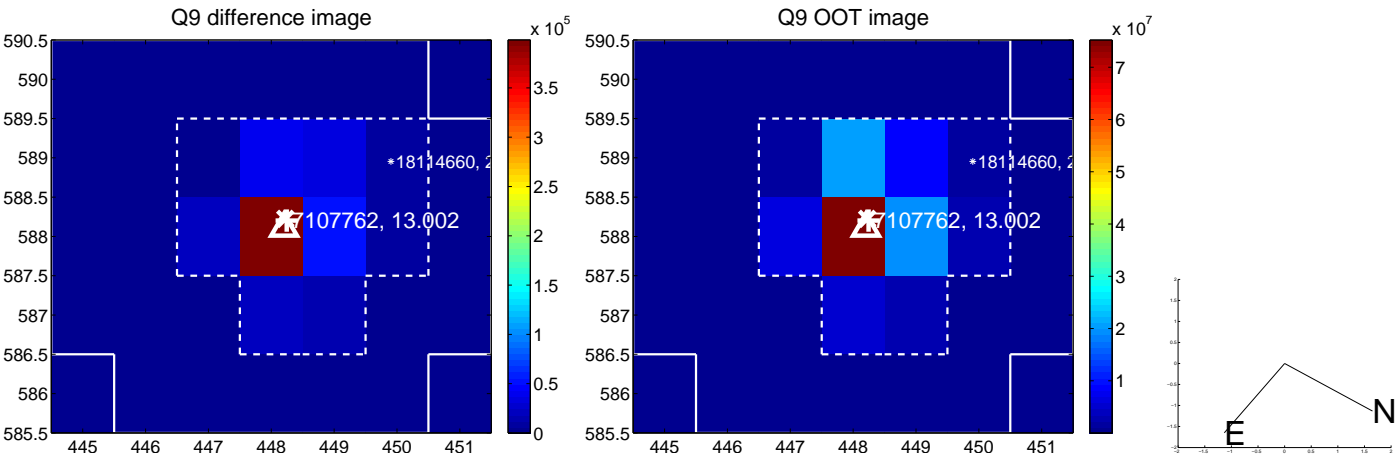
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



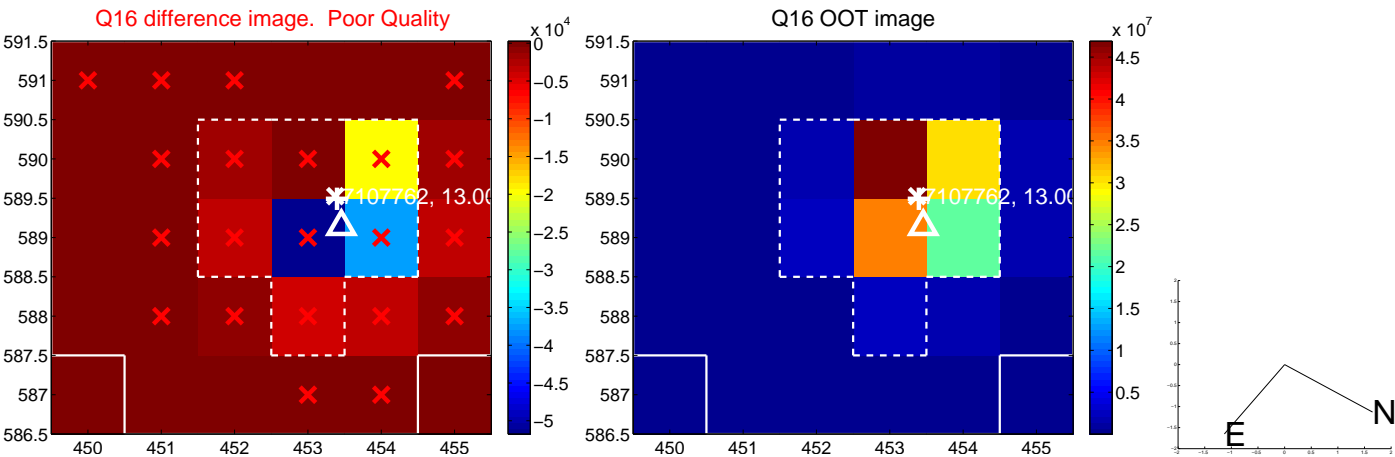
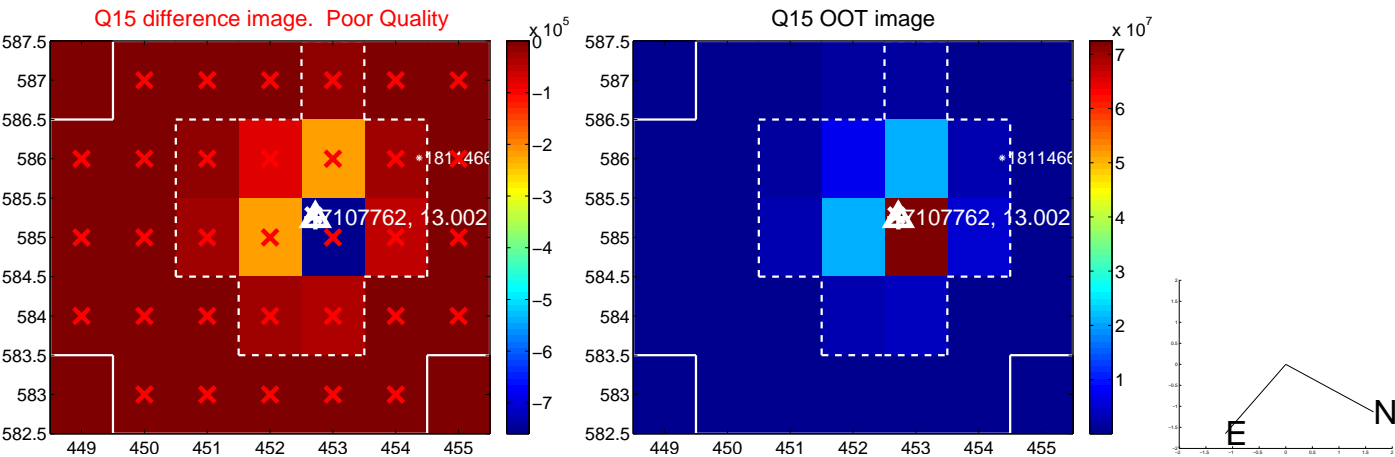
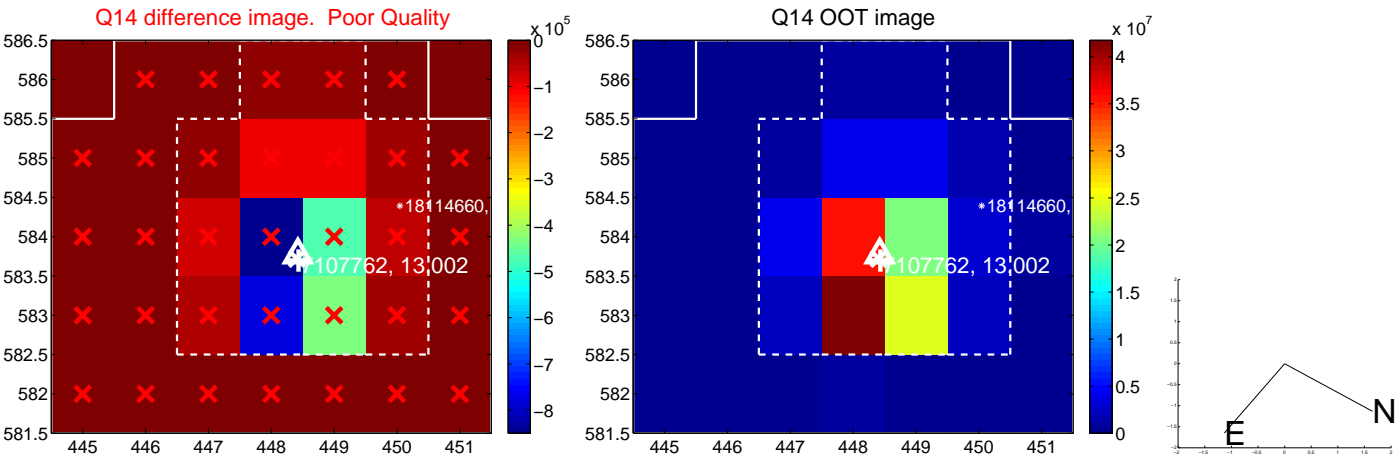
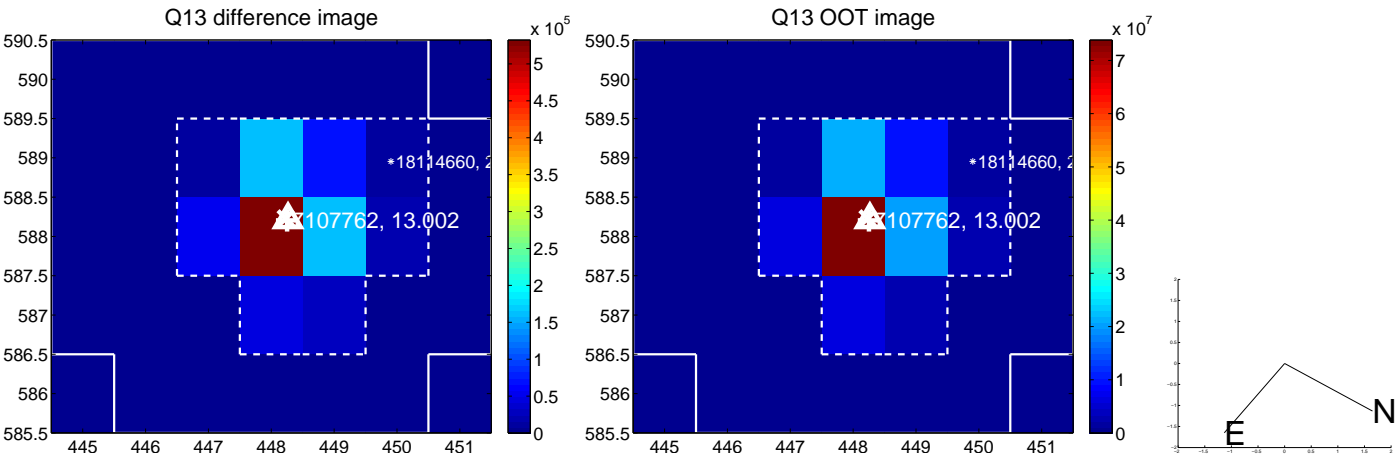
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



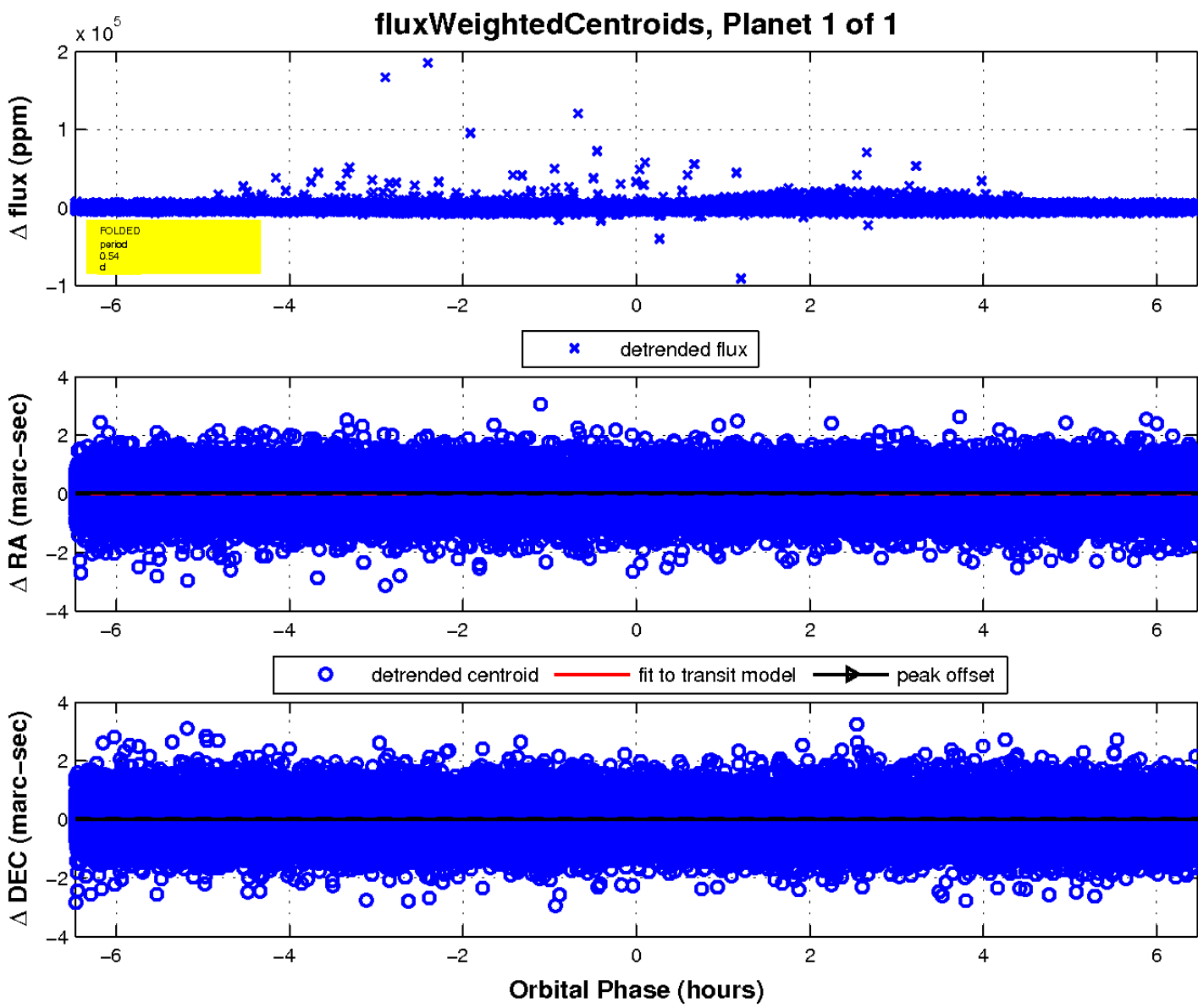
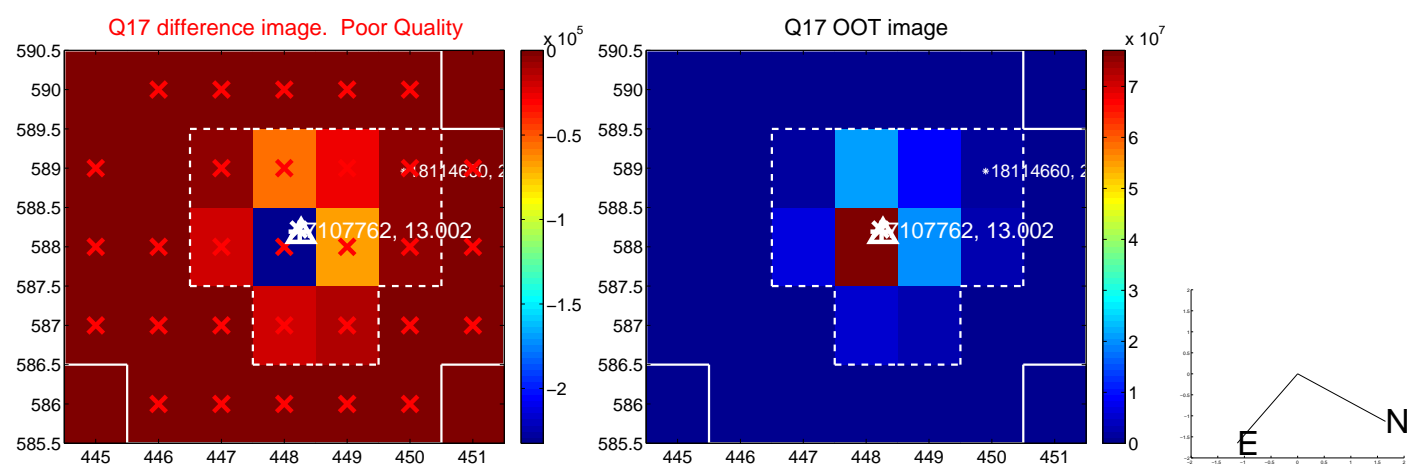
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



This figure shows a deep-field astronomical image of a star field. The image is overlaid with a blue grid. A prominent, bright star is located near the center. Other stars of varying brightness are scattered throughout the field. The image is oriented with North at the top. The axes are labeled with Right Ascension (RA) and Declination (Dec) in degrees, minutes, and seconds. The RA axis is labeled at the bottom, and the Dec axis is labeled on the right side.

Right Ascension (RA)	Declination (Dec)
17.0	36.0
18.0	37.0
19.0	38.0
20.0	39.0
21.0	40.0
22.0	41.0
23.0	42.0
24.0	43.0
25.0	44.0
26.0	45.0
27.0	46.0
28.0	47.0
29.0	48.0
30.0	49.0
31.0	50.0
32.0	51.0
33.0	52.0
34.0	53.0
35.0	54.0
36.0	55.0
37.0	56.0
38.0	57.0
39.0	58.0
40.0	59.0
41.0	60.0
42.0	61.0
43.0	62.0
44.0	63.0
45.0	64.0
46.0	65.0
47.0	66.0
48.0	67.0
49.0	68.0
50.0	69.0
51.0	70.0
52.0	71.0
53.0	72.0
54.0	73.0
55.0	74.0
56.0	75.0
57.0	76.0
58.0	77.0
59.0	78.0
60.0	79.0
61.0	80.0
62.0	81.0
63.0	82.0
64.0	83.0
65.0	84.0
66.0	85.0
67.0	86.0
68.0	87.0
69.0	88.0
70.0	89.0
71.0	90.0
72.0	91.0
73.0	92.0
74.0	93.0
75.0	94.0
76.0	95.0
77.0	96.0
78.0	97.0
79.0	98.0
80.0	99.0
81.0	100.0
82.0	101.0
83.0	102.0
84.0	103.0
85.0	104.0
86.0	105.0
87.0	106.0
88.0	107.0
89.0	108.0
90.0	109.0
91.0	110.0
92.0	111.0
93.0	112.0
94.0	113.0
95.0	114.0
96.0	115.0
97.0	116.0
98.0	117.0
99.0	118.0
100.0	119.0
101.0	120.0
102.0	121.0
103.0	122.0
104.0	123.0
105.0	124.0
106.0	125.0
107.0	126.0
108.0	127.0
109.0	128.0
110.0	129.0
111.0	130.0
112.0	131.0
113.0	132.0
114.0	133.0
115.0	134.0
116.0	135.0
117.0	136.0
118.0	137.0
119.0	138.0
120.0	139.0
121.0	140.0
122.0	141.0
123.0	142.0
124.0	143.0
125.0	144.0
126.0	145.0
127.0	146.0
128.0	147.0
129.0	148.0
130.0	149.0
131.0	150.0
132.0	151.0
133.0	152.0
134.0	153.0
135.0	154.0
136.0	155.0
137.0	156.0
138.0	157.0
139.0	158.0
140.0	159.0
141.0	160.0
142.0	161.0
143.0	162.0
144.0	163.0
145.0	164.0
146.0	165.0
147.0	166.0
148.0	167.0
149.0	168.0
150.0	169.0
151.0	170.0
152.0	171.0
153.0	172.0
154.0	173.0
155.0	174.0
156.0	175.0
157.0	

Declination