

KIC 007773209

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})
007773209-01	OBS	No	3.166681	132.130598	32.9	6.490	9.8	8.5	3.76	6335	2.48	8332.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007773209-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—MOD_NONUNIQ_ALT

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

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

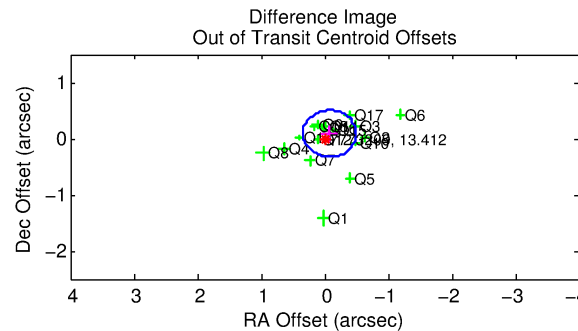
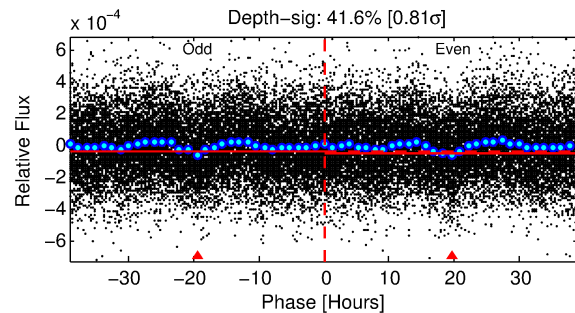
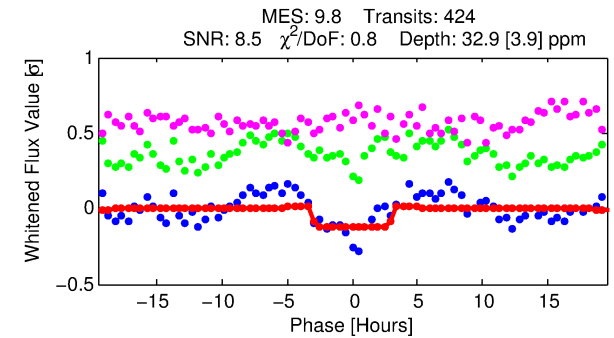
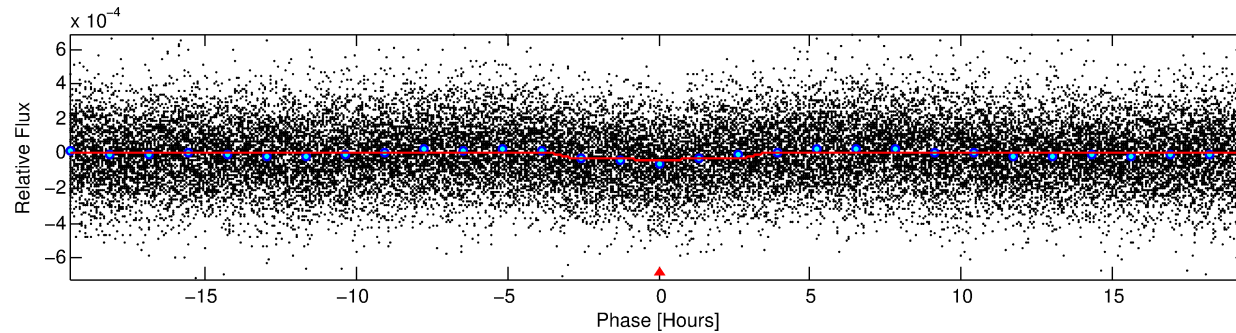
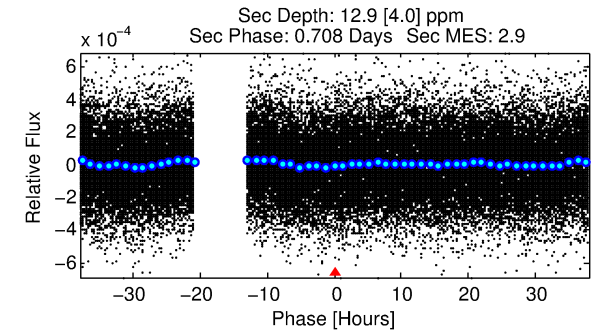
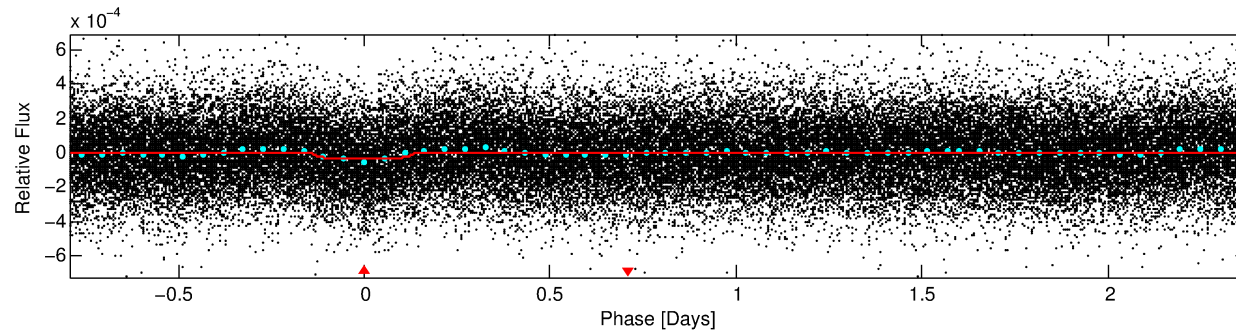
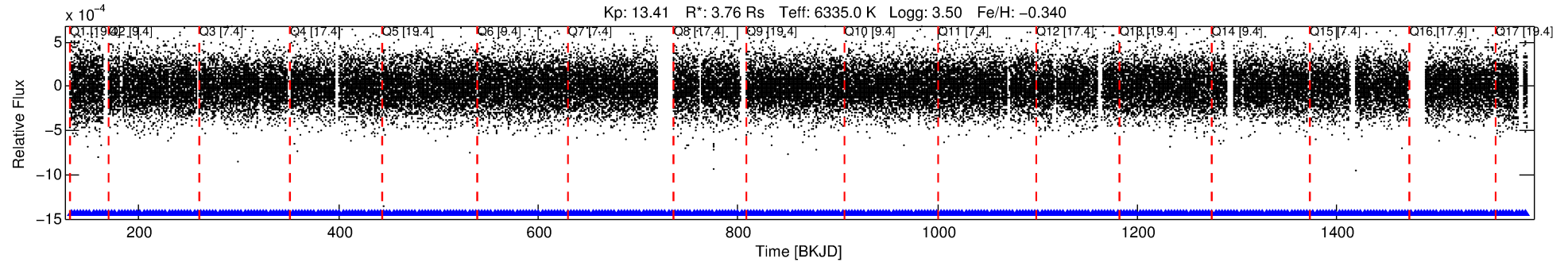
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007773209-01

No Significant Match Found

DV One-Page Summary

KIC: 7773209 Candidate: 1 of 1 Period: 3.167 d



DV Fit Results:

Period = 3.16668 [0.00003] d
Epoch = 132.1306 [0.0065] BKJD
Rp/R* = 0.0060 [0.0018]
a/R* = 2.07 [2.71]
b = 0.87 [0.46]
Seff = 8332.29 [5449.10]
Teff = 2436 [398] K
Rp = 2.48 [1.26] Re
a = 0.0495 [0.0196] AU
Ag = 2.83 [2.65] [0.69σ]
Teffp = 4886 [858] K [2.59σ]

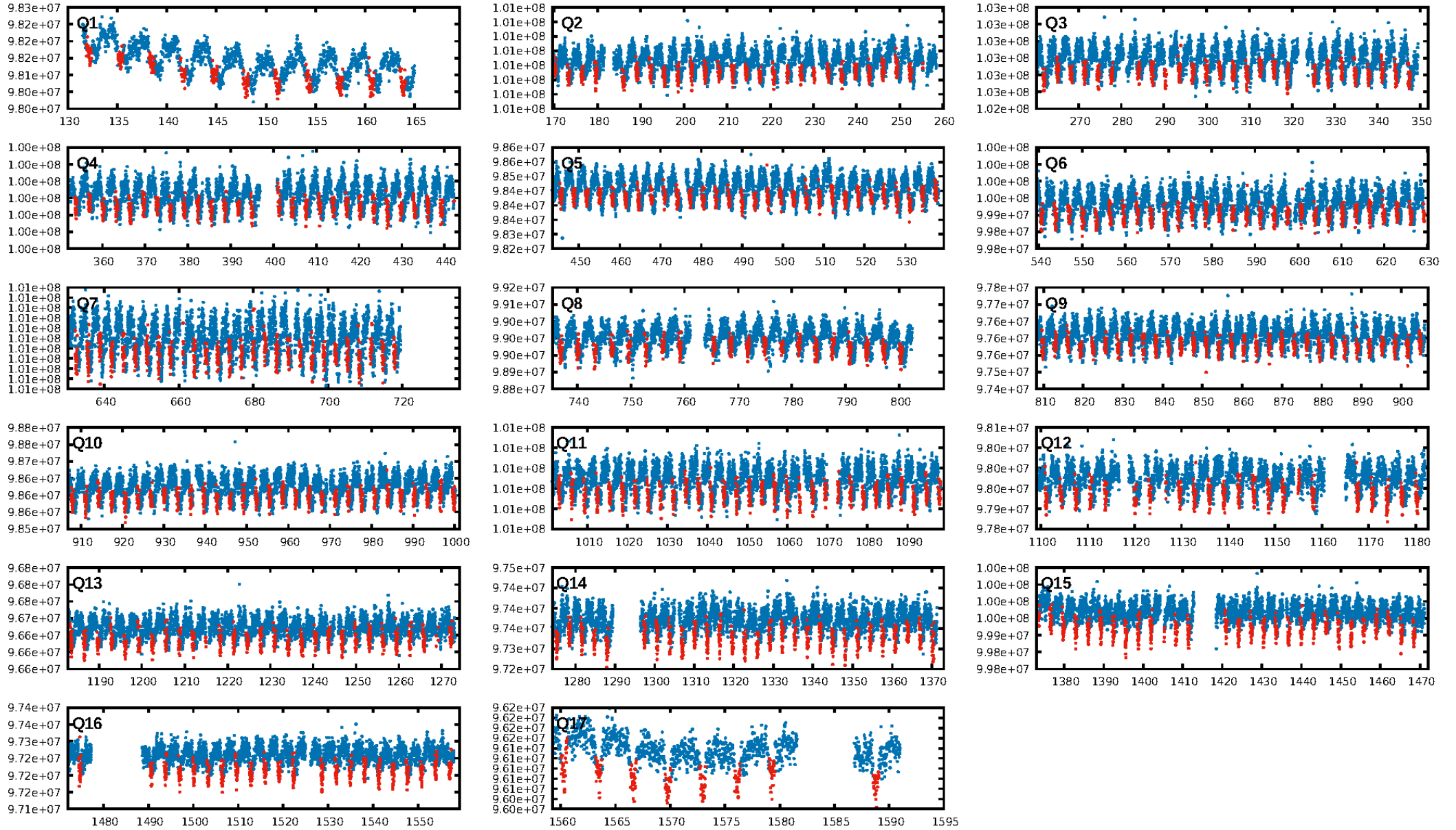
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.60e-19
RollingBand-fgt: 1.00 [405/405]
GhostDiagnostic-chr: 0.685
Centroid-sig: 0.0%
Centroid-so: 3.448 arcsec [3.70σ]
OotOffset-rm: 0.116 arcsec [0.84σ]
KicOffset-rm: 0.089 arcsec [0.60σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

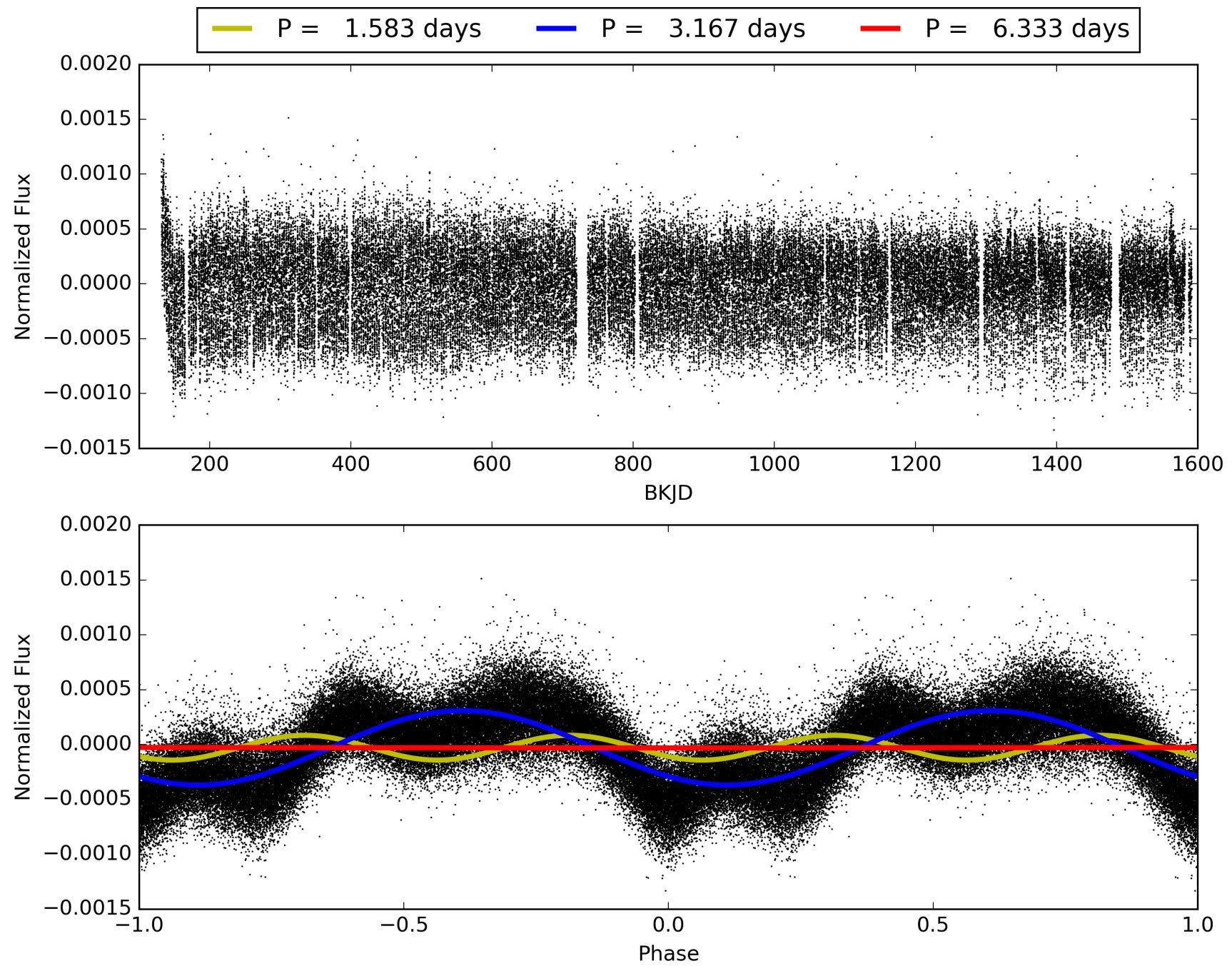
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 21:43:35 Z

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

TCE 007773209-01, PDC Light Curves

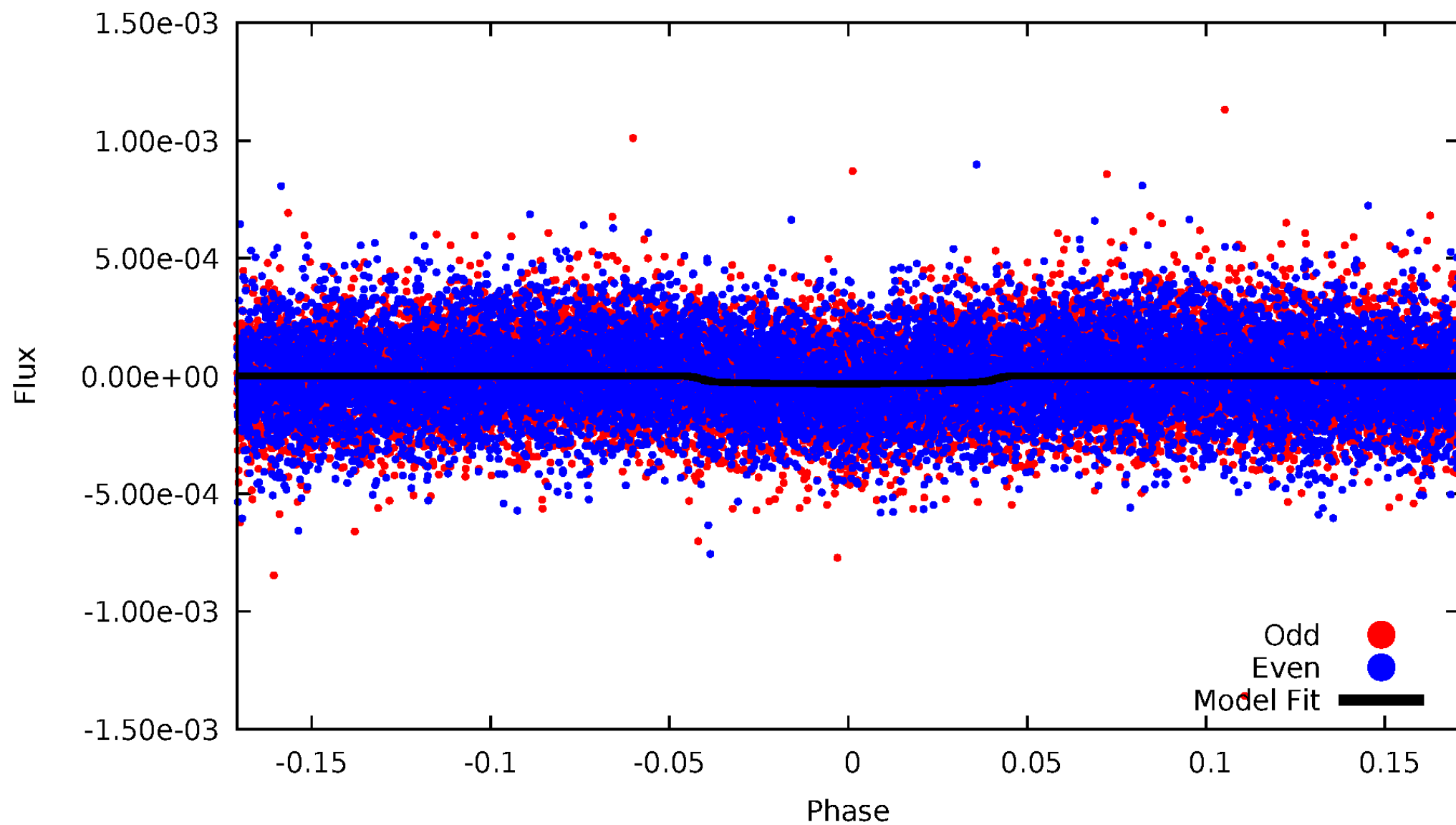


TCE 007773209-01



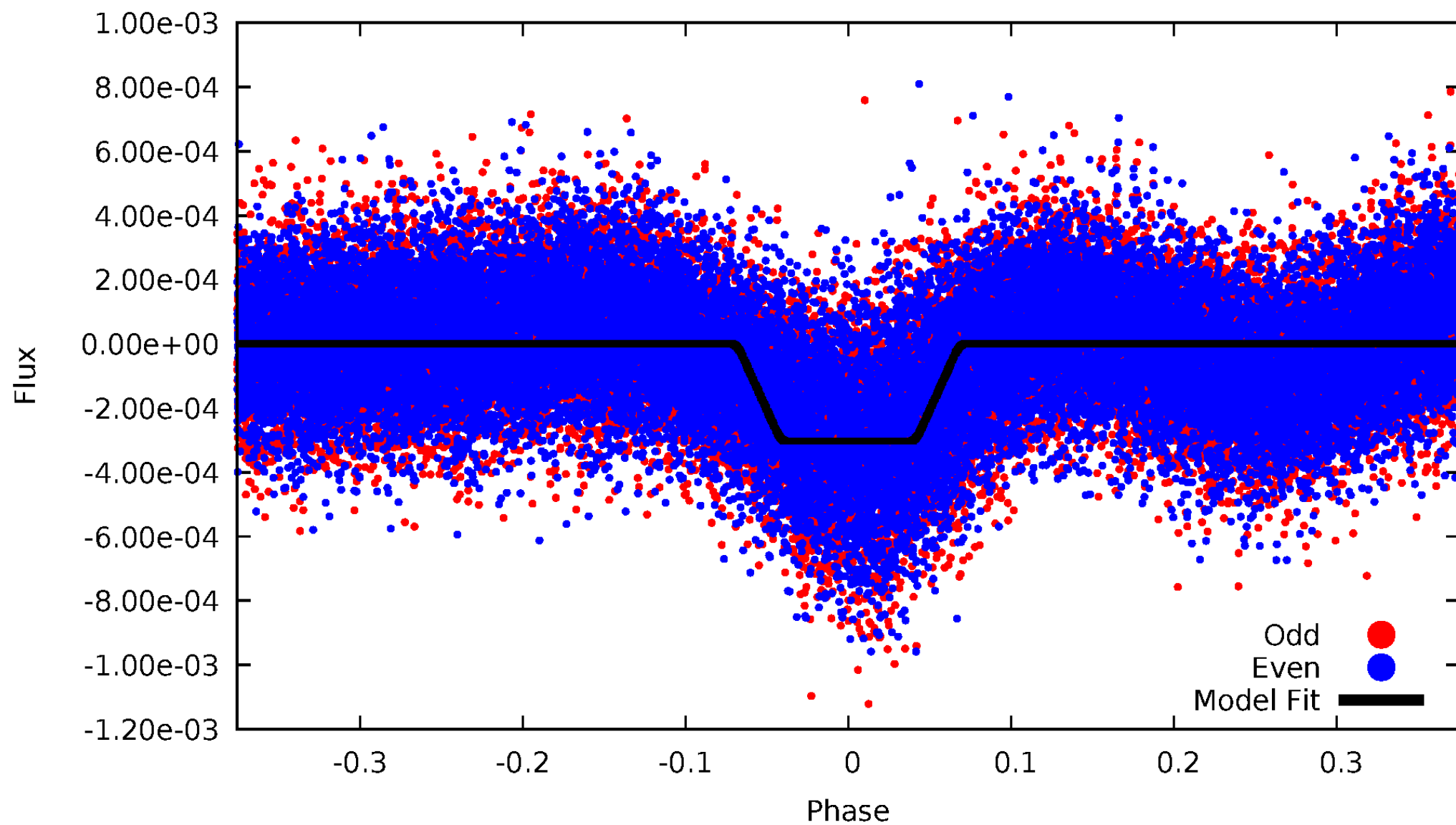
DV Odd/Even

TCE 007773209-01

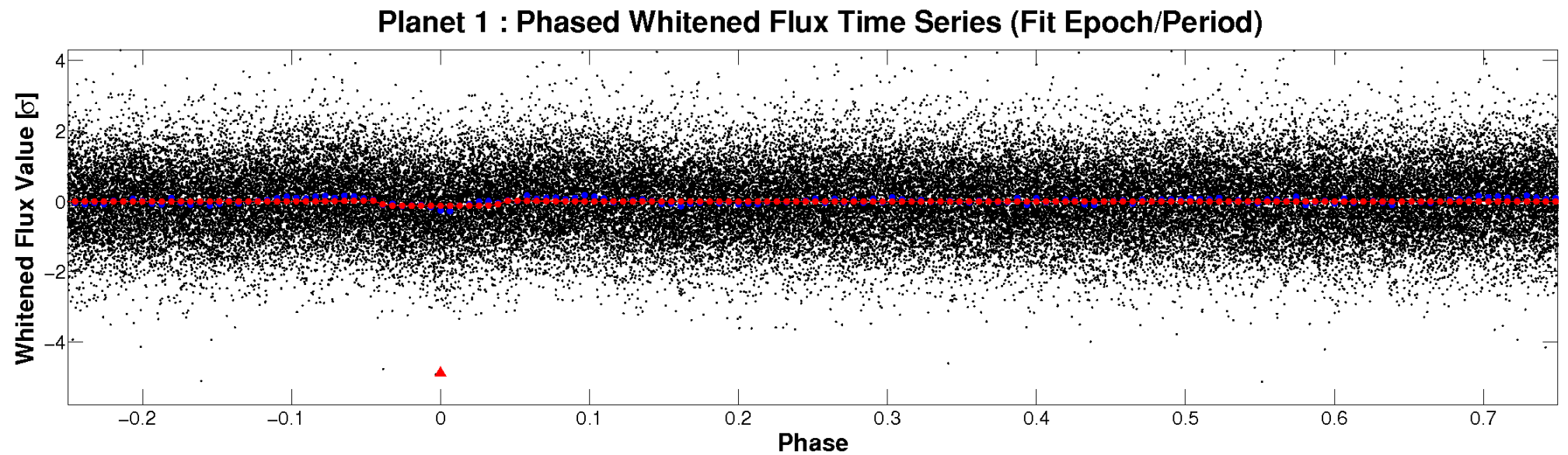
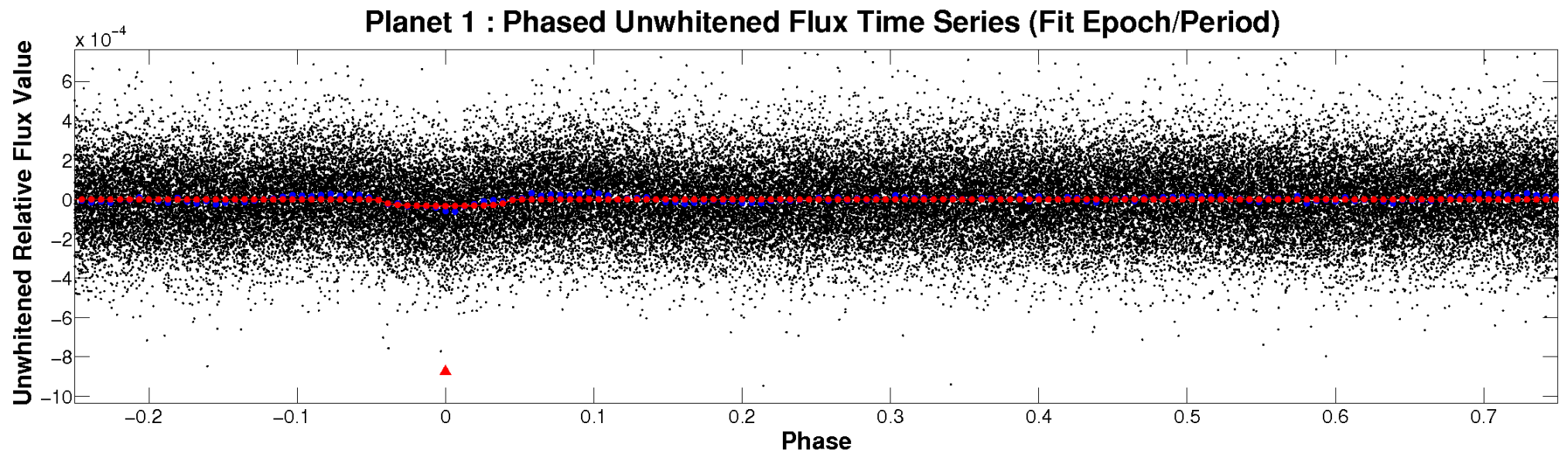


ALT Odd/Even

TCE 007773209-01

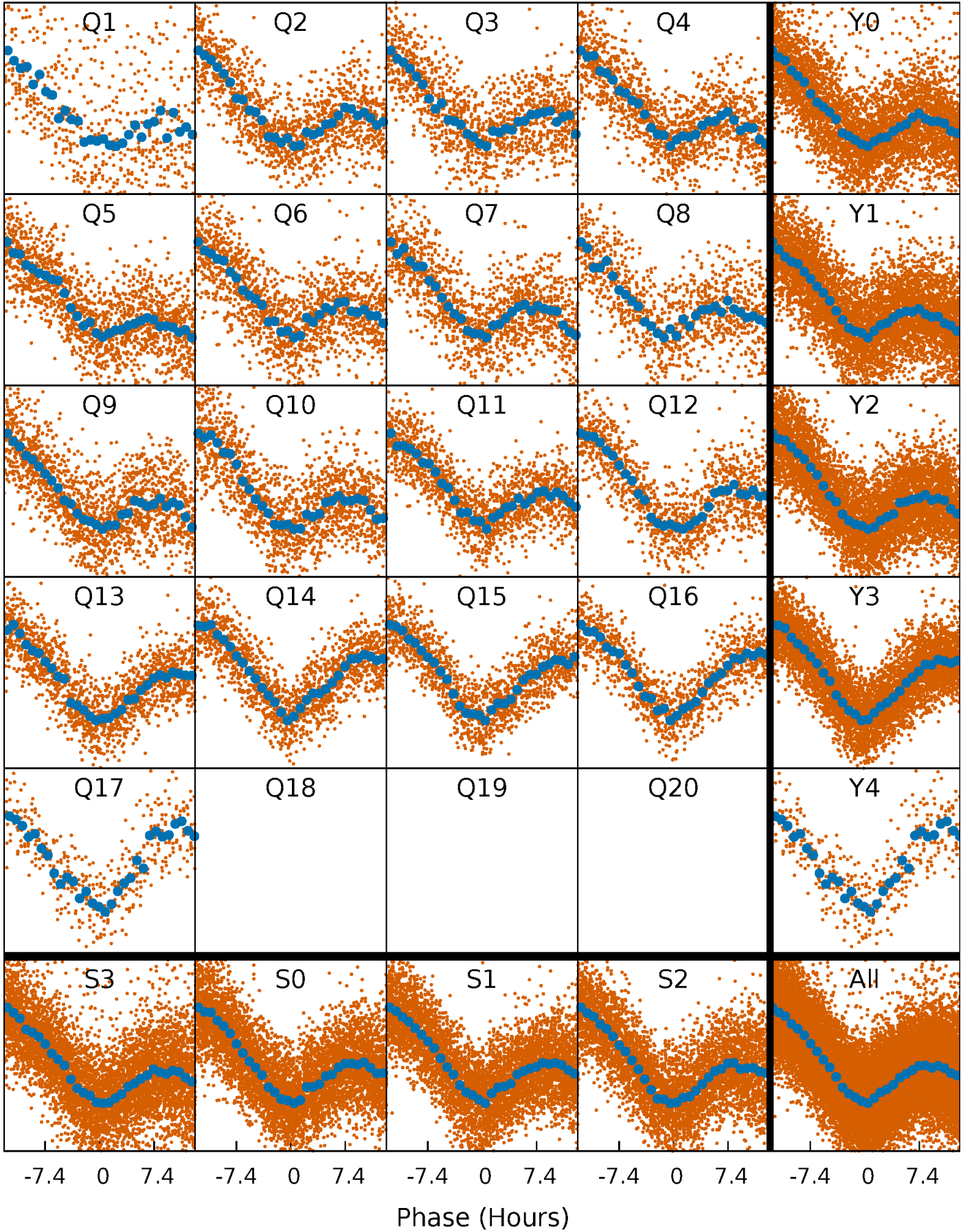


Non-Whitened Vs. Whitened Light Curve



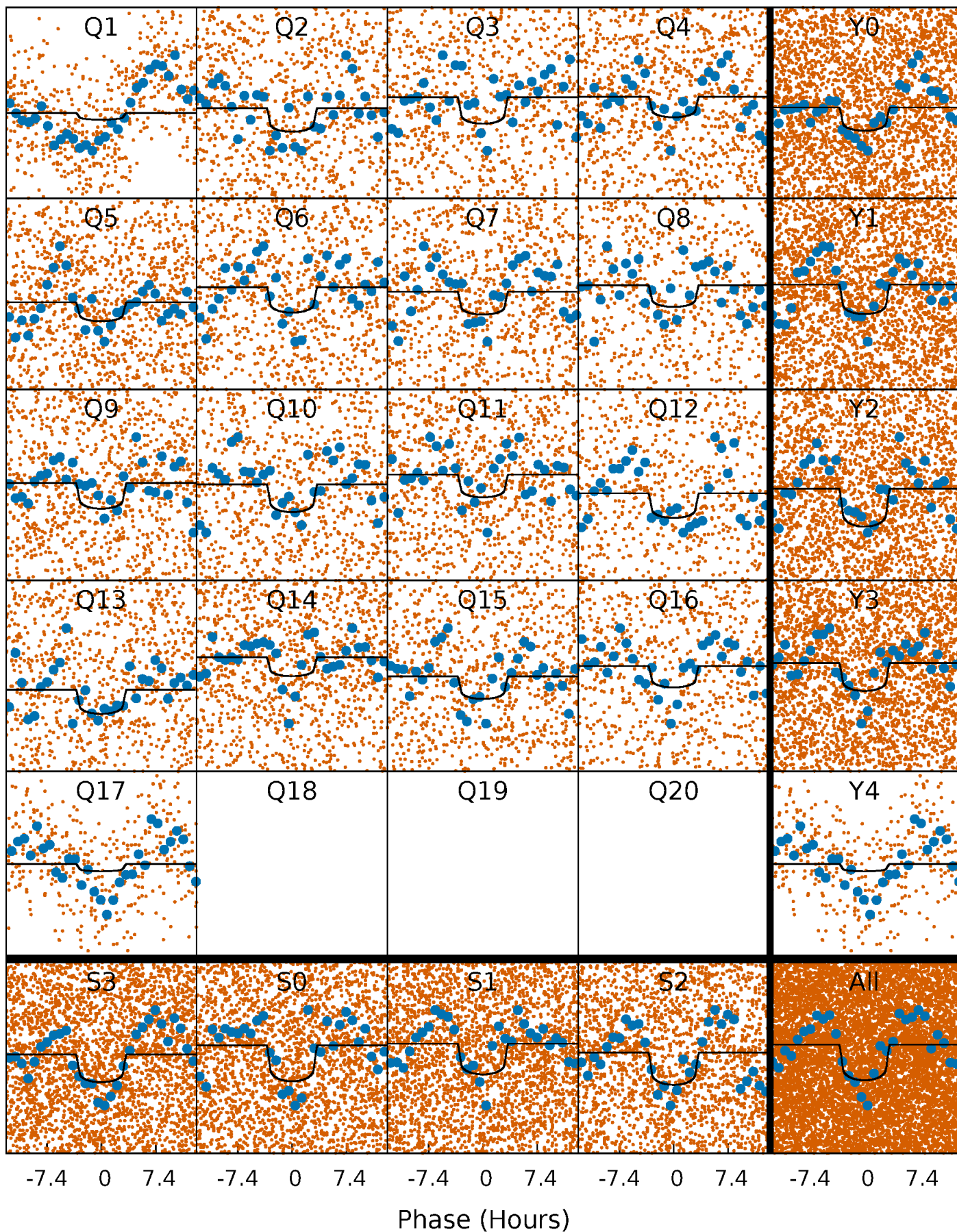
PDC Quarter-Phased Transit Curves

TCE 007773209-01 P= 3.166681 Days $T_0=132.130598$ (BKJD)



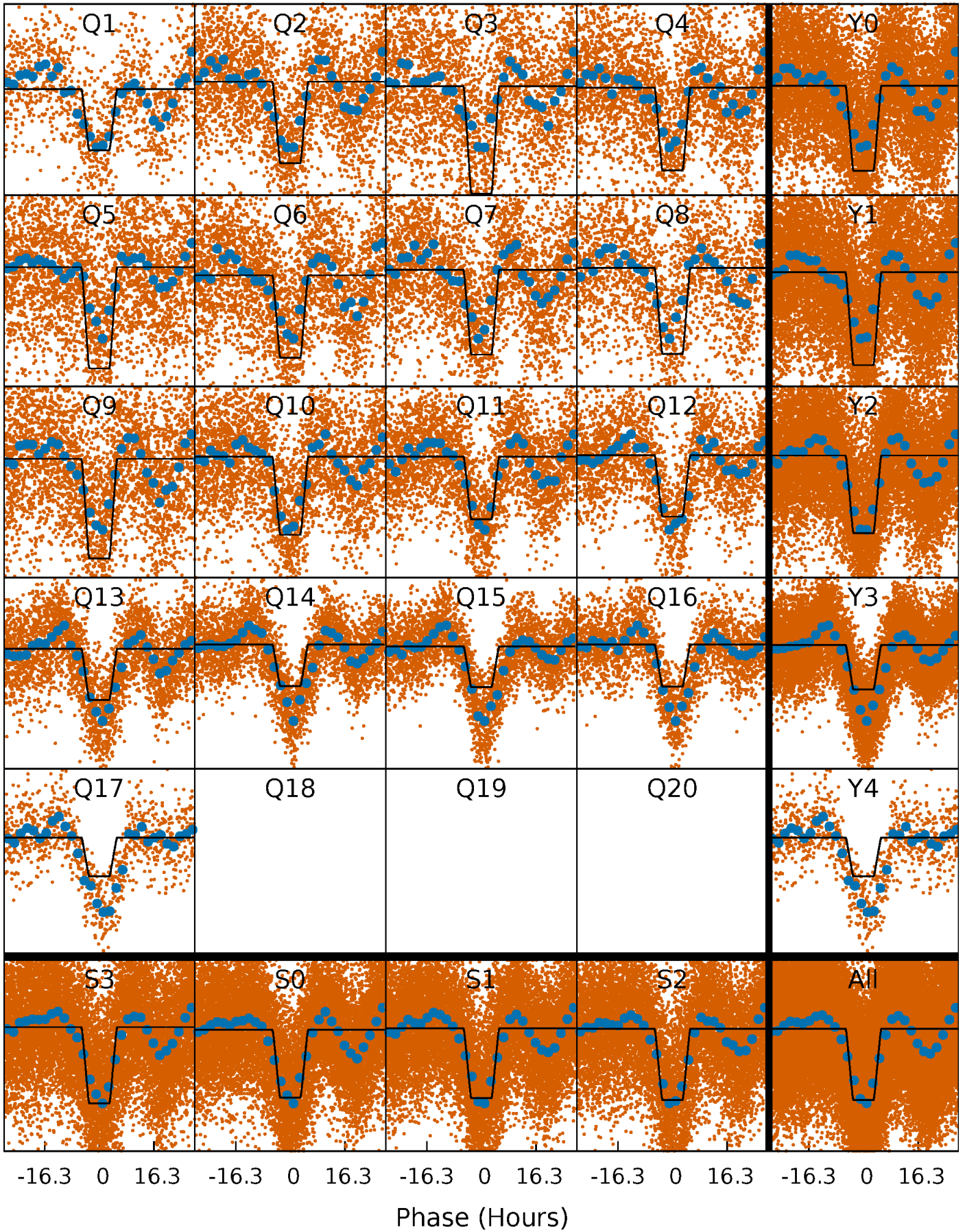
DV Quarter-Phased Transit Curves

TCE 007773209-01 P= 3.166681 Days $T_0=132.130598$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

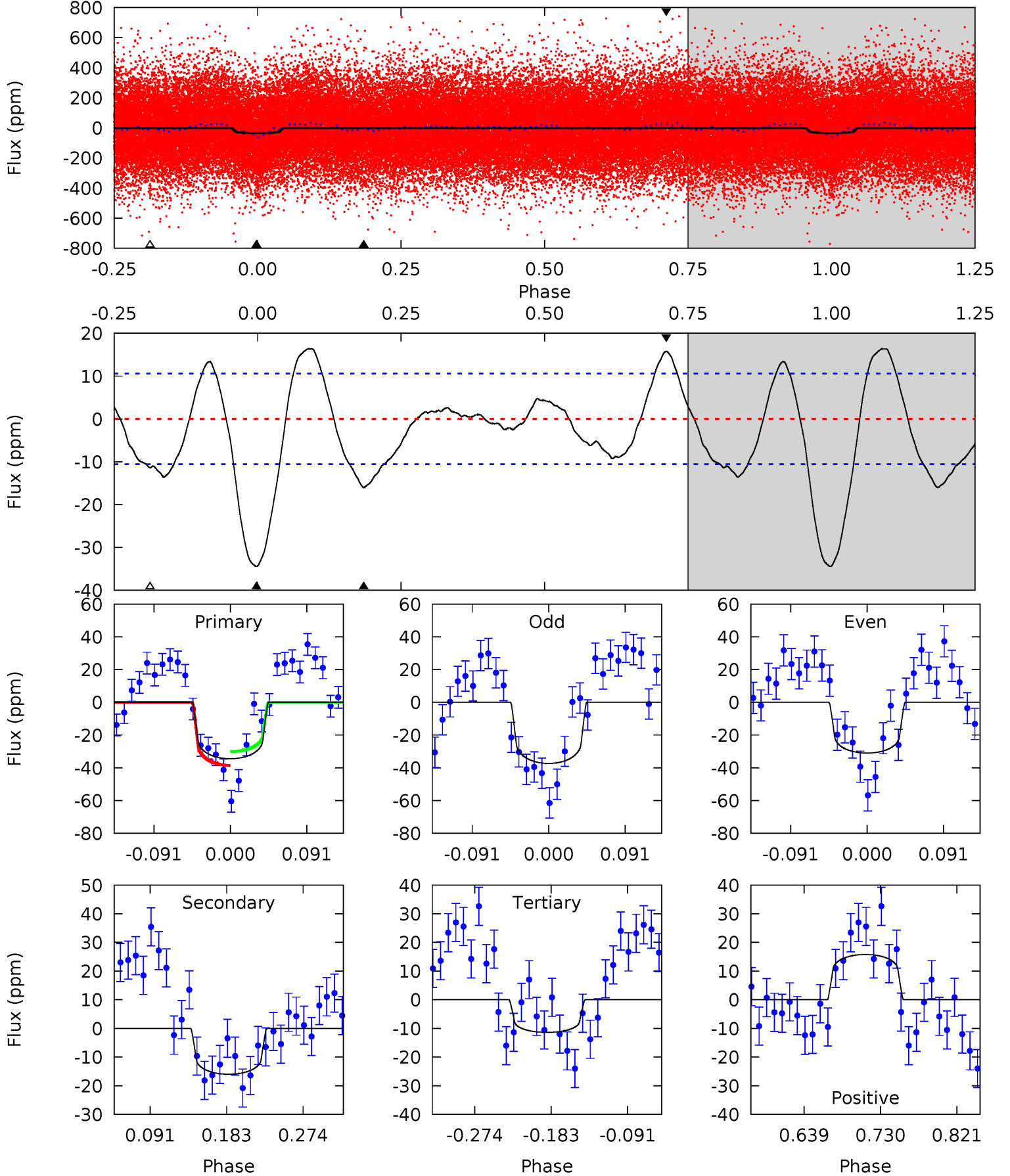
TCE 007773209-01 P= 3.166548 Days $T_0=132.125797$ (BKJD)



DV Model-Shift Uniqueness Test

007773209-01, P = 3.166681 Days, E = 128.963917 Days

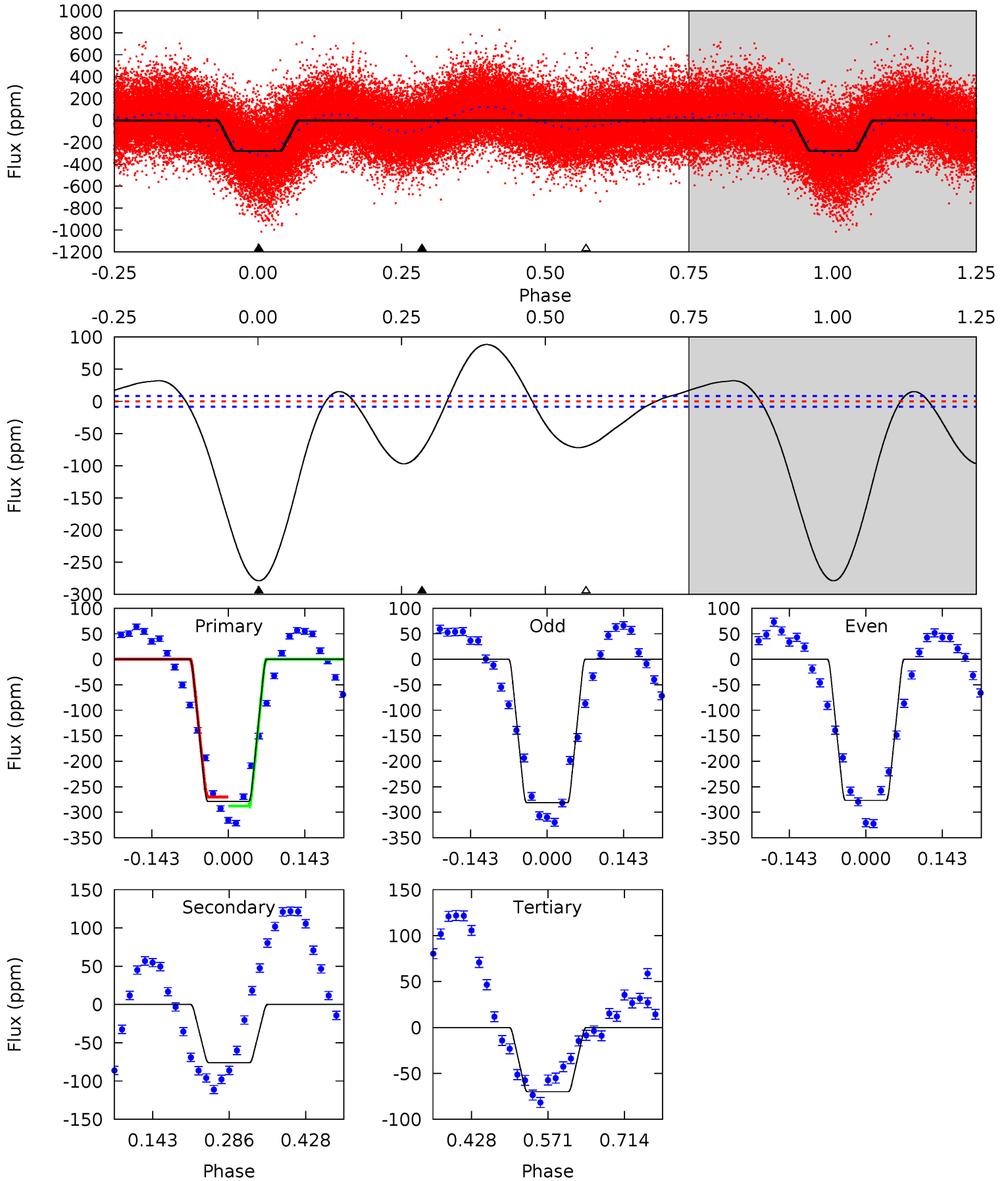
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	6.93	4.94	6.85	4.58	1.69	2.92	10.0	8.09	2.00	0.09	1.37	0.99	0.32	1.83



Alt Model-Shift Uniqueness Test

007773209-01, P = 3.166548 Days, E = 128.959249 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
151.9	41.4	38.1	0	4.49	1.47	21.1	113.8	151.9	3.28	41.4	1.18	1.07	0.24	4.85



Stellar Parameters For KIC 007773209

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6335^{+233}_{-213}	$3.495^{+0.376}_{-0.094}$	$-0.340^{+0.350}_{-0.300}$	$3.763^{+0.653}_{-1.524}$	$1.616^{+0.213}_{-0.426}$	$0.043^{+0.132}_{-0.012}$
	+4%/-3%	+11%/-3%	+103%/-88%	+17%/-40%	+13%/-26%	+308%/-29%
Source	PHO1	FLK73	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 007773209-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 2	$2.27^{+0.99}_{-0.76}$	3324^{+219}_{-343}	5132^{+1000}_{-681}	$4.212^{+4.784}_{-2.128}$
Alt.	-76 ± 2	$6.76^{+1.25}_{-1.56}$	3317^{+230}_{-325}	4515^{+277}_{-238}	$2.282^{+1.303}_{-0.654}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

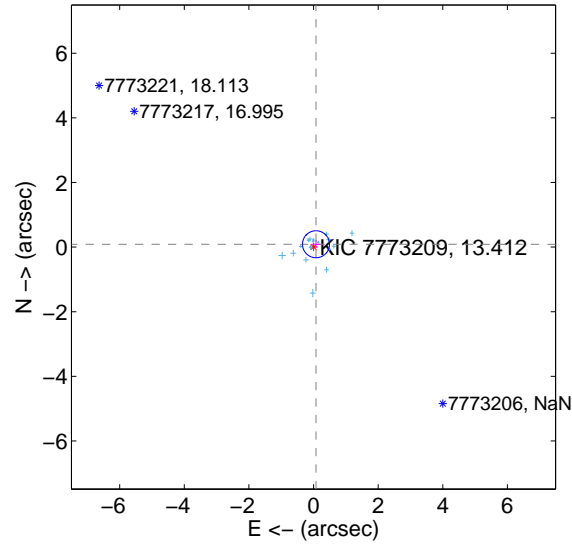
Supplemental centroid analysis for 007773209-01. Kepler magnitude: 13.41. Transit SNR 8.46

There are 17 quarters with good PRF difference image offsets

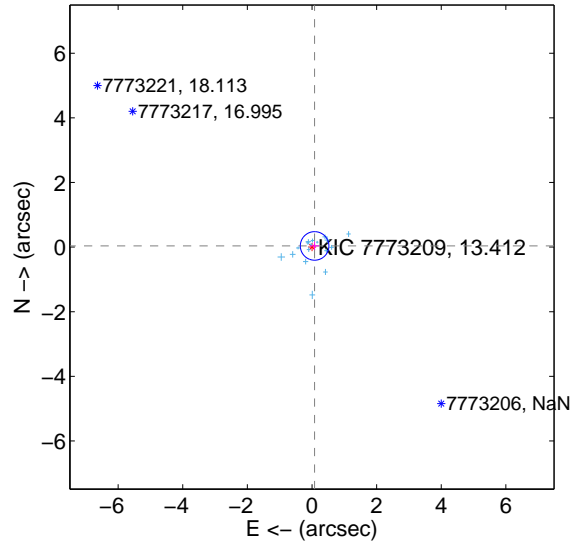
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.116 ± 0.139	0.84	-0.076 ± 0.129	0.088 ± 0.123
PRF-fit source offset from KIC position	0.089 ± 0.147	0.60	-0.081 ± 0.135	0.036 ± 0.130
photometric centroid source offset	3.45 ± 0.93	3.70	0.90 ± 0.86	3.33 ± 0.94

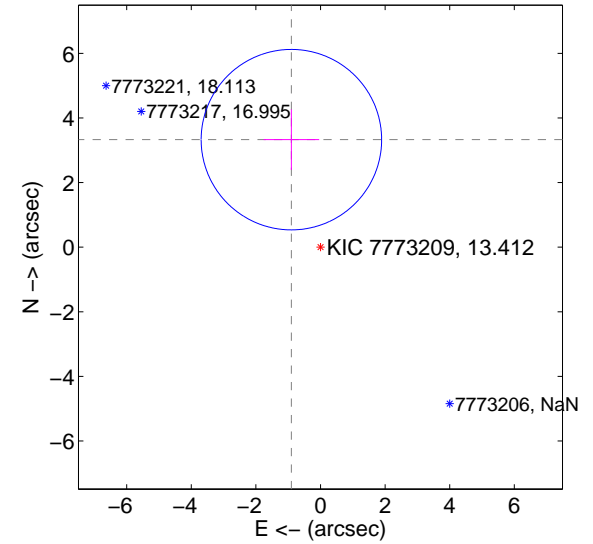
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

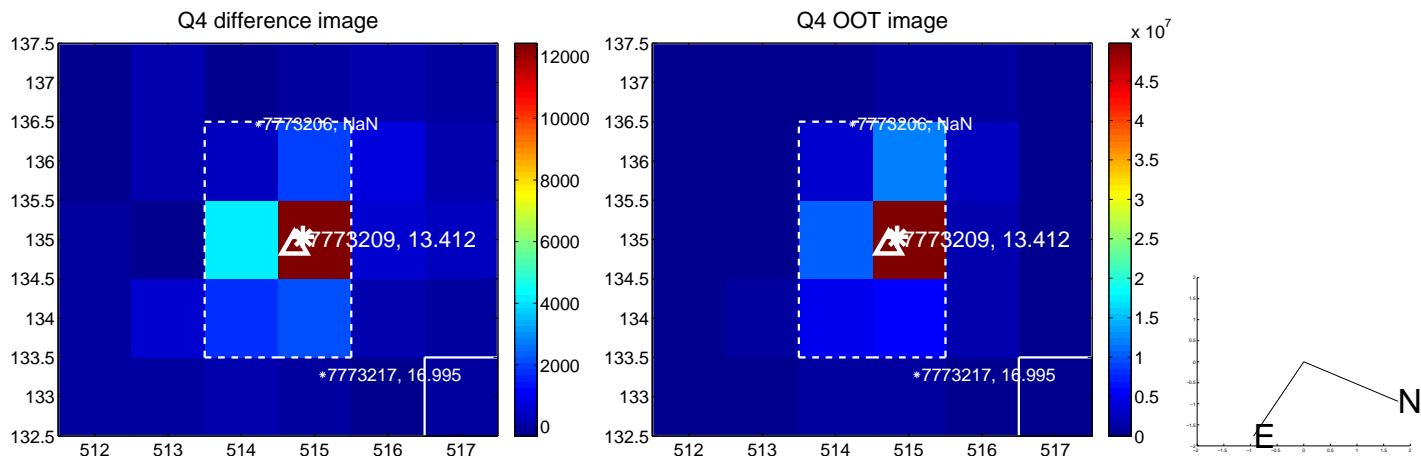
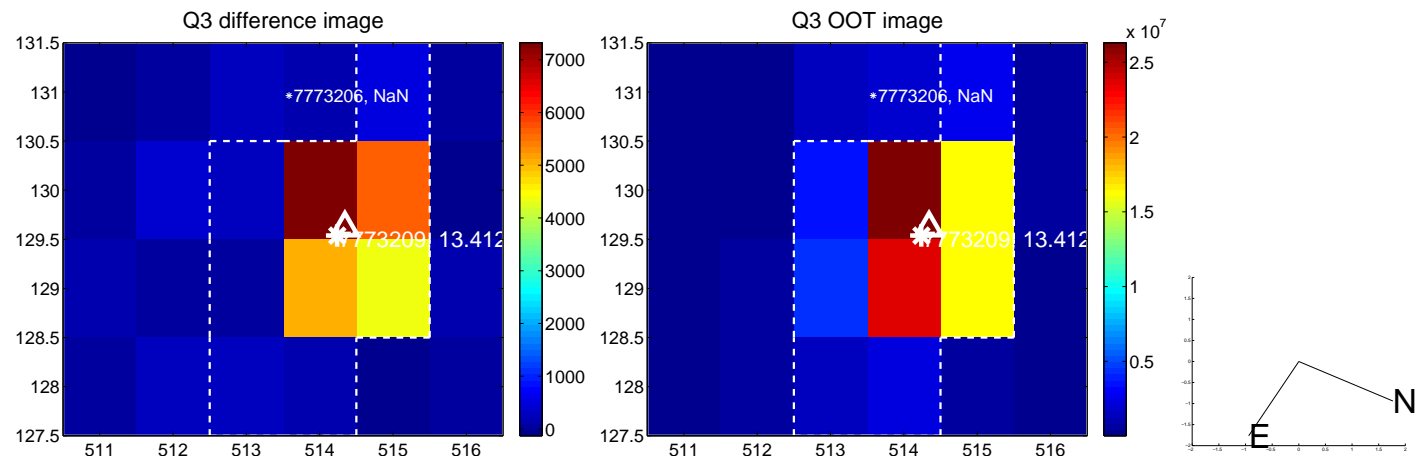
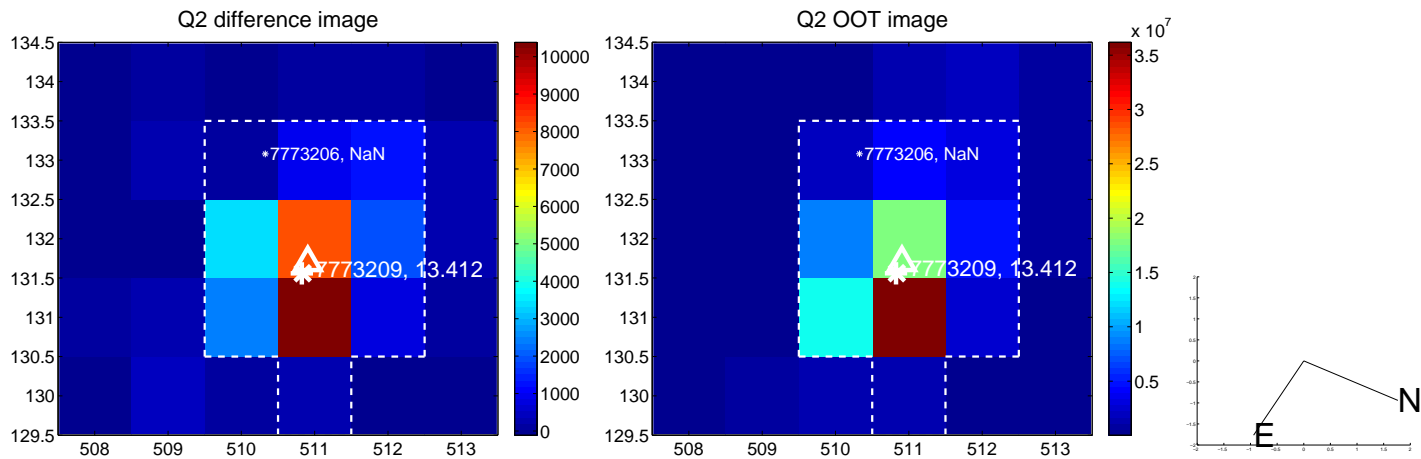
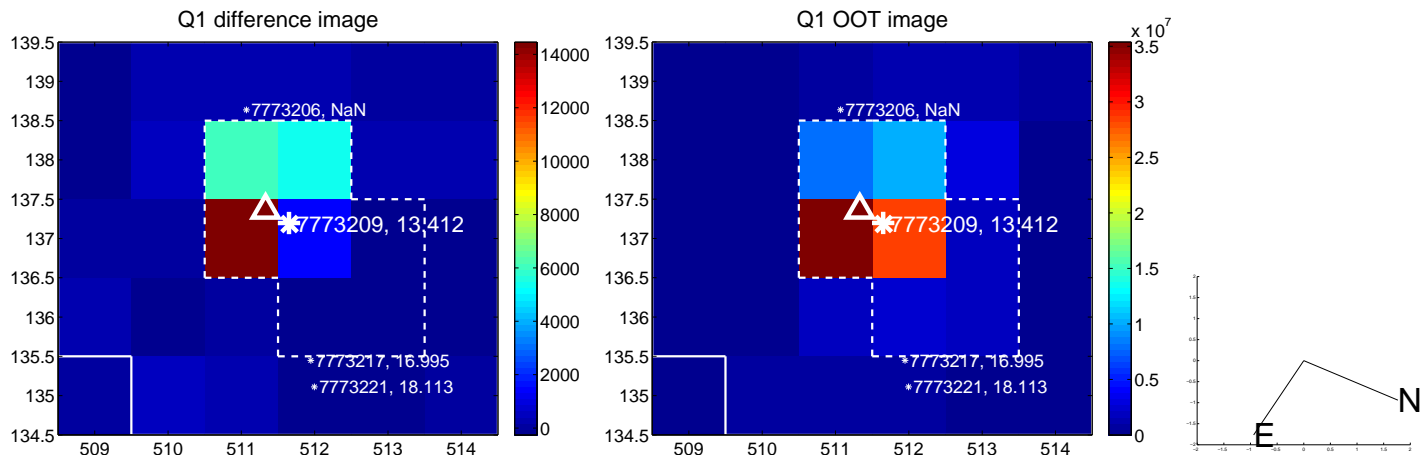


offset from photometric centroids

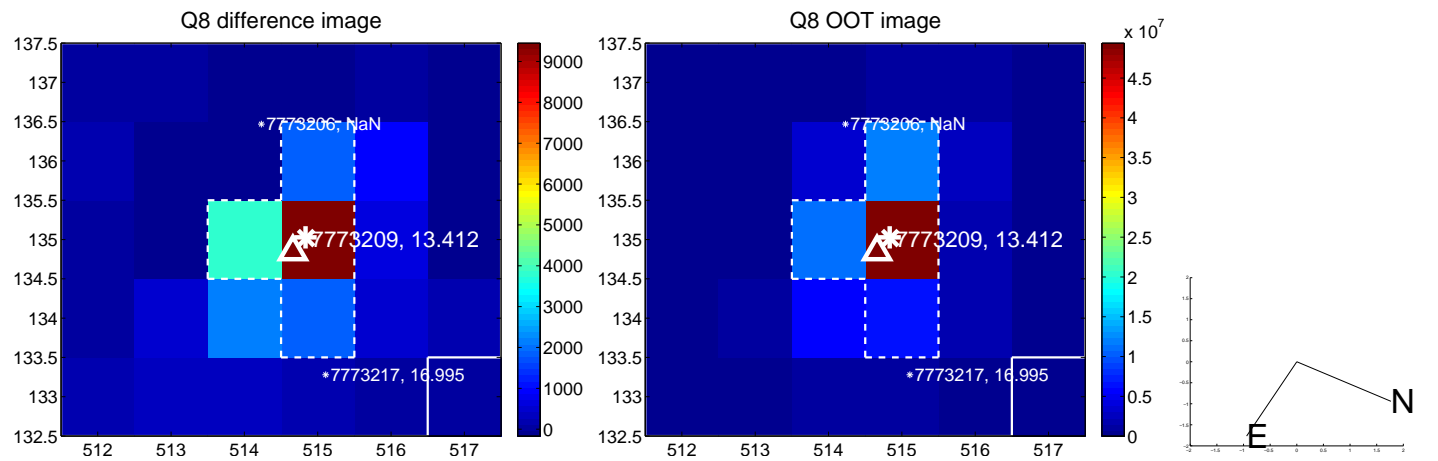
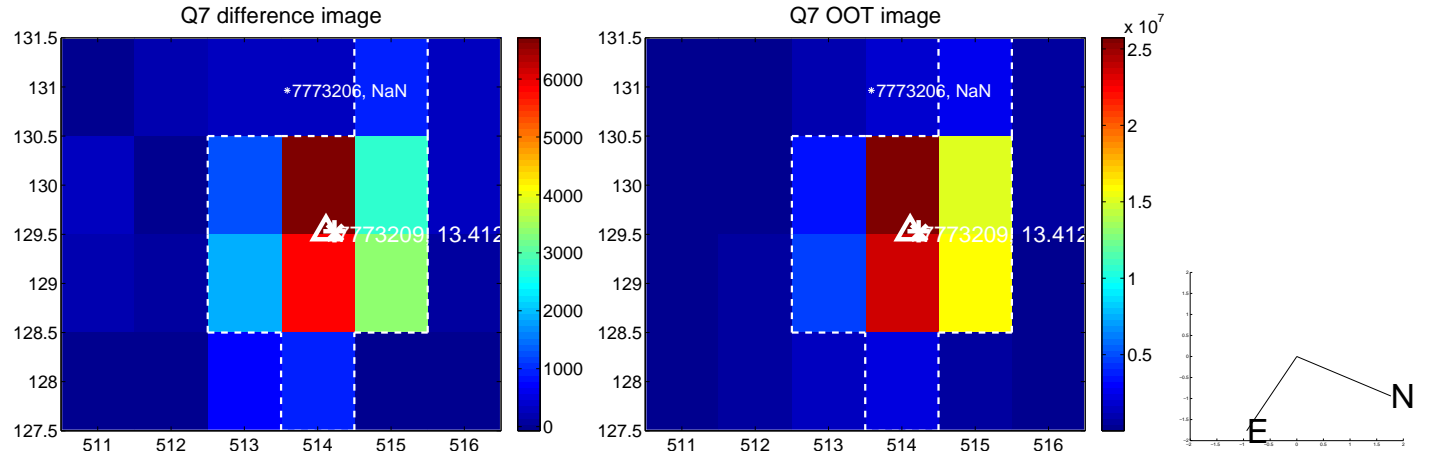
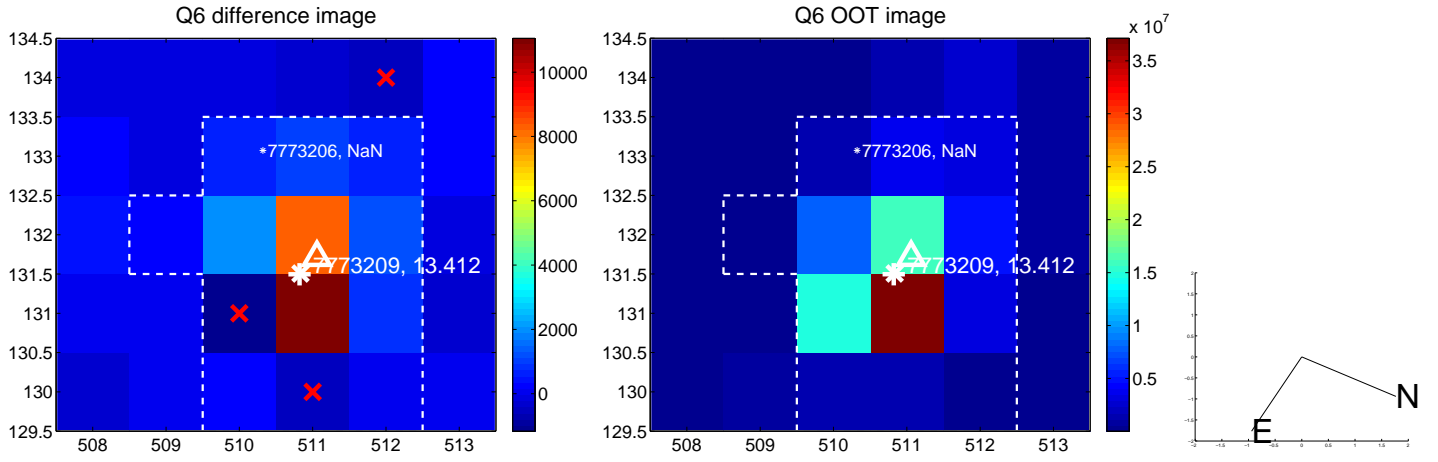
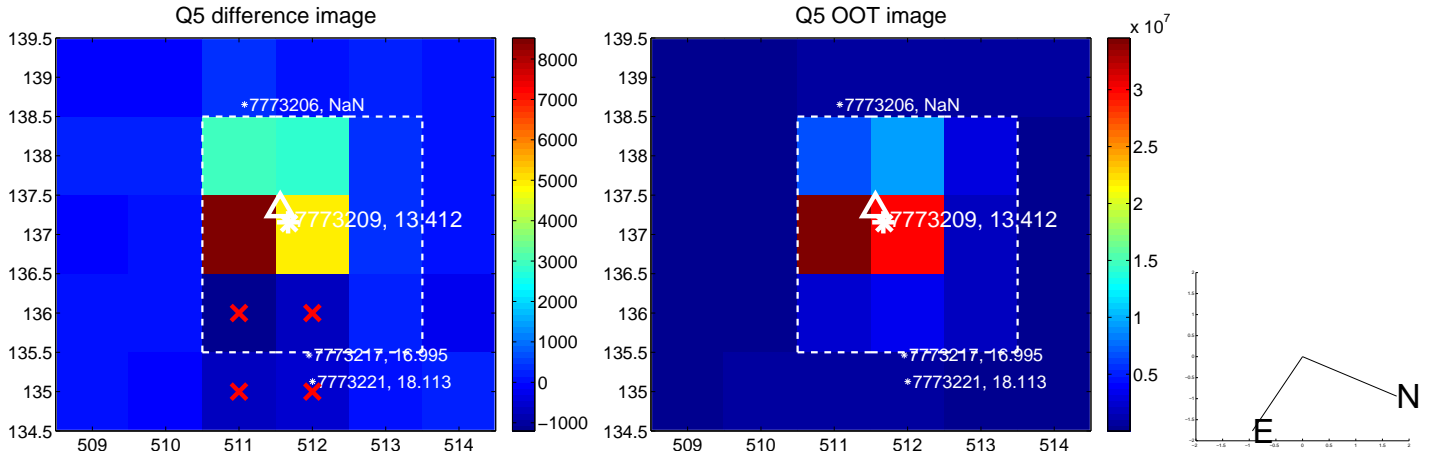


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

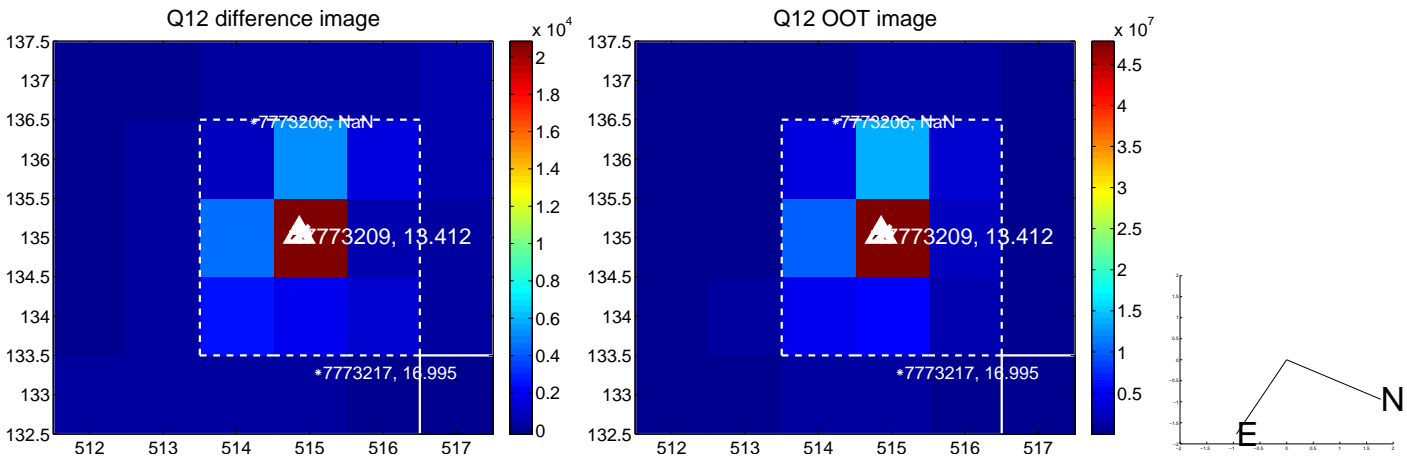
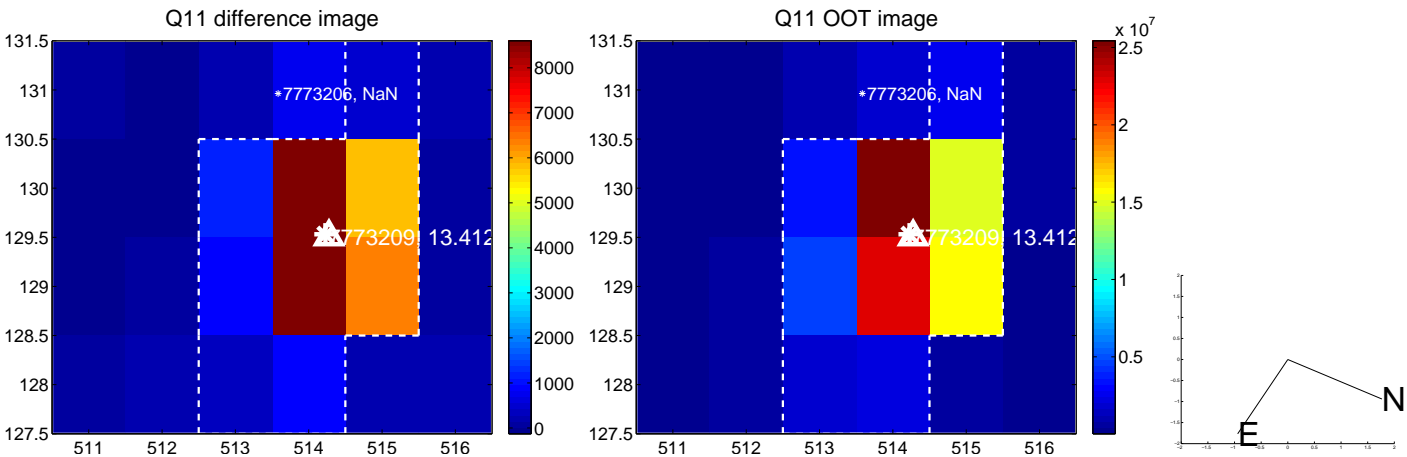
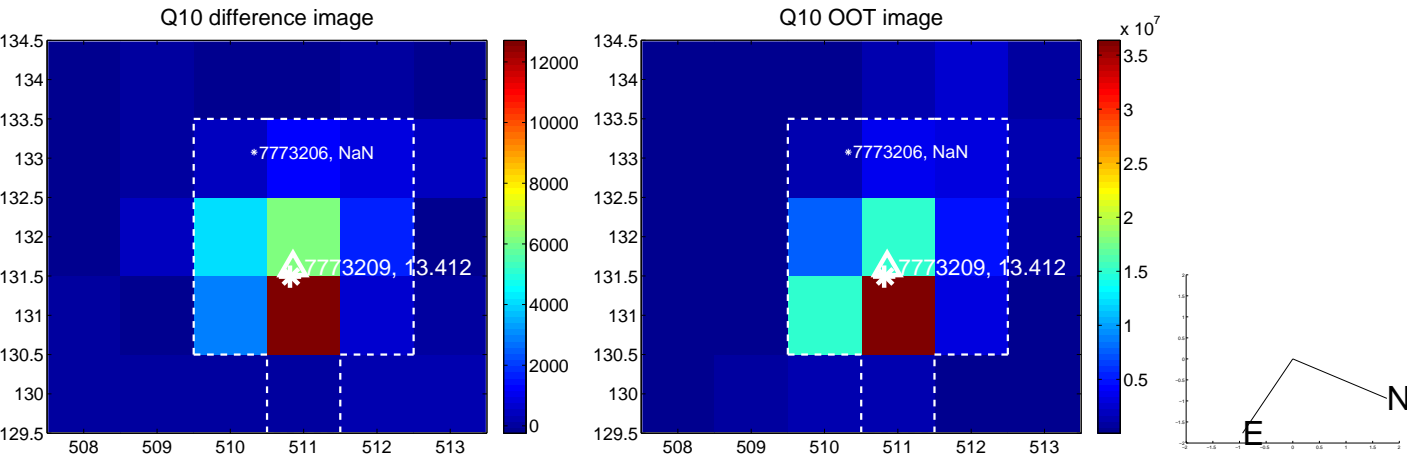
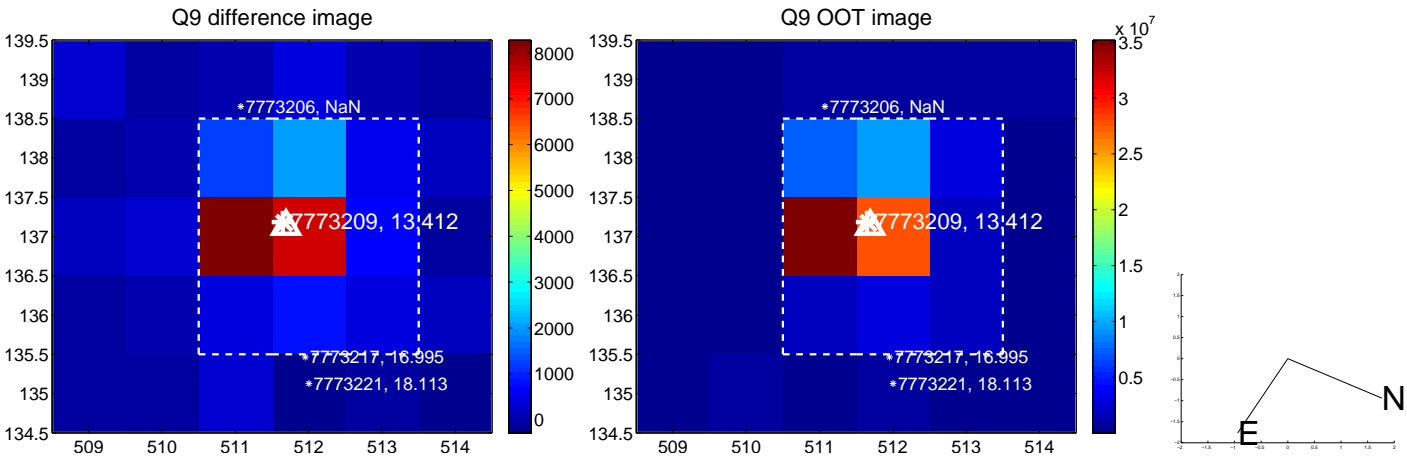
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



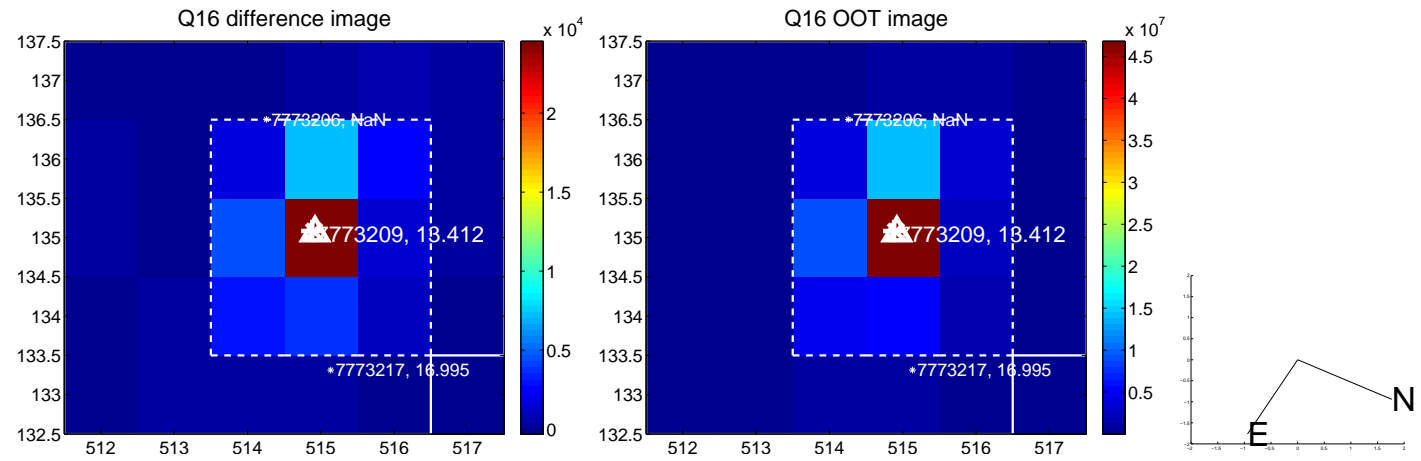
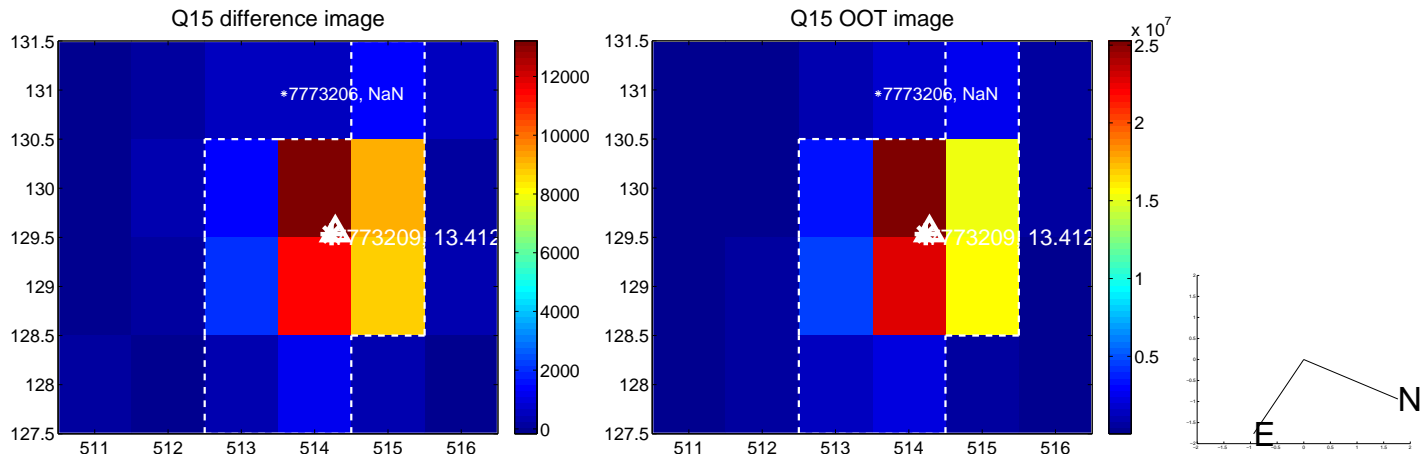
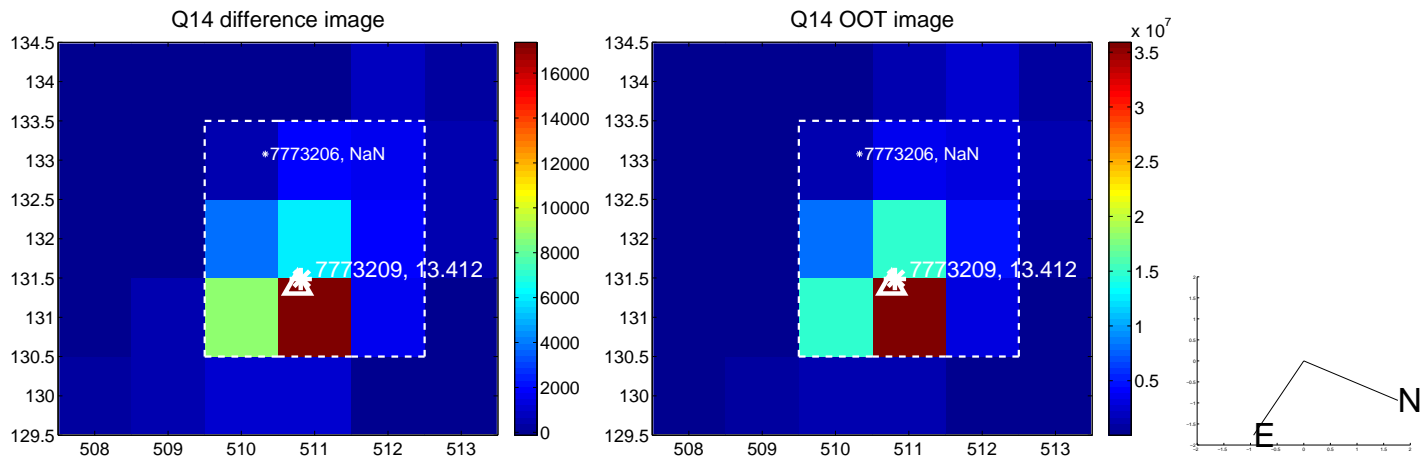
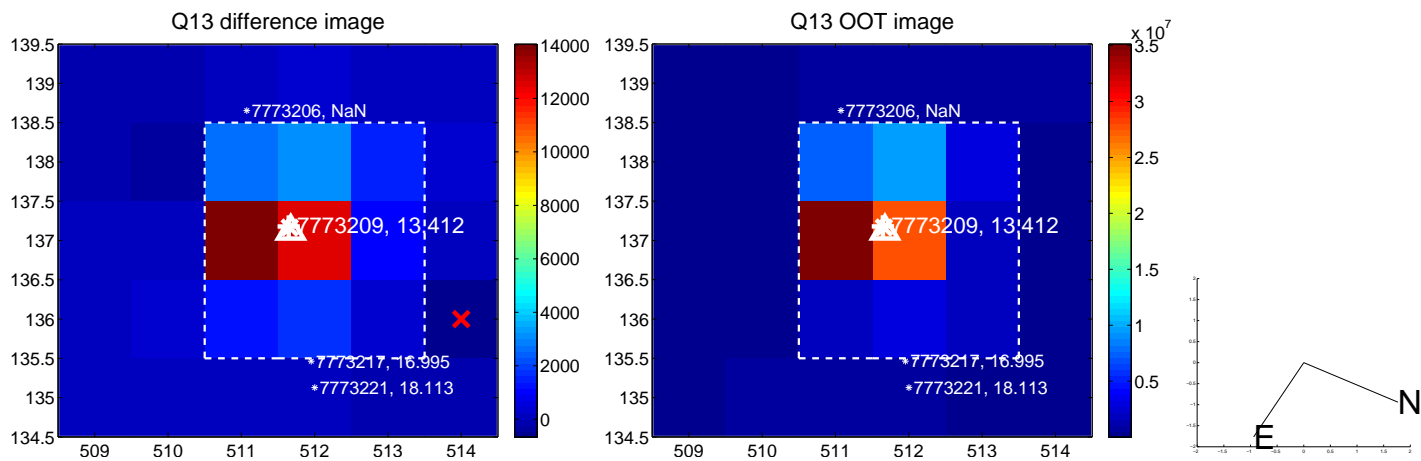
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



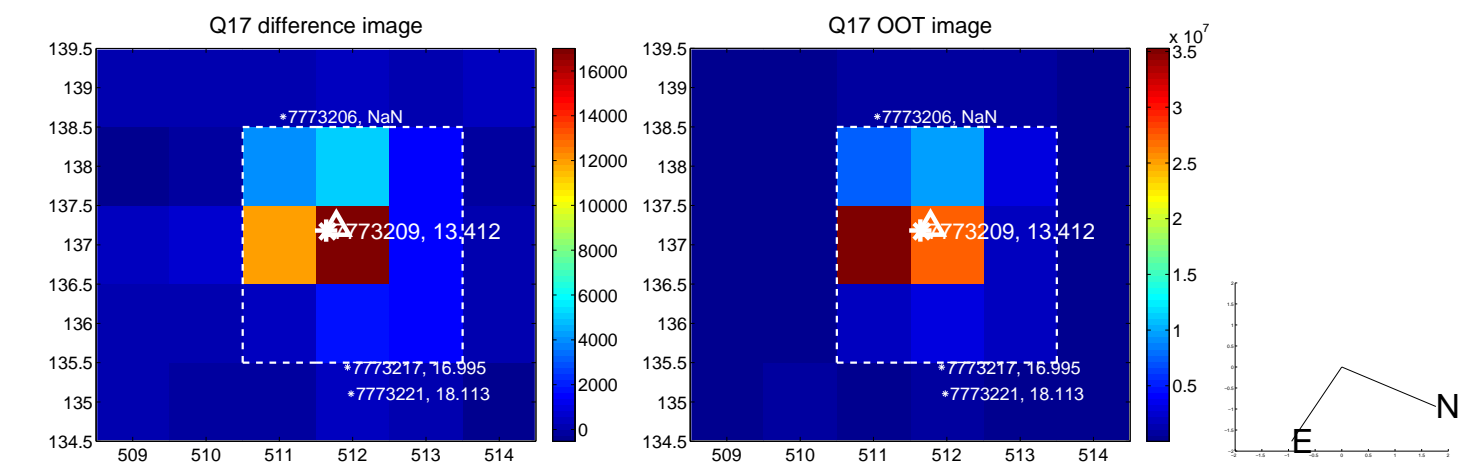
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



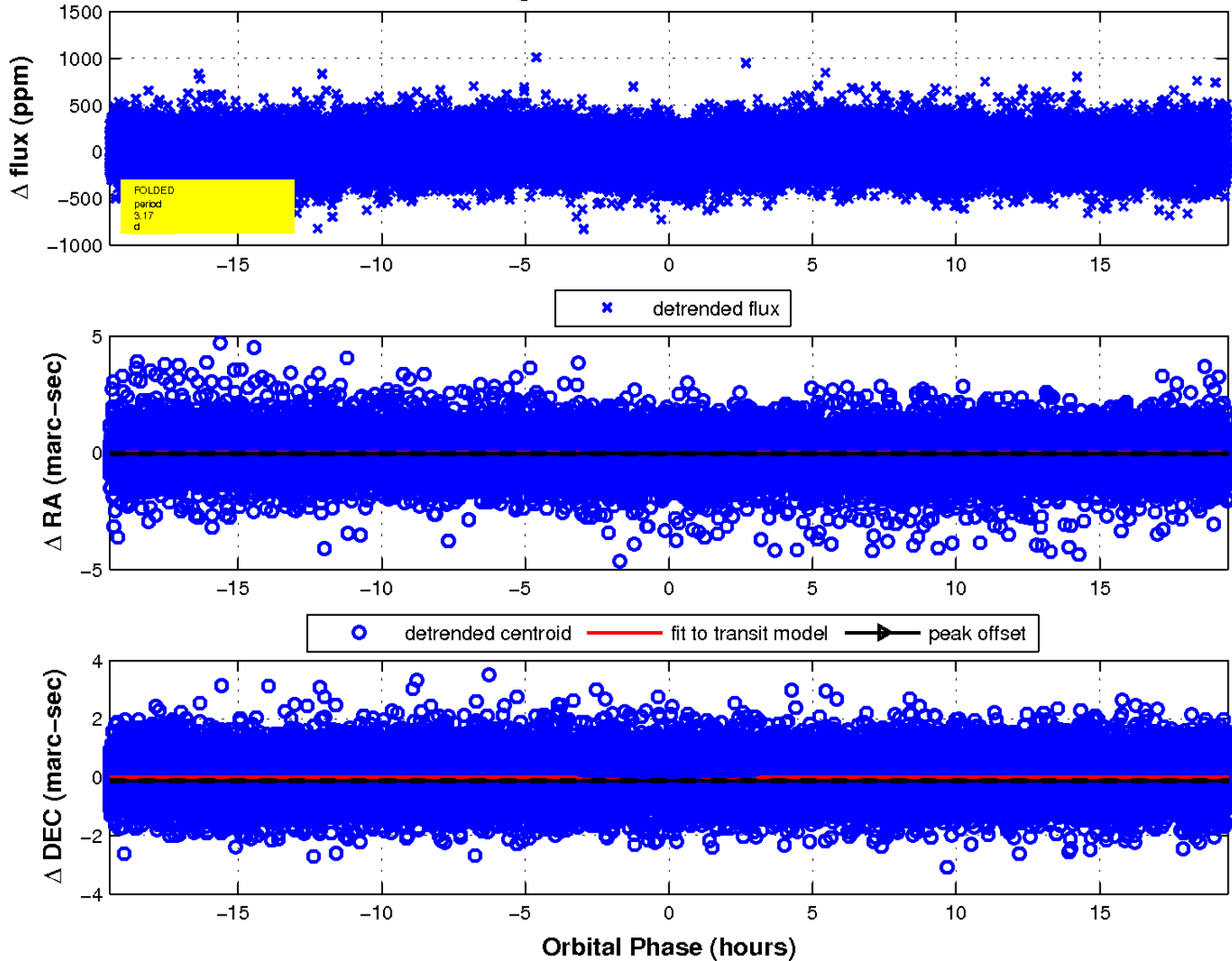
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

