

KIC 010551707

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})
010551707-01	OBS	No	7.358108	136.312565	453.9	29.996	14.3	18.7	1.27	6557	5.23	442.96

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010551707-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

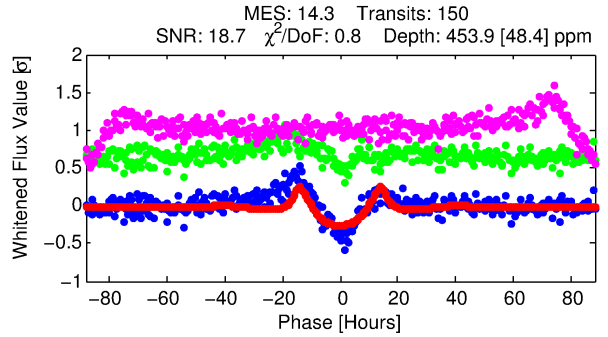
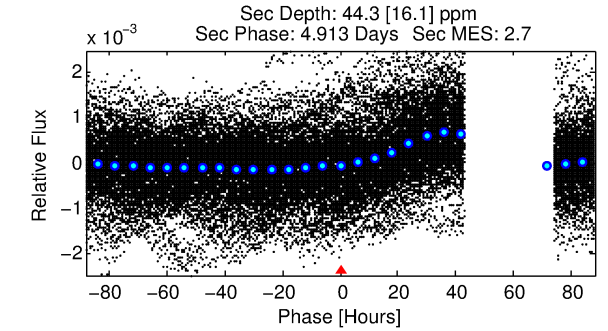
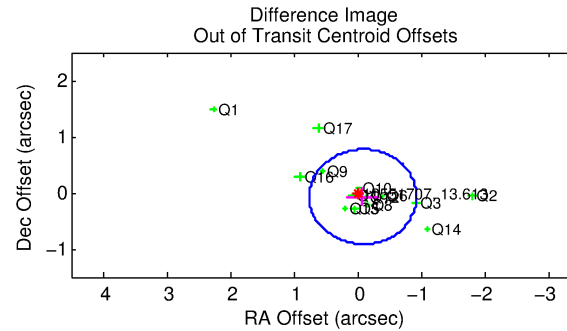
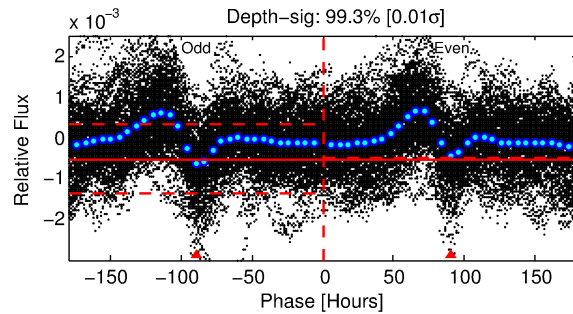
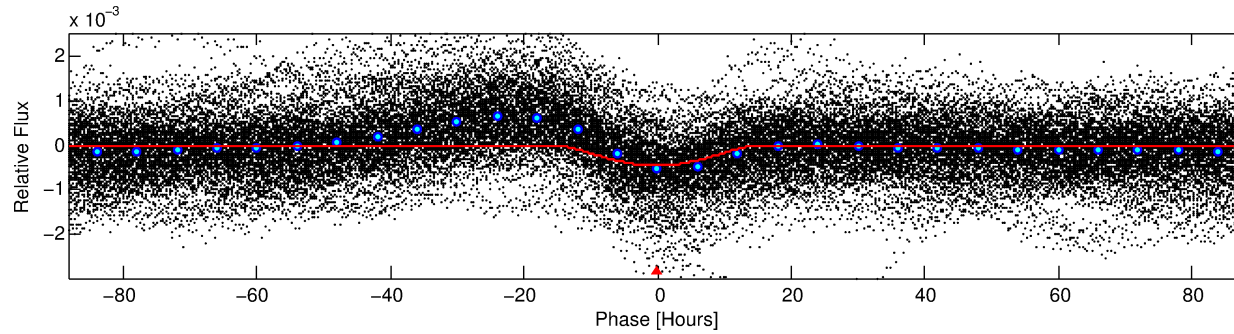
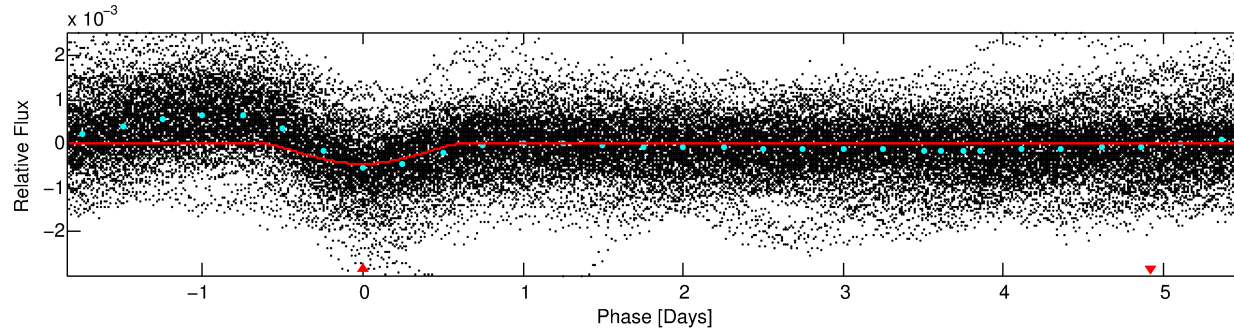
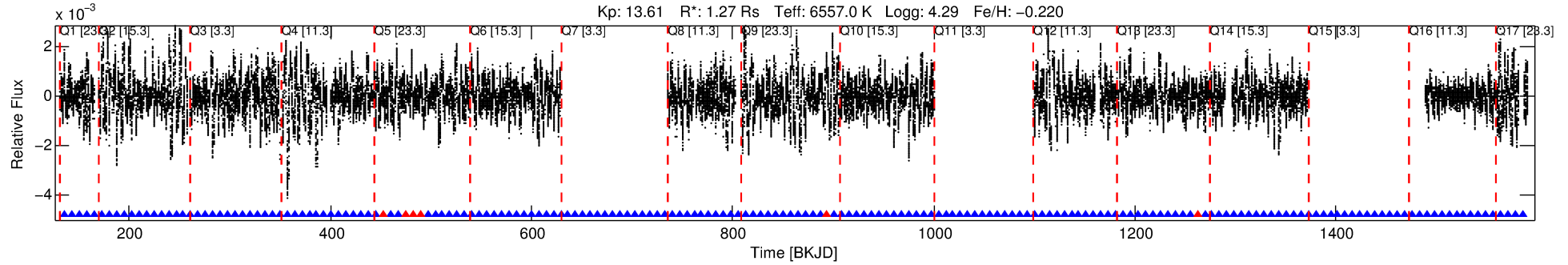
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010551707-01

No Significant Match Found

DV One-Page Summary

KIC: 10551707 Candidate: 1 of 1 Period: 7.358 d



DV Fit Results:

Period = 7.35811 [0.00015] d
Epoch = 136.3126 [0.0157] BKJD
Rp/R* = 0.0376 [0.0128]
a/R* = 1.14 [0.01]
b = 1.00 [0.02]
Seff = 442.96 [169.06]
Teq = 1170 [112] K
Rp = 5.23 [2.36] Re
a = 0.0780 [0.0193] AU
Ag = 5.41 [4.60] [0.96σ]
Teffp = 2759 [540] K [2.88σ]

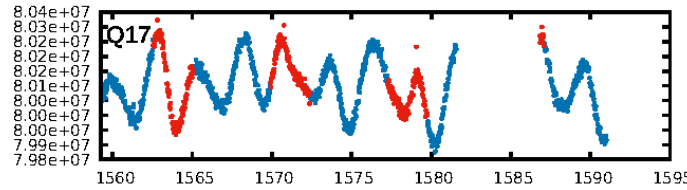
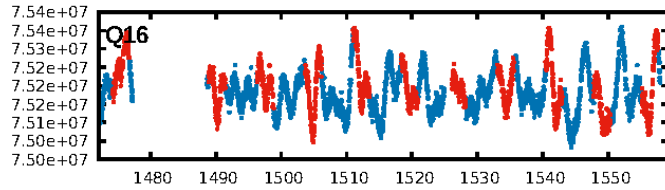
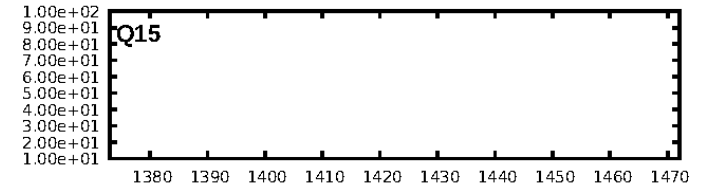
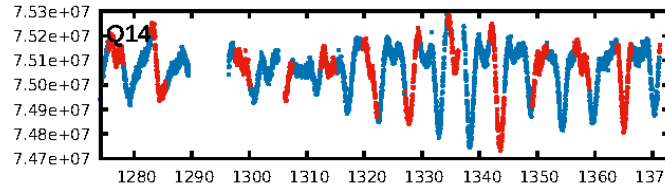
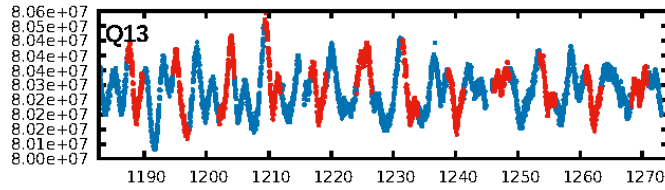
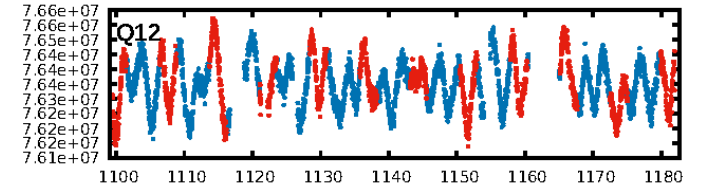
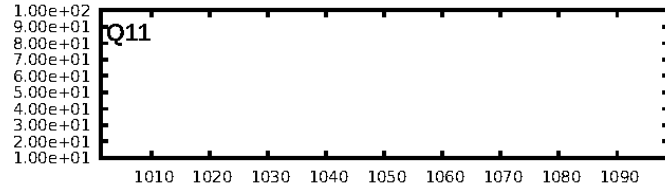
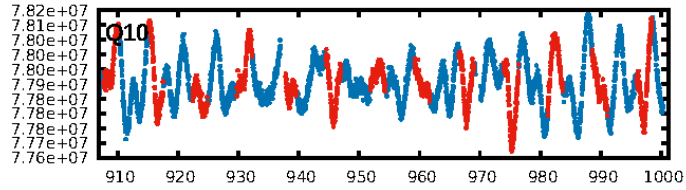
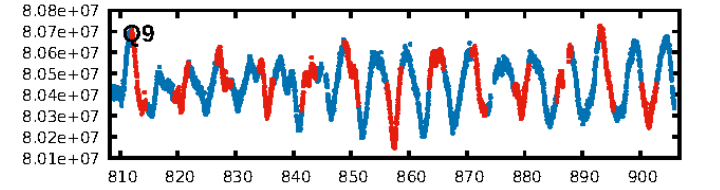
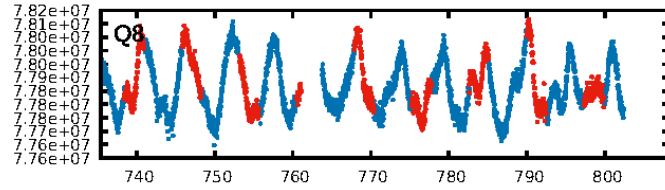
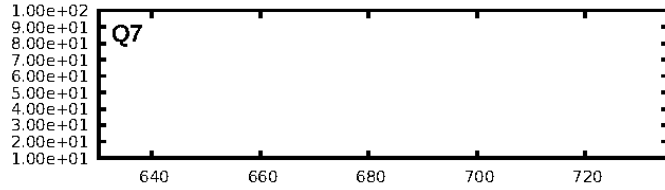
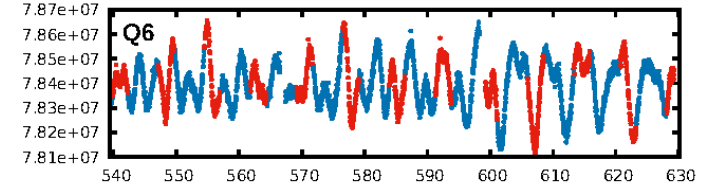
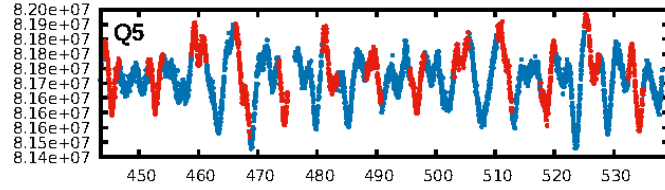
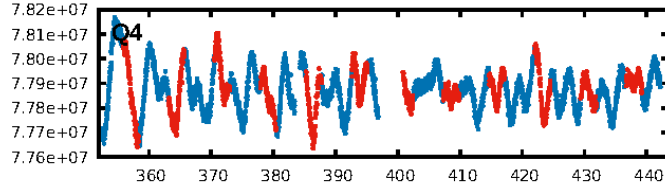
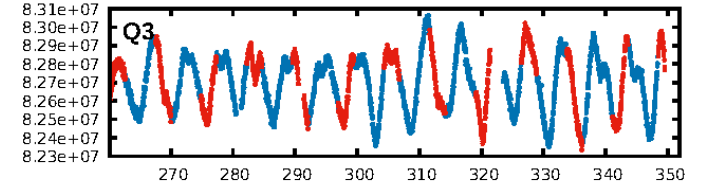
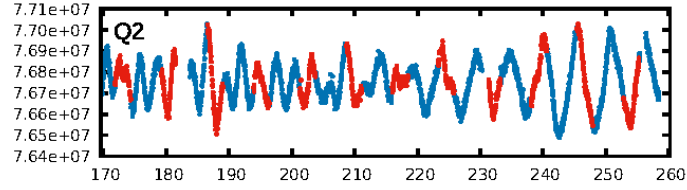
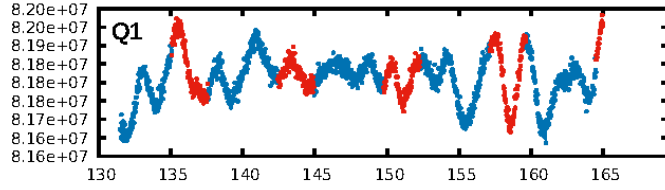
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.68e-47
RollingBand-fgt: 0.96 [137/143]
GhostDiagnostic-chr: 1.475
Centroid-sig: 55.6%
Centroid-so: 0.247 arcsec [2.08σ]
OotOffset-rm: 0.111 arcsec [0.40σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-rm: 0.071 arcsec [0.47σ]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

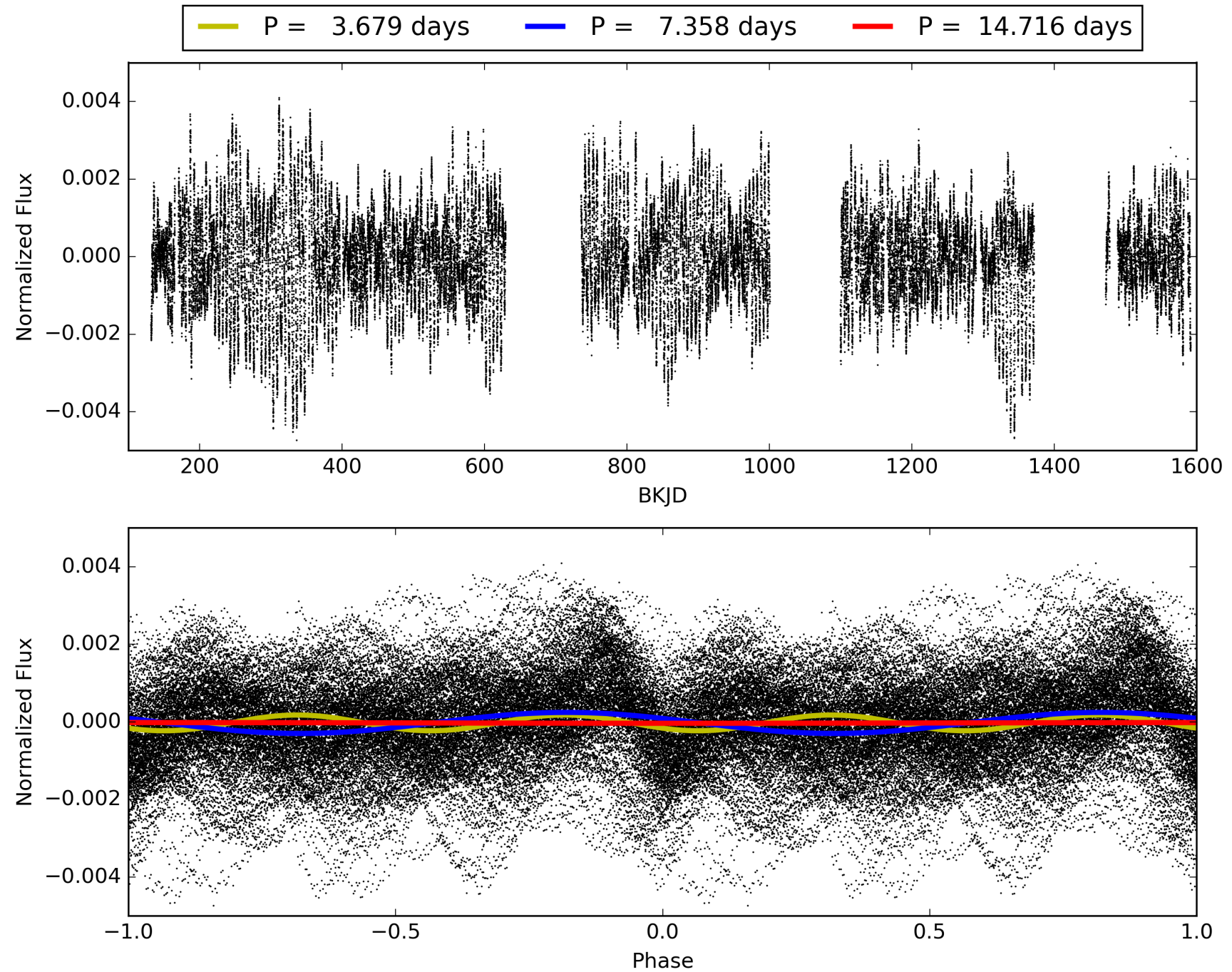
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 08:38:09 Z

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

TCE 010551707-01, PDC Light Curves

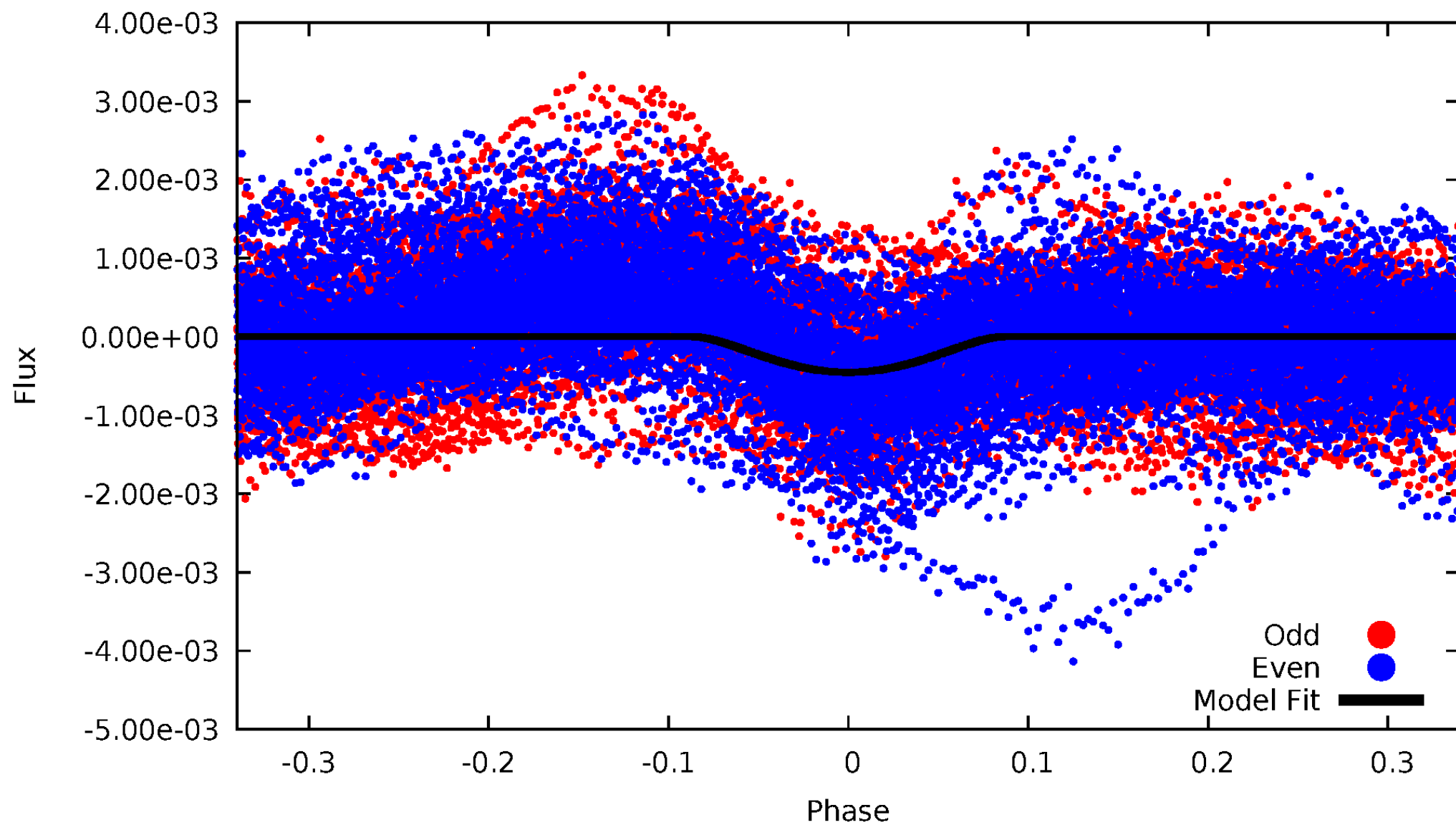


TCE 010551707-01



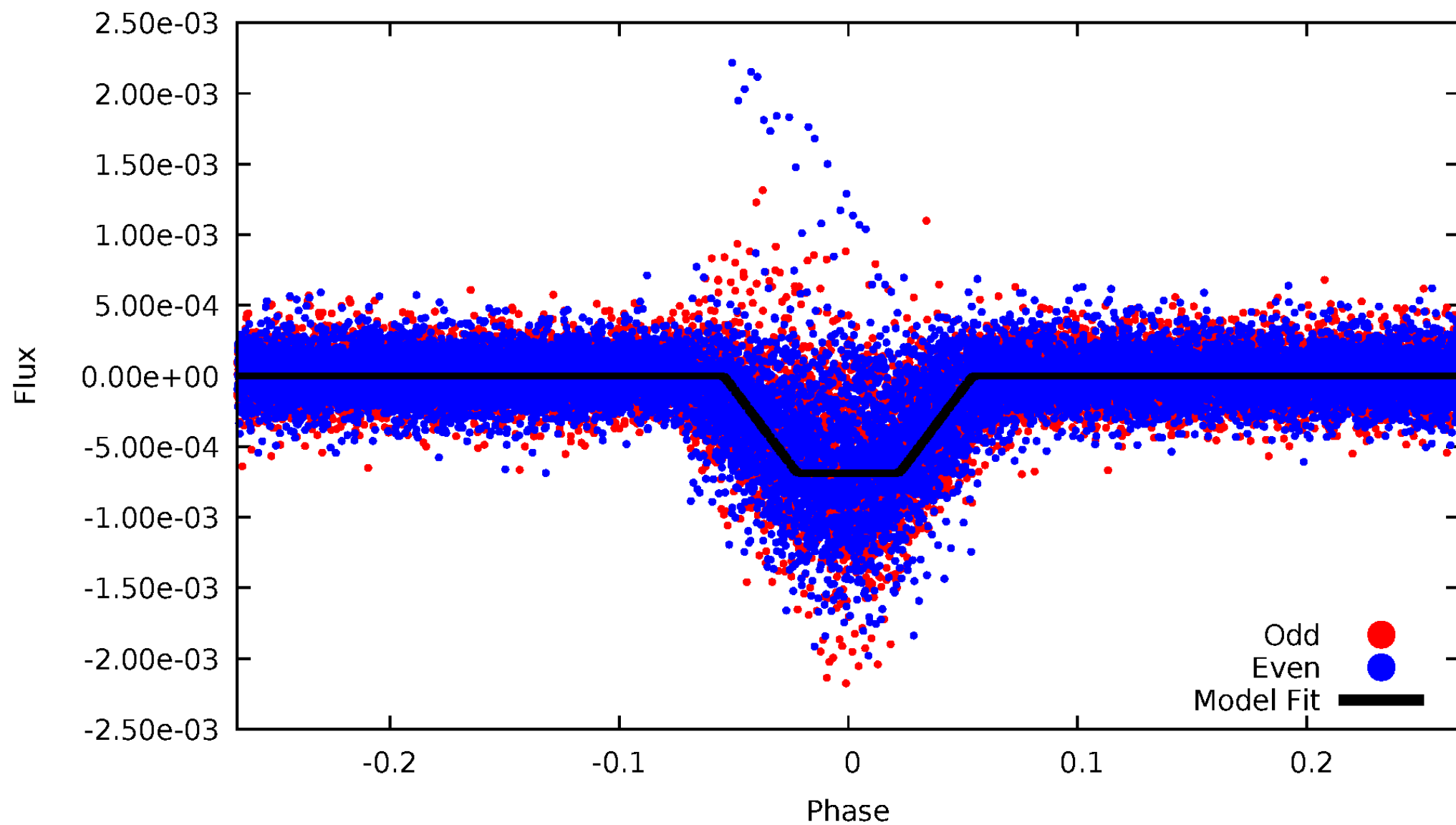
DV Odd/Even

TCE 010551707-01

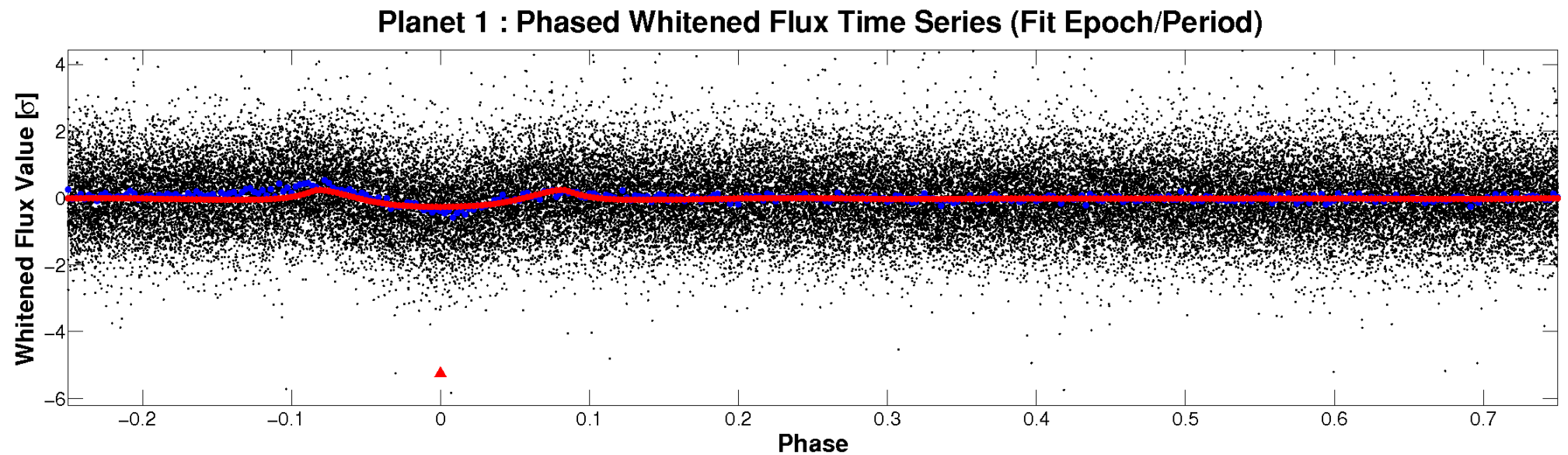
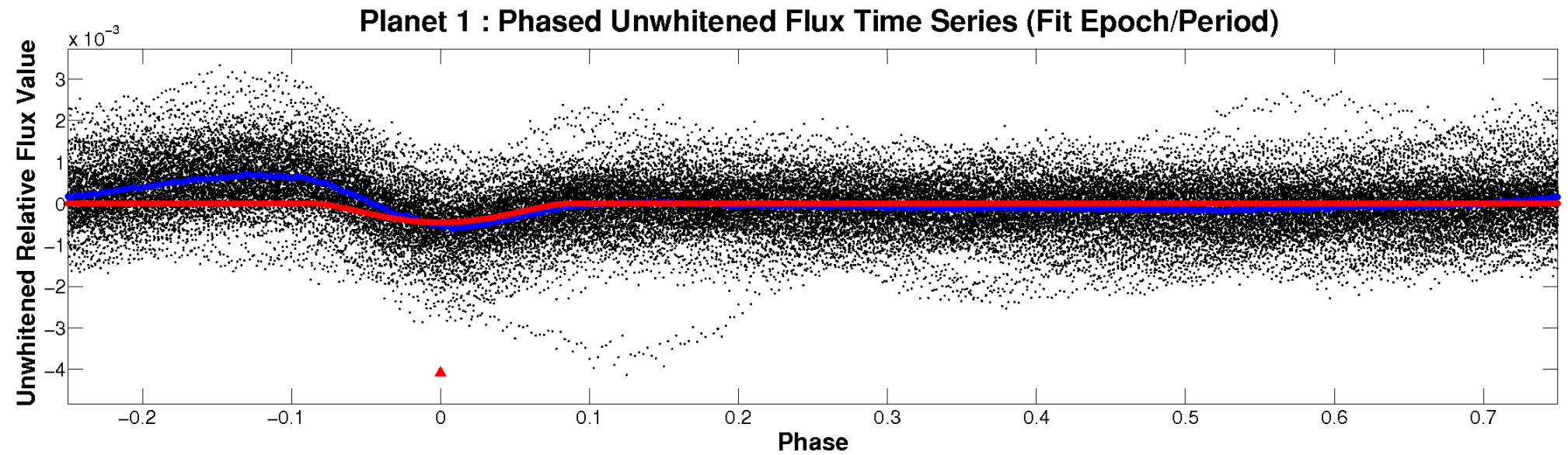


ALT Odd/Even

TCE 010551707-01

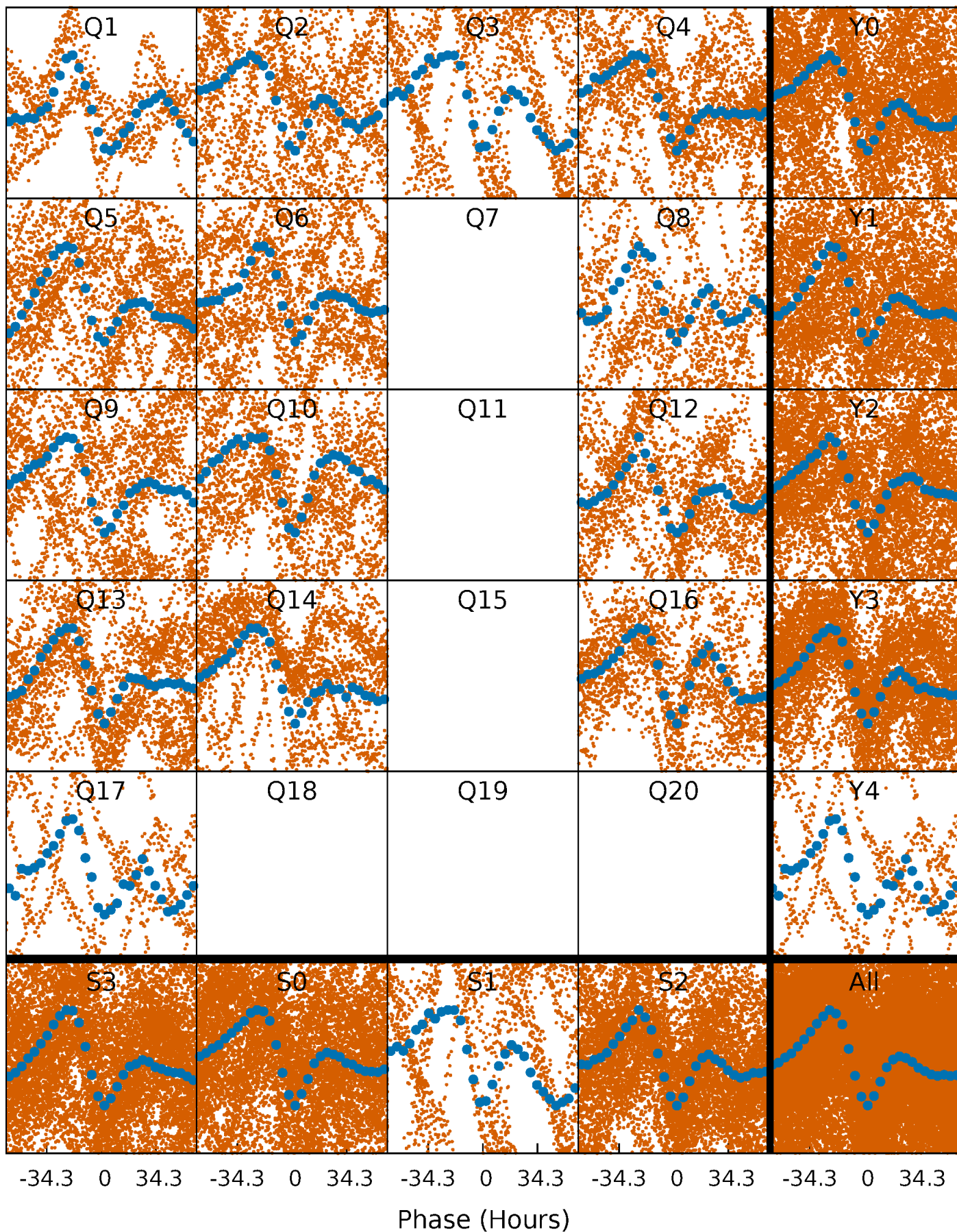


Non-Whitened Vs. Whitened Light Curve



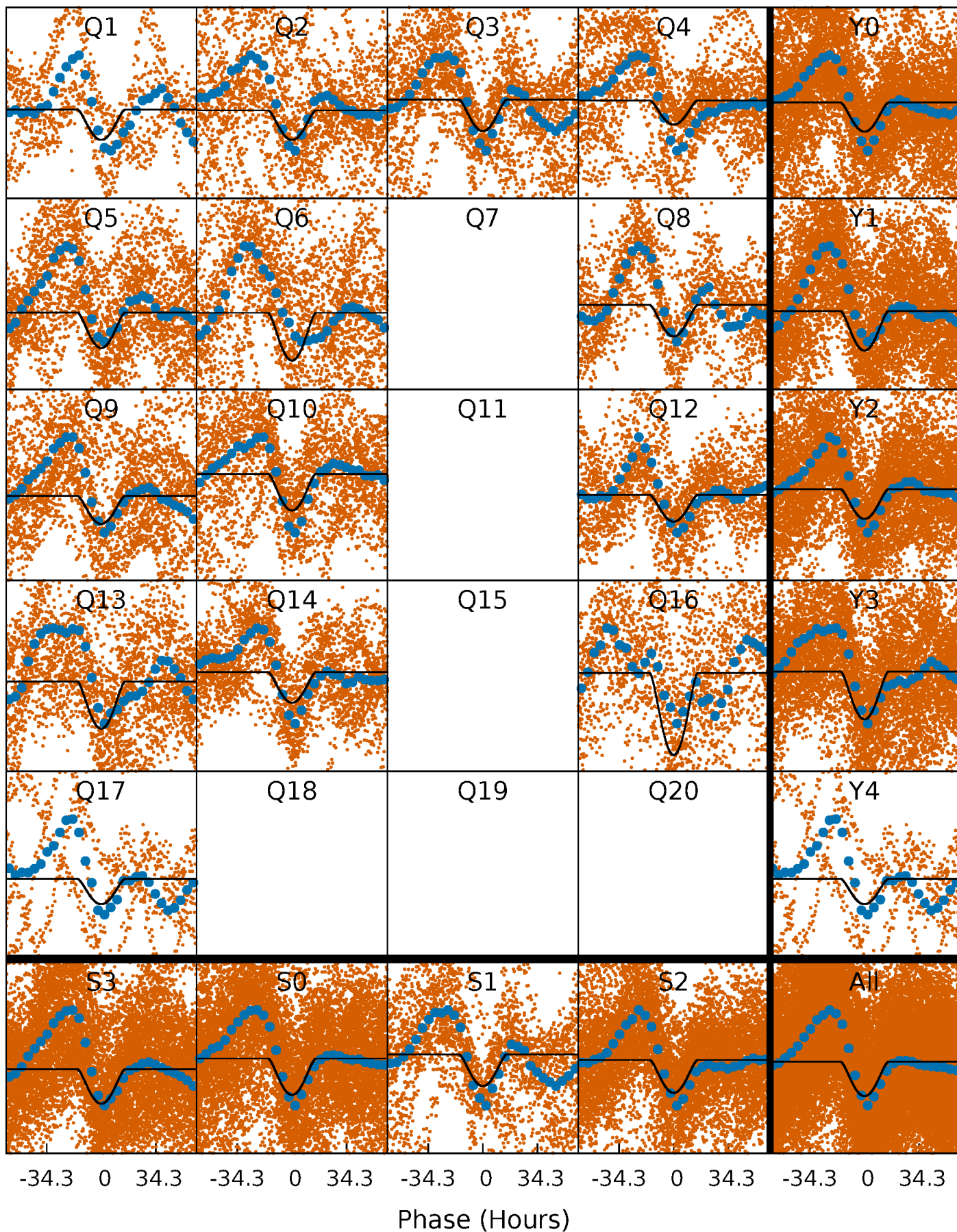
PDC Quarter-Phased Transit Curves

TCE 010551707-01 P= 7.358108 Days $T_0=136.312565$ (BKJD)



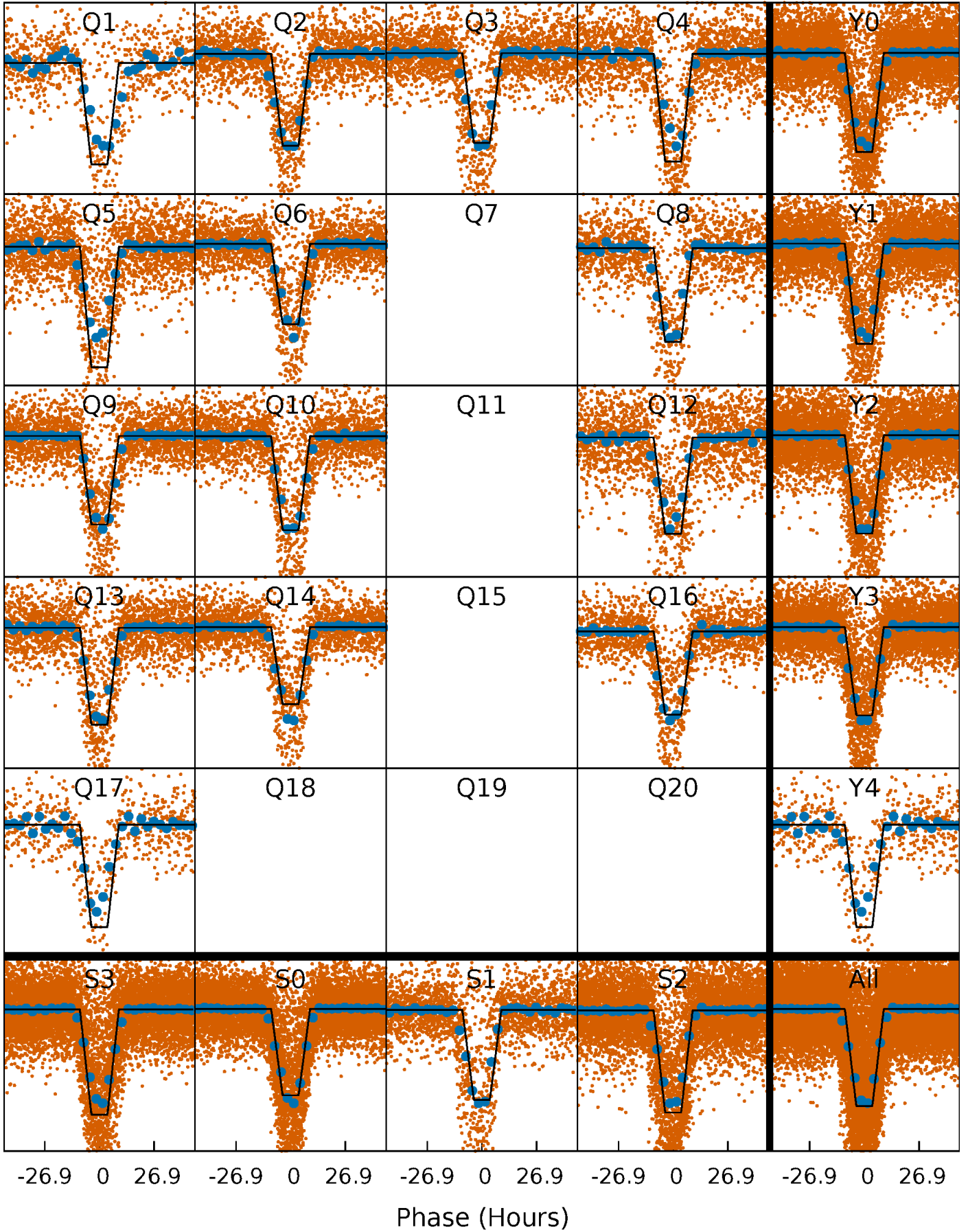
DV Quarter-Phased Transit Curves

TCE 010551707-01 P= 7.358108 Days $T_0=136.312565$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

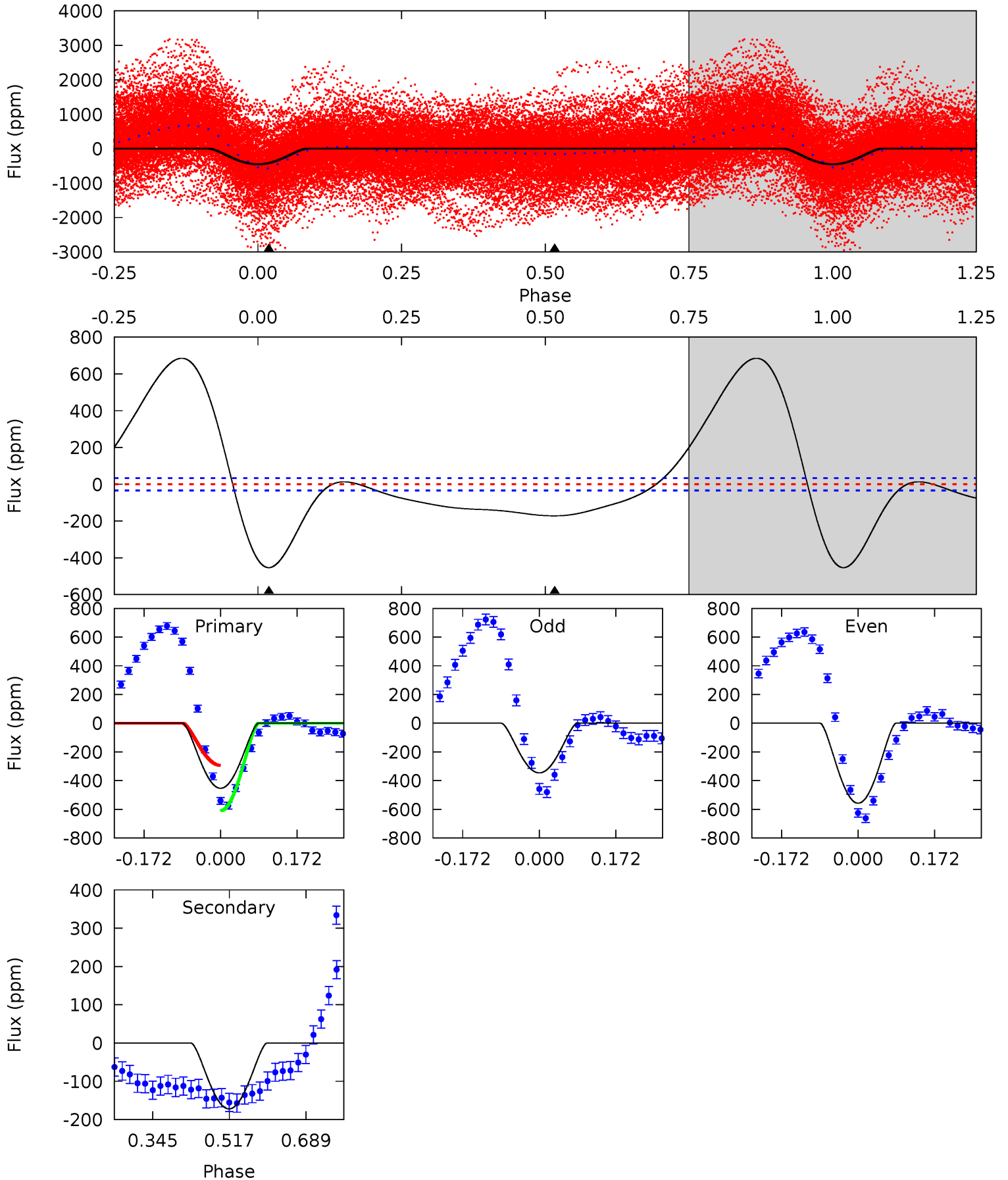
TCE 010551707-01 P= 7.358307 Days $T_0=136.298511$ (BKJD)



DV Model-Shift Uniqueness Test

010551707-01, P = 7.358108 Days, E = 128.954457 Days

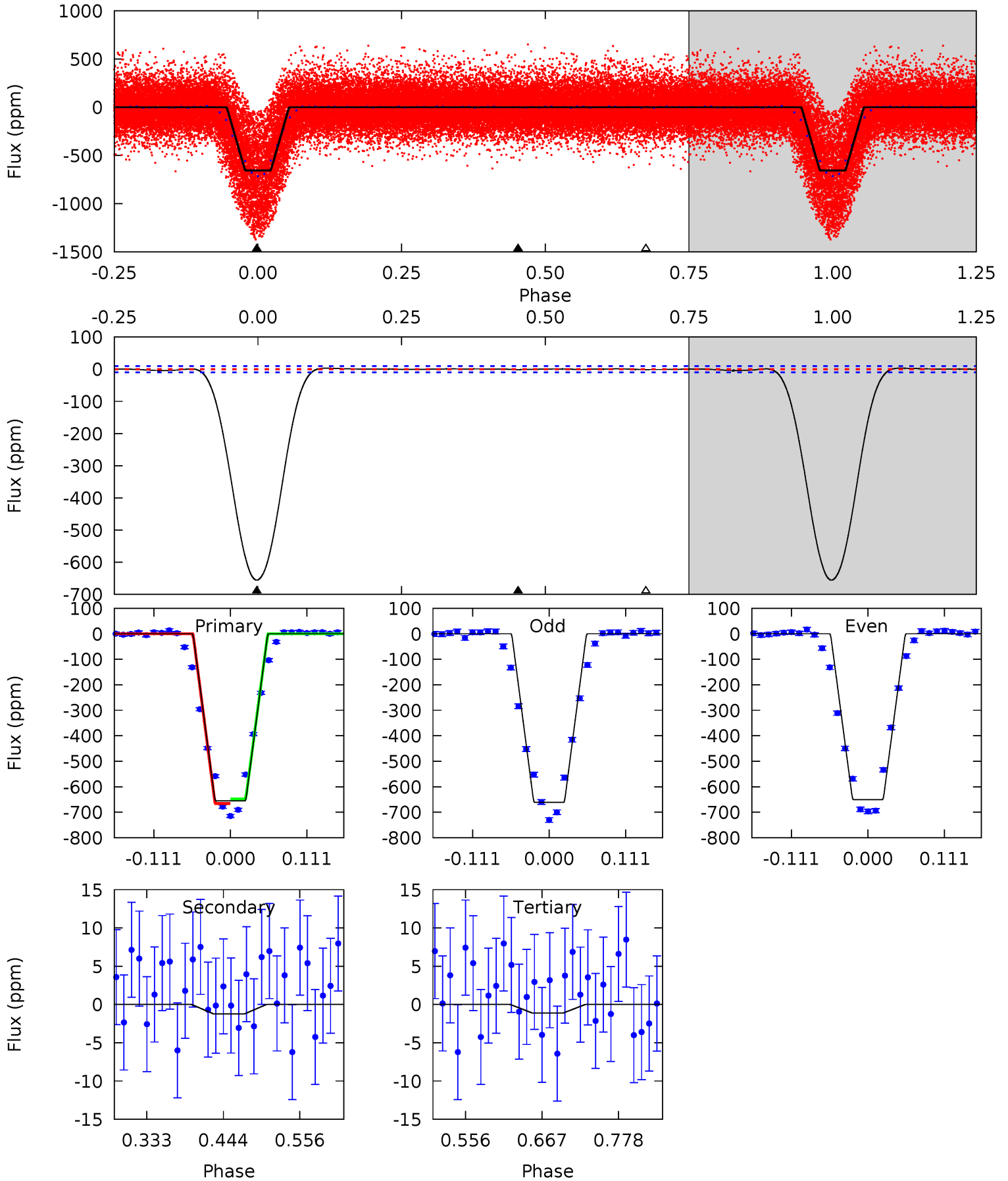
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.6	23.0	0	0	4.45	1.36	32.7	60.6	60.6	23.0	23.0	14.1	1.16	0.60	21.6



Alt Model-Shift Uniqueness Test

010551707-01, P = 7.358307 Days, E = 128.940204 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
309.8	0.58	0.53	0	4.54	1.59	0.69	309.3	309.8	0.06	0.58	2.54	0.95	0.00	0



Stellar Parameters For KIC 010551707

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6557^{+149}_{-215}	$4.294^{+0.105}_{-0.195}$	$-0.220^{+0.250}_{-0.300}$	$1.275^{+0.377}_{-0.203}$	$1.168^{+0.175}_{-0.158}$	$0.795^{+0.380}_{-0.412}$
	+2%/-3%	+2%/-5%	+114%/-136%	+30%/-16%	+15%/-14%	+48%/-52%
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 010551707-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-172 ± 7	$5.45^{+1.99}_{-1.96}$	1647^{+125}_{-89}	4105^{+771}_{-393}	19^{+29}_{-9}
Alt.	-1 ± 2	$3.80^{+1.98}_{-1.71}$	1648^{+128}_{-93}	-1995^{+4618}_{-454}	$0.212^{+1.016}_{-0.423}$

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 $A_{obs} \gg 1.0$

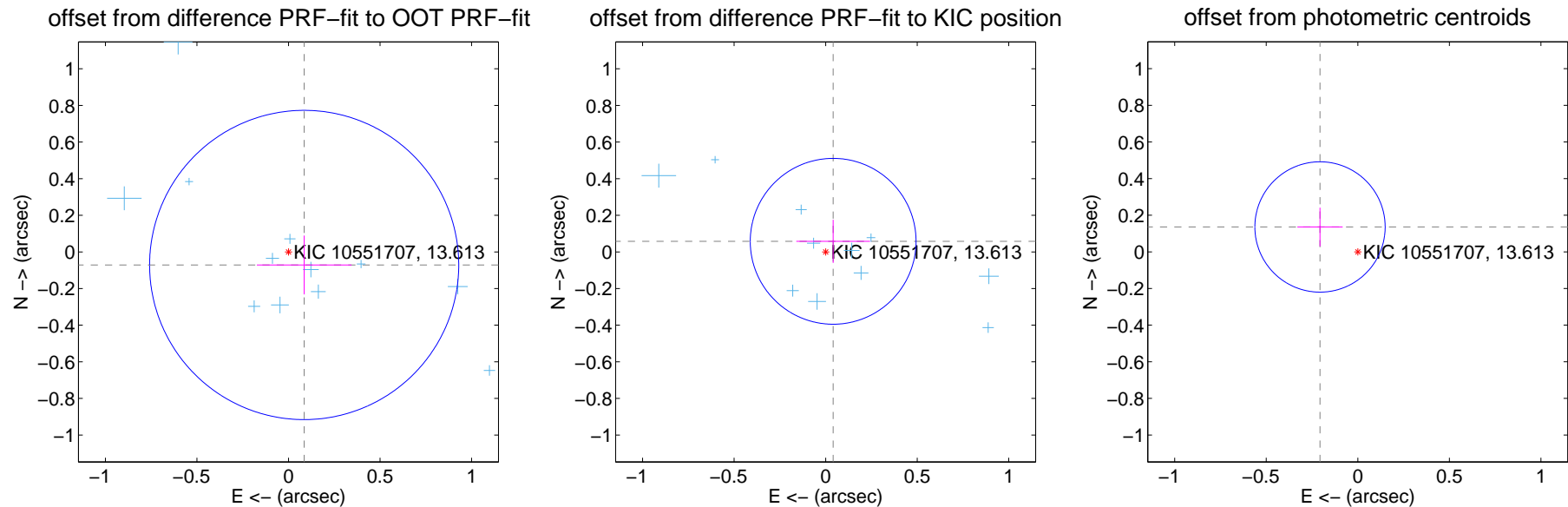
DV Centroid Data

Supplemental centroid analysis for 010551707-01. Kepler magnitude: 13.61. Transit SNR 18.68

There are 14 quarters with good PRF difference image offsets

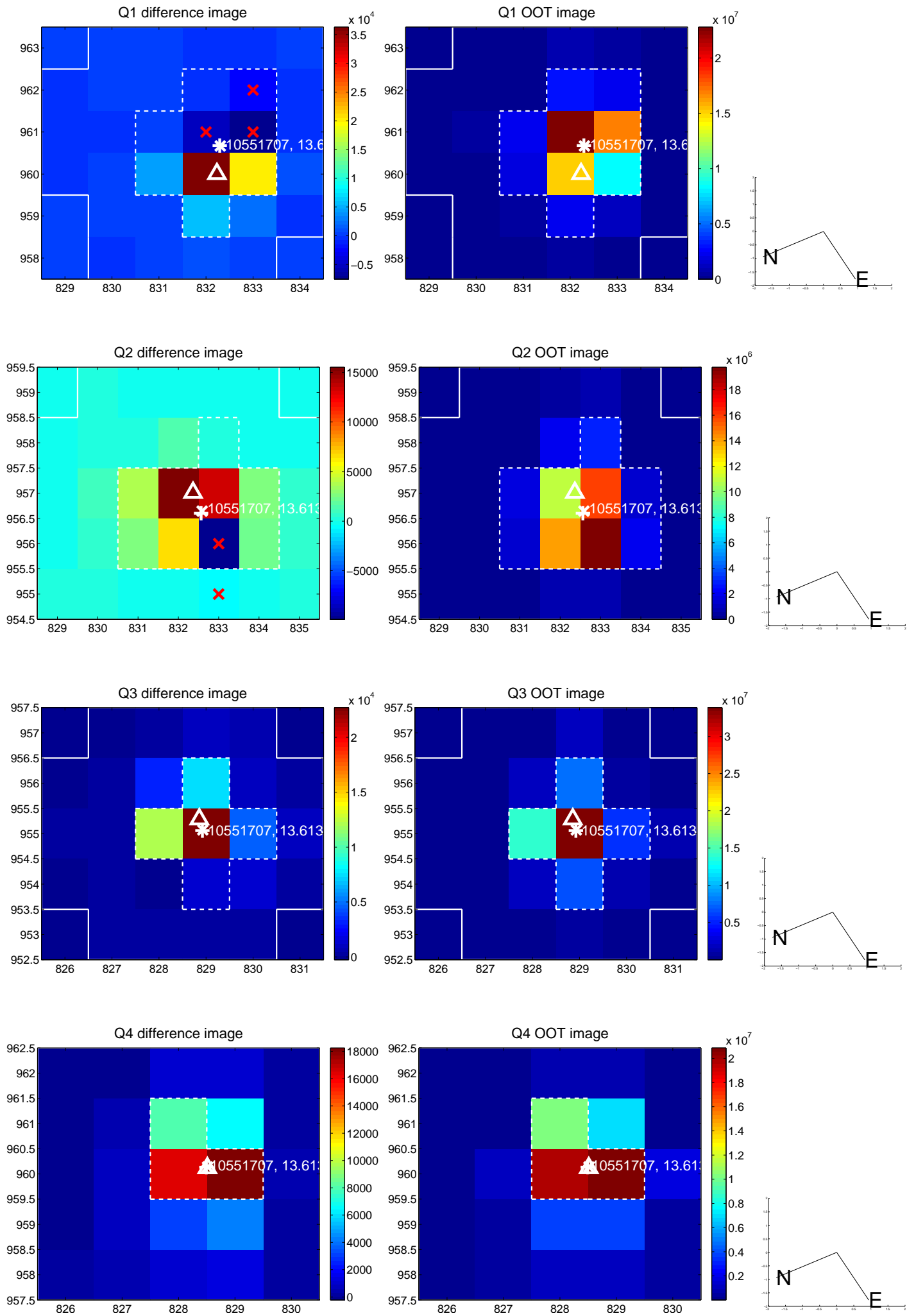
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.111 ± 0.281	0.40	-0.086 ± 0.259	-0.071 ± 0.161
PRF-fit source offset from KIC position	0.071 ± 0.151	0.47	-0.041 ± 0.201	0.058 ± 0.118
photometric centroid source offset	0.25 ± 0.12	2.08	0.21 ± 0.12	0.14 ± 0.11

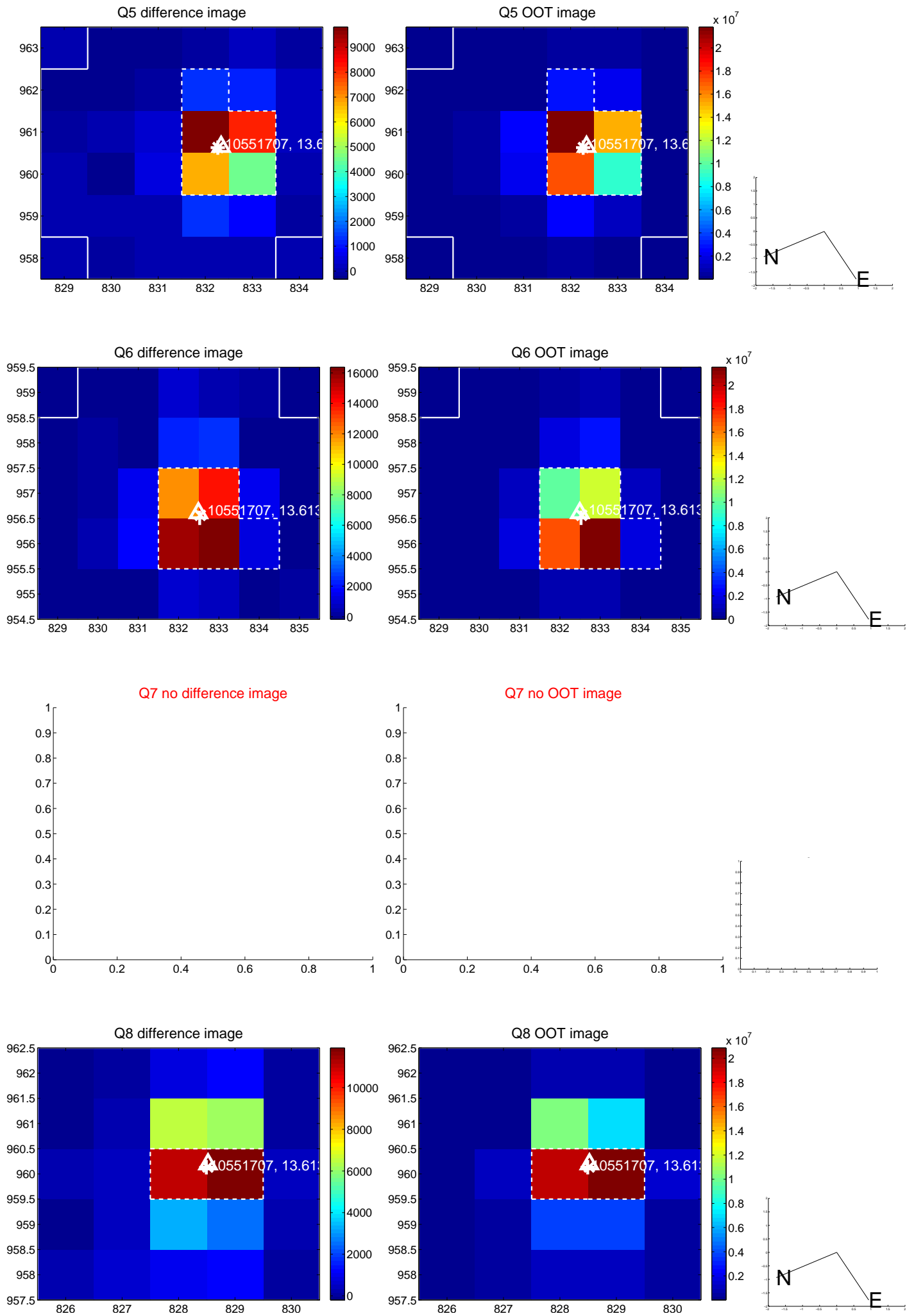


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

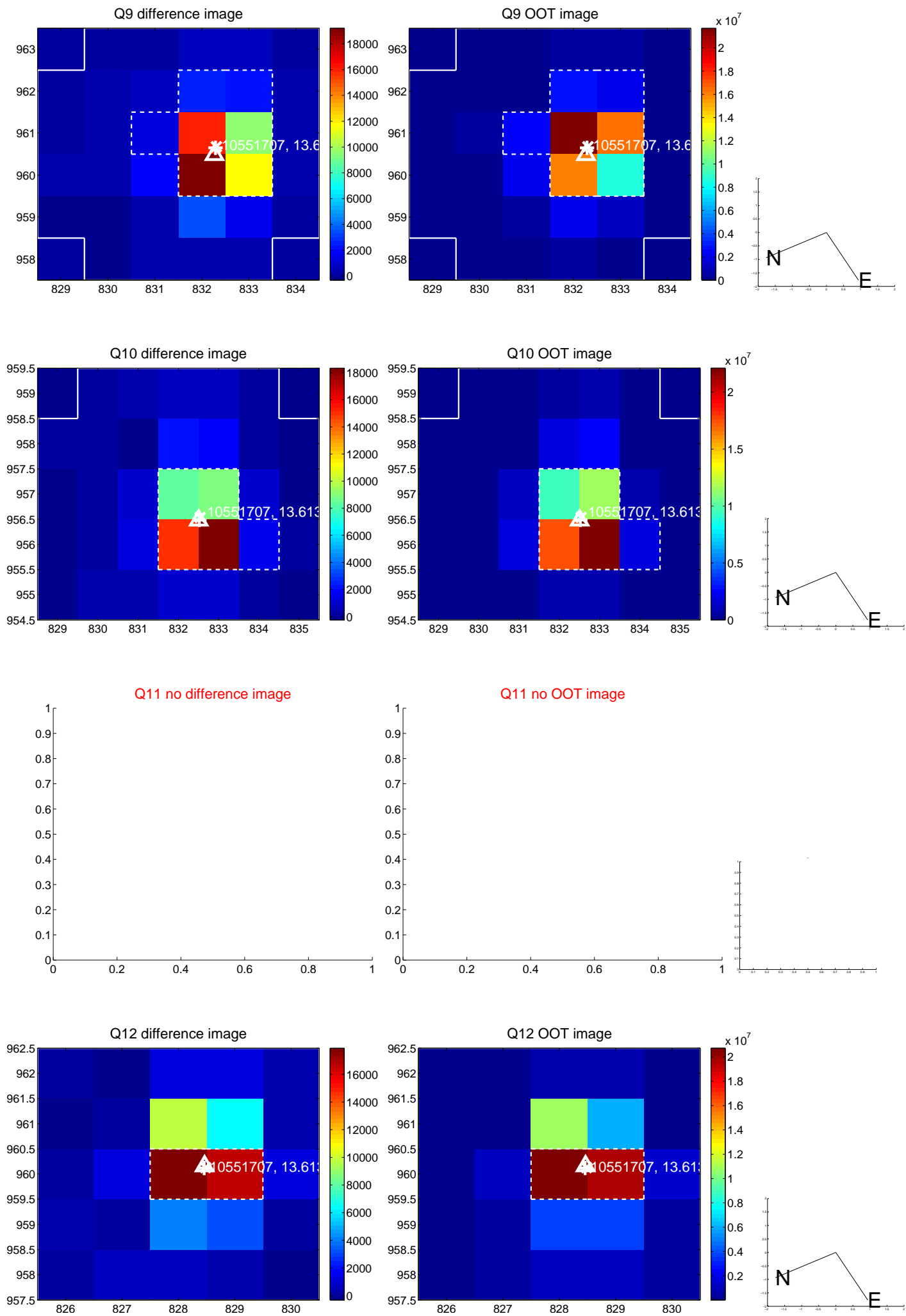
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



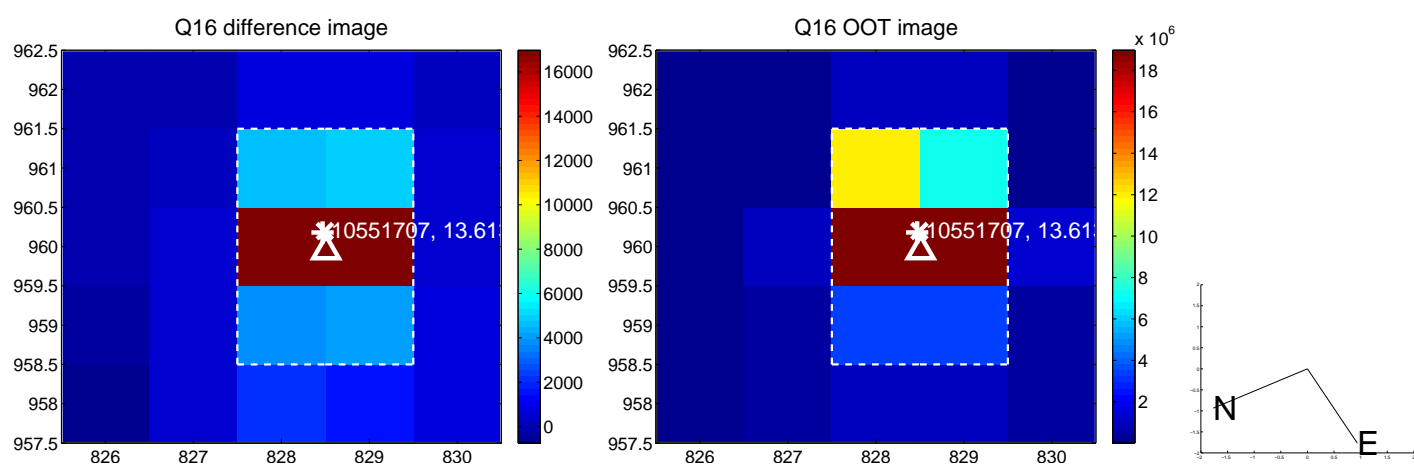
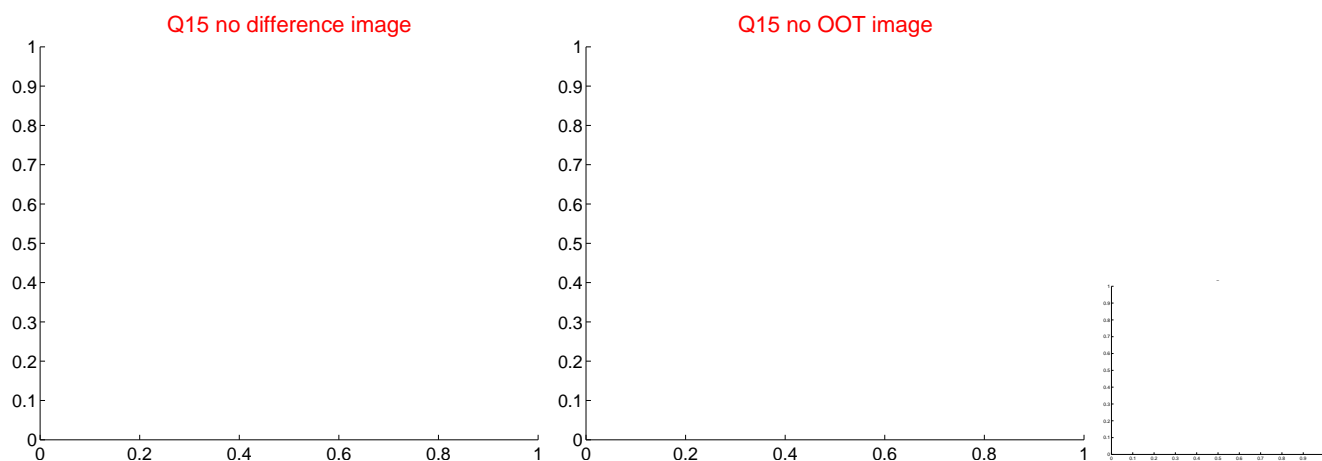
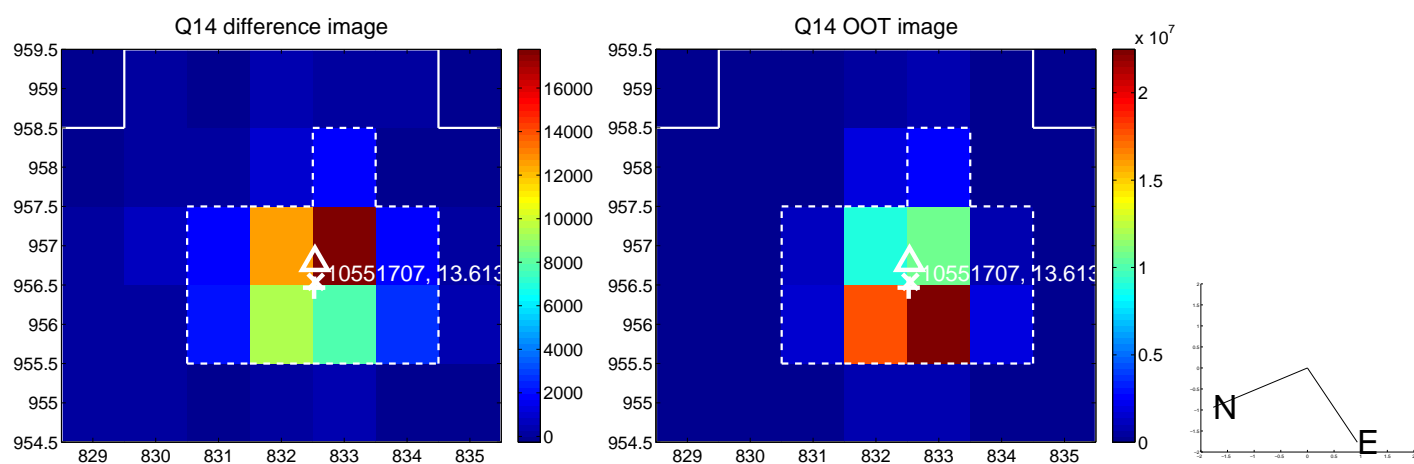
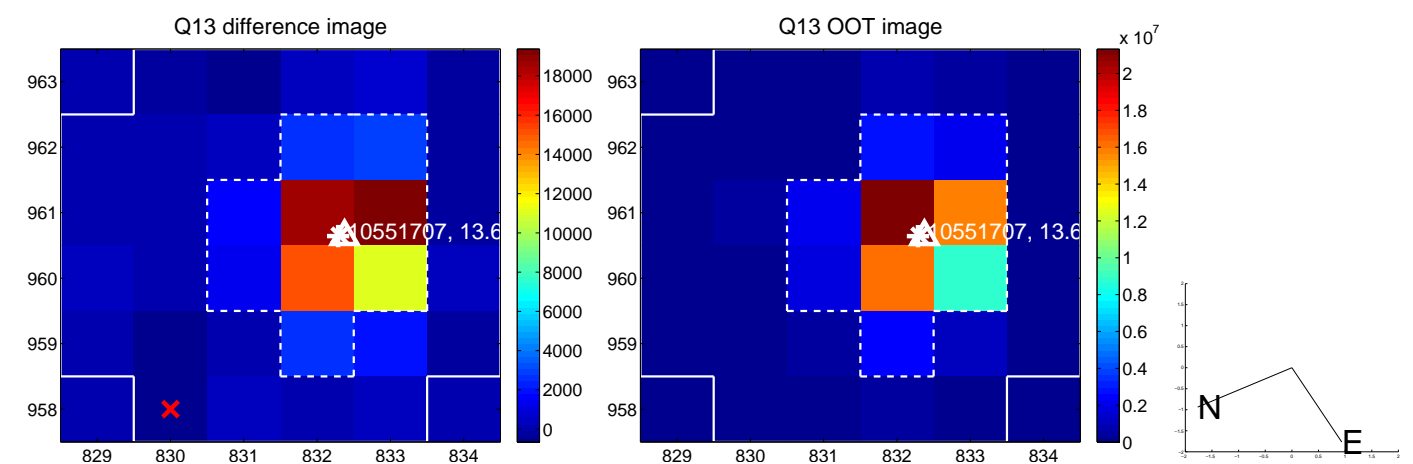
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



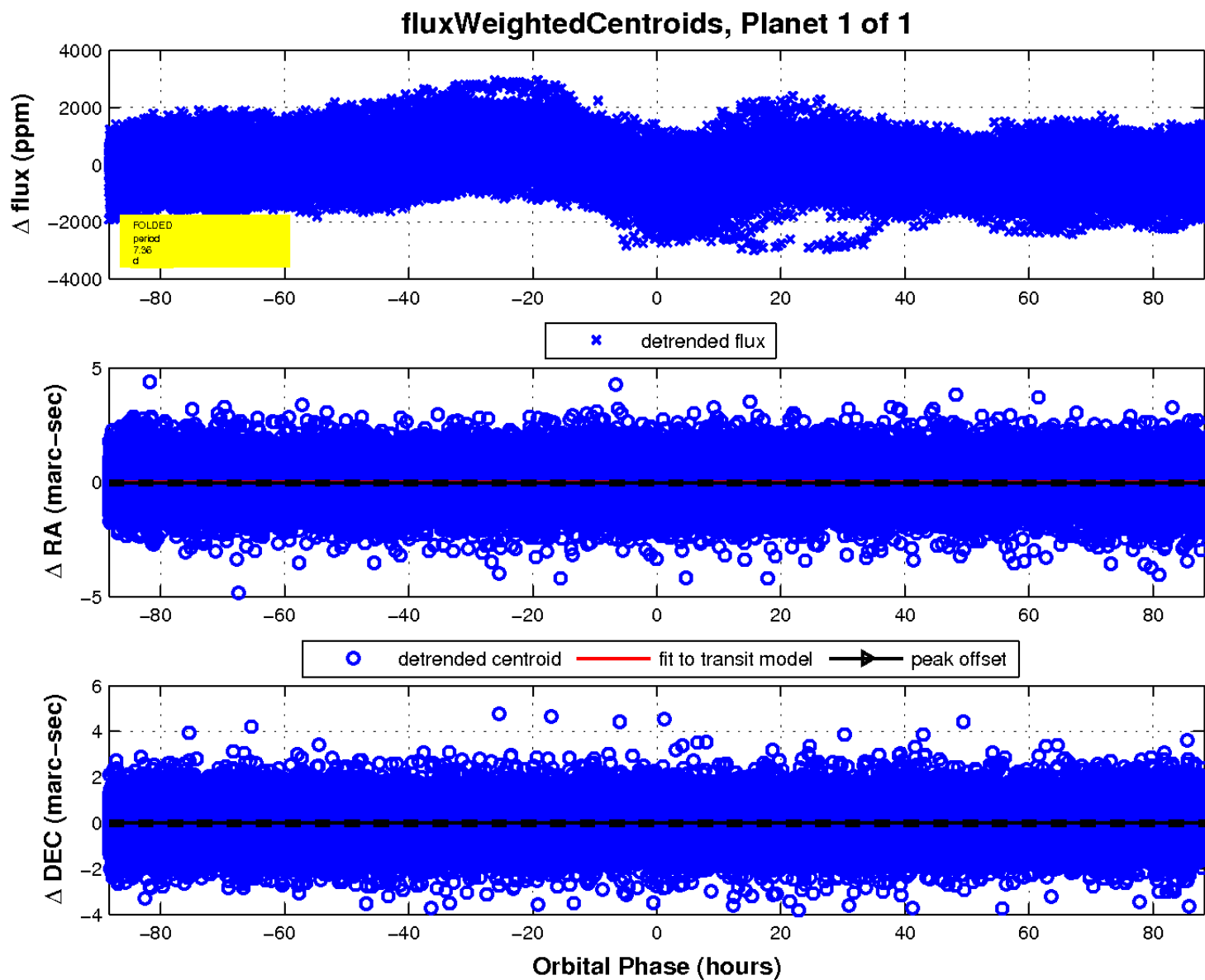
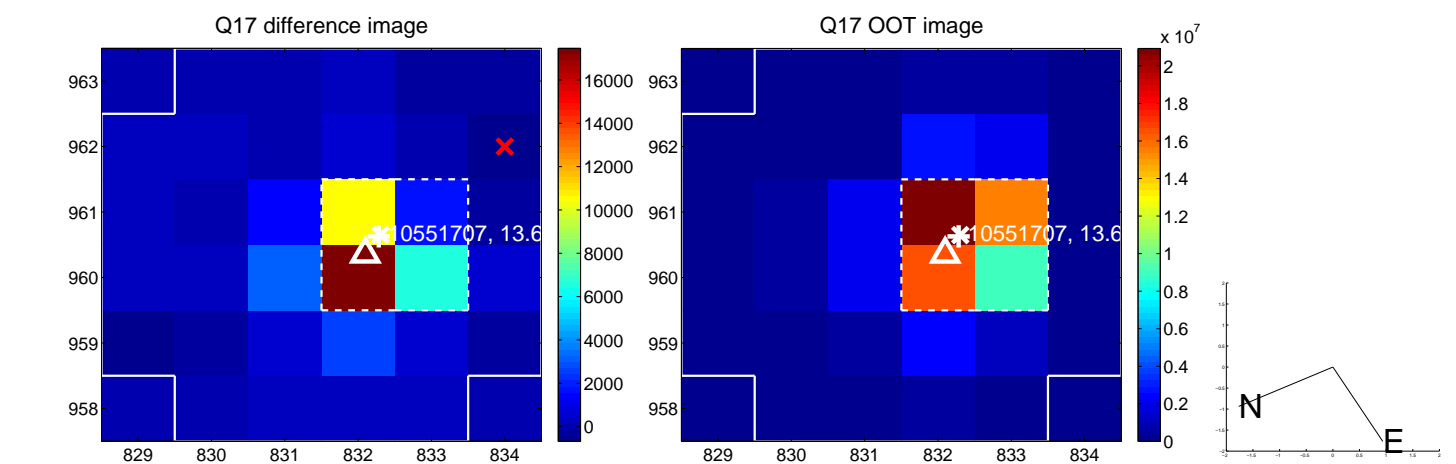
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

