

KIC 011358392

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})
011358392-01	OBS	7440.01	0.984972	132.401562	4432.5	1.331	789.8	529.6	1.37	6437	10.77	6875.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011358392-01	OBS	FP	0.00	0	1	0	0	MOD_SEC_ALT

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

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

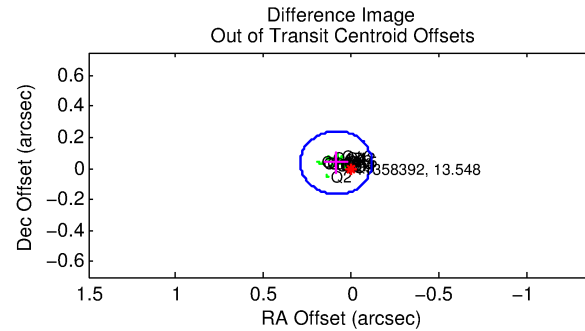
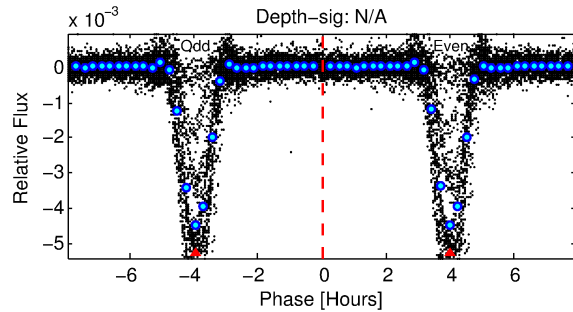
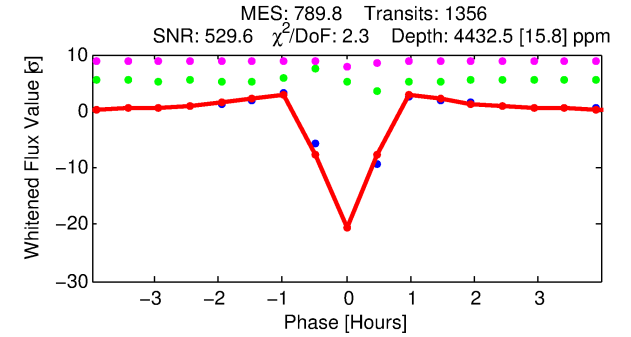
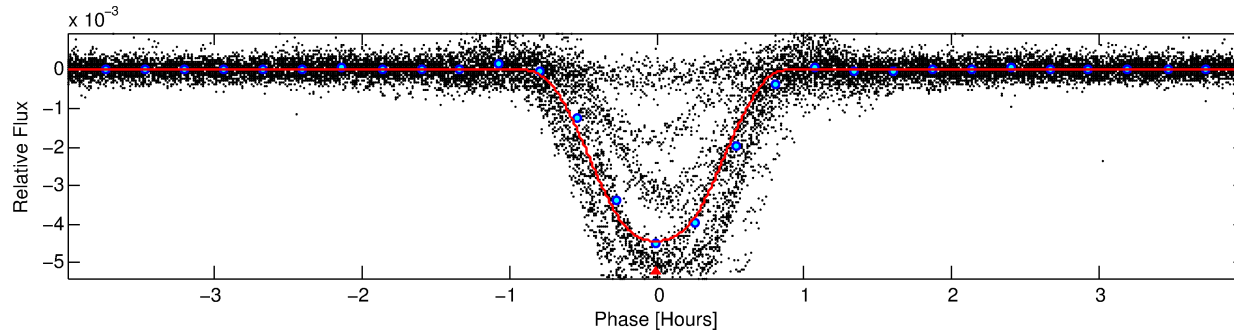
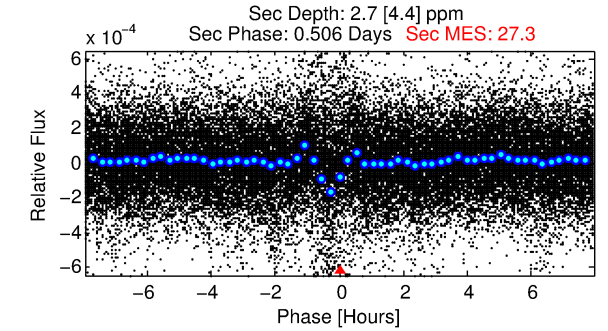
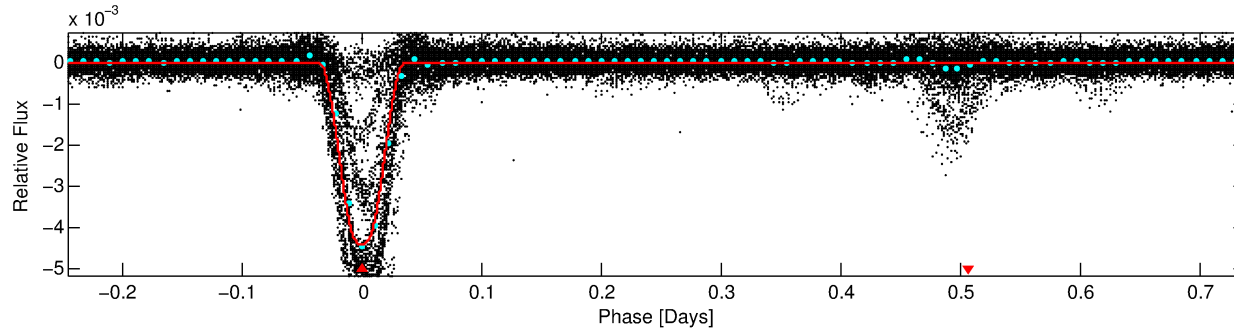
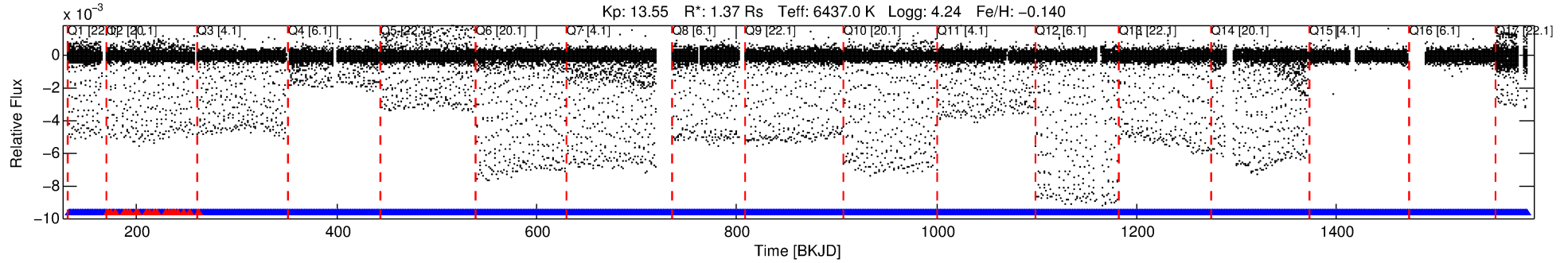
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011358392-01

No Significant Match Found

DV One-Page Summary

KIC: 11358392 Candidate: 1 of 1 Period: 0.985 d
KOI: K07440.01 Corr: 0.901



DV Fit Results:

Period = 0.98497 [0.00000] d
Epoch = 132.4016 [0.0000] BKJD
Rp/R* = 0.0721 [0.0003]
a/R* = 3.46 [0.04]
b = 0.90 [0.00]
Seff = 6875.94 [2515.35]
Teq = 2322 [212] K
Rp = 10.77 [3.28] Re
a = 0.0205 [0.0050] AU
Ag = 0.01 [0.01] [-110.45σ]
Teffp = 974 [397] K [-2.99σ]

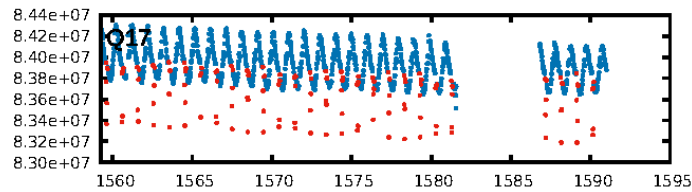
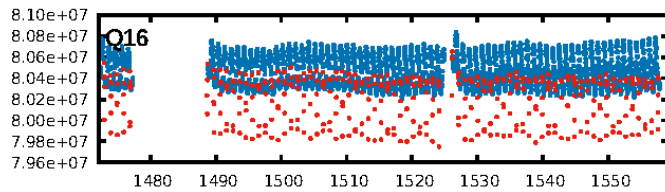
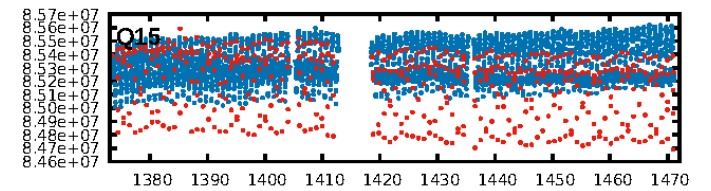
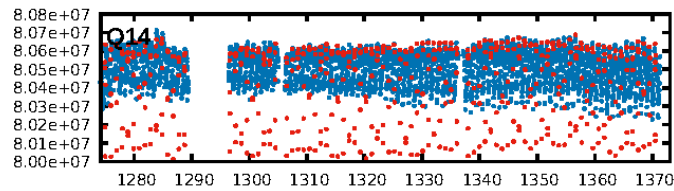
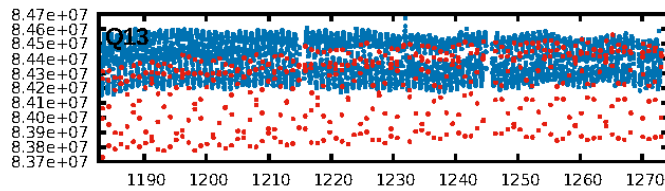
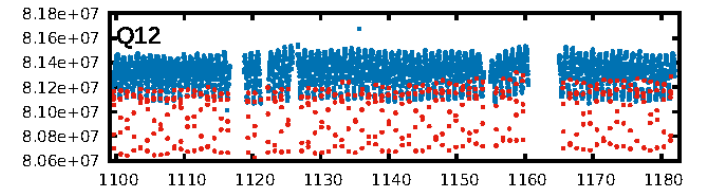
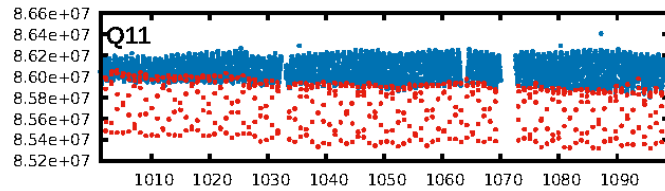
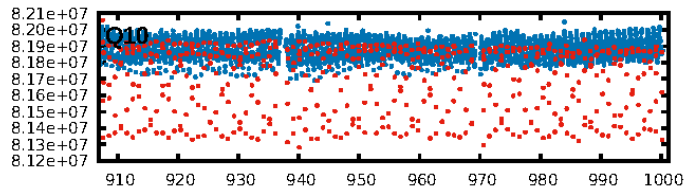
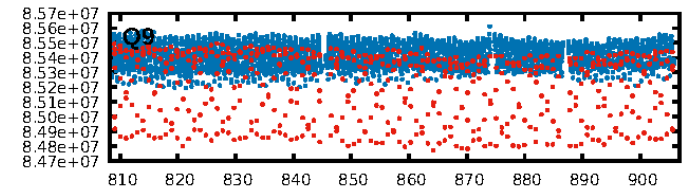
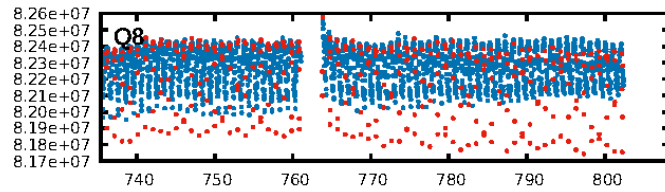
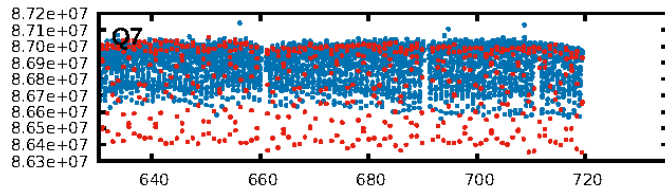
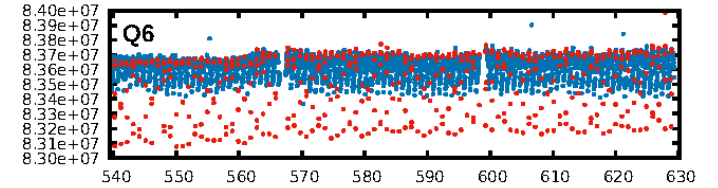
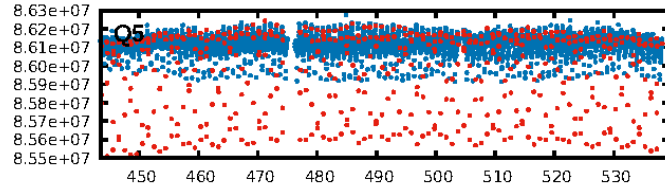
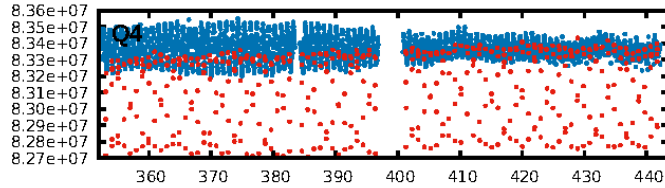
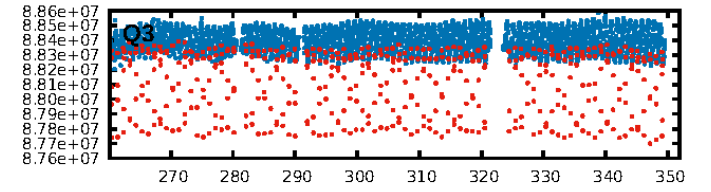
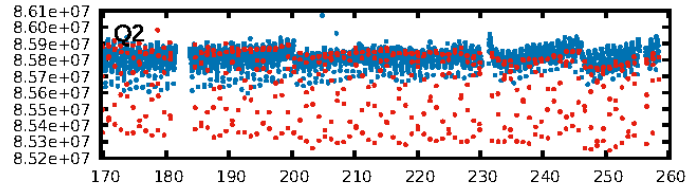
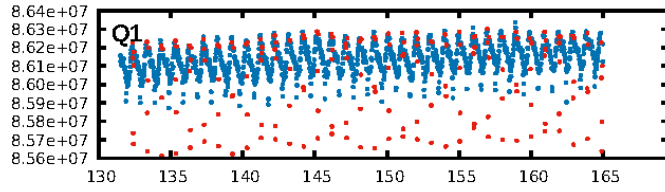
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.98 [1272/1295]
GhostDiagnostic-chr: 8.544
Centroid-sig: 0.0%
Centroid-so: 0.227 arcsec [22.45σ]
OotOffset-rm: 0.096 arcsec [1.40σ]
KicOffset-rm: 0.062 arcsec [0.92σ]
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]

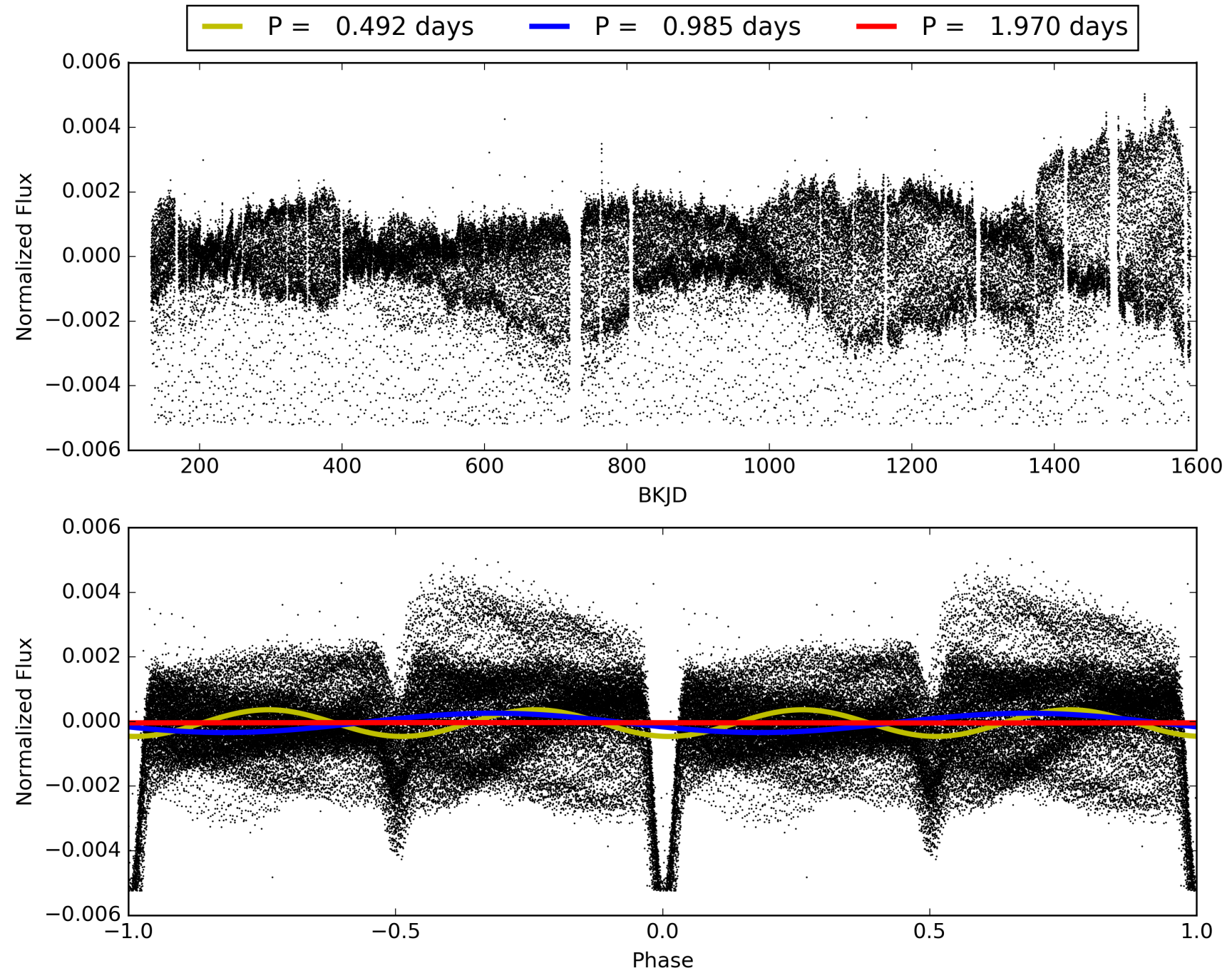
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 05:23:26 Z

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

TCE 011358392-01, PDC Light Curves

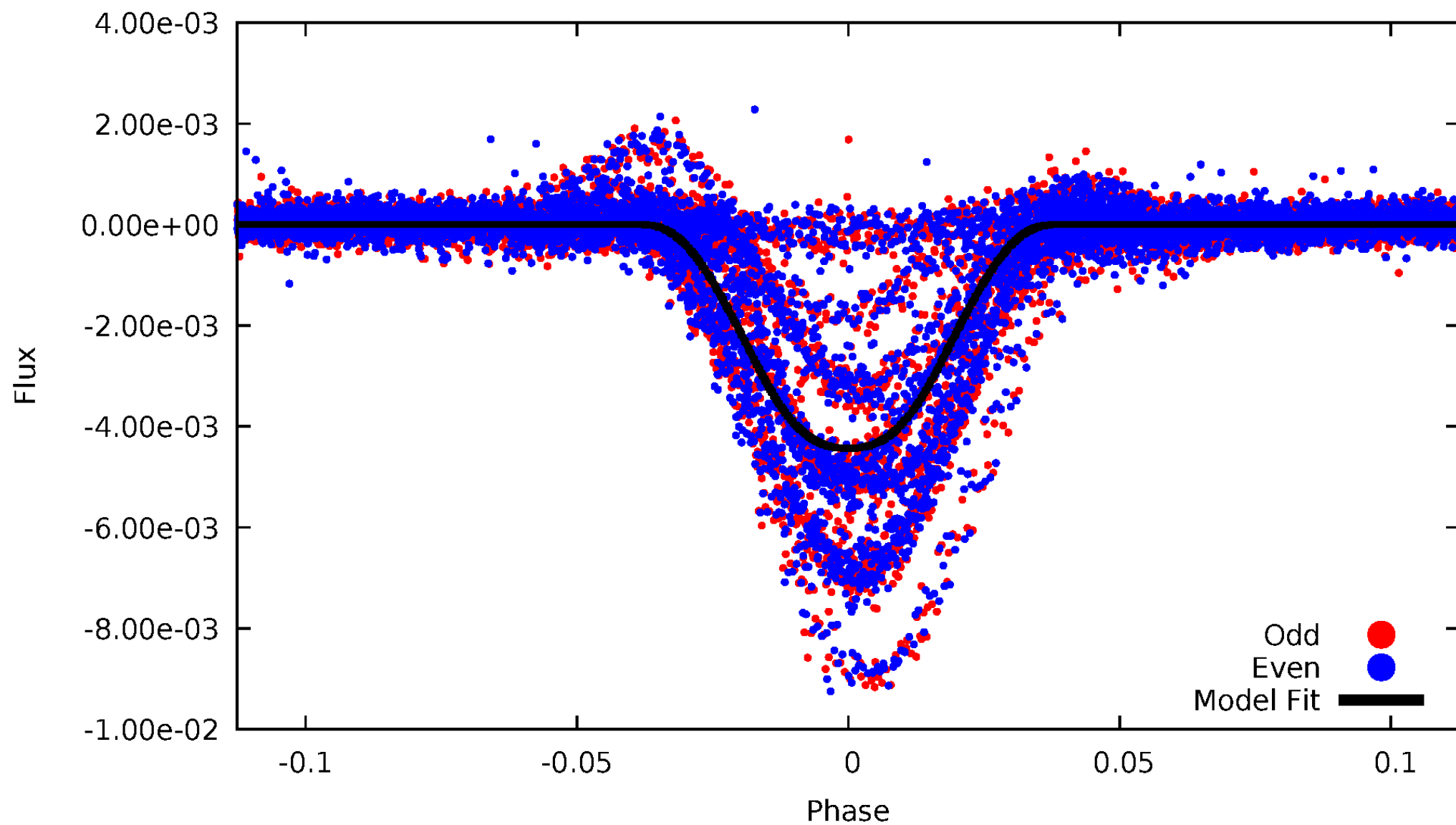


TCE 011358392-01



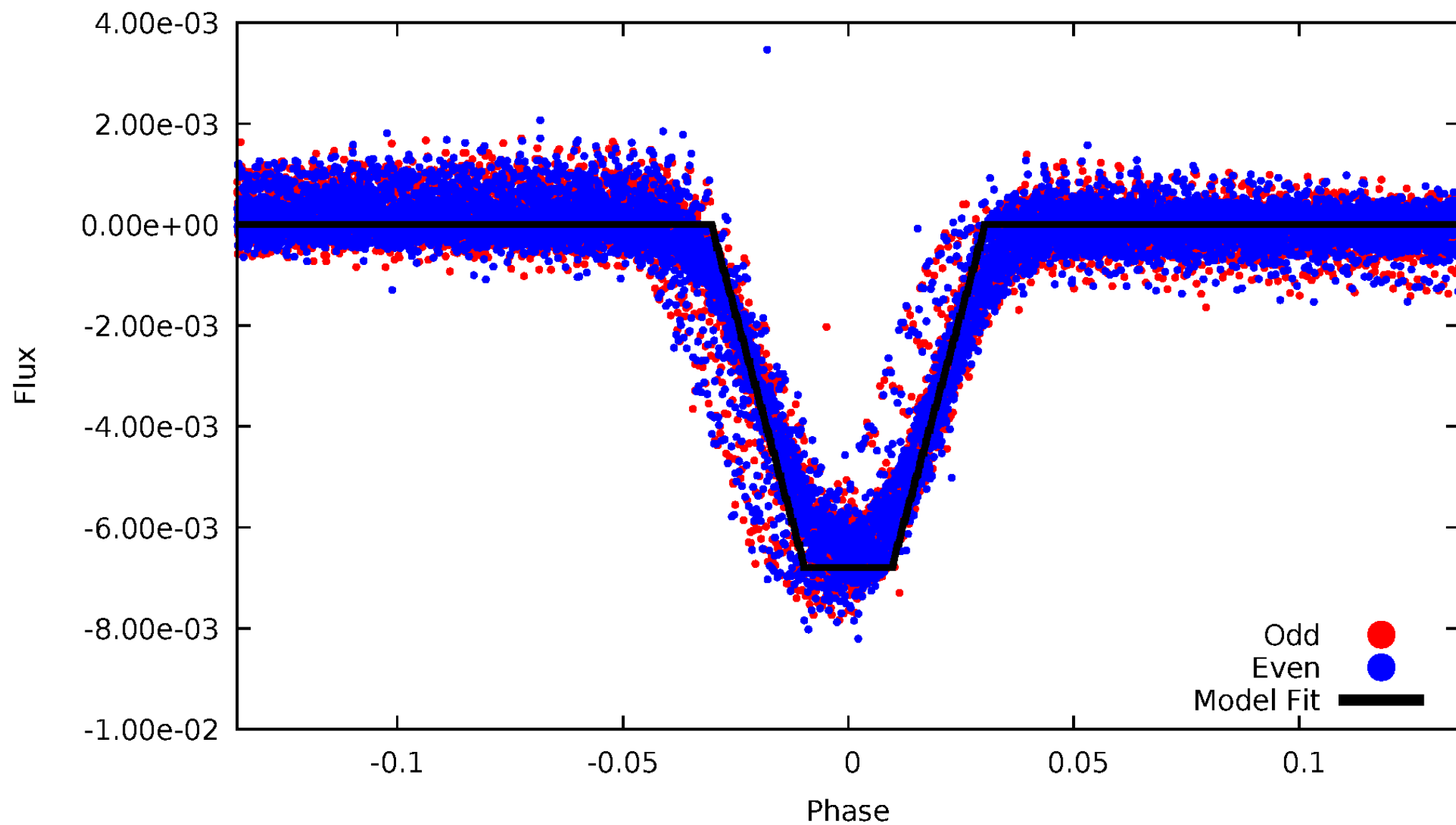
DV Odd/Even

TCE 011358392-01



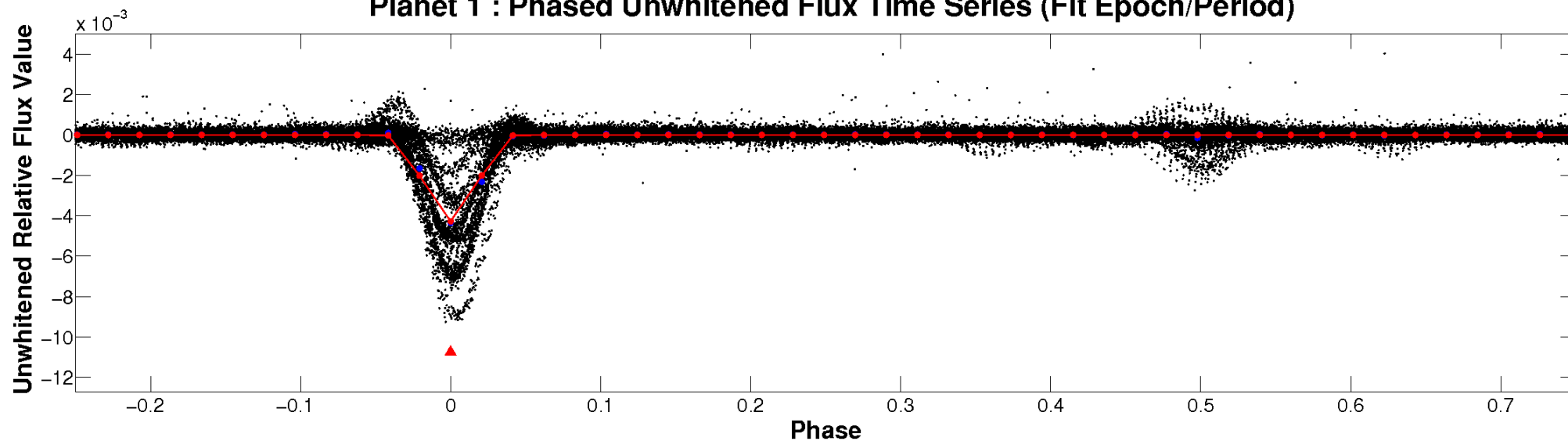
ALT Odd/Even

TCE 011358392-01

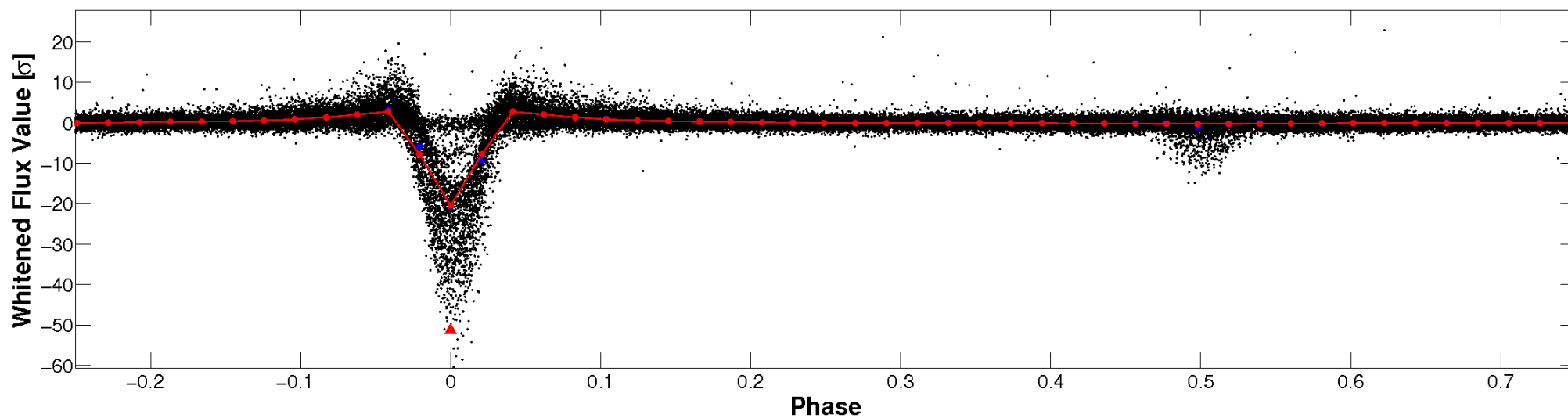


Non-Whitened Vs. Whitened Light Curve

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

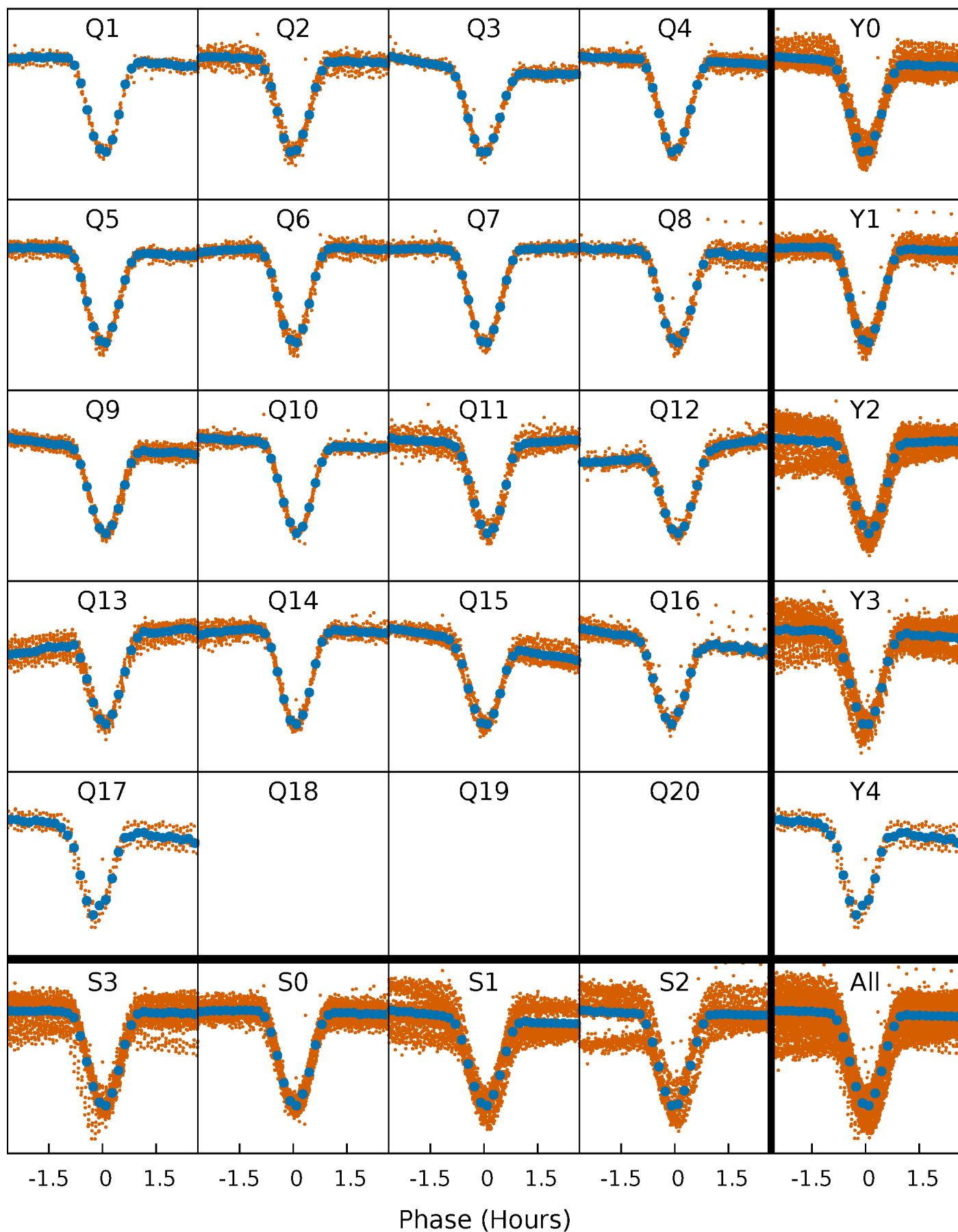


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



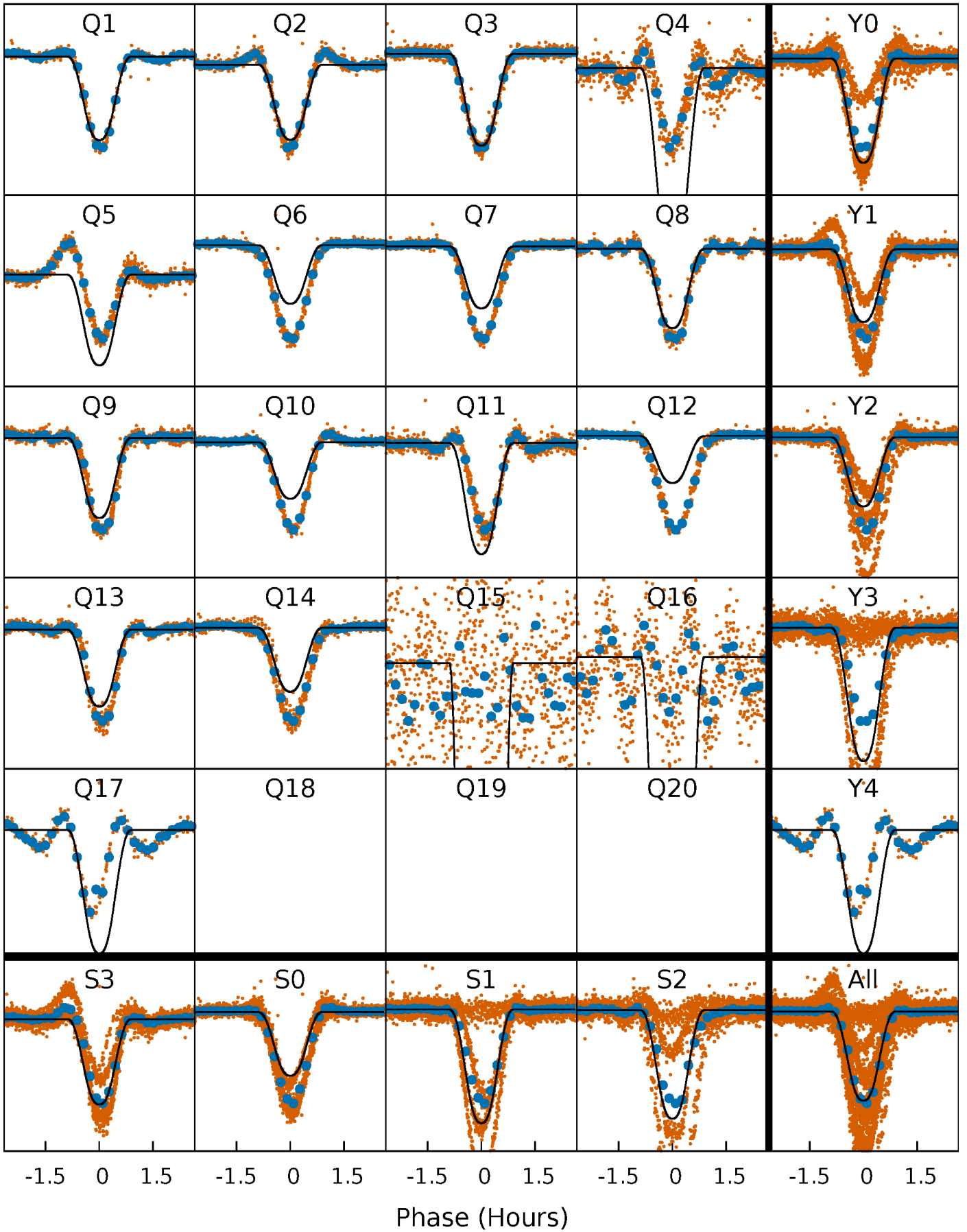
PDC Quarter-Phased Transit Curves

TCE 011358392-01 P= 0.984972 Days $T_0=132.401562$ (BKJD)



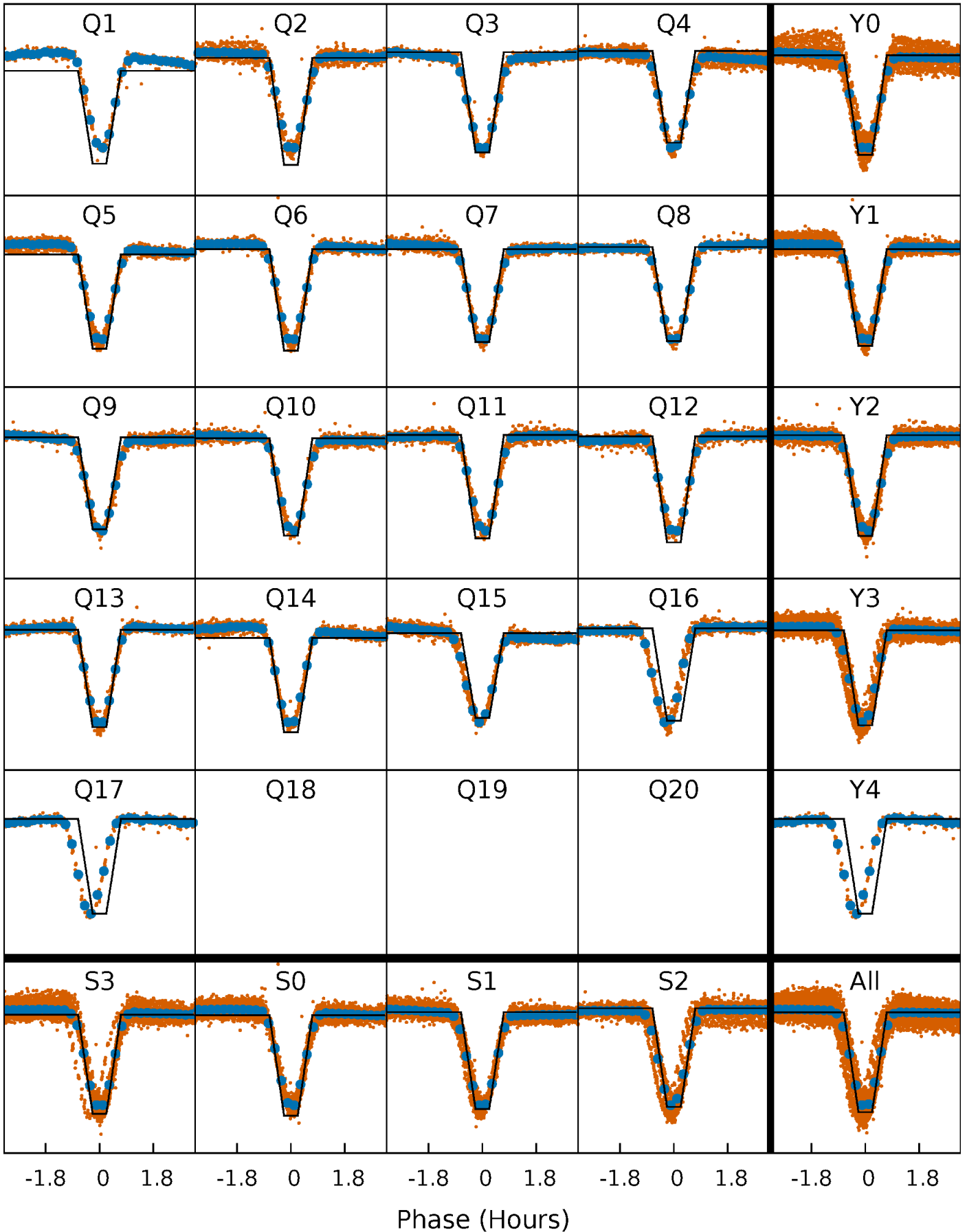
DV Quarter-Phased Transit Curves

TCE 011358392-01 P= 0.984972 Days $T_0=132.401562$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

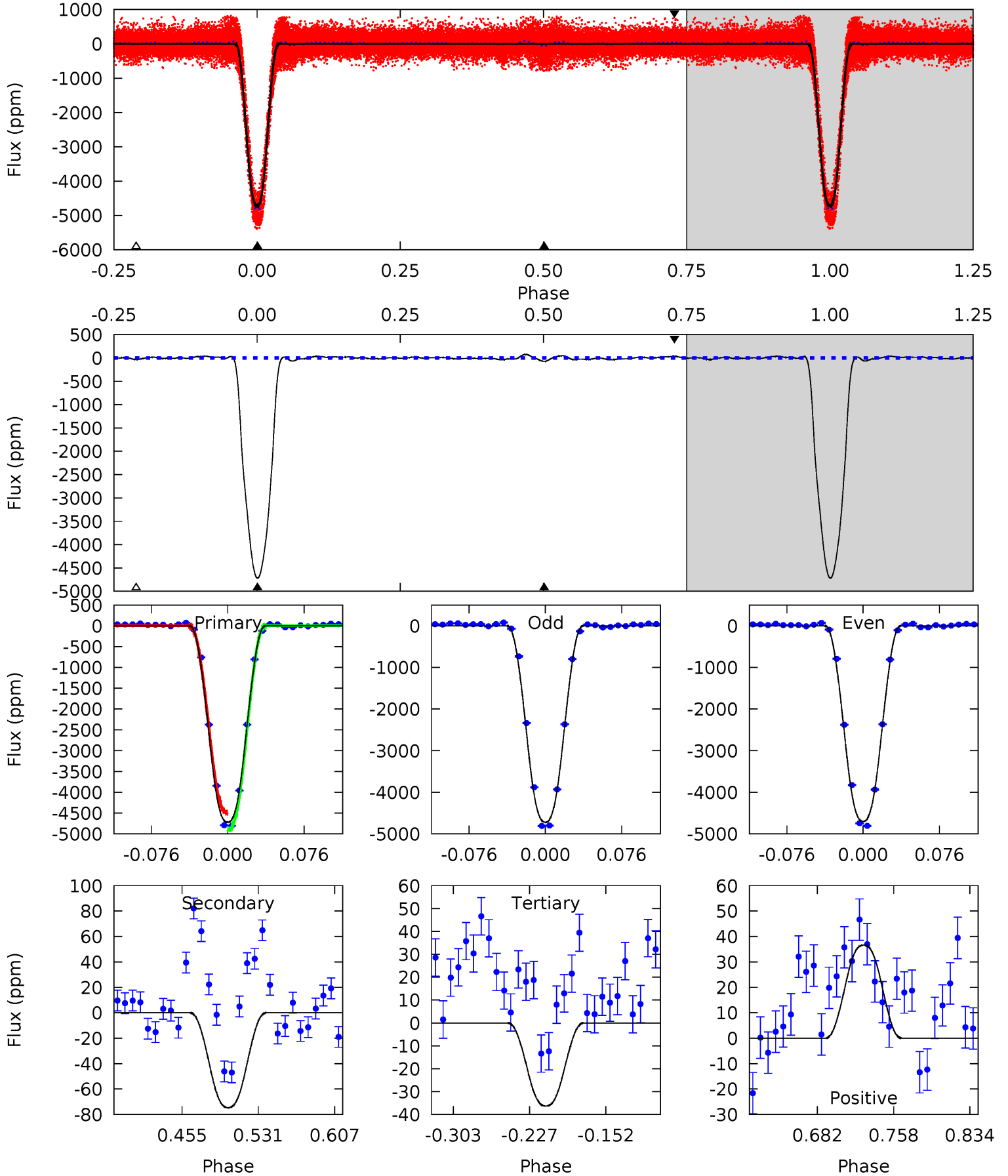
TCE 011358392-01 $P = 0.984976$ Days $T_0 = 132.400178$ (BKJD)



DV Model-Shift Uniqueness Test

011358392-01, P = 0.984972 Days, E = 131.416590 Days

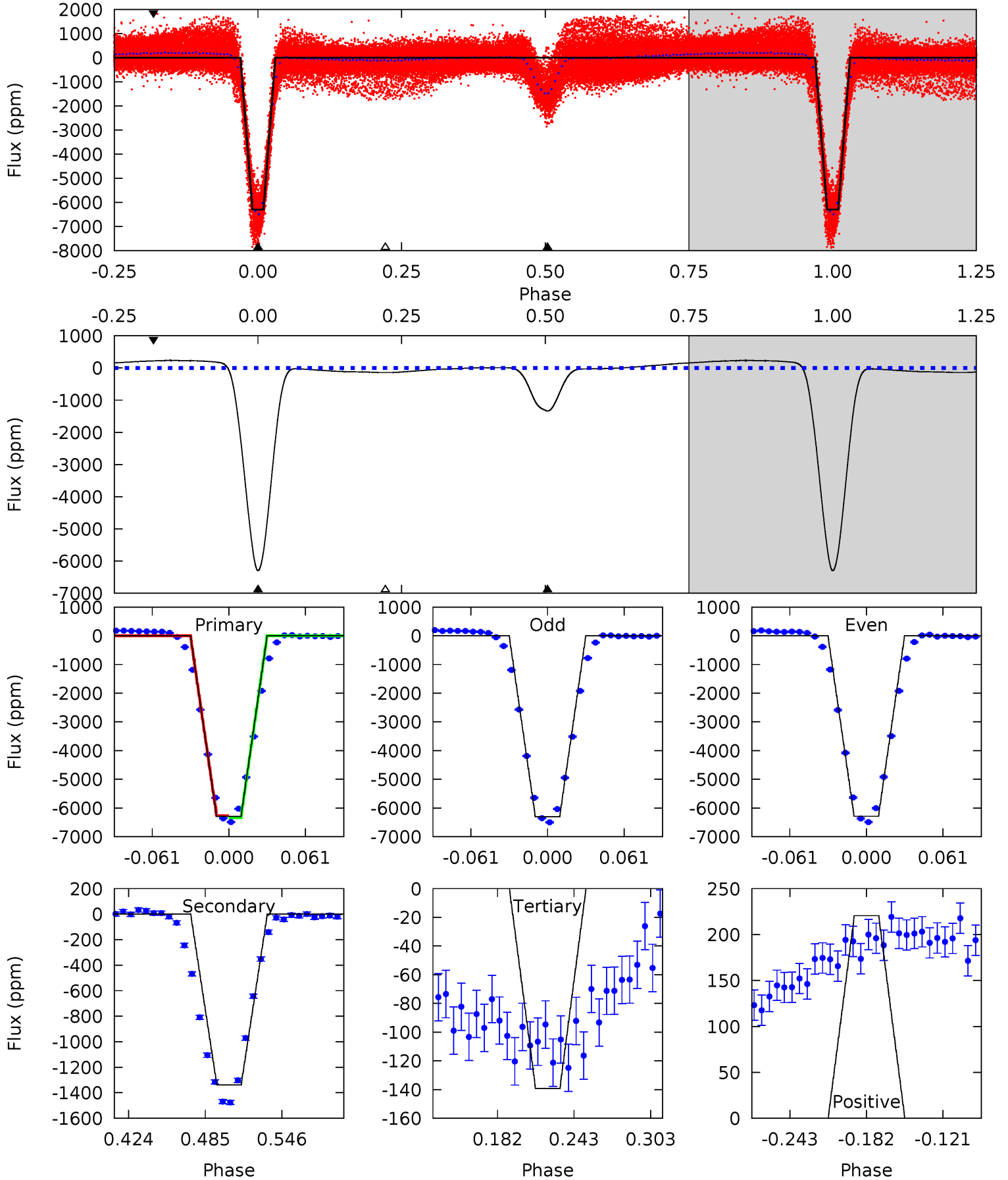
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1282	20.3	9.86	9.94	4.62	1.78	4.63	1272	1272	10.4	10.3	2.97	0.94	0.02	0



Alt Model-Shift Uniqueness Test

011358392-01, P = 0.984976 Days, E = 131.415202 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
943.8	200.5	20.9	33.1	4.67	1.88	18.3	923.0	910.8	179.6	167.4	1.32	1.00	0.04	5.62



Stellar Parameters For KIC 011358392

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6437^{+162}_{-194}	$4.237^{+0.149}_{-0.182}$	$-0.140^{+0.250}_{-0.300}$	$1.369^{+0.417}_{-0.278}$	$1.180^{+0.192}_{-0.157}$	$0.647^{+0.490}_{-0.320}$
	+3%/-3%	+4%/-4%	+179%/-214%	+30%/-20%	+16%/-13%	+76%/-49%
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 011358392-01 / KOI 7440.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-75 ± 4	$10.79^{+1.80}_{-1.16}$	3247^{+235}_{-195}	-2937^{+190}_{-211}	$0.146^{+0.038}_{-0.035}$
Alt.	-1338 ± 7	$12.35^{+2.08}_{-1.28}$	3258^{+243}_{-197}	4335^{+89}_{-101}	$2.017^{+0.483}_{-0.494}$

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 $A_{obs} \gg 1.0$

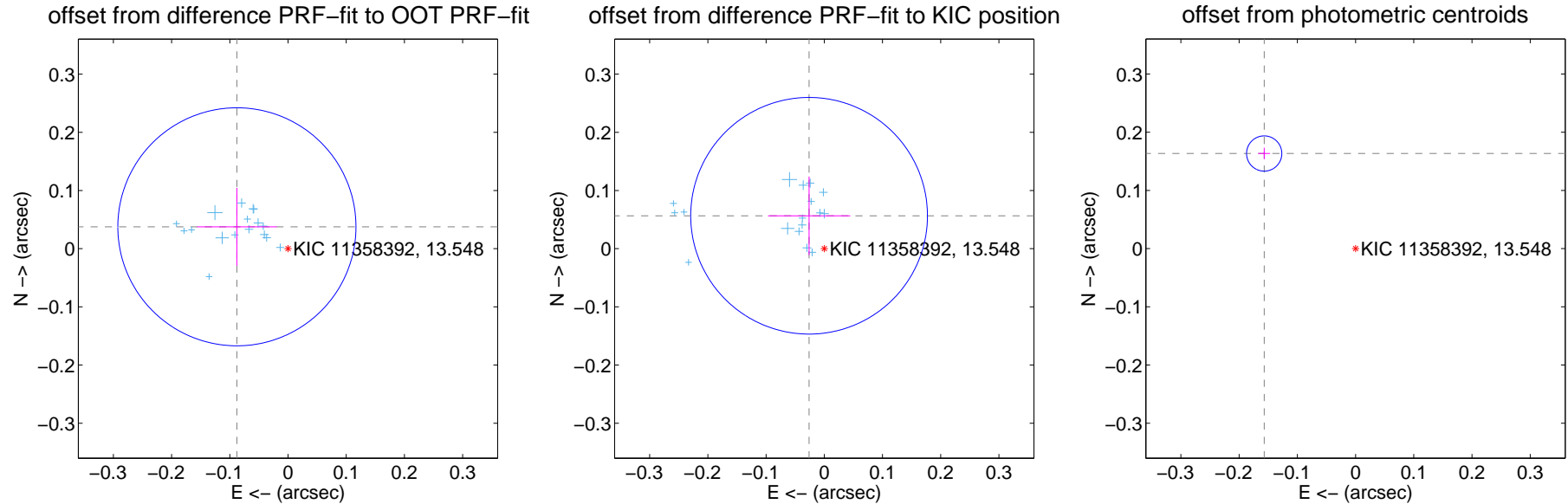
DV Centroid Data

Supplemental centroid analysis for 011358392-01. Kepler magnitude: 13.55. Transit SNR 529.58

There are 17 quarters with good PRF difference image offsets

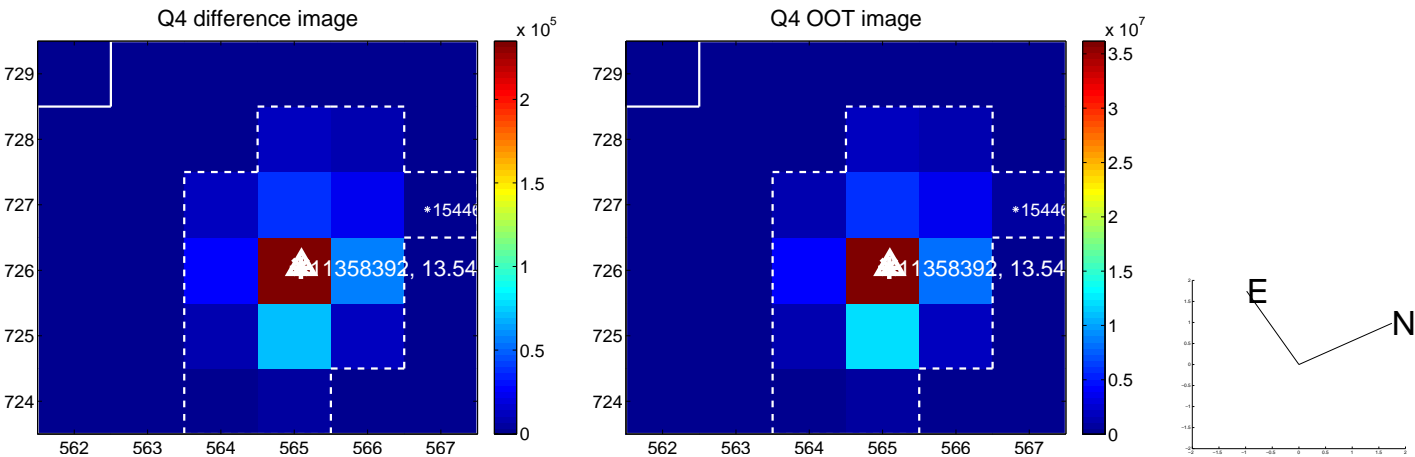
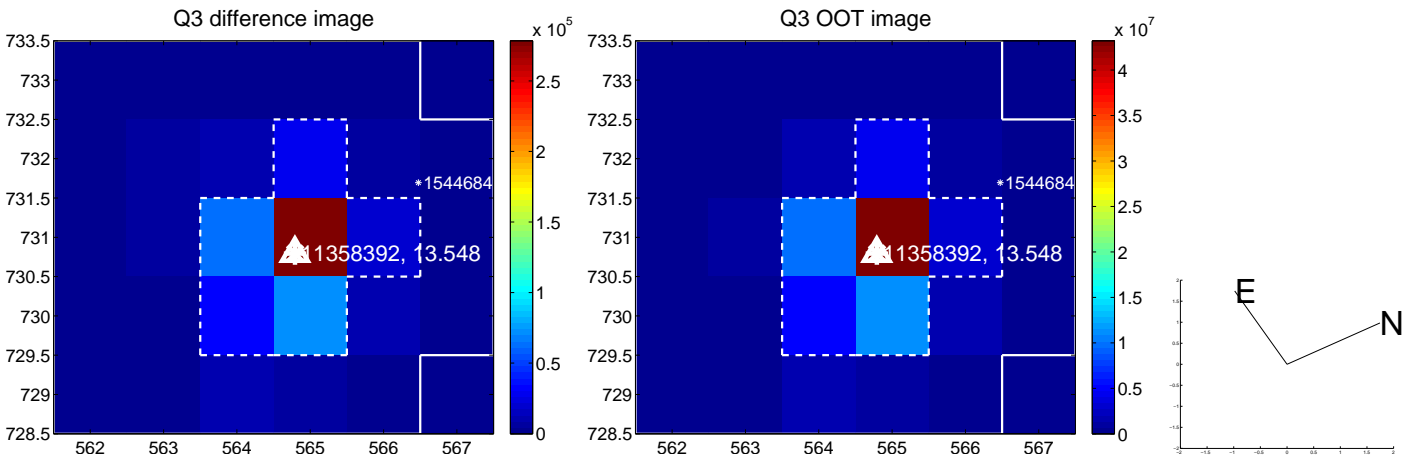
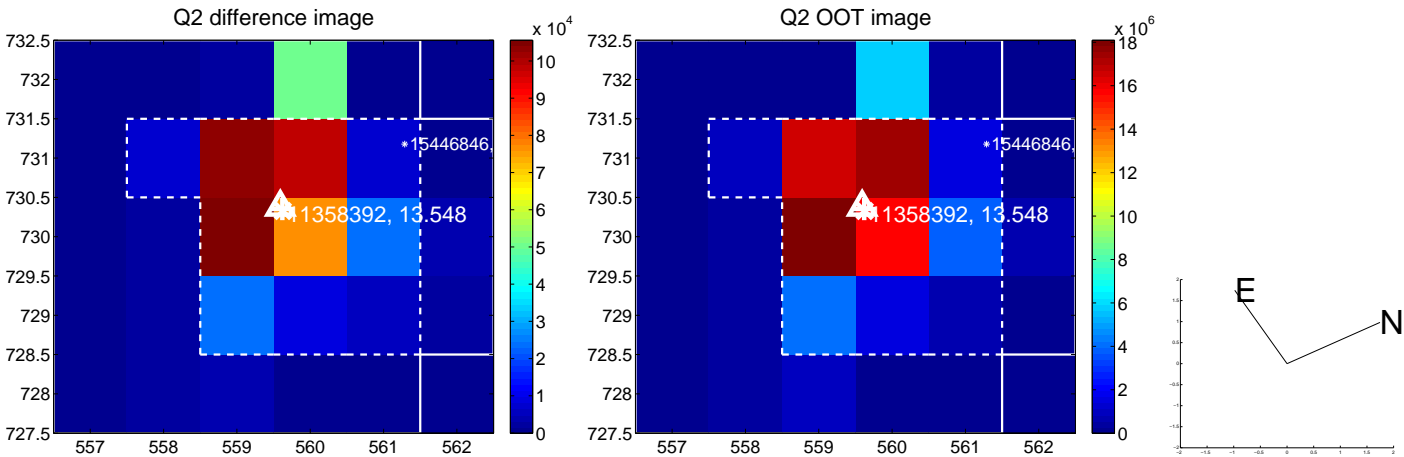
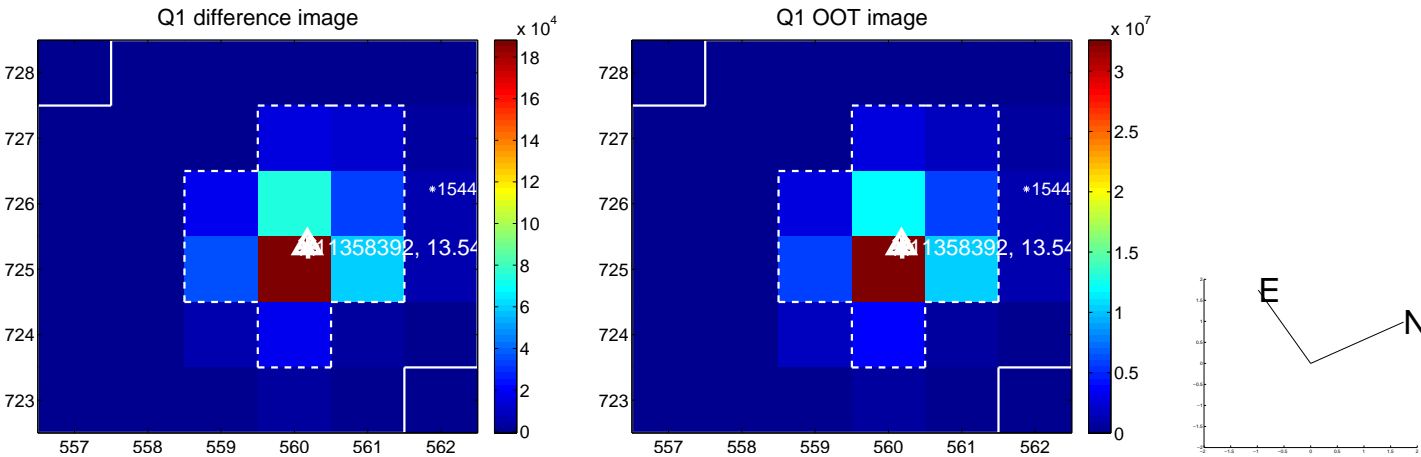
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.068	1.40	0.088 ± 0.068	0.038 ± 0.067
PRF-fit source offset from KIC position	0.062 ± 0.068	0.92	0.026 ± 0.071	0.057 ± 0.067
photometric centroid source offset	0.23 ± 0.01	22.45	0.16 ± 0.01	0.16 ± 0.01

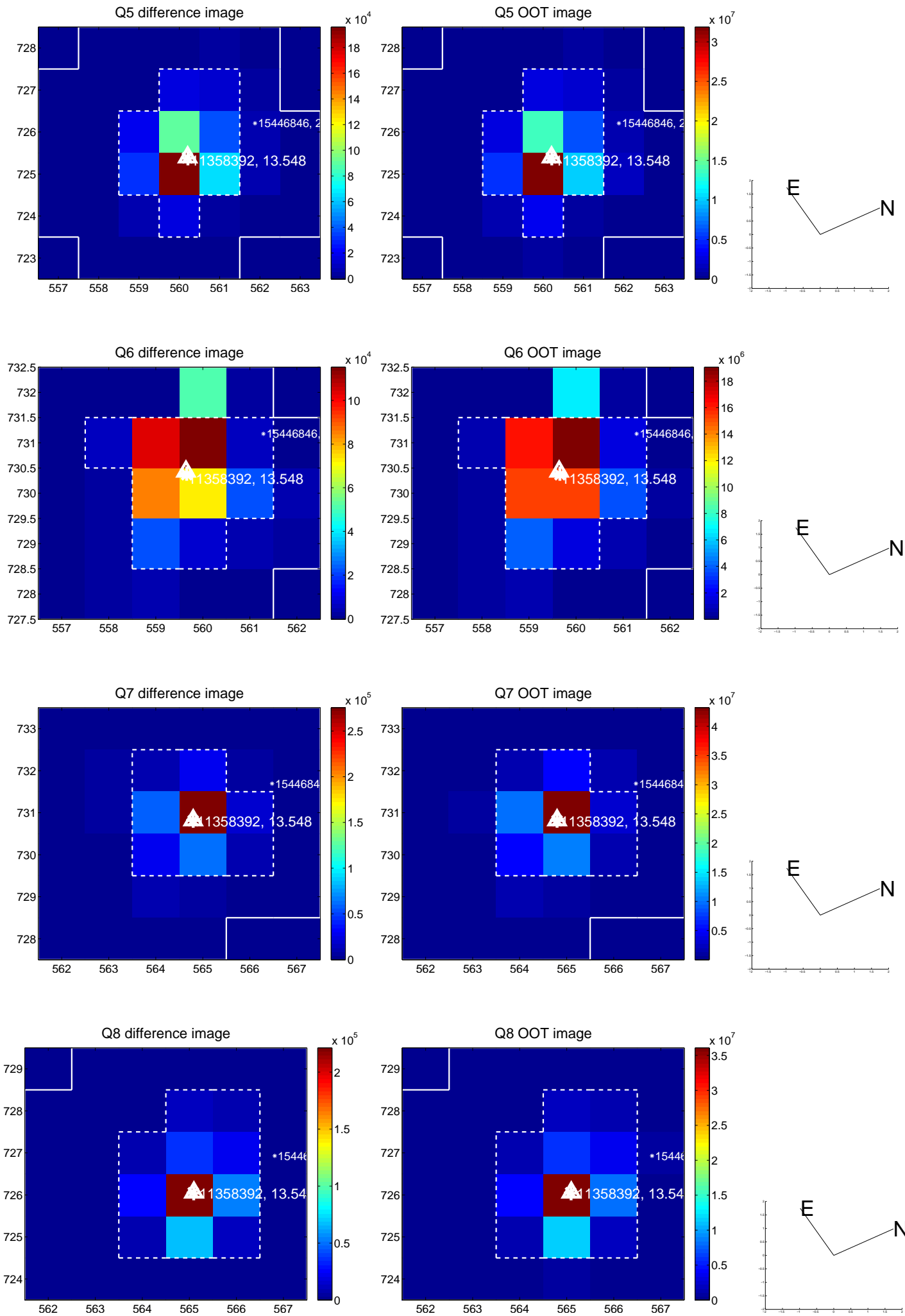


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

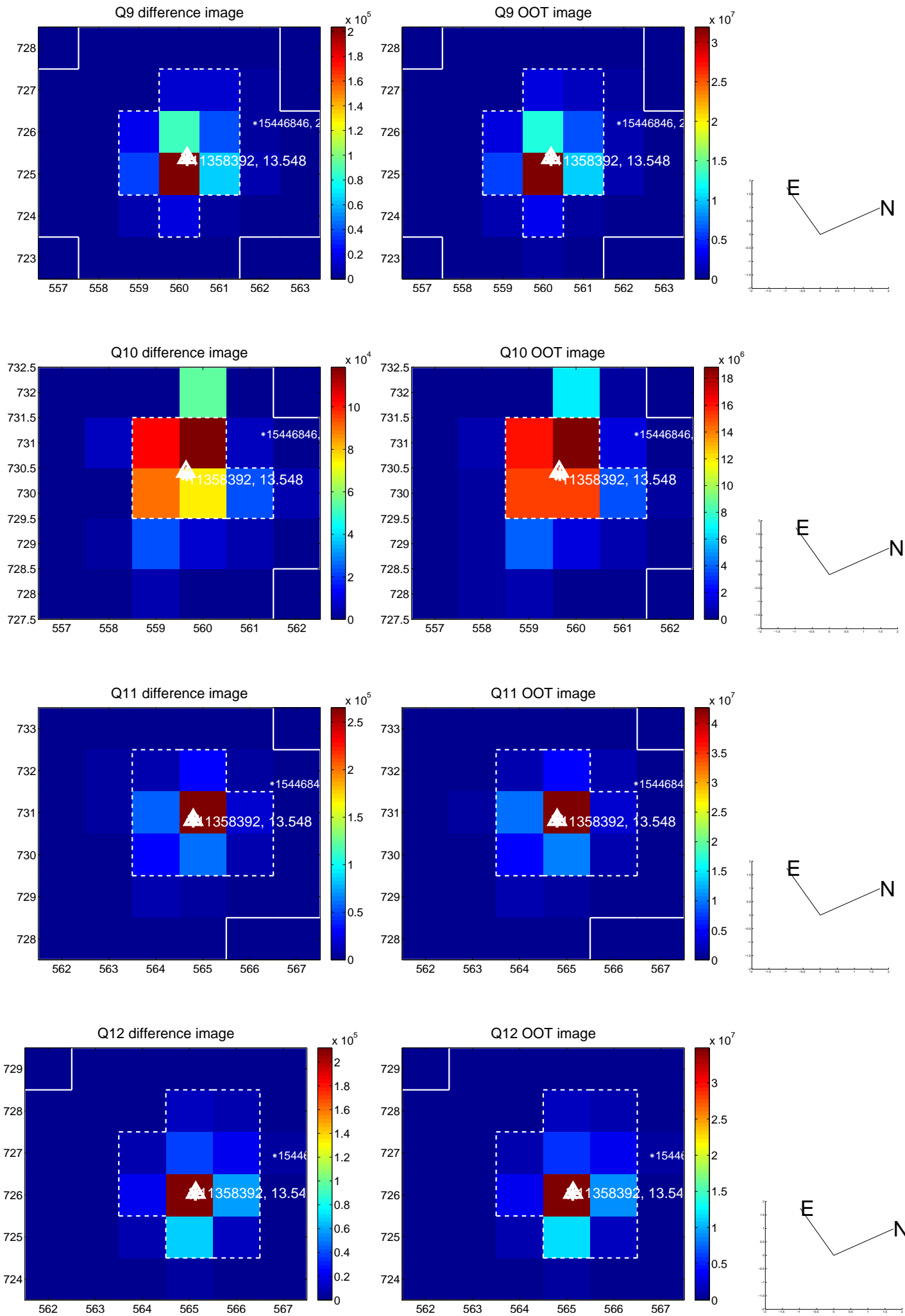
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



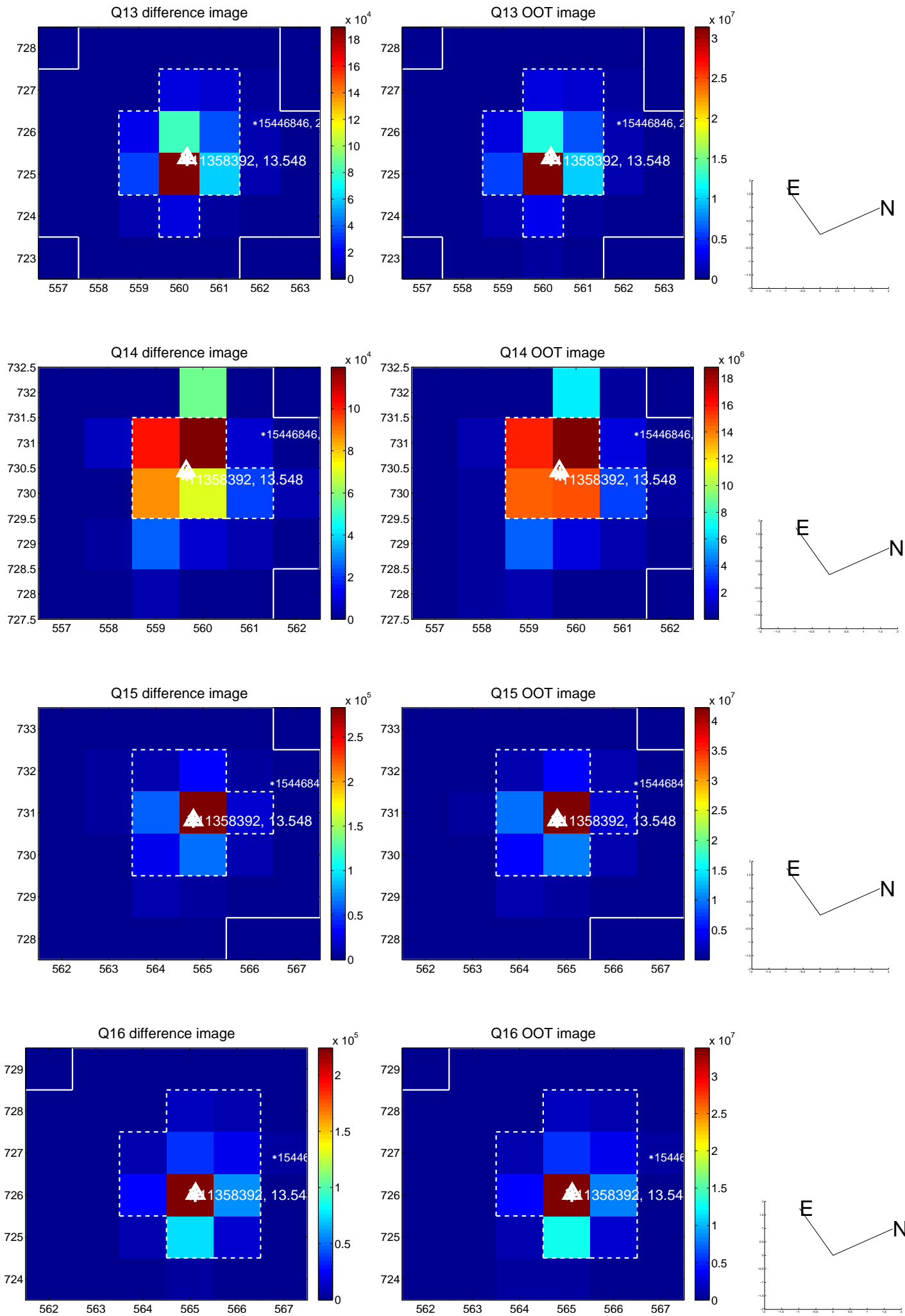
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



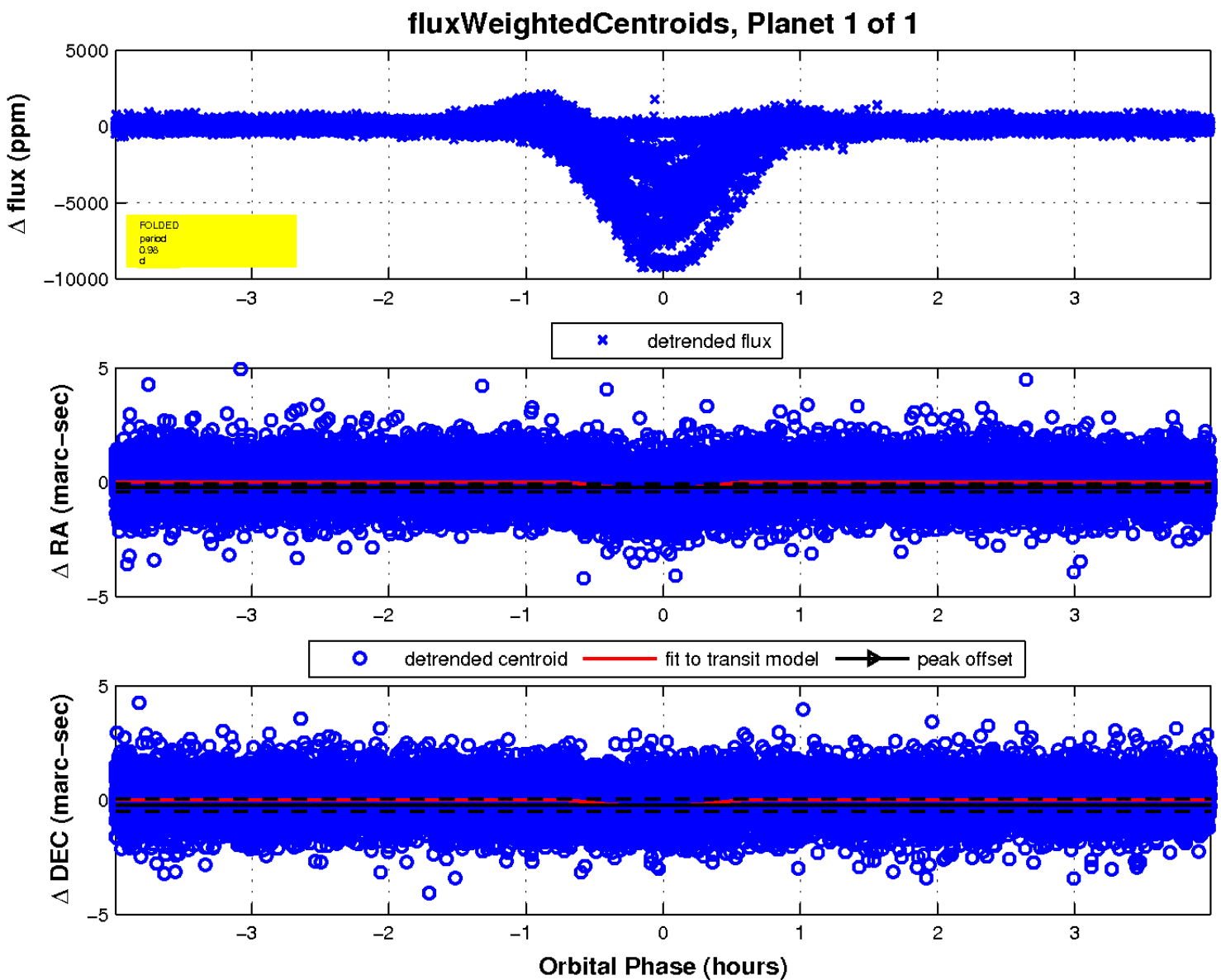
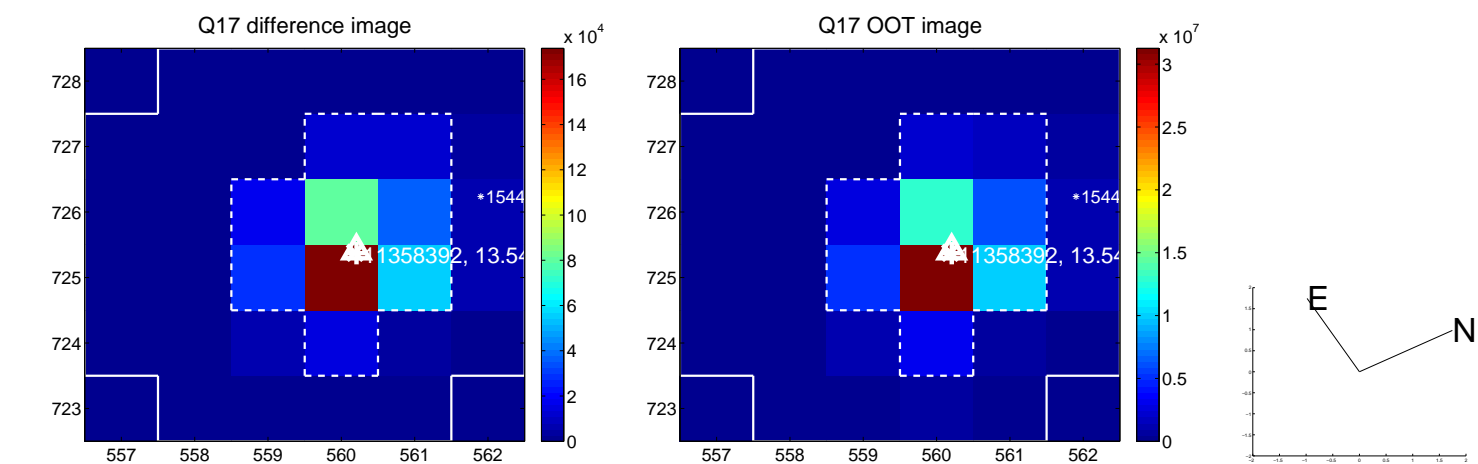
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

