

KIC 009692128

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
009692128-01	OBS	2769.01	1.480284	131.772683	96.4	2.047	26.3	26.4	1.08	5996	1.25	2186.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
009692128-01	OBS	FP	0.00	0	1	0	1	MOD_SEC_ALT—EPHEM_MATCH

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.

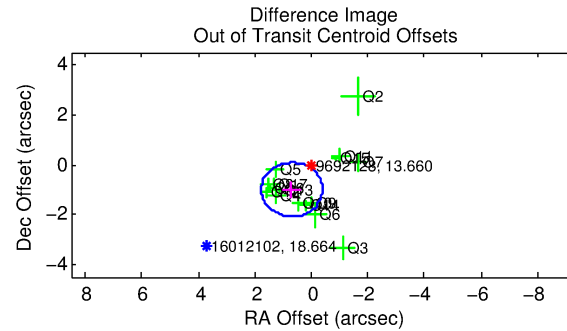
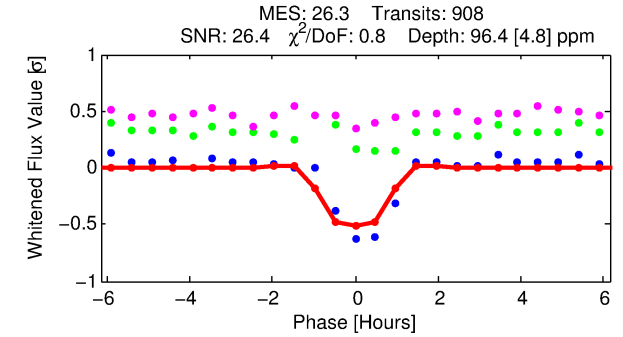
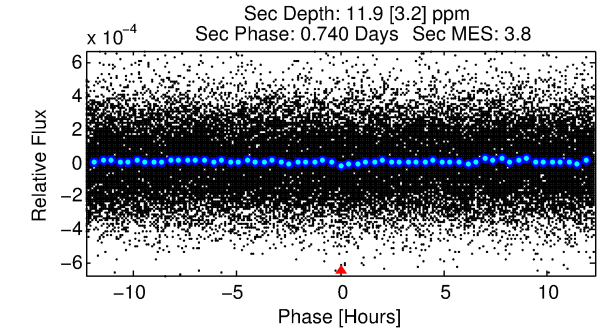
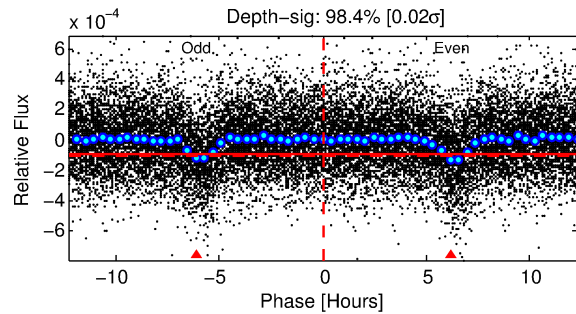
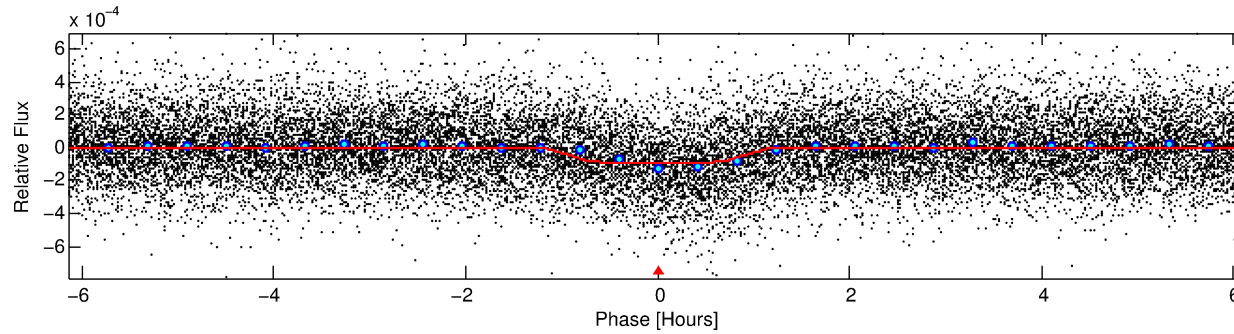
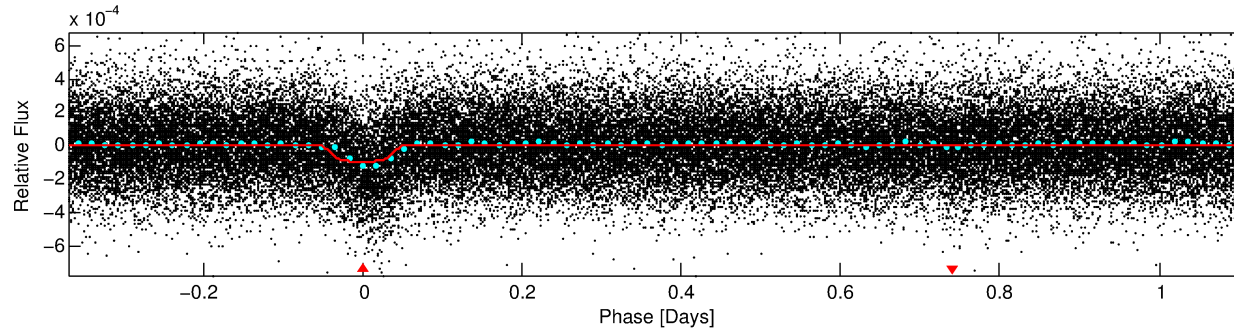
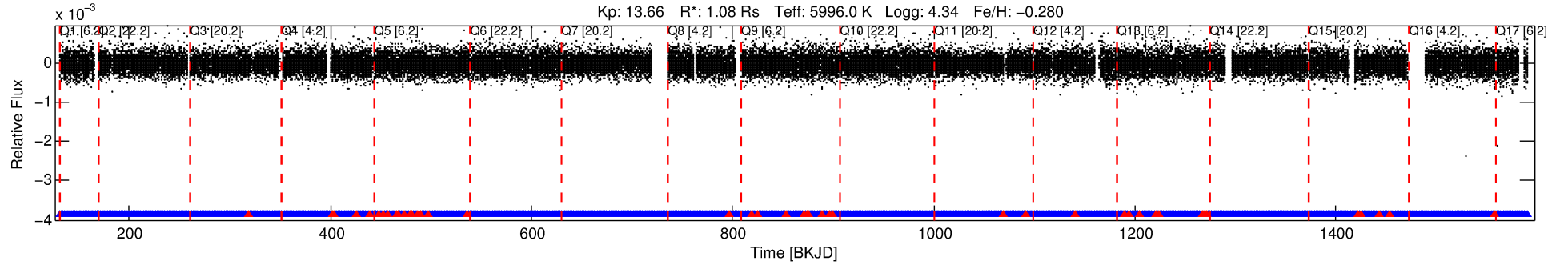
Ephemeris Match Information For 009692128-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
009692128-01	9692128	7191.01	9569866	1:1	845.0	212	0	13.98	13.66	4245.30	Col-Anomaly	0	2.13	1.07

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 9692128 Candidate: 1 of 1 Period: 1.480 d
KOI: K02769.01 Corr: 0.869



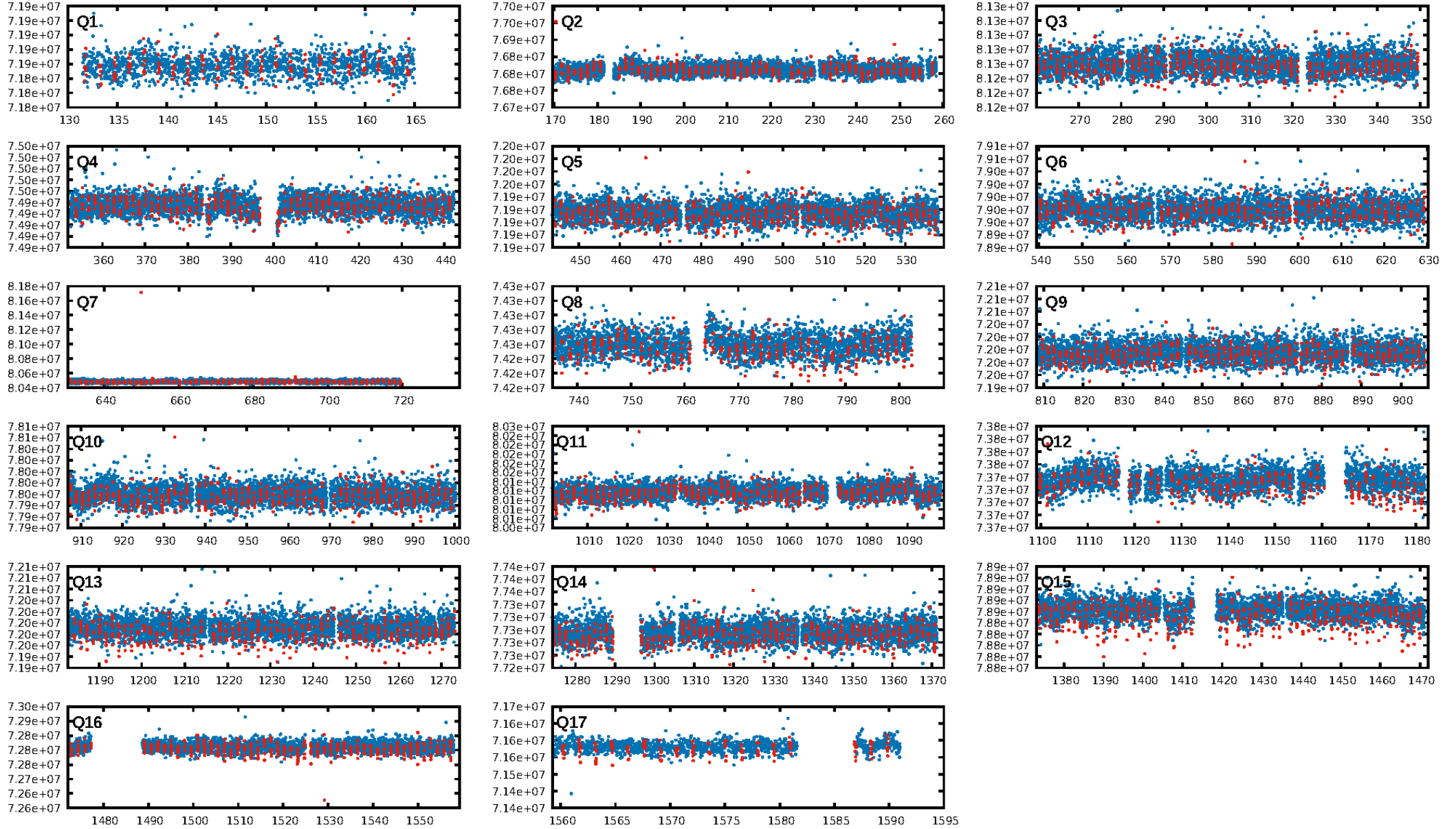
DV Fit Results:

Period = 1.48028 [0.00000] d
Epoch = 131.7727 [0.0012] BKJD
Rp/R* = 0.0106 [0.0031]
a/R* = 2.70 [3.56]
b = 0.90 [0.32]
Seff = 2186.58 [799.24]
Teq = 1744 [159] K
Rp = 1.25 [0.51] Re
a = 0.0249 [0.0060] AU
Ag = 2.58 [1.88] [0.84 σ]
Teffp = 3418 [557] K [2.89 σ]

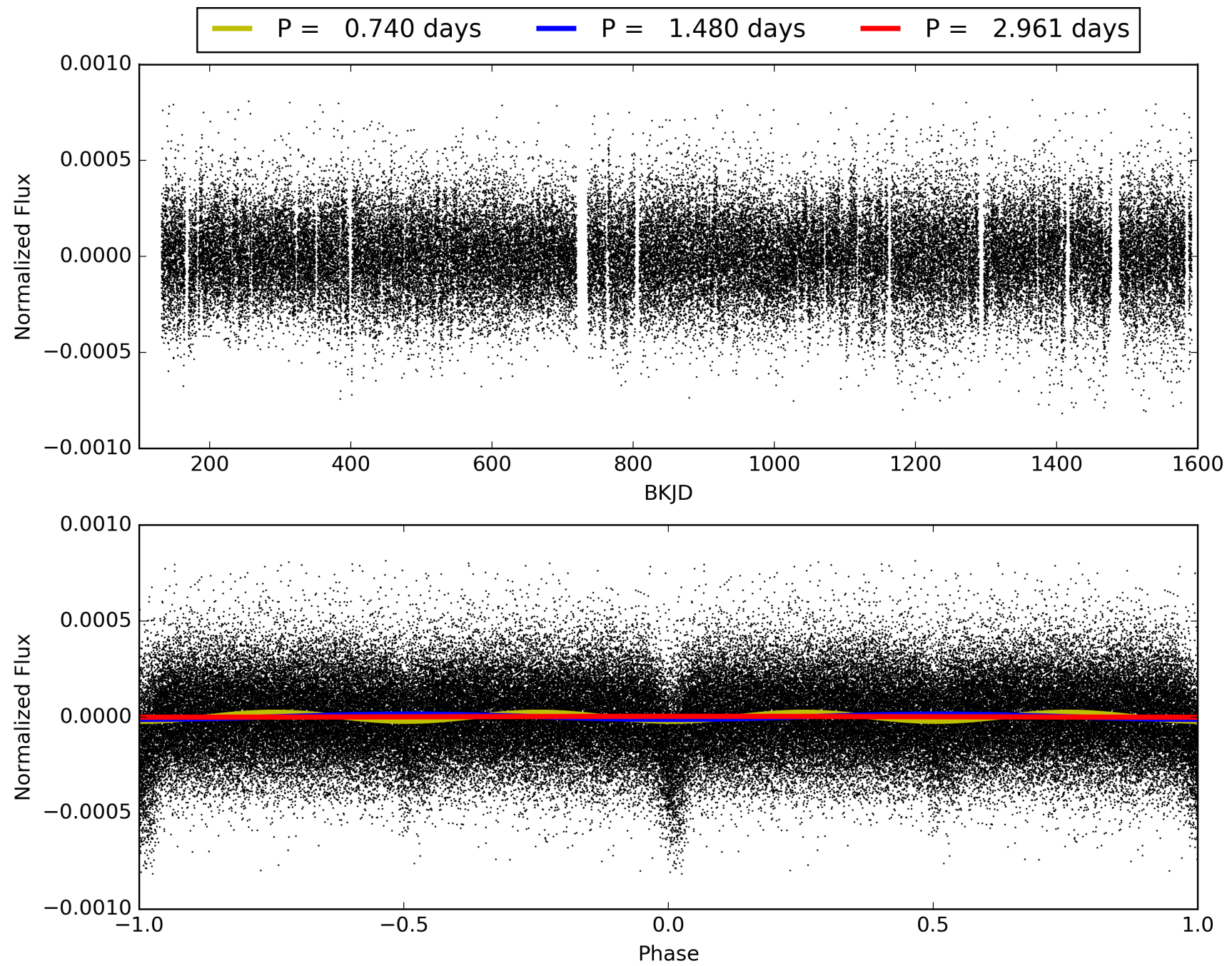
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.40e-145
RollingBand-fgt: 0.95 [822/867]
GhostDiagnostic-chr: 6.708
Centroid-sig: 0.0%
Centroid-so: 2.017 arcsec [4.05 σ]
OotOffset-rm: 1.217 arcsec [3.38 σ]
KicOffset-rm: 1.177 arcsec [3.17 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.94 [15/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 009692128-01, PDC Light Curves

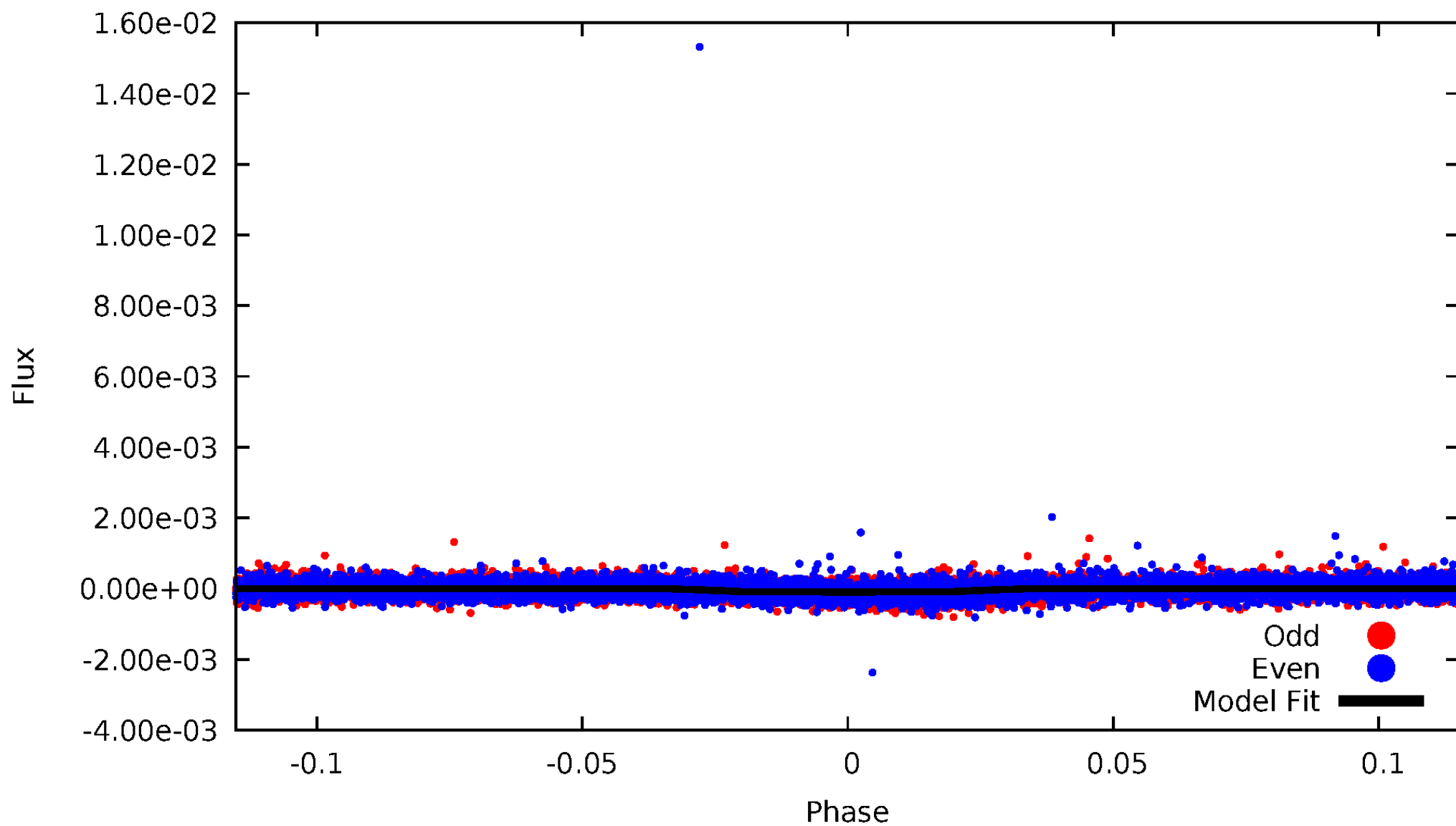


TCE 009692128-01



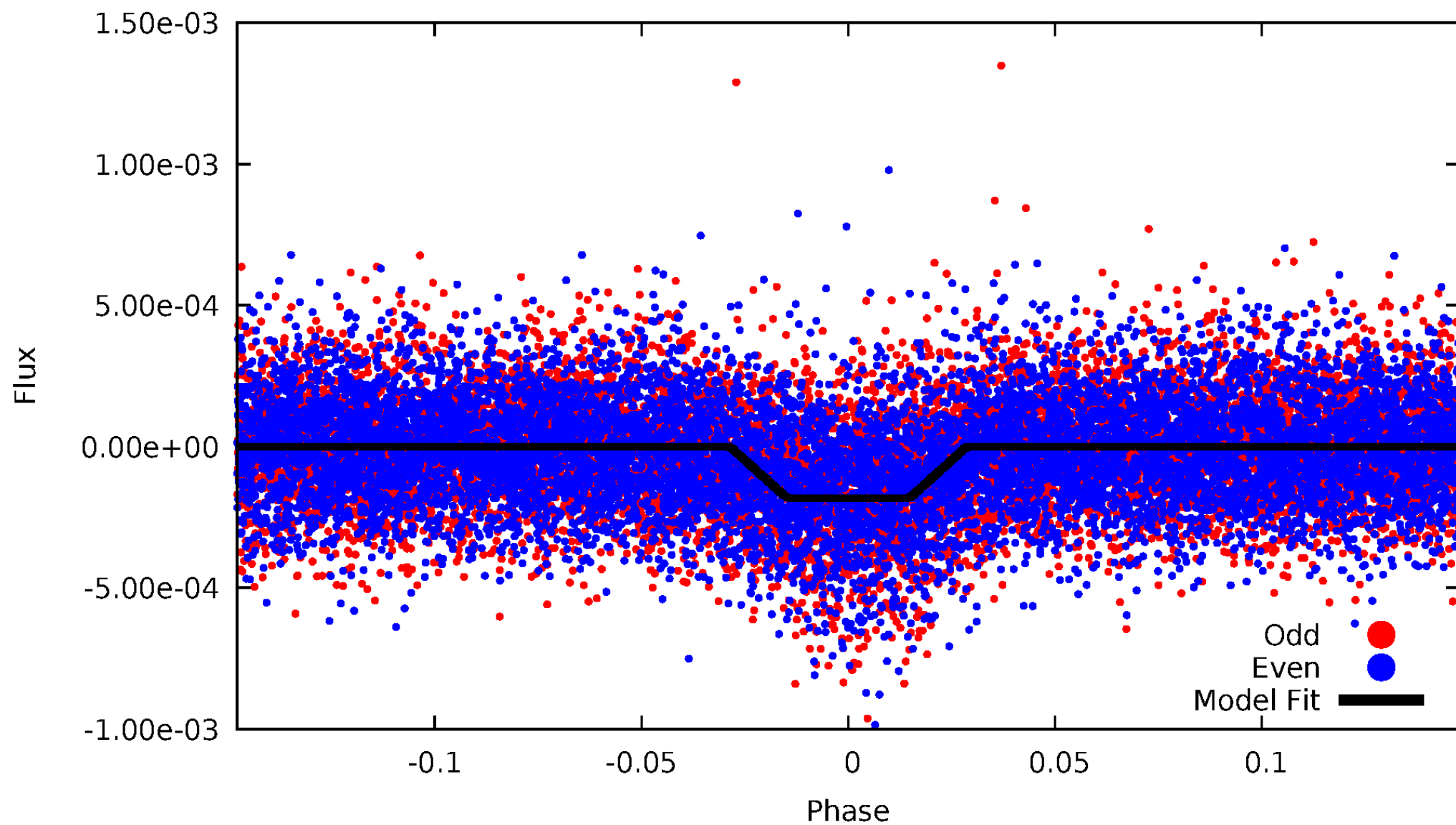
DV Odd/Even

TCE 009692128-01

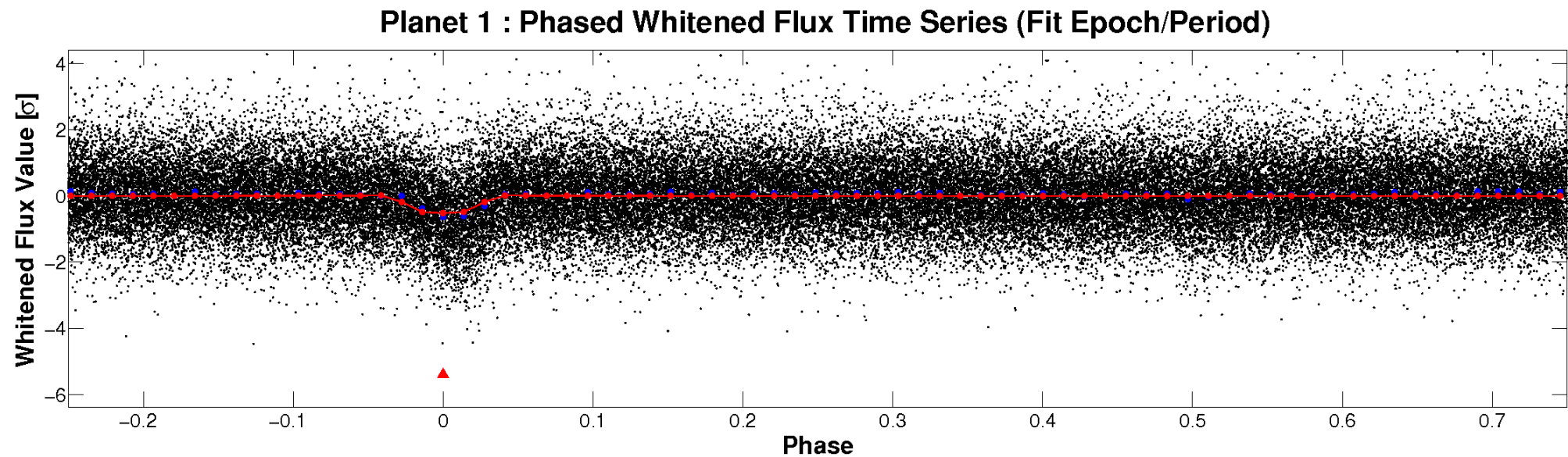
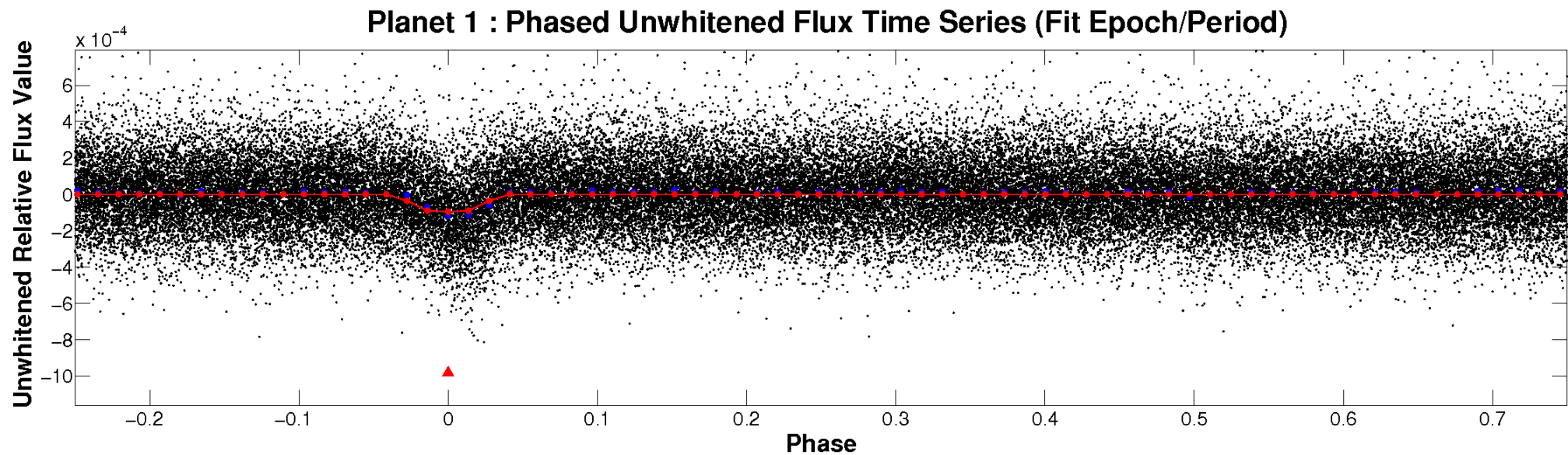


ALT Odd/Even

TCE 009692128-01

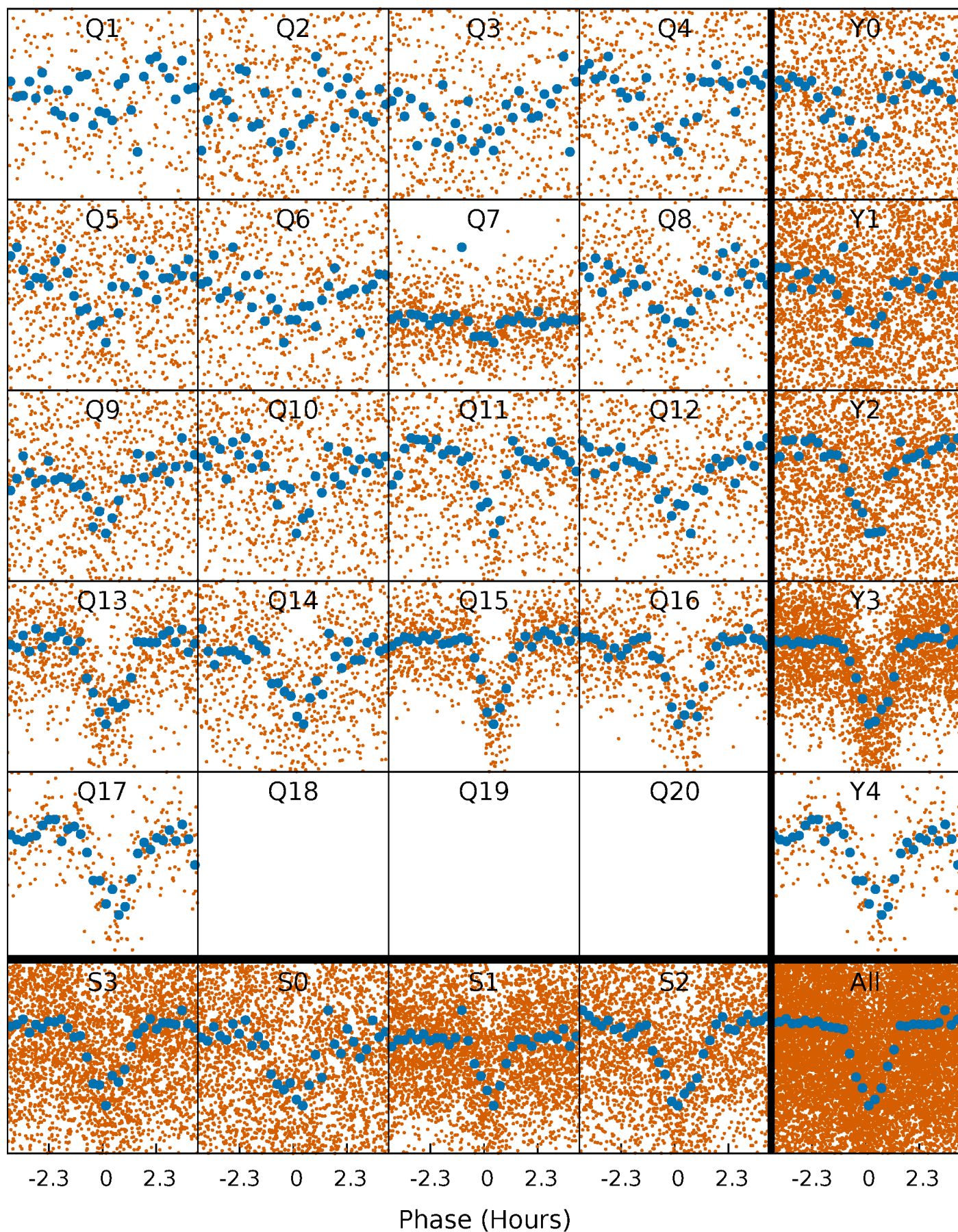


Non-Whitened Vs. Whitened Light Curve



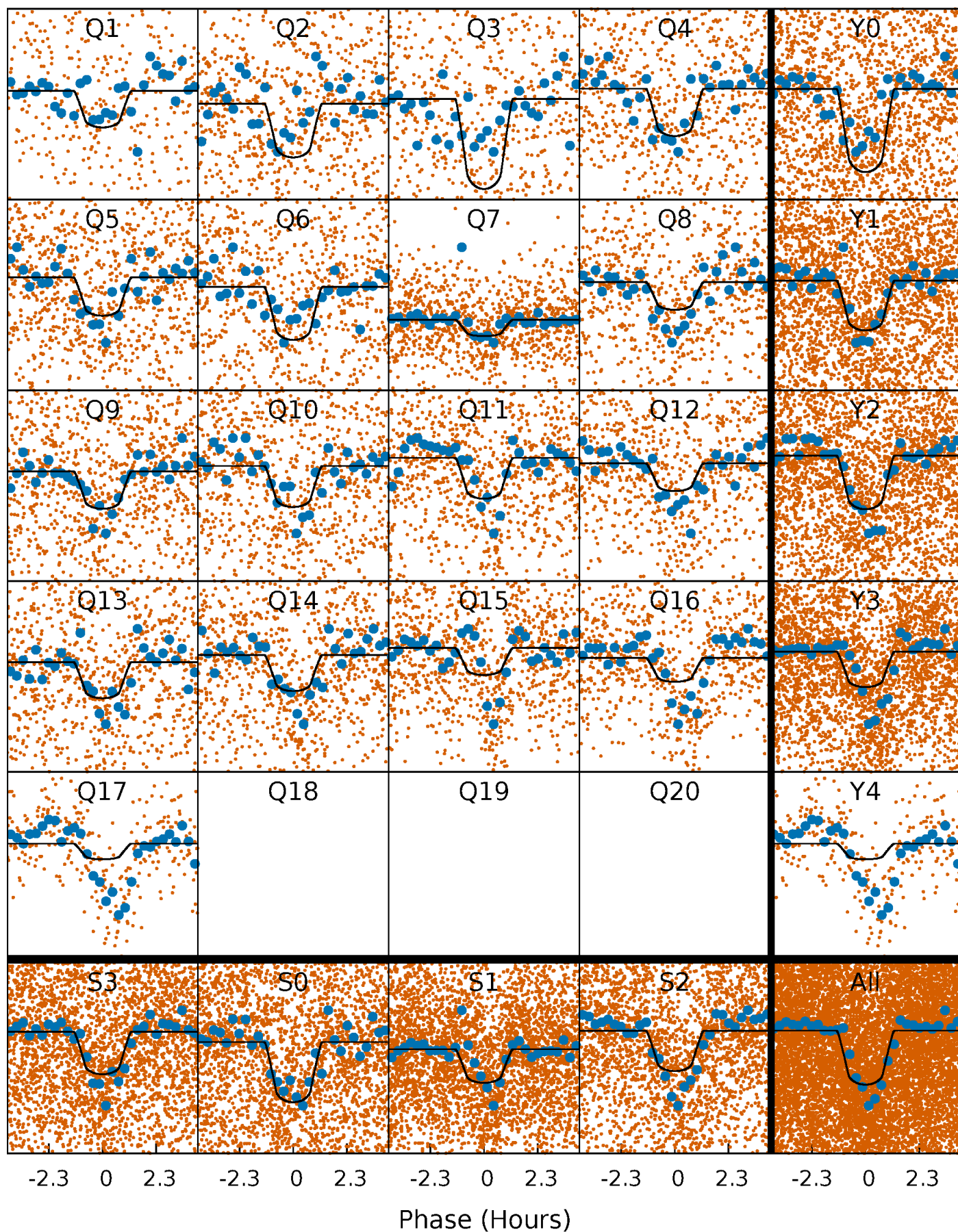
PDC Quarter-Phased Transit Curves

TCE 009692128-01 P= 1.480284 Days $T_0=131.772683$ (BKJD)



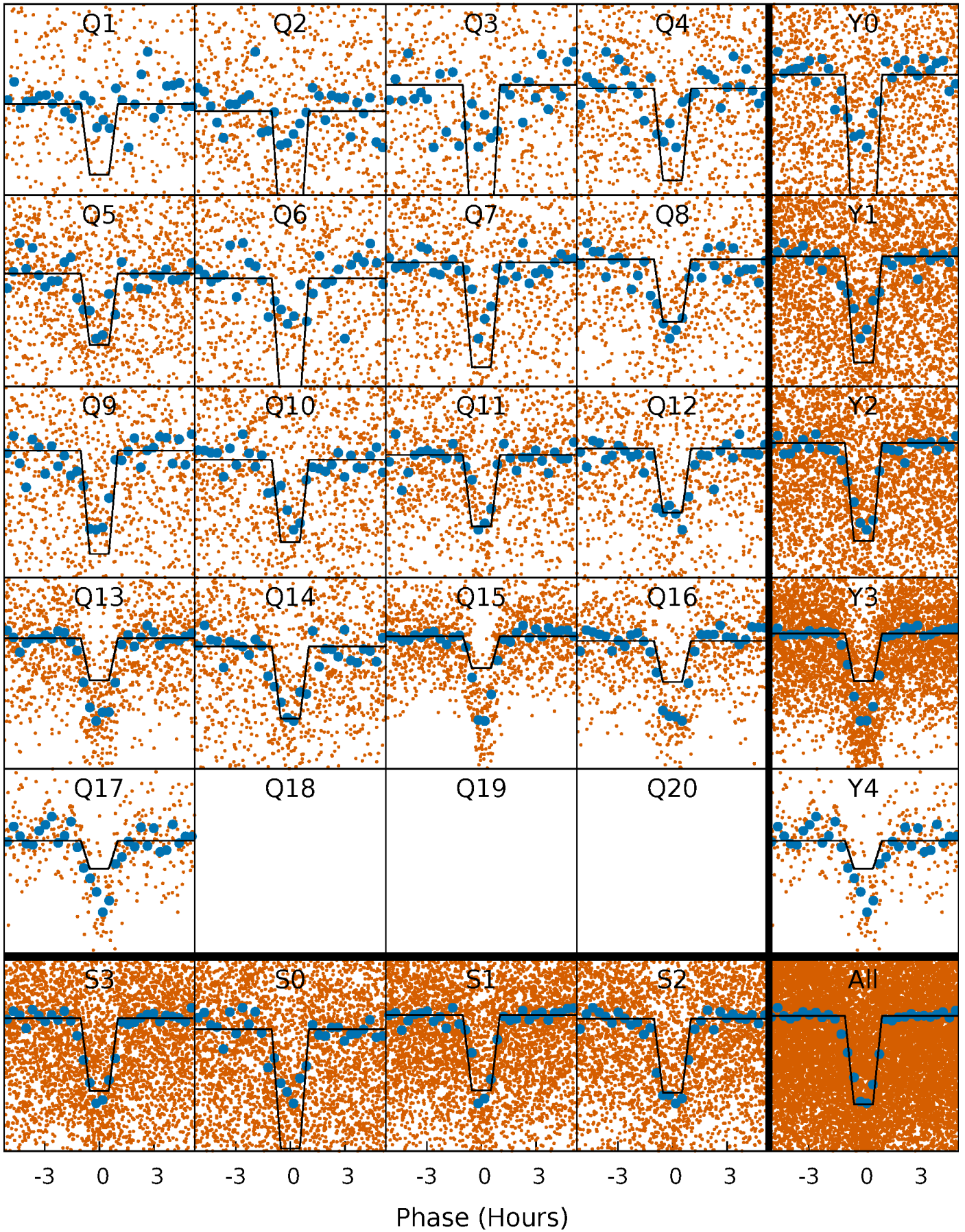
DV Quarter-Phased Transit Curves

TCE 009692128-01 P= 1.480284 Days $T_0=131.772683$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

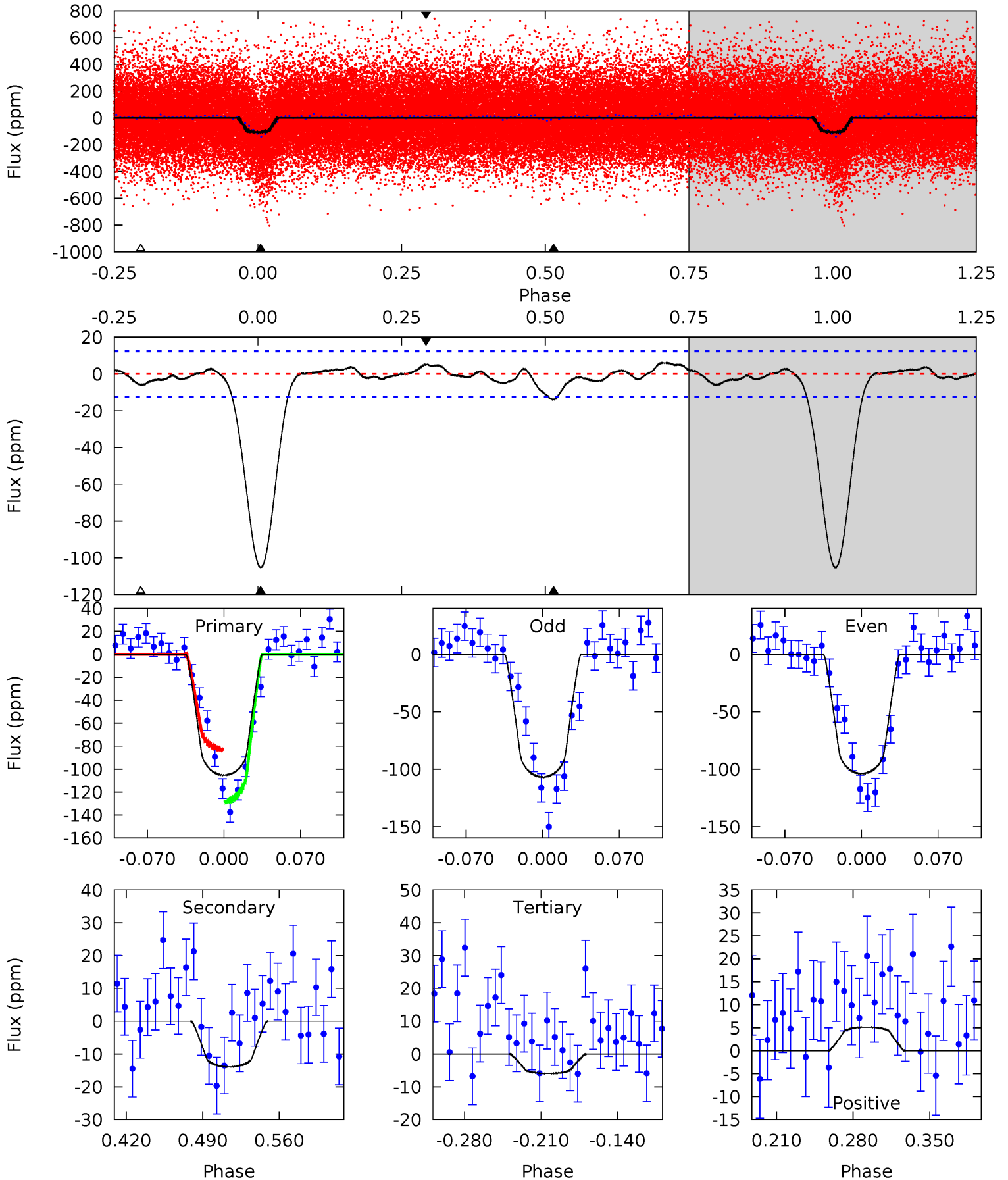
TCE 009692128-01 P= 1.480311 Days $T_0=131.763897$ (BKJD)



DV Model-Shift Uniqueness Test

009692128-01, P = 1.480284 Days, E = 130.292399 Days

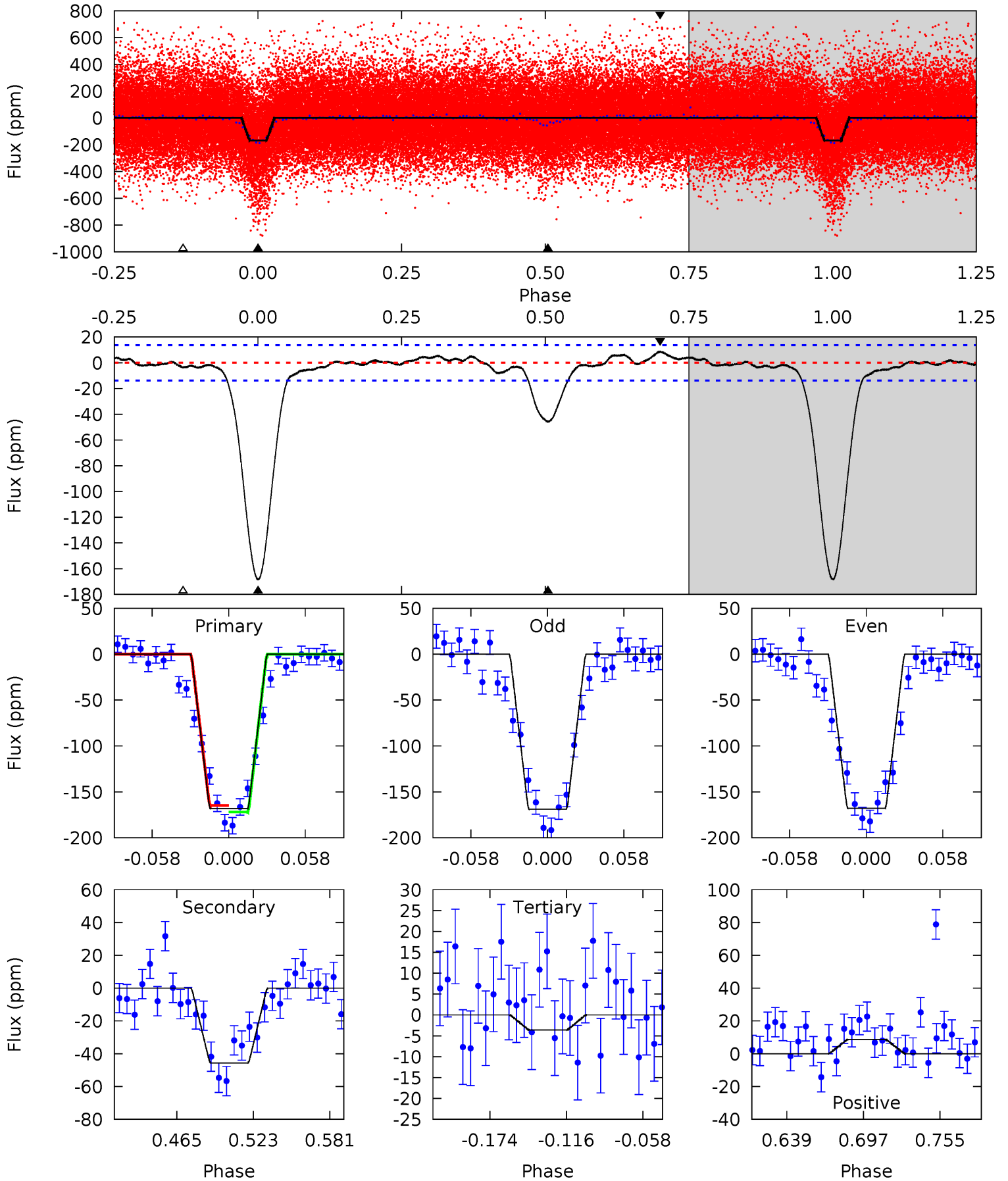
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
39.4	5.21	2.23	1.92	4.64	1.81	1.06	37.2	37.5	2.99	3.29	0.57	0.97	0.05	8.53



Alt Model-Shift Uniqueness Test

009692128-01, P = 1.480311 Days, E = 130.283586 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.2	15.5	1.22	2.93	4.68	1.89	1.24	55.9	54.2	14.3	12.6	0.18	1.14	0.05	1.24



Stellar Parameters For KIC 009692128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5996^{+162}_{-180}	$4.342^{+0.153}_{-0.187}$	$-0.280^{+0.300}_{-0.300}$	$1.081^{+0.311}_{-0.207}$	$0.936^{+0.132}_{-0.108}$	$1.044^{+0.766}_{-0.506}$
	+3%/-3%	+4%/-4%	+107%/-107%	+29%/-19%	+14%/-12%	+73%/-48%
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 009692128-01 / KOI 2769.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-14 ± 3	$1.25^{+0.39}_{-0.38}$	2436^{+185}_{-159}	3813^{+576}_{-376}	$2.962^{+3.422}_{-1.321}$
Alt.	-46 ± 3	$1.61^{+0.44}_{-0.40}$	2438^{+181}_{-144}	4379^{+531}_{-329}	$6.008^{+4.486}_{-2.220}$

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 $A_{\text{obs}} \gg 1.0$

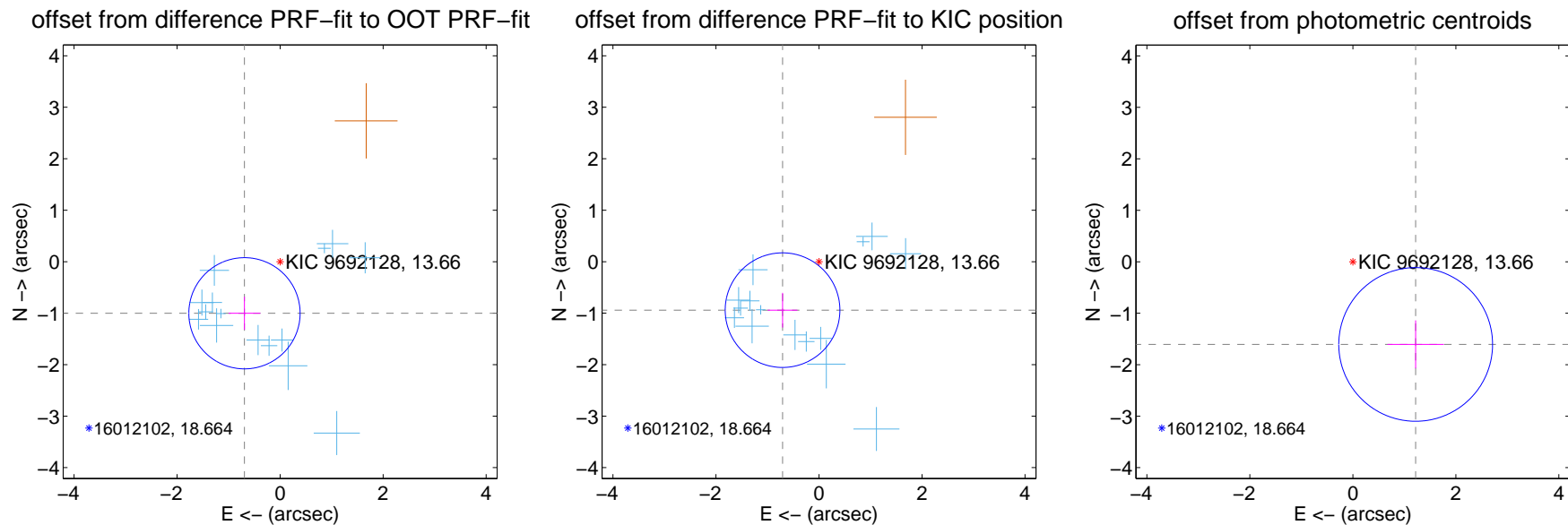
DV Centroid Data

Supplemental centroid analysis for 009692128-01. Kepler magnitude: 13.66. Transit SNR 26.45

There are 15 quarters with good PRF difference image offsets

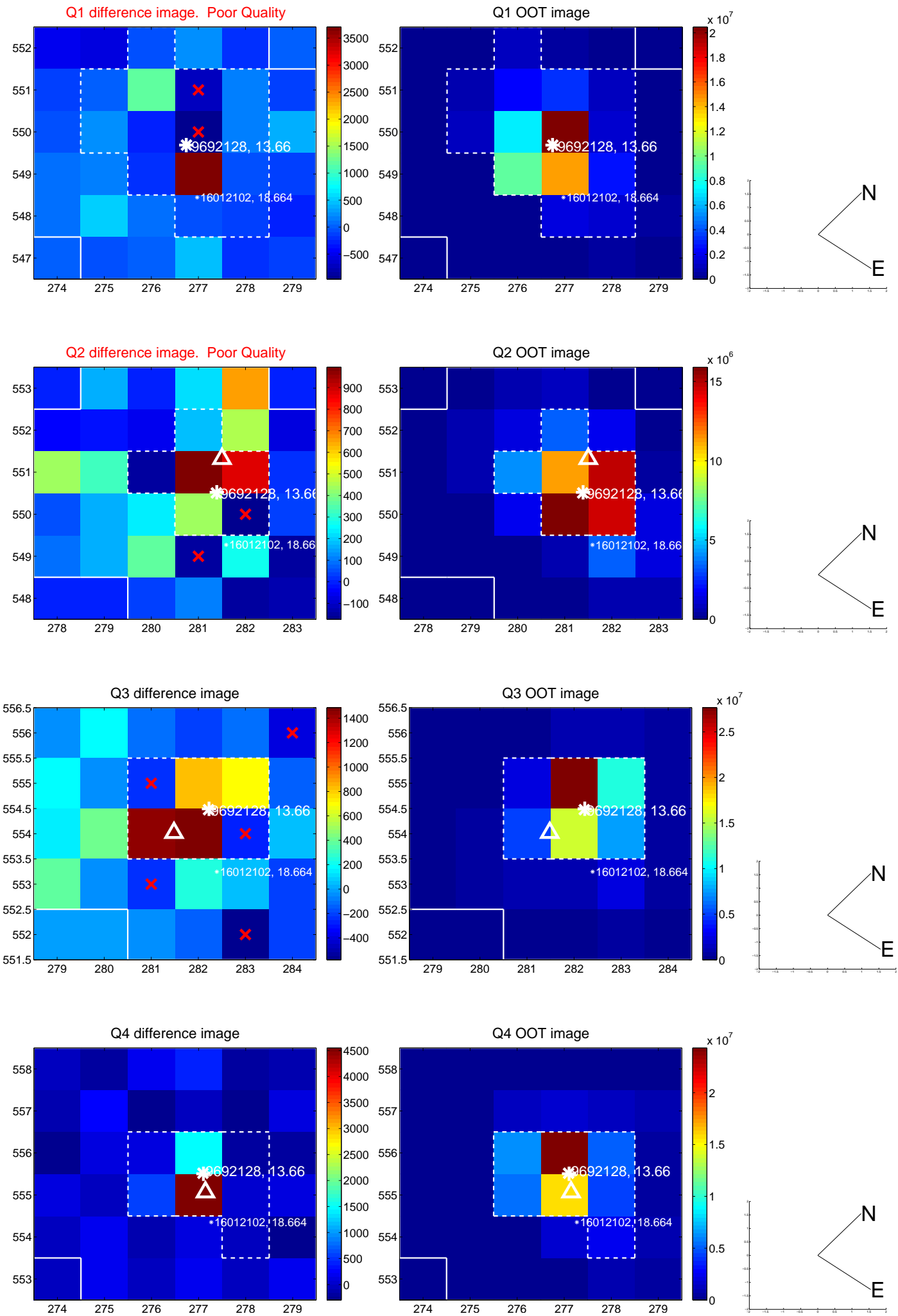
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.217 ± 0.360	3.38	0.692 ± 0.309	-1.002 ± 0.322
PRF-fit source offset from KIC position	1.177 ± 0.371	3.17	0.707 ± 0.288	-0.941 ± 0.337
photometric centroid source offset	2.02 ± 0.50	4.05	-1.22 ± 0.55	-1.61 ± 0.47

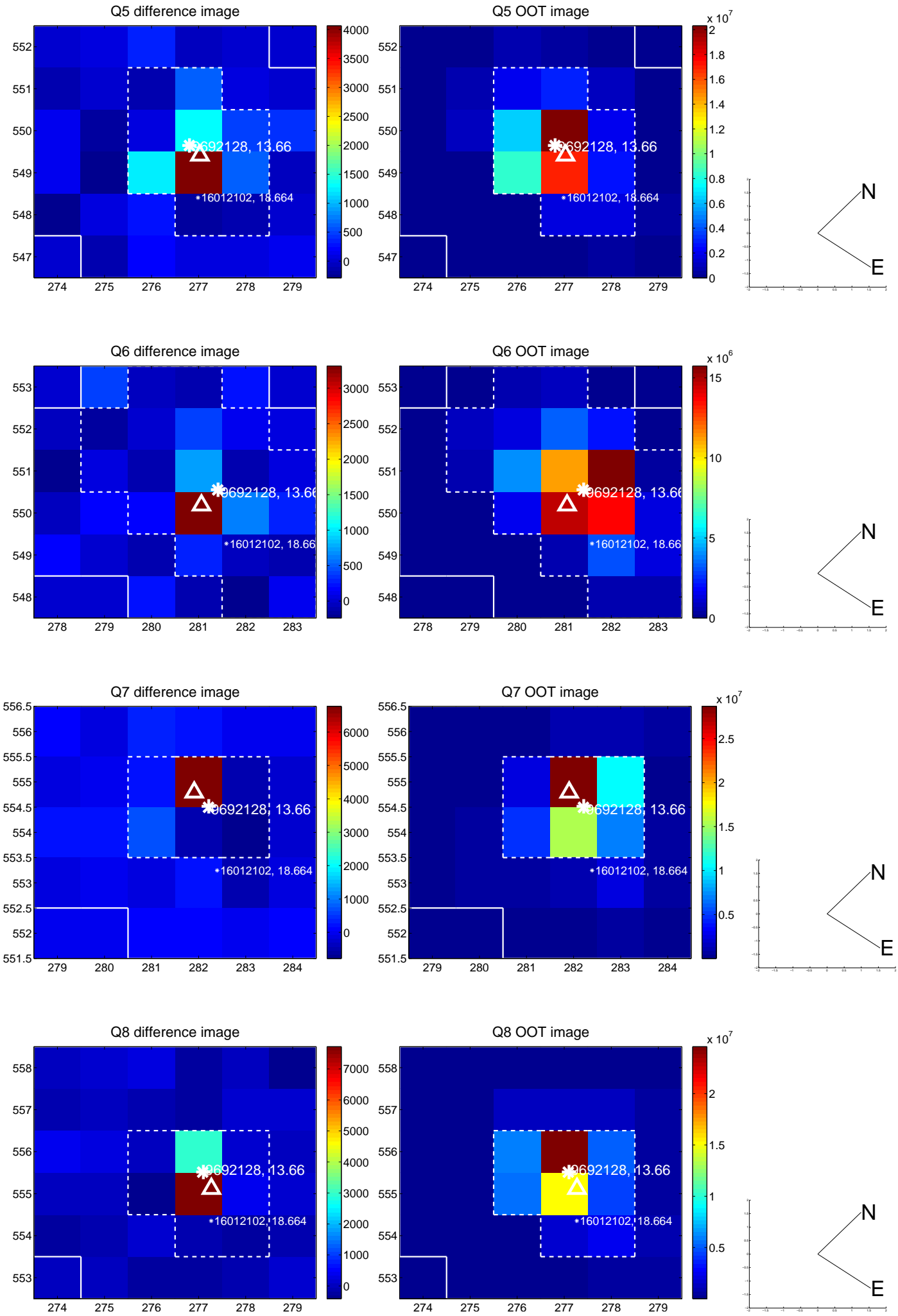


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

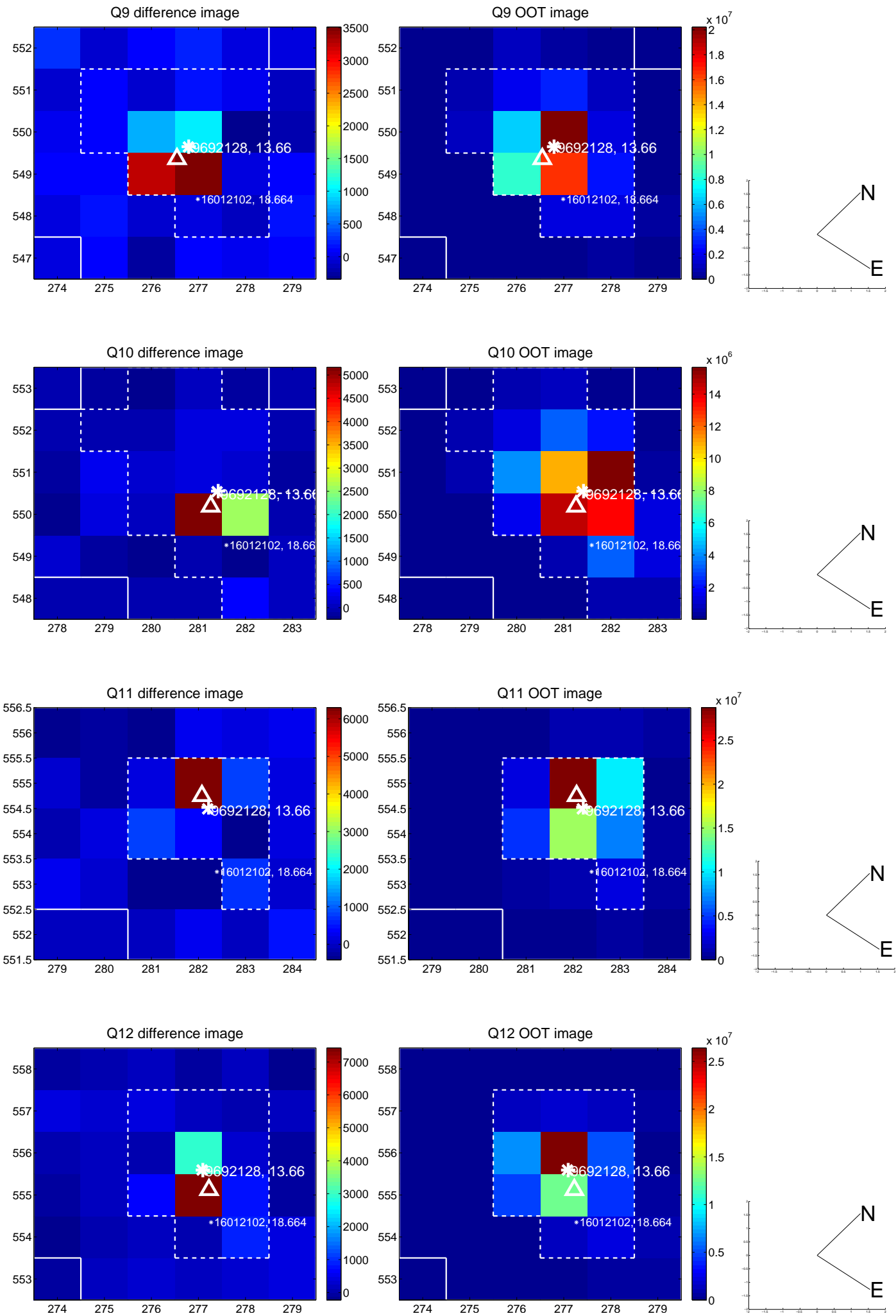
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



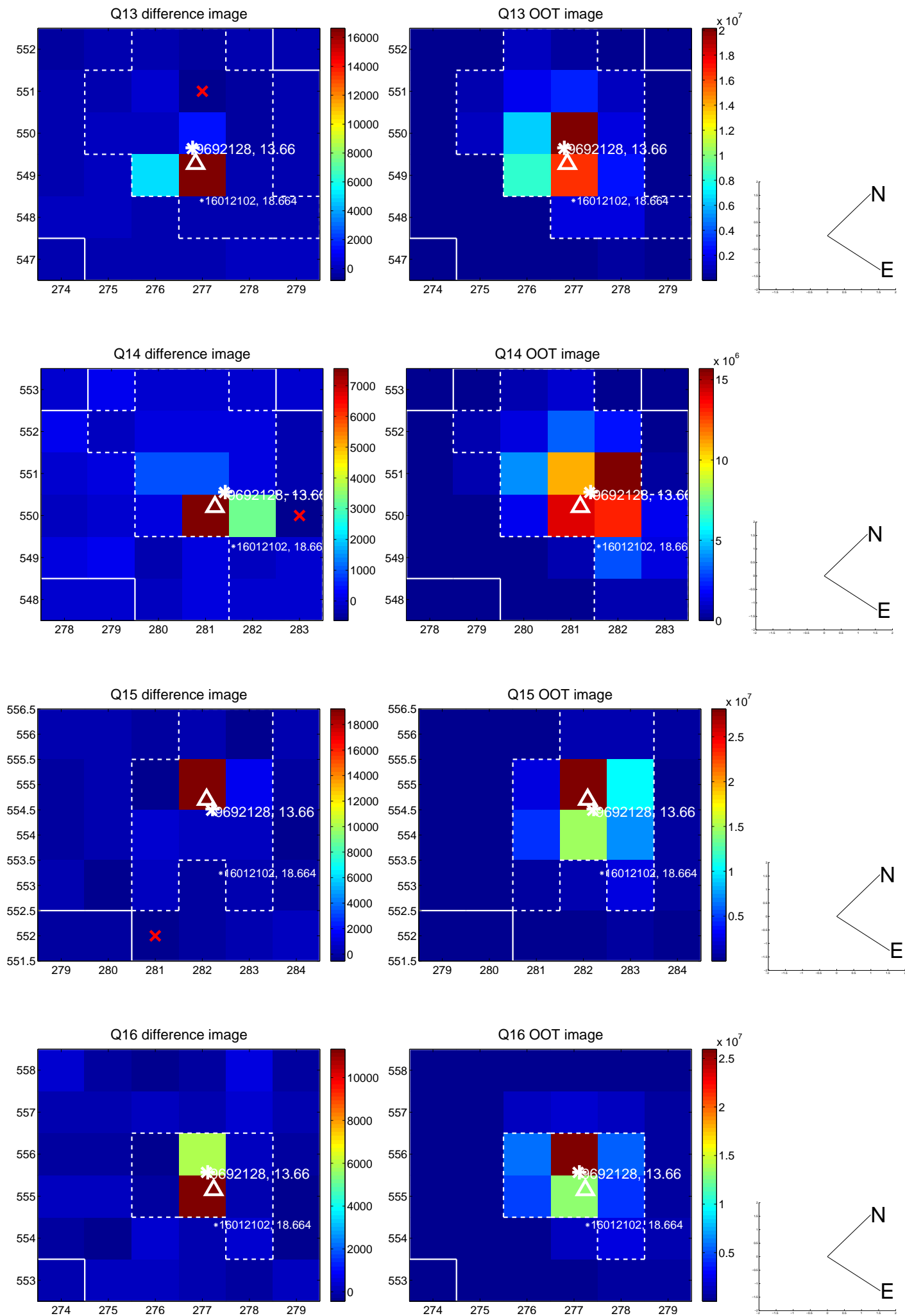
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

