

KIC 010322797

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})
010322797-01	OBS	7999.01	1.213670	131.781603	17.8	3.652	11.8	10.7	1.99	6532	0.98	10807.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010322797-01	OBS	FP	0.00	0	0	0	1	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.

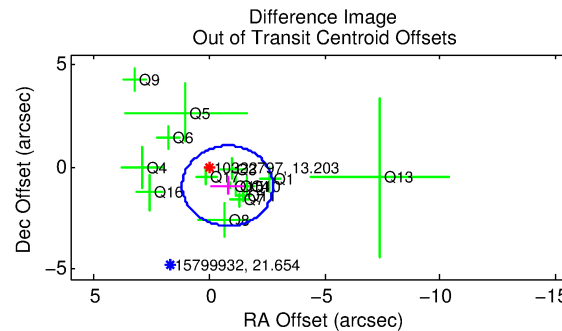
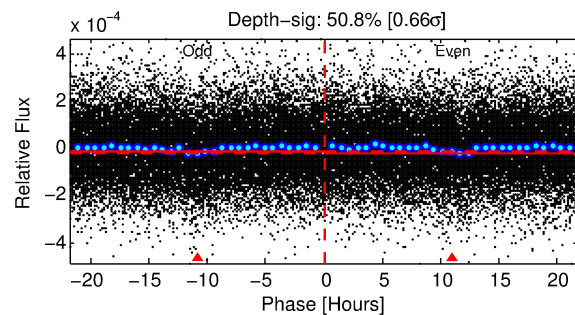
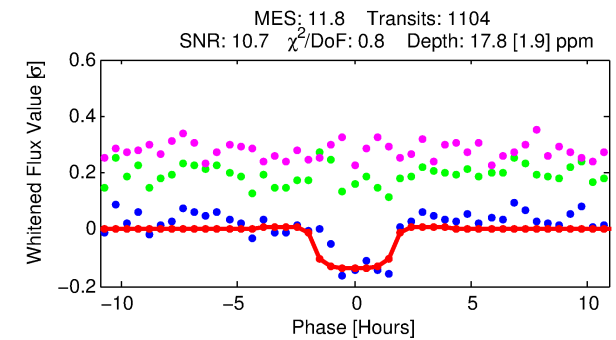
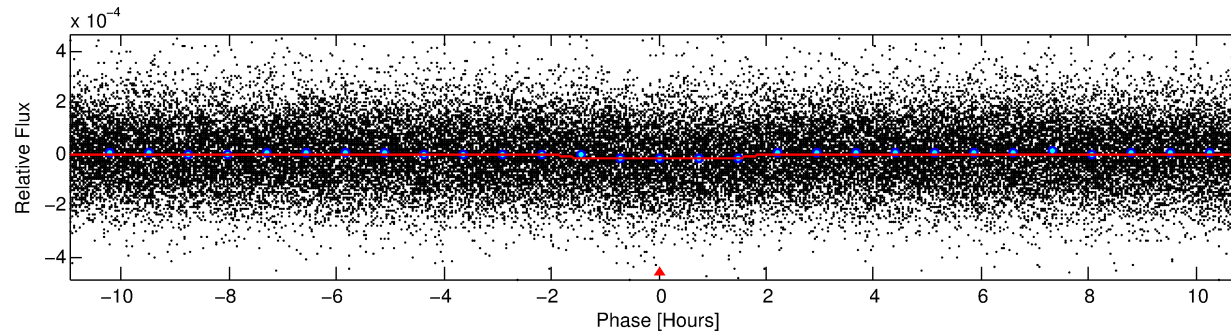
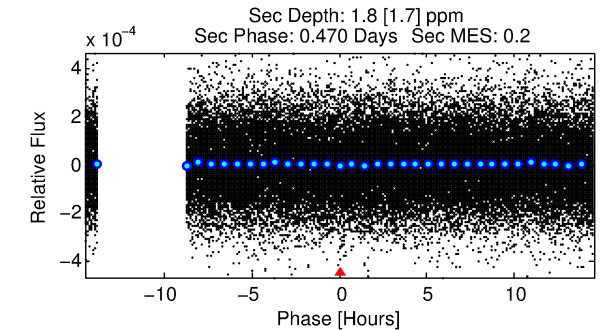
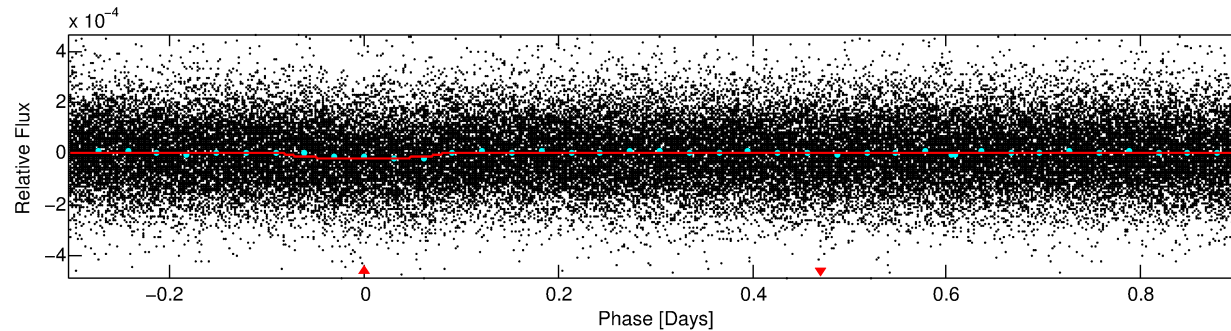
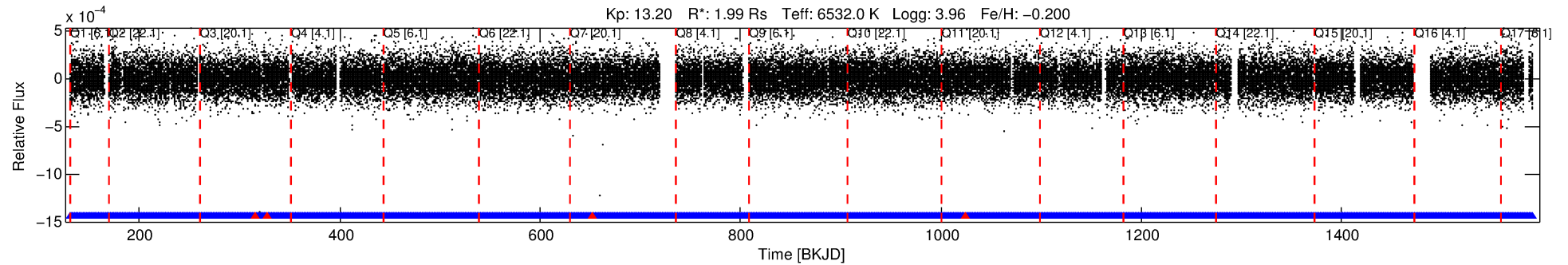
Ephemeris Match Information For 010322797-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
010322797-01	10322797	010191036-01	10191036	1:1	727.6	183	3	12.11	13.21	1.28	Col-Anomaly	1	1.29	0.45

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 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 $\sigma_P < 5.0$ and $\sigma_T < 5.0$. 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: 10322797 Candidate: 1 of 1 Period: 1.214 d



DV Fit Results:

Period = 1.21367 [0.00001] d
Epoch = 131.7816 [0.0042] BKJD
Rp/R* = 0.0045 [0.0013]
a/R* = 1.47 [1.33]
b = 0.90 [0.36]
Seff = 10807.95 [5139.11]
Teq = 2600 [309] K
Rp = 0.98 [0.42] Re
a = 0.0244 [0.0072] AU
Ag = 0.61 [0.73] [-0.54σ]
Teffp = 3550 [987] K [0.92σ]

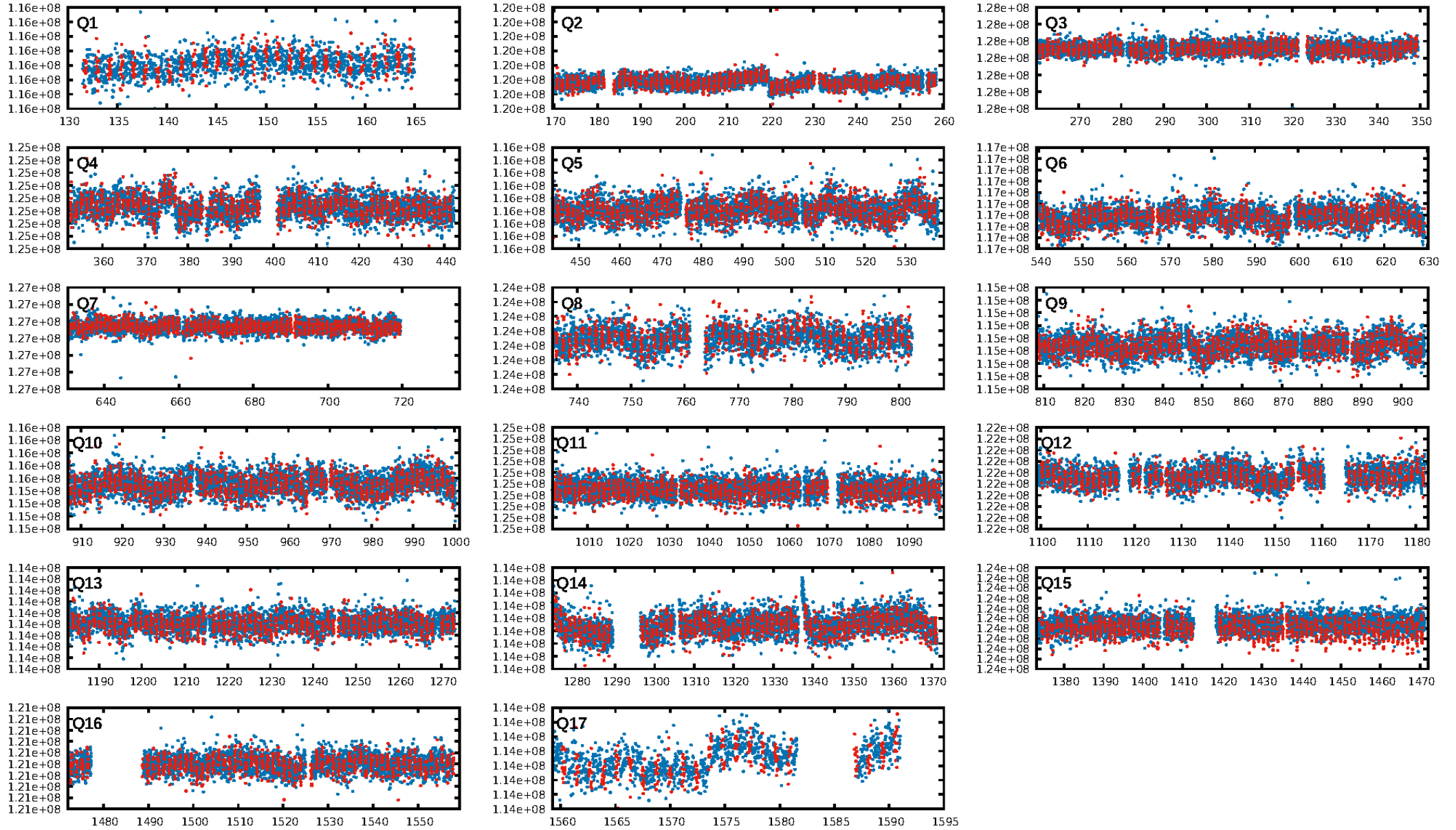
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 8.91e-30
RollingBand-fgt: 1.00 [1050/1054]
GhostDiagnostic-chr: 1.934
Centroid-sig: 0.0%
Centroid-so: 4.815 arcsec [4.08σ]
OotOffset-rm: 1.235 arcsec [1.89σ]
KicOffset-rm: 1.136 arcsec [1.65σ]
OotOffset-st: 3/4/3/5 [15]
KicOffset-st: 3/4/3/5 [15]
DiffImageQuality-fgm: 0.47 [7/15]
DiffImageOverlap-fno: 1.00 [17/17]

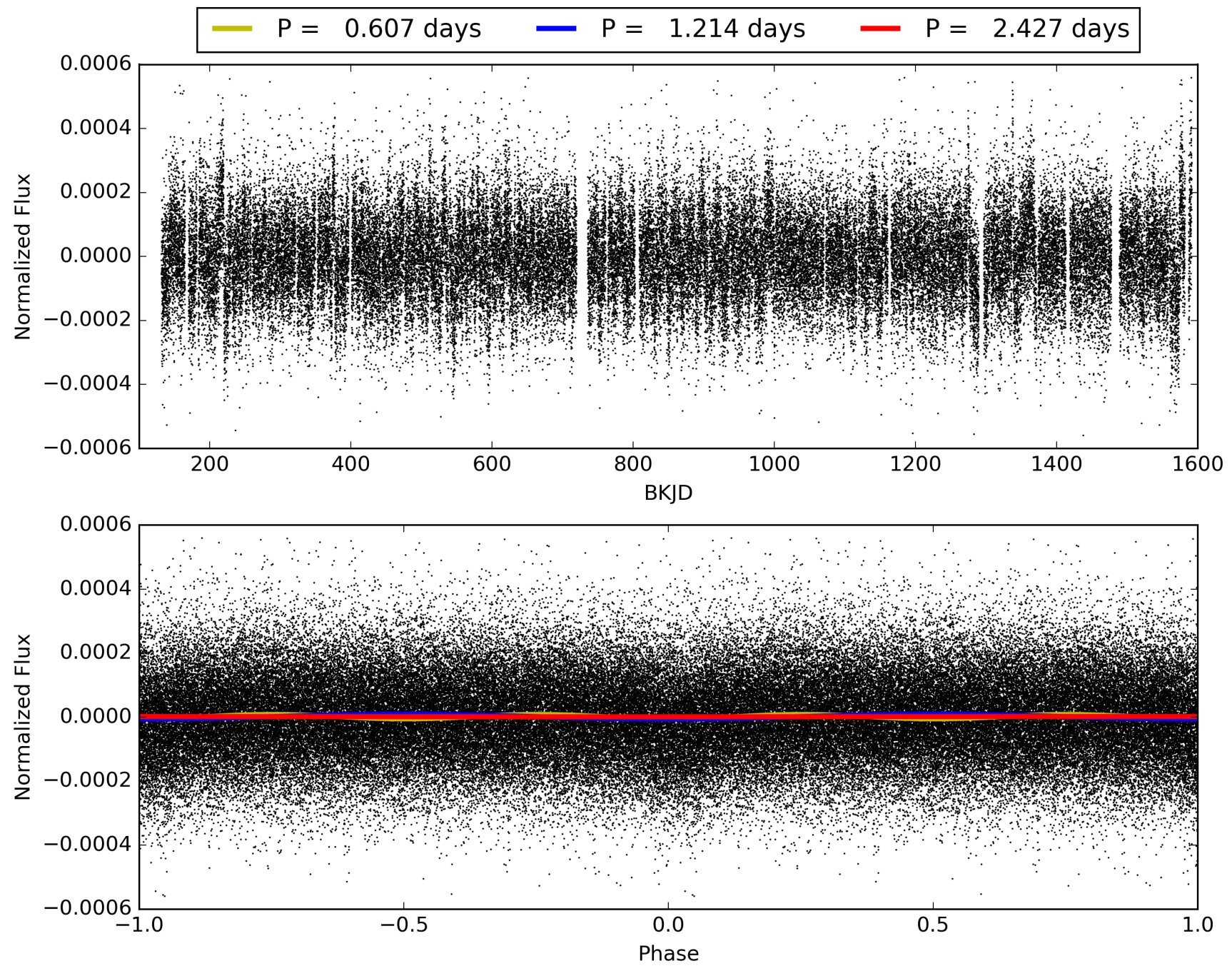
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:06:07 Z

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

TCE 010322797-01, PDC Light Curves

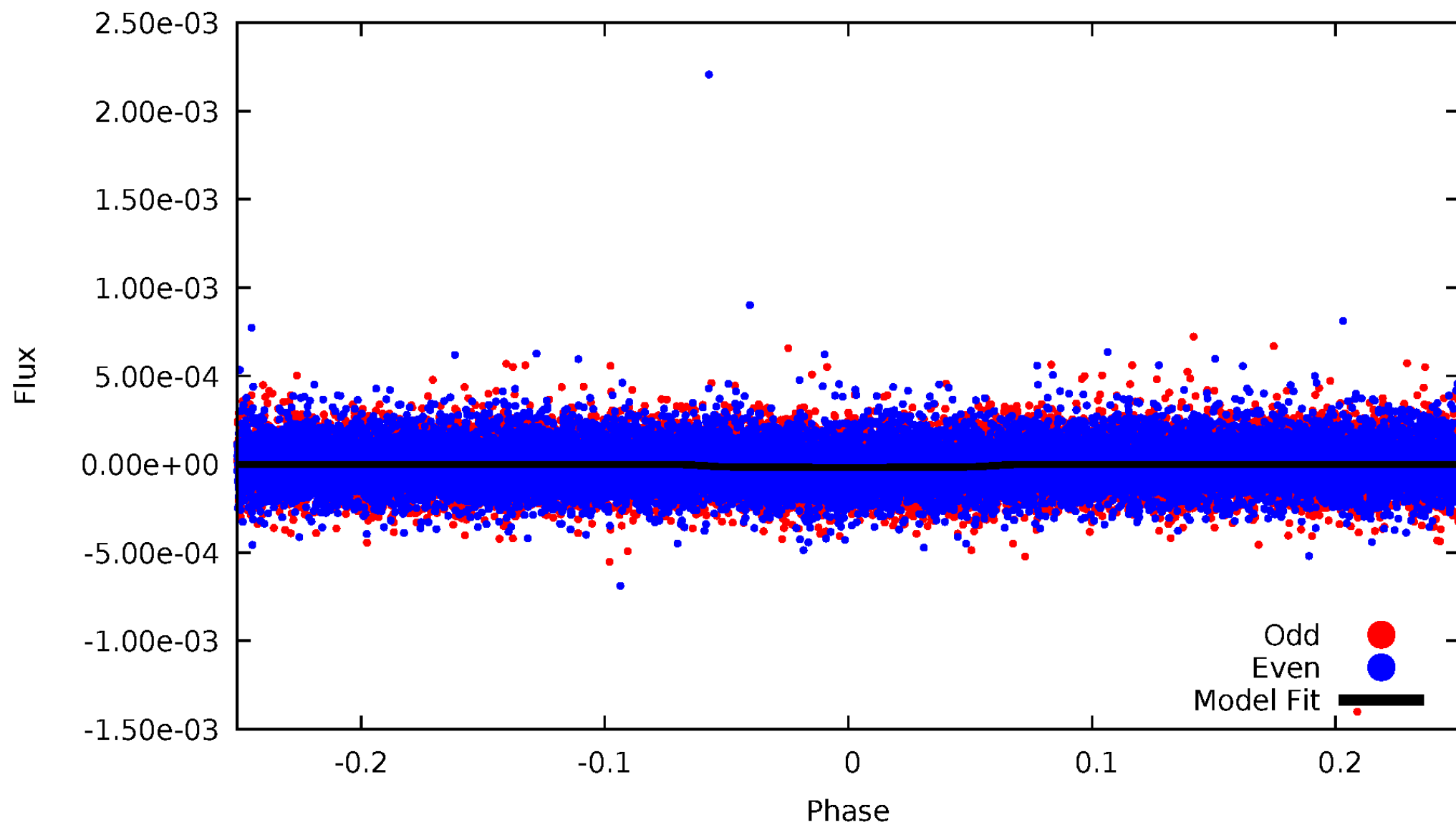


TCE 010322797-01



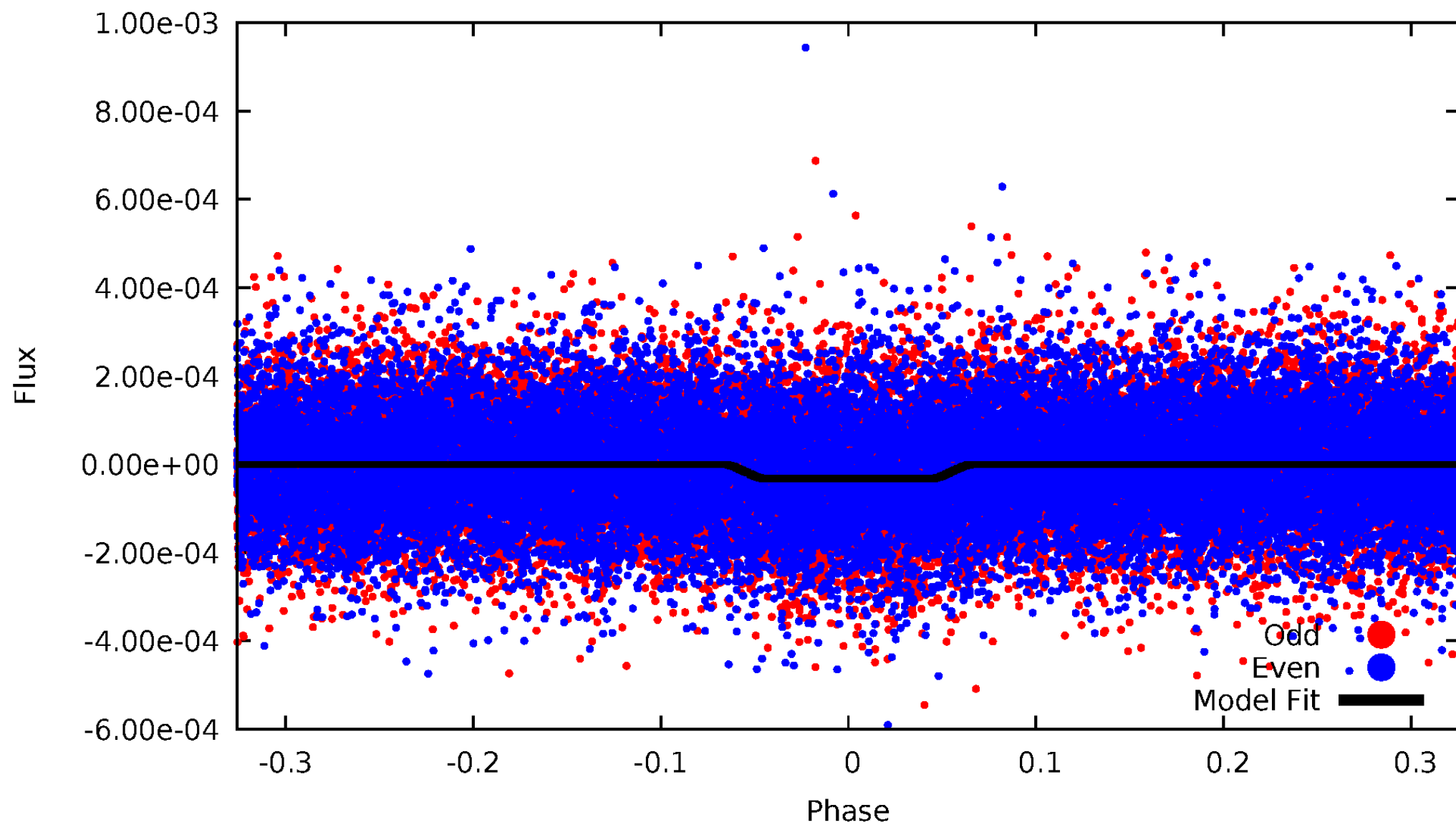
DV Odd/Even

TCE 010322797-01

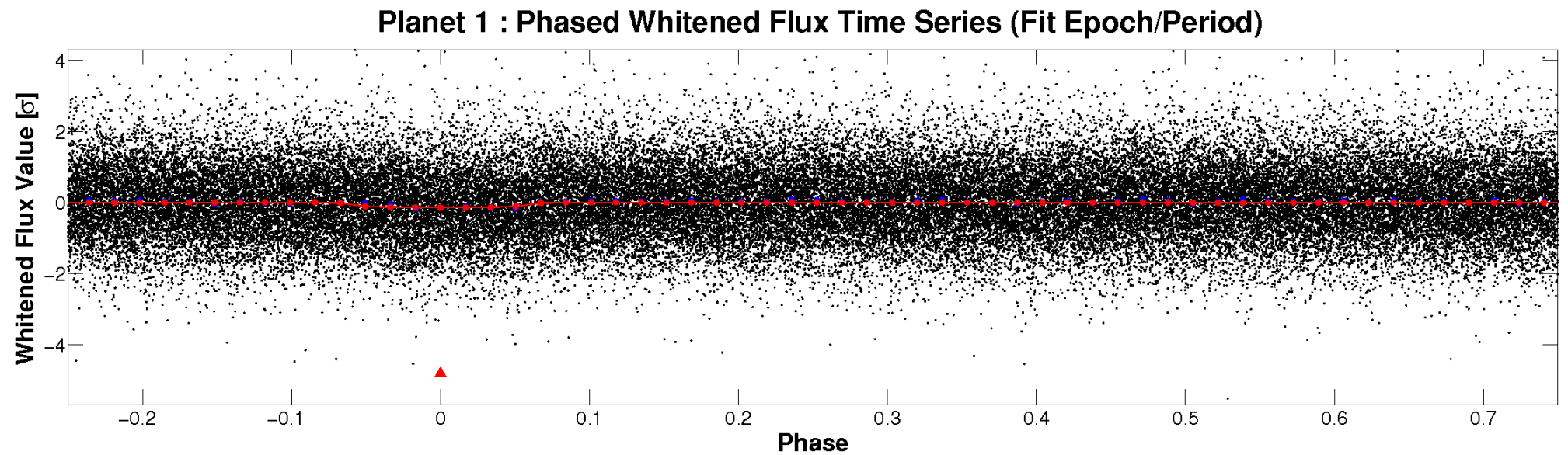
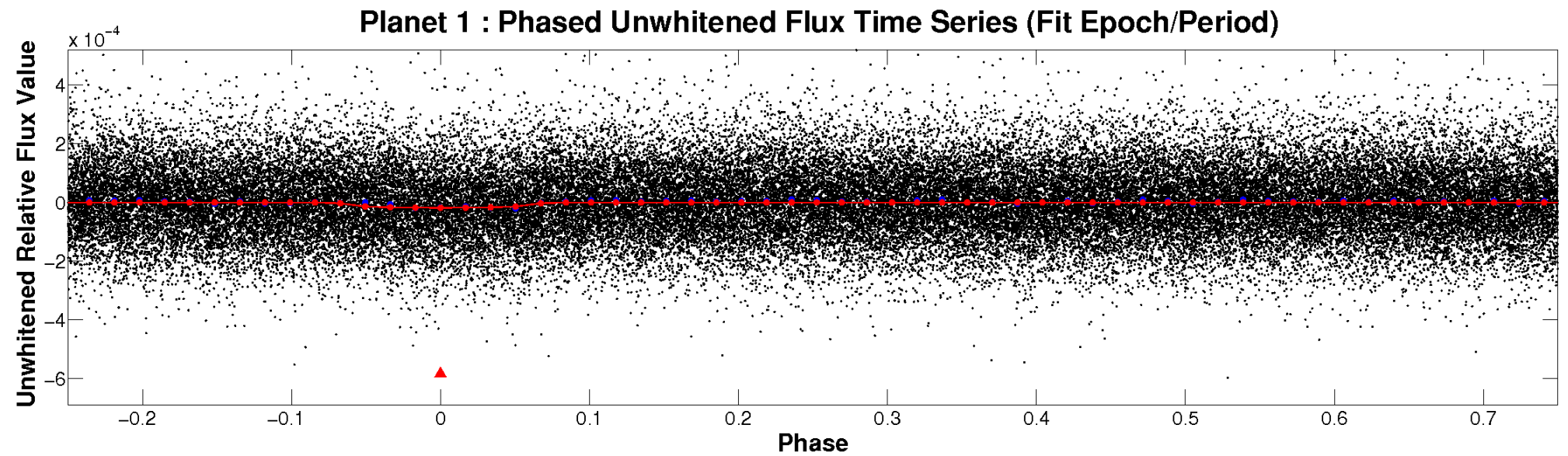


ALT Odd/Even

TCE 010322797-01

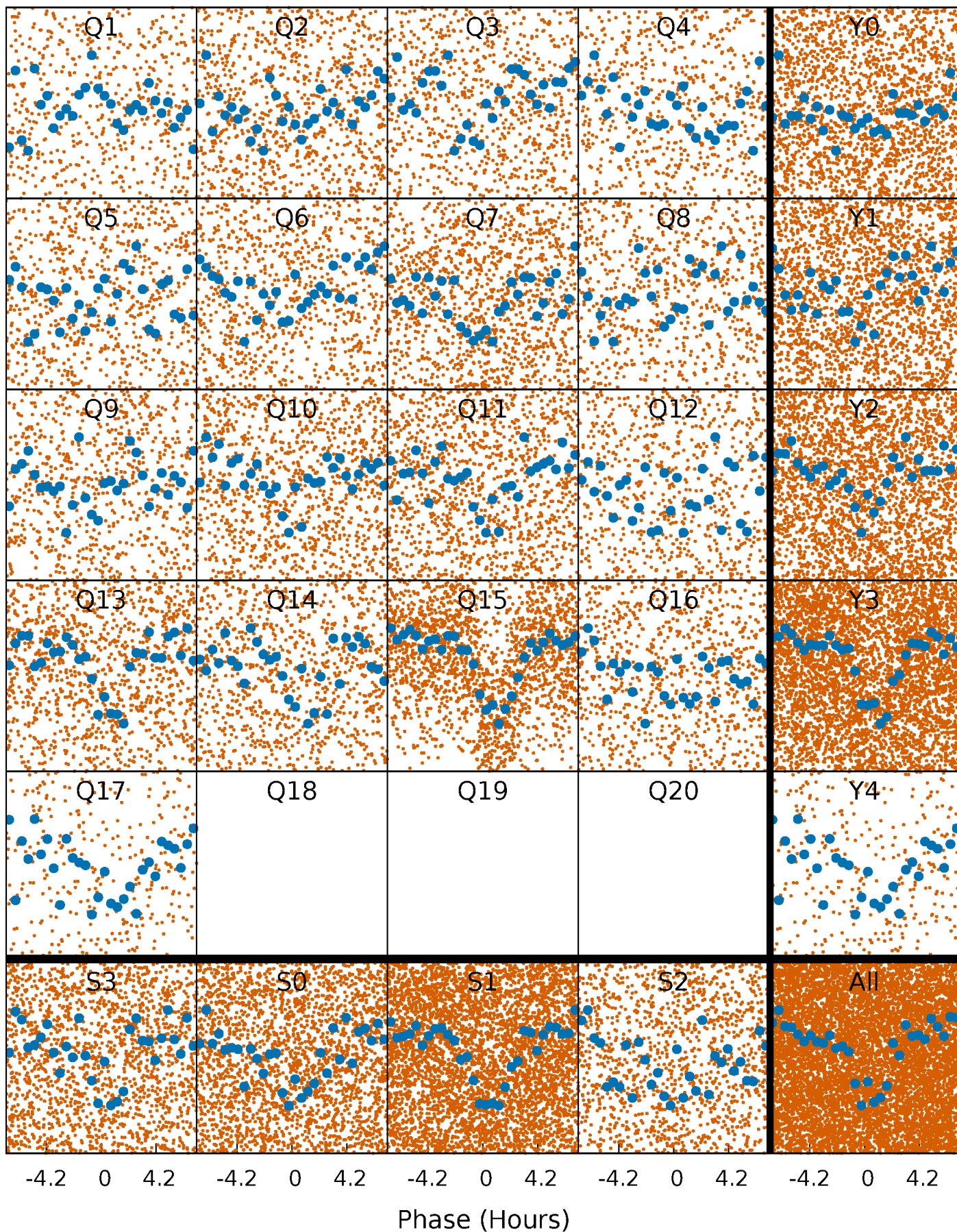


Non-Whitened Vs. Whitened Light Curve



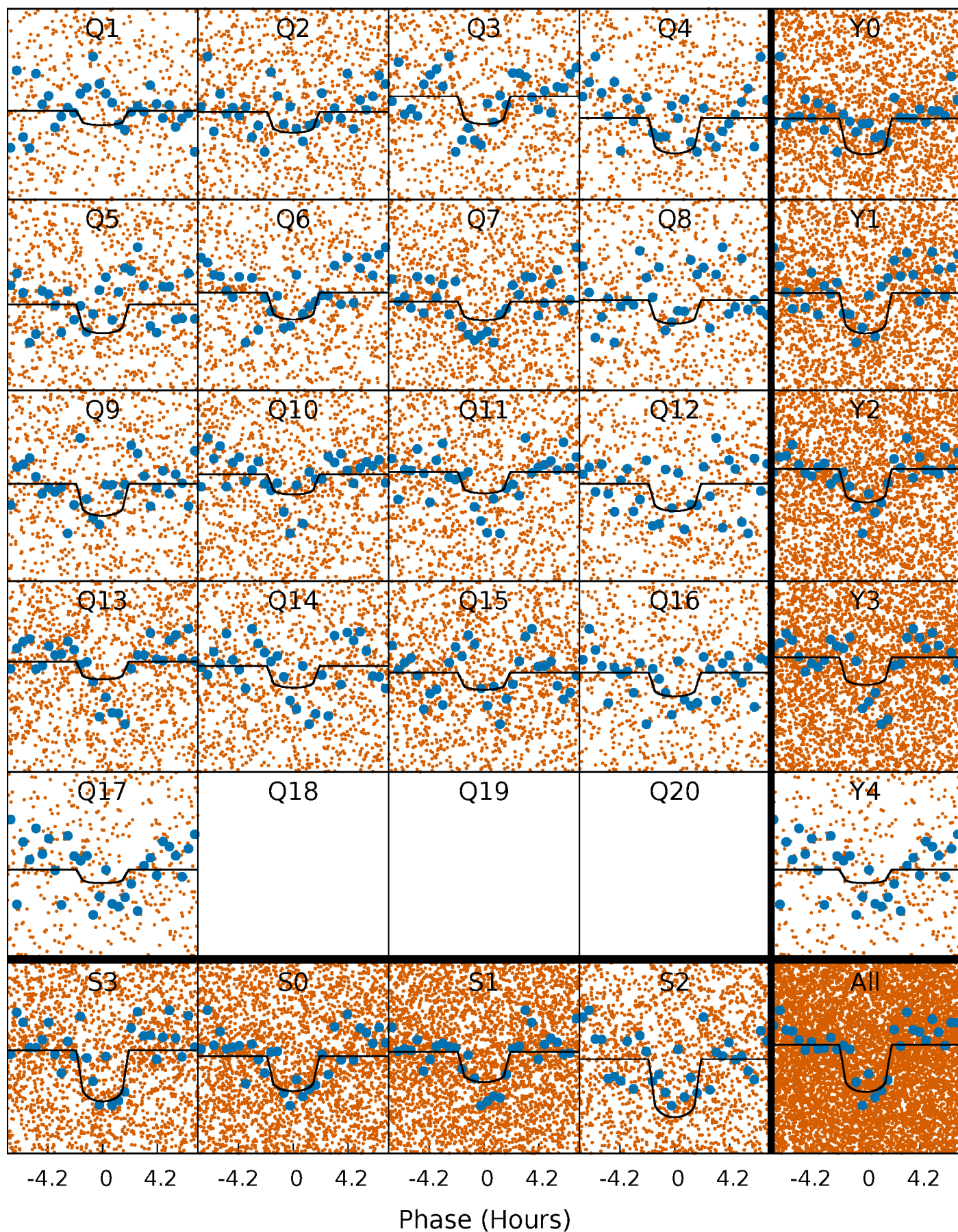
PDC Quarter-Phased Transit Curves

TCE 010322797-01 P= 1.213670 Days $T_0=131.781603$ (BKJD)



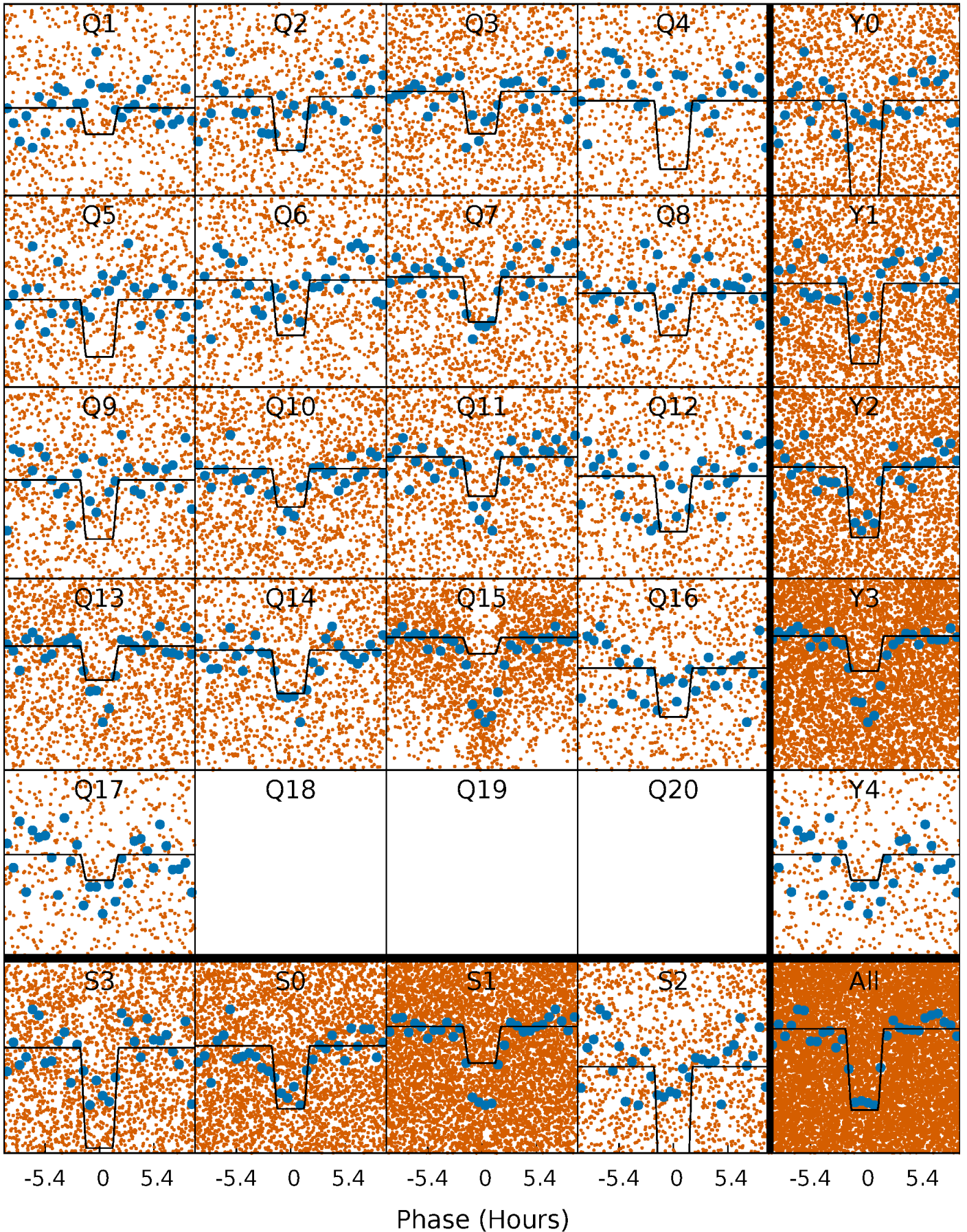
DV Quarter-Phased Transit Curves

TCE 010322797-01 P= 1.213670 Days $T_0=131.781603$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

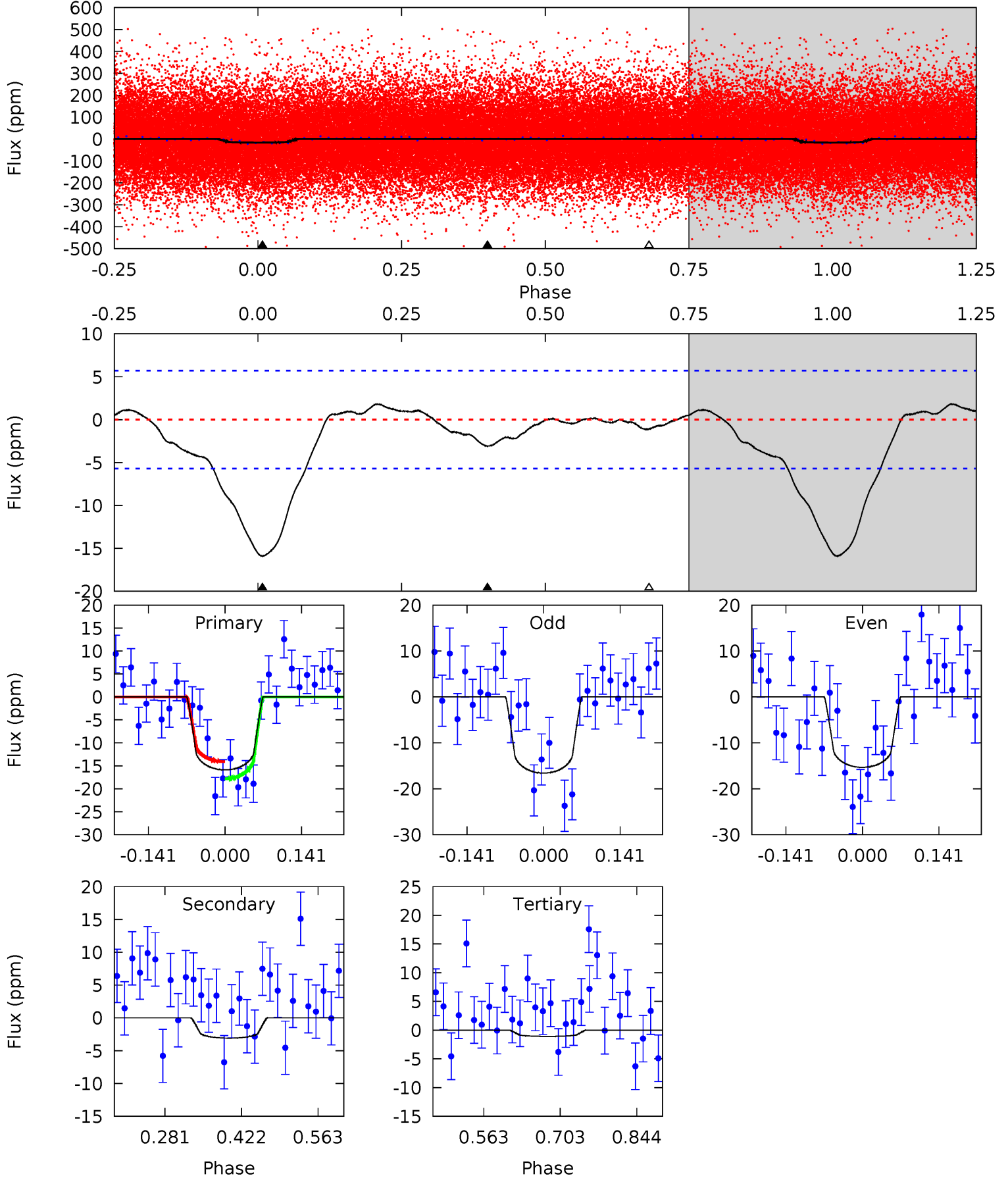
TCE 010322797-01 P= 1.213724 Days $T_0=131.756239$ (BKJD)



DV Model-Shift Uniqueness Test

010322797-01, P = 1.213670 Days, E = 130.567933 Days

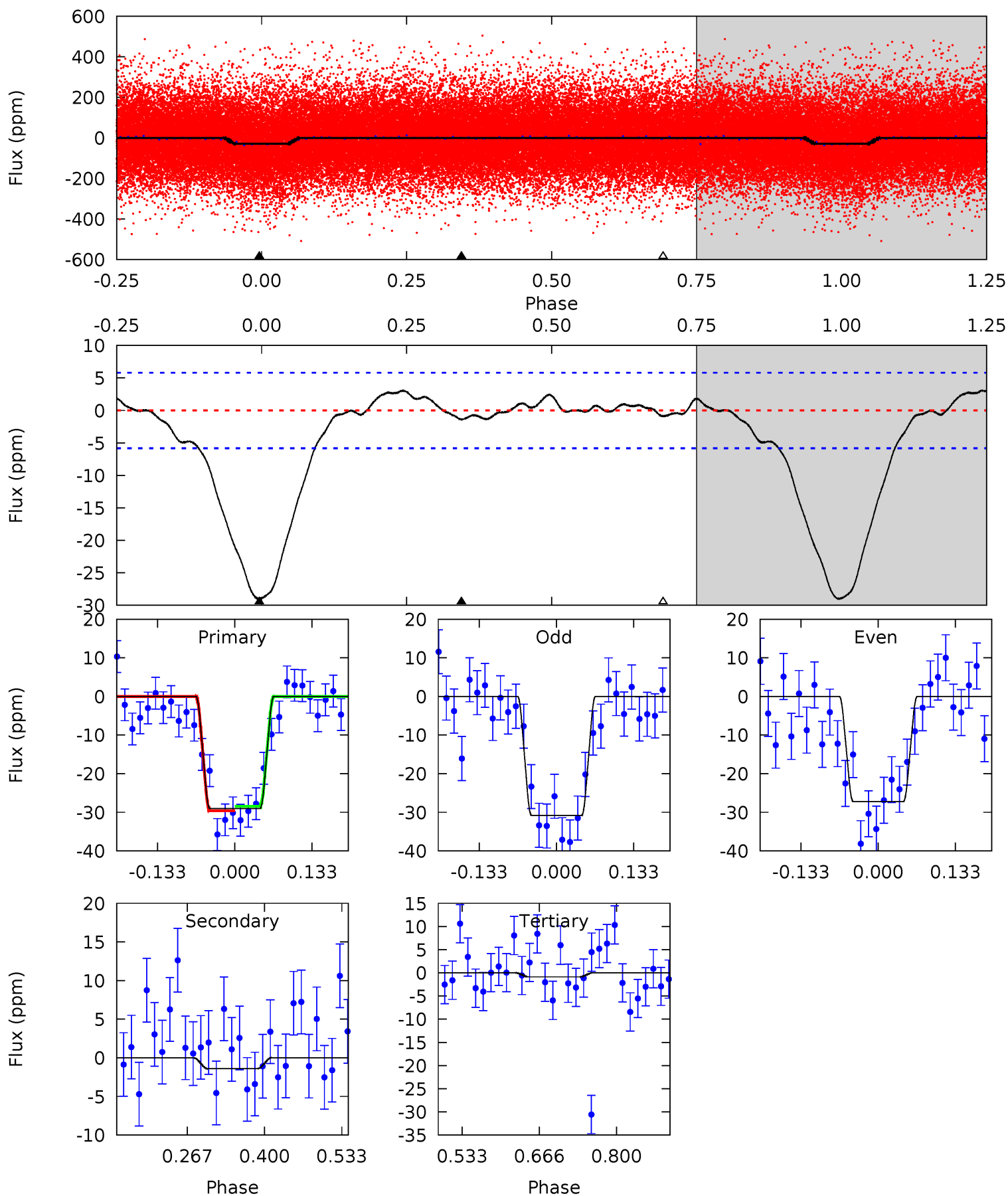
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	2.43	0.85	0	4.49	1.47	0.87	11.7	12.5	1.58	2.43	0.49	0.94	0.10	1.47



Alt Model-Shift Uniqueness Test

010322797-01, P = 1.213724 Days, E = 130.542515 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.5	1.08	0.68	0	4.50	1.50	0.98	21.8	22.5	0.40	1.08	1.39	1.14	0.10	0.45



Stellar Parameters For KIC 010322797

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6532^{+156}_{-195}	$3.961^{+0.266}_{-0.114}$	$-0.200^{+0.250}_{-0.250}$	$1.987^{+0.422}_{-0.633}$	$1.319^{+0.198}_{-0.242}$	$0.237^{+0.367}_{-0.093}$
	+2%/-3%	+7%/-3%	+125%/-125%	+21%/-32%	+15%/-18%	+155%/-39%
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 010322797-01 / KOI 7999.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-3 ± 1	$0.94^{+0.32}_{-0.31}$	3565^{+225}_{-282}	4023^{+878}_{-735}	$1.133^{+1.471}_{-0.615}$
Alt.	-1 ± 1	$1.19^{+0.34}_{-0.31}$	3567^{+214}_{-262}	2206^{+1390}_{-5607}	$0.314^{+0.416}_{-0.285}$

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

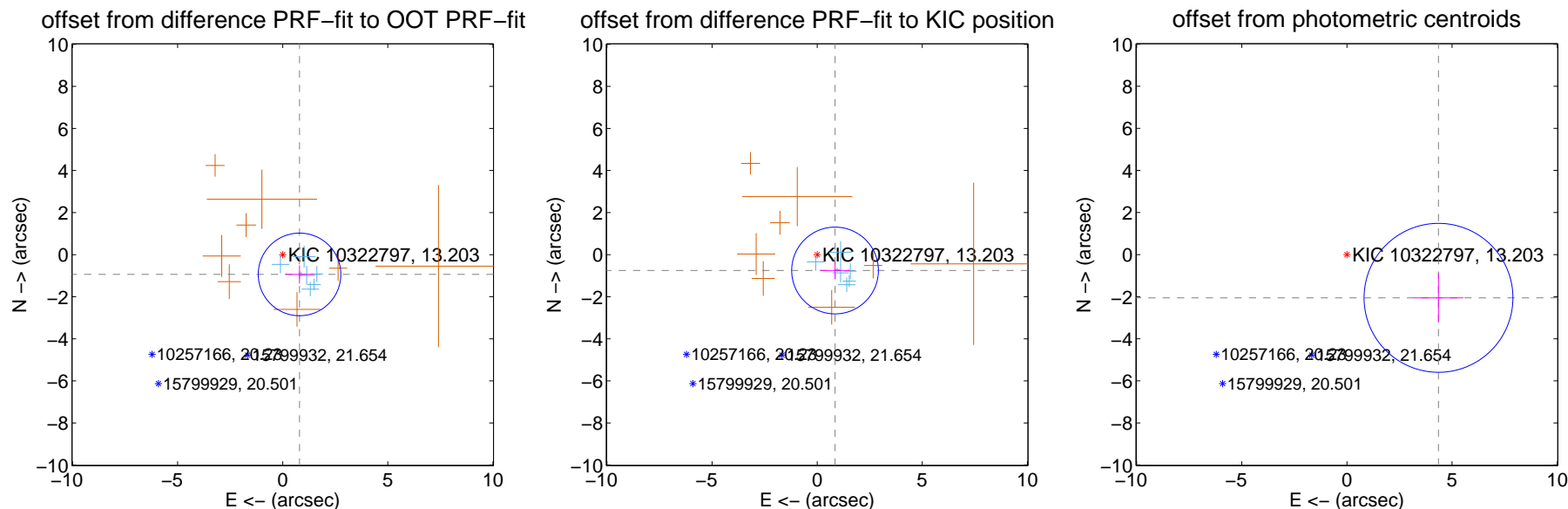
DV Centroid Data

Supplemental centroid analysis for 010322797-01. Kepler magnitude: 13.20. Transit SNR 10.72

There are 7 quarters with good PRF difference image offsets

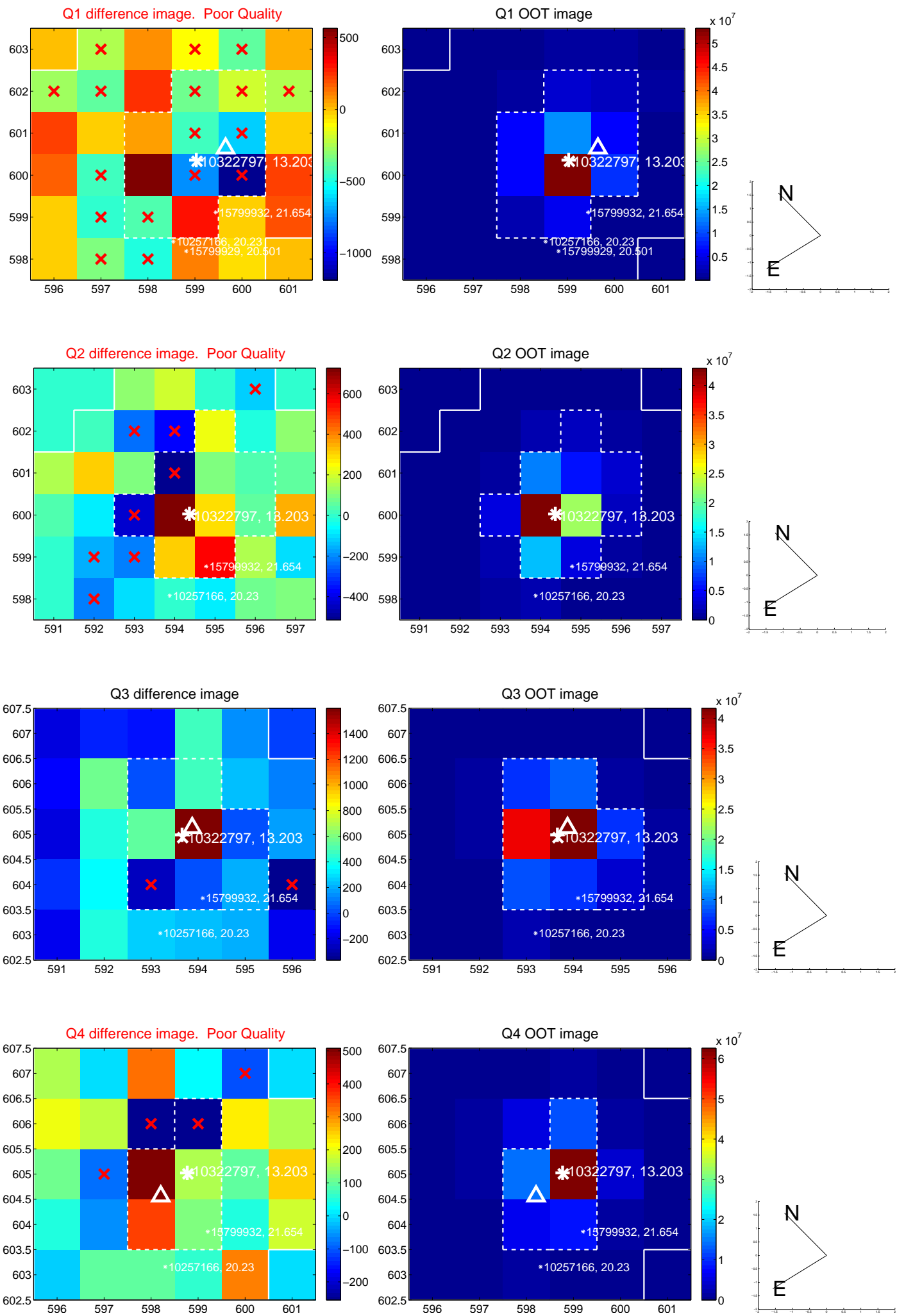
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.235 ± 0.655	1.89	-0.801 ± 0.690	-0.939 ± 0.428
PRF-fit source offset from KIC position	1.136 ± 0.687	1.65	-0.850 ± 0.702	-0.754 ± 0.409
photometric centroid source offset	4.81 ± 1.18	4.08	-4.35 ± 1.18	-2.06 ± 1.17

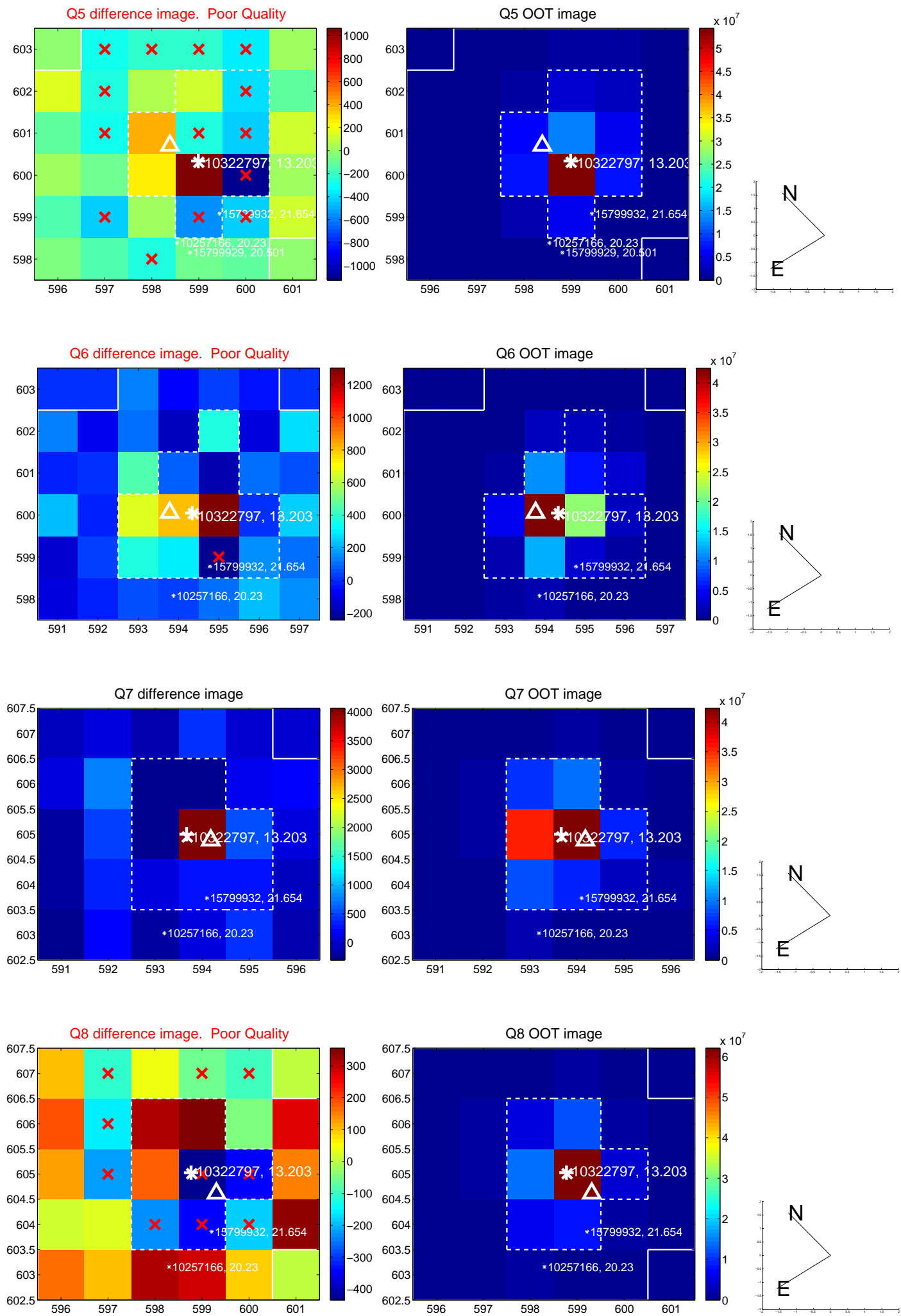


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

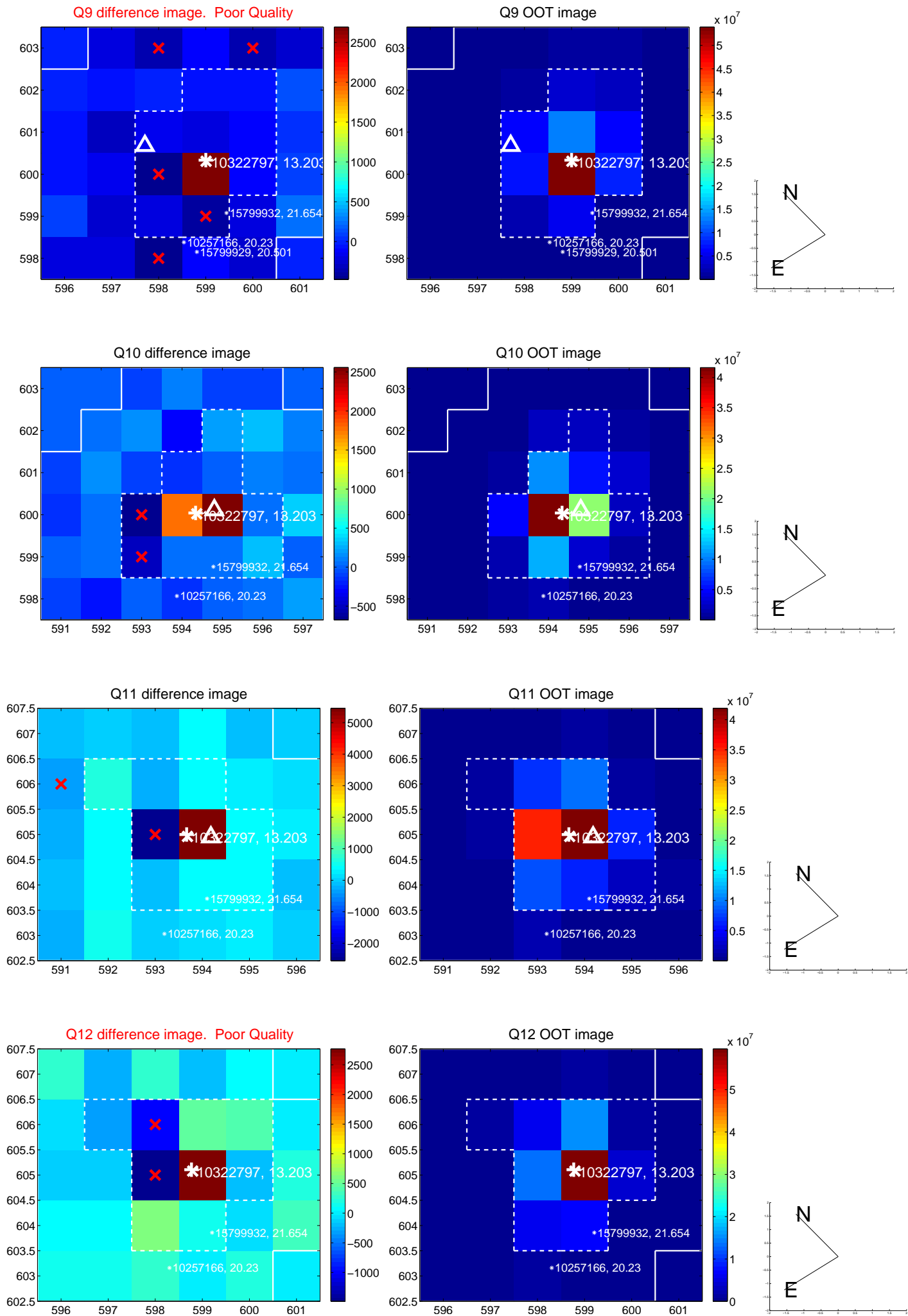
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



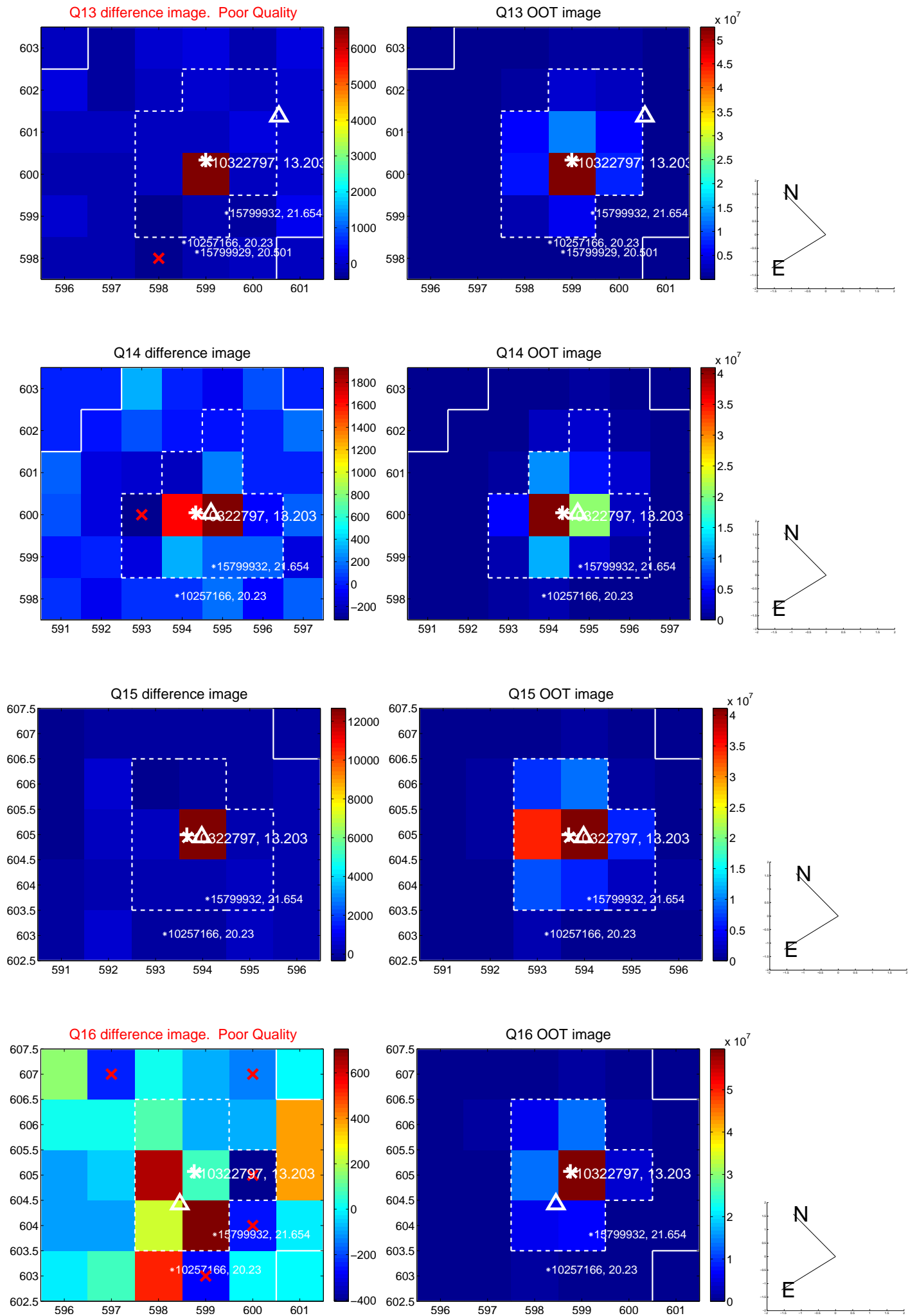
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



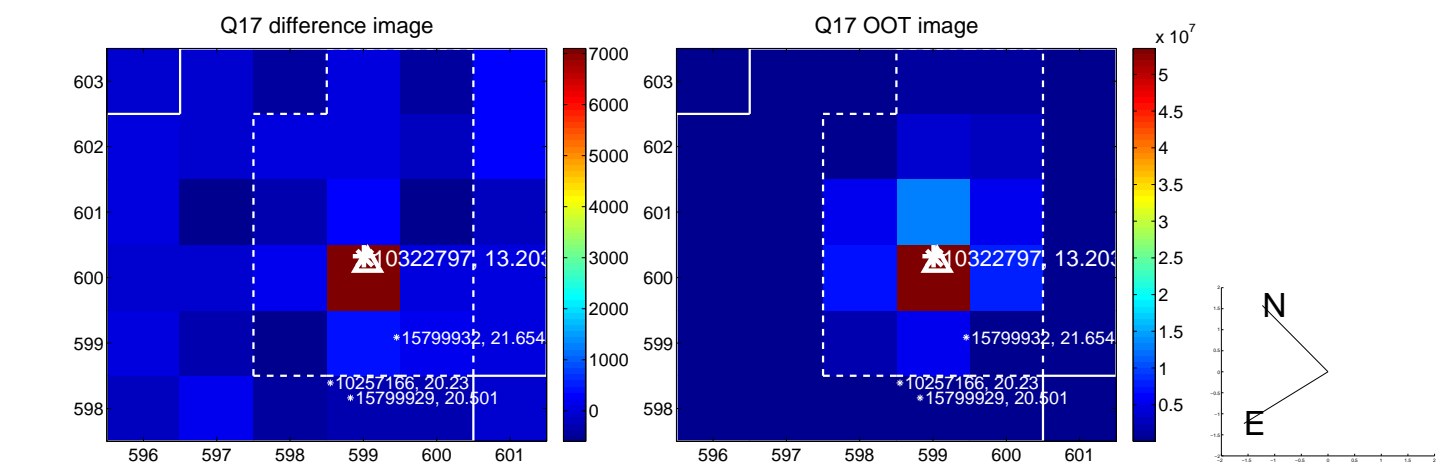
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



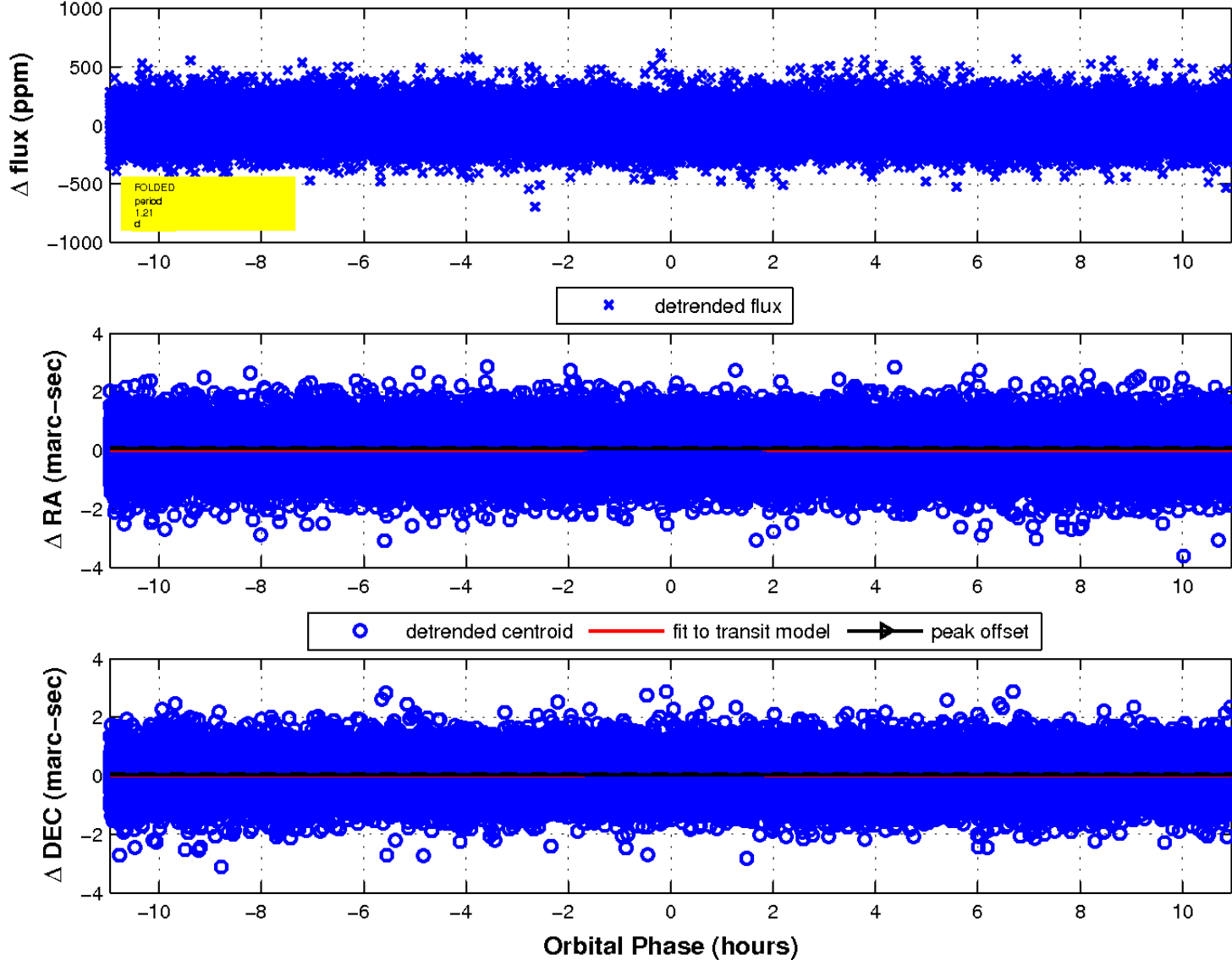
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

