

KIC 003730335

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})
003730335-01	OBS	2808.01	0.596089	131.821928	82.6	0.756	15.5	24.7	1.83	6049	2.00	18352.95

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003730335-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

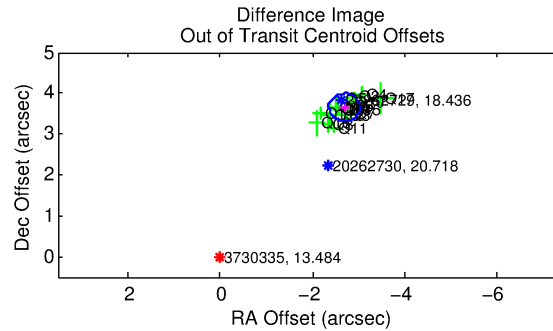
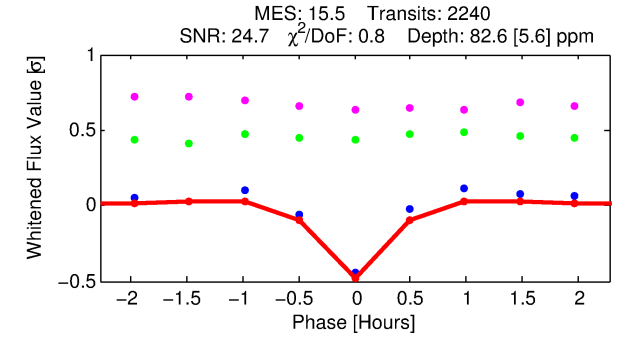
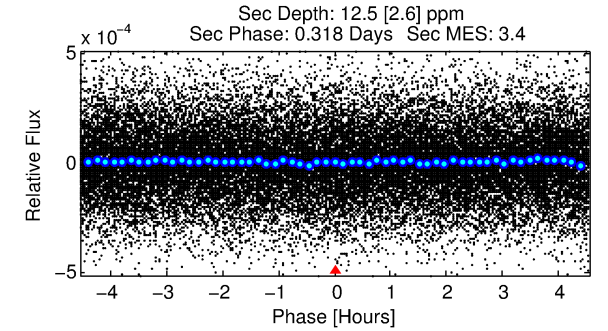
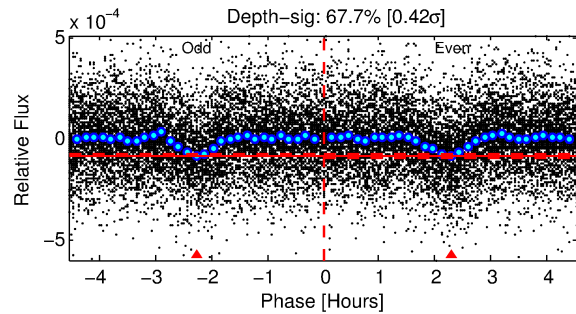
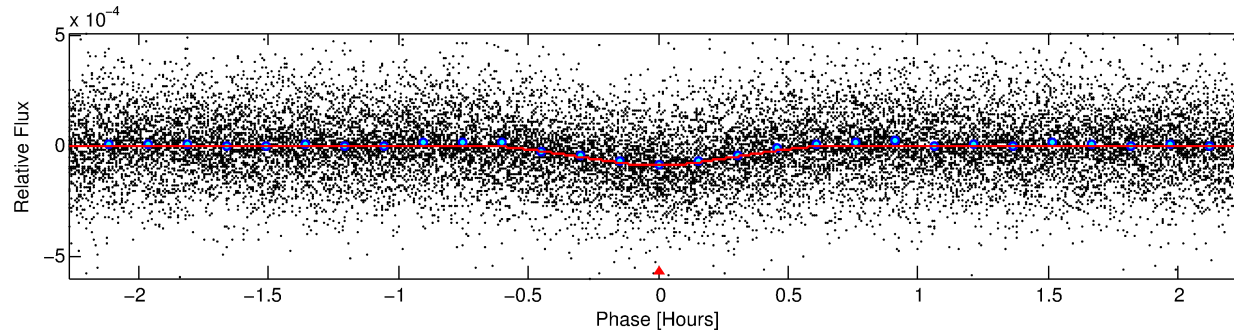
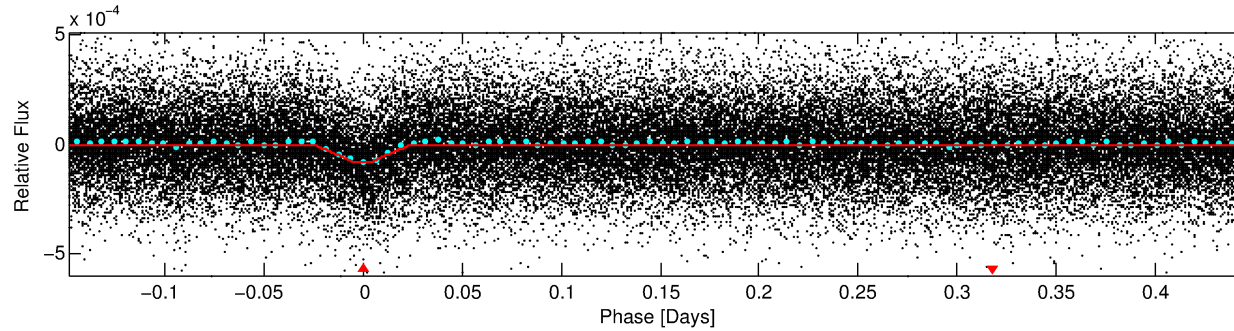
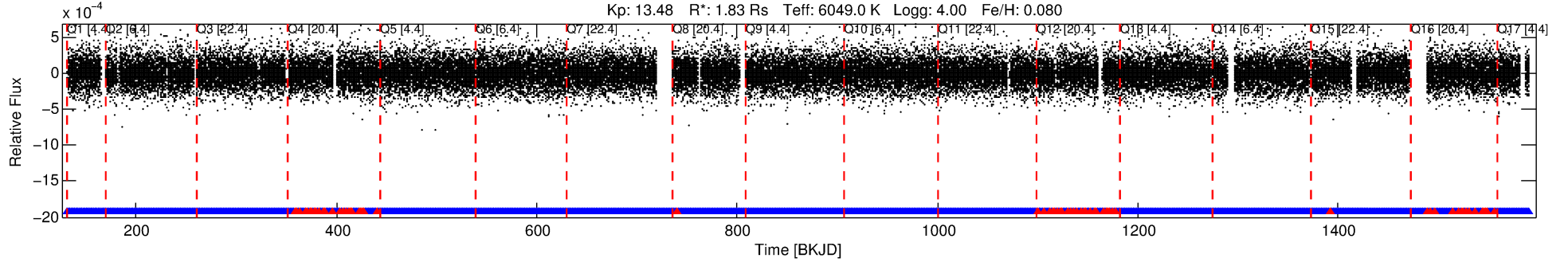
Ephemeris Match Information For 003730335-01

No Significant Match Found

DV One-Page Summary

KIC: 3730335 Candidate: 1 of 1 Period: 0.596 d

KOI: K02808.01 Corr: 0.955



DV Fit Results:

Period = 0.59609 [0.00000] d
Epoch = 131.8219 [0.0006] BKJD
Rp/R* = 0.0100 [0.0013]
a/R* = 2.87 [1.66]
b = 0.90 [0.14]
Seff = 18352.95 [11724.06]
Teq = 2968 [474] K
Rp = 2.00 [0.81] Re
a = 0.0148 [0.0056] AU
Ag = 0.38 [0.26] [-2.35 σ]
Teffp = 3594 [329] K [1.09 σ]

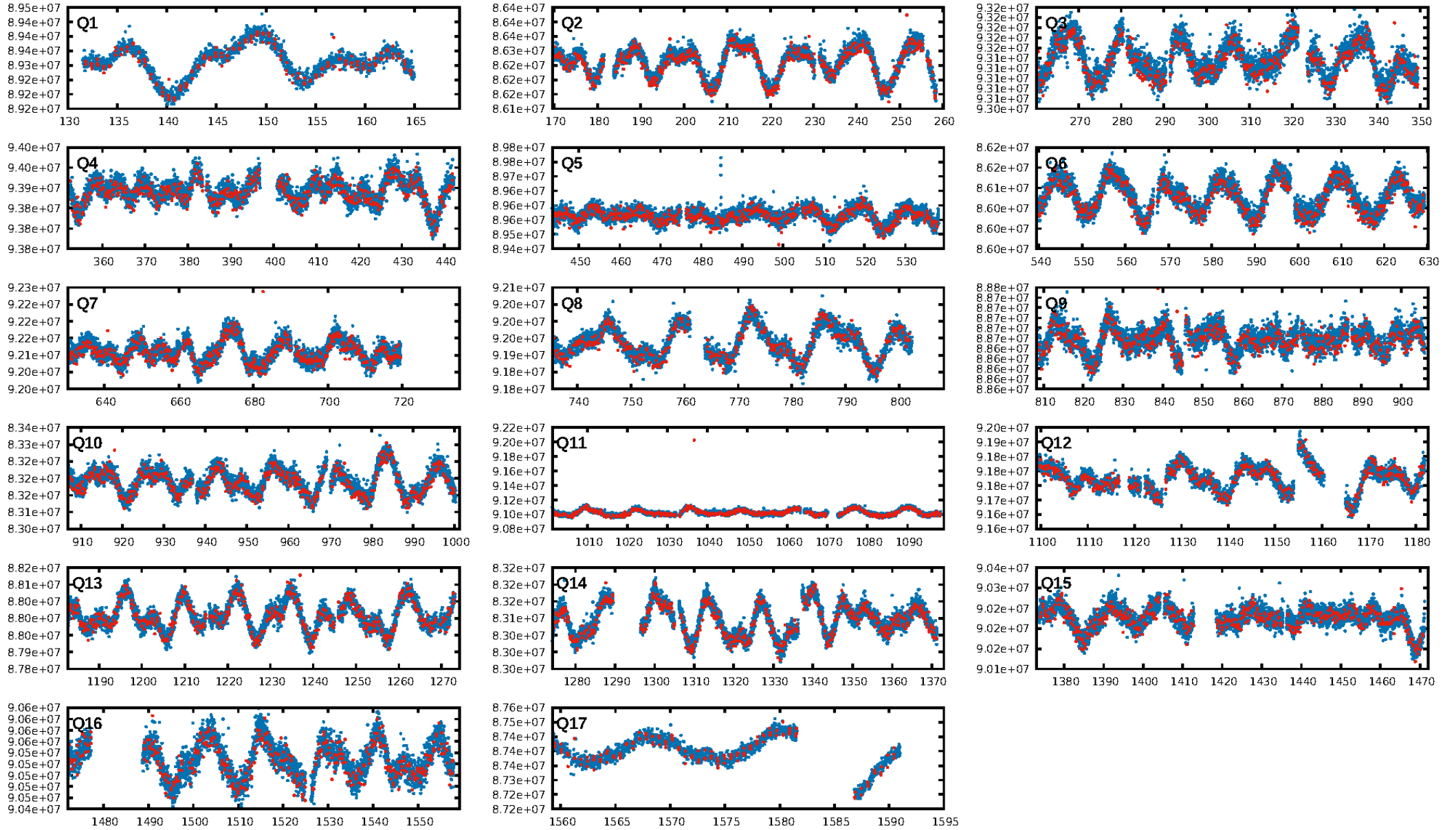
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.86e-49
RollingBand-fgt: 0.96 [2061/2139]
GhostDiagnostic-chr: 0.6332
Centroid-sig: 0.0%
Centroid-so: 5.982 arcsec [11.80 σ]
OotOffset-rm: 4.541 arcsec [40.56 σ]
KicOffset-rm: 4.597 arcsec [43.22 σ]
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]

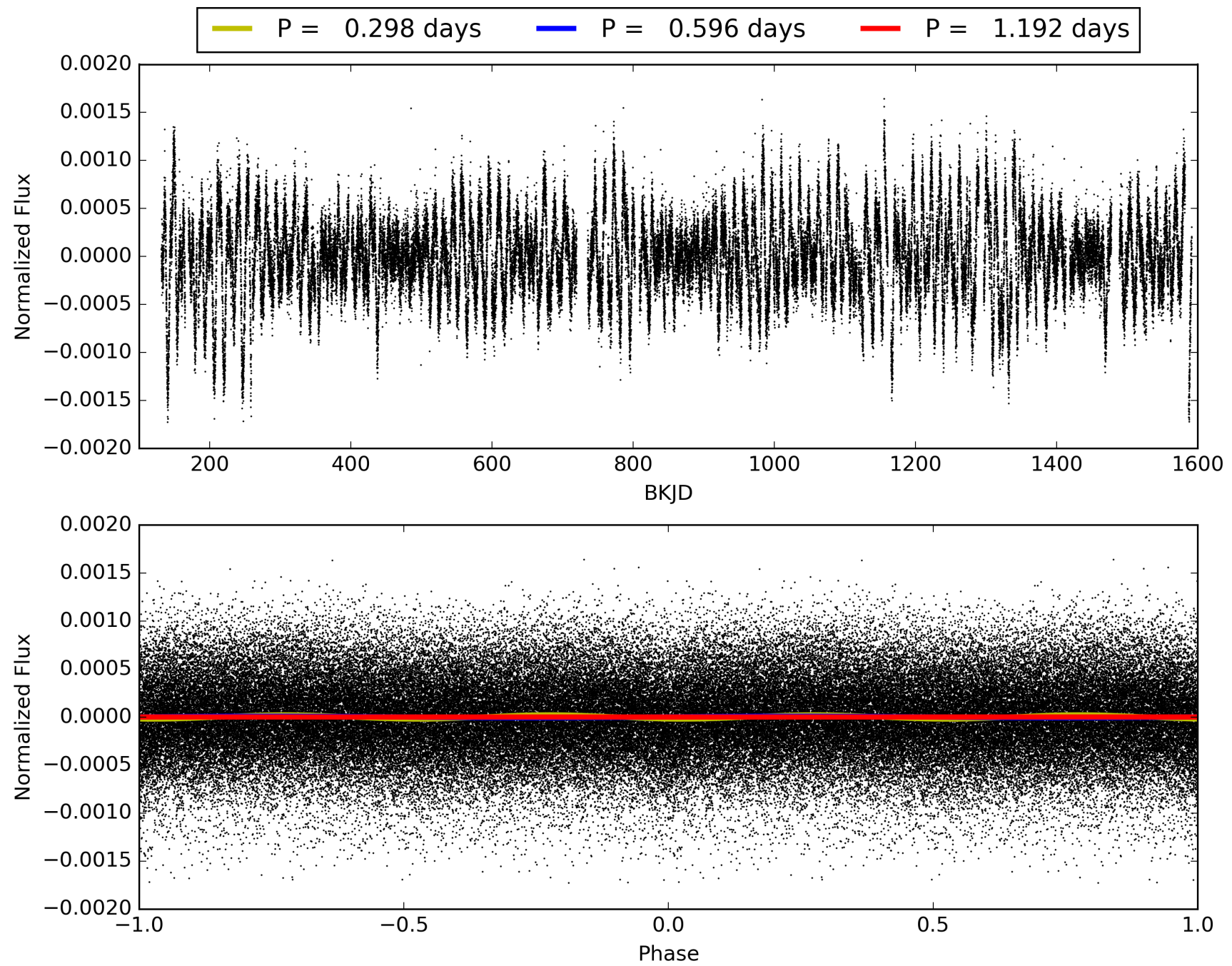
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 08:54:03 Z

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

TCE 003730335-01, PDC Light Curves

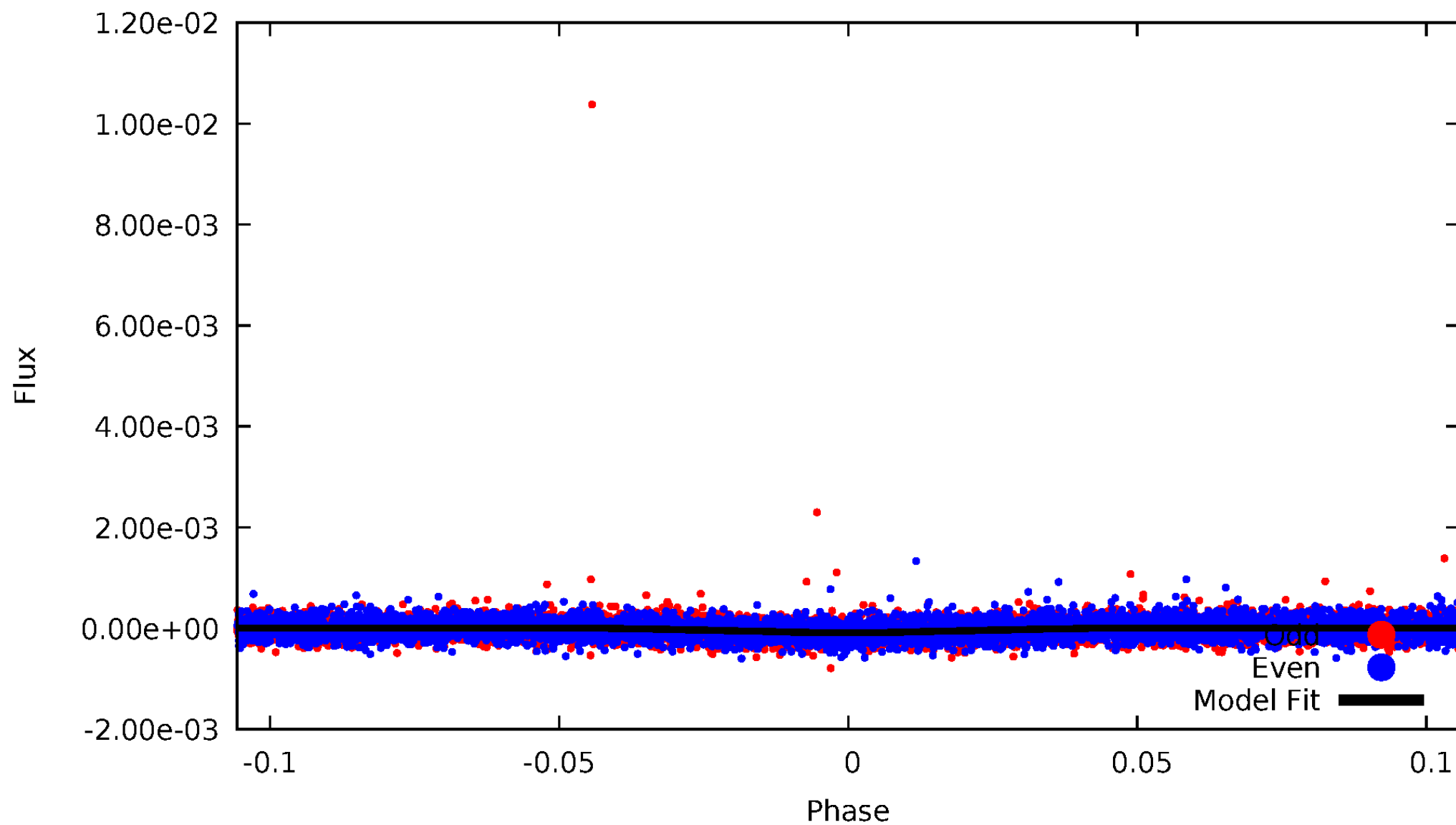


TCE 003730335-01



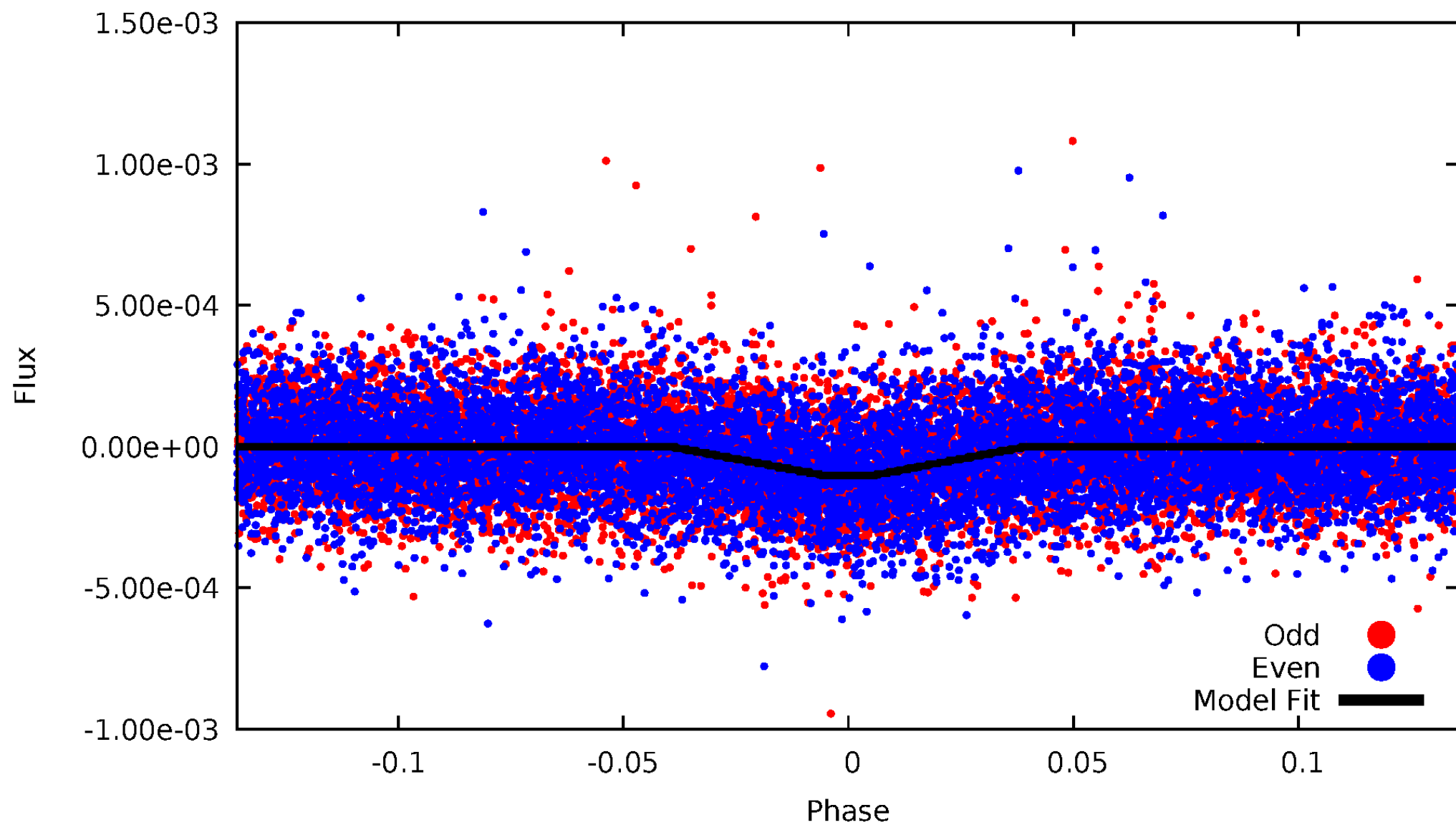
DV Odd/Even

TCE 003730335-01



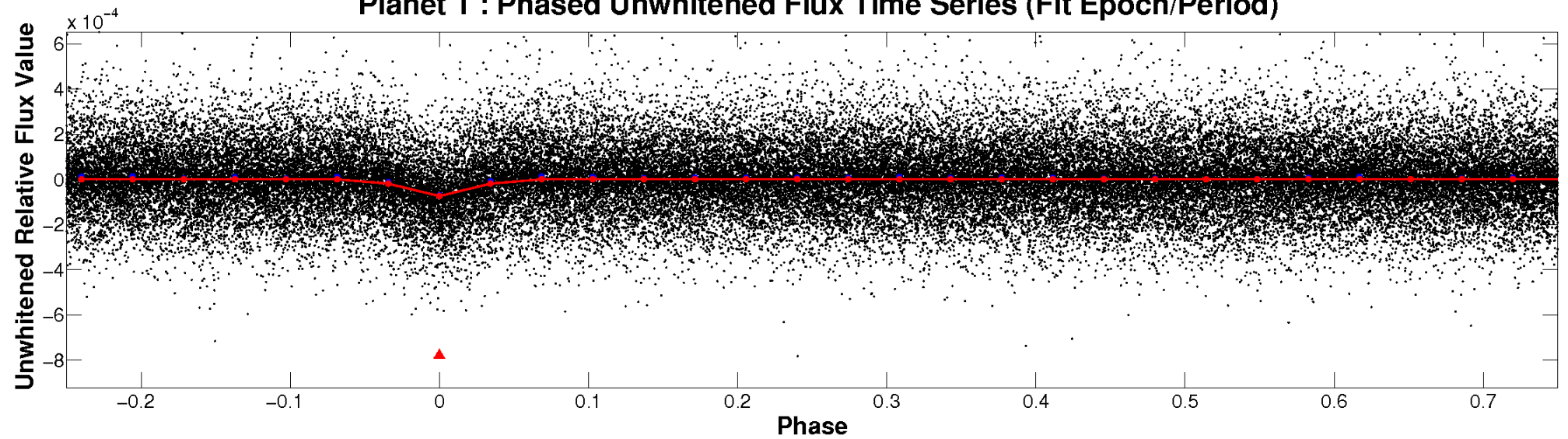
ALT Odd/Even

TCE 003730335-01

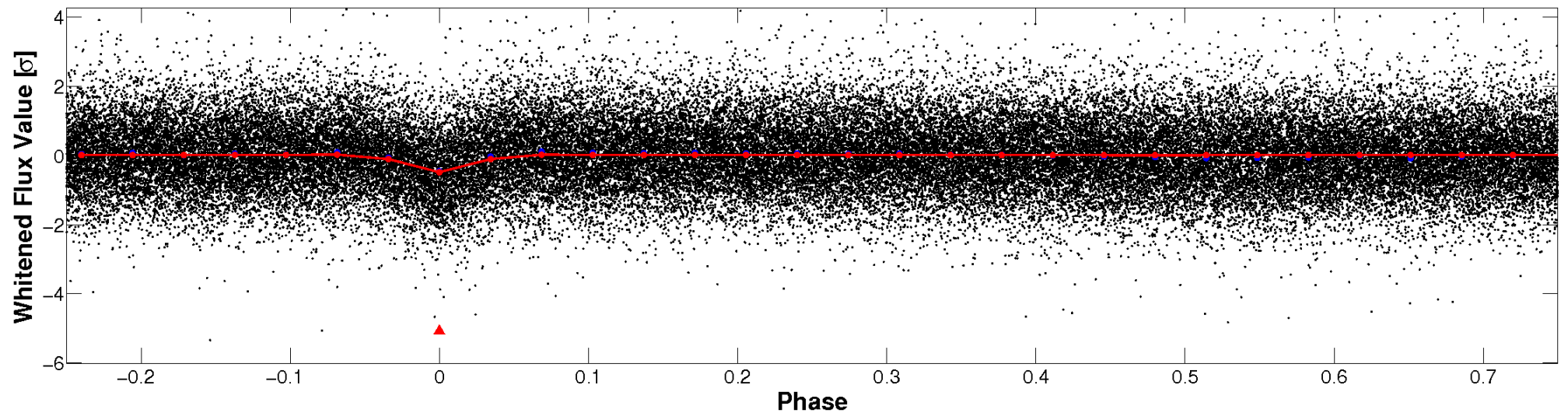


Non-Whitened Vs. Whitened Light Curve

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

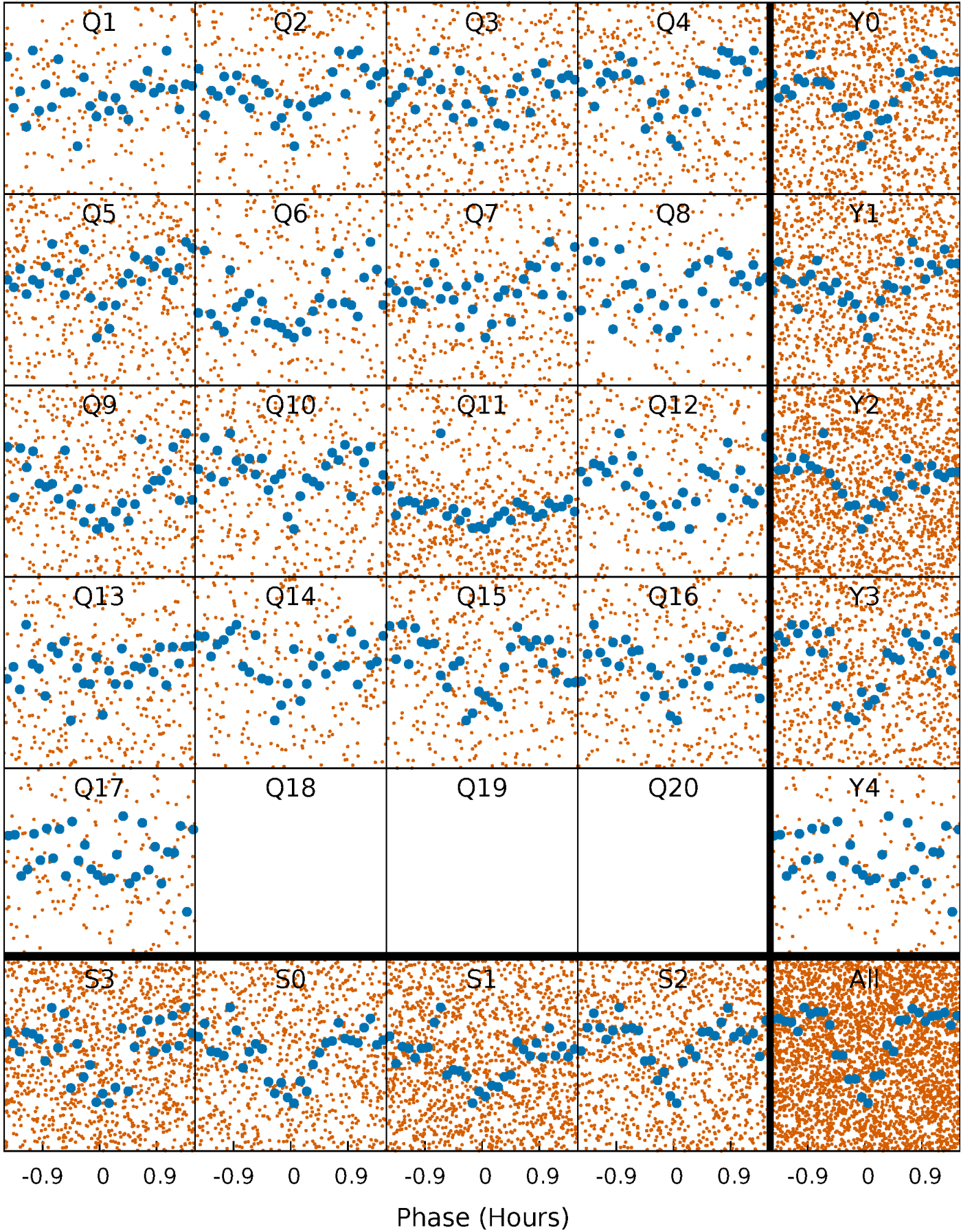


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



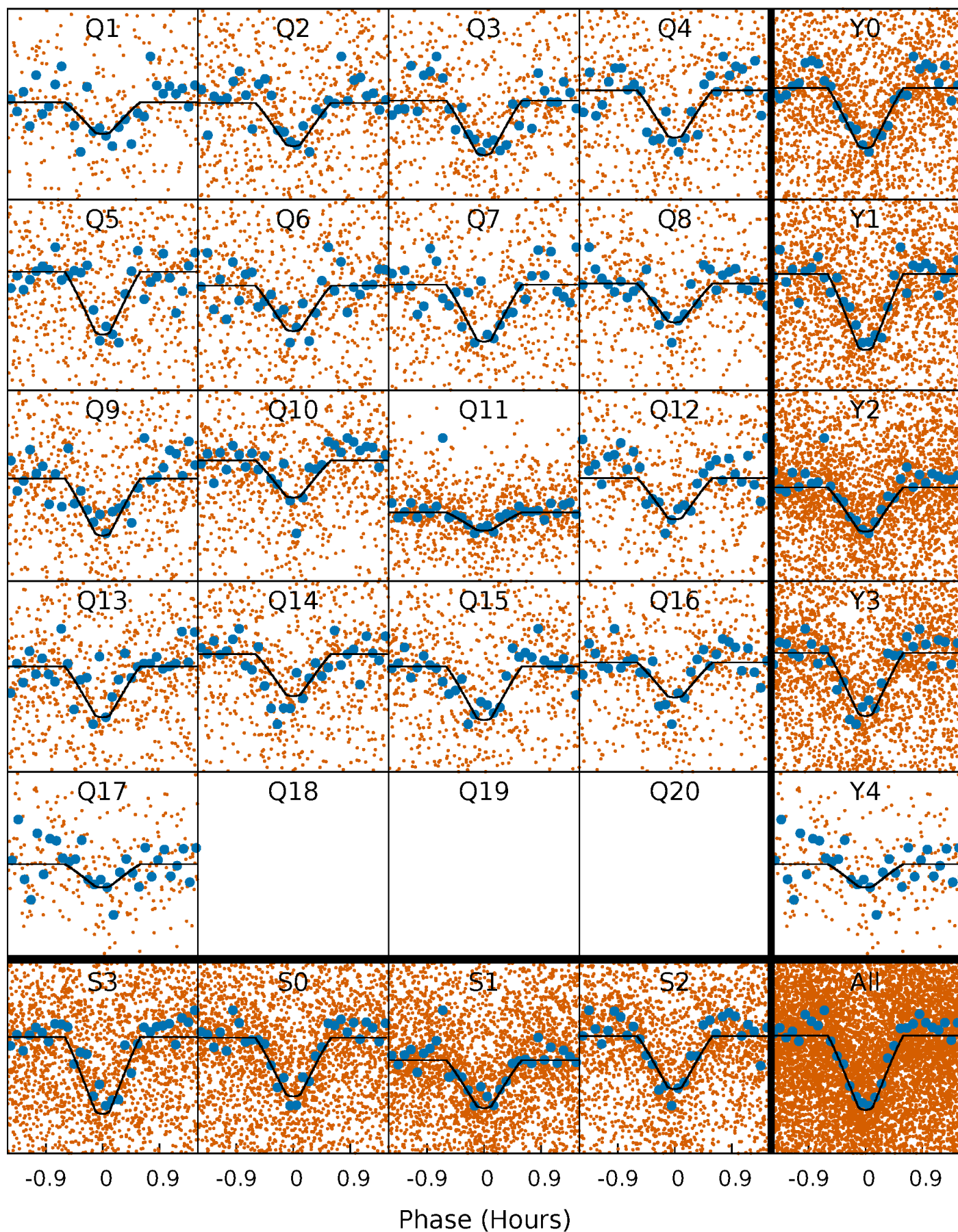
PDC Quarter-Phased Transit Curves

TCE 003730335-01 P= 0.596089 Days $T_0=131.821928$ (BKJD)



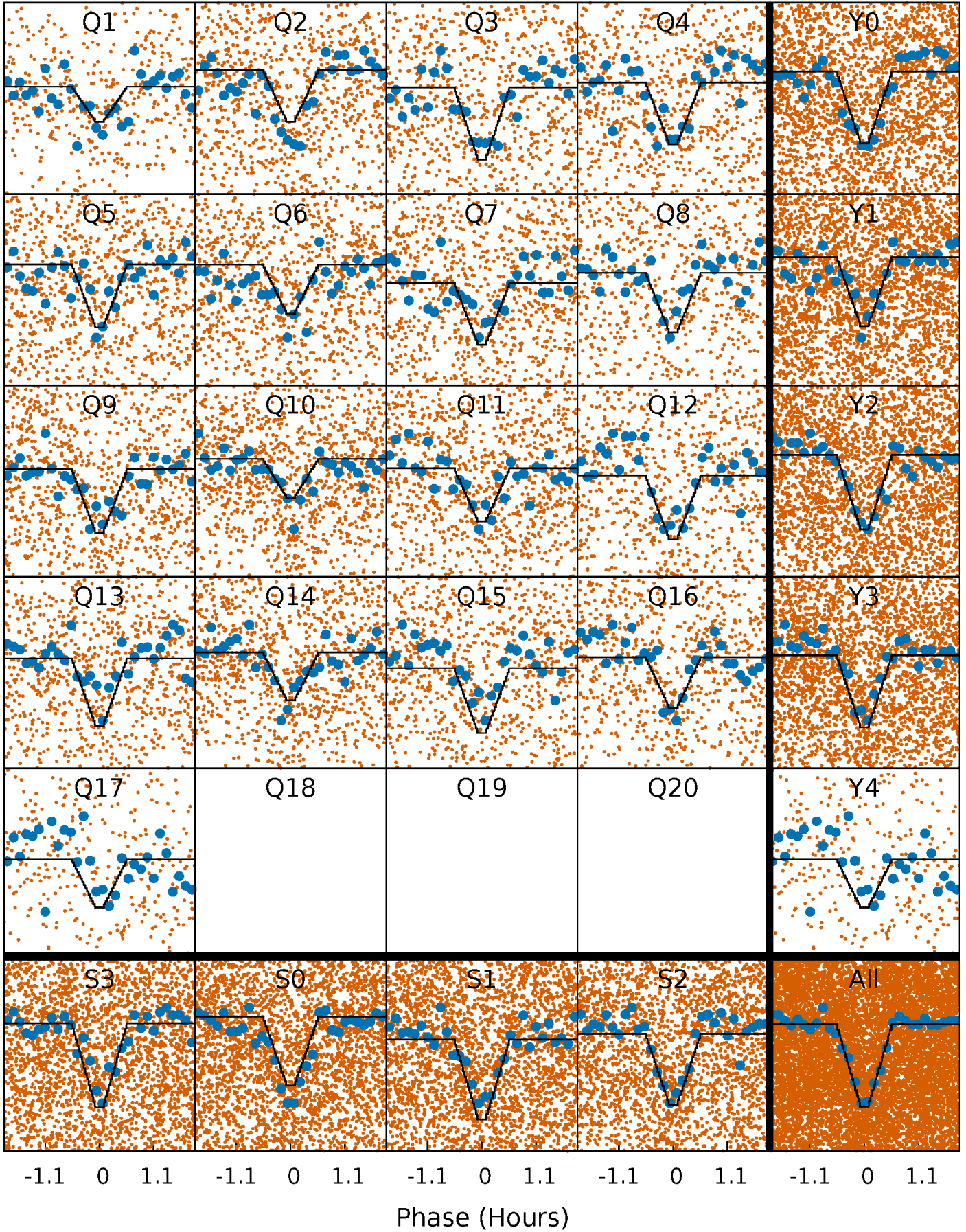
DV Quarter-Phased Transit Curves

TCE 003730335-01 P= 0.596089 Days $T_0=131.821928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

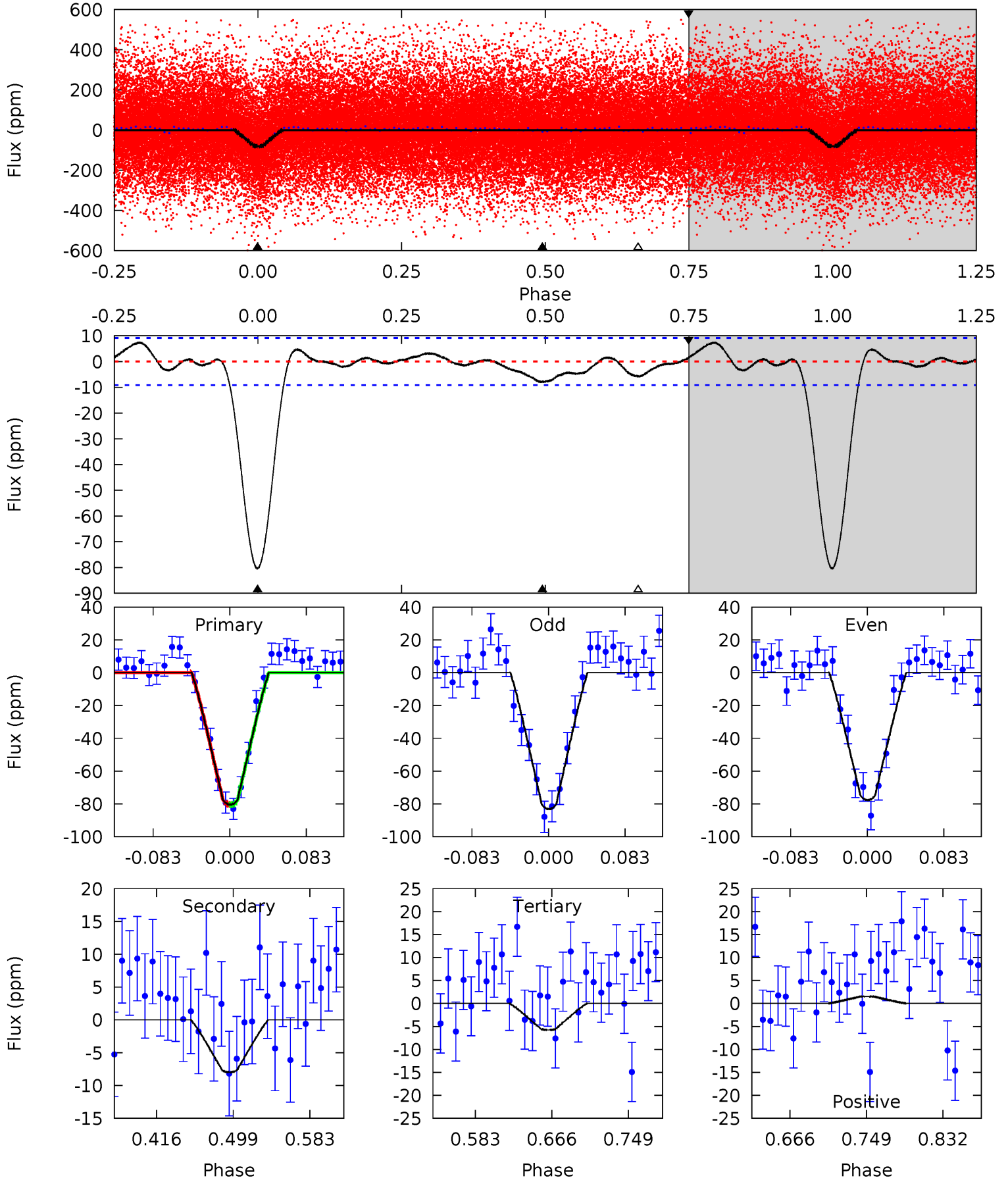
TCE 003730335-01 P= 0.596087 Days $T_0=131.823629$ (BKJD)



DV Model-Shift Uniqueness Test

003730335-01, P = 0.596089 Days, E = 131.225839 Days

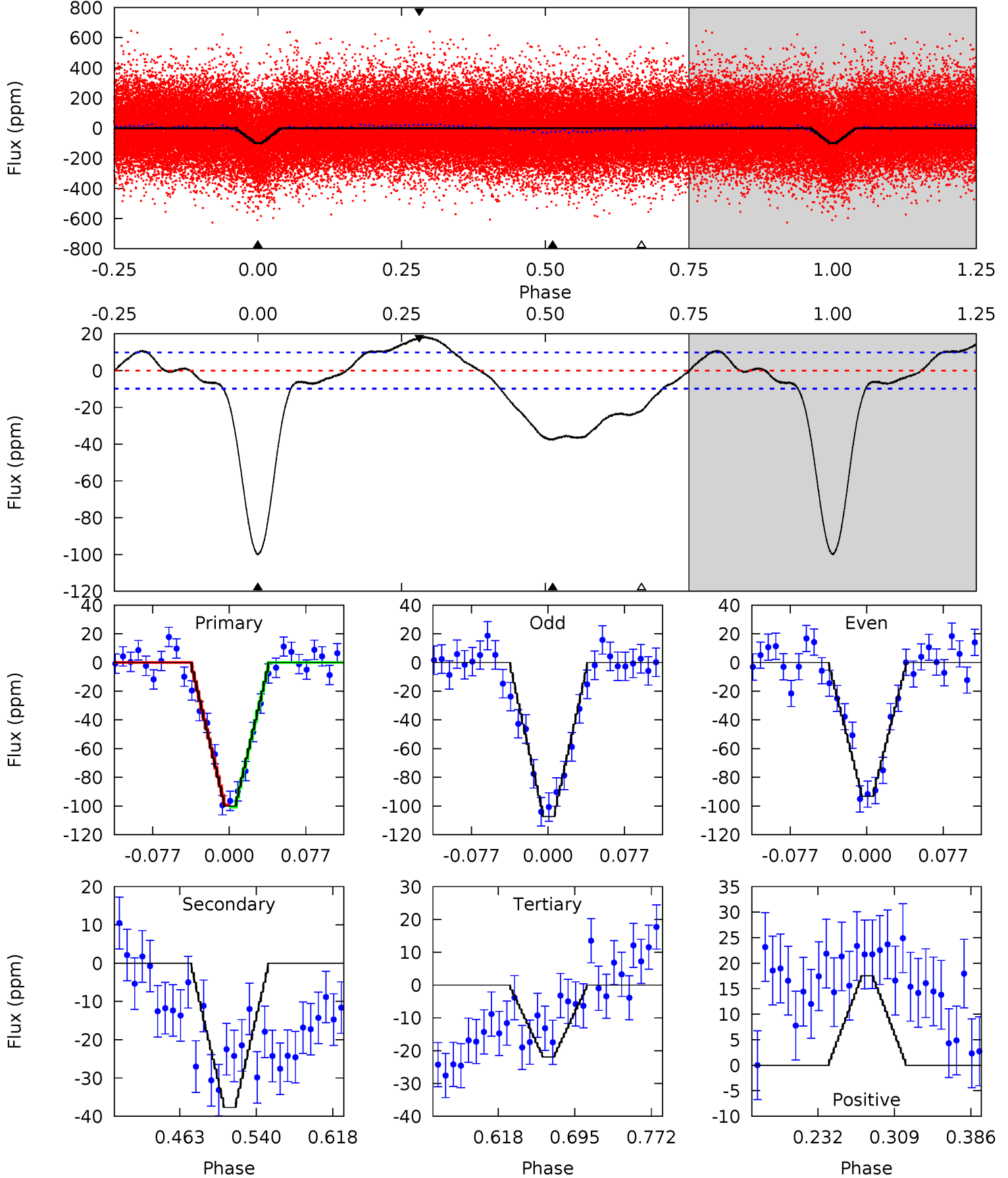
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.5	4.02	2.91	0.77	4.60	1.73	1.25	37.6	39.7	1.11	3.25	1.39	0.99	0.08	0.04



Alt Model-Shift Uniqueness Test

003730335-01, P = 0.596087 Days, E = 131.227542 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.9	17.7	10.3	8.23	4.62	1.77	5.68	36.6	38.7	7.39	9.45	3.30	0.94	0.16	0.39



Stellar Parameters For KIC 003730335

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6049^{+190}_{-232}	$3.997^{+0.368}_{-0.123}$	$0.080^{+0.250}_{-0.300}$	$1.827^{+0.467}_{-0.701}$	$1.209^{+0.181}_{-0.222}$	$0.280^{+0.747}_{-0.119}$
	+3%/-4%	+9%/-3%	+312%/-375%	+26%/-38%	+15%/-18%	+267%/-43%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 003730335-01 / KOI 2808.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 2	$1.88^{+0.44}_{-0.43}$	4031^{+327}_{-432}	-2613^{+5857}_{-746}	$0.271^{+0.210}_{-0.101}$
Alt.	-38 ± 2	$1.93^{+0.43}_{-0.49}$	4049^{+321}_{-450}	4540^{+379}_{-350}	$1.228^{+0.876}_{-0.406}$

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

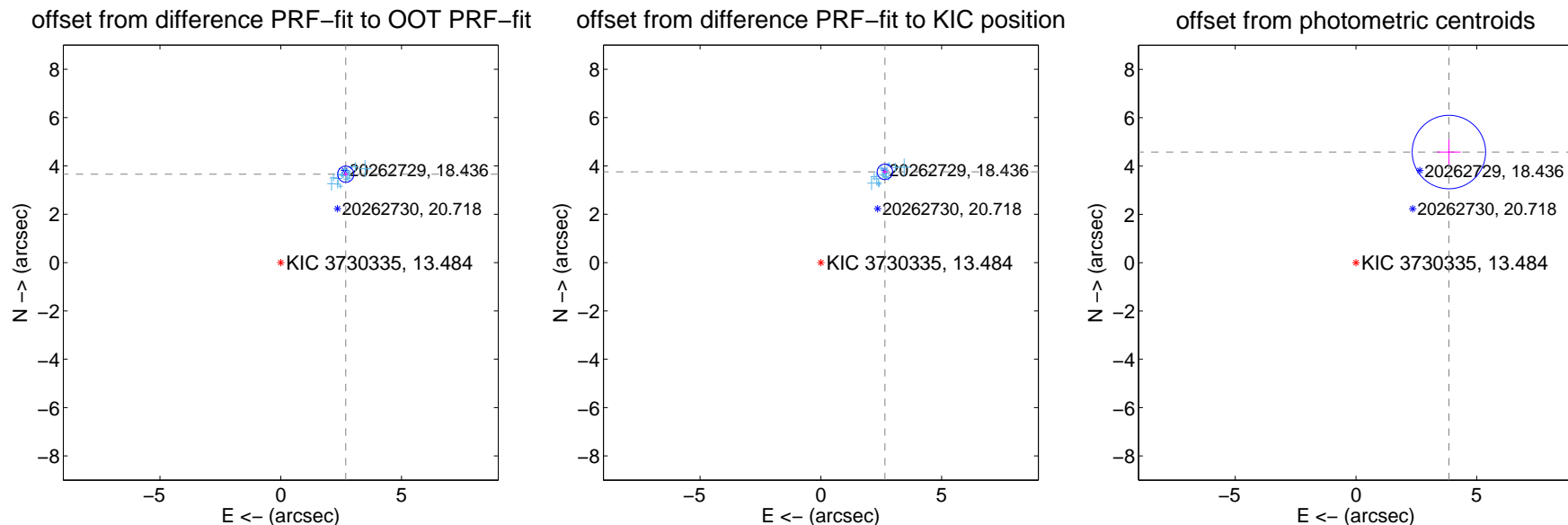
DV Centroid Data

Supplemental centroid analysis for 003730335-01. Kepler magnitude: 13.48. Transit SNR 24.67

There are 17 quarters with good PRF difference image offsets

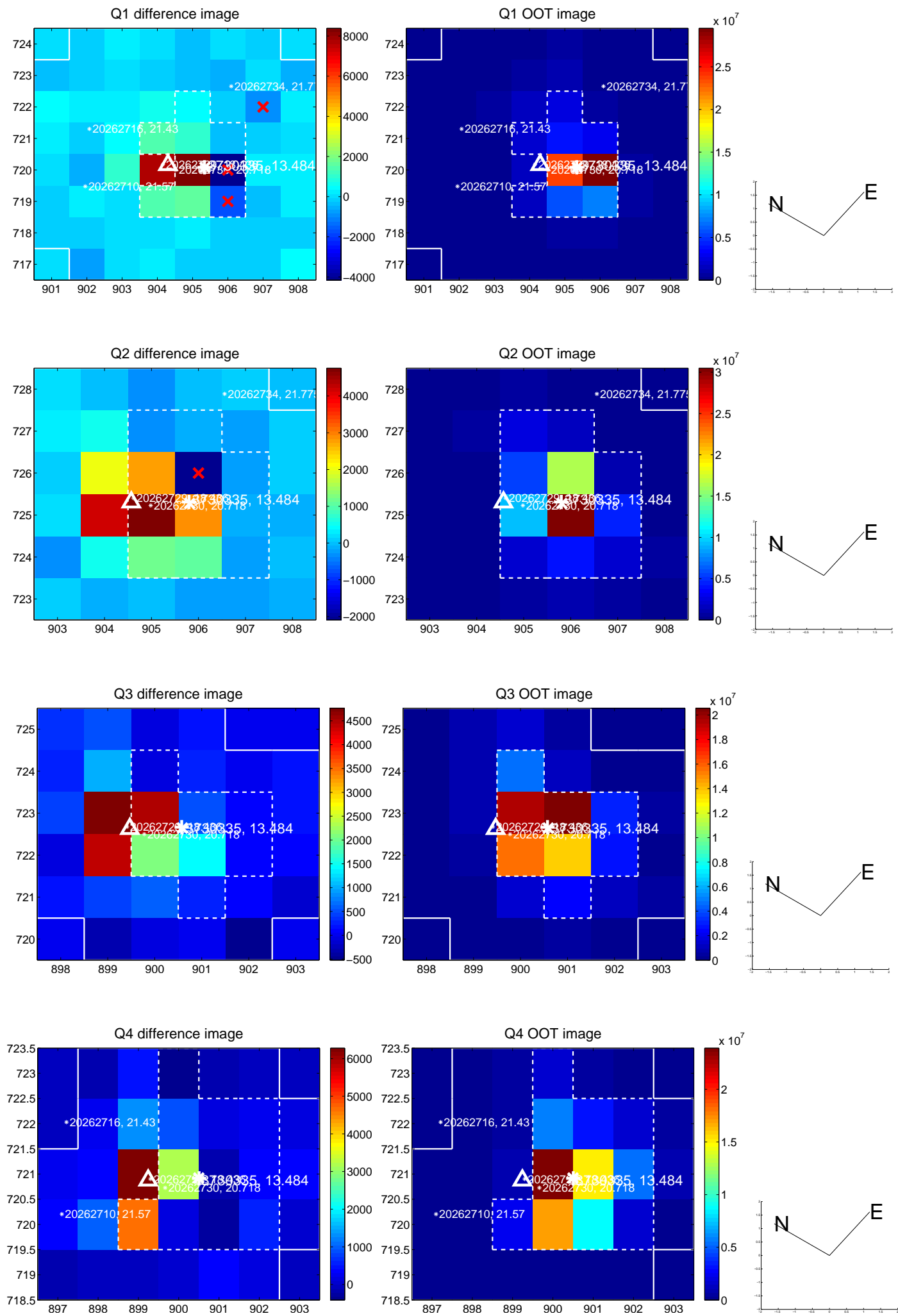
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.541 \pm 0.112	40.56	-2.691 \pm 0.103	3.658 \pm 0.090
PRF-fit source offset from KIC position	4.597 \pm 0.106	43.22	-2.651 \pm 0.100	3.756 \pm 0.089
photometric centroid source offset	5.98 \pm 0.51	11.80	-3.85 \pm 0.49	4.58 \pm 0.52

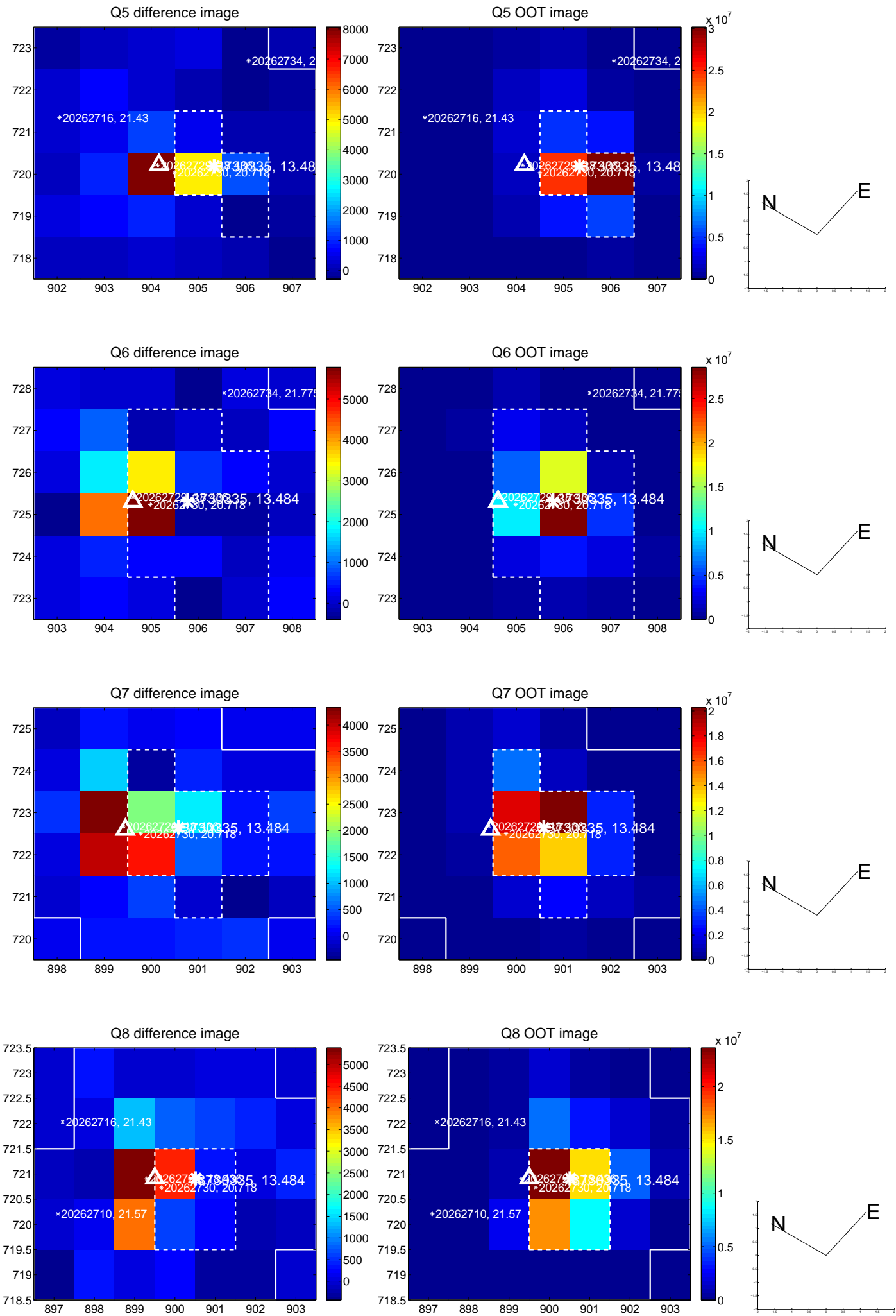


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

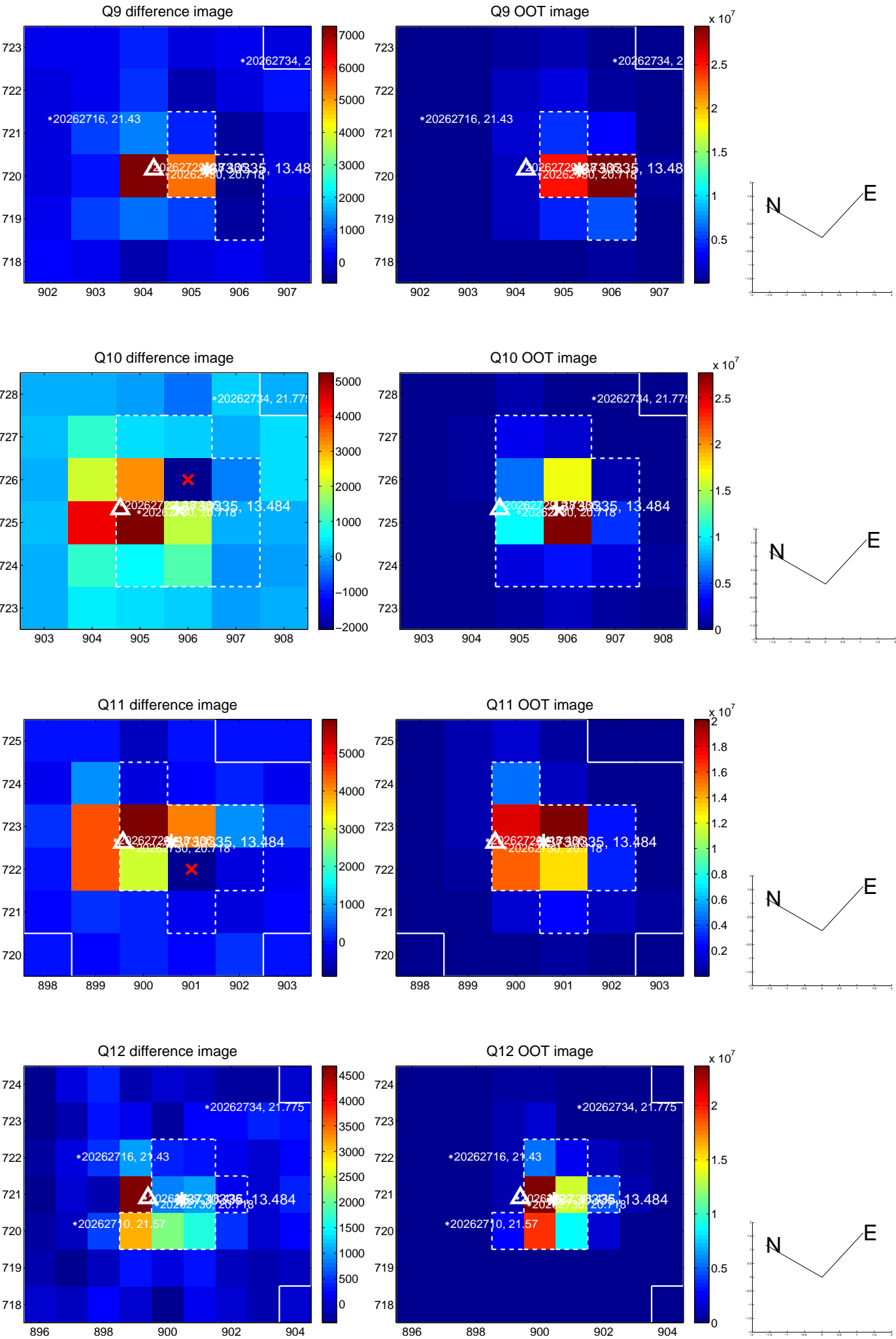
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



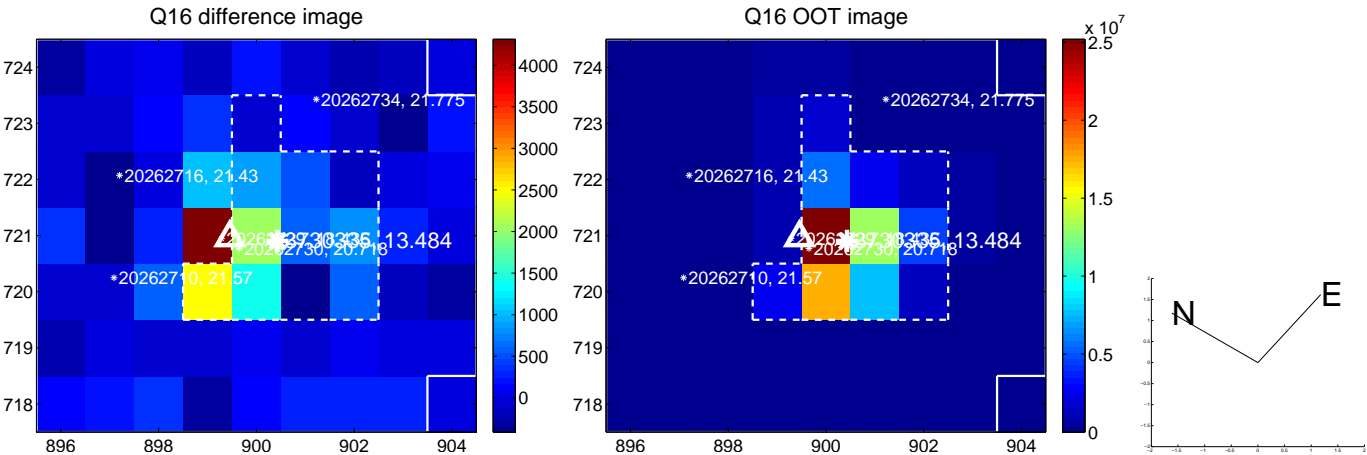
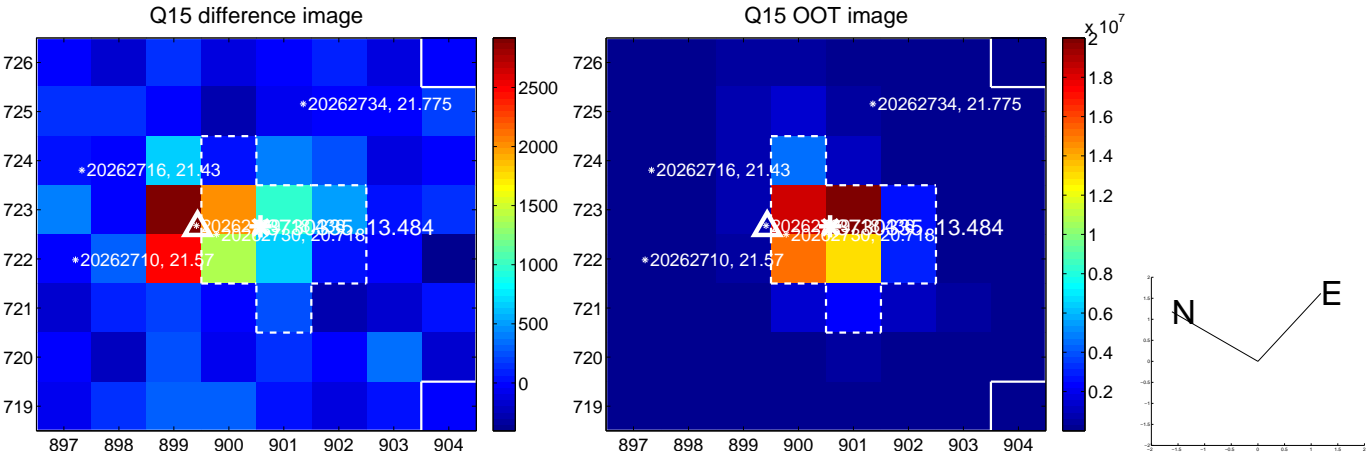
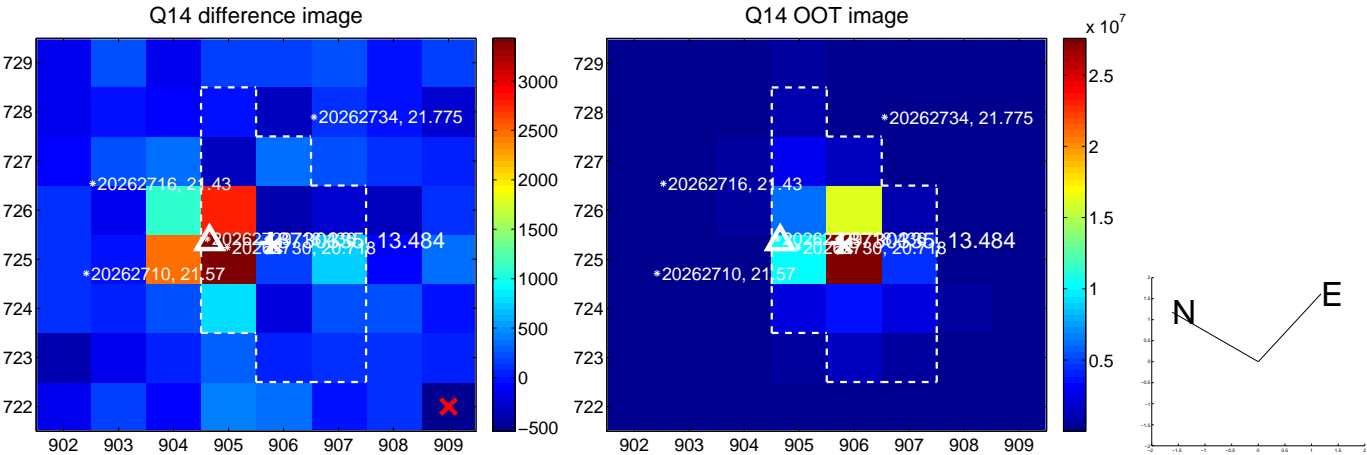
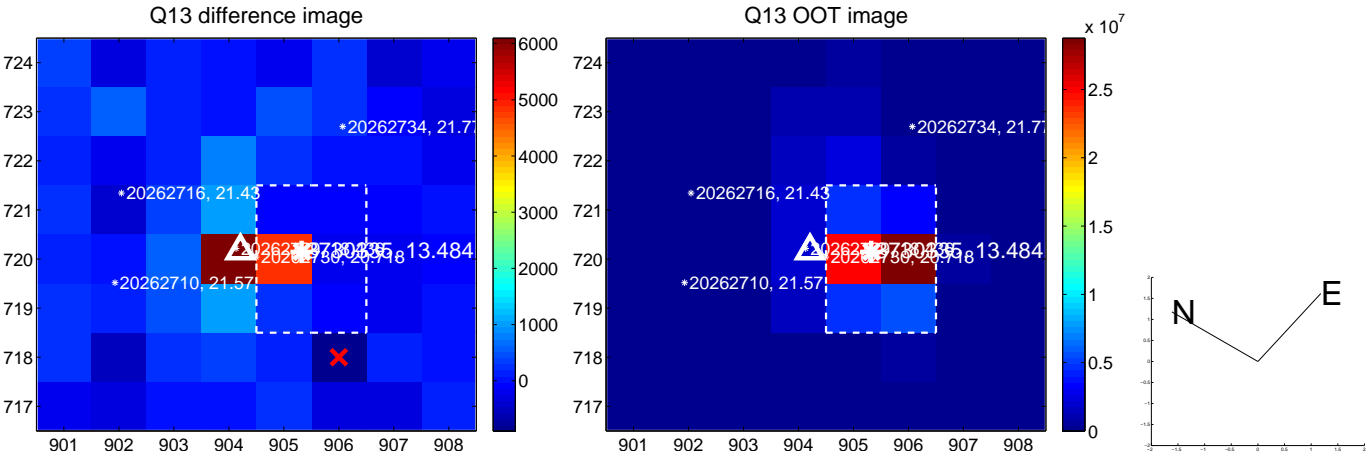
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



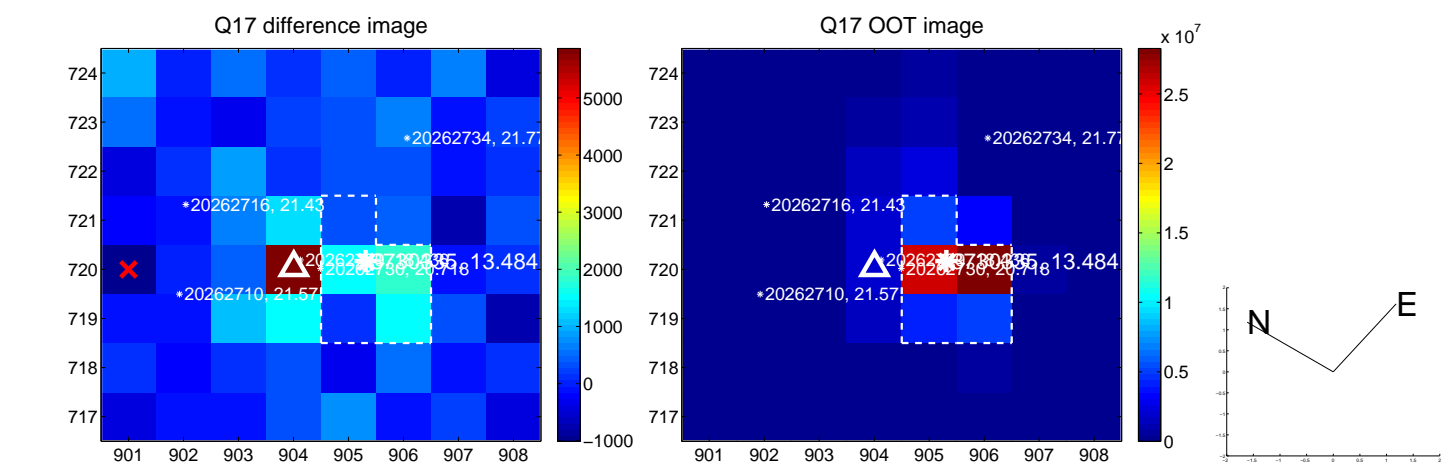
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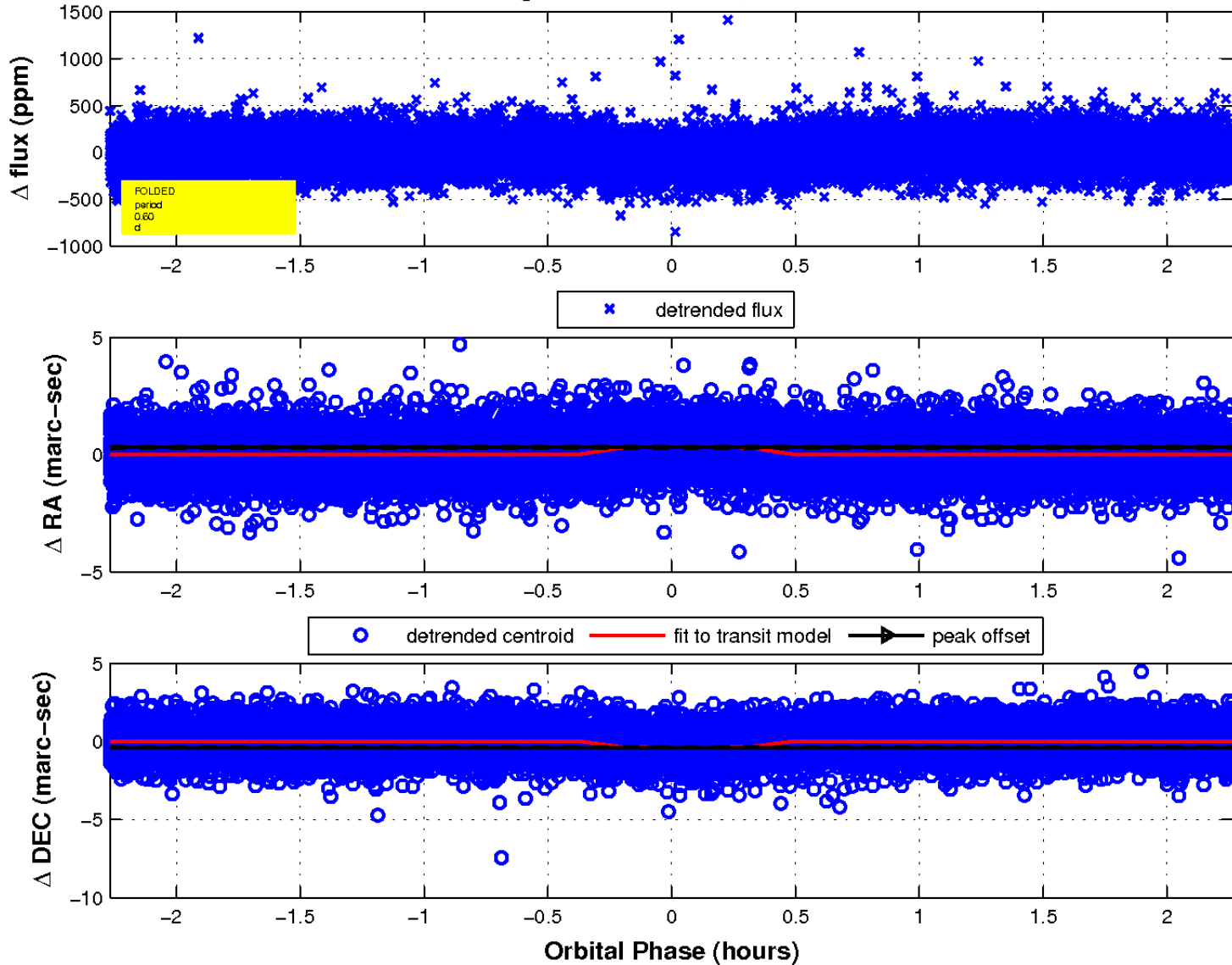
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

