

KIC 006947837

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})
006947837-01	OBS	No	0.566667	132.076194	0.0	2.241	7.6	0.0	2.31	8027	0.03	71270.97

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006947837-01	OBS	FP	0.00	1	0	0	1	LPP_DV—LPP_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 006947837-01

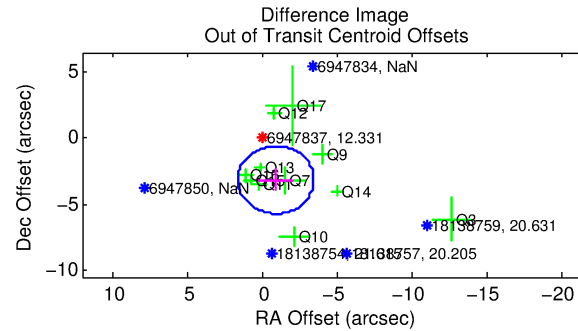
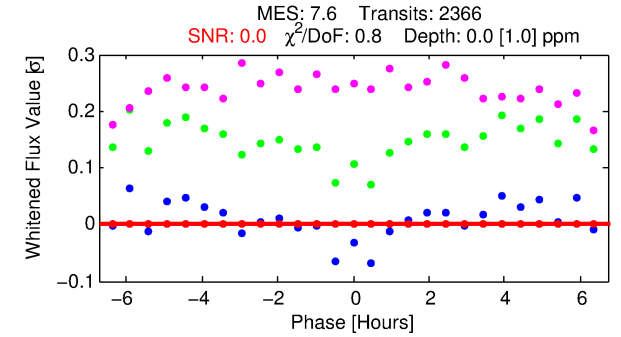
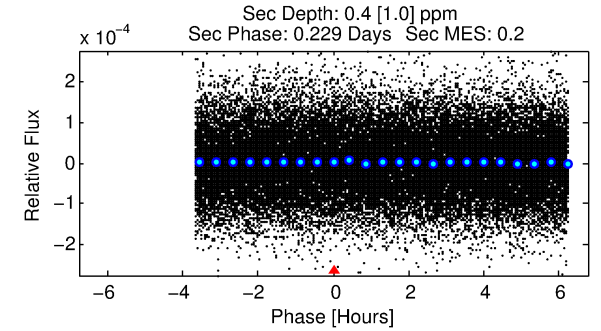
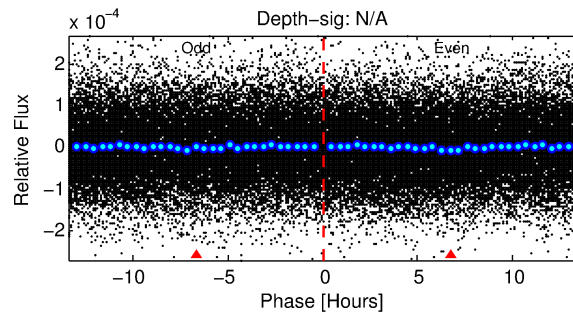
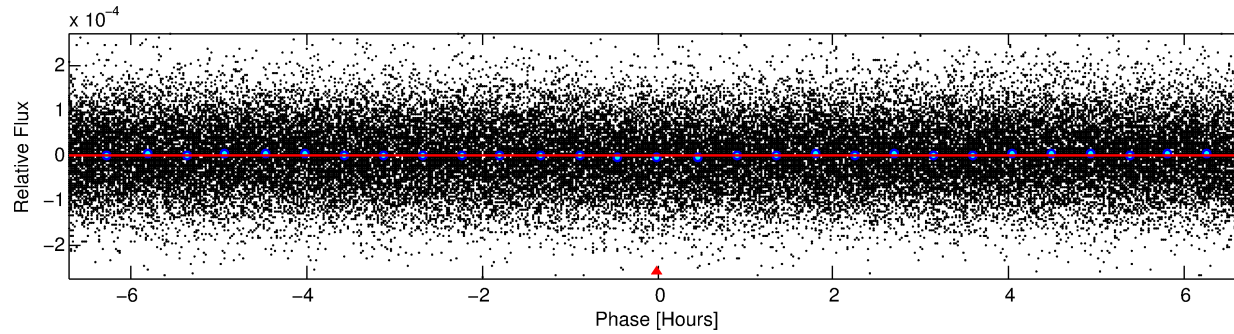
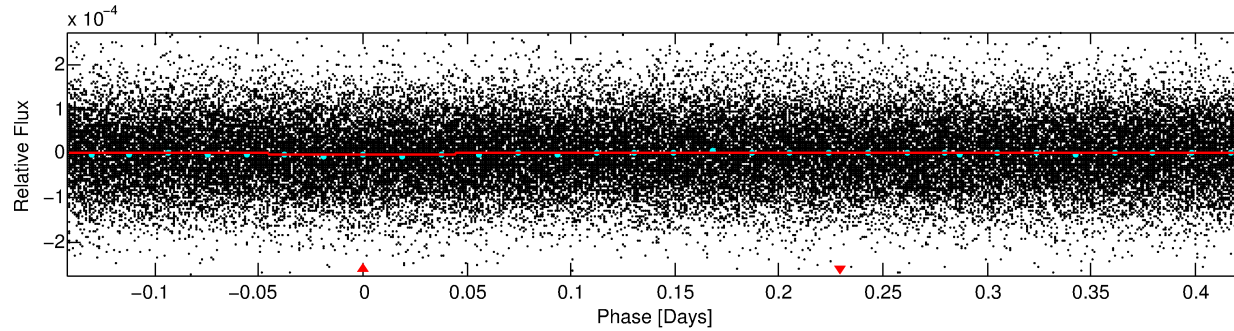
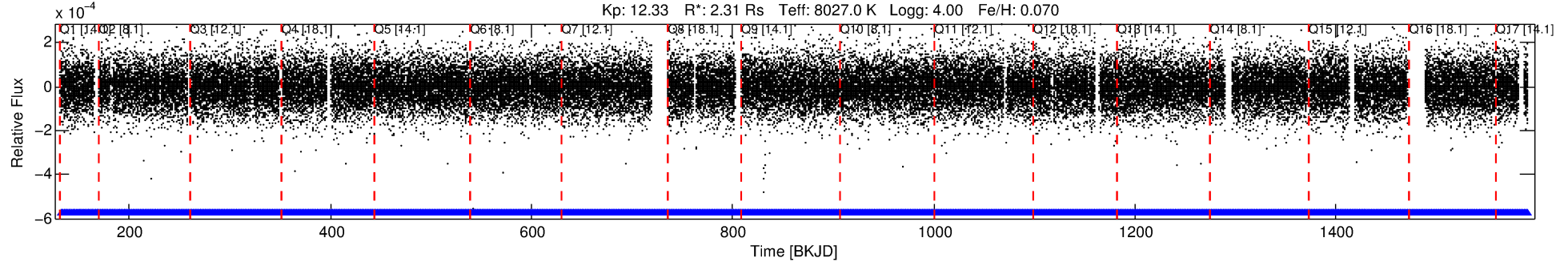
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006947837-01	6947837	RR-Lyr-pri	7198959	1:1	1224.1	305	-39	7.86	12.33	623300.00	Direct-PRF	0	0.22	3.02

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: 6947837 Candidate: 1 of 1 Period: 0.567 d
KOI: K06794 Corr: No Ephemeris Match

Kp: 12.33 R*: 2.31 Rs Teff: 8027.0 K Logg: 4.00 Fe/H: 0.070



DV Fit Results:

Period = 0.56667 [0.00968] d
Epoch = 132.0762 [2.9152] BKJD
Rp/R* = 0.0001 [0.0065]
a/R* = 1.10 [7.03]
b = 0.96 [3.31]
Seff = 71270.97 [28212.88]
Teq = 4166 [412] K
Rp = 0.03 [1.65] Re
a = 0.0167 [0.0041] AU
Ag = 83.65 [10441.28] [0.01σ]
Teffp = 19481 [607956] K [0.03σ]

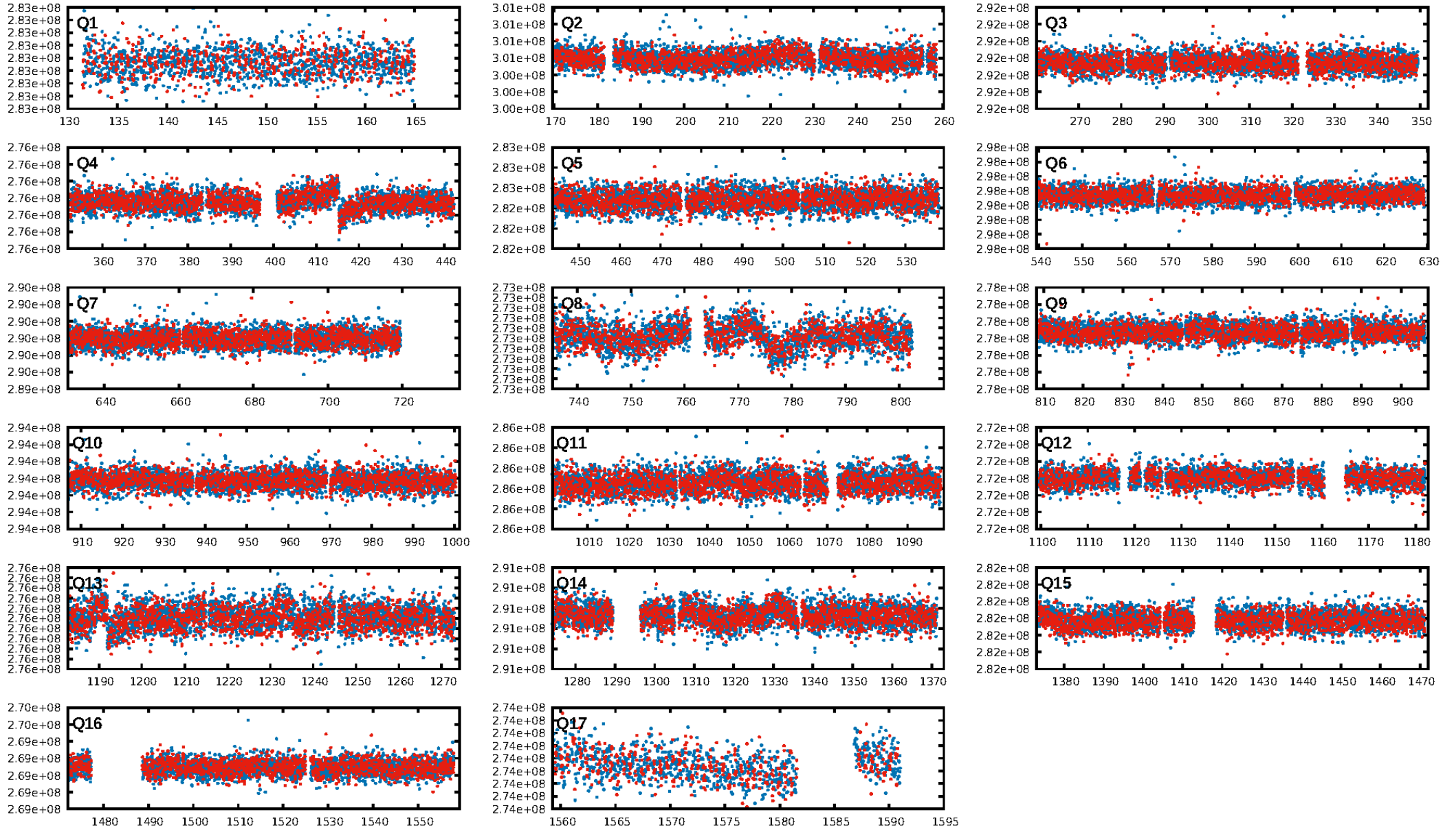
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.85e-12
RollingBand-fgt: 1.00 [2259/2259]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 3.293 arcsec [3.87σ]
KicOffset-rm: 3.231 arcsec [3.49σ]
OotOffset-st: 2/4/2/3 [11]
KicOffset-st: 2/4/2/3 [11]
DiffImageQuality-fgm: 0.09 [1/11]
DiffImageOverlap-fno: 1.00 [17/17]

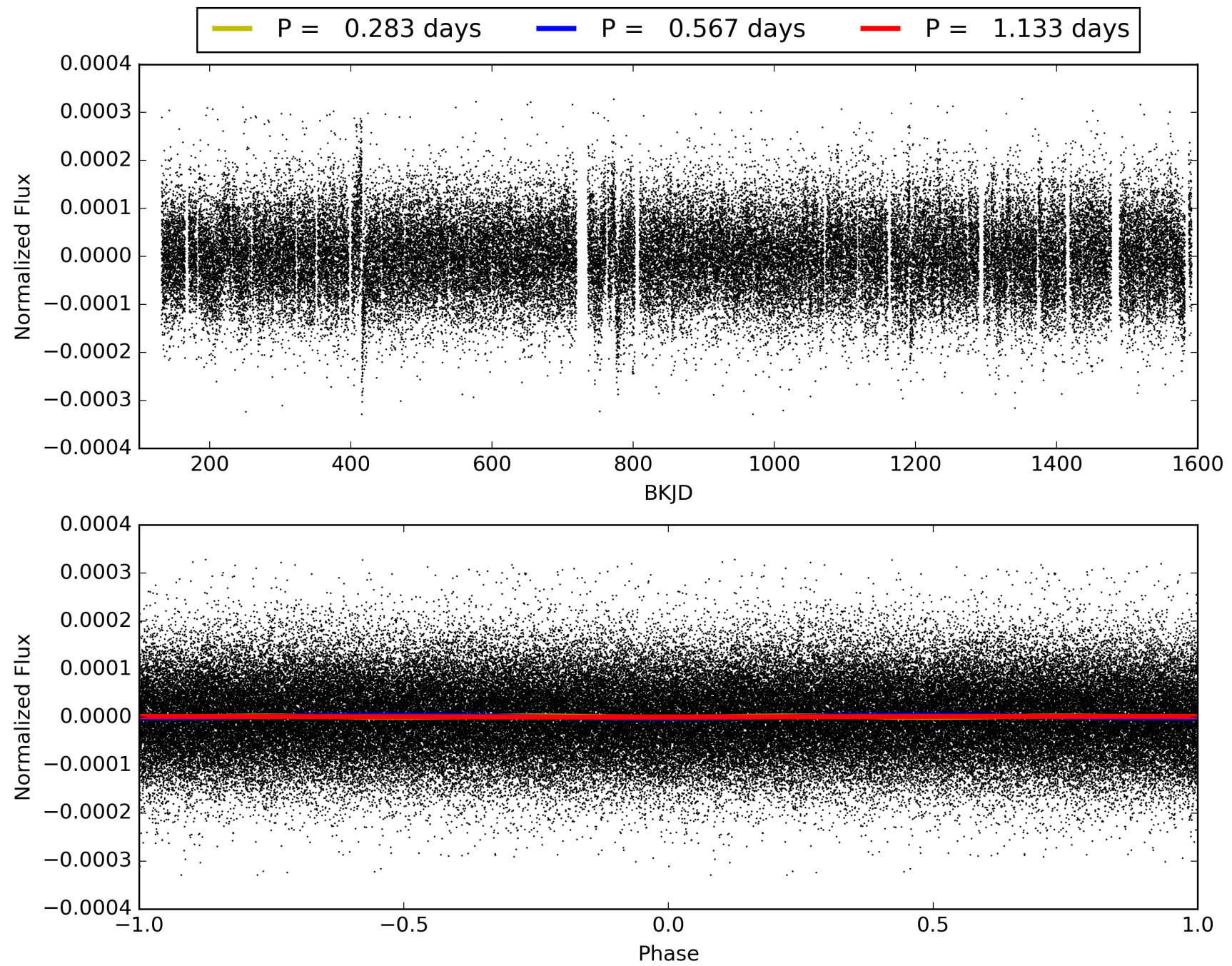
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:06:15 Z

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

TCE 006947837-01, PDC Light Curves

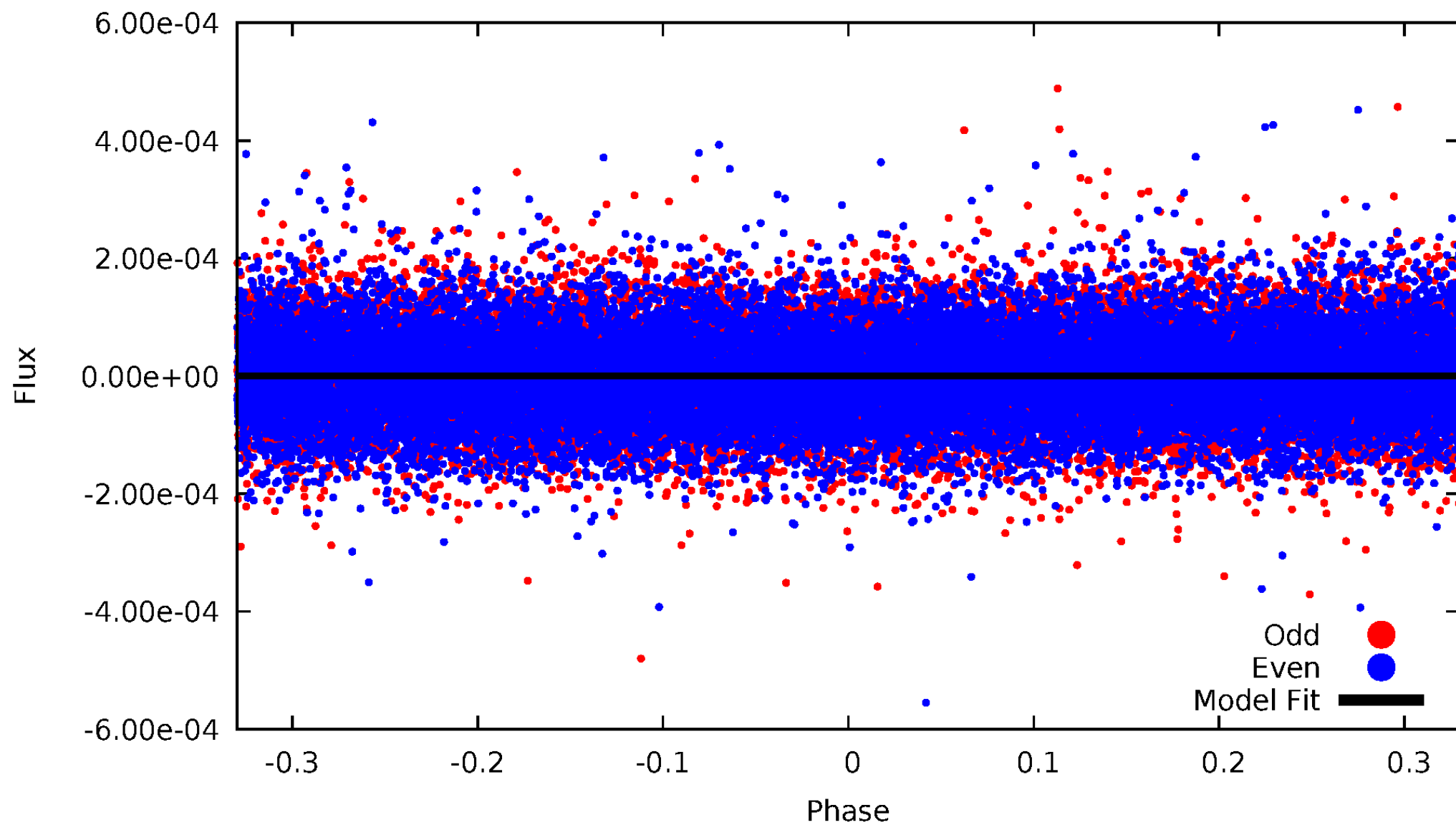


TCE 006947837-01



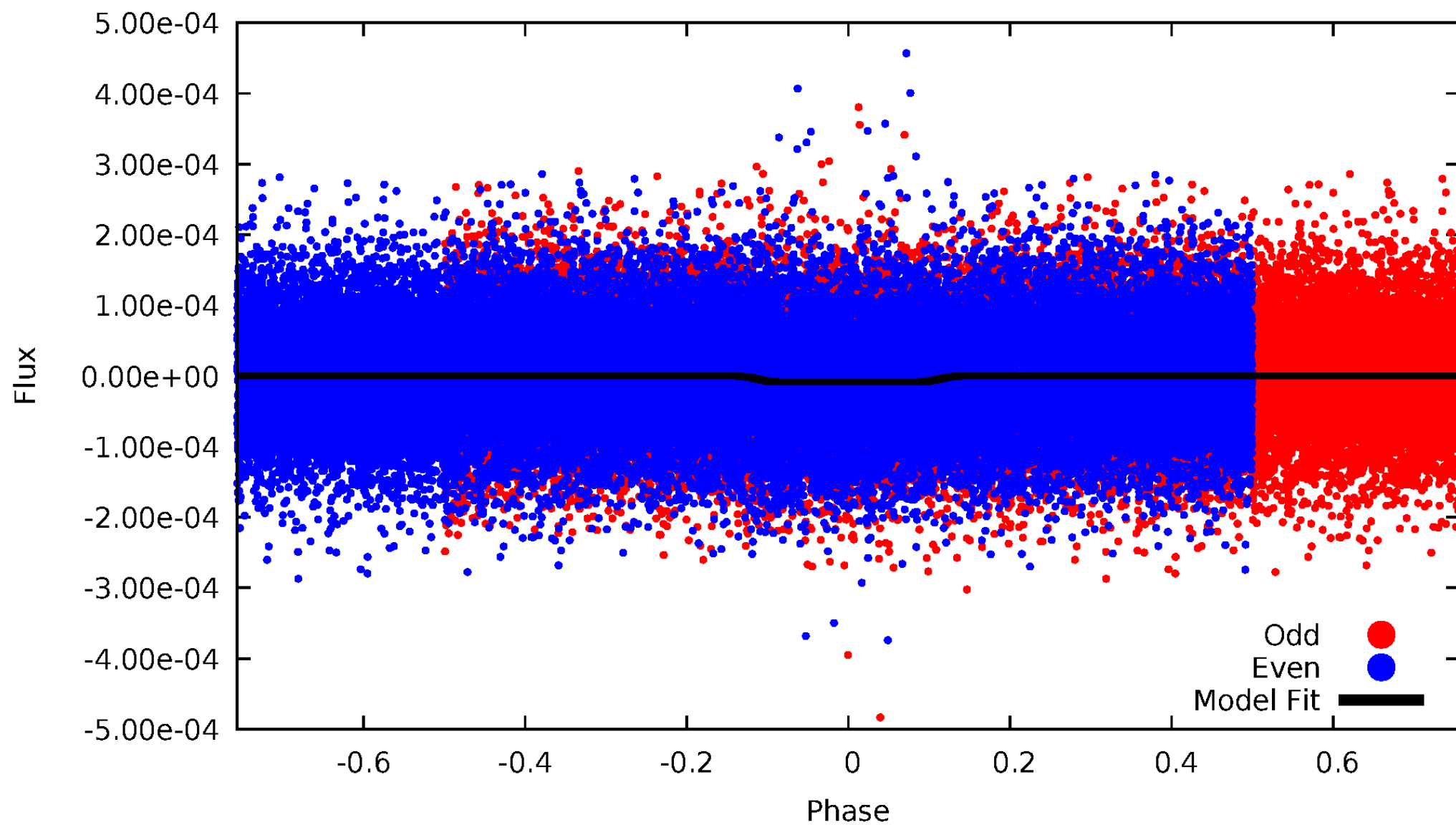
DV Odd/Even

TCE 006947837-01



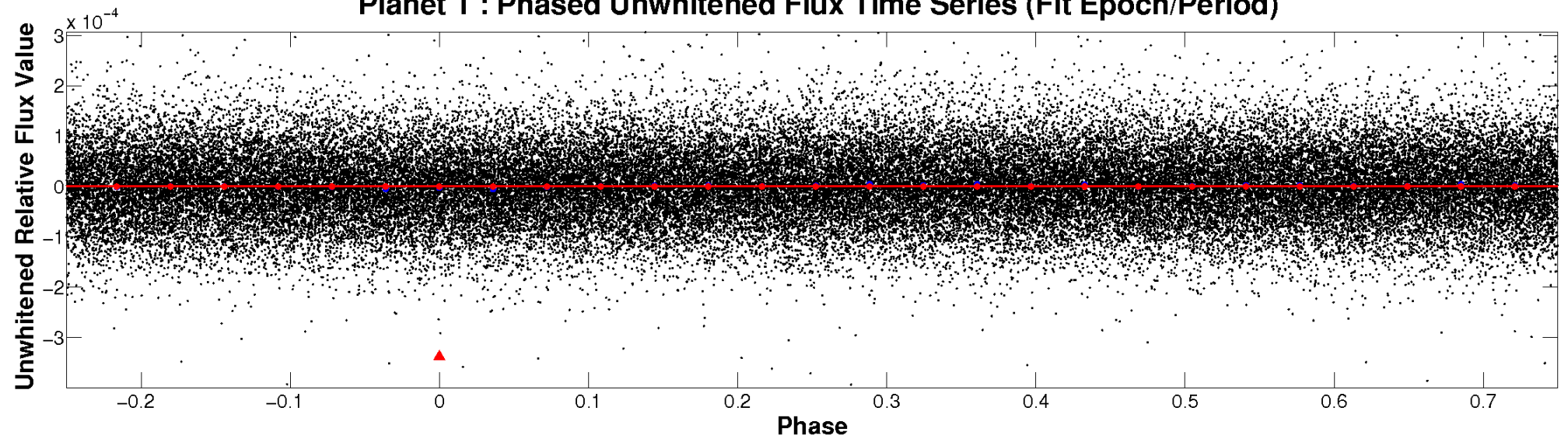
ALT Odd/Even

TCE 006947837-01

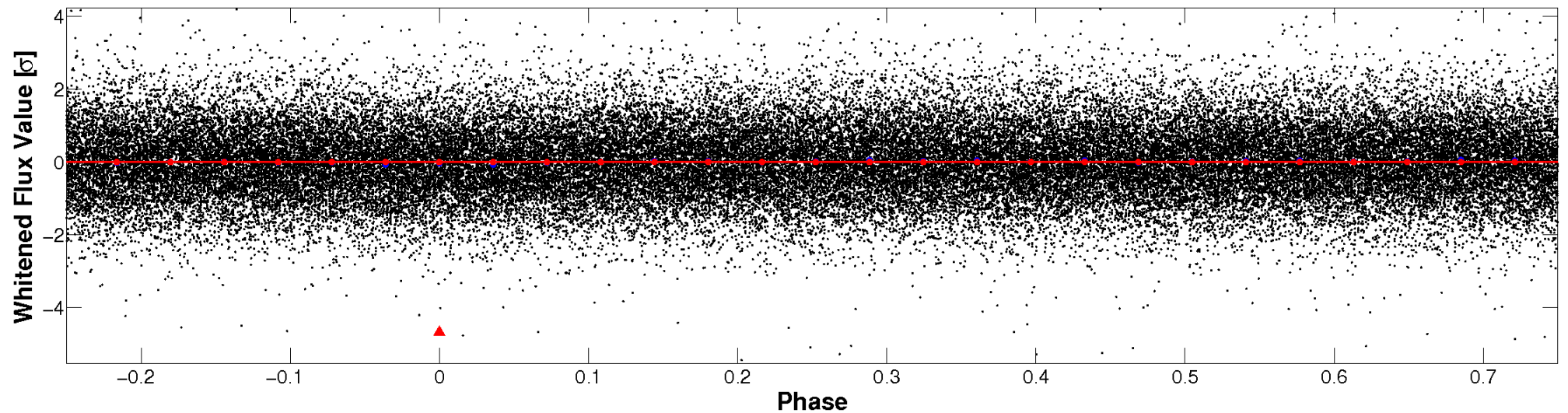


Non-Whitened Vs. Whitened Light Curve

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

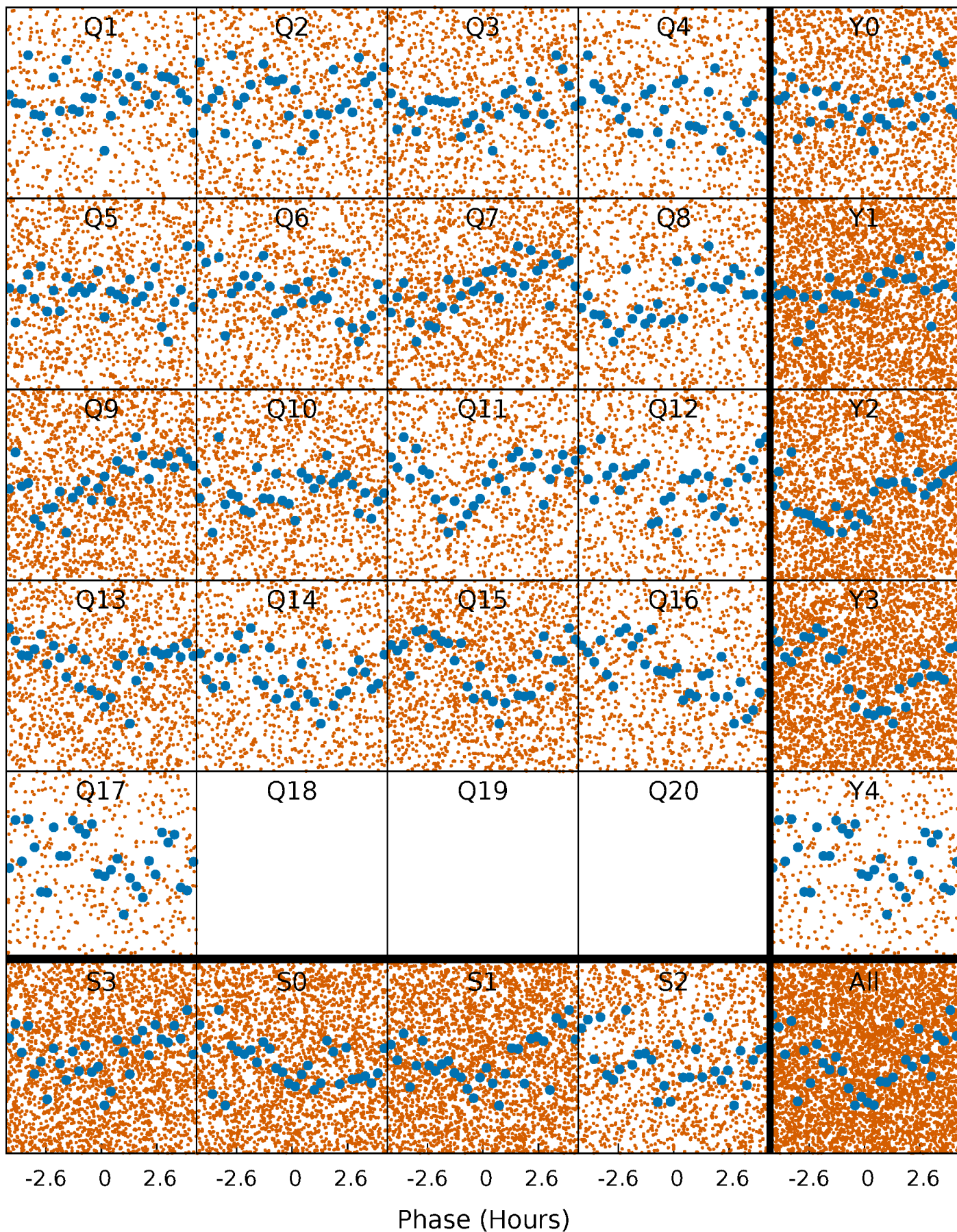


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



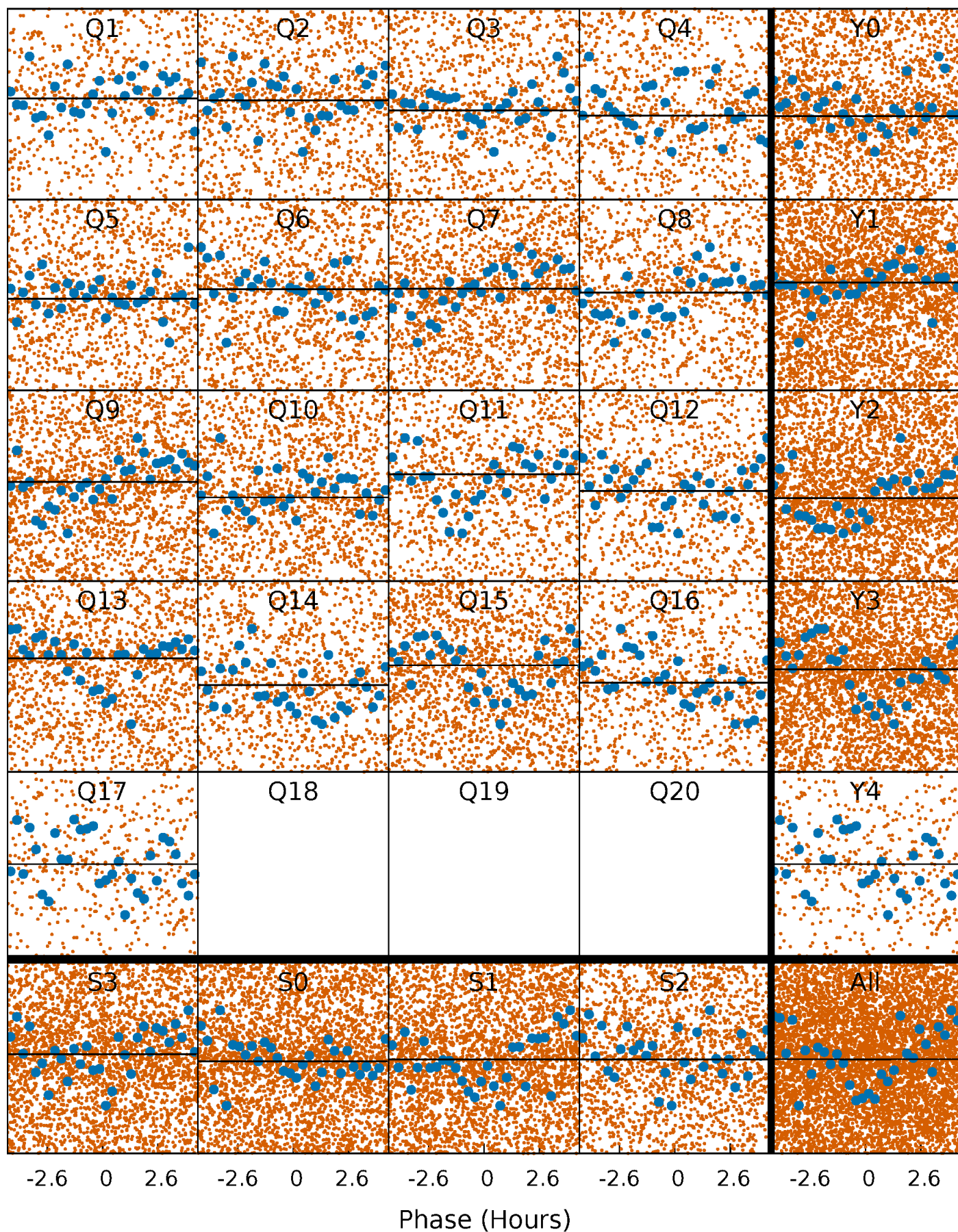
PDC Quarter-Phased Transit Curves

TCE 006947837-01 P= 0.566667 Days $T_0=132.076194$ (BKJD)



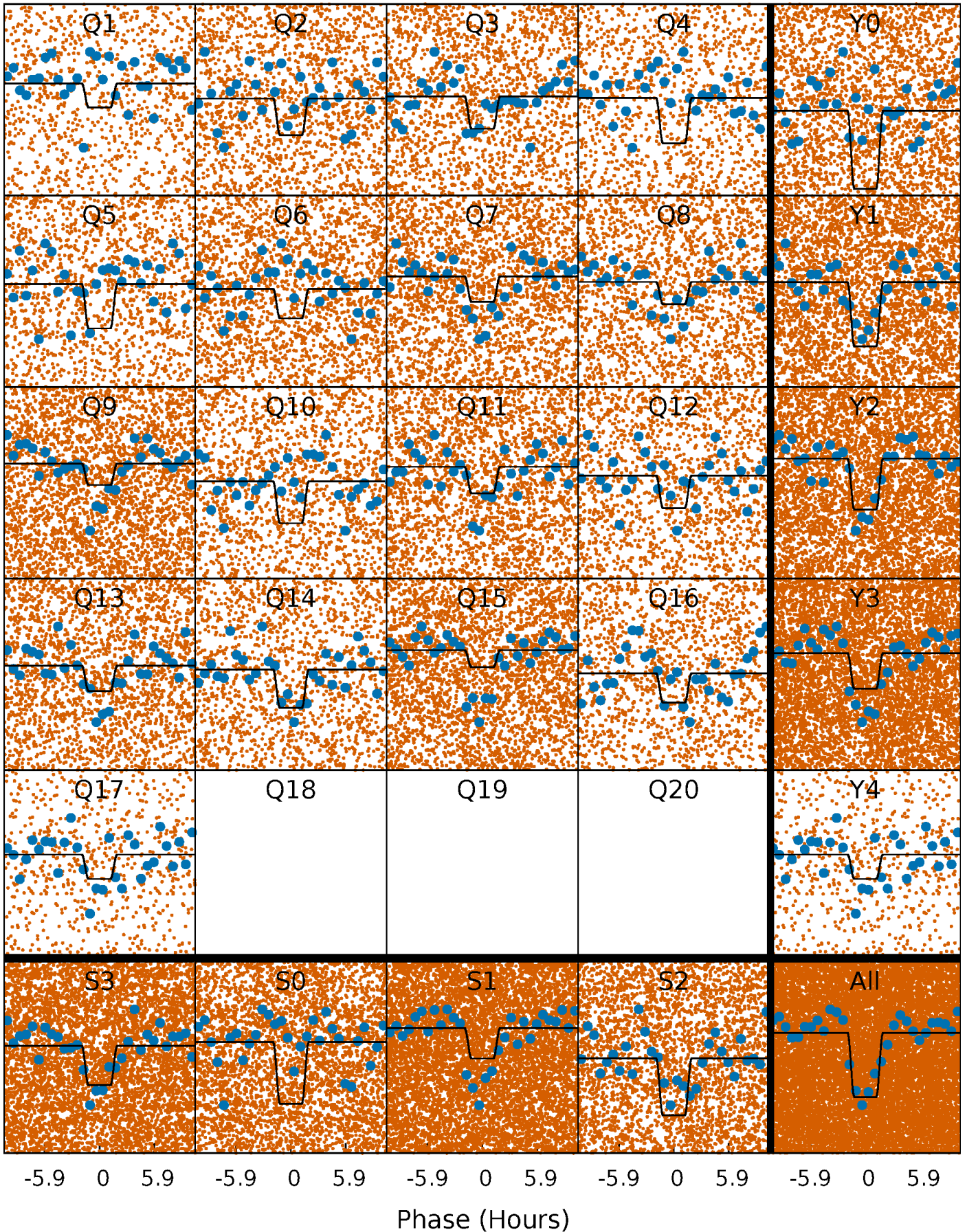
DV Quarter-Phased Transit Curves

TCE 006947837-01 P= 0.566667 Days $T_0=132.076194$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

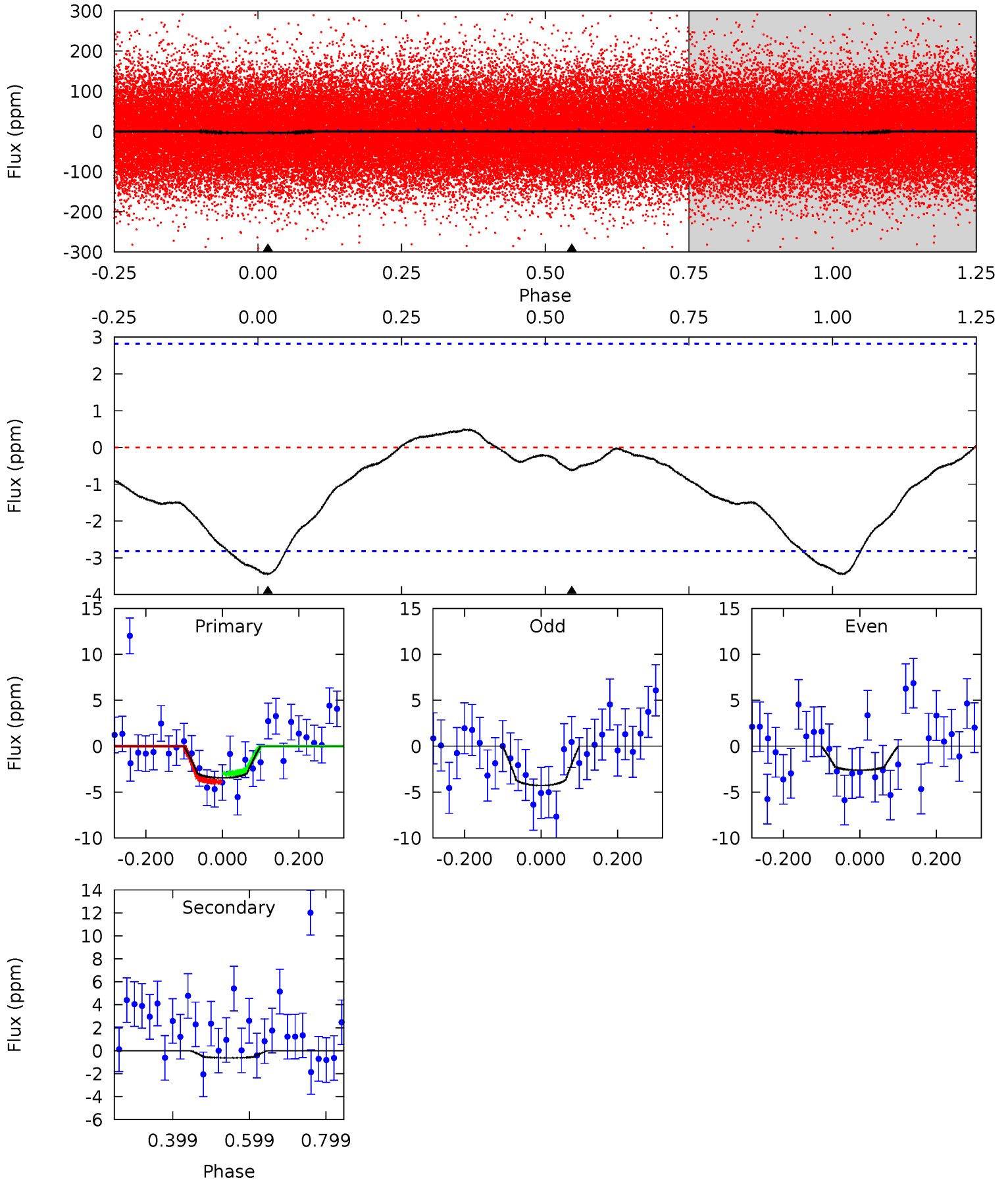
TCE 006947837-01 P= 0.566795 Days $T_0=131.832544$ (BKJD)



DV Model-Shift Uniqueness Test

006947837-01, P = 0.566667 Days, E = 131.509527 Days

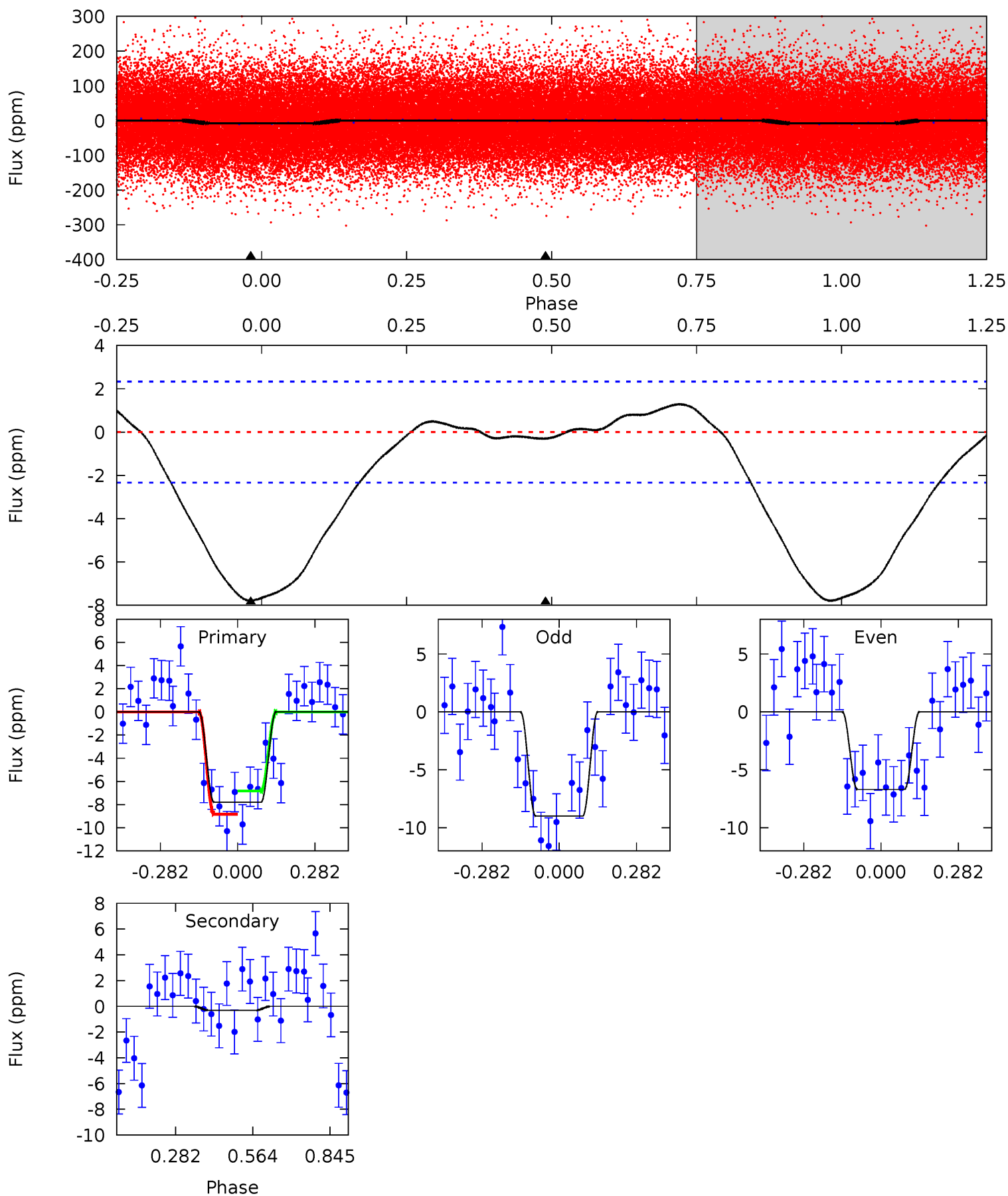
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.41	0.98	0	0	4.42	1.28	1.08	5.41	5.41	0.98	0.98	1.30	0.92	0.13	0.71



Alt Model-Shift Uniqueness Test

006947837-01, P = 0.566795 Days, E = 131.265749 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.5	0.57	0	0	4.34	1.08	1.63	14.5	14.5	0.57	0.57	2.13	1.04	0.14	1.85



Stellar Parameters For KIC 006947837

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8027^{+222}_{-333}	$3.997^{+0.198}_{-0.132}$	$0.070^{+0.150}_{-0.400}$	$2.314^{+0.496}_{-0.661}$	$1.940^{+0.248}_{-0.372}$	$0.220^{+0.242}_{-0.086}$
	+3%/-4%	+5%/-3%	+214%/-571%	+21%/-29%	+13%/-19%	+110%/-39%
Source	KIC0	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 006947837-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 1	$1.13^{+1.24}_{-0.79}$	5768^{+380}_{-407}	-4471^{+9322}_{-429}	$0.056^{+0.575}_{-0.054}$
Alt.	-0 ± 1	$1.48^{+1.41}_{-1.04}$	5793^{+349}_{-430}	-4652^{+1158}_{-317}	$0.013^{+0.224}_{-0.025}$

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

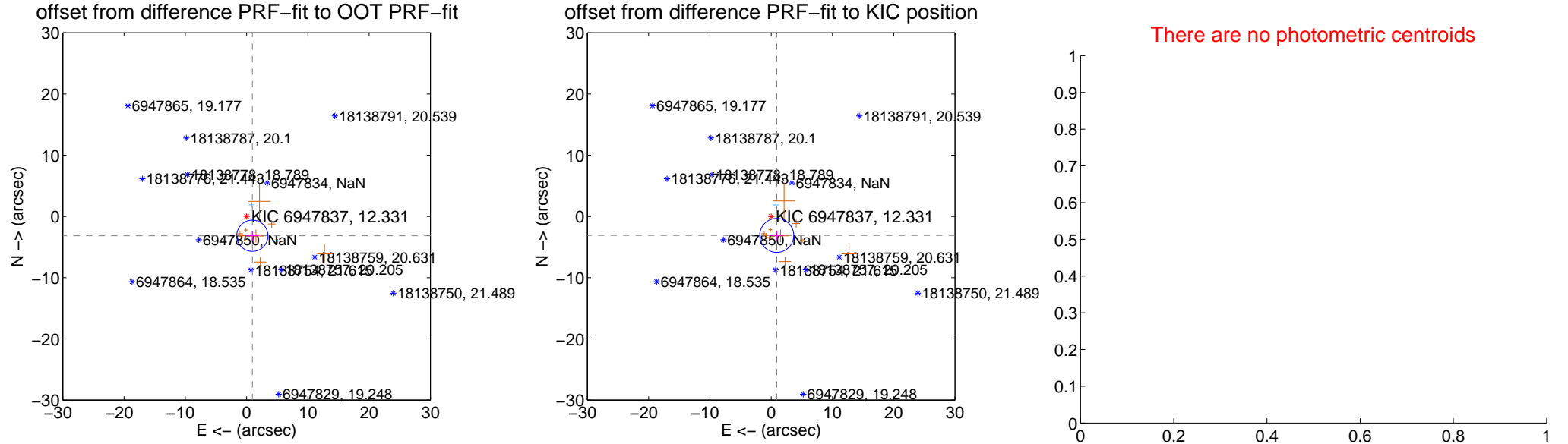
DV Centroid Data

Supplemental centroid analysis for 006947837-01. Kepler magnitude: 12.33. Transit SNR 0.01

There are 1 quarters with good PRF difference image offsets

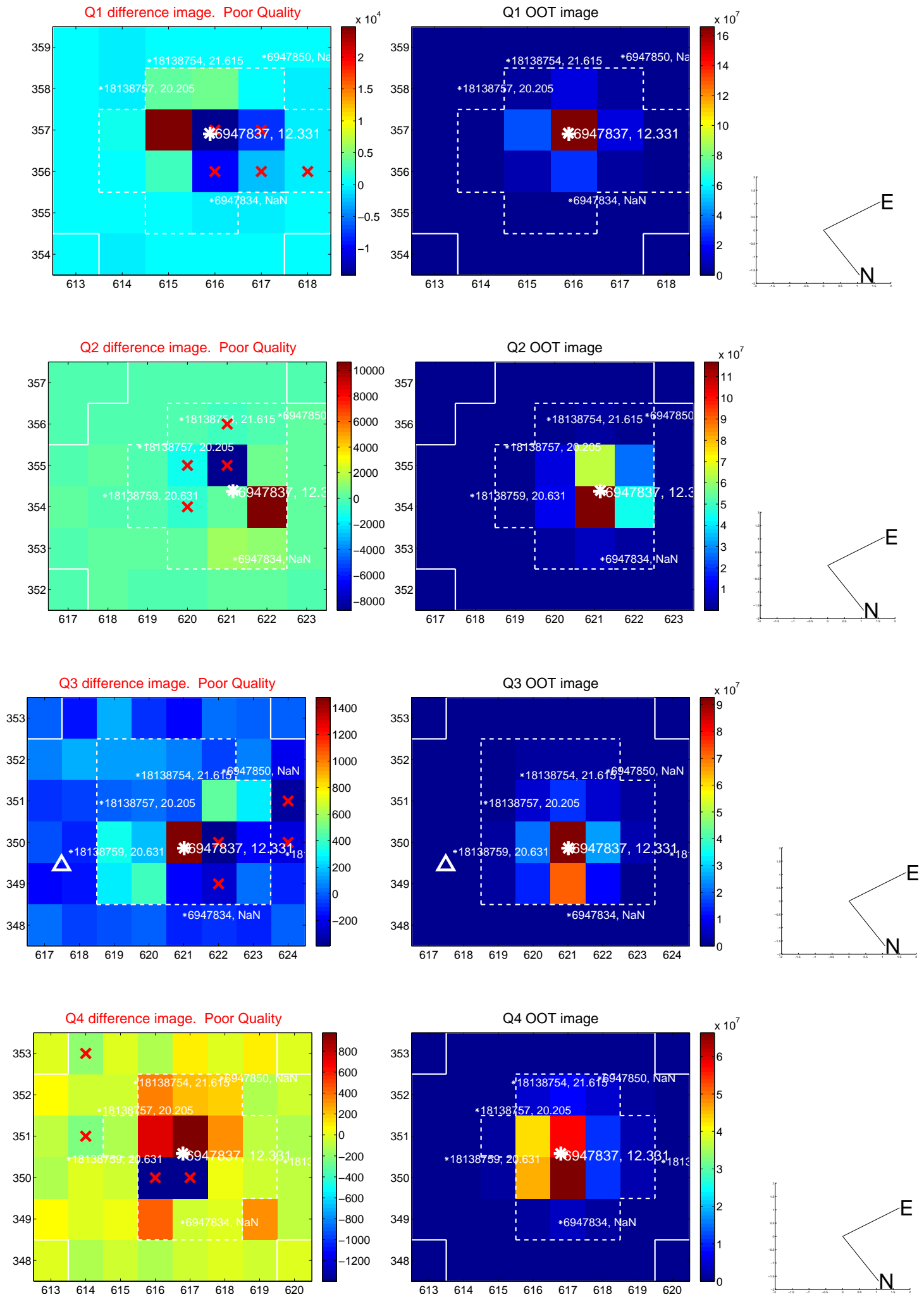
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.293 ± 0.851	3.87	-0.940 ± 1.069	-3.156 ± 0.755
PRF-fit source offset from KIC position	3.231 ± 0.926	3.49	-0.909 ± 1.246	-3.100 ± 0.791
photometric centroid source offset	—	—	—	—

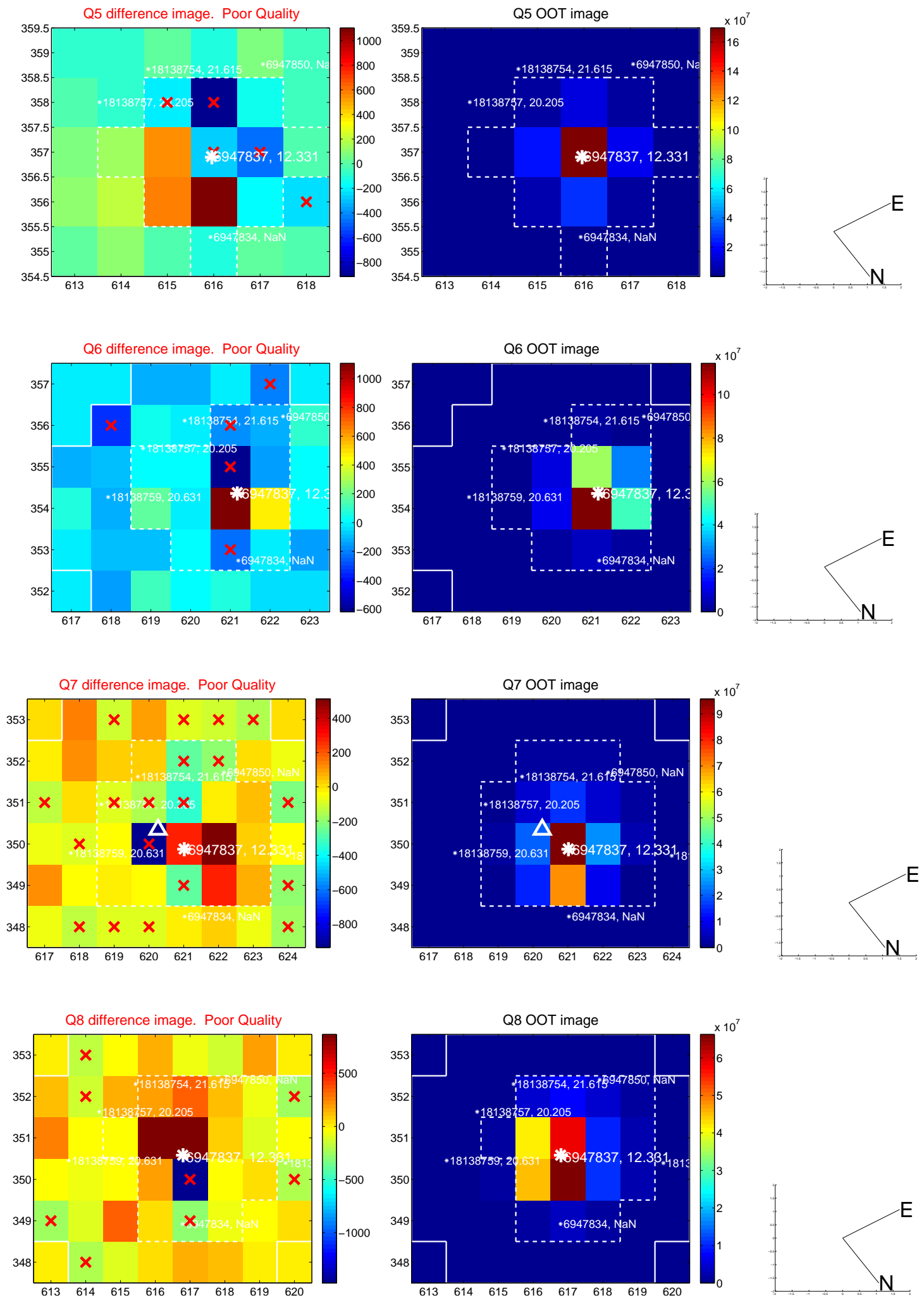


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

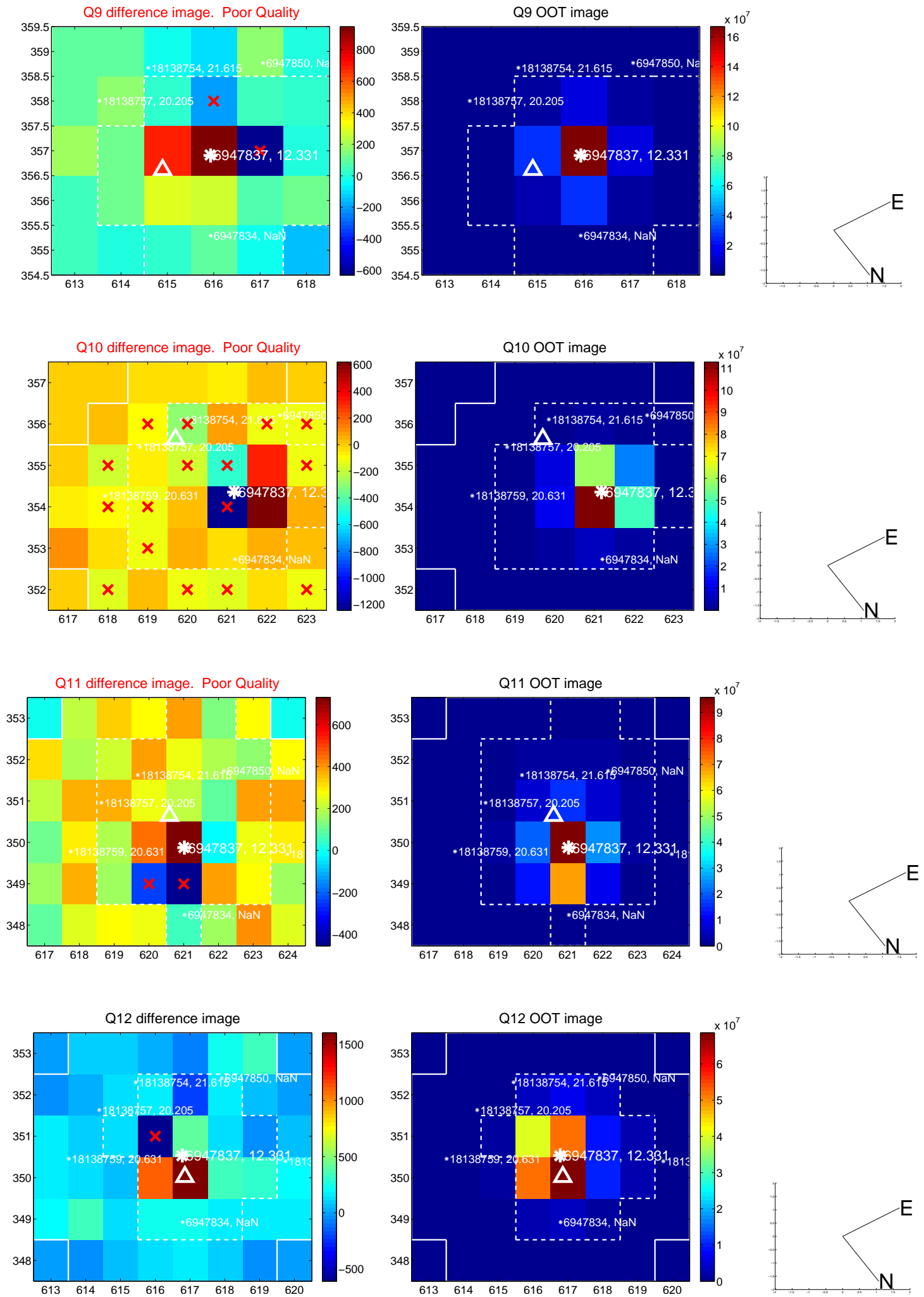
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



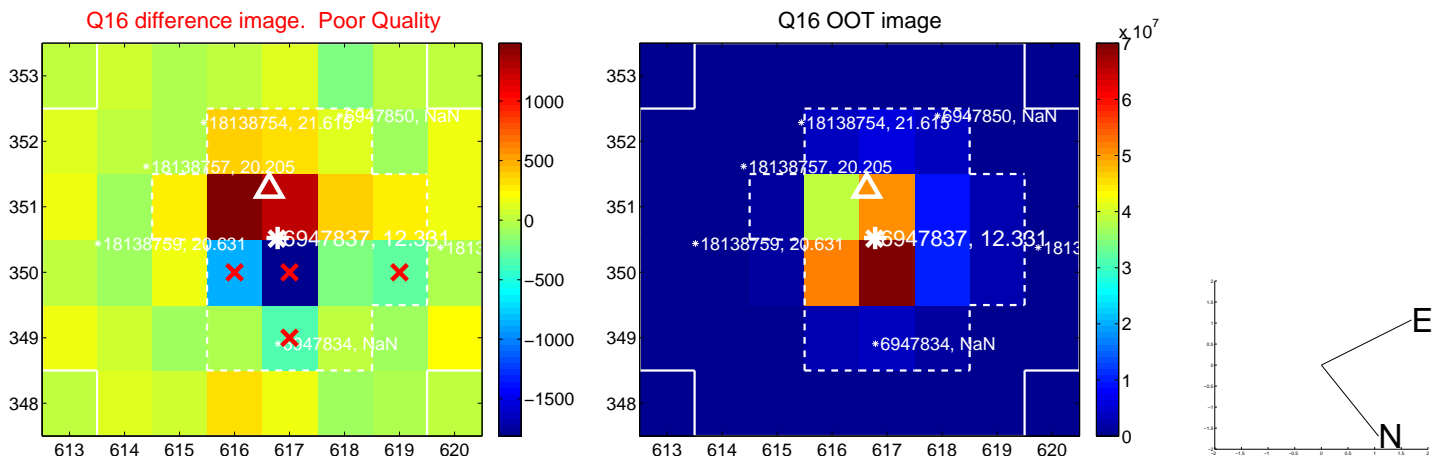
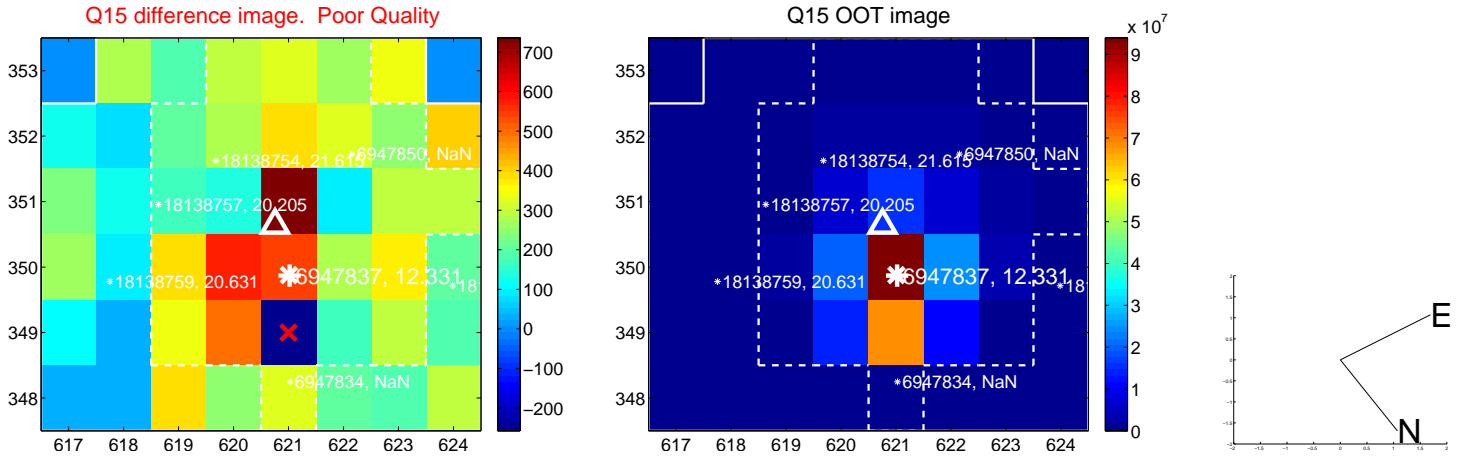
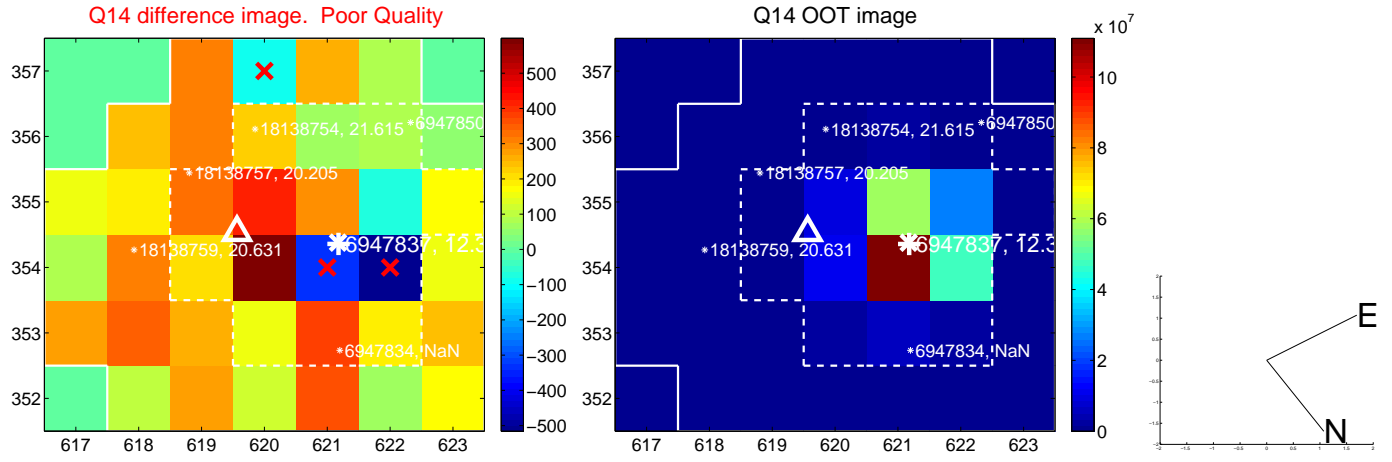
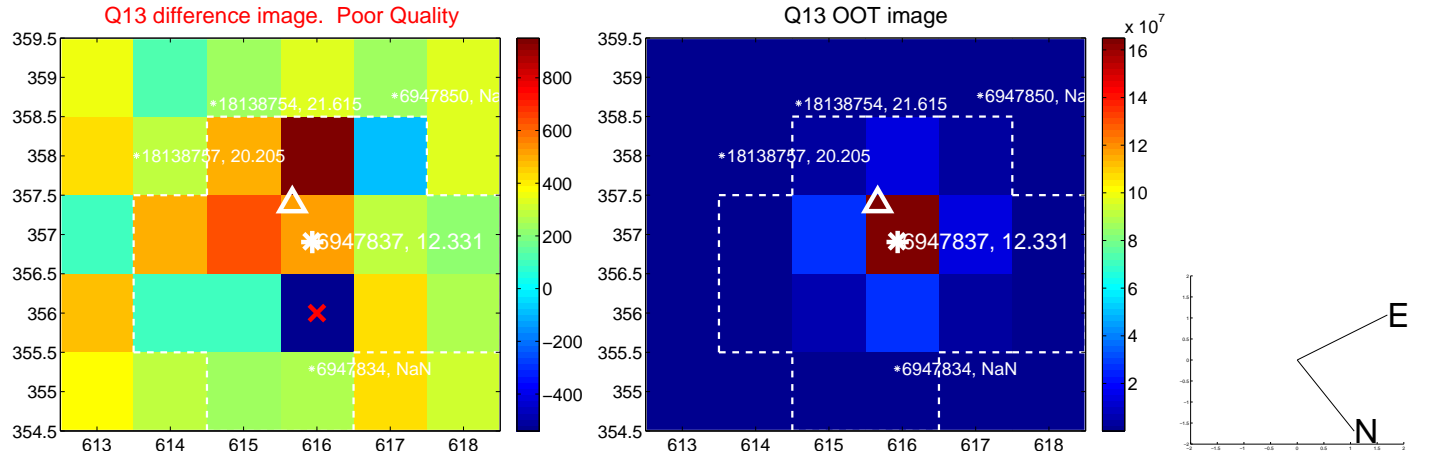
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



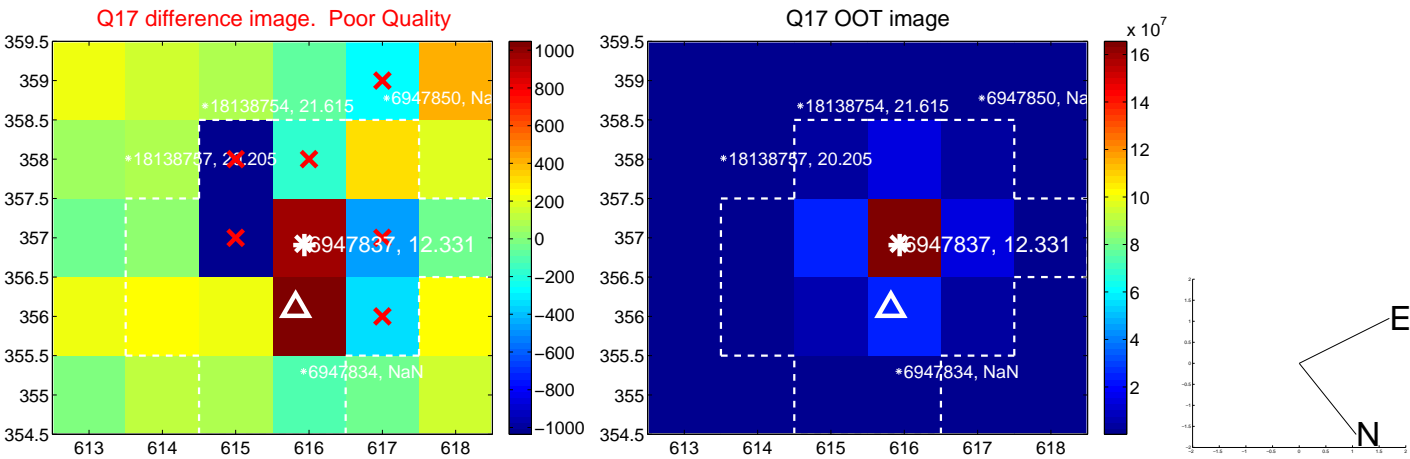
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

