

KIC 004050047

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})
004050047-01	OBS	No	0.941042	132.215780	0.1	8.339	8.2	0.0	3.75	7693	0.12	79049.04

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004050047-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

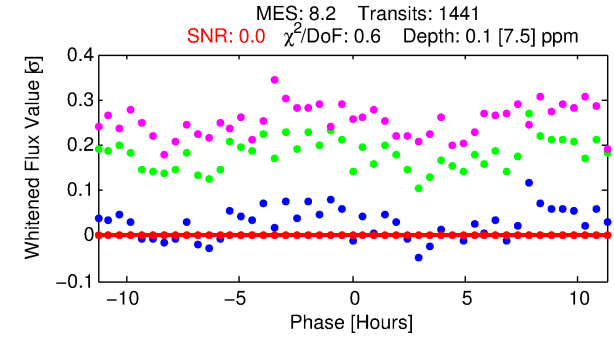
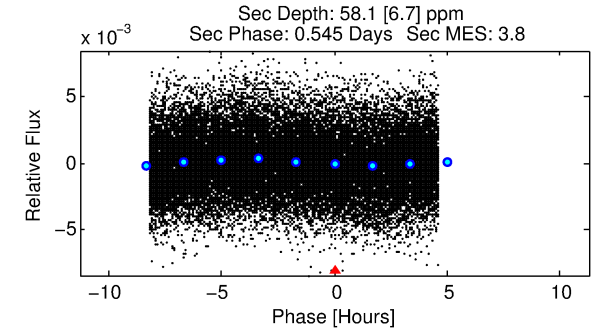
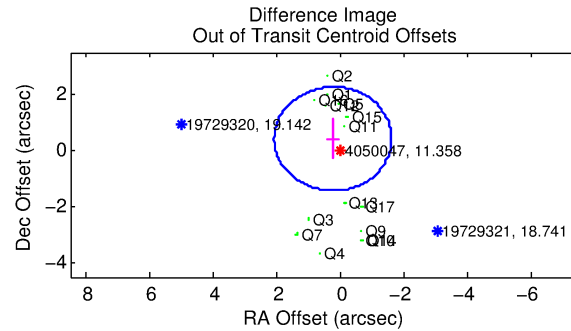
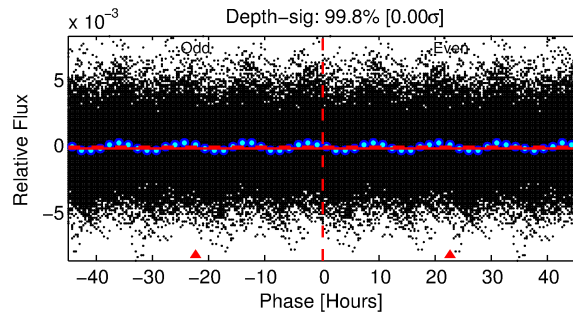
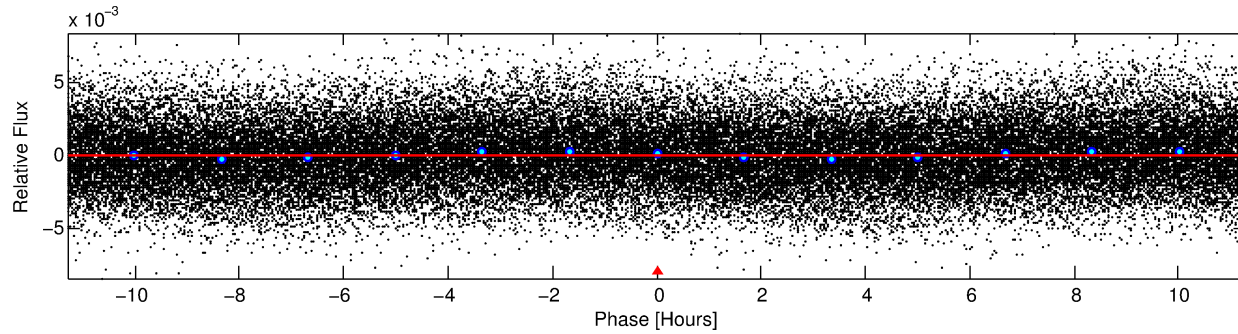
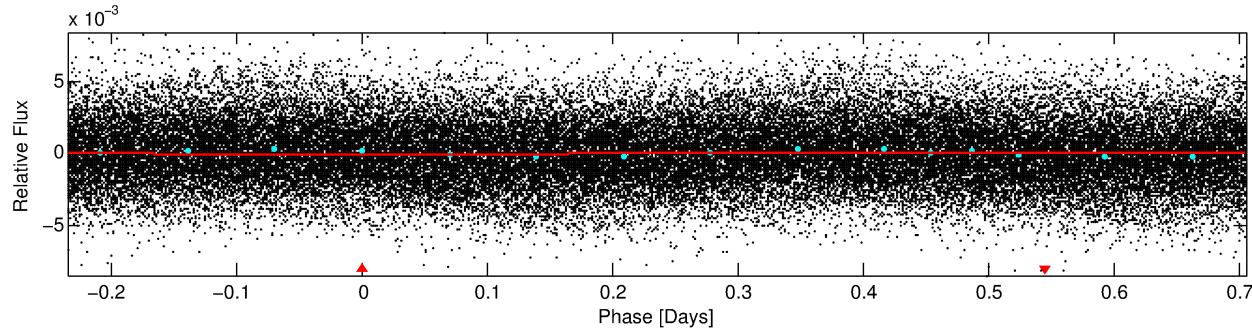
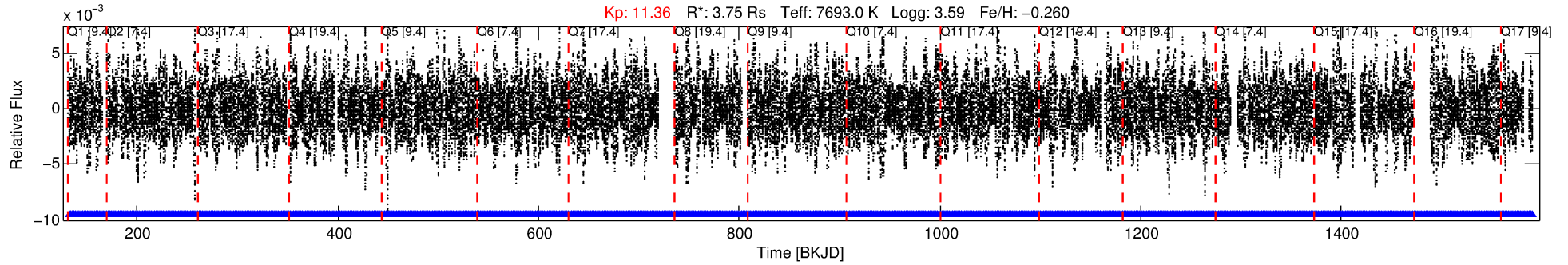
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004050047-01

No Significant Match Found

DV One-Page Summary

KIC: 4050047 Candidate: 1 of 1 Period: 0.941 d



DV Fit Results:

Period = 0.94104 [0.00566] d
Epoch = 132.2158 [0.6322] BKJD
 $R_p/R^* = 0.0003$ [0.0242]
 $a/R^* = 1.09$ [86.23]
 $b = 0.23$ [2107.58]
 $\text{Seff} = 79049.04$ [69394.68]
 $T_{\text{eq}} = 4276$ [938] K
 $R_p = 0.11$ [9.91] R_e
 $a = 0.0236$ [0.0126] AU
 $A_g = 1361.62$ [235660.51] [0.01 σ]
 $T_{\text{eff}} = 40156$ [1737515] K [0.02 σ]

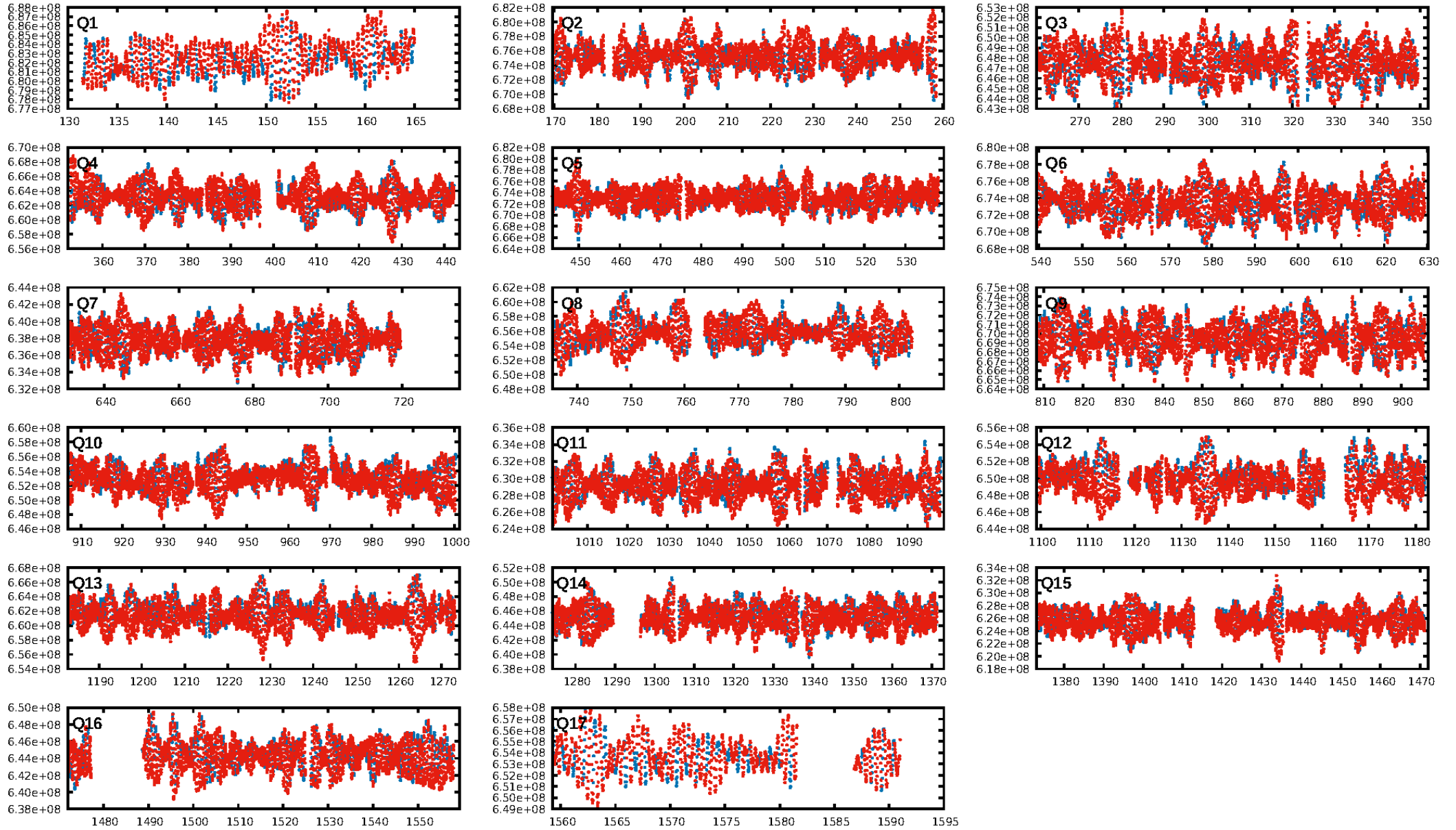
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1376/1376]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.484 arcsec [0.79 σ]
KicOffset-rm: 0.632 arcsec [0.97 σ]
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]

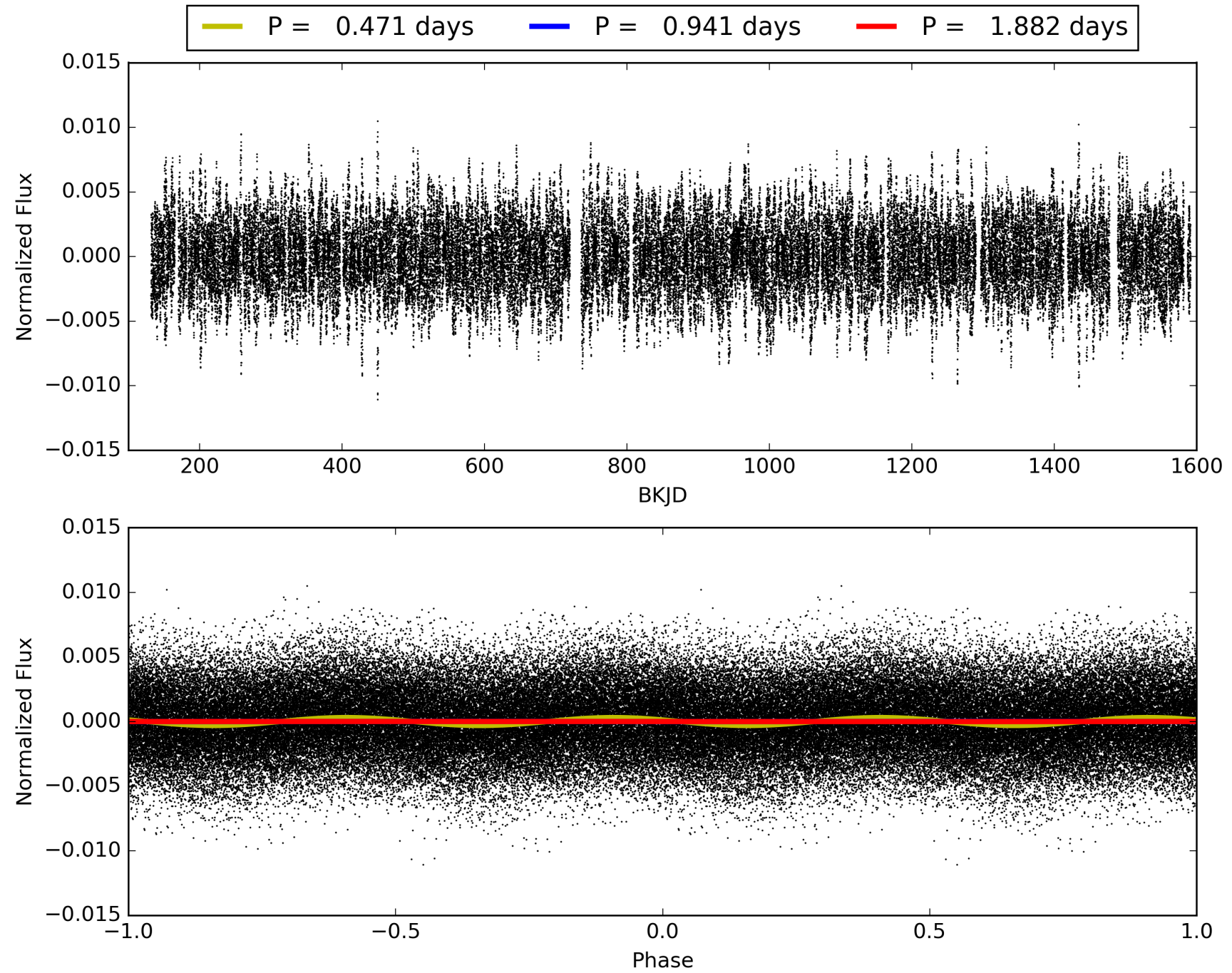
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:45:31 Z

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

TCE 004050047-01, PDC Light Curves

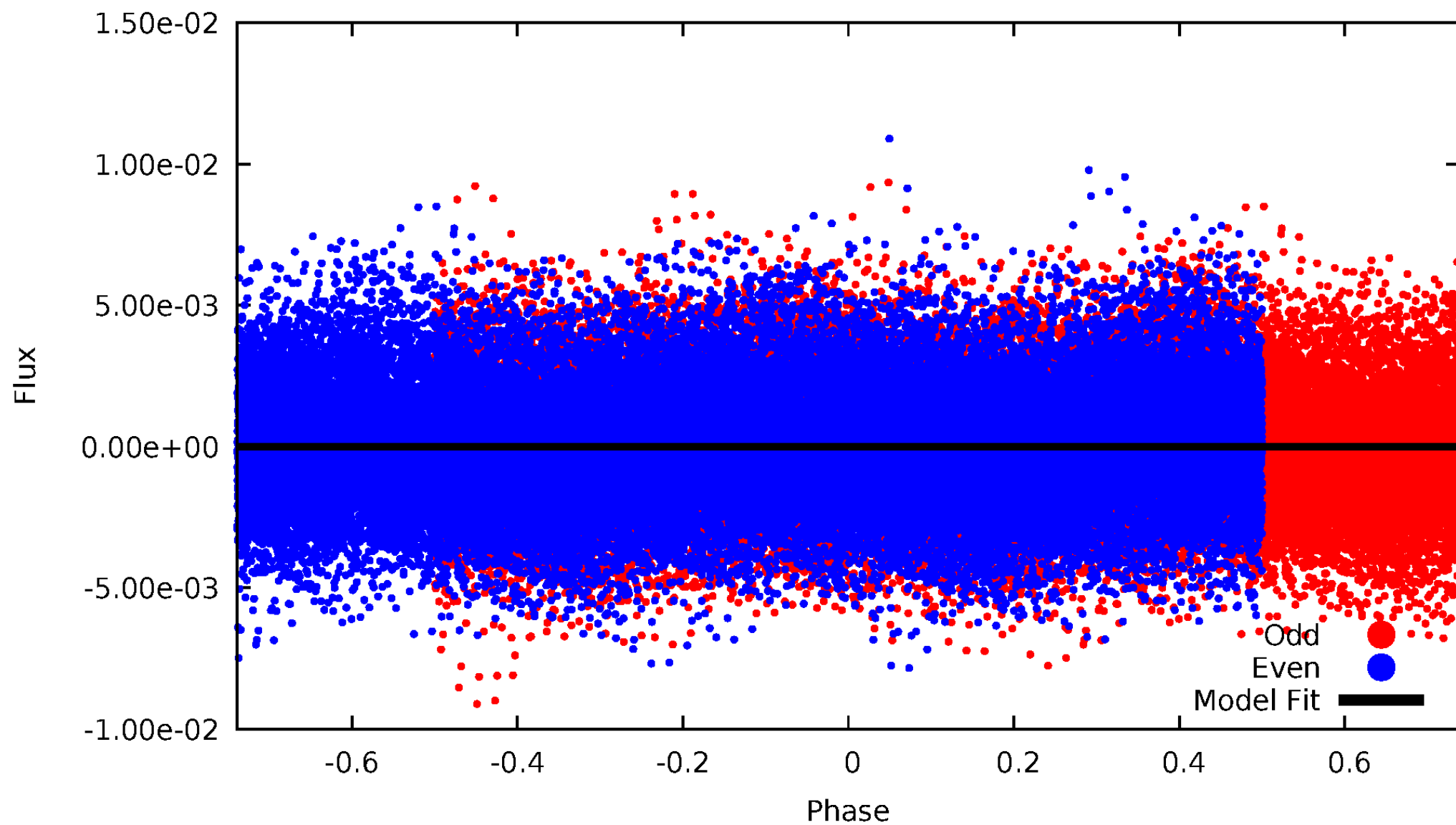


TCE 004050047-01



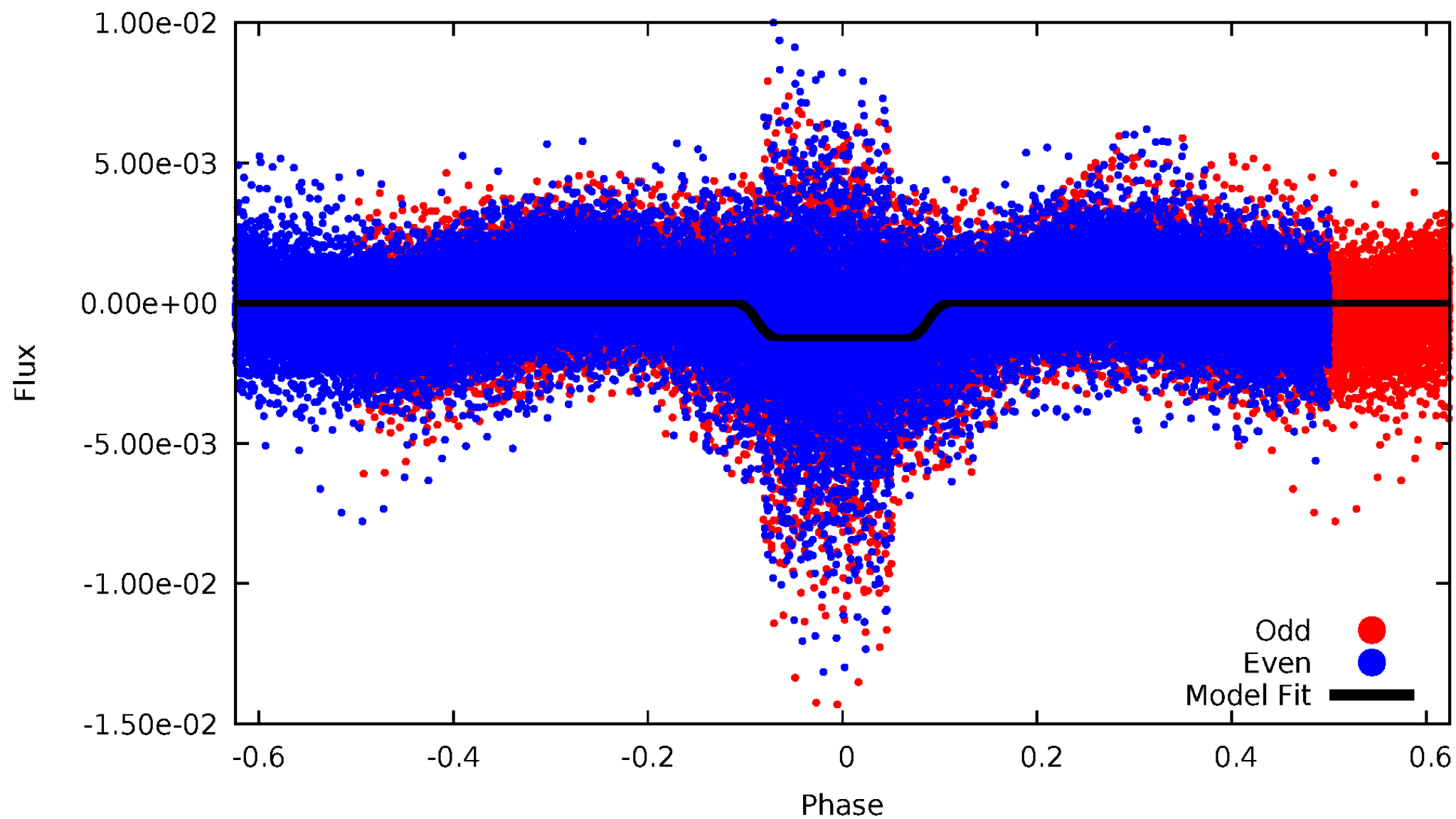
DV Odd/Even

TCE 004050047-01

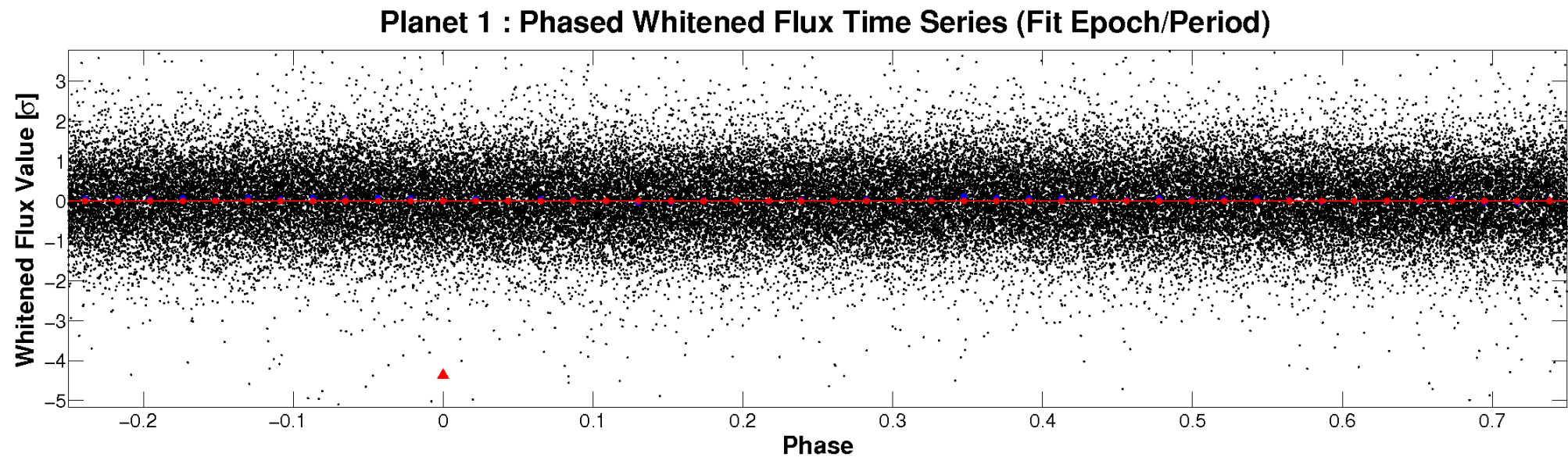
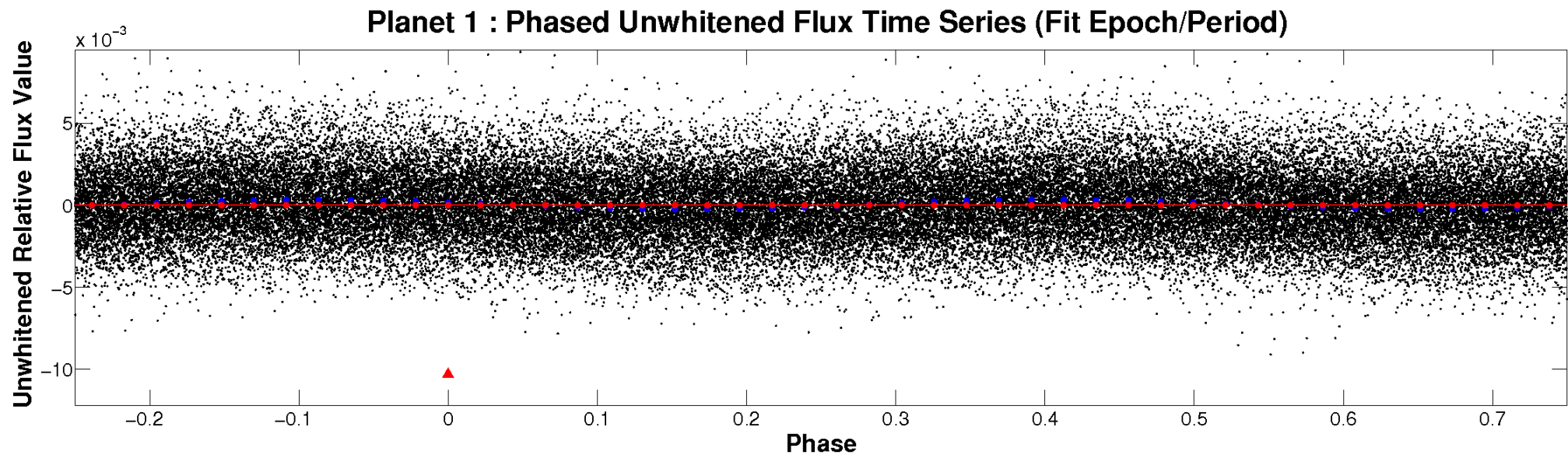


ALT Odd/Even

TCE 004050047-01

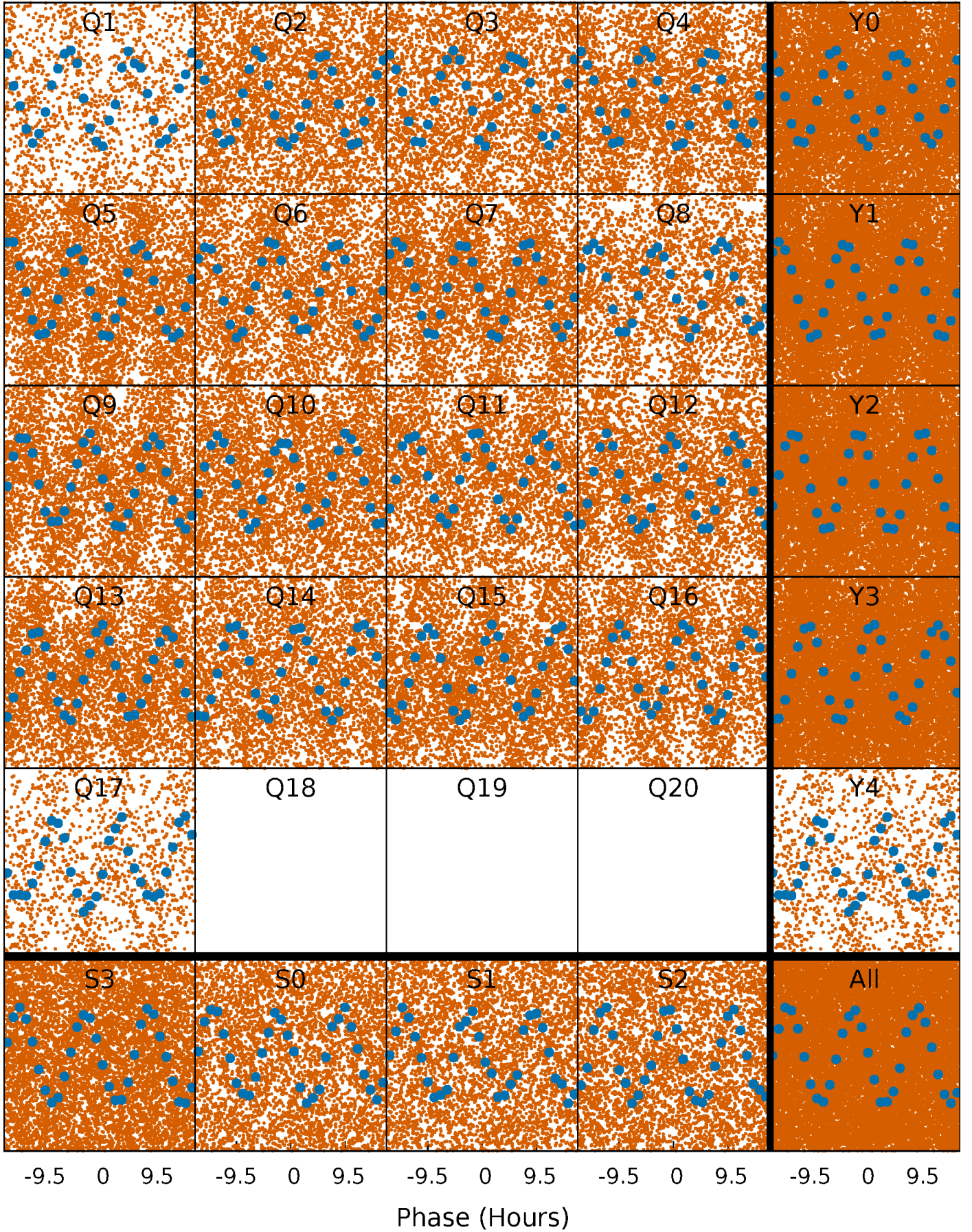


Non-Whitened Vs. Whitened Light Curve



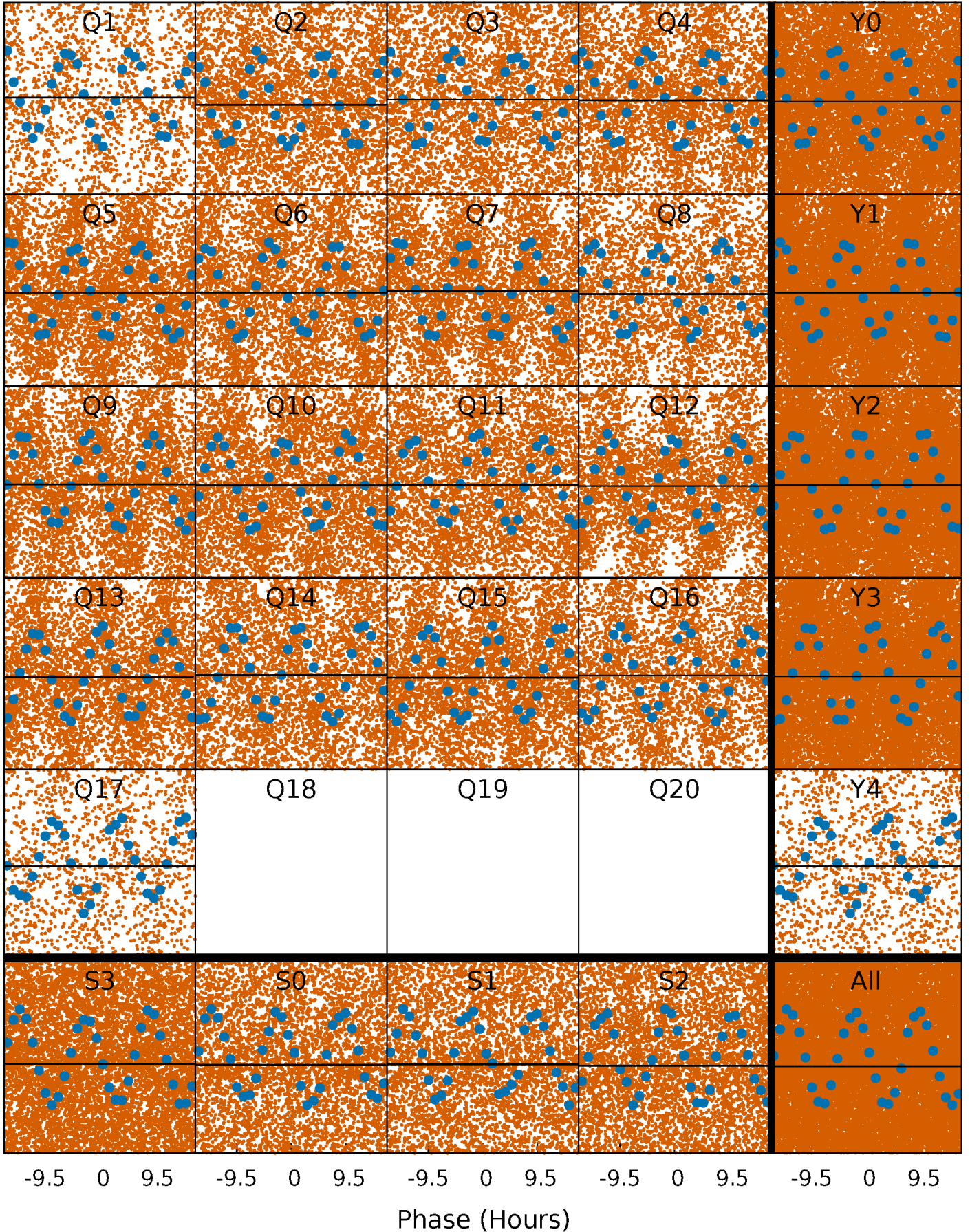
PDC Quarter-Phased Transit Curves

TCE 004050047-01 P= 0.941042 Days $T_0=132.215780$ (BKJD)



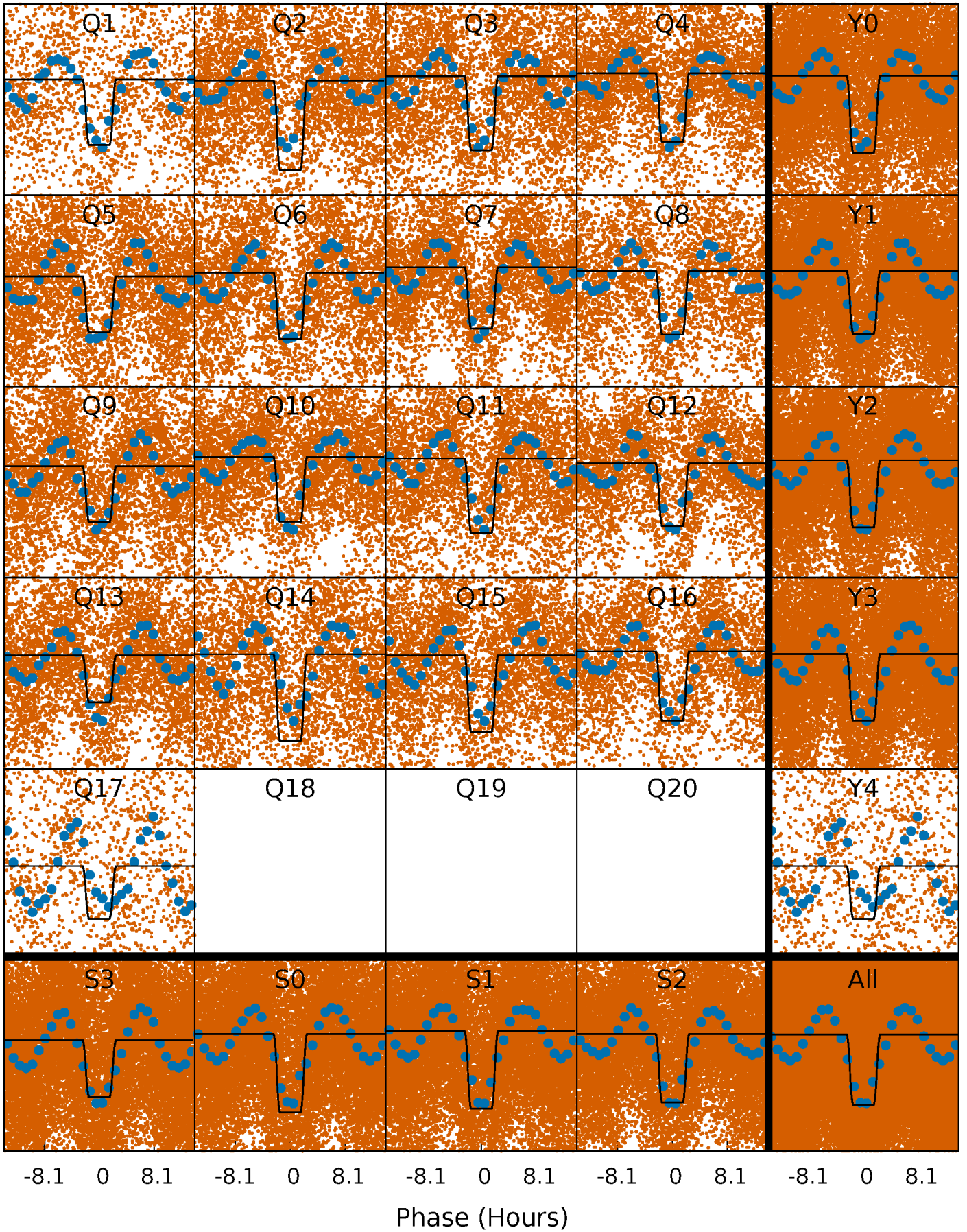
DV Quarter-Phased Transit Curves

TCE 004050047-01 P= 0.941042 Days $T_0=132.215780$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

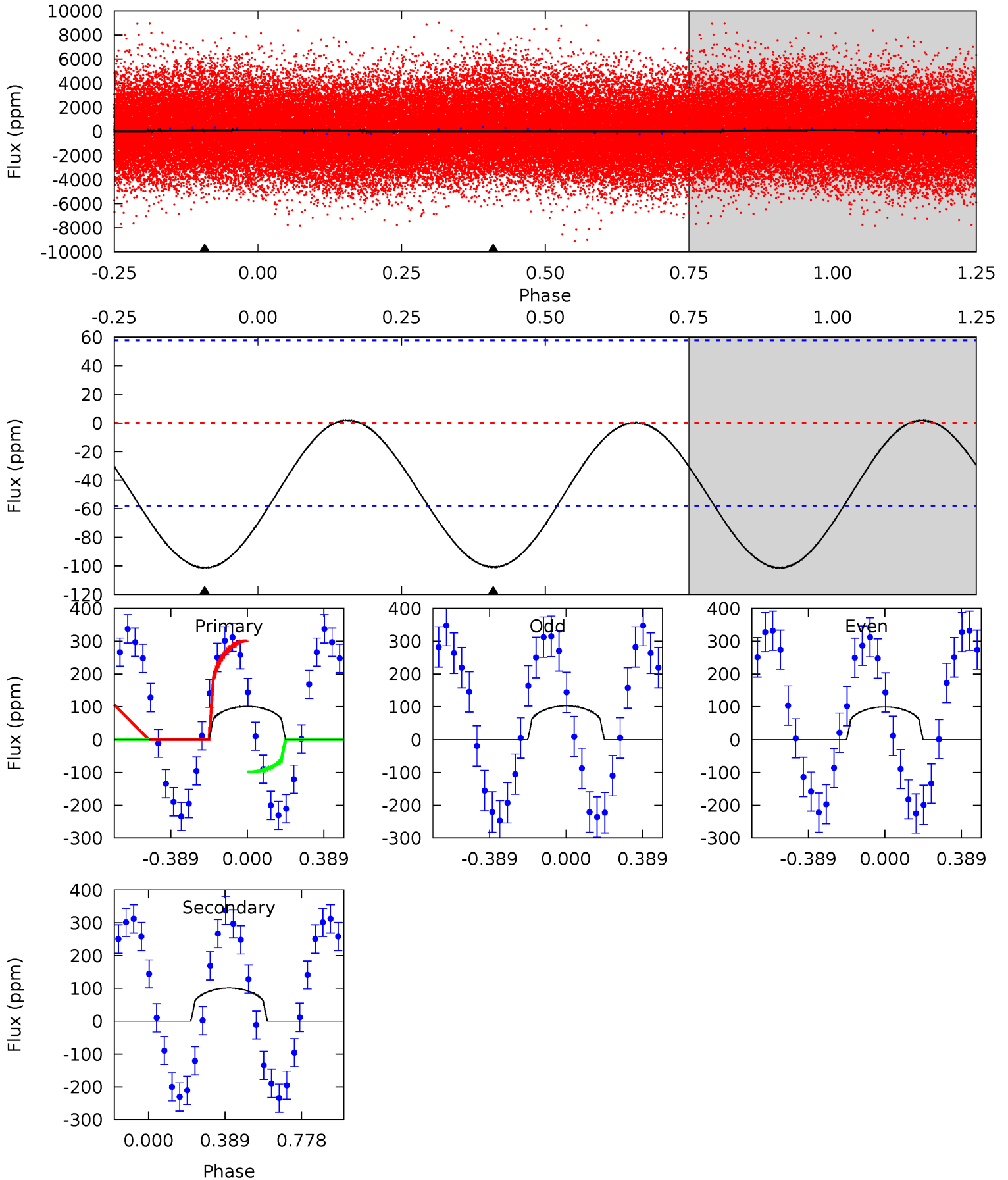
TCE 004050047-01 P= 0.941248 Days $T_0=132.201142$ (BKJD)



DV Model-Shift Uniqueness Test

004050047-01, P = 0.941042 Days, E = 131.274738 Days

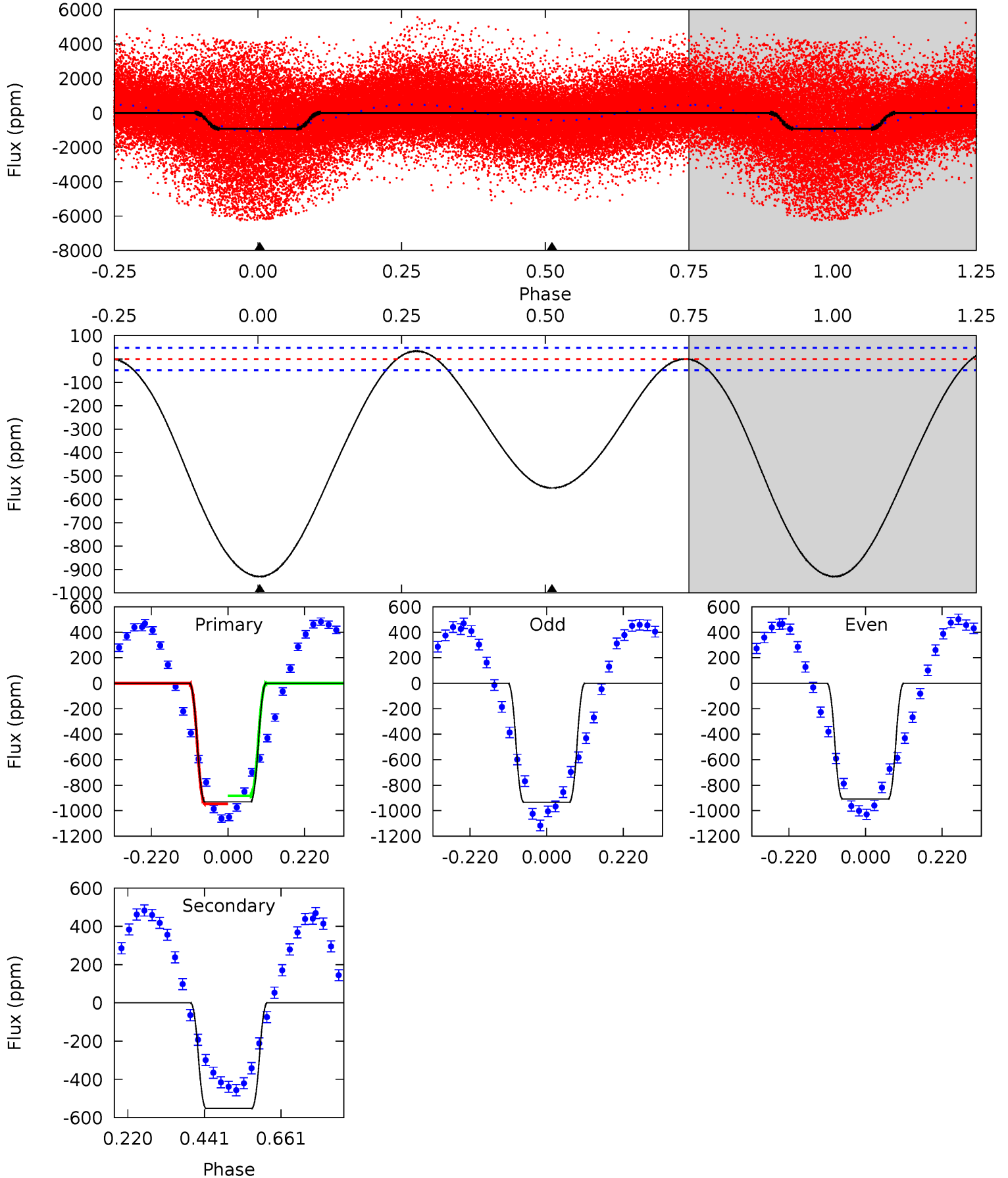
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.47	7.43	0	0	4.27	0.86	0.08	7.47	7.47	7.43	7.43	0.11	1.01	0.02	7.56



Alt Model-Shift Uniqueness Test

004050047-01, P = 0.941248 Days, E = 131.259894 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
86.1	51.1	0	0	4.40	1.23	2.13	86.1	86.1	51.1	51.1	1.15	1.23	0.04	2.93



Stellar Parameters For KIC 004050047

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7693^{+214}_{-322}	$3.588^{+0.510}_{-0.060}$	$-0.260^{+0.250}_{-0.300}$	$3.751^{+0.506}_{-2.026}$	$1.987^{+0.124}_{-0.528}$	$0.053^{+0.326}_{-0.016}$
	+3%/-4%	+14%/-2%	+96%/-115%	+13%/-54%	+6%/-27%	+614%/-30%
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 004050047-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-101 ± 14	$5.71^{+7.56}_{-4.07}$	5690^{+441}_{-772}	5191^{+8049}_{-9202}	$0.925^{+10.122}_{-0.758}$
Alt.	-551 ± 11	$12.35^{+9.99}_{-7.03}$	5659^{+449}_{-755}	5559^{+4086}_{-2290}	$1.086^{+4.356}_{-0.754}$

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 $A_{obs} \gg 1.0$

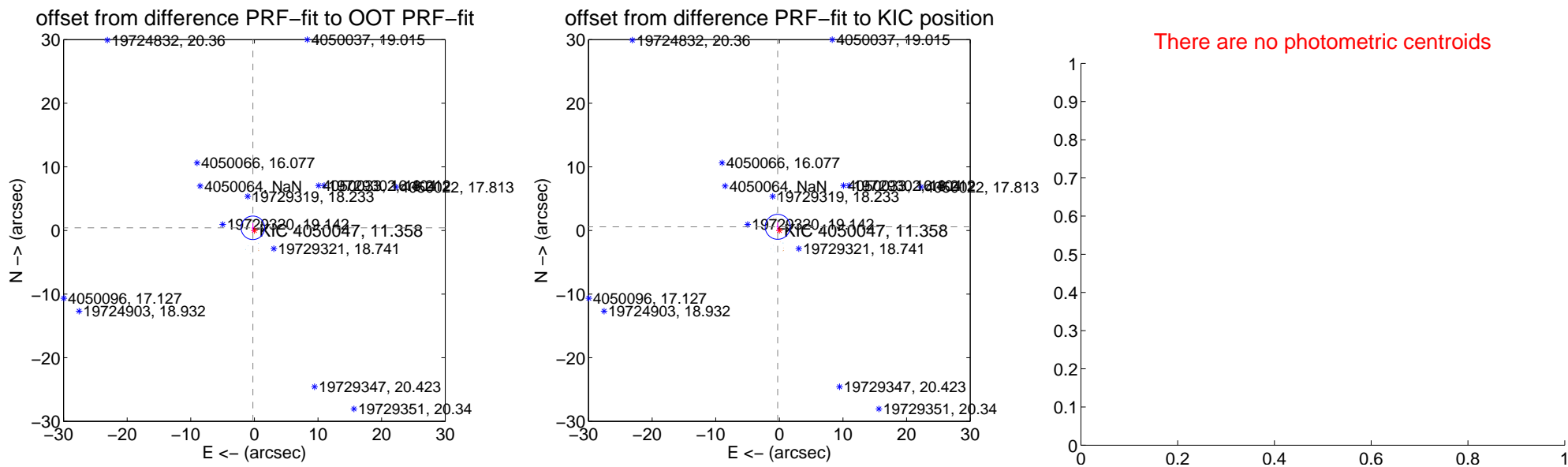
DV Centroid Data

Supplemental centroid analysis for 004050047-01. **Kepler magnitude: 11.36.** Transit SNR 0.02

There are 7 quarters with good PRF difference image offsets

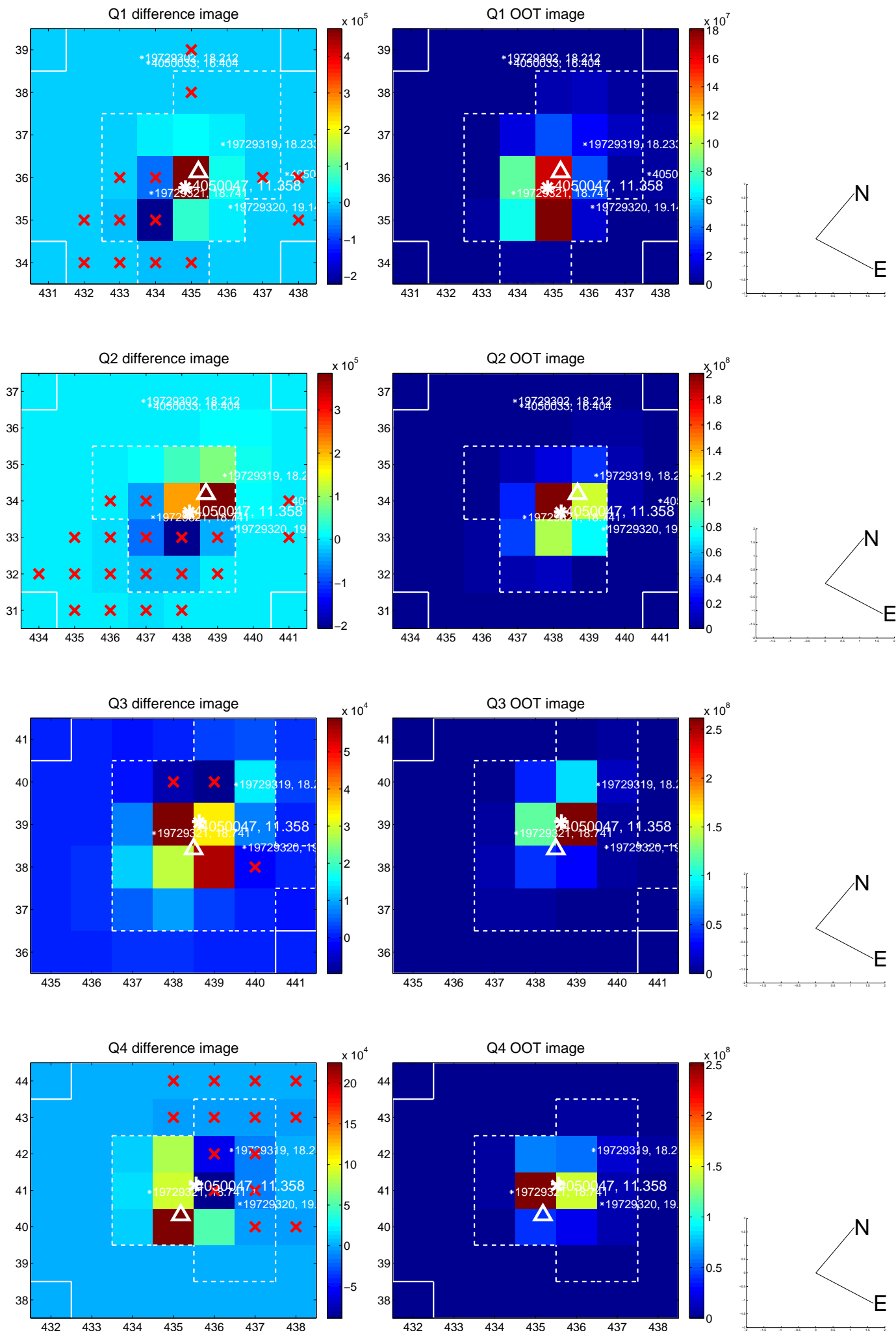
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.484 ± 0.617	0.79	0.241 ± 0.165	0.420 ± 0.705
PRF-fit source offset from KIC position	0.632 ± 0.654	0.97	0.264 ± 0.166	0.574 ± 0.716
photometric centroid source offset	—	—	—	—

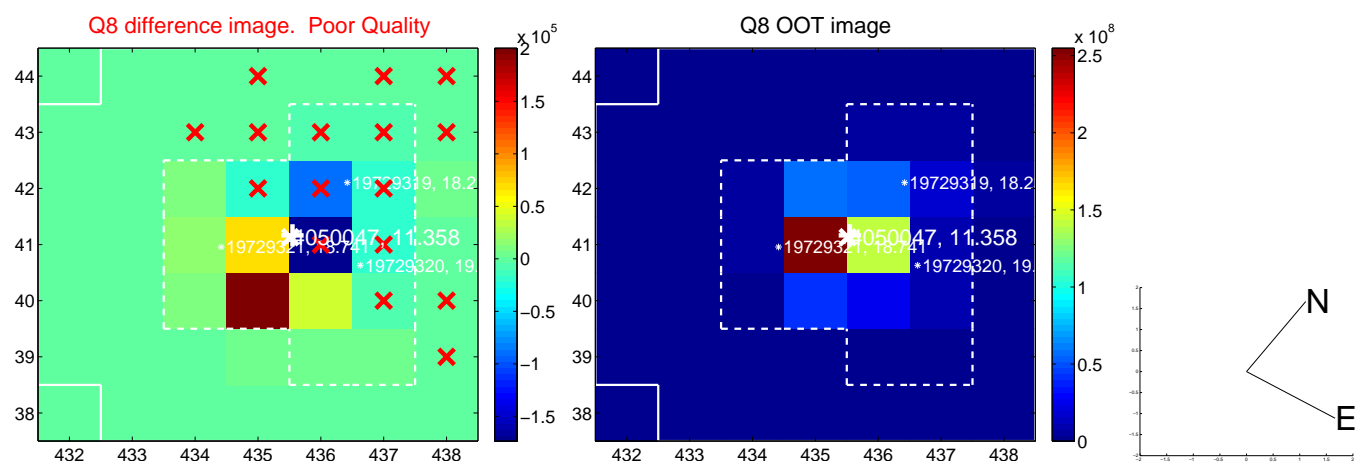
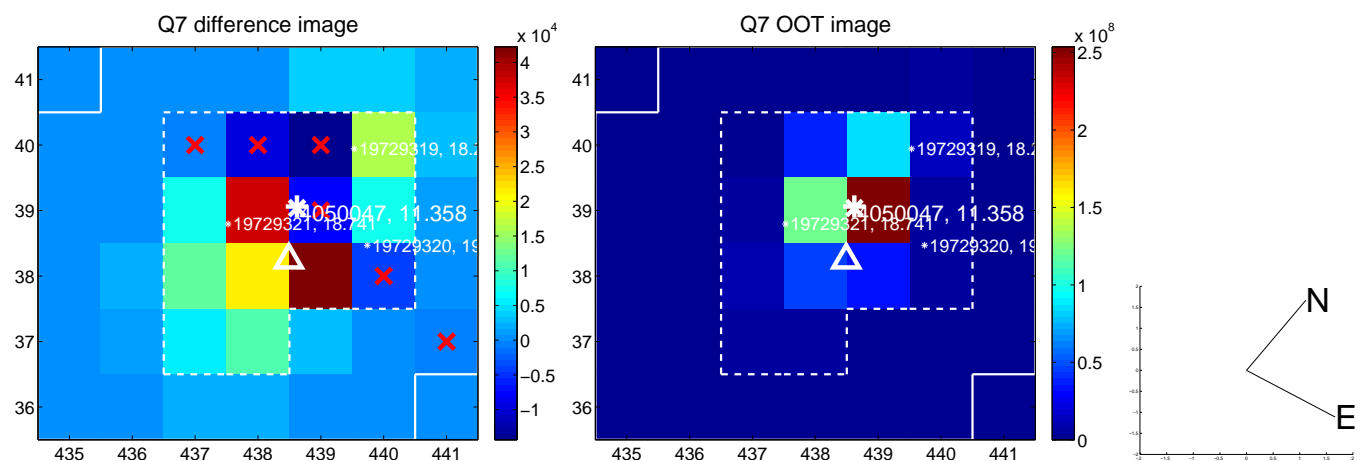
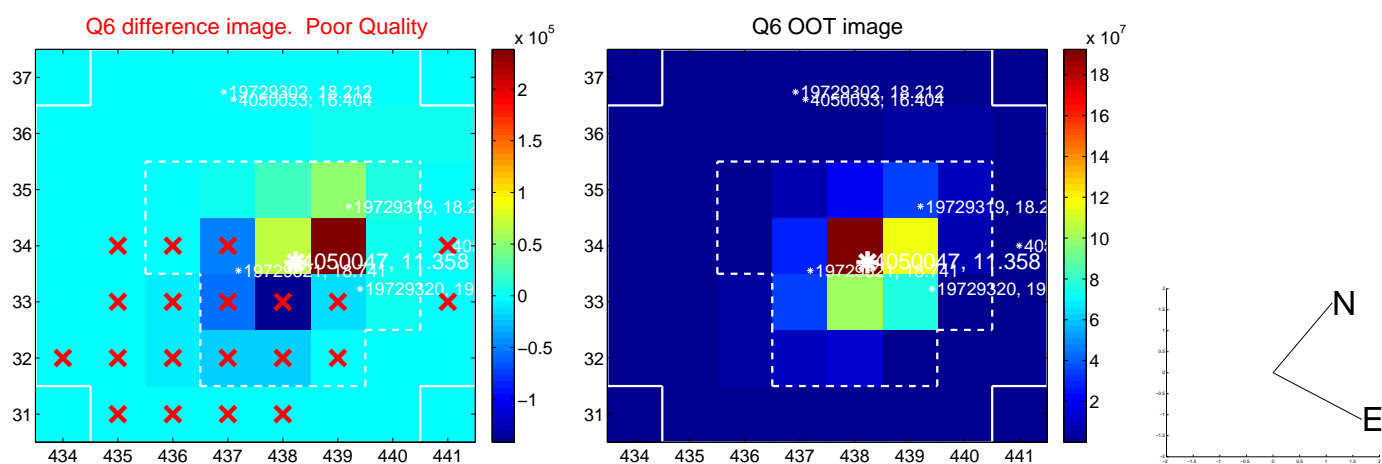
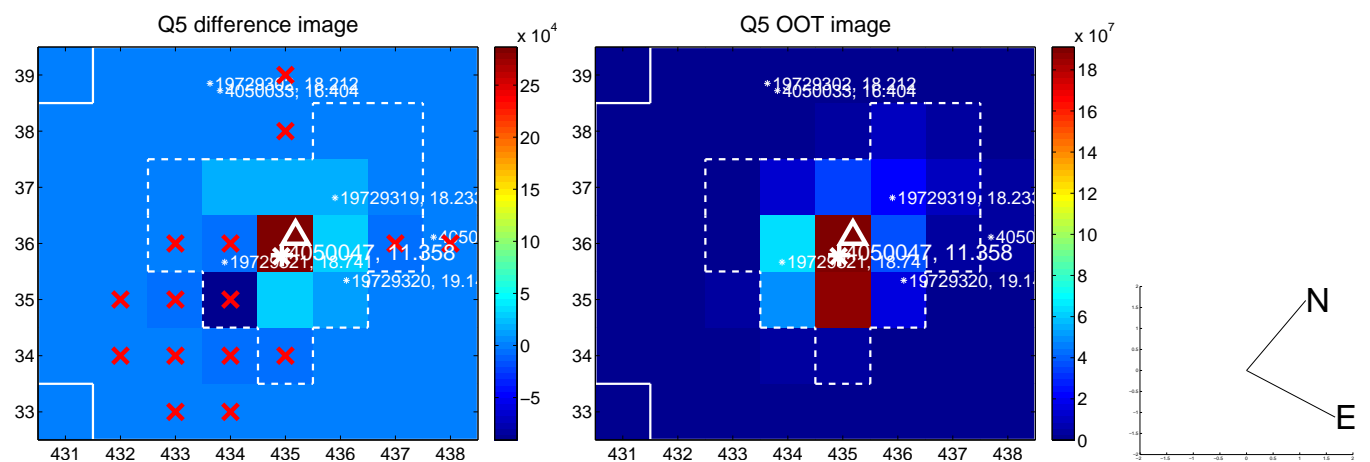


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

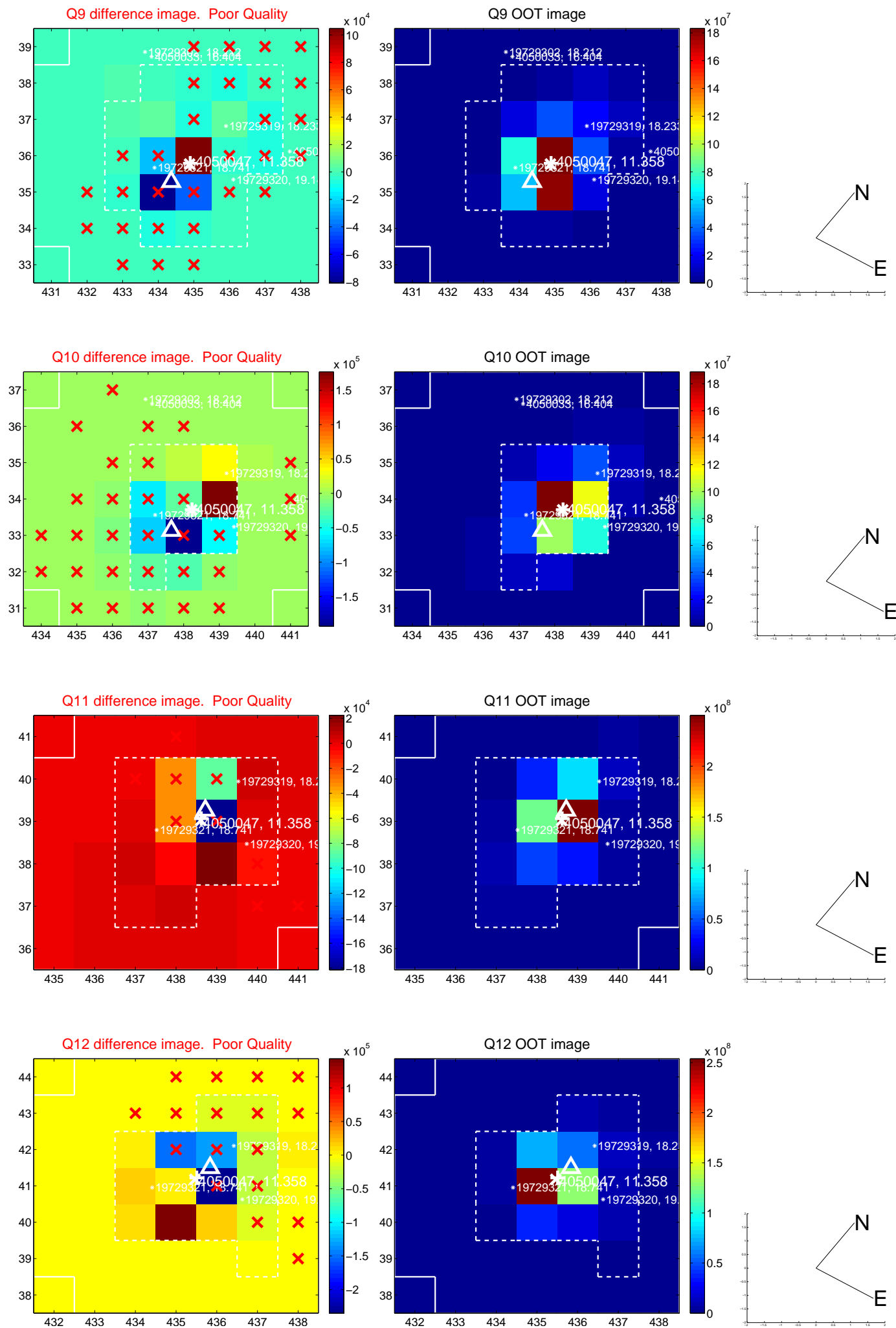
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



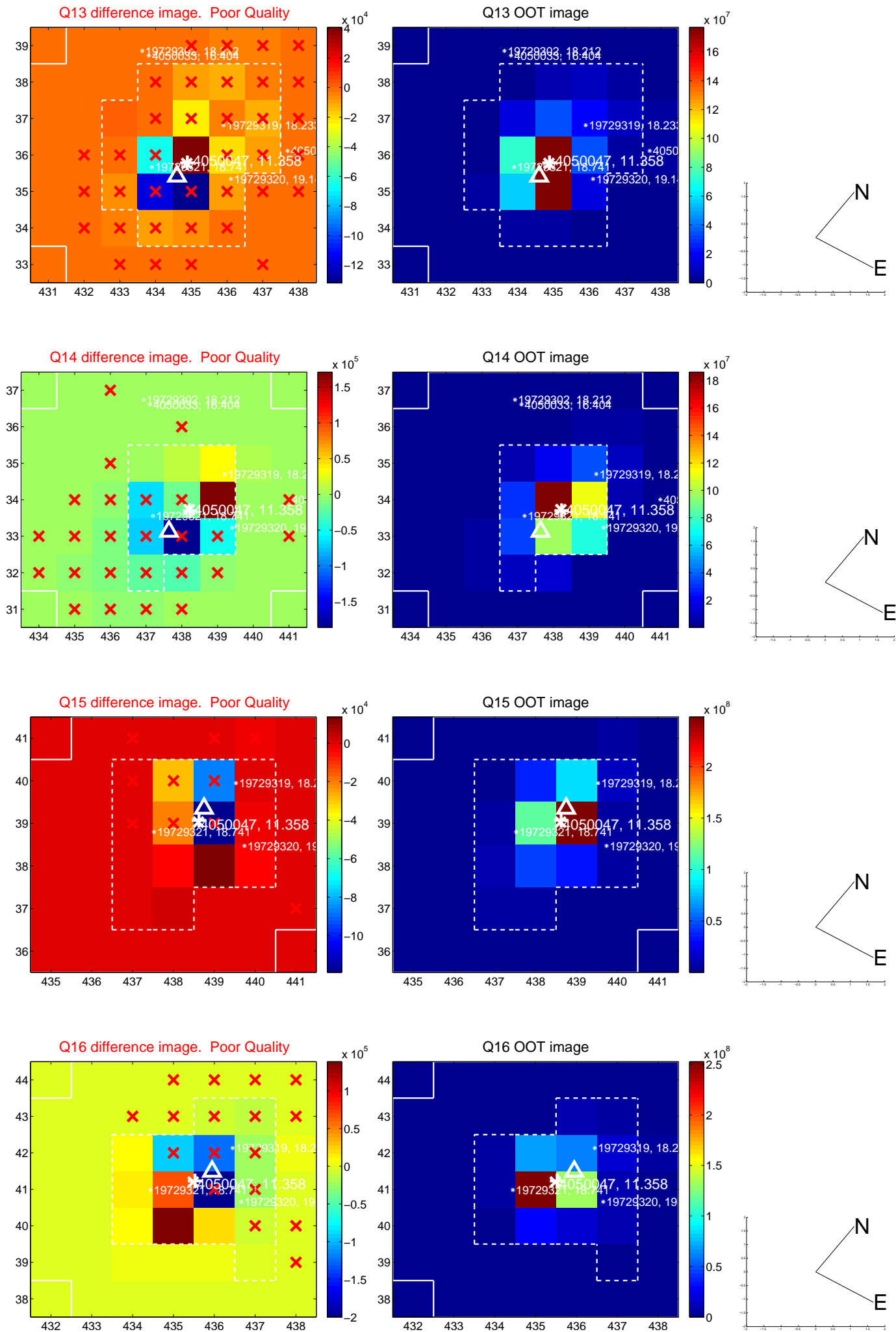
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



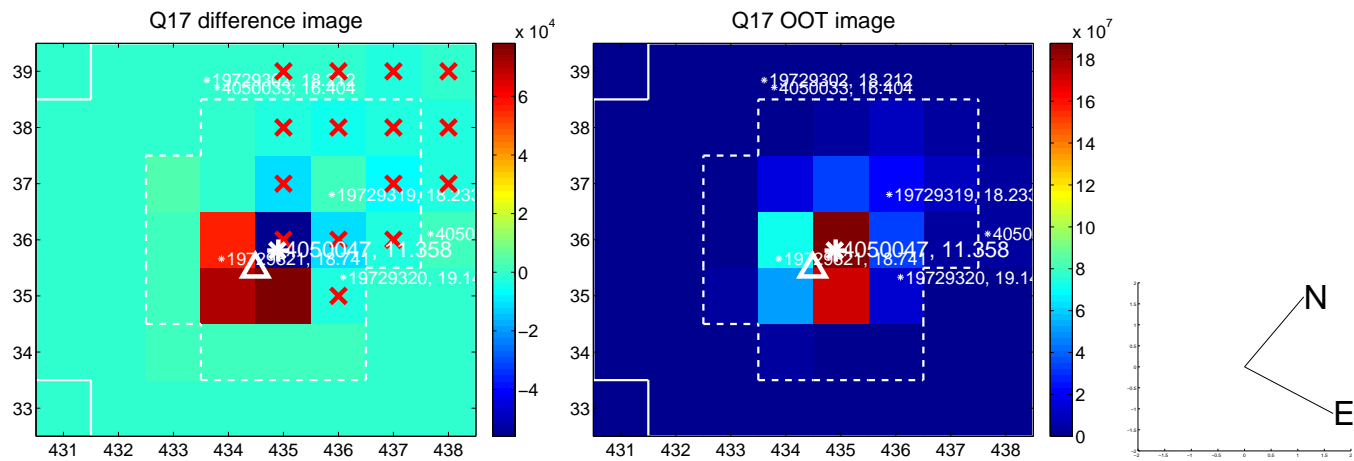
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

