

KIC 010029999

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})
010029999-01	OBS	No	1.047752	131.864467	3.9	10.631	10.9	5.1	1.68	7402	0.36	14098.19

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010029999-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_MEAS

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

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

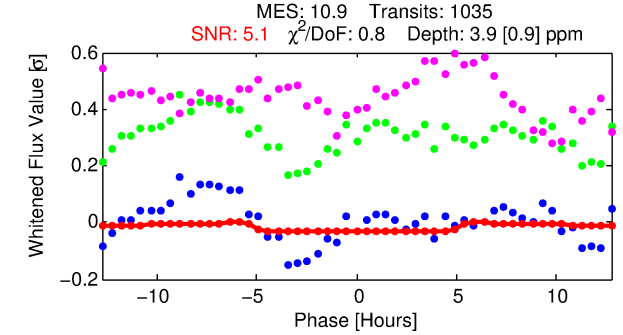
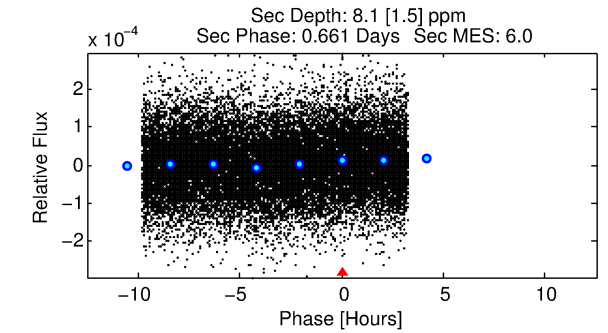
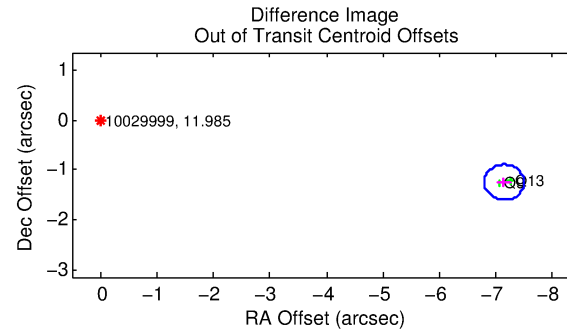
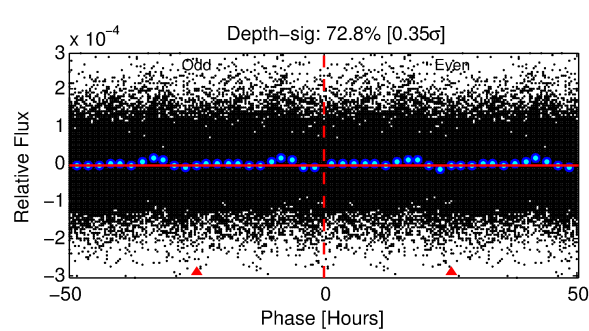
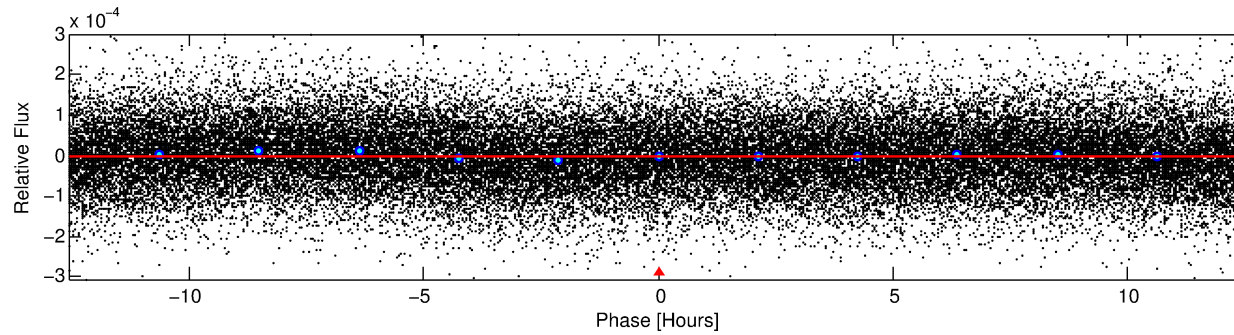
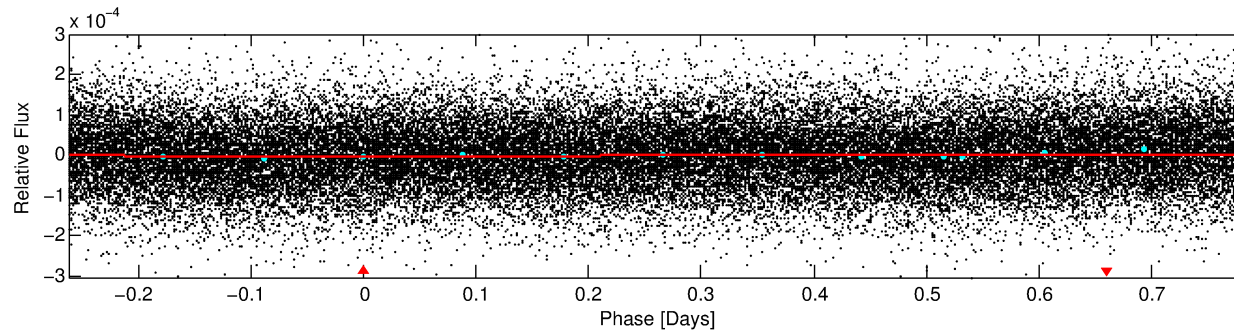
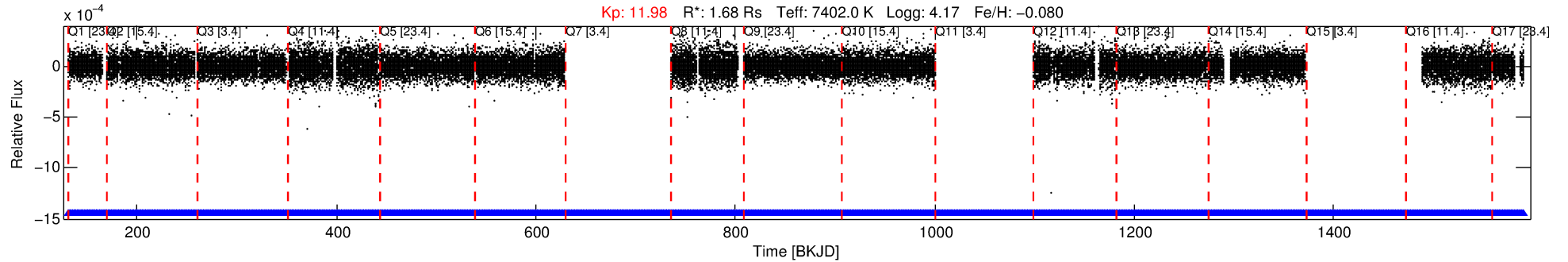
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010029999-01

No Significant Match Found

DV One-Page Summary

KIC: 10029999 Candidate: 1 of 1 Period: 1.048 d



DV Fit Results:

Period = 1.04775 [0.00005] d
Epoch = 131.8645 [0.0153] BKJD
 R_p/R^* = 0.0019 [0.0036]
 a/R^* = 1.02 [0.38]
 b = 0.72 [7.88]
 Seff = 14098.19 [5829.35]
 T_{eq} = 2779 [287] K
 R_p = 0.36 [0.66] R_e
 a = 0.0232 [0.0062] AU
 A_g = 18.75 [68.88] [0.26 σ]
 T_{eff} = 8939 [8177] K [0.75 σ]

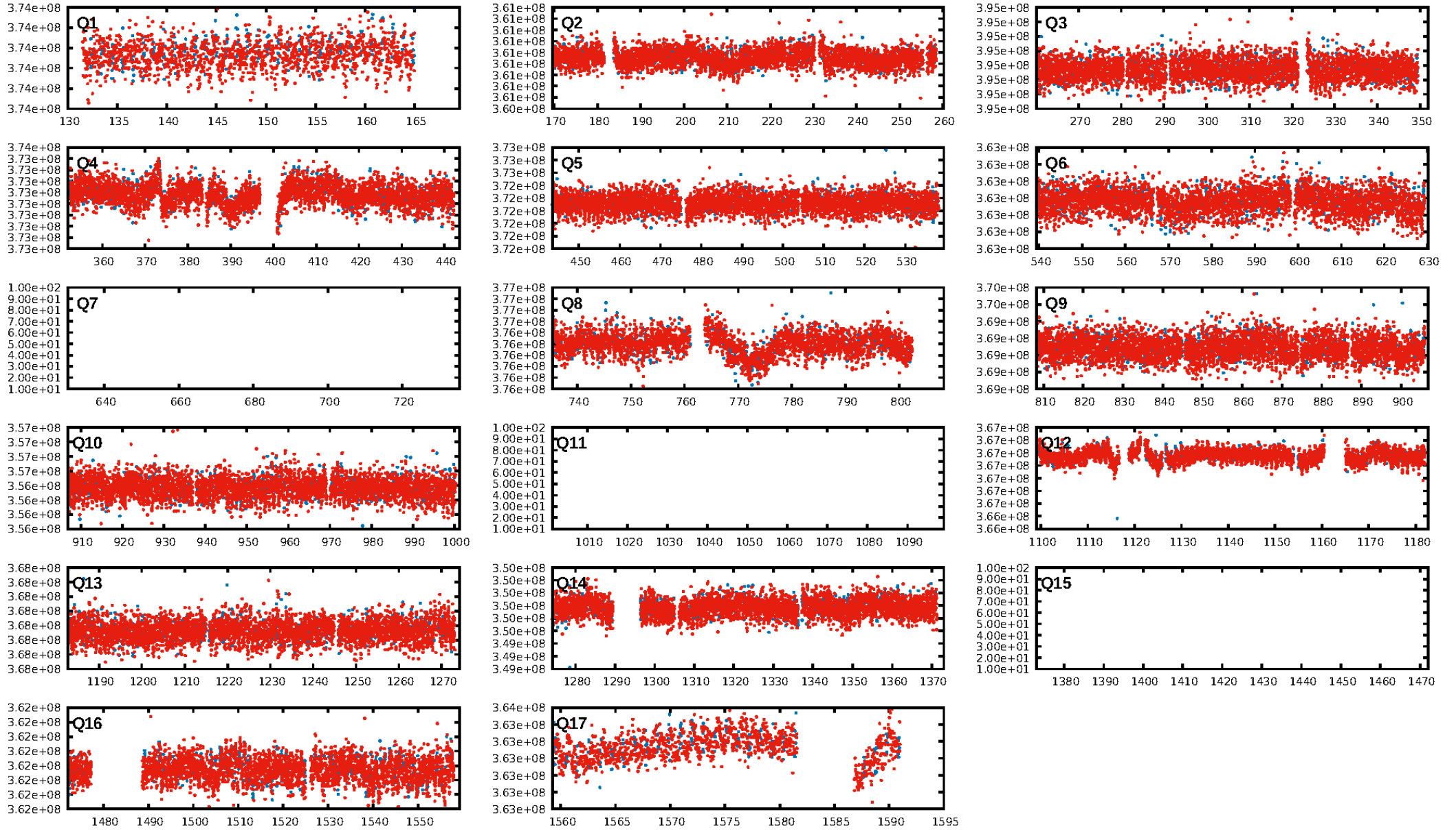
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [978/978]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 7.248 arcsec [61.00 σ]
KicOffset-rm: 7.151 arcsec [52.31 σ]
OotOffset-st: 0/0/0/2 [2]
KicOffset-st: 0/0/0/2 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [14/14]

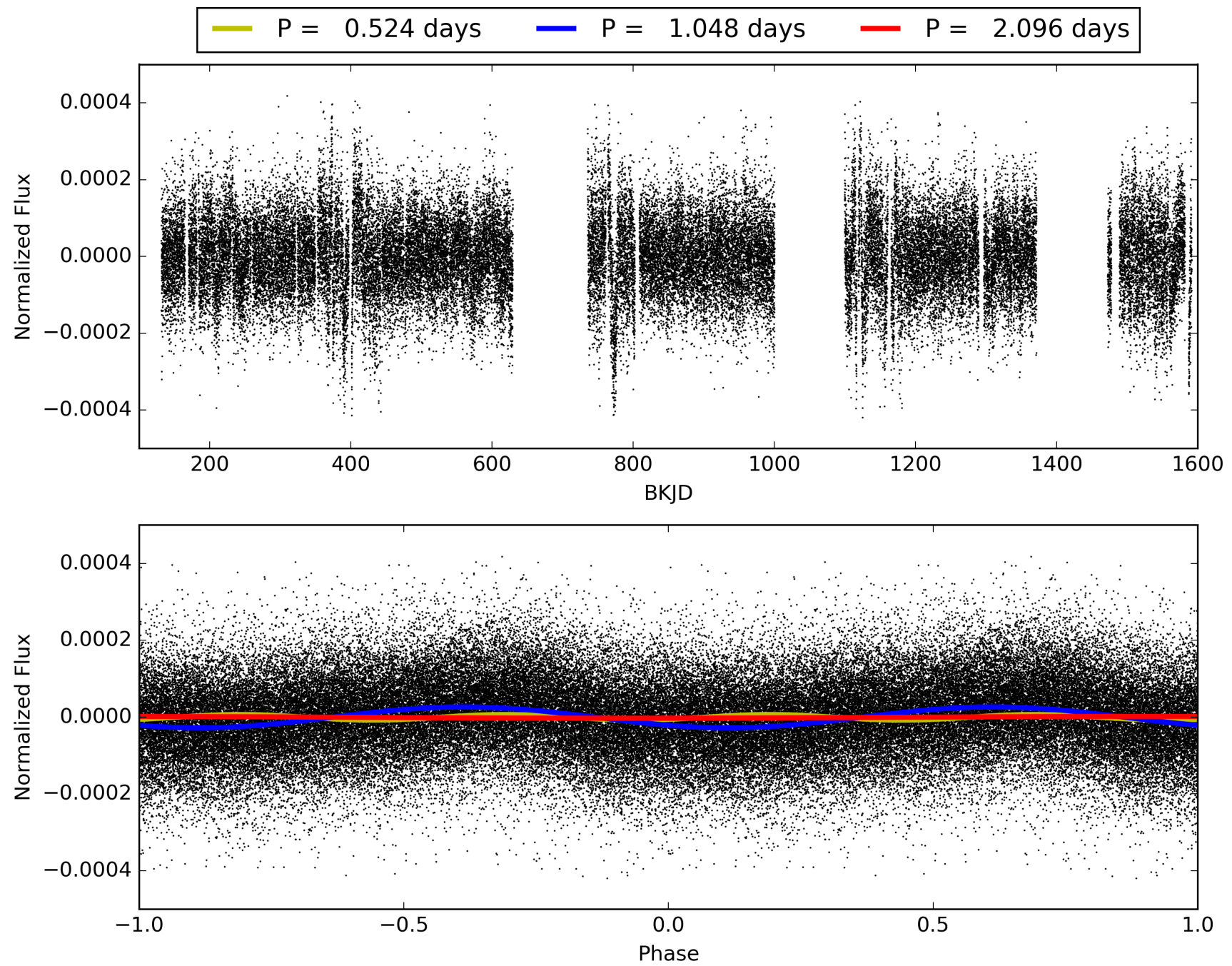
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 09:16:39 Z

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

TCE 010029999-01, PDC Light Curves

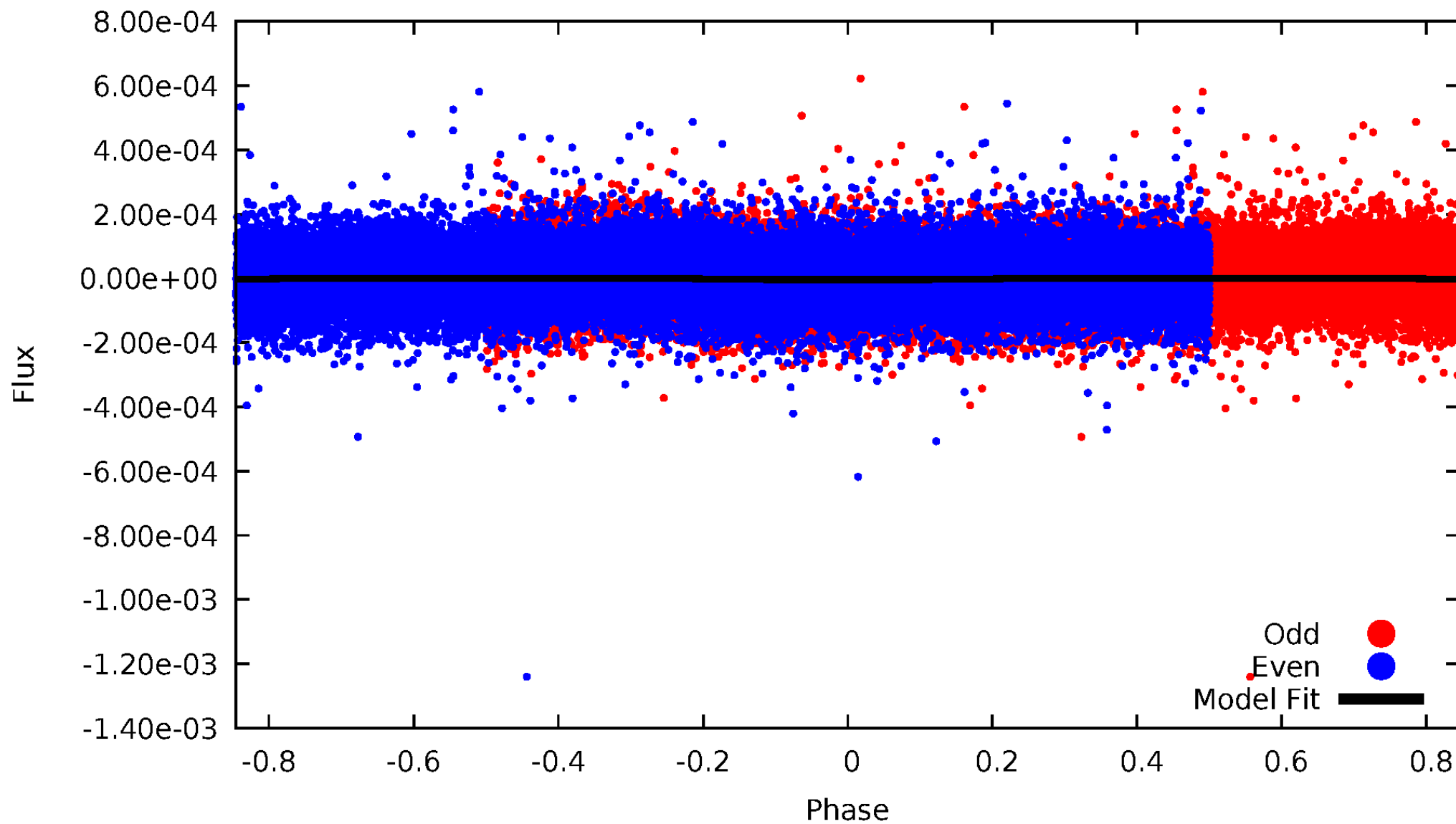


TCE 010029999-01



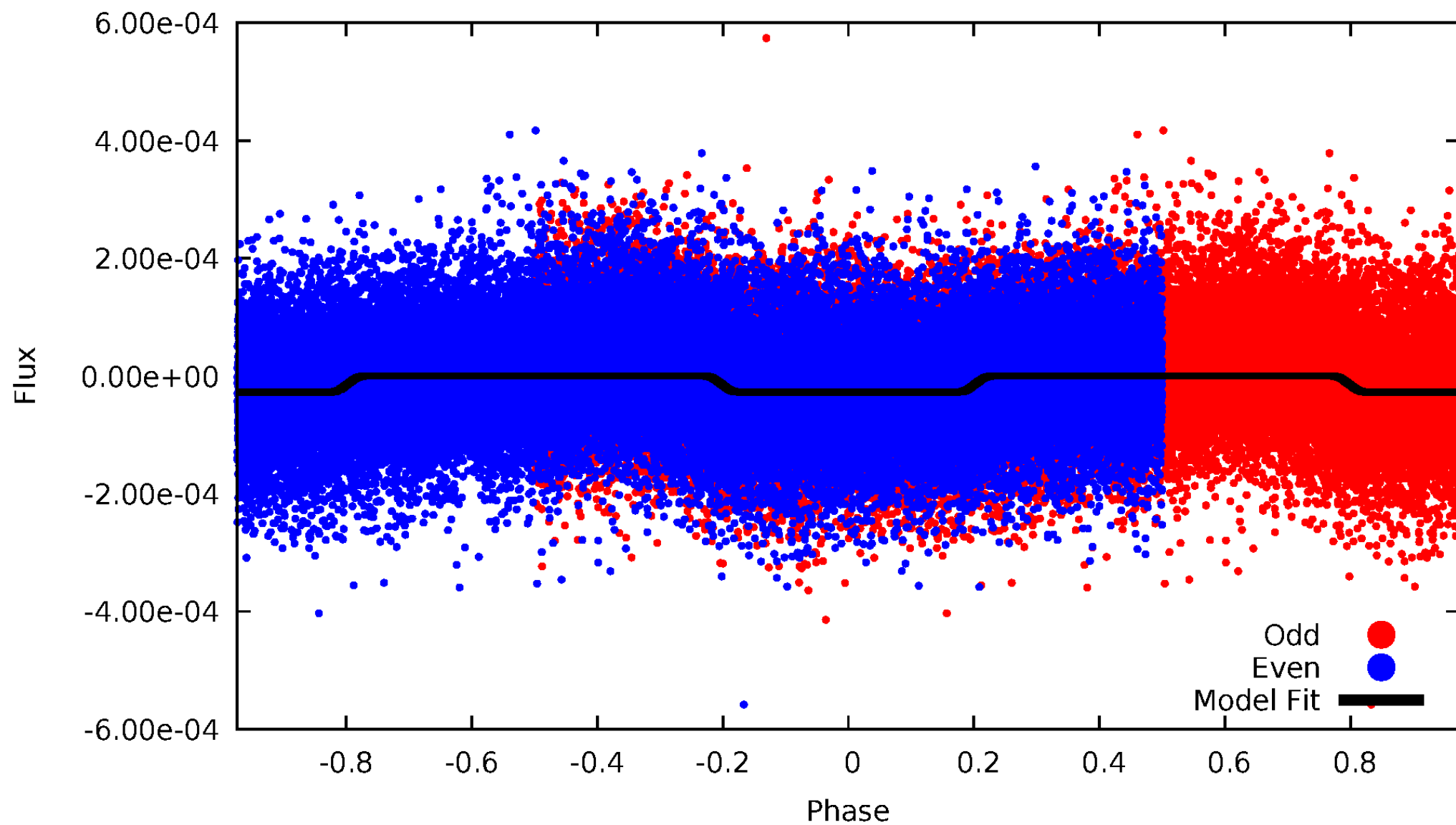
DV Odd/Even

TCE 010029999-01



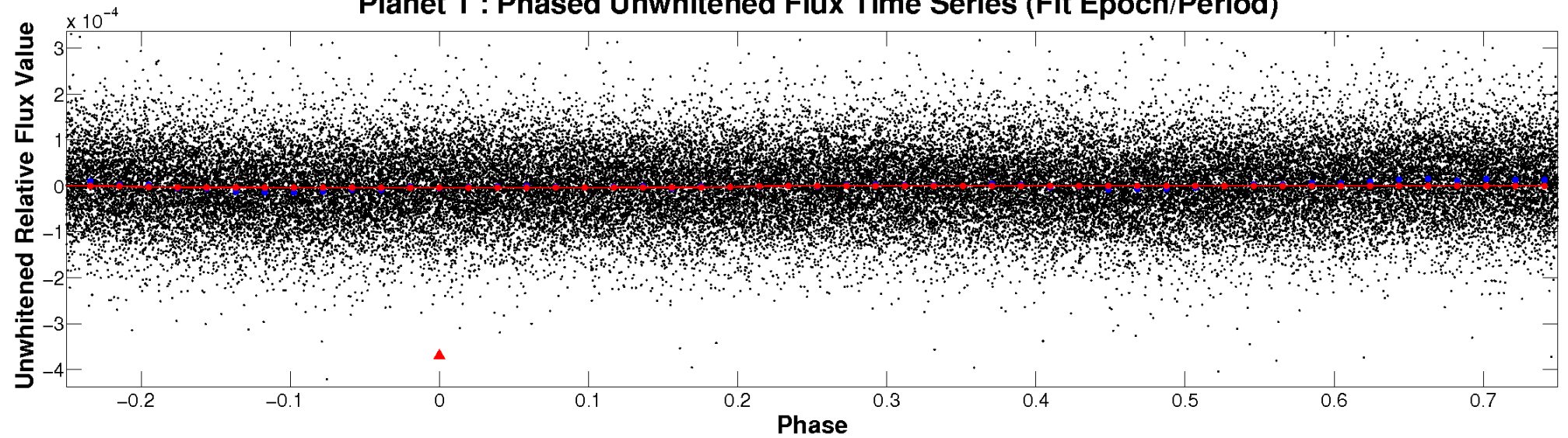
ALT Odd/Even

TCE 010029999-01

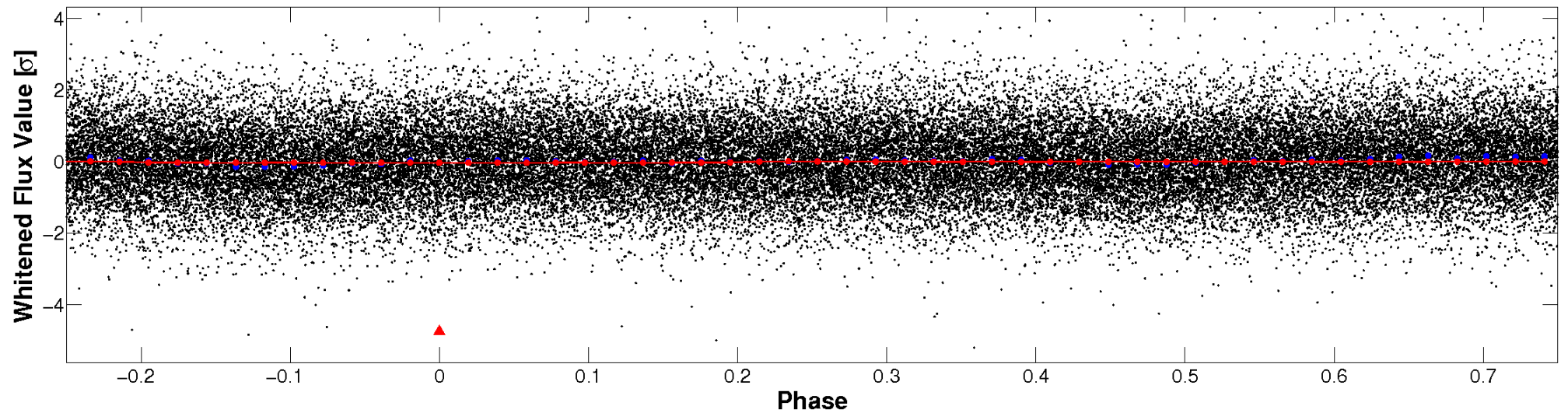


Non-Whitened Vs. Whitened Light Curve

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

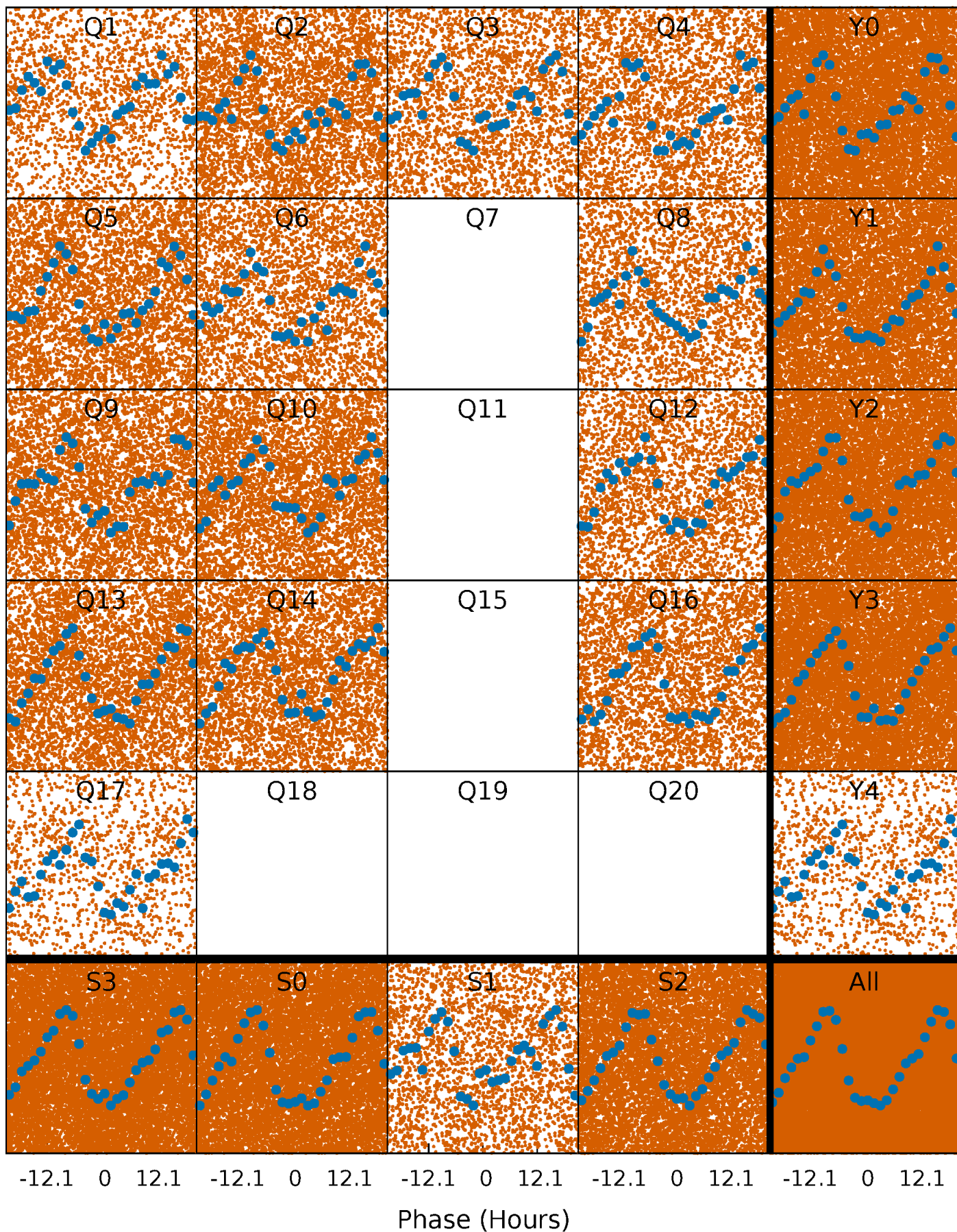


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



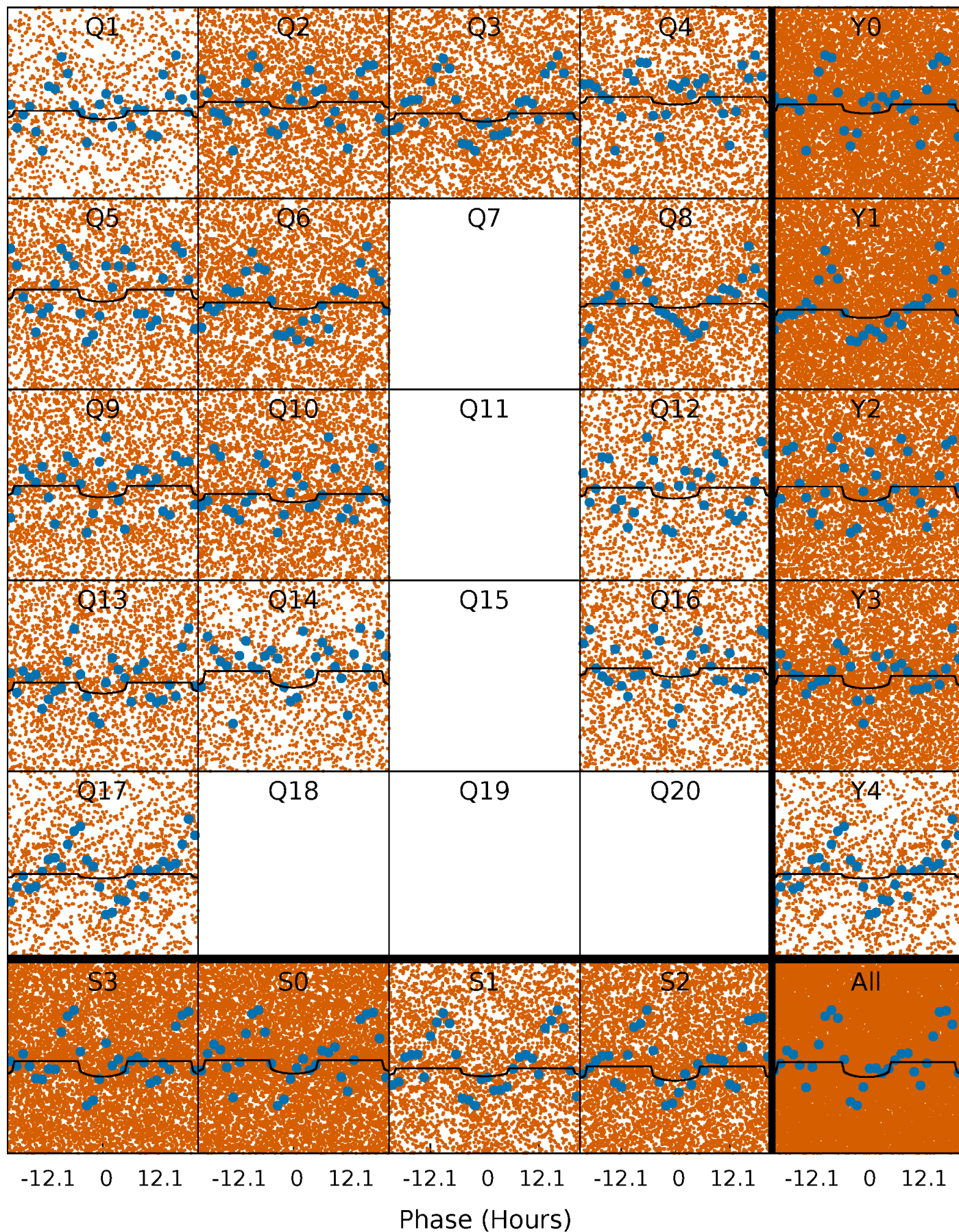
PDC Quarter-Phased Transit Curves

TCE 010029999-01 P= 1.047752 Days $T_0=131.864467$ (BKJD)



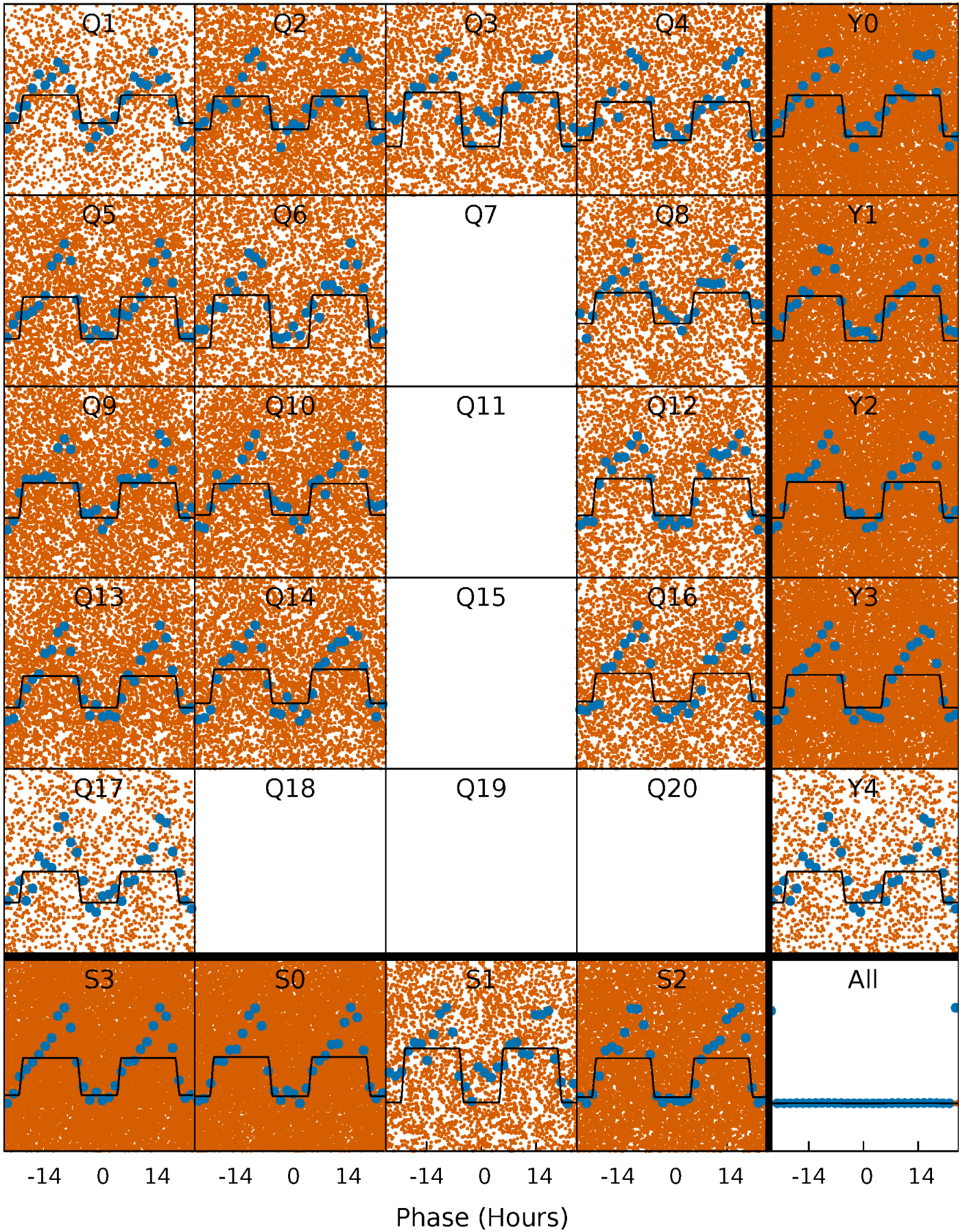
DV Quarter-Phased Transit Curves

TCE 010029999-01 P= 1.047752 Days $T_0=131.864467$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

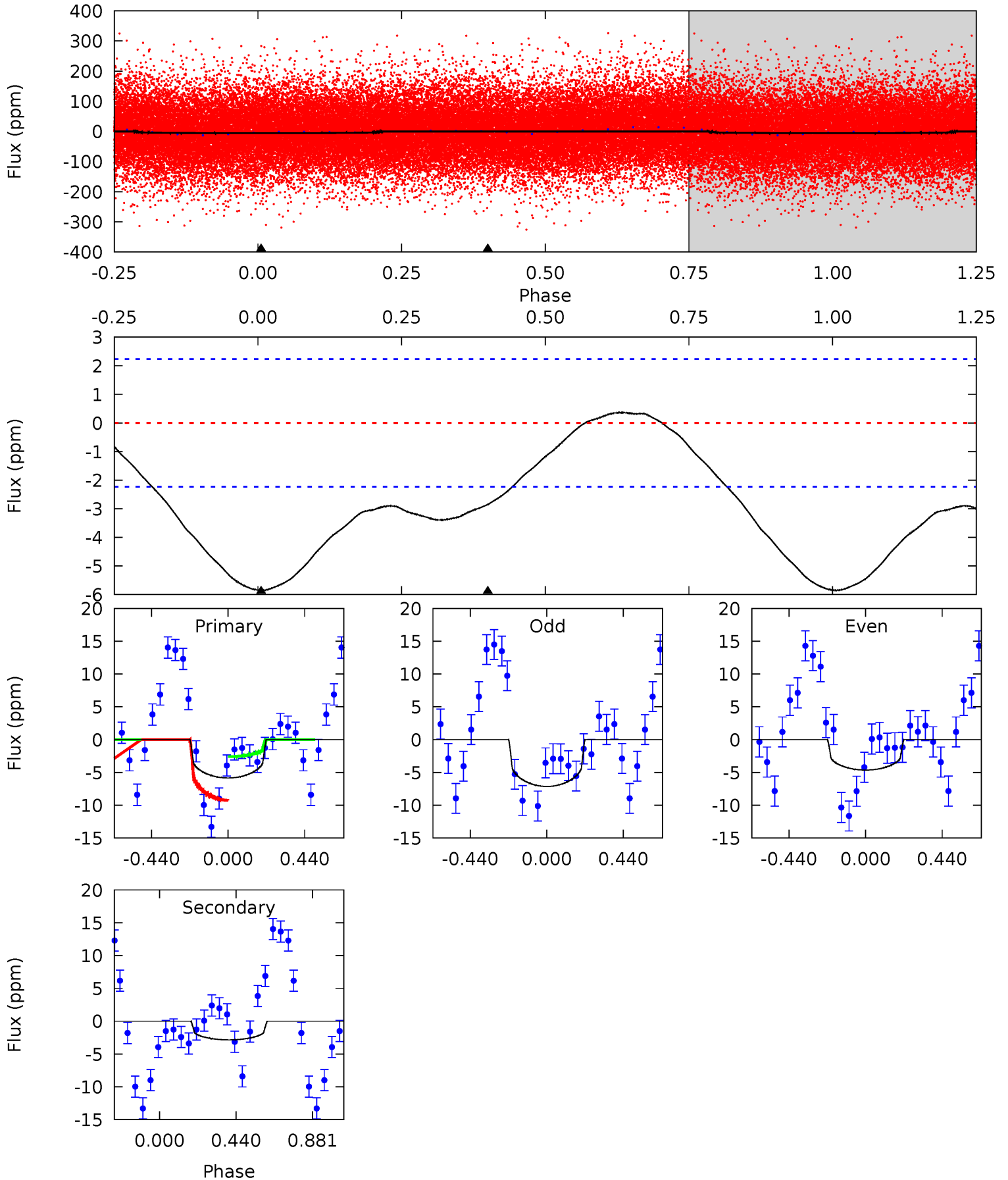
TCE 010029999-01 P= 1.047860 Days $T_0=131.851889$ (BKJD)



DV Model-Shift Uniqueness Test

010029999-01, P = 1.047752 Days, E = 130.816715 Days

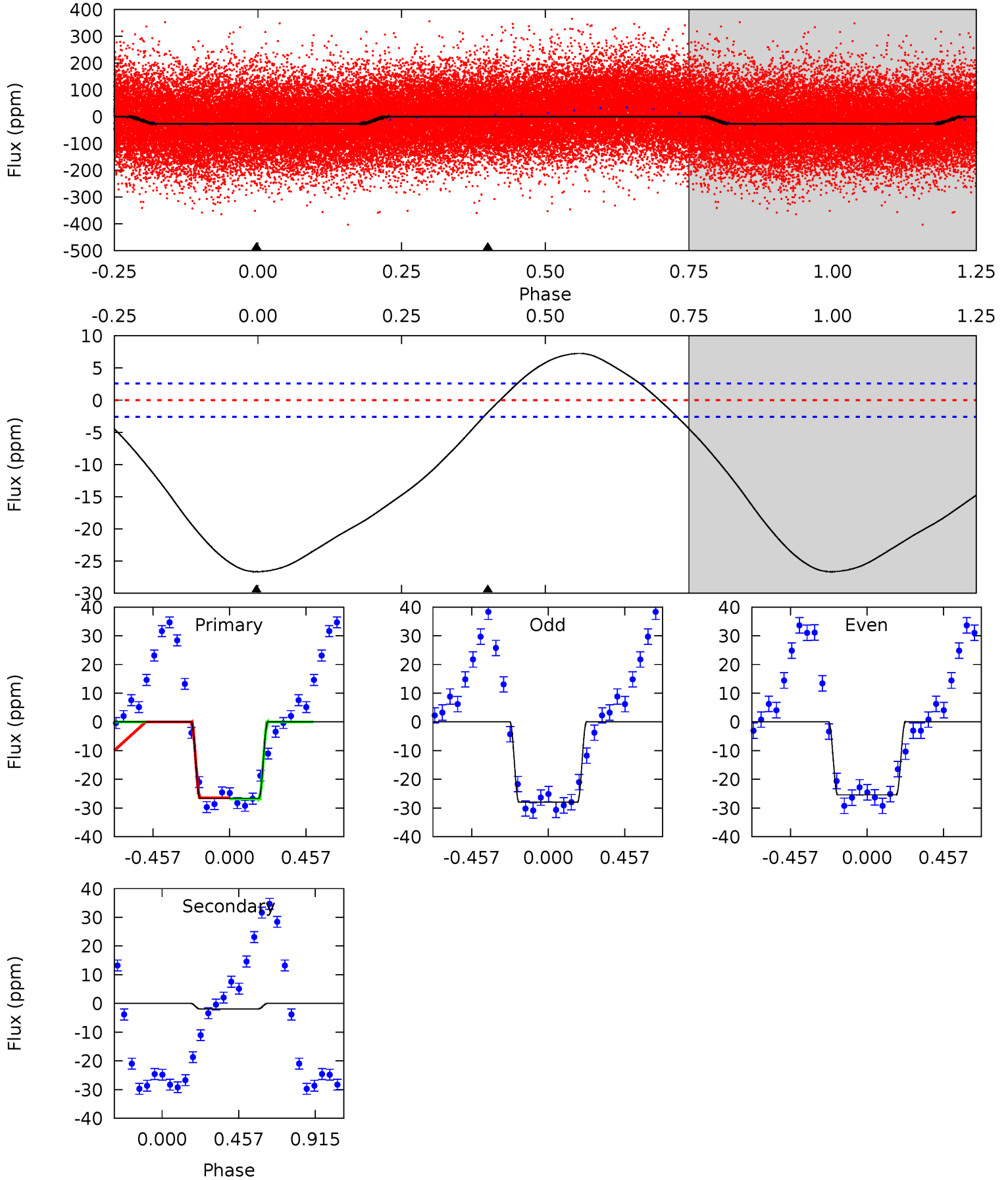
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.1	5.42	0	0	4.24	0.77	0.72	11.1	11.1	5.42	5.42	2.38	1.03	0.06	6.43



Alt Model-Shift Uniqueness Test

010029999-01, P = 1.047860 Days, E = 130.804029 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.6	3.09	0	0	4.23	0.74	3.92	43.6	43.6	3.09	3.09	2.03	1.04	0.21	0.34



Stellar Parameters For KIC 010029999

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7402^{+207}_{-311}	$4.169^{+0.108}_{-0.201}$	$-0.080^{+0.200}_{-0.350}$	$1.682^{+0.550}_{-0.296}$	$1.520^{+0.213}_{-0.237}$	$0.450^{+0.283}_{-0.236}$
	+3%/-4%	+3%/-5%	+250%/-438%	+33%/-18%	+14%/-16%	+63%/-52%
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 010029999-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 1	$0.63^{+0.60}_{-0.44}$	3914^{+326}_{-243}	5069^{+4699}_{-1530}	$2.084^{+19.794}_{-1.541}$
Alt.	-2 ± 1	$1.05^{+0.69}_{-0.59}$	3925^{+339}_{-241}	3349^{+1900}_{-6600}	$0.499^{+2.028}_{-0.338}$

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 $A_{obs} \gg 1.0$

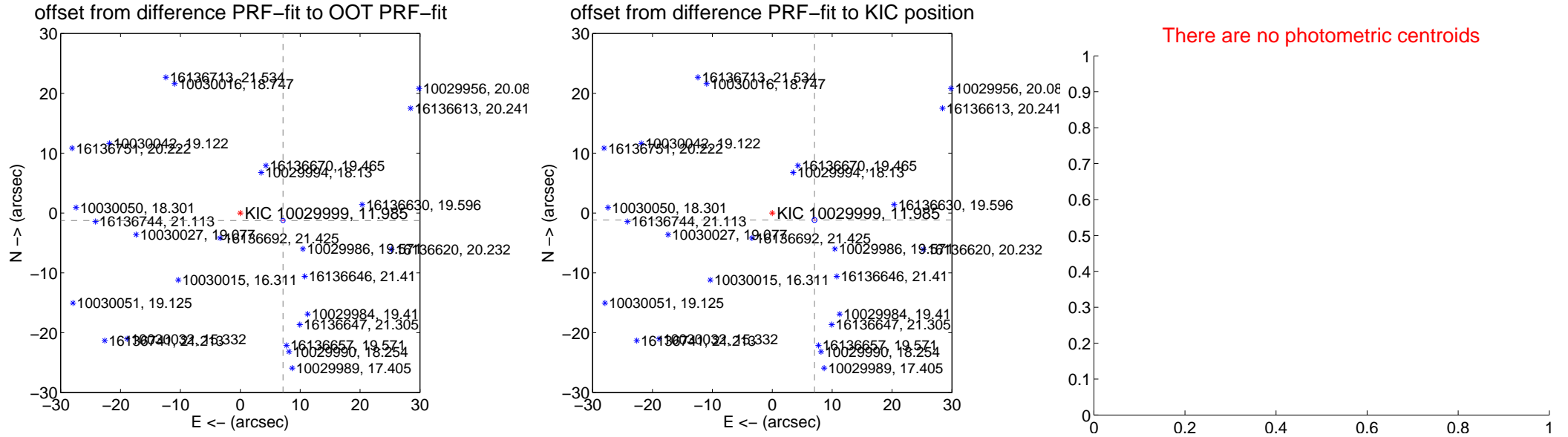
DV Centroid Data

Supplemental centroid analysis for 010029999-01. **Kepler magnitude: 11.98.** Transit SNR 5.07

There are 0 quarters with good PRF difference image offsets

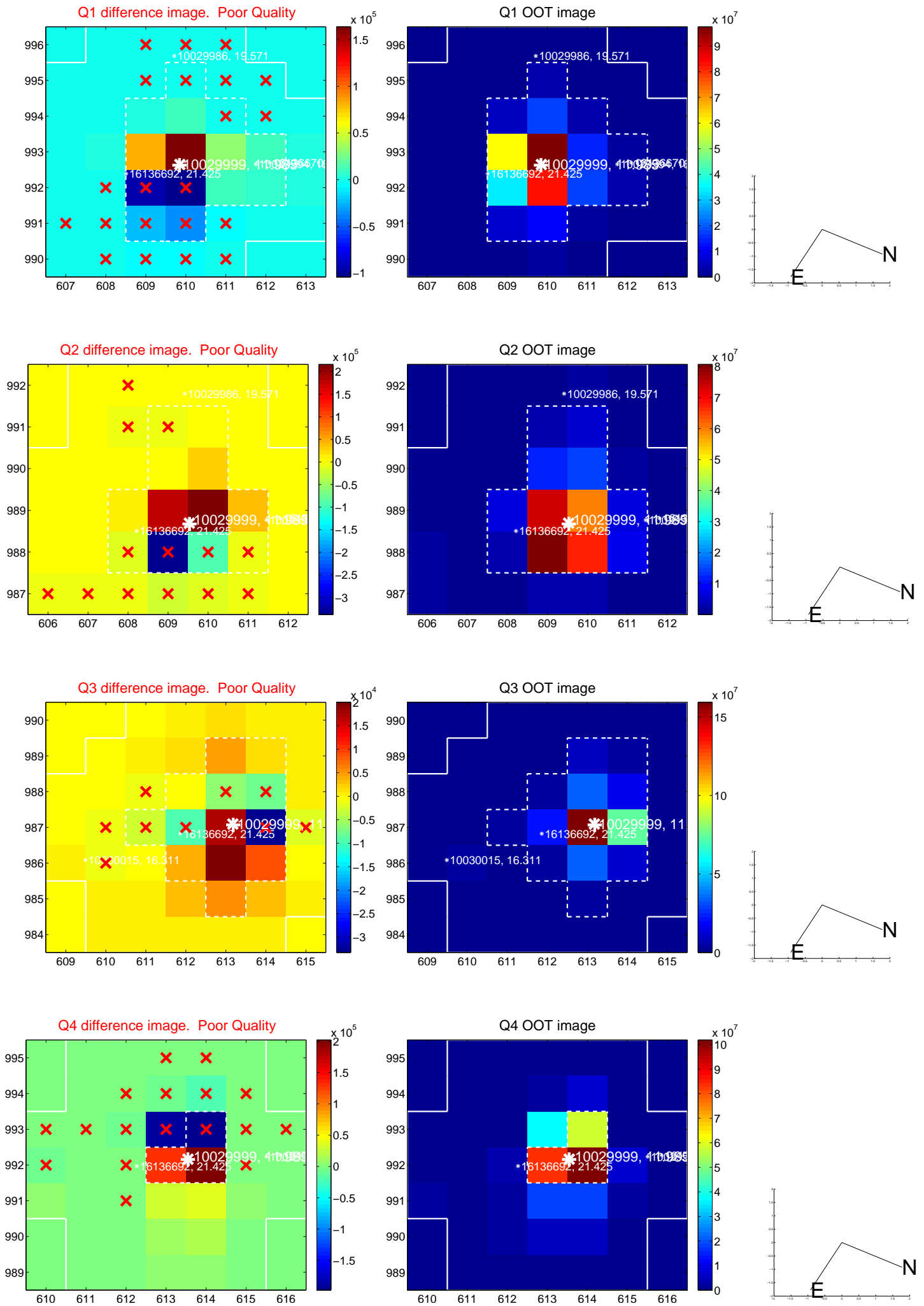
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.248 ± 0.119	61.00	-7.138 ± 0.120	-1.255 ± 0.069
PRF-fit source offset from KIC position	7.151 ± 0.137	52.31	-7.055 ± 0.138	-1.172 ± 0.070
photometric centroid source offset	—	—	—	—

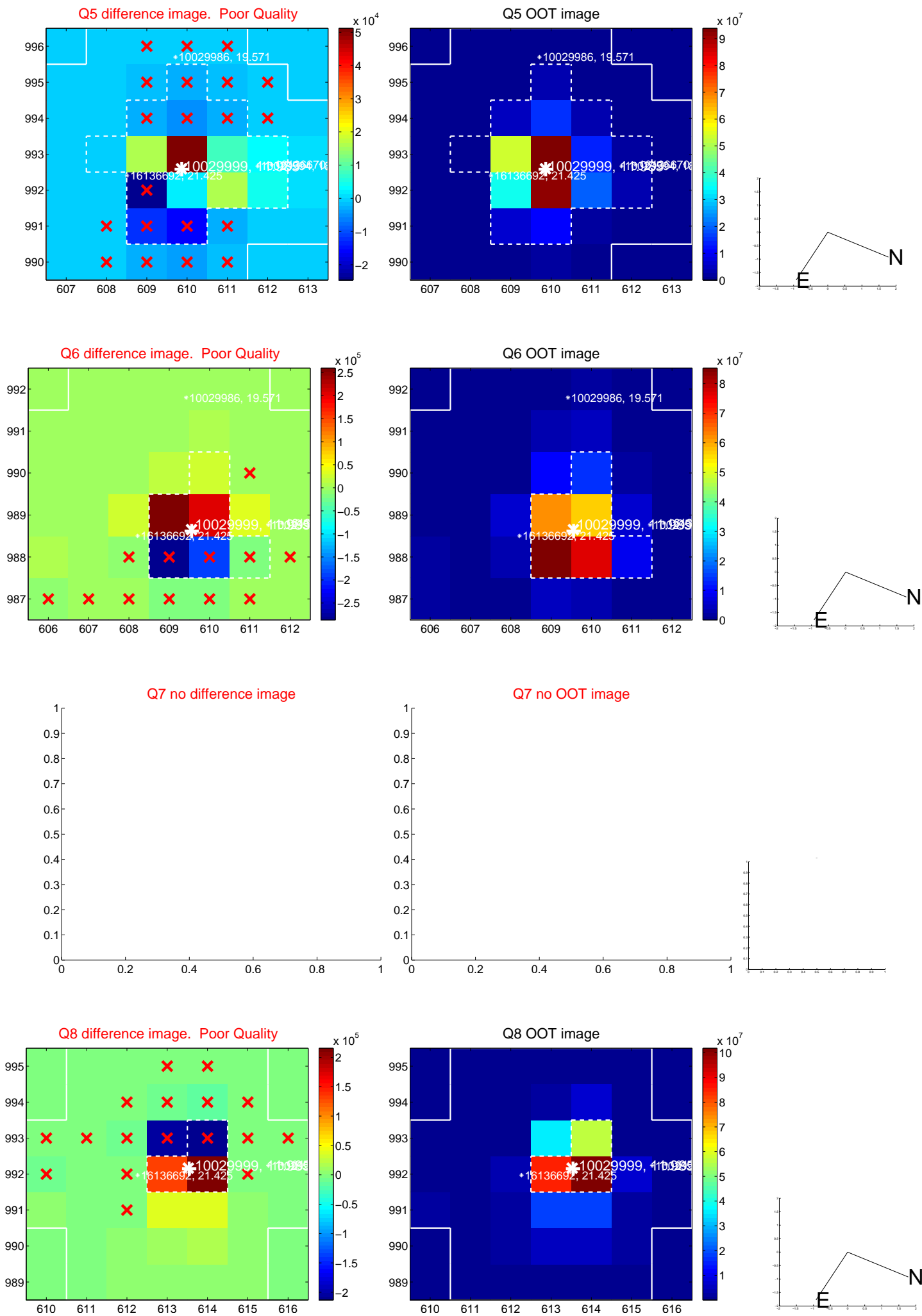


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

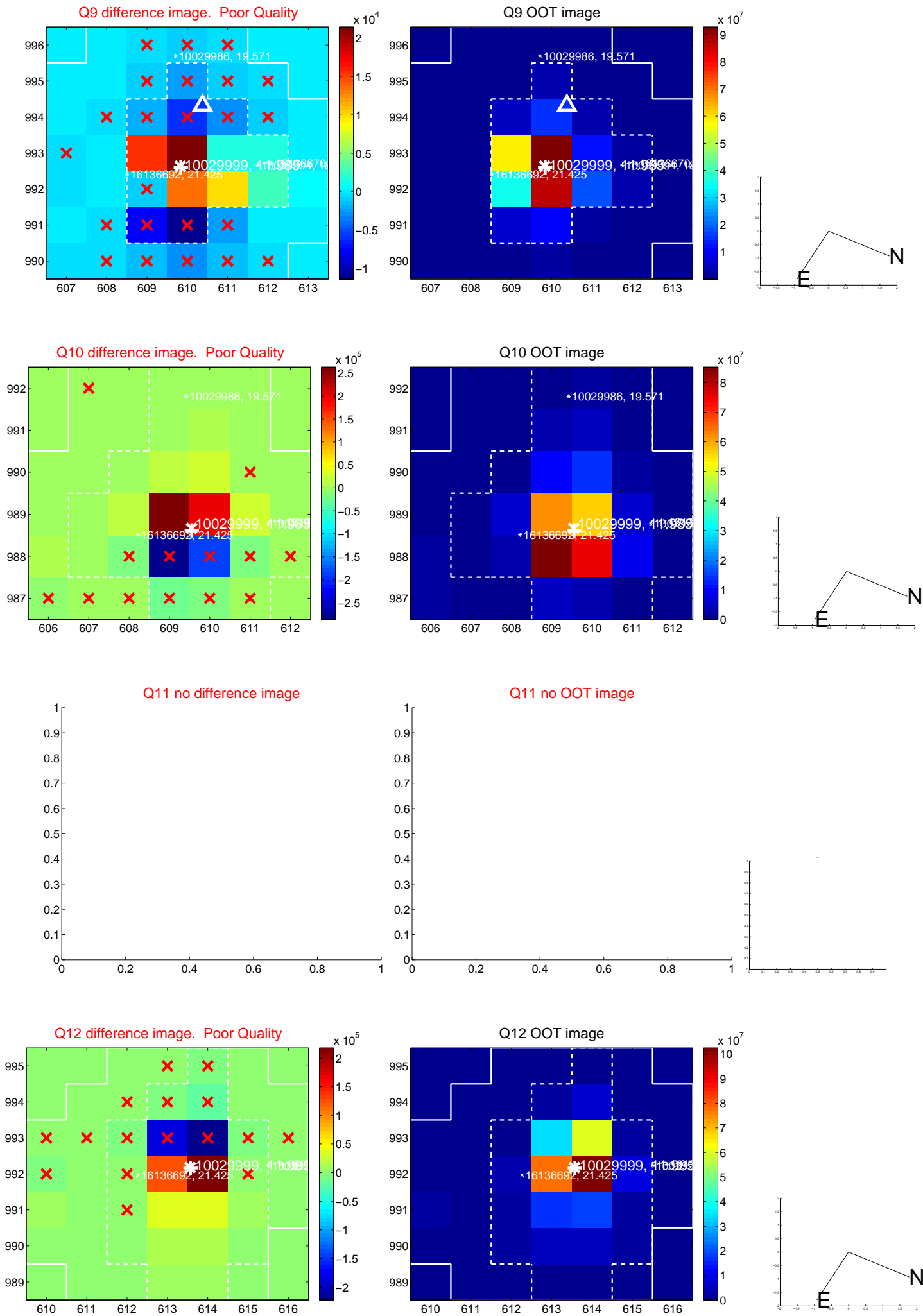
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



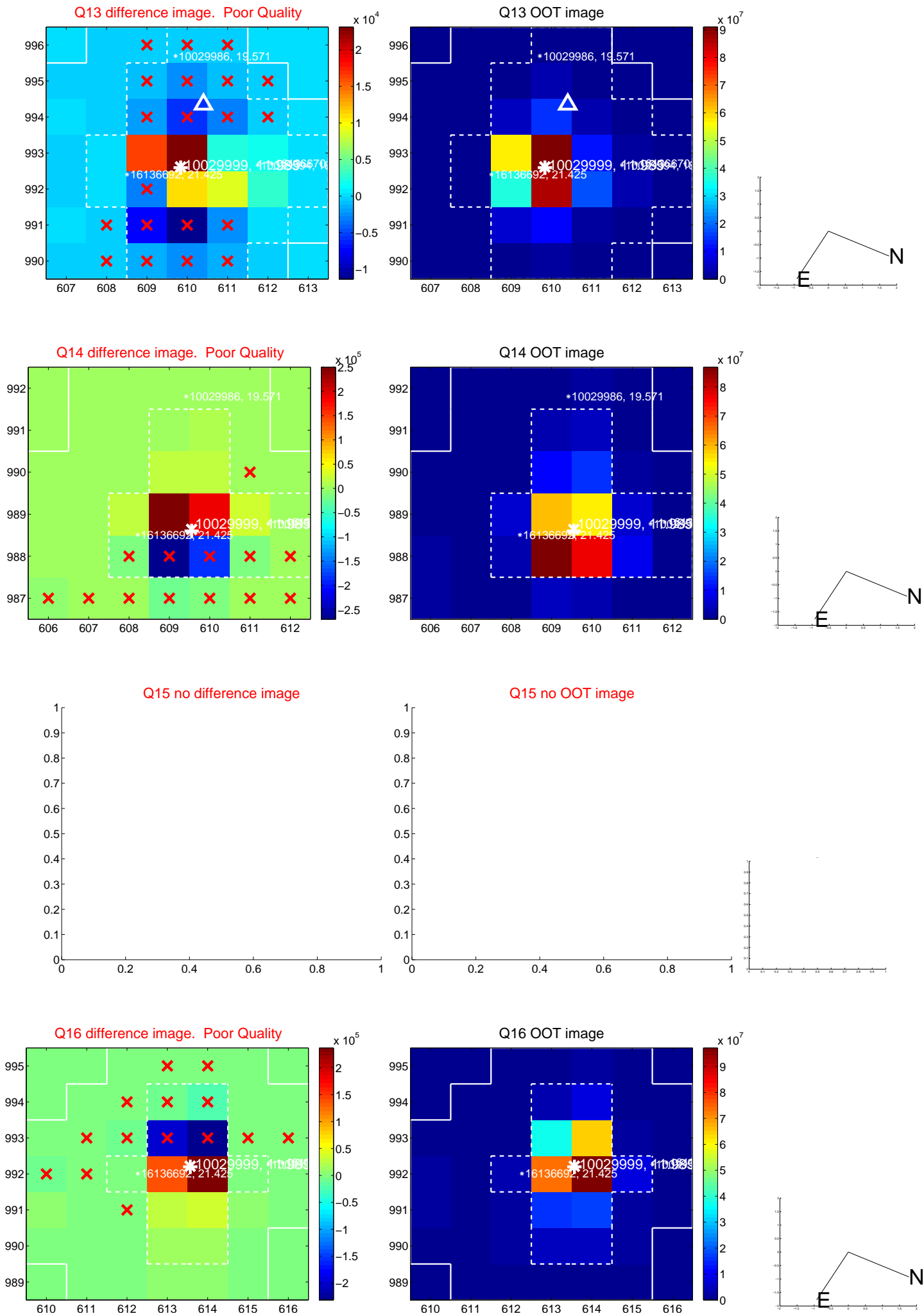
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



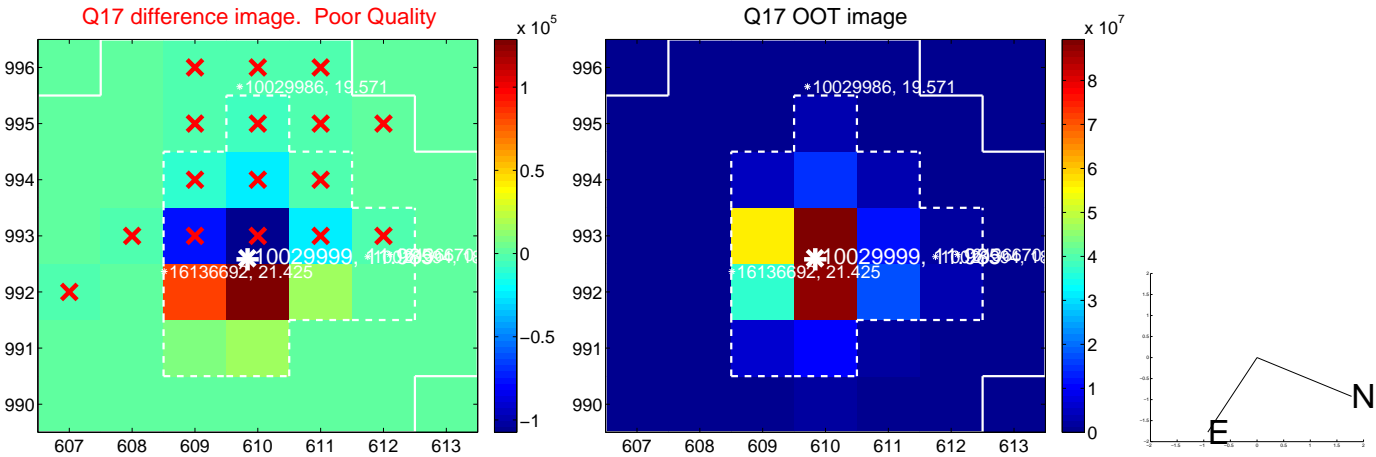
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



folded centroid time series figure for this object.

UKIRT Image

Declination

