

KIC 010547352

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})
010547352-01	OBS	No	2.313812	131.884112	5.4	20.251	8.5	2.2	4.56	6934	1.12	22867.88

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010547352-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

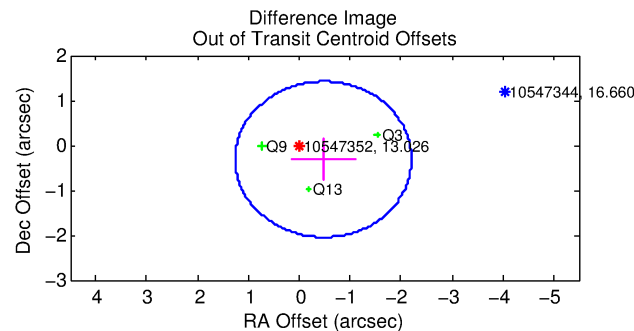
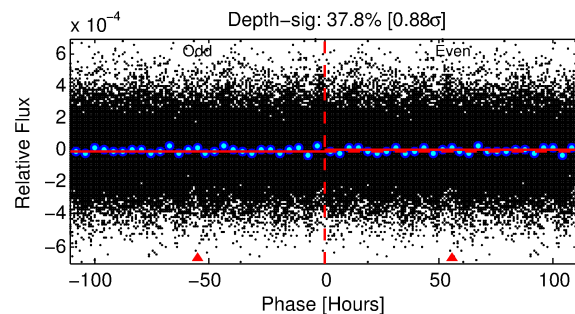
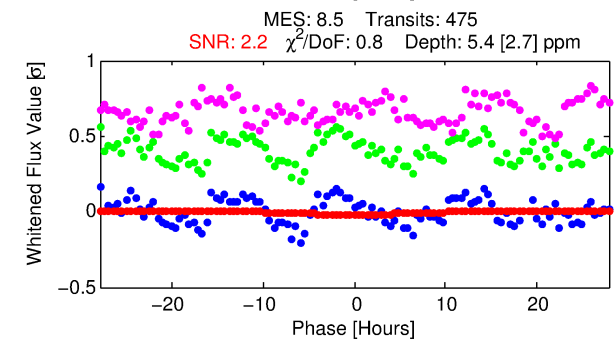
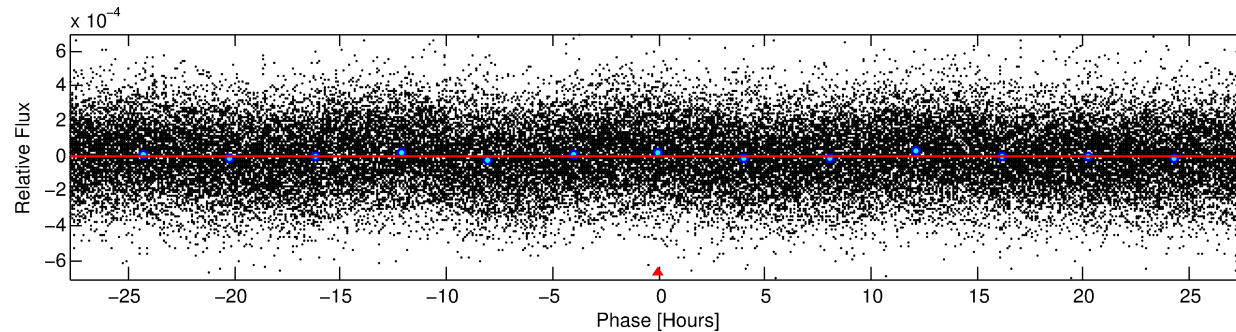
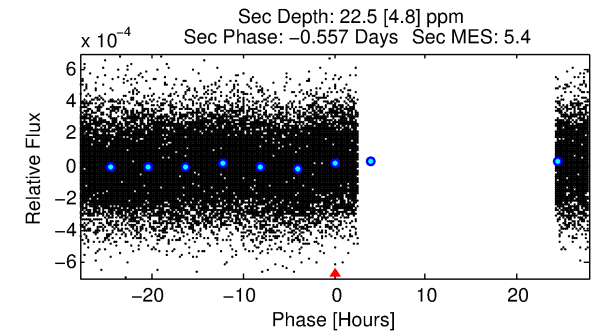
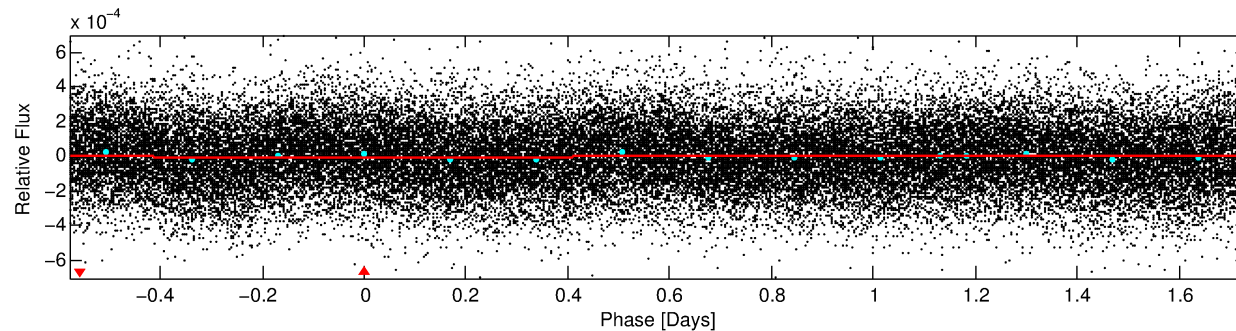
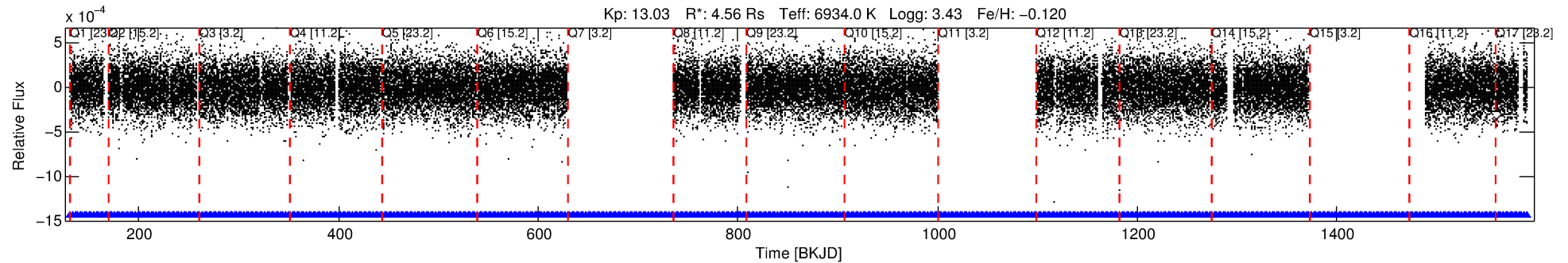
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010547352-01

No Significant Match Found

DV One-Page Summary

KIC: 10547352 Candidate: 1 of 1 Period: 2.314 d



DV Fit Results:

Period = 2.31381 [0.00021] d
Epoch = 131.8841 [0.0420] BKJD
Rp/R* = 0.0022 [0.0071]
a/R* = 1.06 [2.34]
b = 0.62 [18.88]
Seff = 22867.88 [15303.35]
Teq = 3136 [525] K
Rp = 1.12 [3.56] Re
a = 0.0434 [0.0179] AU
Ag = 18.75 [119.43] [0.15σ]
Teffp = 10089 [15981] K [0.43σ]

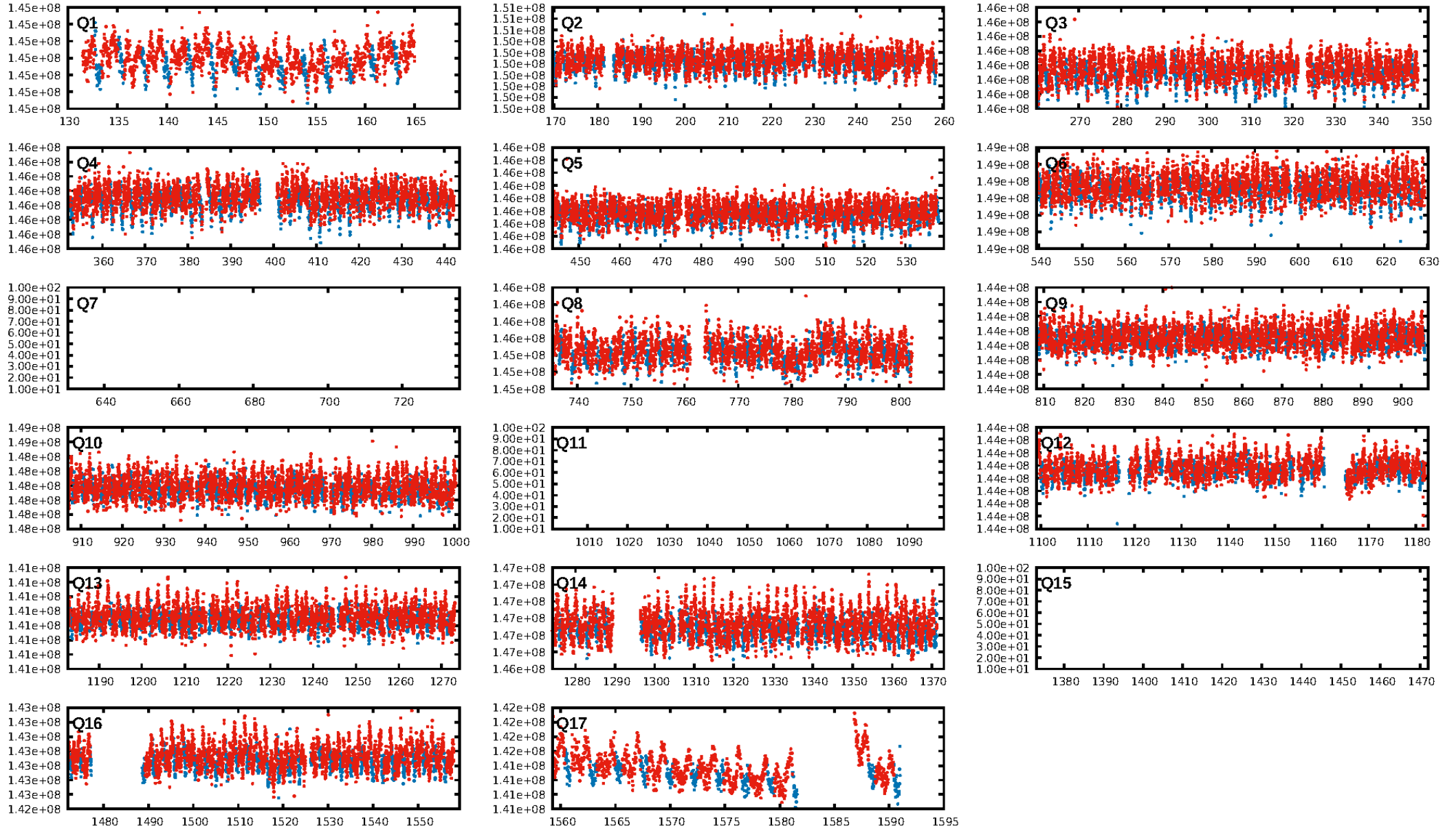
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [448/448]
GhostDiagnostic-chr: 0.6332
Centroid-sig: 0.0%
Centroid-so: 7.227 arcsec [2.77σ]
OotOffset-rm: 0.569 arcsec [0.98σ]
KicOffset-rm: 0.685 arcsec [1.19σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [14/14]

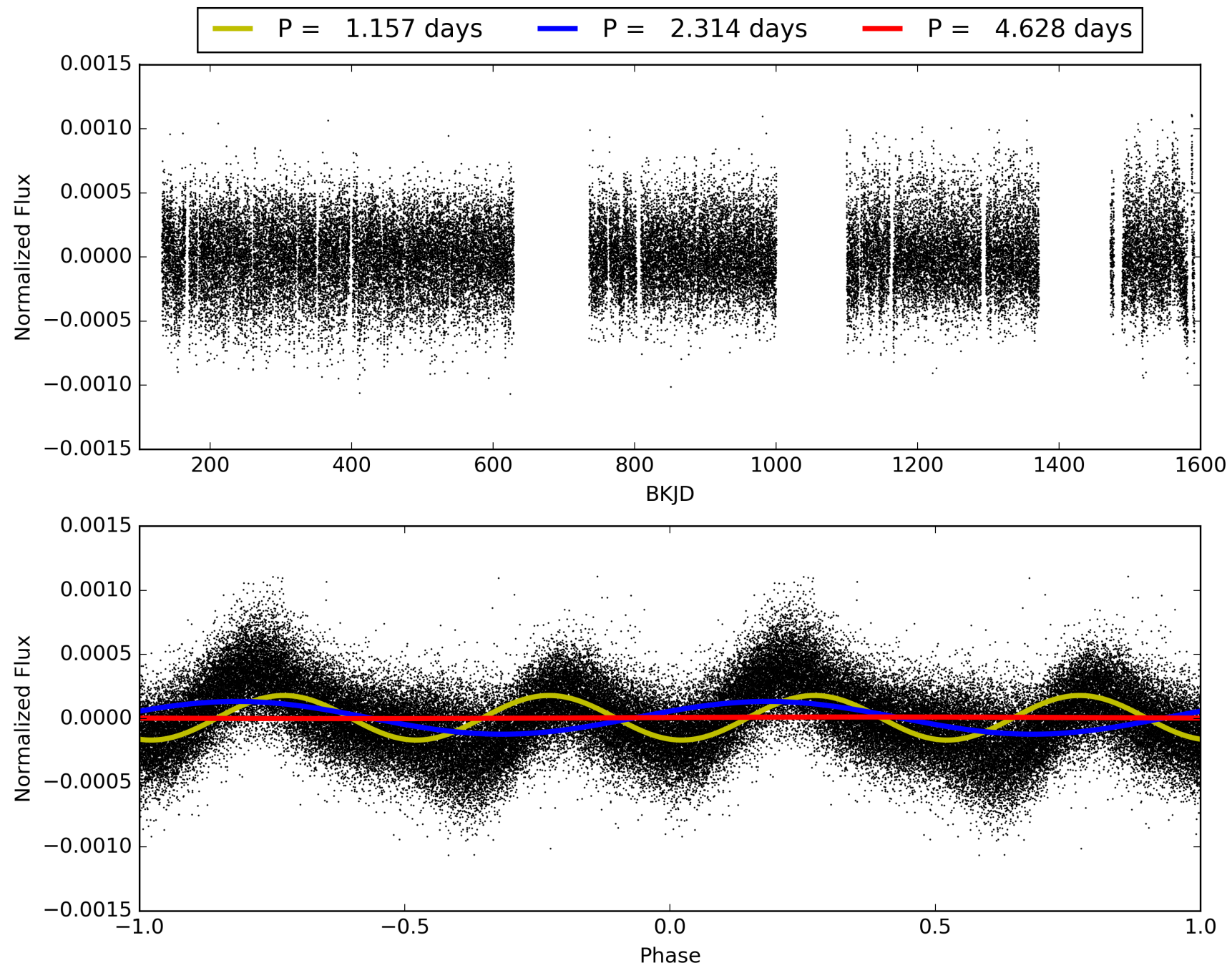
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:04:06 Z

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

TCE 010547352-01, PDC Light Curves

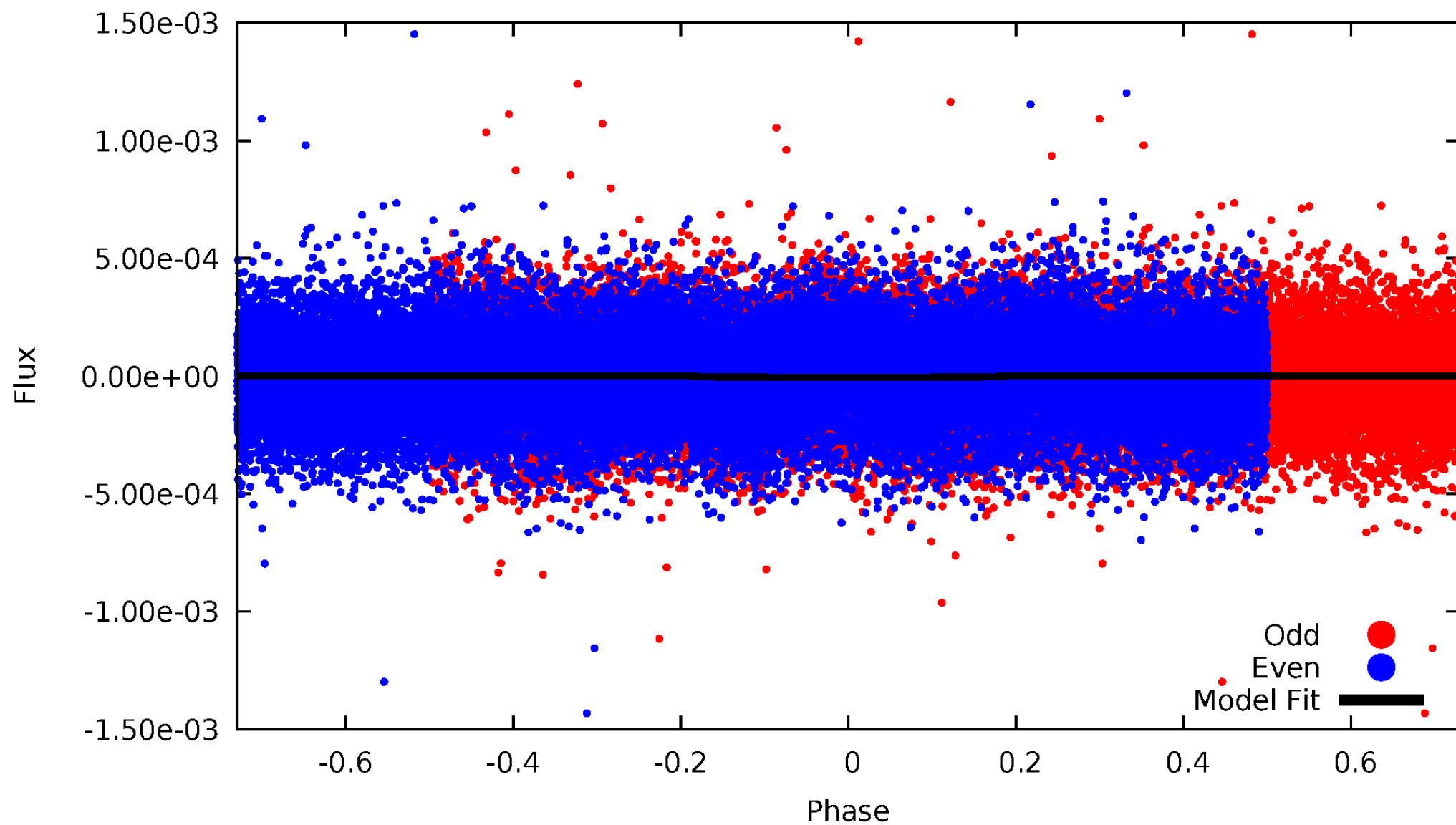


TCE 010547352-01



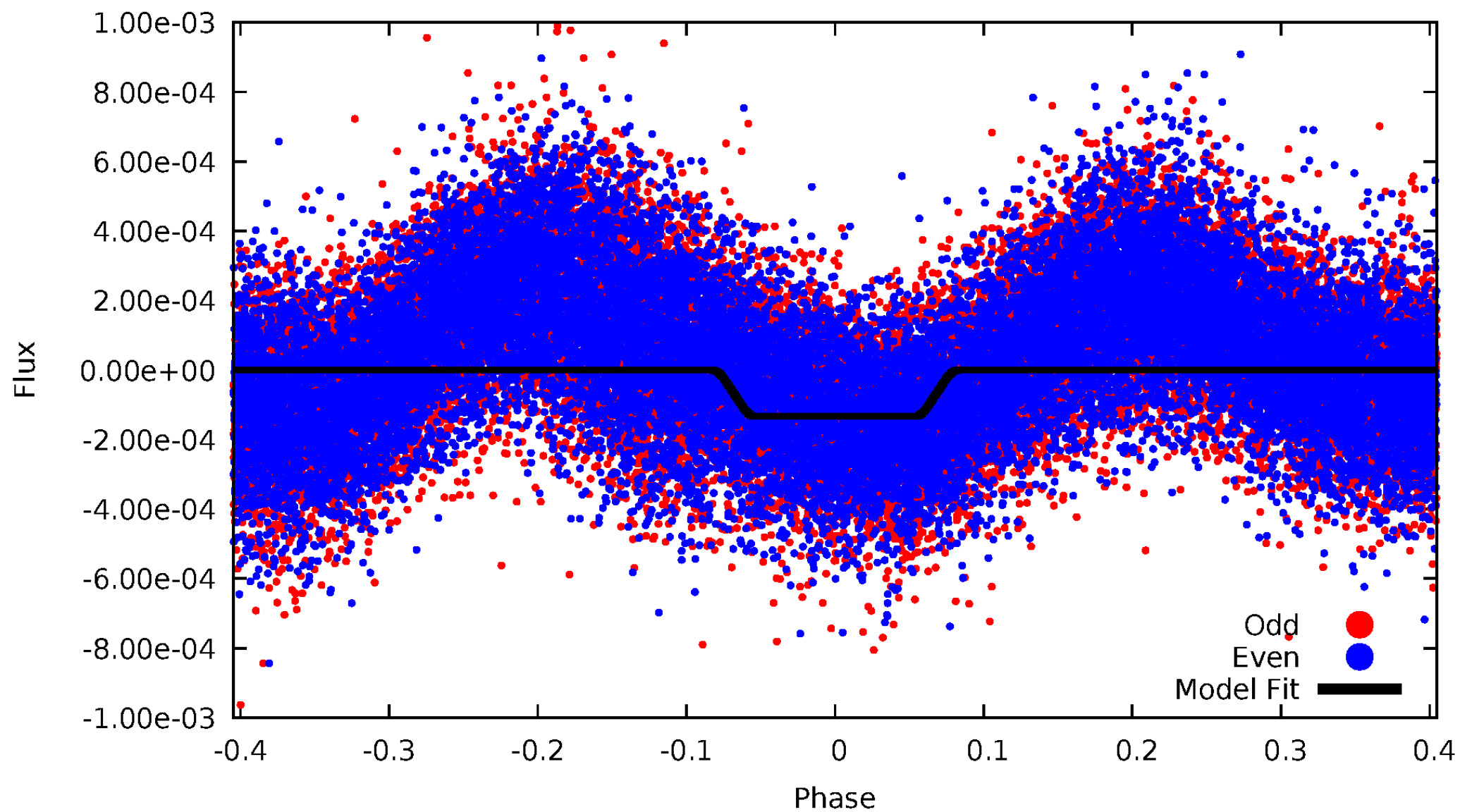
DV Odd/Even

TCE 010547352-01



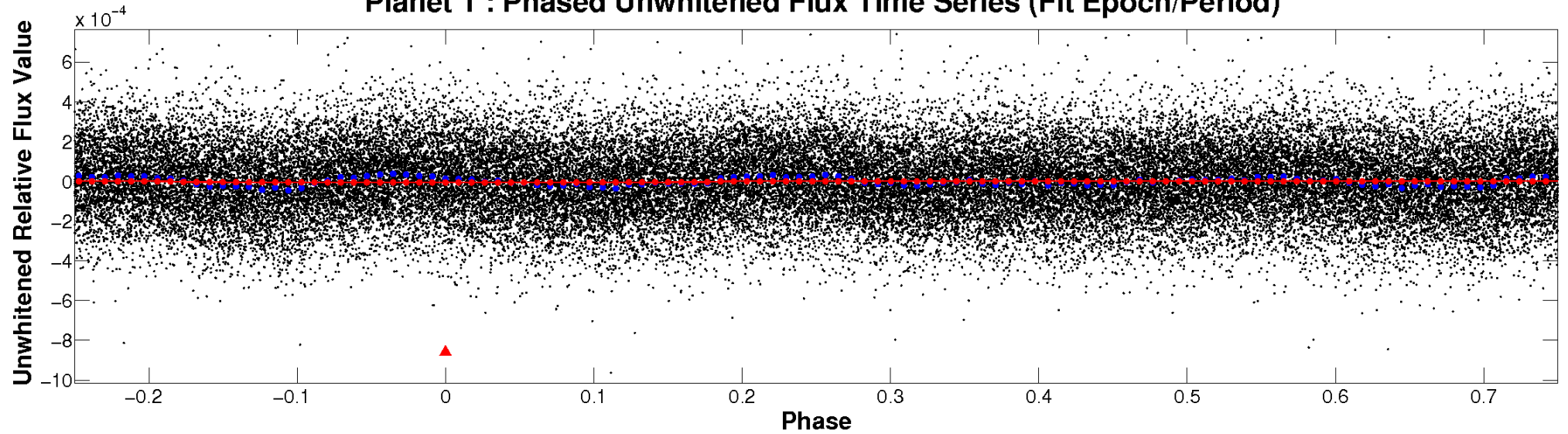
ALT Odd/Even

TCE 010547352-01

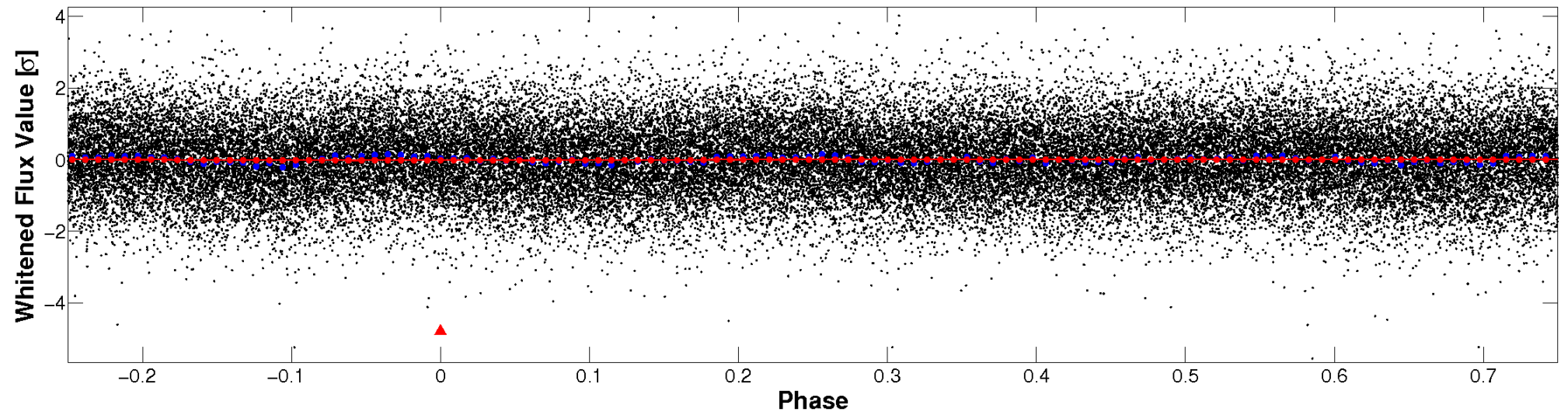


Non-Whitened Vs. Whitened Light Curve

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

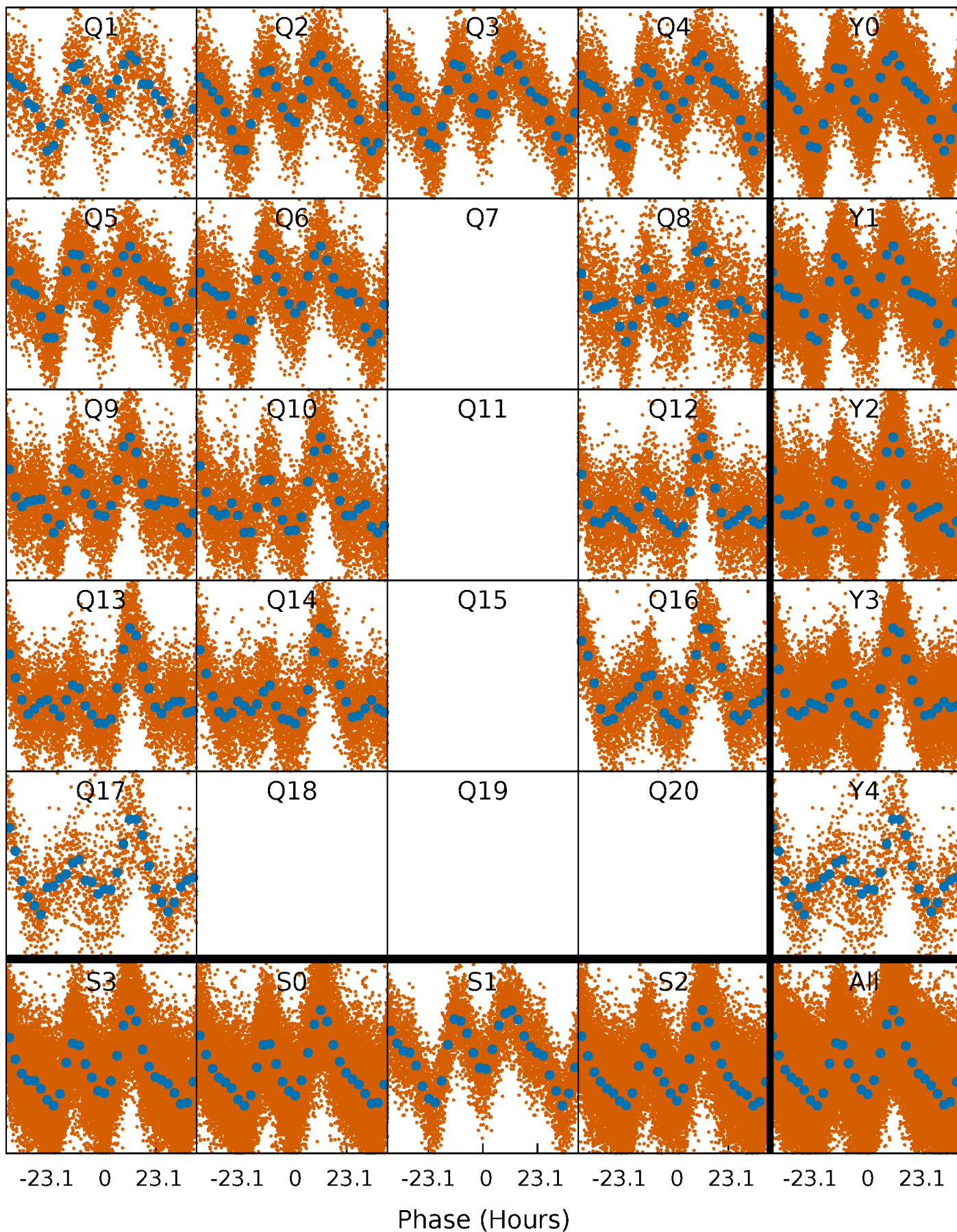


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



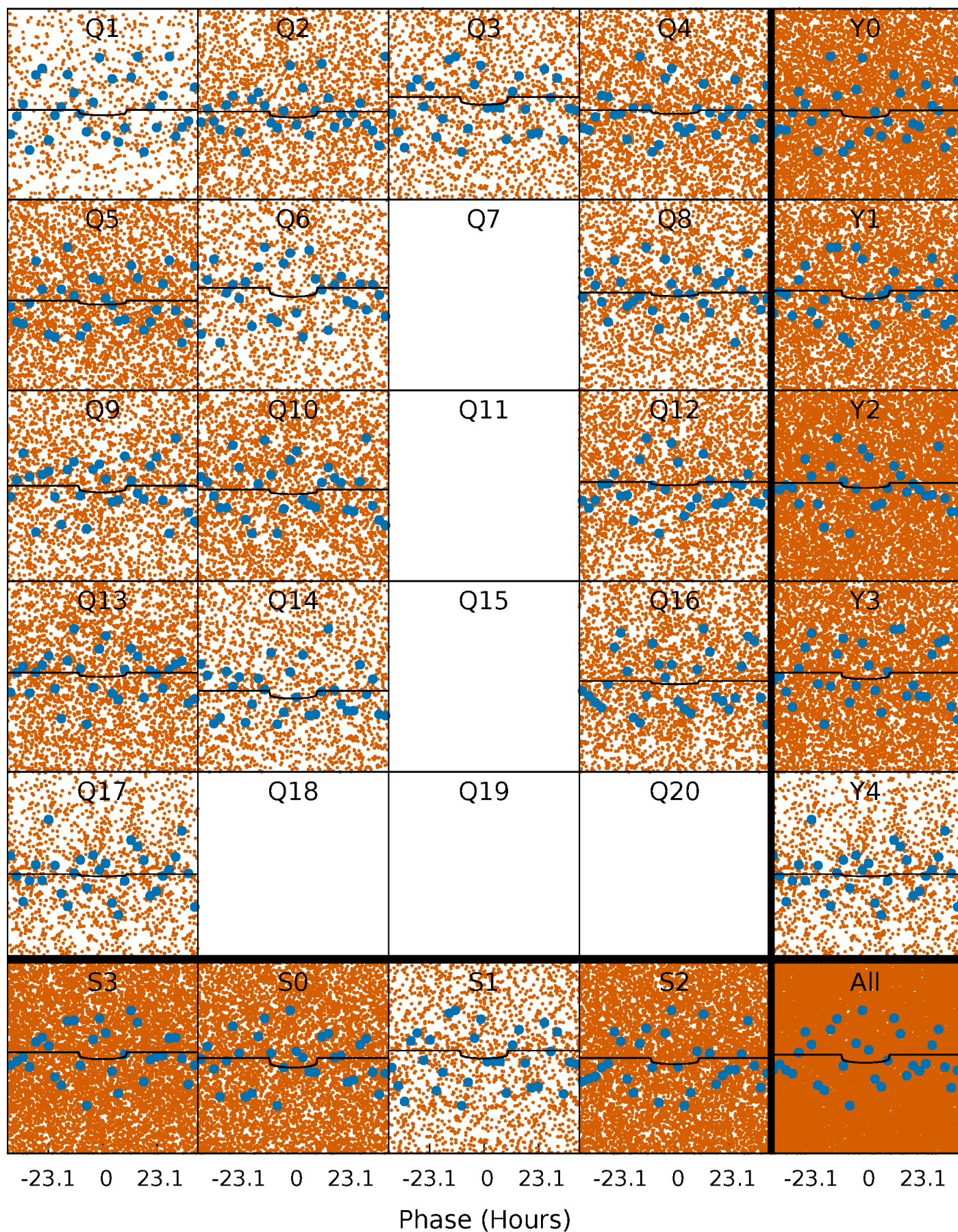
PDC Quarter-Phased Transit Curves

TCE 010547352-01 P= 2.313812 Days $T_0=131.884112$ (BKJD)



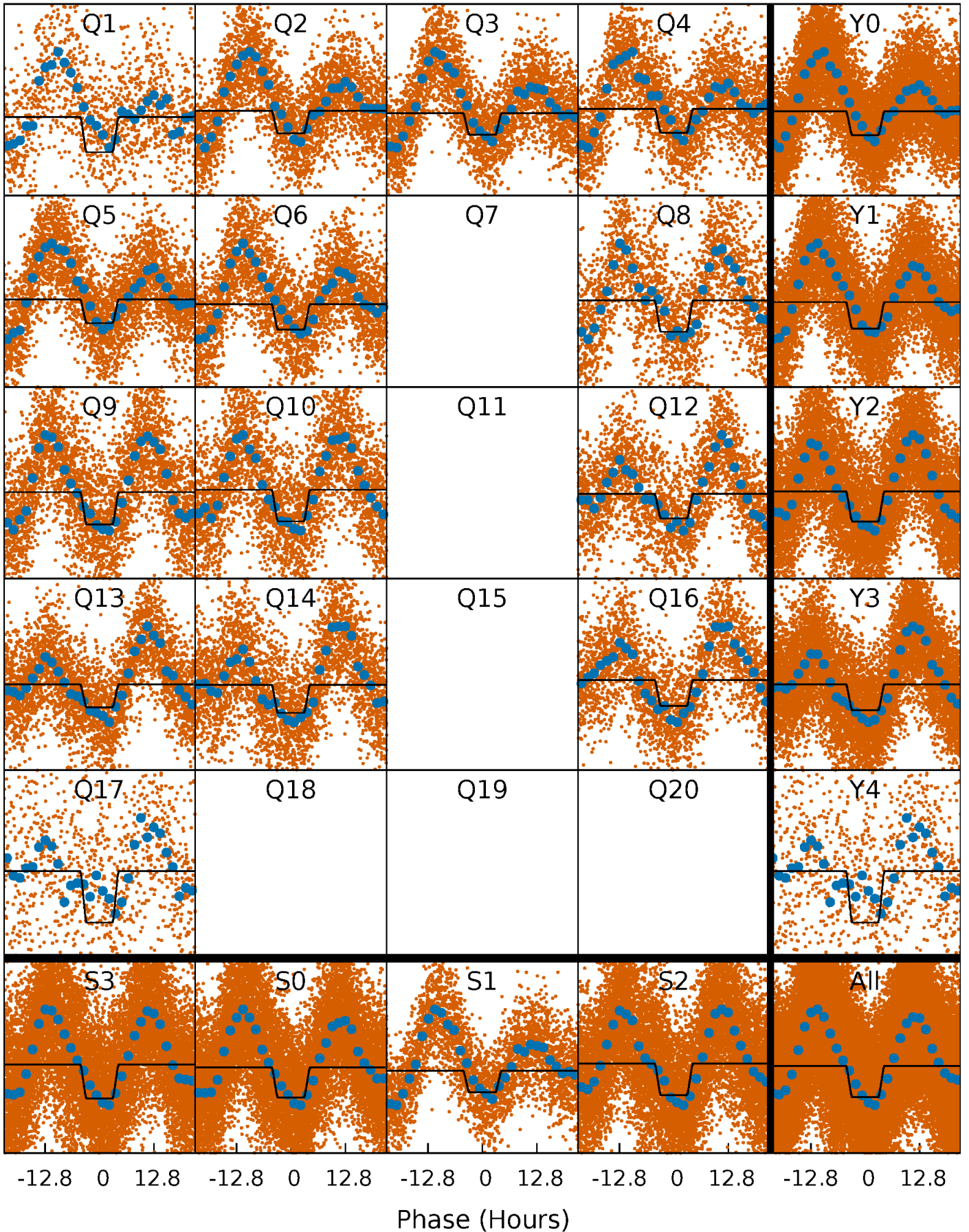
DV Quarter-Phased Transit Curves

TCE 010547352-01 P= 2.313812 Days $T_0=131.884112$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

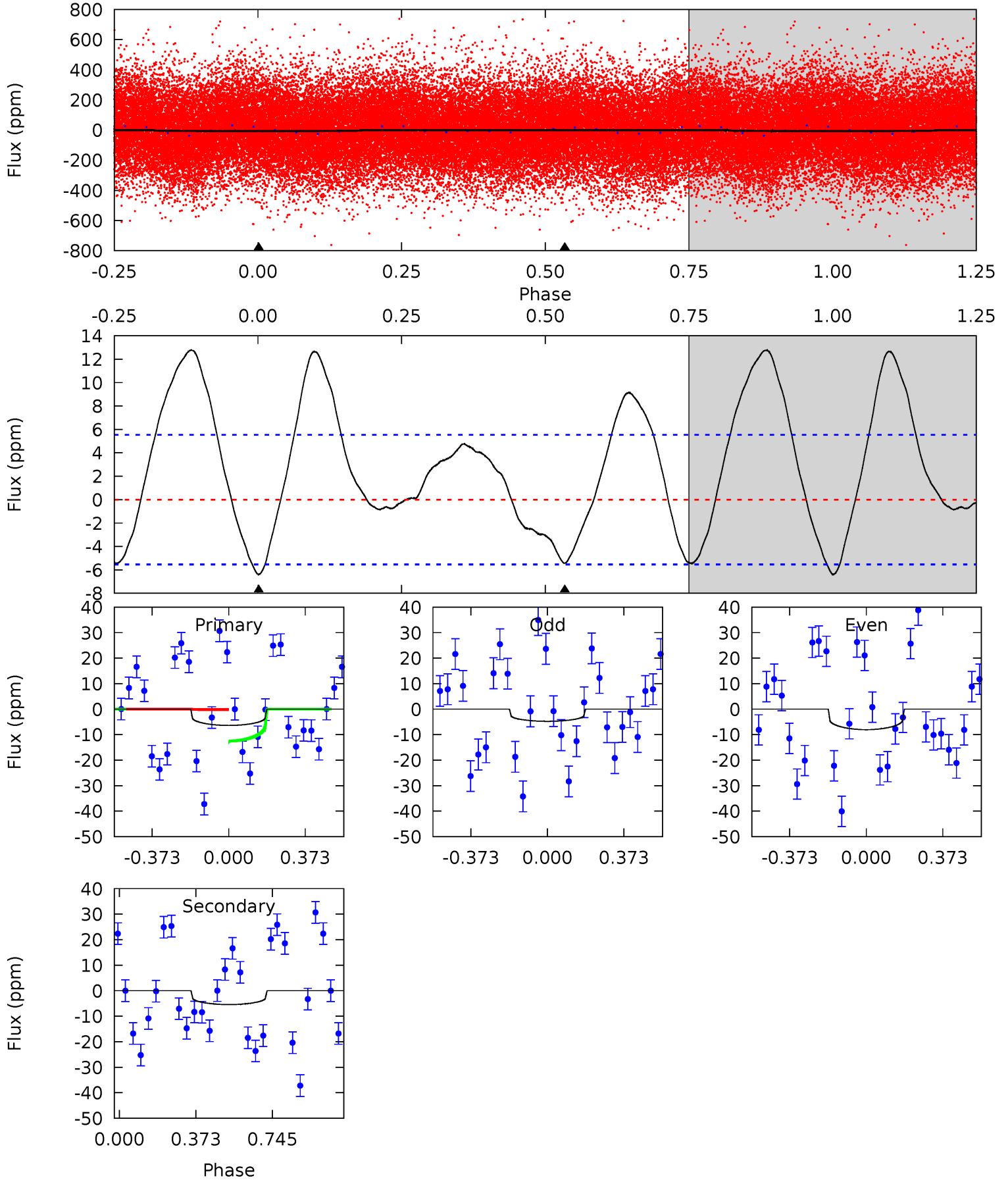
TCE 010547352-01 P= 2.313995 Days $T_0=131.844763$ (BKJD)



DV Model-Shift Uniqueness Test

010547352-01, P = 2.313812 Days, E = 129.570300 Days

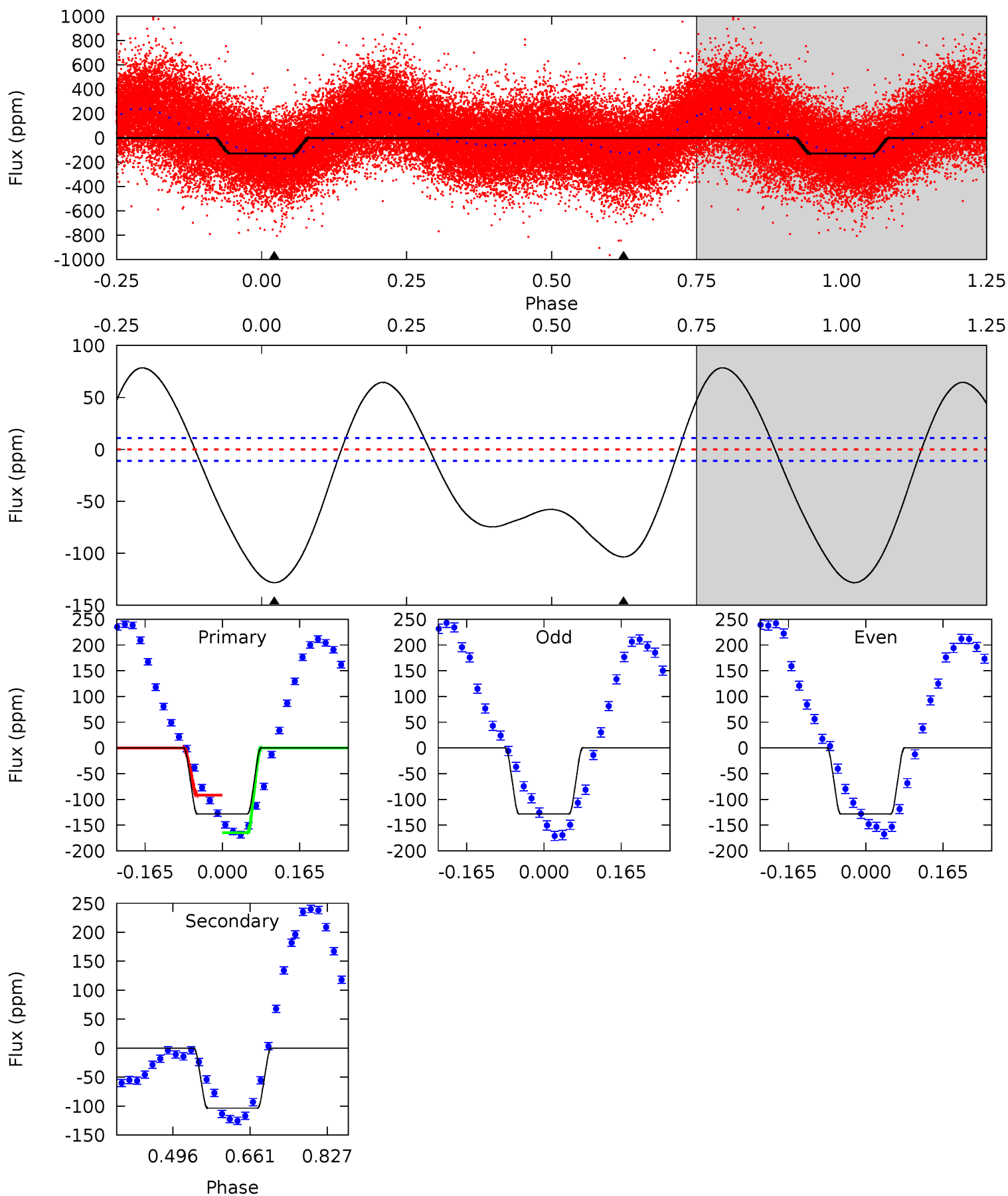
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.95	4.20	0	0	4.28	0.89	1.78	4.95	4.95	4.20	4.20	1.26	1.75	0.67	4.75



Alt Model-Shift Uniqueness Test

010547352-01, P = 2.313995 Days, E = 129.530768 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.1	42.0	0	0	4.46	1.39	23.8	52.1	52.1	42.0	42.0	0.05	1.06	0.38	15.2



Stellar Parameters For KIC 010547352

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6934^{+165}_{-248}	$3.429^{+0.382}_{-0.067}$	$-0.120^{+0.300}_{-0.200}$	$4.563^{+0.349}_{-1.978}$	$2.041^{+0.078}_{-0.418}$	$0.030^{+0.104}_{-0.005}$
	+2%/-4%	+11%/-2%	+250%/-167%	+8%/-43%	+4%/-20%	+342%/-15%
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 010547352-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-5 ± 1	$2.67^{+2.72}_{-1.78}$	4273^{+241}_{-403}	4031^{+3233}_{-7301}	$0.765^{+5.712}_{-0.583}$
Alt.	-104 ± 2	$5.39^{+3.38}_{-2.94}$	4277^{+226}_{-475}	6074^{+3937}_{-1241}	$3.662^{+12.572}_{-2.254}$

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

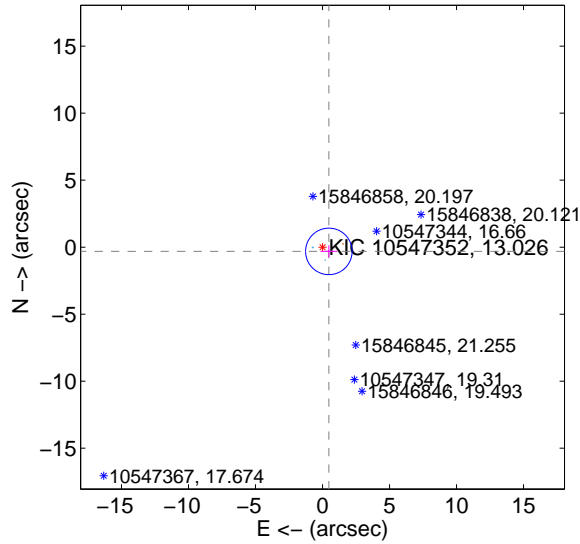
Supplemental centroid analysis for 010547352-01. Kepler magnitude: 13.03. Transit SNR 2.19

There are 2 quarters with good PRF difference image offsets

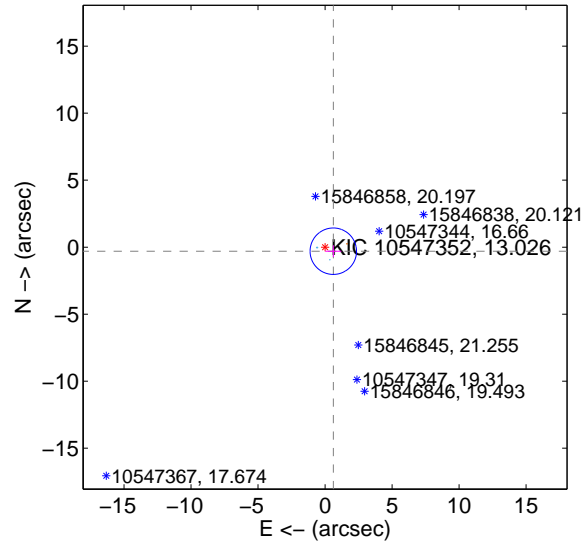
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.569 ± 0.578	0.98	-0.474 ± 0.626	-0.315 ± 0.453
PRF-fit source offset from KIC position	0.685 ± 0.578	1.19	-0.616 ± 0.606	-0.301 ± 0.439
photometric centroid source offset	7.23 ± 2.61	2.77	1.72 ± 2.76	-7.02 ± 2.60

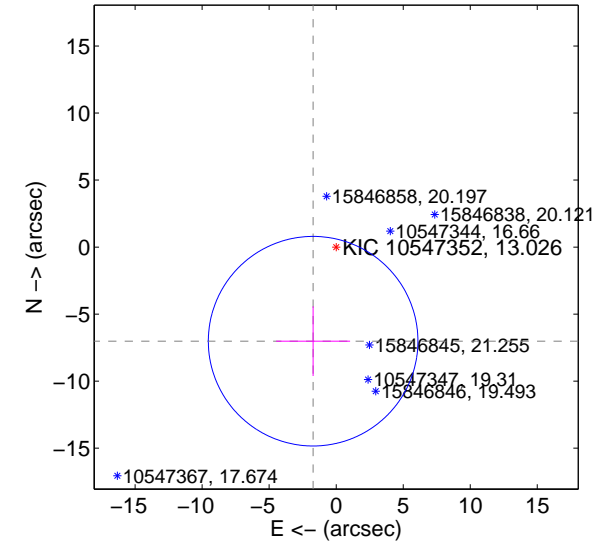
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

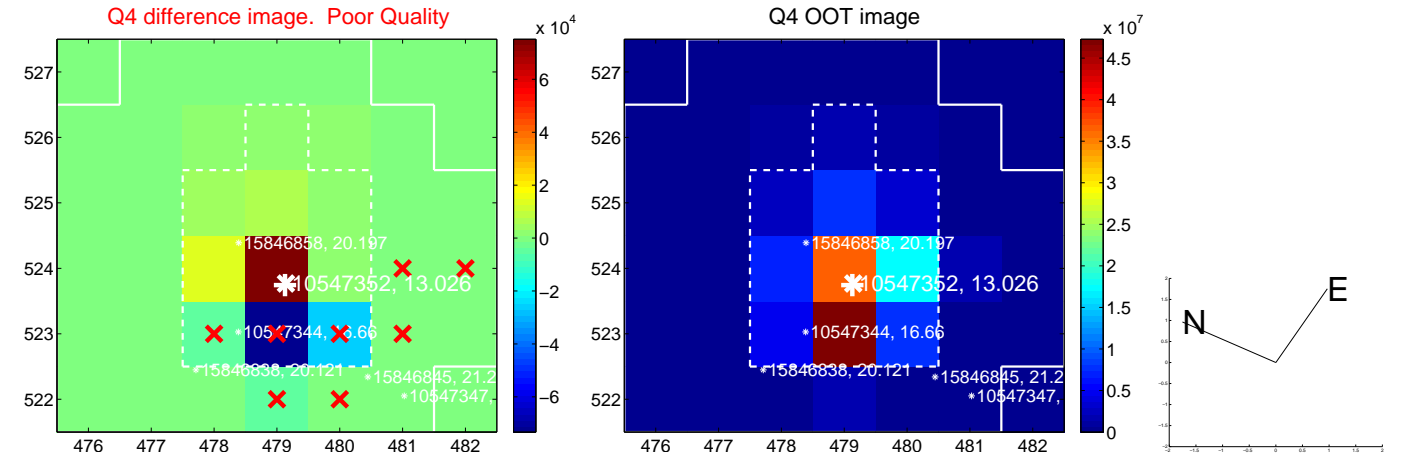
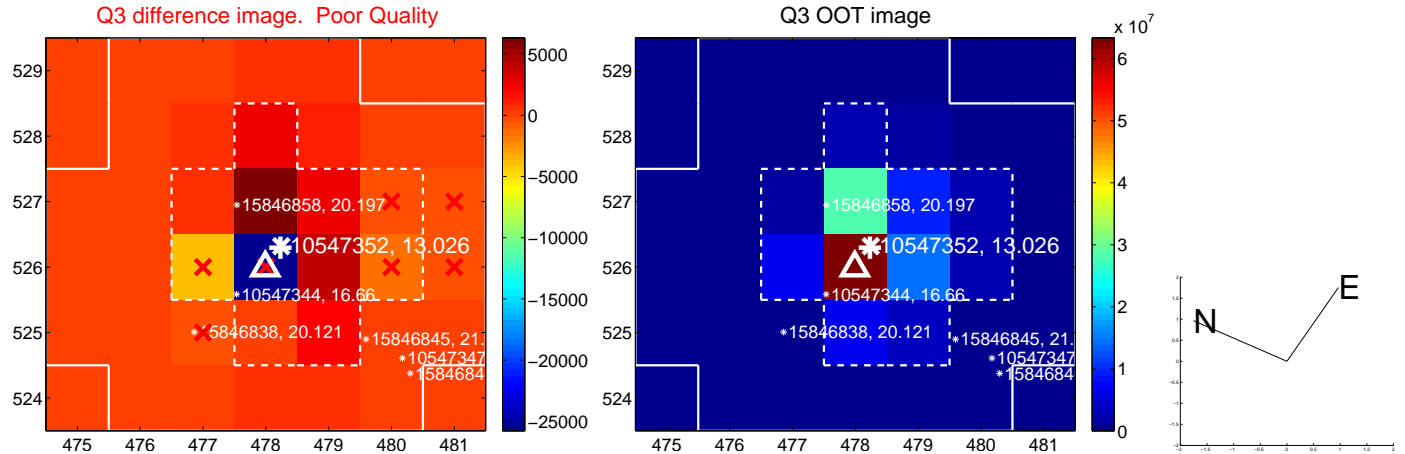
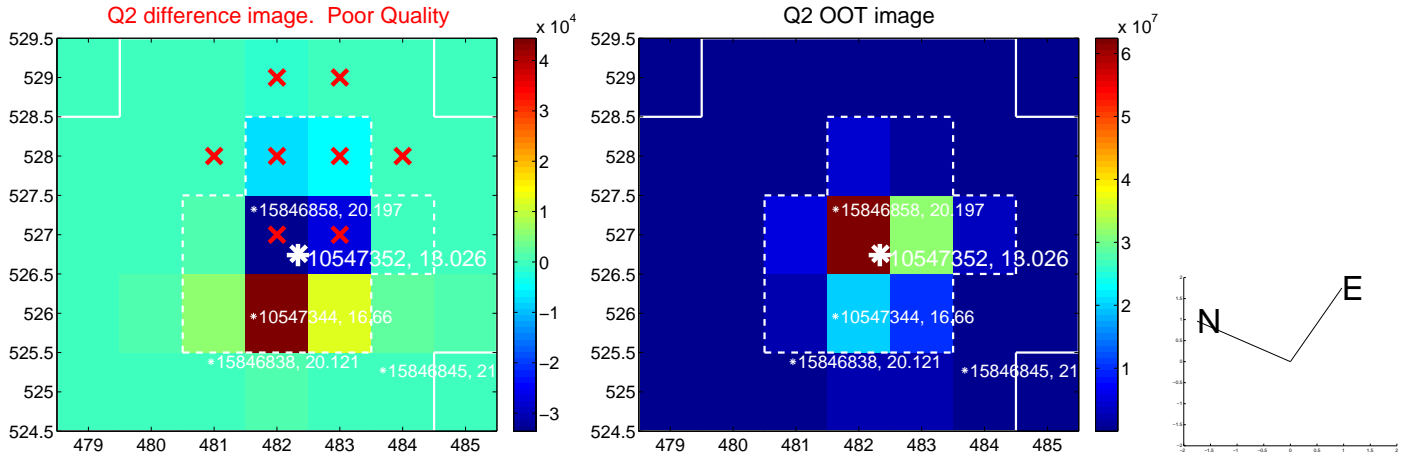
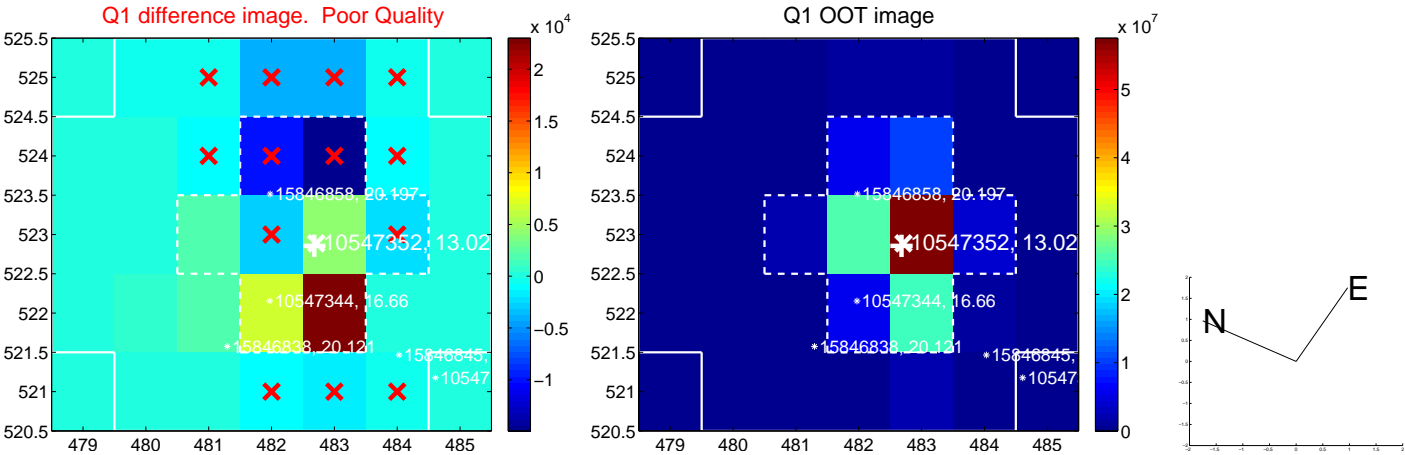


offset from photometric centroids

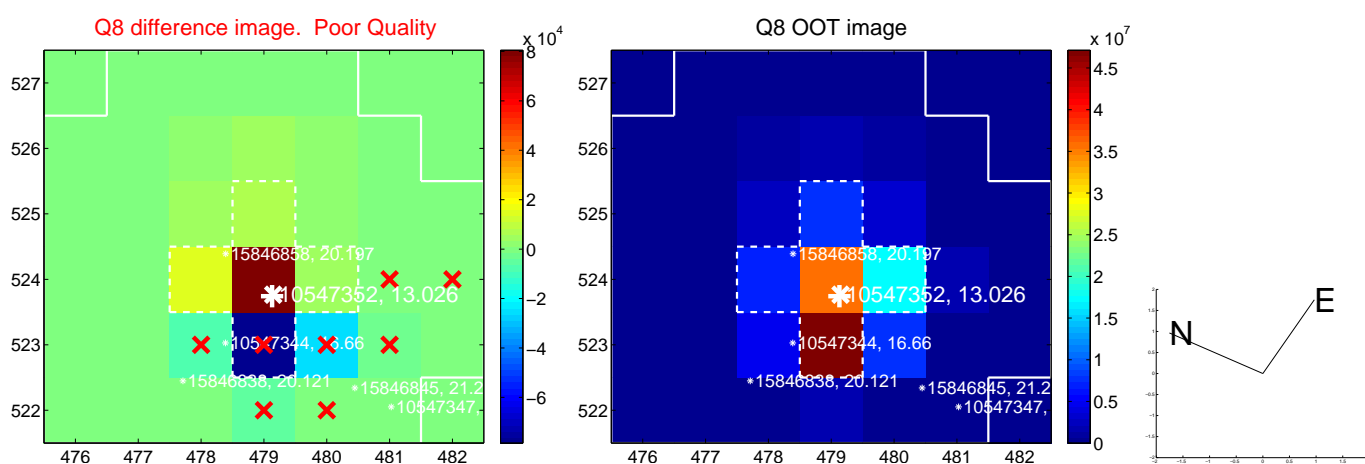
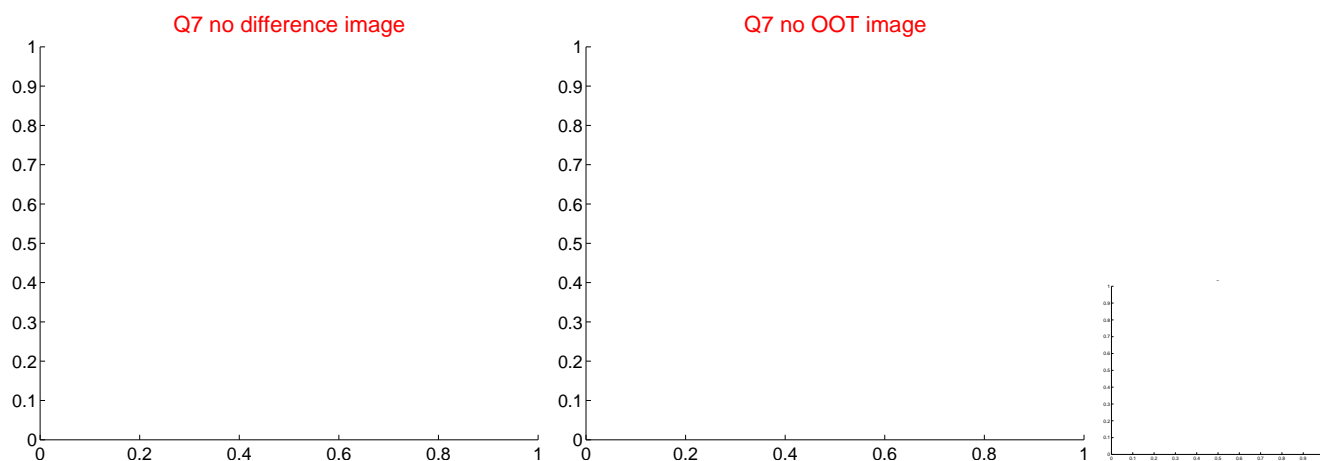
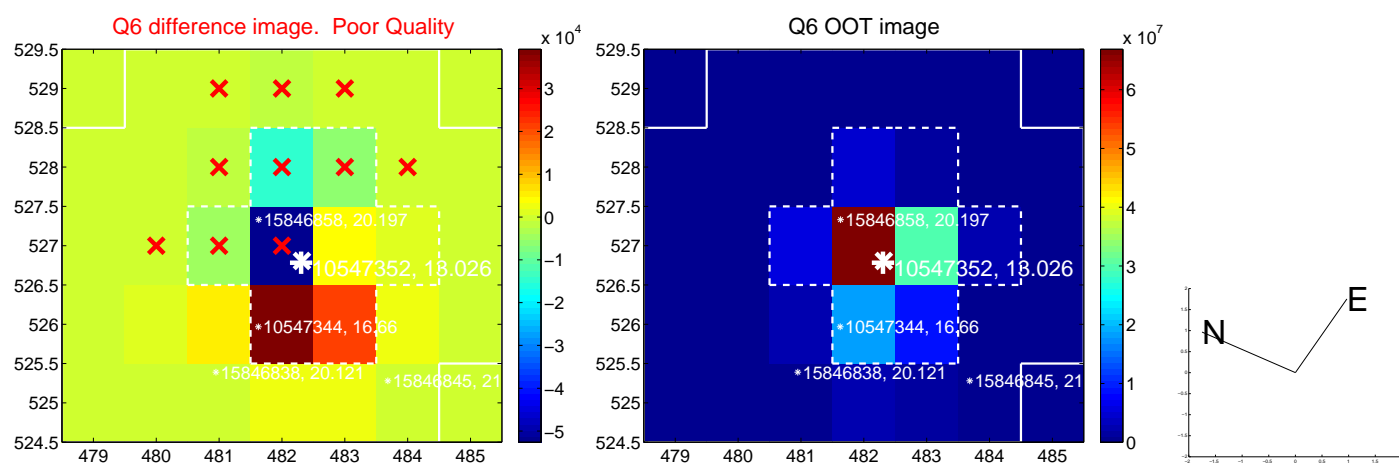
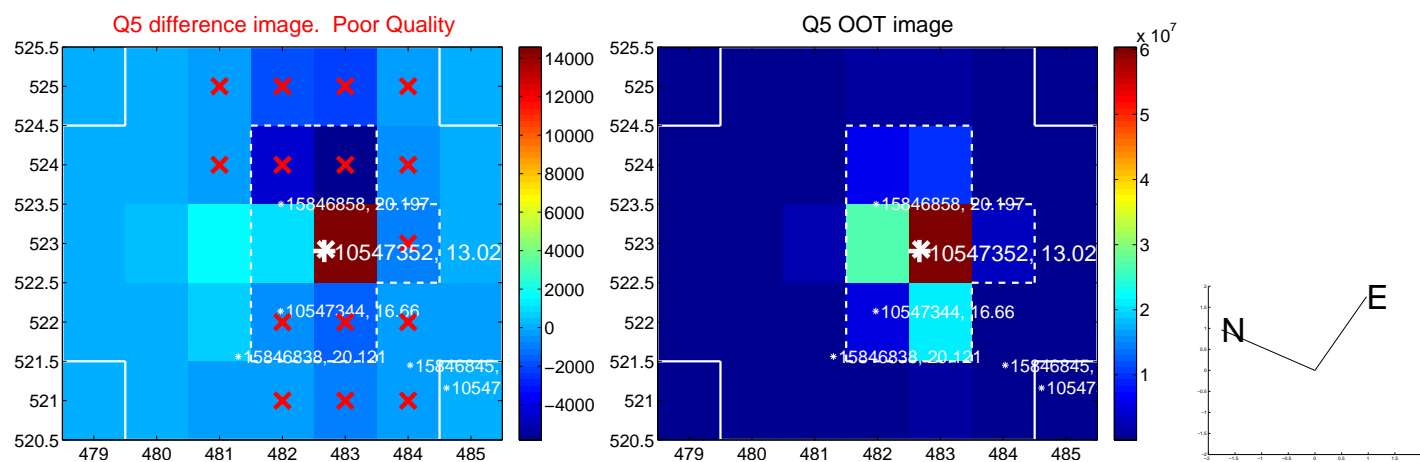


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

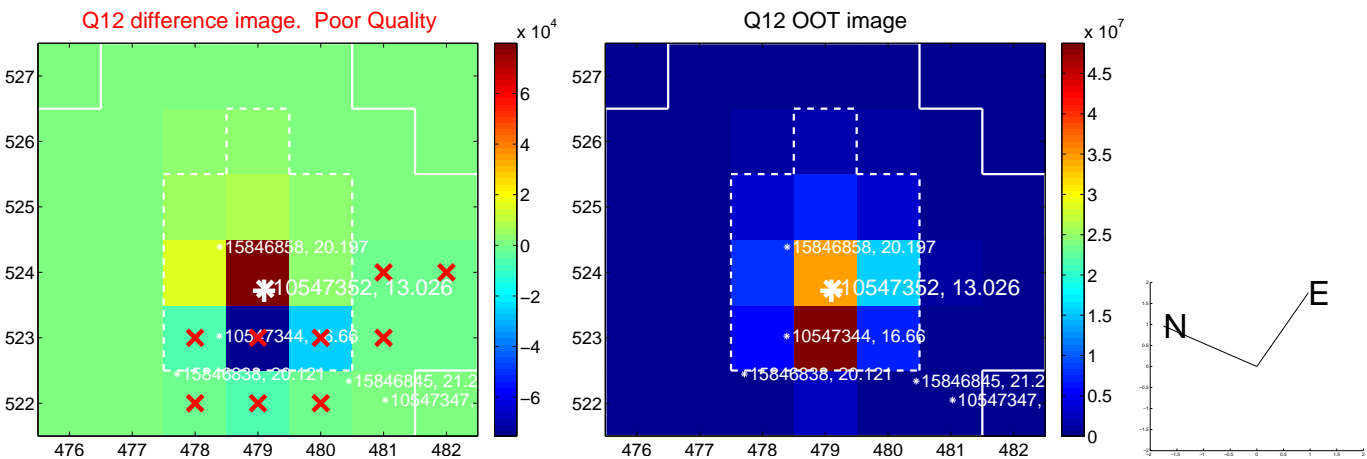
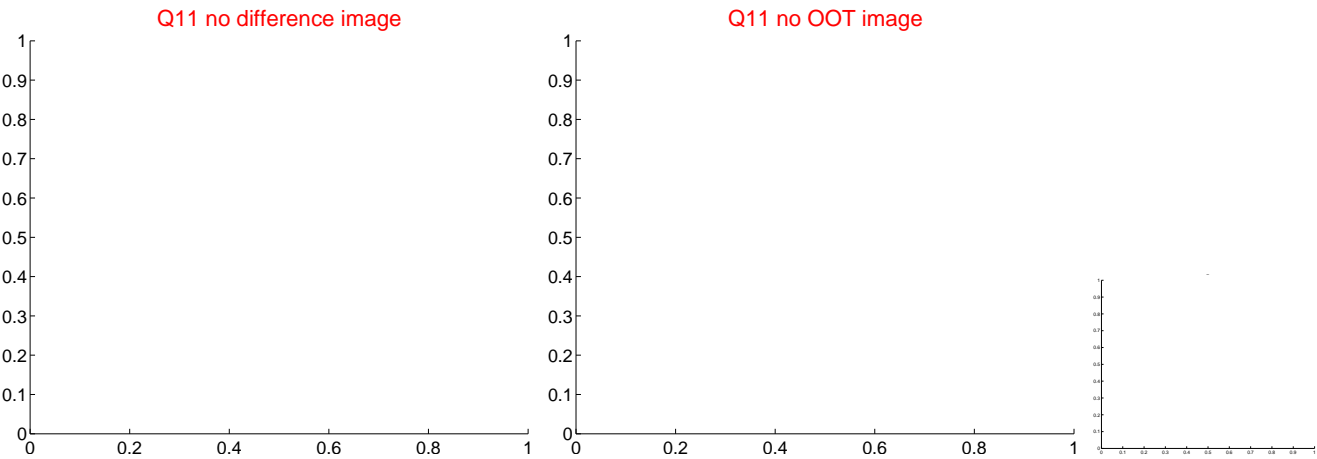
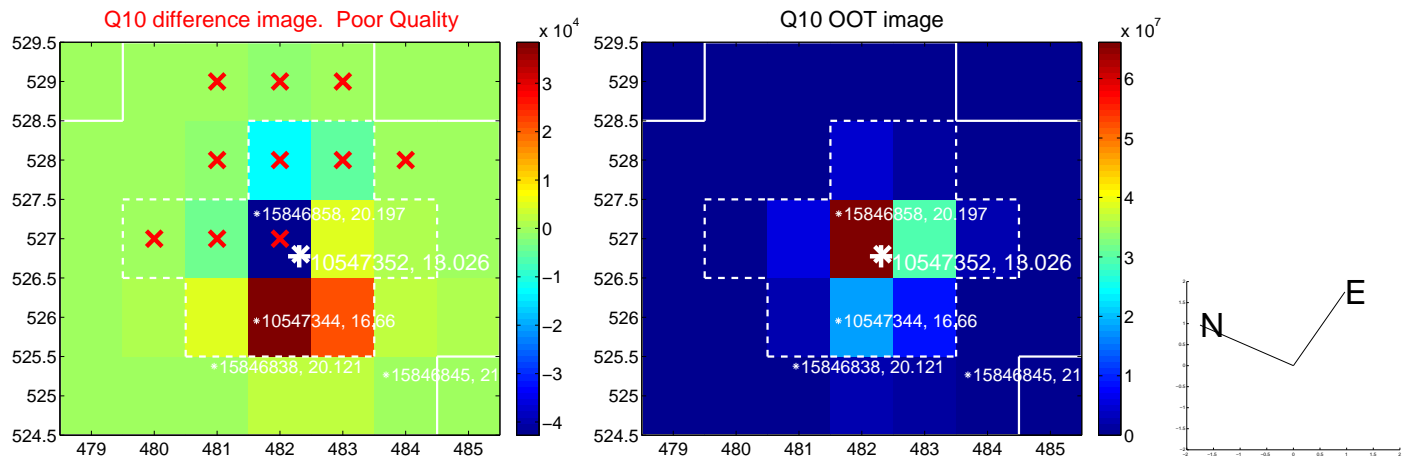
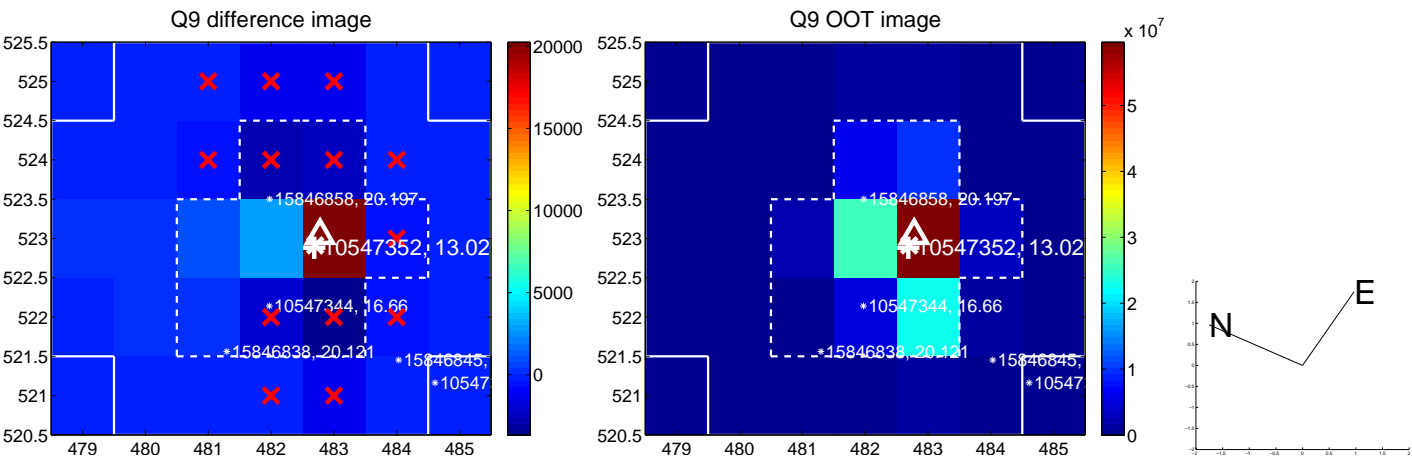
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



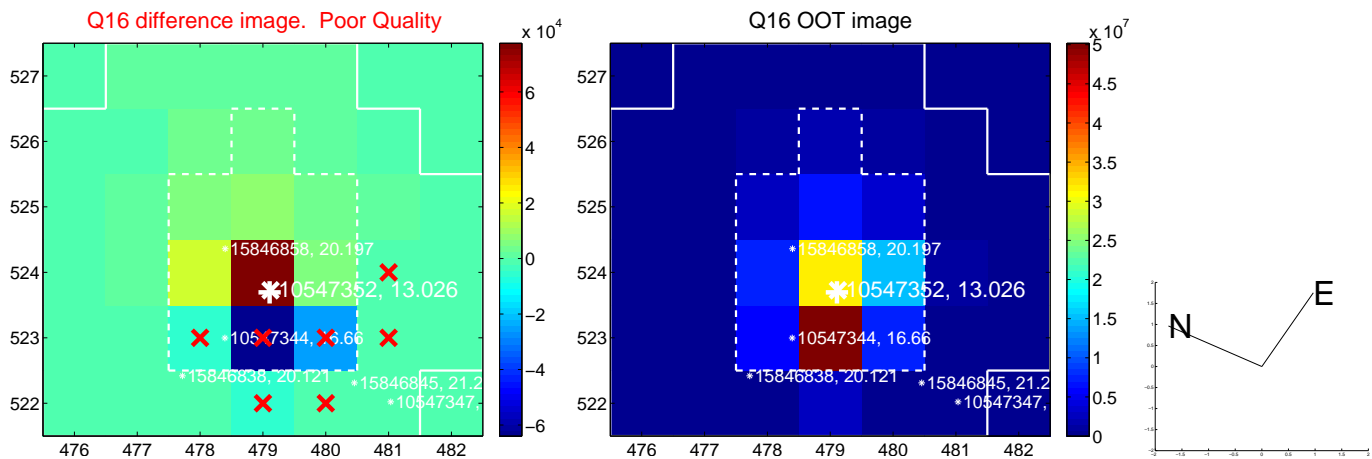
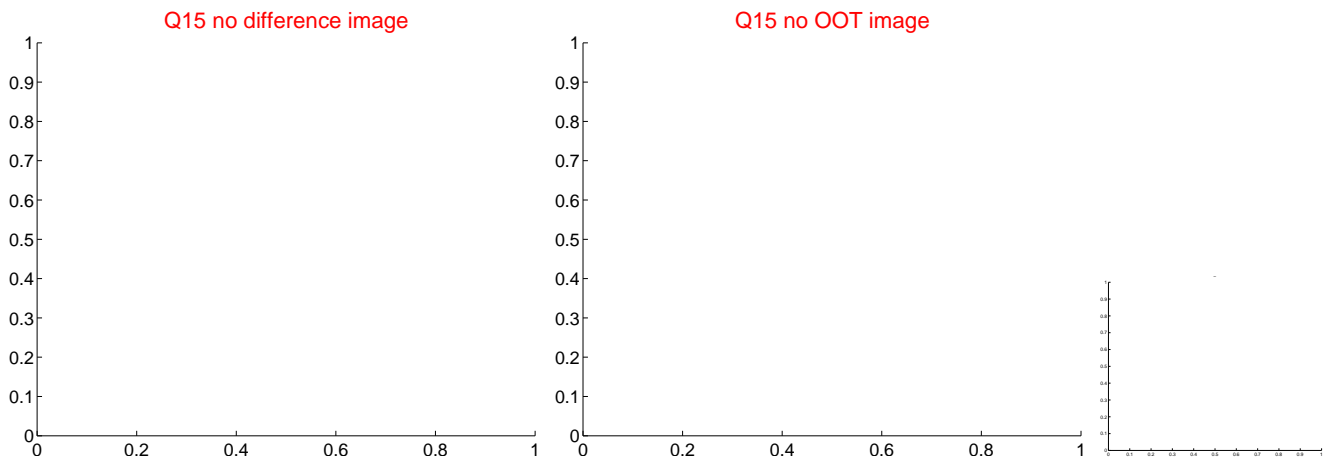
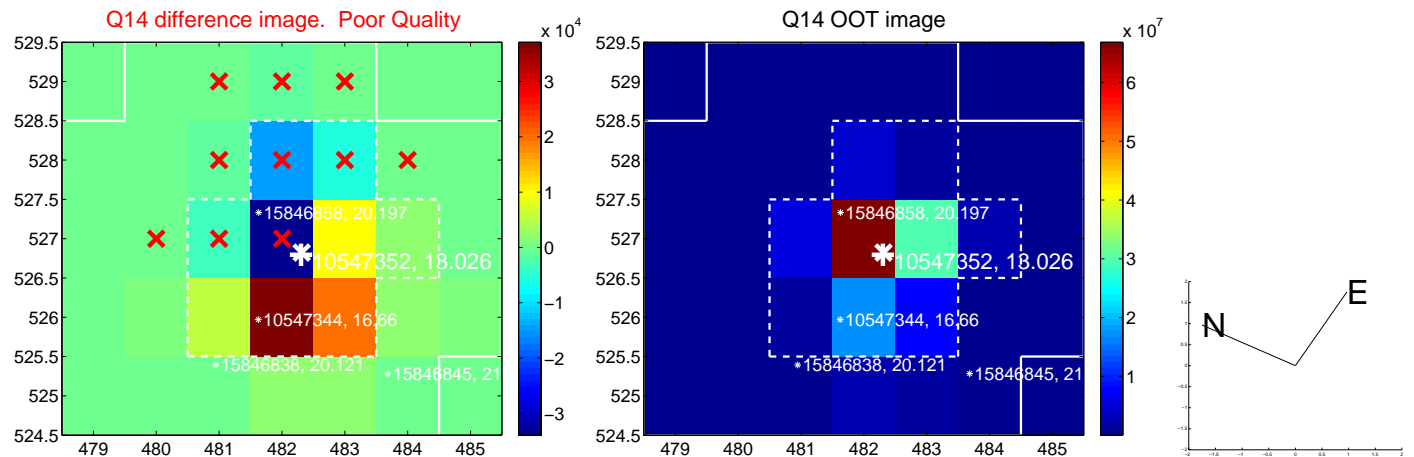
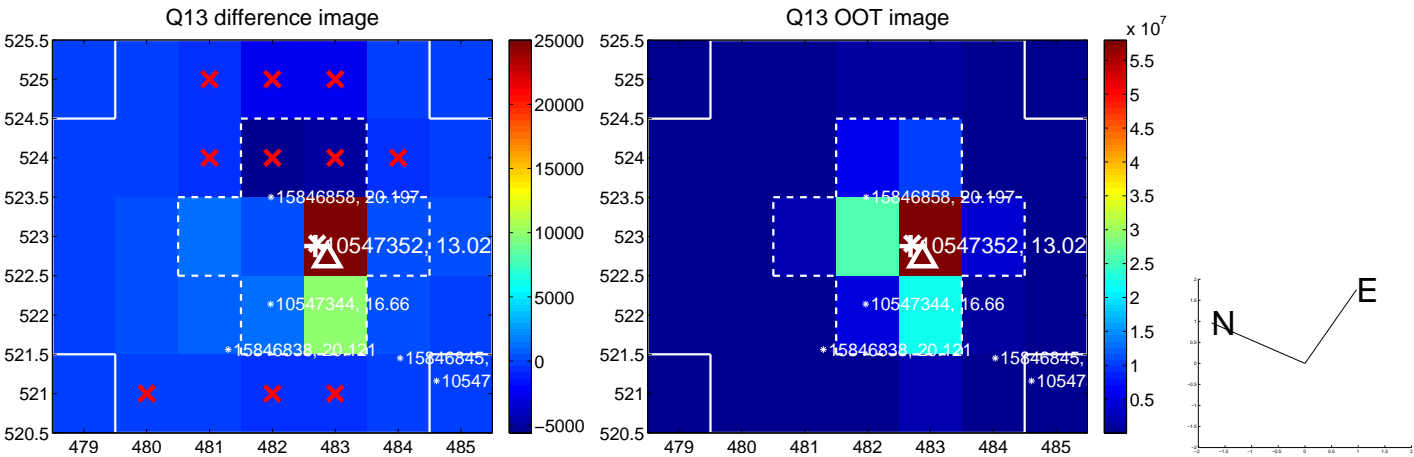
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



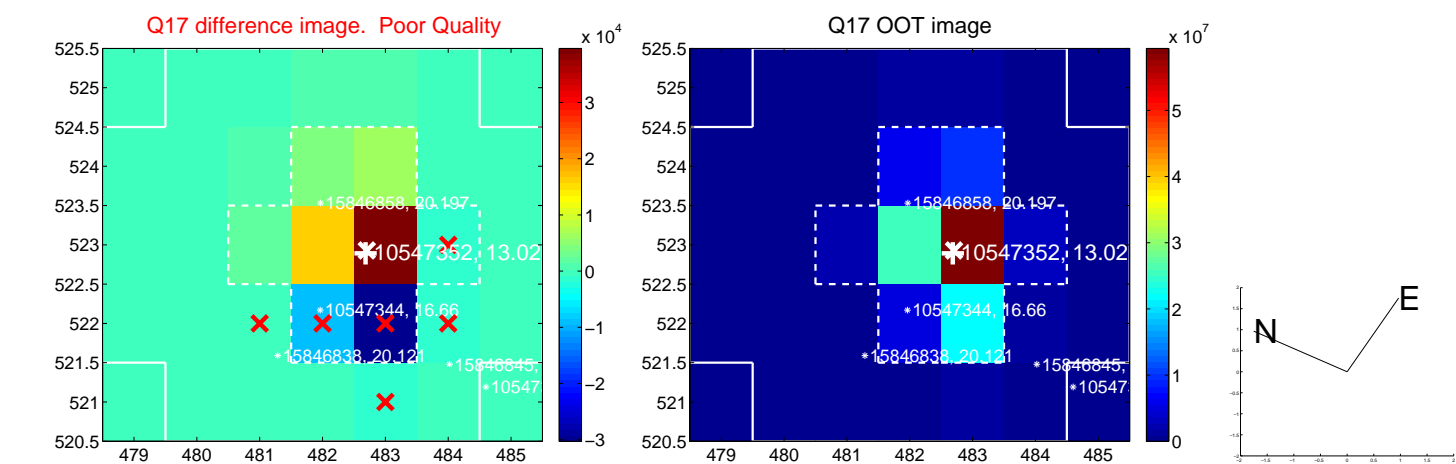
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



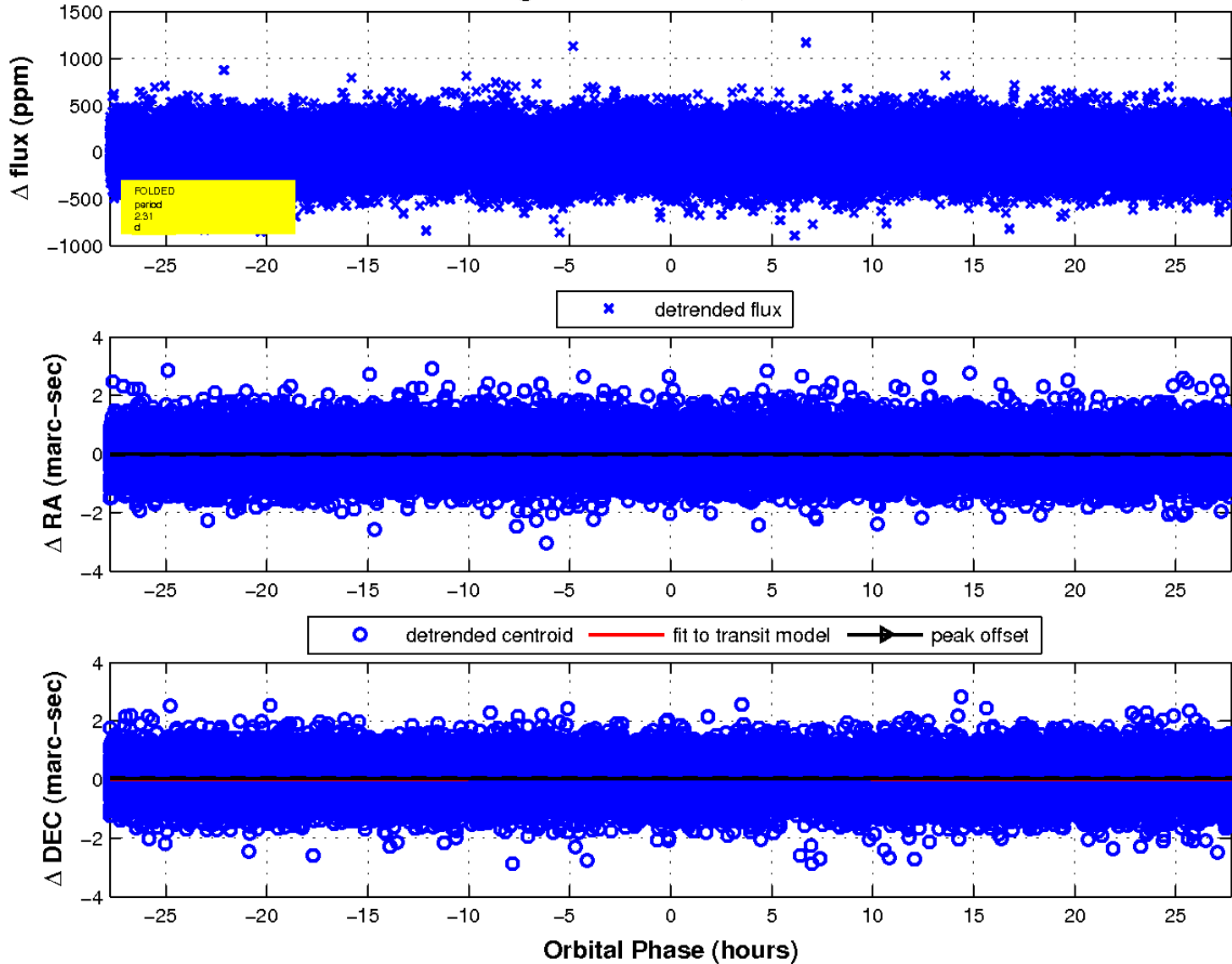
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

