

KIC 006547322

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})
006547322-01	OBS	7786.01	1.491277	132.187018	21.4	4.108	7.7	7.4	2.43	6014	1.28	8880.18

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006547322-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET—HALO_GHOST

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

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

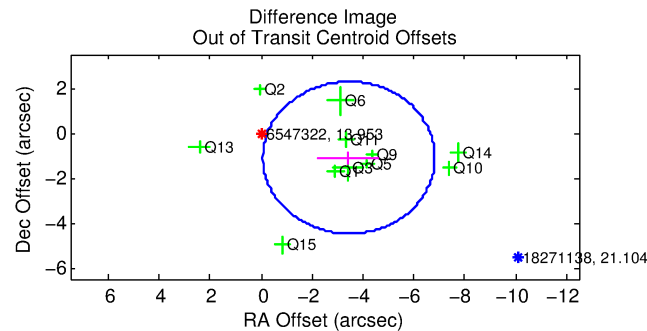
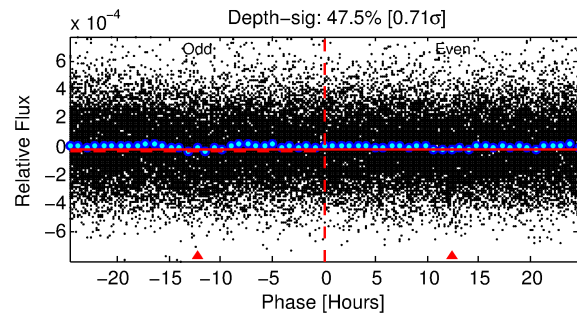
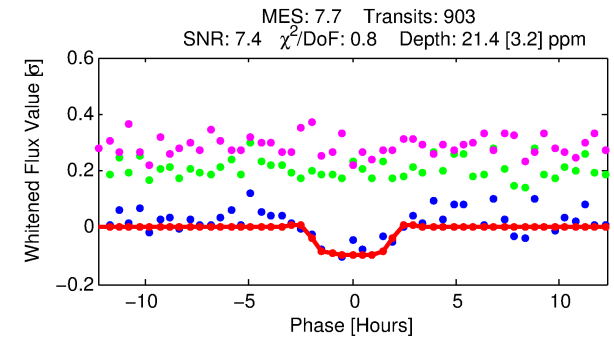
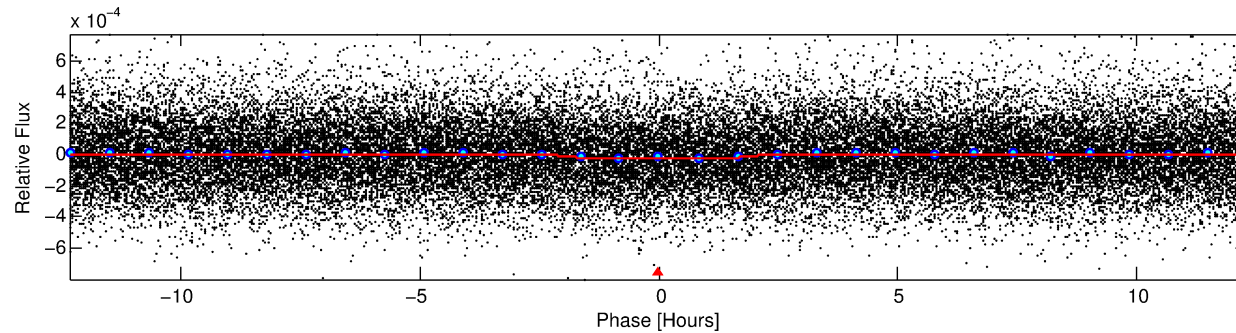
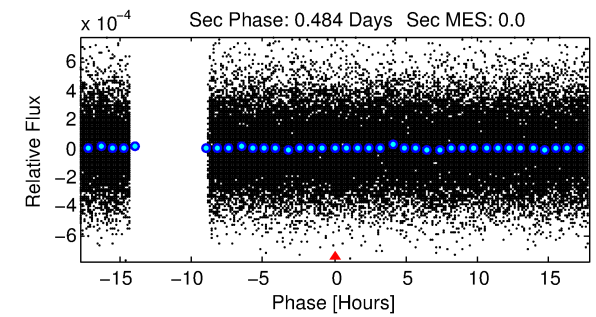
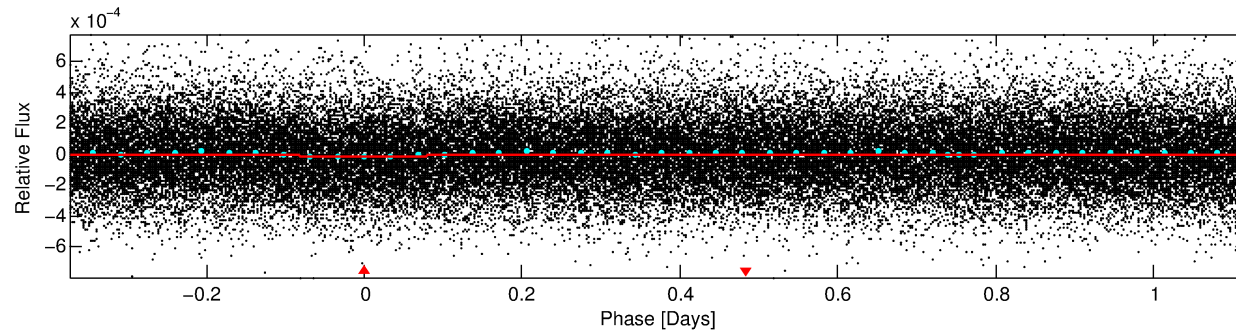
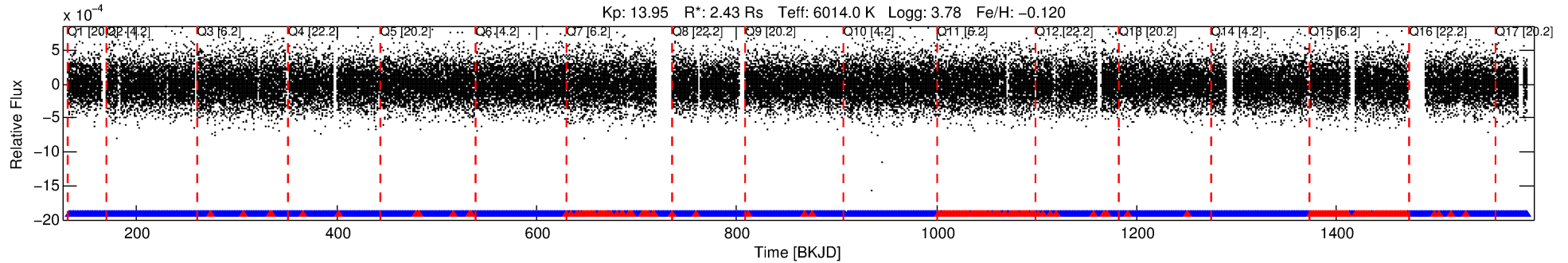
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006547322-01

No Significant Match Found

DV One-Page Summary

KIC: 6547322 Candidate: 1 of 1 Period: 1.491 d



DV Fit Results:

Period = 1.49128 [0.00002] d
 Epoch = 132.1870 [0.0069] BKJD
 Rp/R* = 0.0048 [0.0024]
 a/R* = 1.73 [2.91]
 b = 0.85 [0.82]
 Seff = 8880.18 [8625.10]
 Teq = 2475 [601] K
 Rp = 1.28 [0.95] Re
 a = 0.0279 [0.0161] AU
 Ag = N/A
 Tefp = N/A

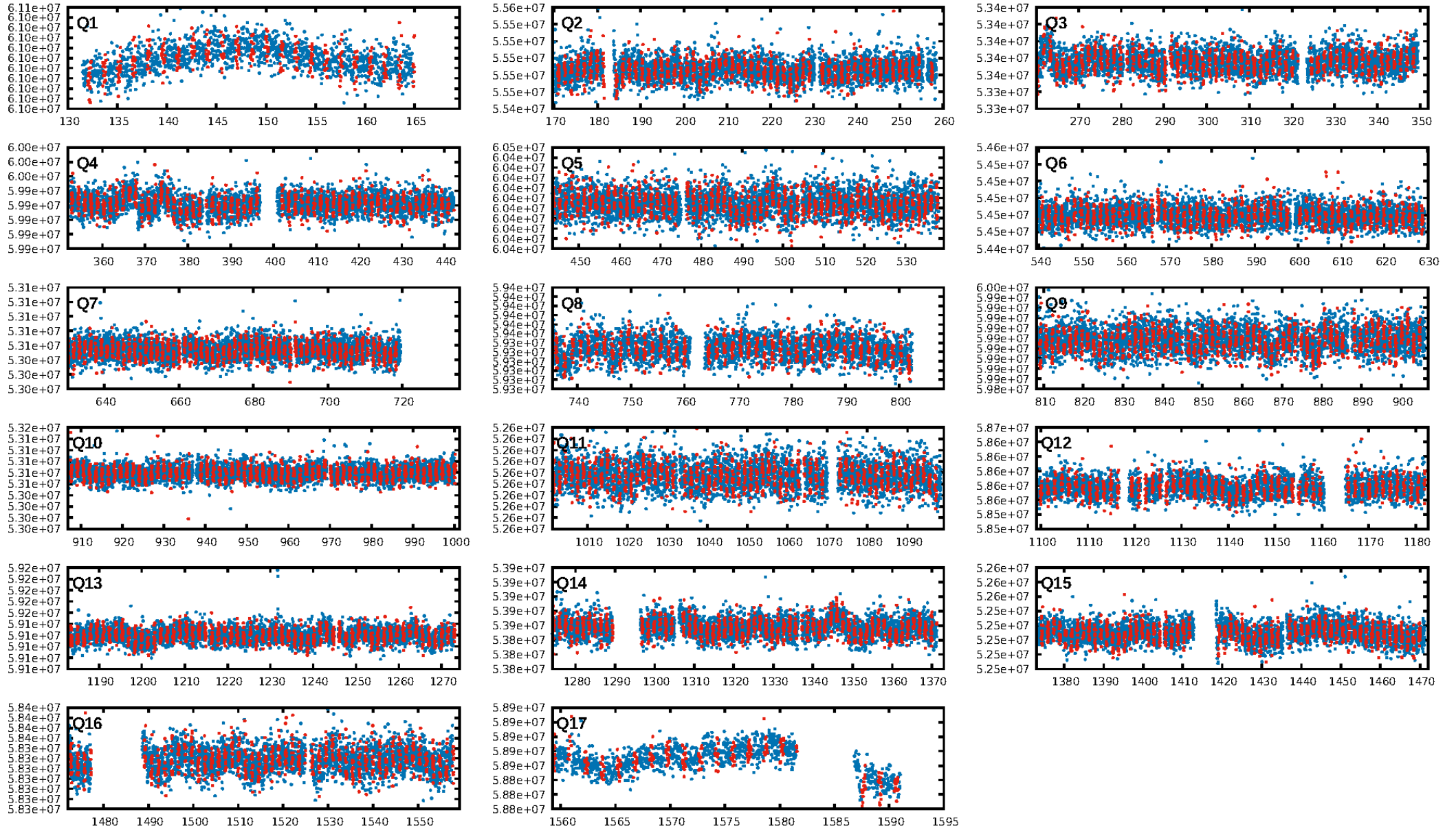
DV Diagnostic Results:

ShortPeriod-sig: N/A
 LongPeriod-sig: N/A
 ModelChiSquare2-sig: N/A
 ModelChiSquareGof-sig: N/A
 Bootstrap-pfa: 1.04e-13
 RollingBand-fgt: 0.79 [684/862]
 GhostDiagnostic-chr: 0.05771
 Centroid-sig: 0.0%
 Centroid-so: 15.945 arcsec [8.17σ]
 OotOffset-rm: 3.621 arcsec [3.21σ]
 KicOffset-rm: 3.711 arcsec [3.32σ]
 OotOffset-st: 4/3/0/4 [11]
 KicOffset-st: 4/3/0/4 [11]
 DiffImageQuality-fgm: 0.18 [2/11]
 DiffImageOverlap-fno: 1.00 [17/17]

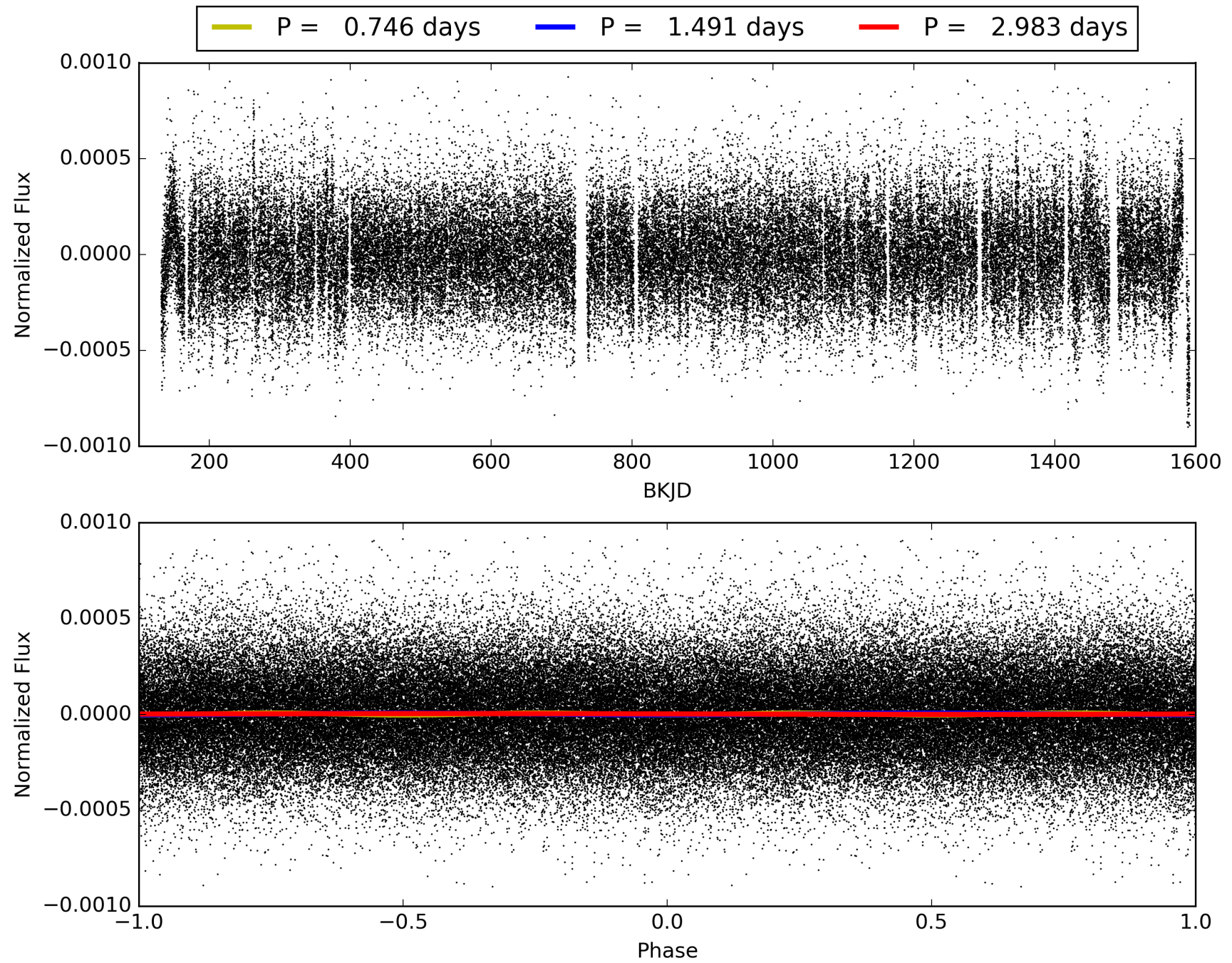
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:51:01 Z

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

TCE 006547322-01, PDC Light Curves

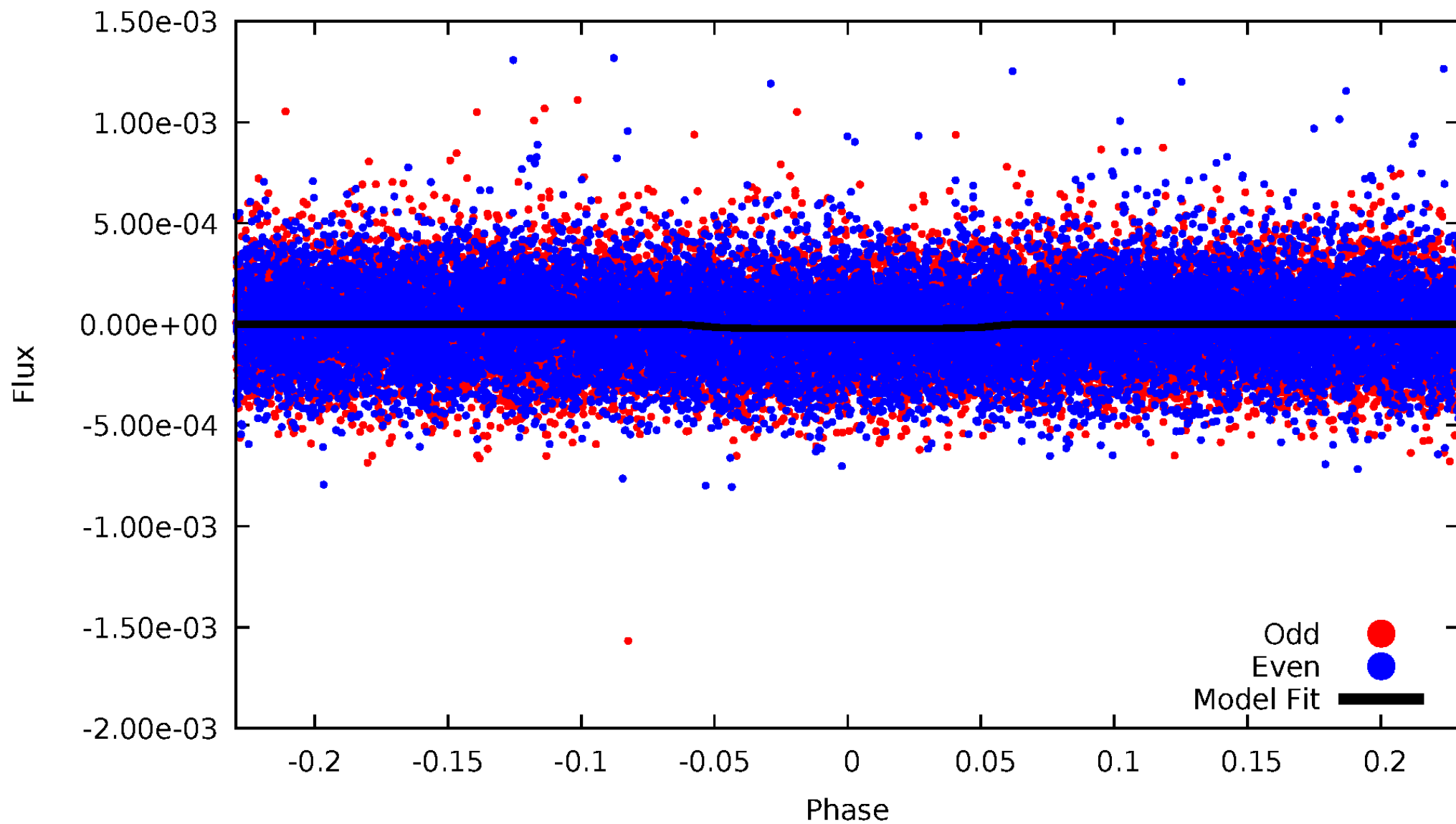


TCE 006547322-01



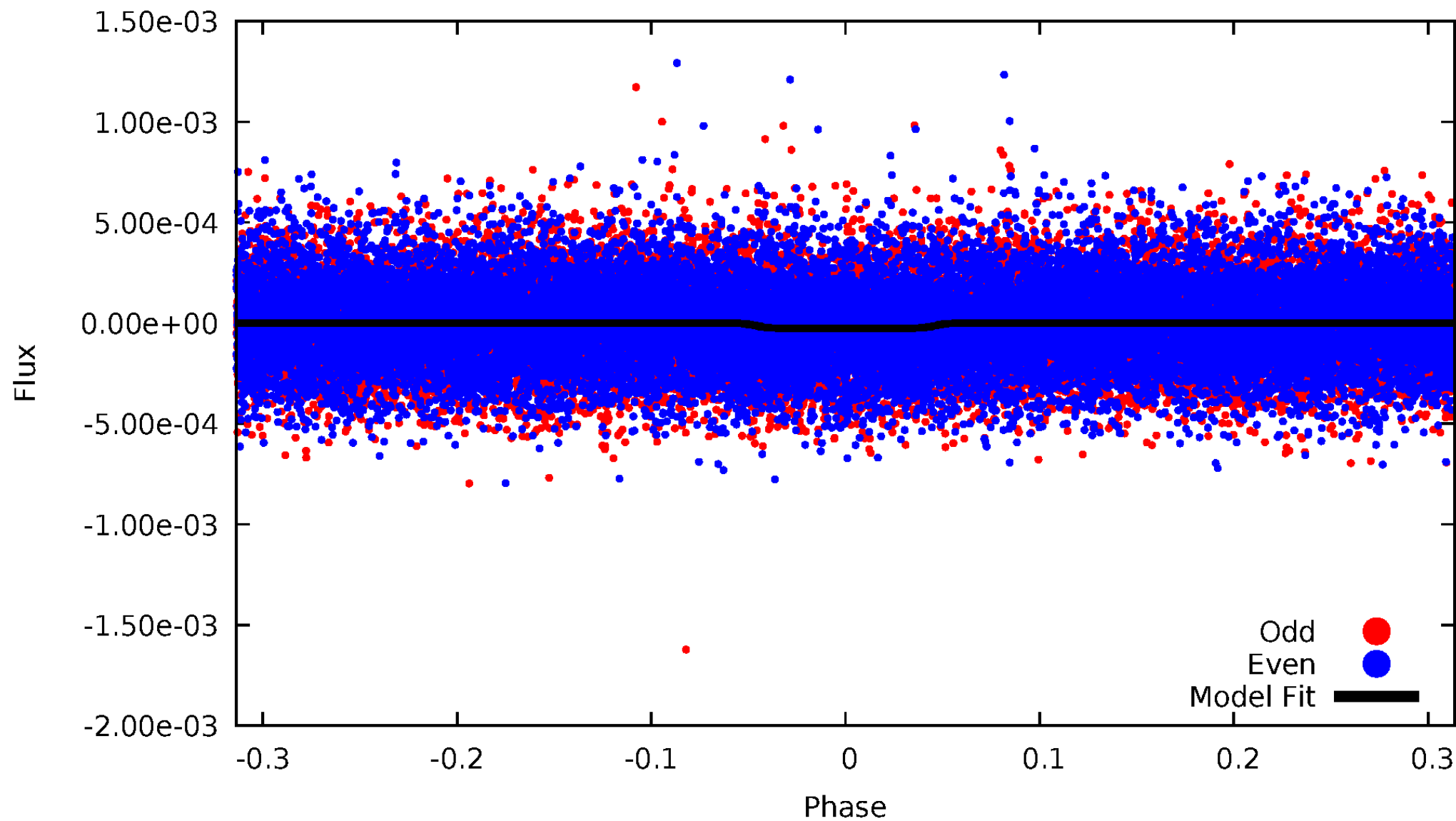
DV Odd/Even

TCE 006547322-01



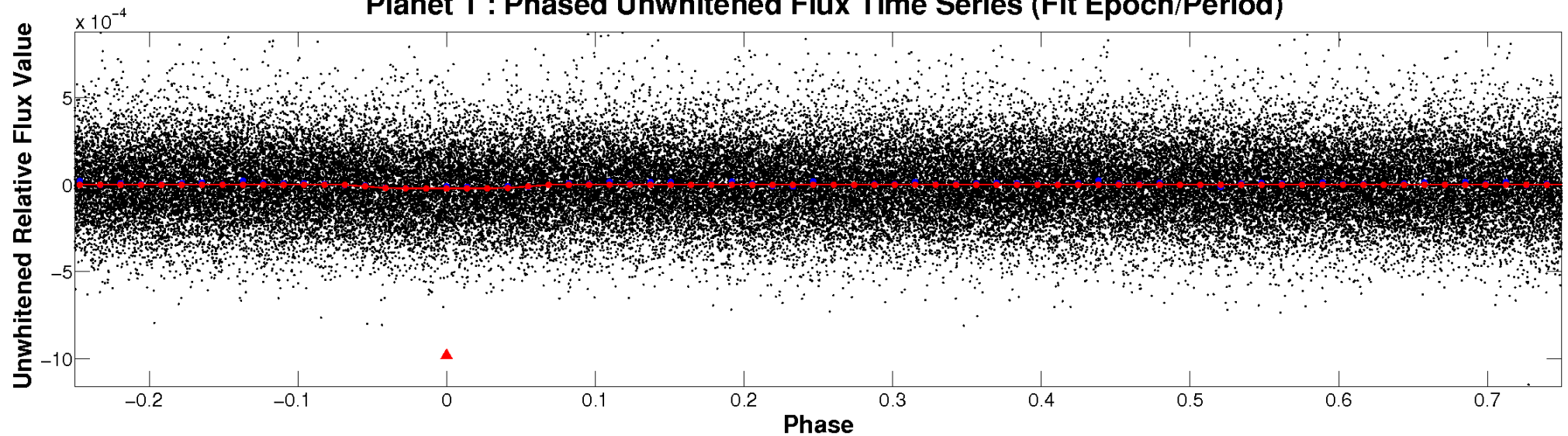
ALT Odd/Even

TCE 006547322-01

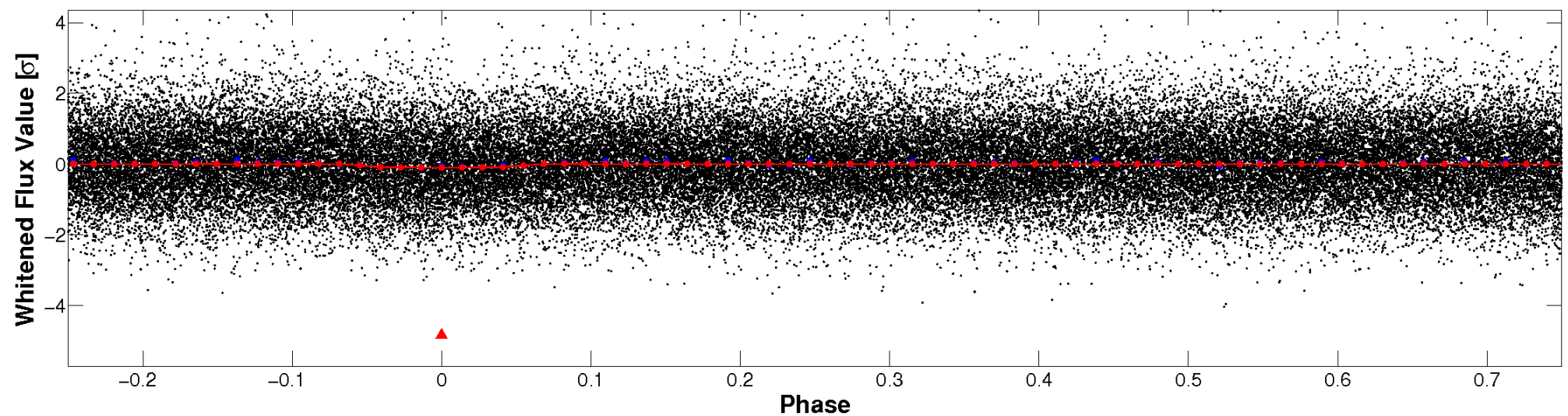


Non-Whitened Vs. Whitened Light Curve

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

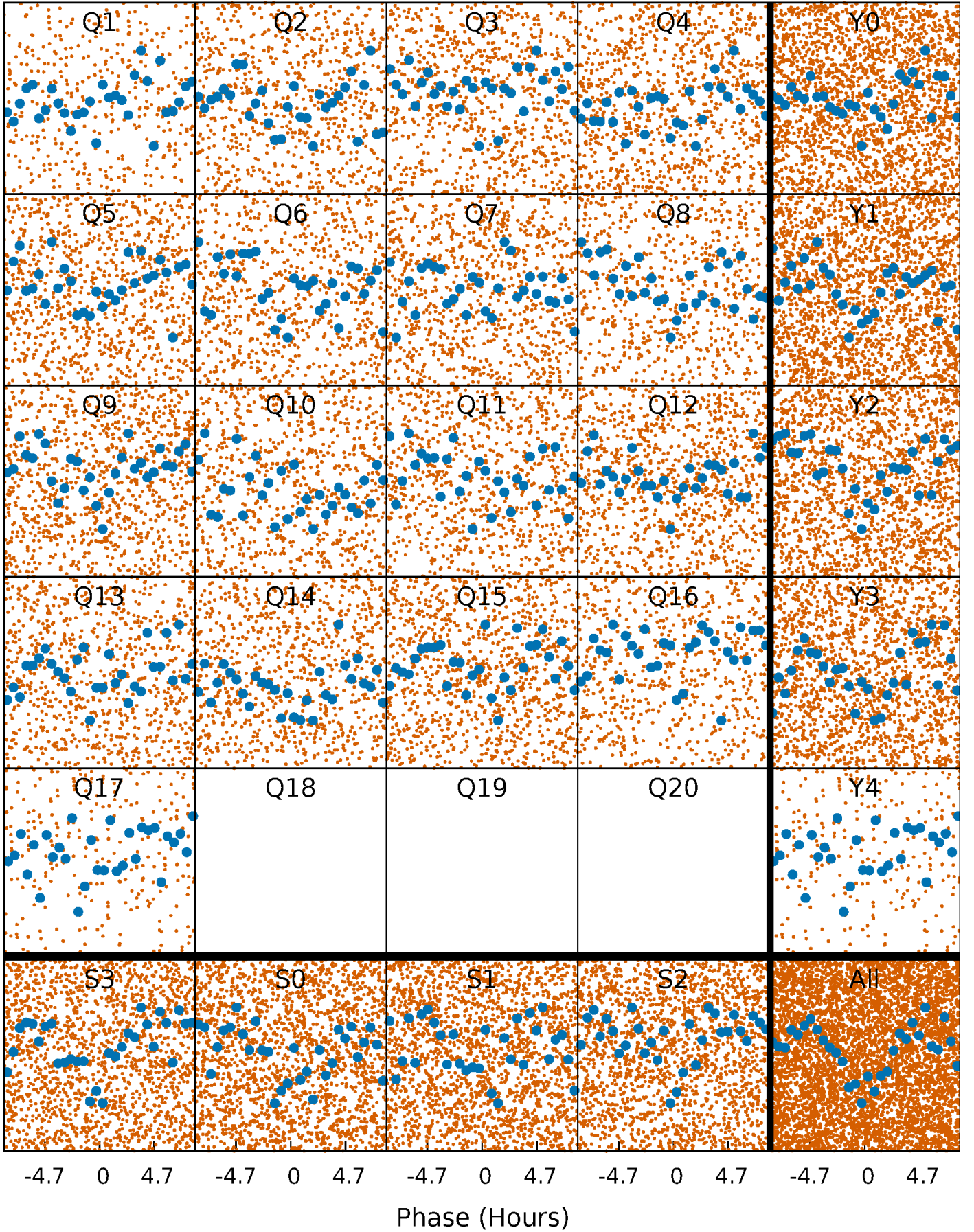


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



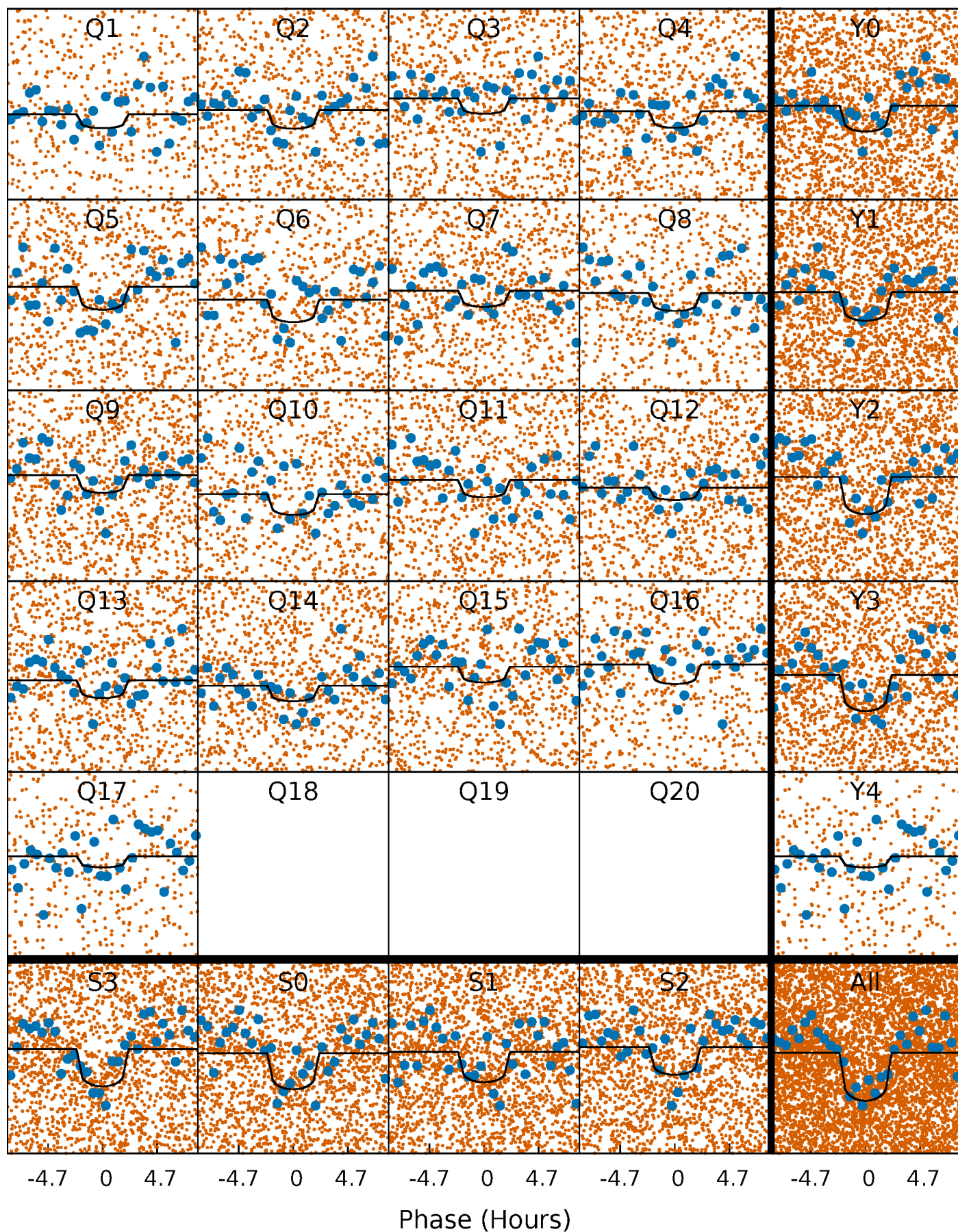
PDC Quarter-Phased Transit Curves

TCE 006547322-01 P= 1.491277 Days $T_0=132.187018$ (BKJD)



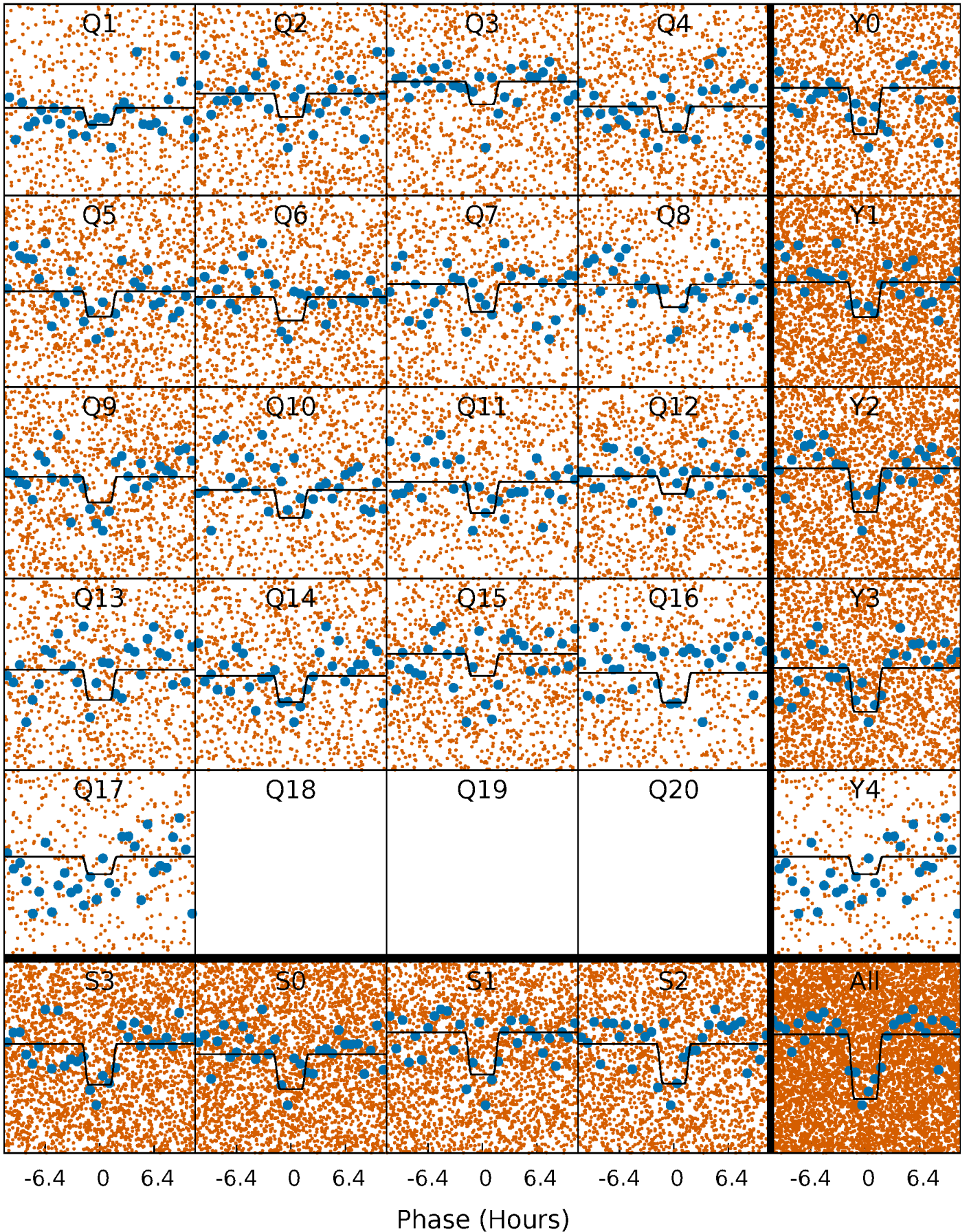
DV Quarter-Phased Transit Curves

TCE 006547322-01 P= 1.491277 Days $T_0=132.187018$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

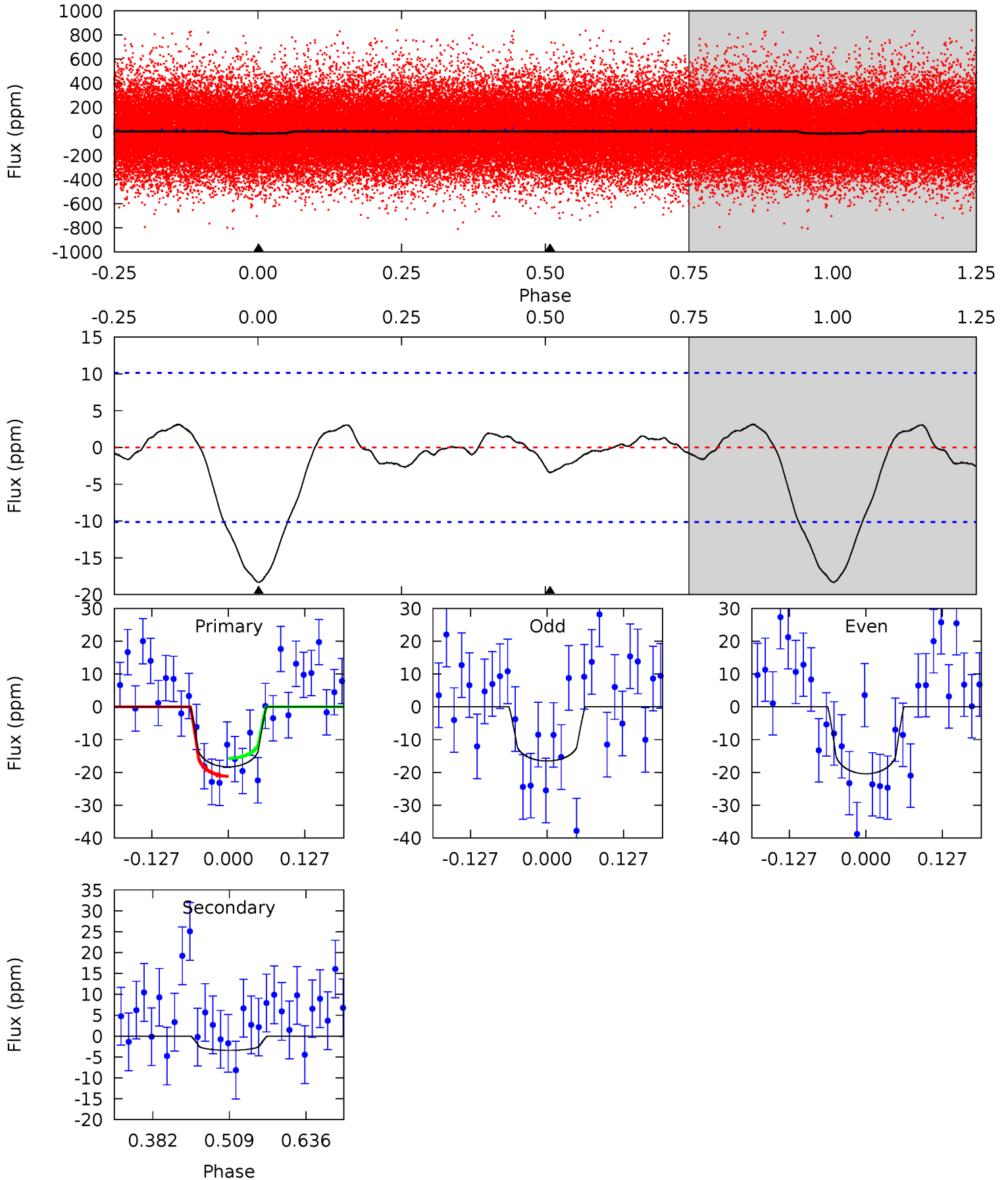
TCE 006547322-01 P= 1.491340 Days $T_0=132.152564$ (BKJD)



DV Model-Shift Uniqueness Test

006547322-01, P = 1.491277 Days, E = 130.695741 Days

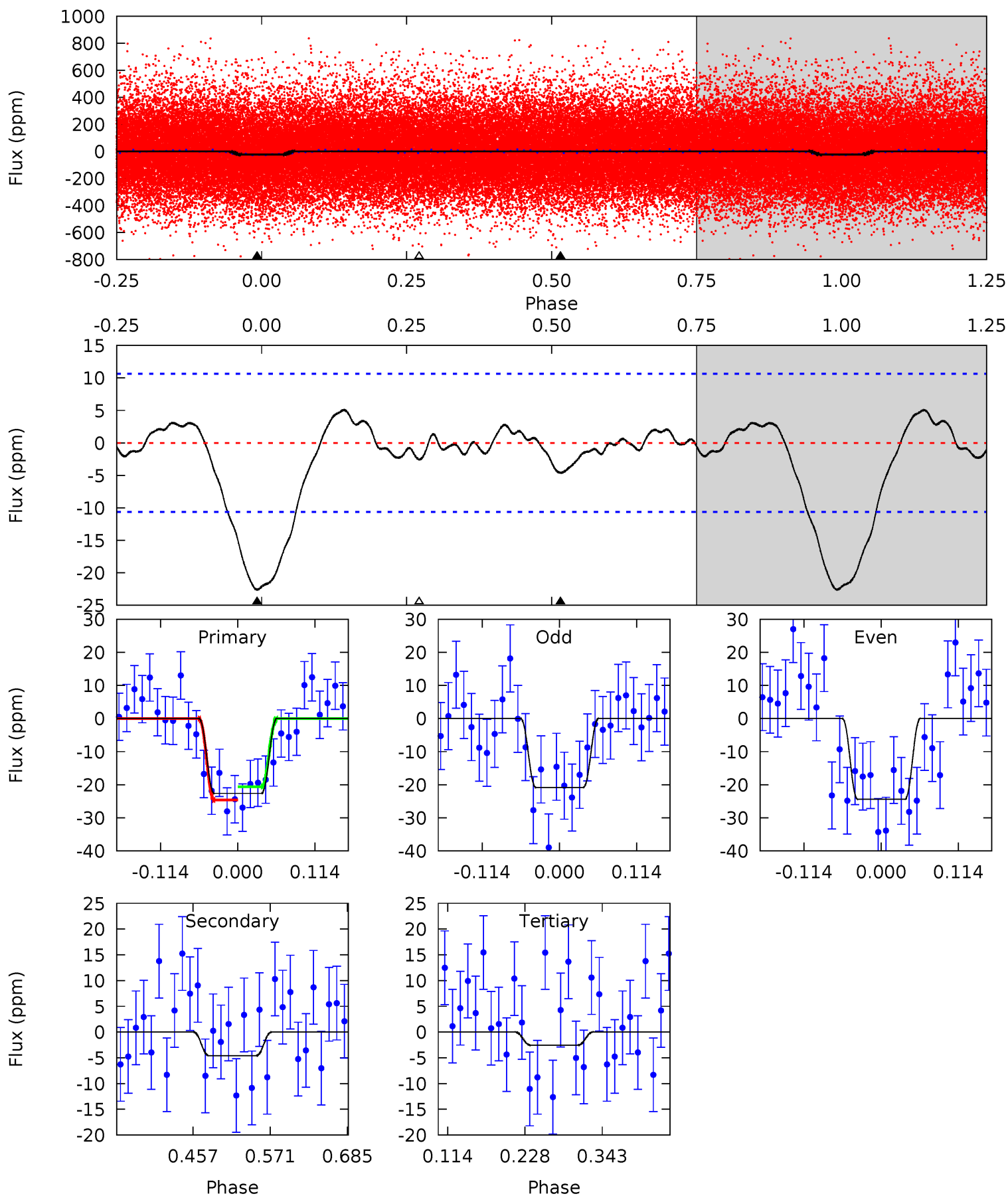
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.16	1.52	0	0	4.51	1.53	0.70	8.16	8.16	1.52	1.52	0.87	0.94	0.15	1.22



Alt Model-Shift Uniqueness Test

006547322-01, P = 1.491340 Days, E = 130.661224 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.64	1.96	1.09	0	4.54	1.58	0.82	8.55	9.64	0.87	1.96	0.75	1.05	0.18	0.85



Stellar Parameters For KIC 006547322

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6014^{+192}_{-213}	$3.782^{+0.578}_{-0.136}$	$-0.120^{+0.300}_{-0.300}$	$2.429^{+0.537}_{-1.344}$	$1.303^{+0.185}_{-0.343}$	$0.128^{+0.857}_{-0.052}$
	+3%/-4%	+15%/-4%	+250%/-250%	+22%/-55%	+14%/-26%	+670%/-41%
Source	PHO1	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 006547322-01 / KOI 7786.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-3 ± 2	$1.11^{+0.70}_{-0.57}$	3364^{+261}_{-501}	3716^{+1307}_{-6216}	$1.063^{+3.312}_{-0.802}$
Alt.	-5 ± 2	$1.18^{+0.69}_{-0.60}$	3365^{+280}_{-503}	3927^{+1373}_{-1133}	$1.244^{+4.444}_{-0.849}$

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 $A_{obs} \gg 1.0$

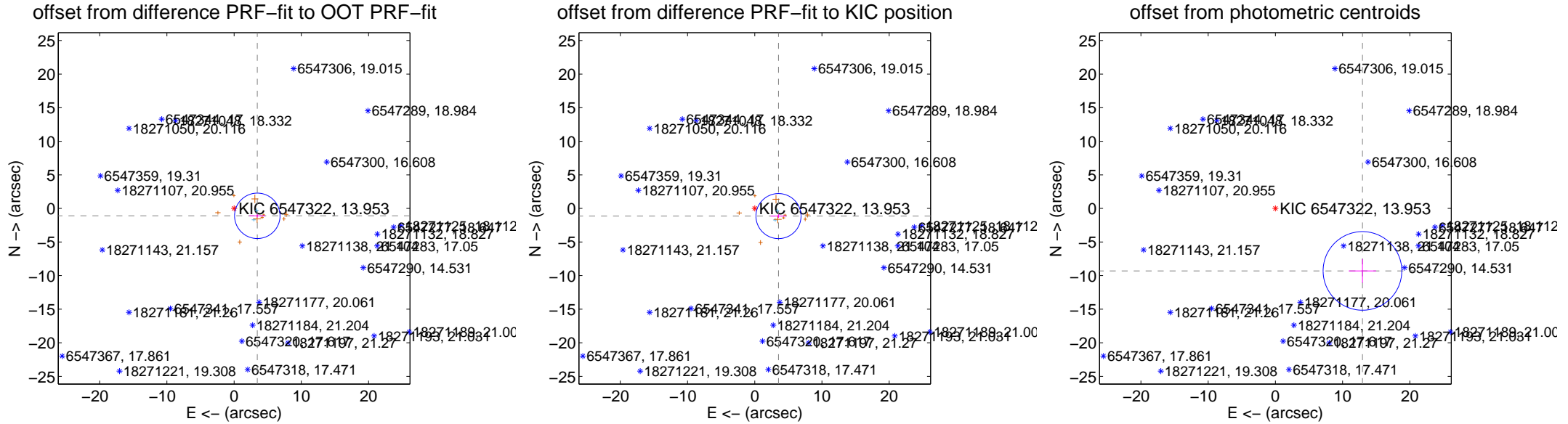
DV Centroid Data

Supplemental centroid analysis for 006547322-01. Kepler magnitude: 13.95. Transit SNR 7.36

There are 2 quarters with good PRF difference image offsets

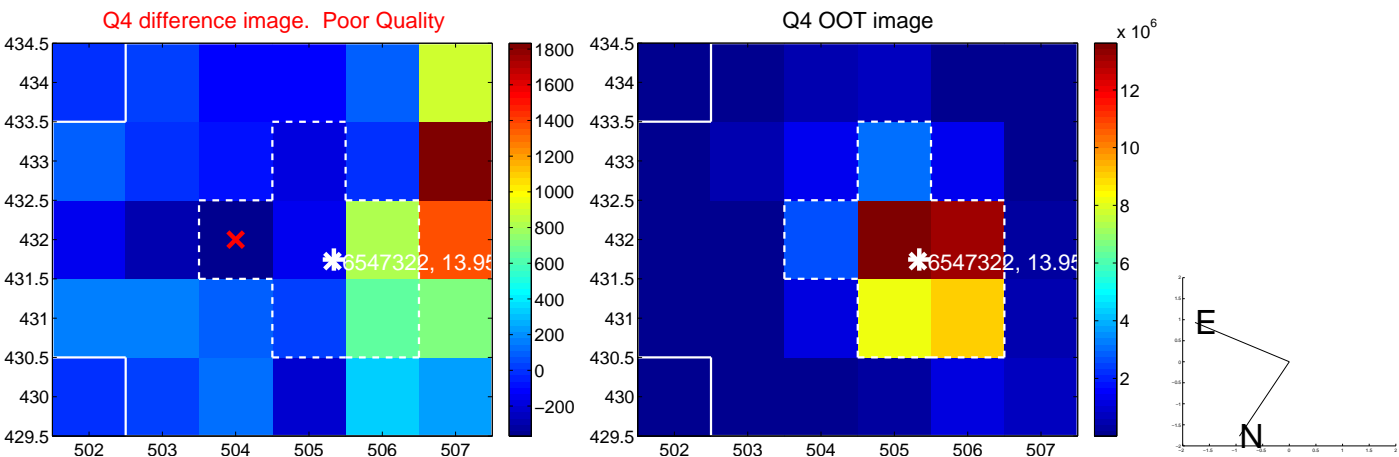
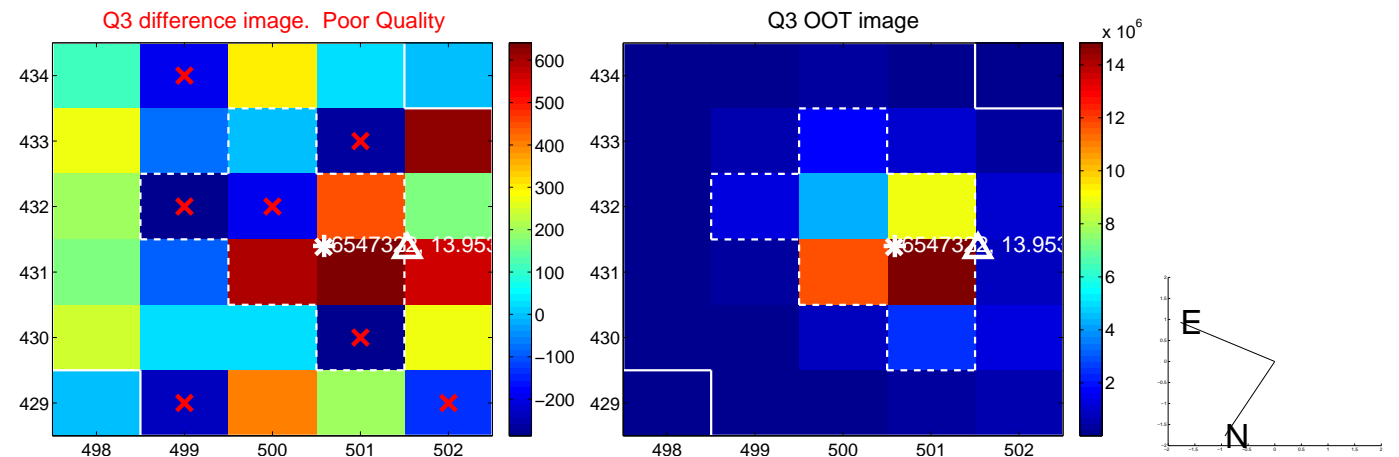
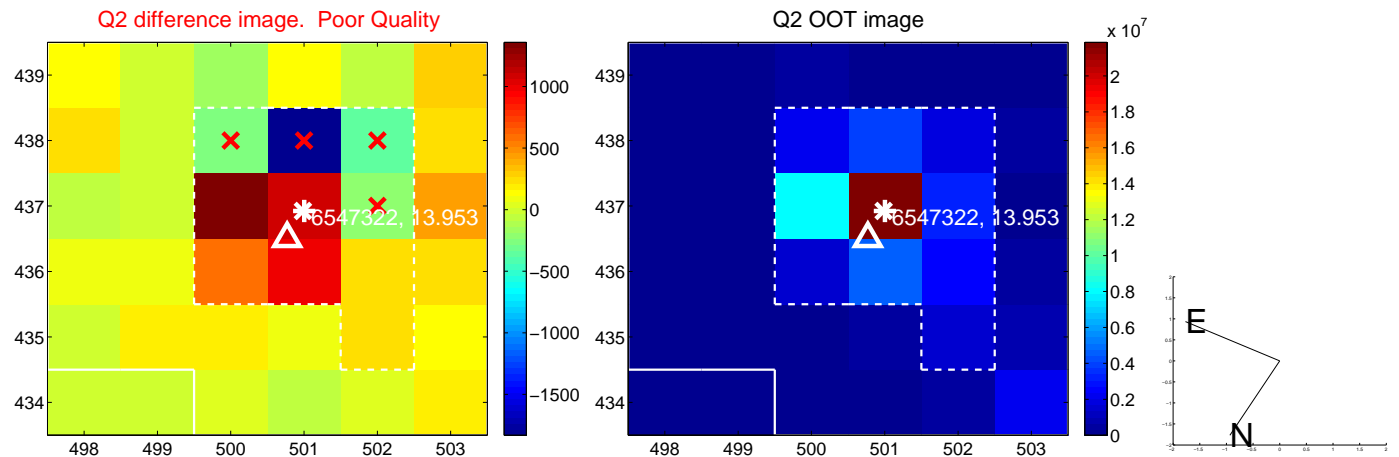
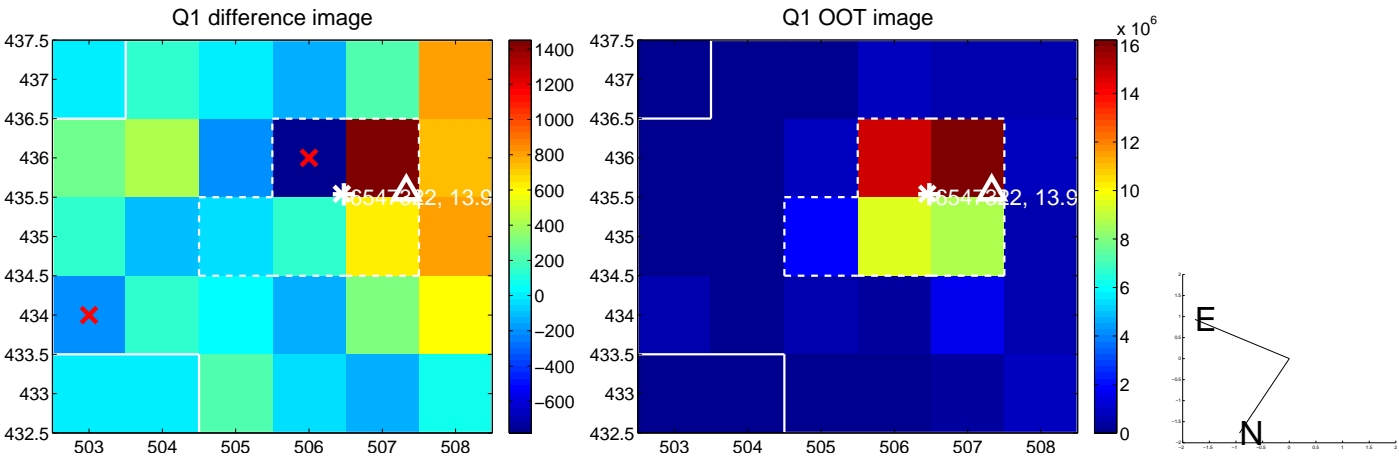
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.621 ± 1.127	3.21	-3.451 ± 1.180	-1.098 ± 0.264
PRF-fit source offset from KIC position	3.711 ± 1.118	3.32	-3.532 ± 1.171	-1.137 ± 0.264
photometric centroid source offset	15.95 ± 1.95	8.17	-12.95 ± 2.04	-9.30 ± 1.77

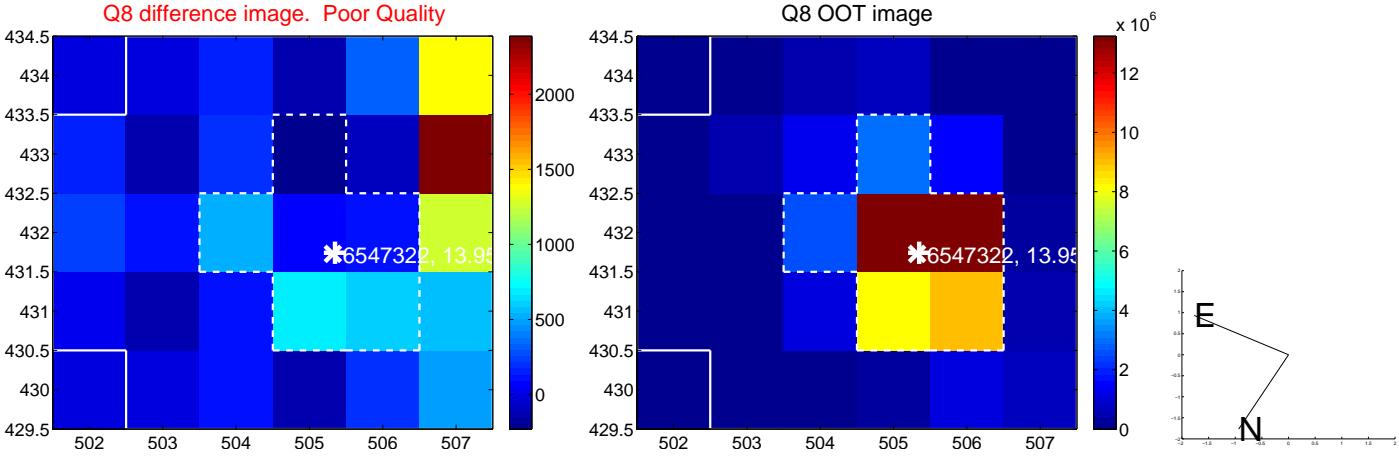
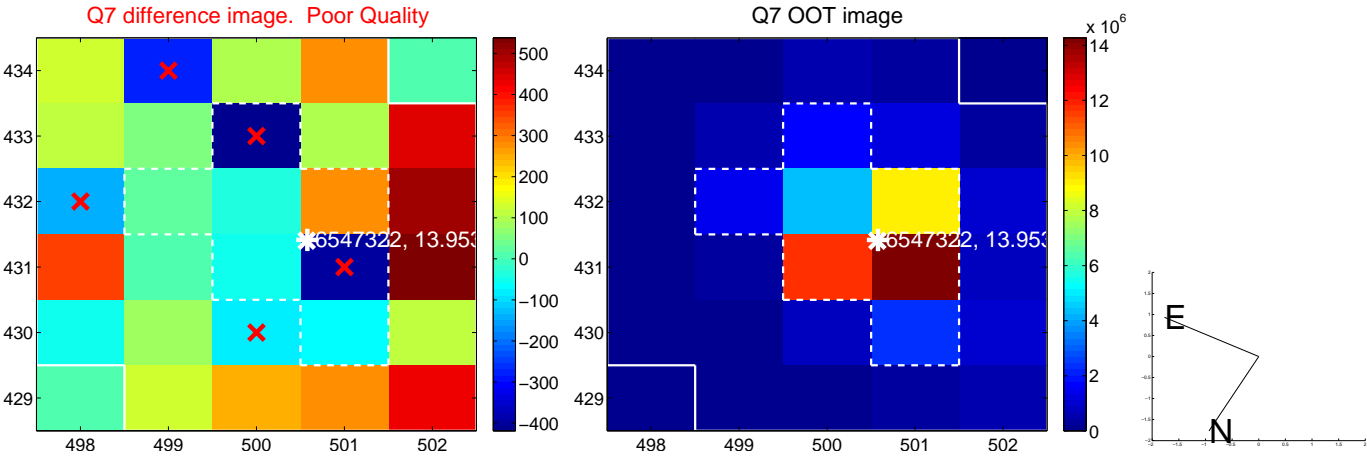
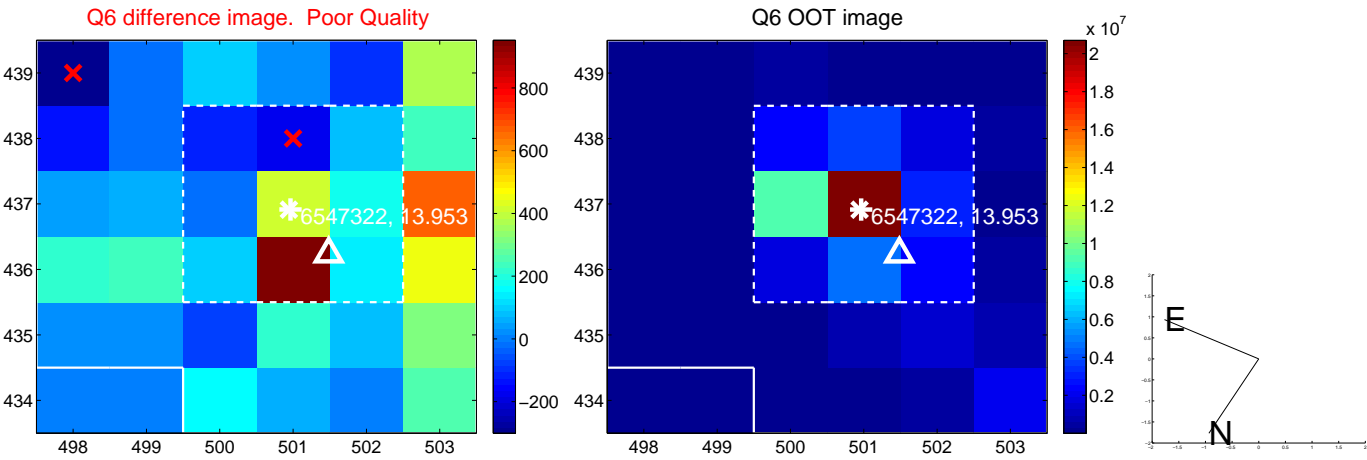
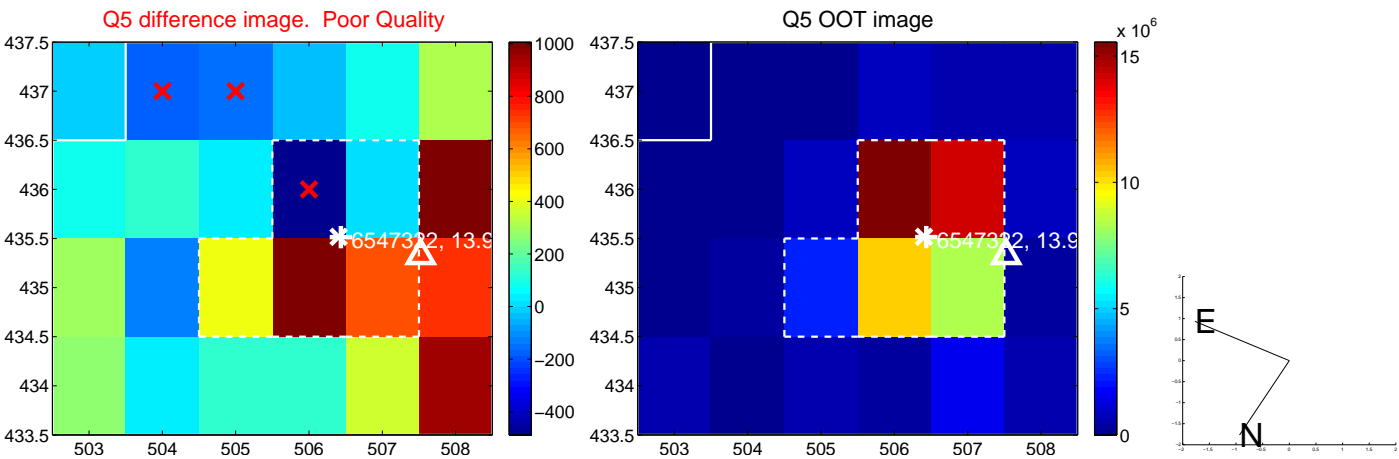


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

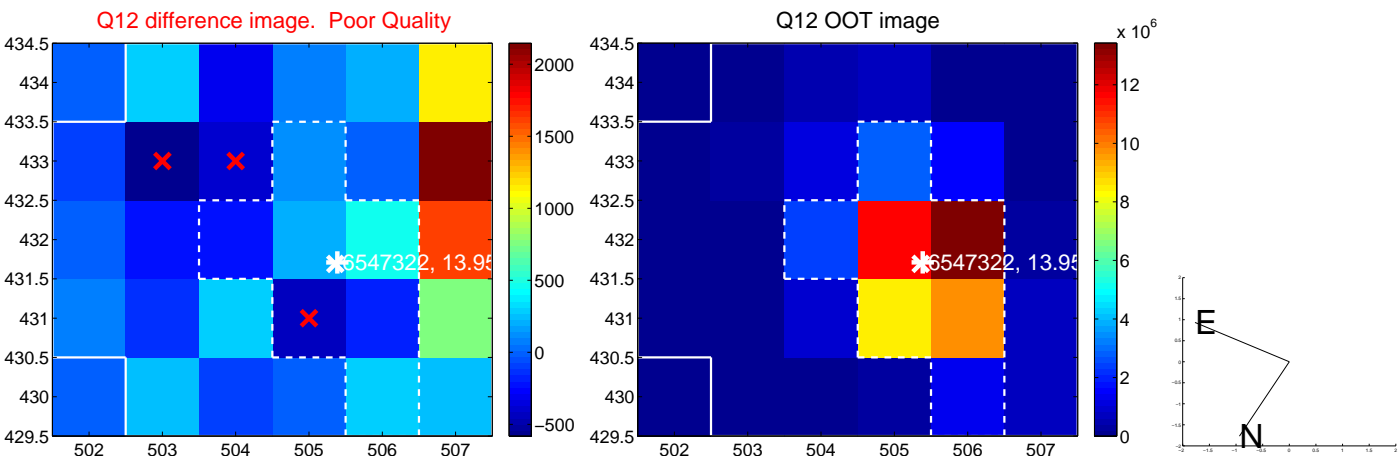
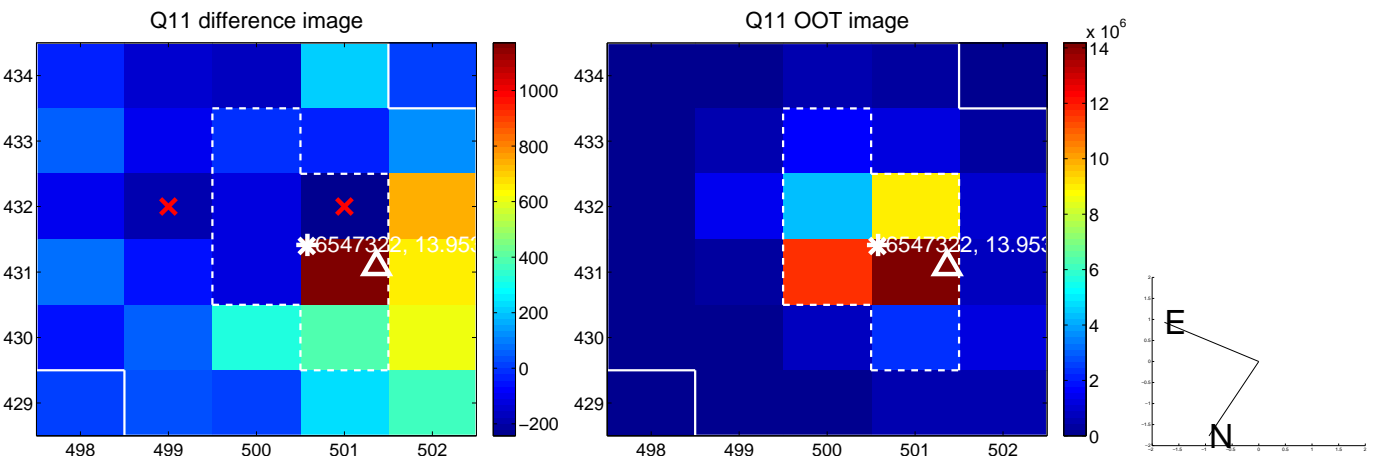
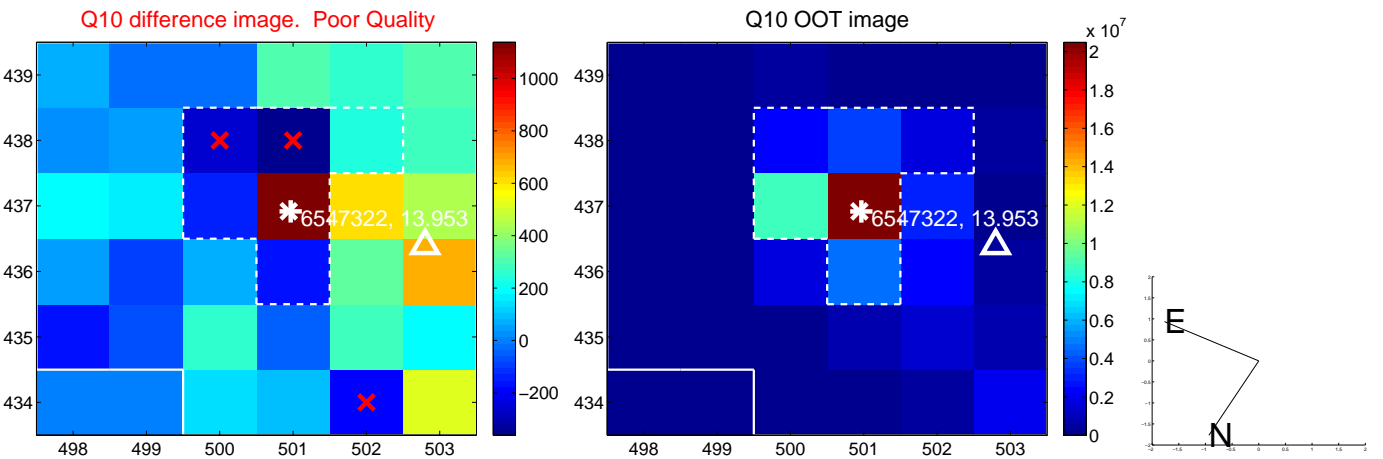
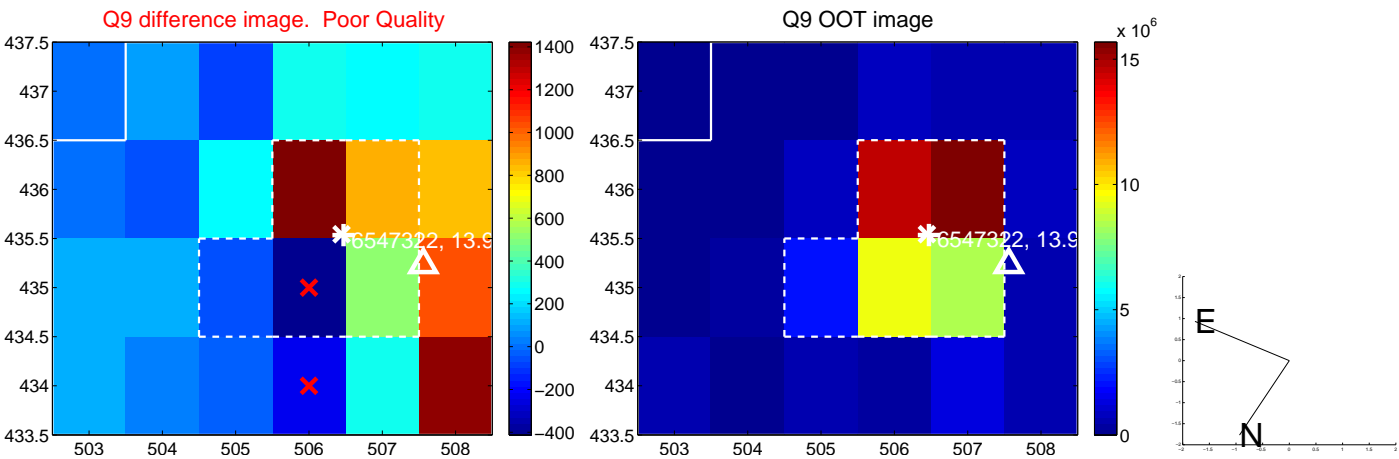
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



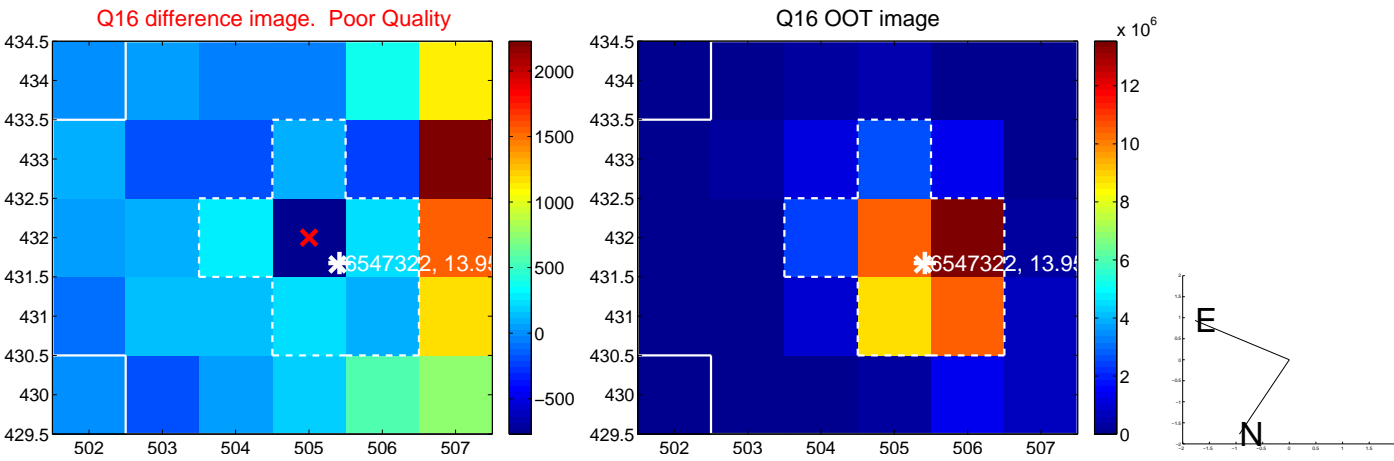
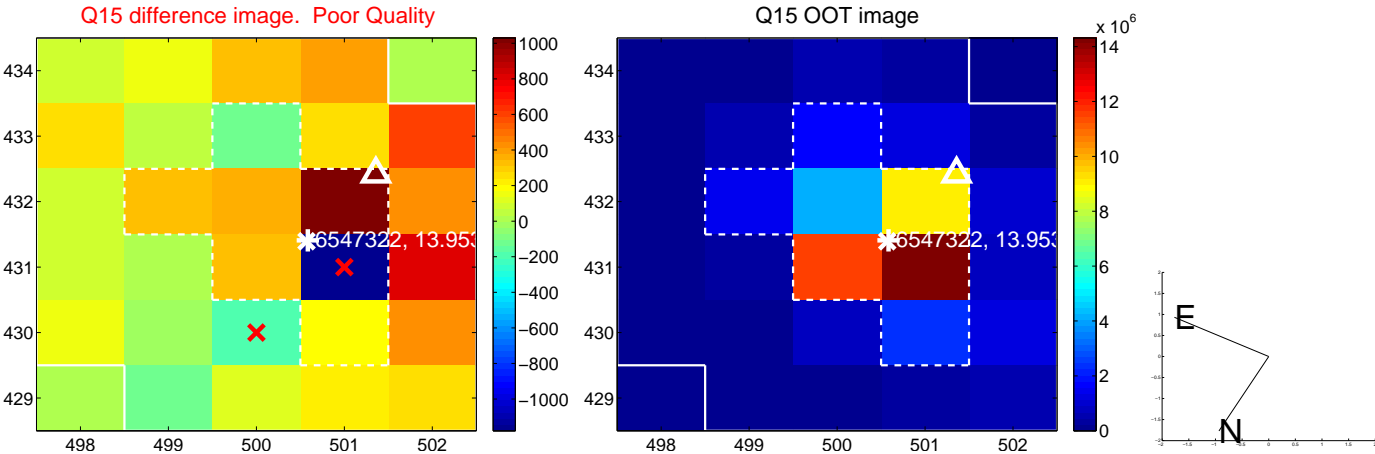
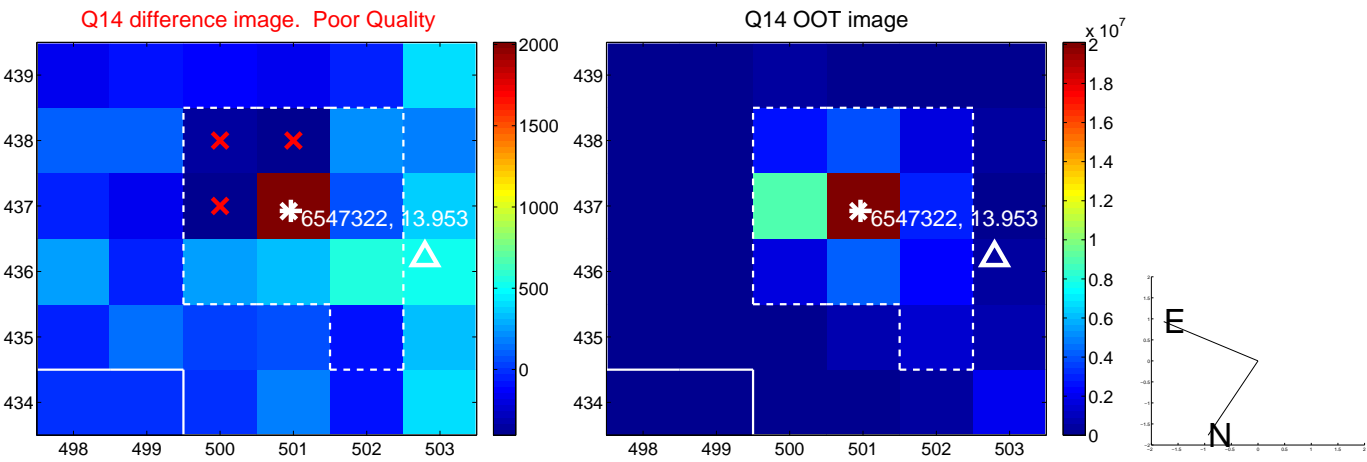
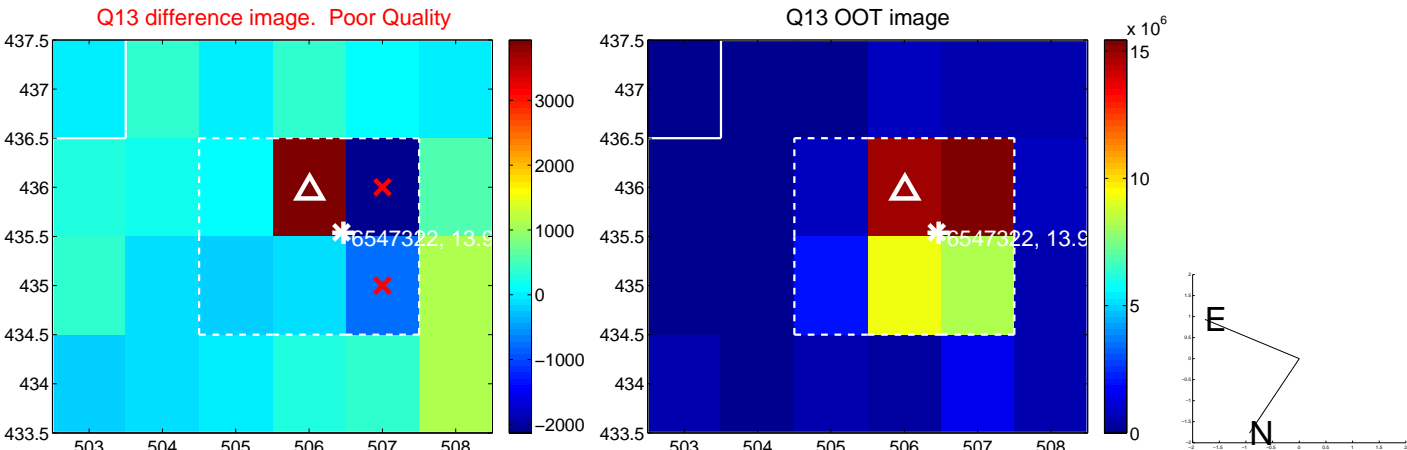
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



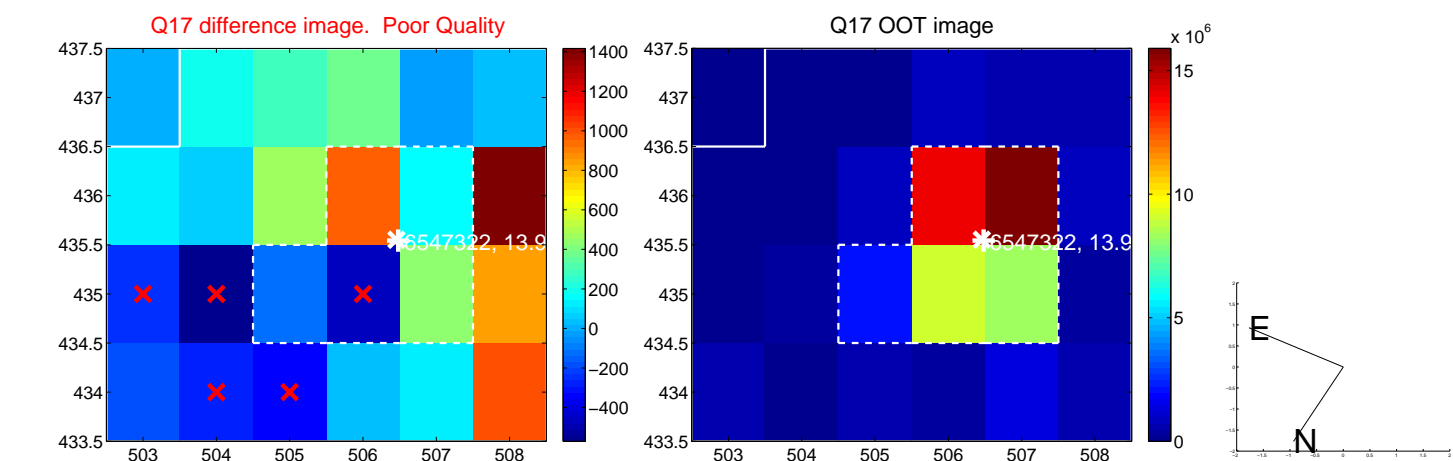
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



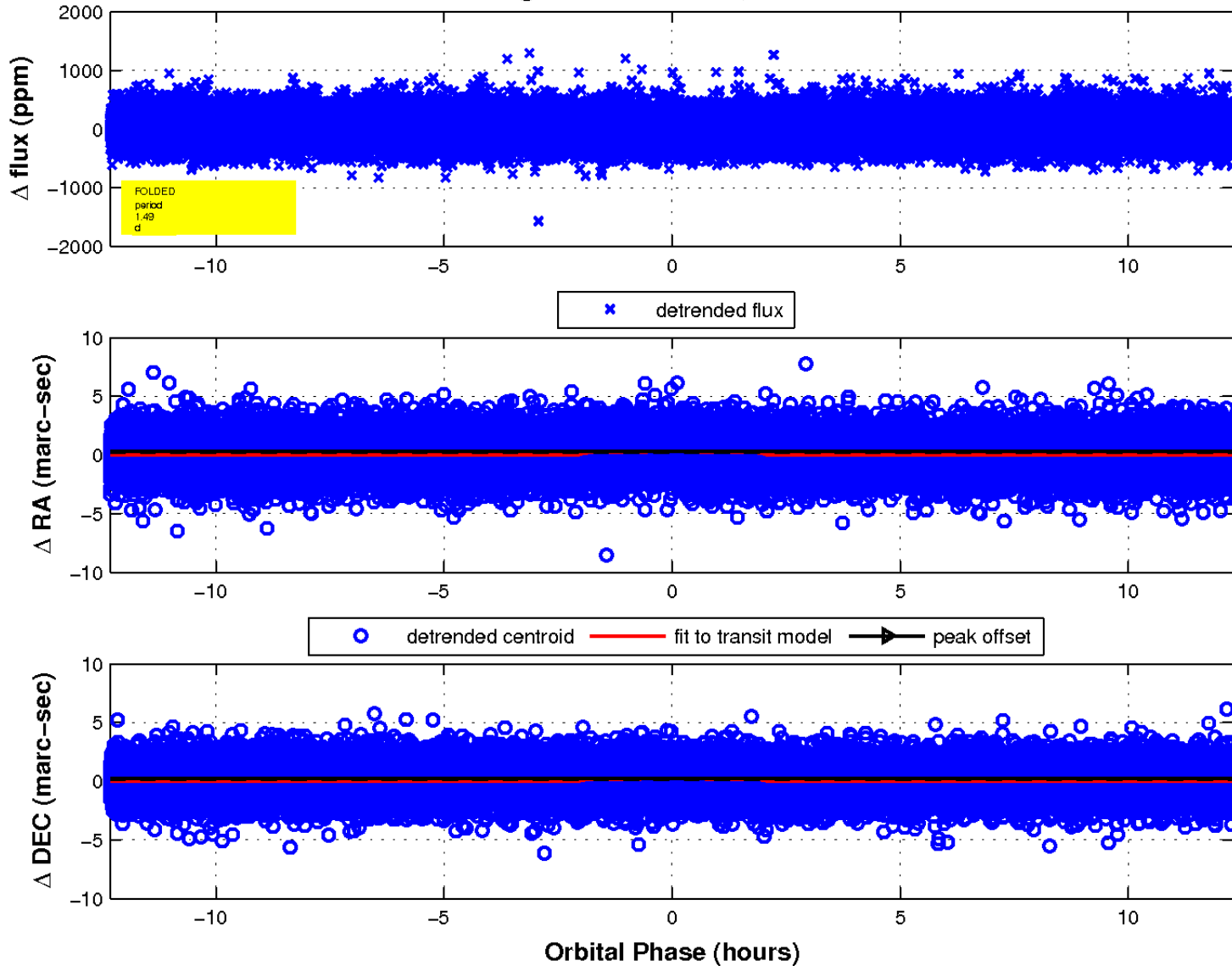
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

