

KIC 003735674

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})
003735674-01	OBS	No	14.947993	139.094006	185.3	66.644	9.2	23.6	0.87	6137	2.05	85.63

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003735674-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV

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

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

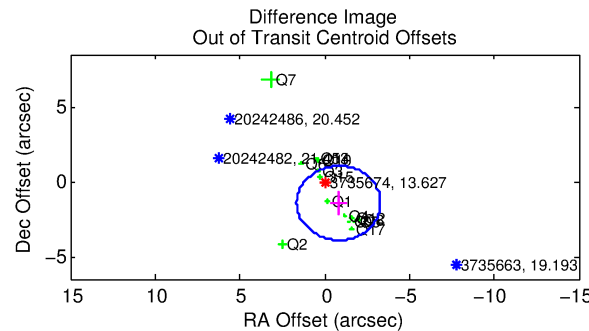
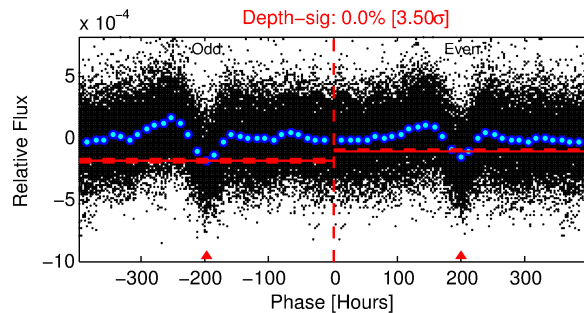
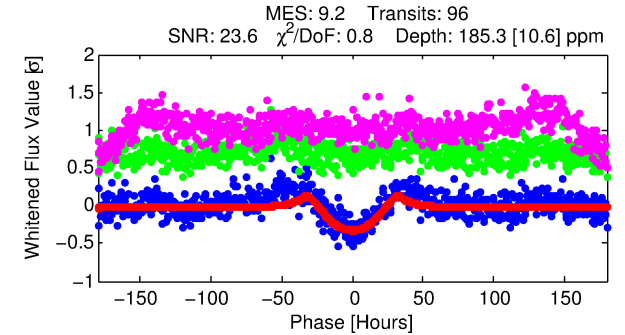
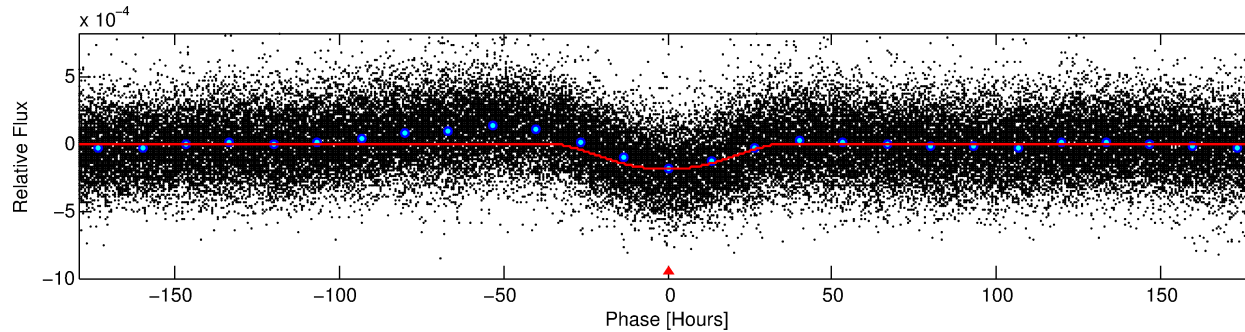
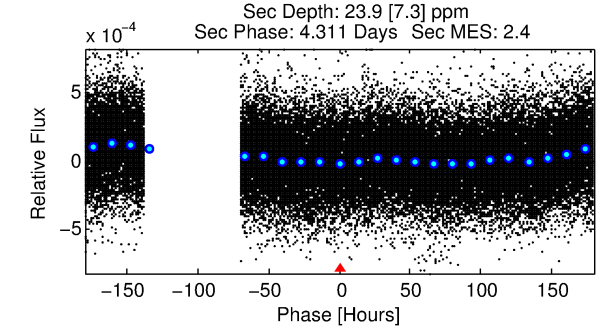
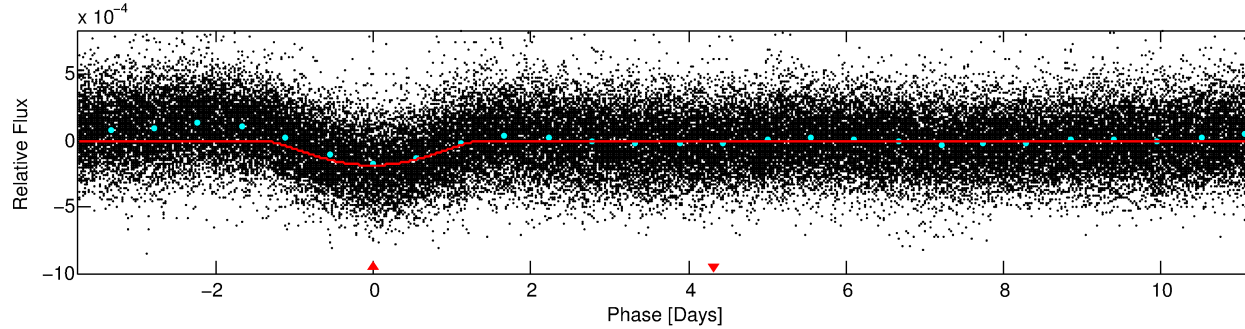
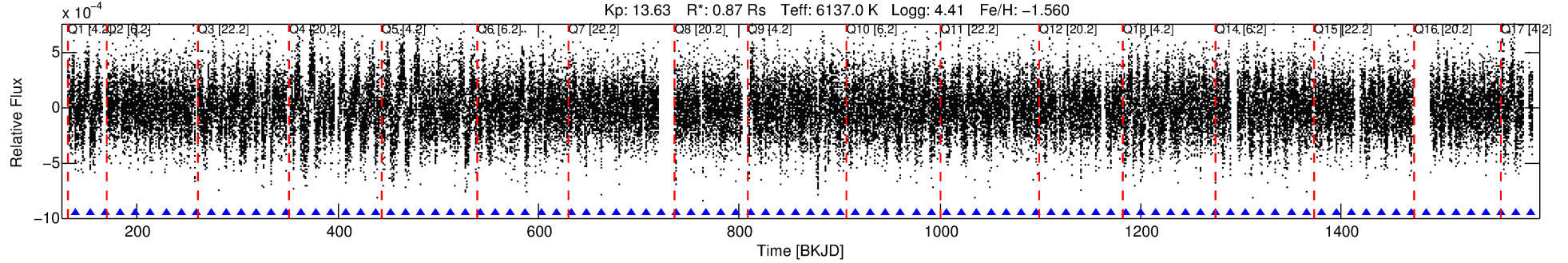
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003735674-01

No Significant Match Found

DV One-Page Summary

KIC: 3735674 Candidate: 1 of 1 Period: 14.948 d



DV Fit Results:

Period = 14.94799 [0.00084] d
Epoch = 139.0940 [0.0456] BKJD
Rp/R* = 0.0216 [0.0076]
a/R* = 1.08 [0.01]
b = 1.00 [0.01]
Seff = 85.63 [29.83]
Teq = 776 [68] K
Rp = 2.05 [0.84] Re
a = 0.1056 [0.0215] AU
Ag = 35.04 [29.27] [1.16σ]
Teffp = 2918 [567] K [3.75σ]

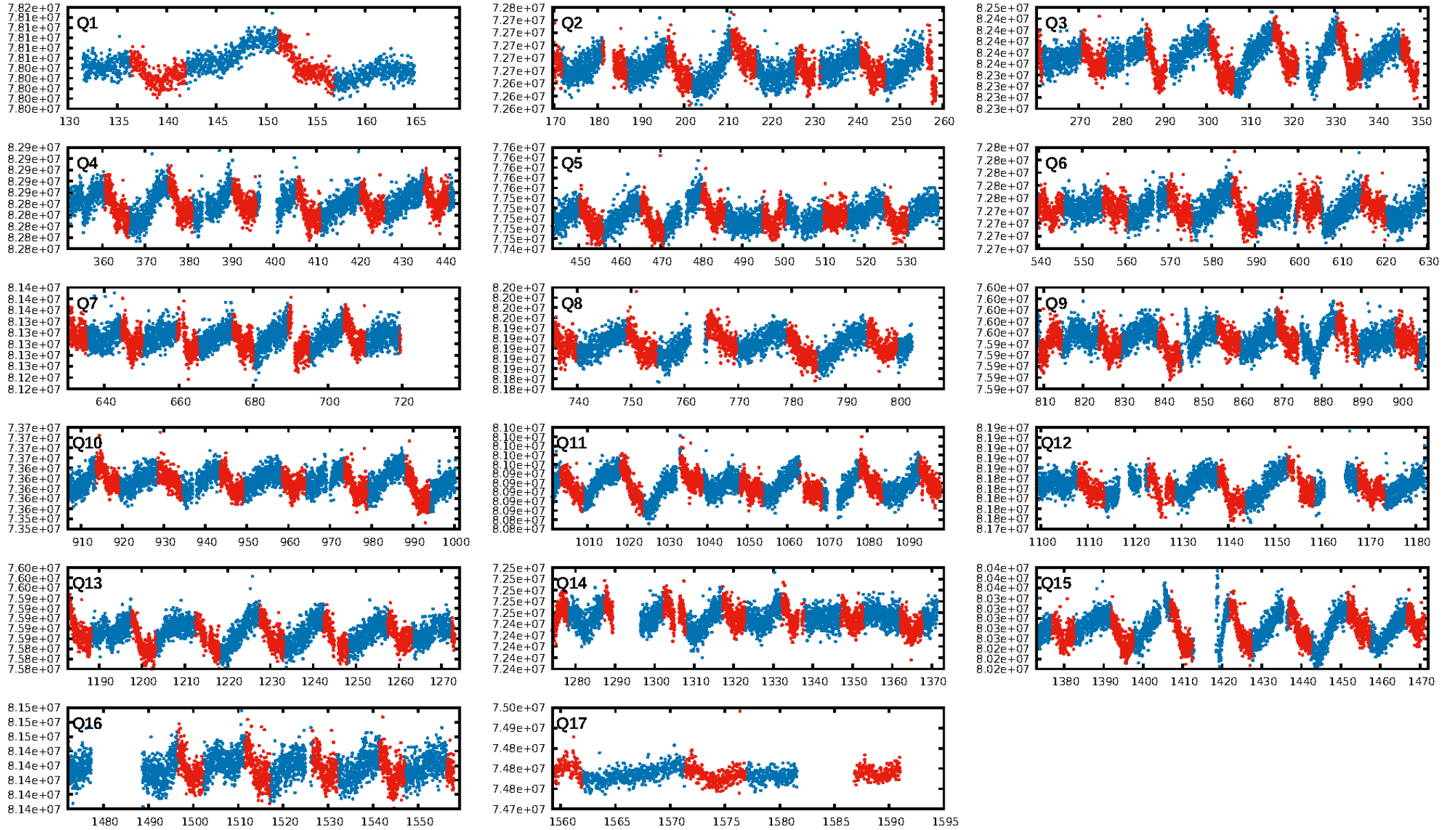
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 94.3%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.09e-21
RollingBand-fgt: 1.00 [92/92]
GhostDiagnostic-chr: 1.382
Centroid-sig: 46.6%
Centroid-so: 0.324 arcsec [0.94σ]
OotOffset-rm: 1.650 arcsec [2.00σ]
KicOffset-rm: 1.523 arcsec [1.83σ]
OotOffset-st: 4/3/3/4 [14]
KicOffset-st: 4/3/3/4 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [16/16]

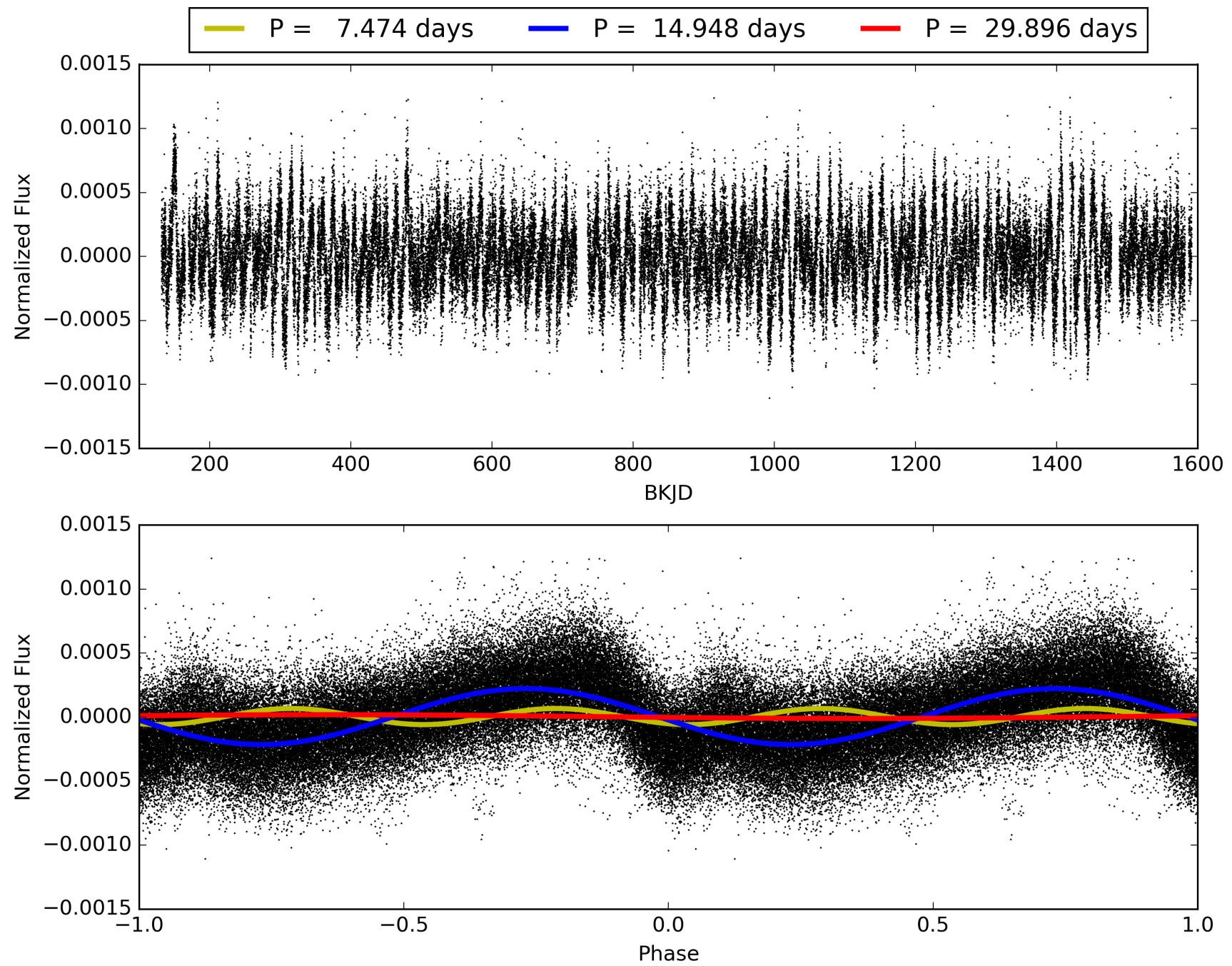
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 20:18:20 Z

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

TCE 003735674-01, PDC Light Curves

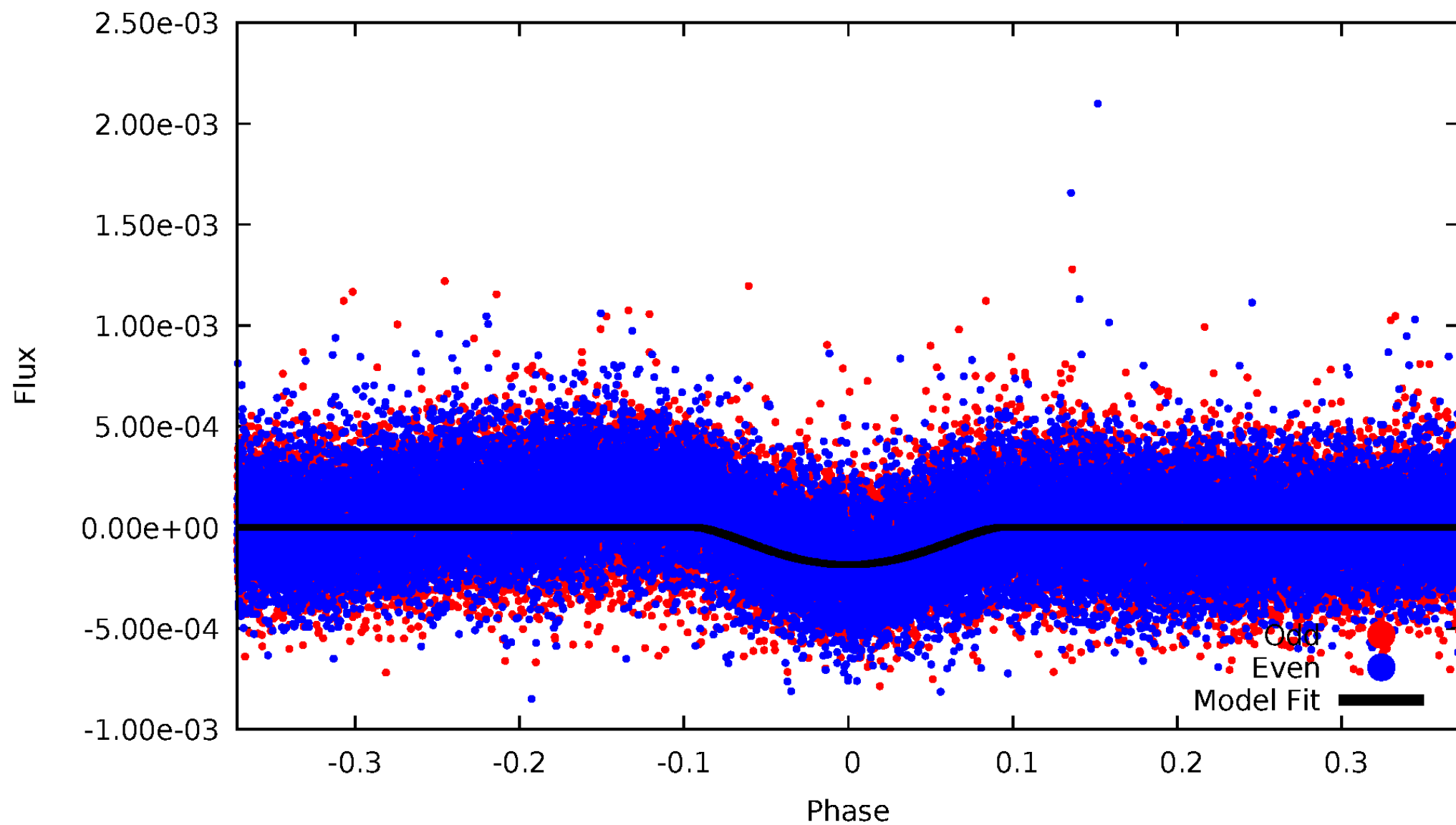


TCE 003735674-01



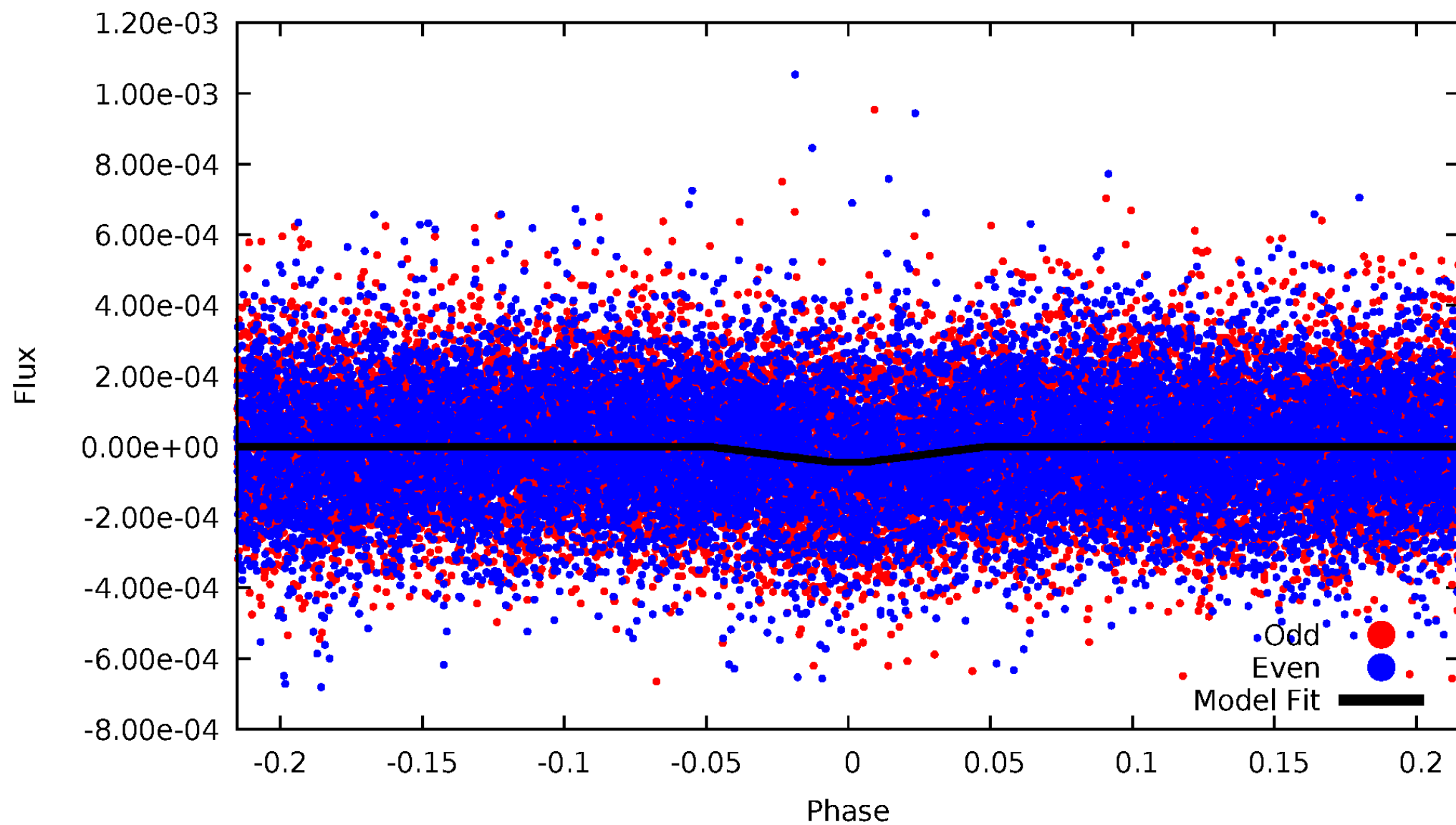
DV Odd/Even

TCE 003735674-01



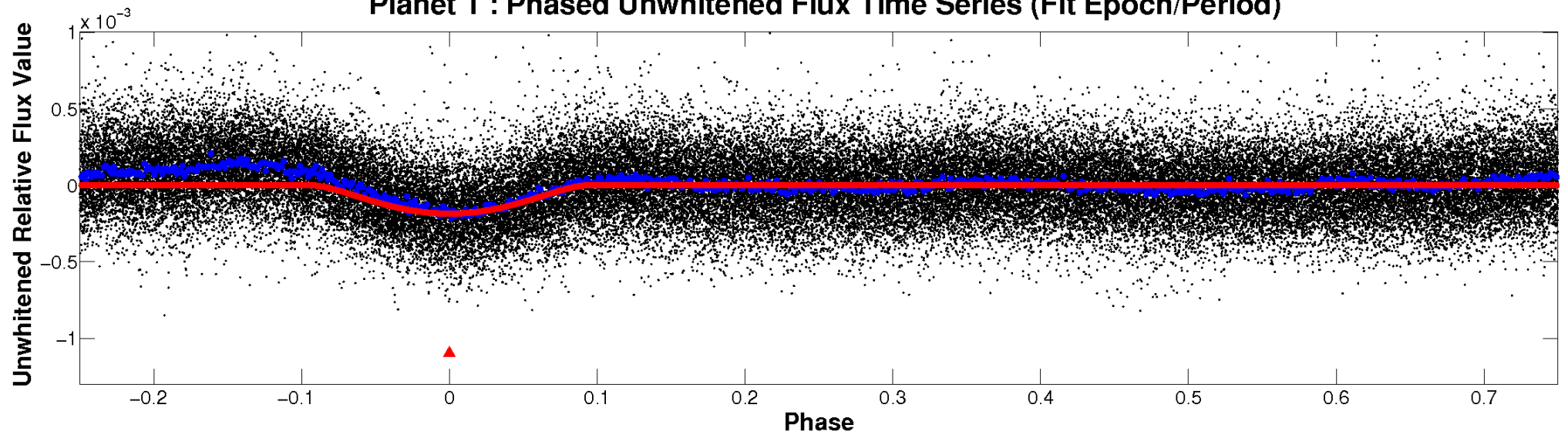
ALT Odd/Even

TCE 003735674-01

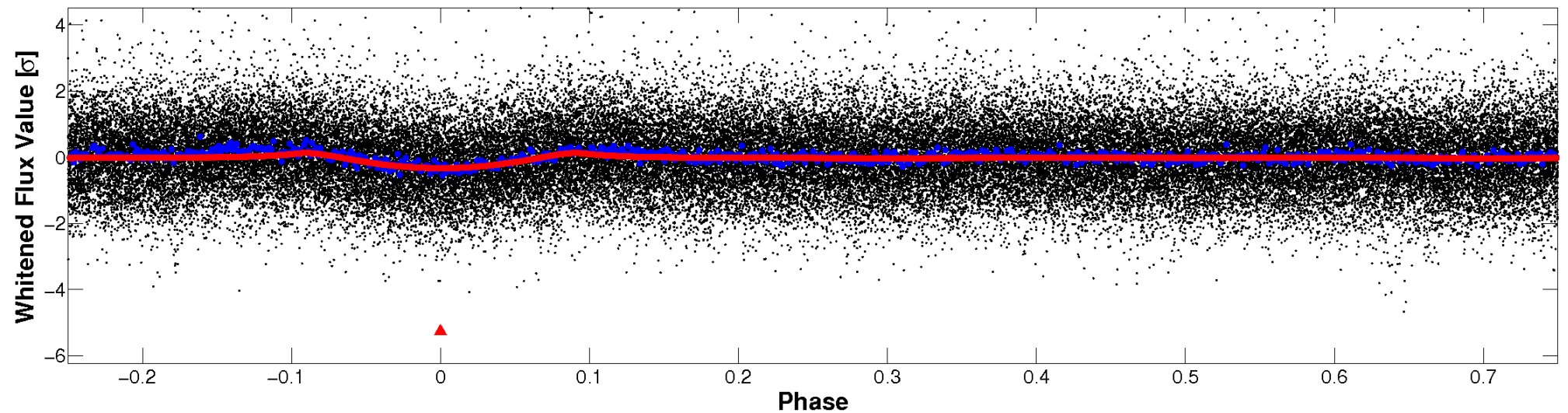


Non-Whitened Vs. Whitened Light Curve

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

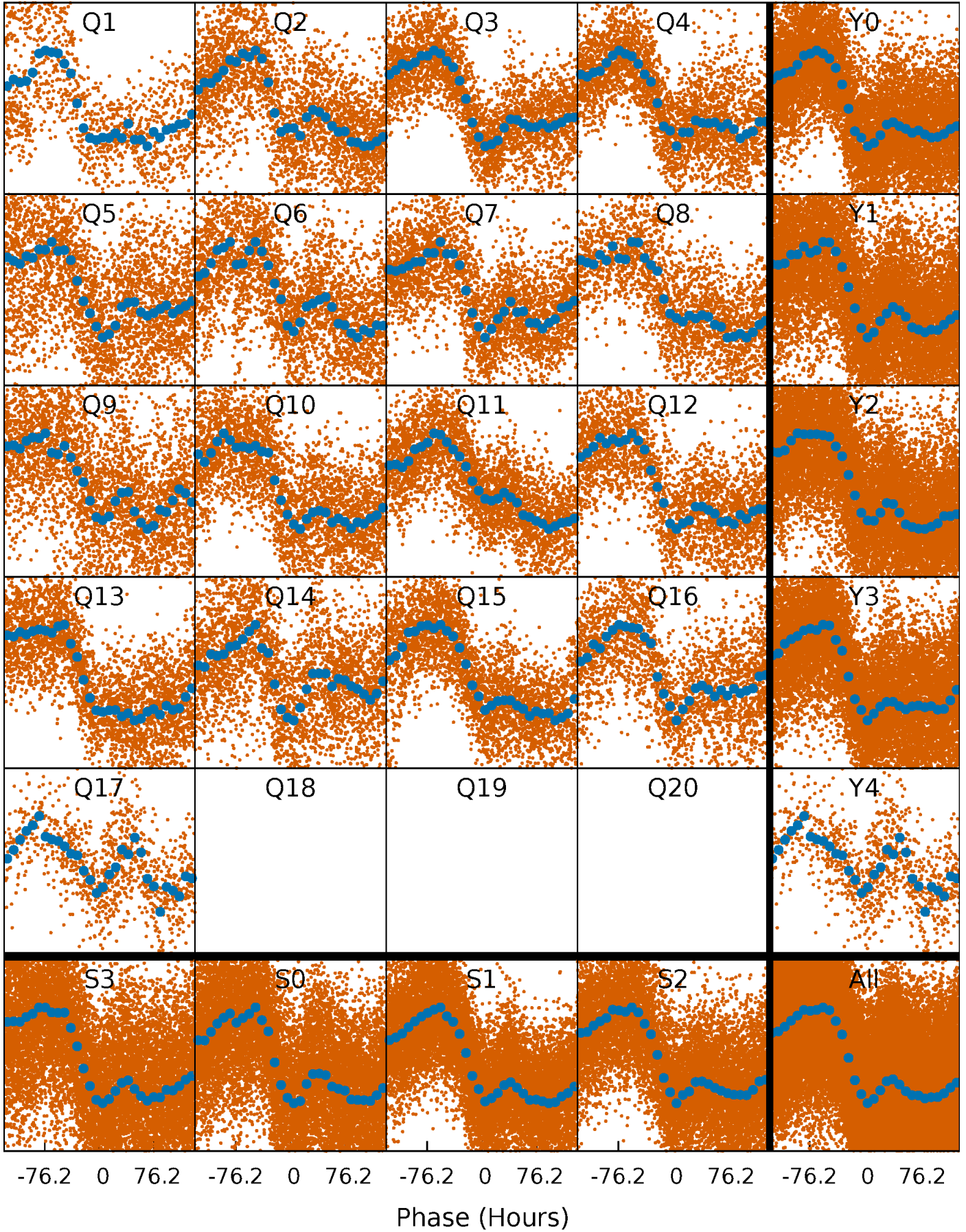


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



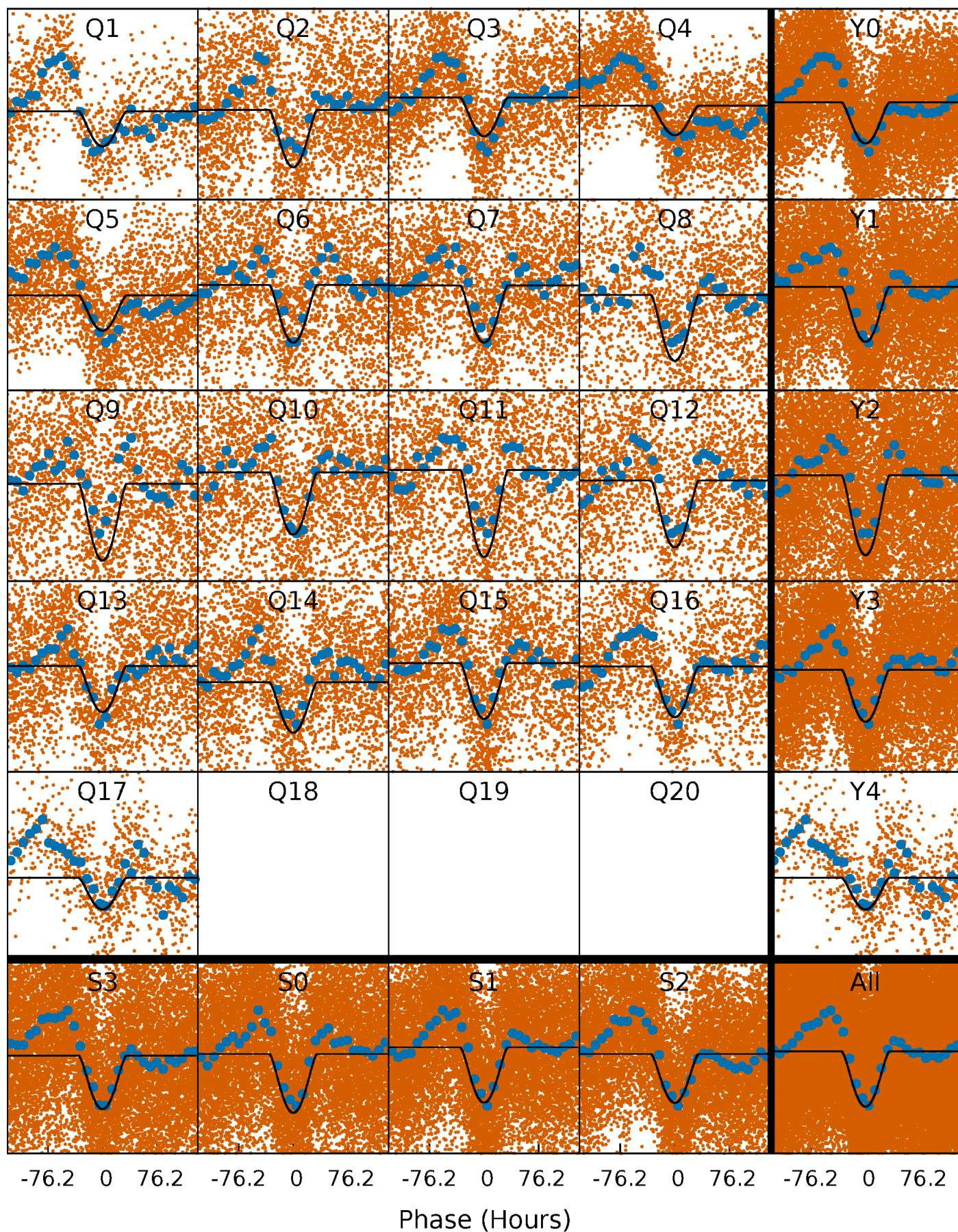
PDC Quarter-Phased Transit Curves

TCE 003735674-01 P= 14.947993 Days $T_0=139.094006$ (BKJD)



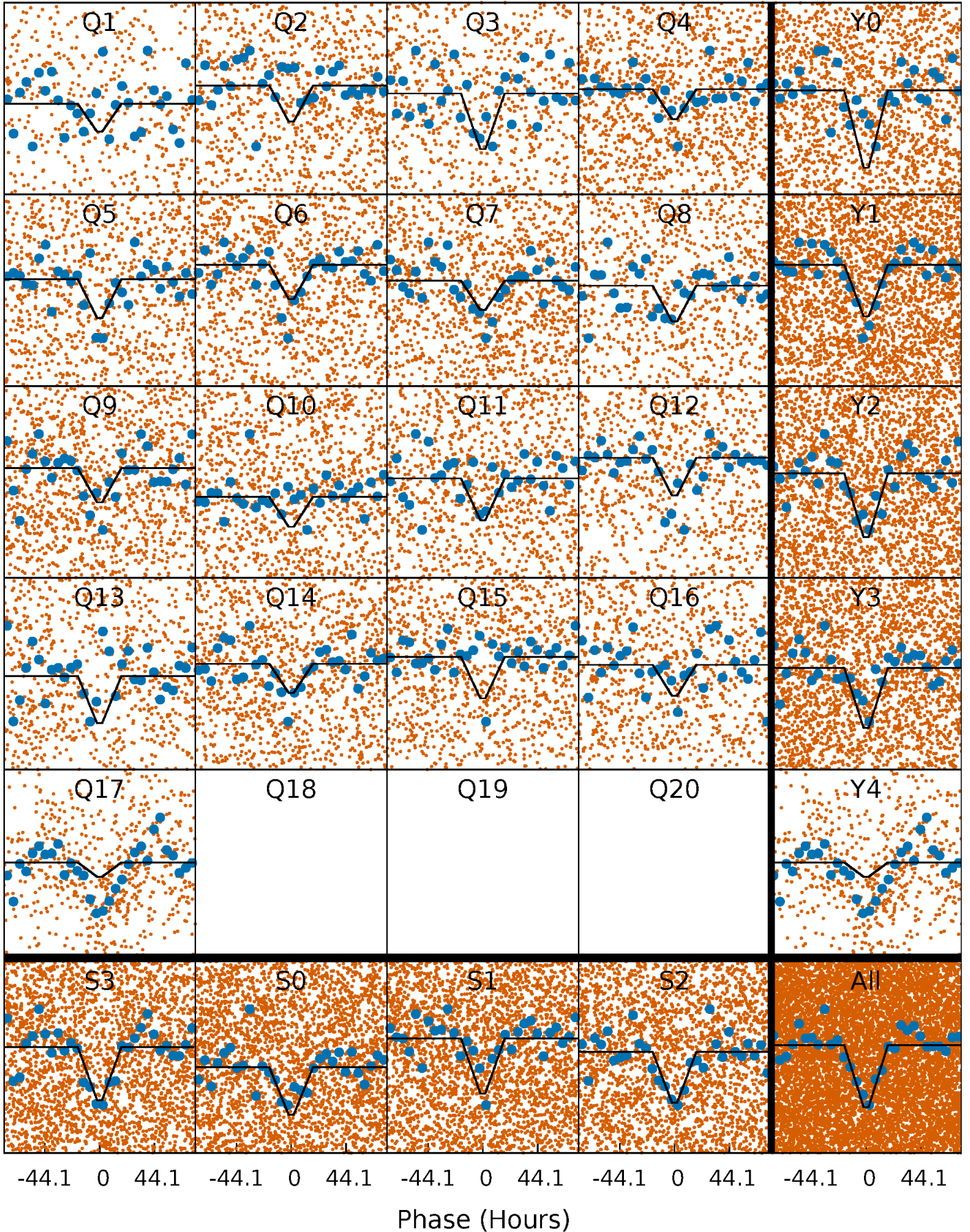
DV Quarter-Phased Transit Curves

TCE 003735674-01 P= 14.947993 Days $T_0=139.094006$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

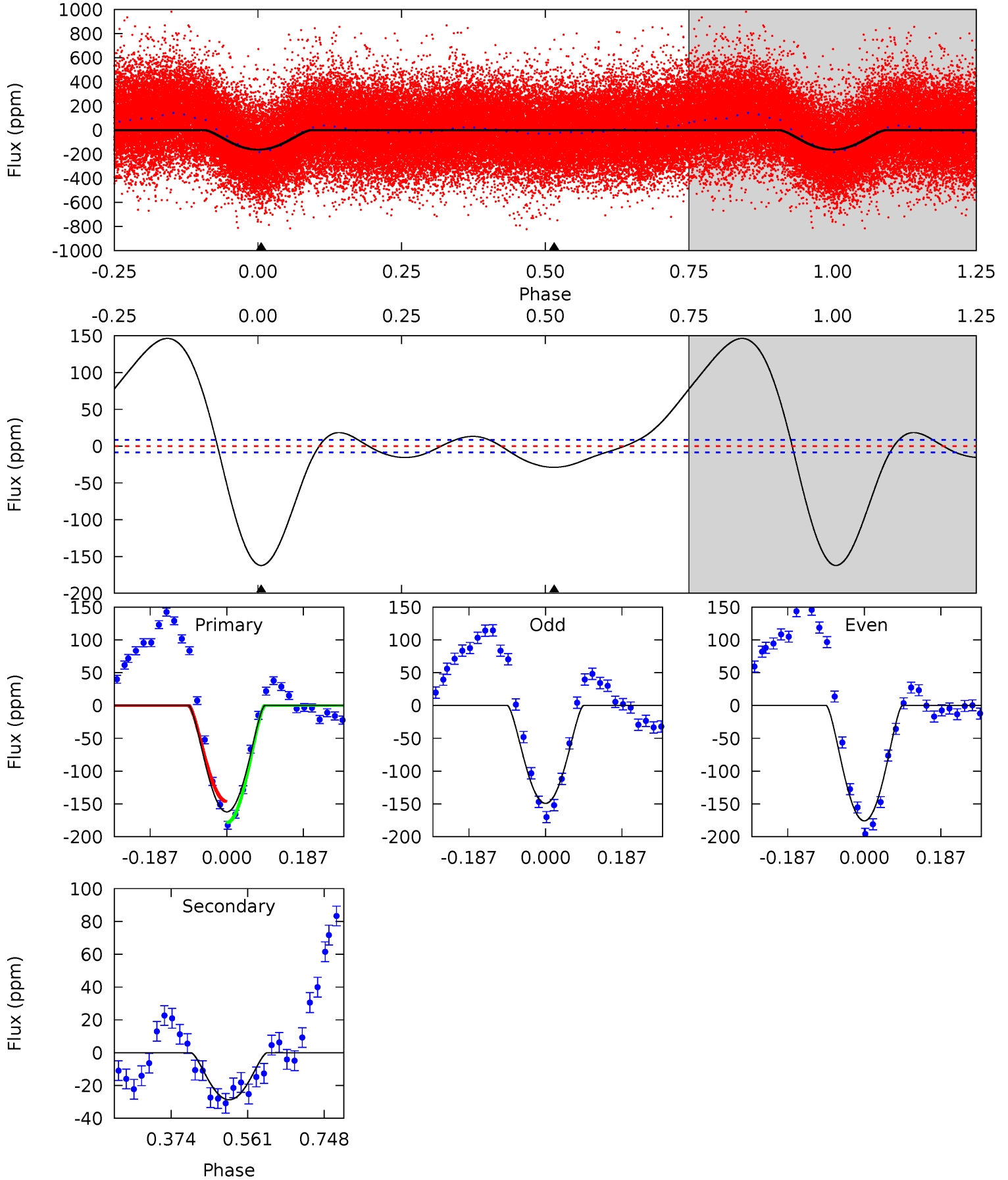
TCE 003735674-01 P= 14.949208 Days $T_0=139.128306$ (BKJD)



DV Model-Shift Uniqueness Test

003735674-01, P = 14.947993 Days, E = 124.146013 Days

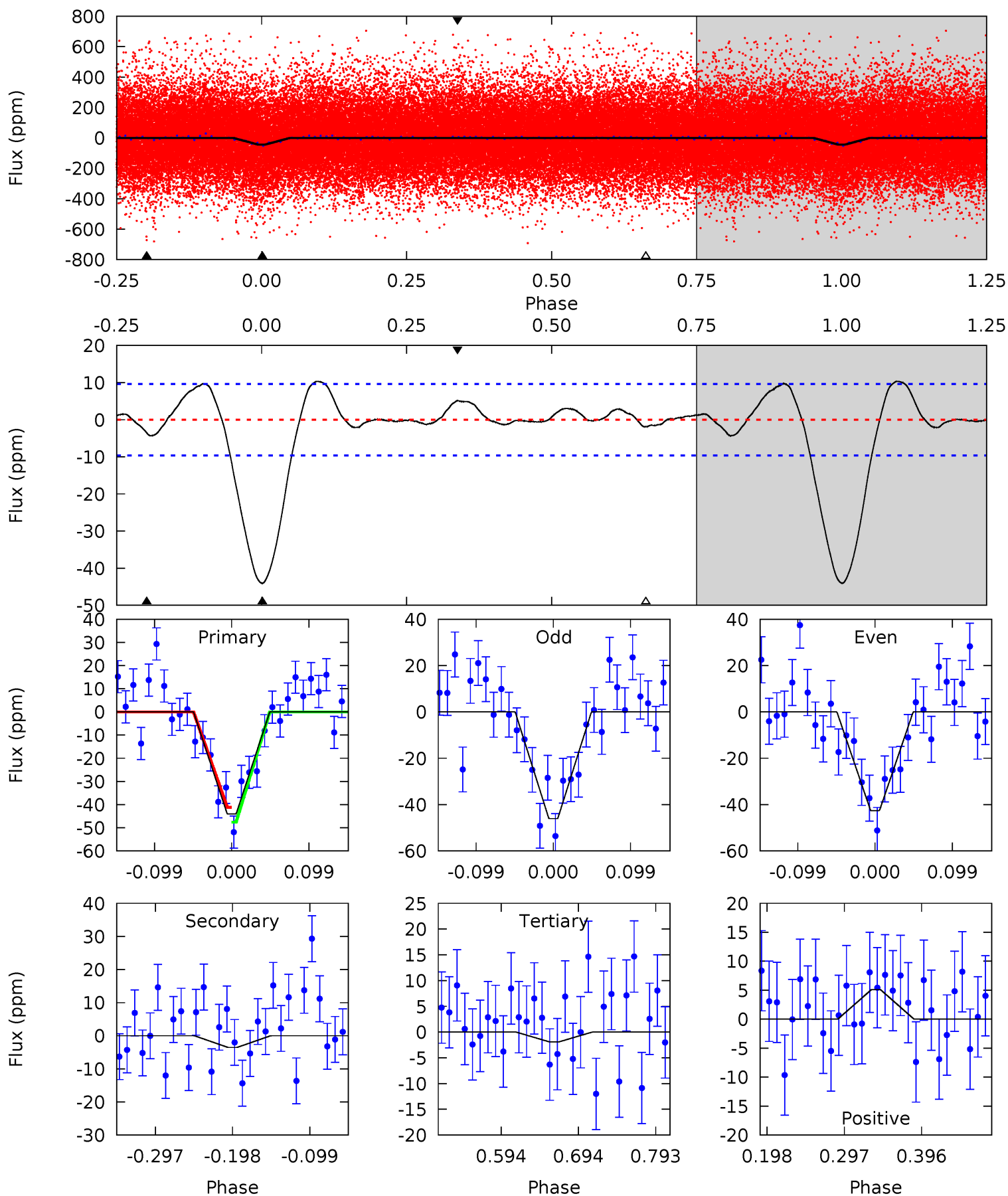
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
84.9	15.0	0	0	4.43	1.32	27.7	84.9	84.9	15.0	15.0	6.98	1.01	0.47	8.50



Alt Model-Shift Uniqueness Test

003735674-01, P = 14.949208 Days, E = 124.179098 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	1.68	0.91	2.43	4.57	1.65	1.11	20.0	18.5	0.77	-0.75	0.83	1.12	0.19	1.53



Stellar Parameters For KIC 003735674

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6137^{+183}_{-183}	$4.409^{+0.193}_{-0.158}$	$-1.560^{+0.350}_{-0.250}$	$0.867^{+0.181}_{-0.148}$	$0.703^{+0.075}_{-0.022}$	$1.519^{+1.436}_{-0.642}$
	+3%/-3%	+4%/-4%	+22%/-16%	+21%/-17%	+11%/-3%	+95%/-42%
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 003735674-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-29 ± 2	$2.05^{+0.80}_{-0.75}$	1082^{+69}_{-73}	3518^{+583}_{-316}	42^{+65}_{-20}
Alt.	-4 ± 2	$0.78^{+0.69}_{-0.49}$	1080^{+67}_{-63}	3362^{+1512}_{-659}	32^{+224}_{-25}

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 $A_{obs} \gg 1.0$

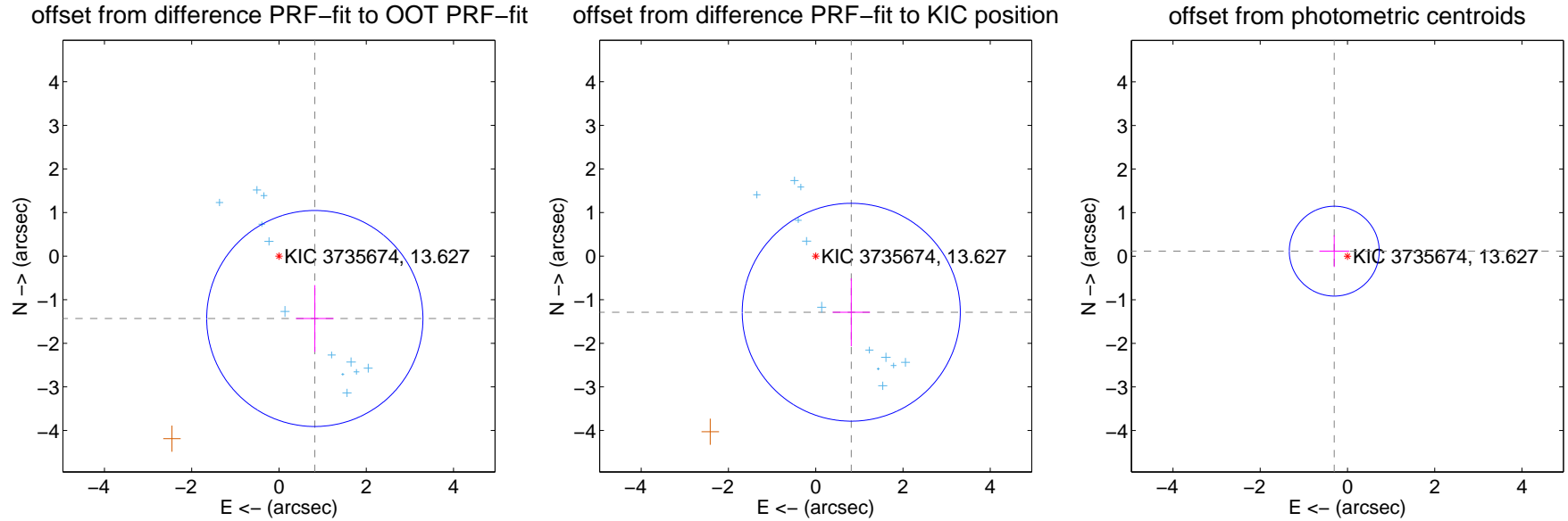
DV Centroid Data

Supplemental centroid analysis for 003735674-01. Kepler magnitude: 13.63. Transit SNR 23.59

There are 12 quarters with good PRF difference image offsets

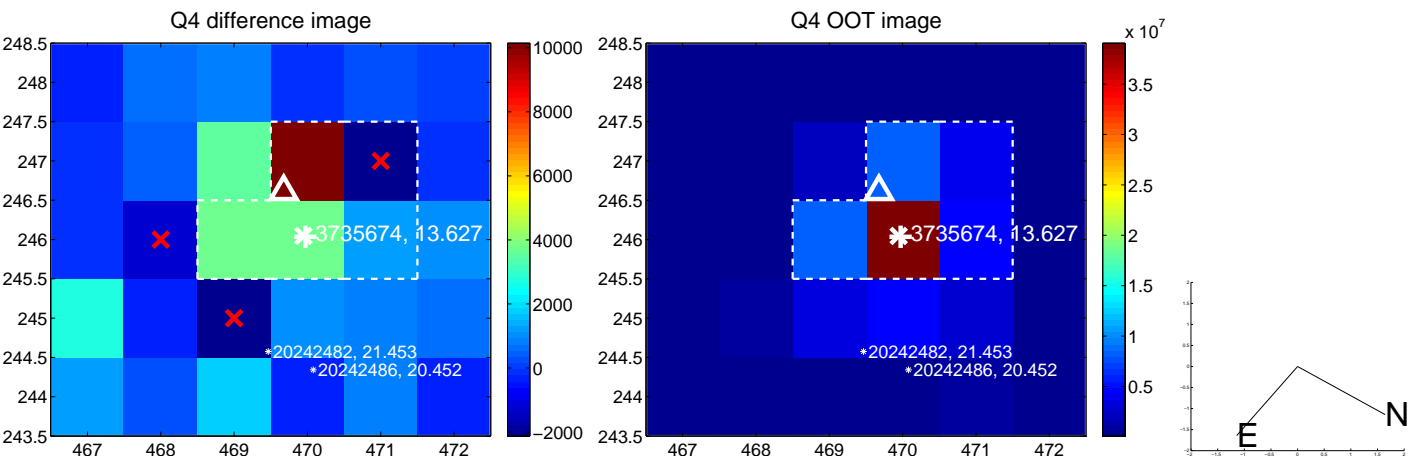
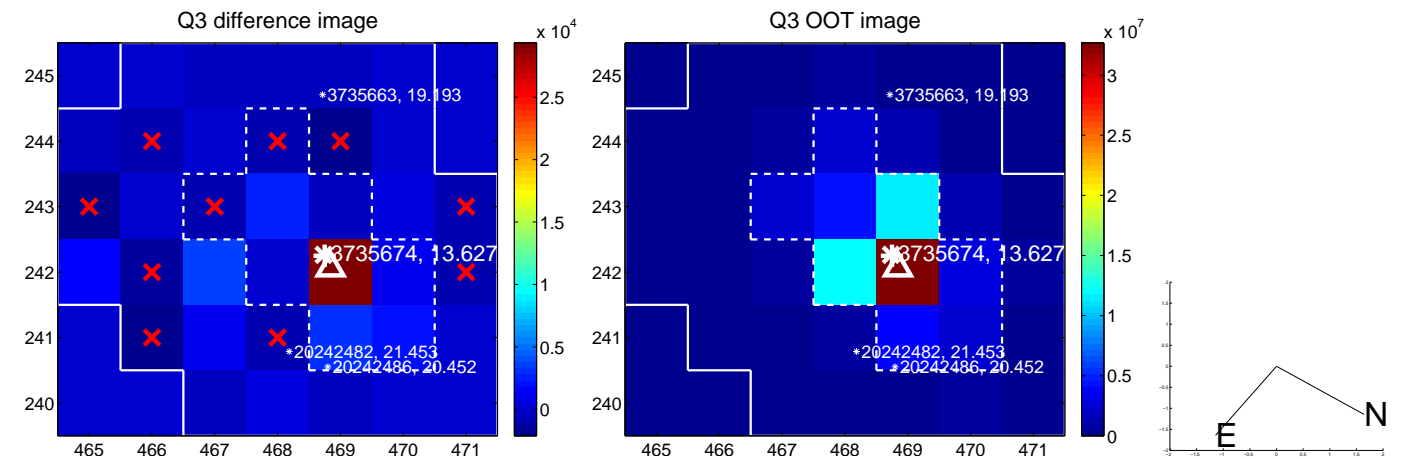
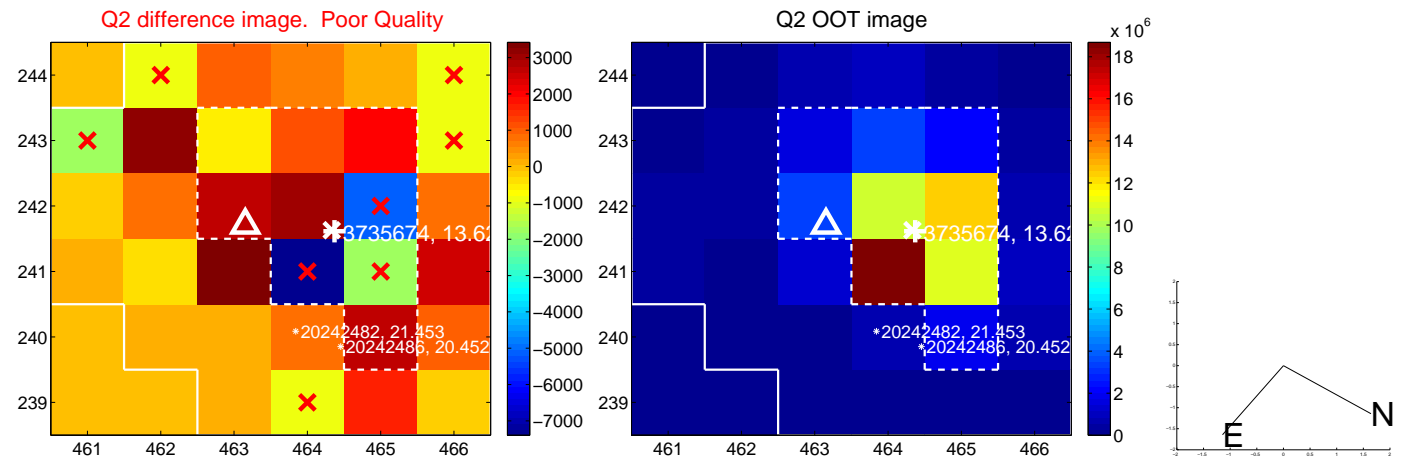
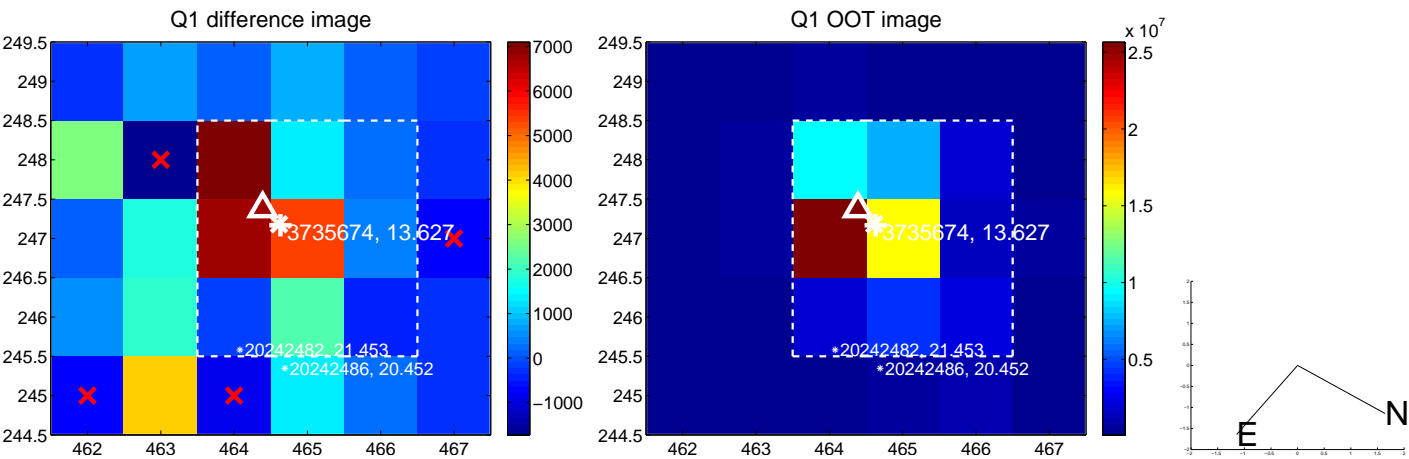
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.650 ± 0.826	2.00	-0.821 ± 0.432	-1.431 ± 0.767
PRF-fit source offset from KIC position	1.523 ± 0.833	1.83	-0.815 ± 0.429	-1.287 ± 0.778
photometric centroid source offset	0.32 ± 0.34	0.94	0.30 ± 0.34	0.12 ± 0.36

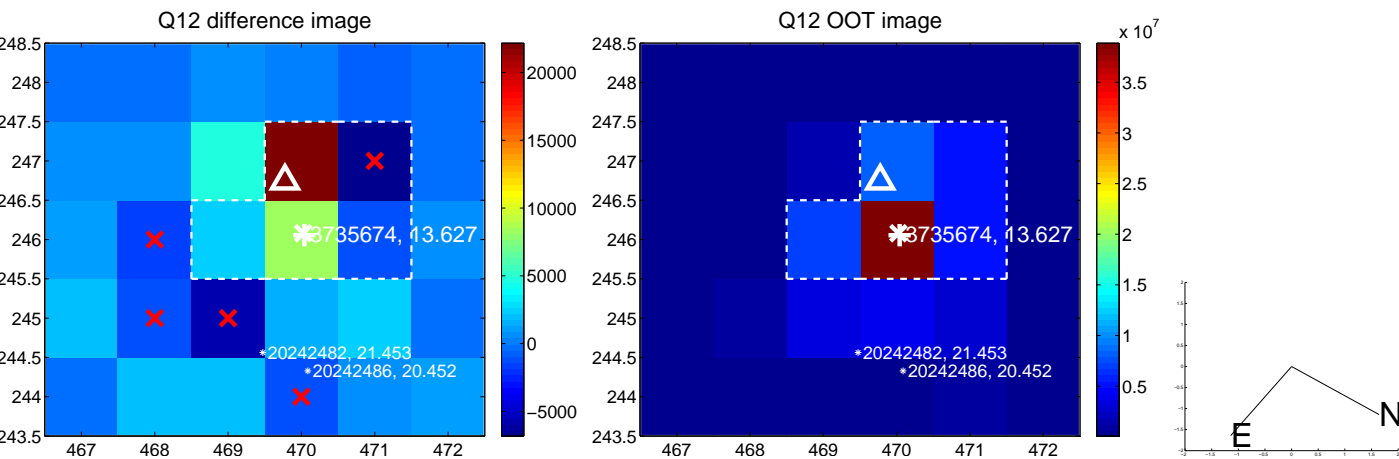
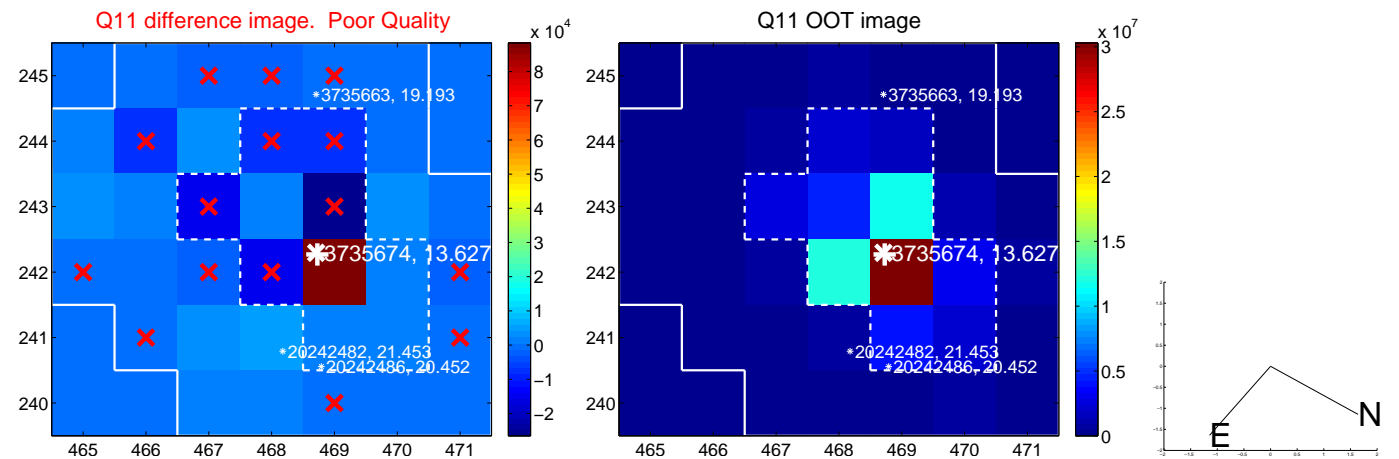
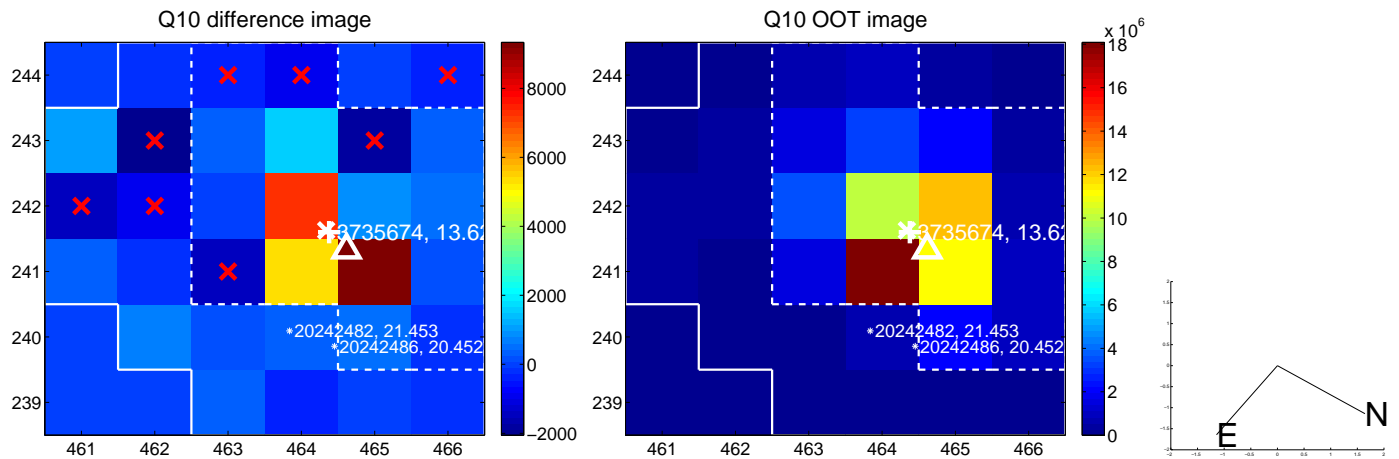
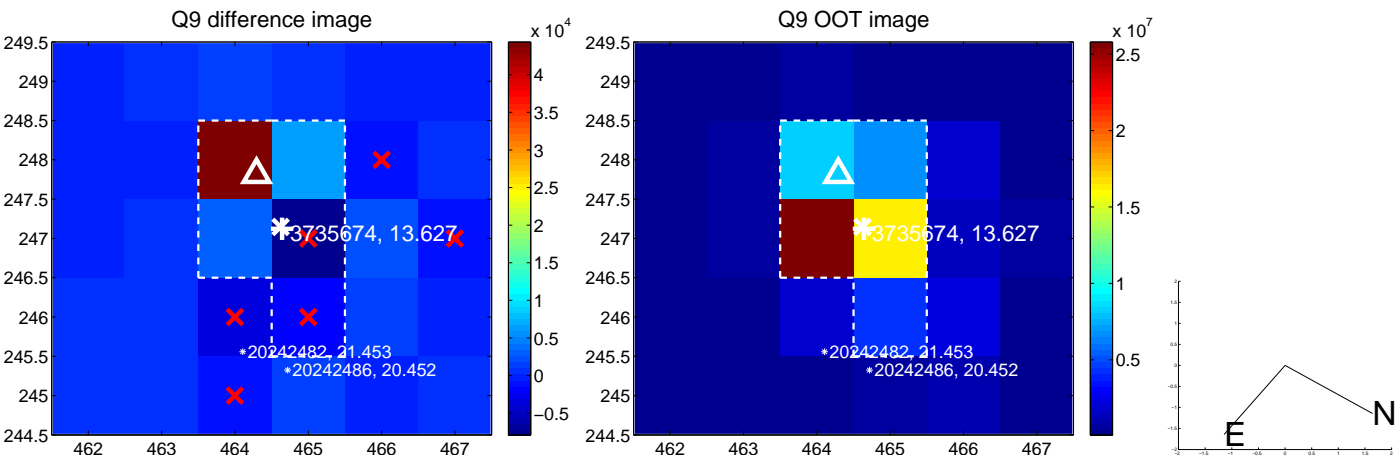


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

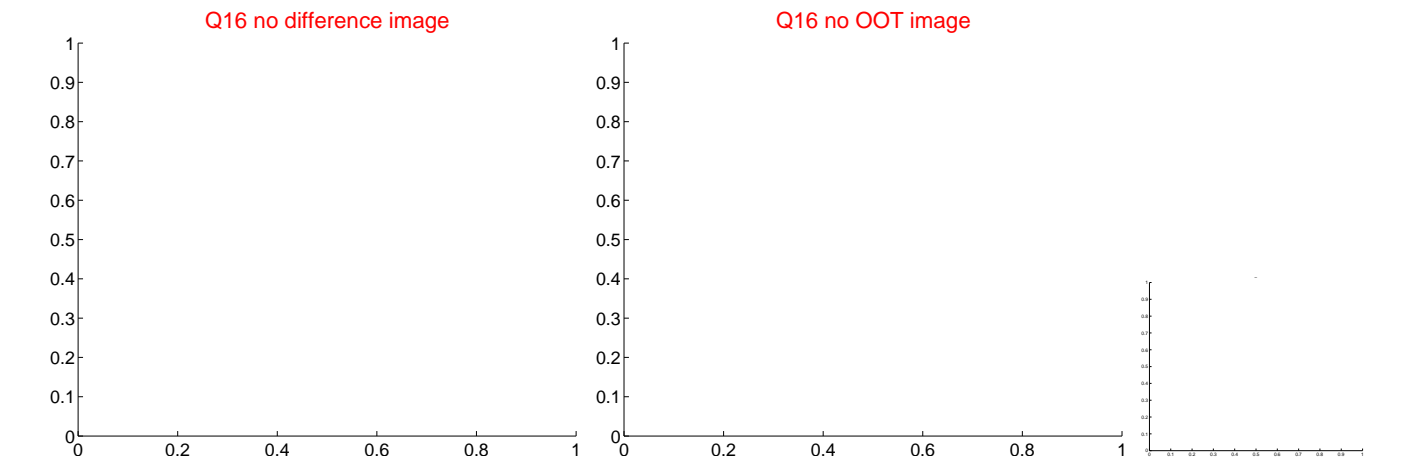
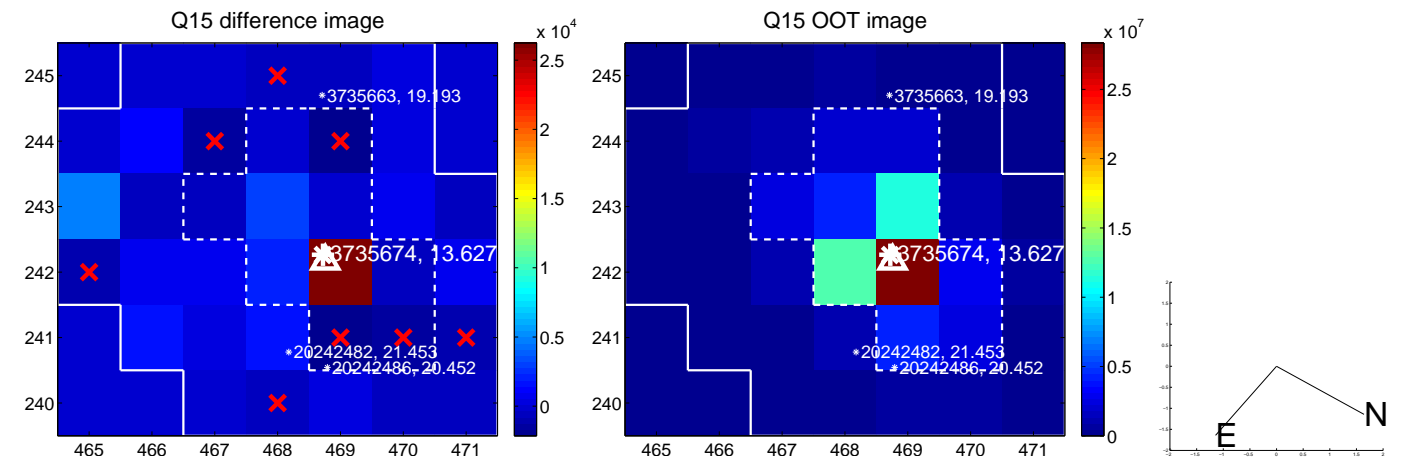
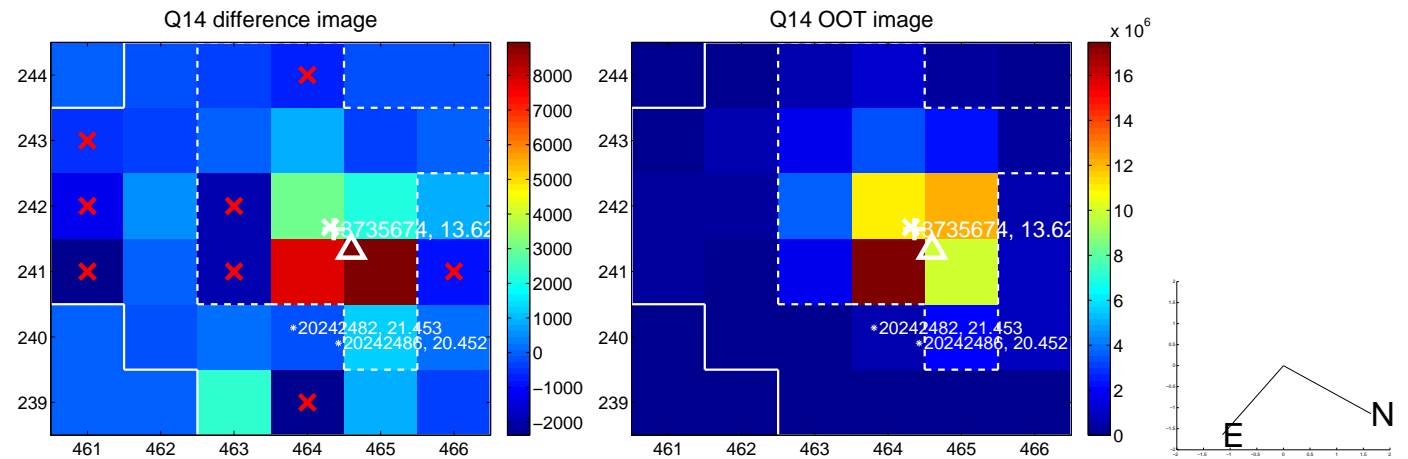
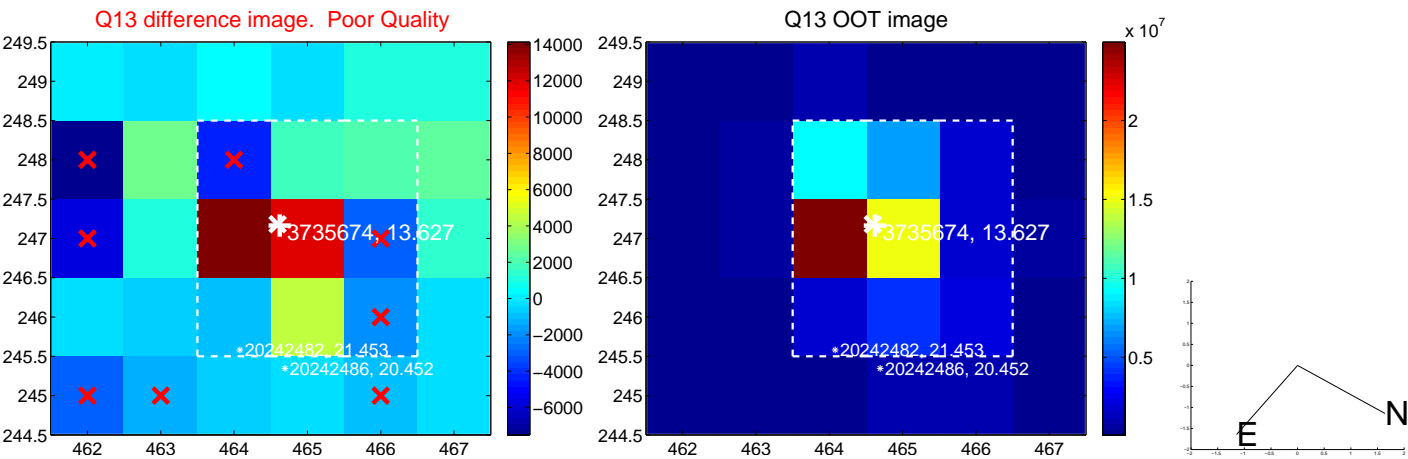
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



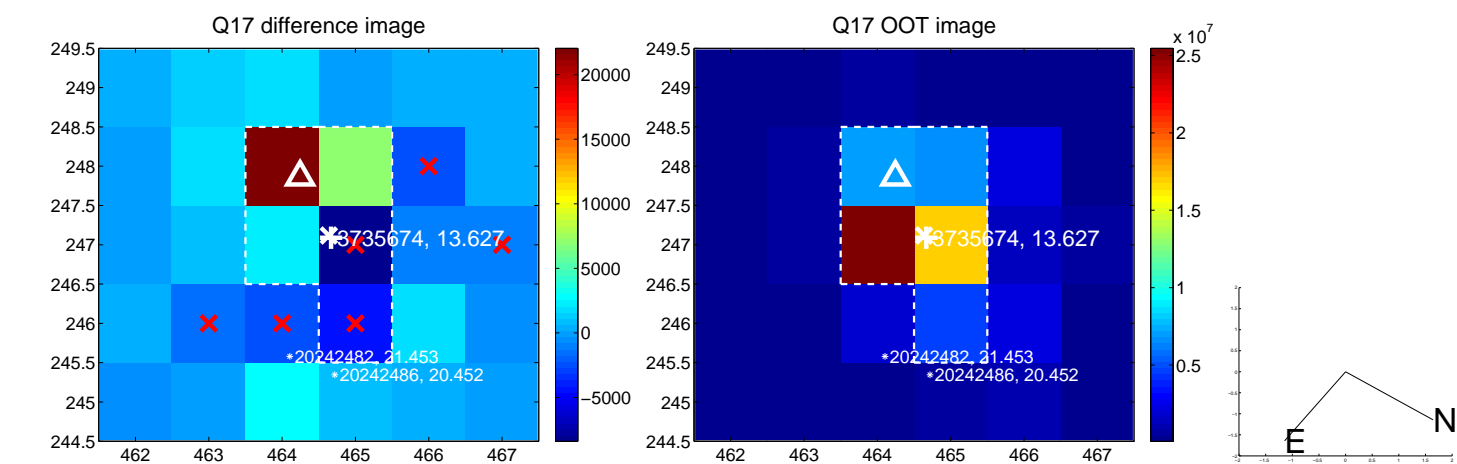
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



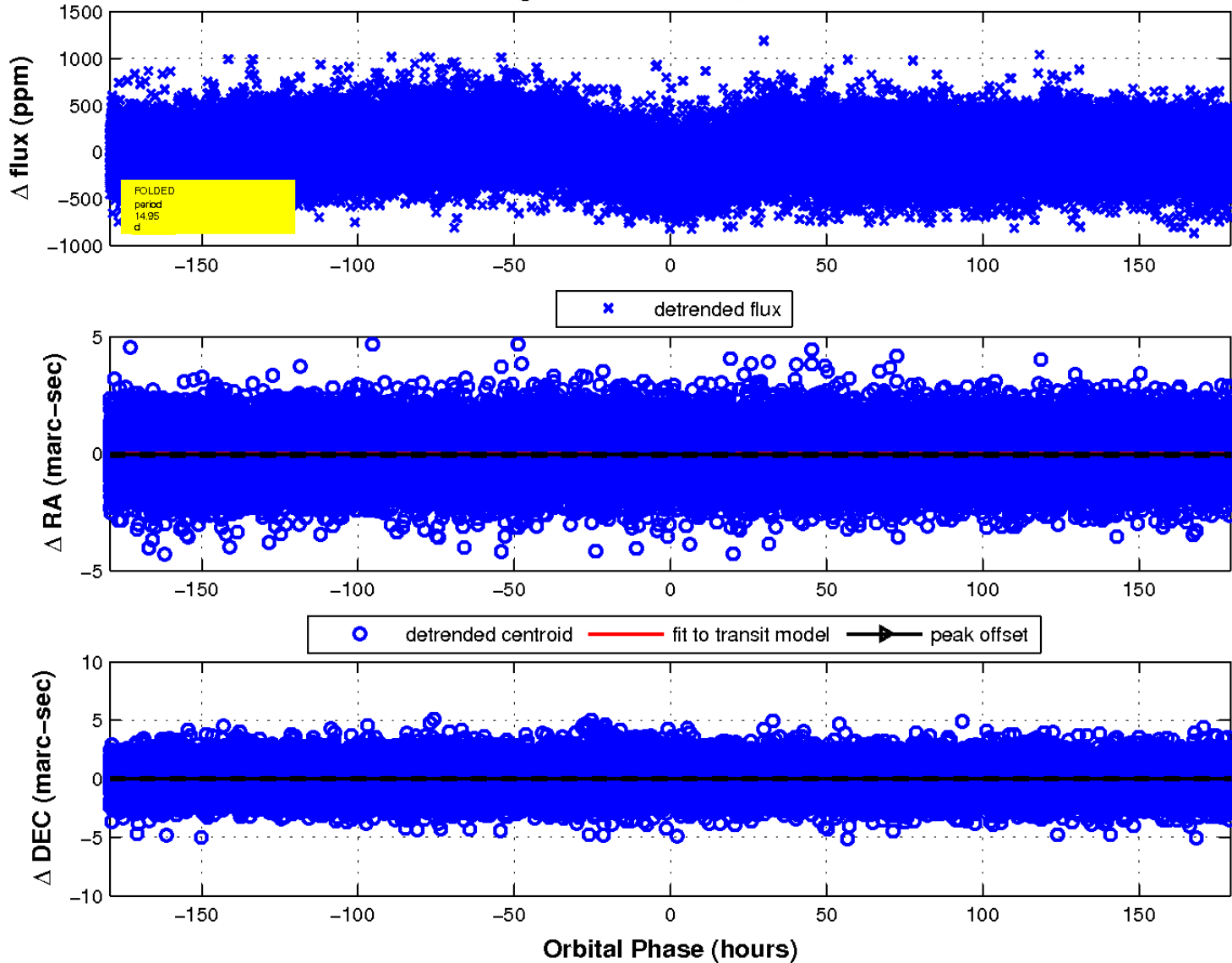
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

