

KIC 010485179

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R _★ (R _☉)	T _★ (K)	R _p (R _⊕)	S _p (S _⊕)
010485179-01	OBS	1167.01	0.890528	131.758612	34.4	1.271	8.1	6.4	0.72	5346	0.51	1358.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010485179-01	OBS	FP	0.00	1	0	1	1	LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET—EPHEM_MATCH

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 010485179-01

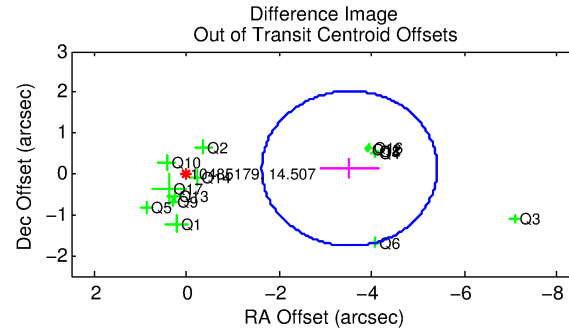
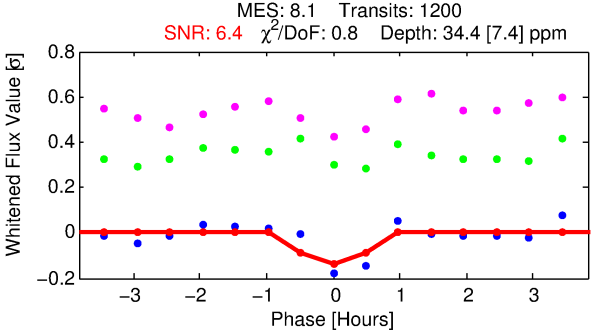
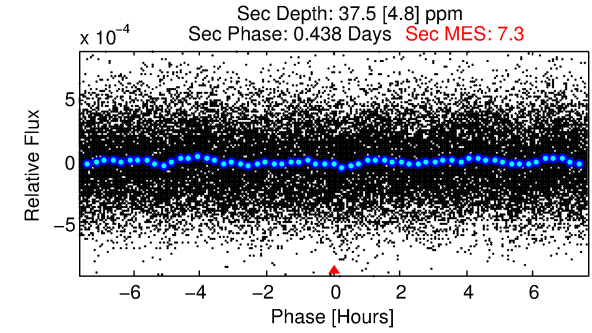
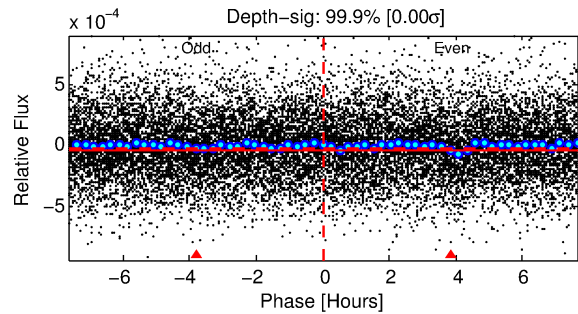
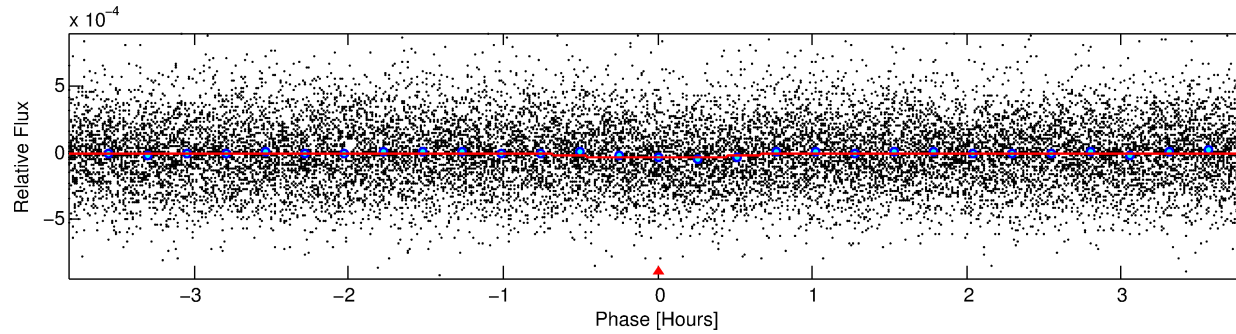
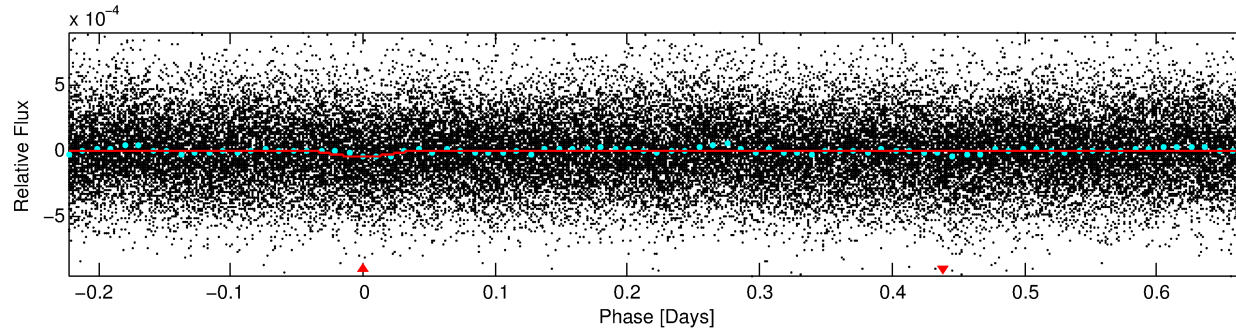
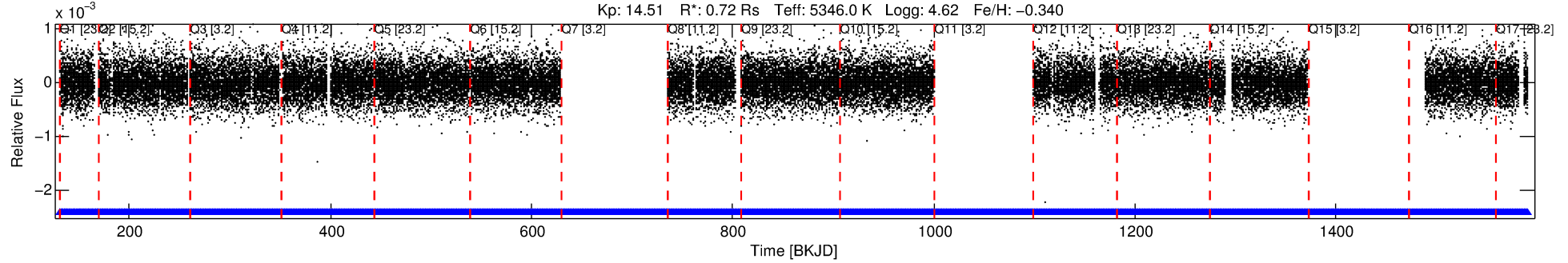
TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist (″)	ΔRow	ΔCol	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ _P	σ _T
010485179-01	10485179	T-Cyg1-03567-pri	10485137	2:1	37.0	9	0	11.88	14.50	10905.00	Direct-PRF	0	3.24	3.03

Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. ΔRow and ΔCol are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant σ_P < 5.0 and σ_T < 5.0. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 10485179 Candidate: 1 of 1 Period: 0.891 d
KOI: K01167 Corr: No Ephemeris Match

Kp: 14.51 R*: 0.72 Rs Teff: 5346.0 K Logg: 4.62 Fe/H: -0.340



DV Fit Results:

Period = 0.89053 [0.00002] d
Epoch = 131.7586 [0.0033] BKJD
Rp/R* = 0.0065 [0.0037]
a/R* = 2.59 [5.59]
b = 0.90 [0.55]
Seff = 1358.43 [310.97]
Teq = 1548 [89] K
Rp = 0.51 [0.31] Re
a = 0.0168 [0.0023] AU
Ag = 22.22 [26.22] [0.81σ]
Teffp = 5197 [1520] K [2.40σ]

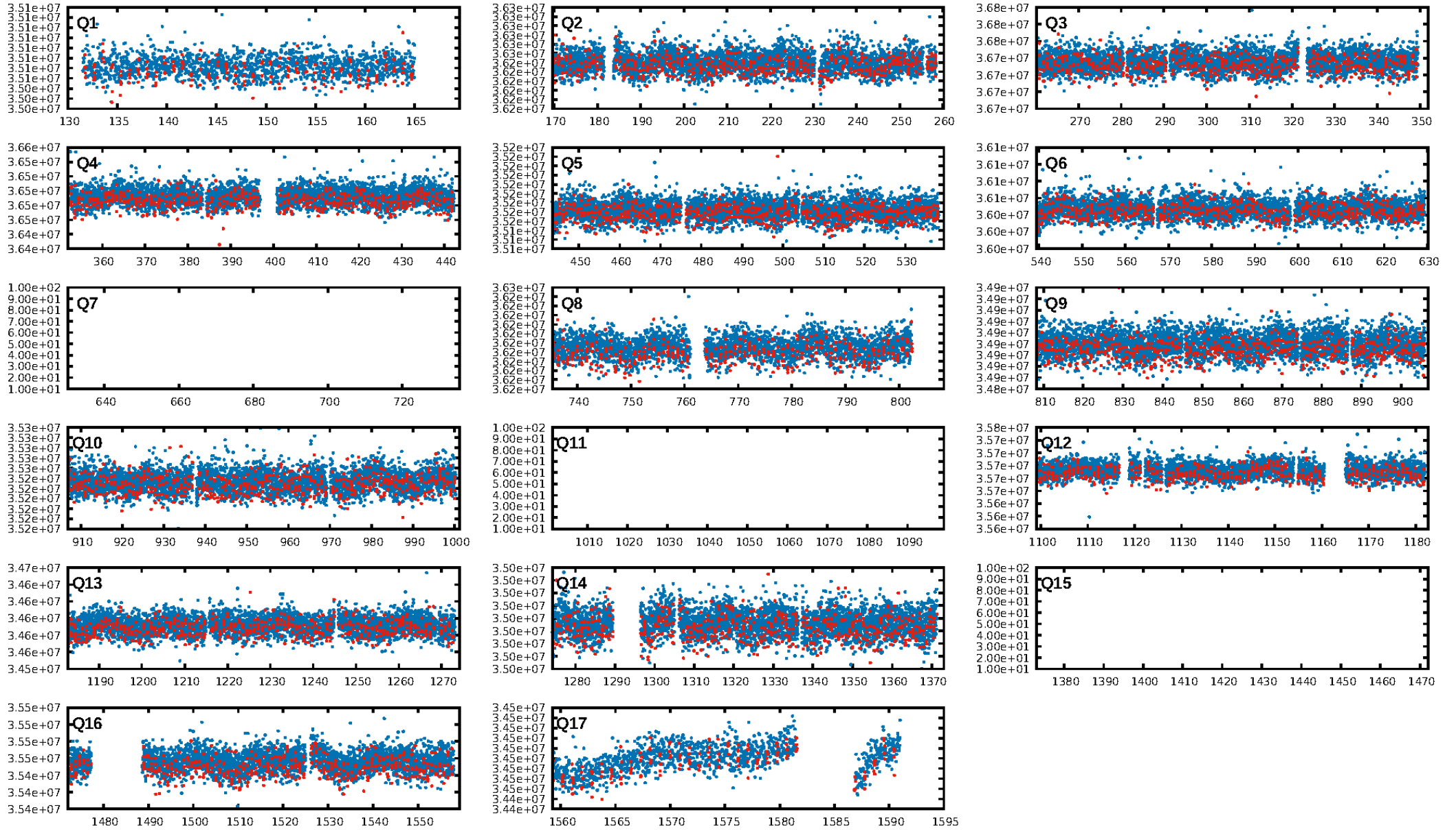
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.00e-17
RollingBand-fgt: 1.00 [1131/1131]
GhostDiagnostic-chr: 1.955
Centroid-sig: 7.3%
Centroid-so: 3.591 arcsec [1.50σ]
OotOffset-rm: 3.520 arcsec [5.57σ]
KicOffset-rm: 3.690 arcsec [5.69σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 0.50 [7/14]
DiffImageOverlap-fno: 1.00 [14/14]

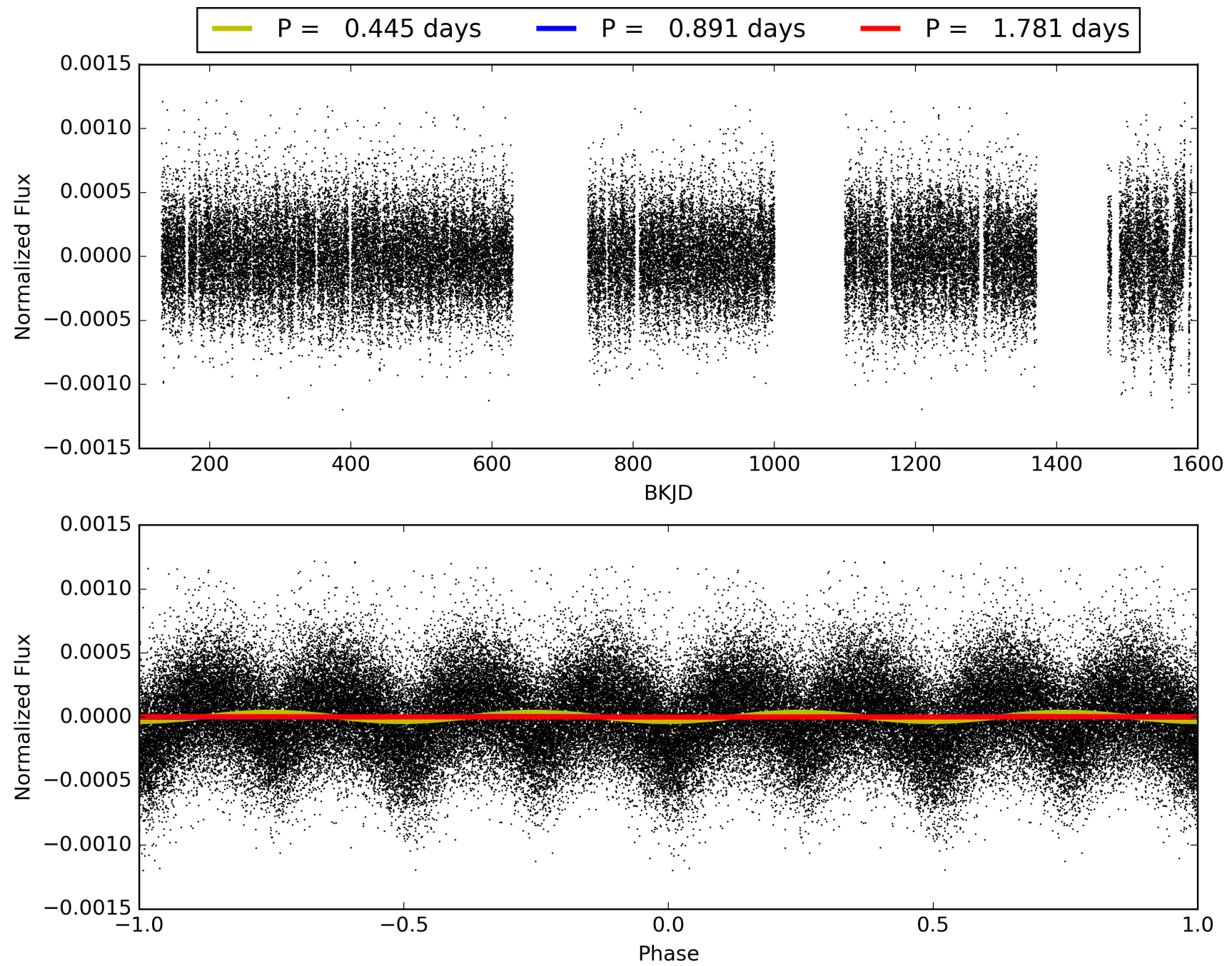
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:07:12 Z

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

TCE 010485179-01, PDC Light Curves

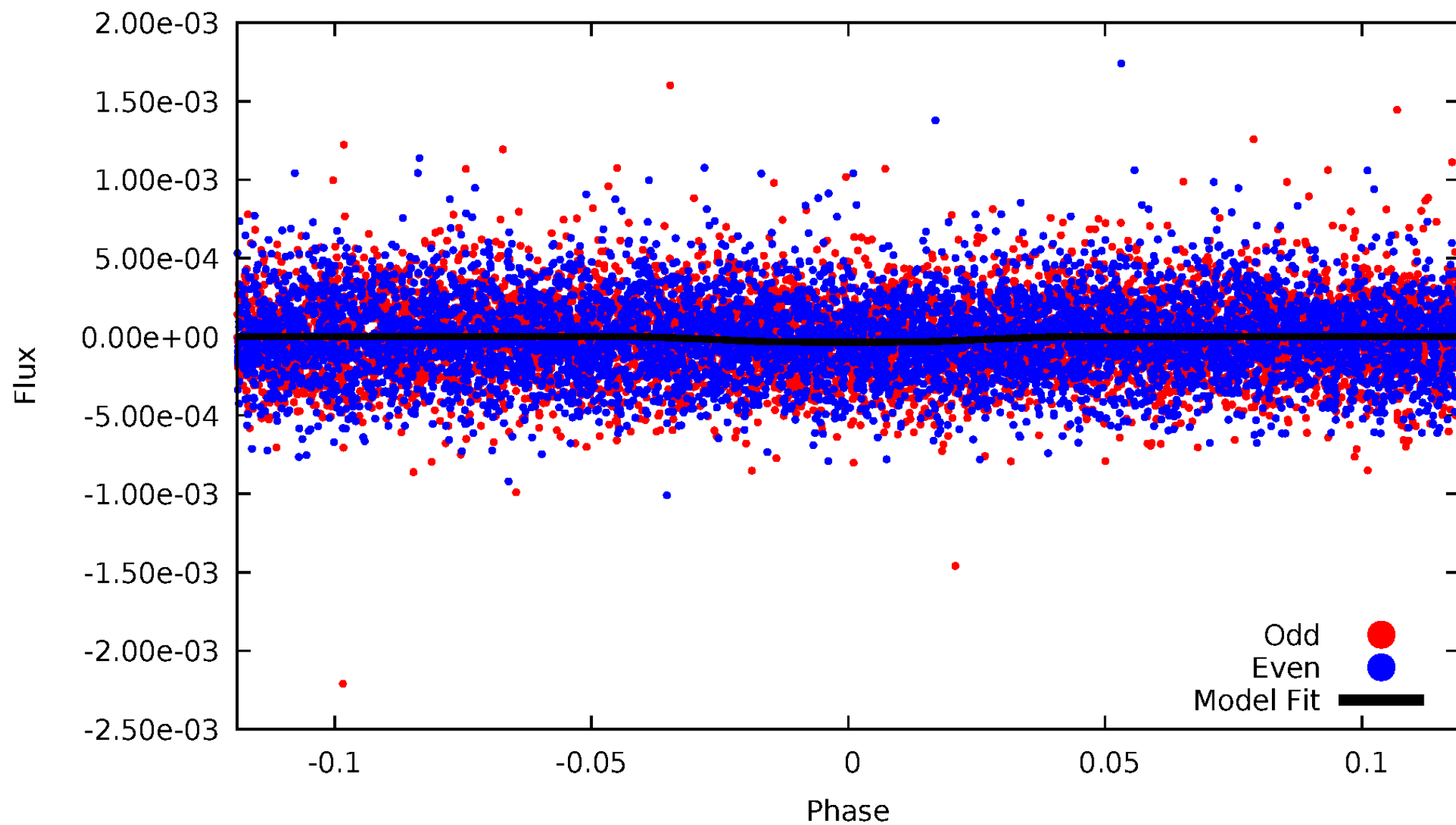


TCE 010485179-01



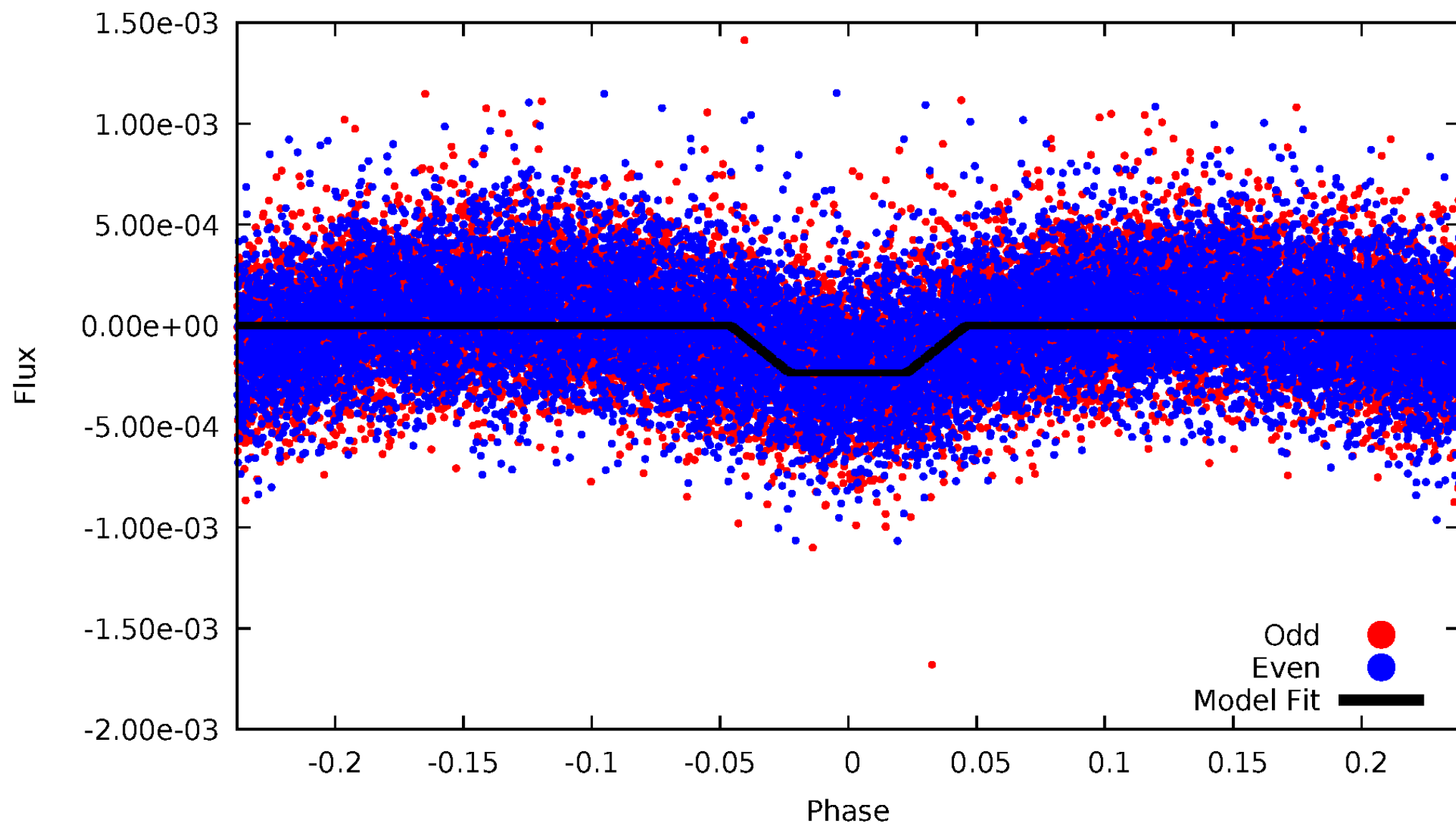
DV Odd/Even

TCE 010485179-01



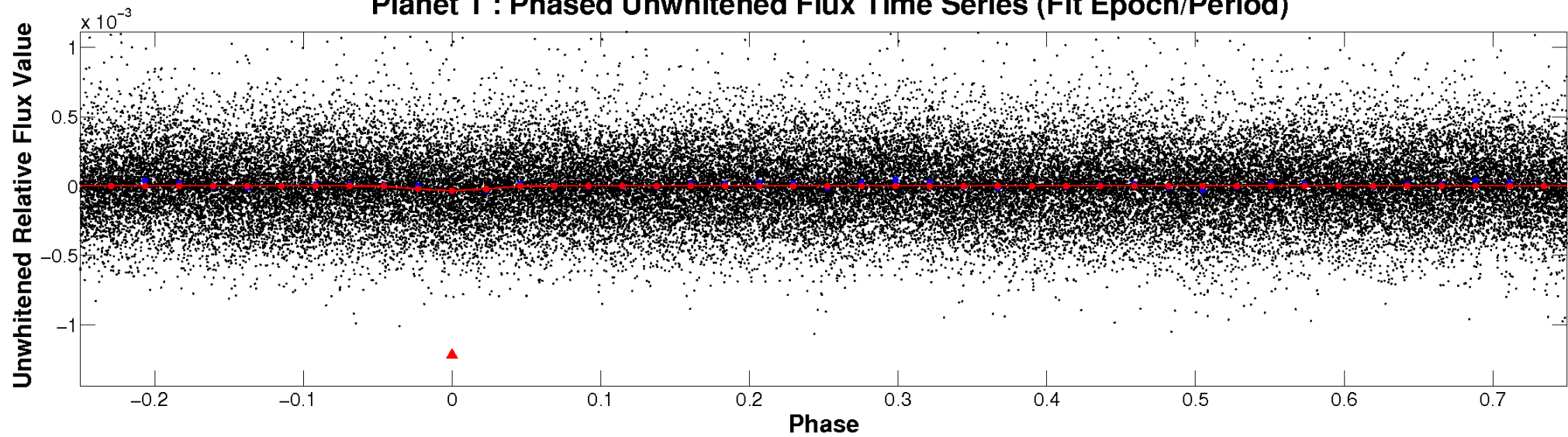
ALT Odd/Even

TCE 010485179-01

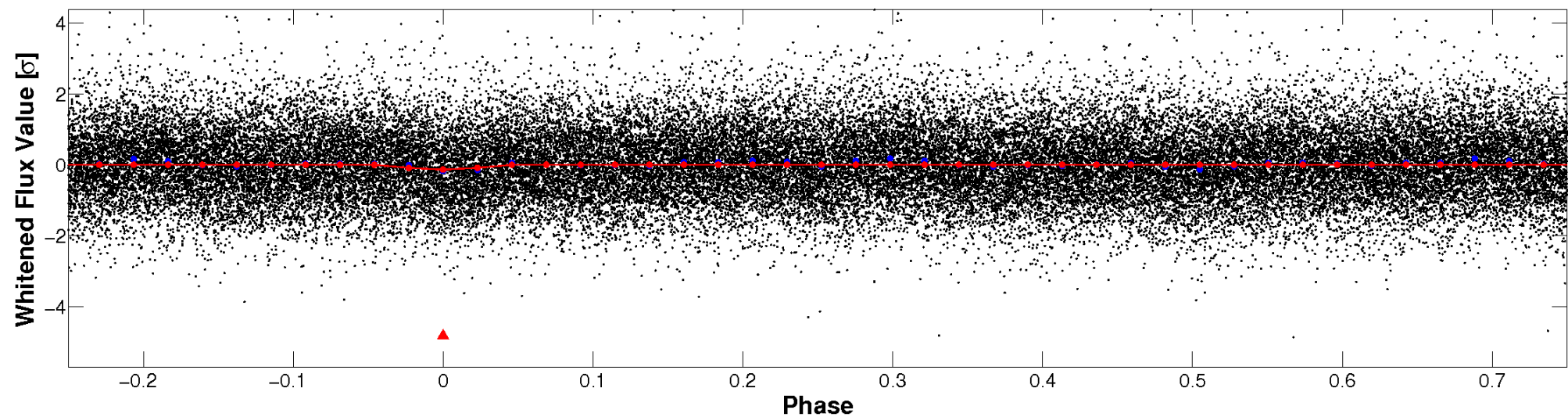


Non-Whitened Vs. Whitened Light Curve

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

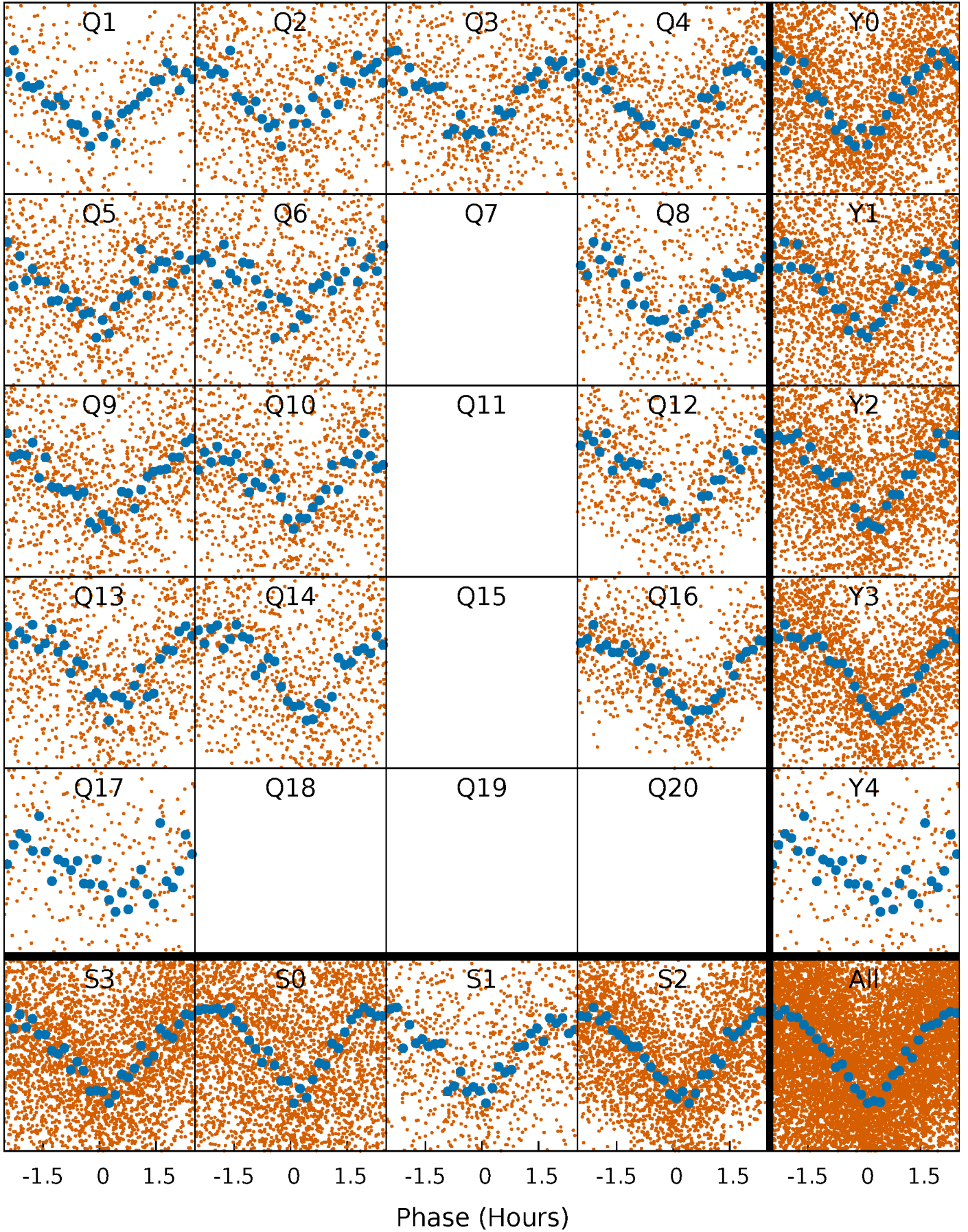


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



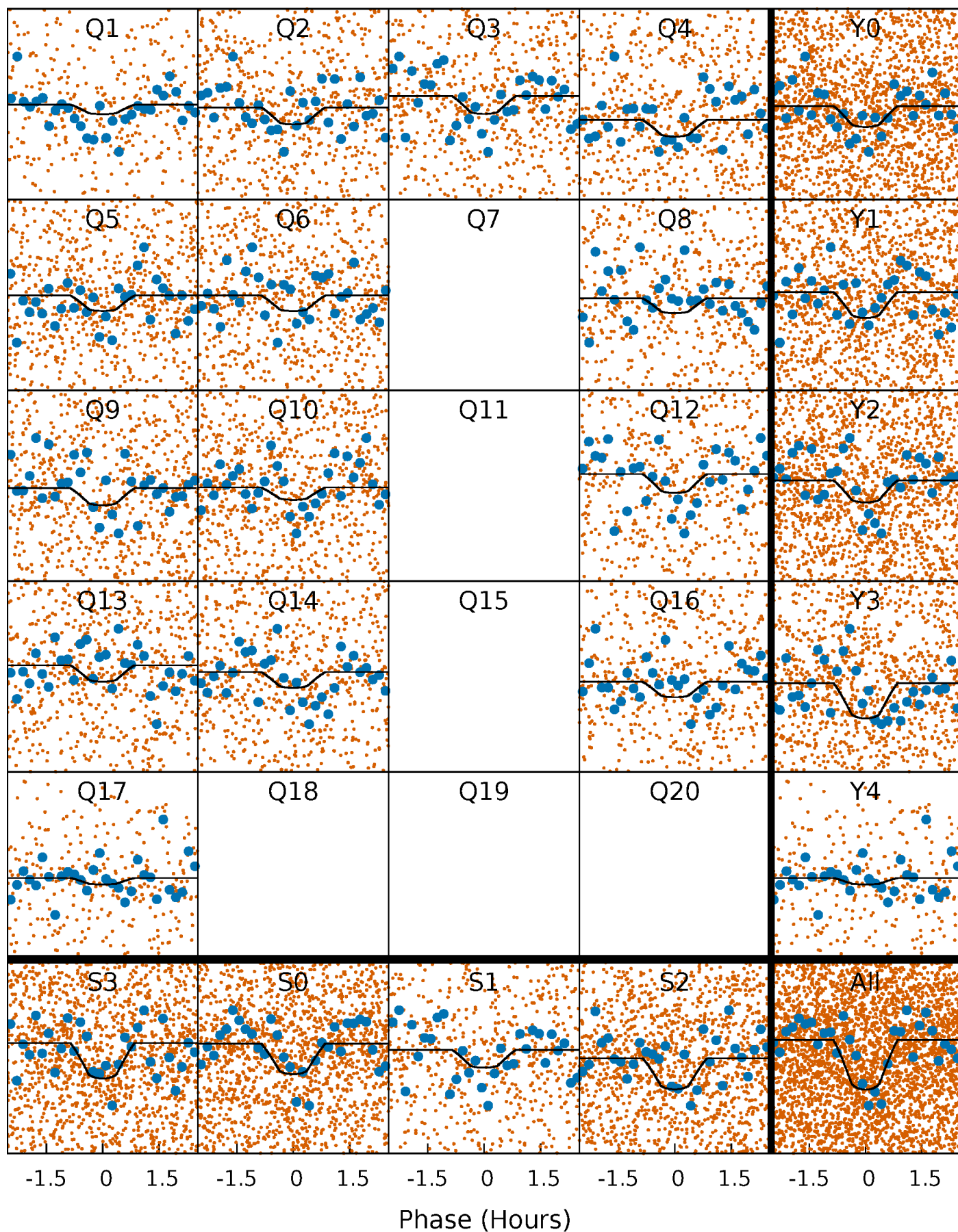
PDC Quarter-Phased Transit Curves

TCE 010485179-01 P= 0.890528 Days $T_0=131.758612$ (BKJD)



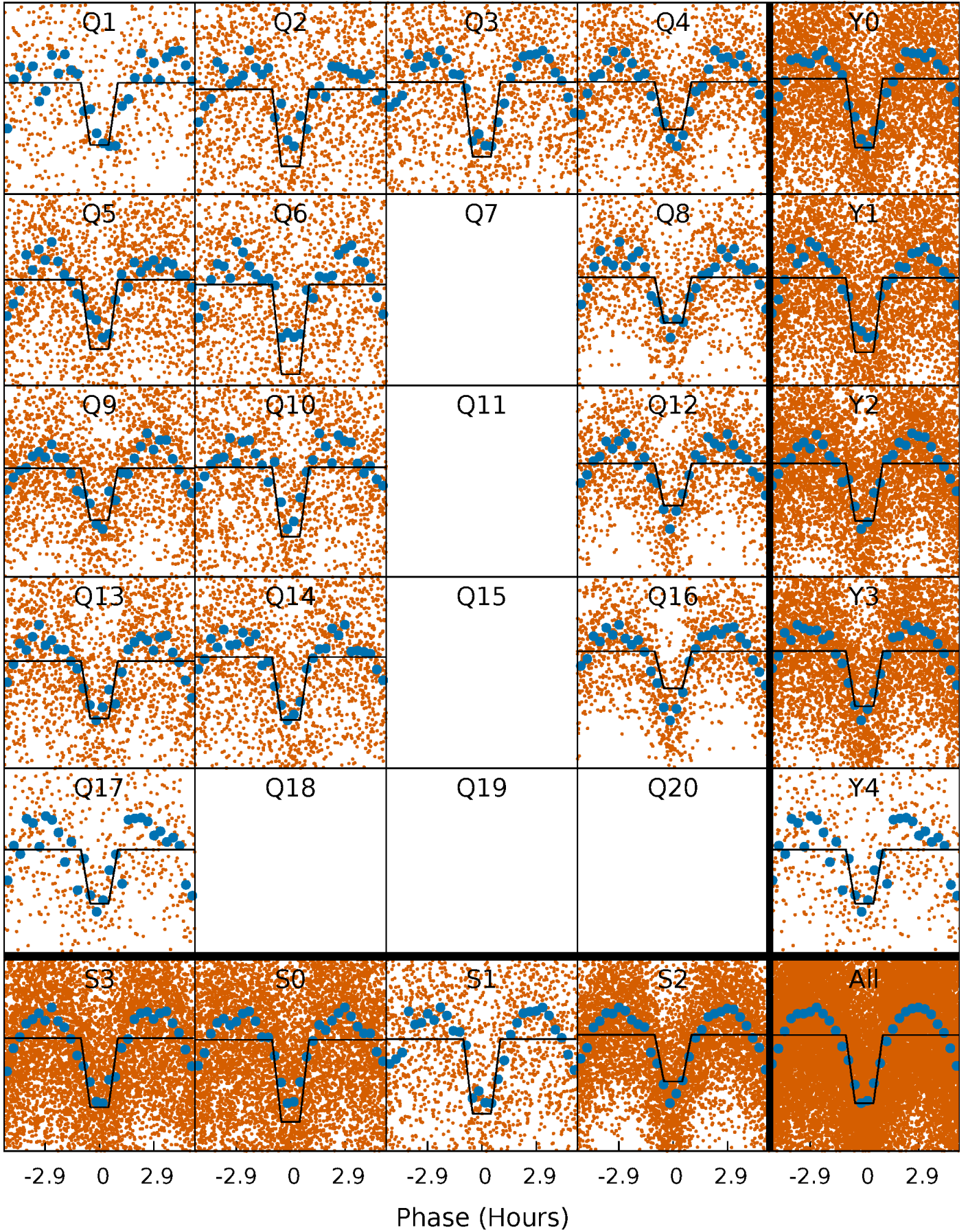
DV Quarter-Phased Transit Curves

TCE 010485179-01 P= 0.890528 Days $T_0=131.758612$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

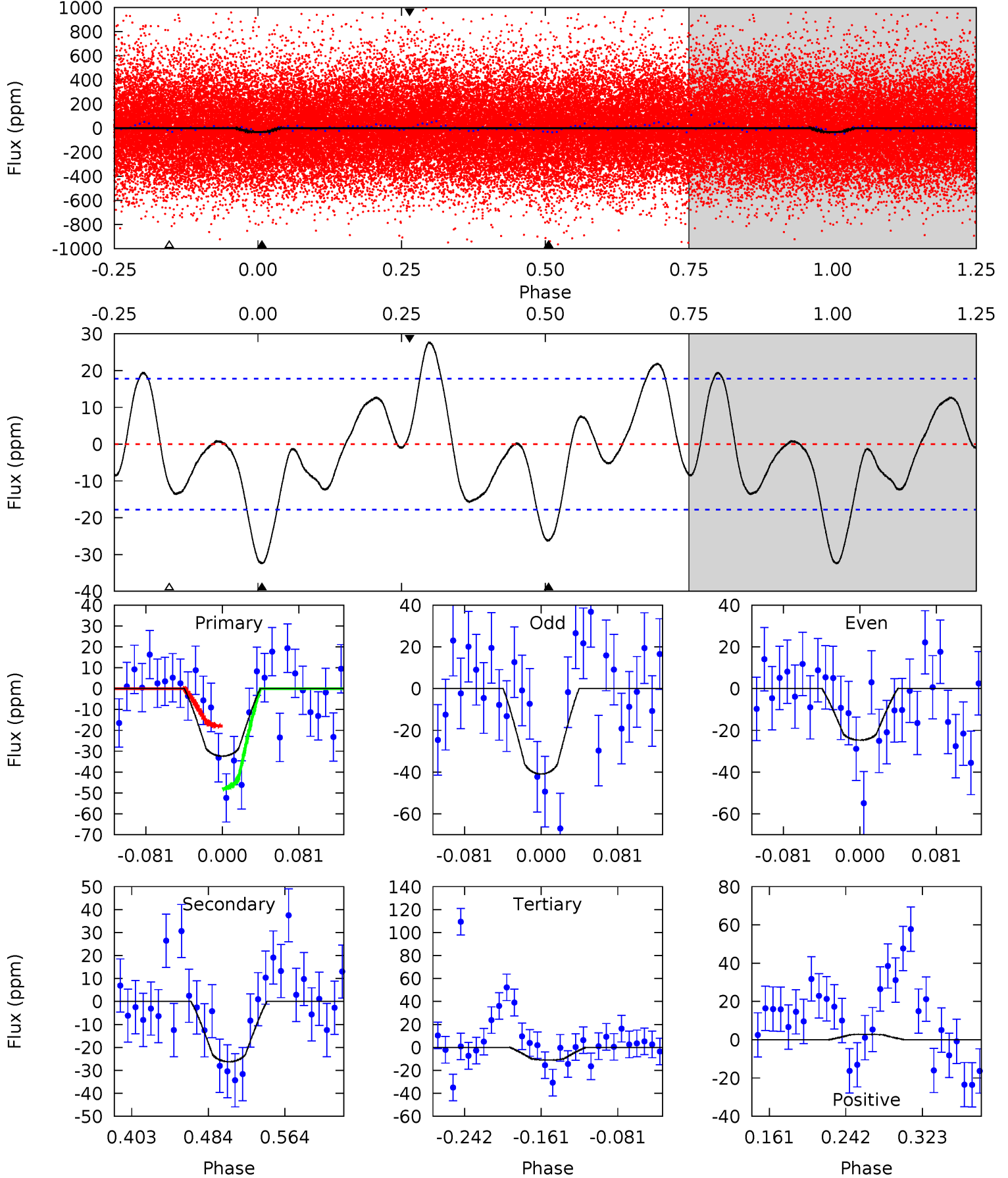
TCE 010485179-01 P= 0.890559 Days $T_0=131.739089$ (BKJD)



DV Model-Shift Uniqueness Test

010485179-01, P = 0.890528 Days, E = 130.868084 Days

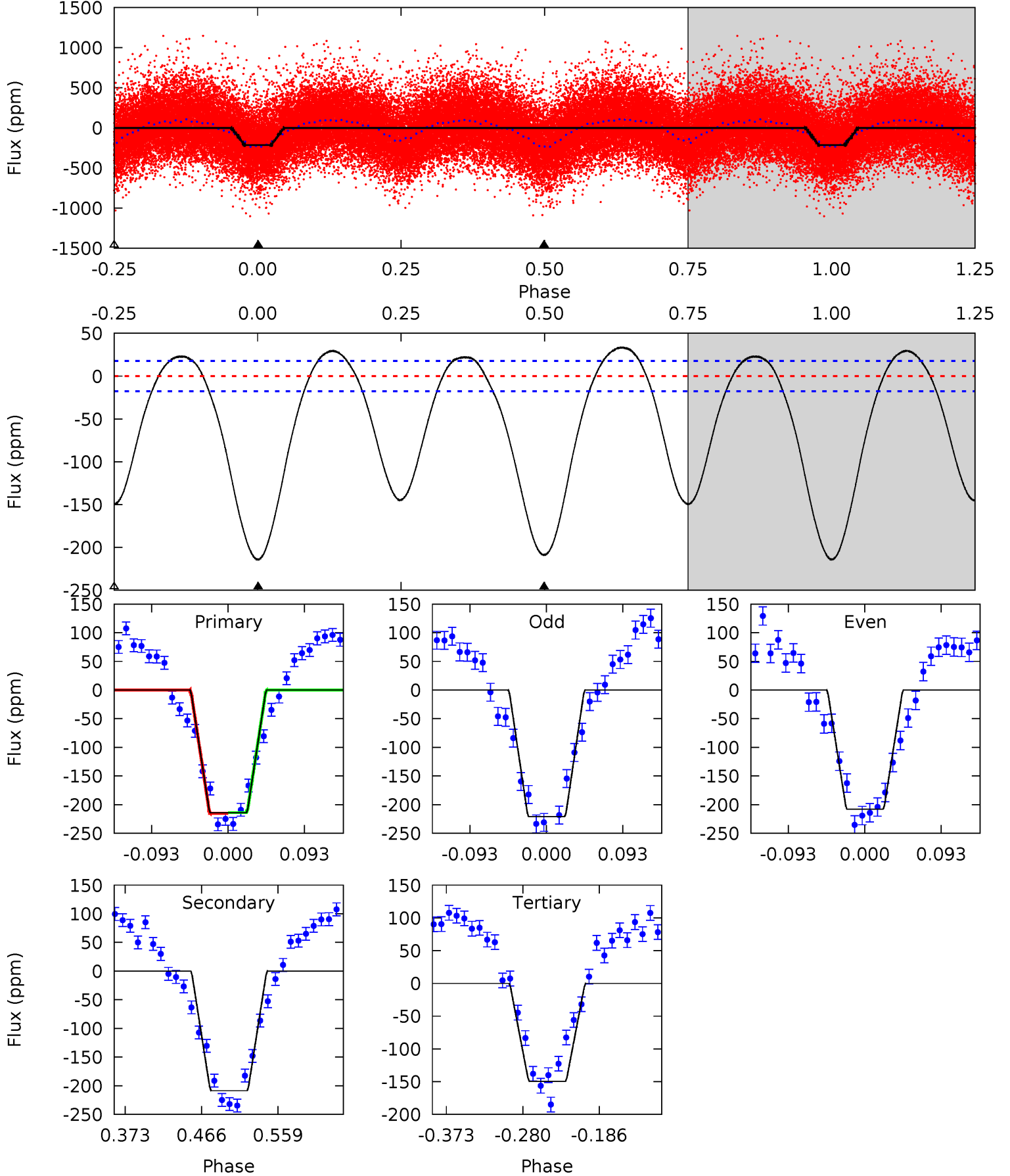
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.37	6.78	2.86	0.74	4.61	1.75	2.97	5.51	7.63	3.92	6.04	2.10	0.86	0.46	3.90



Alt Model-Shift Uniqueness Test

010485179-01, P = 0.890559 Days, E = 130.848530 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.5	54.2	38.8	0	4.58	1.68	15.6	16.8	55.5	15.4	54.2	1.67	0.99	0.13	0.15



Stellar Parameters For KIC 010485179

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5346^{+160}_{-144}	$4.621^{+0.032}_{-0.104}$	$-0.340^{+0.350}_{-0.300}$	$0.725^{+0.122}_{-0.052}$	$0.810^{+0.076}_{-0.093}$	$2.997^{+0.446}_{-0.966}$
	+3%/-3%	+1%/-2%	+103%/-88%	+17%/-7%	+9%/-11%	+15%/-32%
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 010485179-01 / KOI 1167.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-26 ± 4	$0.52^{+0.31}_{-0.27}$	2199^{+98}_{-82}	4786^{+2027}_{-782}	14^{+48}_{-8}
Alt.	-209 ± 4	$1.24^{+0.31}_{-0.31}$	2195^{+91}_{-79}	5202^{+754}_{-470}	21^{+16}_{-8}

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

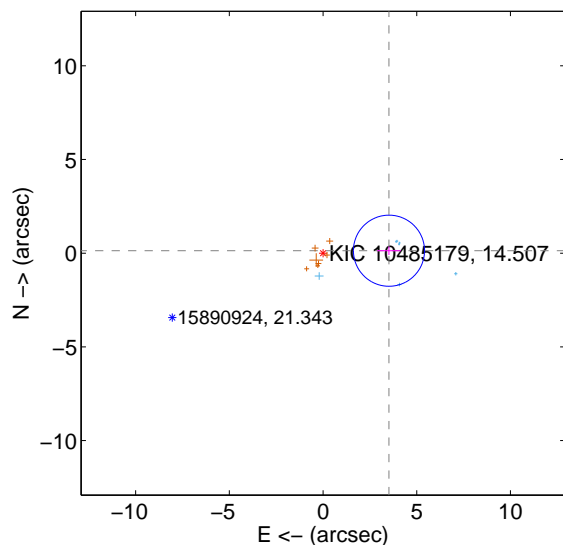
Supplemental centroid analysis for 010485179-01. Kepler magnitude: 14.51. Transit SNR 6.35

There are 7 quarters with good PRF difference image offsets

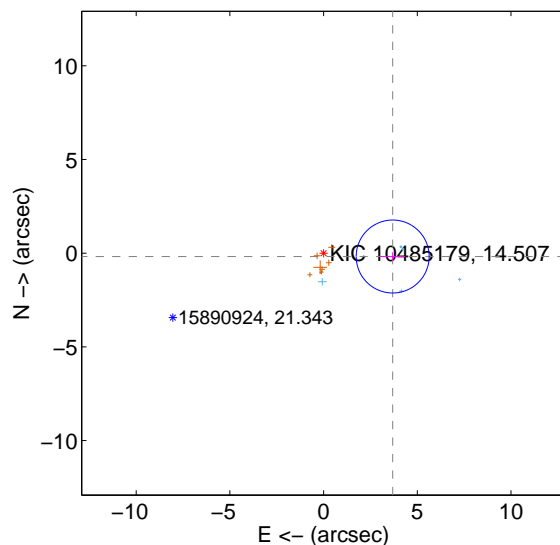
The direct PRF centroid is offset from the target star catalog position by about 0.43 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.520 ± 0.632	5.57	-3.518 ± 0.632	0.131 ± 0.228
PRF-fit source offset from KIC position	3.690 ± 0.649	5.69	-3.686 ± 0.652	-0.178 ± 0.228
photometric centroid source offset	3.59 ± 2.39	1.50	-1.99 ± 2.27	-2.99 ± 2.44

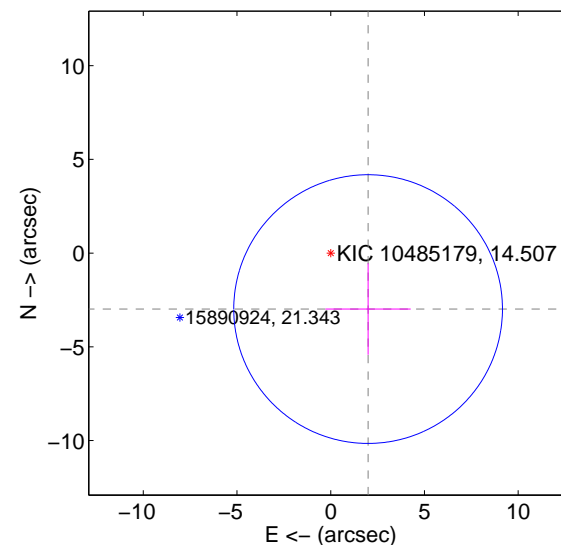
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

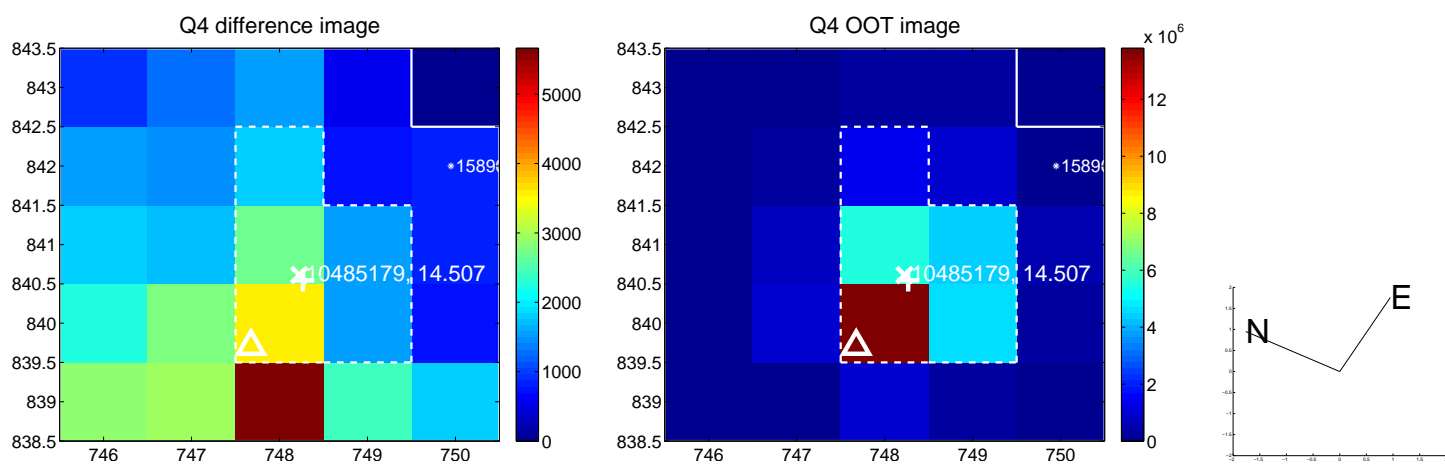
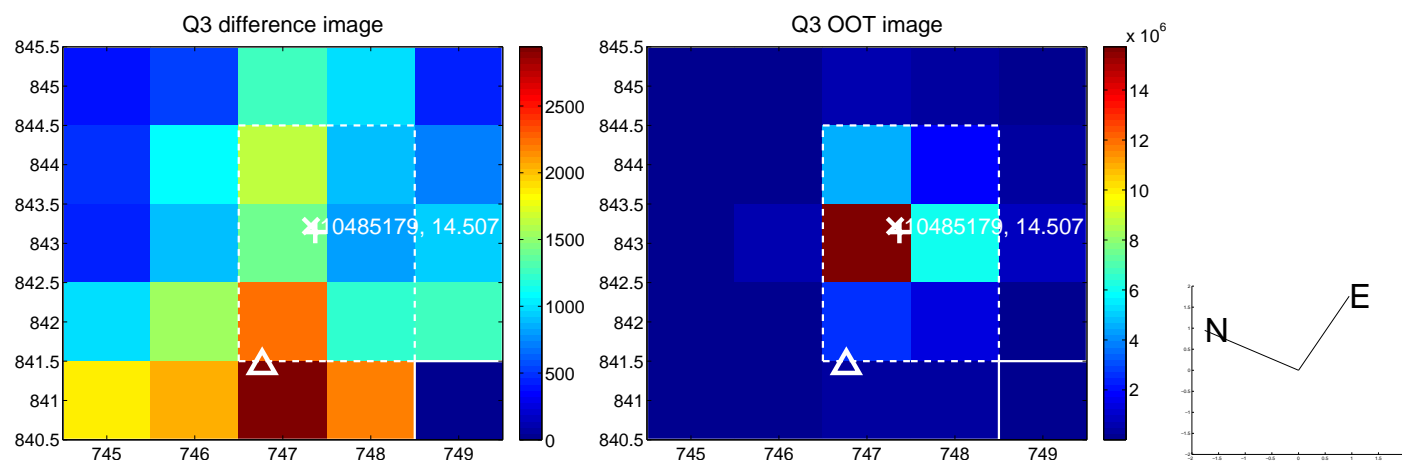
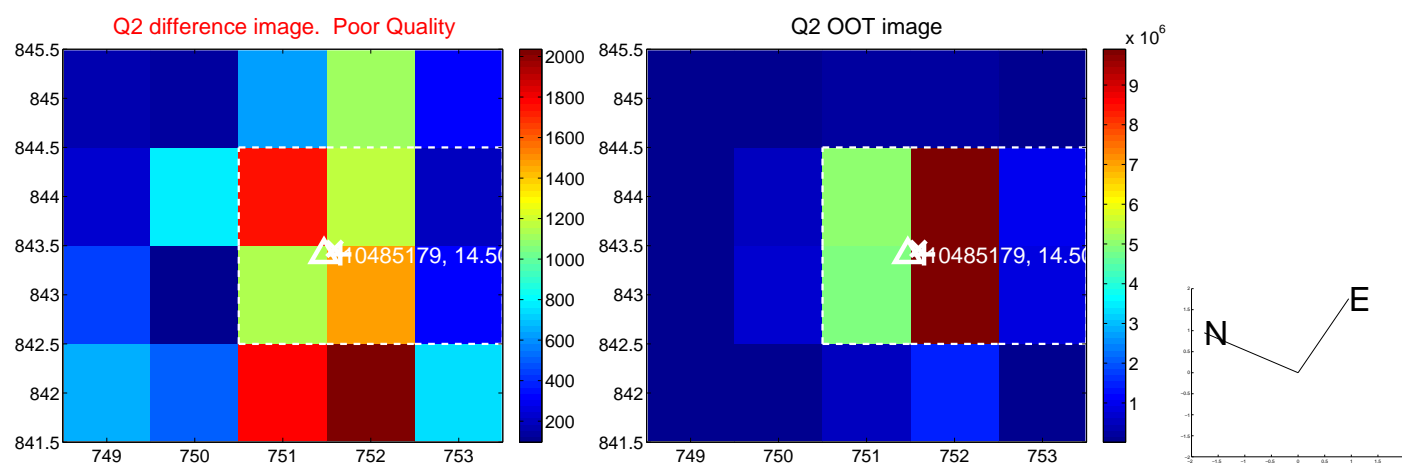
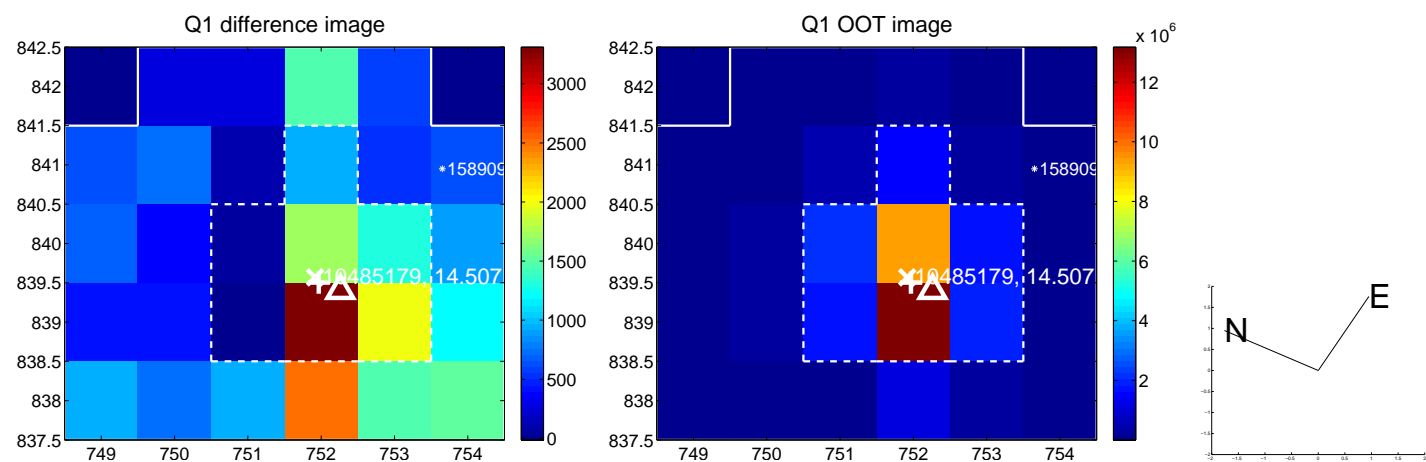


offset from photometric centroids

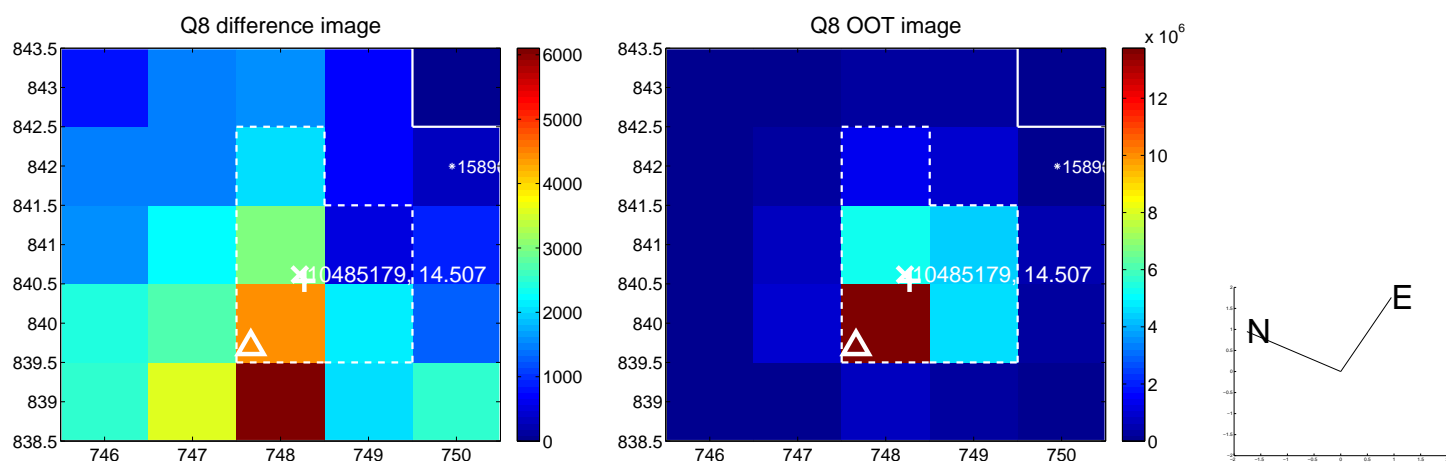
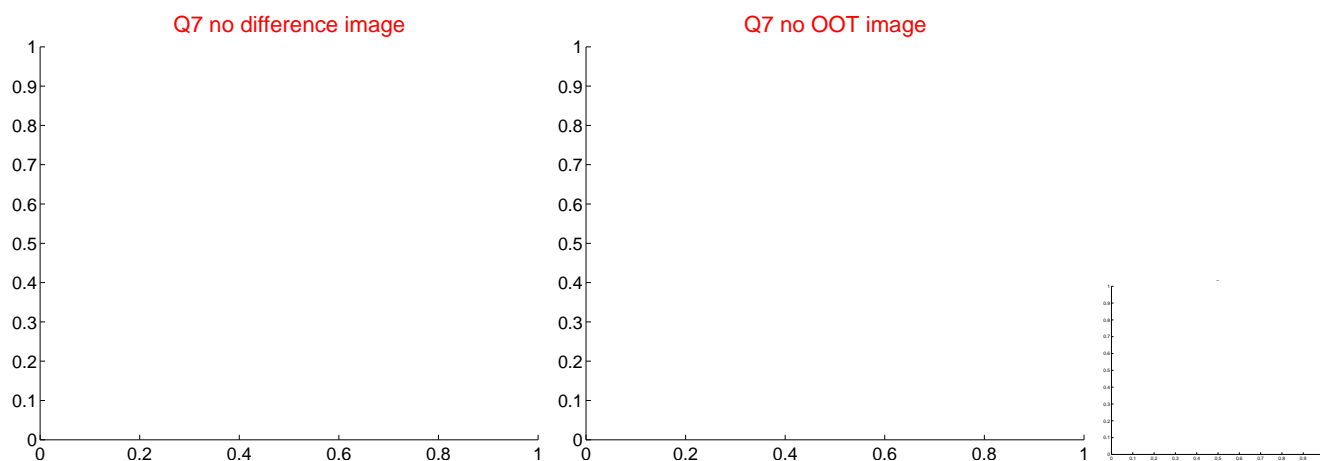
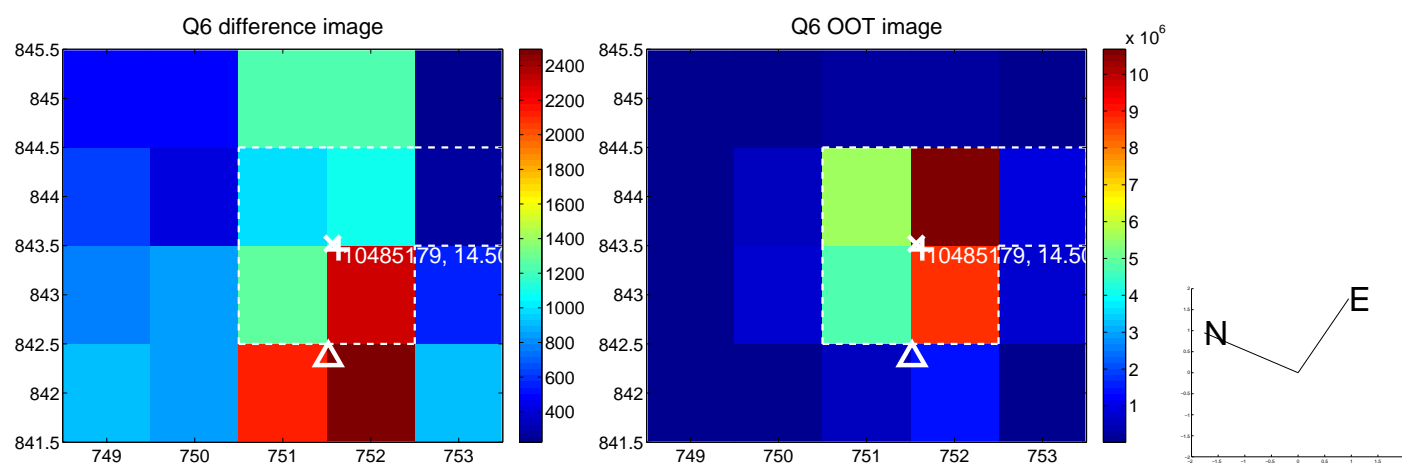
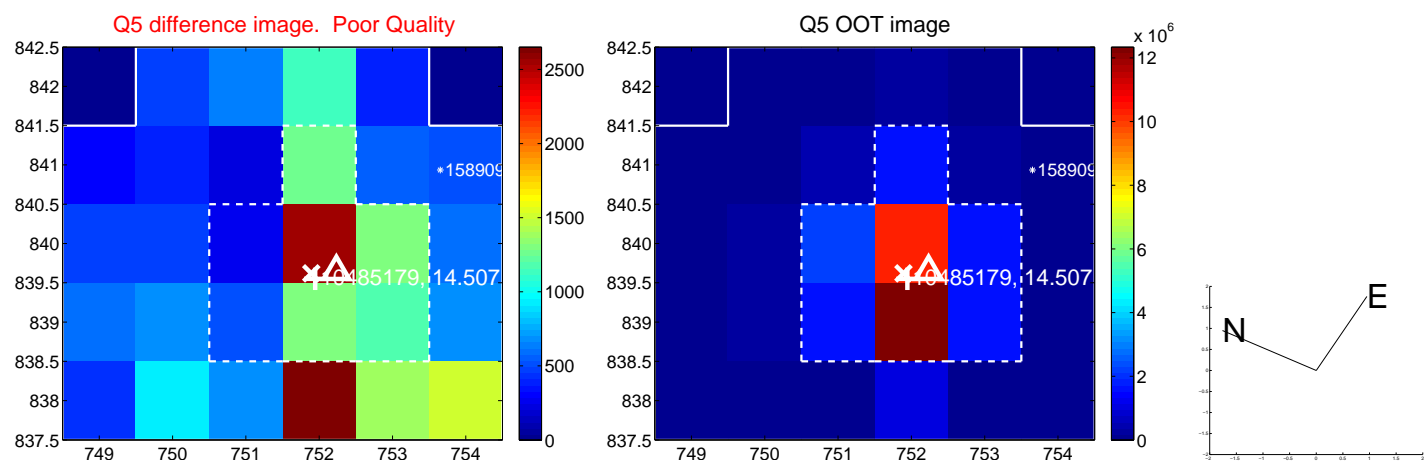


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

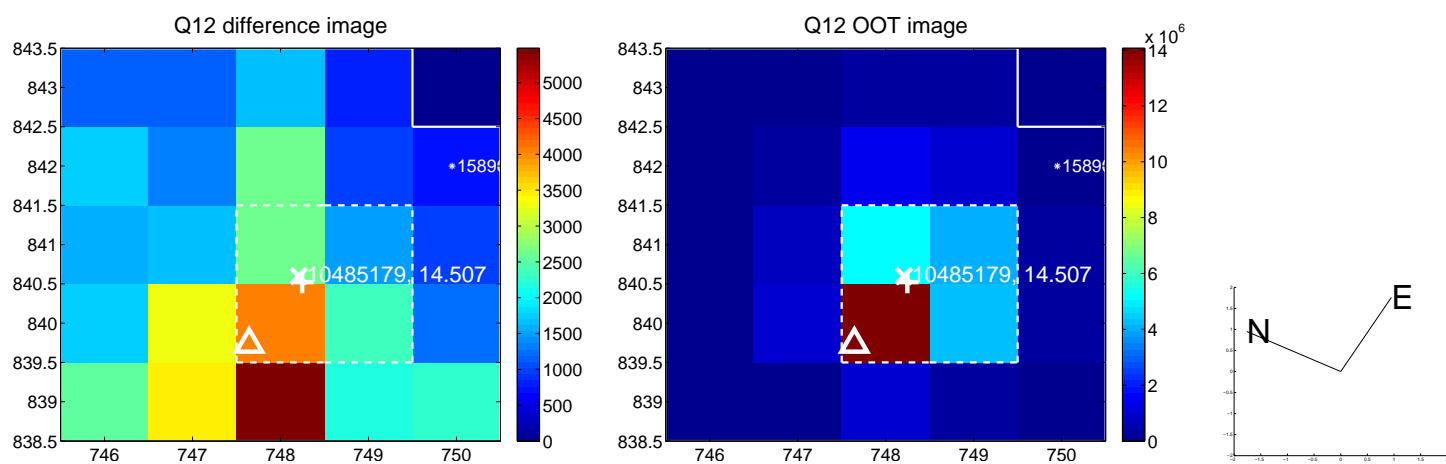
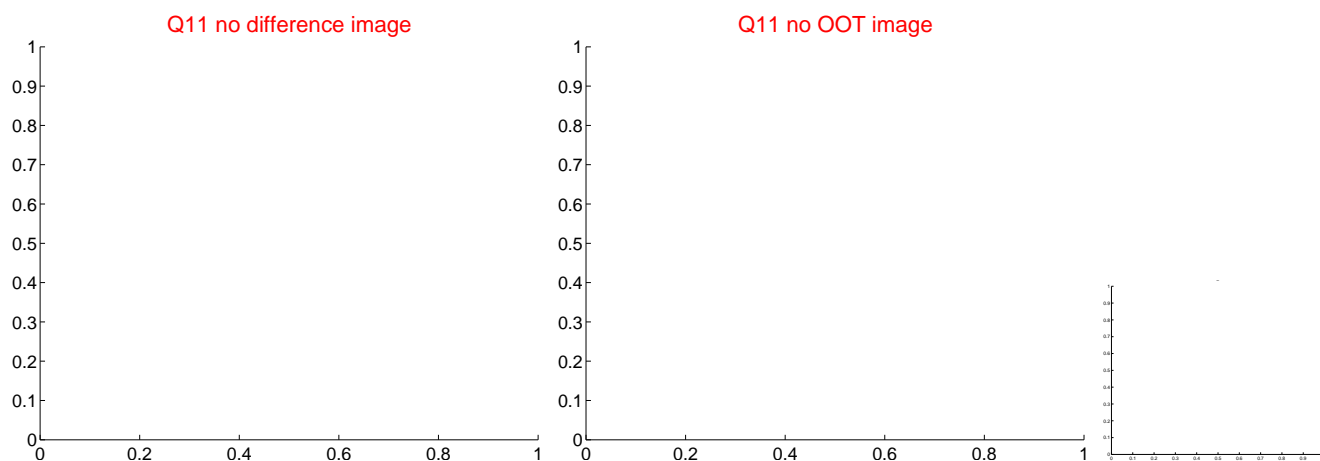
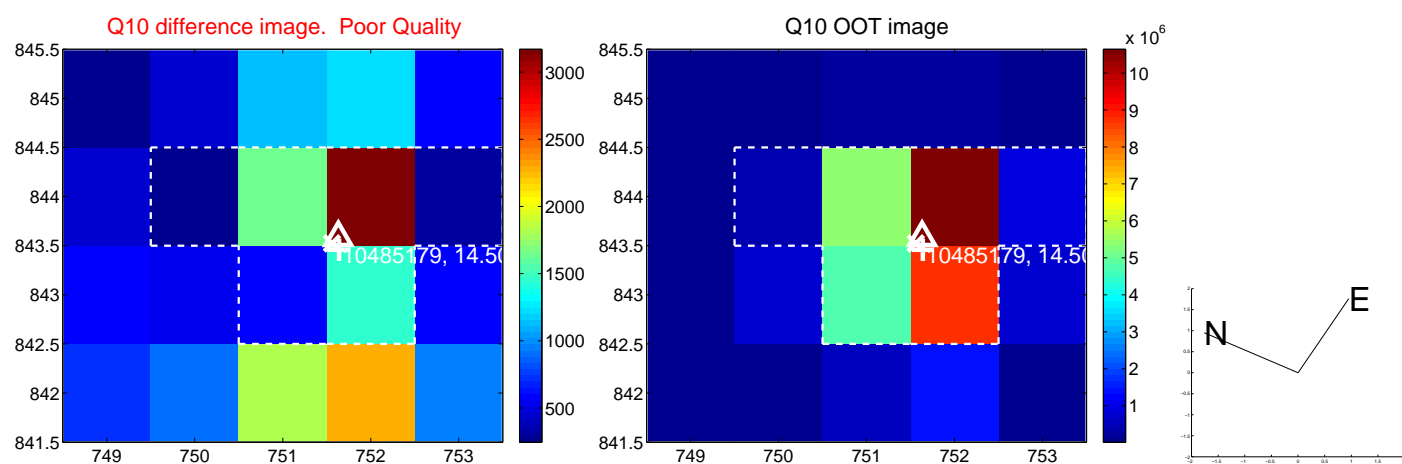
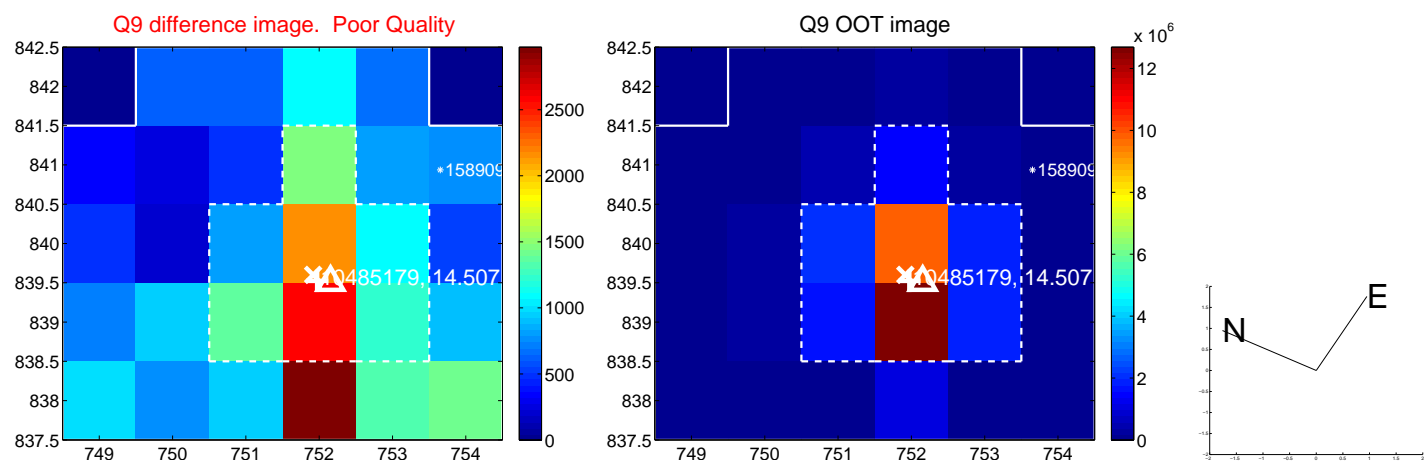
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



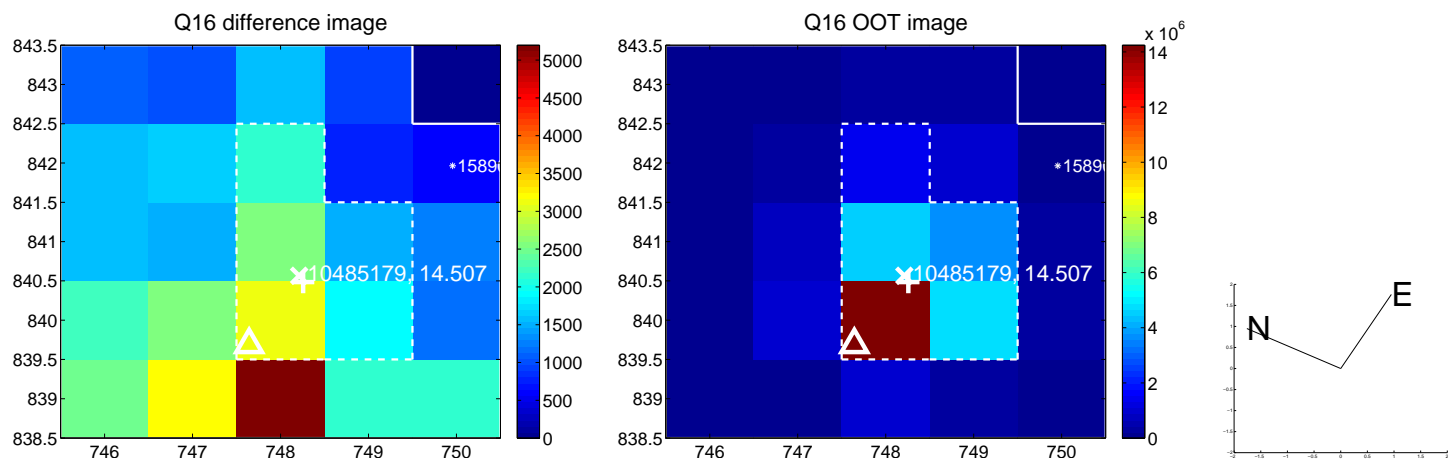
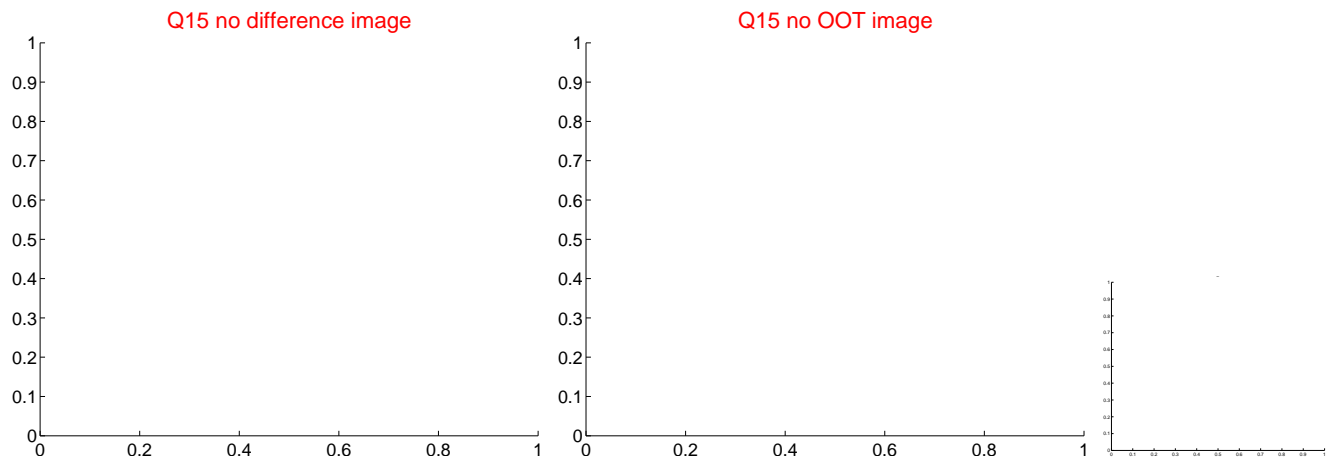
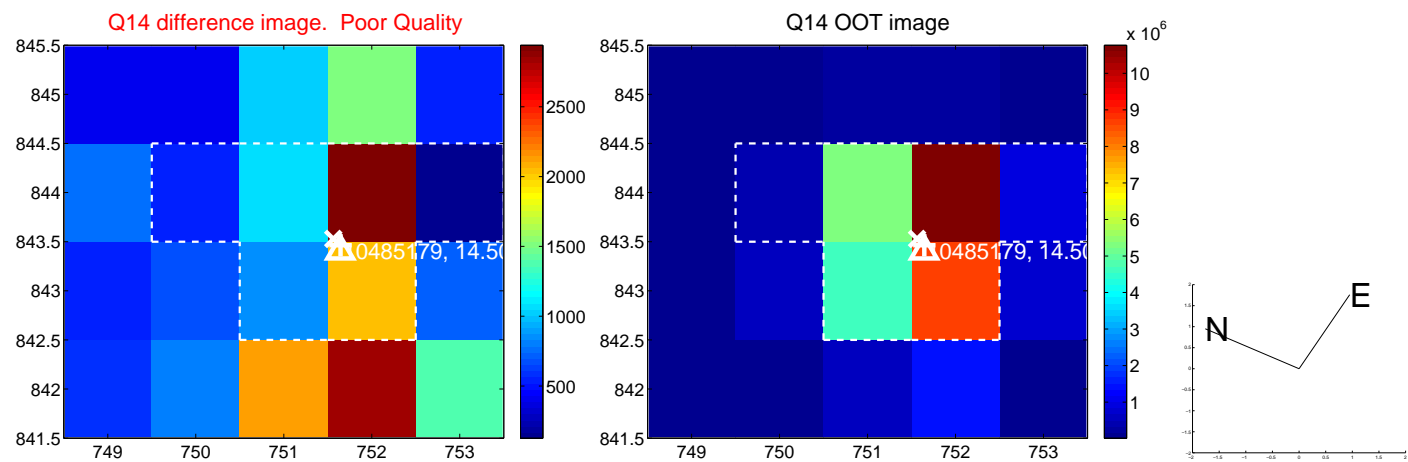
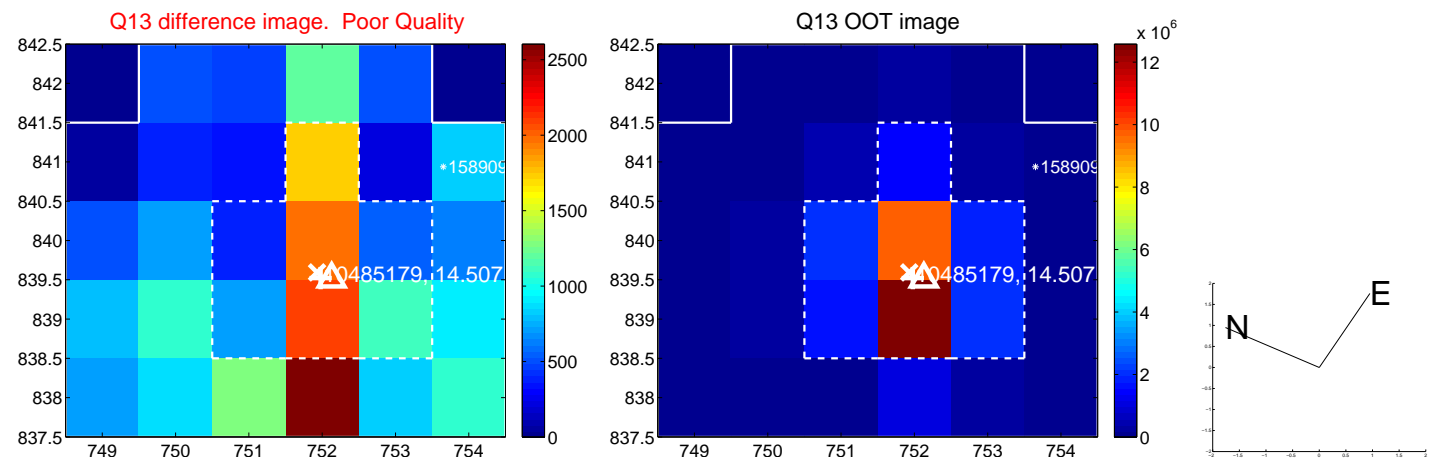
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



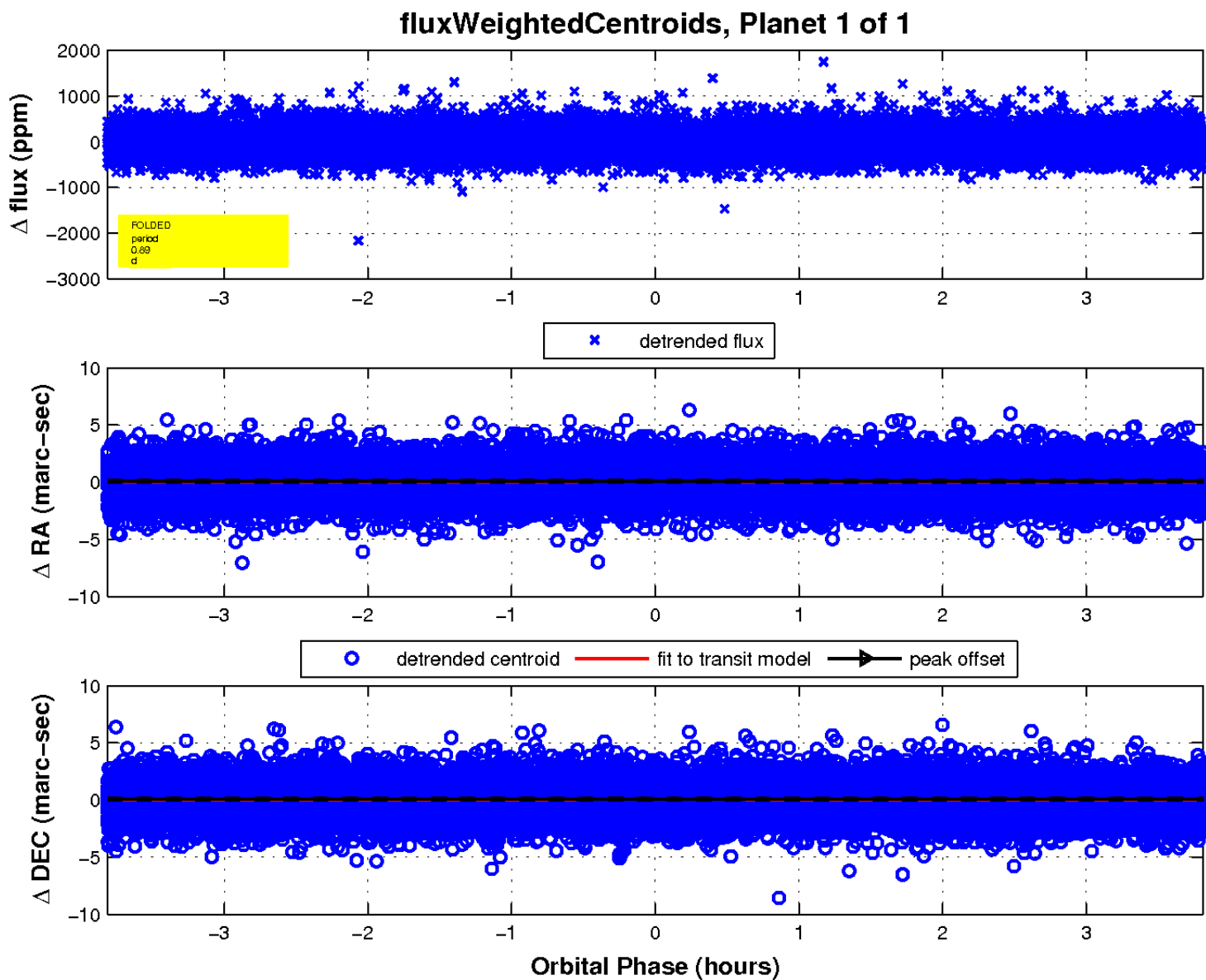
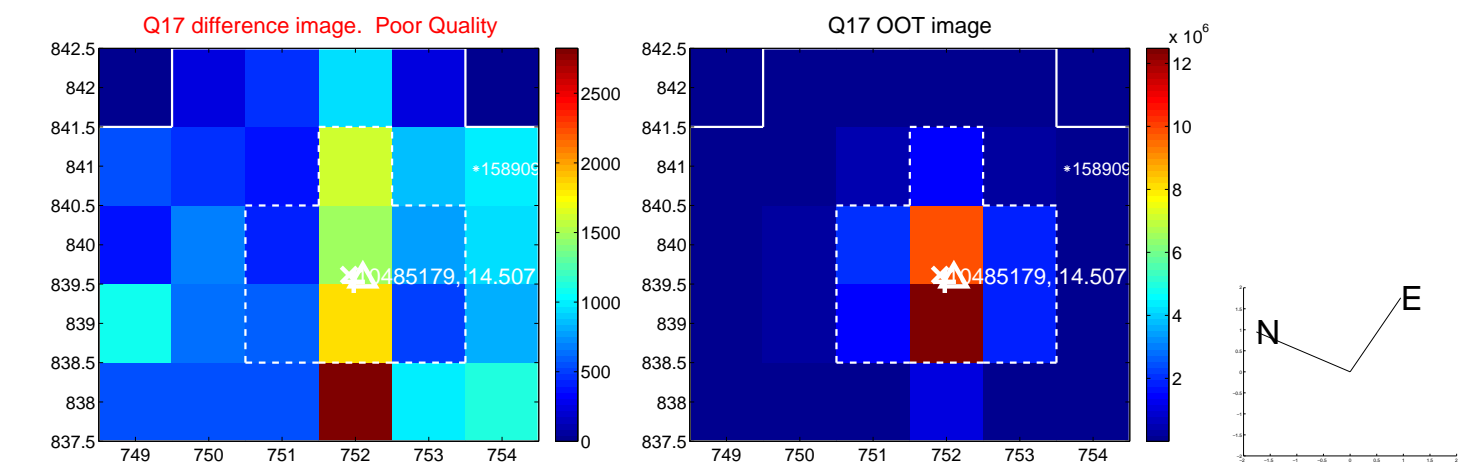
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

