

KIC 005195945

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})
005195945-01	OBS	3940.01	14.536749	132.371193	987.1	2.991	22.9	29.3	5.86	4946	27.27	1538.06

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005195945-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

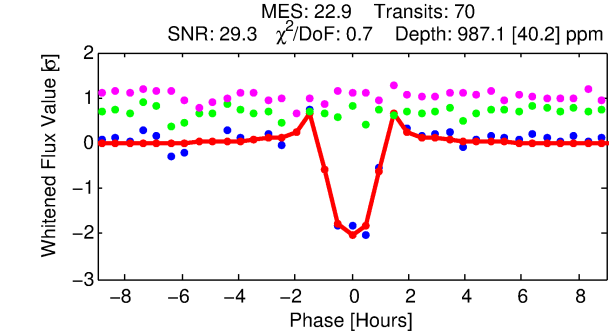
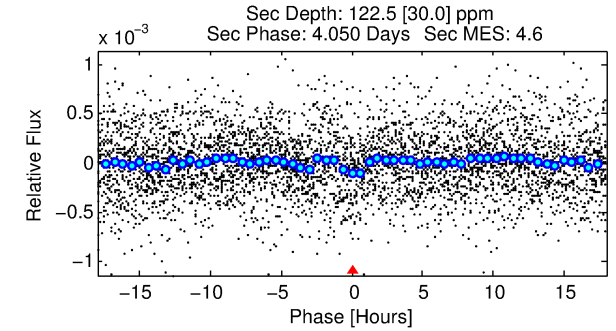
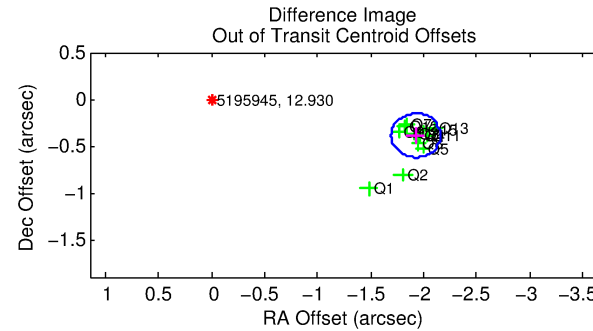
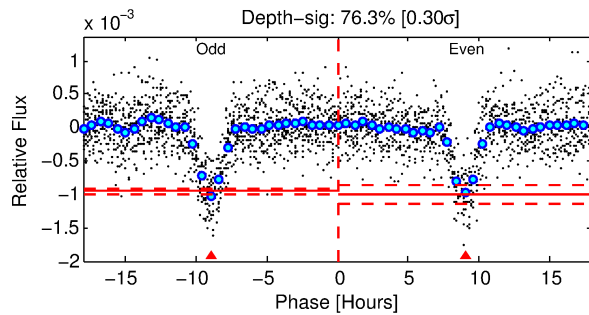
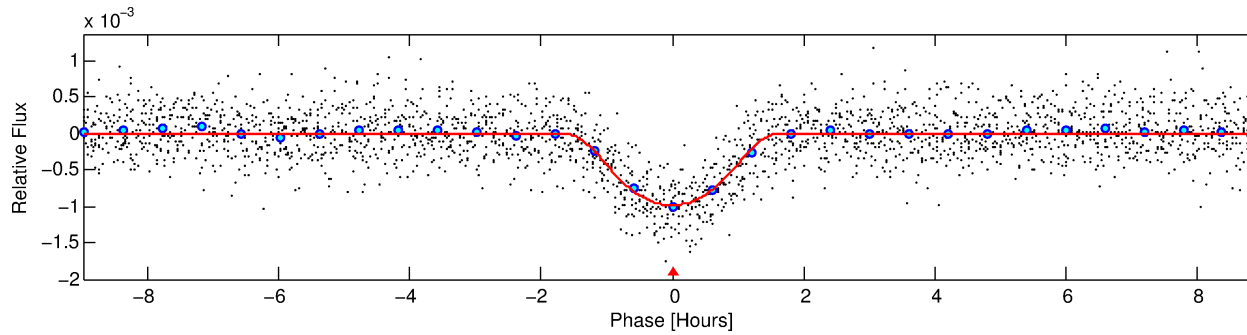
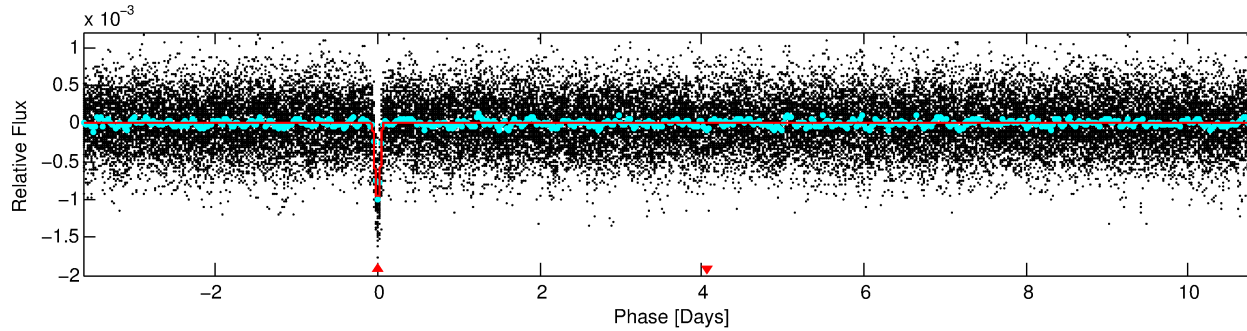
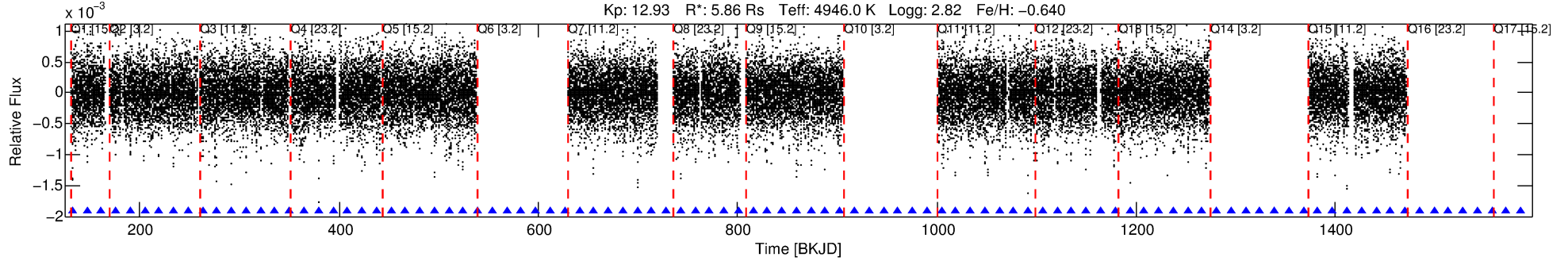
Ephemeris Match Information For 005195945-01

No Significant Match Found

DV One-Page Summary

KIC: 5195945 Candidate: 1 of 1 Period: 14.537 d
KOI: K03940.01 Corr: 0.965

Kp: 12.93 R*: 5.86 Rs Teff: 4946.0 K Logg: 2.82 Fe/H: -0.640



DV Fit Results:

Period = 14.53675 [0.00003] d
Epoch = 132.3712 [0.0014] BKJD
Rp/R* = 0.0427 [0.0046]
a/R* = 13.94 [0.74]
b = 0.97 [0.01]
Seff = 1538.06 [243.72]
Teq = 1597 [63] K
Rp = 27.27 [5.73] Re
a = 0.1093 [0.0134] AU
Ag = 1.08 [0.38] [0.22σ]
Teffp = 2518 [213] K [4.14σ]

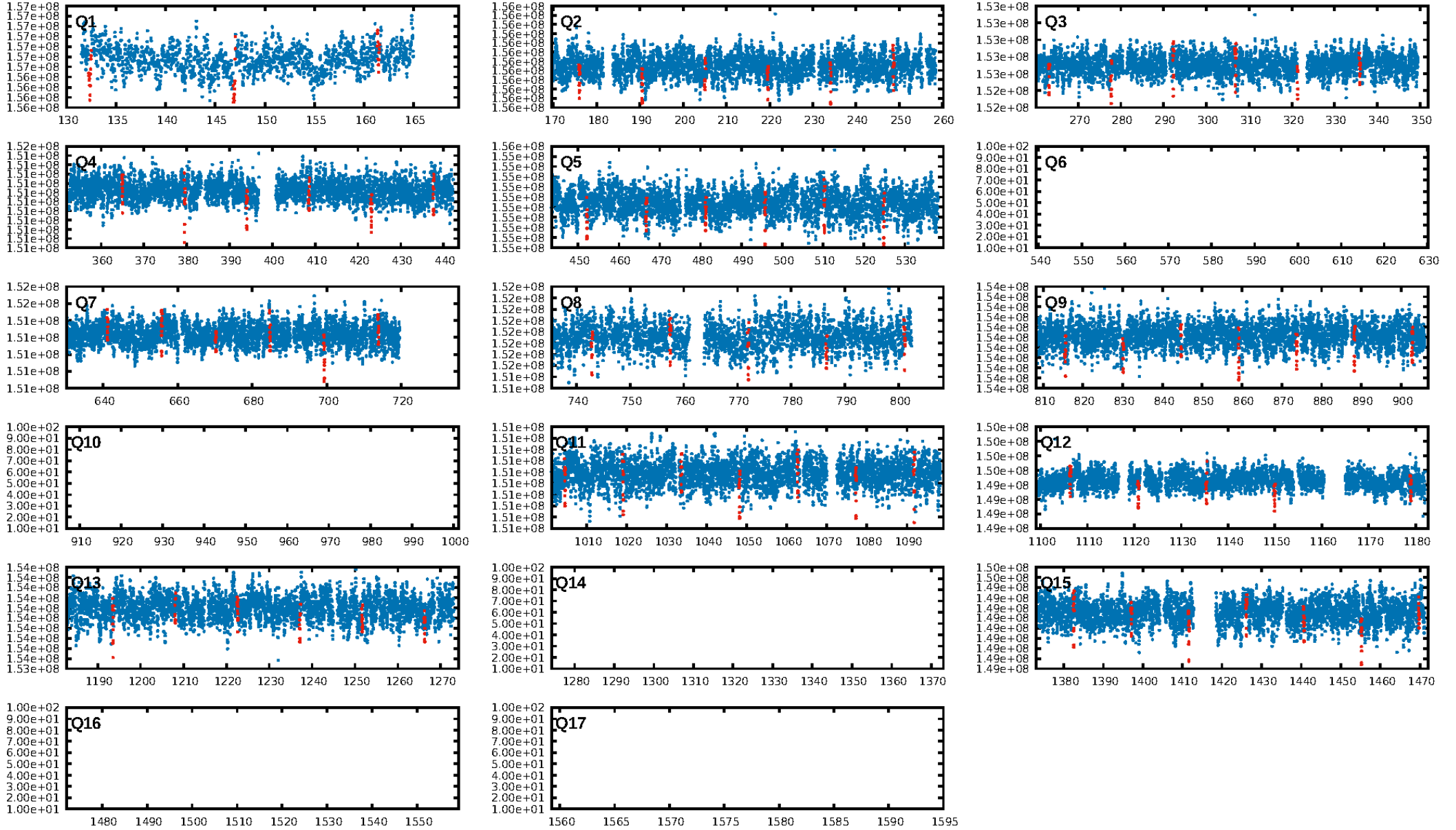
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.13e-96
RollingBand-fgt: 1.00 [67/67]
GhostDiagnostic-chr: 1.111
Centroid-sig: 0.0%
Centroid-so: 1.918 arcsec [18.70σ]
OotOffset-rm: 1.963 arcsec [25.20σ]
KicOffset-rm: 1.943 arcsec [24.80σ]
OotOffset-st: 1/4/3/4 [12]
KicOffset-st: 1/4/3/4 [12]
DiffImageQuality-fgm: 1.00 [12/12]
DiffImageOverlap-fno: 1.00 [12/12]

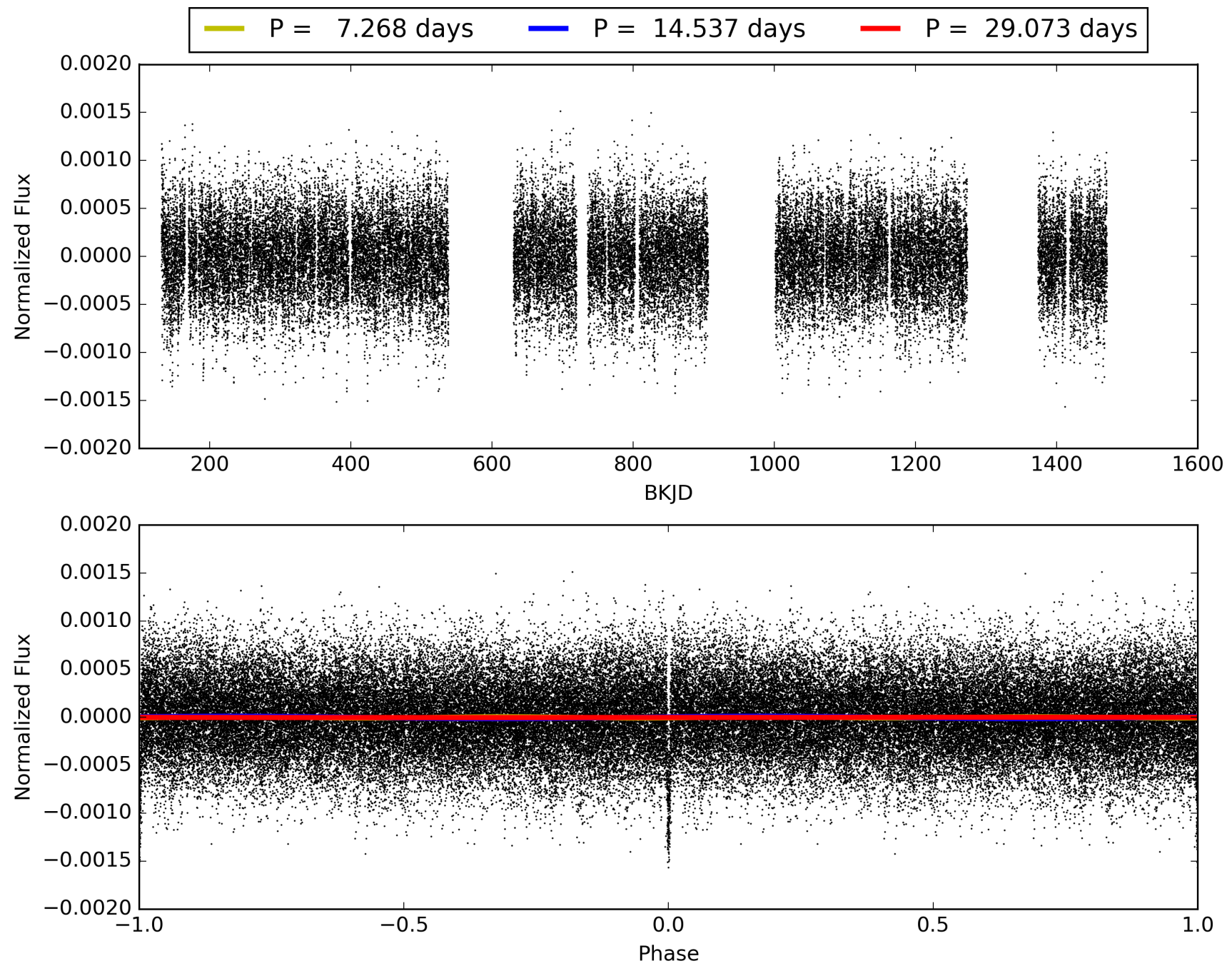
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:01:36 Z

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

TCE 005195945-01, PDC Light Curves

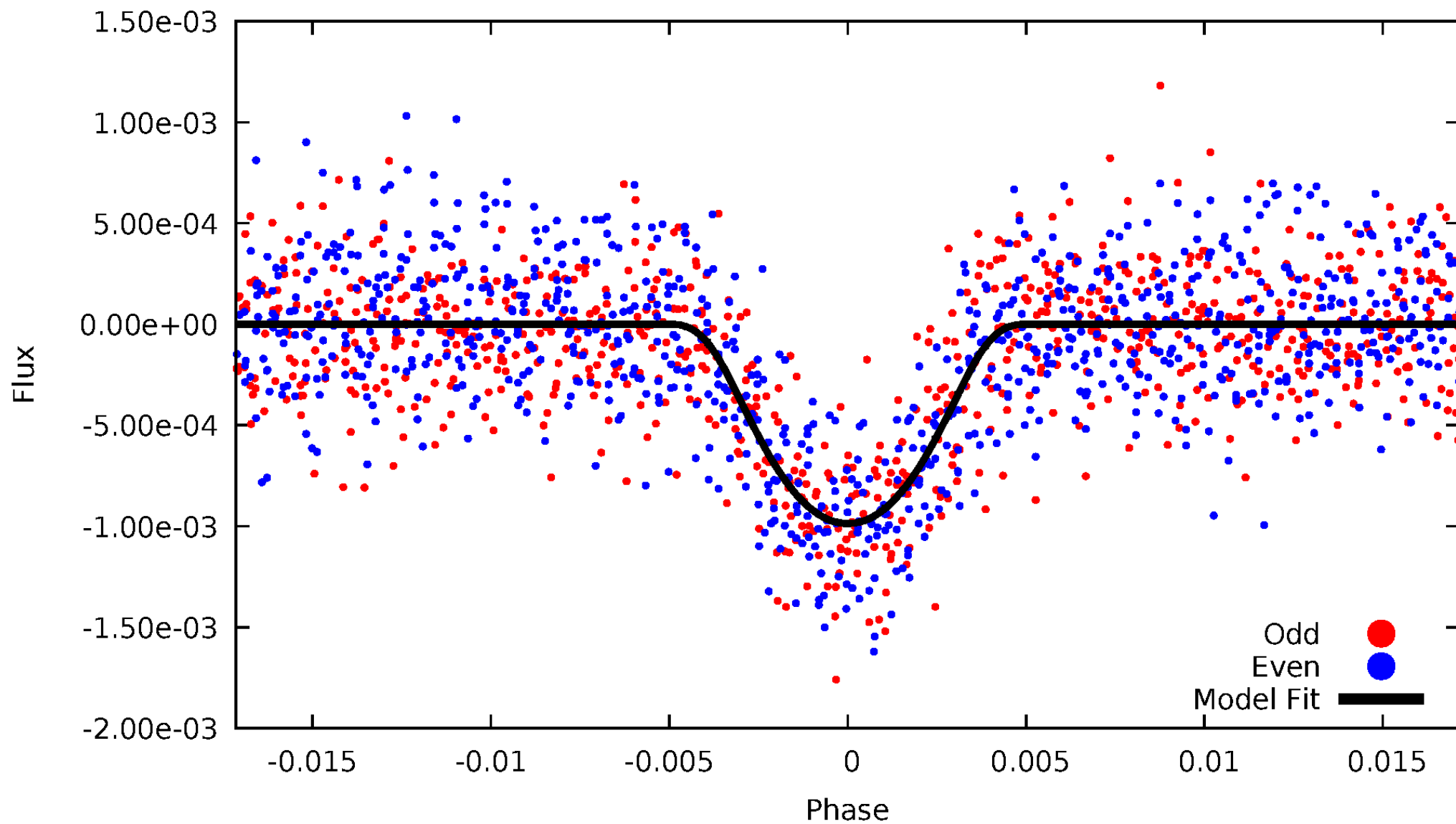


TCE 005195945-01



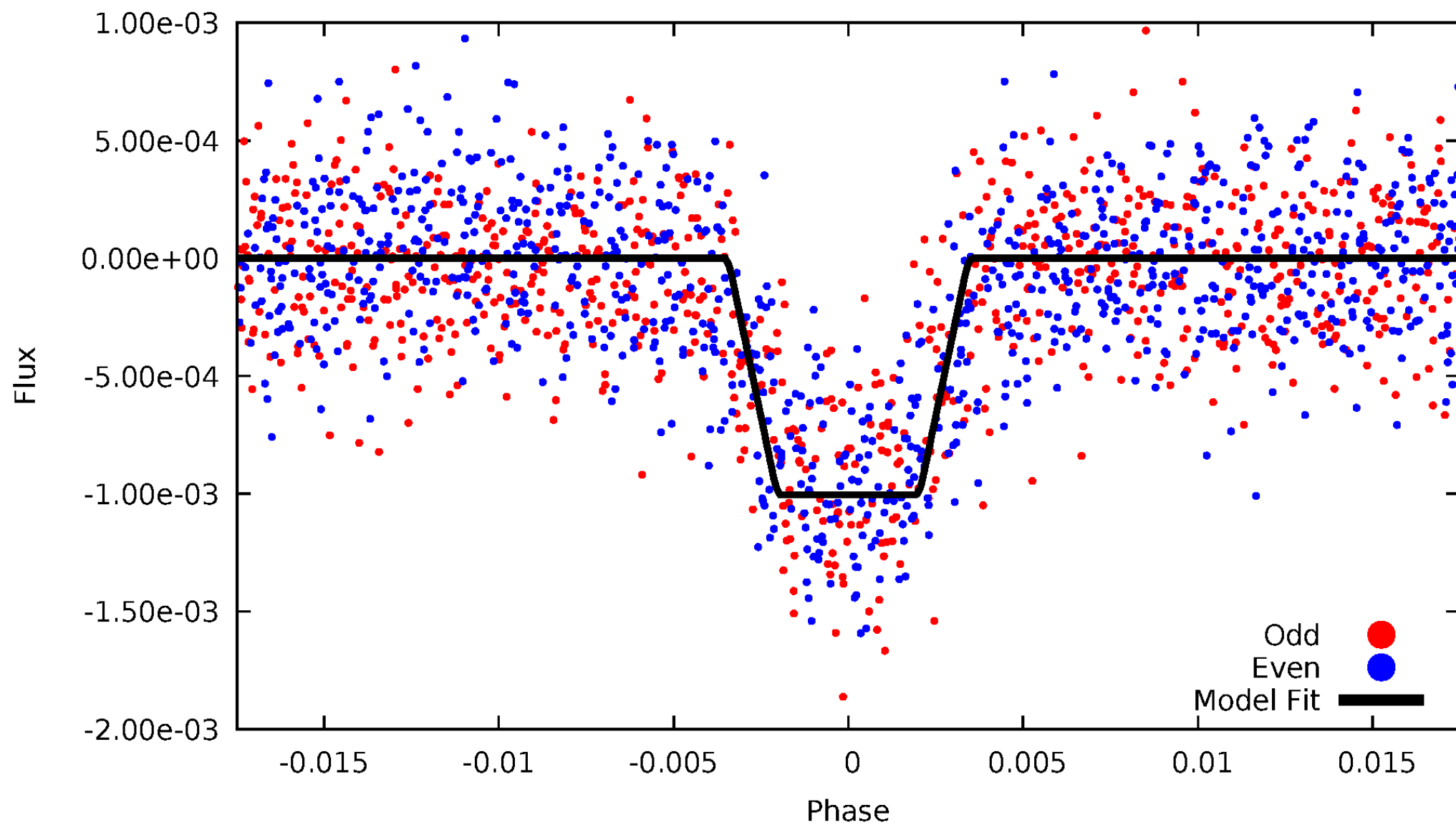
DV Odd/Even

TCE 005195945-01

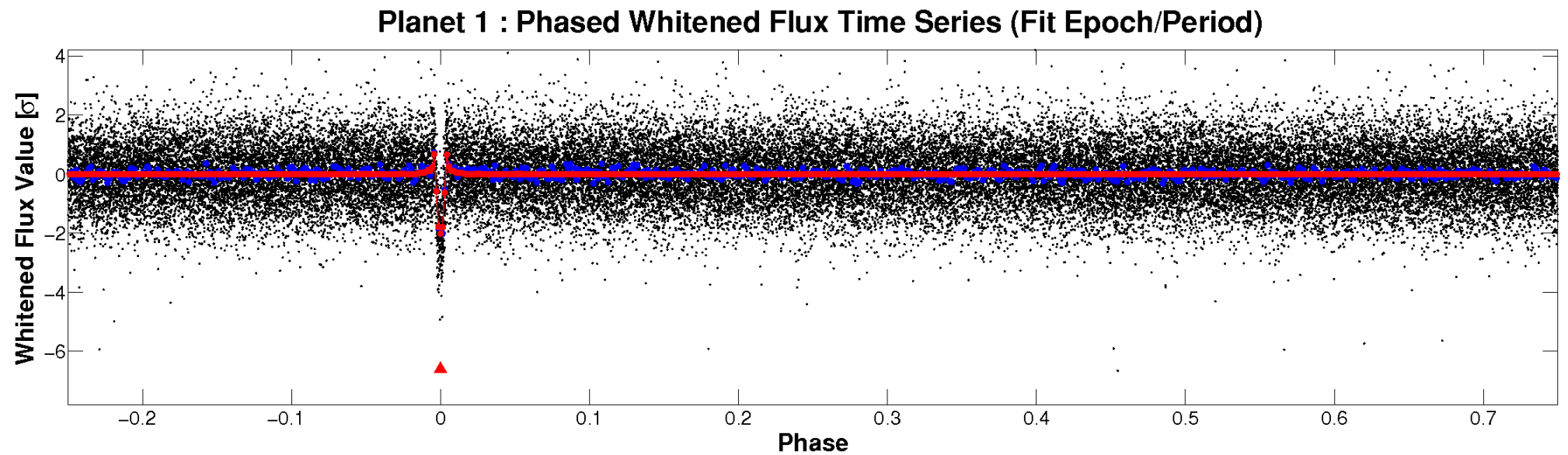
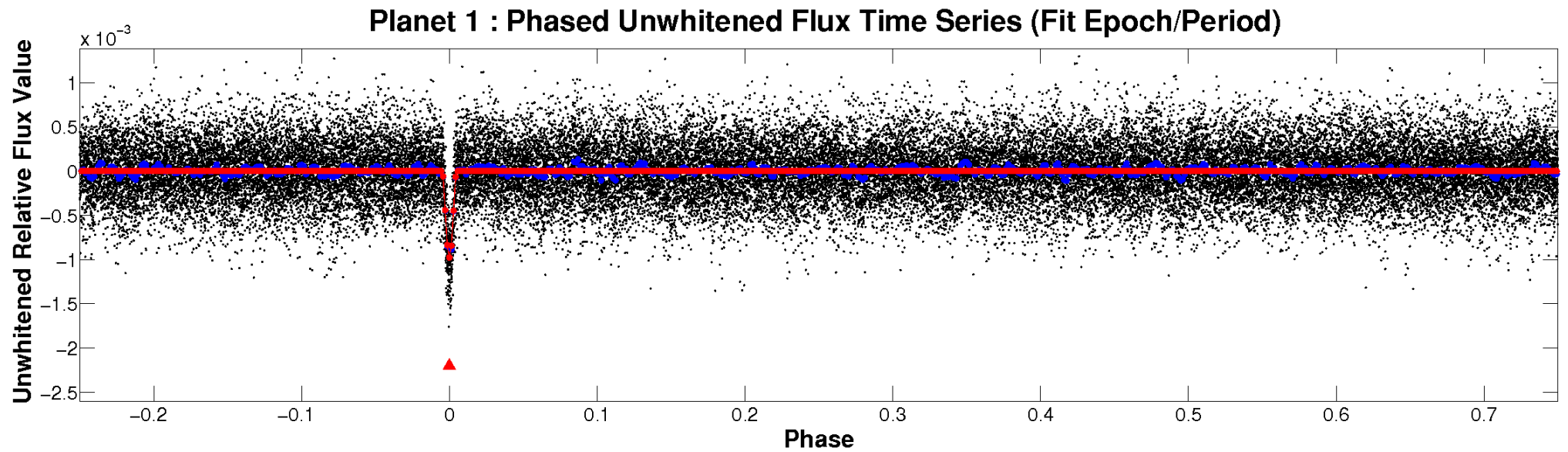


ALT Odd/Even

TCE 005195945-01

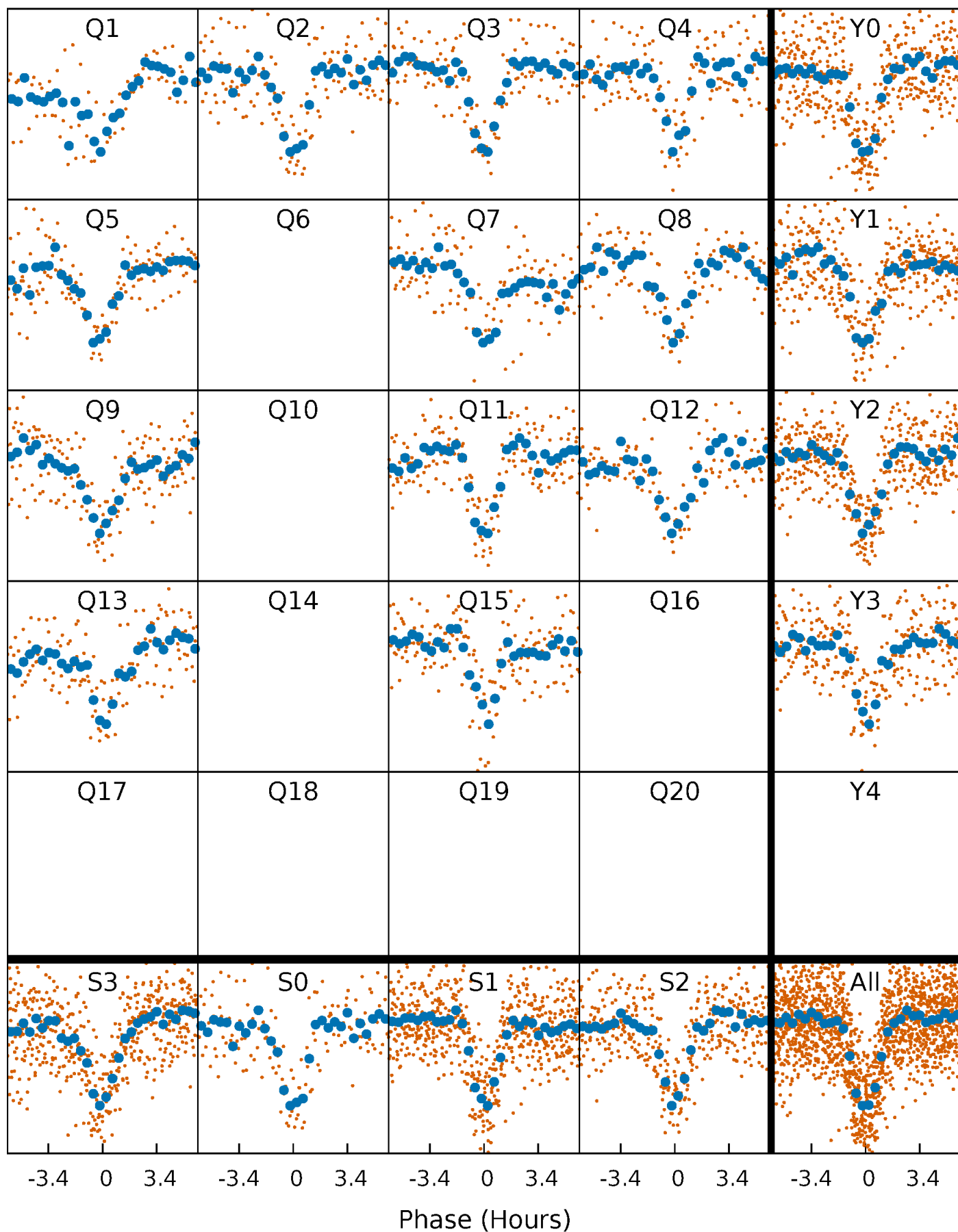


Non-Whitened Vs. Whitened Light Curve



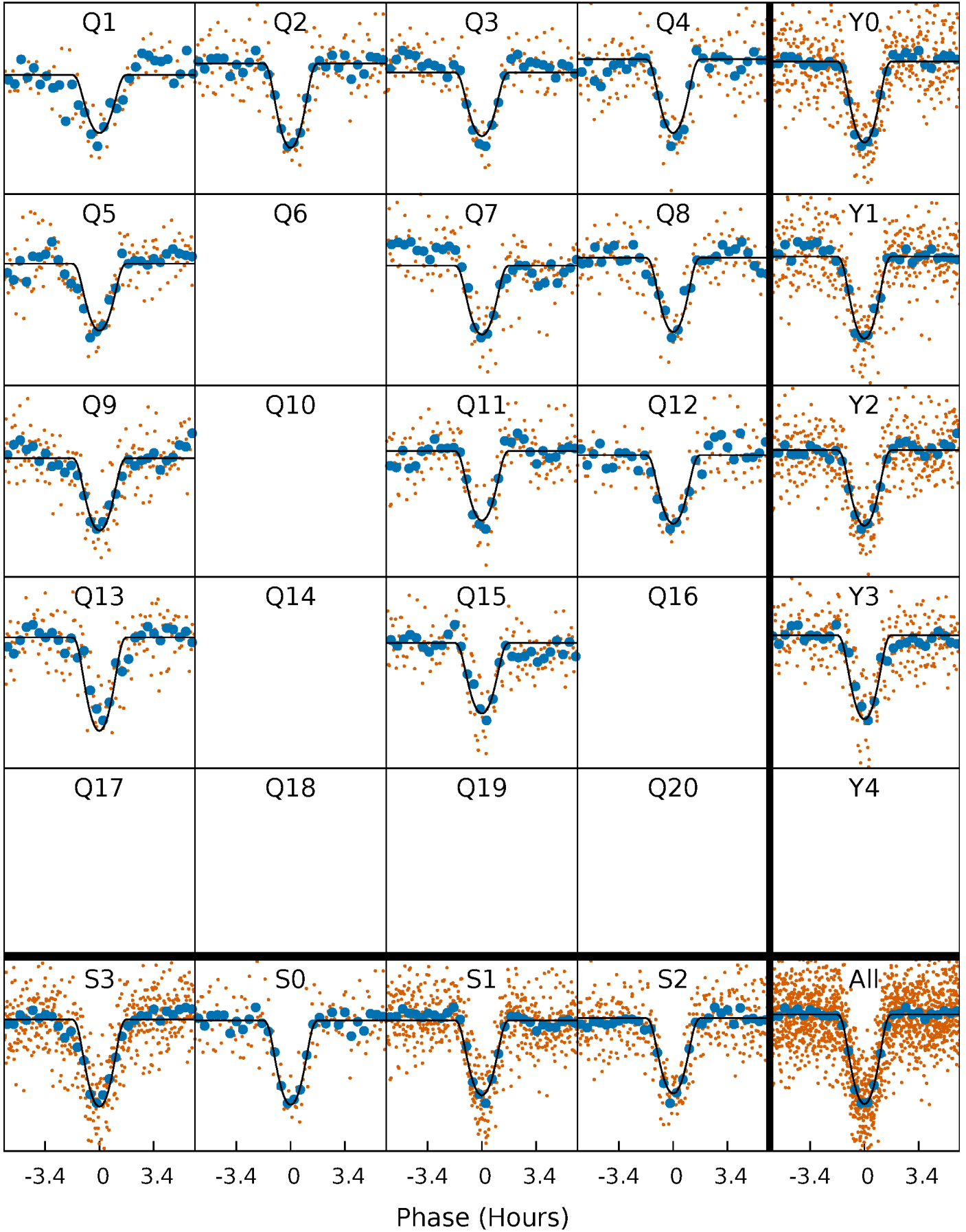
PDC Quarter-Phased Transit Curves

TCE 005195945-01 P= 14.536749 Days $T_0=132.371193$ (BKJD)



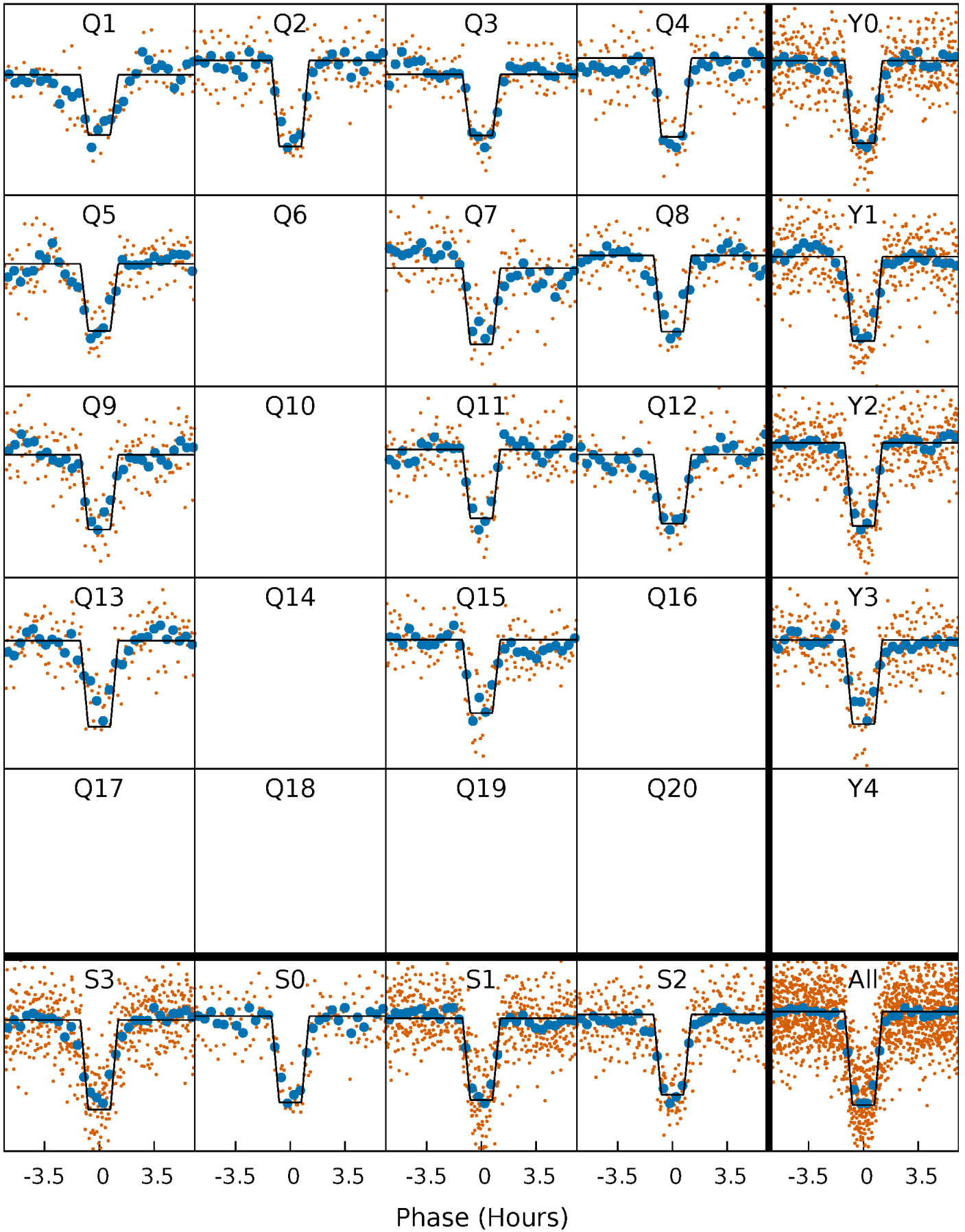
DV Quarter-Phased Transit Curves

TCE 005195945-01 P= 14.536749 Days $T_0=132.371193$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

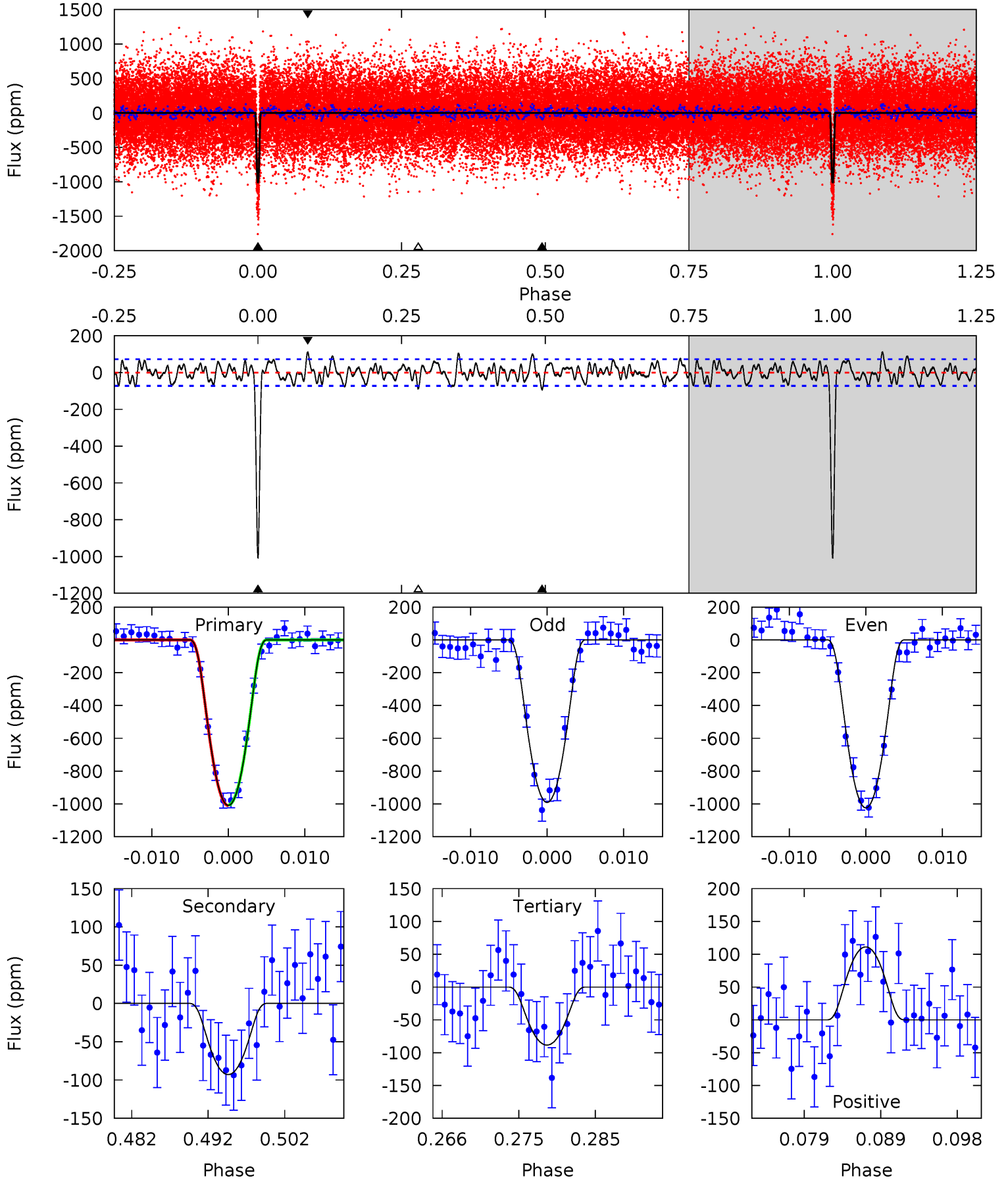
TCE 005195945-01 P= 14.536867 Days $T_0=132.366659$ (BKJD)



DV Model-Shift Uniqueness Test

005195945-01, $P = 14.536749$ Days, $E = 117.834444$ Days

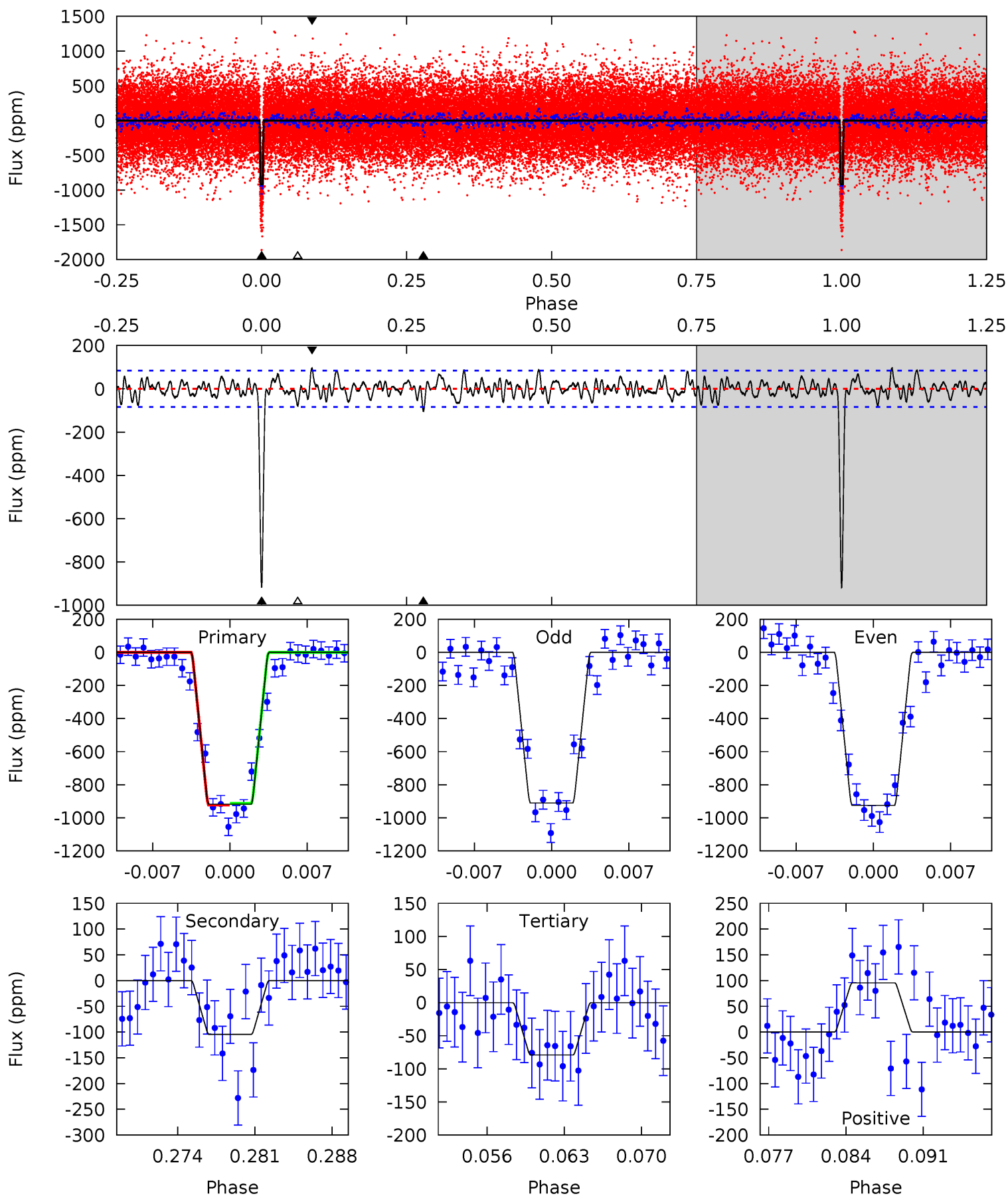
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.2	6.47	6.15	7.74	5.03	2.58	2.46	64.1	62.5	0.31	-1.27	1.15	0.98	0.10	0.13



Alt Model-Shift Uniqueness Test

005195945-01, P = 14.536867 Days, E = 117.829792 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.7	6.33	4.80	5.79	5.09	2.70	1.82	50.9	49.9	1.53	0.53	0.45	0.96	0.09	0.29



Stellar Parameters For KIC 005195945

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4946^{+111}_{-66}	$2.819^{+0.027}_{-0.033}$	$-0.640^{+0.200}_{-0.200}$	$5.855^{+1.057}_{-0.176}$	$0.824^{+0.285}_{-0.015}$	$0.006^{+0.000}_{-0.001}$
	+2%/-1%	+1%/-1%	+31%/-31%	+18%/-3%	+35%/-2%	+8%/-20%
Source	PHO56	AST56	PHO56	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005195945-01 / KOI 3940.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-93 ± 14	$27.45^{+3.32}_{-3.12}$	2237^{+59}_{-43}	2805^{+164}_{-165}	$0.815^{+0.247}_{-0.191}$
Alt.	-104 ± 16	$20.66^{+3.09}_{-3.32}$	2232^{+60}_{-42}	3196^{+215}_{-180}	$1.601^{+0.733}_{-0.427}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

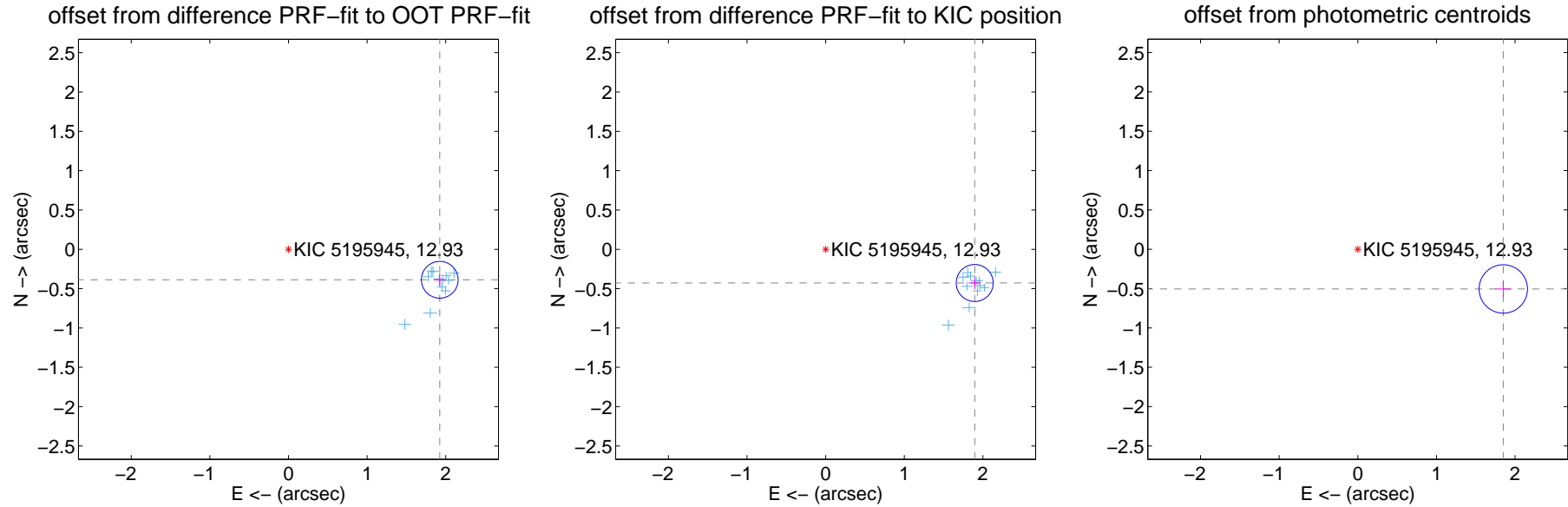
DV Centroid Data

Supplemental centroid analysis for 005195945-01. Kepler magnitude: 12.93. Transit SNR 29.26

There are 12 quarters with good PRF difference image offsets

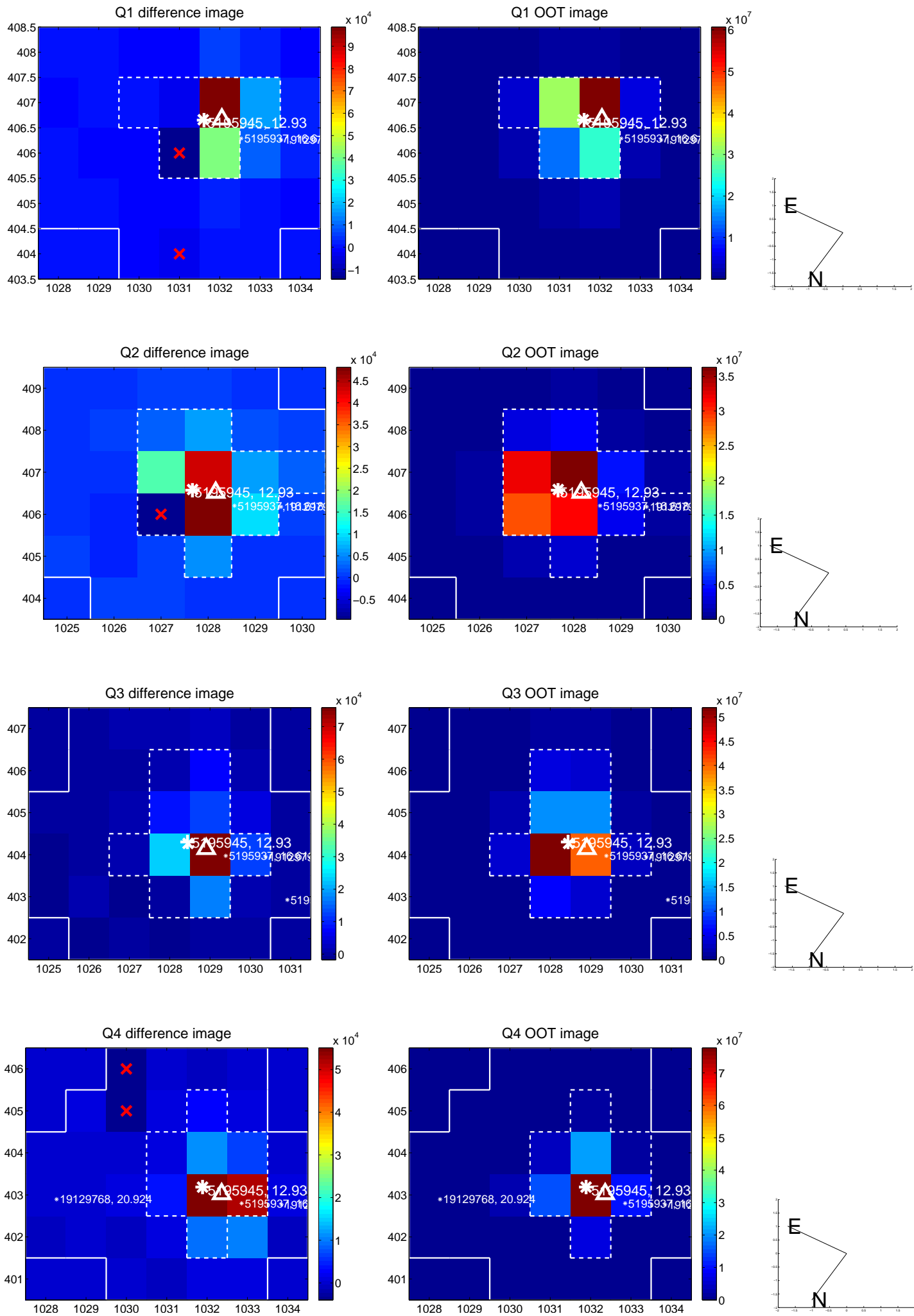
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.963 ± 0.078	25.20	-1.924 ± 0.078	-0.387 ± 0.077
PRF-fit source offset from KIC position	1.943 ± 0.078	24.80	-1.896 ± 0.078	-0.428 ± 0.078
photometric centroid source offset	1.92 ± 0.10	18.70	-1.85 ± 0.10	-0.50 ± 0.10

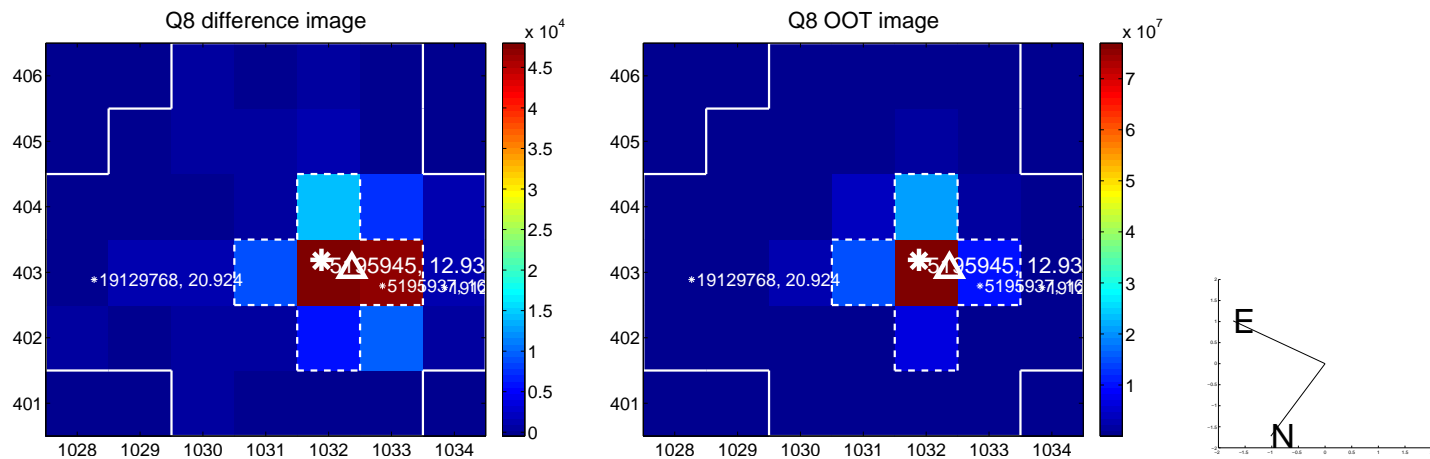
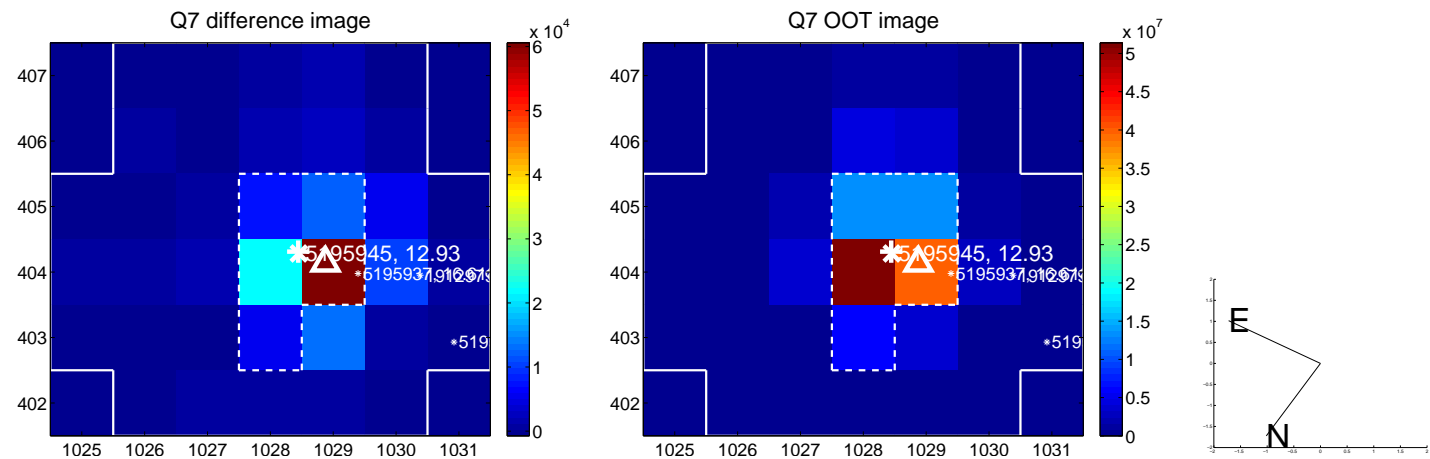
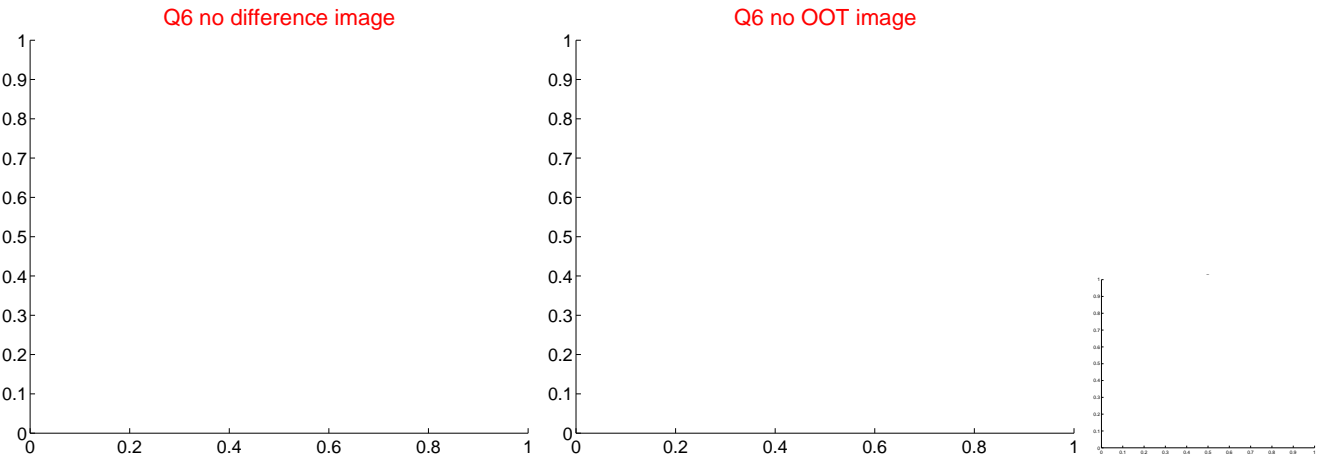
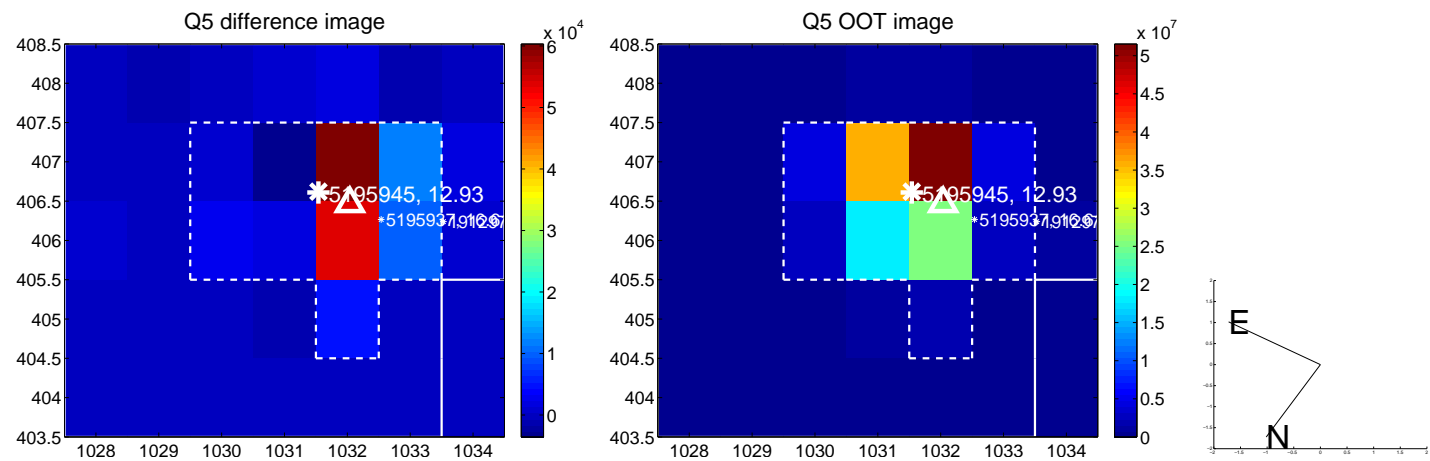


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

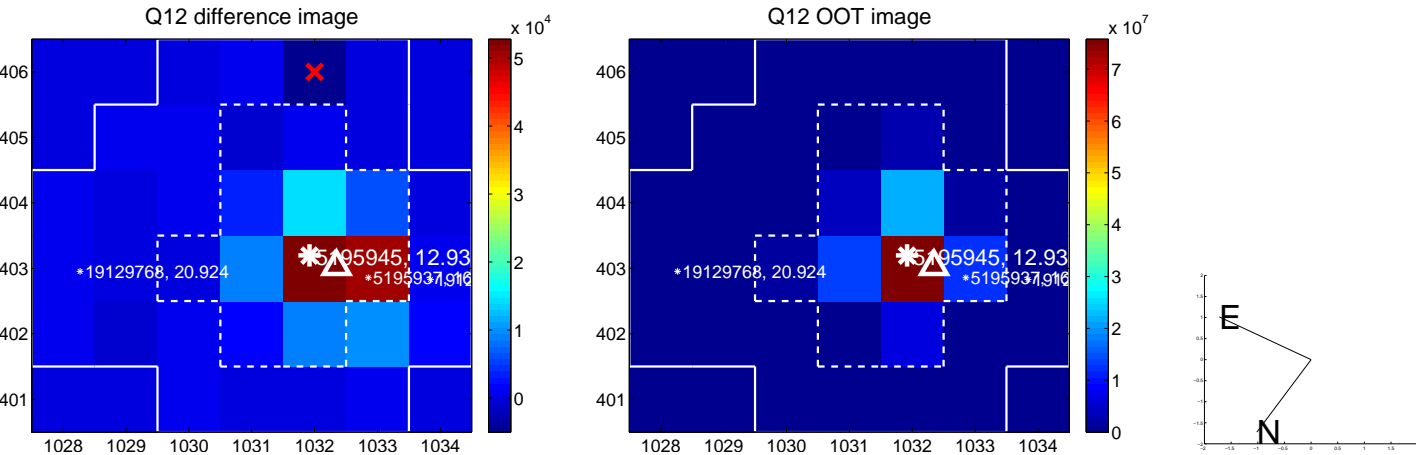
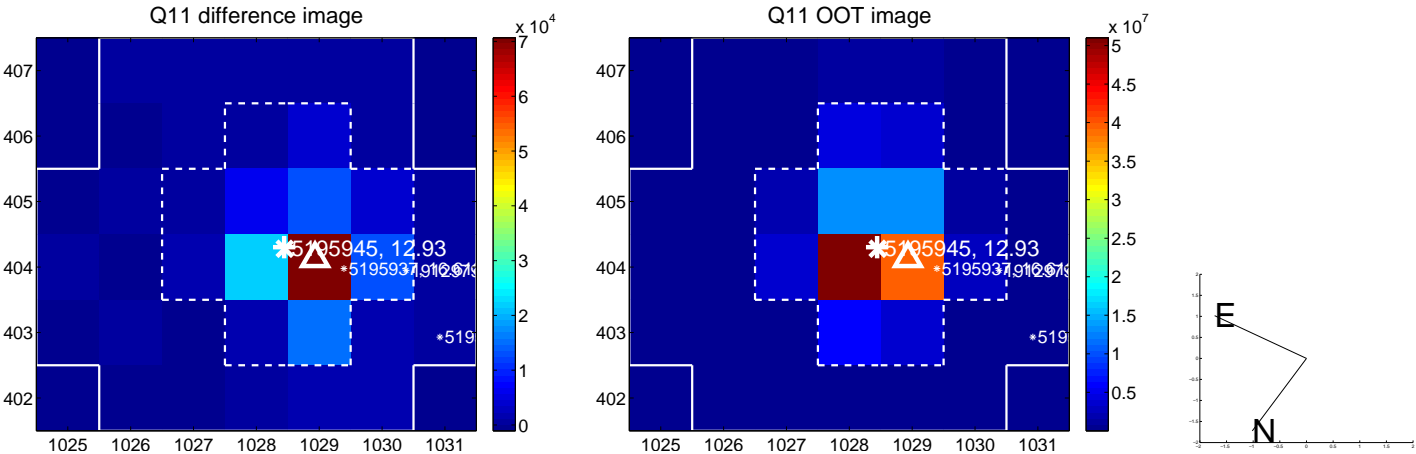
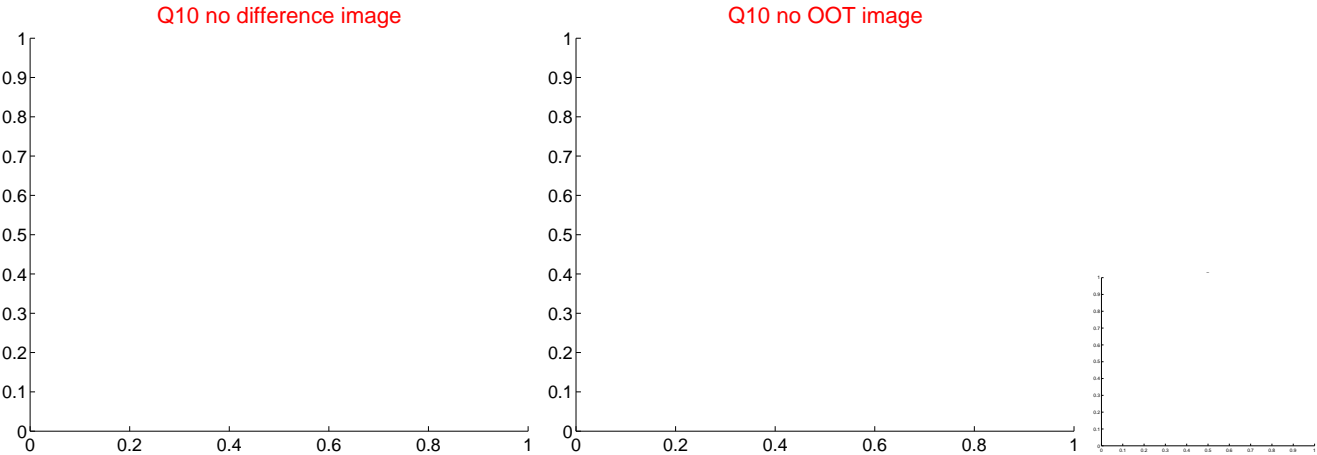
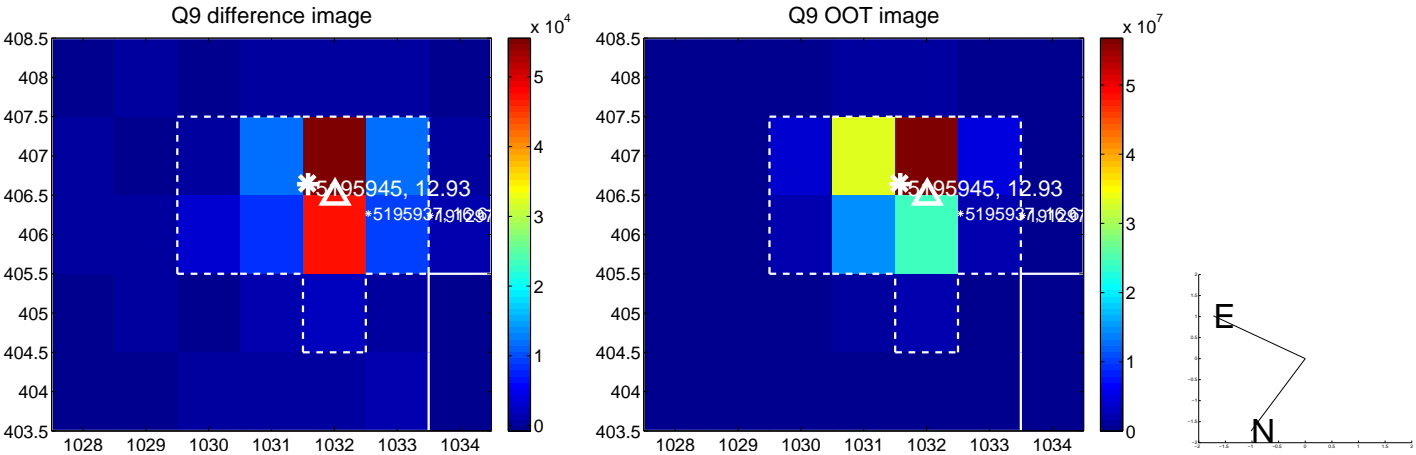
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



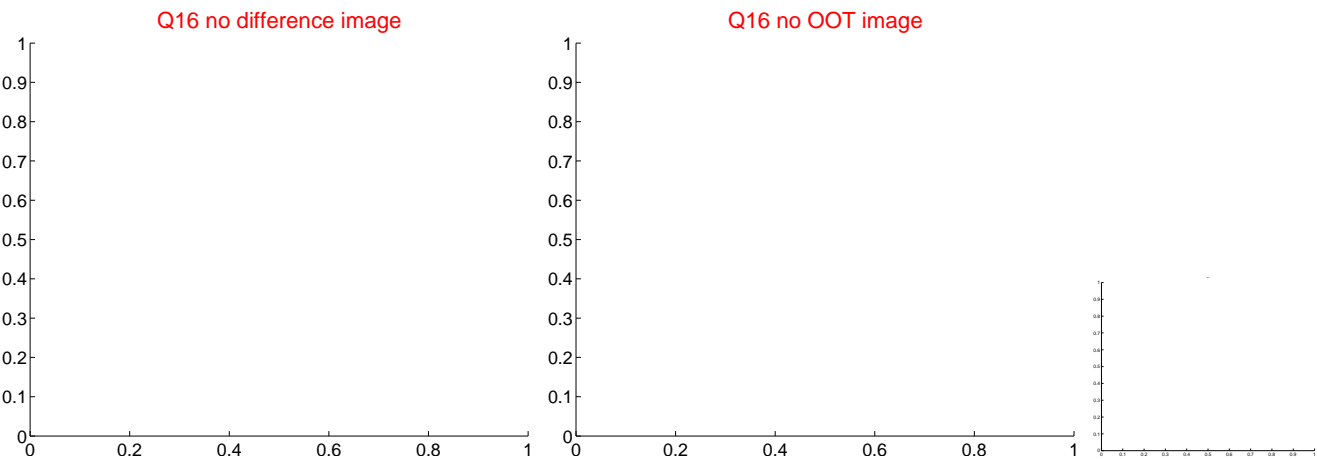
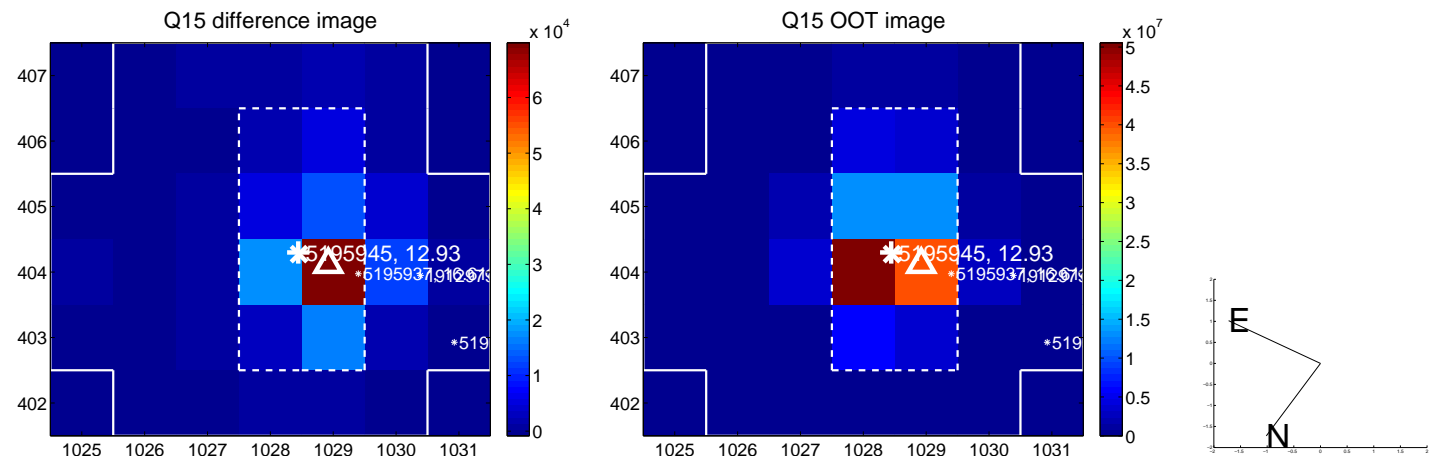
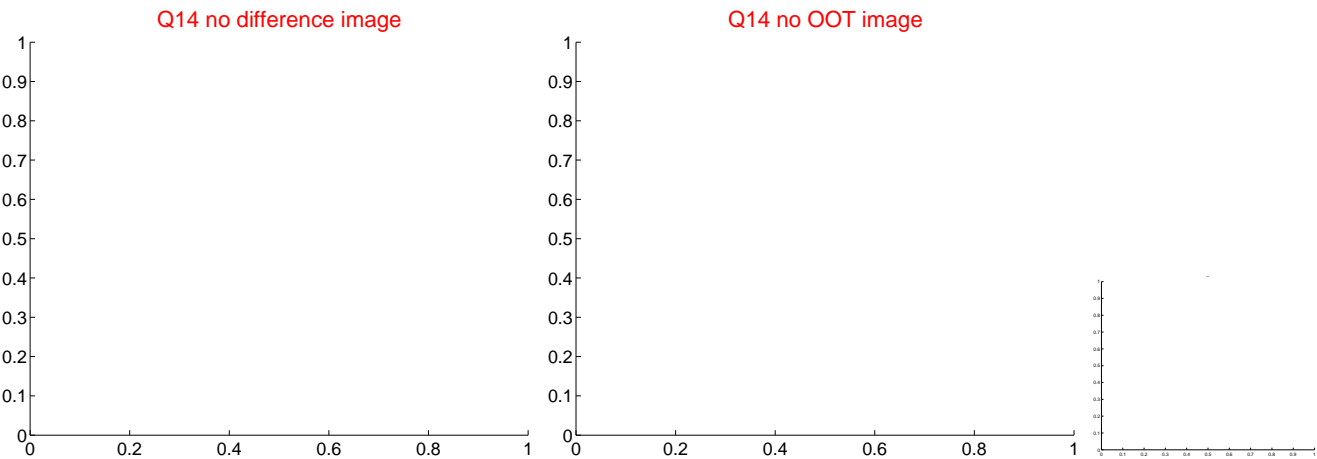
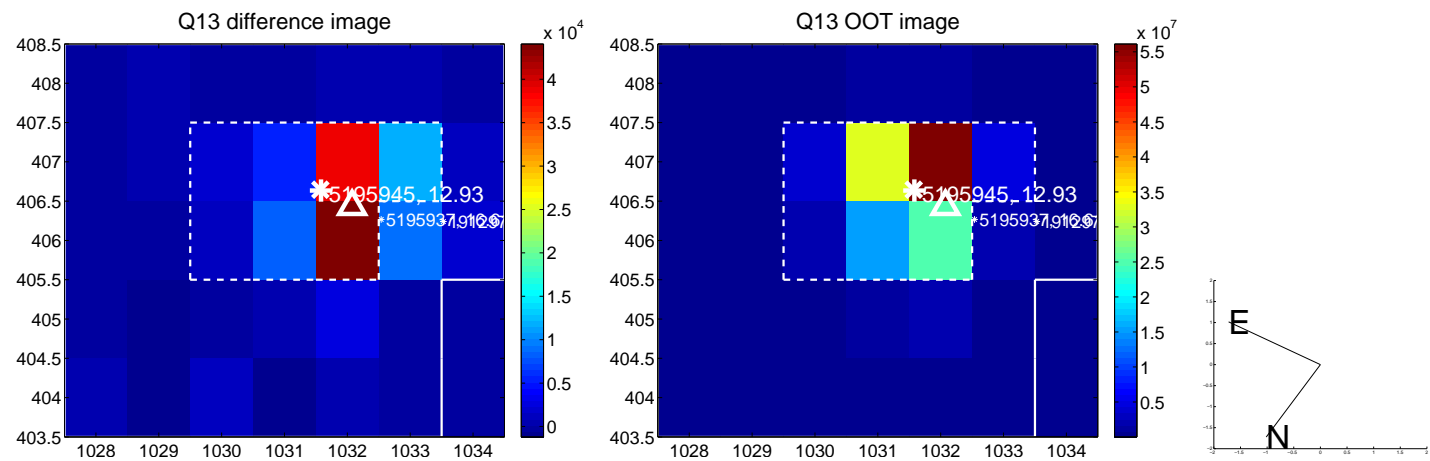
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



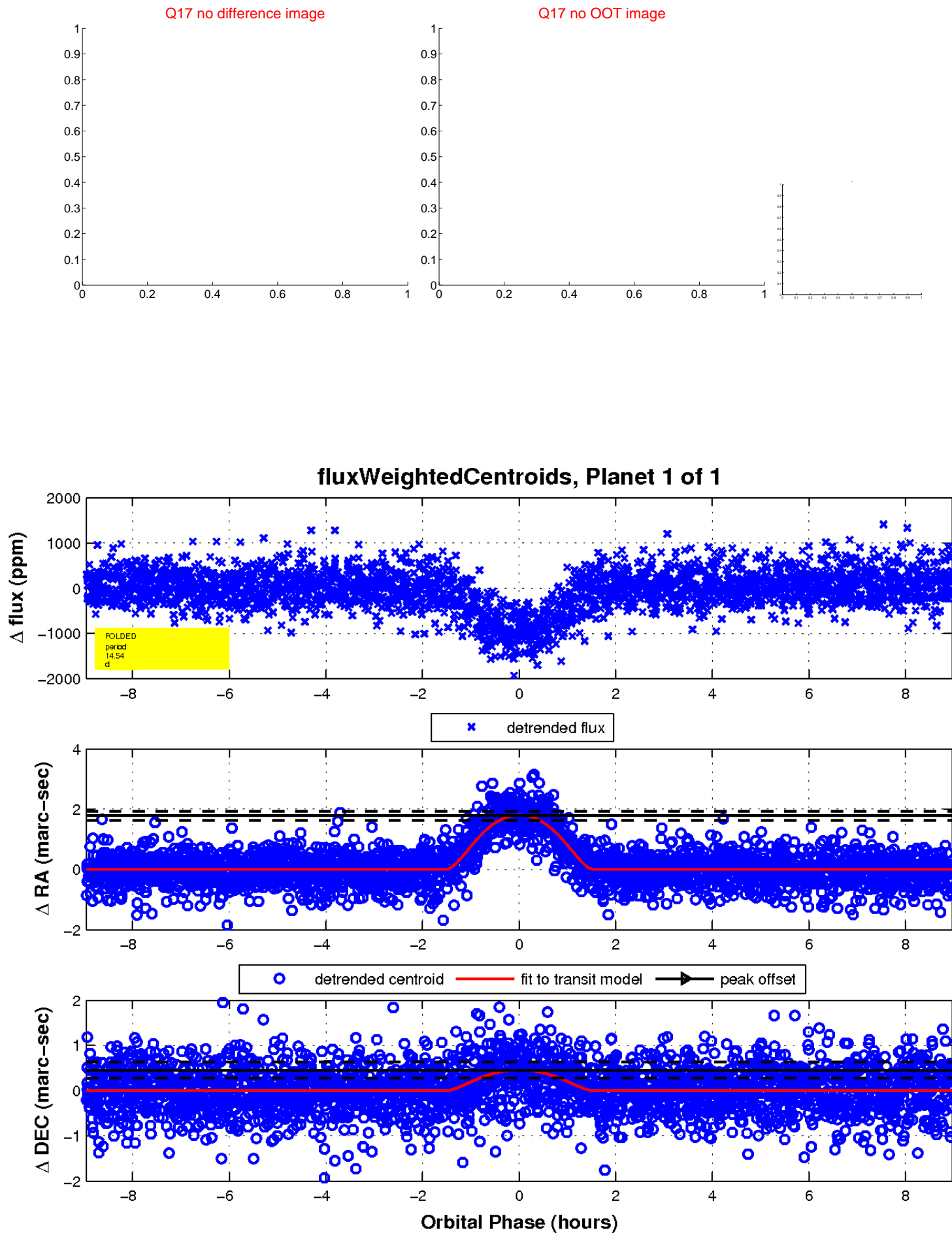
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

