

KIC 010339729

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})
010339729-01	OBS	No	185.008717	310.189169	109.8	15.319	7.7	7.1	0.84	5185	1.10	1.33

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010339729-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE—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.

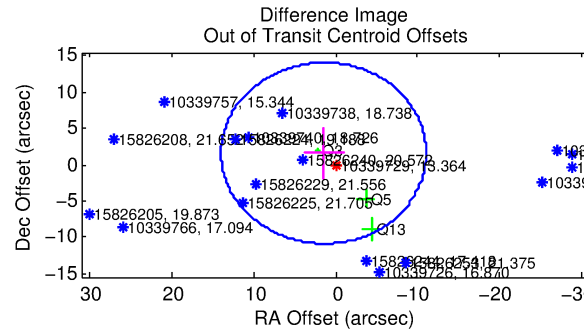
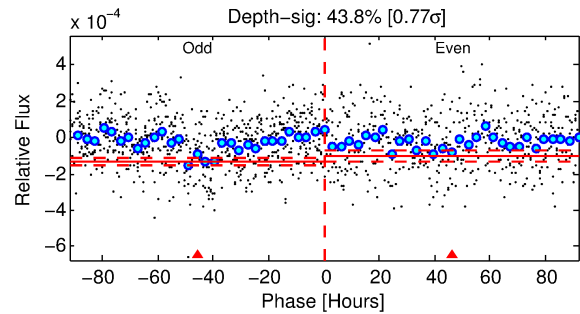
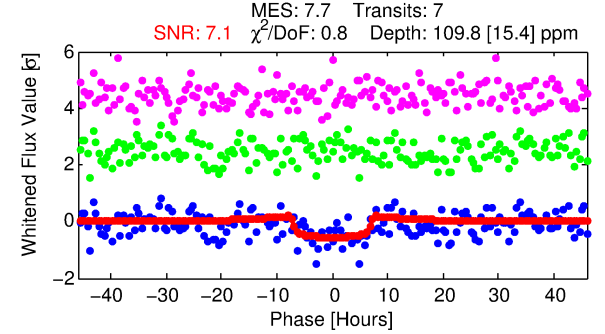
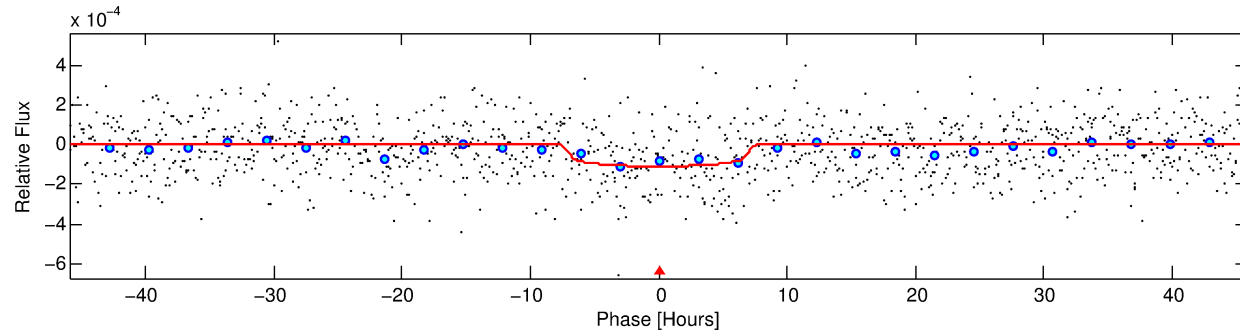
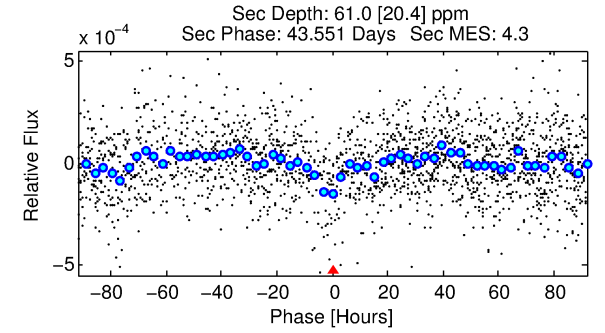
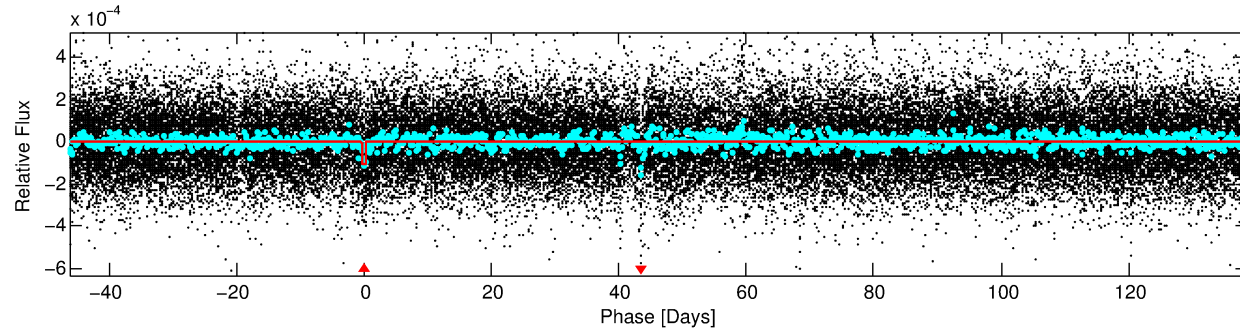
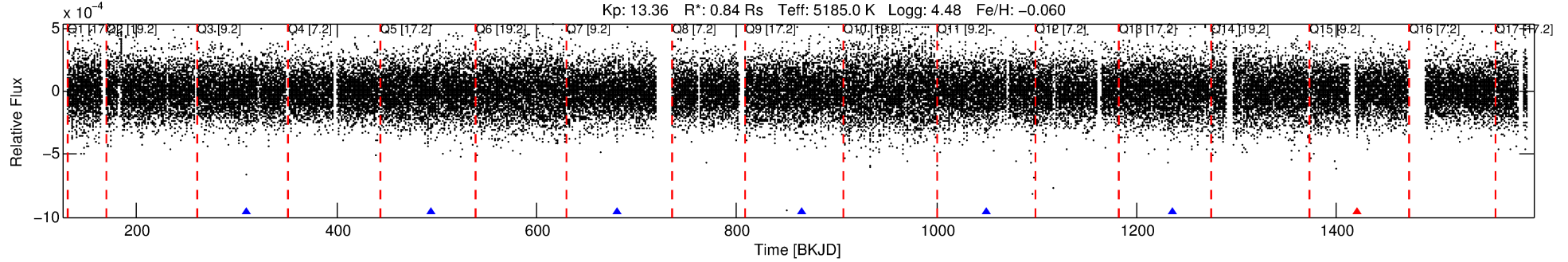
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010339729-01

No Significant Match Found

DV One-Page Summary

KIC: 10339729 Candidate: 1 of 1 Period: 185.009 d



DV Fit Results:

Period = 185.00872 [0.00749] d
Epoch = 310.1892 [0.0263] BKJD
Rp/R* = 0.0120 [0.0021]
a/R* = 37.68 [26.74]
b = 0.93 [0.11]
Seff = 1.33 [0.28]
Teq = 274 [15] K
Rp = 1.10 [0.24] Re
a = 0.5848 [0.0667] AU
Ag = 9556.01 [4956.37] [1.93σ]
Teffp = 4183 [526] K [7.43σ]

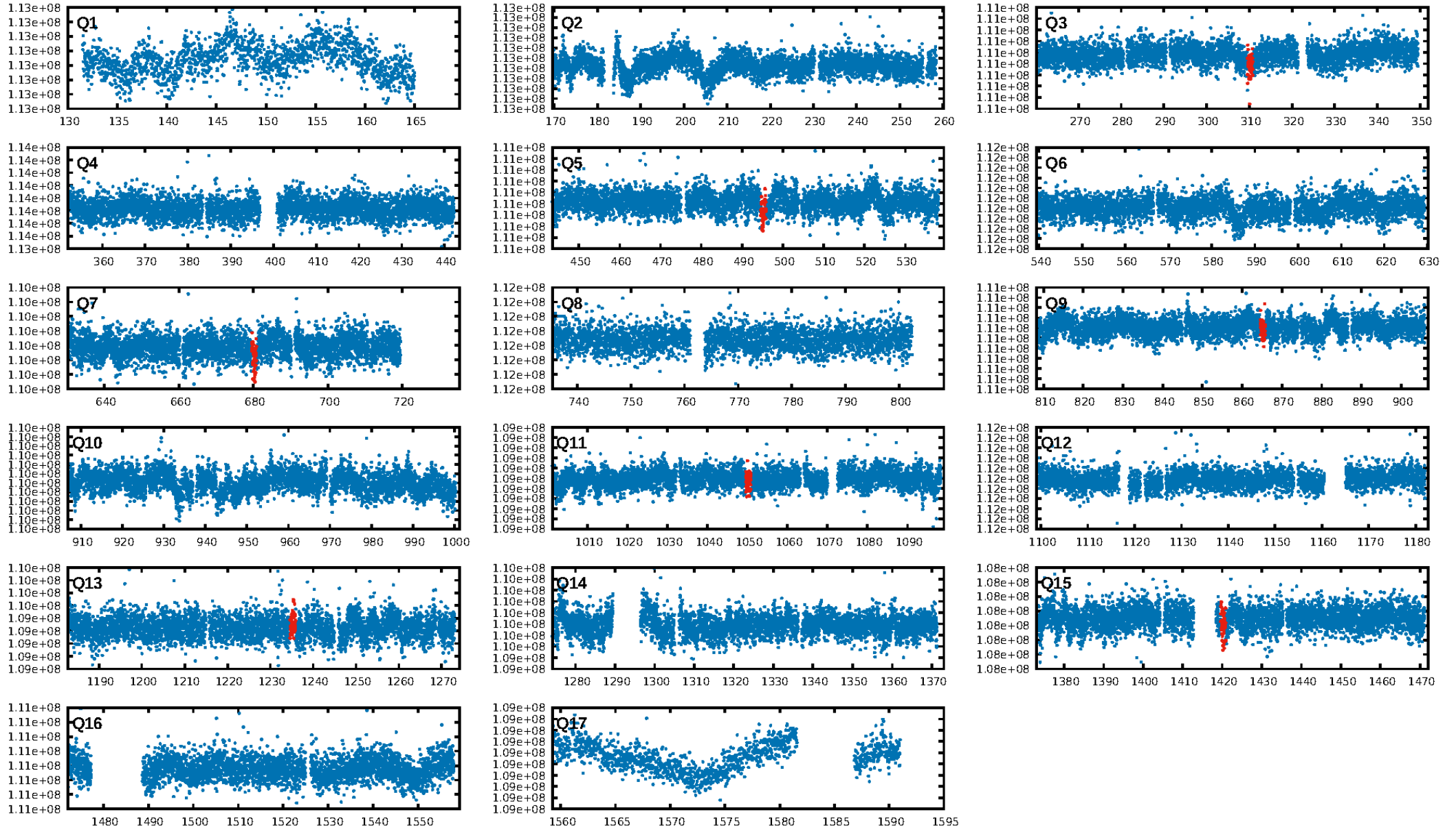
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.14e-10
RollingBand-fgt: 0.86 [6/7]
GhostDiagnostic-chr: -0.6041
Centroid-sig: 29.6%
Centroid-so: 2.563 arcsec [1.30σ]
OotOffset-rm: 2.148 arcsec [0.52σ]
KicOffset-rm: 2.085 arcsec [1.19σ]
OotOffset-st: 0/1/0/2 [3]
KicOffset-st: 0/1/0/2 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 1.00 [6/6]

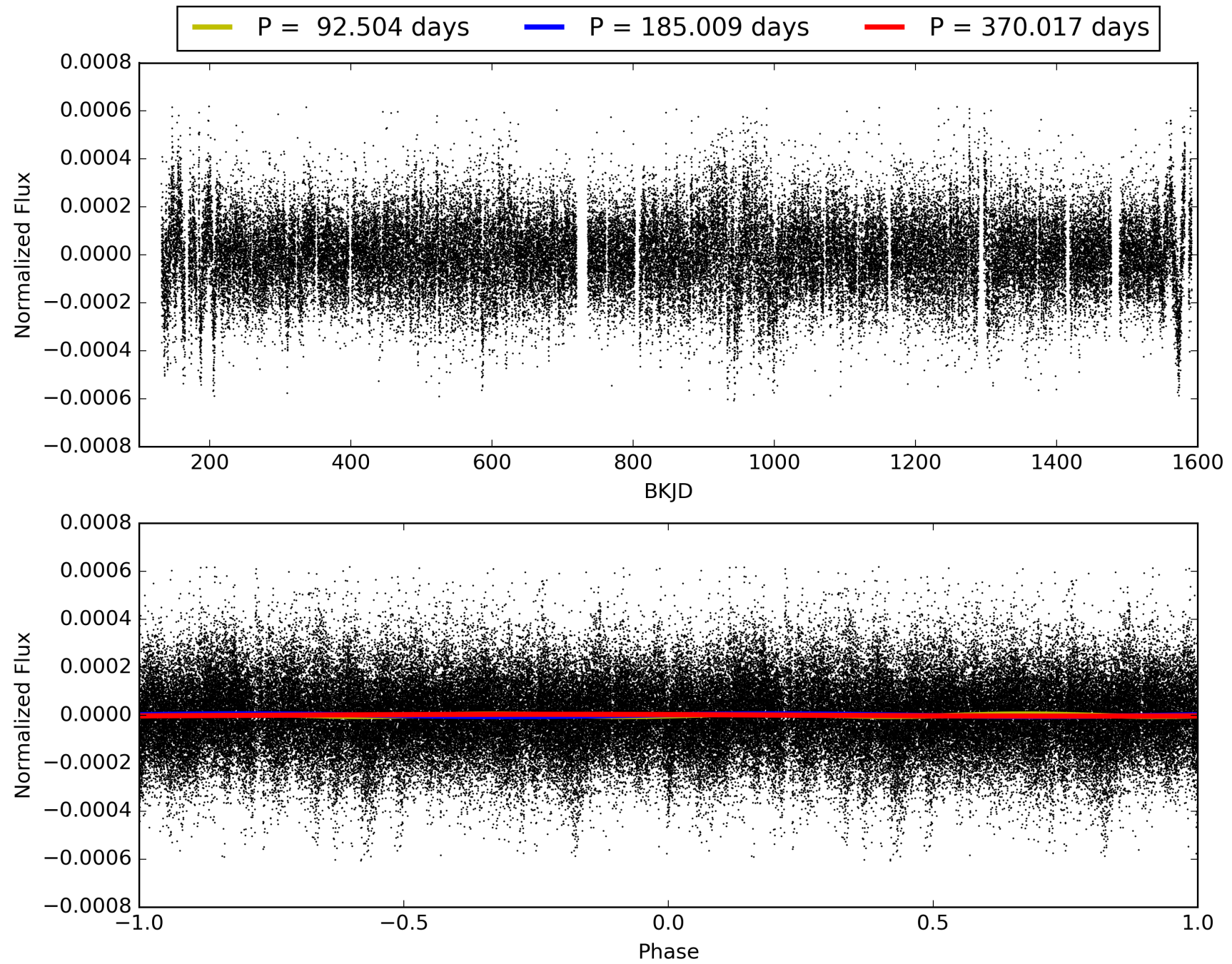
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:11:09 Z

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

TCE 010339729-01, PDC Light Curves

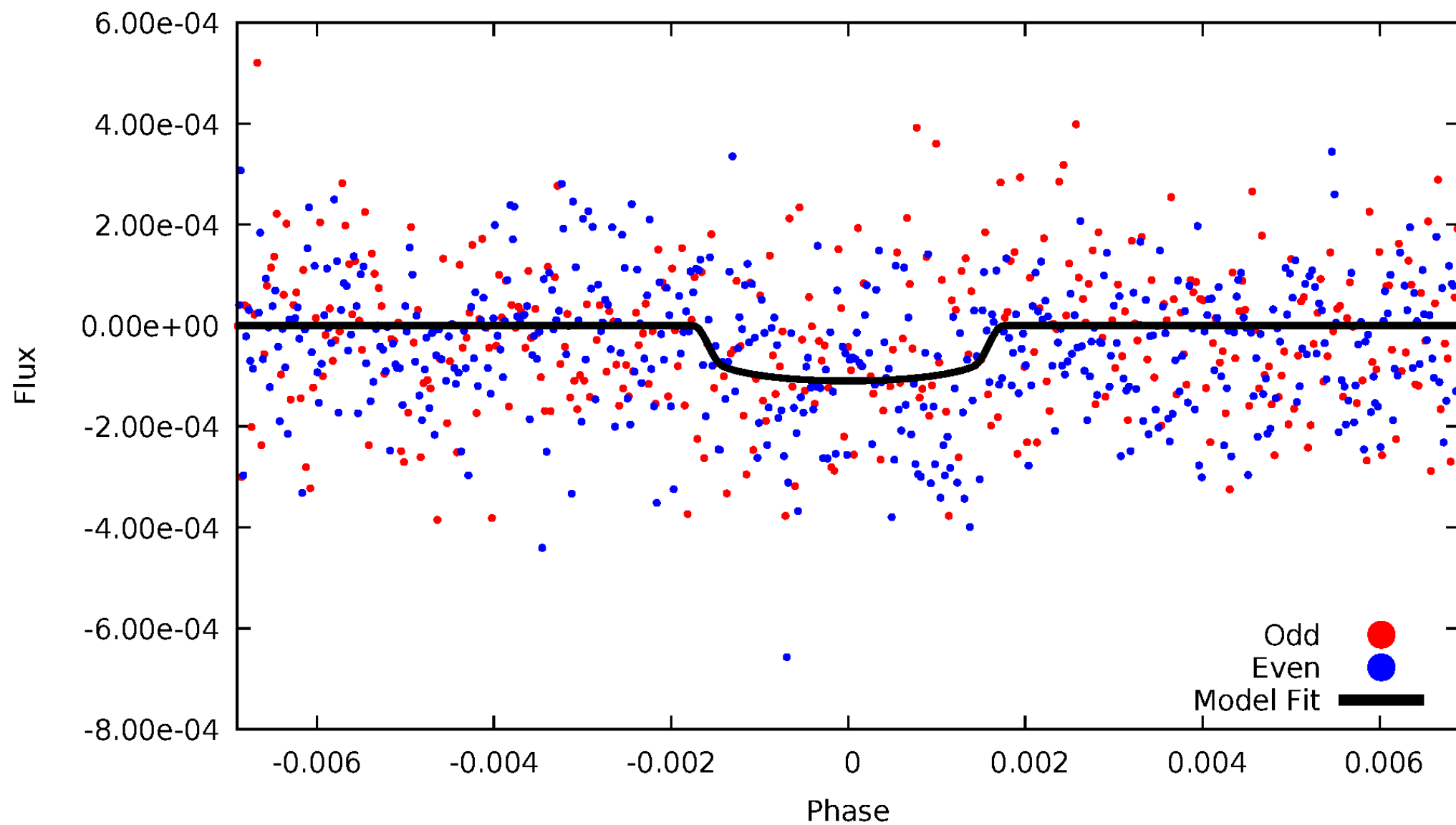


TCE 010339729-01



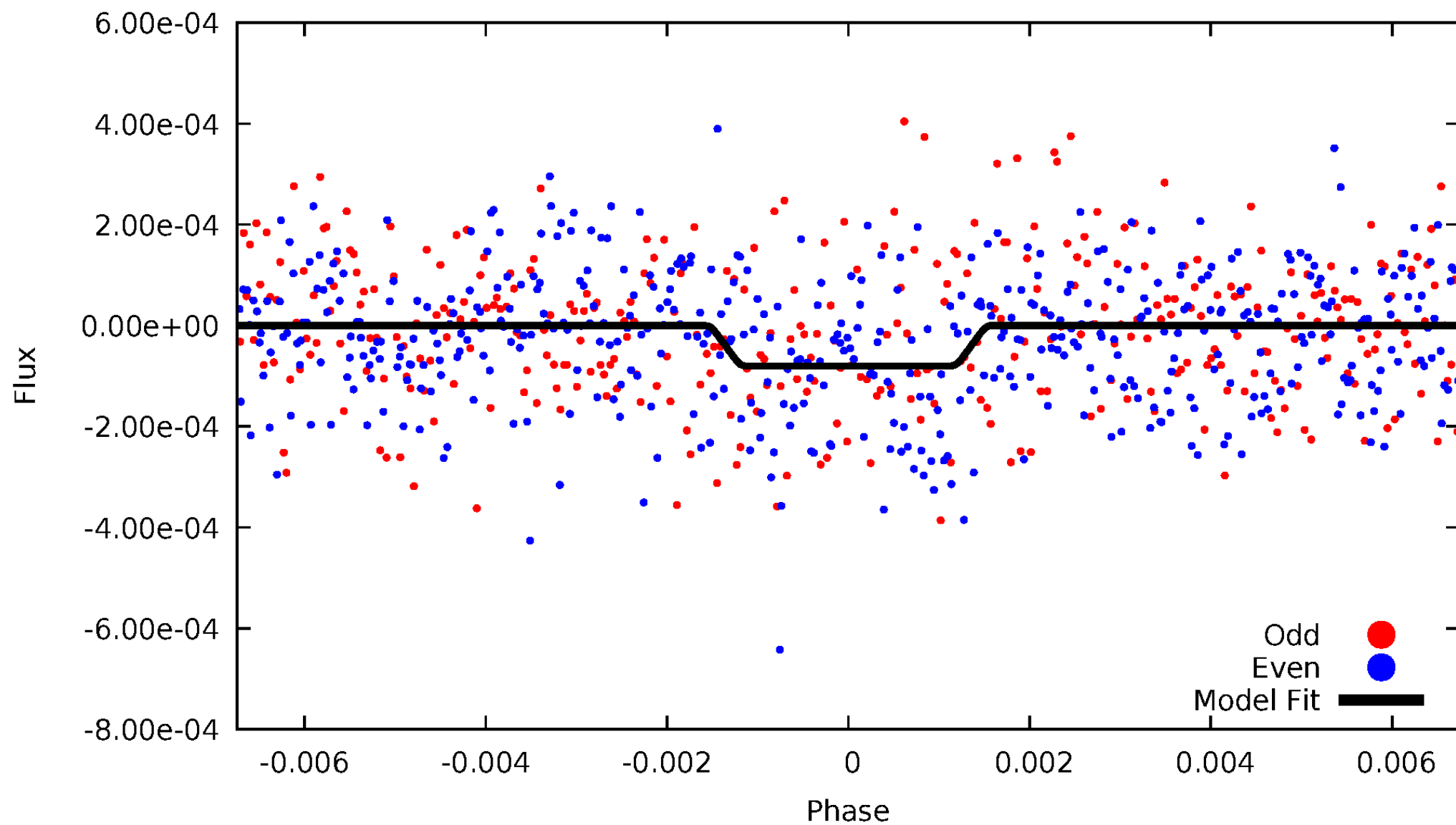
DV Odd/Even

TCE 010339729-01

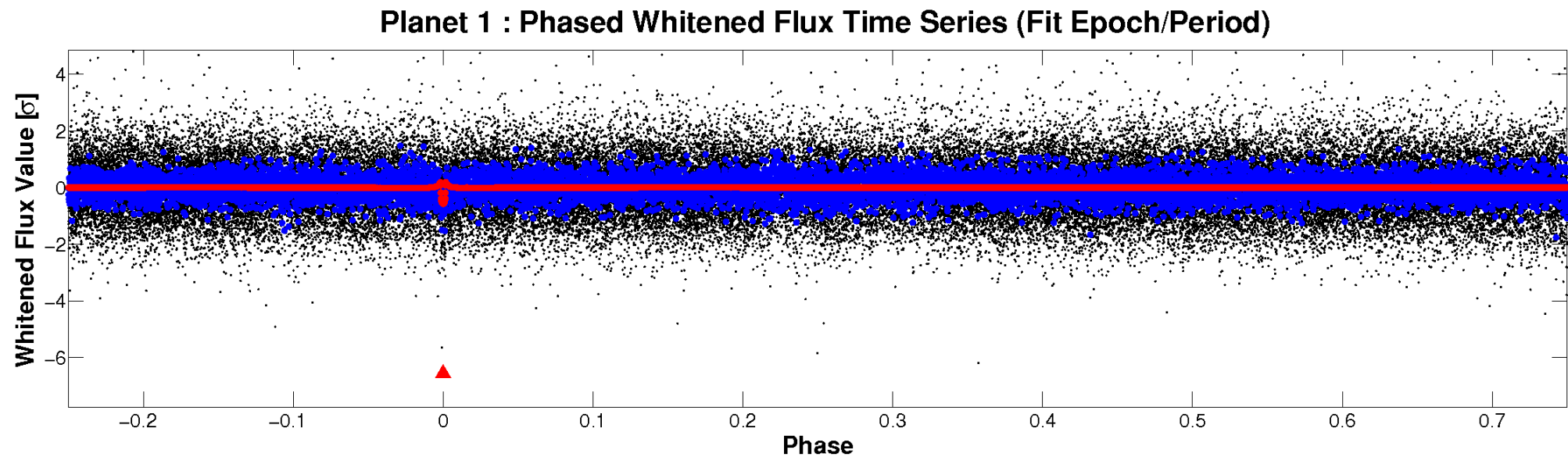
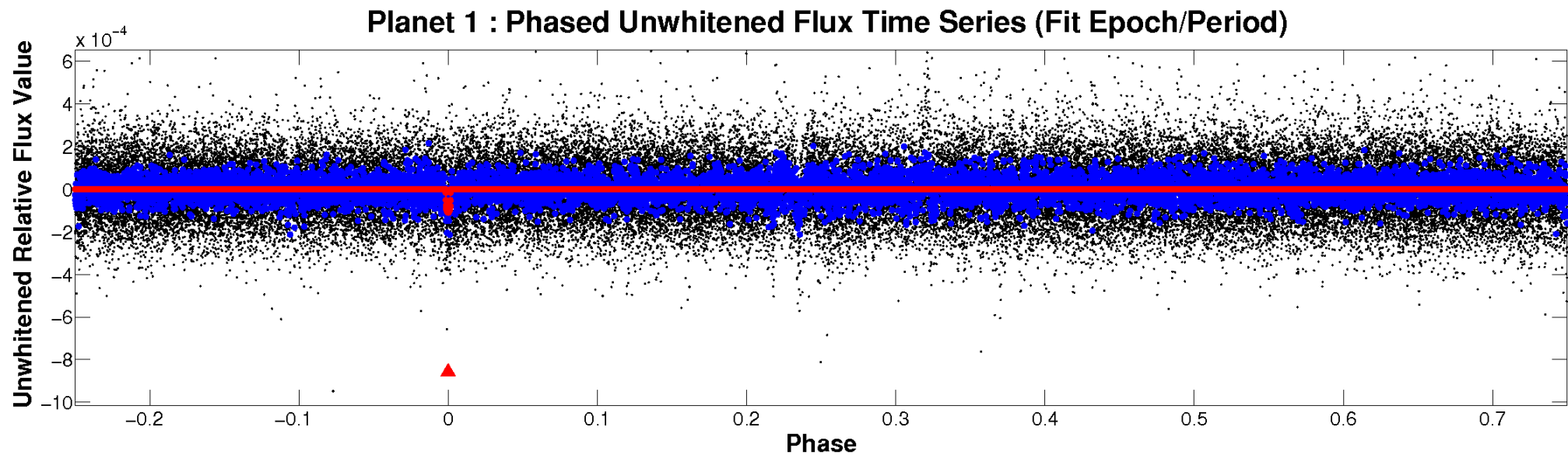


ALT Odd/Even

TCE 010339729-01

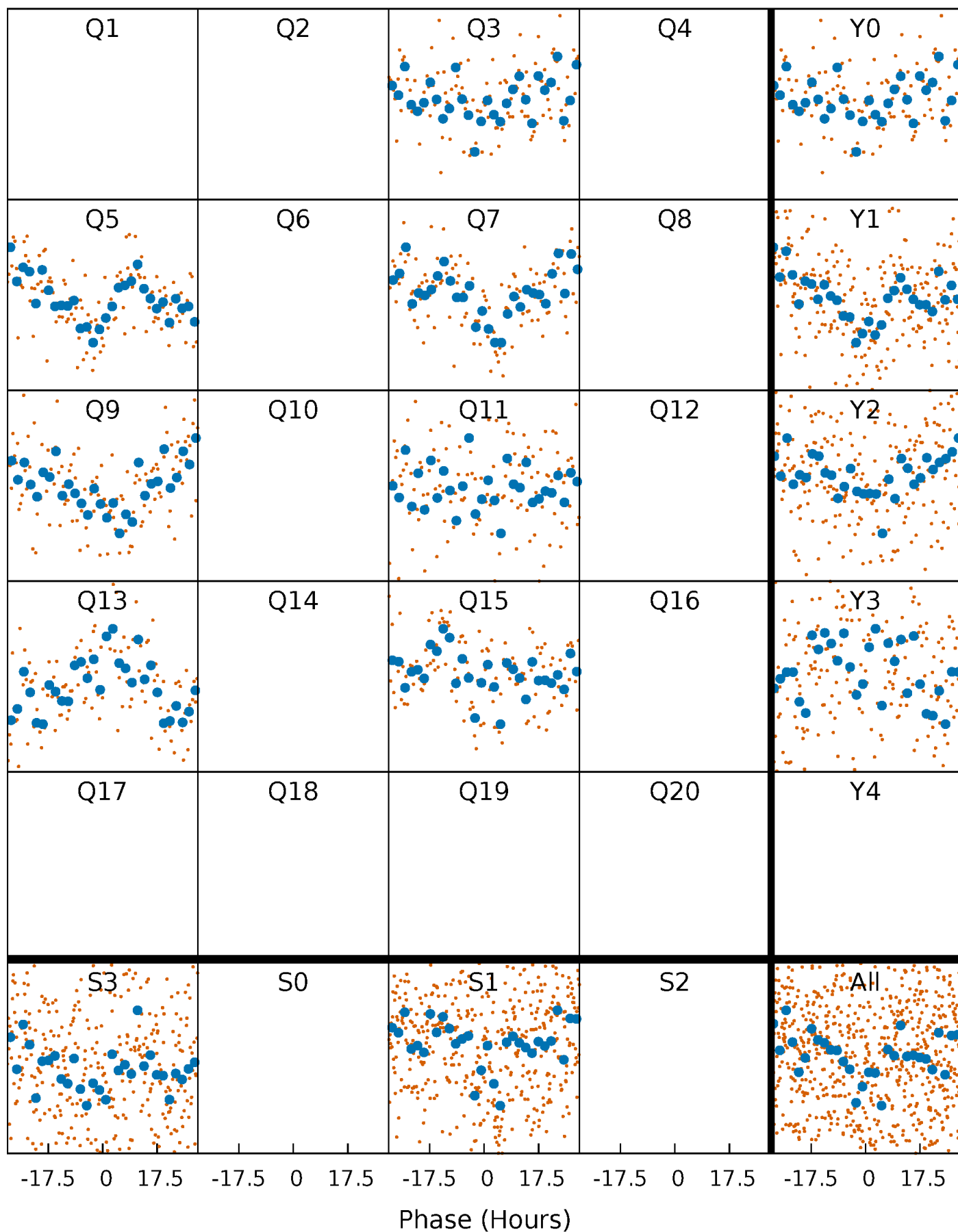


Non-Whitened Vs. Whitened Light Curve



PDC Quarter-Phased Transit Curves

TCE 010339729-01 P=185.008717 Days $T_0=310.189169$ (BKJD)



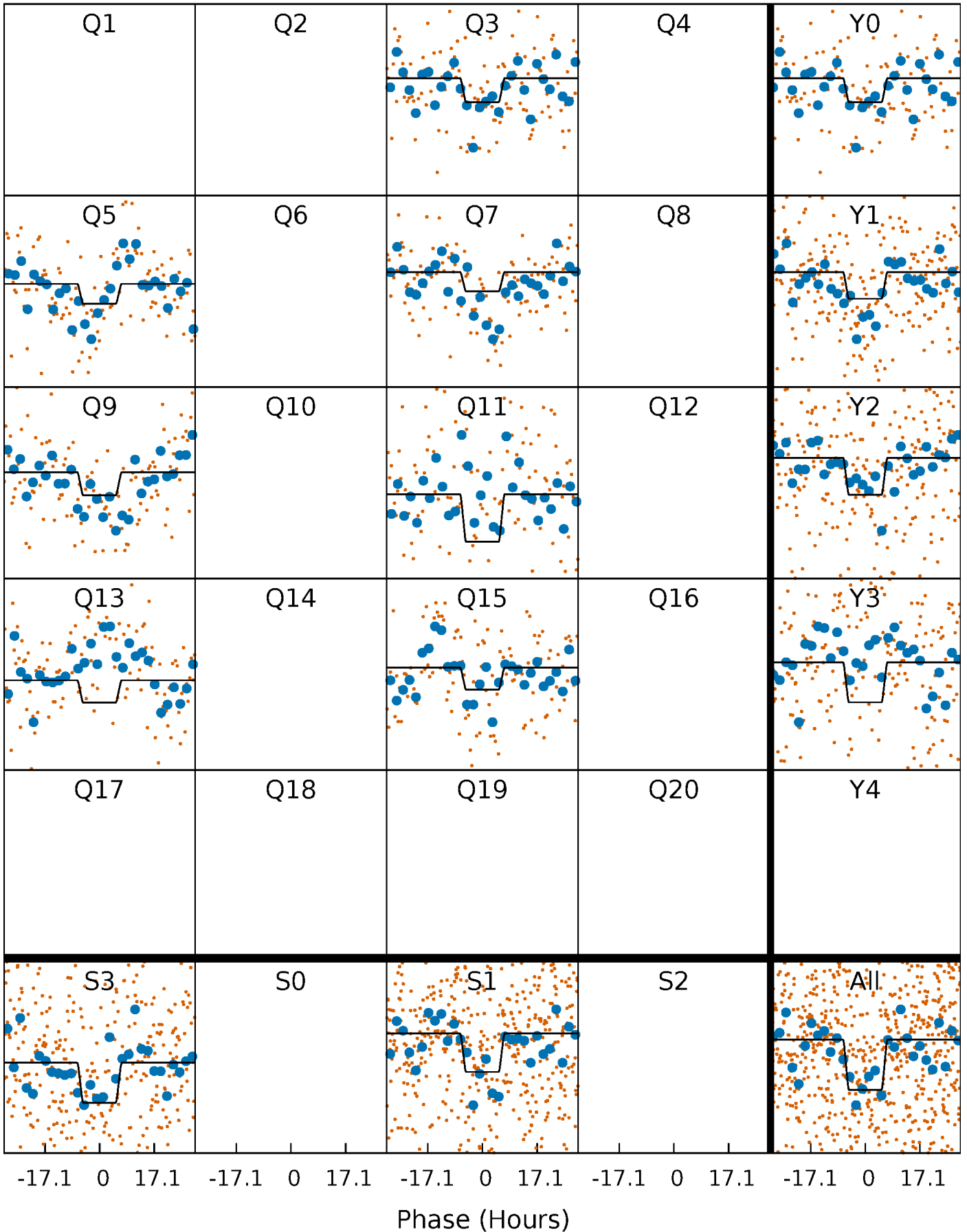
DV Quarter-Phased Transit Curves

TCE 010339729-01 P=185.008717 Days $T_0=310.189169$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

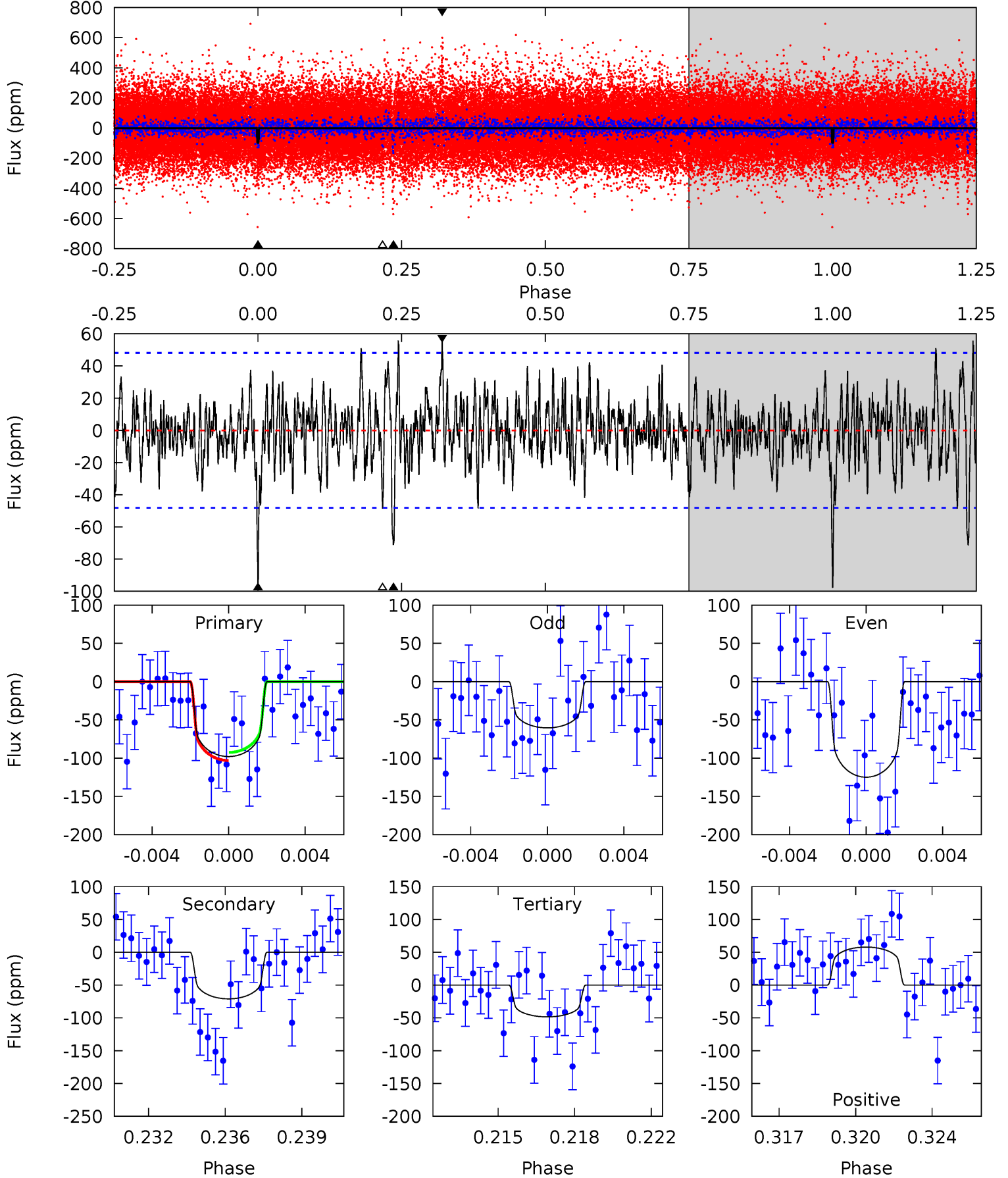
TCE 010339729-01 $P=185.012263$ Days $T_0=310.199907$ (BKJD)



DV Model-Shift Uniqueness Test

010339729-01, $P = 185.008717$ Days, $E = 125.180452$ Days

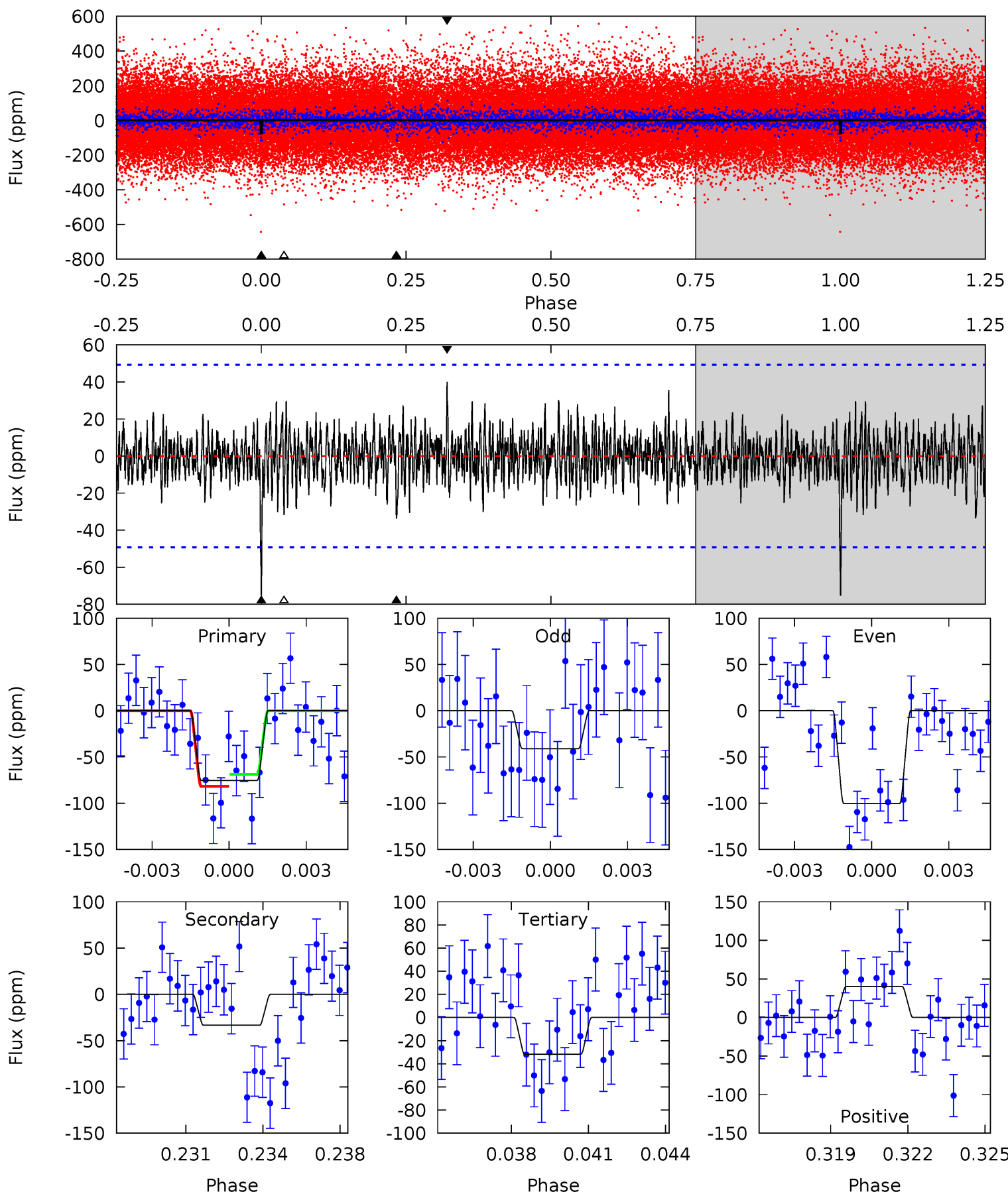
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	7.71	5.26	6.28	5.22	2.92	1.68	5.36	4.33	2.45	1.43	3.44	0.73	0.37	0.57



Alt Model-Shift Uniqueness Test

010339729-01, P = 185.012263 Days, E = 125.187644 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.01	3.55	3.38	4.26	5.24	2.96	1.07	4.63	3.75	0.17	-0.71	3.10	0.69	0.35	0.69



Stellar Parameters For KIC 010339729

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5185^{+155}_{-140}	$4.484^{+0.100}_{-0.100}$	$-0.060^{+0.300}_{-0.300}$	$0.837^{+0.106}_{-0.096}$	$0.779^{+0.102}_{-0.059}$	$1.870^{+0.764}_{-0.541}$
	+3%/-3%	+2%/-2%	+500%/-500%	+13%/-11%	+13%/-8%	+41%/-29%
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 010339729-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-71 ± 9	$1.09^{+0.23}_{-0.20}$	383^{+18}_{-17}	4494^{+417}_{-310}	11199^{+6540}_{-3440}
Alt.	-33 ± 9	$0.82^{+0.21}_{-0.20}$	383^{+18}_{-17}	4348^{+526}_{-424}	9663^{+7231}_{-4332}

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 $A_{\text{obs}} \gg 1.0$

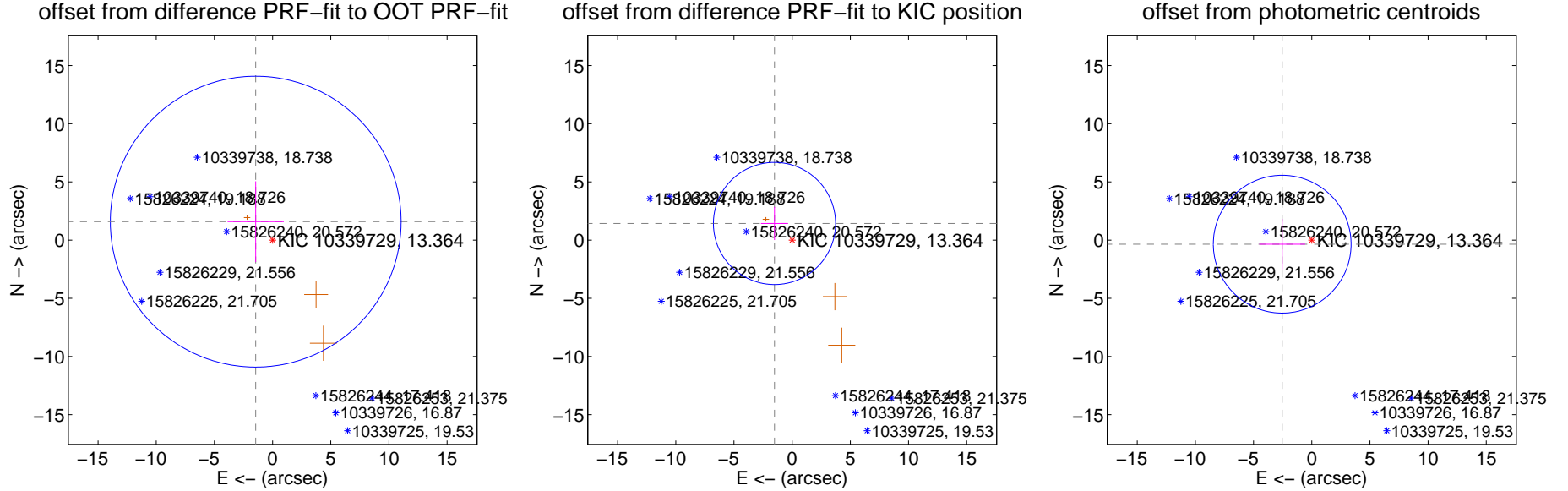
DV Centroid Data

Supplemental centroid analysis for 010339729-01. Kepler magnitude: 13.36. Transit SNR 7.08

There are 0 quarters with good PRF difference image offsets

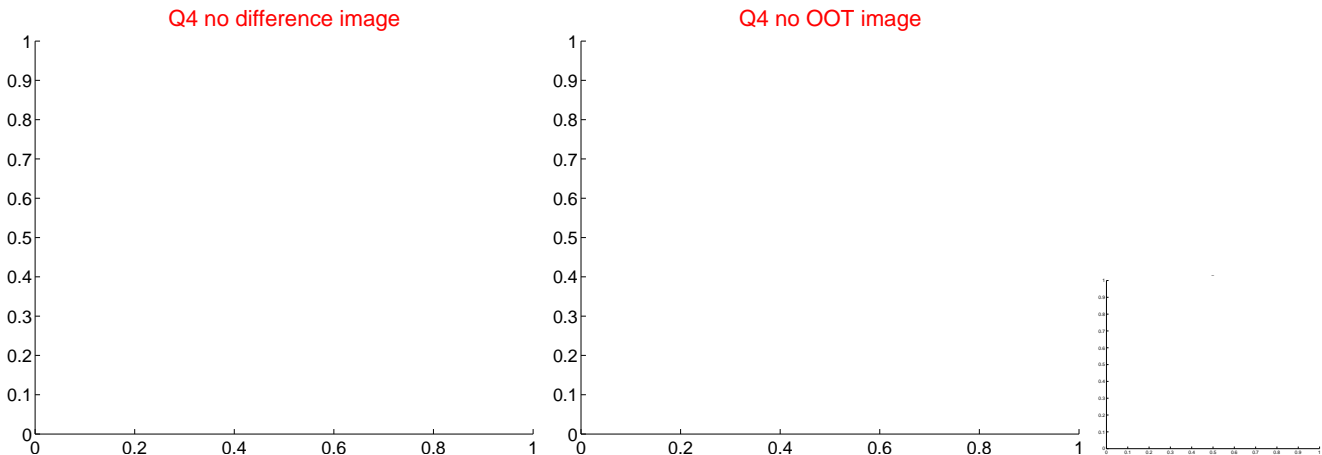
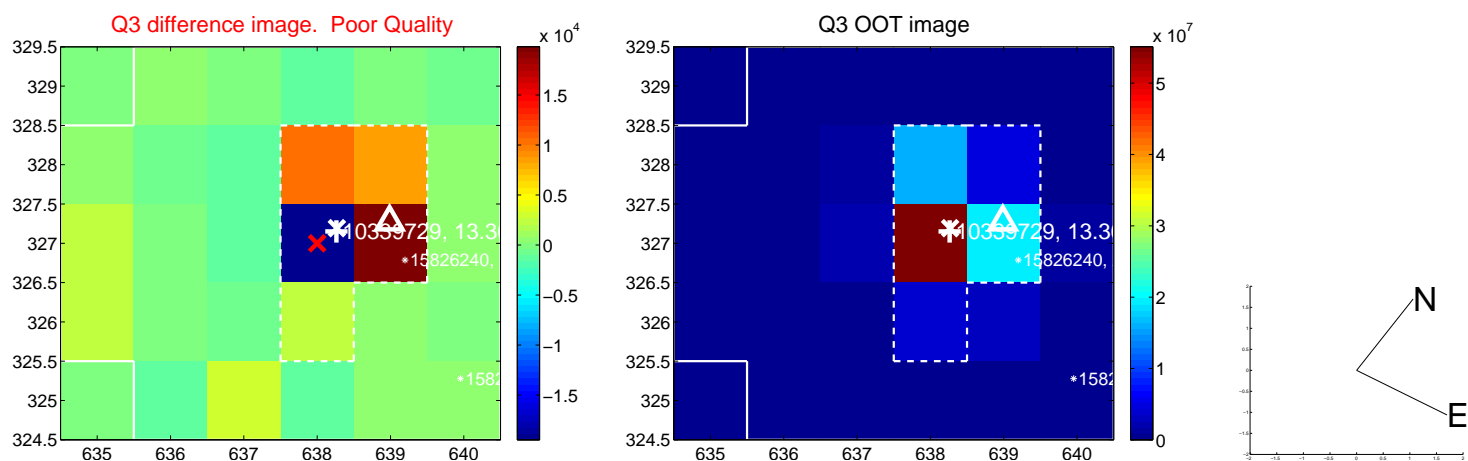
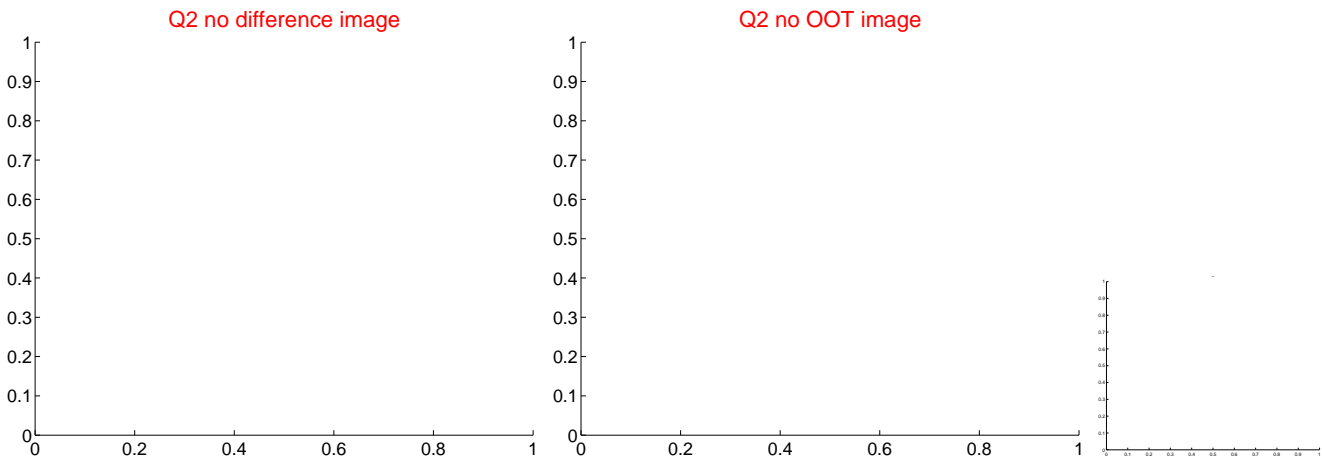
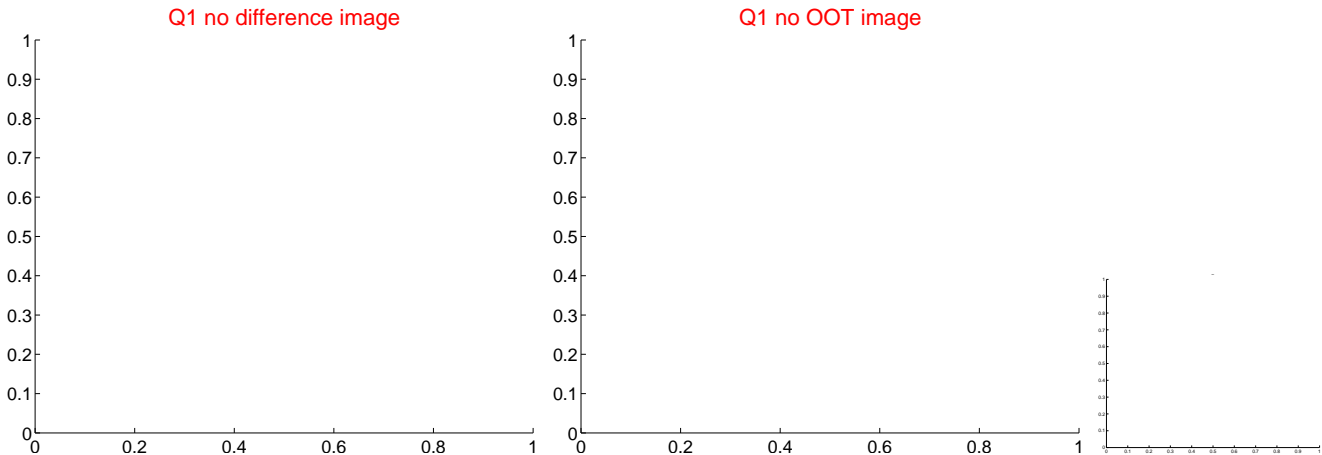
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.148 ± 4.165	0.52	1.450 ± 2.421	1.584 ± 3.472
PRF-fit source offset from KIC position	2.085 ± 1.749	1.19	1.519 ± 1.163	1.428 ± 1.426
photometric centroid source offset	2.56 ± 1.97	1.30	2.54 ± 1.97	-0.35 ± 2.17

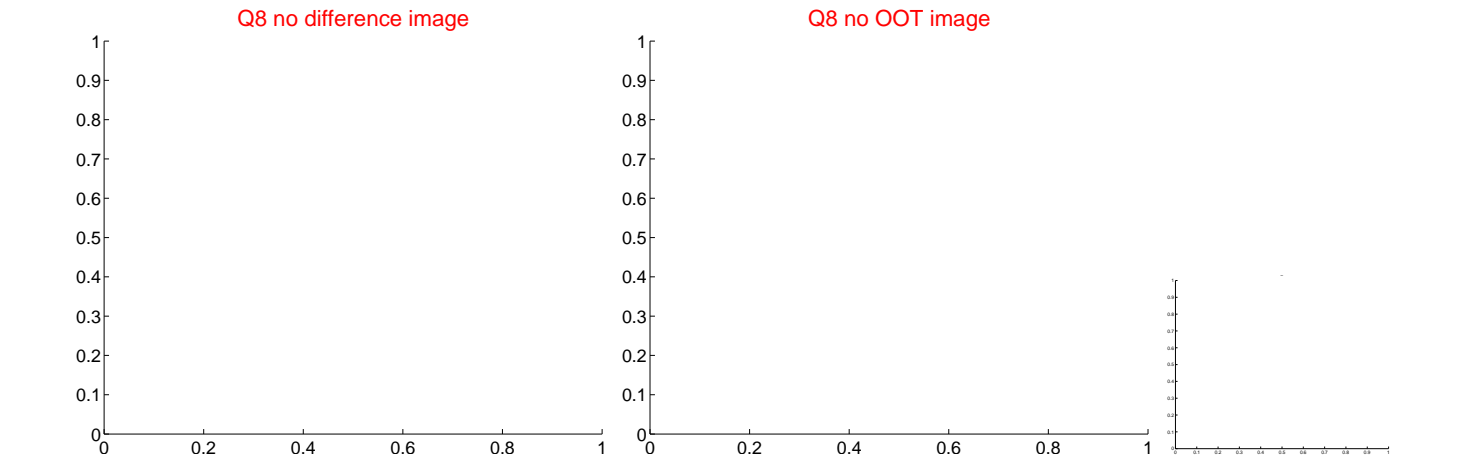
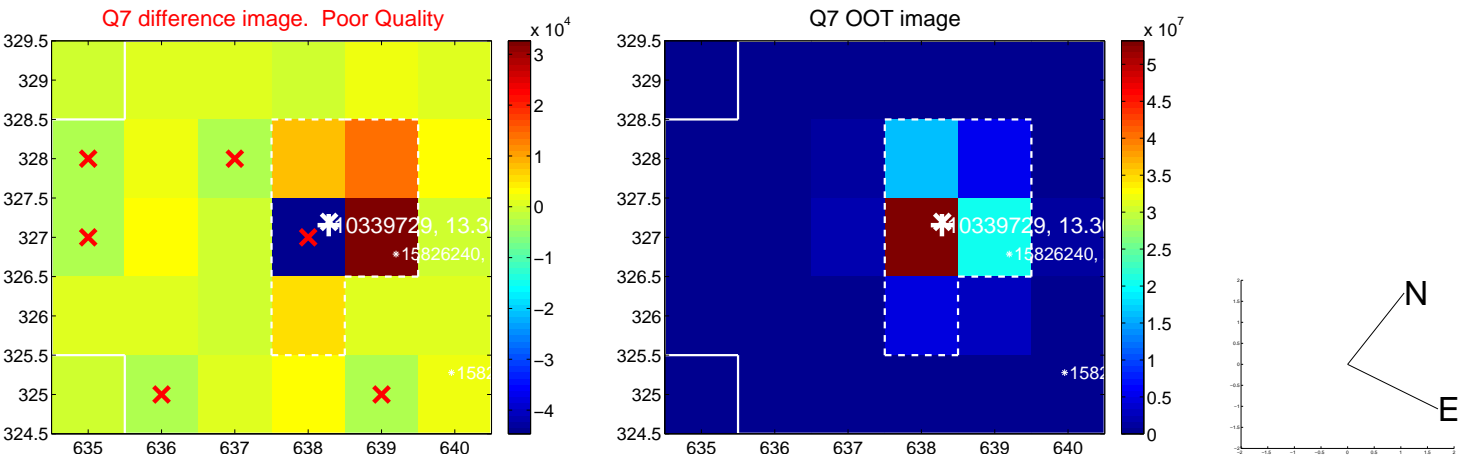
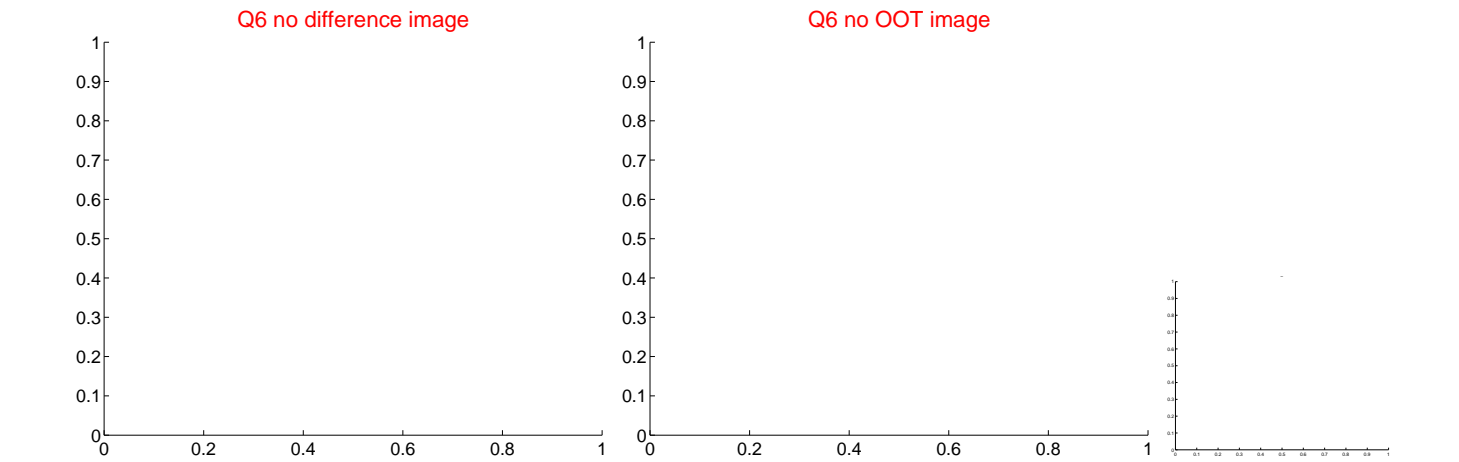
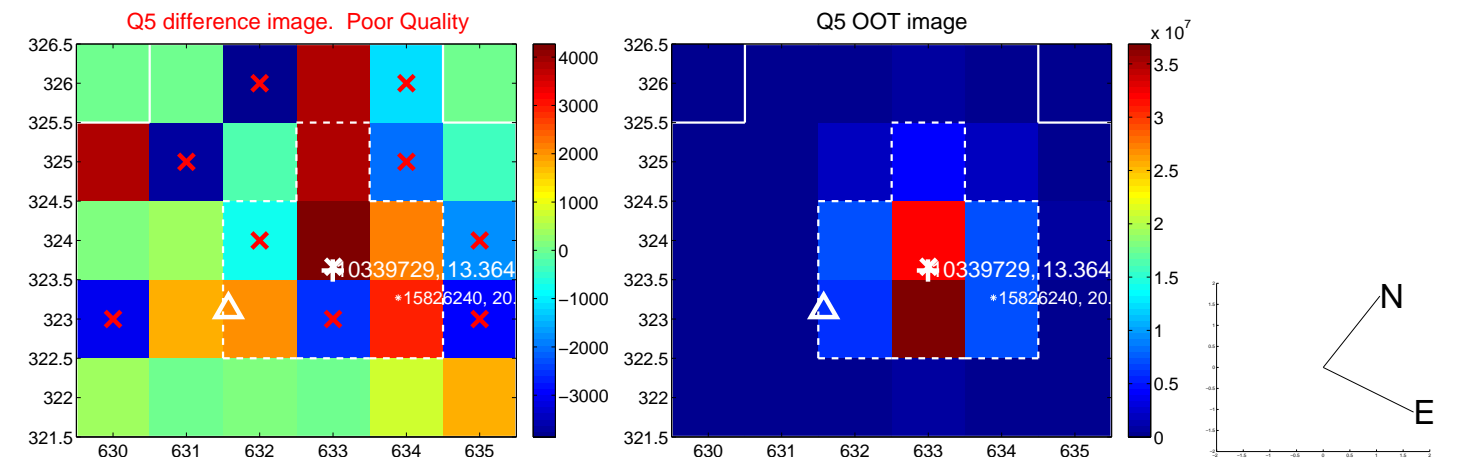


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

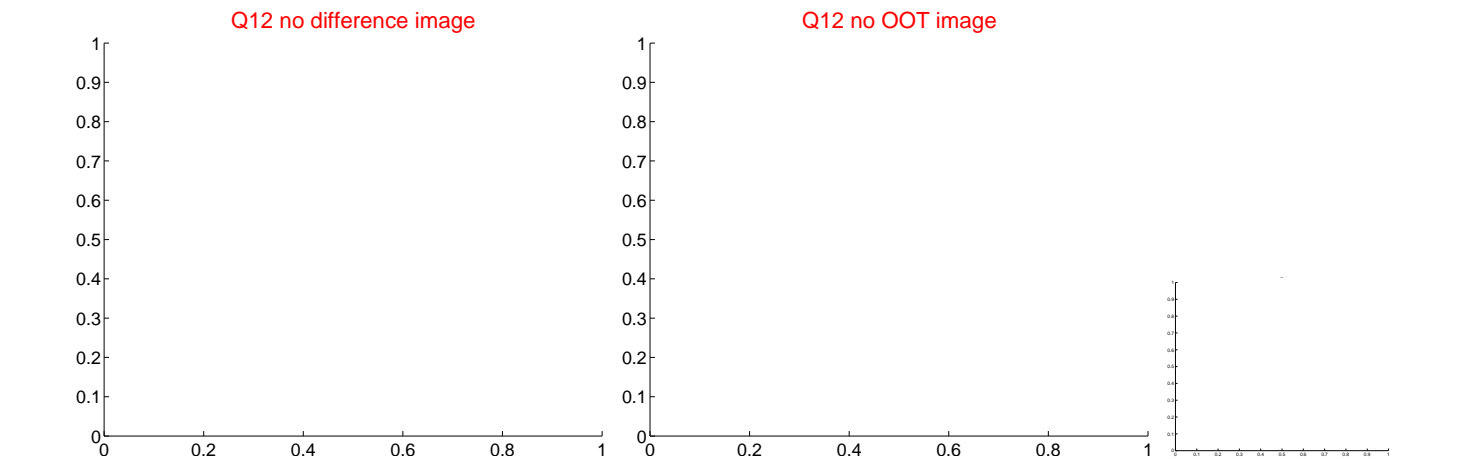
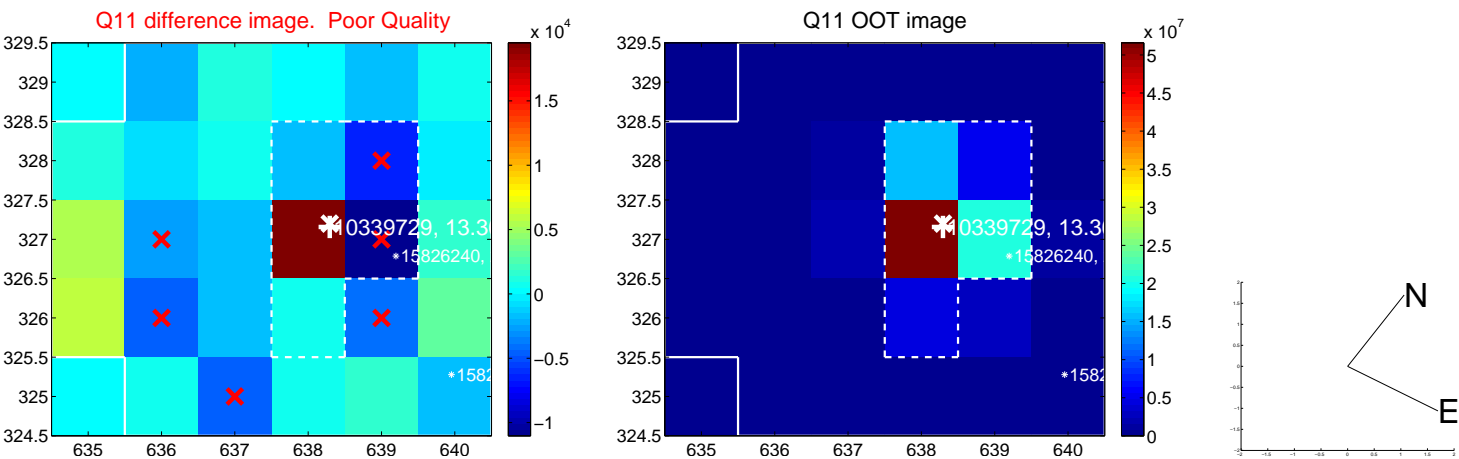
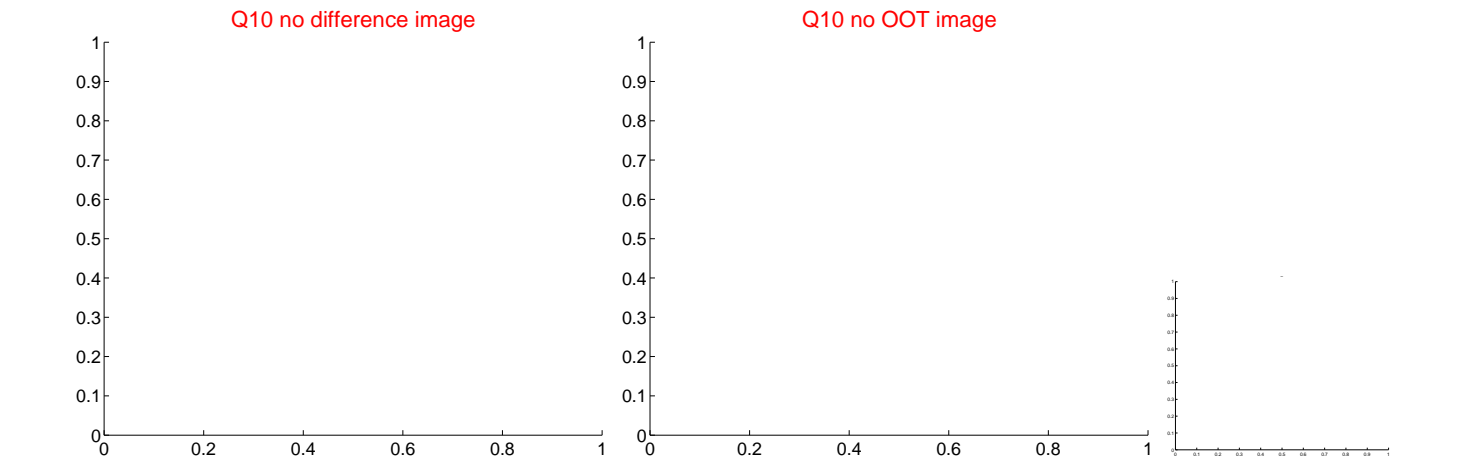
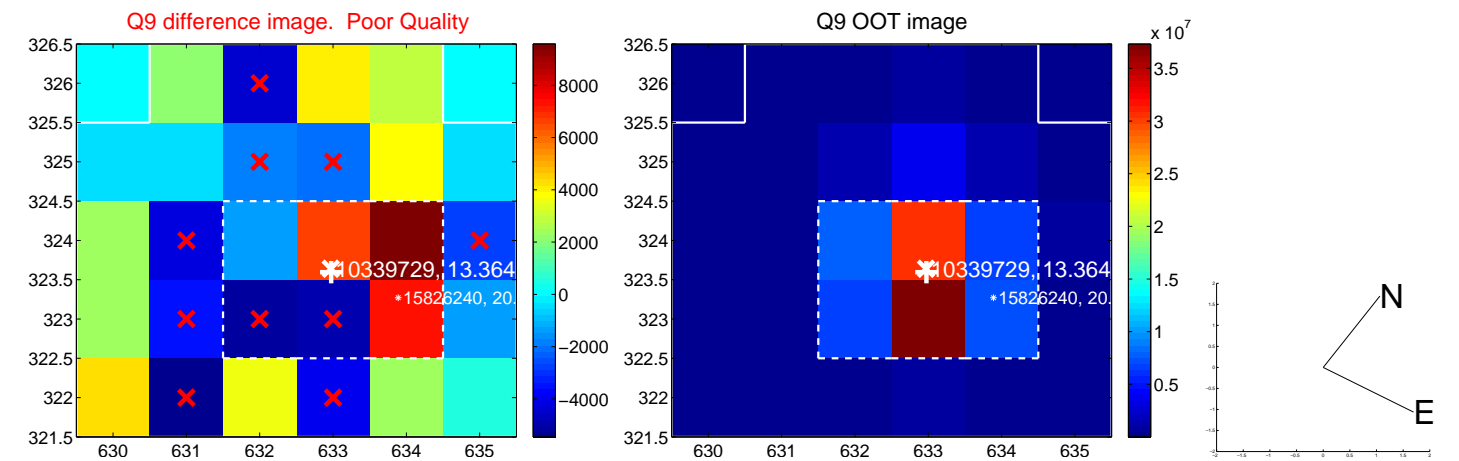
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



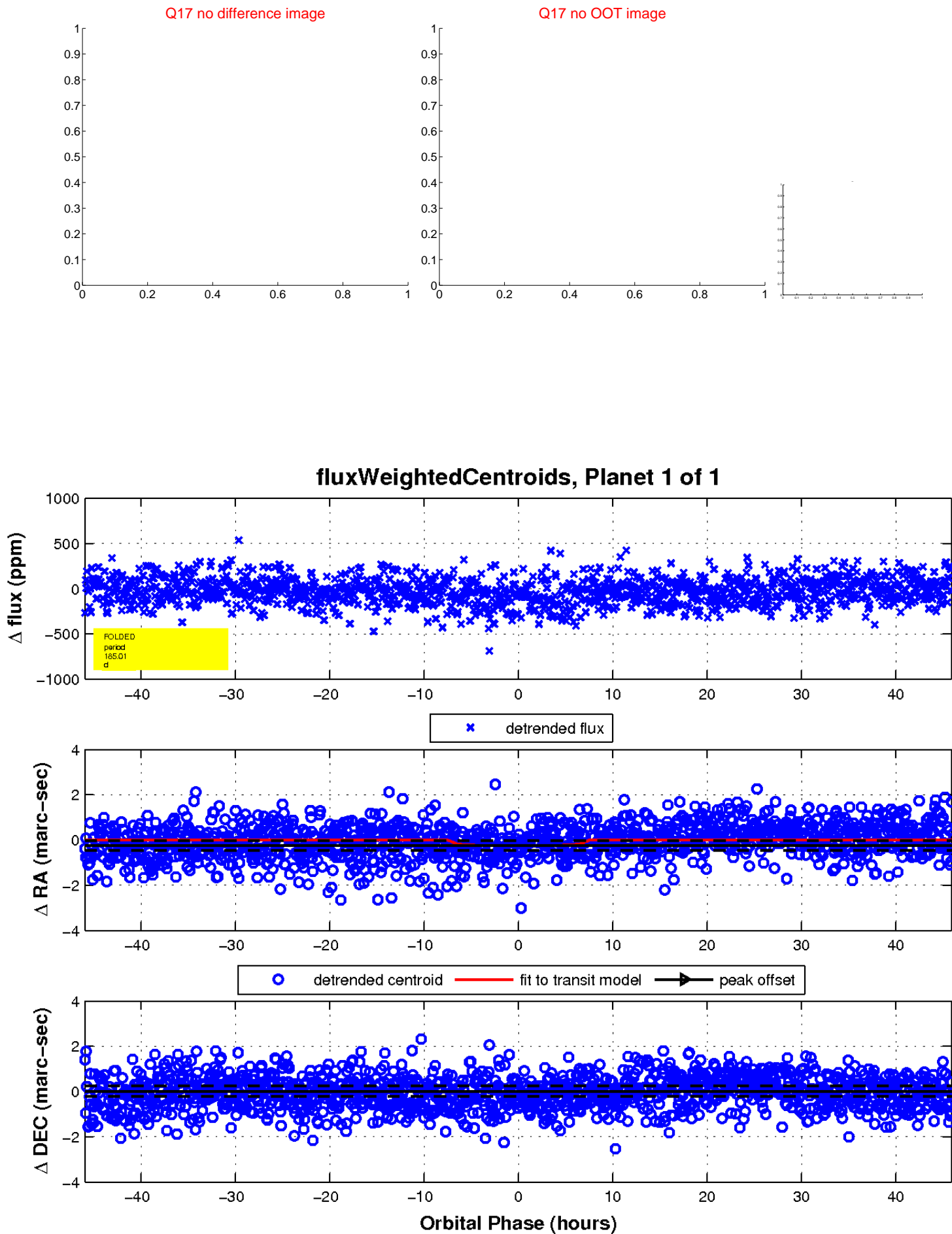
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

