

KIC 008554329

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})
008554329-01	OBS	No	377.797167	208.959325	482.3	26.567	8.1	8.6	0.67	5315	1.70	0.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008554329-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—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.

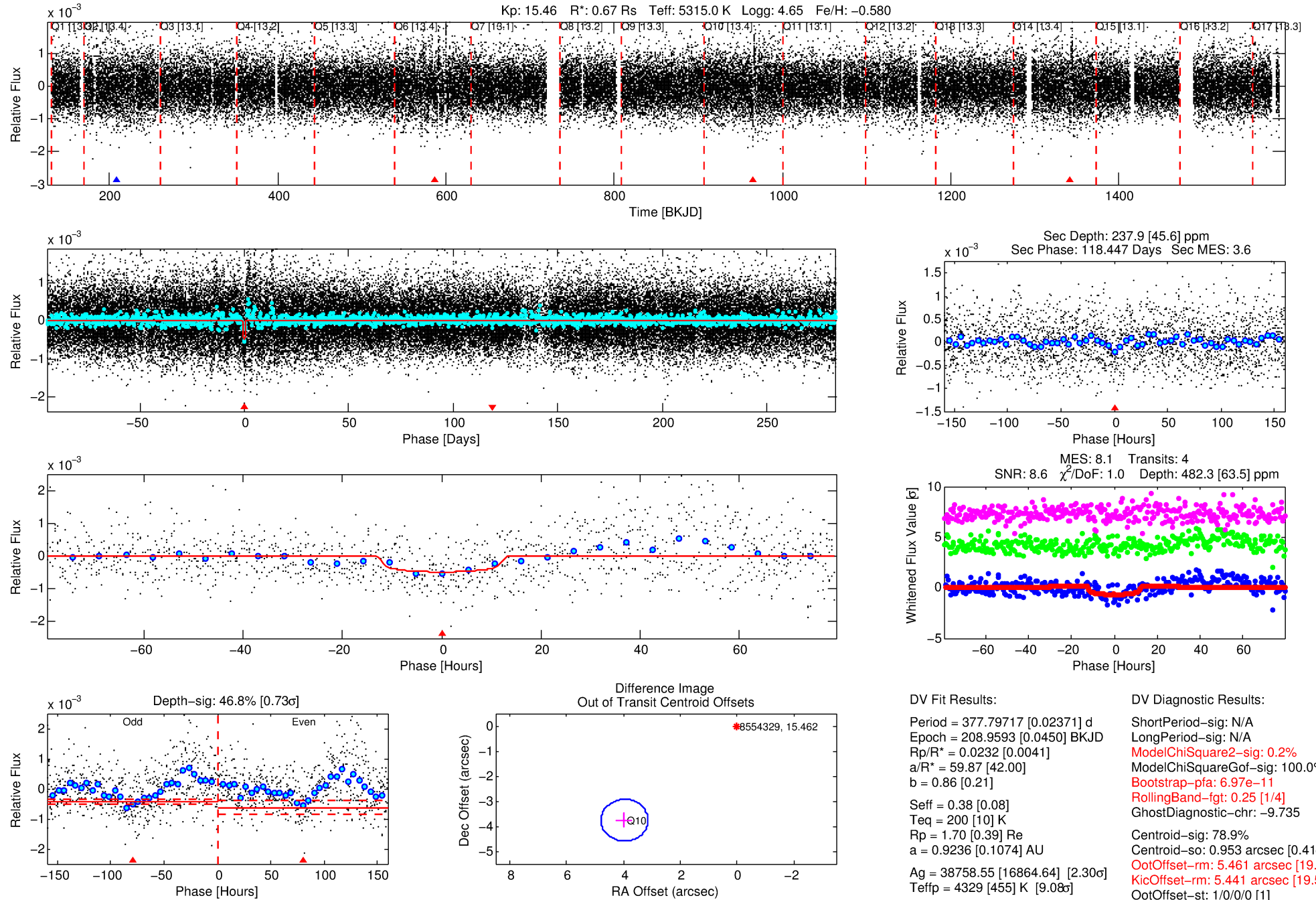
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008554329-01

No Significant Match Found

DV One-Page Summary

KIC: 8554329 Candidate: 1 of 1 Period: 377.797 d



DV Fit Results:

Period = 377.79717 [0.02371] d
Epoch = 208.9593 [0.0450] BKJD
Rp/R* = 0.0232 [0.0041]
a/R* = 59.87 [42.00]
b = 0.86 [0.21]
Seff = 0.38 [0.08]
Teq = 200 [10] K
Rp = 1.70 [0.39] Re
a = 0.9236 [0.1074] AU
Ag = 38758.55 [16864.64] [2.30σ]
Teff = 4329 [455] K [9.08σ]

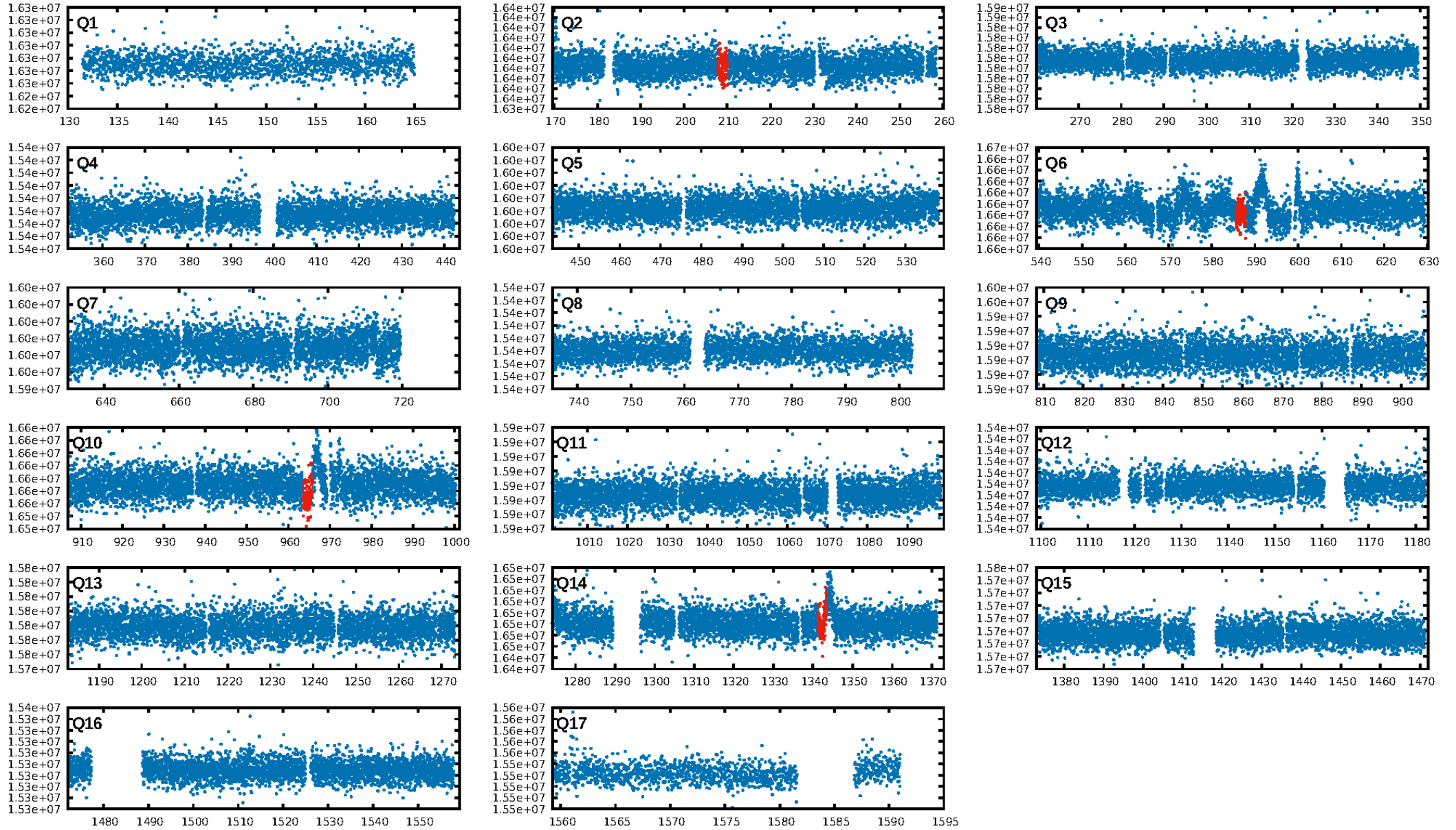
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.2%
ModelChiSquareGoF-sig: 100.0%
Bootstrap-pfa: 6.97e-11
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: -9.735
Centroid-sig: 78.9%
Centroid-so: 0.953 arcsec [0.41σ]
OotOffset-rm: 5.461 arcsec [19.70σ]
KicOffset-rm: 5.441 arcsec [19.59σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [4/4]

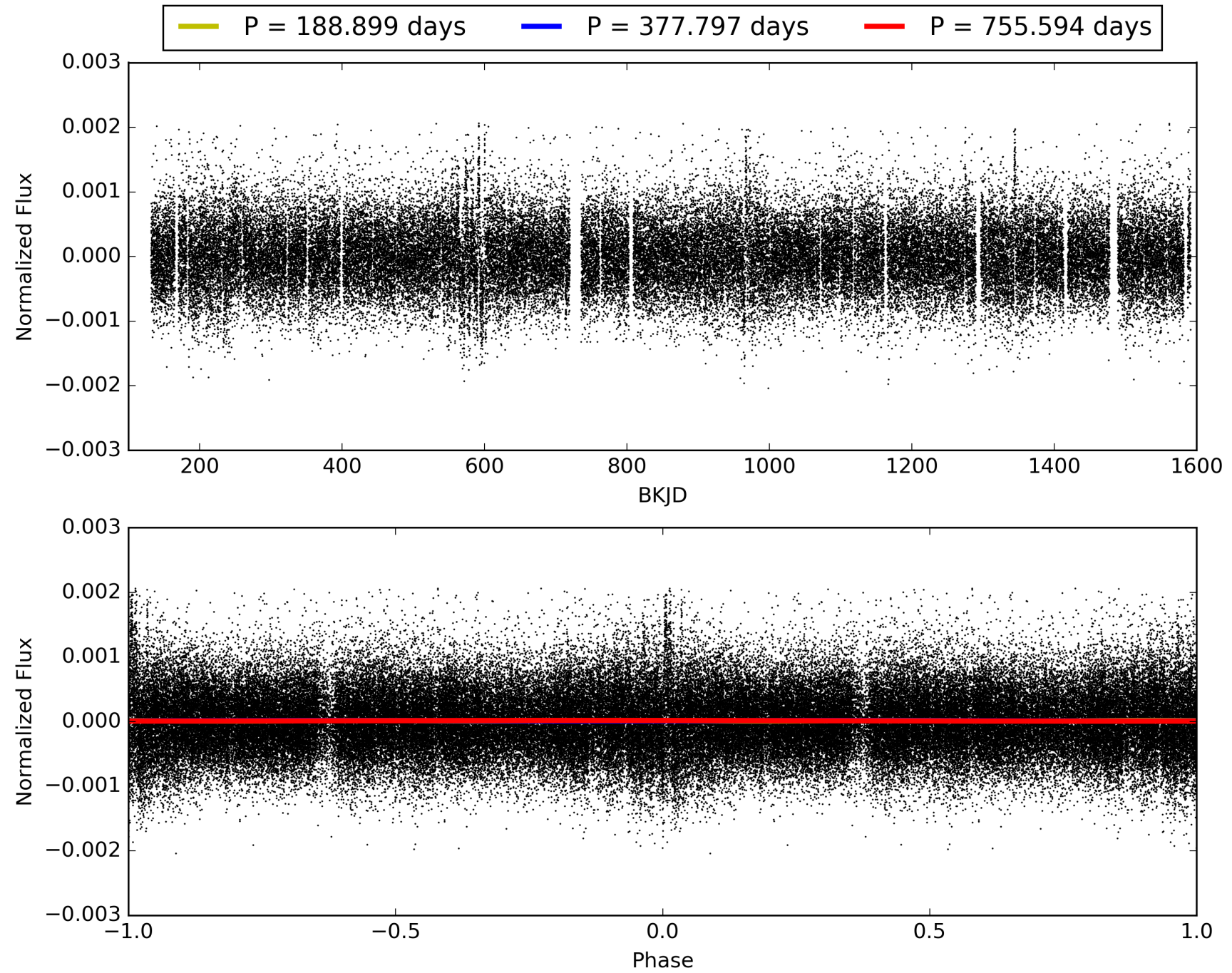
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:26:45 Z

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

TCE 008554329-01, PDC Light Curves

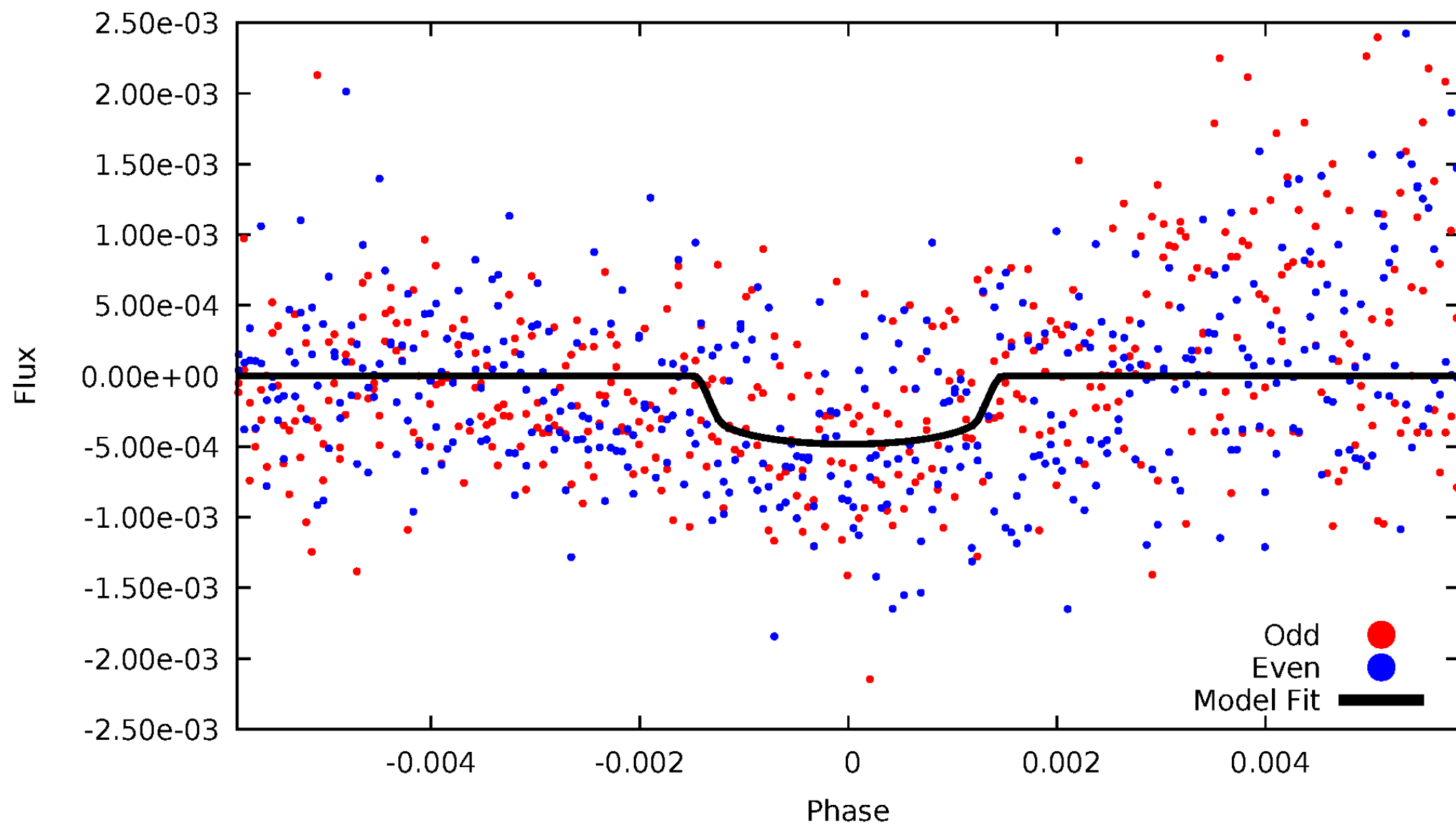


TCE 008554329-01



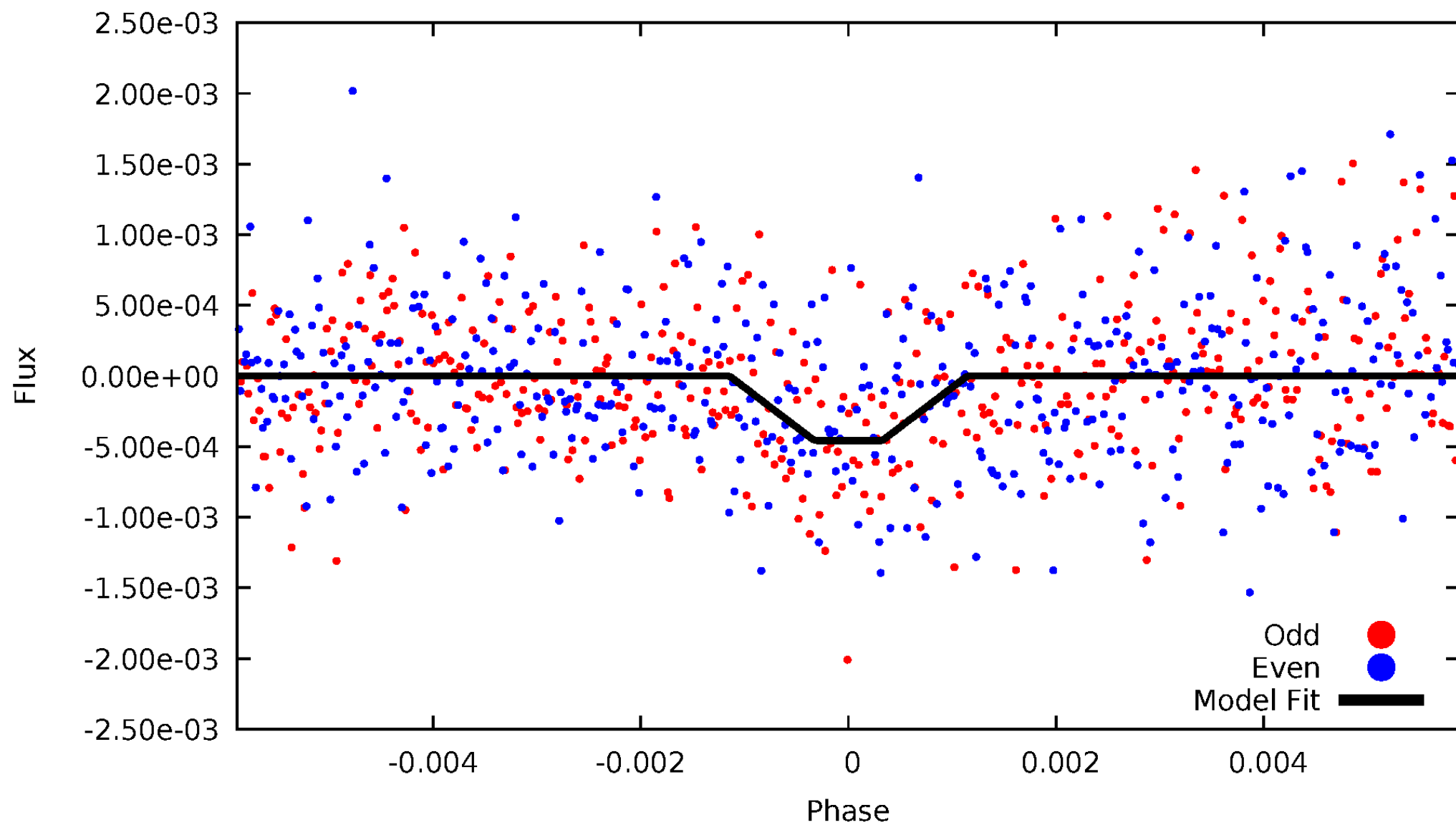
DV Odd/Even

TCE 008554329-01

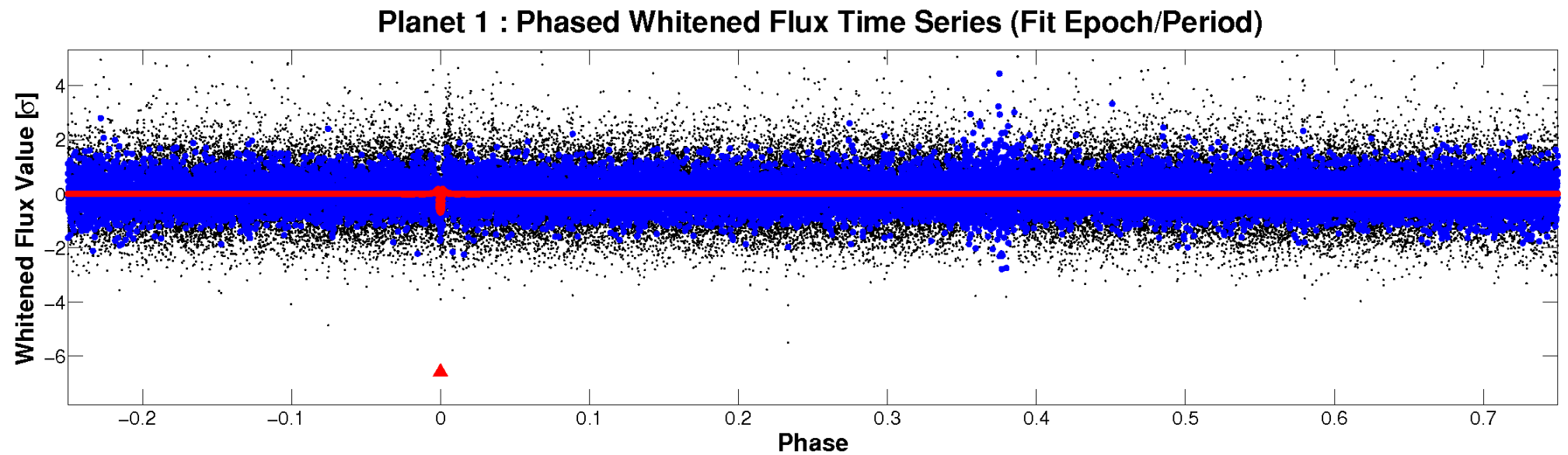
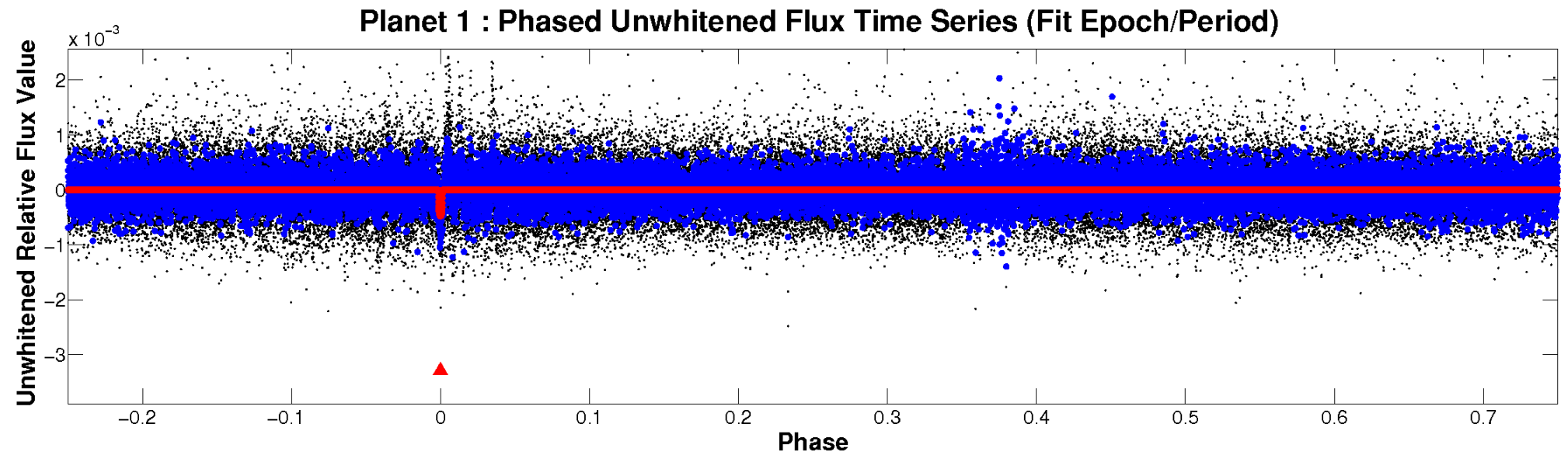


ALT Odd/Even

TCE 008554329-01

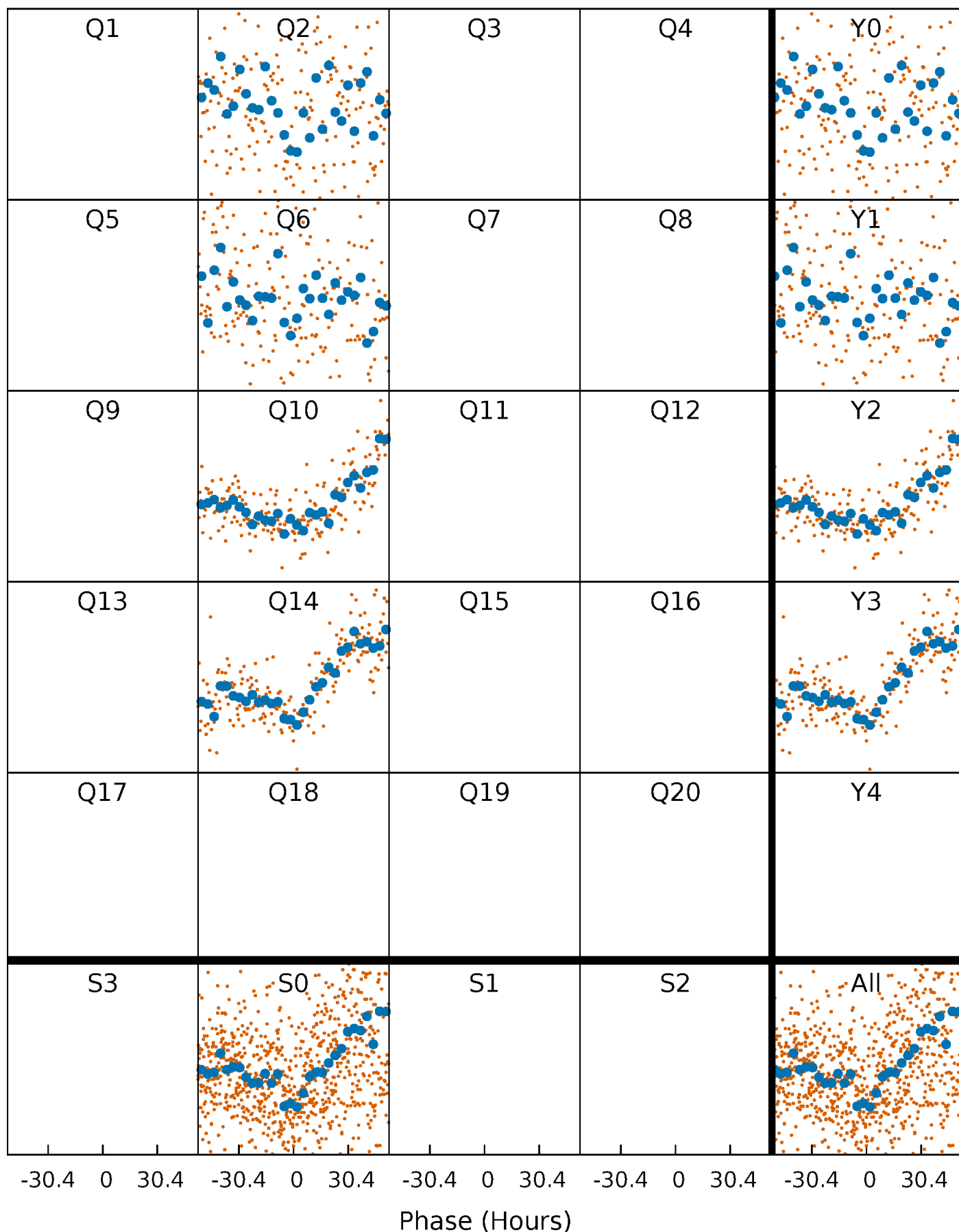


Non-Whitened Vs. Whitened Light Curve



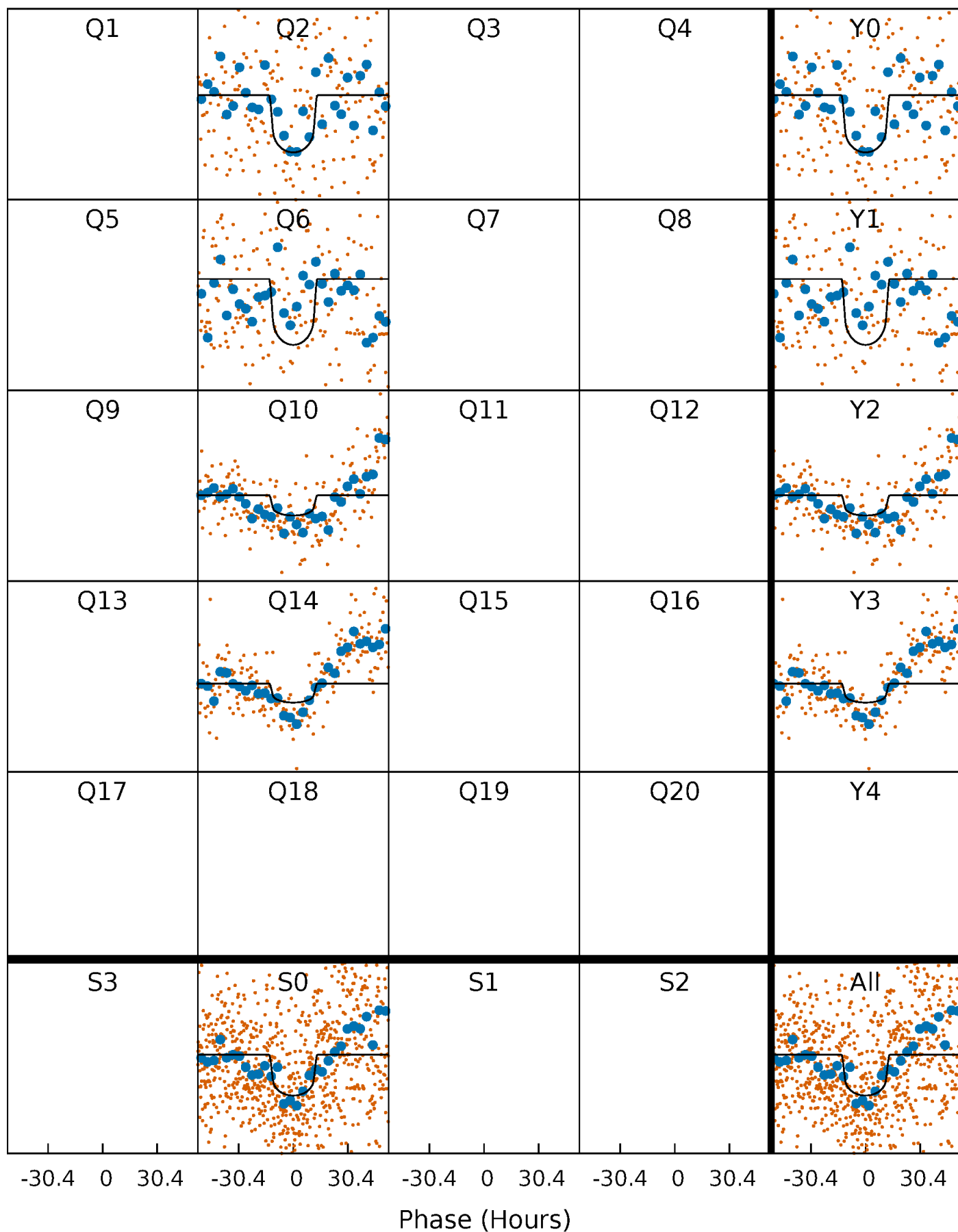
PDC Quarter-Phased Transit Curves

TCE 008554329-01 P=377.797168 Days $T_0=208.959325$ (BKJD)



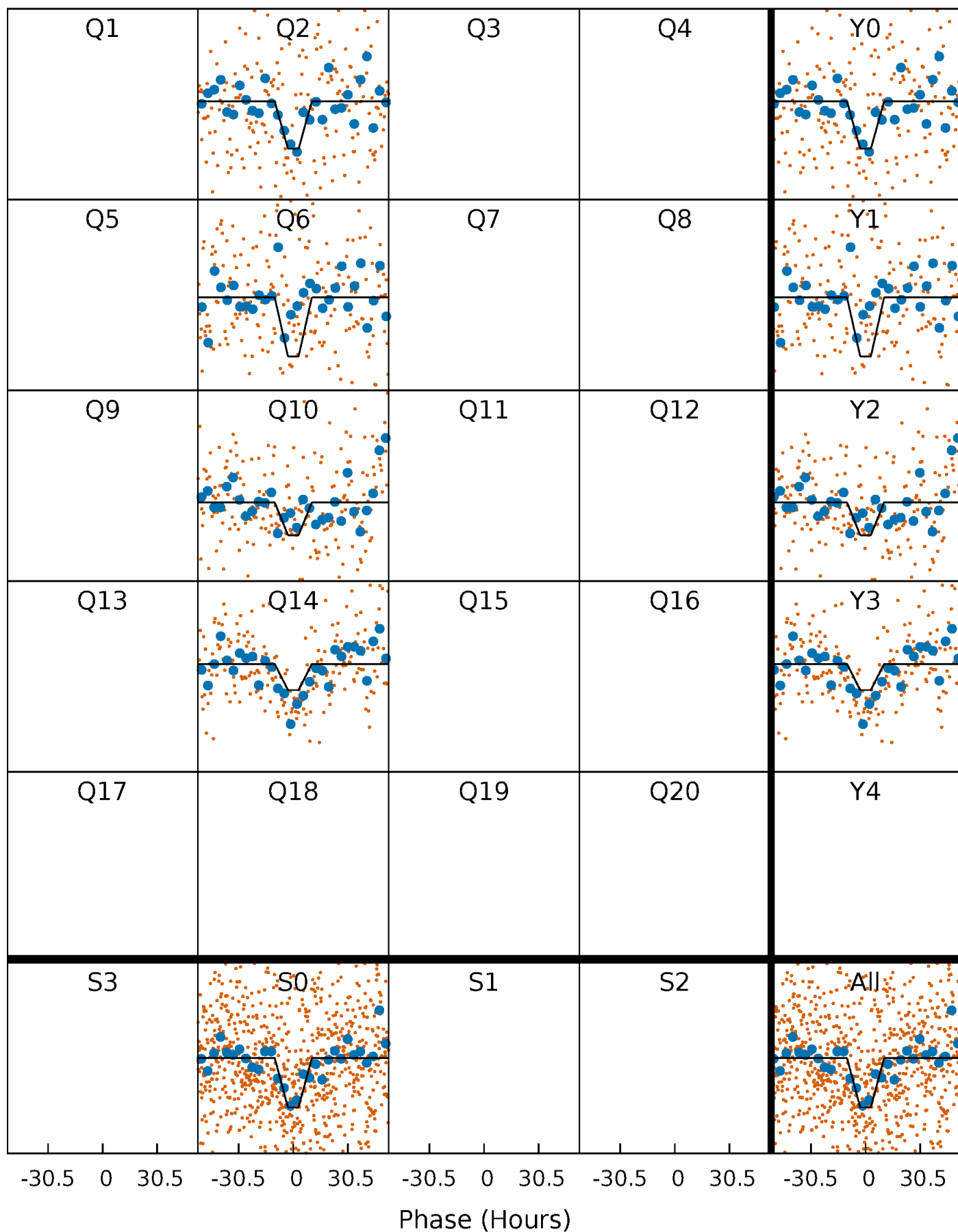
DV Quarter-Phased Transit Curves

TCE 008554329-01 P=377.797168 Days $T_0=208.959325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

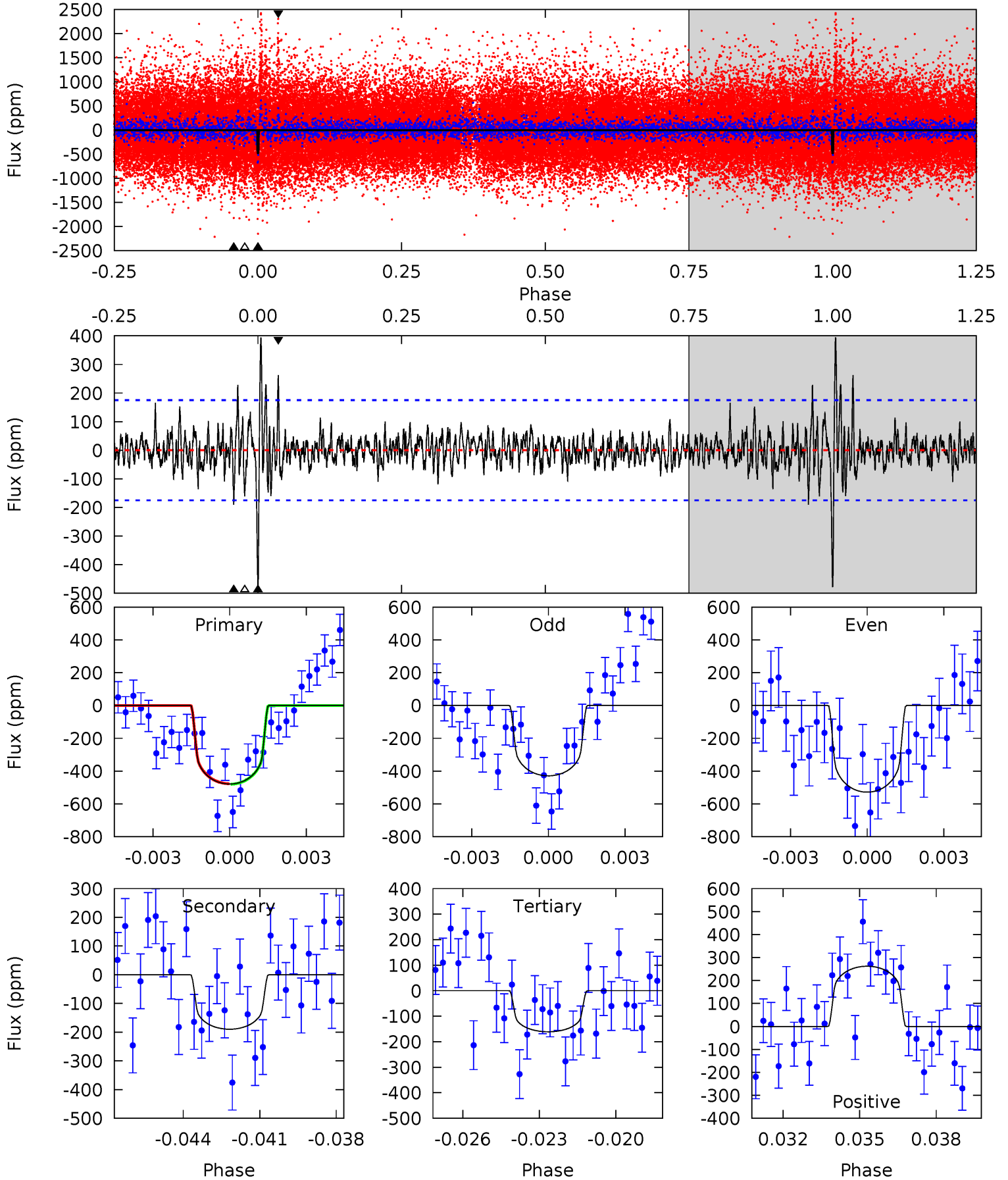
TCE 008554329-01 P=377.830147 Days $T_0=208.942000$ (BKJD)



DV Model-Shift Uniqueness Test

008554329-01, P = 377.797168 Days, E = 208.959325 Days

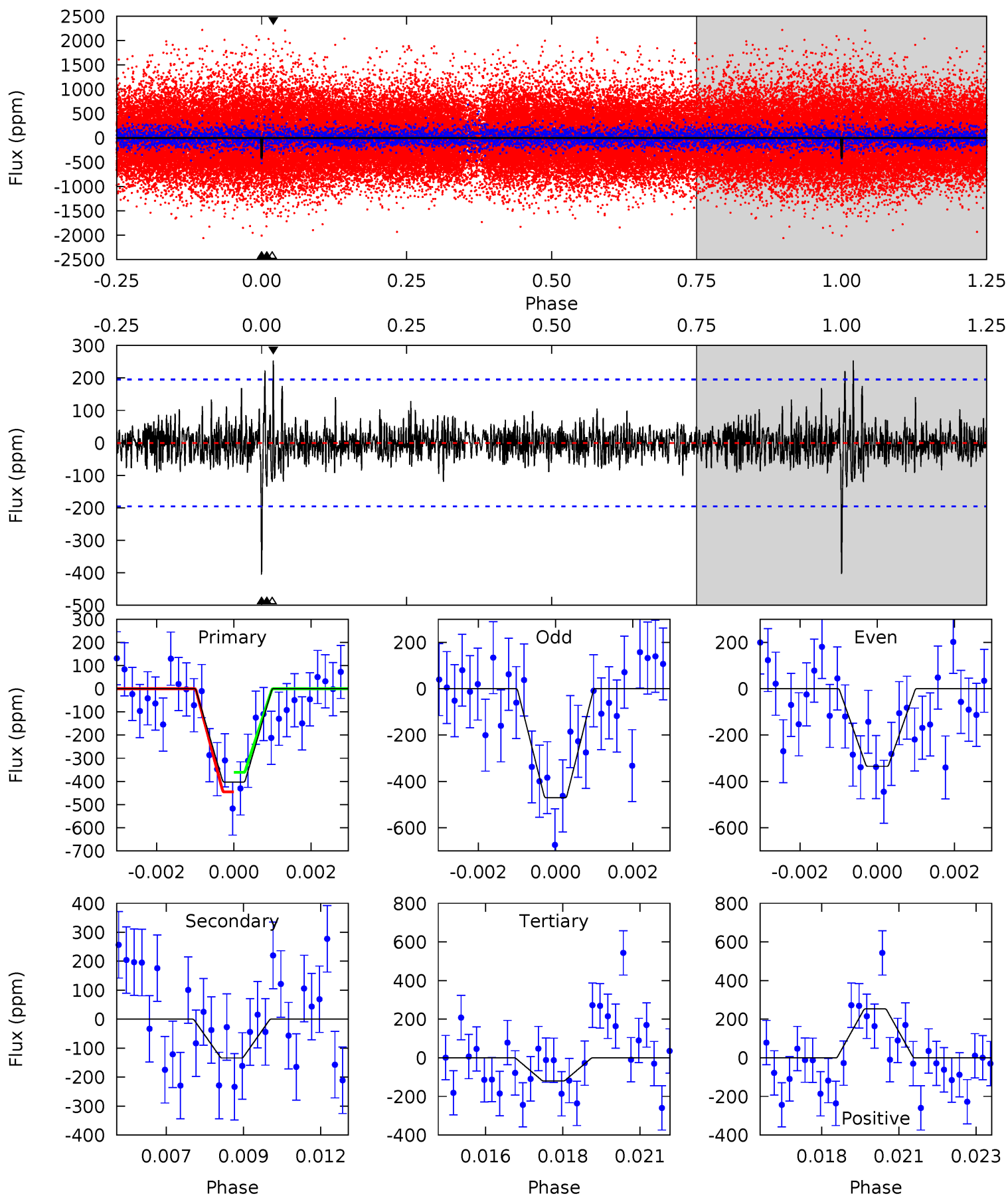
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.4	5.70	4.84	7.88	5.26	2.98	1.52	9.54	6.51	0.86	-2.17	1.50	0.91	0.45	0.05



Alt Model-Shift Uniqueness Test

008554329-01, P = 377.830147 Days, E = 208.942000 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.9	3.64	3.25	6.87	5.30	3.05	1.06	7.68	4.06	0.39	-3.23	1.84	1.21	0.39	1.15



Stellar Parameters For KIC 008554329

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5315^{+160}_{-144}	$4.654^{+0.028}_{-0.088}$	$-0.580^{+0.300}_{-0.300}$	$0.669^{+0.095}_{-0.041}$	$0.741^{+0.071}_{-0.064}$	$3.481^{+0.512}_{-0.952}$
	+3%/-3%	+1%/-2%	+52%/-52%	+14%/-6%	+10%/-9%	+15%/-27%
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 008554329-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-190 ± 33	$1.72^{+0.31}_{-0.29}$	283^{+11}_{-10}	4298^{+396}_{-293}	29517^{+15500}_{-9655}
Alt.	-134 ± 37	$1.60^{+0.32}_{-0.33}$	282^{+11}_{-10}	4150^{+430}_{-313}	24618^{+15612}_{-9251}

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

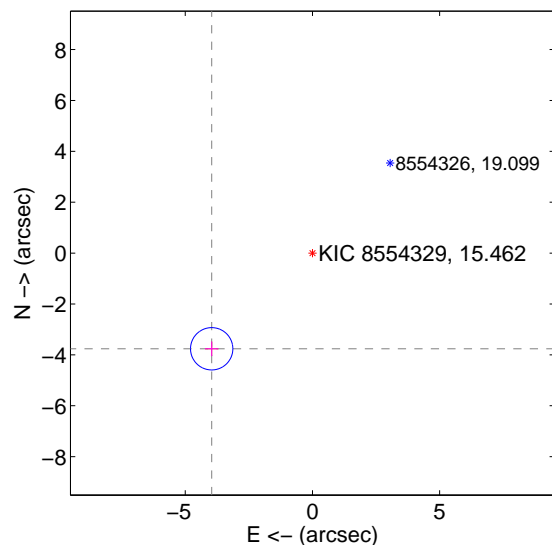
Supplemental centroid analysis for 008554329-01. Kepler magnitude: 15.46. Transit SNR 8.59

There are 0 quarters with good PRF difference image offsets

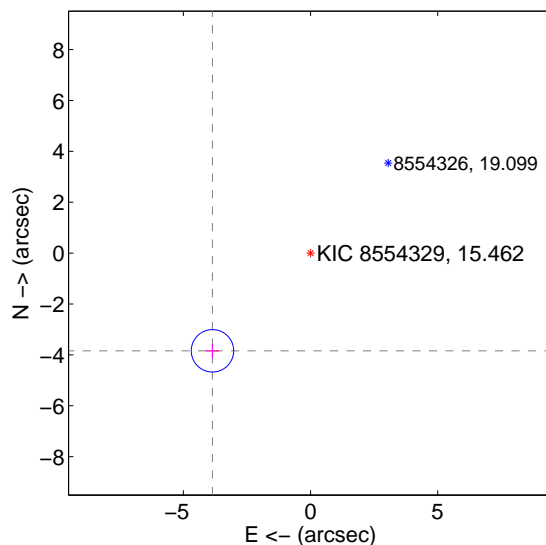
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.461 ± 0.277	19.70	3.960 ± 0.266	-3.761 ± 0.289
PRF-fit source offset from KIC position	5.441 ± 0.278	19.59	3.854 ± 0.266	-3.841 ± 0.289
photometric centroid source offset	0.95 ± 2.32	0.41	0.87 ± 2.32	-0.38 ± 2.35

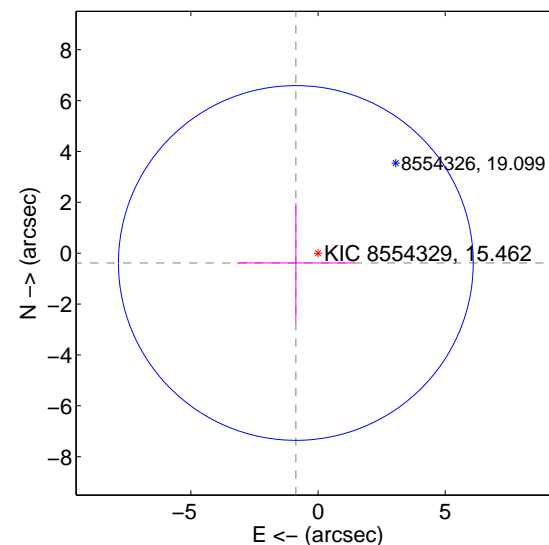
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

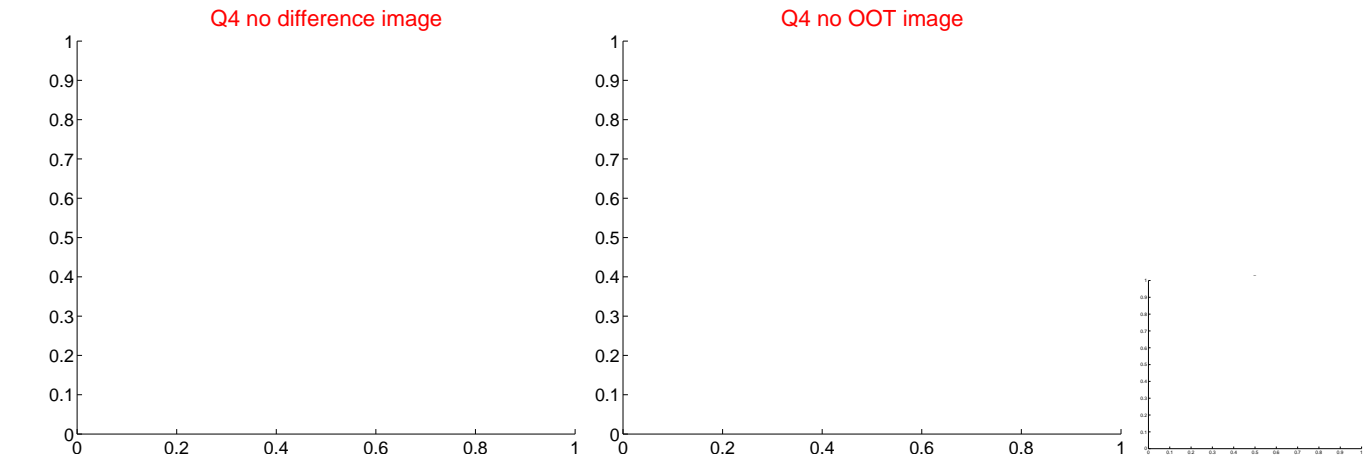
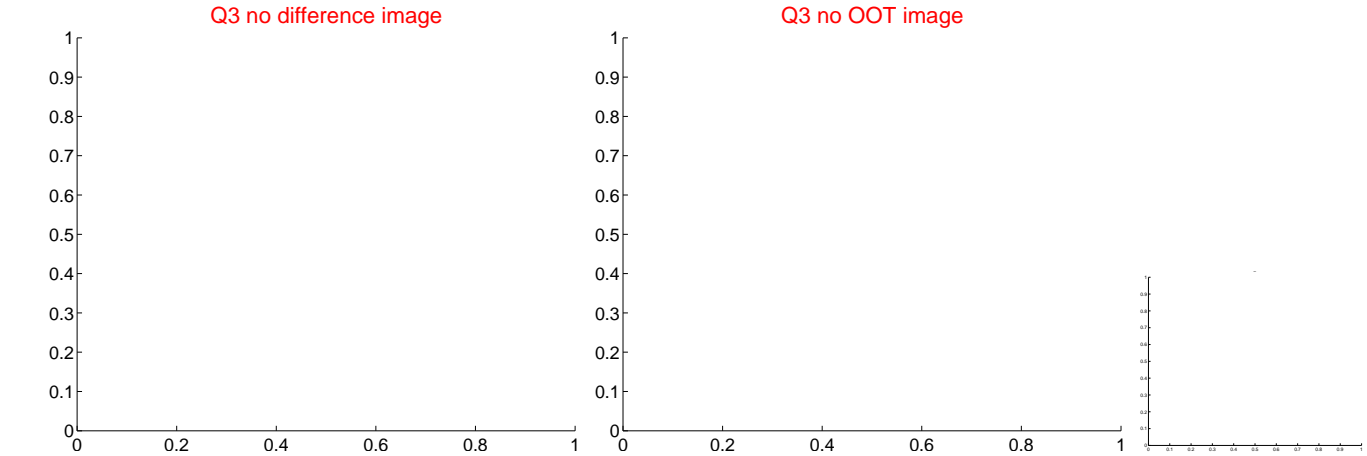
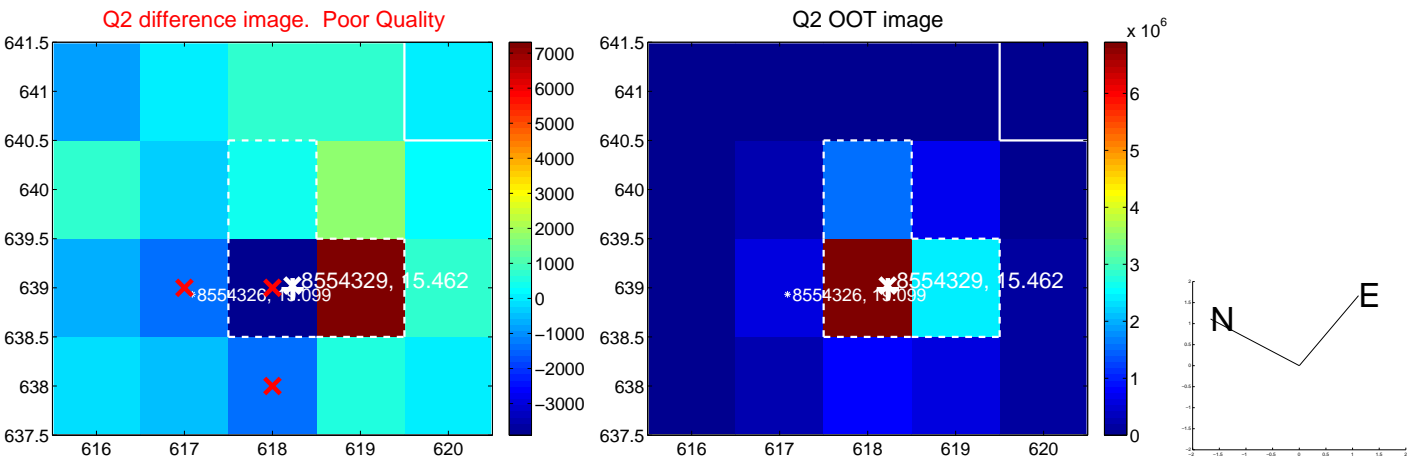
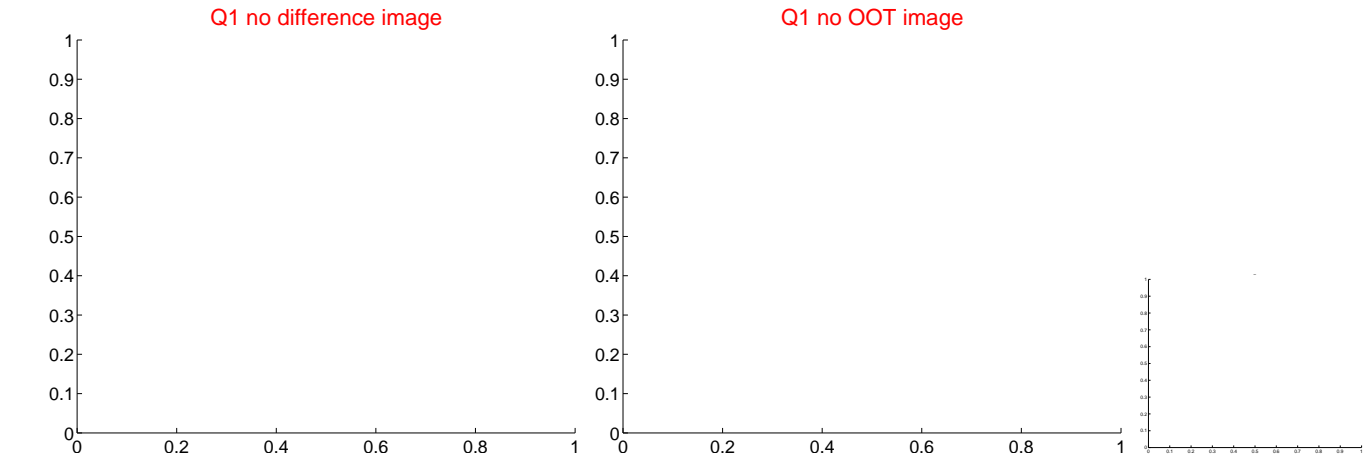


offset from photometric centroids

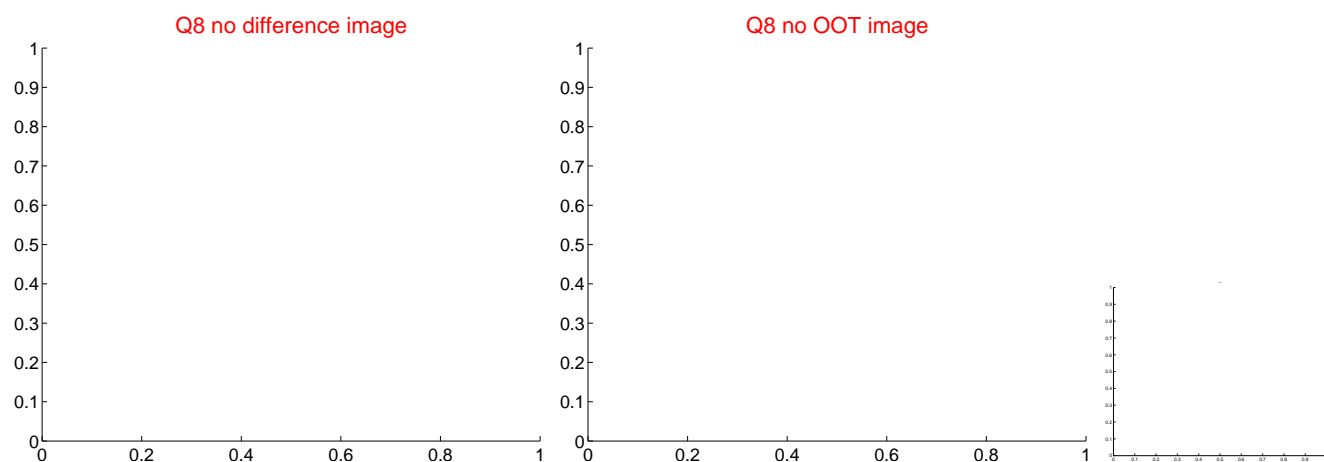
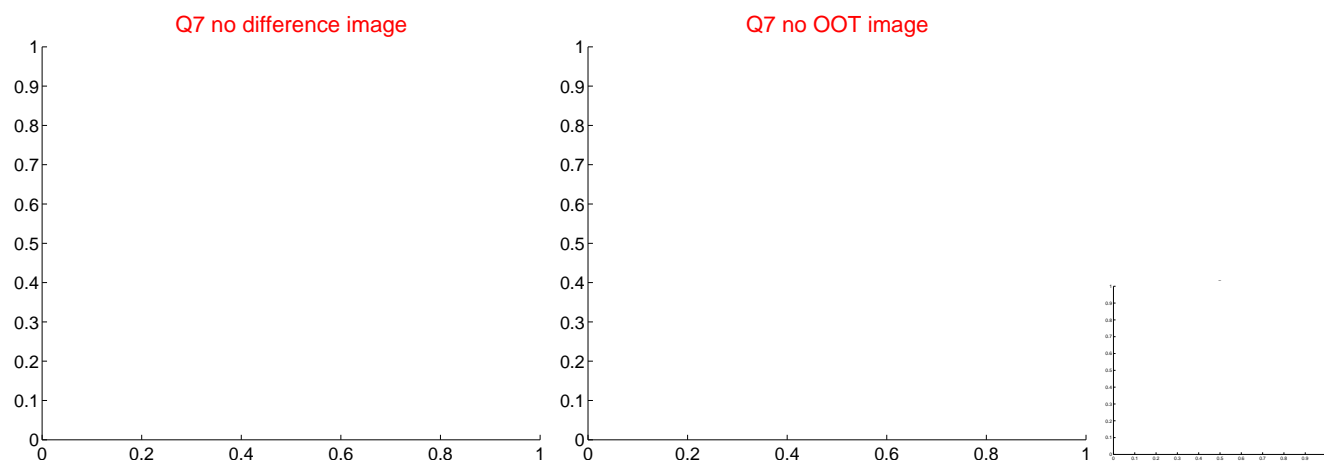
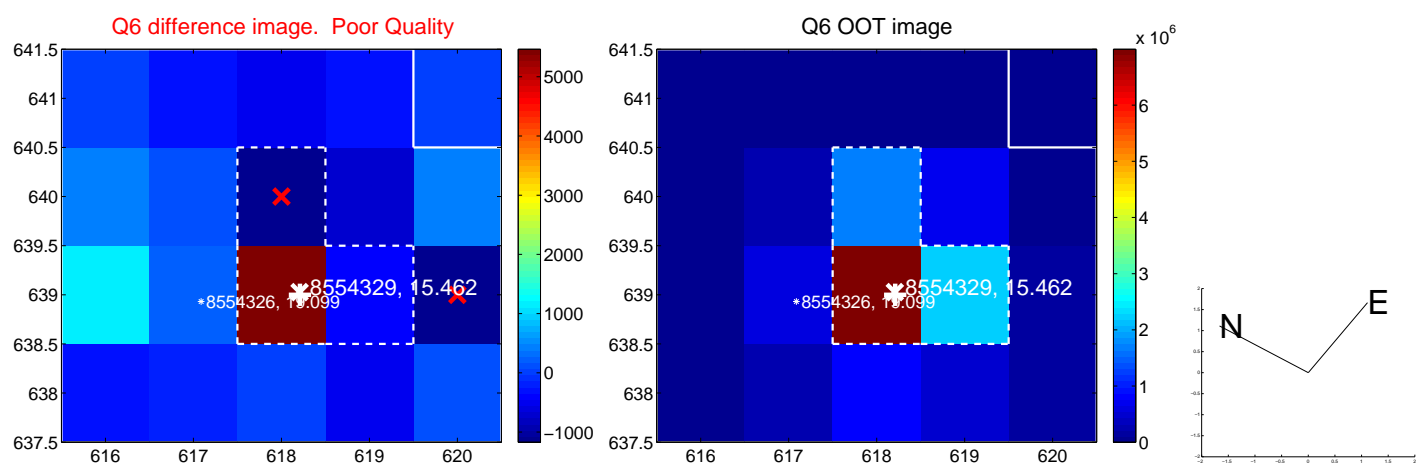
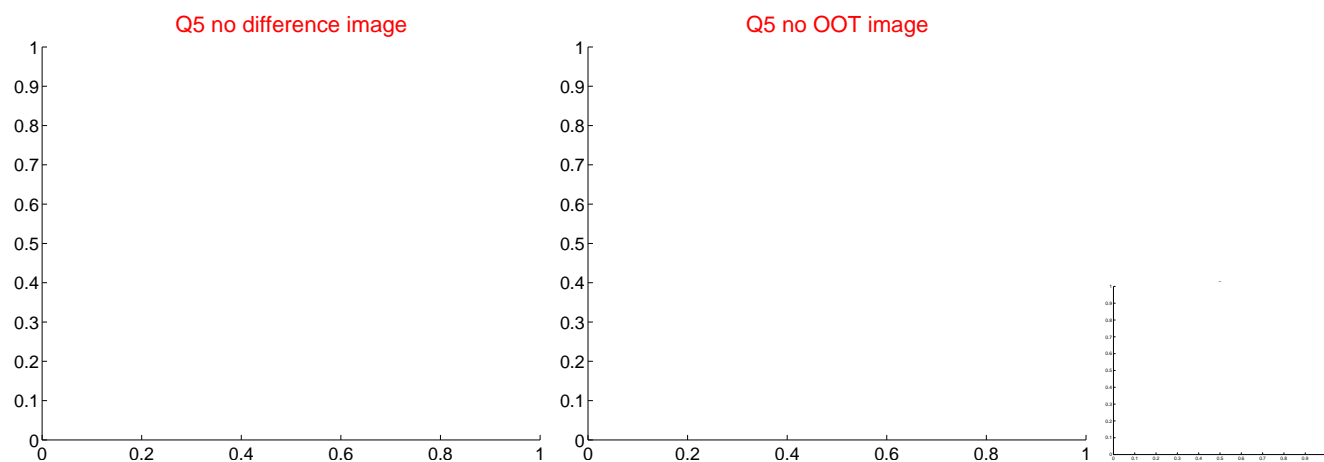


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

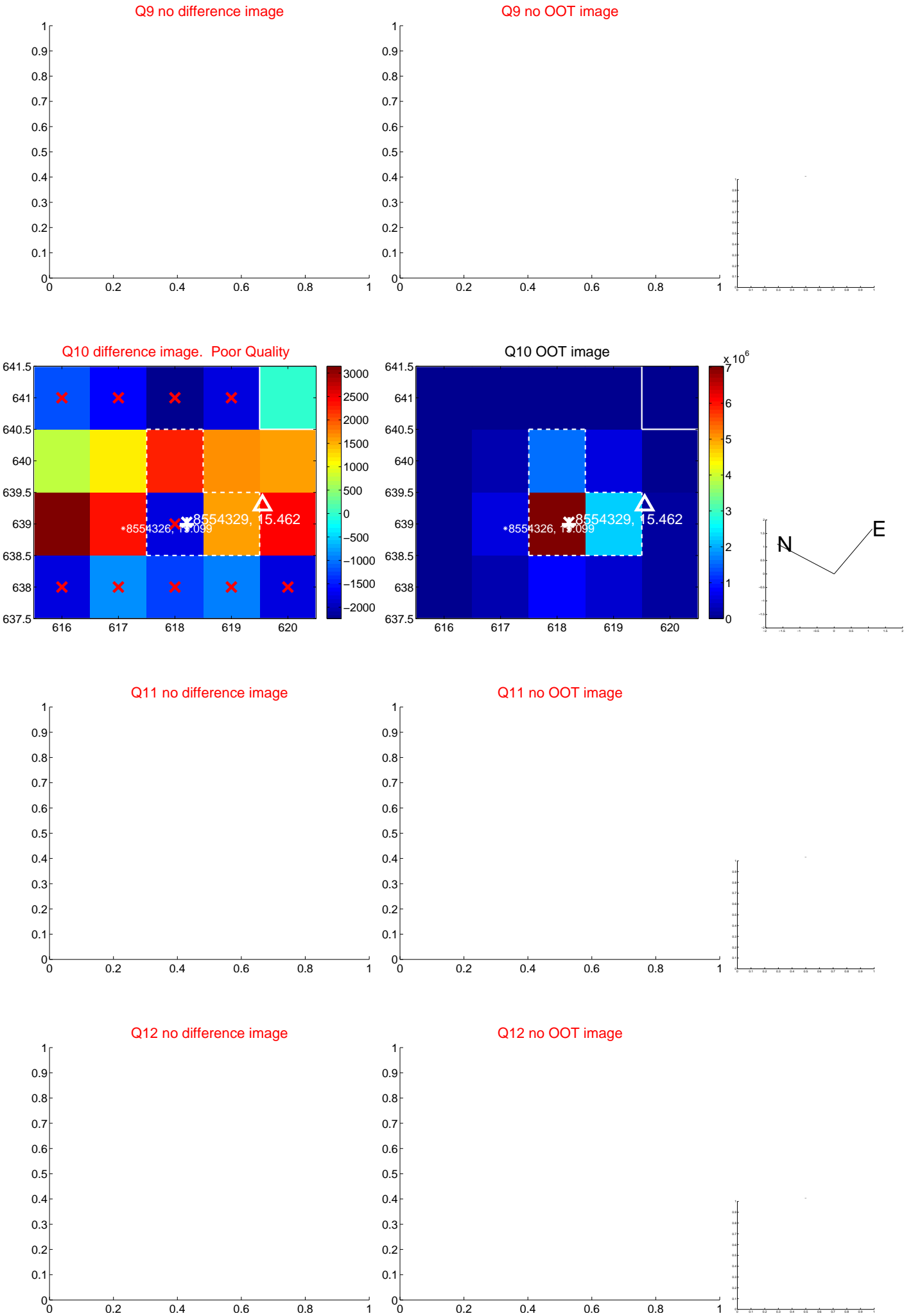
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



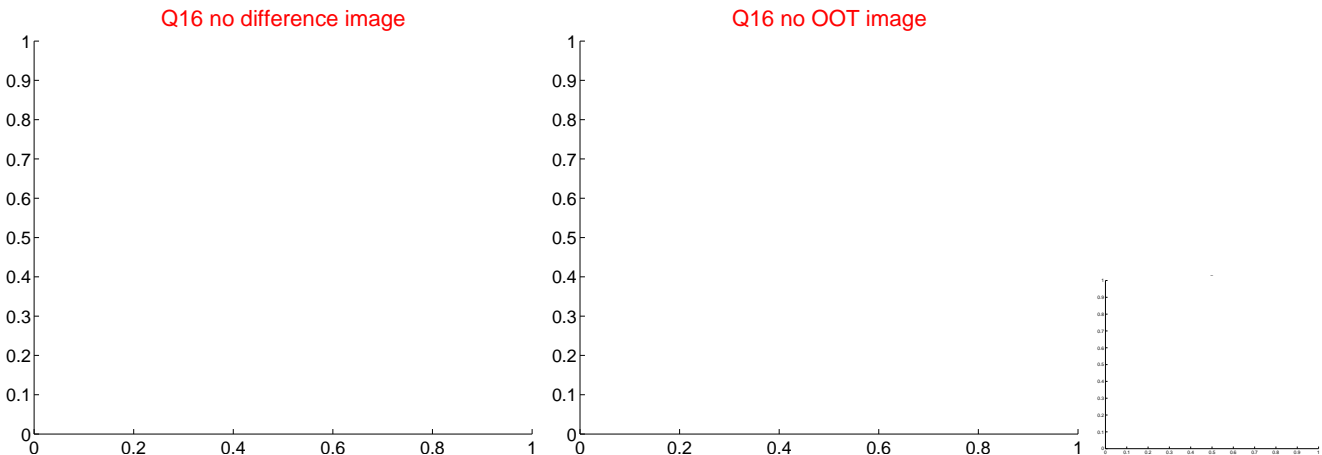
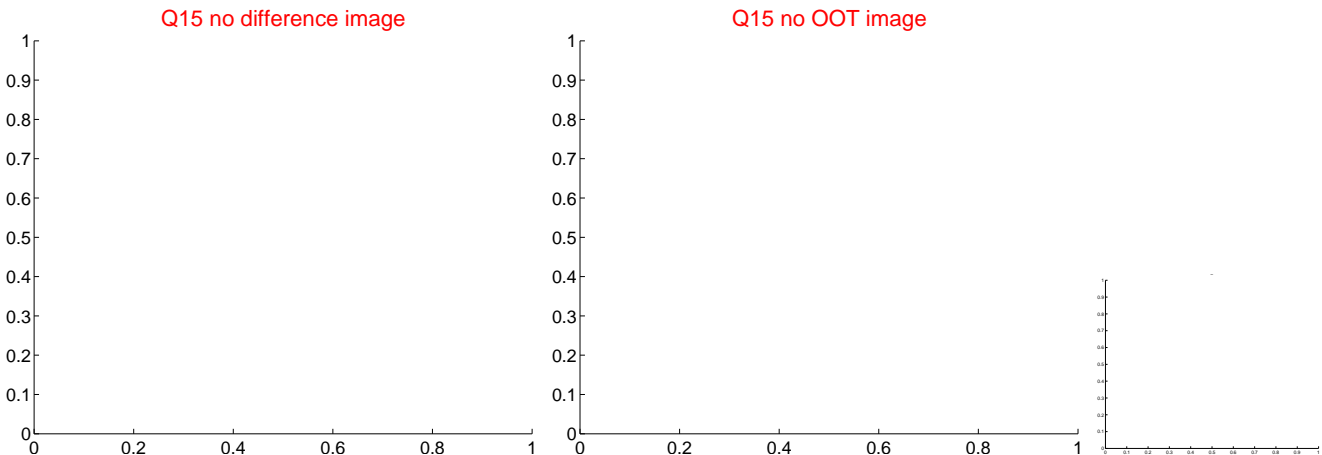
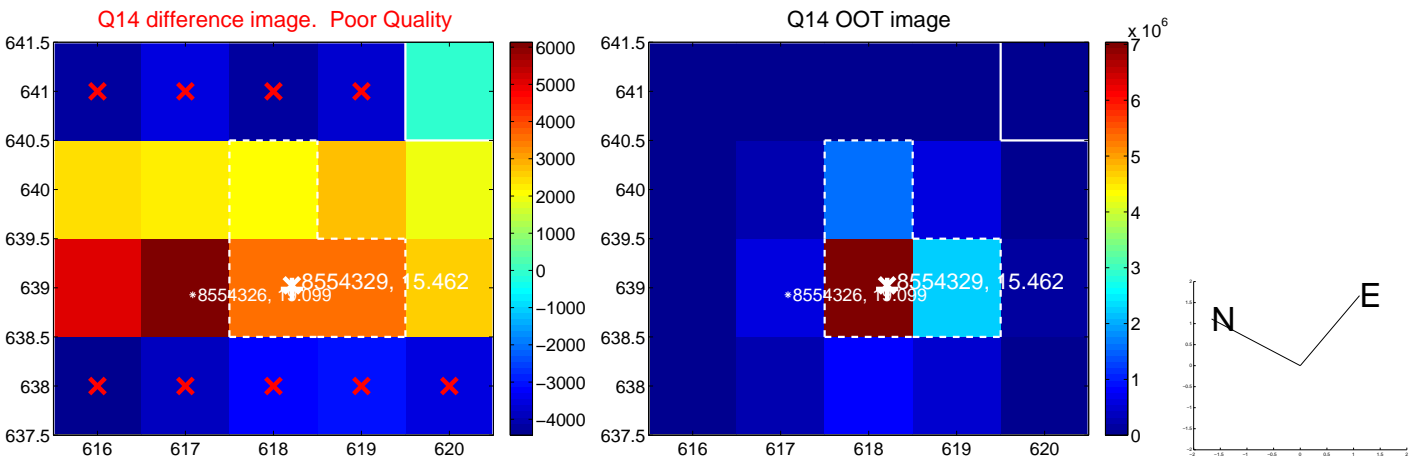
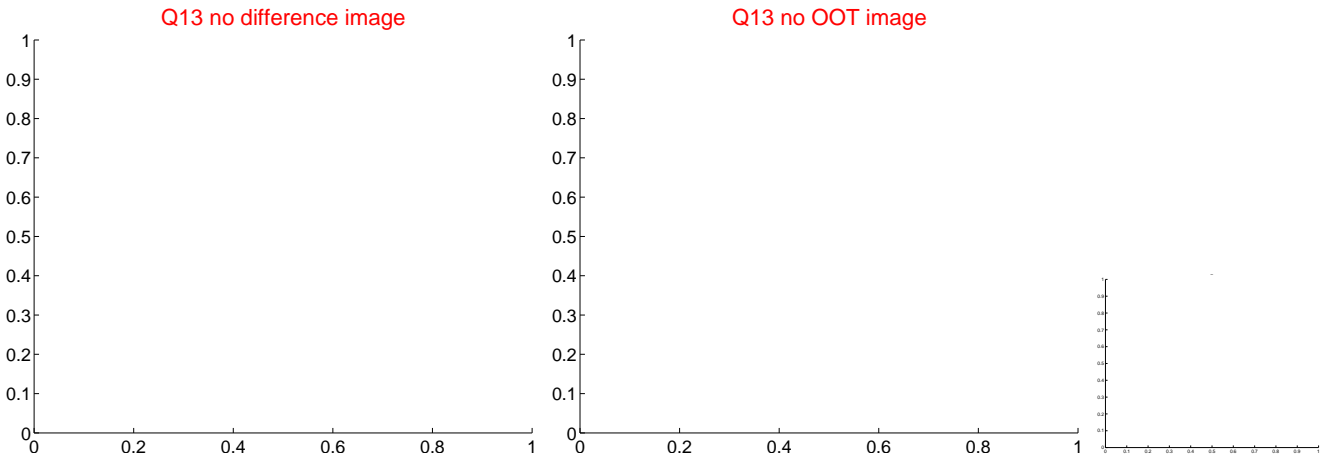
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



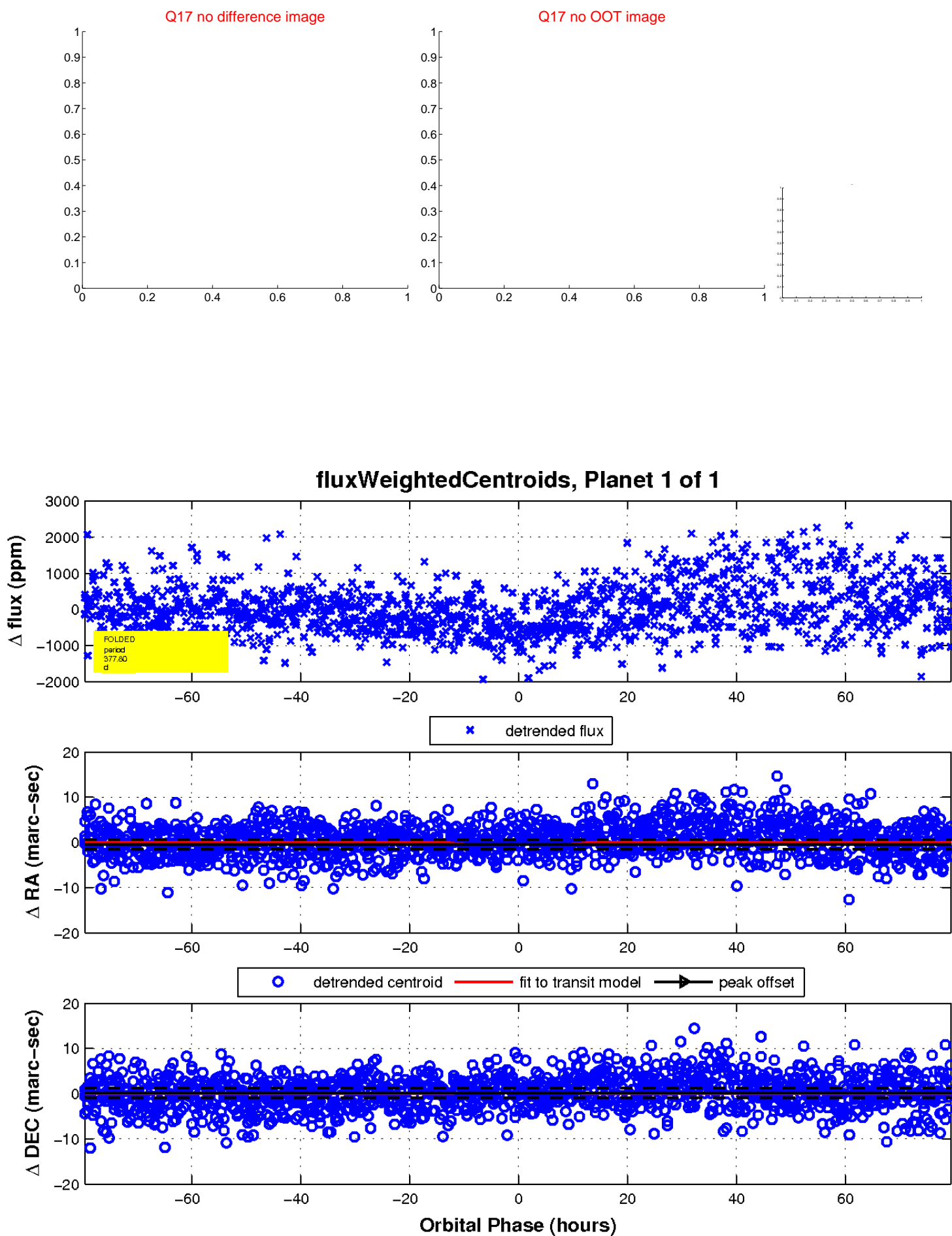
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



UKIRT Image

Declination

