

KIC 008547568

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})
008547568-01	OBS	No	363.427314	249.863427	1045.0	11.433	7.2	6.9	0.97	6032	3.29	1.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008547568-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—MOD_NONUNIQ_ALT—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.

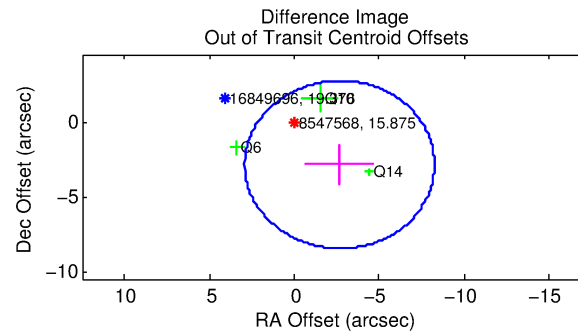
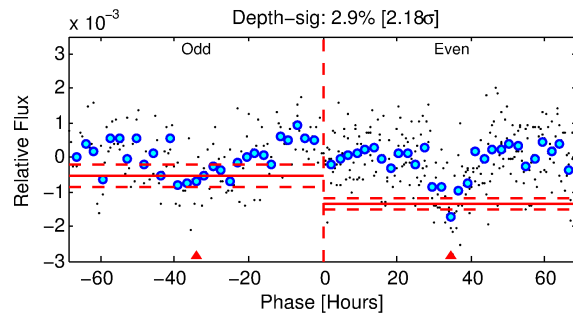
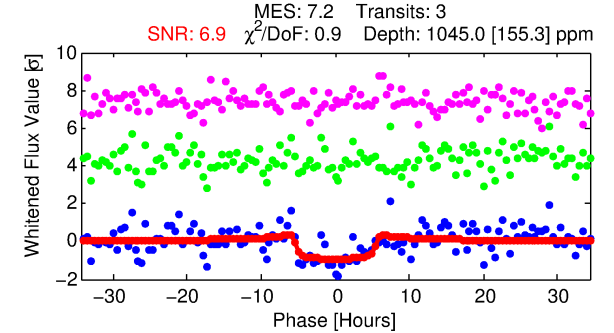
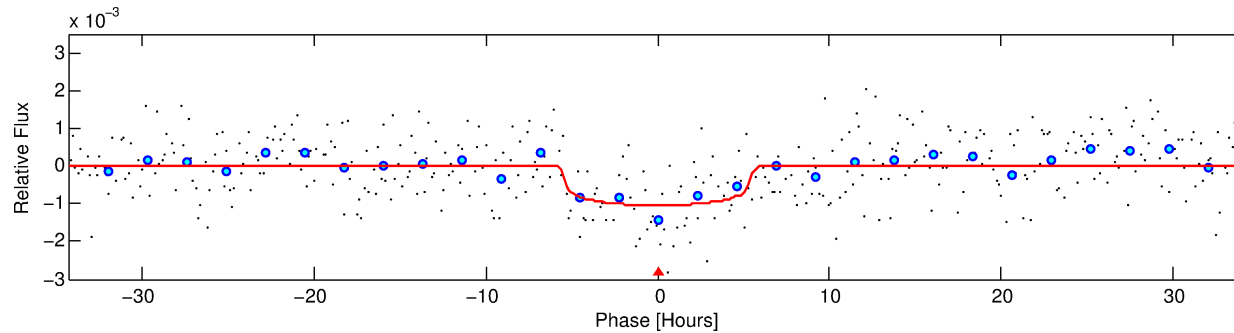
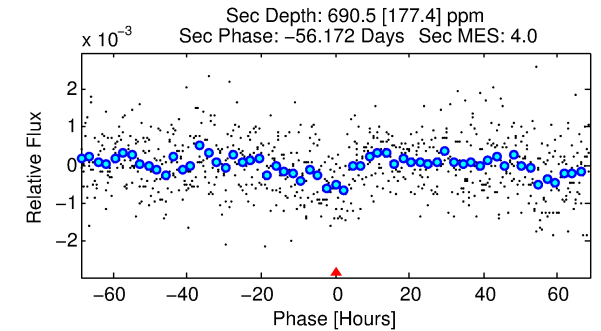
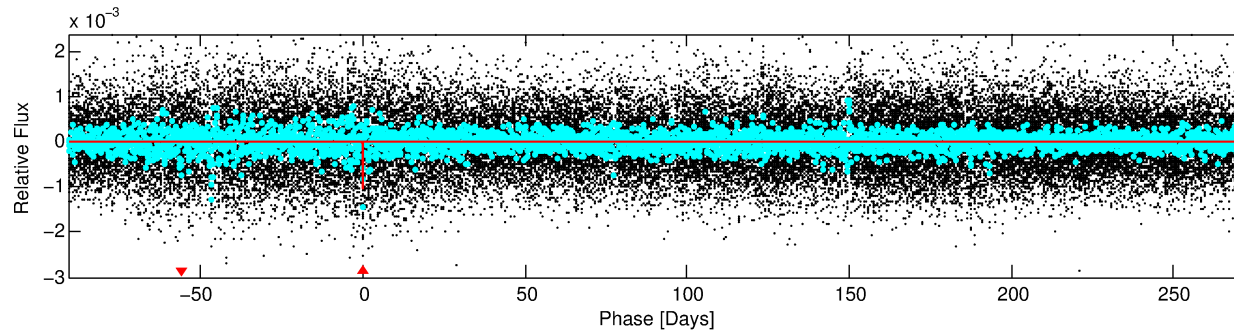
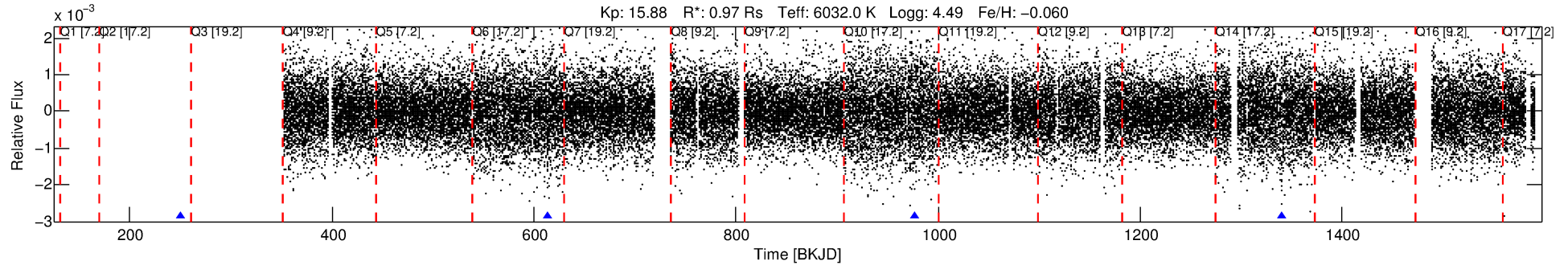
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008547568-01

No Significant Match Found

DV One-Page Summary

KIC: 8547568 Candidate: 1 of 1 Period: 363.427 d



DV Fit Results:

Period = 363.42731 [0.01393] d
Epoch = 249.8634 [0.0306] BKJD
Rp/R* = 0.0310 [0.0140]
a/R* = 201.00 [420.07]
b = 0.61 [2.13]
Seff = 1.09 [0.46]
Teq = 261 [28] K
Rp = 3.29 [1.83] Re
a = 1.0148 [0.2778] AU
Ag = 36107.93 [36750.86] [0.98σ]
Teffp = 5553 [1319] K [4.01σ]

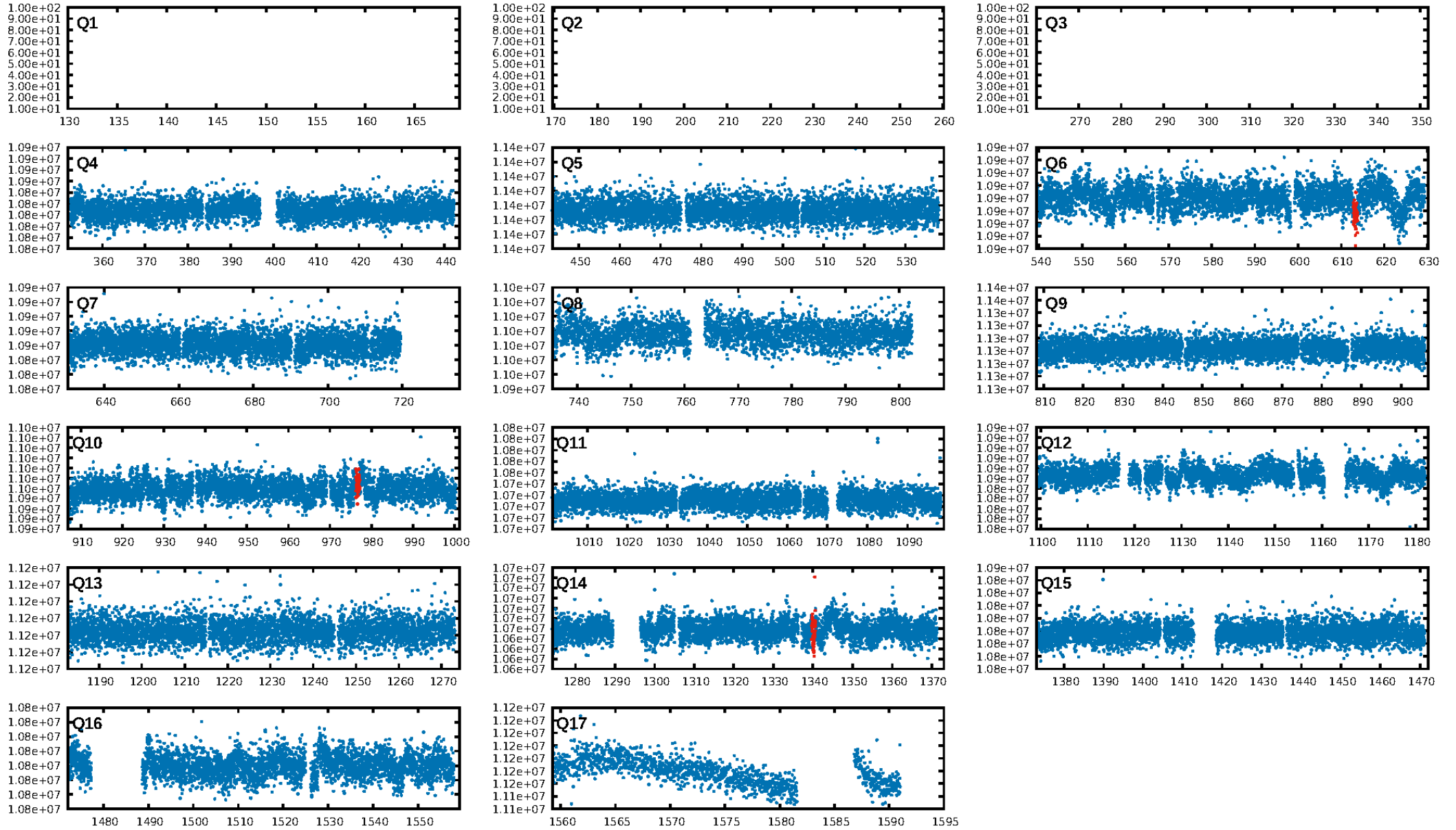
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 97.9%
Bootstrap-pfa: 1.50e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.414
Centroid-sig: 6.3%
Centroid-so: 4.526 arcsec [1.63σ]
OotOffset-rm: 3.927 arcsec [2.10σ]
OotOffset-st: 3/0/0/0 [3]
KicOffset-rm: 3.749 arcsec [2.24σ]
KicOffset-st: 3/0/0/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

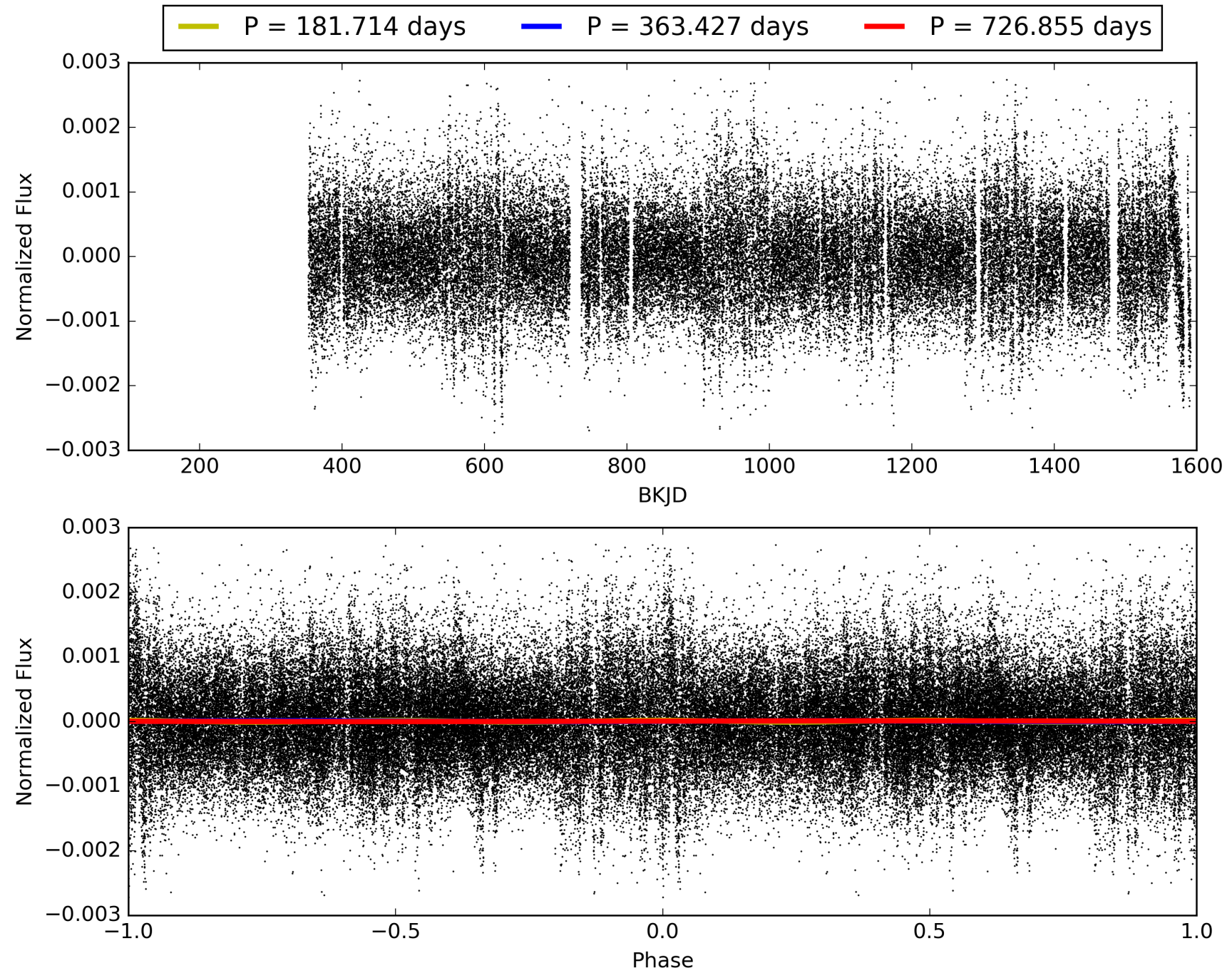
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:37:03 Z

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

TCE 008547568-01, PDC Light Curves

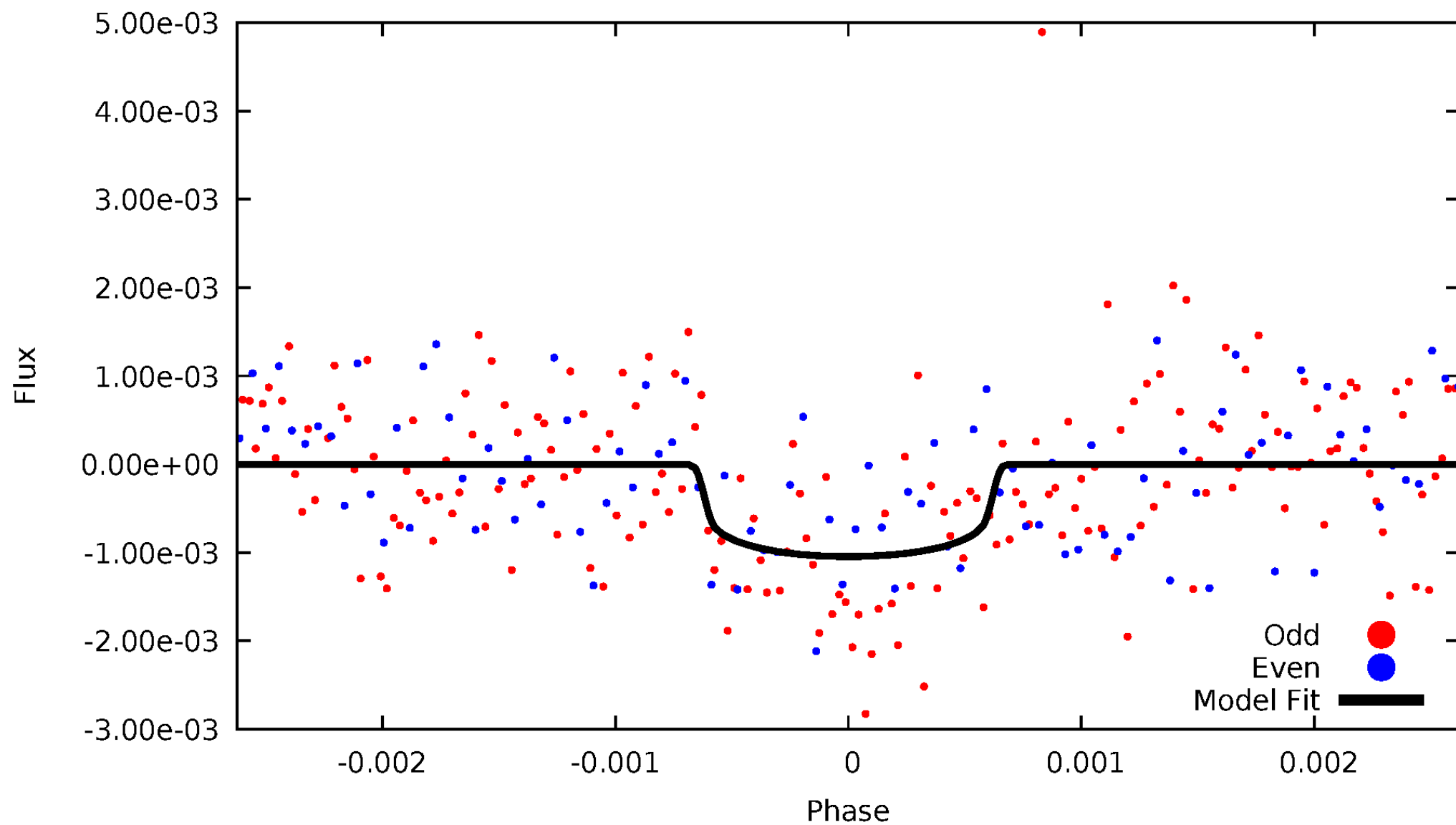


TCE 008547568-01



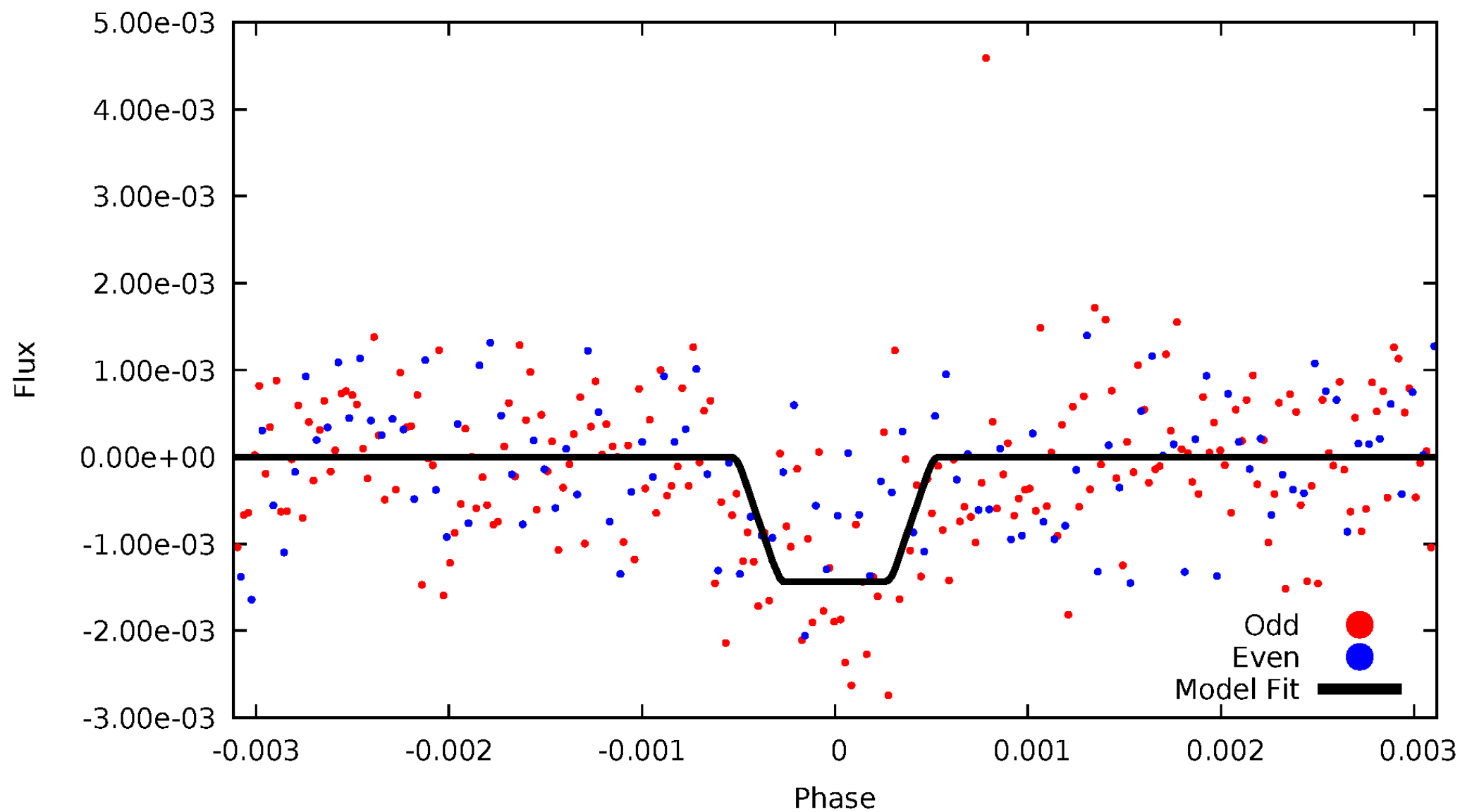
DV Odd/Even

TCE 008547568-01



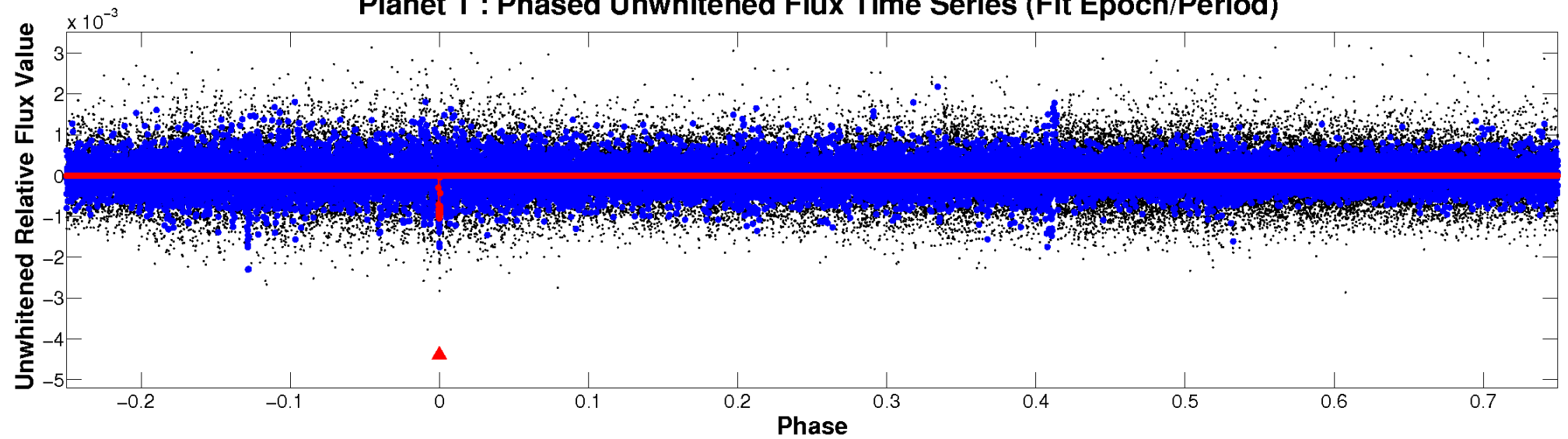
ALT Odd/Even

TCE 008547568-01

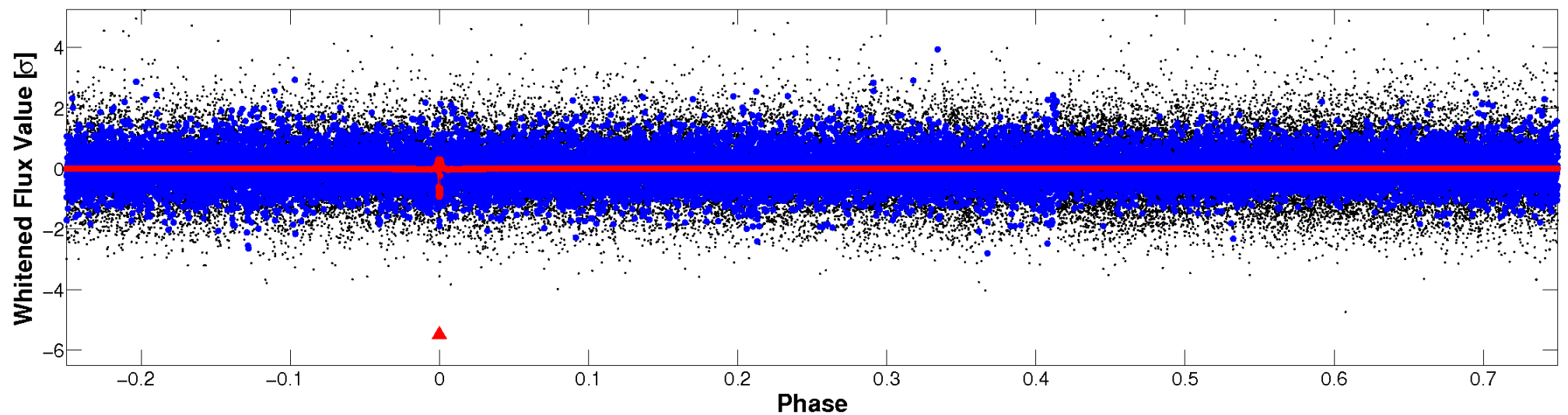


Non-Whitened Vs. Whitened Light Curve

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

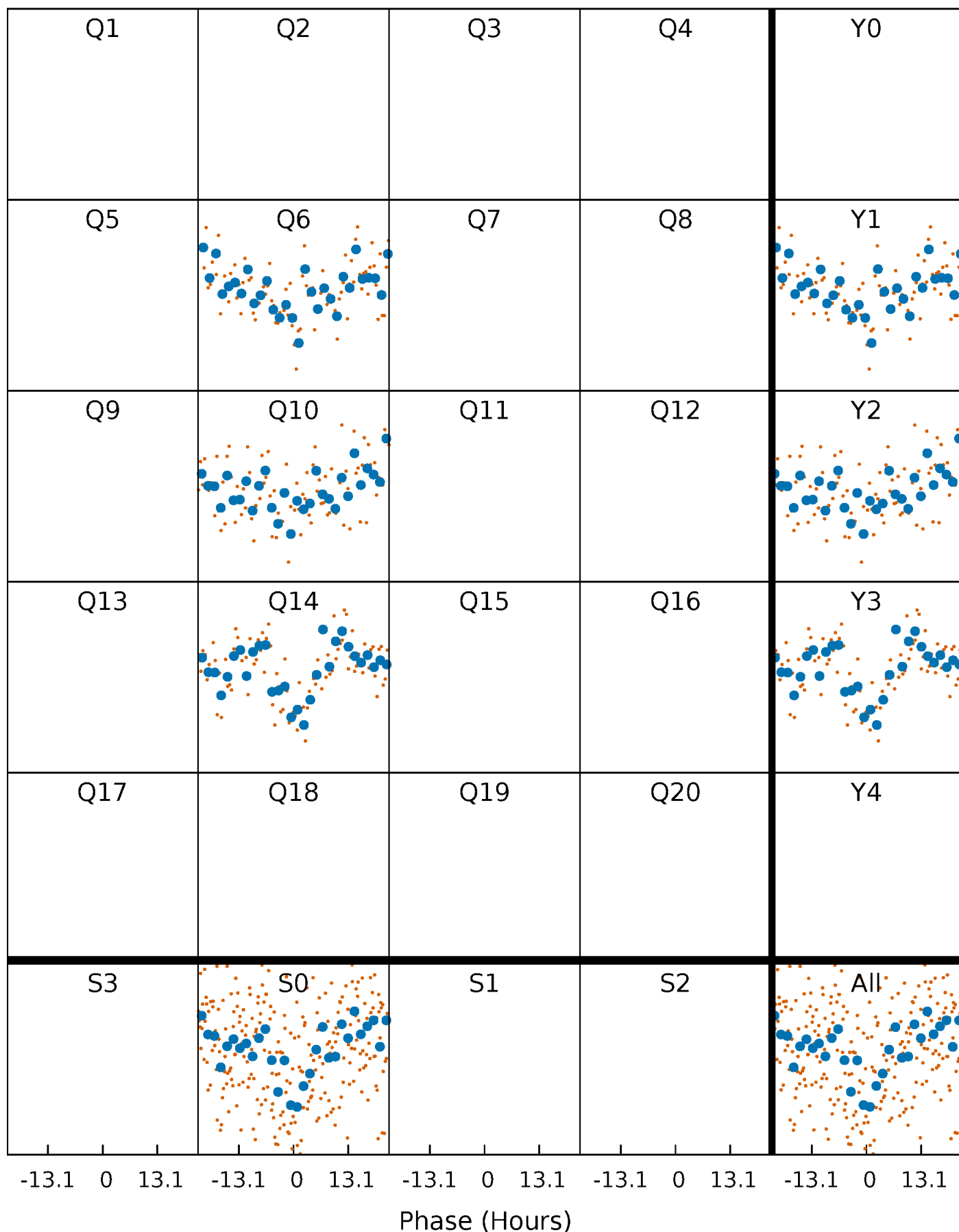


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



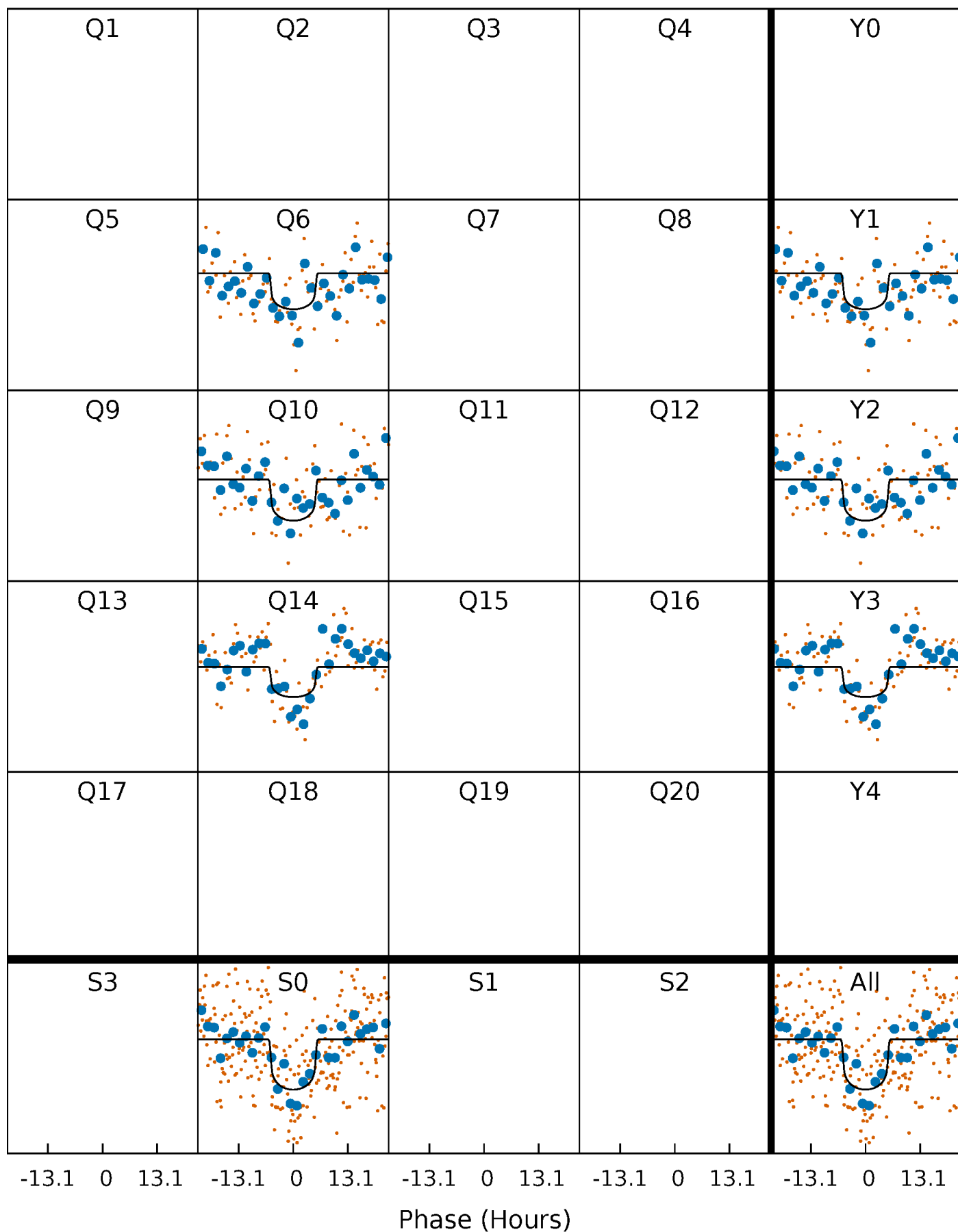
PDC Quarter-Phased Transit Curves

TCE 008547568-01 P=363.427314 Days $T_0=249.863427$ (BKJD)



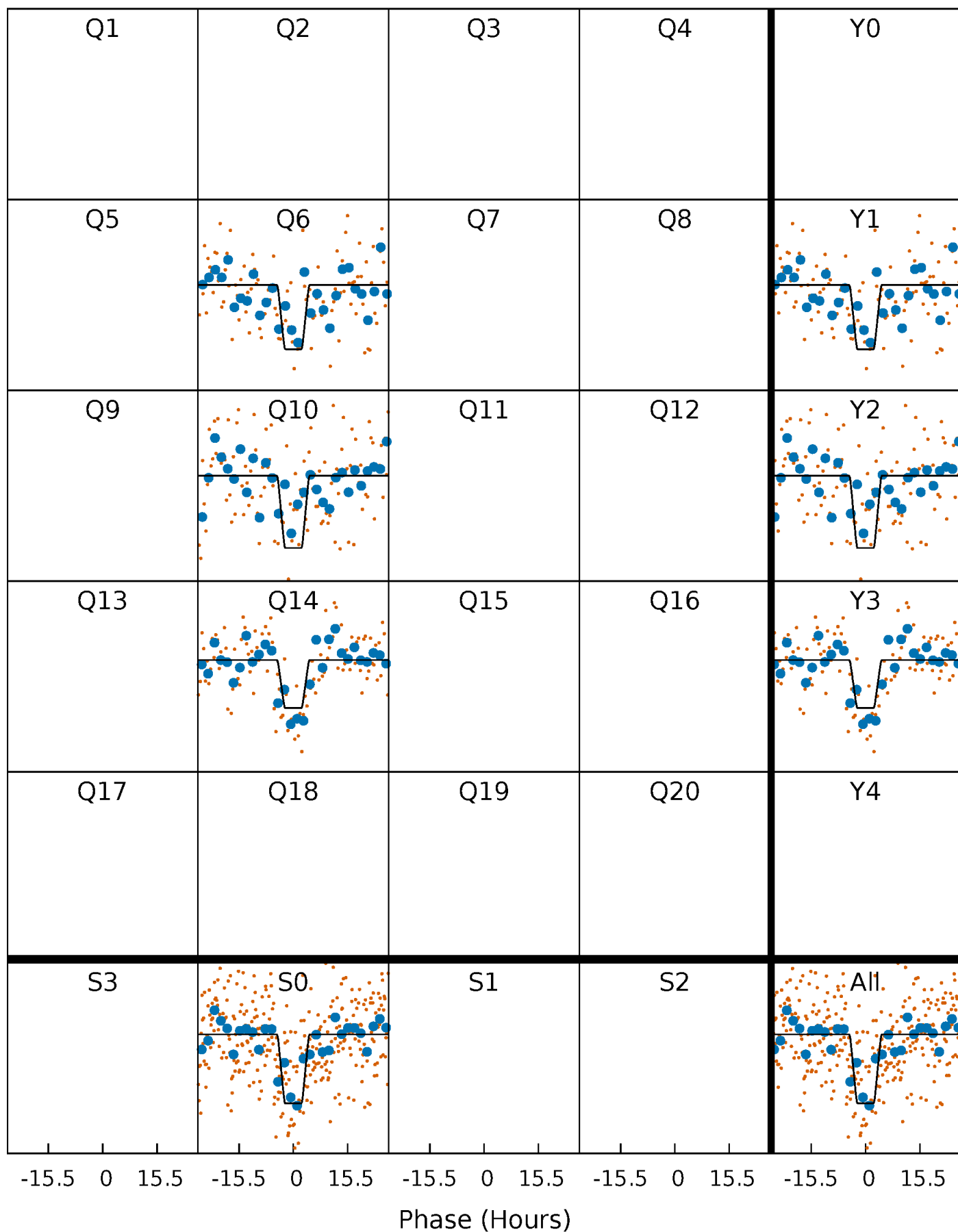
DV Quarter-Phased Transit Curves

TCE 008547568-01 P=363.427314 Days $T_0=249.863427$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

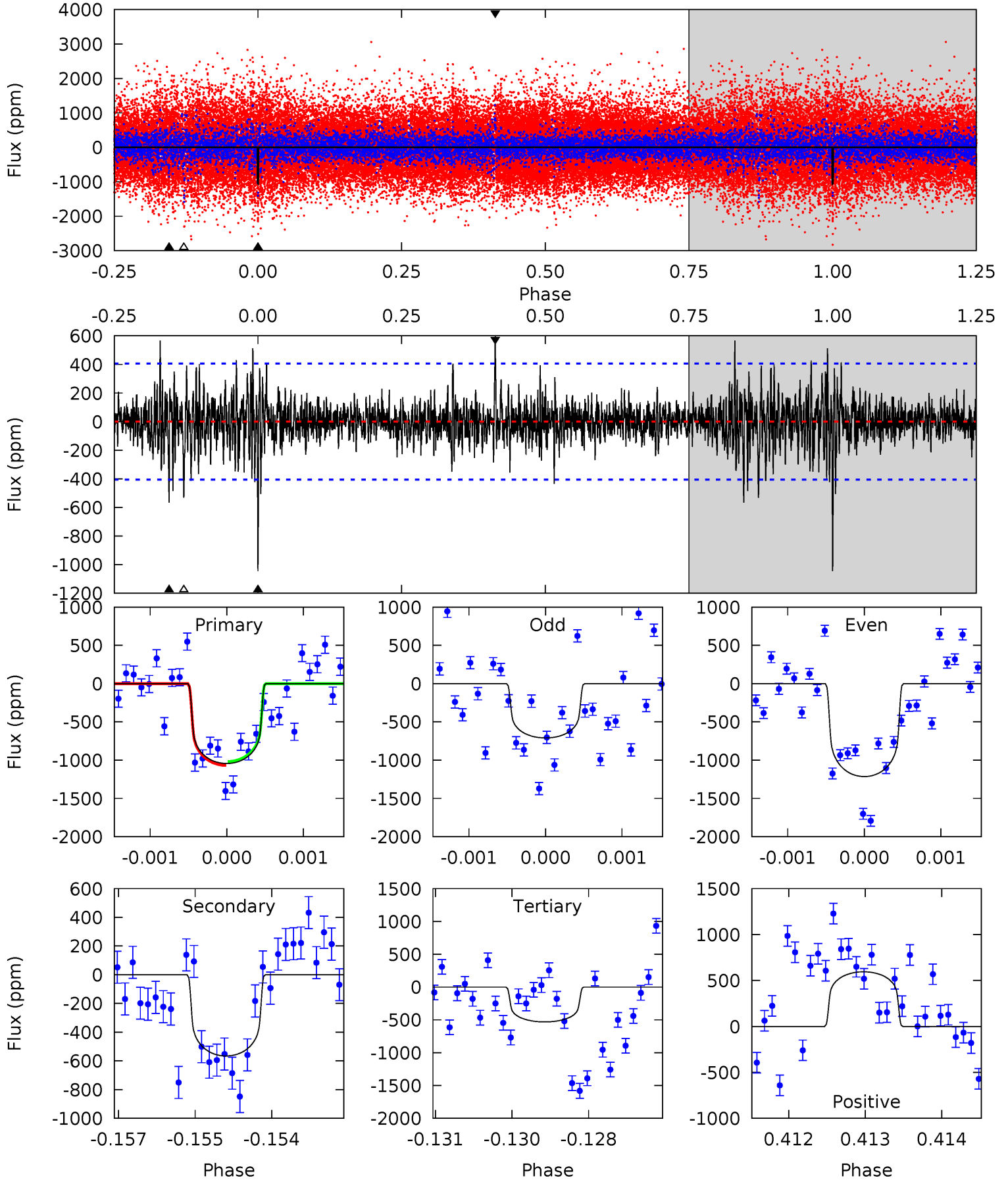
TCE 008547568-01 $P=363.438109$ Days $T_0=249.848571$ (BKJD)



DV Model-Shift Uniqueness Test

008547568-01, P = 363.427314 Days, E = 249.863427 Days

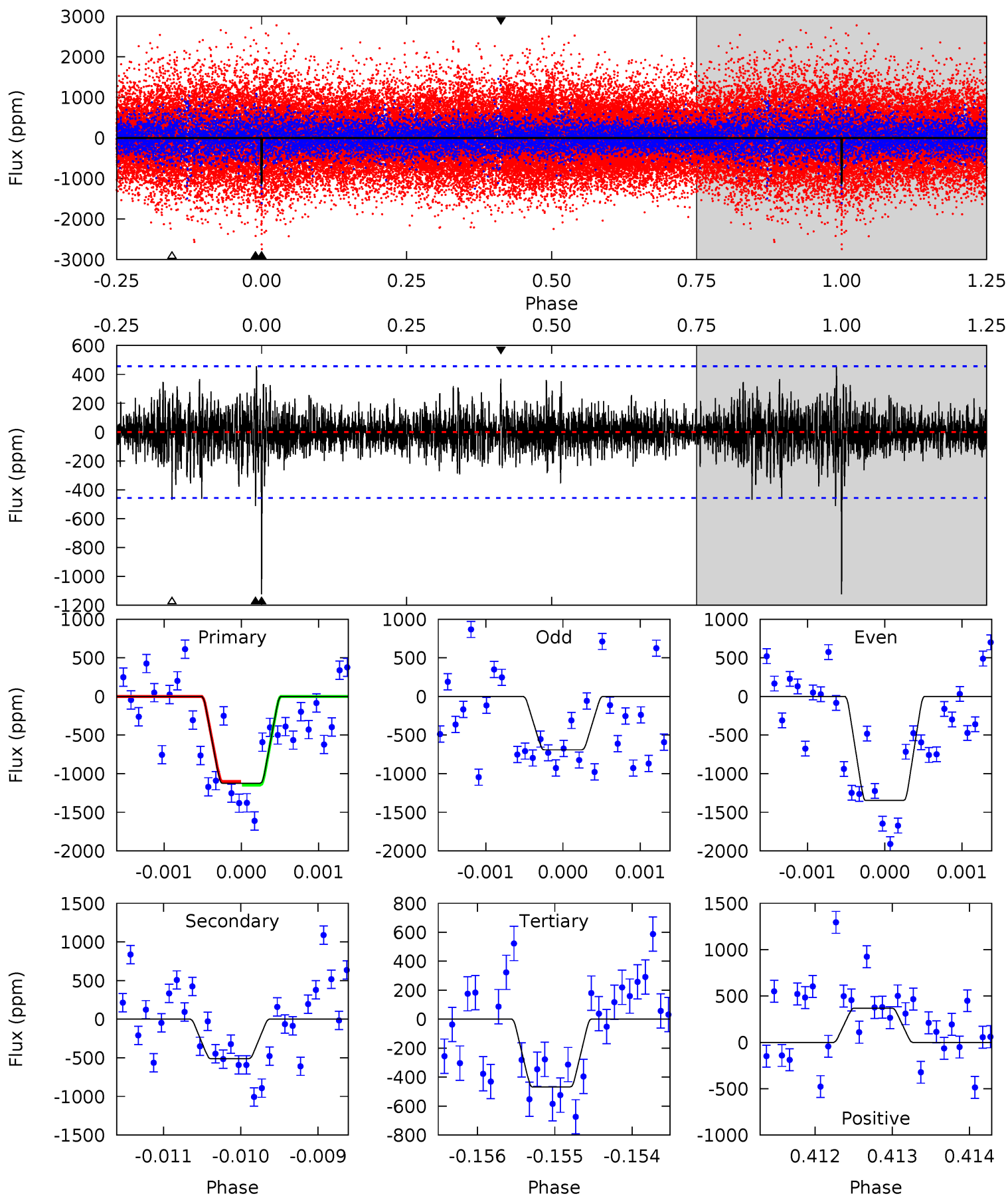
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	7.53	7.07	7.91	5.40	3.21	1.48	6.82	5.97	0.46	-0.38	3.18	0.99	0.36	0.34



Alt Model-Shift Uniqueness Test

008547568-01, P = 363.438109 Days, E = 249.848571 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.4	6.10	5.58	4.40	5.44	3.28	1.18	7.83	9.02	0.52	1.70	3.75	1.29	0.29	0.28



Stellar Parameters For KIC 008547568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6032^{+190}_{-232}	$4.485^{+0.054}_{-0.216}$	$-0.060^{+0.300}_{-0.300}$	$0.973^{+0.318}_{-0.106}$	$1.055^{+0.147}_{-0.147}$	$1.612^{+0.364}_{-0.900}$
	+3%/-4%	+1%/-5%	+500%/-500%	+33%/-11%	+14%/-14%	+23%/-56%
Source	KIC0	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 008547568-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-566 ± 75	$3.69^{+1.59}_{-1.66}$	372^{+29}_{-20}	5188^{+1797}_{-722}	23498^{+52700}_{-12108}
Alt.	-511 ± 84	$4.24^{+1.72}_{-1.59}$	373^{+30}_{-21}	4811^{+1052}_{-627}	15850^{+23697}_{-8167}

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

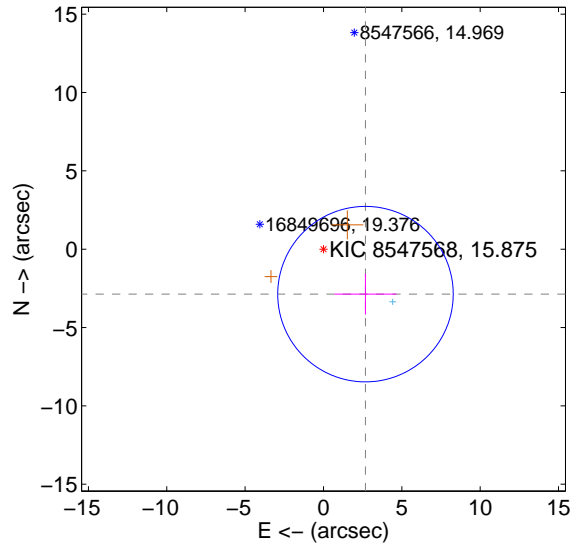
Supplemental centroid analysis for 008547568-01. Kepler magnitude: 15.88. Transit SNR 6.88

There are 1 quarters with good PRF difference image offsets

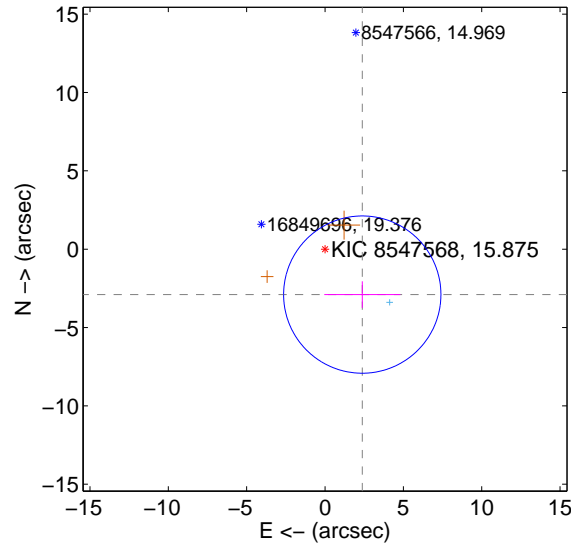
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.927 ± 1.867	2.10	-2.681 ± 1.975	-2.870 ± 1.304
PRF-fit source offset from KIC position	3.749 ± 1.673	2.24	-2.377 ± 2.427	-2.899 ± 0.848
photometric centroid source offset	4.53 ± 2.78	1.63	-3.92 ± 2.67	2.25 ± 3.09

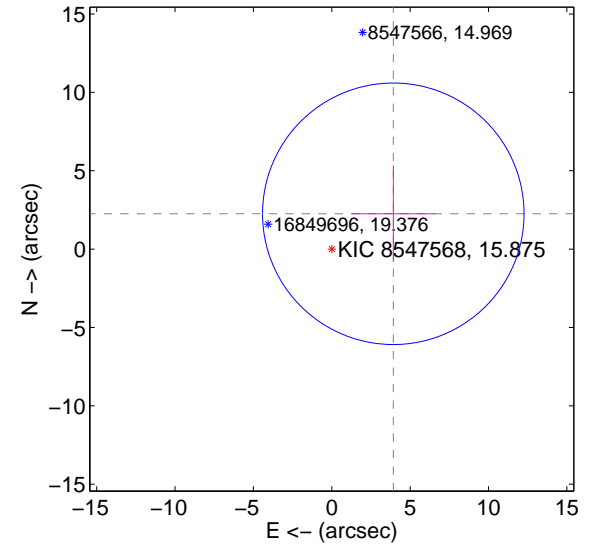
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

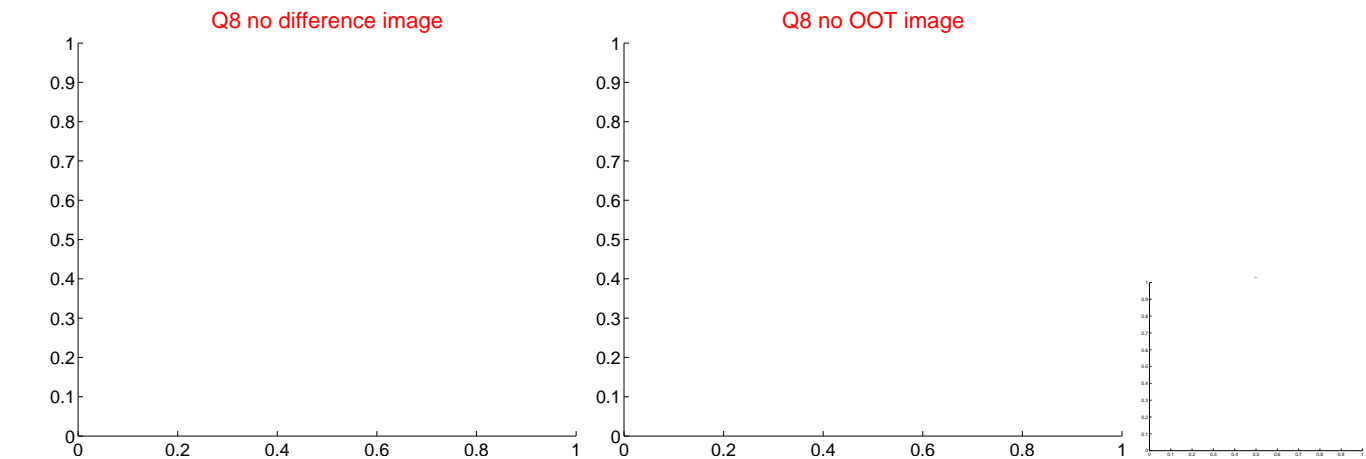
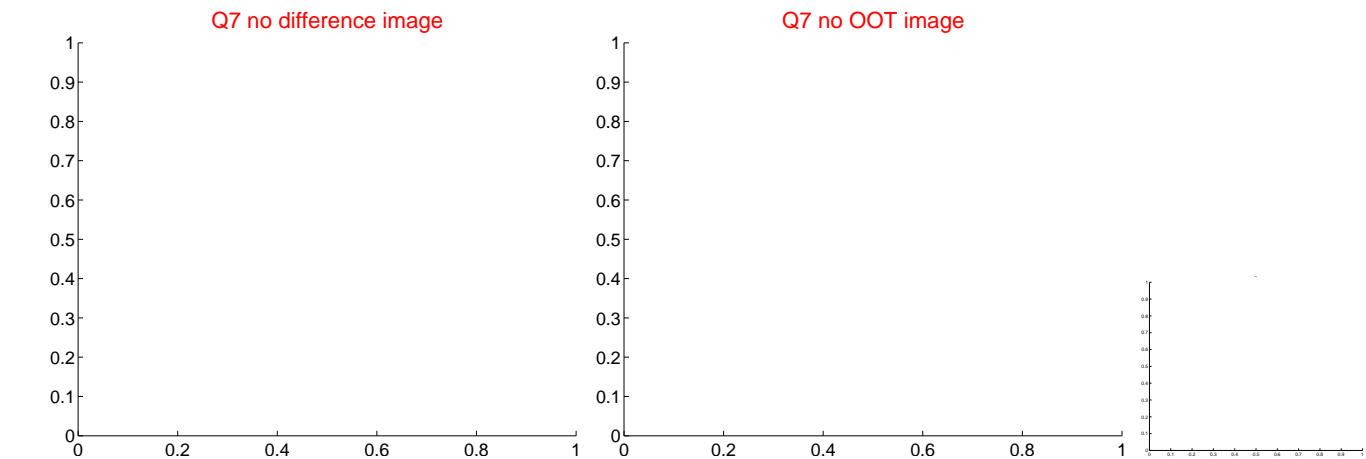
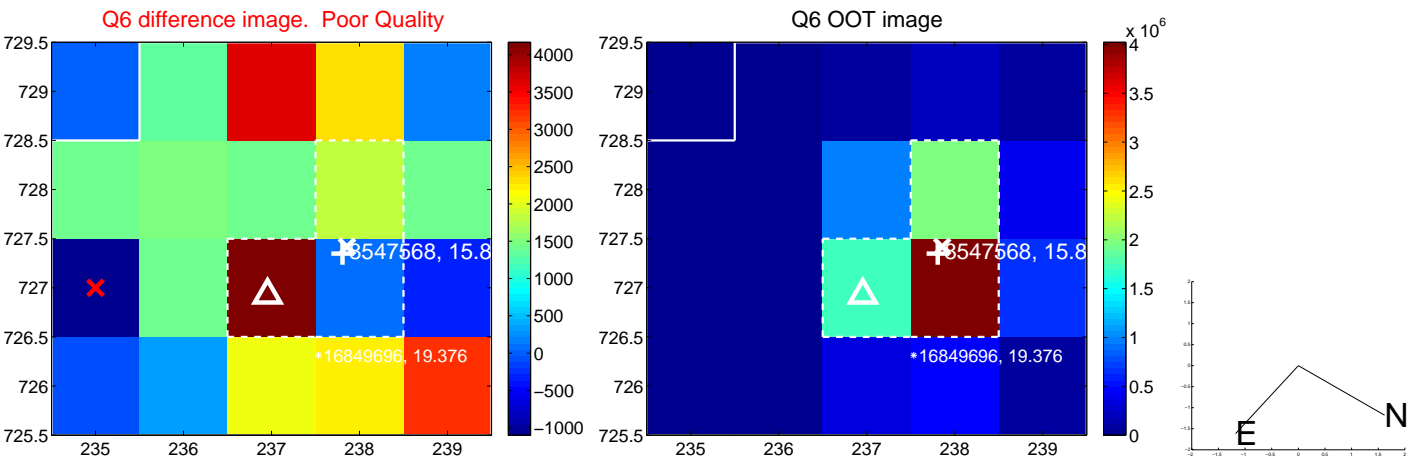
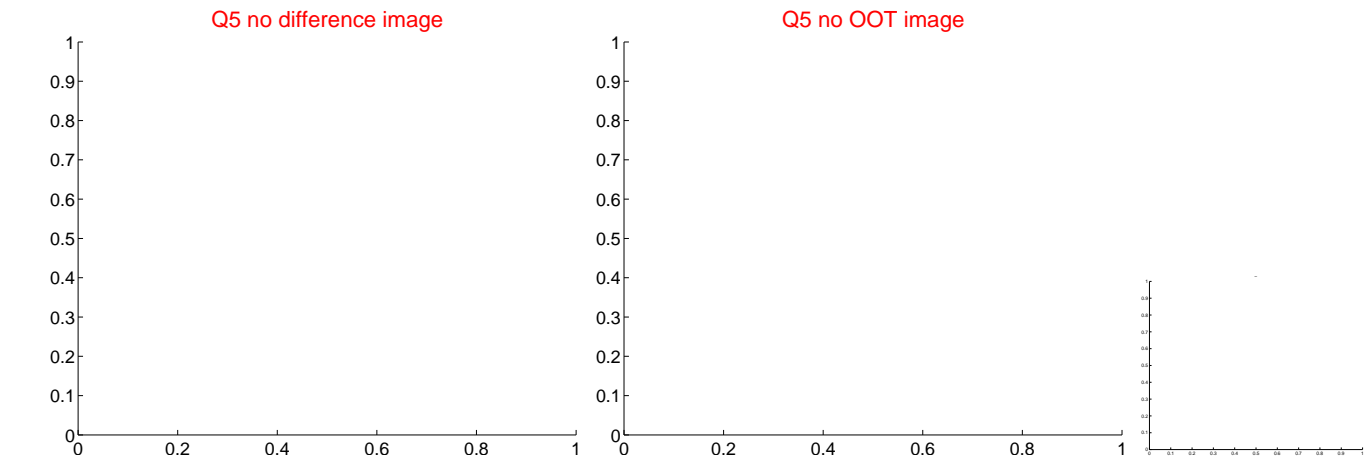


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

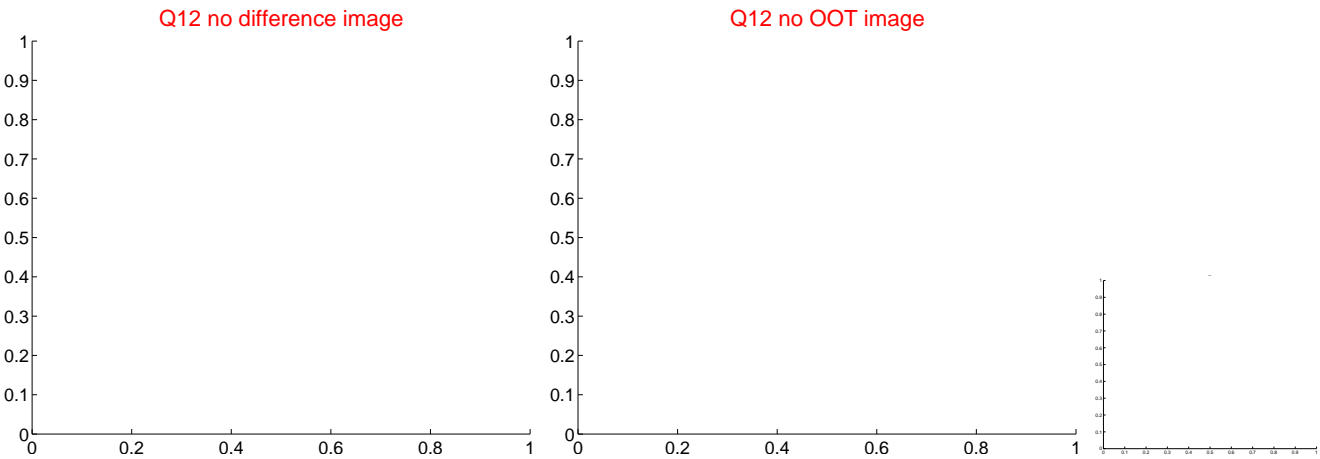
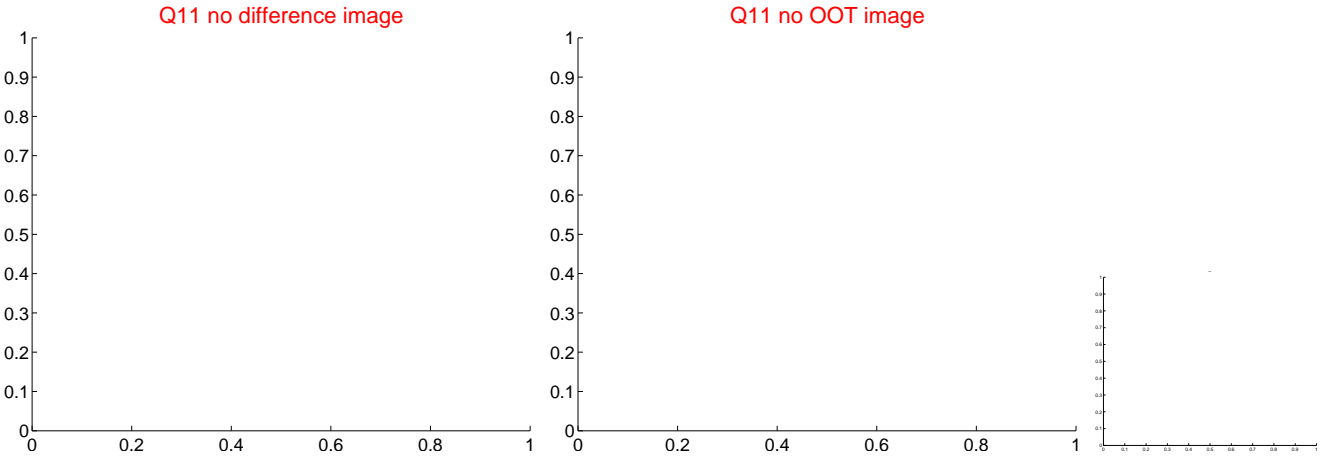
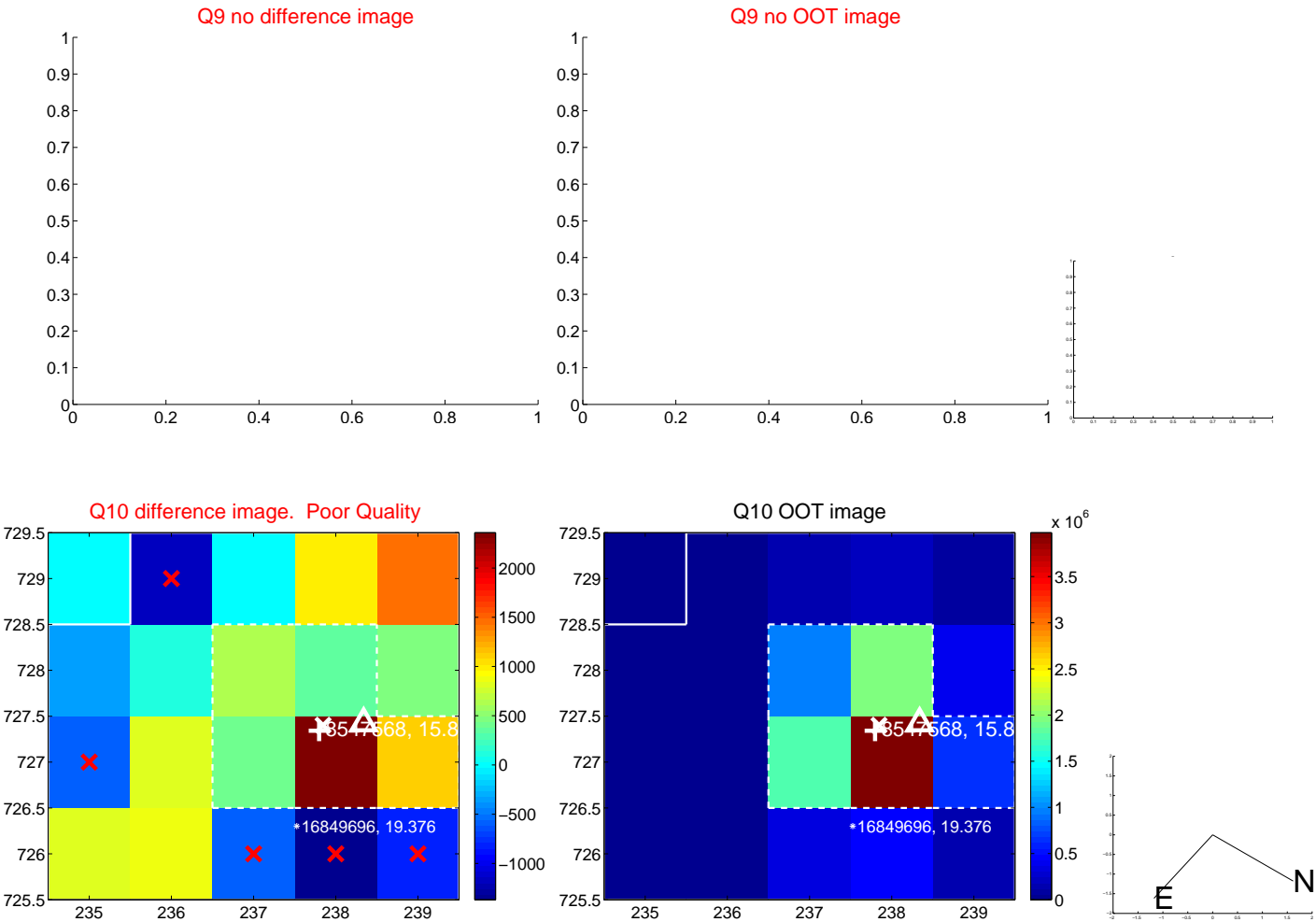
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



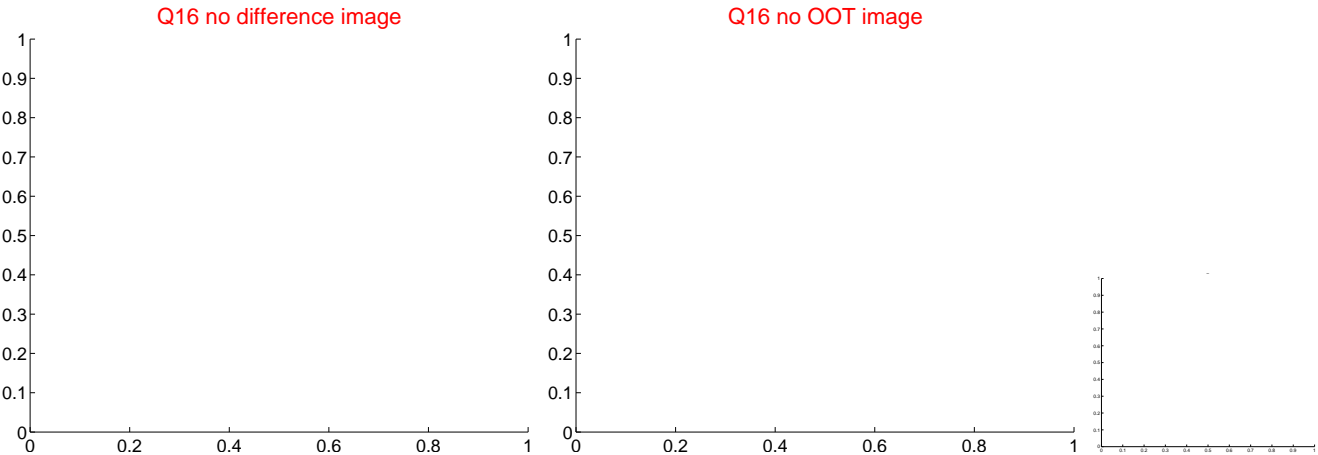
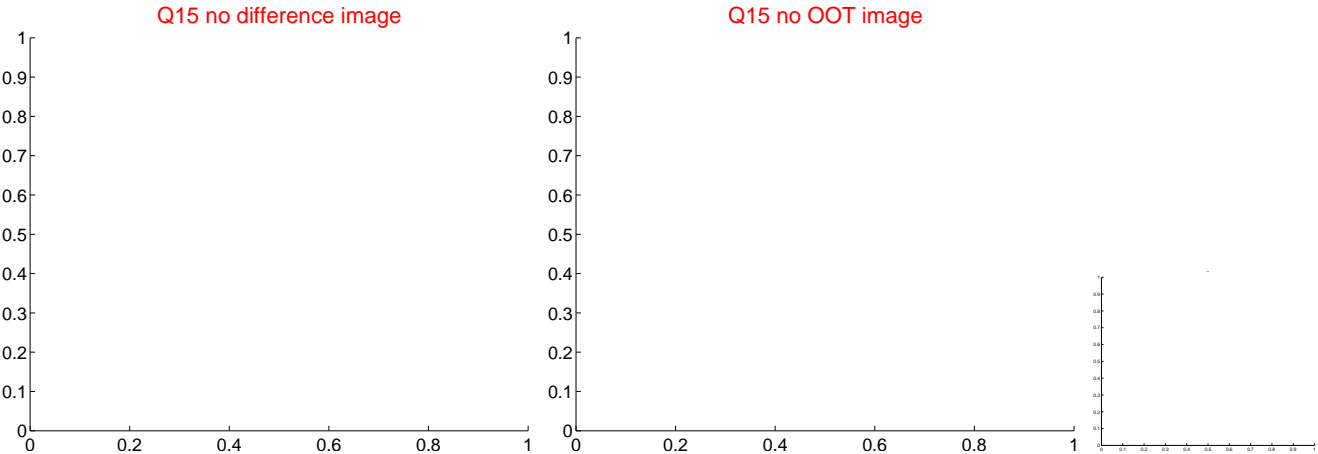
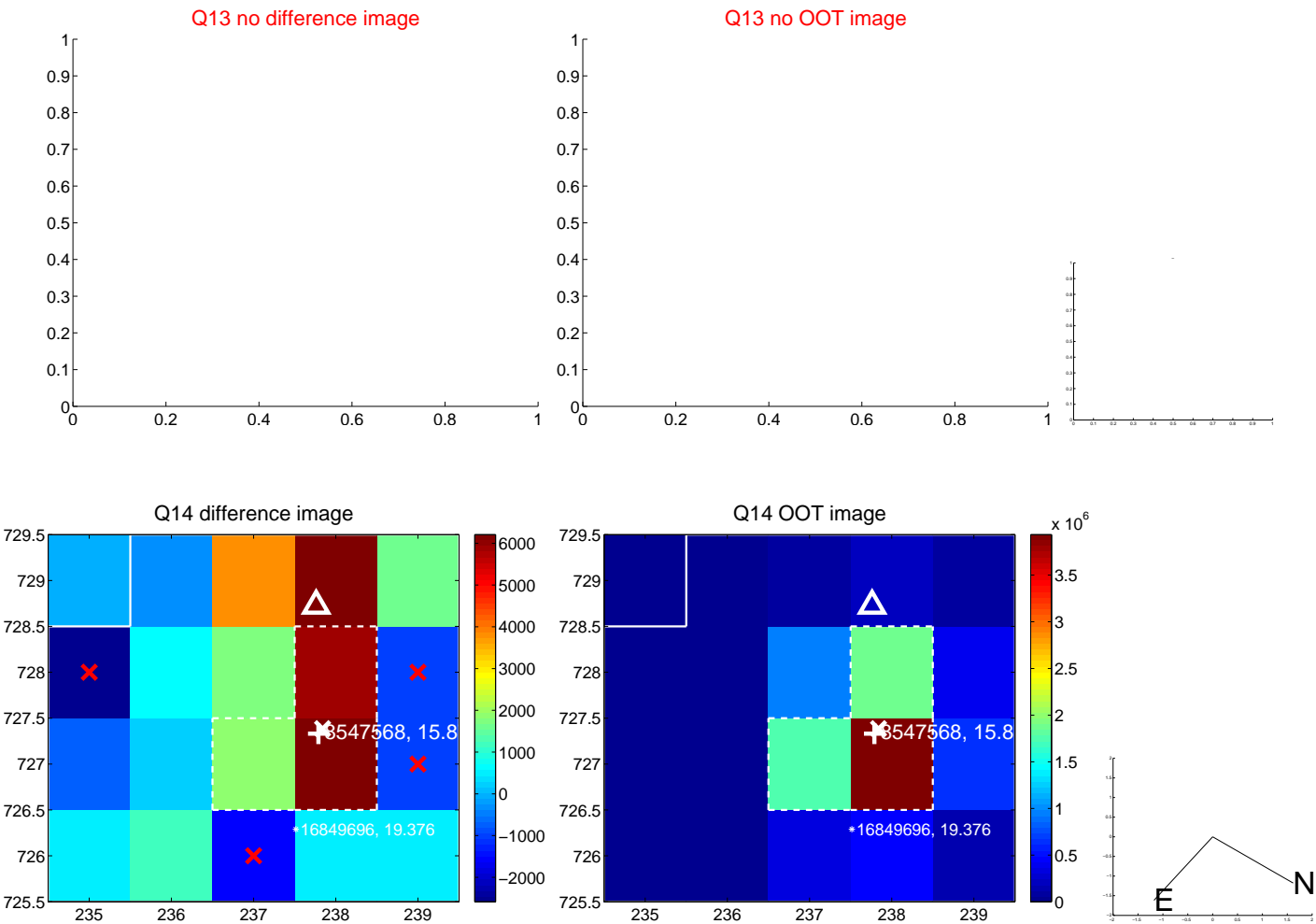
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



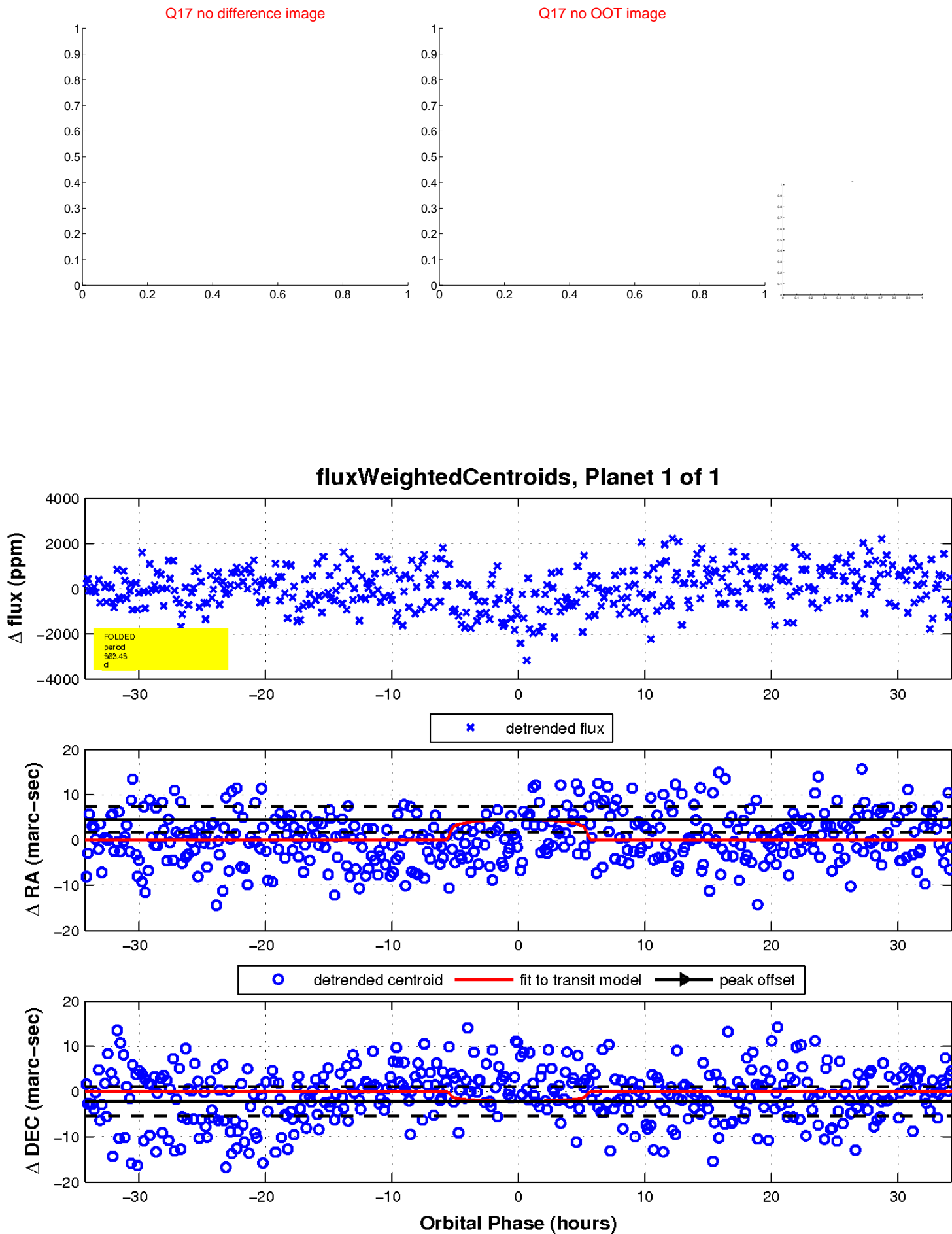
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

