

KIC 010489814

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})
010489814-01	OBS	No	254.495805	252.641204	1071.9	9.020	15.7	3.9	0.67	5648	2.19	0.80

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010489814-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—INCONSISTENT_TRANS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

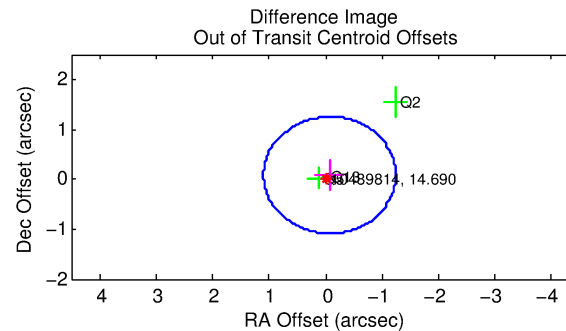
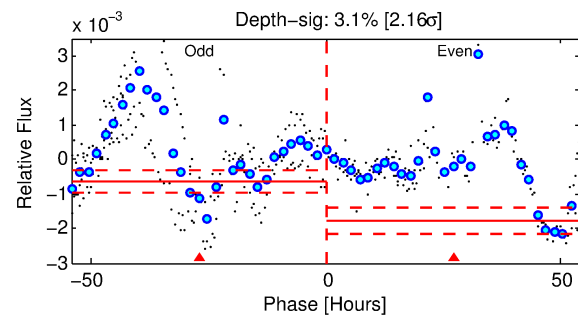
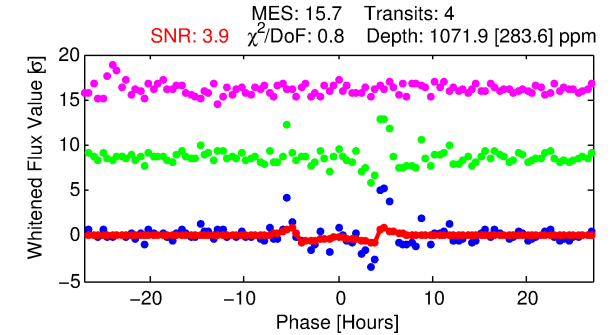
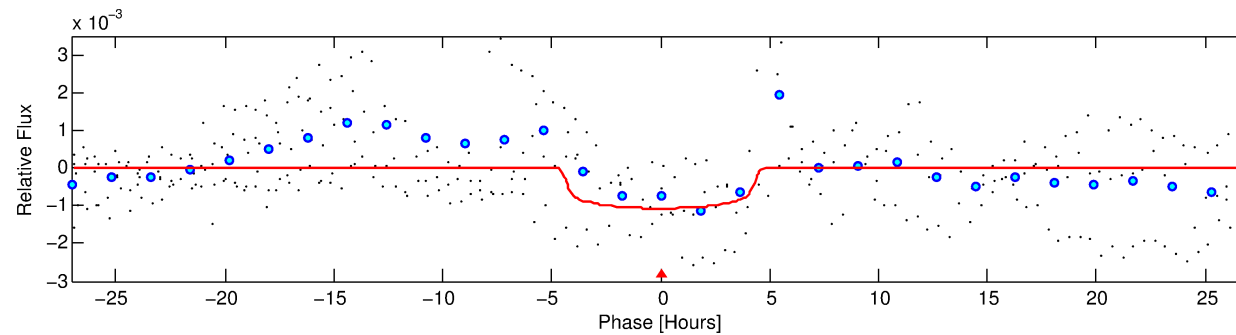
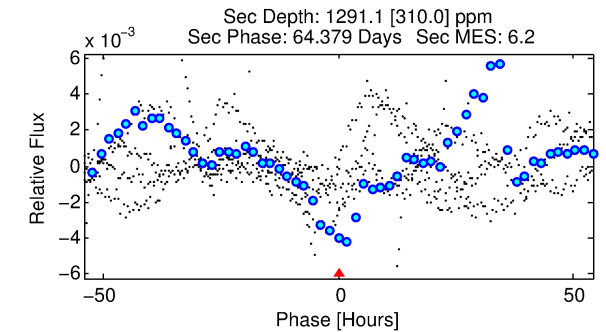
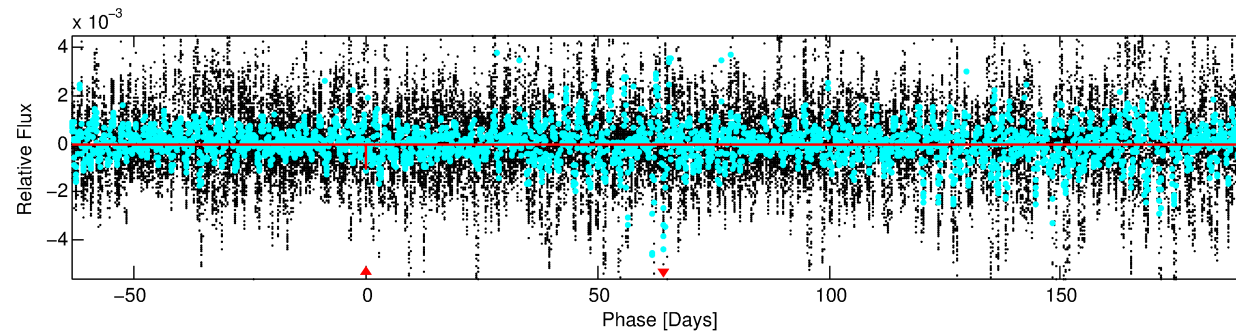
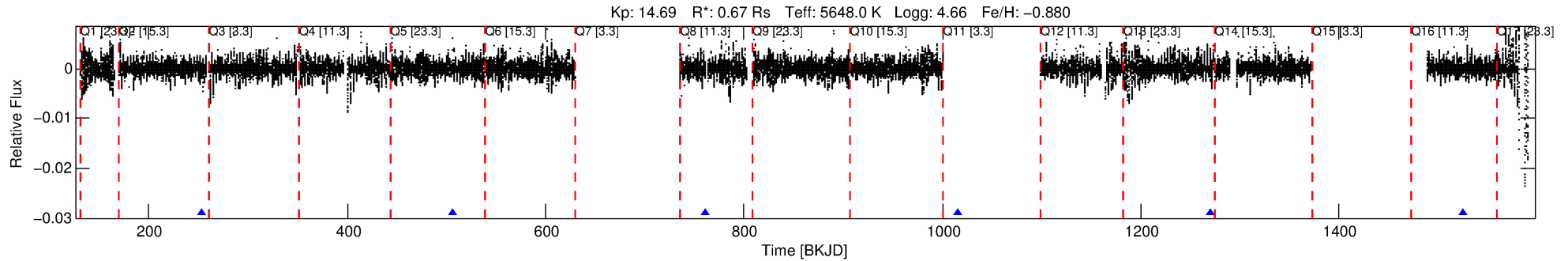
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010489814-01

No Significant Match Found

DV One-Page Summary

KIC: 10489814 Candidate: 1 of 1 Period: 254.496 d



DV Fit Results:

Period = 254.49580 [0.00245] d
Epoch = 252.6412 [0.0067] BKJD
Rp/R* = 0.0299 [0.0321]
a/R* = 222.01 [1169.12]
b = 0.00 [17676.10]
Seff = 0.80 [0.18]
Teq = 241 [13] K
Rp = 2.19 [2.37] Re
a = 0.7161 [0.0891] AU
Ag = 75765.13 [163868.63] [0.46 σ]
Teffp = 6187 [3338] K [1.78 σ]

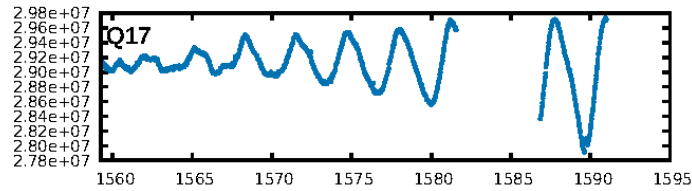
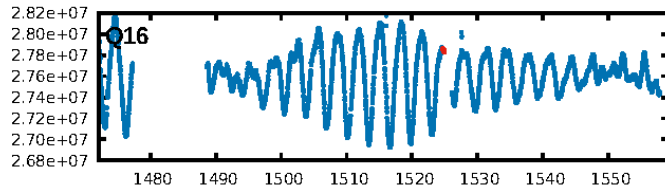
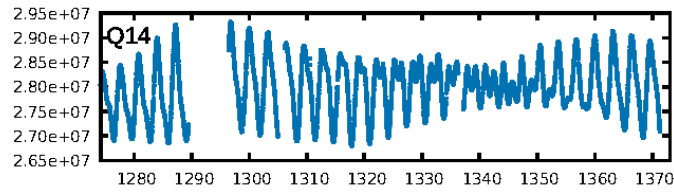
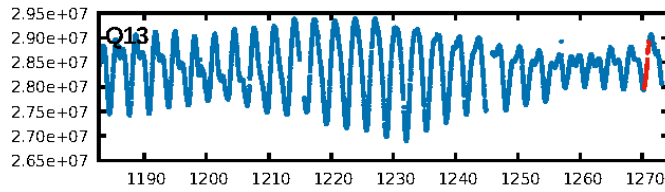
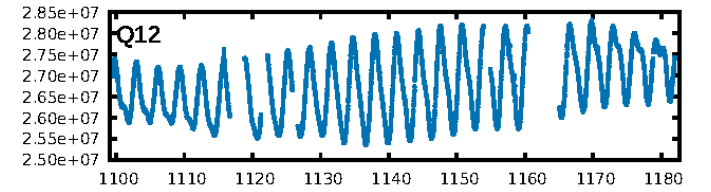
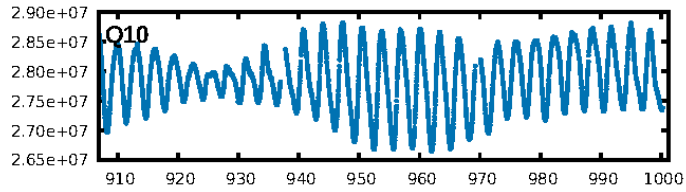
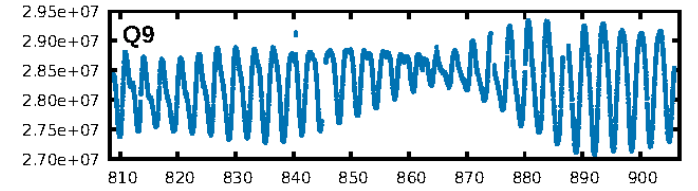
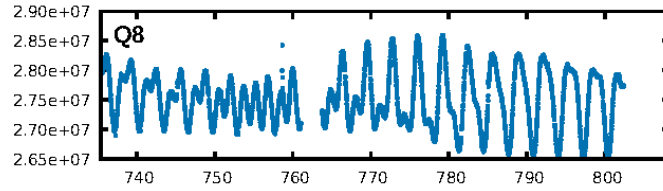
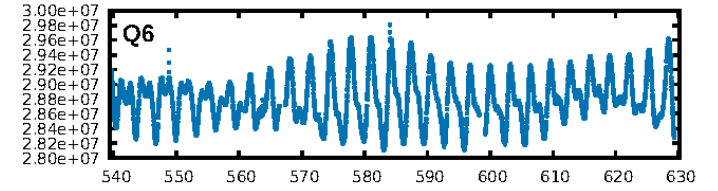
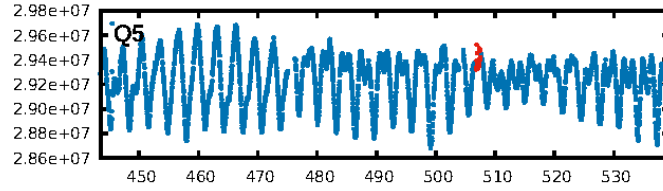
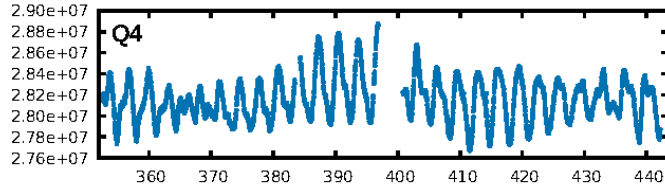
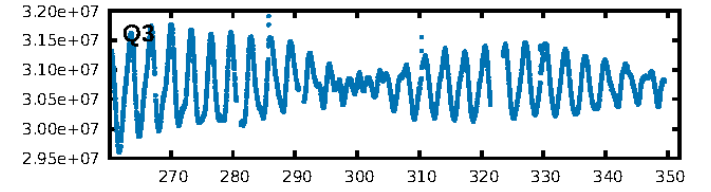
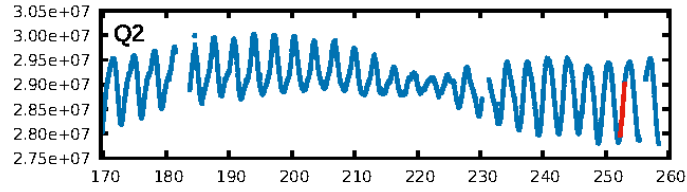
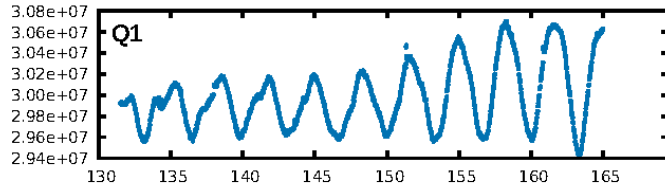
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 27.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.55e-17
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 63.63
Centroid-sig: 76.3%
Centroid-so: 0.493 arcsec [0.46 σ]
OotOffset-rm: 0.107 arcsec [0.27 σ]
KicOffset-rm: 0.134 arcsec [0.52 σ]
OotOffset-st: 1/0/0/2 [3]
KicOffset-st: 1/0/0/2 [3]
DiffImageQuality-fgm: 1.00 [3/3]
DiffImageOverlap-fno: 1.00 [3/3]

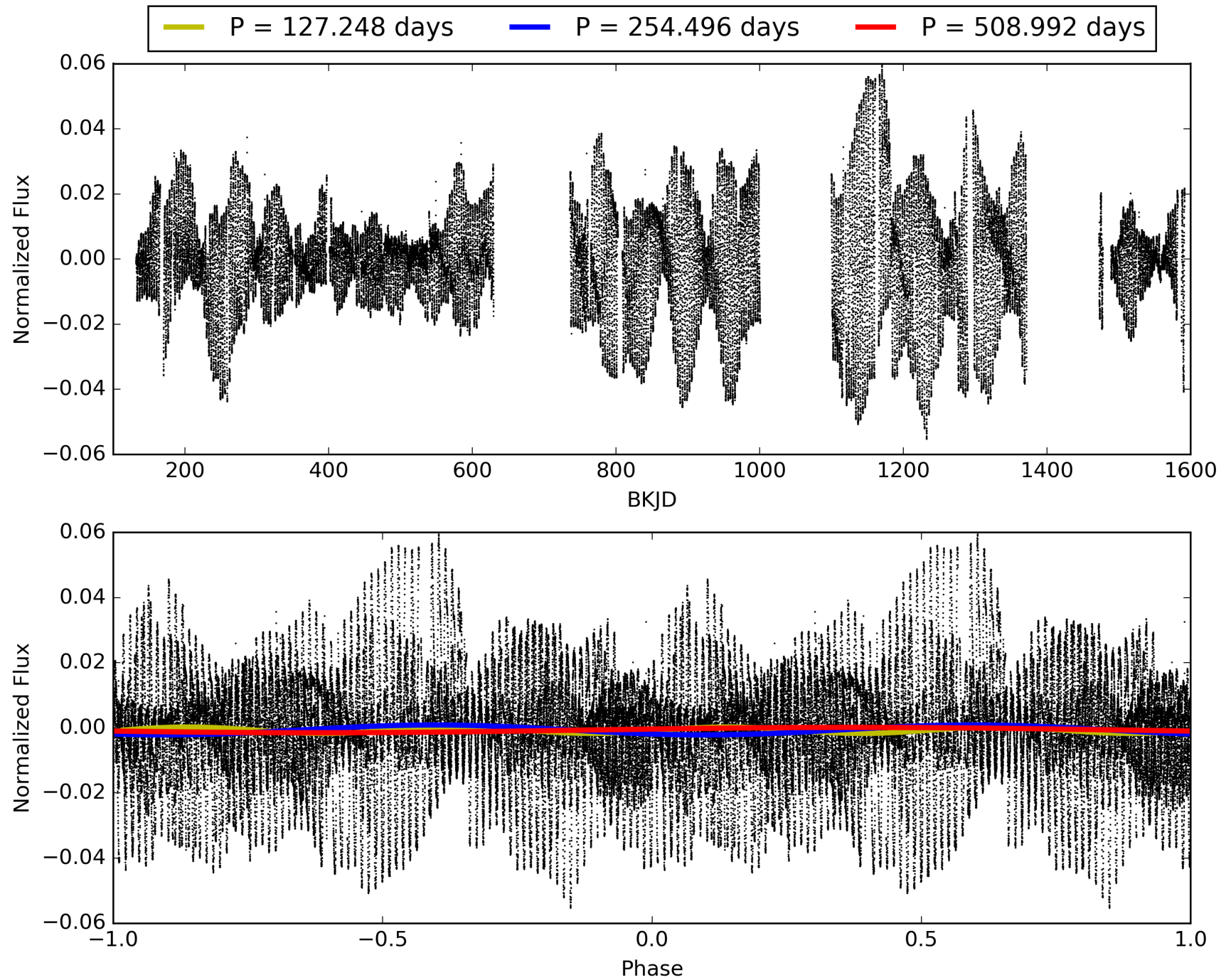
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:20:50 Z

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

TCE 010489814-01, PDC Light Curves

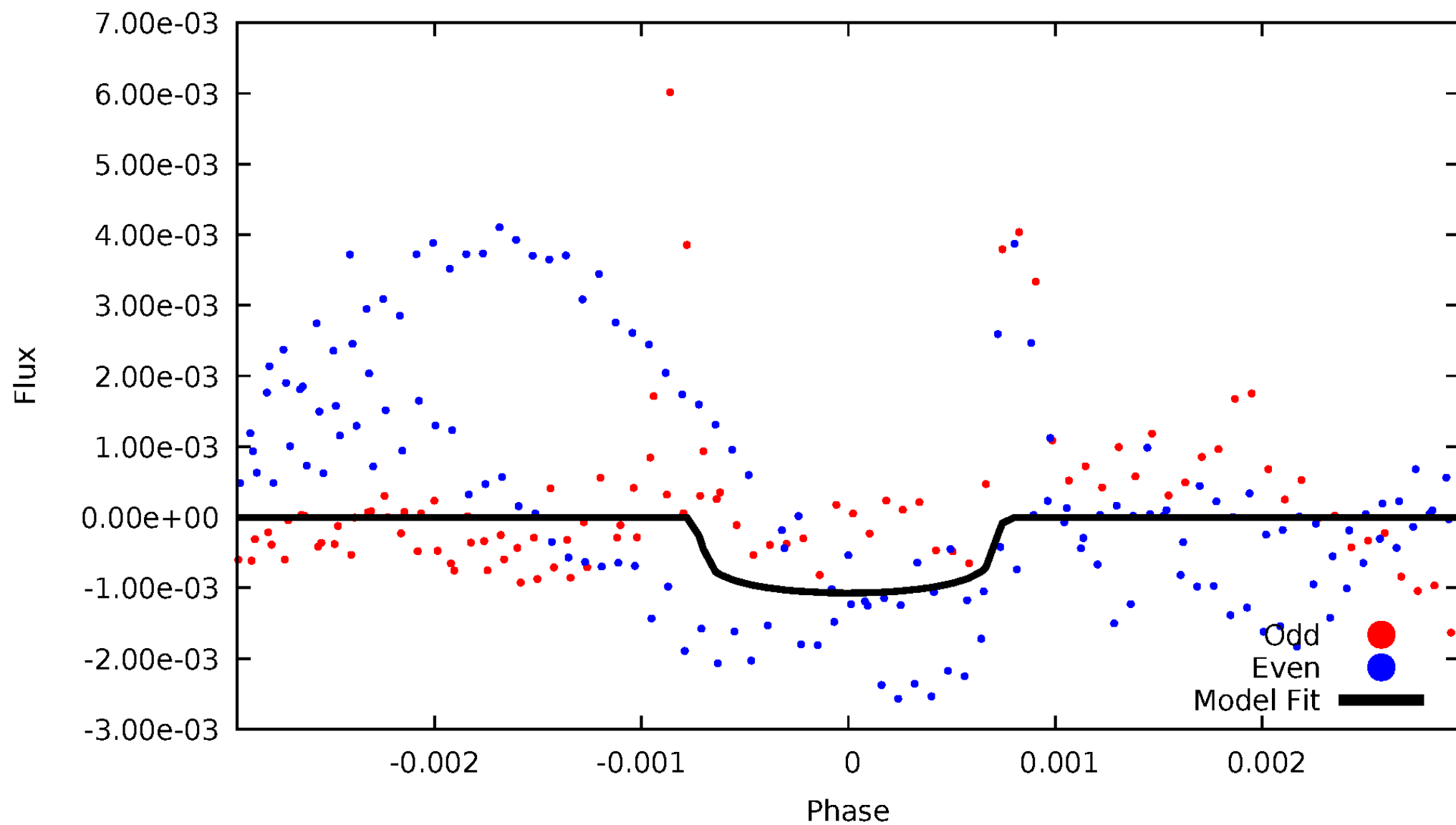


TCE 010489814-01



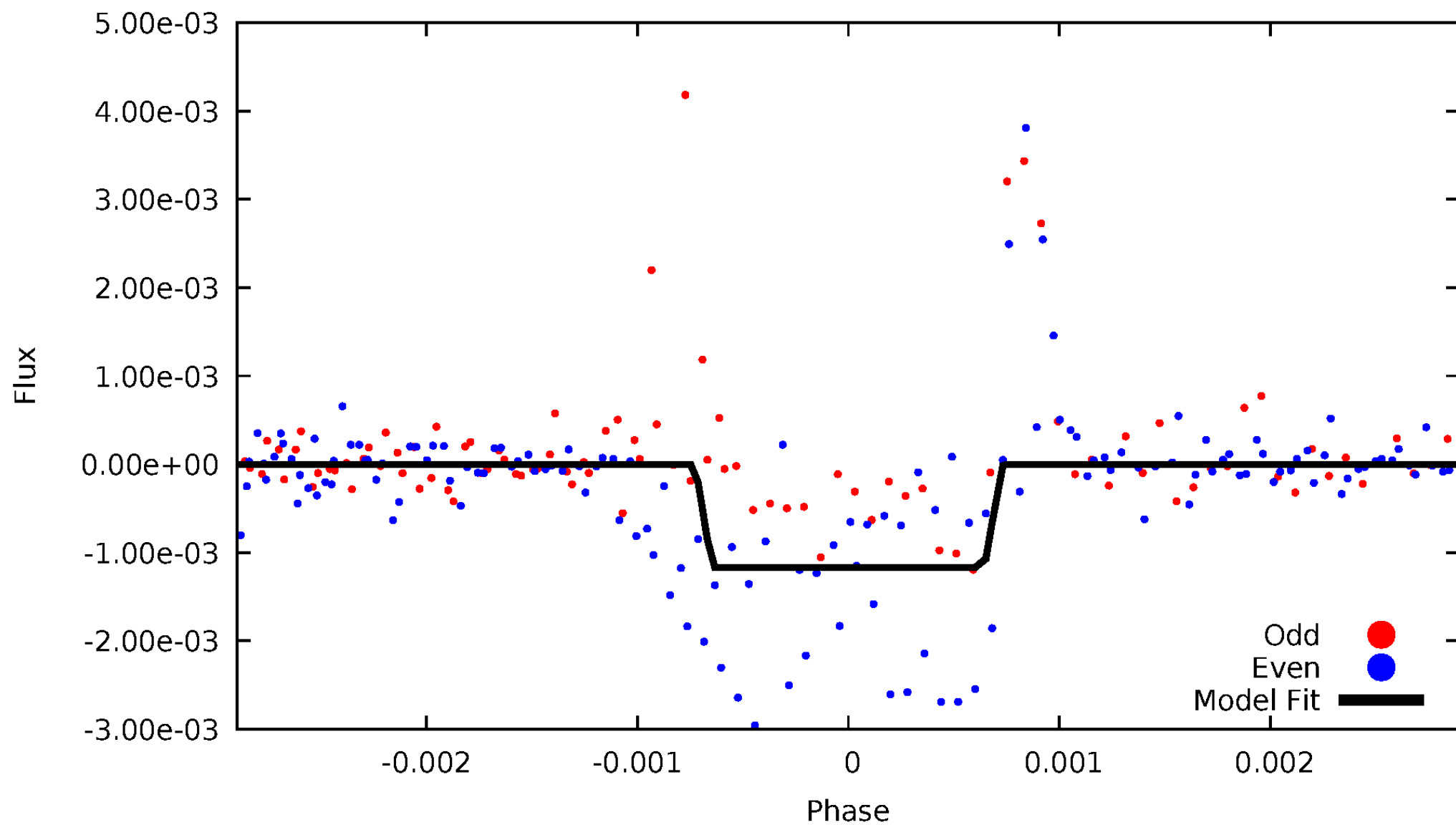
DV Odd/Even

TCE 010489814-01

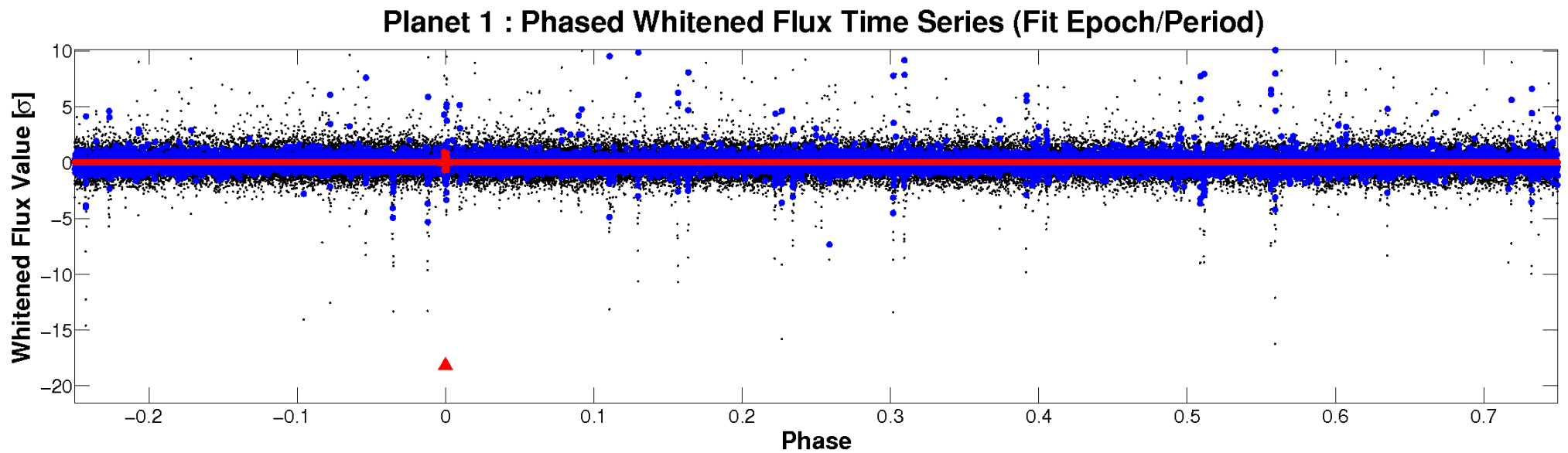
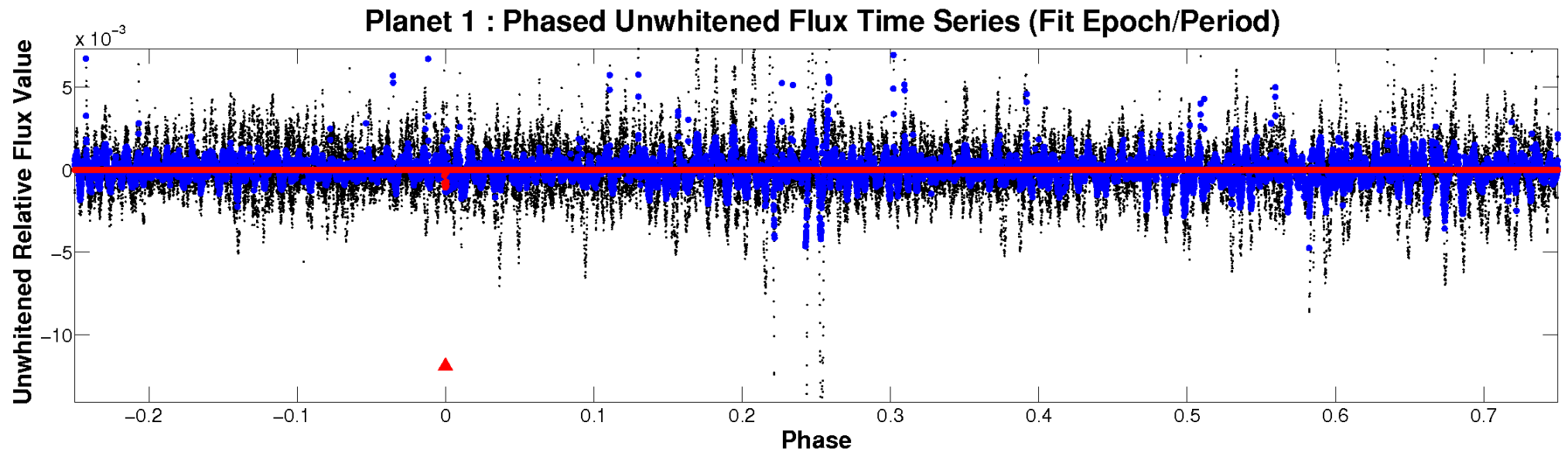


ALT Odd/Even

TCE 010489814-01

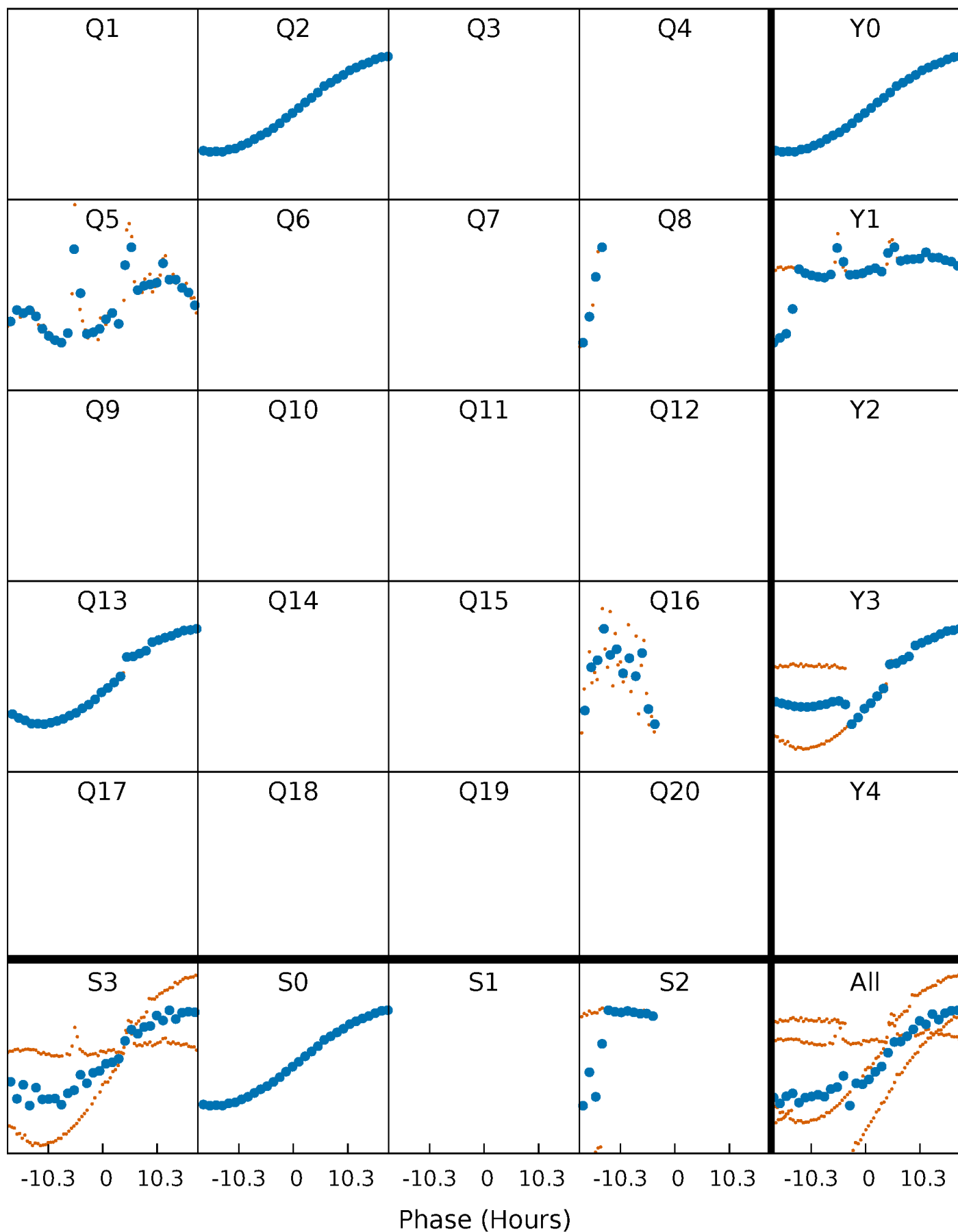


Non-Whitened Vs. Whitened Light Curve



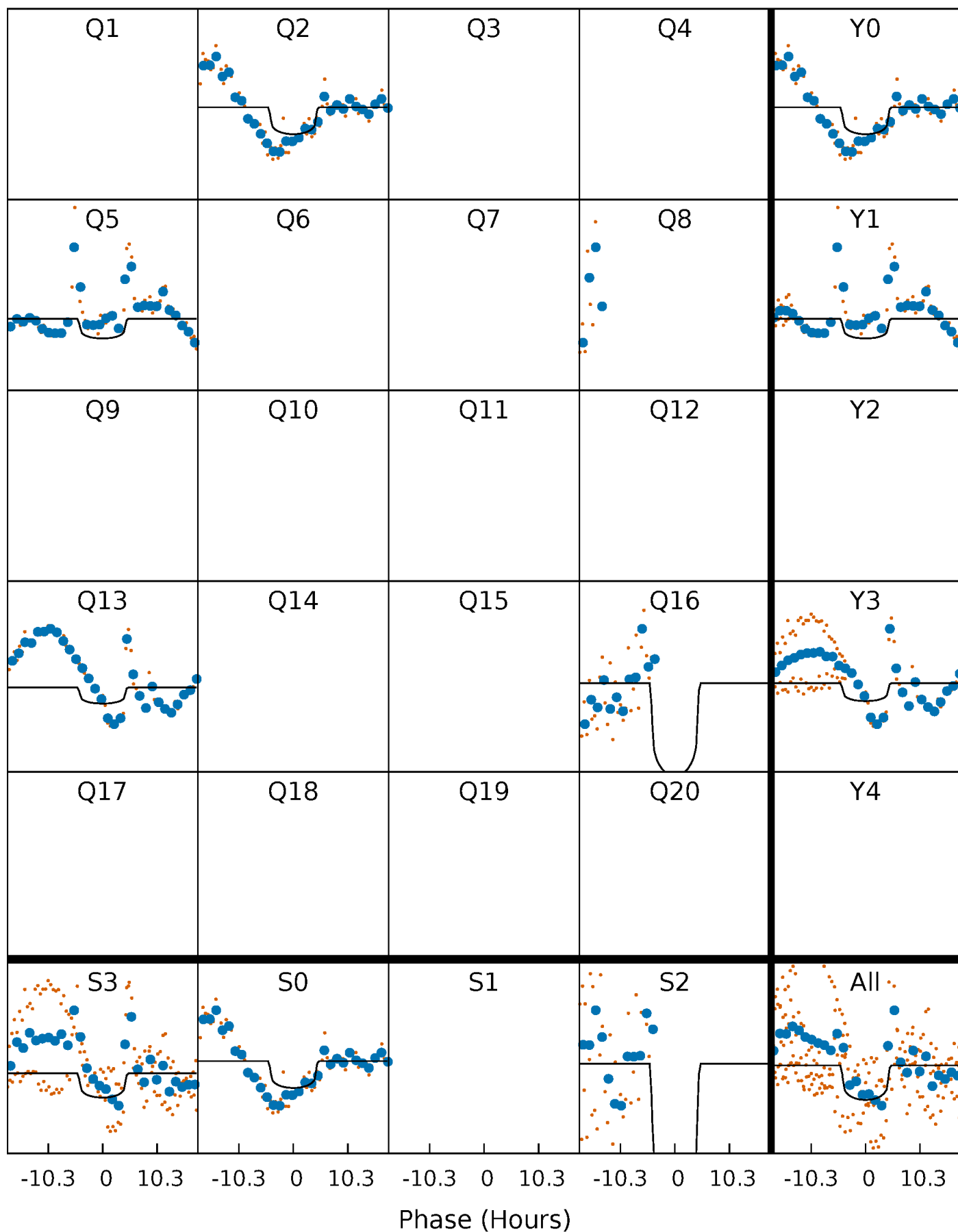
PDC Quarter-Phased Transit Curves

TCE 010489814-01 P=254.495805 Days $T_0=252.641204$ (BKJD)



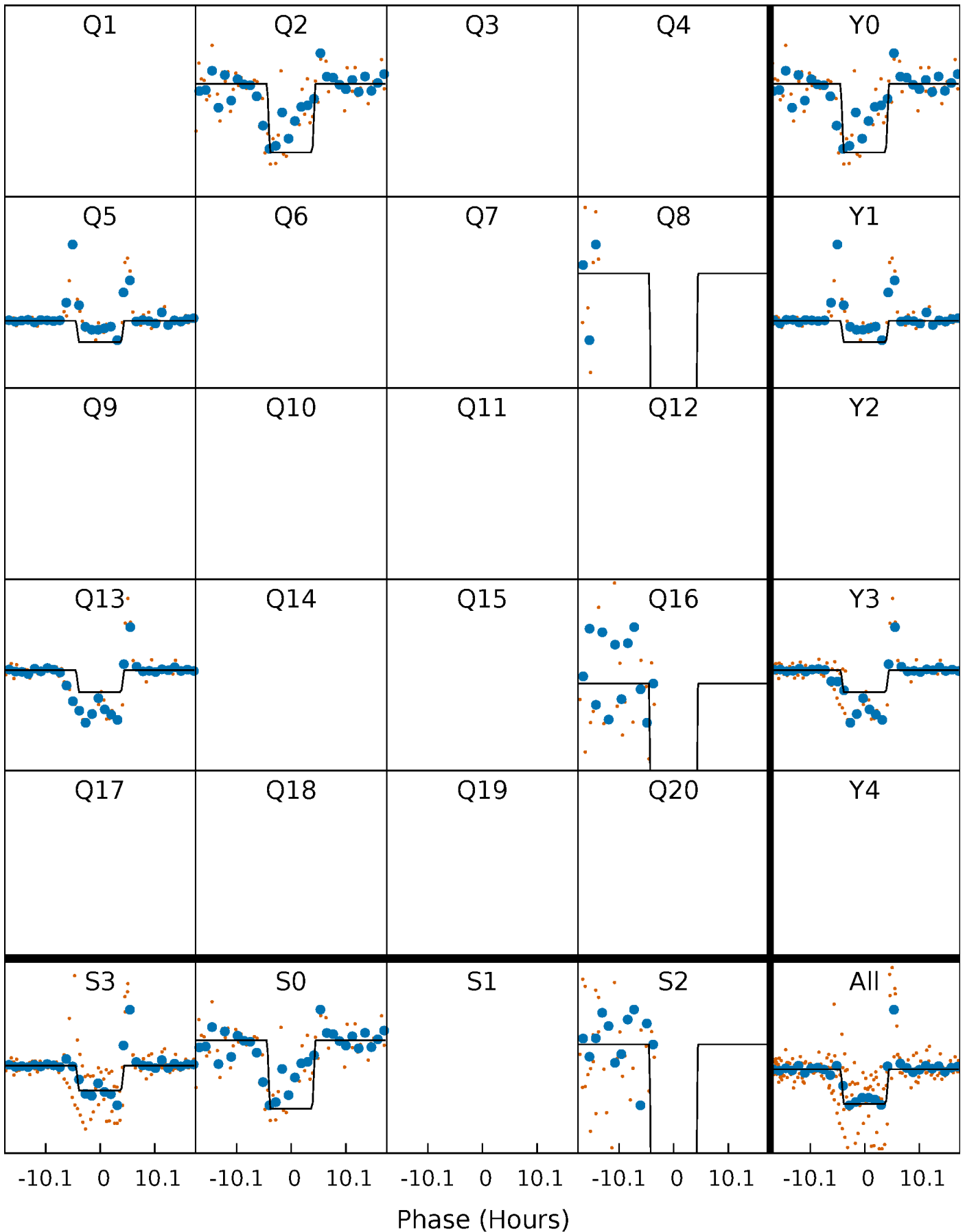
DV Quarter-Phased Transit Curves

TCE 010489814-01 P=254.495805 Days $T_0=252.641204$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

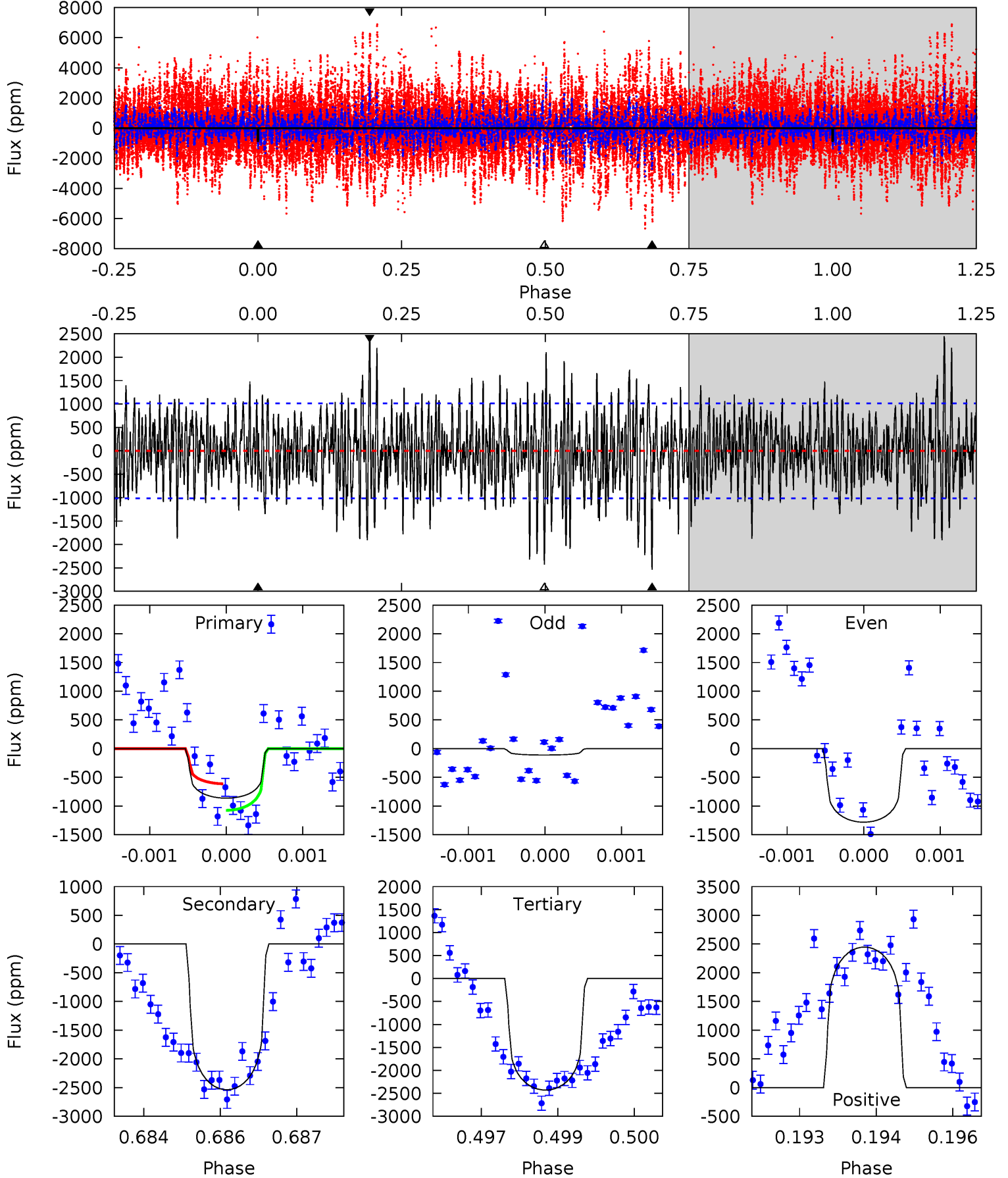
TCE 010489814-01 P=254.493179 Days $T_0=252.641825$ (BKJD)



DV Model-Shift Uniqueness Test

010489814-01, P = 254.495805 Days, E = 252.641204 Days

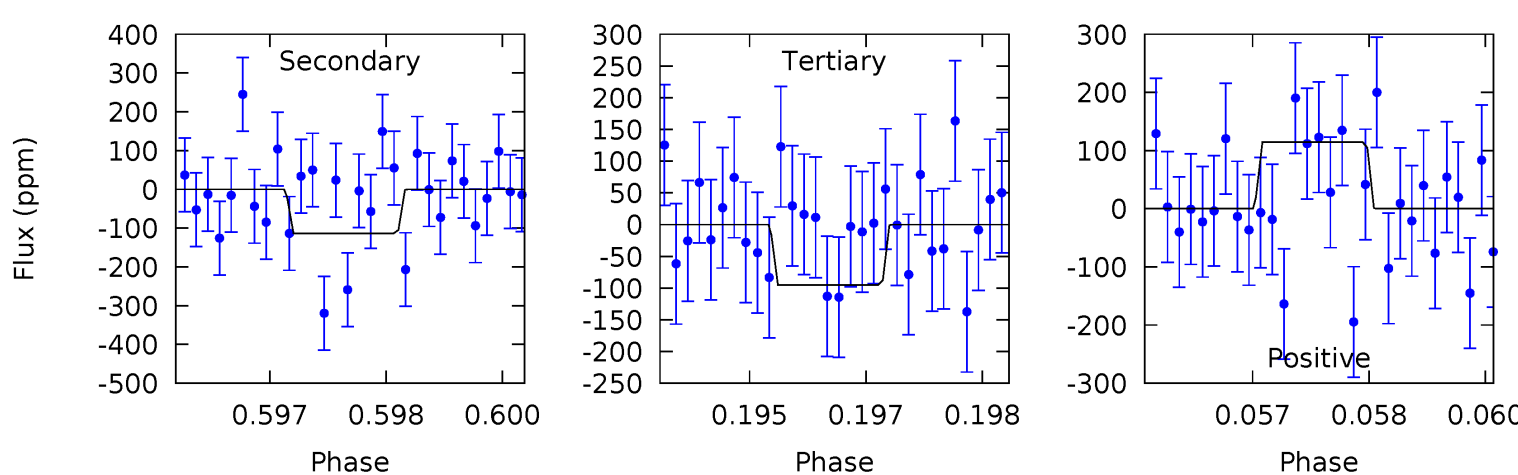
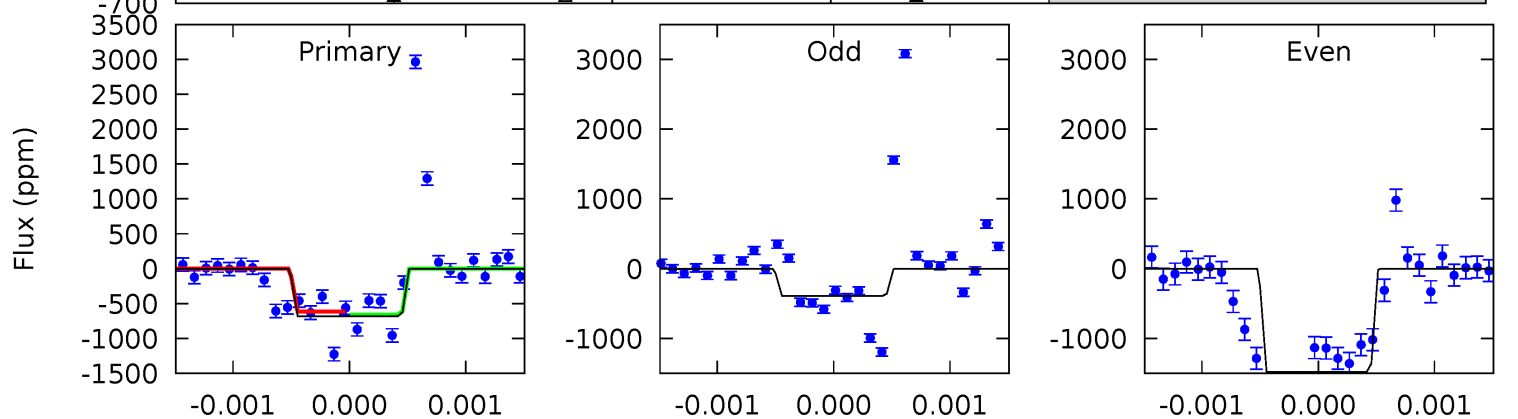
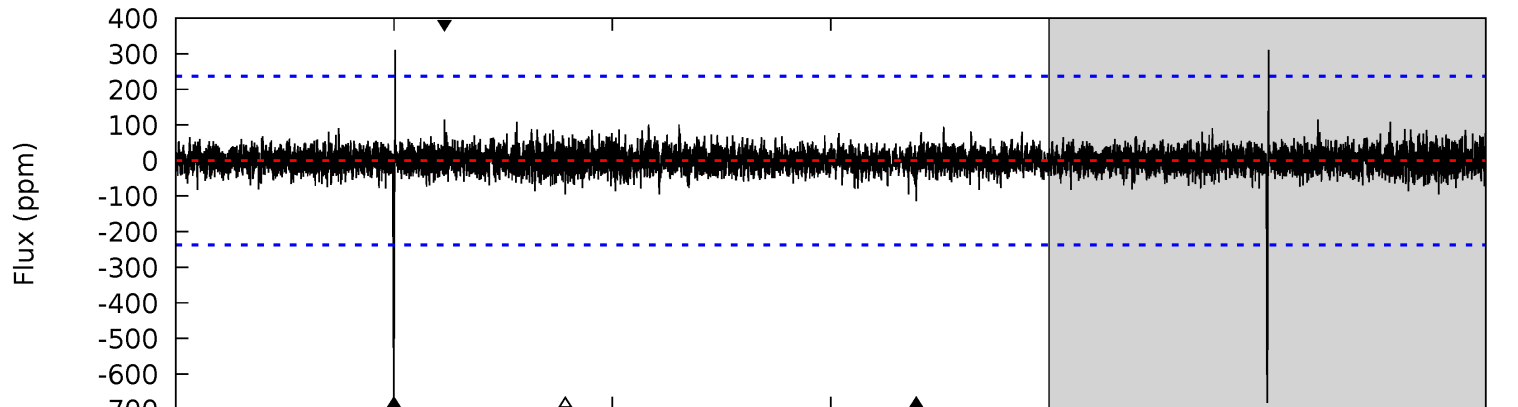
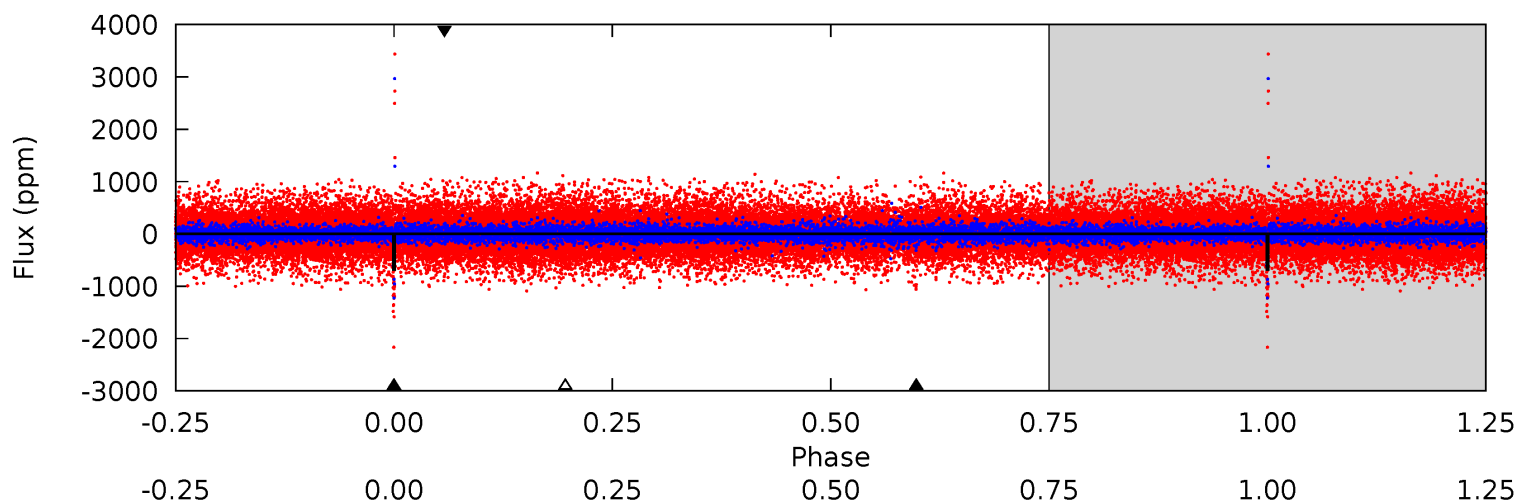
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.58	13.5	12.9	13.0	5.38	3.18	3.50	-8.31	-8.41	0.57	0.48	2.53	0.89	0.49	1.23



Alt Model-Shift Uniqueness Test

010489814-01, P = 254.493179 Days, E = 252.641825 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.5	2.58	2.17	2.60	5.39	3.19	0.52	13.3	12.9	0.42	-0.02	14.0	1.54	0.31	0



Stellar Parameters For KIC 010489814

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5648^{+167}_{-167}	$4.663^{+0.026}_{-0.104}$	$-0.880^{+0.300}_{-0.300}$	$0.671^{+0.096}_{-0.037}$	$0.758^{+0.058}_{-0.071}$	$3.538^{+0.381}_{-1.131}$
	+3%/-3%	+1%/-2%	+34%/-34%	+14%/-6%	+8%/-9%	+11%/-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 010489814-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-2537 ± 188	$2.70^{+2.22}_{-1.71}$	342^{+15}_{-12}	6729^{+6563}_{-1721}	$96574^{+603551}_{-66830}$
Alt.	-114 ± 44	$3.00^{+2.35}_{-1.85}$	342^{+14}_{-13}	3418^{+1348}_{-569}	3441^{+19723}_{-2442}

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

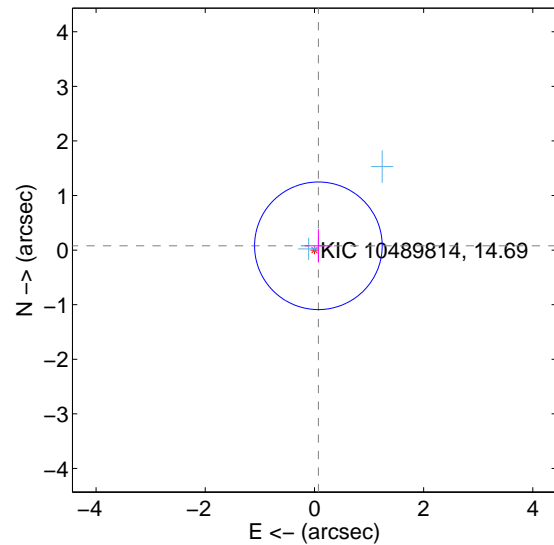
Supplemental centroid analysis for 010489814-01. Kepler magnitude: 14.69. Transit SNR 3.92

There are 3 quarters with good PRF difference image offsets

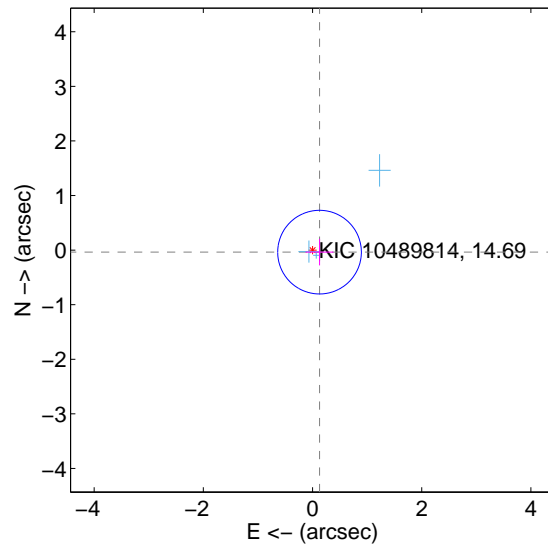
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.107 ± 0.390	0.27	-0.072 ± 0.252	0.079 ± 0.306
PRF-fit source offset from KIC position	0.134 ± 0.255	0.52	-0.128 ± 0.256	-0.037 ± 0.243
photometric centroid source offset	0.49 ± 1.07	0.46	-0.48 ± 1.07	-0.11 ± 0.98

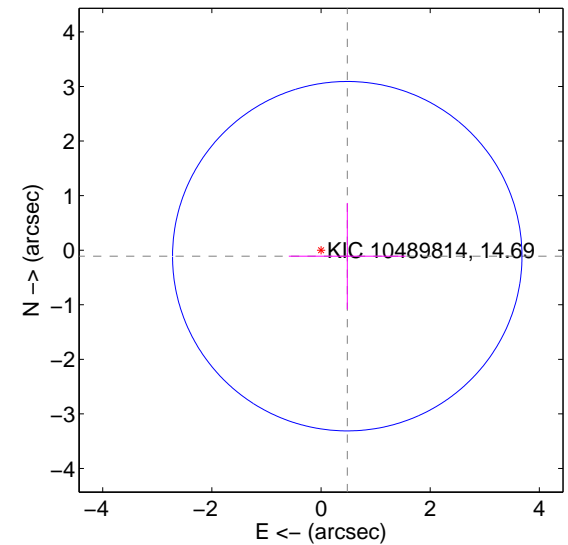
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

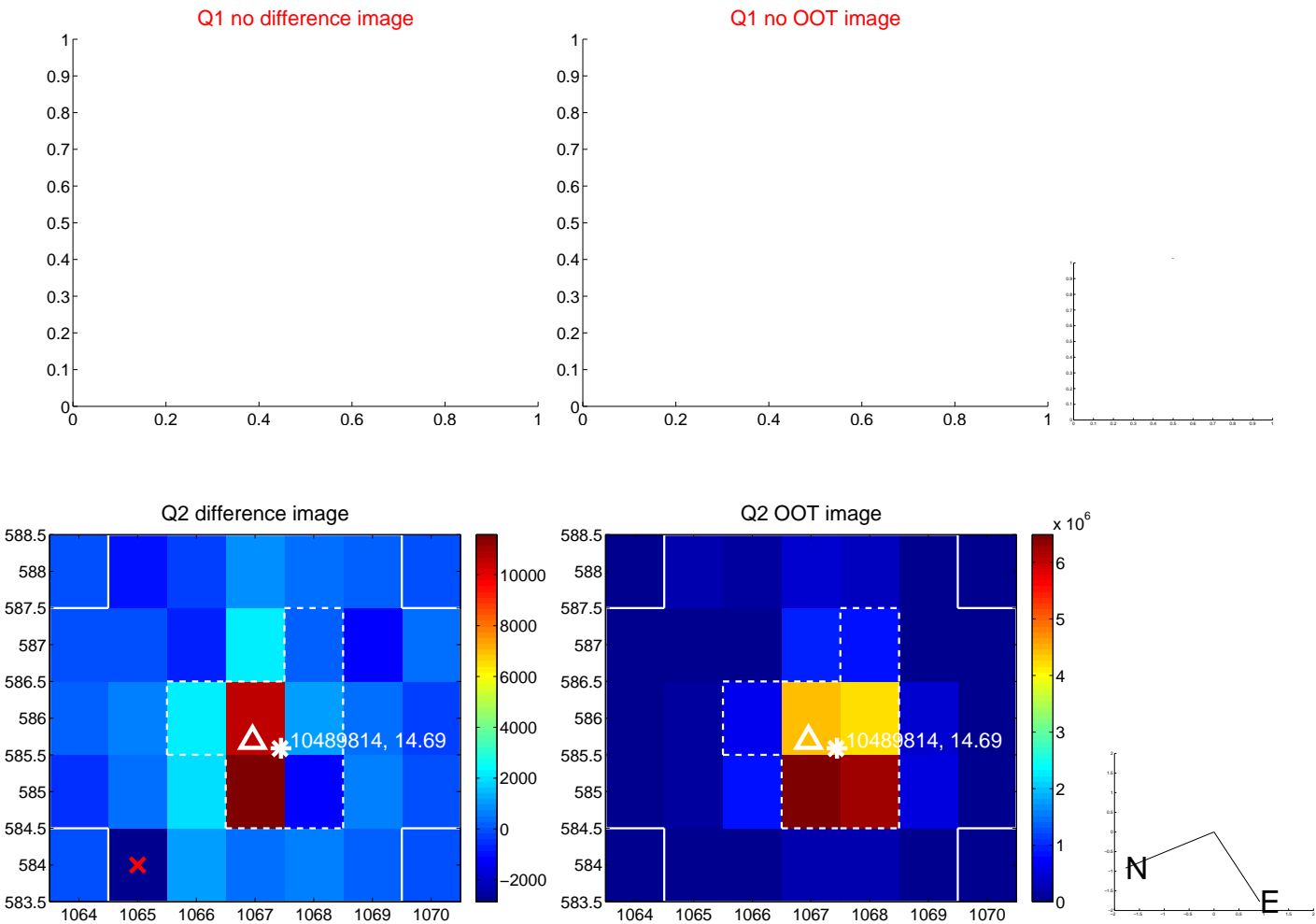


offset from photometric centroids

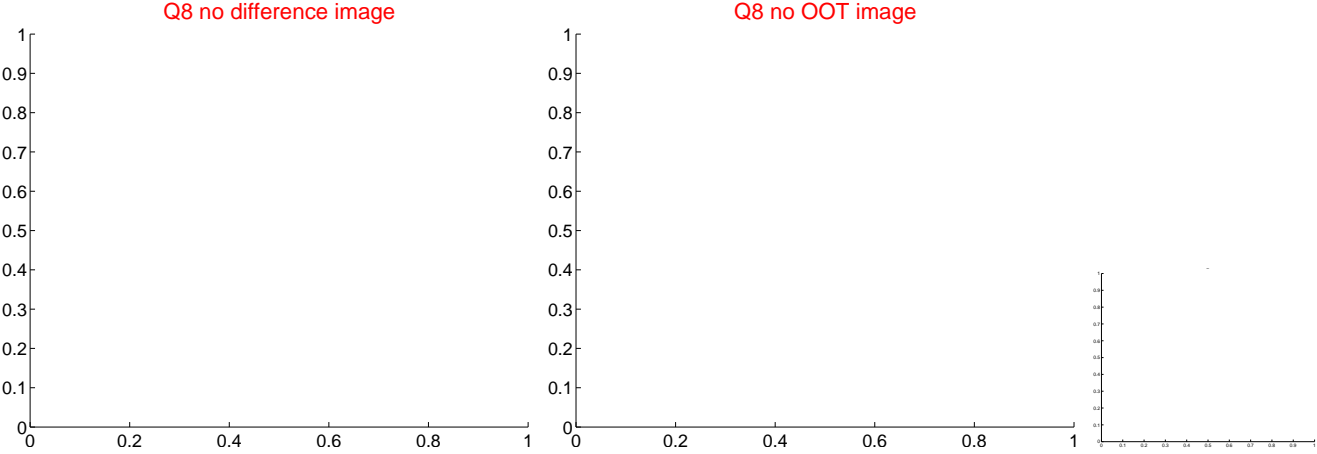
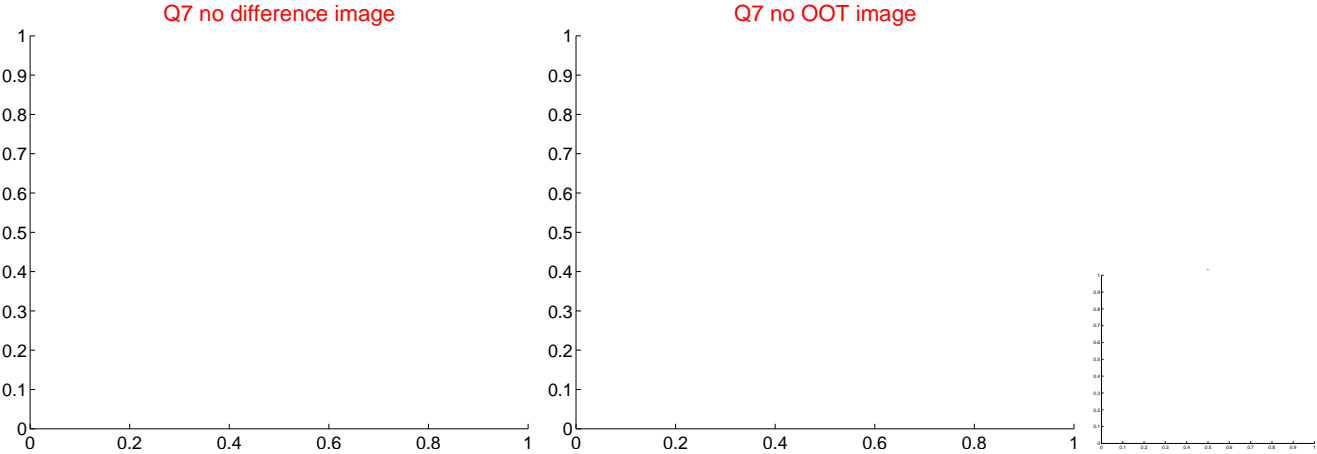
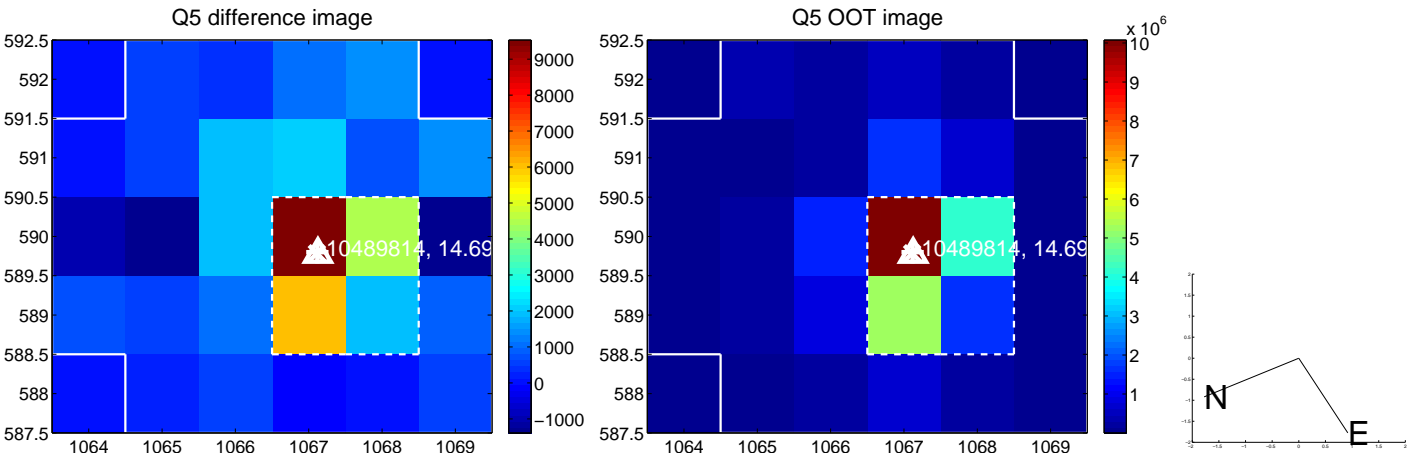


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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



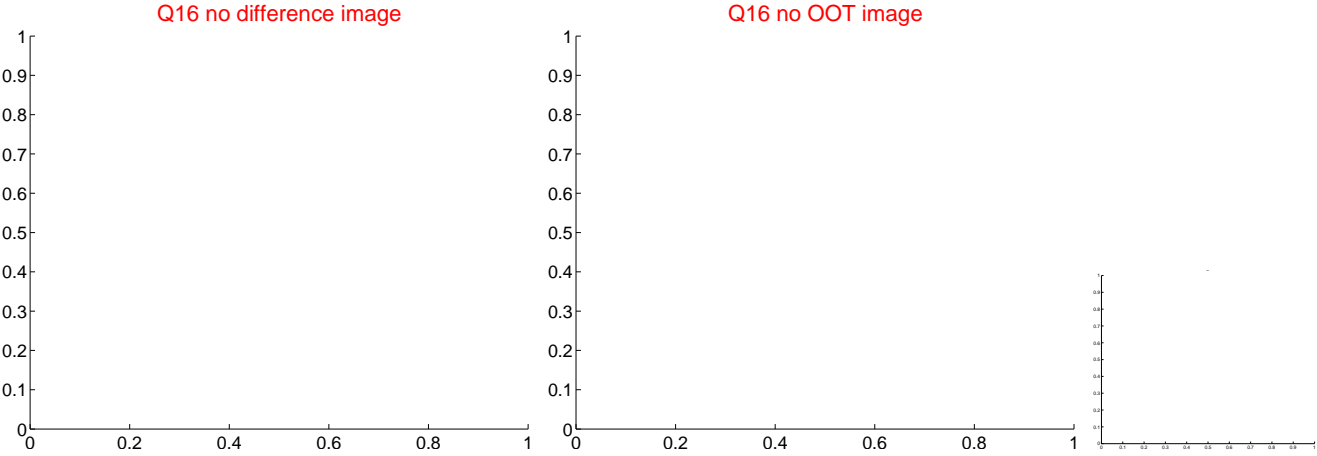
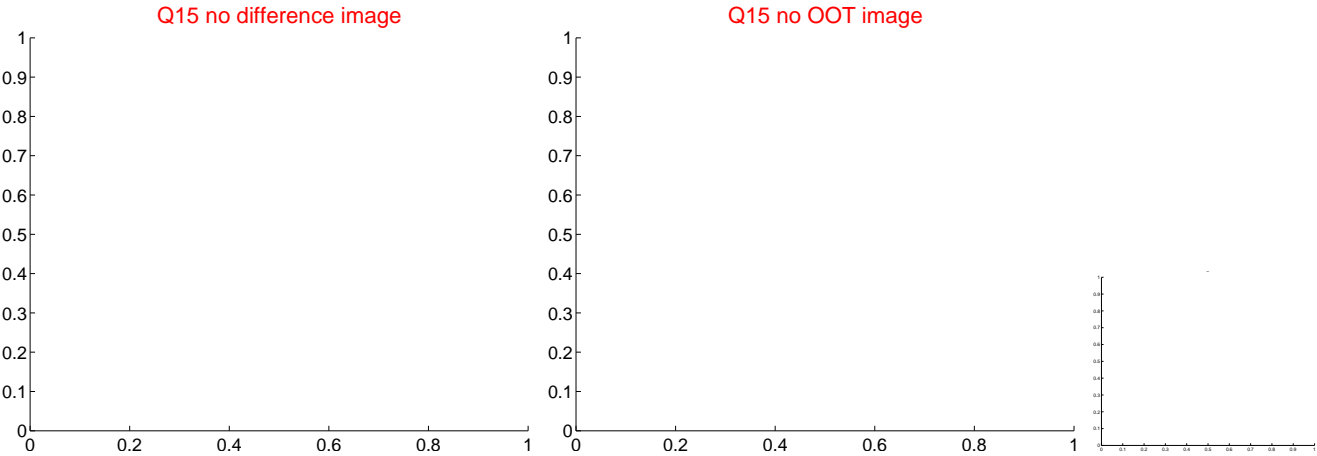
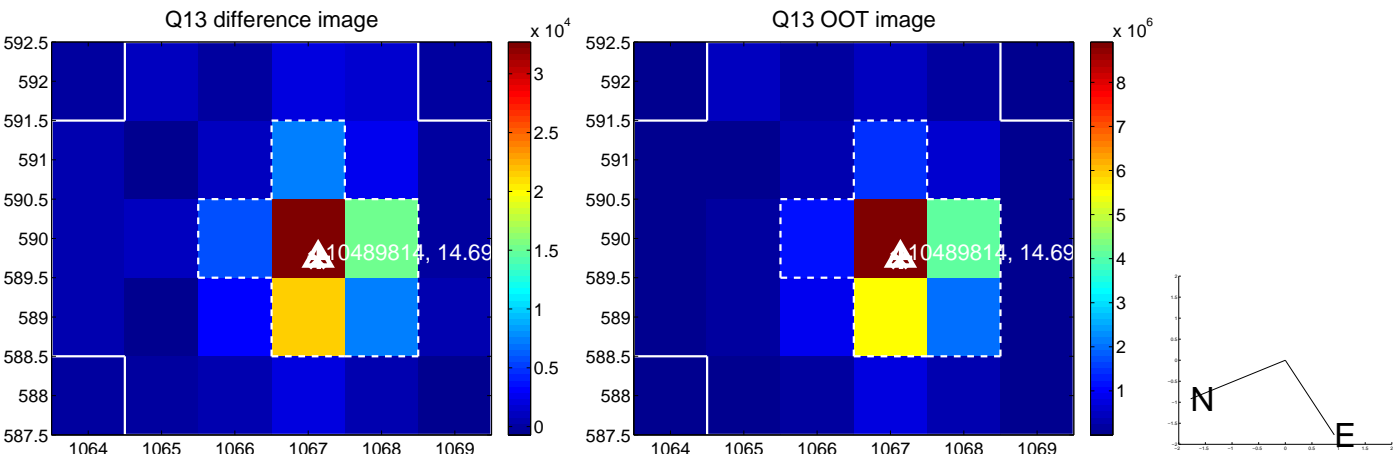
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



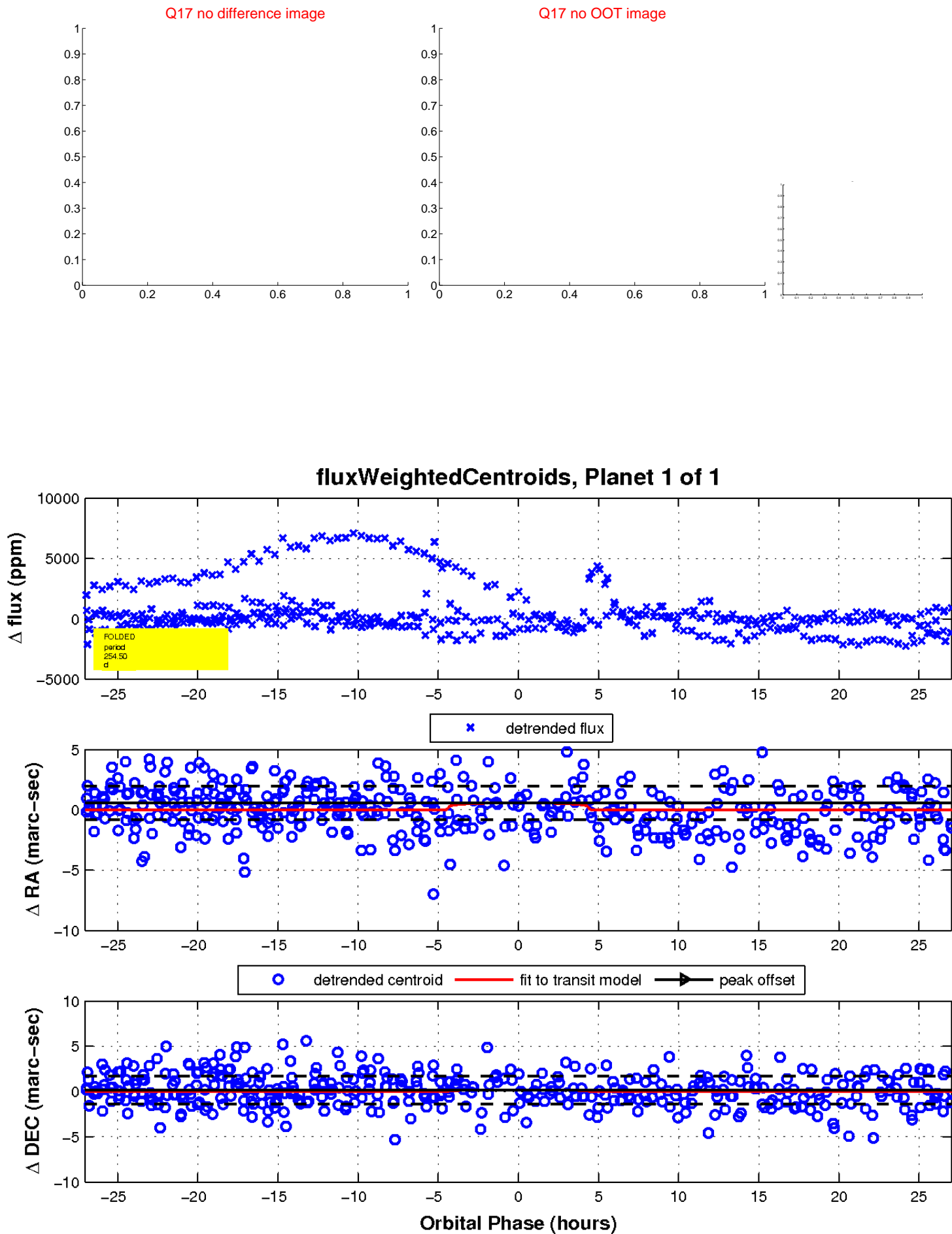
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

