

KIC 003858729

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})
003858729-01	OBS	No	300.331382	406.916572	707.7	3.432	10.0	7.9	1.00	5780	2.90	1.30

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003858729-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—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.

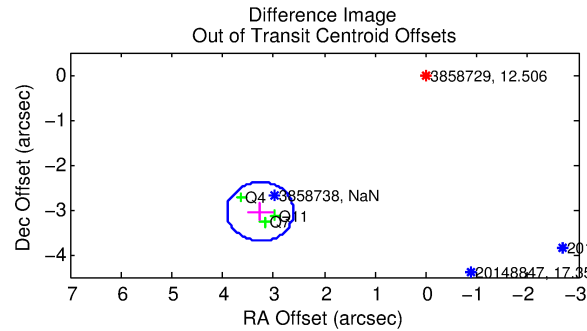
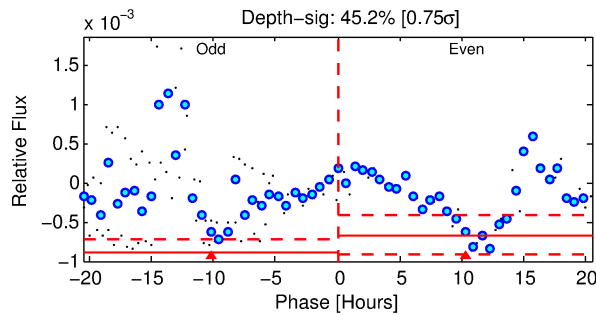
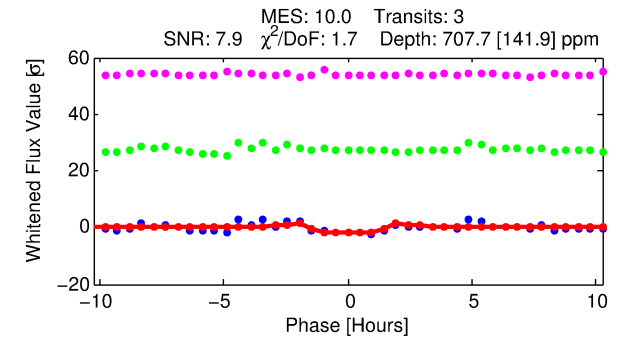
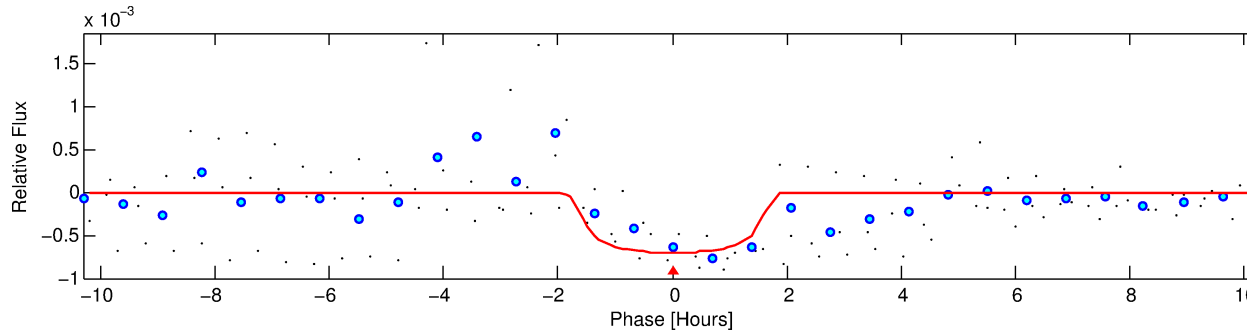
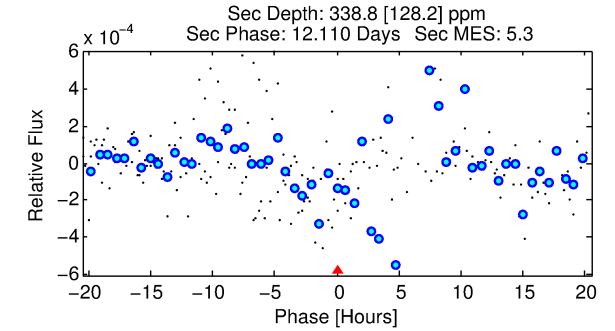
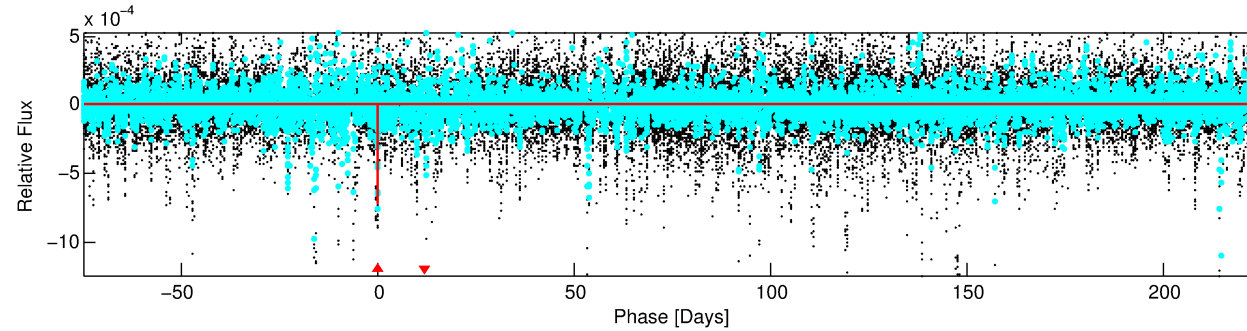
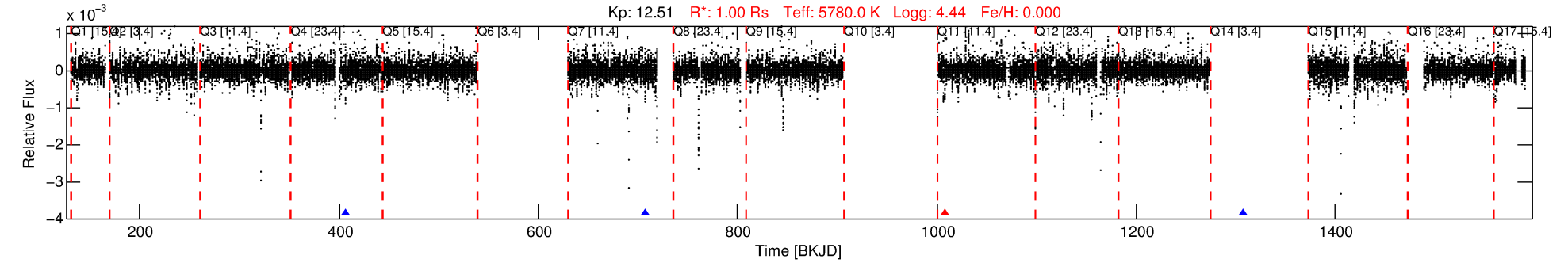
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003858729-01

No Significant Match Found

DV One-Page Summary

KIC: 3858729 Candidate: 1 of 1 Period: 300.331 d



DV Fit Results:

Period = 300.33138 [0.00616] d
Epoch = 406.9166 [0.0078] BKJD
Rp/R* = 0.0266 [0.0200]
a/R* = 463.18 [1487.02]
b = 0.76 [1.83]
Seff = 1.30 [0.00]
Teq = 272 [0] K
Rp = 2.90 [2.18] Re
a = 0.8779 [0.0000] AU
Ag = 17081.78 [26460.86] [0.65σ]
Teffp = 4810 [1863] K [2.44σ]

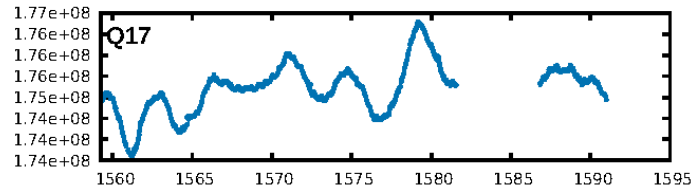
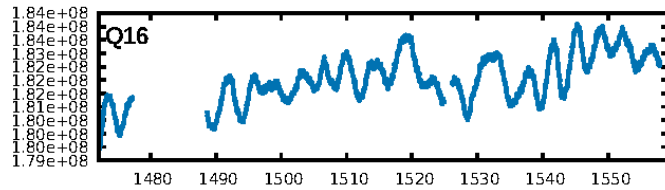
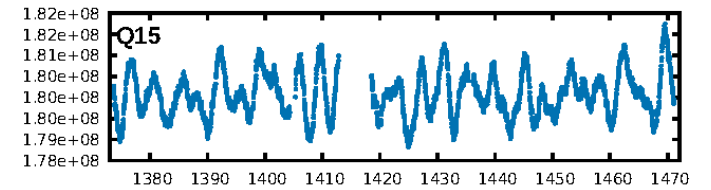
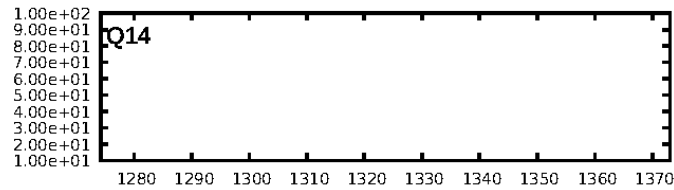
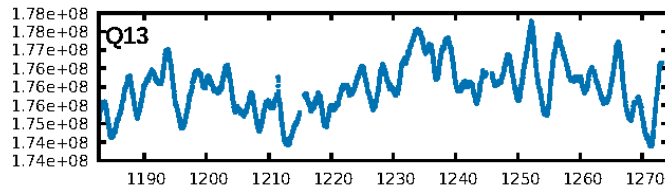
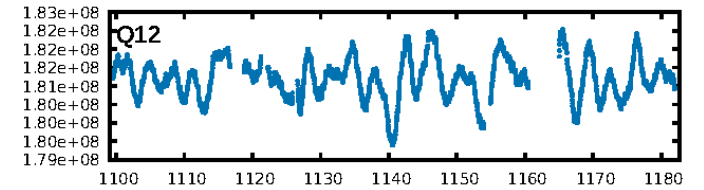
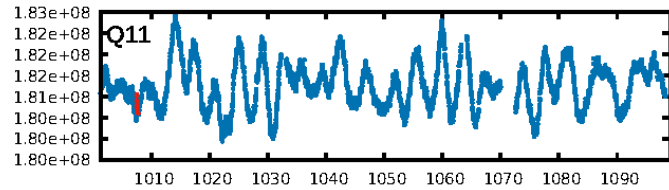
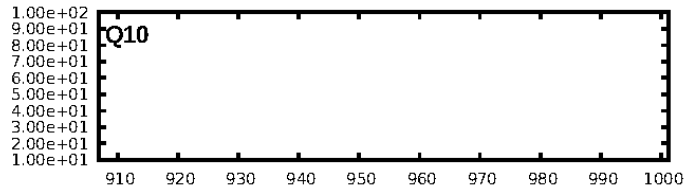
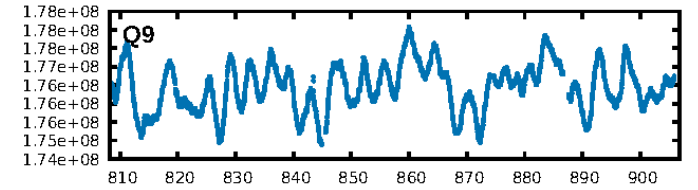
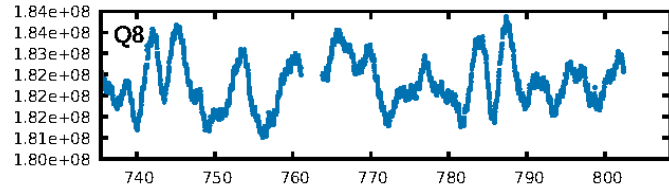
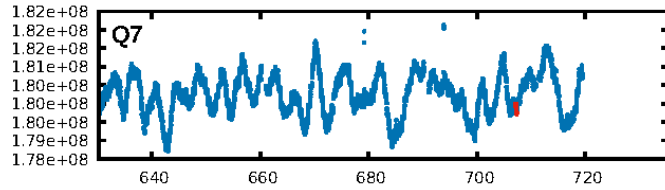
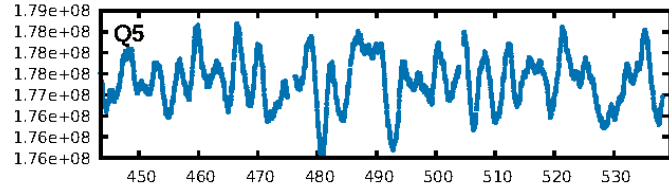
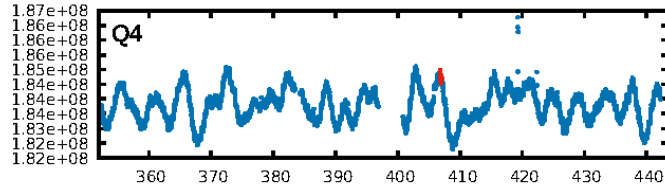
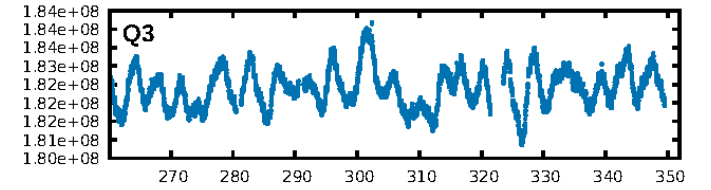
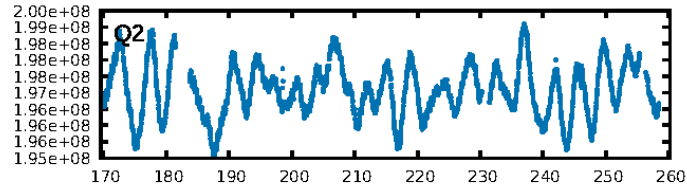
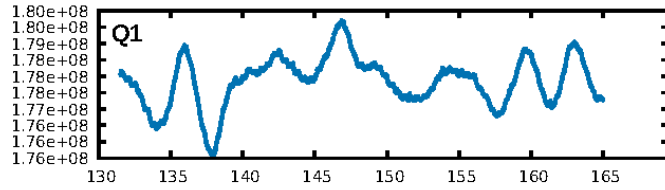
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 28.7%
ModelChiSquareGof-sig: 90.1%
Bootstrap-pfa: 2.62e-09
RollingBand-fgt: 0.67 [2/3]
GhostDiagnostic-chr: 0.3641
Centroid-sig: 0.0%
Centroid-so: 2.518 arcsec [2.64σ]
OotOffset-rm: 4.460 arcsec [20.44σ]
KicOffset-rm: 4.542 arcsec [28.31σ]
OotOffset-st: 0/2/1/0 [3]
KicOffset-st: 0/2/1/0 [3]
DiffImageQuality-fgm: 0.33 [1/3]
DiffImageOverlap-fno: 1.00 [3/3]

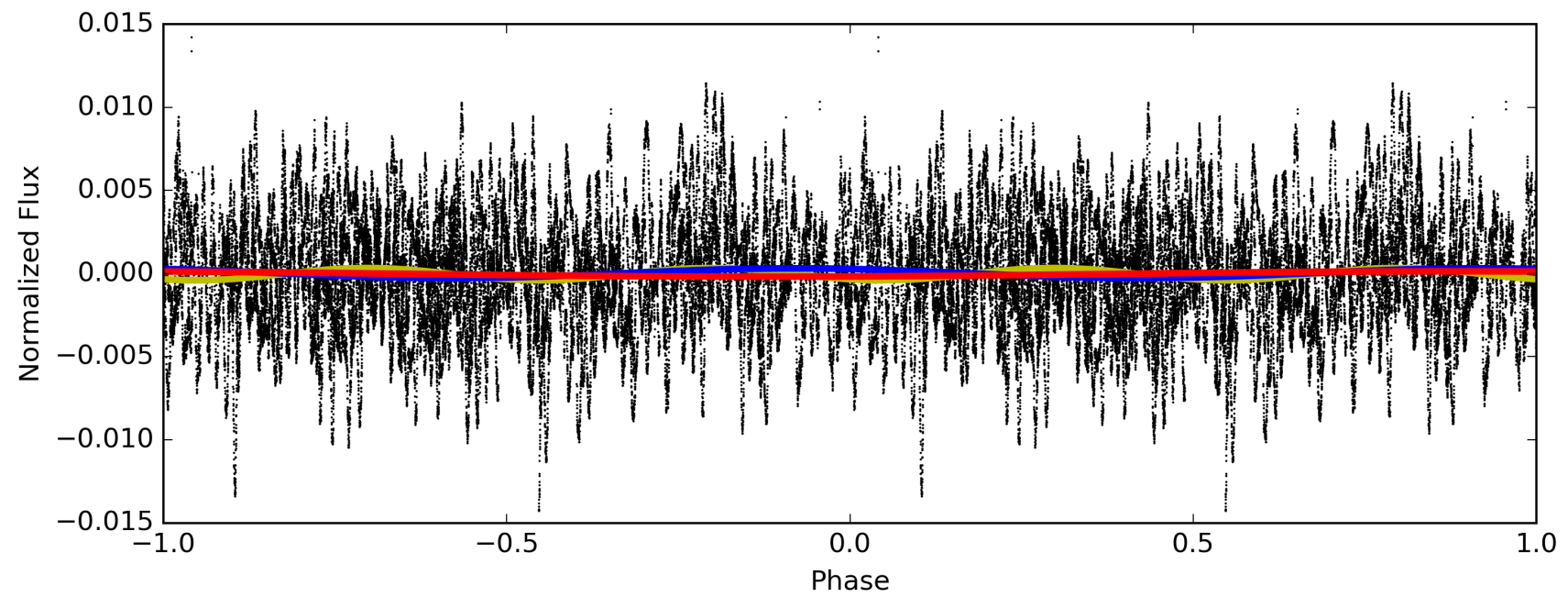
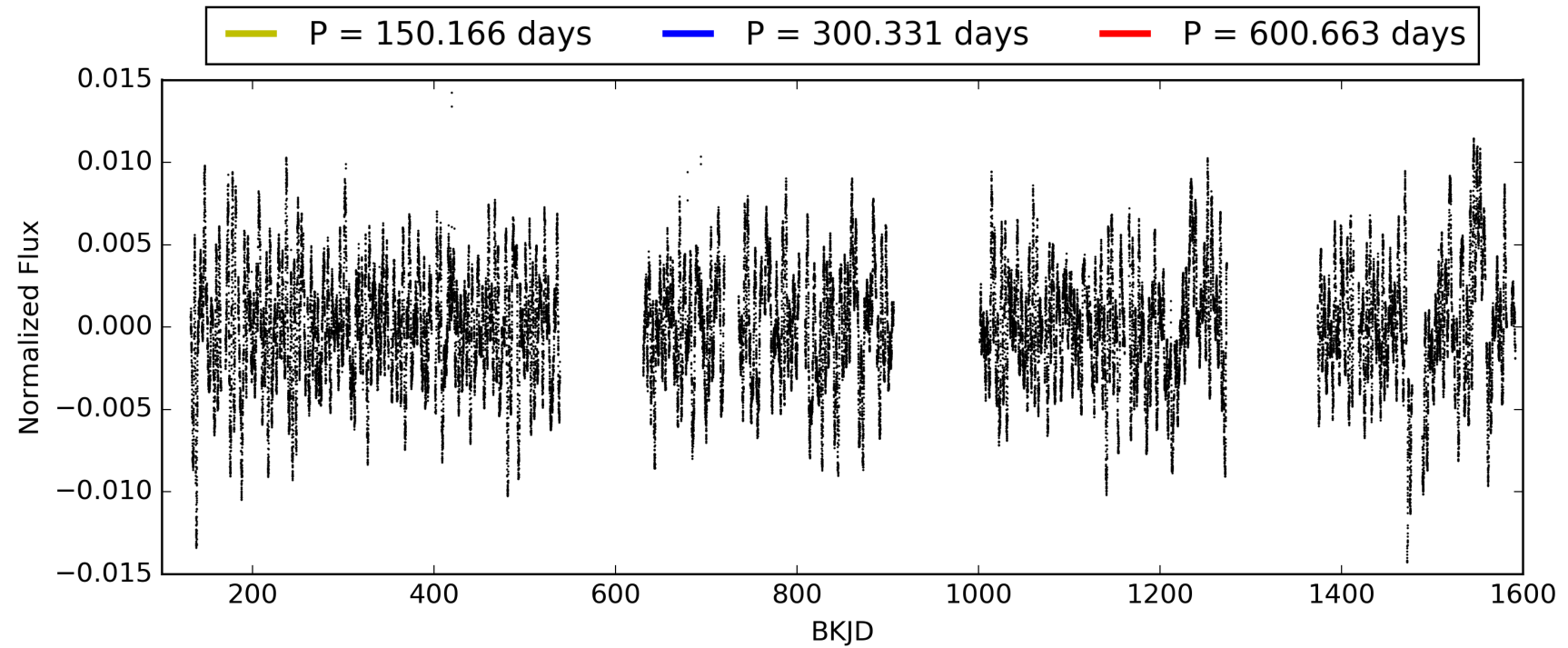
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 13:31:04 Z

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

TCE 003858729-01, PDC Light Curves

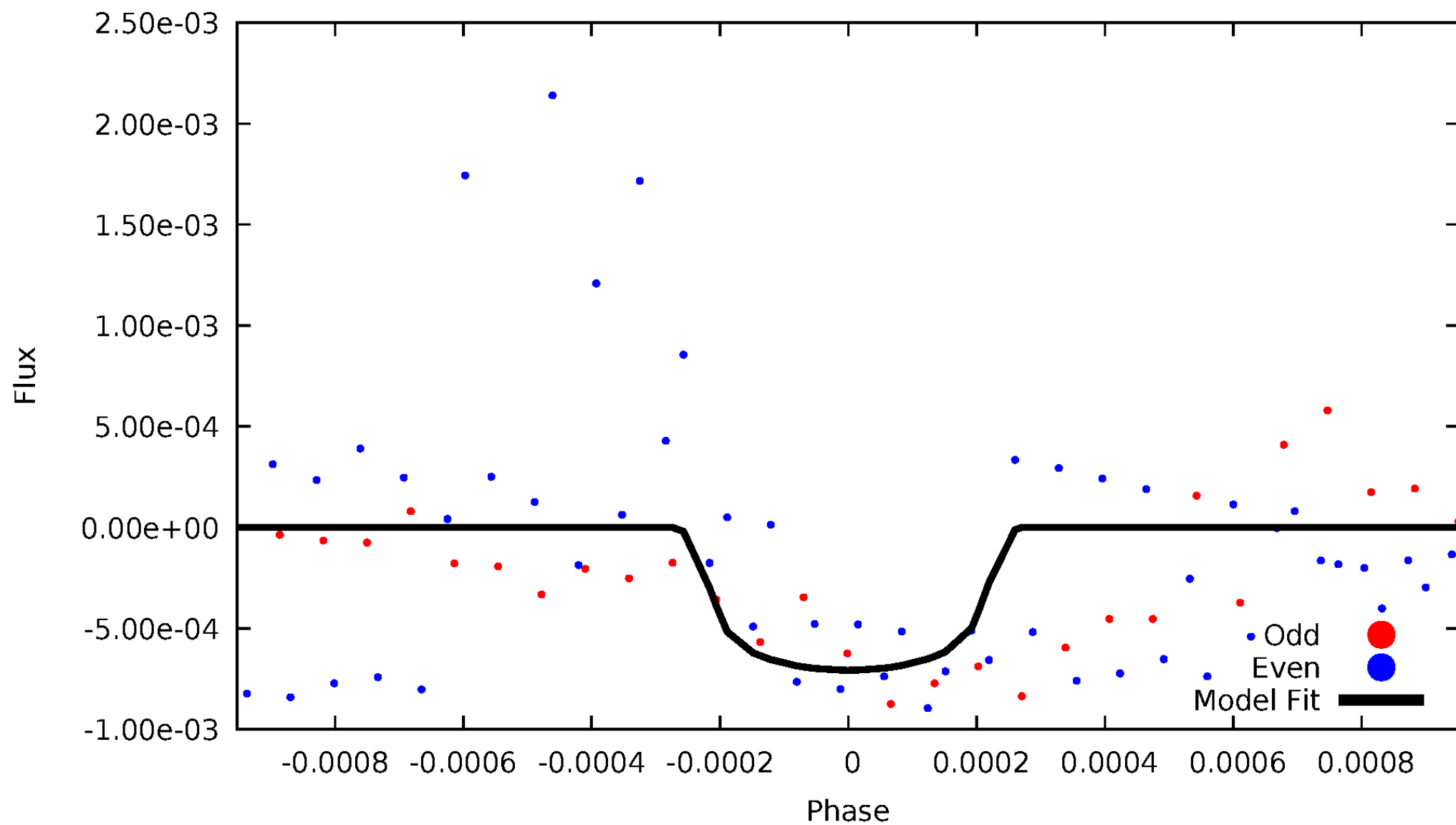


TCE 003858729-01



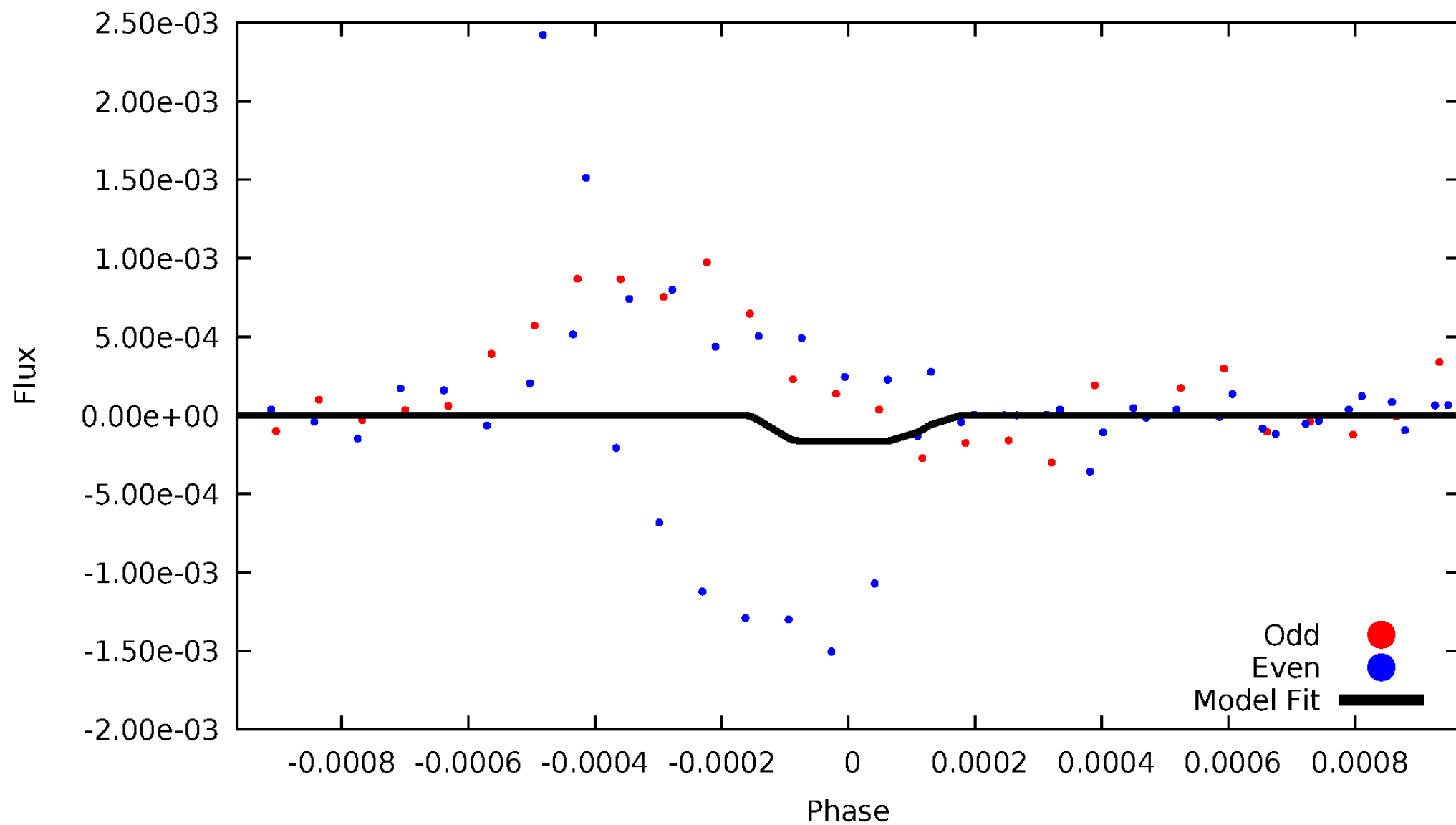
DV Odd/Even

TCE 003858729-01



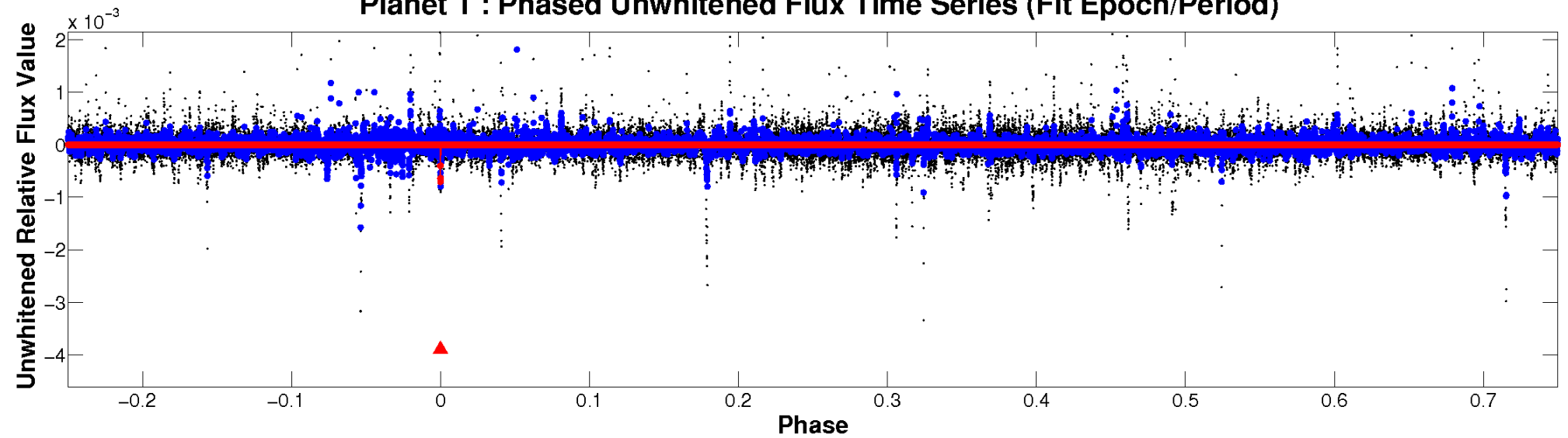
ALT Odd/Even

TCE 003858729-01

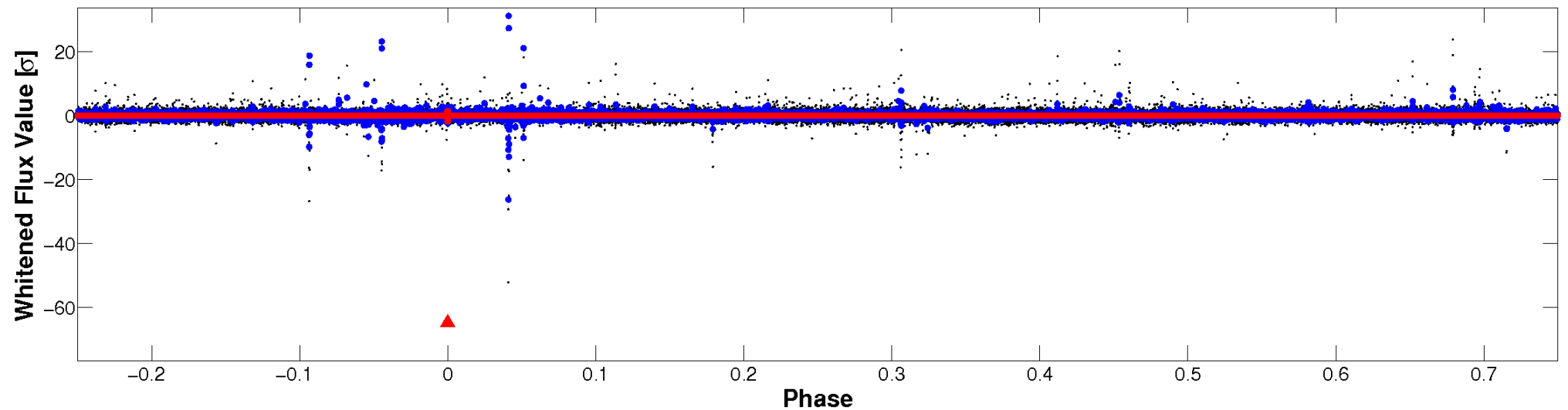


Non-Whitened Vs. Whitened Light Curve

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

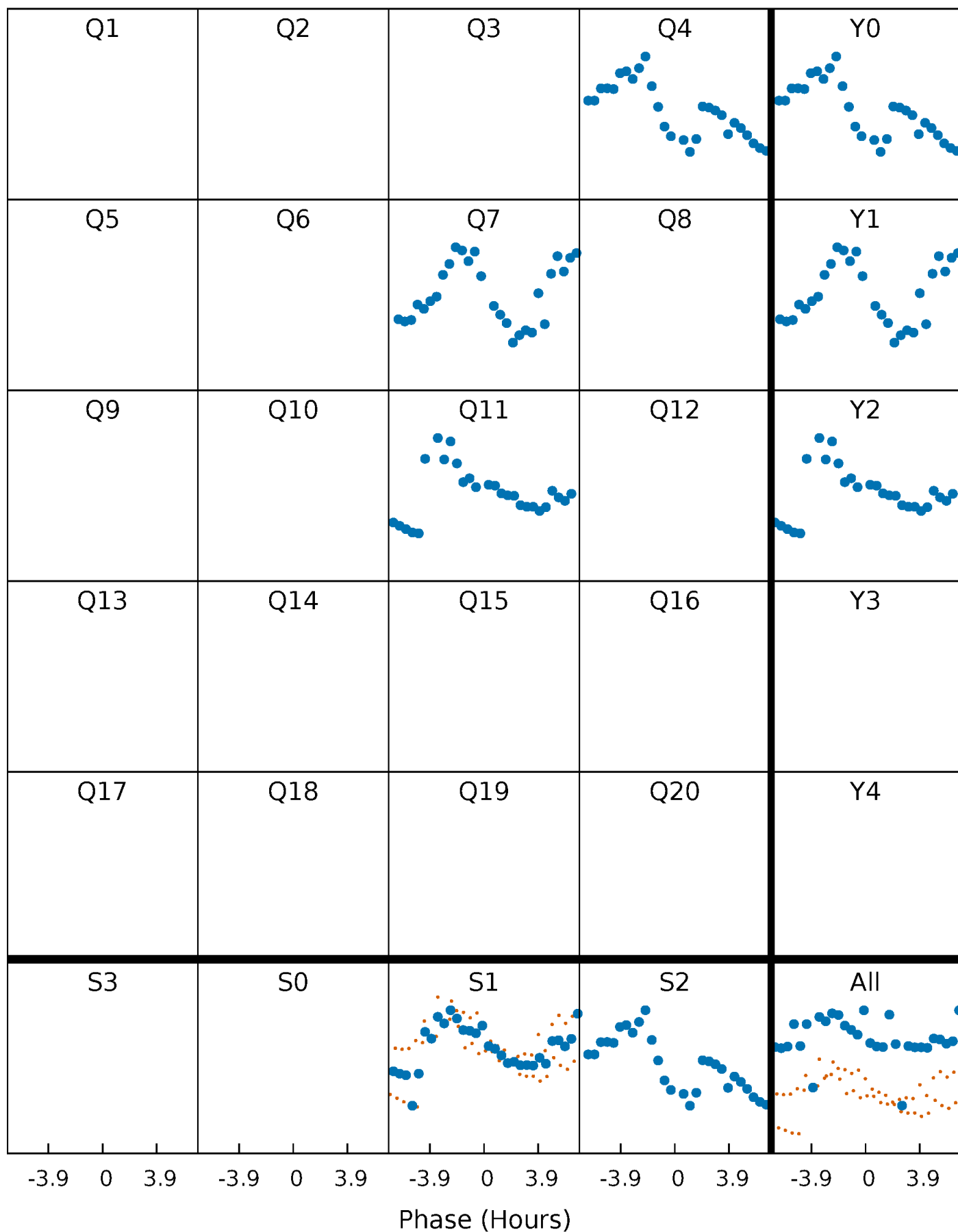


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



PDC Quarter-Phased Transit Curves

TCE 003858729-01 P=300.331382 Days $T_0=406.916572$ (BKJD)



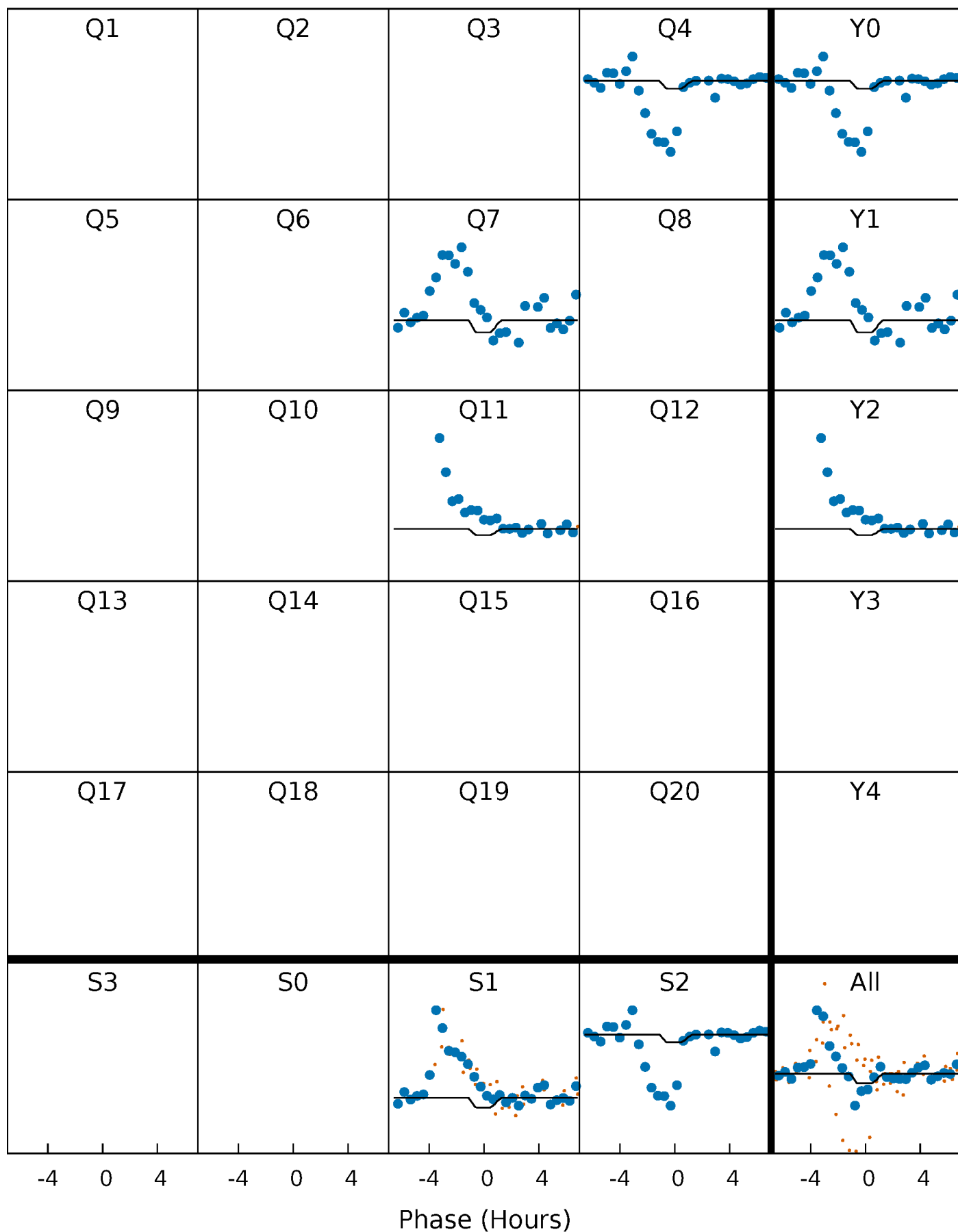
DV Quarter-Phased Transit Curves

TCE 003858729-01 P=300.331382 Days $T_0=406.916572$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

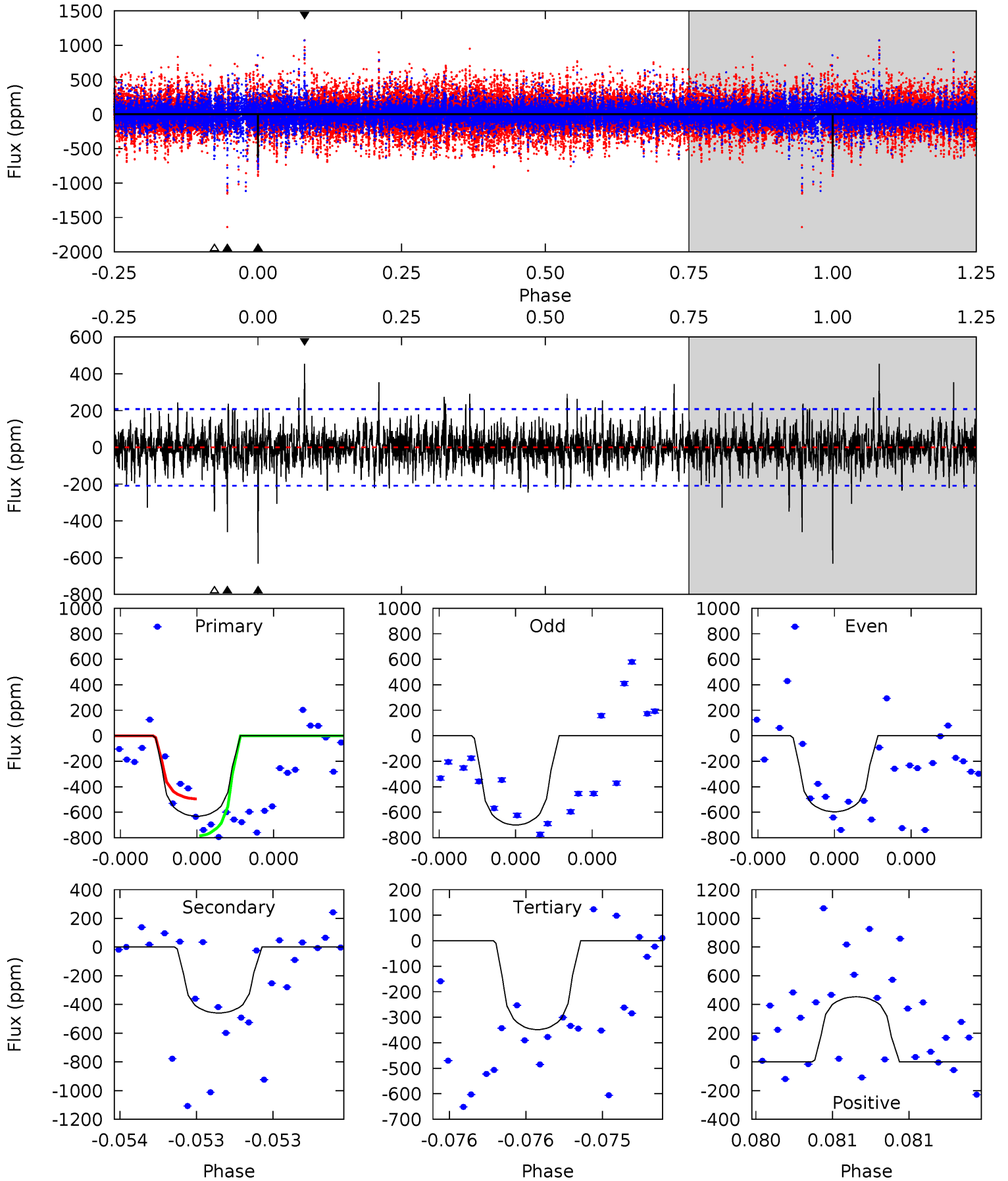
TCE 003858729-01 P=300.332398 Days $T_0=406.961693$ (BKJD)



DV Model-Shift Uniqueness Test

003858729-01, P = 300.331382 Days, E = 106.585190 Days

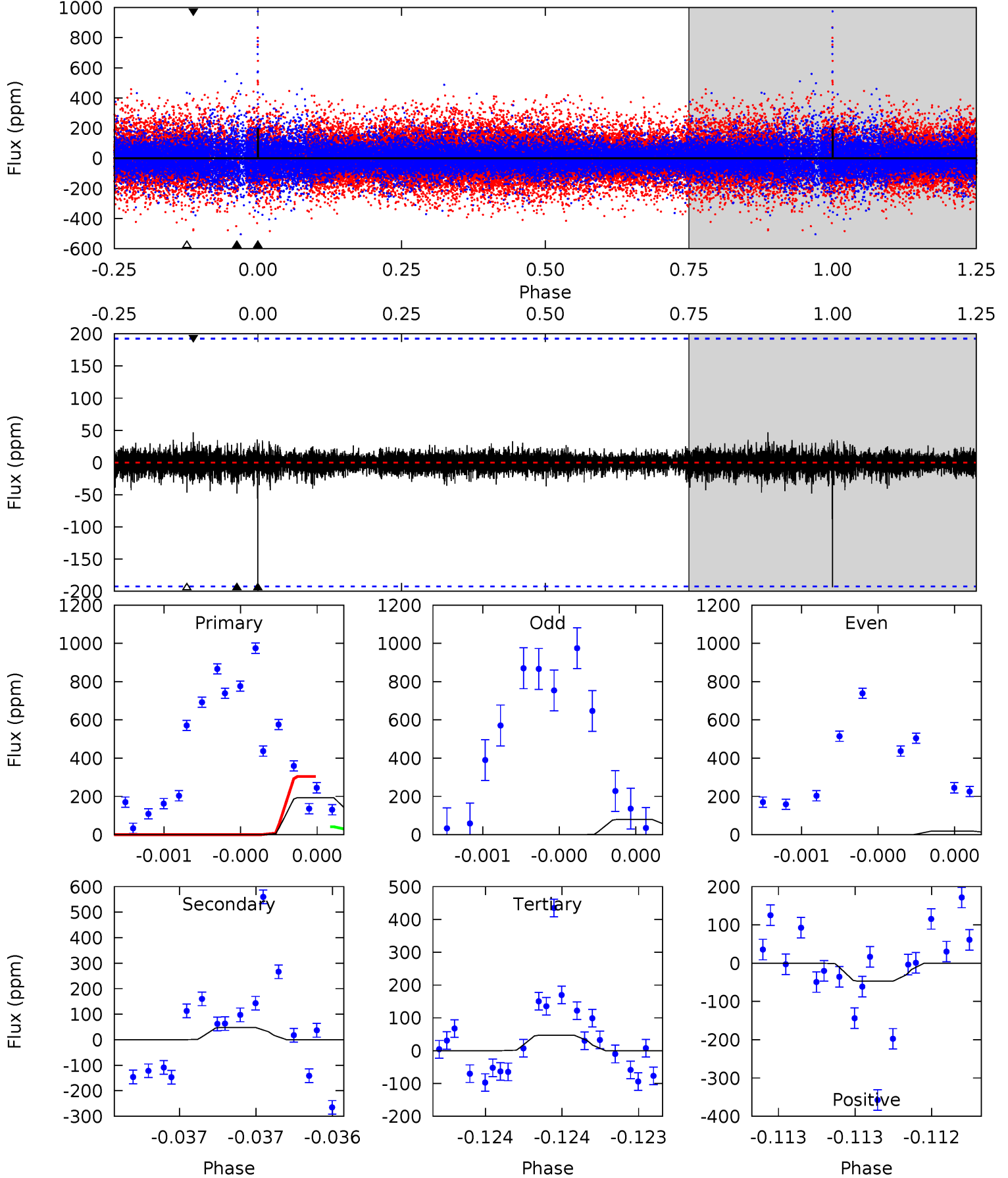
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	12.3	9.33	12.1	5.58	3.49	1.76	7.56	4.74	2.97	0.15	1.11	0.90	0.42	3.92



Alt Model-Shift Uniqueness Test

003858729-01, P = 300.332398 Days, E = 106.629295 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.70	1.41	1.38	1.38	5.67	3.63	0.26	4.33	4.32	0.03	0.03	0.89	-3.13	0.19	3.86



Stellar Parameters For KIC 003858729

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 003858729-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-460 ± 37	$3.20^{+2.09}_{-1.70}$	379^{+18}_{-17}	5026^{+2351}_{-927}	19122^{+71362}_{-12113}
Alt.	-48 ± 34	$2.18^{+1.79}_{-1.43}$	382^{+17}_{-18}	3697^{+1943}_{-892}	3701^{+27144}_{-3114}

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

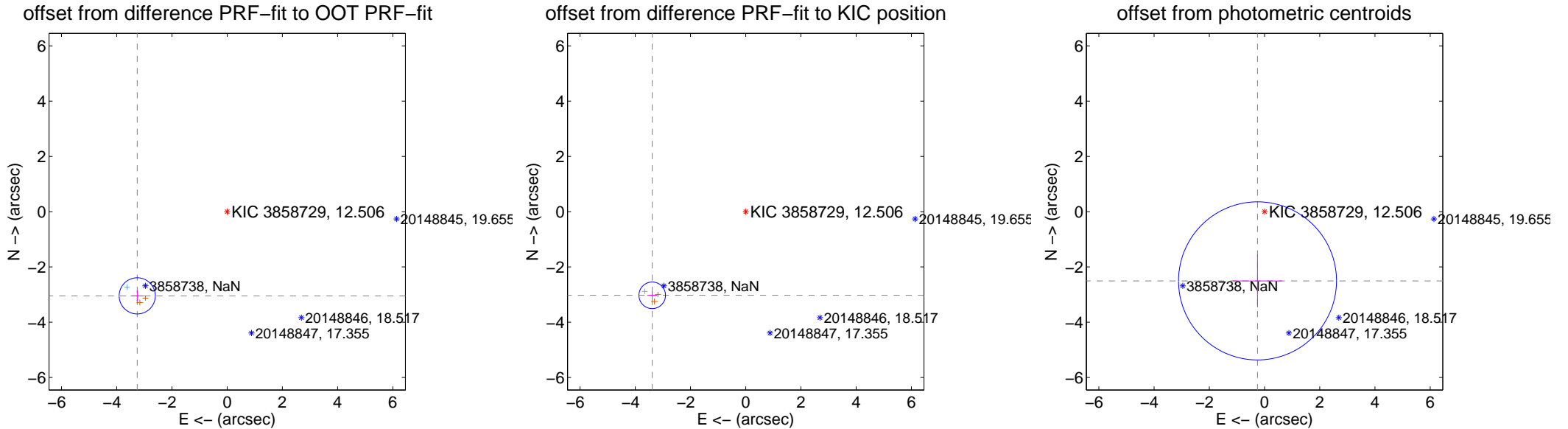
DV Centroid Data

Supplemental centroid analysis for 003858729-01. Kepler magnitude: 12.51. Transit SNR 7.94

There are 1 quarters with good PRF difference image offsets

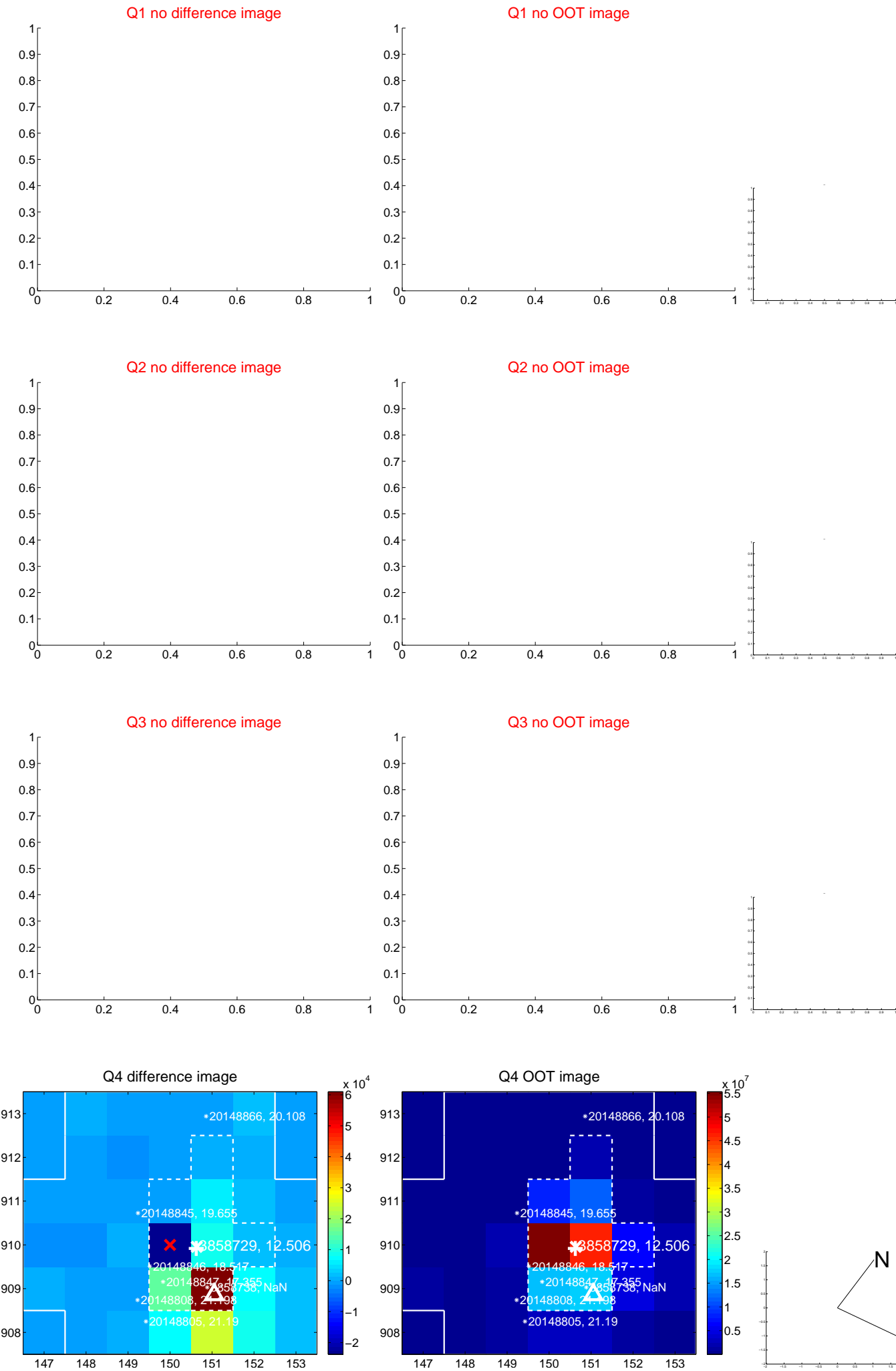
The direct PRF centroid is offset from the target star catalog position by about 0.26 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.460 \pm 0.218	20.44	3.257 \pm 0.237	-3.046 \pm 0.194
PRF-fit source offset from KIC position	4.542 \pm 0.160	28.31	3.386 \pm 0.180	-3.026 \pm 0.132
photometric centroid source offset	2.52 \pm 0.95	2.64	0.25 \pm 0.90	-2.50 \pm 0.95

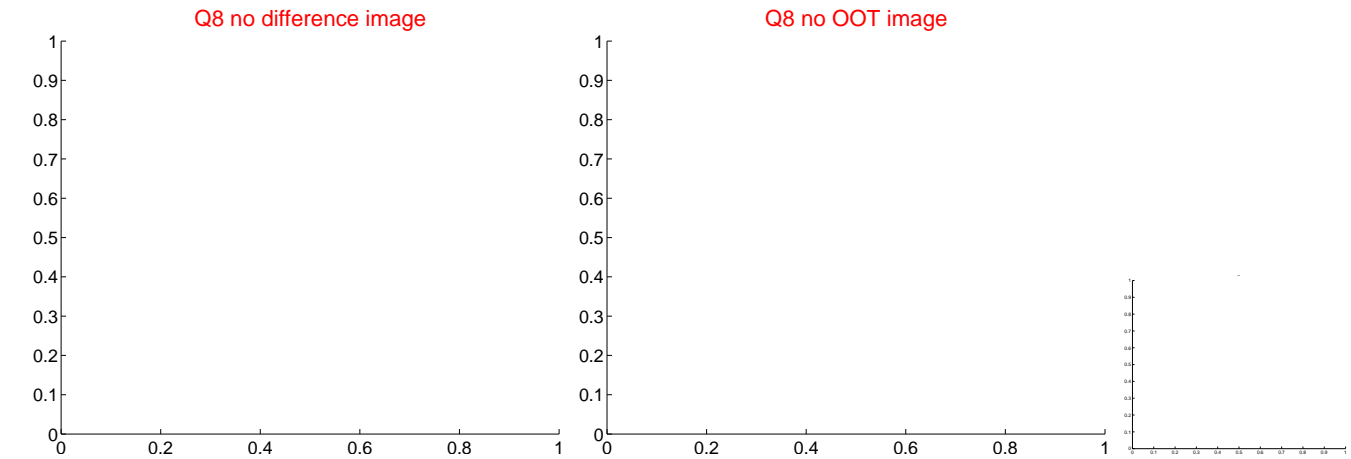
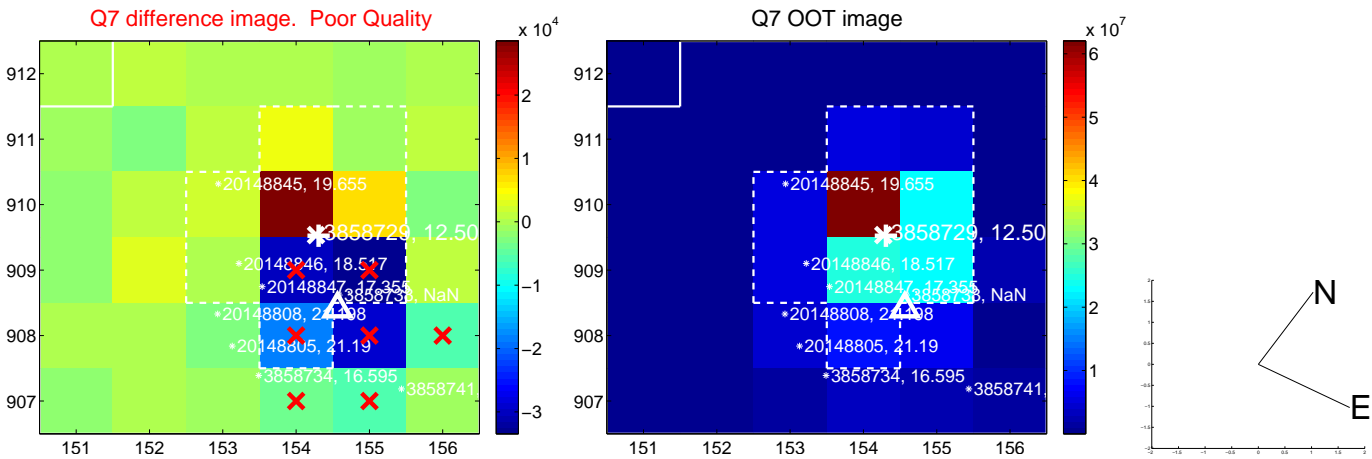
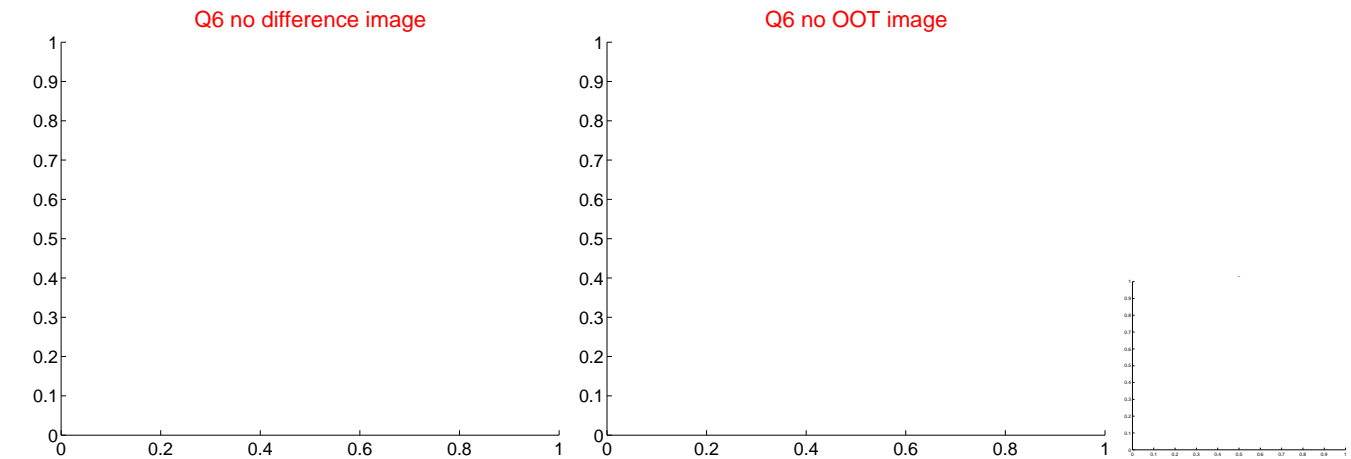
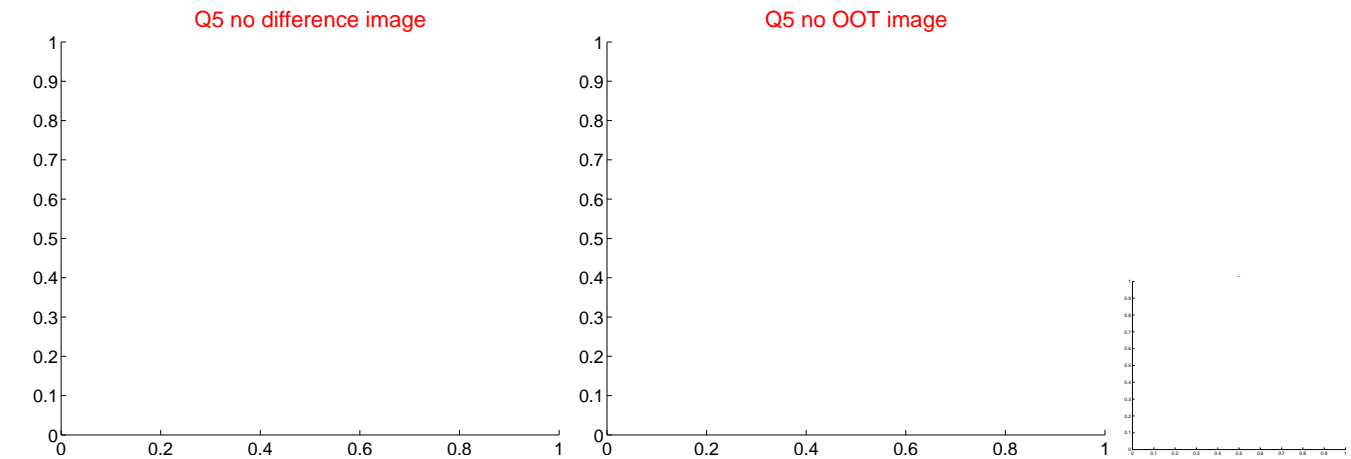


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

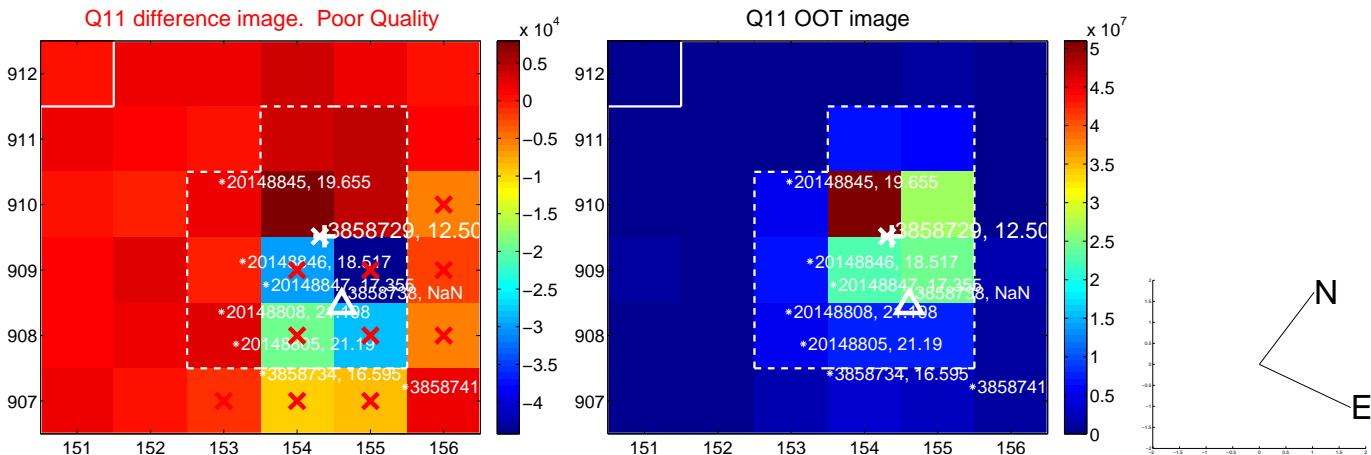
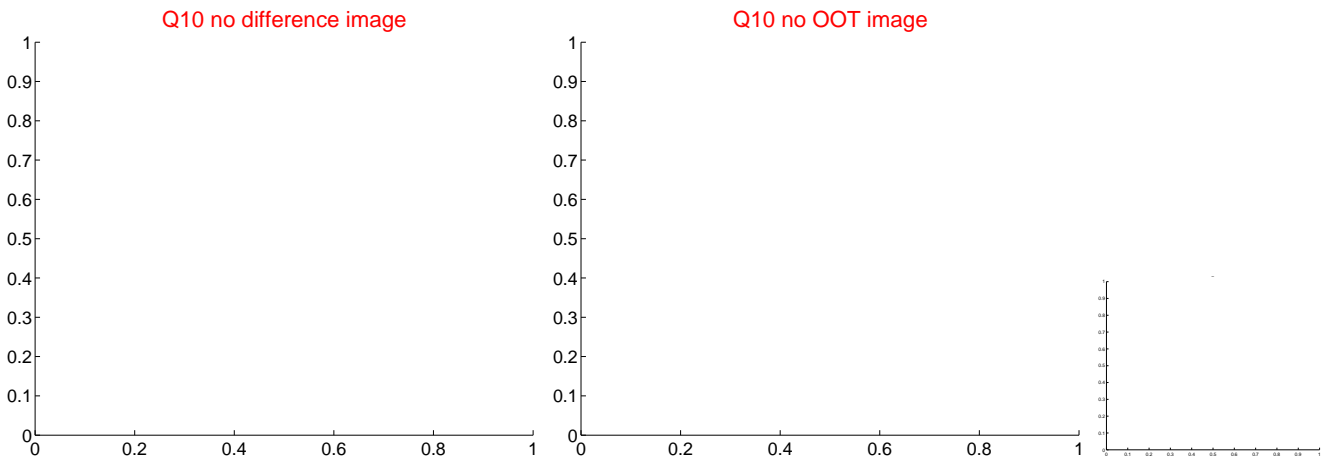
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



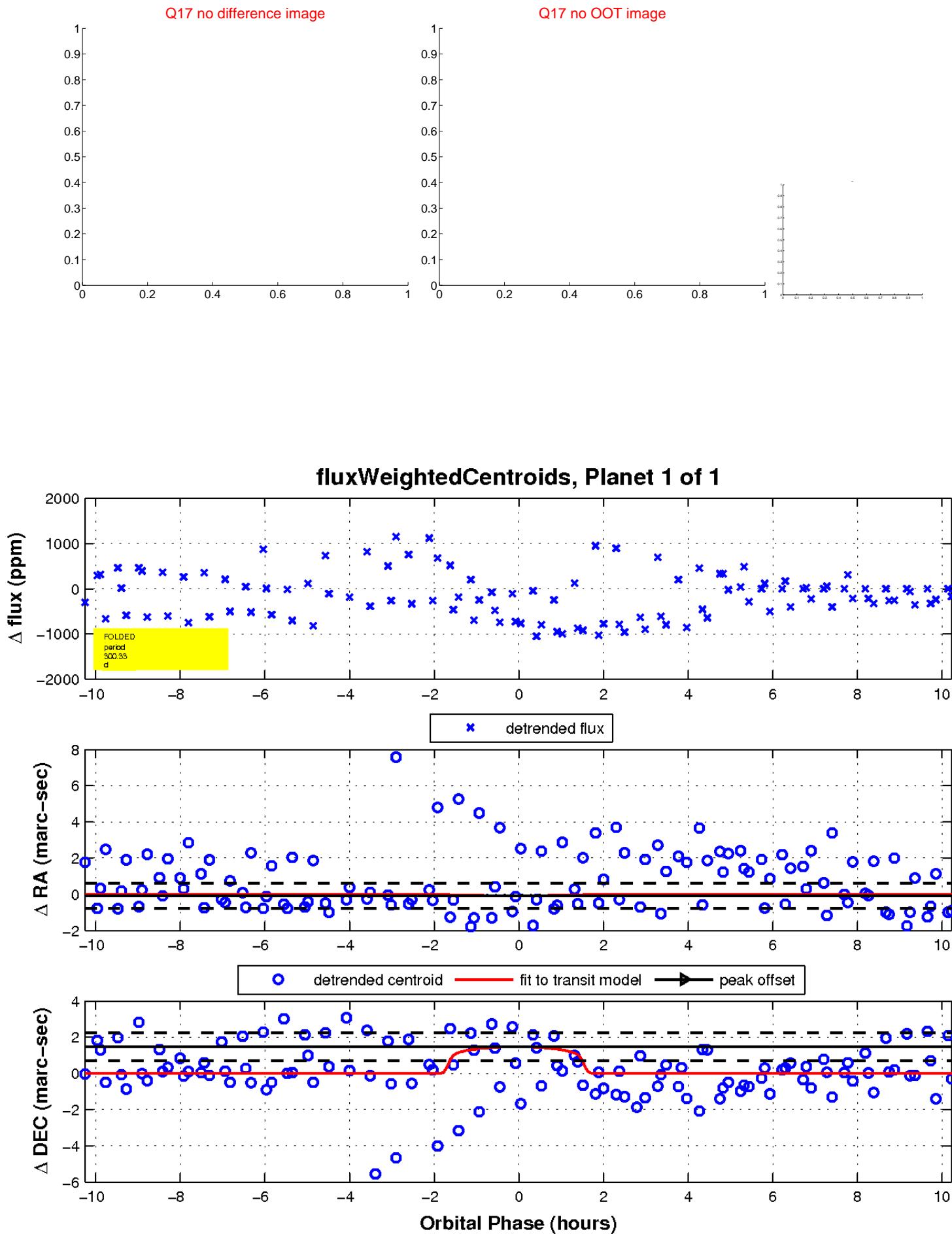
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

Declination

