

KIC 004726192

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})
004726192-01	OBS	No	315.126822	297.684814	980.3	4.033	10.3	5.9	0.52	3829	1.69	0.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004726192-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_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.

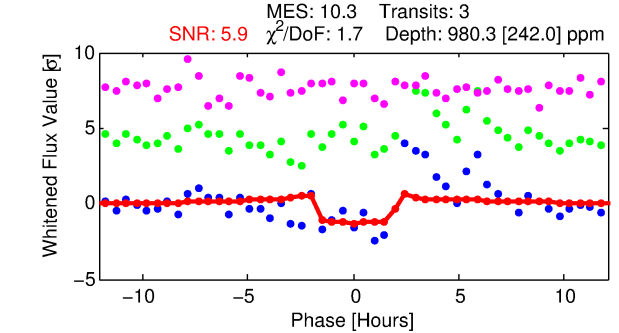
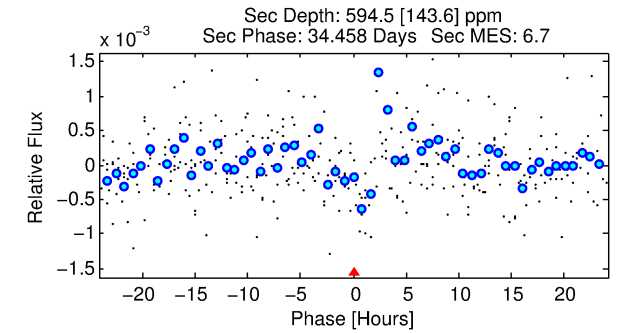
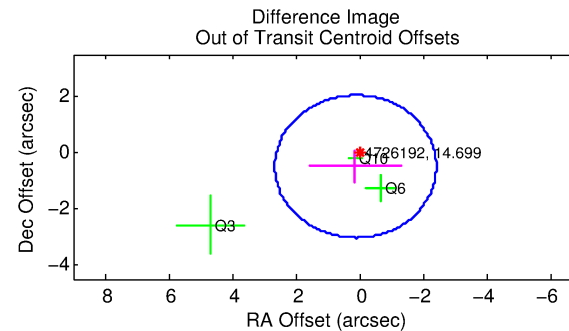
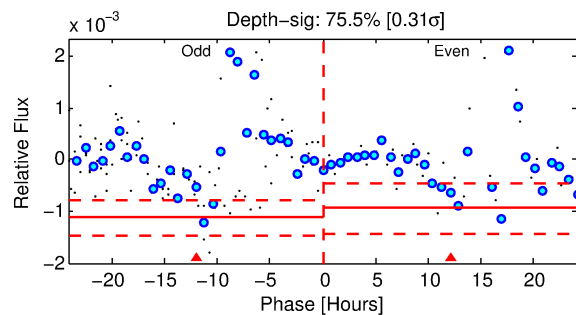
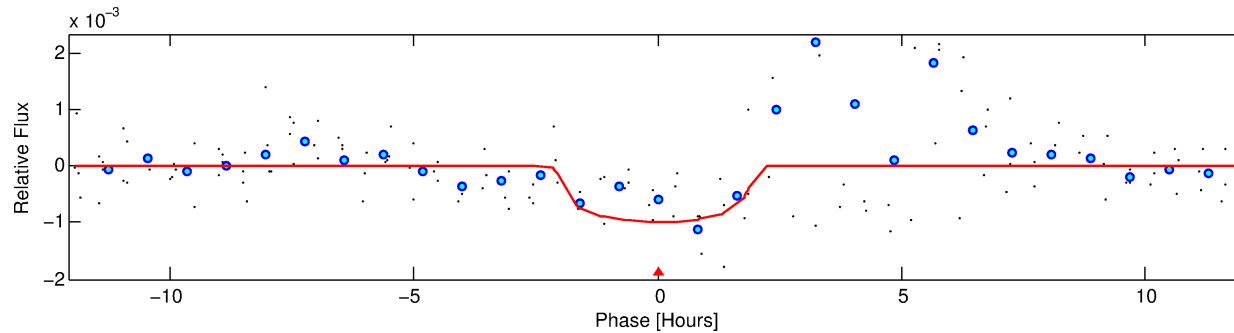
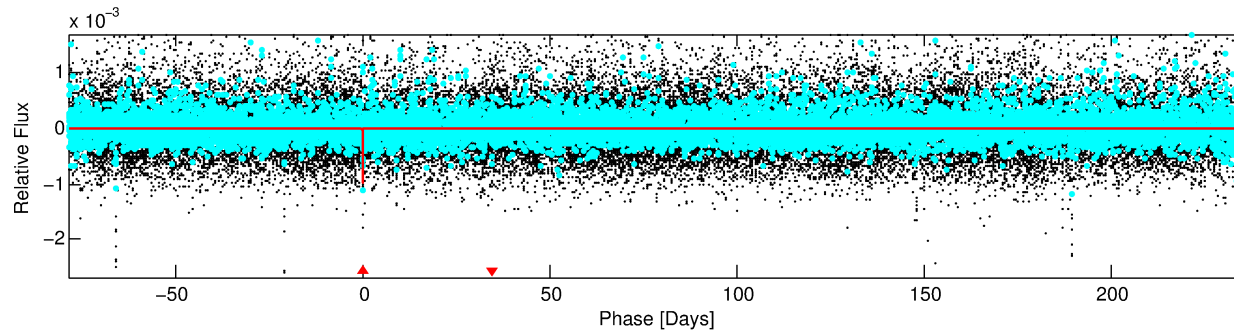
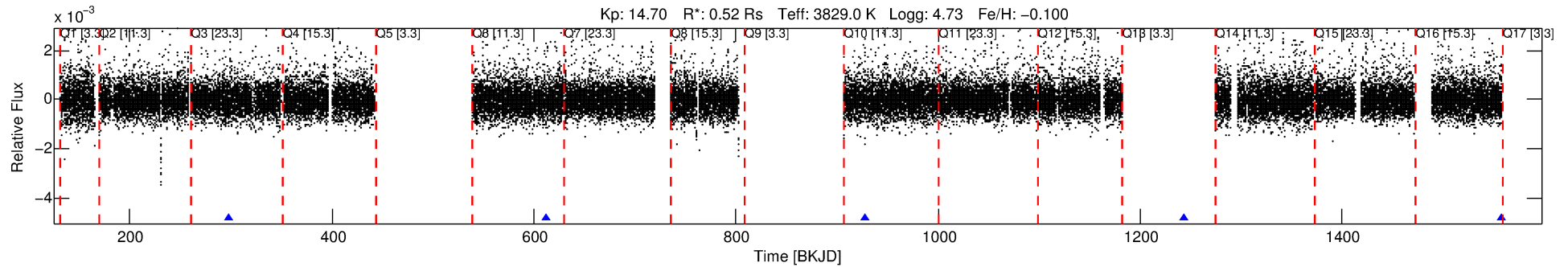
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004726192-01

No Significant Match Found

DV One-Page Summary

KIC: 4726192 Candidate: 1 of 1 Period: 315.127 d



DV Fit Results:

Period = 315.12682 [0.00968] d
Epoch = 297.6848 [0.0138] BKJD
Rp/R* = 0.0298 [0.0677]
a/R* = 505.62 [5036.94]
b = 0.59 [11.27]
Seff = 0.10 [0.01]
Teq = 142 [3] K
Rp = 1.68 [3.83] Re
a = 0.7336 [0.0288] AU
Ag = 61993.04 [282381.70] [0.22σ]
Teffp = 3466 [3947] K [0.84σ]

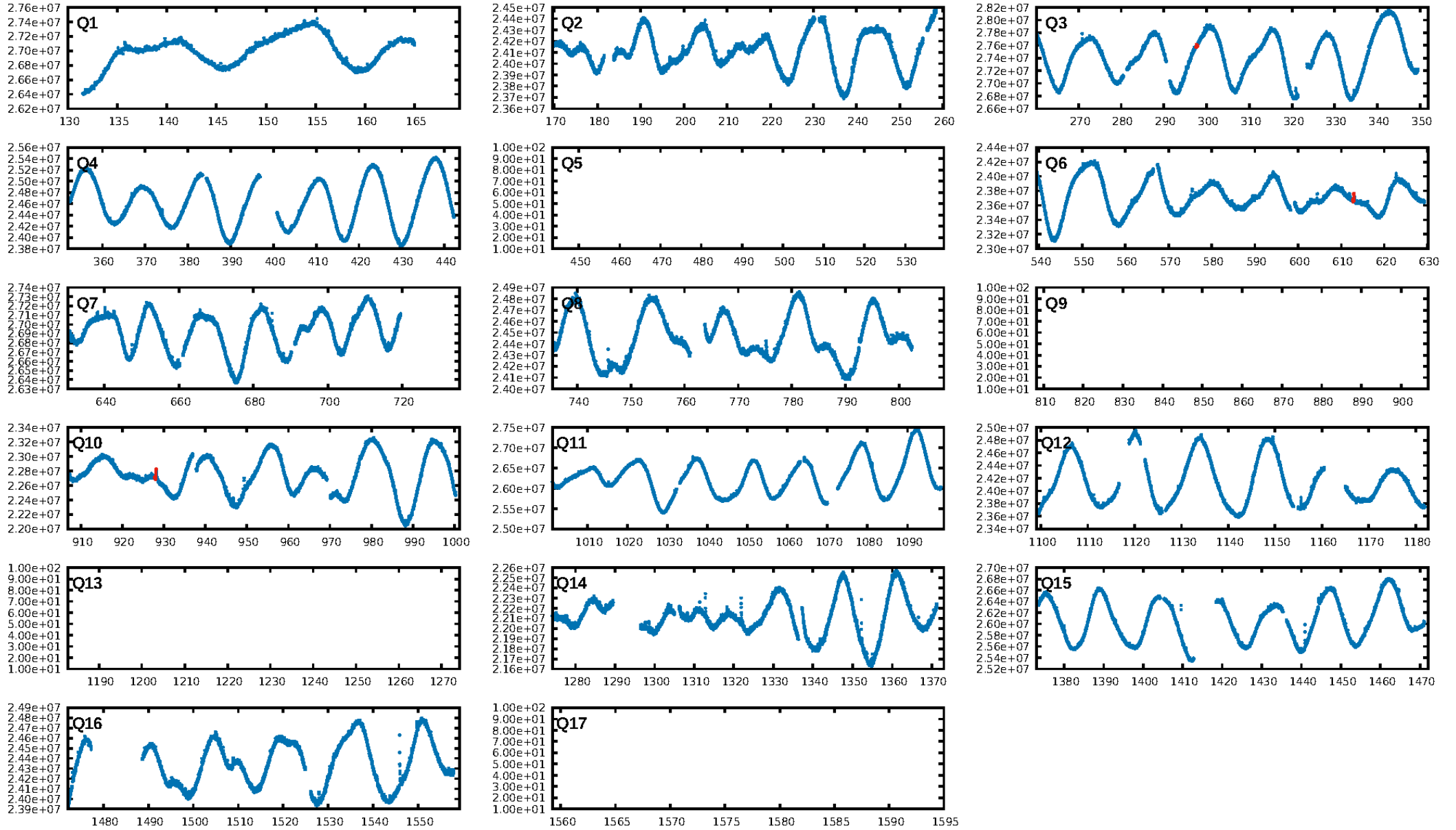
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.7%
ModelChiSquareGof-sig: 27.2%
Bootstrap-pfa: 5.26e-13
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.4111
Centroid-sig: 81.5%
Centroid-so: 0.361 arcsec [0.27σ]
OotOffset-rm: 0.510 arcsec [0.60σ]
OotOffset-st: 2/1/0/0 [3]
KicOffset-rm: 0.656 arcsec [1.30σ]
KicOffset-st: 2/1/0/0 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

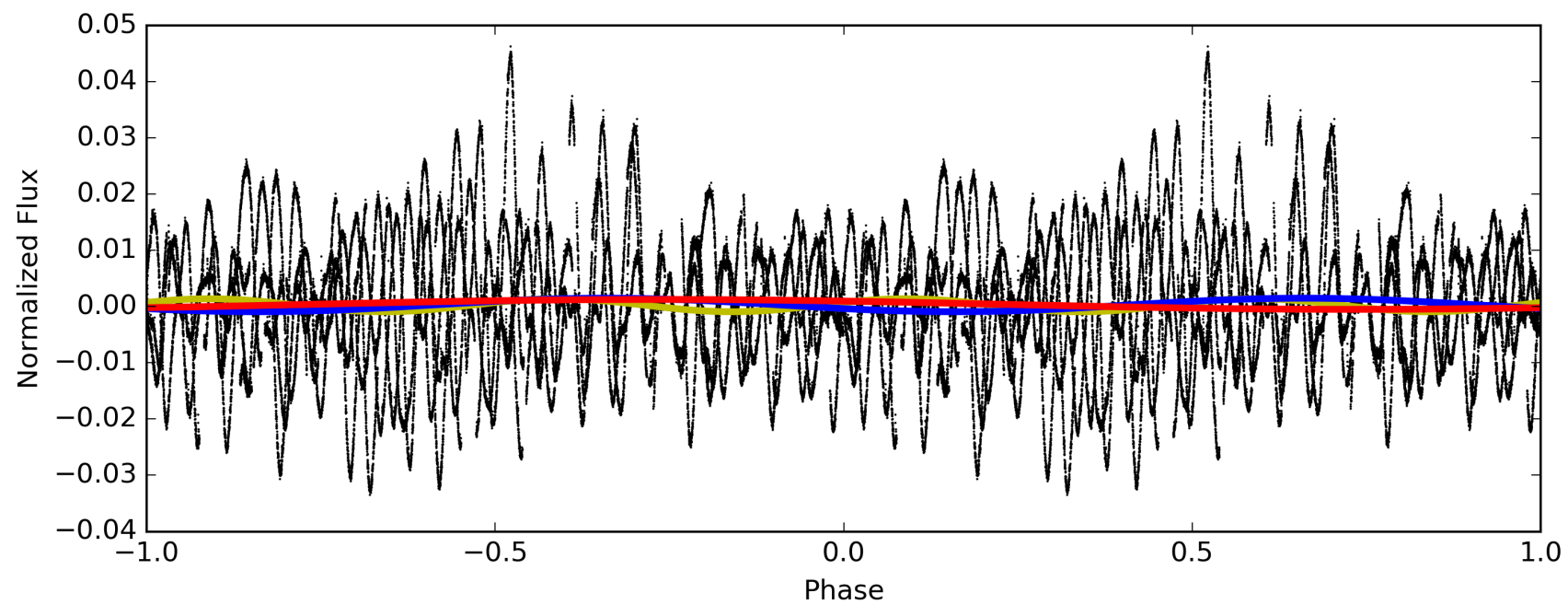
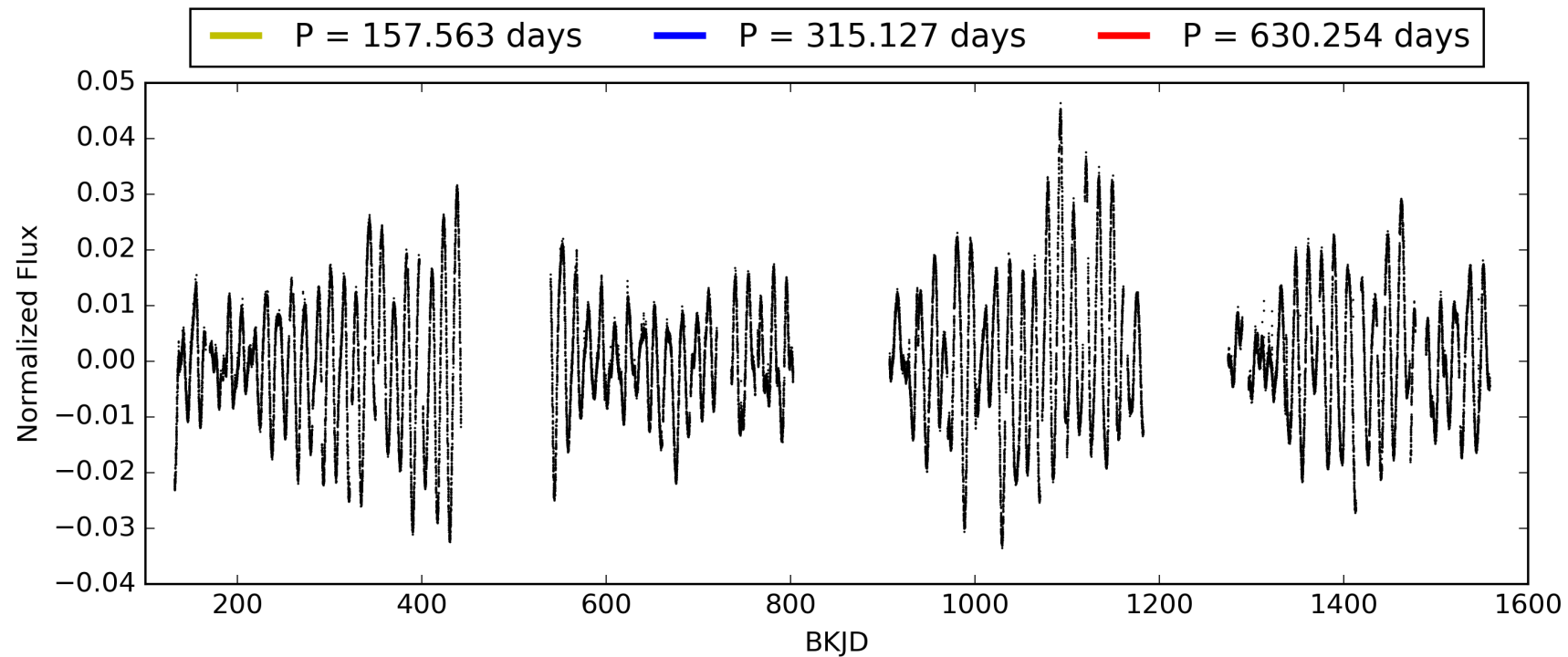
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:29:32 Z

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

TCE 004726192-01, PDC Light Curves

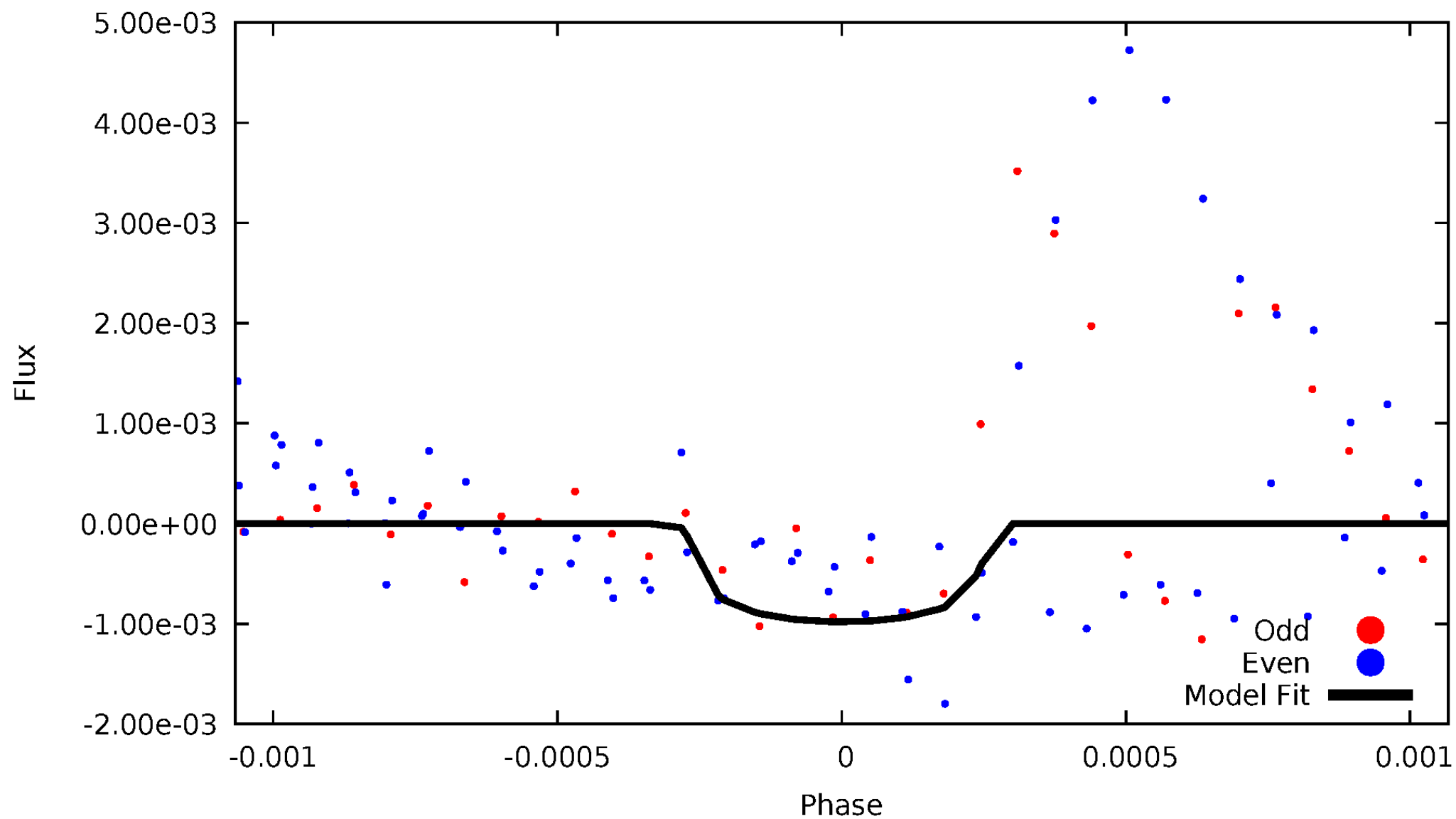


TCE 004726192-01



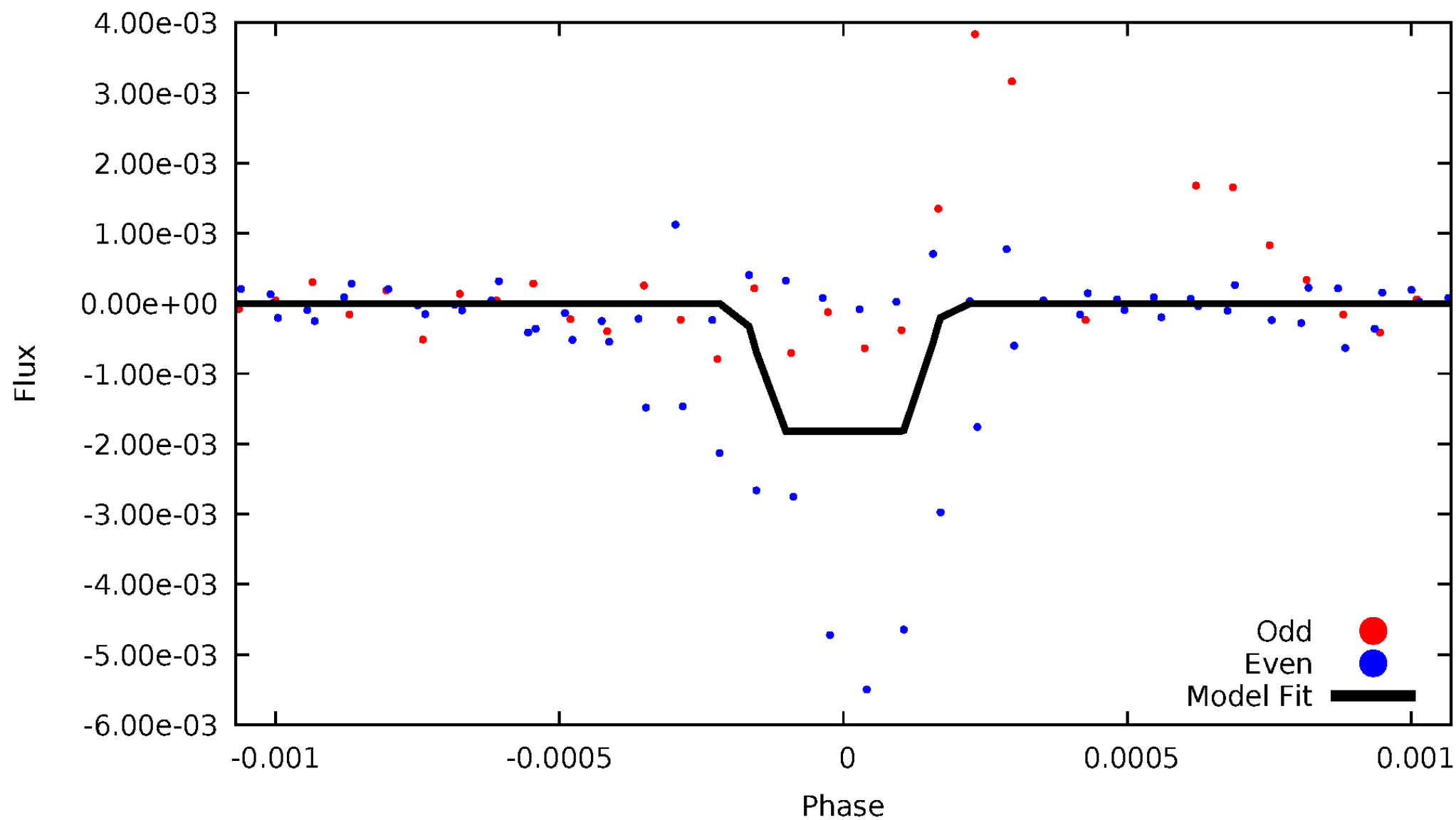
DV Odd/Even

TCE 004726192-01



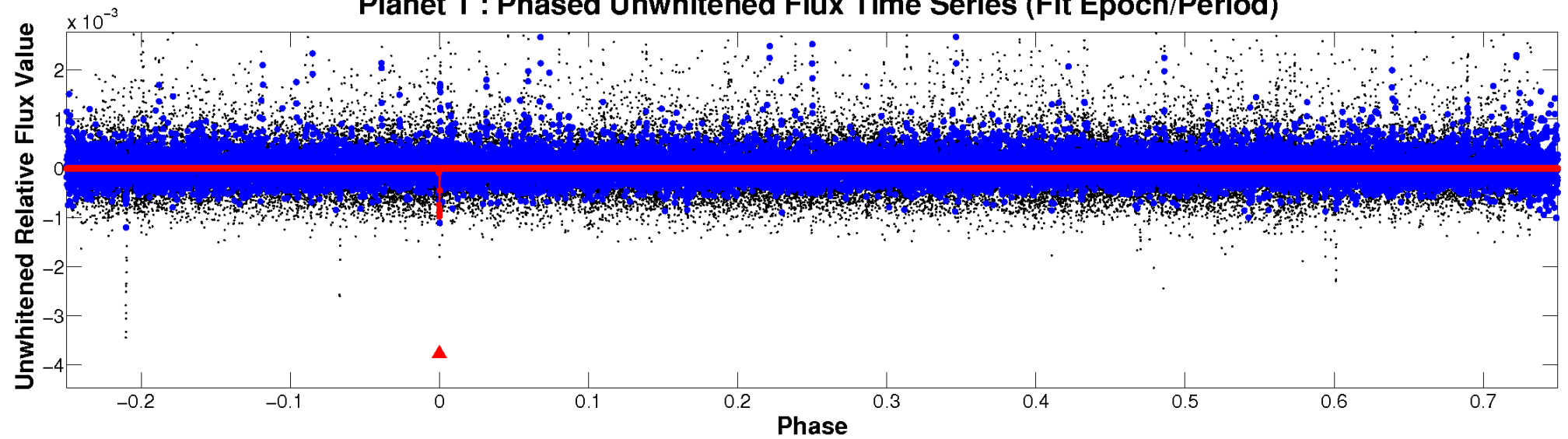
ALT Odd/Even

TCE 004726192-01

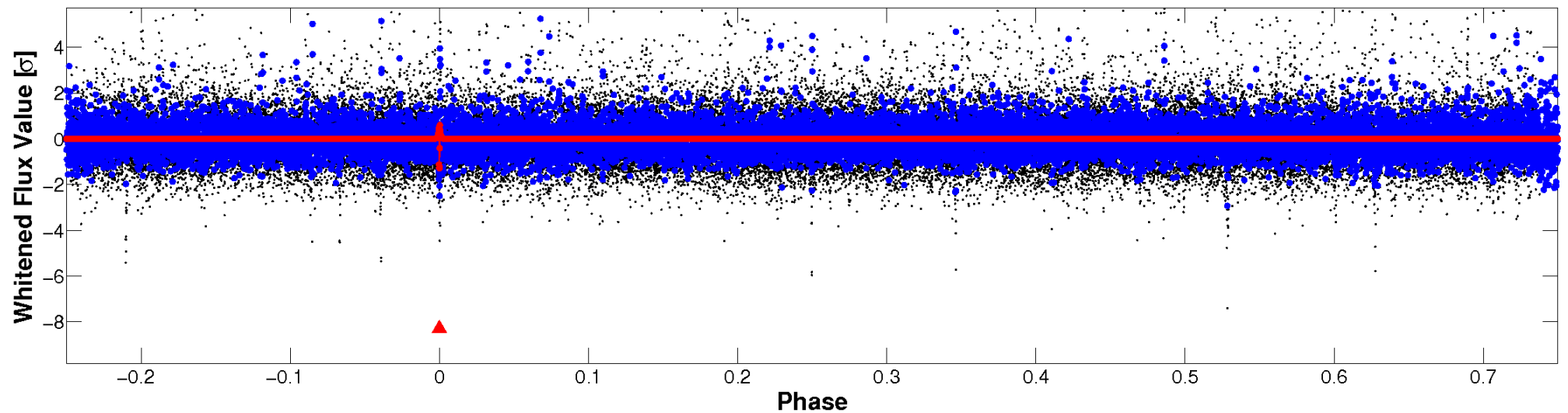


Non-Whitened Vs. Whitened Light Curve

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

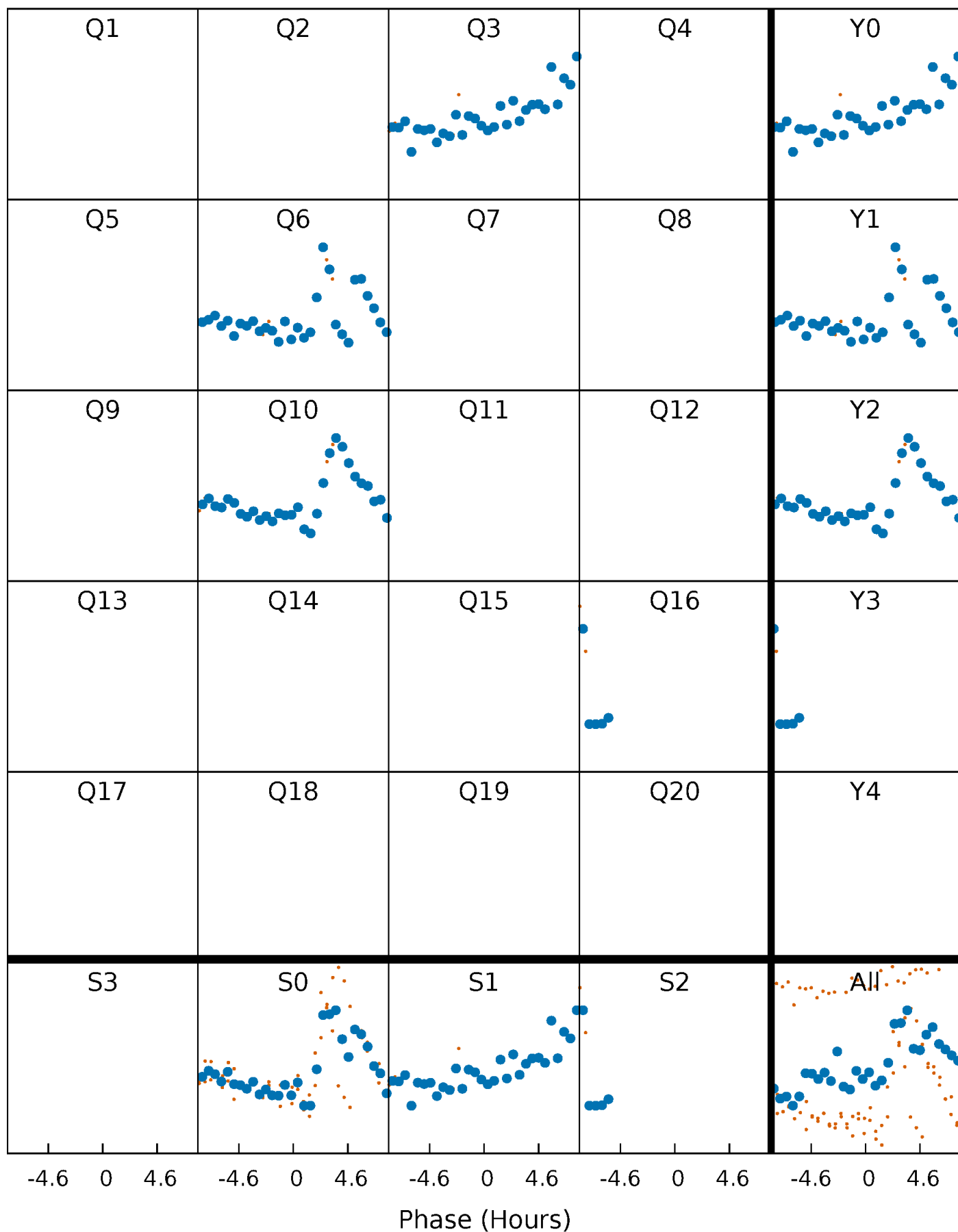


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



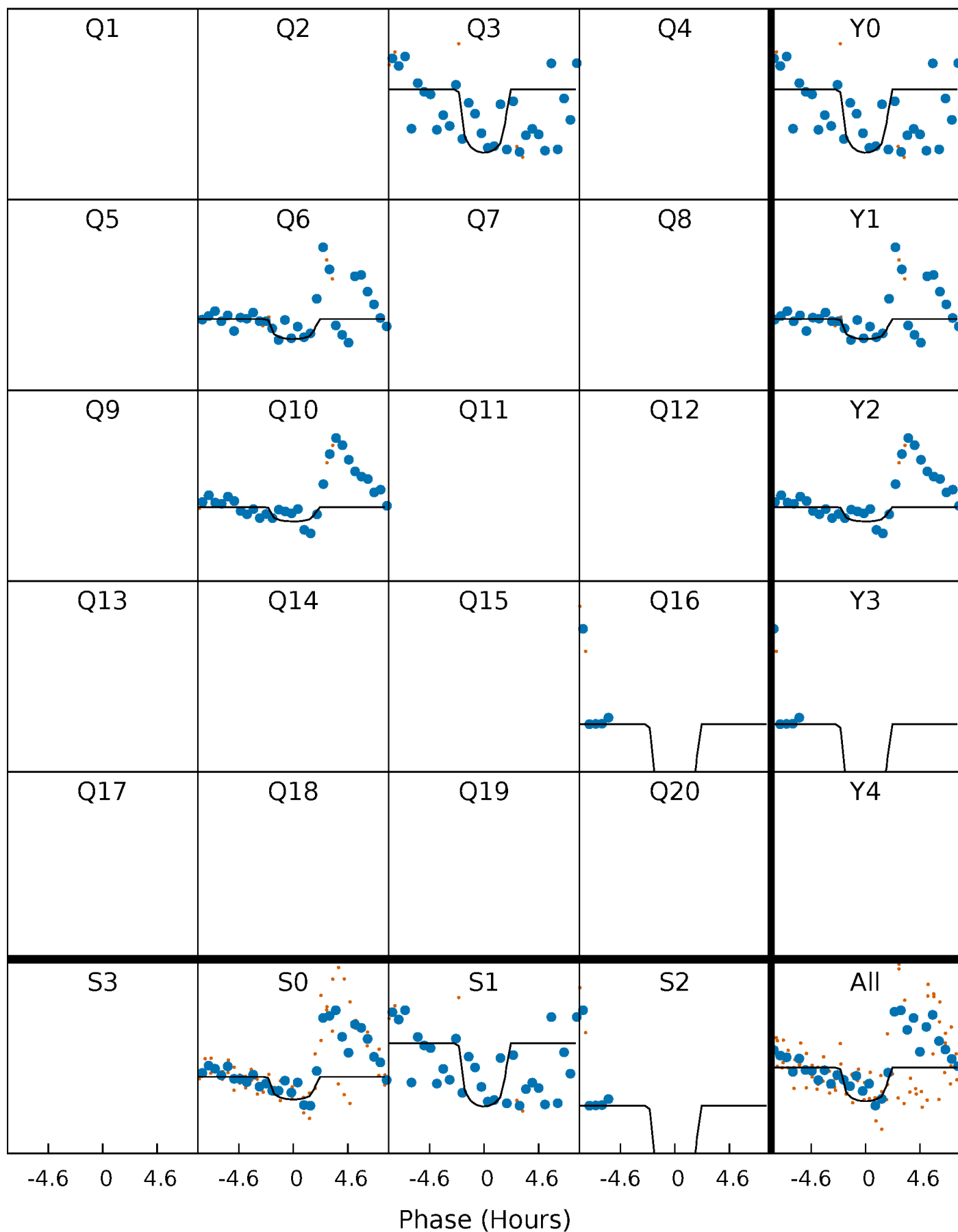
PDC Quarter-Phased Transit Curves

TCE 004726192-01 P=315.126822 Days $T_0=297.684814$ (BKJD)



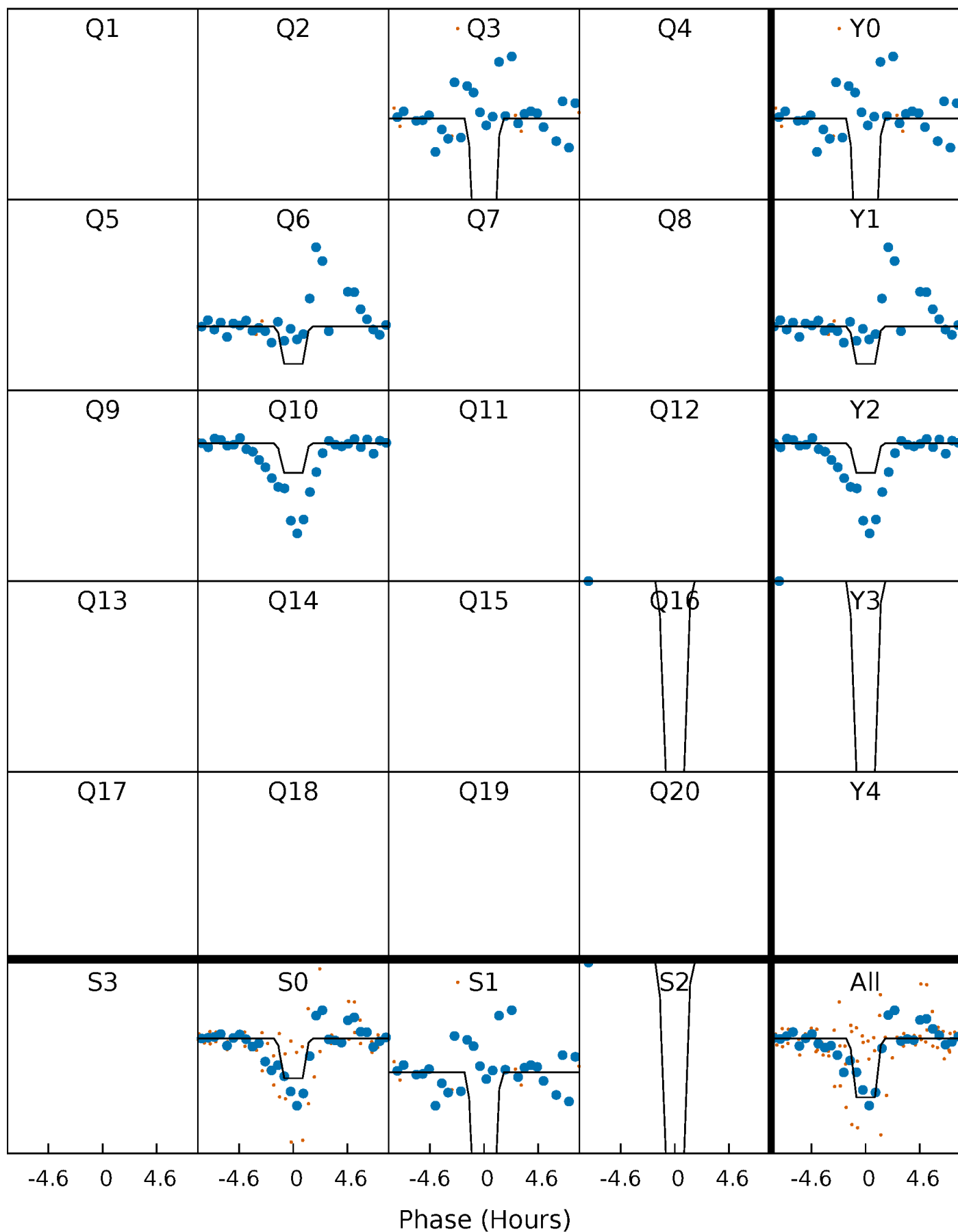
DV Quarter-Phased Transit Curves

TCE 004726192-01 P=315.126822 Days $T_0=297.684814$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

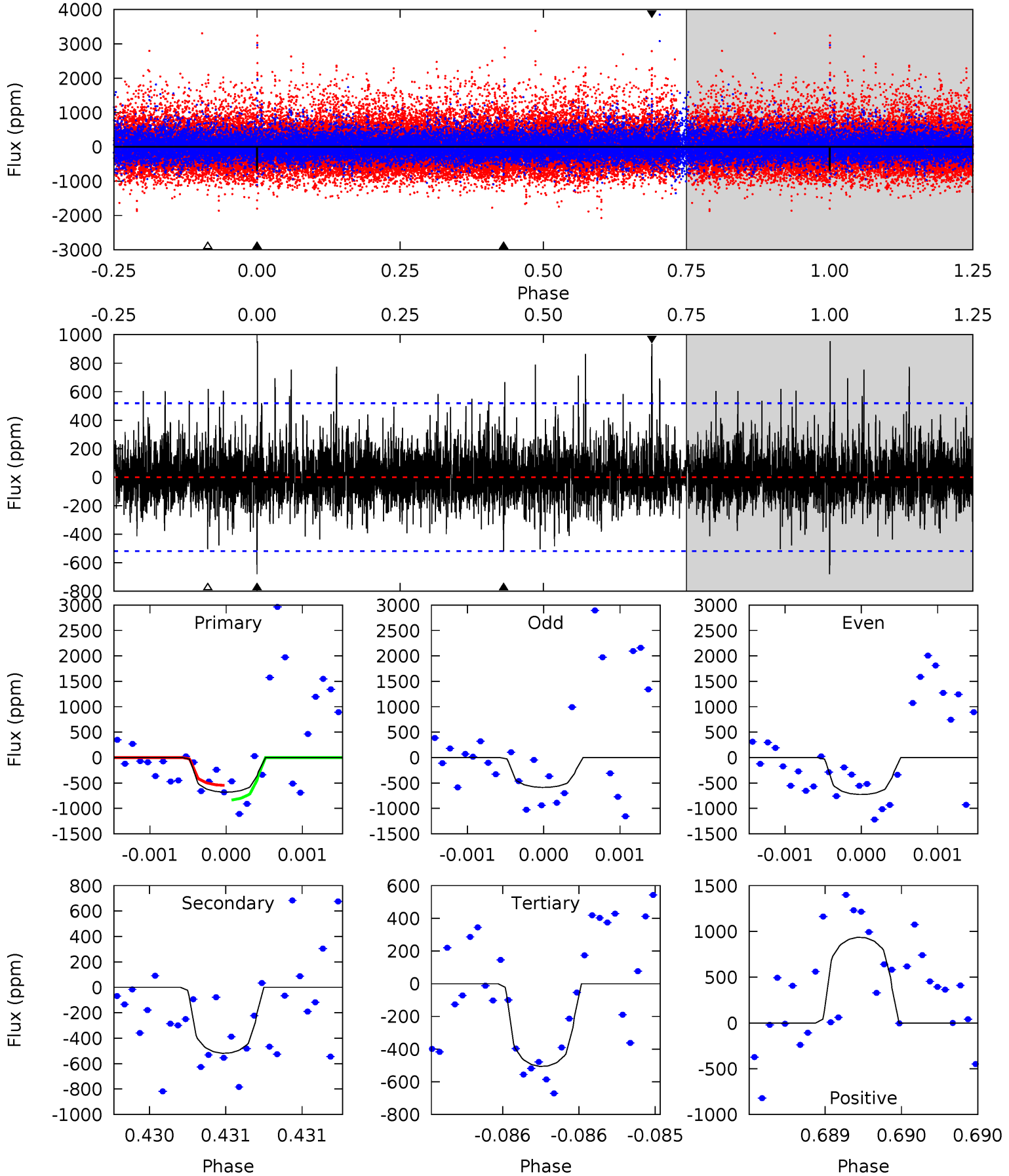
TCE 004726192-01 P=315.146796 Days $T_0=297.689106$ (BKJD)



DV Model-Shift Uniqueness Test

004726192-01, P = 315.126822 Days, E = 297.684814 Days

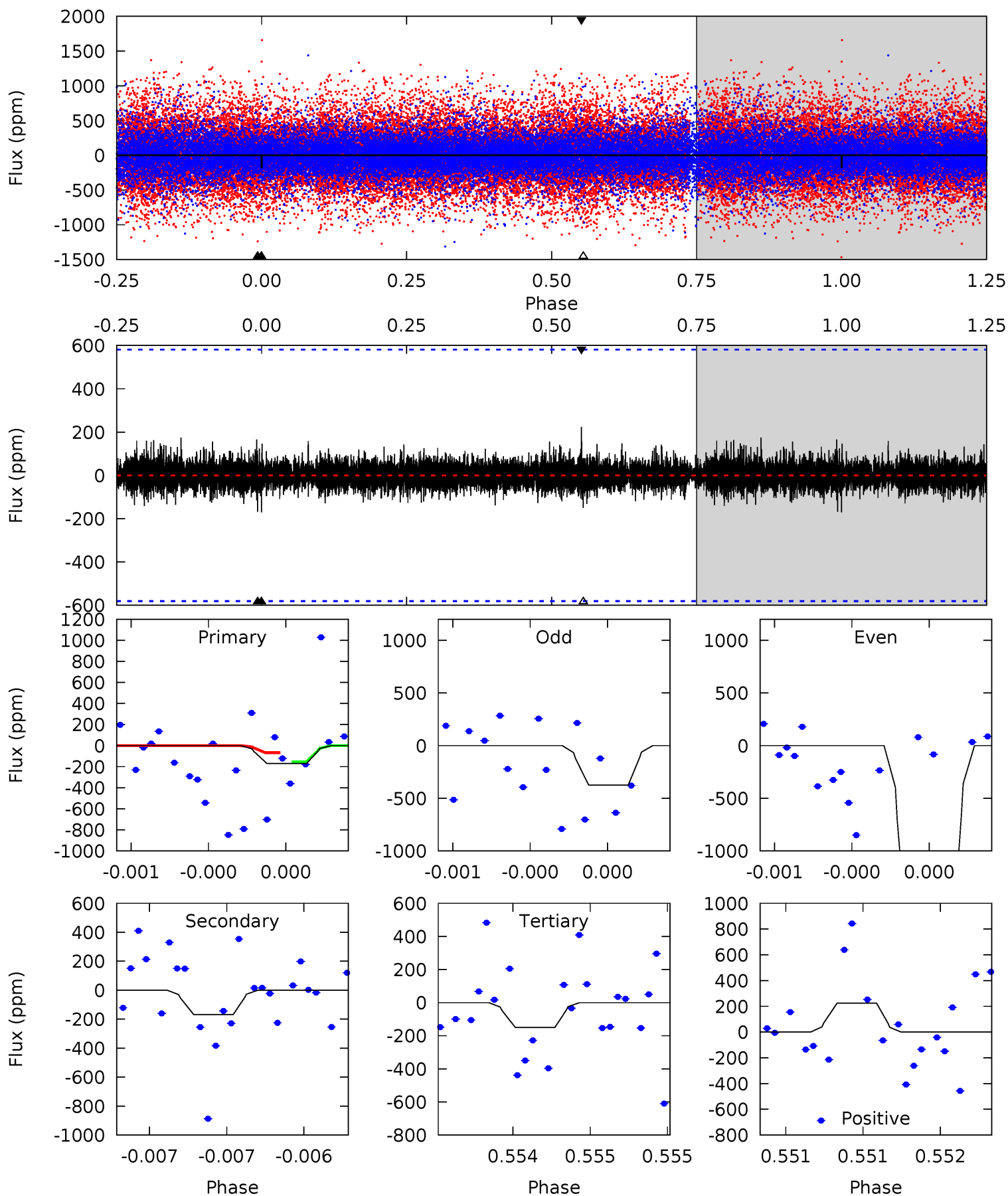
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.27	5.54	5.41	10.00	5.55	3.44	1.56	1.87	-2.72	0.14	-4.45	0.67	1.01	0.58	1.54



Alt Model-Shift Uniqueness Test

004726192-01, P = 315.146796 Days, E = 297.689106 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.65	1.62	1.45	2.16	5.62	3.55	0.35	0.20	-0.51	0.17	-0.54	9.91	4.25	0.57	0



Stellar Parameters For KIC 004726192

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3829^{+57}_{-51}	$4.732^{+0.027}_{-0.020}$	$-0.100^{+0.100}_{-0.100}$	$0.519^{+0.023}_{-0.026}$	$0.529^{+0.024}_{-0.024}$	$5.344^{+0.642}_{-0.423}$
	+1%/-1%	+1%/-0%	+100%/-100%	+4%/-5%	+5%/-5%	+12%/-8%
Source	PHO2	PHO2	PHO2	DSEP		

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

Secondary Eclipse Parameters for KIC 004726192-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-519 ± 94	$3.42^{+3.06}_{-2.31}$	199^{+3}_{-4}	2844^{+1153}_{-434}	$12773^{+109077}_{-9298}$
Alt.	-168 ± 103	$3.57^{+3.44}_{-2.38}$	198^{+4}_{-3}	2379^{+824}_{-423}	3115^{+25786}_{-2582}

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 $A_{obs} \gg 1.0$

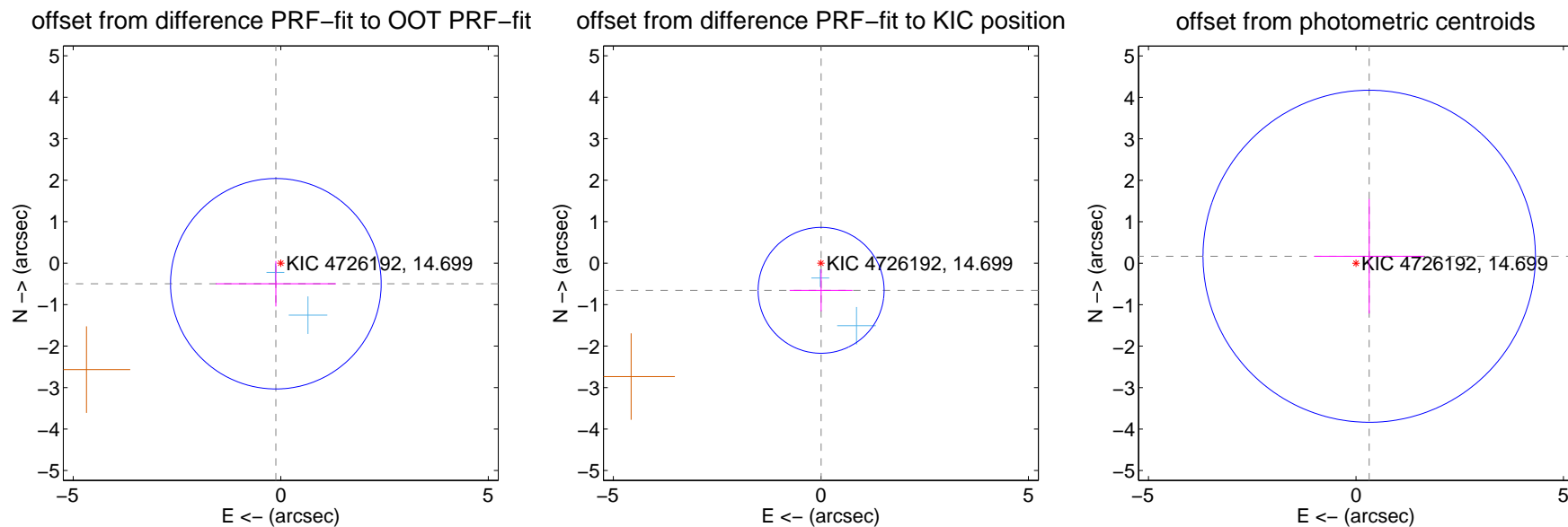
DV Centroid Data

Supplemental centroid analysis for 004726192-01. Kepler magnitude: 14.70. Transit SNR 5.93

There are 2 quarters with good PRF difference image offsets

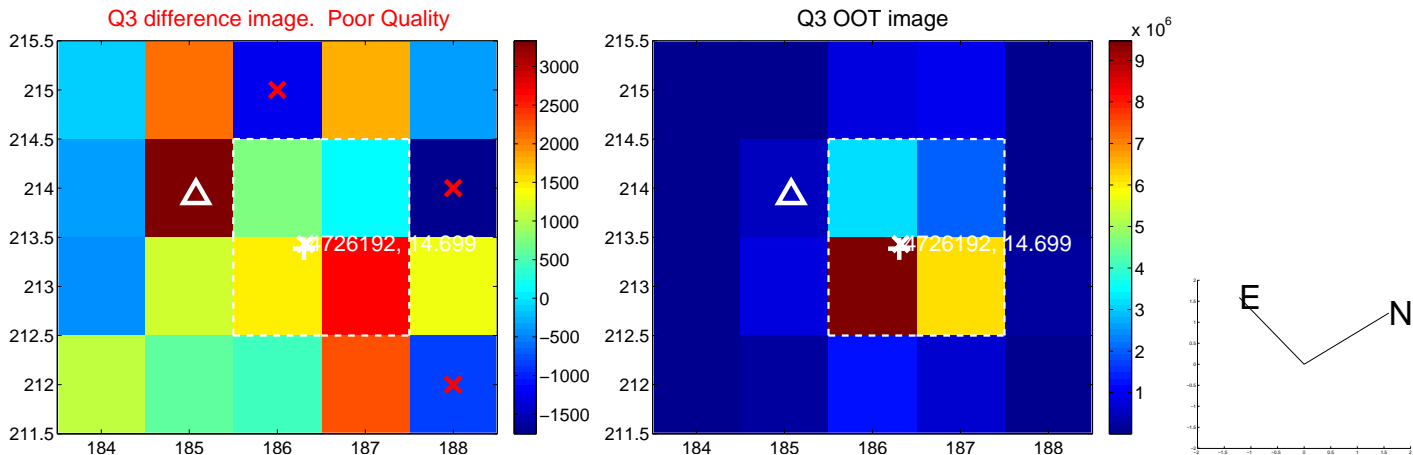
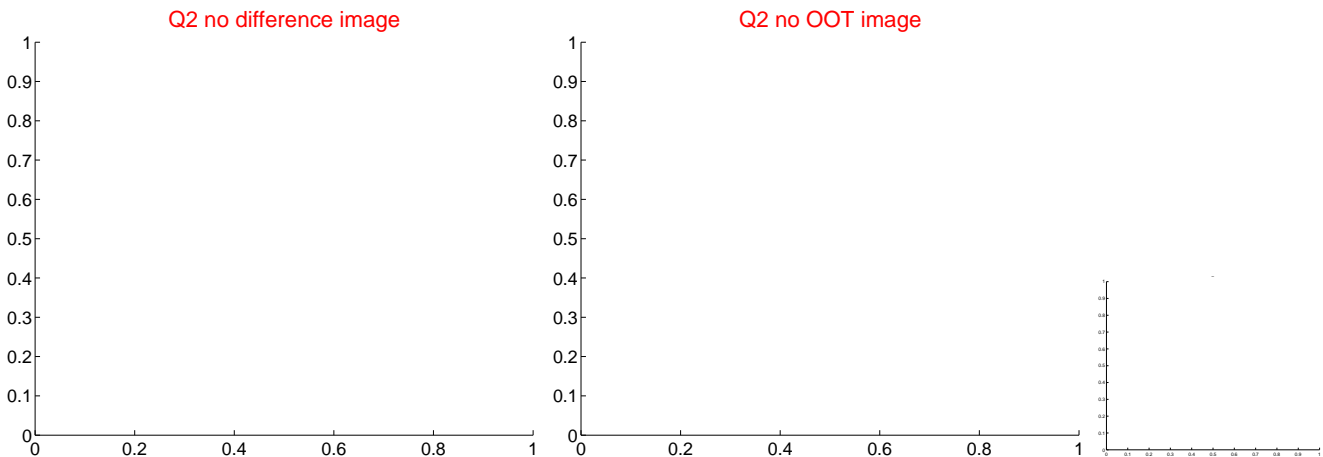
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.510 ± 0.846	0.60	0.118 ± 1.448	-0.496 ± 0.548
PRF-fit source offset from KIC position	0.656 ± 0.506	1.30	-0.006 ± 0.758	-0.656 ± 0.506
photometric centroid source offset	0.36 ± 1.33	0.27	-0.32 ± 1.32	0.17 ± 1.38

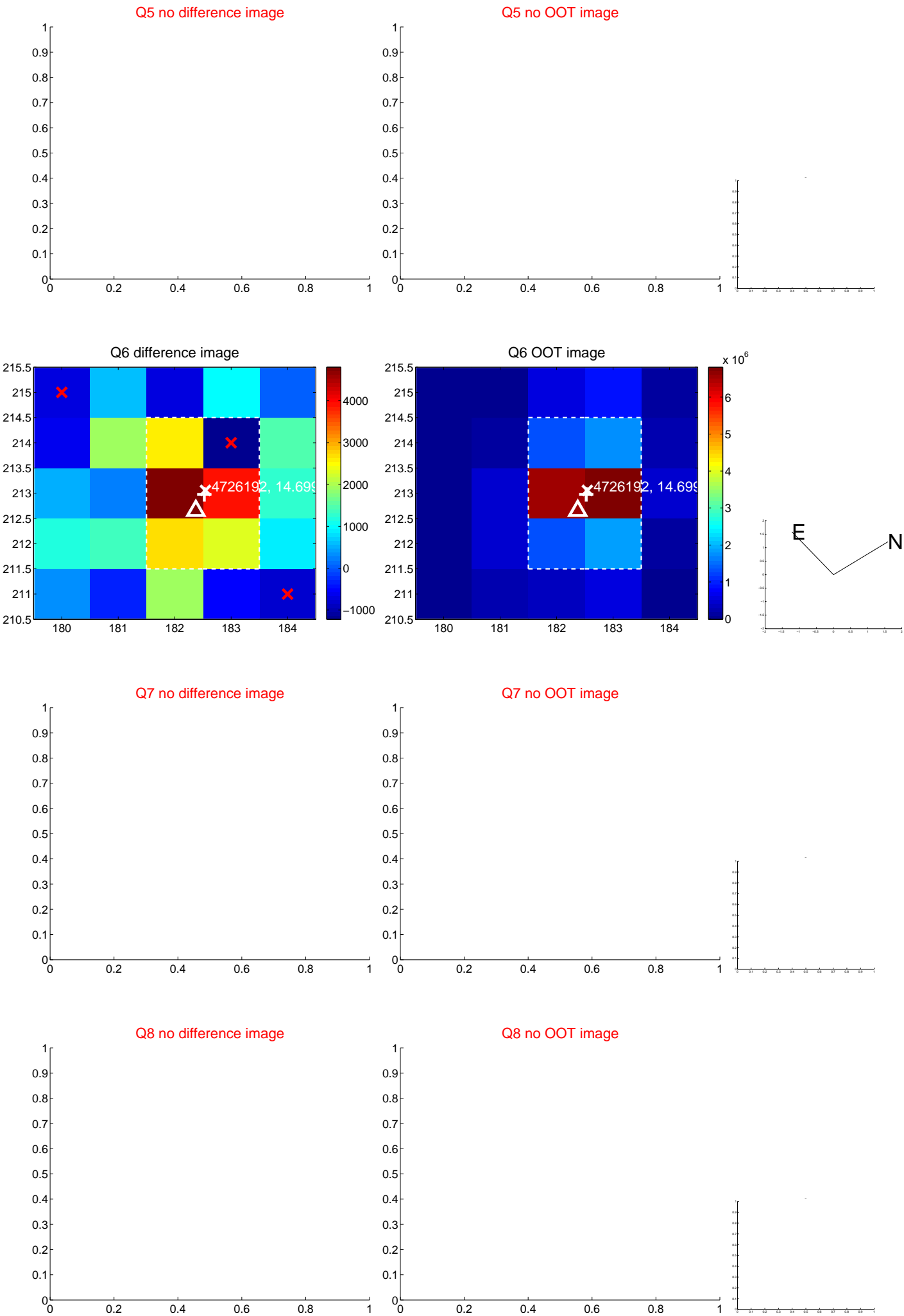


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

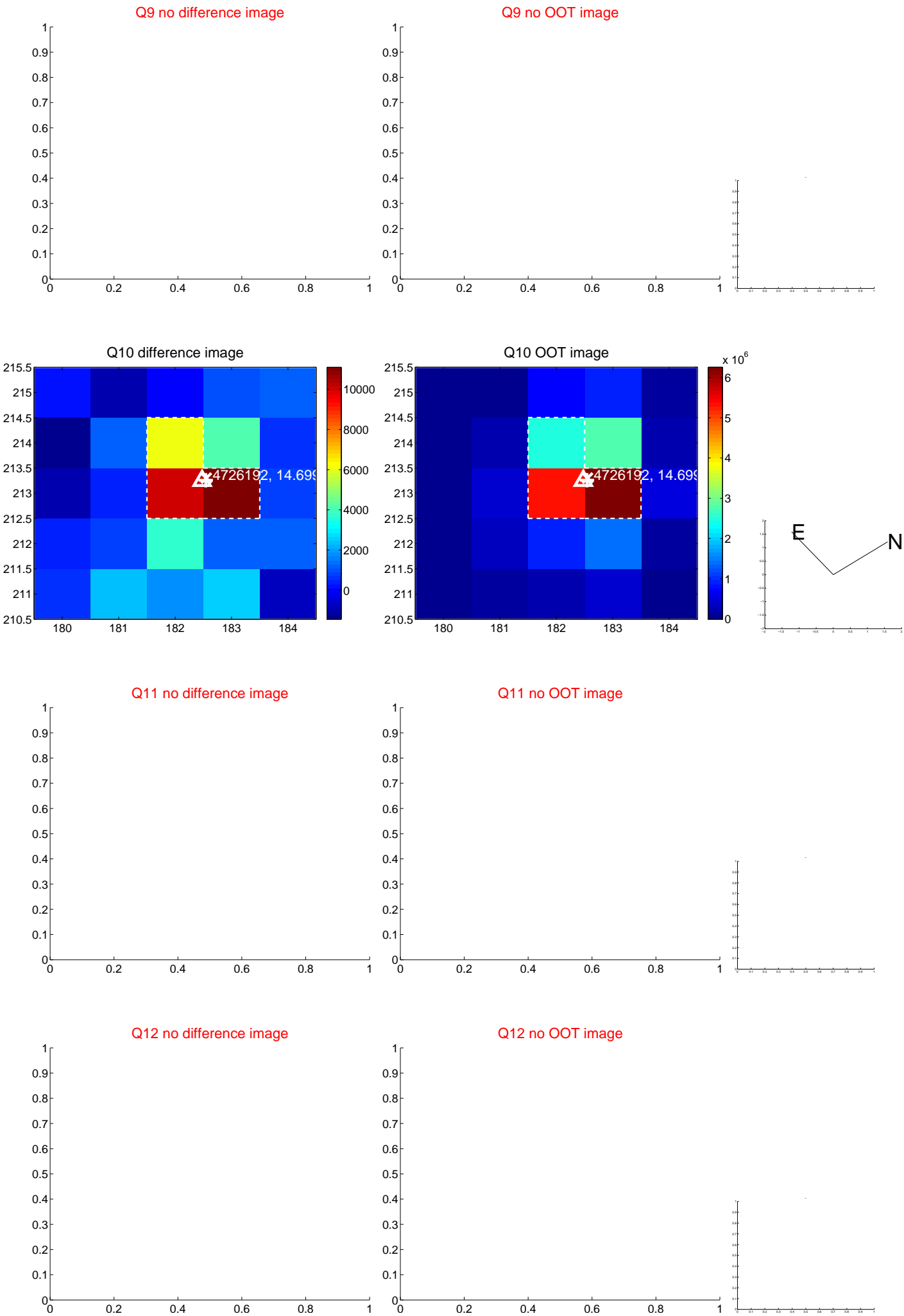
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



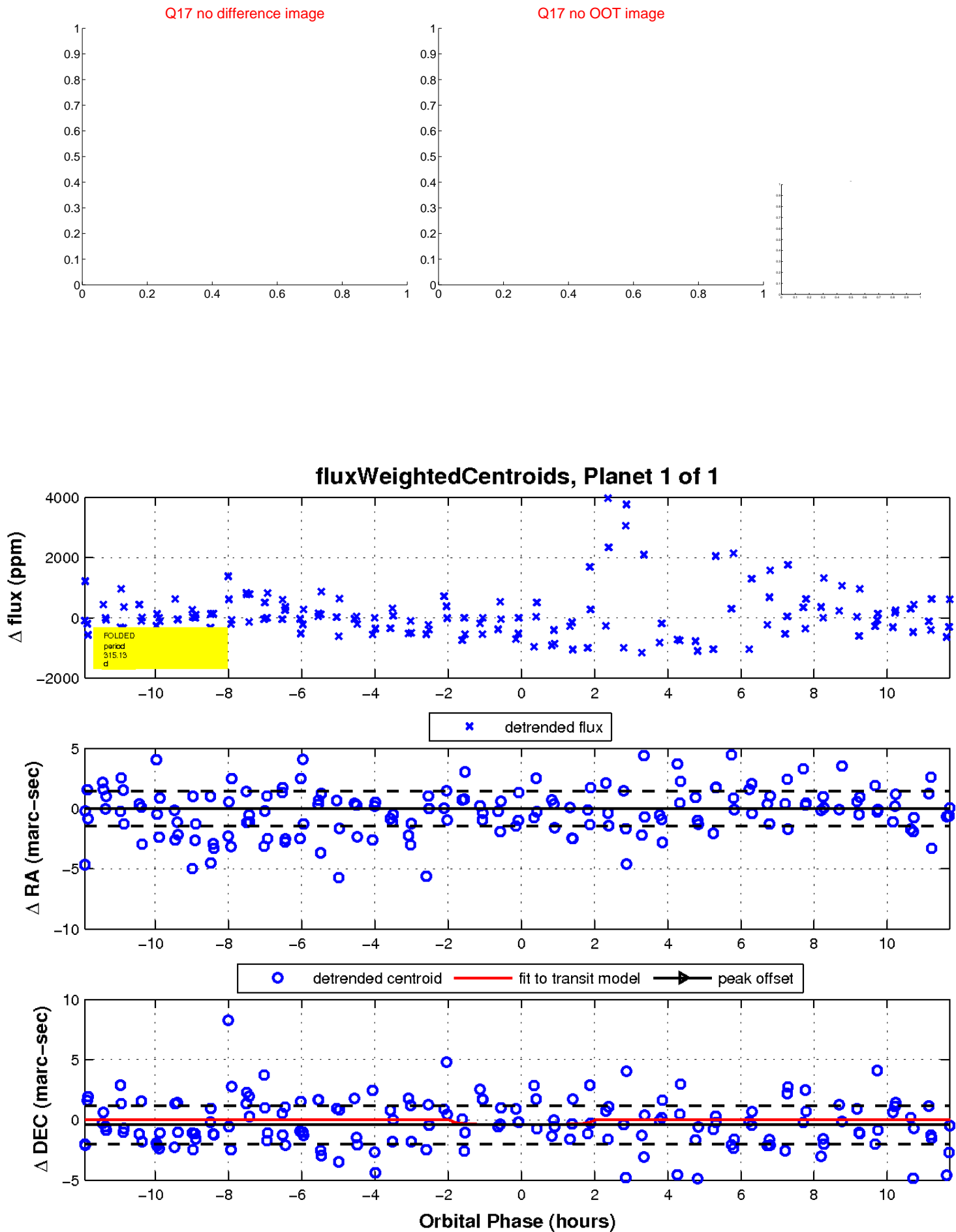
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

