

KIC 011615258

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})
011615258-01	OBS	5922.01	367.074601	182.838965	378.2	6.035	7.8	7.7	1.12	6315	2.49	1.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011615258-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_SKYE—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT—CENT_FEW_MEAS

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

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

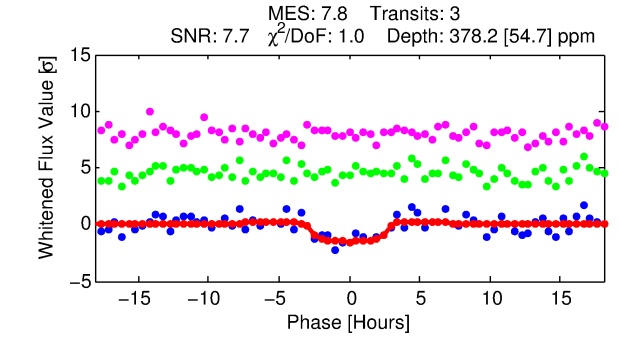
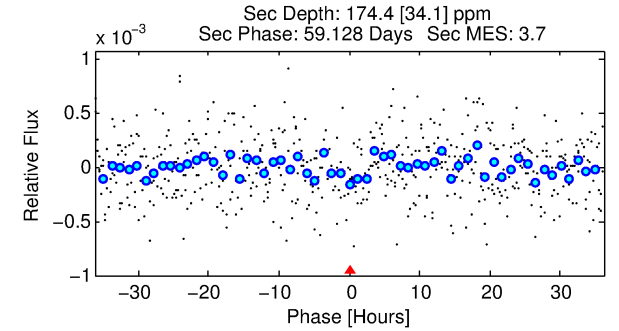
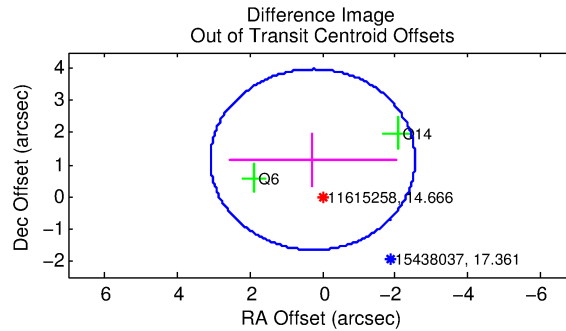
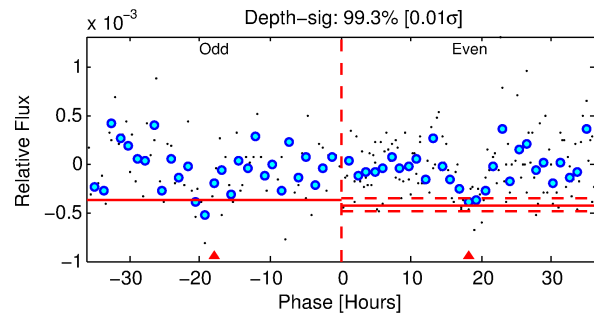
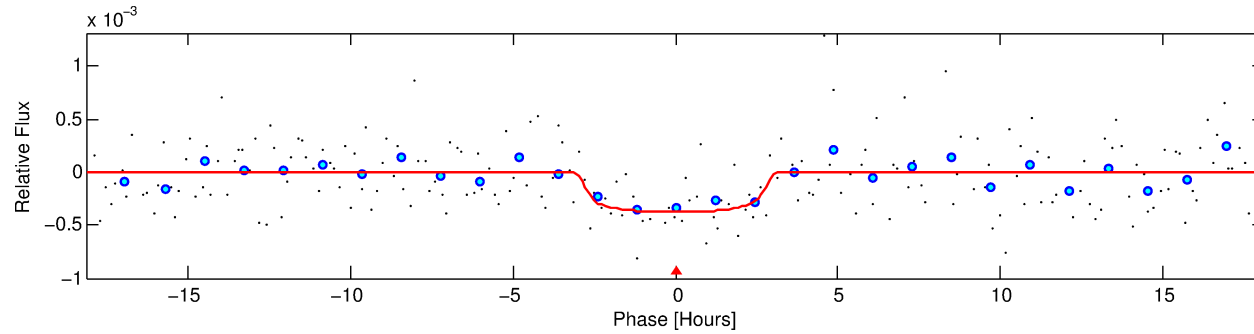
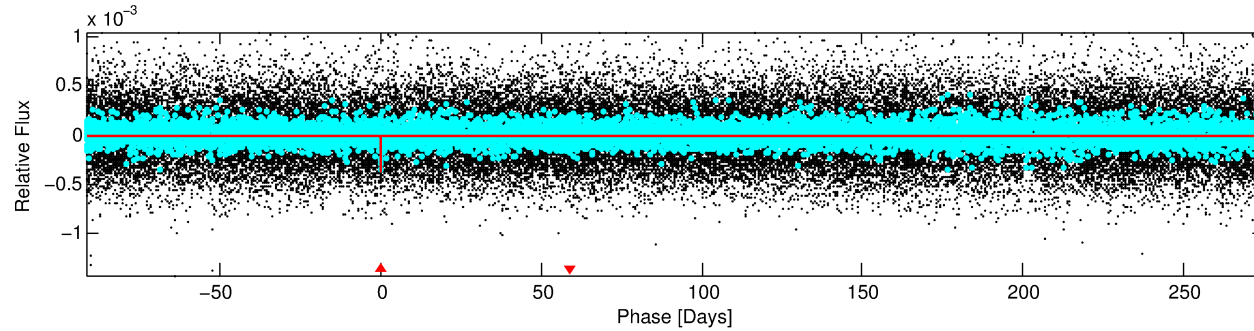
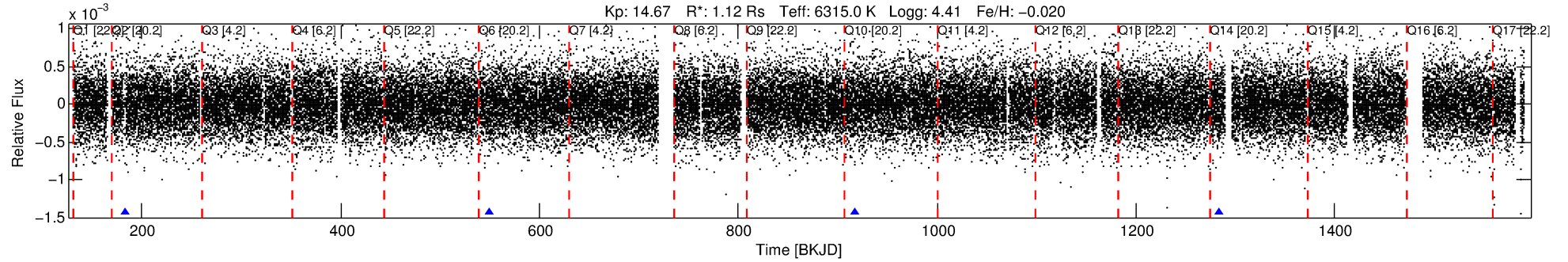
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011615258-01

No Significant Match Found

DV One-Page Summary

KIC: 11615258 Candidate: 1 of 1 Period: 367.075 d
KOI: K05922.01 Corr: 0.997



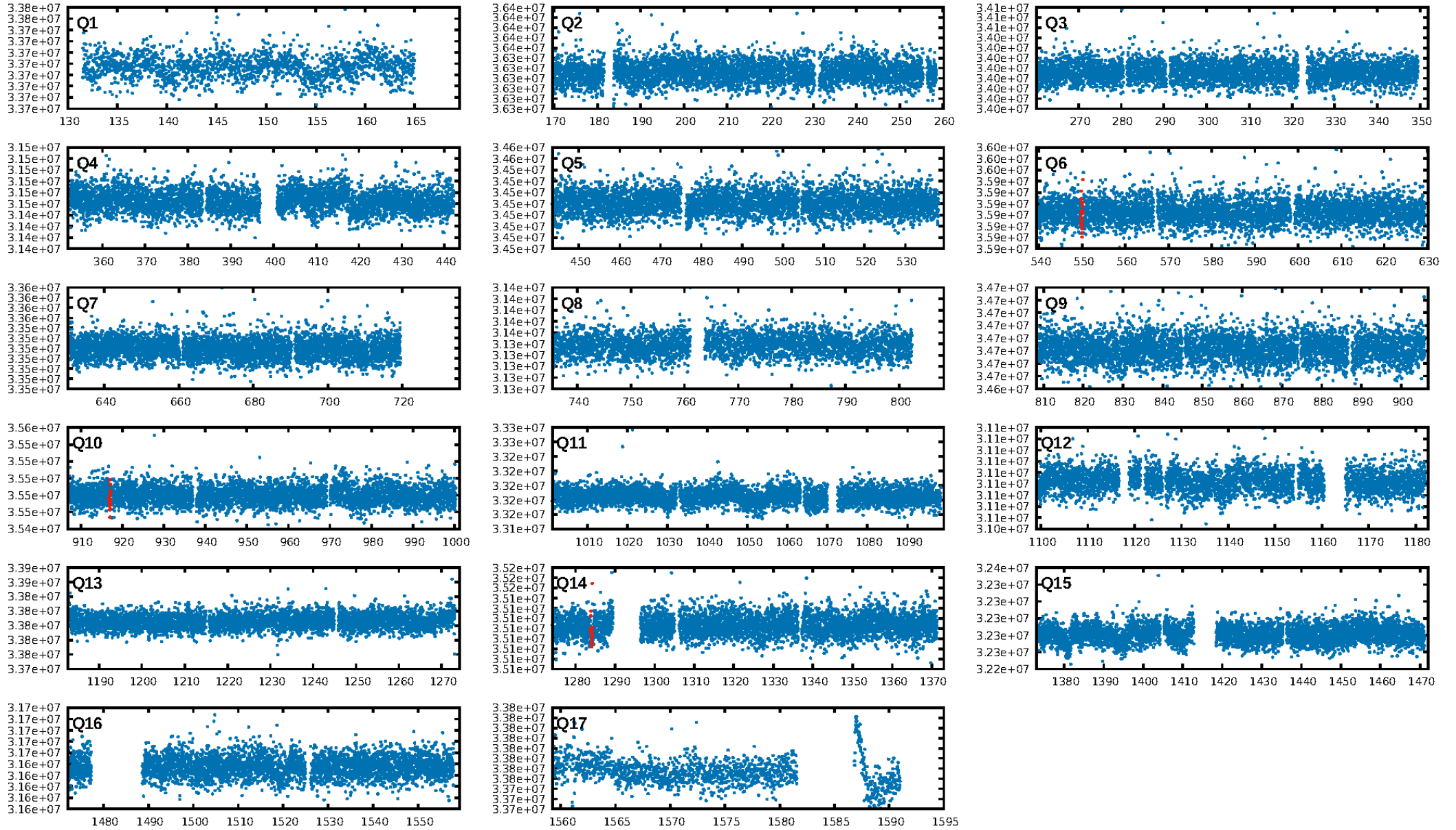
DV Fit Results:

Period = 367.07460 [0.01090] d
Epoch = 182.8390 [0.0255] BKJD
Rp/R* = 0.0205 [0.0100]
a/R* = 247.12 [641.56]
b = 0.87 [0.72]
Seff = 1.60 [0.67]
Teq = 287 [30] K
Rp = 2.49 [1.47] Re
a = 1.0543 [0.2913] AU
Ag = 17184.78 [18426.39] [0.93 σ]
Teff = 5074 [1273] K [3.76 σ]

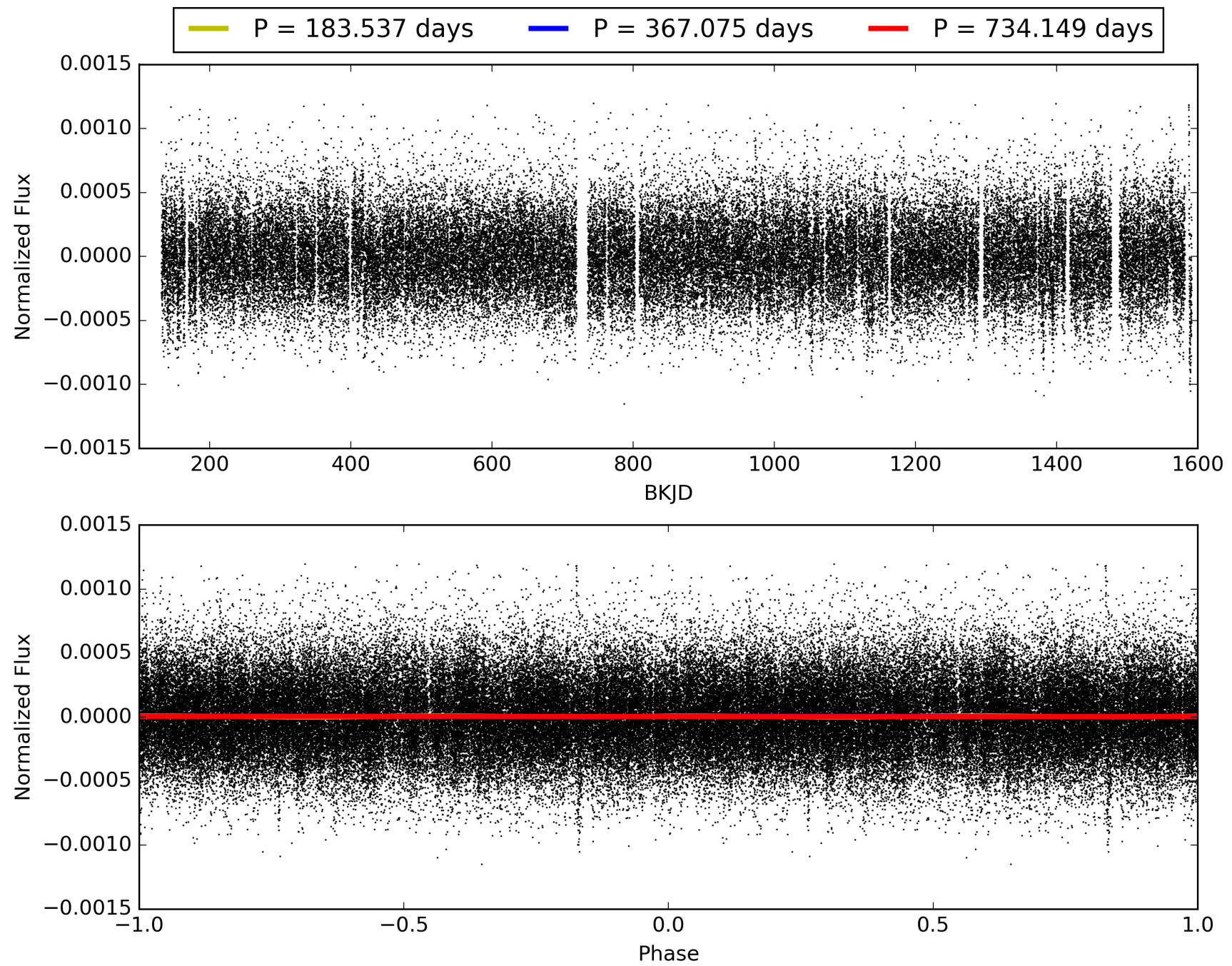
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 47.1%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 6.85e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.83
Centroid-sig: 8.7%
Centroid-so: 3.488 arcsec [1.21 σ]
OotOffset-rm: 1.188 arcsec [1.26 σ]
KicOffset-rm: 1.247 arcsec [1.46 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 011615258-01, PDC Light Curves

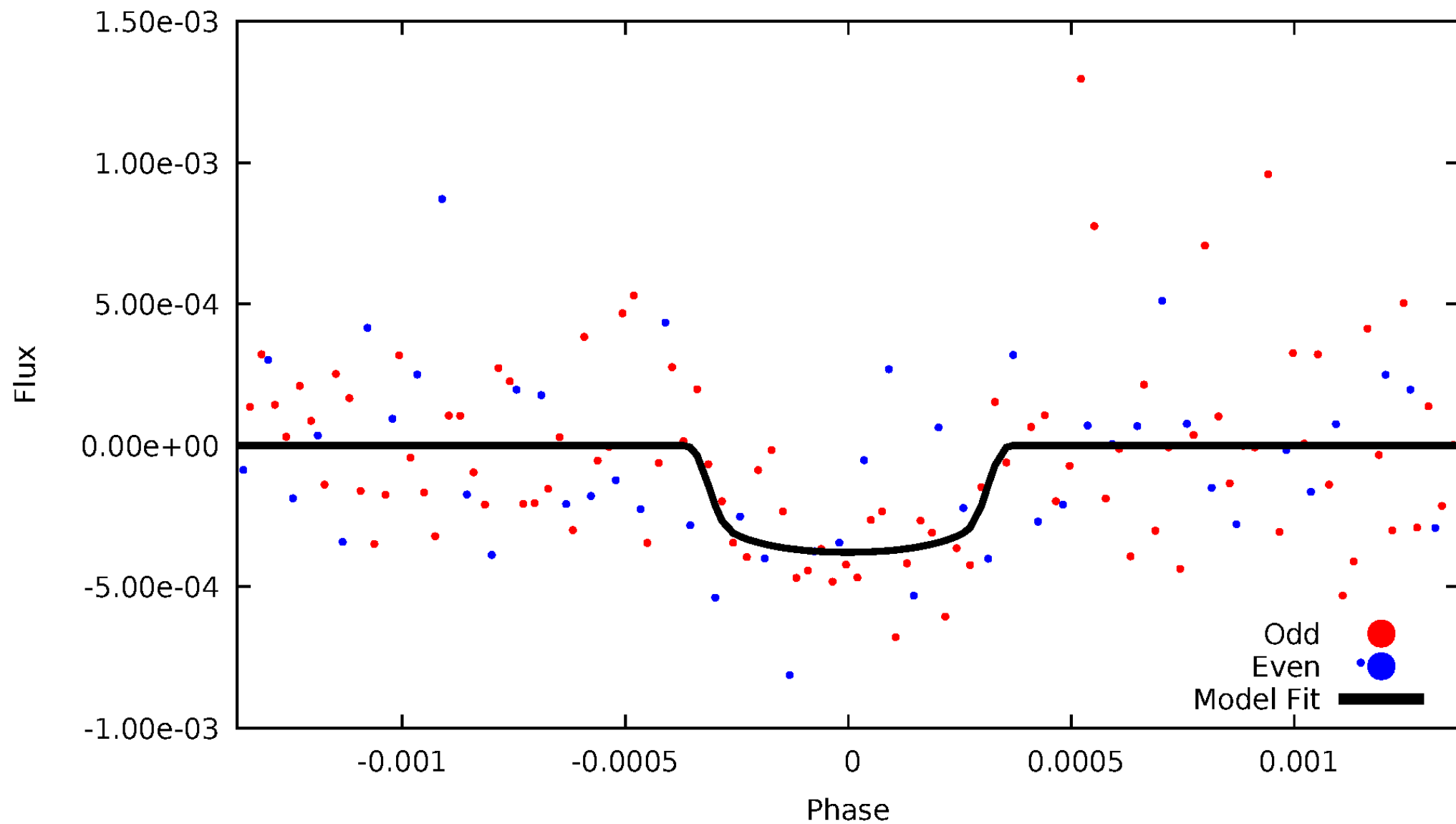


TCE 011615258-01



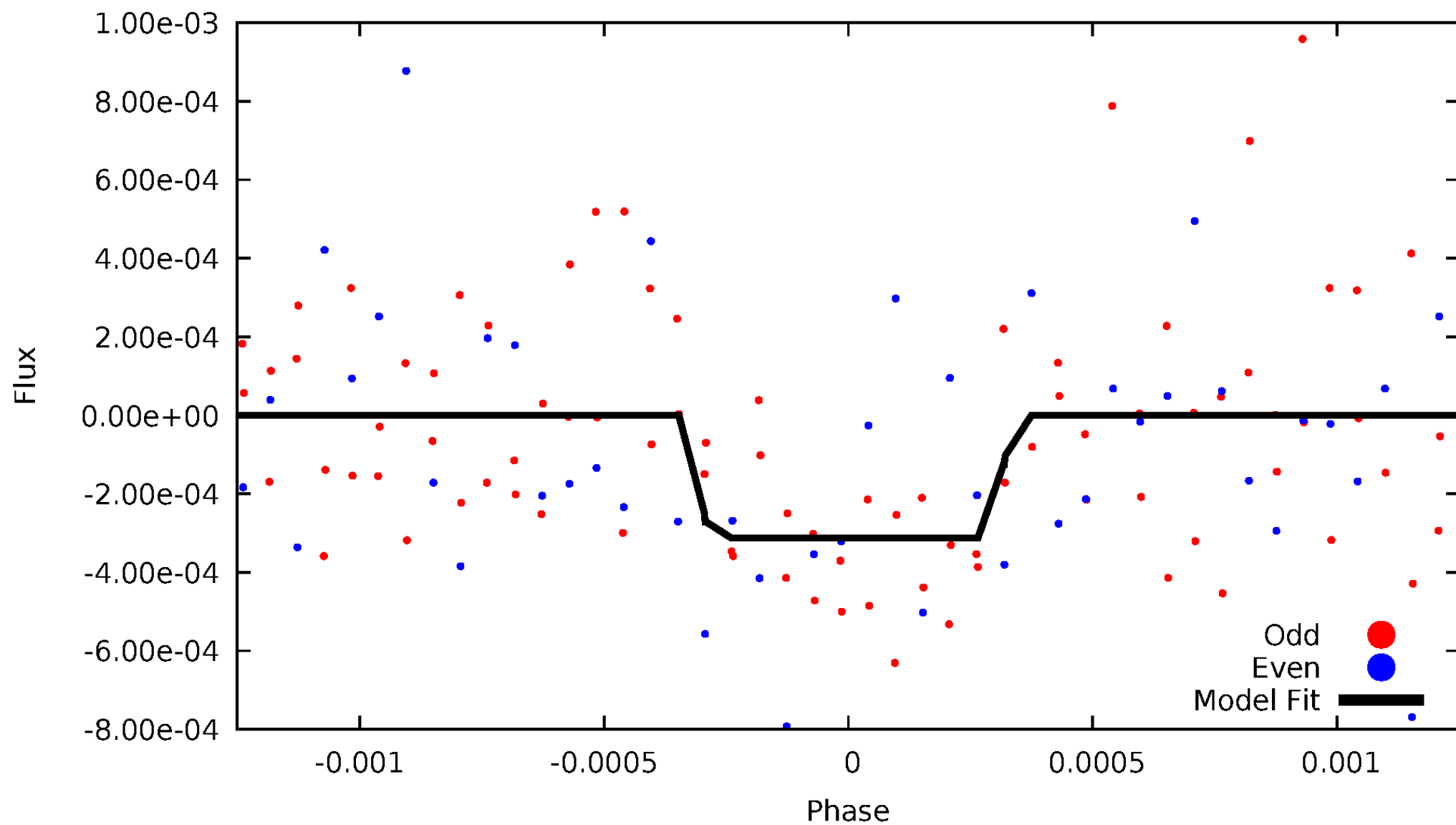
DV Odd/Even

TCE 011615258-01



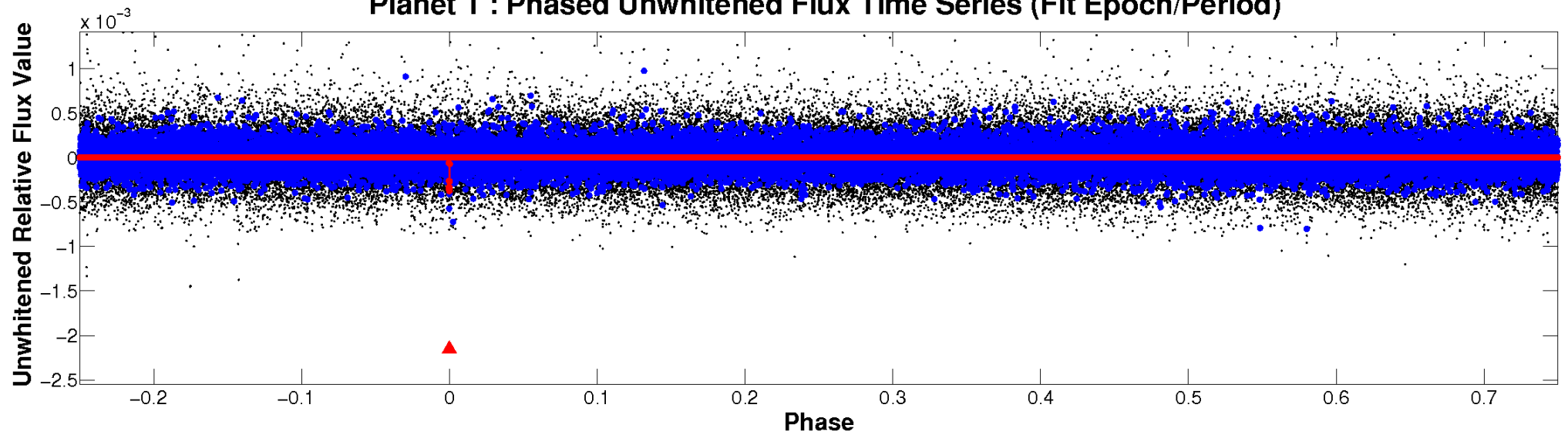
ALT Odd/Even

TCE 011615258-01

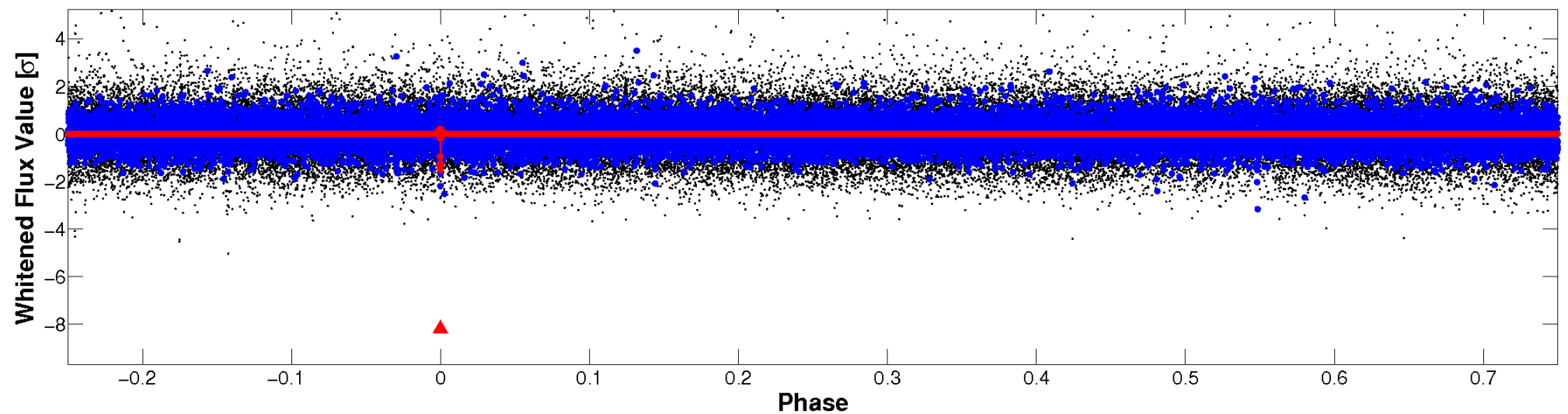


Non-Whitened Vs. Whitened Light Curve

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

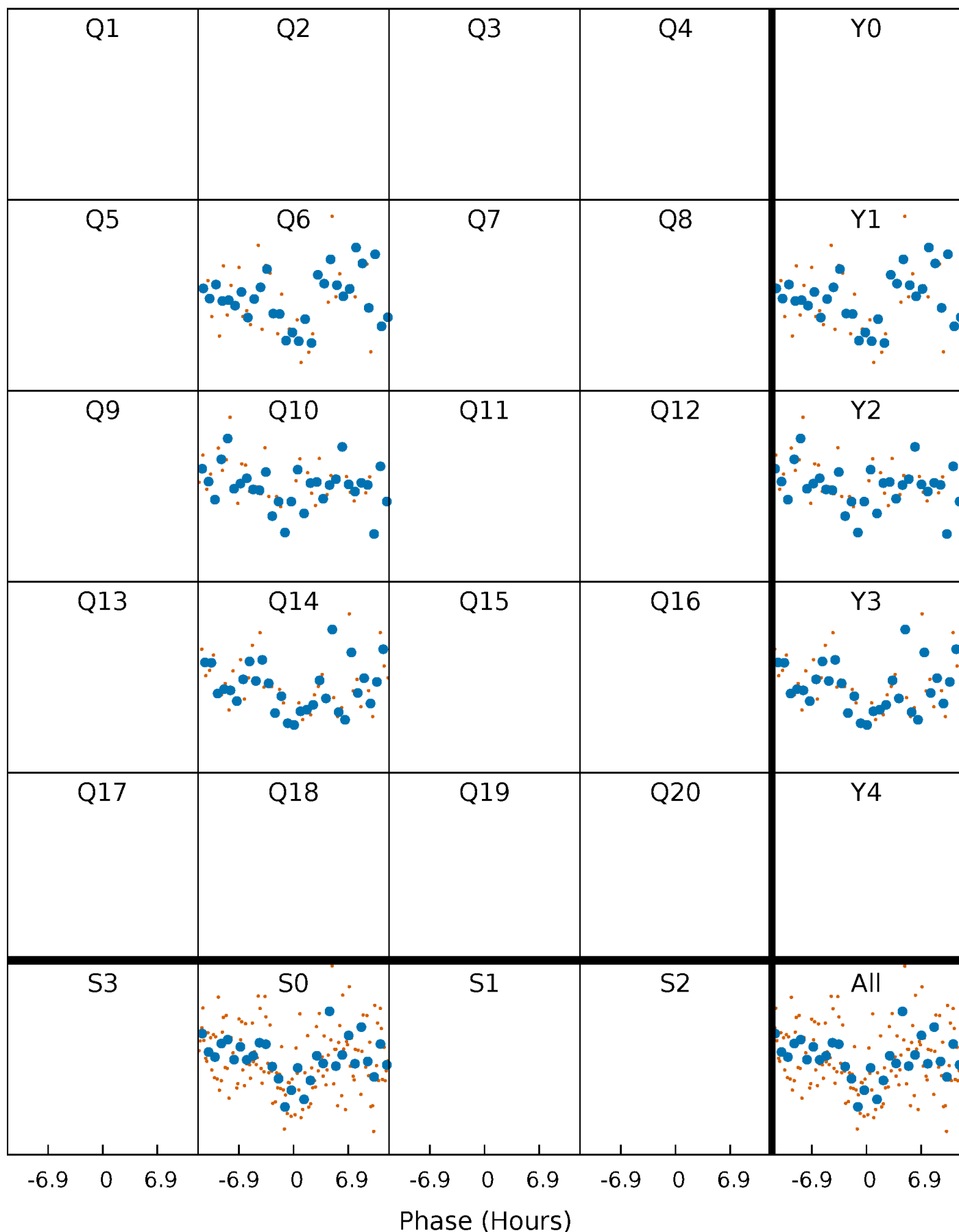


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



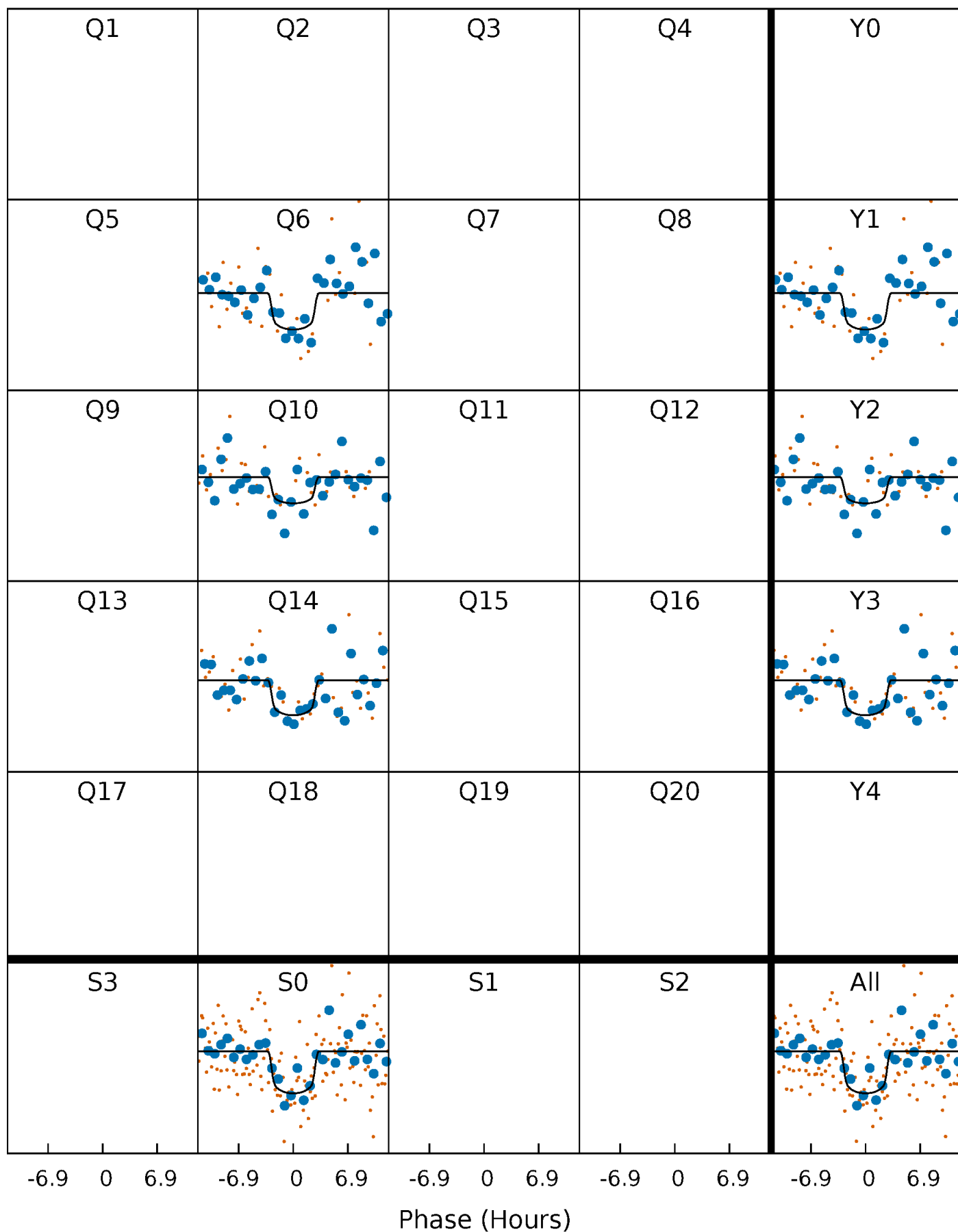
PDC Quarter-Phased Transit Curves

TCE 011615258-01 P=367.074601 Days $T_0=182.838965$ (BKJD)



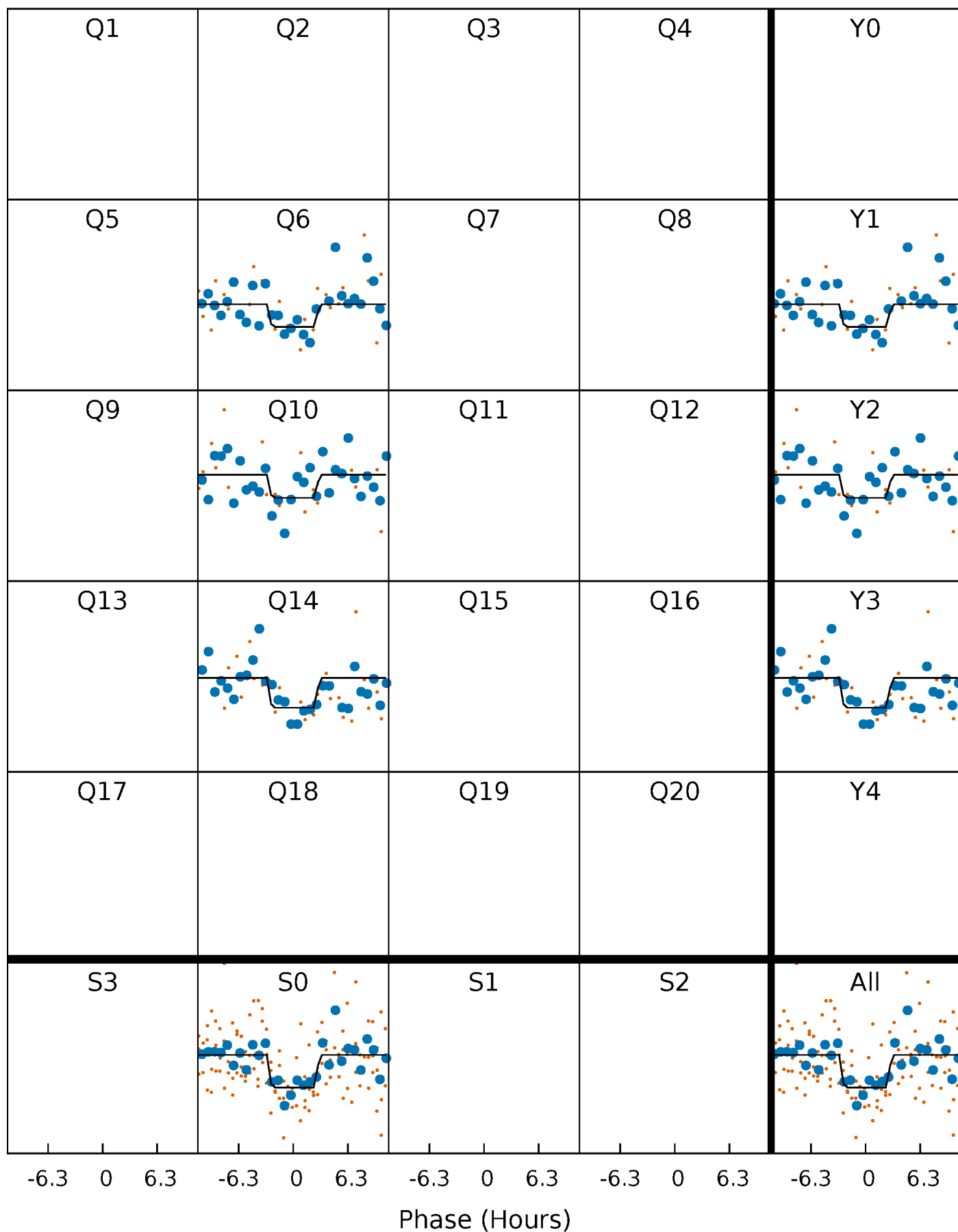
DV Quarter-Phased Transit Curves

TCE 011615258-01 P=367.074601 Days $T_0=182.838965$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

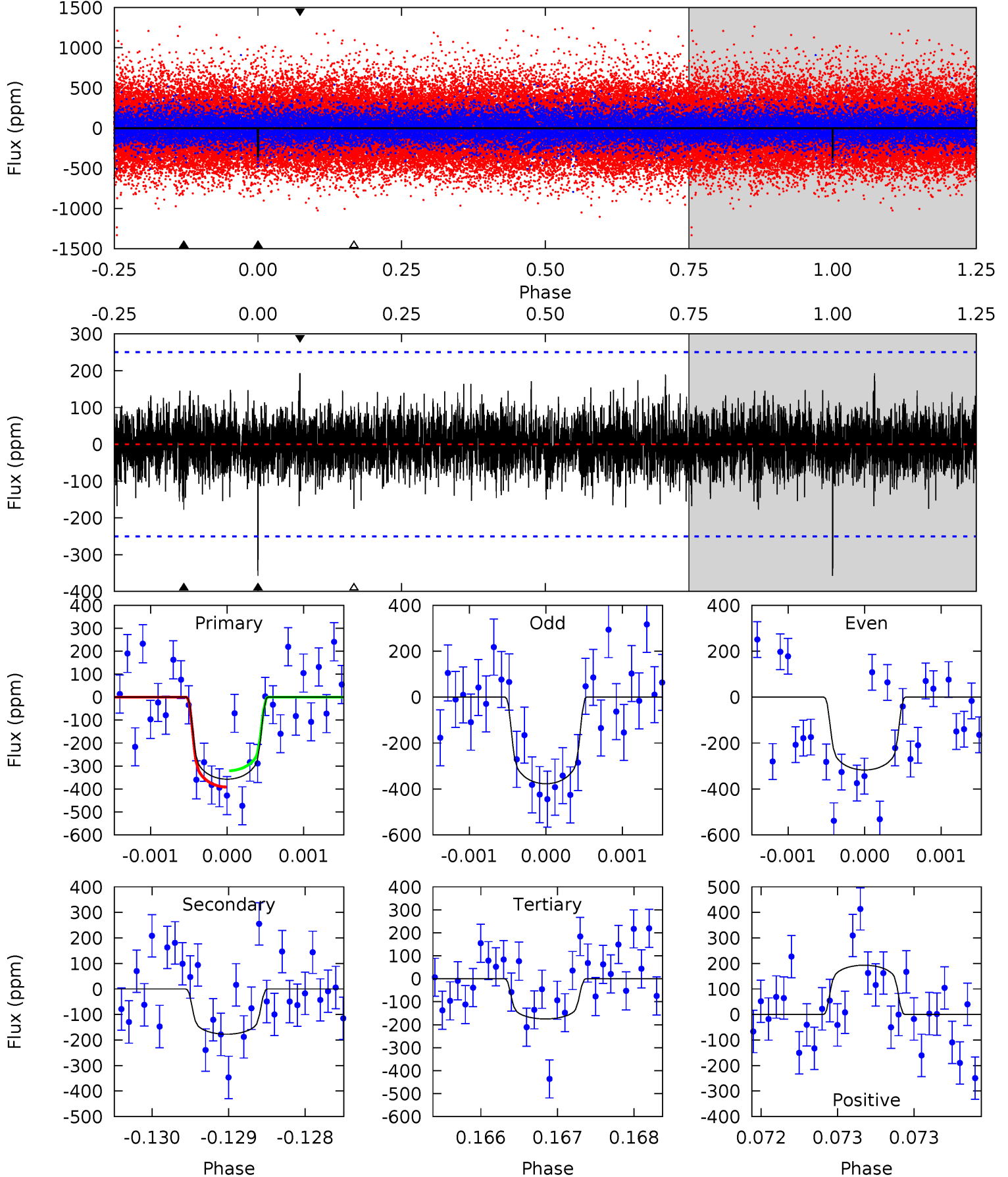
TCE 011615258-01 P=367.068472 Days $T_0=182.849163$ (BKJD)



DV Model-Shift Uniqueness Test

011615258-01, P = 367.074601 Days, E = 182.838965 Days

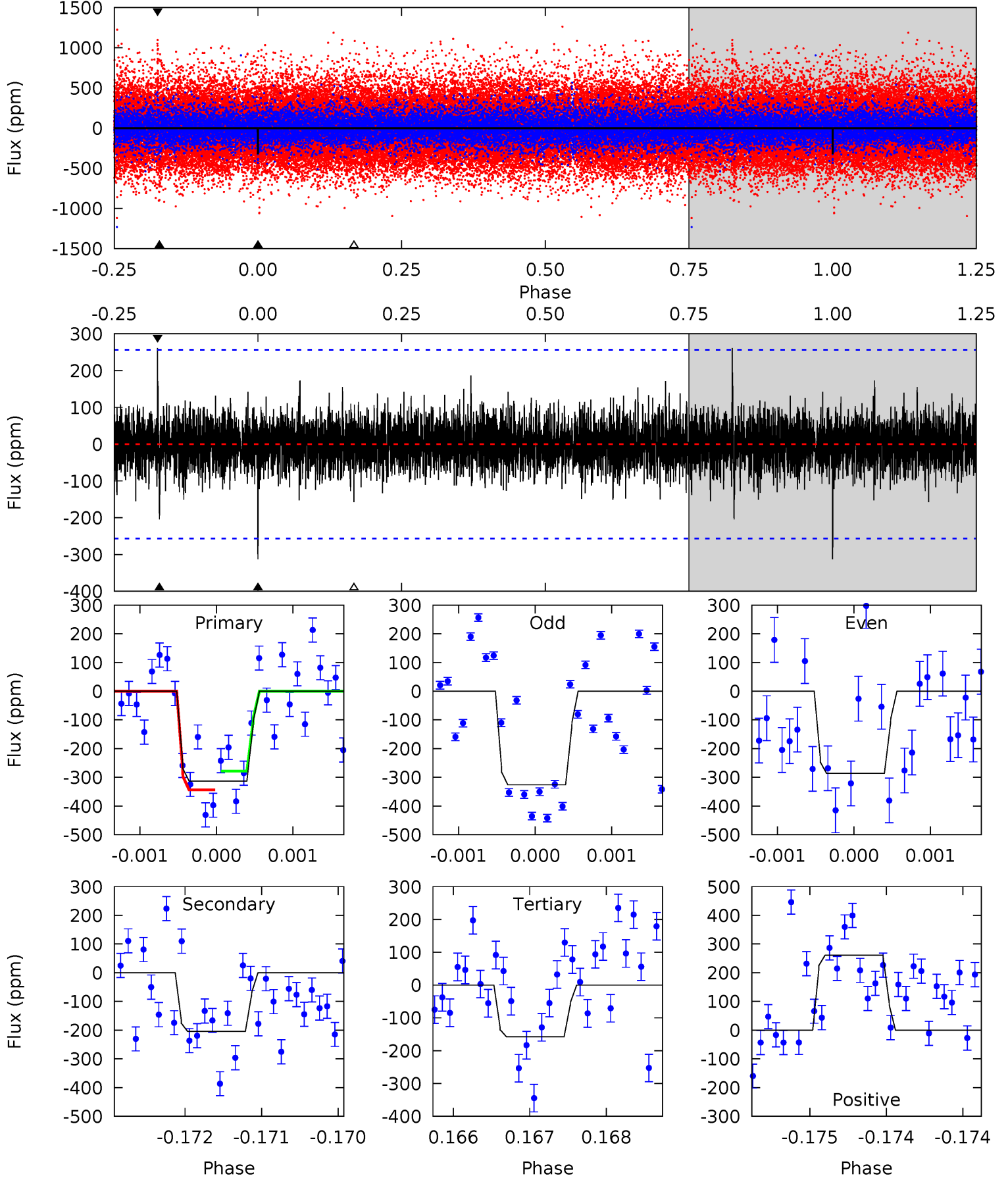
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.88	3.91	3.86	4.26	5.52	3.39	1.07	4.02	3.62	0.05	-0.35	0.62	1.01	0.35	0.78



Alt Model-Shift Uniqueness Test

011615258-01, P = 367.068472 Days, E = 182.849163 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.74	4.40	3.39	5.63	5.52	3.40	0.95	3.35	1.12	1.01	-1.23	0.41	1.00	0.45	0.70



Stellar Parameters For KIC 011615258

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6315^{+168}_{-205}	$4.407^{+0.067}_{-0.216}$	$-0.020^{+0.250}_{-0.300}$	$1.116^{+0.370}_{-0.123}$	$1.161^{+0.157}_{-0.157}$	$1.177^{+0.355}_{-0.649}$
	+3%/-3%	+2%/-5%	+1250%/-1500%	+33%/-11%	+14%/-14%	+30%/-55%
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 011615258-01 / KOI 5922.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-177 ± 45	$2.67^{+1.33}_{-1.30}$	407^{+33}_{-19}	5119^{+1937}_{-807}	15212^{+39452}_{-8822}
Alt.	-204 ± 46	$2.24^{+1.29}_{-1.14}$	408^{+31}_{-21}	5687^{+2563}_{-1037}	24093^{+77093}_{-14596}

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 $A_{obs} \gg 1.0$

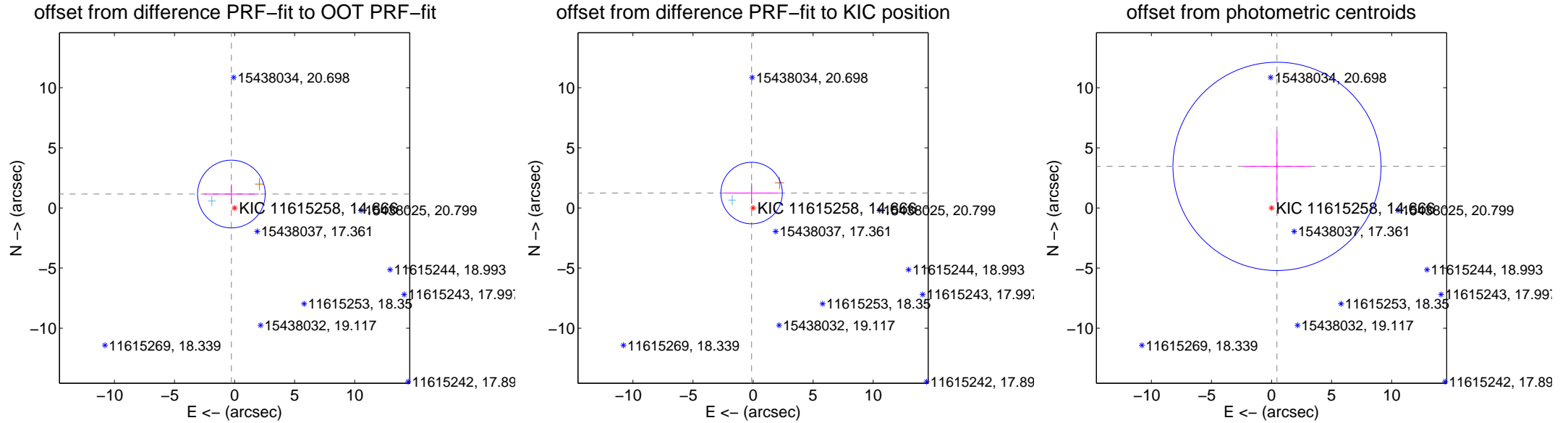
DV Centroid Data

Supplemental centroid analysis for 011615258-01. Kepler magnitude: 14.67. Transit SNR 7.72

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.188 ± 0.939	1.26	0.265 ± 2.283	1.158 ± 0.809
PRF-fit source offset from KIC position	1.247 ± 0.853	1.46	0.120 ± 2.268	1.242 ± 0.828
photometric centroid source offset	3.49 ± 2.89	1.21	-0.46 ± 2.77	3.46 ± 2.89

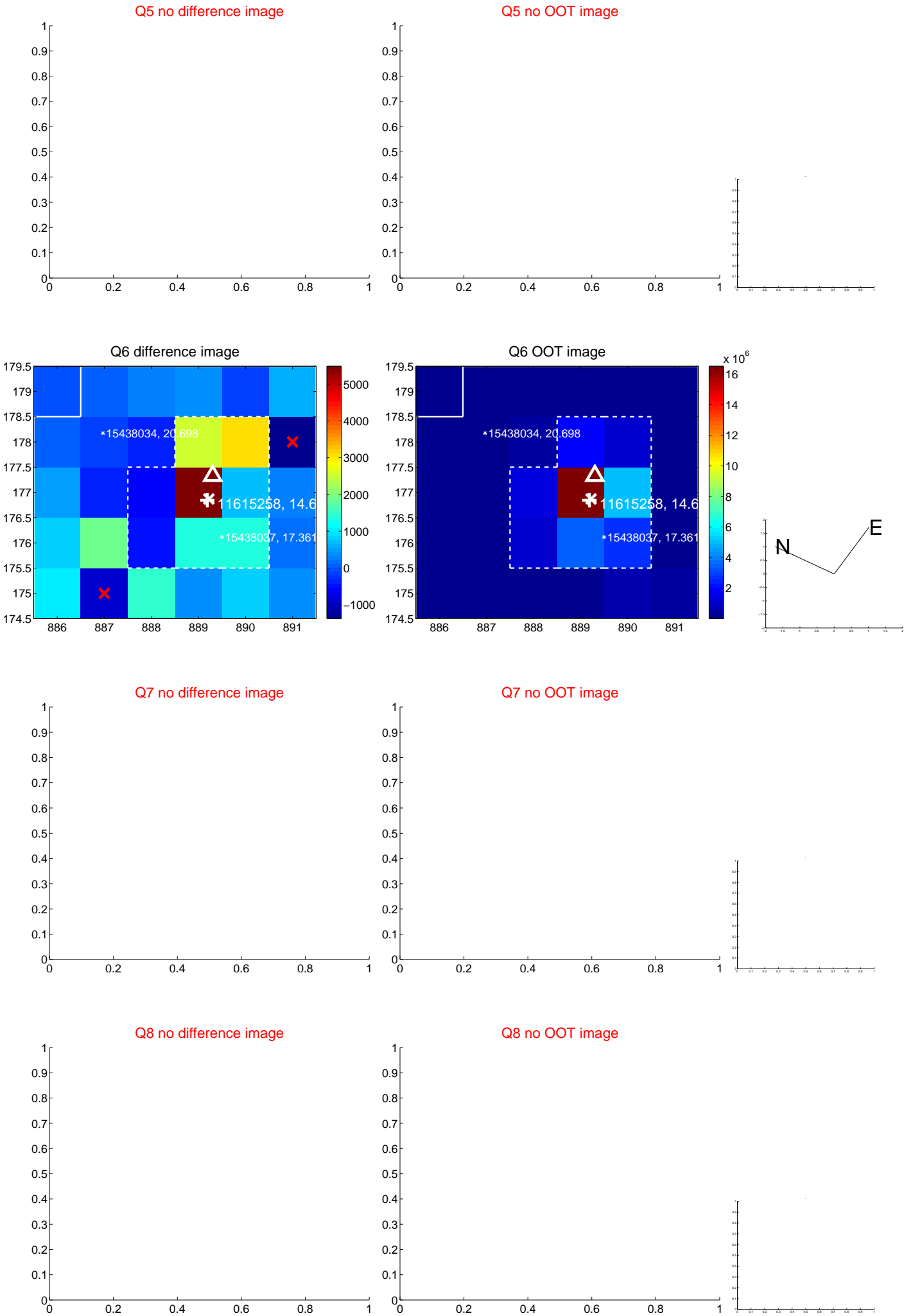


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

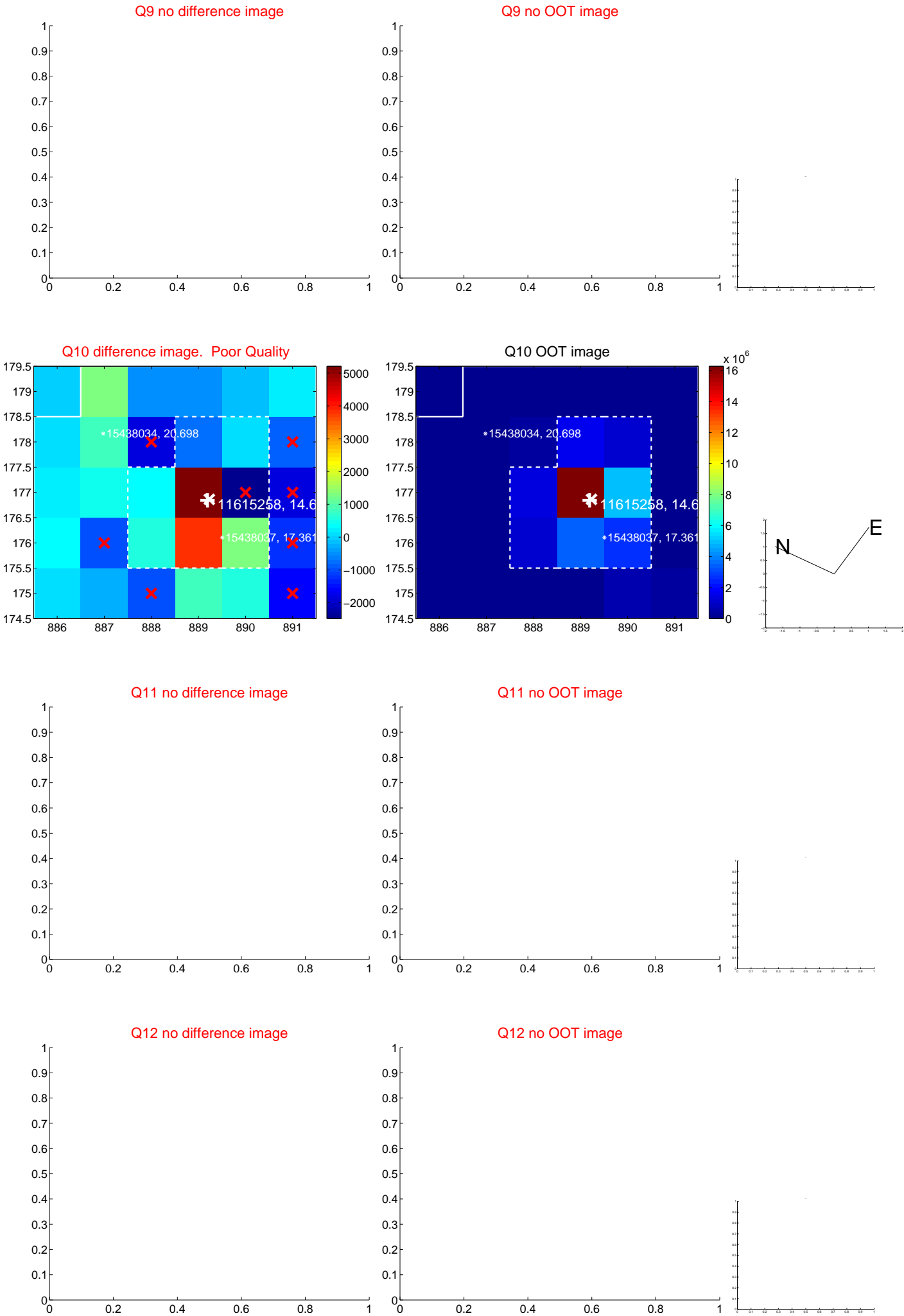
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



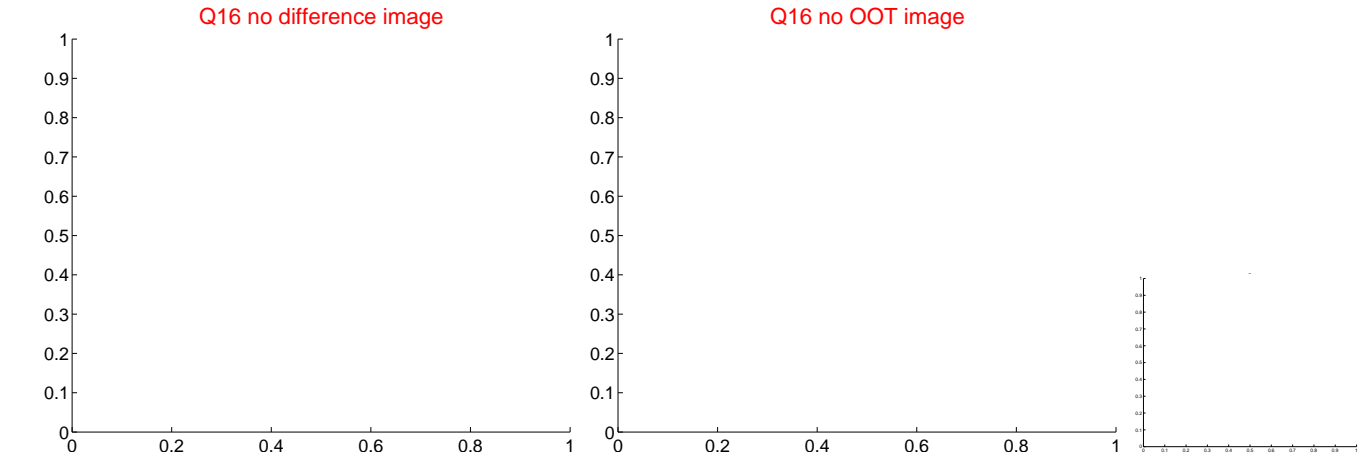
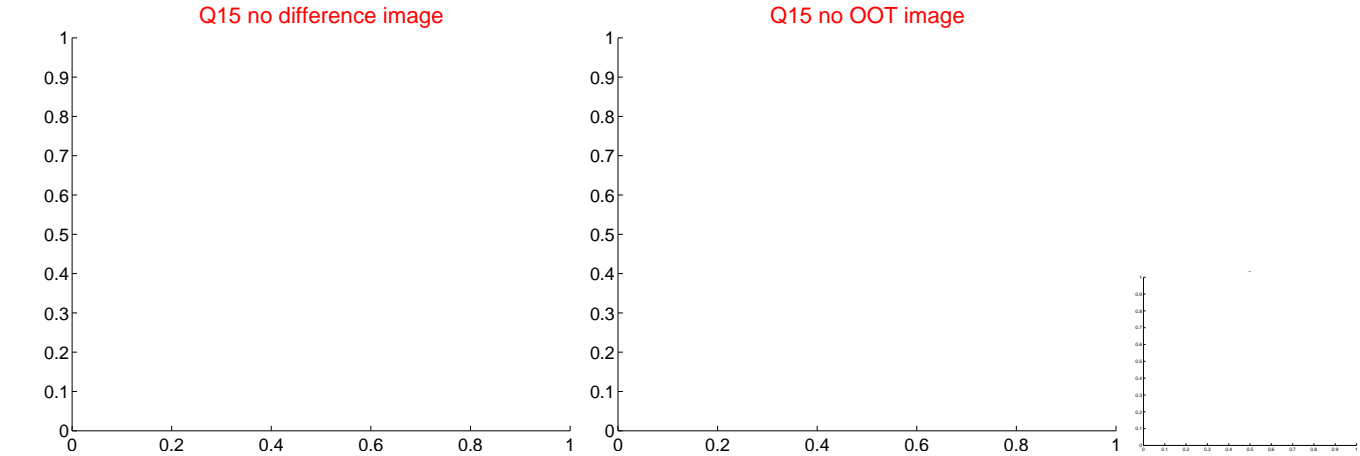
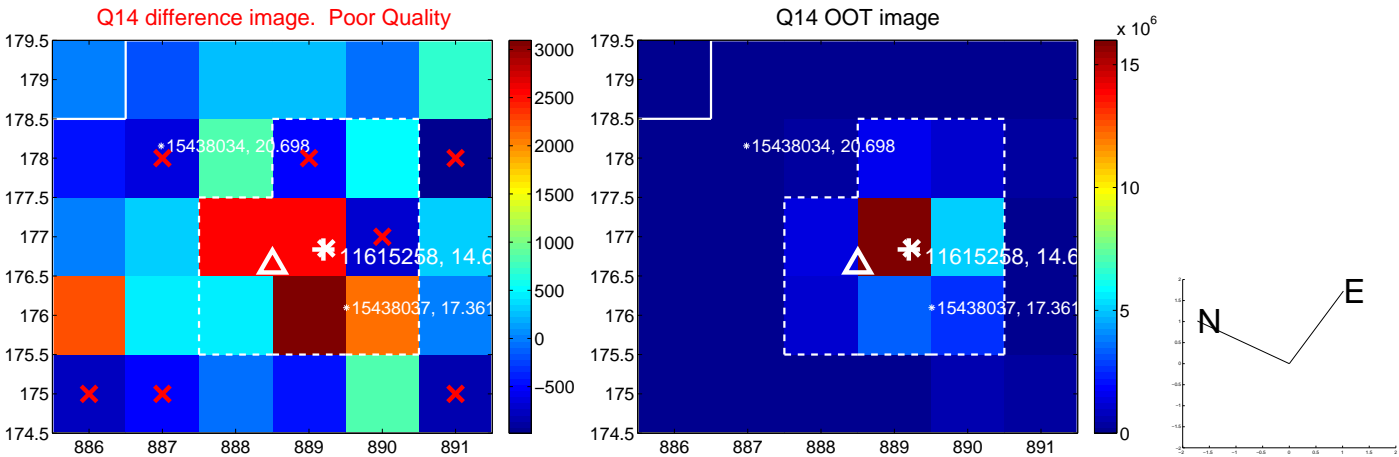
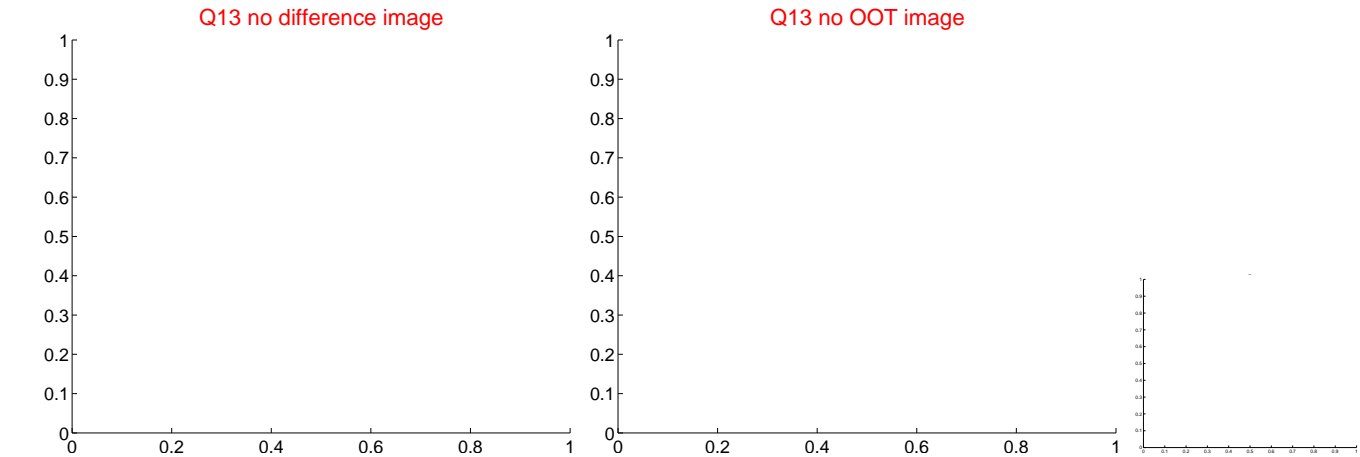
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



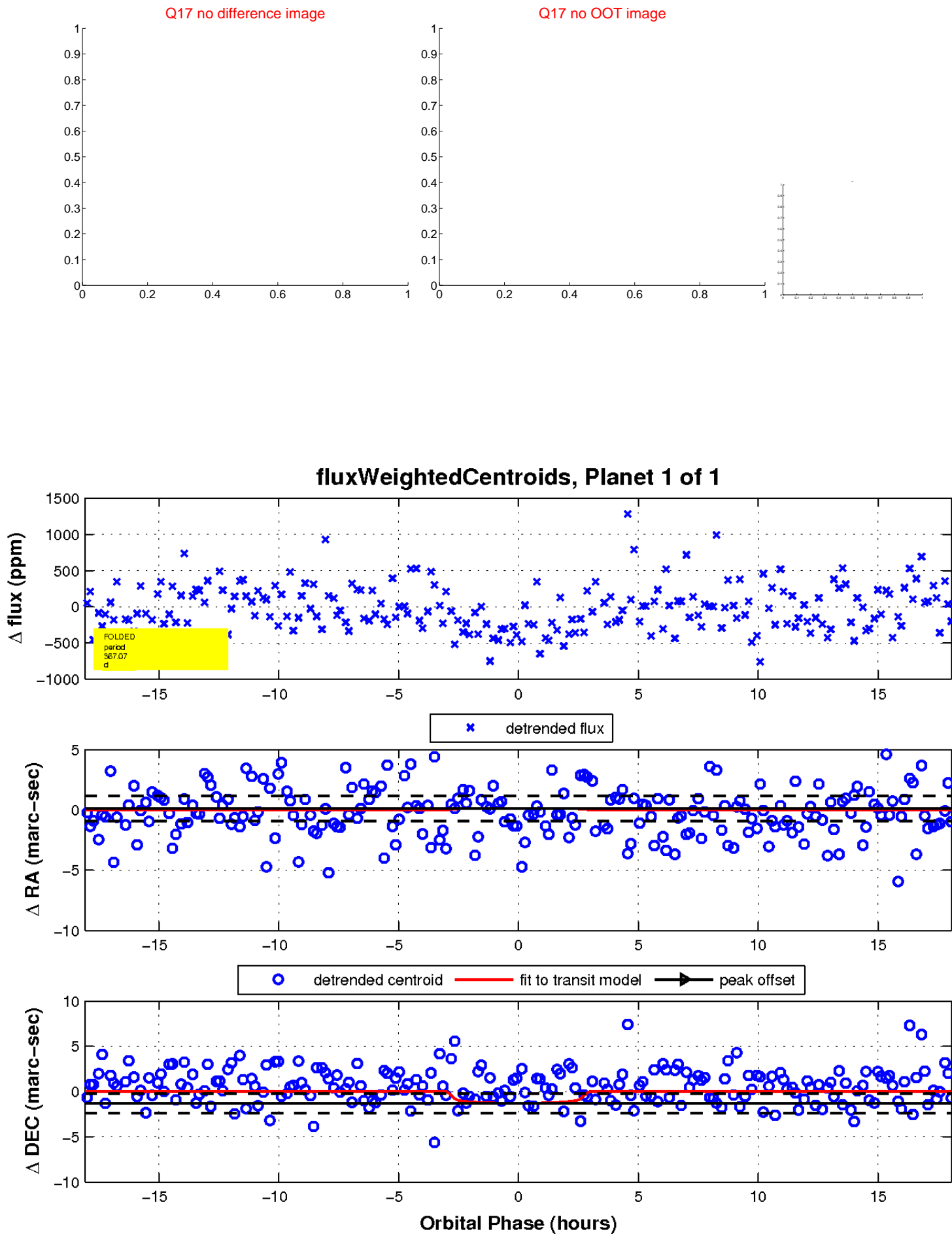
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



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



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



UKIRT Image

Declination

