

KIC 011805075

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})
011805075-01	OBS	0436.01	199.839183	225.359065	44294.1	4.373	624.1	572.8	0.87	5457	21.51	1.36

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011805075-01	OBS	PC	0.80	0	0	0	0	NO_COMMENT

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.

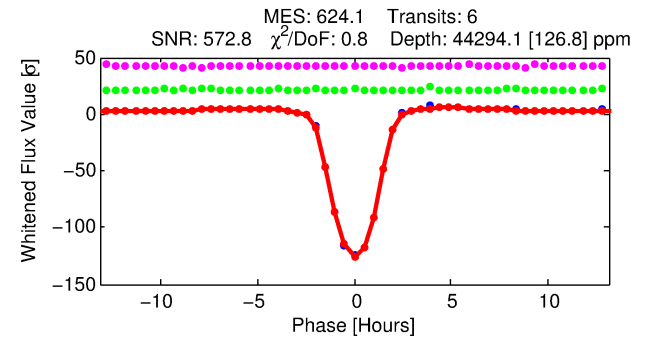
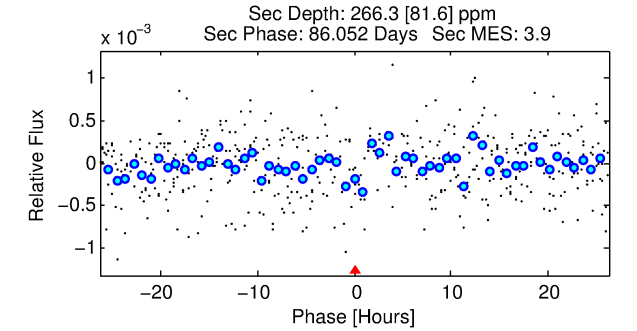
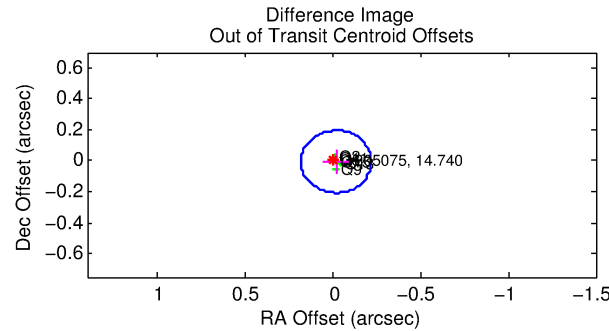
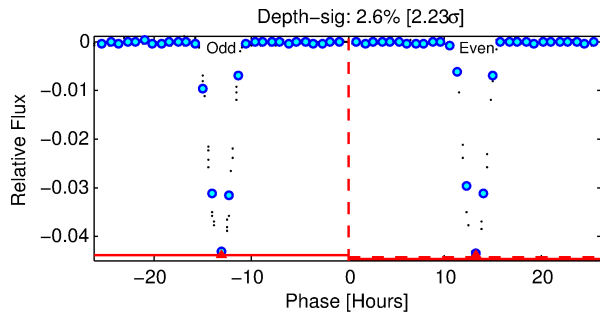
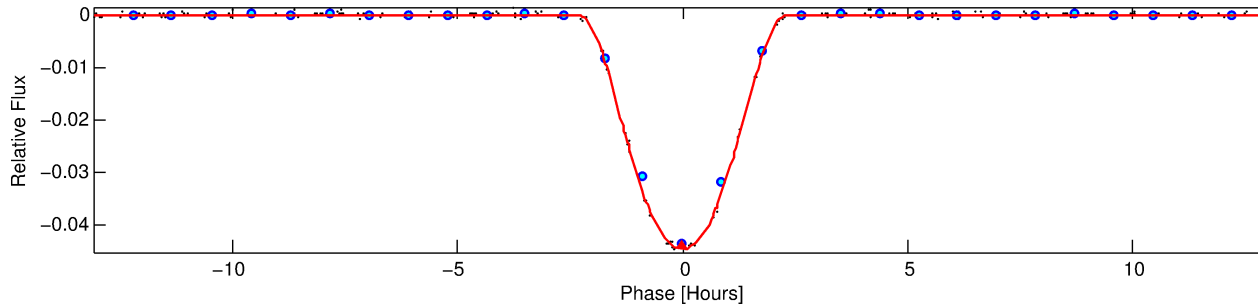
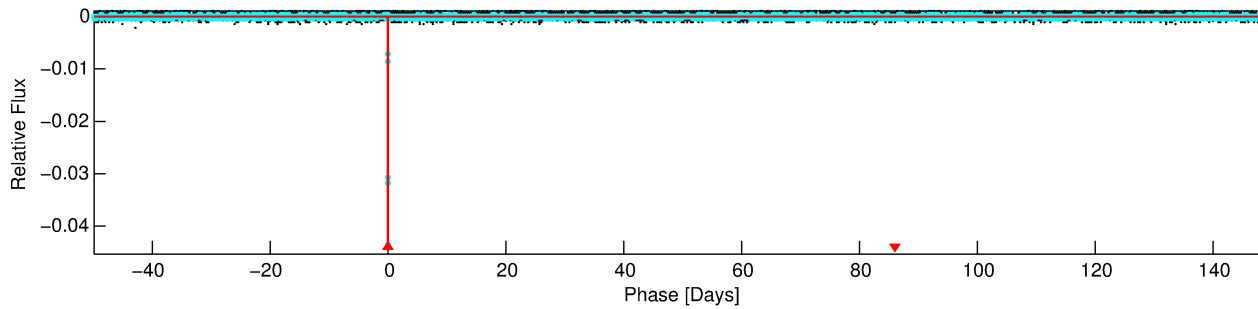
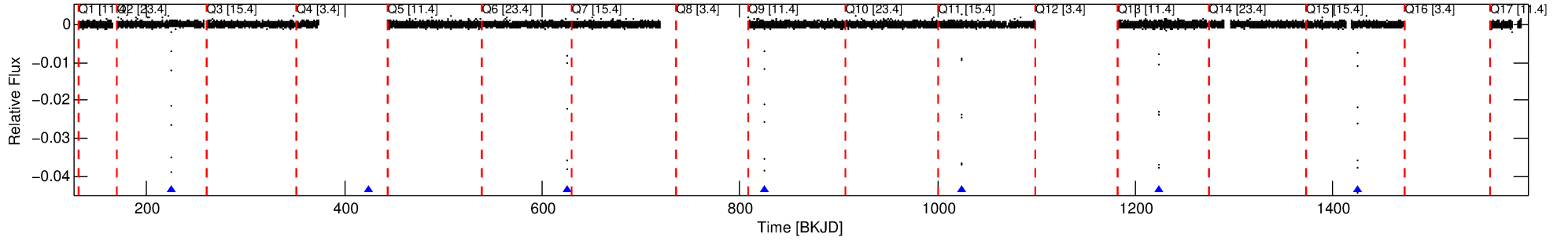
Ephemeris Match Information For 011805075-01

No Significant Match Found

DV One-Page Summary

KIC: 11805075 Candidate: 1 of 1 Period: 199.839 d
KOI: K00436.01 Corr: 1.000

Kp: 14.74 R*: 0.87 Rs Teff: 5457.0 K Logg: 4.55 Fe/H: 0.200



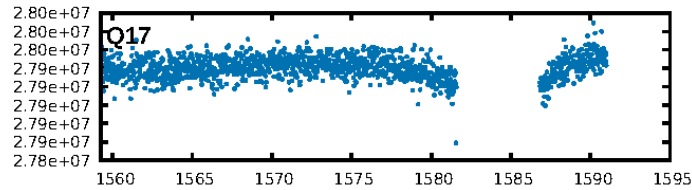
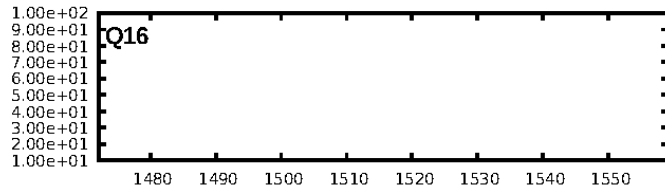
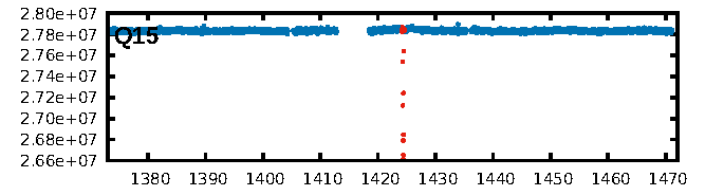
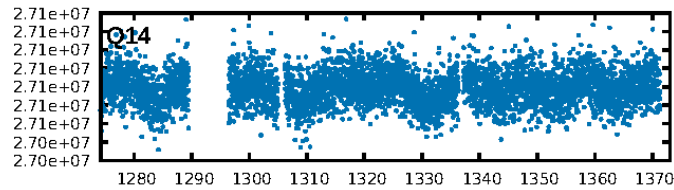
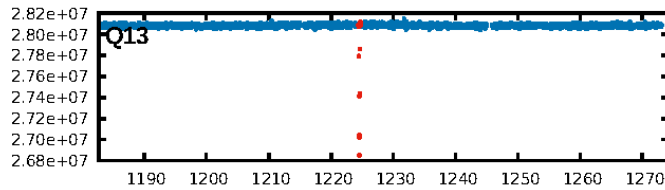
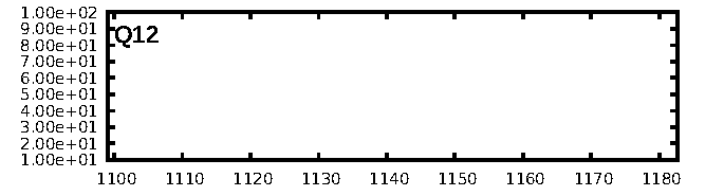
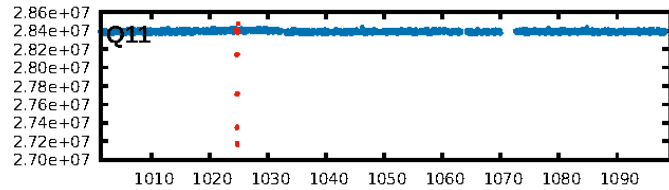
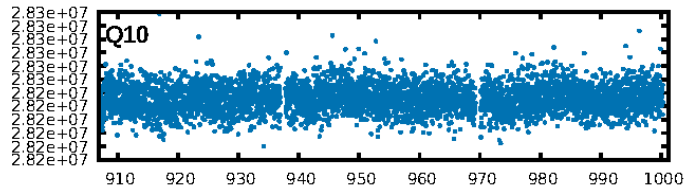
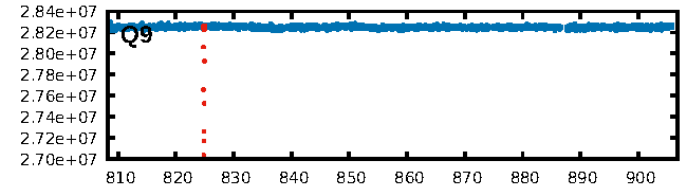
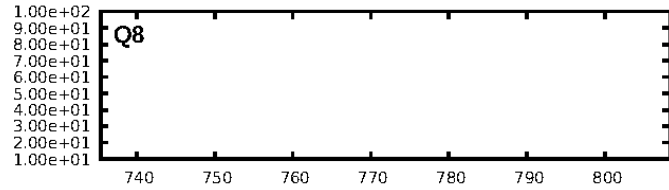
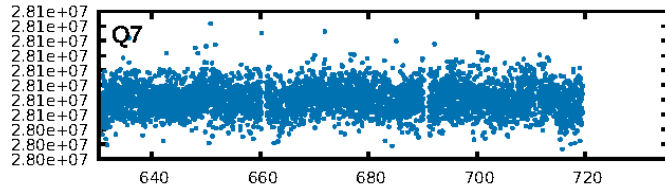
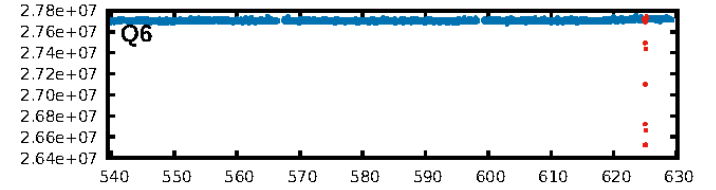
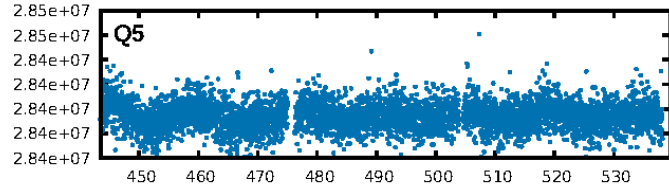
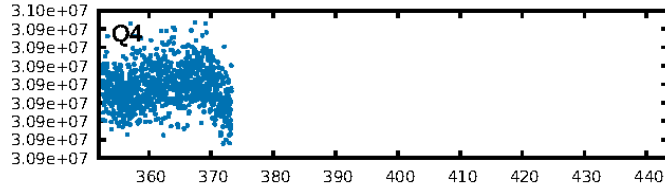
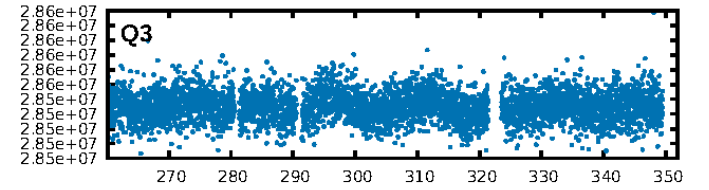
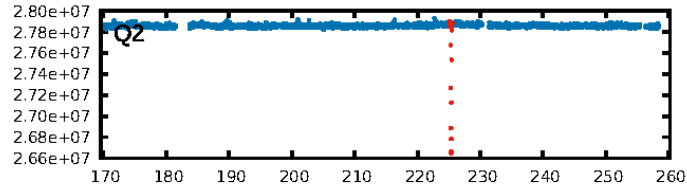
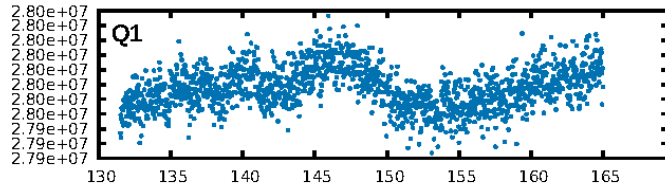
DV Fit Results:

Period = 199.83918 [0.00005] d
Epoch = 225.3591 [0.0002] BKJD
Rp/R* = 0.2268 [0.0028]
a/R* = 320.86 [1.73]
b = 0.81 [0.01]
Seff = 1.37 [0.45]
Teq = 276 [23] K
Rp = 21.51 [4.96] Re
a = 0.6630 [0.1339] AU
Ag = 139.23 [60.21] [2.30σ]
Teffp = 1464 [121] K [9.67σ]

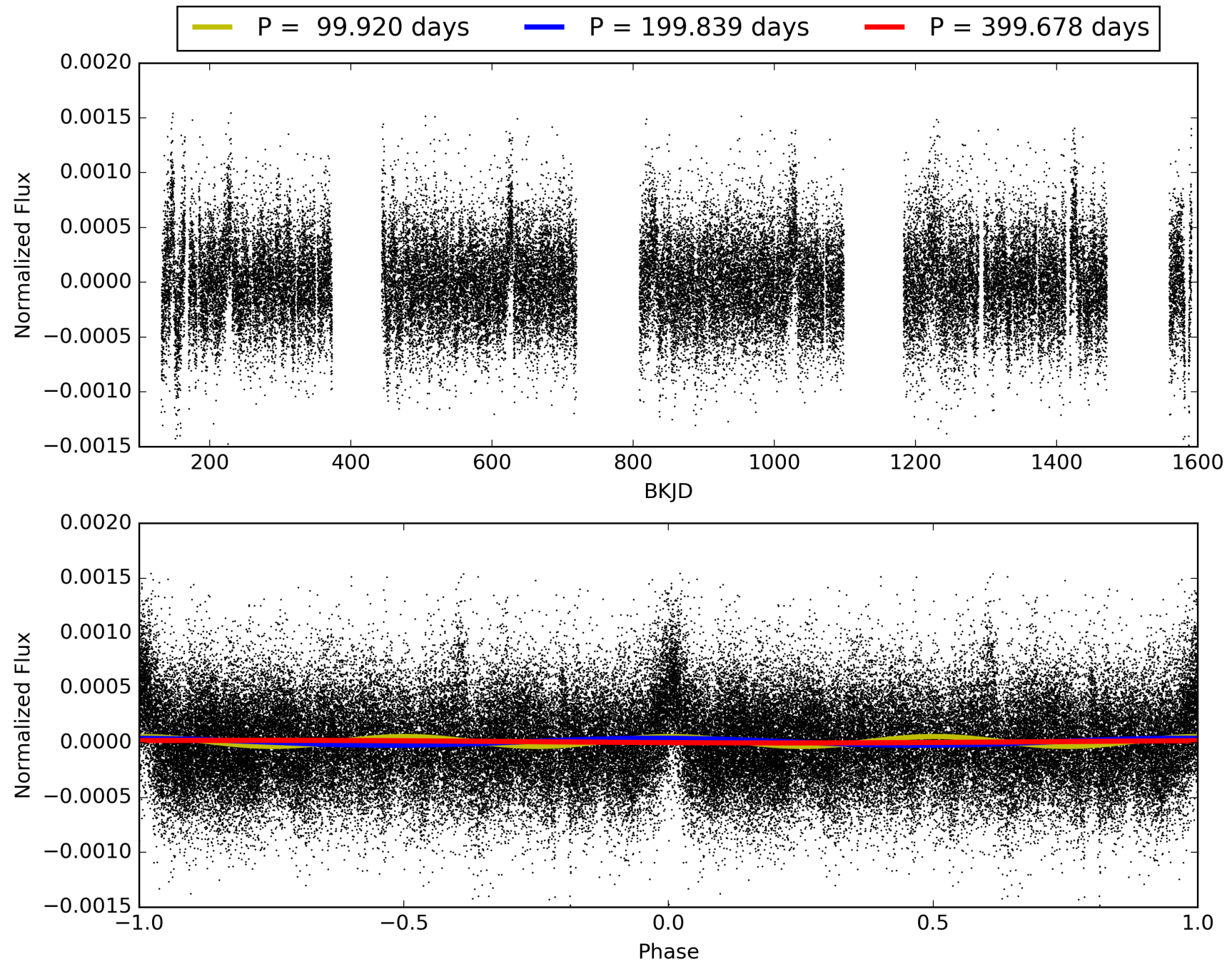
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 40.7%
ModelChiSquareGof-sig: 98.1%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 3.409
Centroid-sig: 71.4%
Centroid-so: 0.039 arcsec [1.67σ]
OotOffset-rm: 0.020 arcsec [0.30σ]
KicOffset-rm: 0.071 arcsec [0.92σ]
OotOffset-st: 2/2/0/2 [6]
KicOffset-st: 2/2/0/2 [6]
DiffImageQuality-fgm: 1.00 [6/6]
DiffImageOverlap-fno: 1.00 [6/6]

TCE 011805075-01, PDC Light Curves

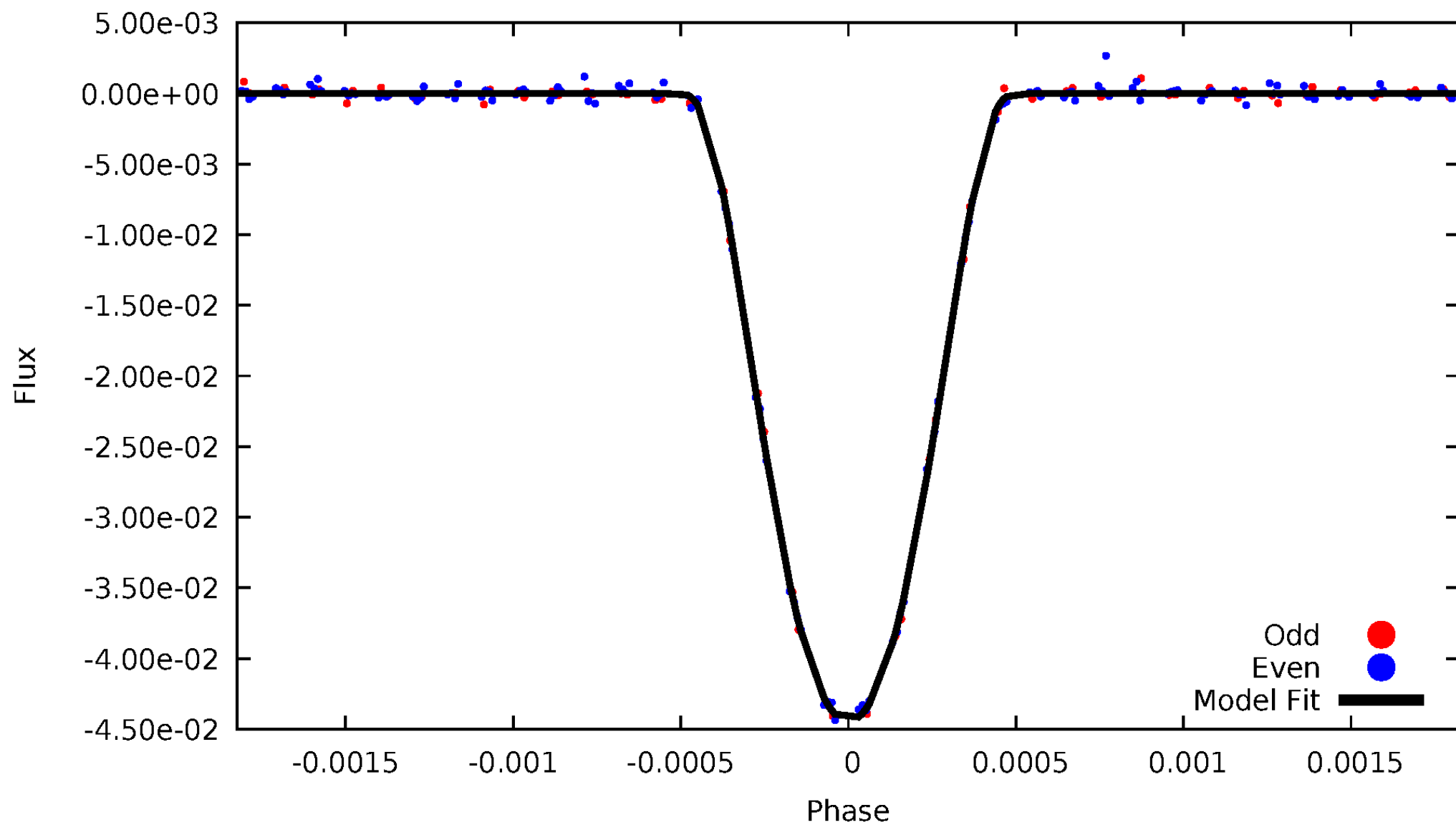


TCE 011805075-01



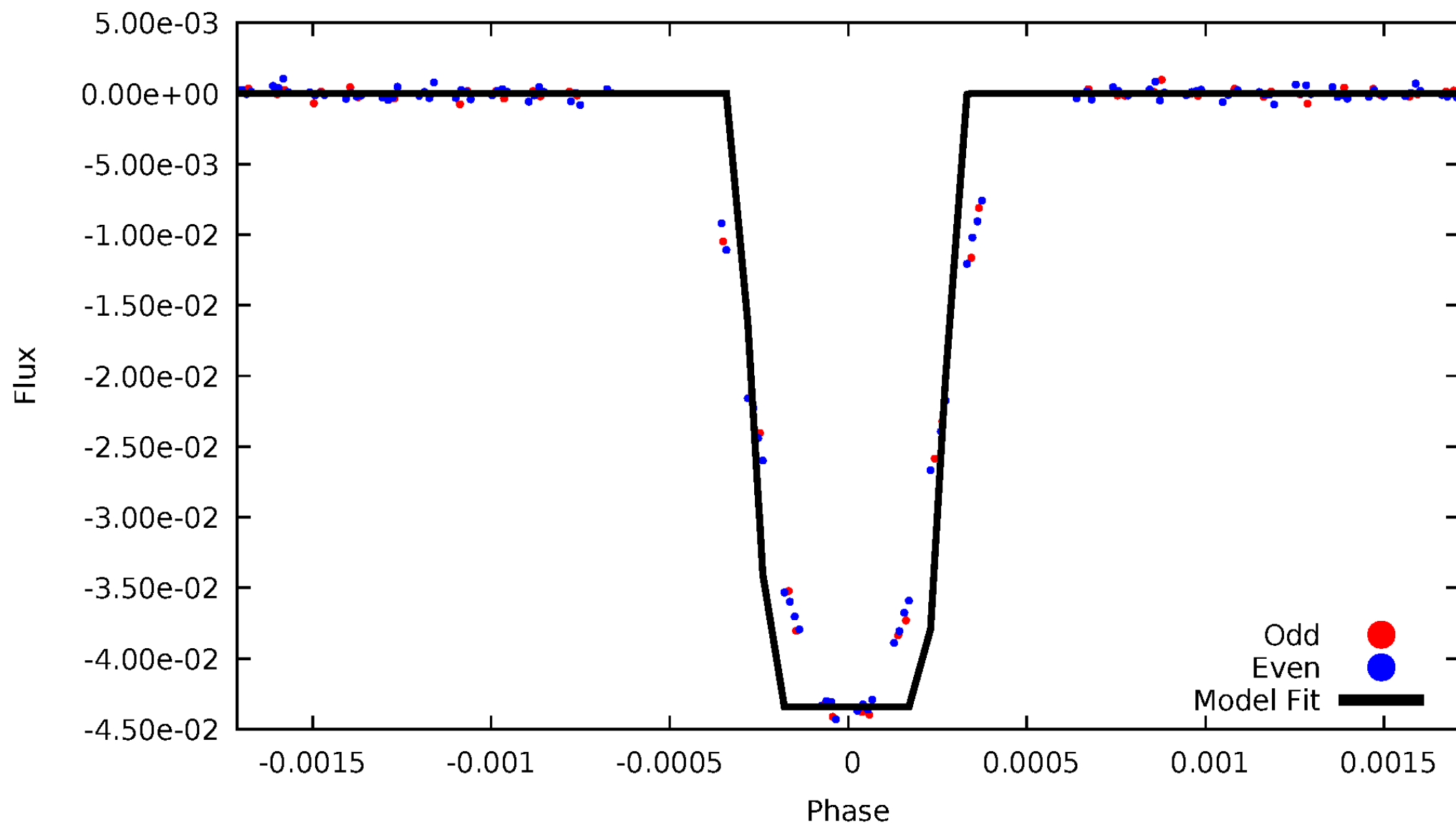
DV Odd/Even

TCE 011805075-01



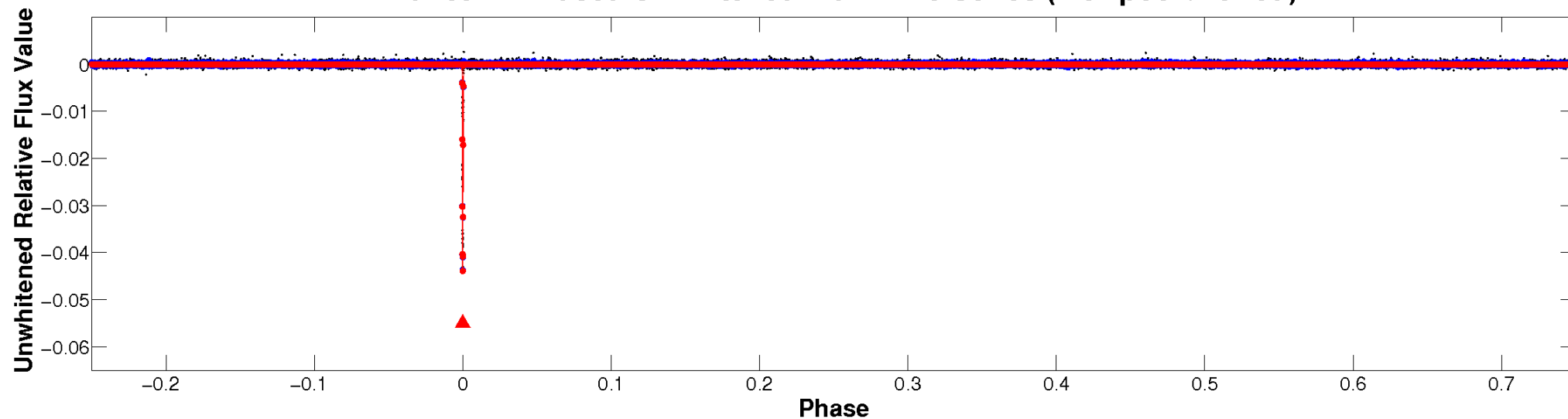
ALT Odd/Even

TCE 011805075-01

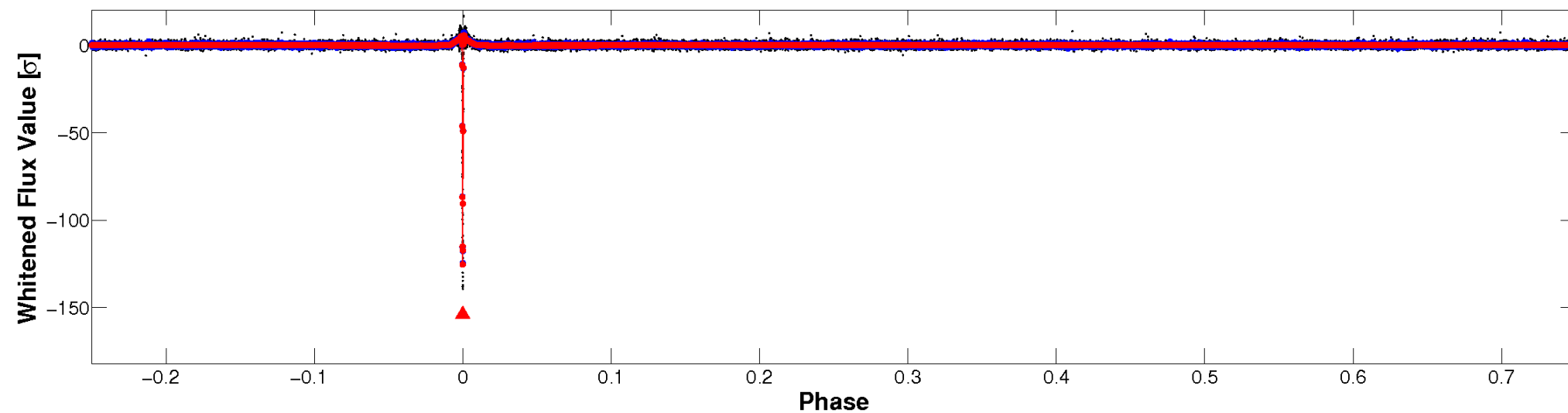


Non-Whitened Vs. Whitened Light Curve

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

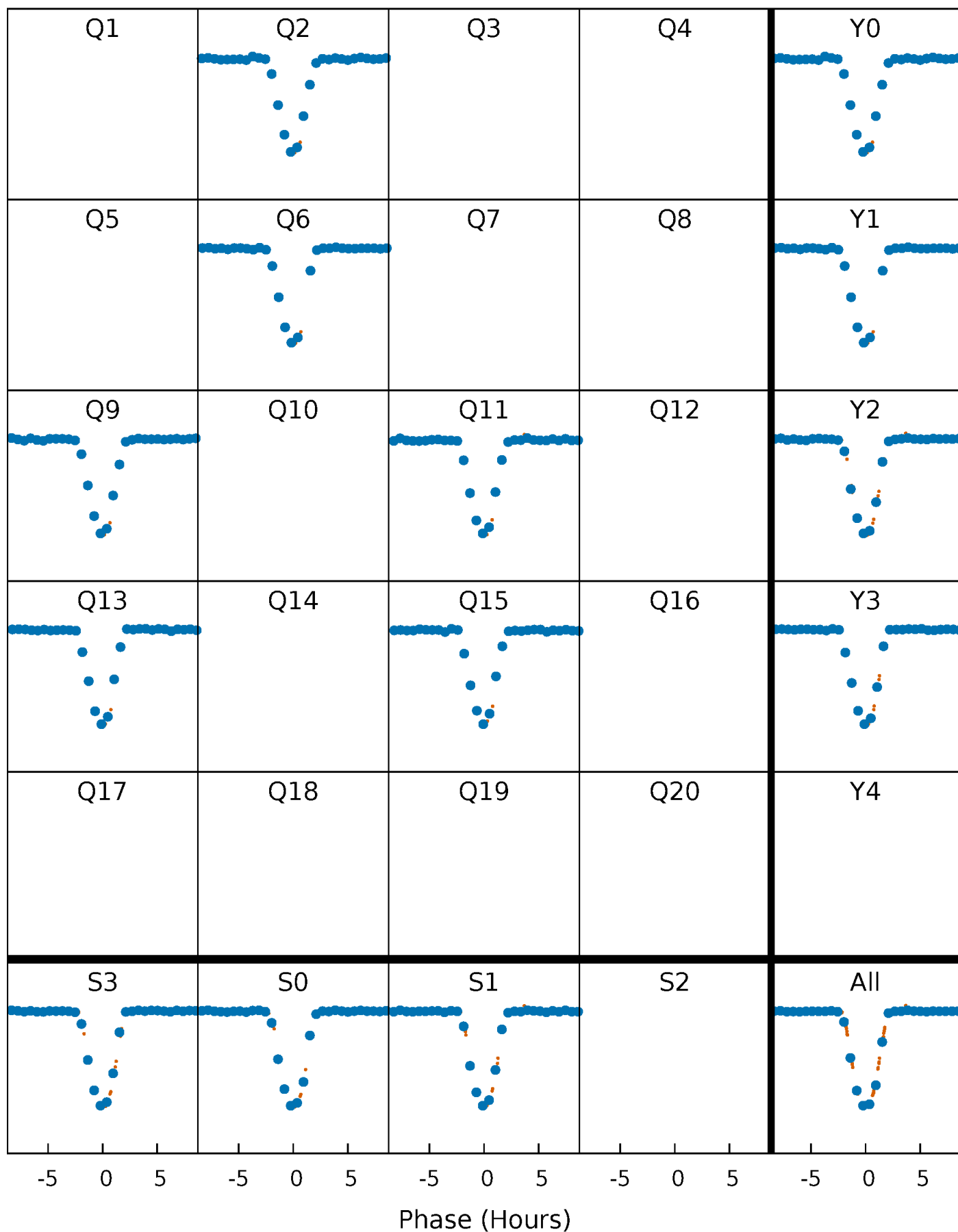


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



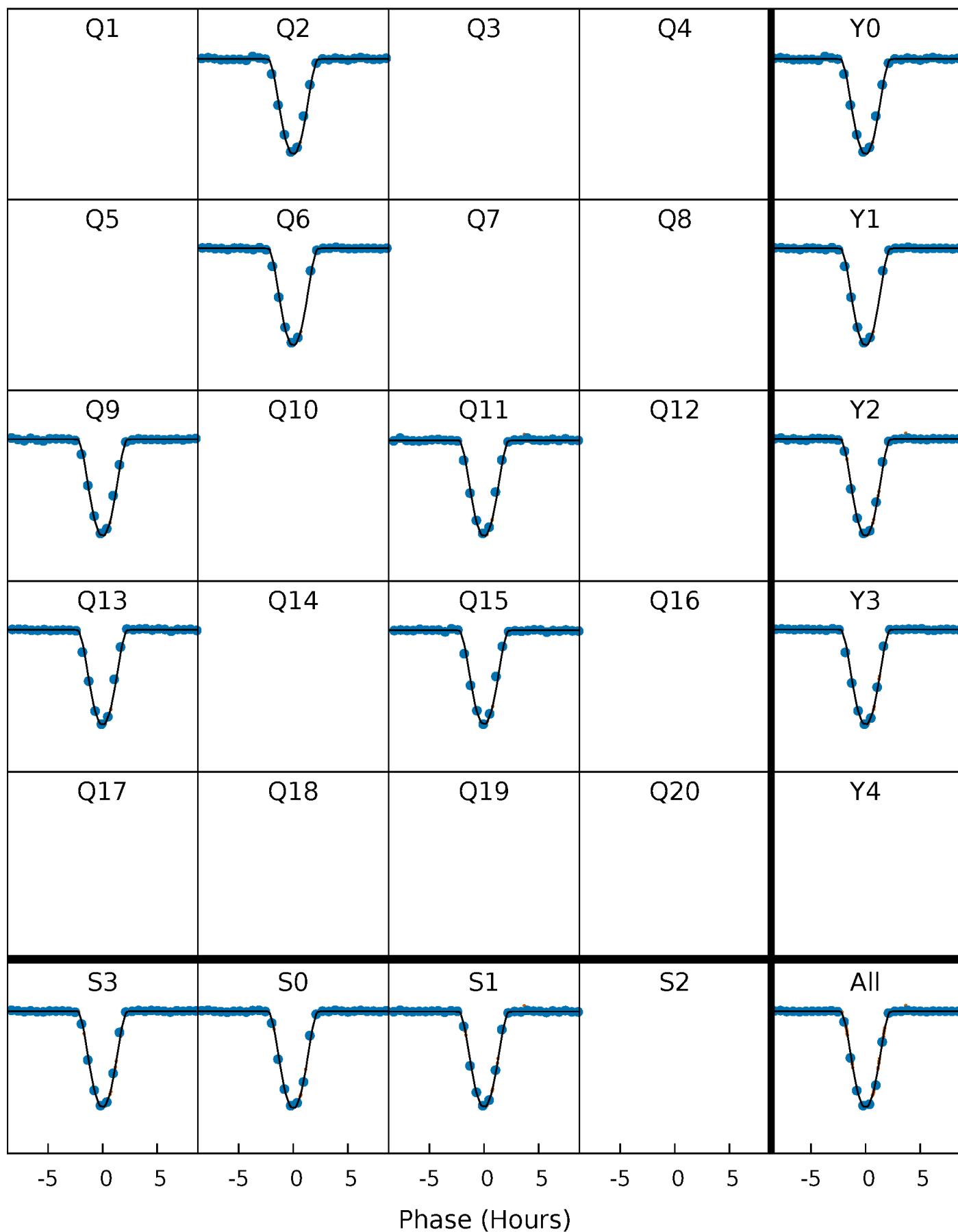
PDC Quarter-Phased Transit Curves

TCE 011805075-01 P=199.839183 Days $T_0=225.359066$ (BKJD)



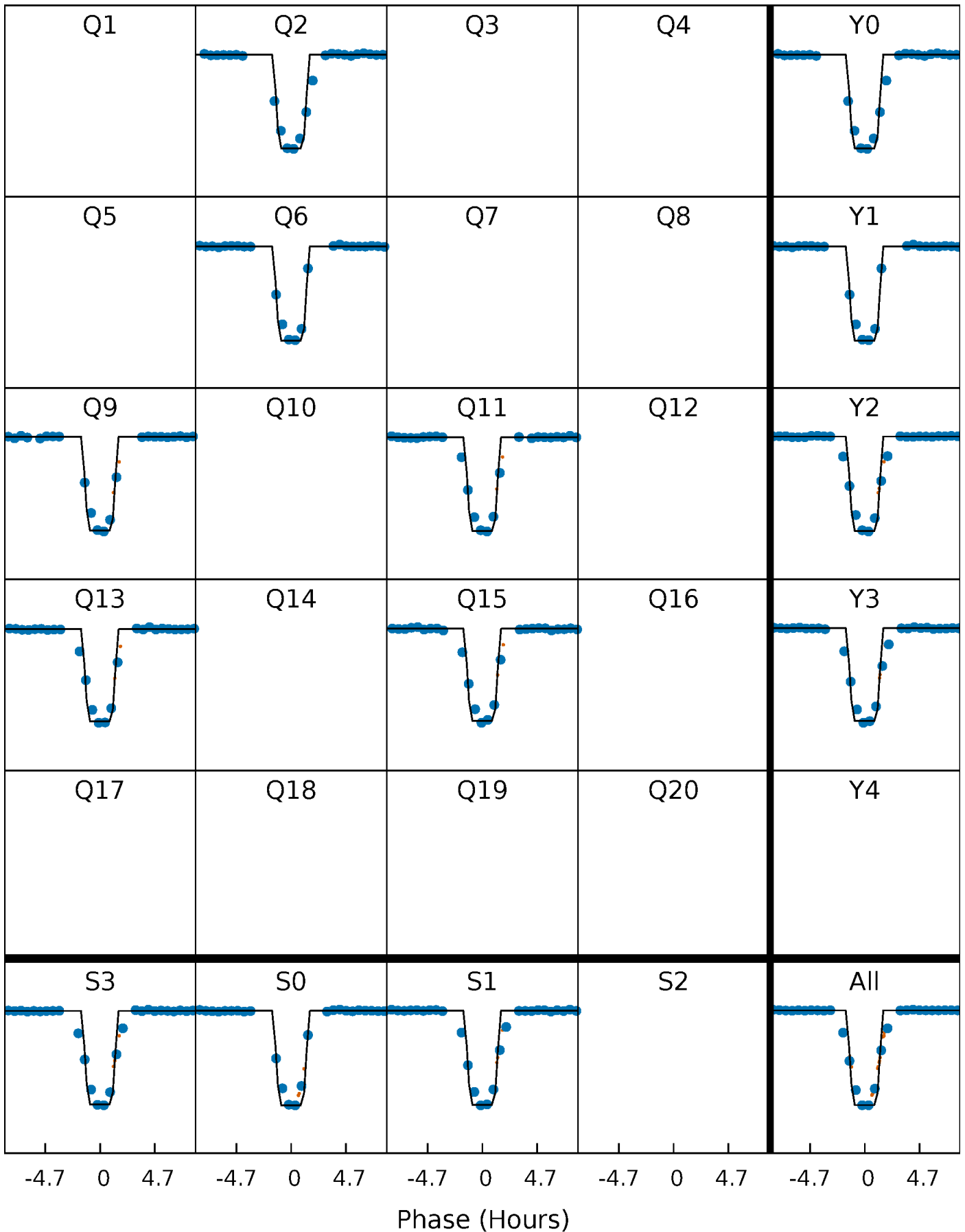
DV Quarter-Phased Transit Curves

TCE 011805075-01 P=199.839183 Days $T_0=225.359066$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

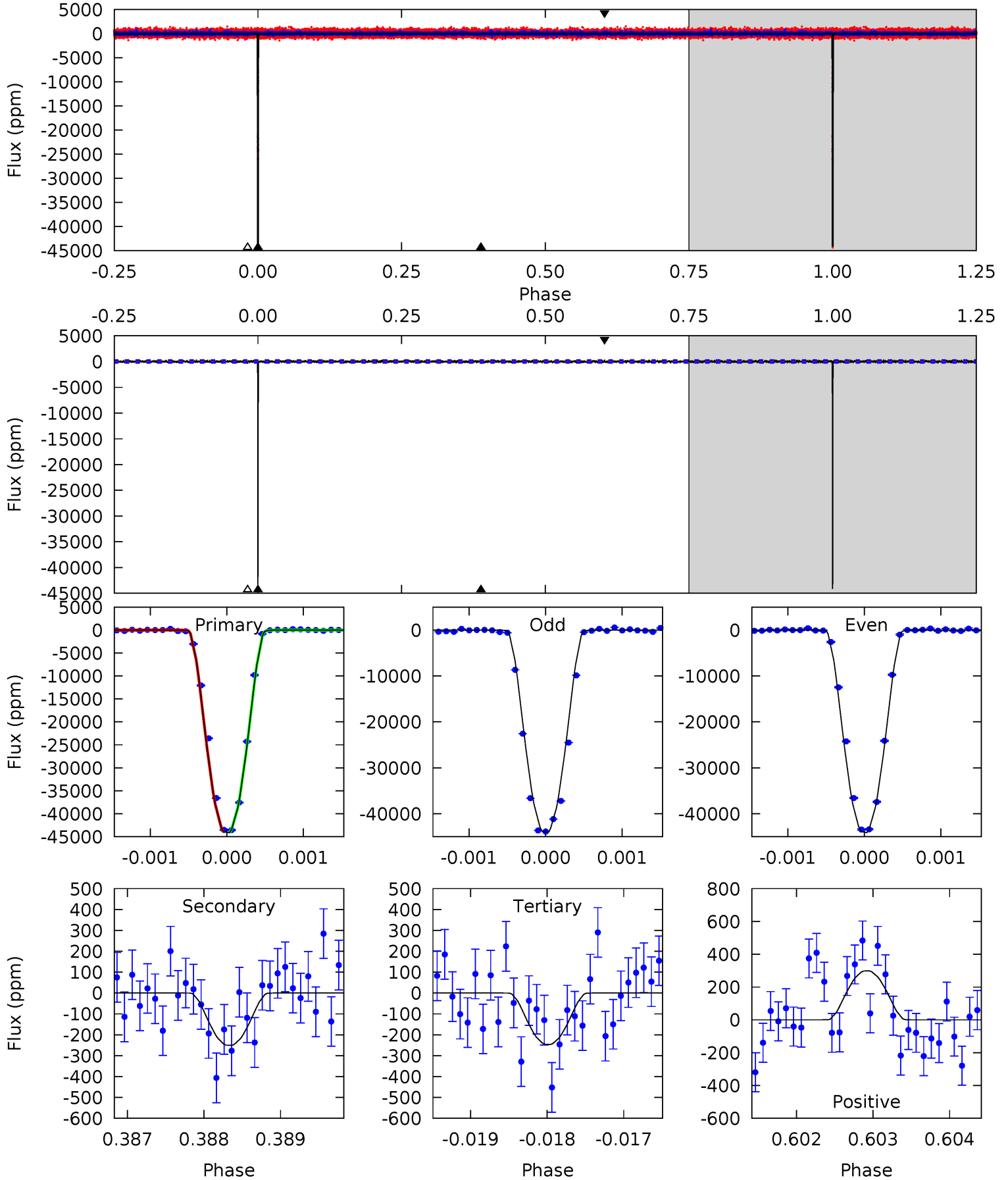
TCE 011805075-01 P=199.838866 Days $T_0=225.360026$ (BKJD)



DV Model-Shift Uniqueness Test

011805075-01, P = 199.839183 Days, E = 25.519883 Days

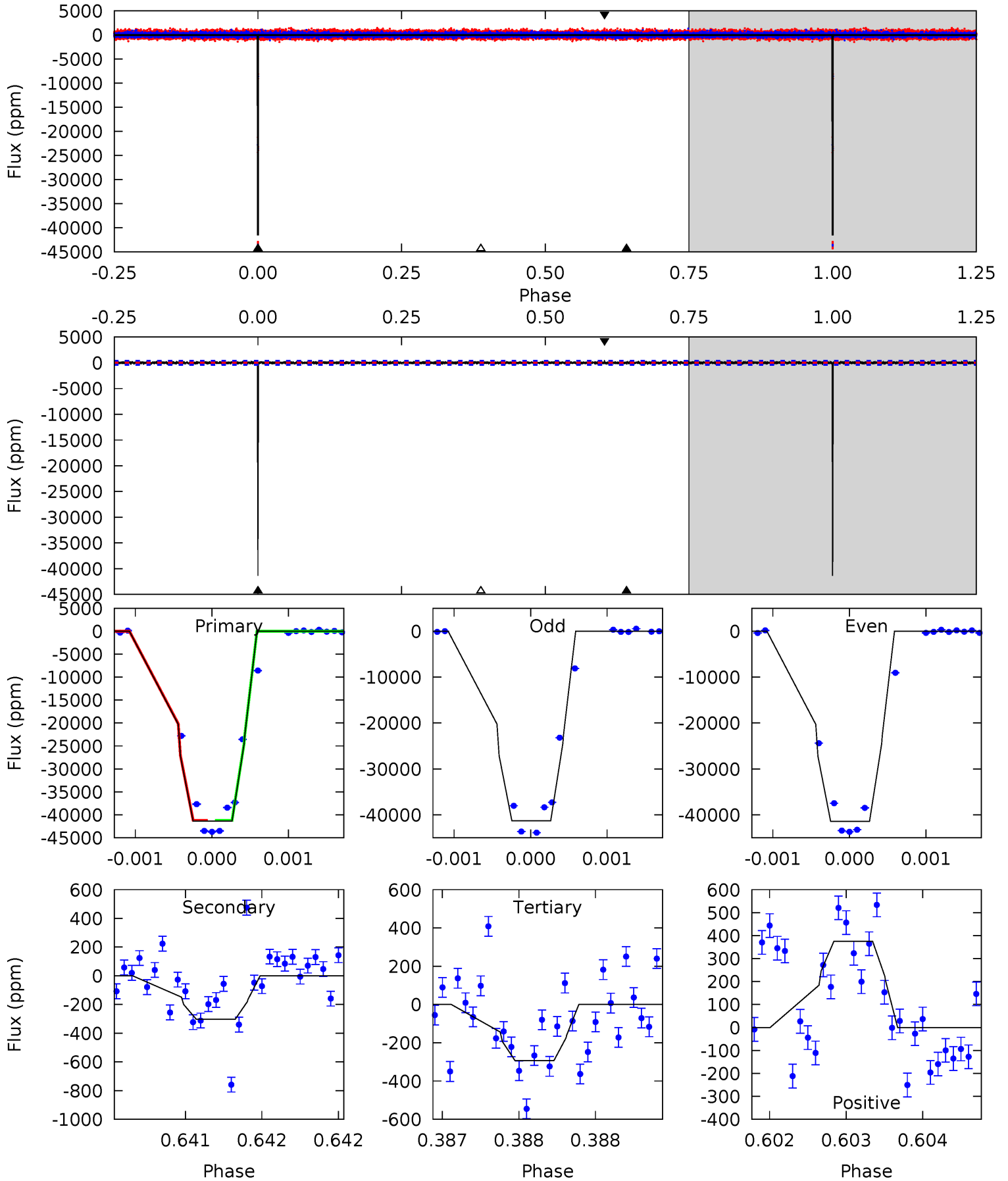
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
979.7	5.56	5.47	6.63	5.46	3.31	1.54	974.2	973.1	0.10	-1.07	0.12	1.00	0.01	1.44



Alt Model-Shift Uniqueness Test

011805075-01, P = 199.838866 Days, E = 25.521160 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
578.4	4.24	4.11	5.24	5.54	3.43	2.48	574.3	573.2	0.14	-1.00	0.97	1.00	0.01	0.25



Stellar Parameters For KIC 011805075

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5457^{+164}_{-147}	$4.548^{+0.028}_{-0.171}$	$0.200^{+0.200}_{-0.300}$	$0.869^{+0.200}_{-0.071}$	$0.974^{+0.065}_{-0.106}$	$2.086^{+0.337}_{-0.945}$
	+3%/-3%	+1%/-4%	+100%/-150%	+23%/-8%	+7%/-11%	+16%/-45%
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 011805075-01 / KOI 0436.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-251 ± 45	$22.18^{+2.90}_{-1.45}$	393^{+26}_{-14}	2338^{+61}_{-62}	117^{+30}_{-29}
Alt.	-304 ± 72	$20.23^{+2.69}_{-1.23}$	395^{+22}_{-16}	2445^{+75}_{-83}	169^{+50}_{-49}

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

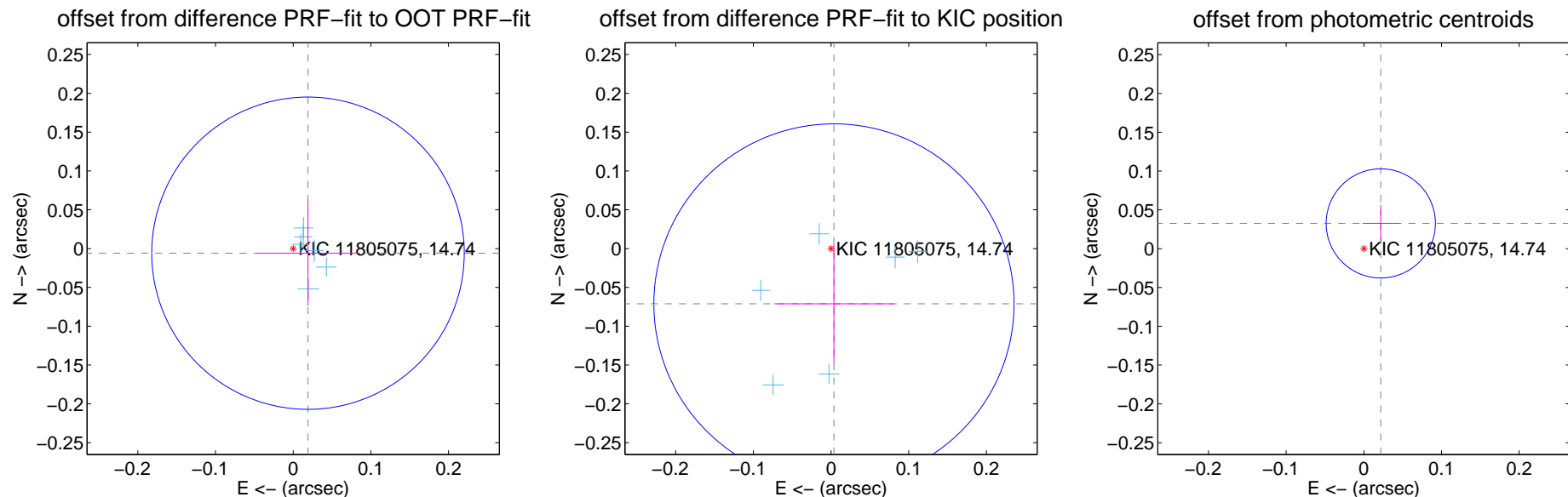
DV Centroid Data

Supplemental centroid analysis for 011805075-01. Kepler magnitude: 14.74. Transit SNR 572.84

There are 6 quarters with good PRF difference image offsets

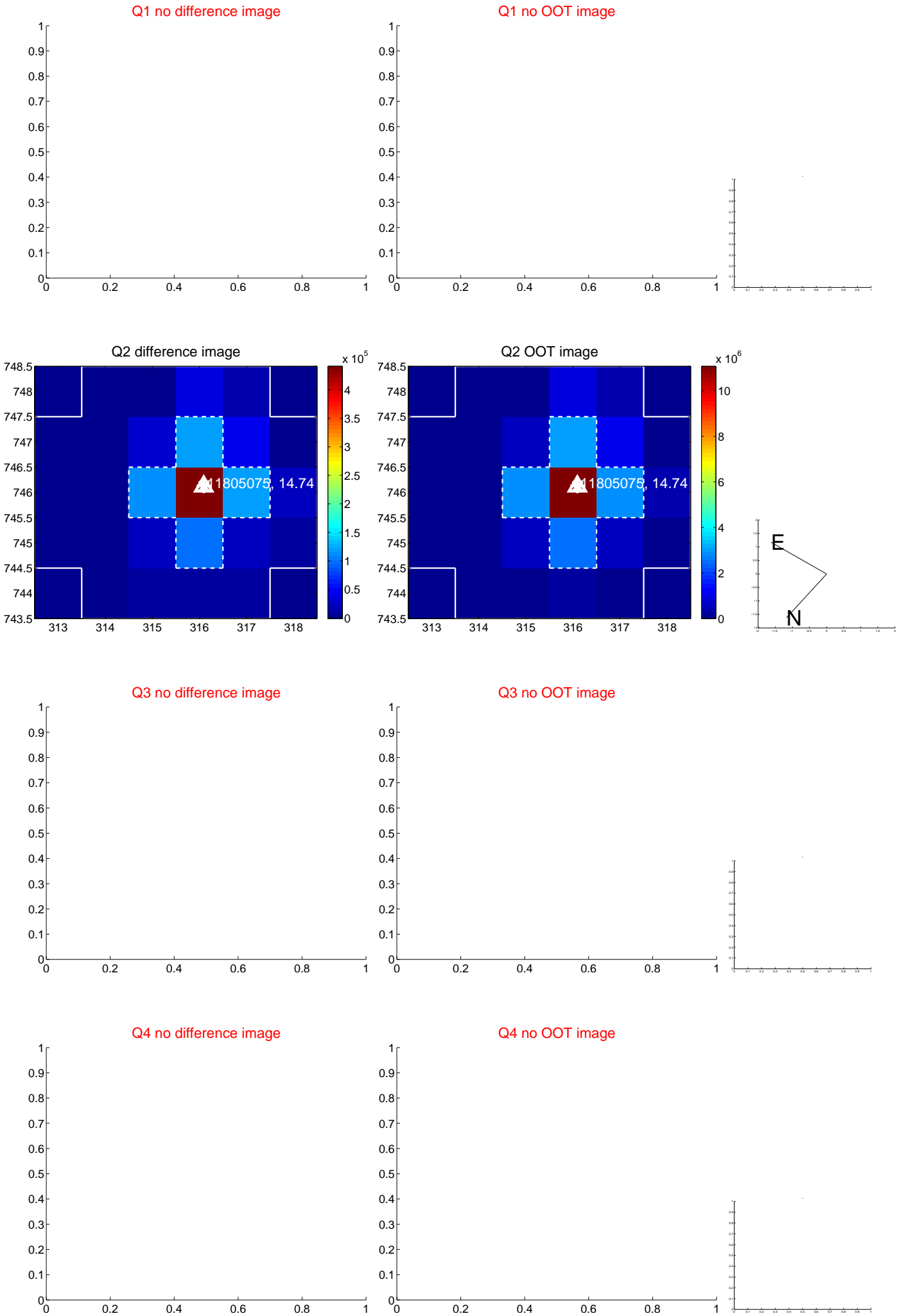
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.067	0.30	-0.019 ± 0.067	-0.006 ± 0.067
PRF-fit source offset from KIC position	0.071 ± 0.077	0.92	-0.004 ± 0.076	-0.071 ± 0.077
photometric centroid source offset	0.04 ± 0.02	1.67	-0.02 ± 0.02	0.03 ± 0.02

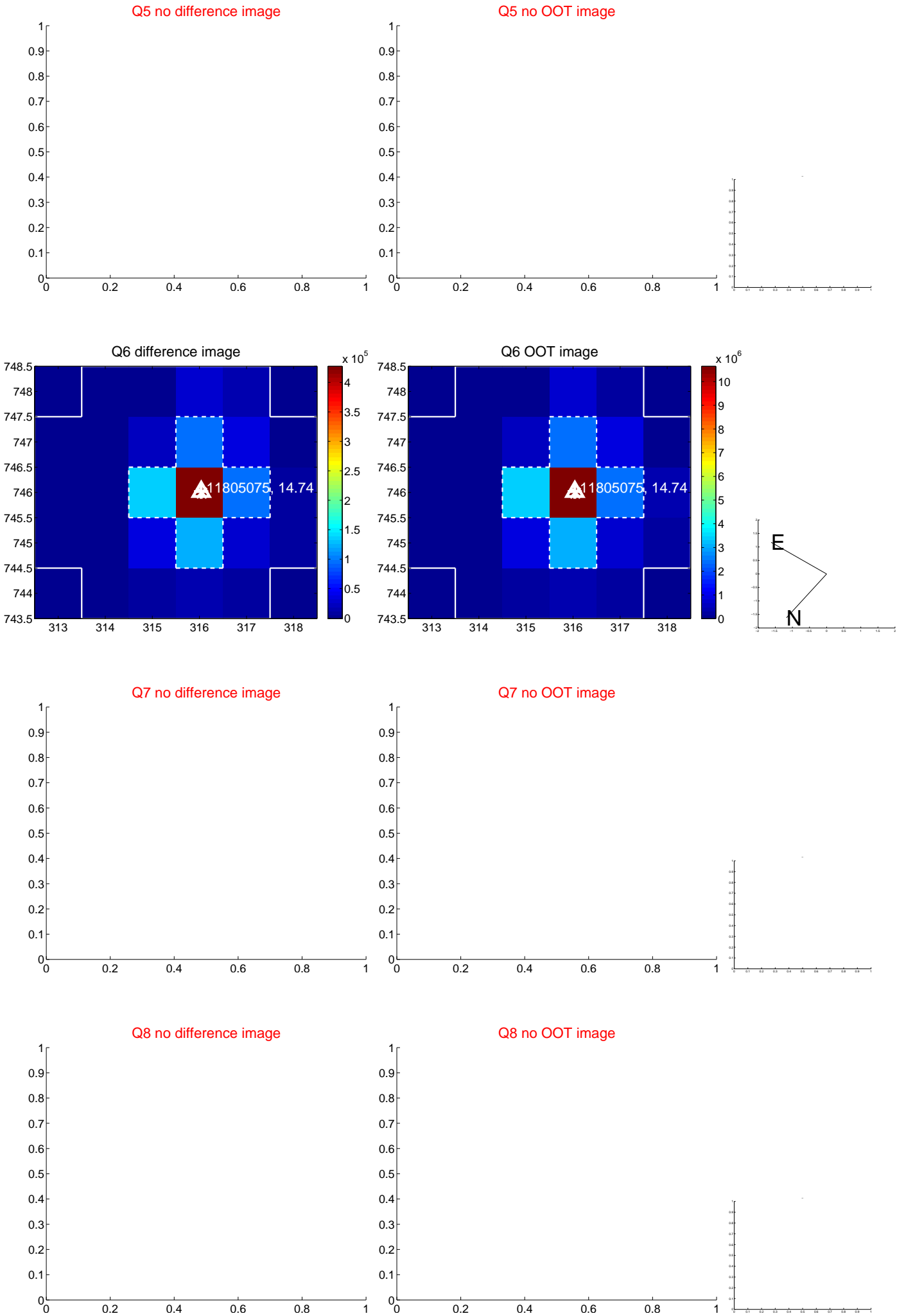


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

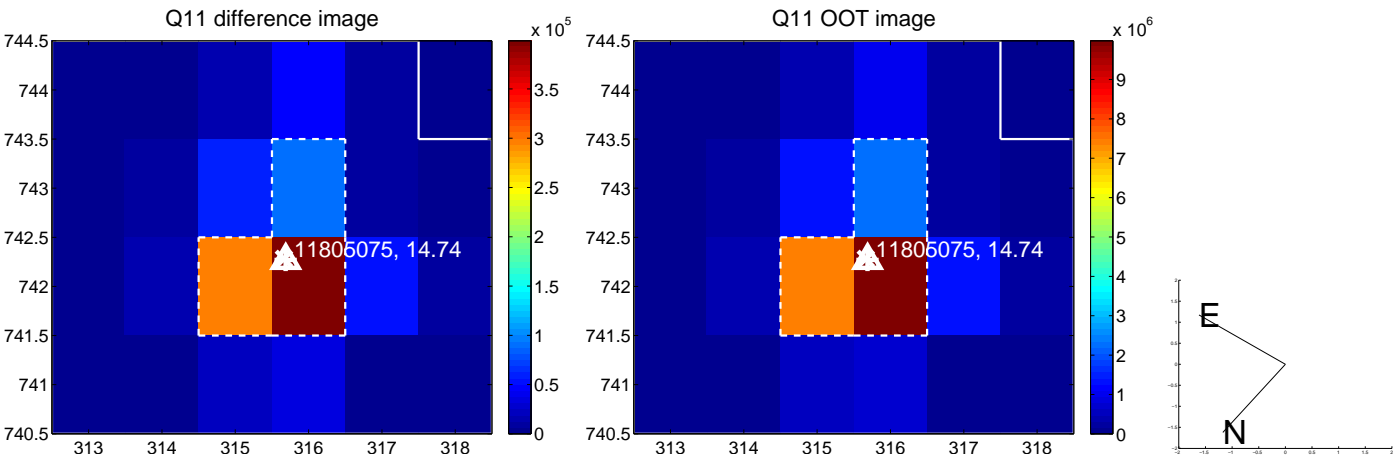
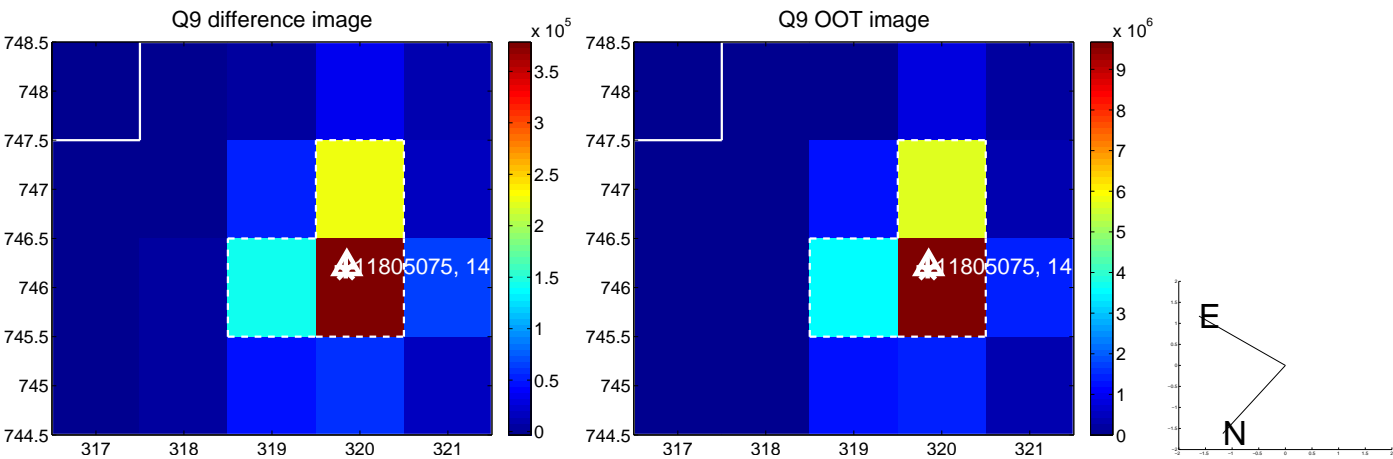
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



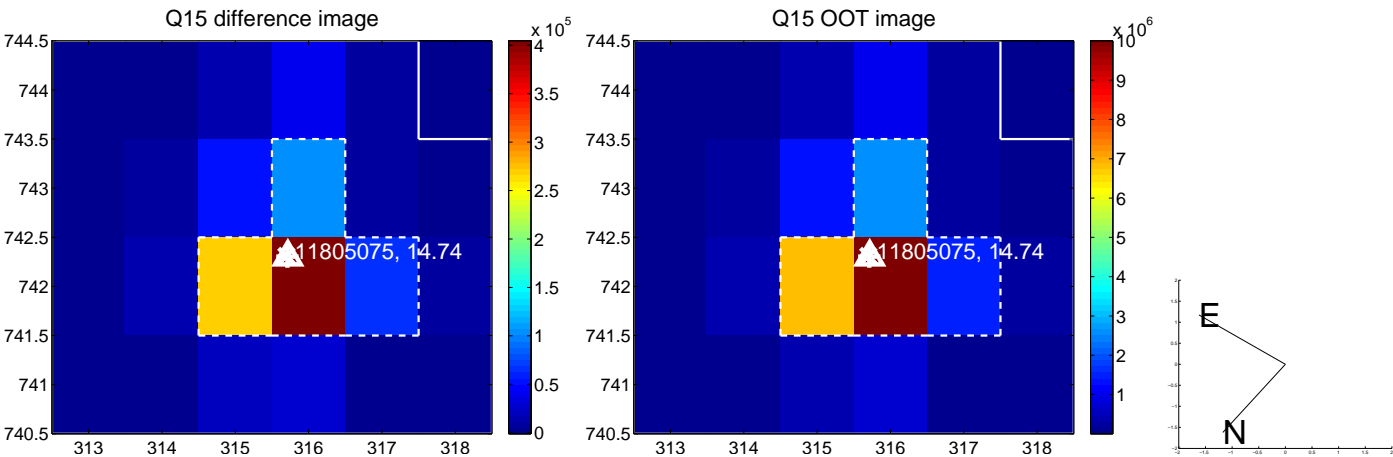
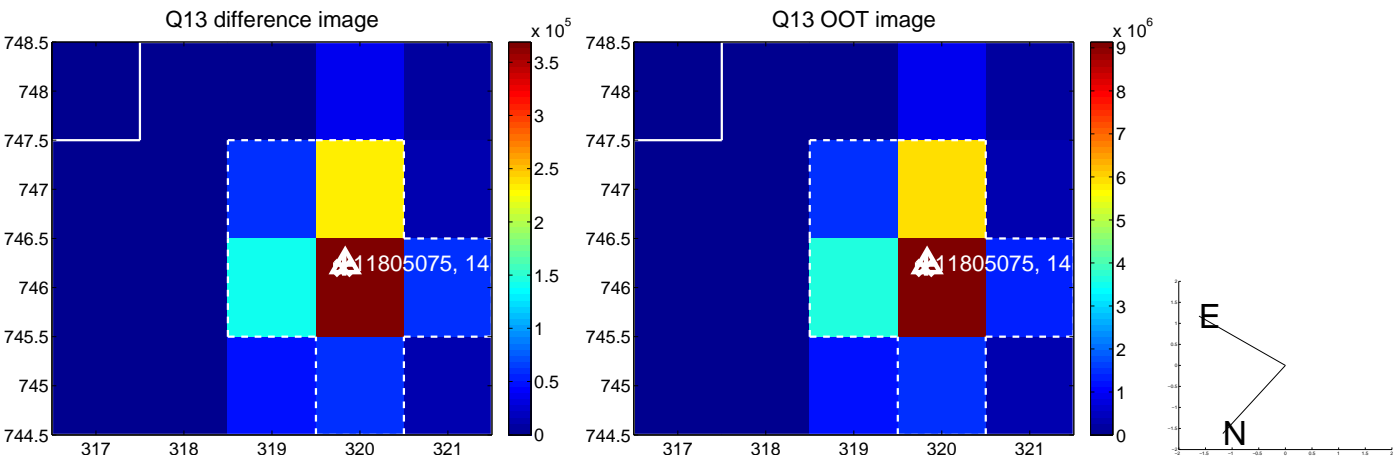
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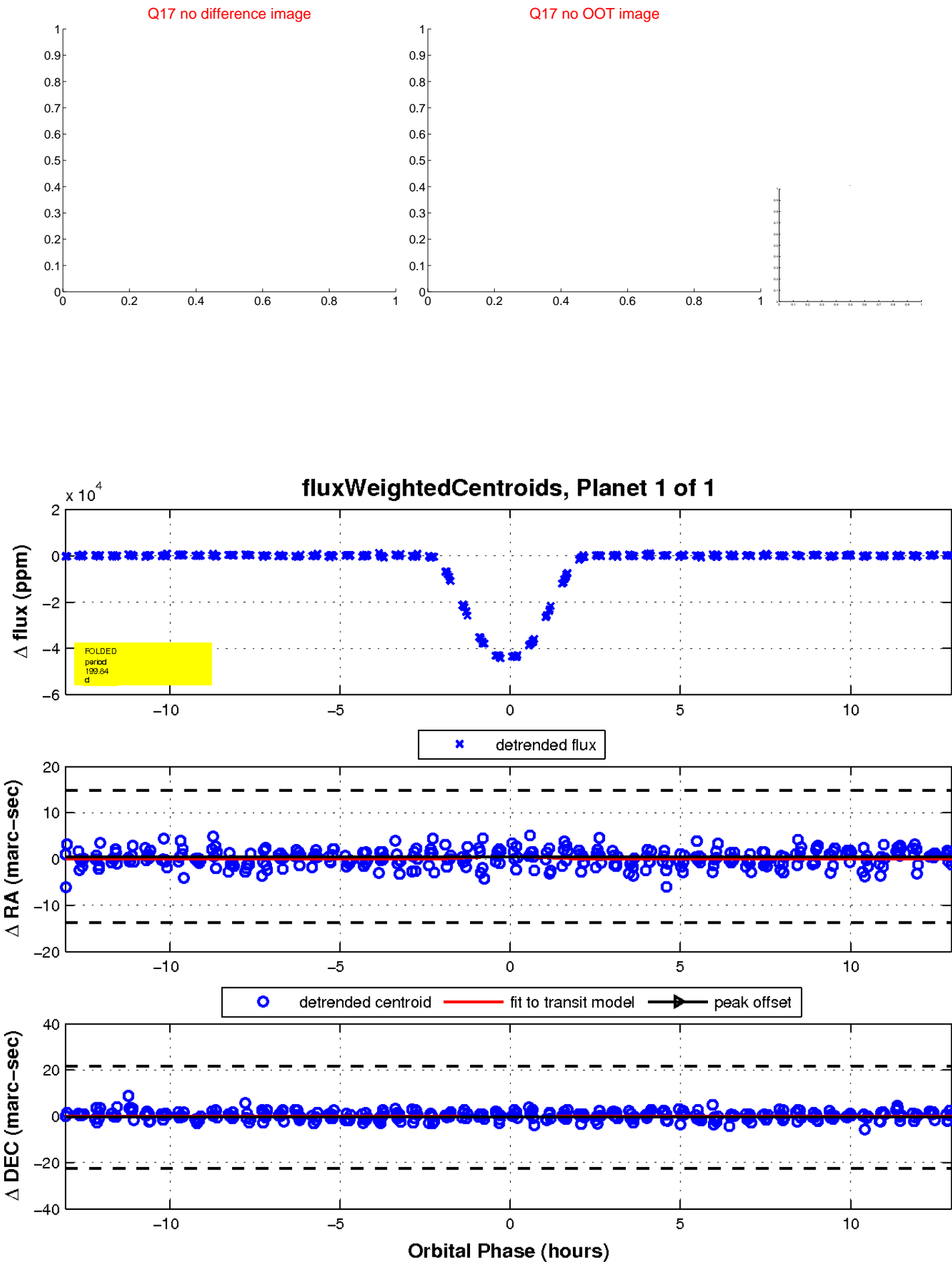
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

