

KIC 010490960

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})
010490960-01	OBS	7335.01	5.682412	133.637969	208339.7	5.598	9906.1	4760.3	1.20	5897	70.03	401.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010490960-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT

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.

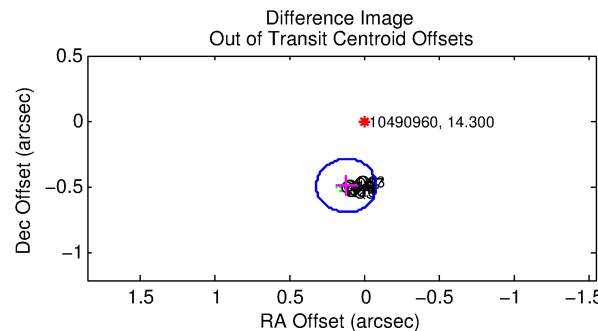
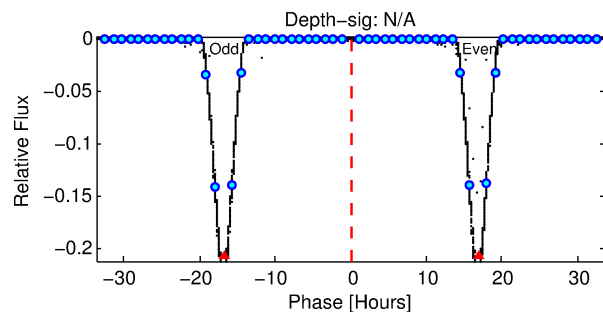
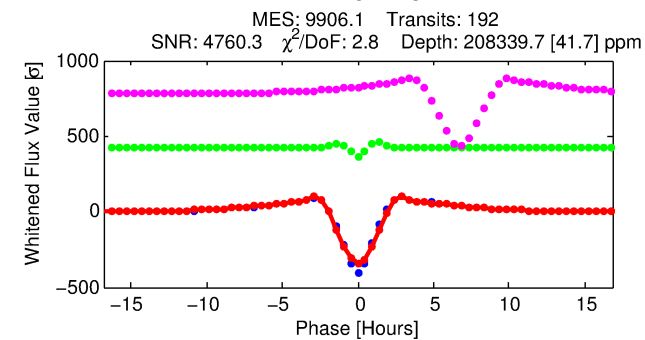
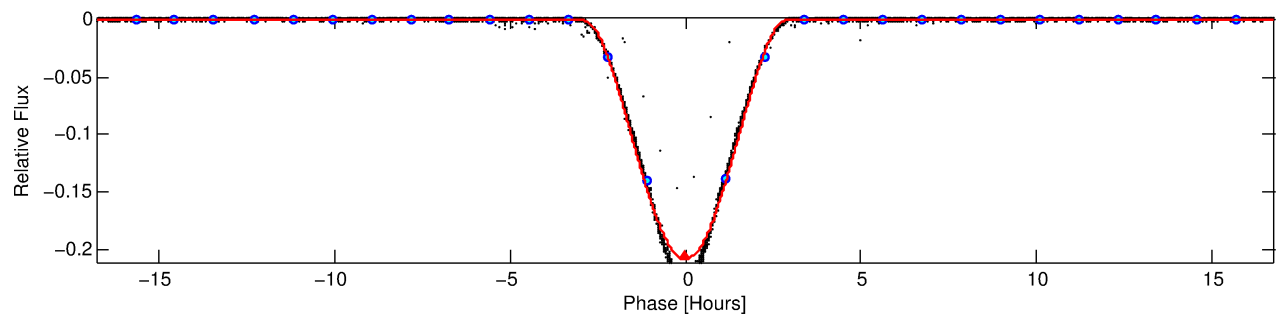
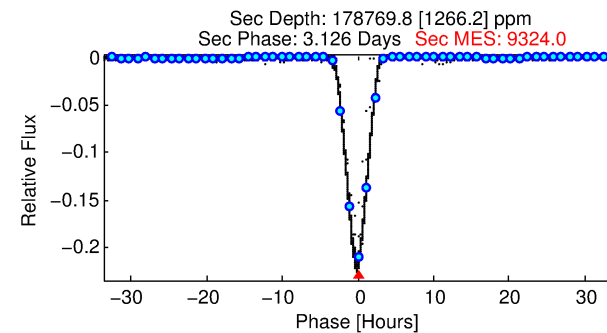
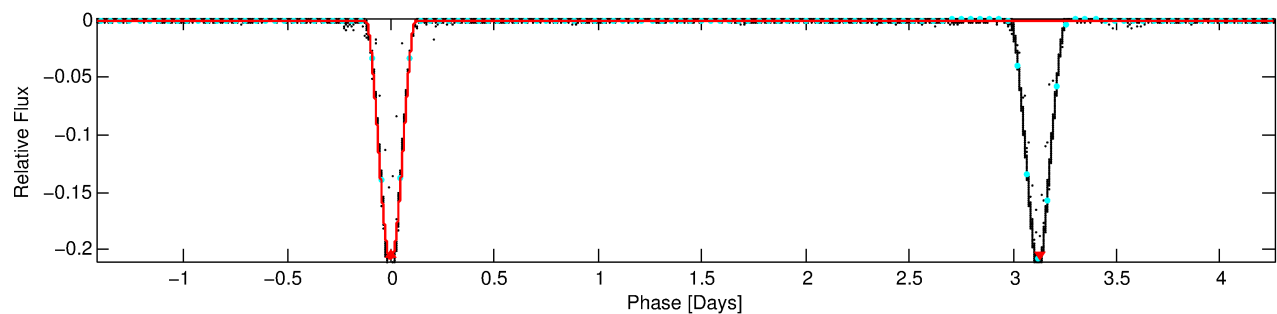
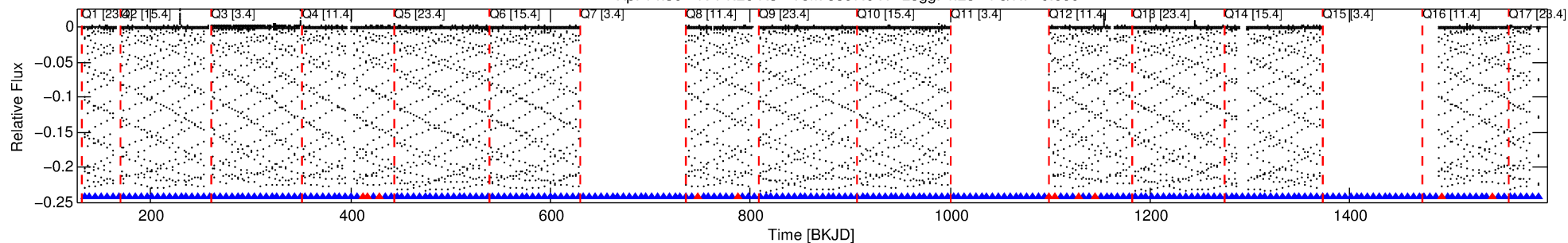
Ephemeris Match Information For 010490960-01

No Significant Match Found

DV One-Page Summary

KIC: 10490960 Candidate: 1 of 1 Period: 5.682 d
KOI: K07335.01 Corr: 0.977

Kp: 14.30 R*: 1.20 Rs Teff: 5897.0 K Logg: 4.28 Fe/H: -0.060



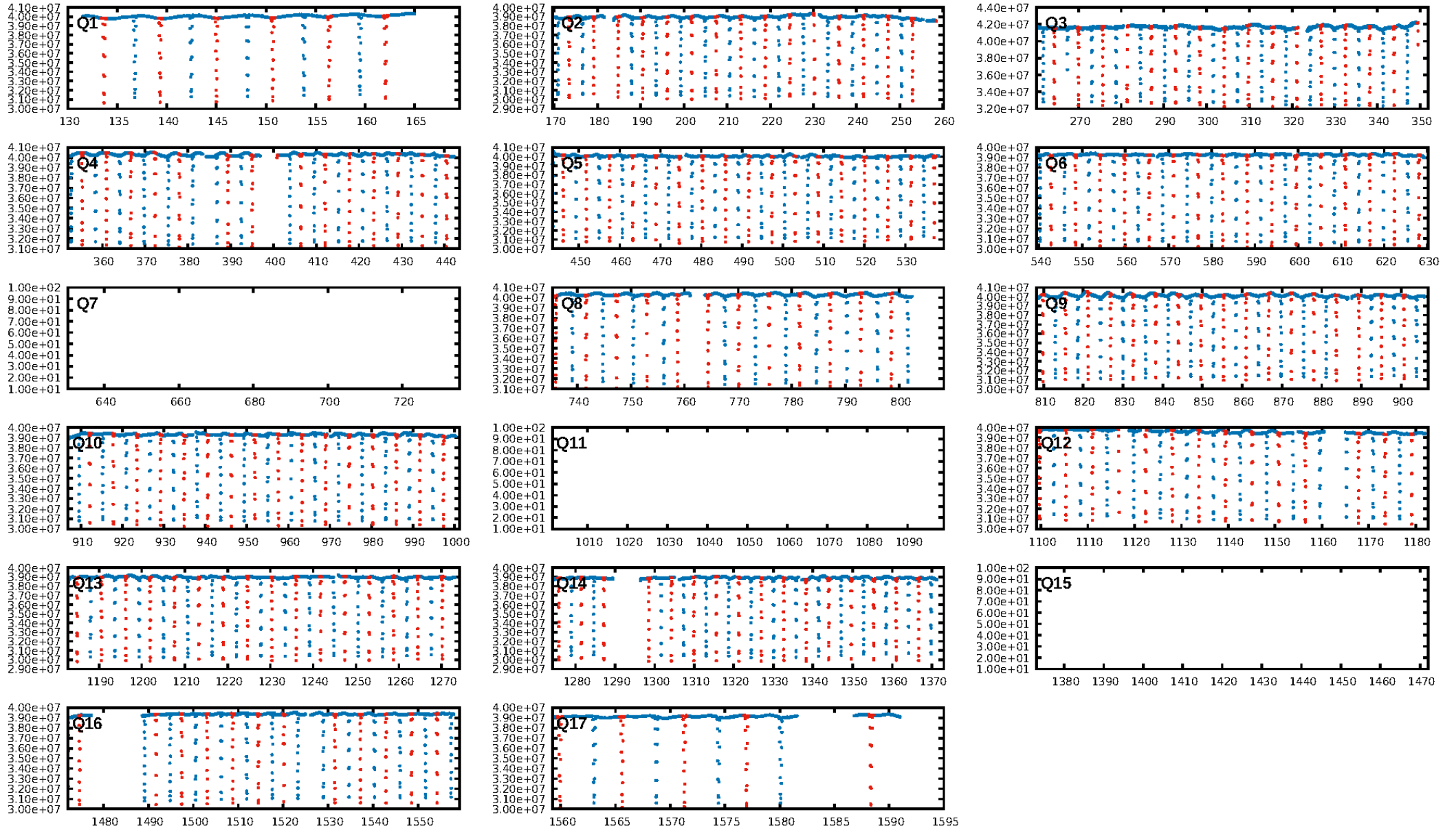
DV Fit Results:

Period = 5.68241 [0.00000] d
Epoch = 133.6380 [0.0000] BKJD
Rp/R* = 0.5366 [0.0113]
a/R* = 10.42 [0.02]
b = 0.76 [0.02]
Seff = 401.66 [143.77]
Teff = 1142 [102] K
Rp = 70.03 [19.20] Re
a = 0.0621 [0.0144] AU
Ag = 77.37 [26.32] [2.90σ]
Teffp = 5235 [166] K [21.01σ]

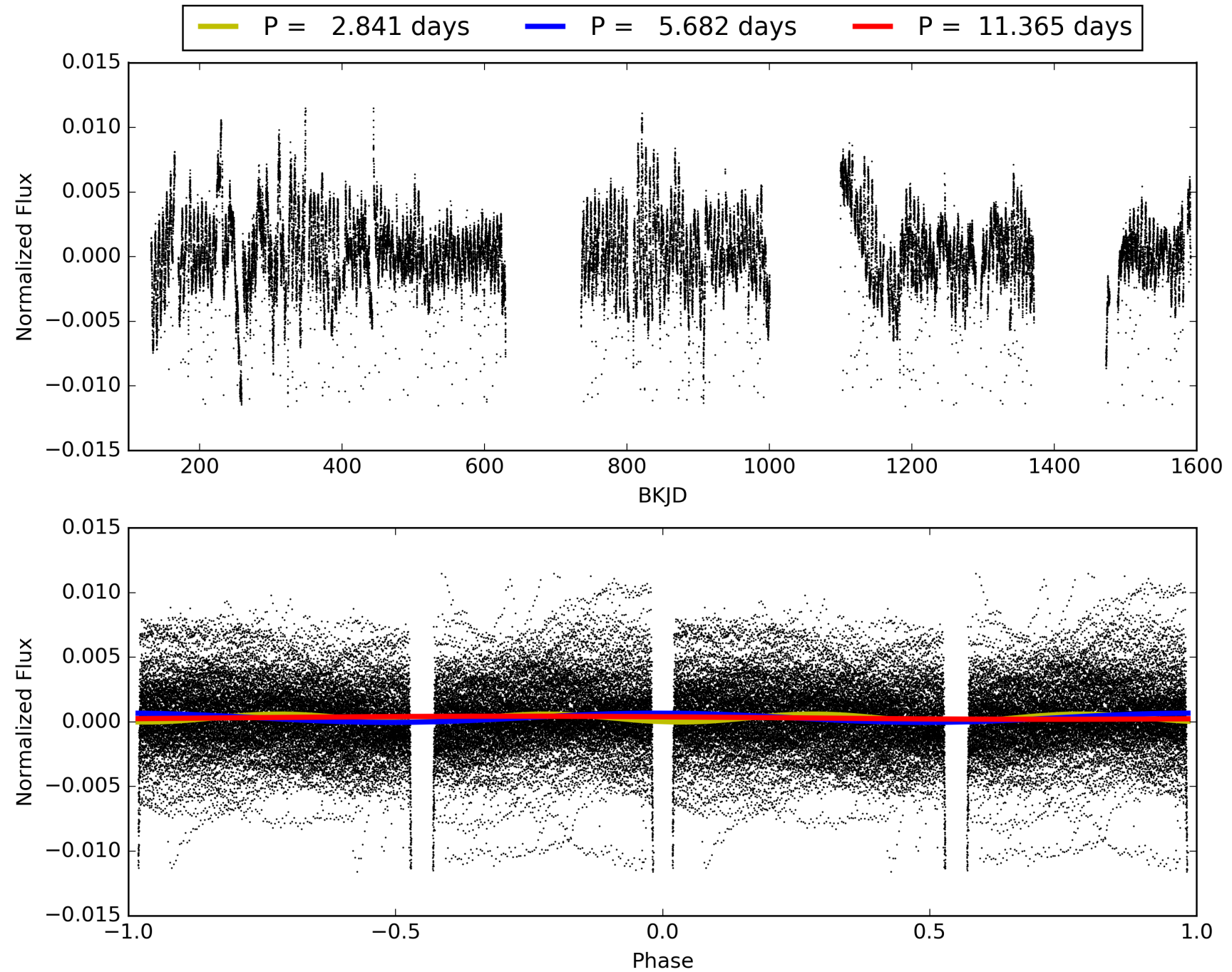
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.94 [170/181]
GhostDiagnostic-chr: 1.856
Centroid-sig: 0.0%
Centroid-so: 0.768 arcsec [821.39σ]
OotOffset-rm: 0.500 arcsec [7.44σ]
KicOffset-rm: 0.702 arcsec [10.20σ]
OotOffset-st: 4/1/4/5 [14]
KicOffset-st: 4/1/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 010490960-01, PDC Light Curves

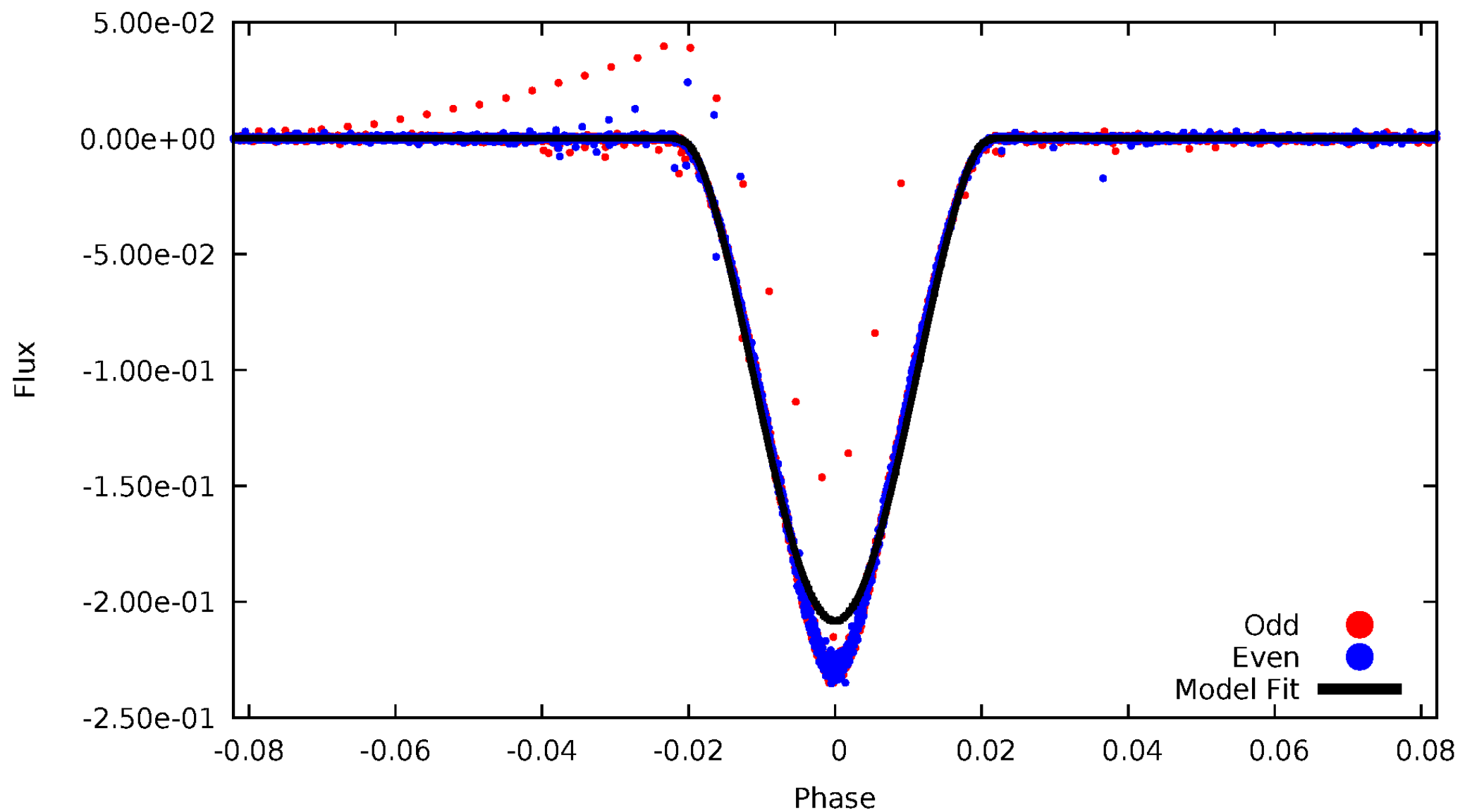


TCE 010490960-01



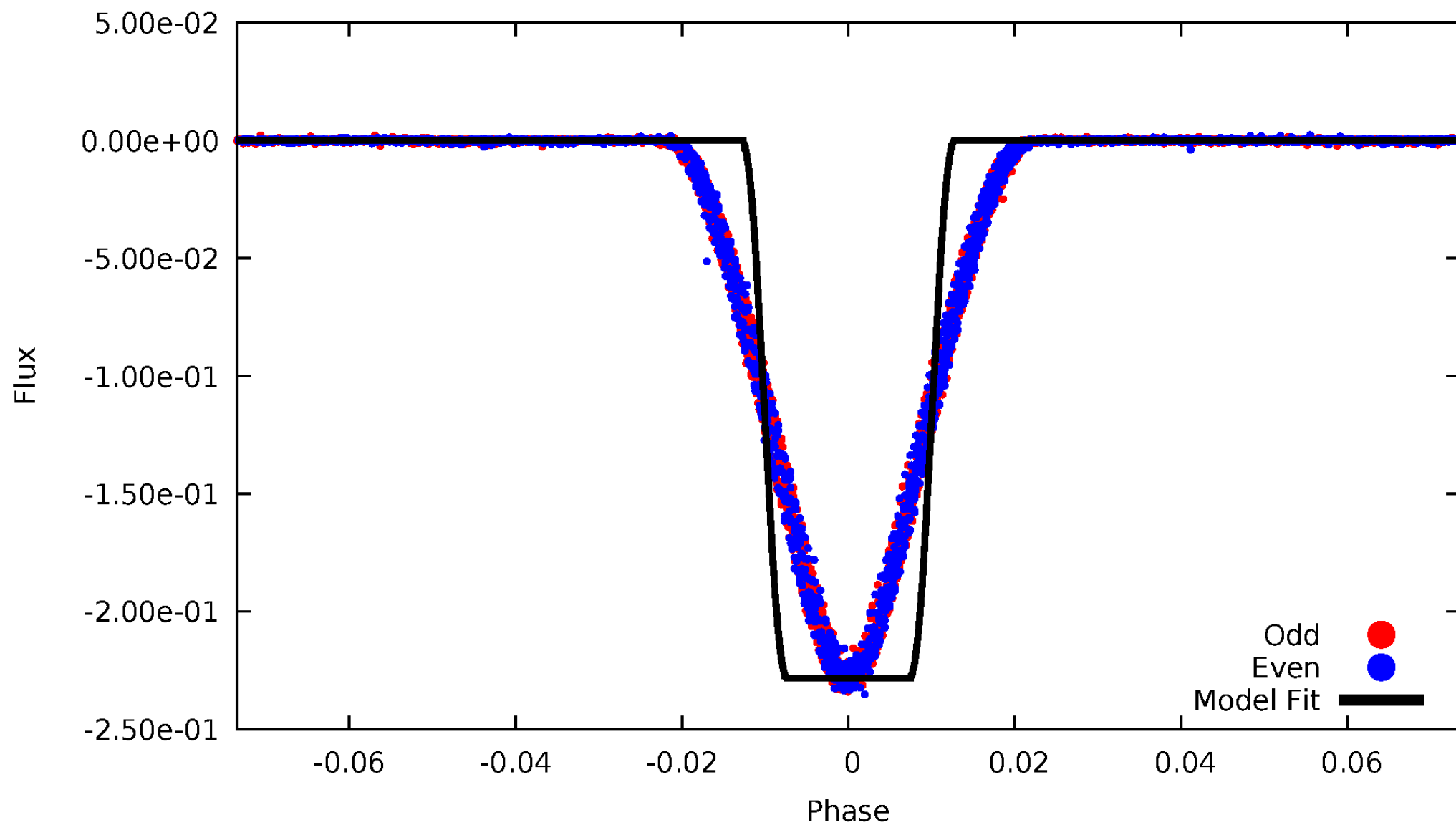
DV Odd/Even

TCE 010490960-01



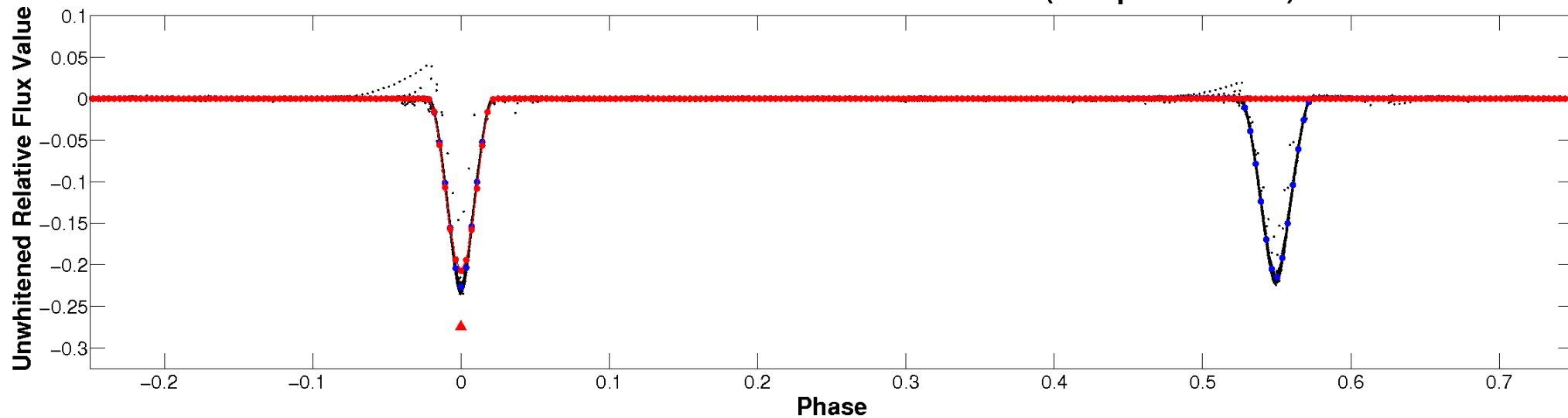
ALT Odd/Even

TCE 010490960-01

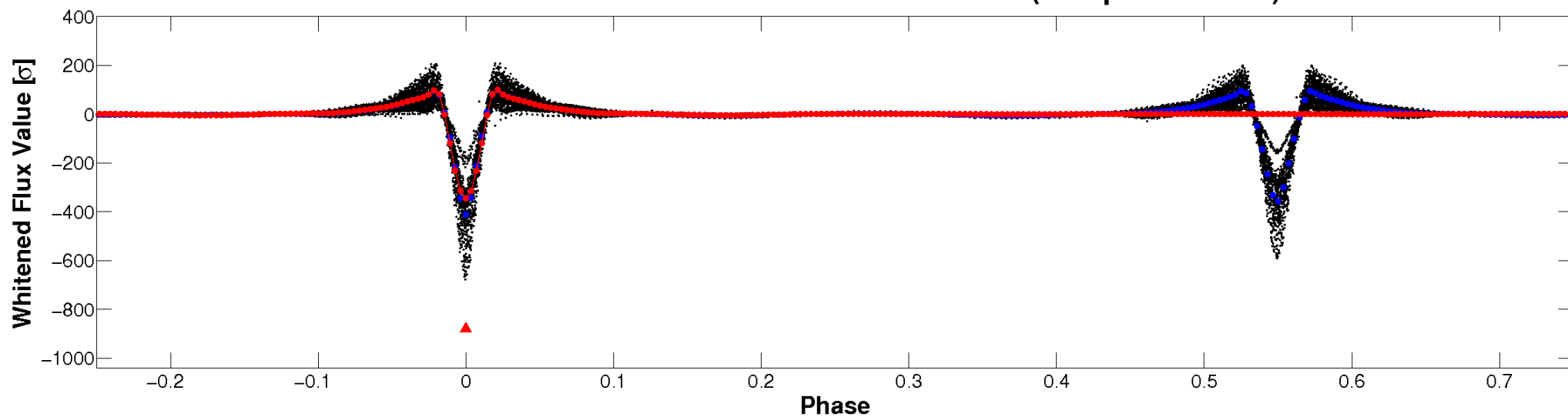


Non-Whitened Vs. Whitened Light Curve

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

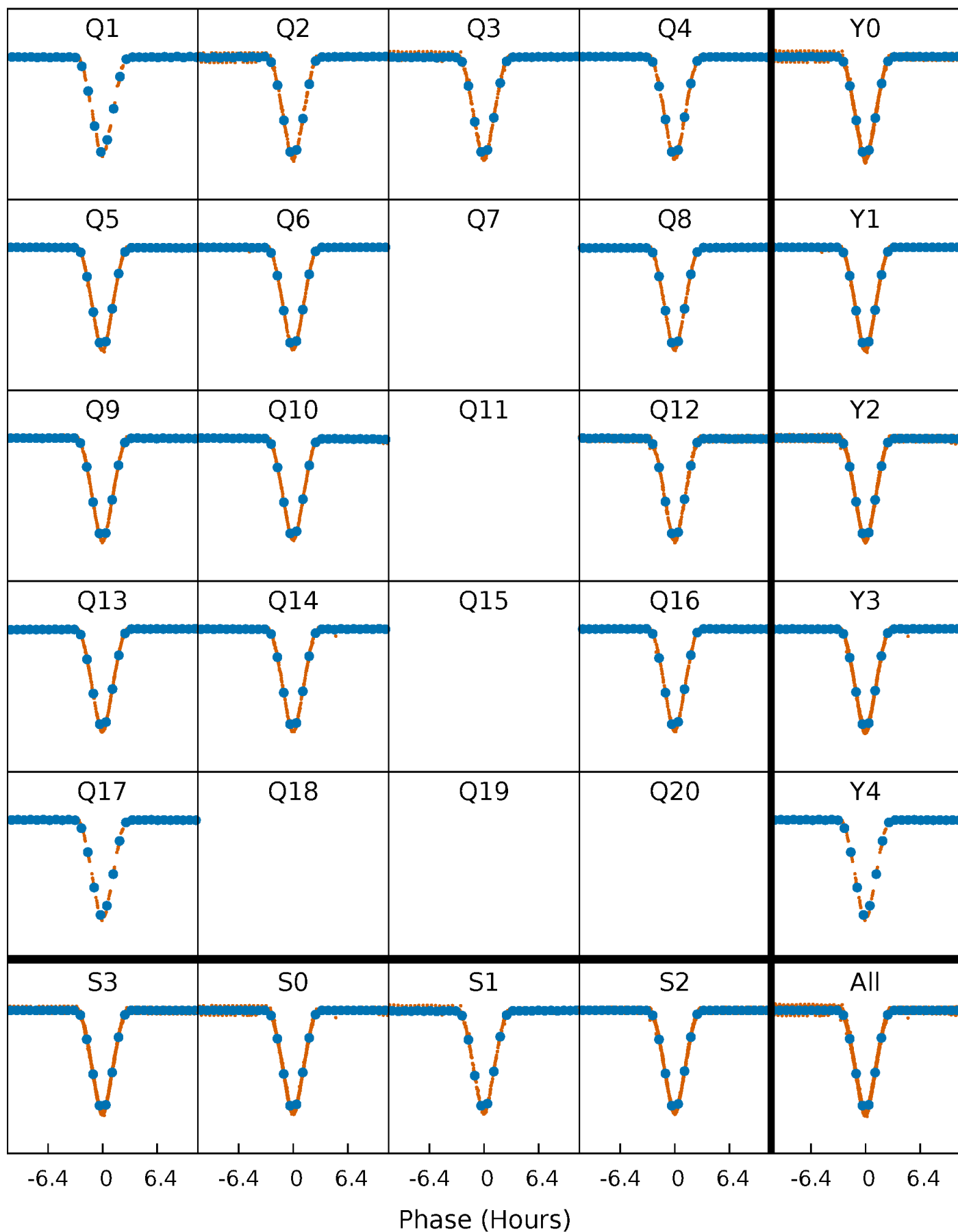


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



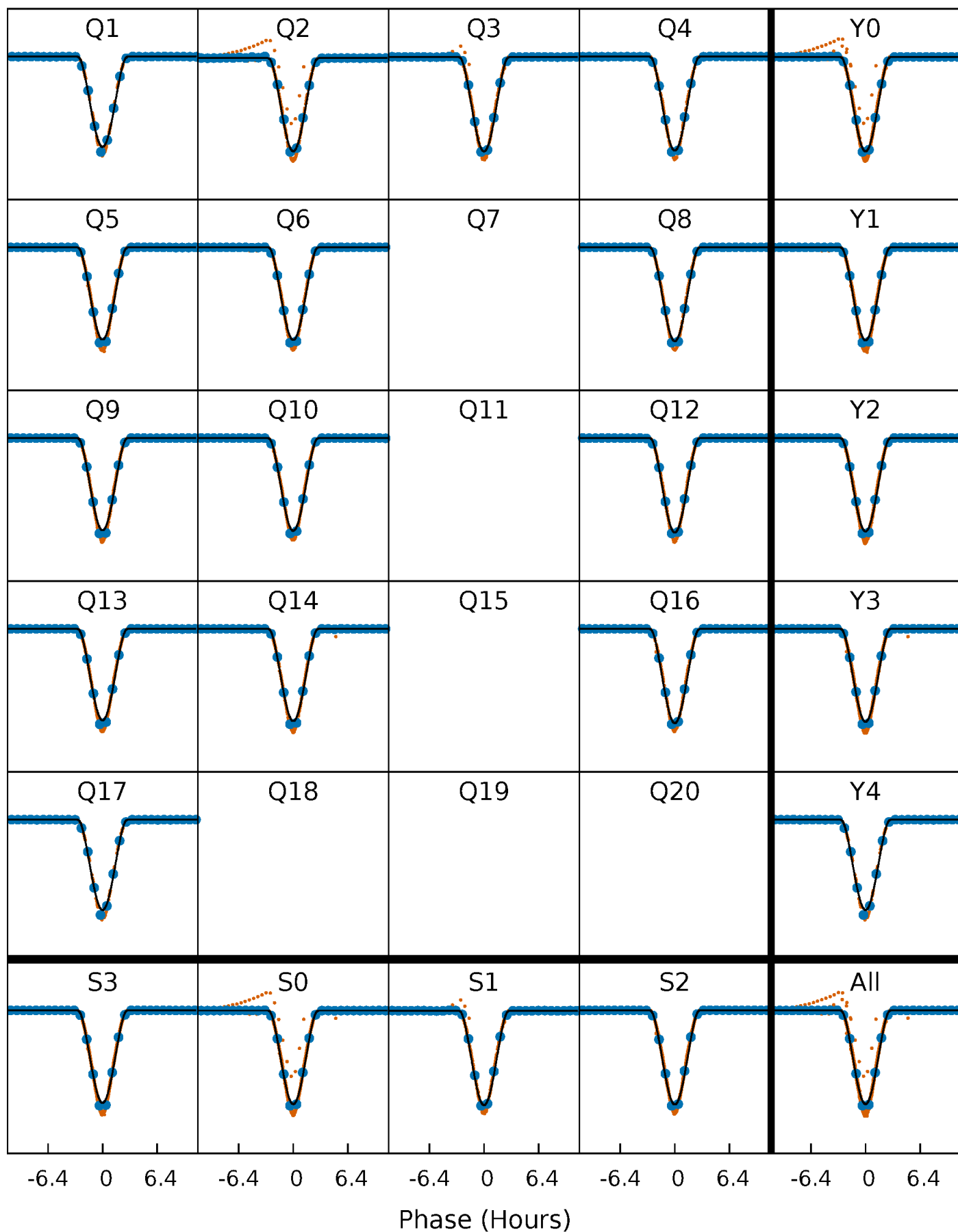
PDC Quarter-Phased Transit Curves

TCE 010490960-01 P= 5.682412 Days $T_0=133.637968$ (BKJD)



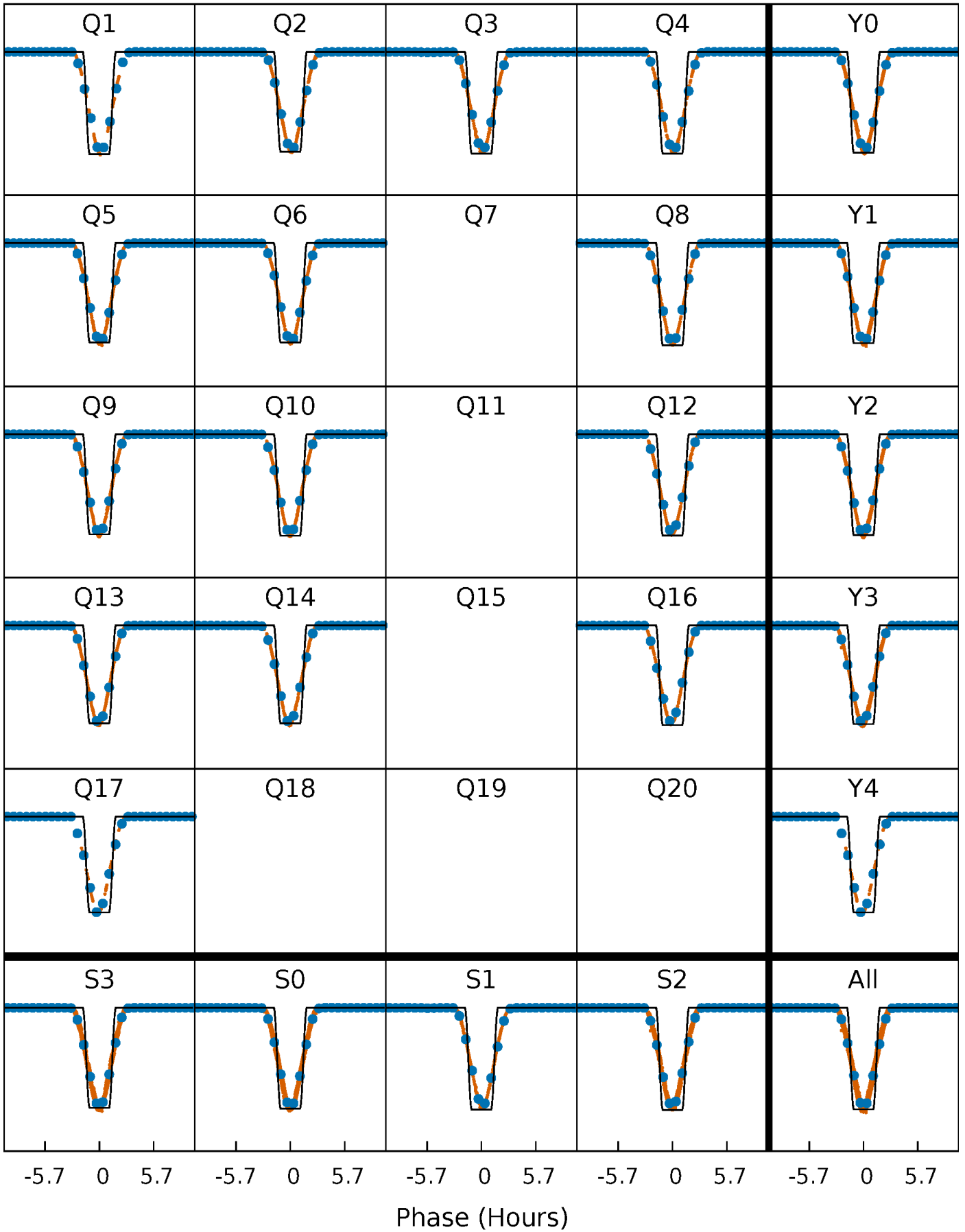
DV Quarter-Phased Transit Curves

TCE 010490960-01 P= 5.682412 Days $T_0=133.637968$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

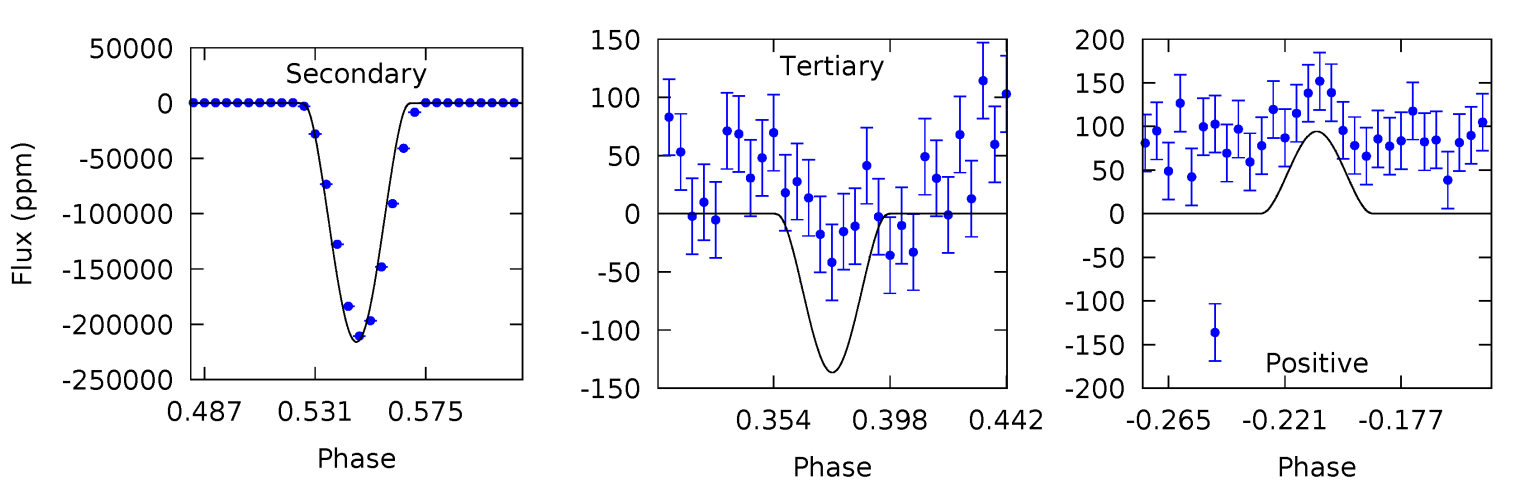
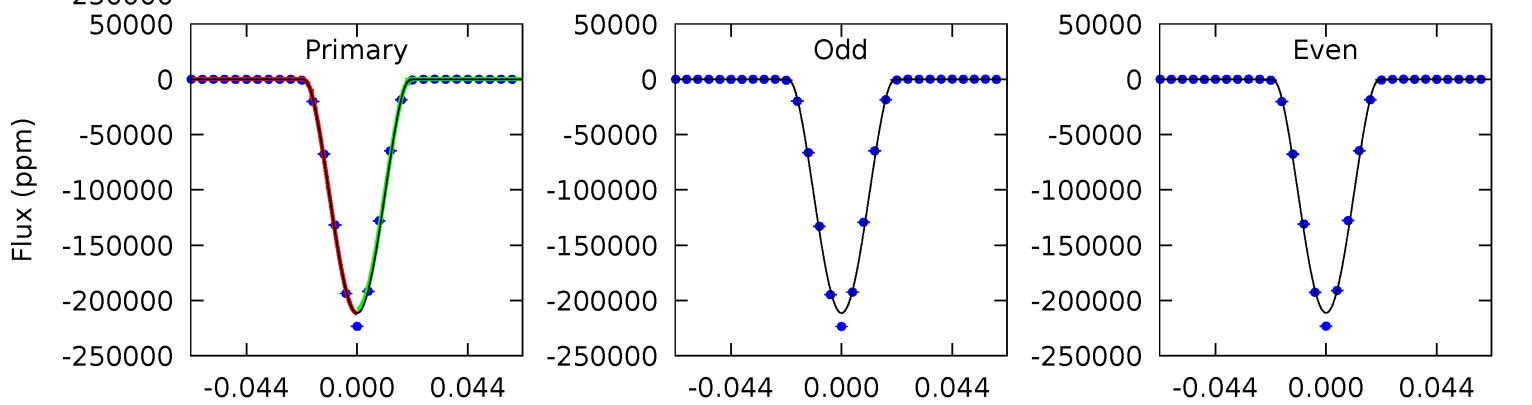
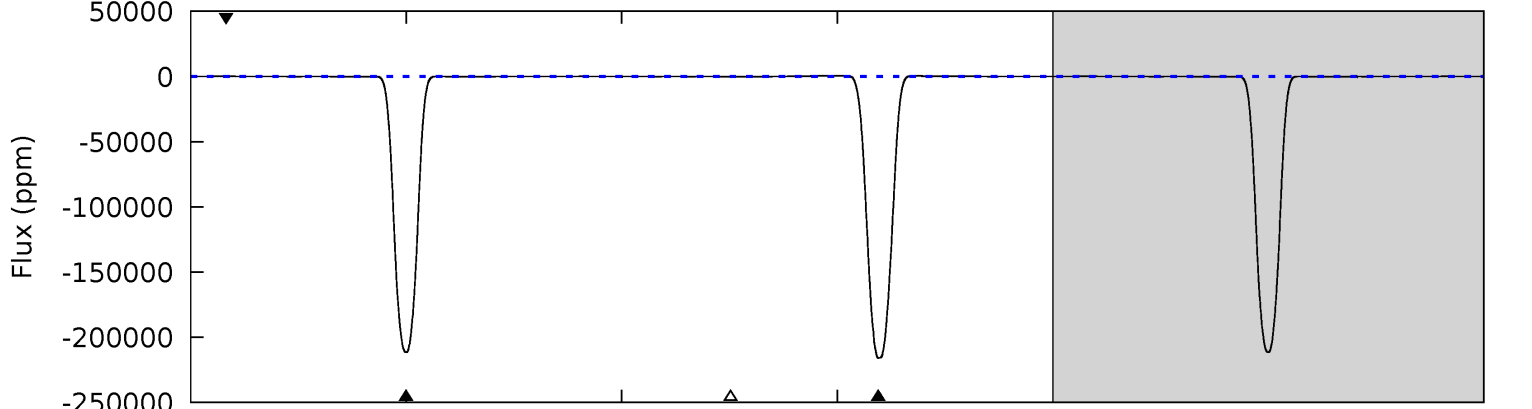
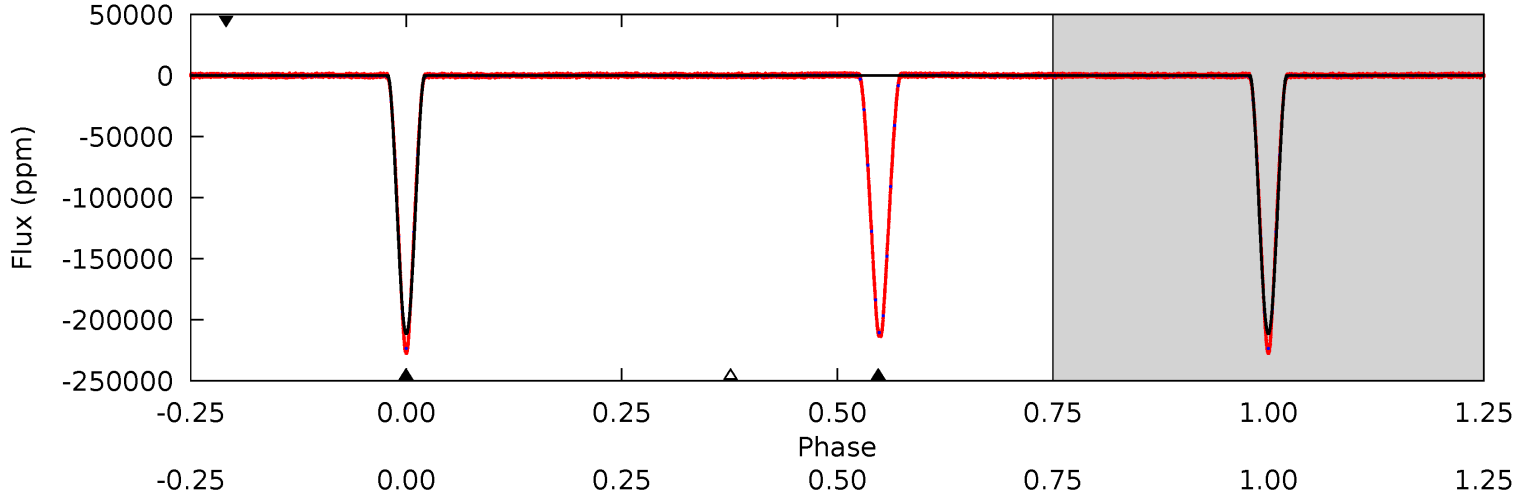
TCE 010490960-01 P= 5.682453 Days $T_0=133.632286$ (BKJD)



DV Model-Shift Uniqueness Test

010490960-01, P = 5.682412 Days, E = 127.955556 Days

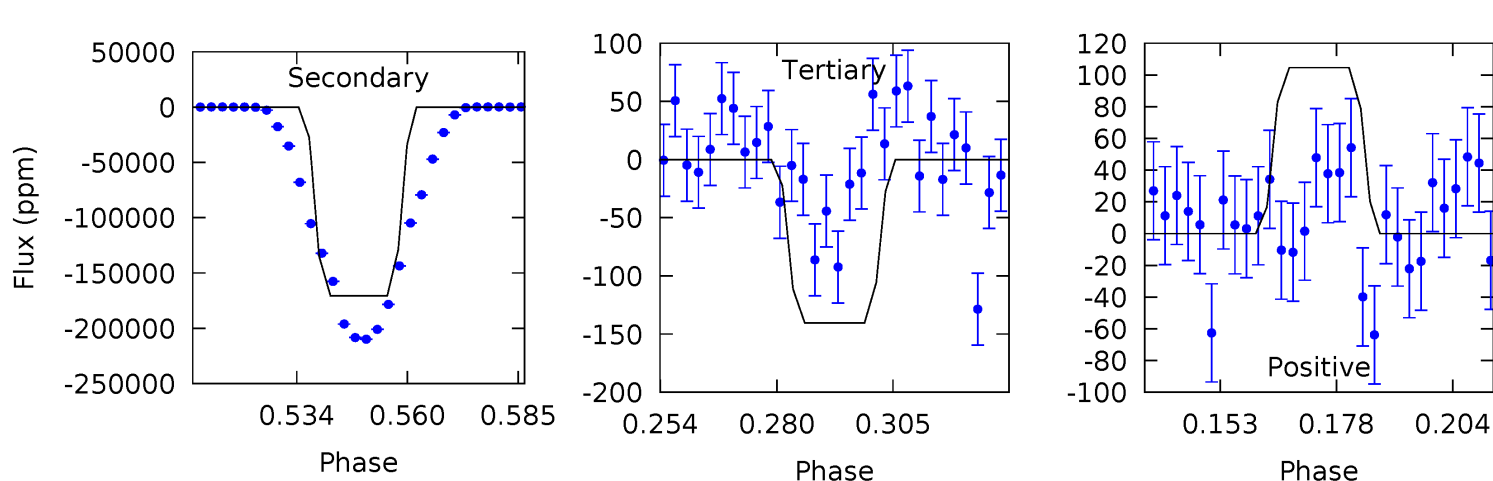
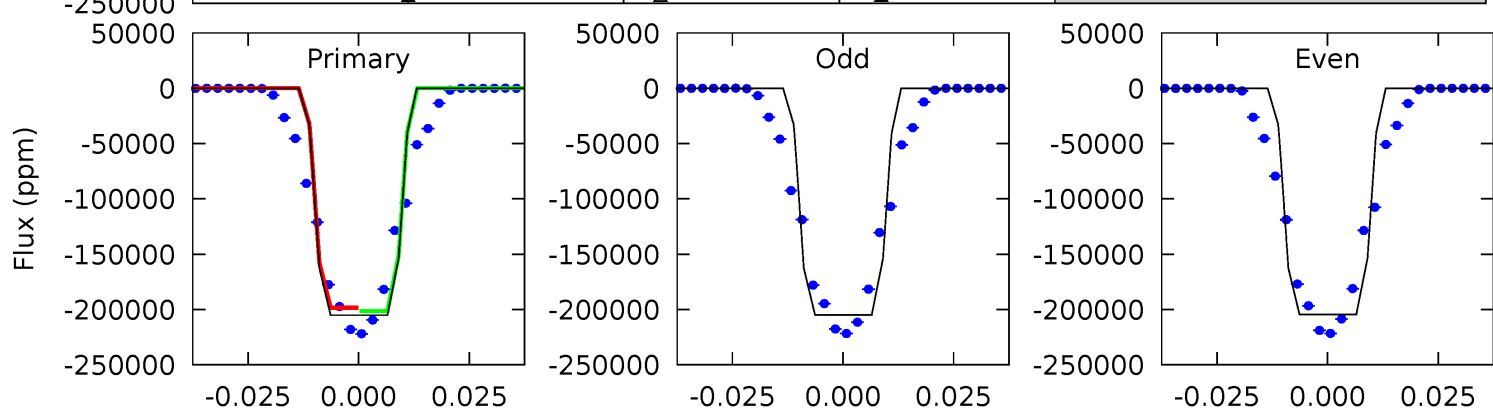
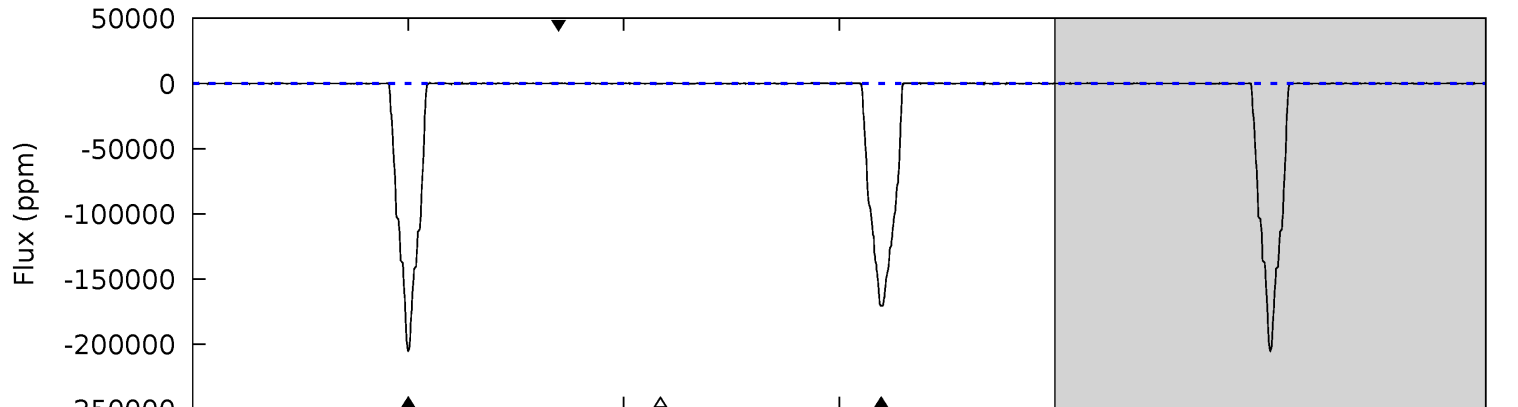
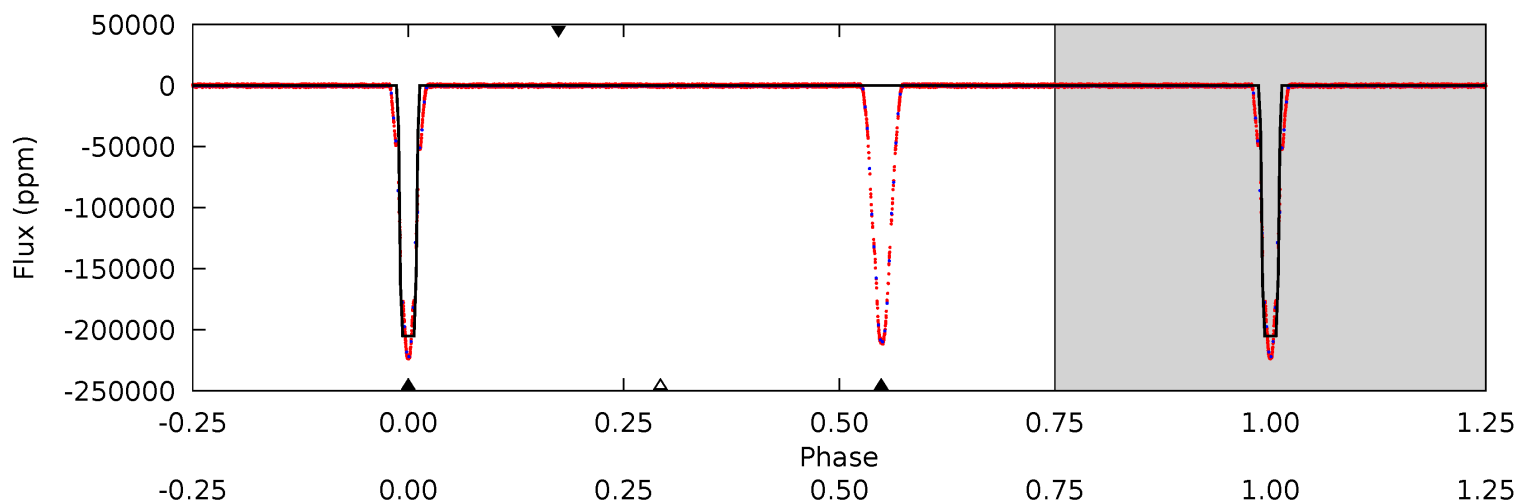
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17309	17670	11.2	7.72	4.73	2.01	10.5	17298	17301	17659	17662	7.81	0.99	0.00	0



Alt Model-Shift Uniqueness Test

010490960-01, P = 5.682453 Days, E = 127.949833 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6191	5148	4.24	3.16	4.84	2.23	1.34	6187	6188	5143	5144	2.52	1.00	0.00	40.3



Stellar Parameters For KIC 010490960

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5897^{+158}_{-176}	$4.278^{+0.185}_{-0.185}$	$-0.060^{+0.250}_{-0.300}$	$1.196^{+0.327}_{-0.238}$	$0.990^{+0.140}_{-0.115}$	$0.816^{+0.784}_{-0.402}$
	+3%/-3%	+4%/-4%	+417%/-500%	+27%/-20%	+14%/-12%	+96%/-49%
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 010490960-01 / KOI 7335.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-215867 ± 12	$70.89^{+10.95}_{-8.81}$	1599^{+119}_{-106}	5830^{+171}_{-187}	116^{+32}_{-26}
Alt.	-170541 ± 33	$62.25^{+9.31}_{-7.19}$	1594^{+118}_{-105}	5755^{+170}_{-175}	113^{+31}_{-27}

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 $A_{obs} \gg 1.0$

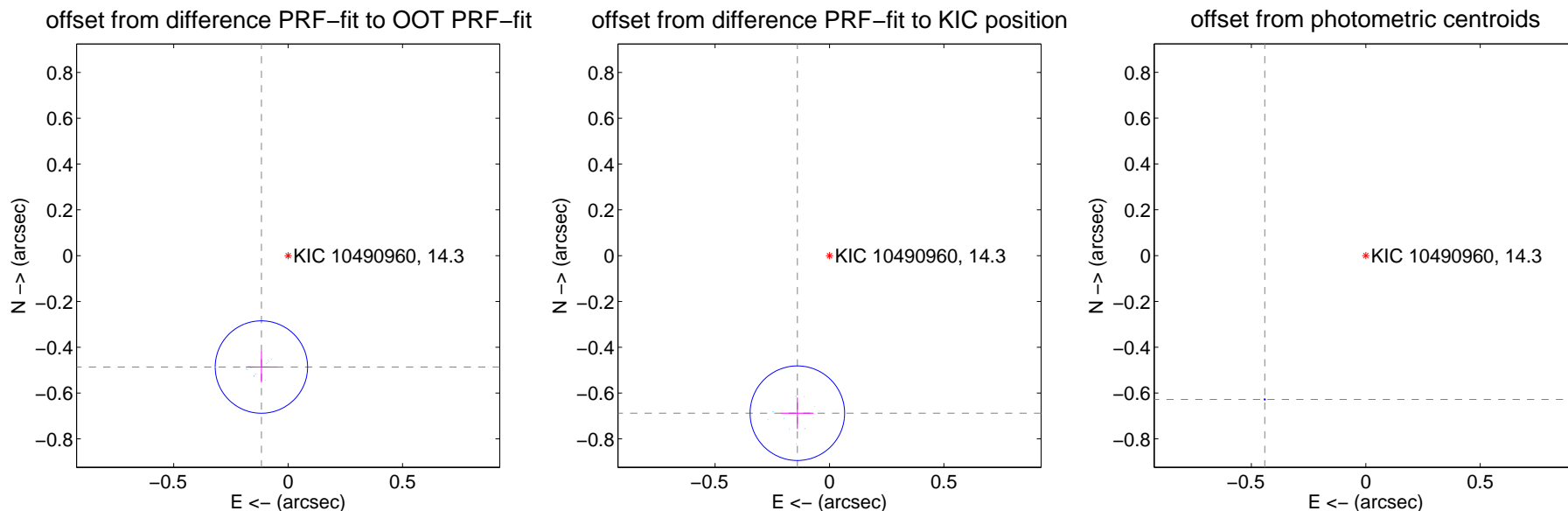
DV Centroid Data

Supplemental centroid analysis for 010490960-01. Kepler magnitude: 14.30. Transit SNR 4760.27

There are 14 quarters with good PRF difference image offsets

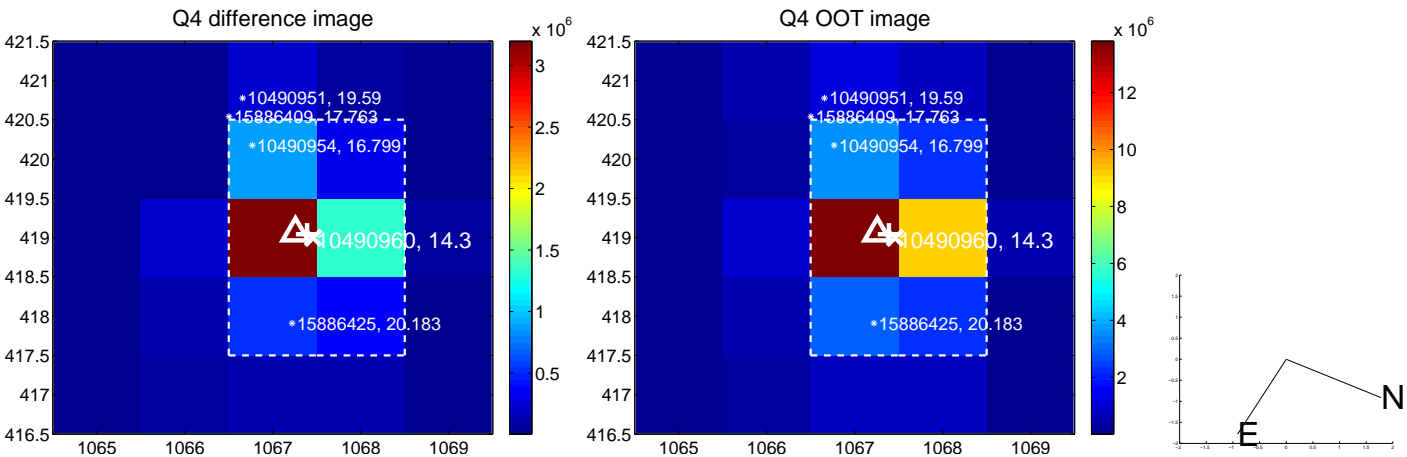
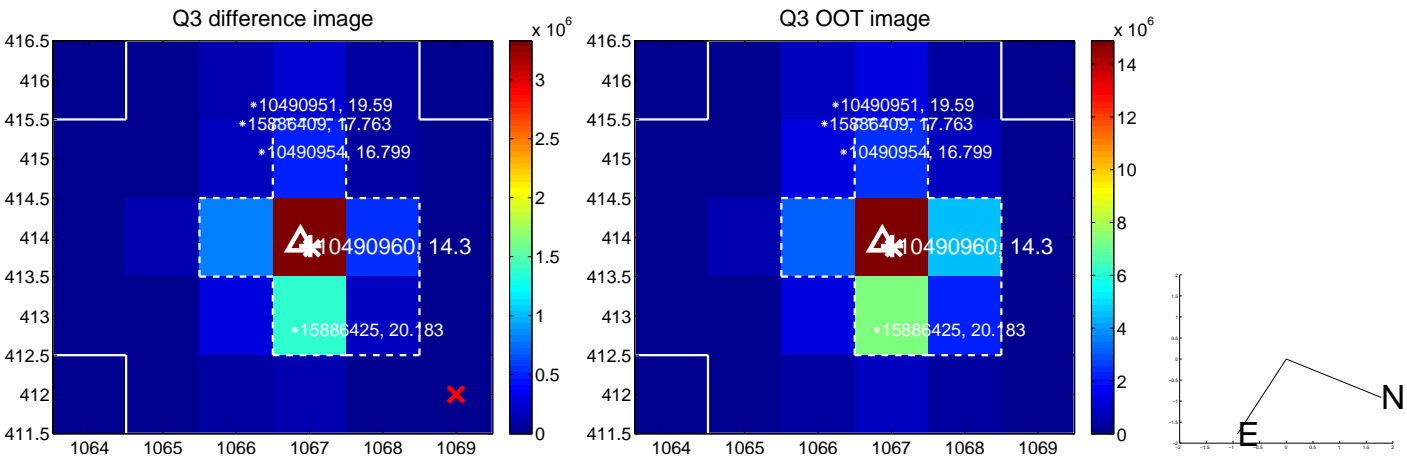
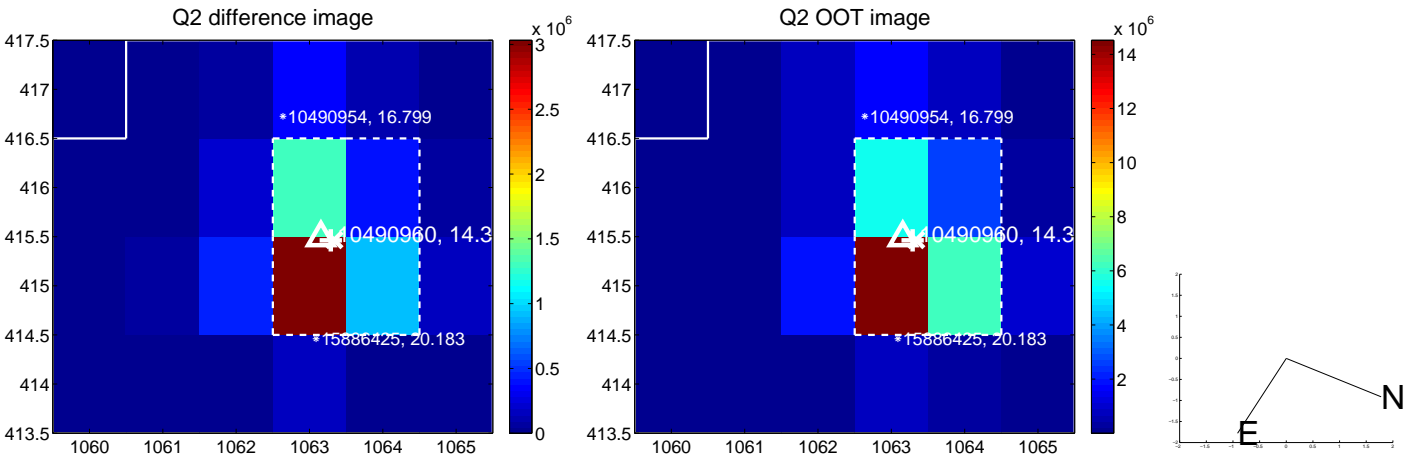
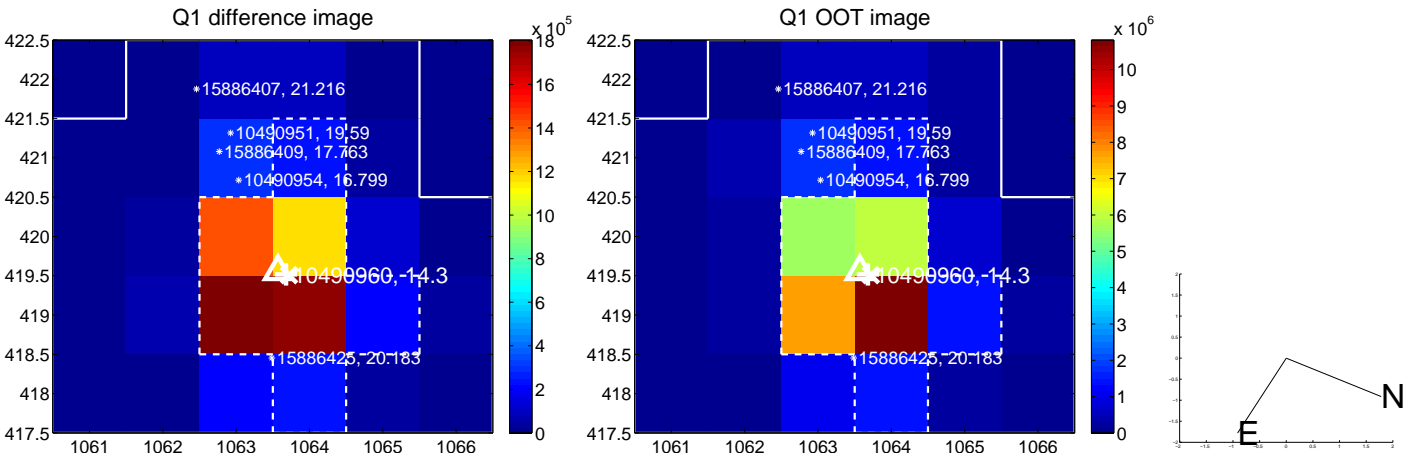
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.500 ± 0.067	7.44	0.117 ± 0.068	-0.486 ± 0.067
PRF-fit source offset from KIC position	0.702 ± 0.069	10.20	0.140 ± 0.071	-0.688 ± 0.069
photometric centroid source offset	0.77 ± 0.00	821.39	0.44 ± 0.00	-0.63 ± 0.00

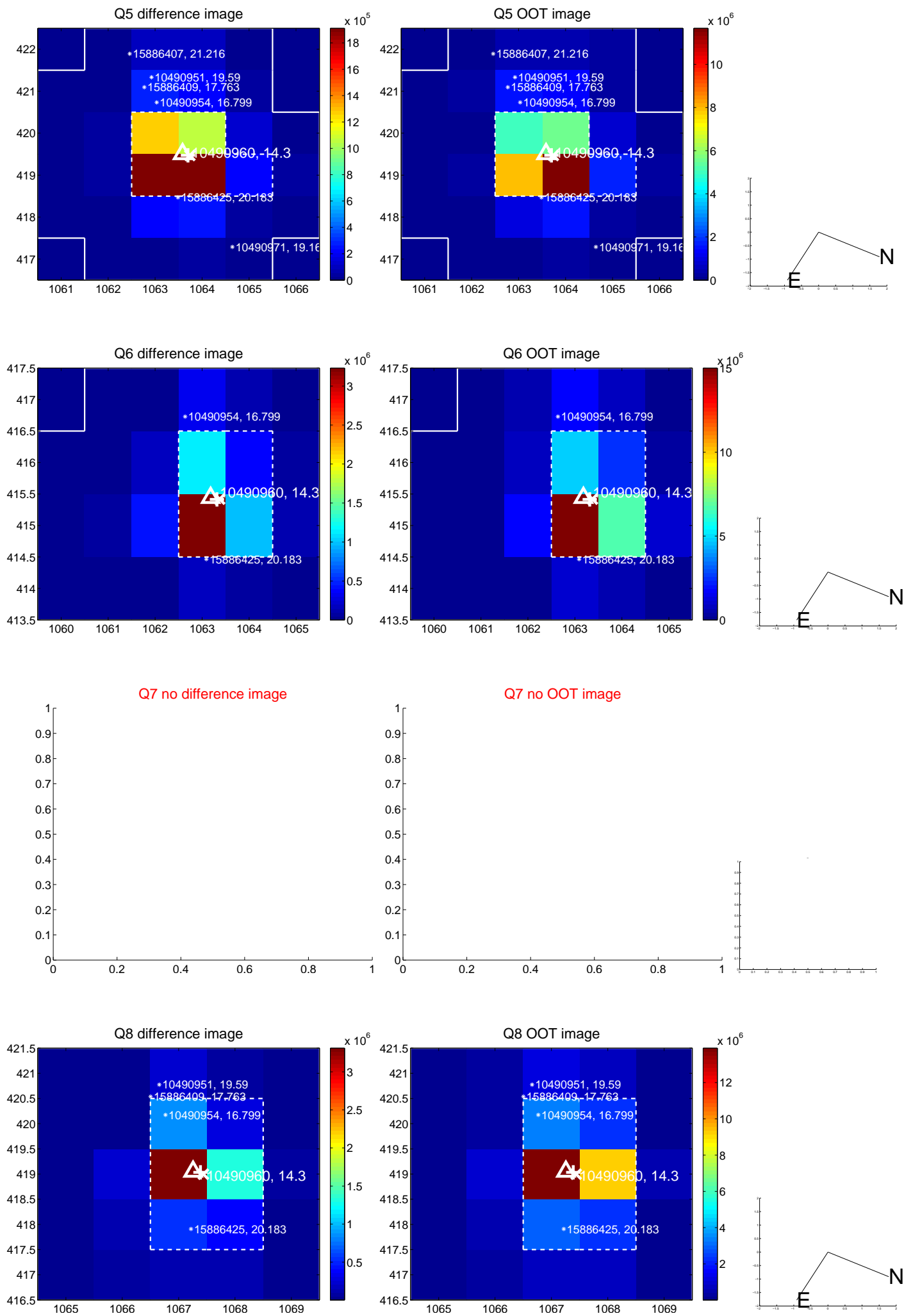


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

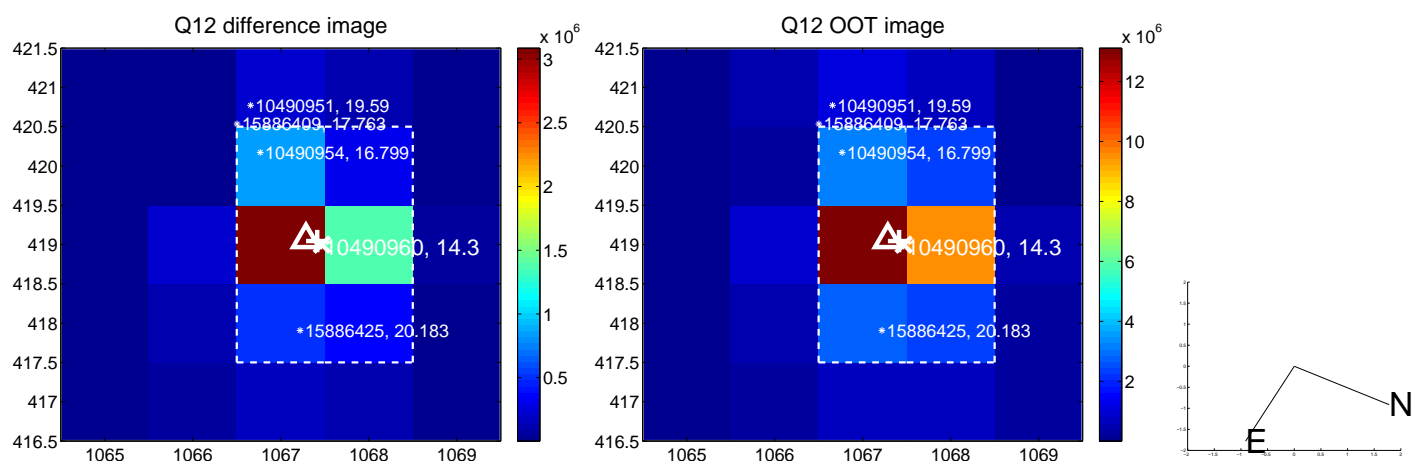
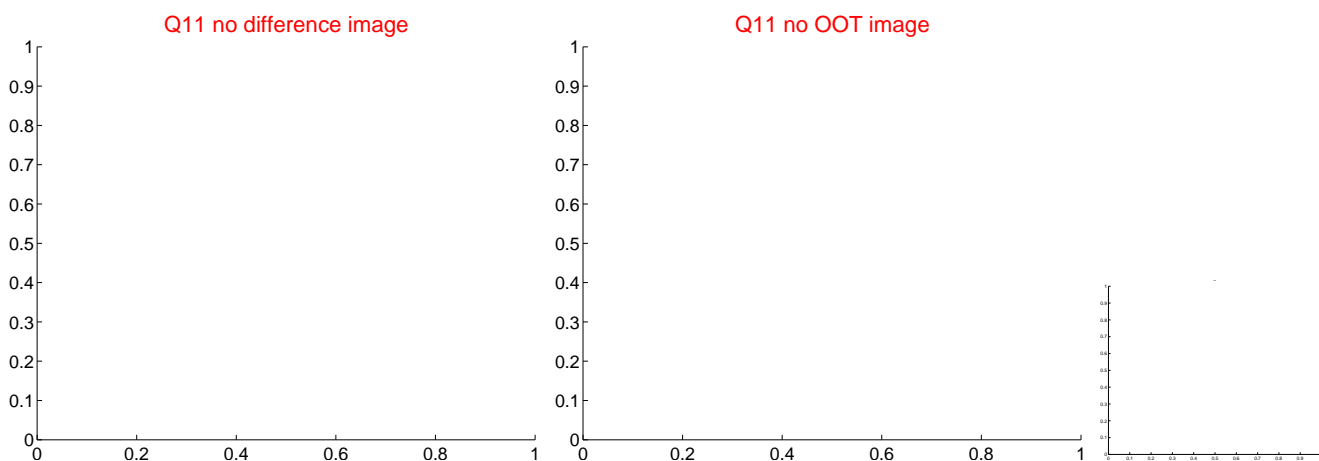
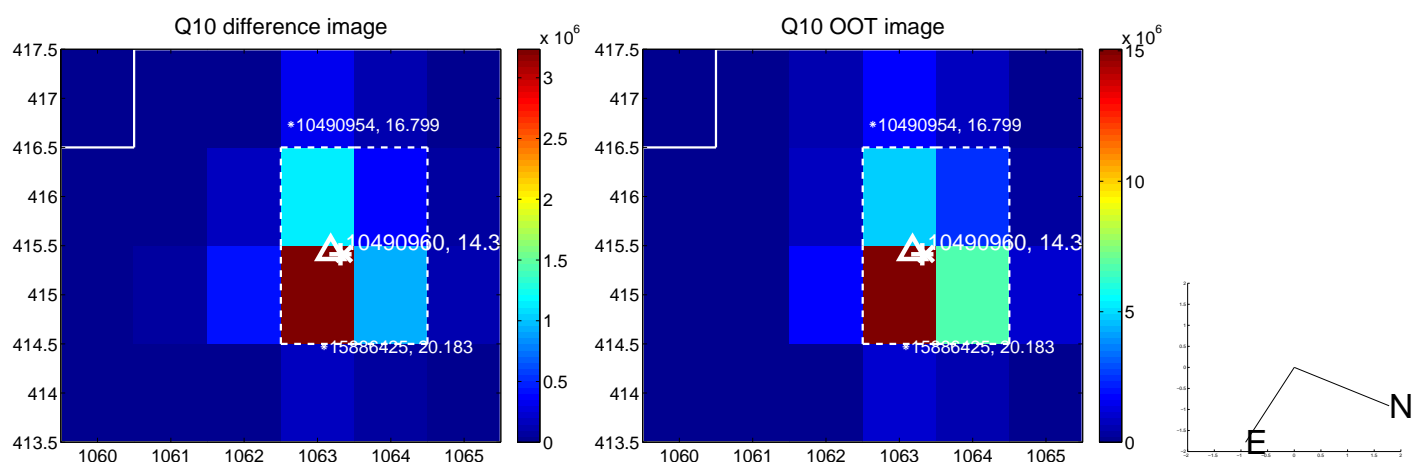
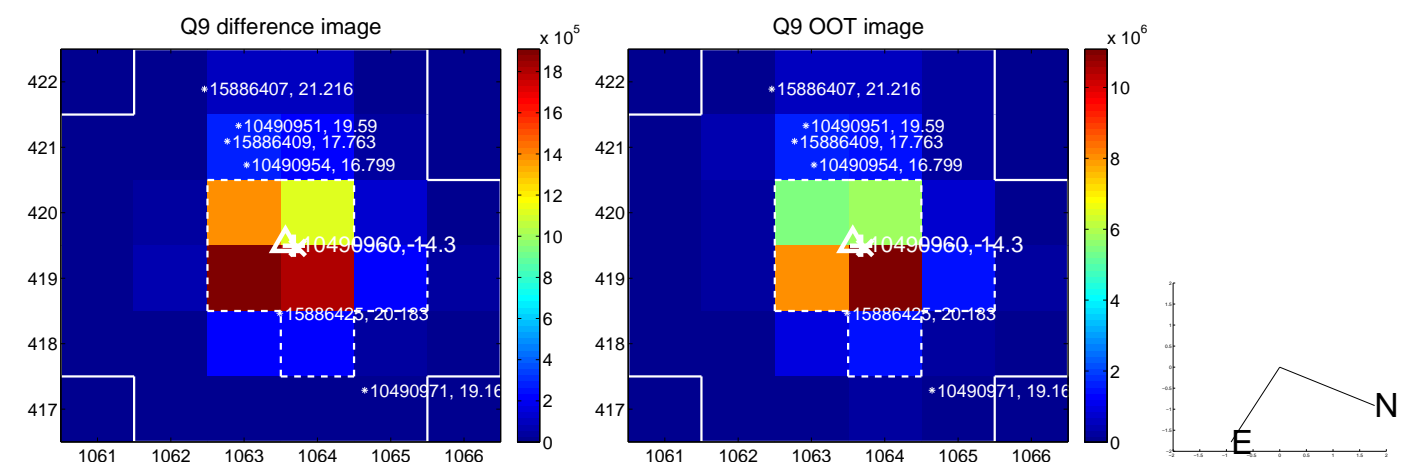
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



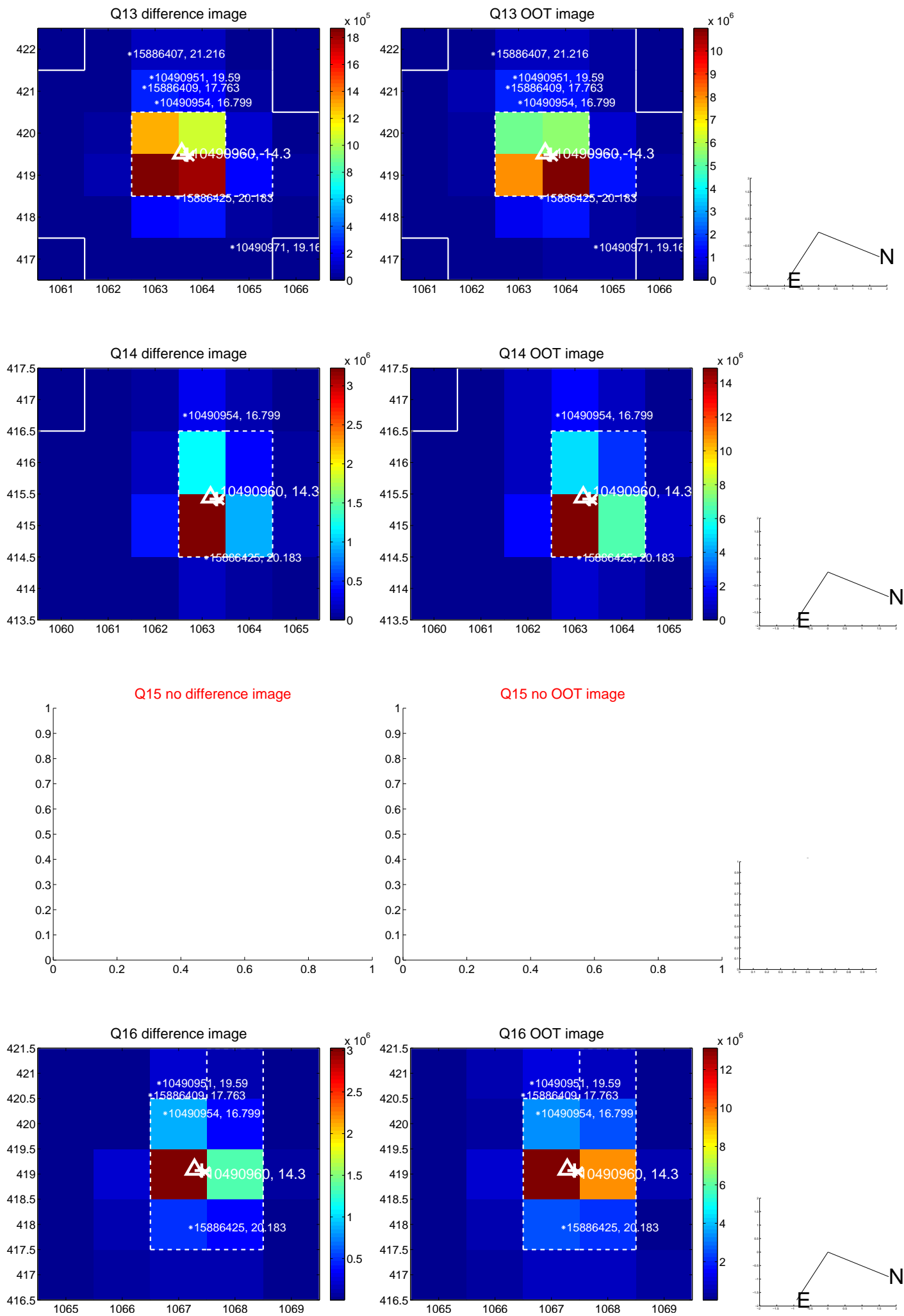
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



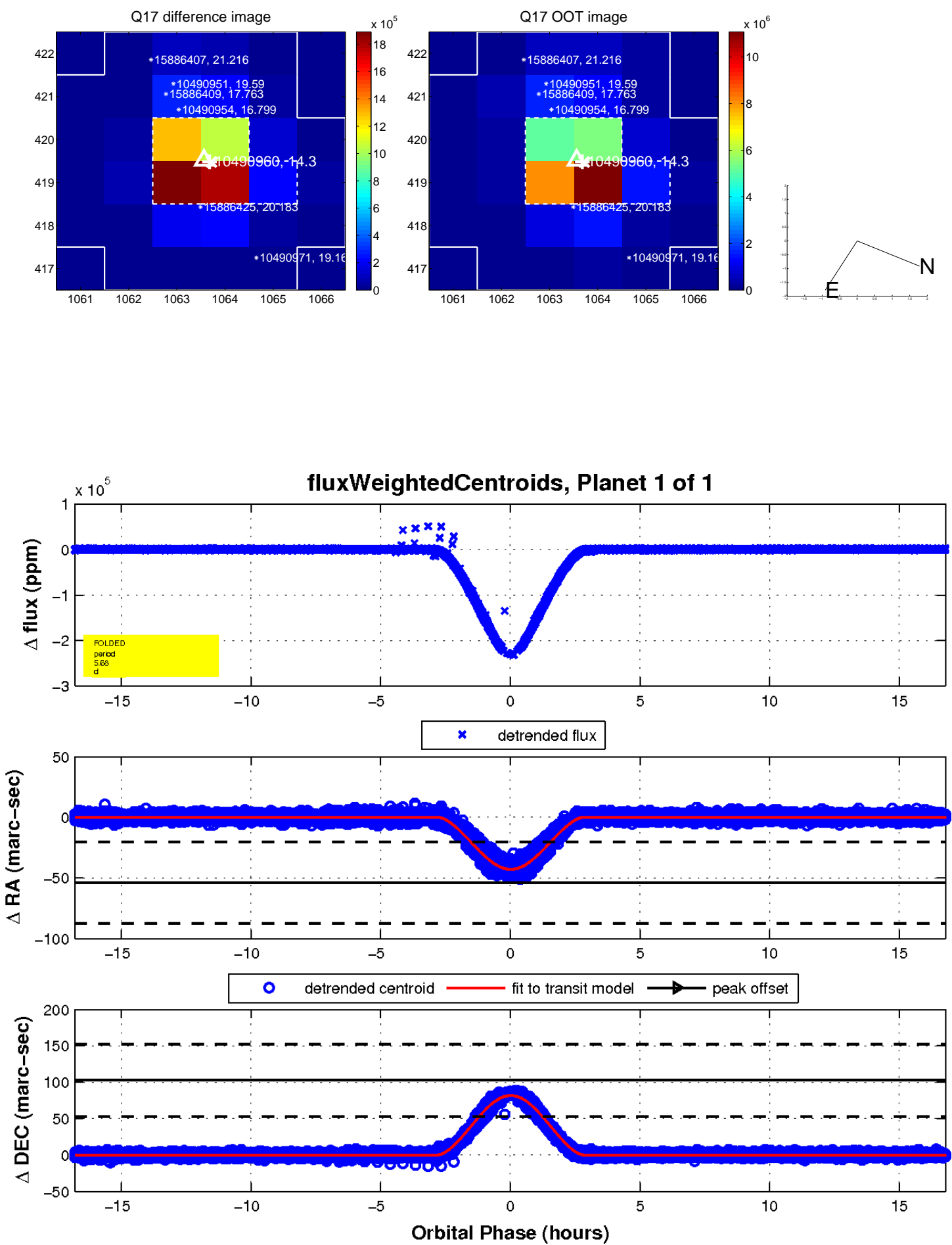
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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



UKIRT Image

