

KIC 006058614

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})
006058614-01	OBS	1799.01	1.731088	133.048153	8388.4	1.562	302.6	240.9	0.95	6045	10.68	1336.77

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006058614-01	OBS	FP	0.46	0	1	0	0	MOD_SEC_ALT

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

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

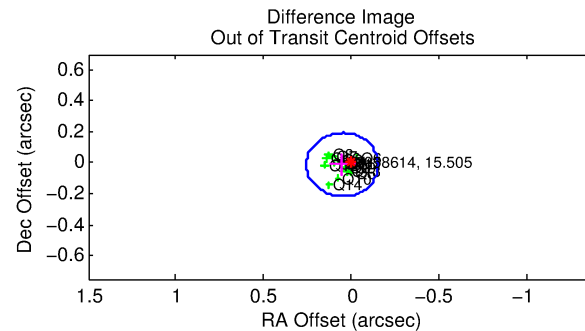
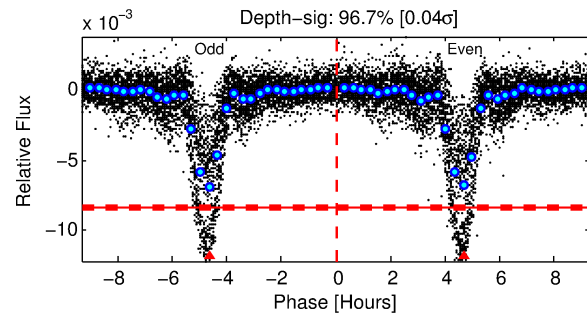
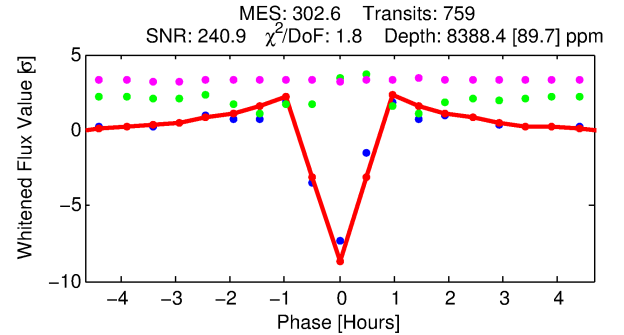
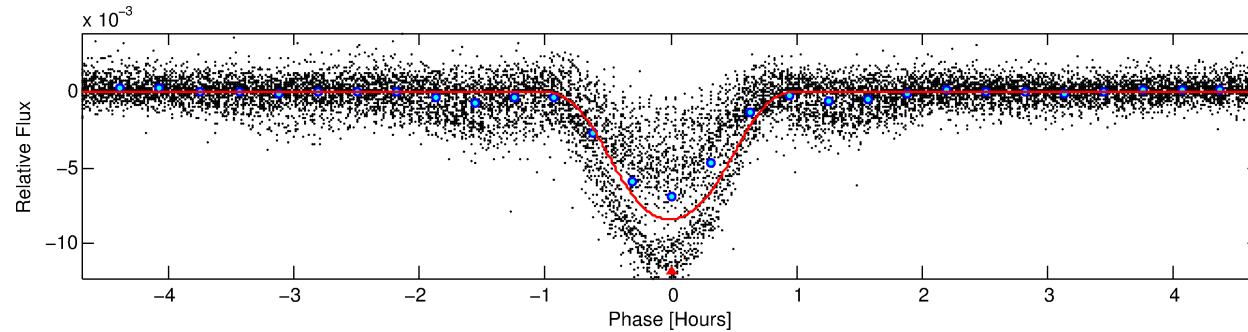
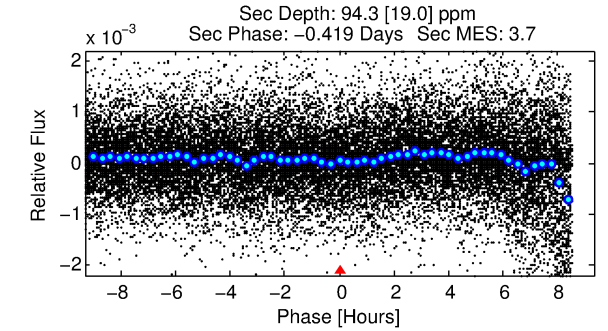
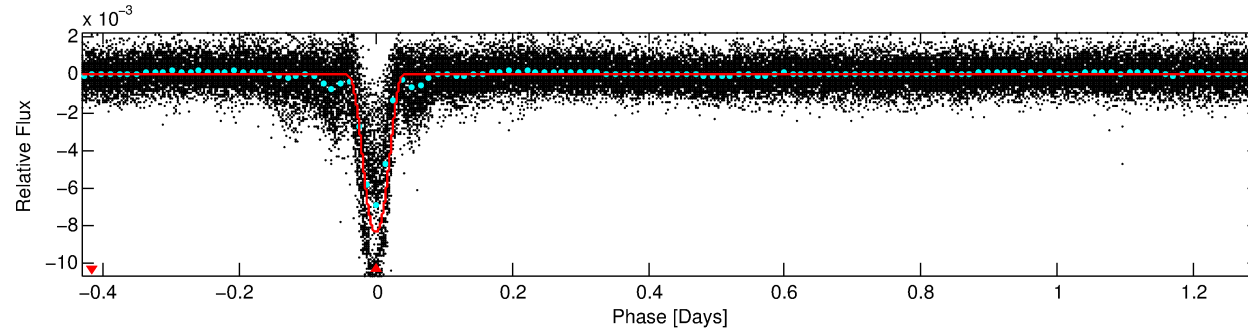
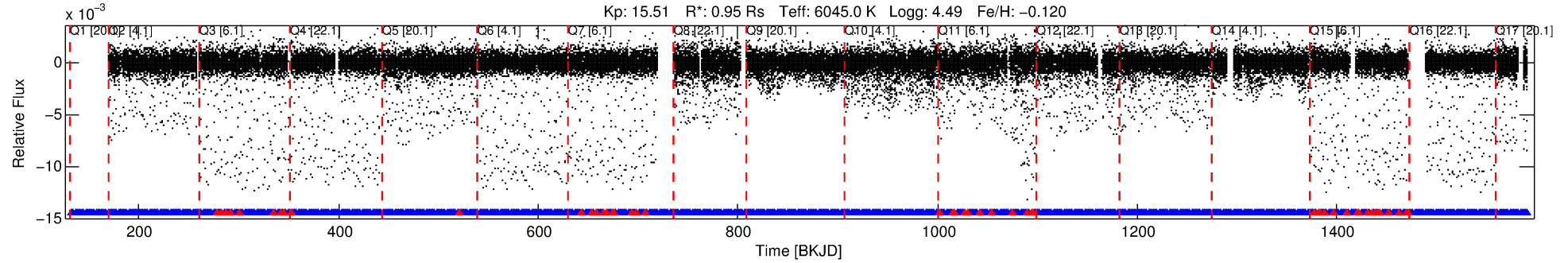
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006058614-01

No Significant Match Found

DV One-Page Summary

KIC: 6058614 Candidate: 1 of 1 Period: 1.731 d
KOI: K01799.01 Corr: 0.927



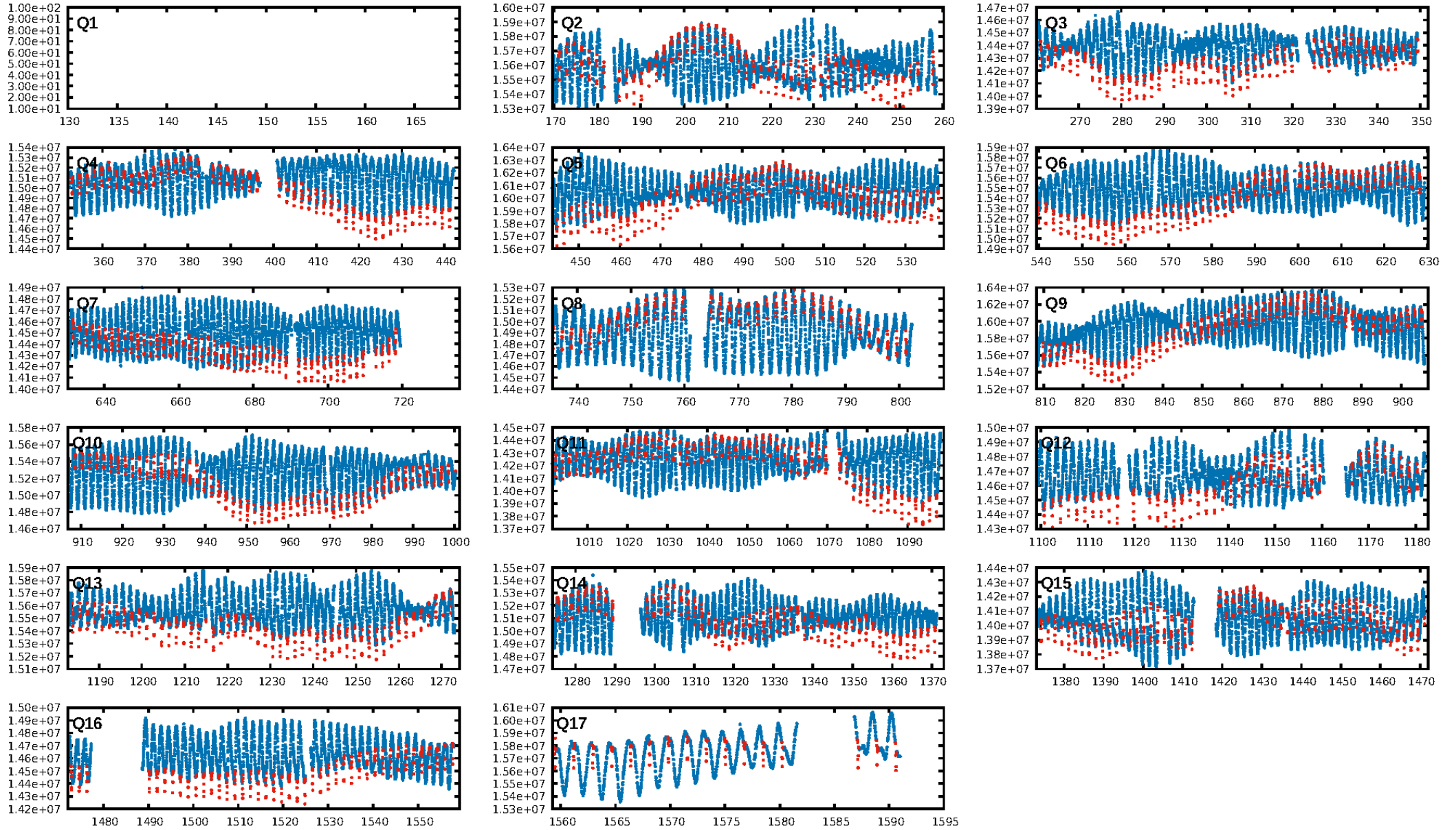
DV Fit Results:

Period = 1.73109 [0.00000] d
Epoch = 133.0482 [0.0001] BKJD
Rp/R* = 0.1025 [0.0024]
a/R* = 5.45 [0.12]
b = 0.90 [0.01]
Seff = 1336.77 [550.15]
Teq = 1542 [159] K
Rp = 10.68 [3.36] Re
a = 0.0286 [0.0075] AU
Ag = 0.37 [0.16] [-3.90 σ]
Teffp = 1861 [120] K [1.60 σ]

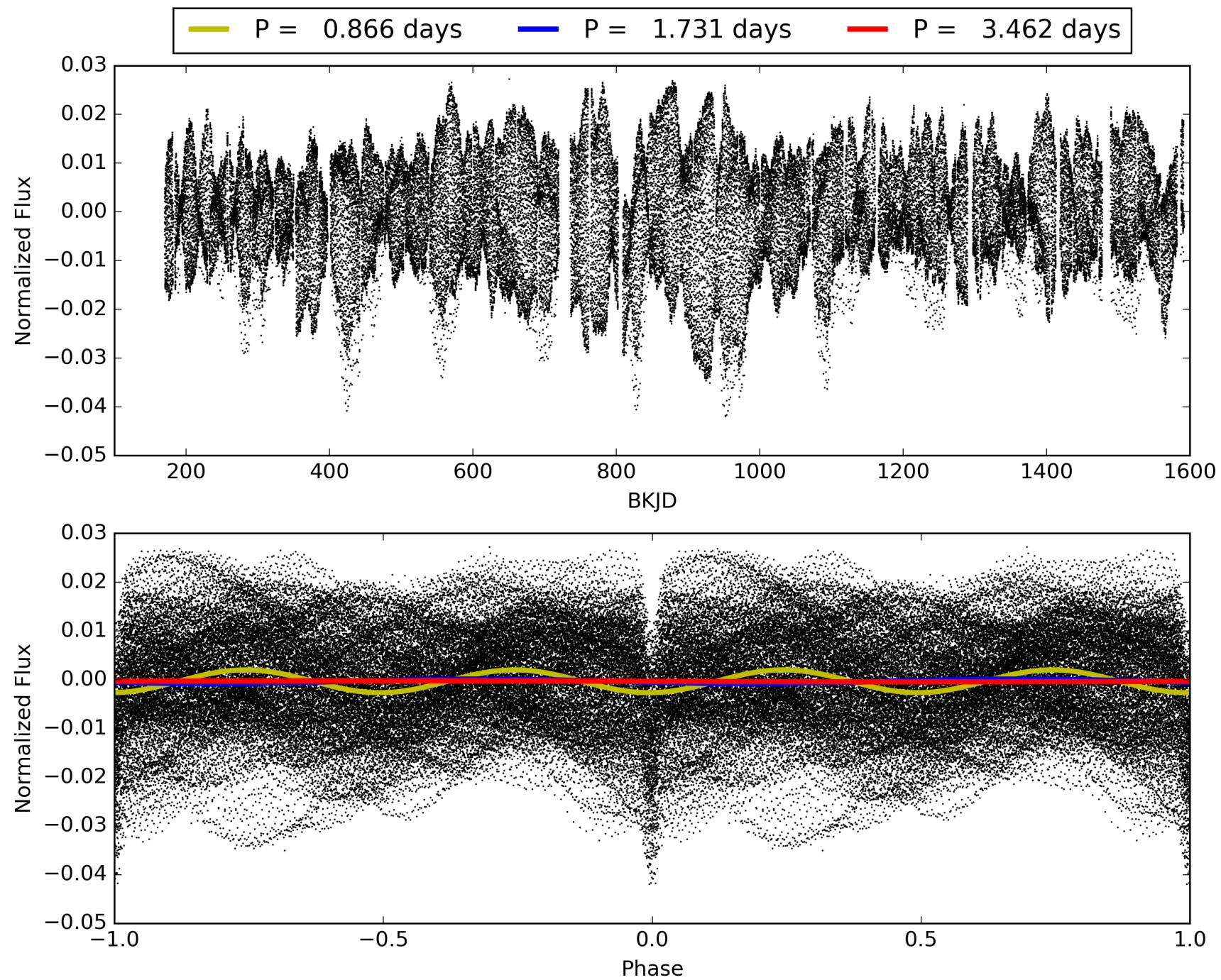
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.94 [695/743]
GhostDiagnostic-chr: 0.7851
Centroid-sig: 0.0%
Centroid-so: 0.111 arcsec [4.50 σ]
OotOffset-rm: 0.053 arcsec [0.78 σ]
KicOffset-rm: 0.099 arcsec [1.41 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

TCE 006058614-01, PDC Light Curves

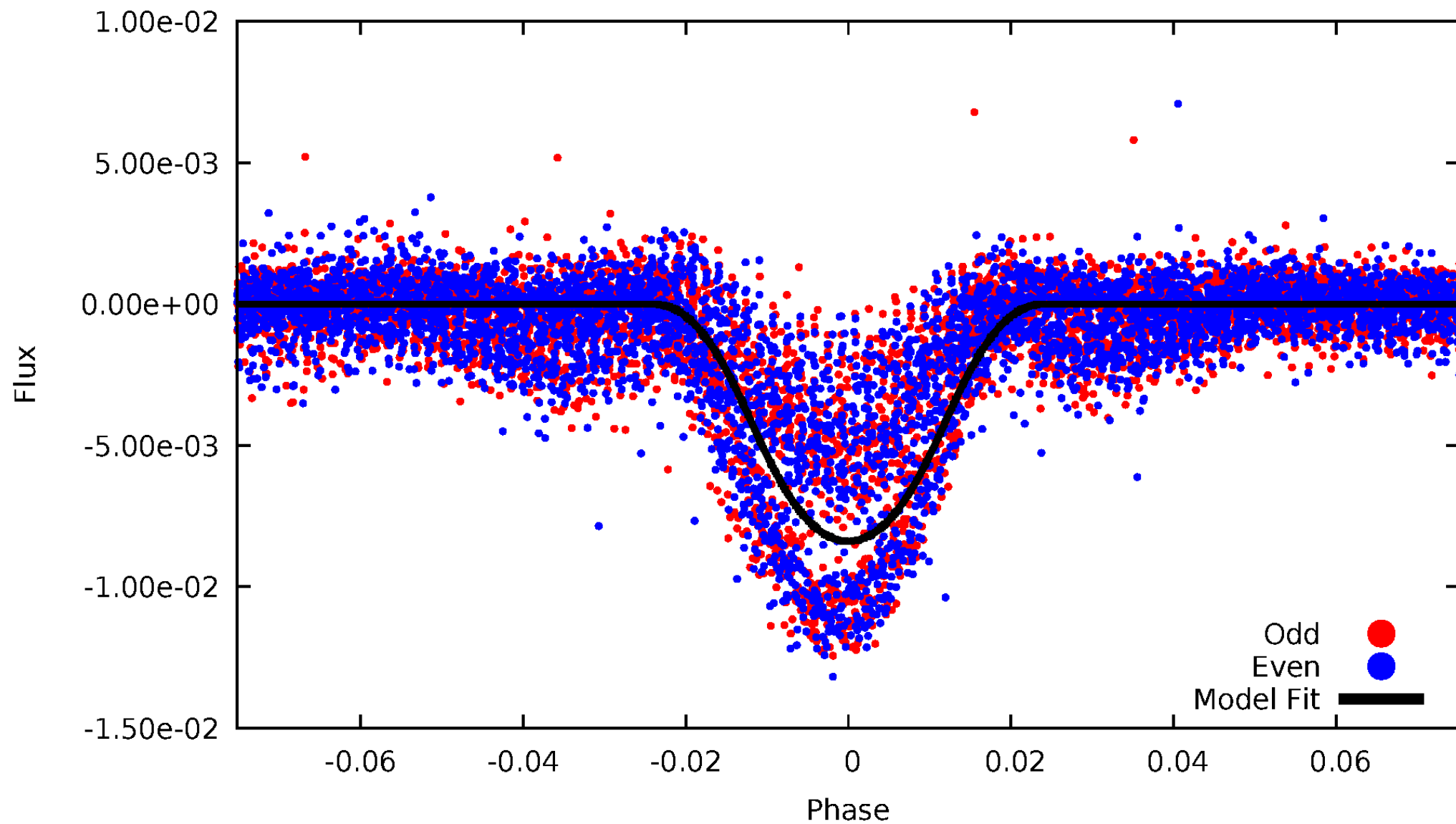


TCE 006058614-01



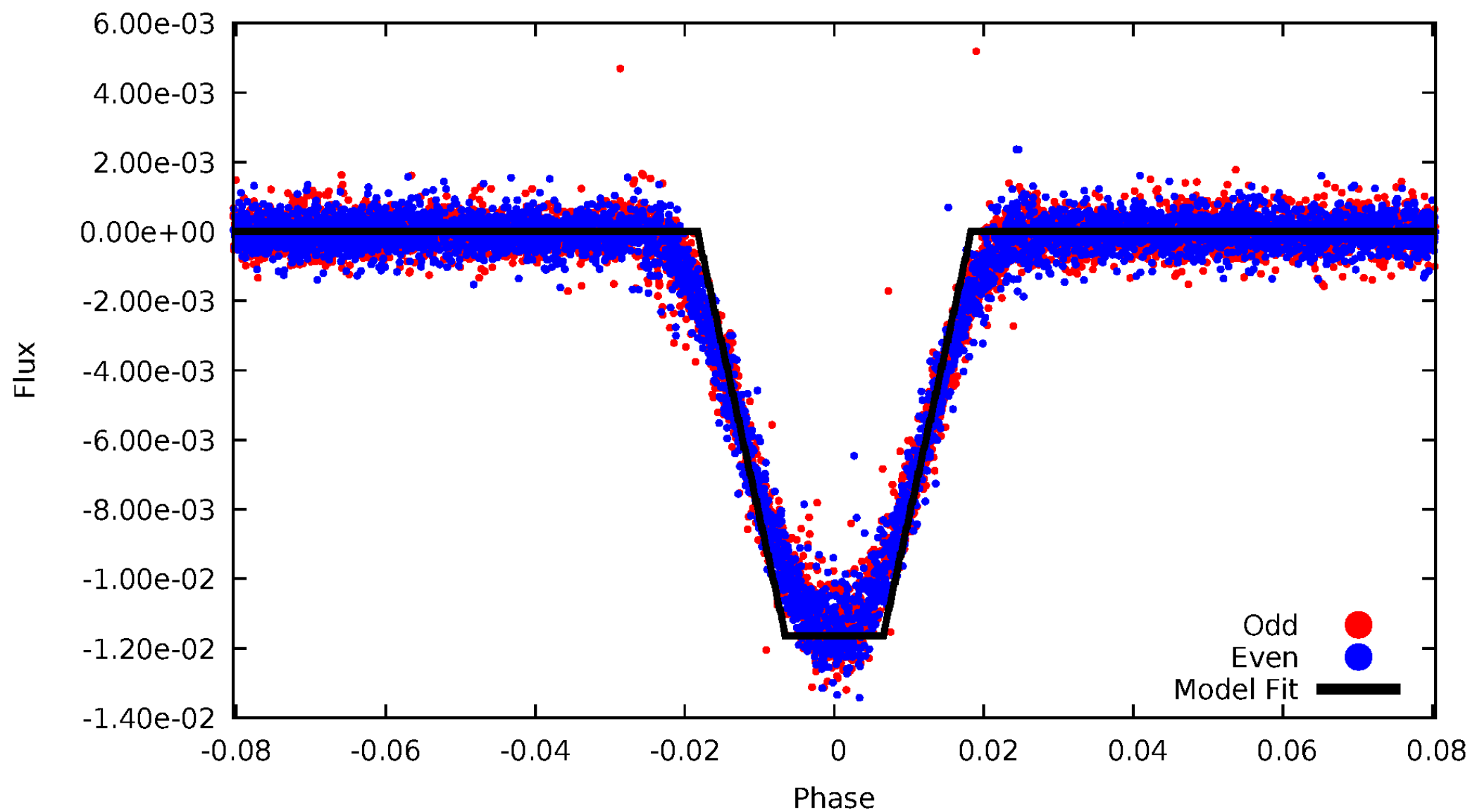
DV Odd/Even

TCE 006058614-01



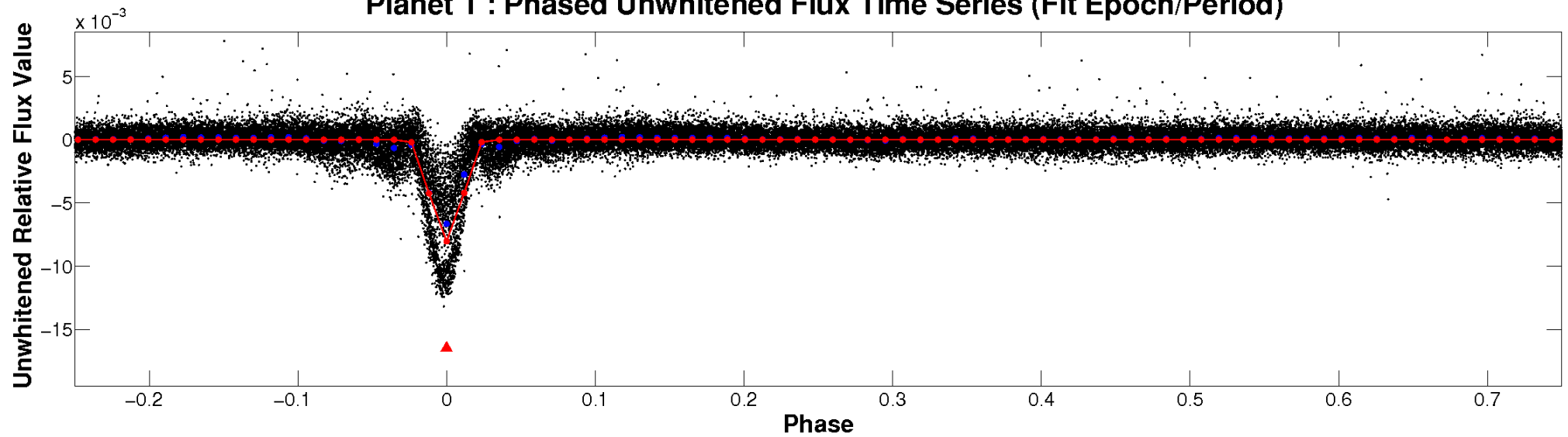
ALT Odd/Even

TCE 006058614-01

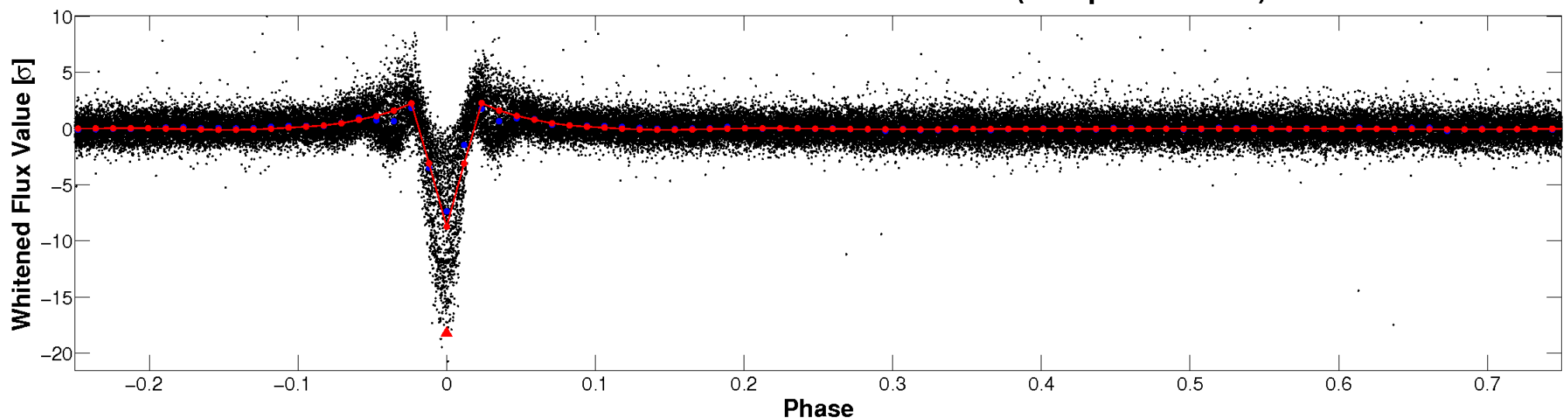


Non-Whitened Vs. Whitened Light Curve

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

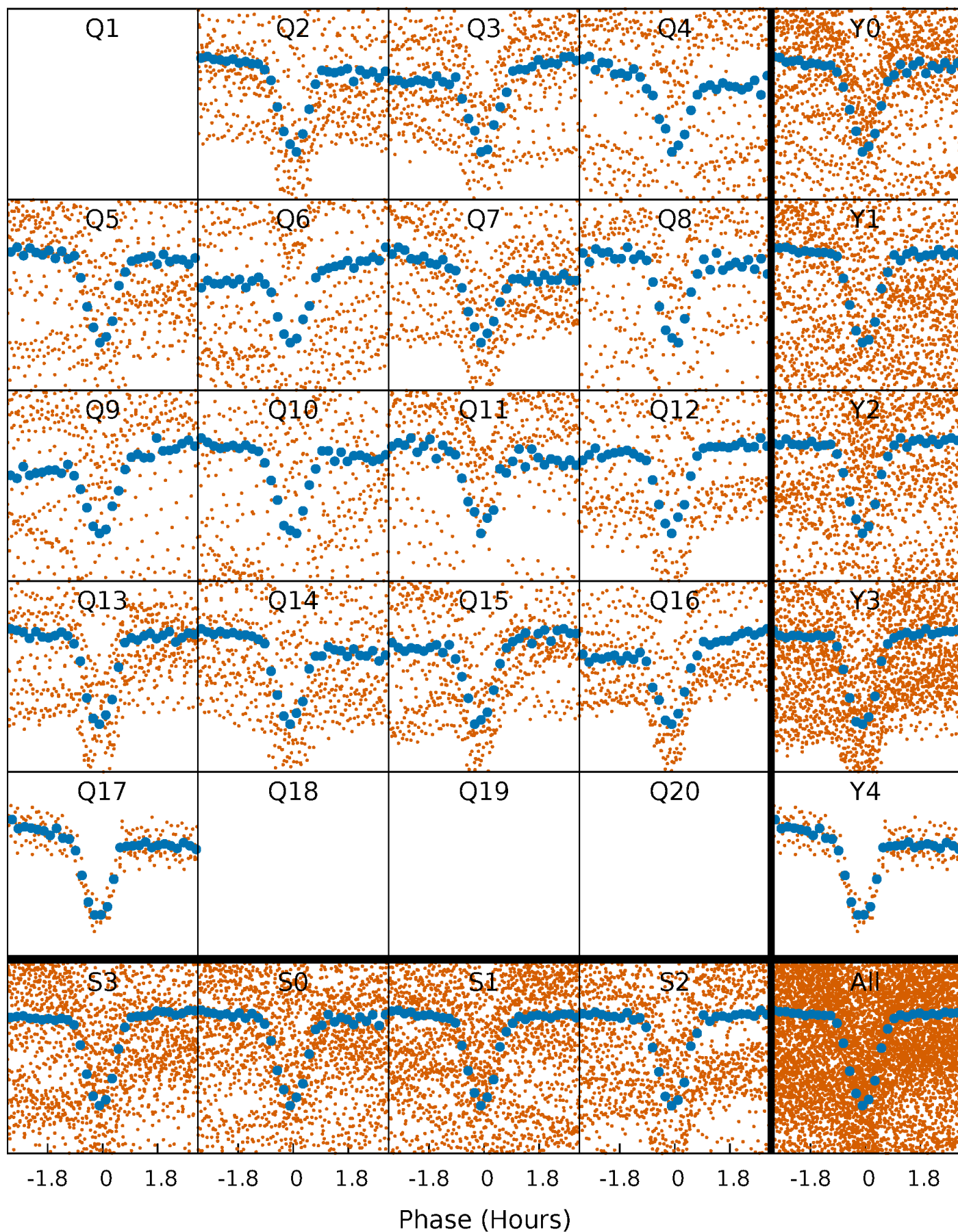


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



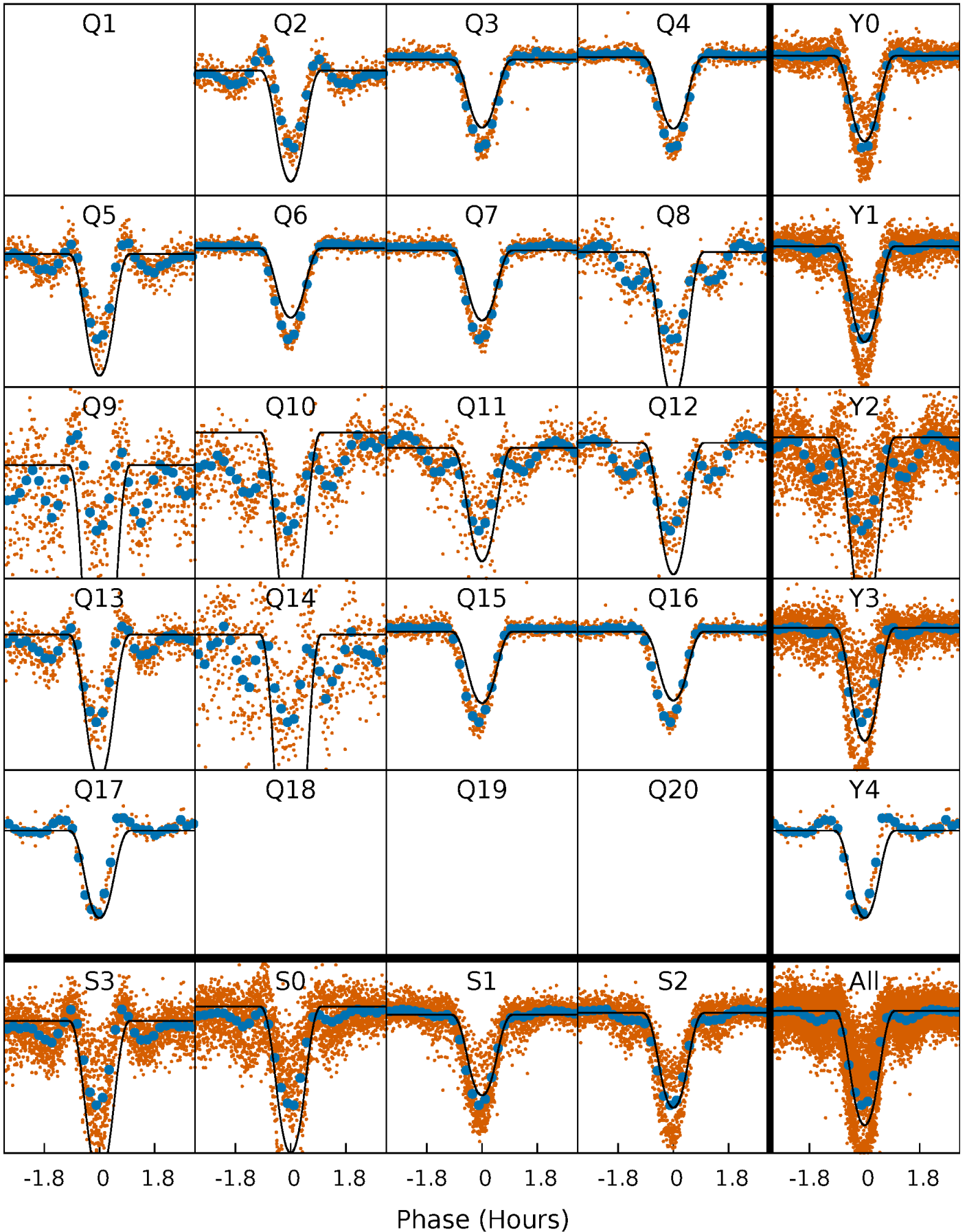
PDC Quarter-Phased Transit Curves

TCE 006058614-01 P= 1.731088 Days $T_0=133.048153$ (BKJD)



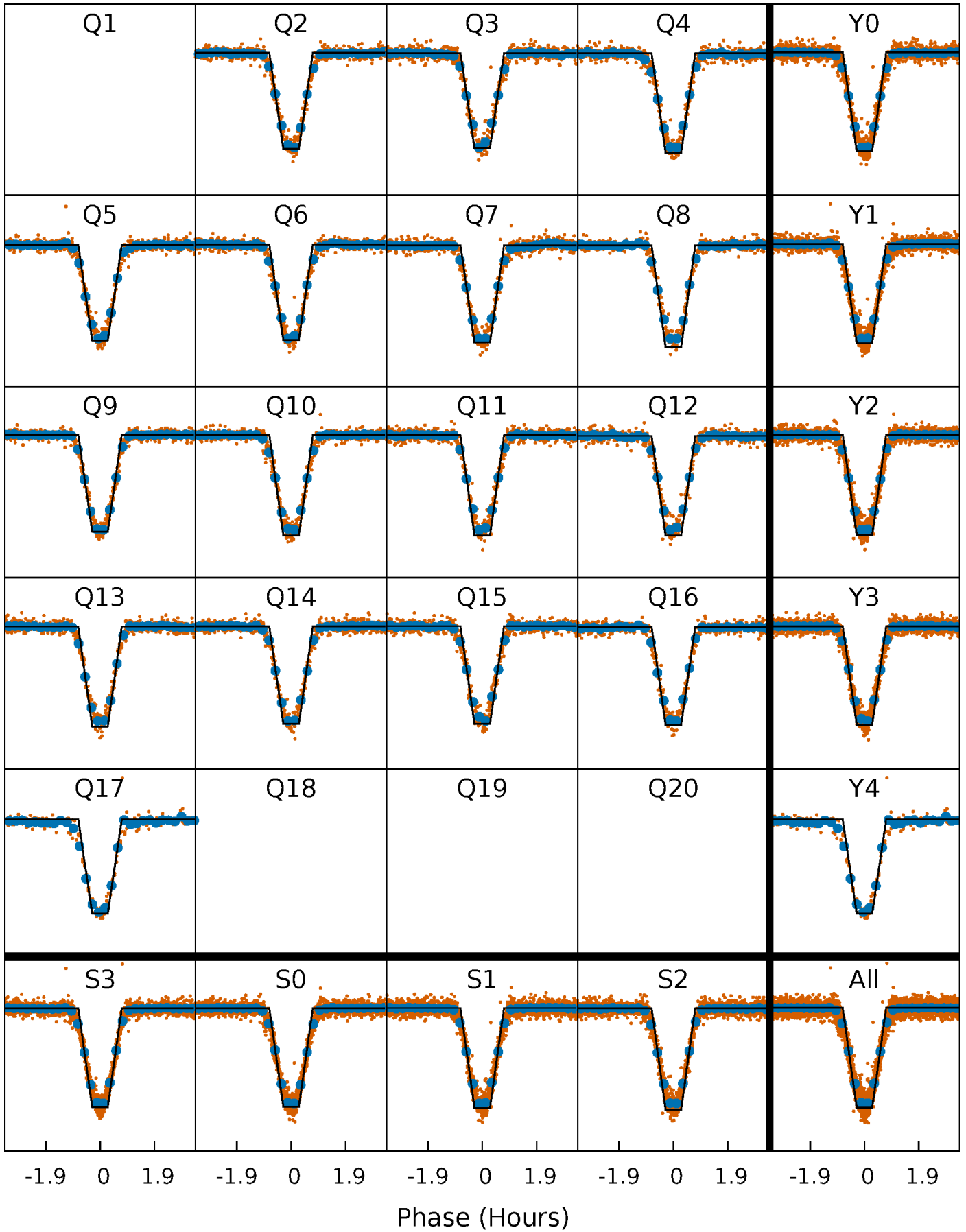
DV Quarter-Phased Transit Curves

TCE 006058614-01 P= 1.731088 Days $T_0=133.048153$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

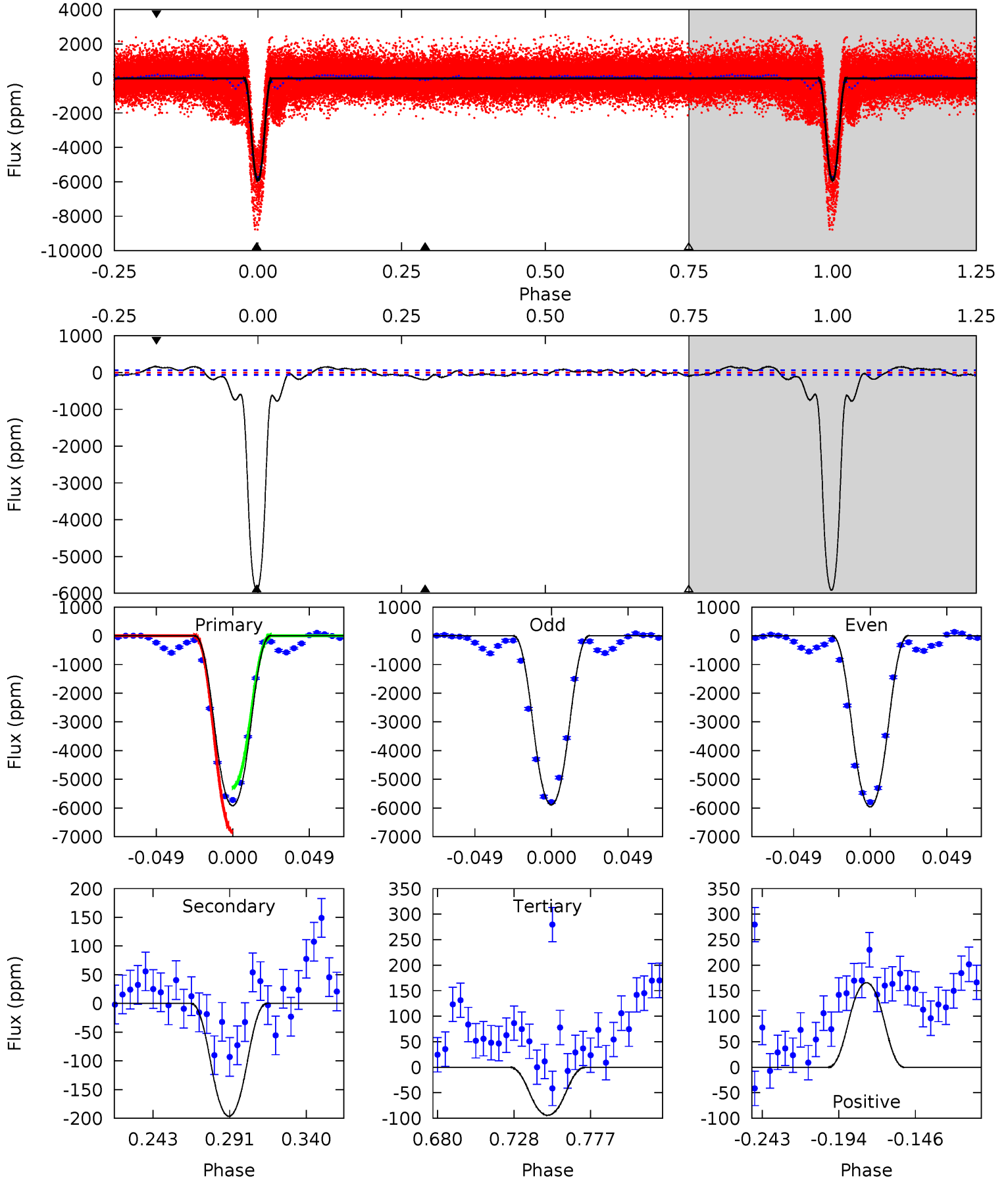
TCE 006058614-01 P= 1.731080 Days $T_0=133.048514$ (BKJD)



DV Model-Shift Uniqueness Test

006058614-01, P = 1.731088 Days, E = 133.048153 Days

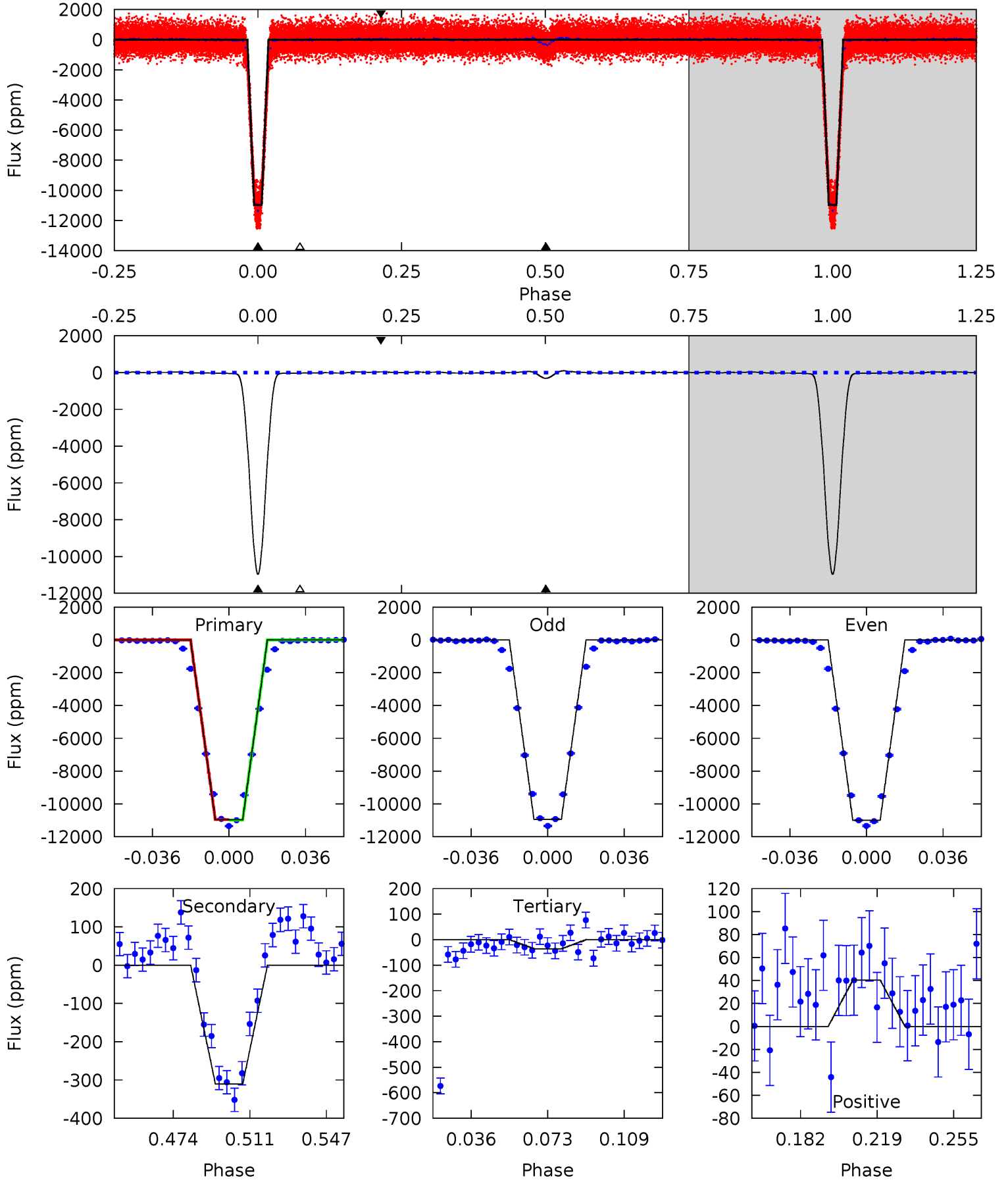
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
438.6	14.6	6.98	12.3	4.71	1.97	6.29	431.7	426.4	7.58	2.29	2.61	1.15	0.03	0



Alt Model-Shift Uniqueness Test

006058614-01, P = 1.731080 Days, E = 133.048514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1192	33.7	3.90	4.38	4.77	2.09	2.47	1188	1188	29.8	29.3	2.76	1.00	0.01	1.82



Stellar Parameters For KIC 006058614

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6045^{+189}_{-232}	$4.494^{+0.052}_{-0.208}$	$-0.120^{+0.300}_{-0.300}$	$0.955^{+0.300}_{-0.100}$	$1.038^{+0.129}_{-0.142}$	$1.679^{+0.453}_{-0.854}$
	+3%/-4%	+1%/-5%	+250%/-250%	+31%/-10%	+12%/-14%	+27%/-51%
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 006058614-01 / KOI 1799.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-196 ± 13	$10.95^{+1.95}_{-0.95}$	2200^{+160}_{-121}	2708^{+84}_{-121}	$0.709^{+0.144}_{-0.182}$
Alt.	-310 ± 9	$11.53^{+2.00}_{-0.92}$	2196^{+162}_{-114}	2918^{+73}_{-84}	$1.027^{+0.159}_{-0.258}$

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 $A_{obs} \gg 1.0$

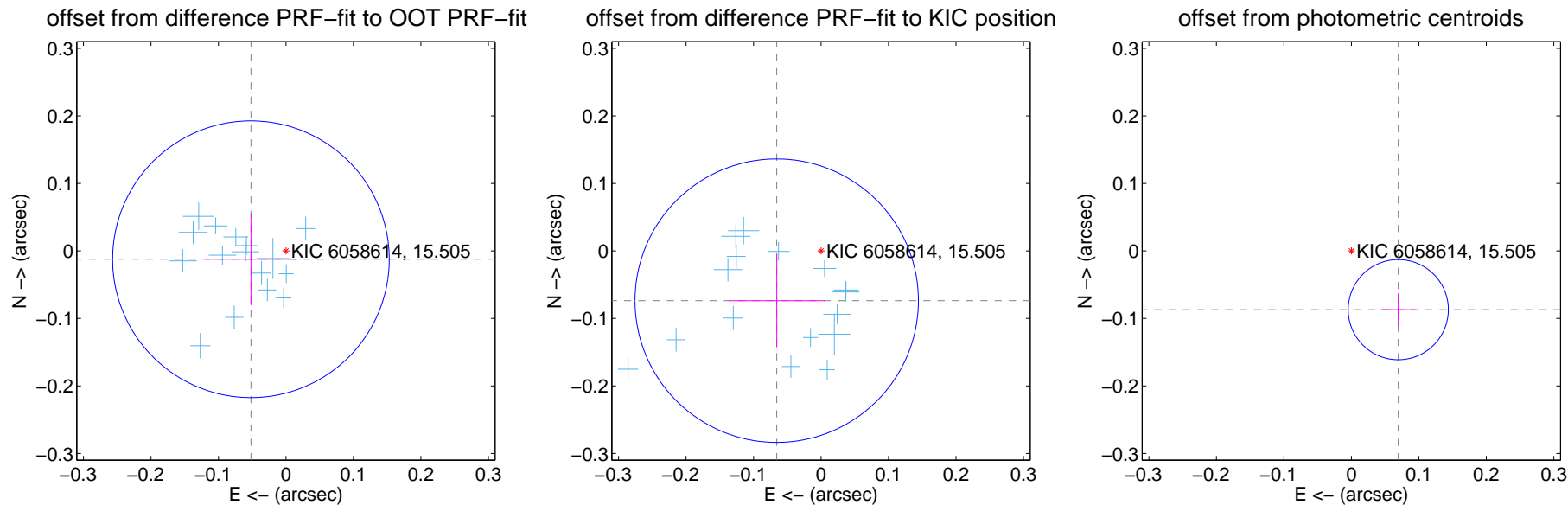
DV Centroid Data

Supplemental centroid analysis for 006058614-01. Kepler magnitude: 15.51. Transit SNR 240.91

There are 16 quarters with good PRF difference image offsets

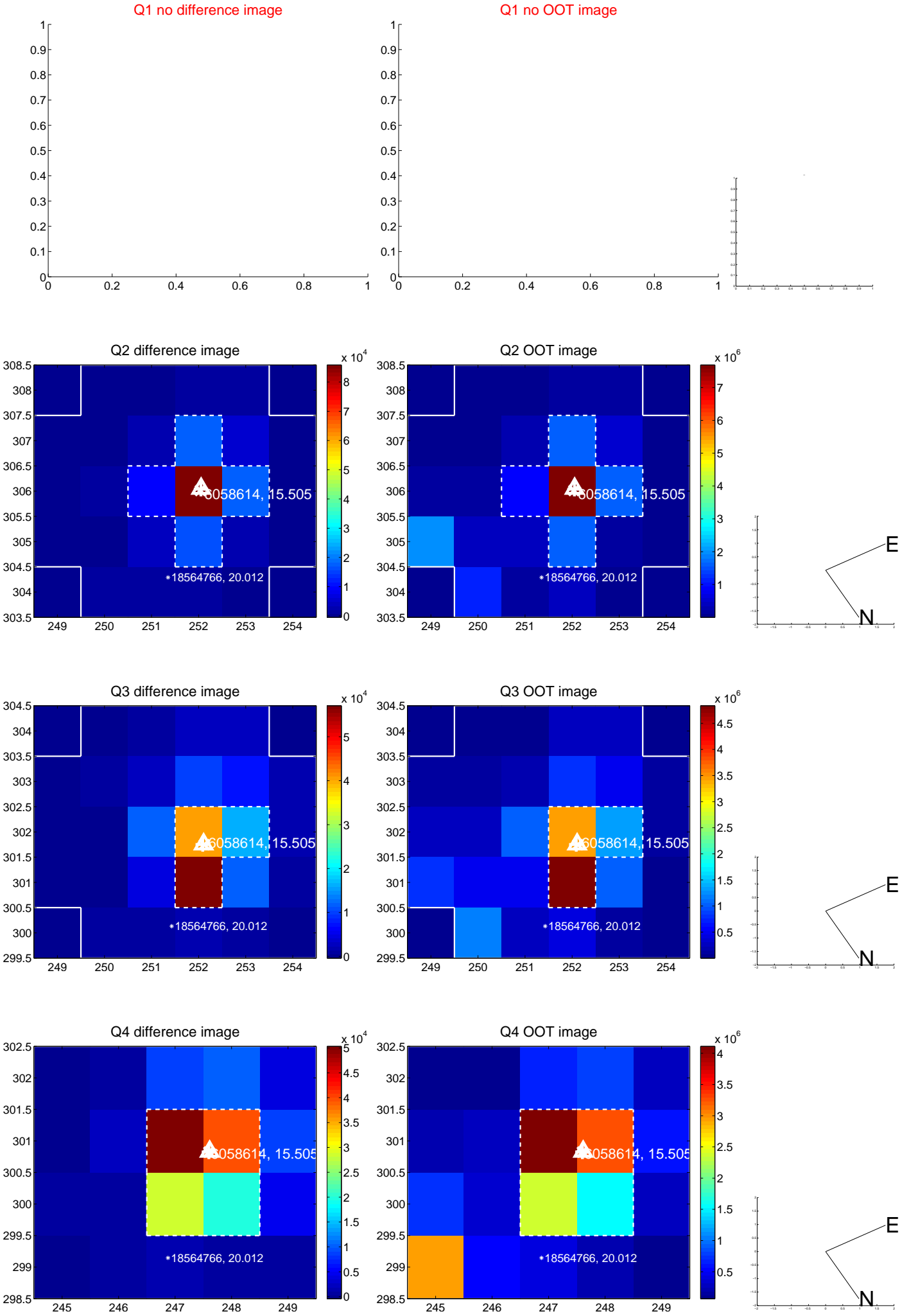
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.053 ± 0.068	0.78	0.052 ± 0.068	-0.012 ± 0.068
PRF-fit source offset from KIC position	0.099 ± 0.070	1.41	0.066 ± 0.071	-0.074 ± 0.069
photometric centroid source offset	0.11 ± 0.02	4.50	-0.07 ± 0.03	-0.09 ± 0.02

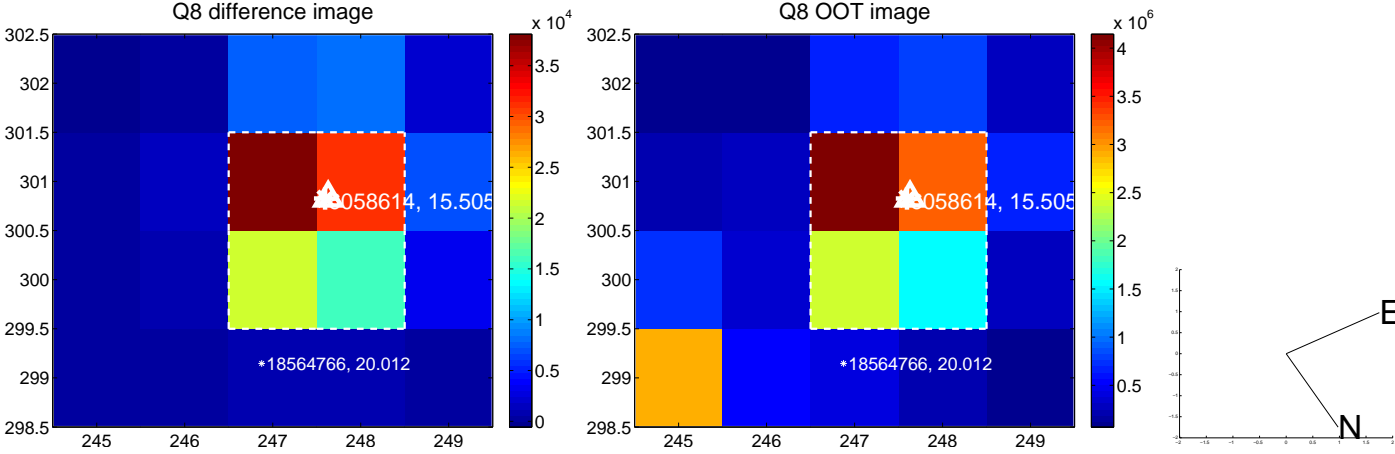
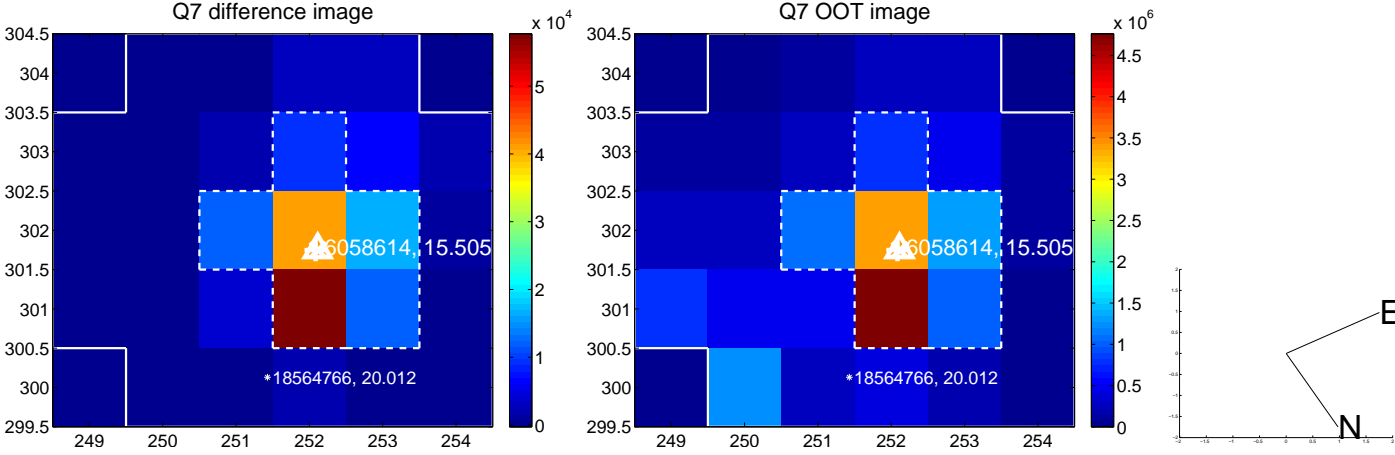
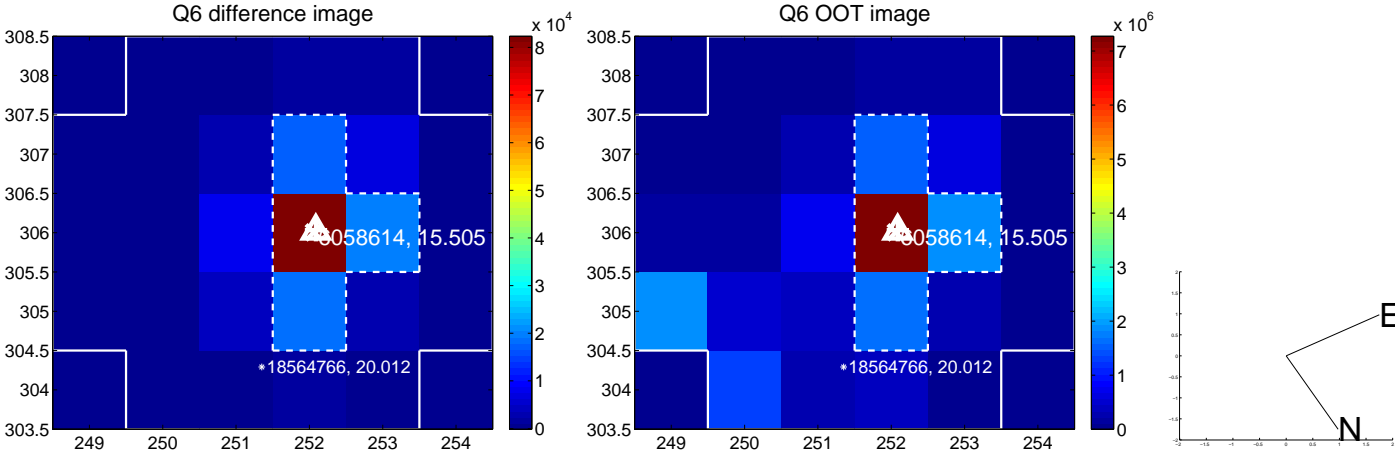
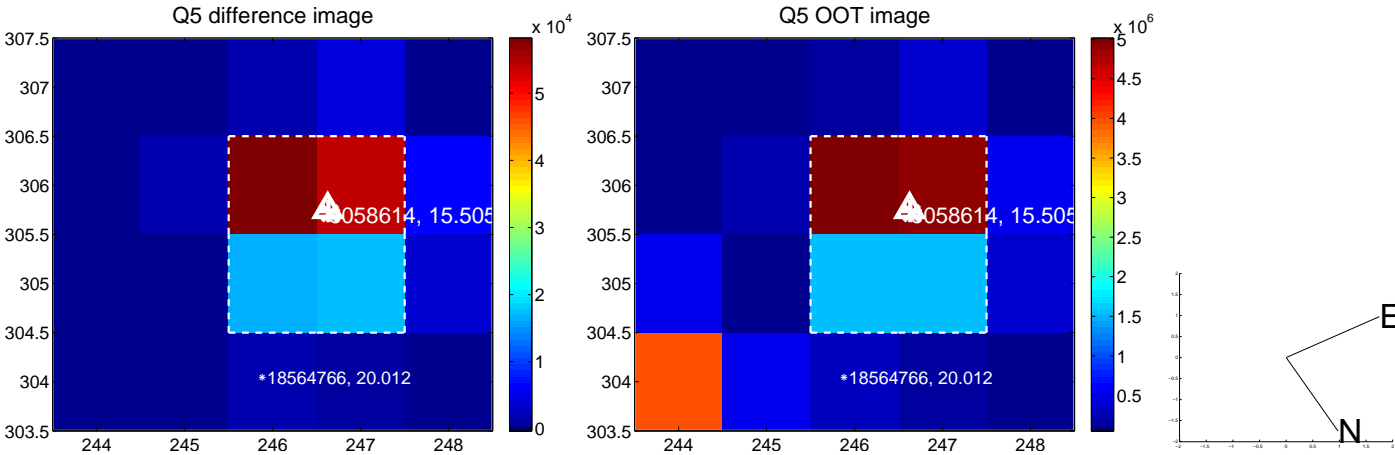


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

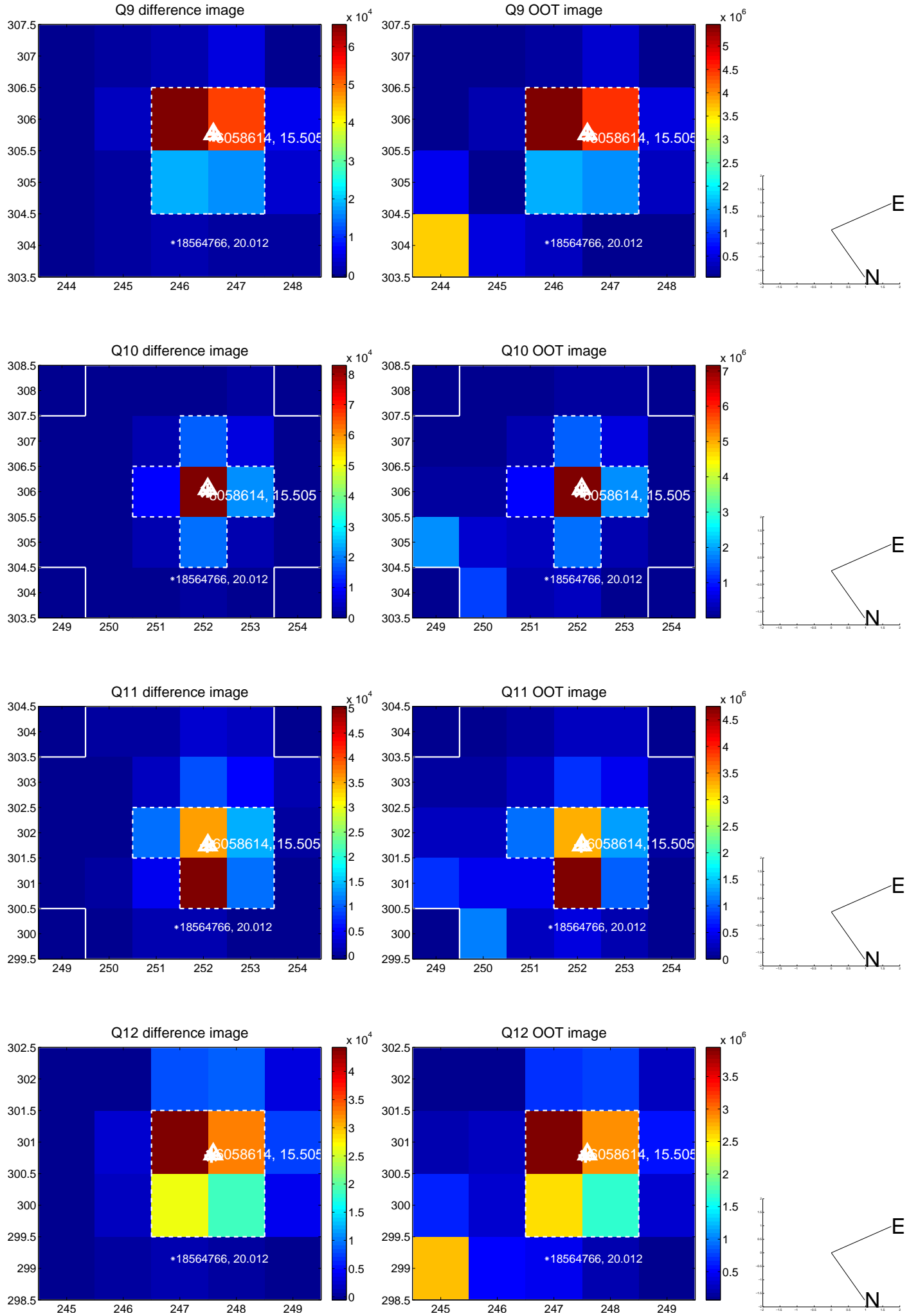
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



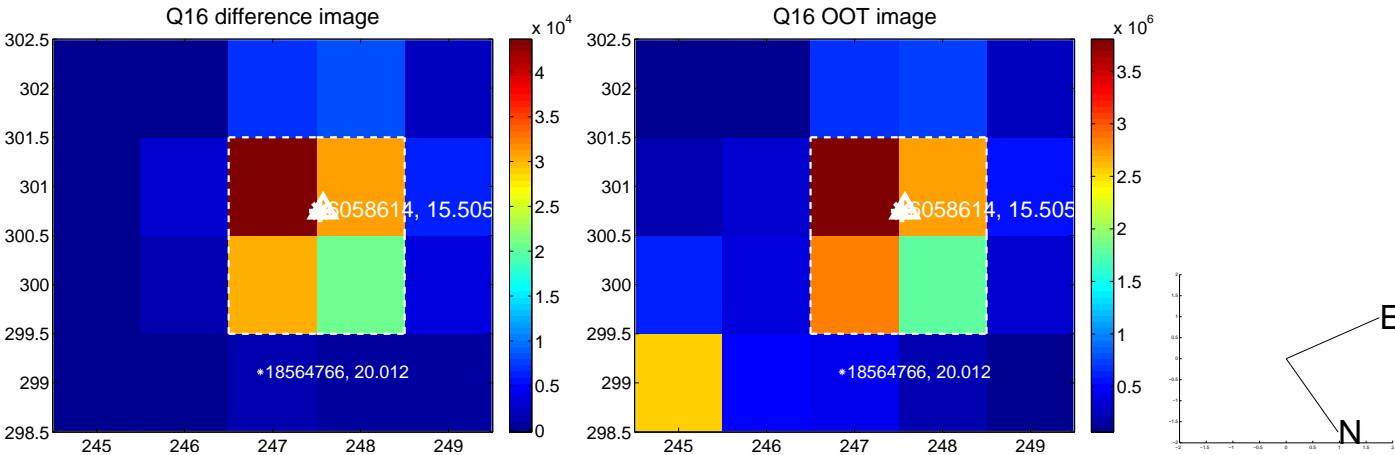
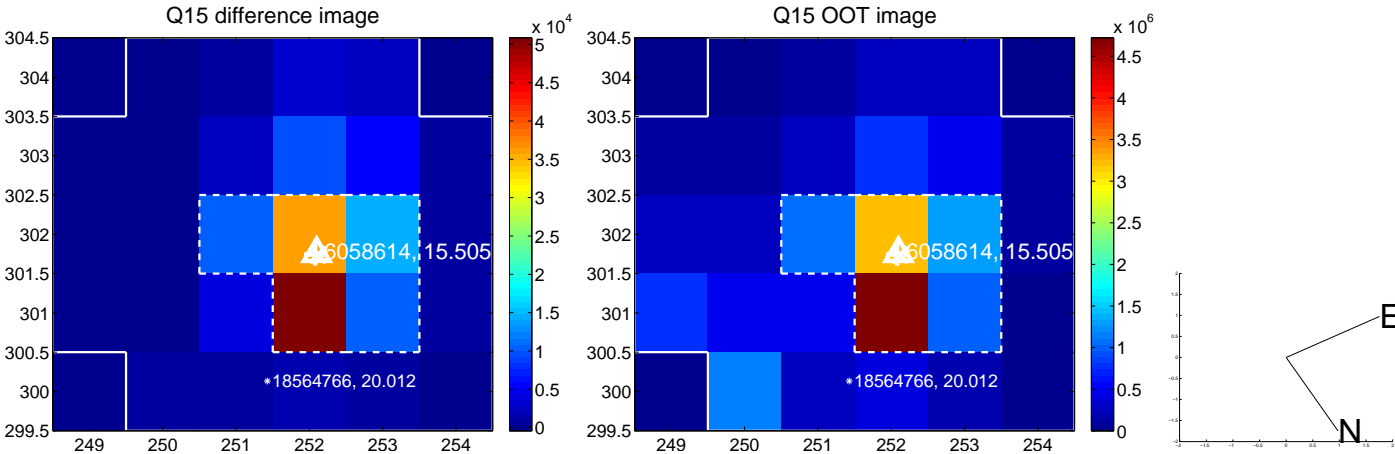
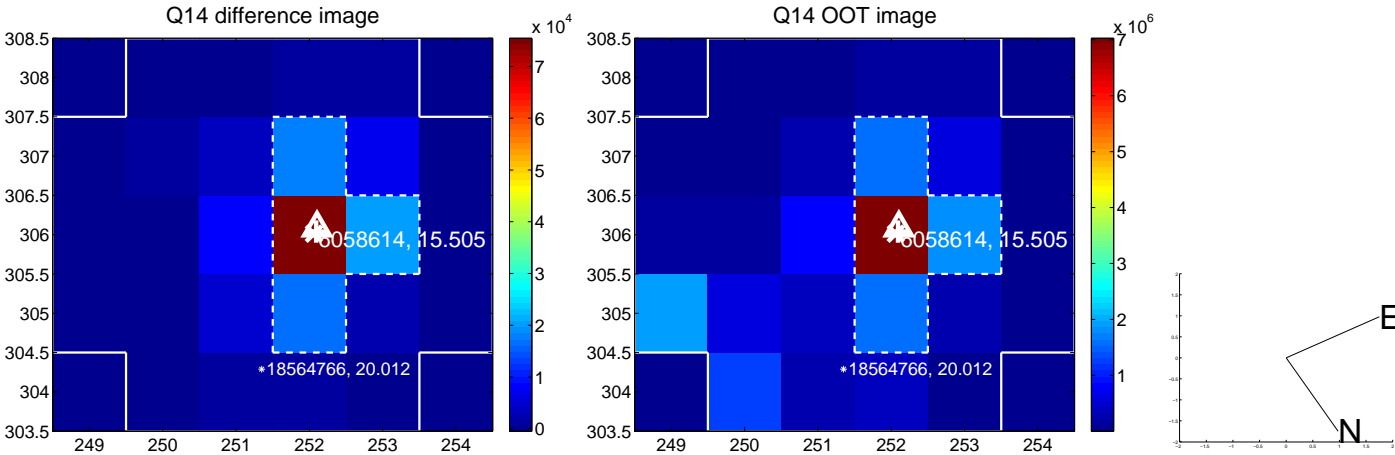
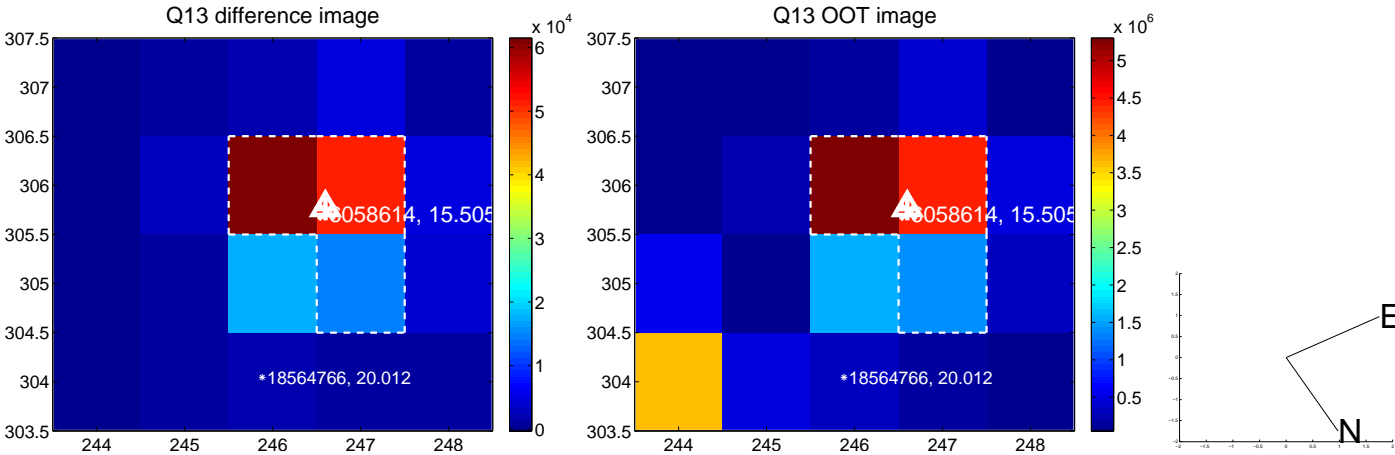
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



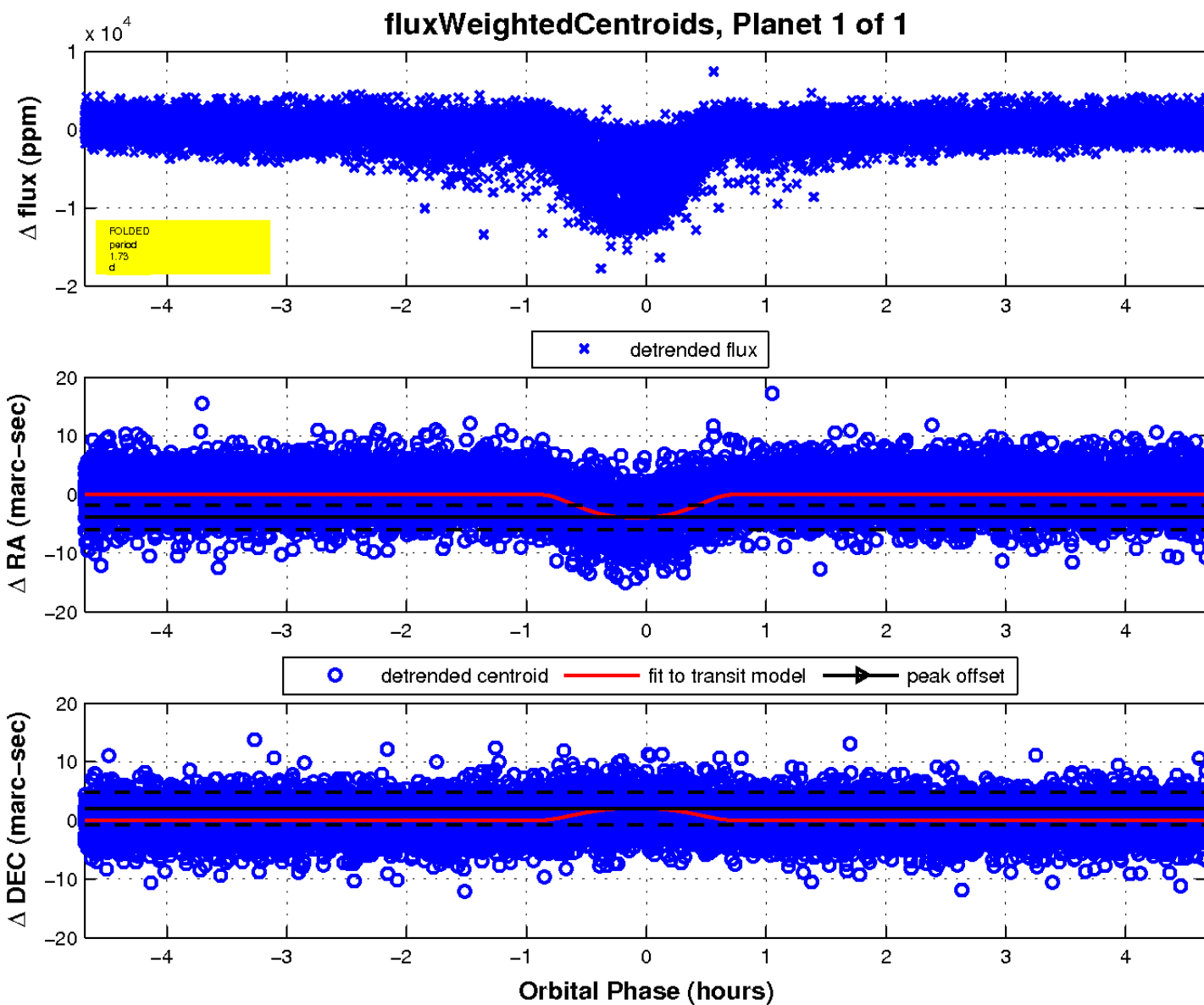
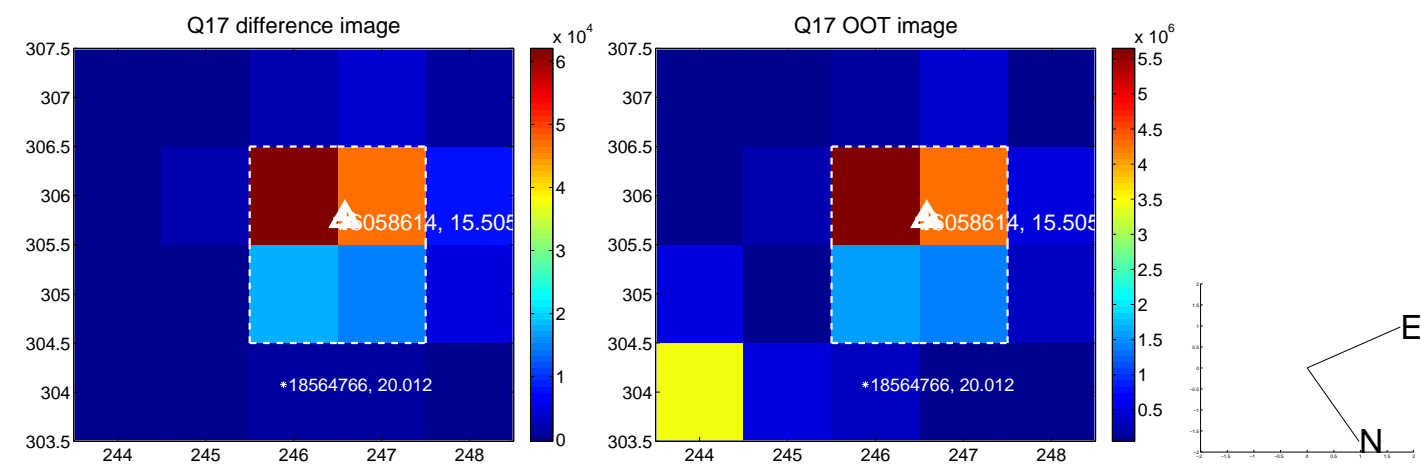
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UKIRT Image

