

KIC 006309763

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})
006309763-01	OBS	0611.01	3.251657	132.040961	4672.6	1.544	447.1	514.6	1.09	6367	9.57	868.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006309763-01	OBS	PC	1.00	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.

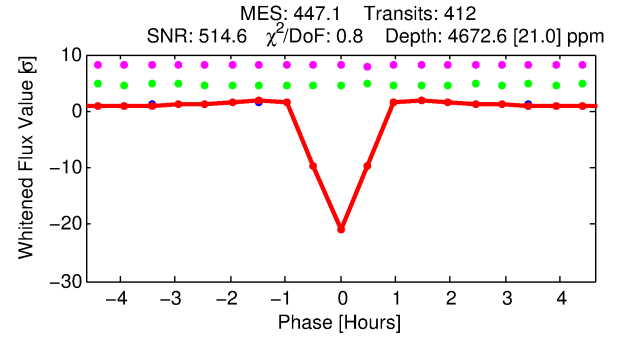
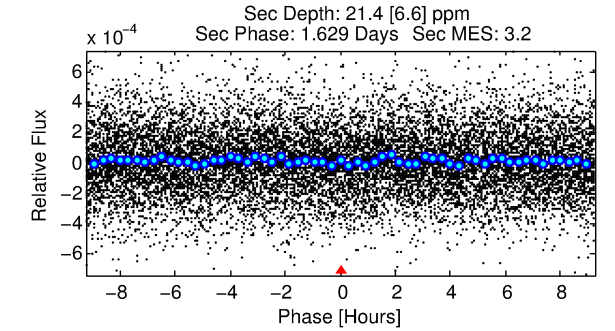
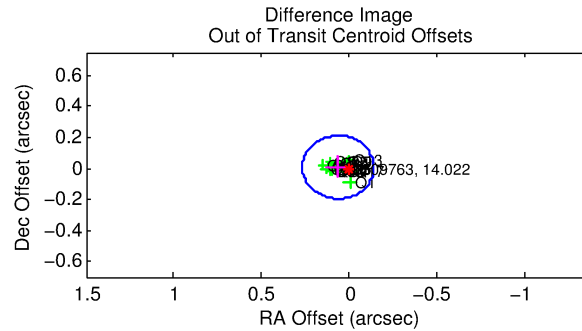
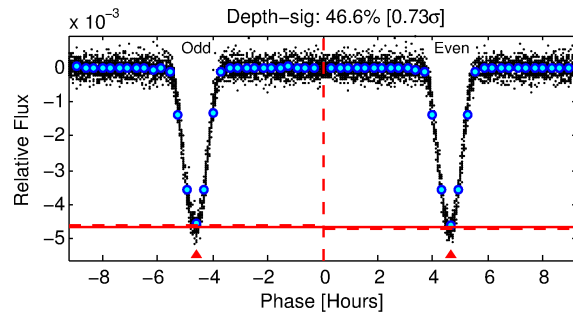
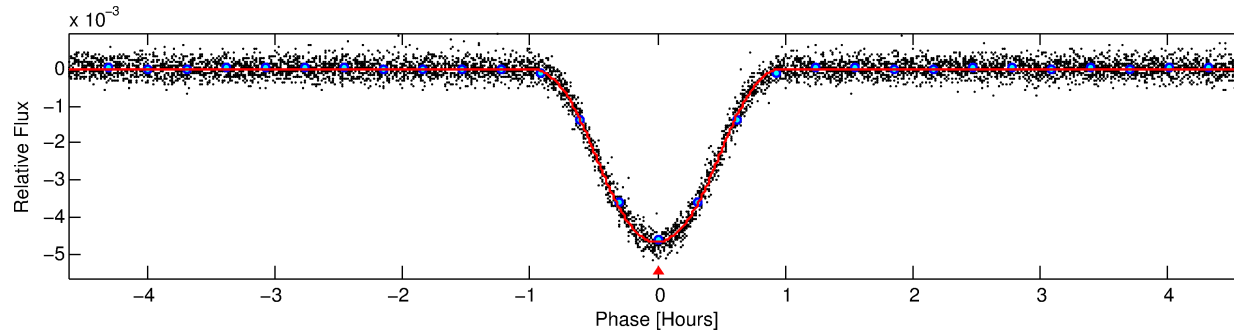
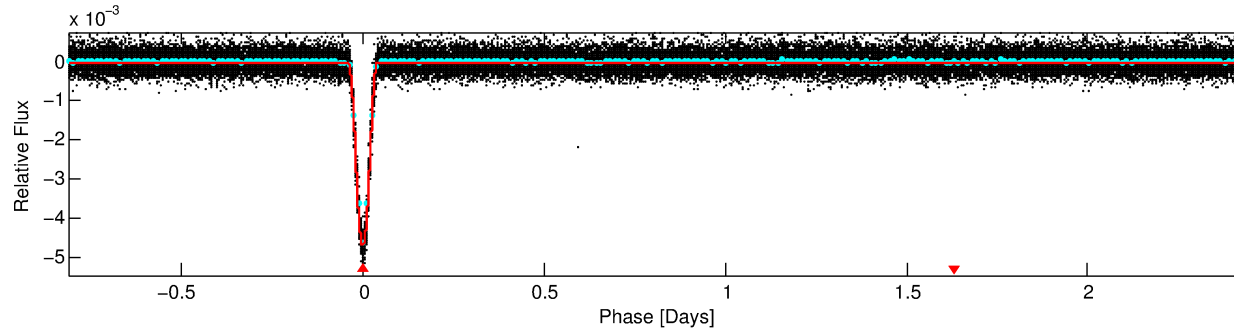
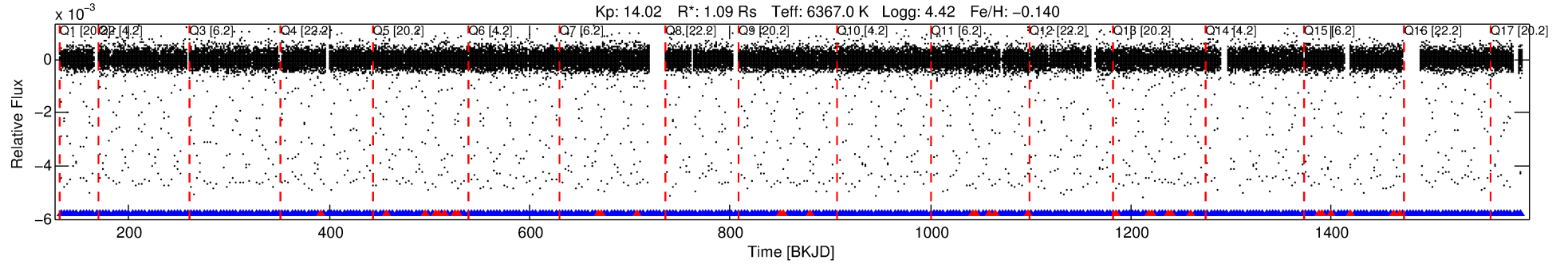
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006309763-01

No Significant Match Found

DV One-Page Summary

KIC: 6309763 Candidate: 1 of 1 Period: 3.252 d
KOI: K00611.01 Corr: 0.996



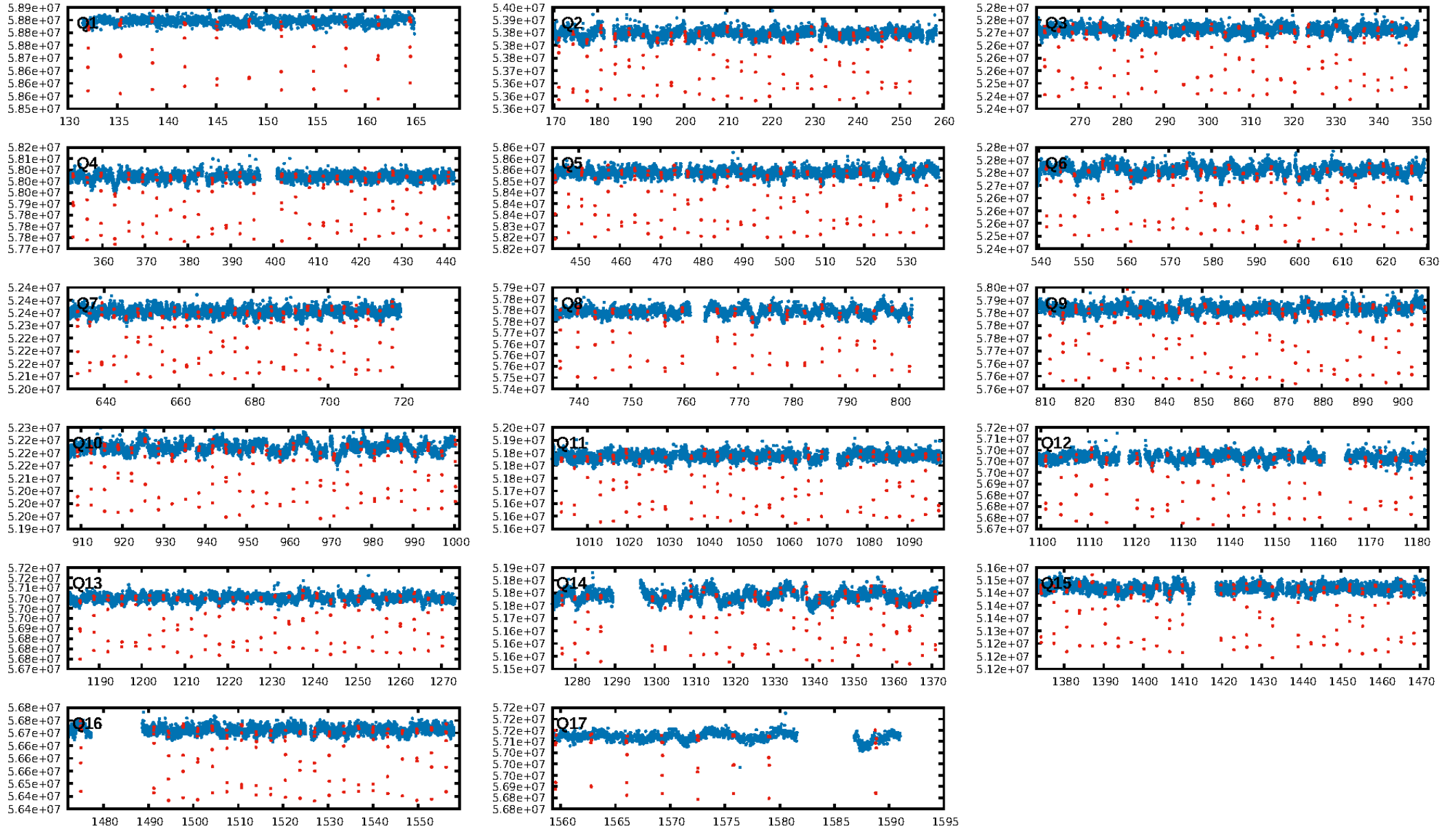
DV Fit Results:

Period = 3.25166 [0.00000] d
Epoch = 132.0410 [0.0000] BKJD
Rp/R* = 0.0807 [0.0018]
a/R* = 8.75 [0.13]
b = 0.94 [0.00]
Seff = 868.25 [348.91]
Teff = 1384 [139] K
Rp = 9.57 [2.97] Re
a = 0.0448 [0.0117] AU
Ag = 0.26 [0.13] [-5.87σ]
Teffp = 1524 [129] K [0.74σ]

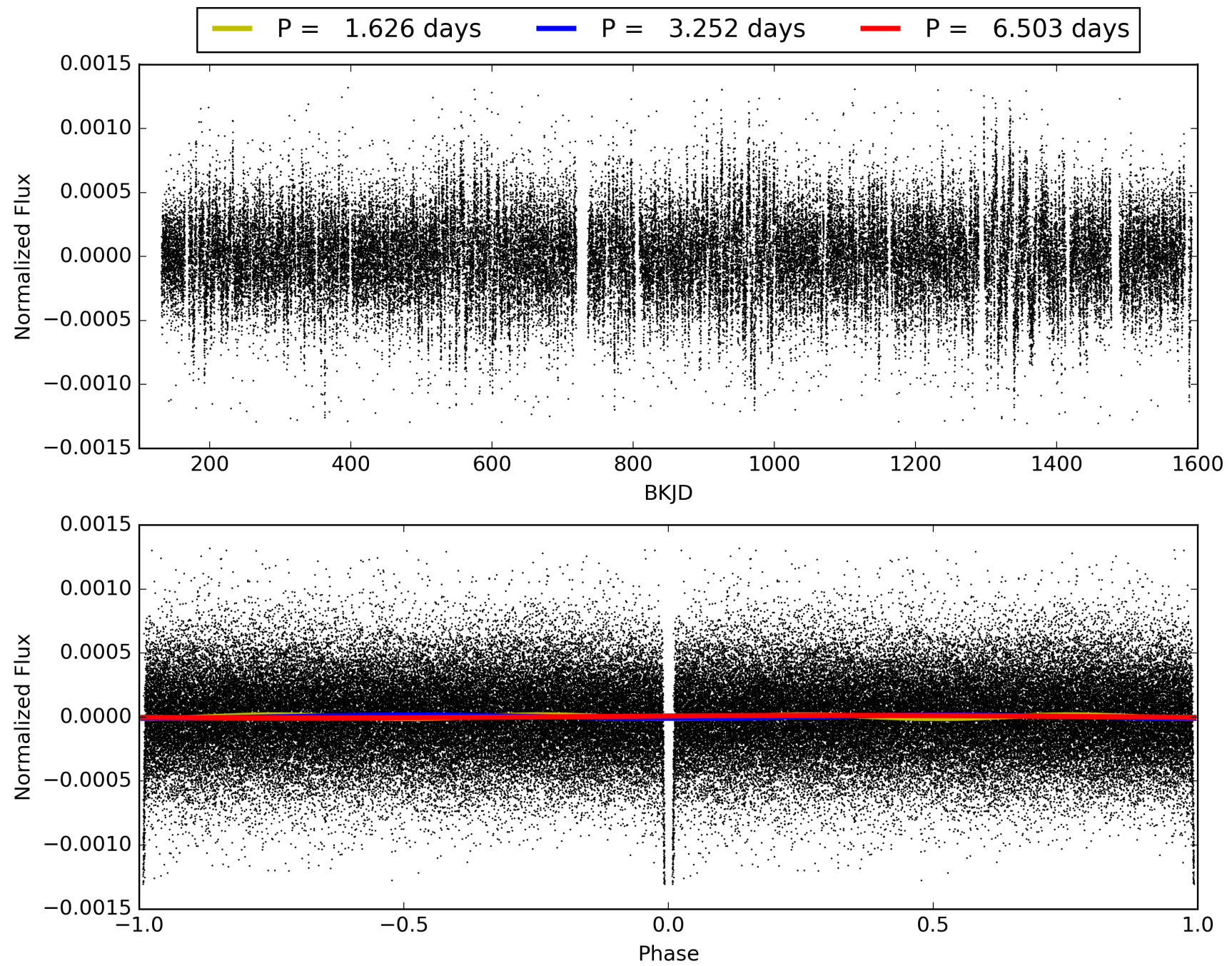
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.92 [362/393]
GhostDiagnostic-chr: 4.62
Centroid-sig: 0.0%
Centroid-so: 0.033 arcsec [1.30σ]
OotOffset-rm: 0.065 arcsec [0.95σ]
KicOffset-rm: 0.063 arcsec [0.91σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006309763-01, PDC Light Curves

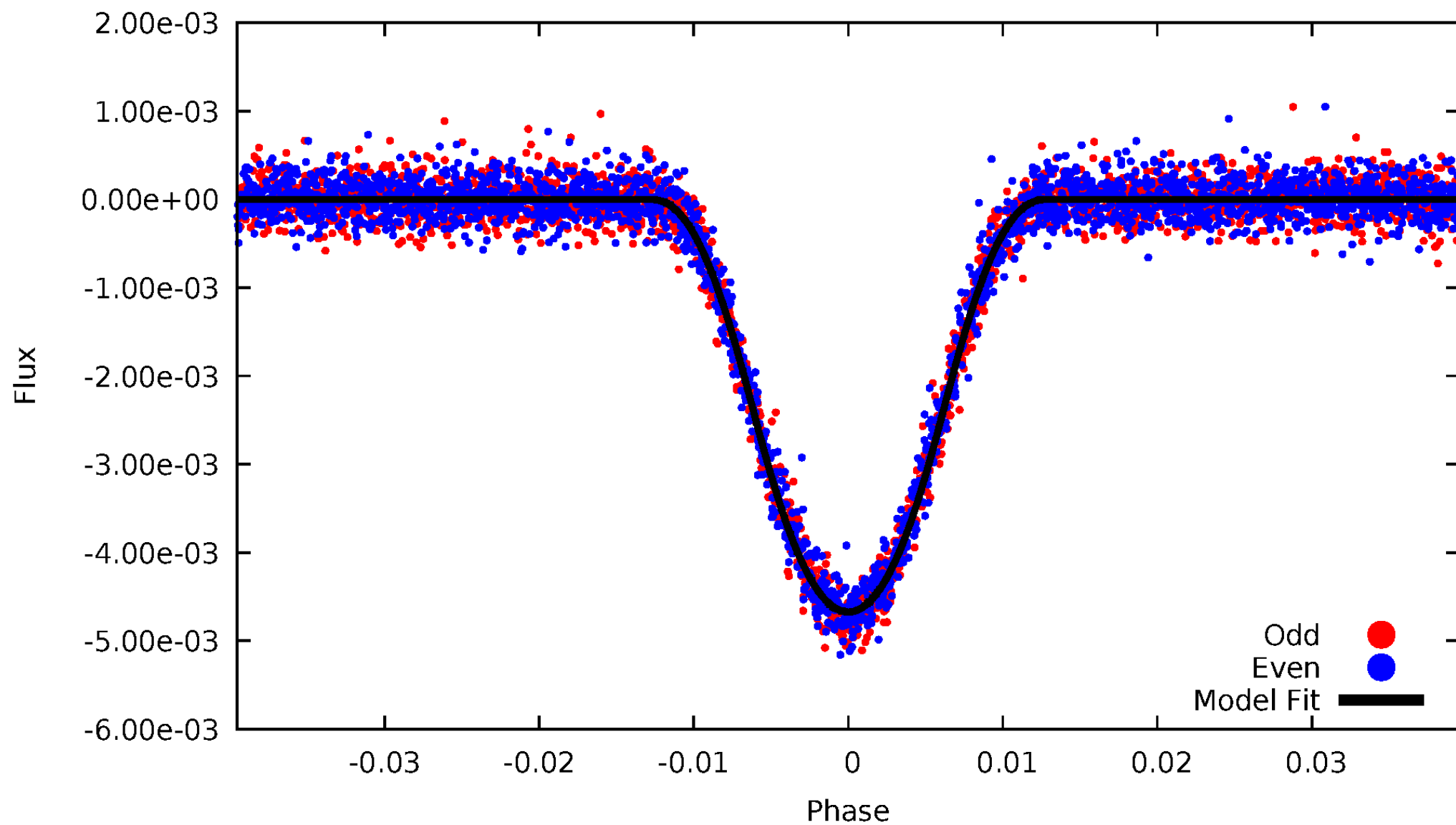


TCE 006309763-01



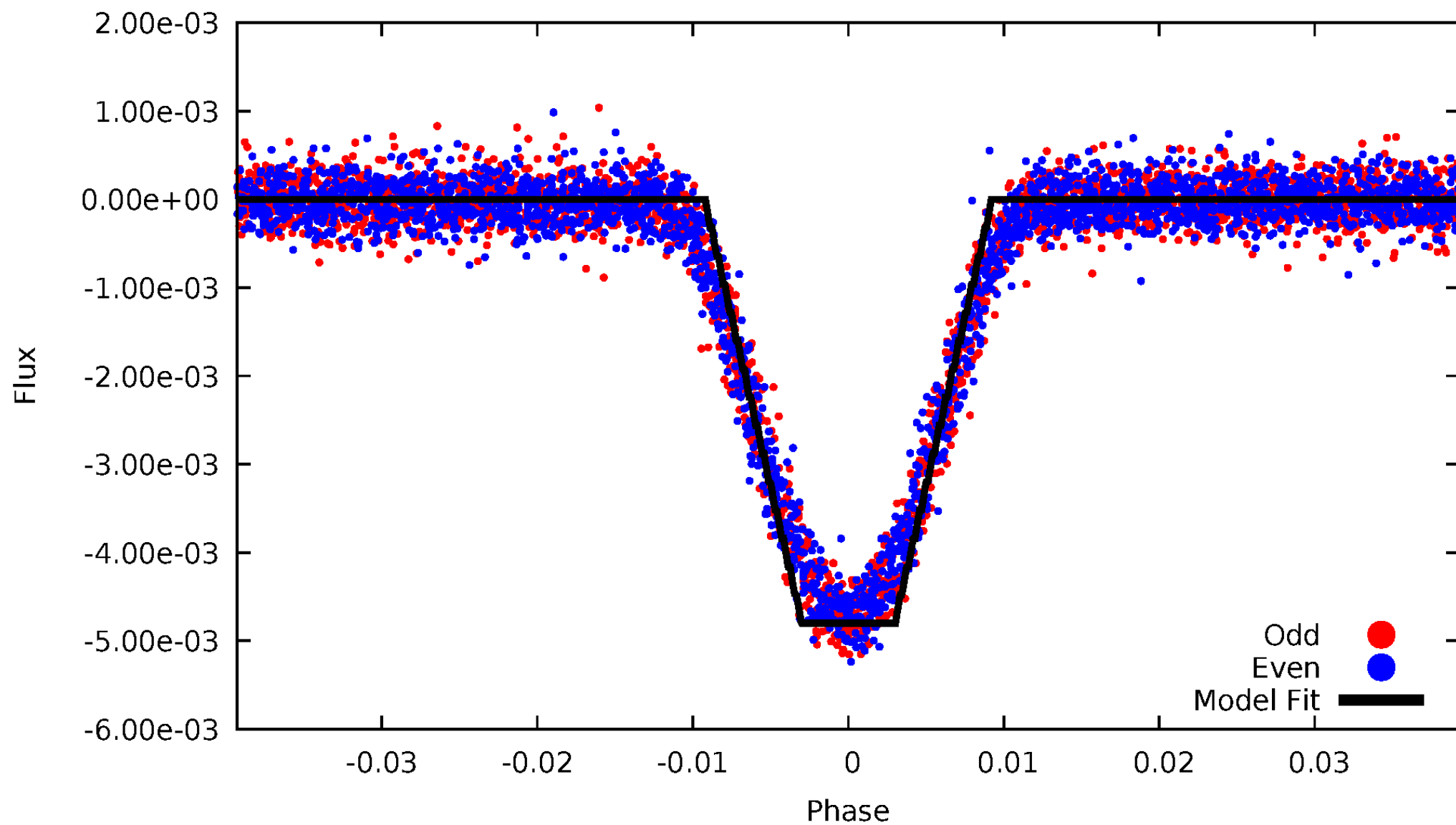
DV Odd/Even

TCE 006309763-01



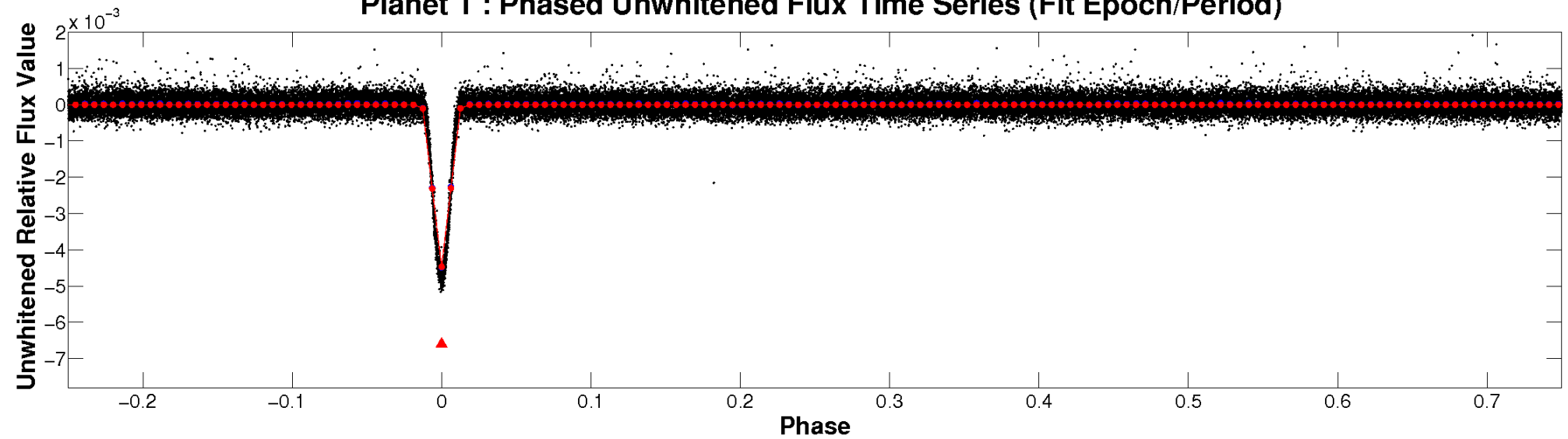
ALT Odd/Even

TCE 006309763-01

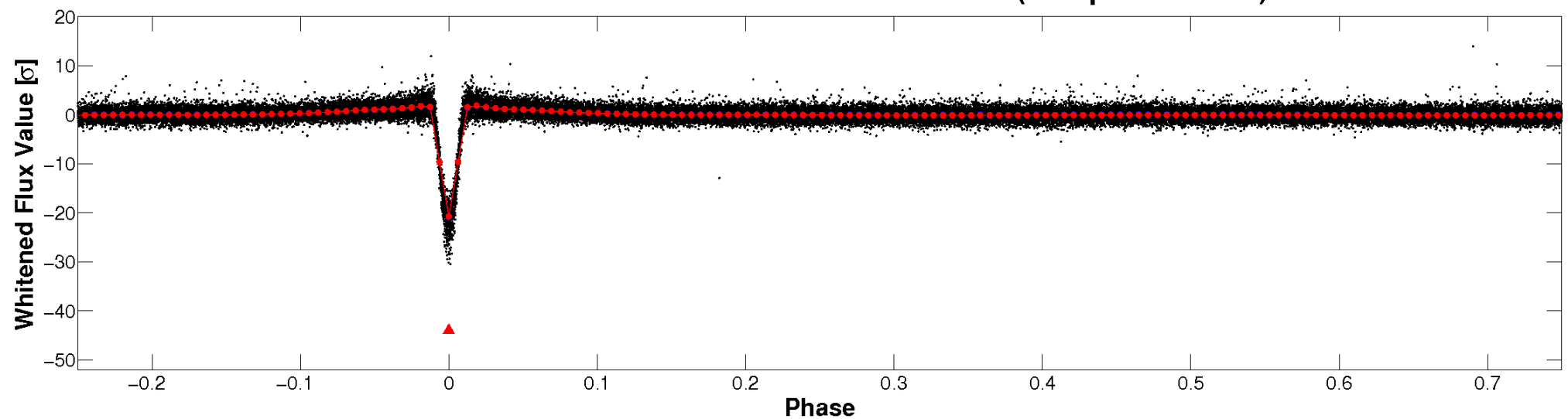


Non-Whitened Vs. Whitened Light Curve

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

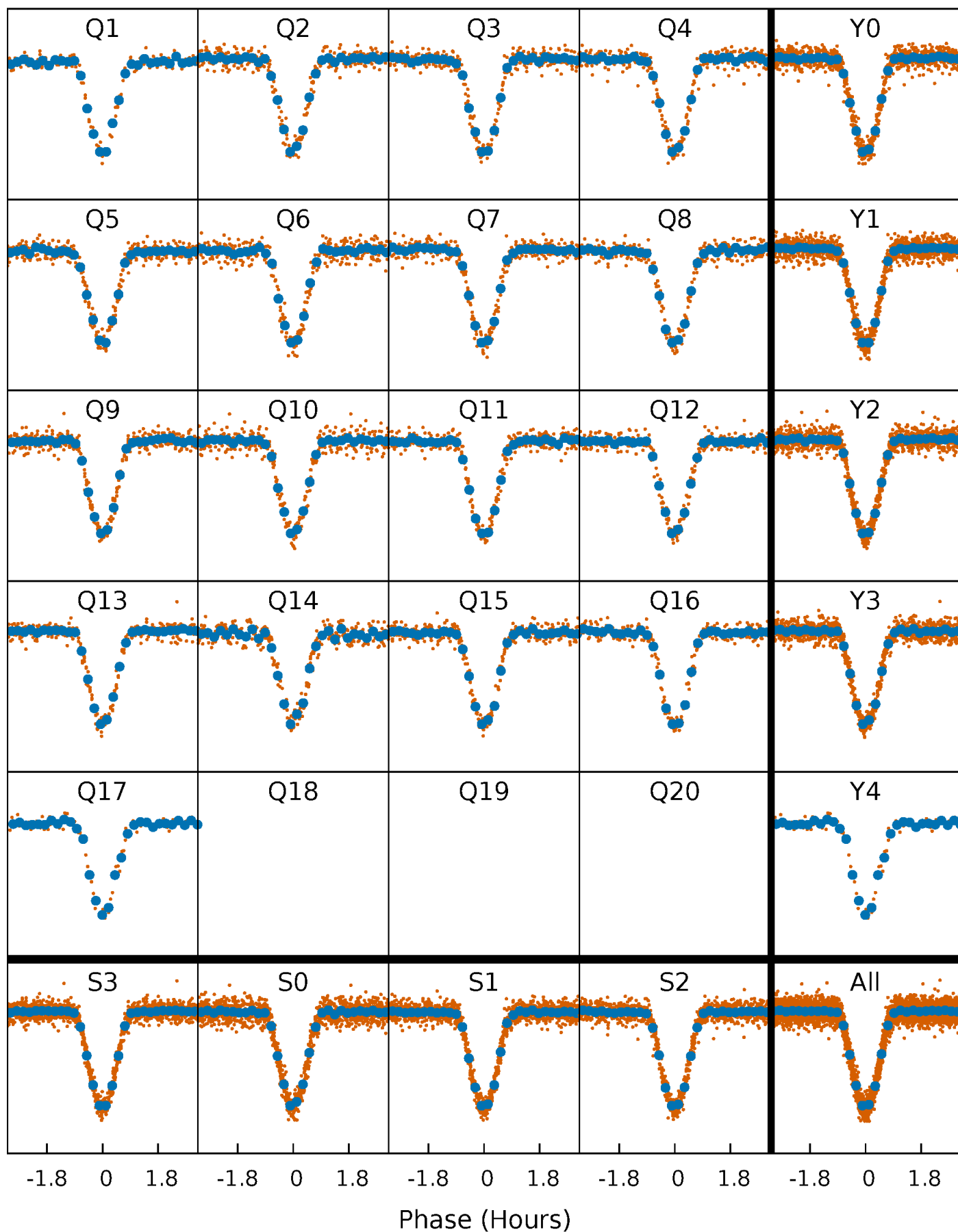


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



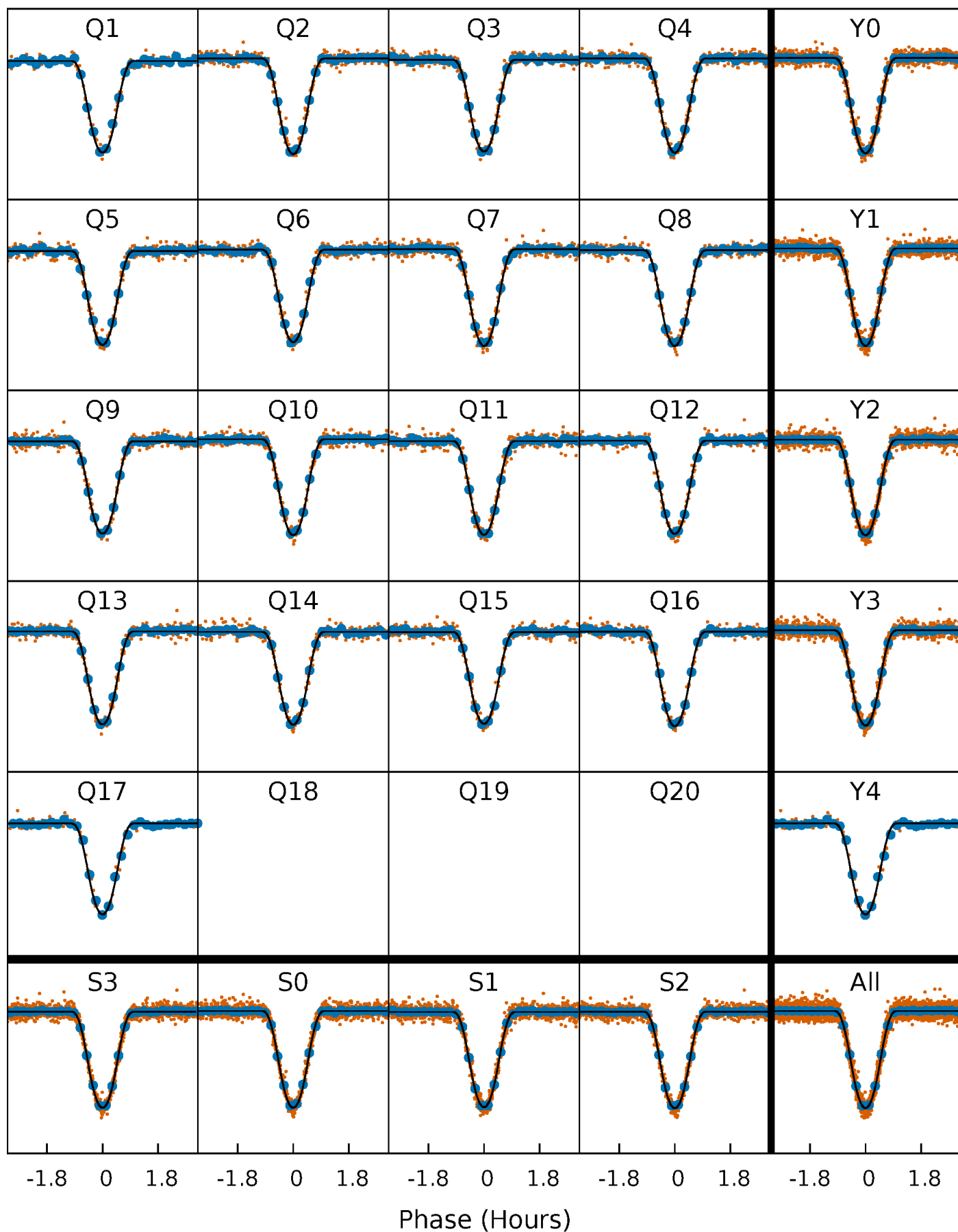
PDC Quarter-Phased Transit Curves

TCE 006309763-01 P= 3.251657 Days $T_0=132.040961$ (BKJD)



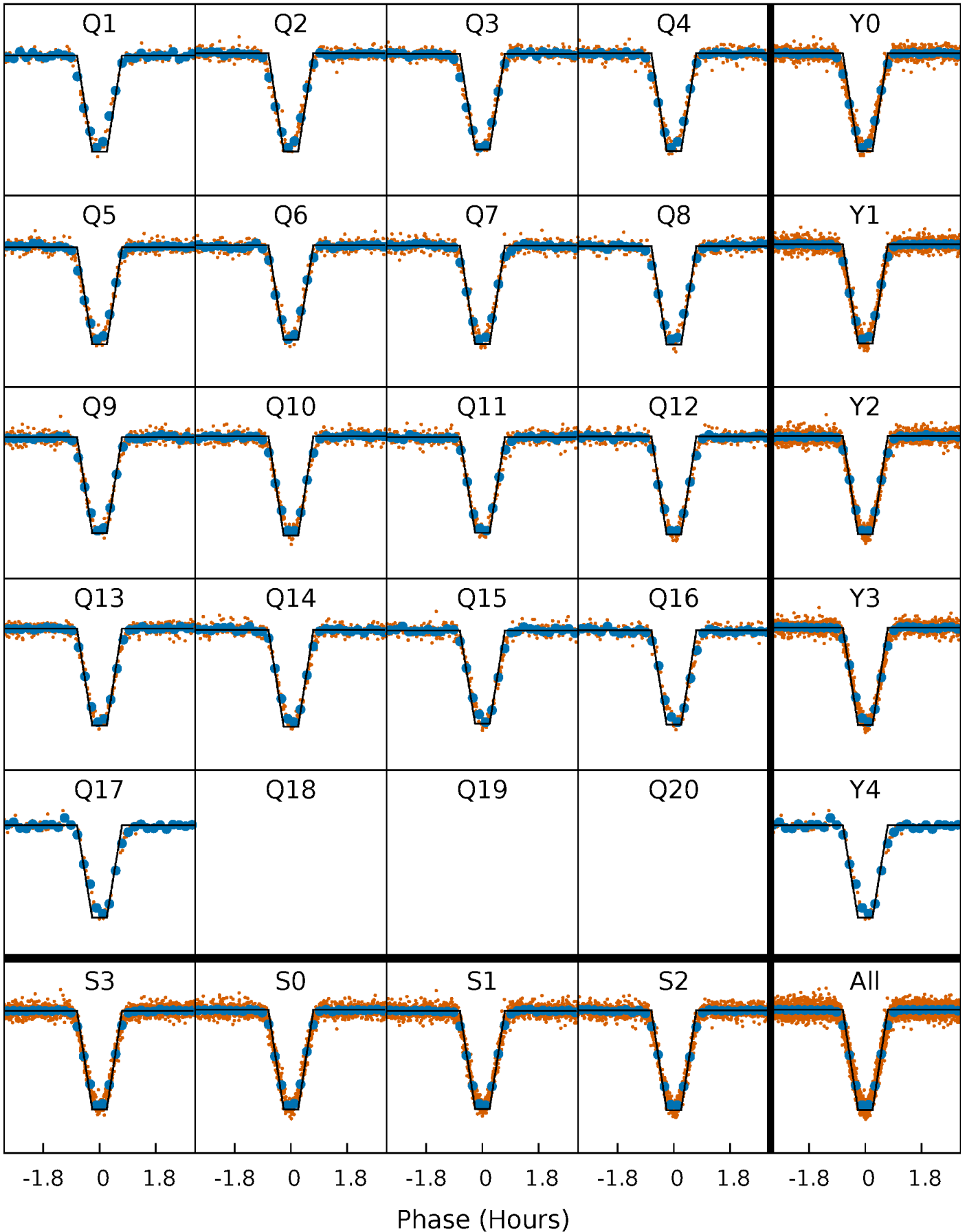
DV Quarter-Phased Transit Curves

TCE 006309763-01 P= 3.251657 Days $T_0=132.040961$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

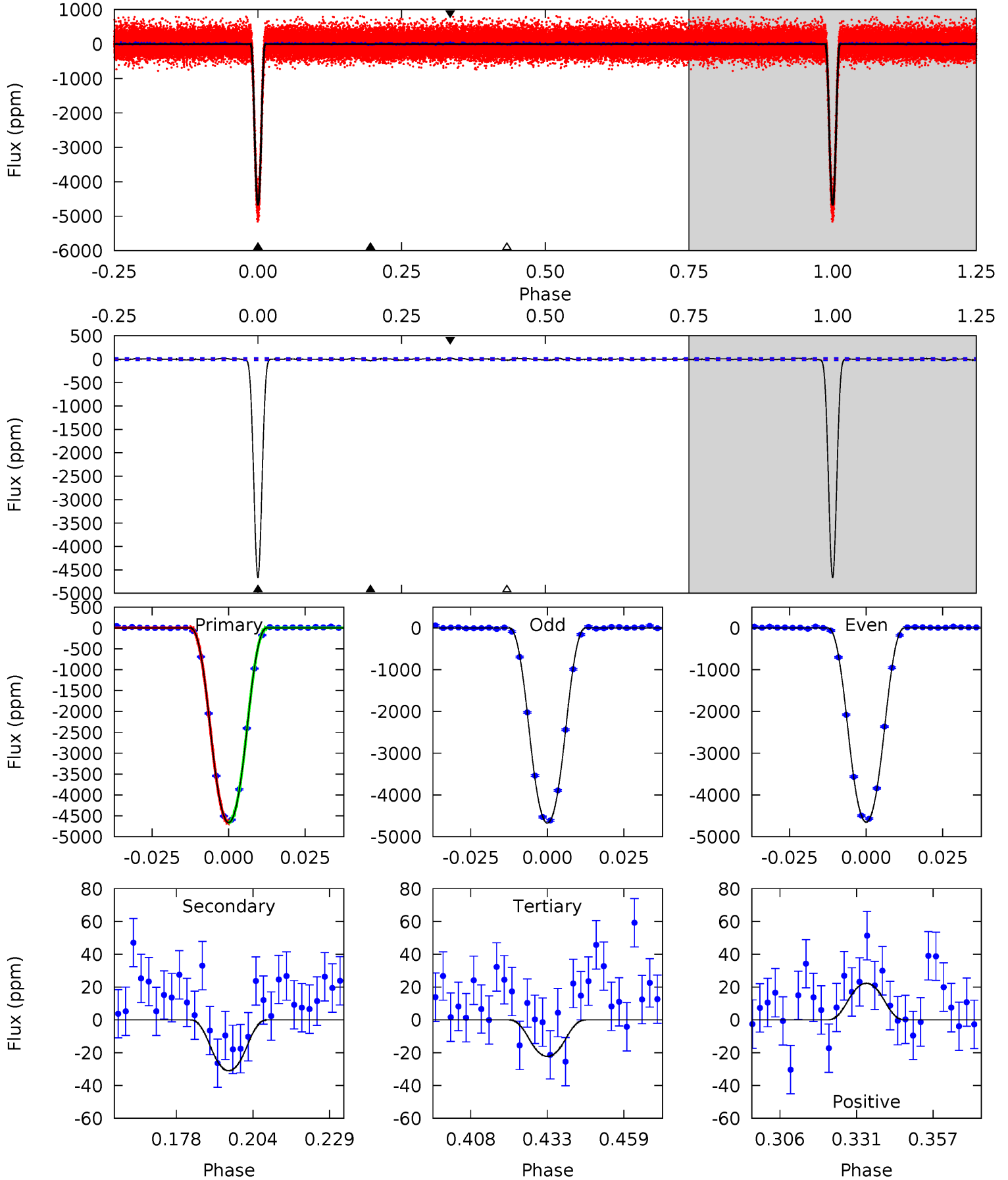
TCE 006309763-01 P= 3.251648 Days $T_0=132.043000$ (BKJD)



DV Model-Shift Uniqueness Test

006309763-01, P = 3.251657 Days, E = 128.789304 Days

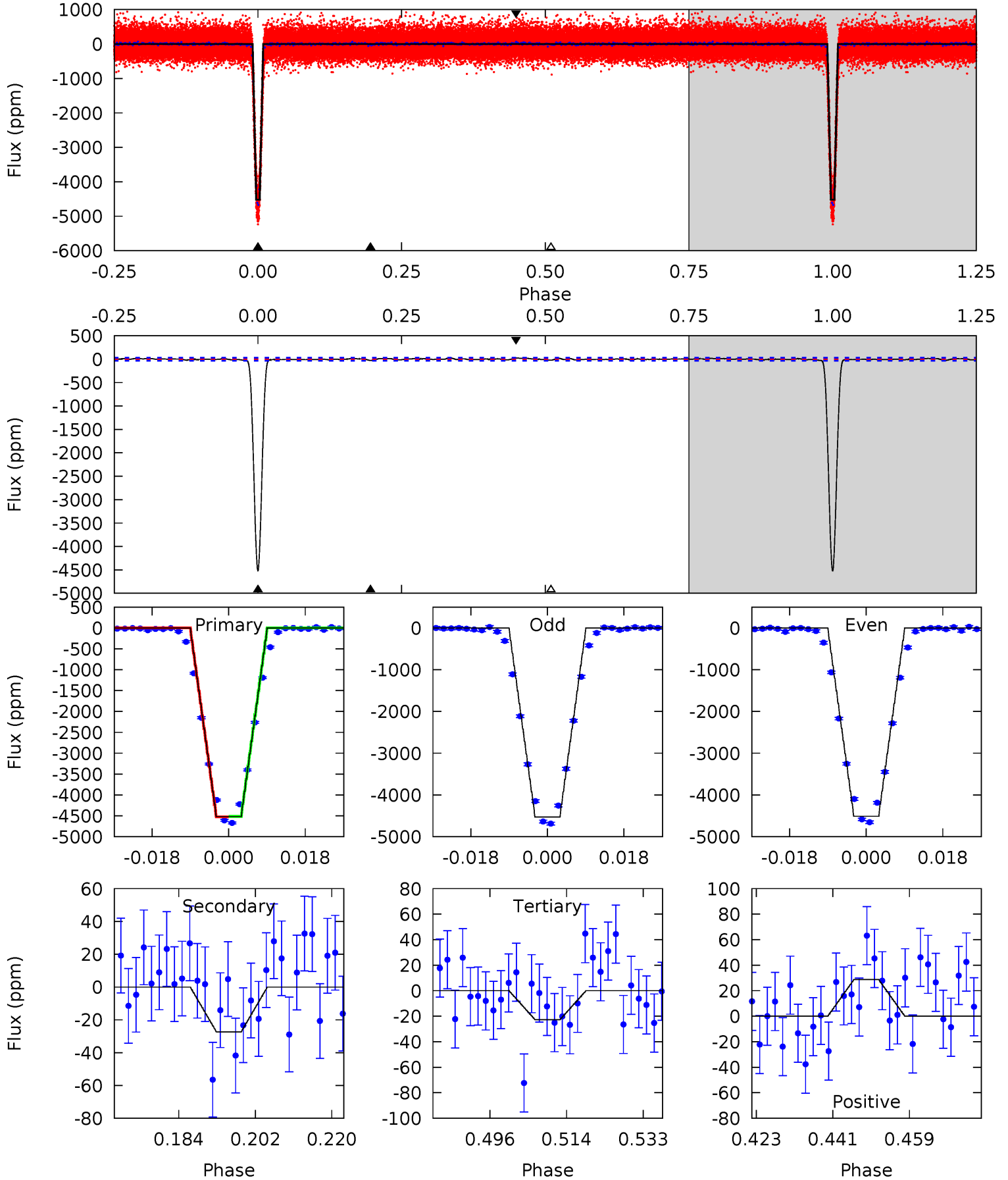
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
936.5	6.23	4.48	4.48	4.84	2.23	1.60	932.0	932.0	1.75	1.75	2.50	1.00	0.00	0.67



Alt Model-Shift Uniqueness Test

006309763-01, P = 3.251648 Days, E = 128.791352 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
692.2	4.18	3.49	4.40	4.91	2.36	1.43	688.8	687.8	0.69	-0.22	1.31	0.99	0.01	0.50



Stellar Parameters For KIC 006309763

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6367^{+160}_{-208}	$4.419^{+0.065}_{-0.208}$	$-0.140^{+0.250}_{-0.300}$	$1.087^{+0.336}_{-0.134}$	$1.131^{+0.162}_{-0.146}$	$1.241^{+0.352}_{-0.657}$
	+3%/-3%	+1%/-5%	+179%/-214%	+31%/-12%	+14%/-13%	+28%/-53%
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 006309763-01 / KOI 0611.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-31 ± 5	$9.88^{+1.82}_{-0.86}$	1971^{+163}_{-96}	1960^{+246}_{-4072}	$0.336^{+0.086}_{-0.094}$
Alt.	-27 ± 7	$8.45^{+1.40}_{-0.80}$	1966^{+145}_{-95}	2193^{+192}_{-4030}	$0.407^{+0.136}_{-0.125}$

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 $A_{obs} \gg 1.0$

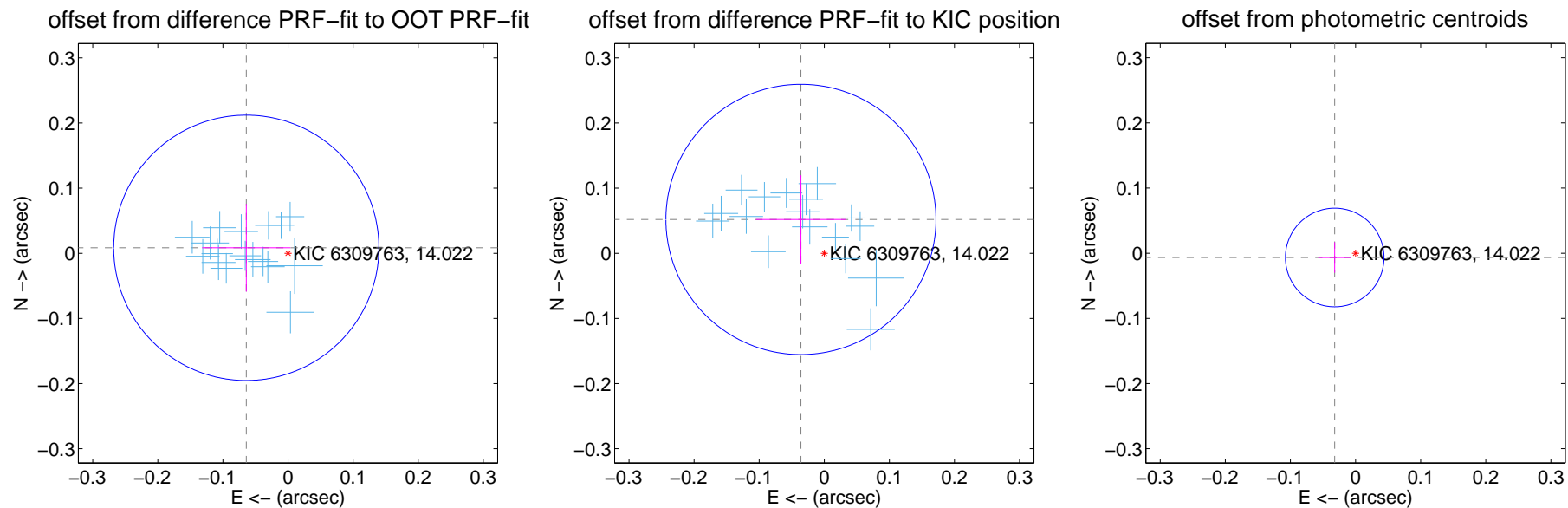
DV Centroid Data

Supplemental centroid analysis for 006309763-01. Kepler magnitude: 14.02. Transit SNR 514.62

There are 17 quarters with good PRF difference image offsets

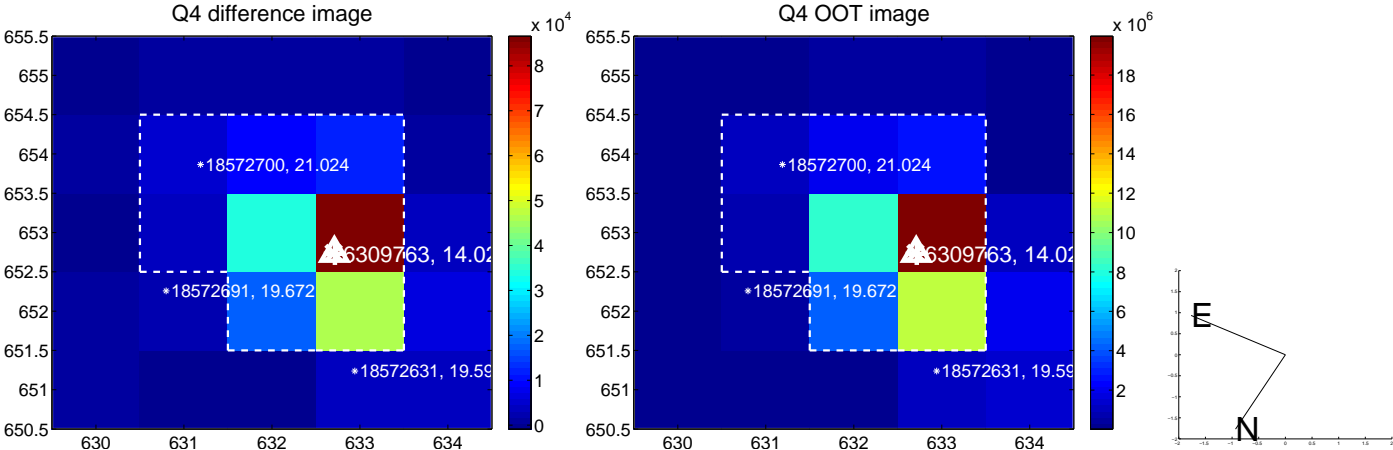
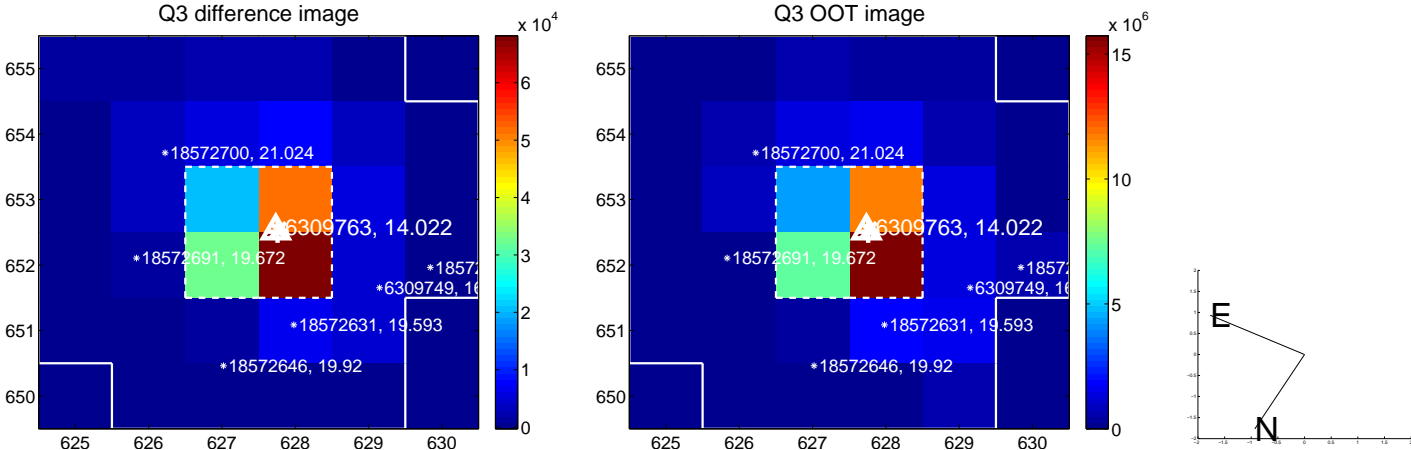
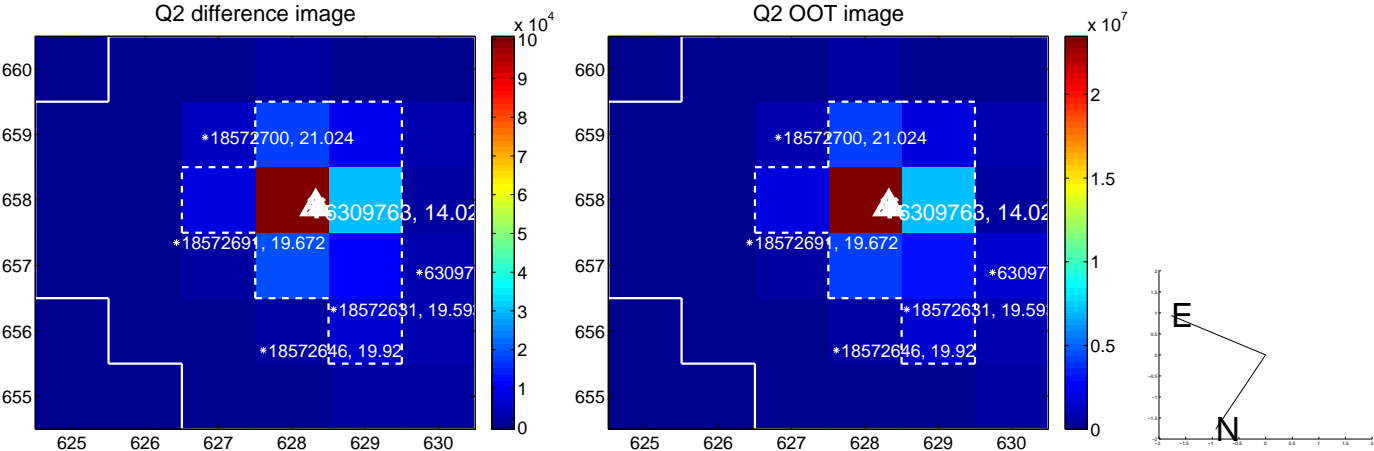
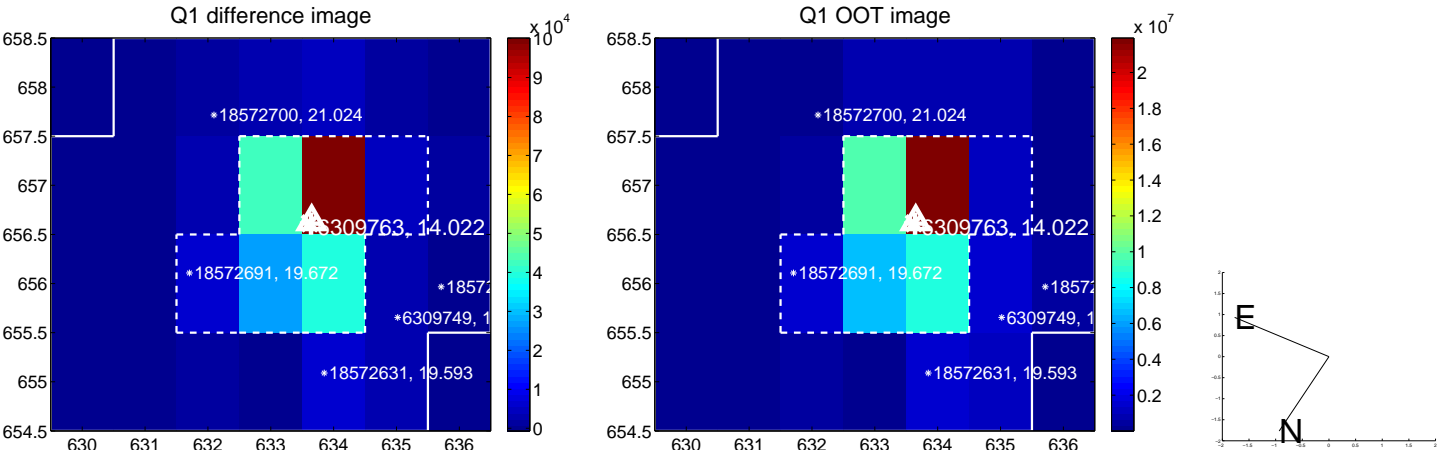
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.065 ± 0.068	0.95	0.064 ± 0.068	0.008 ± 0.067
PRF-fit source offset from KIC position	0.063 ± 0.069	0.91	0.036 ± 0.069	0.052 ± 0.068
photometric centroid source offset	0.03 ± 0.03	1.30	0.03 ± 0.03	-0.01 ± 0.02

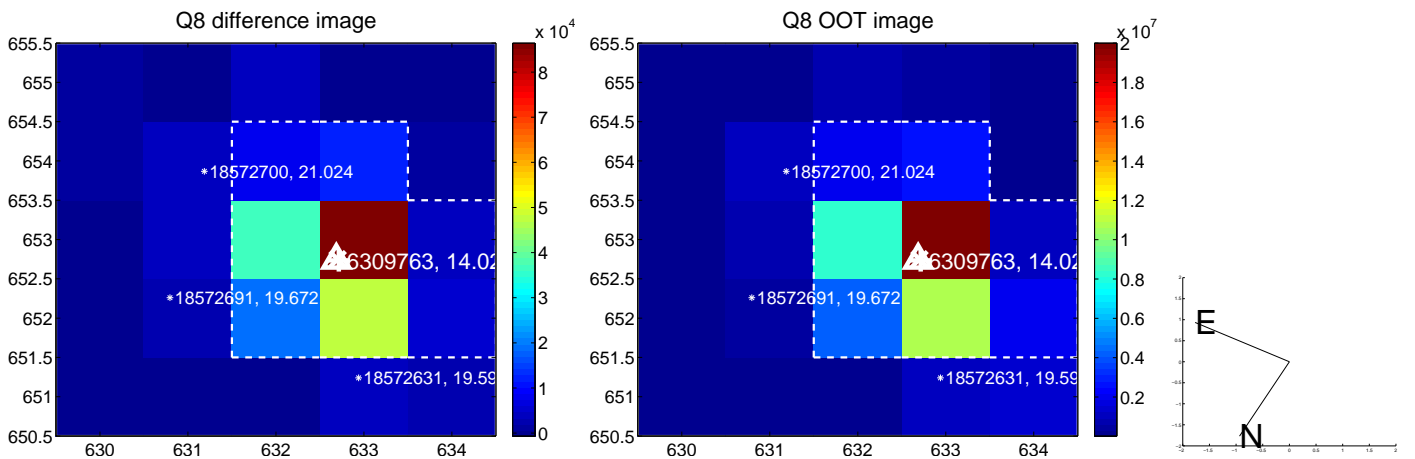
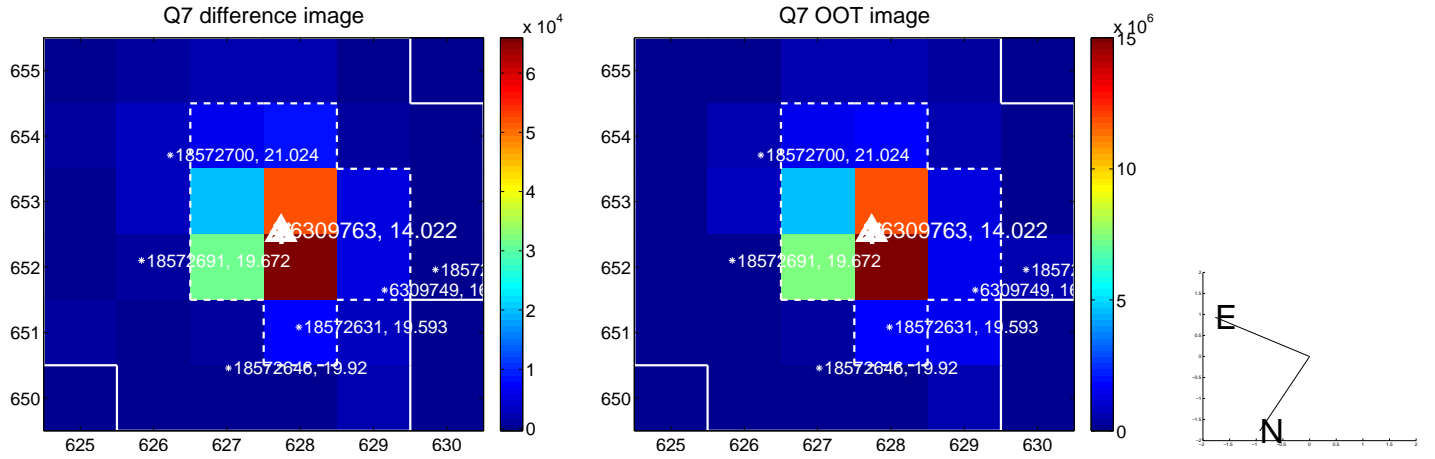
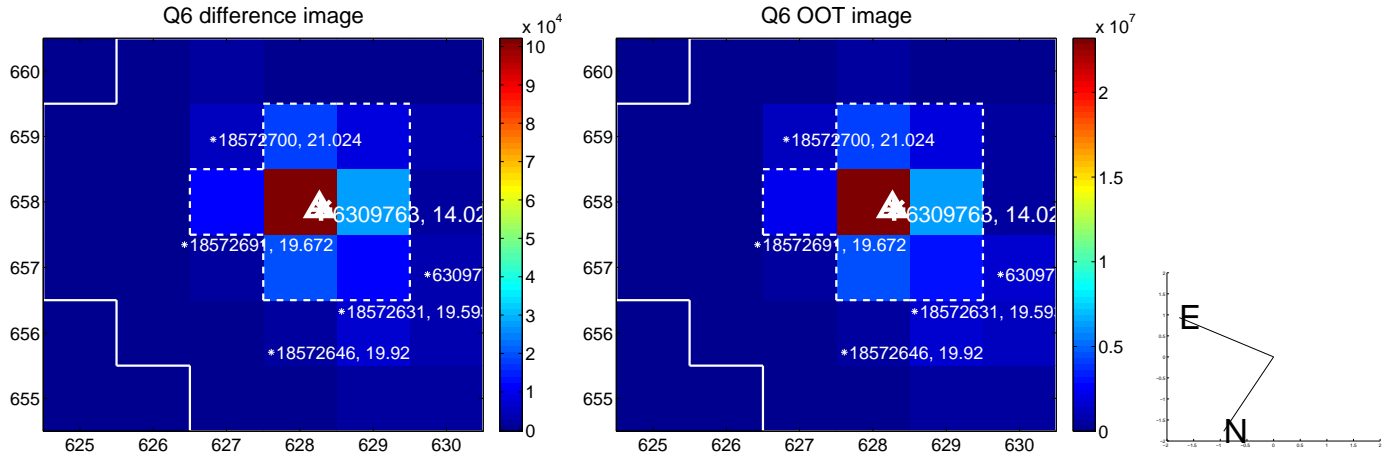
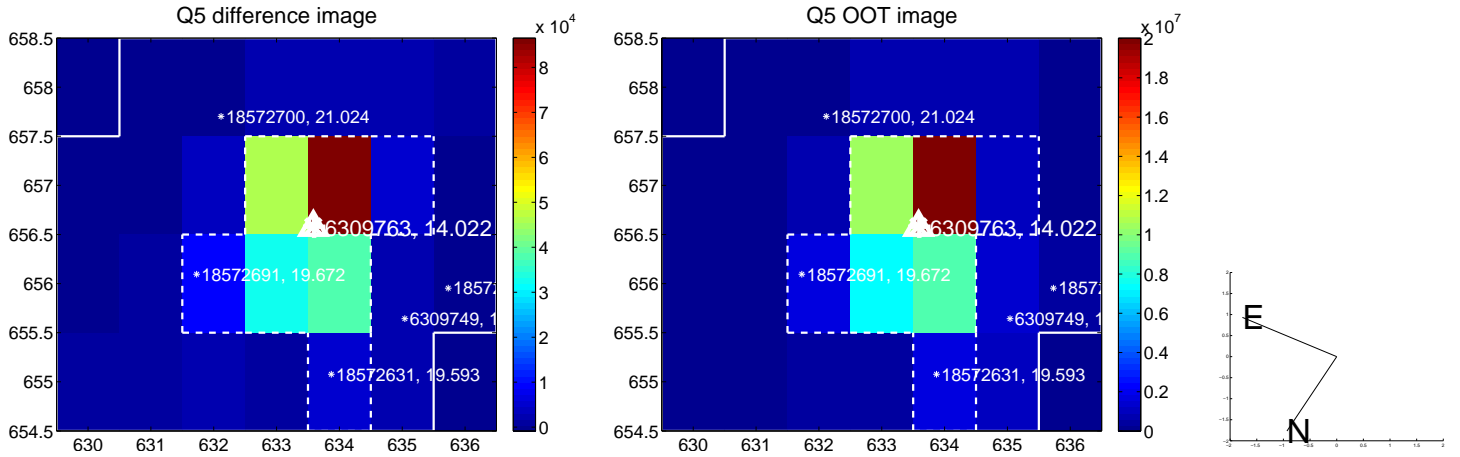


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

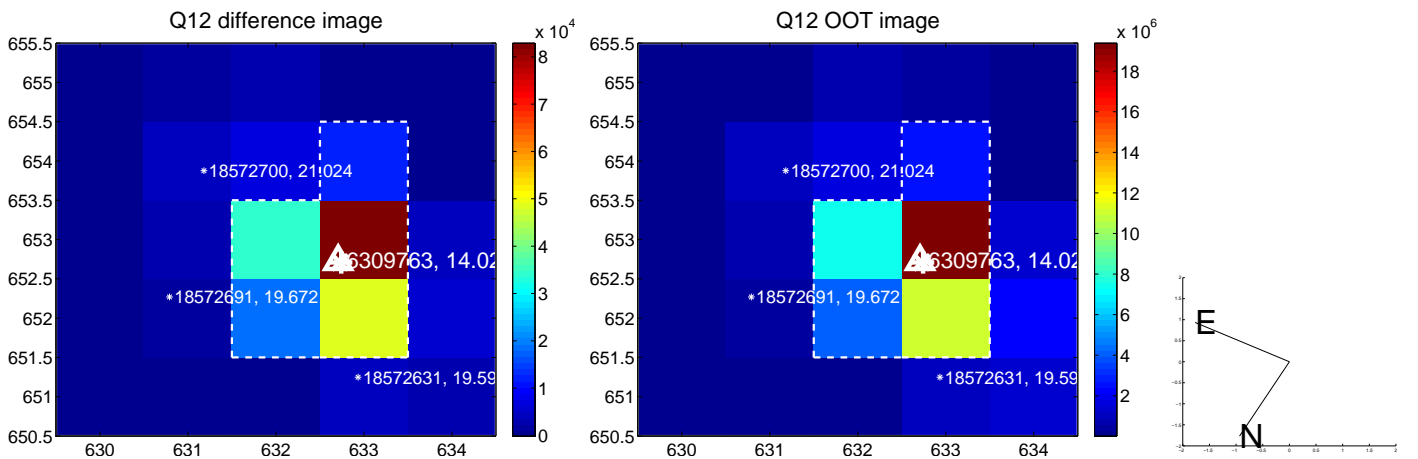
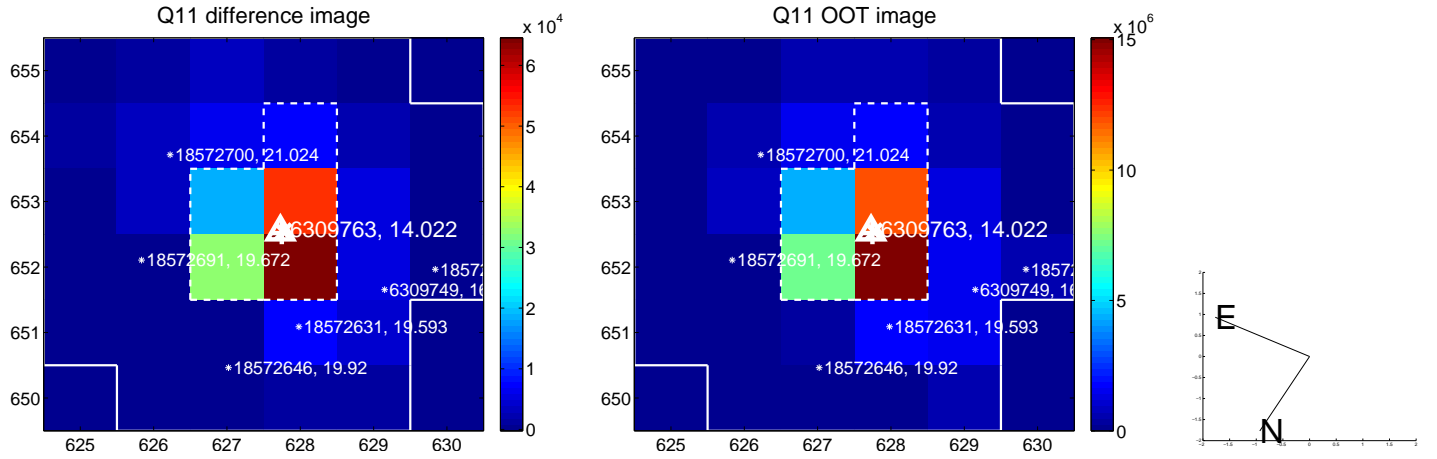
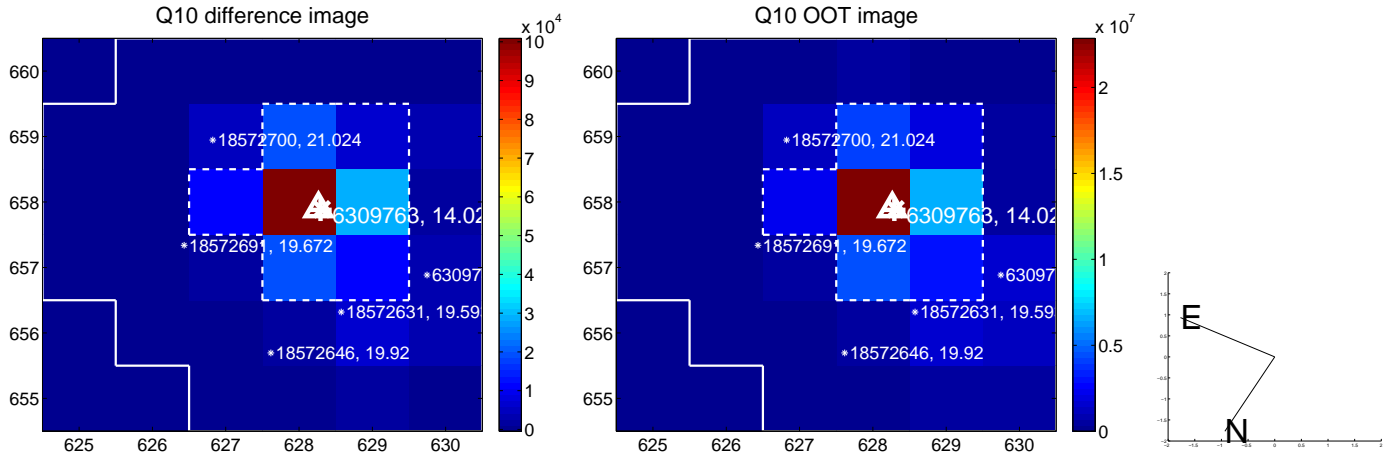
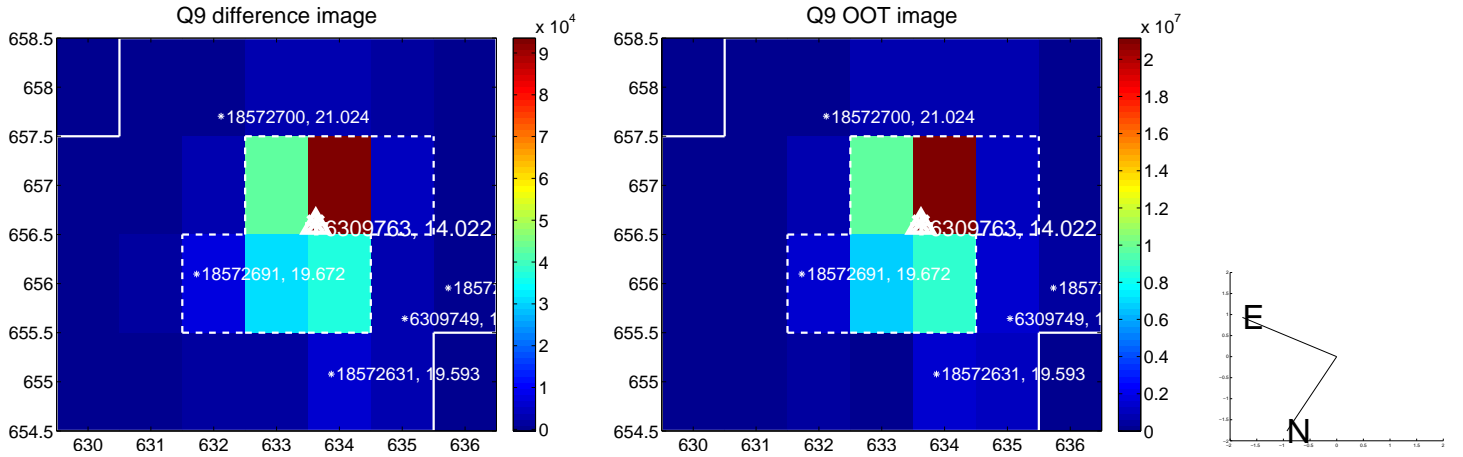
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



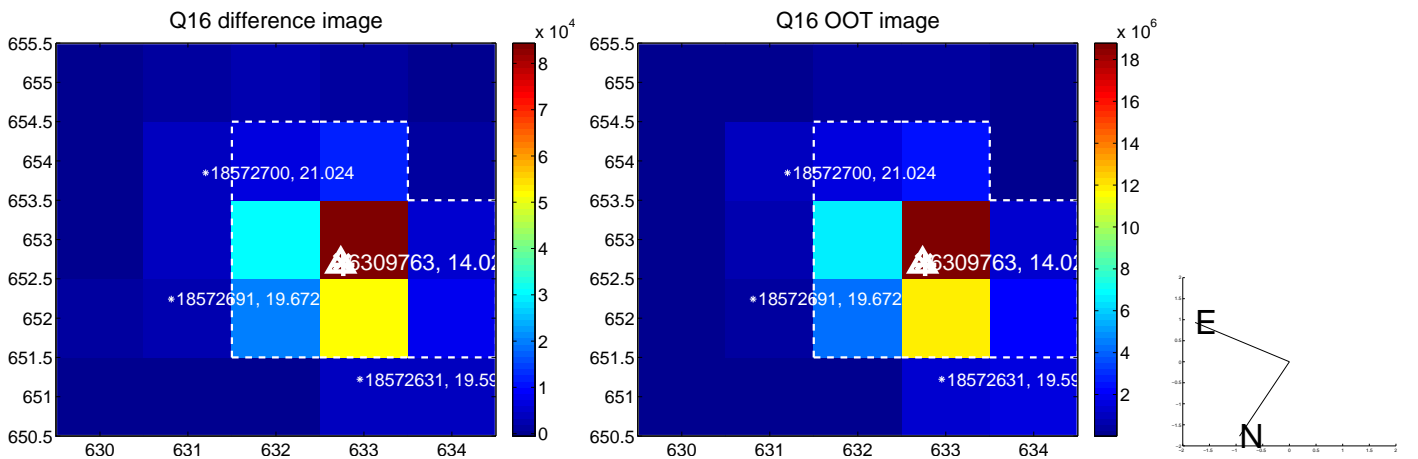
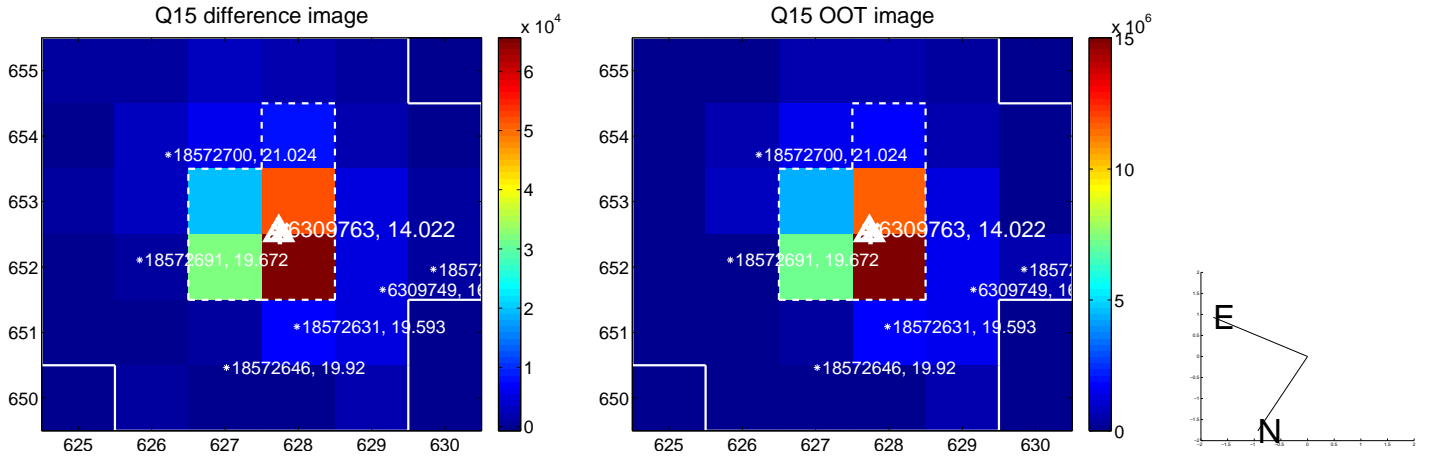
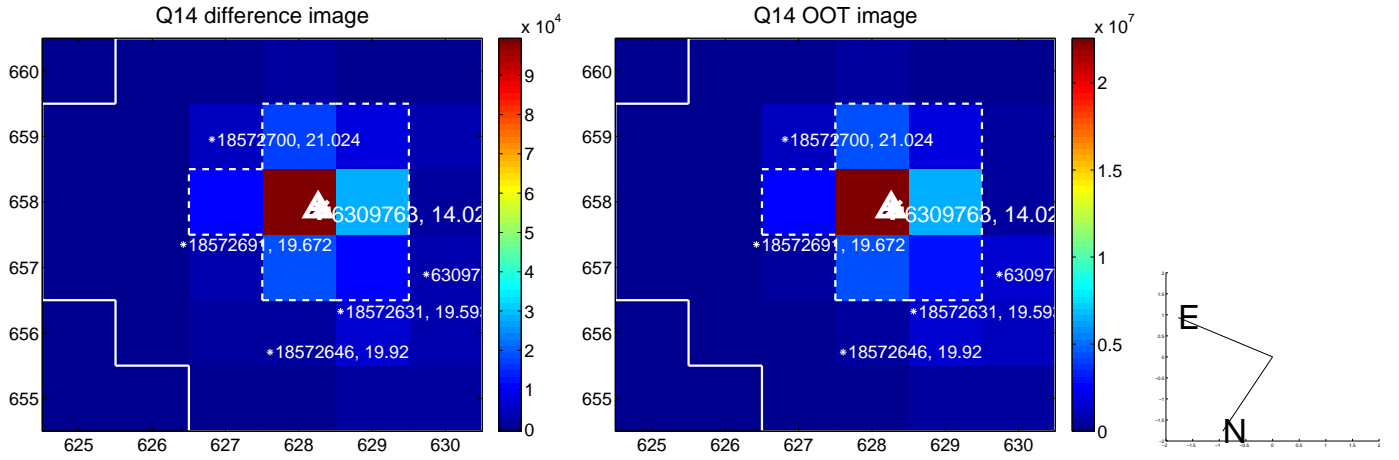
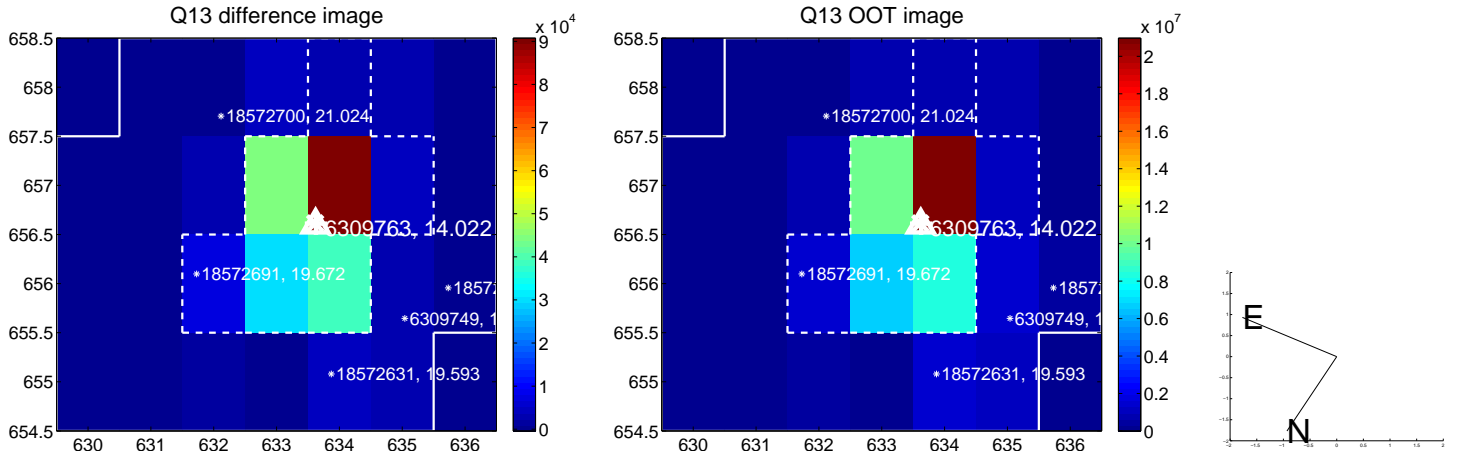
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



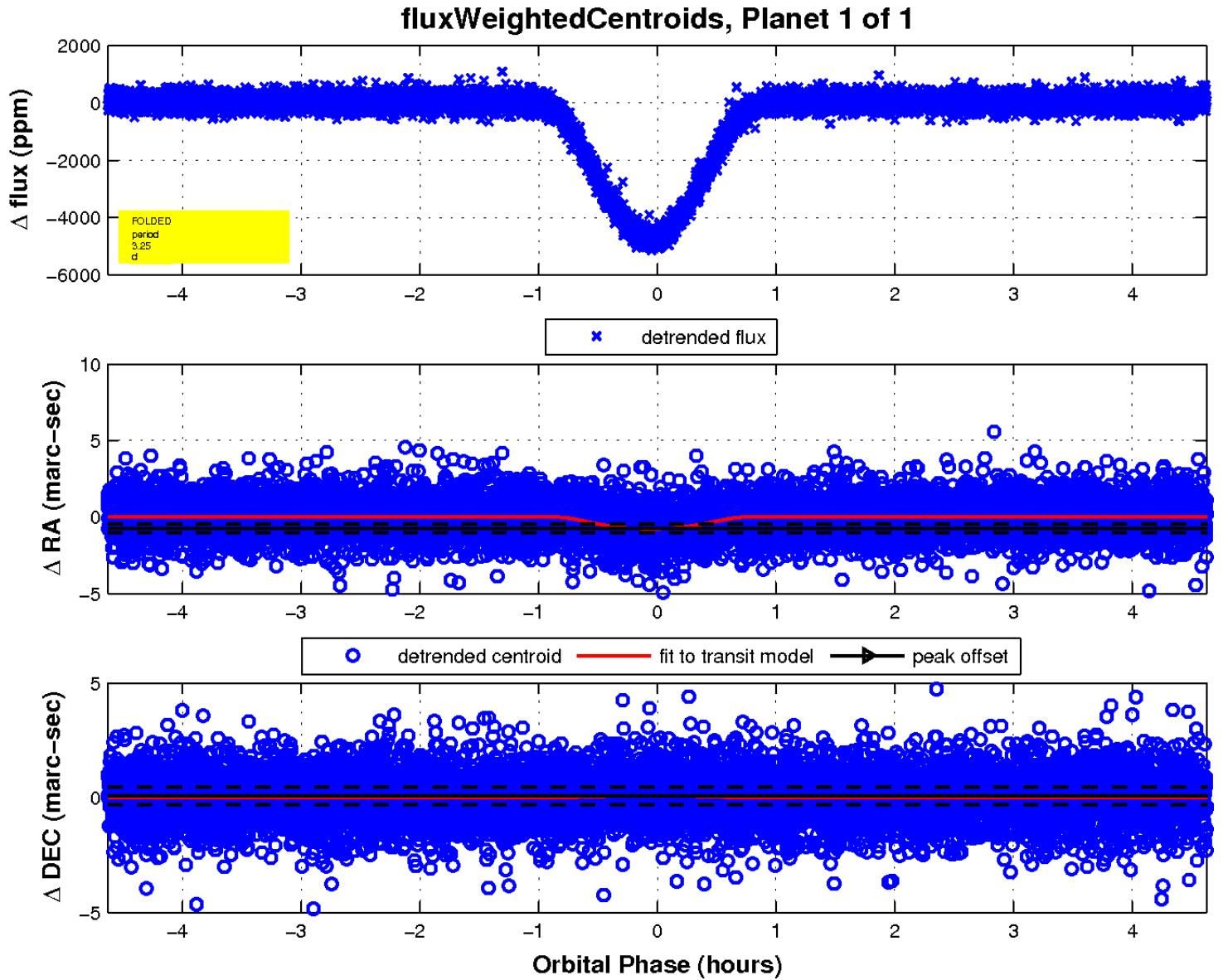
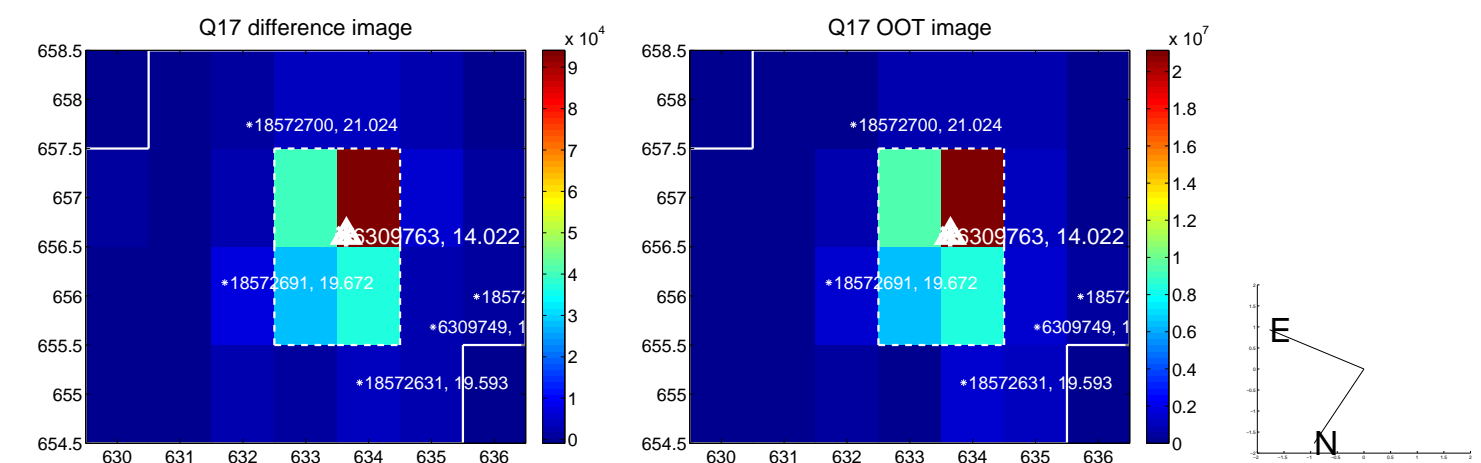
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

