

KIC 007466863

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})
007466863-01	OBS	0677.01	11.971078	135.169572	426.0	2.713	37.1	41.1	1.46	6312	4.58	281.67

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007466863-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

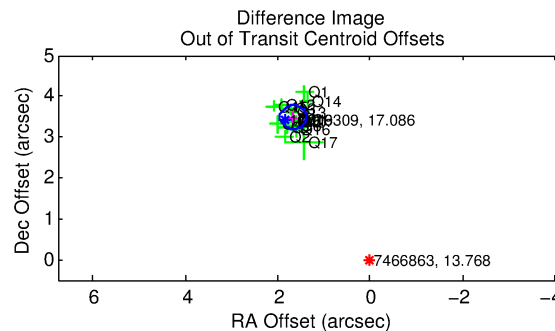
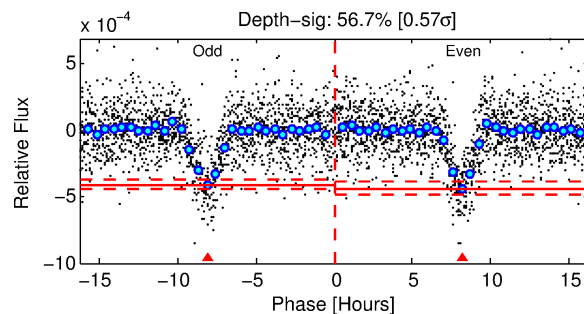
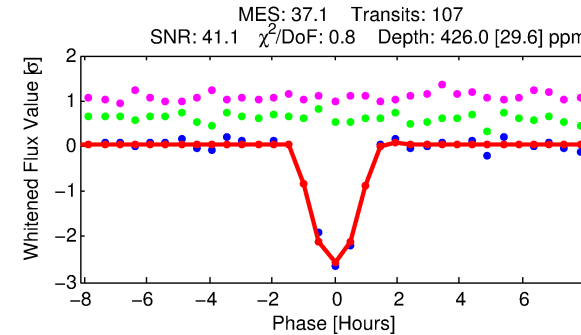
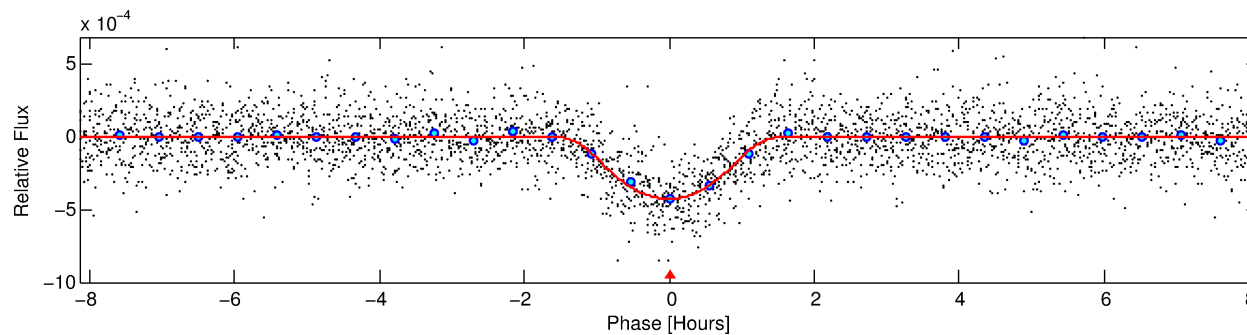
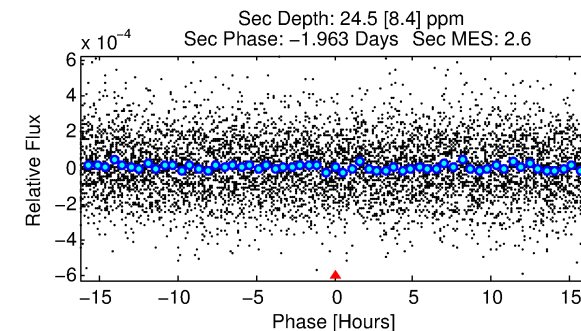
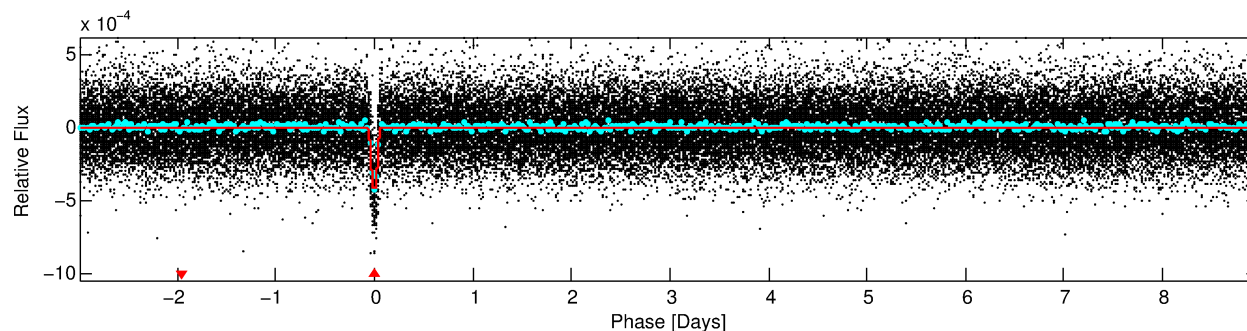
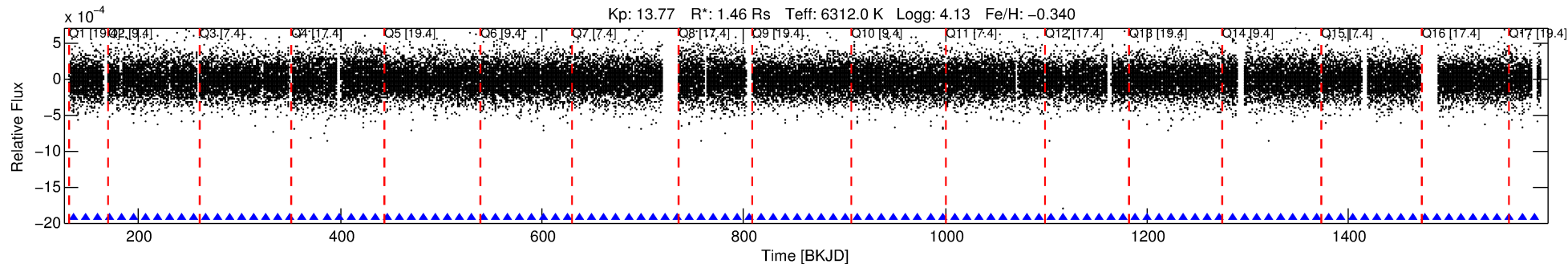
Ephemeris Match Information For 007466863-01

No Significant Match Found

DV One-Page Summary

KIC: 7466863 Candidate: 1 of 1 Period: 11.971 d
KOI: K00677.01 Corr: 0.986

Kp: 13.77 R*: 1.46 Rs Teff: 6312.0 K Logg: 4.13 Fe/H: -0.340



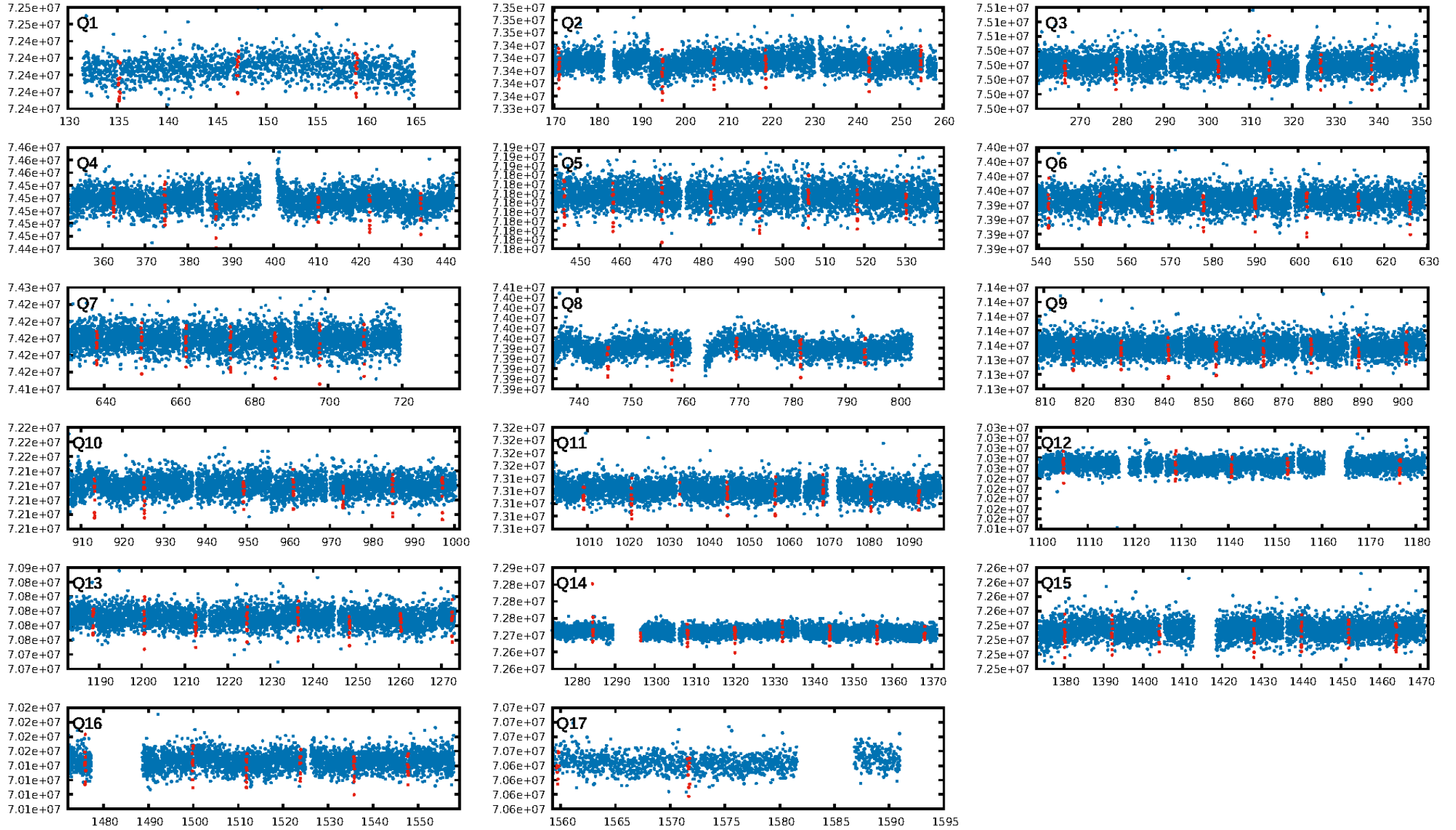
DV Fit Results:

Period = 11.97108 [0.00002] d
Epoch = 135.1696 [0.0016] BKJD
Rp/R* = 0.0286 [0.0092]
a/R* = 9.96 [1.43]
b = 0.99 [0.02]
Seff = 281.67 [134.19]
Teq = 1045 [124] K
Rp = 4.58 [2.05] Re
a = 0.1040 [0.0302] AU
Ag = 6.96 [5.98] [1.00σ]
Teffp = 2624 [487] K [3.14σ]

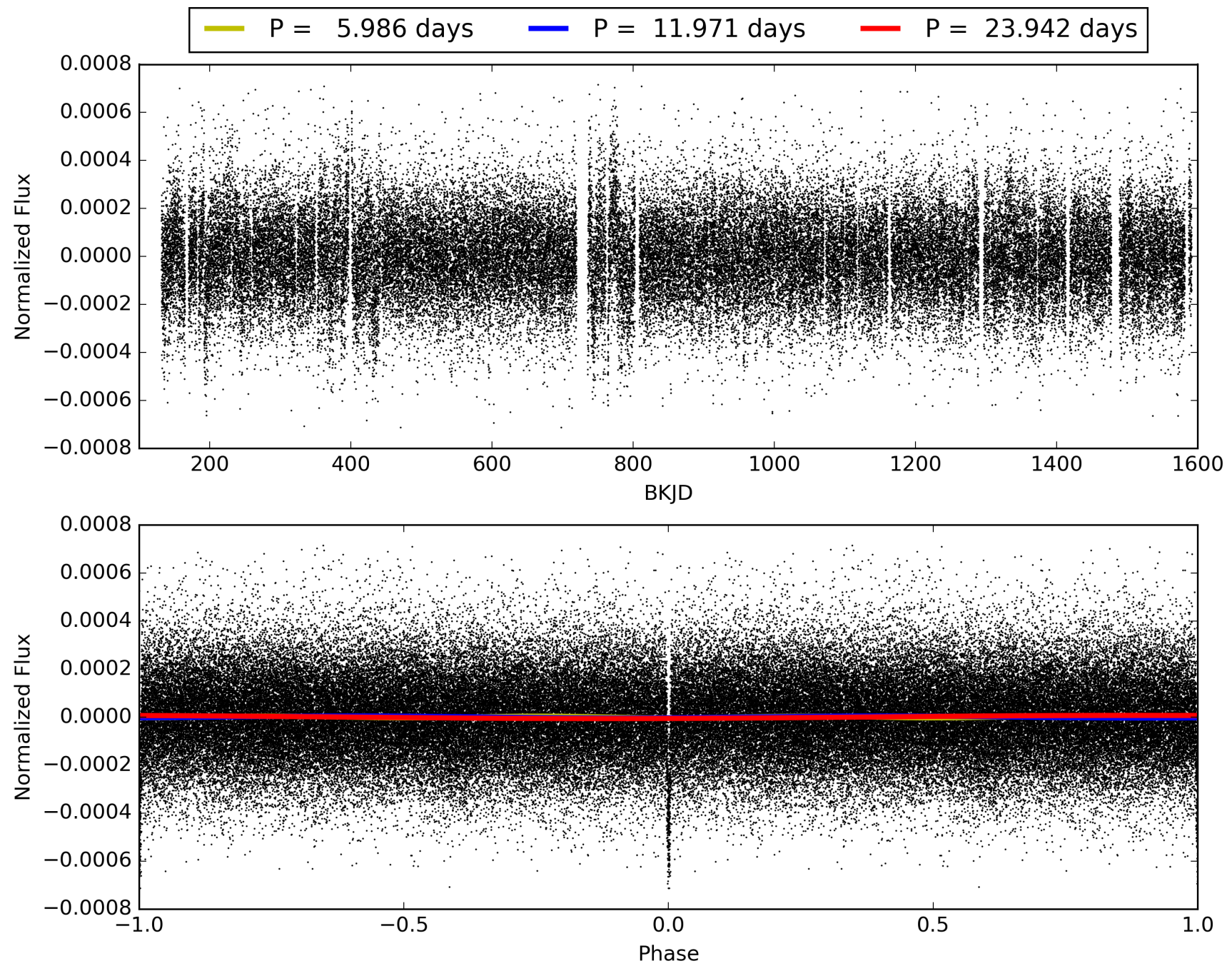
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.74e-297
RollingBand-fgt: 1.00 [102/102]
GhostDiagnostic-chr: 1.555
Centroid-sig: 0.0%
Centroid-so: 3.613 arcsec [12.47σ]
OotOffset-rm: 3.867 arcsec [39.98σ]
KicOffset-rm: 3.909 arcsec [41.73σ]
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 007466863-01, PDC Light Curves

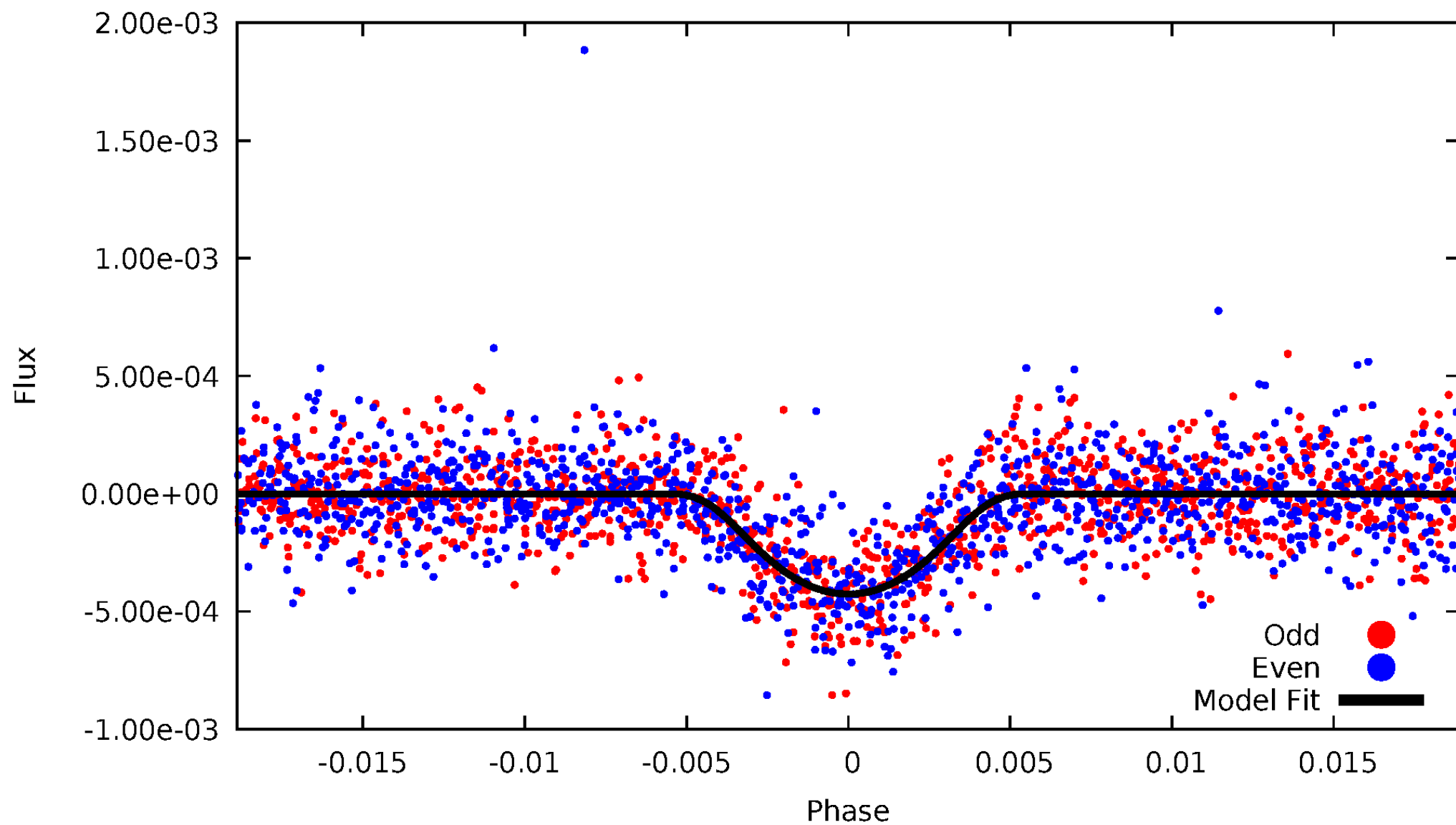


TCE 007466863-01



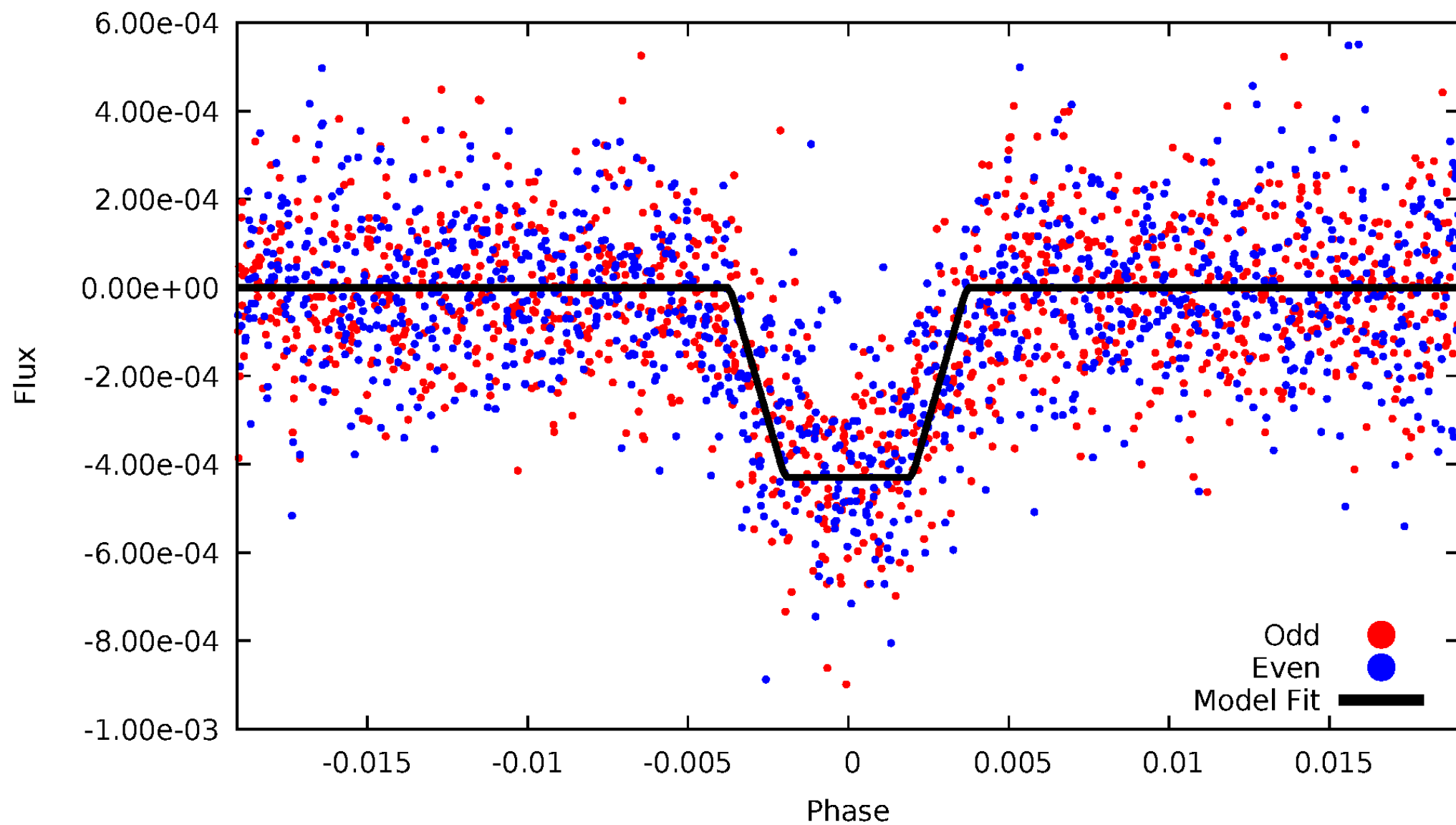
DV Odd/Even

TCE 007466863-01



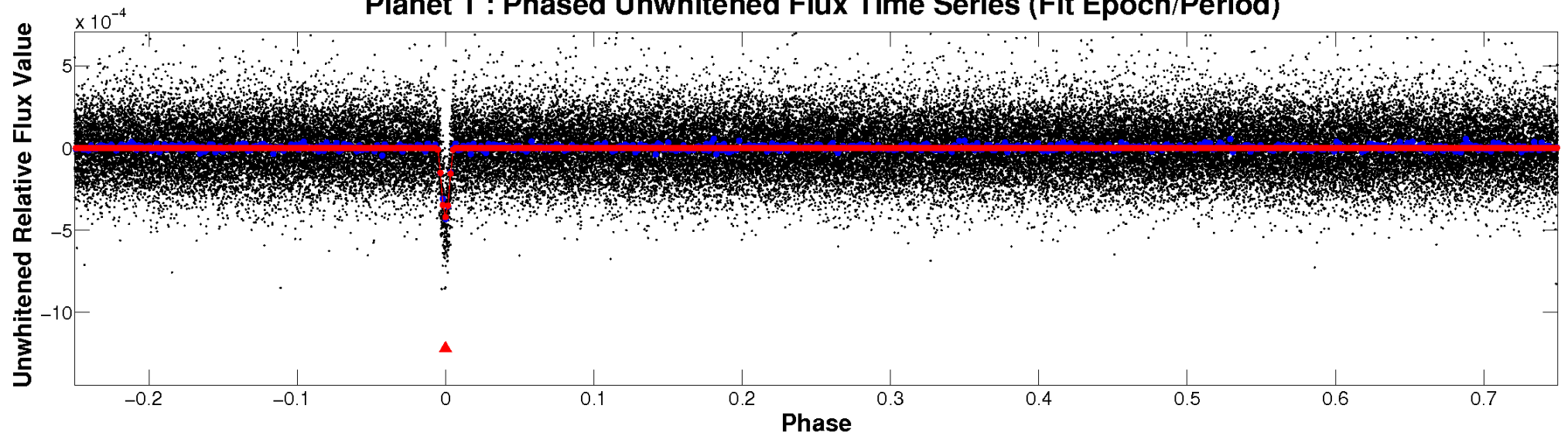
ALT Odd/Even

TCE 007466863-01

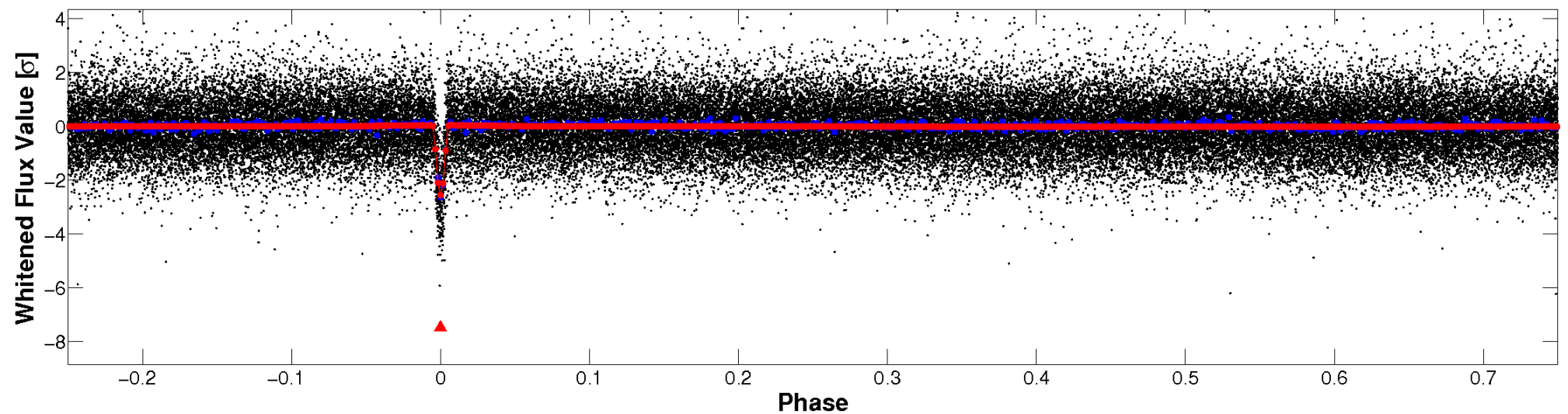


Non-Whitened Vs. Whitened Light Curve

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

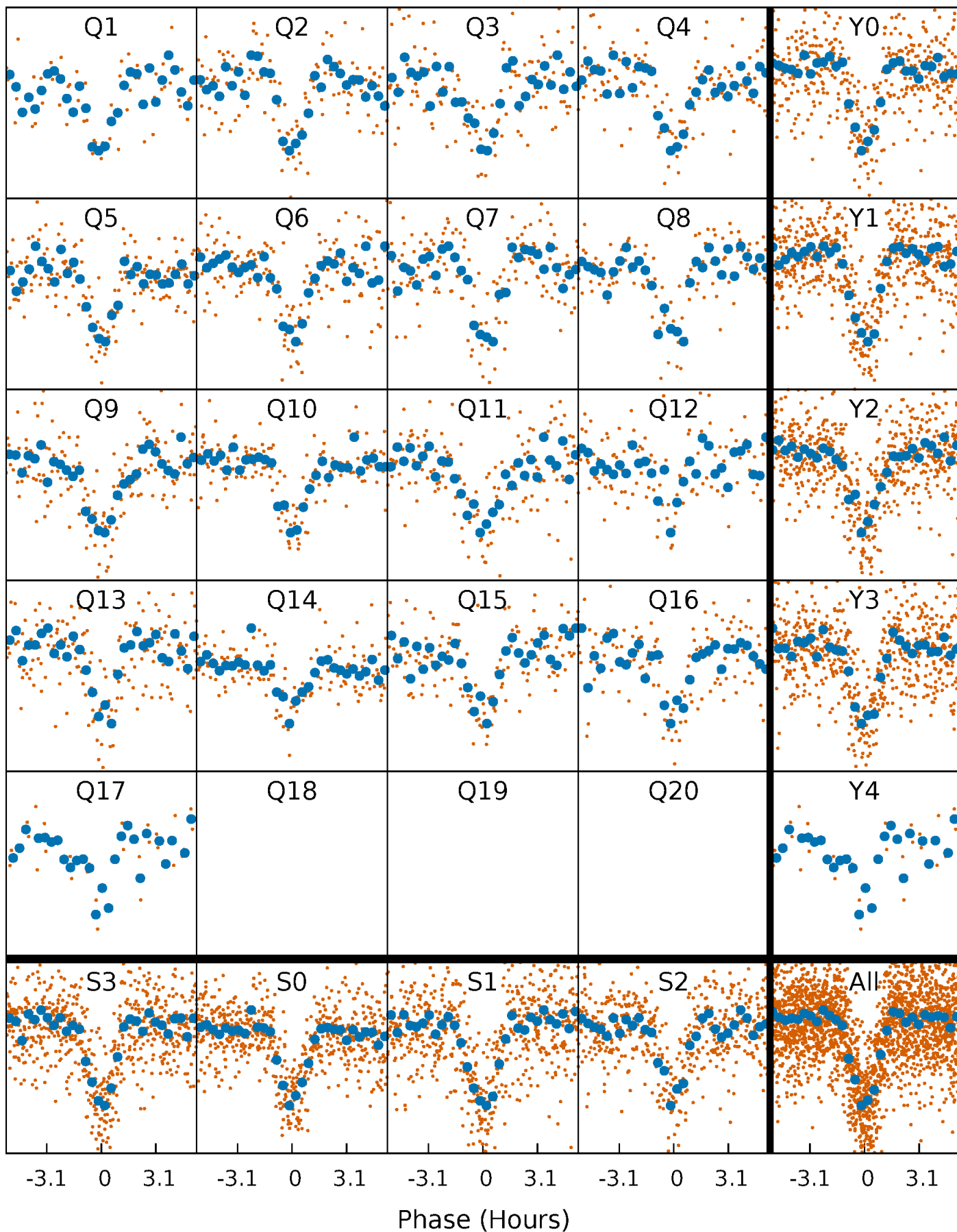


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



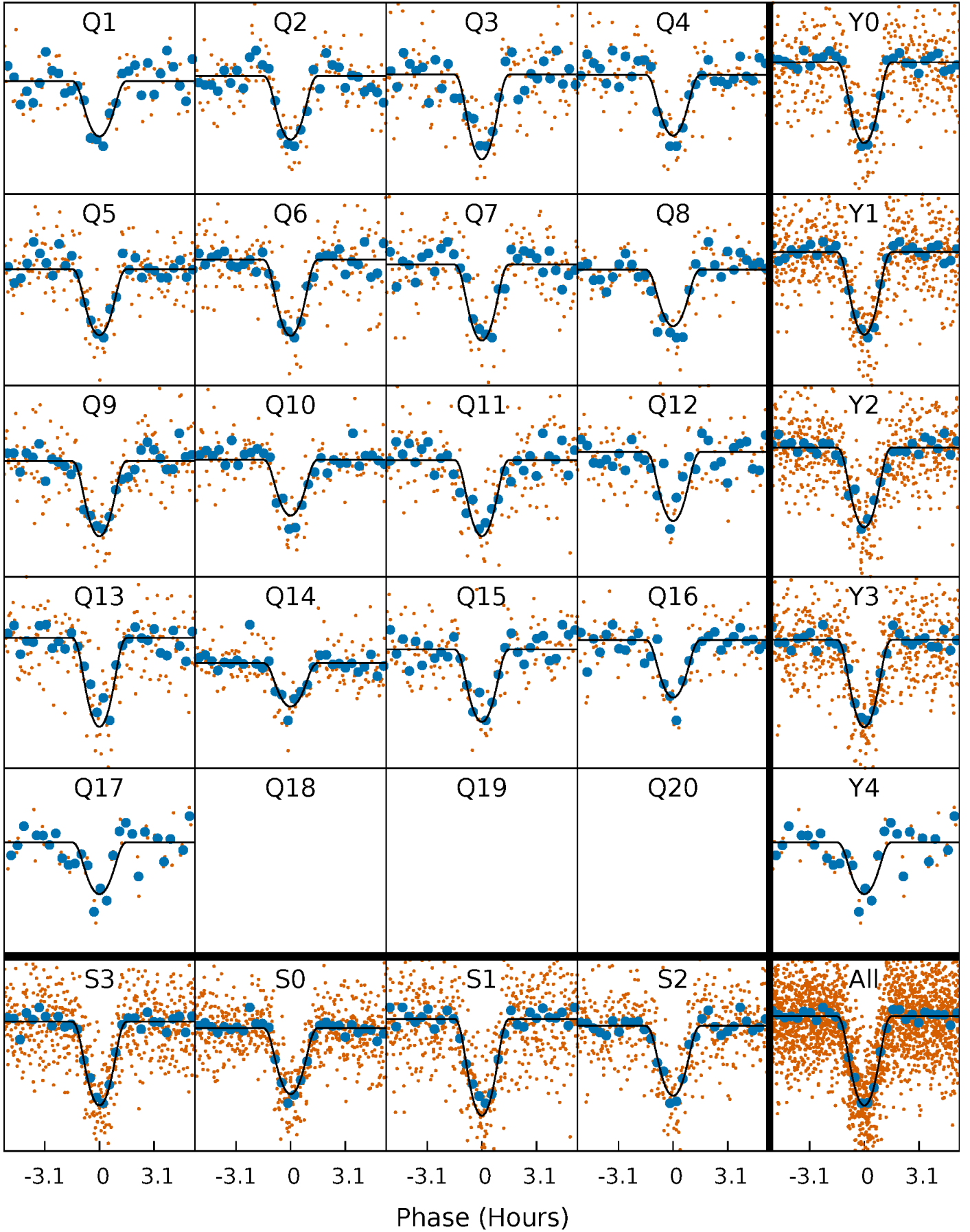
PDC Quarter-Phased Transit Curves

TCE 007466863-01 P= 11.971078 Days $T_0=135.169572$ (BKJD)



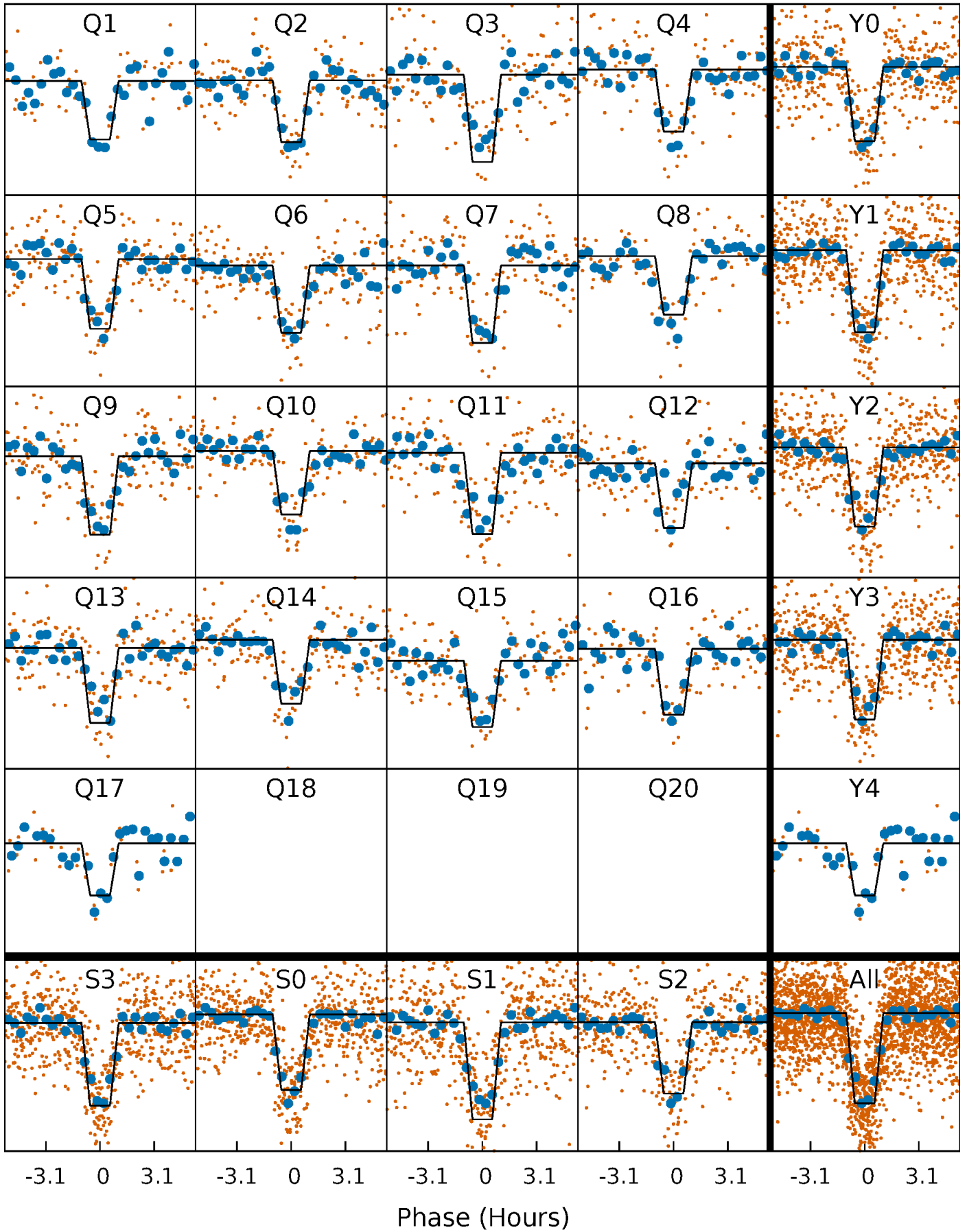
DV Quarter-Phased Transit Curves

TCE 007466863-01 P= 11.971078 Days $T_0=135.169572$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

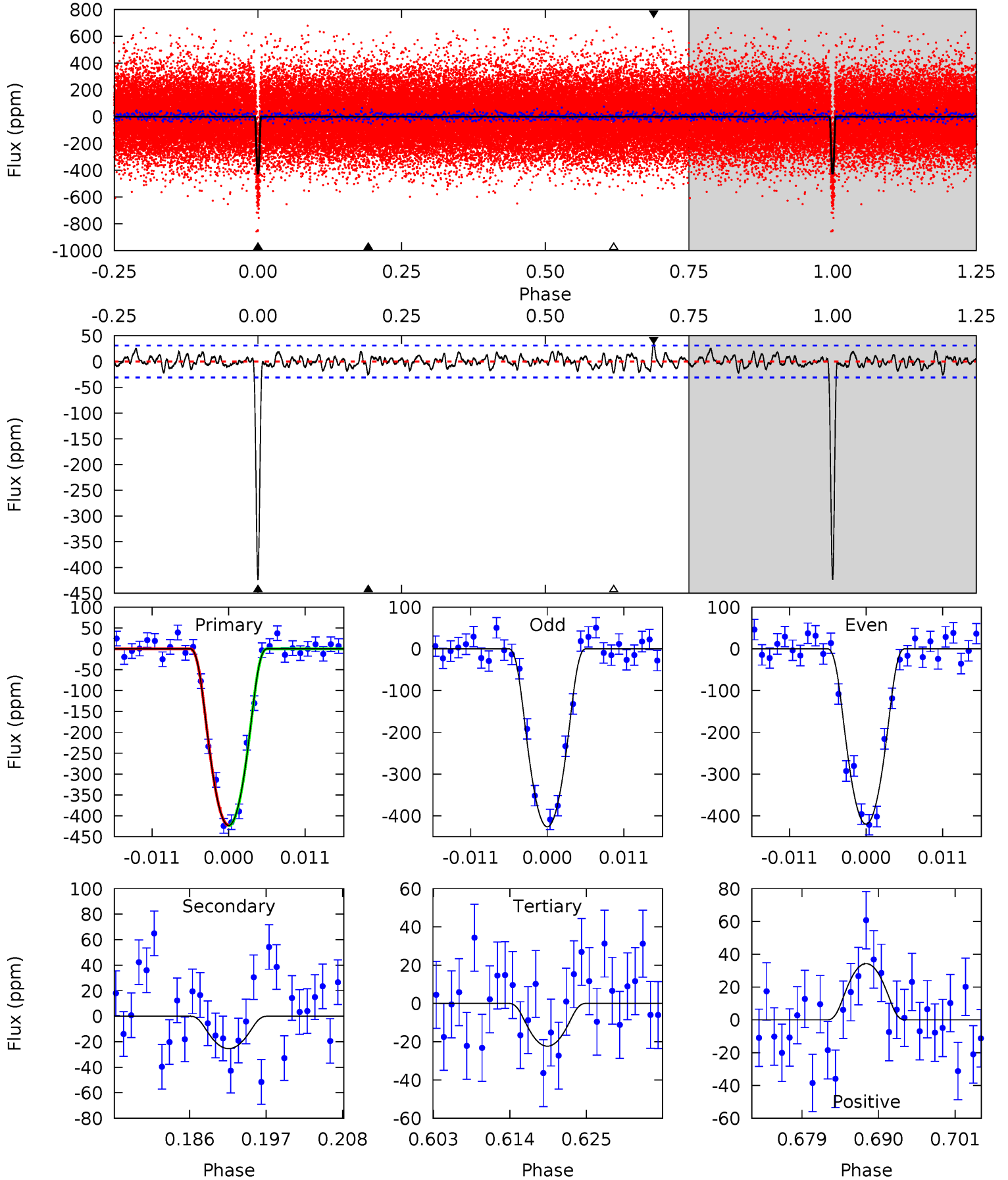
TCE 007466863-01 P= 11.971103 Days $T_0=135.168944$ (BKJD)



DV Model-Shift Uniqueness Test

007466863-01, $P = 11.971078$ Days, $E = 123.198494$ Days

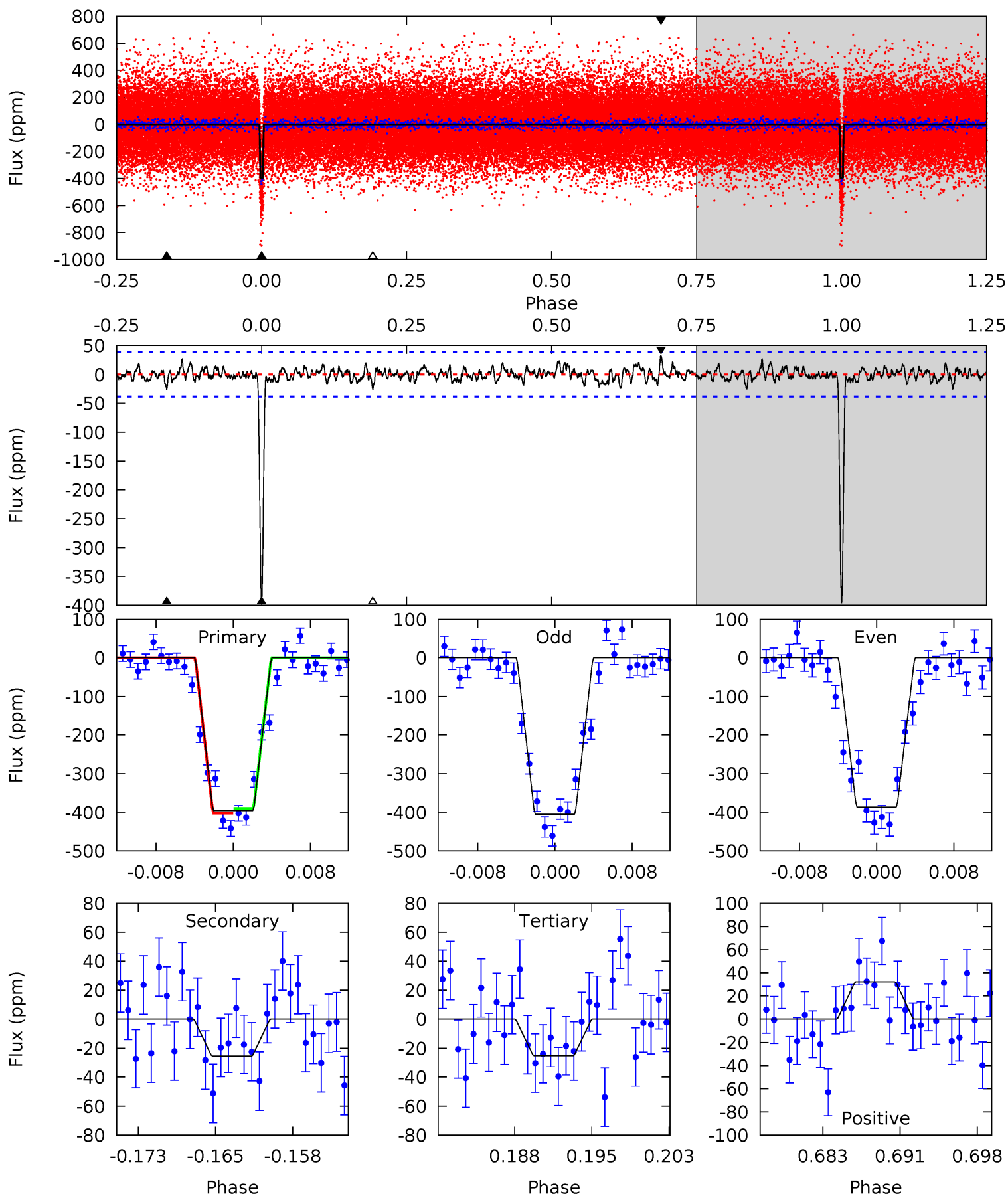
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
68.2	4.09	3.59	5.52	5.01	2.54	1.40	64.6	62.6	0.49	-1.44	0.51	0.99	0.07	0.13



Alt Model-Shift Uniqueness Test

007466863-01, $P = 11.971103$ Days, $E = 123.197841$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.3	3.36	3.33	4.25	5.08	2.67	1.14	49.0	48.1	0.03	-0.89	1.26	1.00	0.08	0.80



Stellar Parameters For KIC 007466863

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6312^{+176}_{-220}	$4.127^{+0.264}_{-0.154}$	$-0.340^{+0.300}_{-0.300}$	$1.464^{+0.416}_{-0.457}$	$1.048^{+0.169}_{-0.153}$	$0.470^{+0.850}_{-0.221}$
	+3%/-3%	+6%/-4%	+88%/-88%	+28%/-31%	+16%/-15%	+181%/-47%
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 007466863-01 / KOI 0677.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-25 ± 6	$4.38^{+1.67}_{-1.59}$	1436^{+117}_{-128}	3210^{+458}_{-283}	$7.929^{+11.027}_{-3.958}$
Alt.	-25 ± 8	$3.20^{+1.59}_{-1.38}$	1447^{+112}_{-128}	3539^{+797}_{-419}	14^{+31}_{-8}

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 $A_{obs} \gg 1.0$

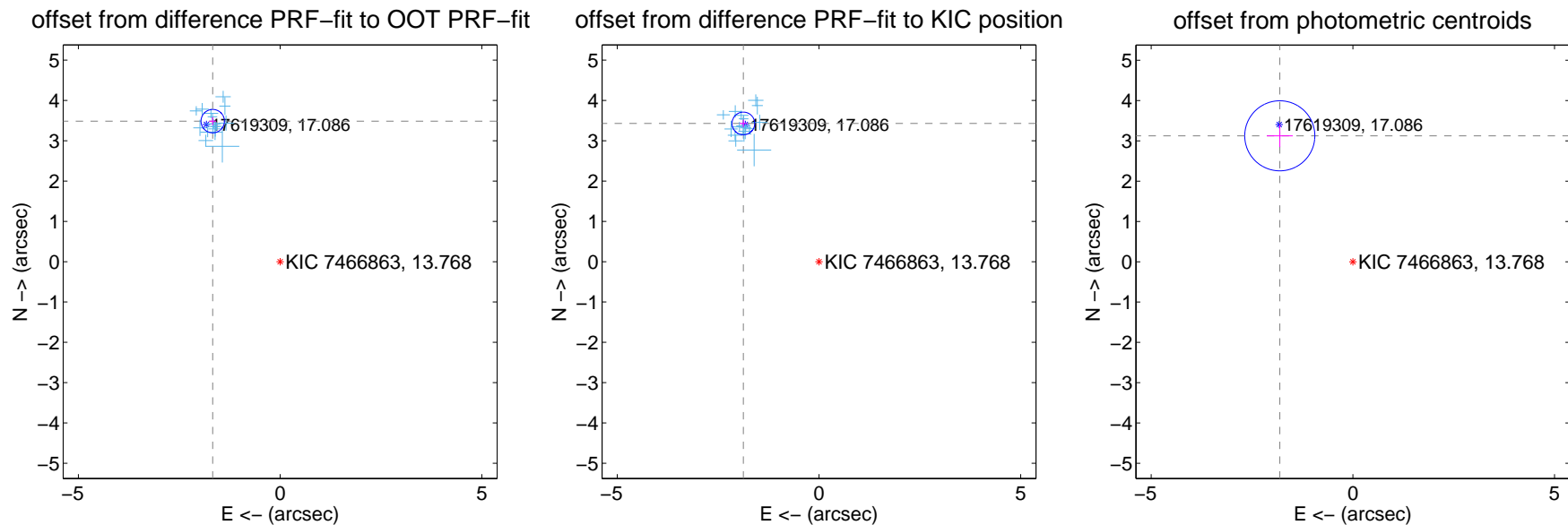
DV Centroid Data

Supplemental centroid analysis for 007466863-01. Kepler magnitude: 13.77. Transit SNR 41.07

There are 17 quarters with good PRF difference image offsets

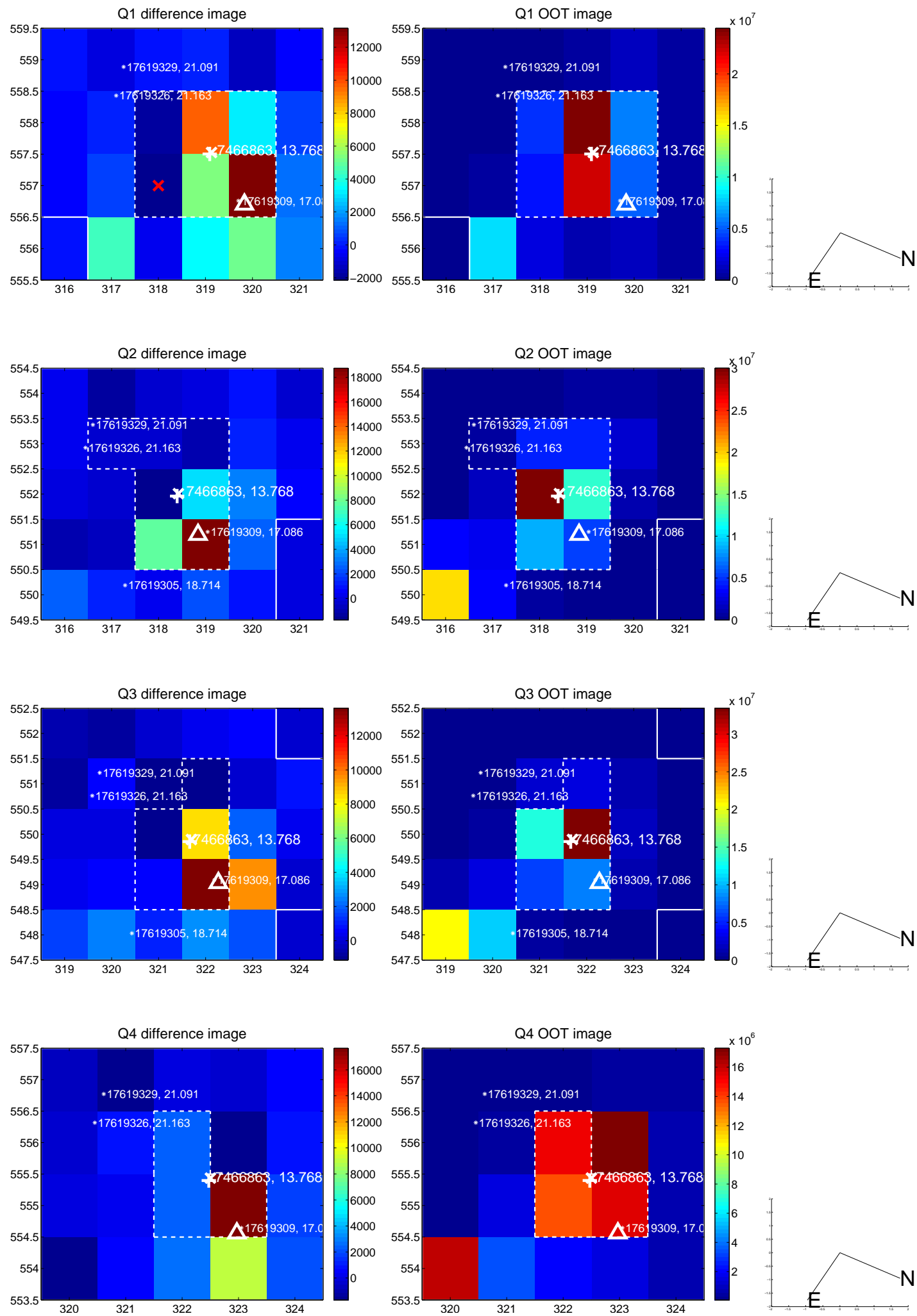
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.867 ± 0.097	39.98	1.671 ± 0.084	3.487 ± 0.099
PRF-fit source offset from KIC position	3.909 ± 0.094	41.73	1.875 ± 0.089	3.430 ± 0.095
photometric centroid source offset	3.61 ± 0.29	12.47	1.81 ± 0.32	3.13 ± 0.28

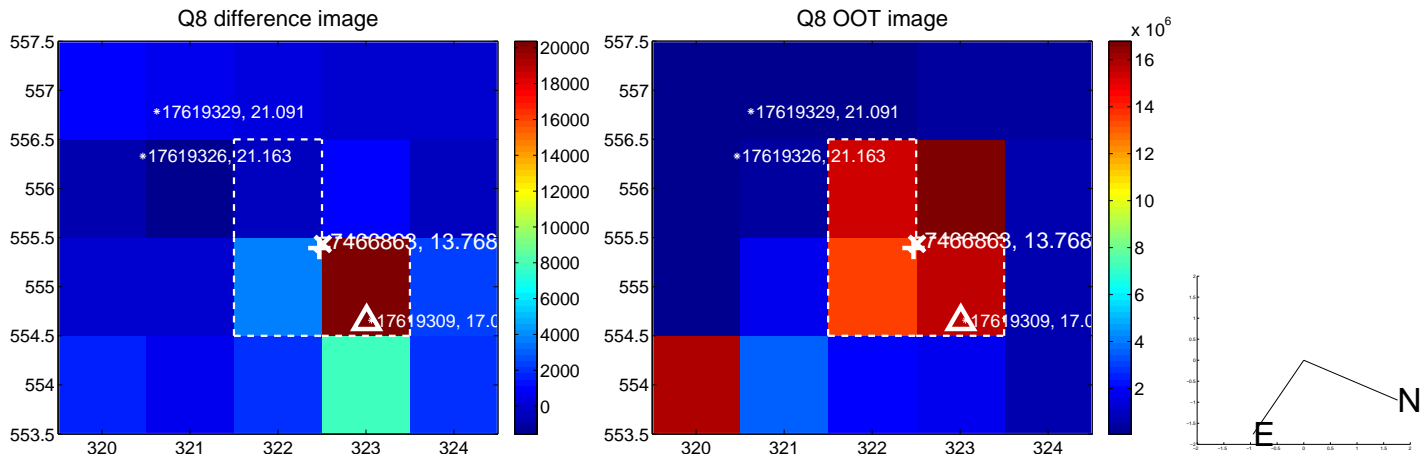
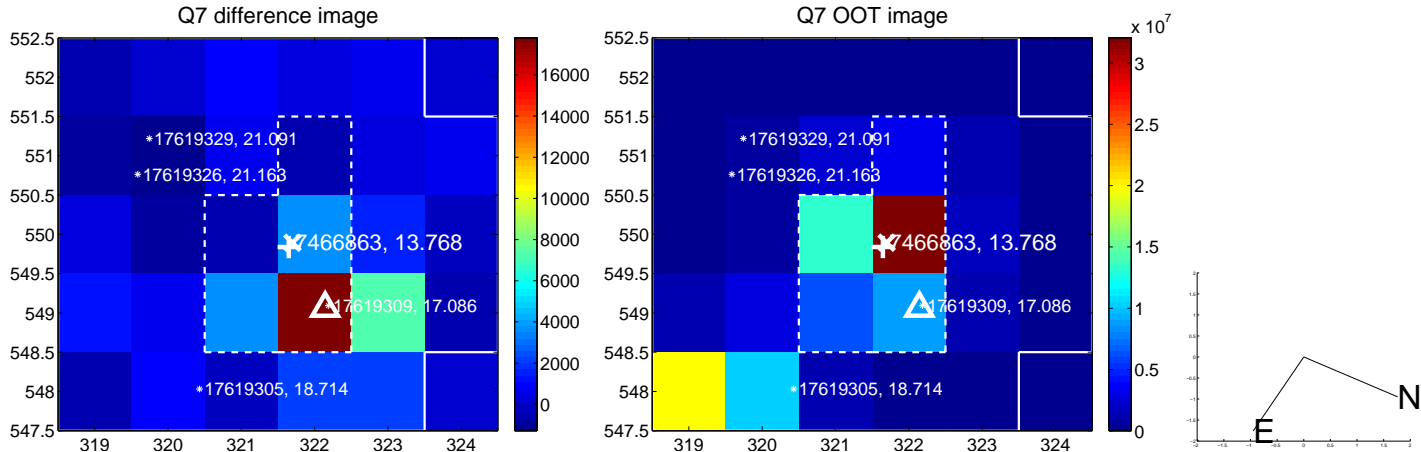
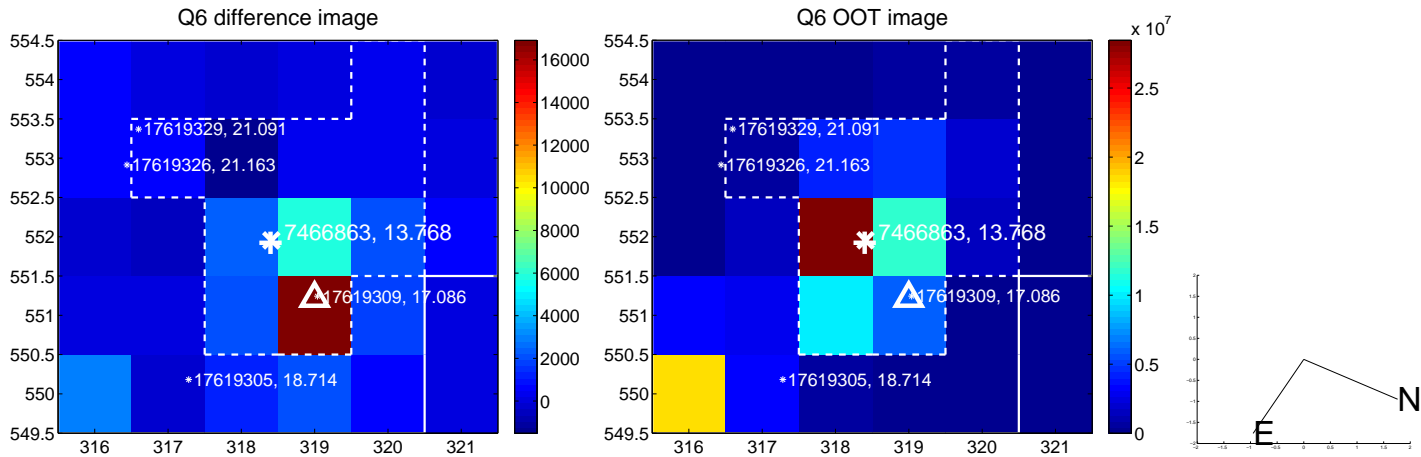
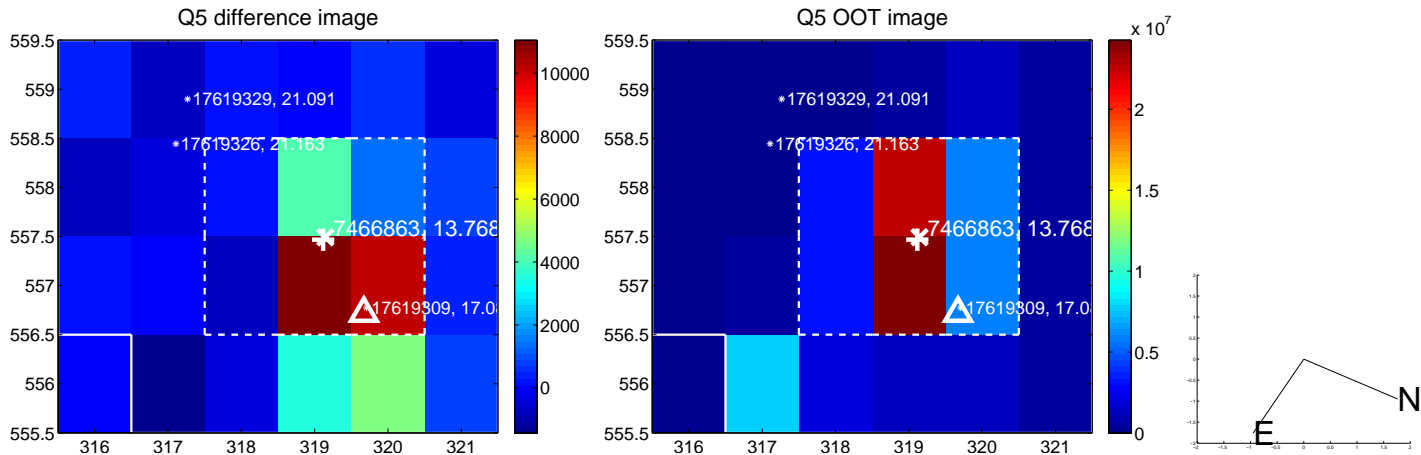


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

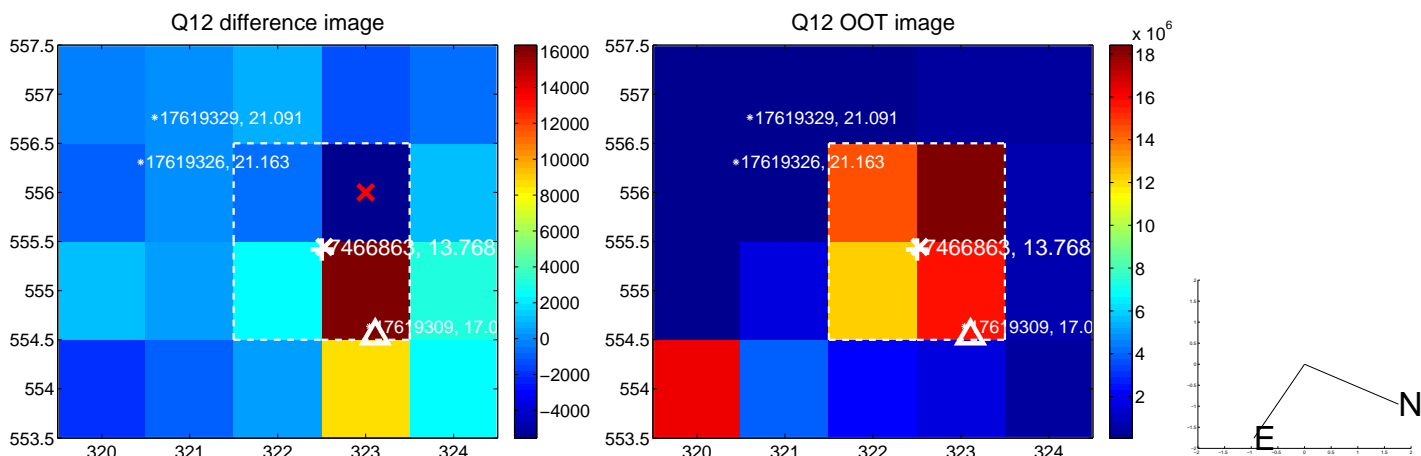
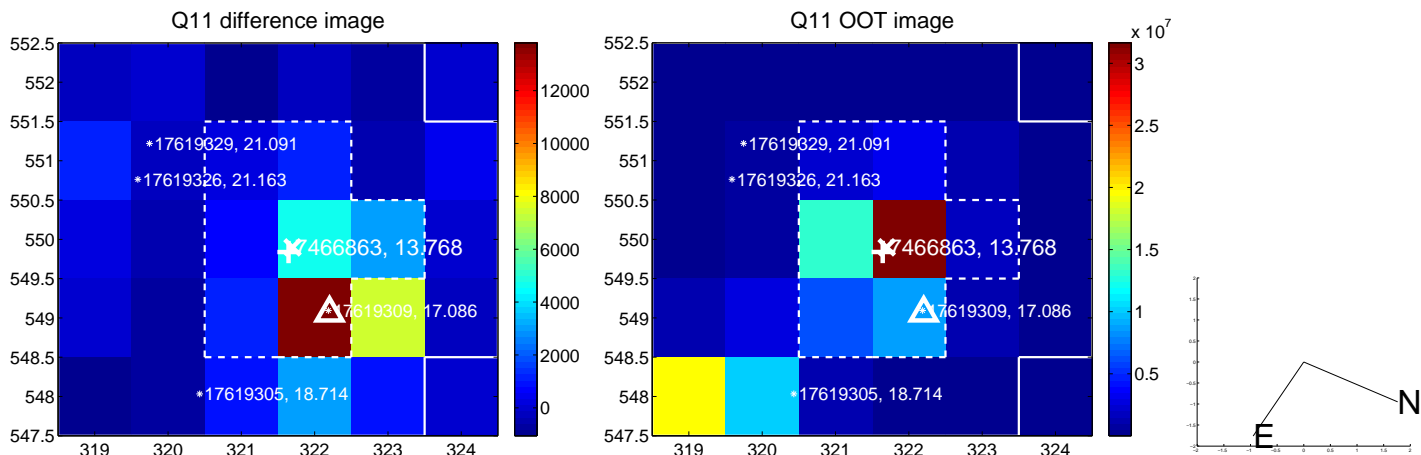
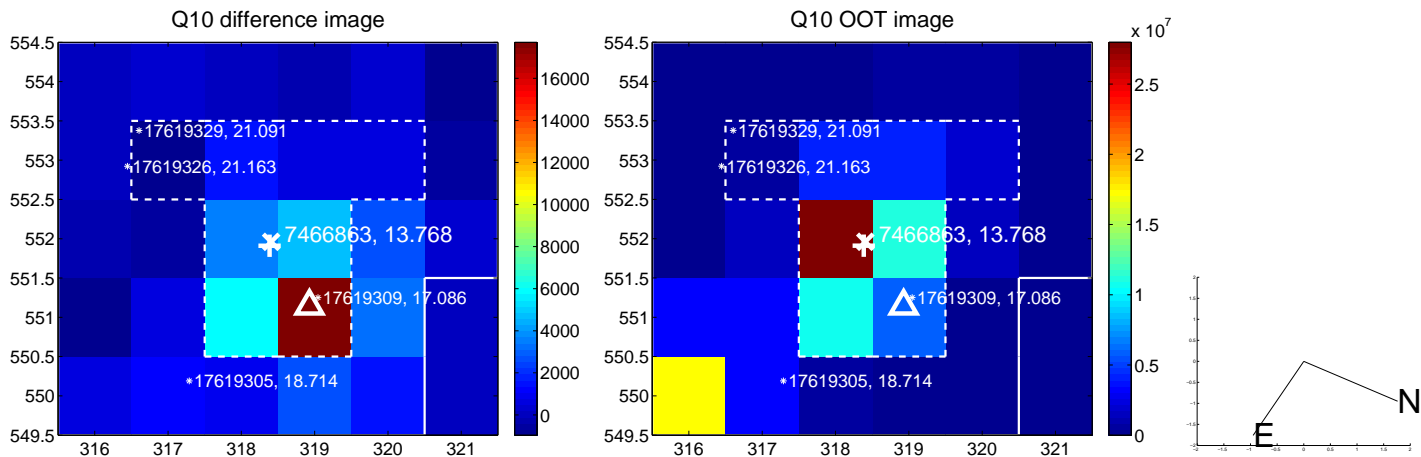
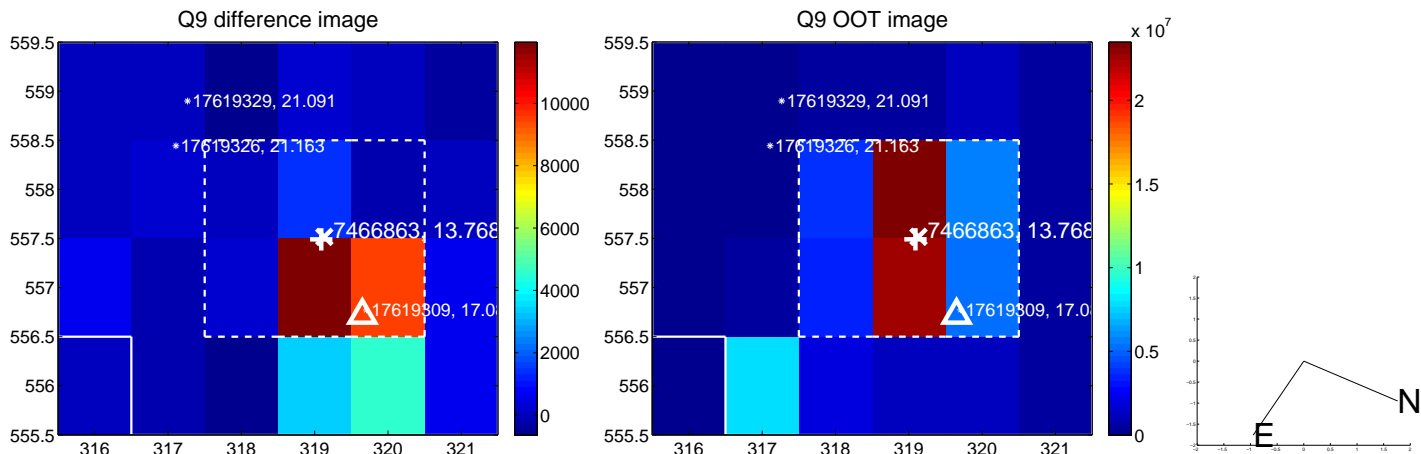
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



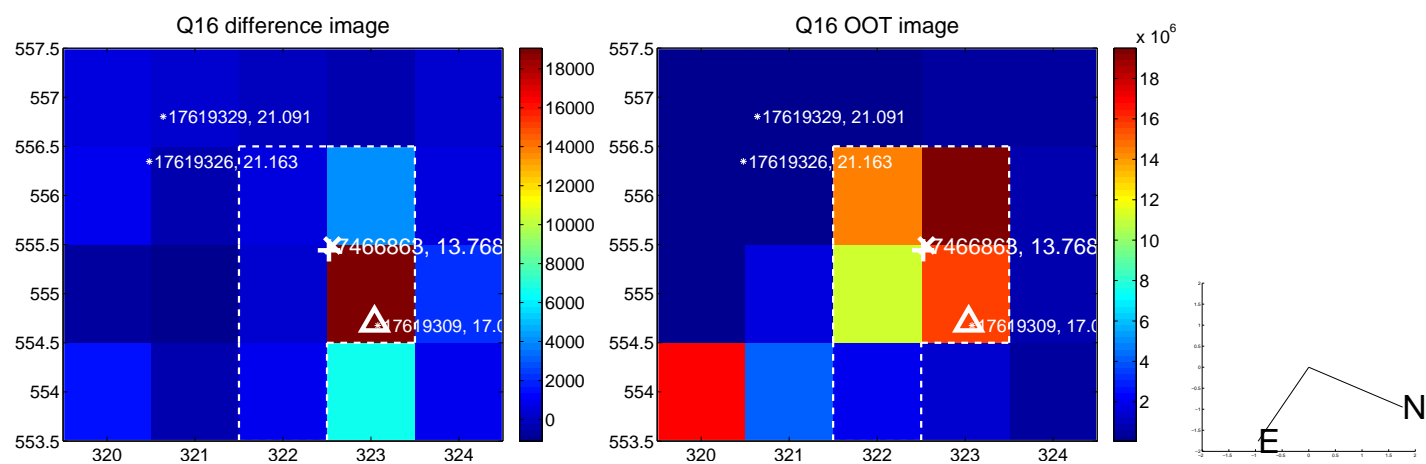
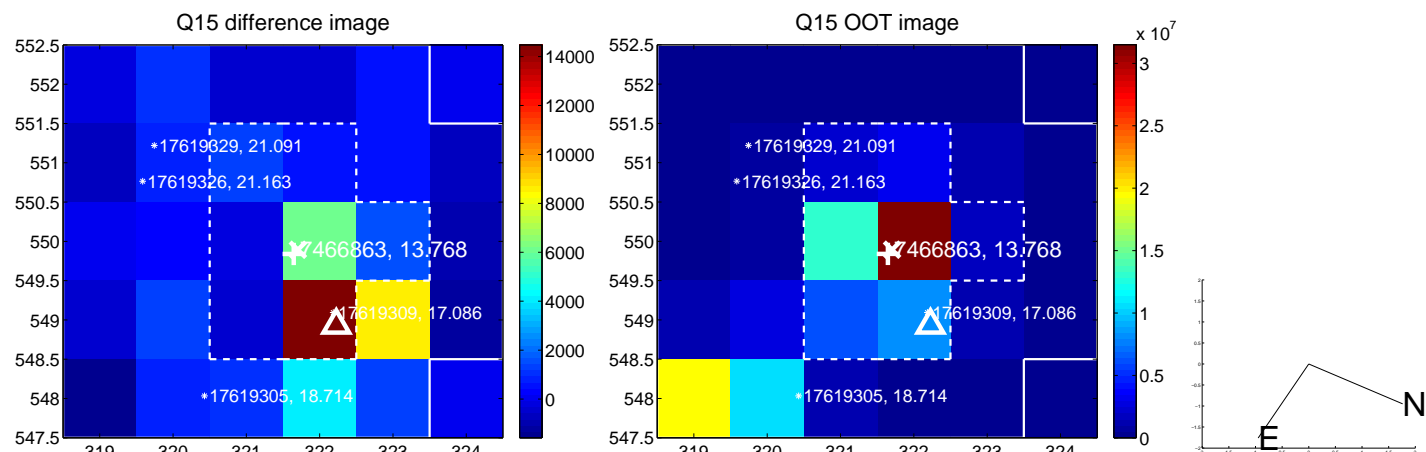
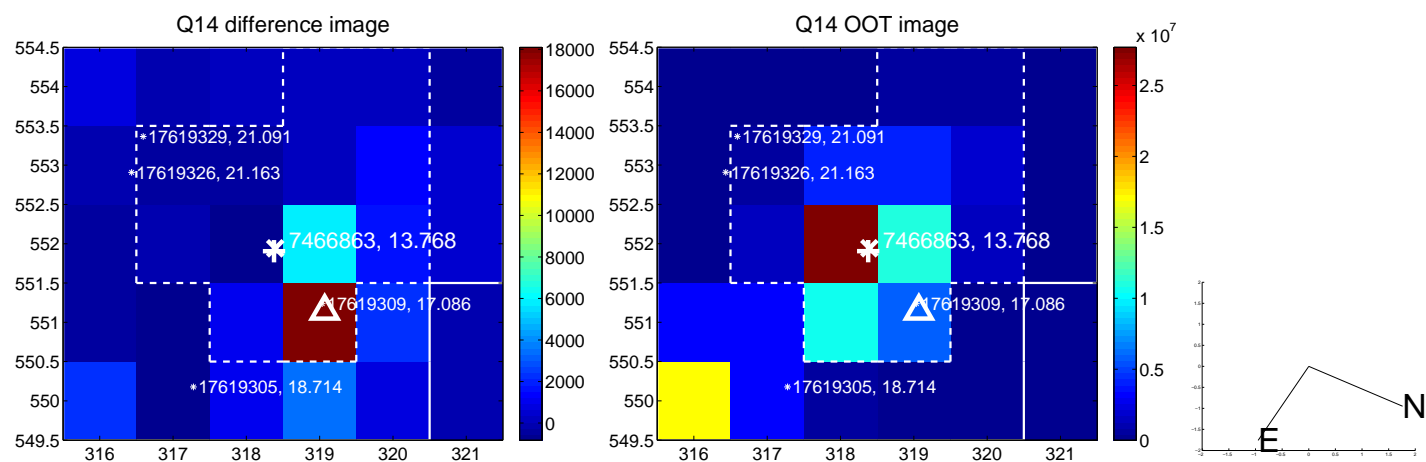
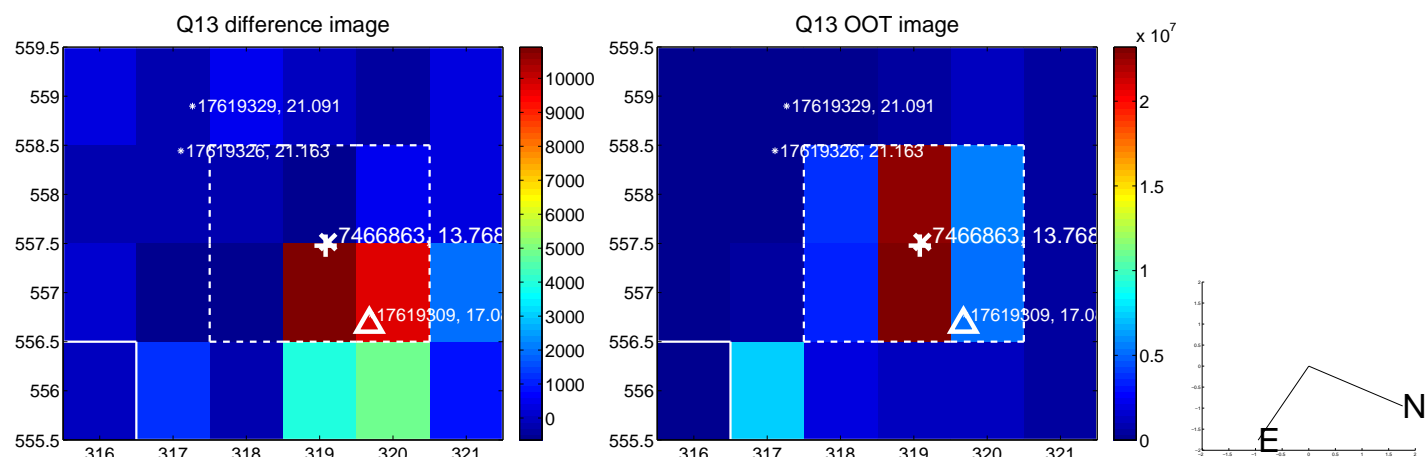
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



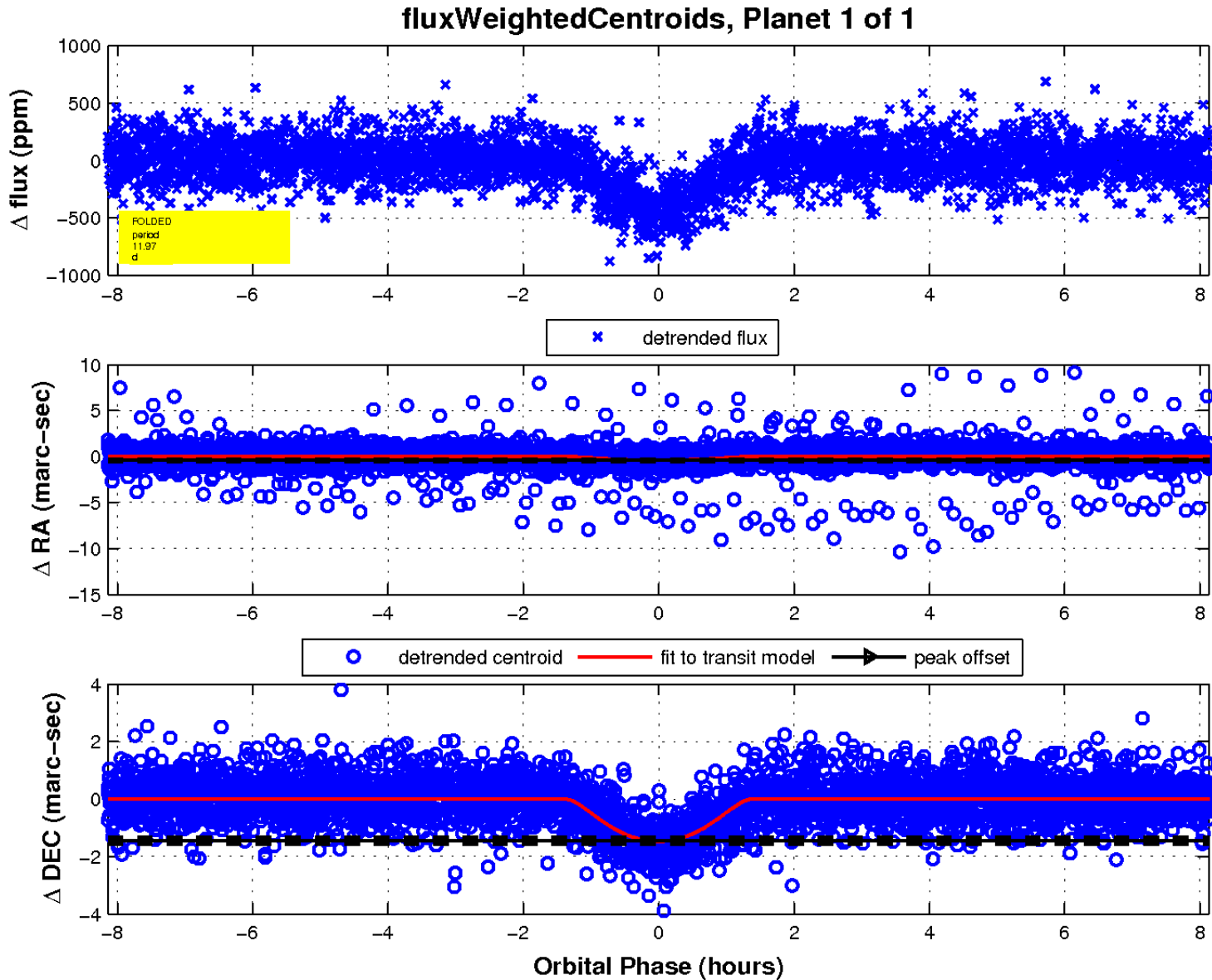
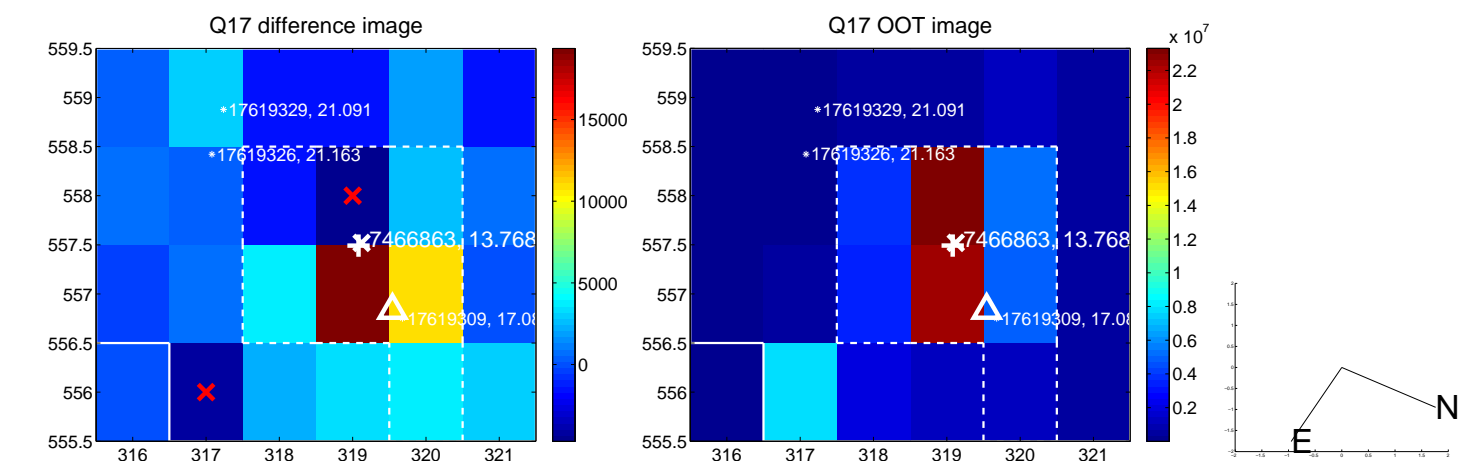
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

