

KIC 011043167

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})
011043167-01	OBS	1444.01	44.930781	140.205793	434.7	6.632	25.5	26.5	1.16	6121	2.60	24.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011043167-01	OBS	PC	0.98	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.

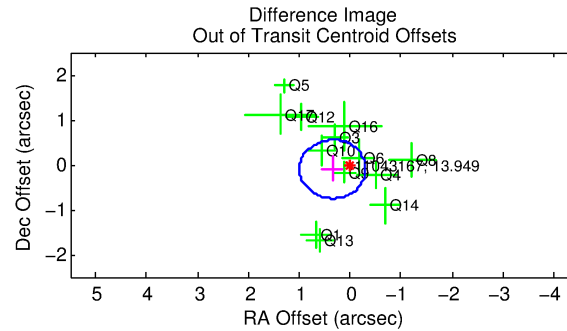
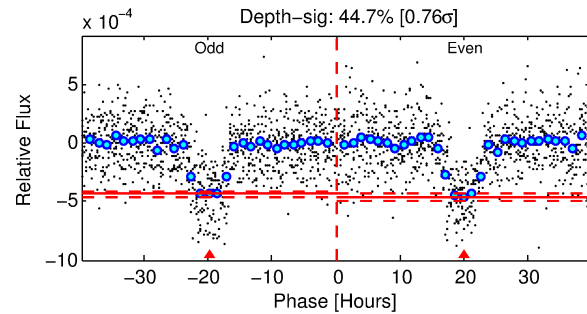
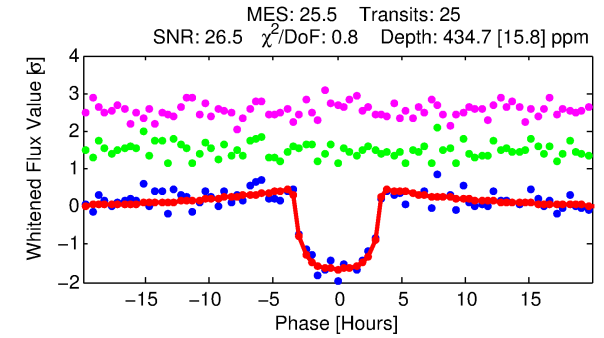
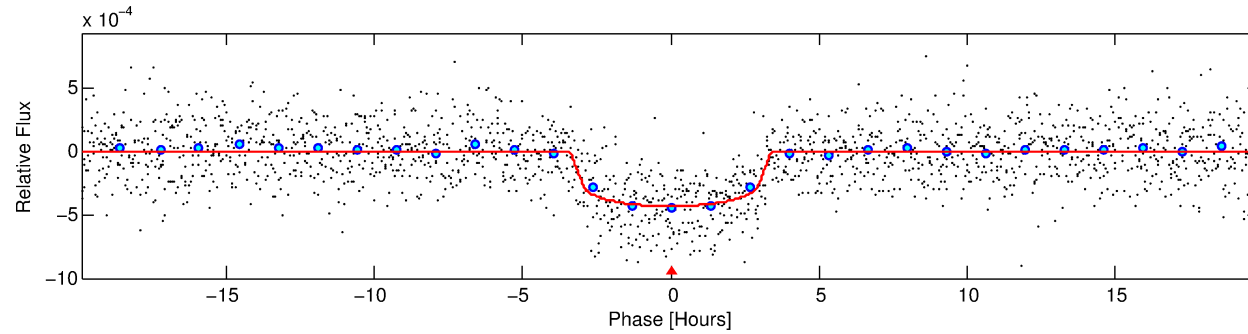
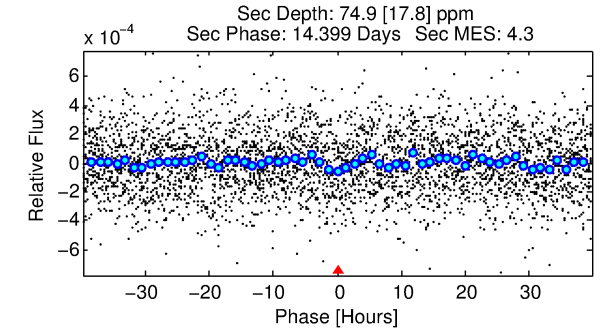
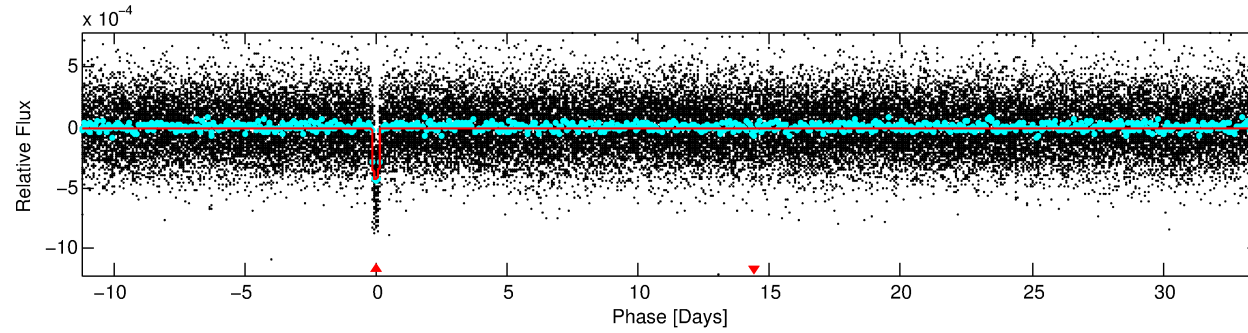
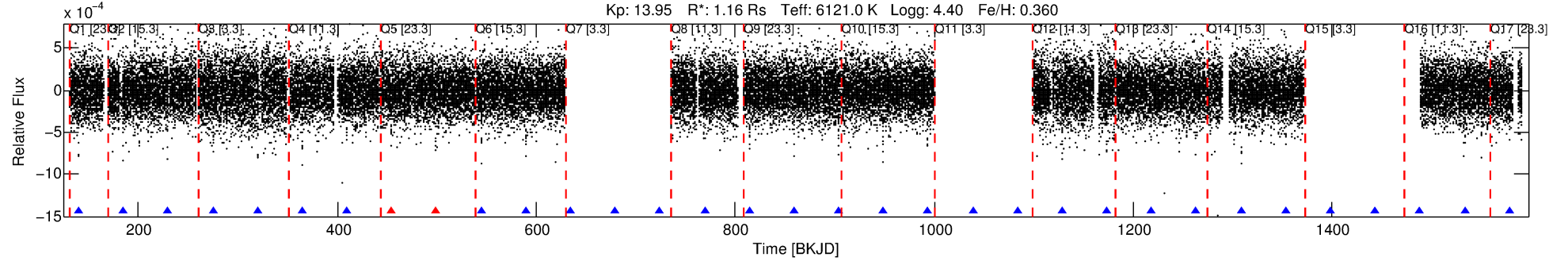
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011043167-01

No Significant Match Found

DV One-Page Summary

KIC: 11043167 Candidate: 1 of 1 Period: 44.931 d
KOI: K01444.01 Corr: 0.989



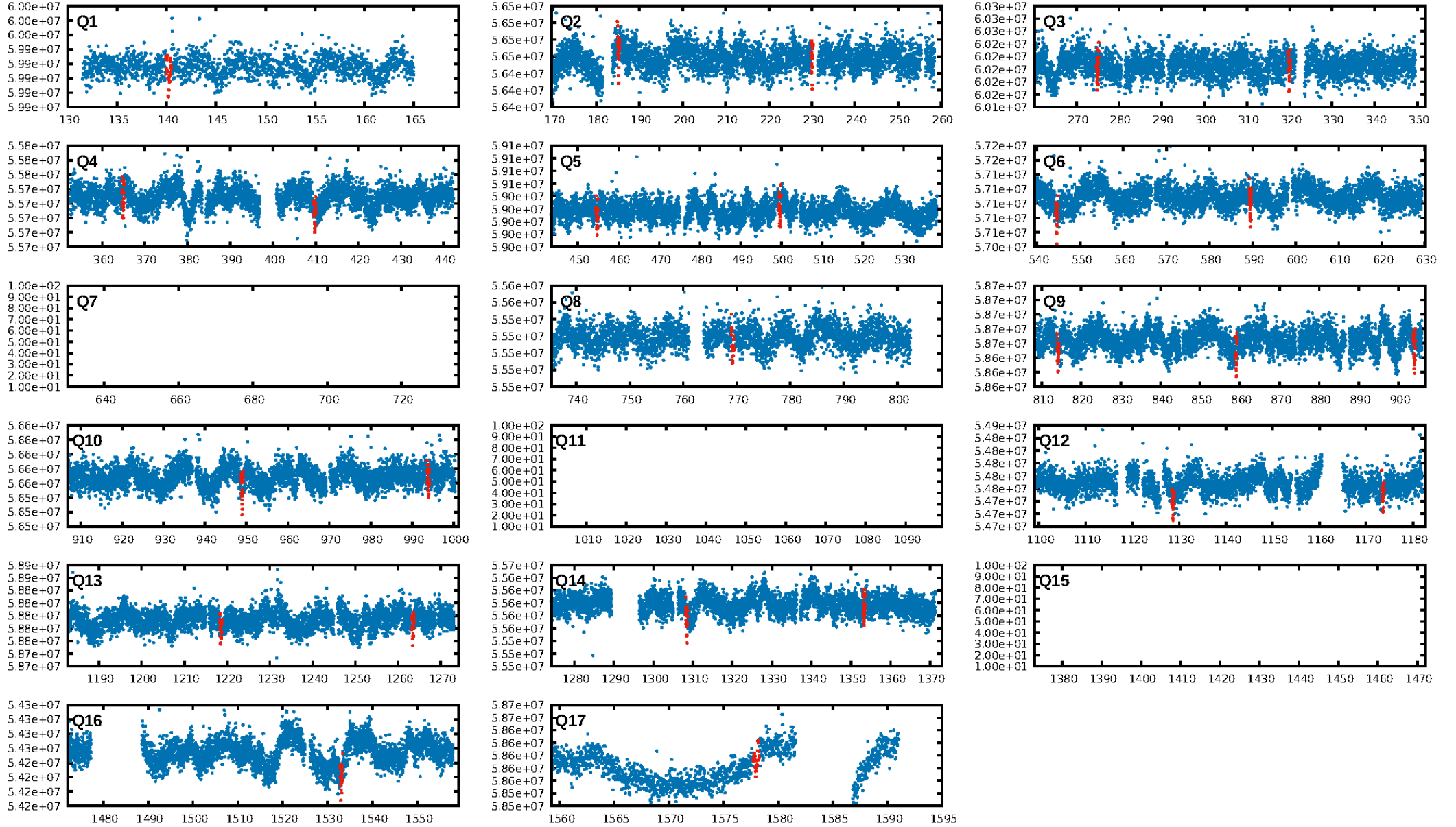
DV Fit Results:

Period = 44.93078 [0.00021] d
Epoch = 140.2058 [0.0038] BKJD
Rp/R* = 0.0205 [0.0048]
a/R* = 37.66 [40.57]
b = 0.72 [0.74]
Seff = 24.22 [6.02]
Teq = 566 [35] K
Rp = 2.60 [0.76] Re
a = 0.2653 [0.0408] AU
Ag = 427.57 [244.54] [1.74σ]
Teffp = 3977 [529] K [6.43σ]

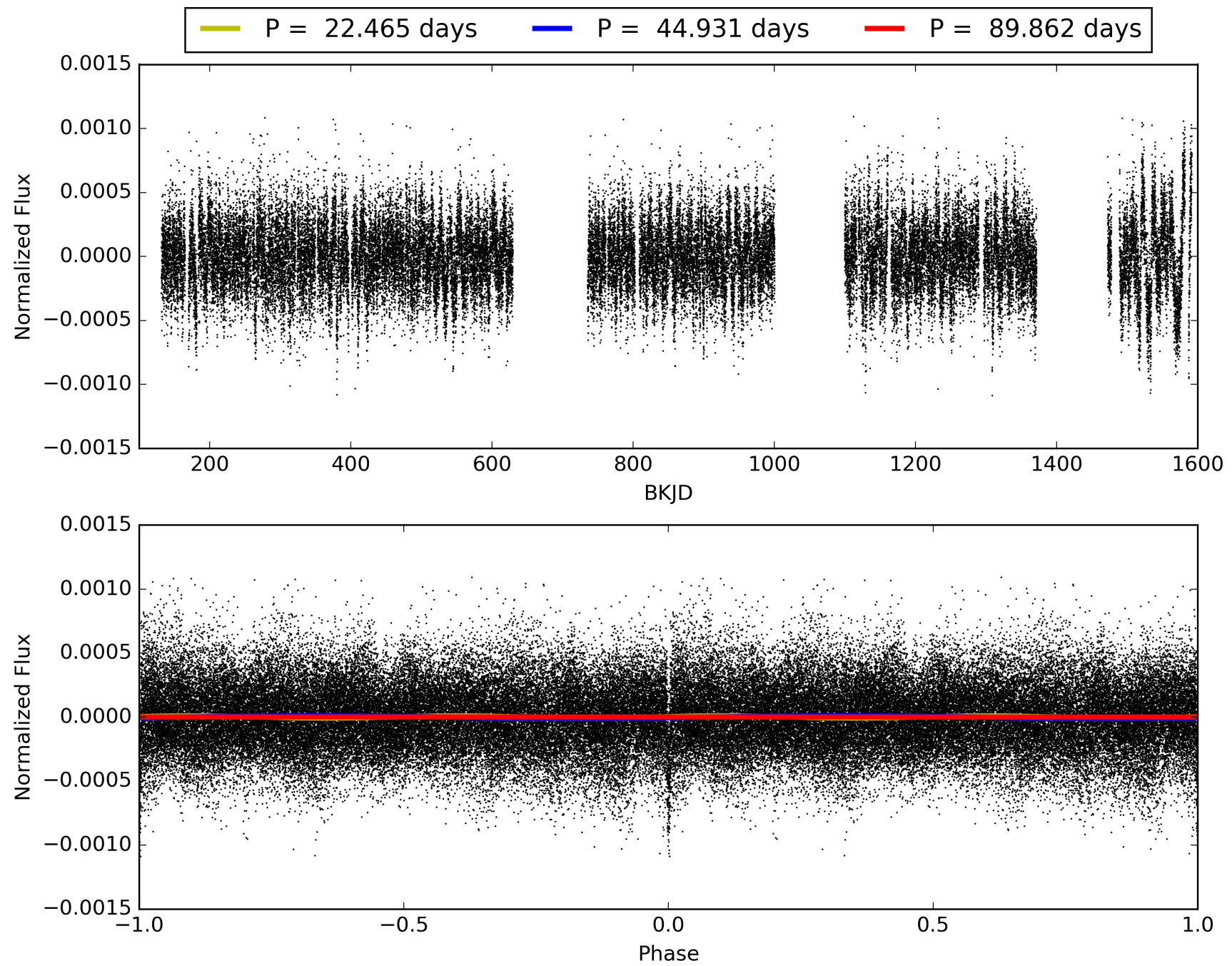
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.85e-137
RollingBand-fgt: 0.91 [21/23]
GhostDiagnostic-chr: 3.401
Centroid-sig: 48.7%
Centroid-so: 0.521 arcsec [1.07σ]
OotOffset-rm: 0.361 arcsec [1.66σ]
KicOffset-rm: 0.348 arcsec [1.68σ]
OotOffset-st: 3/1/4/5 [13]
KicOffset-st: 3/1/4/5 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 011043167-01, PDC Light Curves

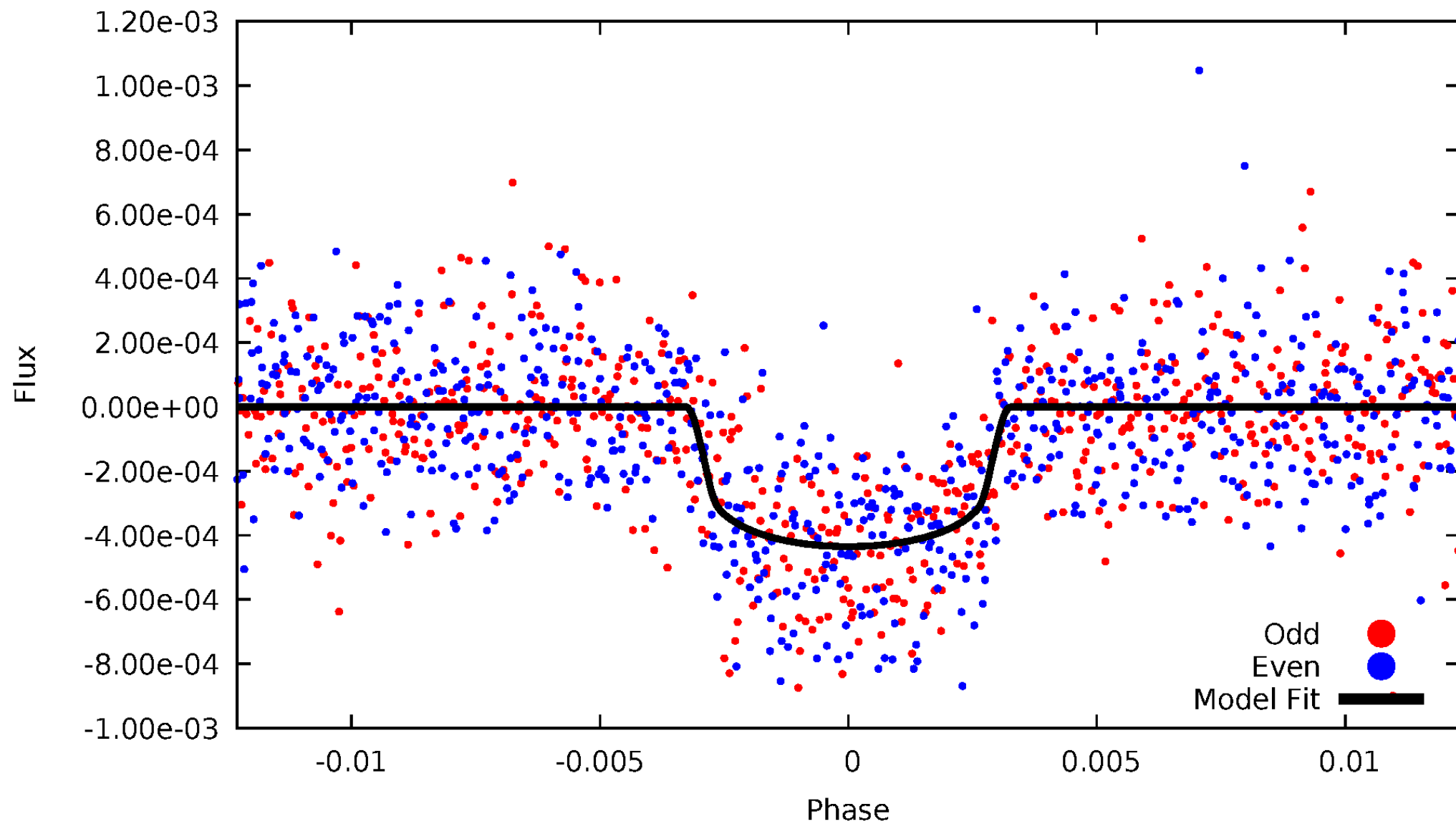


TCE 011043167-01



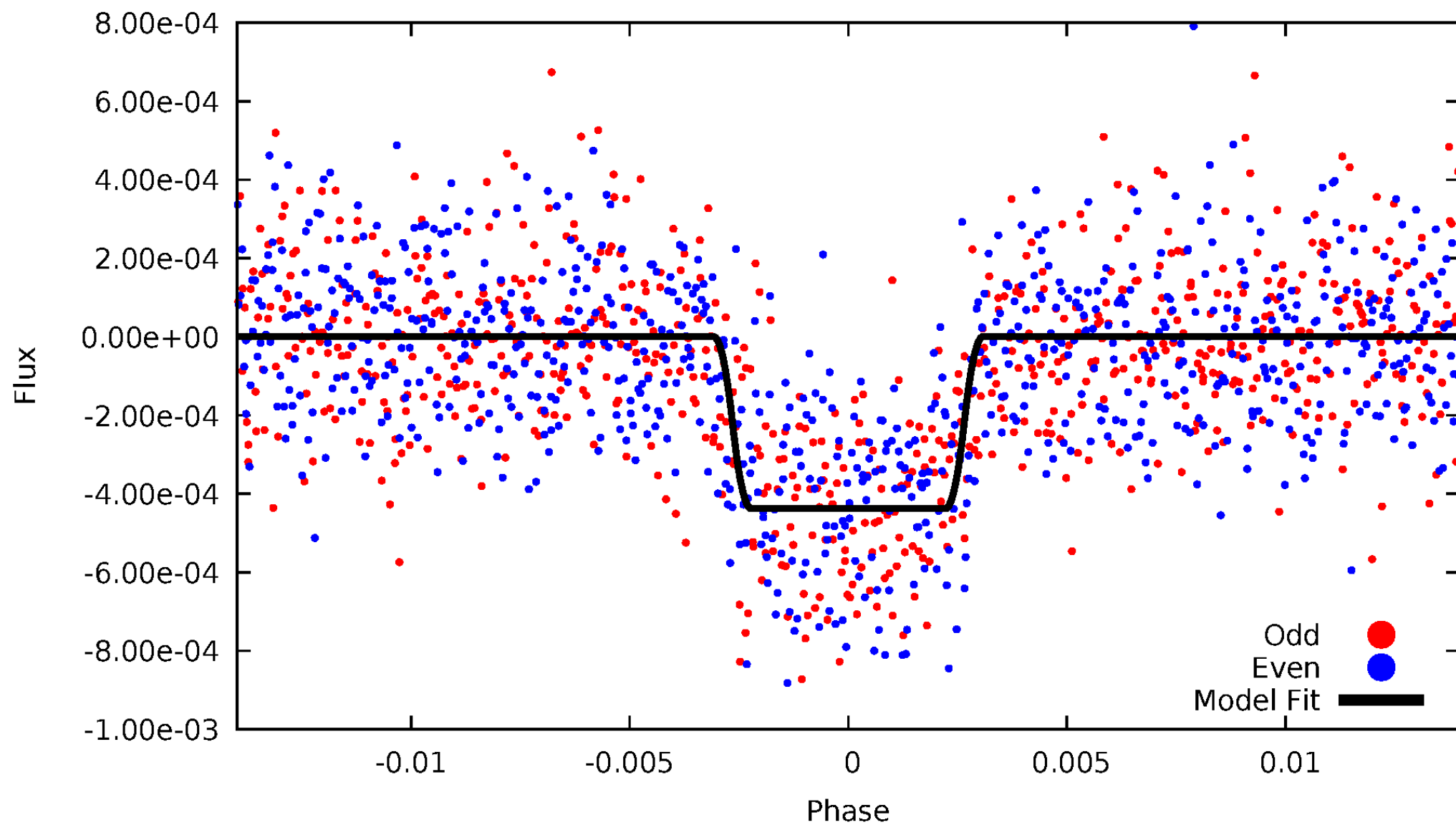
DV Odd/Even

TCE 011043167-01



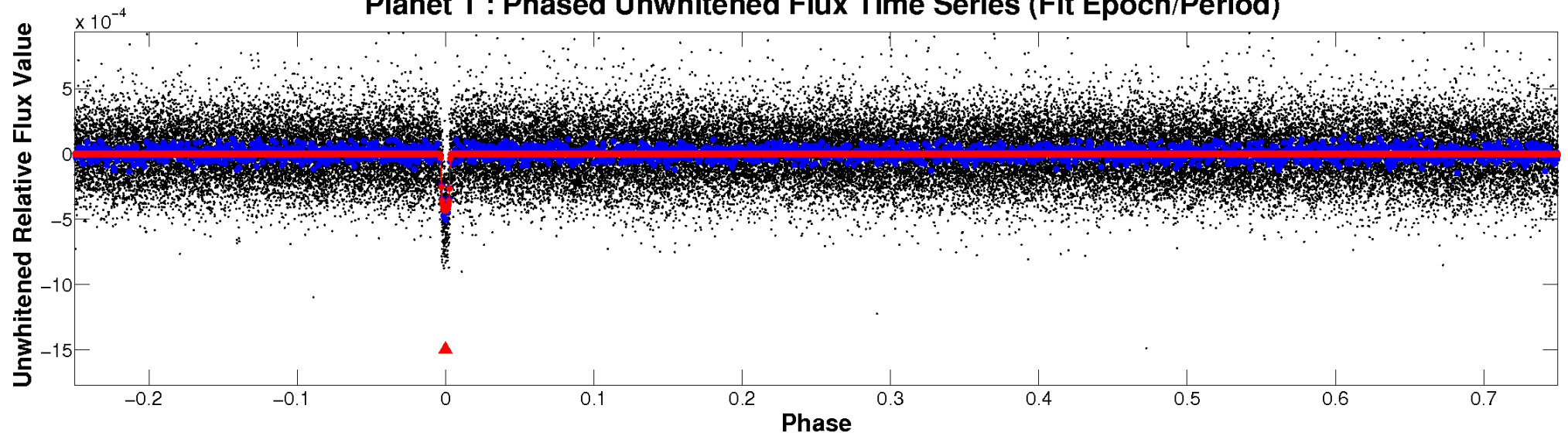
ALT Odd/Even

TCE 011043167-01

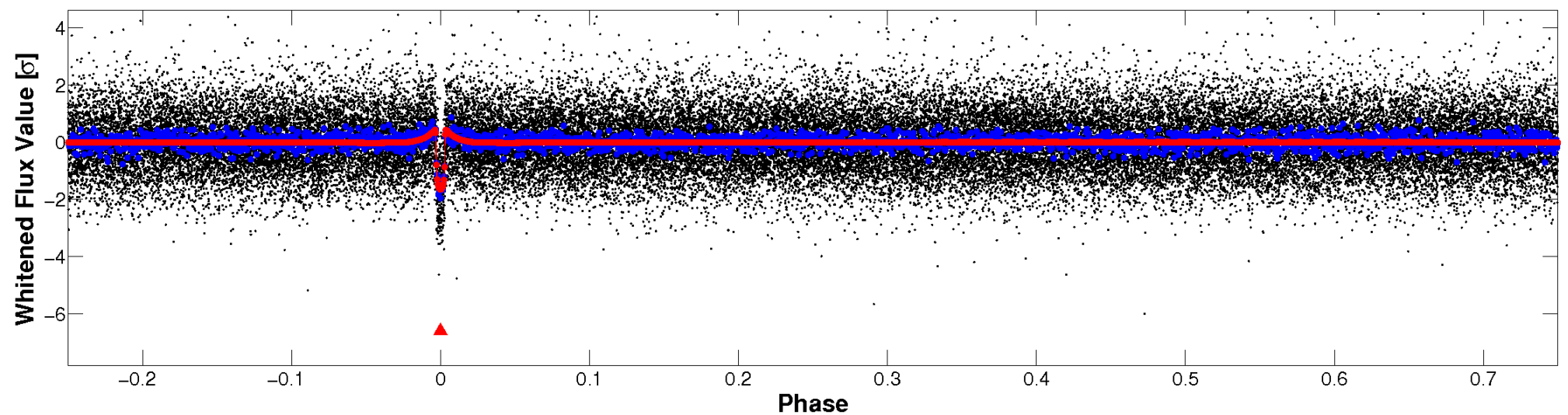


Non-Whitened Vs. Whitened Light Curve

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

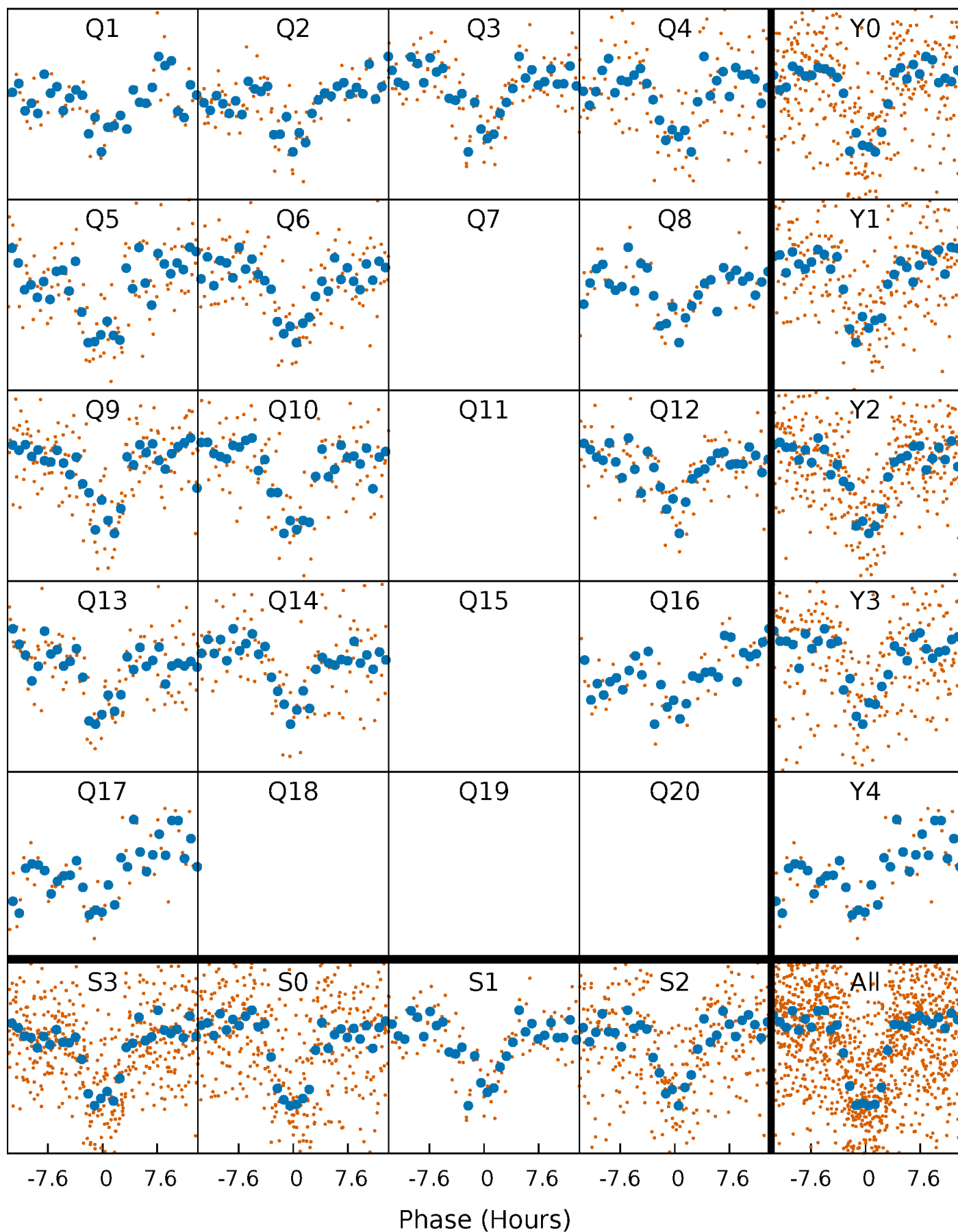


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



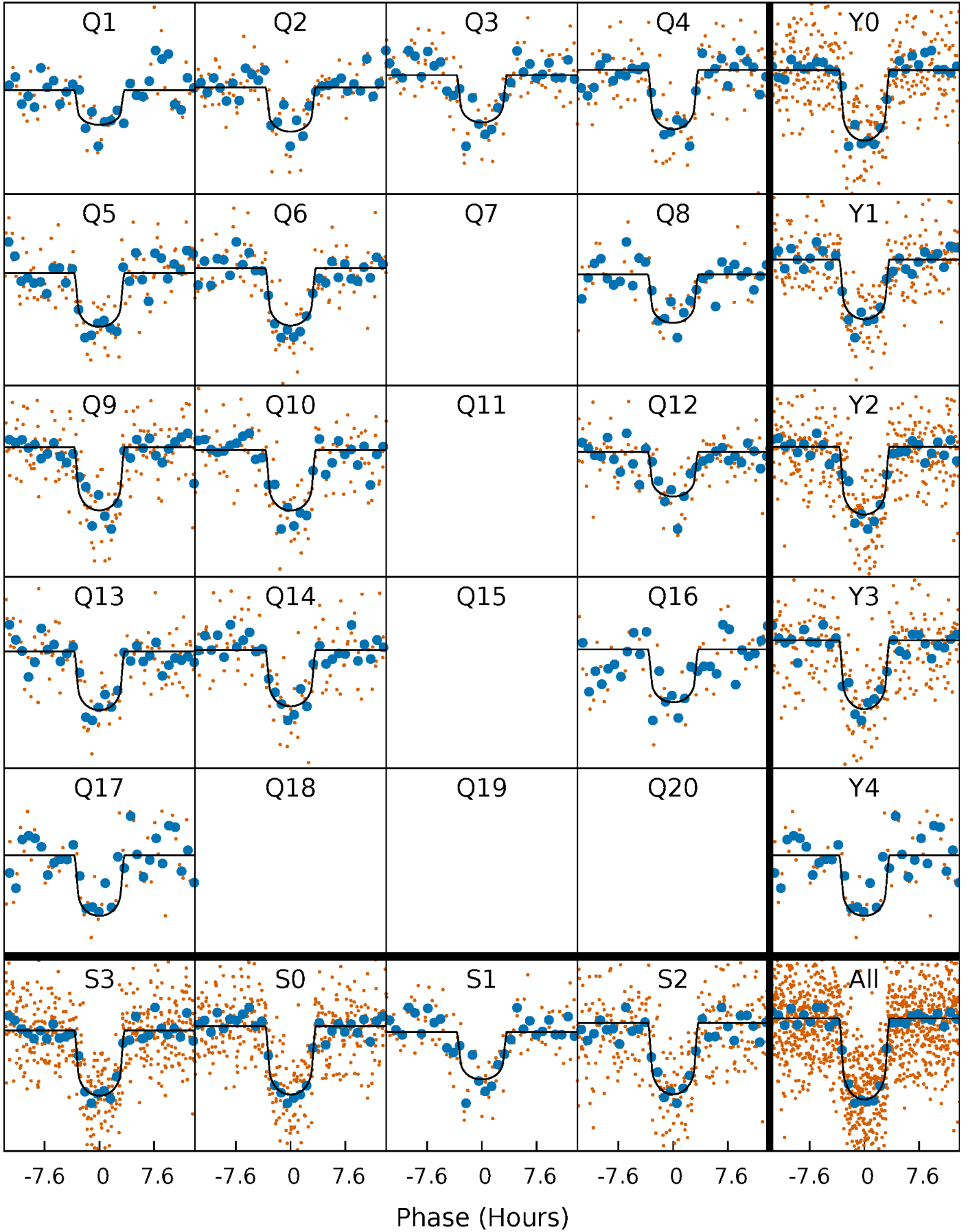
PDC Quarter-Phased Transit Curves

TCE 011043167-01 P= 44.930781 Days $T_0=140.205793$ (BKJD)



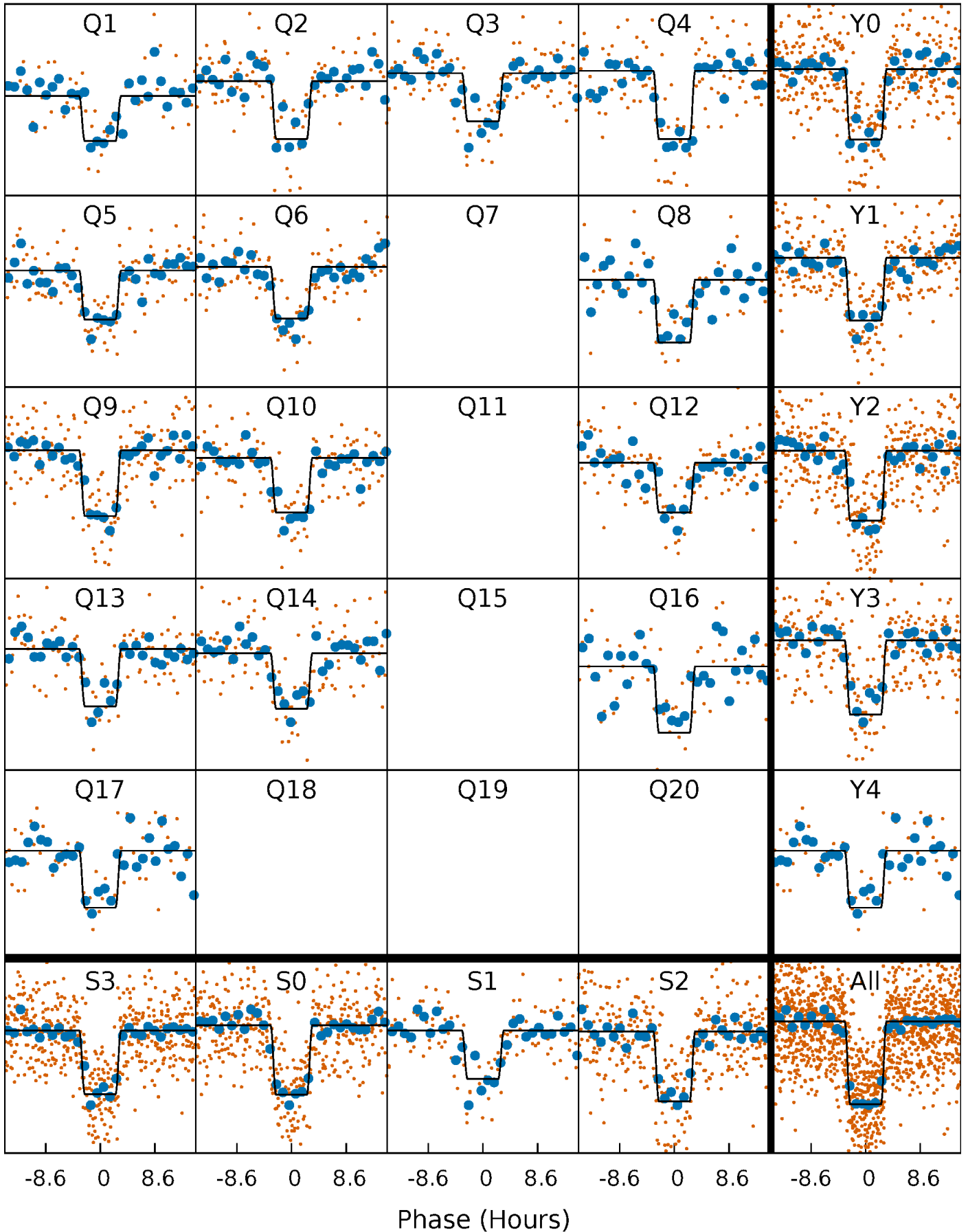
DV Quarter-Phased Transit Curves

TCE 011043167-01 P= 44.930781 Days $T_0=140.205793$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

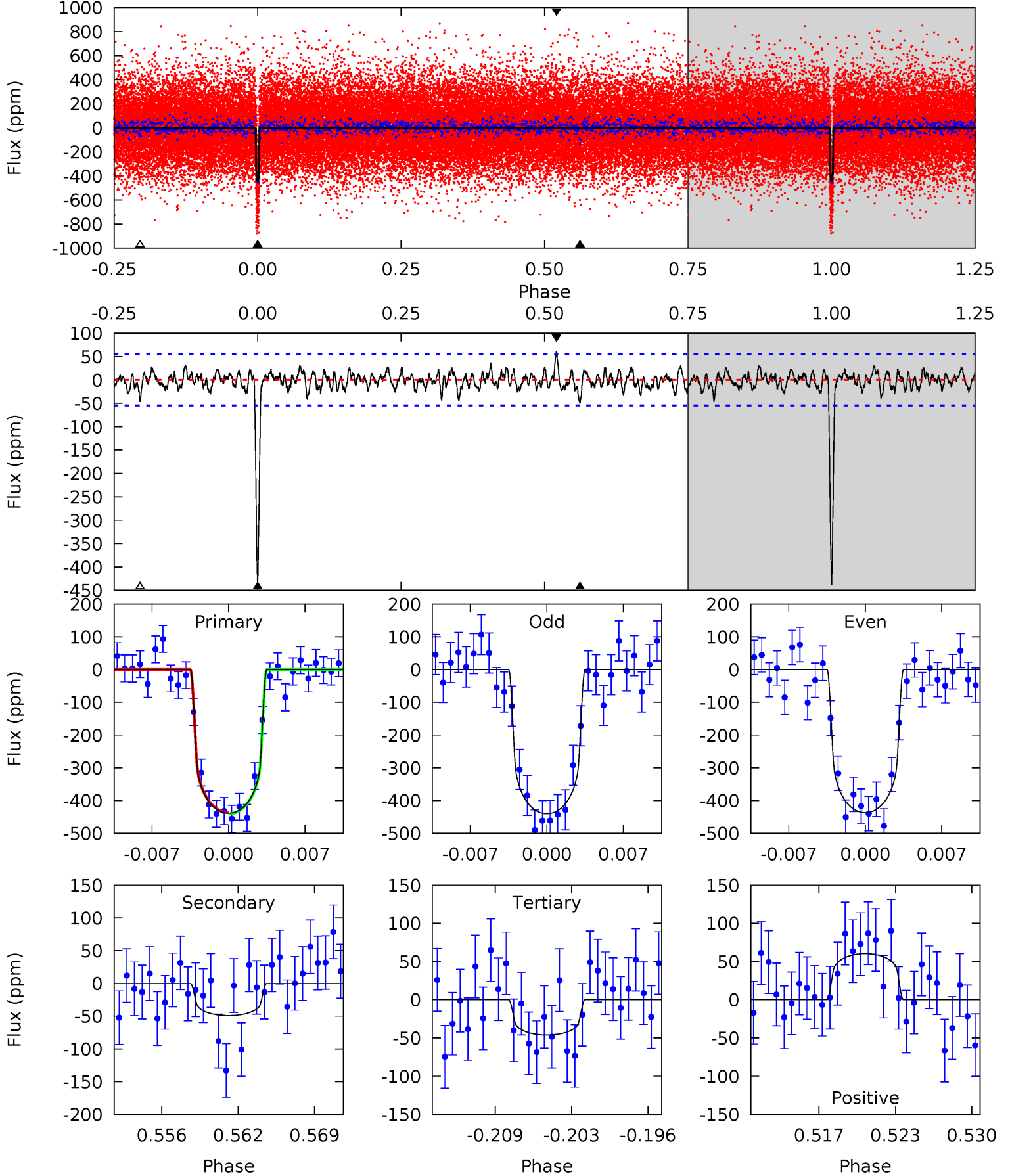
TCE 011043167-01 P= 44.930641 Days $T_0=140.209572$ (BKJD)



DV Model-Shift Uniqueness Test

011043167-01, P = 44.930781 Days, E = 95.275012 Days

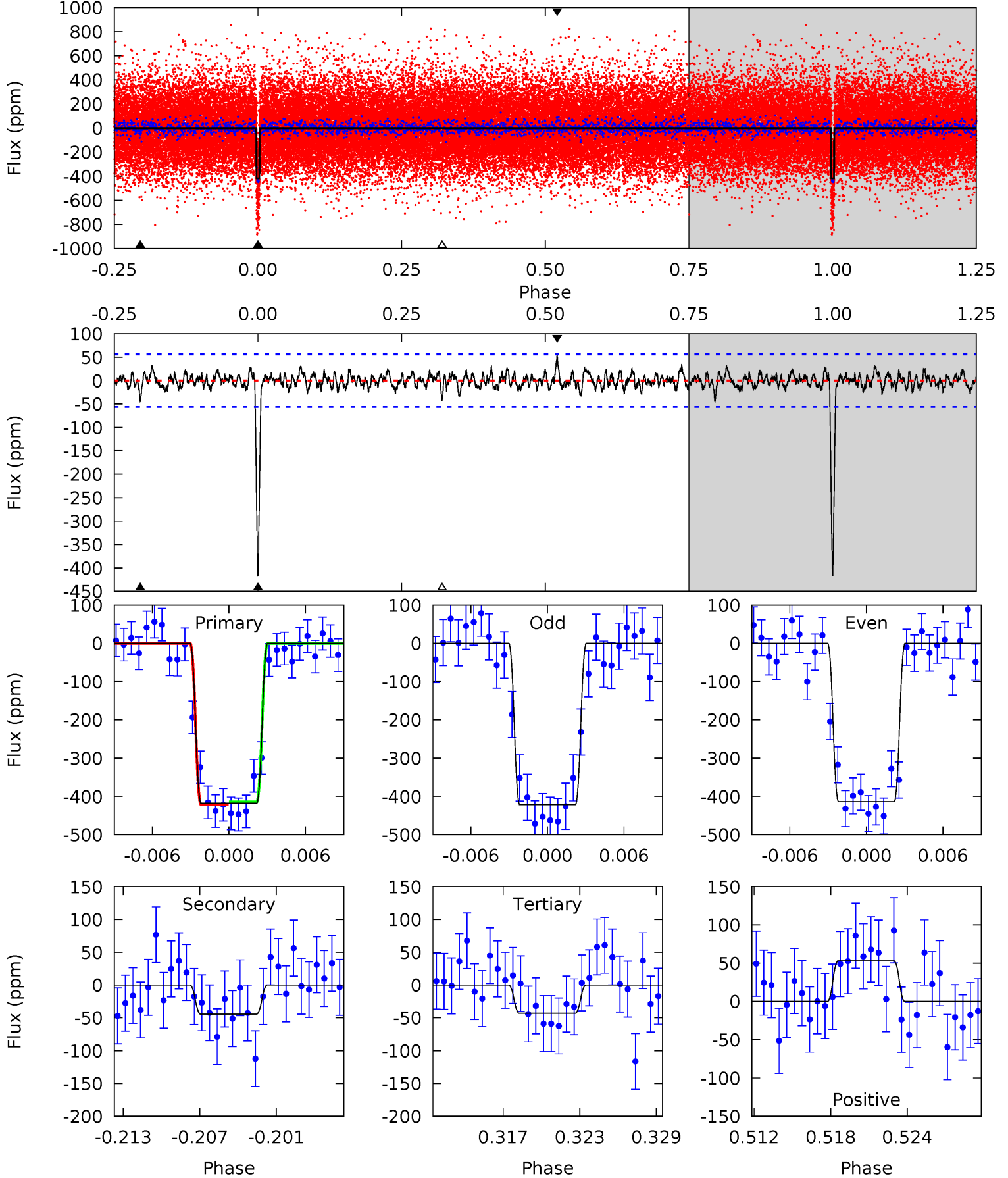
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
41.0	4.59	4.31	5.64	5.11	2.72	1.32	36.7	35.4	0.28	-1.05	0.16	1.00	0.12	0.20



Alt Model-Shift Uniqueness Test

011043167-01, P = 44.930641 Days, E = 95.278931 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
38.1	4.06	3.93	4.84	5.12	2.74	1.11	34.1	33.2	0.12	-0.79	0.37	0.99	0.11	0.29



Stellar Parameters For KIC 011043167

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6121^{+97}_{-146}	$4.397^{+0.032}_{-0.128}$	$0.360^{+0.100}_{-0.150}$	$1.164^{+0.207}_{-0.069}$	$1.233^{+0.068}_{-0.083}$	$1.102^{+0.135}_{-0.409}$
	+2%/-2%	+1%/-3%	+28%/-42%	+18%/-6%	+6%/-7%	+12%/-37%
Source	SPE59	SPE59	SPE59	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011043167-01 / KOI 1444.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-49 ± 11	$2.66^{+0.69}_{-0.63}$	797^{+33}_{-23}	3919^{+408}_{-317}	263^{+188}_{-103}
Alt.	-44 ± 11	$2.73^{+0.69}_{-0.69}$	798^{+34}_{-25}	3805^{+465}_{-314}	218^{+191}_{-86}

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 $A_{obs} \gg 1.0$

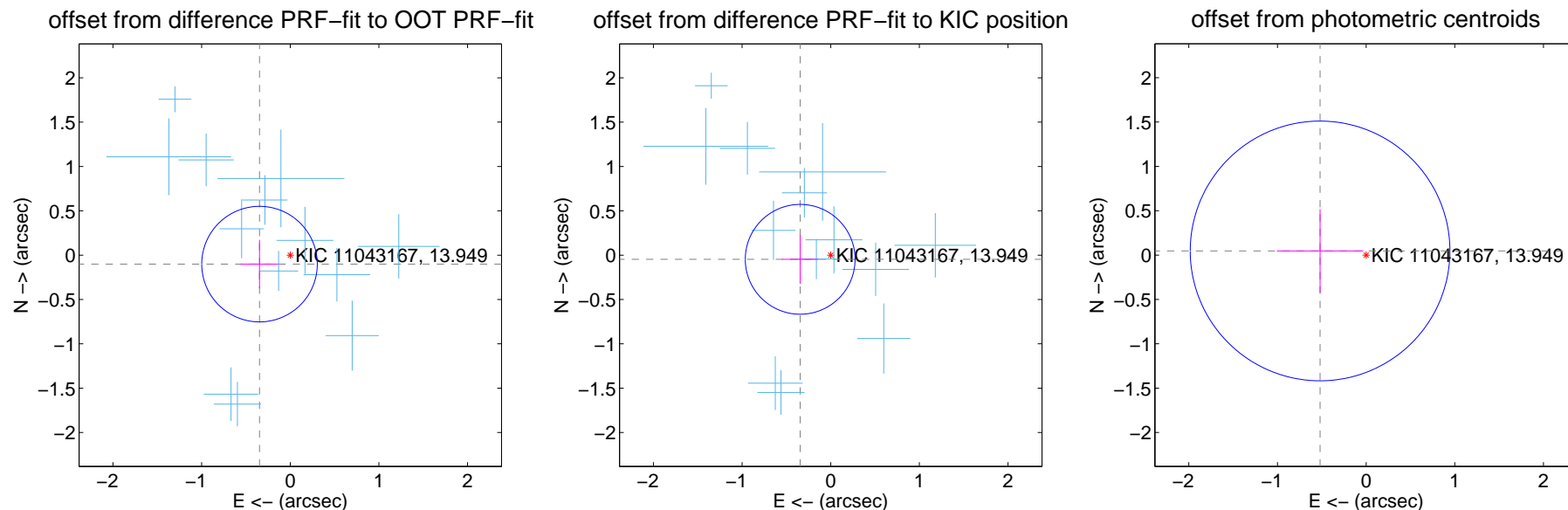
DV Centroid Data

Supplemental centroid analysis for 011043167-01. Kepler magnitude: 13.95. Transit SNR 26.50

There are 13 quarters with good PRF difference image offsets

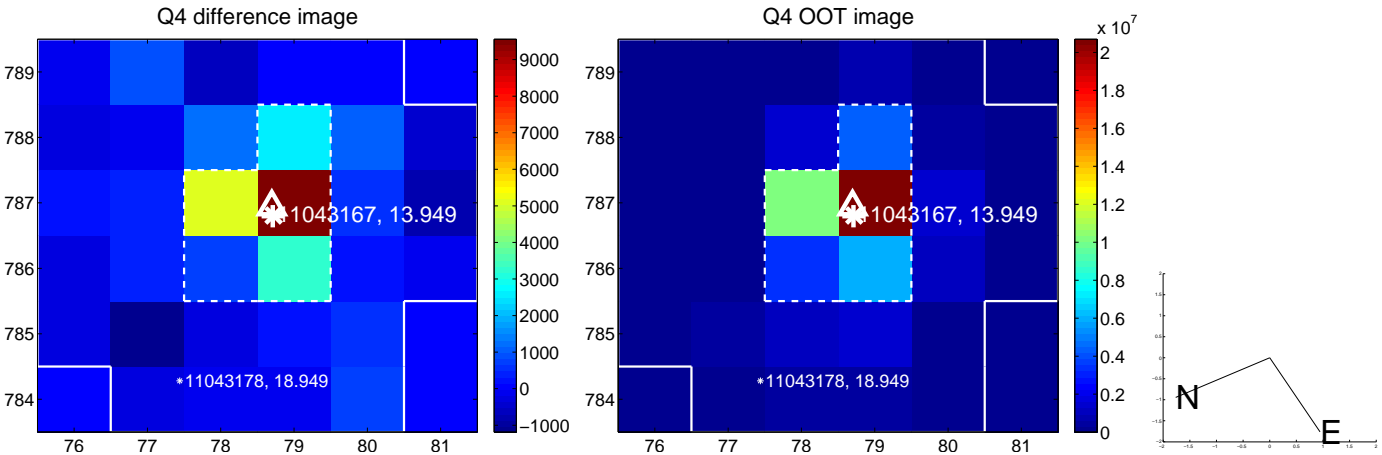
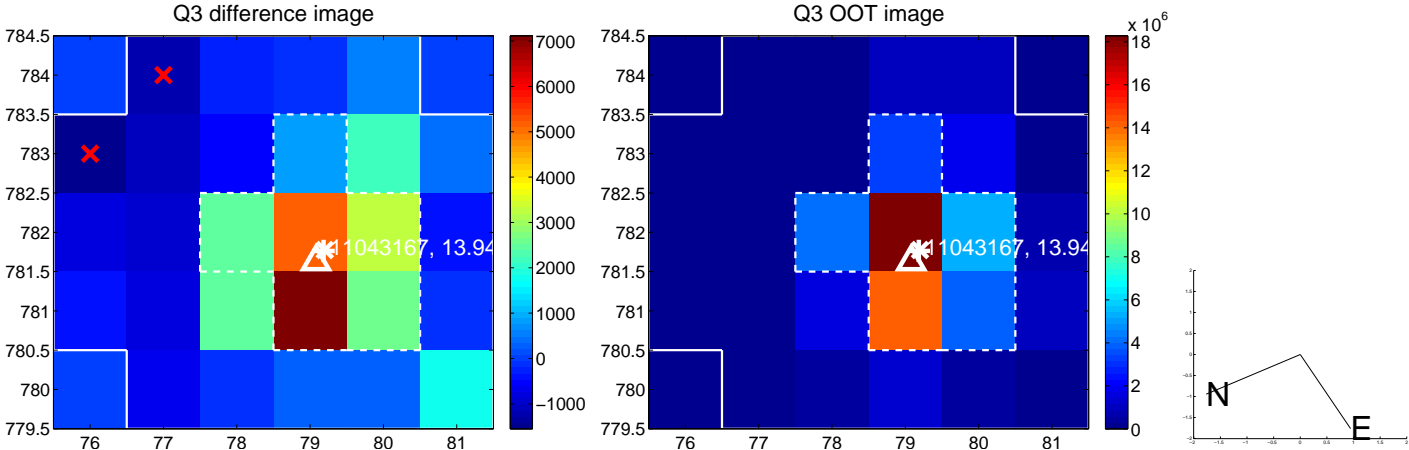
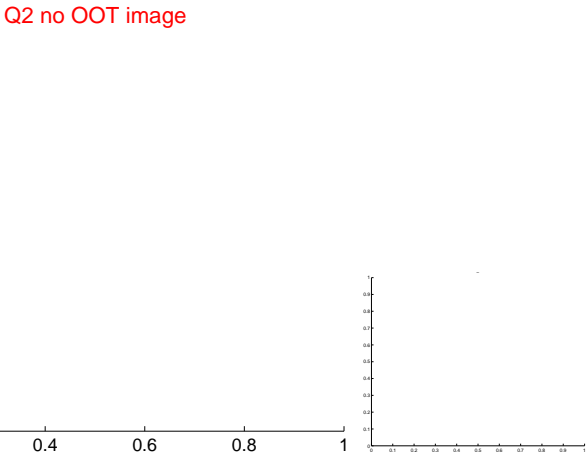
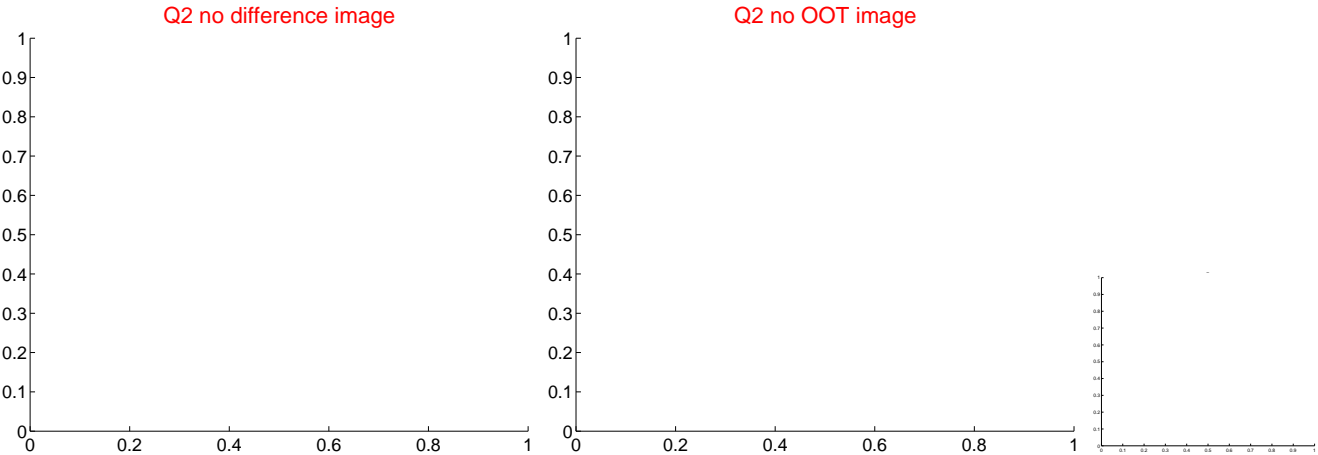
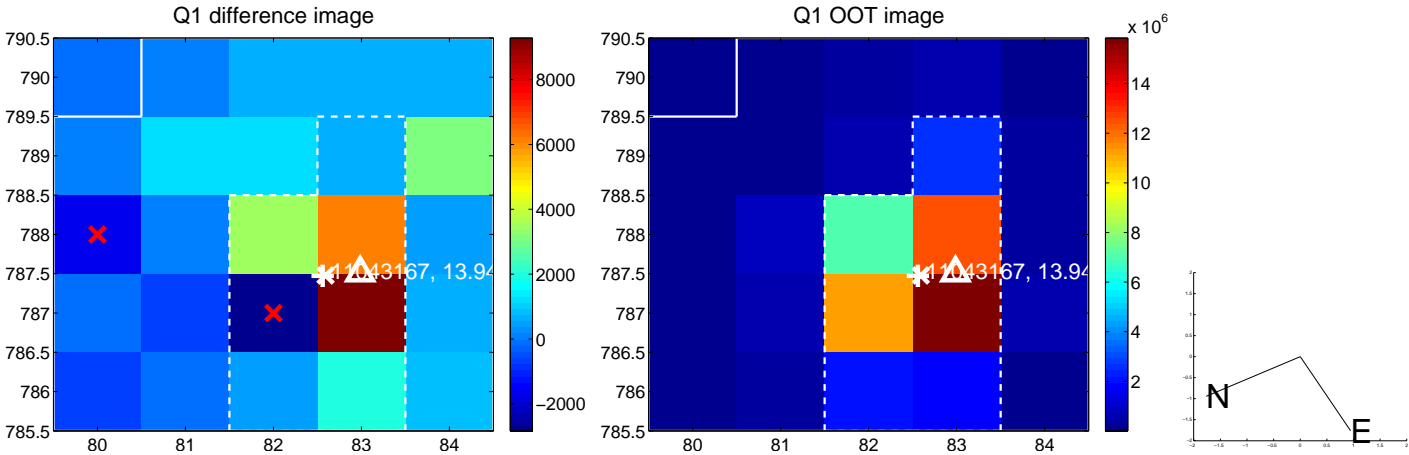
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.361 ± 0.217	1.66	0.347 ± 0.212	-0.101 ± 0.274
PRF-fit source offset from KIC position	0.348 ± 0.206	1.68	0.344 ± 0.205	-0.047 ± 0.276
photometric centroid source offset	0.52 ± 0.49	1.07	0.52 ± 0.49	0.05 ± 0.47

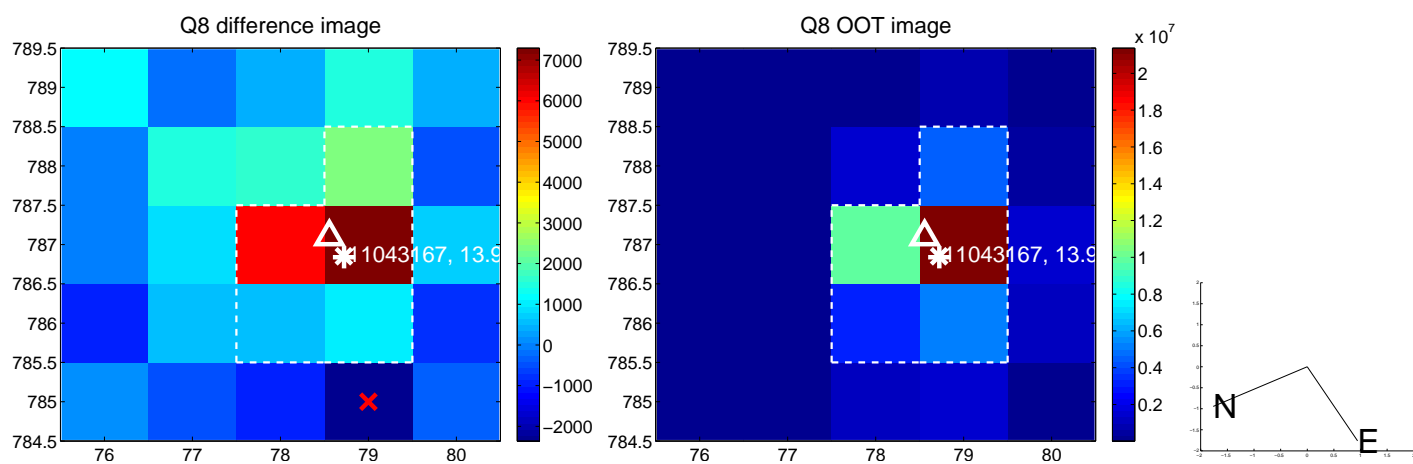
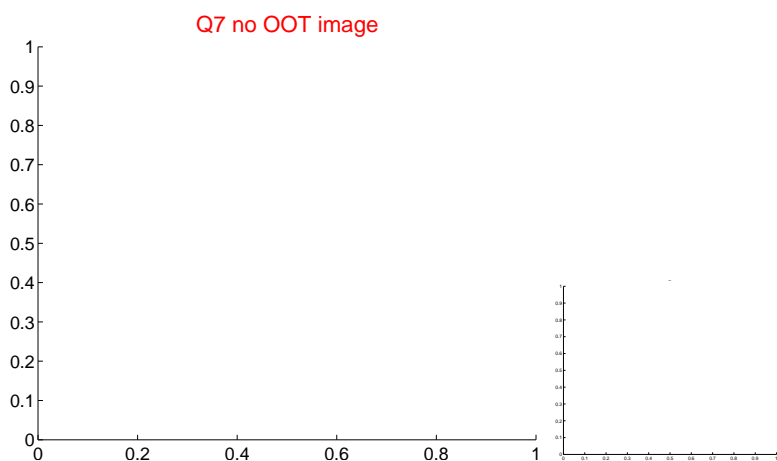
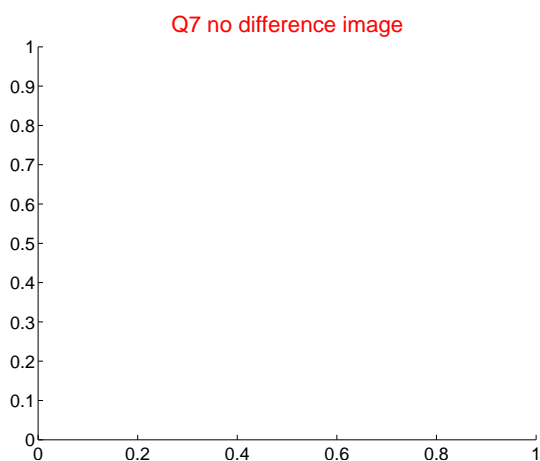
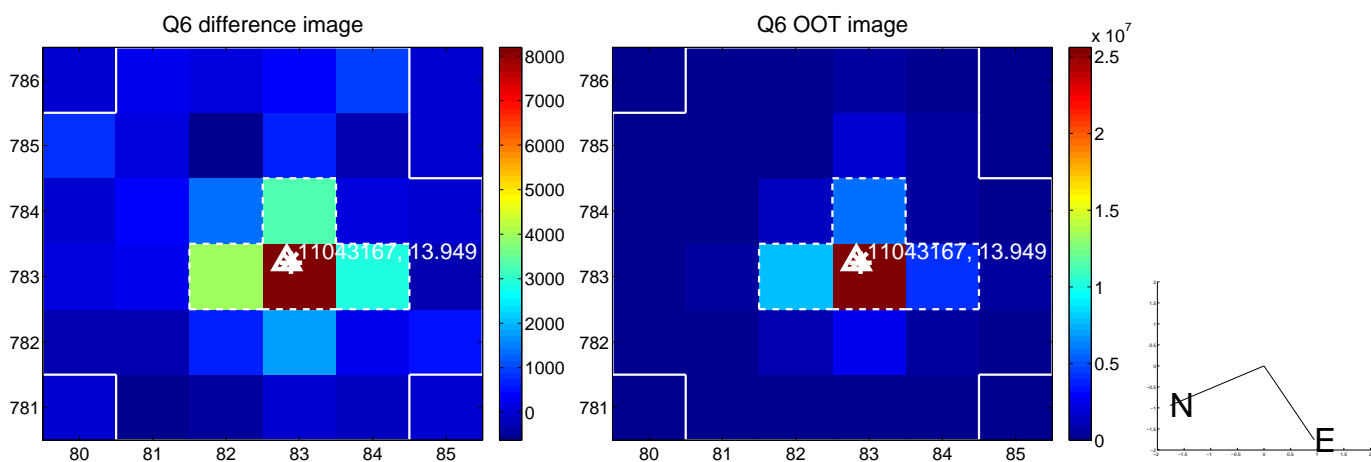
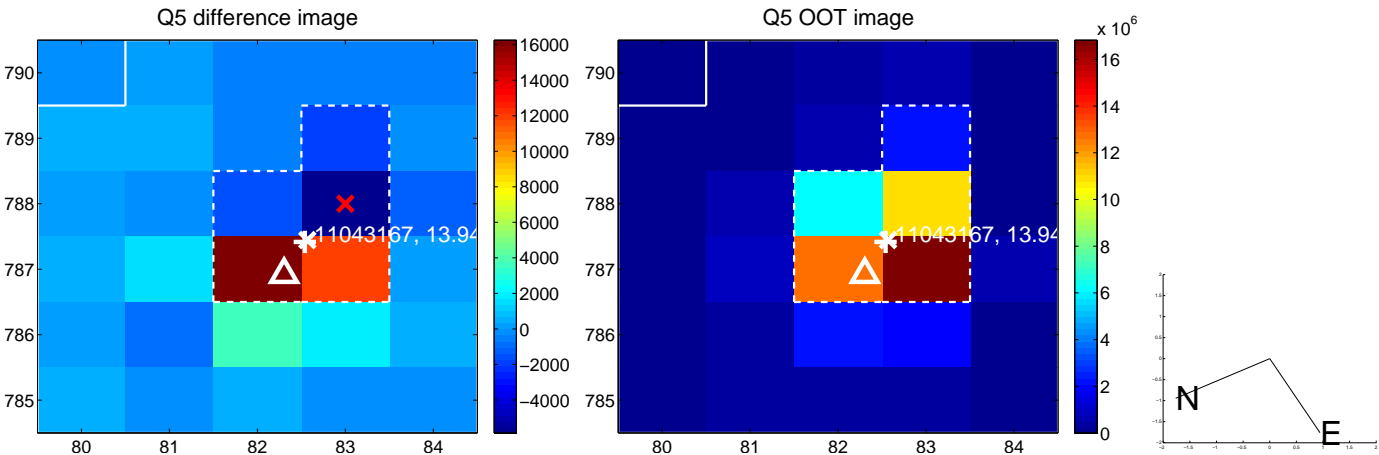


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

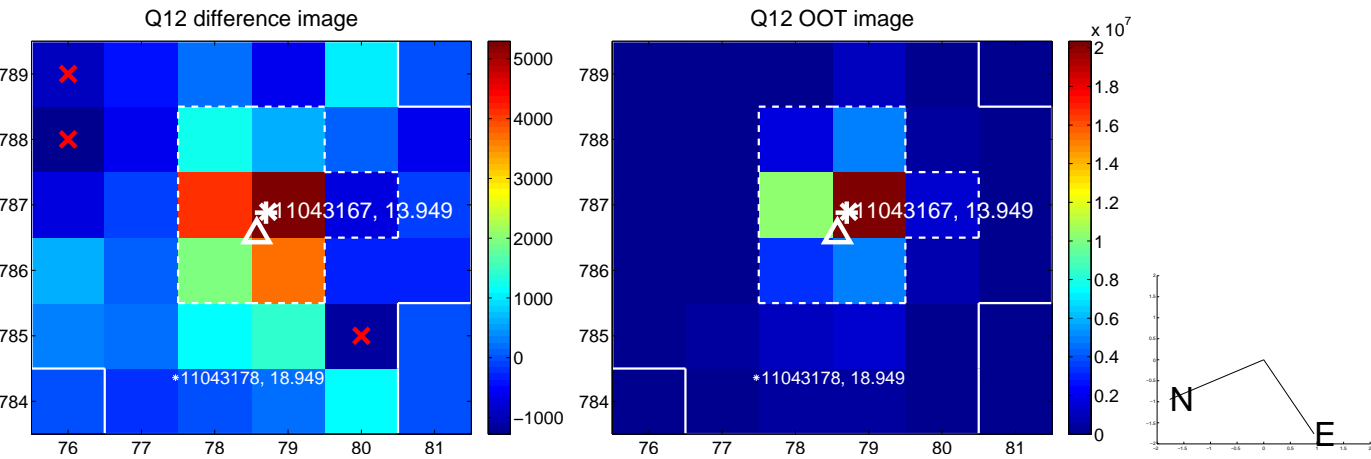
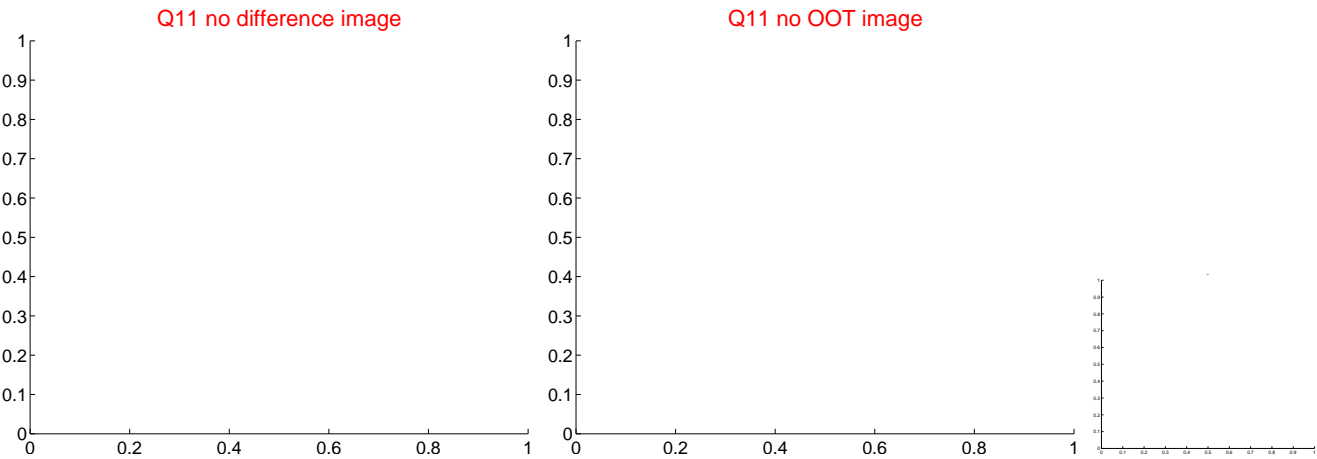
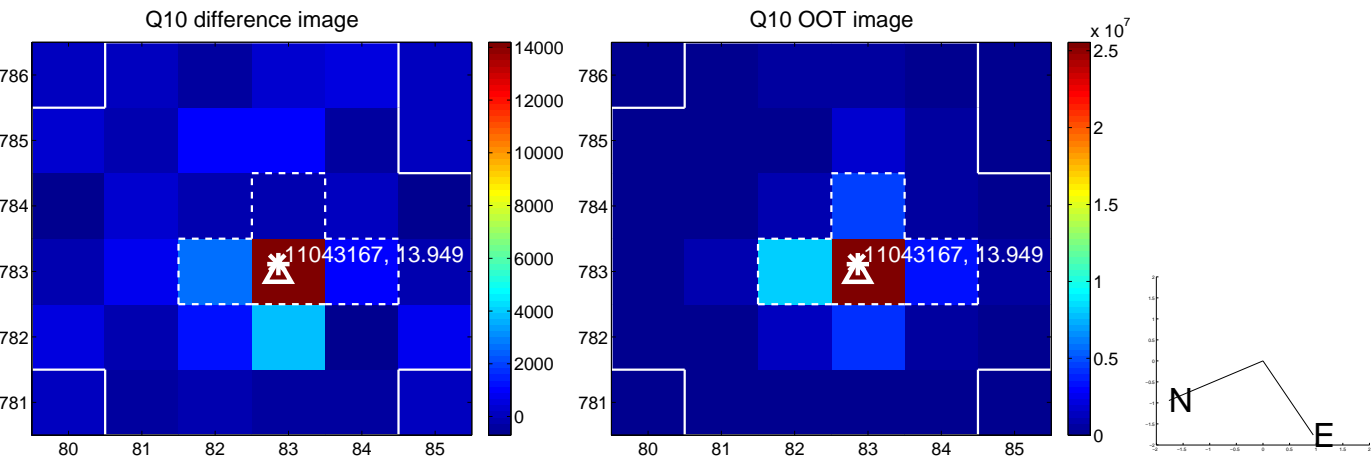
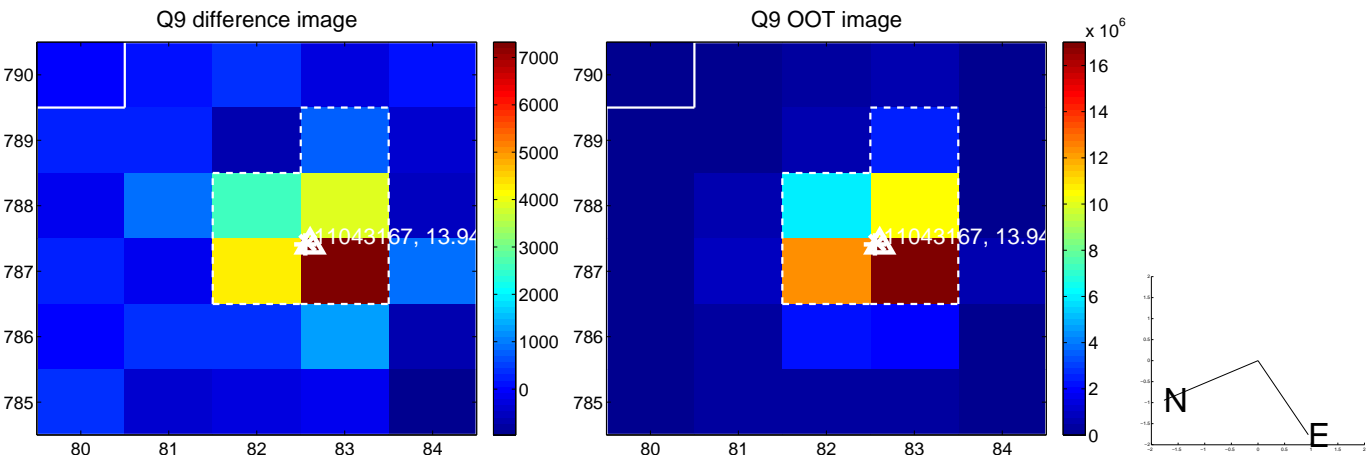
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



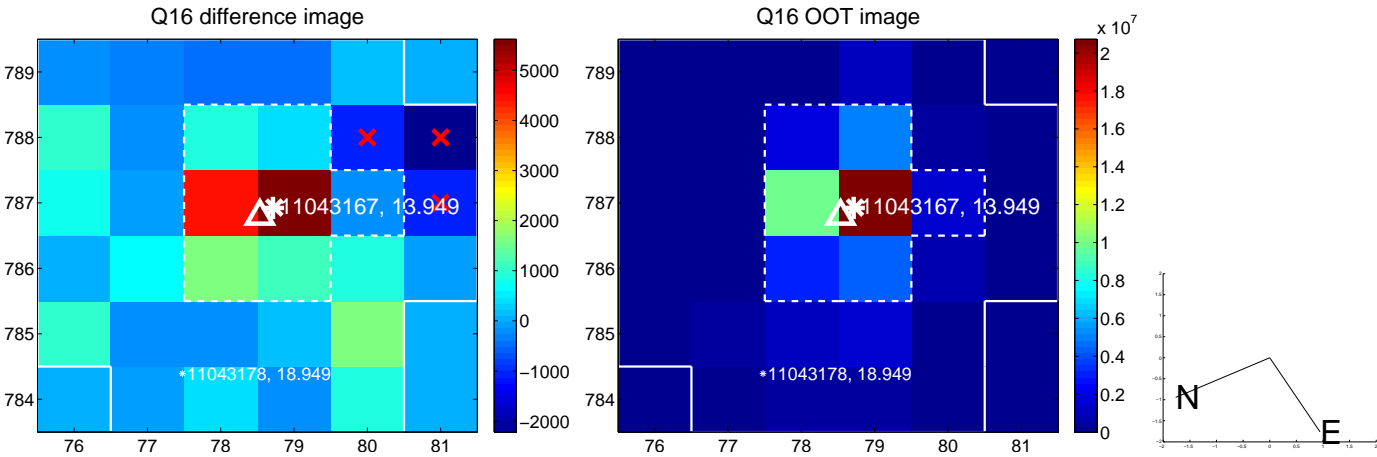
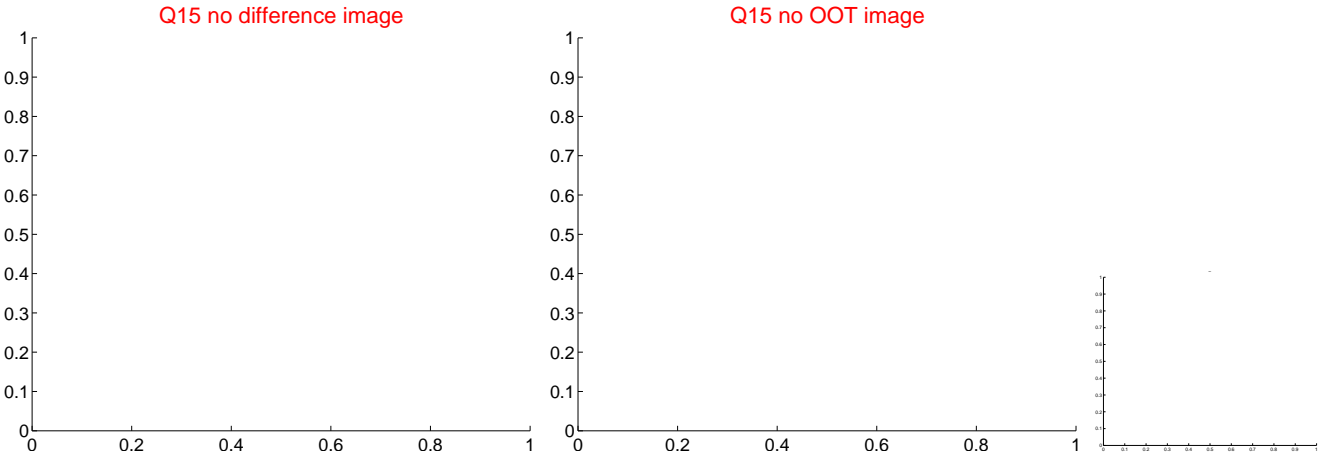
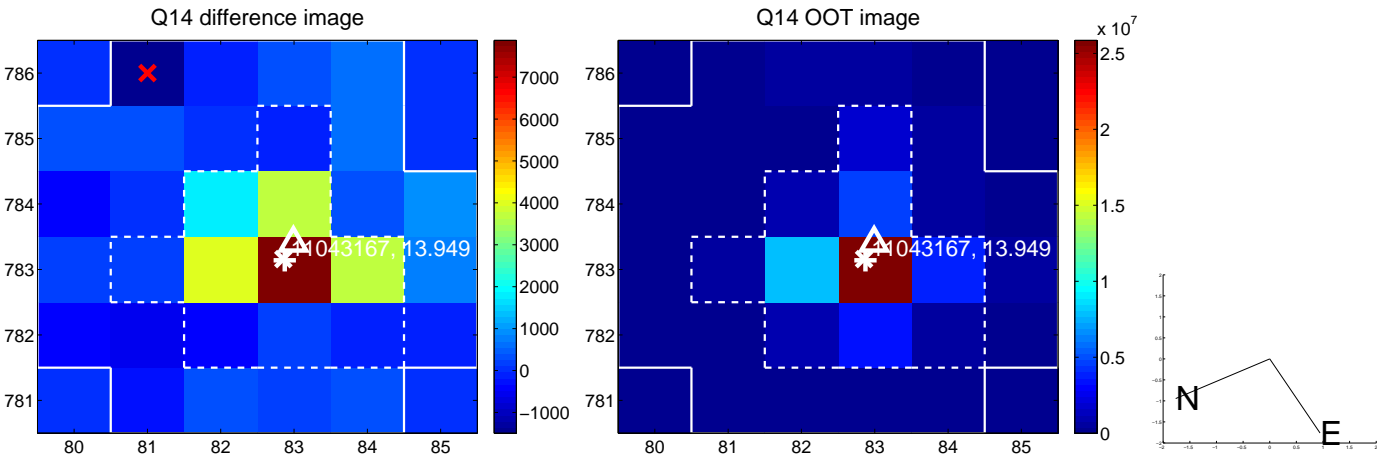
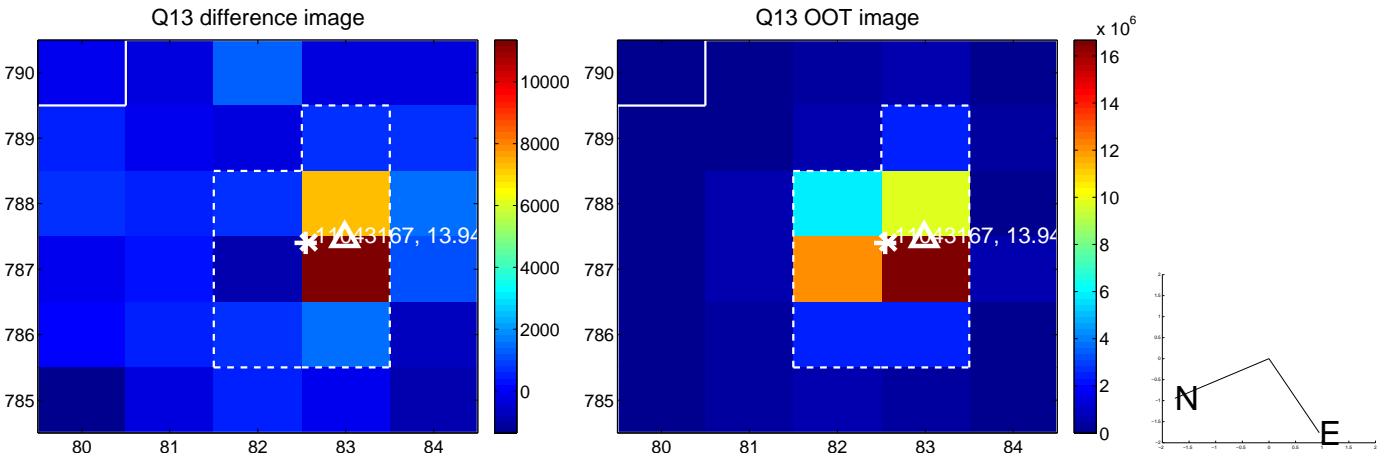
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



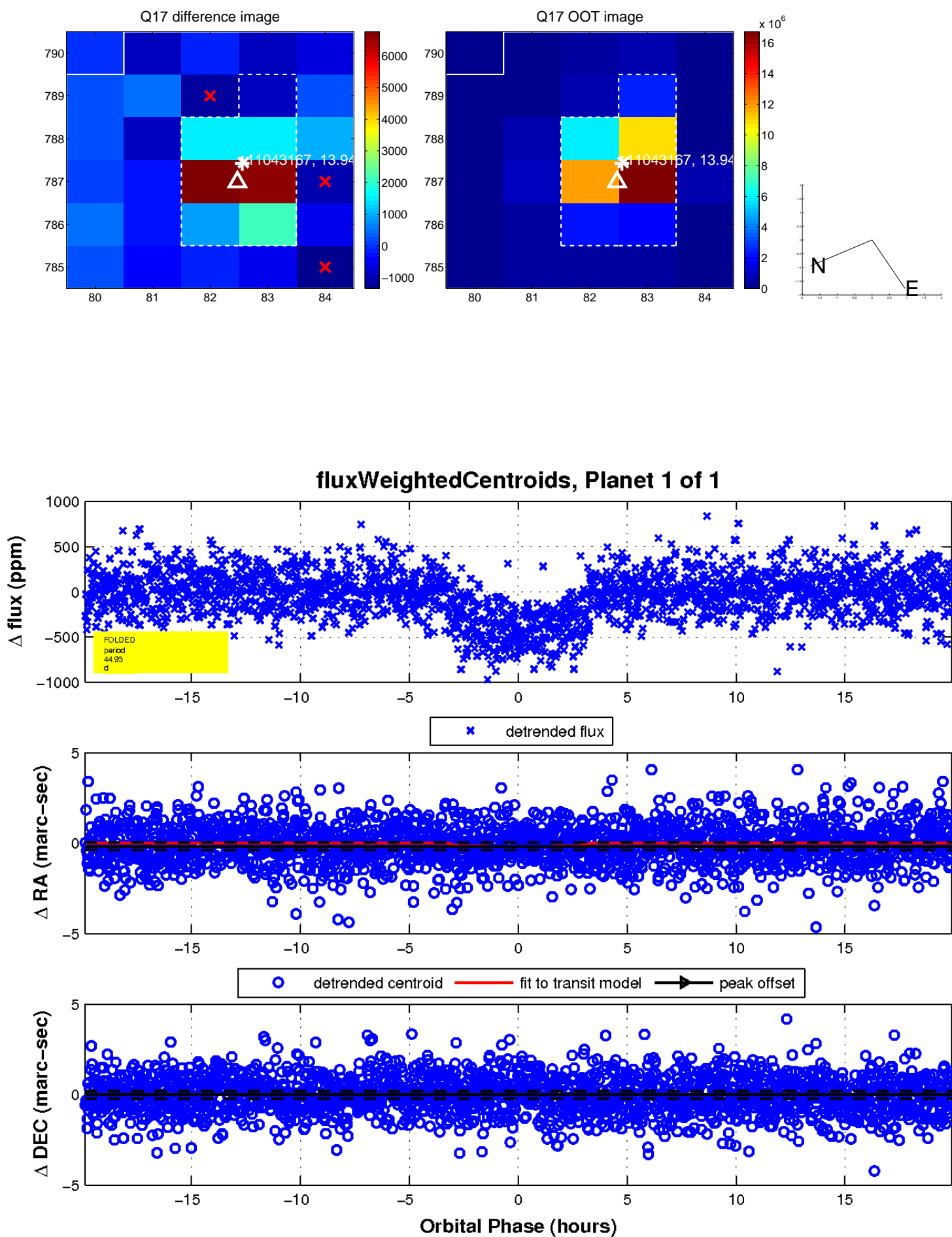
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

