

KIC 007033671

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})
007033671-01	OBS	0670.01	9.489673	133.966679	257.2	3.637	35.8	39.1	1.20	5672	2.26	174.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007033671-01	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.

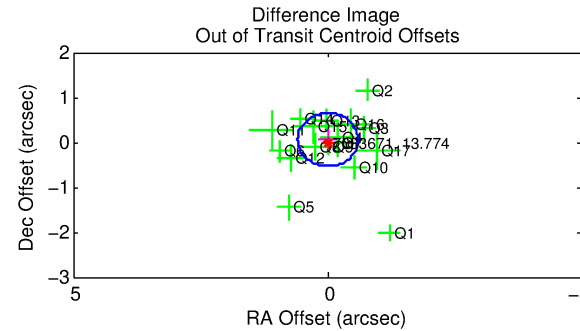
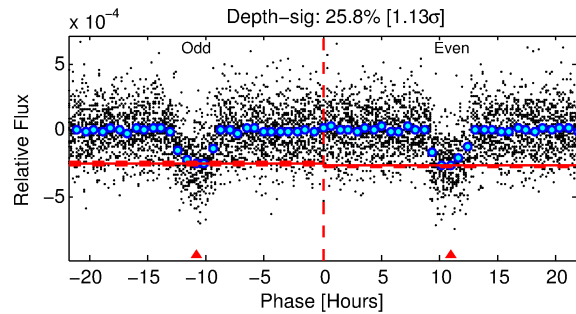
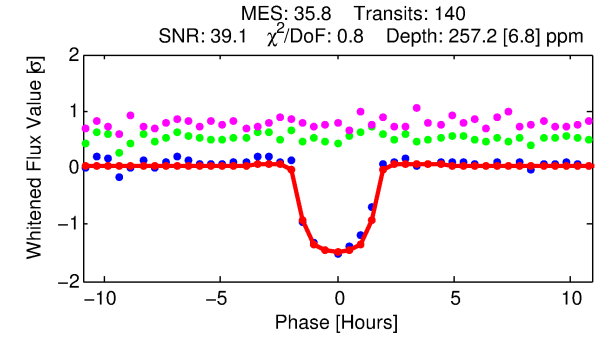
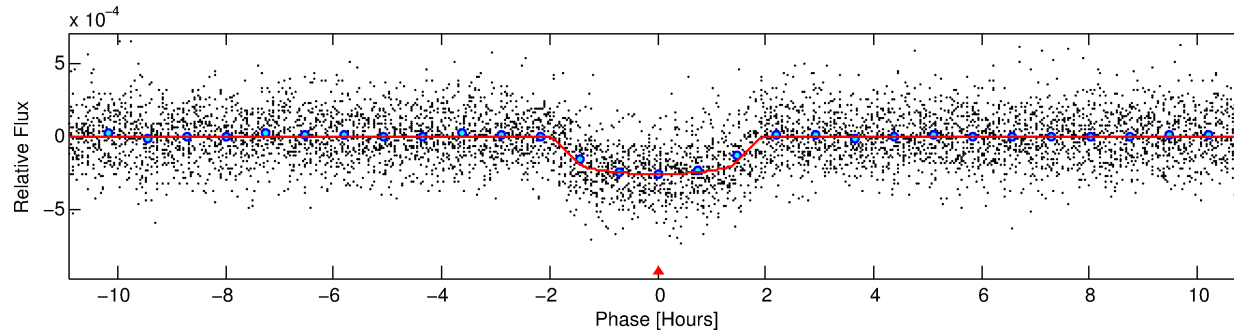
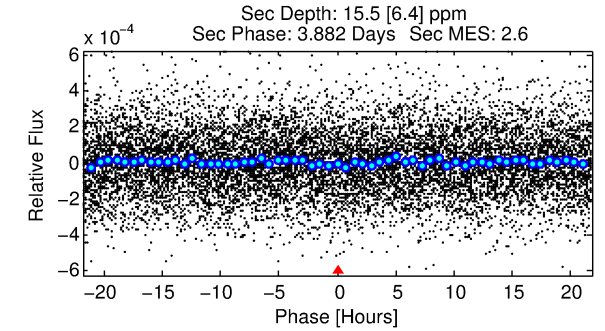
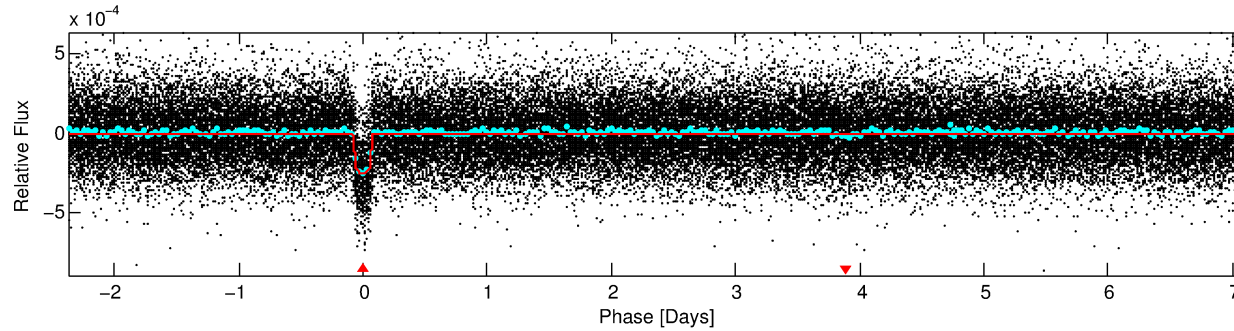
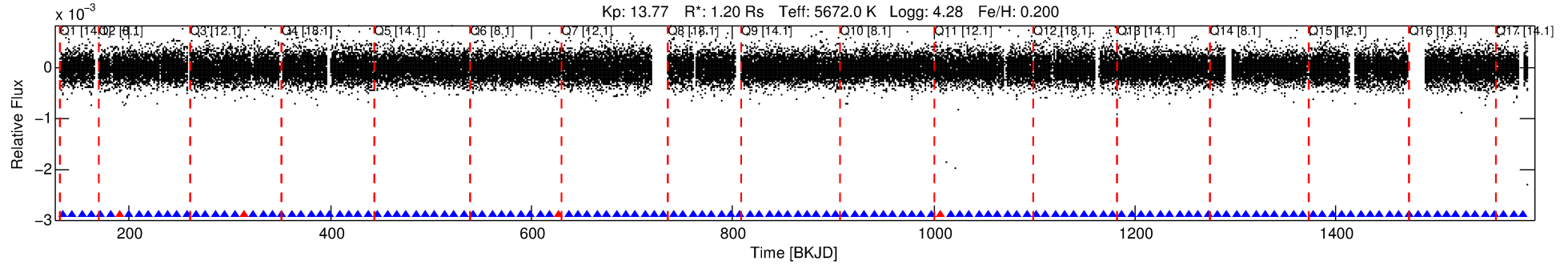
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007033671-01

No Significant Match Found

DV One-Page Summary

KIC: 7033671 Candidate: 1 of 1 Period: 9.490 d
KOI: K00670.01 Corr: 0.981



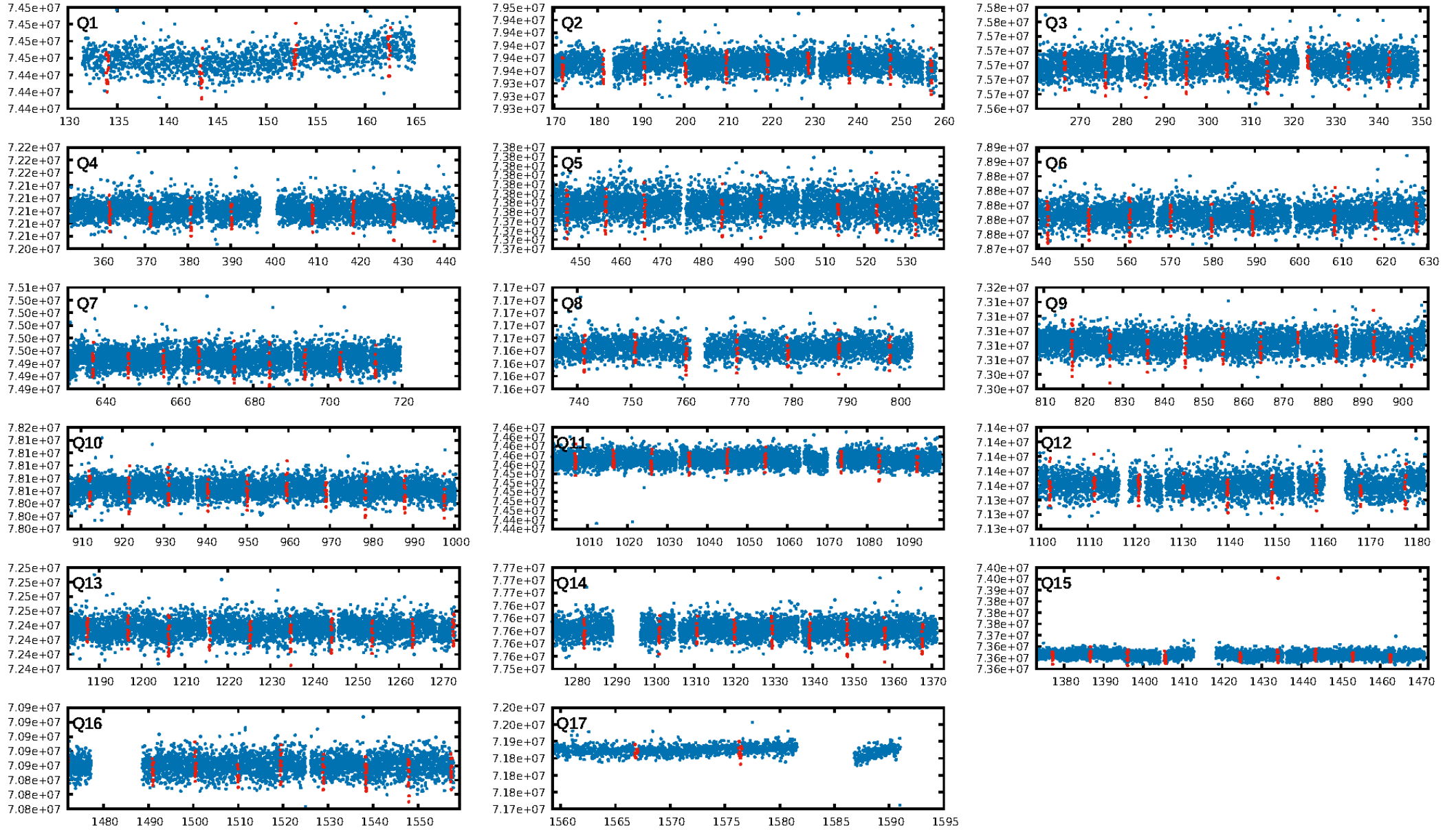
DV Fit Results:

Period = 9.48967 [0.00002] d
Epoch = 133.9667 [0.0019] BKJD
Rp/R* = 0.0172 [0.0027]
a/R* = 10.33 [7.32]
b = 0.88 [0.19]
Seff = 174.02 [47.73]
Teq = 926 [64] K
Rp = 2.26 [0.51] Re
a = 0.0879 [0.0141] AU
Ag = 12.94 [7.57] [1.58σ]
Teffp = 2716 [359] K [4.91σ]

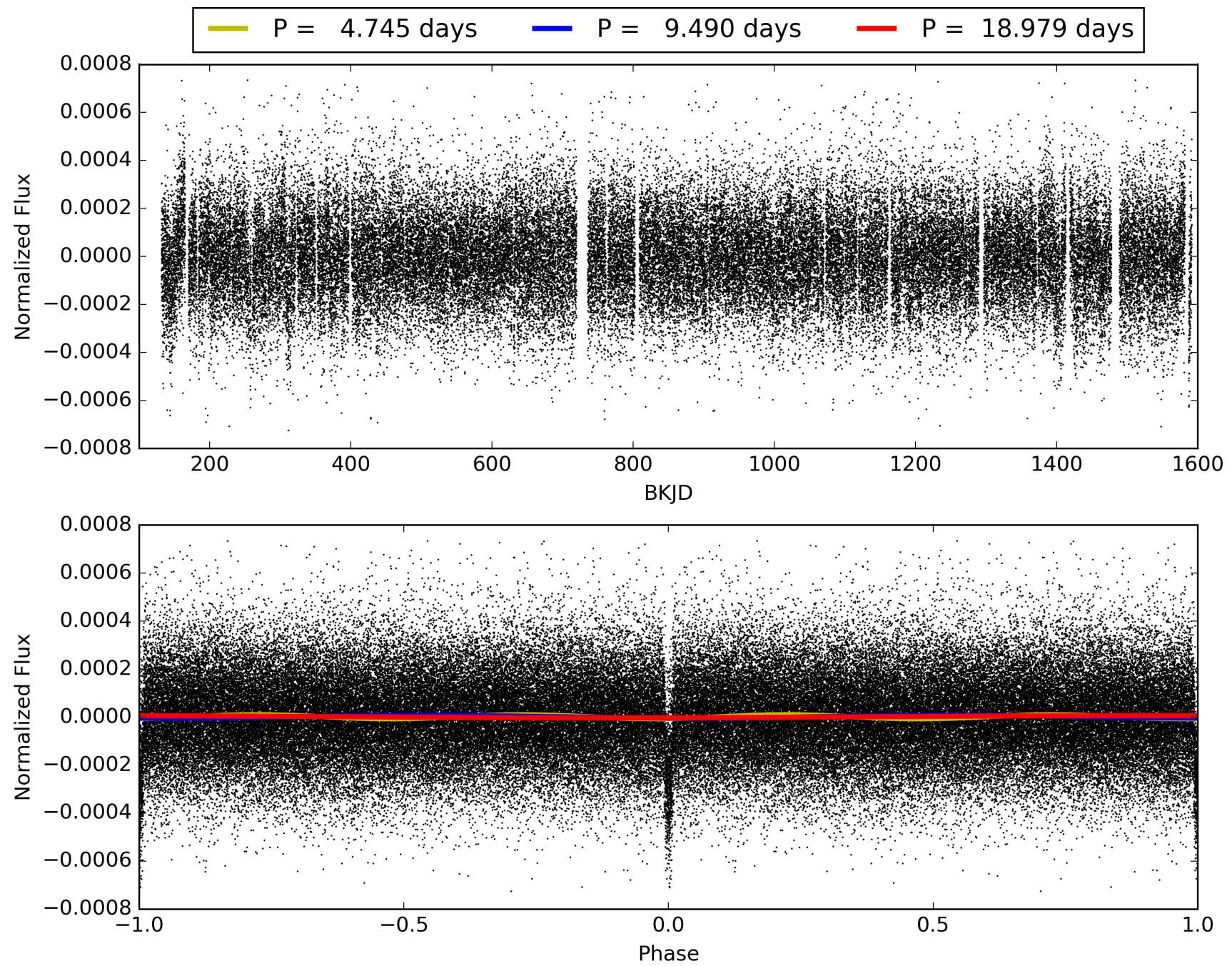
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 76.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.66e-264
RollingBand-fgt: 0.97 [130/134]
GhostDiagnostic-chr: 4.72
Centroid-sig: 27.2%
Centroid-so: 0.379 arcsec [1.21σ]
OotOffset-rm: 0.052 arcsec [0.27σ]
KicOffset-rm: 0.055 arcsec [0.29σ]
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 007033671-01, PDC Light Curves

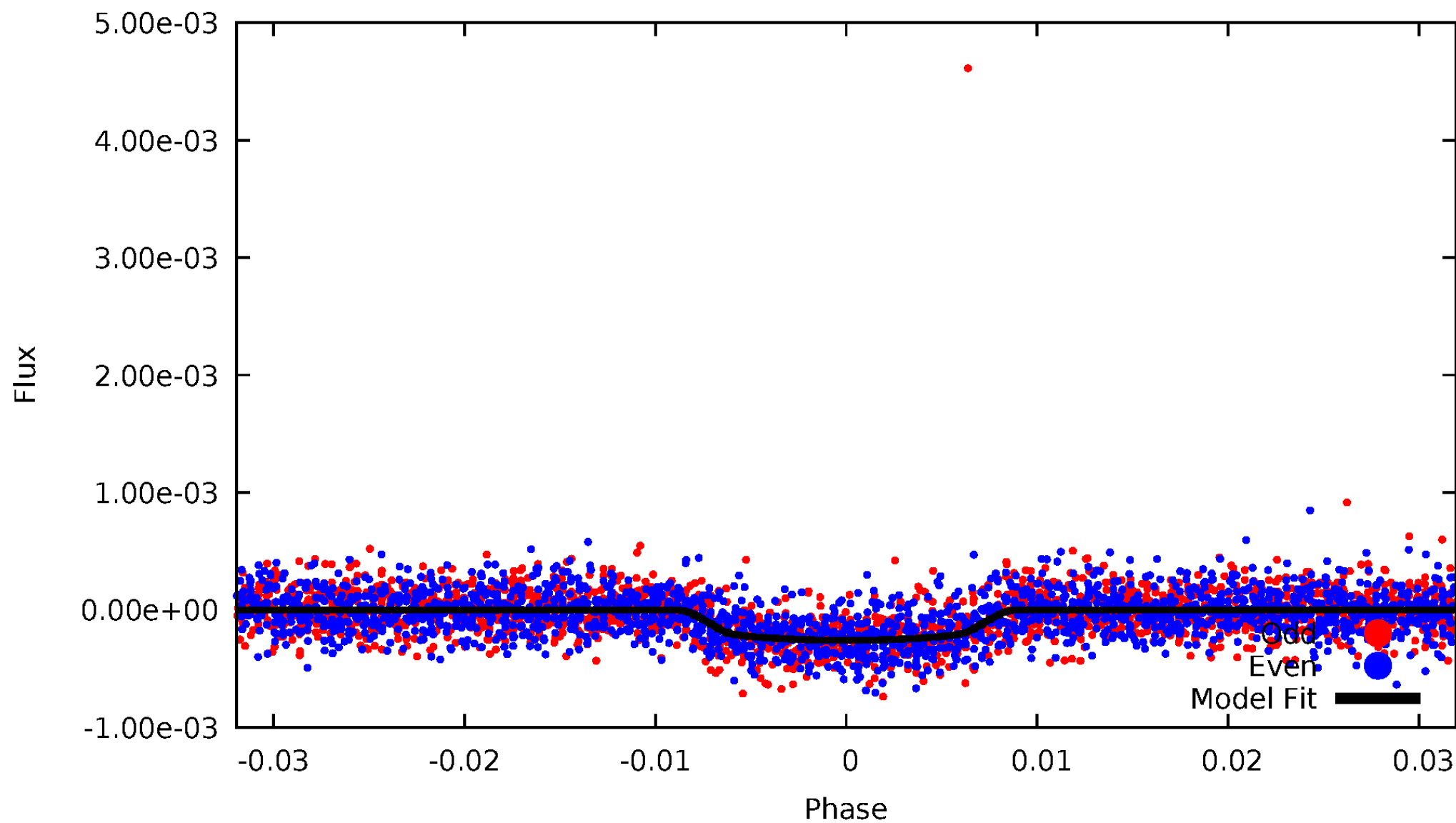


TCE 007033671-01



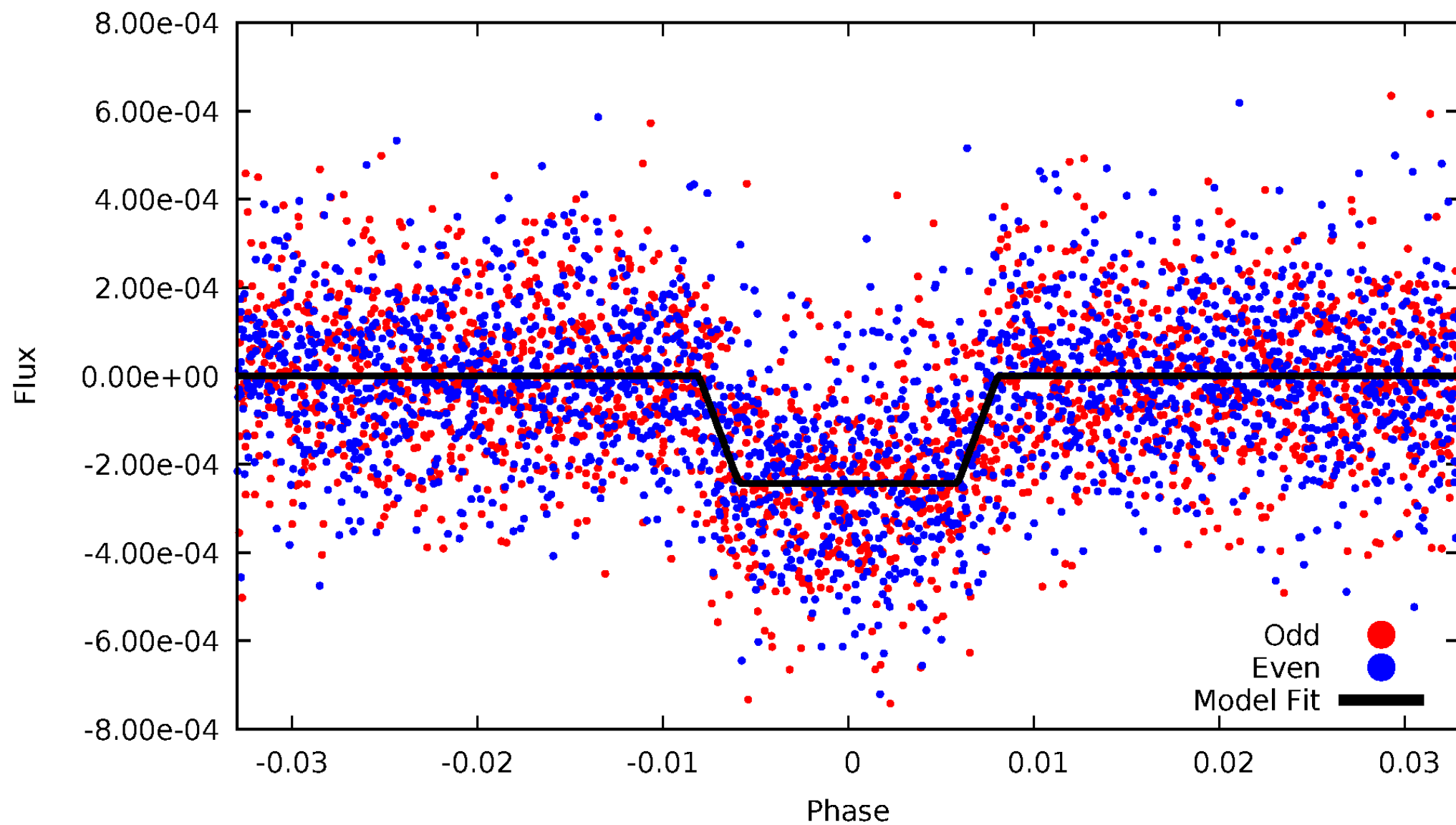
DV Odd/Even

TCE 007033671-01

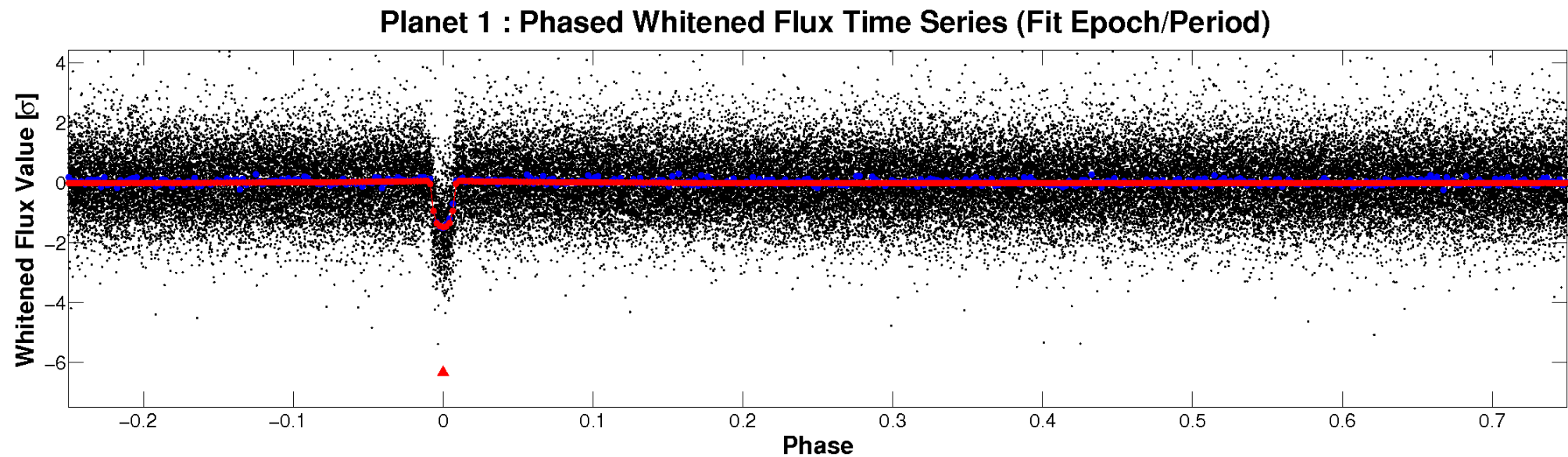
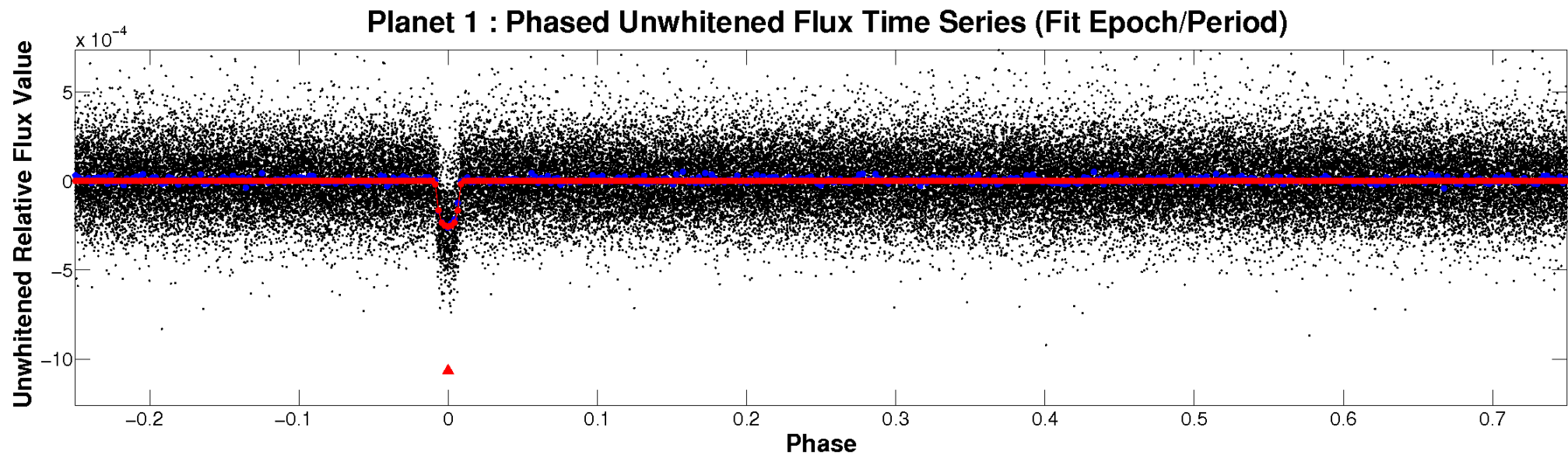


ALT Odd/Even

TCE 007033671-01

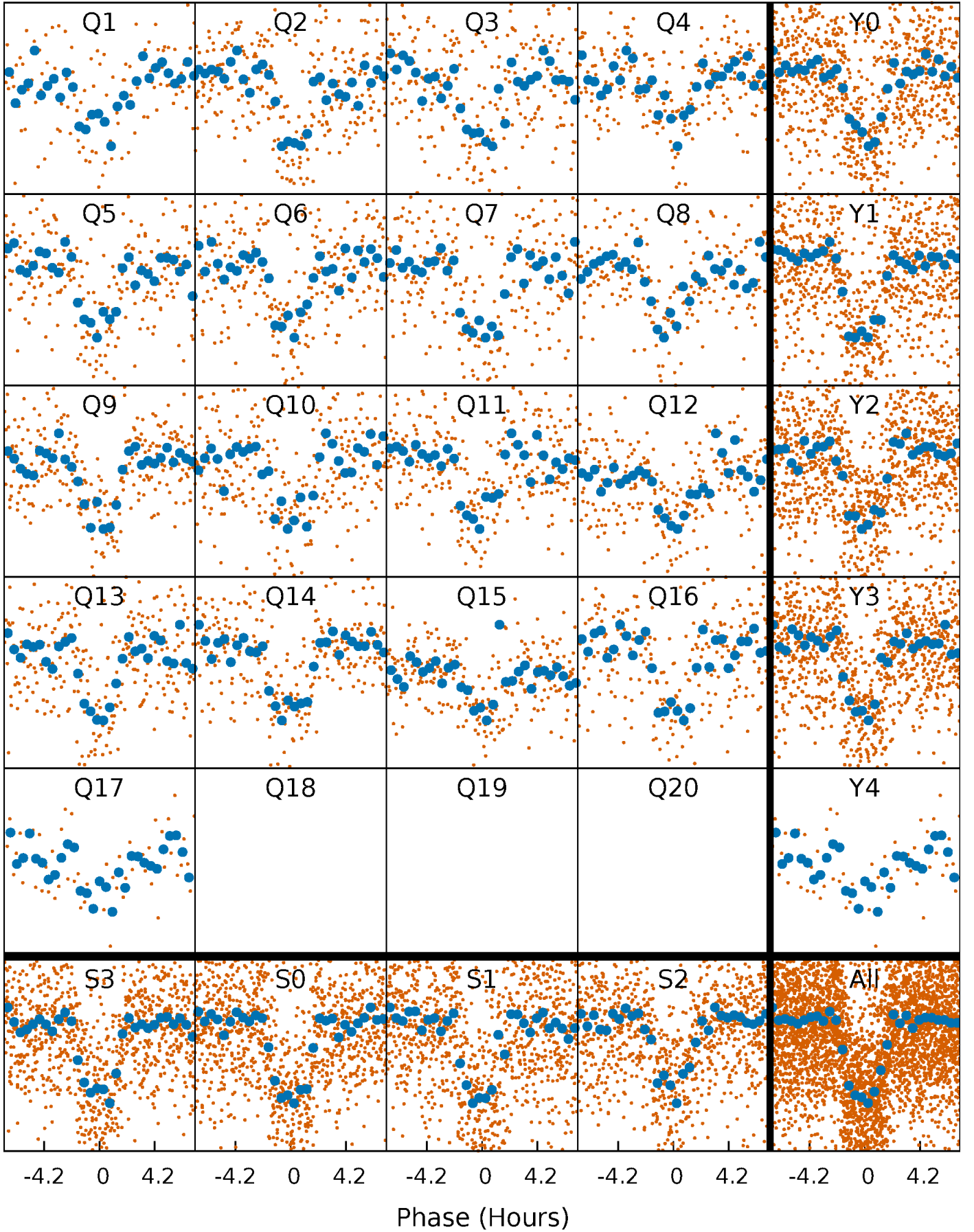


Non-Whitened Vs. Whitened Light Curve



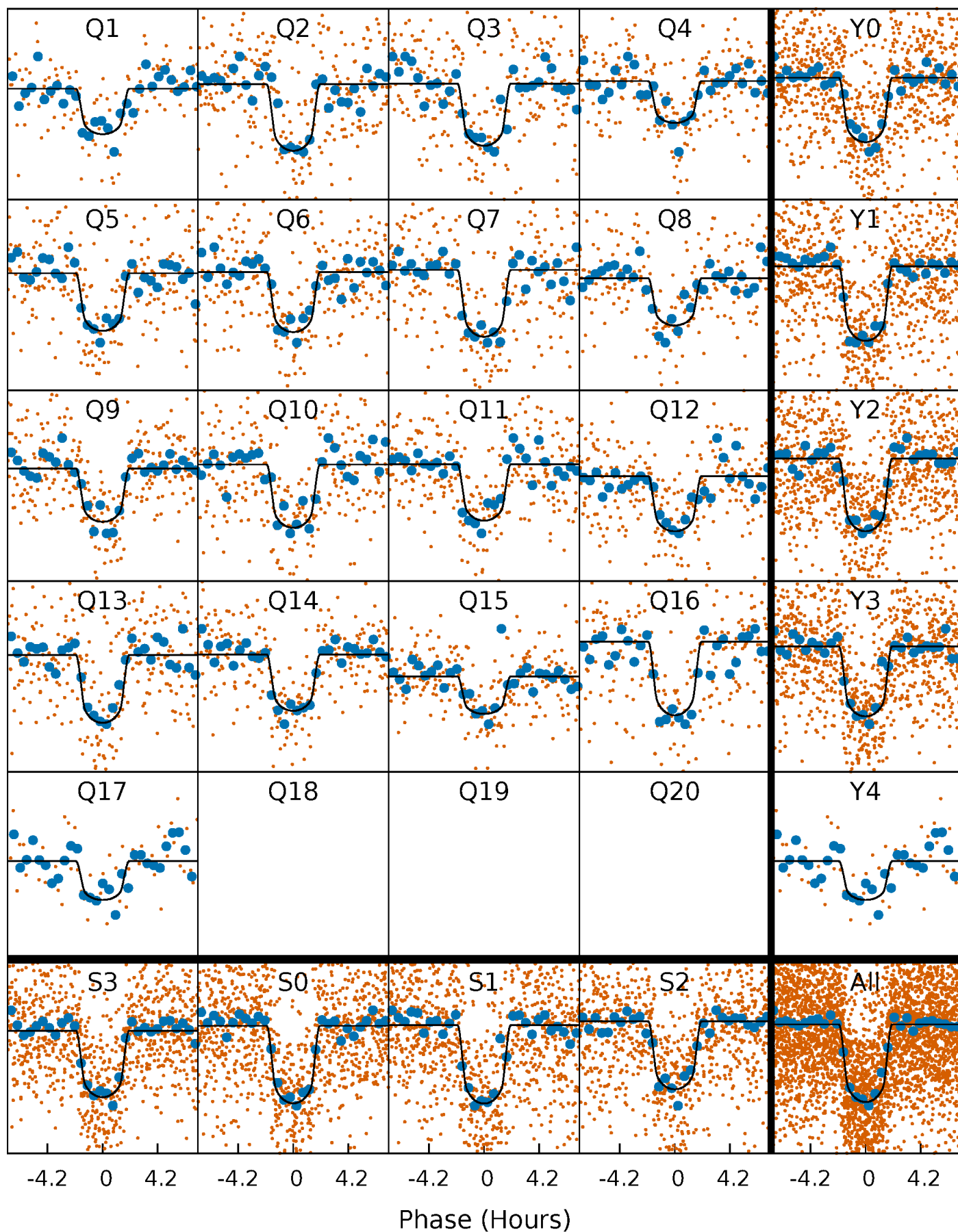
PDC Quarter-Phased Transit Curves

TCE 007033671-01 P= 9.489673 Days $T_0=133.966679$ (BKJD)



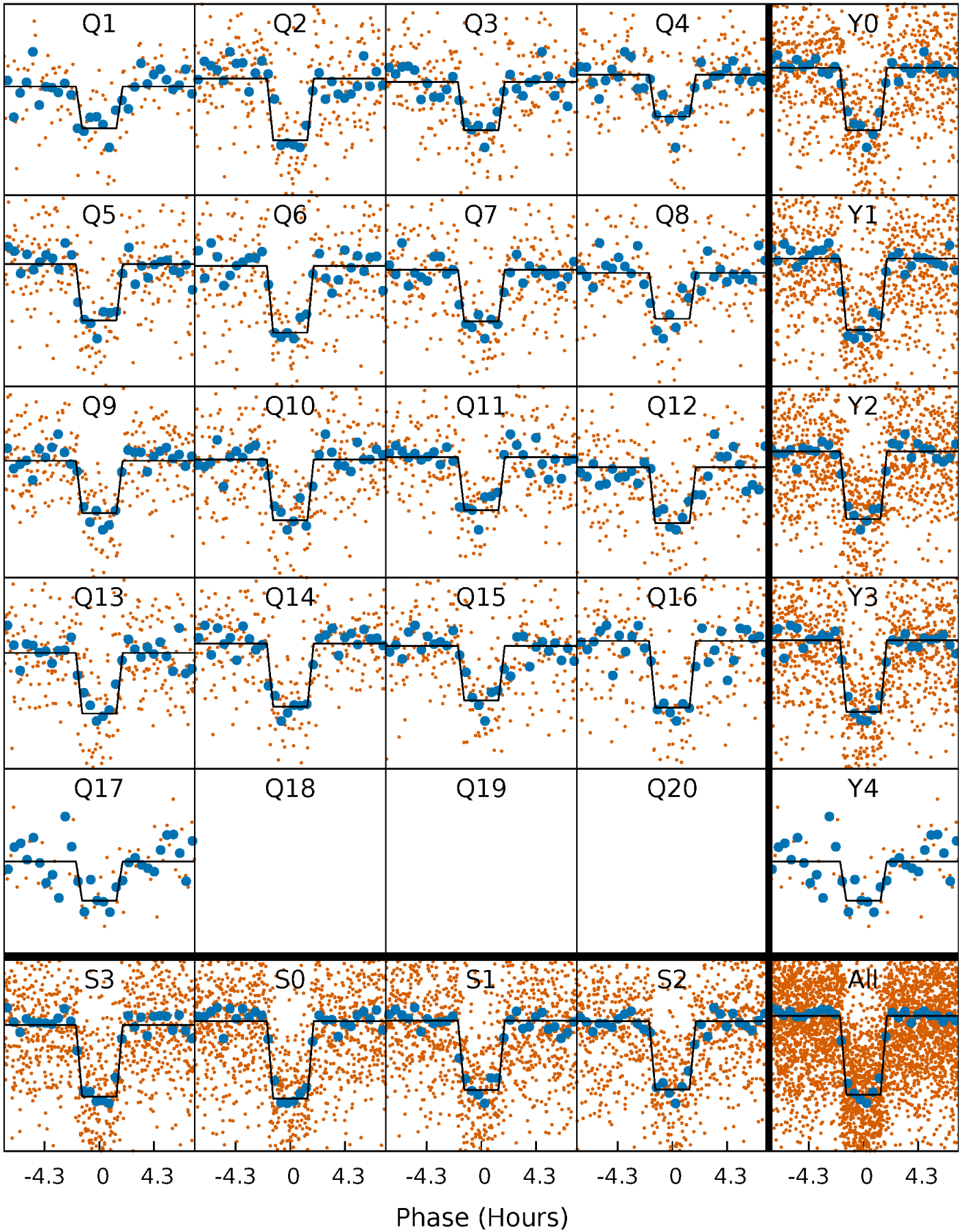
DV Quarter-Phased Transit Curves

TCE 007033671-01 P= 9.489673 Days $T_0=133.966679$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

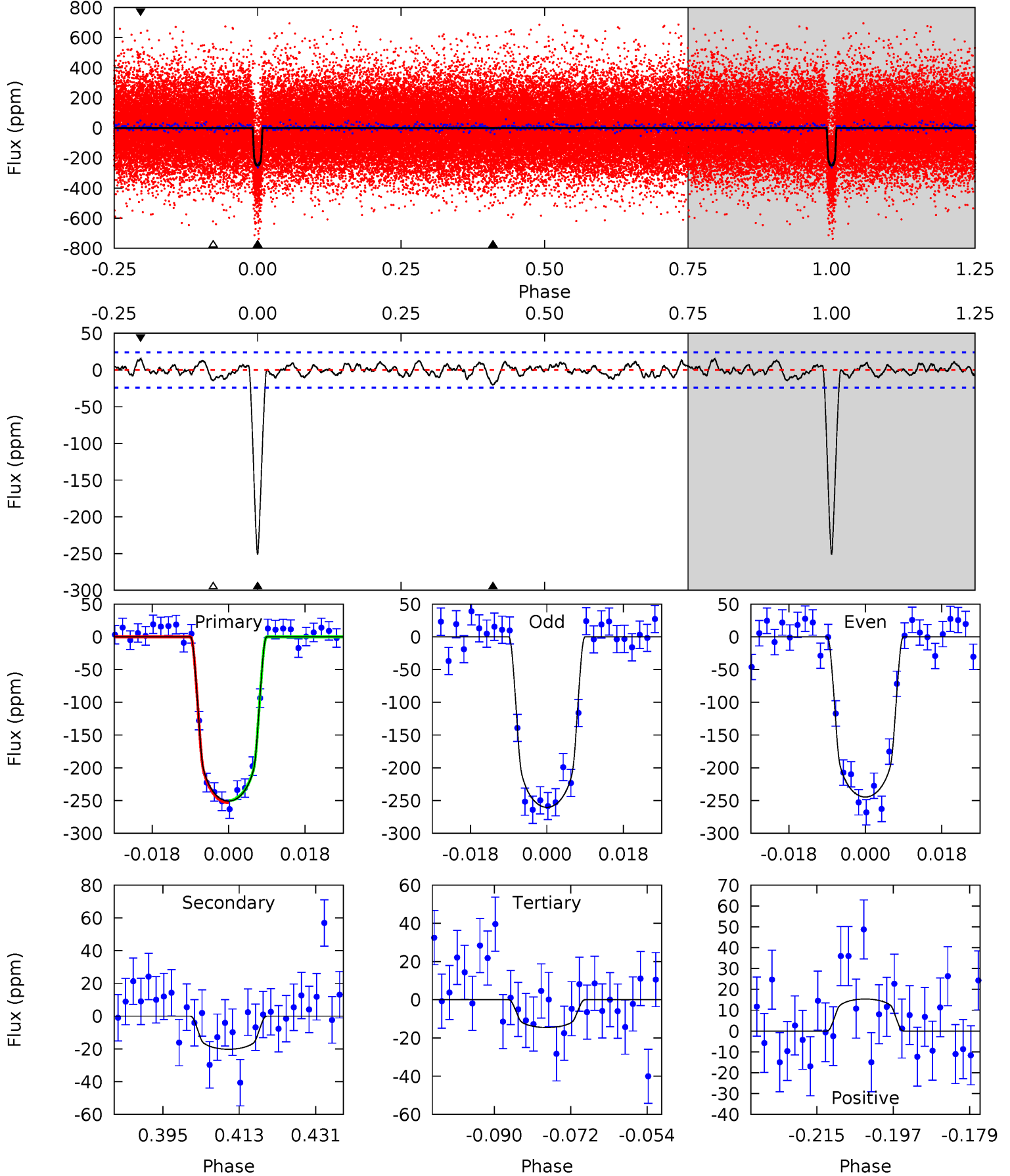
TCE 007033671-01 P= 9.489635 Days $T_0=133.969310$ (BKJD)



DV Model-Shift Uniqueness Test

007033671-01, P = 9.489673 Days, E = 124.477006 Days

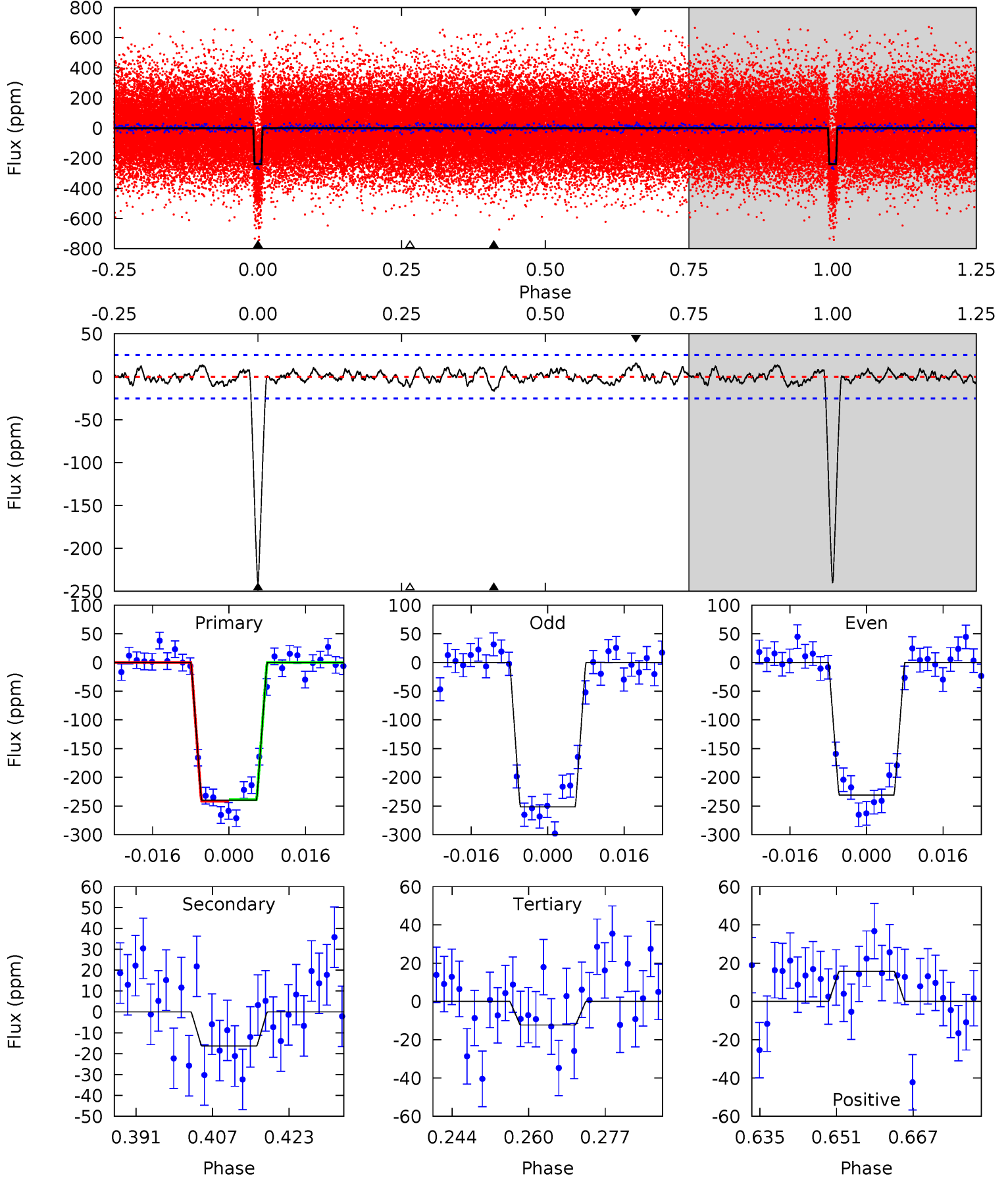
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.3	4.14	2.97	3.14	4.91	2.37	1.22	48.3	48.2	1.16	1.00	1.61	1.02	0.06	0.32



Alt Model-Shift Uniqueness Test

007033671-01, P = 9.489635 Days, E = 124.479675 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.9	3.20	2.41	3.09	4.93	2.40	1.09	44.5	43.8	0.79	0.10	2.01	0.99	0.06	0.23



Stellar Parameters For KIC 007033671

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5672^{+114}_{-114}	$4.279^{+0.156}_{-0.104}$	$0.200^{+0.150}_{-0.150}$	$1.204^{+0.193}_{-0.193}$	$1.005^{+0.075}_{-0.060}$	$0.811^{+0.572}_{-0.267}$
	+2%/-2%	+4%/-2%	+75%/-75%	+16%/-16%	+7%/-6%	+71%/-33%
Source	SPE12	SPE12	SPE12	DSEP		

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

Secondary Eclipse Parameters for KIC 007033671-01 / KOI 0670.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 5	$2.23^{+0.45}_{-0.41}$	1288^{+63}_{-65}	3392^{+268}_{-209}	17^{+11}_{-6}
Alt.	-16 ± 5	$2.00^{+0.41}_{-0.39}$	1288^{+61}_{-71}	3408^{+270}_{-263}	18^{+11}_{-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 $A_{obs} \gg 1.0$

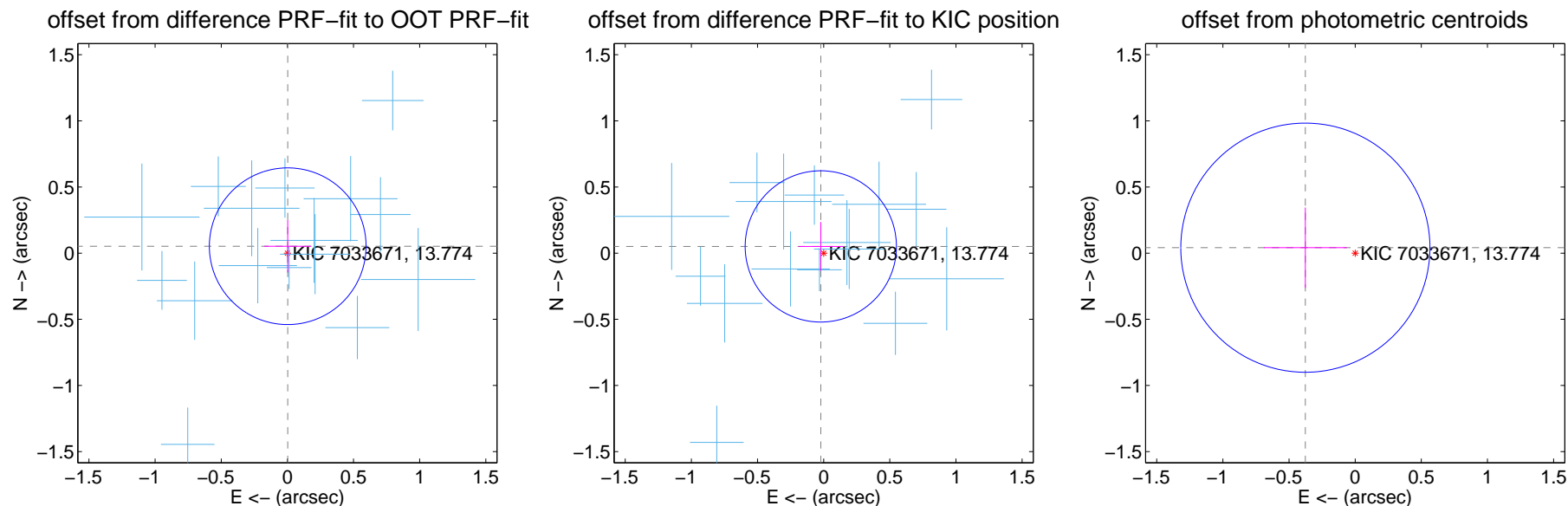
DV Centroid Data

Supplemental centroid analysis for 007033671-01. Kepler magnitude: 13.77. Transit SNR 39.09

There are 17 quarters with good PRF difference image offsets

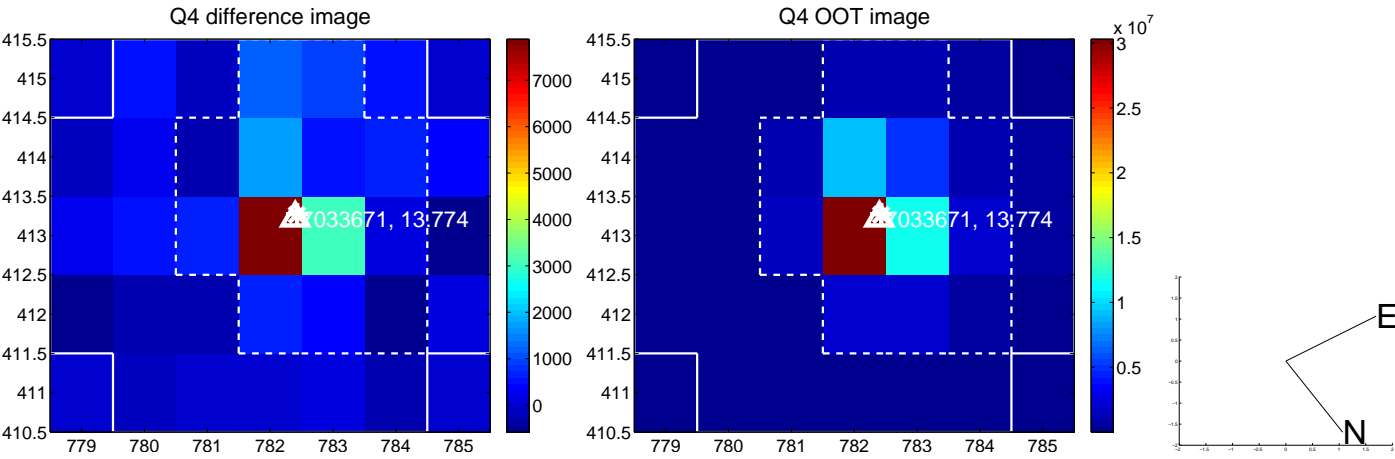
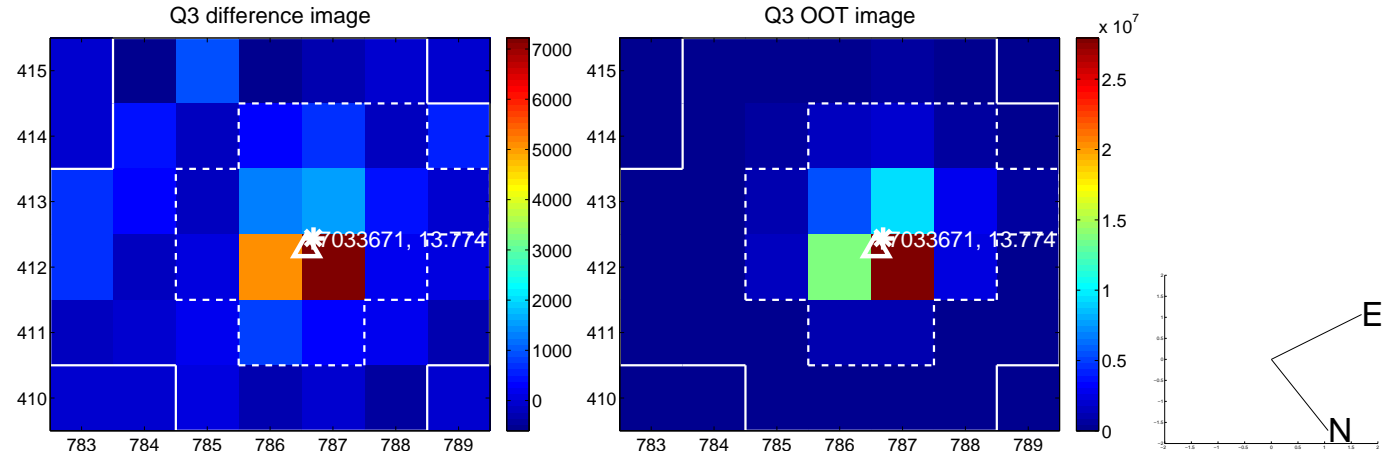
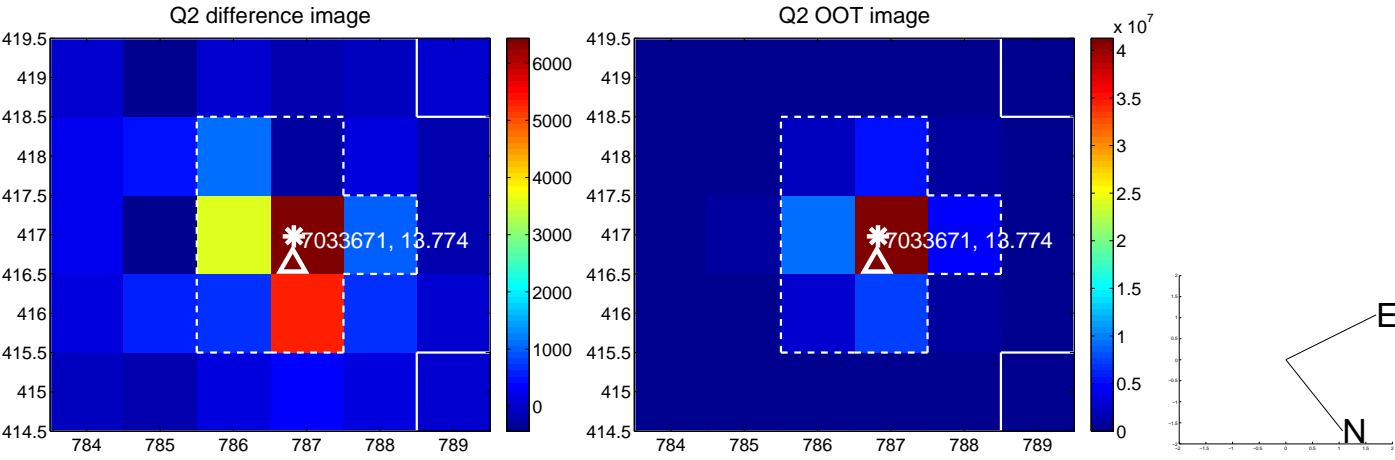
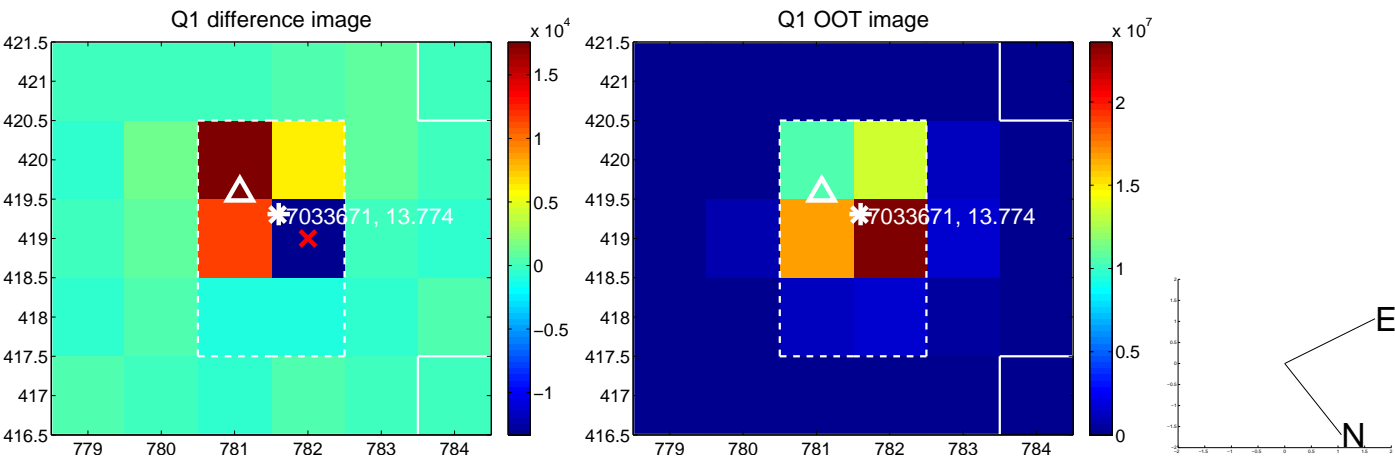
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.052 ± 0.197	0.27	-0.002 ± 0.177	0.052 ± 0.198
PRF-fit source offset from KIC position	0.055 ± 0.191	0.29	0.022 ± 0.168	0.051 ± 0.184
photometric centroid source offset	0.38 ± 0.31	1.21	0.38 ± 0.31	0.04 ± 0.30

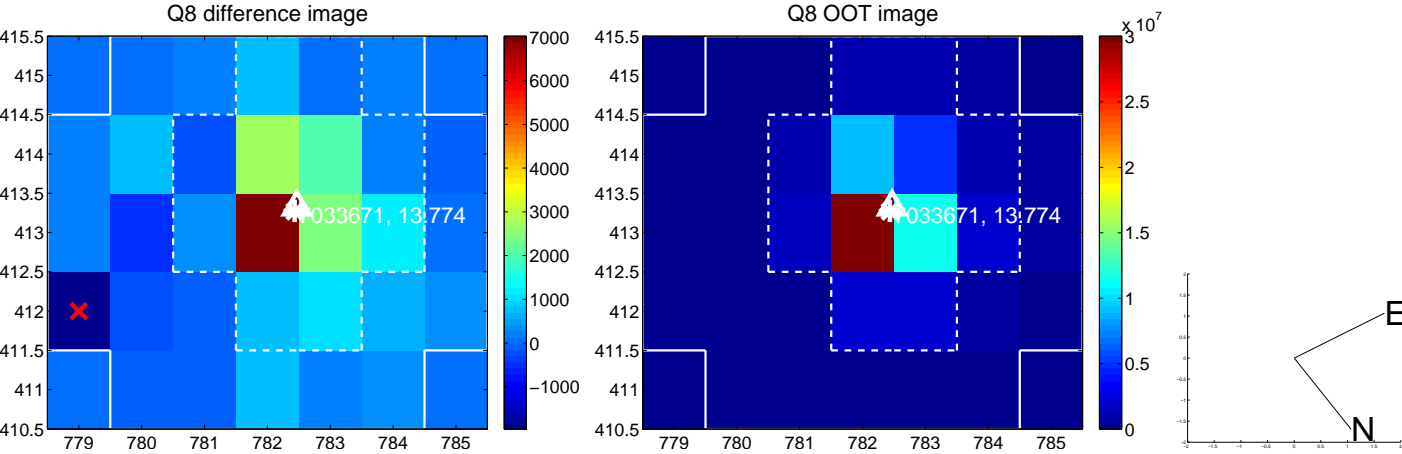
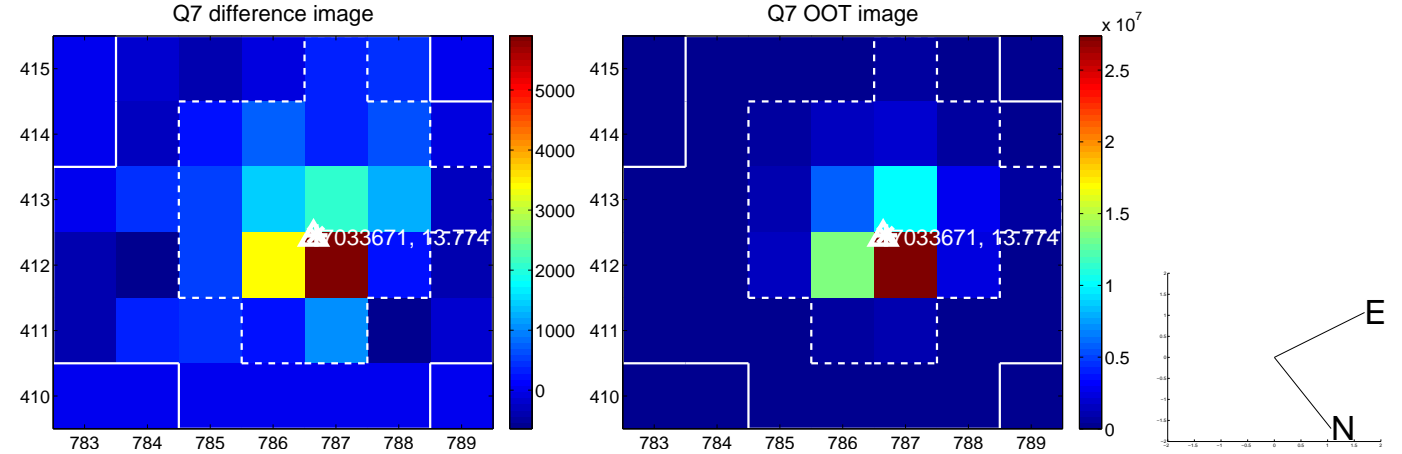
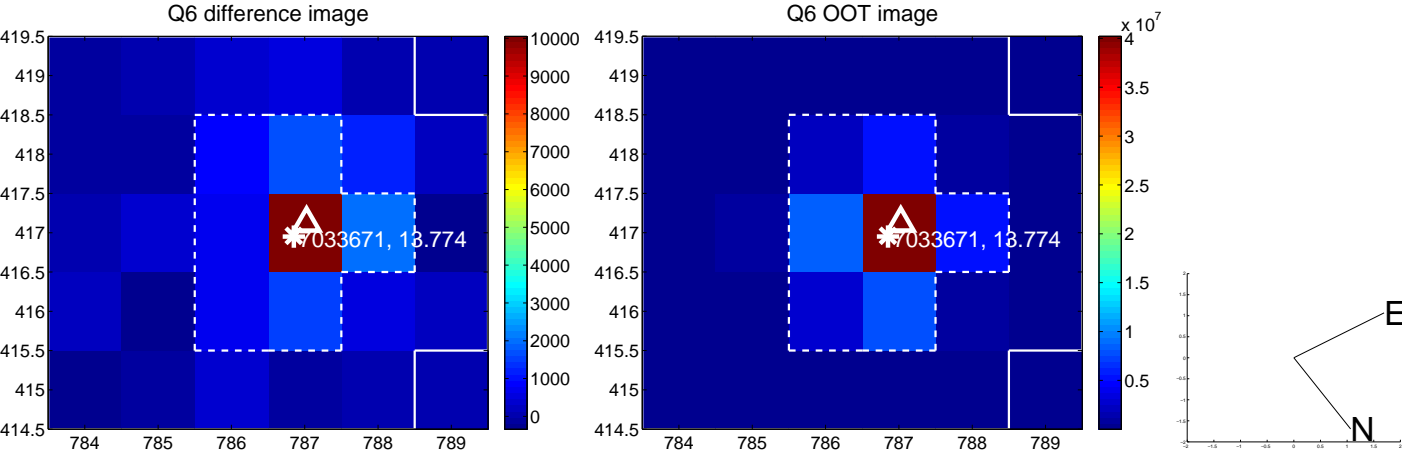
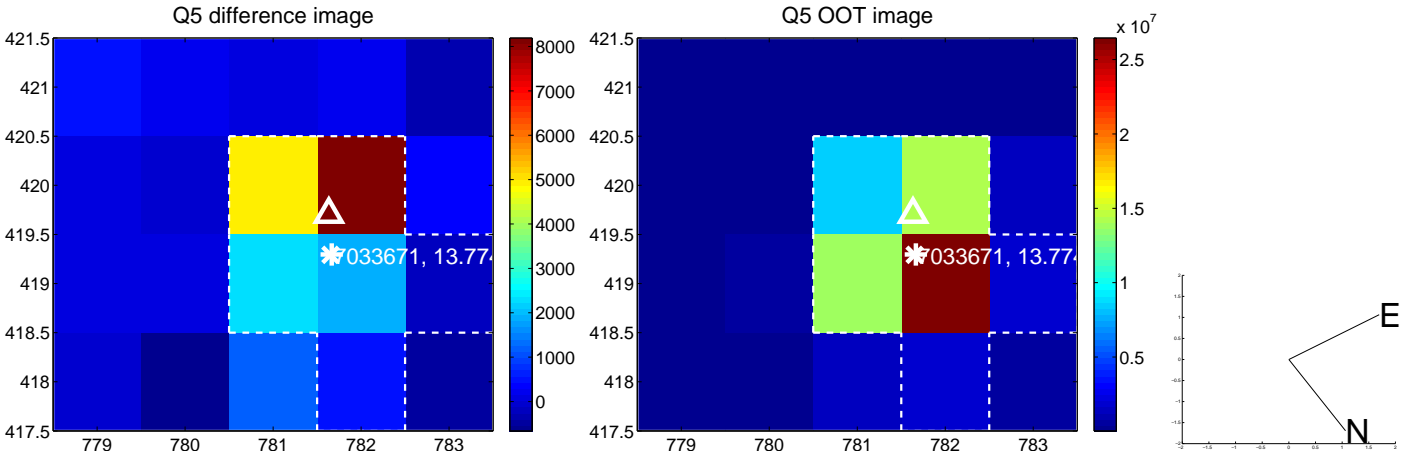


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

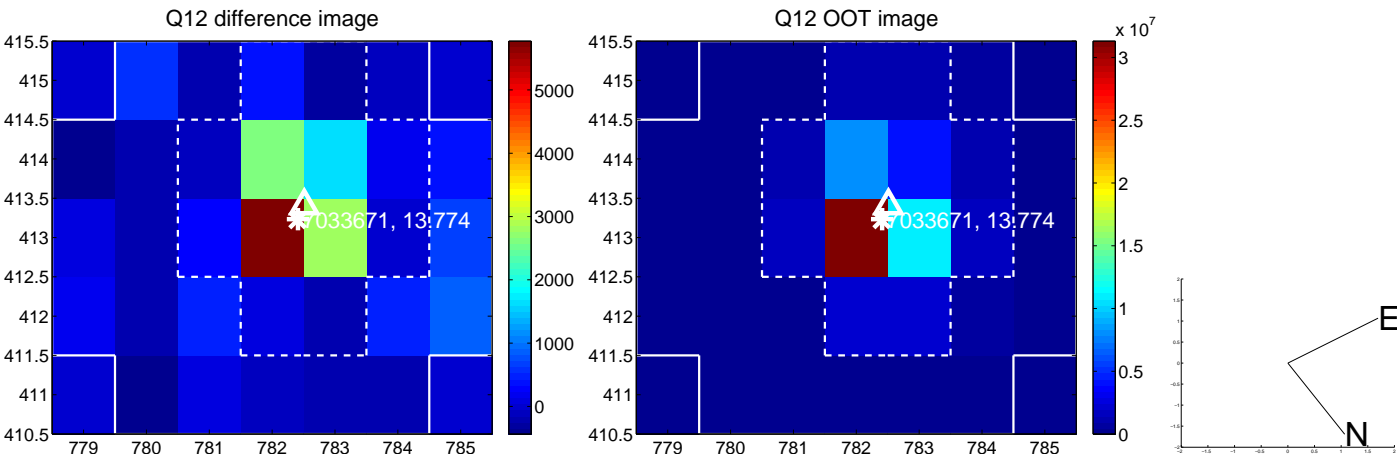
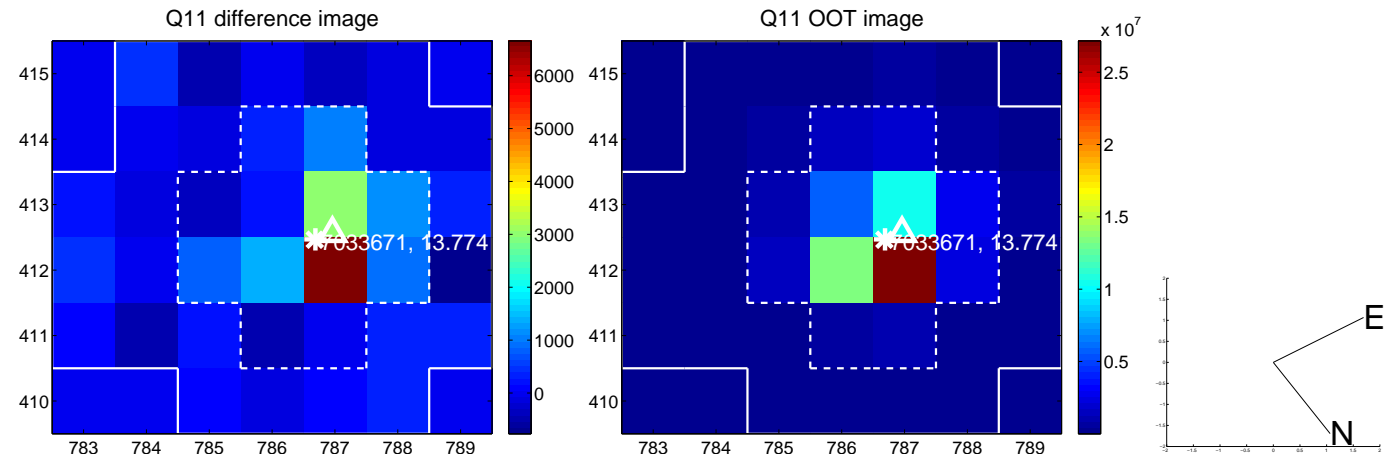
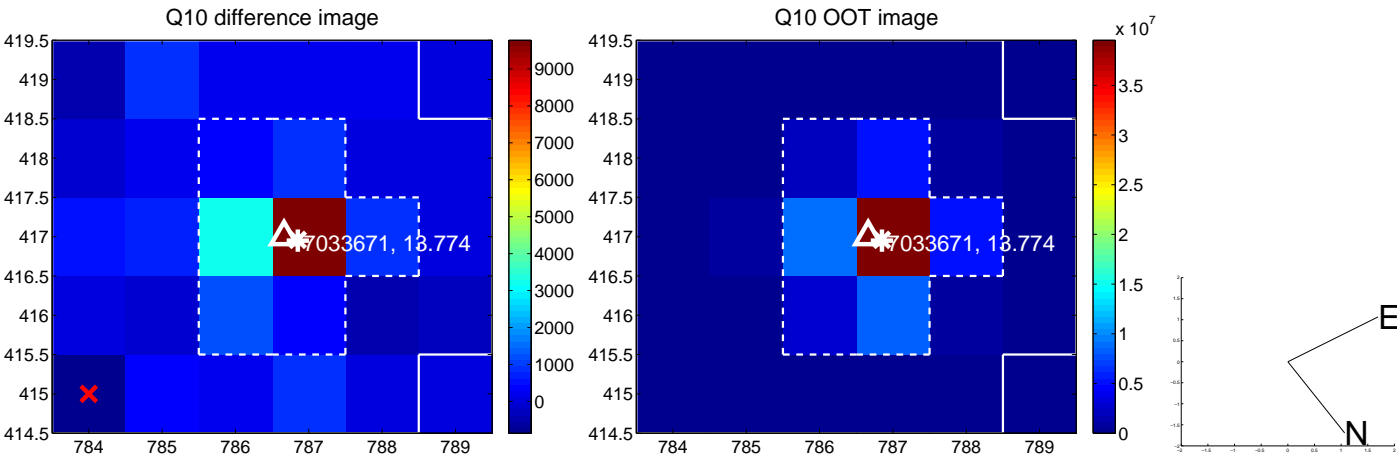
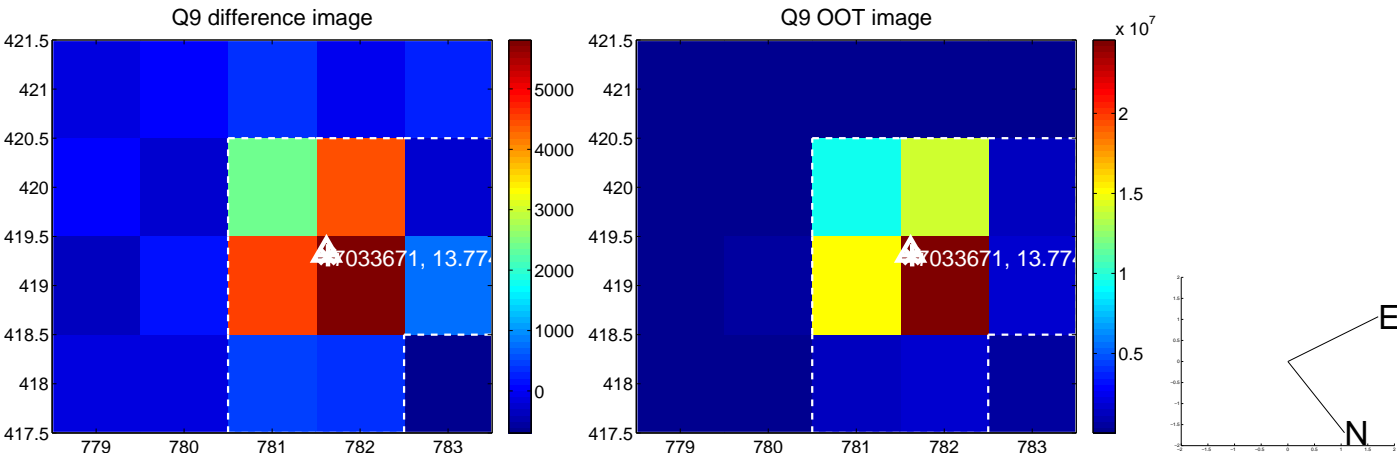
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



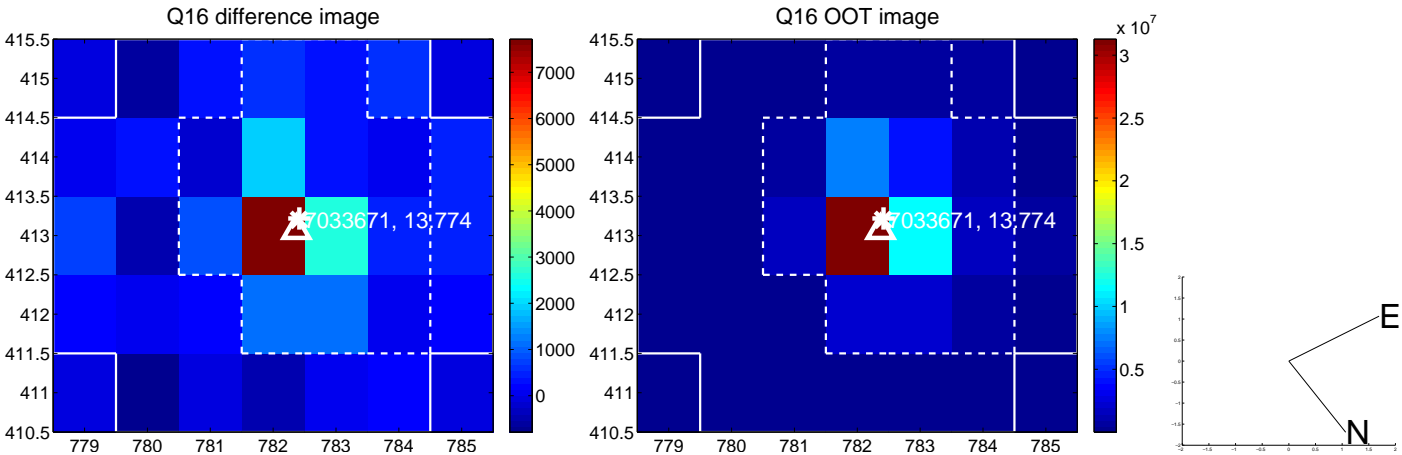
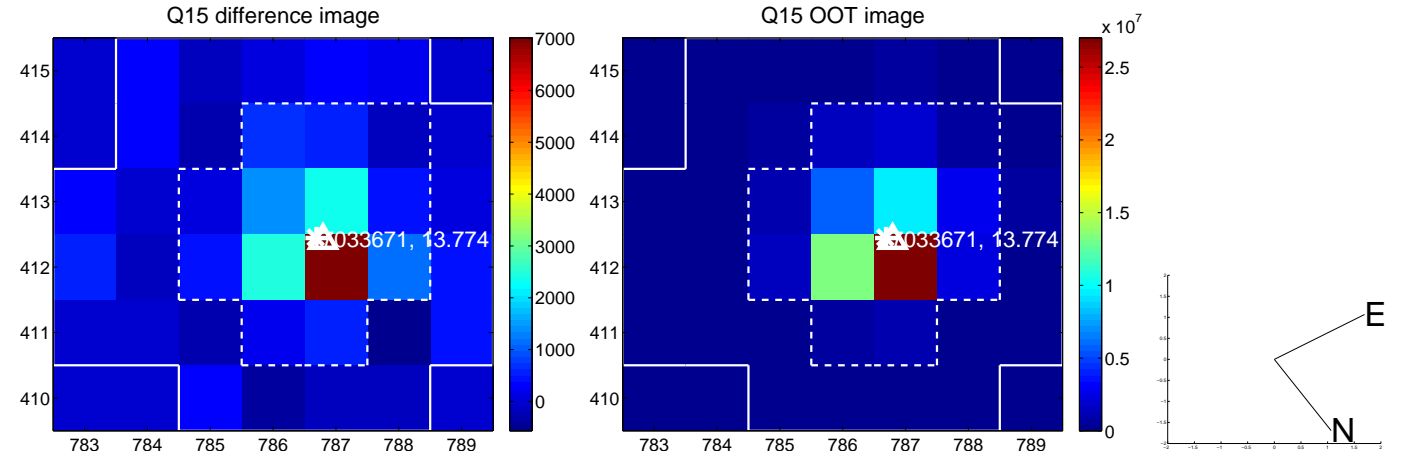
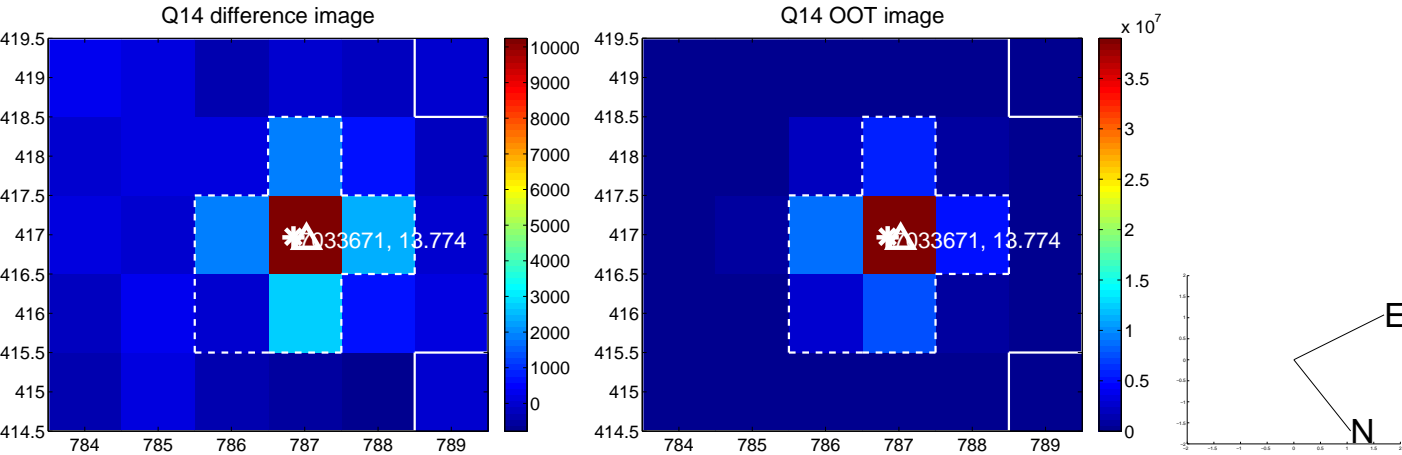
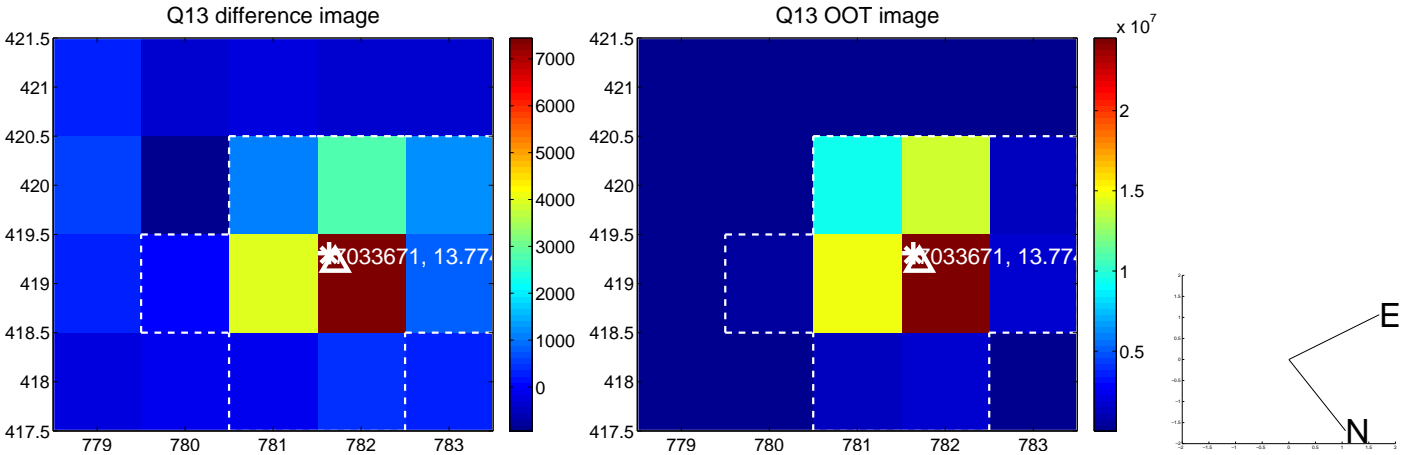
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



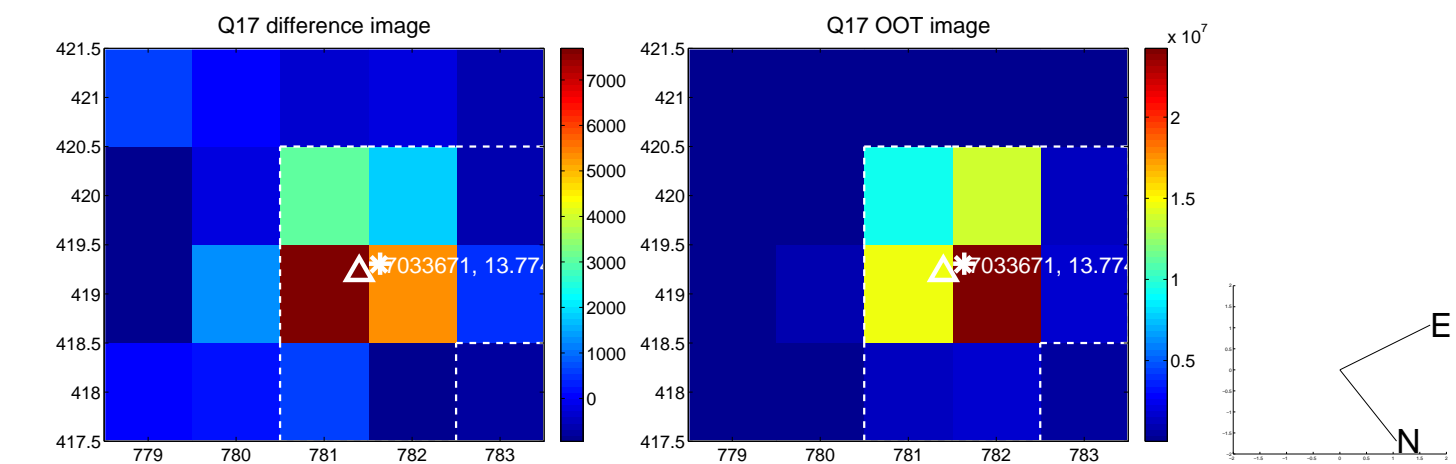
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



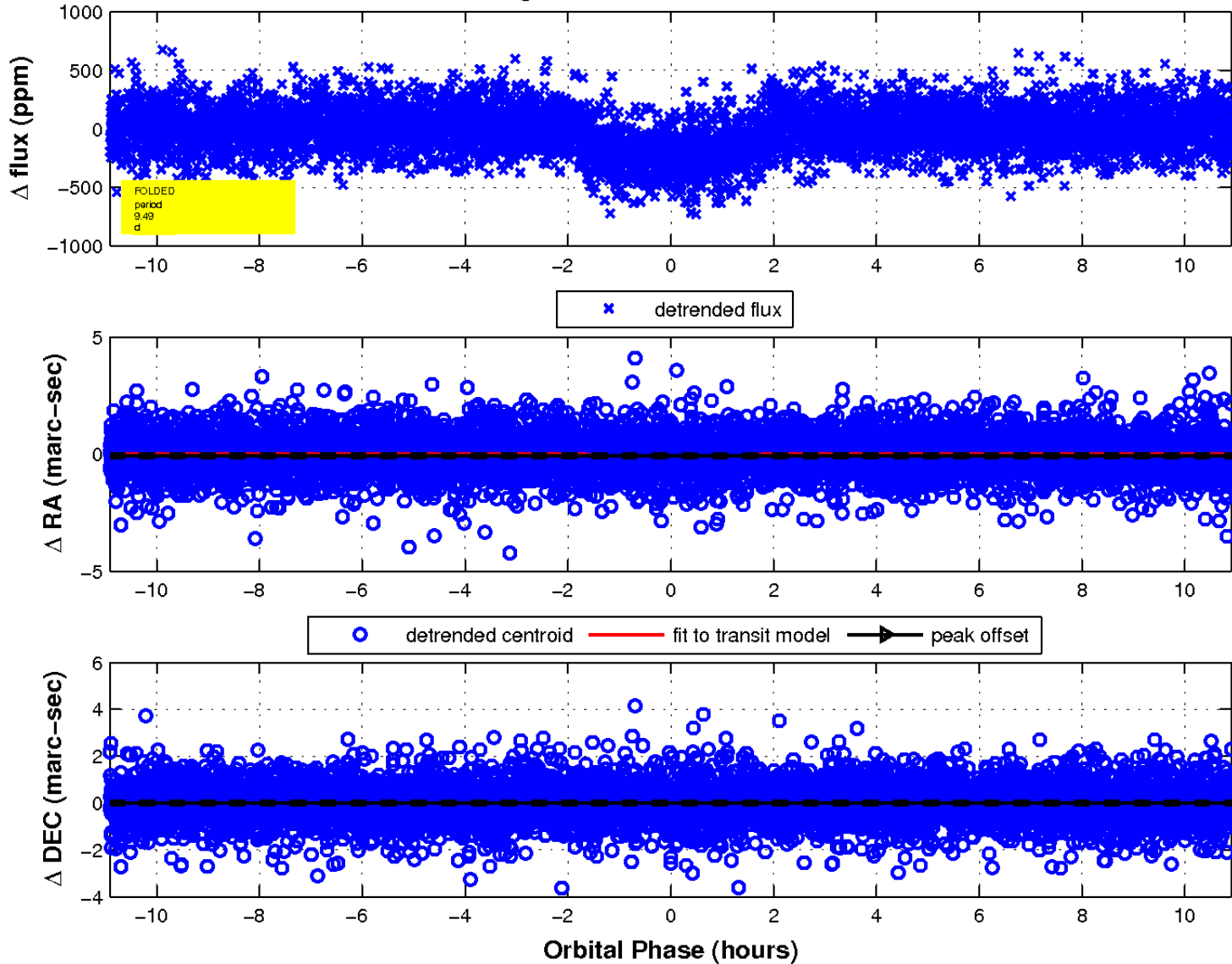
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

