

KIC 006200235

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})
006200235-01	OBS	2350.01	1.078381	132.176206	279.0	1.438	30.4	33.0	0.98	5325	2.00	1828.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006200235-01	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.

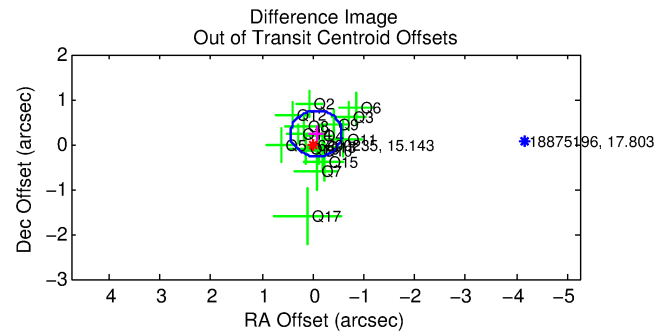
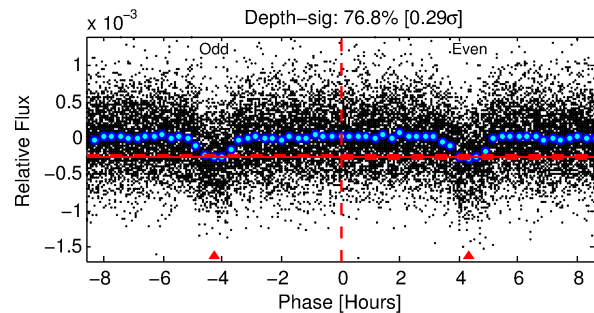
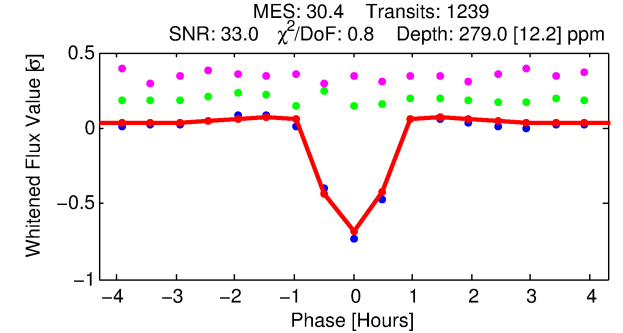
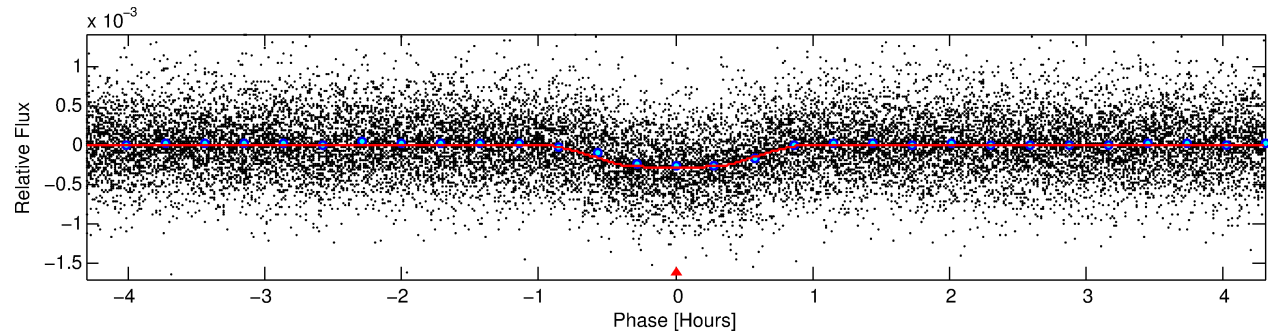
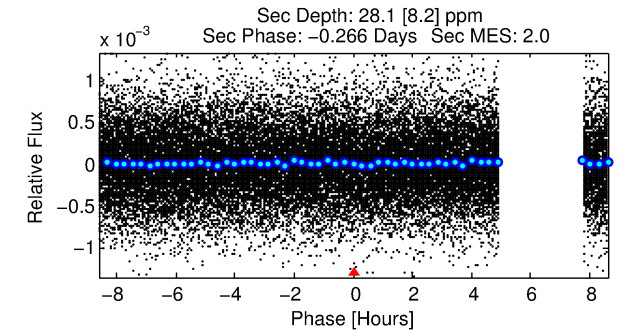
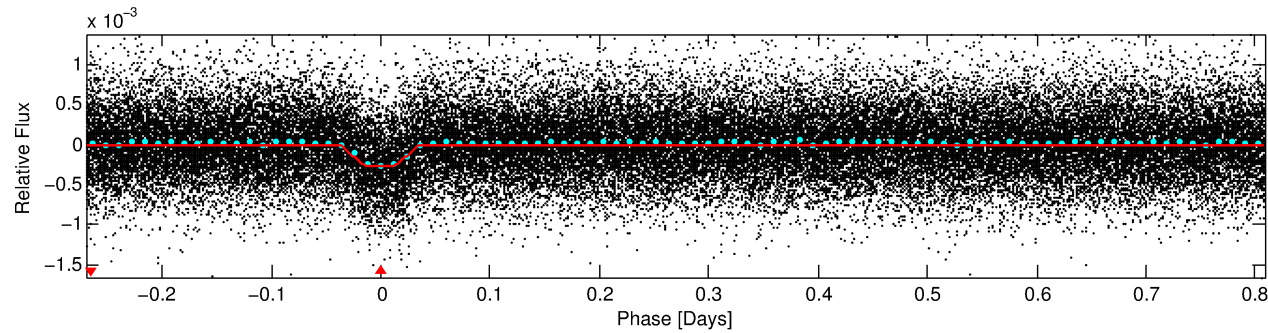
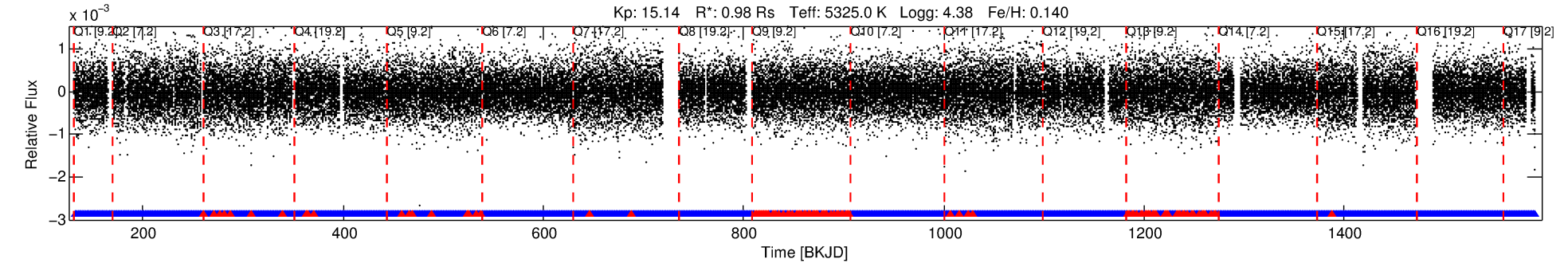
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006200235-01

No Significant Match Found

DV One-Page Summary

KIC: 6200235 Candidate: 1 of 1 Period: 1.078 d
KOI: K02350.01 Corr: 0.918



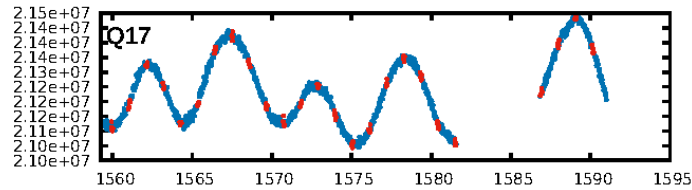
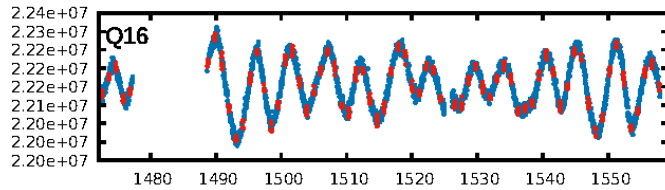
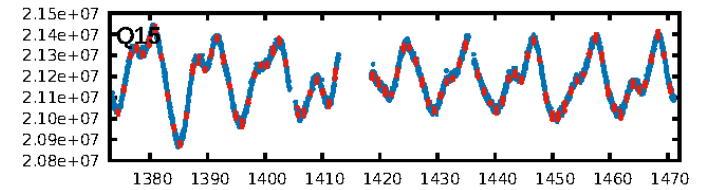
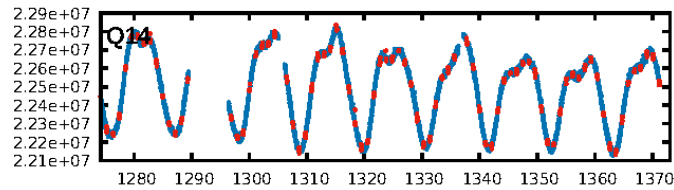
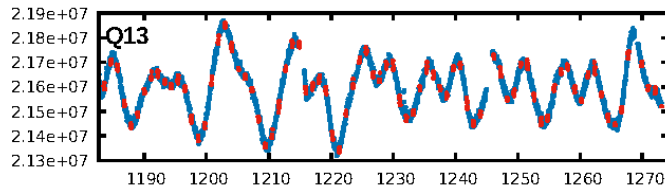
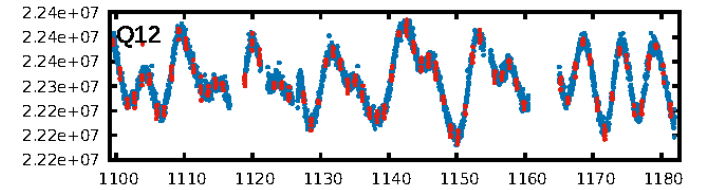
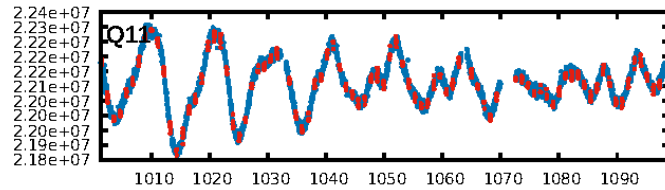
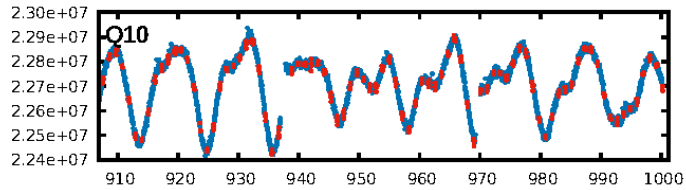
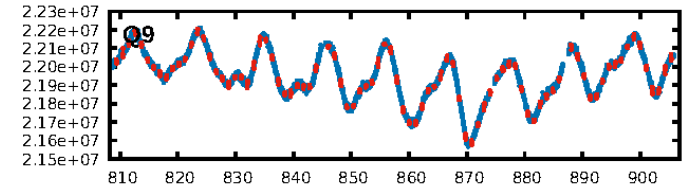
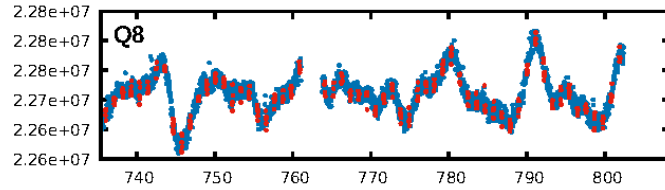
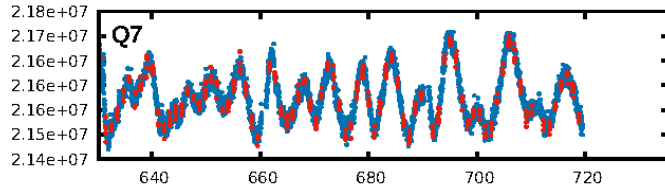
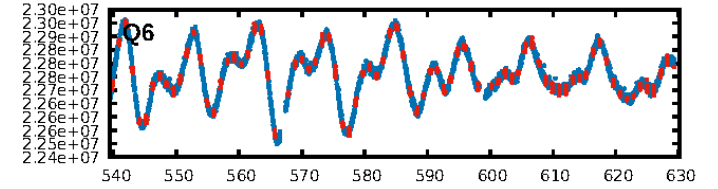
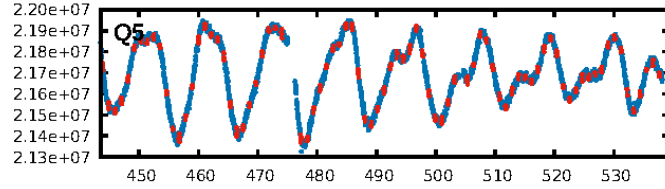
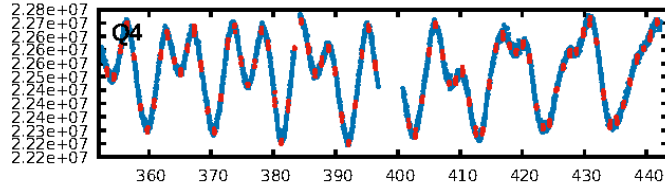
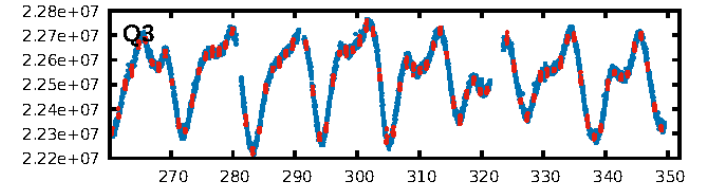
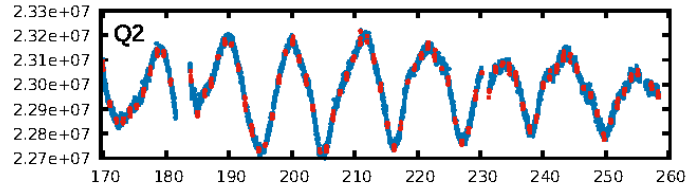
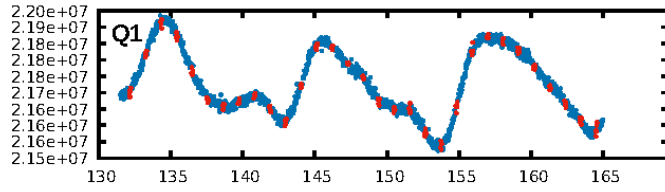
DV Fit Results:

Period = 1.07838 [0.00000] d
Epoch = 132.1762 [0.0006] BKJD
Rp/R* = 0.0187 [0.0044]
a/R* = 2.85 [2.46]
b = 0.90 [0.21]
Seff = 1828.52 [736.23]
Teff = 1667 [168] K
Rp = 2.01 [0.73] Re
a = 0.0196 [0.0049] AU
Ag = 1.47 [0.99] [0.48σ]
Teffp = 2839 [404] K [2.68σ]

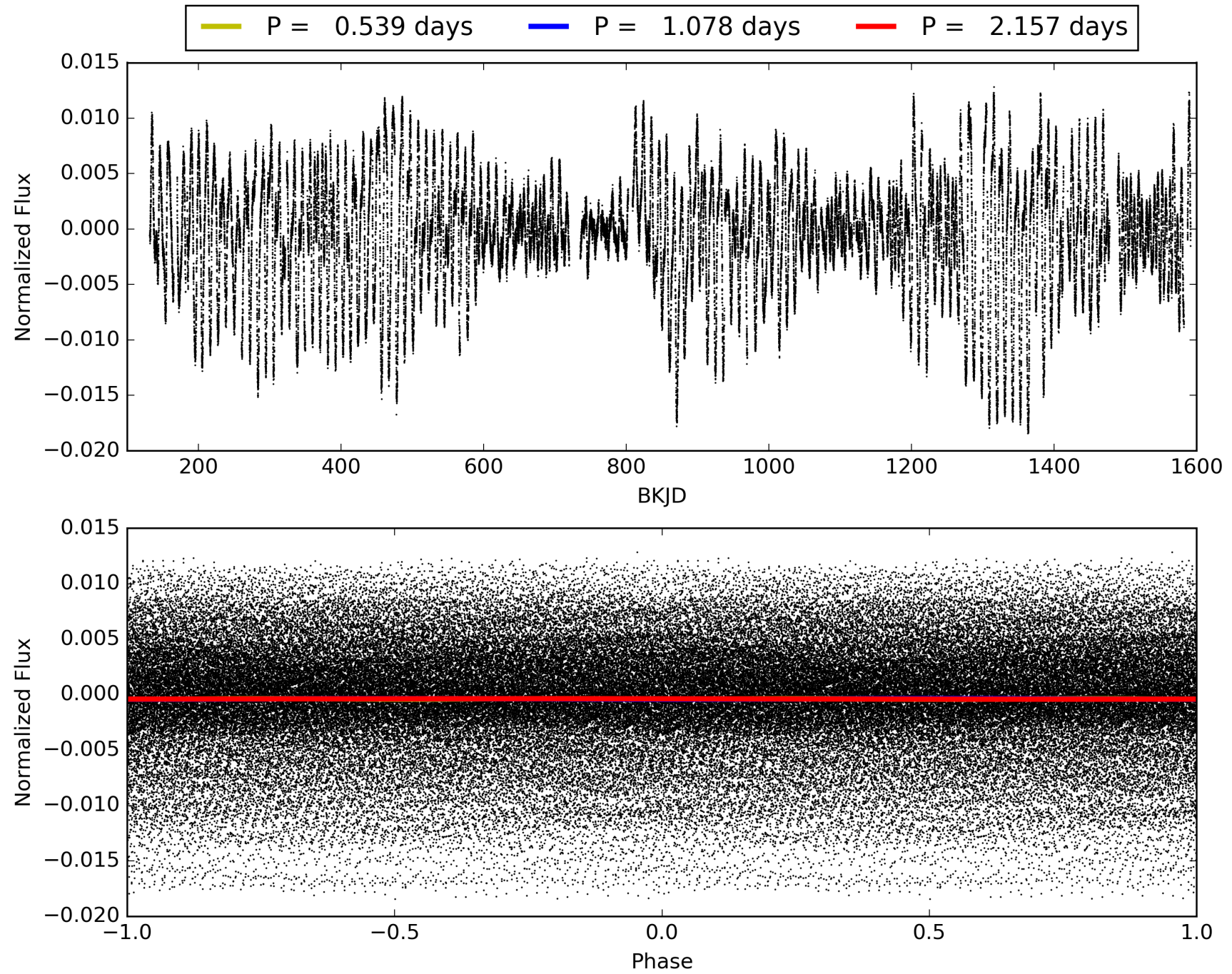
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.92e-189
RollingBand-fgt: 0.90 [1070/1183]
GhostDiagnostic-chr: 3.709
Centroid-sig: 0.2%
Centroid-so: 0.731 arcsec [1.82σ]
OotOffset-rm: 0.247 arcsec [1.45σ]
KicOffset-rm: 0.334 arcsec [2.25σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006200235-01, PDC Light Curves

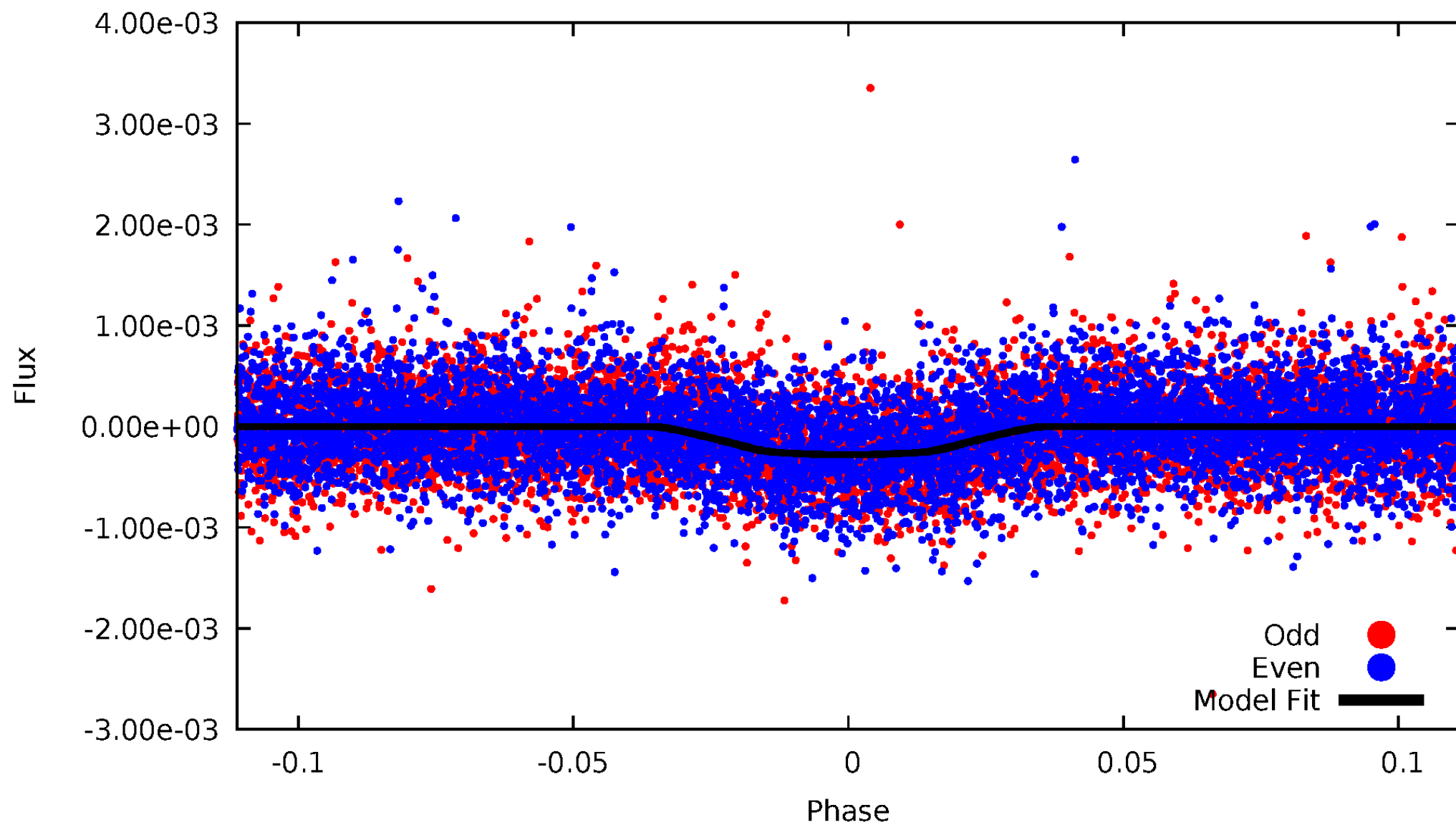


TCE 006200235-01



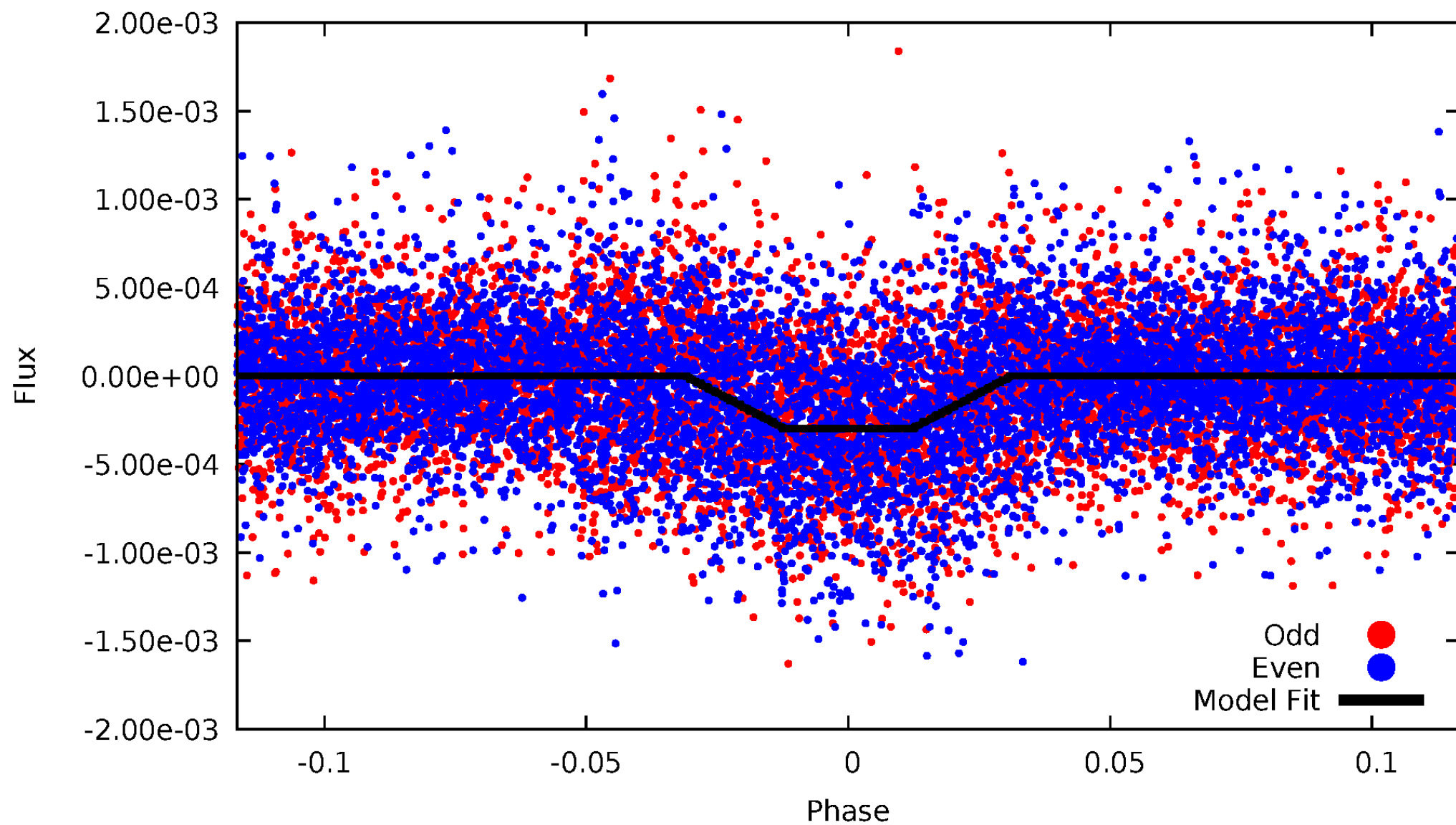
DV Odd/Even

TCE 006200235-01



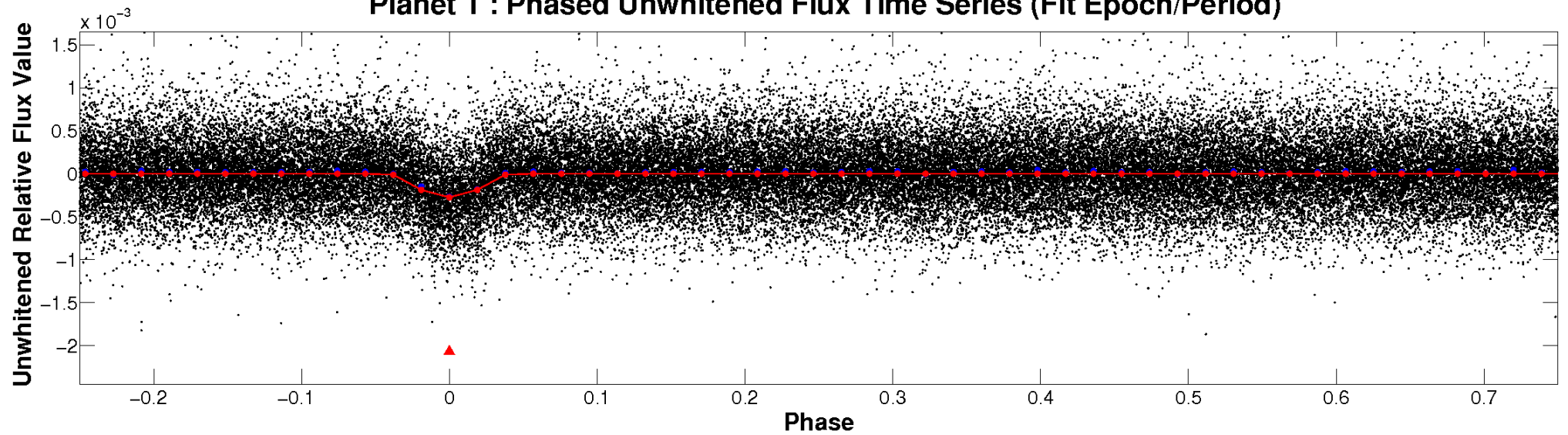
ALT Odd/Even

TCE 006200235-01

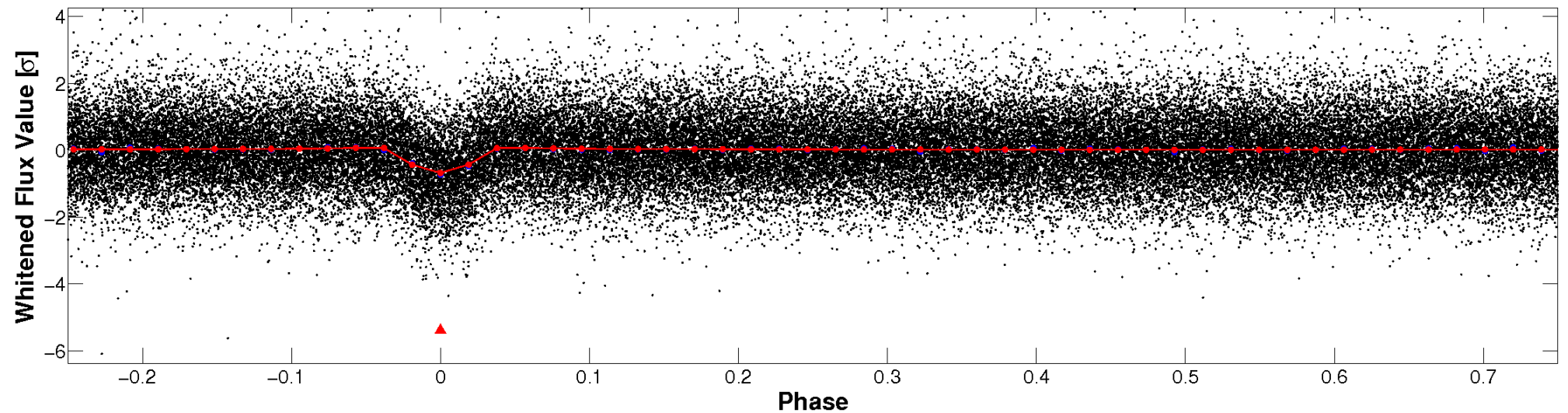


Non-Whitened Vs. Whitened Light Curve

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

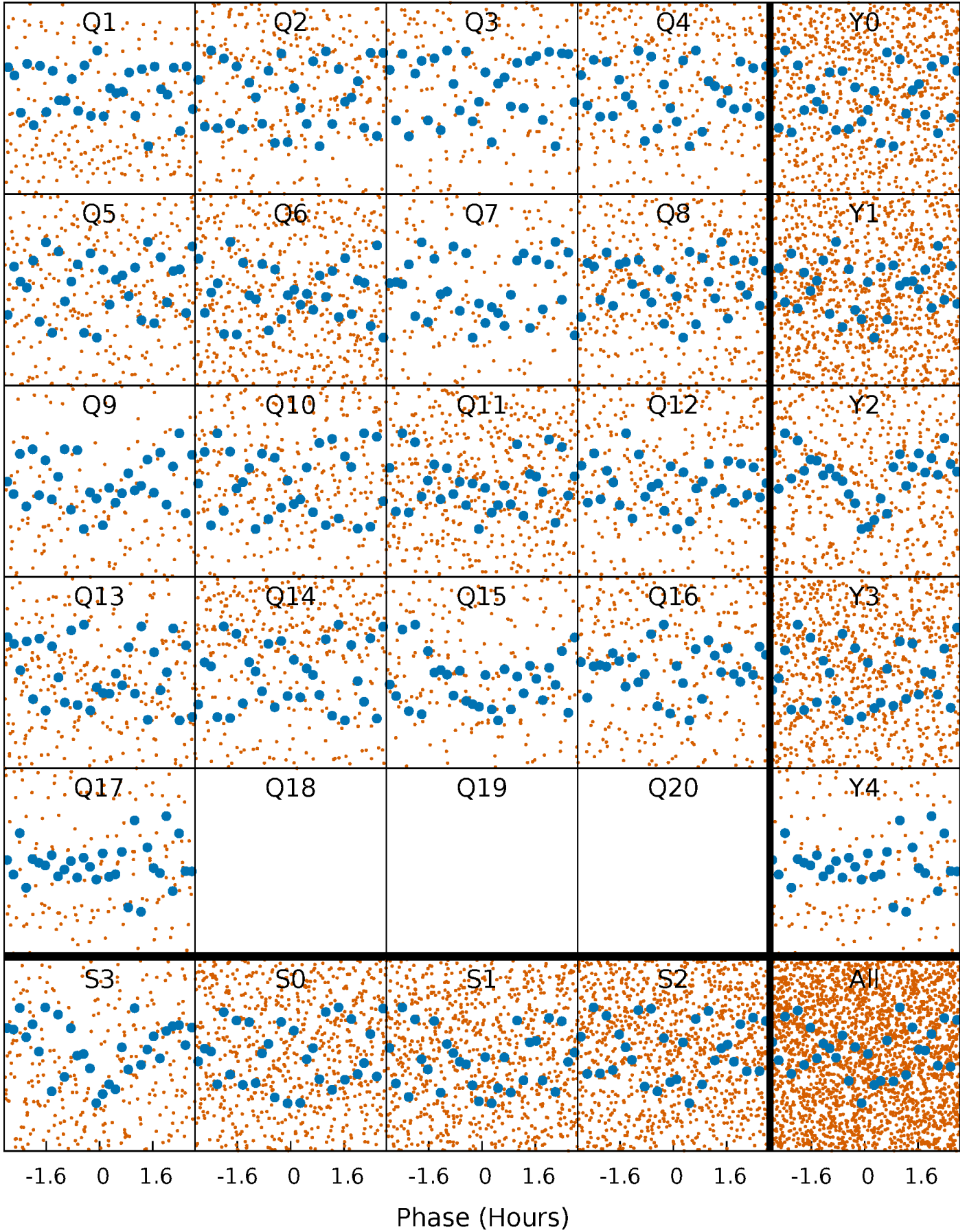


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



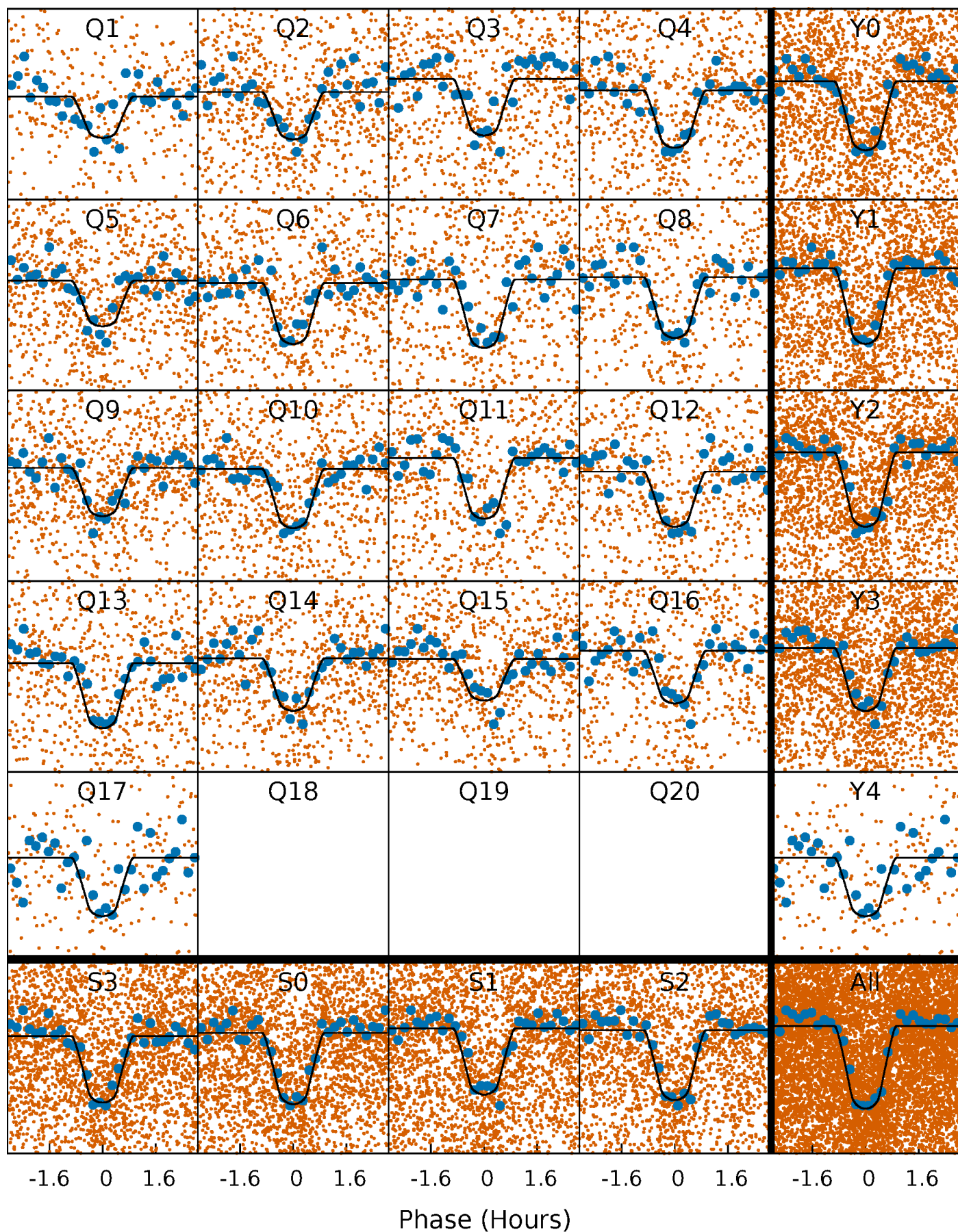
PDC Quarter-Phased Transit Curves

TCE 006200235-01 P= 1.078381 Days $T_0=132.176206$ (BKJD)



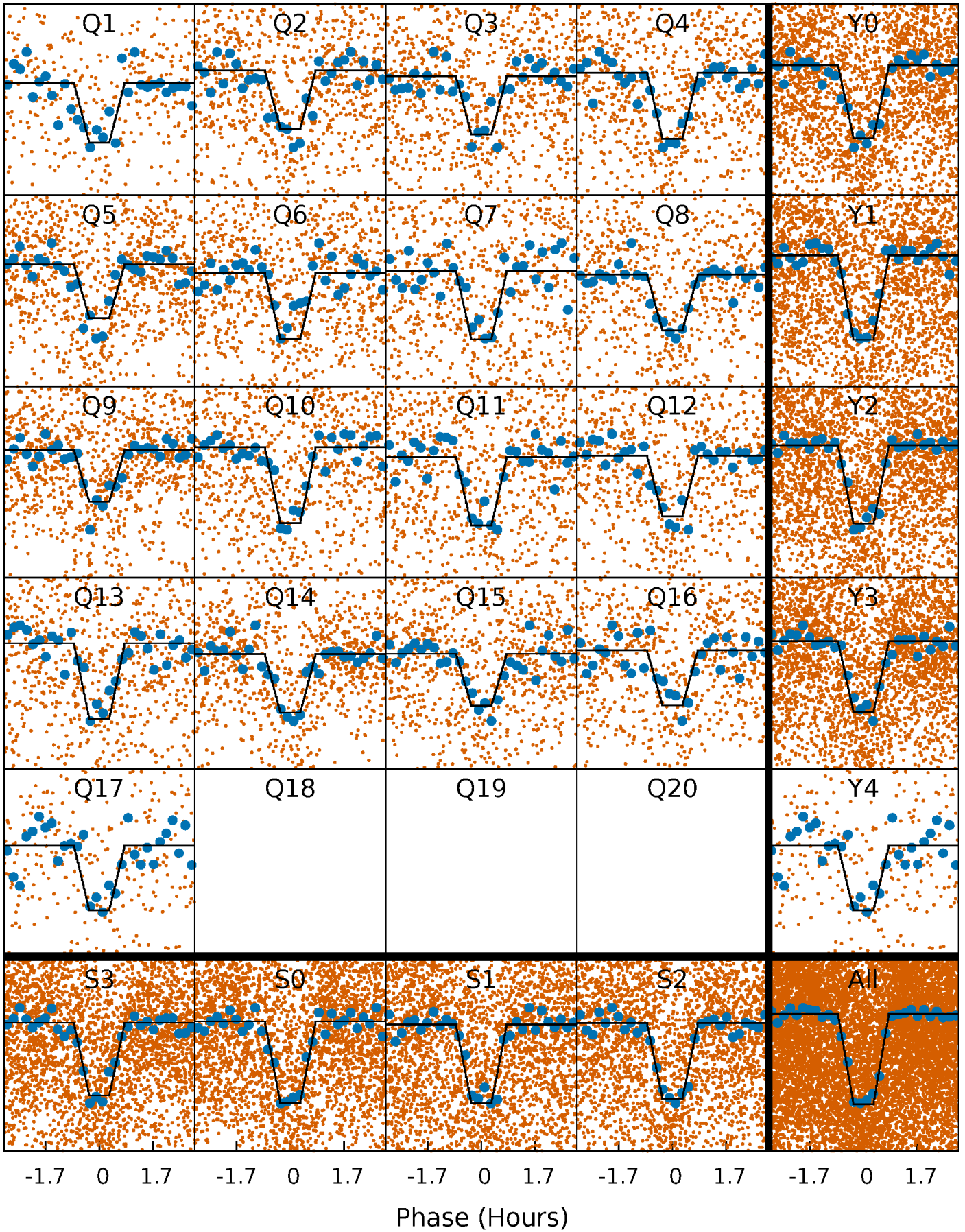
DV Quarter-Phased Transit Curves

TCE 006200235-01 P= 1.078381 Days $T_0=132.176206$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

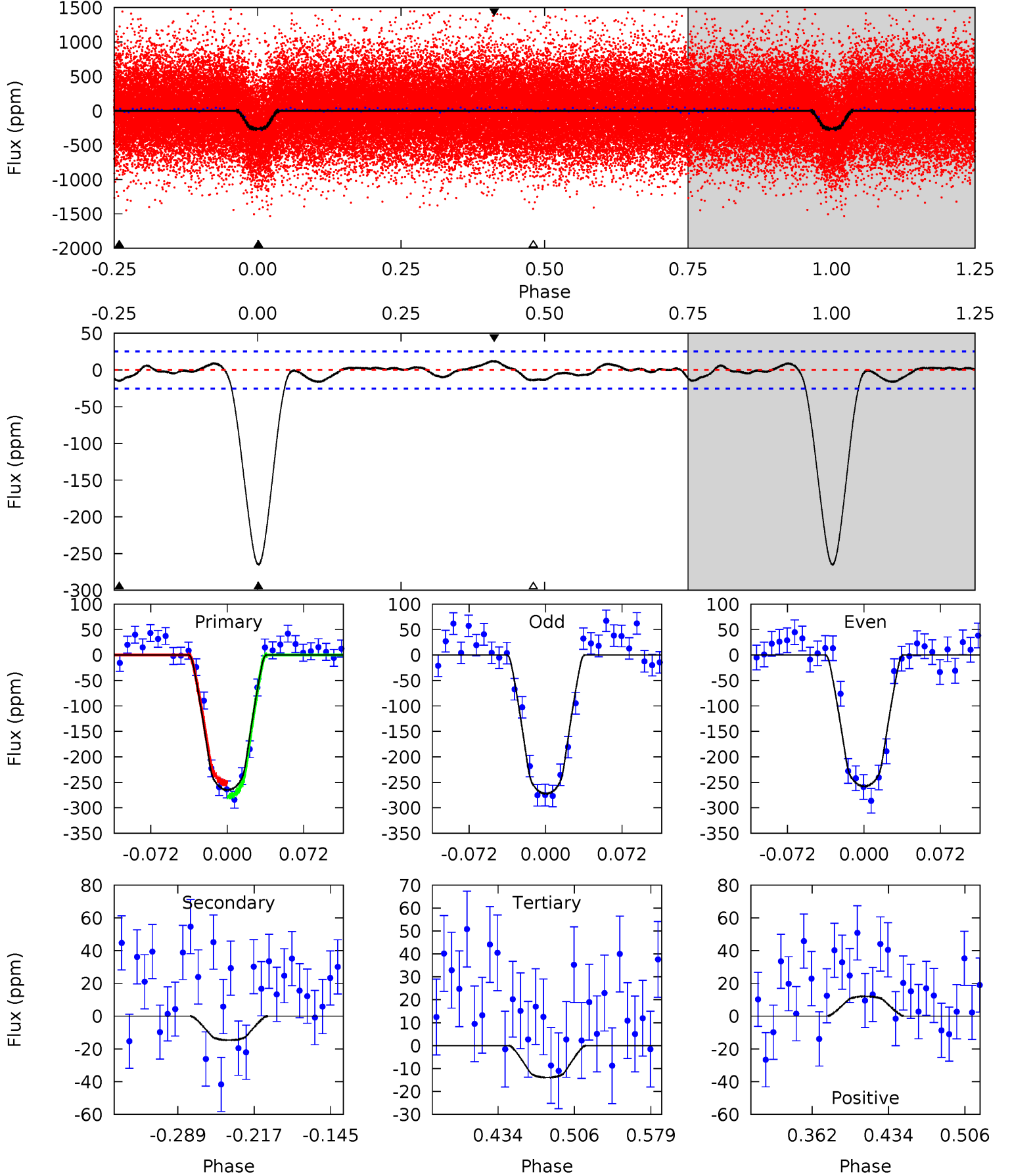
TCE 006200235-01 P= 1.078384 Days $T_0=132.175506$ (BKJD)



DV Model-Shift Uniqueness Test

006200235-01, P = 1.078381 Days, E = 131.097825 Days

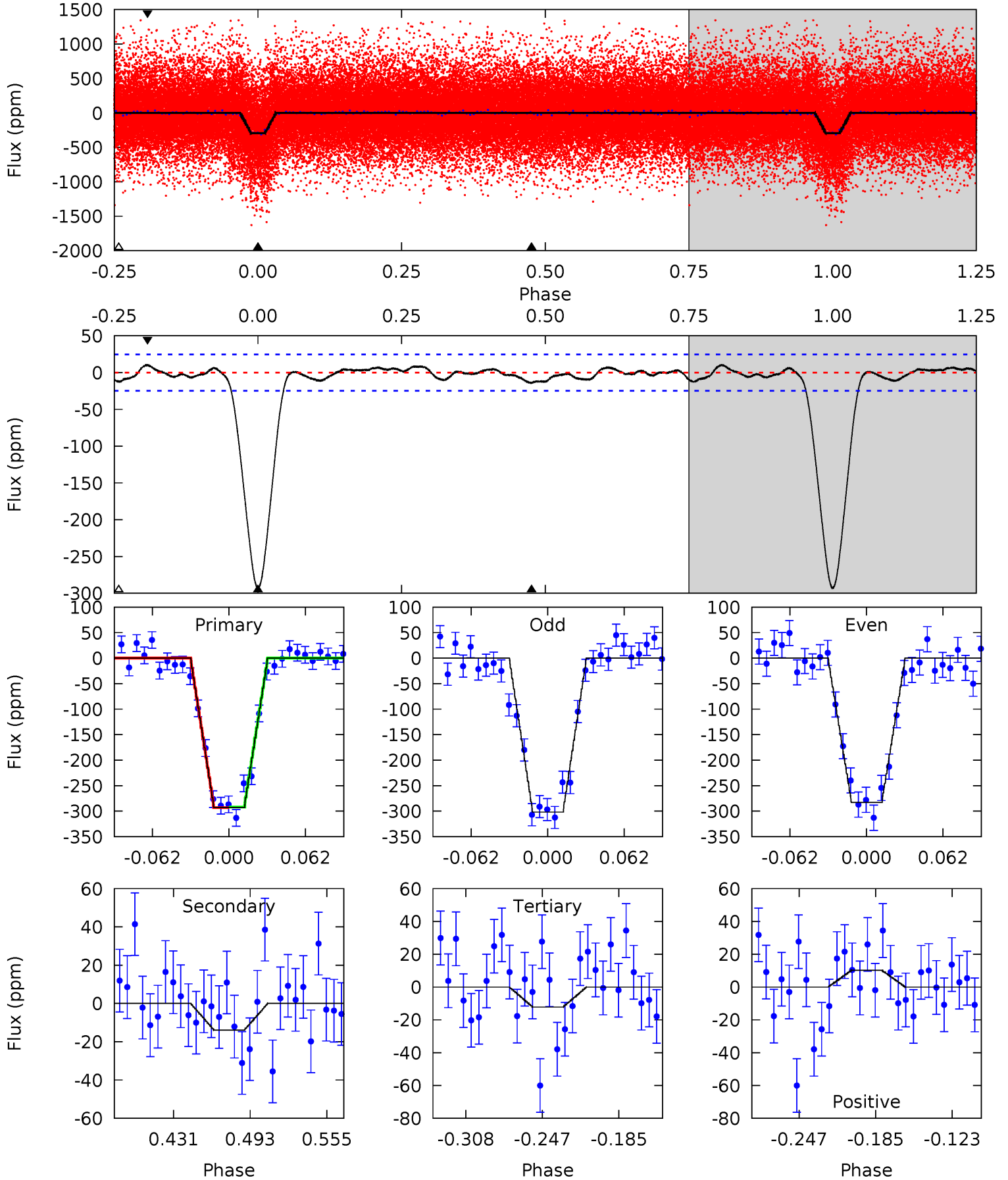
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.5	2.69	2.56	2.21	4.63	1.80	1.14	46.0	46.3	0.13	0.48	1.34	1.00	0.04	2.39



Alt Model-Shift Uniqueness Test

006200235-01, P = 1.078384 Days, E = 131.097122 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
55.3	2.63	2.31	1.93	4.67	1.87	0.99	53.0	53.3	0.32	0.70	1.77	1.01	0.03	0.08



Stellar Parameters For KIC 006200235

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5325^{+175}_{-143}	$4.384^{+0.162}_{-0.216}$	$0.140^{+0.250}_{-0.250}$	$0.985^{+0.276}_{-0.161}$	$0.857^{+0.094}_{-0.063}$	$1.263^{+0.822}_{-0.632}$
	+3%/-3%	+4%/-5%	+179%/-179%	+28%/-16%	+11%/-7%	+65%/-50%
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 006200235-01 / KOI 2350.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-15 ± 5	$2.03^{+0.60}_{-0.56}$	2352^{+185}_{-153}	2820^{+412}_{-551}	$0.730^{+0.754}_{-0.366}$
Alt.	-14 ± 5	$1.88^{+0.56}_{-0.49}$	2329^{+193}_{-137}	2896^{+403}_{-506}	$0.825^{+0.831}_{-0.418}$

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 $A_{obs} \gg 1.0$

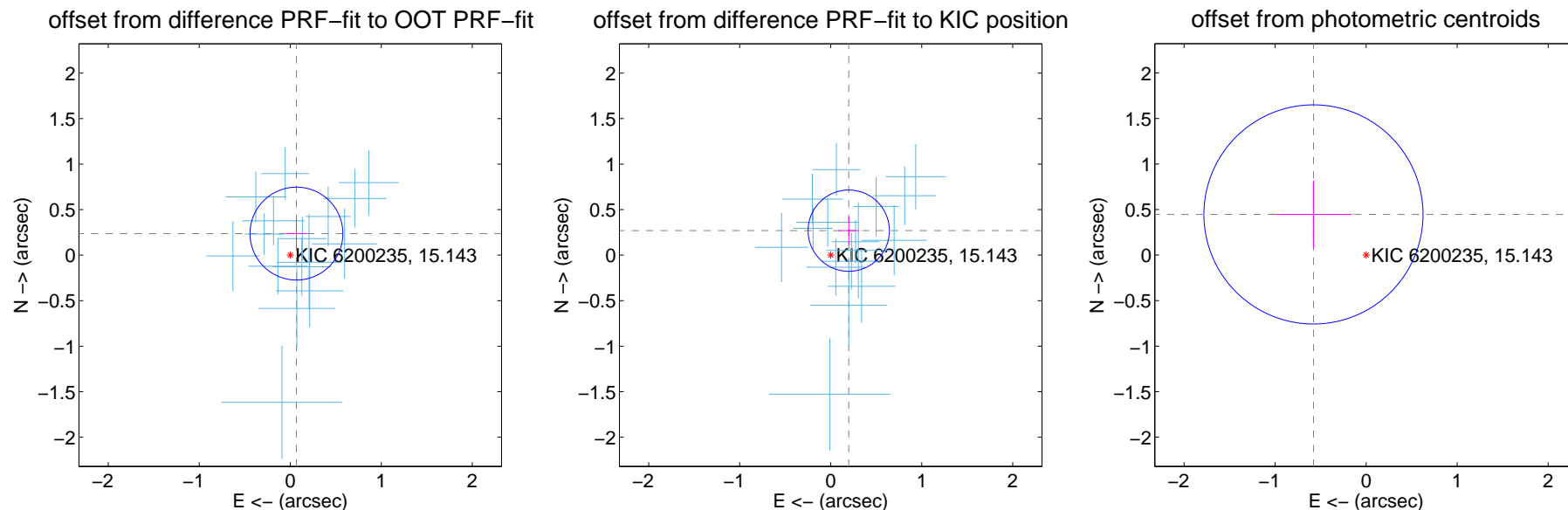
DV Centroid Data

Supplemental centroid analysis for 006200235-01. Kepler magnitude: 15.14. Transit SNR 32.99

There are 16 quarters with good PRF difference image offsets

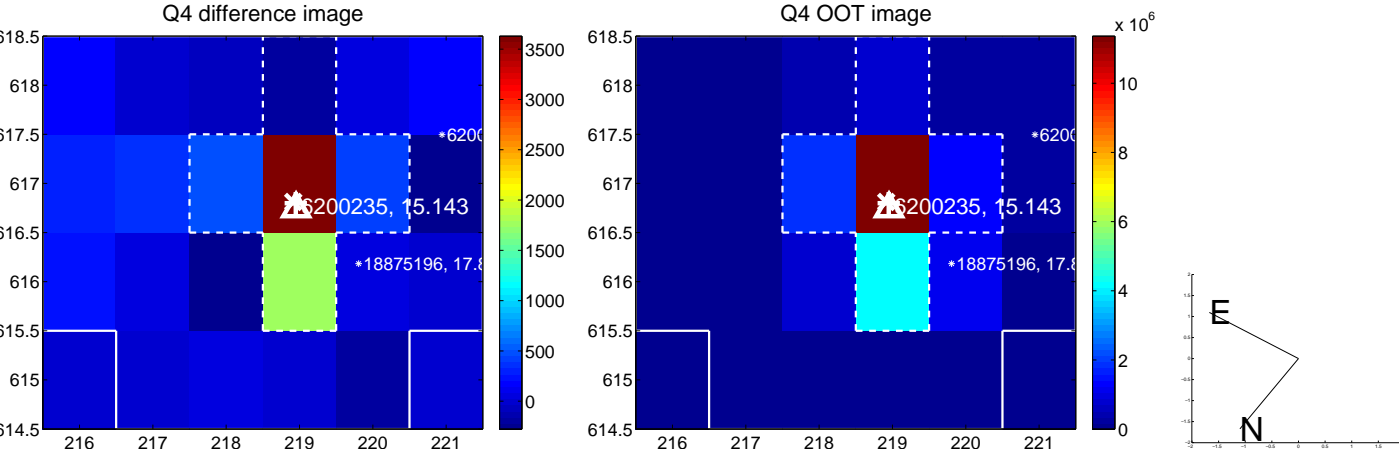
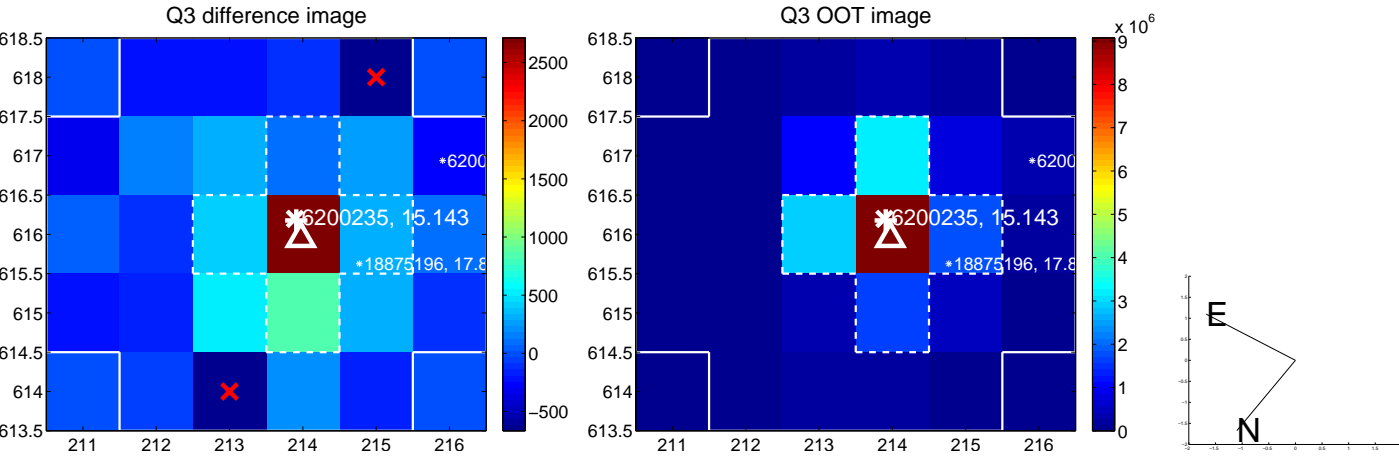
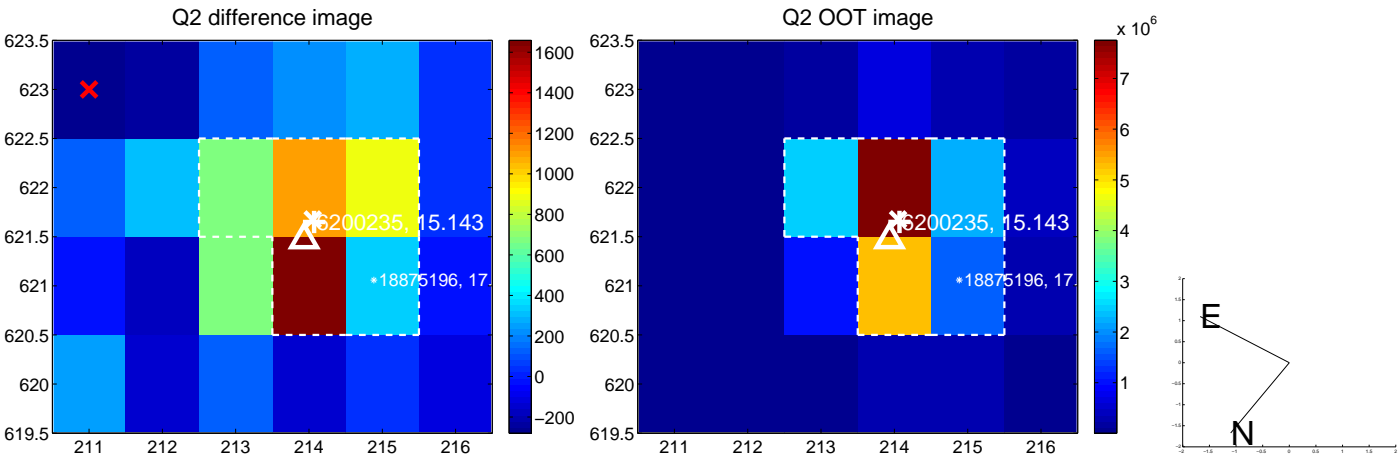
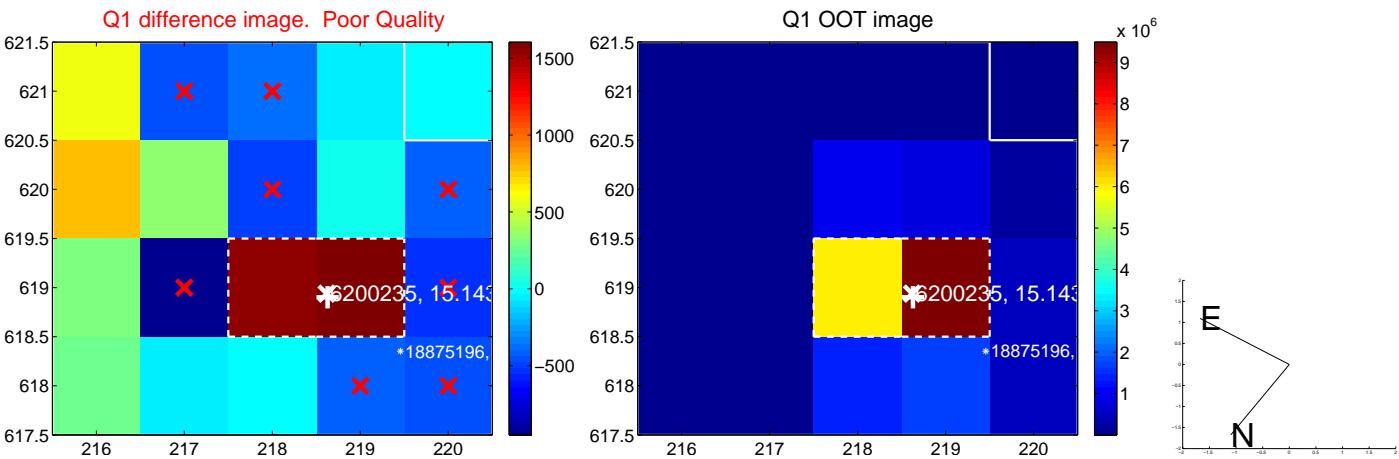
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.247 ± 0.170	1.45	-0.068 ± 0.116	0.237 ± 0.168
PRF-fit source offset from KIC position	0.334 ± 0.149	2.25	-0.198 ± 0.114	0.269 ± 0.152
photometric centroid source offset	0.73 ± 0.40	1.82	0.58 ± 0.42	0.45 ± 0.37

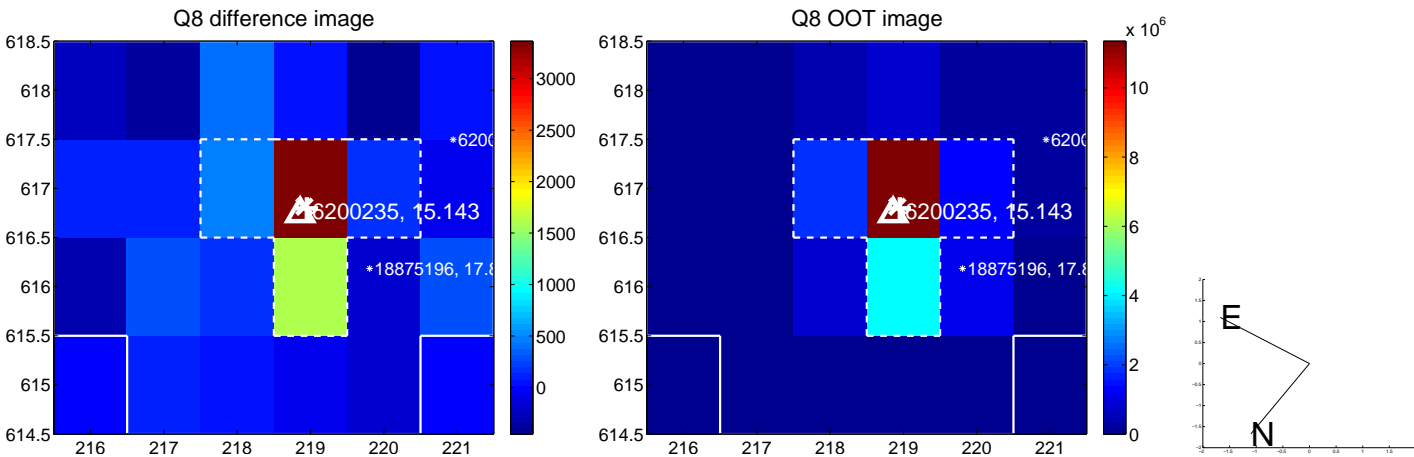
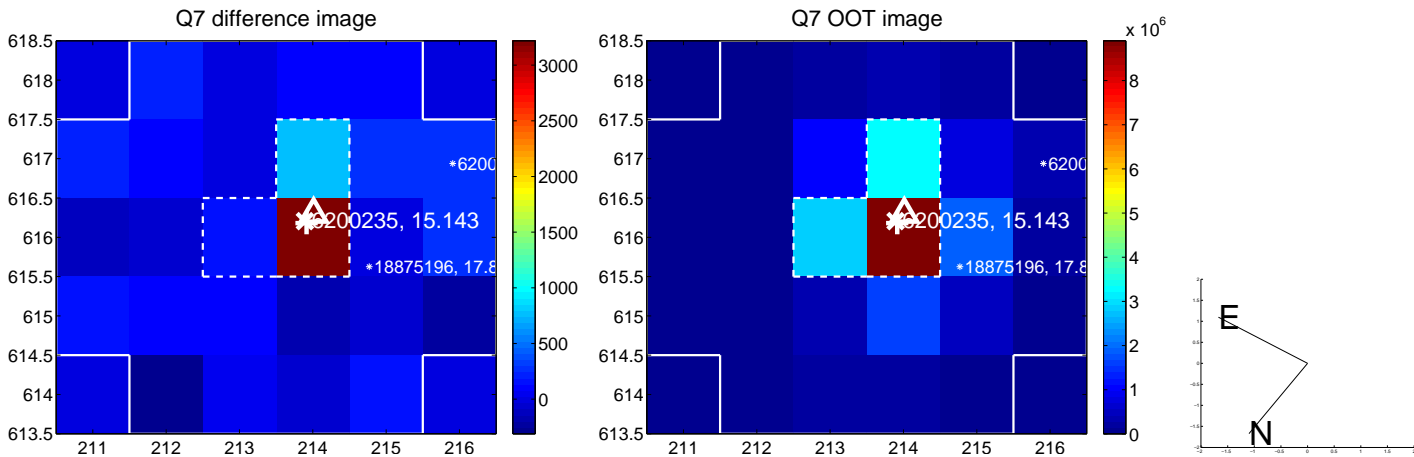
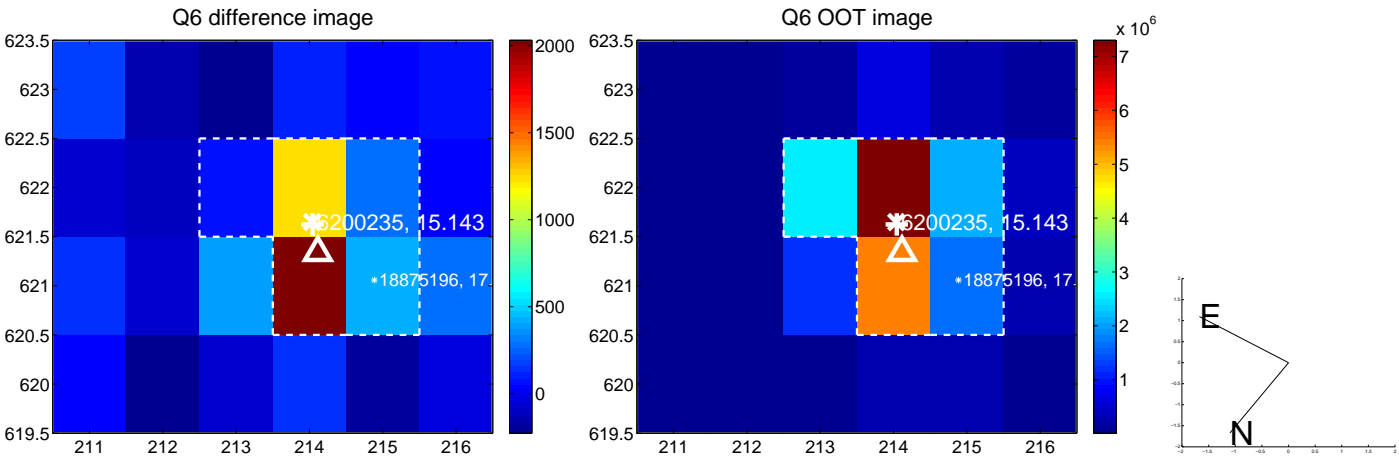
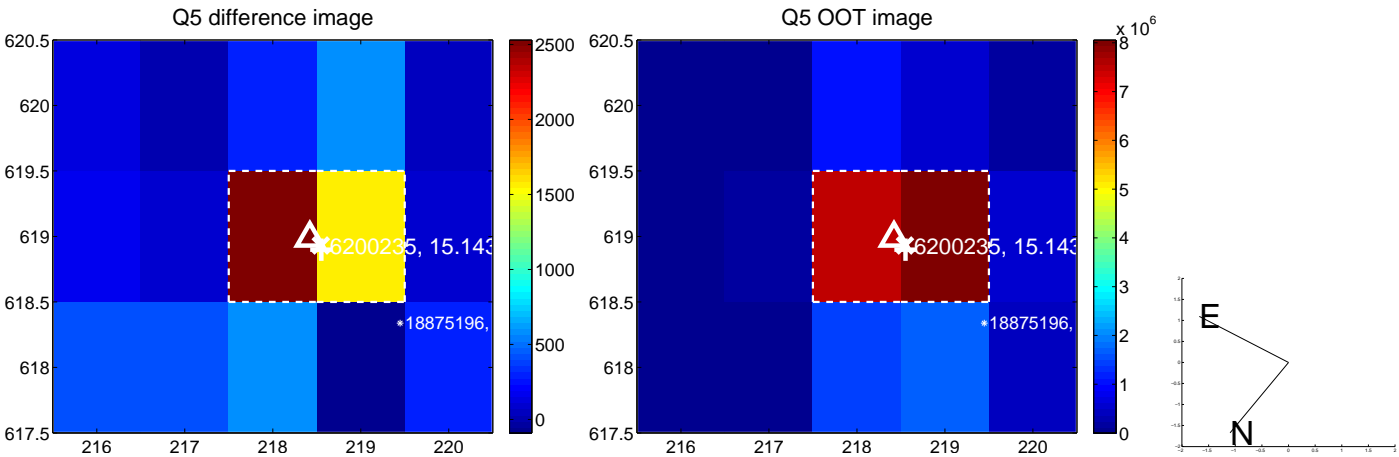


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

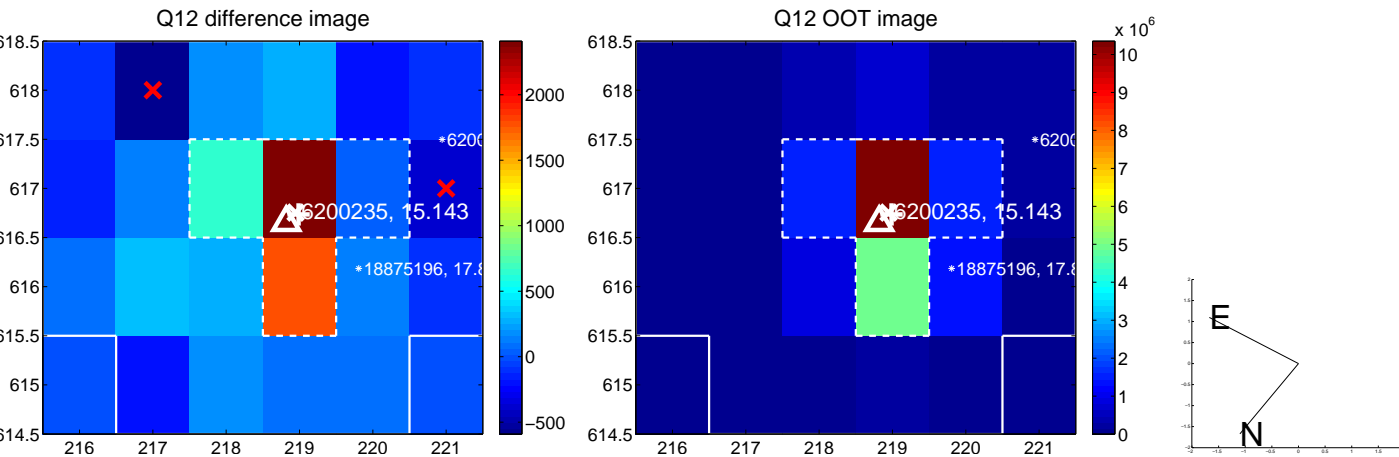
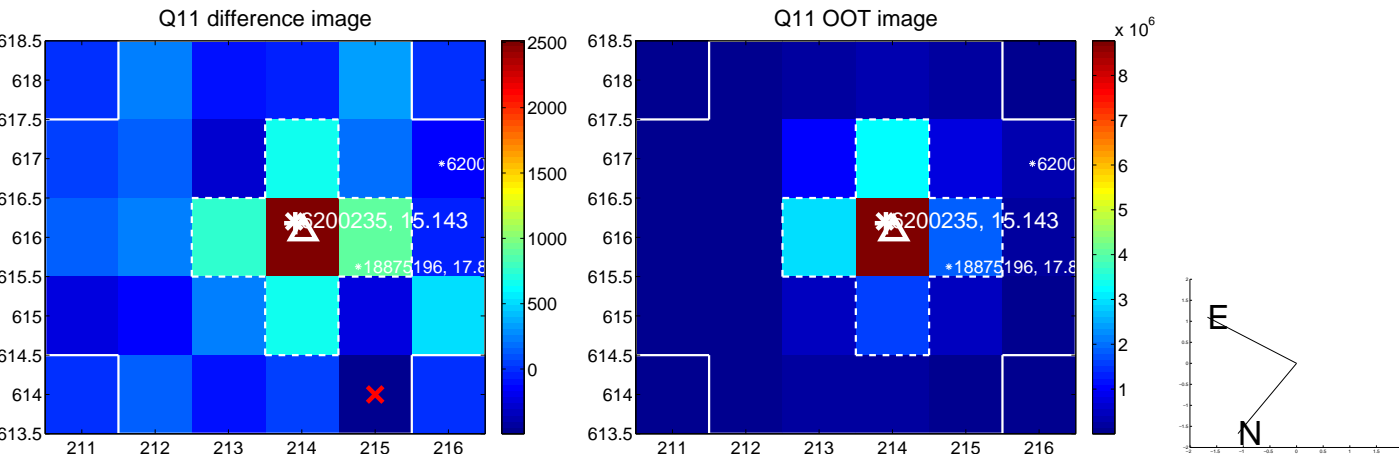
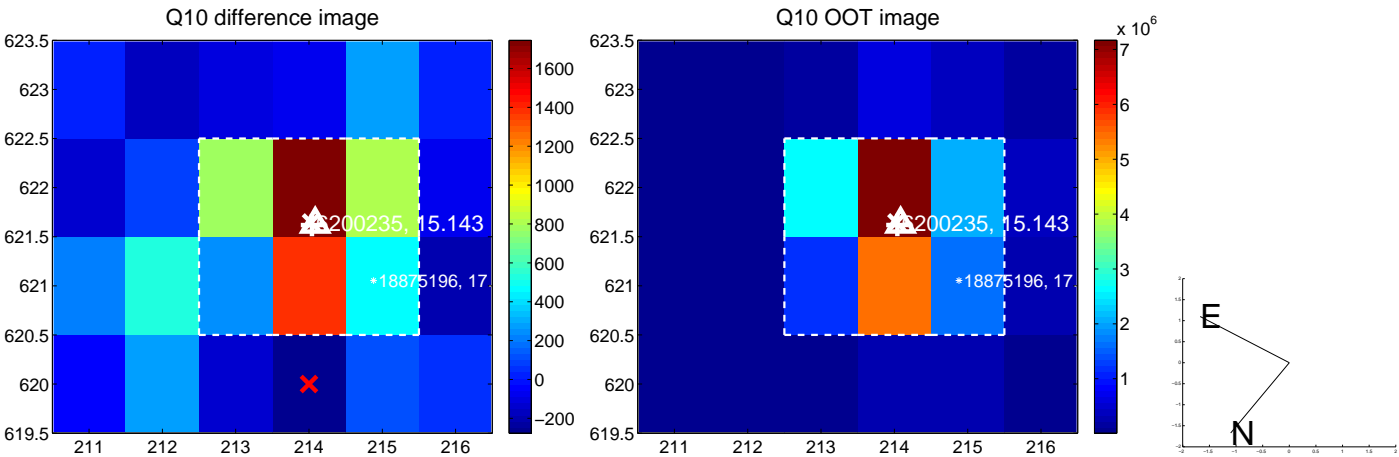
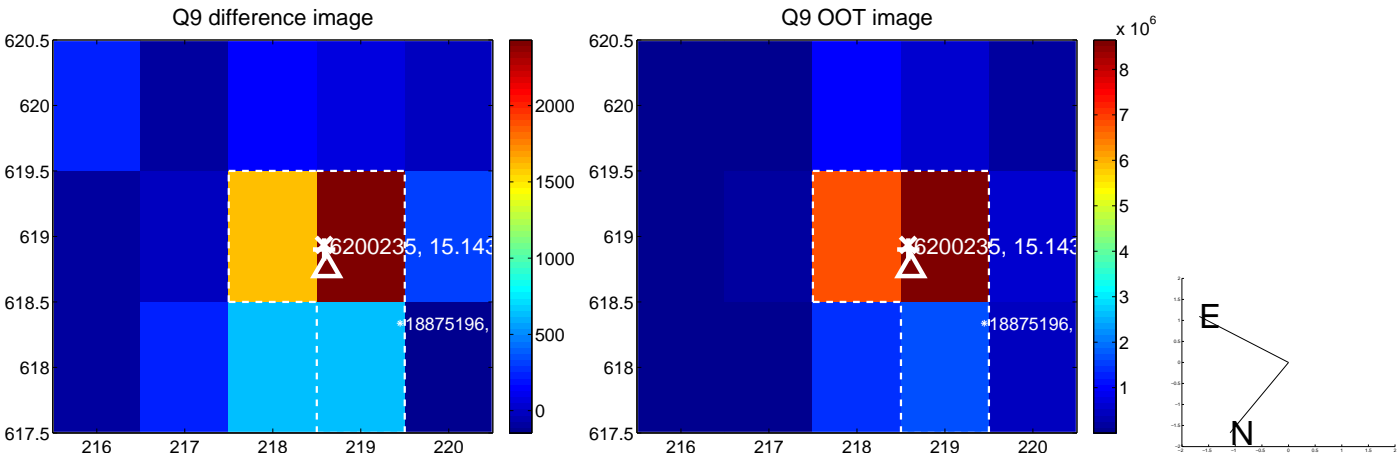
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



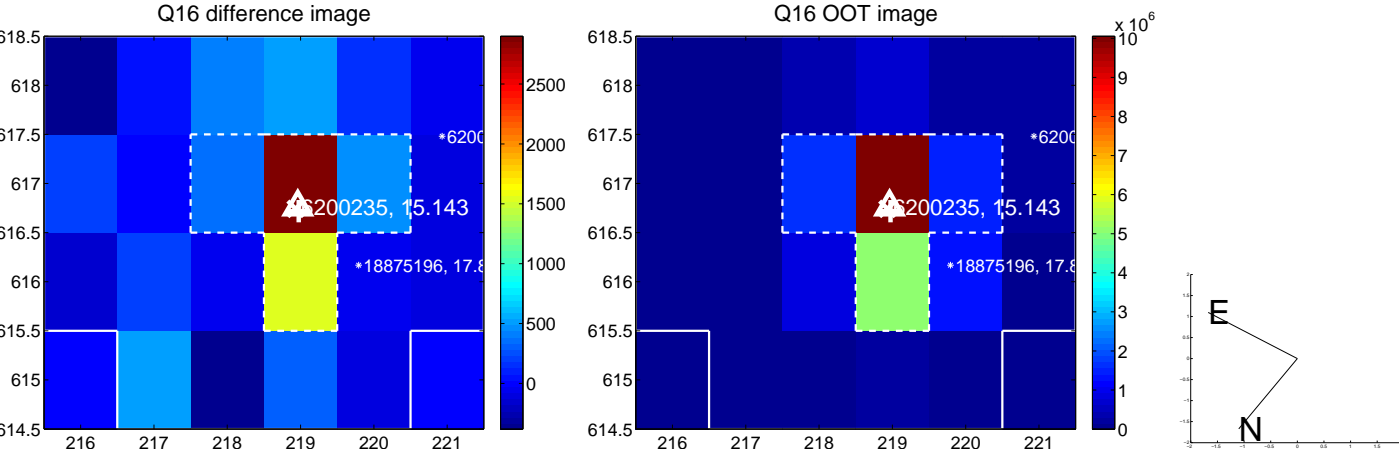
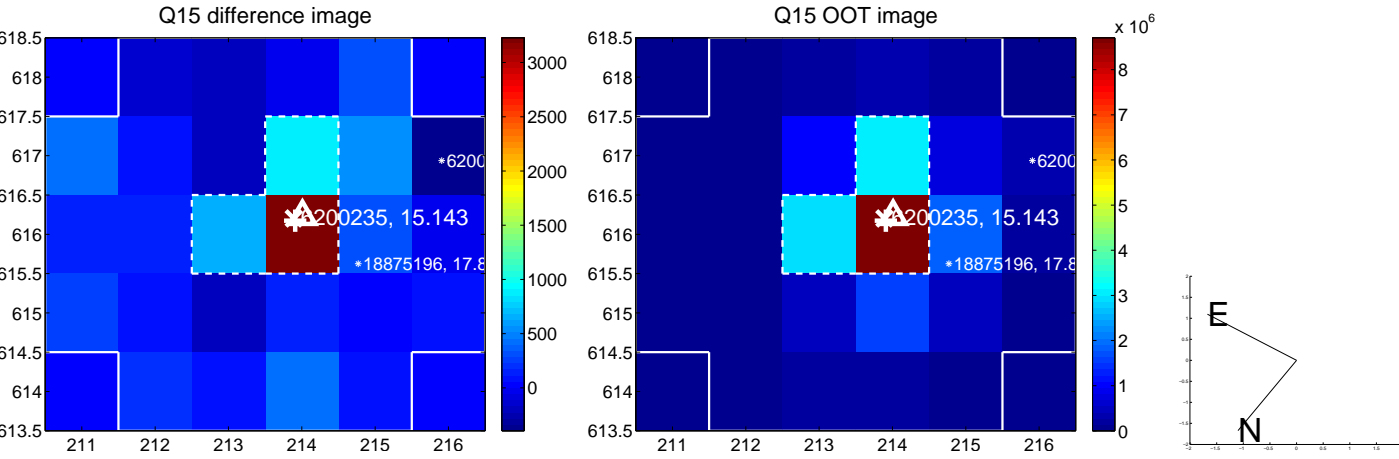
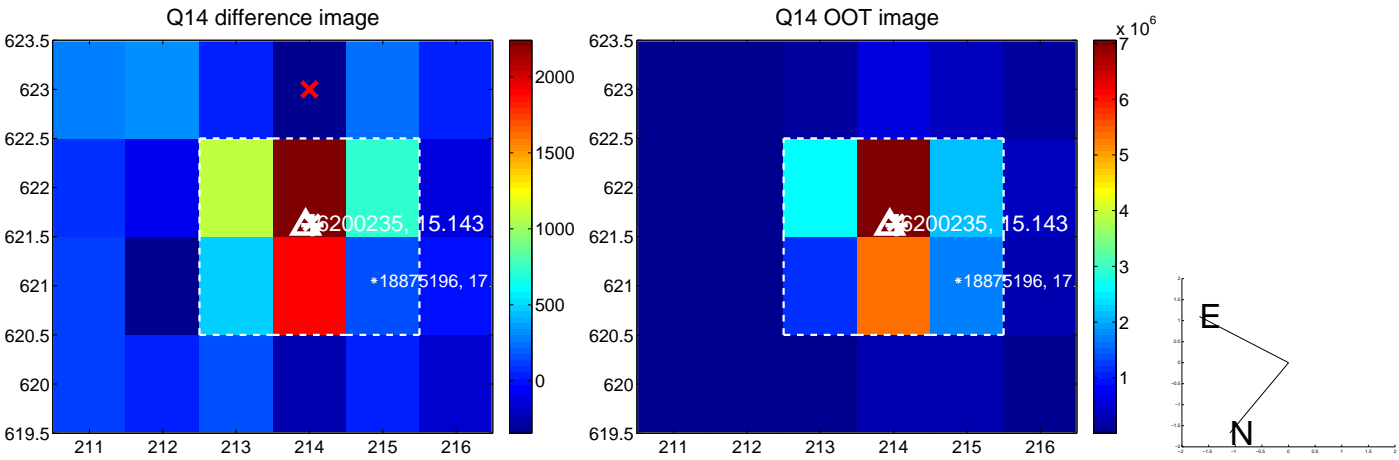
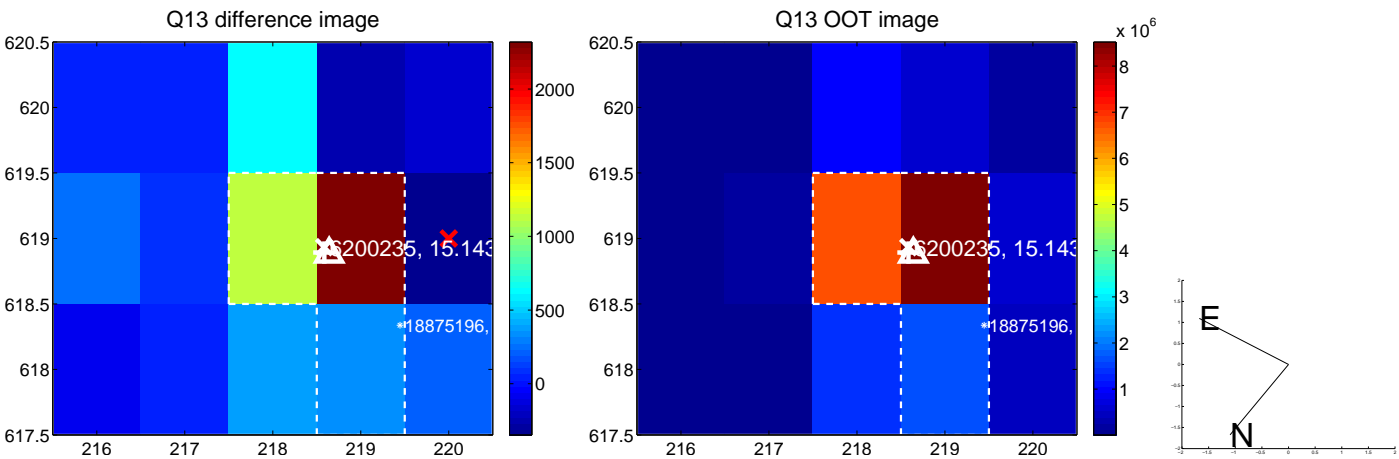
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



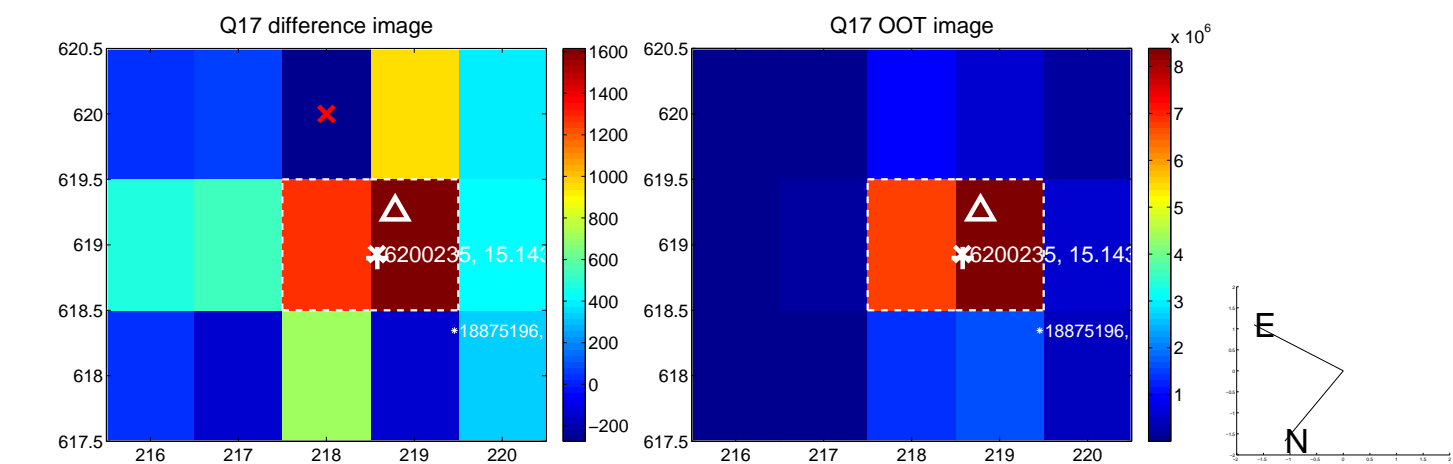
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



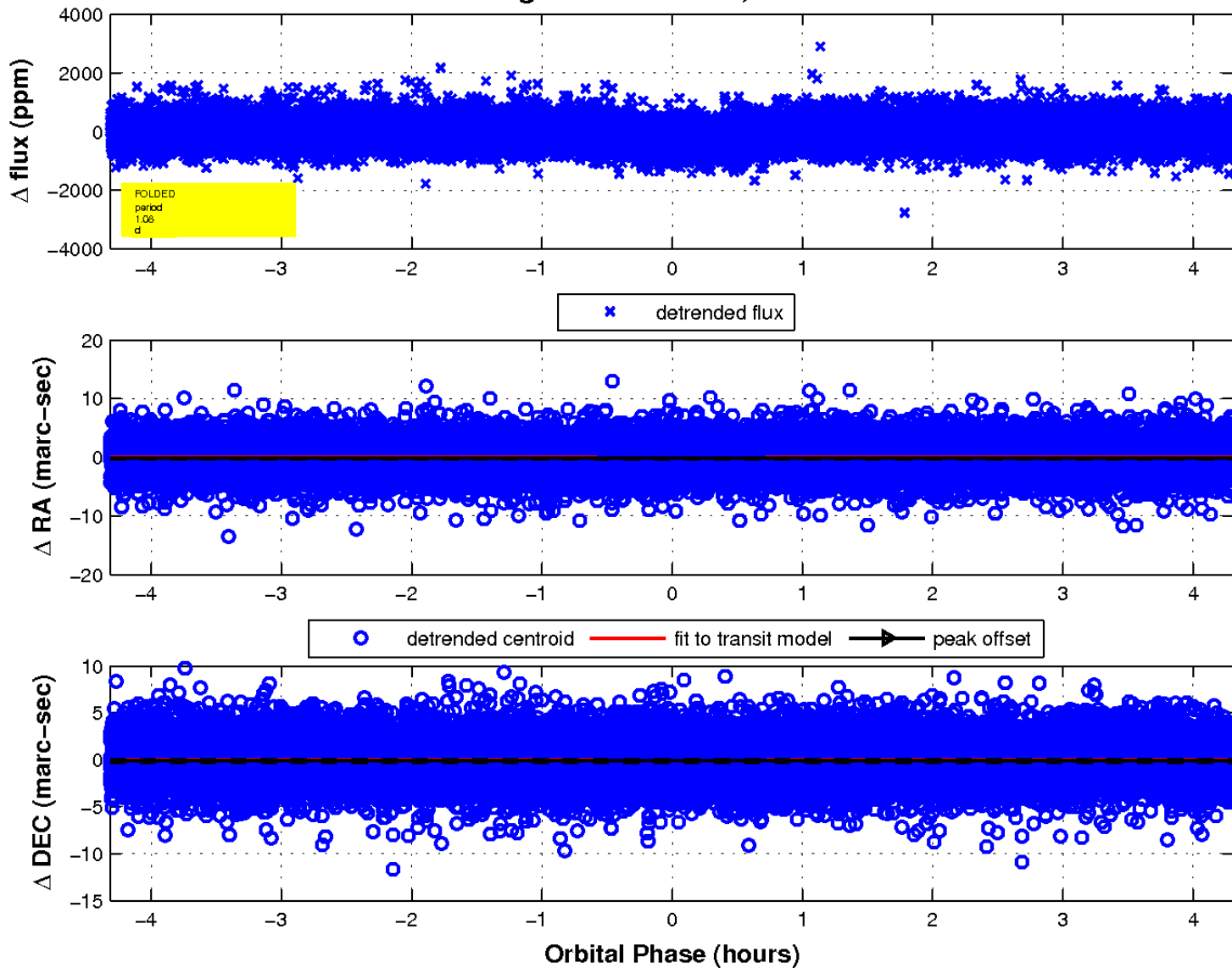
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

