

KIC 006199056

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})
006199056-01	OBS	2398.01	1.169009	131.737720	137.9	0.967	30.2	36.5	5.85	5944	8.22	47651.26

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006199056-01	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.

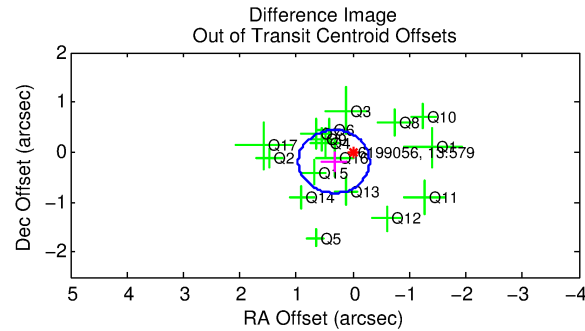
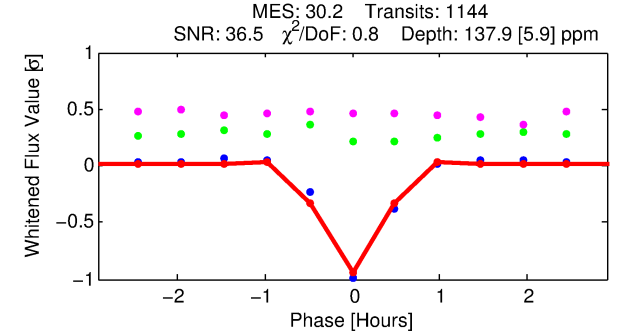
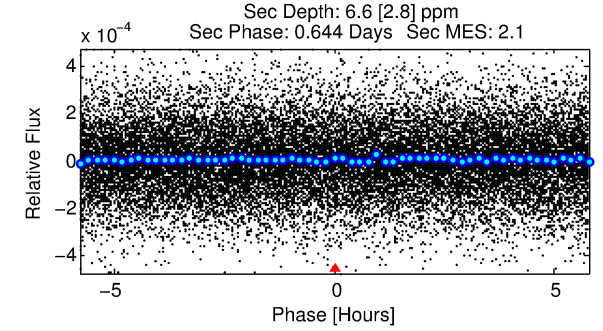
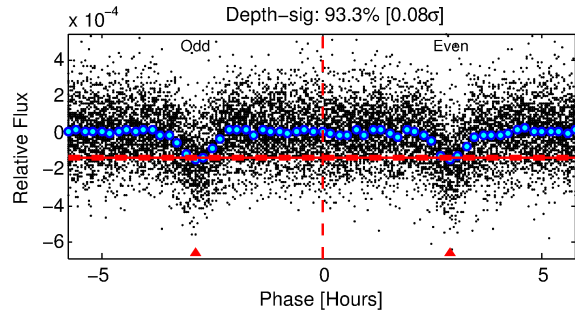
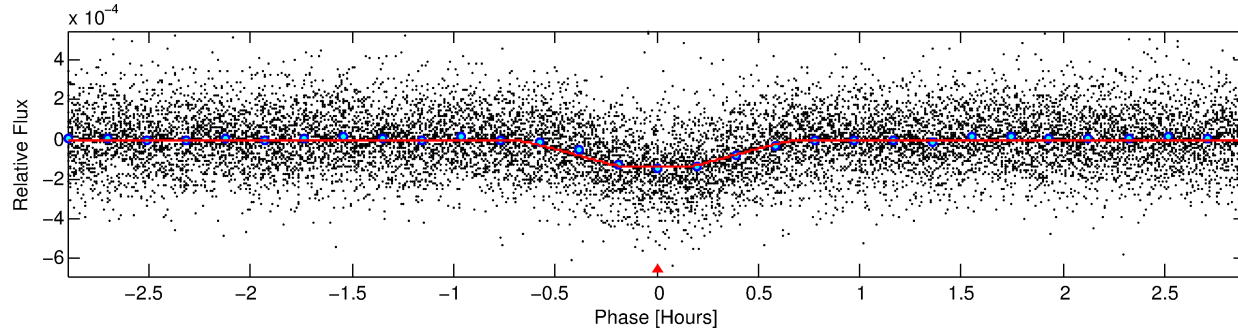
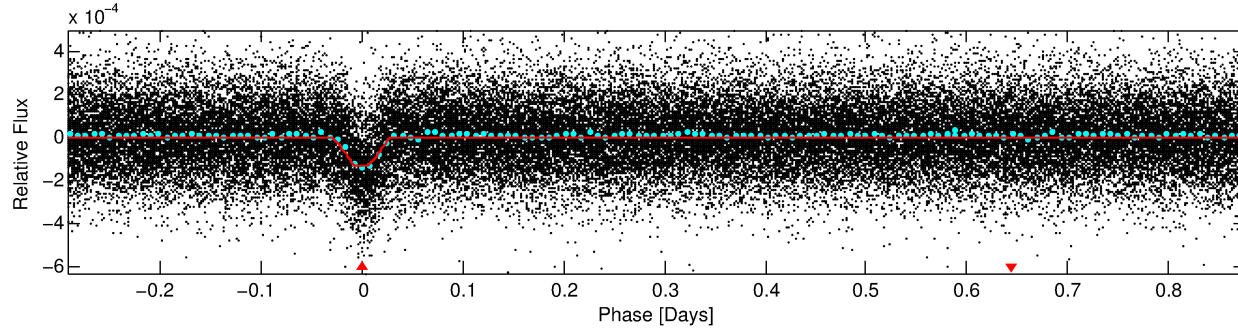
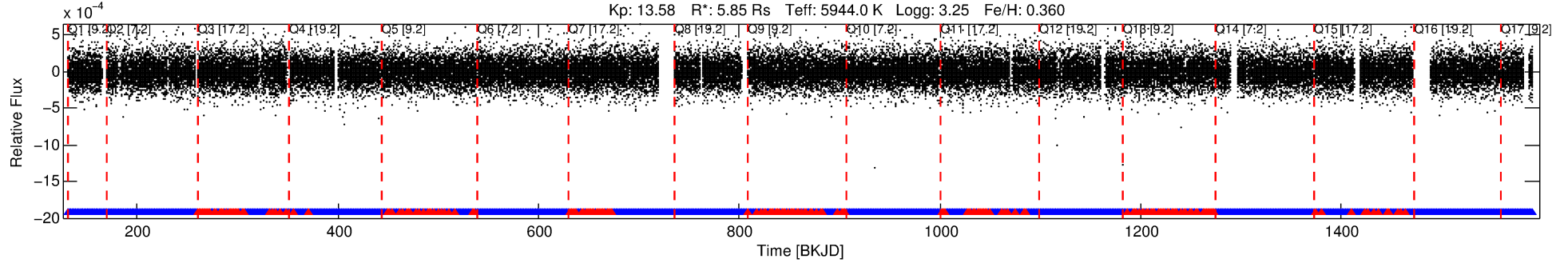
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006199056-01

No Significant Match Found

DV One-Page Summary

KIC: 6199056 Candidate: 1 of 1 Period: 1.169 d
KOI: K02398.01 Corr: 0.930



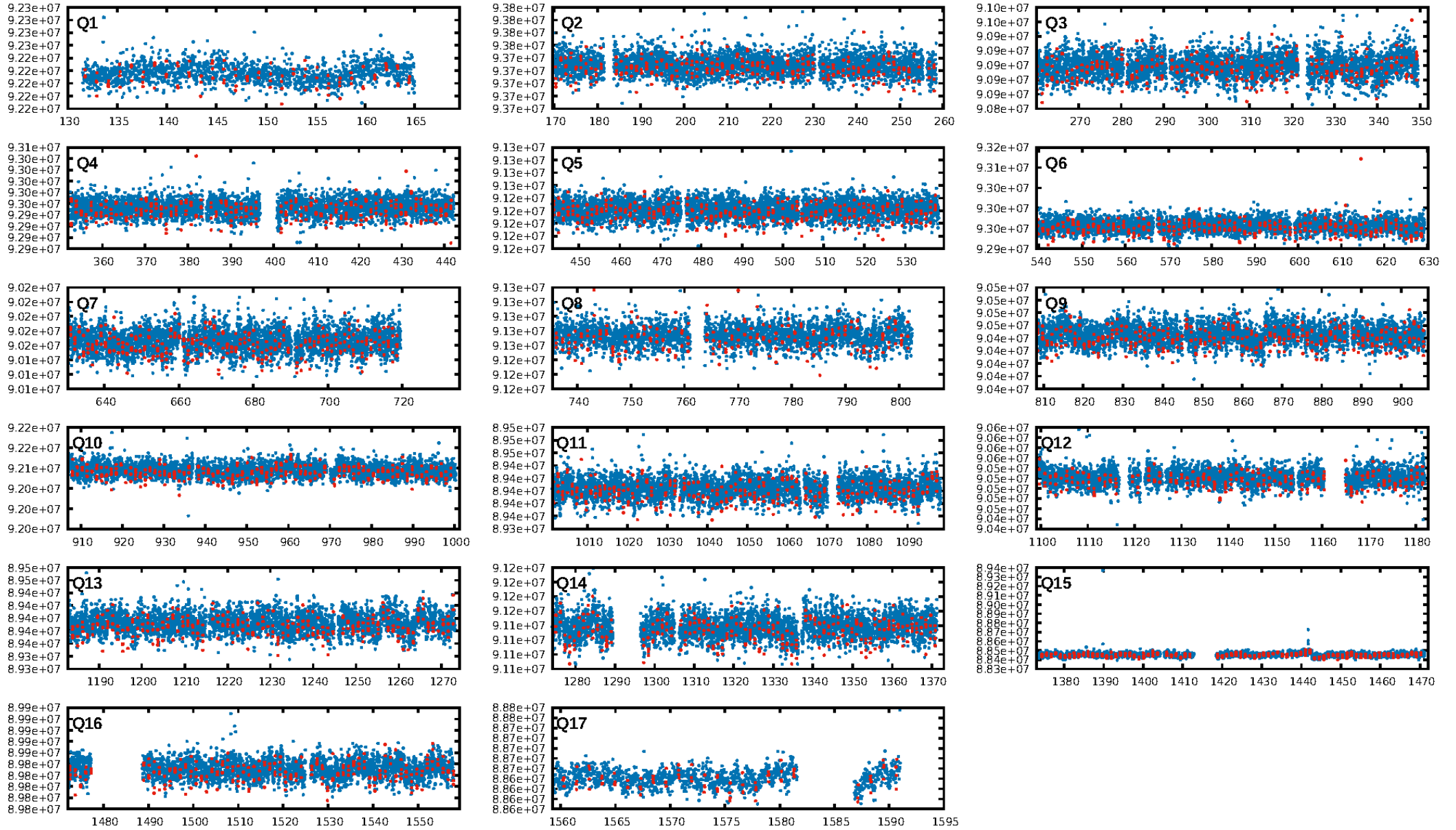
DV Fit Results:

Period = 1.16901 [0.00000] d
Epoch = 131.7377 [0.0005] BKJD
Rp/R* = 0.0129 [0.0029]
a/R* = 4.39 [4.63]
b = 0.90 [0.24]
Seff = 47651.26 [20849.10]
Teq = 3767 [412] K
Rp = 8.22 [3.25] Re
a = 0.0283 [0.0081] AU
Ag = 0.04 [0.03] [-29.17 σ]
Teffp = 2653 [418] K [-1.90 σ]

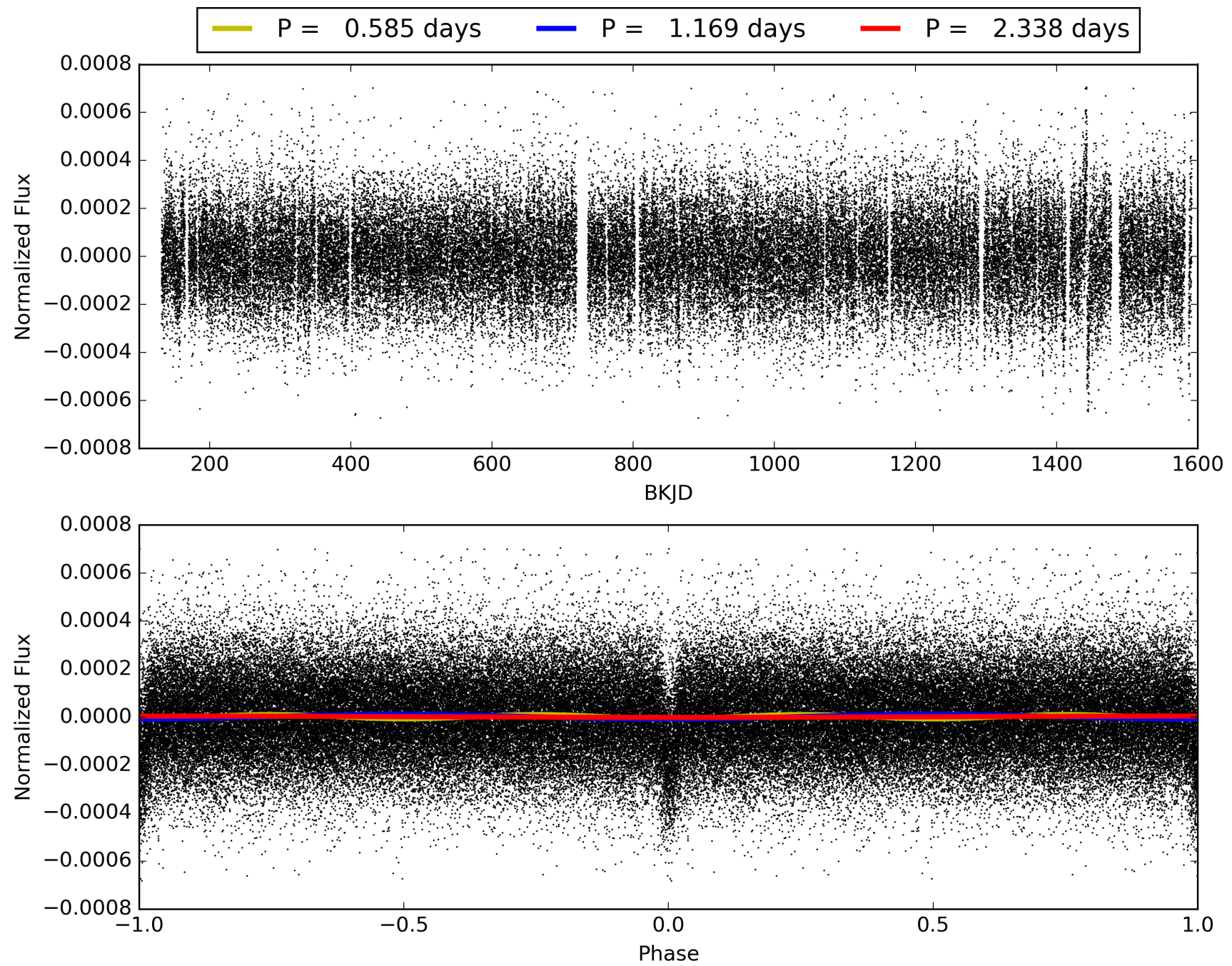
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.83e-189
RollingBand-fgt: 0.81 [887/1092]
GhostDiagnostic-chr: 2.545
Centroid-sig: N/A
Centroid-so: 0.089 arcsec [0.27 σ]
OotOffset-rm: 0.384 arcsec [1.82 σ]
KicOffset-rm: 0.354 arcsec [1.58 σ]
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 006199056-01, PDC Light Curves

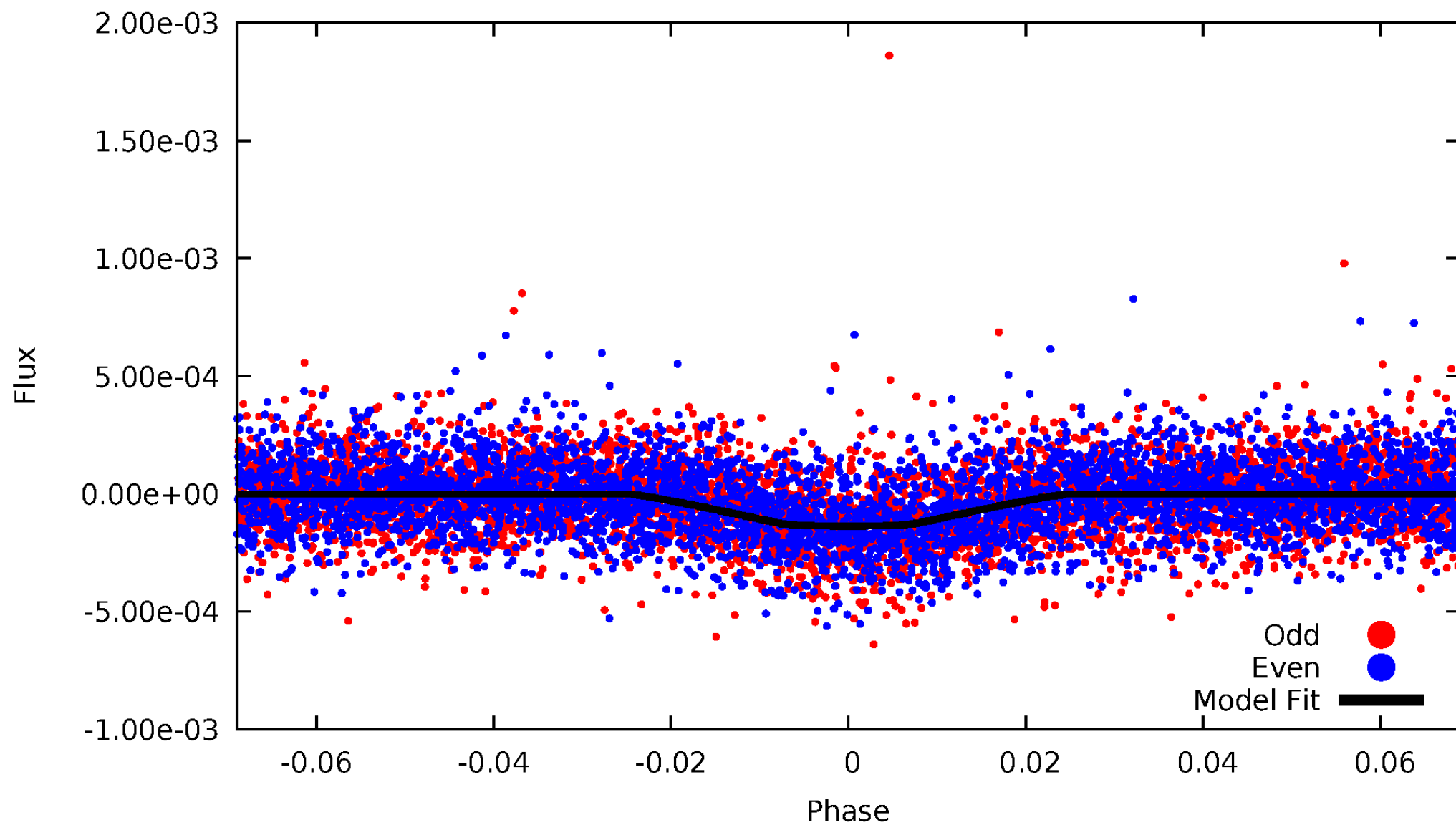


TCE 006199056-01



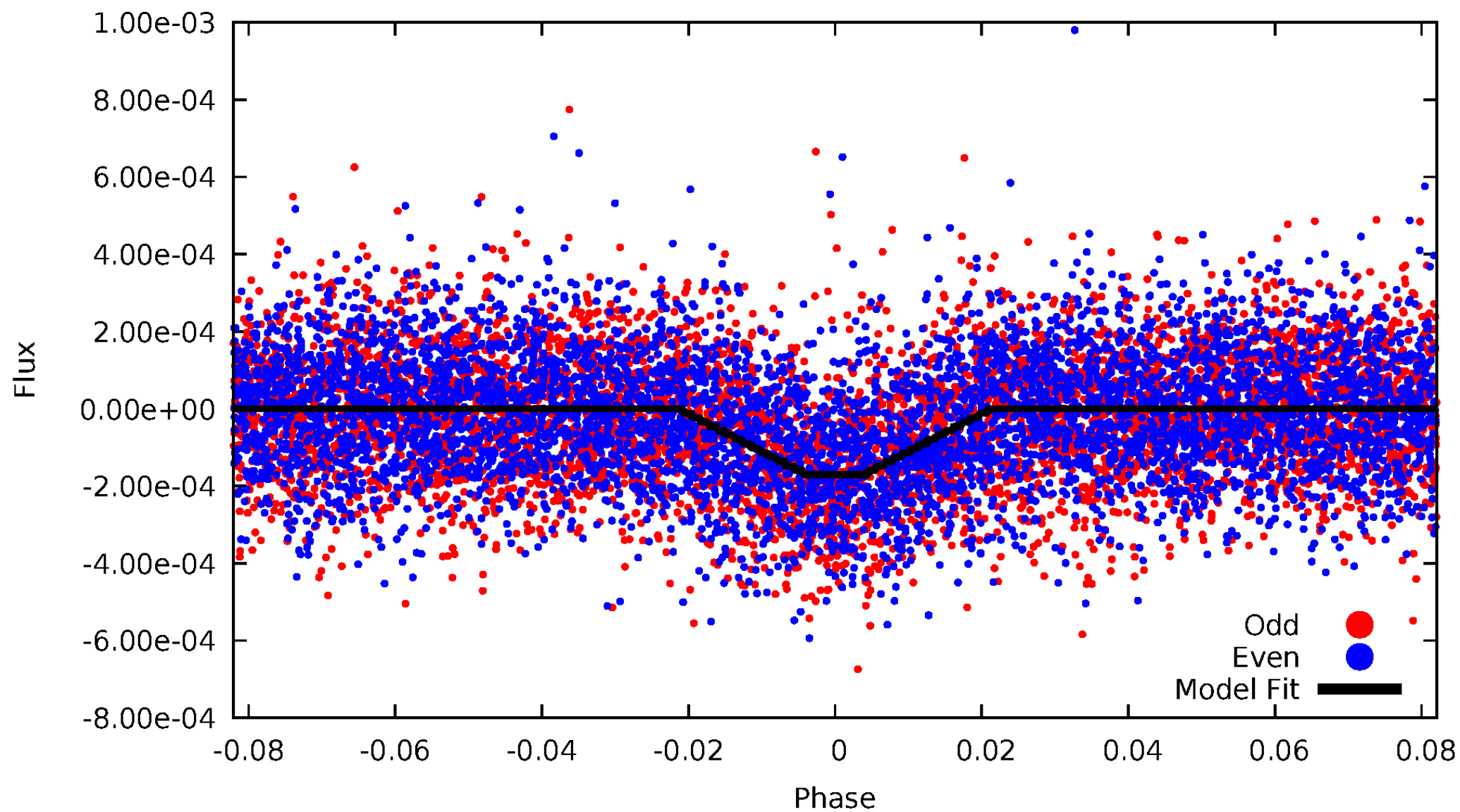
DV Odd/Even

TCE 006199056-01



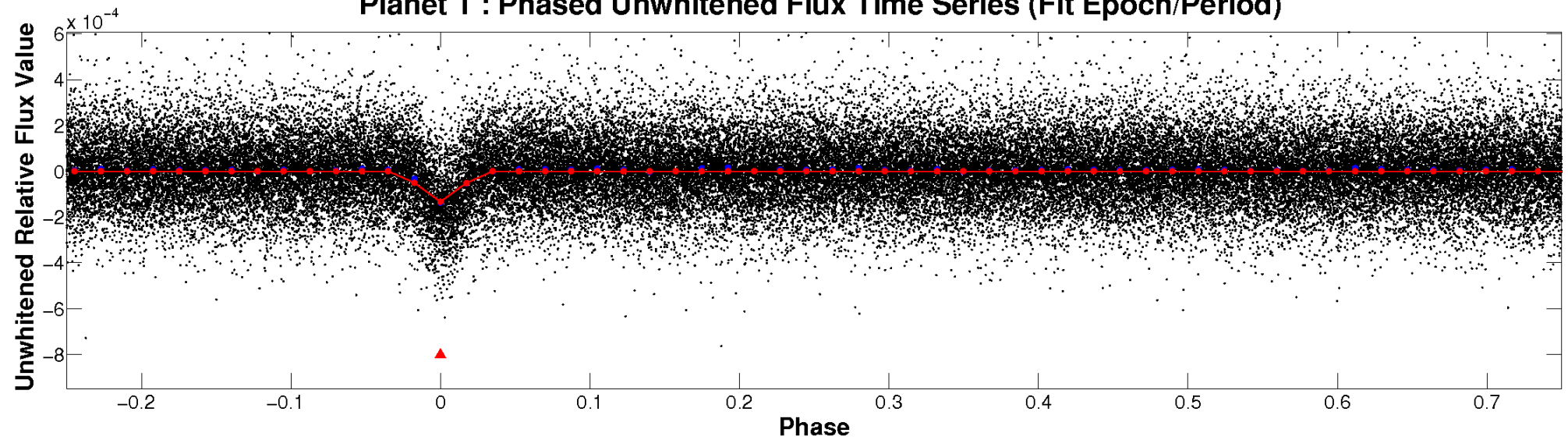
ALT Odd/Even

TCE 006199056-01

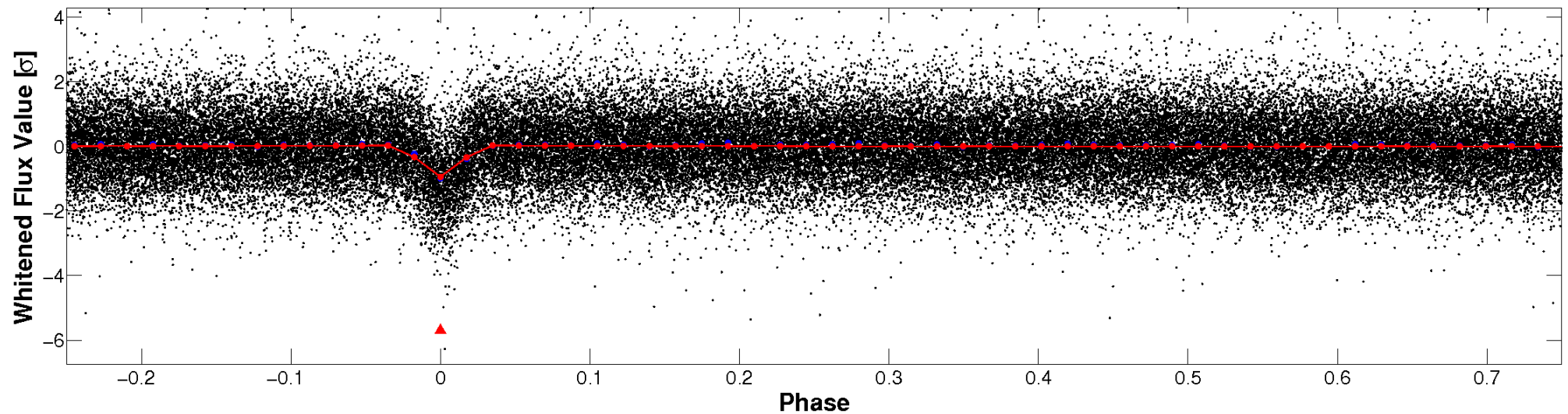


Non-Whitened Vs. Whitened Light Curve

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

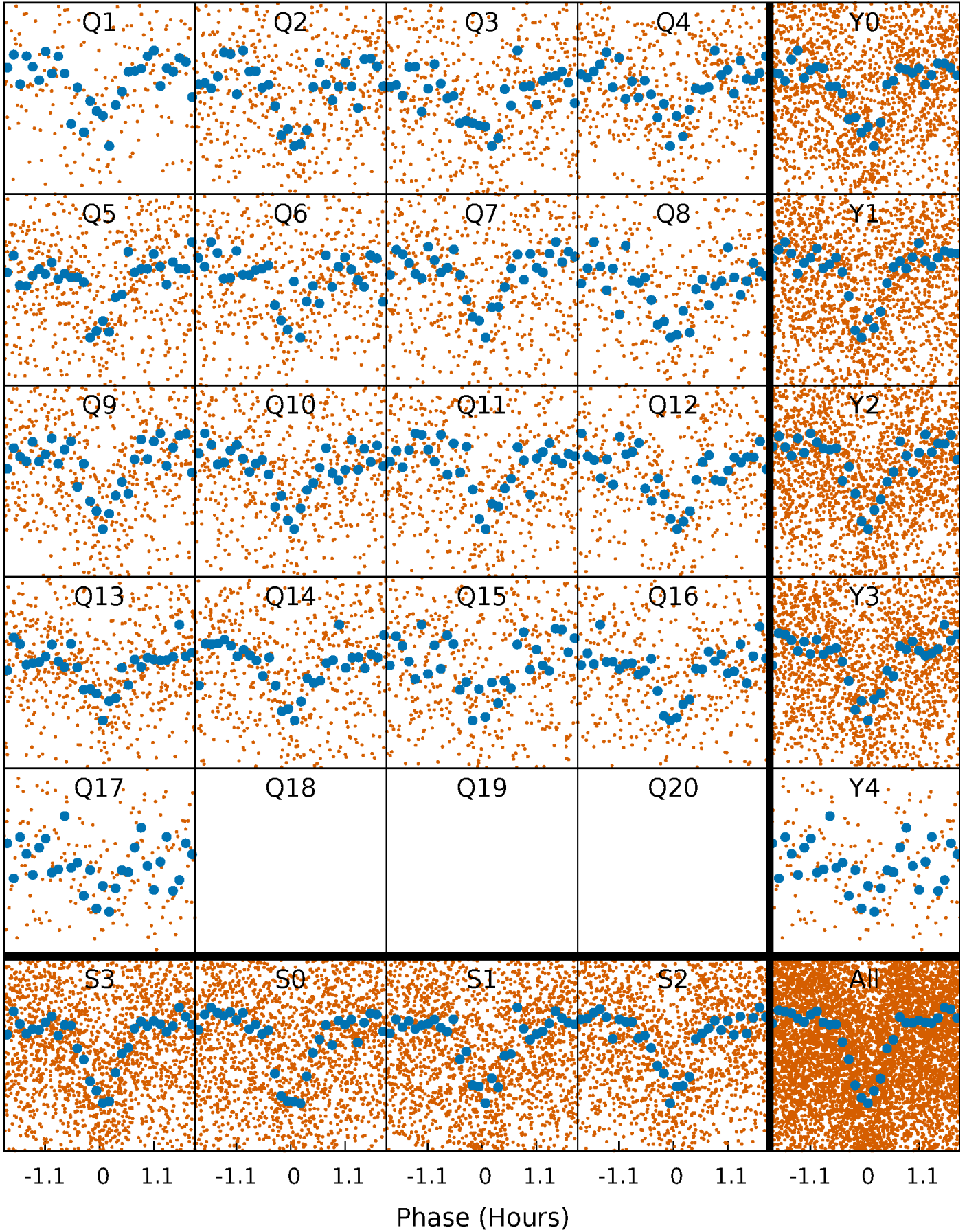


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



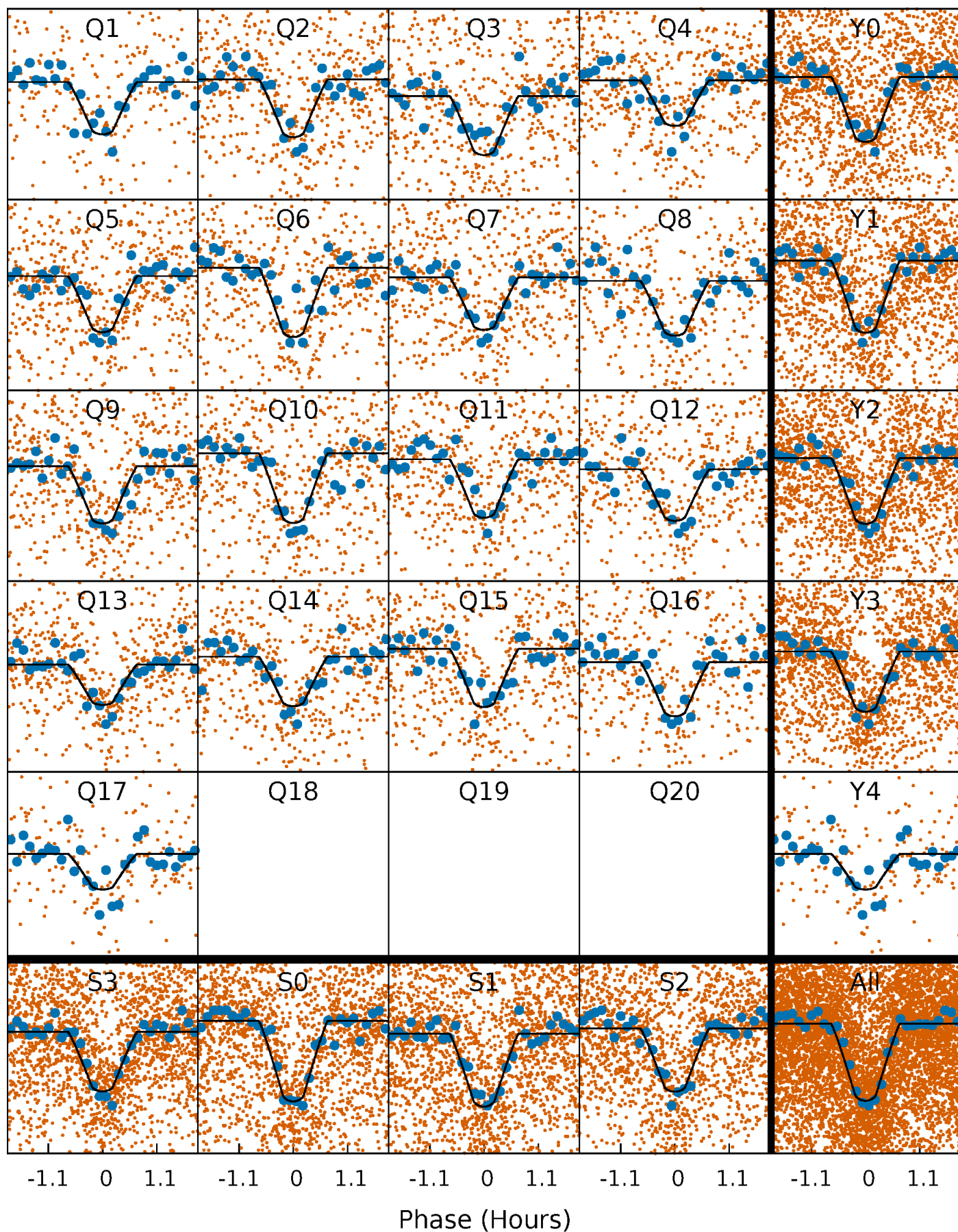
PDC Quarter-Phased Transit Curves

TCE 006199056-01 P= 1.169009 Days $T_0=131.737720$ (BKJD)



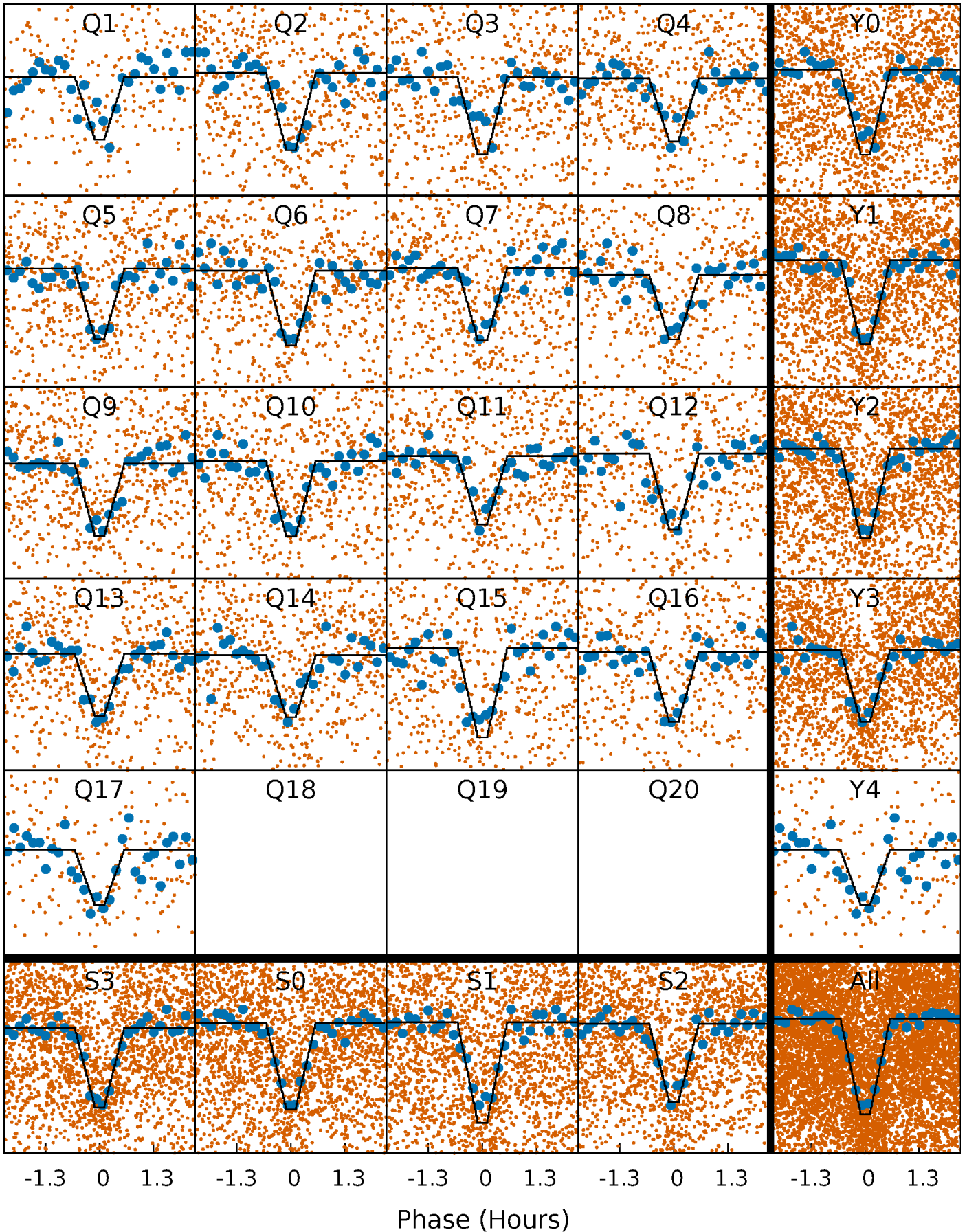
DV Quarter-Phased Transit Curves

TCE 006199056-01 P= 1.169009 Days $T_0=131.737720$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

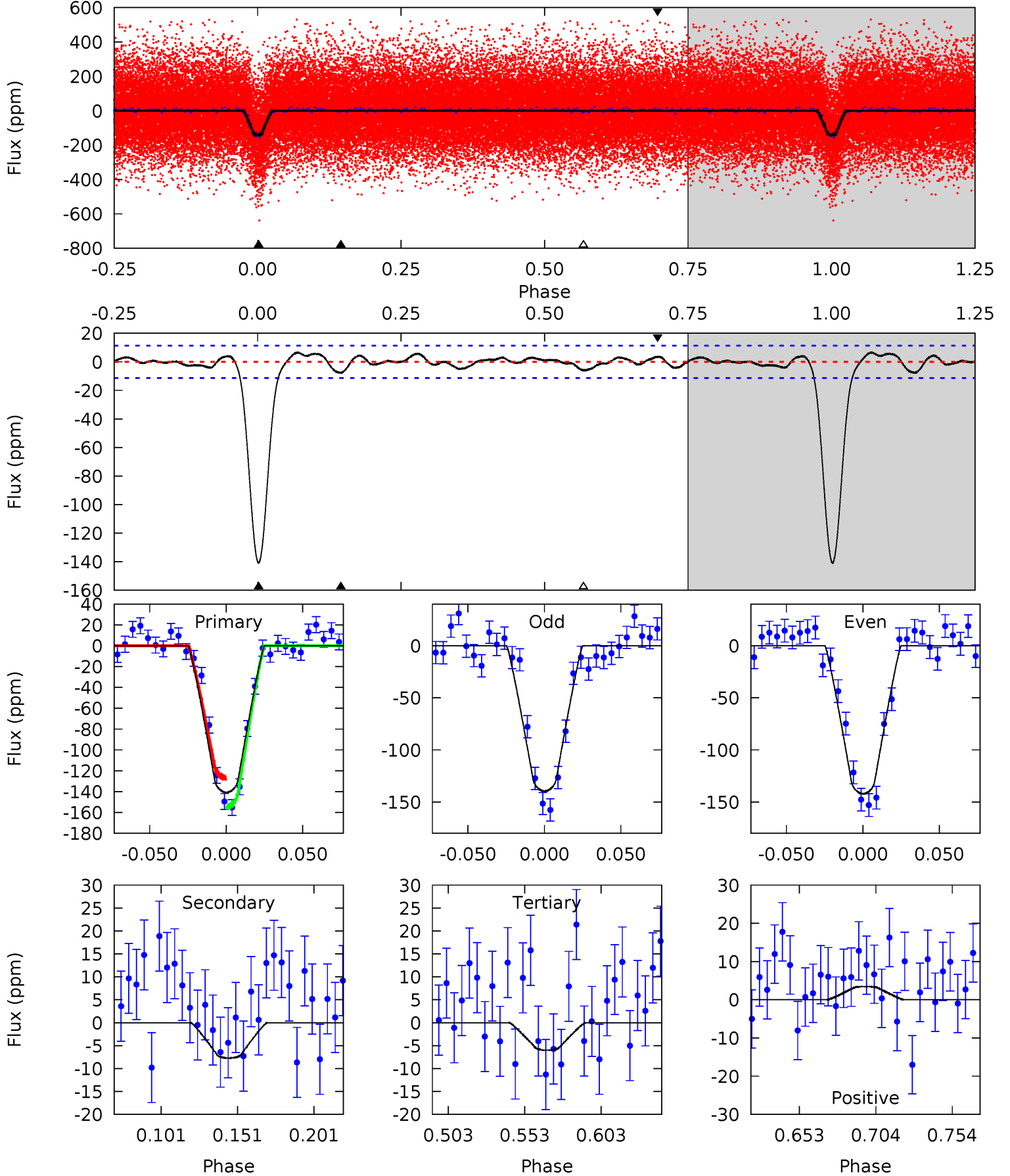
TCE 006199056-01 P= 1.169015 Days $T_0=131.735834$ (BKJD)



DV Model-Shift Uniqueness Test

006199056-01, P = 1.169009 Days, E = 130.568711 Days

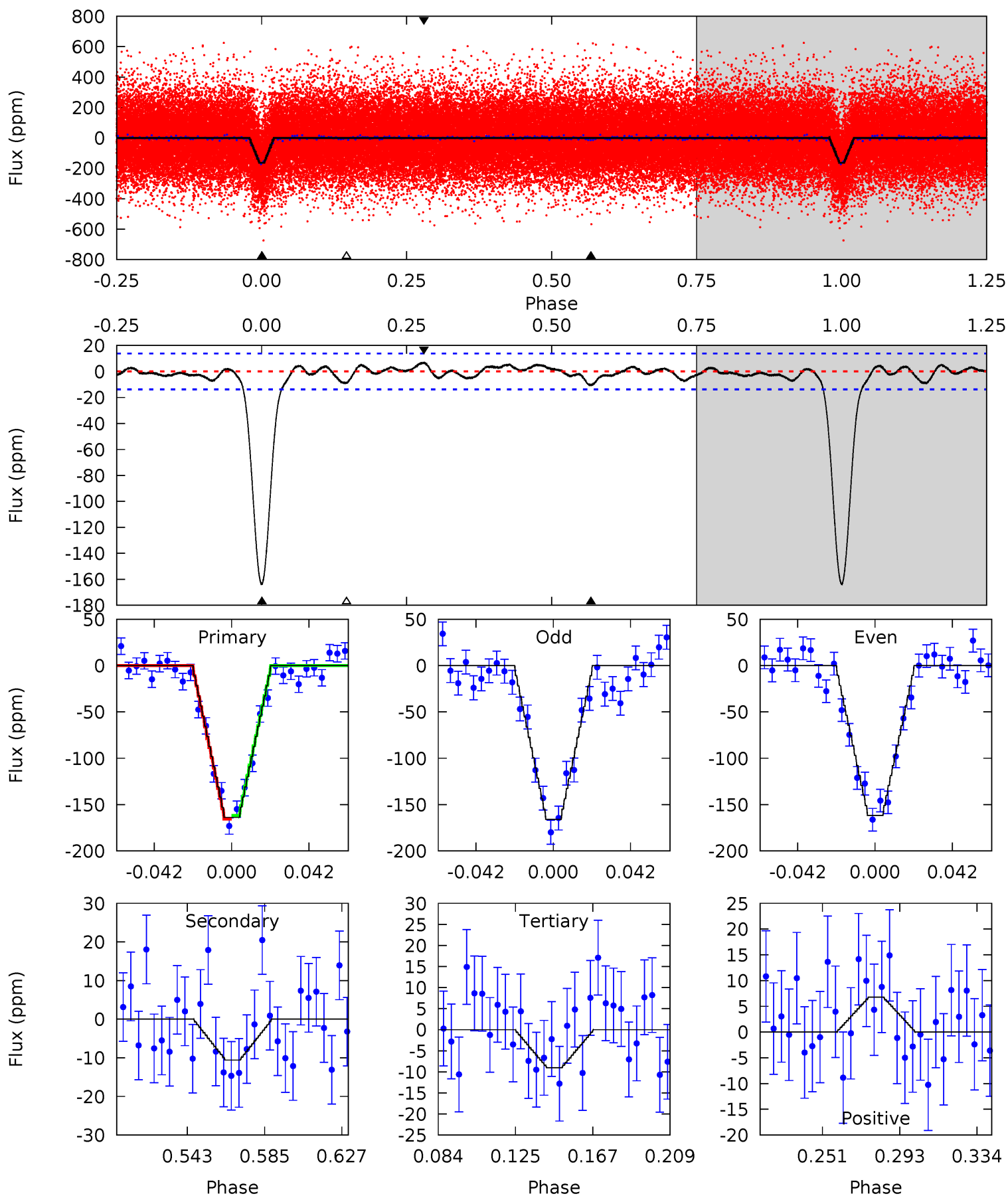
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.4	3.20	2.49	1.44	4.71	1.96	1.07	55.9	56.9	0.71	1.76	0.54	0.96	0.04	5.81



Alt Model-Shift Uniqueness Test

006199056-01, P = 1.169015 Days, E = 130.566819 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.2	3.63	3.11	2.33	4.74	2.04	1.12	53.1	53.9	0.52	1.30	0.71	0.98	0.04	0.71



Stellar Parameters For KIC 006199056

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5944^{+71}_{-88}	$3.250^{+0.245}_{-0.105}$	$0.360^{+0.100}_{-0.150}$	$5.847^{+1.018}_{-1.891}$	$2.214^{+0.197}_{-0.423}$	$0.016^{+0.026}_{-0.005}$
	+1%/-1%	+8%/-3%	+28%/-42%	+17%/-32%	+9%/-19%	+164%/-35%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 006199056-01 / KOI 2398.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 2	$7.82^{+2.24}_{-1.98}$	5222^{+233}_{-408}	-4272^{+328}_{-215}	$0.054^{+0.049}_{-0.024}$
Alt.	-11 ± 3	$8.06^{+2.30}_{-2.01}$	5221^{+263}_{-415}	-4239^{+438}_{-241}	$0.068^{+0.065}_{-0.029}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

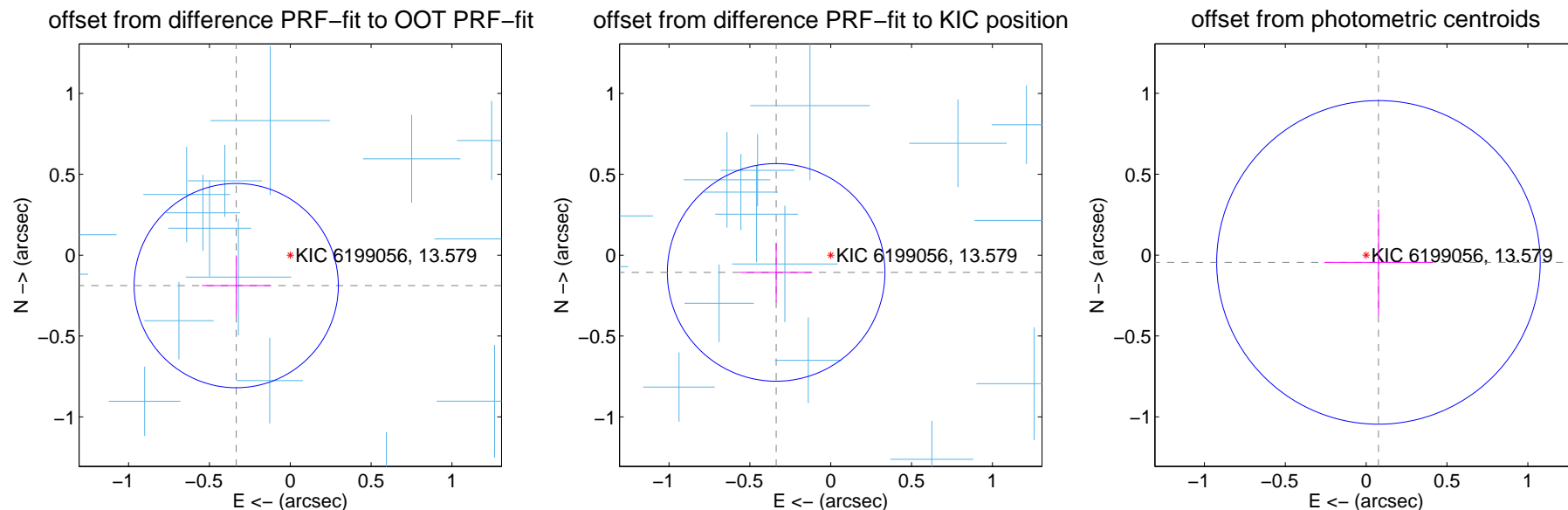
DV Centroid Data

Supplemental centroid analysis for 006199056-01. Kepler magnitude: 13.58. Transit SNR 36.51

There are 17 quarters with good PRF difference image offsets

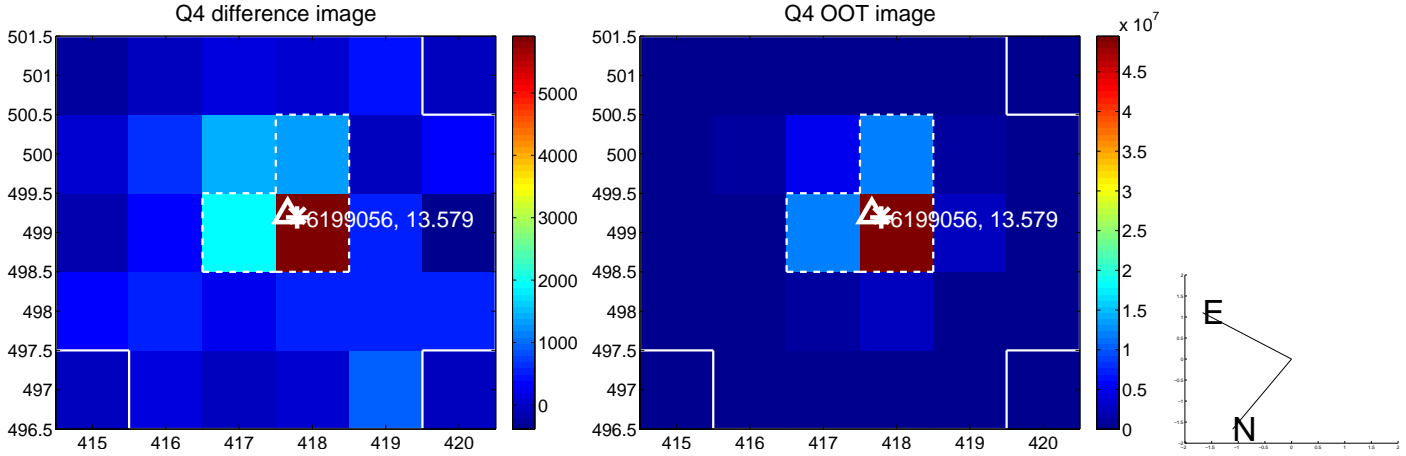
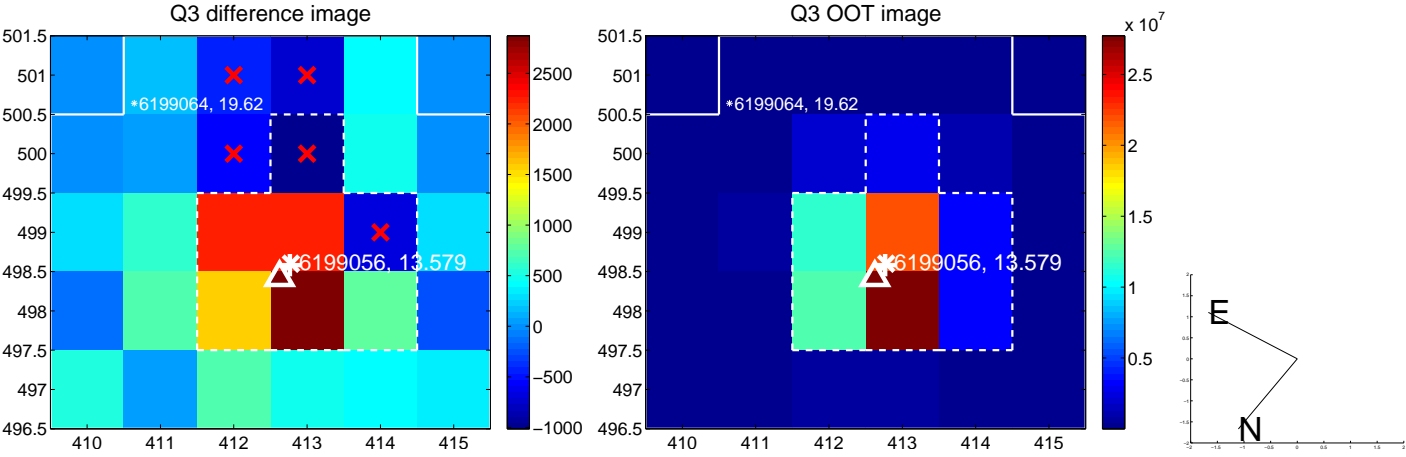
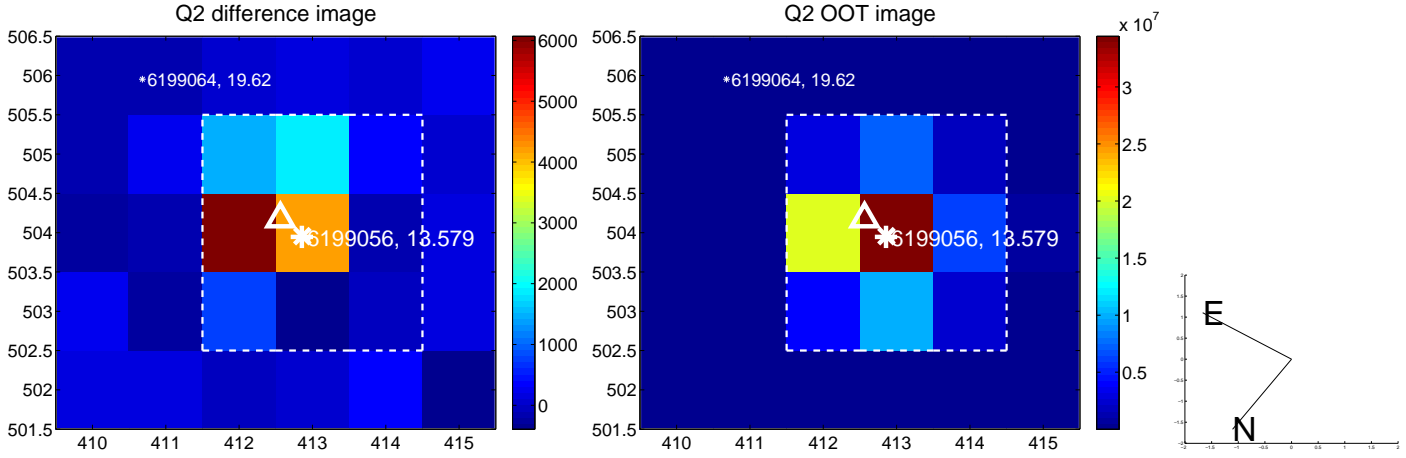
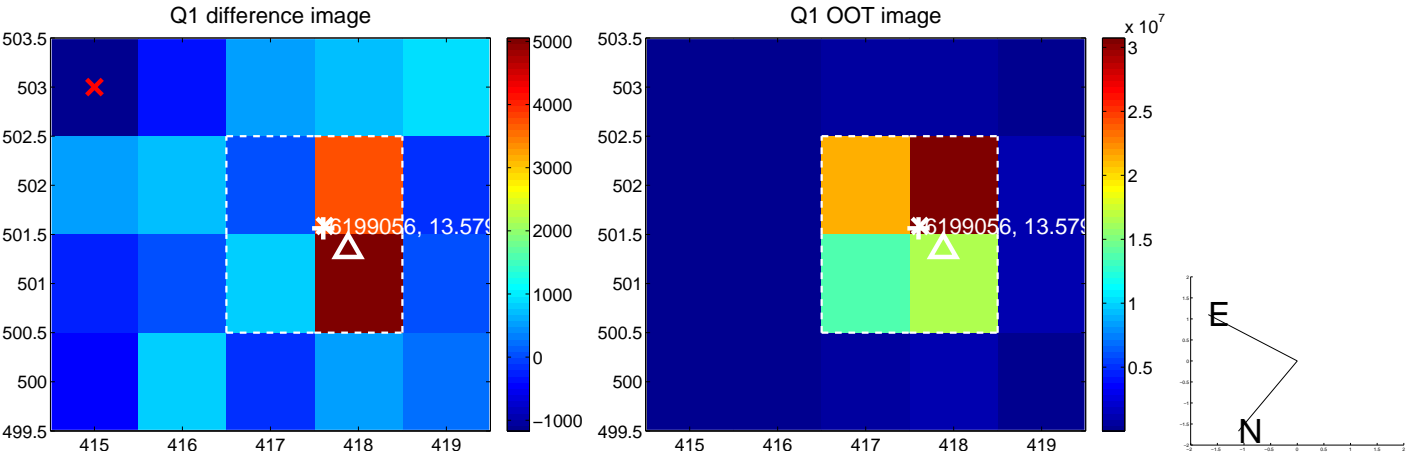
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.384 ± 0.210	1.82	0.334 ± 0.212	-0.188 ± 0.187
PRF-fit source offset from KIC position	0.354 ± 0.224	1.58	0.337 ± 0.224	-0.107 ± 0.184
photometric centroid source offset	0.09 ± 0.33	0.27	-0.08 ± 0.34	-0.05 ± 0.33

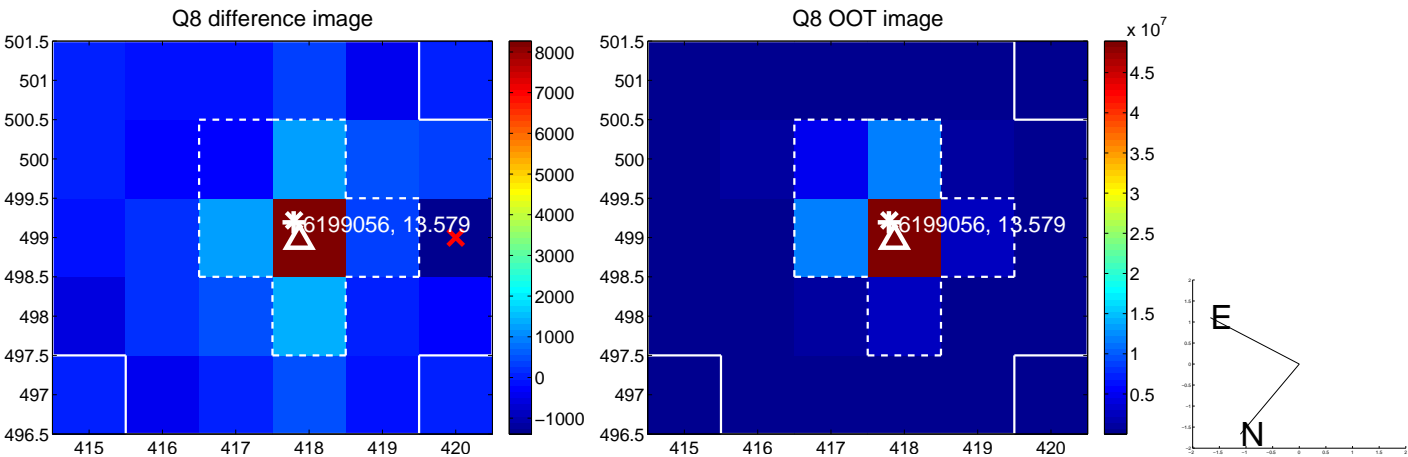
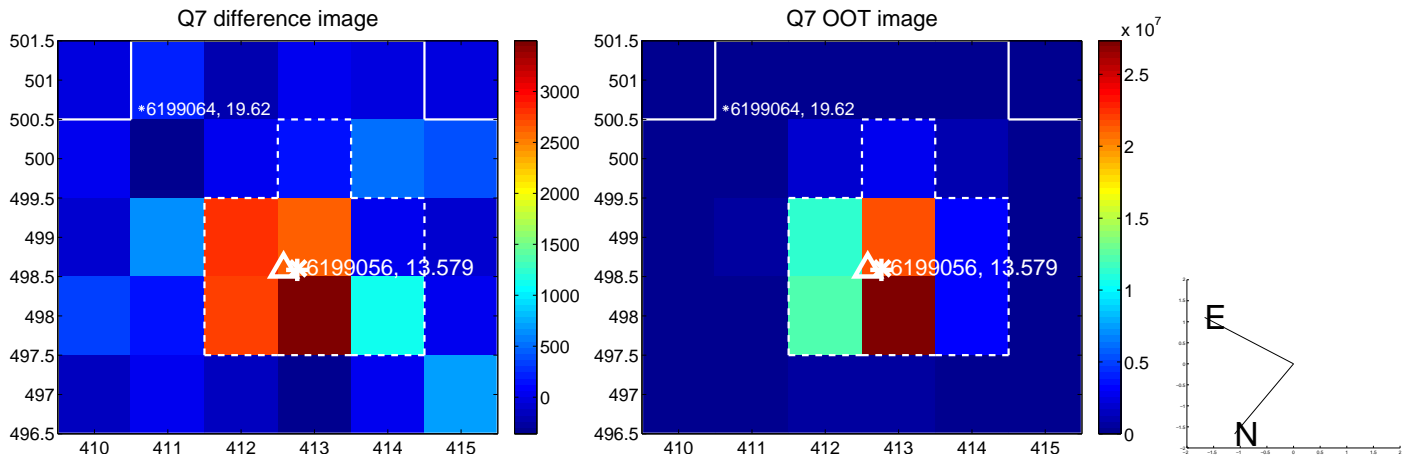
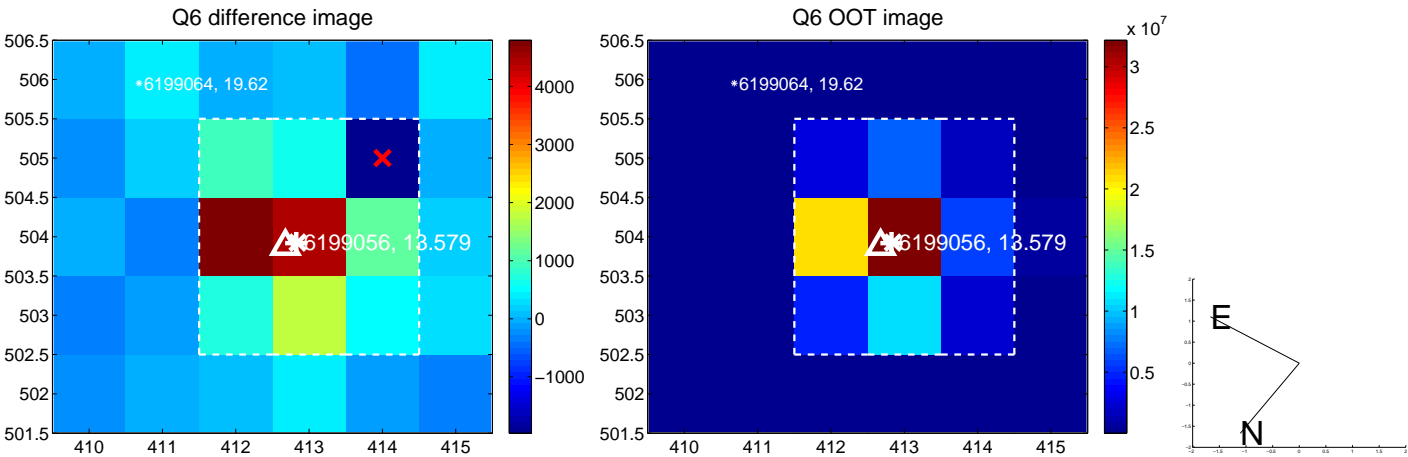
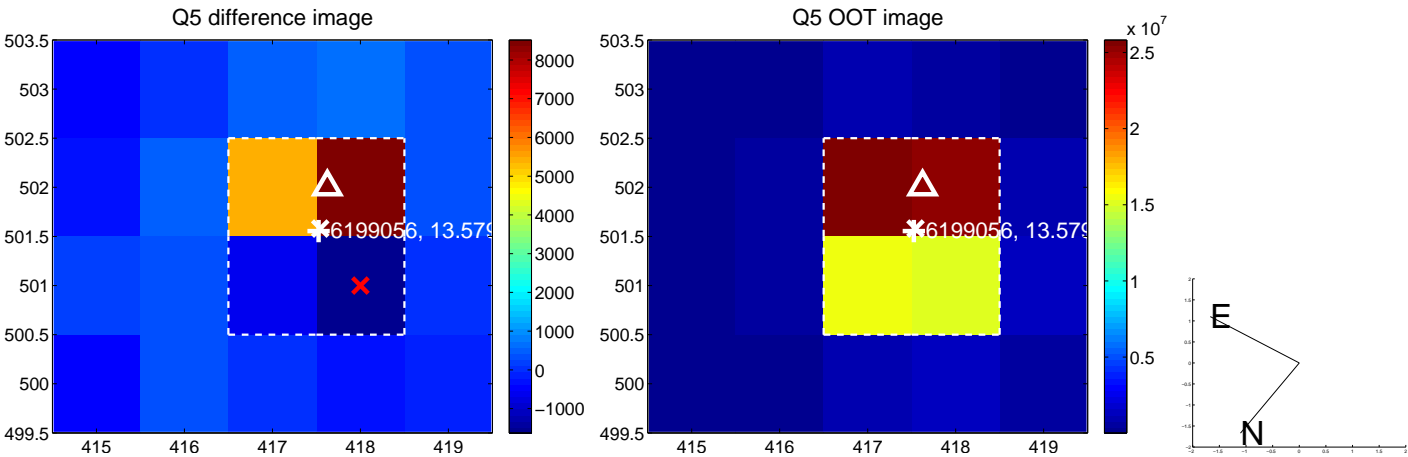


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

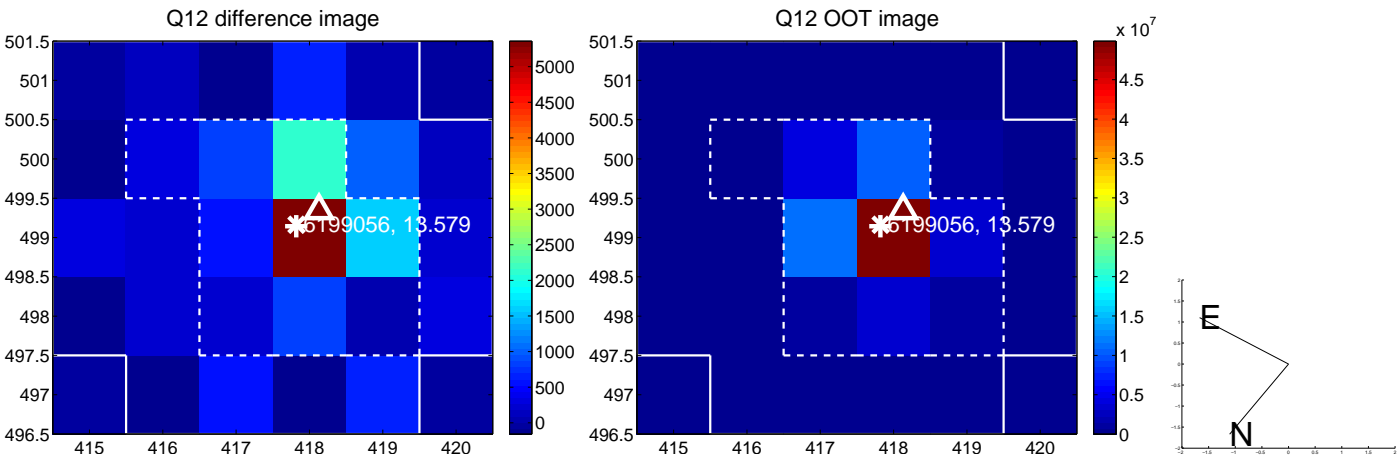
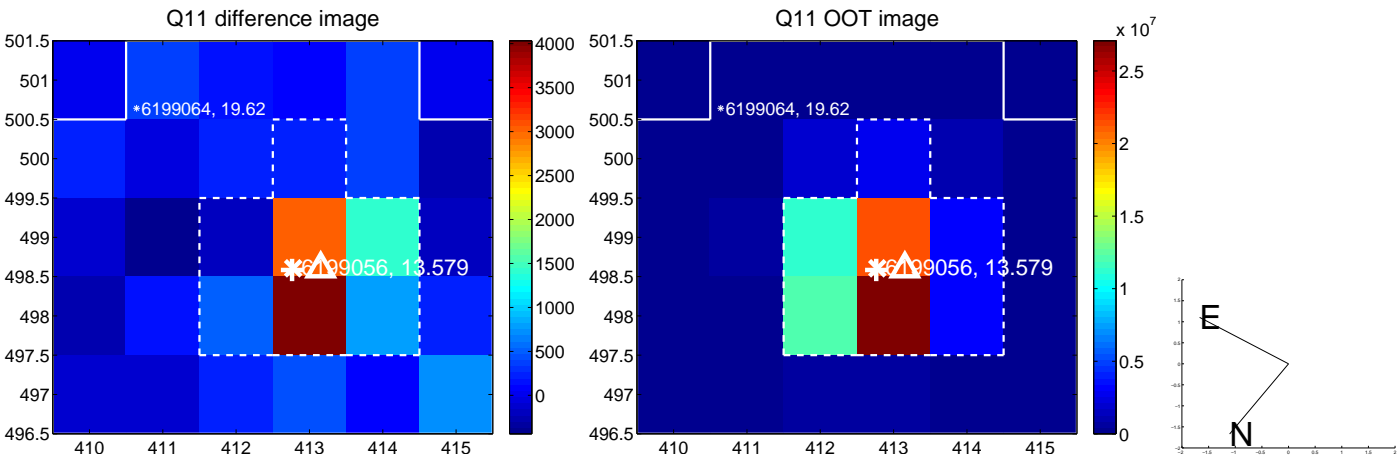
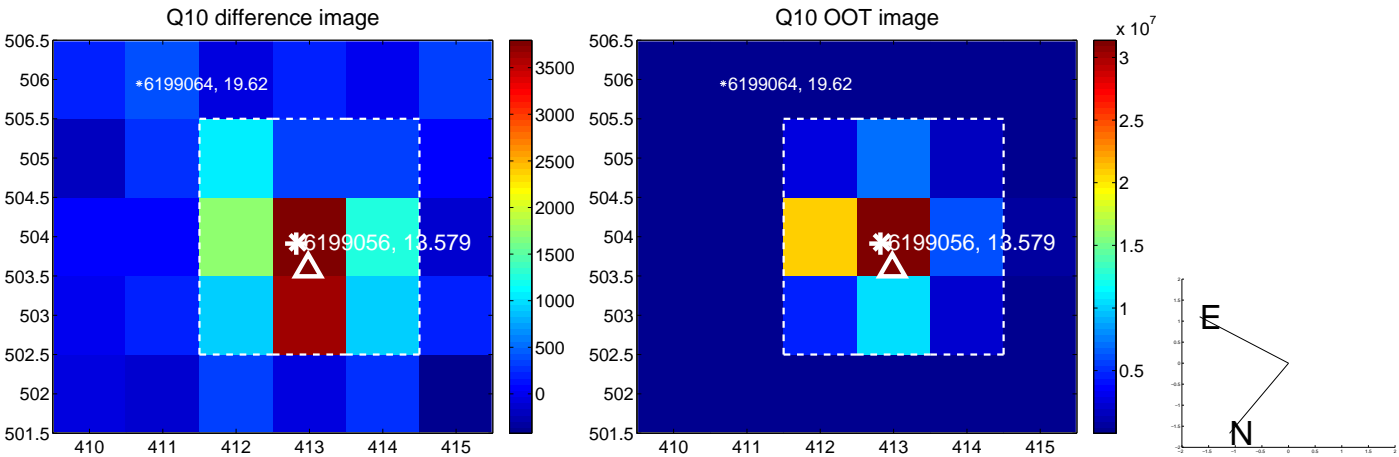
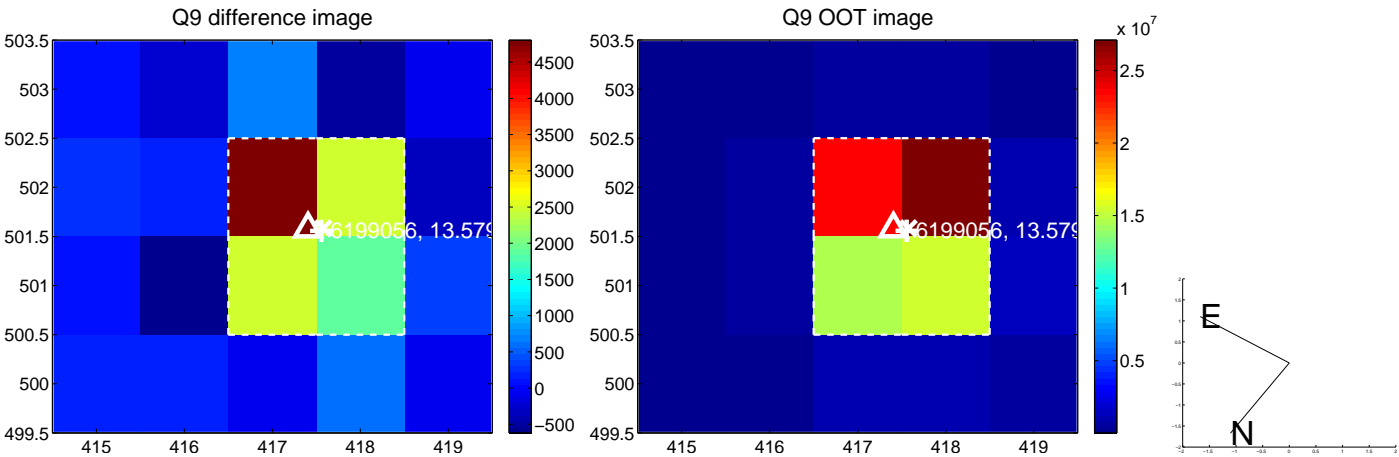
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



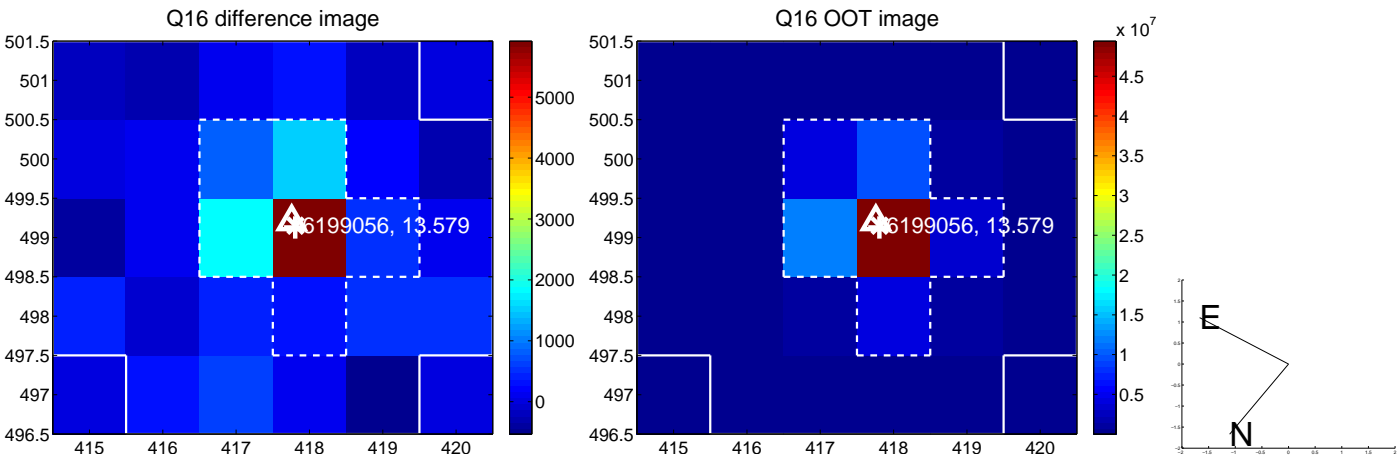
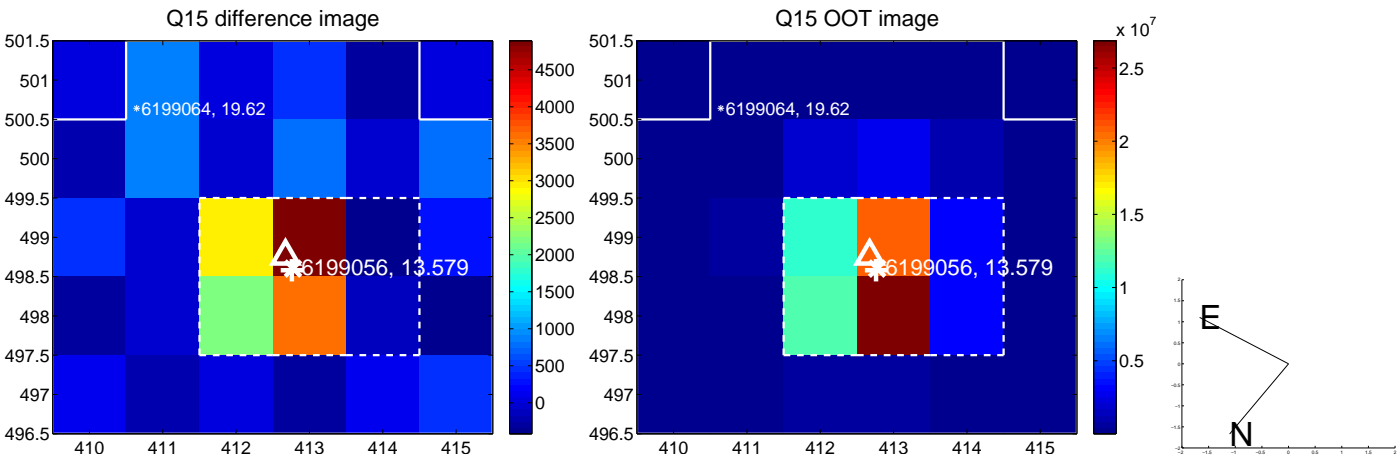
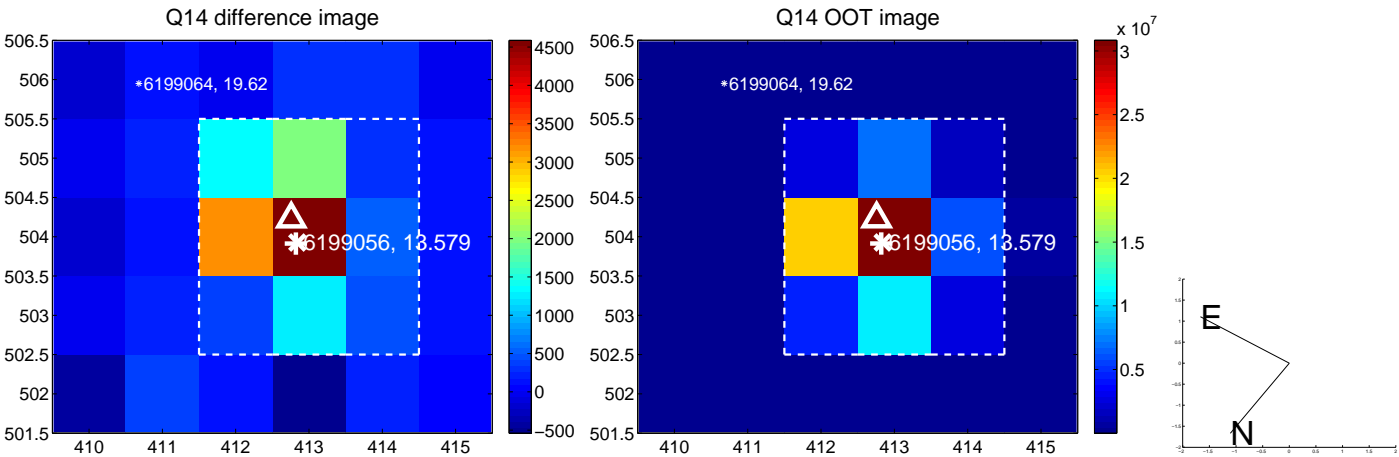
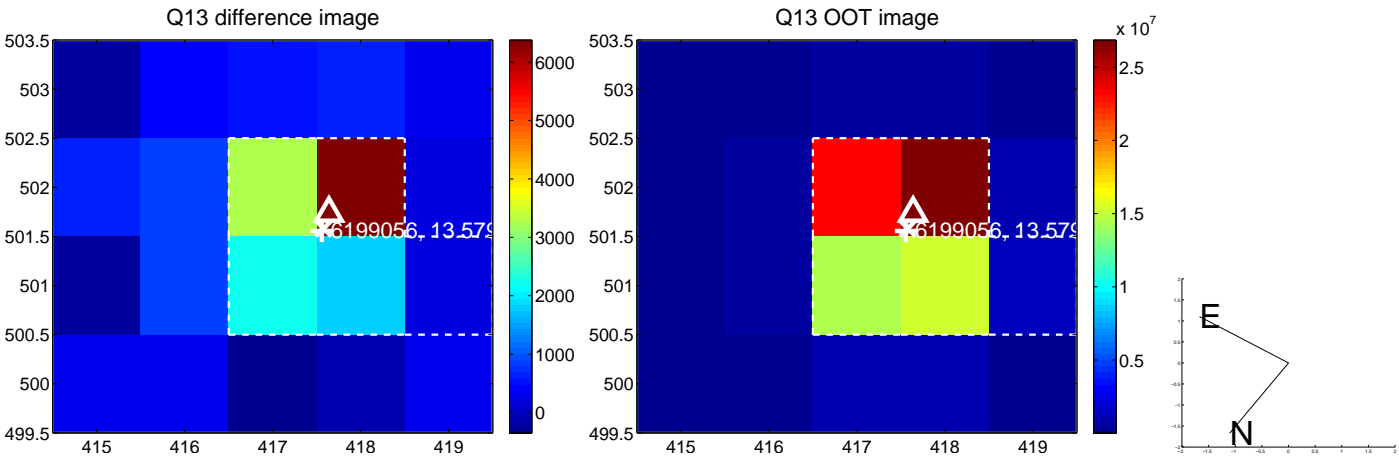
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



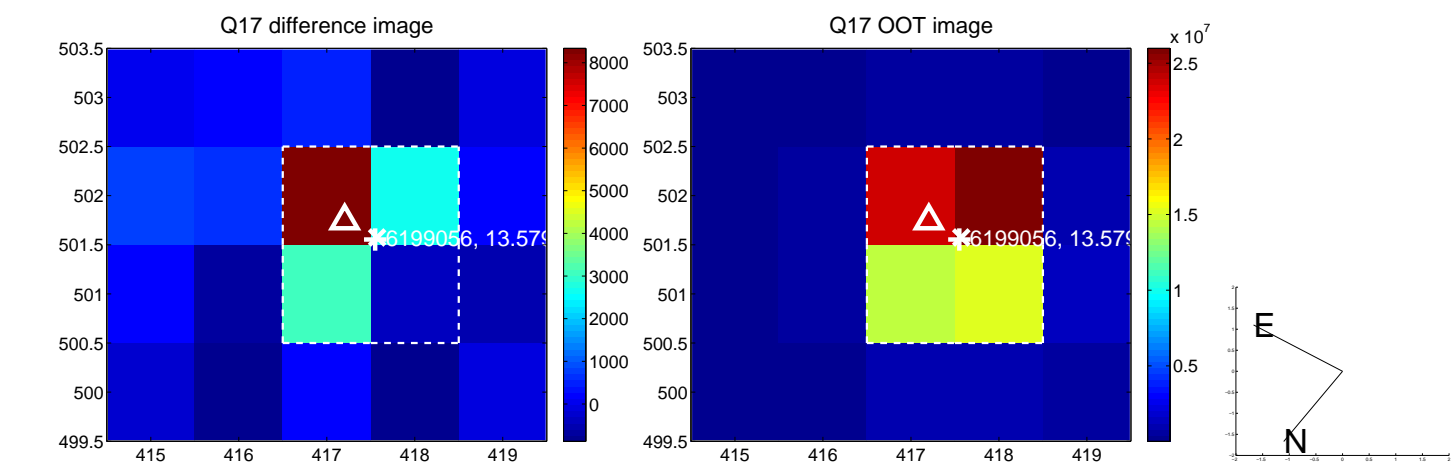
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



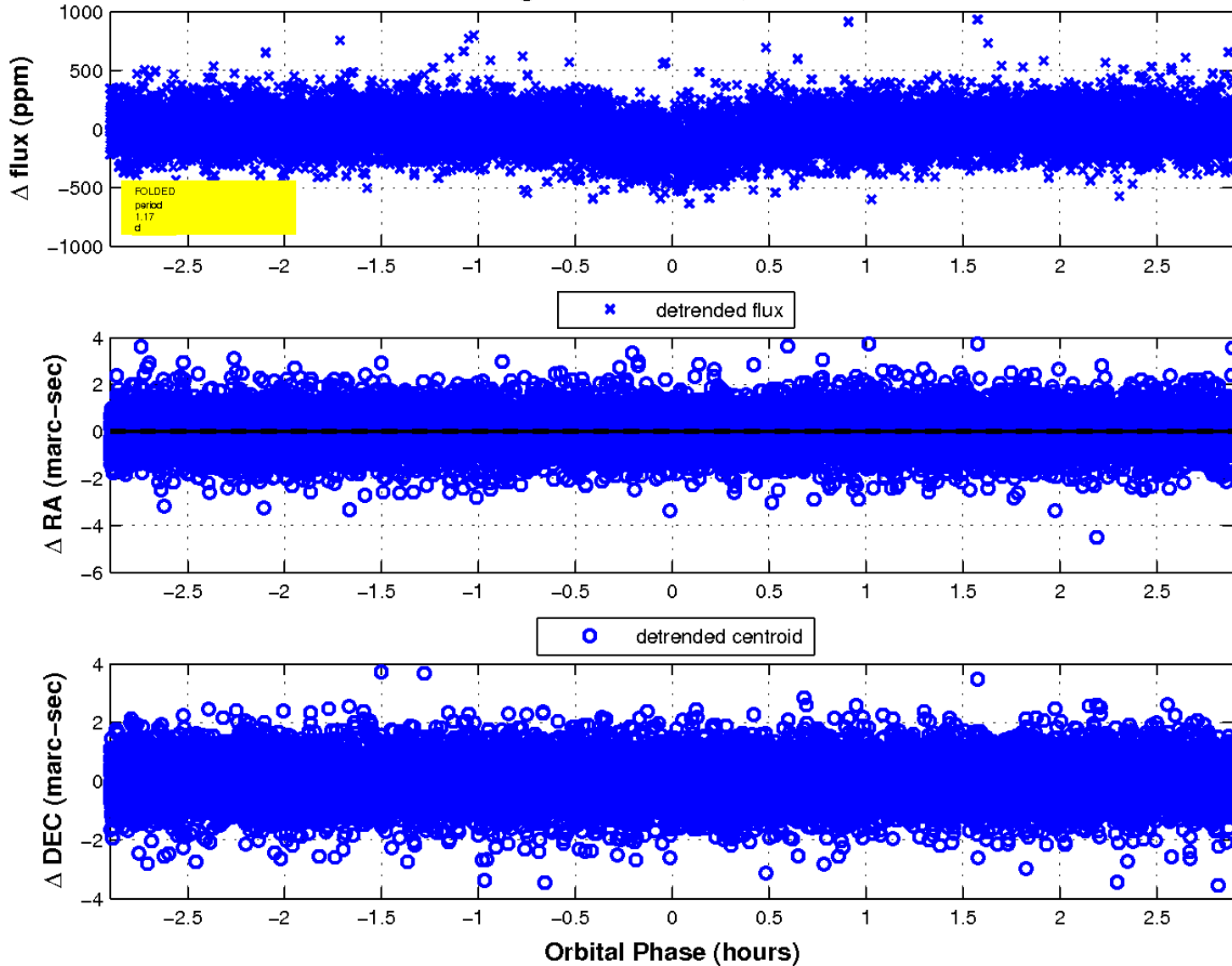
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

