

KIC 003839488

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})
003839488-01	OBS	1216.01	11.131226	134.366134	213.3	4.470	29.5	31.9	1.44	5800	2.50	194.59

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003839488-01	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.

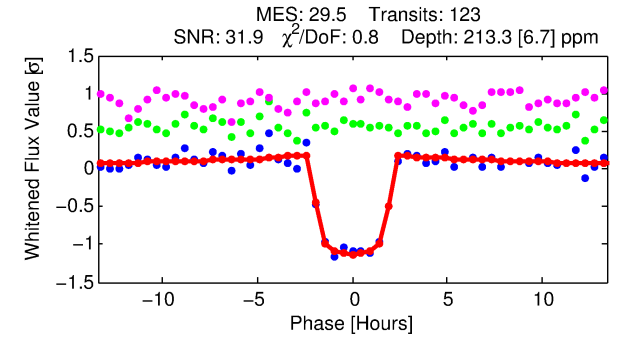
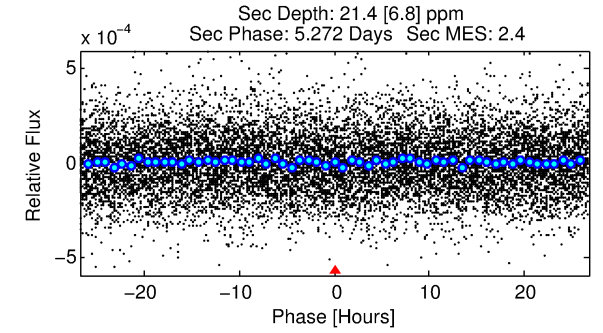
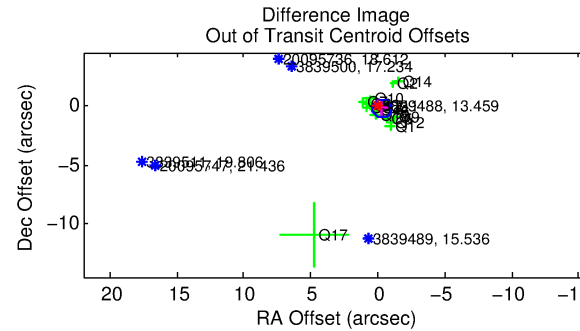
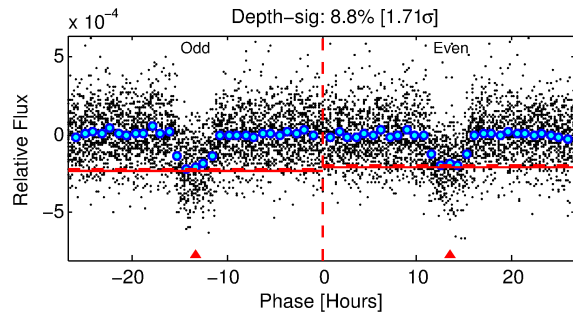
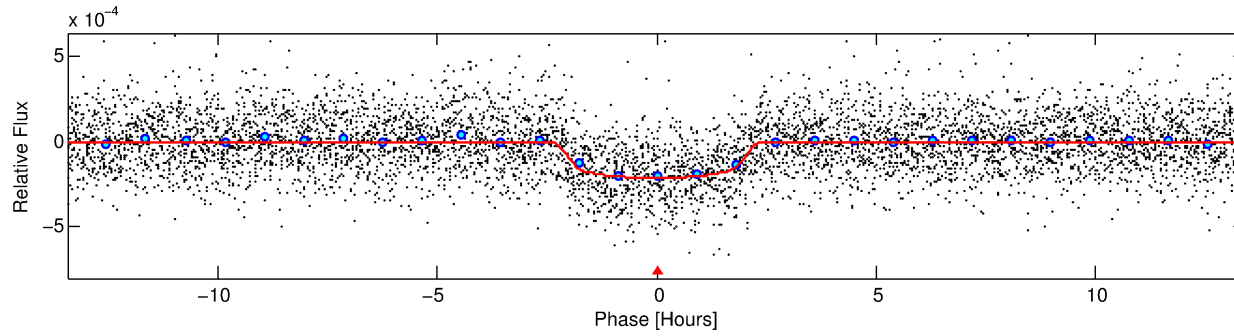
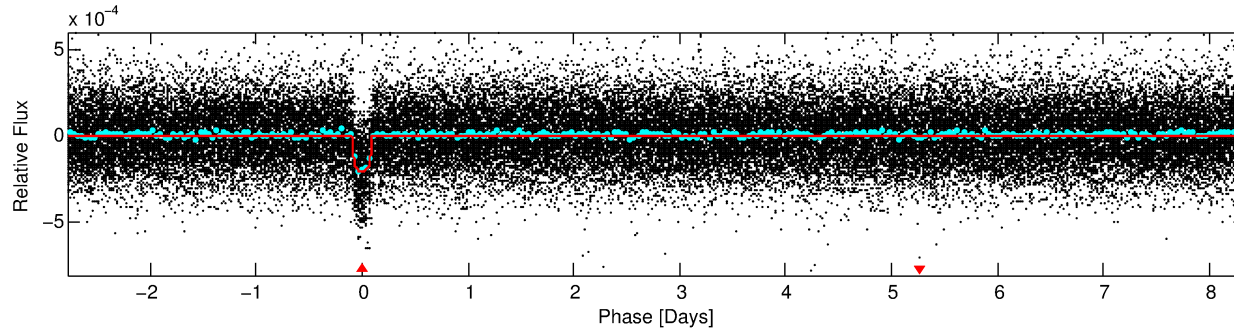
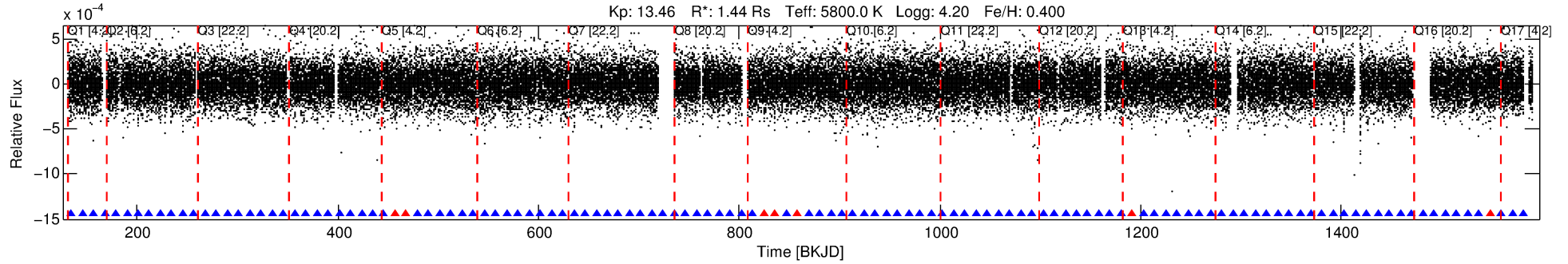
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003839488-01

No Significant Match Found

DV One-Page Summary

KIC: 3839488 Candidate: 1 of 1 Period: 11.131 d
KOI: K01216.01 Corr: 0.967



DV Fit Results:

Period = 11.13123 [0.00004] d
Epoch = 134.3661 [0.0026] BKJD
Rp/R* = 0.0160 [0.0018]
a/R* = 9.02 [4.47]
b = 0.90 [0.11]
Seff = 194.59 [54.94]
Teq = 952 [67] K
Rp = 2.50 [0.55] Re
a = 0.1036 [0.0180] AU
Ag = 20.21 [9.51] [2.02 σ]
Teffp = 3122 [307] K [6.91 σ]

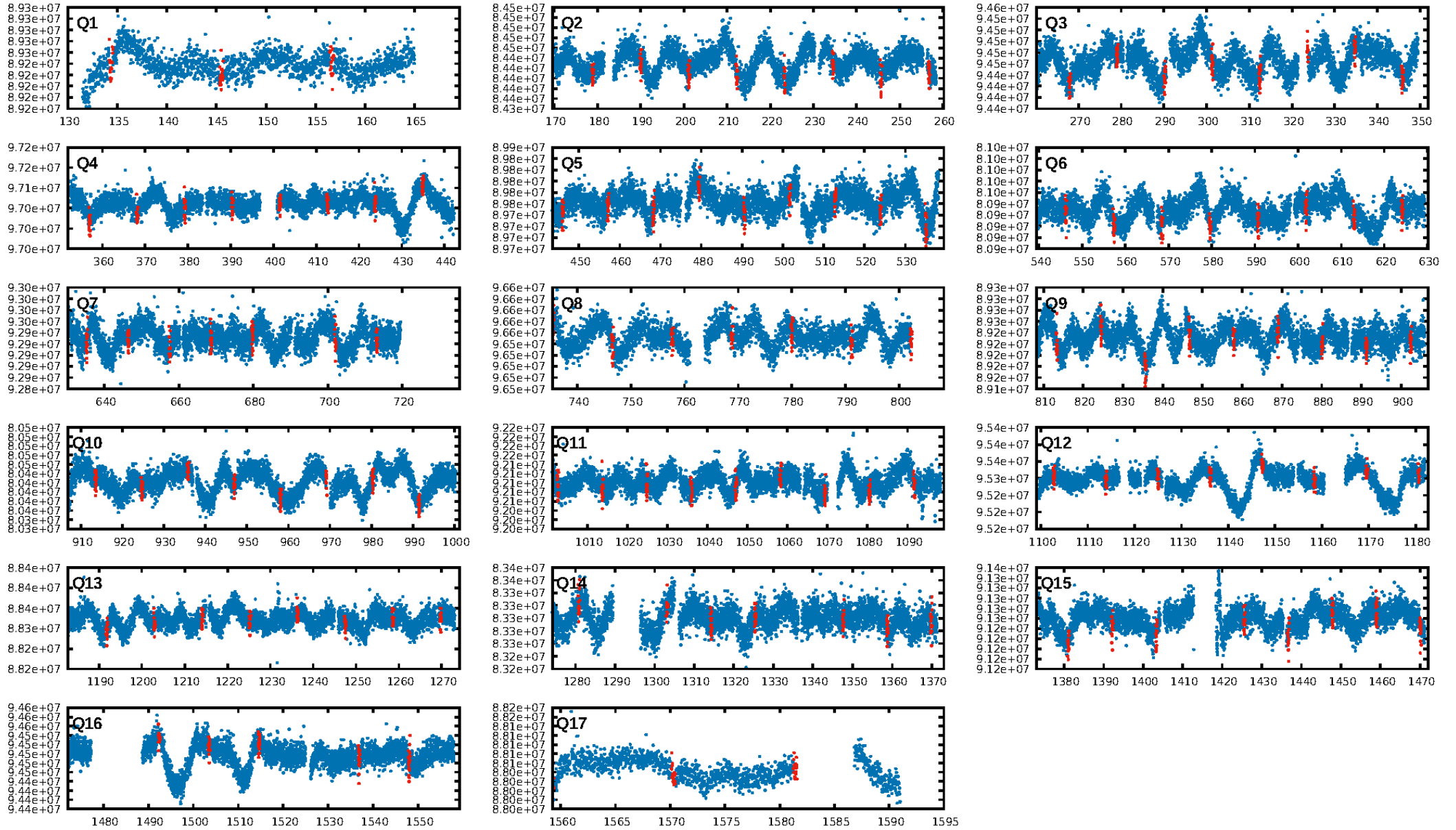
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 98.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.45e-187
RollingBand-fgt: 0.94 [110/117]
GhostDiagnostic-chr: 4.438
Centroid-sig: 25.8%
Centroid-so: 0.113 arcsec [0.30 σ]
OotOffset-rm: 0.379 arcsec [1.50 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.387 arcsec [1.59 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

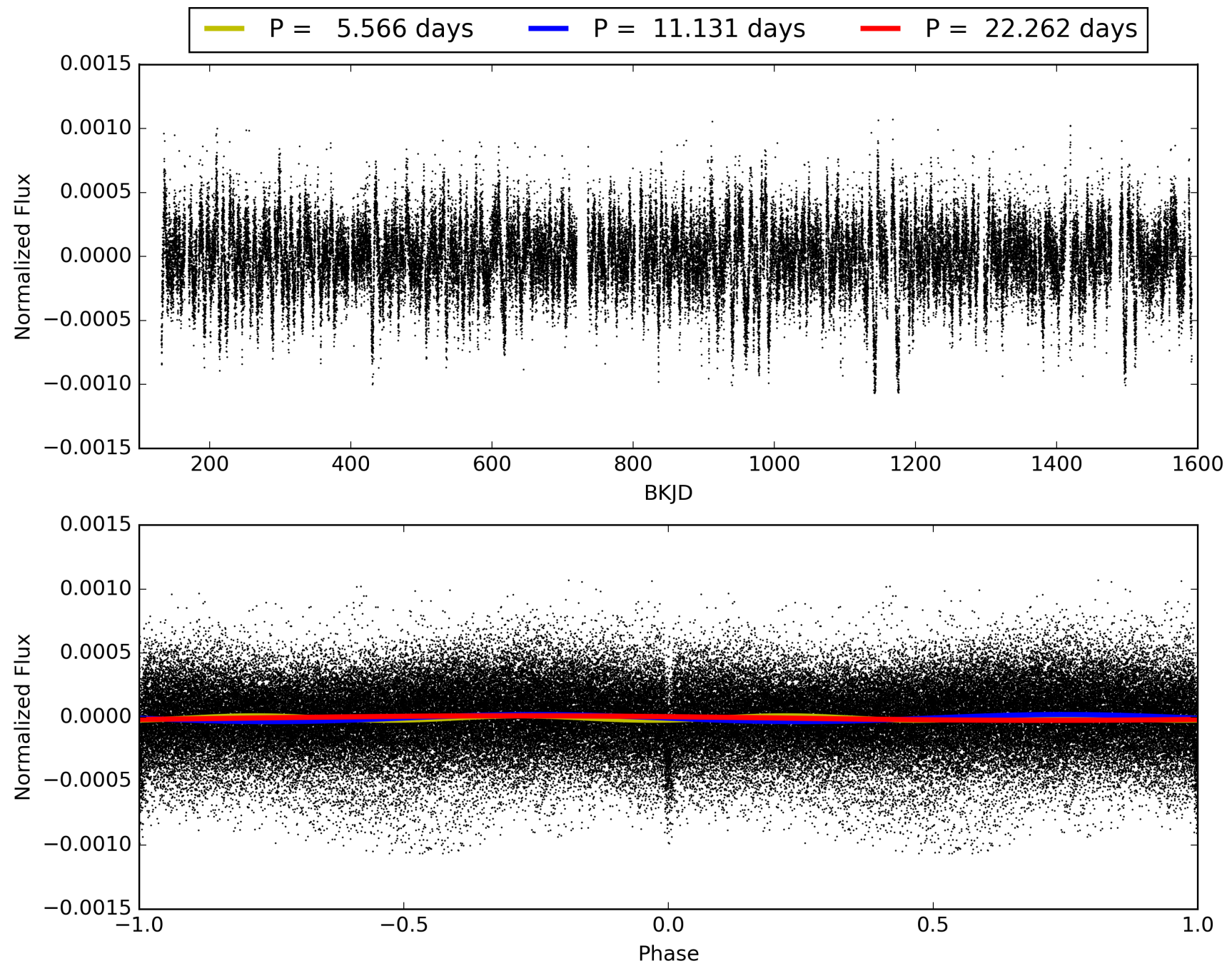
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 17:33:45 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 003839488-01, PDC Light Curves

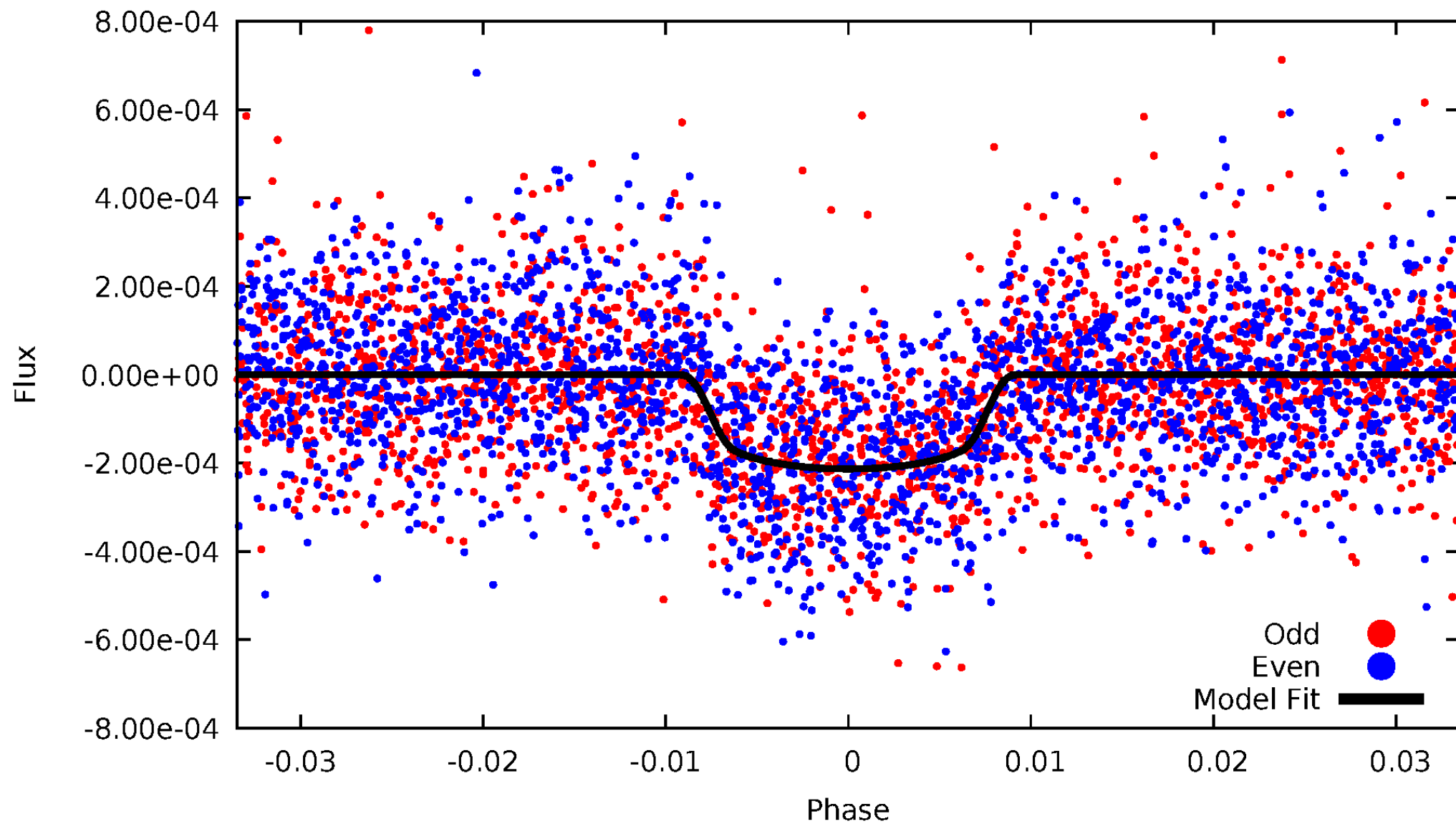


TCE 003839488-01



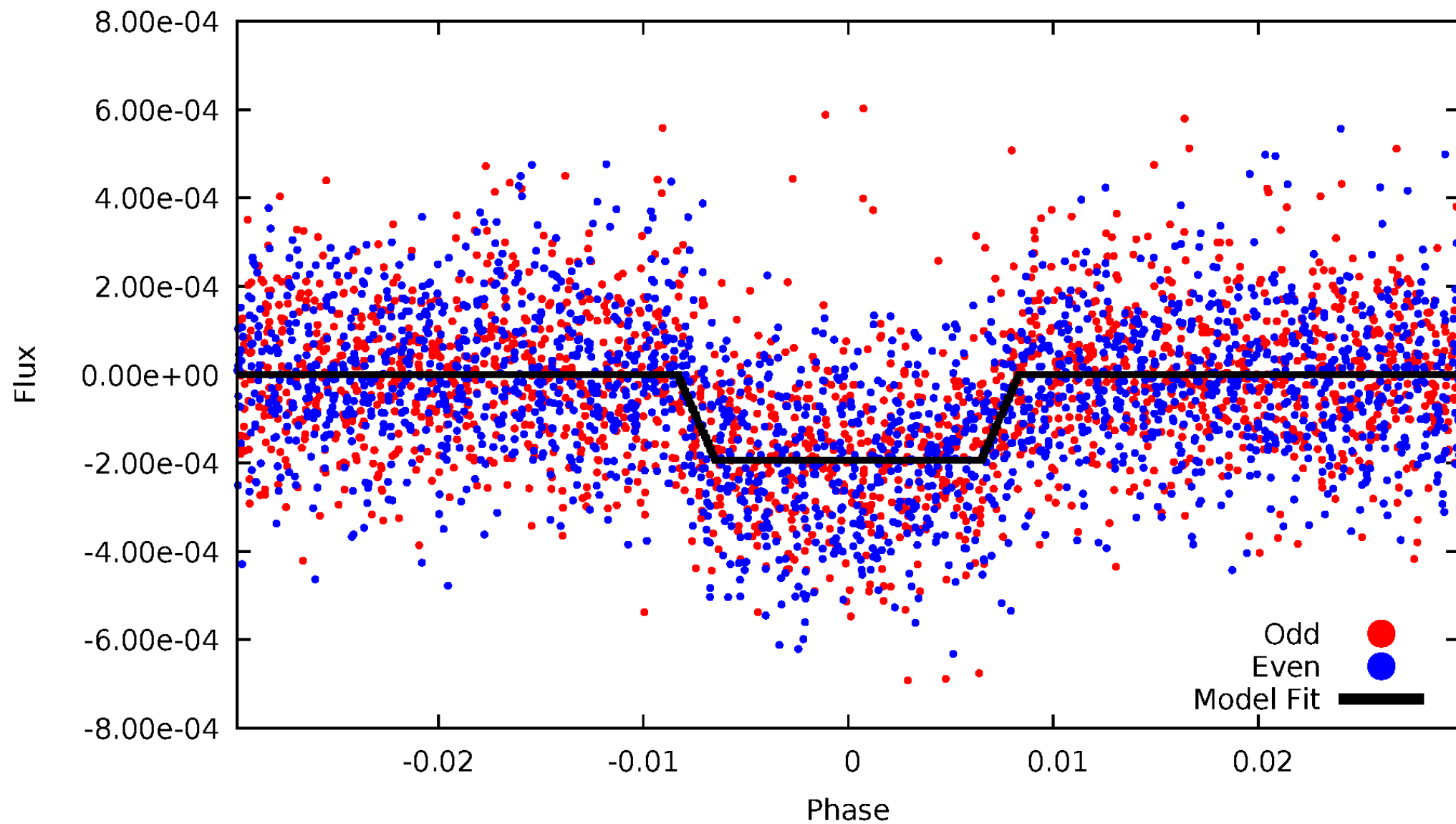
DV Odd/Even

TCE 003839488-01



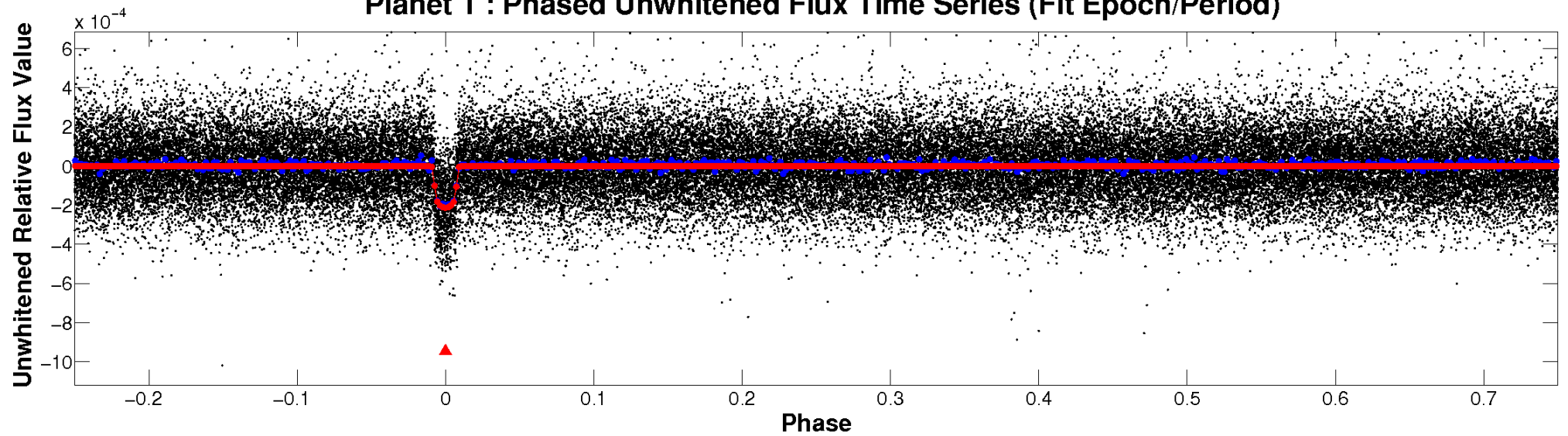
ALT Odd/Even

TCE 003839488-01

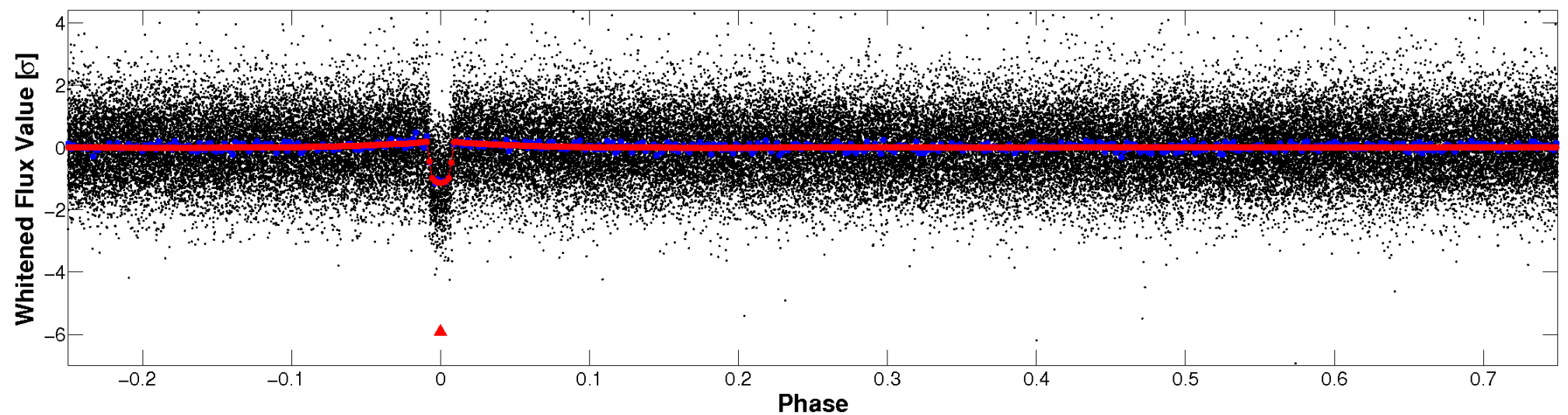


Non-Whitened Vs. Whitened Light Curve

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

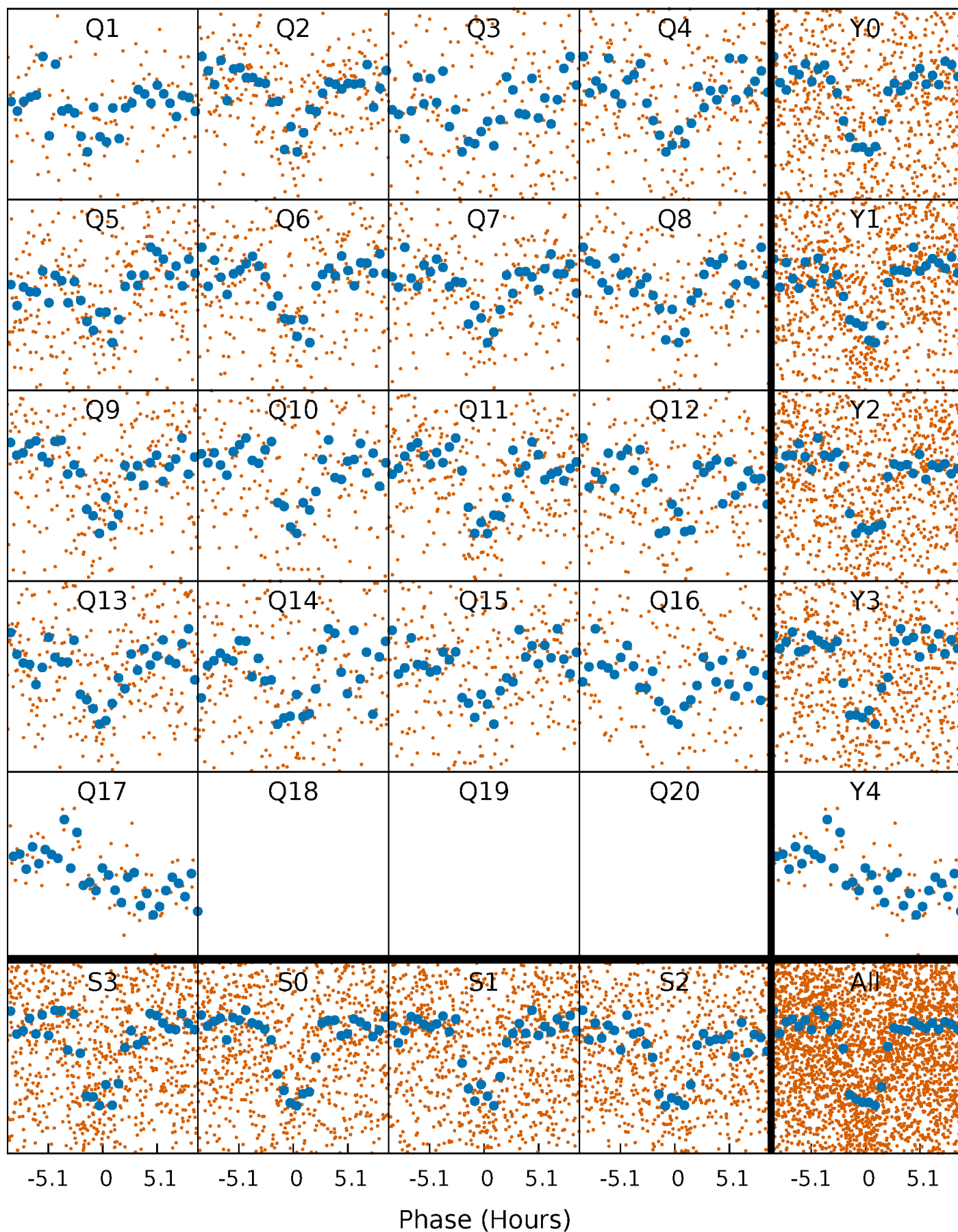


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



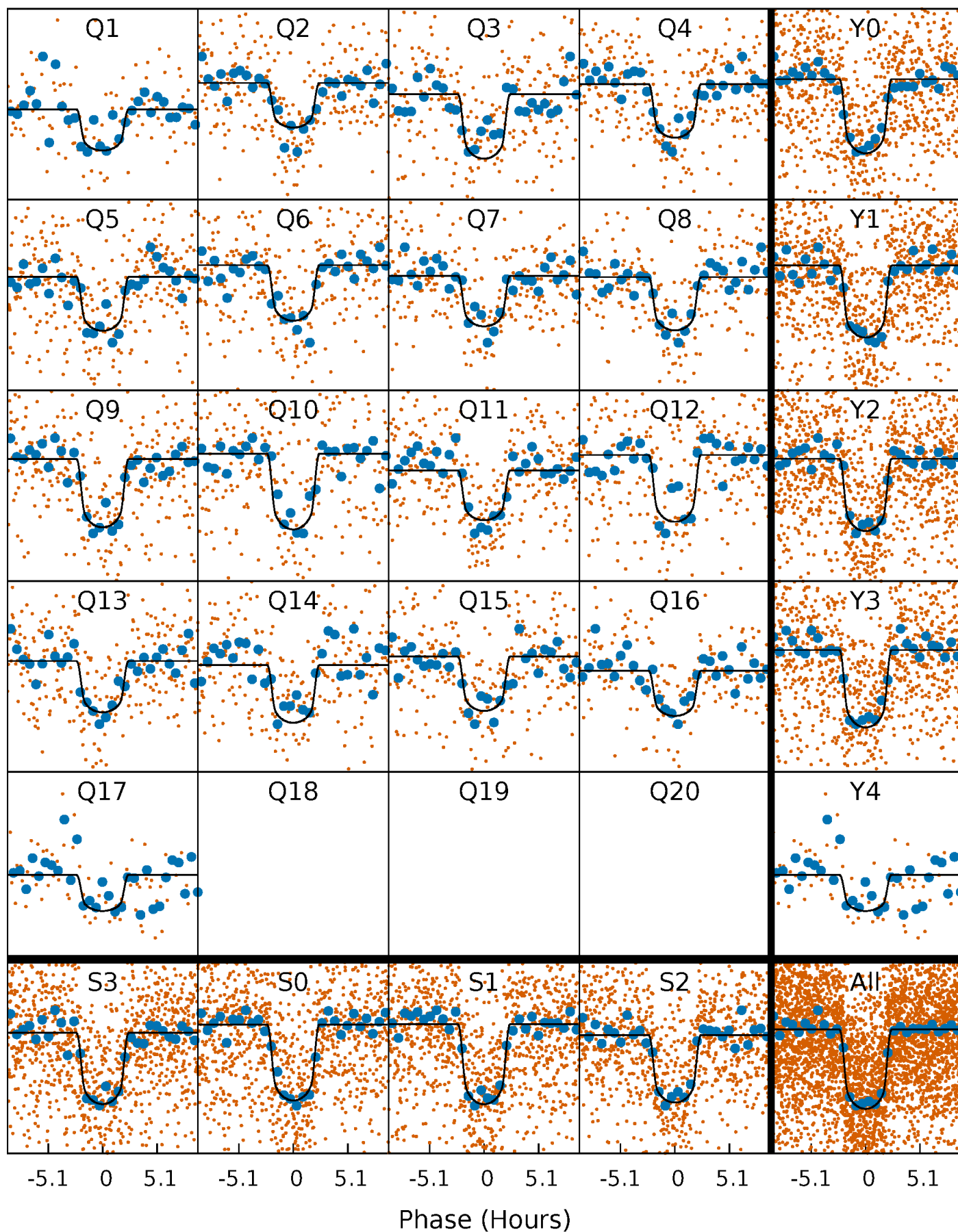
PDC Quarter-Phased Transit Curves

TCE 003839488-01 P= 11.131226 Days $T_0=134.366133$ (BKJD)



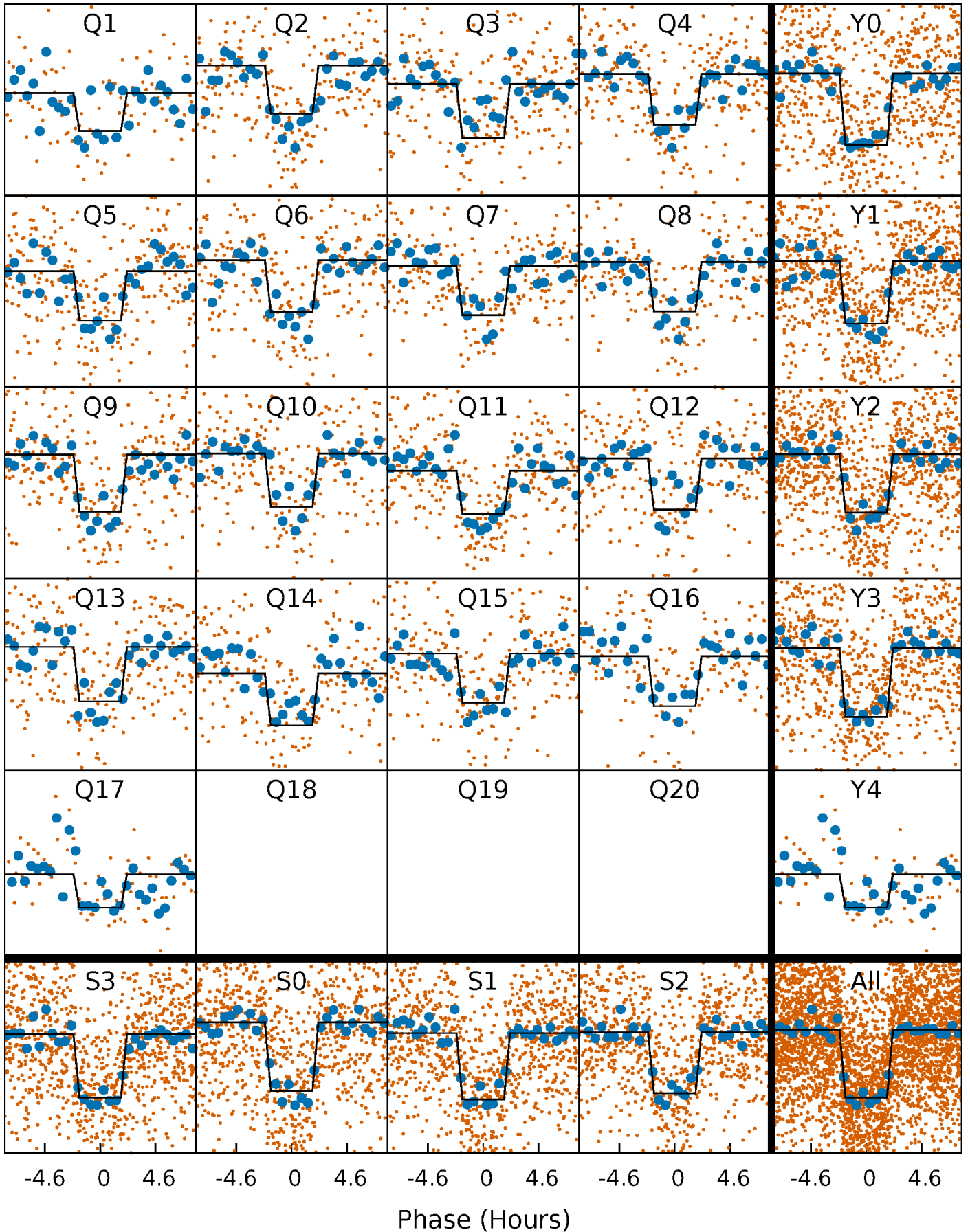
DV Quarter-Phased Transit Curves

TCE 003839488-01 P= 11.131226 Days $T_0=134.366133$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

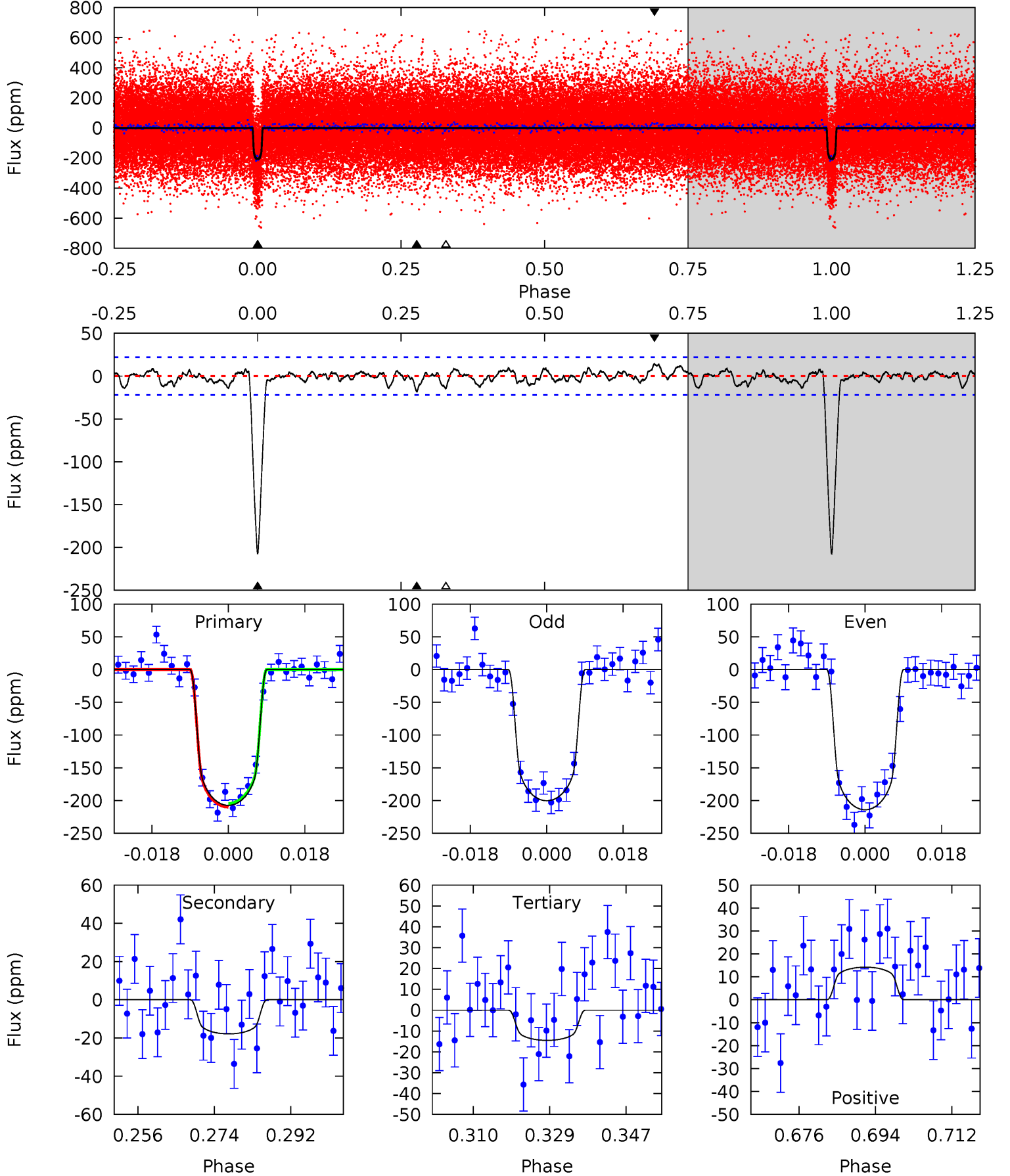
TCE 003839488-01 P= 11.131187 Days $T_0=134.368678$ (BKJD)



DV Model-Shift Uniqueness Test

003839488-01, P = 11.131226 Days, E = 123.234907 Days

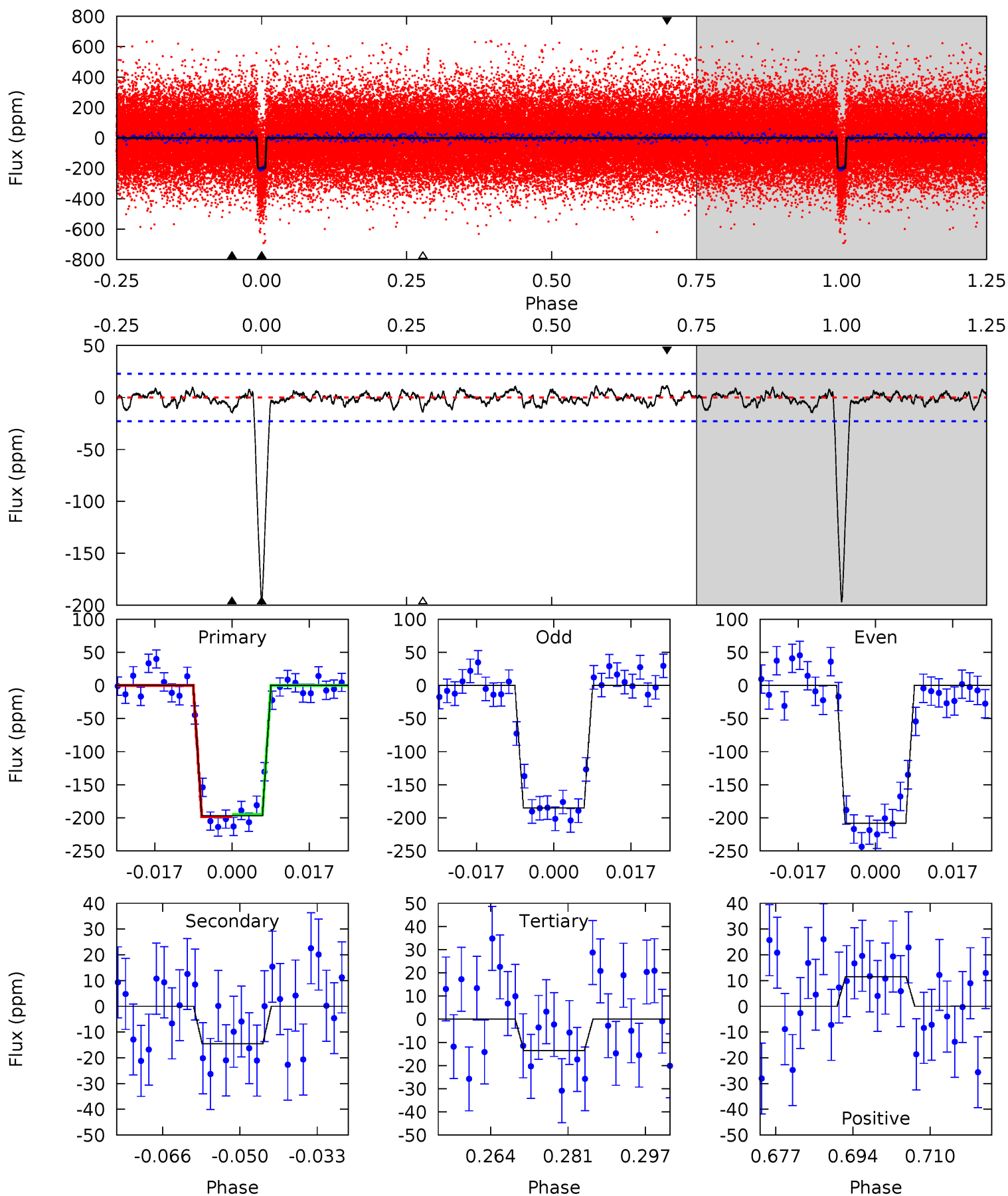
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
46.4	4.00	3.24	3.18	4.91	2.36	1.22	43.2	43.2	0.76	0.82	1.55	0.97	0.06	0.60



Alt Model-Shift Uniqueness Test

003839488-01, P = 11.131187 Days, E = 123.237491 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
42.4	3.14	2.92	2.48	4.93	2.40	1.00	39.5	39.9	0.22	0.65	2.49	0.98	0.06	0.38



Stellar Parameters For KIC 003839488

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5800^{+105}_{-117}	$4.202^{+0.156}_{-0.117}$	$0.400^{+0.050}_{-0.150}$	$1.435^{+0.247}_{-0.271}$	$1.195^{+0.088}_{-0.121}$	$0.570^{+0.462}_{-0.186}$
	+2%/-2%	+4%/-3%	+12%/-37%	+17%/-19%	+7%/-10%	+81%/-33%
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 003839488-01 / KOI 1216.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-18 ± 4	$2.45^{+0.41}_{-0.35}$	1326^{+71}_{-73}	3468^{+201}_{-193}	17^{+8}_{-6}
Alt.	-15 ± 5	$2.16^{+0.38}_{-0.36}$	1332^{+57}_{-76}	3497^{+243}_{-241}	18^{+11}_{-7}

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 $A_{obs} \gg 1.0$

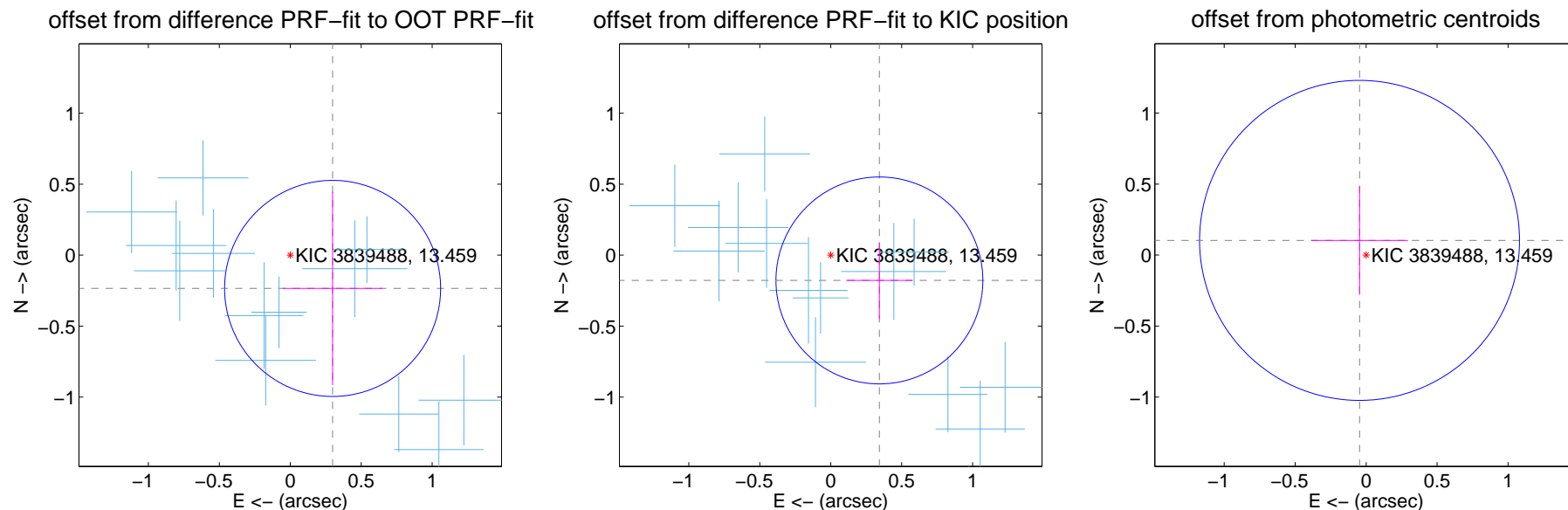
DV Centroid Data

Supplemental centroid analysis for 003839488-01. Kepler magnitude: 13.46. Transit SNR 31.92

There are 16 quarters with good PRF difference image offsets

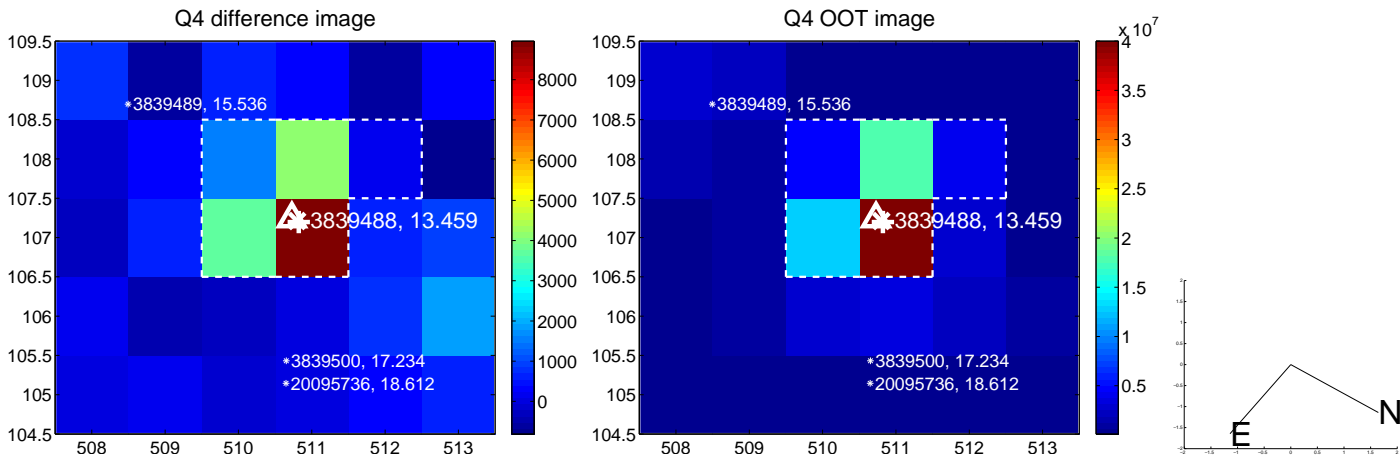
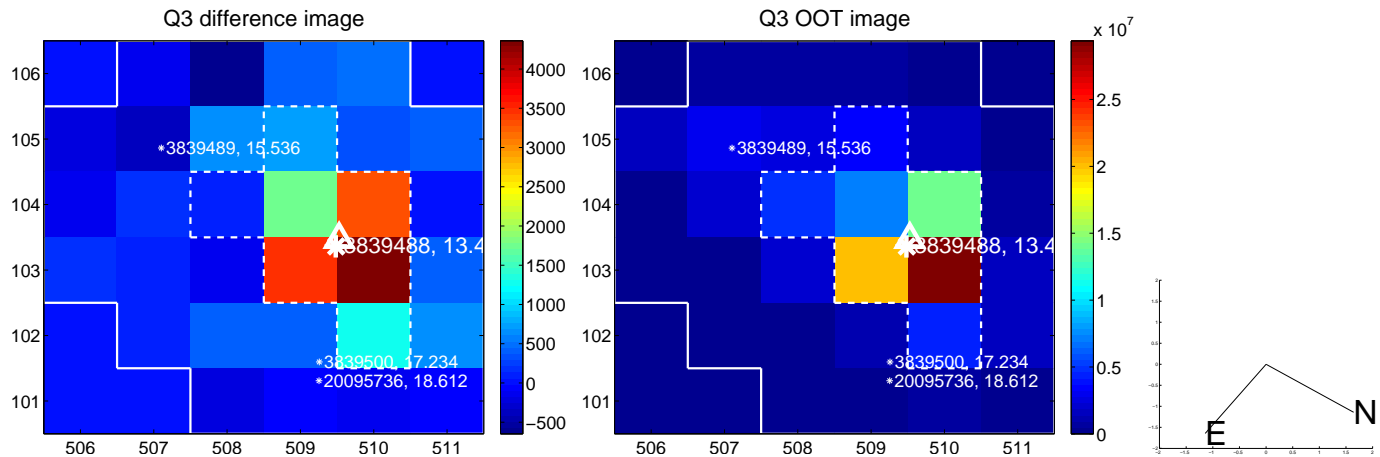
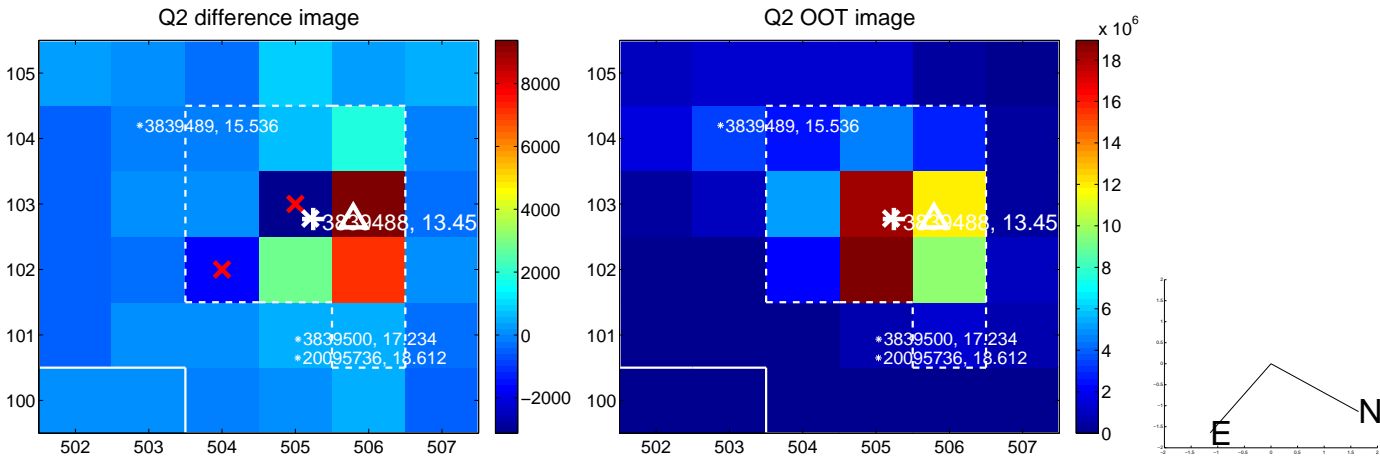
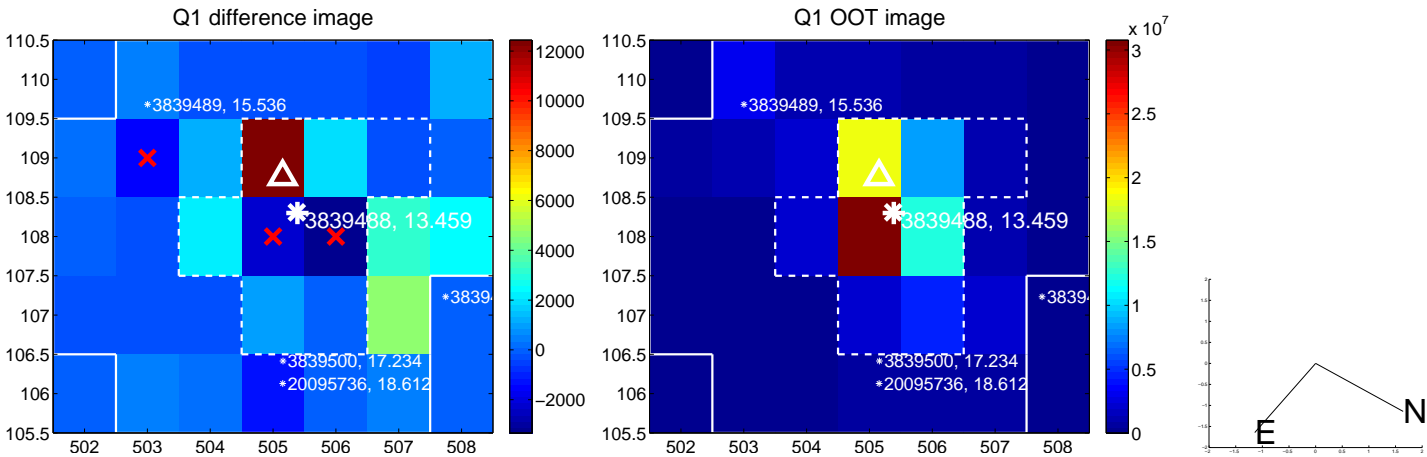
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.379 ± 0.254	1.50	-0.298 ± 0.351	-0.234 ± 0.682
PRF-fit source offset from KIC position	0.387 ± 0.243	1.59	-0.343 ± 0.235	-0.178 ± 0.270
photometric centroid source offset	0.11 ± 0.38	0.30	0.05 ± 0.34	0.10 ± 0.38

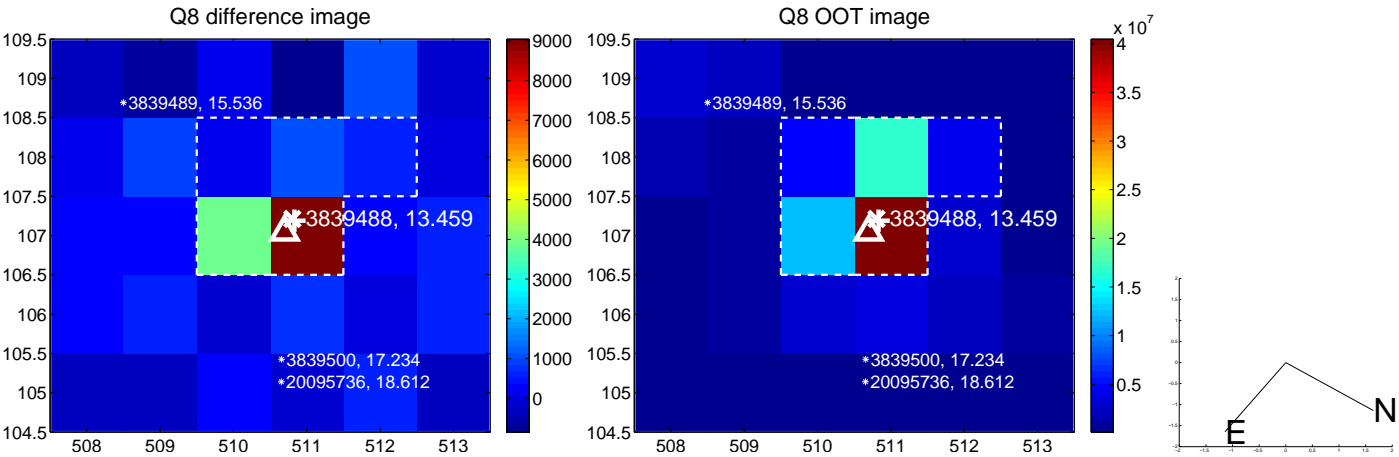
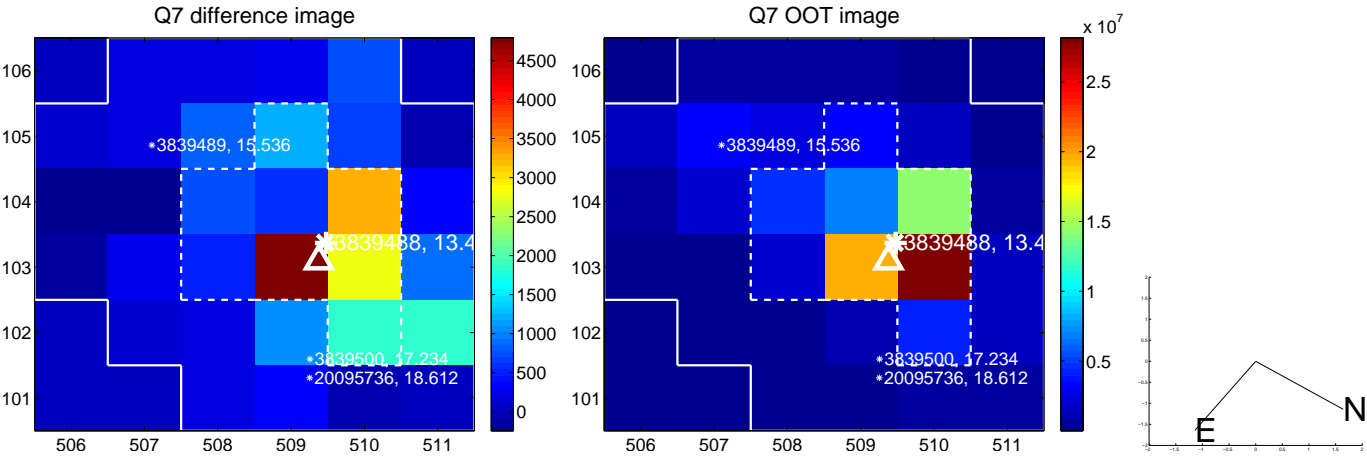
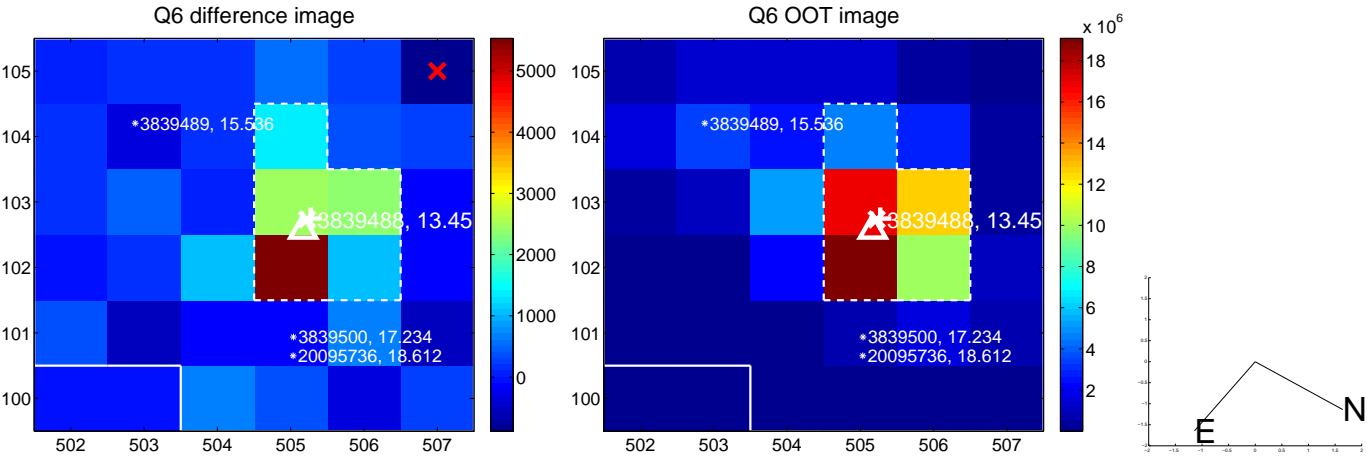
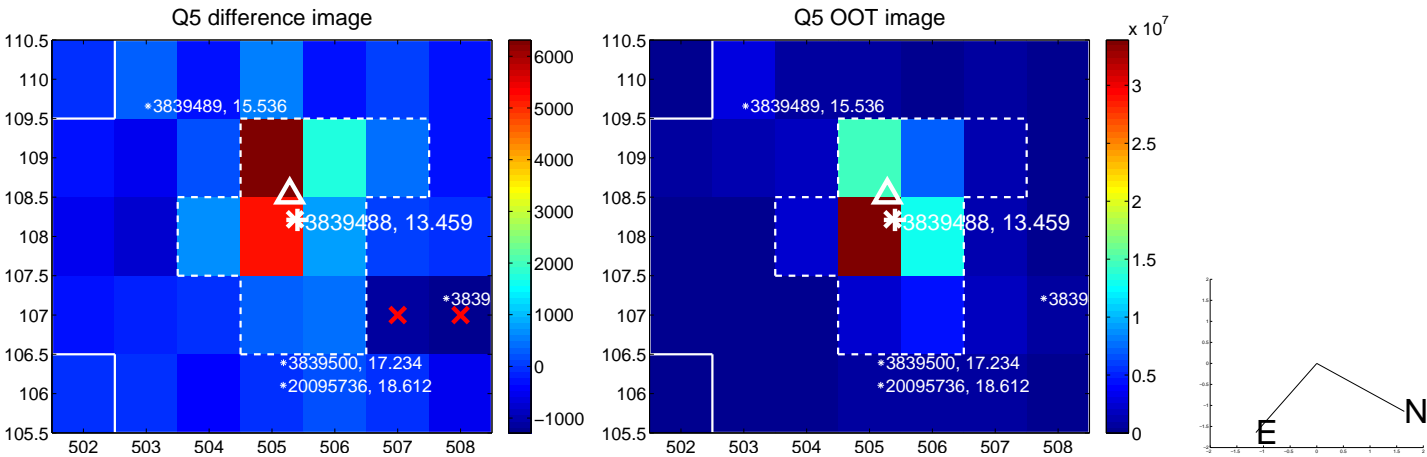


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

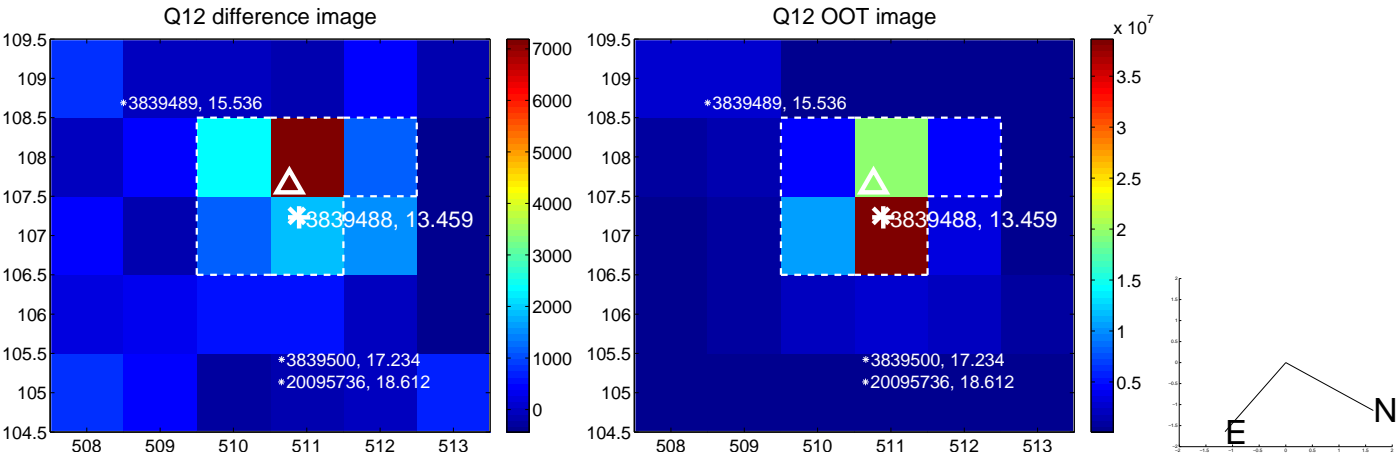
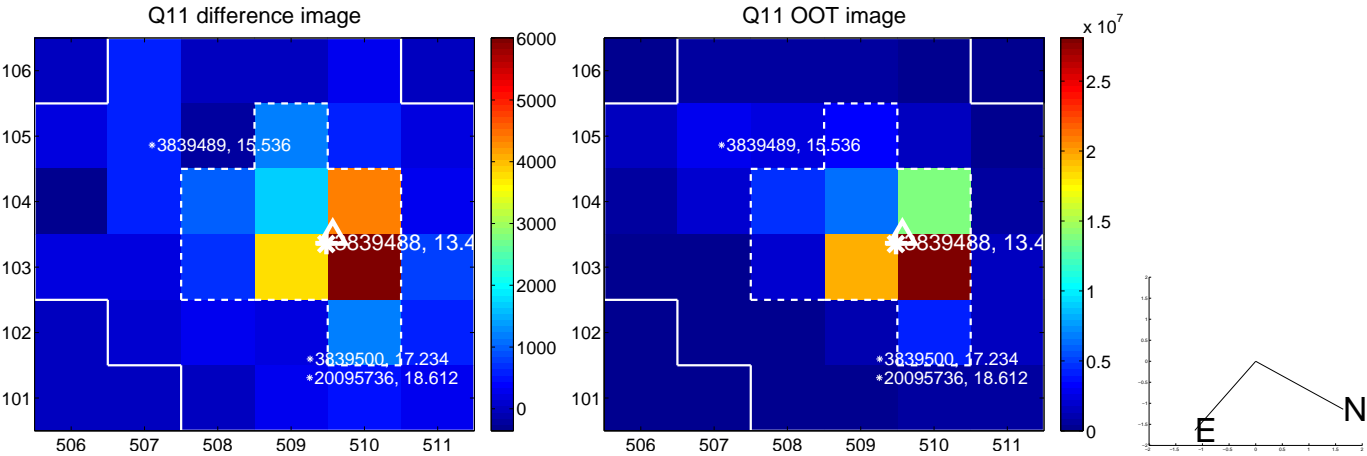
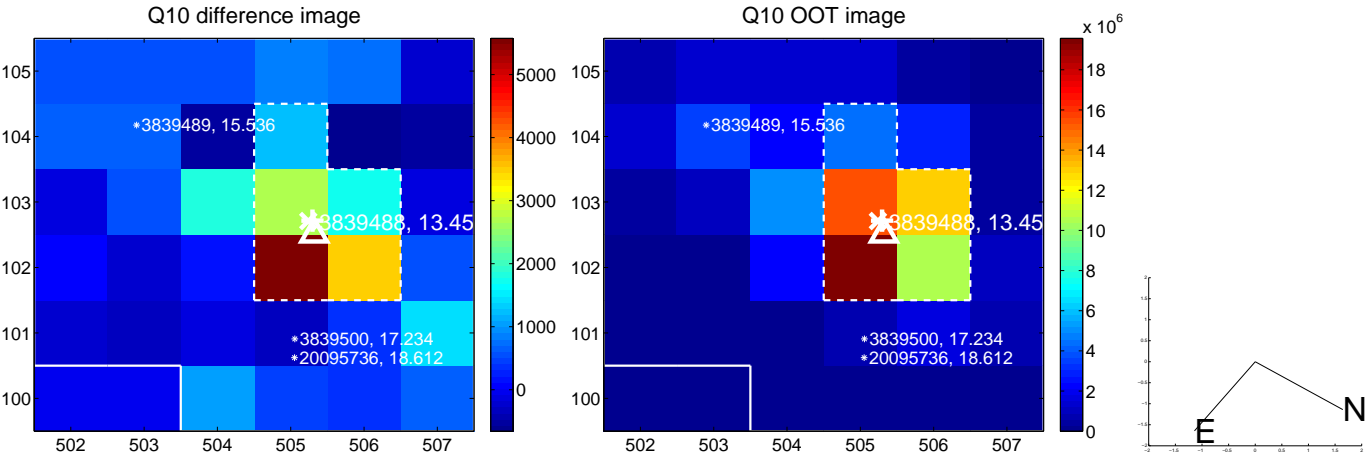
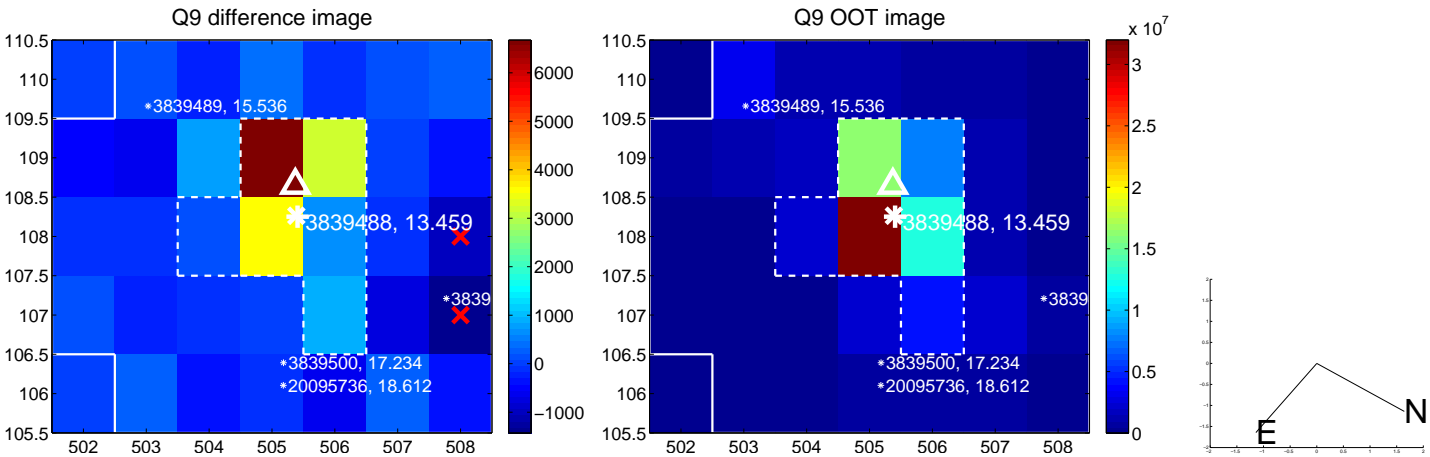
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



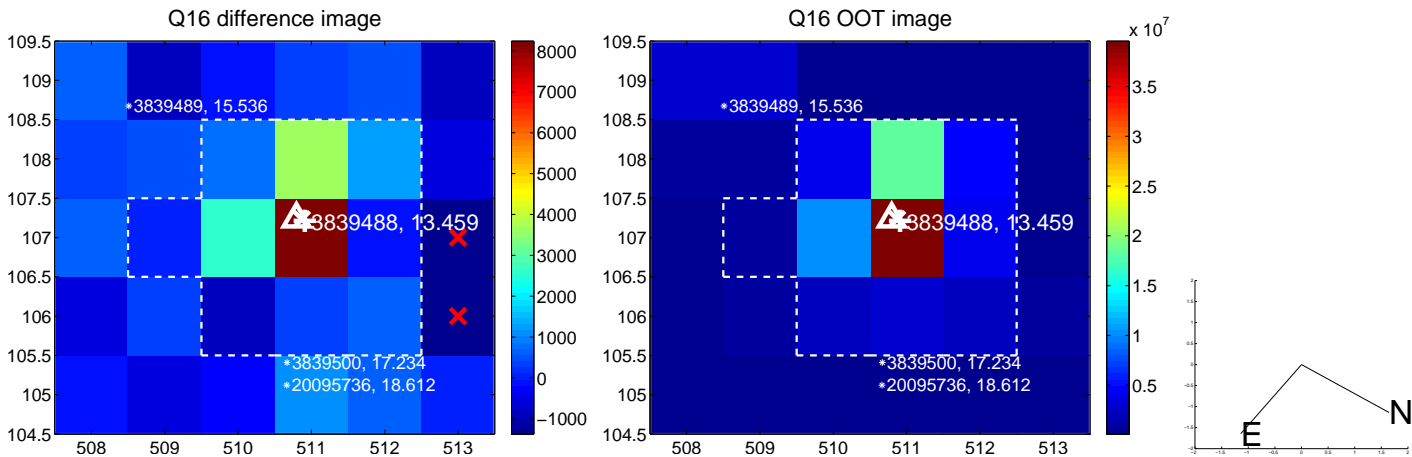
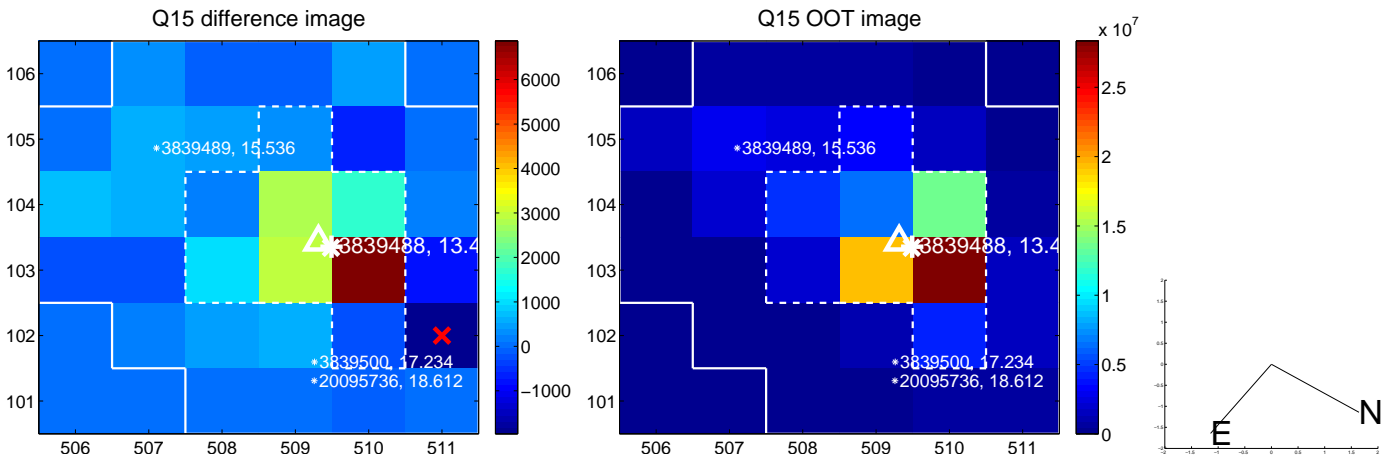
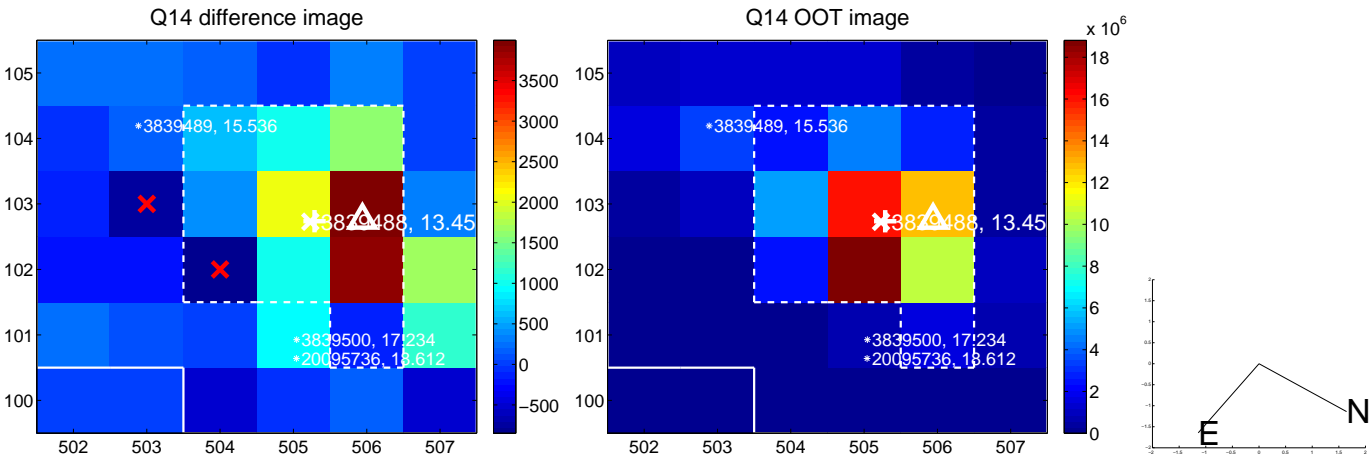
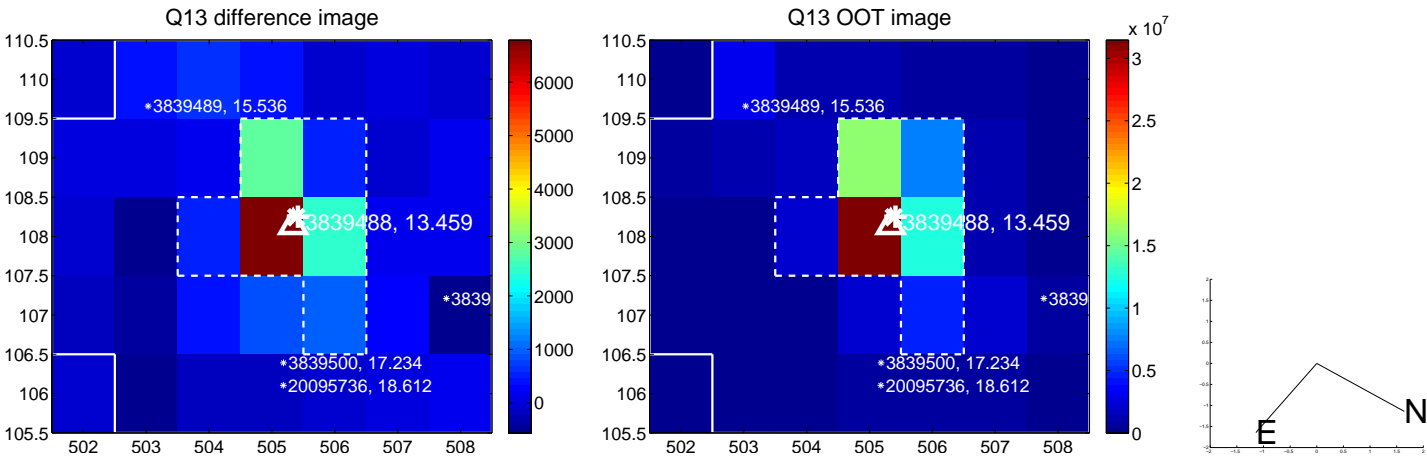
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



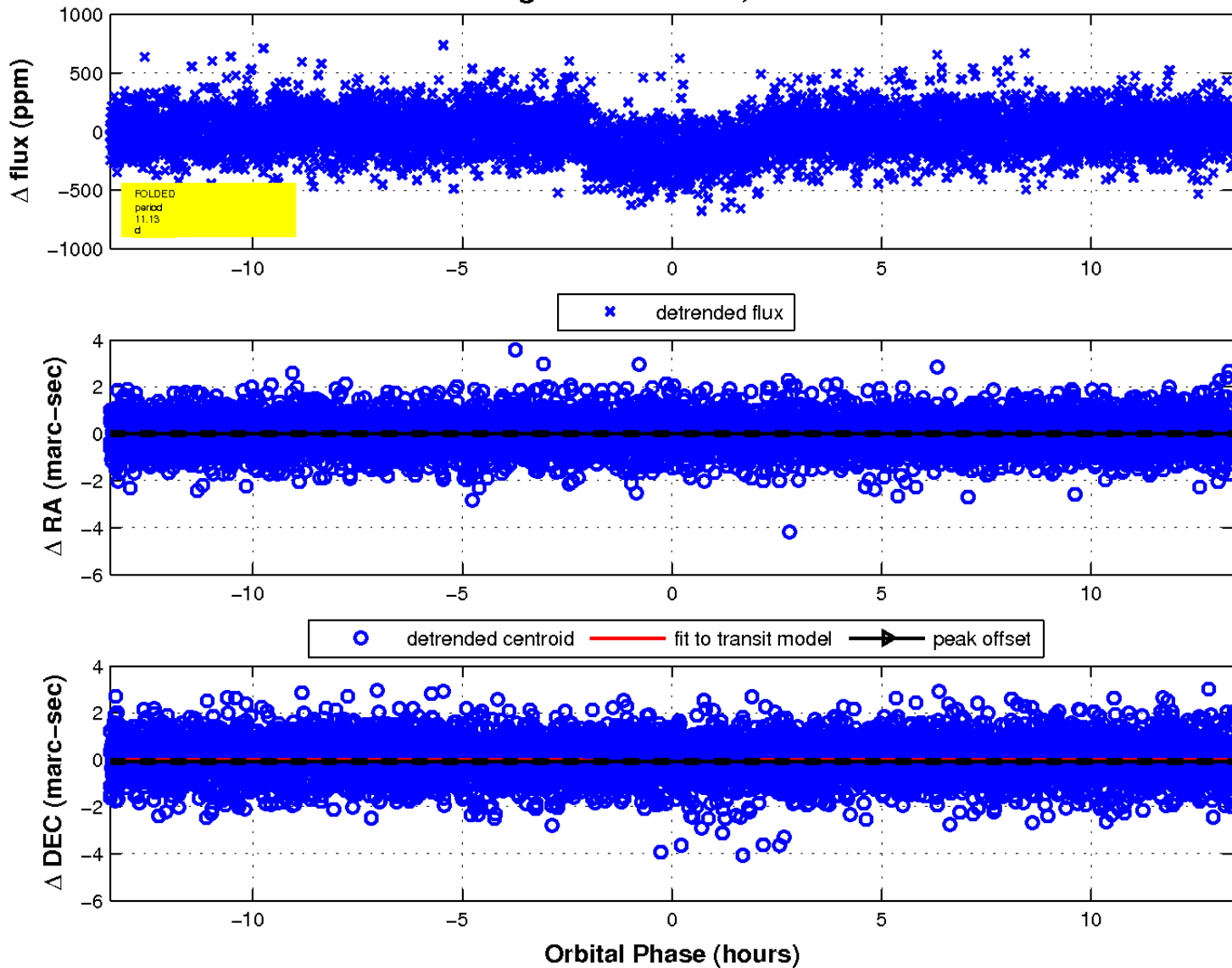
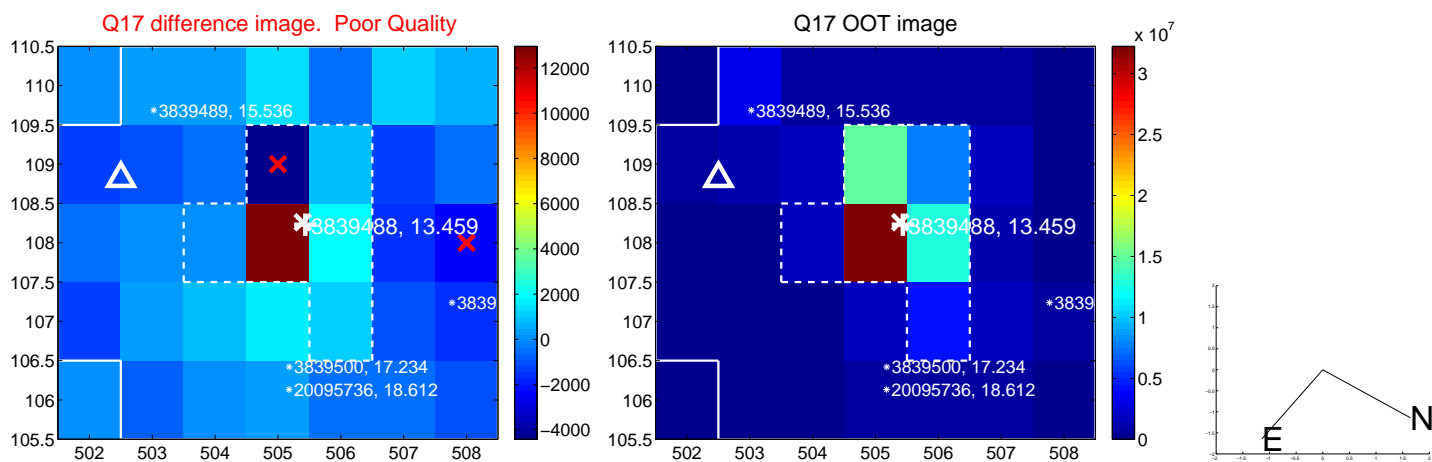
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

