

KIC 006802602

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})
006802602-01	OBS	No	62.248854	152.045513	1665.3	19.220	26.7	31.3	1.76	6217	13.52	38.83

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006802602-01	OBS	FP	0.00	1	0	0	0	LPP_DV

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

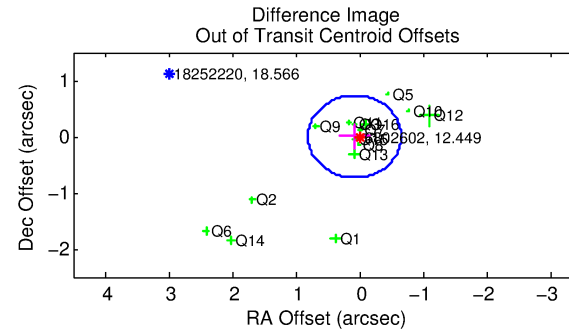
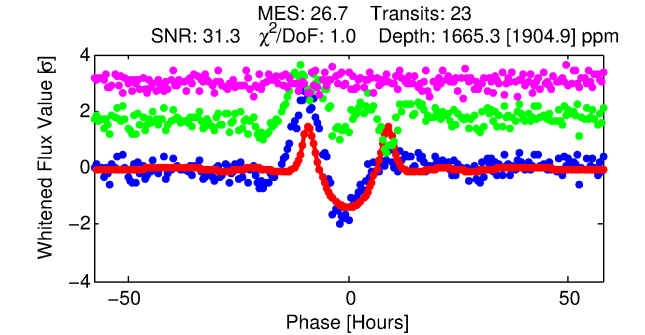
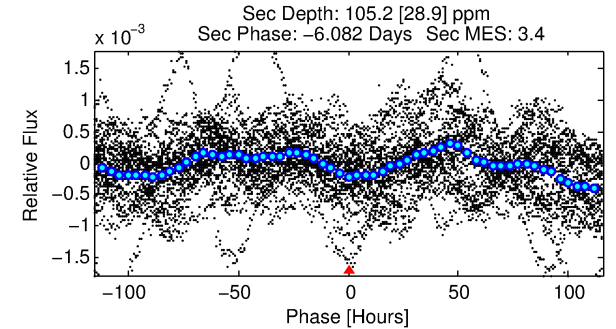
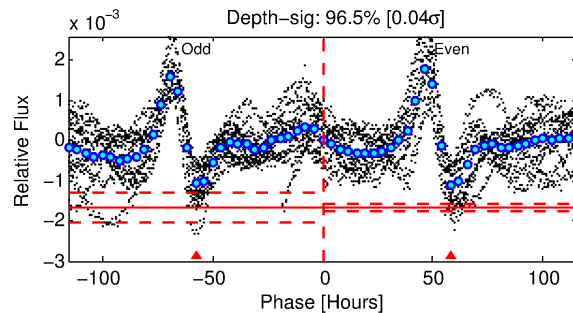
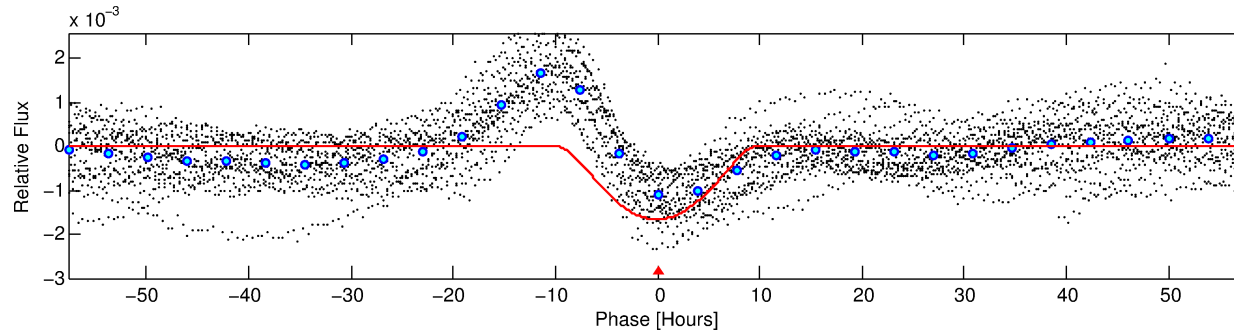
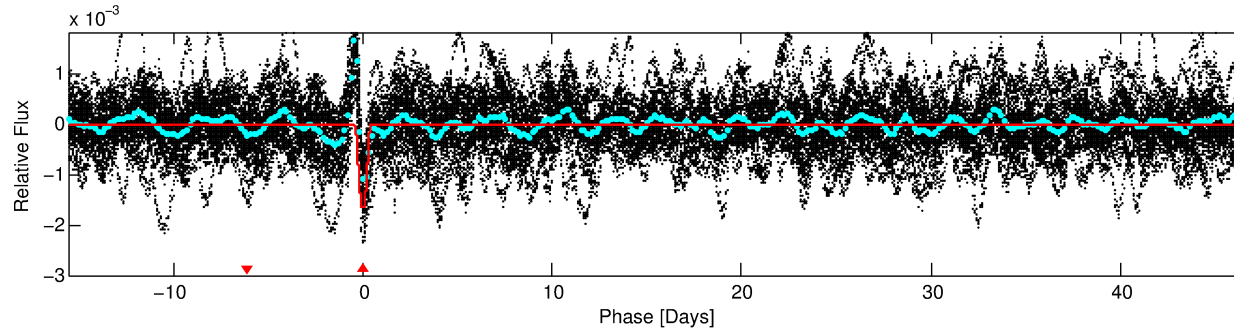
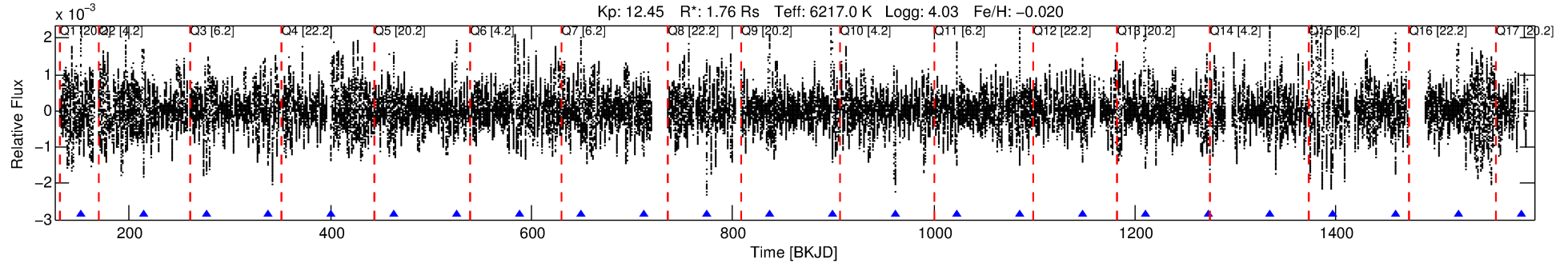
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006802602-01

No Significant Match Found

DV One-Page Summary

KIC: 6802602 Candidate: 1 of 1 Period: 62.249 d



DV Fit Results:

Period = 62.24885 [0.00050] d
Epoch = 152.0455 [0.0064] BKJD
Rp/R* = 0.0703 [0.0166]
a/R* = 9.49 [0.46]
b = 1.00 [0.03]
Seff = 38.83 [17.29]
Teq = 637 [71] K
Rp = 13.52 [4.94] Re
a = 0.3273 [0.0877] AU
Ag = 33.91 [23.58] [1.40 σ]
Teffp = 2375 [333] K [5.11 σ]

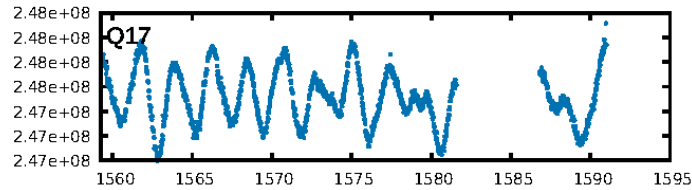
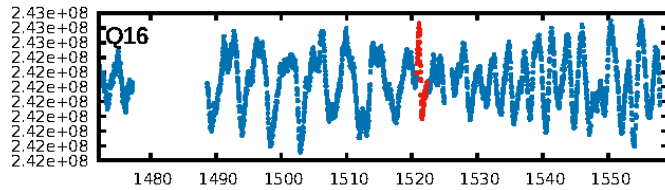
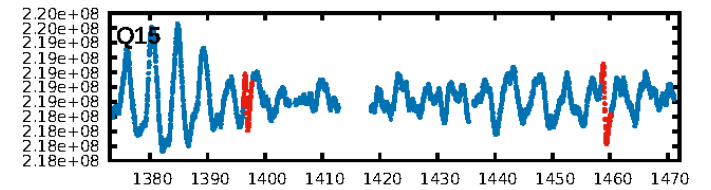
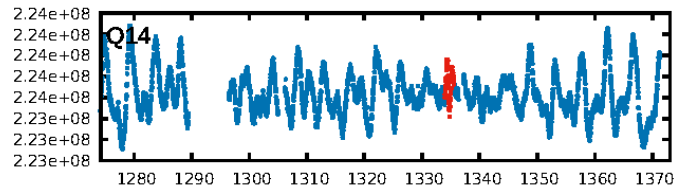
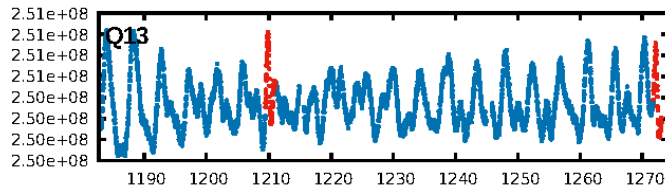
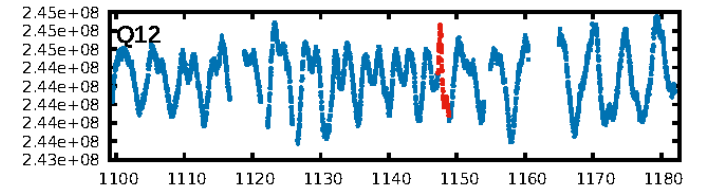
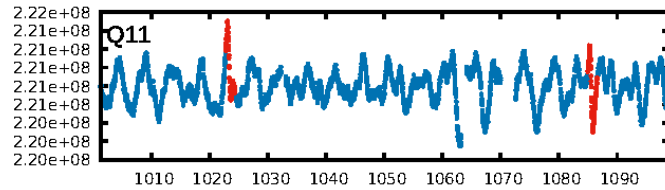
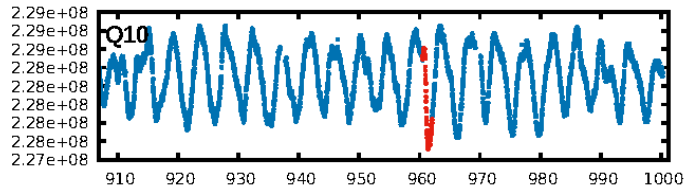
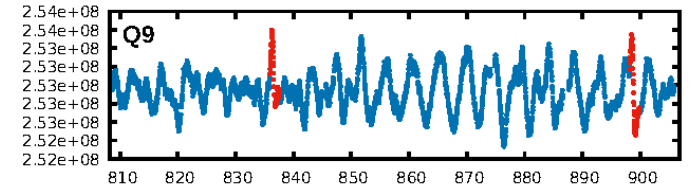
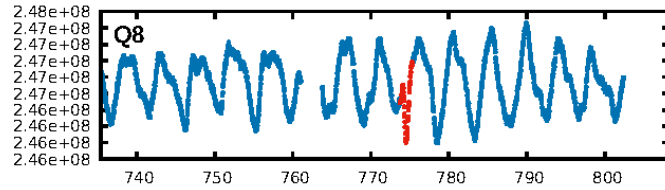
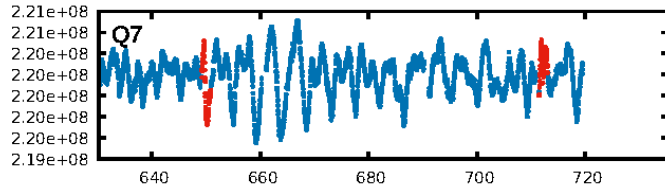
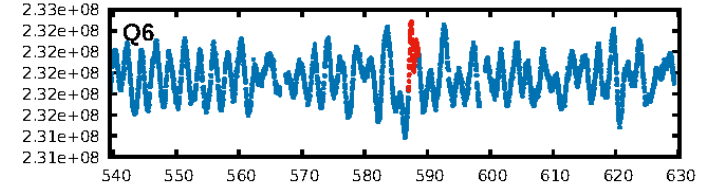
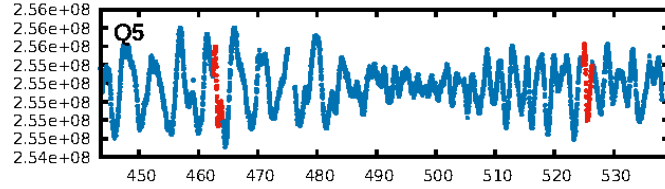
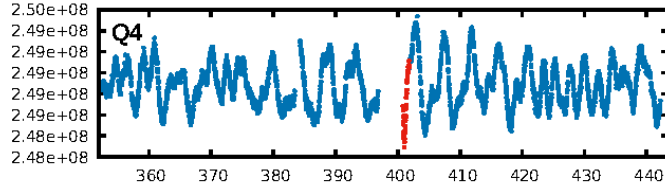
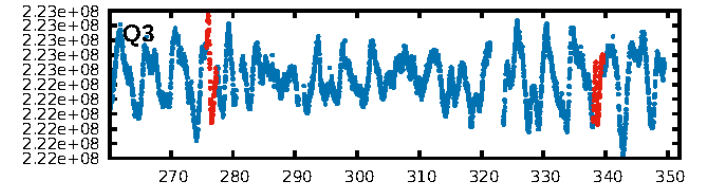
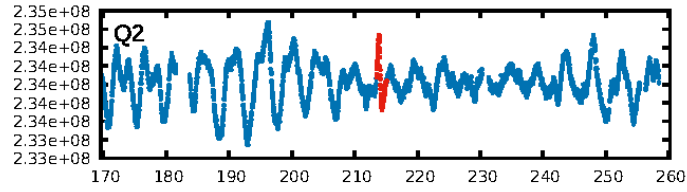
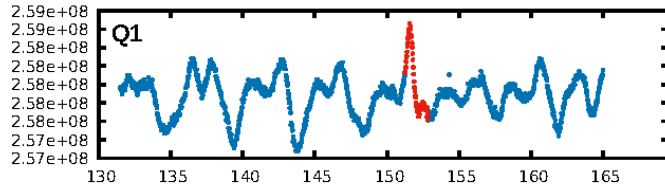
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.86e-116
RollingBand-fgt: 1.00 [22/22]
GhostDiagnostic-chr: 2.178
Centroid-sig: N/A
Centroid-so: 0.081 arcsec [1.56 σ]
OotOffset-rm: 0.077 arcsec [0.32 σ]
KicOffset-rm: 0.122 arcsec [0.43 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.93 [14/15]
DiffImageOverlap-fno: 1.00 [15/15]

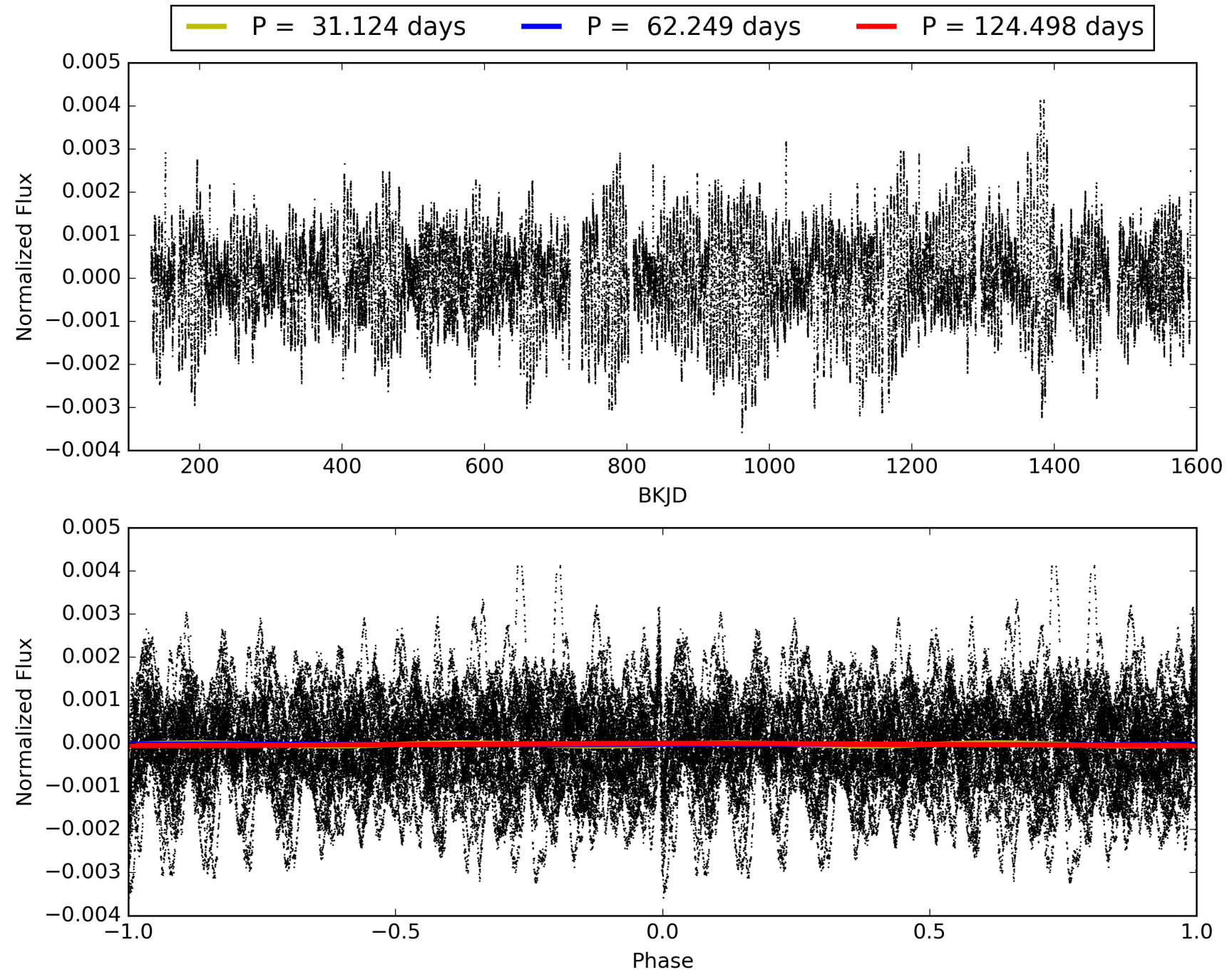
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 20:54:15 Z

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

TCE 006802602-01, PDC Light Curves

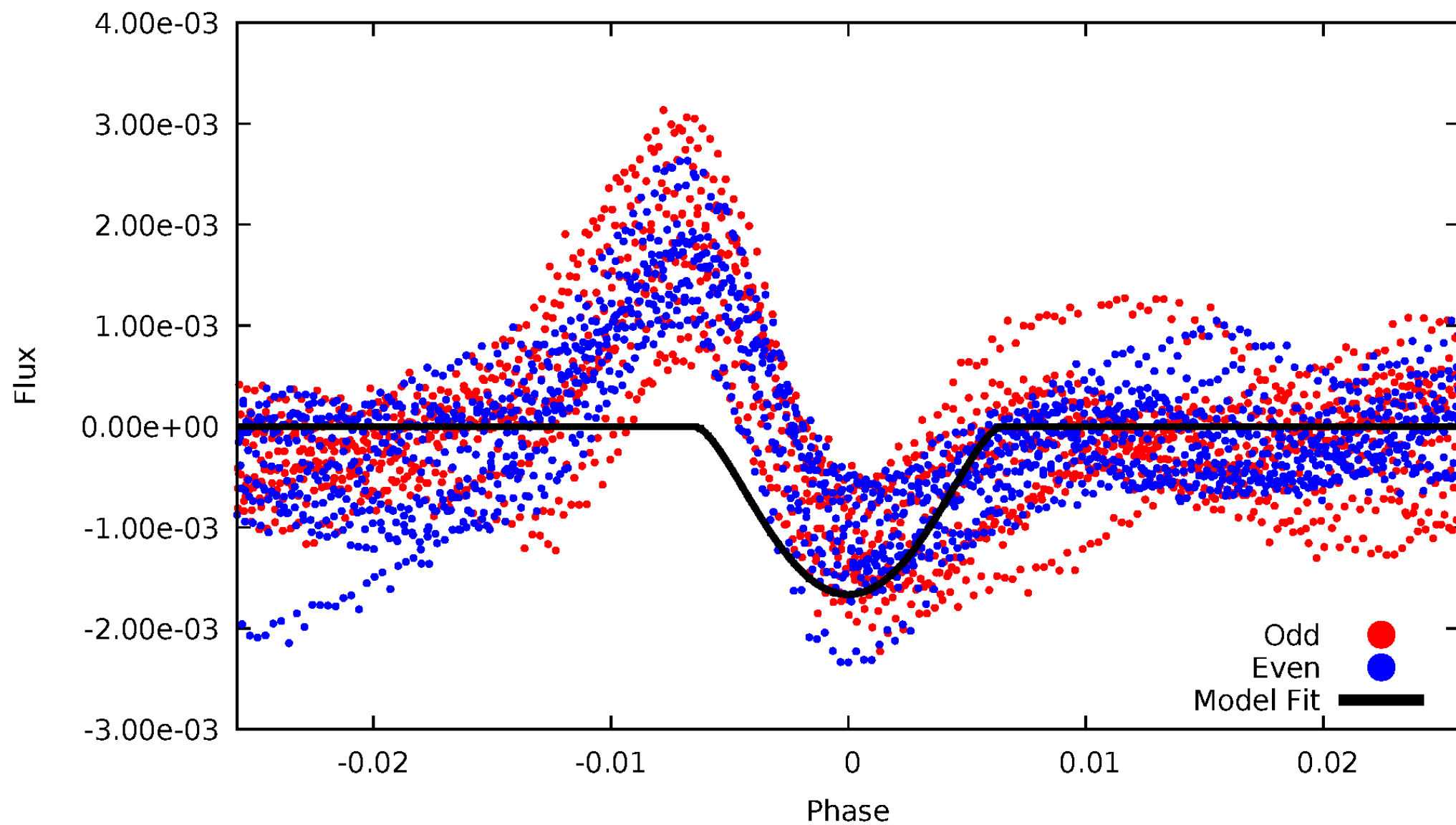


TCE 006802602-01



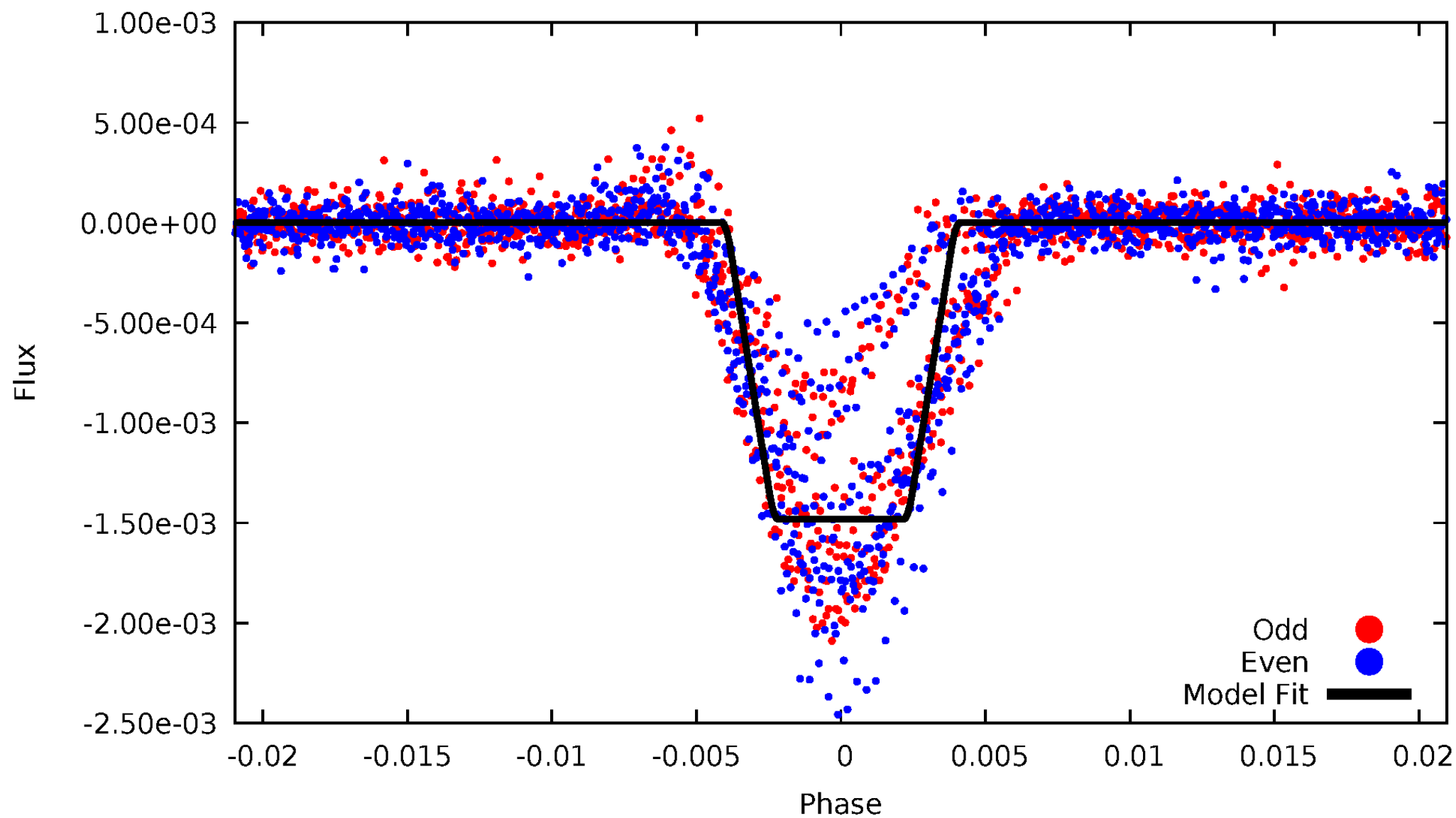
DV Odd/Even

TCE 006802602-01

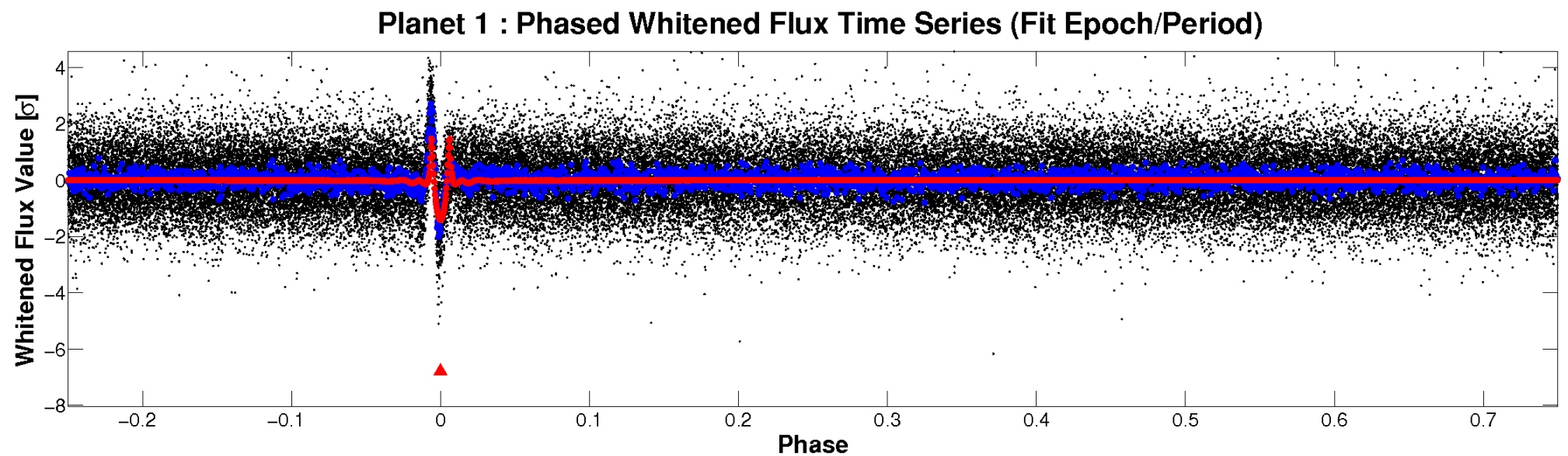
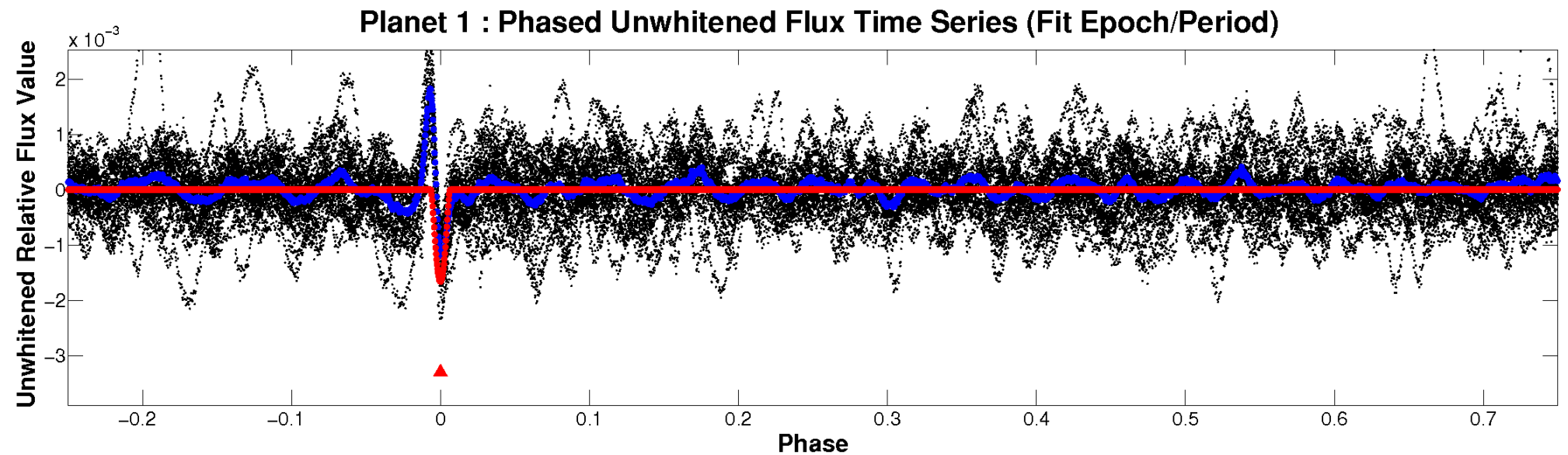


ALT Odd/Even

TCE 006802602-01

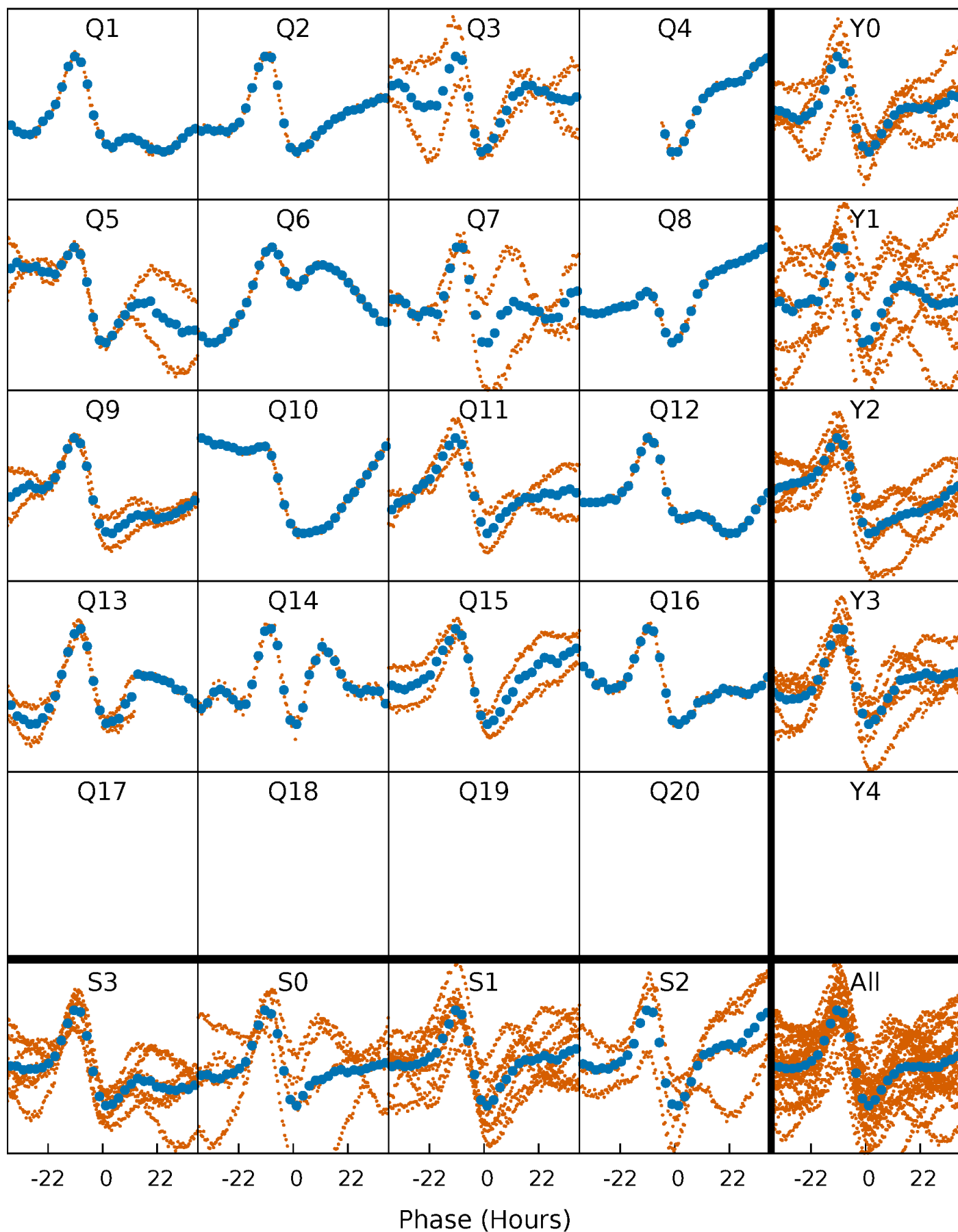


Non-Whitened Vs. Whitened Light Curve



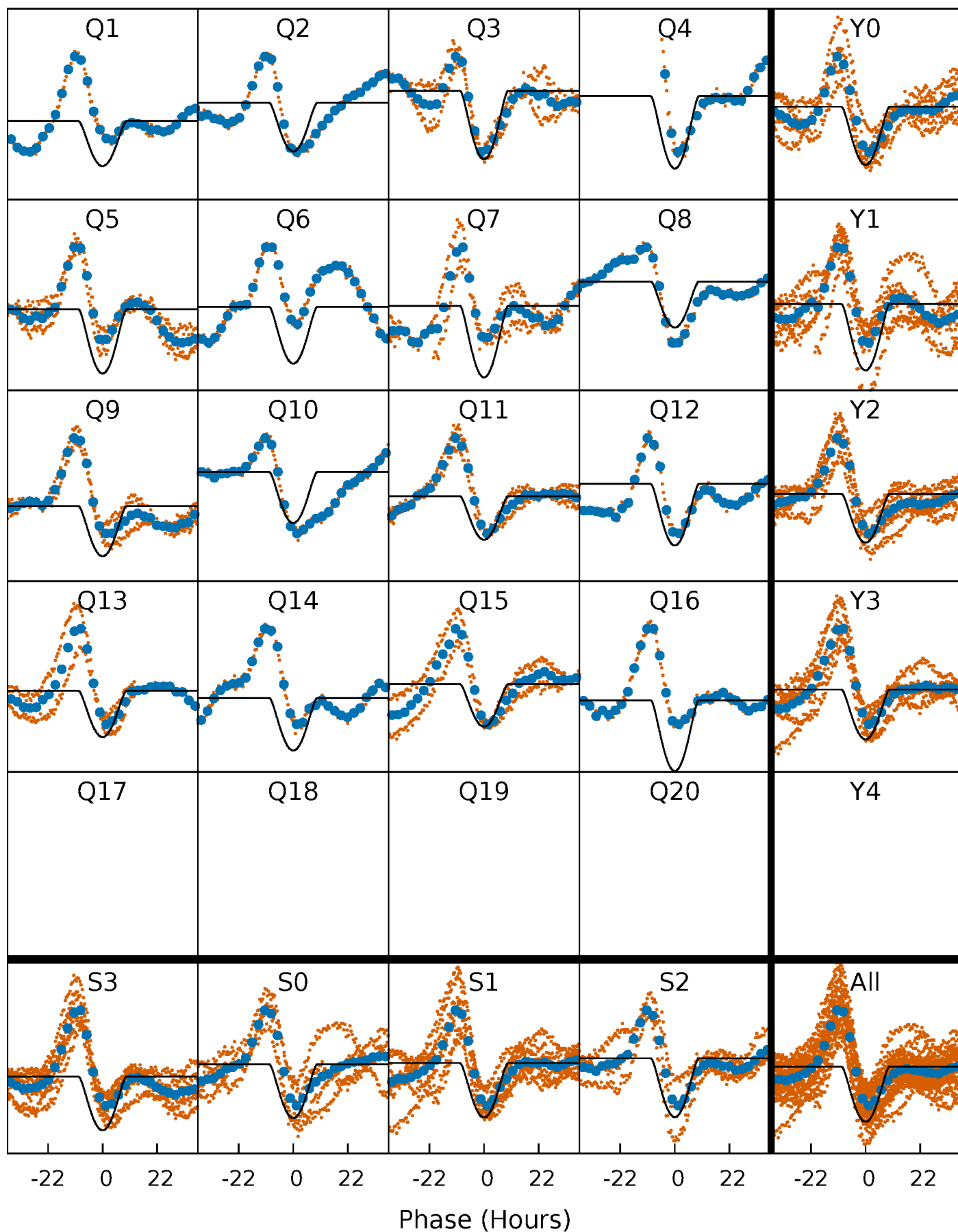
PDC Quarter-Phased Transit Curves

TCE 006802602-01 $P = 62.248854$ Days $T_0 = 152.045513$ (BKJD)



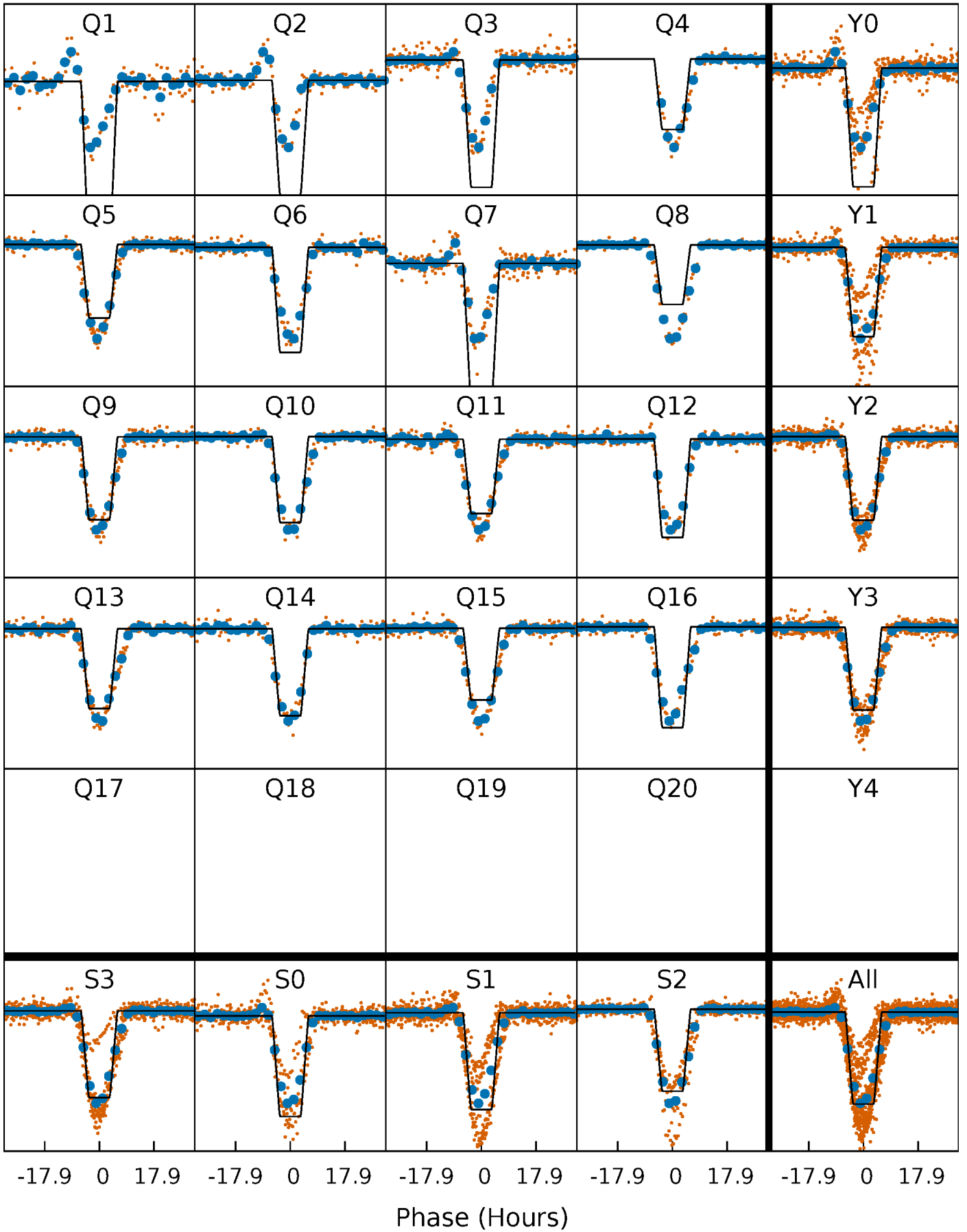
DV Quarter-Phased Transit Curves

TCE 006802602-01 P= 62.248854 Days $T_0=152.045513$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

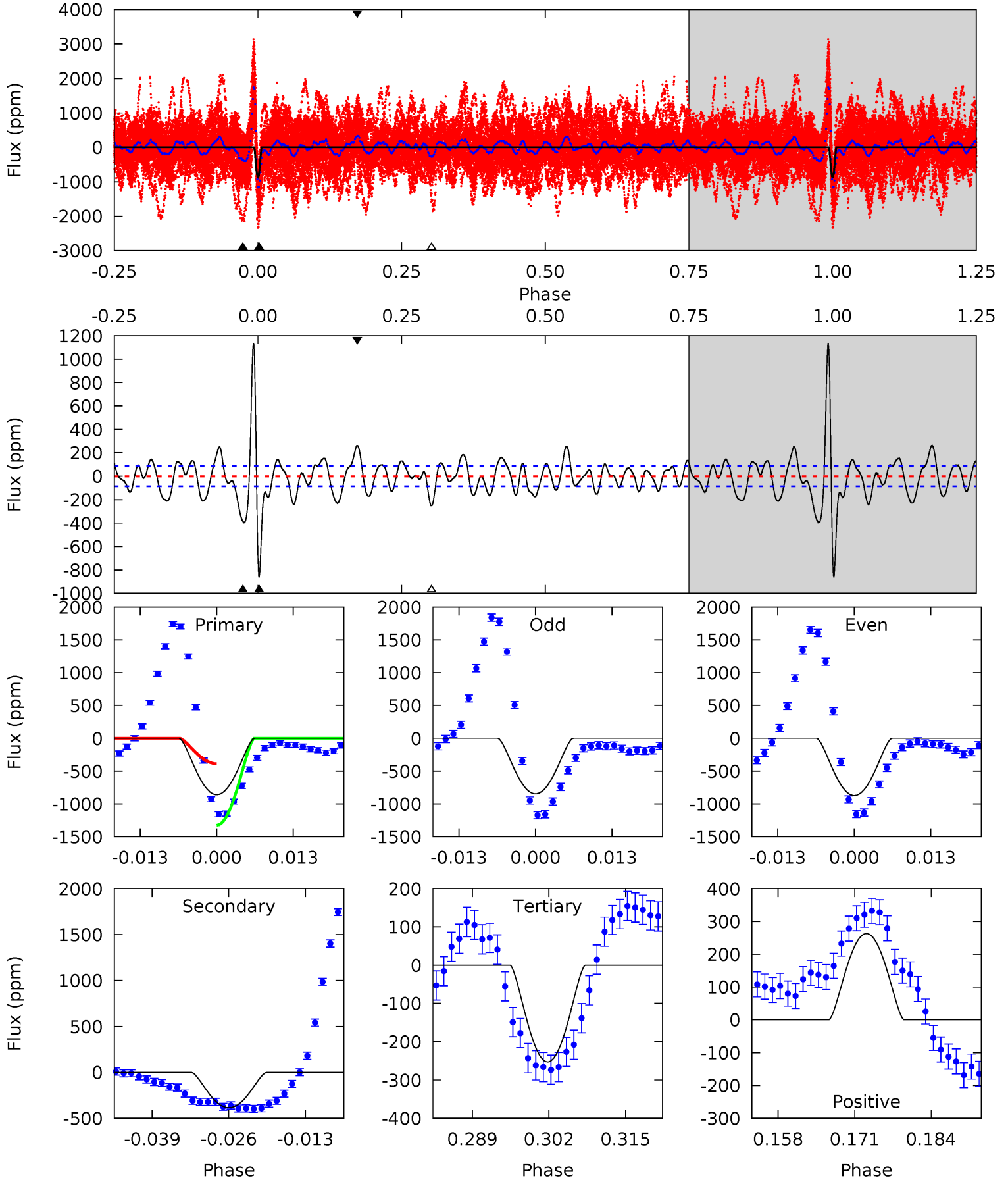
TCE 006802602-01 P= 62.250147 Days $T_0=152.018167$ (BKJD)



DV Model-Shift Uniqueness Test

006802602-01, P = 62.248854 Days, E = 89.796659 Days

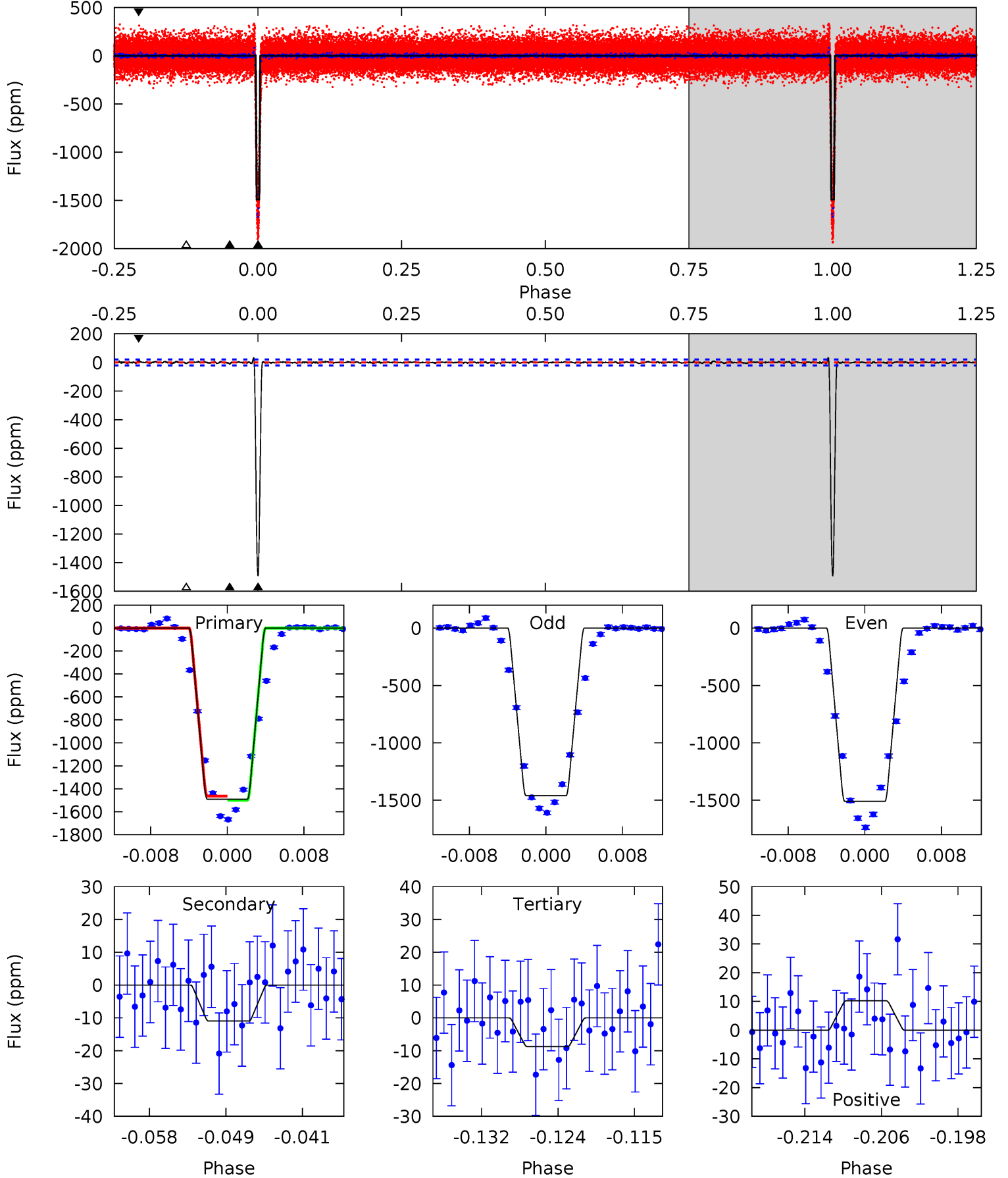
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
49.9	22.3	14.7	15.3	4.97	2.48	6.36	35.2	34.6	7.64	7.04	0.76	1.08	0.57	26.8



Alt Model-Shift Uniqueness Test

006802602-01, P = 62.250147 Days, E = 89.768020 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
359.0	2.64	2.11	2.46	5.06	2.64	0.66	356.9	356.5	0.53	0.18	5.89	0.89	0.02	4.09



Stellar Parameters For KIC 006802602

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6217^{+167}_{-186}	$4.027^{+0.252}_{-0.126}$	$-0.020^{+0.250}_{-0.250}$	$1.763^{+0.401}_{-0.490}$	$1.205^{+0.189}_{-0.172}$	$0.310^{+0.448}_{-0.120}$
	+3%/-3%	+6%/-3%	+1250%/-1250%	+23%/-28%	+16%/-14%	+145%/-39%
Source	PHO1	FLK73	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 006802602-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-384 ± 17	$13.22^{+3.68}_{-3.43}$	874^{+60}_{-66}	3669^{+356}_{-257}	130^{+102}_{-52}
Alt.	-11 ± 4	$7.26^{+3.66}_{-3.18}$	875^{+60}_{-68}	2587^{+453}_{-258}	12^{+27}_{-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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

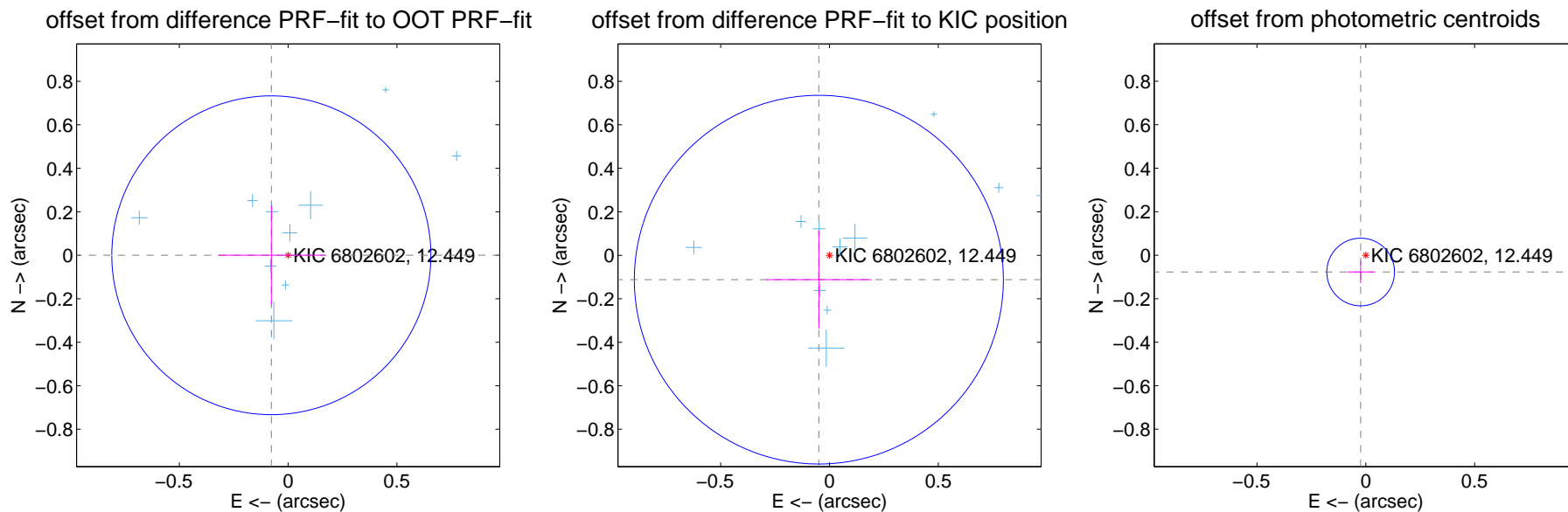
DV Centroid Data

Supplemental centroid analysis for 006802602-01. Kepler magnitude: 12.45. Transit SNR 31.28

There are 14 quarters with good PRF difference image offsets

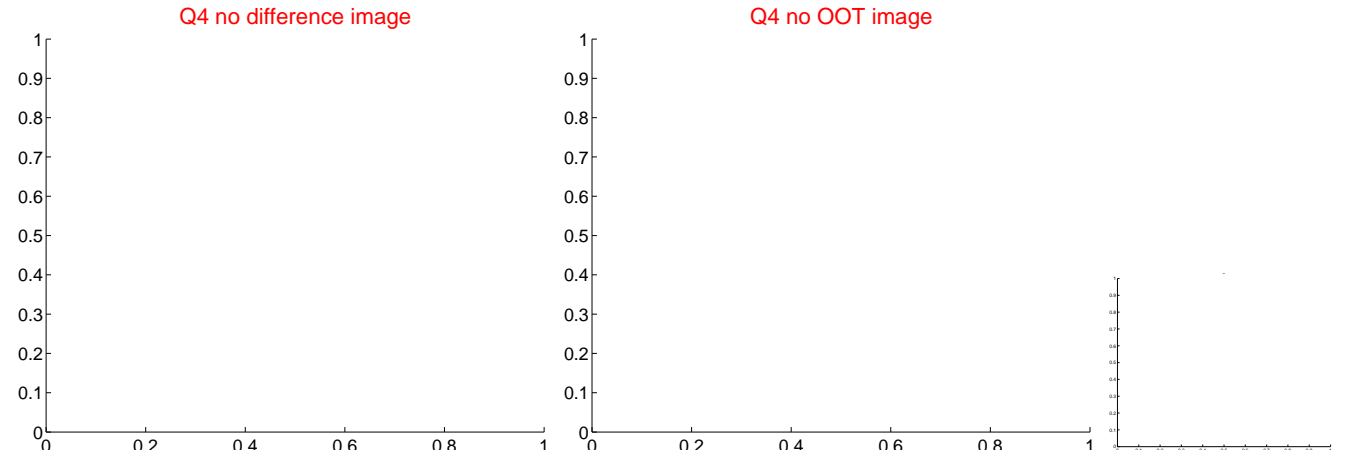
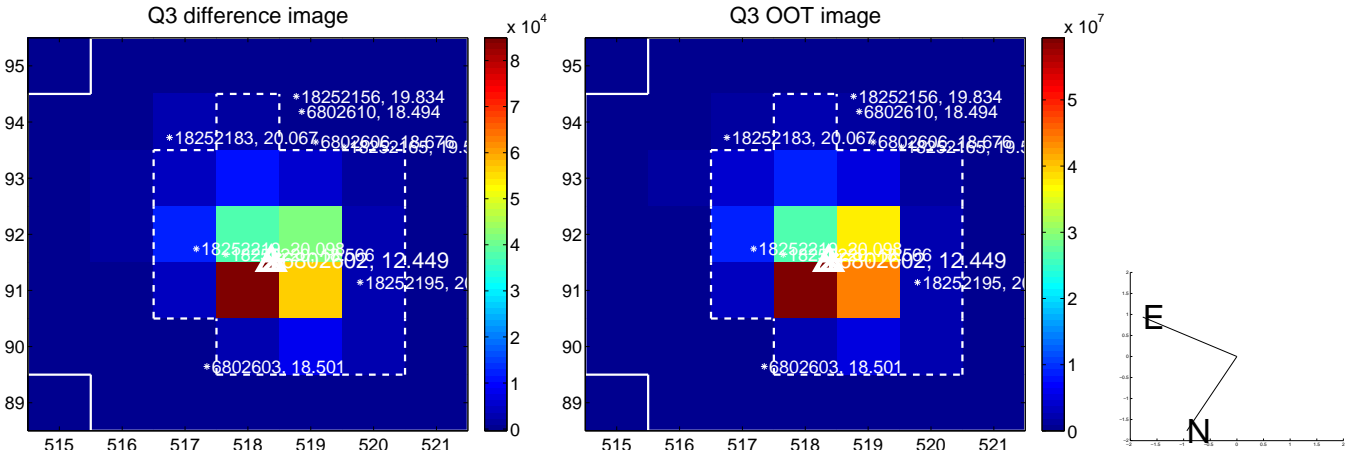
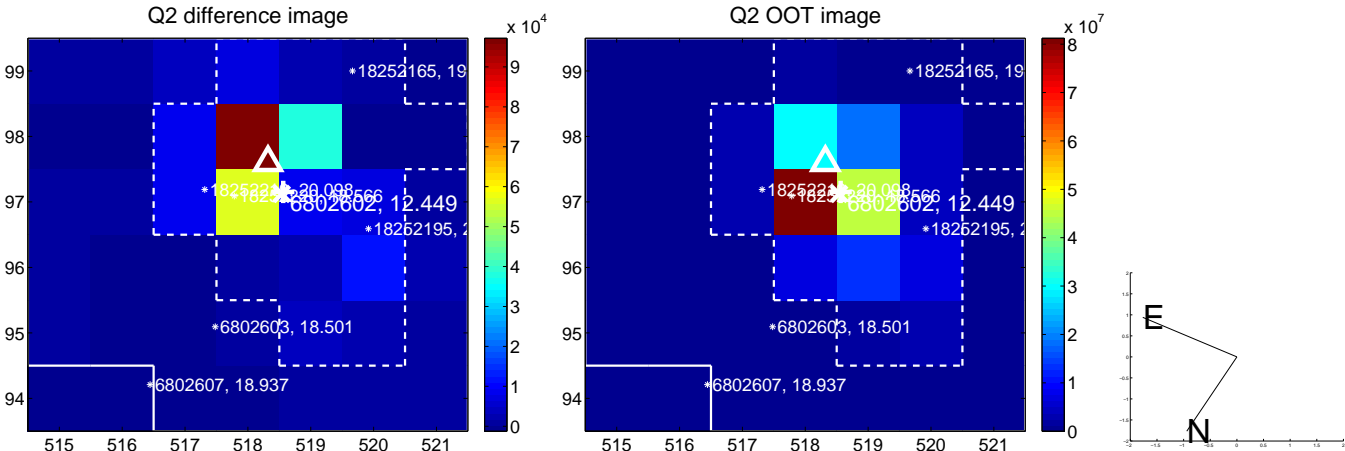
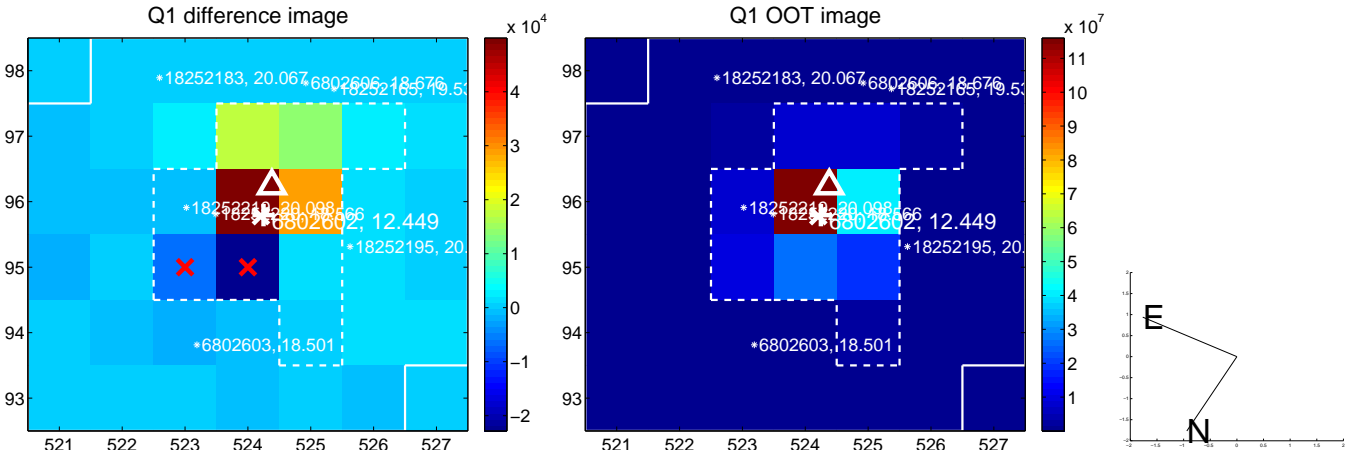
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.077 ± 0.244	0.32	0.077 ± 0.244	0.000 ± 0.227
PRF-fit source offset from KIC position	0.122 ± 0.283	0.43	0.049 ± 0.242	-0.112 ± 0.225
photometric centroid source offset	0.08 ± 0.05	1.56	0.02 ± 0.06	-0.08 ± 0.05

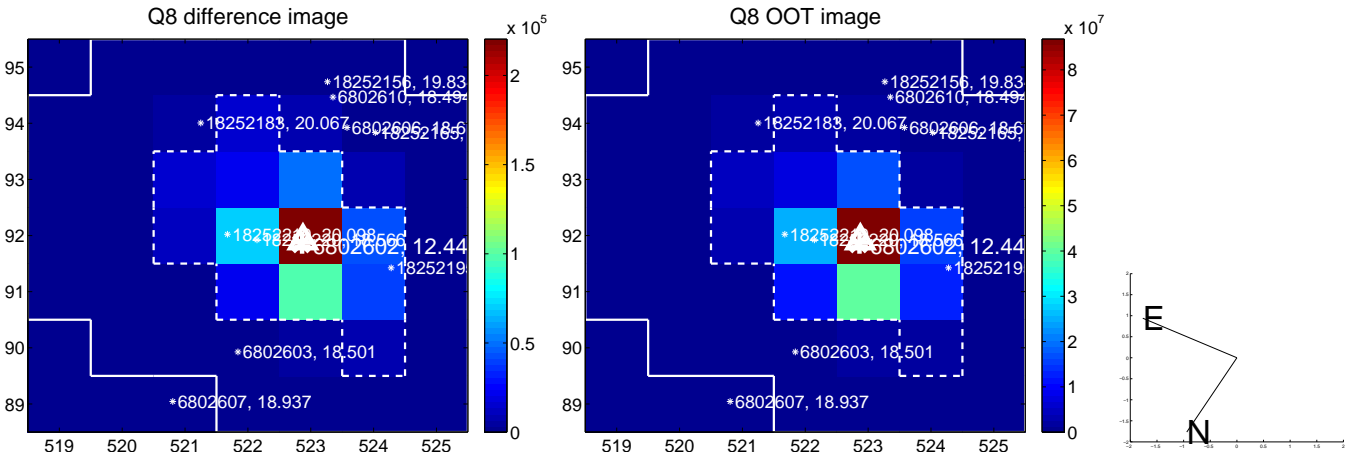
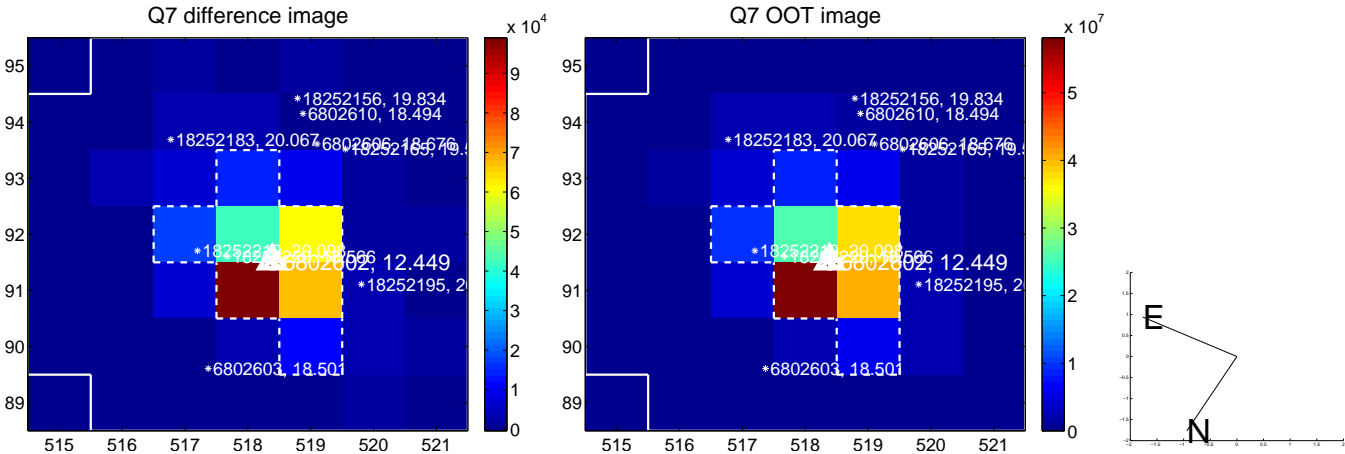
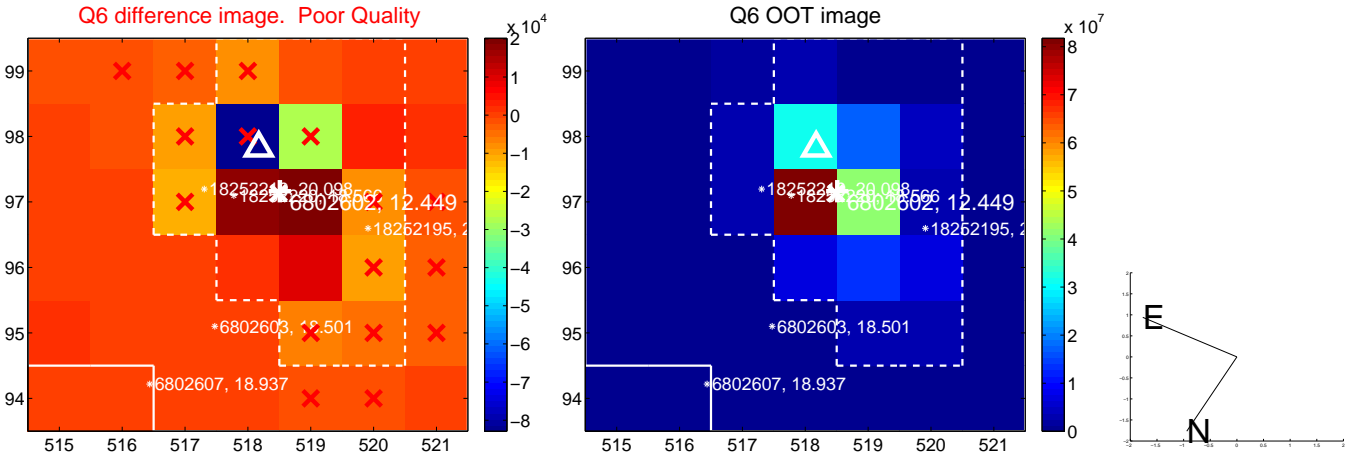
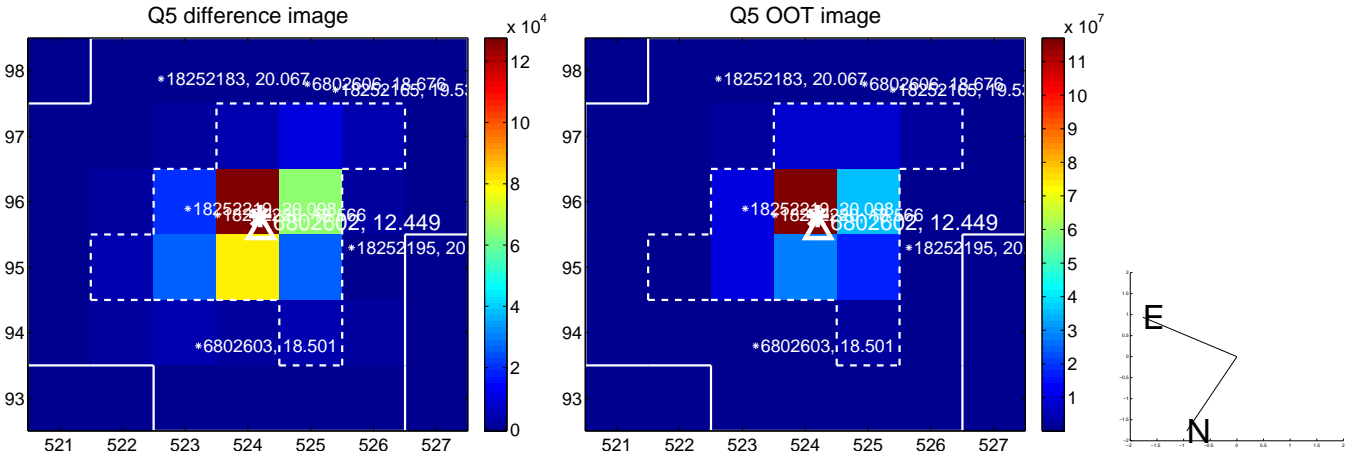


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

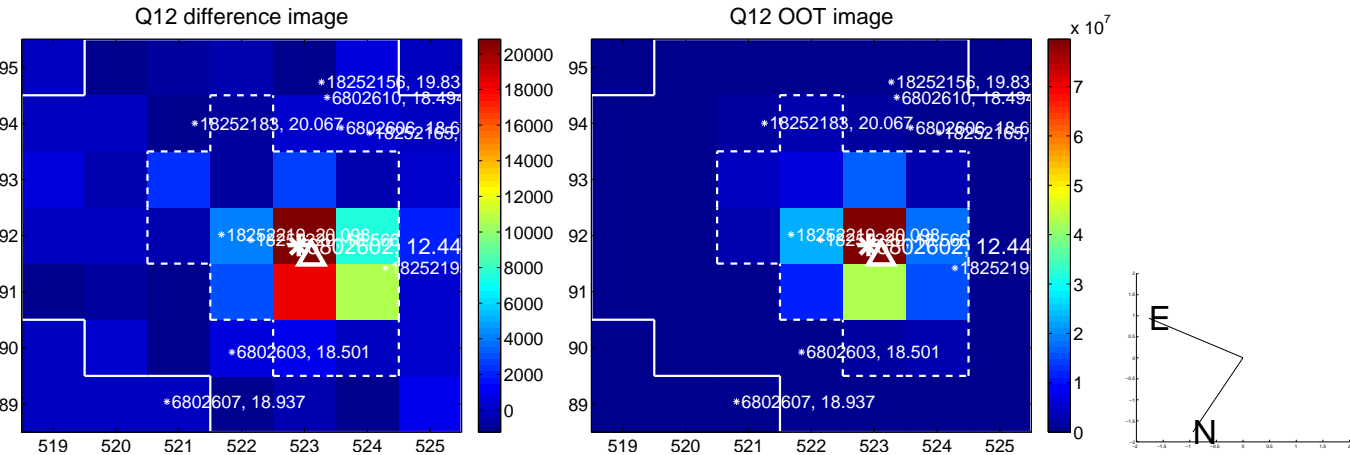
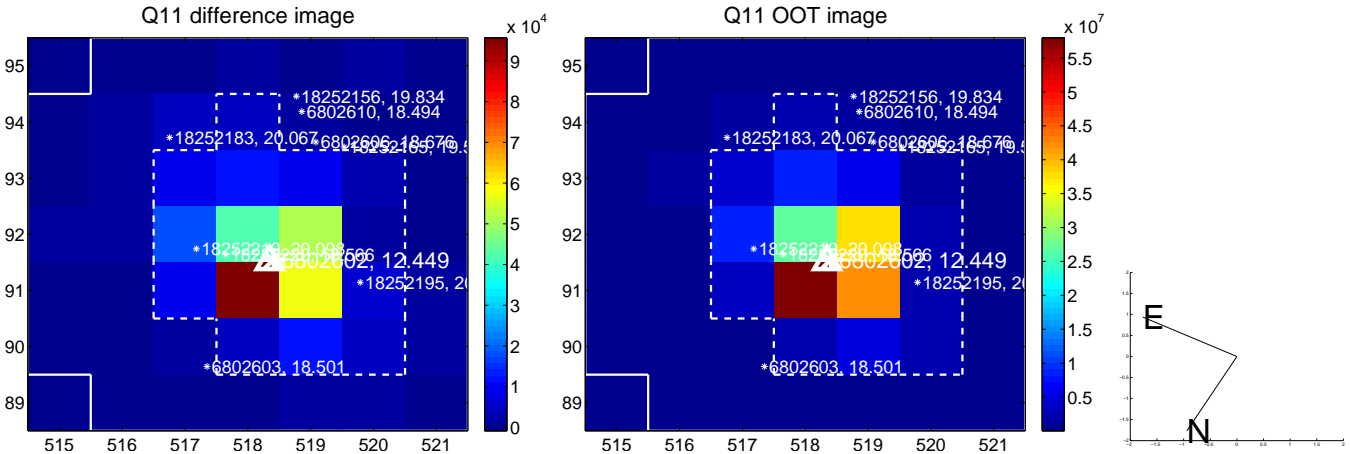
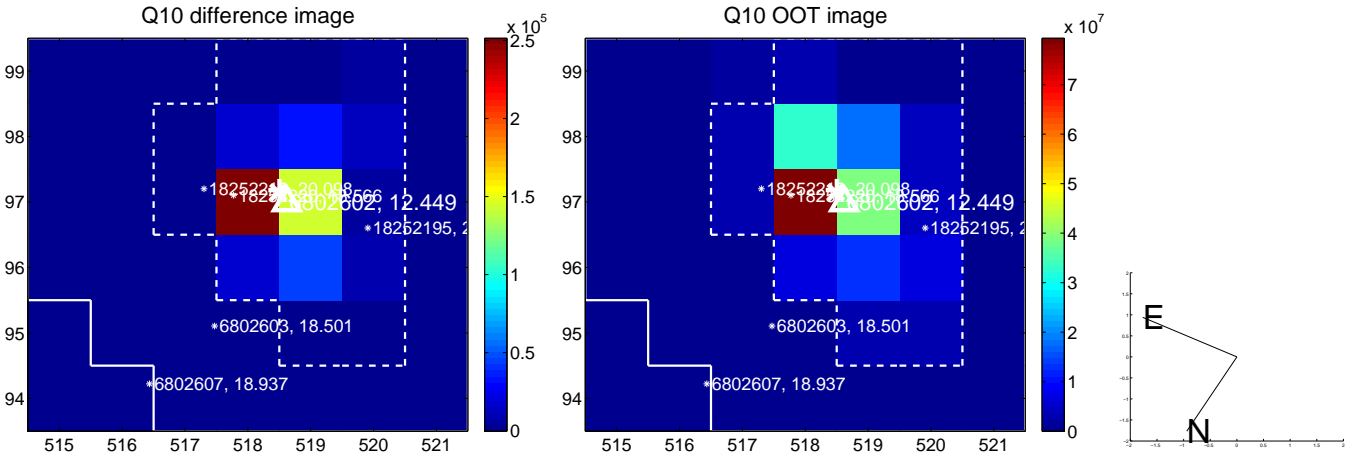
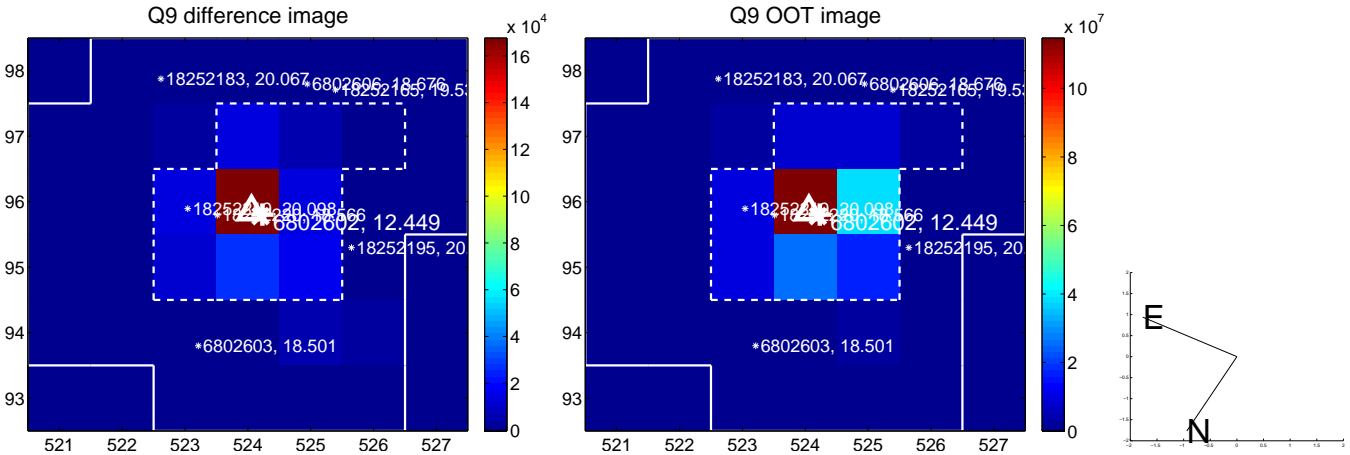
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



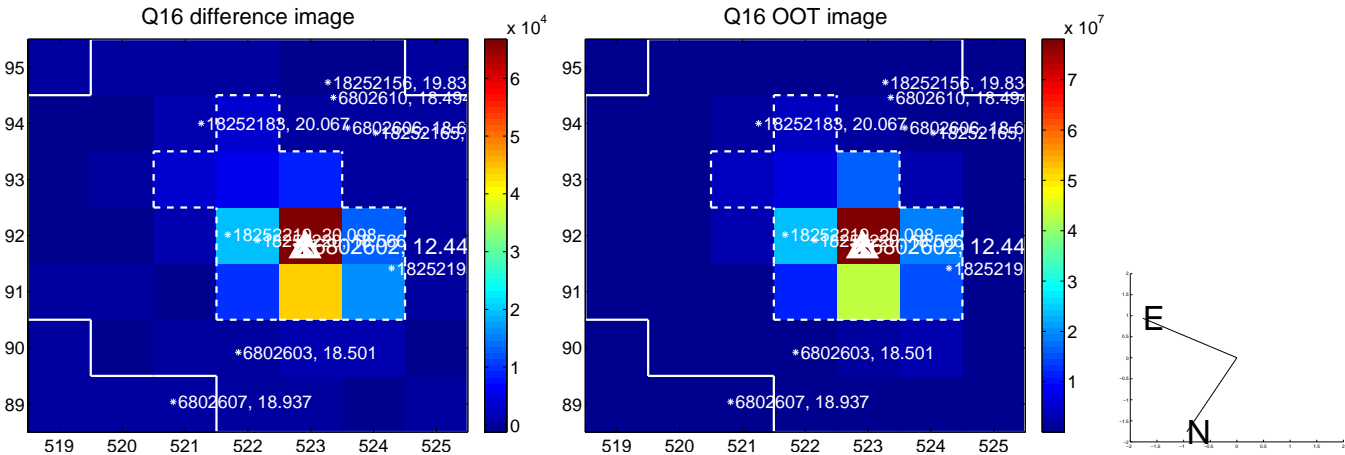
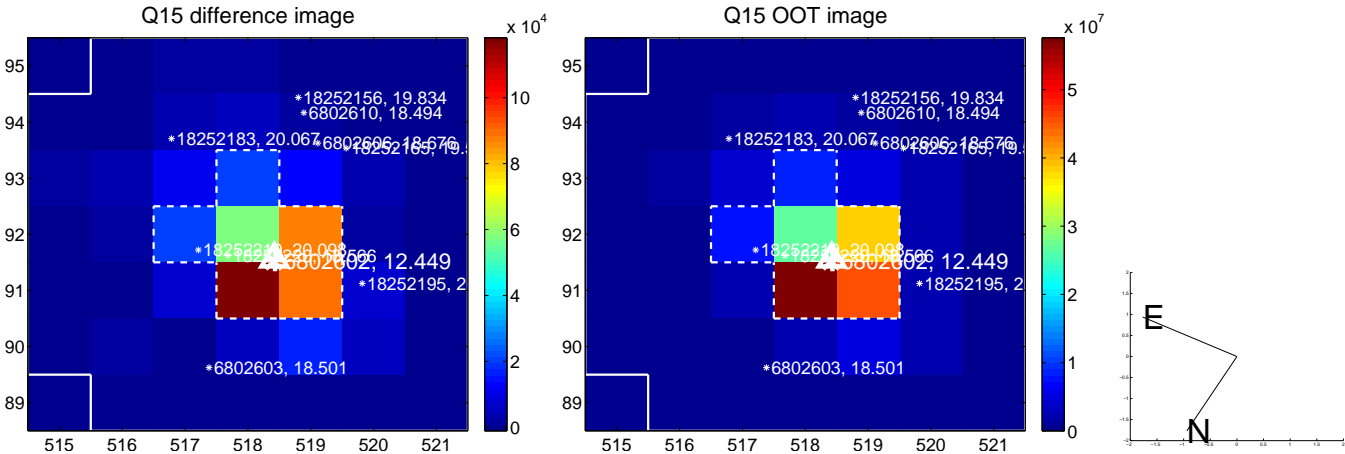
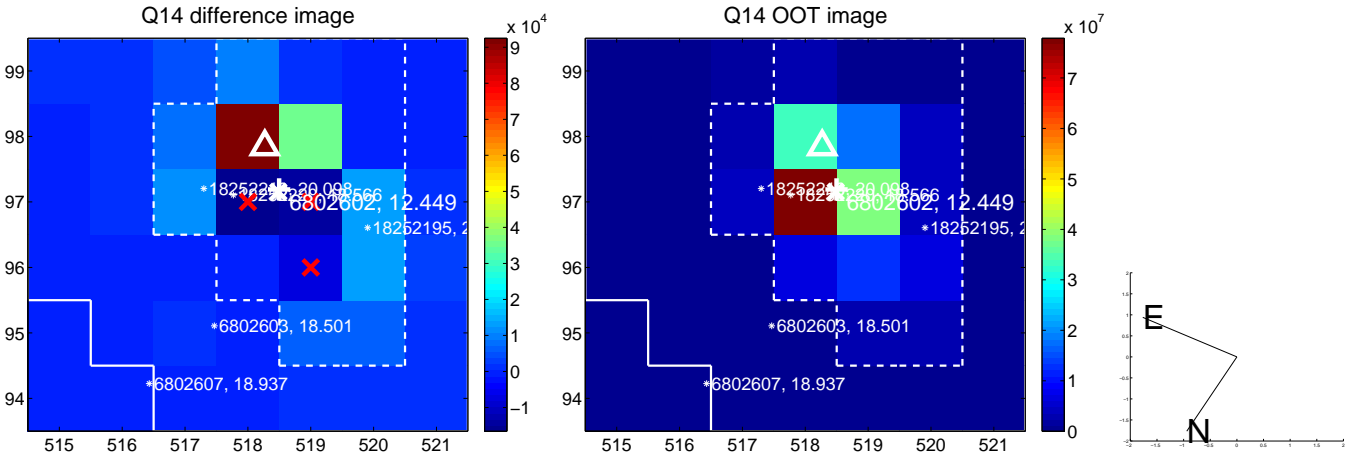
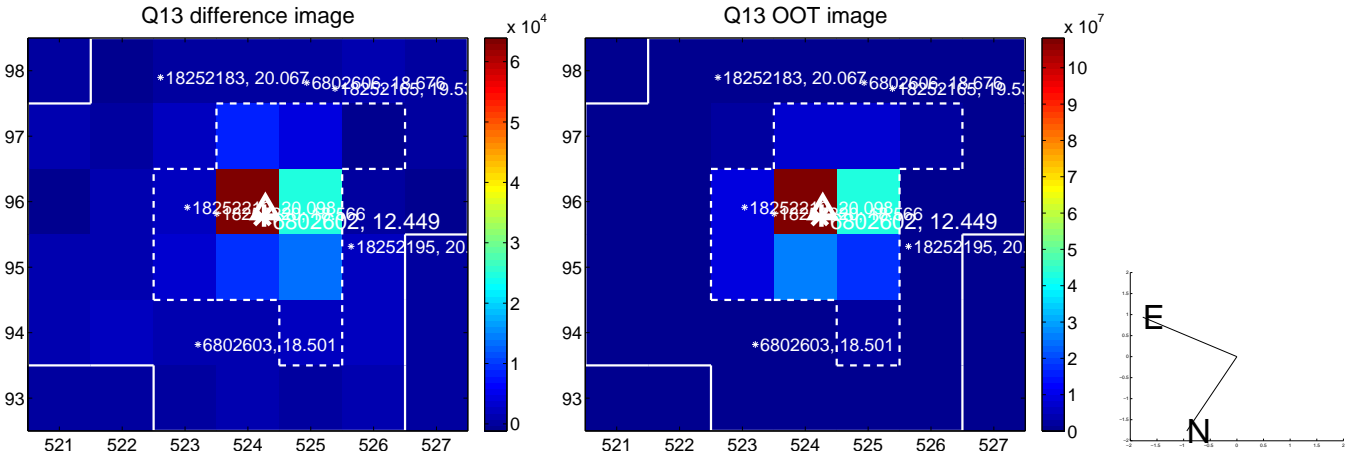
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



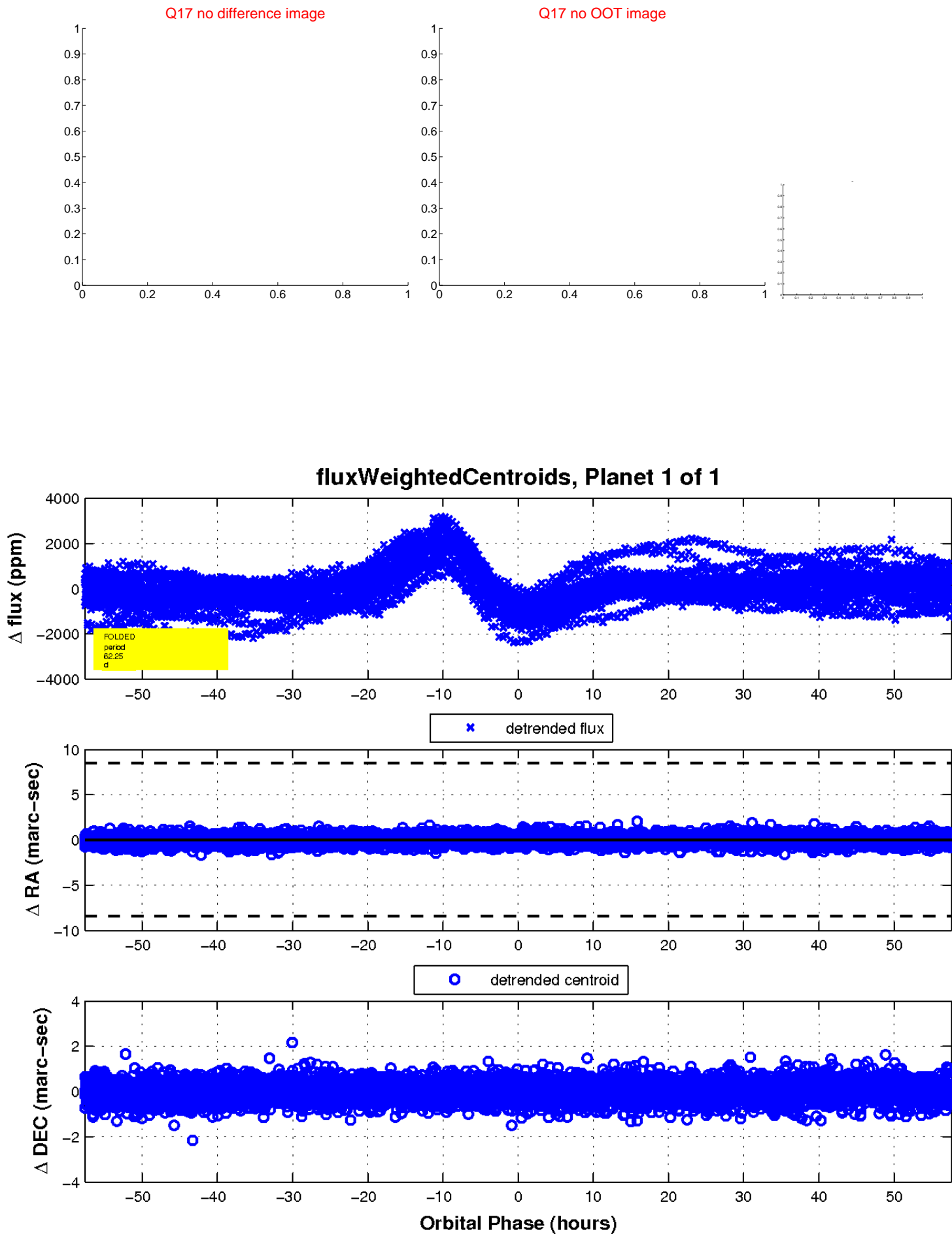
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

