

KIC 008905246

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})
008905246-01	OBS	3473.01	27.637116	143.934572	722.5	1.993	27.2	32.5	2.43	5214	8.38	104.79

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008905246-01	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.

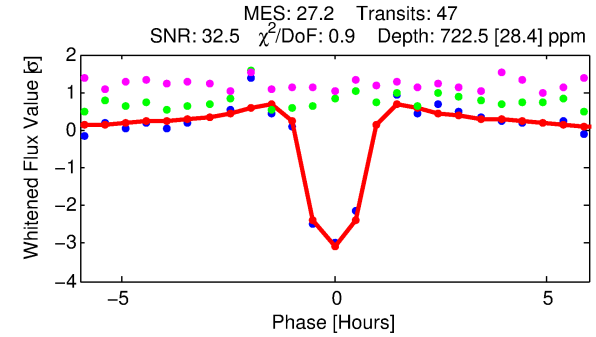
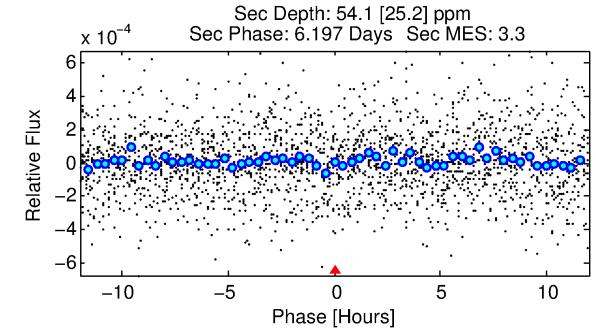
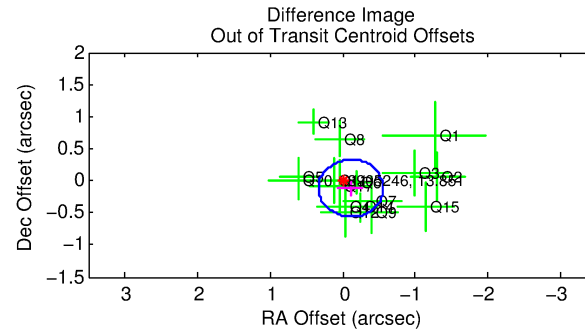
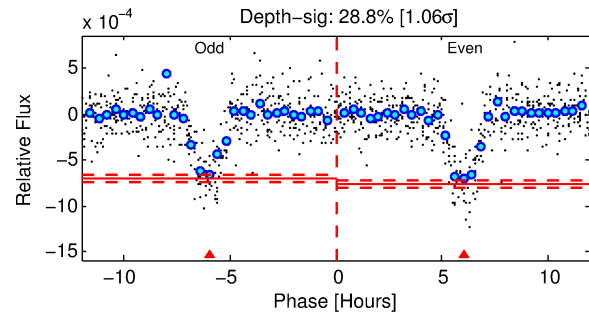
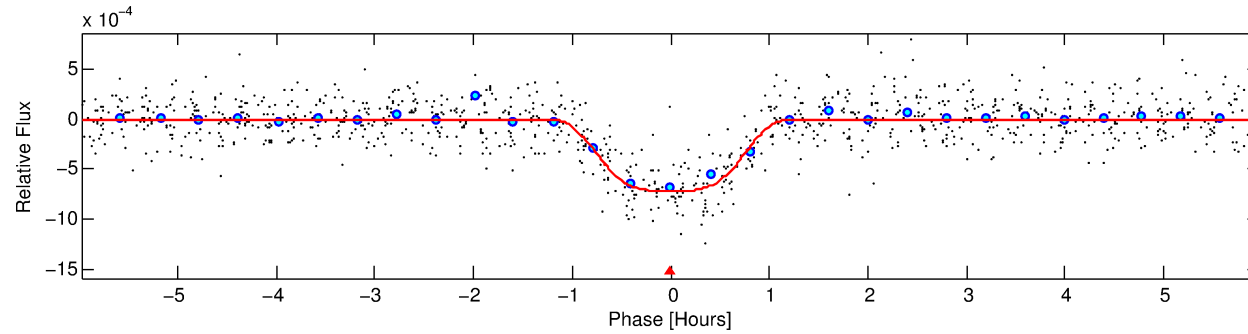
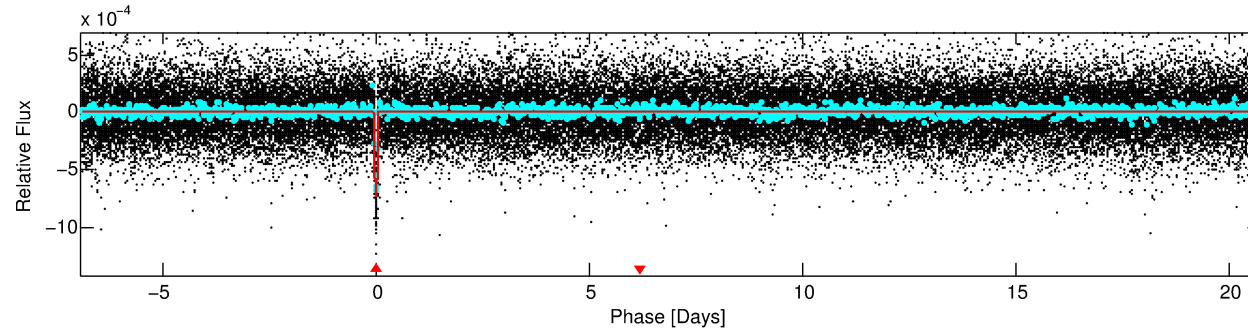
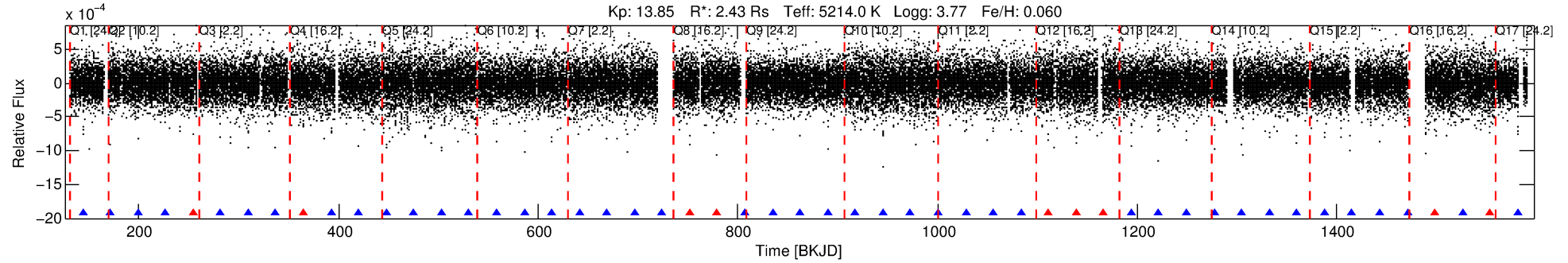
Ephemeris Match Information For 008905246-01

No Significant Match Found

DV One-Page Summary

KIC: 8905246 Candidate: 1 of 1 Period: 27.637 d

KOI: K03473.01 Corr: 0.928



DV Fit Results:

Period = 27.63712 [0.00005] d
Epoch = 143.9346 [0.0014] BKJD
Rp/R* = 0.0316 [0.0019]
a/R* = 45.01 [9.19]
b = 0.94 [0.03]
Seff = 104.79 [129.66]
Teq = 816 [252] K
Rp = 8.38 [5.48] Re
a = 0.1929 [0.1391] AU
Ag = 15.76 [20.82] [0.71 σ]
Teffp = 2513 [313] K [4.22 σ]

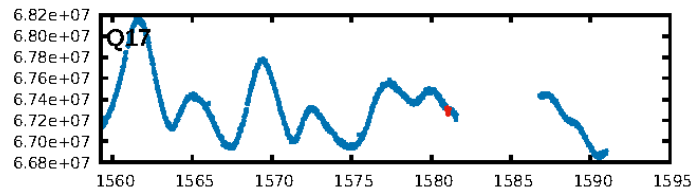
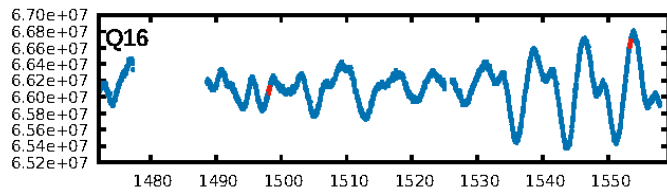
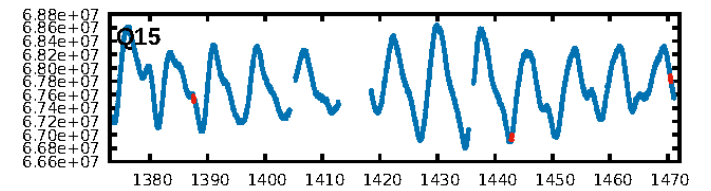
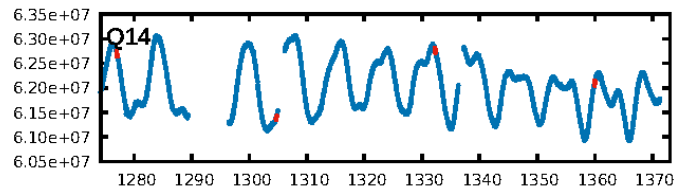
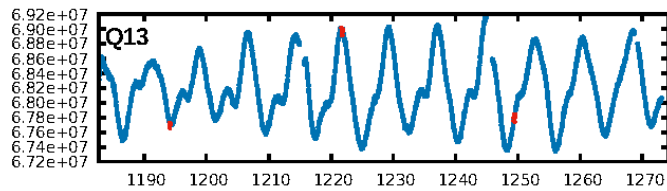
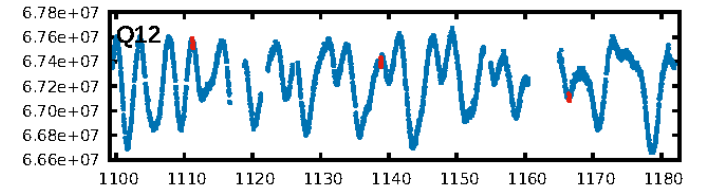
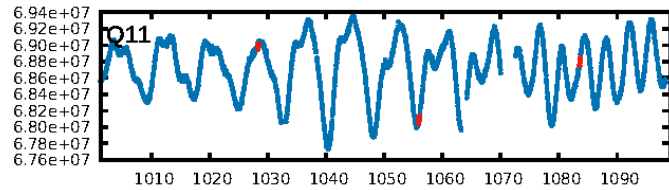
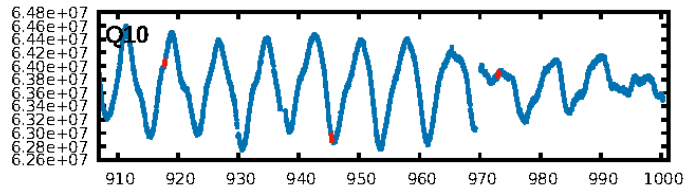
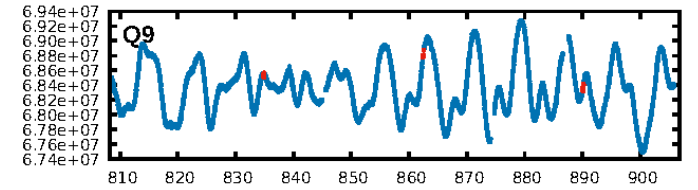
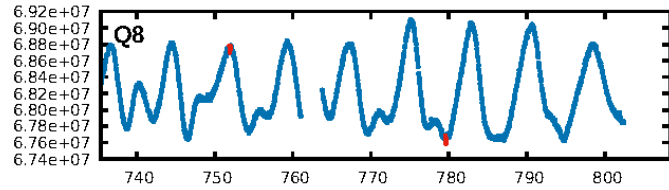
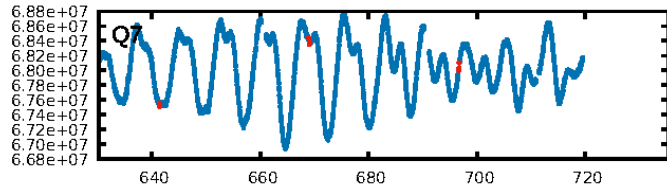
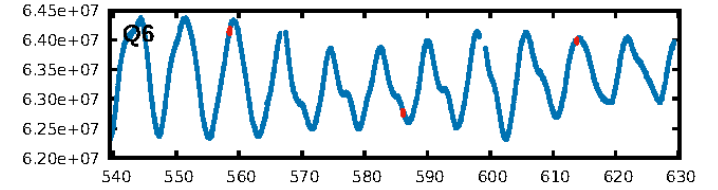
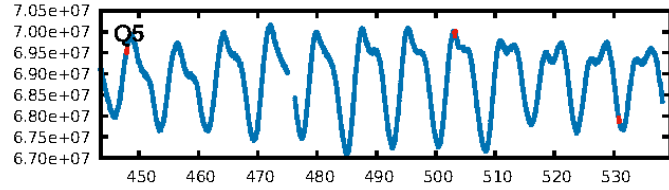
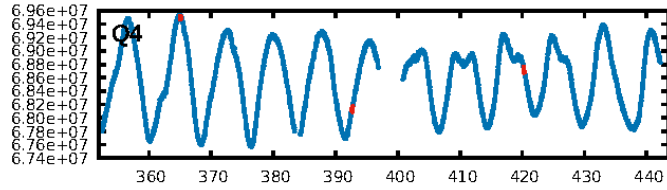
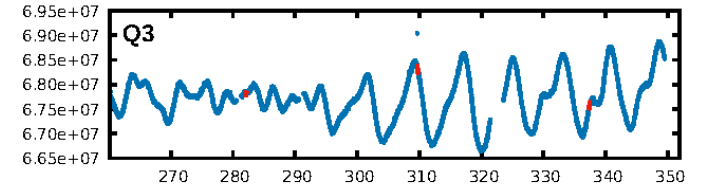
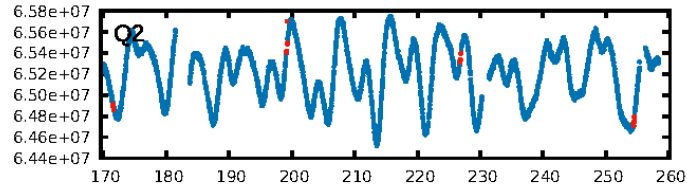
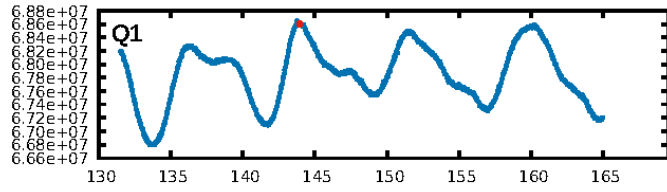
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 86.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.75e-149
RollingBand-fgt: 0.80 [36/45]
GhostDiagnostic-chr: 2.728
Centroid-sig: 34.7%
Centroid-so: 0.218 arcsec [0.64 σ]
OotOffset-rm: 0.163 arcsec [1.10 σ]
KicOffset-rm: 0.059 arcsec [0.37 σ]
OotOffset-st: 4/4/3/5 [16]
KicOffset-st: 4/4/3/5 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

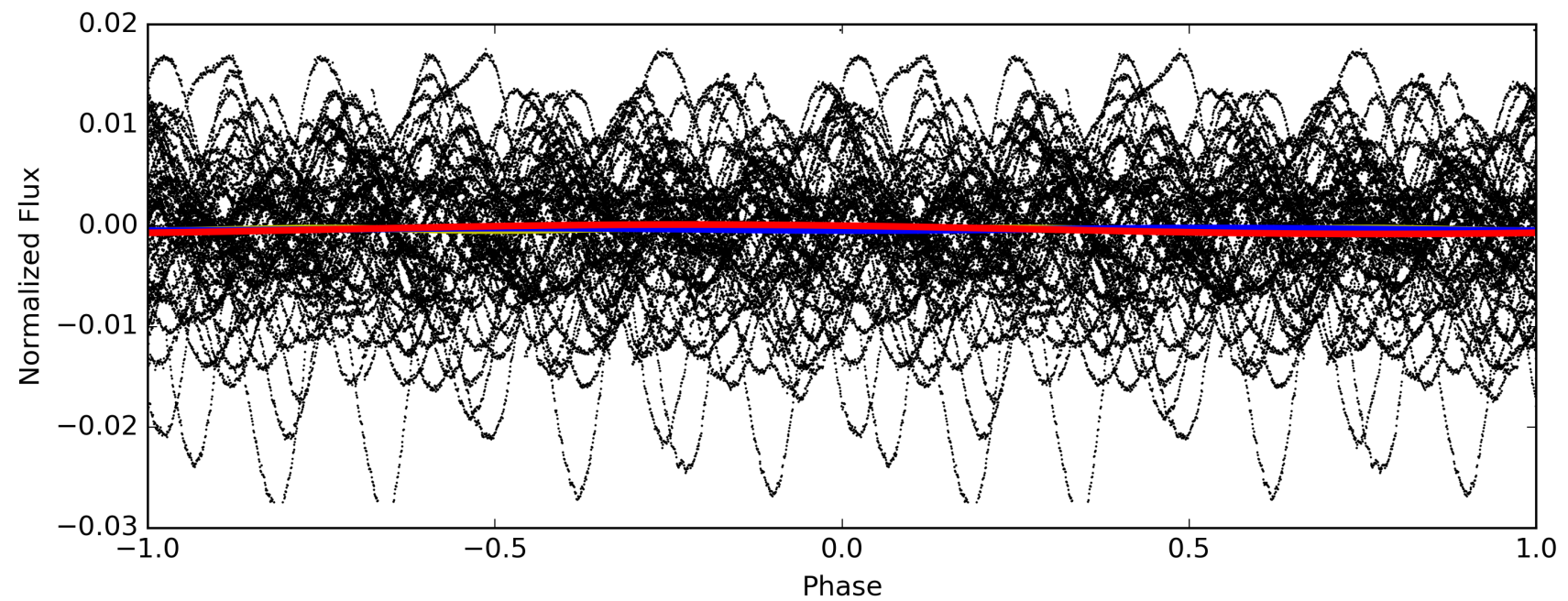
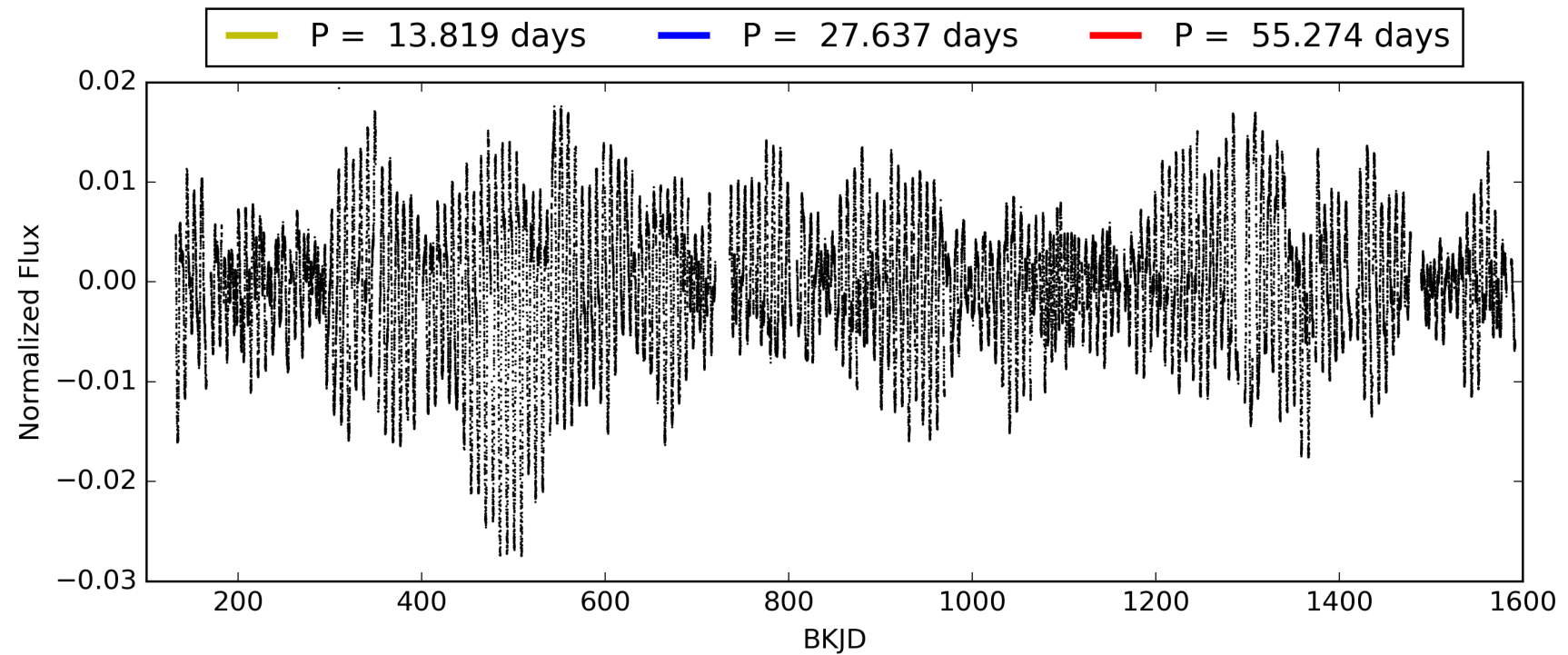
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 16:55:26 Z

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

TCE 008905246-01, PDC Light Curves

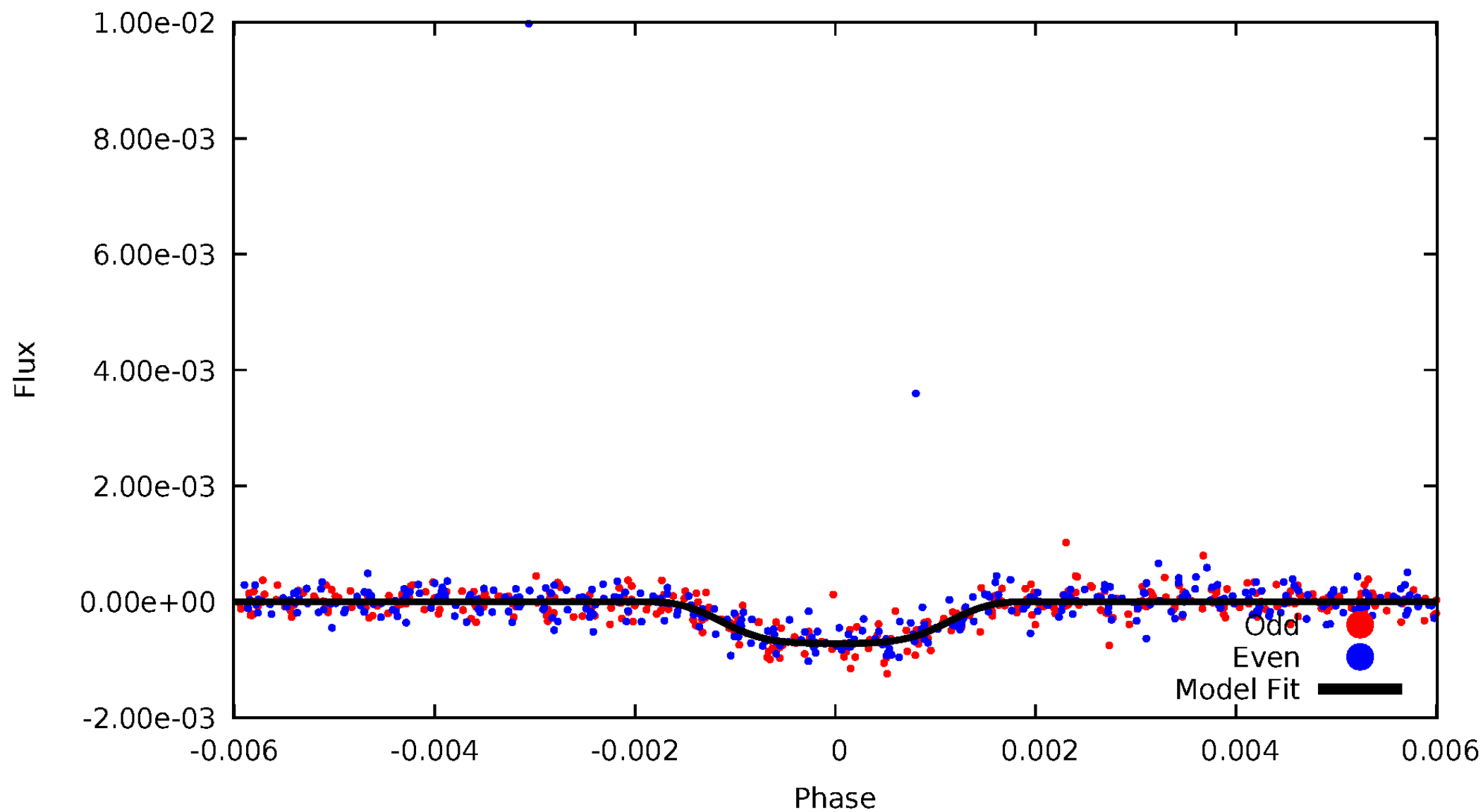


TCE 008905246-01



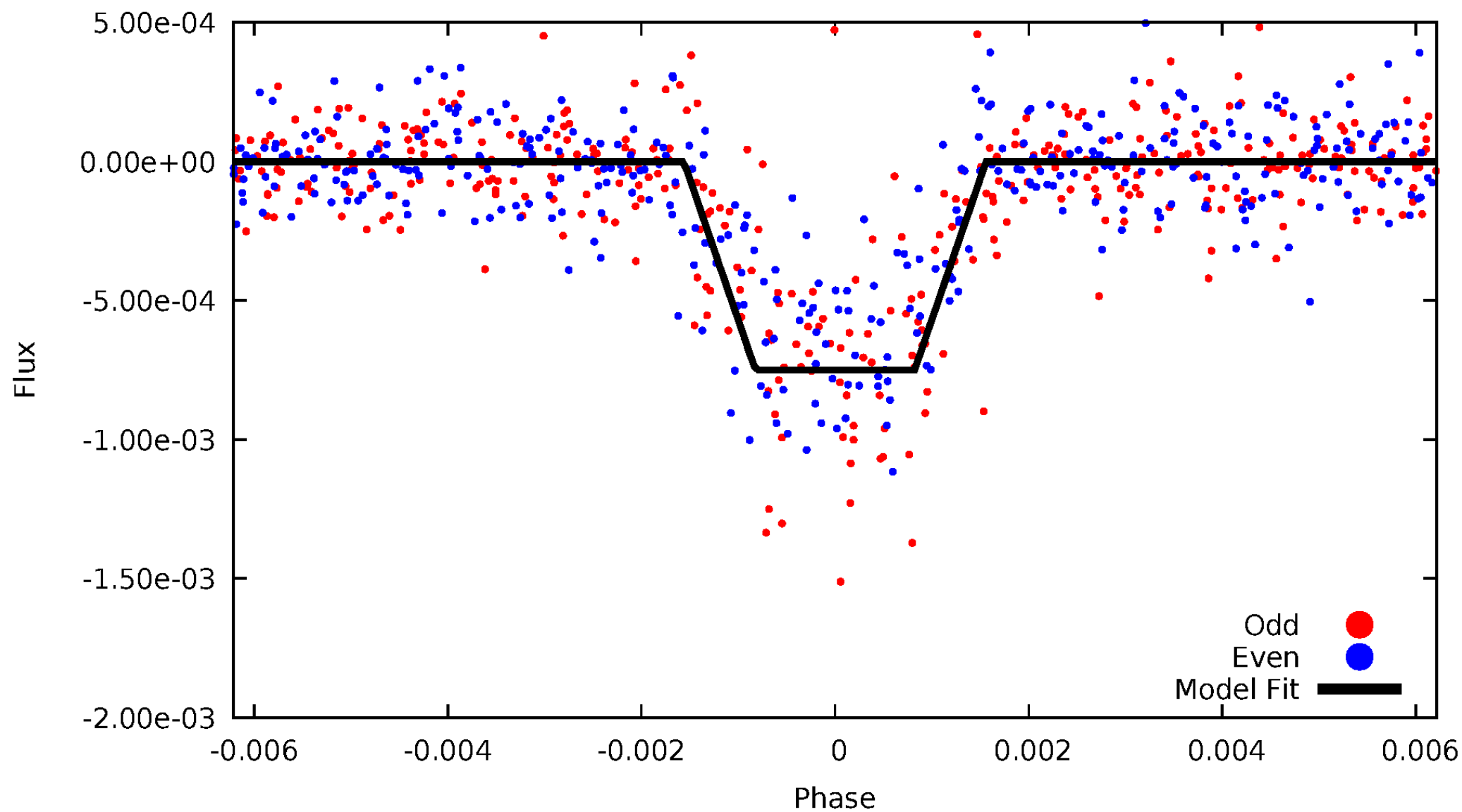
DV Odd/Even

TCE 008905246-01



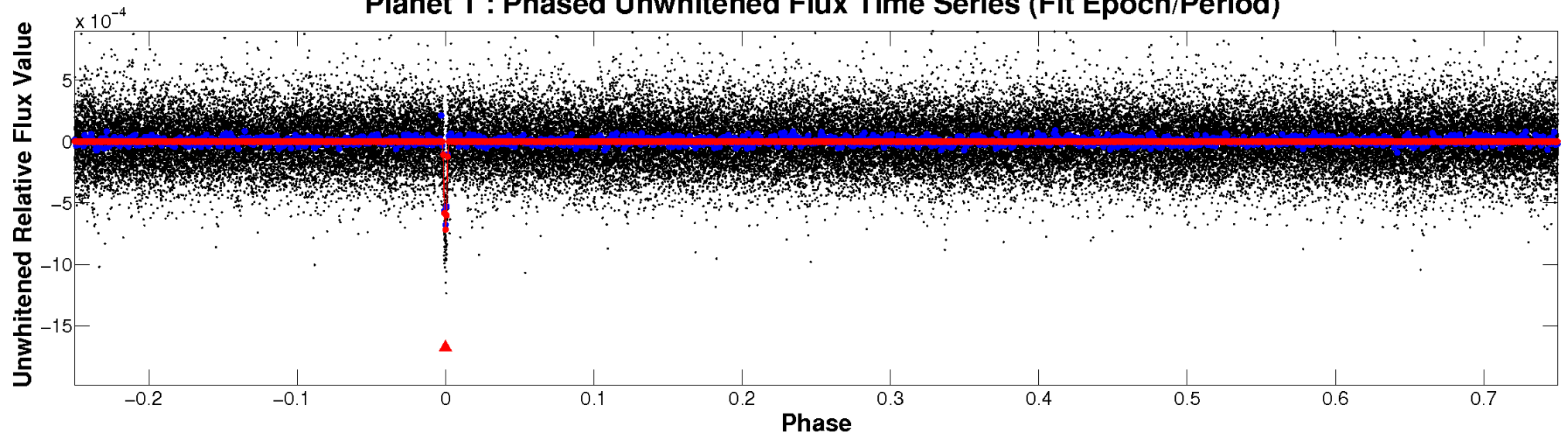
ALT Odd/Even

TCE 008905246-01

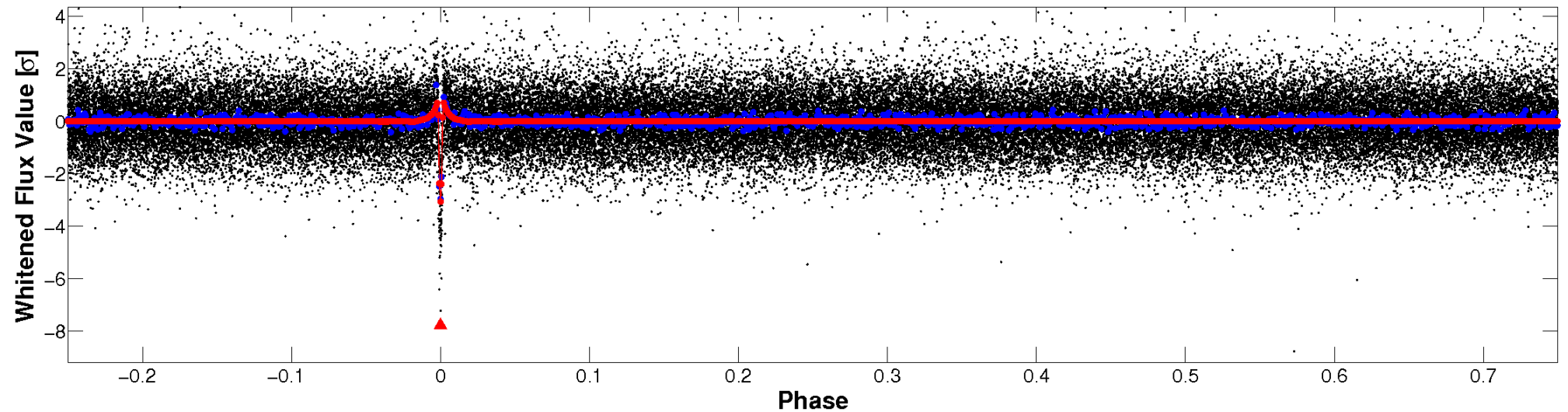


Non-Whitened Vs. Whitened Light Curve

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

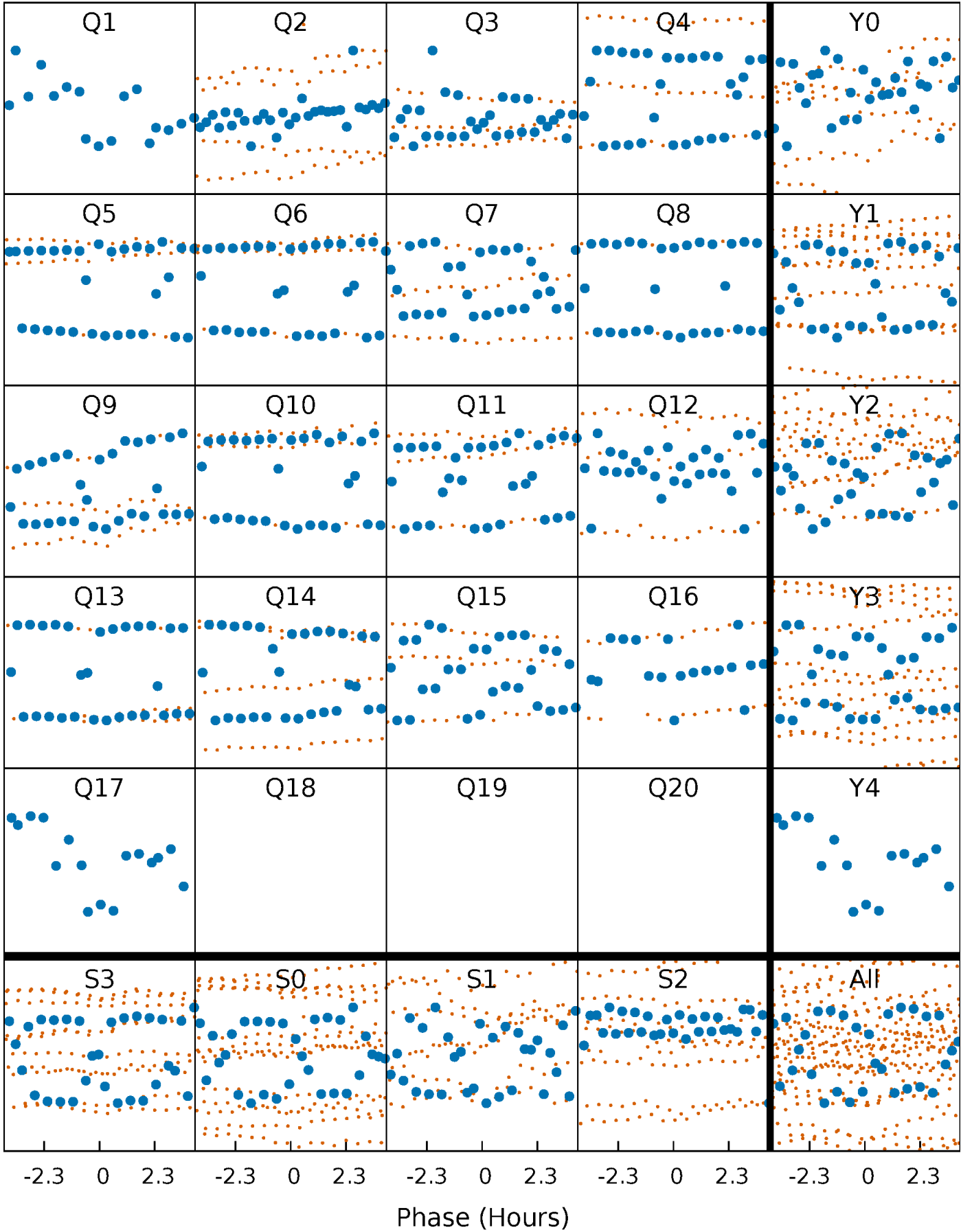


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



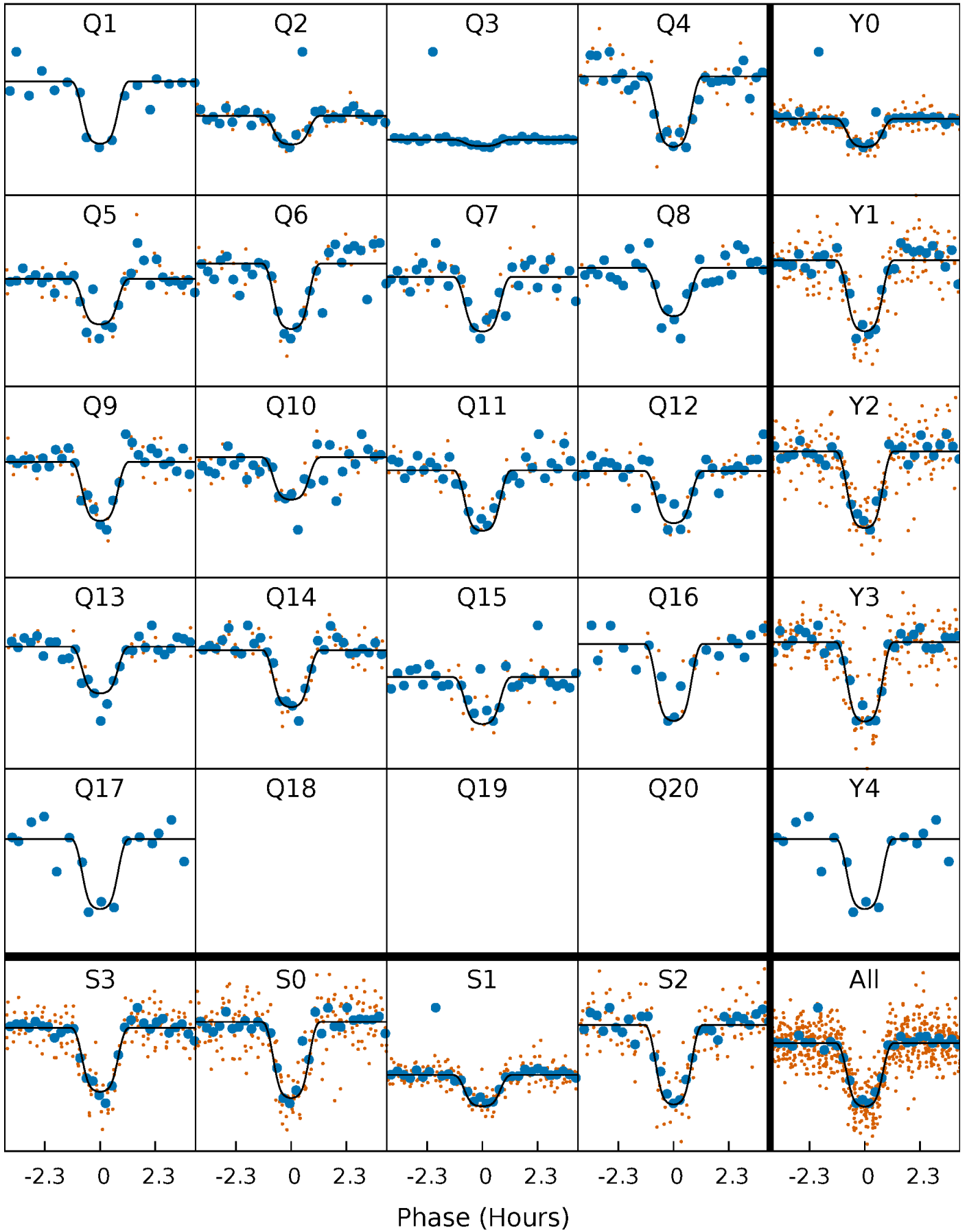
PDC Quarter-Phased Transit Curves

TCE 008905246-01 P= 27.637116 Days $T_0=143.934573$ (BKJD)



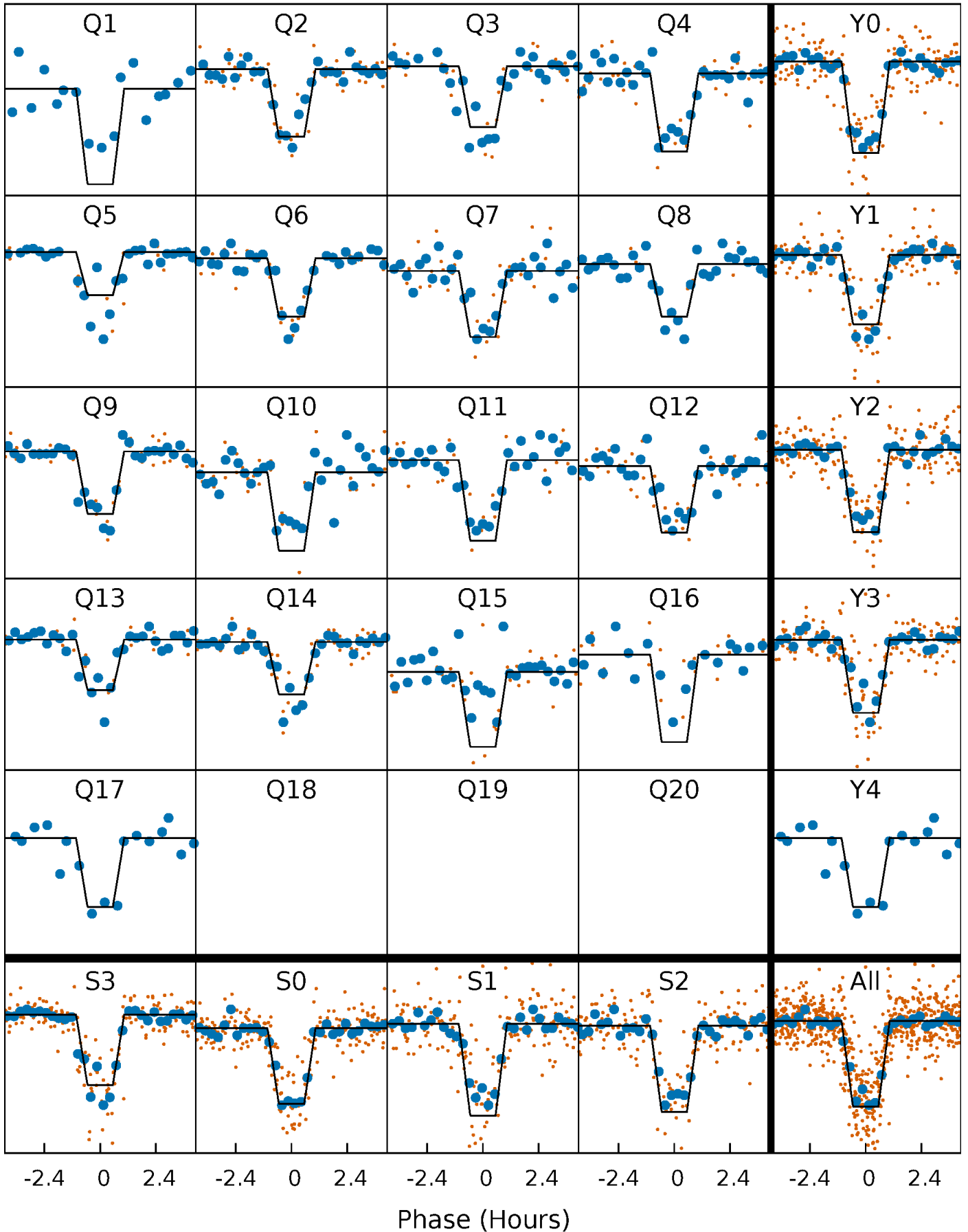
DV Quarter-Phased Transit Curves

TCE 008905246-01 P= 27.637116 Days $T_0=143.934573$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

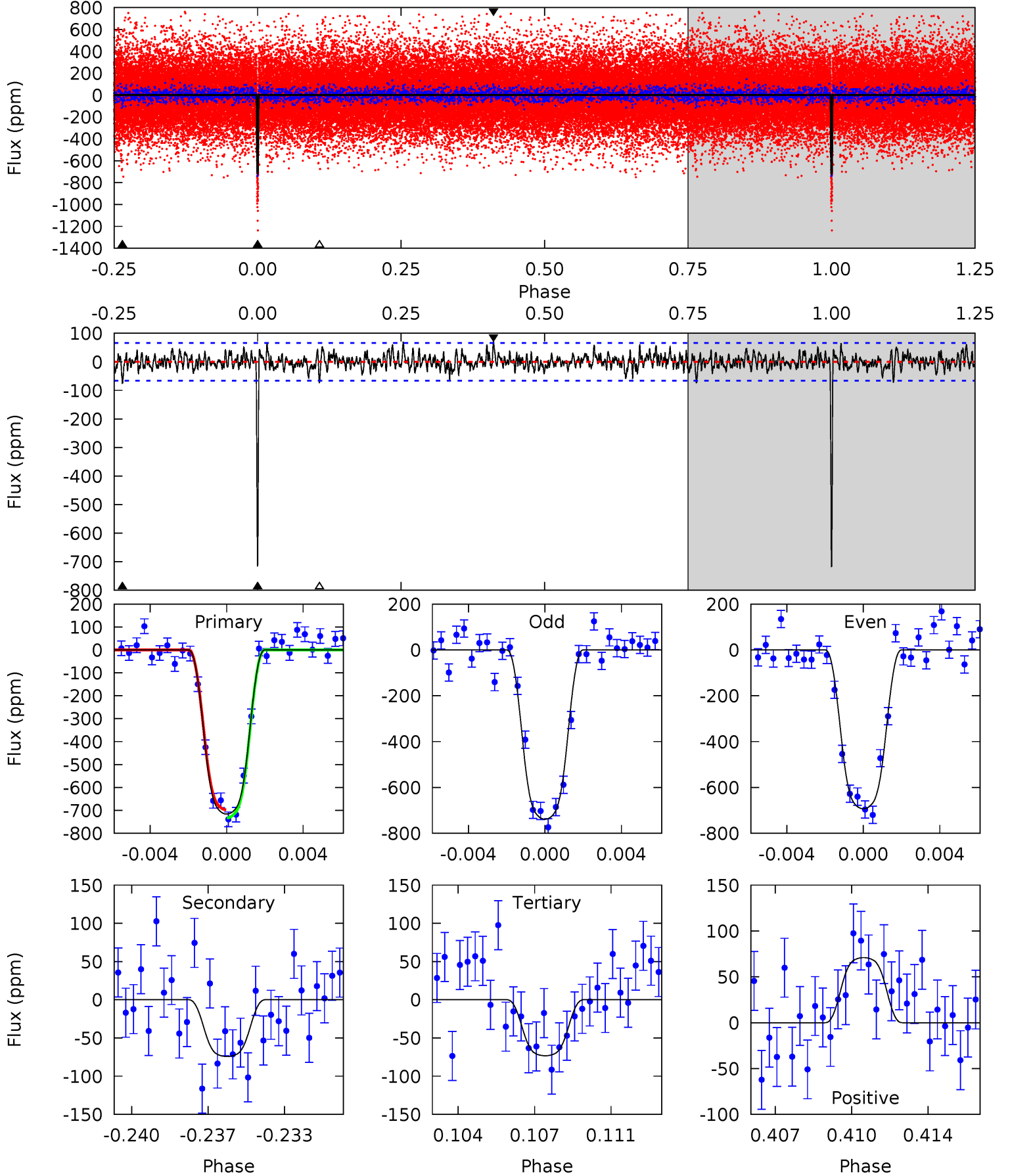
TCE 008905246-01 P= 27.637081 Days $T_0=143.935811$ (BKJD)



DV Model-Shift Uniqueness Test

008905246-01, P = 27.637116 Days, E = 116.297457 Days

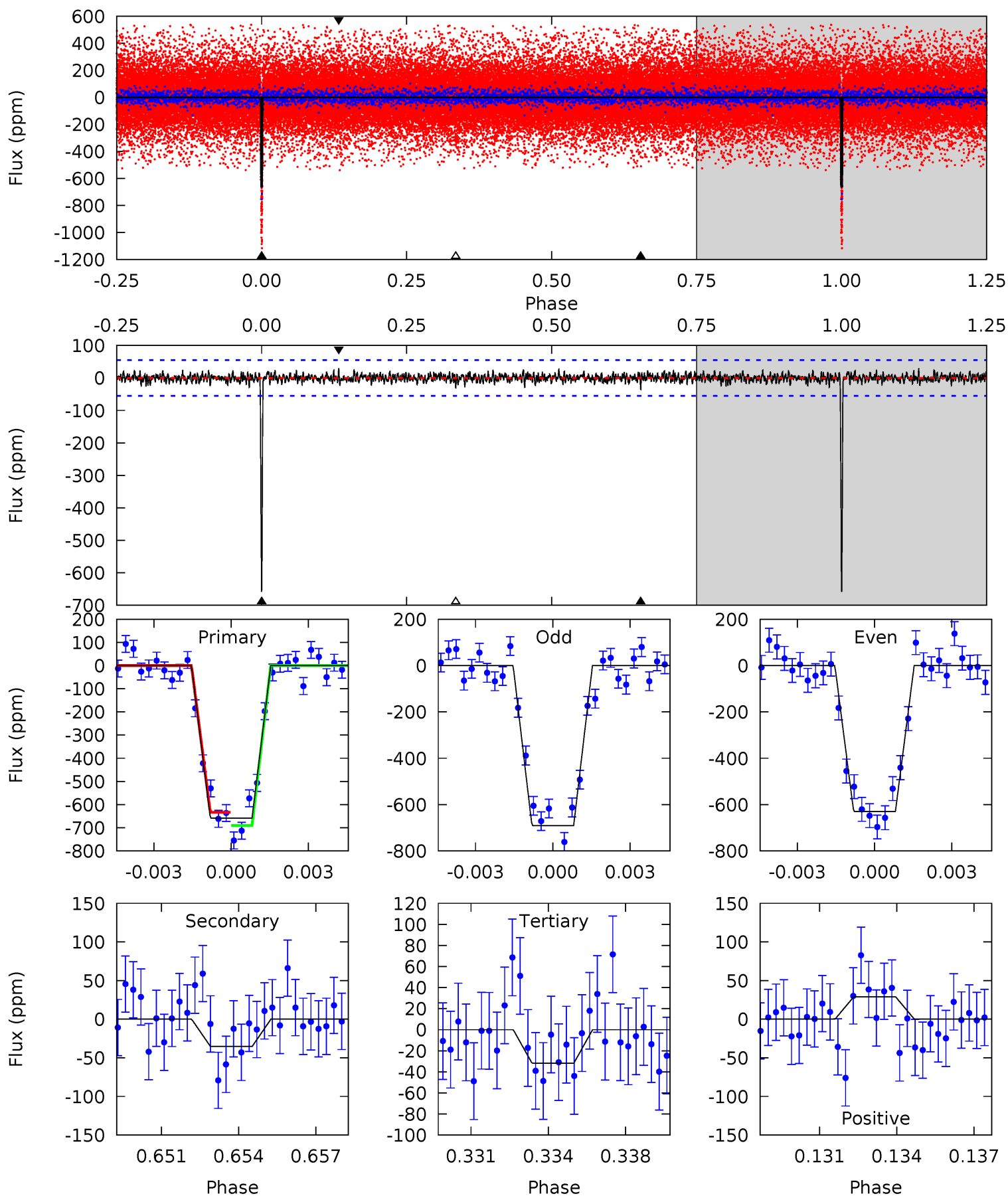
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
56.3	5.84	5.77	5.58	5.21	2.90	1.58	50.6	50.8	0.08	0.26	1.80	0.96	0.09	0



Alt Model-Shift Uniqueness Test

008905246-01, P = 27.637081 Days, E = 116.298730 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.9	3.37	3.04	2.78	5.25	2.96	0.84	59.9	60.1	0.33	0.59	2.87	1.01	0.04	0



Stellar Parameters For KIC 008905246

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5214^{+173}_{-157}	$3.766^{+0.750}_{-0.250}$	$0.060^{+0.300}_{-0.300}$	$2.427^{+0.850}_{-1.579}$	$1.254^{+0.164}_{-0.383}$	$0.123^{+1.946}_{-0.079}$
	+3%/-3%	+20%/-7%	+500%/-500%	+35%/-65%	+13%/-31%	+1577%/-64%
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 008905246-01 / KOI 3473.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-74 ± 13	$8.03^{+2.12}_{-2.82}$	1123^{+130}_{-198}	3253^{+120}_{-112}	23^{+32}_{-9}
Alt.	-35 ± 10	$6.97^{+1.81}_{-2.37}$	1125^{+134}_{-196}	3046^{+149}_{-183}	15^{+18}_{-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

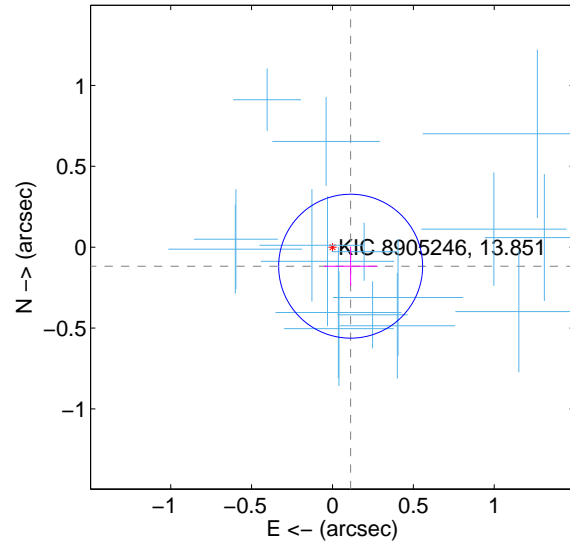
Supplemental centroid analysis for 008905246-01. Kepler magnitude: 13.85. Transit SNR 32.48

There are 16 quarters with good PRF difference image offsets

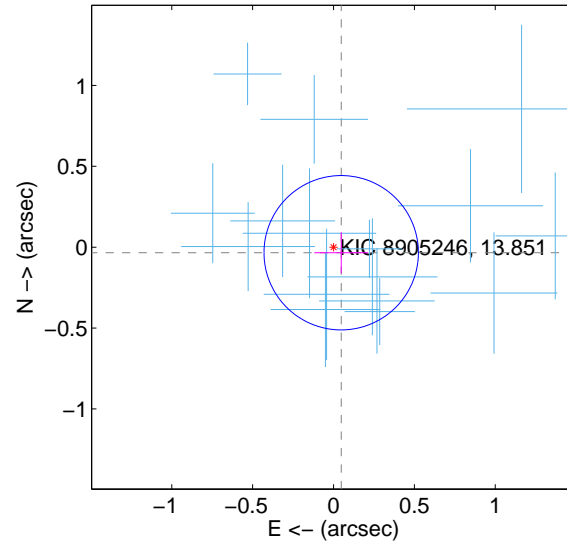
The direct PRF centroid is offset from the target star catalog position by about 0.21 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.163 ± 0.148	1.10	-0.112 ± 0.167	-0.118 ± 0.122
PRF-fit source offset from KIC position	0.059 ± 0.159	0.37	-0.048 ± 0.167	-0.034 ± 0.127
photometric centroid source offset	0.22 ± 0.34	0.64	-0.11 ± 0.36	-0.19 ± 0.34

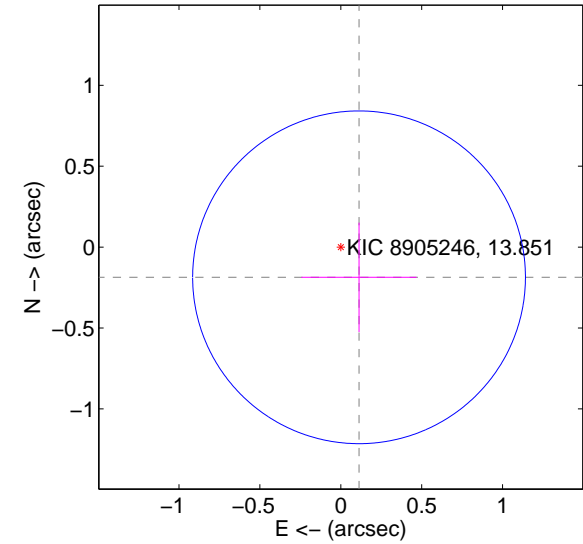
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

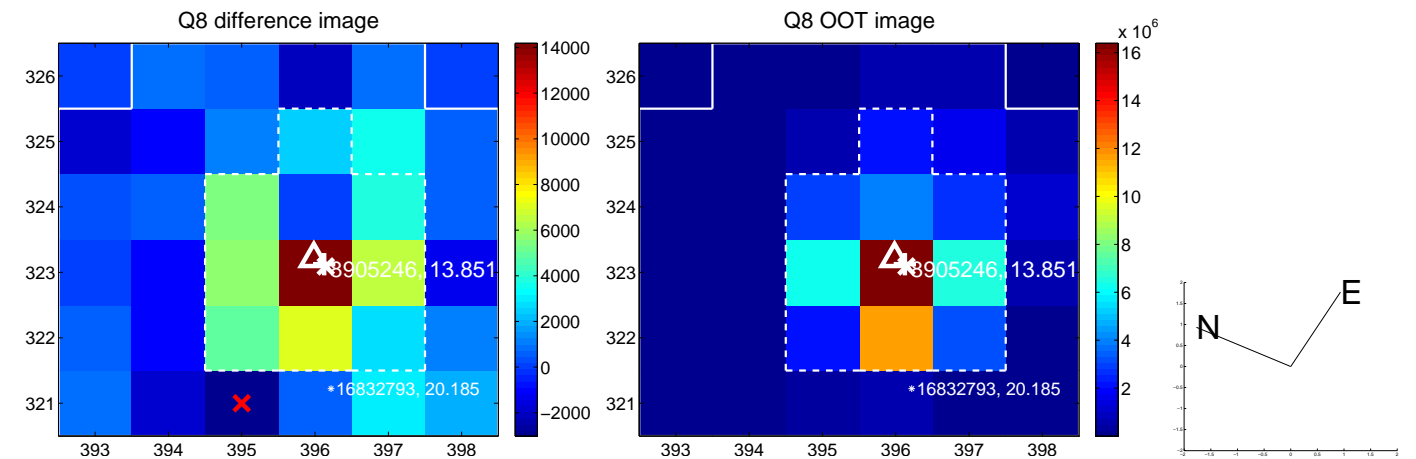
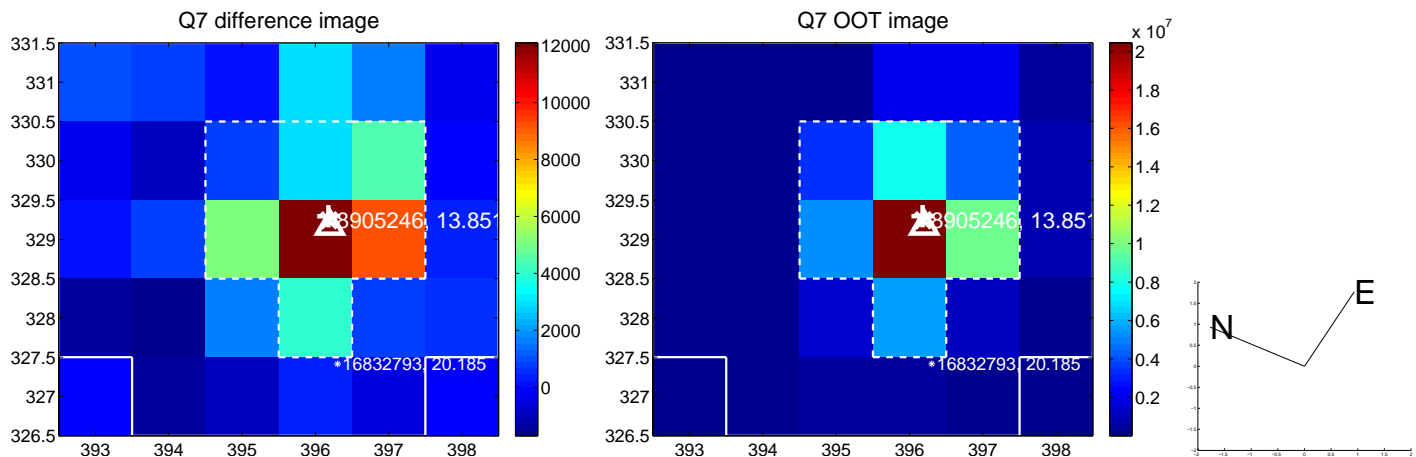
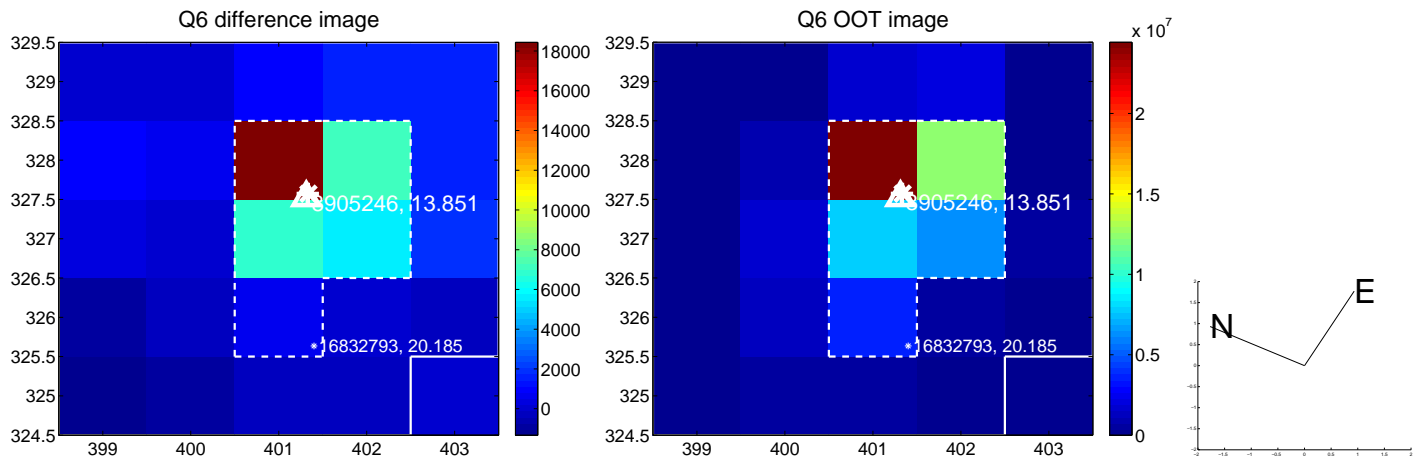
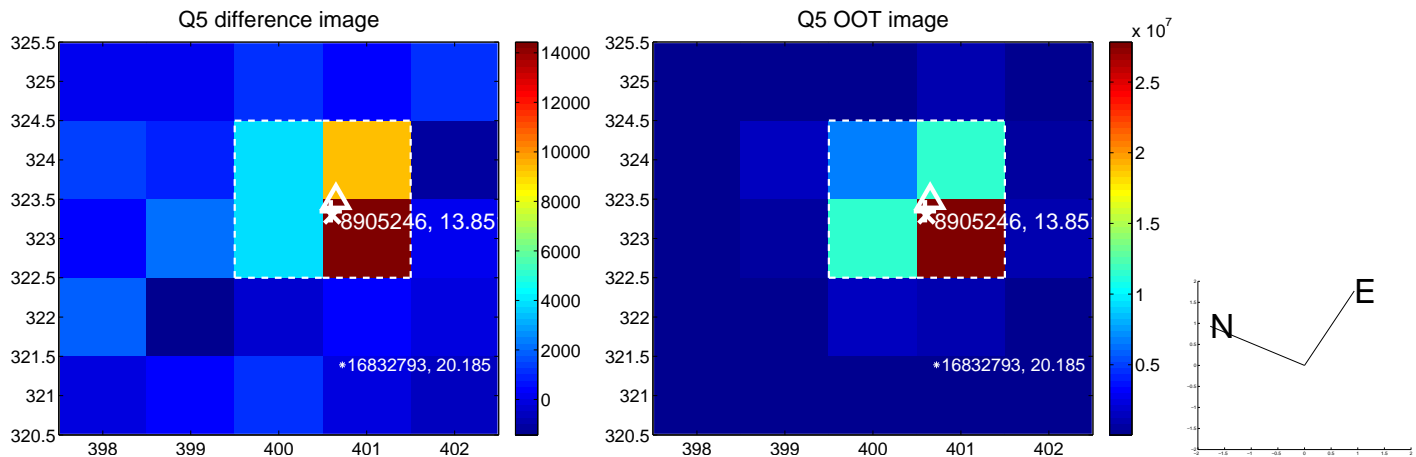


offset from photometric centroids

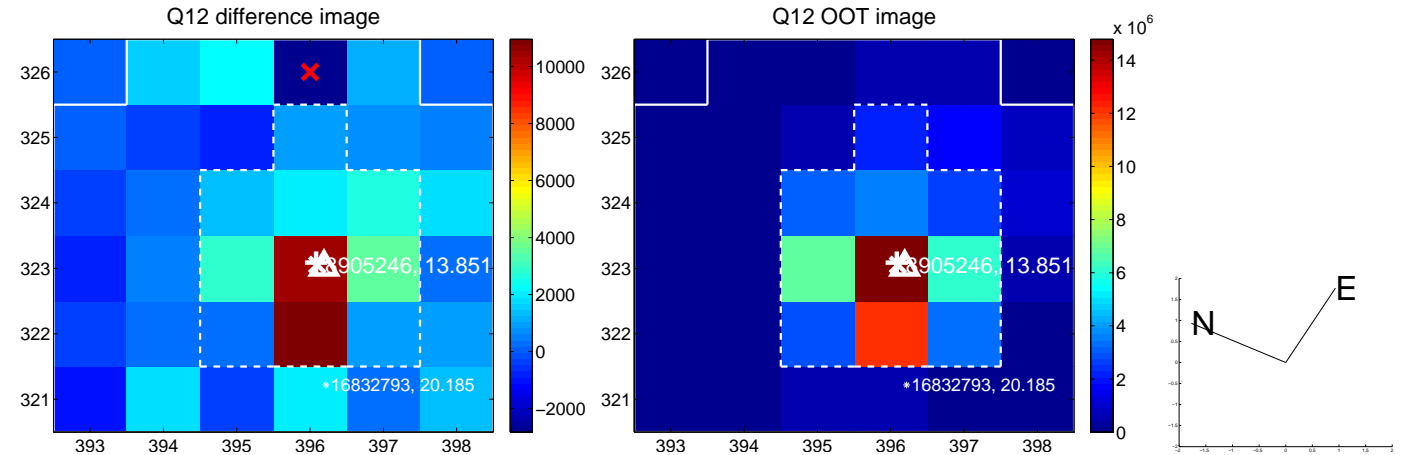
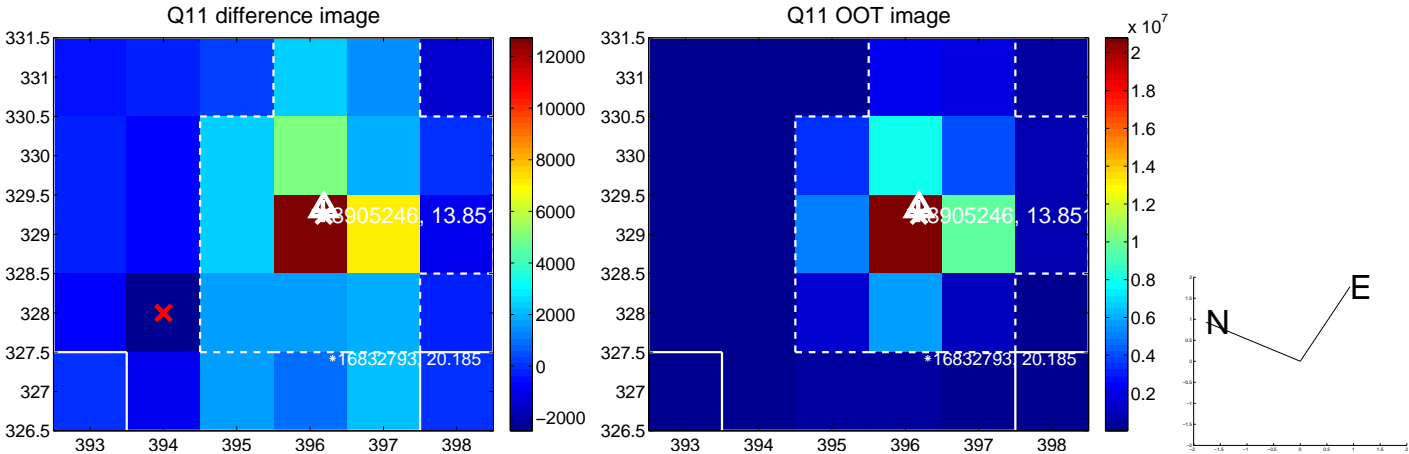
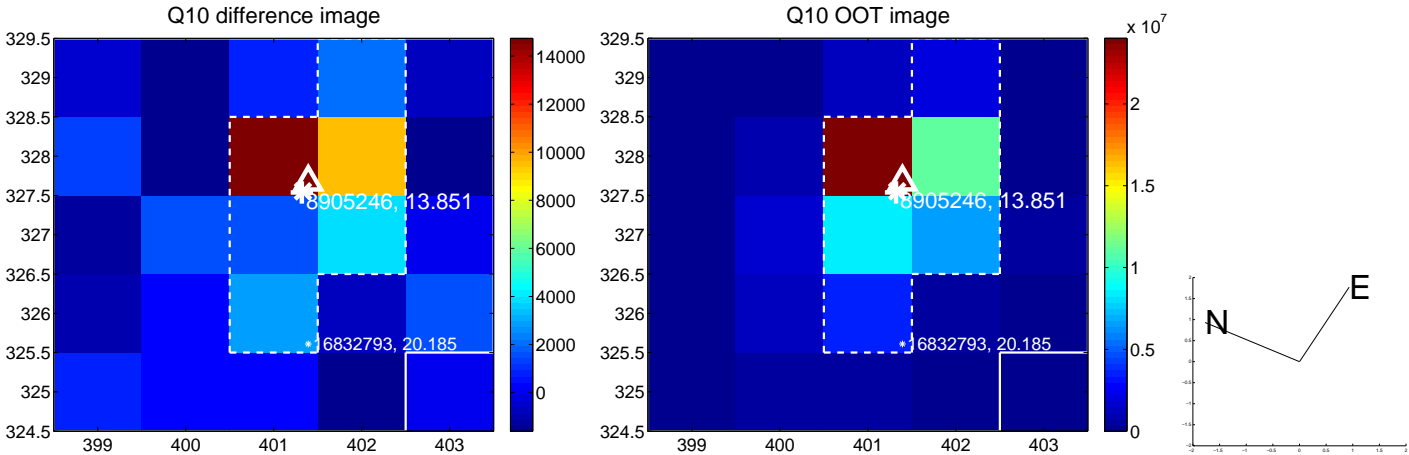
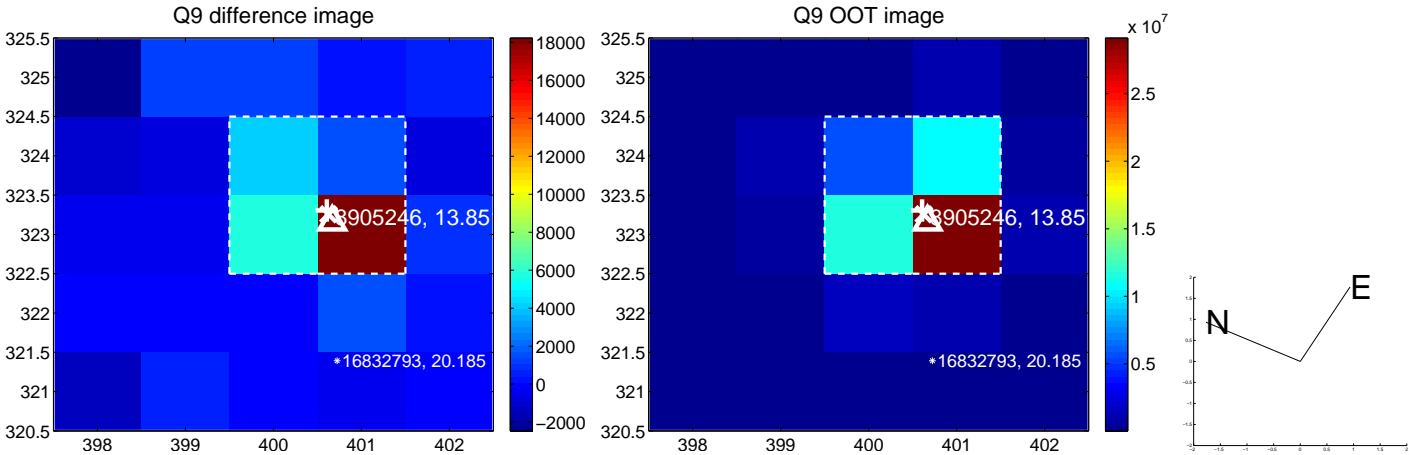


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

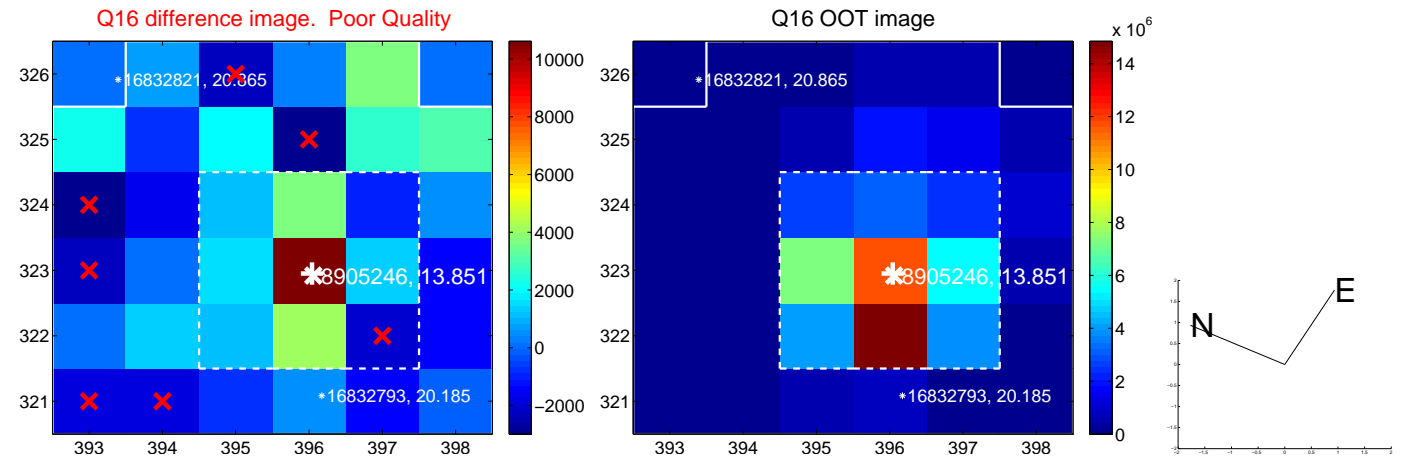
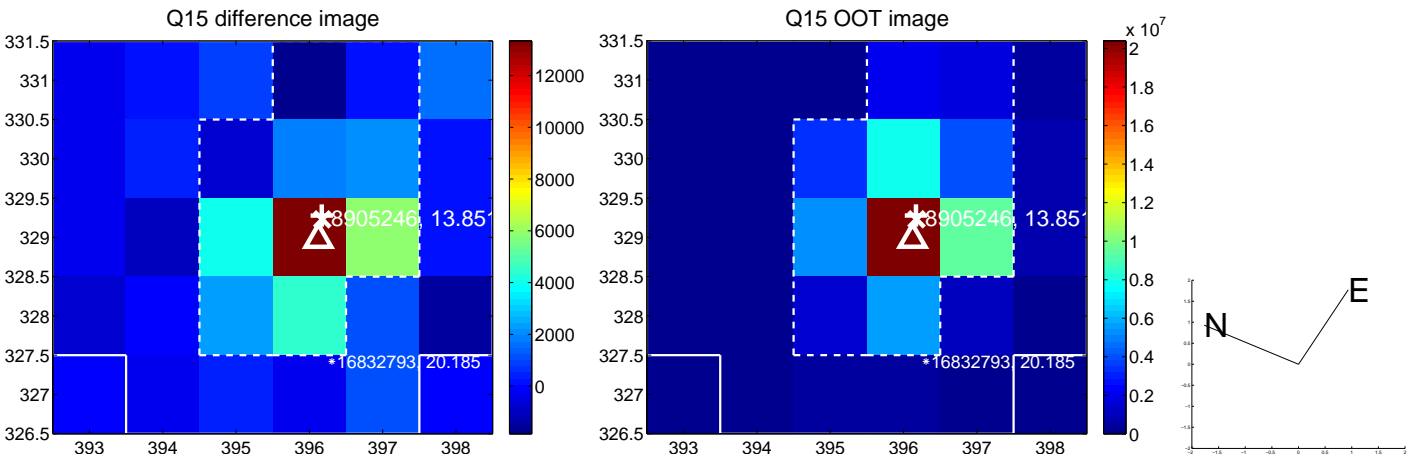
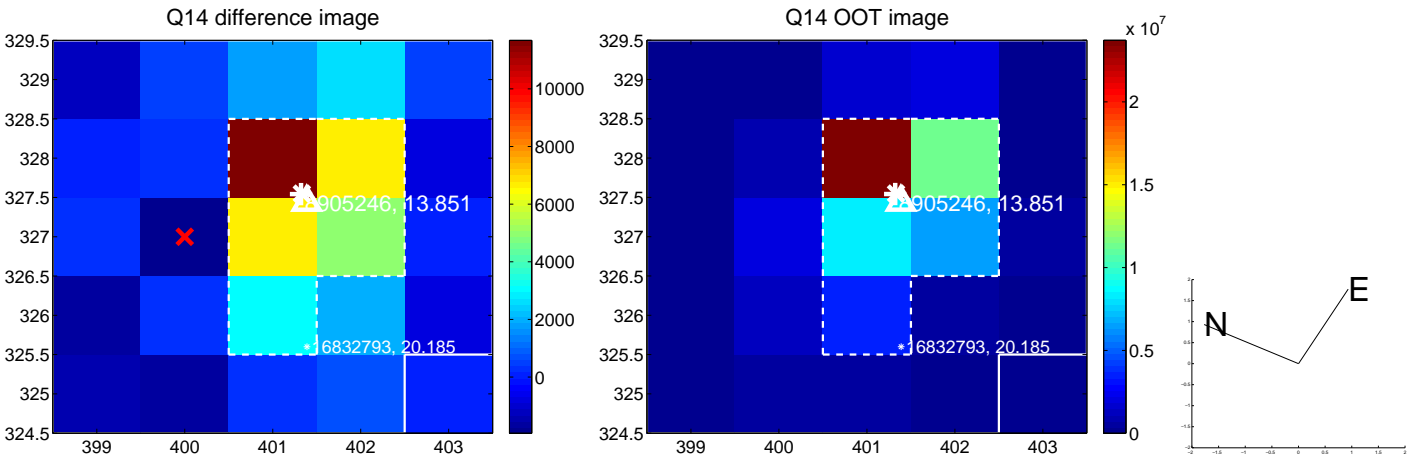
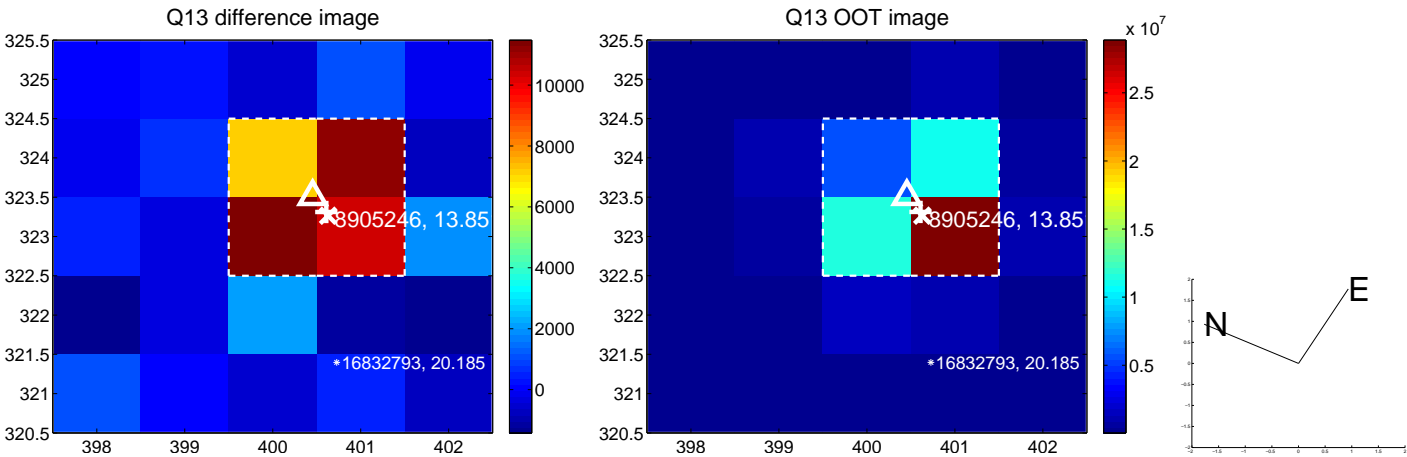
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



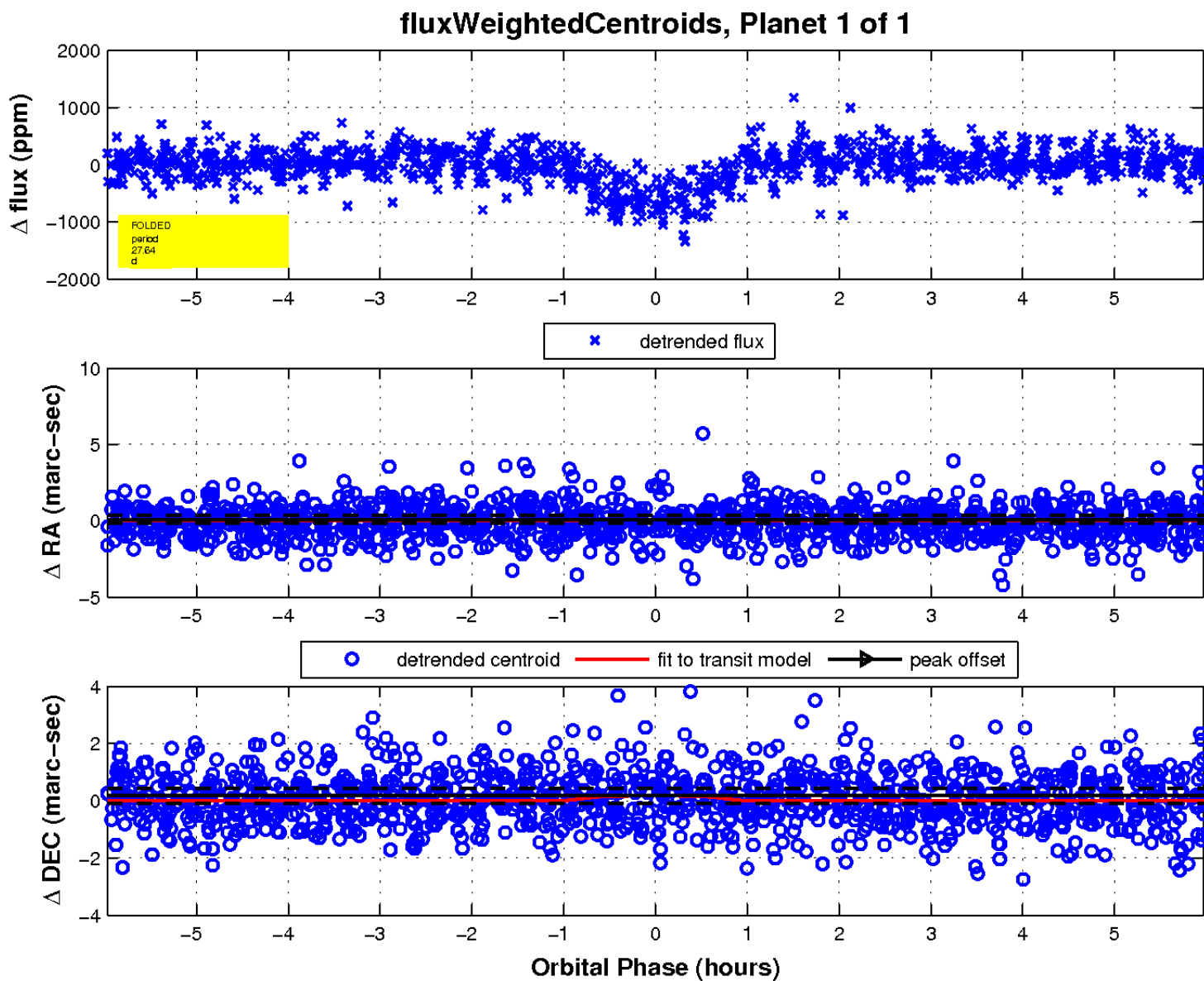
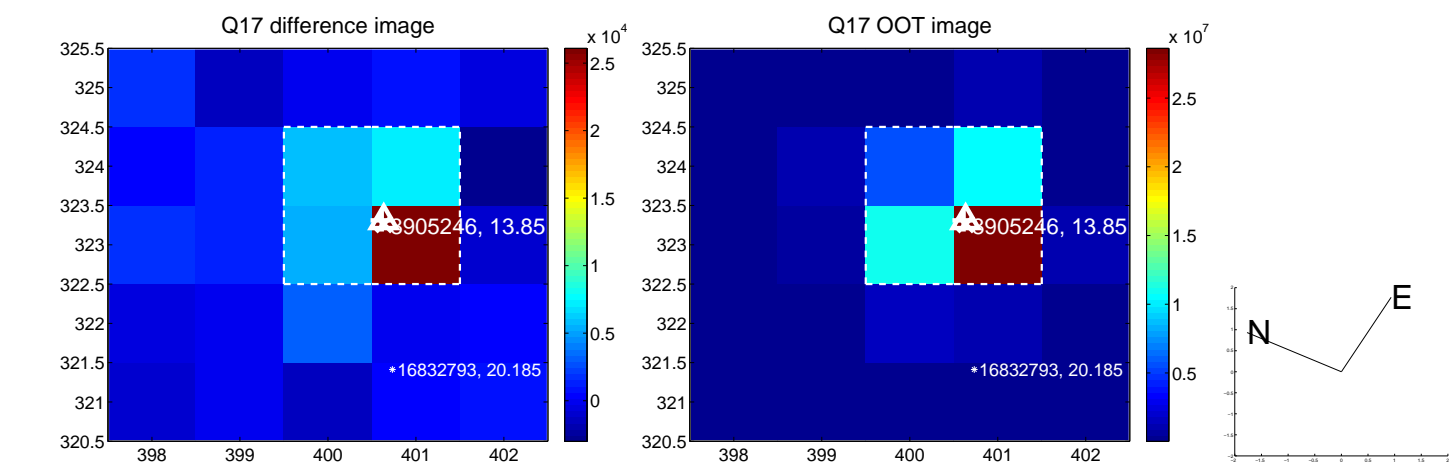
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

