

KIC 008260234

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})
008260234-01	OBS	2085.01	5.714808	132.131333	264.0	3.142	21.4	23.7	0.76	5193	1.48	118.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008260234-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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 008260234-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
008260234-01	8260234	1066.01	8260218	1:1	9.6	3	0	15.62	14.16	52.22	Direct-PRF	0	0.08	0.02

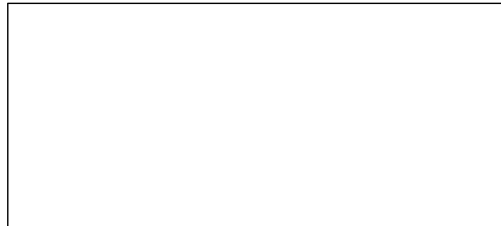
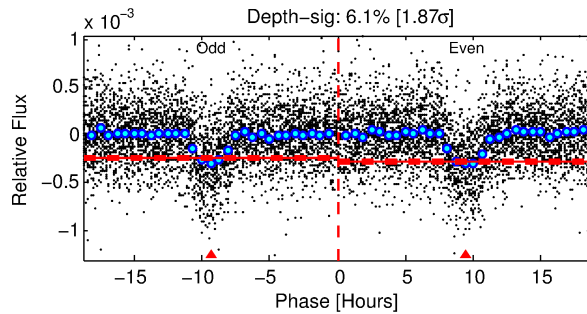
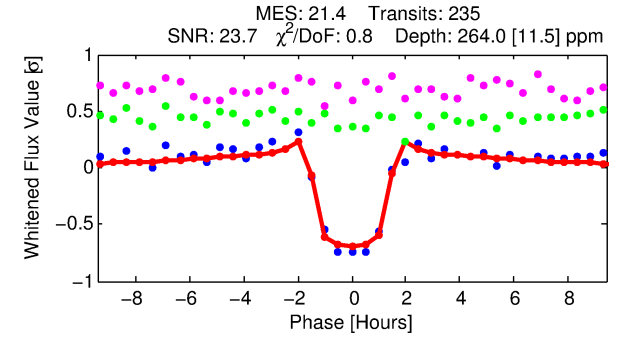
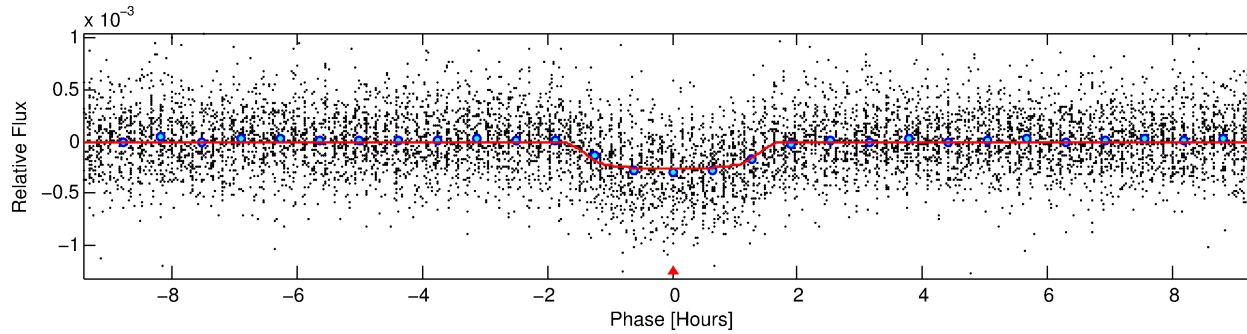
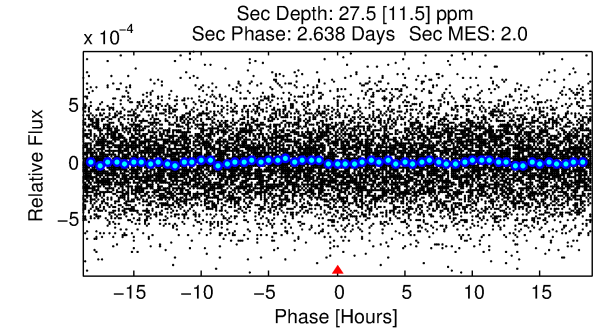
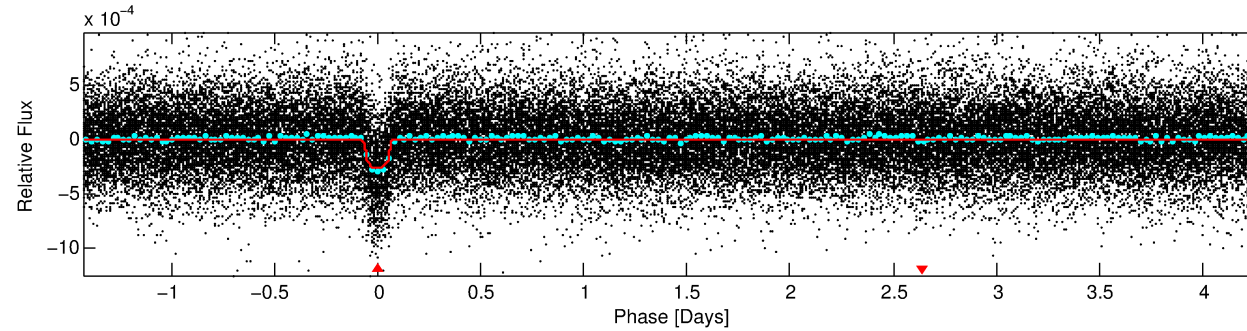
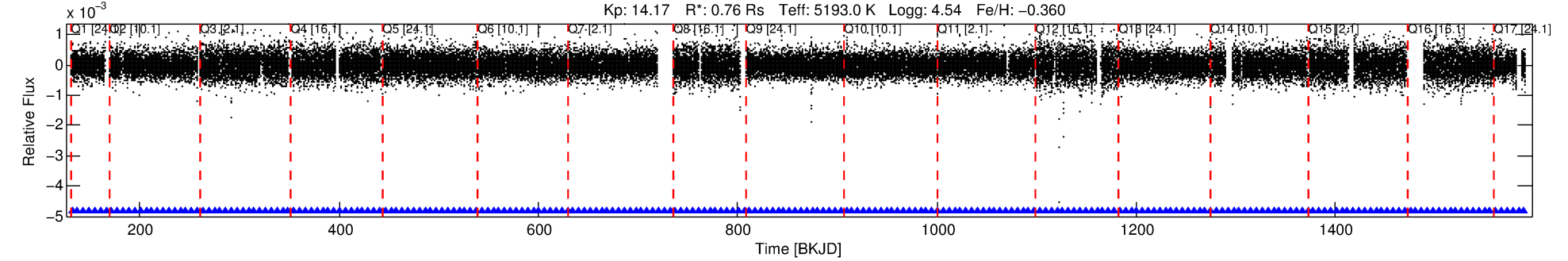
Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 8260234 Candidate: 1 of 1 Period: 5.715 d

KOI: K02085.01 Corr: 0.953

Kp: 14.17 R*: 0.76 Rs Teff: 5193.0 K Logg: 4.54 Fe/H: -0.360



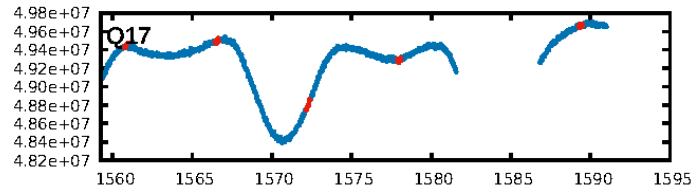
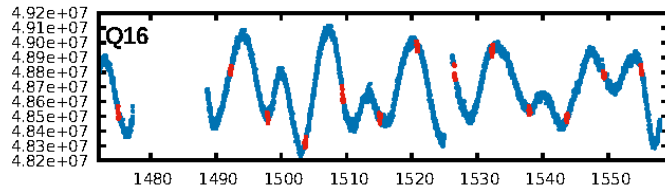
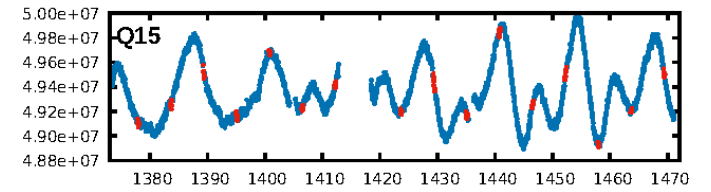
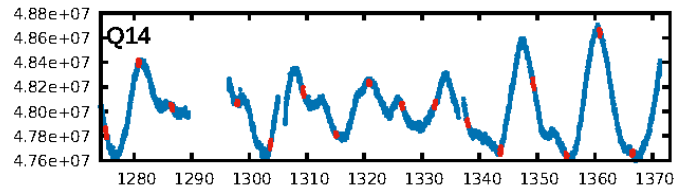
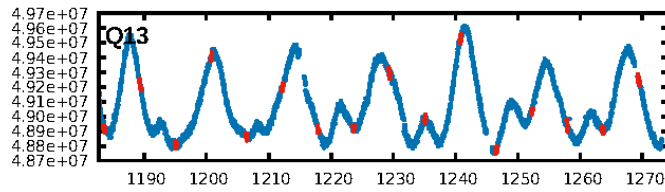
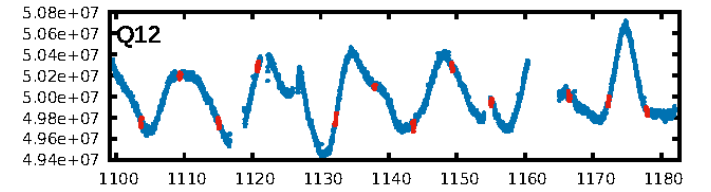
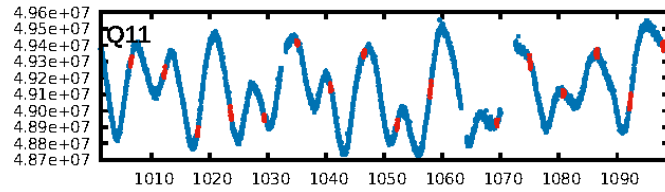
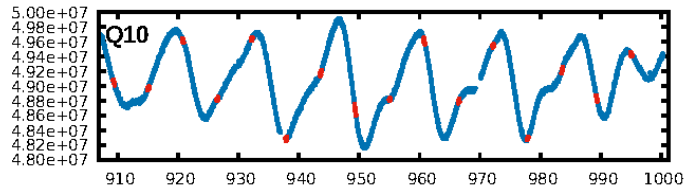
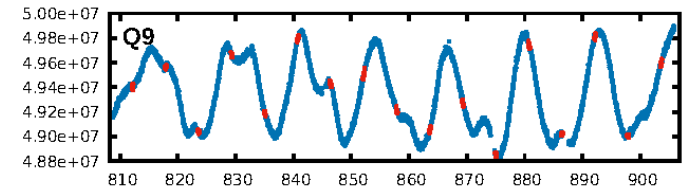
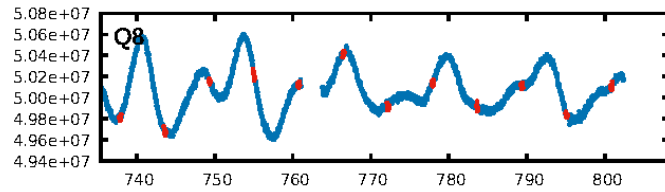
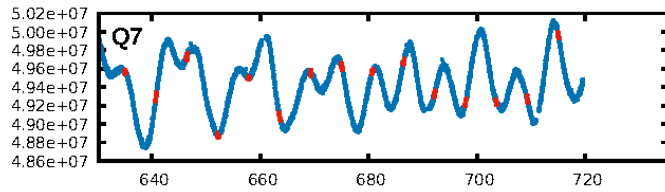
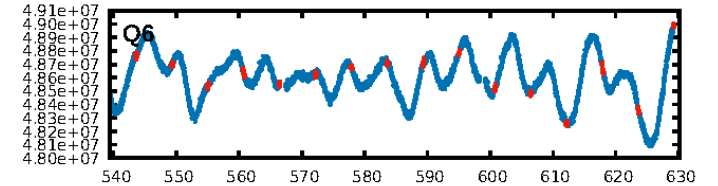
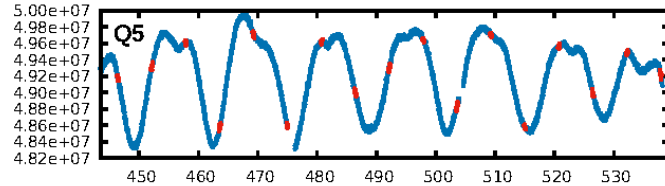
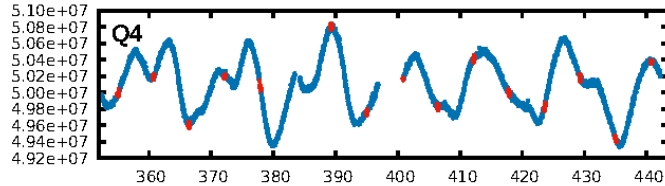
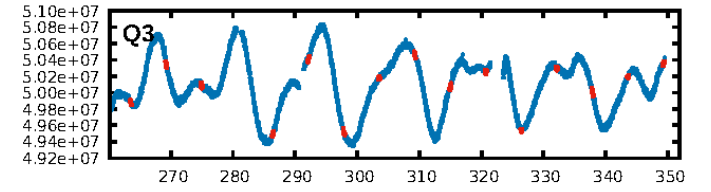
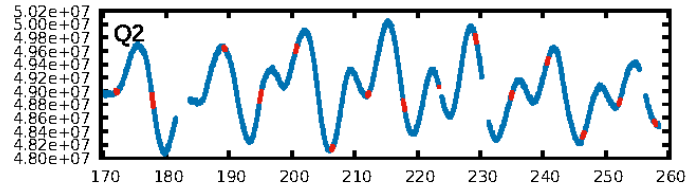
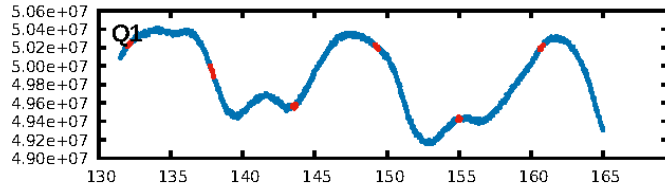
DV Fit Results:

Period = 5.71481 [0.00002] d
Epoch = 132.1313 [0.0019] BKJD
Rp/R* = 0.0179 [0.0031]
a/R* = 6.70 [4.79]
b = 0.90 [0.16]
Seff = 118.90 [26.90]
Teq = 842 [48] K
Rp = 1.48 [0.34] Re
a = 0.0559 [0.0071] AU
Ag = 21.72 [12.52] [1.66σ]
Teffp = 2811 [391] K [5.00σ]

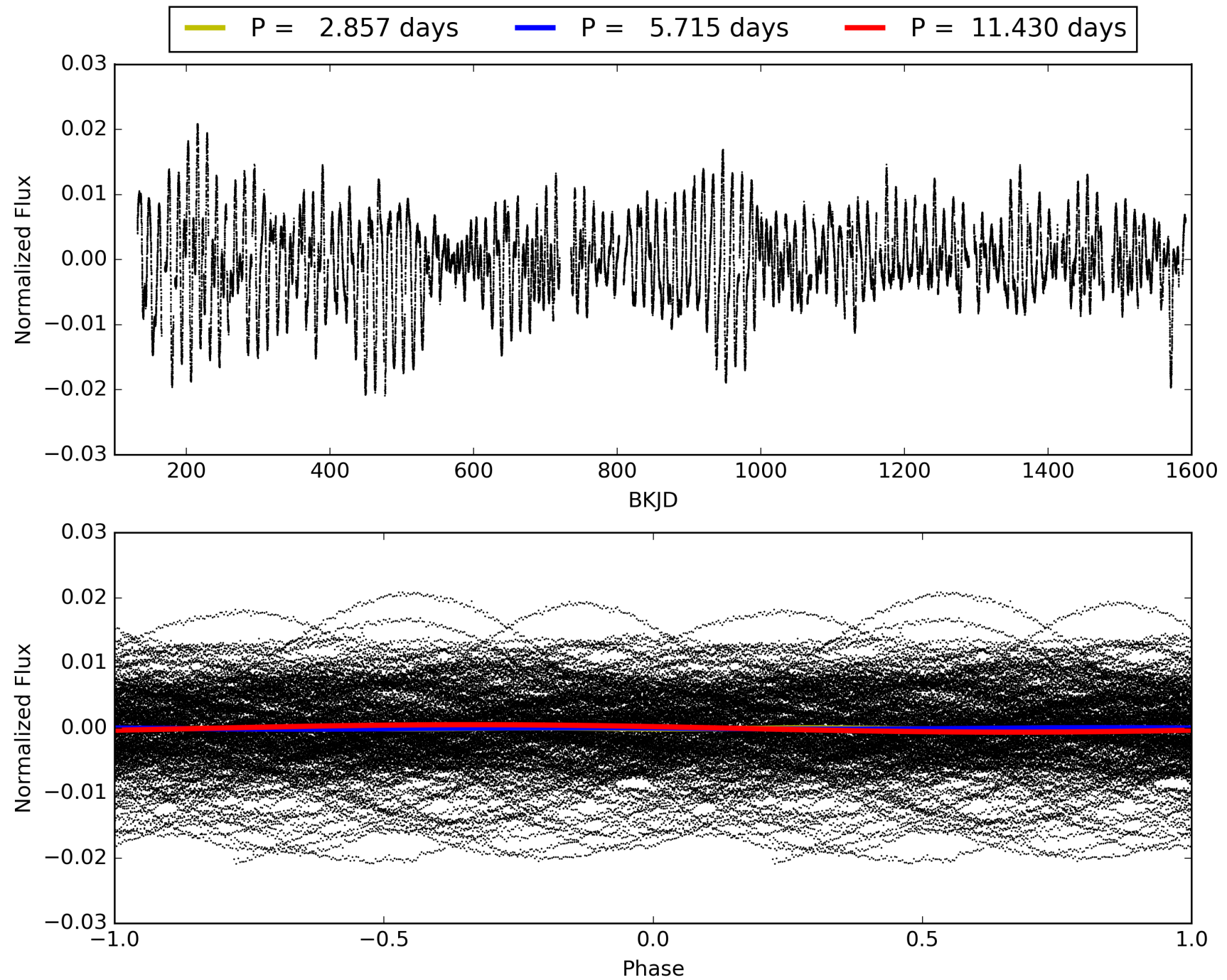
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.58e-94
RollingBand-fgt: 1.00 [224/224]
GhostDiagnostic-chr: -0.1819
Centroid-sig: 0.0%
Centroid-so: 38.730 arcsec [91.42σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 008260234-01, PDC Light Curves

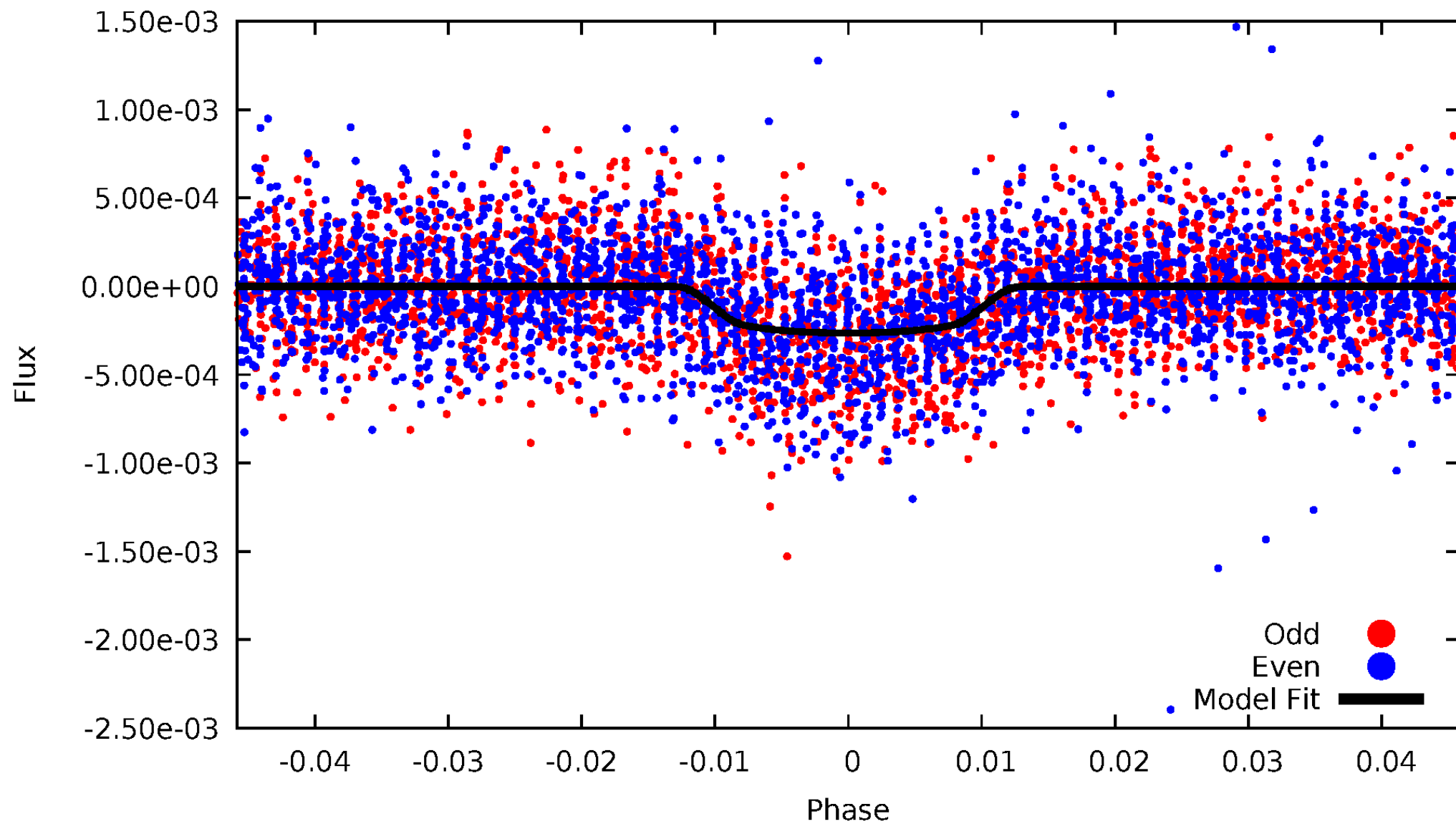


TCE 008260234-01



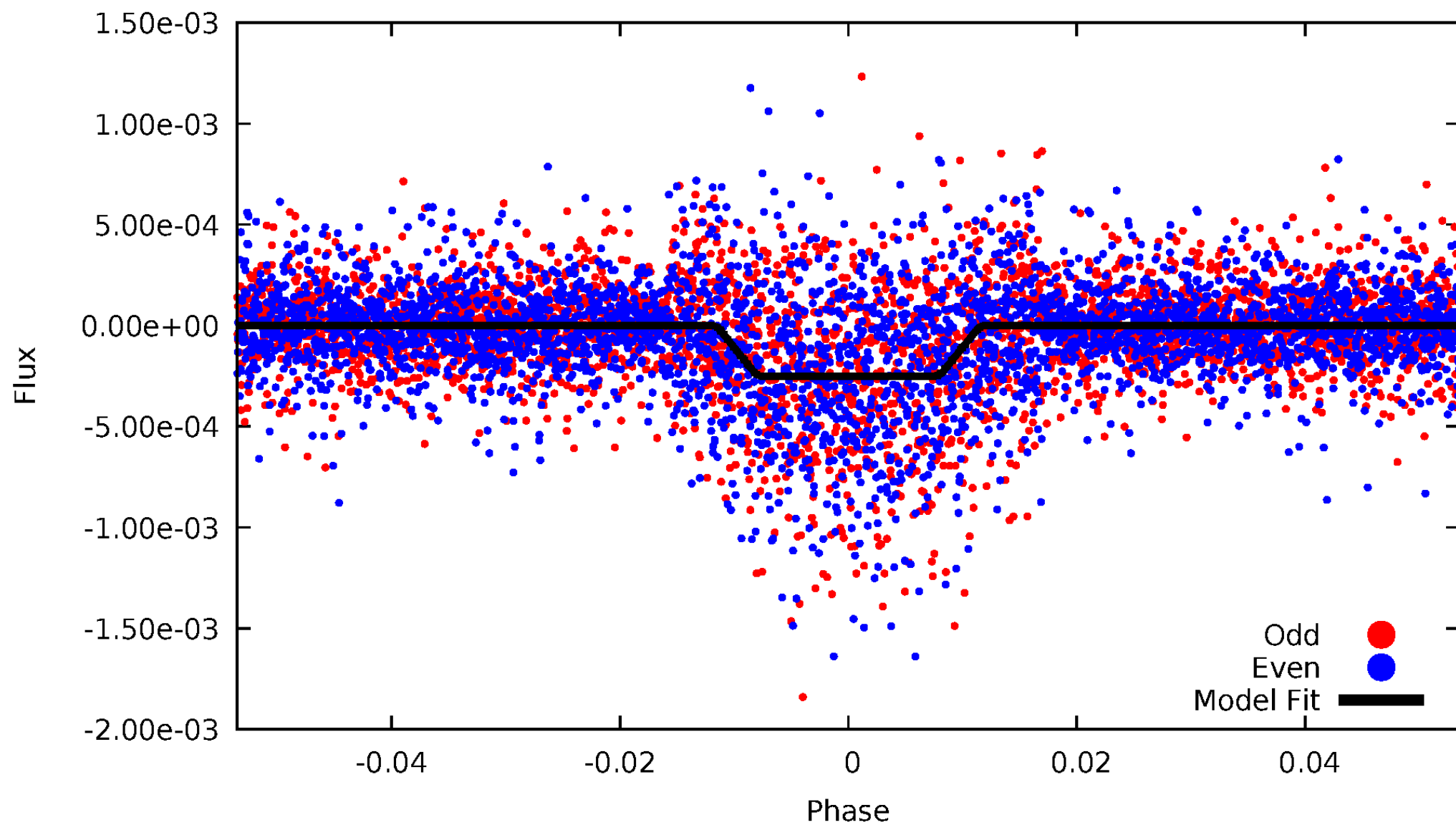
DV Odd/Even

TCE 008260234-01

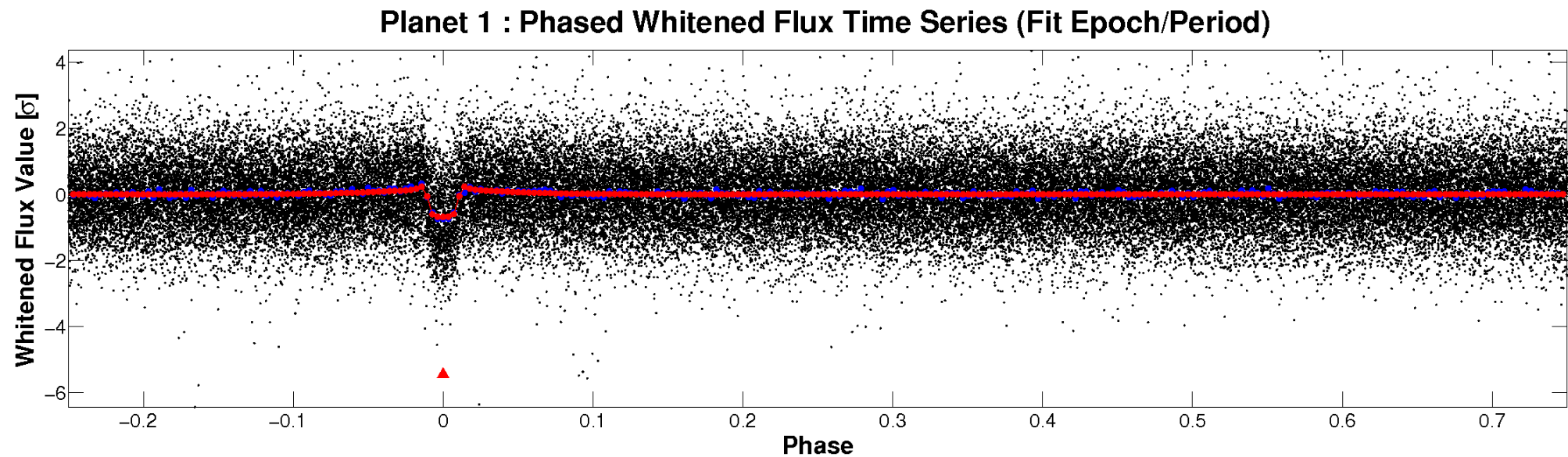
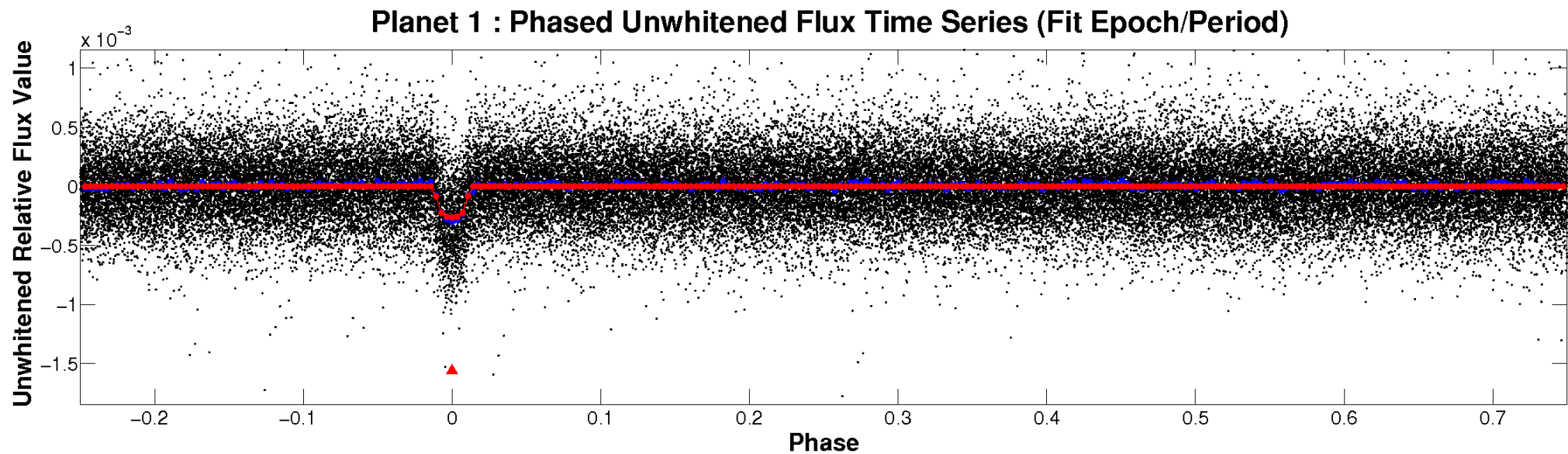


ALT Odd/Even

TCE 008260234-01

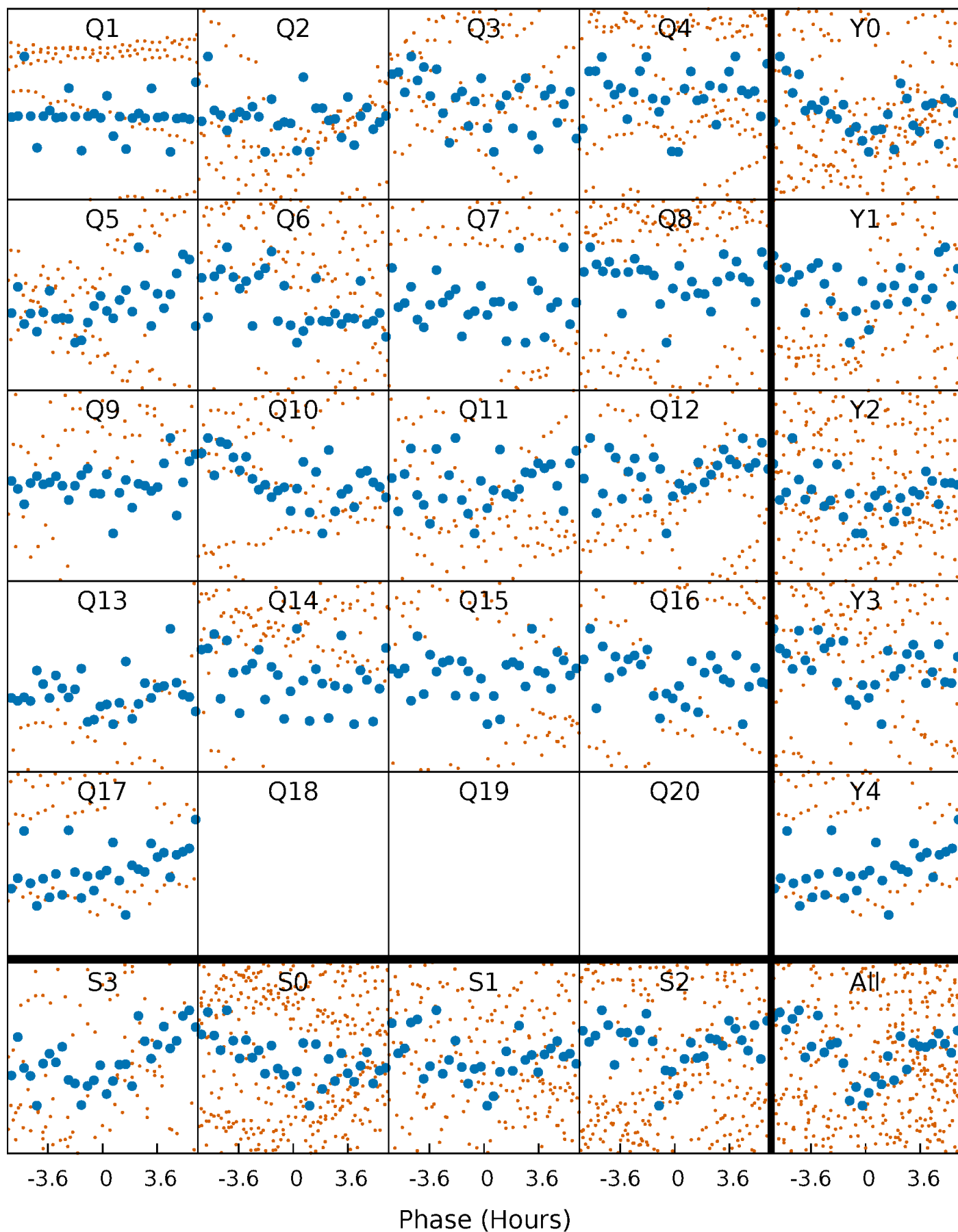


Non-Whitened Vs. Whitened Light Curve



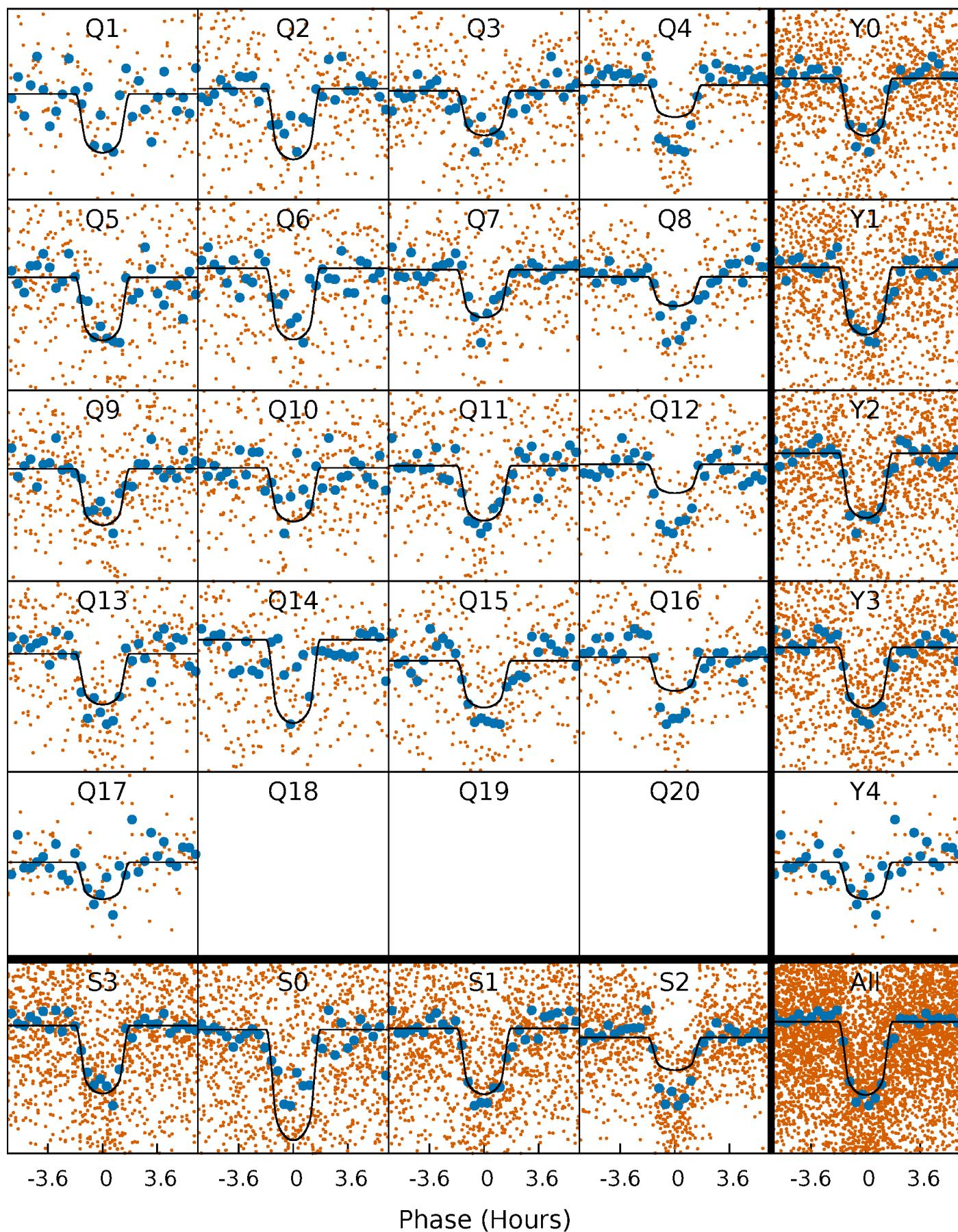
PDC Quarter-Phased Transit Curves

TCE 008260234-01 P= 5.714808 Days $T_0=132.131333$ (BKJD)



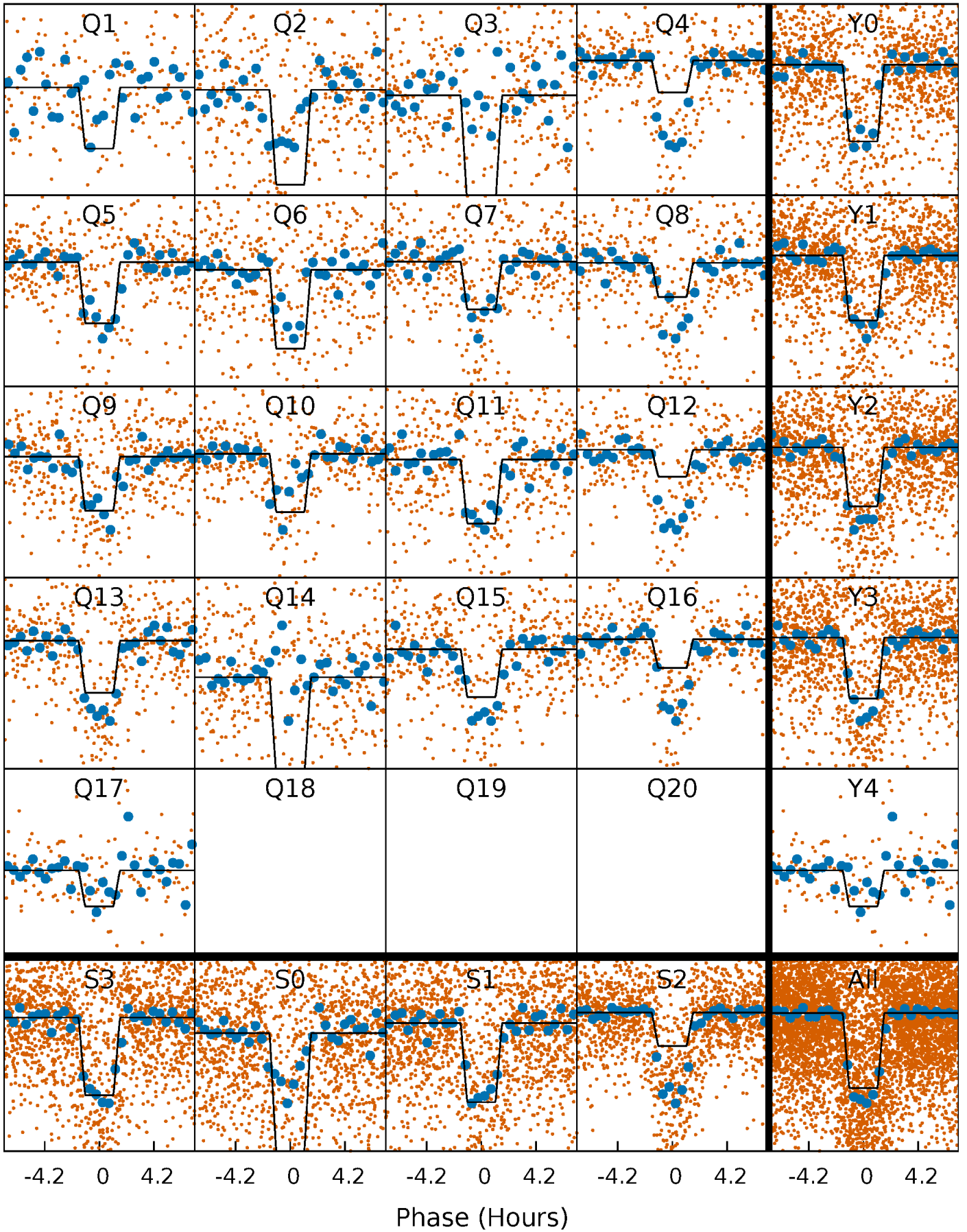
DV Quarter-Phased Transit Curves

TCE 008260234-01 P= 5.714808 Days $T_0=132.131333$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

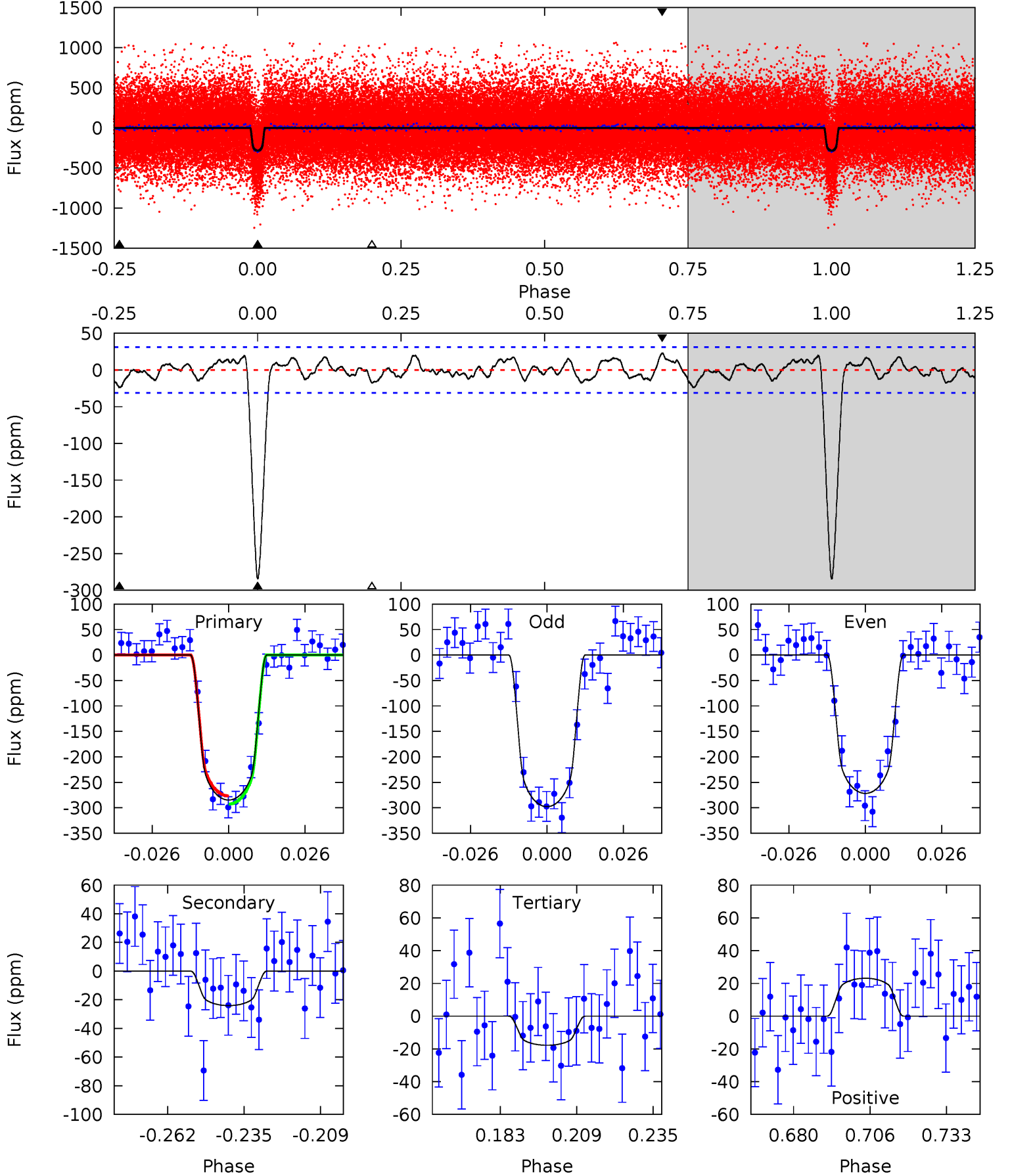
TCE 008260234-01 P= 5.714730 Days $T_0=132.141613$ (BKJD)



DV Model-Shift Uniqueness Test

008260234-01, P = 5.714808 Days, E = 126.416525 Days

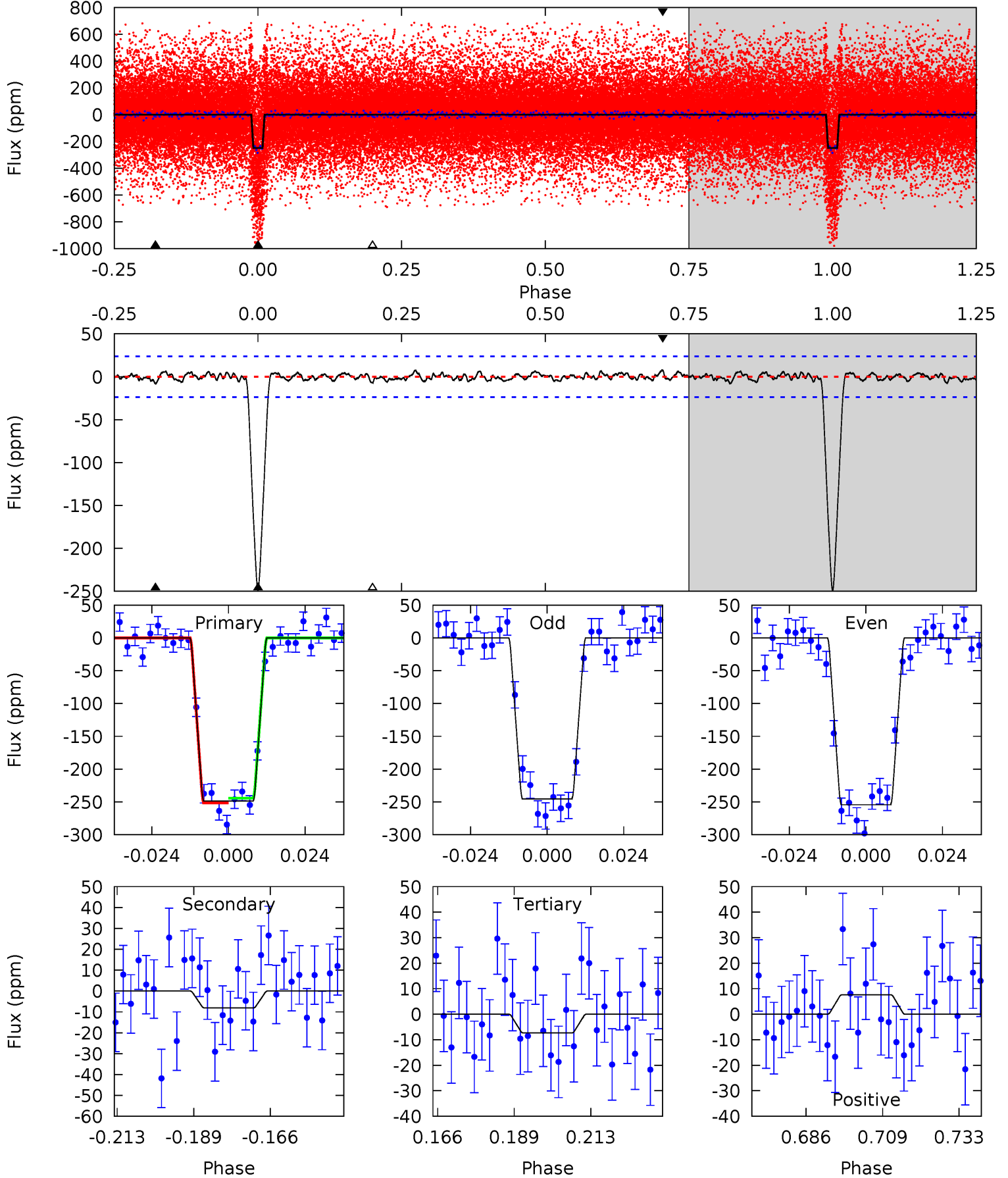
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
44.3	3.74	2.76	3.60	4.84	2.22	1.43	41.5	40.7	0.98	0.15	2.03	1.02	0.08	1.27



Alt Model-Shift Uniqueness Test

008260234-01, P = 5.714730 Days, E = 126.426883 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.9	1.66	1.49	1.55	4.86	2.26	0.61	49.4	49.3	0.17	0.11	0.90	1.12	0.03	0.74



Stellar Parameters For KIC 008260234

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5193^{+155}_{-139}	$4.535^{+0.090}_{-0.108}$	$-0.360^{+0.350}_{-0.300}$	$0.755^{+0.110}_{-0.080}$	$0.713^{+0.115}_{-0.041}$	$2.332^{+0.888}_{-0.697}$
	+3%/-3%	+2%/-2%	+97%/-83%	+15%/-11%	+16%/-6%	+38%/-30%
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 008260234-01 / KOI 2085.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-24 ± 6	$1.50^{+0.28}_{-0.29}$	1181^{+55}_{-53}	3237^{+260}_{-206}	19^{+11}_{-7}
Alt.	-8 ± 5	$1.33^{+0.29}_{-0.28}$	1180^{+57}_{-57}	2843^{+300}_{-399}	$7.538^{+7.521}_{-4.904}$

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

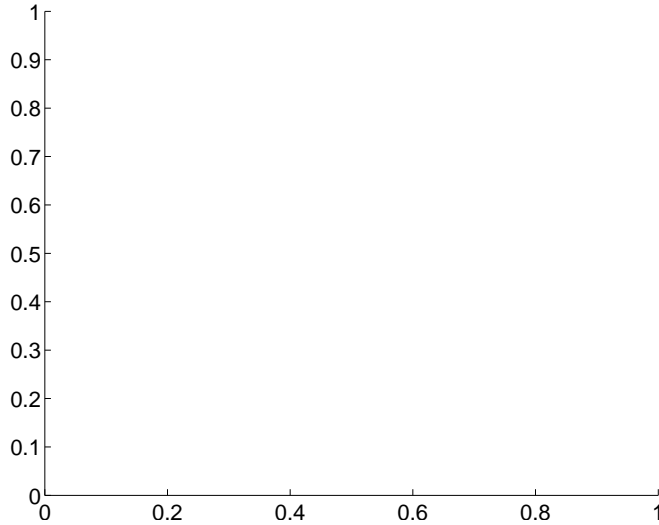
Supplemental centroid analysis for 008260234-01. Kepler magnitude: 14.17. Transit SNR 23.68

There are 0 quarters with good PRF difference image offsets

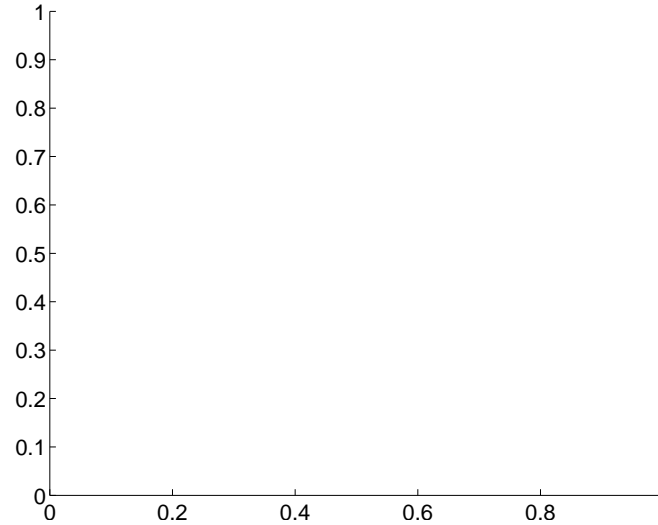
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	38.73 ± 0.42	91.42	-32.29 ± 0.41	-21.39 ± 0.45

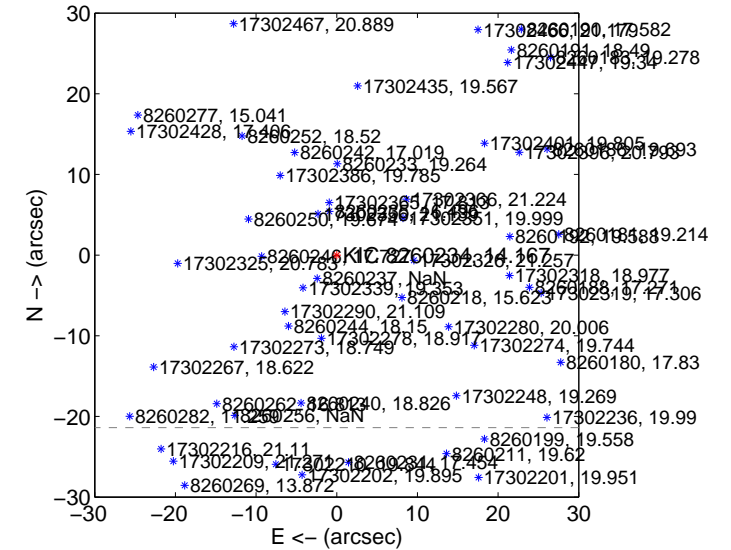
There is no PRF-fit offset from OOT-fit



There is no PRF-fit offset from KIC

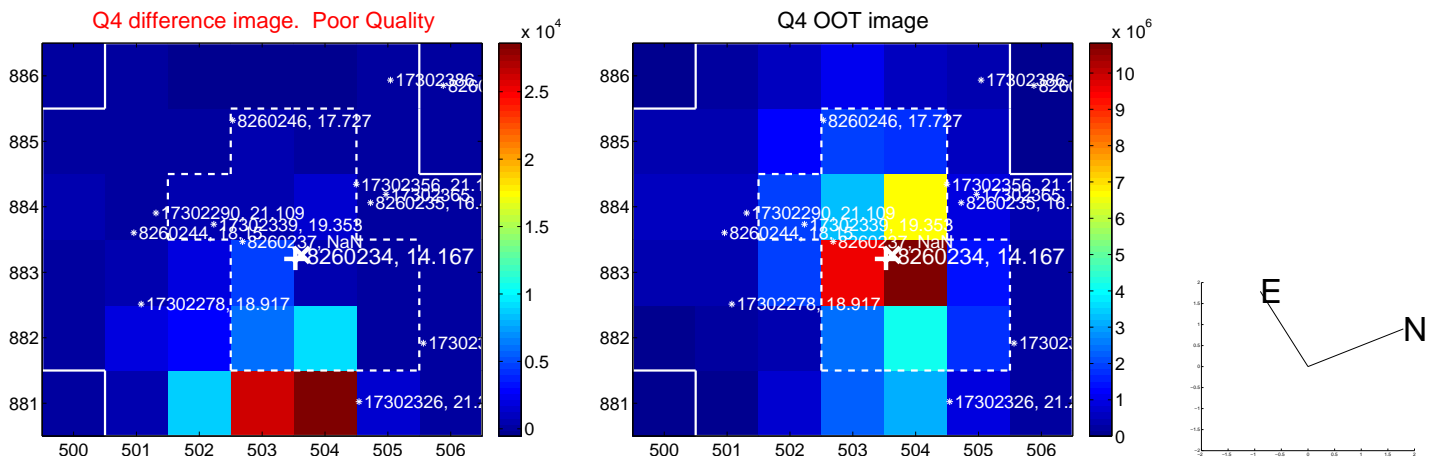
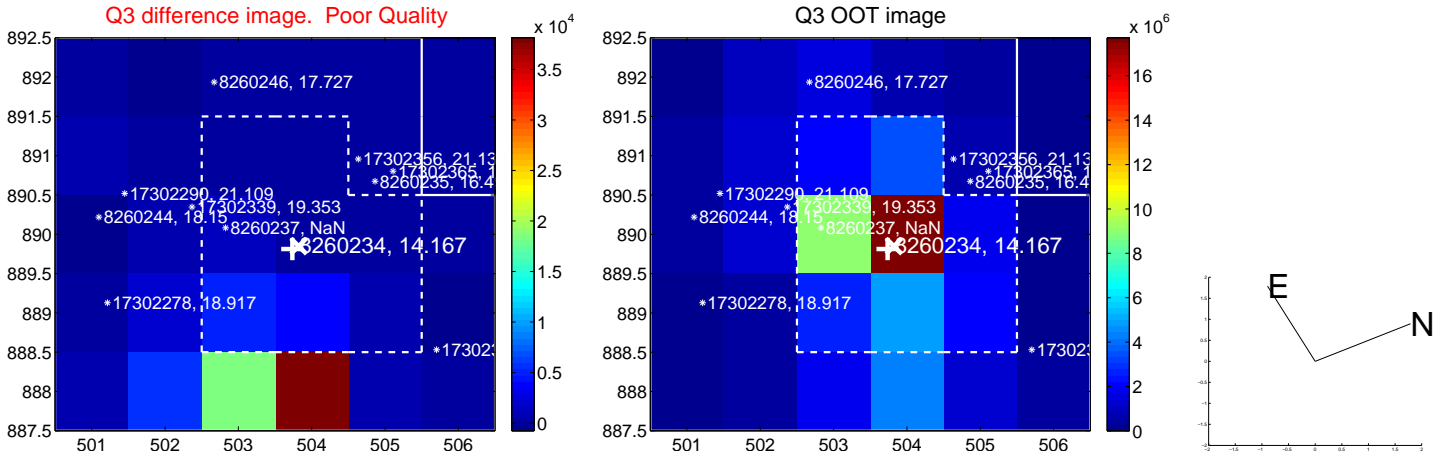
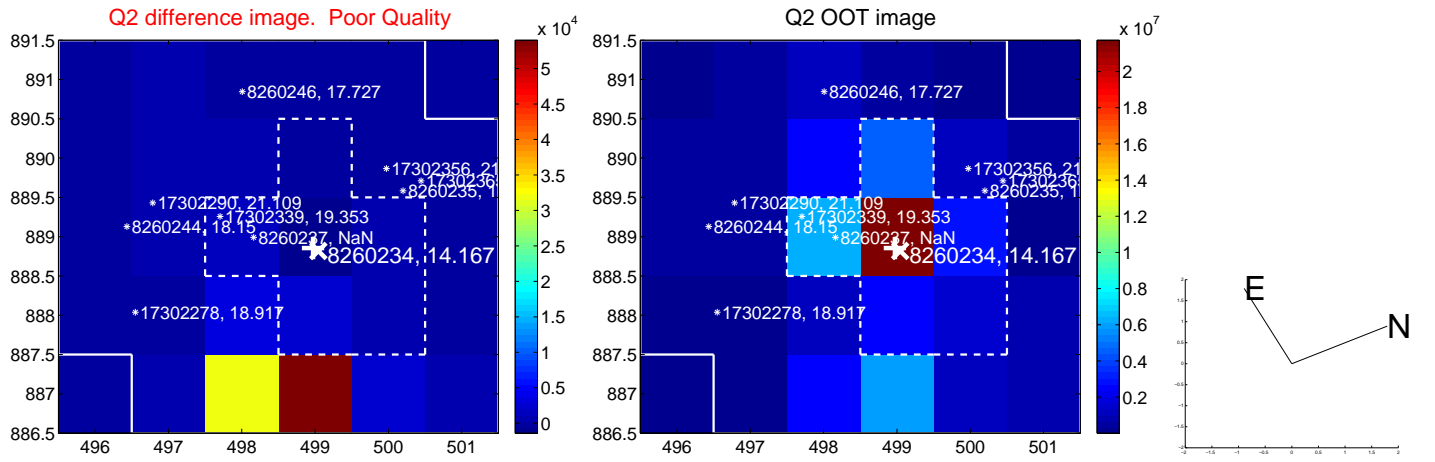
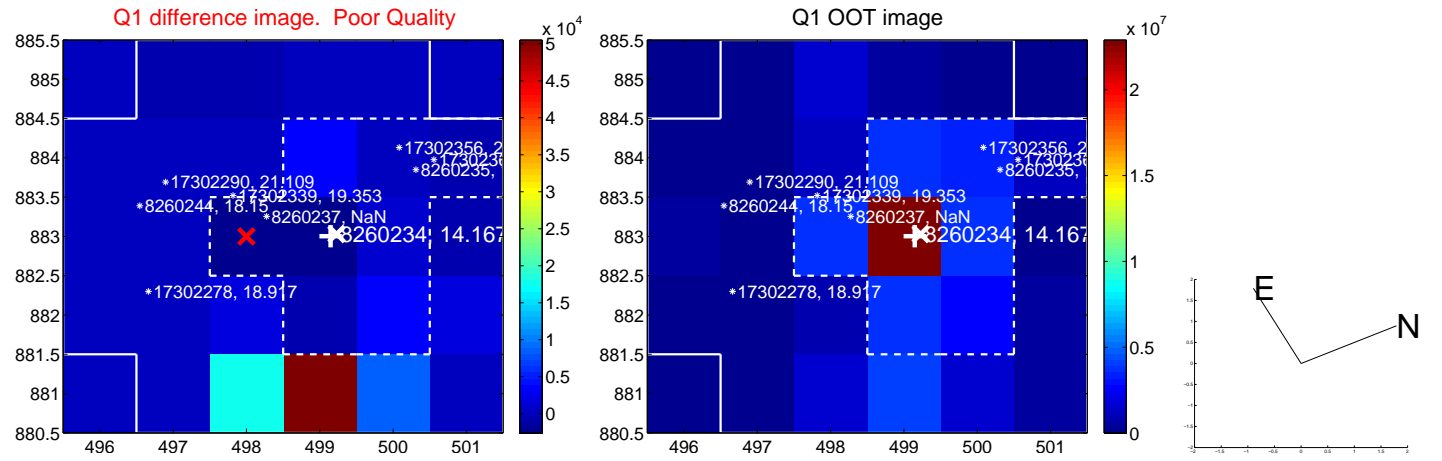


offset from photometric centroids

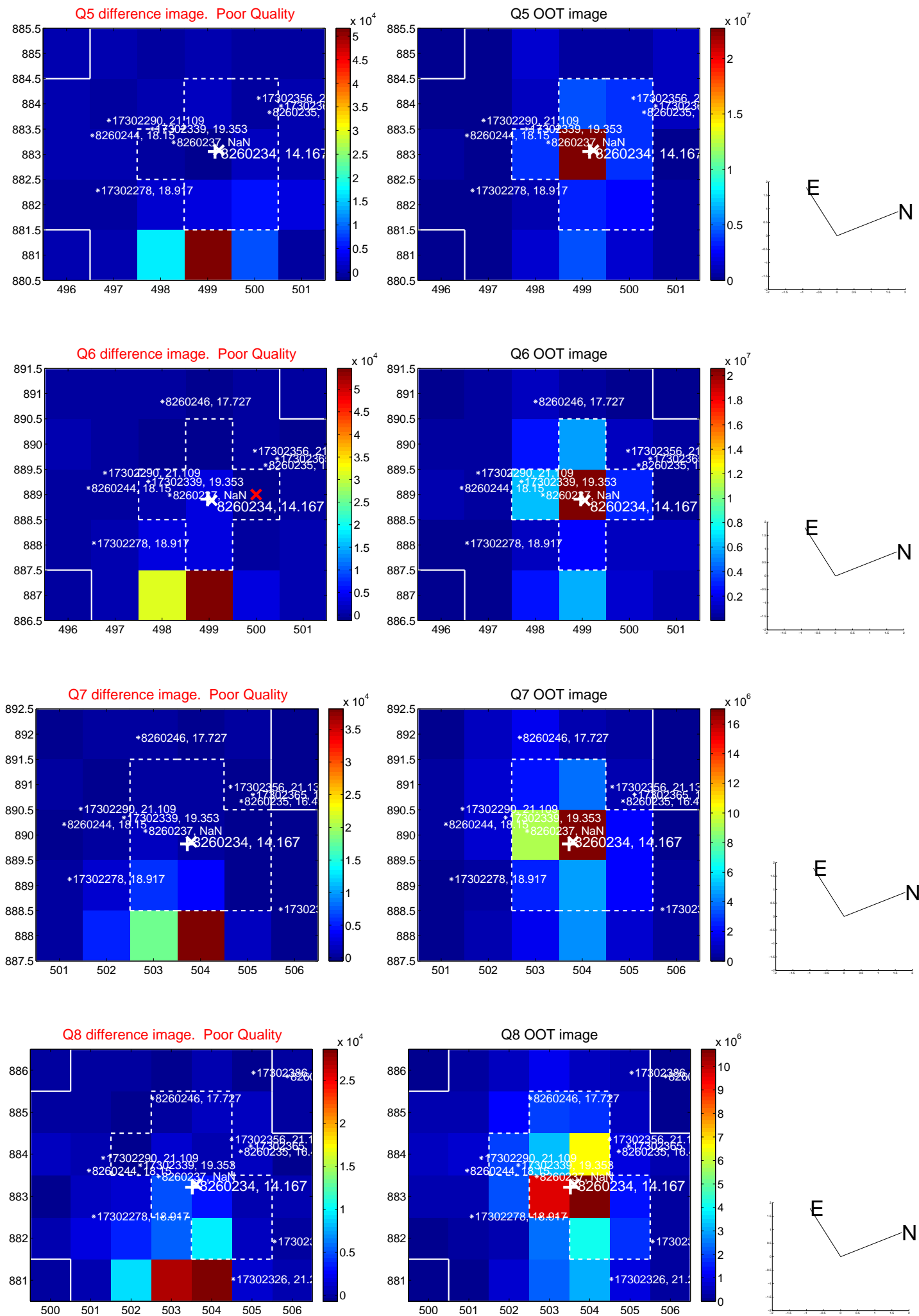


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

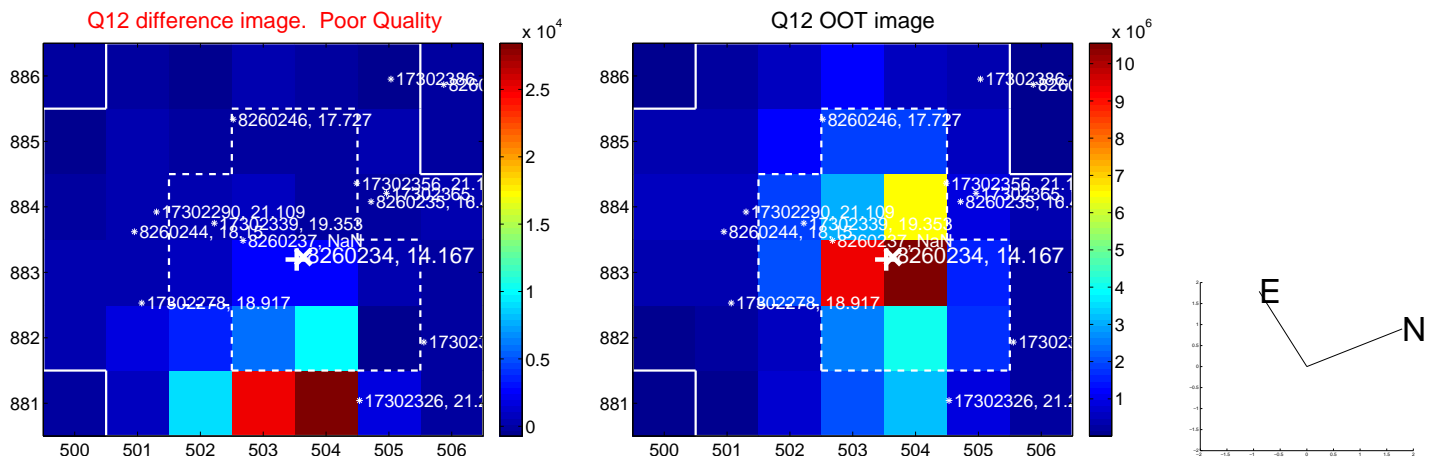
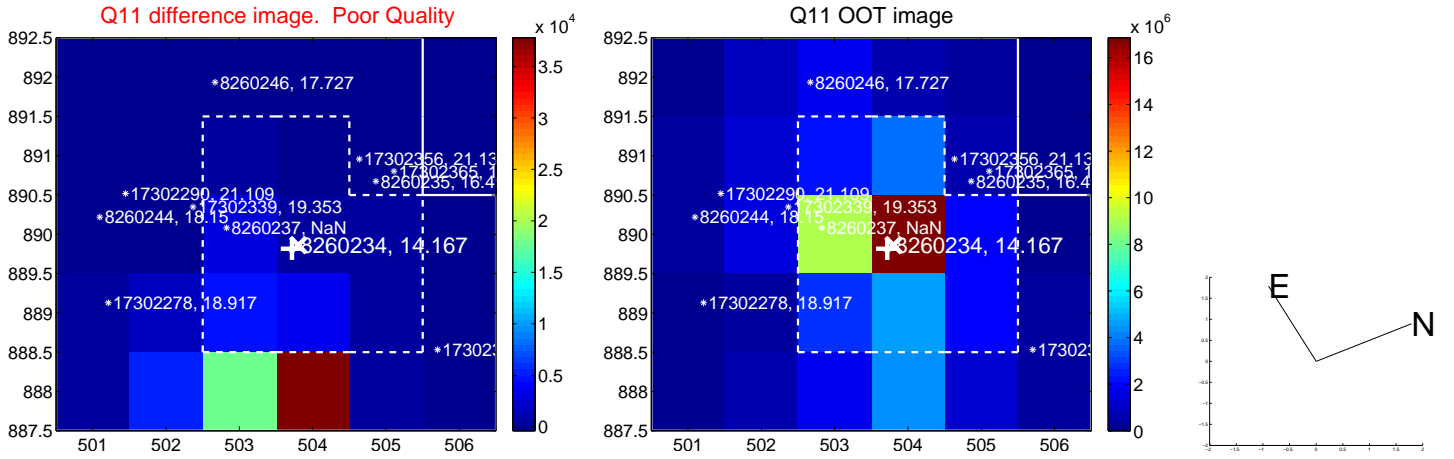
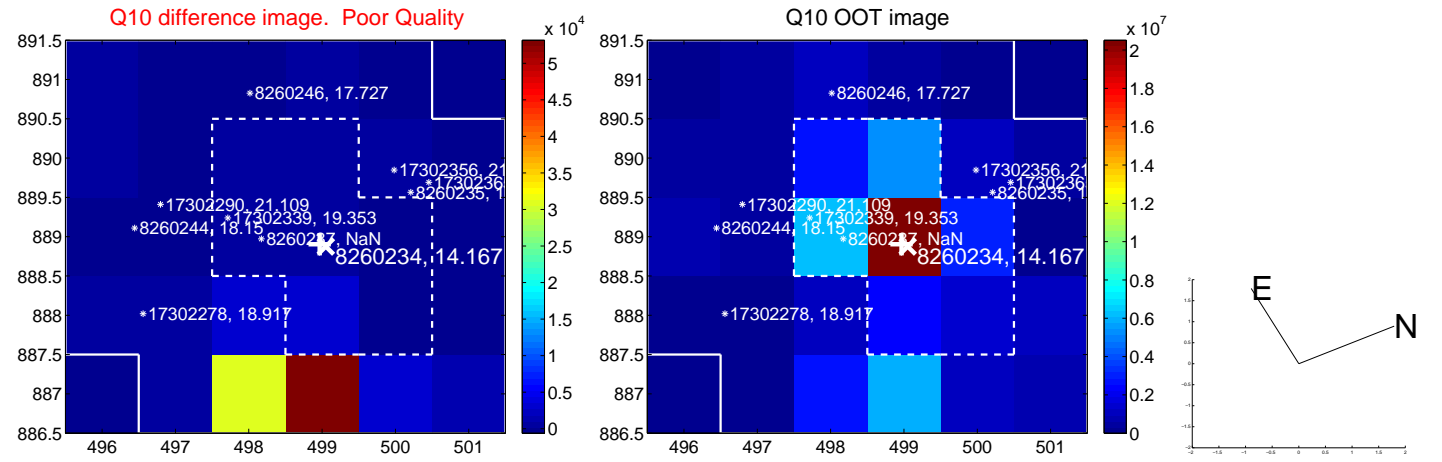
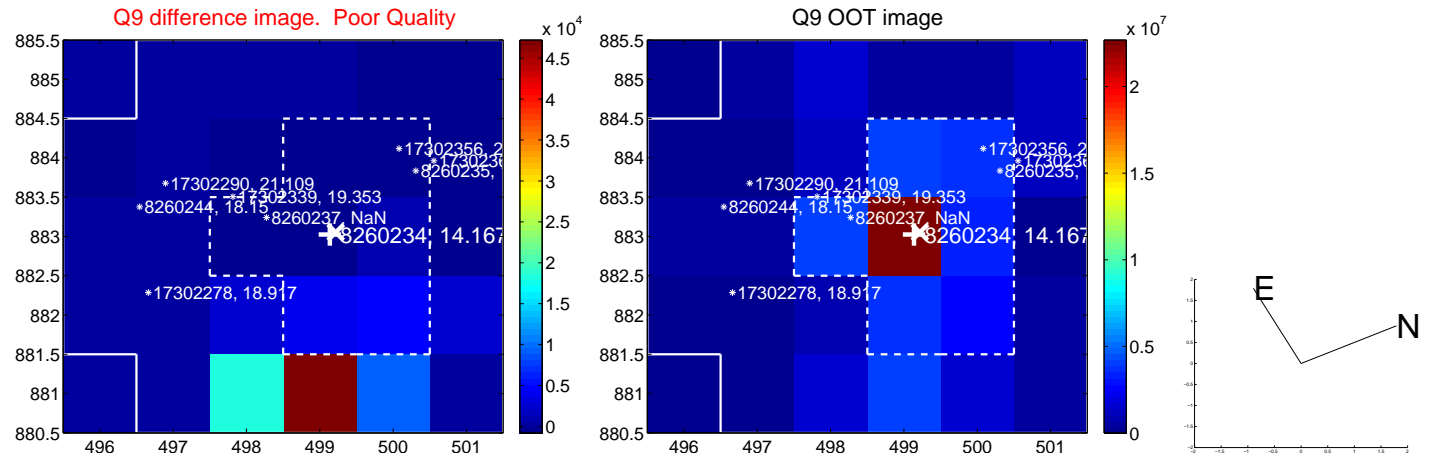
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



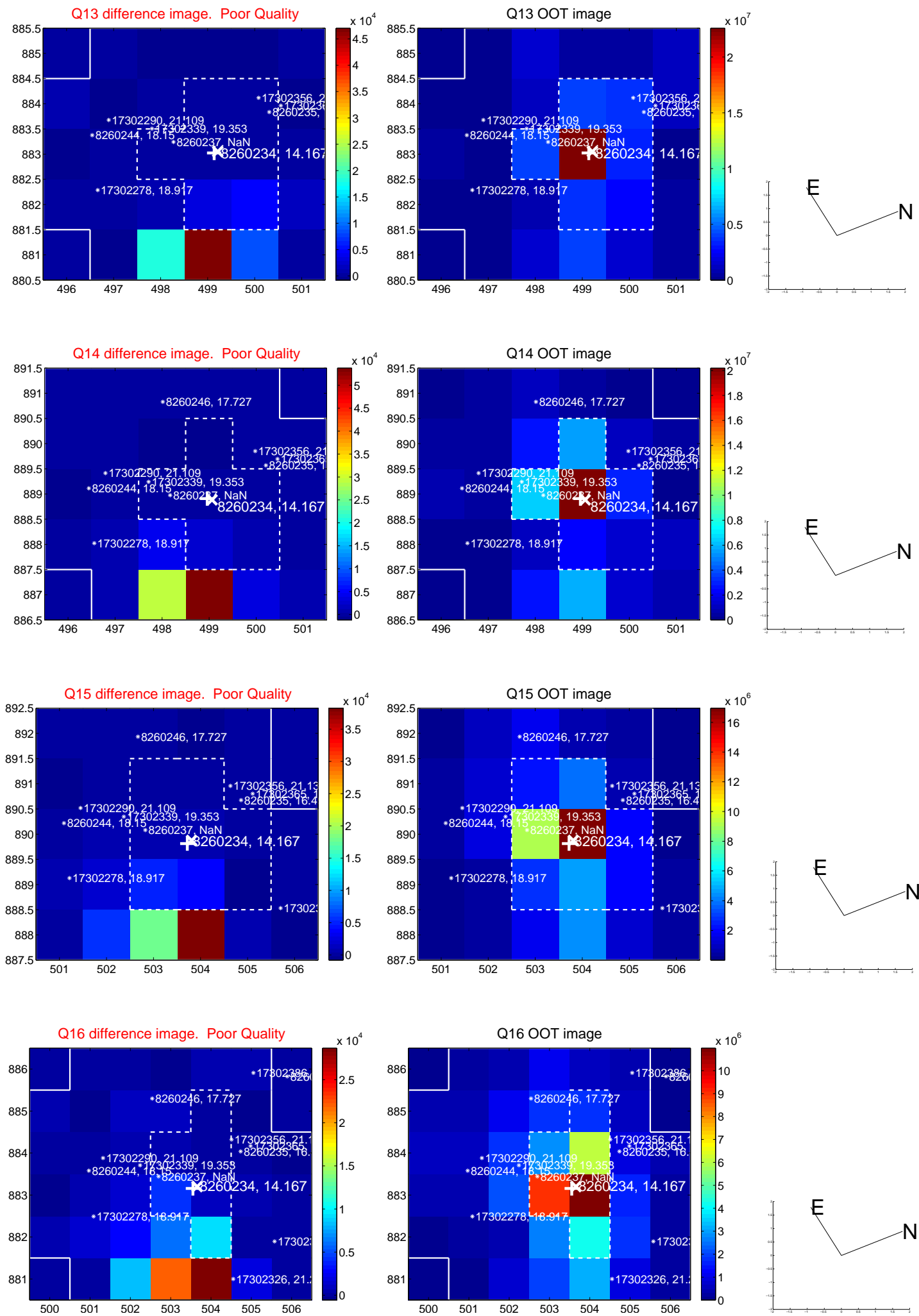
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



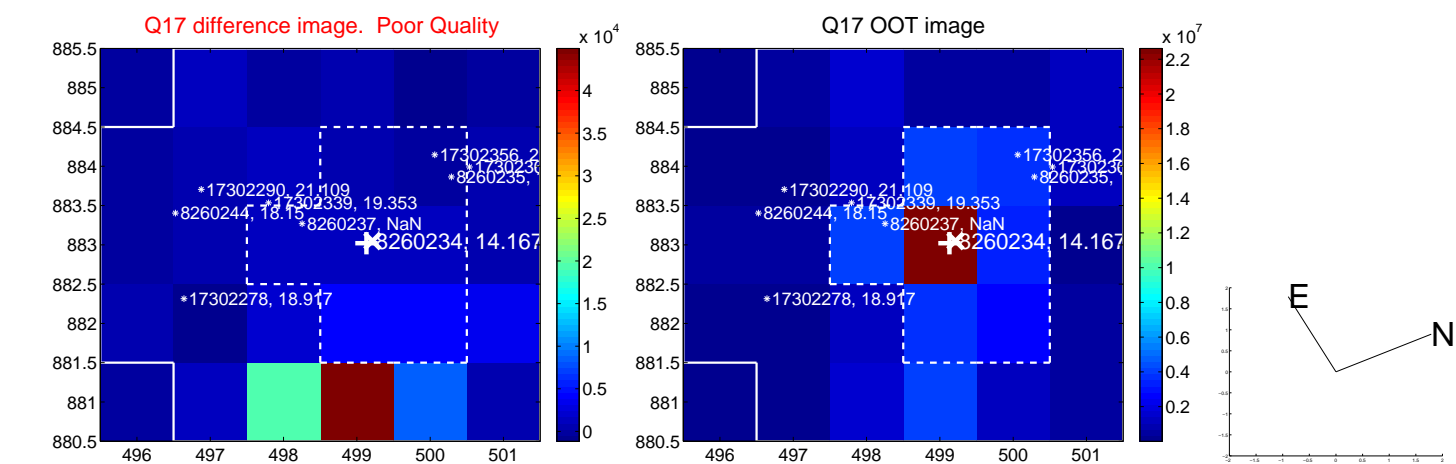
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



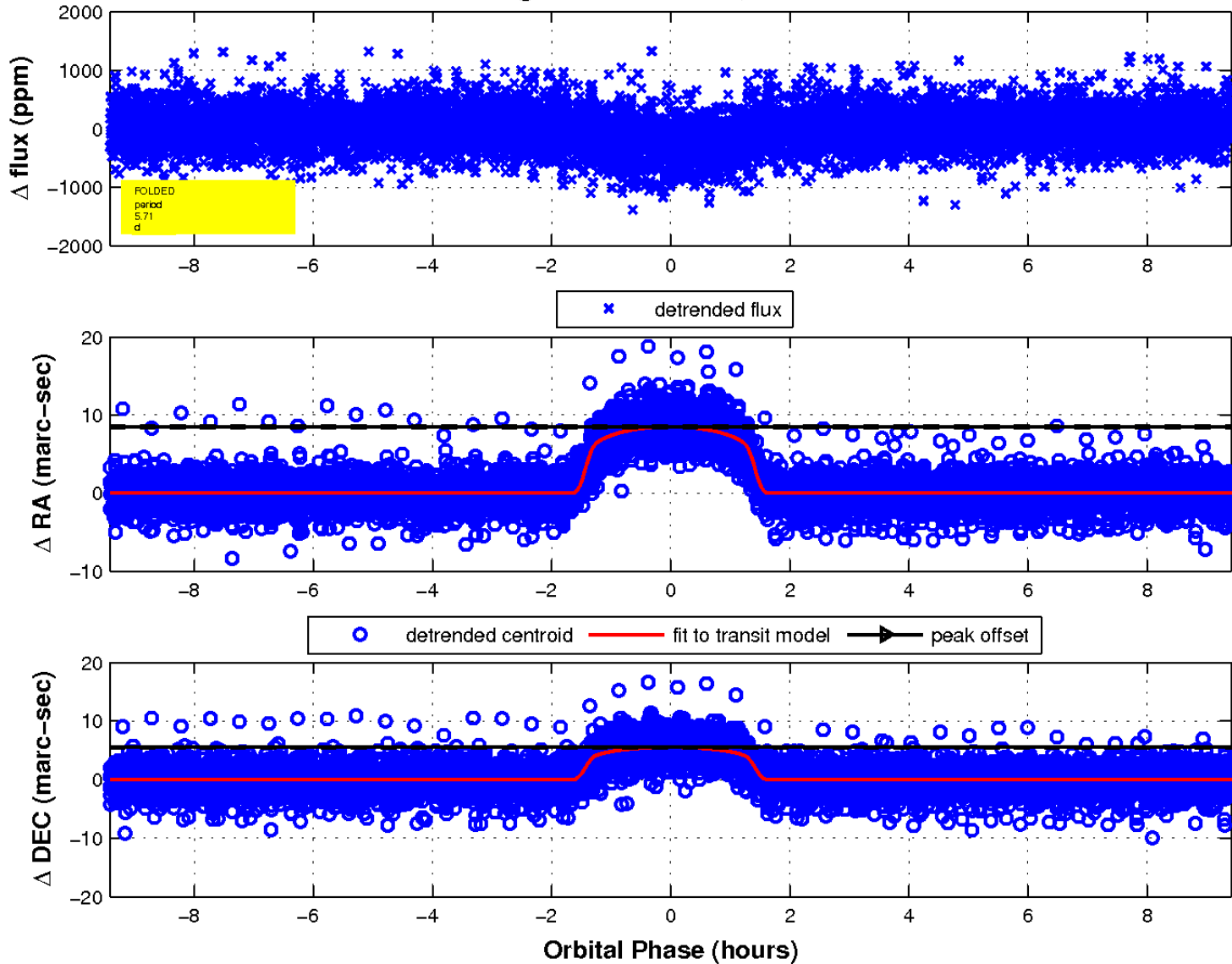
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

