

KIC 007382313

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})
007382313-01	OBS	2392.01	7.426988	133.094923	203.6	3.312	12.3	14.3	0.98	5573	1.74	154.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007382313-01	OBS	PC	0.97	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.

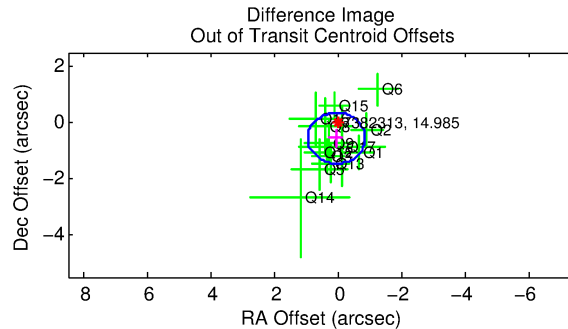
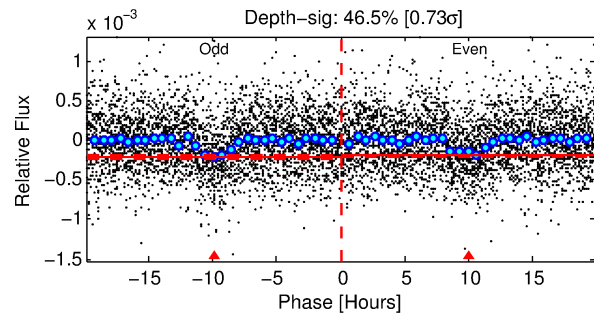
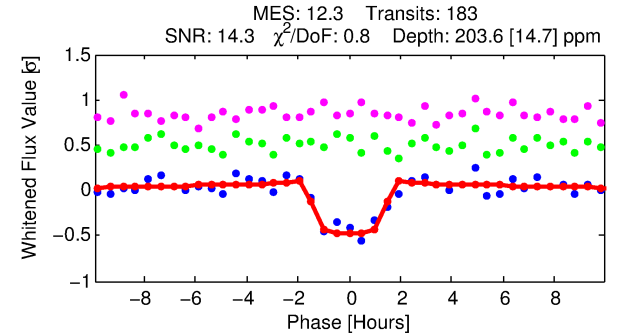
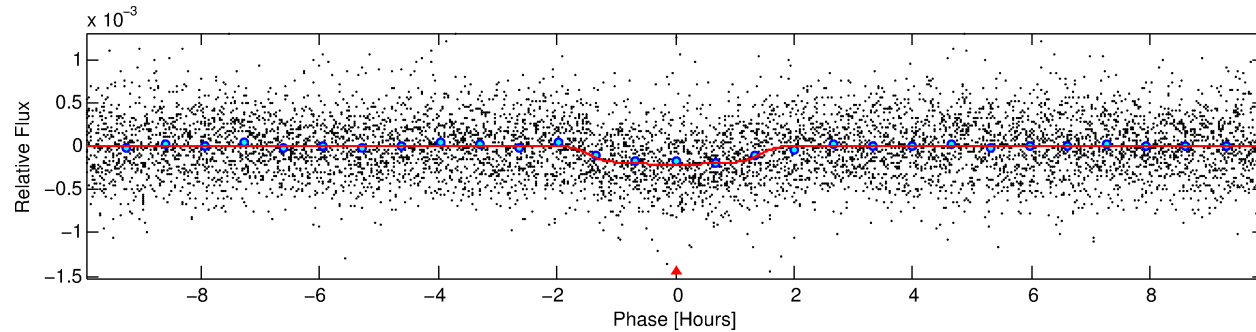
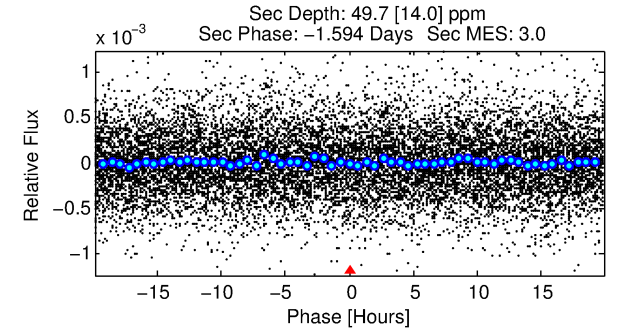
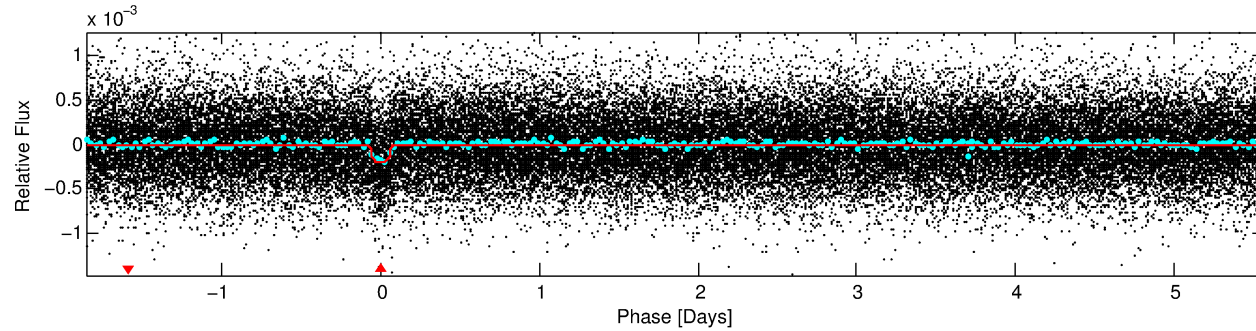
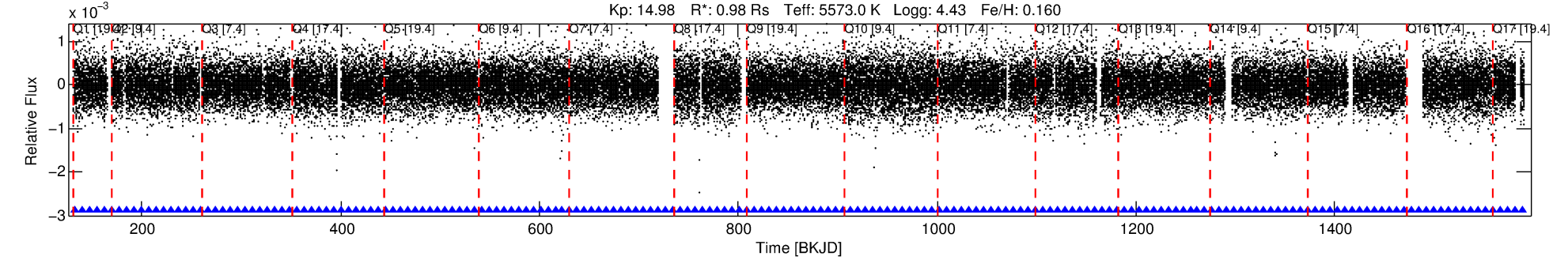
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007382313-01

No Significant Match Found

DV One-Page Summary

KIC: 7382313 Candidate: 1 of 1 Period: 7.427 d
KOI: K02392.01 Corr: 0.927



DV Fit Results:

Period = 7.42699 [0.00004] d
Epoch = 133.0949 [0.0040] BKJD
Rp/R* = 0.0163 [0.0033]
a/R* = 7.07 [6.42]
b = 0.93 [0.14]
Seff = 154.73 [31.65]
Teq = 899 [46] K
Rp = 1.74 [0.42] Re
a = 0.0734 [0.0091] AU
Ag = 48.50 [25.83] [1.84σ]
Teffp = 3669 [458] K [6.02σ]

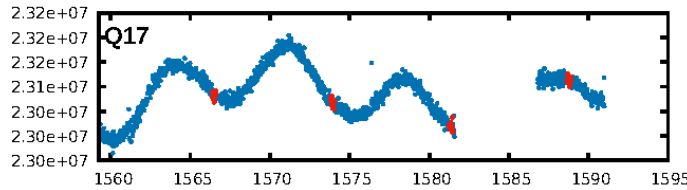
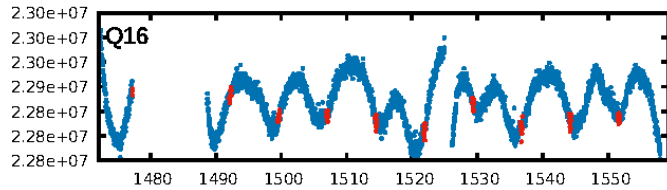
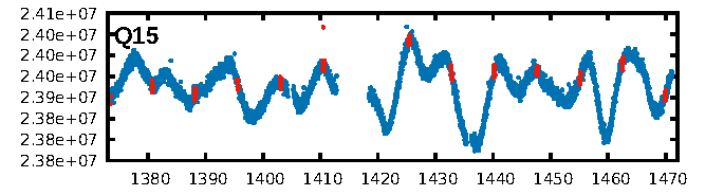
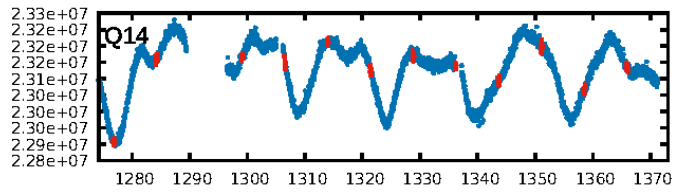
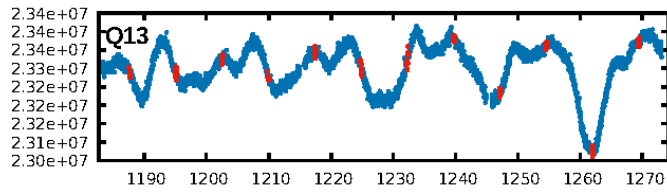
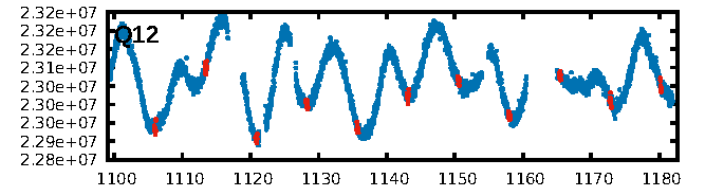
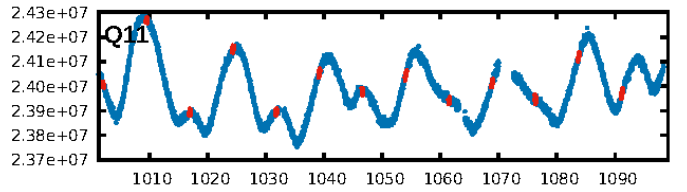
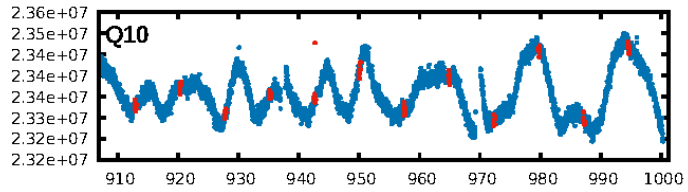
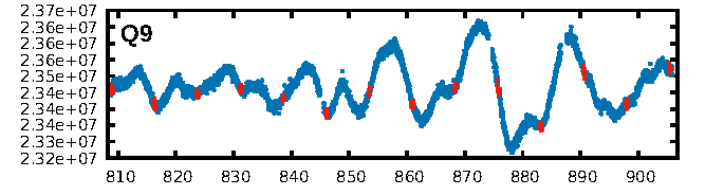
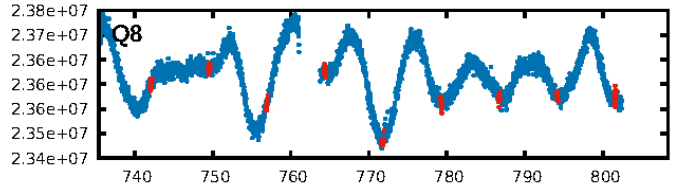
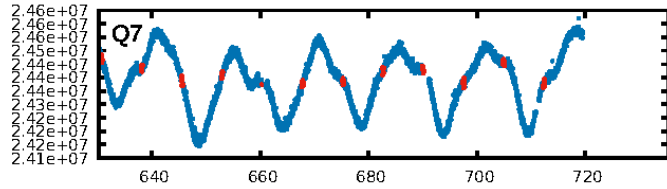
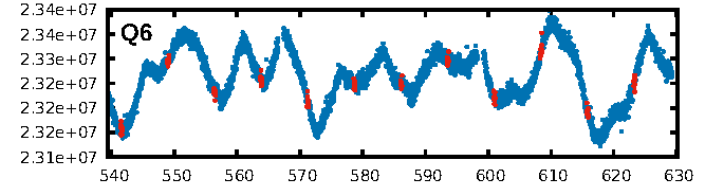
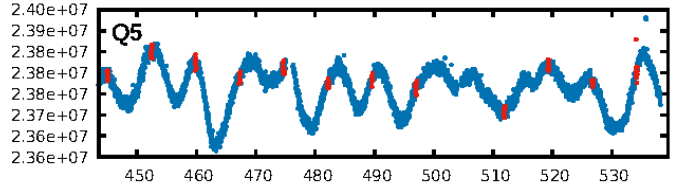
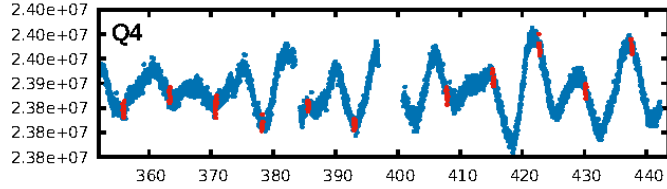
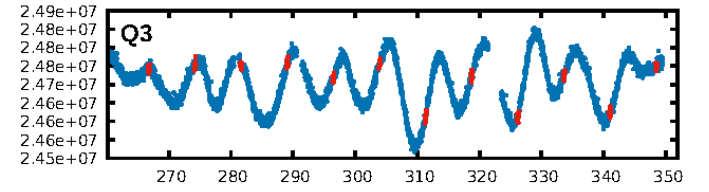
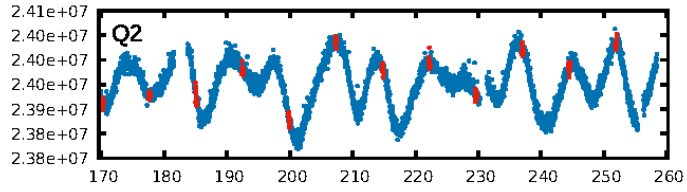
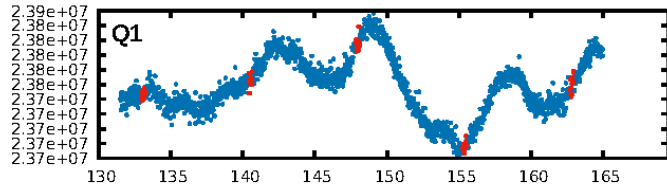
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.56e-33
RollingBand-fgt: 1.00 [174/174]
GhostDiagnostic-chr: 3.58
Centroid-sig: 1.5%
Centroid-so: 1.460 arcsec [1.91σ]
OotOffset-rm: 0.557 arcsec [1.85σ]
KicOffset-rm: 0.530 arcsec [1.67σ]
OotOffset-st: 3/2/3/5 [13]
KicOffset-st: 3/2/3/5 [13]
DiffImageQuality-fgm: 0.85 [11/13]
DiffImageOverlap-fno: 1.00 [17/17]

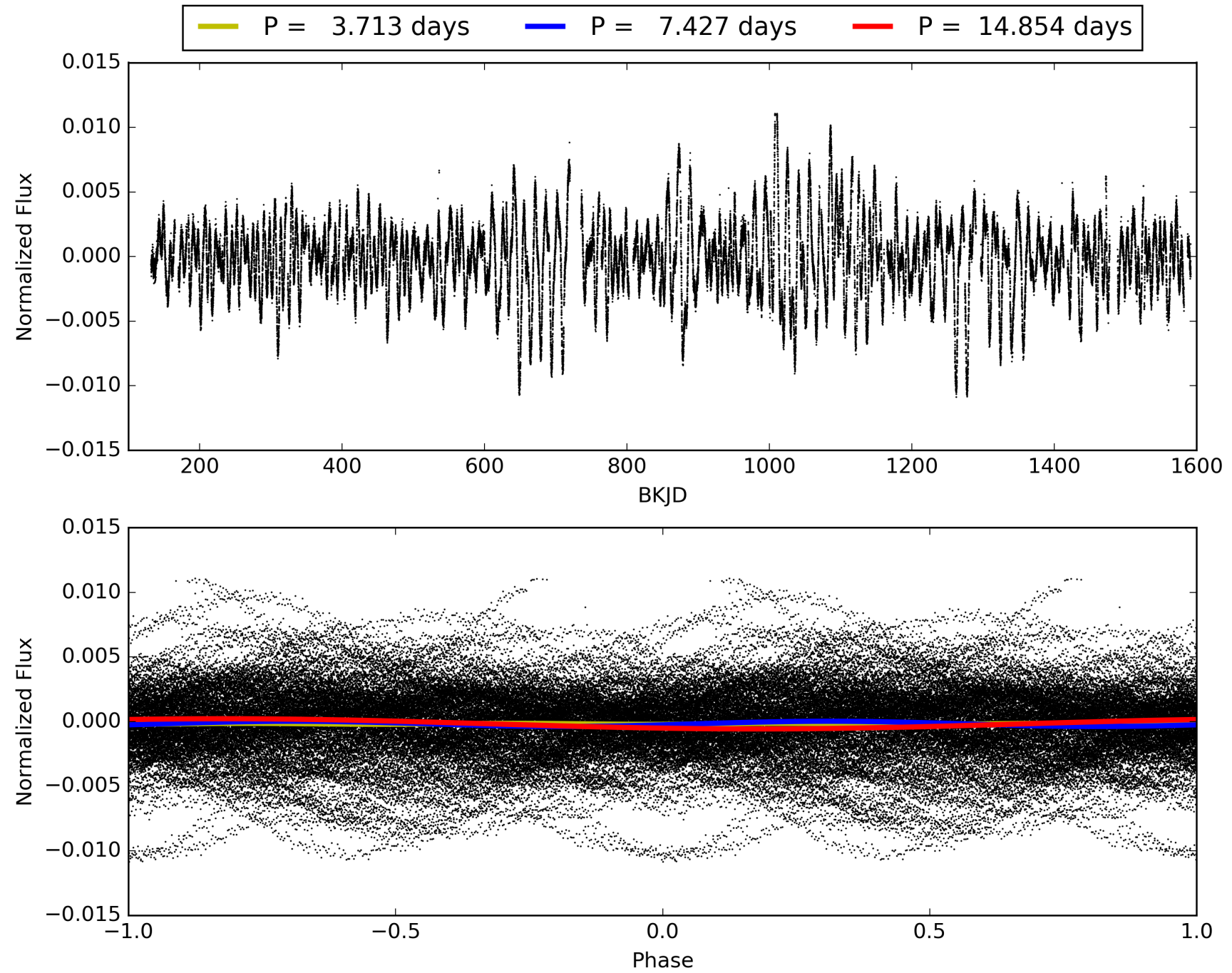
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 22:00:21 Z

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

TCE 007382313-01, PDC Light Curves

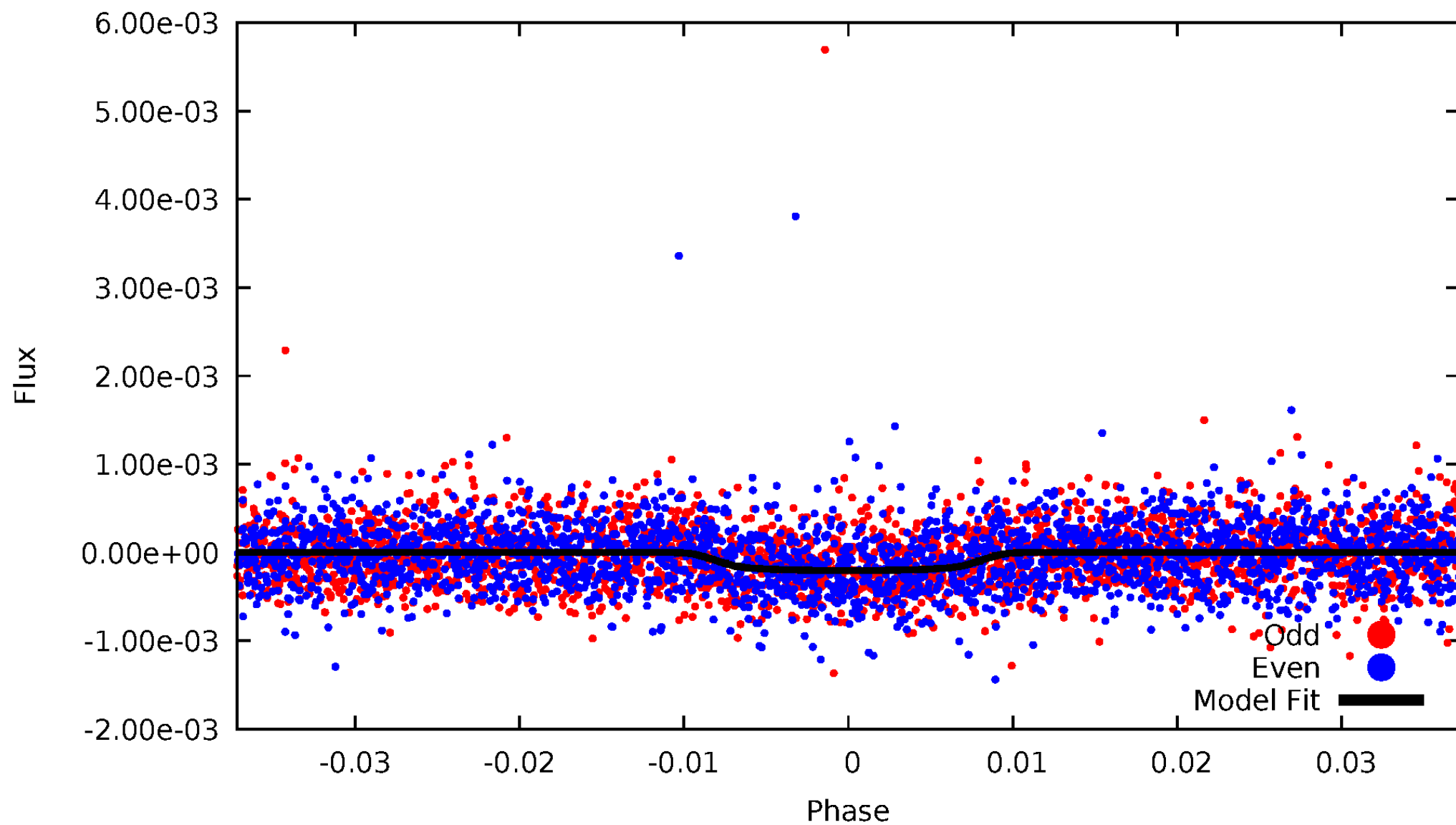


TCE 007382313-01



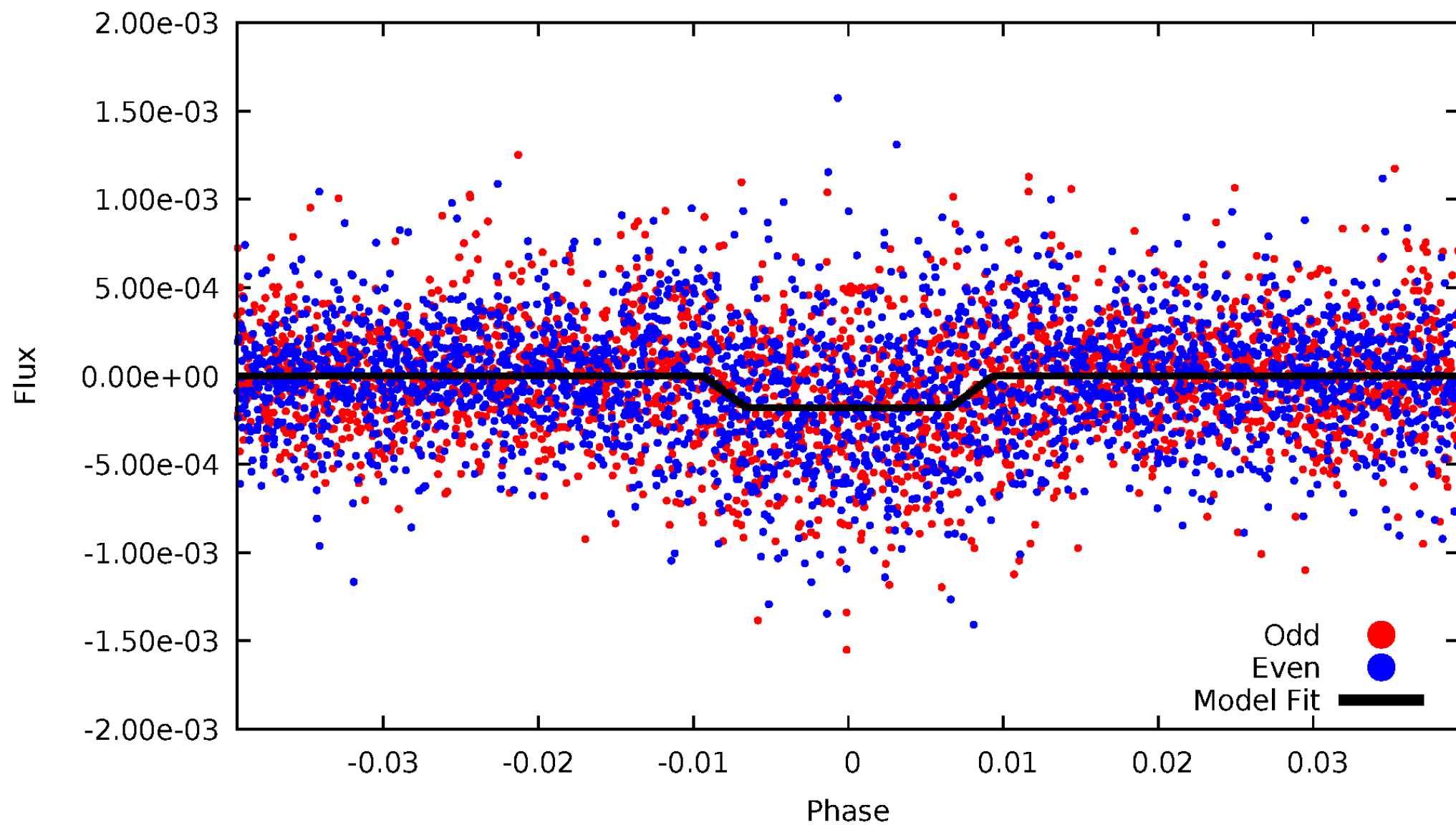
DV Odd/Even

TCE 007382313-01



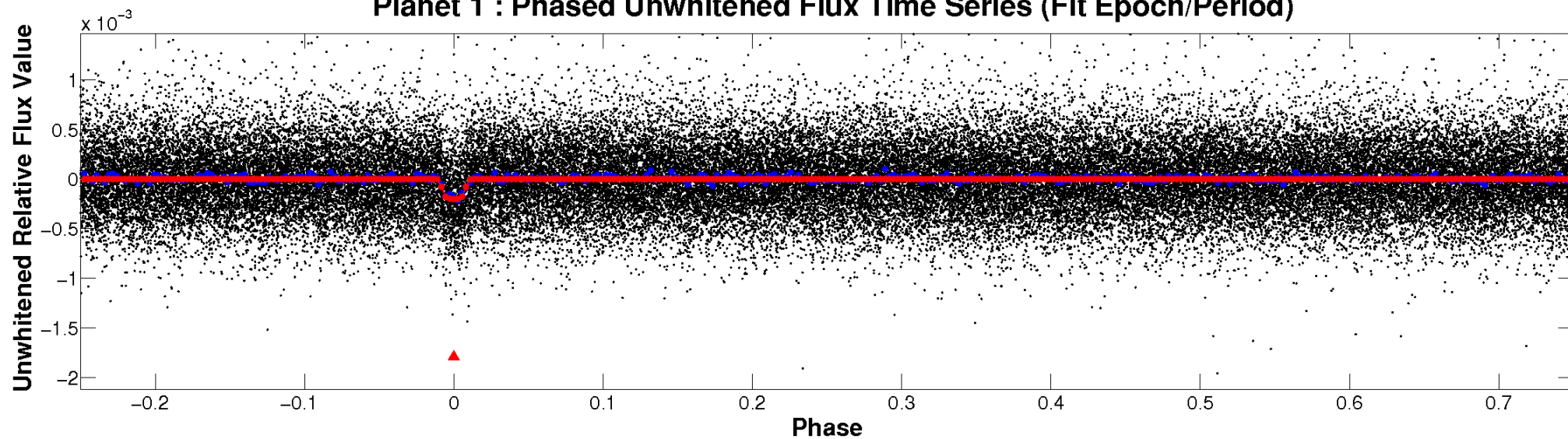
ALT Odd/Even

TCE 007382313-01

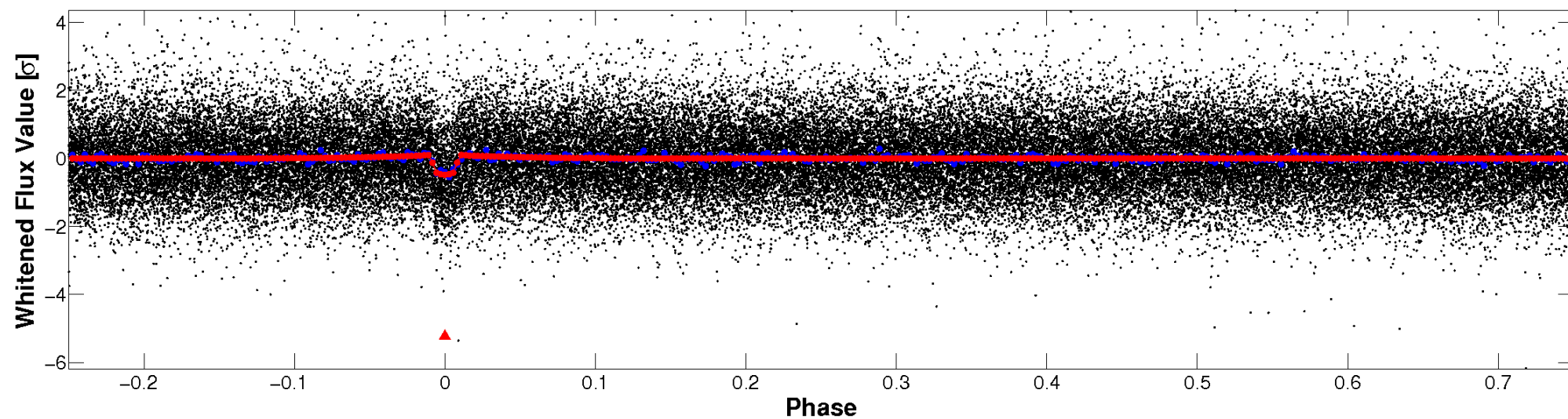


Non-Whitened Vs. Whitened Light Curve

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

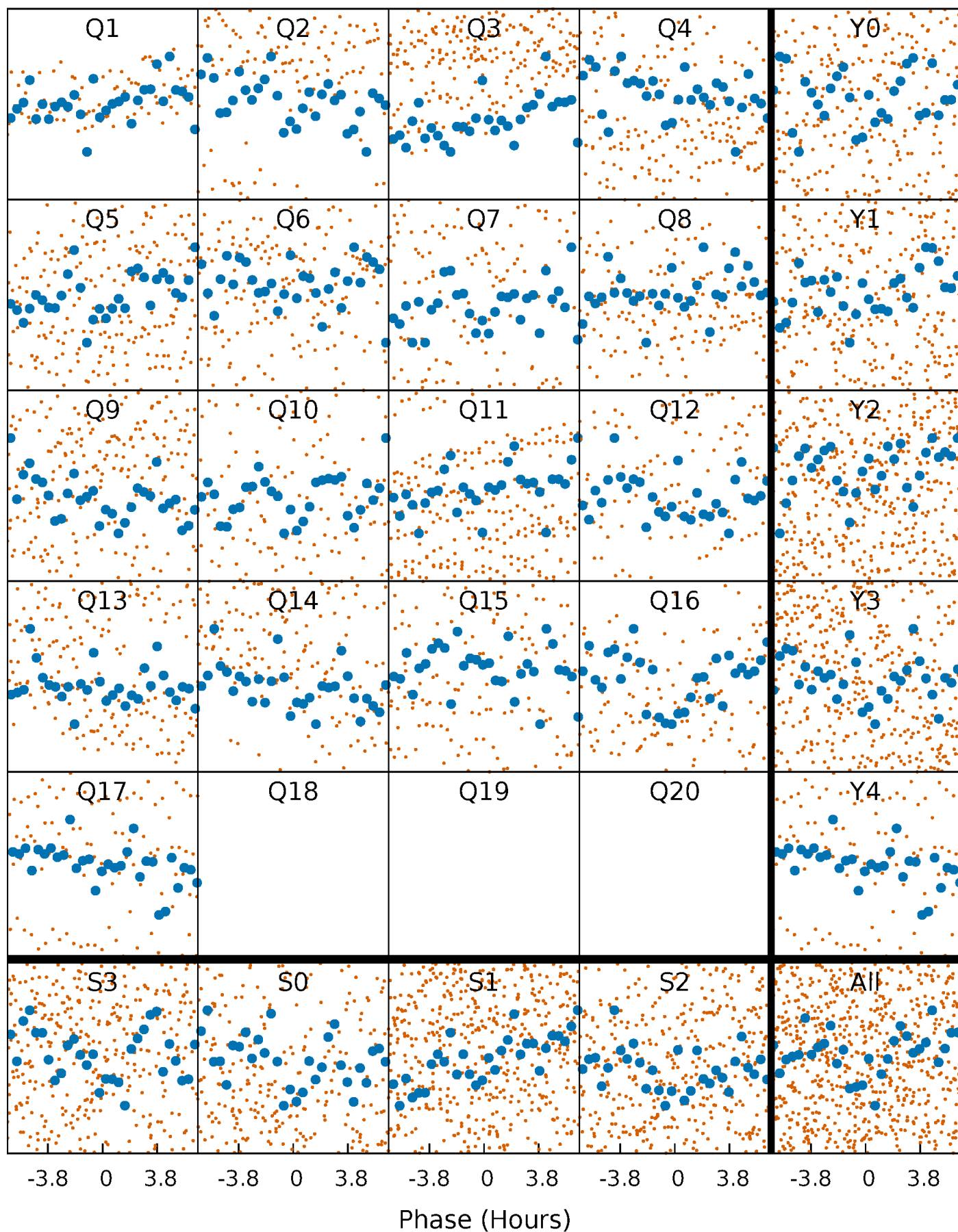


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



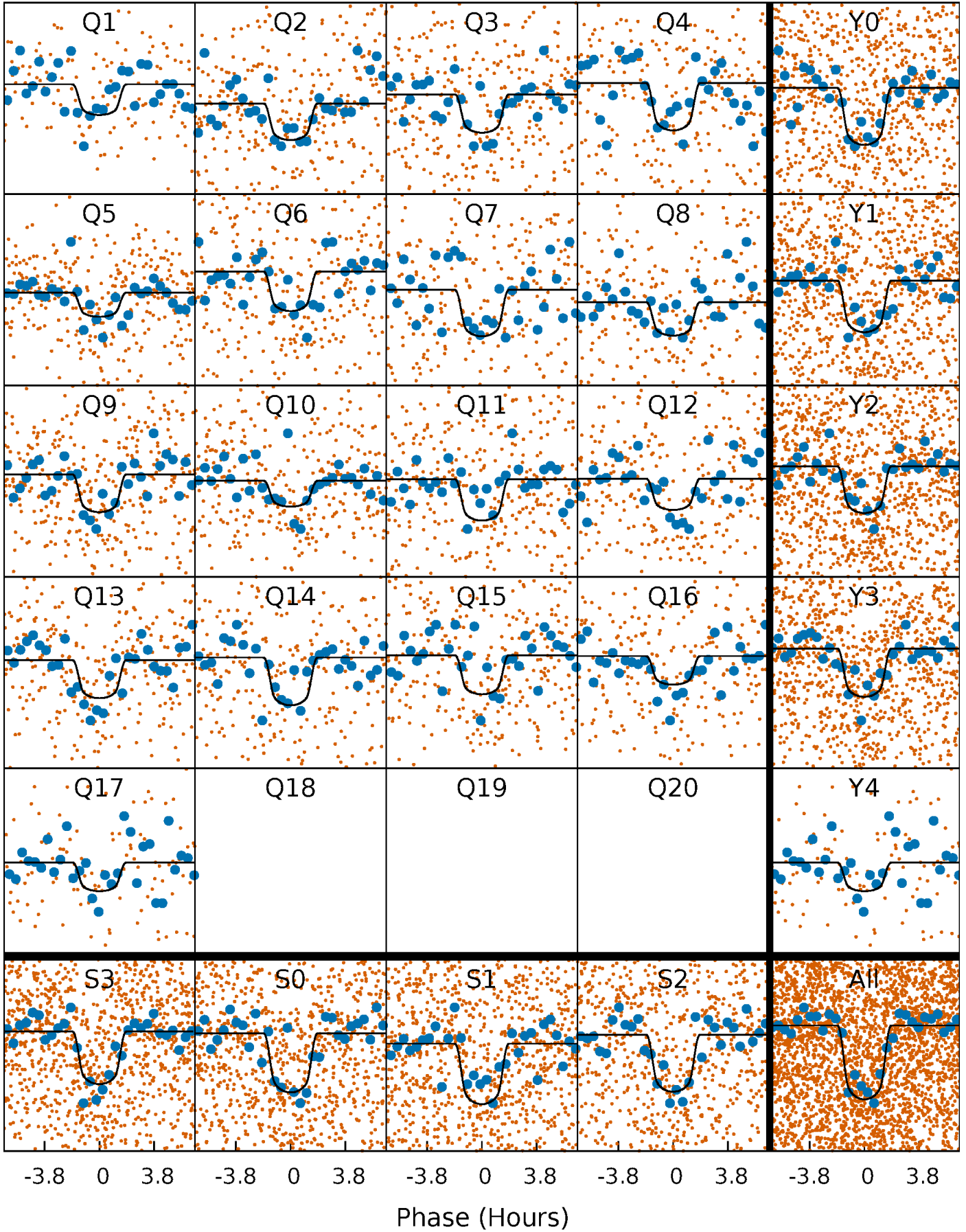
PDC Quarter-Phased Transit Curves

TCE 007382313-01 P= 7.426988 Days $T_0=133.094923$ (BKJD)



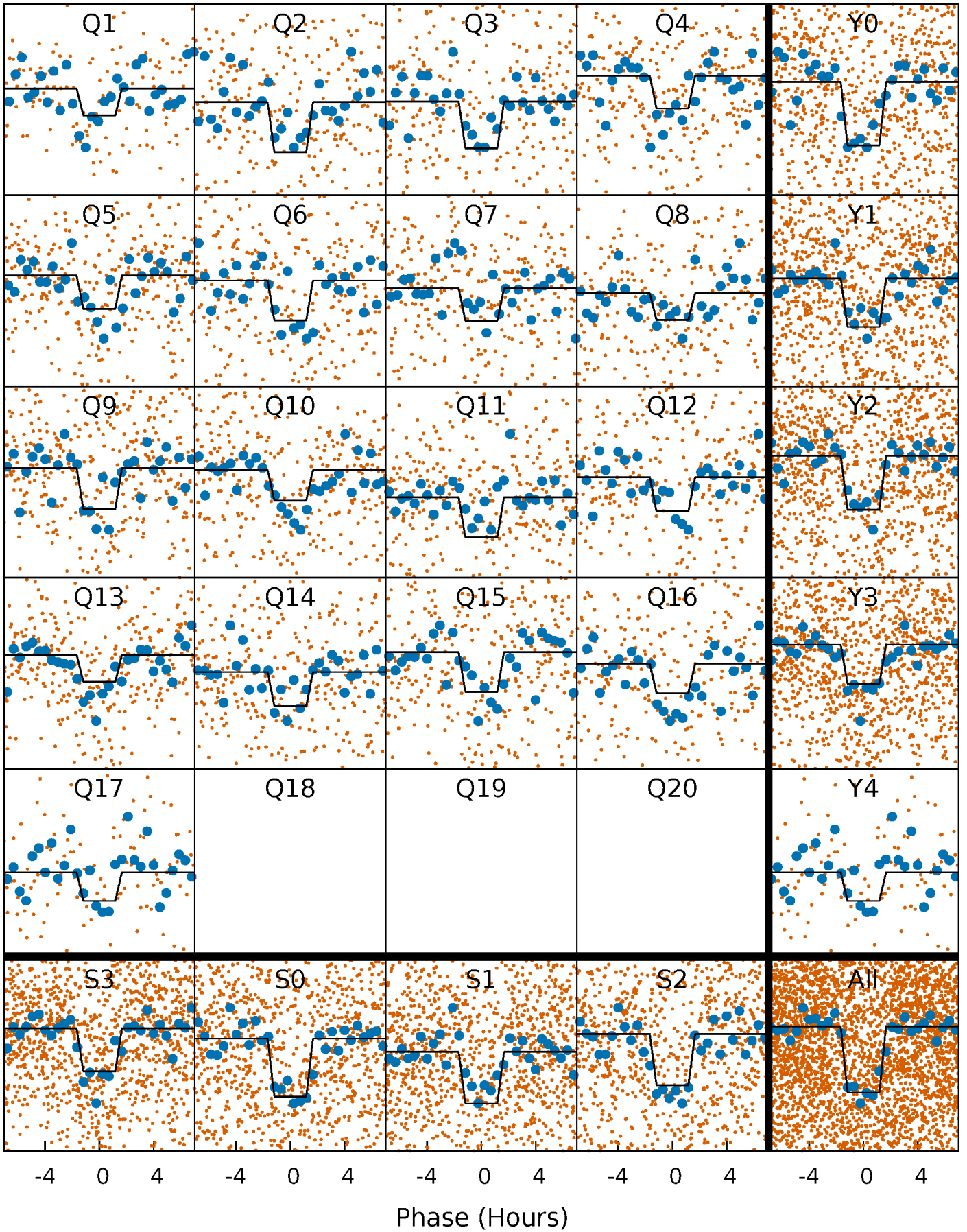
DV Quarter-Phased Transit Curves

TCE 007382313-01 P= 7.426988 Days $T_0=133.094923$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

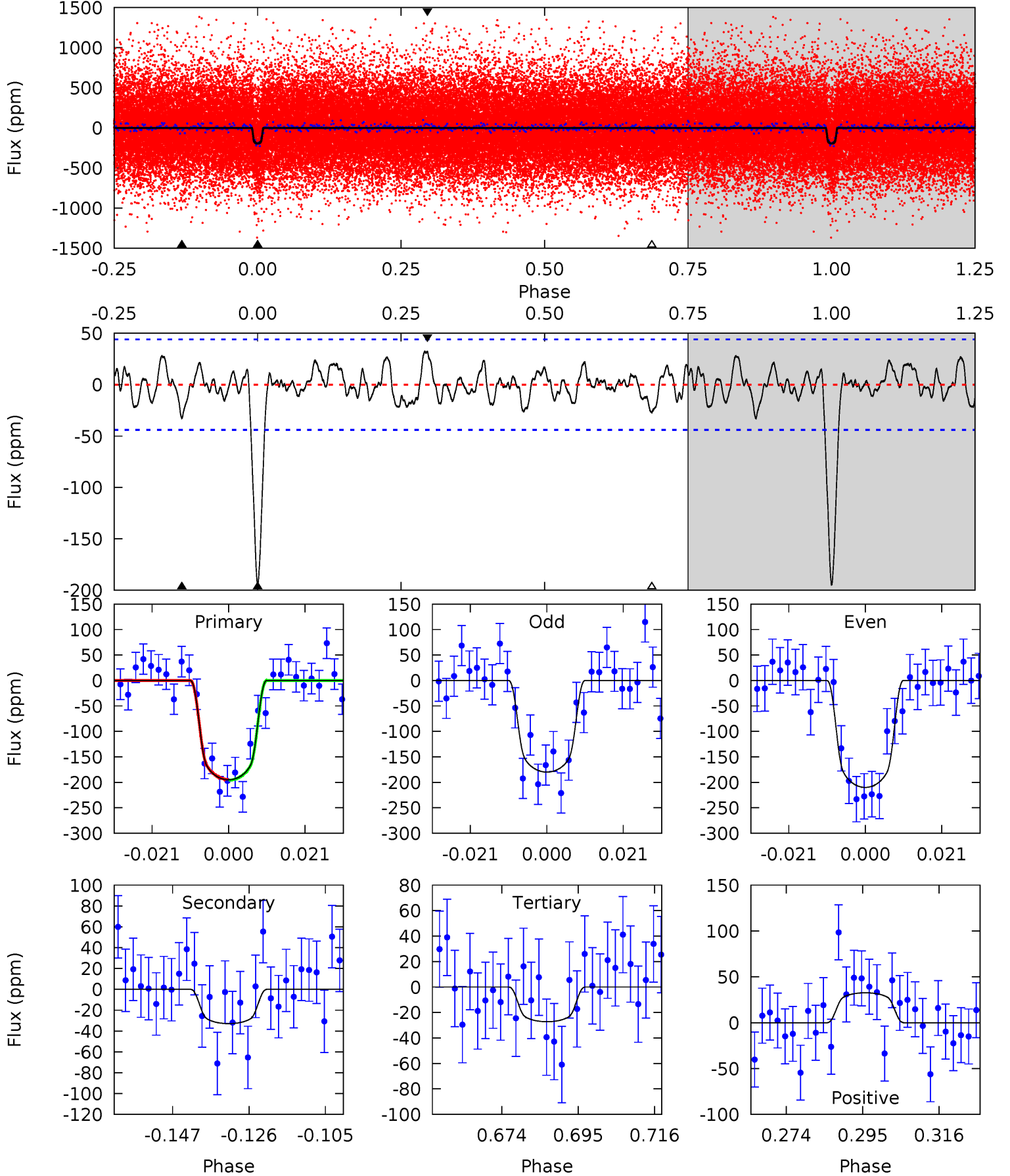
TCE 007382313-01 P= 7.426898 Days $T_0=133.106107$ (BKJD)



DV Model-Shift Uniqueness Test

007382313-01, P = 7.426988 Days, E = 125.667935 Days

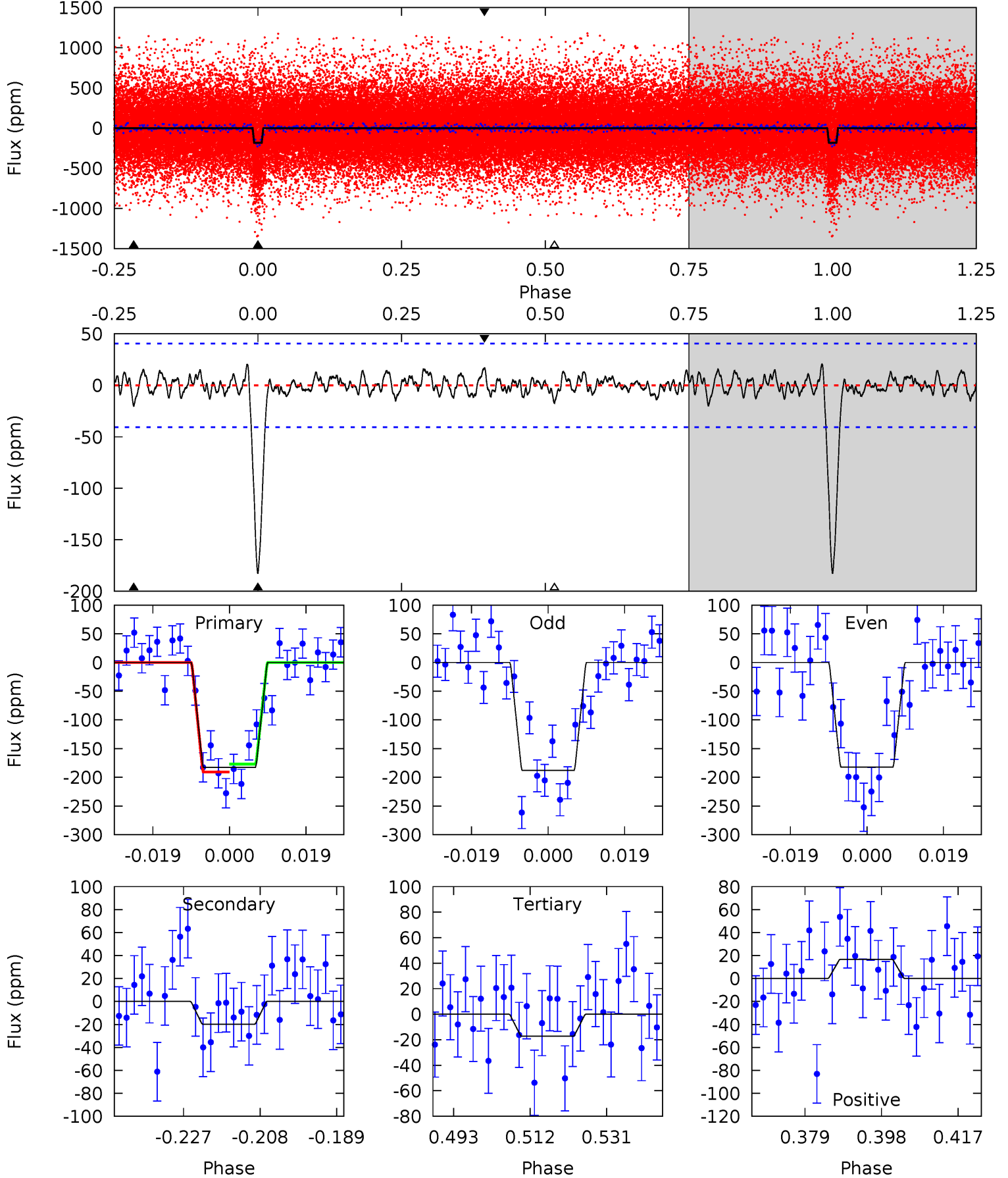
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.6	3.65	3.03	3.62	4.88	2.31	1.34	18.6	18.0	0.63	0.03	1.67	0.96	0.14	0.08



Alt Model-Shift Uniqueness Test

007382313-01, P = 7.426898 Days, E = 125.679209 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.0	2.39	2.08	2.01	4.90	2.35	0.79	20.0	20.0	0.32	0.38	0.35	1.10	0.10	0.81



Stellar Parameters For KIC 007382313

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5573^{+75}_{-83}	$4.434^{+0.066}_{-0.114}$	$0.160^{+0.150}_{-0.150}$	$0.982^{+0.129}_{-0.080}$	$0.957^{+0.054}_{-0.054}$	$1.422^{+0.403}_{-0.444}$
	+1%/-1%	+1%/-3%	+94%/-94%	+13%/-8%	+6%/-6%	+28%/-31%
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 007382313-01 / KOI 2392.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-33 ± 9	$1.80^{+0.37}_{-0.41}$	1265^{+49}_{-38}	3681^{+346}_{-276}	29^{+22}_{-12}
Alt.	-20 ± 8	$1.47^{+0.35}_{-0.40}$	1261^{+52}_{-38}	3601^{+475}_{-371}	26^{+27}_{-13}

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

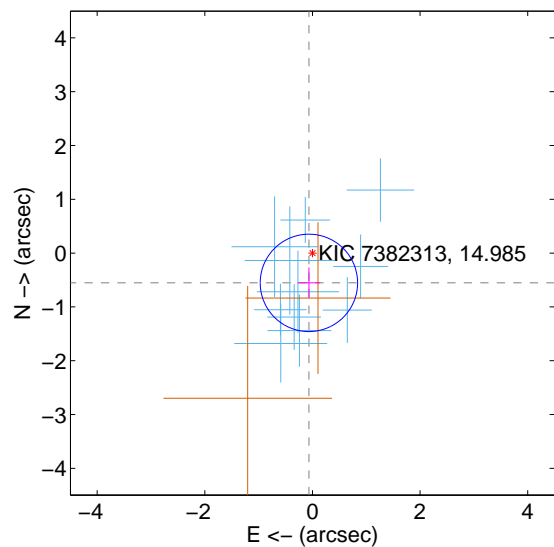
Supplemental centroid analysis for 007382313-01. Kepler magnitude: 14.98. Transit SNR 14.32

There are 11 quarters with good PRF difference image offsets

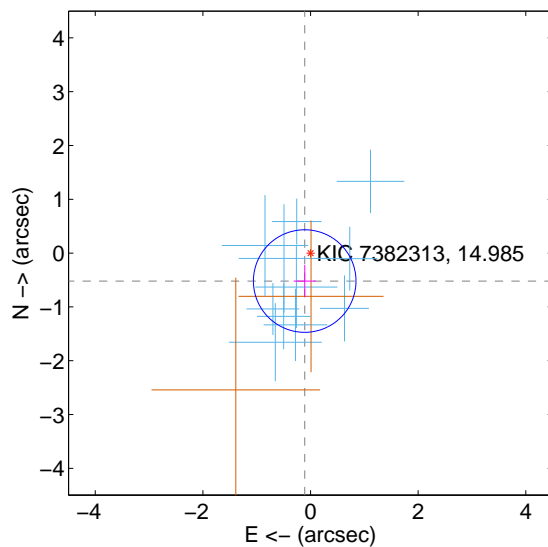
The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.557 ± 0.302	1.85	0.066 ± 0.209	-0.553 ± 0.287
PRF-fit source offset from KIC position	0.530 ± 0.318	1.67	0.108 ± 0.205	-0.519 ± 0.299
photometric centroid source offset	1.46 ± 0.76	1.91	-1.45 ± 0.76	0.14 ± 0.92

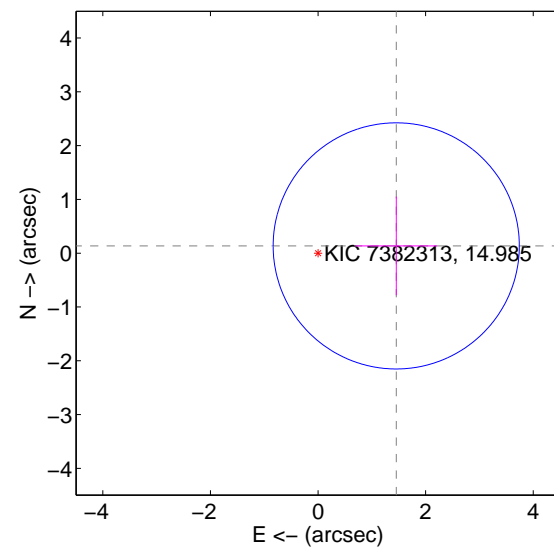
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

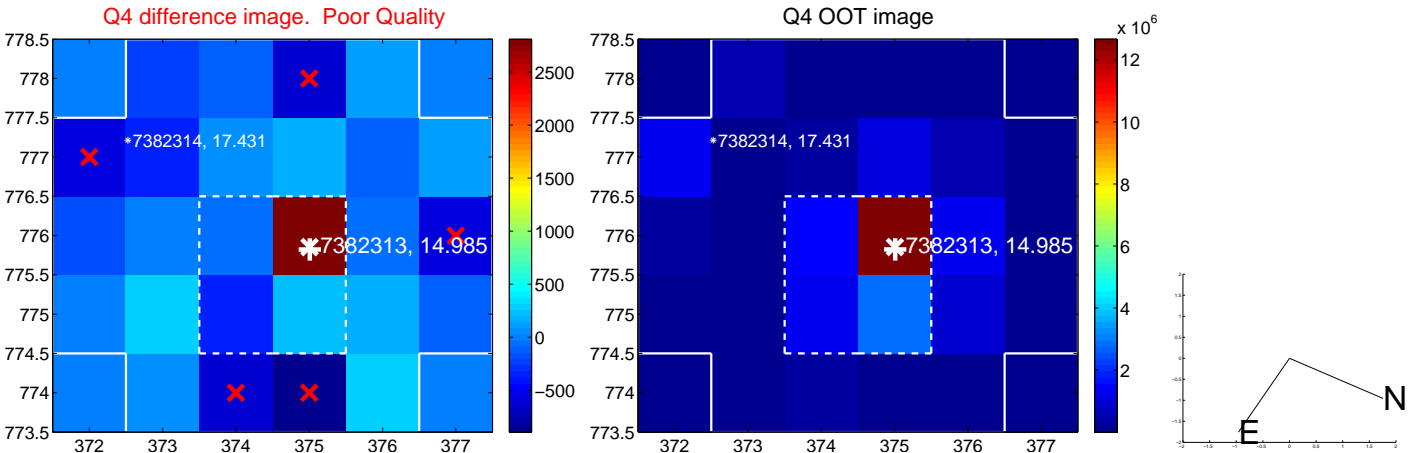
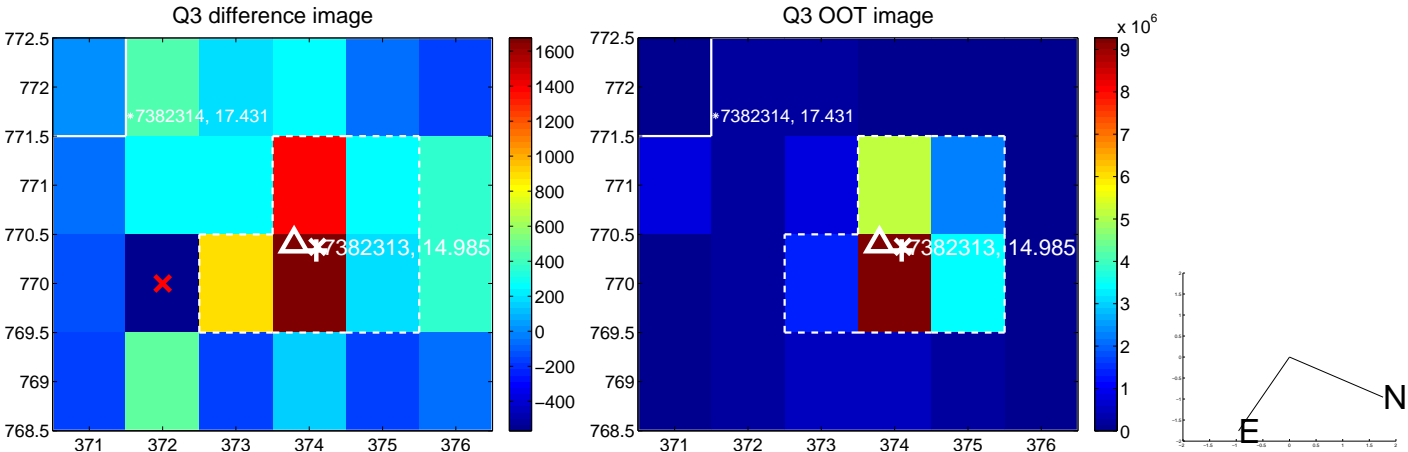
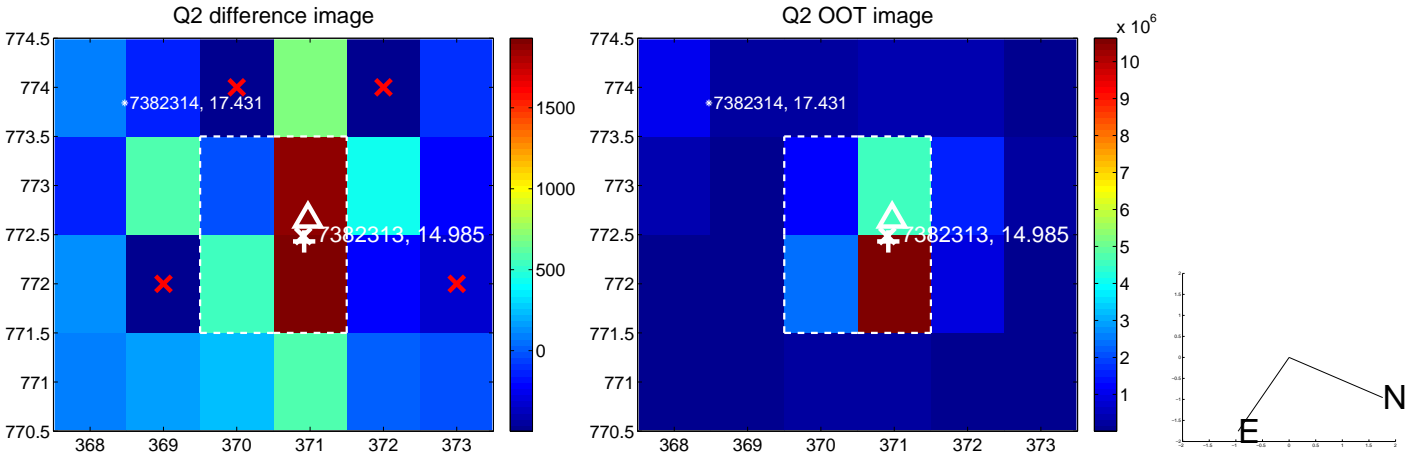
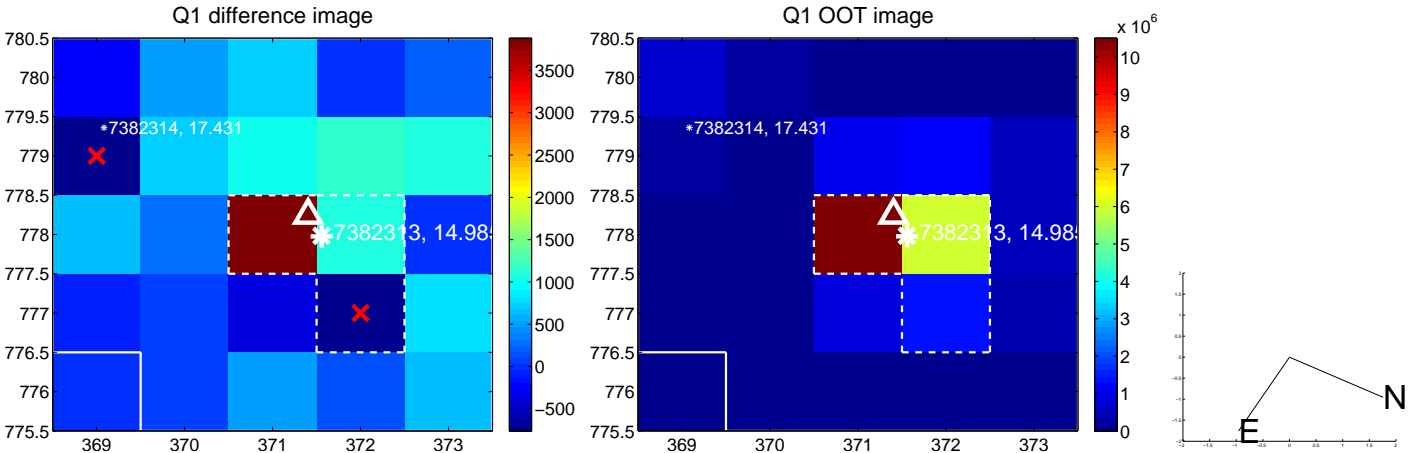


offset from photometric centroids

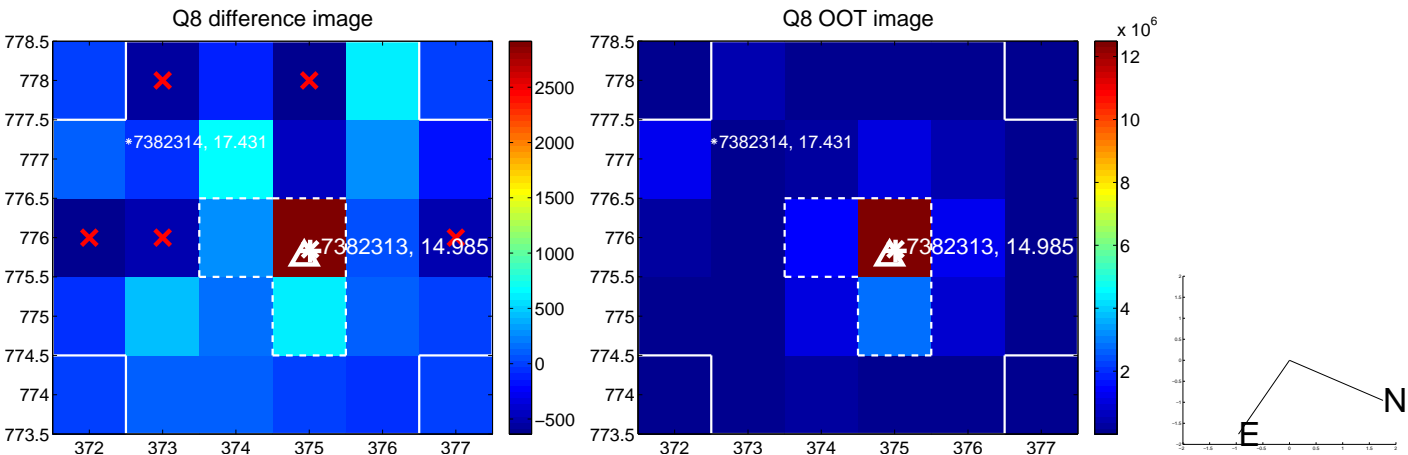
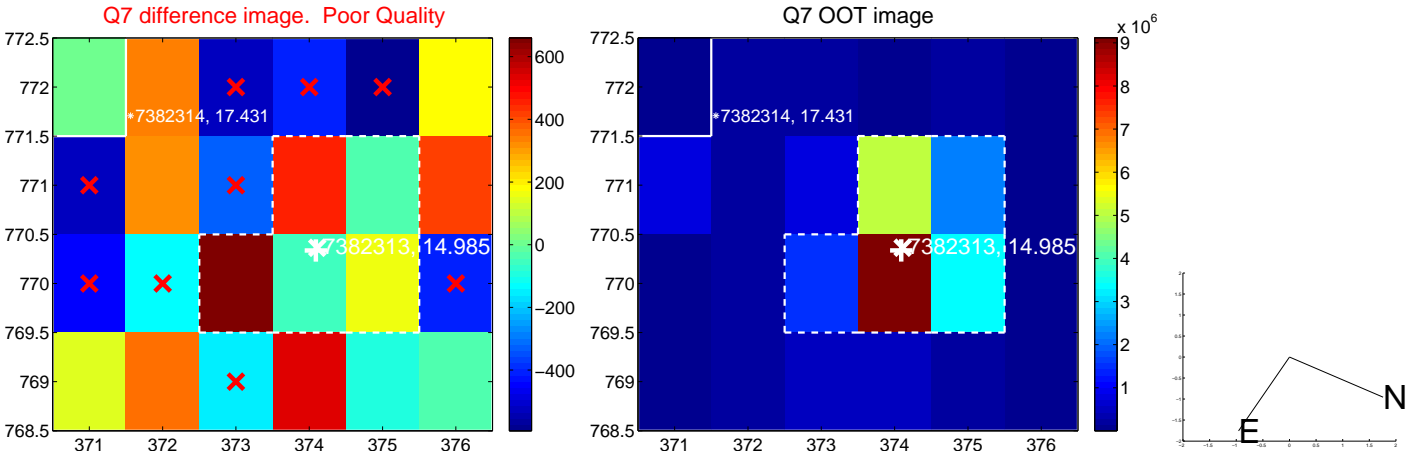
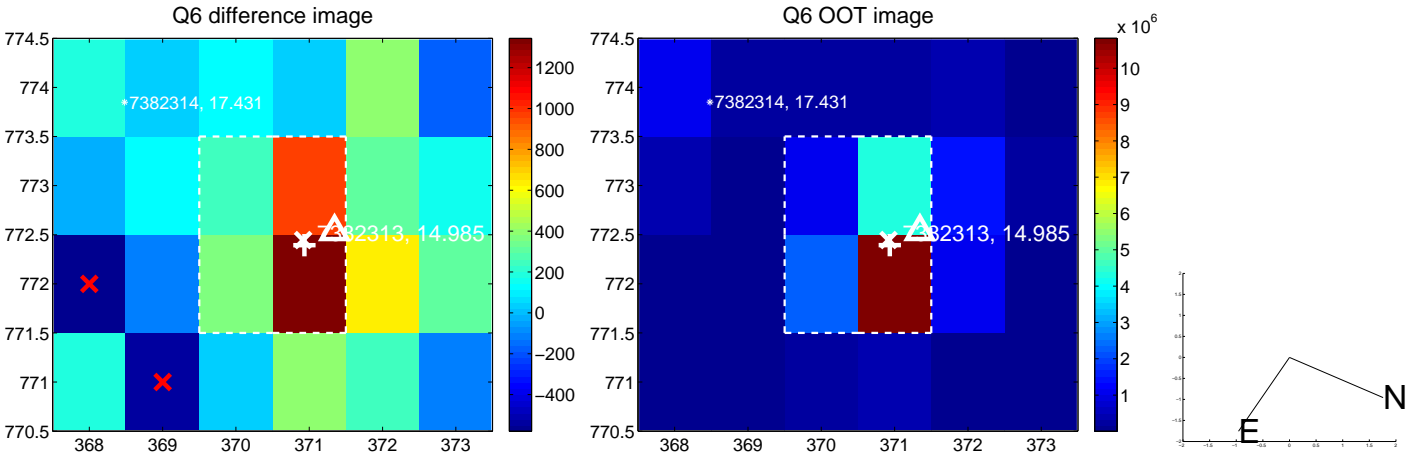
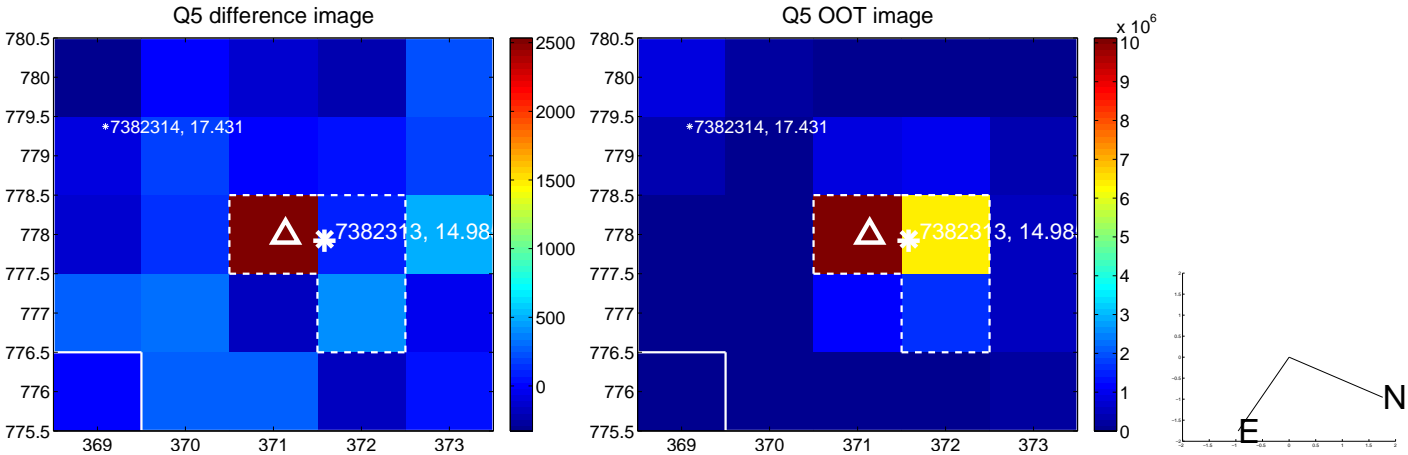


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

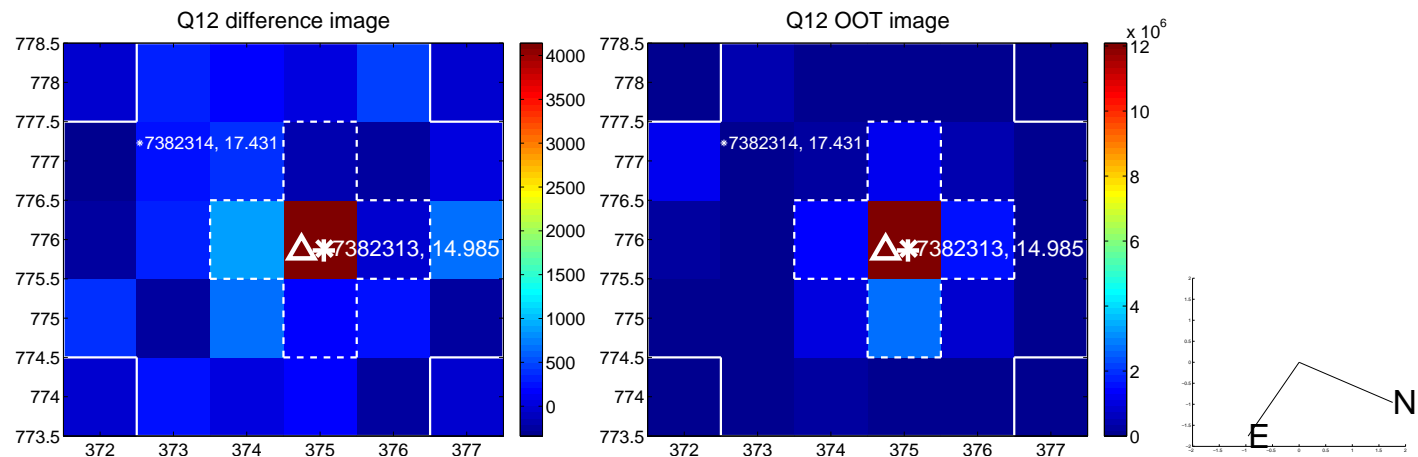
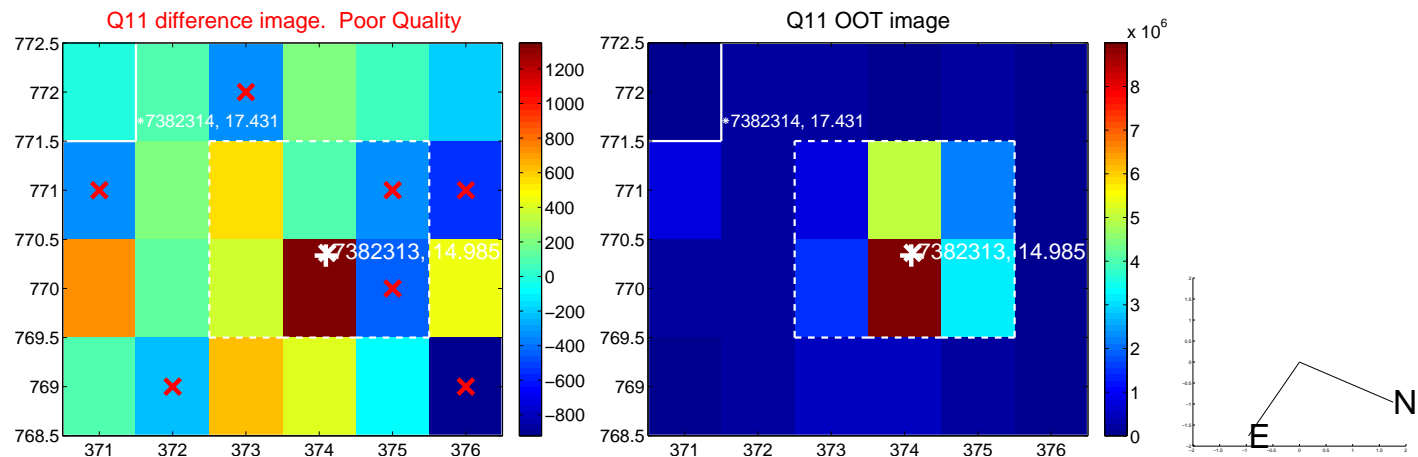
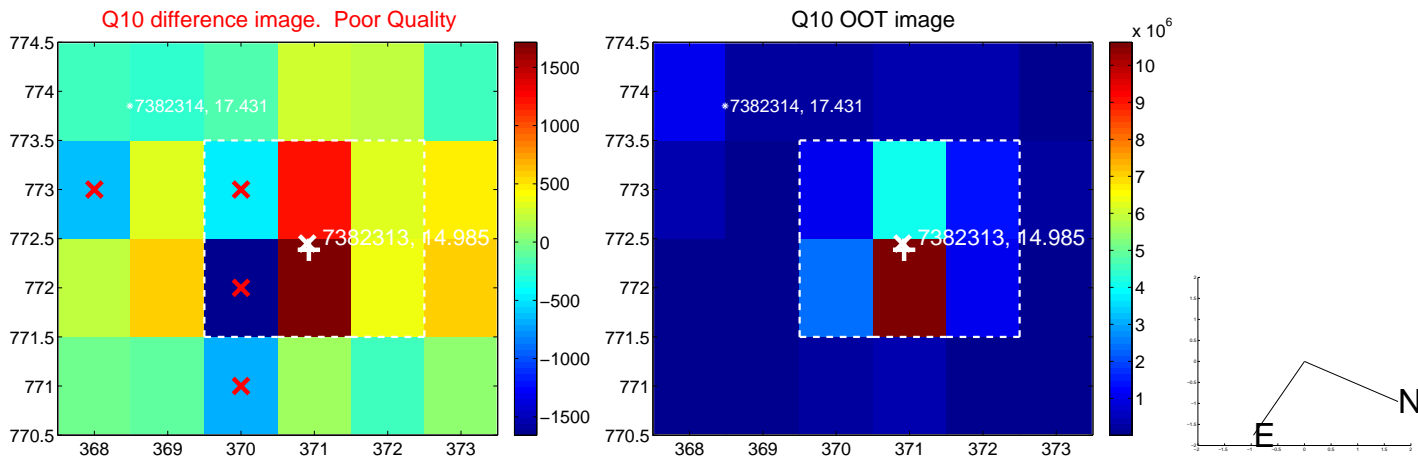
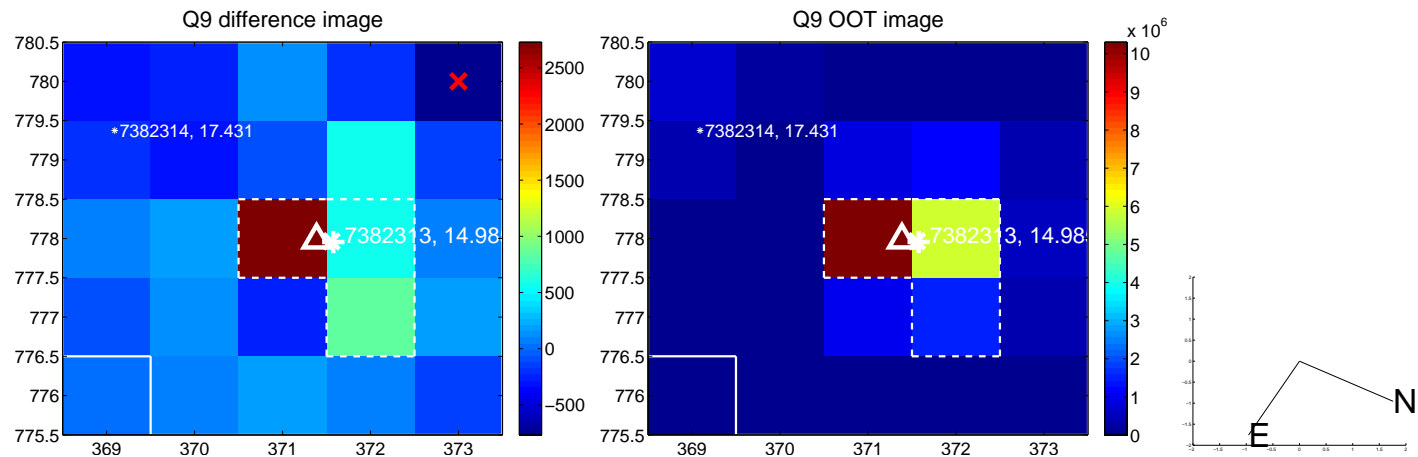
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



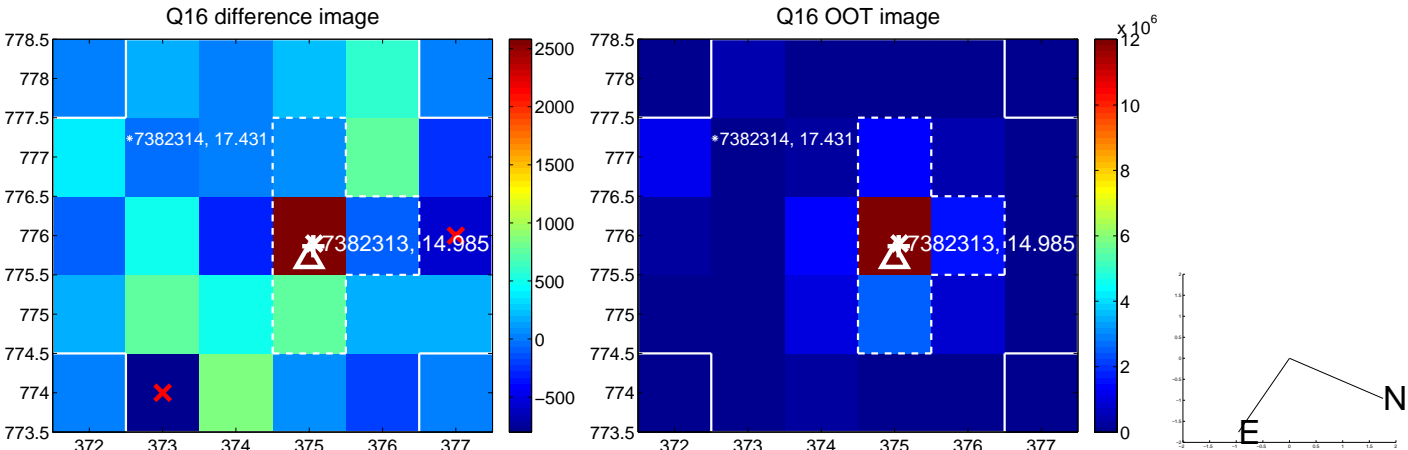
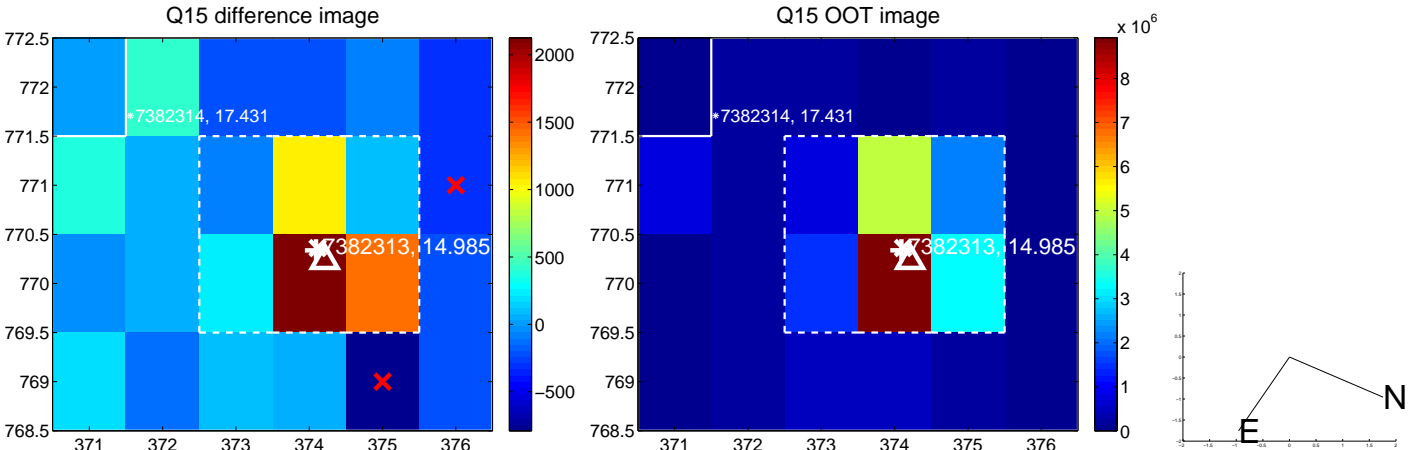
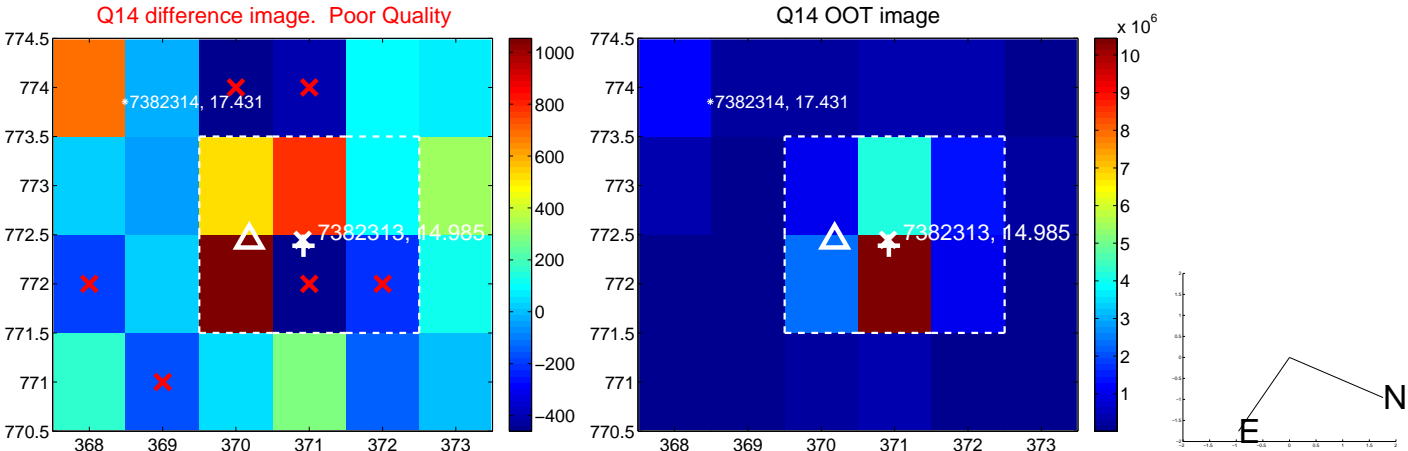
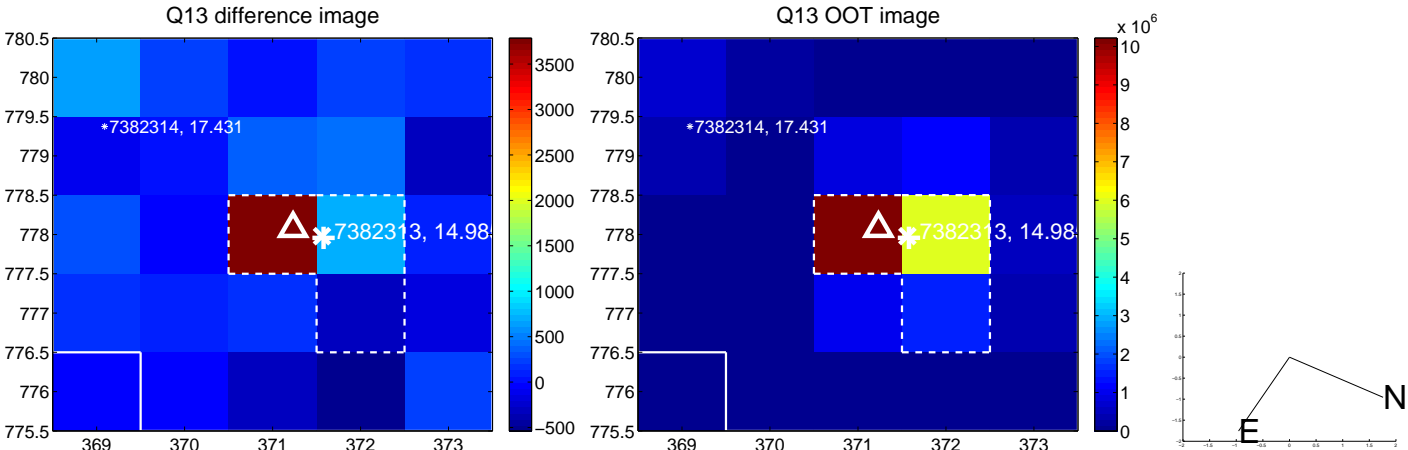
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



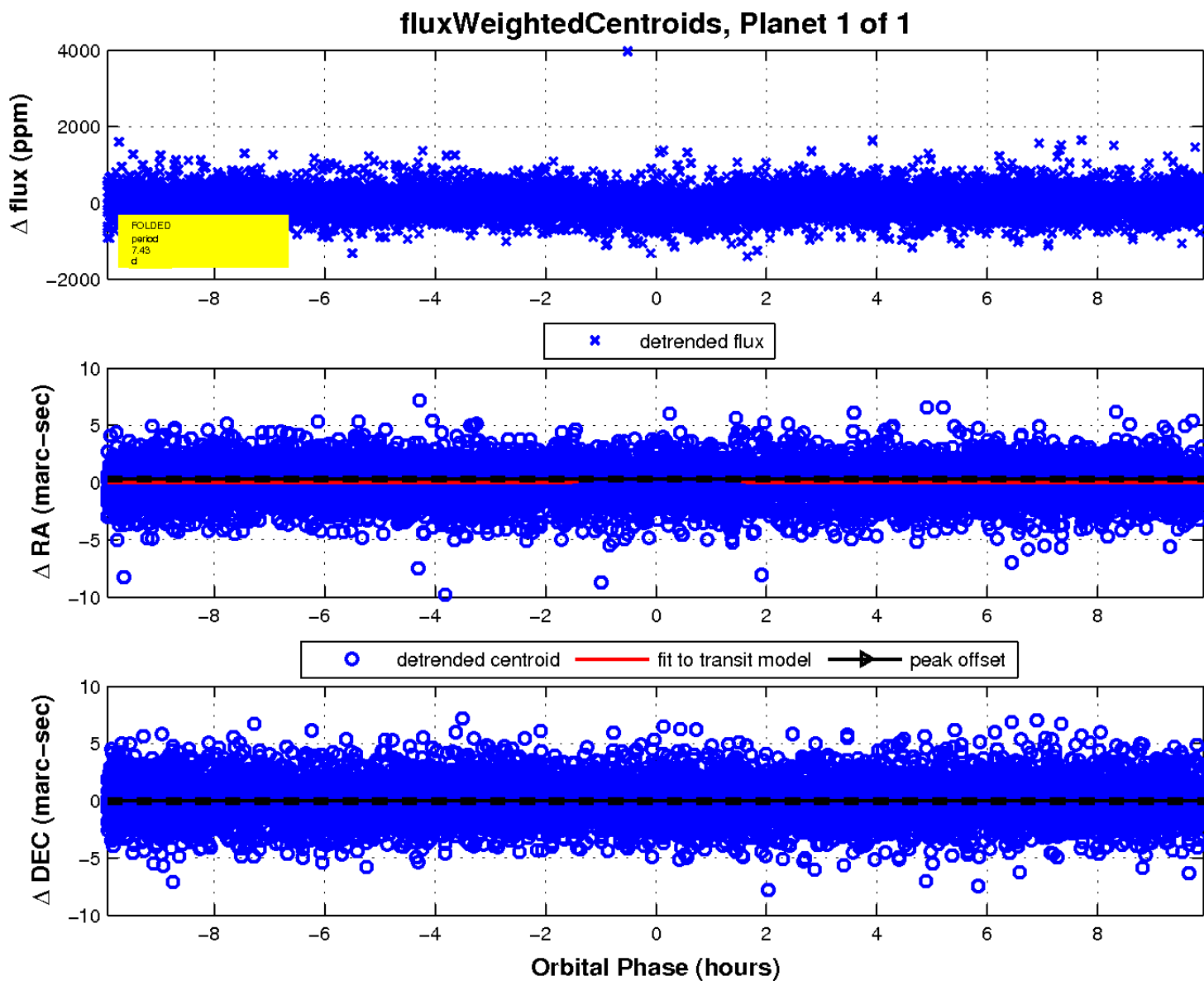
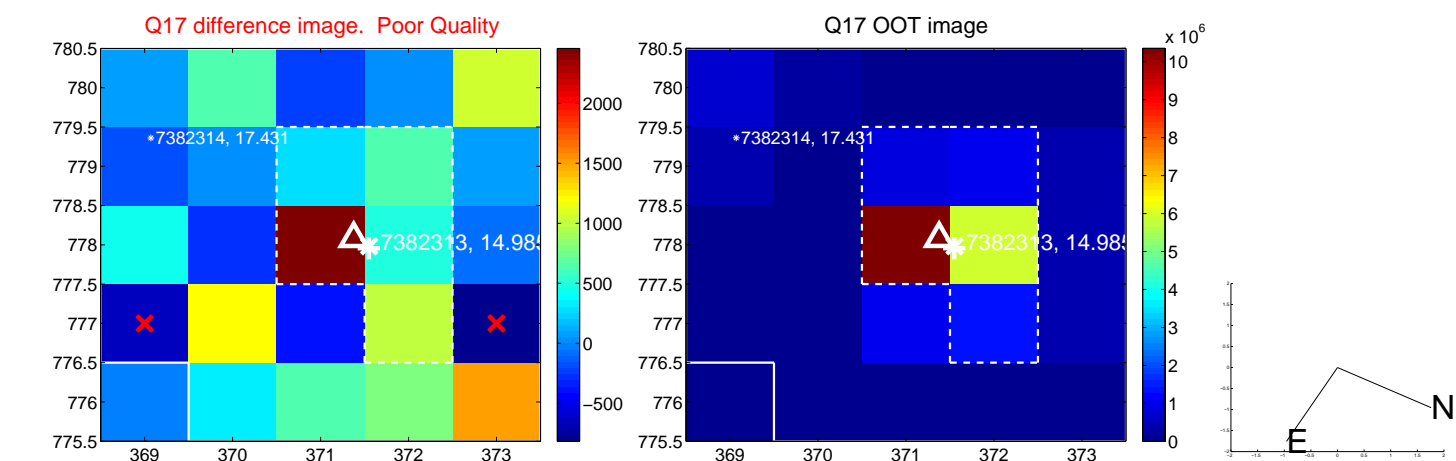
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

