

KIC 007287028

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})
007287028-01	OBS	7832.01	3.609187	132.480305	54.2	2.866	8.4	8.9	0.93	6032	0.85	478.12

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007287028-01	OBS	PC	0.47	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.

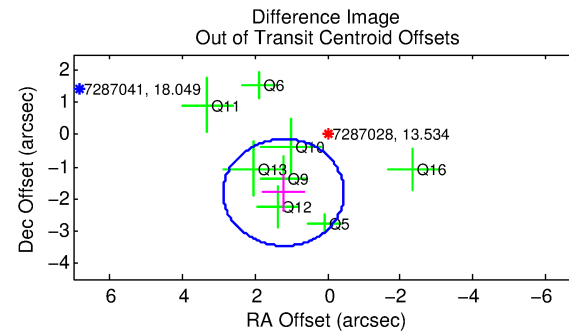
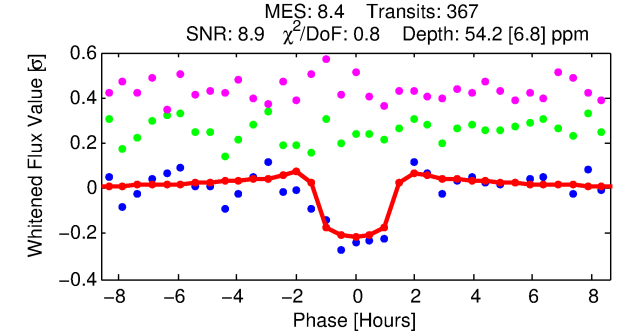
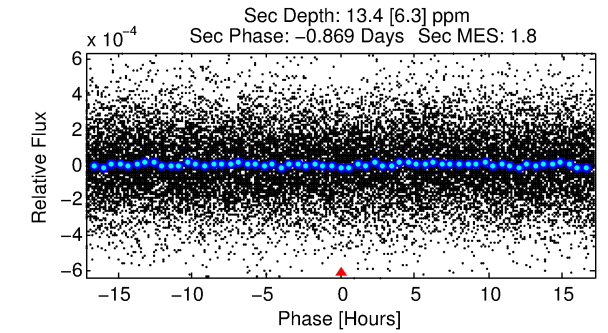
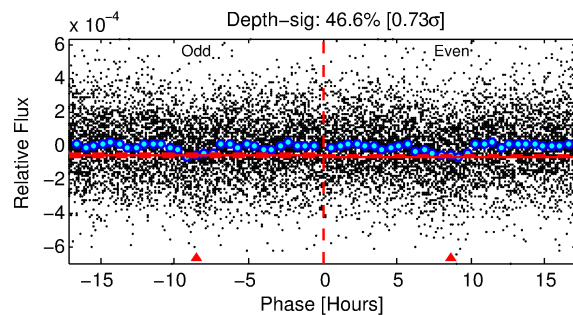
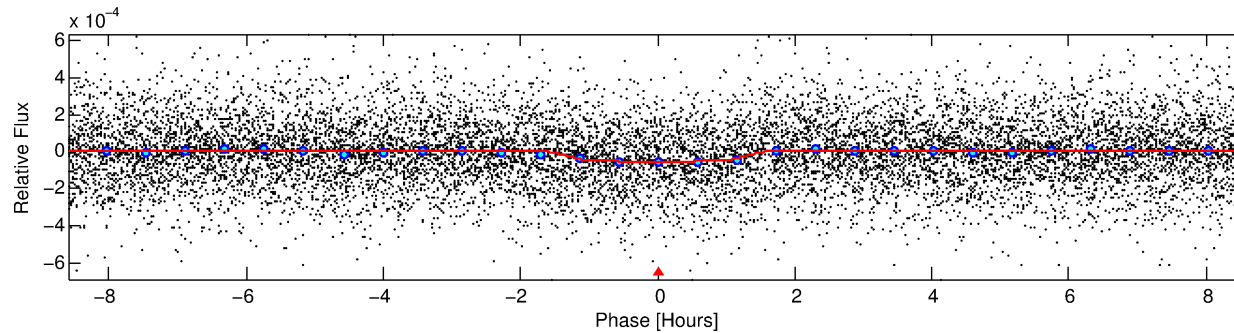
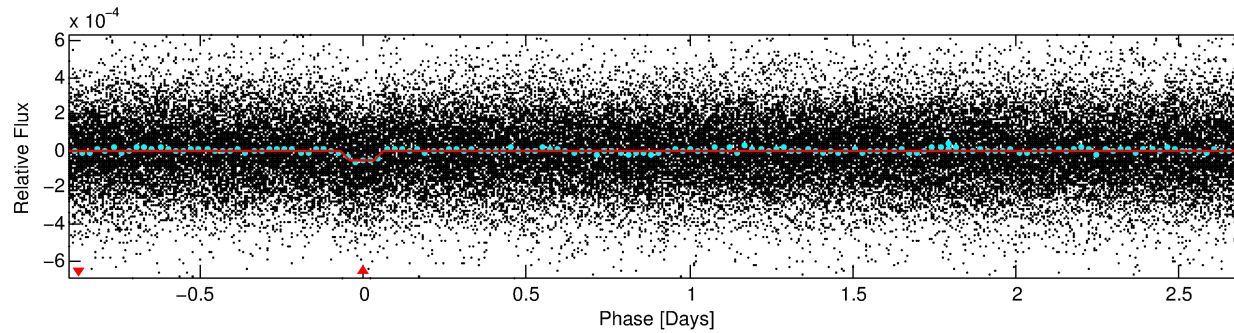
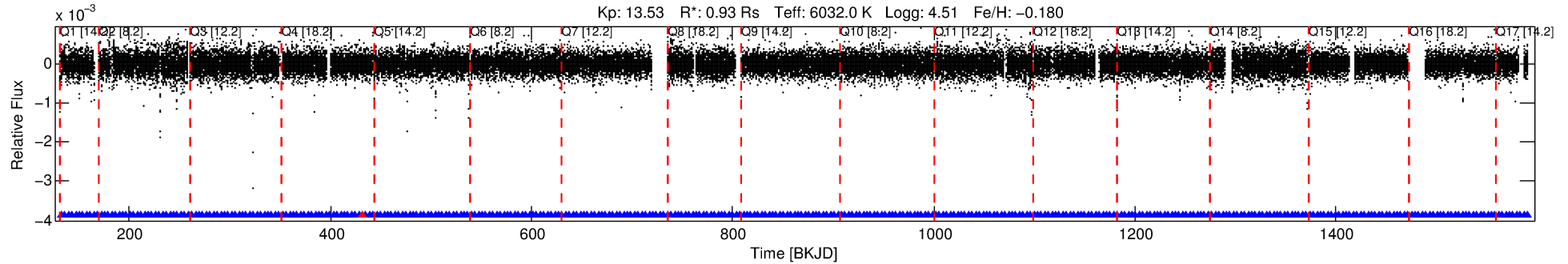
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007287028-01

No Significant Match Found

DV One-Page Summary

KIC: 7287028 Candidate: 1 of 1 Period: 3.609 d



DV Fit Results:

Period = 3.60919 [0.00002] d
Epoch = 132.4803 [0.0039] BKJD
Rp/R* = 0.0084 [0.0030]
a/R* = 3.52 [6.37]
b = 0.94 [0.23]
Seff = 478.12 [193.48]
Teff = 1192 [121] K
Rp = 0.85 [0.41] Re
a = 0.0463 [0.0122] AU
Ag = 21.79 [20.64] [1.01 σ]
Teffp = 3983 [869] K [3.18 σ]

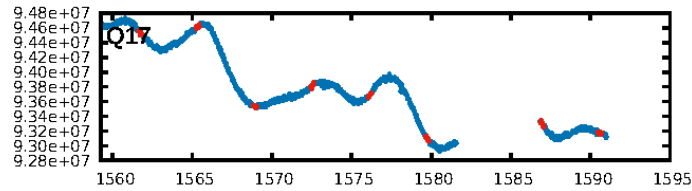
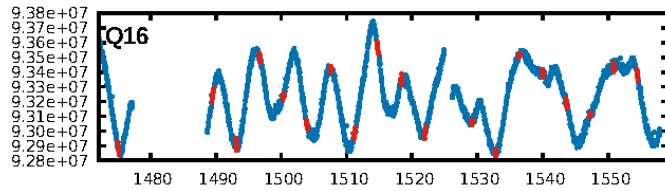
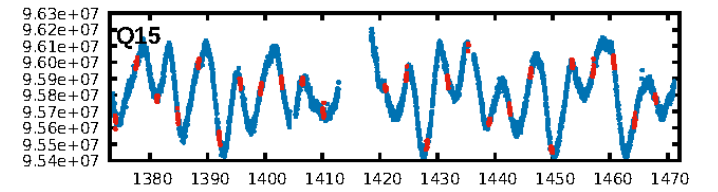
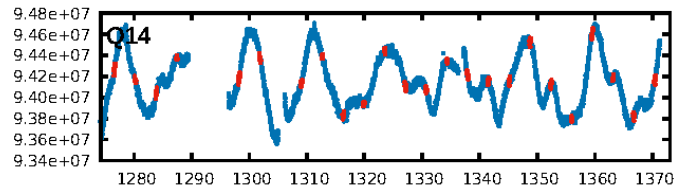
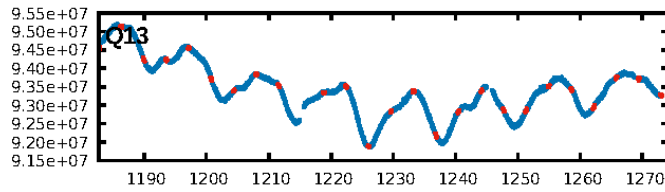
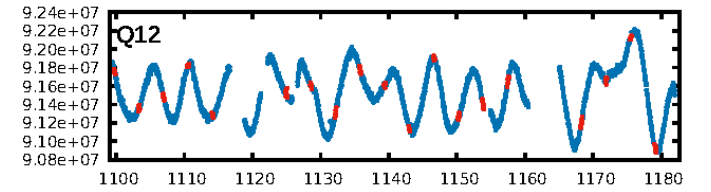
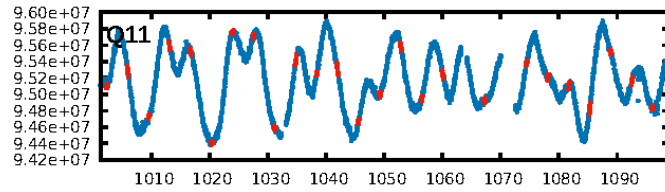
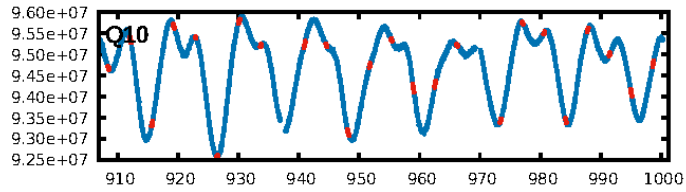
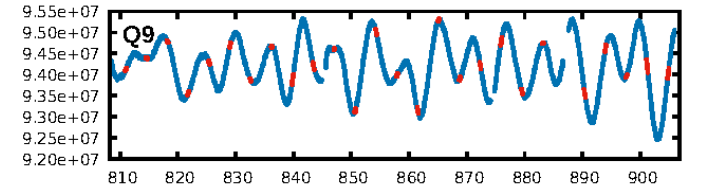
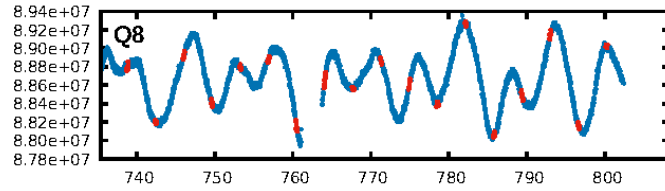
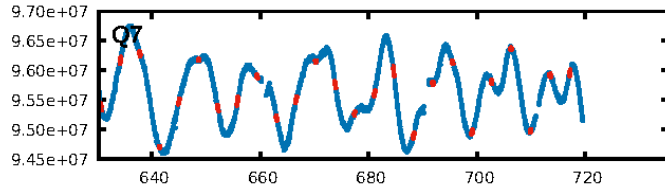
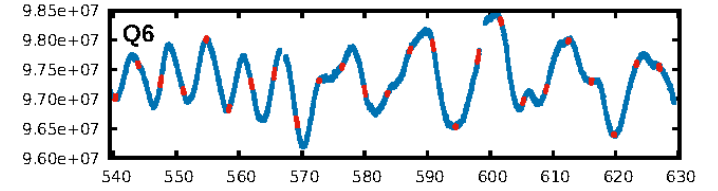
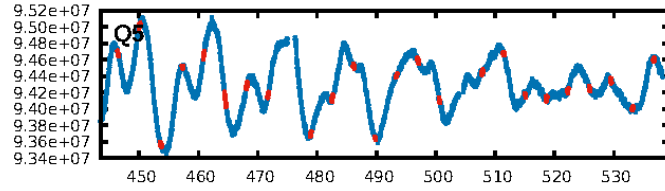
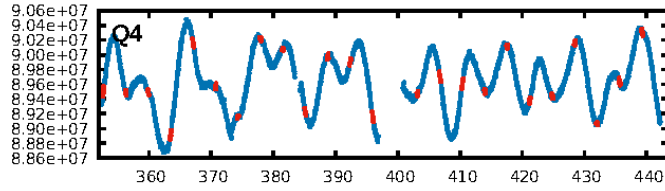
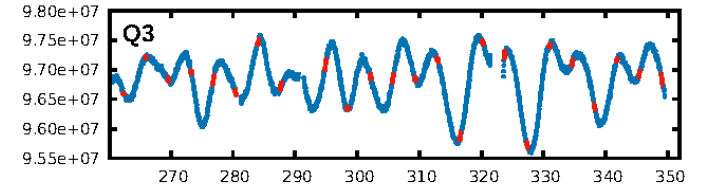
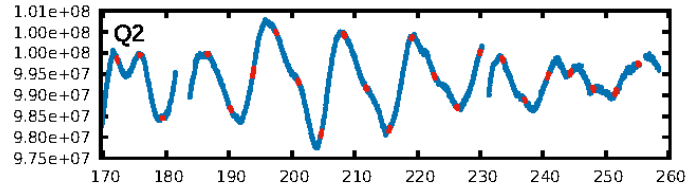
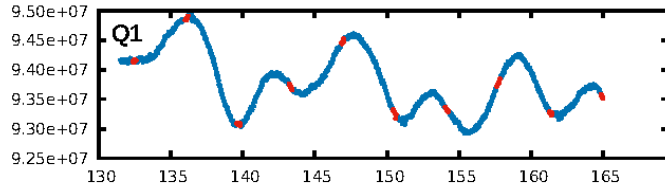
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.82e-15
RollingBand-fgt: 1.00 [348/349]
GhostDiagnostic-chr: 2.304
Centroid-sig: 98.8%
Centroid-so: 1.366 arcsec [1.51 σ]
OotOffset-rm: 2.173 arcsec [3.92 σ]
KicOffset-rm: 1.451 arcsec [2.99 σ]
OotOffset-st: 2/1/2/3 [8]
KicOffset-st: 2/1/2/3 [8]
DiffImageQuality-fgm: 0.62 [5/8]
DiffImageOverlap-fno: 1.00 [17/17]

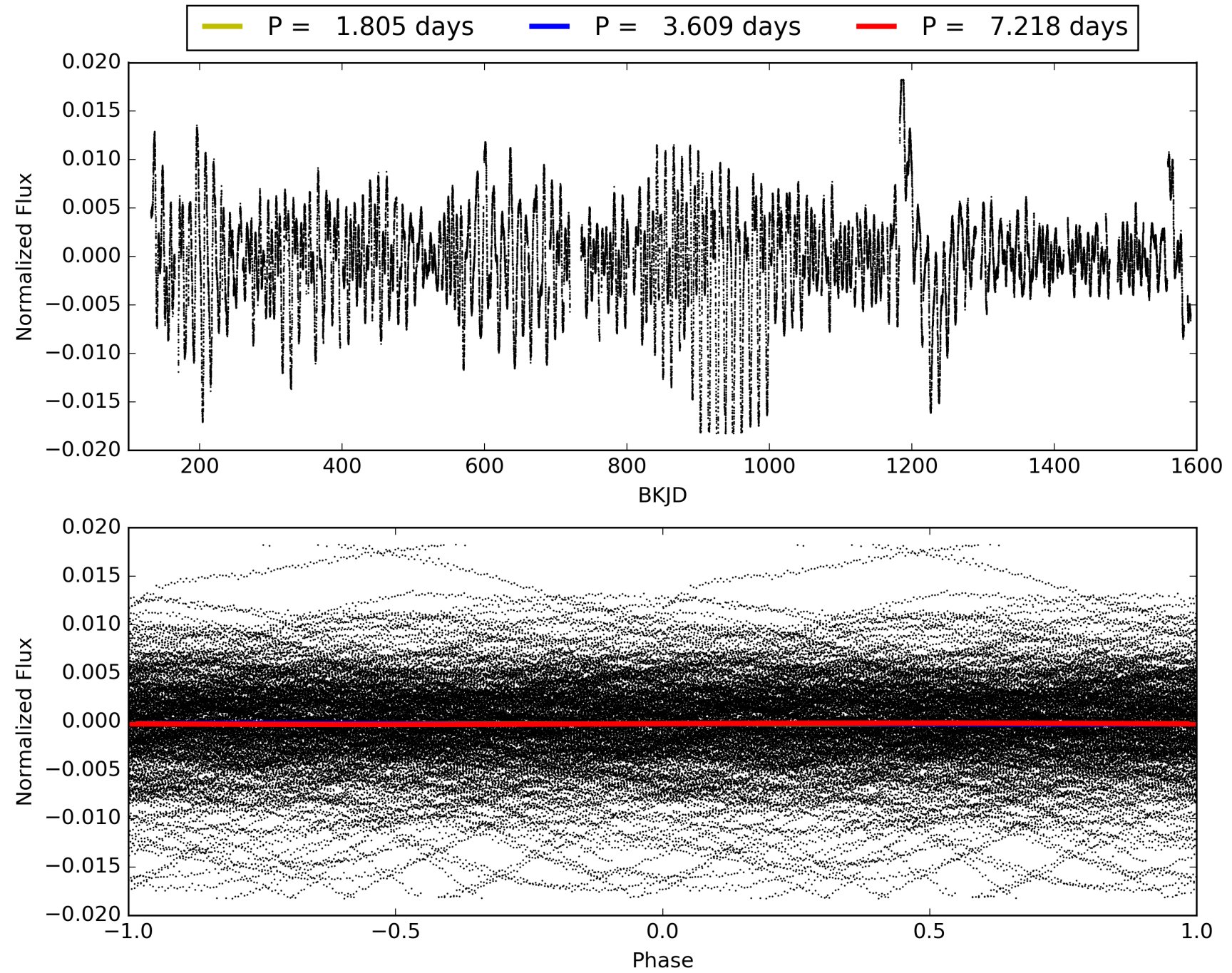
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 03:48:44 Z

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

TCE 007287028-01, PDC Light Curves

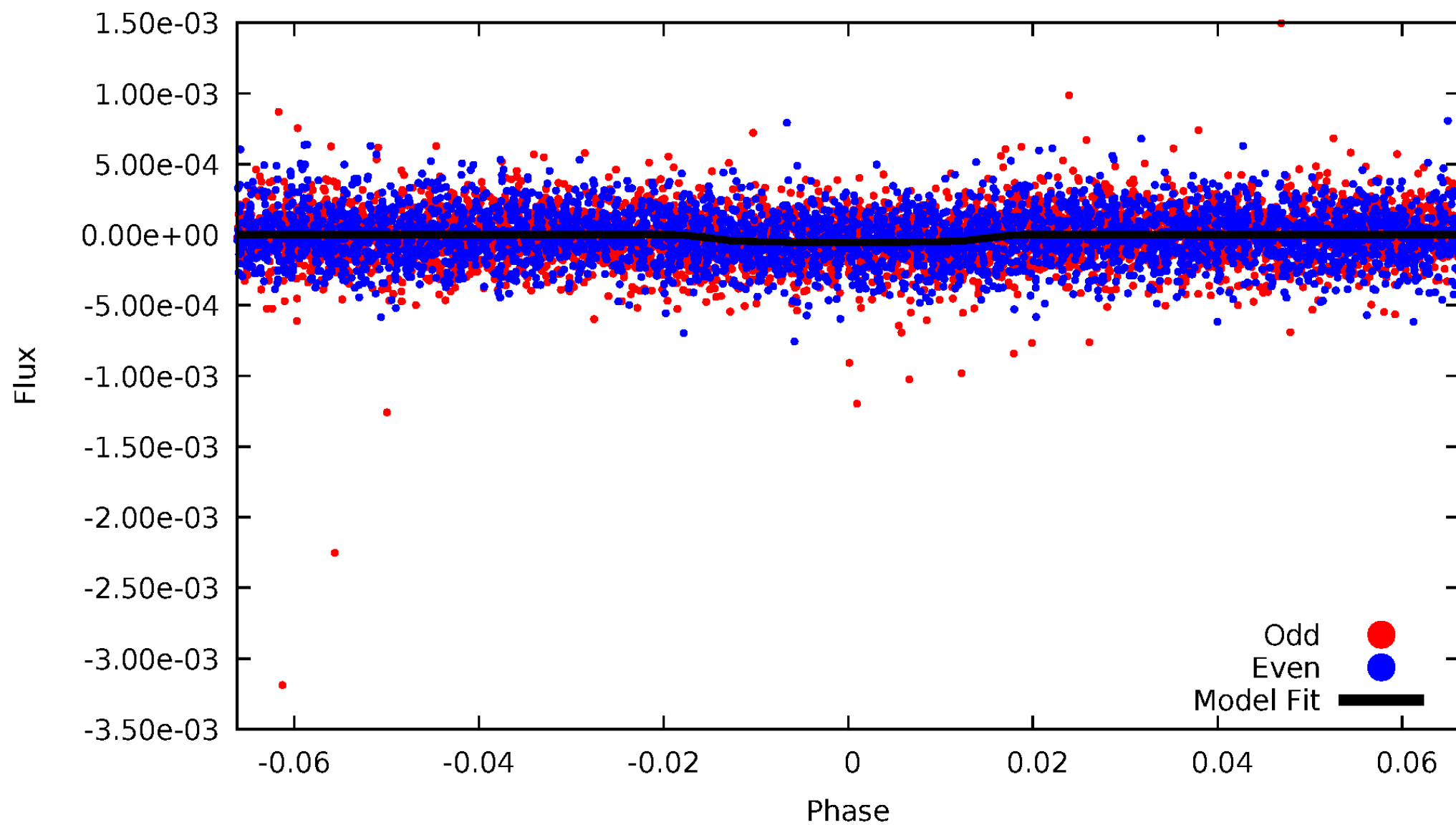


TCE 007287028-01



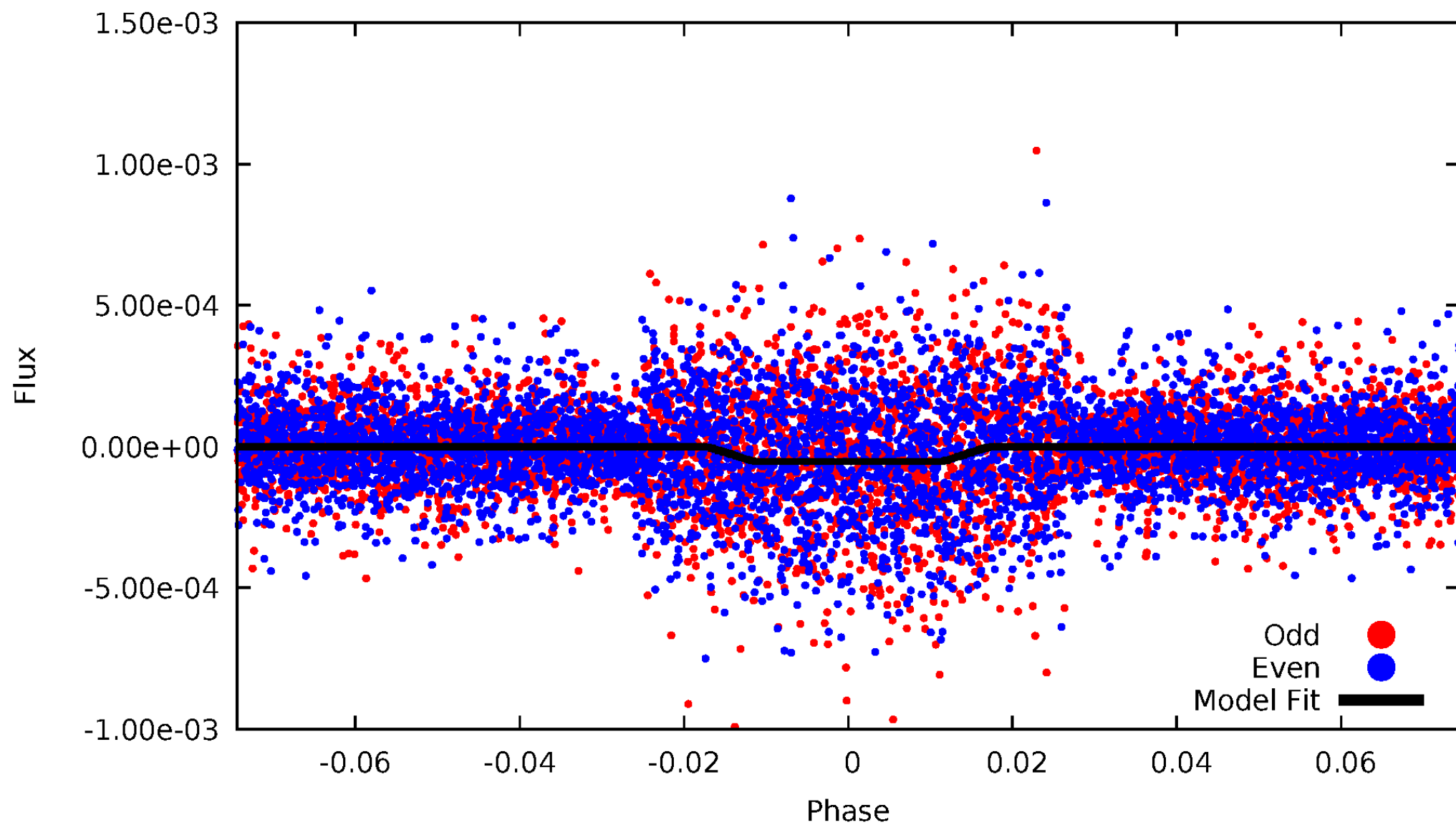
DV Odd/Even

TCE 007287028-01



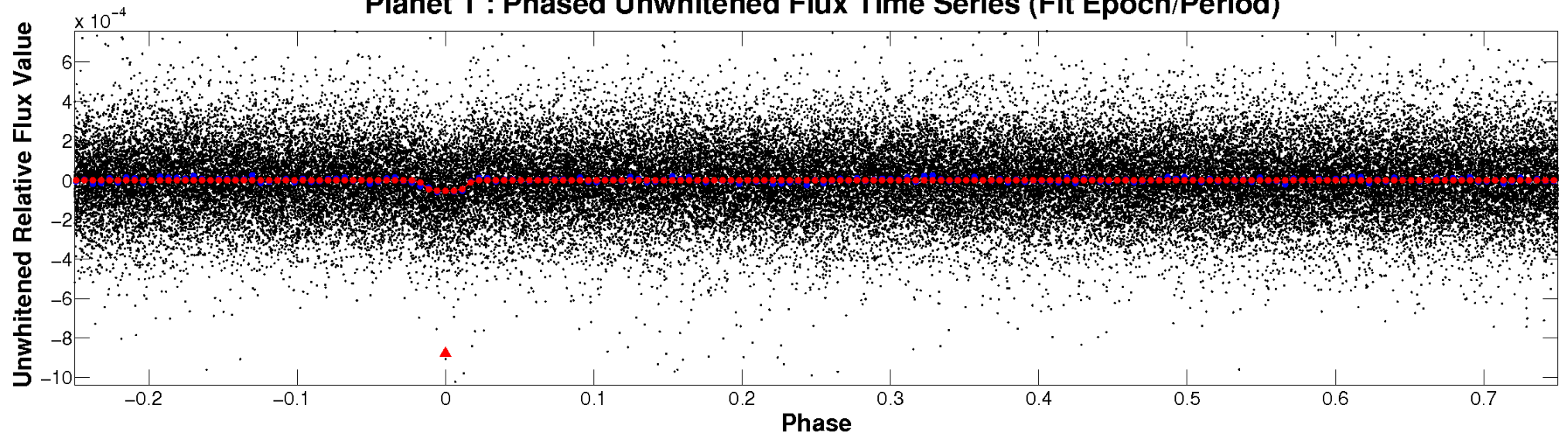
ALT Odd/Even

TCE 007287028-01

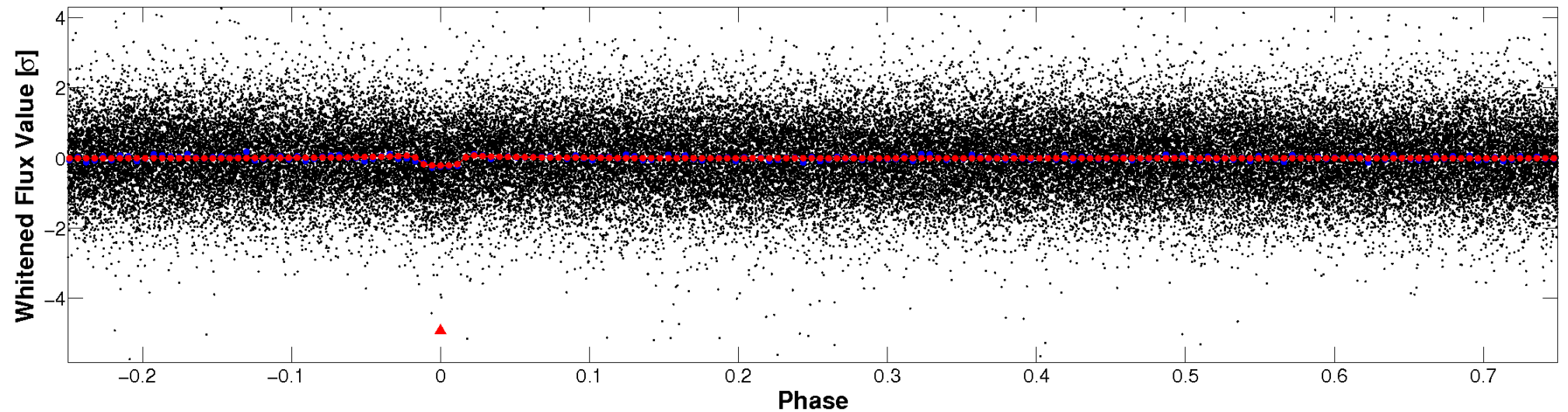


Non-Whitened Vs. Whitened Light Curve

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

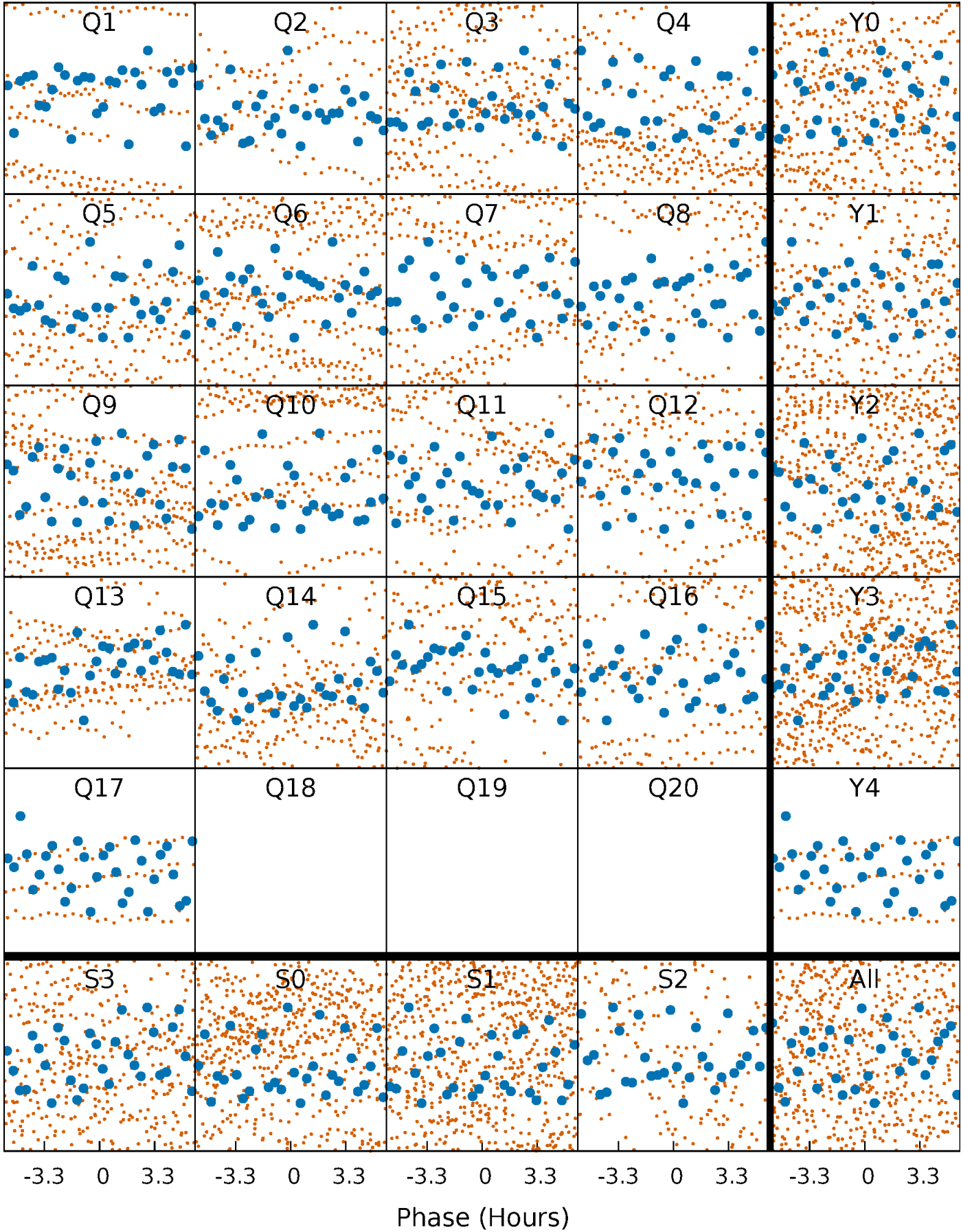


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



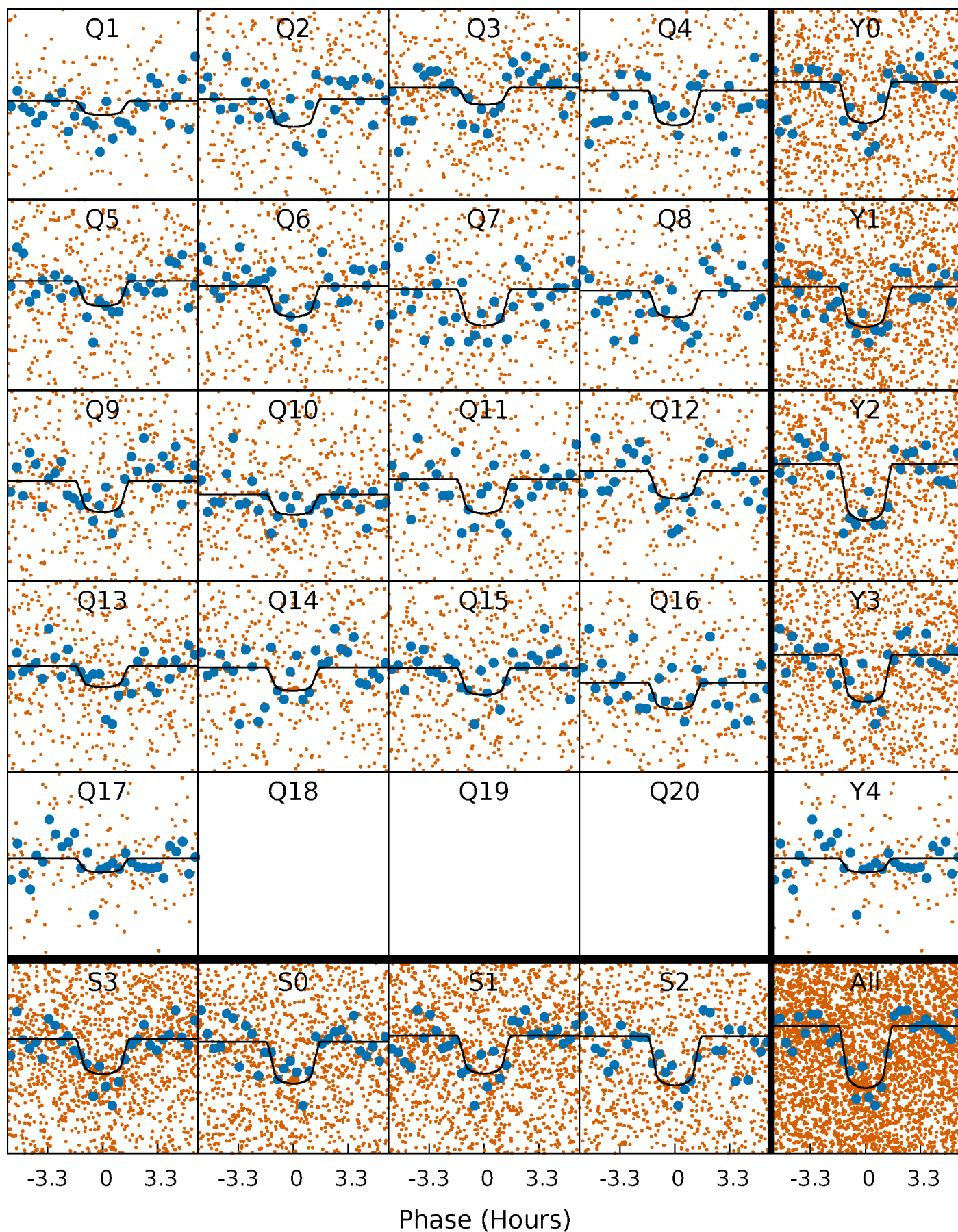
PDC Quarter-Phased Transit Curves

TCE 007287028-01 P= 3.609187 Days $T_0=132.480305$ (BKJD)



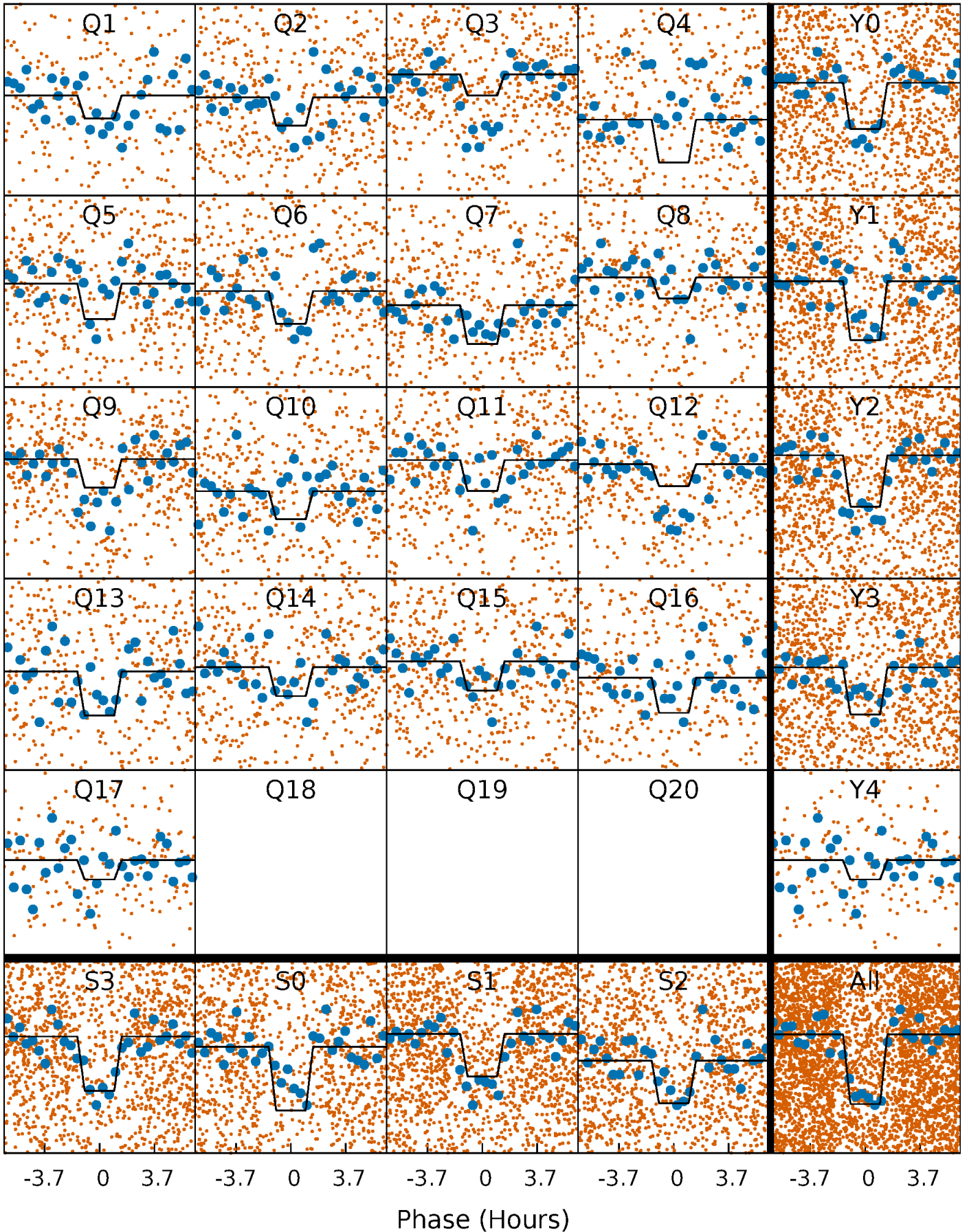
DV Quarter-Phased Transit Curves

TCE 007287028-01 P= 3.609187 Days $T_0=132.480305$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

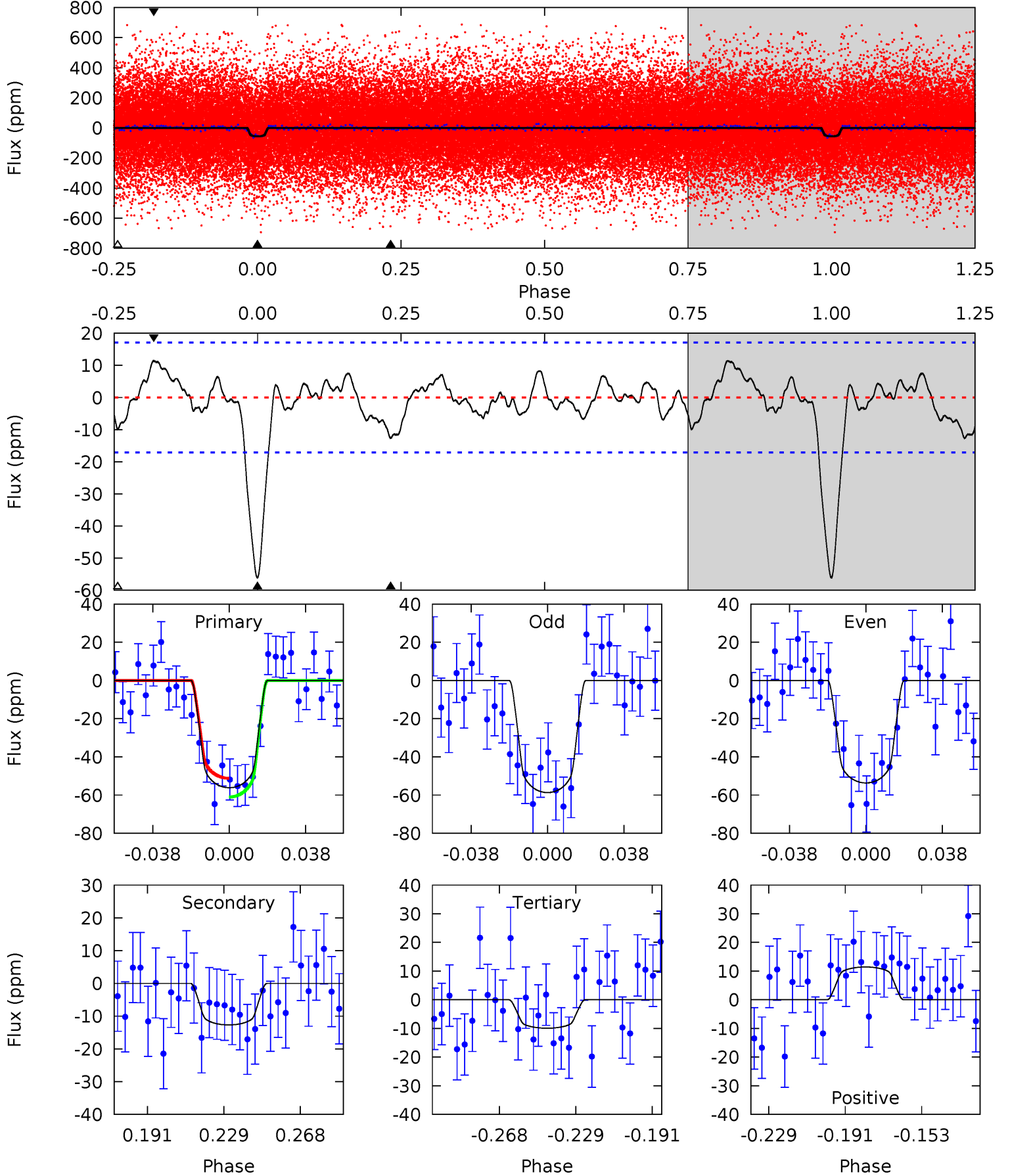
TCE 007287028-01 P= 3.609238 Days $T_0=132.469746$ (BKJD)



DV Model-Shift Uniqueness Test

007287028-01, P = 3.609187 Days, E = 128.871118 Days

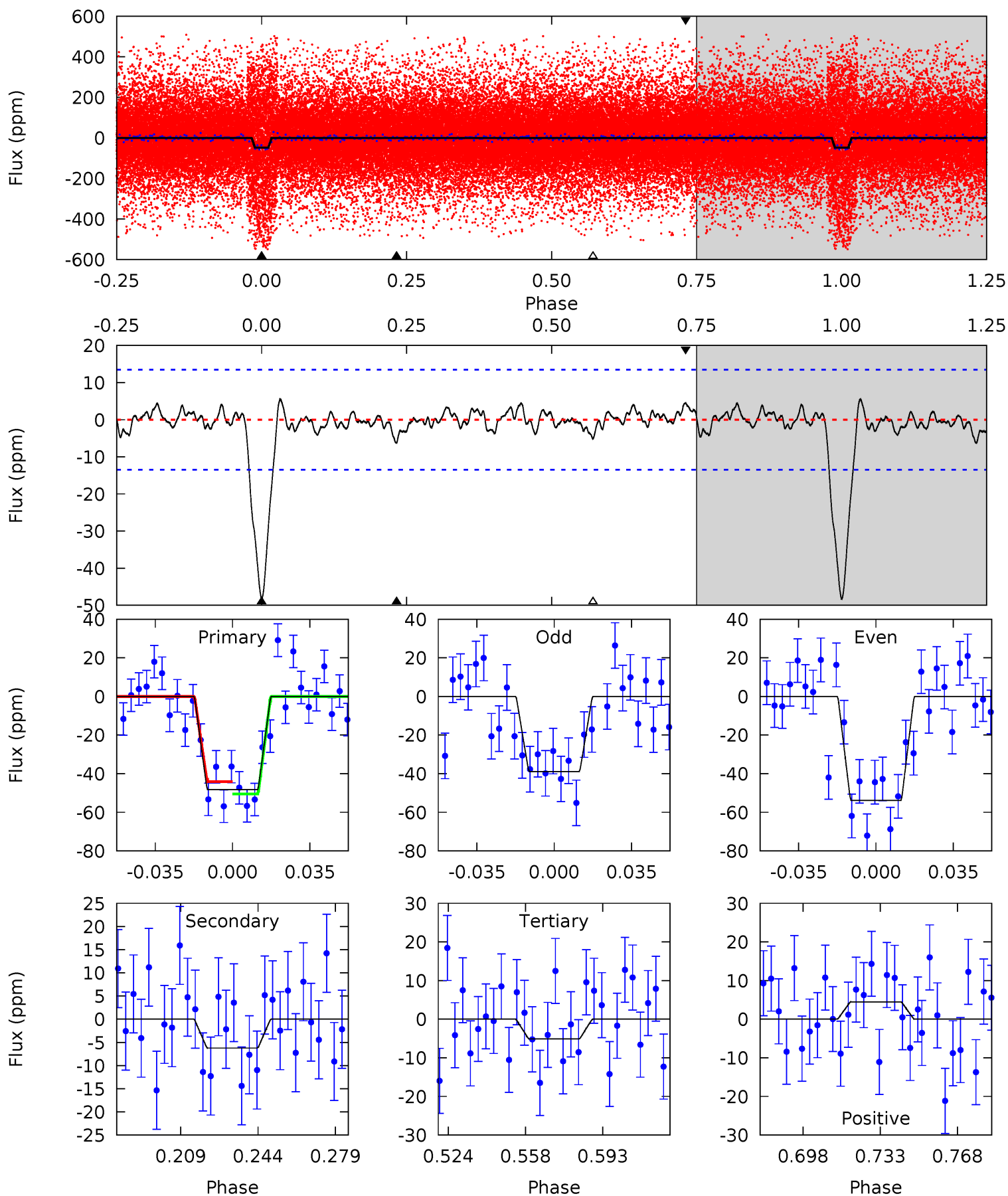
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	3.53	2.76	3.18	4.76	2.07	1.17	12.9	12.4	0.77	0.35	0.71	1.13	0.17	1.37



Alt Model-Shift Uniqueness Test

007287028-01, P = 3.609238 Days, E = 128.860508 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	2.21	1.81	1.60	4.78	2.11	0.68	15.3	15.5	0.39	0.61	2.65	1.02	0.10	1.12



Stellar Parameters For KIC 007287028

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6032^{+162}_{-180}	$4.508^{+0.050}_{-0.212}$	$-0.180^{+0.300}_{-0.300}$	$0.929^{+0.291}_{-0.097}$	$1.014^{+0.130}_{-0.130}$	$1.783^{+0.380}_{-0.919}$
	+3%/-3%	+1%/-5%	+167%/-167%	+31%/-10%	+13%/-13%	+21%/-52%
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 007287028-01 / KOI 7832.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-13 ± 4	$0.88^{+0.37}_{-0.33}$	1701^{+122}_{-81}	4188^{+847}_{-488}	19^{+31}_{-10}
Alt.	-6 ± 3	$0.76^{+0.36}_{-0.32}$	1704^{+129}_{-82}	3861^{+945}_{-592}	12^{+26}_{-8}

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

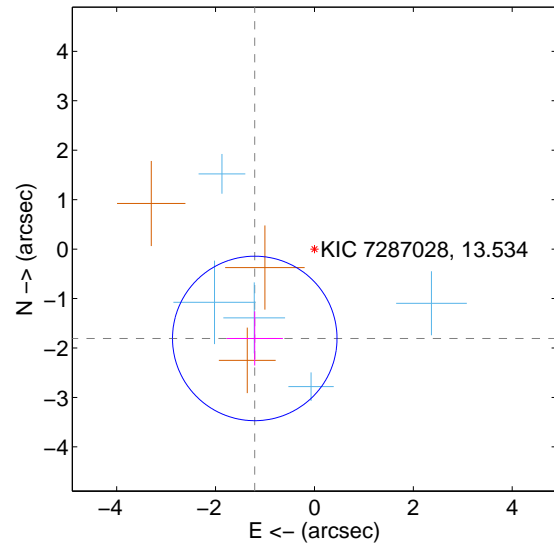
Supplemental centroid analysis for 007287028-01. Kepler magnitude: 13.53. Transit SNR 8.91

There are 5 quarters with good PRF difference image offsets

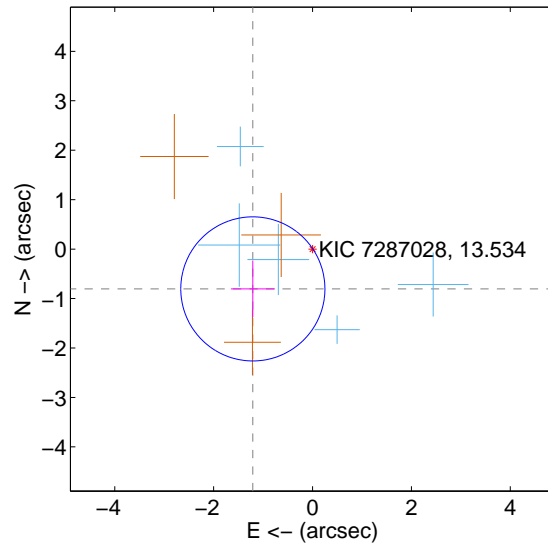
The direct PRF centroid is offset from the target star catalog position by about 0.39 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.173 ± 0.554	3.92	1.207 ± 0.568	-1.807 ± 0.548
PRF-fit source offset from KIC position	1.451 ± 0.486	2.99	1.207 ± 0.443	-0.805 ± 0.570
photometric centroid source offset	1.37 ± 0.90	1.51	-0.89 ± 0.95	1.04 ± 0.87

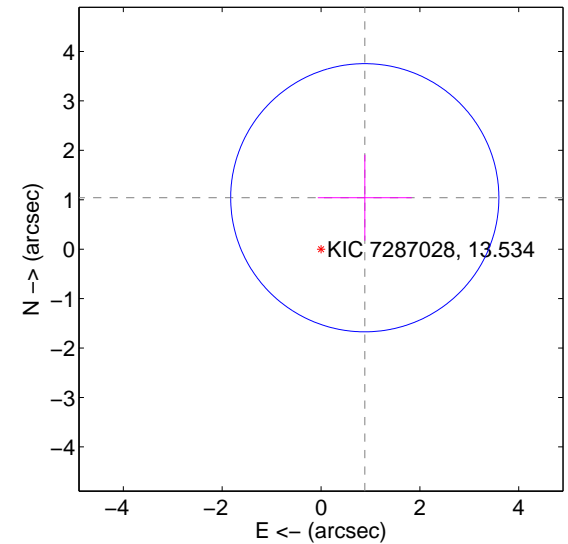
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

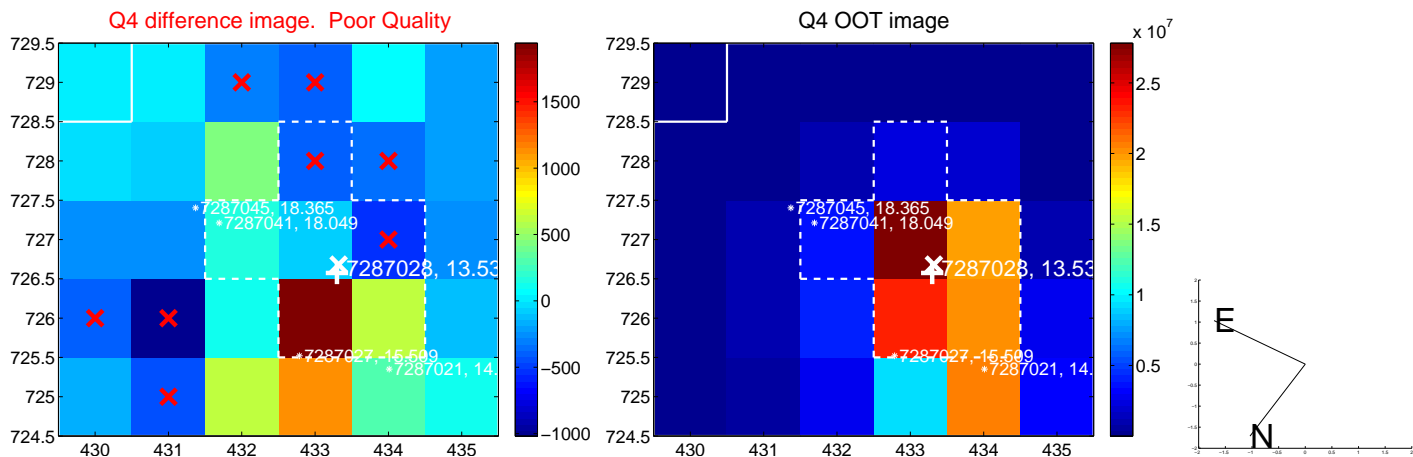
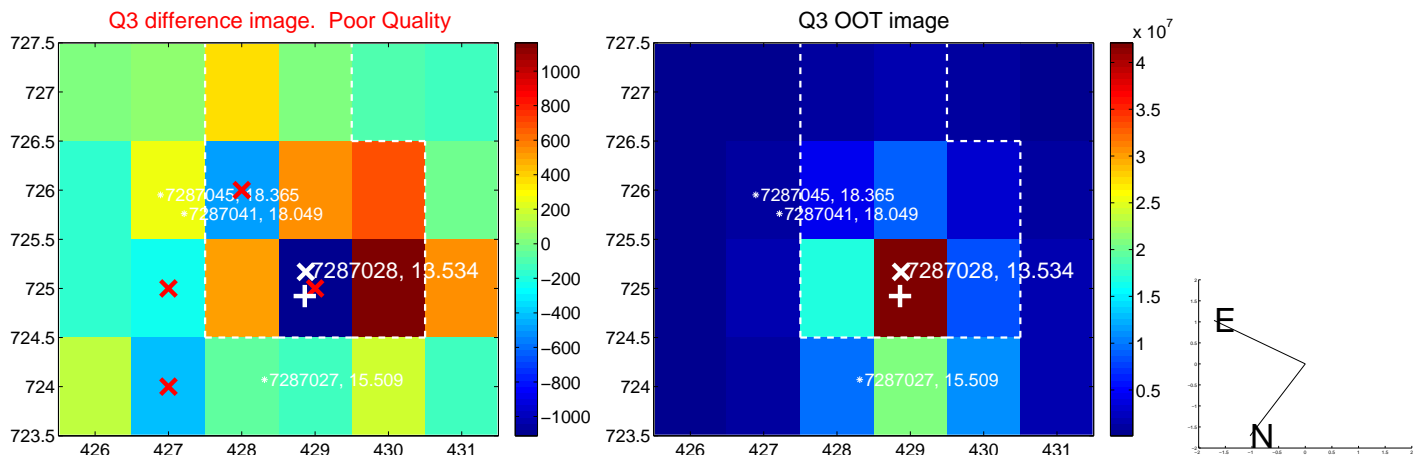
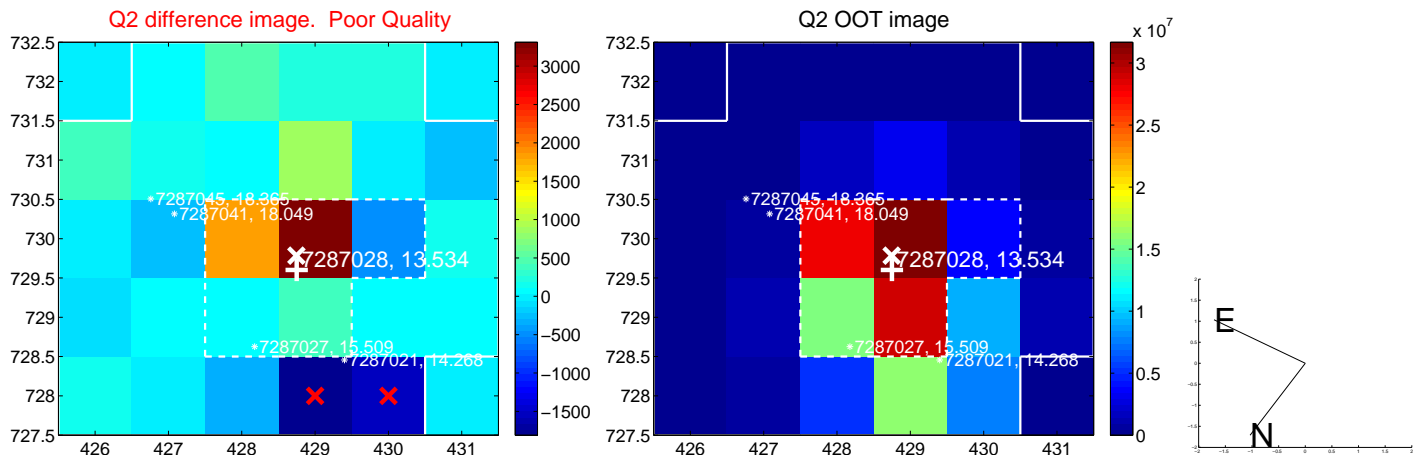
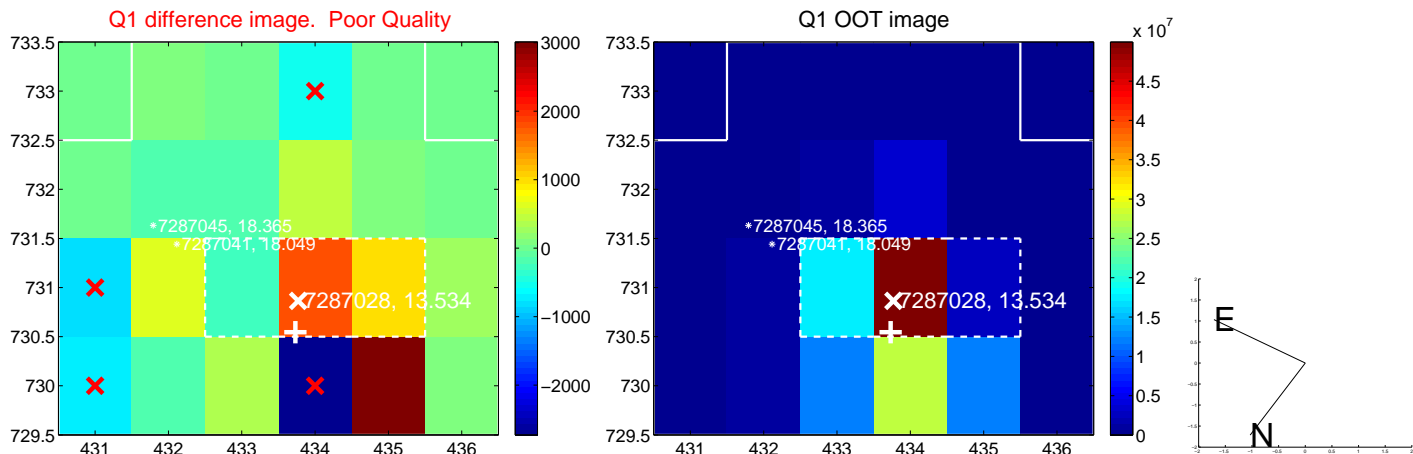


offset from photometric centroids

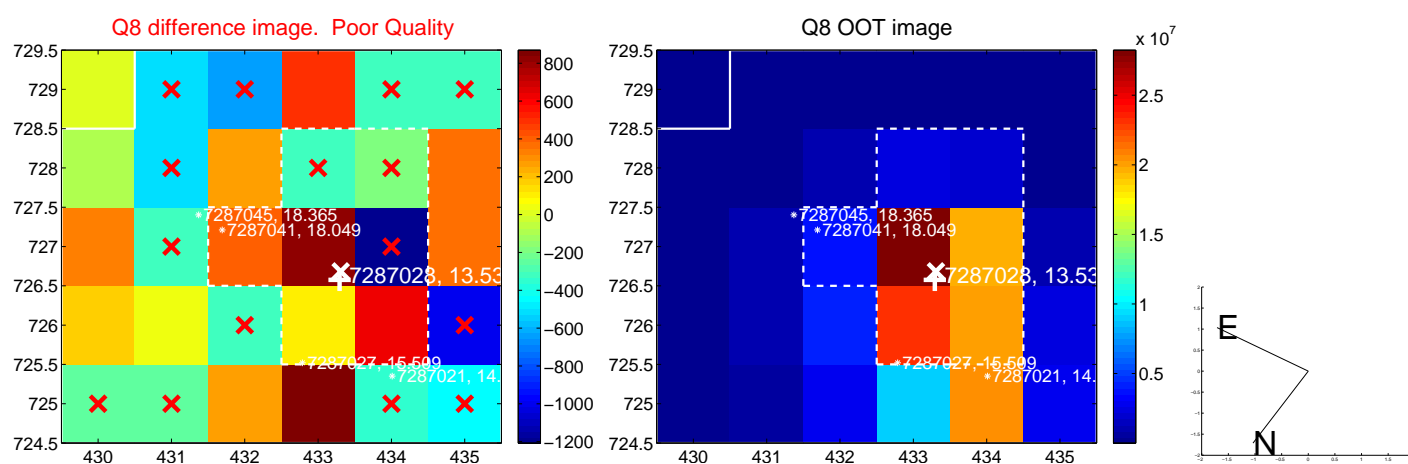
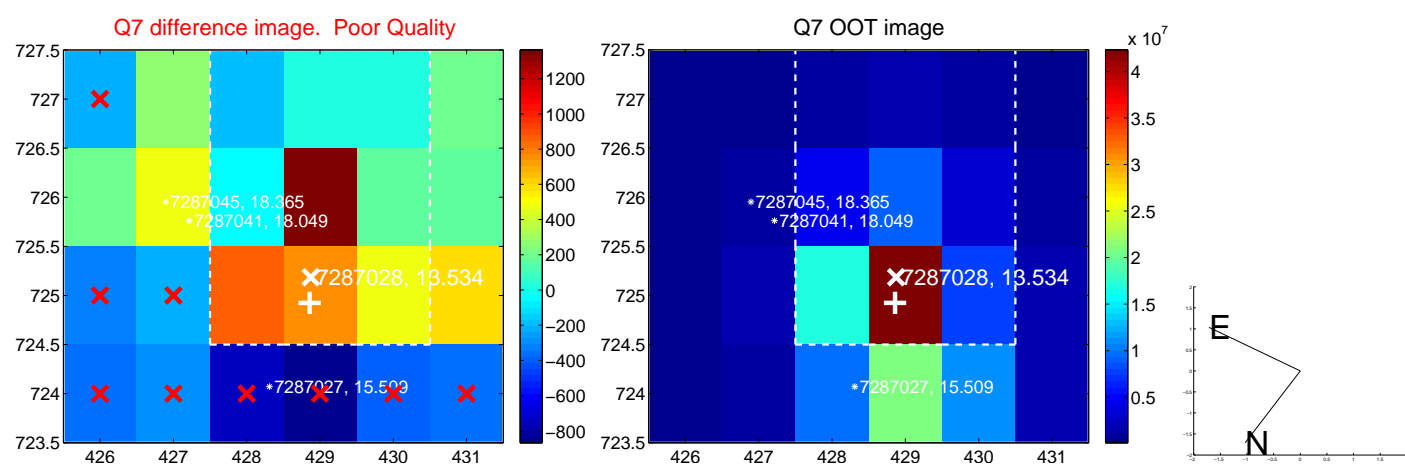
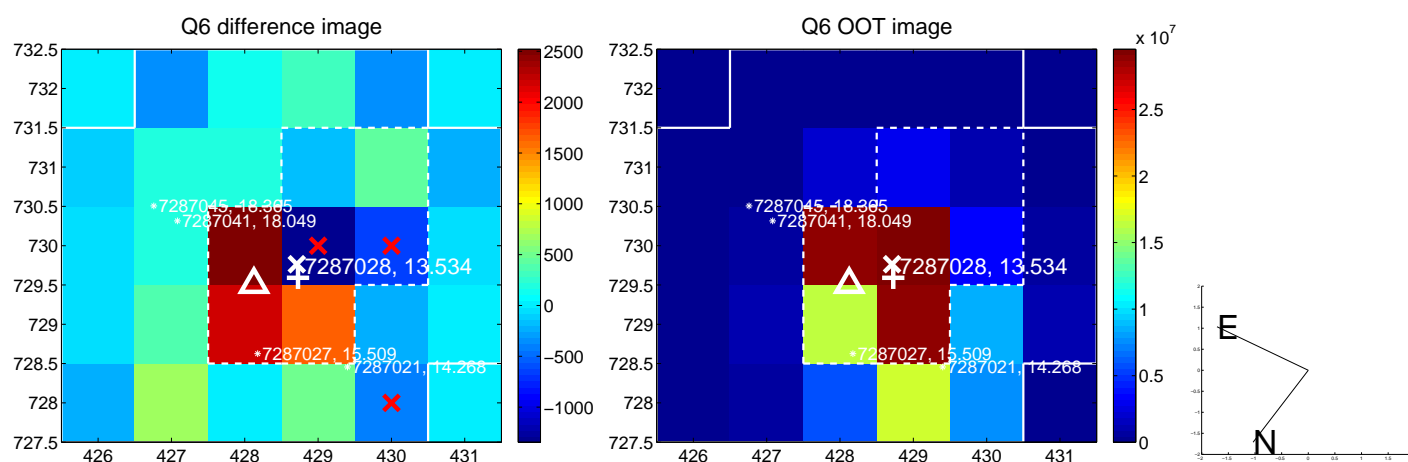
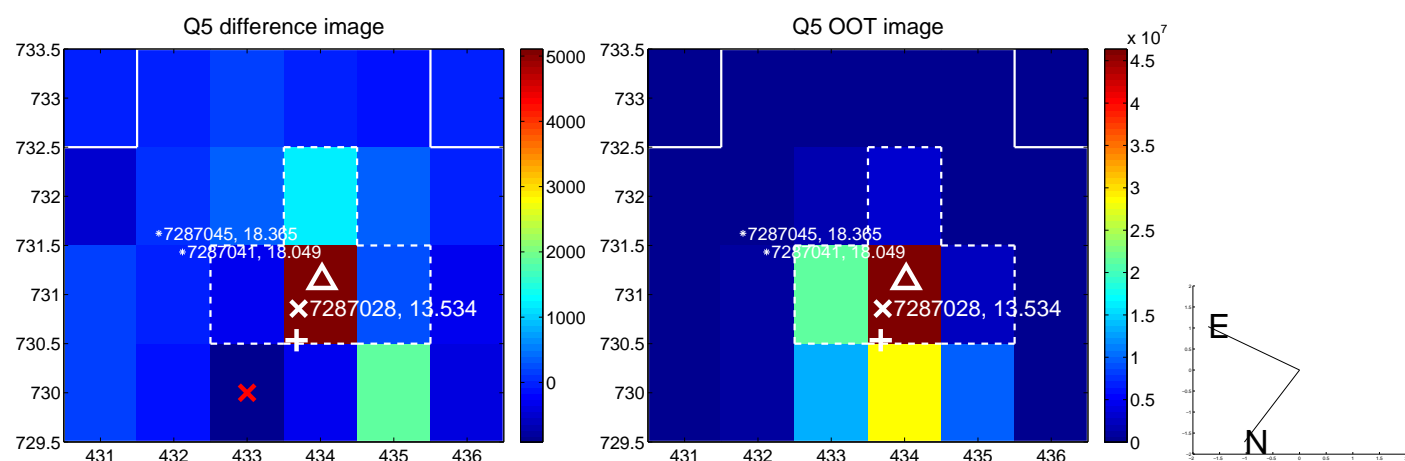


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

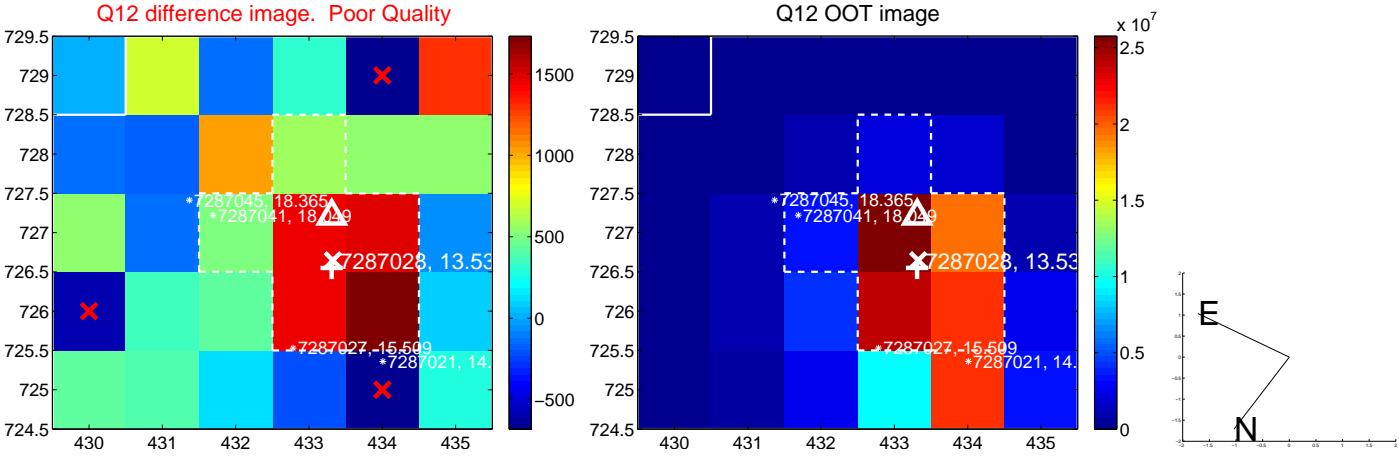
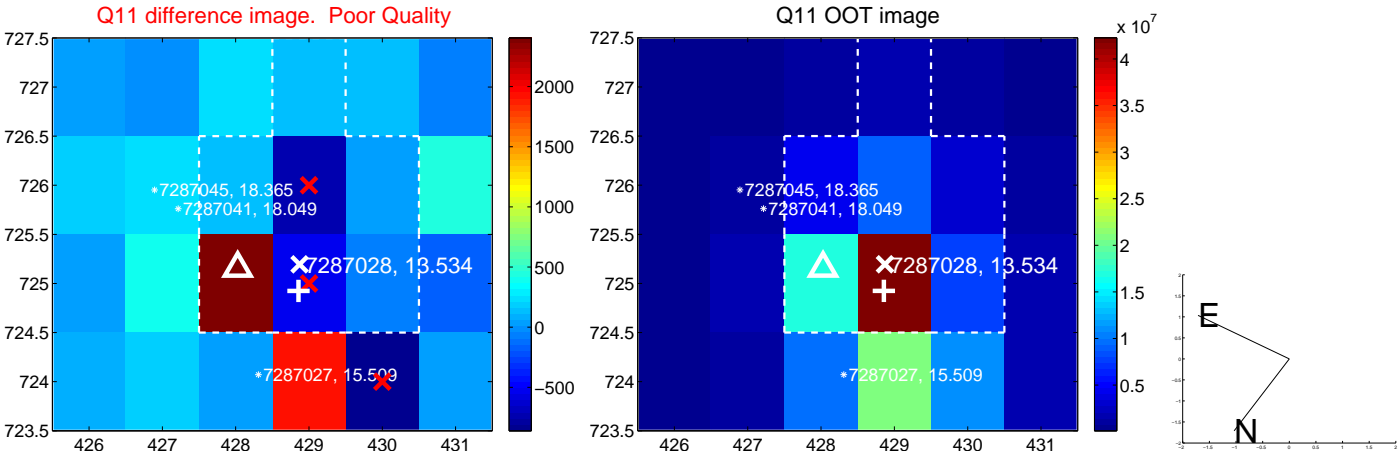
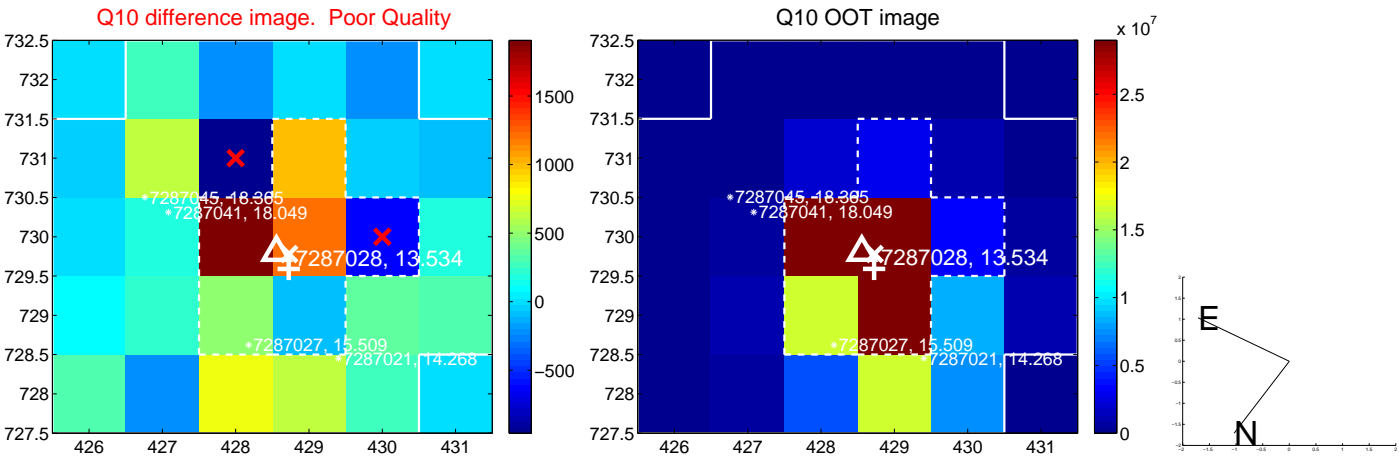
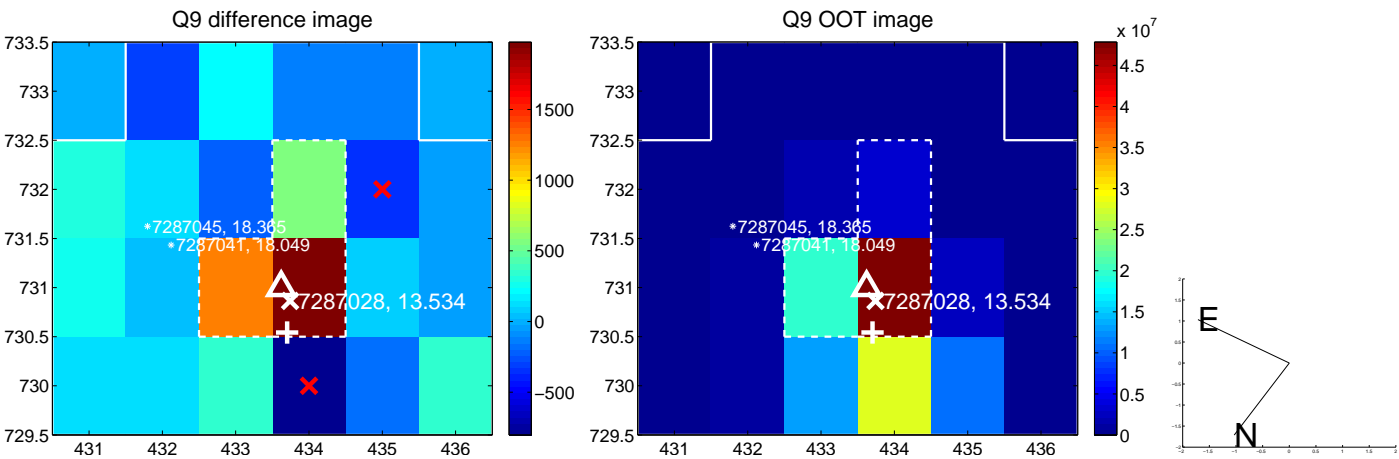
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



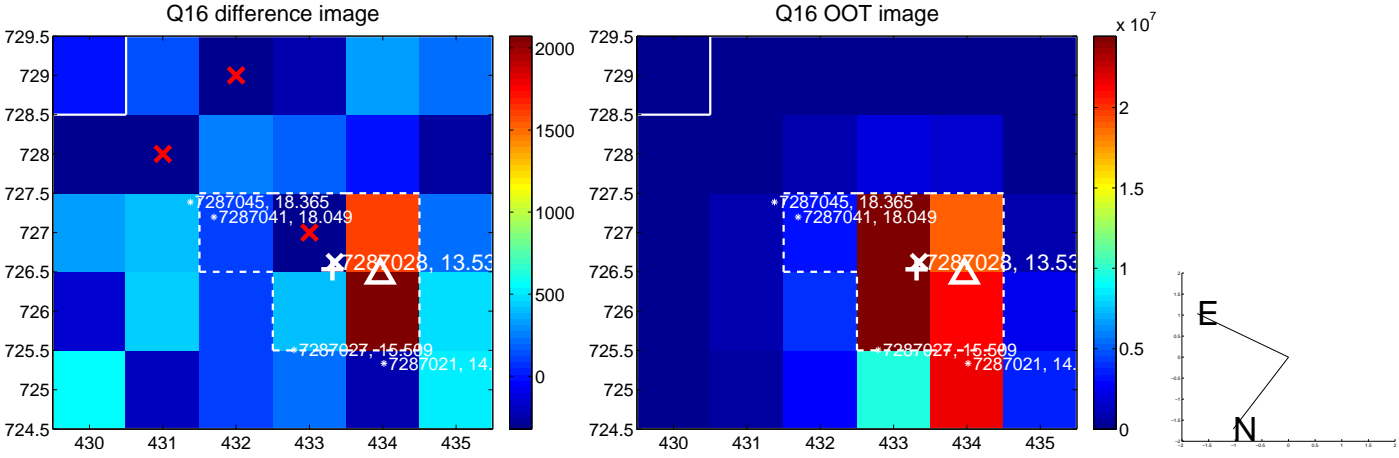
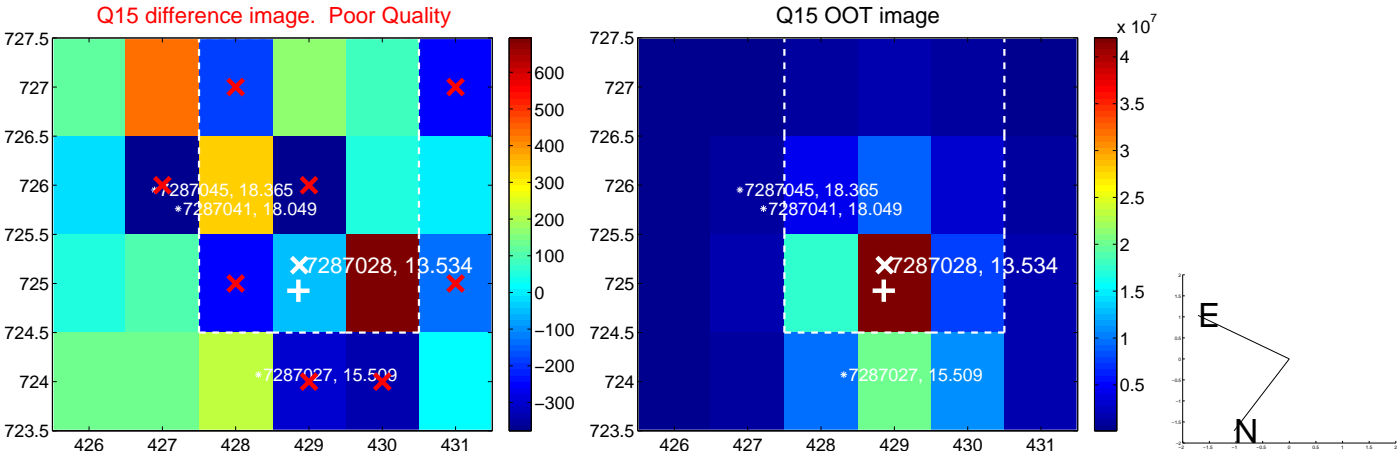
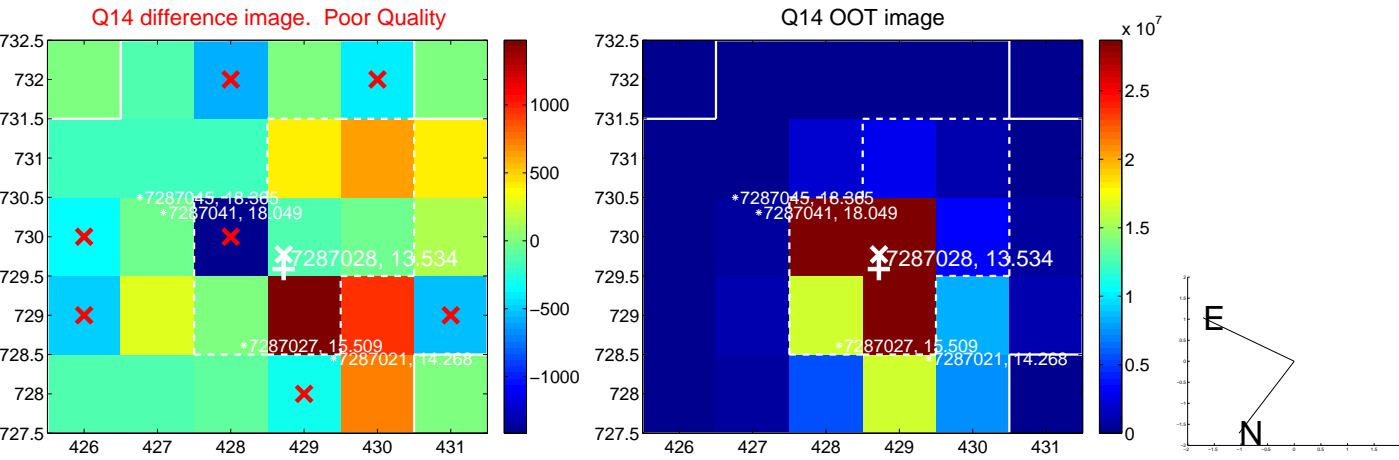
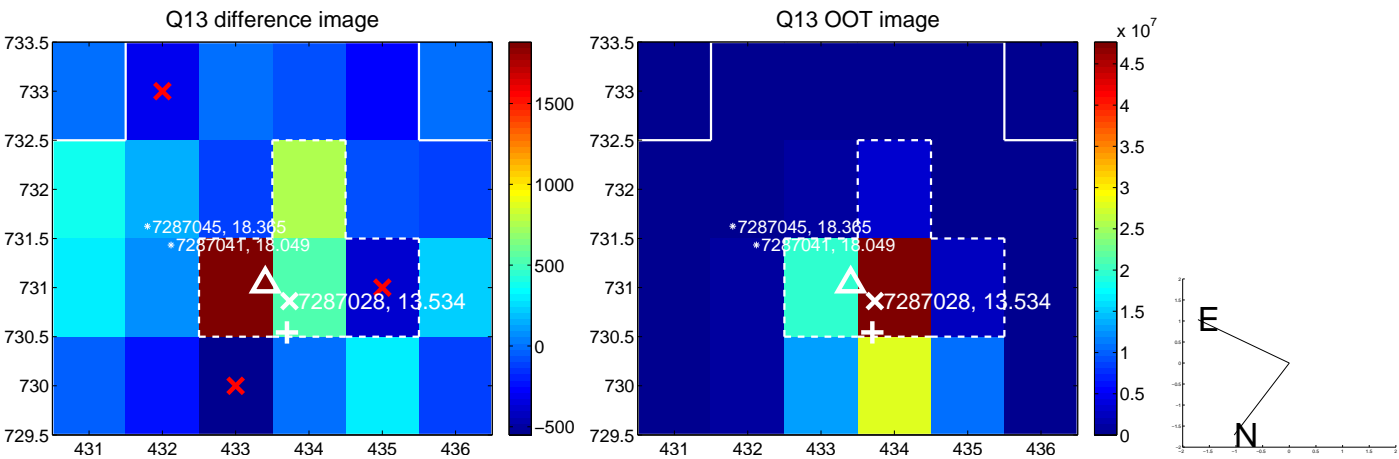
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



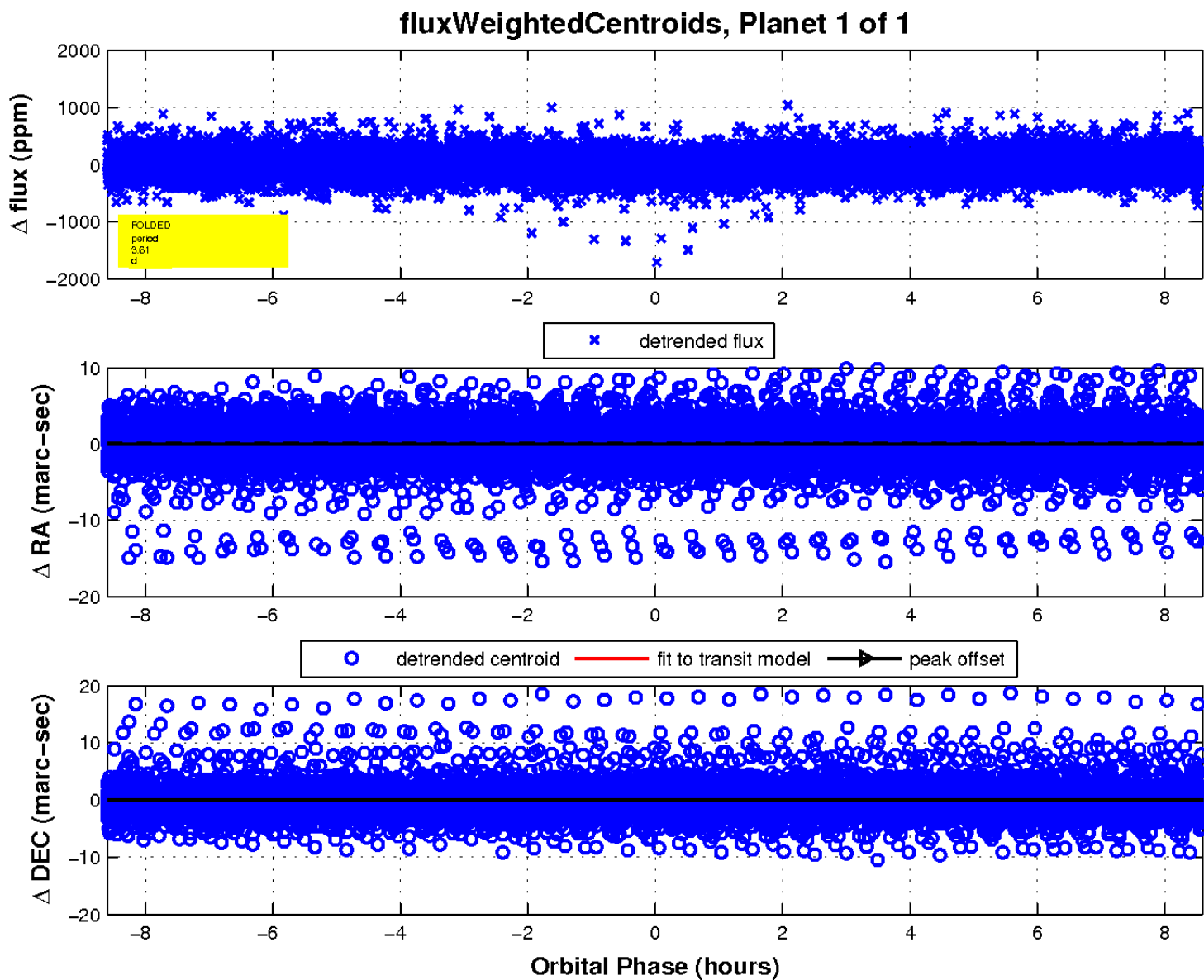
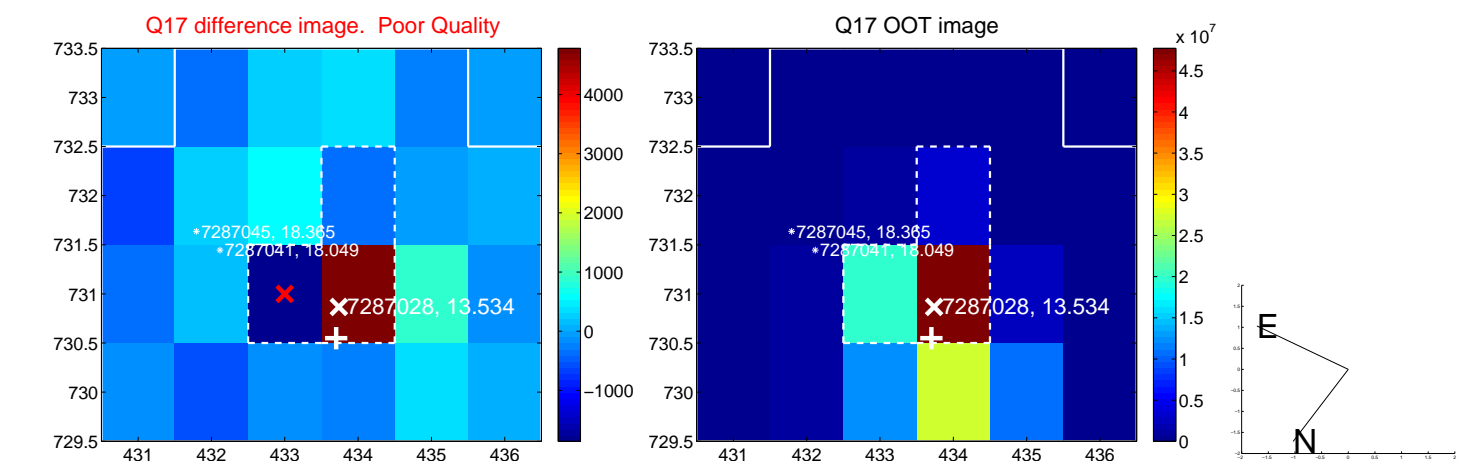
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

