

KIC 006127822

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})
006127822-01	OBS	No	1.421881	132.839473	11.2	13.279	7.8	7.4	1.52	6321	0.51	5207.05

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006127822-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

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

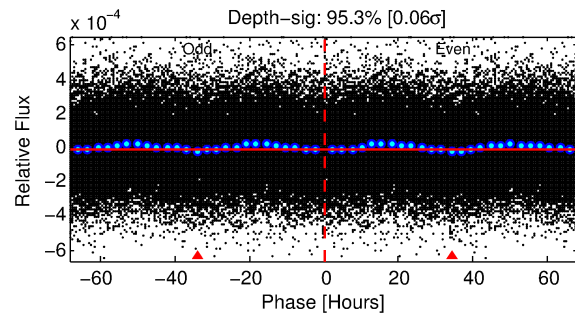
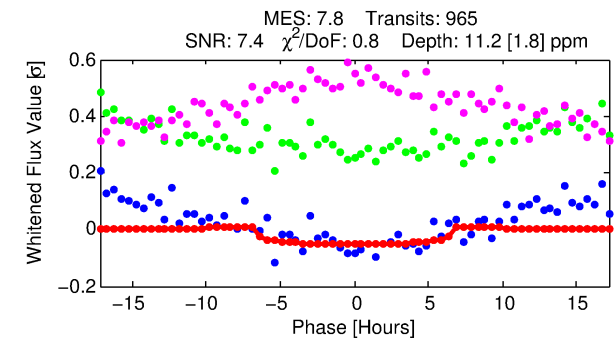
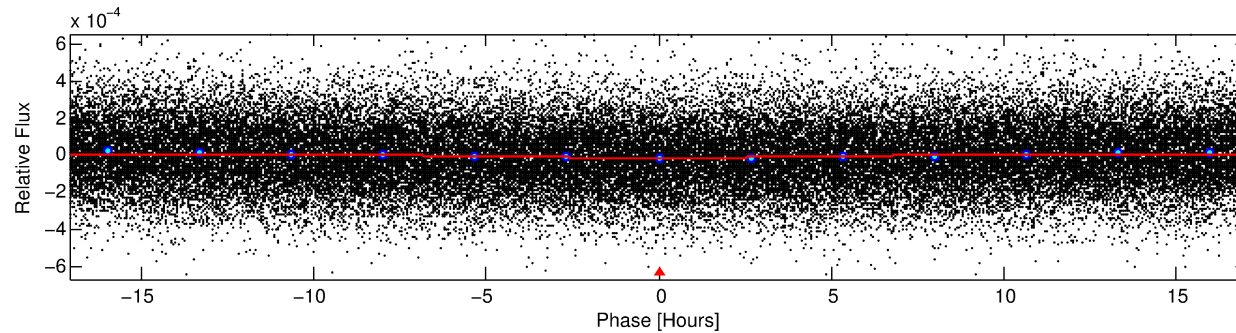
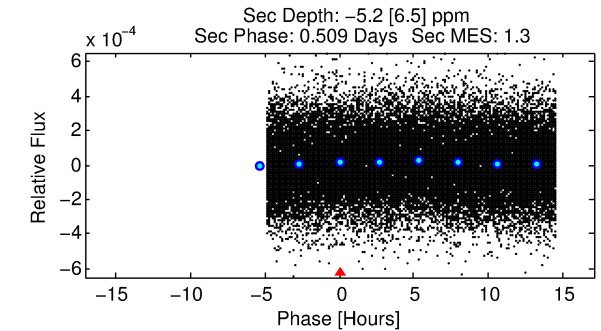
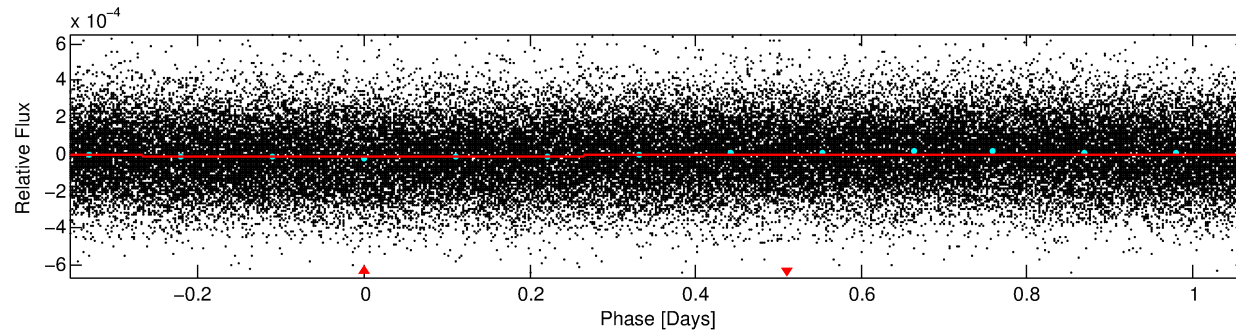
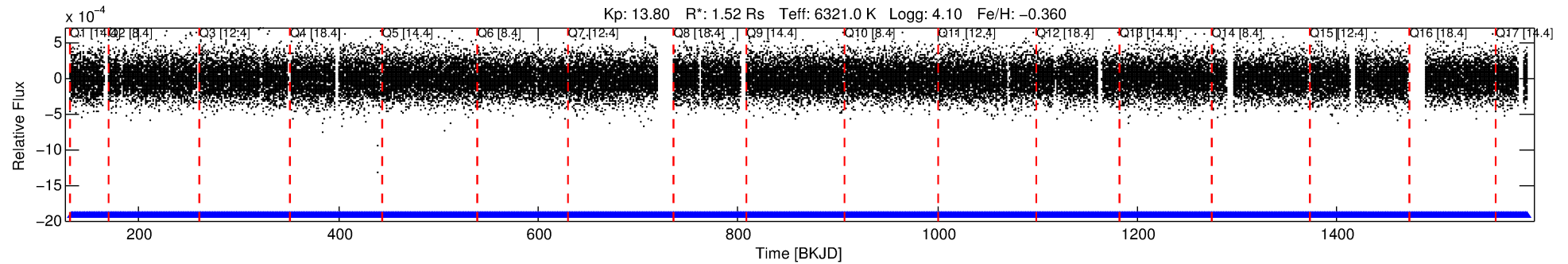
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006127822-01

No Significant Match Found

DV One-Page Summary

KIC: 6127822 Candidate: 1 of 1 Period: 1.422 d



DV Fit Results:

Period = 1.42188 [0.00004] d
Epoch = 132.8395 [0.0146] BKJD
Rp/R* = 0.0031 [0.0039]
a/R* = 1.07 [0.84]
b = 0.03 [231.49]
Seff = 5207.05 [1680.73]
Teq = 2166 [175] K
Rp = 0.51 [0.65] Re
a = 0.0252 [0.0049] AU
Ag = N/A
Teffp = N/A

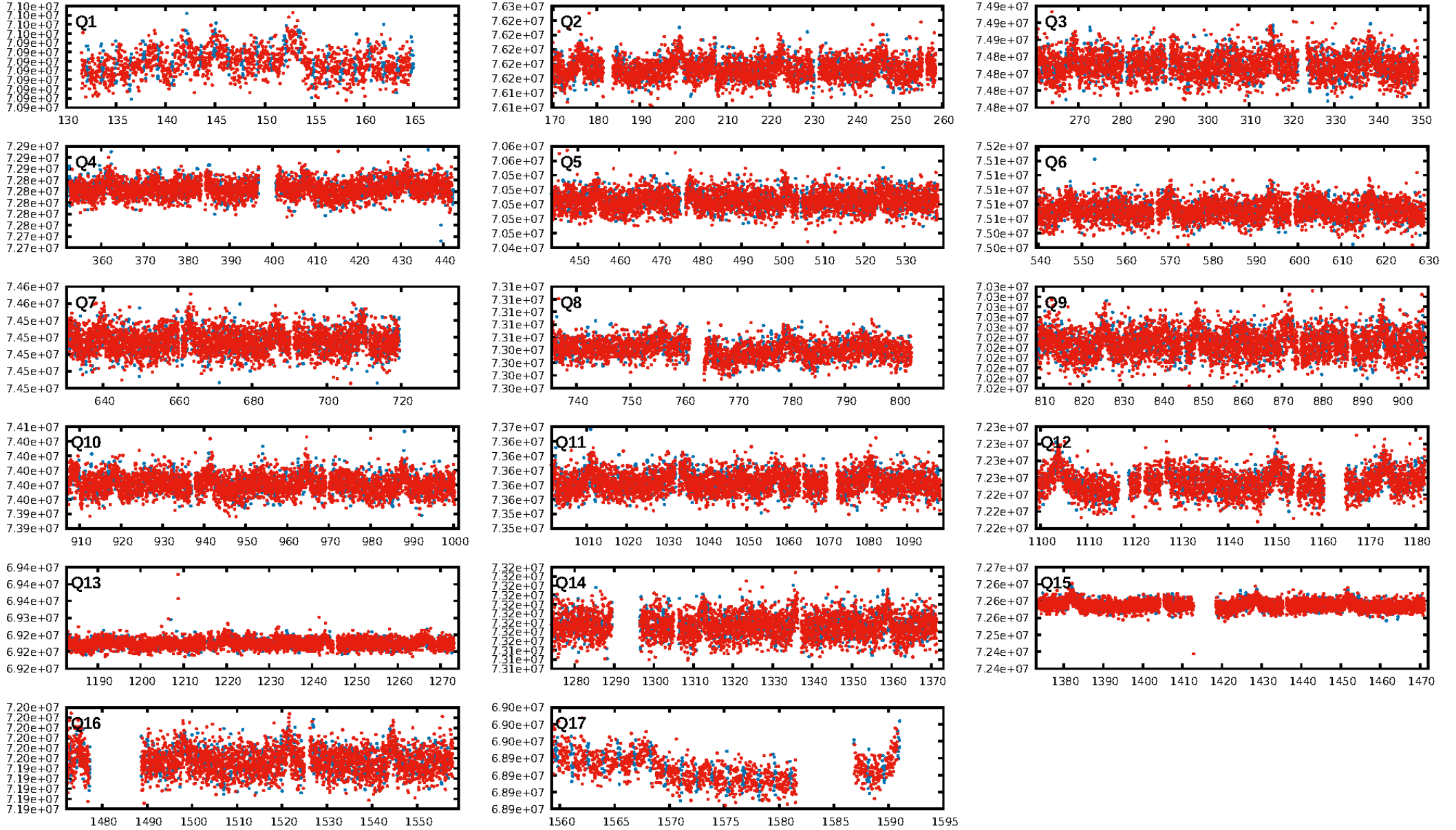
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [921/921]
GhostDiagnostic-chr: 1.735
Centroid-sig: 0.0%
Centroid-so: 5.325 arcsec [3.55σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

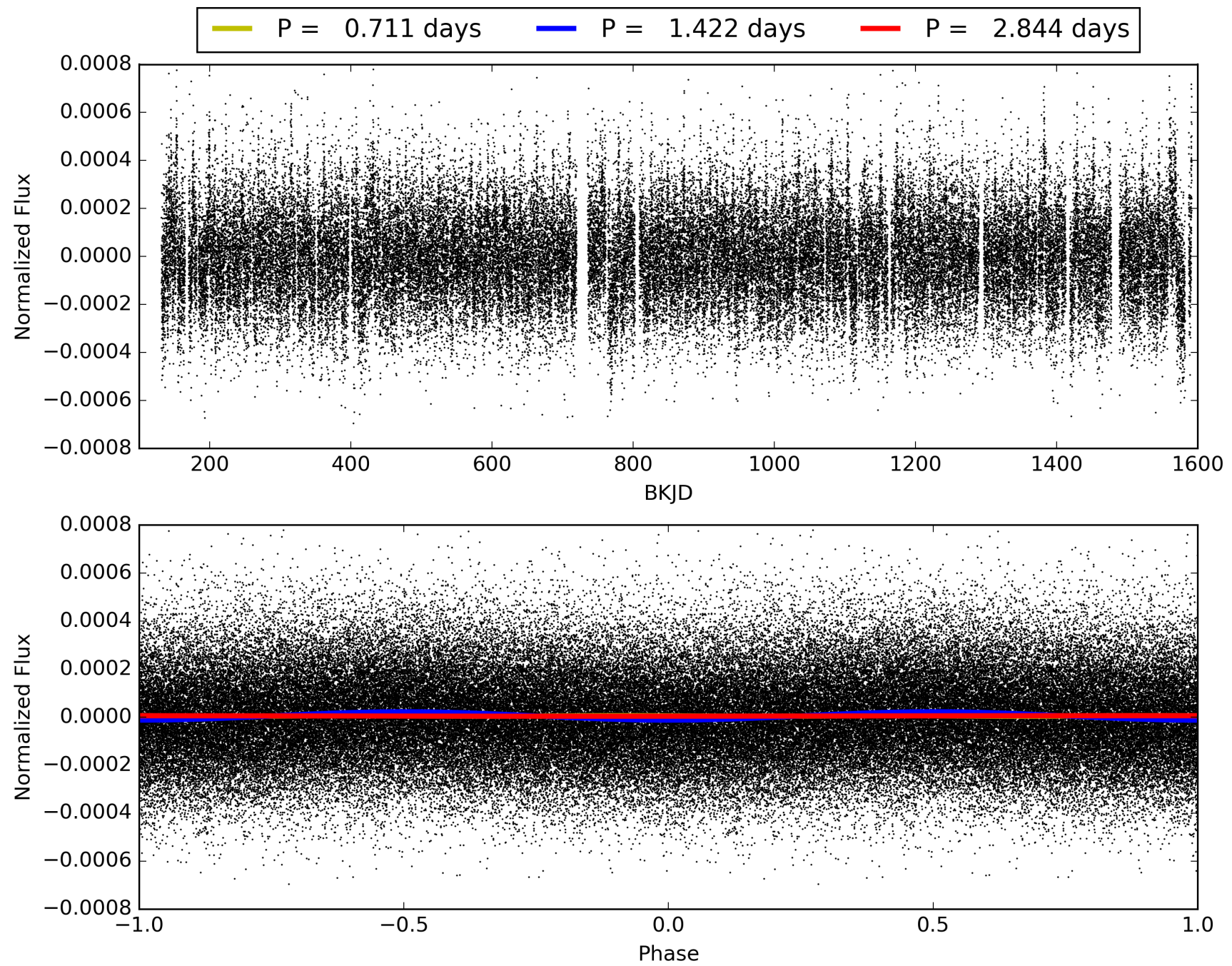
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:05:44 Z

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

TCE 006127822-01, PDC Light Curves

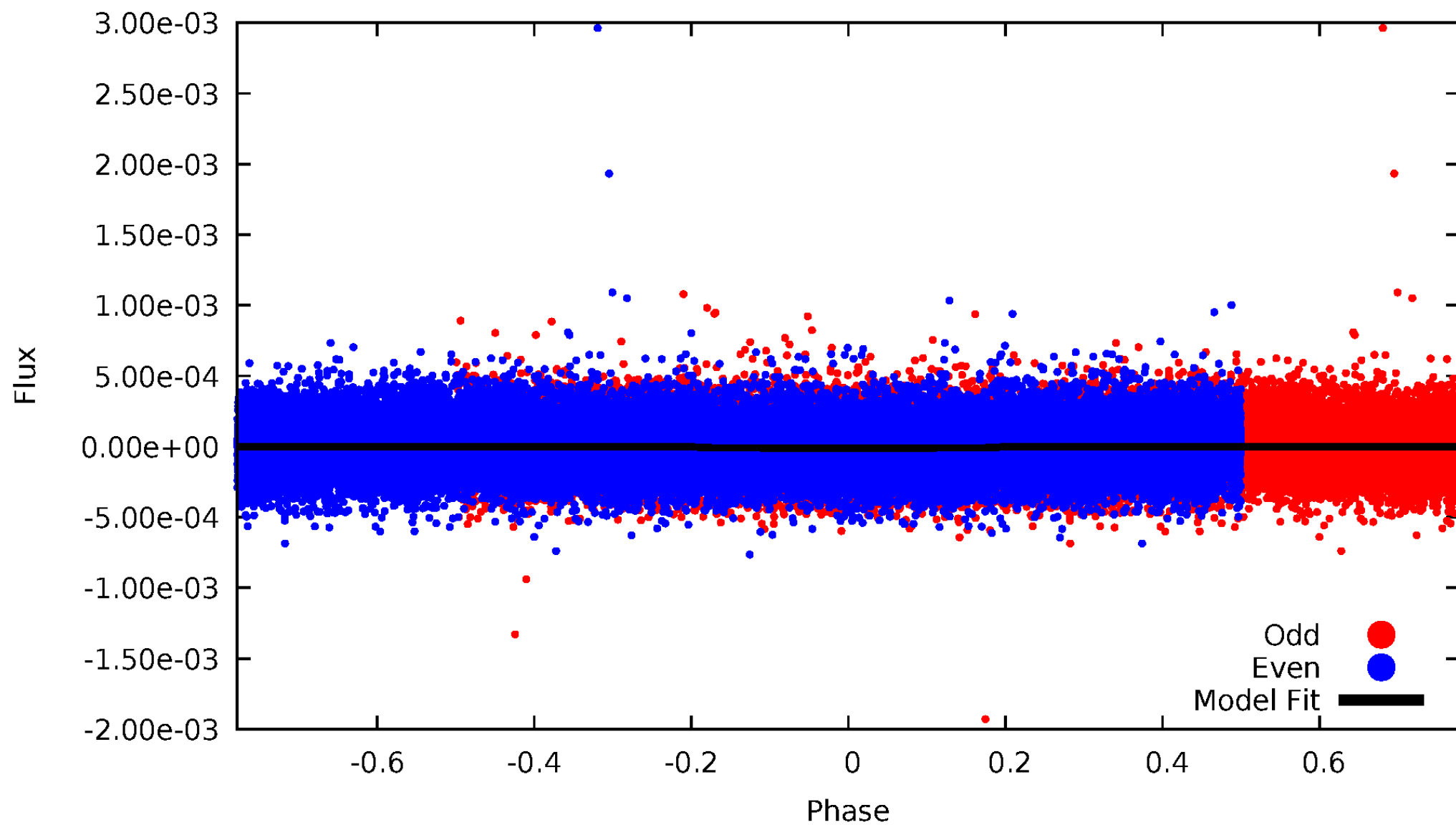


TCE 006127822-01



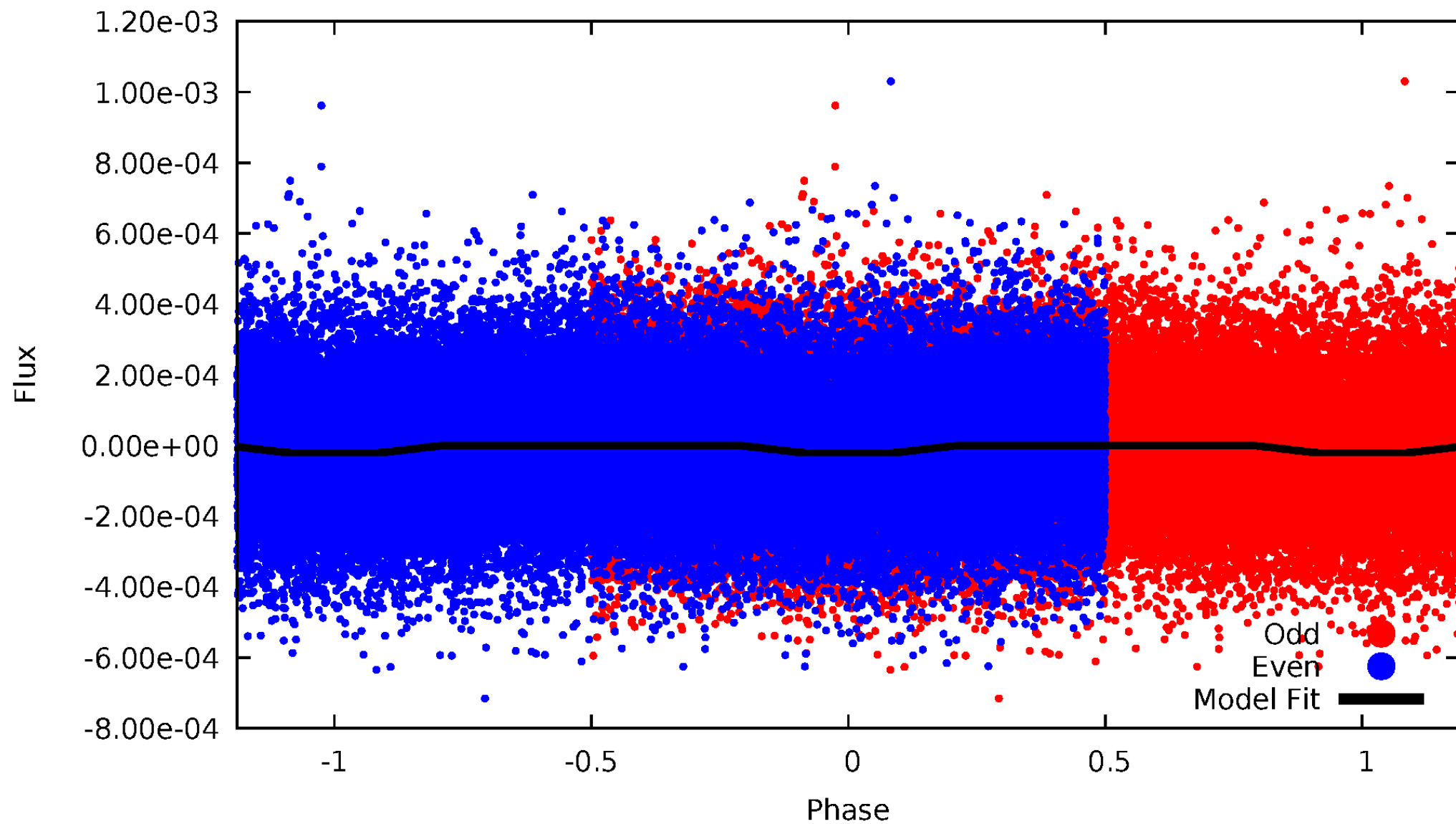
DV Odd/Even

TCE 006127822-01



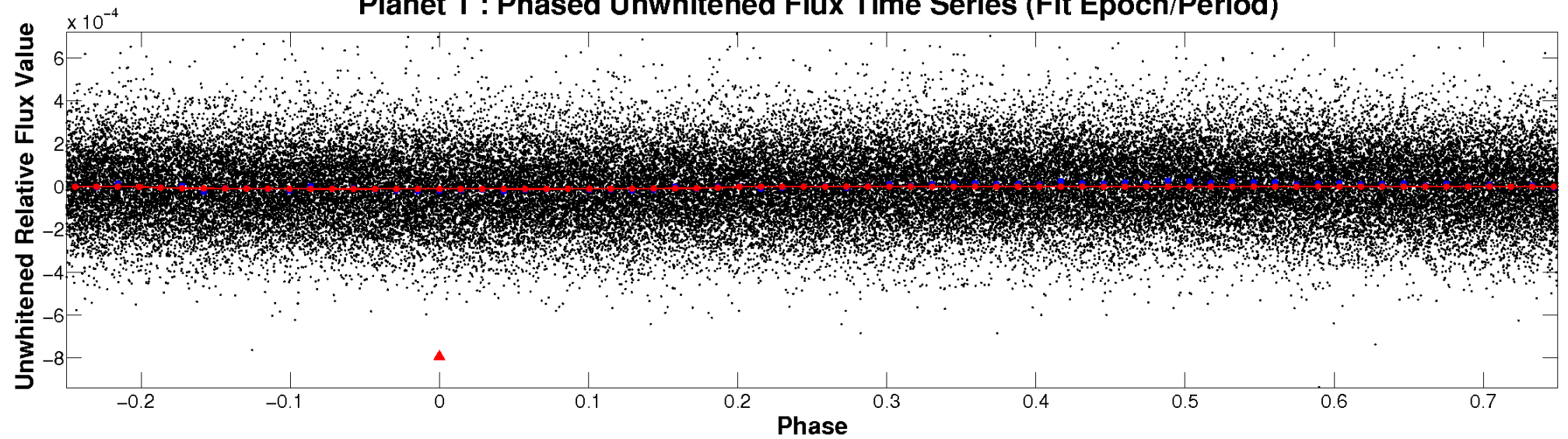
ALT Odd/Even

TCE 006127822-01

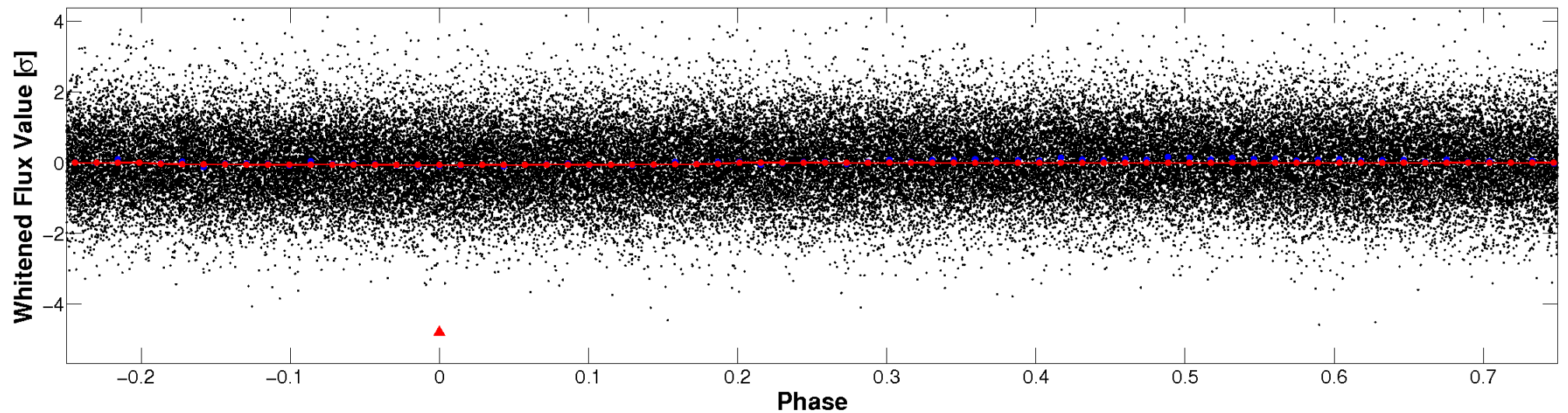


Non-Whitened Vs. Whitened Light Curve

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

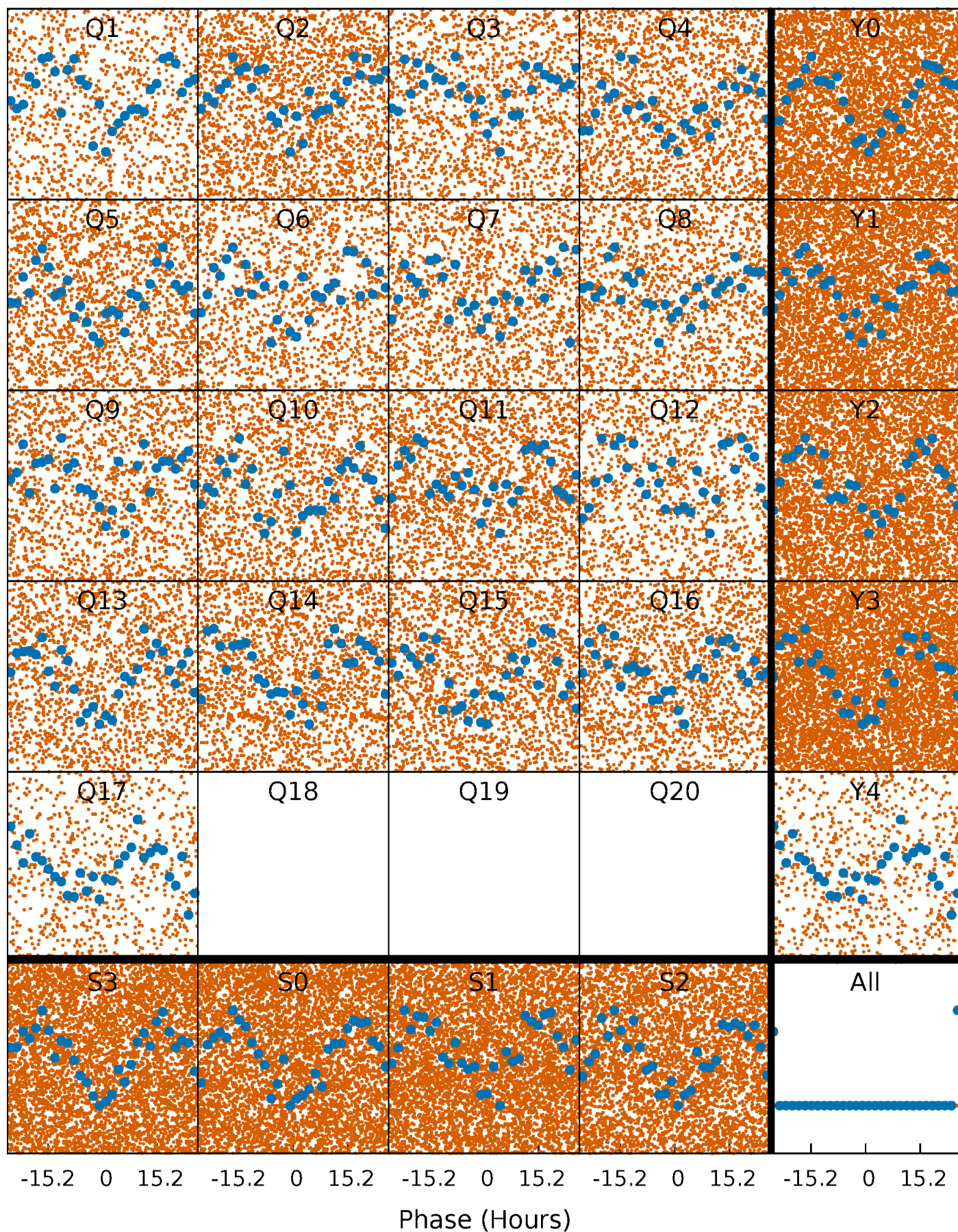


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



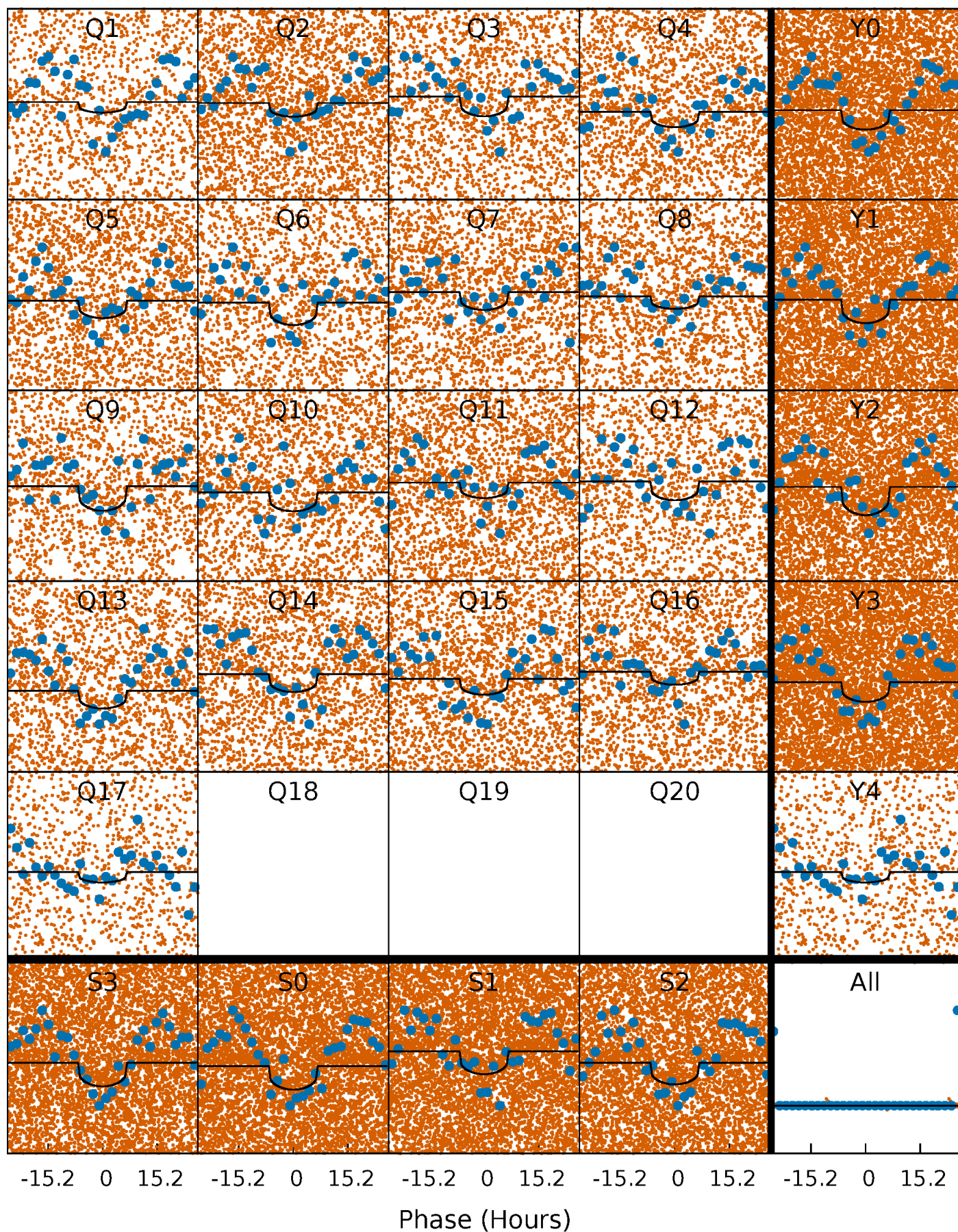
PDC Quarter-Phased Transit Curves

TCE 006127822-01 P= 1.421881 Days $T_0=132.839473$ (BKJD)



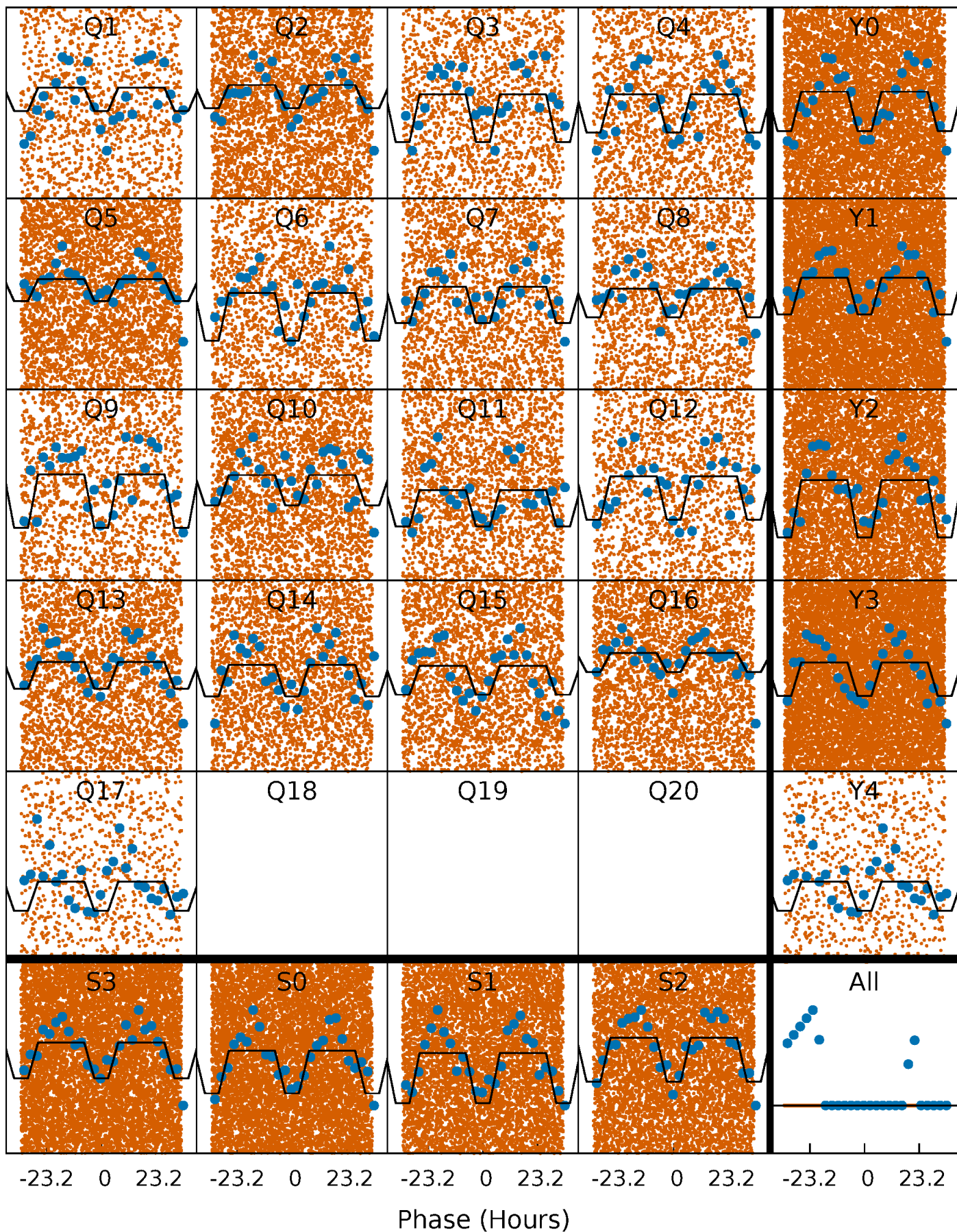
DV Quarter-Phased Transit Curves

TCE 006127822-01 P= 1.421881 Days $T_0=132.839473$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

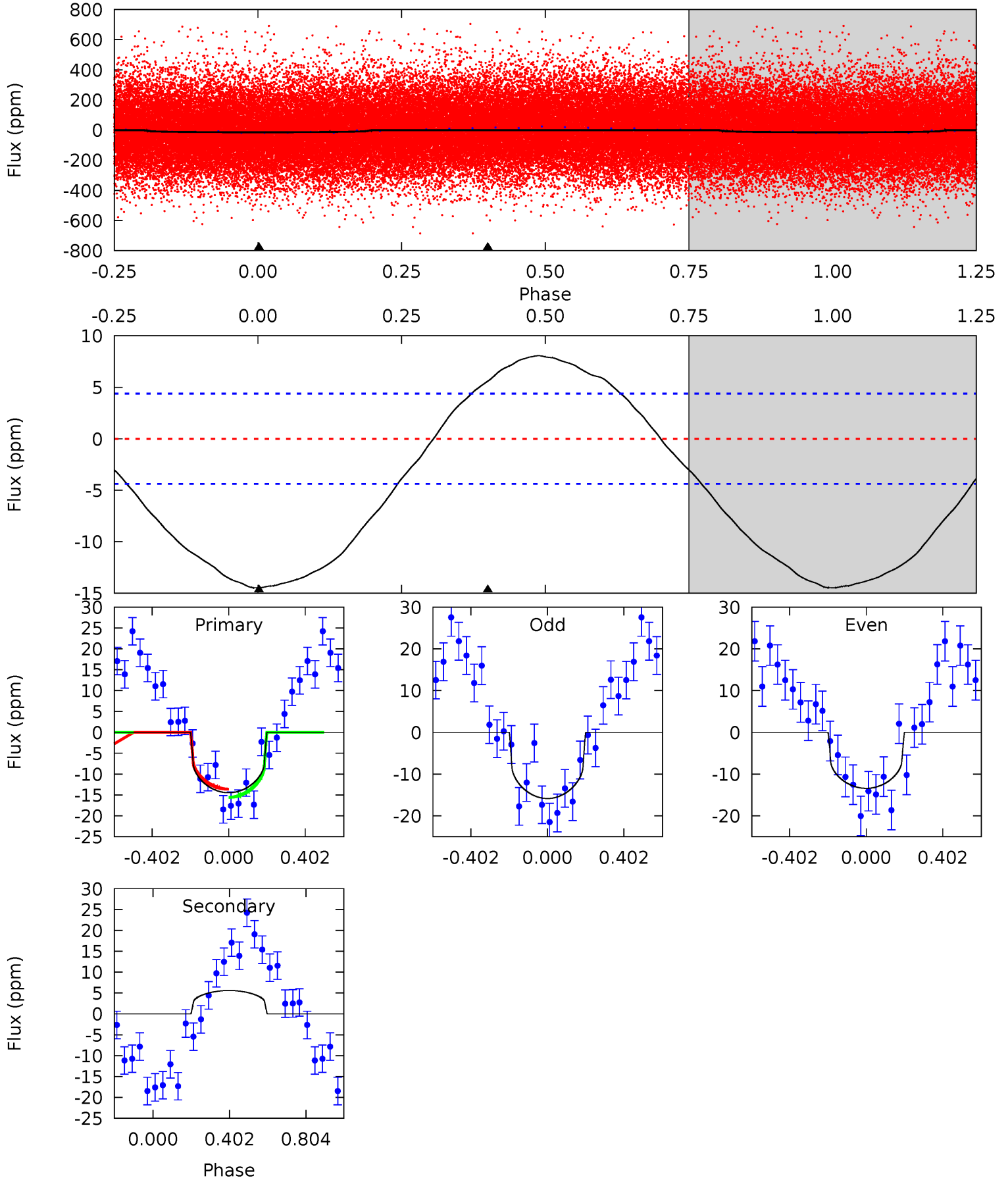
TCE 006127822-01 P= 1.422024 Days $T_0=132.797369$ (BKJD)



DV Model-Shift Uniqueness Test

006127822-01, P = 1.421881 Days, E = 131.417592 Days

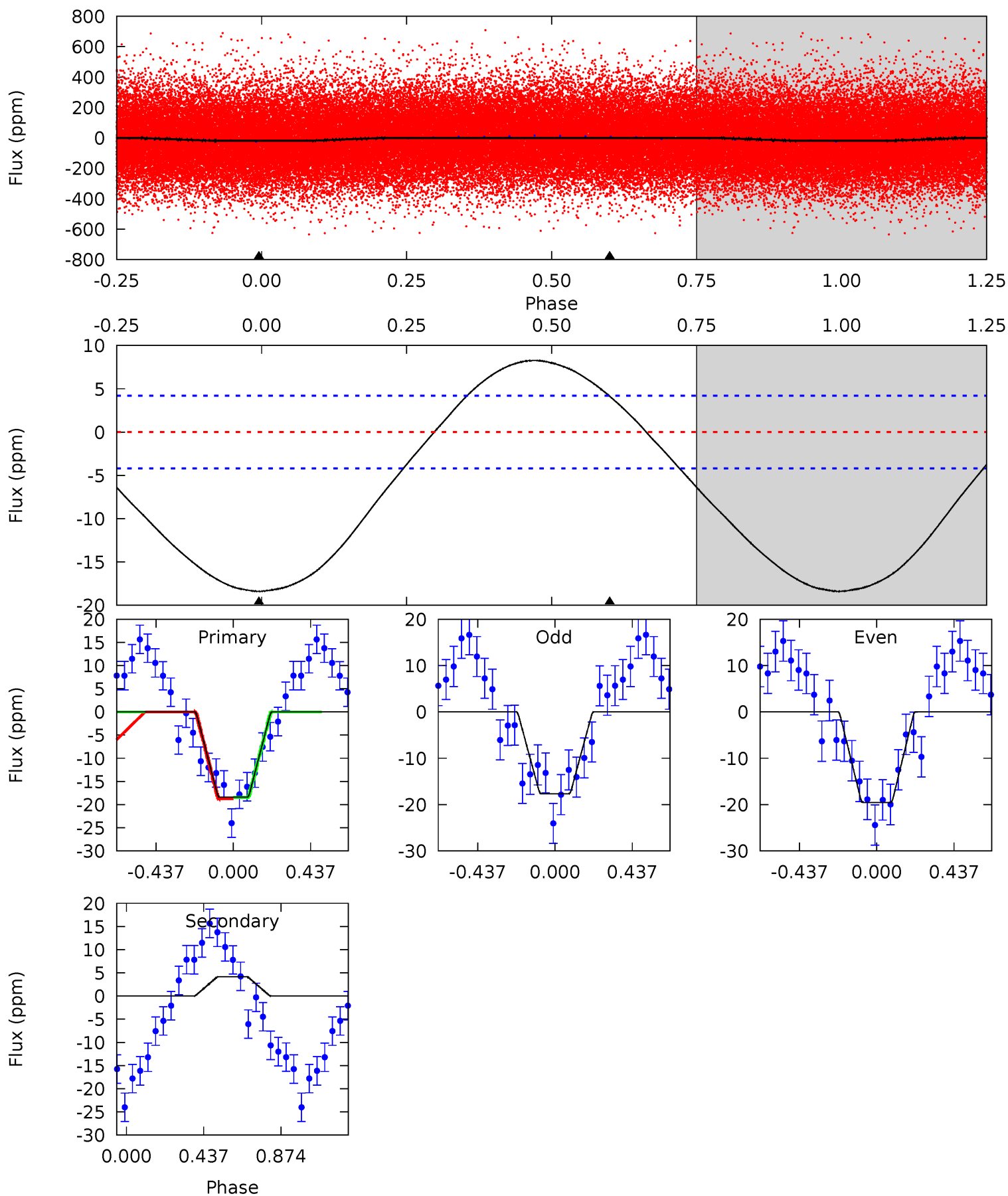
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	-5.44	0	0	4.26	0.84	1.89	14.1	14.1	-5.44	-5.44	1.18	0.92	0.36	0.94



Alt Model-Shift Uniqueness Test

006127822-01, P = 1.422024 Days, E = 131.375345 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.6	-4.19	0	0	4.25	0.78	2.29	18.6	18.6	-4.19	-4.19	0.94	0.97	0.31	0.14



Stellar Parameters For KIC 006127822

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6321^{+88}_{-75}	$4.097^{+0.188}_{-0.101}$	$-0.360^{+0.200}_{-0.150}$	$1.519^{+0.249}_{-0.304}$	$1.052^{+0.113}_{-0.070}$	$0.423^{+0.397}_{-0.126}$
	+1%/-1%	+5%/-2%	+56%/-42%	+16%/-20%	+11%/-7%	+94%/-30%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 006127822-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	6 ± 1	$0.64^{+0.61}_{-0.43}$	3019^{+131}_{-173}	-5066^{+1050}_{-3772}	$-4.774^{+3.539}_{-36.684}$
Alt.	4 ± 1	$0.80^{+0.59}_{-0.48}$	3008^{+138}_{-170}	-4397^{+657}_{-2044}	$-2.253^{+1.546}_{-12.928}$

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 006127822-01. Kepler magnitude: 13.80. Transit SNR 7.35

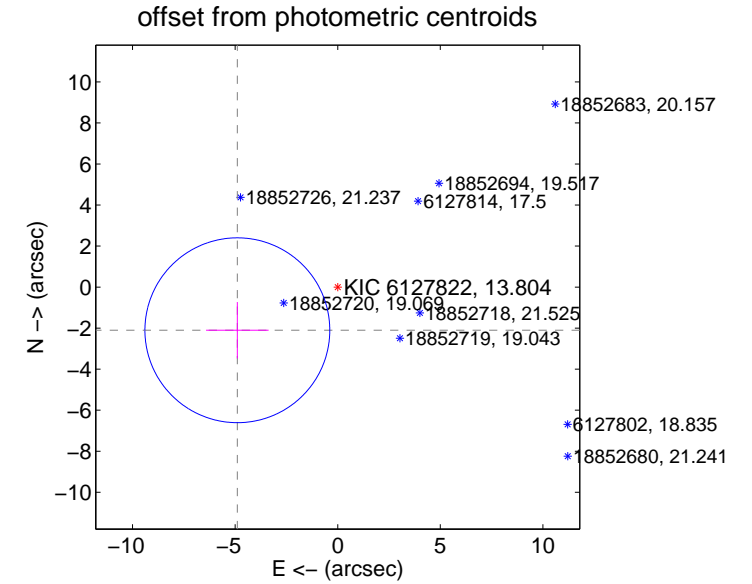
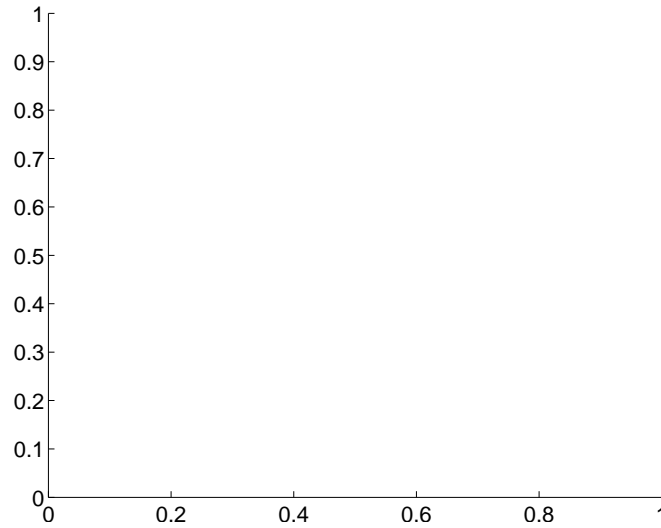
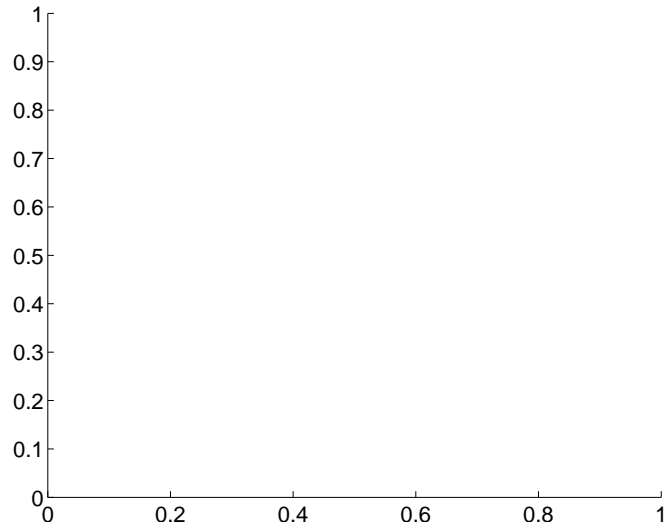
There are 0 quarters with good PRF difference image offsets

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	5.32 ± 1.50	3.55	4.89 ± 1.52	-2.10 ± 1.37

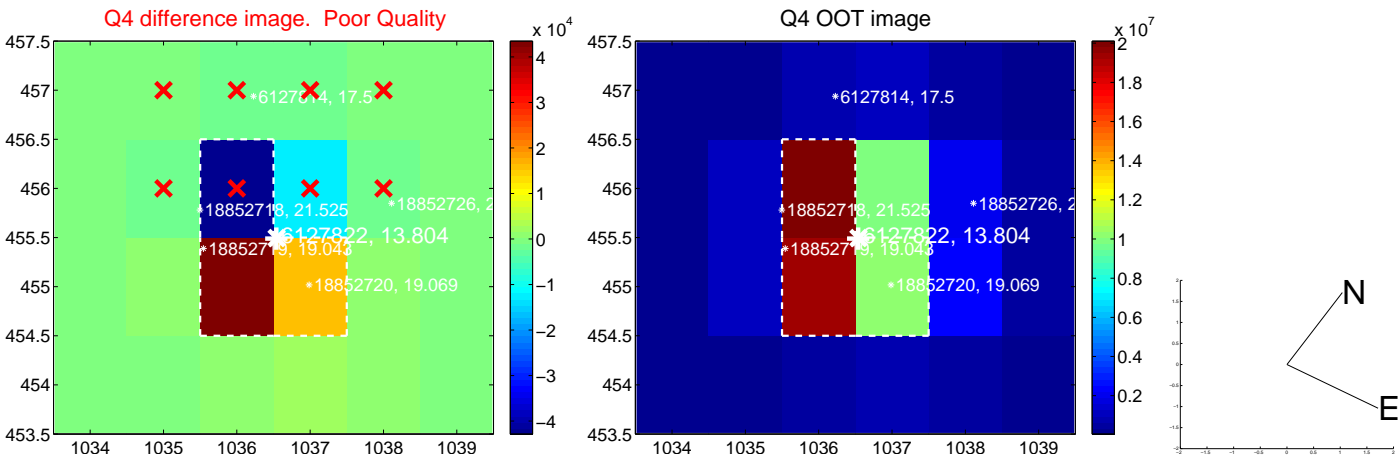
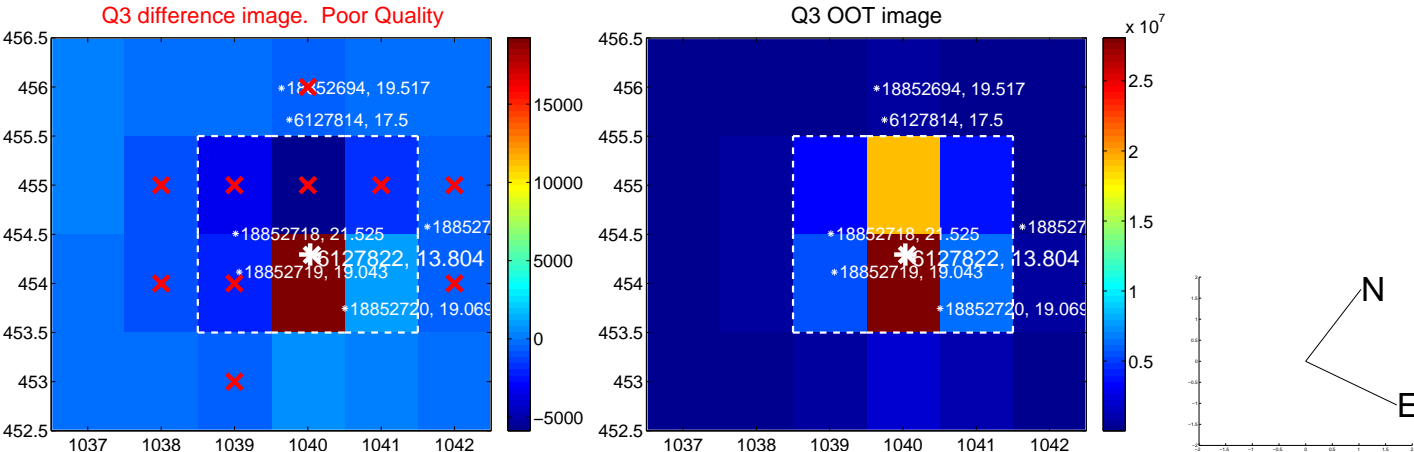
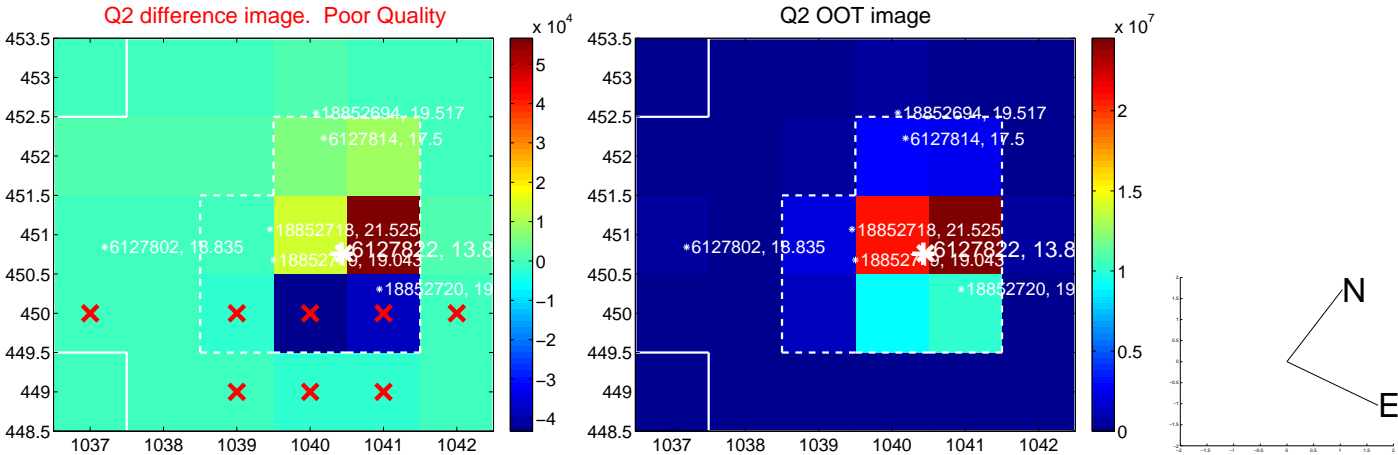
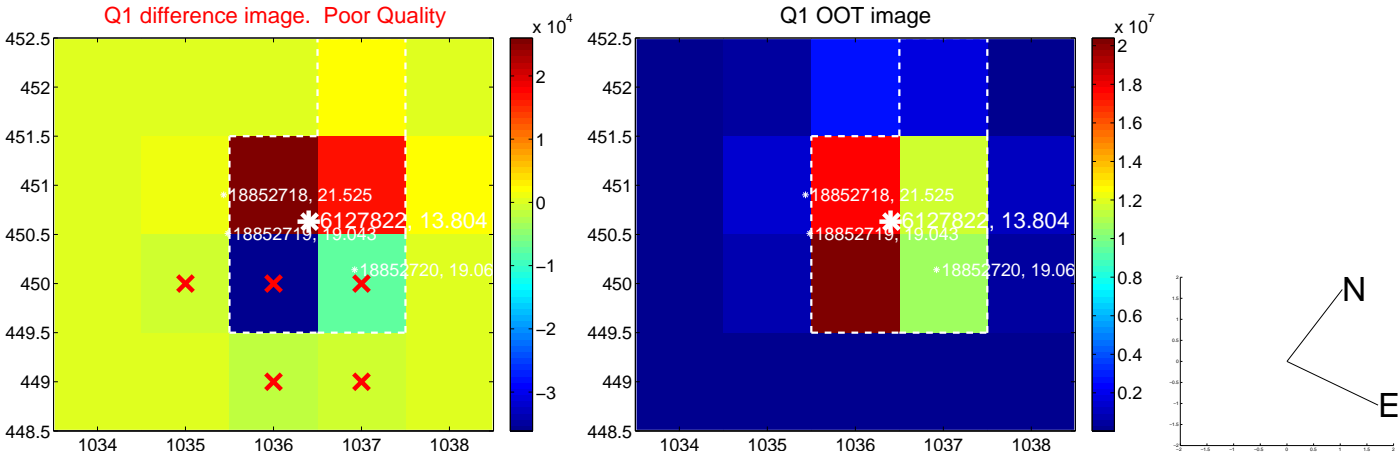
There is no PRF-fit offset from OOT-fit

There is no PRF-fit offset from KIC

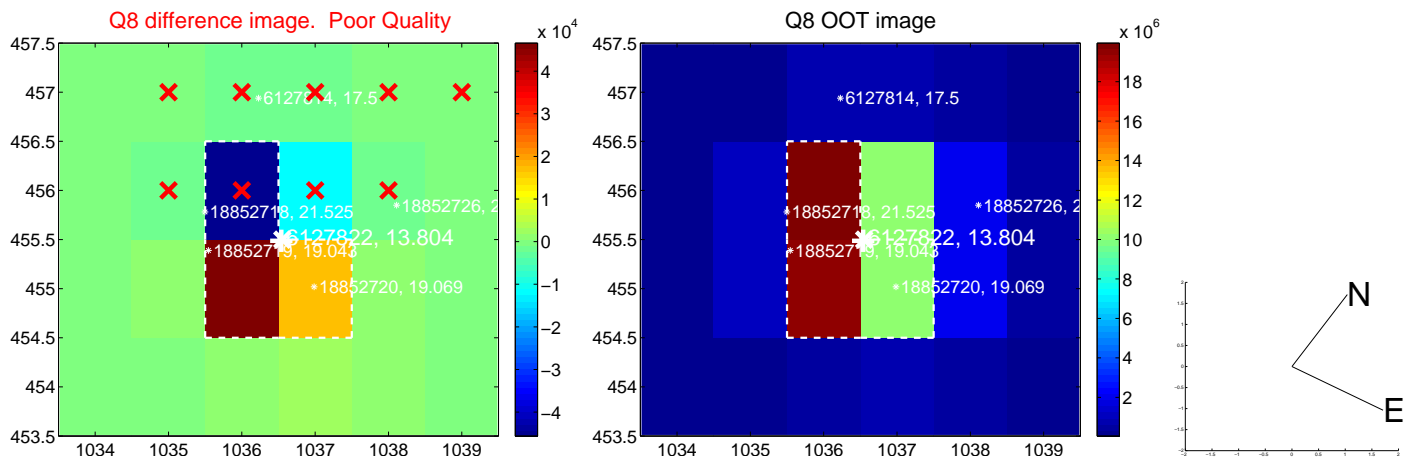
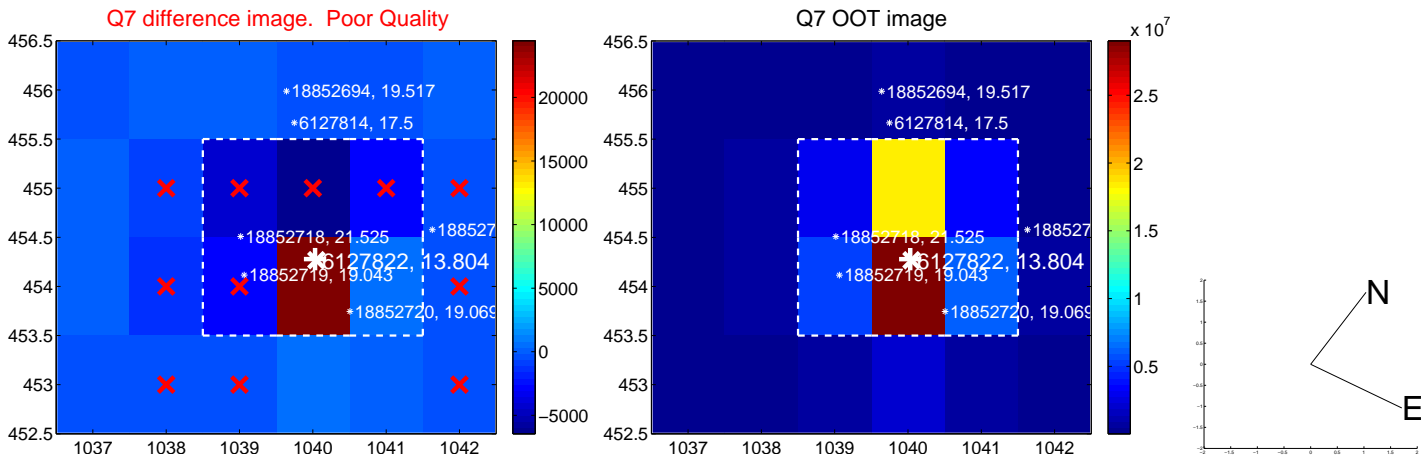
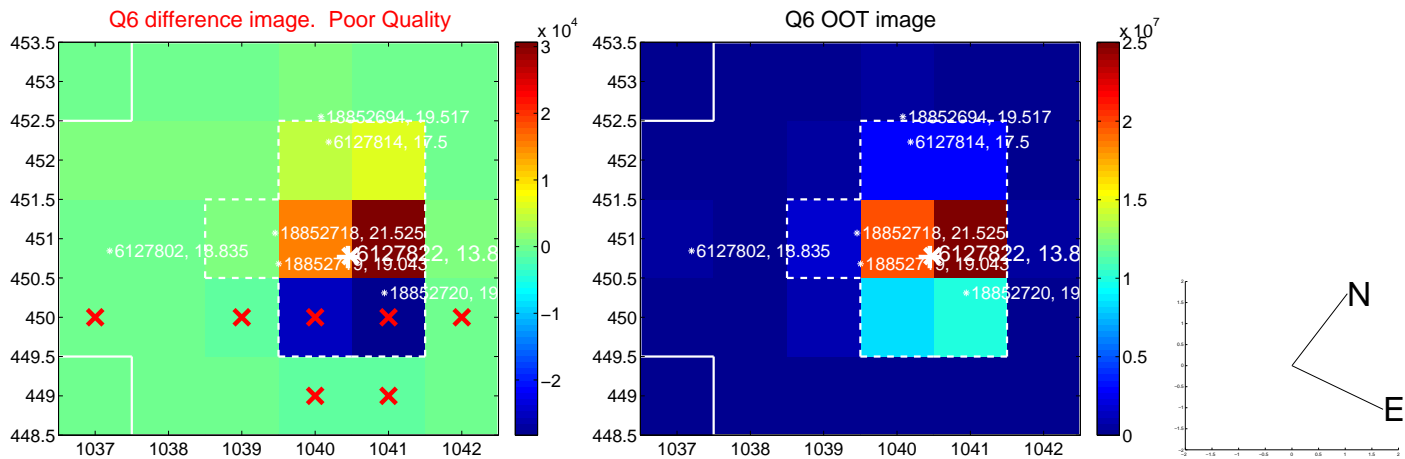
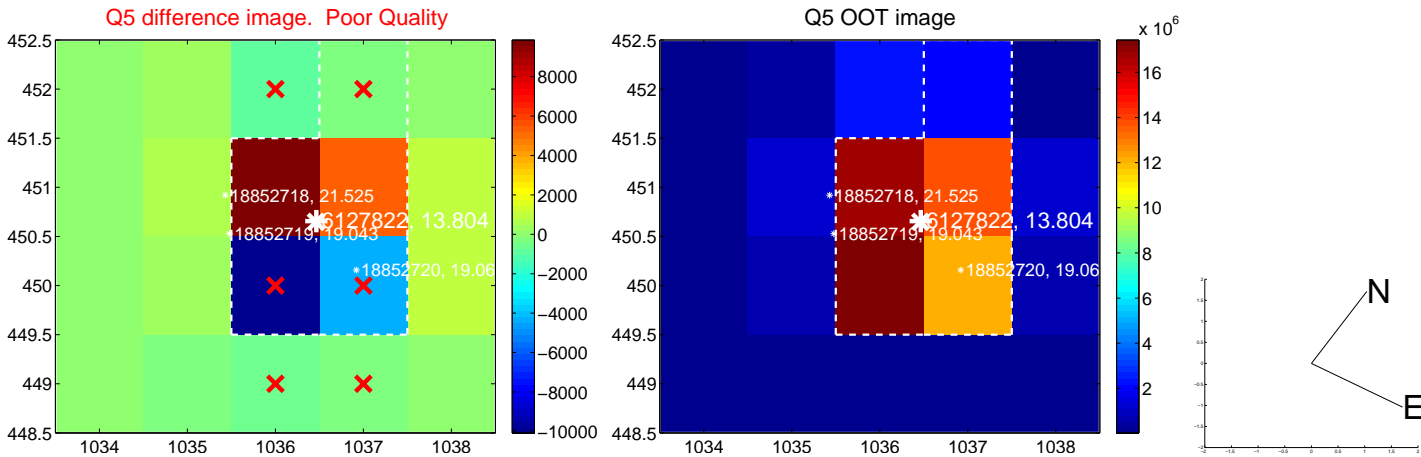


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

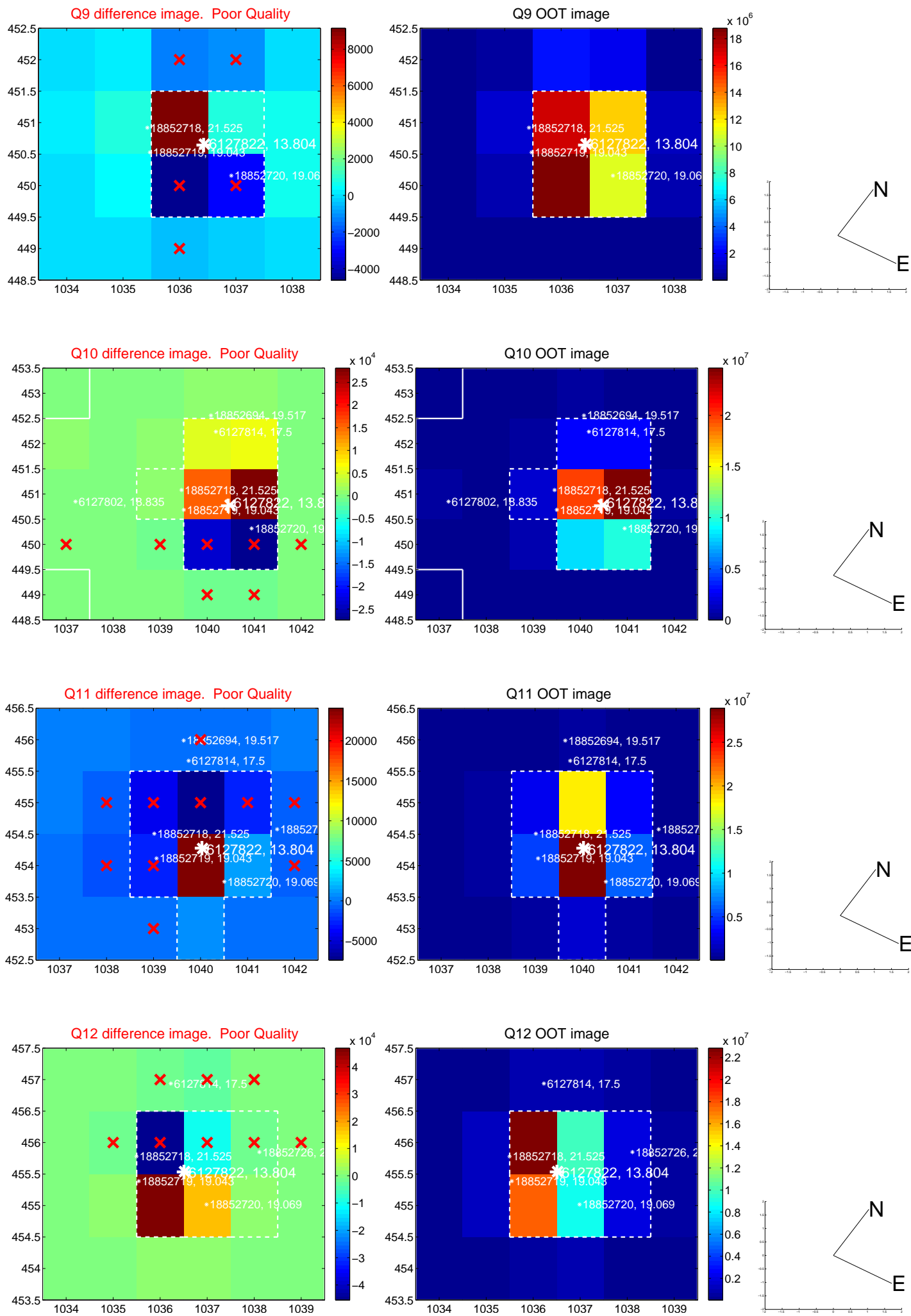
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



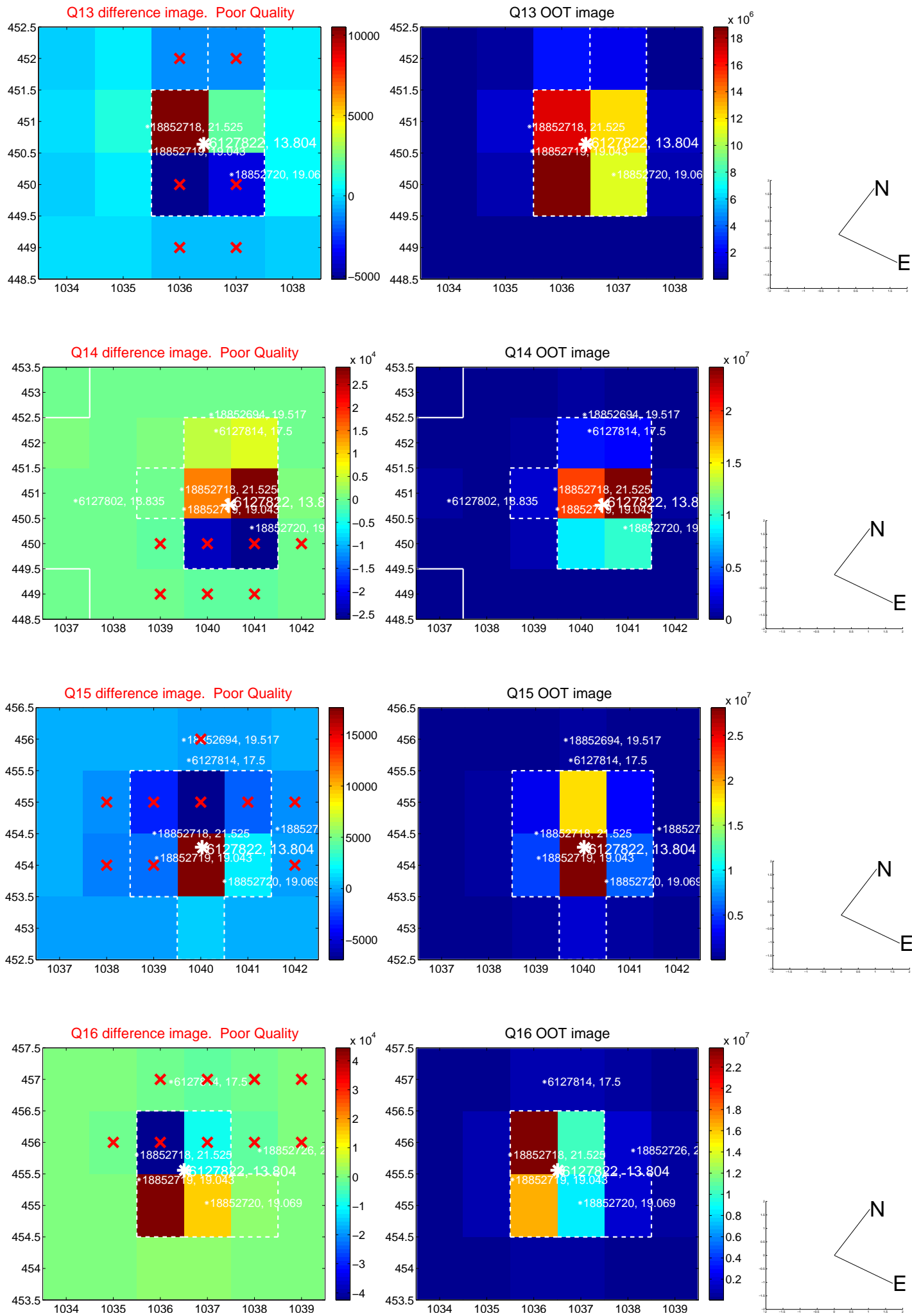
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



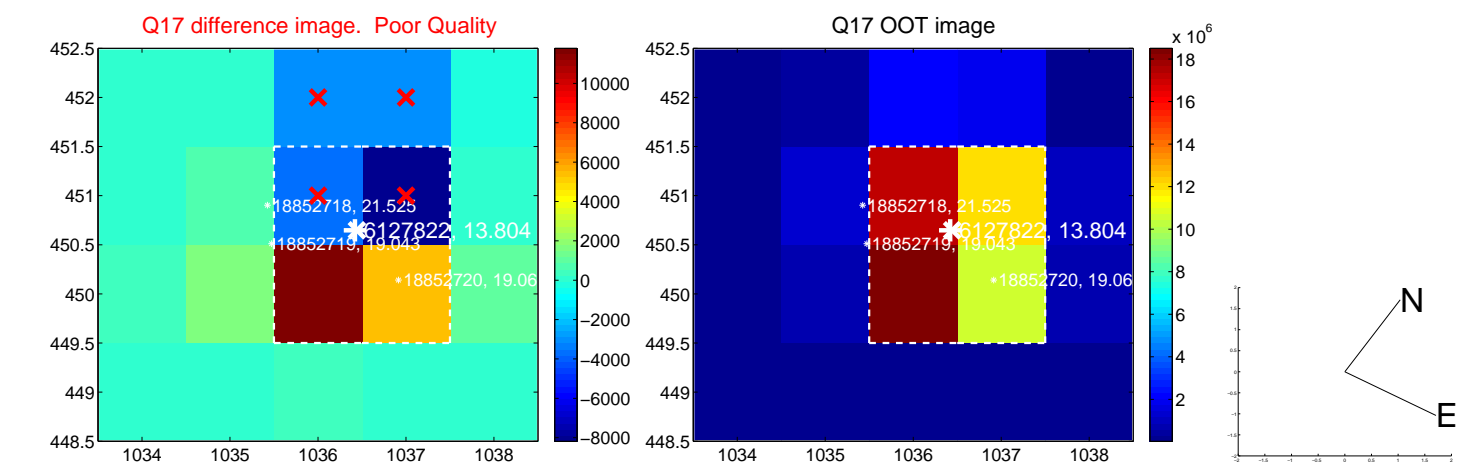
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



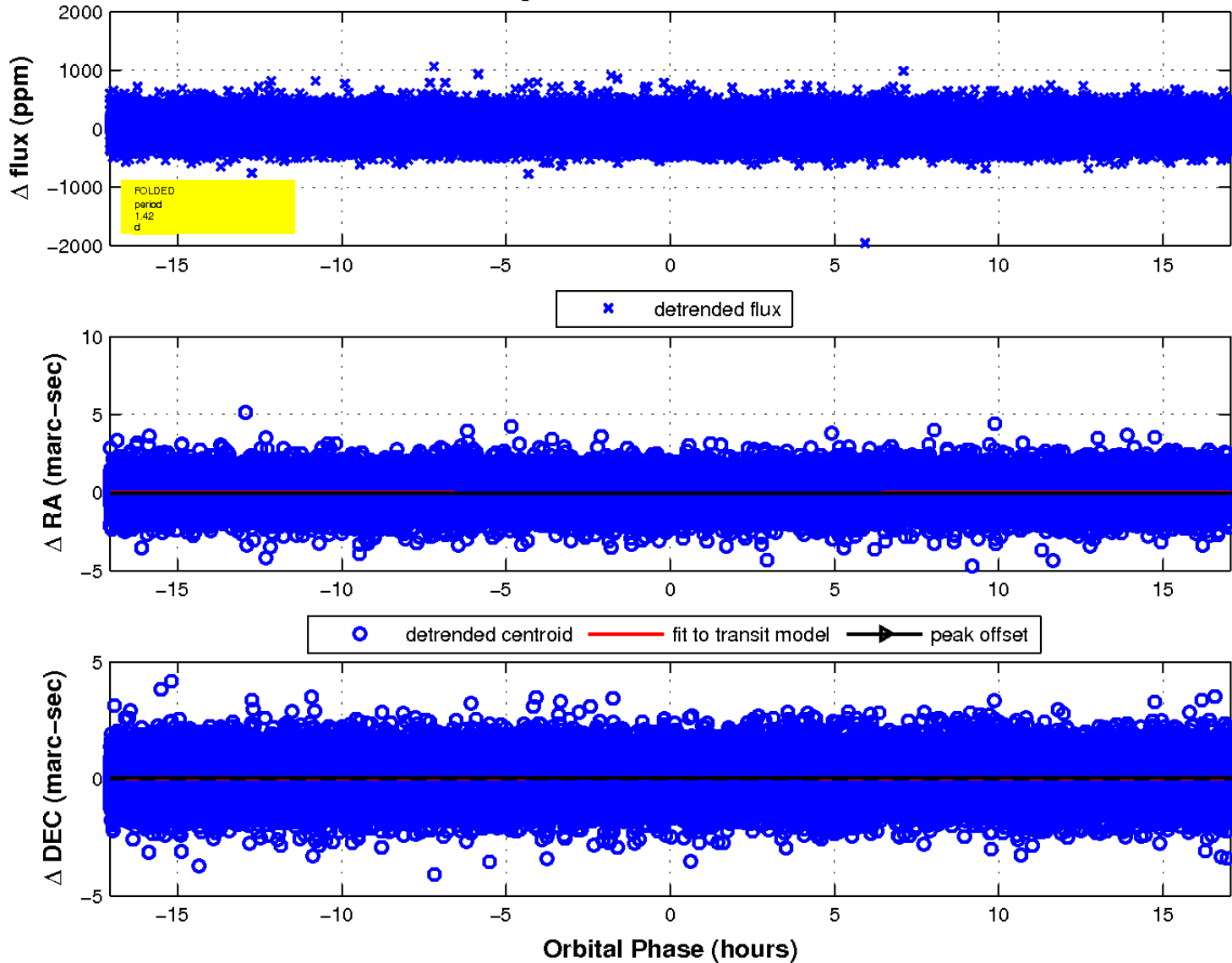
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

