

KIC 004660027

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})
004660027-01	OBS	No	0.944100	132.425217	4.9	4.719	9.2	11.2	2.83	9462	0.65	100554.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004660027-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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

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

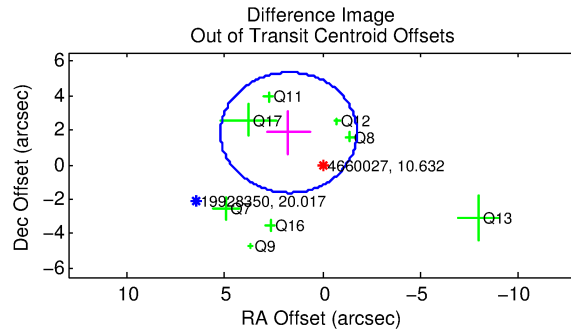
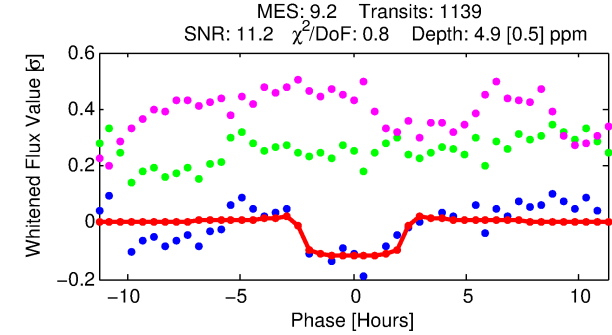
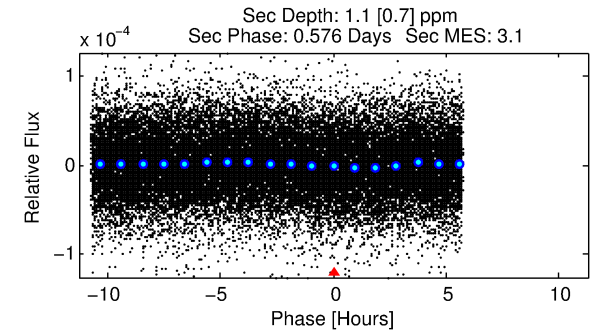
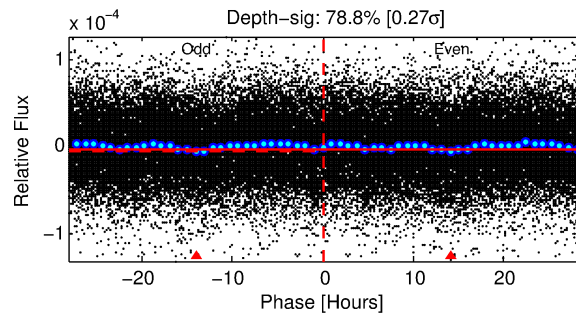
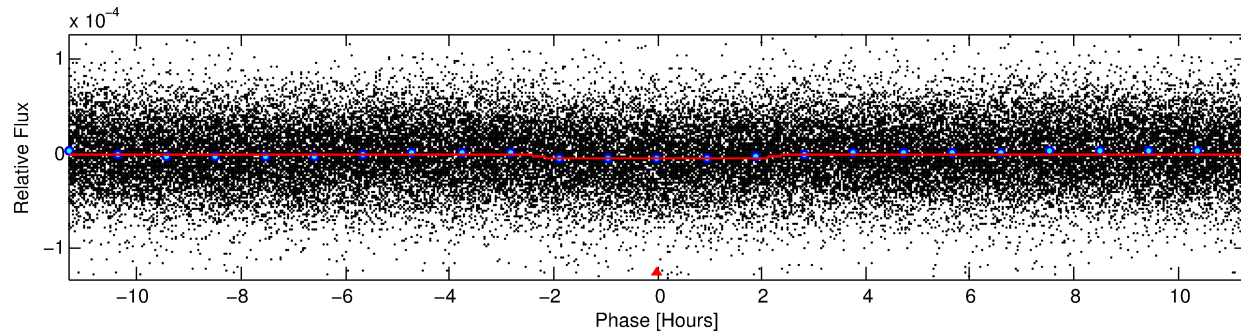
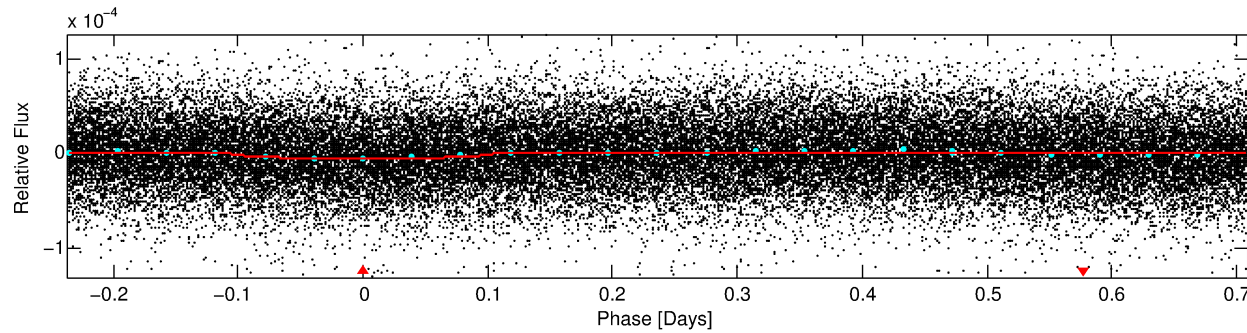
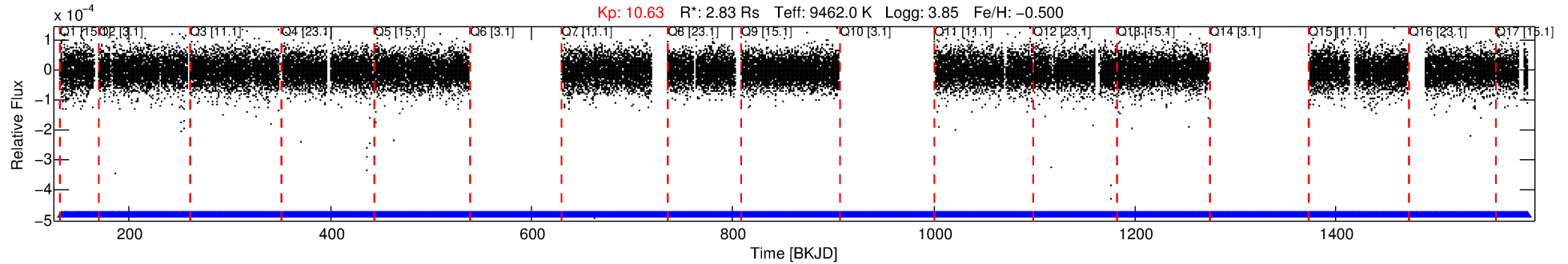
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004660027-01

No Significant Match Found

DV One-Page Summary

KIC: 4660027 Candidate: 1 of 1 Period: 0.944 d



DV Fit Results:

Period = 0.94410 [0.00001] d
Epoch = 132.4252 [0.0040] BKJD
Rp/R* = 0.0021 [0.0003]
a/R* = 1.54 [0.80]
b = 0.46 [1.59]
Seff = 100554.57 [79411.73]
Teq = 4541 [896] K
Rp = 0.65 [0.32] Re
a = 0.0240 [0.0104] AU
Ag = 0.79 [0.78] [-0.27 σ]
Teffp = 6620 [1329] K [1.30 σ]

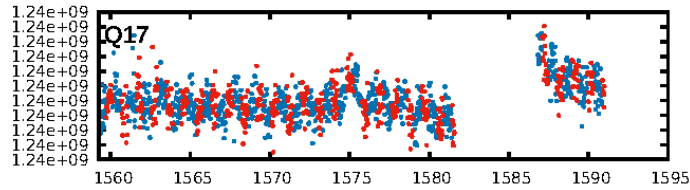
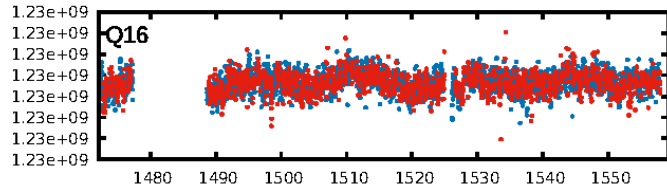
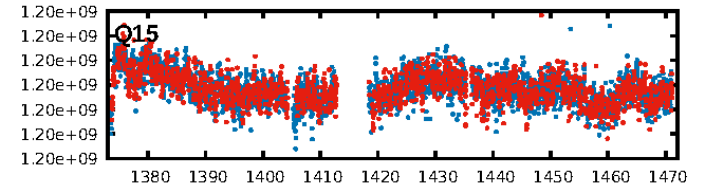
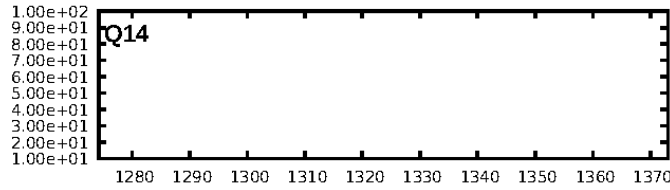
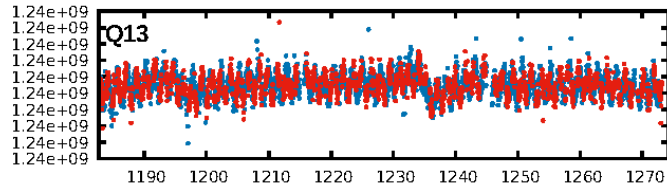
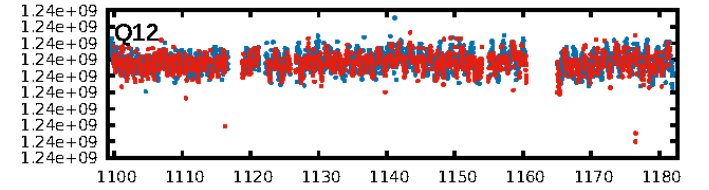
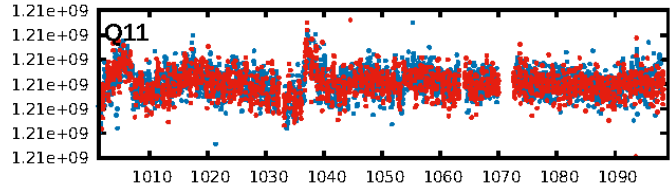
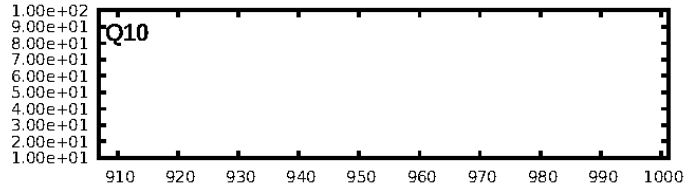
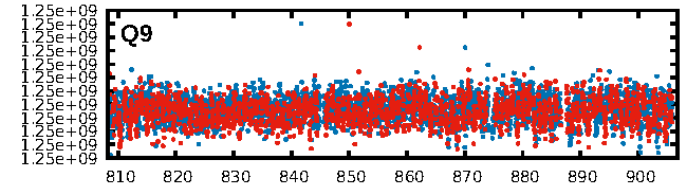
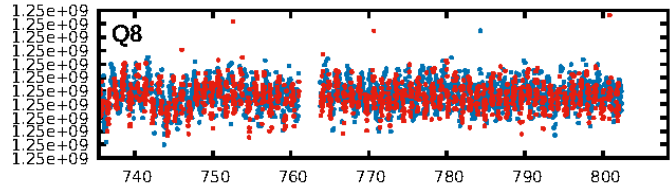
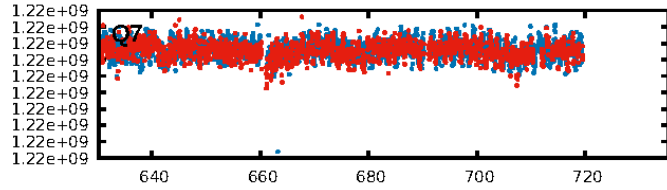
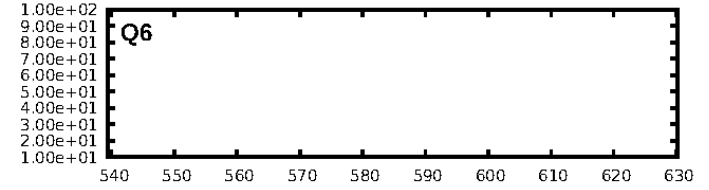
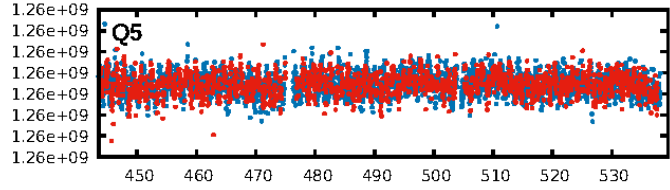
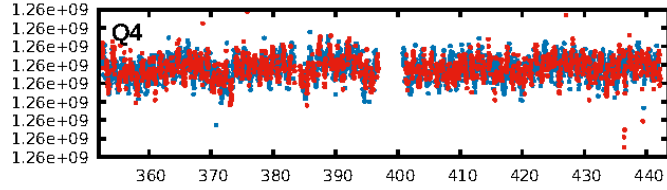
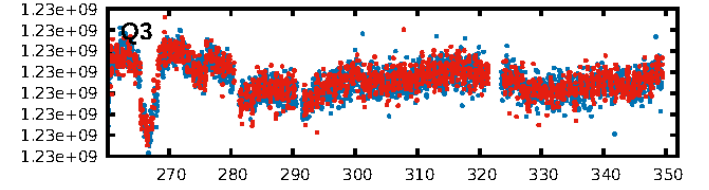
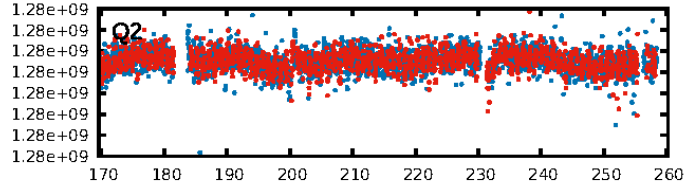
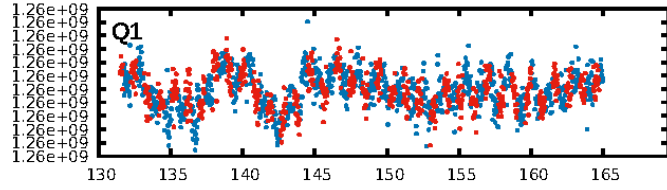
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.24e-15
RollingBand-fgt: 1.00 [1074/1074]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.536 arcsec [2.18 σ]
KicOffset-rm: 2.778 arcsec [2.11 σ]
OotOffset-st: 0/2/3/3 [8]
KicOffset-st: 0/2/3/3 [8]
DiffImageQuality-fgm: 0.38 [3/8]
DiffImageOverlap-fno: 1.00 [14/14]

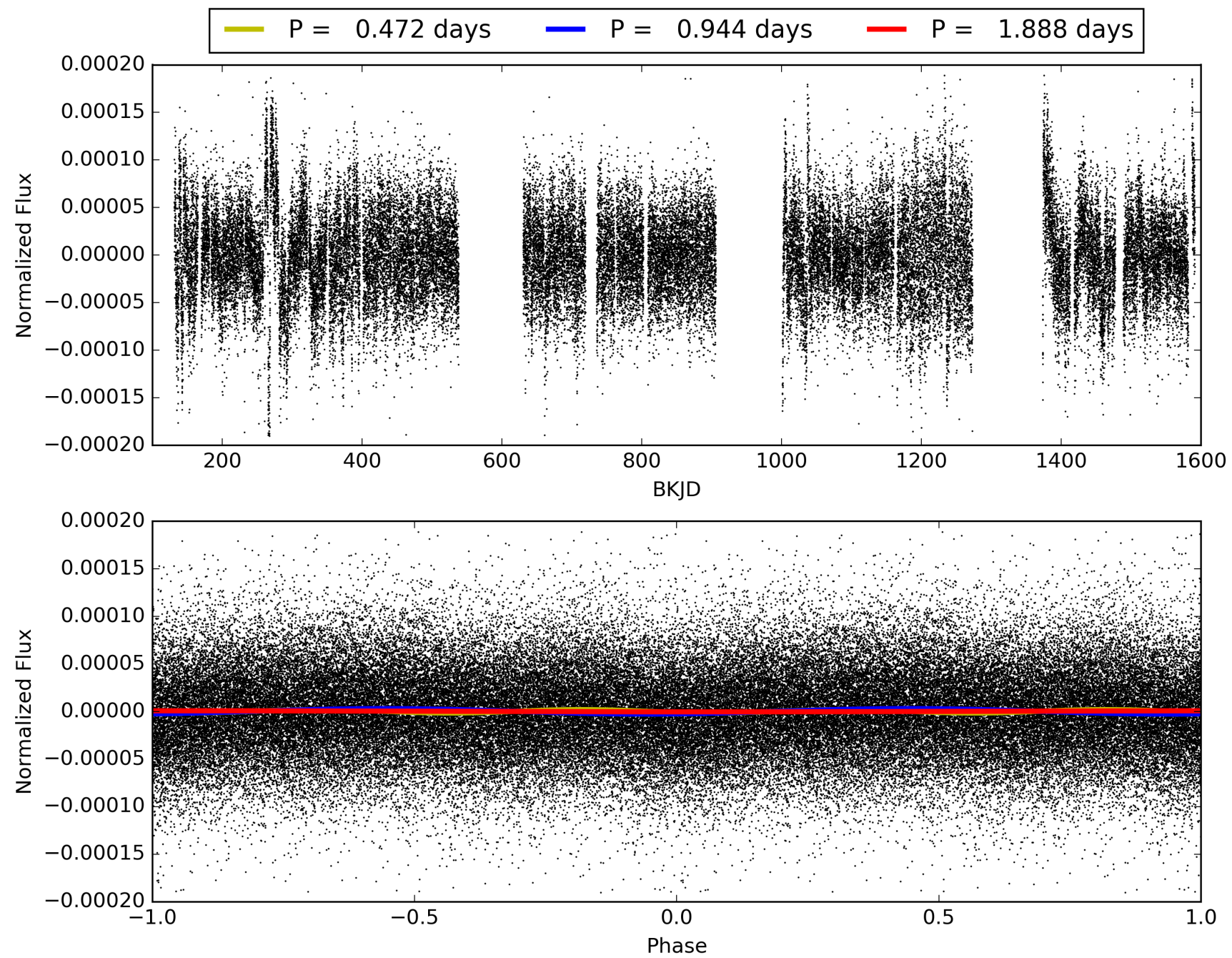
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 06:22:59 Z

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

TCE 004660027-01, PDC Light Curves

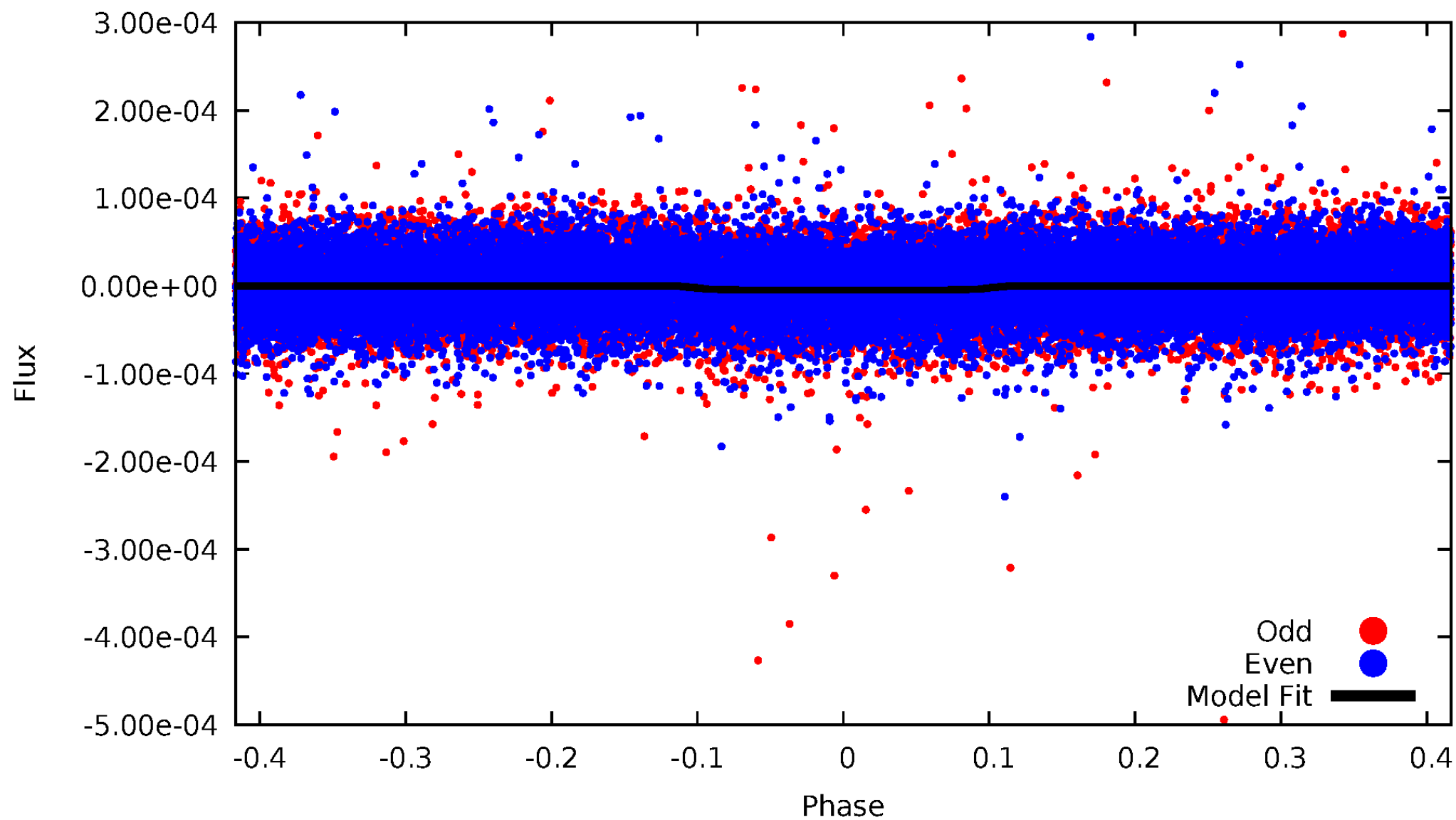


TCE 004660027-01



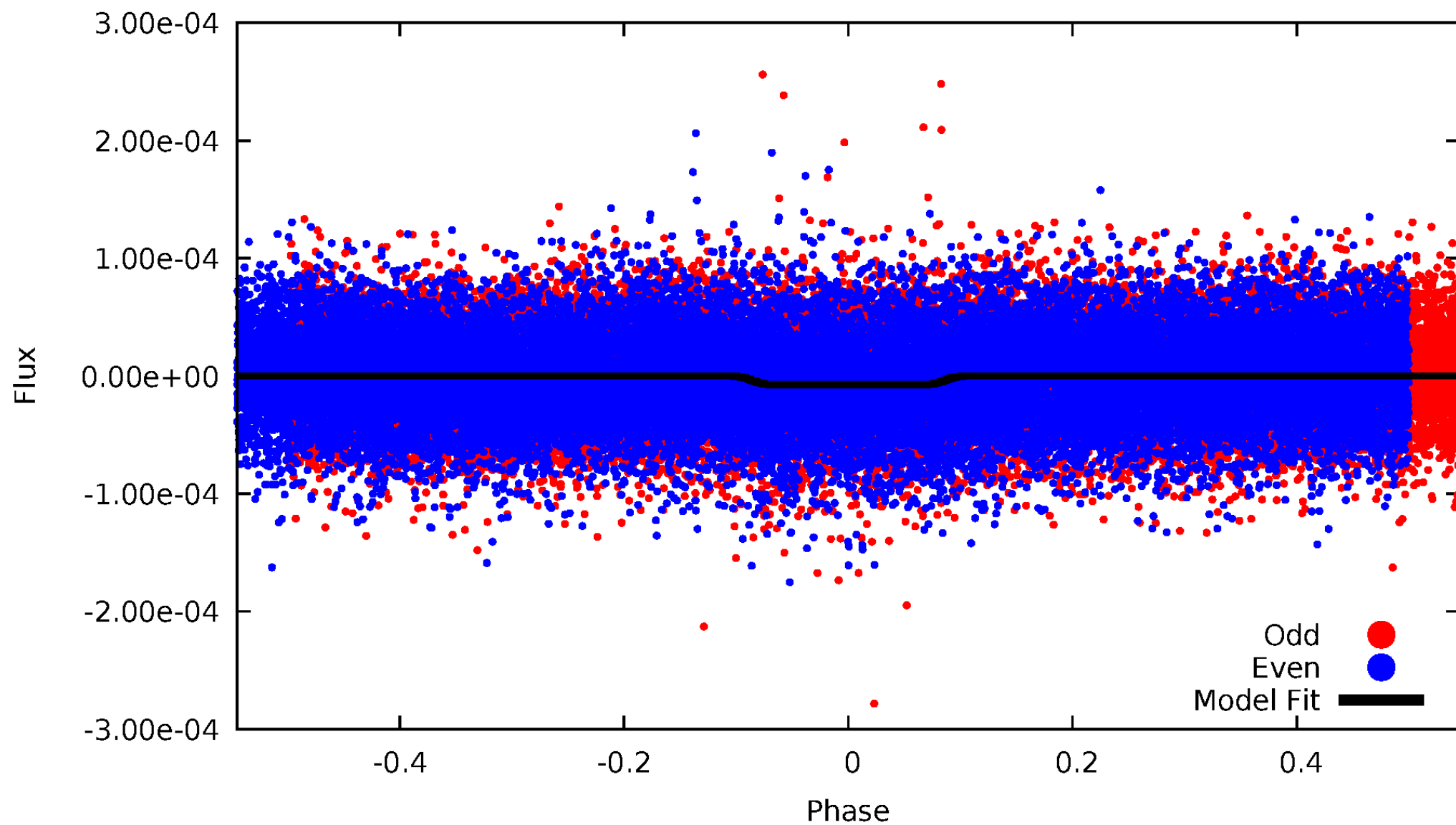
DV Odd/Even

TCE 004660027-01



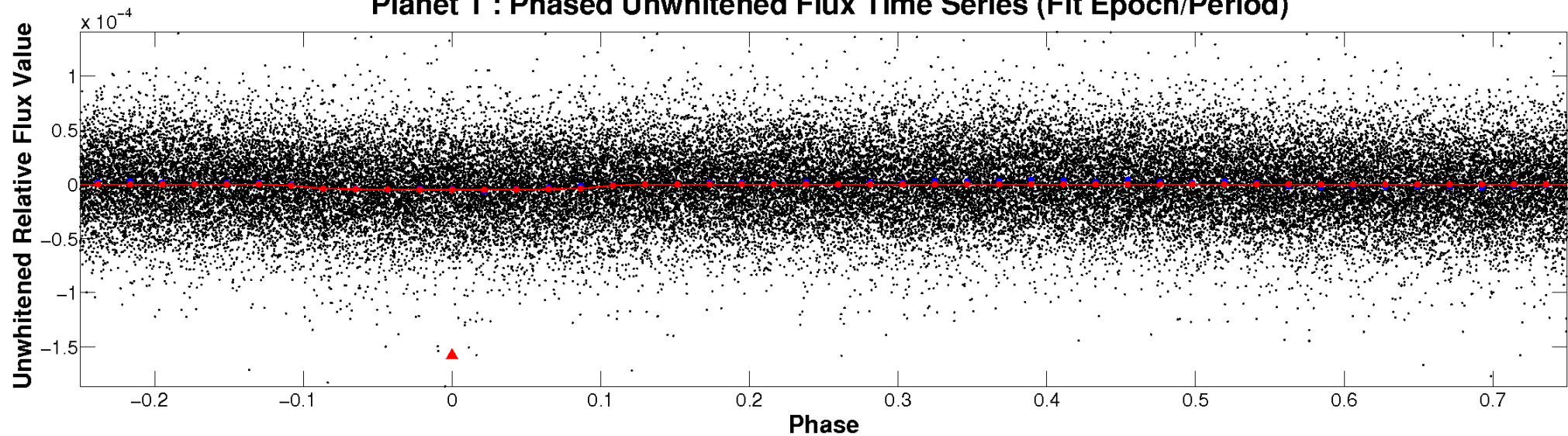
ALT Odd/Even

TCE 004660027-01

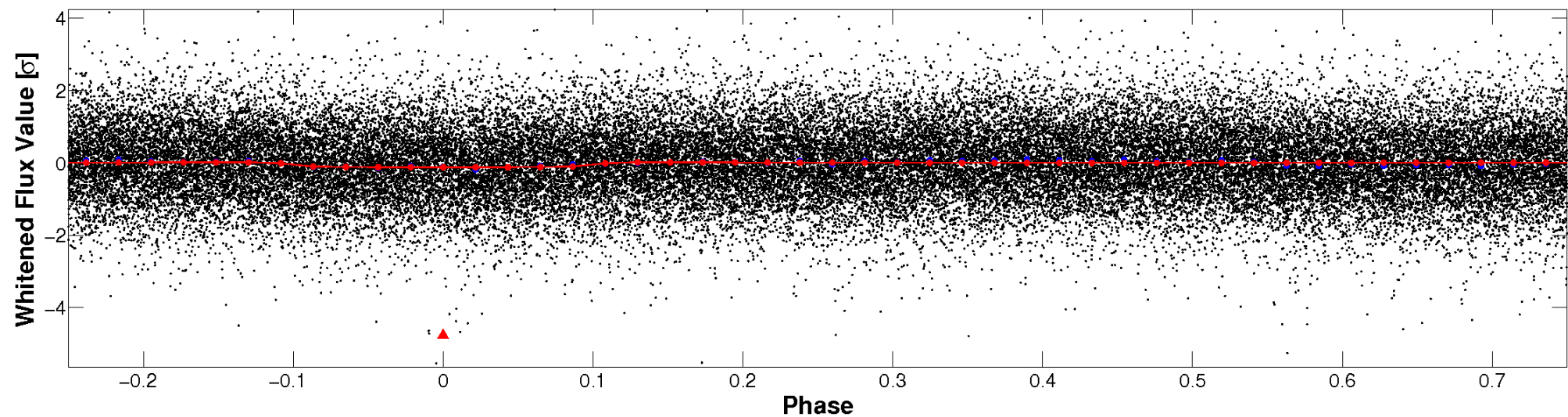


Non-Whitened Vs. Whitened Light Curve

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

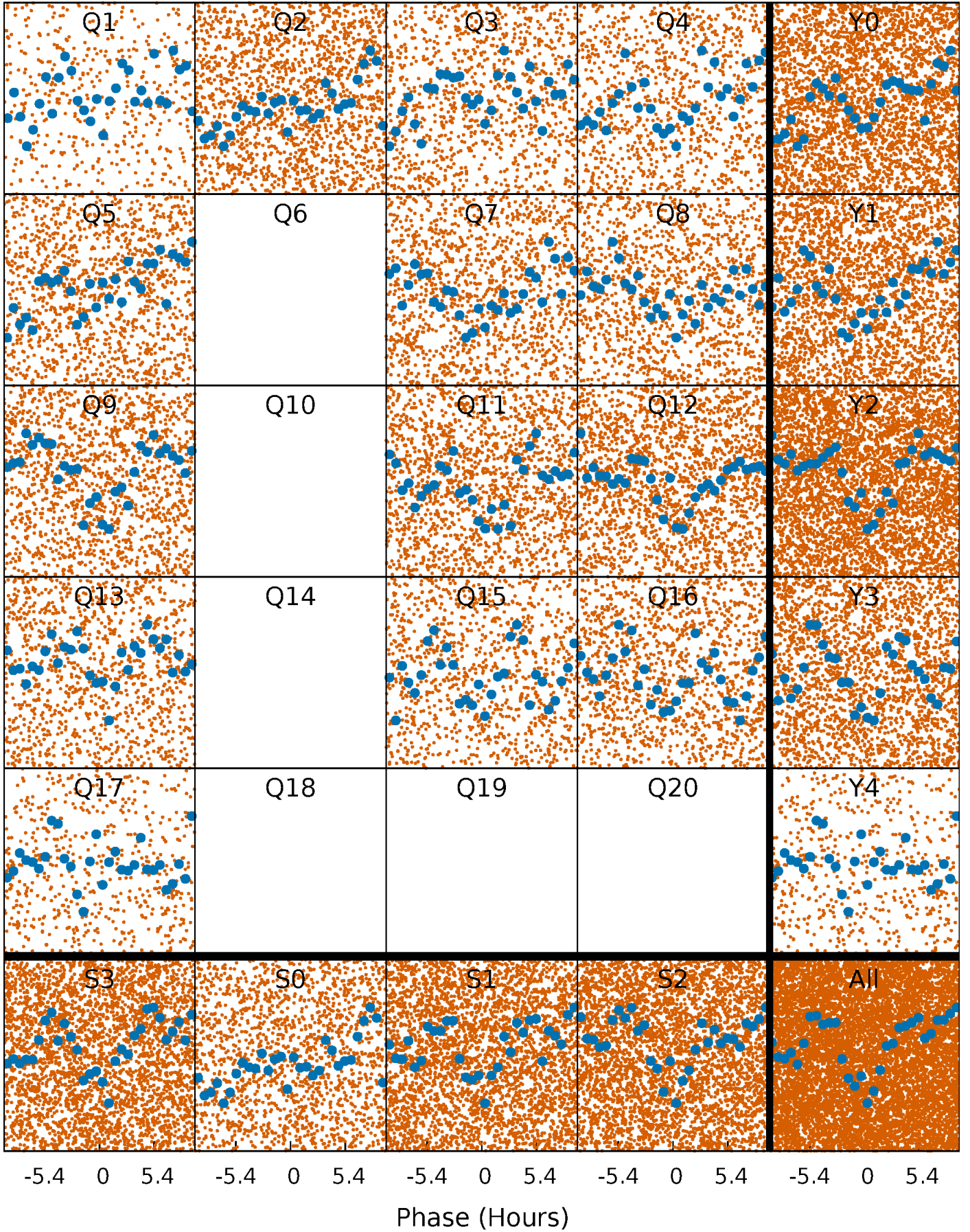


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



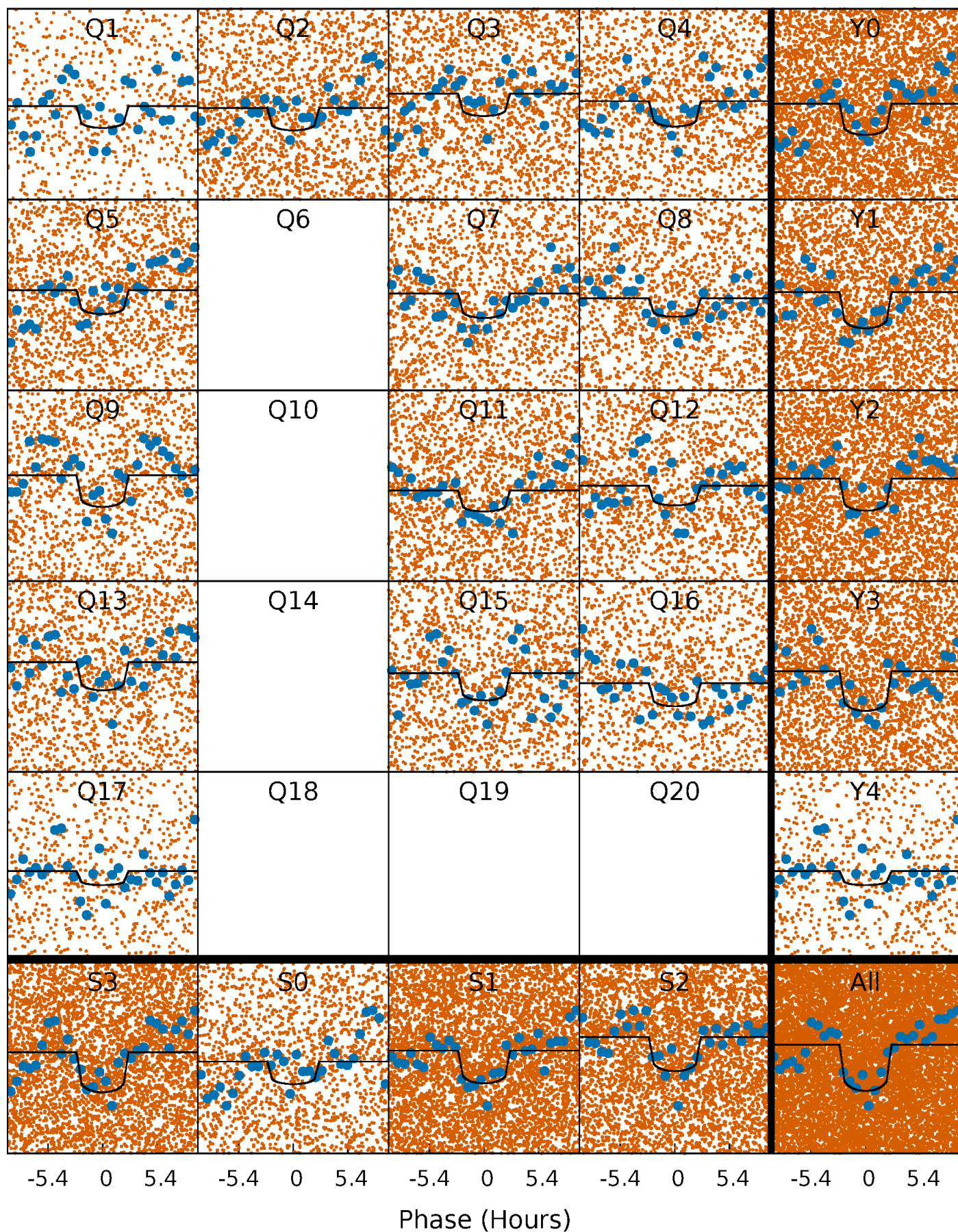
PDC Quarter-Phased Transit Curves

TCE 004660027-01 P= 0.944100 Days $T_0=132.425217$ (BKJD)



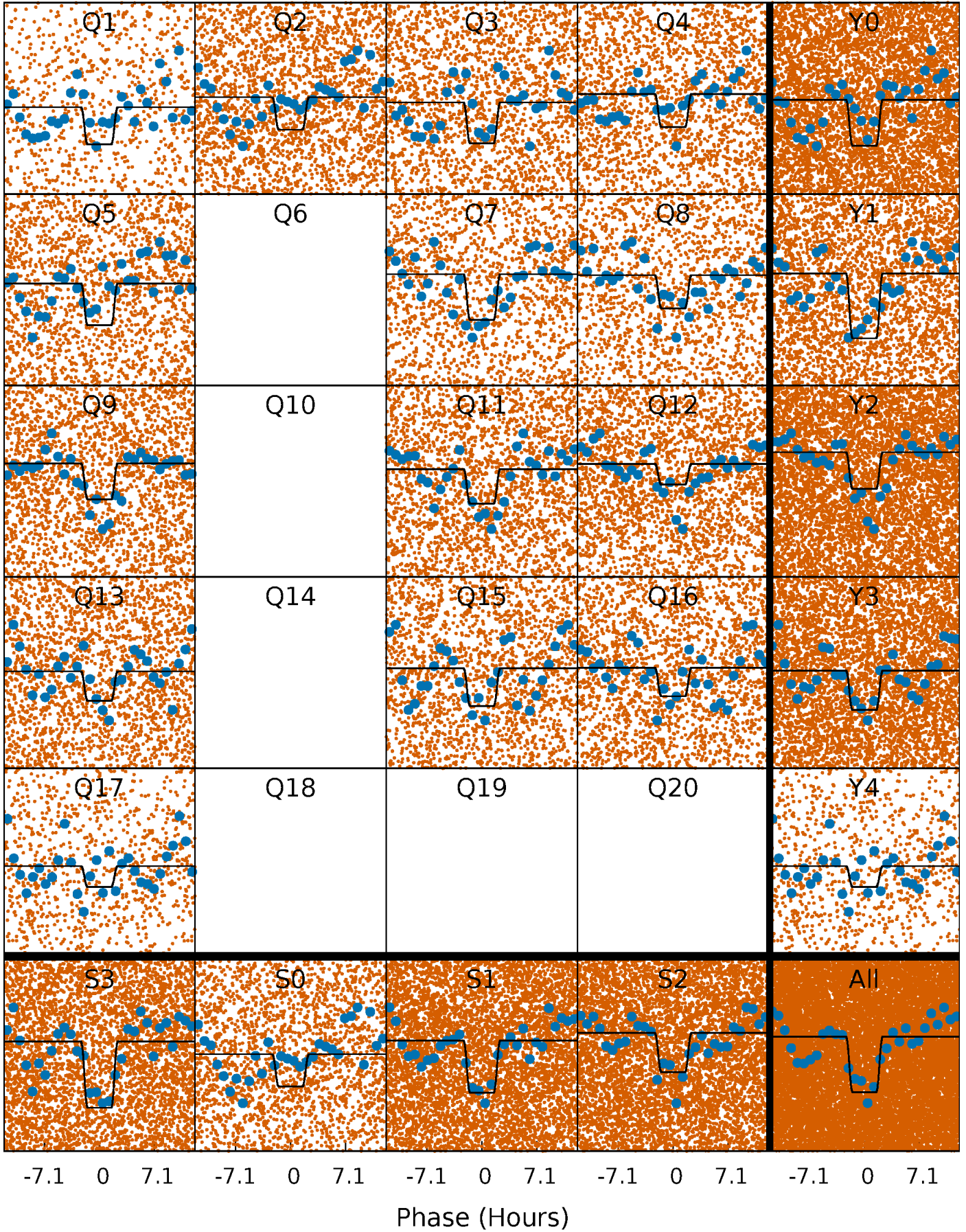
DV Quarter-Phased Transit Curves

TCE 004660027-01 P= 0.944100 Days $T_0=132.425217$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

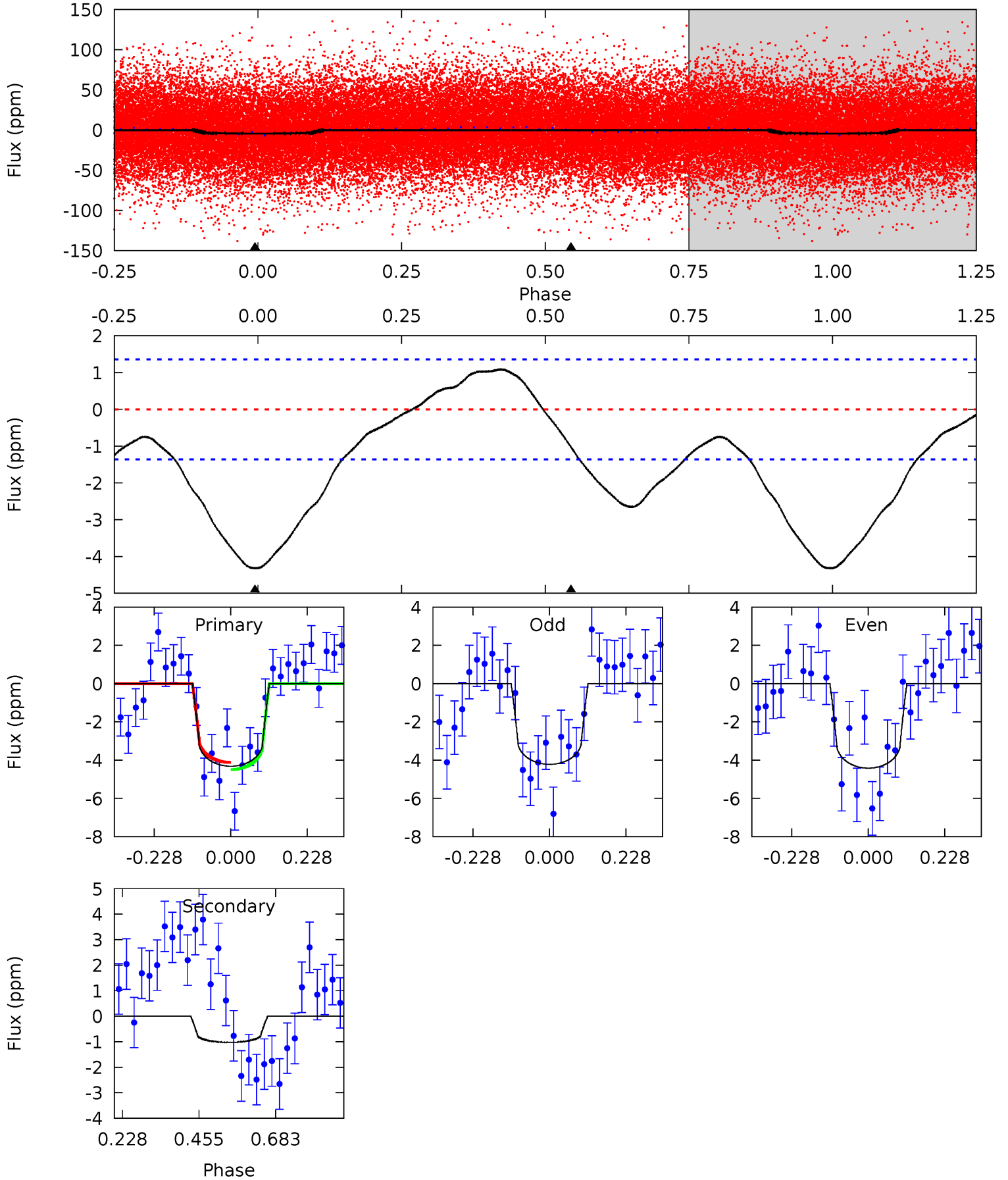
TCE 004660027-01 P= 0.944113 Days $T_0=132.413881$ (BKJD)



DV Model-Shift Uniqueness Test

004660027-01, P = 0.944100 Days, E = 131.481117 Days

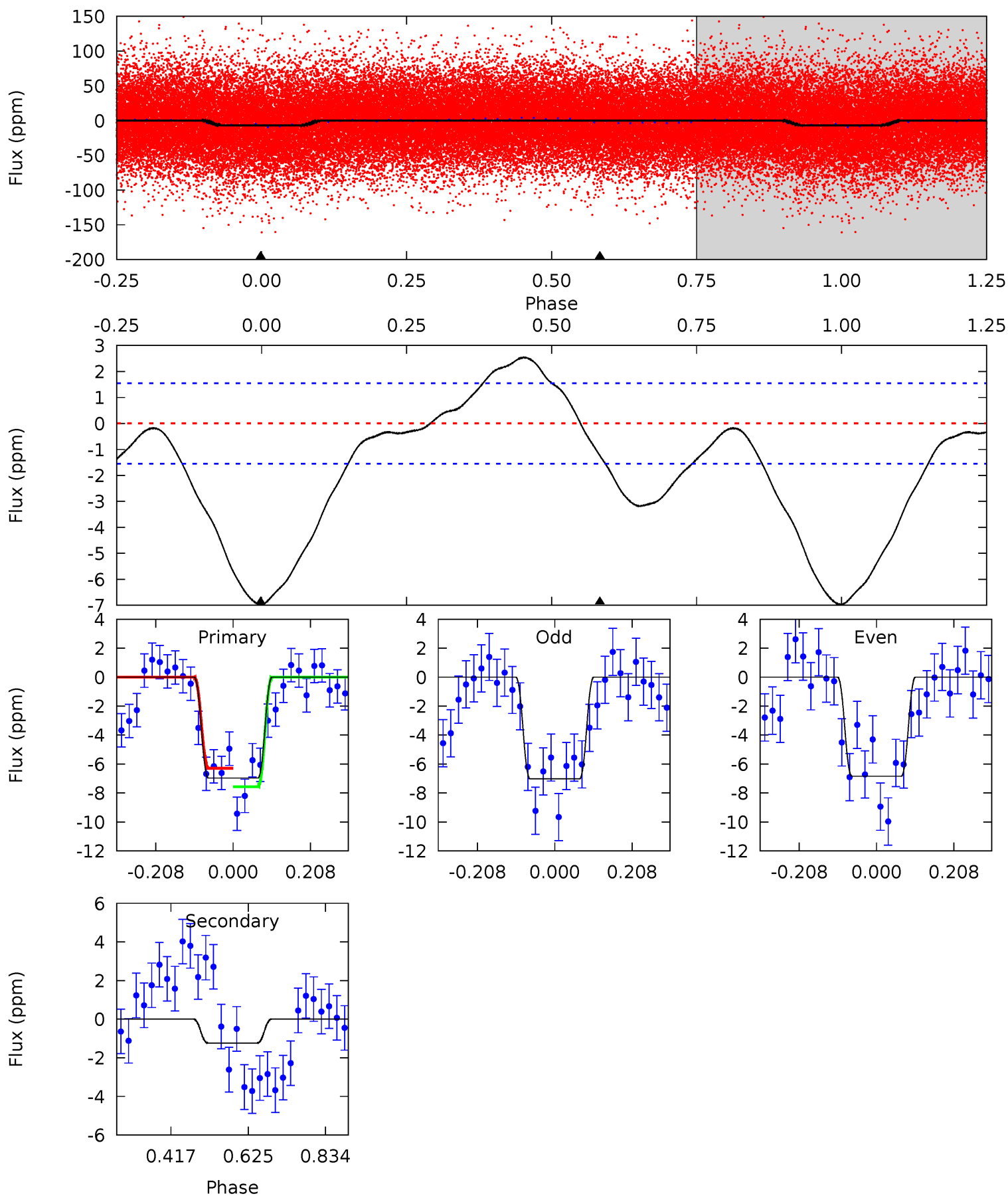
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.9	3.31	0	0	4.39	1.21	1.01	13.9	13.9	3.31	3.31	0.32	1.05	0.20	0.62



Alt Model-Shift Uniqueness Test

004660027-01, P = 0.944113 Days, E = 131.469768 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.8	3.51	0	0	4.41	1.26	1.47	19.8	19.8	3.51	3.51	0.26	1.08	0.27	1.83



Stellar Parameters For KIC 004660027

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9462^{+495}_{-920}	$3.846^{+0.400}_{-0.100}$	$-0.500^{+0.050}_{-0.150}$	$2.834^{+0.438}_{-1.313}$	$2.057^{+0.246}_{-0.457}$	$0.127^{+0.462}_{-0.041}$
	+5%/-10%	+10%/-3%	+10%/-30%	+15%/-46%	+12%/-22%	+363%/-32%
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 004660027-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1 ± 0	$0.62^{+0.14}_{-0.15}$	6089^{+622}_{-761}	5427^{+937}_{-964}	$0.873^{+0.615}_{-0.371}$
Alt.	-1 ± 0	$0.79^{+0.15}_{-0.18}$	6107^{+579}_{-848}	4847^{+730}_{-1040}	$0.614^{+0.410}_{-0.232}$

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 $A_{\text{obs}} \gg 1.0$

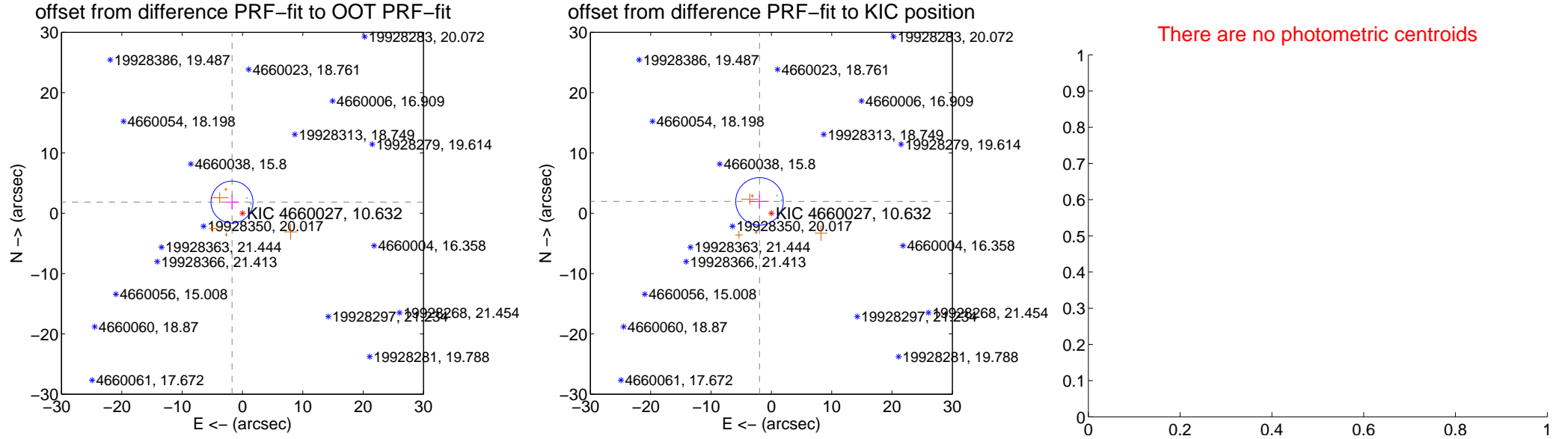
DV Centroid Data

Supplemental centroid analysis for 004660027-01. **Kepler magnitude: 10.63.** Transit SNR 11.23

There are 3 quarters with good PRF difference image offsets

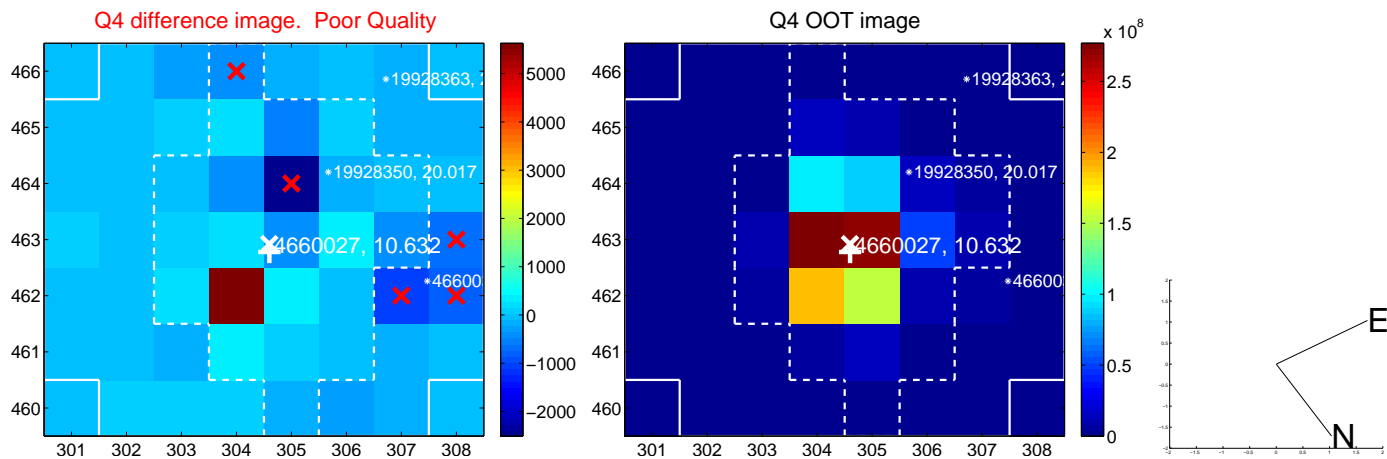
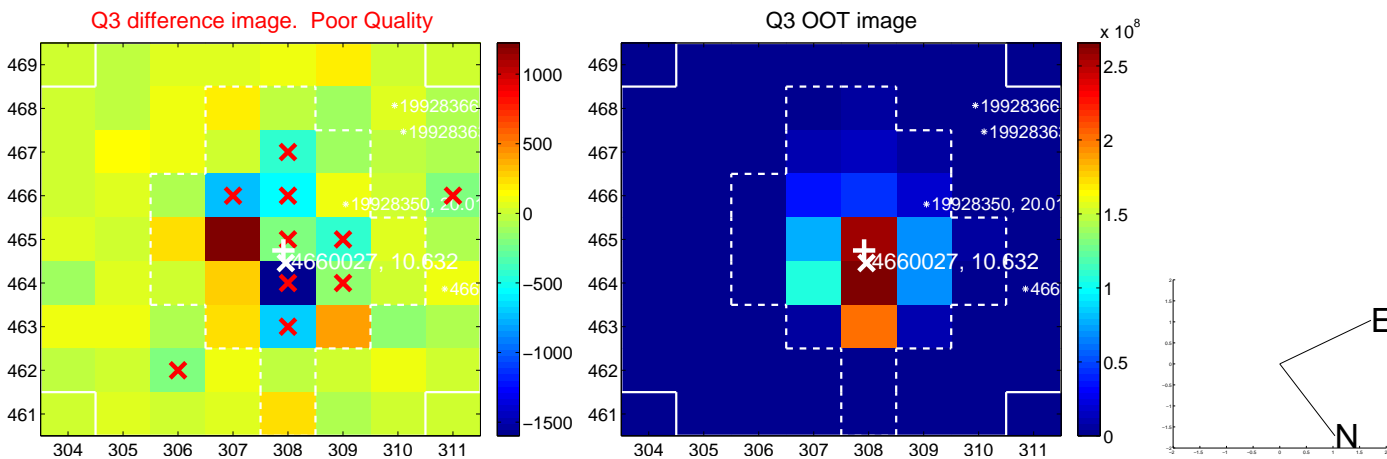
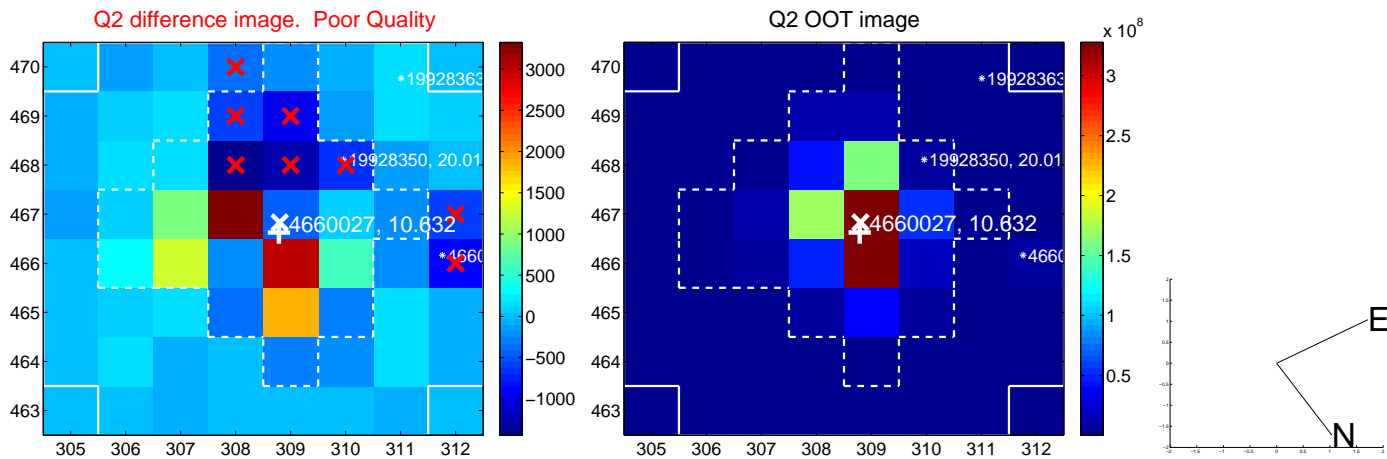
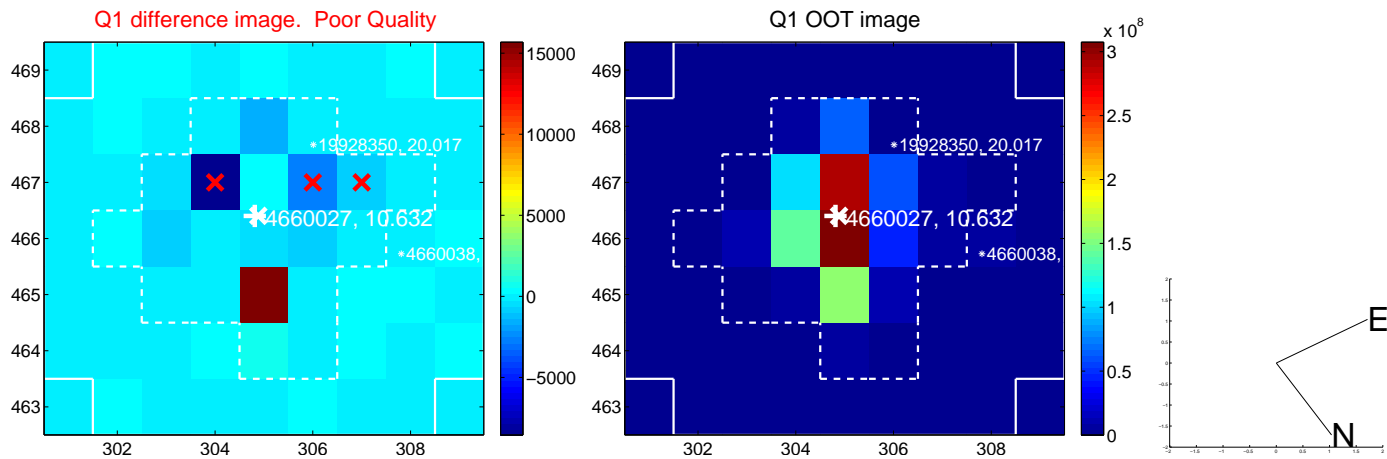
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.536 ± 1.161	2.18	1.731 ± 1.066	1.854 ± 1.208
PRF-fit source offset from KIC position	2.778 ± 1.314	2.11	1.967 ± 1.568	1.961 ± 1.095
photometric centroid source offset	—	—	—	—

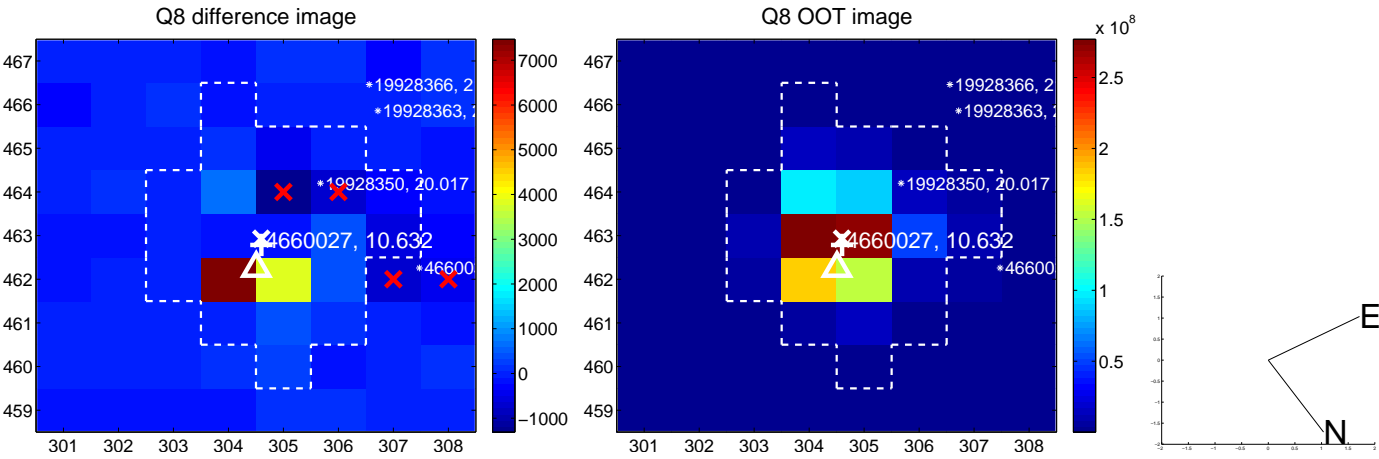
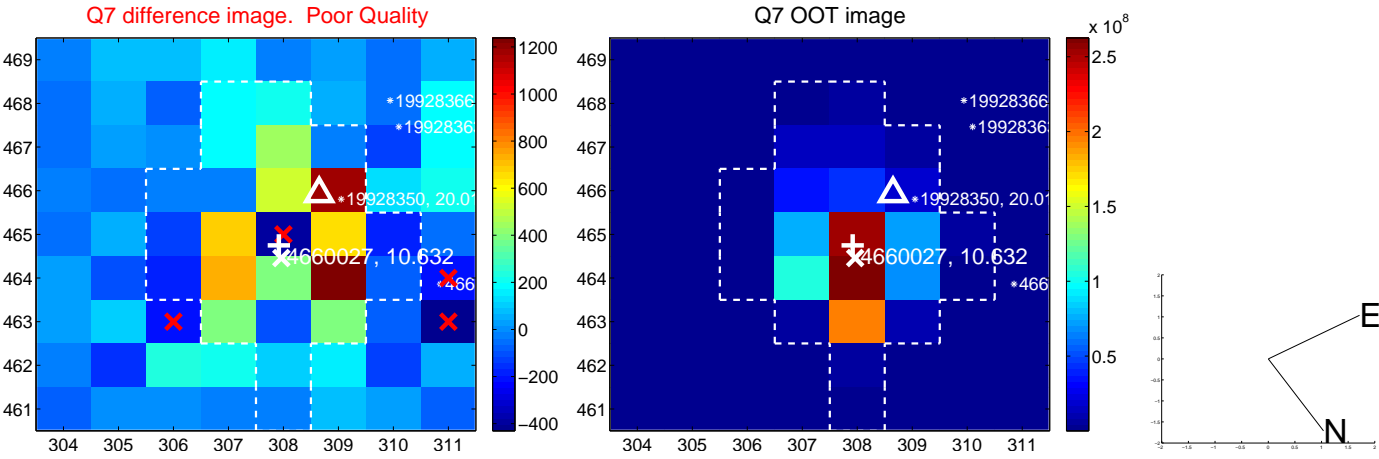
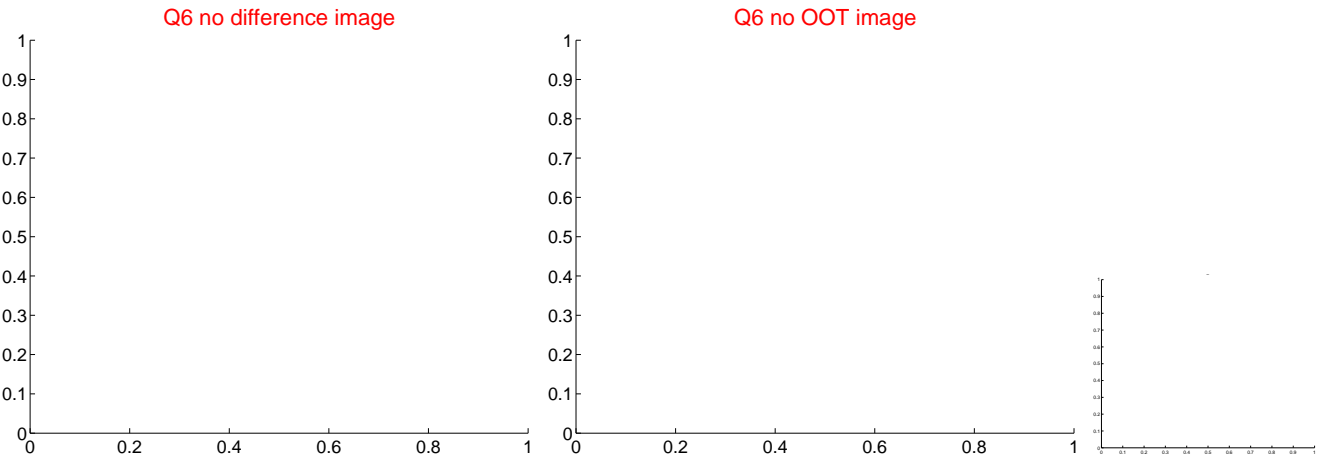
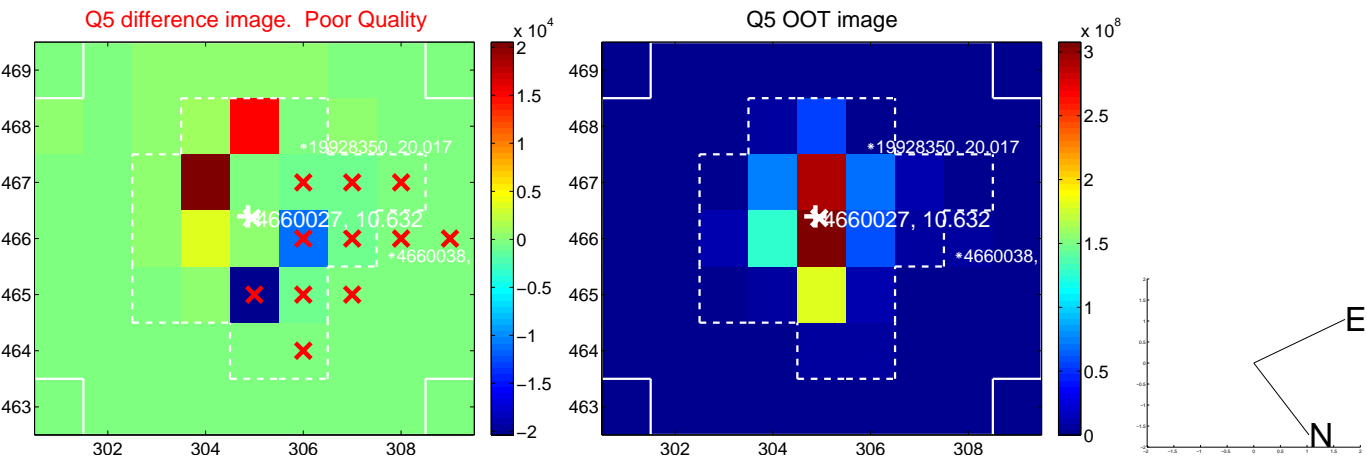


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

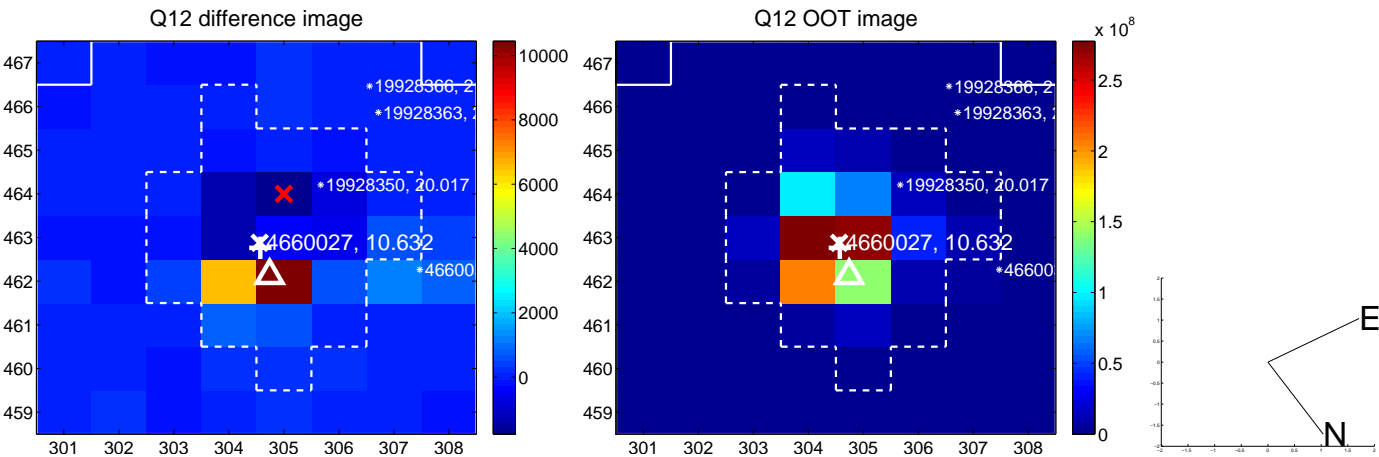
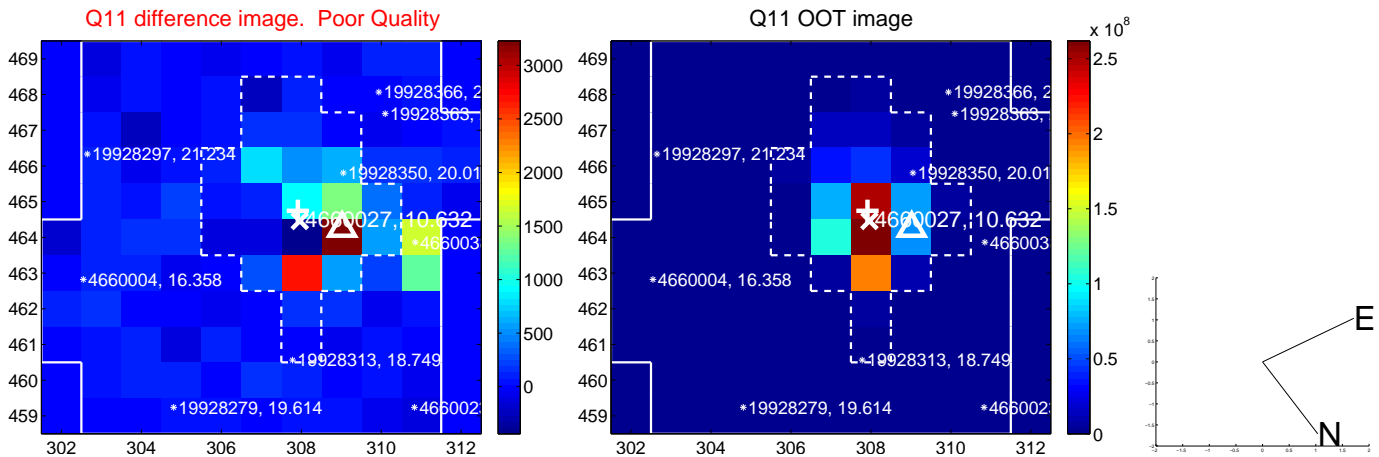
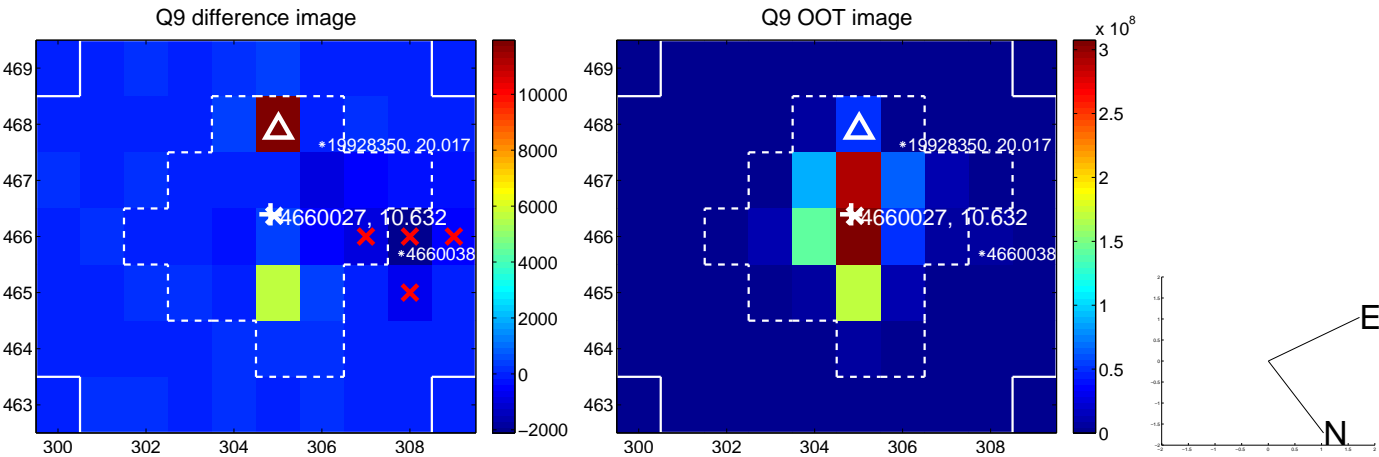
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



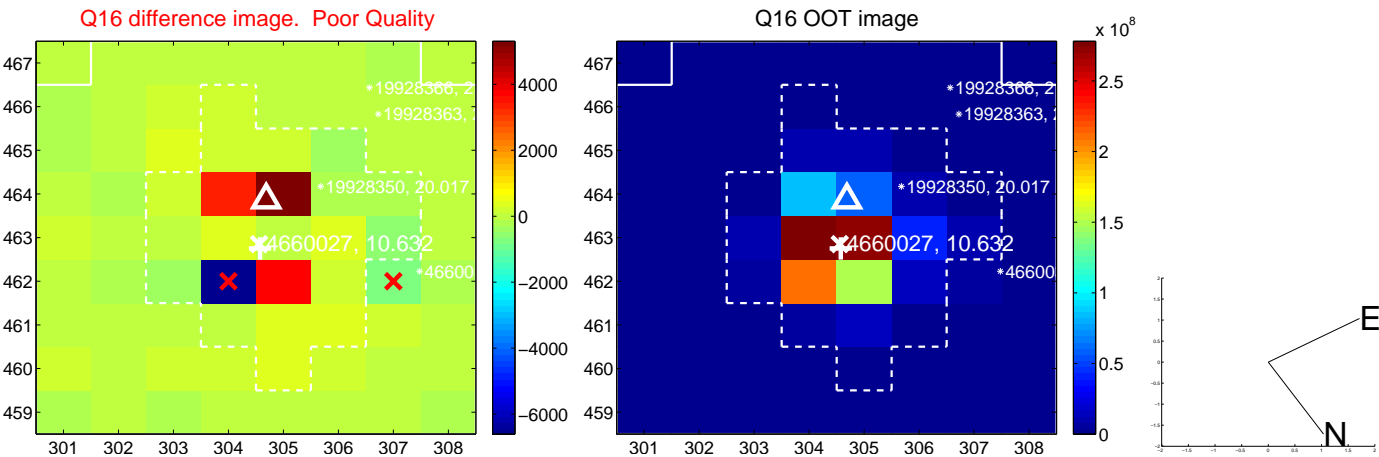
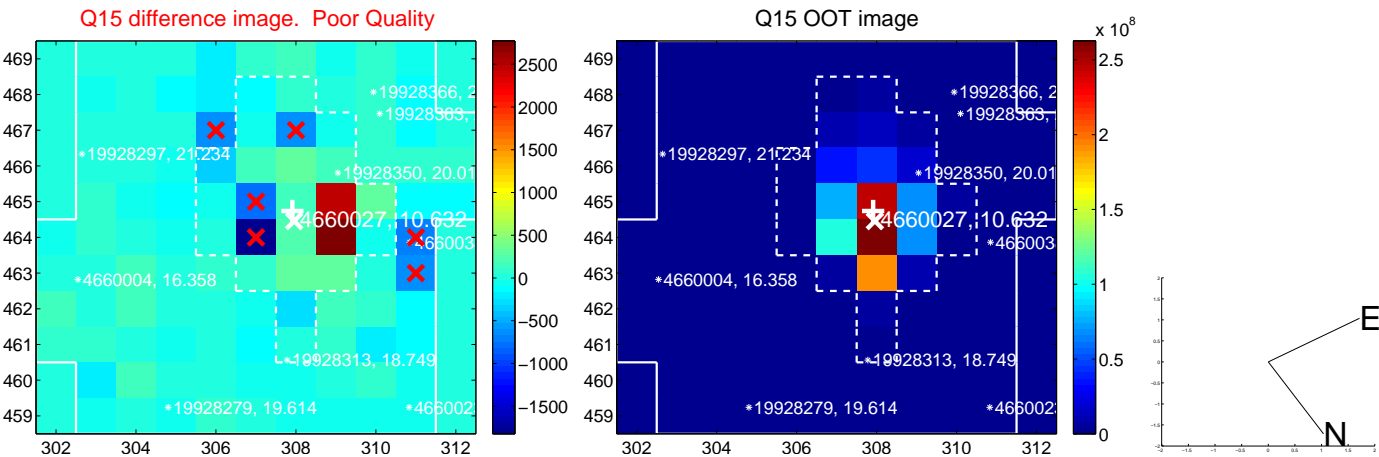
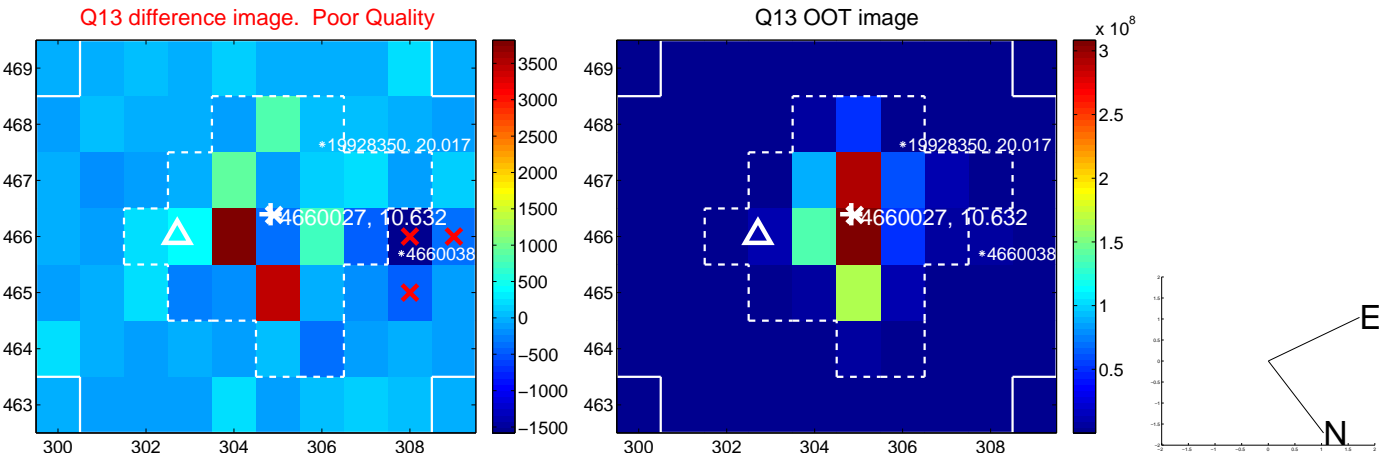
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



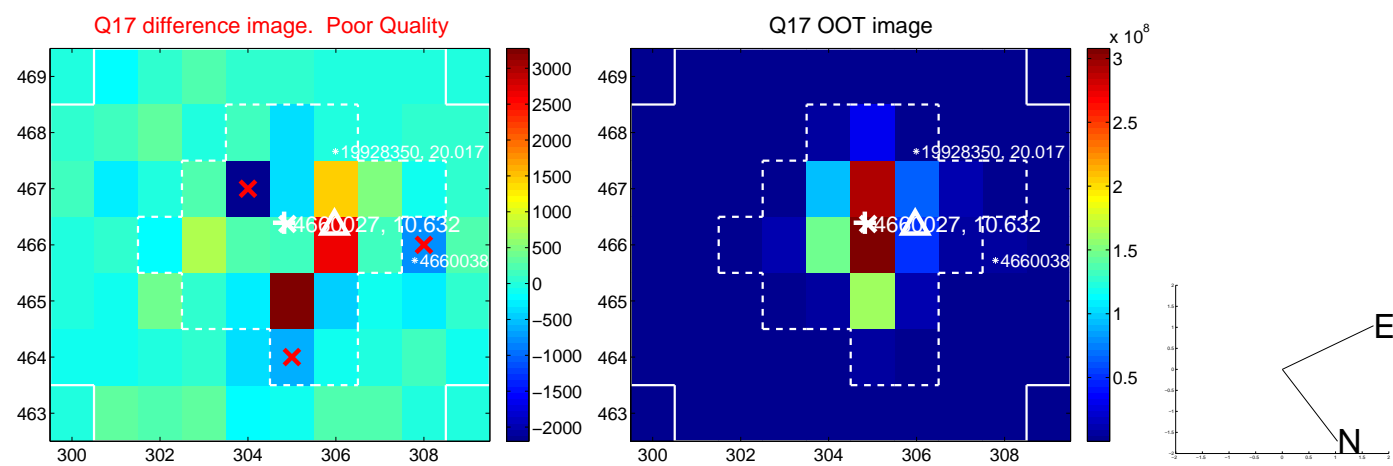
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

