

KIC 006127152

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})
006127152-01	OBS	No	4.060724	131.695880	9.7	26.073	8.0	6.9	2.15	7884	0.70	4284.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006127152-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

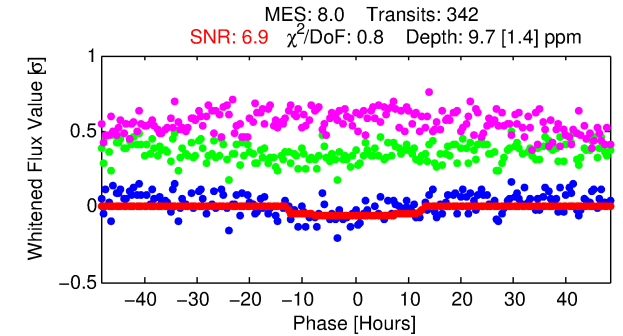
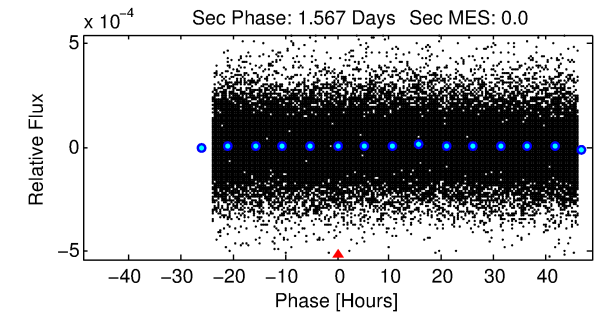
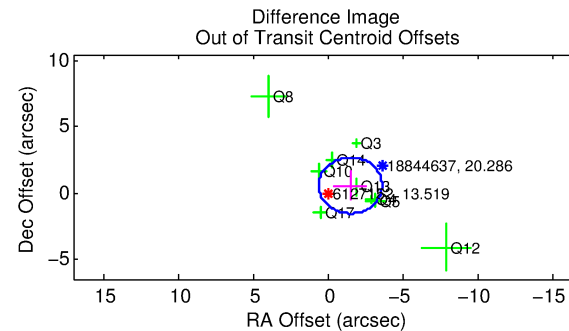
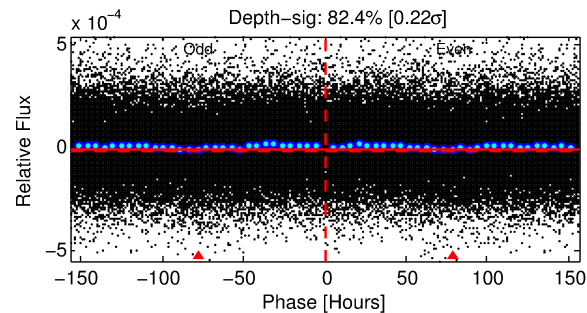
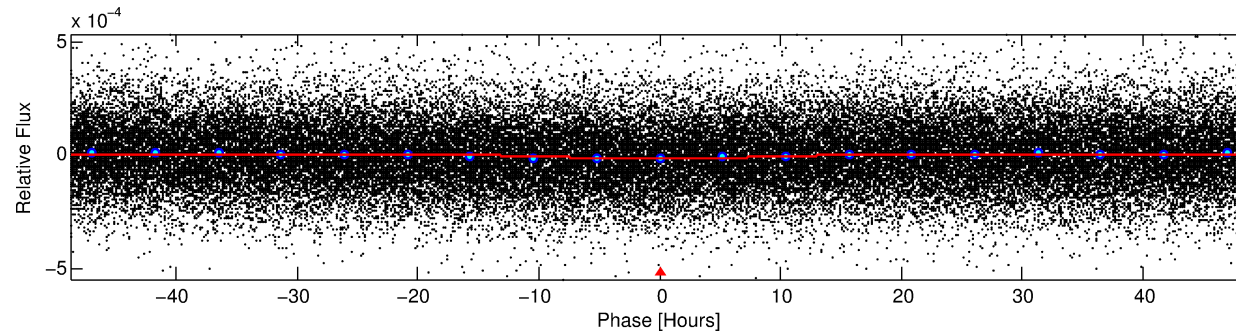
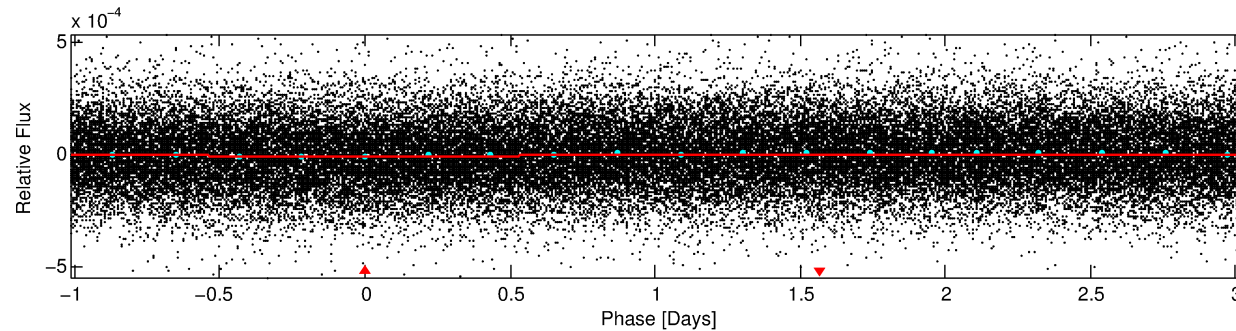
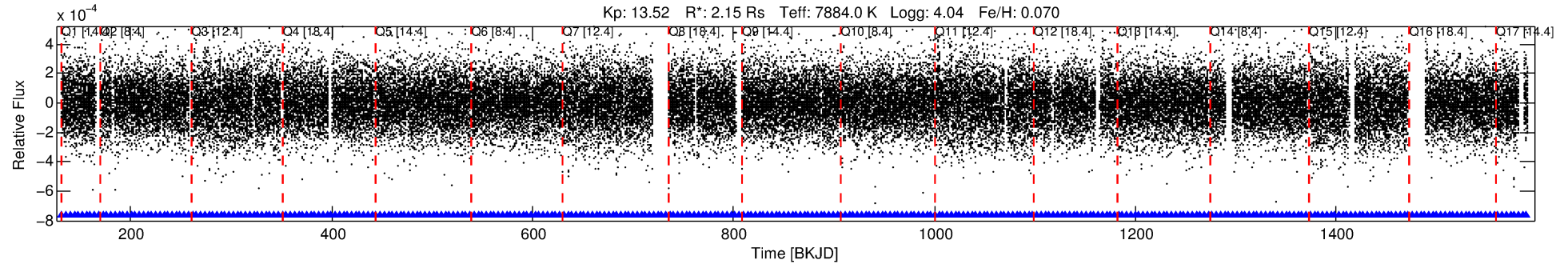
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006127152-01

No Significant Match Found

DV One-Page Summary

KIC: 6127152 Candidate: 1 of 1 Period: 4.061 d



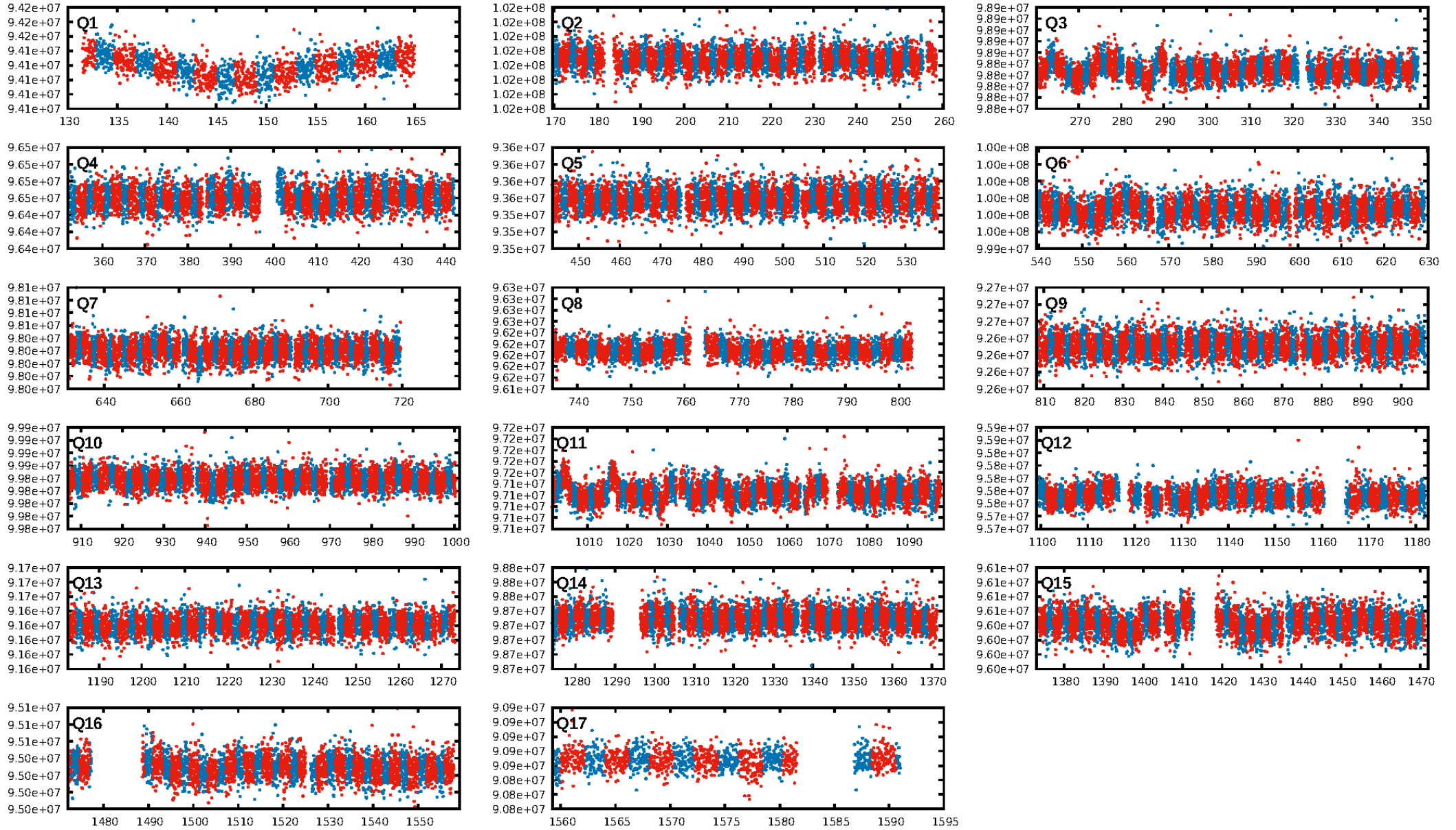
DV Fit Results:

Period = 4.06072 [0.00016] d
Epoch = 131.6959 [0.0267] BKJD
Rp/R* = 0.0030 [0.0021]
a/R* = 1.25 [1.89]
b = 0.57 [5.07]
Seff = 4284.56 [1443.06]
Teq = 2063 [174] K
Rp = 0.70 [0.52] Re
a = 0.0612 [0.0121] AU
Ag = N/A
Teffp = N/A

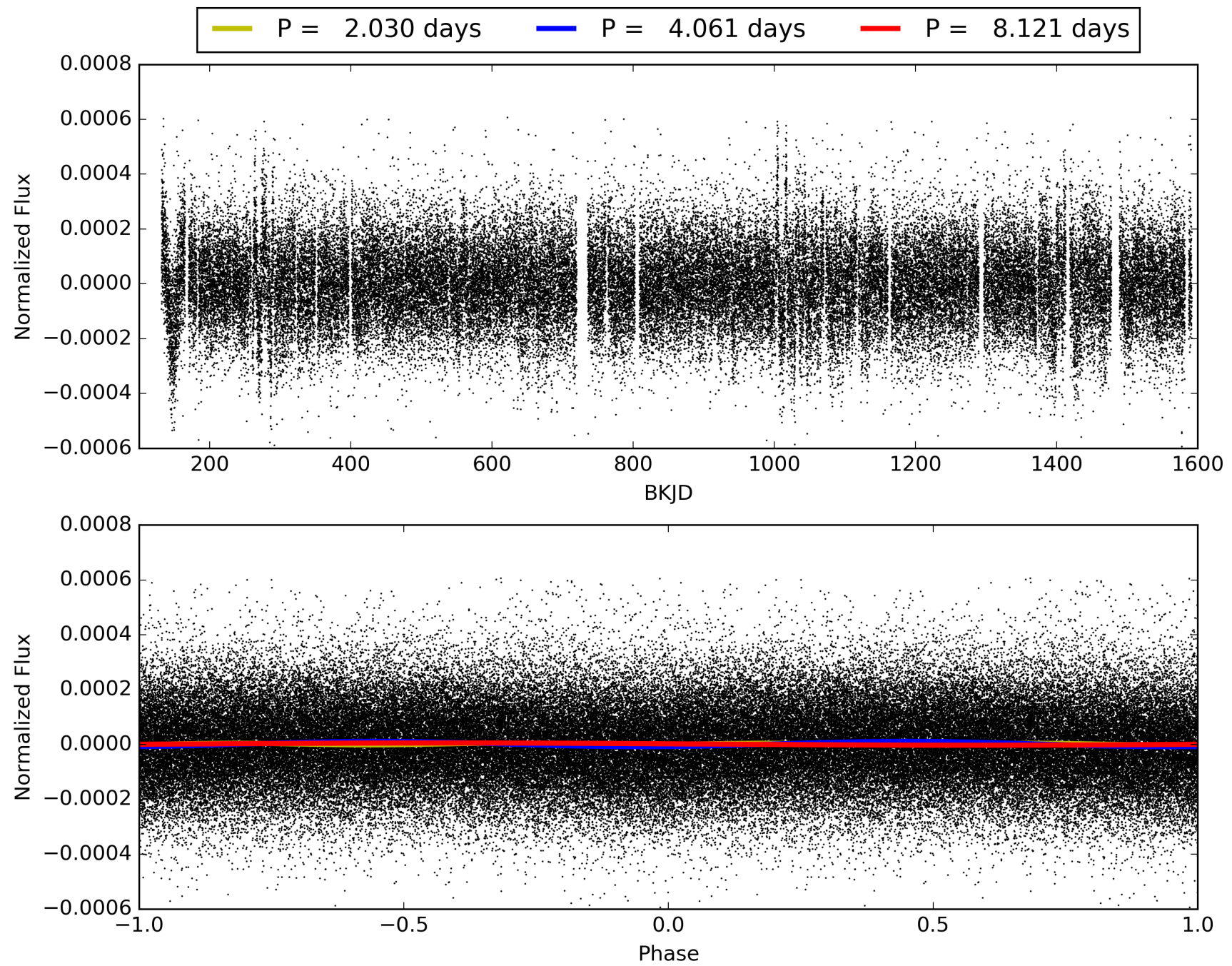
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.31e-19
RollingBand-fgt: 1.00 [326/326]
GhostDiagnostic-chr: 1.227
Centroid-sig: 56.8%
Centroid-so: 1.256 arcsec [0.68σ]
OotOffset-rm: 1.624 arcsec [2.29σ]
KicOffset-rm: 1.646 arcsec [2.46σ]
OotOffset-st: 2/1/3/3 [9]
KicOffset-st: 2/1/3/3 [9]
DiffImageQuality-fgm: 0.44 [4/9]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006127152-01, PDC Light Curves

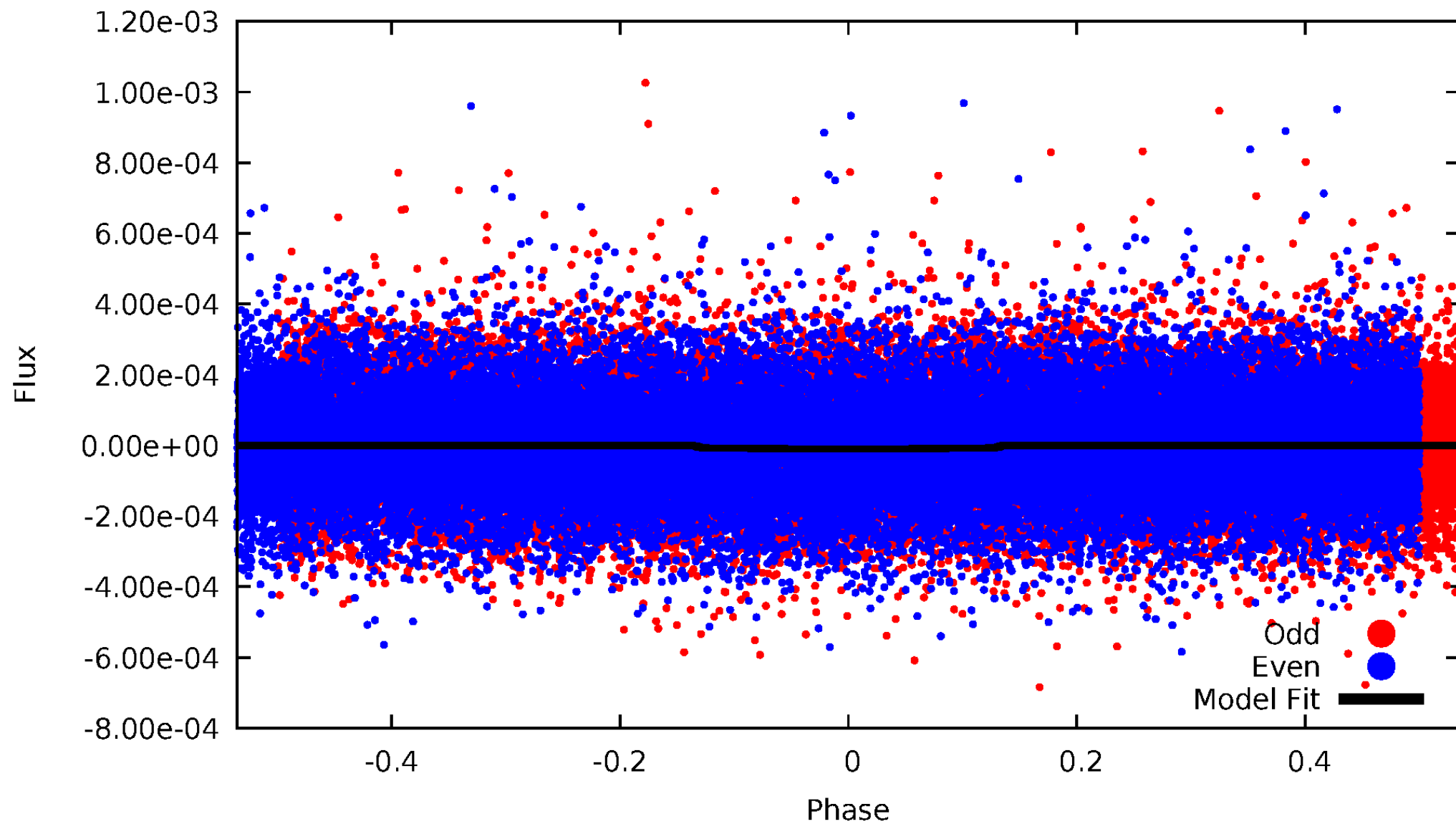


TCE 006127152-01



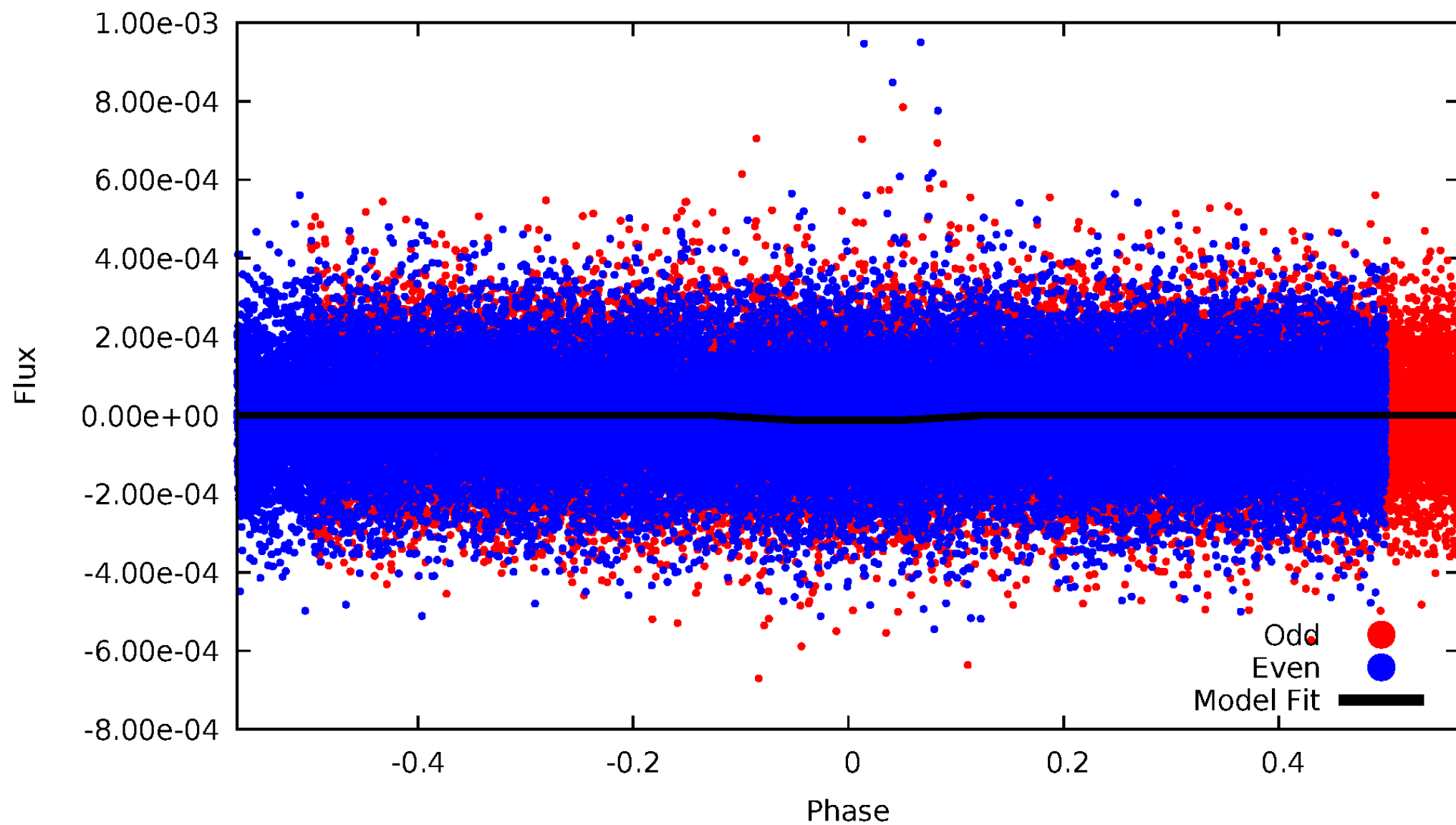
DV Odd/Even

TCE 006127152-01



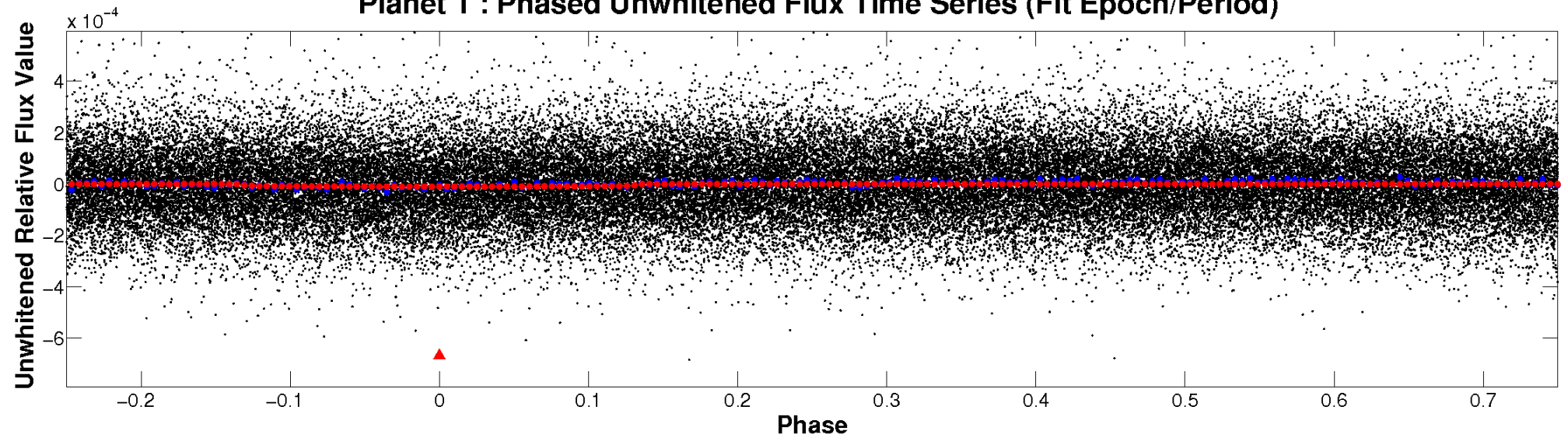
ALT Odd/Even

TCE 006127152-01

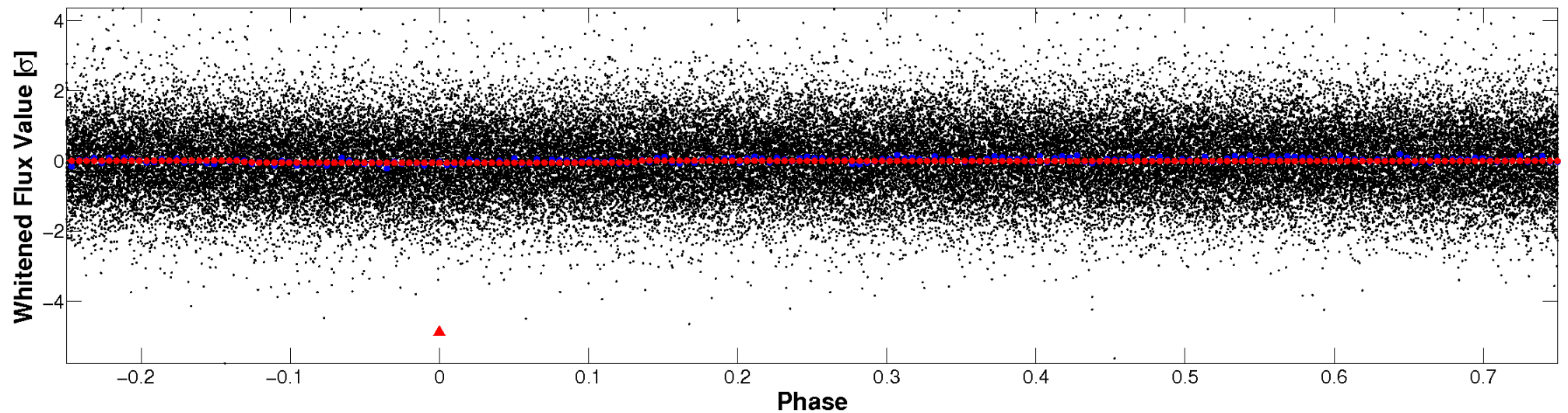


Non-Whitened Vs. Whitened Light Curve

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

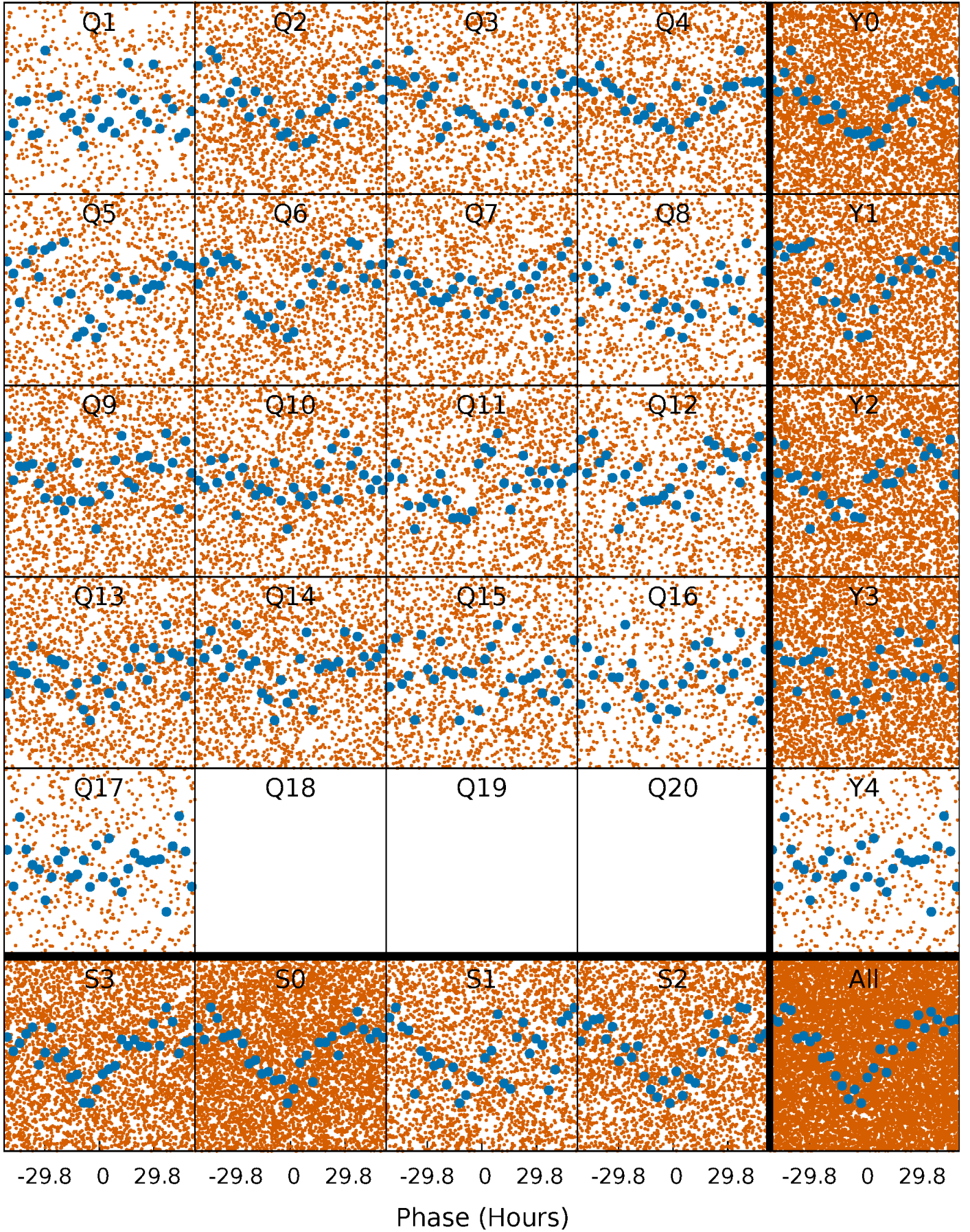


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



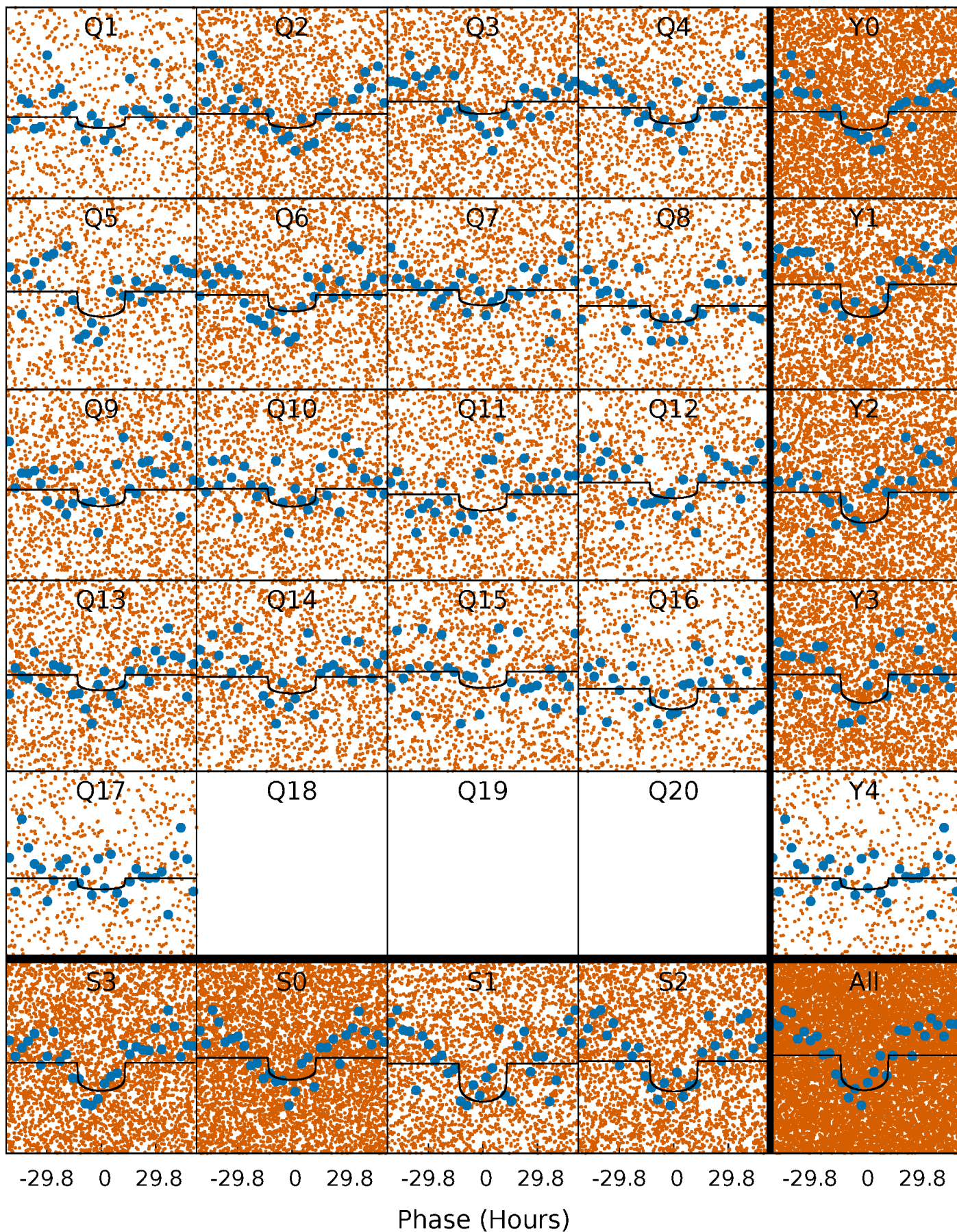
PDC Quarter-Phased Transit Curves

TCE 006127152-01 P= 4.060724 Days $T_0=131.695880$ (BKJD)



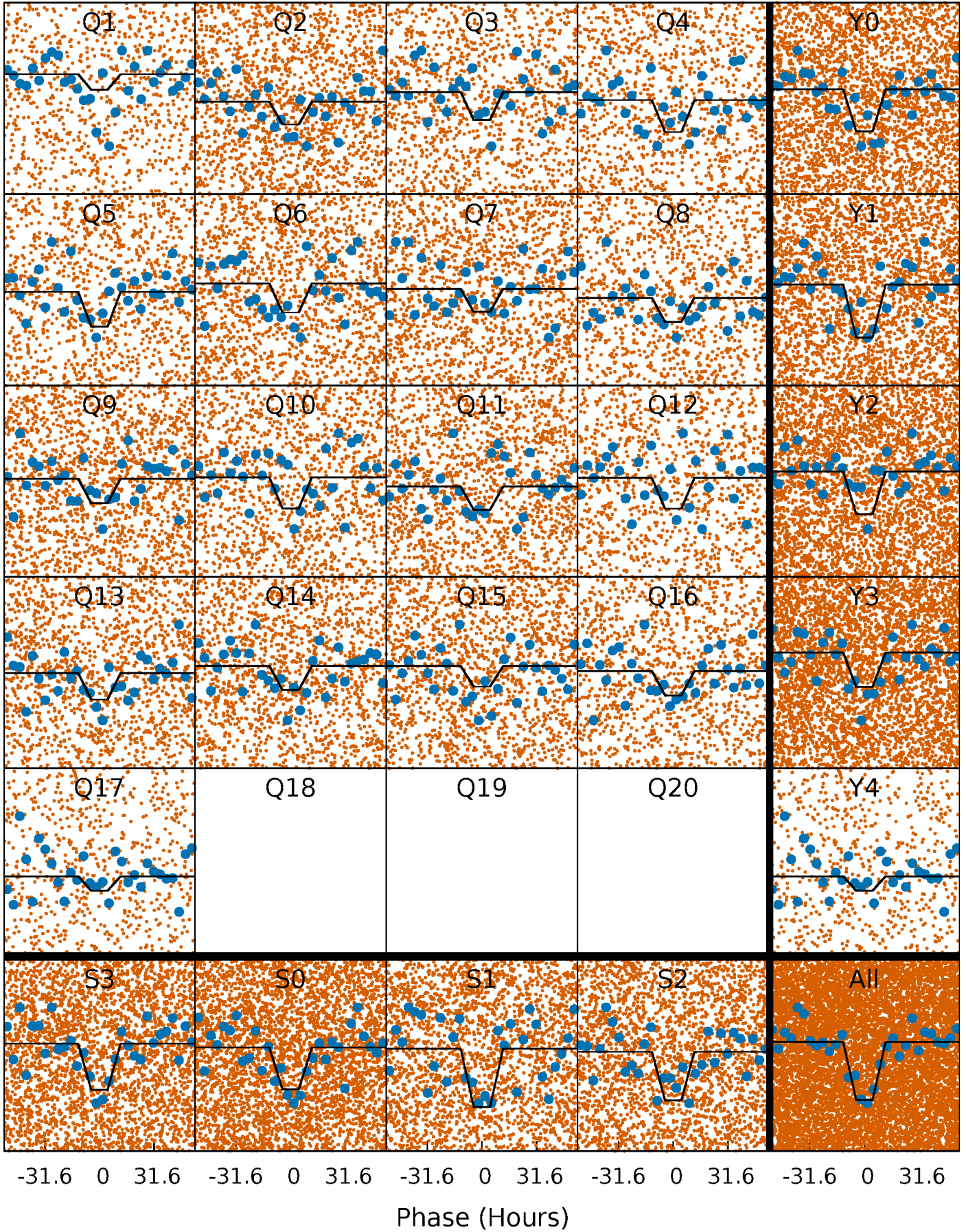
DV Quarter-Phased Transit Curves

TCE 006127152-01 P= 4.060724 Days $T_0=131.695880$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

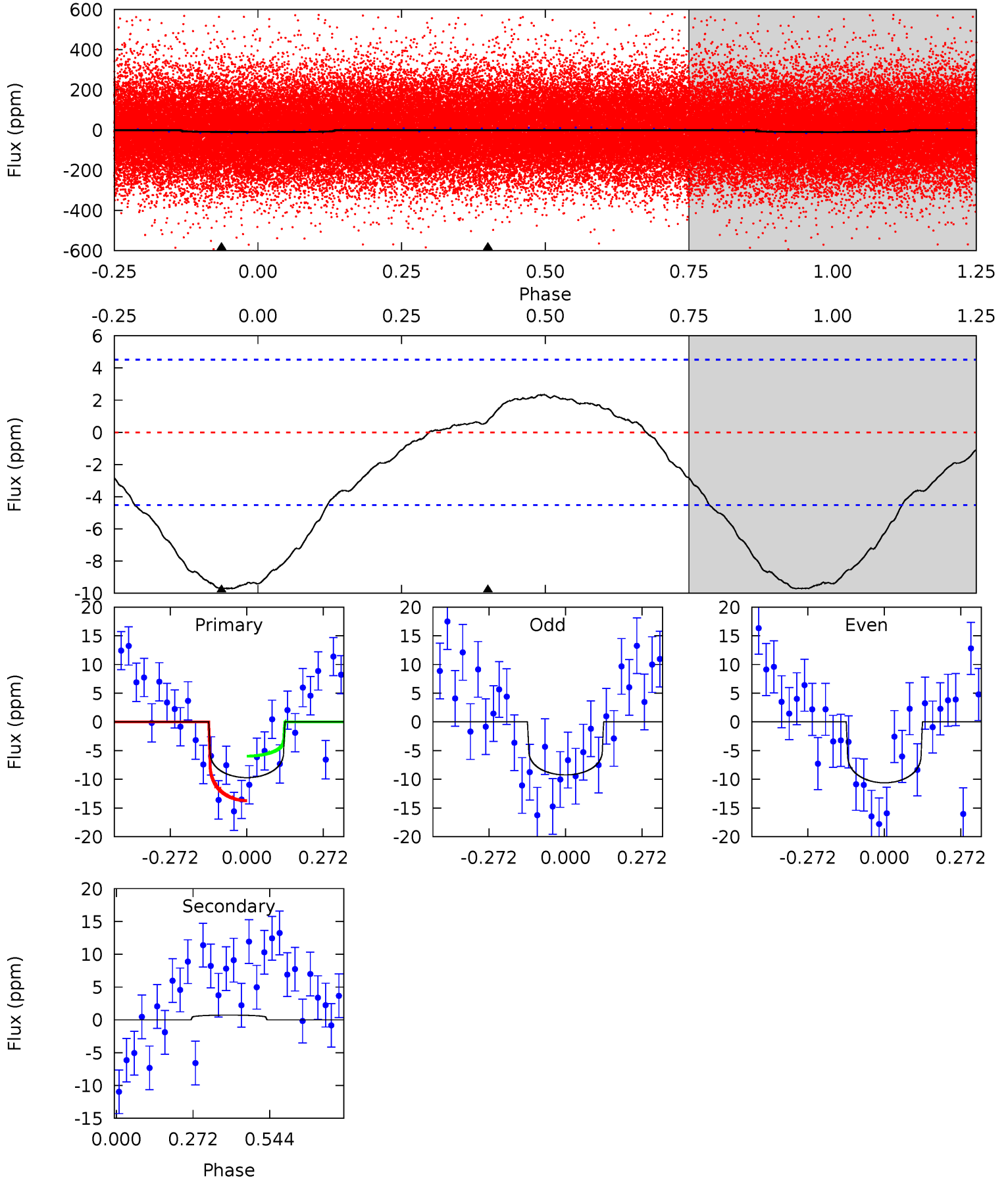
TCE 006127152-01 P= 4.059518 Days $T_0=131.735609$ (BKJD)



DV Model-Shift Uniqueness Test

006127152-01, P = 4.060724 Days, E = 127.635156 Days

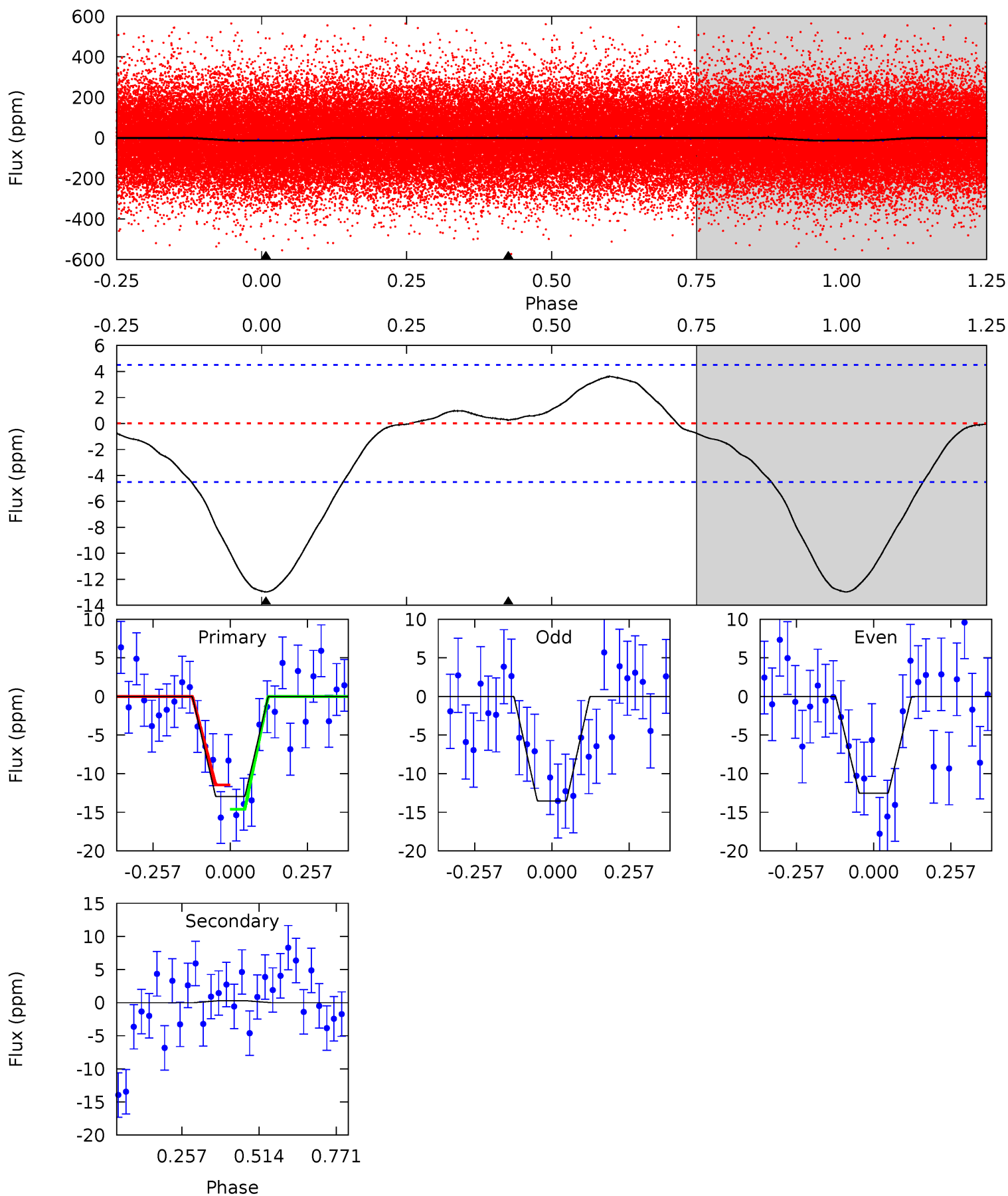
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.35	-0.70	0	0	4.35	1.10	1.32	9.35	9.35	-0.70	-0.70	0.65	0.84	0.19	3.71



Alt Model-Shift Uniqueness Test

006127152-01, P = 4.059518 Days, E = 127.676091 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	-0.26	0	0	4.36	1.13	1.02	12.6	12.6	-0.26	-0.26	0.48	1.02	0.22	1.50



Stellar Parameters For KIC 006127152

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7884^{+216}_{-351}	$4.040^{+0.155}_{-0.155}$	$0.070^{+0.150}_{-0.400}$	$2.154^{+0.461}_{-0.512}$	$1.853^{+0.147}_{-0.344}$	$0.261^{+0.246}_{-0.110}$
	+3%/-4%	+4%/-4%	+214%/-571%	+21%/-24%	+8%/-19%	+94%/-42%
Source	KIC0	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 006127152-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	1 ± 1	$0.73^{+0.43}_{-0.44}$	2864^{+194}_{-192}	-4176^{+7351}_{-1917}	$-2.247^{+2.989}_{-14.061}$
Alt.	0 ± 1	$0.85^{+0.52}_{-0.44}$	2879^{+186}_{-209}	-3488^{+7375}_{-1495}	$-0.566^{+2.521}_{-5.279}$

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

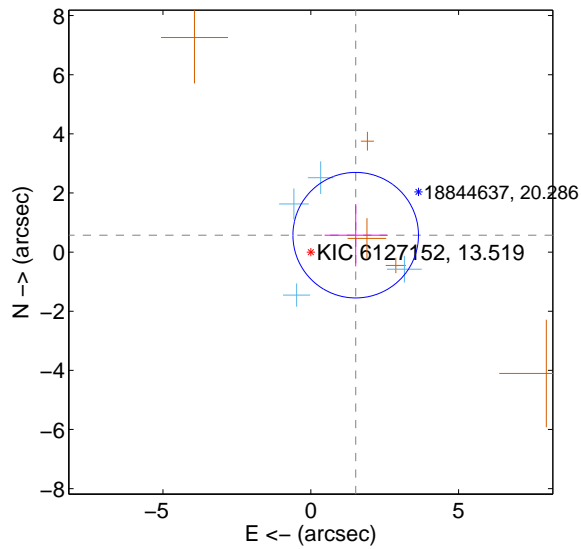
Supplemental centroid analysis for 006127152-01. Kepler magnitude: 13.52. Transit SNR 6.85

There are 4 quarters with good PRF difference image offsets

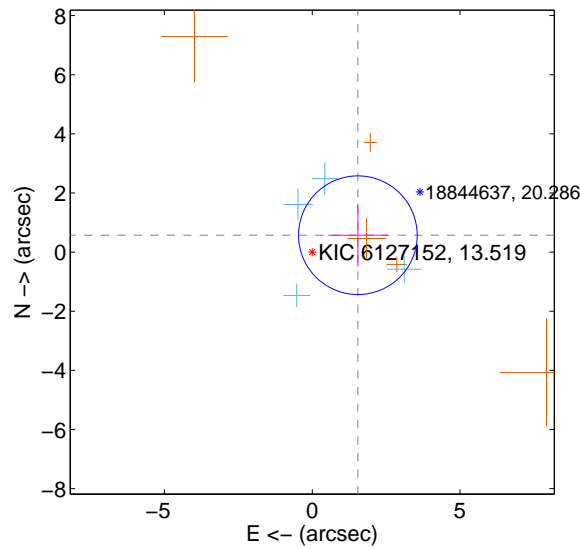
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.624 ± 0.708	2.29	-1.519 ± 1.054	0.573 ± 1.053
PRF-fit source offset from KIC position	1.646 ± 0.669	2.46	-1.544 ± 1.002	0.571 ± 1.061
photometric centroid source offset	1.26 ± 1.86	0.68	1.05 ± 1.92	-0.70 ± 1.69

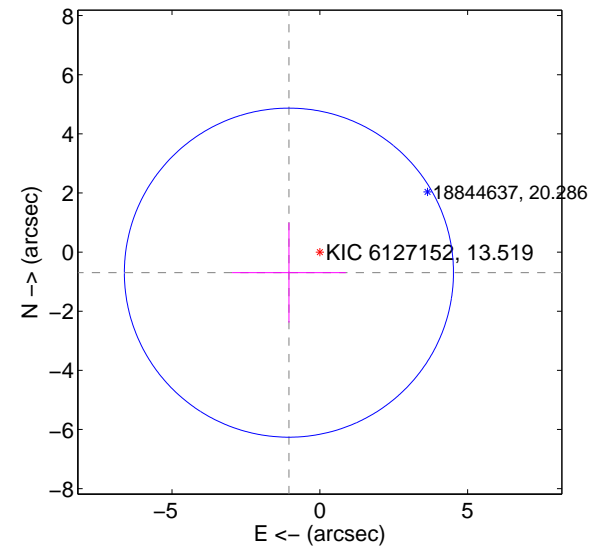
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

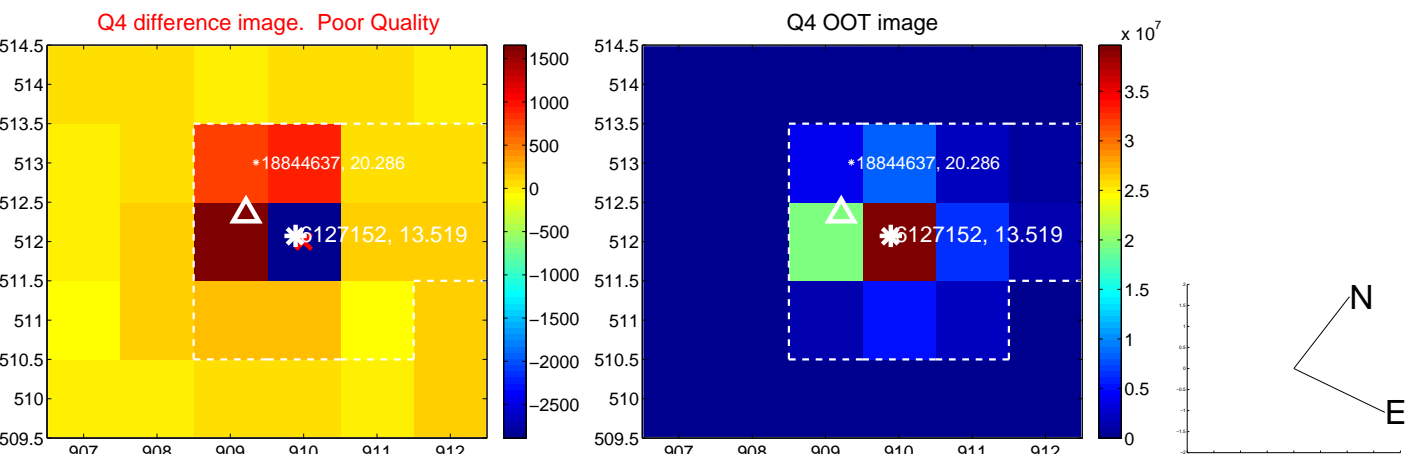
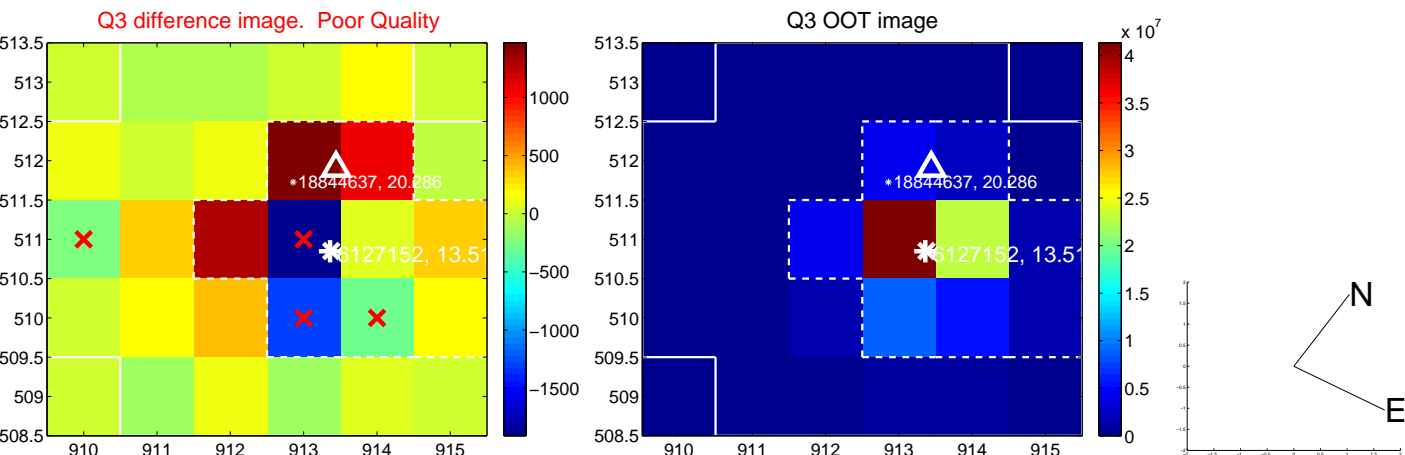
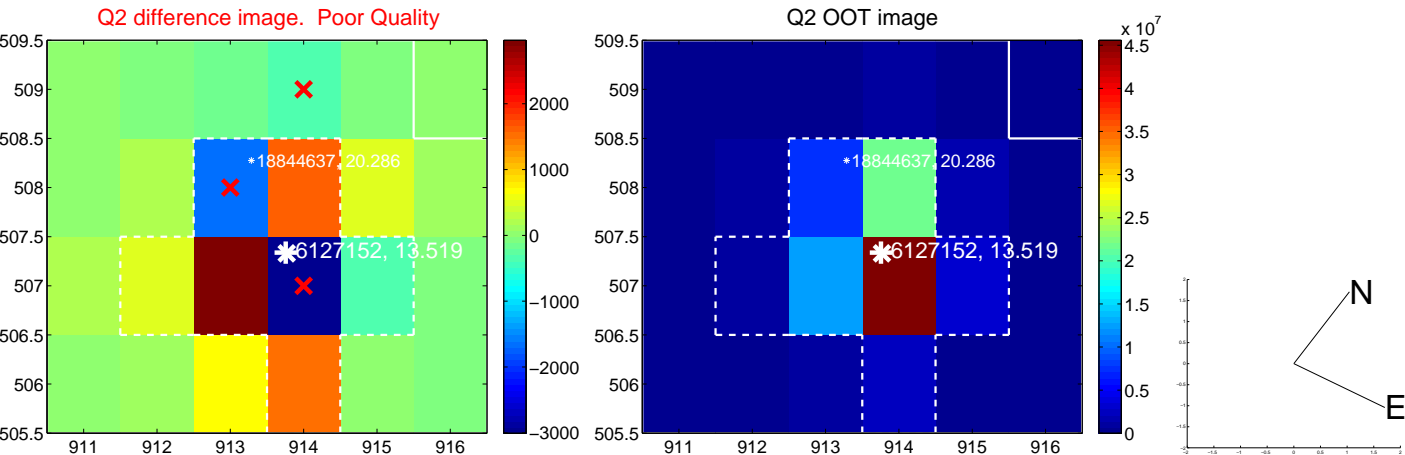
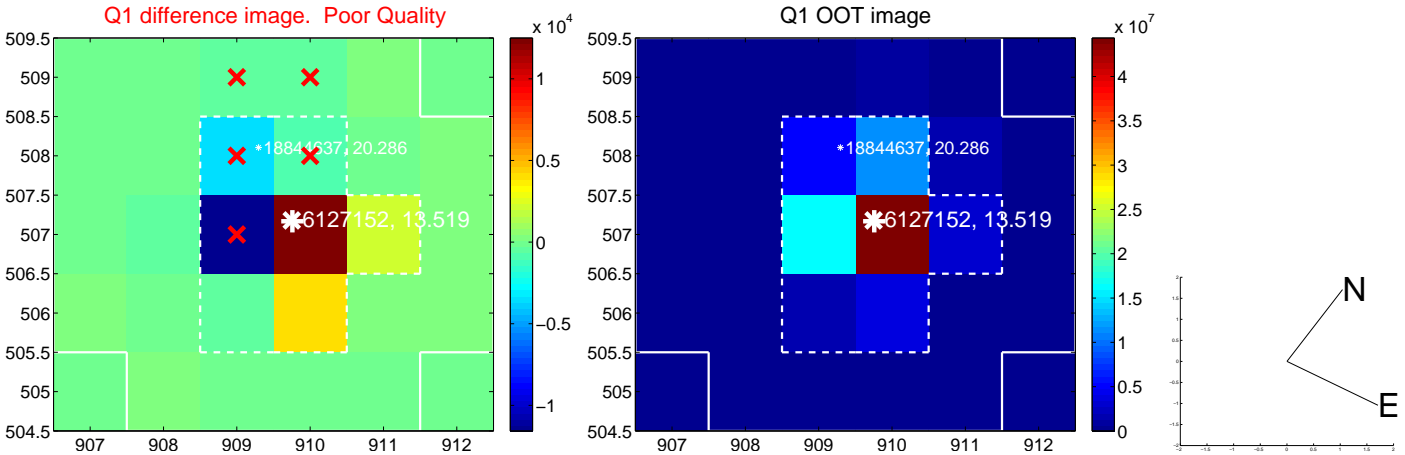


offset from photometric centroids

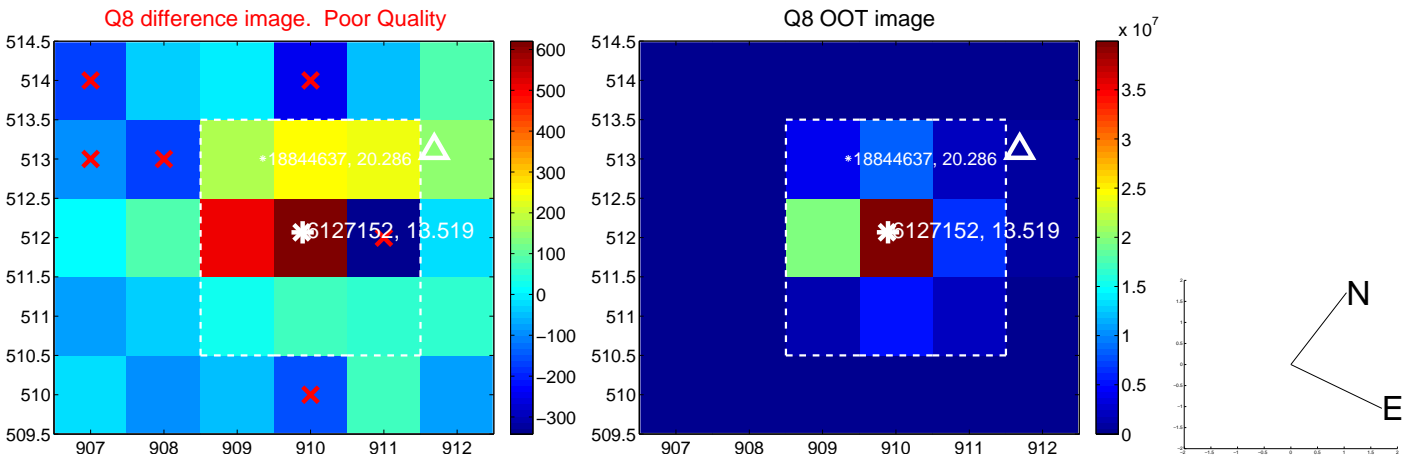
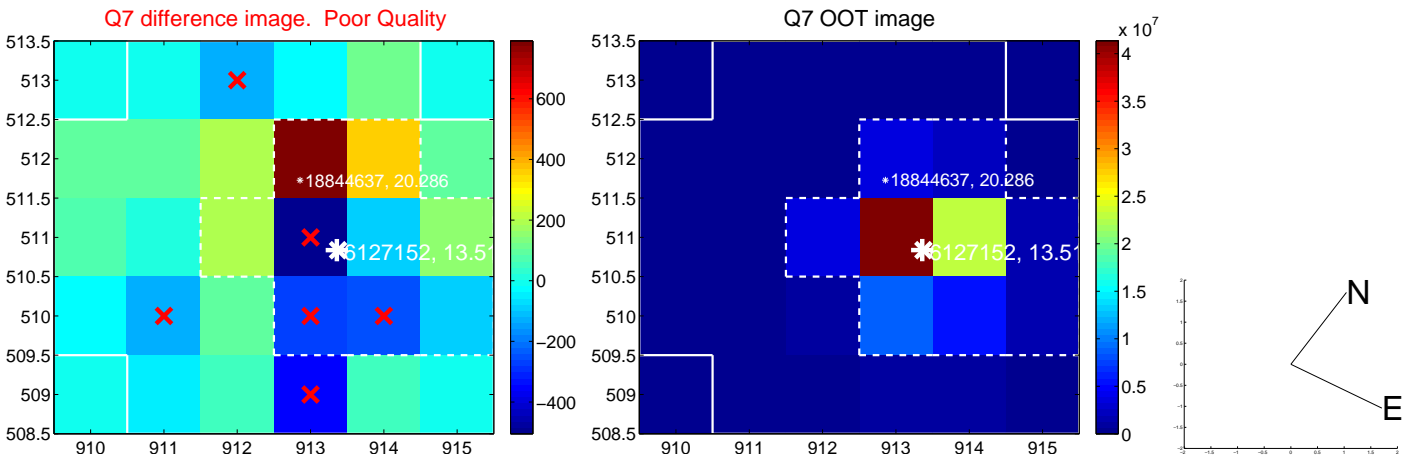
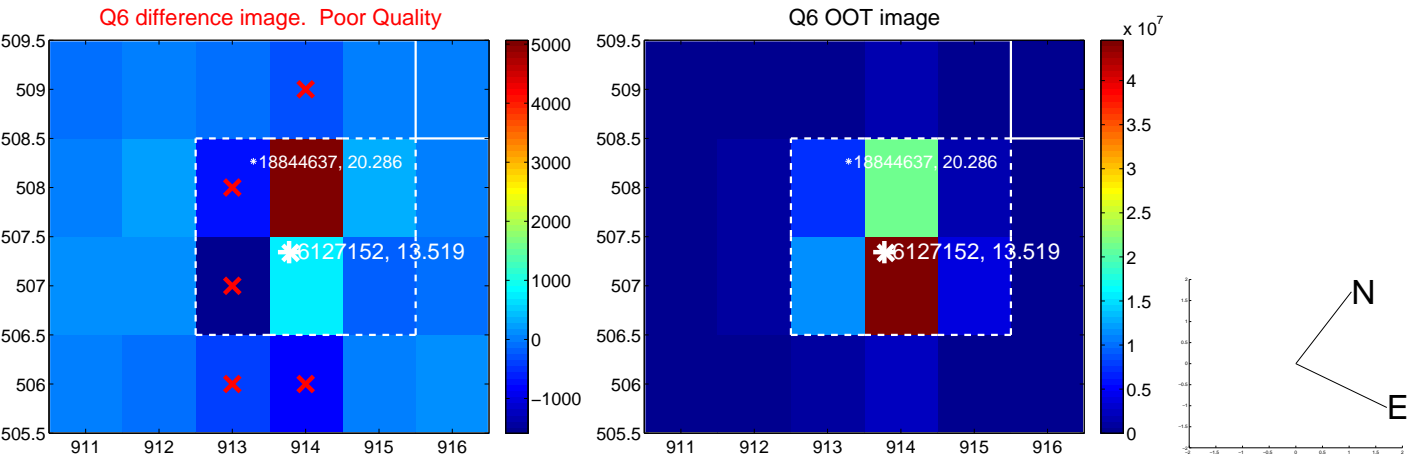
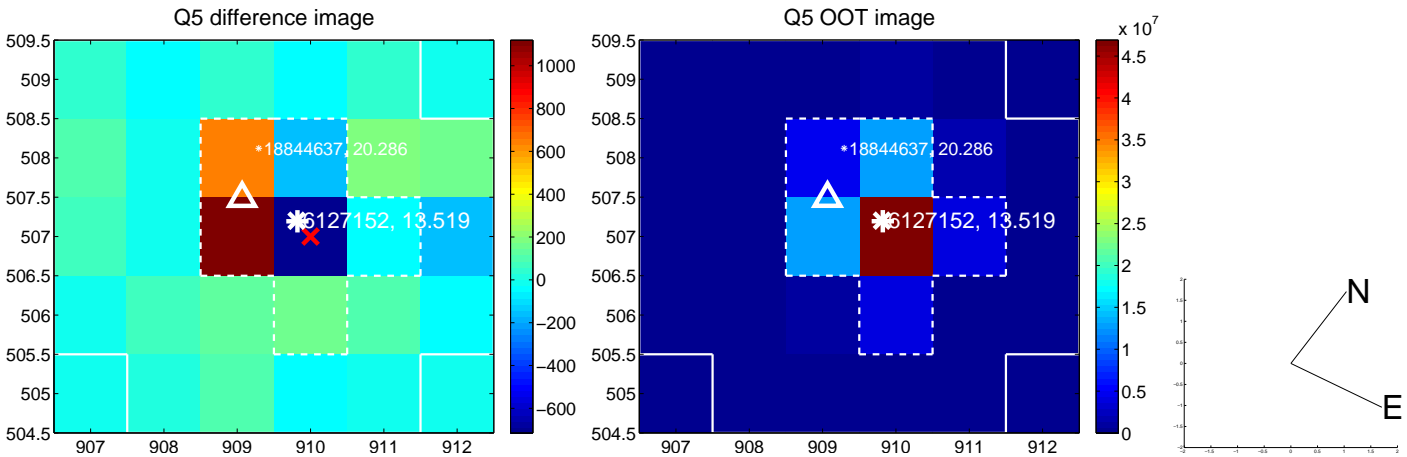


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

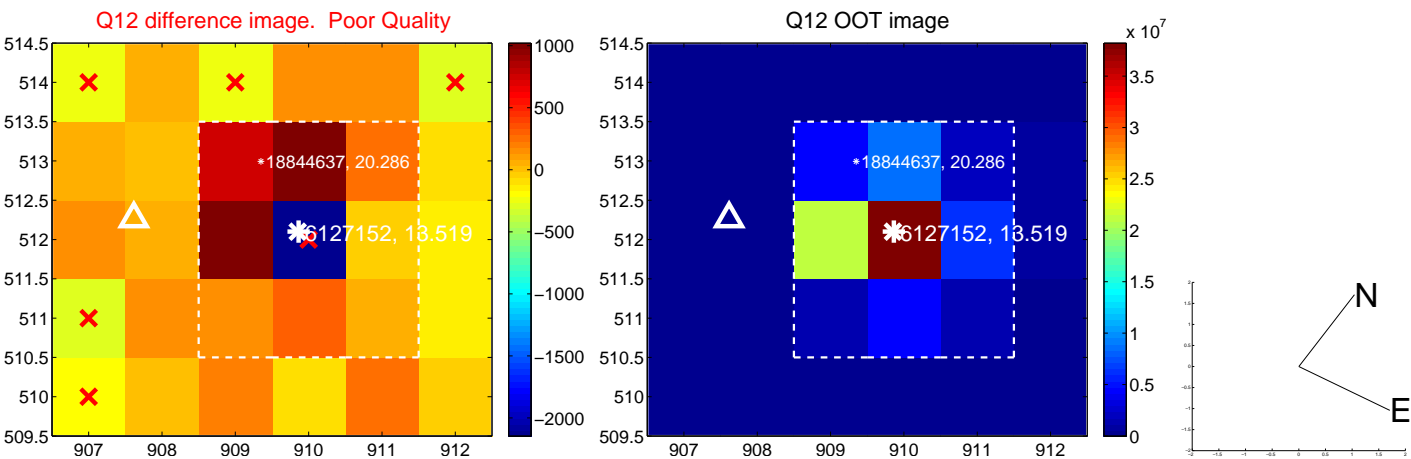
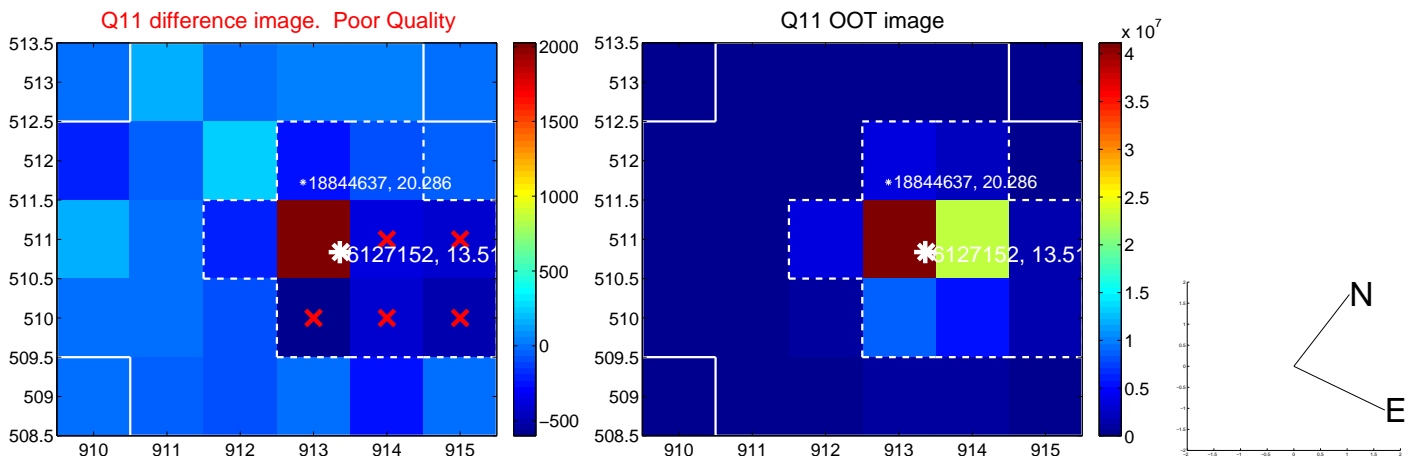
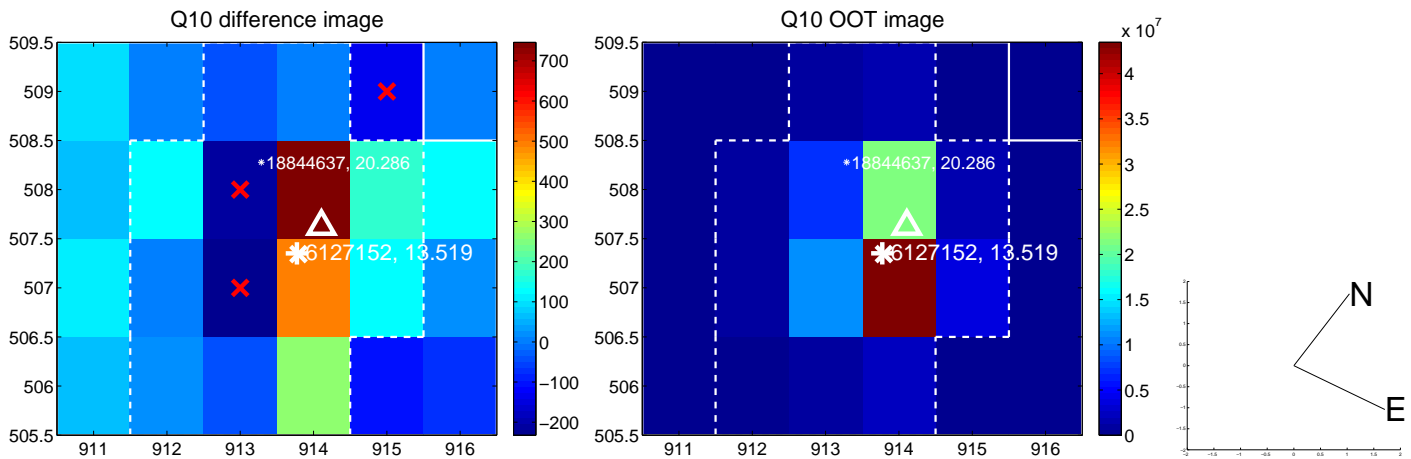
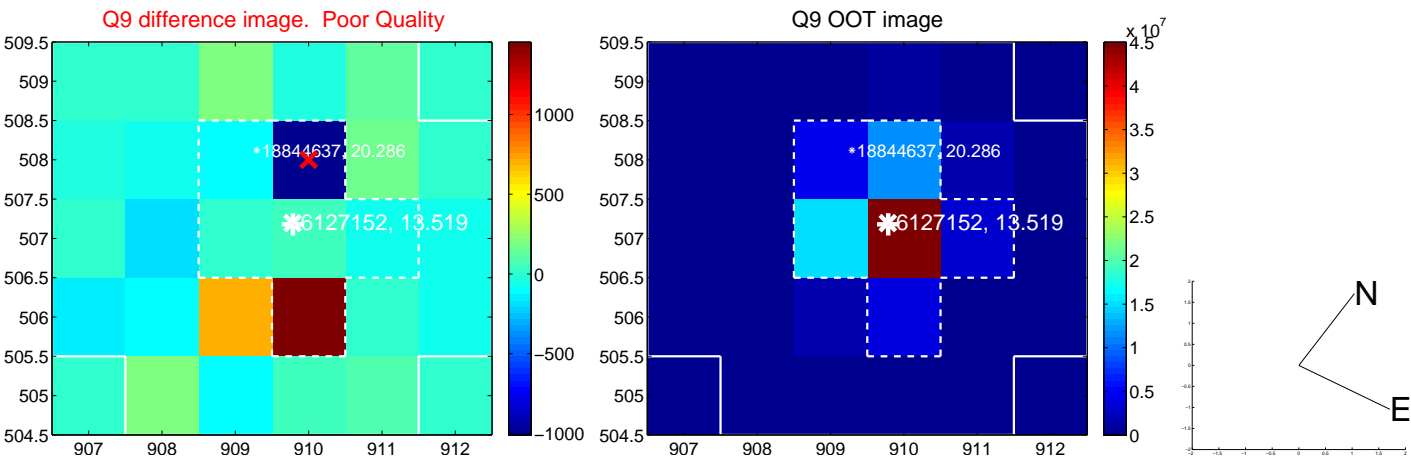
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



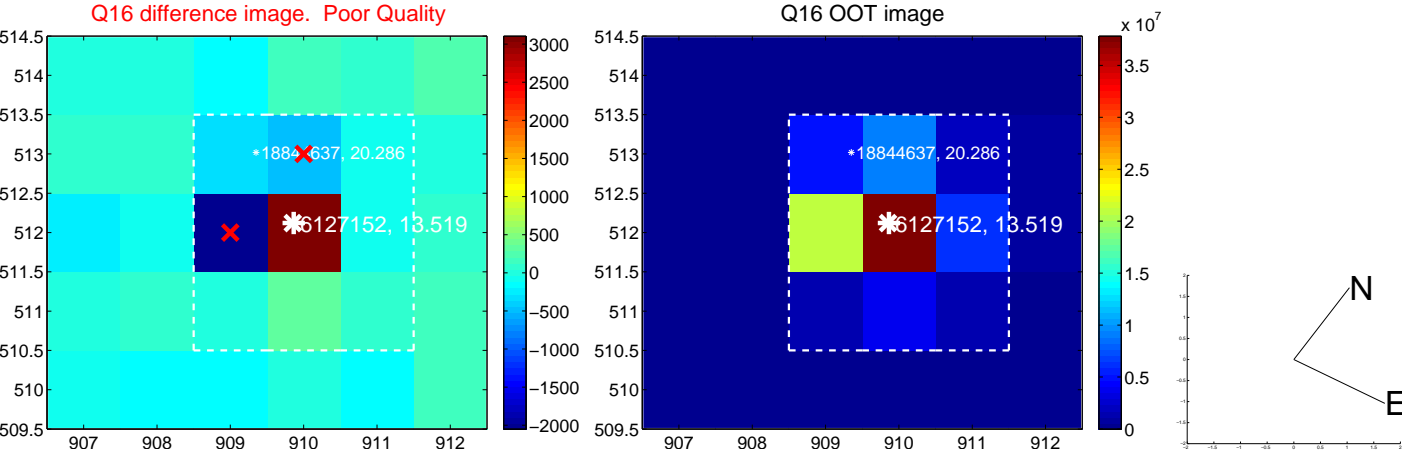
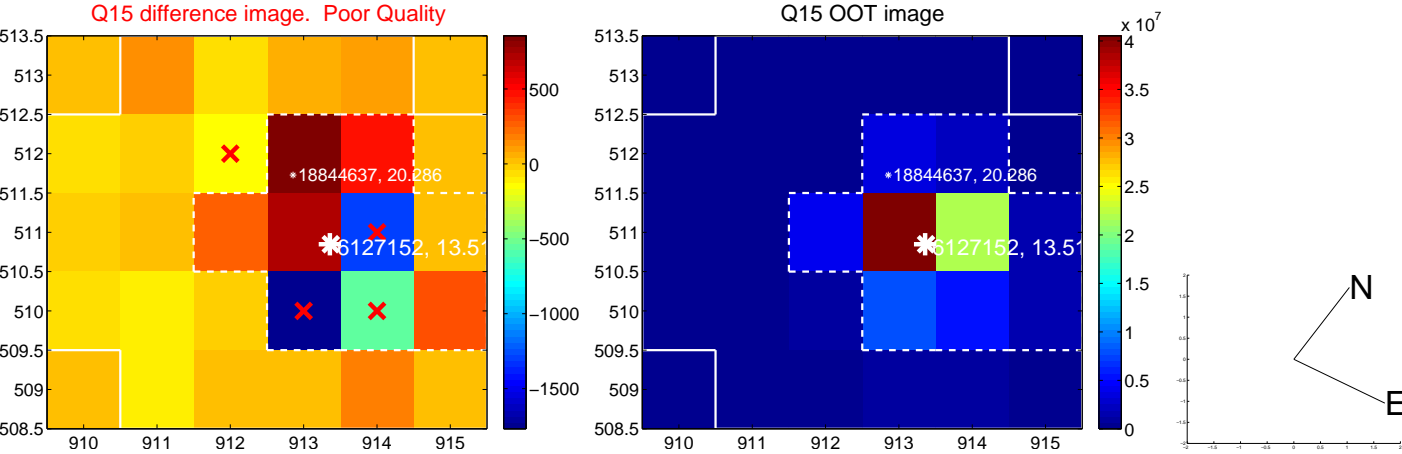
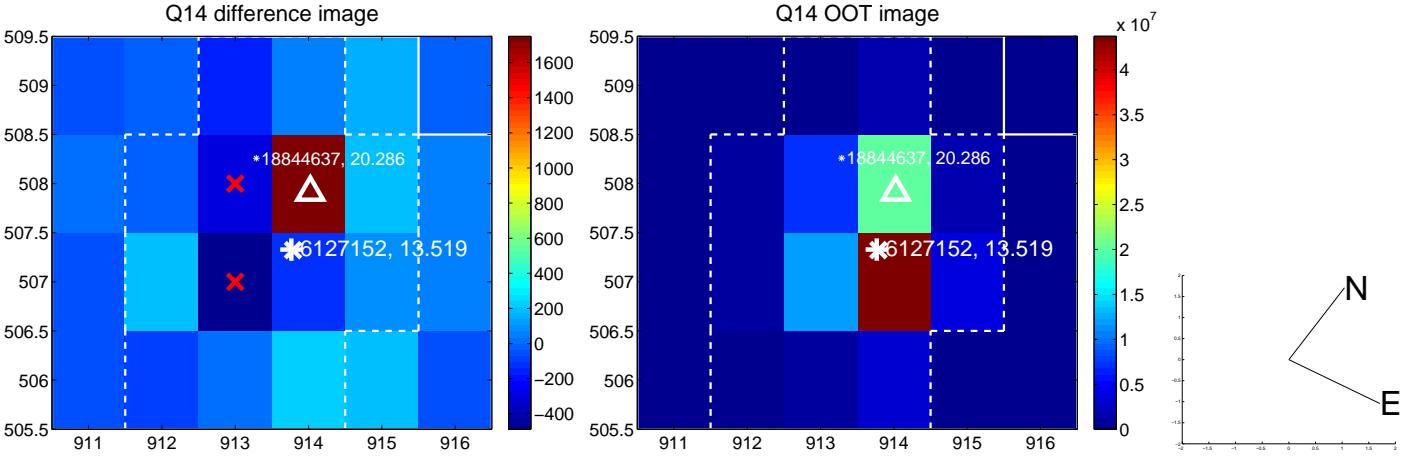
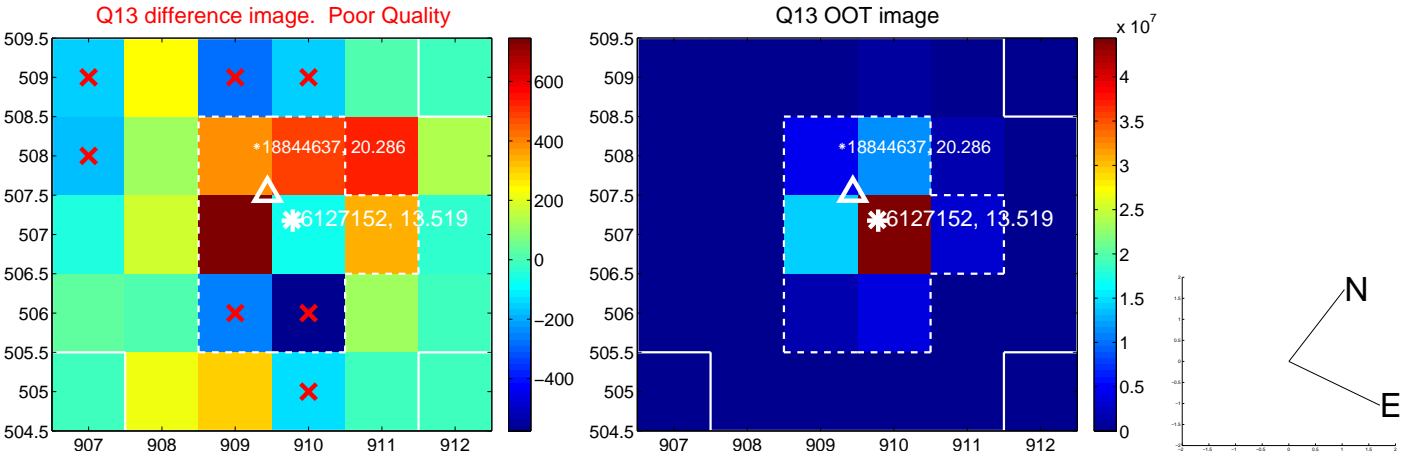
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



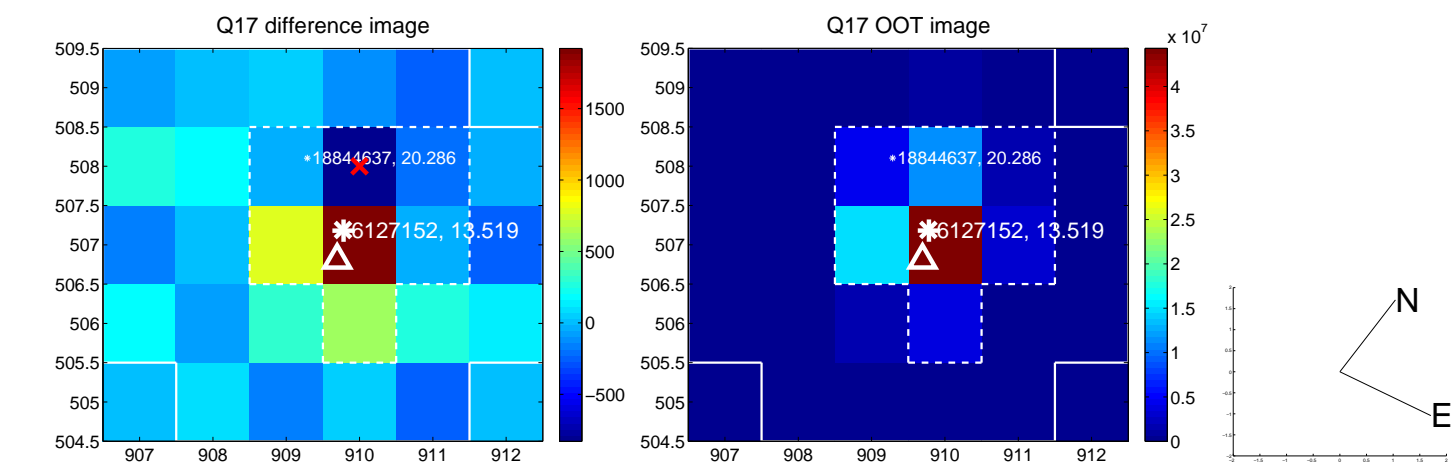
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



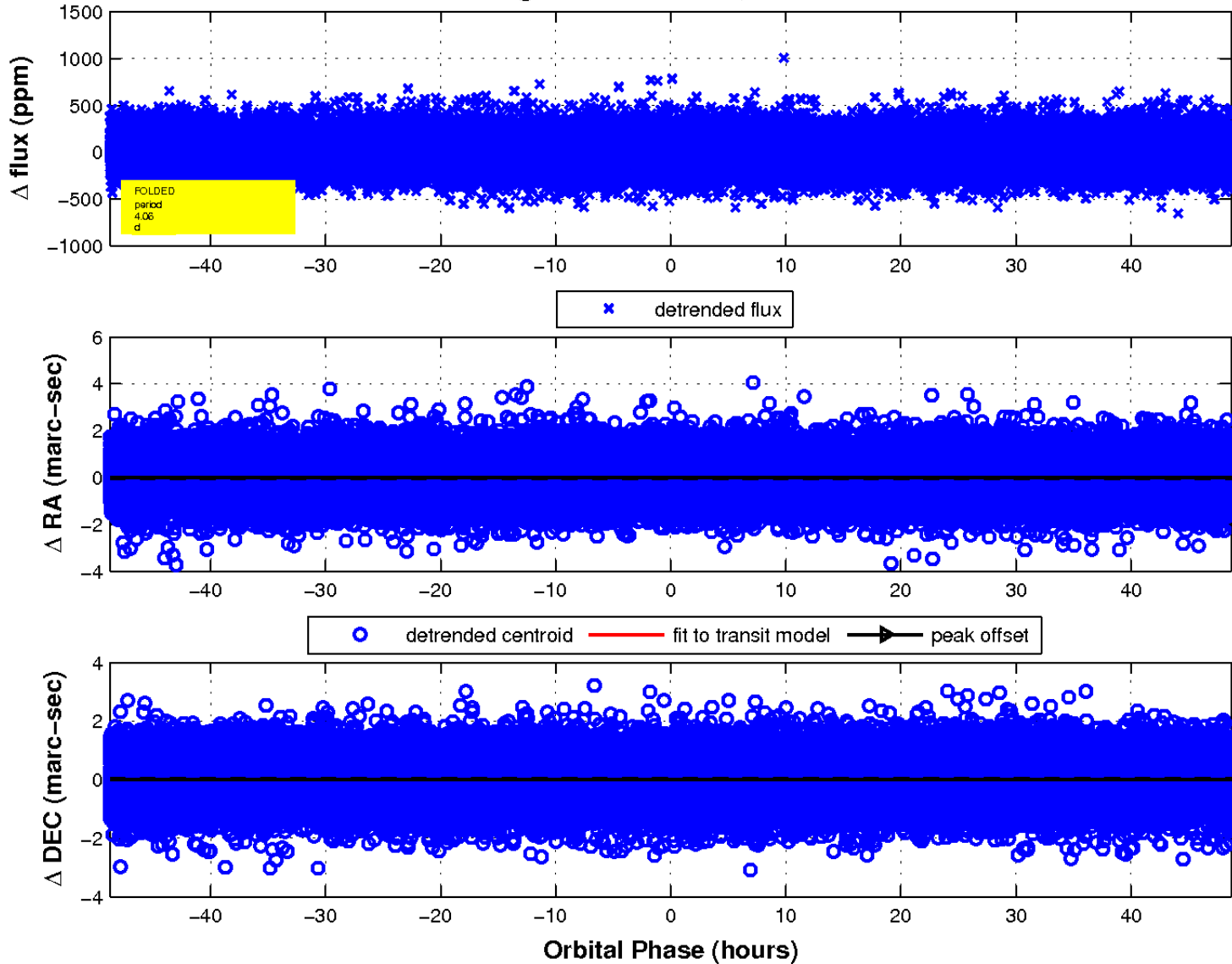
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

