

KIC 004946627

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})
004946627-01	OBS	No	0.561240	131.541345	2.8	5.984	10.0	2.1	3.50	6804	0.59	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004946627-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

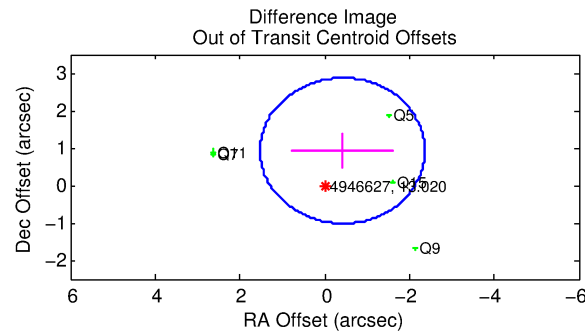
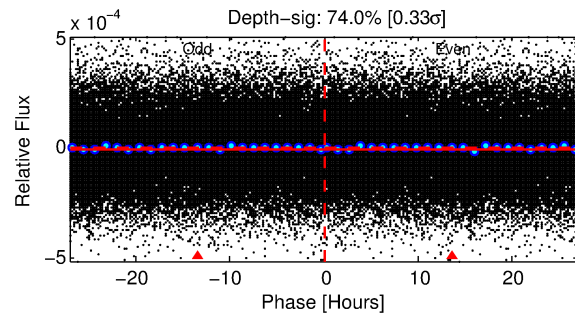
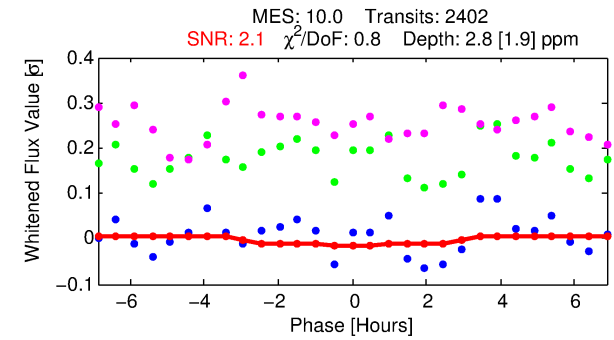
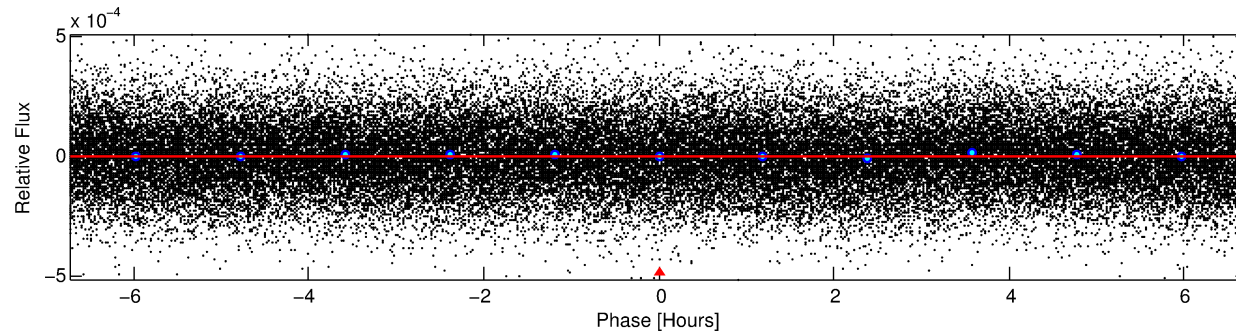
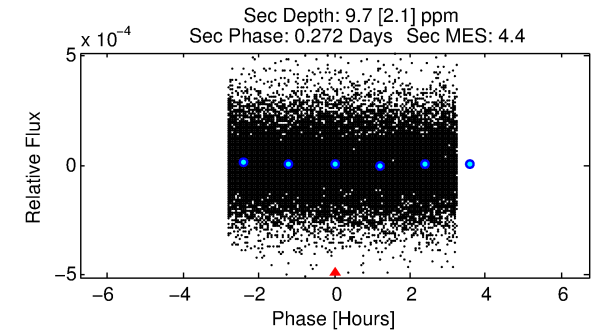
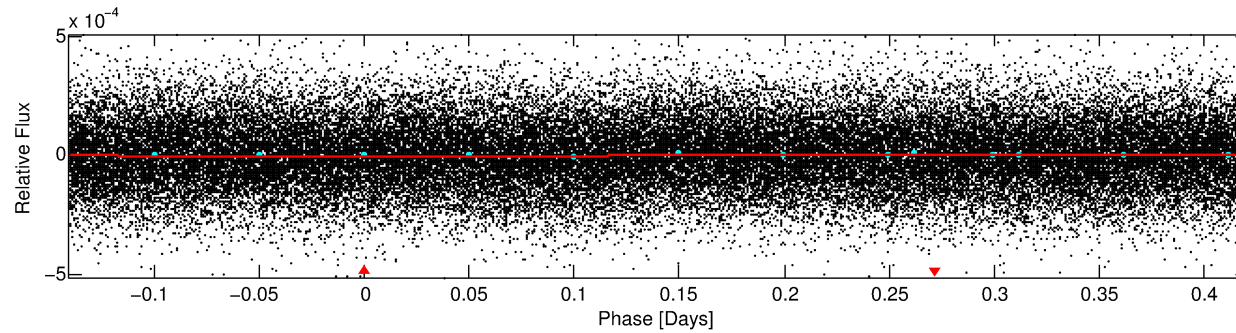
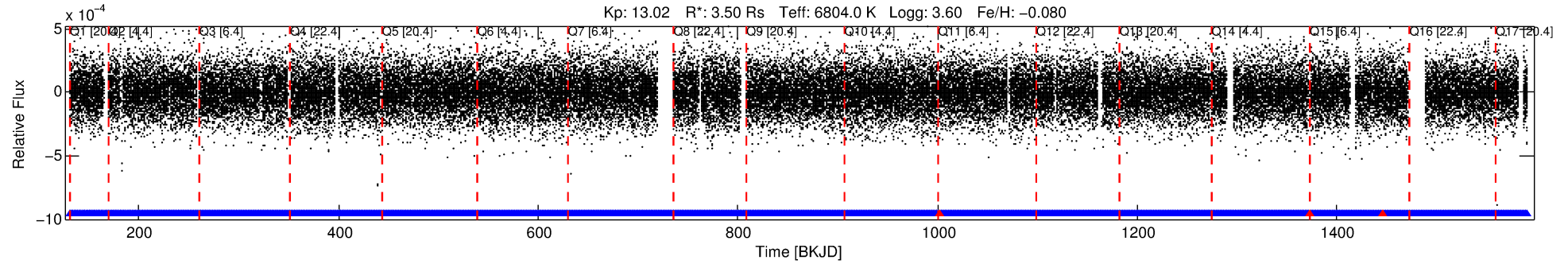
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004946627-01

No Significant Match Found

DV One-Page Summary

KIC: 4946627 Candidate: 1 of 1 Period: 0.561 d



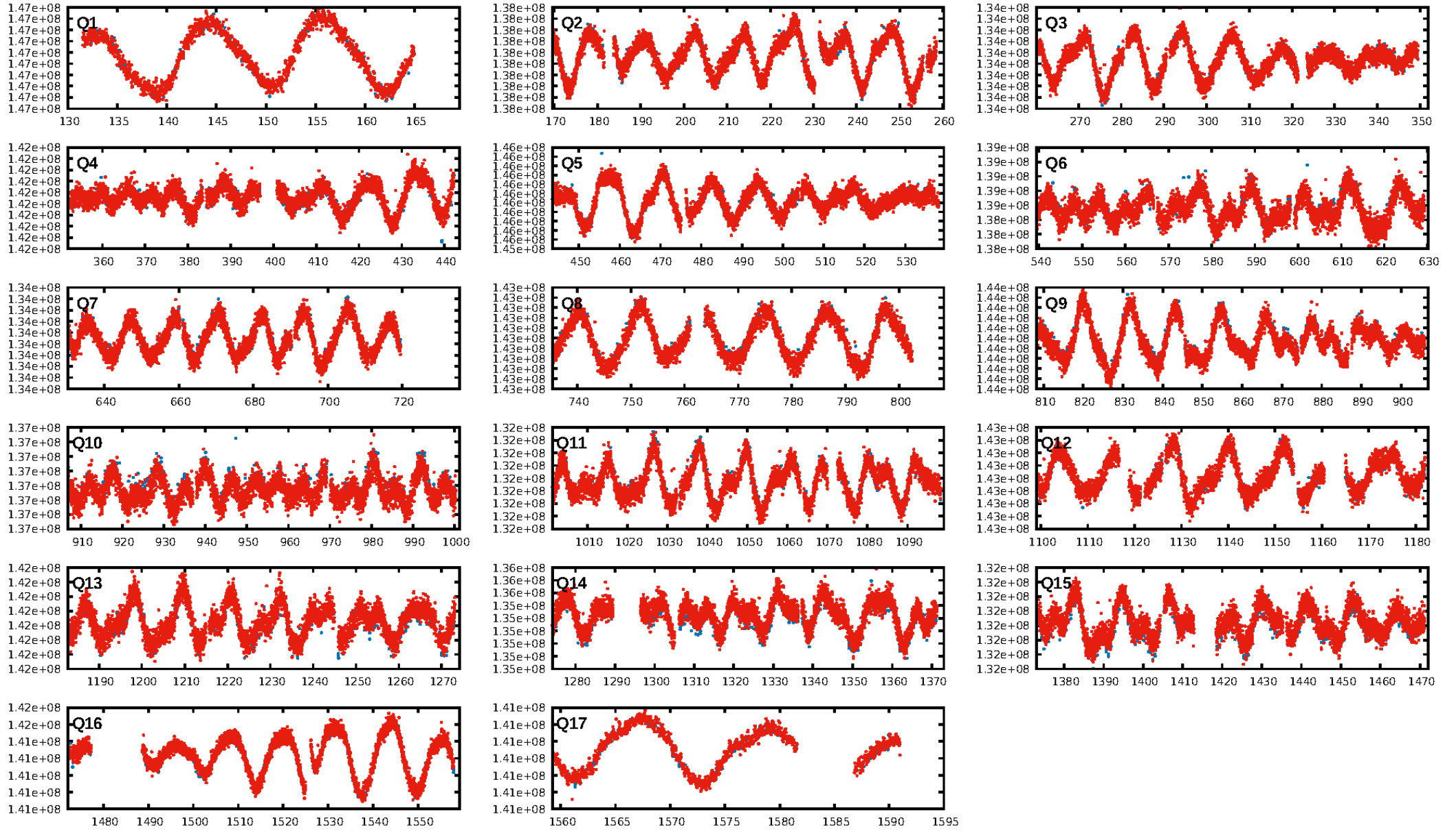
DV Fit Results:

Period = 0.56124 [0.00005] d
Epoch = 131.5413 [0.0231] BKJD
Rp/R* = 0.0015 [0.0045]
a/R* = 1.02 [0.53]
b = 0.01 [2322.95]
Seff = N/A
Teq = N/A
Rp = 0.59 [1.71] Re
a = N/A
Ag = N/A
Teffp = N/A

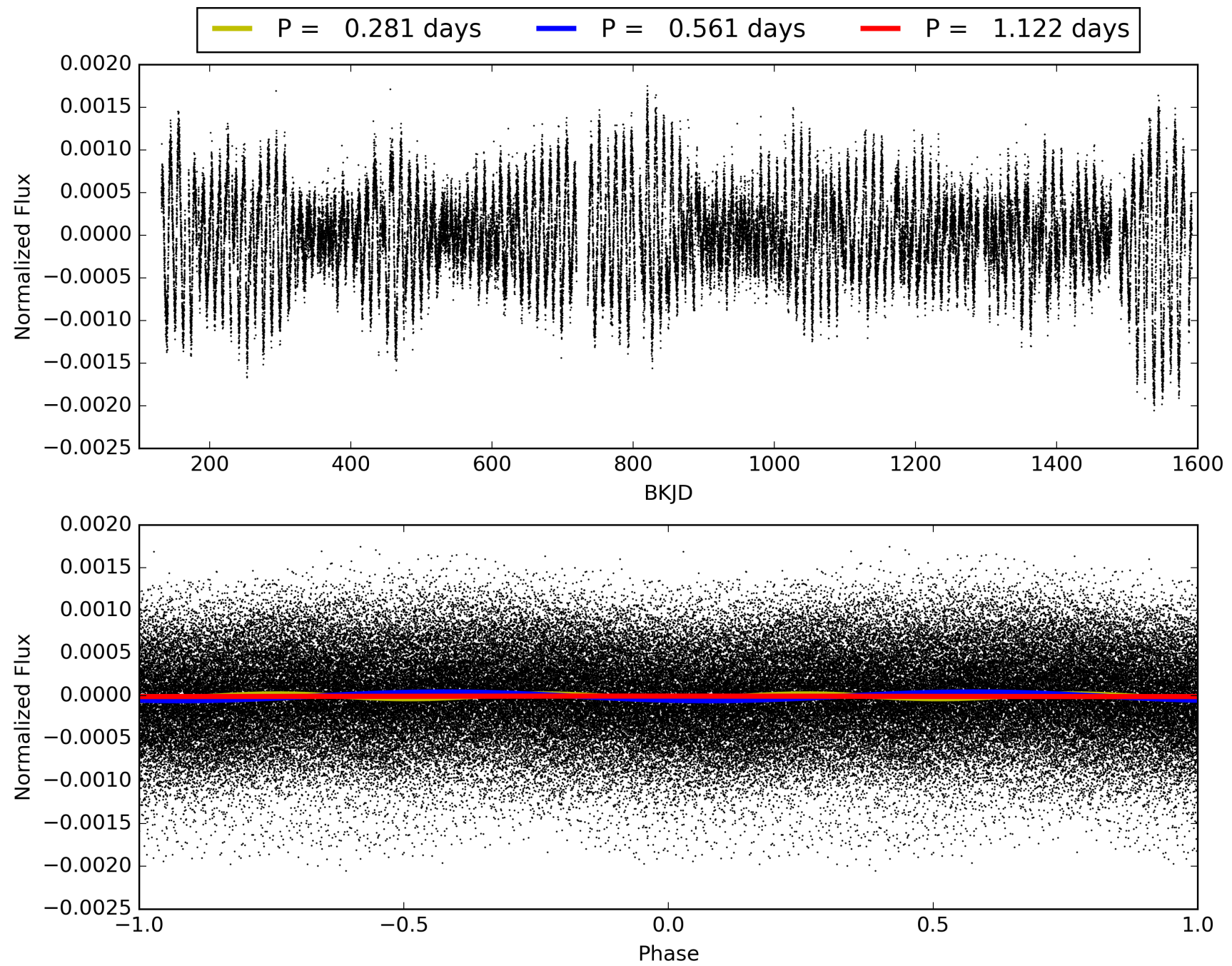
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [2291/2294]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 1.017 arcsec [1.57σ]
KicOffset-rm: 1.107 arcsec [1.82σ]
OotOffset-st: 0/3/0/2 [5]
KicOffset-st: 0/3/0/2 [5]
DiffImageQuality-fgm: 0.00 [0/5]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 004946627-01, PDC Light Curves

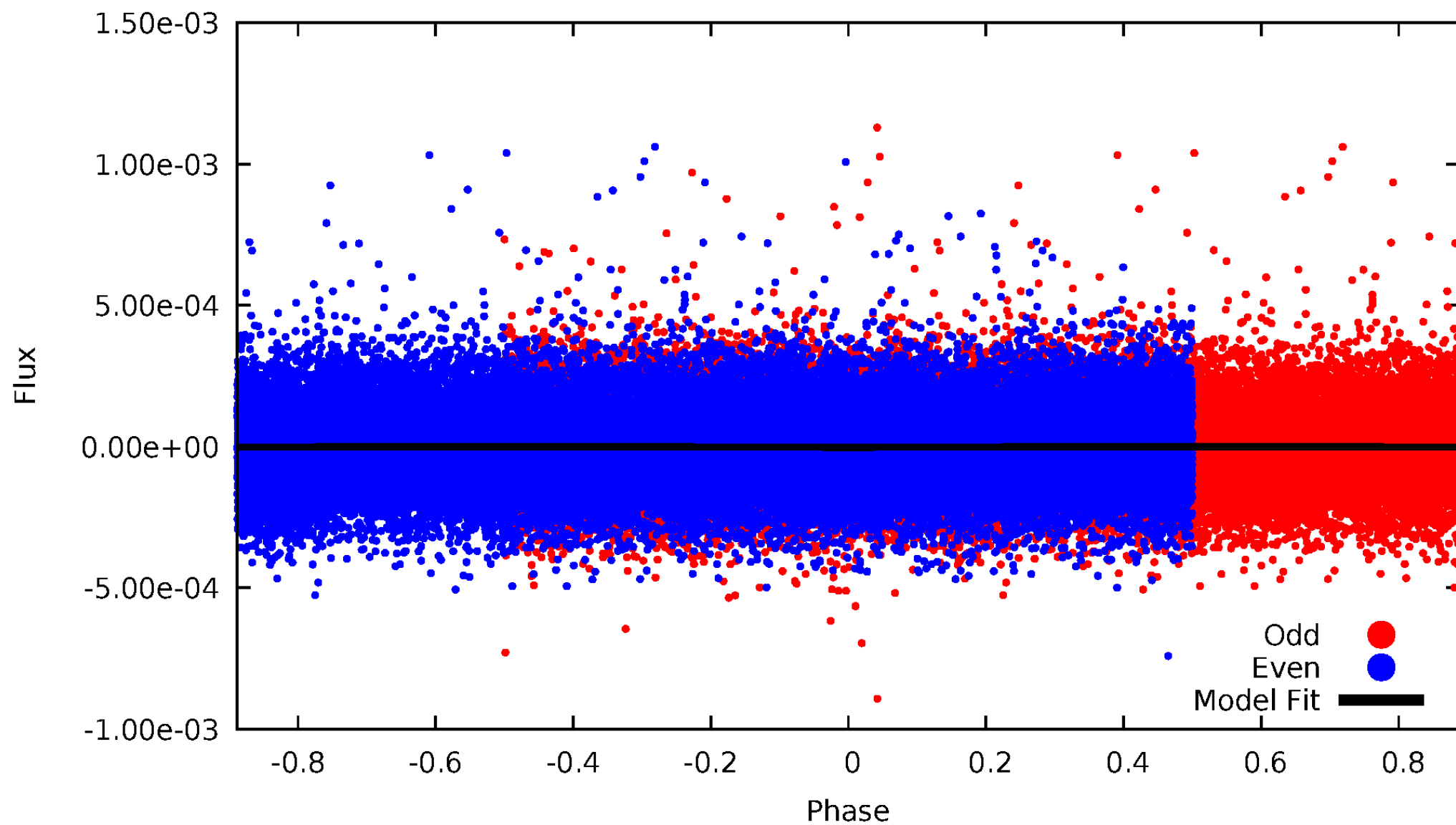


TCE 004946627-01



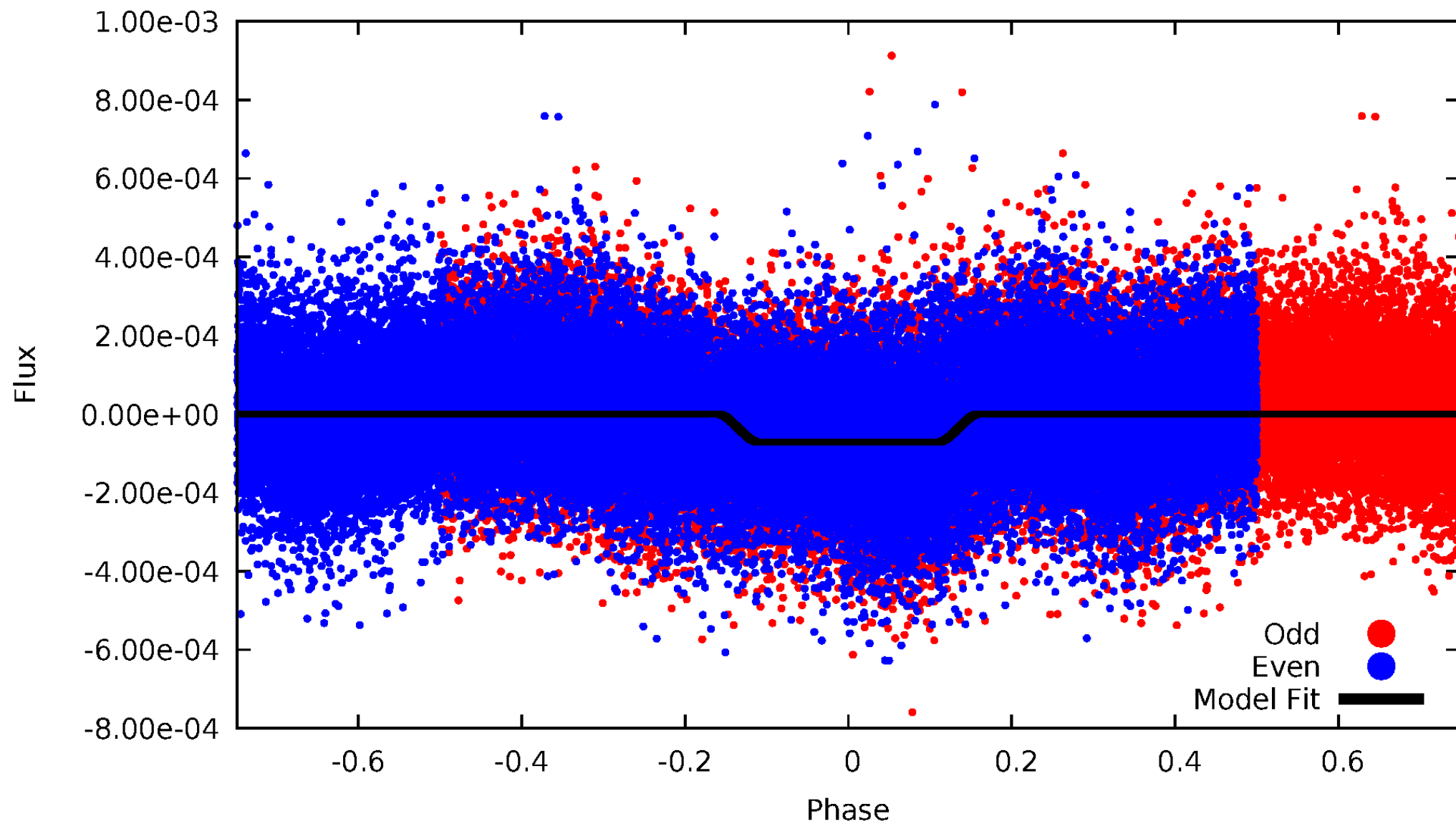
DV Odd/Even

TCE 004946627-01

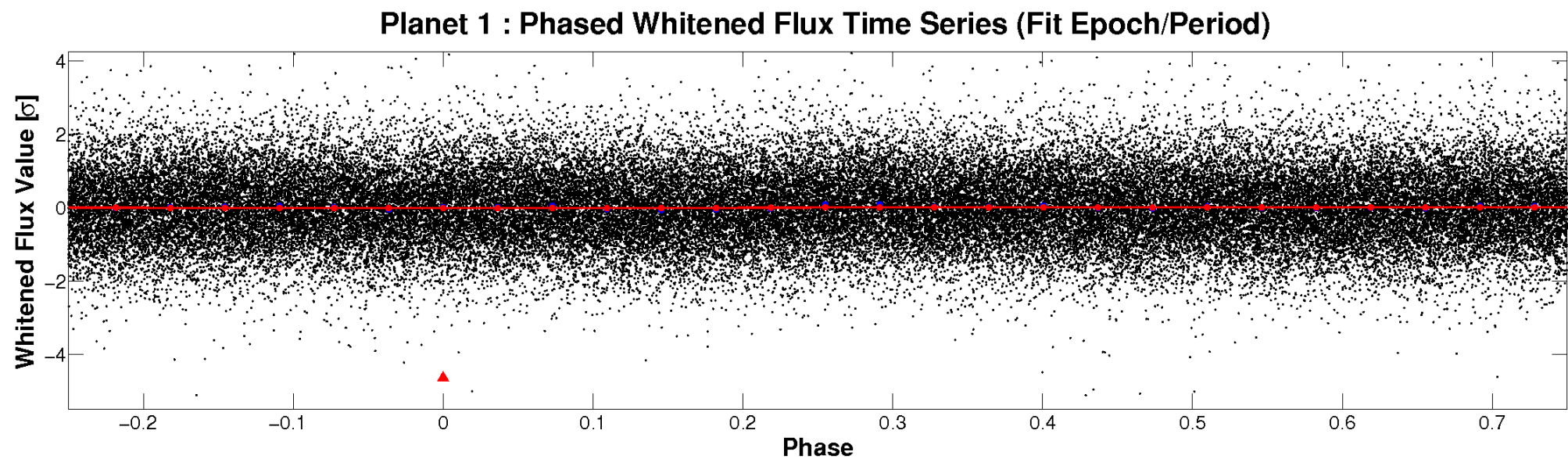
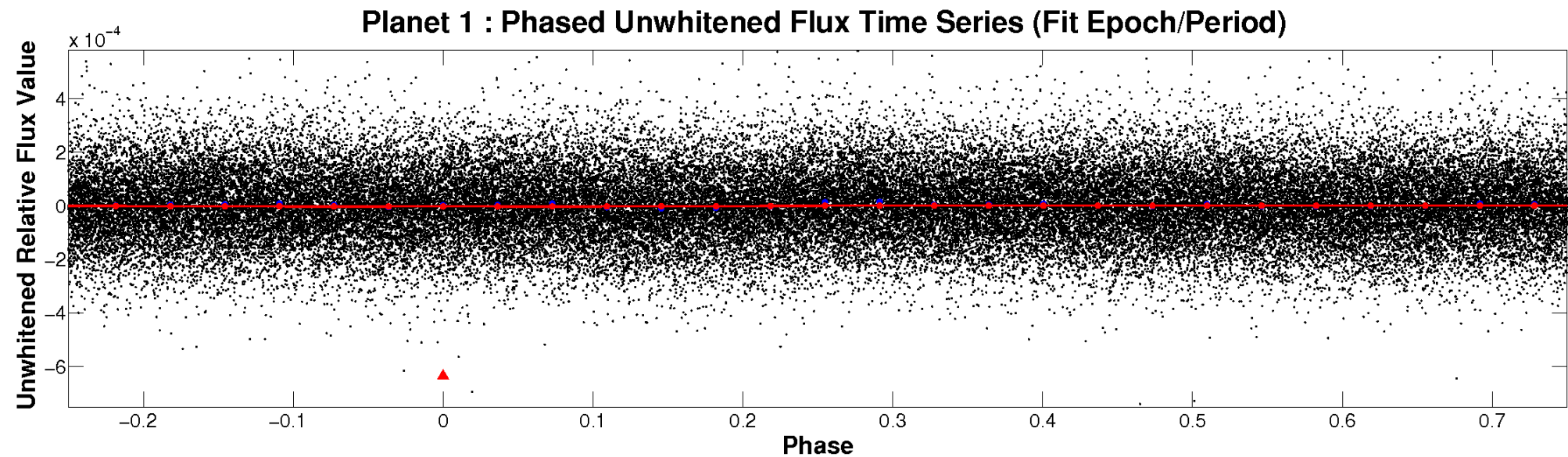


ALT Odd/Even

TCE 004946627-01

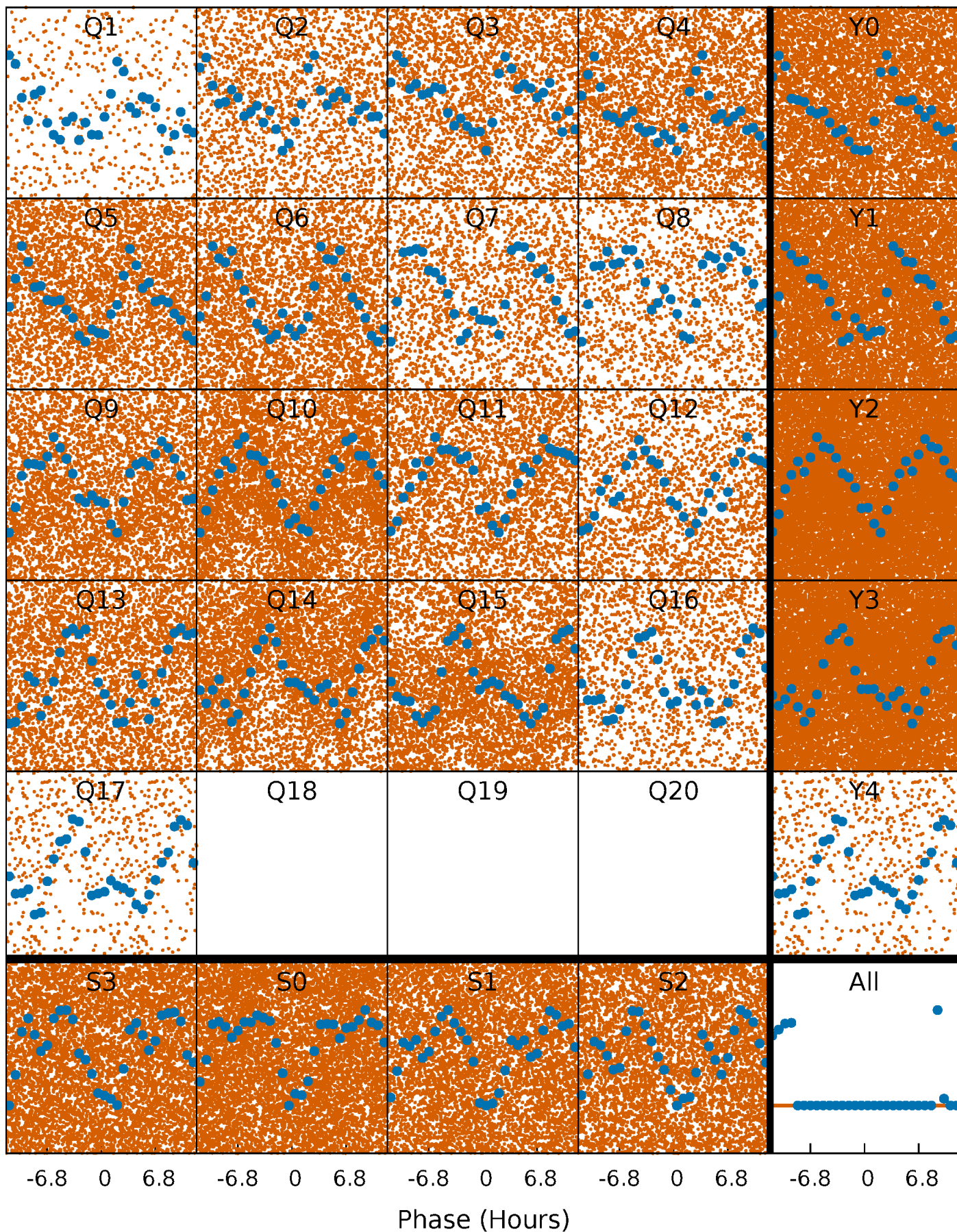


Non-Whitened Vs. Whitened Light Curve



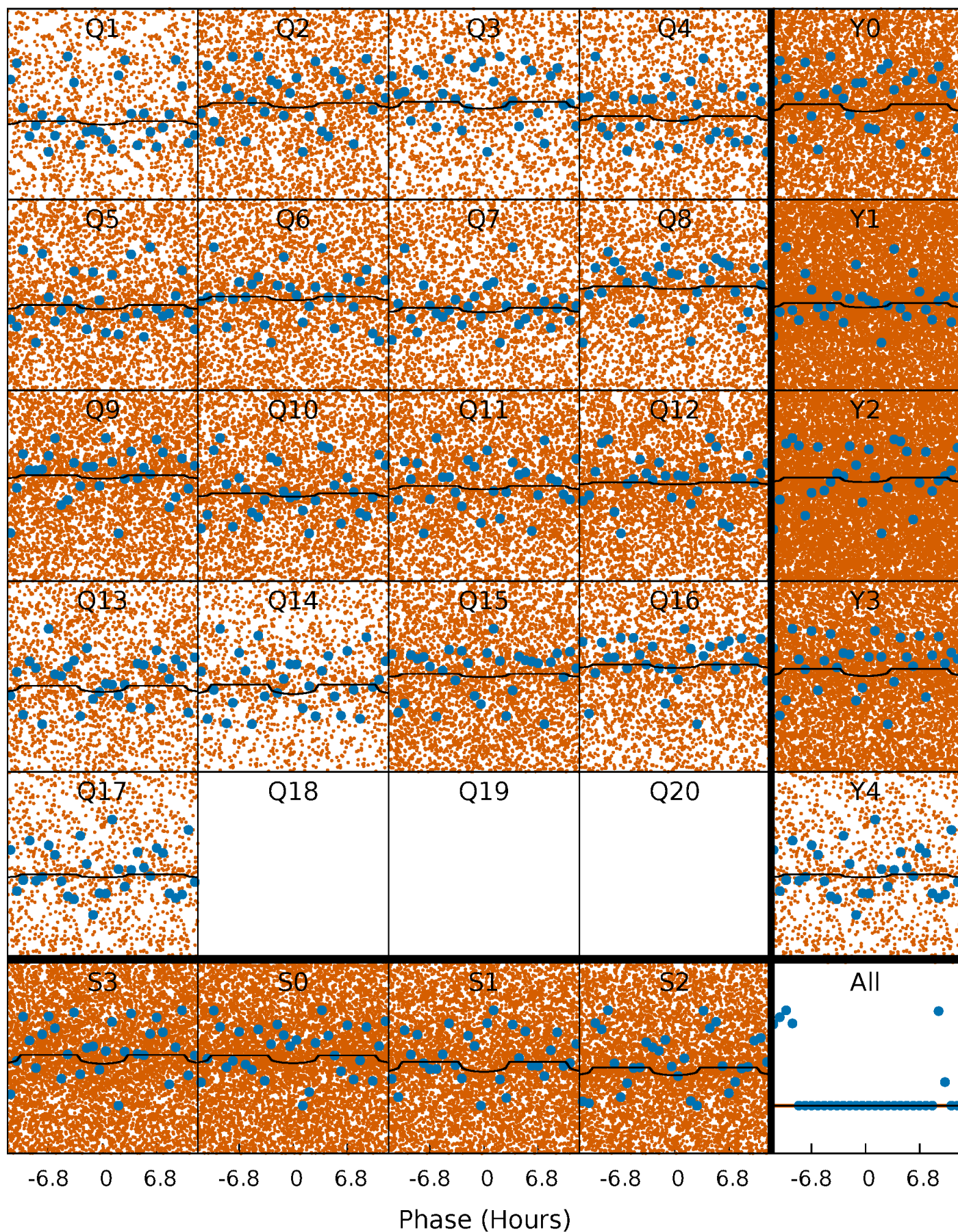
PDC Quarter-Phased Transit Curves

TCE 004946627-01 P= 0.561240 Days $T_0=131.541345$ (BKJD)



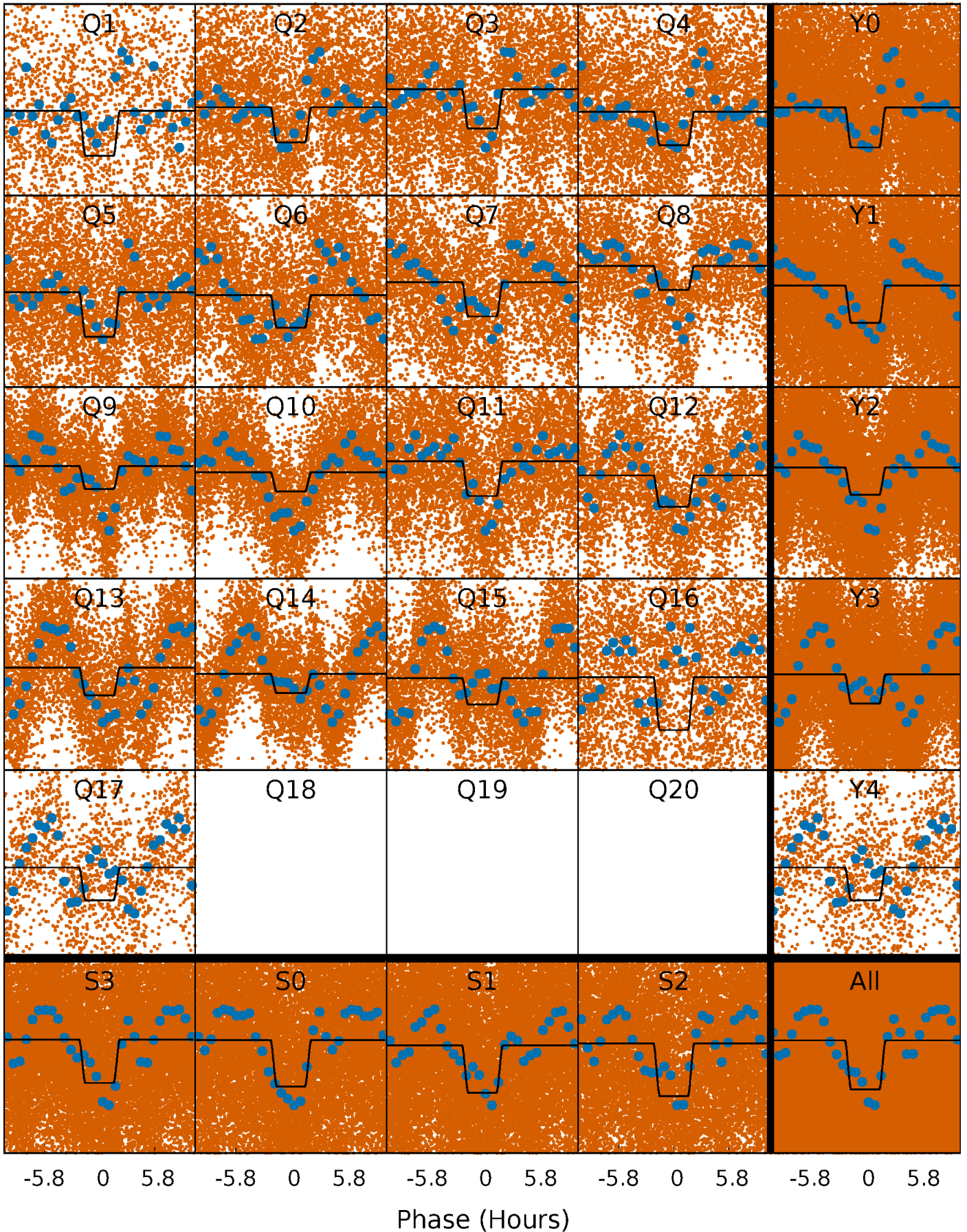
DV Quarter-Phased Transit Curves

TCE 004946627-01 P= 0.561240 Days $T_0=131.541345$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

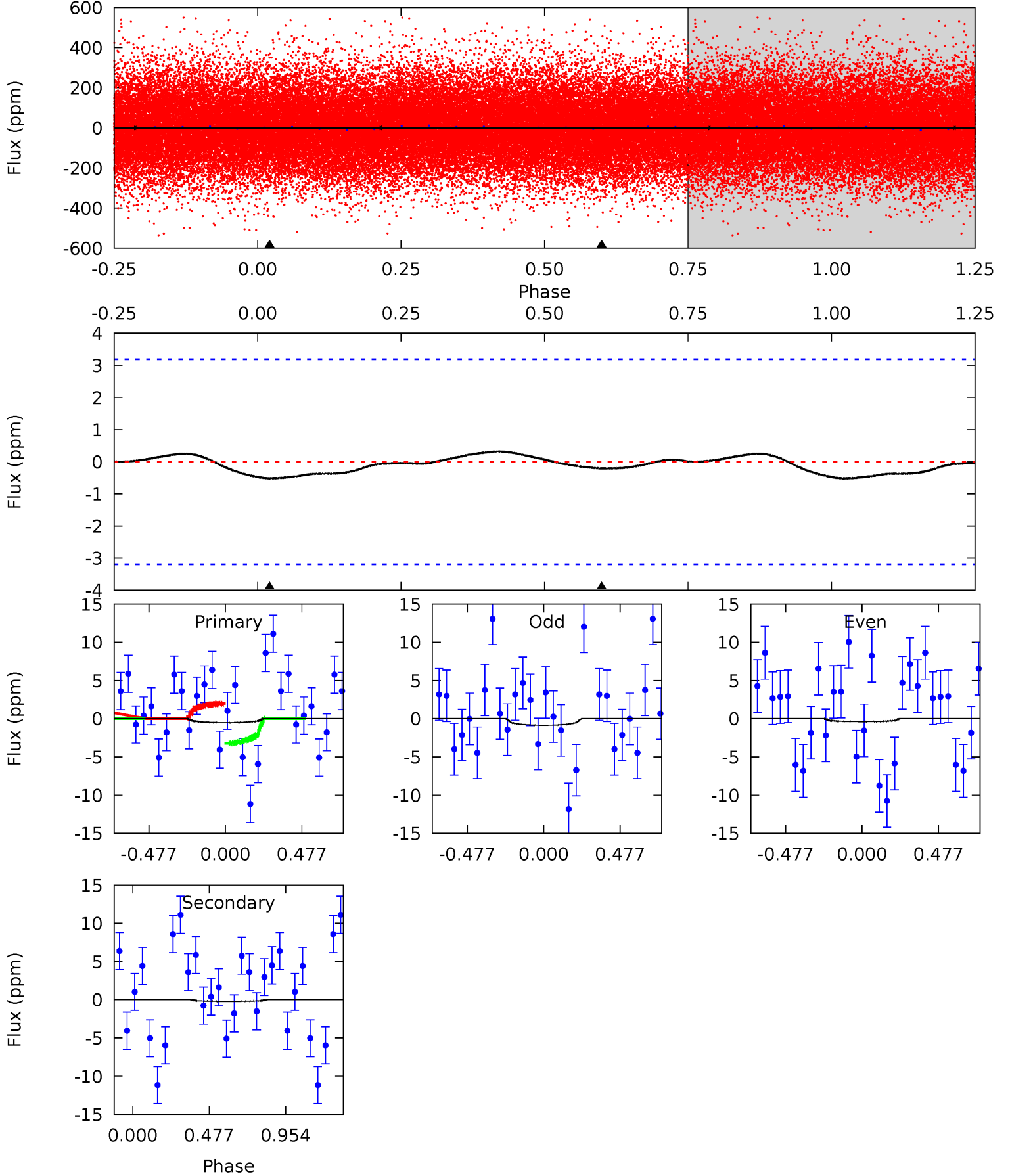
TCE 004946627-01 P= 0.561278 Days $T_0=131.531646$ (BKJD)



DV Model-Shift Uniqueness Test

004946627-01, P = 0.561240 Days, E = 130.980105 Days

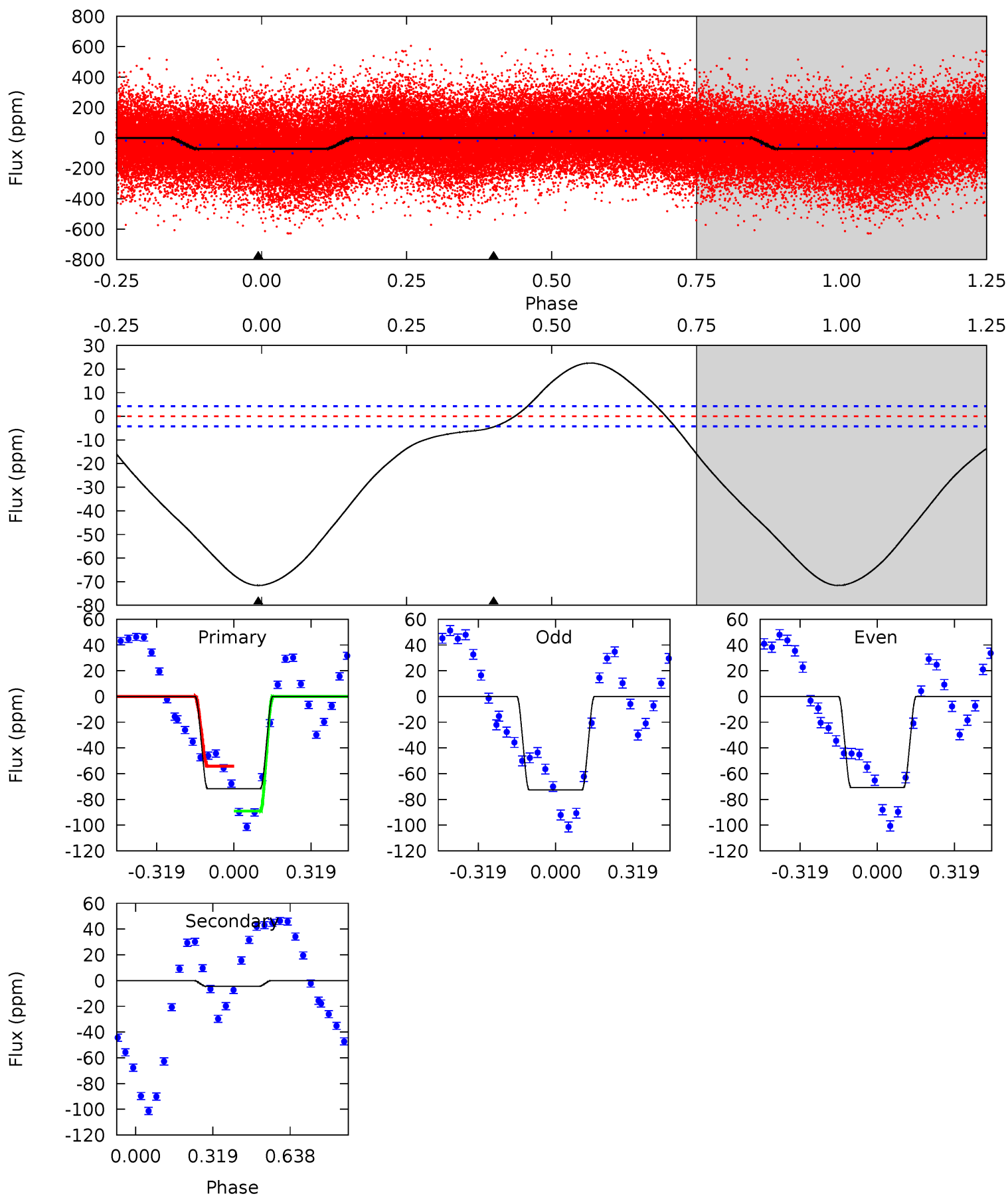
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.69	0.27	0	0	4.23	0.71	0.11	0.69	0.69	0.27	0.27	0.31	-1.28	0.38	0.84



Alt Model-Shift Uniqueness Test

004946627-01, P = 0.561278 Days, E = 130.970368 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
72.2	4.50	0	0	4.31	1.00	8.06	72.2	72.2	4.50	4.50	0.97	1.02	0.24	17.0



Stellar Parameters For KIC 004946627

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6804^{+184}_{-224}	$3.601^{+0.298}_{-0.053}$	$-0.080^{+0.300}_{-0.250}$	$3.498^{+0.402}_{-1.207}$	$1.781^{+0.171}_{-0.318}$	$0.059^{+0.125}_{-0.011}$
	+3%/-3%	+8%/-1%	+375%/-312%	+11%/-35%	+10%/-18%	+213%/-18%
Source	PHO1	FLK73	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 004946627-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-0 ± 1	$1.21^{+1.31}_{-0.87}$	6007^{+328}_{-487}	-4909^{+1198}_{-421}	$0.008^{+0.223}_{-0.082}$
Alt.	-4 ± 1	$3.03^{+1.70}_{-1.45}$	6003^{+304}_{-517}	-4648^{+1310}_{-355}	$0.069^{+0.186}_{-0.041}$

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

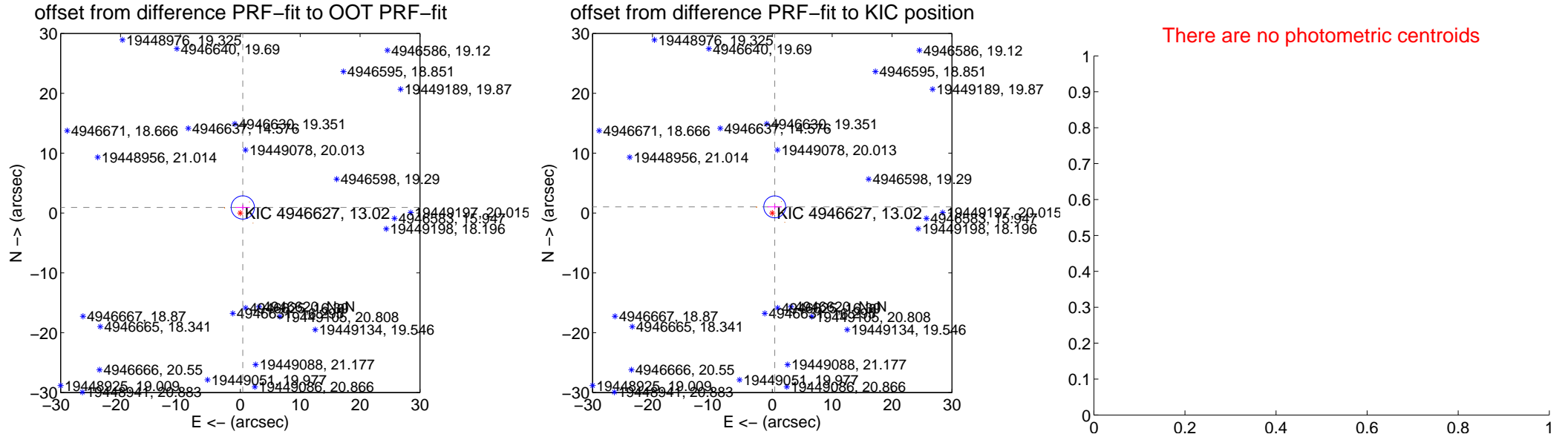
DV Centroid Data

Supplemental centroid analysis for 004946627-01. Kepler magnitude: 13.02. Transit SNR 2.12

There are 0 quarters with good PRF difference image offsets

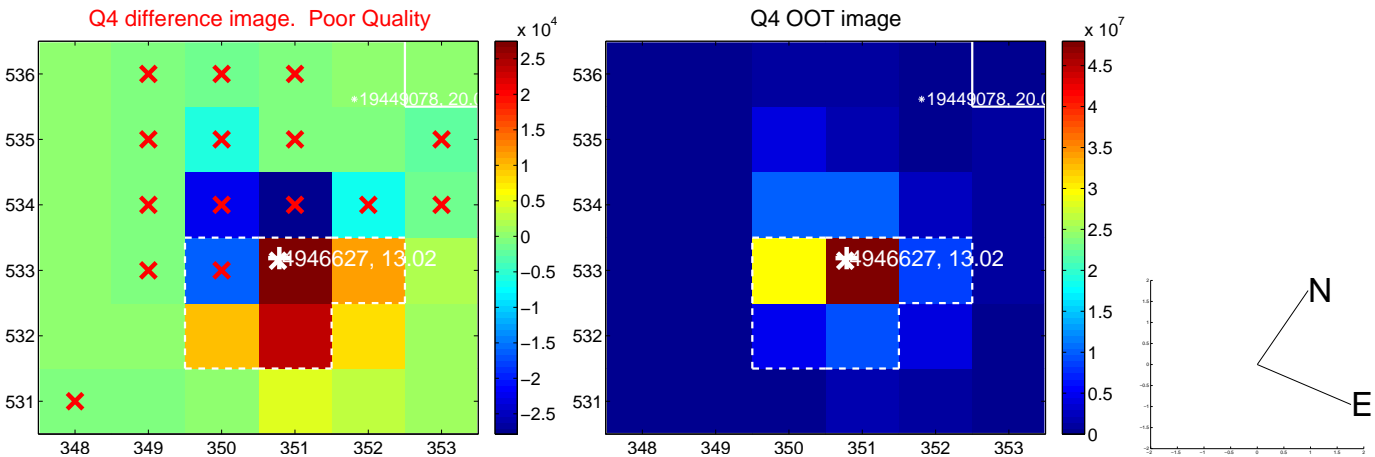
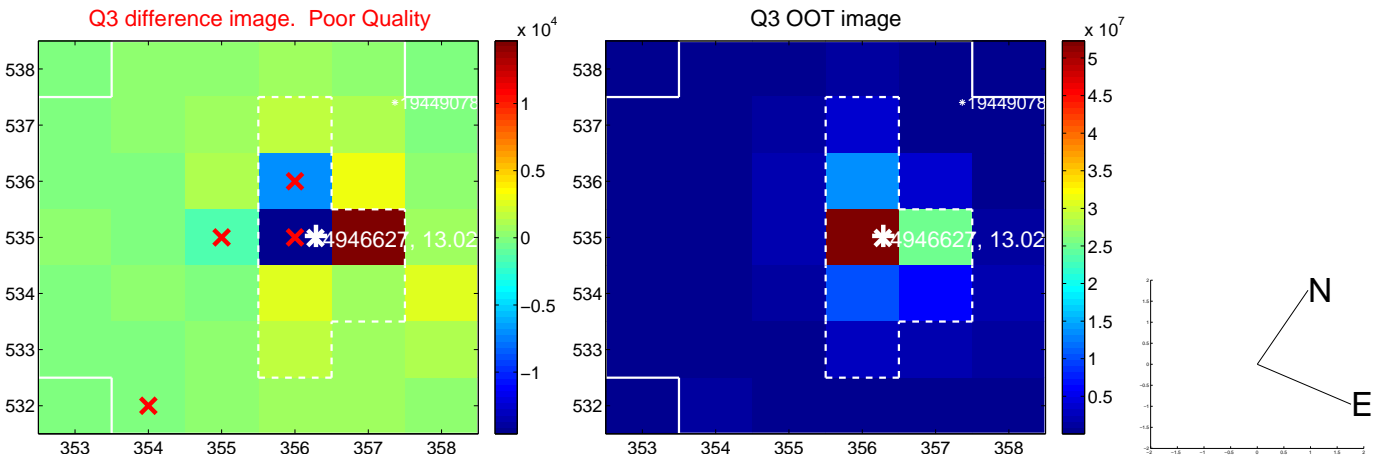
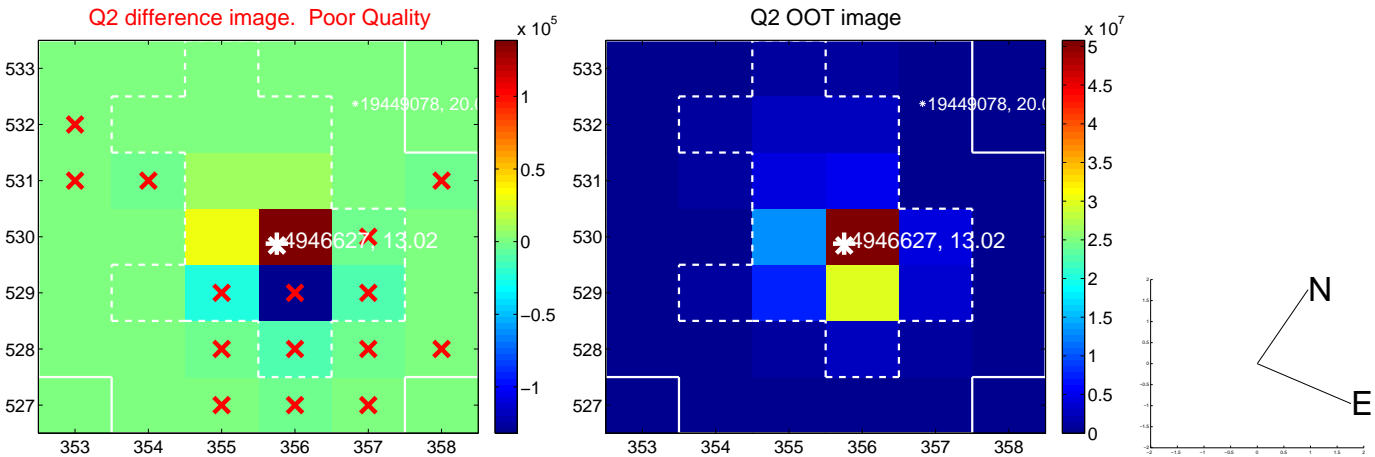
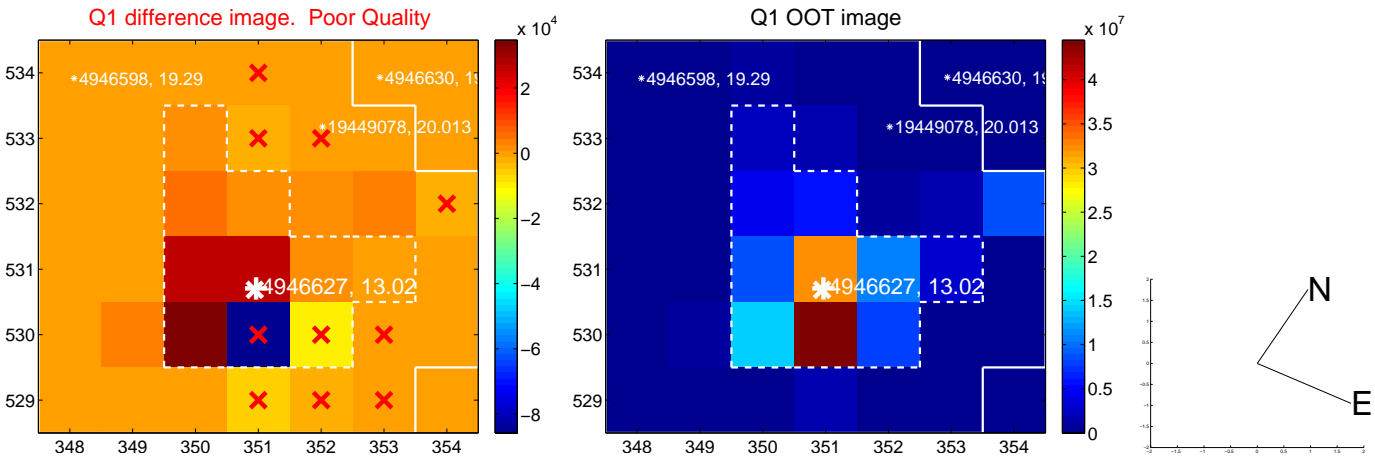
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.017 ± 0.648	1.57	-0.421 ± 1.197	0.926 ± 0.459
PRF-fit source offset from KIC position	1.107 ± 0.610	1.82	-0.413 ± 1.201	1.028 ± 0.447
photometric centroid source offset	—	—	—	—

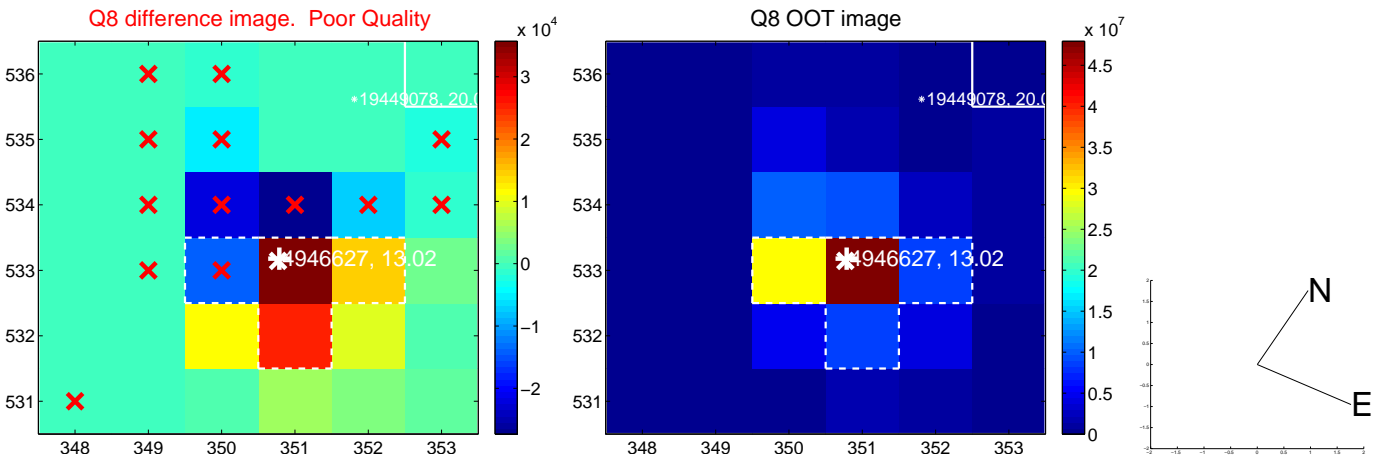
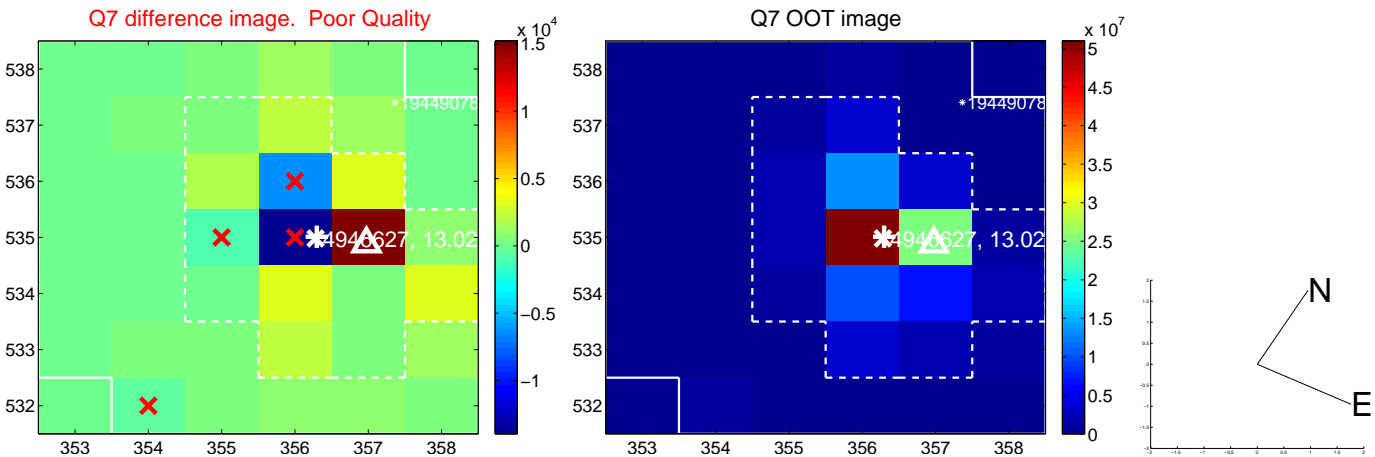
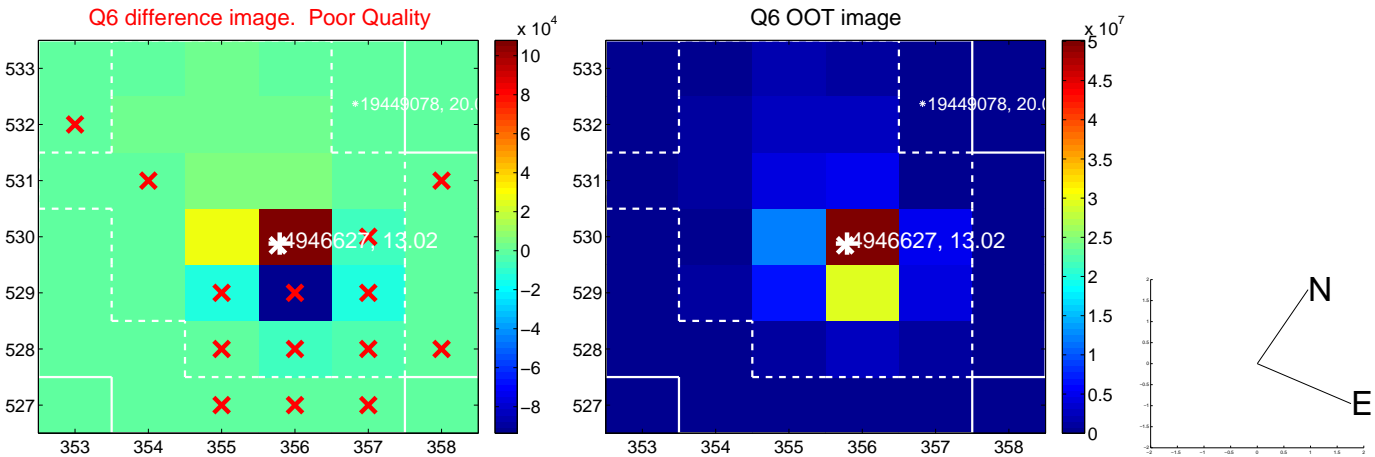
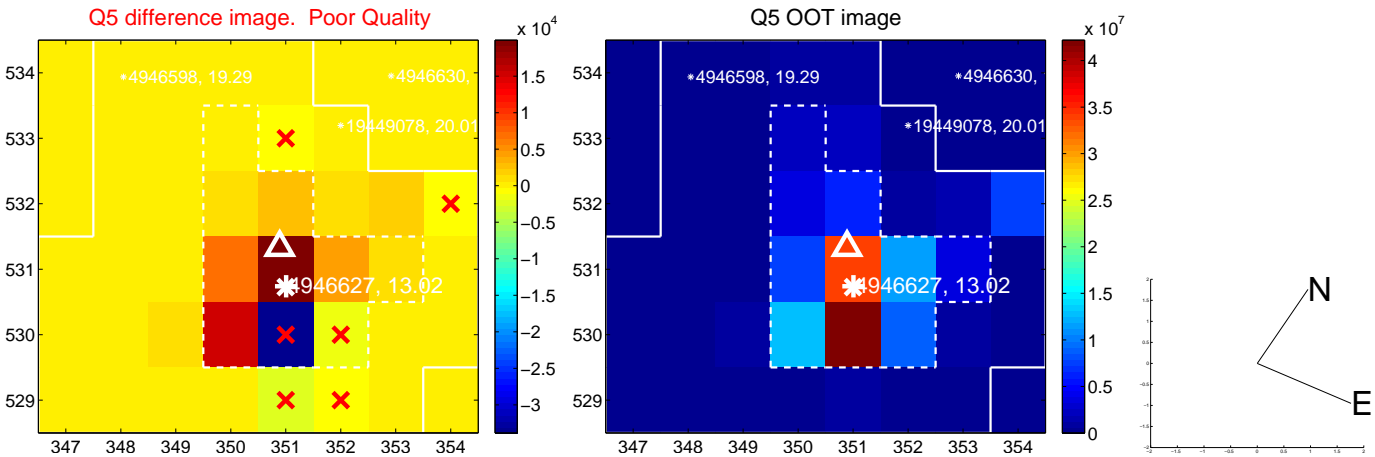


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

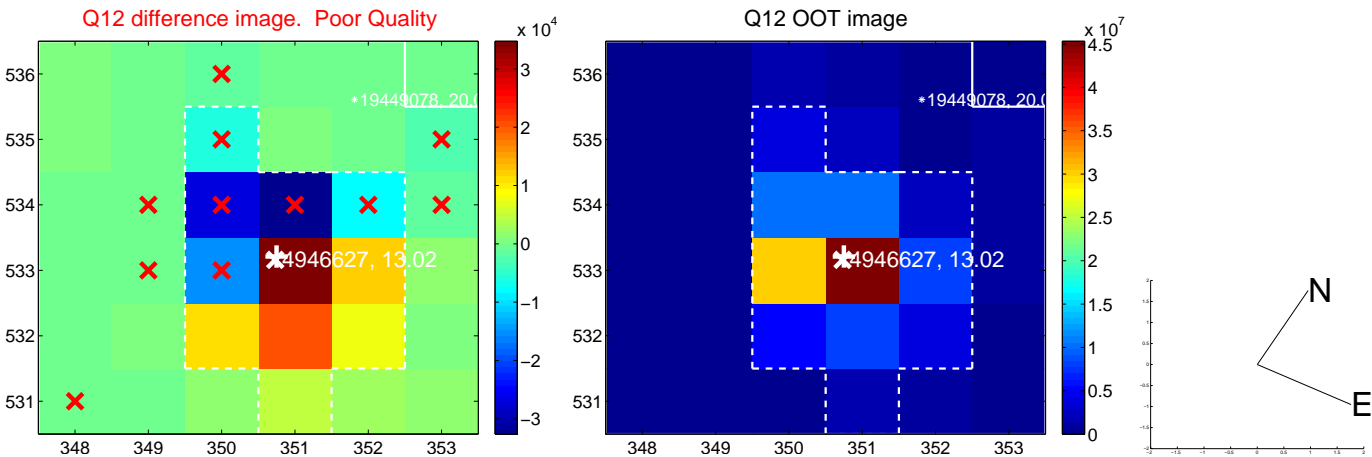
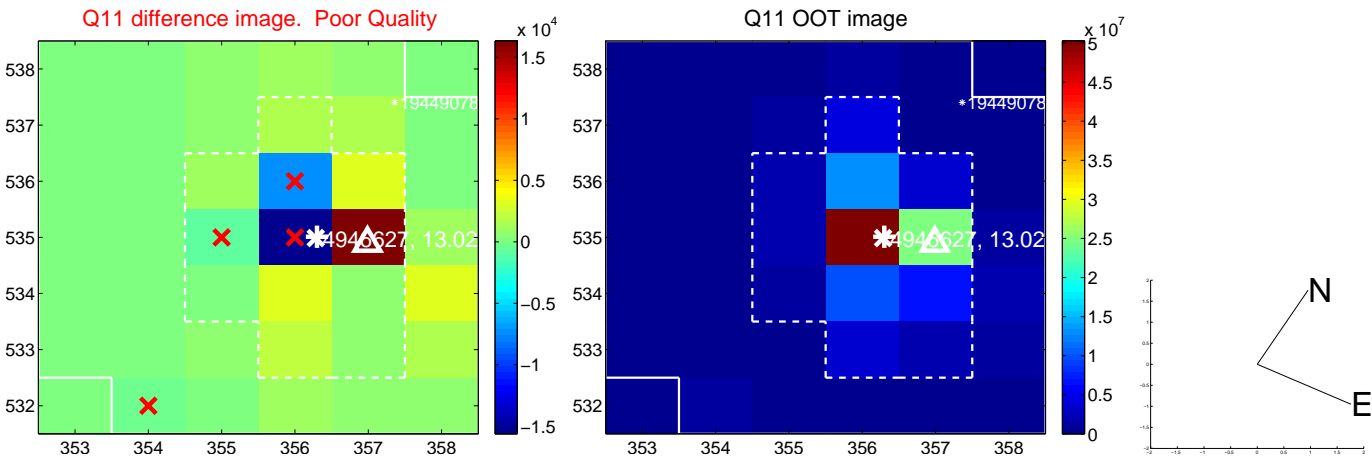
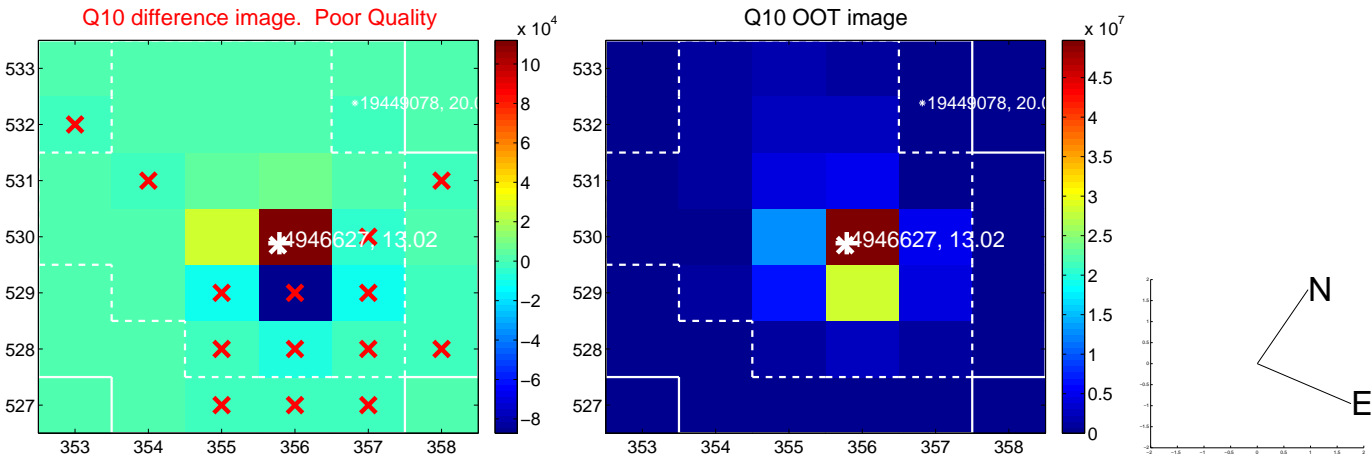
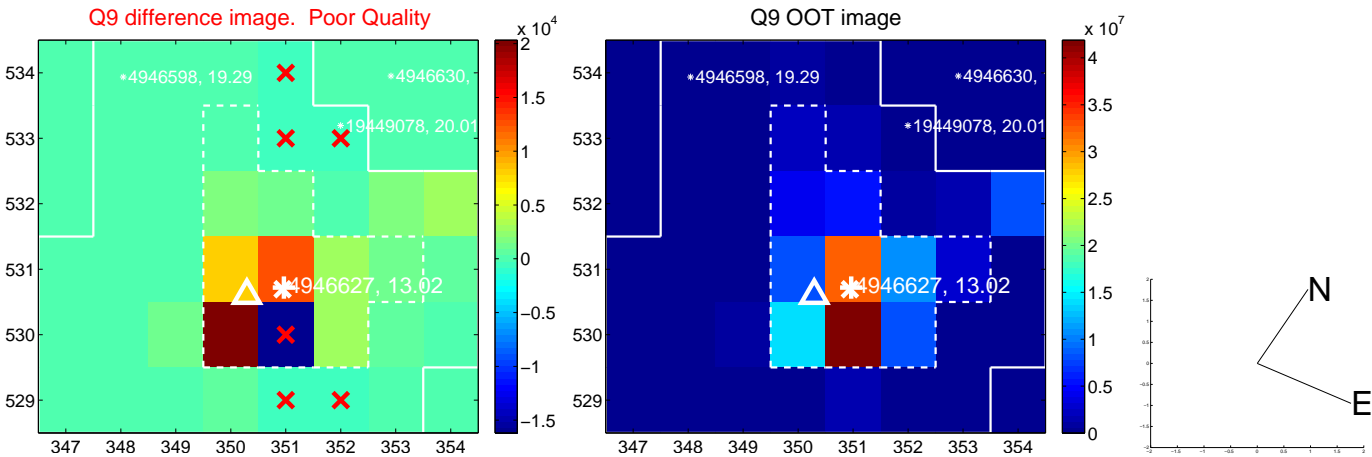
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



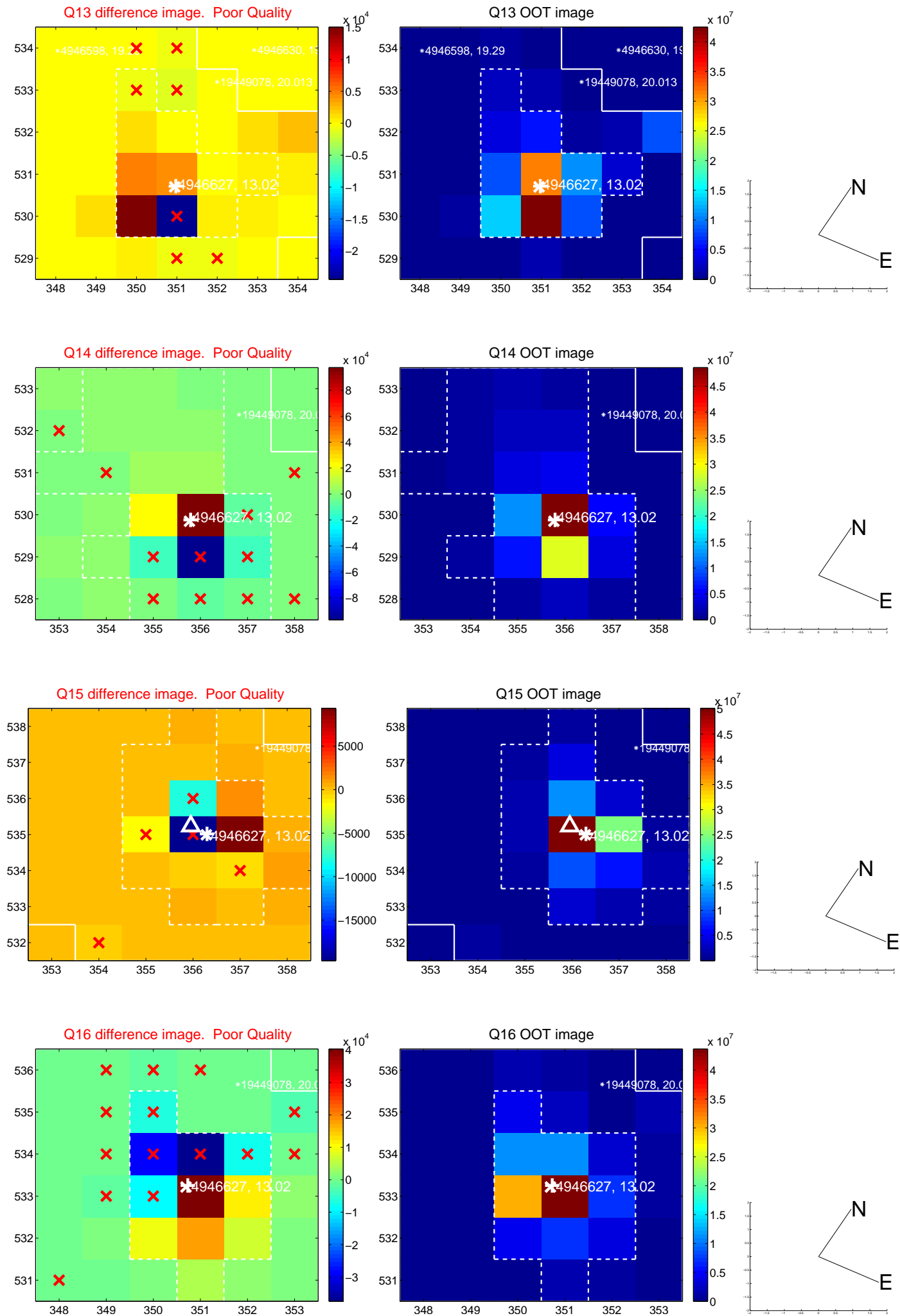
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



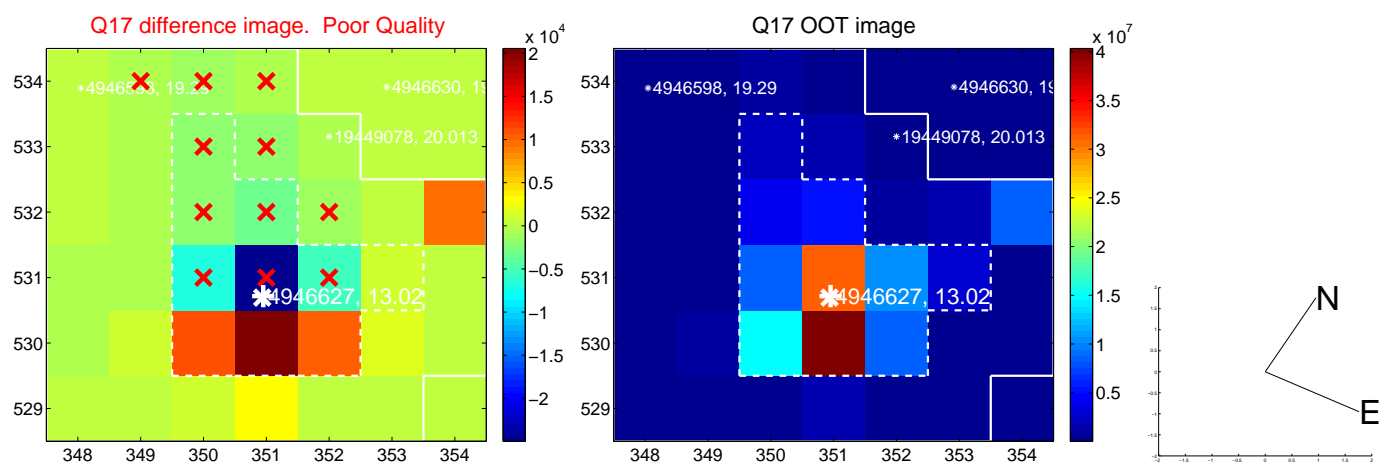
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

