

KIC 004927734

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})
004927734-01	OBS	3212.01	2.999985	132.918578	3.4	27.591	9.0	5.0	2.48	8431	0.47	10275.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004927734-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_MEAS

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.

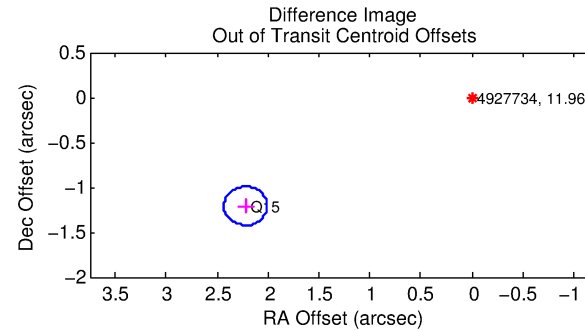
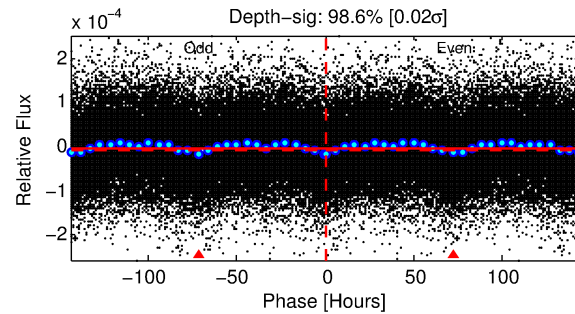
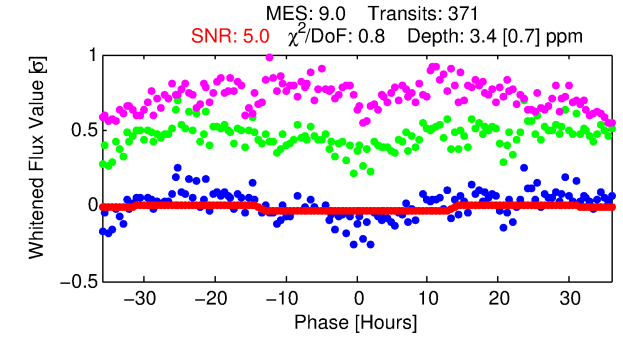
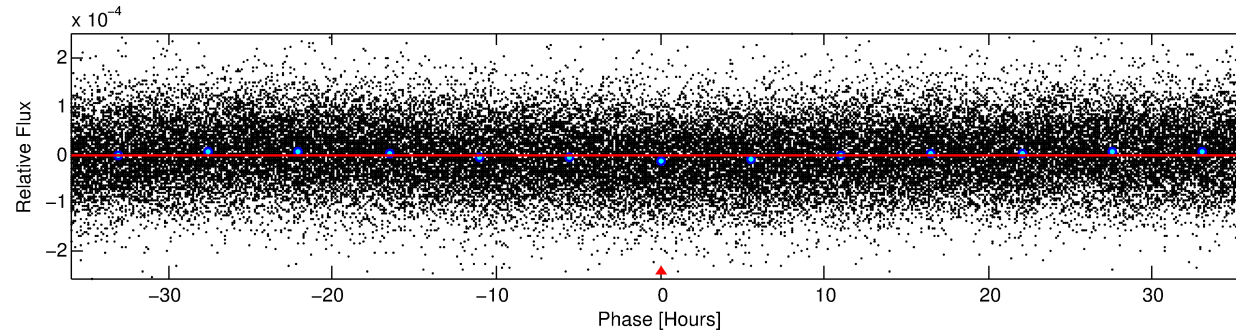
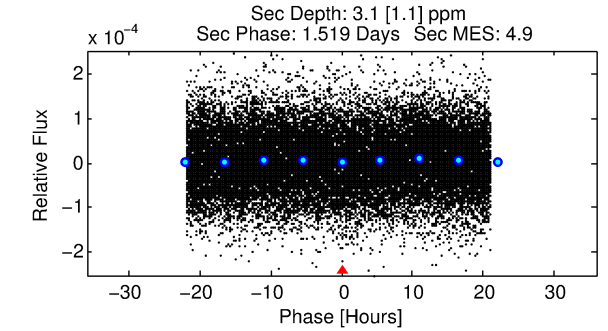
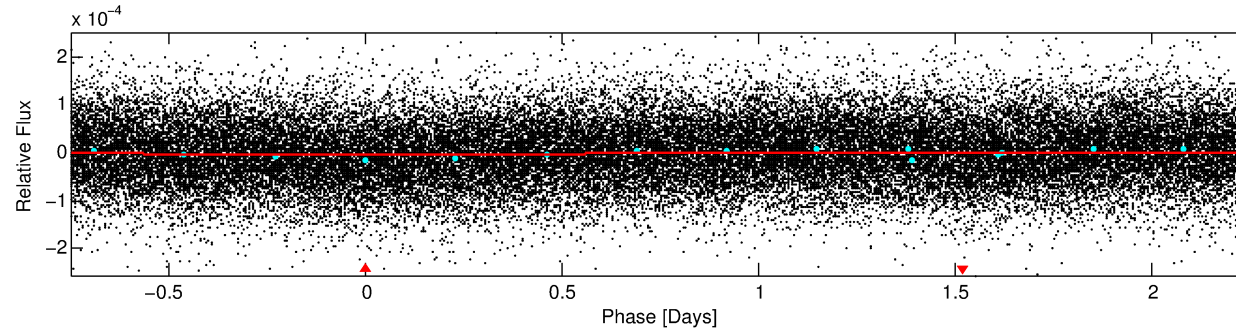
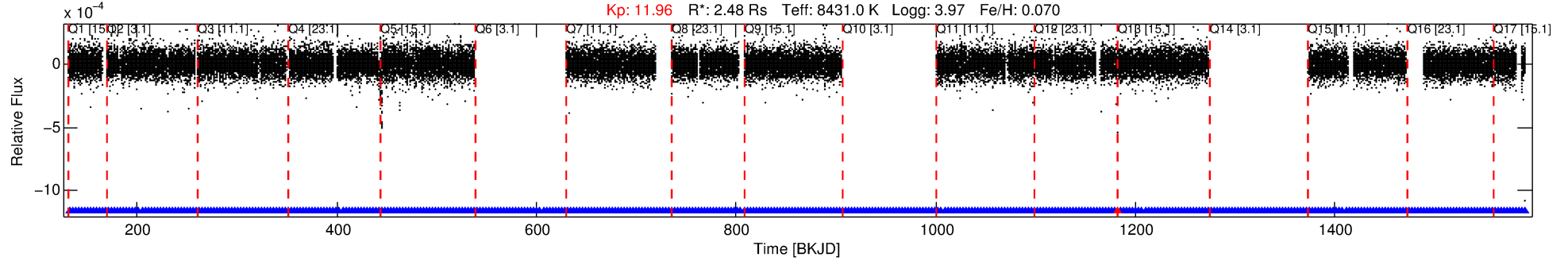
Ephemeris Match Information For 004927734-01

No Significant Match Found

DV One-Page Summary

KIC: 4927734 Candidate: 1 of 1 Period: 3.000 d
KOI: K03212 Corr: No Ephemeris Match

Kp: 11.96 R*: 2.48 Rs Teff: 8431.0 K Logg: 3.97 Fe/H: 0.070



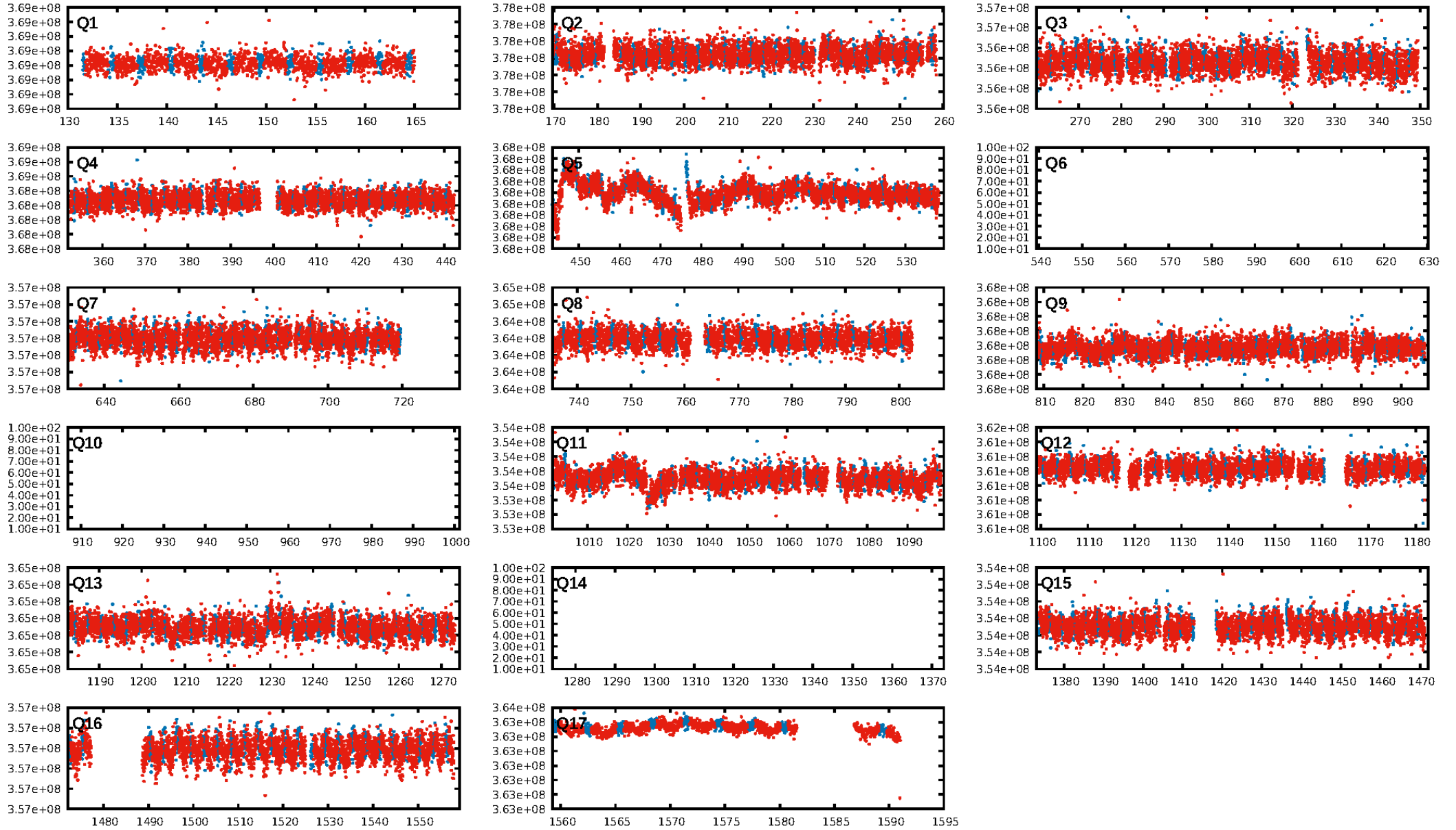
DV Fit Results:

Period = 2.99999 [0.00016] d
Epoch = 132.9186 [0.0326] BKJD
Rp/R* = 0.0017 [0.0024]
a/R* = 1.07 [1.15]
b = 0.18 [46.77]
Seff = 10275.50 [4670.93]
Teq = 2567 [292] K
Rp = 0.47 [0.67] Re
a = 0.0522 [0.0147] AU
Ag = 21.15 [60.24] [0.33σ]
Teffp = 8513 [6006] K [0.99σ]

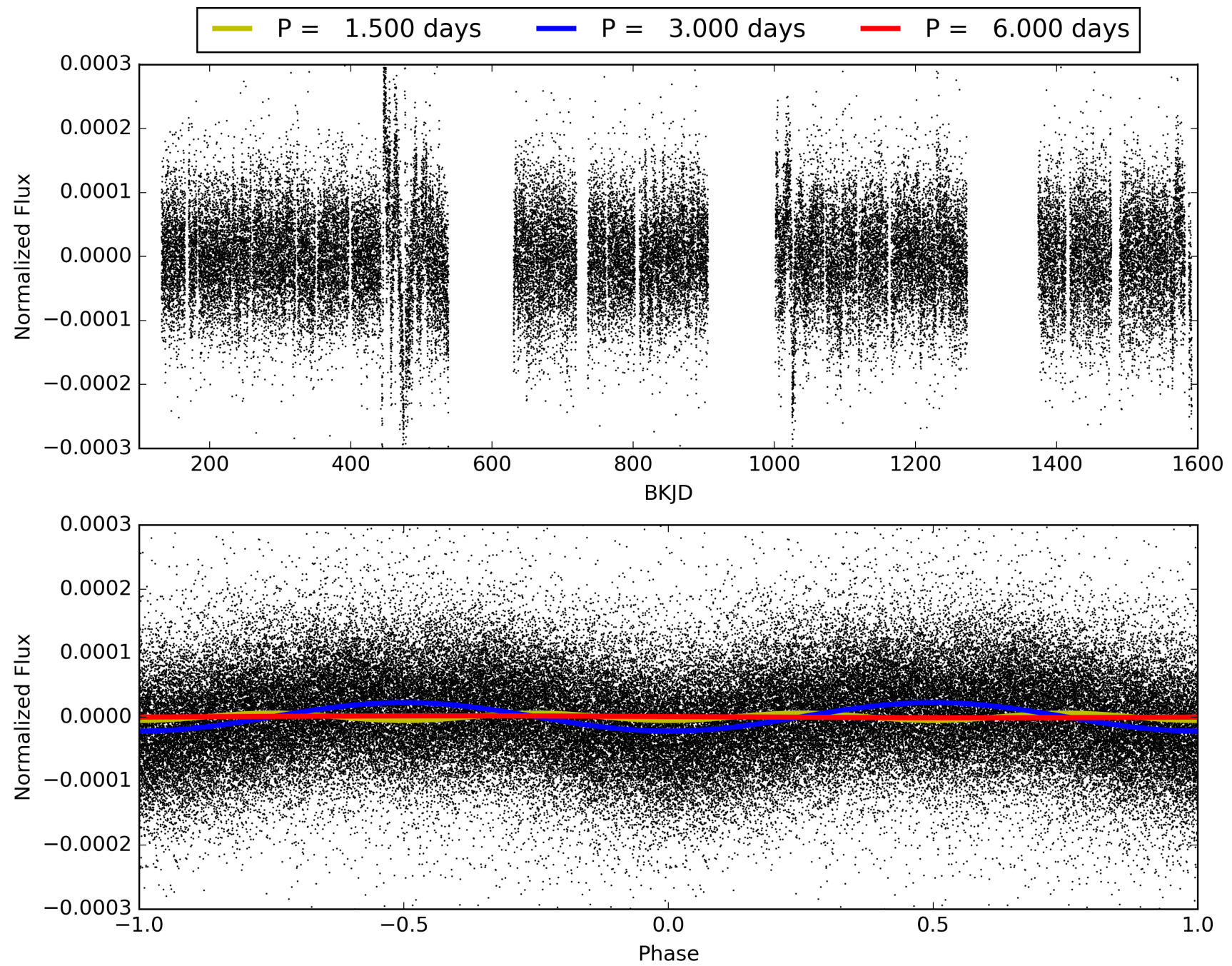
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [349/350]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 2.529 arcsec [35.30σ]
KicOffset-rm: 2.512 arcsec [34.96σ]
OotOffset-st: 0/1/0/0 [1]
KicOffset-st: 0/1/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 004927734-01, PDC Light Curves

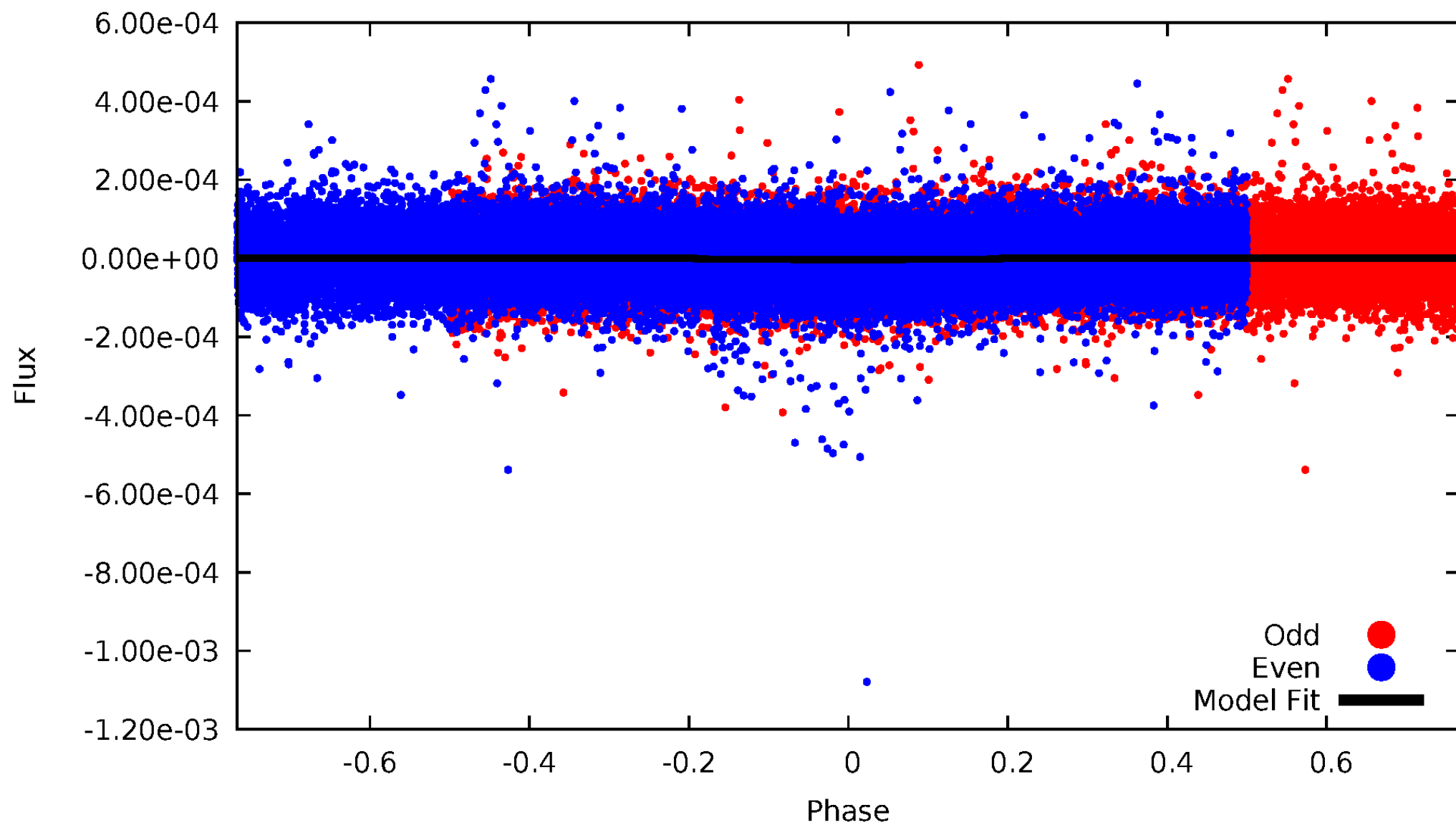


TCE 004927734-01



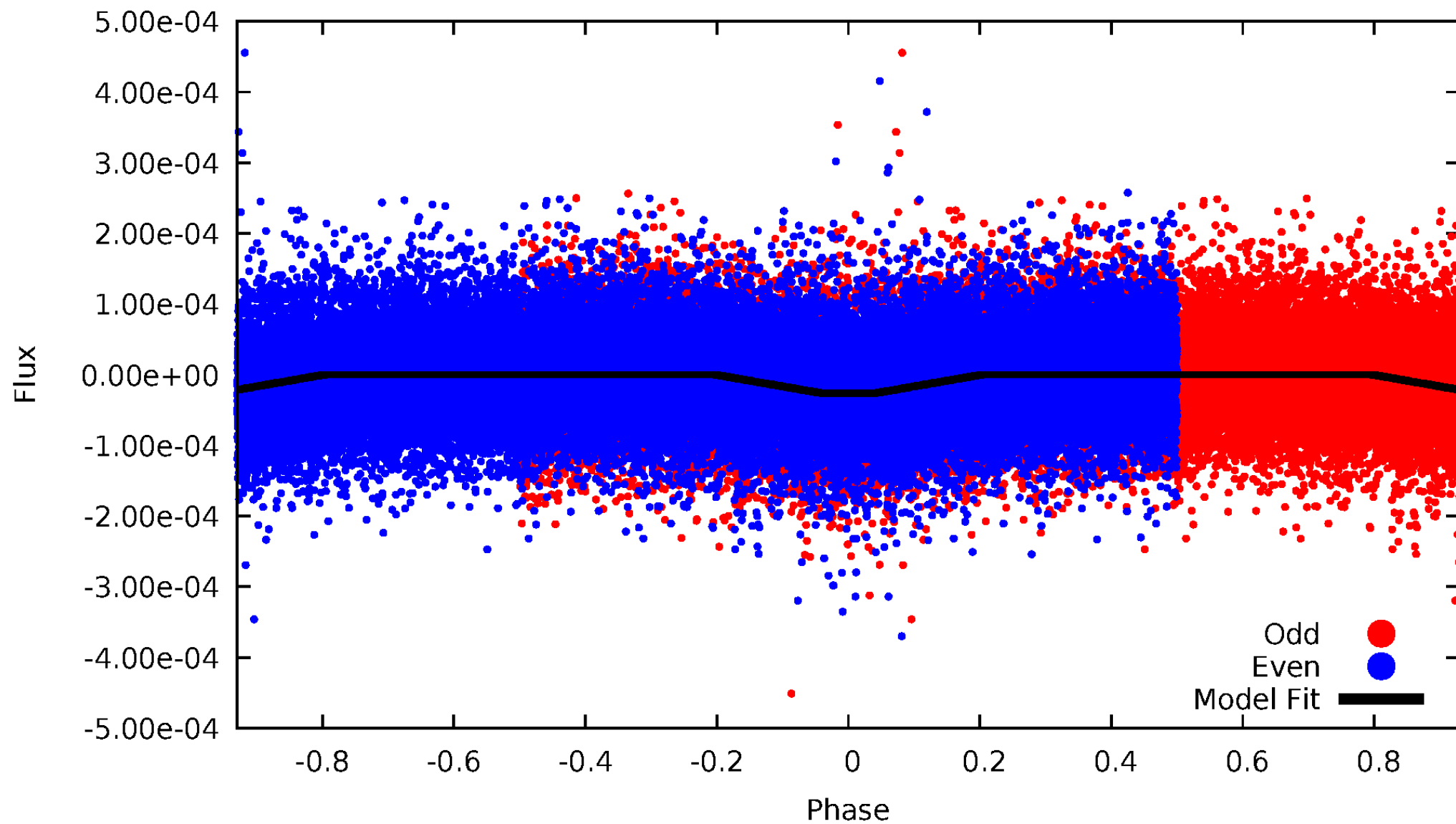
DV Odd/Even

TCE 004927734-01

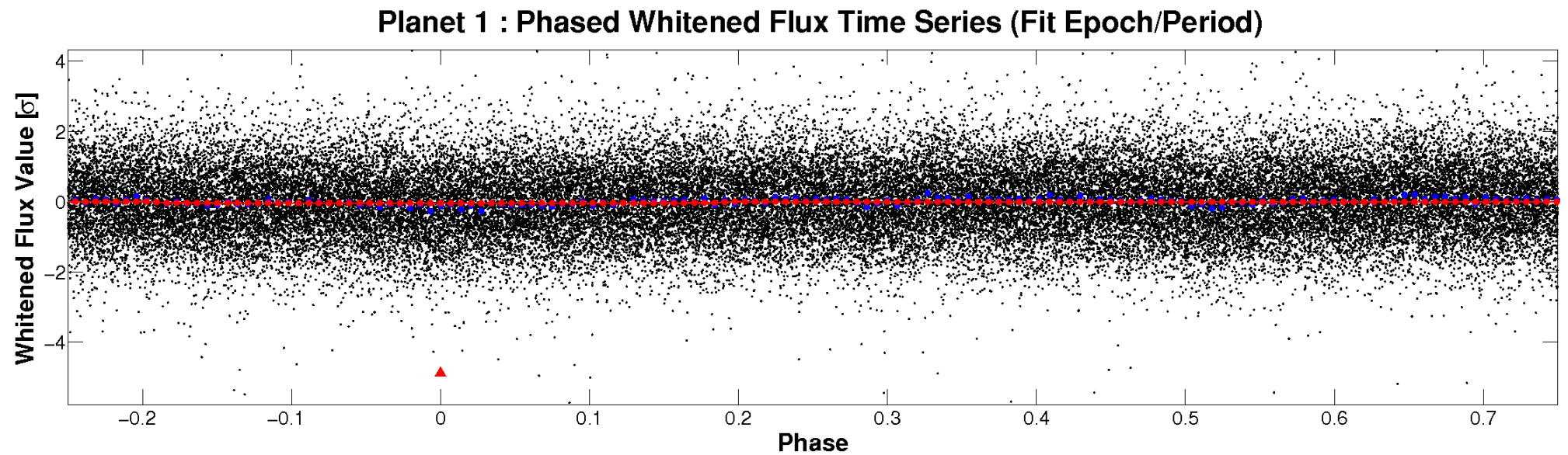
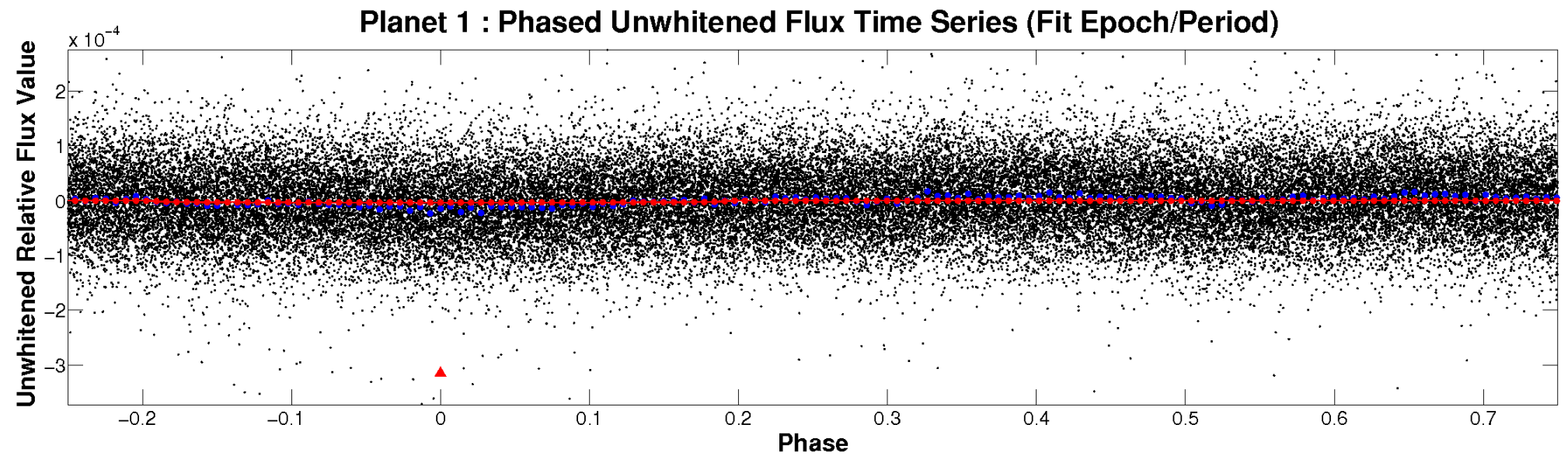


ALT Odd/Even

TCE 004927734-01

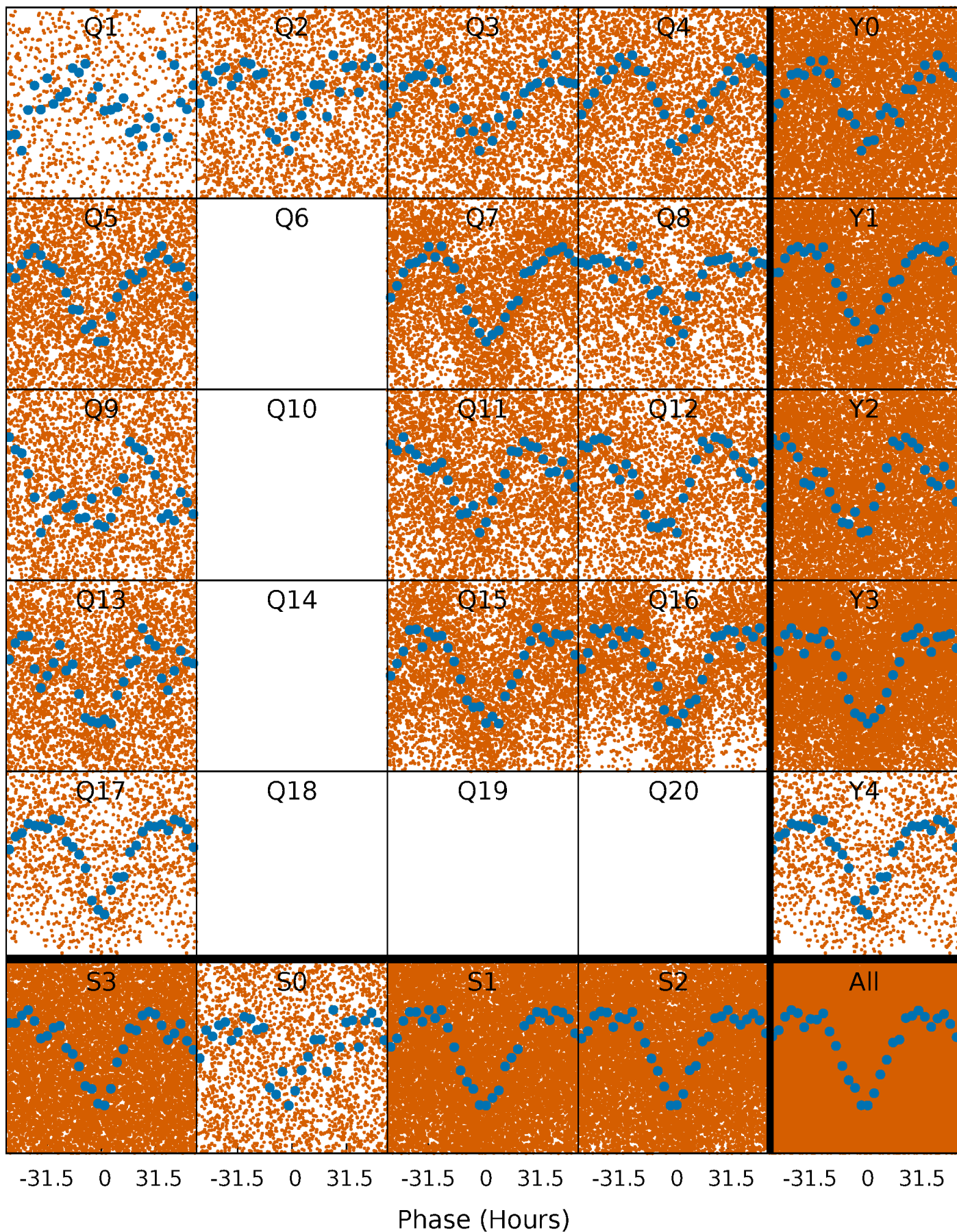


Non-Whitened Vs. Whitened Light Curve



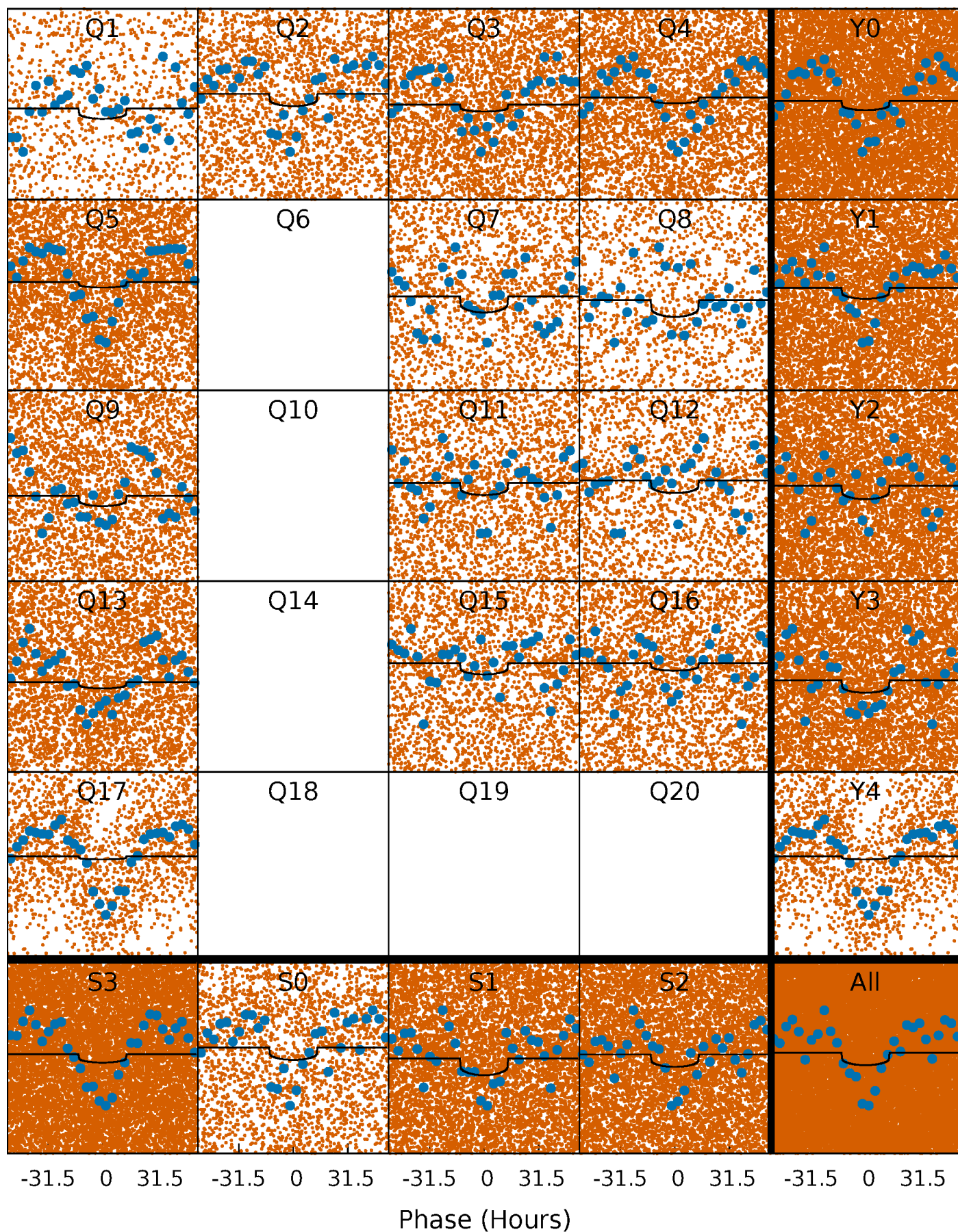
PDC Quarter-Phased Transit Curves

TCE 004927734-01 P= 2.999985 Days $T_0=132.918578$ (BKJD)



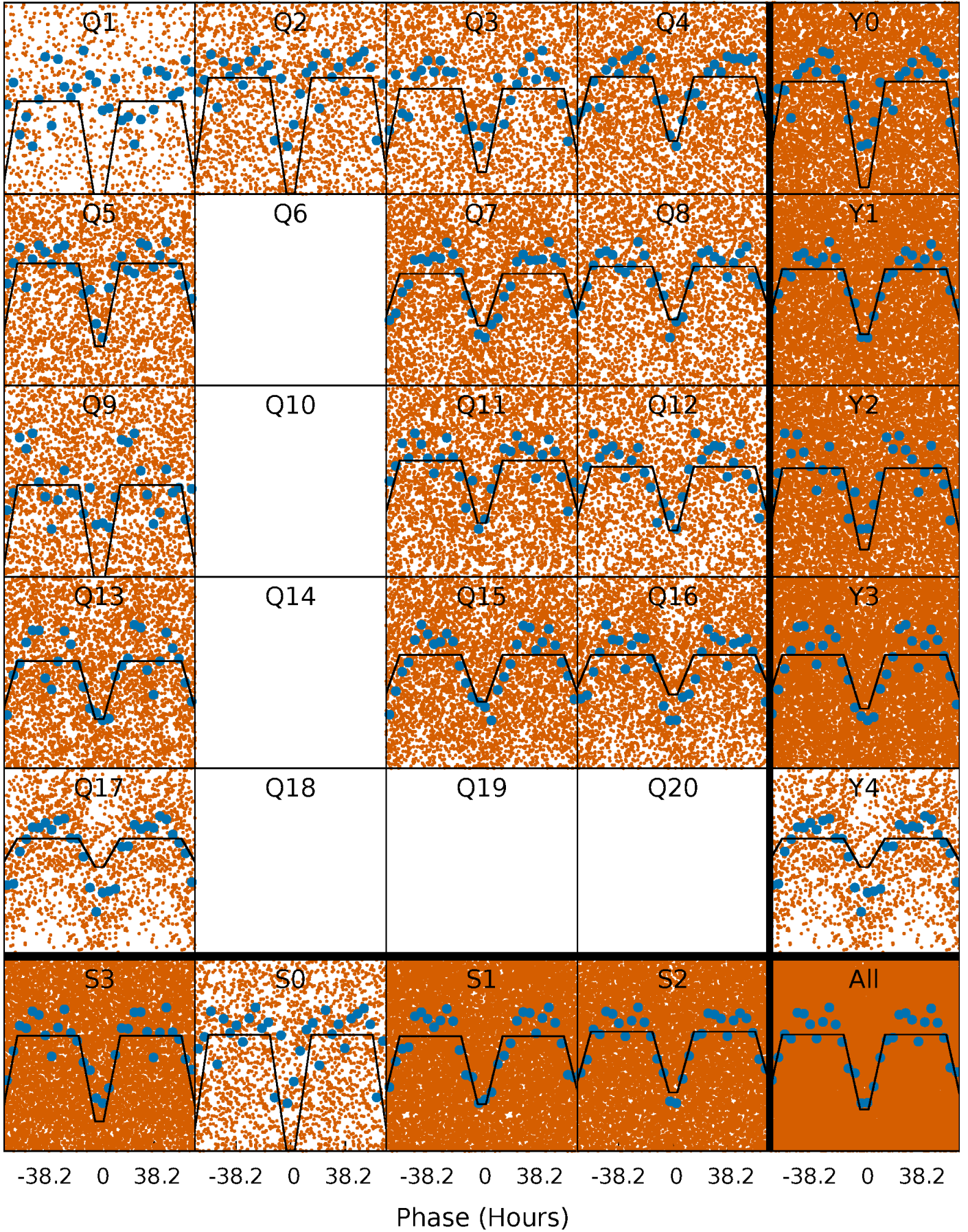
DV Quarter-Phased Transit Curves

TCE 004927734-01 P= 2.999985 Days $T_0=132.918578$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

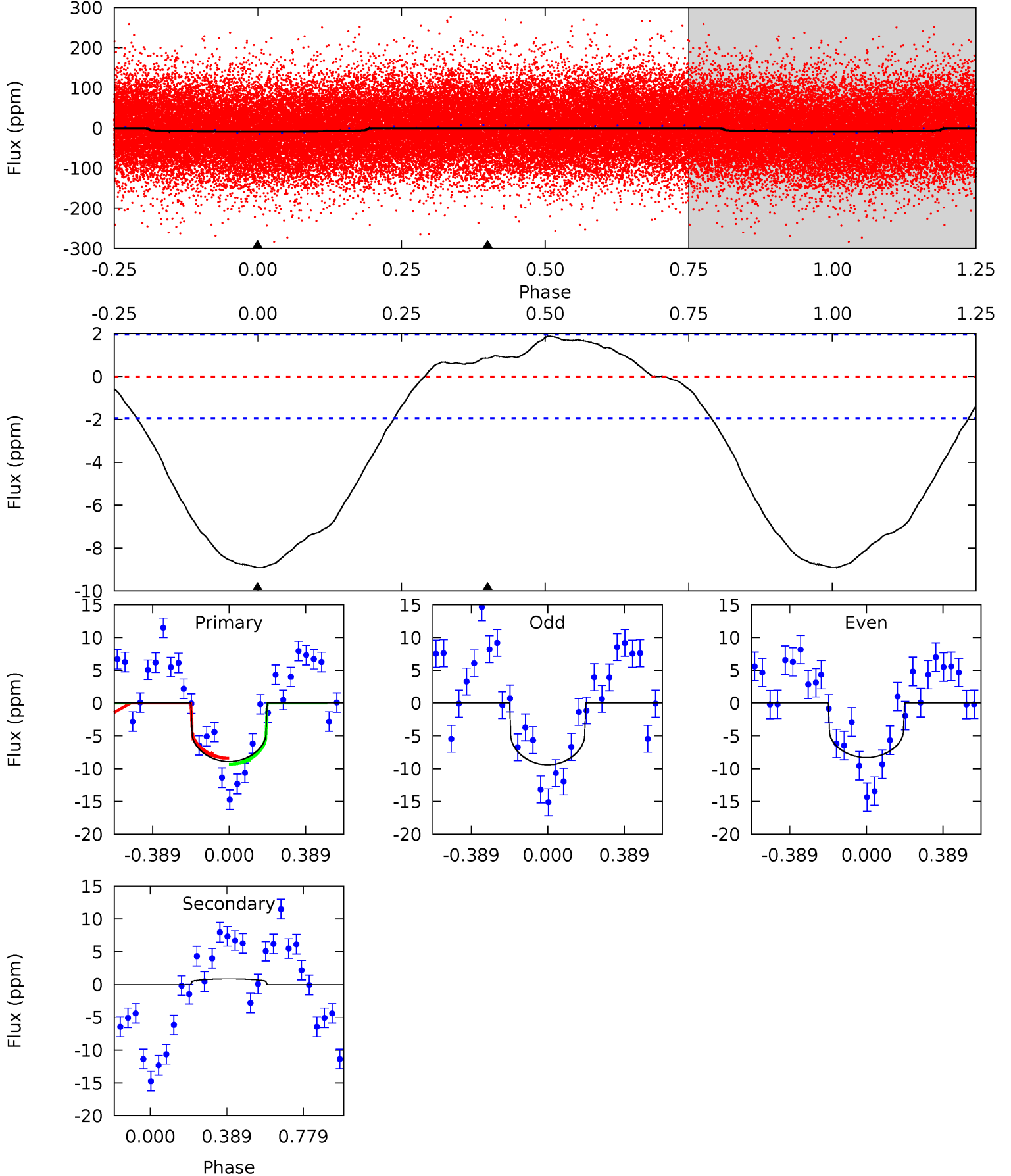
TCE 004927734-01 P= 3.000007 Days $T_0=132.928186$ (BKJD)



DV Model-Shift Uniqueness Test

004927734-01, P = 2.999985 Days, E = 129.918593 Days

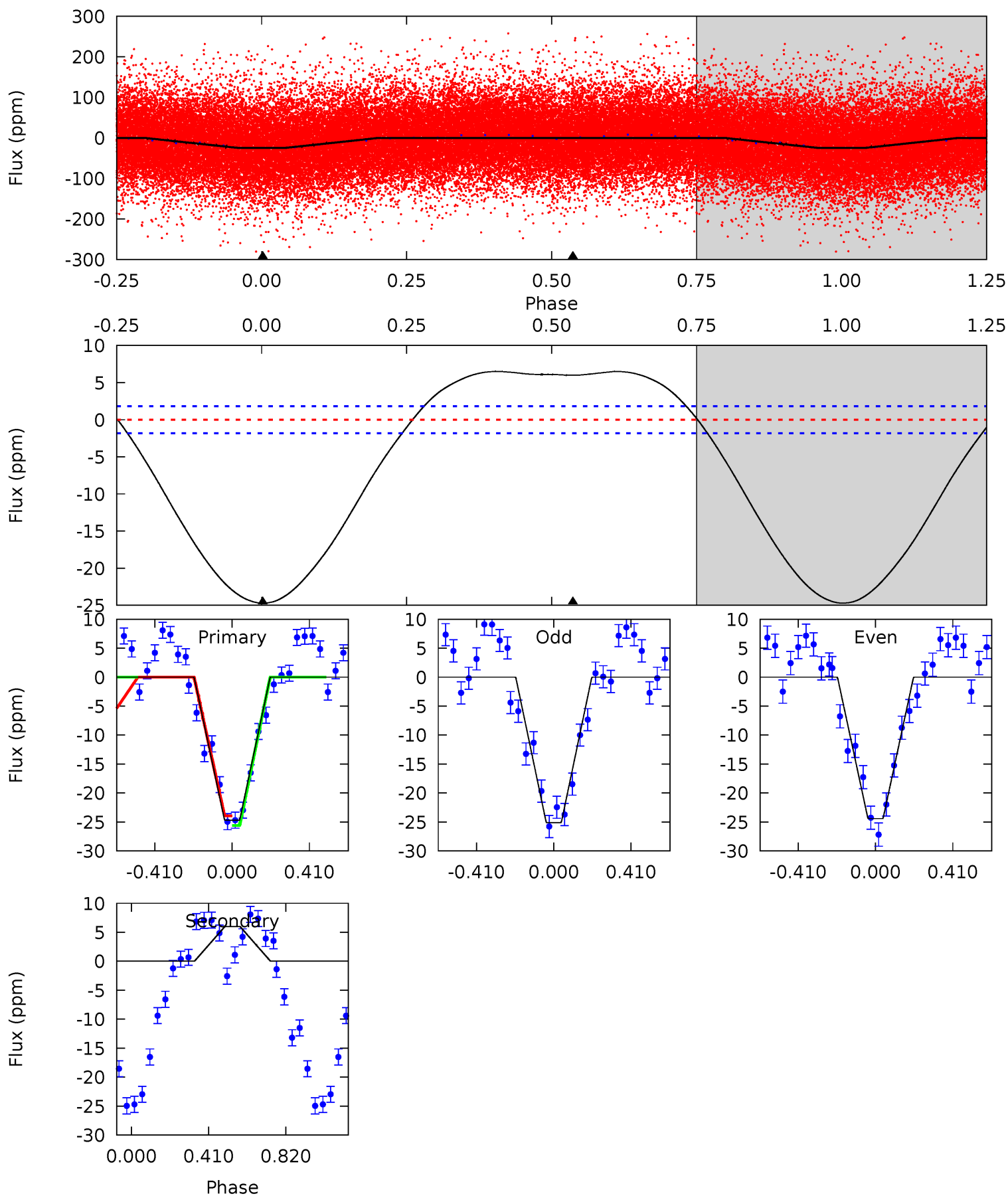
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	-1.87	0	0	4.27	0.86	0.75	19.6	19.6	-1.87	-1.87	1.24	1.11	0.17	1.02



Alt Model-Shift Uniqueness Test

004927734-01, P = 3.000007 Days, E = 129.928179 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
57.8	-14.0	0	0	4.26	0.82	5.41	57.8	57.8	-14.0	-14.0	0.80	1.14	0.21	1.89



Stellar Parameters For KIC 004927734

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8431^{+233}_{-366}	$3.970^{+0.234}_{-0.126}$	$0.070^{+0.200}_{-0.500}$	$2.485^{+0.542}_{-0.812}$	$2.100^{+0.333}_{-0.500}$	$0.193^{+0.289}_{-0.075}$
	+3%/-4%	+6%/-3%	+286%/-714%	+22%/-33%	+16%/-24%	+150%/-39%
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 004927734-01 / KOI 3212.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	1 ± 0	$0.63^{+0.56}_{-0.42}$	3525^{+237}_{-306}	-5101^{+1031}_{-3755}	$-3.144^{+2.416}_{-25.414}$
Alt.	6 ± 0	$1.38^{+0.71}_{-0.64}$	3546^{+235}_{-293}	-5689^{+865}_{-1943}	$-4.789^{+2.685}_{-11.445}$

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

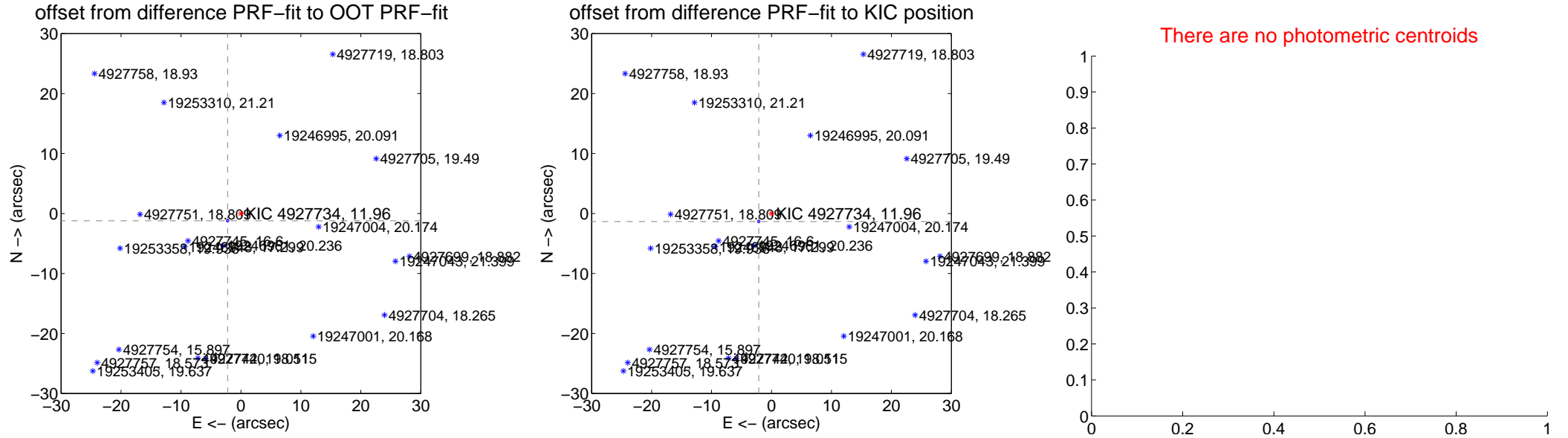
DV Centroid Data

Supplemental centroid analysis for 004927734-01. **Kepler magnitude: 11.96.** Transit SNR 5.01

There are 1 quarters with good PRF difference image offsets

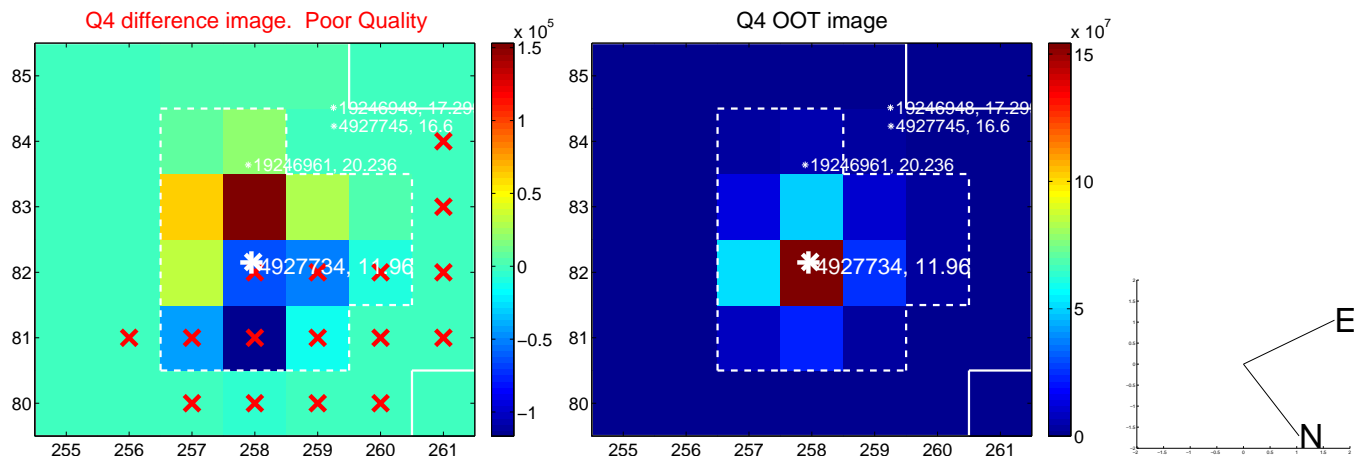
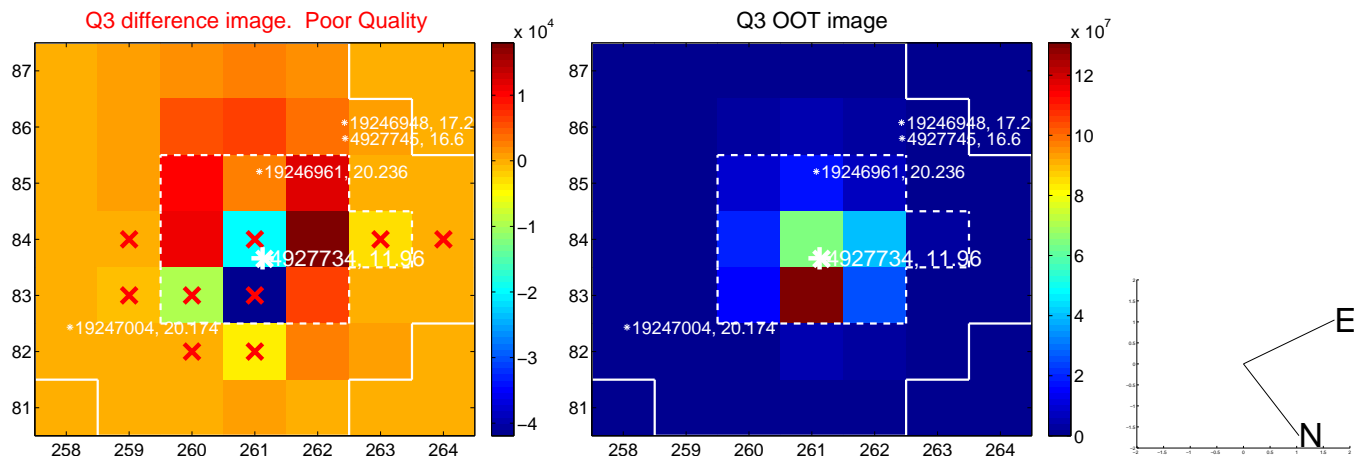
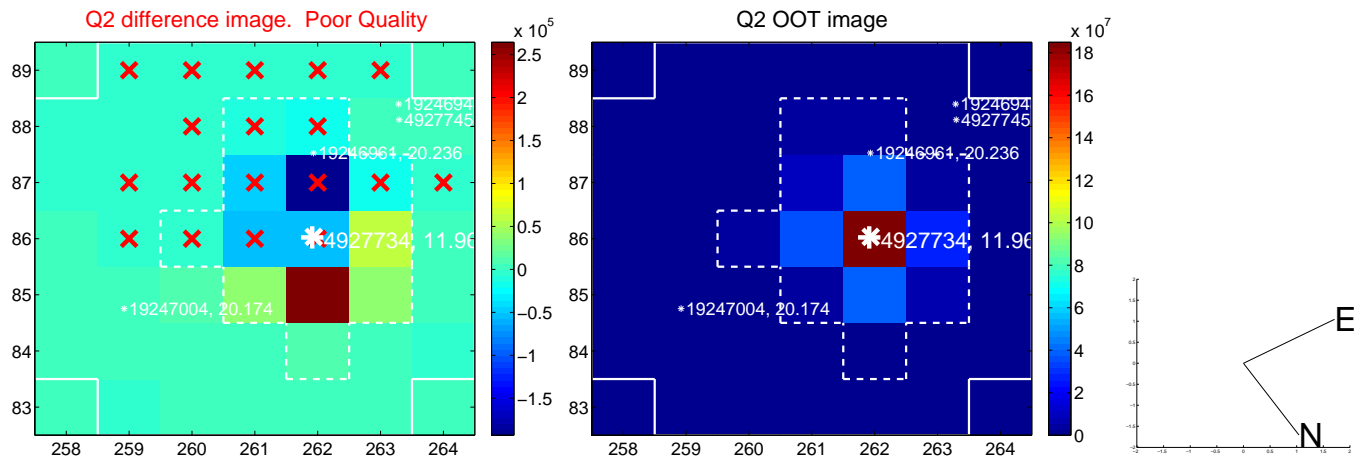
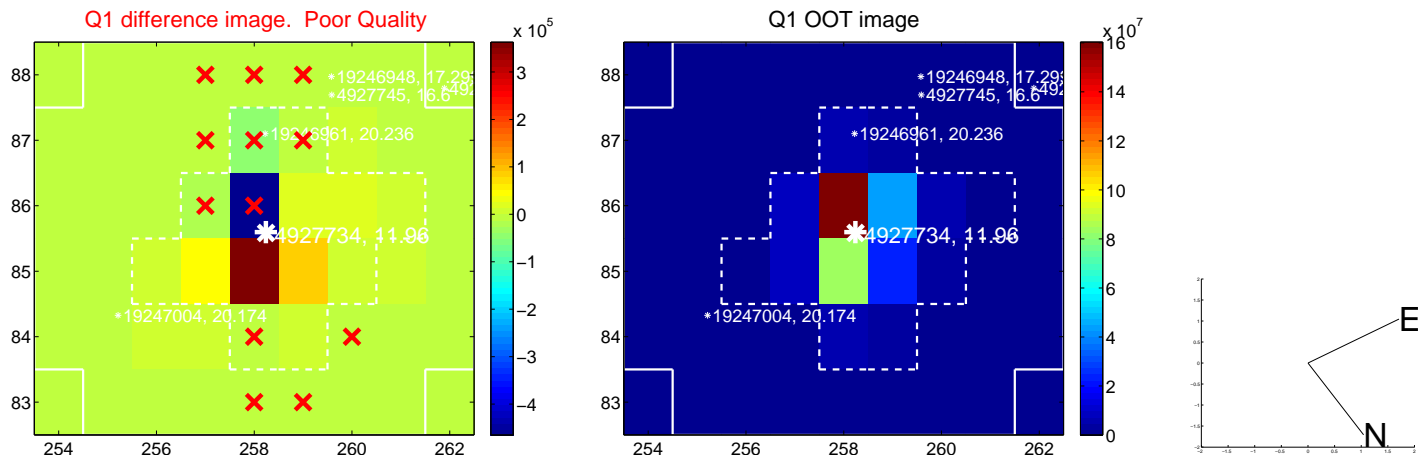
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.529 \pm 0.072	35.30	2.221 \pm 0.071	-1.209 \pm 0.075
PRF-fit source offset from KIC position	2.512 \pm 0.072	34.96	2.127 \pm 0.071	-1.336 \pm 0.075
photometric centroid source offset	—	—	—	—

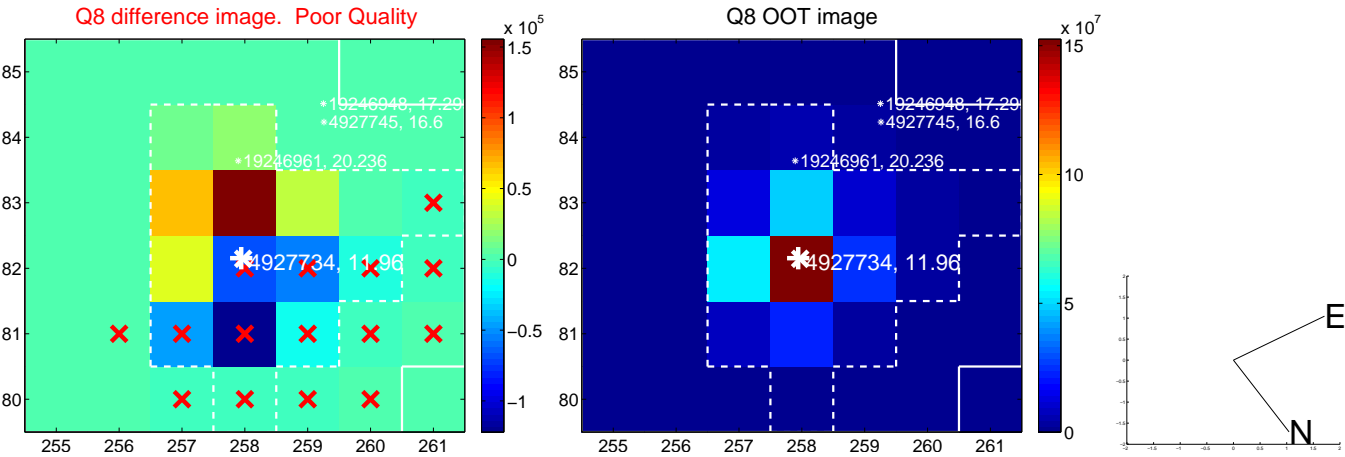
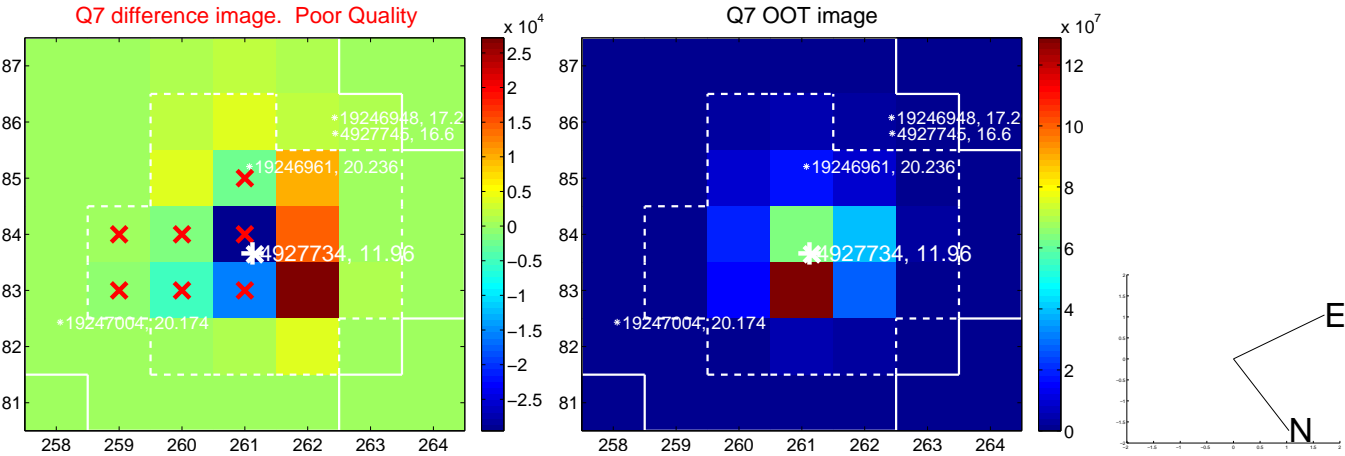
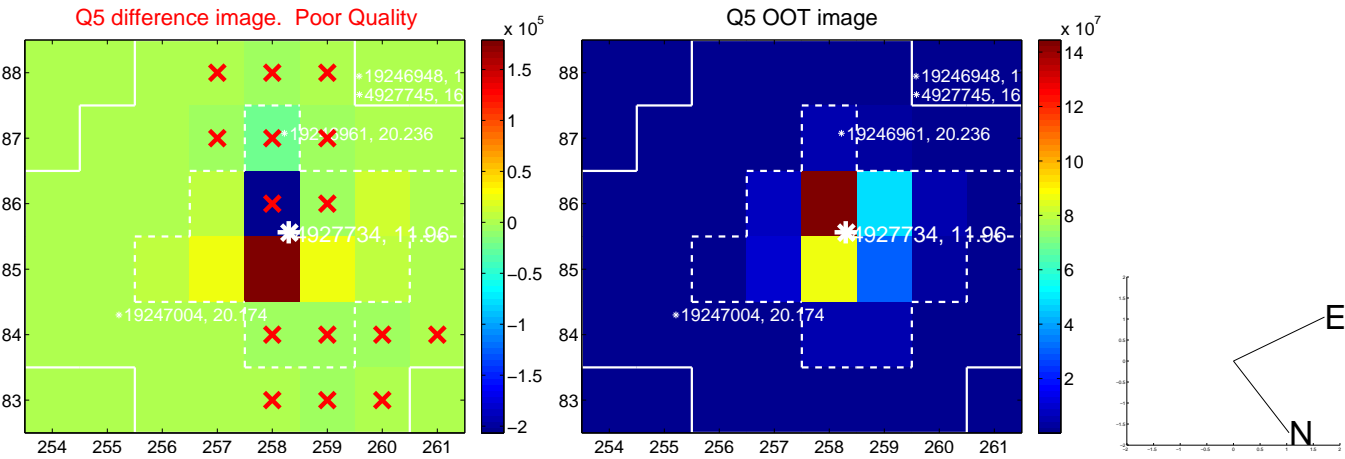


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

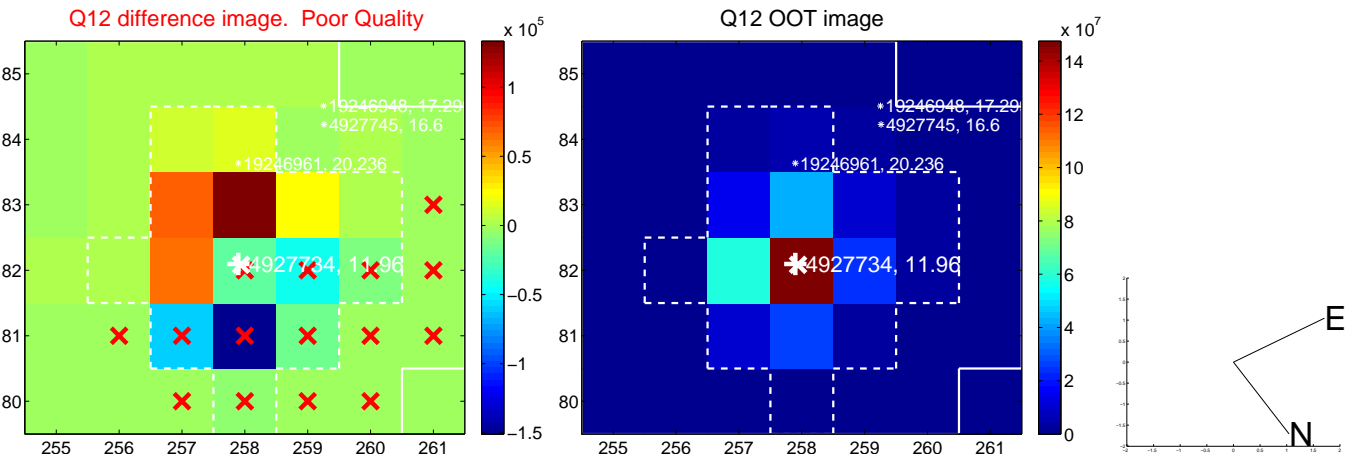
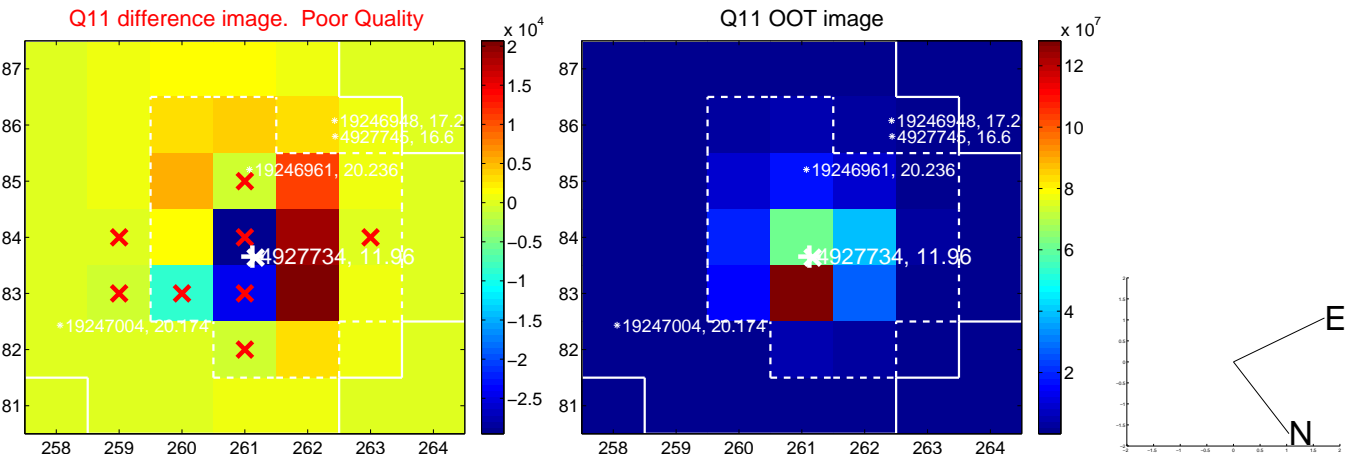
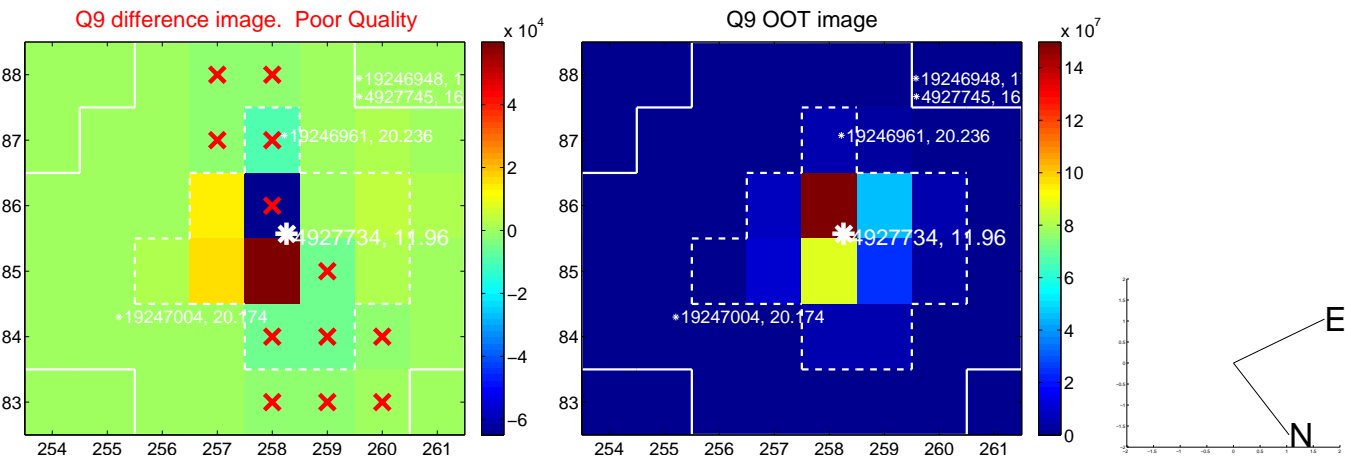
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



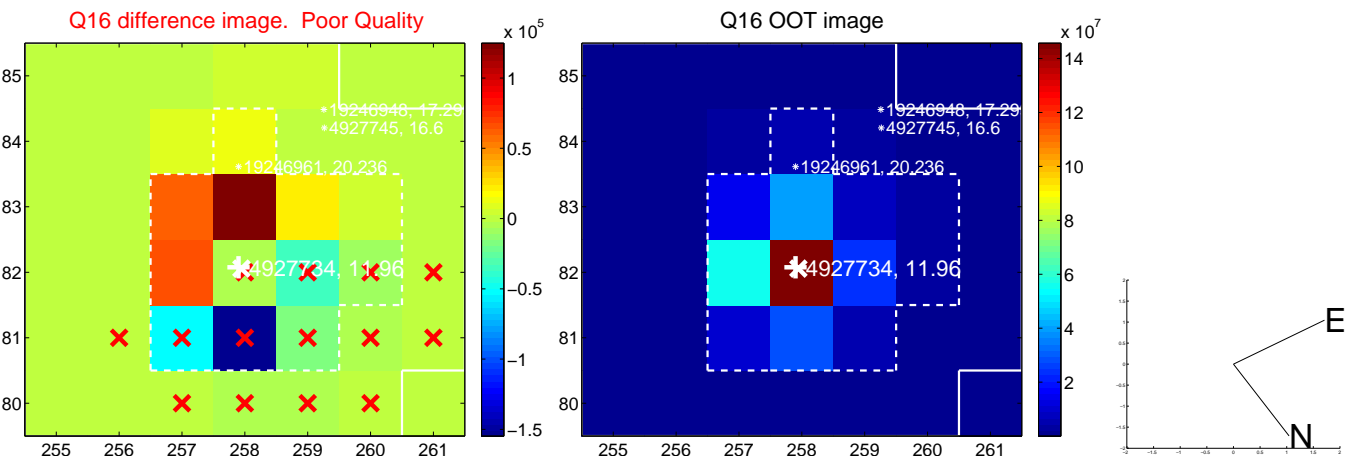
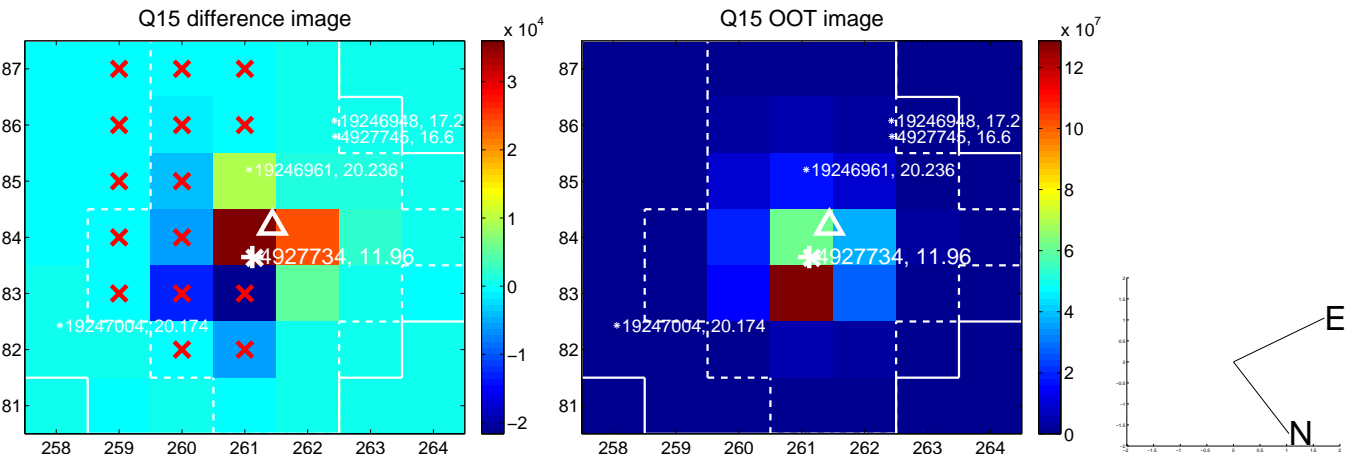
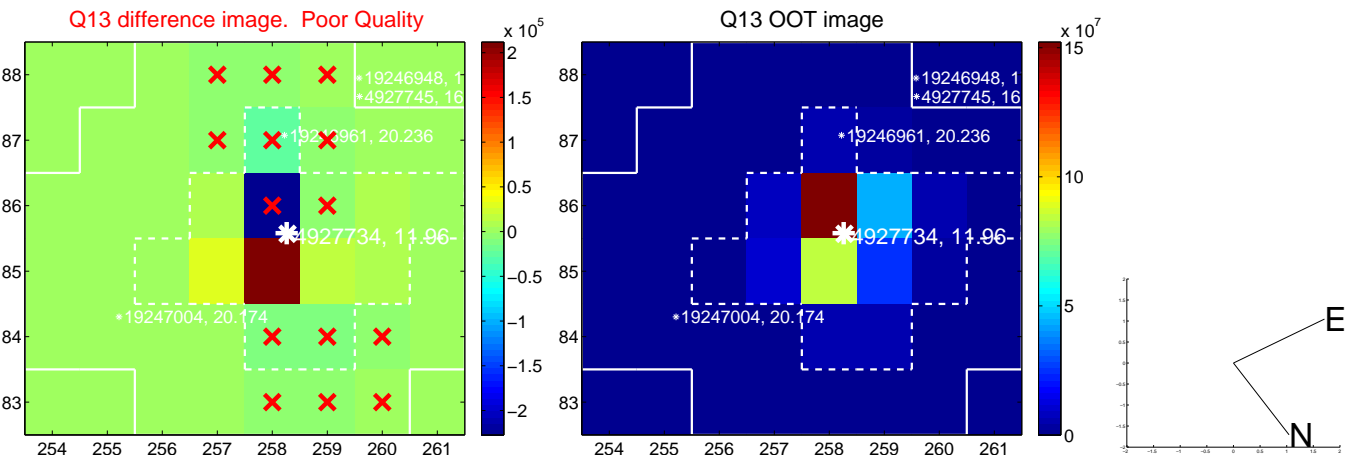
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



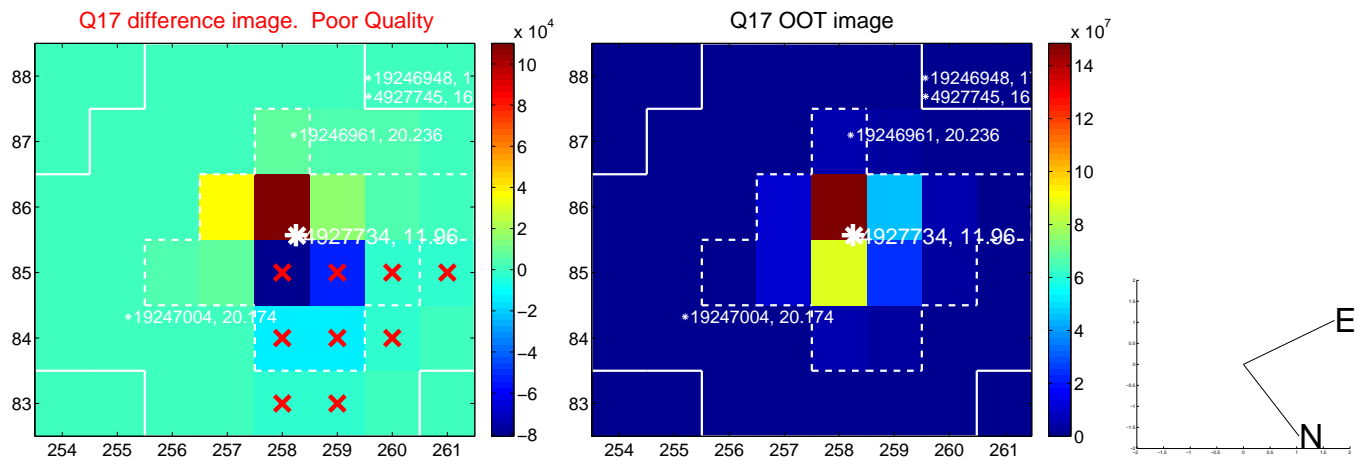
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

