

KIC 007765684

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})
007765684-01	OBS	No	2.923291	134.360464	84.1	35.080	9.1	11.2	3.13	8443	3.76	17343.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007765684-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

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

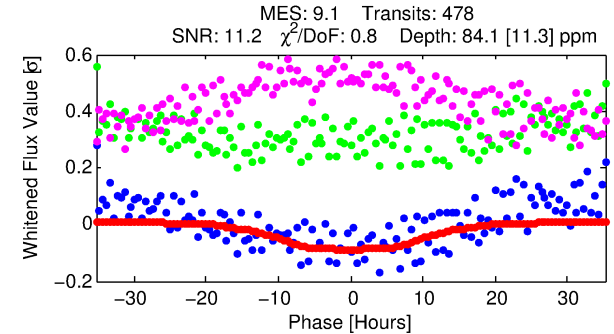
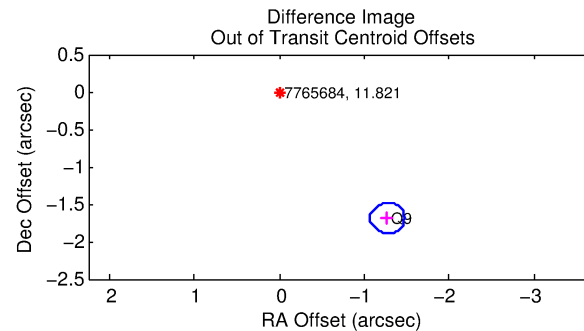
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

Ephemeris Match Information For 007765684-01

No Significant Match Found

KIC: 7765684 Candidate: 1 of 1 Period: 2.923 d

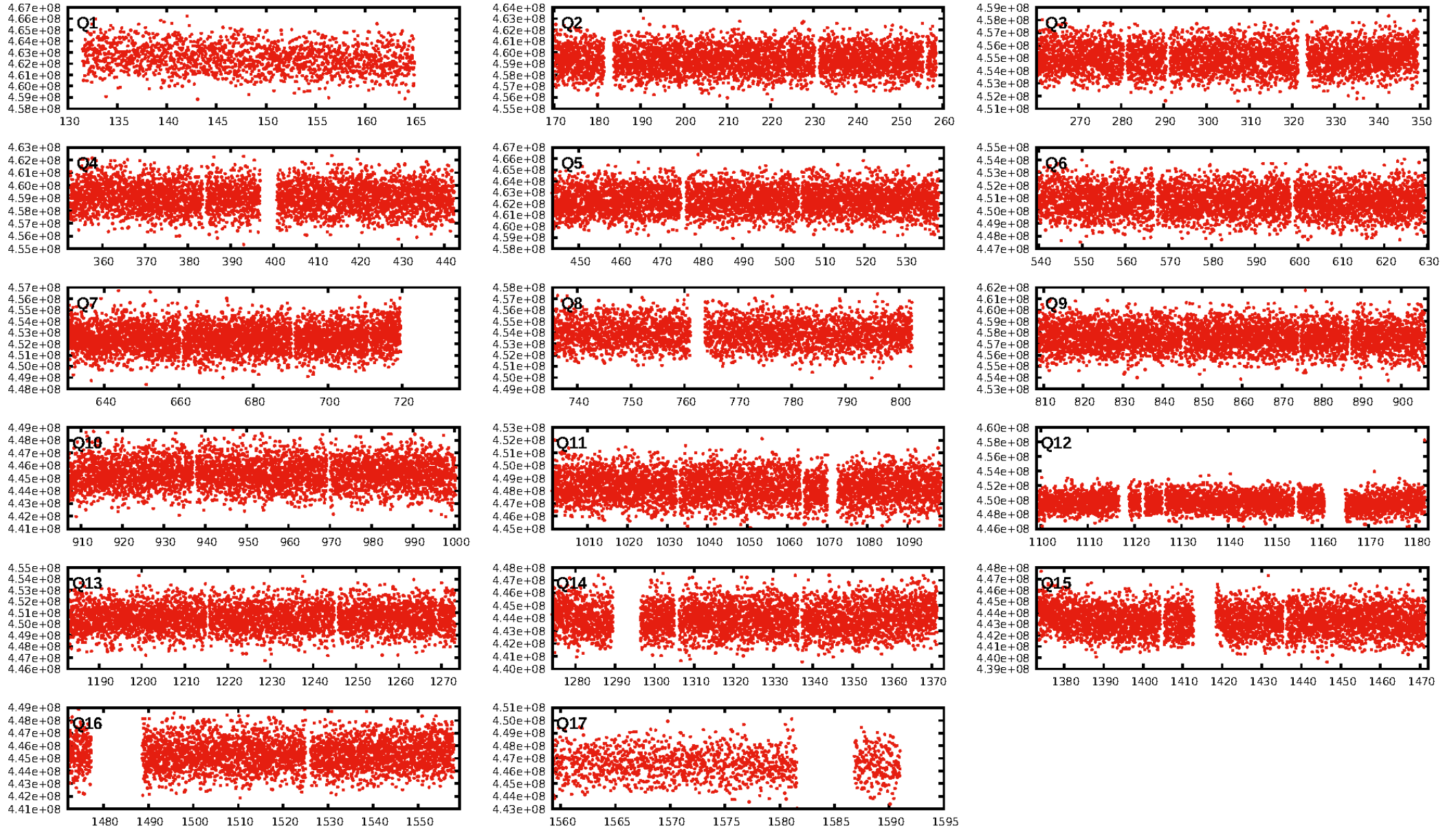


ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.83 [378/456]
GhostDiagnostic-chr: 1.087

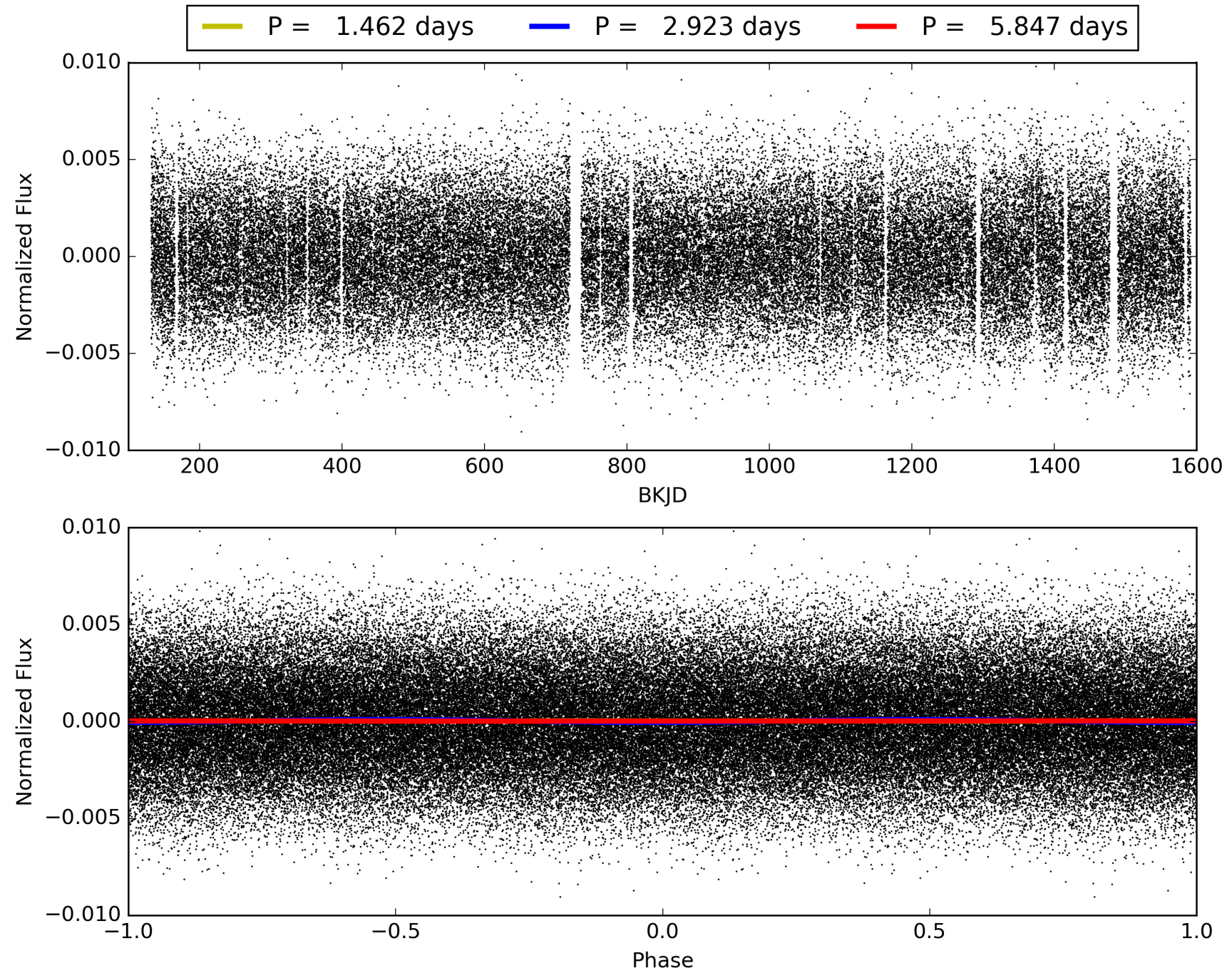
Centroid-sig: 0.2%

Centroid-so: 0.229 arcsec [2.20σ]
OotOffset-rm: 2.115 arcsec [31.48σ]
KicOffset-rm: 2.250 arcsec [33.49σ]
OotOffset-st: 0/0/0/1 [1]
KicOffset-st: 0/0/0/1 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007765684-01, PDC Light Curves

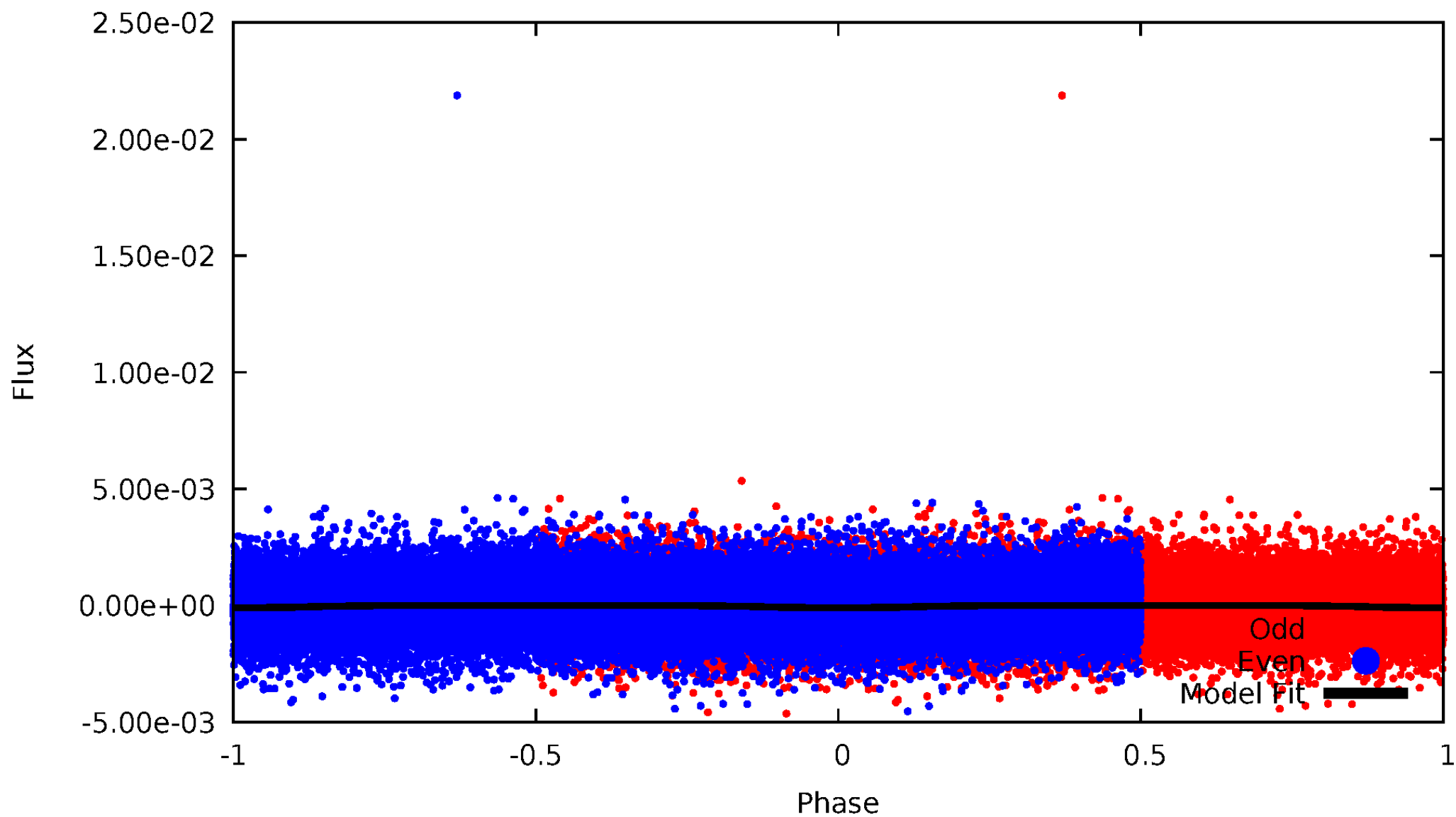


TCE 007765684-01



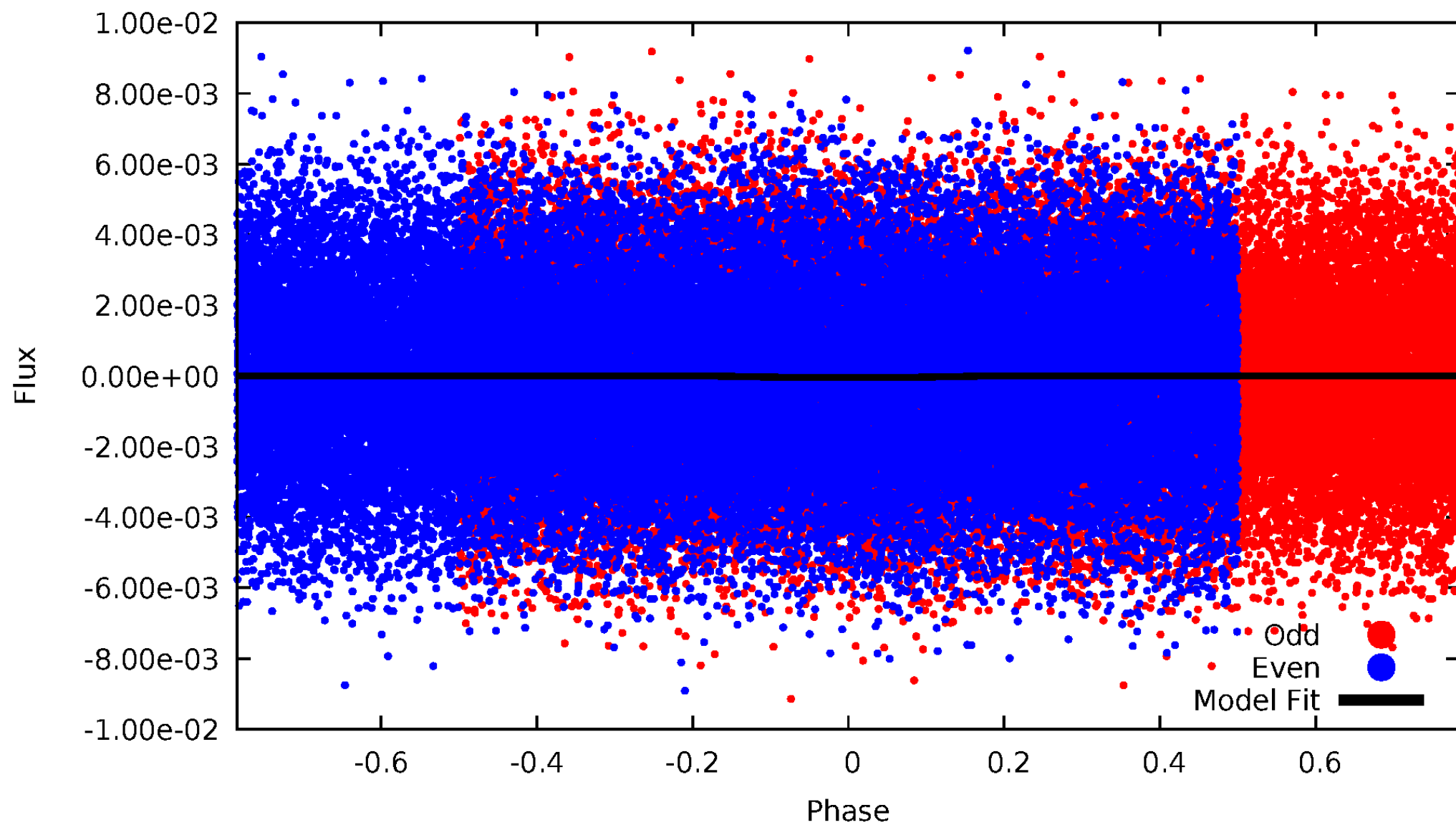
DV Odd/Even

TCE 007765684-01

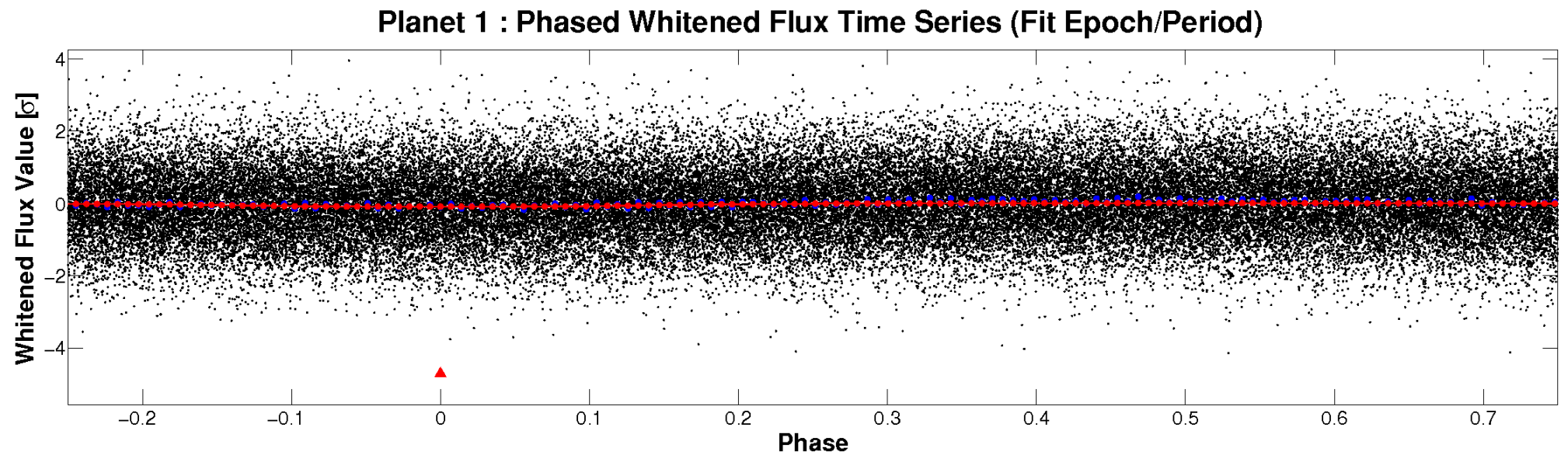
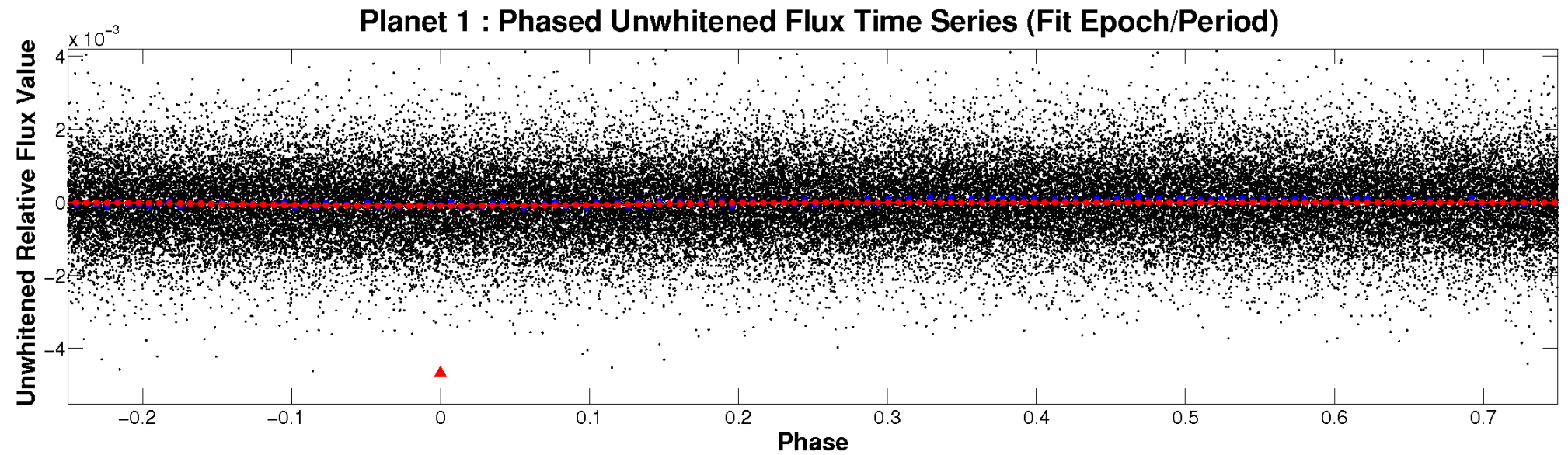


ALT Odd/Even

TCE 007765684-01

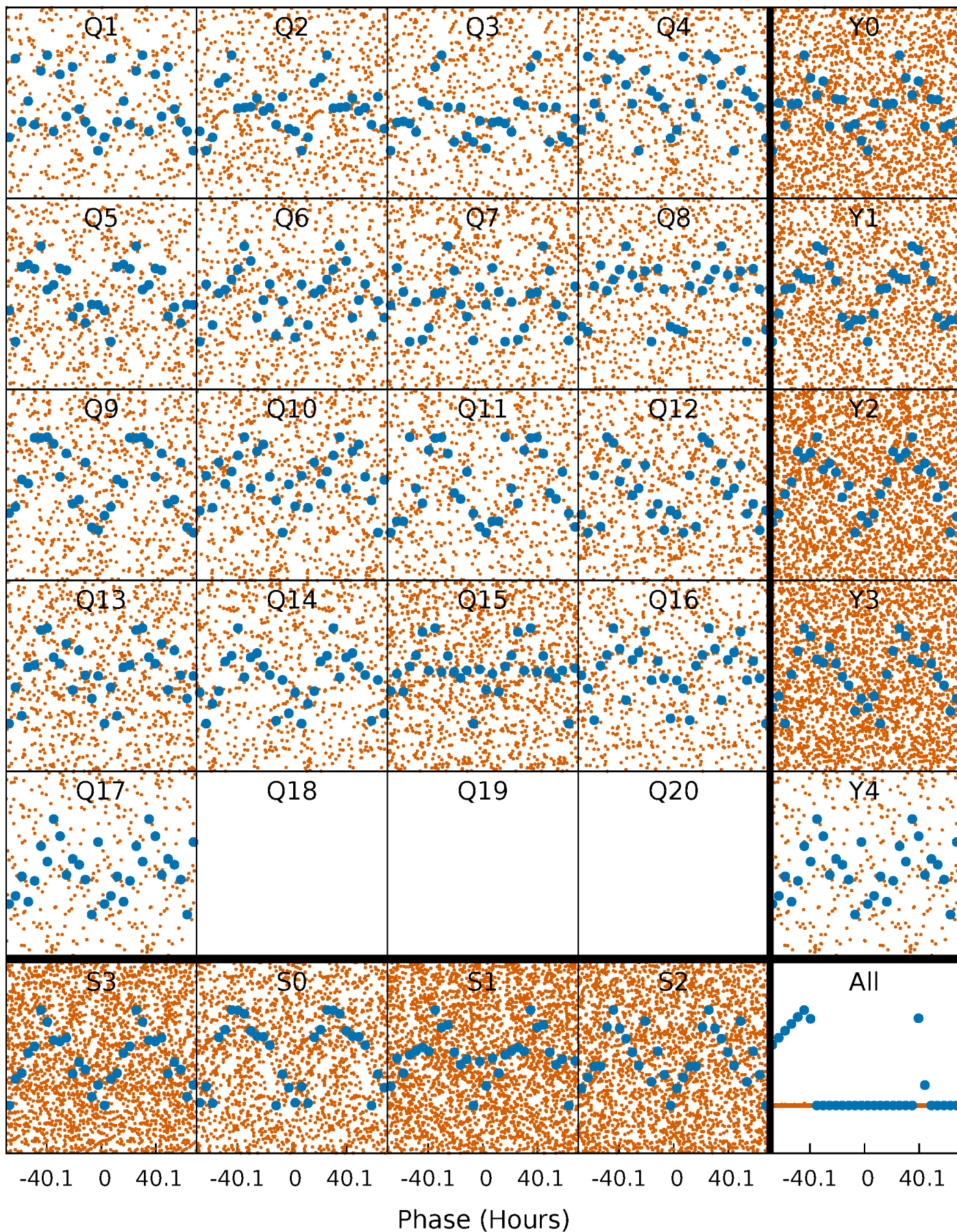


Non-Whitened Vs. Whitened Light Curve



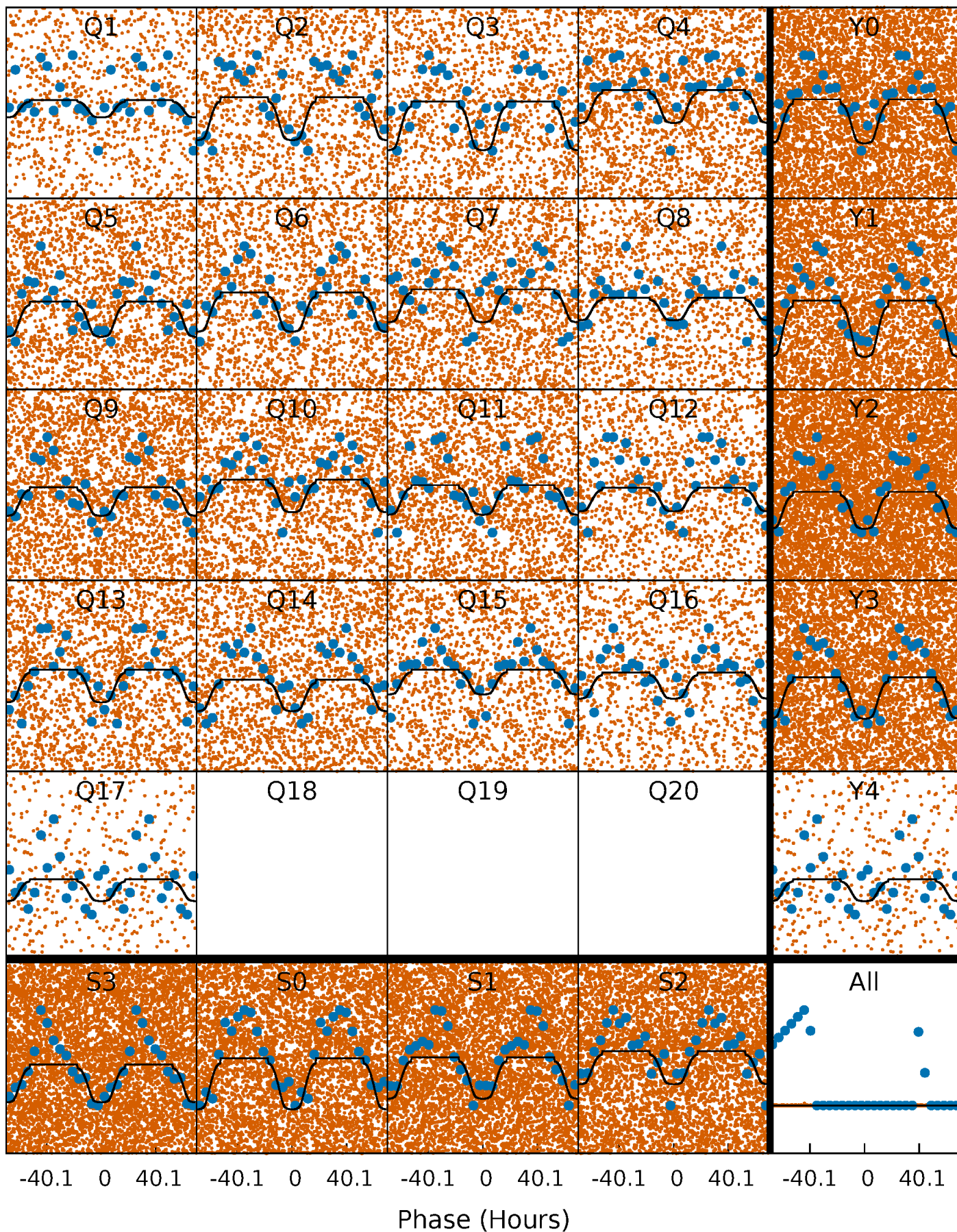
PDC Quarter-Phased Transit Curves

TCE 007765684-01 P= 2.923291 Days $T_0=134.360464$ (BKJD)



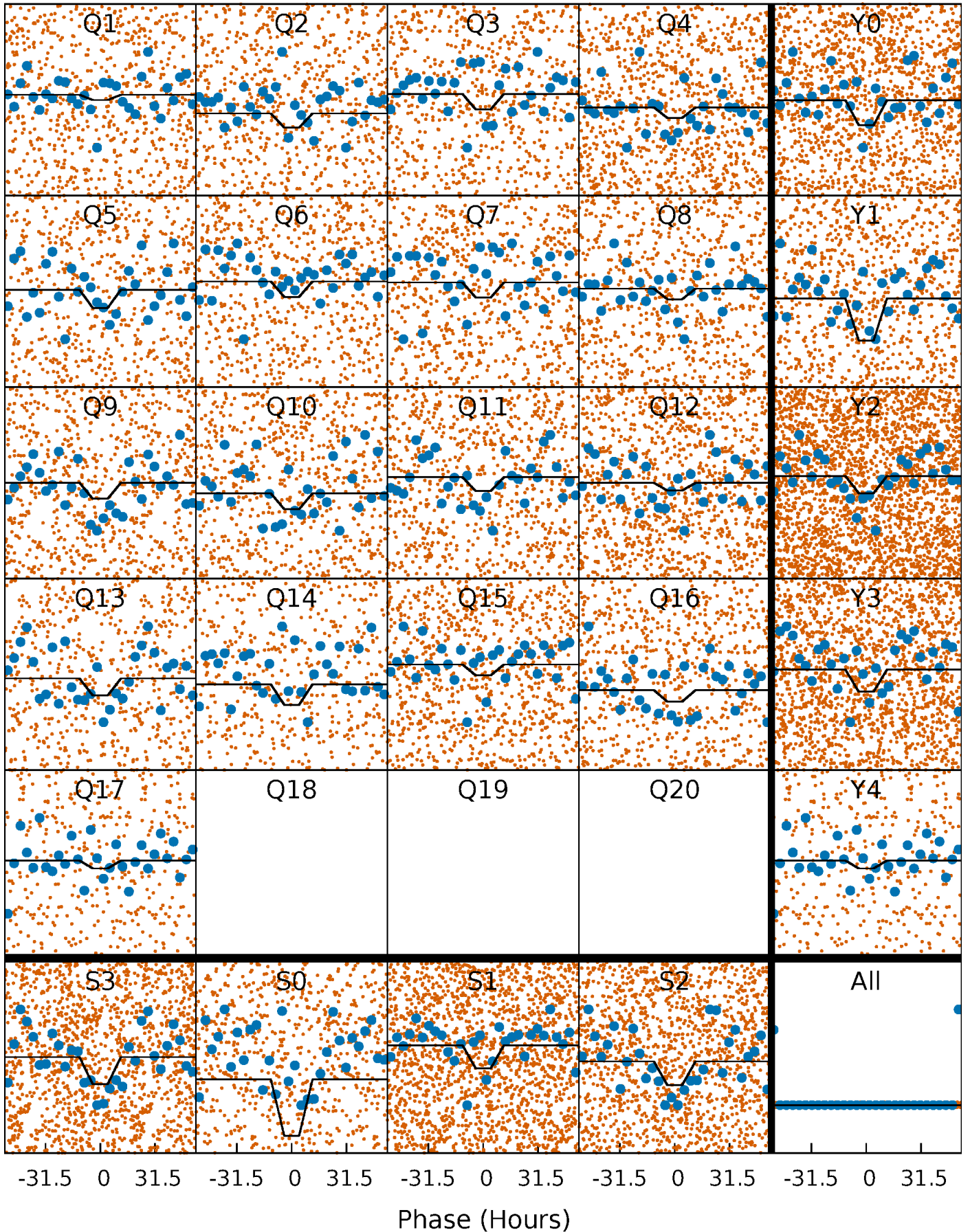
DV Quarter-Phased Transit Curves

TCE 007765684-01 P= 2.923291 Days $T_0=134.360464$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

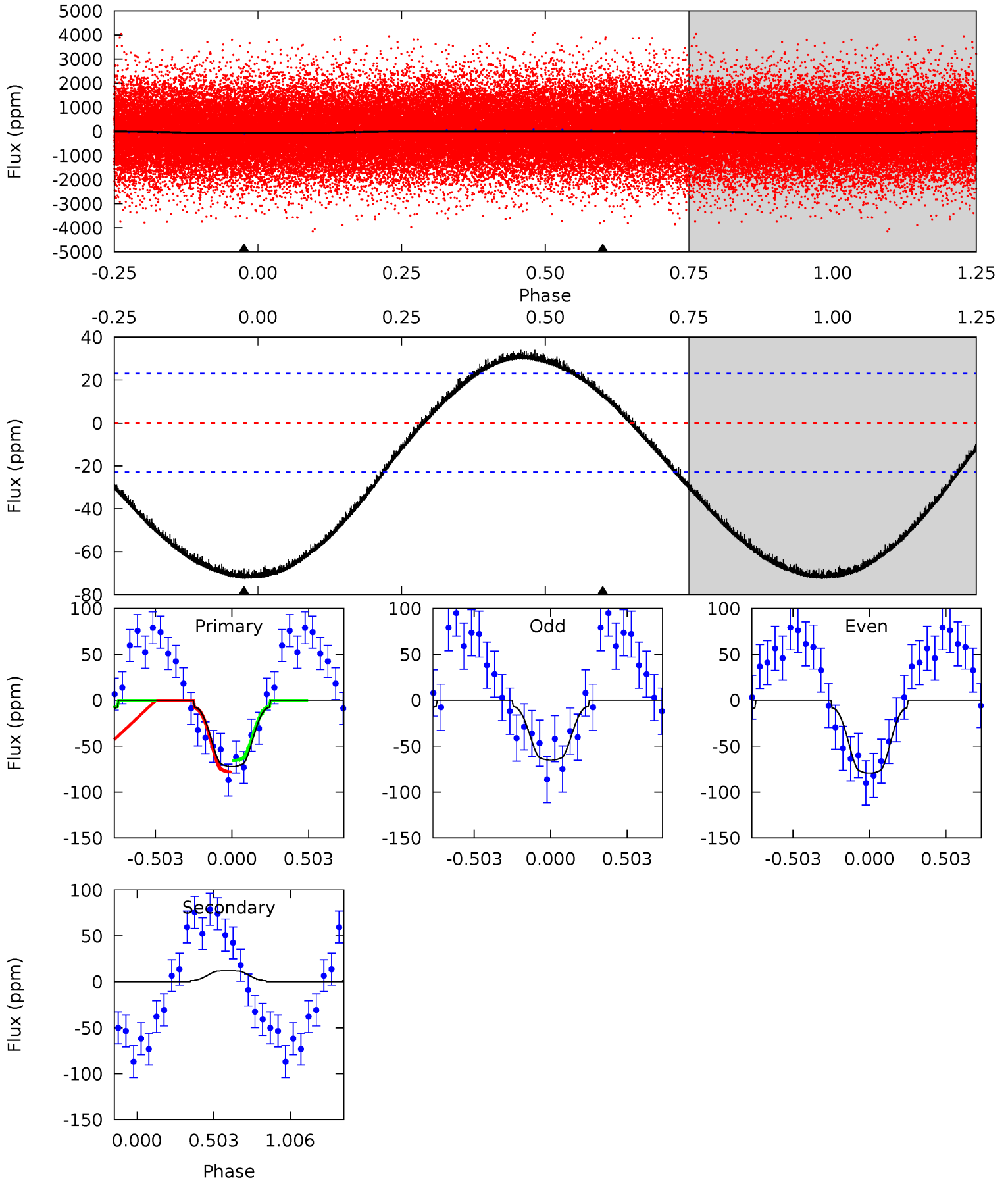
TCE 007765684-01 P= 2.923385 Days $T_0=134.395788$ (BKJD)



DV Model-Shift Uniqueness Test

007765684-01, P = 2.923291 Days, E = 131.437173 Days

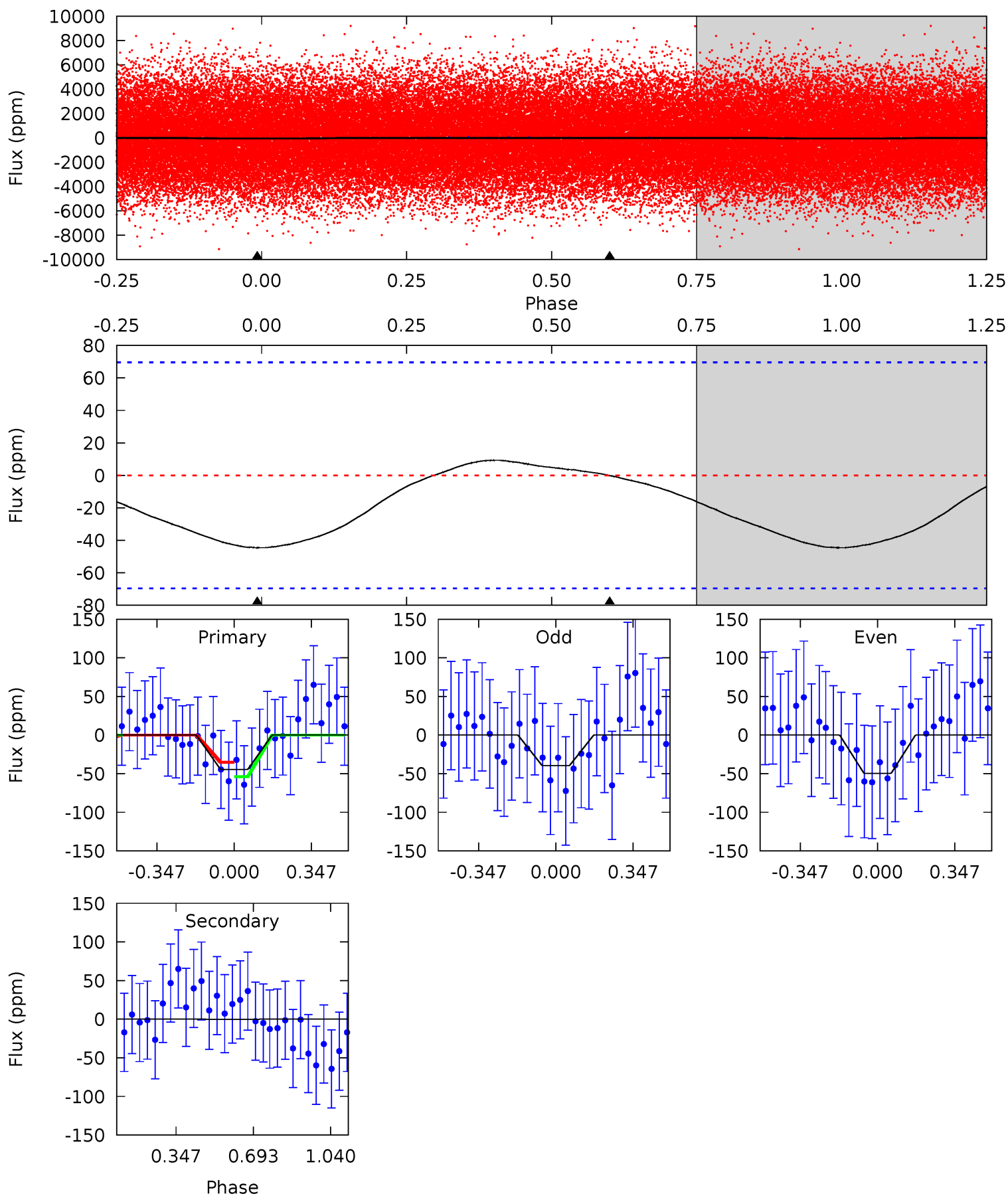
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	-2.23	0	0	4.21	0.67	1.59	13.3	13.3	-2.23	-2.23	1.31	0.21	0.32	1.13



Alt Model-Shift Uniqueness Test

007765684-01, P = 2.923385 Days, E = 131.472403 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.75	0	0	0	4.30	0.94	0.24	2.75	2.75	0	0	0.31	1.33	0.17	0.57



Stellar Parameters For KIC 007765684

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8443^{+234}_{-368}	$3.755^{+0.420}_{-0.140}$	$-0.140^{+0.350}_{-0.350}$	$3.127^{+0.935}_{-1.403}$	$2.032^{+0.374}_{-0.457}$	$0.094^{+0.335}_{-0.039}$
	+3%/-4%	+11%/-4%	+250%/-250%	+30%/-45%	+18%/-22%	+358%/-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 007765684-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	12 ± 5	$3.60^{+0.73}_{-0.83}$	3967^{+332}_{-446}	-4847^{+433}_{-406}	$-1.307^{+0.653}_{-1.019}$
Alt.	-0 ± 16	$2.21^{+0.51}_{-0.57}$	3970^{+323}_{-437}	-2684^{+8695}_{-3623}	$0.250^{+4.748}_{-5.230}$

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 $A_{obs} \gg 1.0$

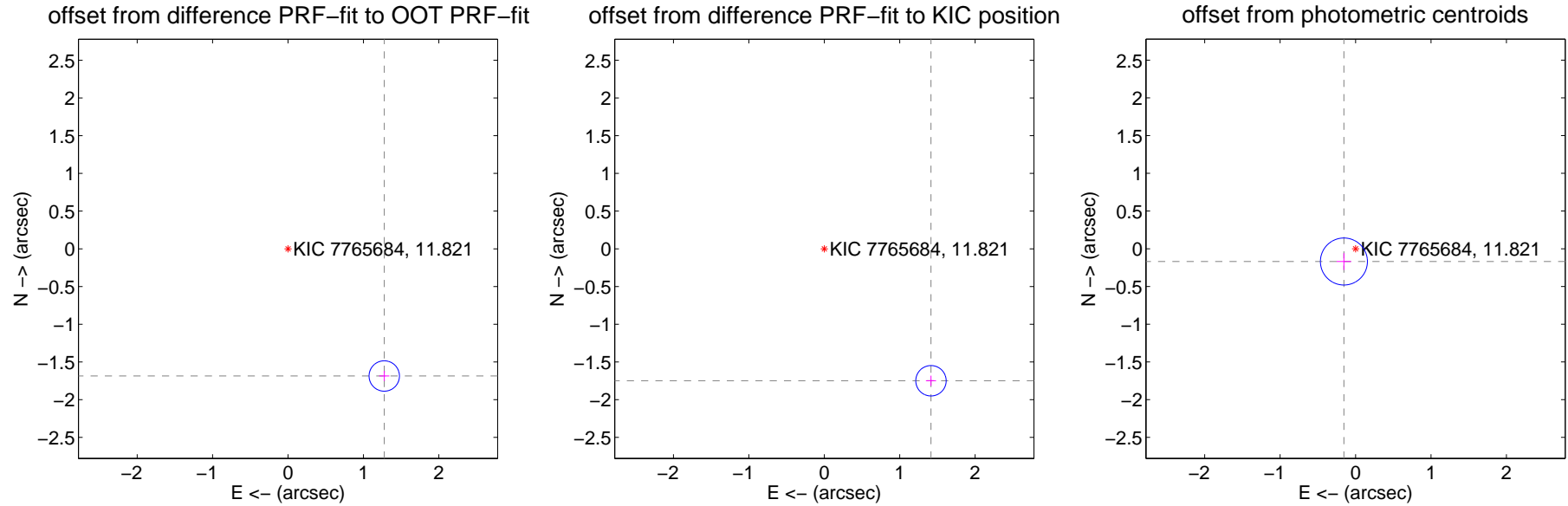
DV Centroid Data

Supplemental centroid analysis for 007765684-01. **Kepler magnitude: 11.82.** Transit SNR 11.23

There are 1 quarters with good PRF difference image offsets

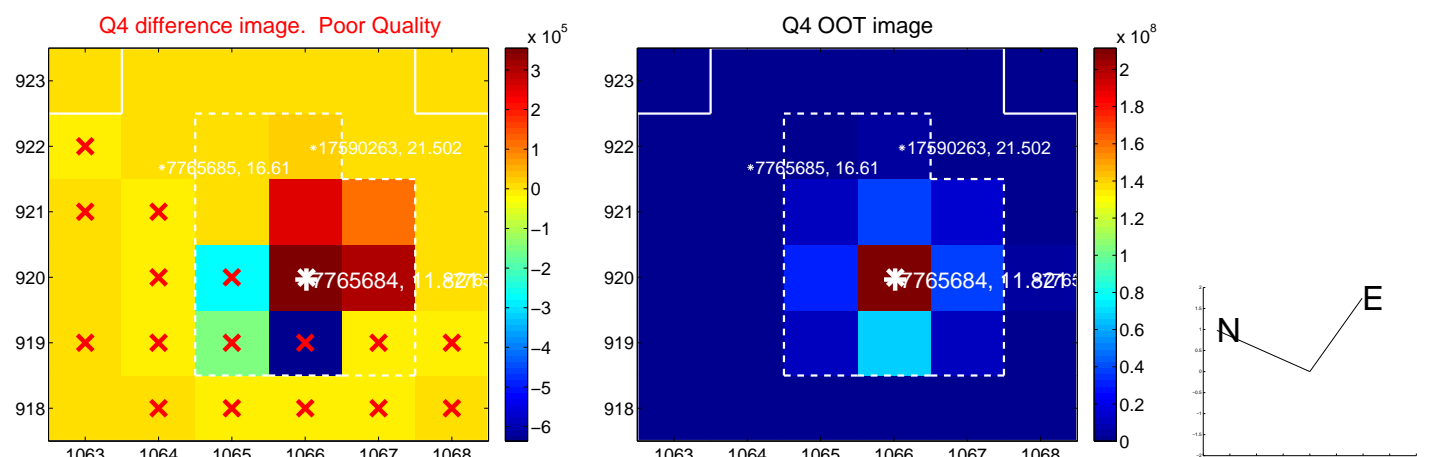
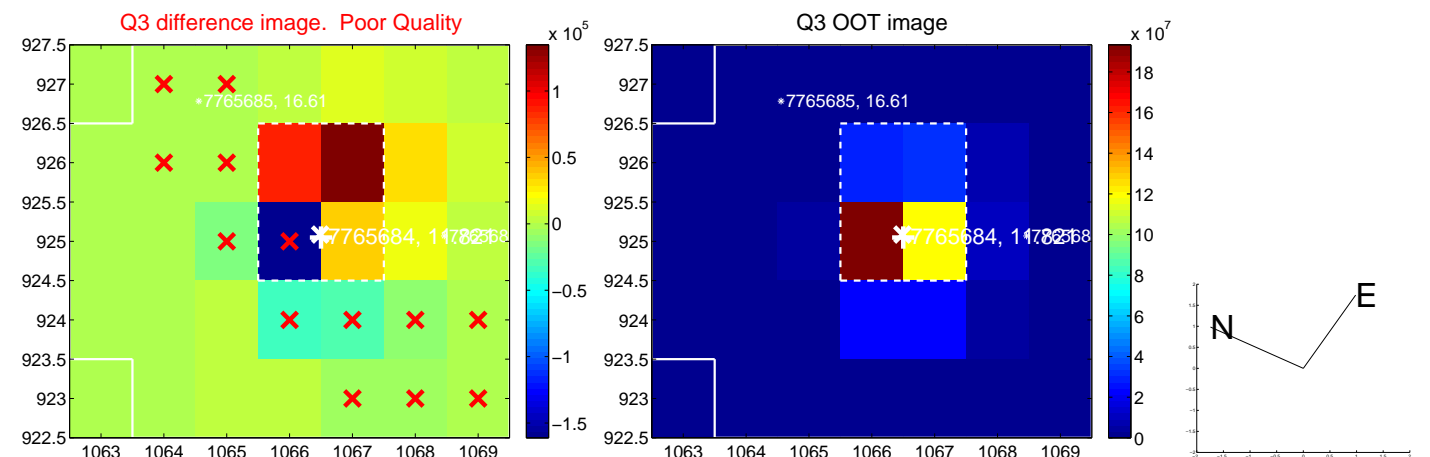
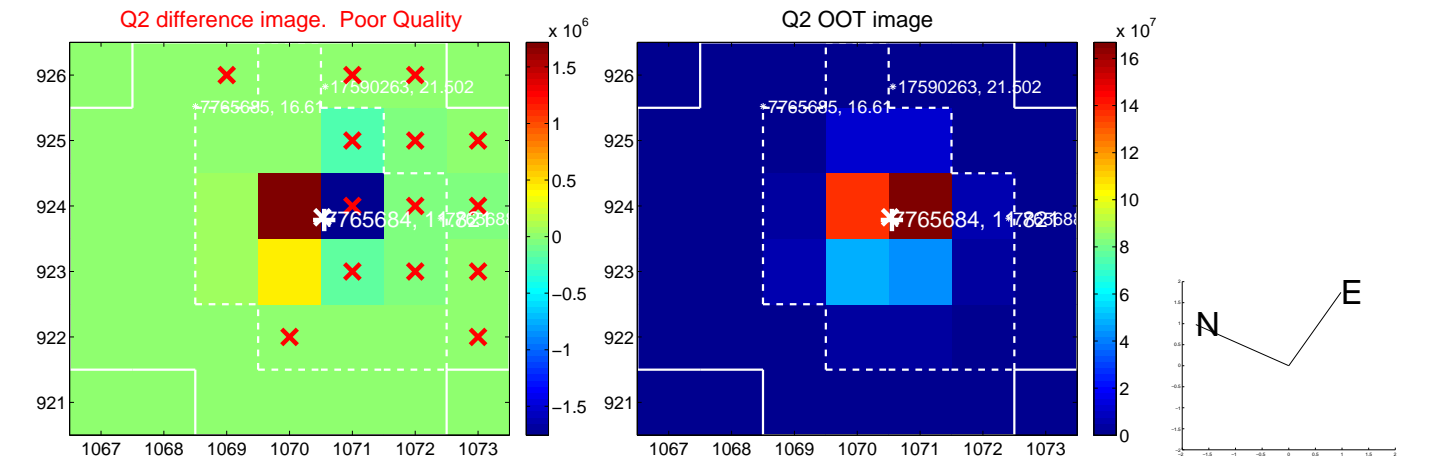
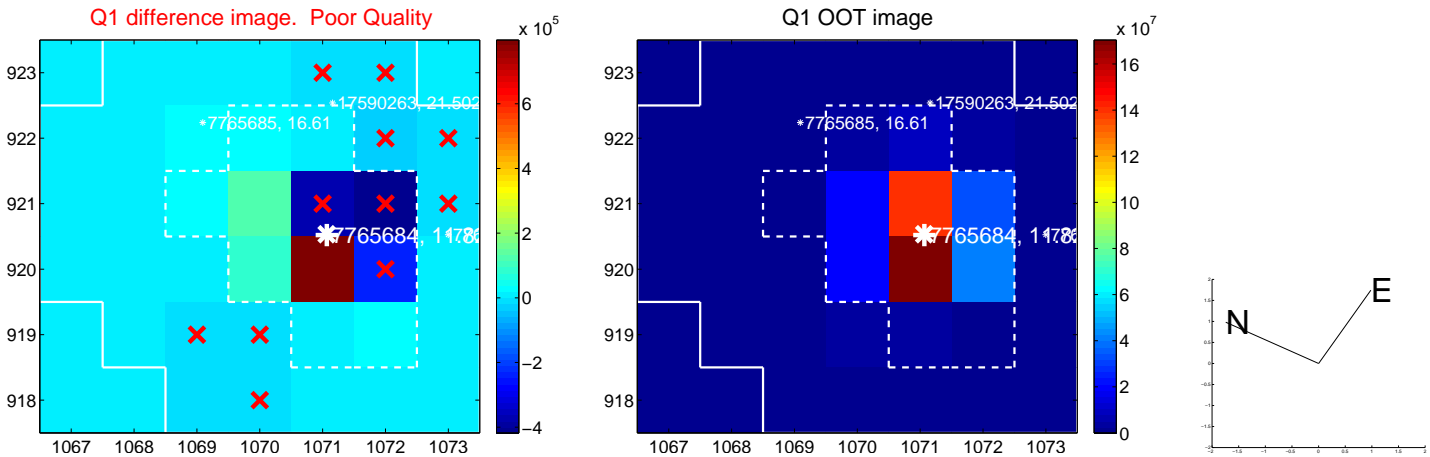
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.115 ± 0.067	31.48	-1.276 ± 0.067	-1.687 ± 0.067
PRF-fit source offset from KIC position	2.250 ± 0.067	33.49	-1.415 ± 0.067	-1.750 ± 0.067
photometric centroid source offset	0.23 ± 0.10	2.20	0.15 ± 0.10	-0.17 ± 0.11

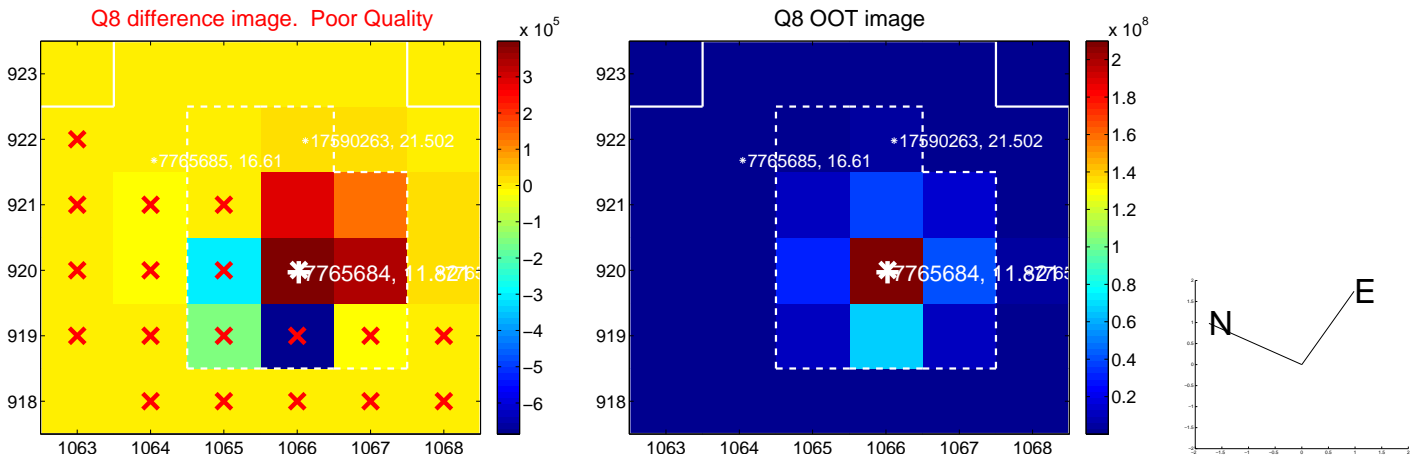
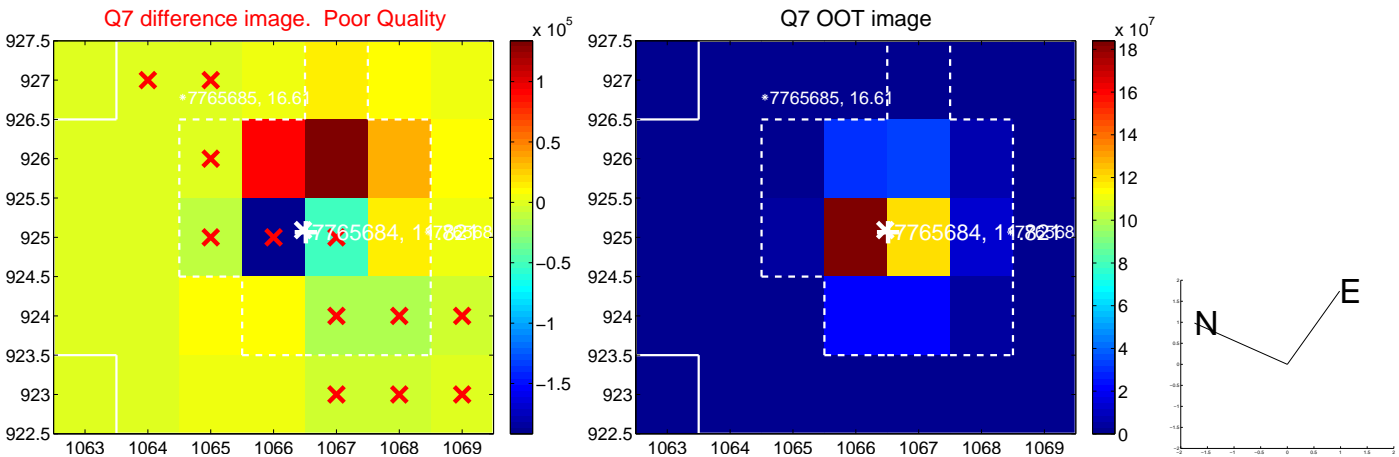
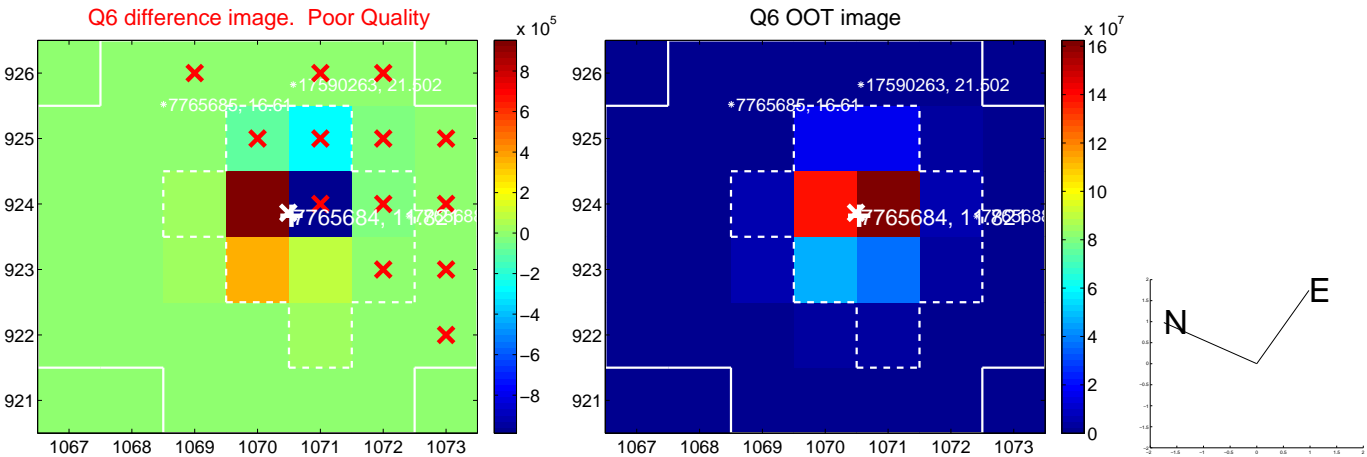
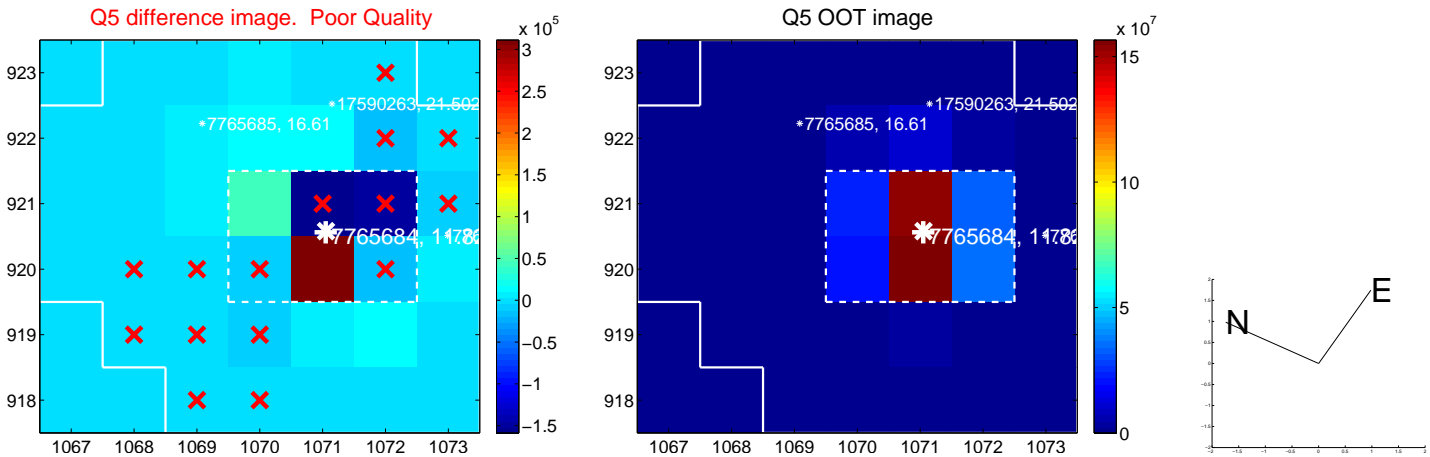


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

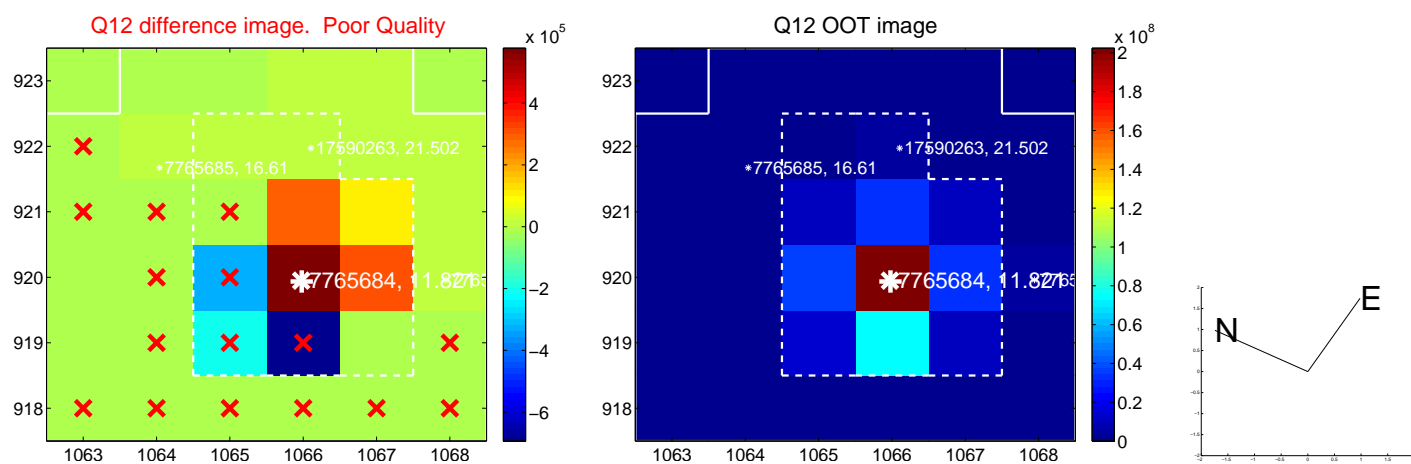
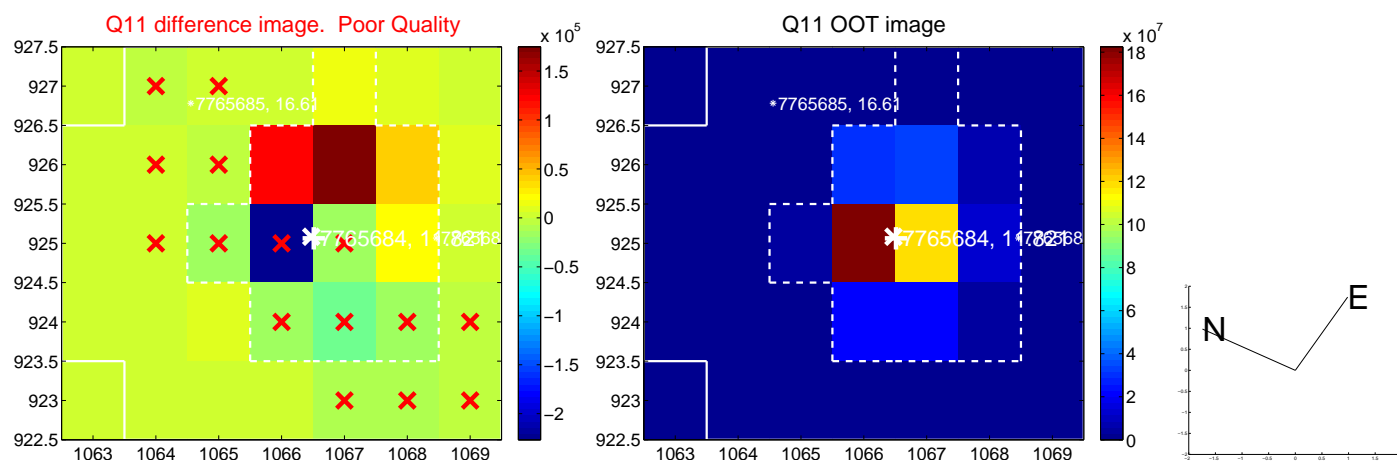
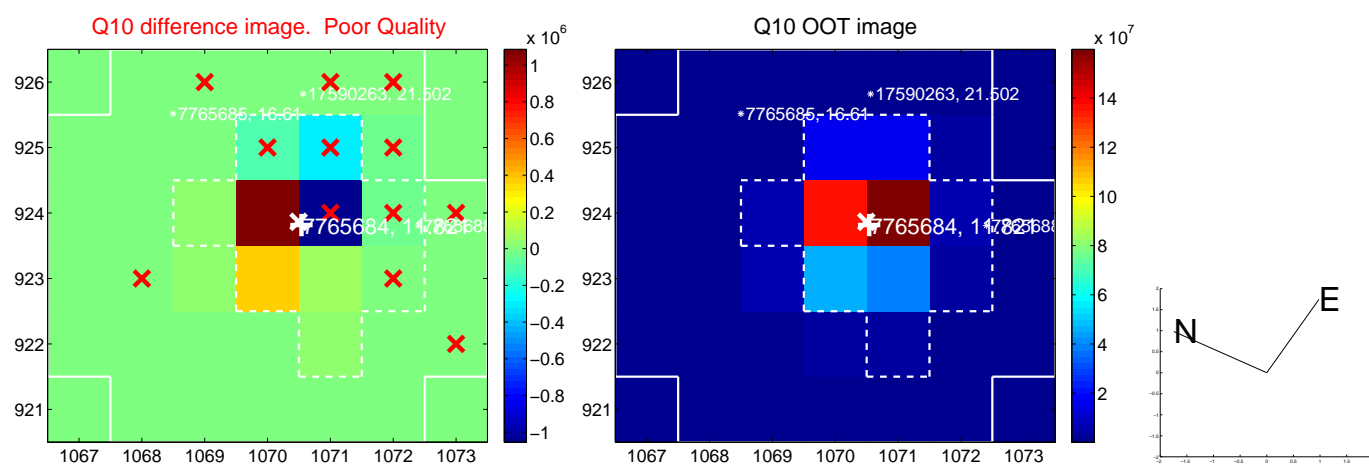
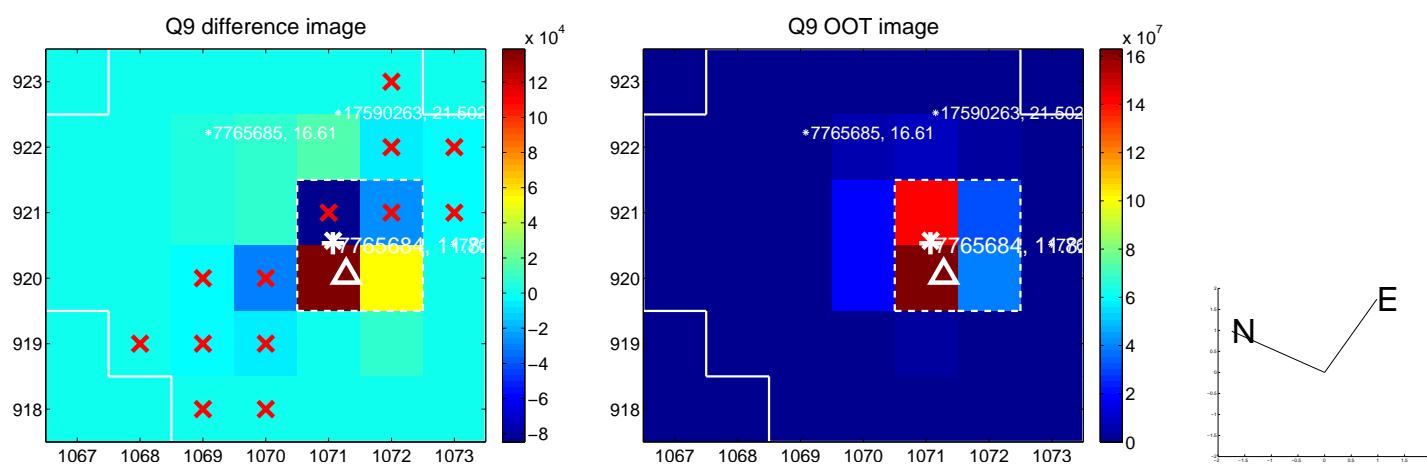
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



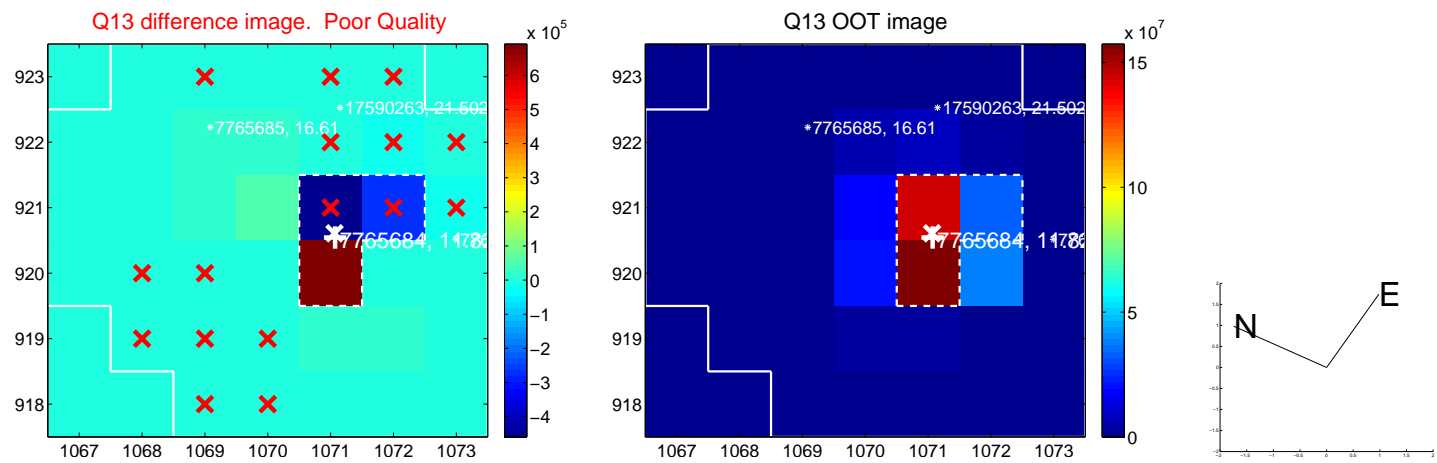
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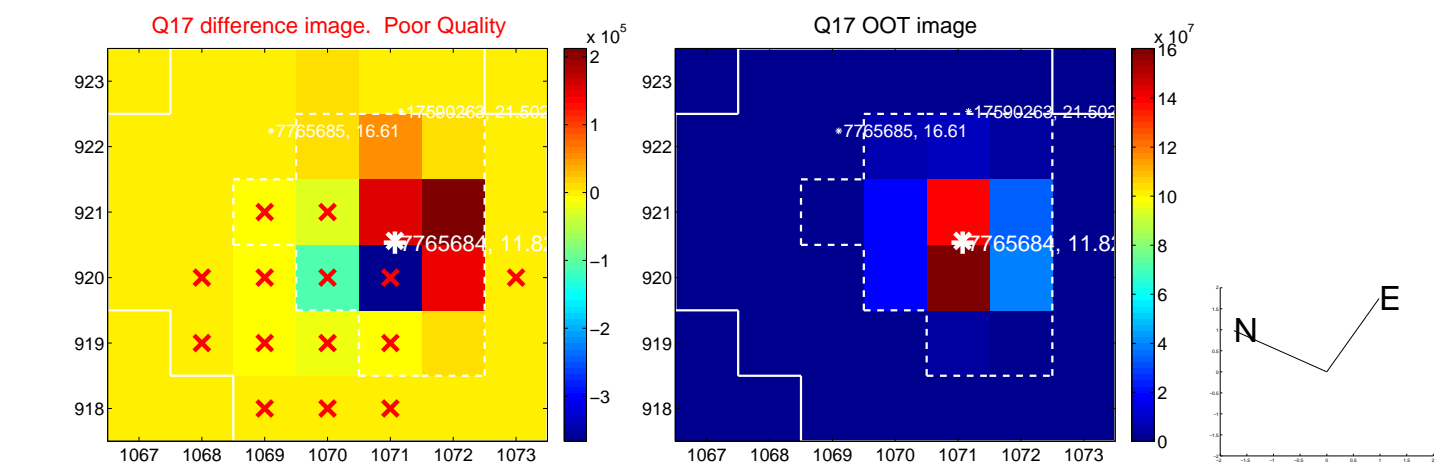
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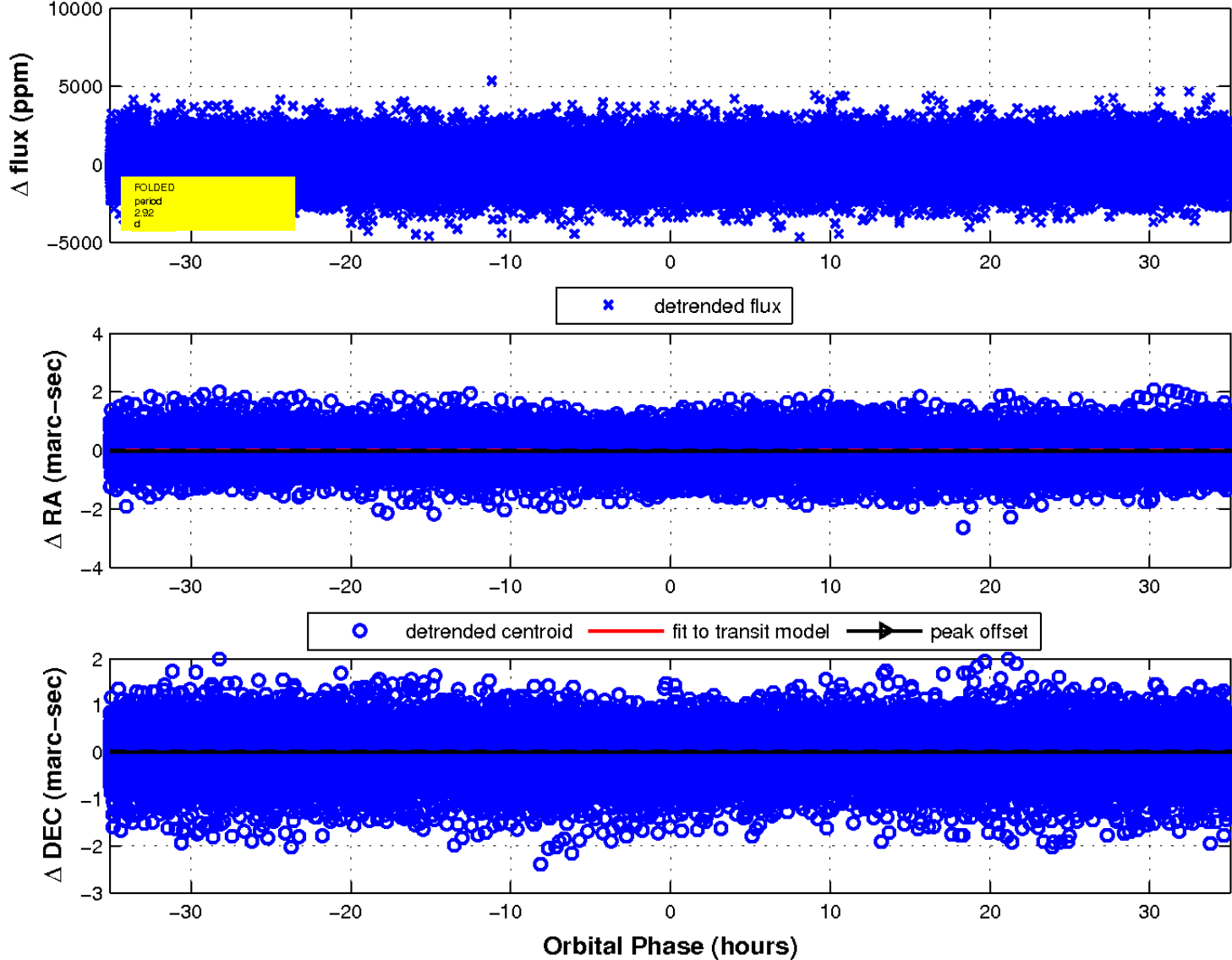
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

