

KIC 005792102

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})
005792102-01	OBS	No	0.600539	131.670417	10.9	2.765	13.9	6.1	0.95	5843	0.37	4800.15

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005792102-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

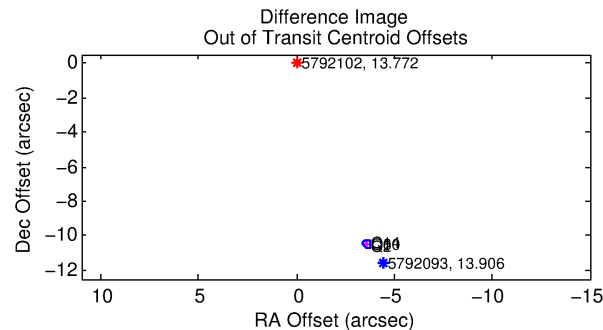
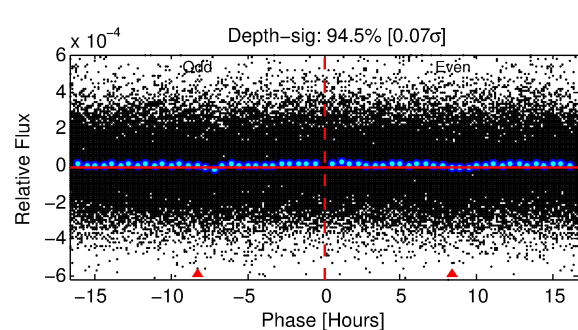
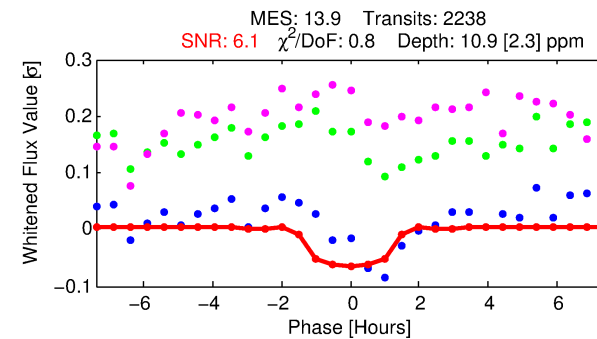
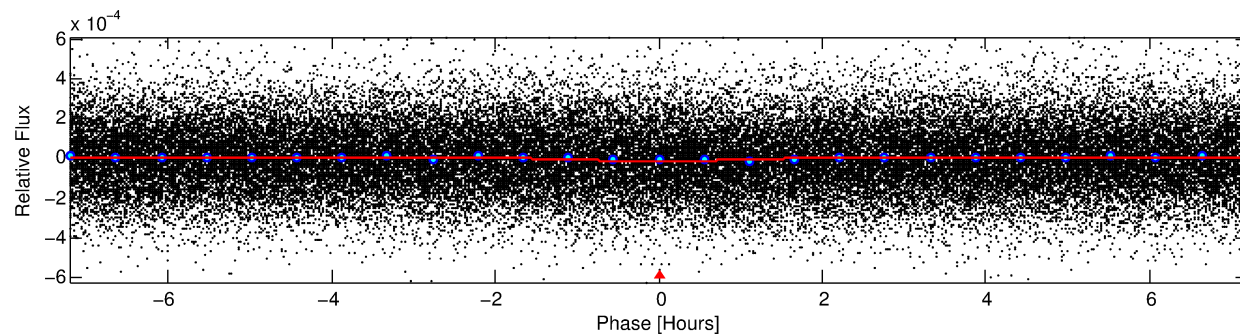
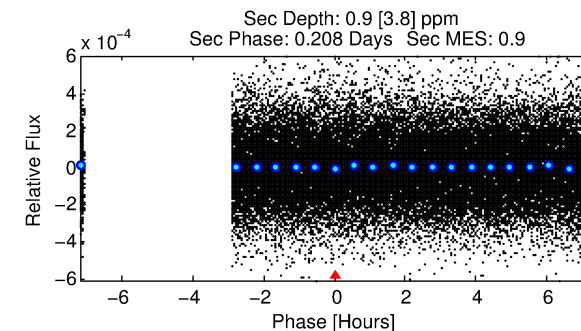
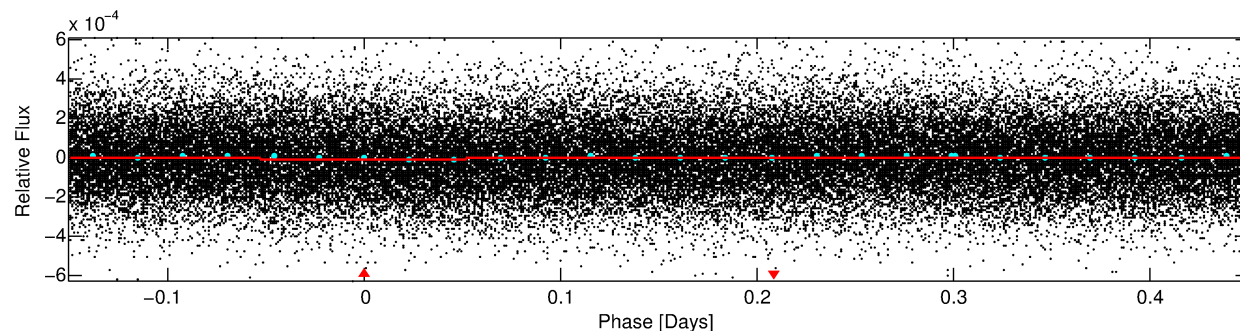
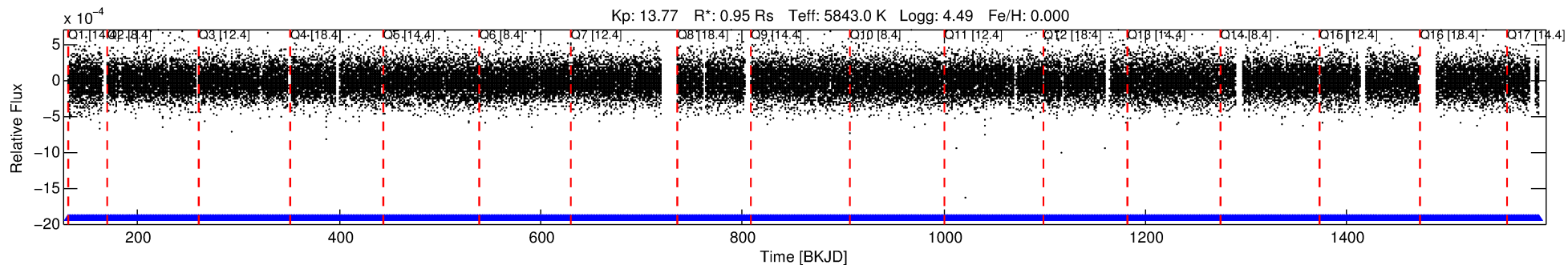
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005792102-01

No Significant Match Found

DV One-Page Summary

KIC: 5792102 Candidate: 1 of 1 Period: 0.601 d



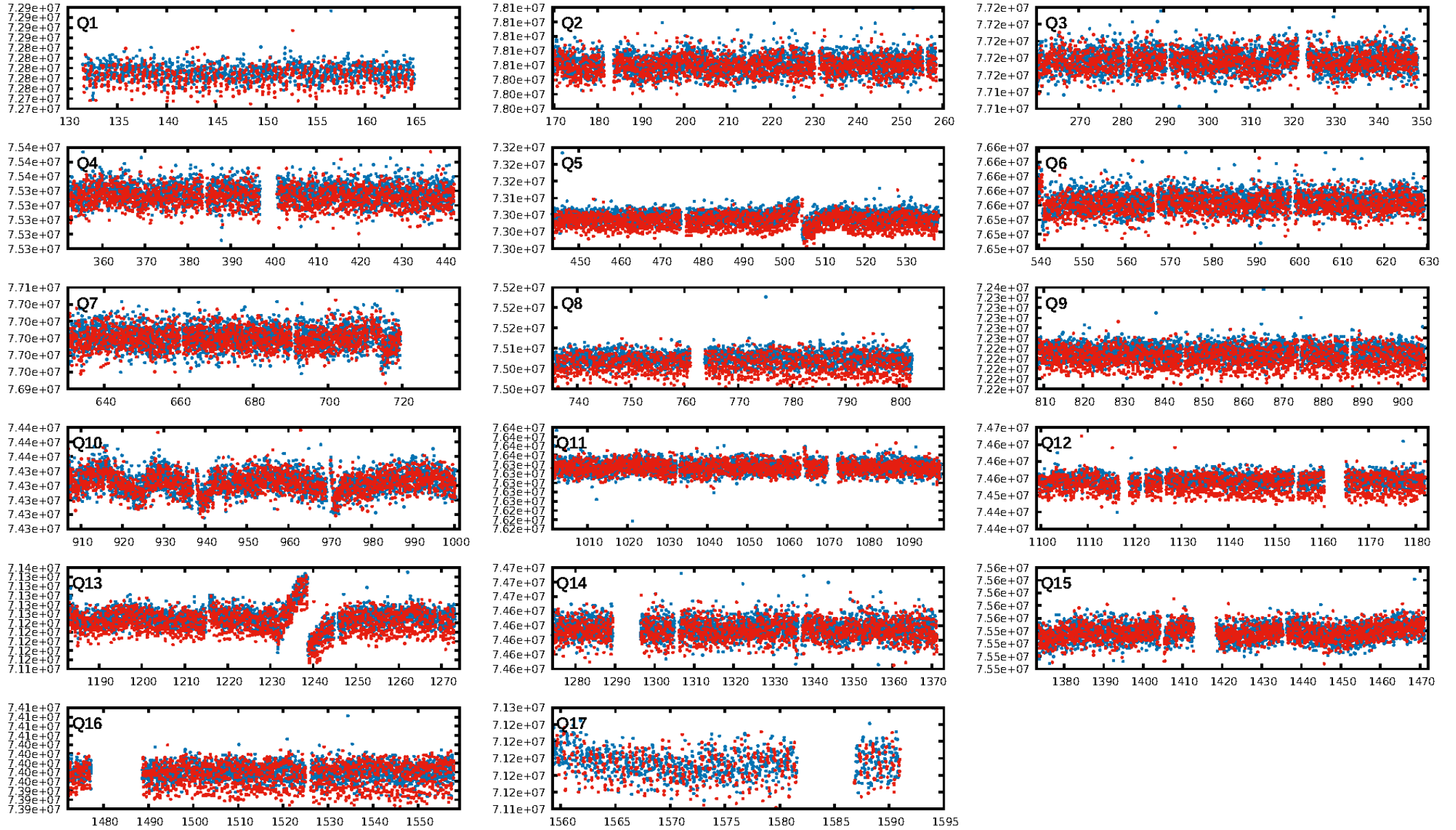
DV Fit Results:

Period = 0.60054 [0.00002] d
Epoch = 131.6704 [0.0056] BKJD
Rp/R* = 0.0036 [0.0029]
a/R* = 1.19 [1.38]
b = 0.90 [0.83]
Seff = 4800.15 [1920.58]
Teff = 2122 [212] K
Rp = 0.37 [0.32] Re
a = 0.0140 [0.0037] AU
Ag = 0.70 [3.13] [-0.10σ]
Teffp = 3003 [3339] K [0.26σ]

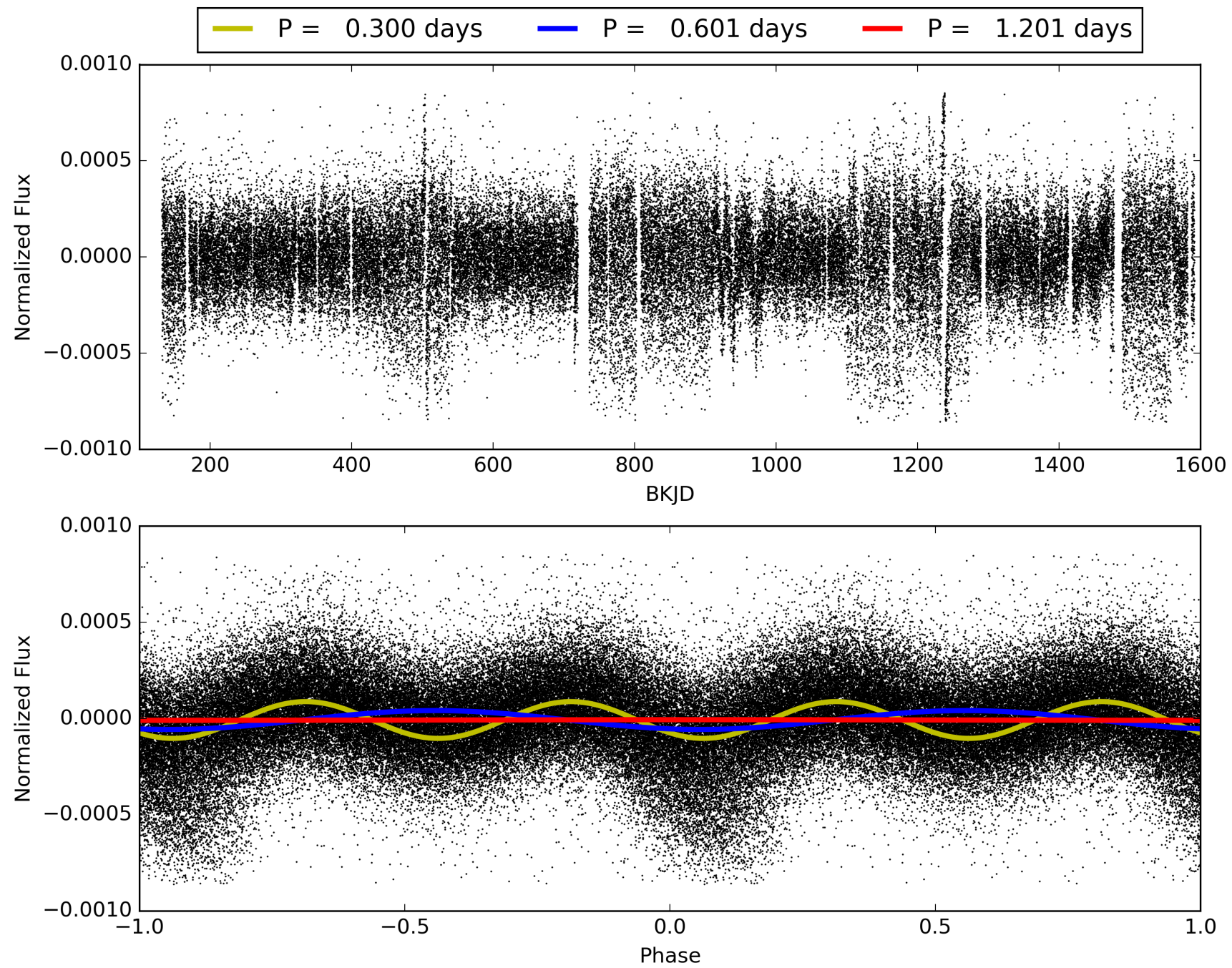
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: 1.59e-35
RollingBand-fgt: 1.00 [2137/2137]
GhostDiagnostic-chr: -0.1034
Centroid-sig: N/A
Centroid-so: 688.345 arcsec [150.88σ]
OotOffset-rm: 11.076 arcsec [145.25σ]
KicOffset-rm: 11.351 arcsec [162.83σ]
OotOffset-st: 4/0/0/0 [4]
KicOffset-st: 4/0/0/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005792102-01, PDC Light Curves

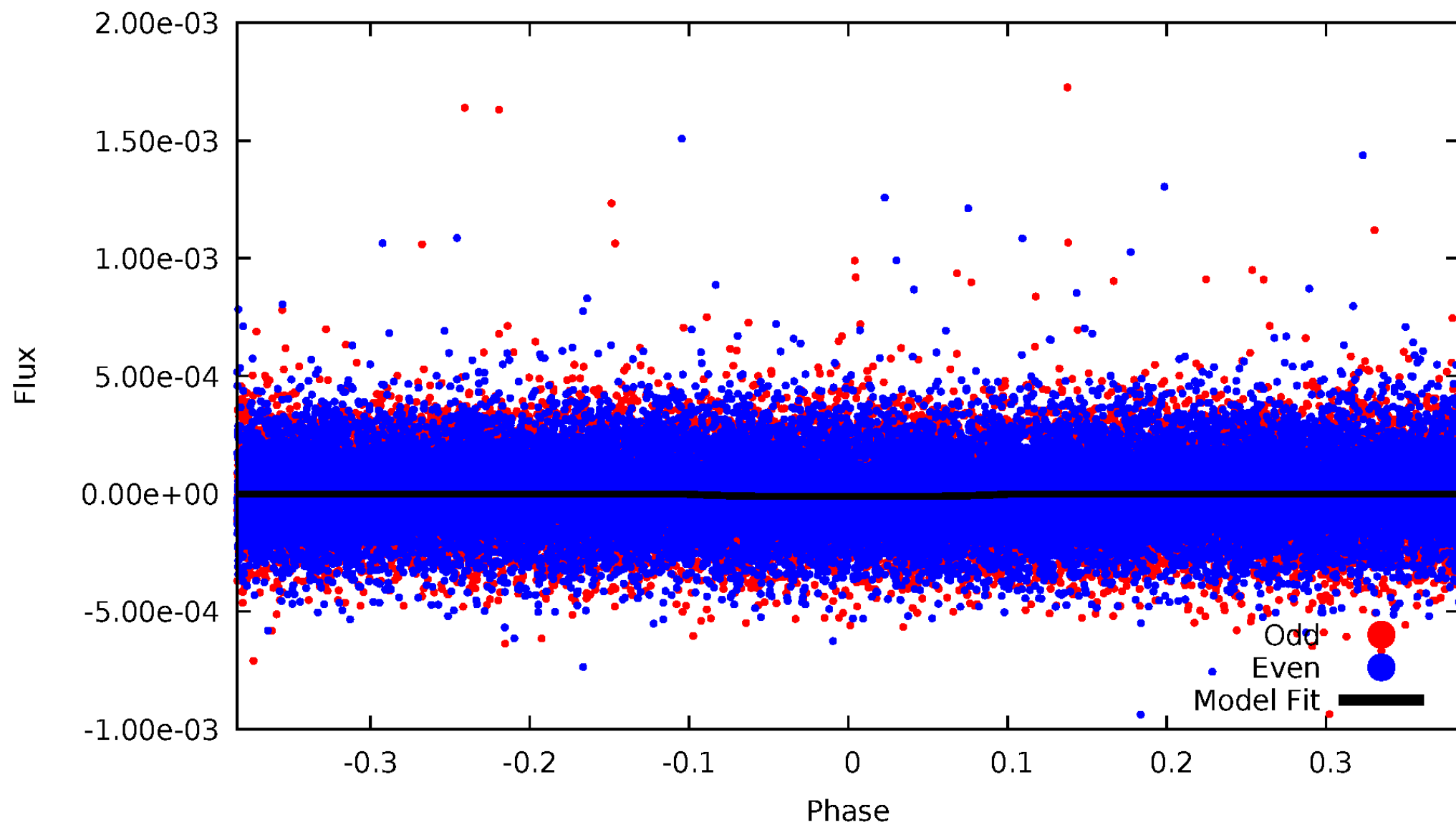


TCE 005792102-01



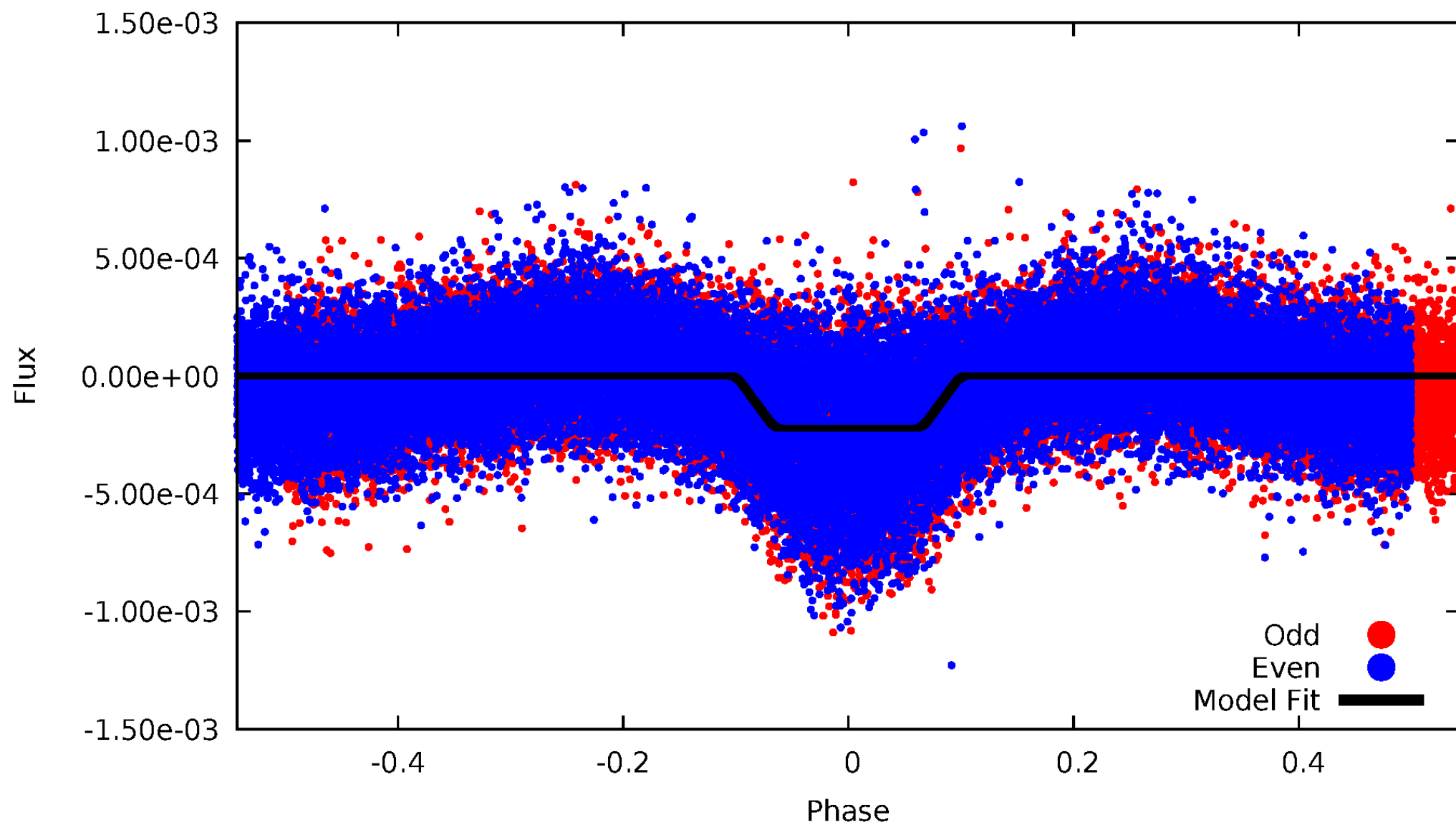
DV Odd/Even

TCE 005792102-01



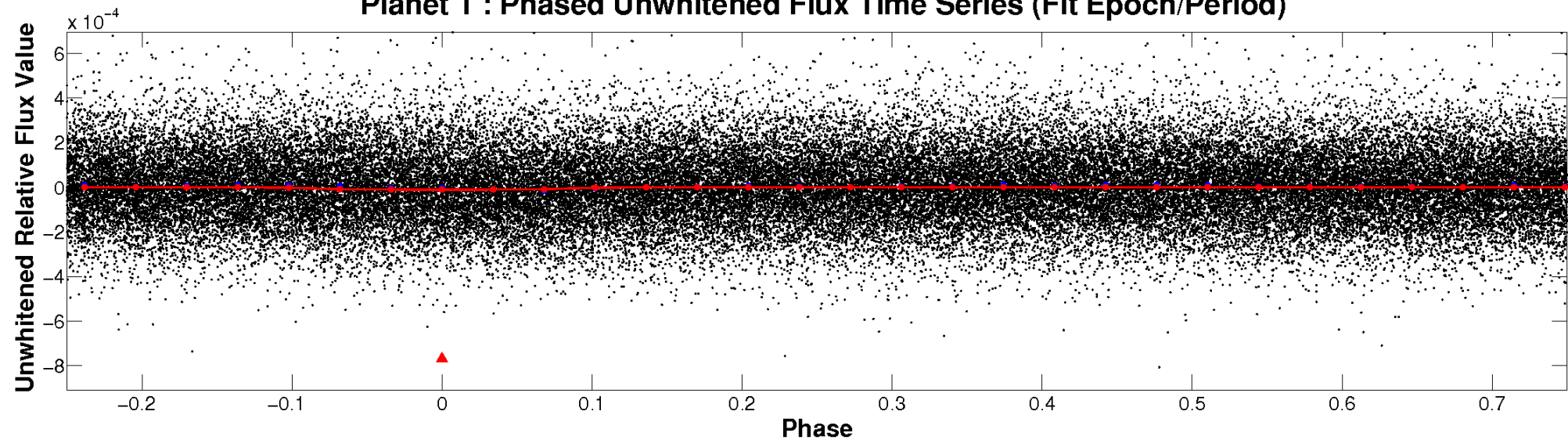
ALT Odd/Even

TCE 005792102-01

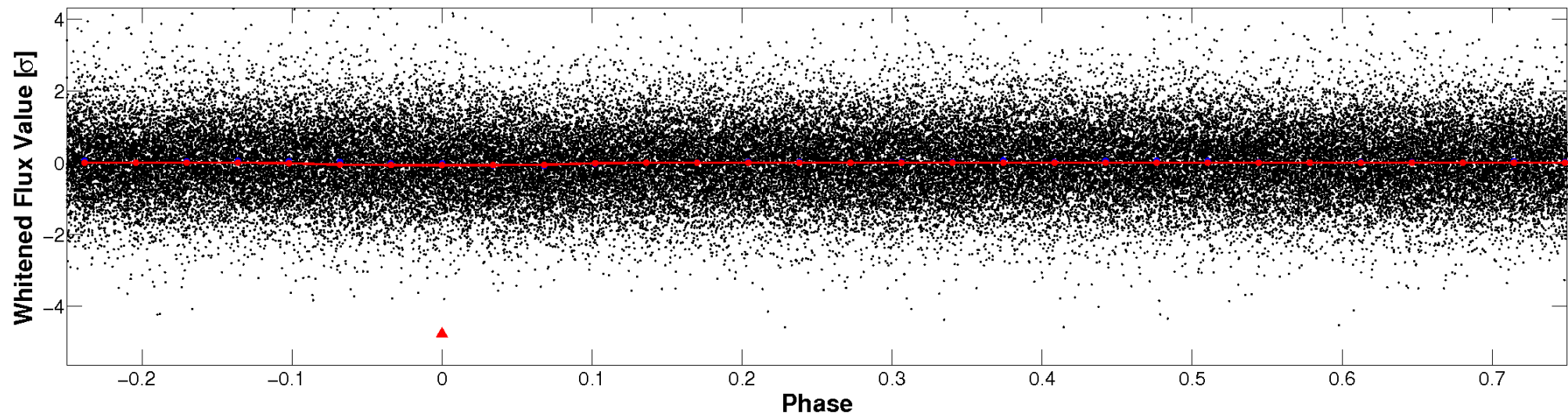


Non-Whitened Vs. Whitened Light Curve

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

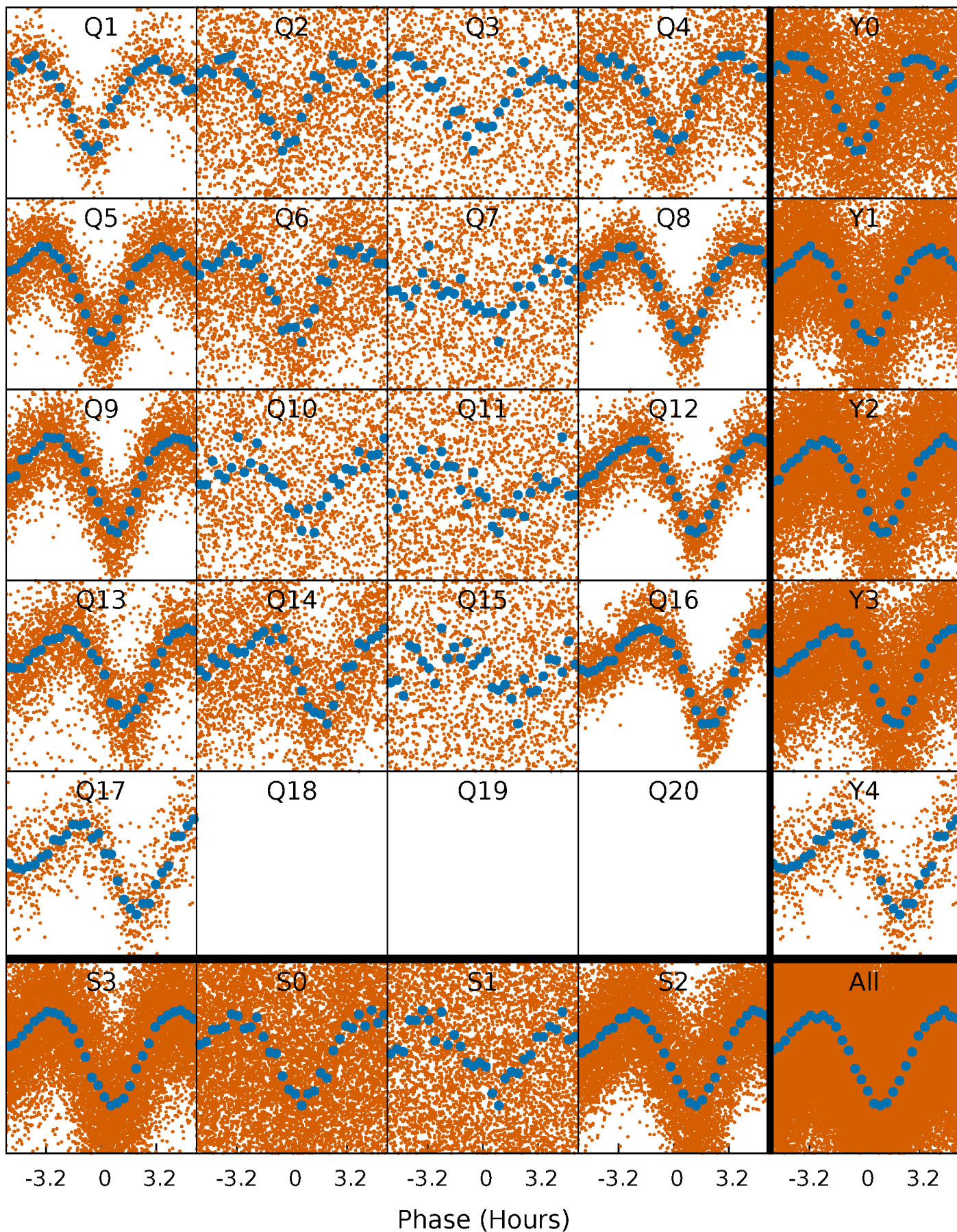


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



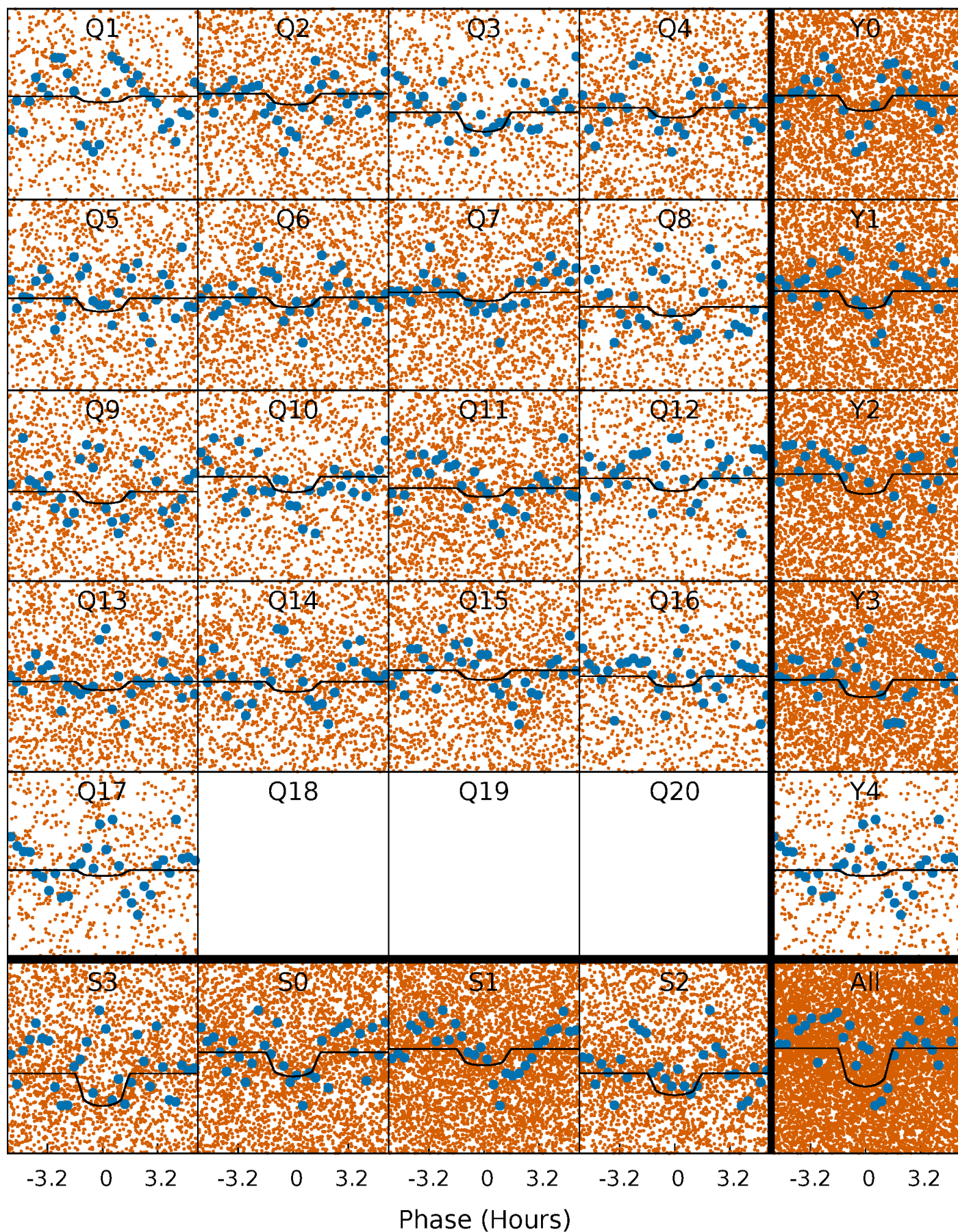
PDC Quarter-Phased Transit Curves

TCE 005792102-01 P= 0.600539 Days $T_0=131.670417$ (BKJD)



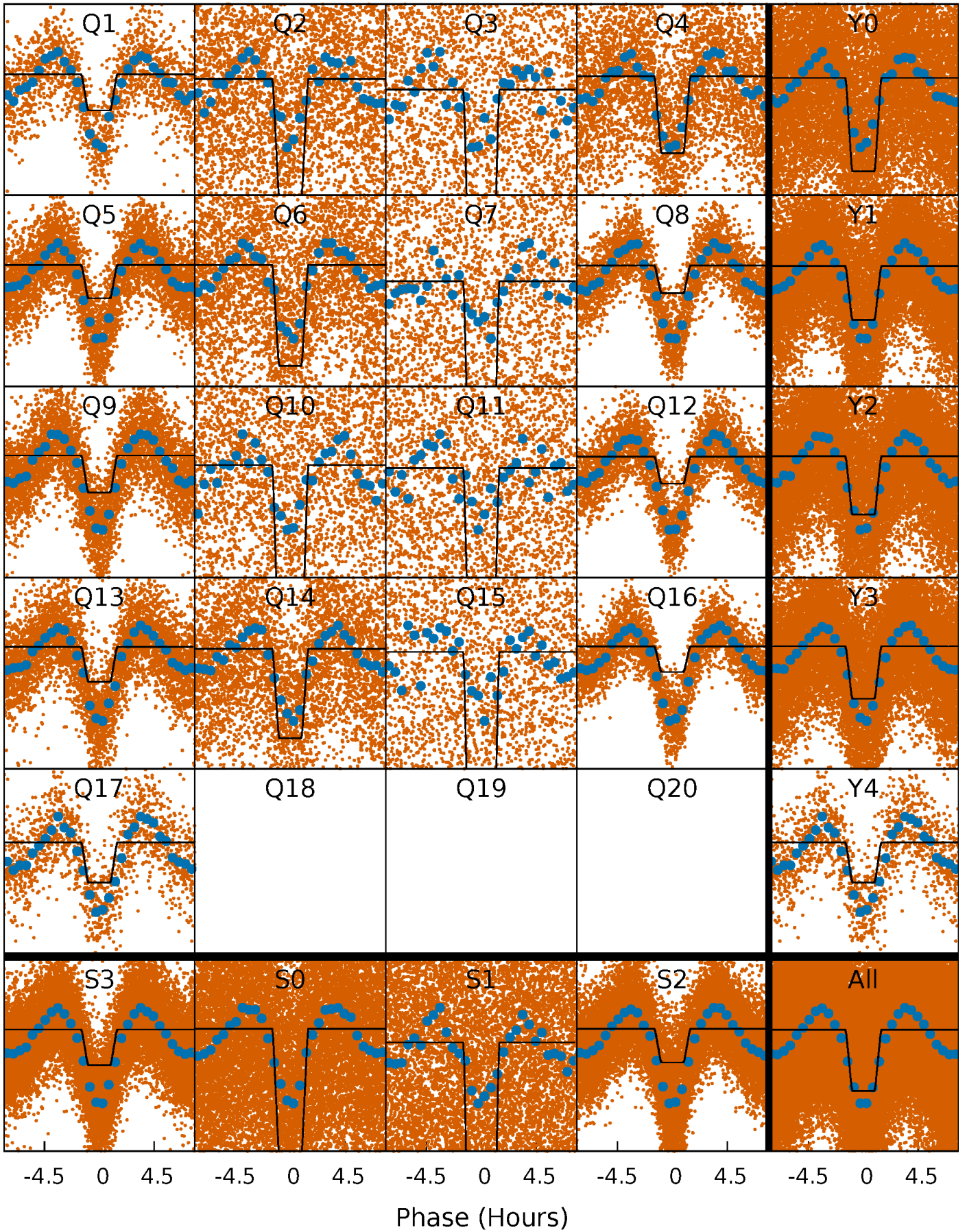
DV Quarter-Phased Transit Curves

TCE 005792102-01 P= 0.600539 Days $T_0=131.670417$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

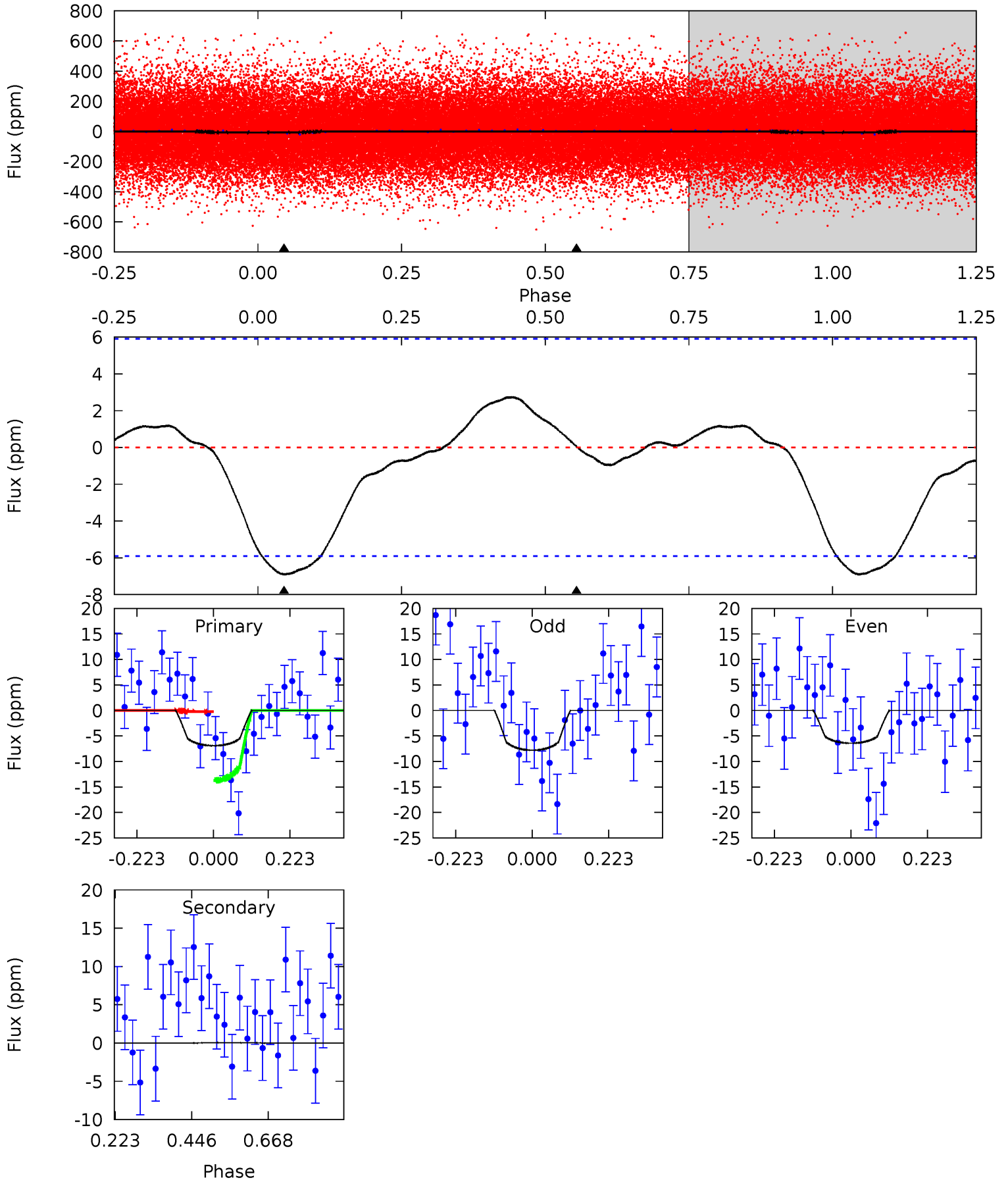
TCE 005792102-01 P= 0.600585 Days $T_0=131.646968$ (BKJD)



DV Model-Shift Uniqueness Test

005792102-01, P = 0.600539 Days, E = 131.069878 Days

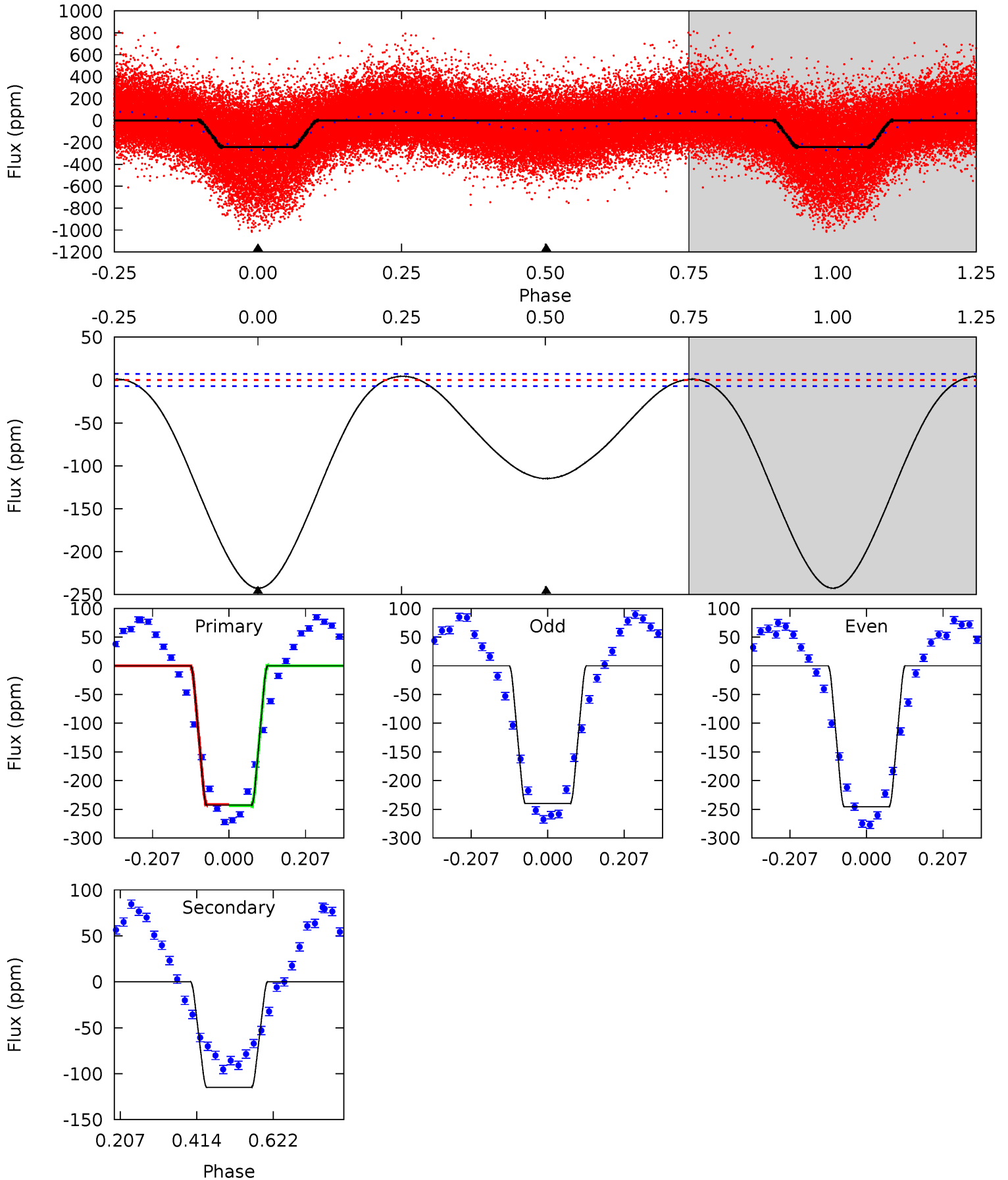
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.14	-0.03	0	0	4.39	1.22	0.50	5.14	5.14	-0.03	-0.03	0.51	0.78	0.28	5.08



Alt Model-Shift Uniqueness Test

005792102-01, P = 0.600585 Days, E = 131.046383 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
152.3	72.1	0	0	4.41	1.26	2.07	152.3	152.3	72.1	72.1	1.74	1.29	0.02	0.55



Stellar Parameters For KIC 005792102

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5843^{+158}_{-176}	$4.489^{+0.052}_{-0.208}$	$0.000^{+0.250}_{-0.300}$	$0.948^{+0.297}_{-0.099}$	$1.010^{+0.127}_{-0.127}$	$1.672^{+0.466}_{-0.869}$
	+3%/-3%	+1%/-5%	+inf%/-inf%	+31%/-10%	+13%/-13%	+28%/-52%
Source	PHO1	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 005792102-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1	$0.43^{+0.31}_{-0.26}$	3021^{+226}_{-150}	-3150^{+6771}_{-976}	$-0.013^{+1.066}_{-1.343}$
Alt.	-115 ± 2	$1.62^{+0.42}_{-0.34}$	3023^{+224}_{-135}	4933^{+527}_{-370}	$4.655^{+2.651}_{-1.651}$

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 $A_{obs} \gg 1.0$

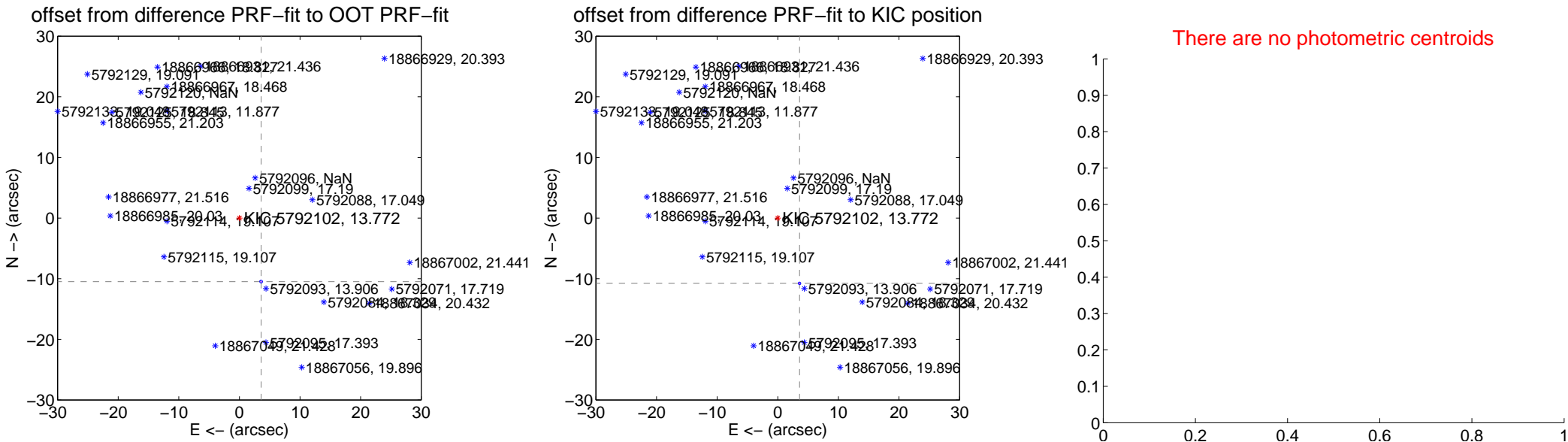
DV Centroid Data

Supplemental centroid analysis for 005792102-01. Kepler magnitude: 13.77. Transit SNR 6.11

There are 4 quarters with good PRF difference image offsets

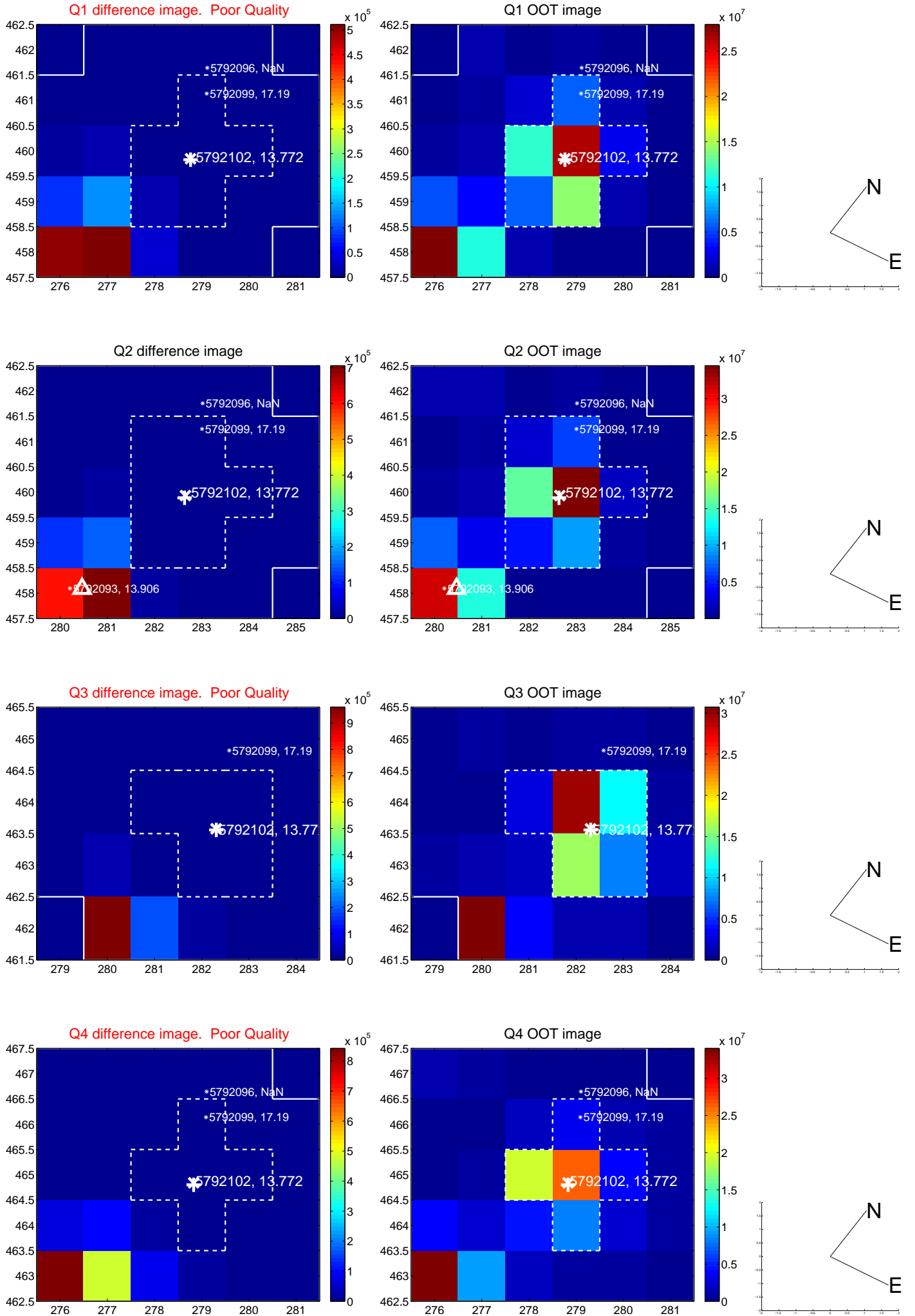
The direct PRF centroid is offset from the target star catalog position by about 0.29 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.076 \pm 0.076	145.25	-3.585 \pm 0.068	-10.480 \pm 0.080
PRF-fit source offset from KIC position	11.351 \pm 0.070	162.83	-3.595 \pm 0.075	-10.766 \pm 0.069
photometric centroid source offset	—	—	—	—

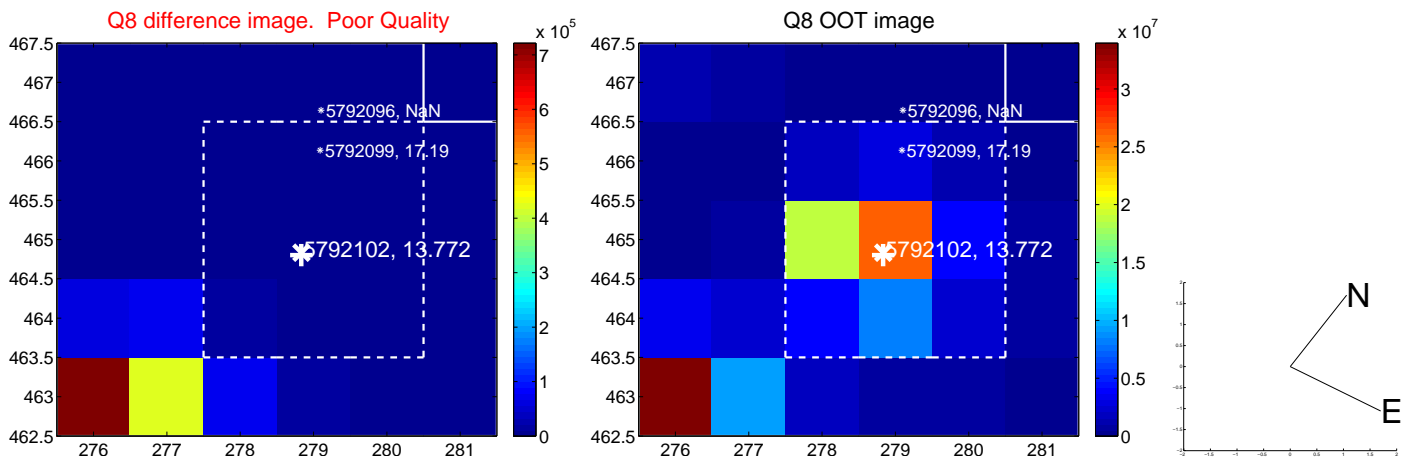
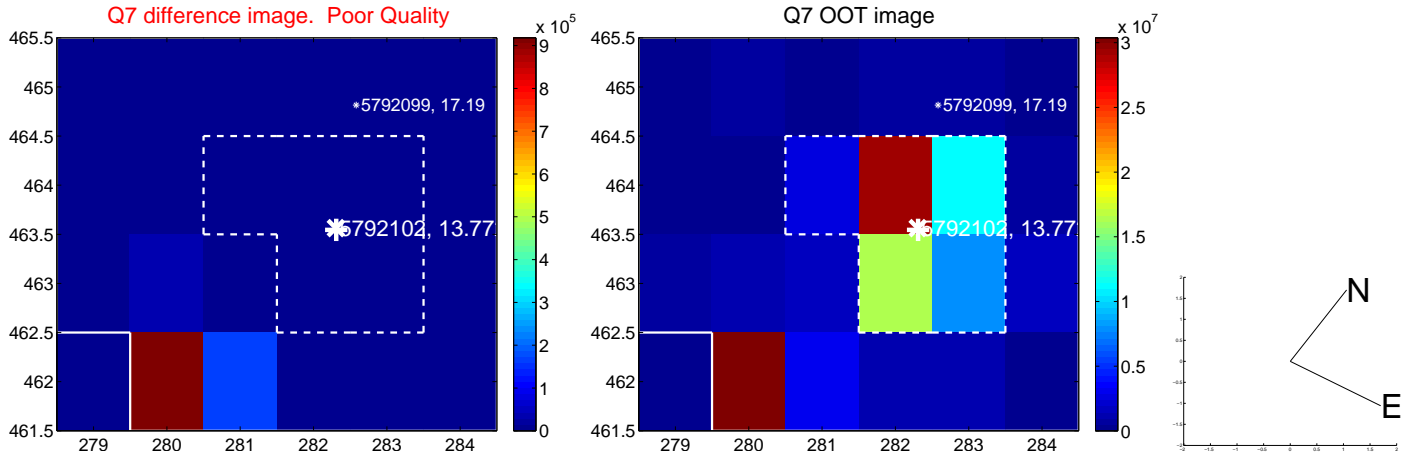
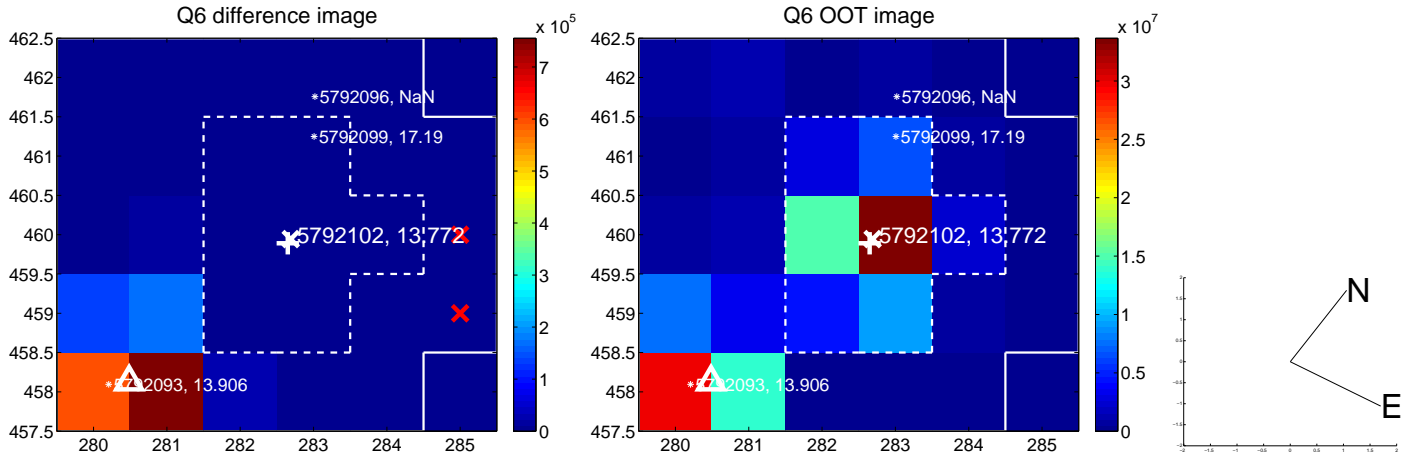
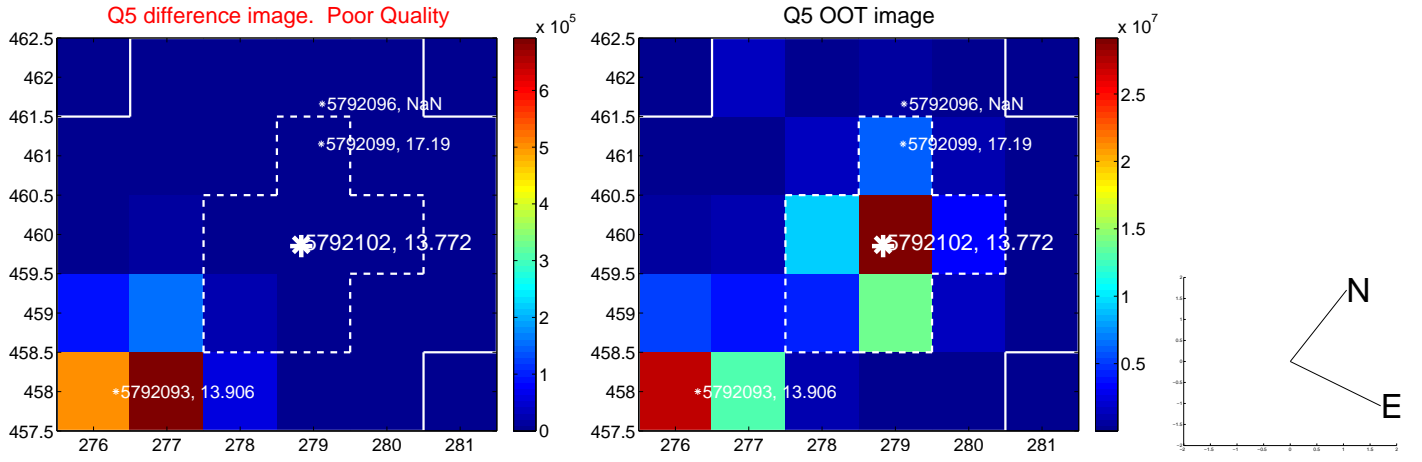


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

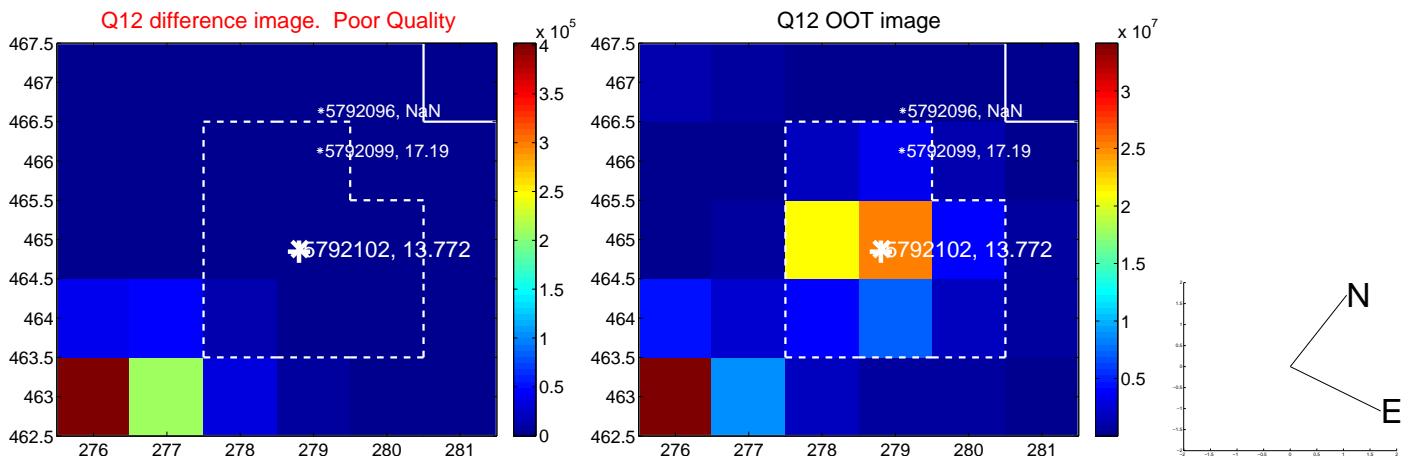
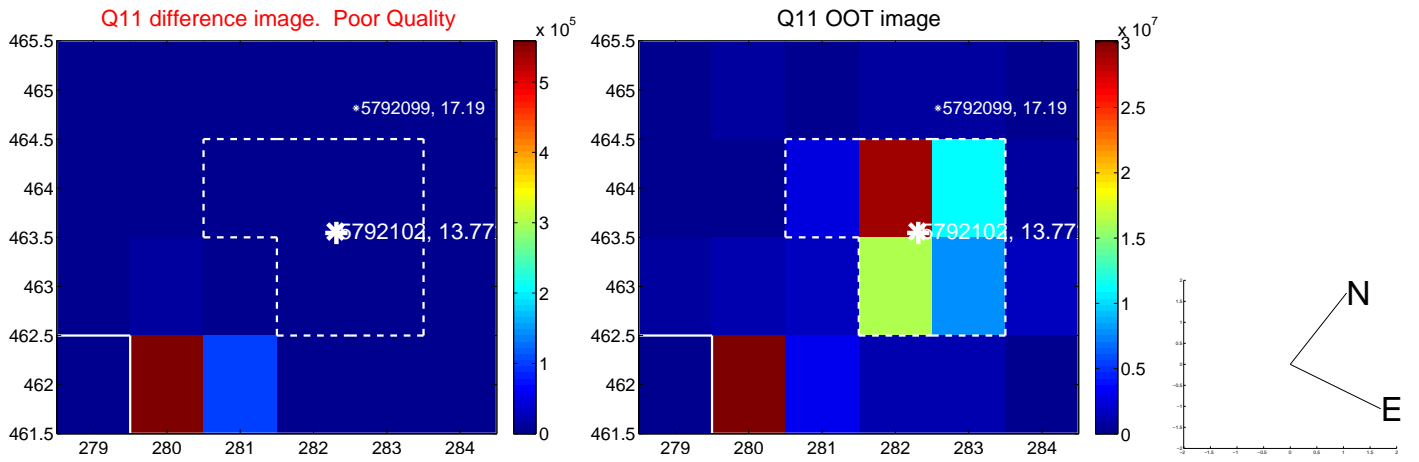
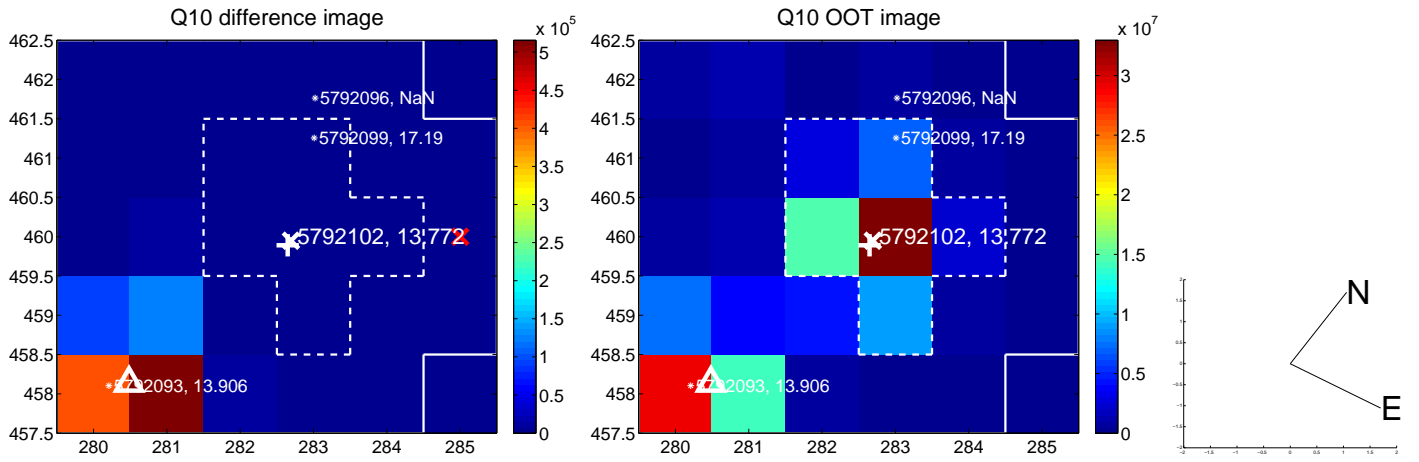
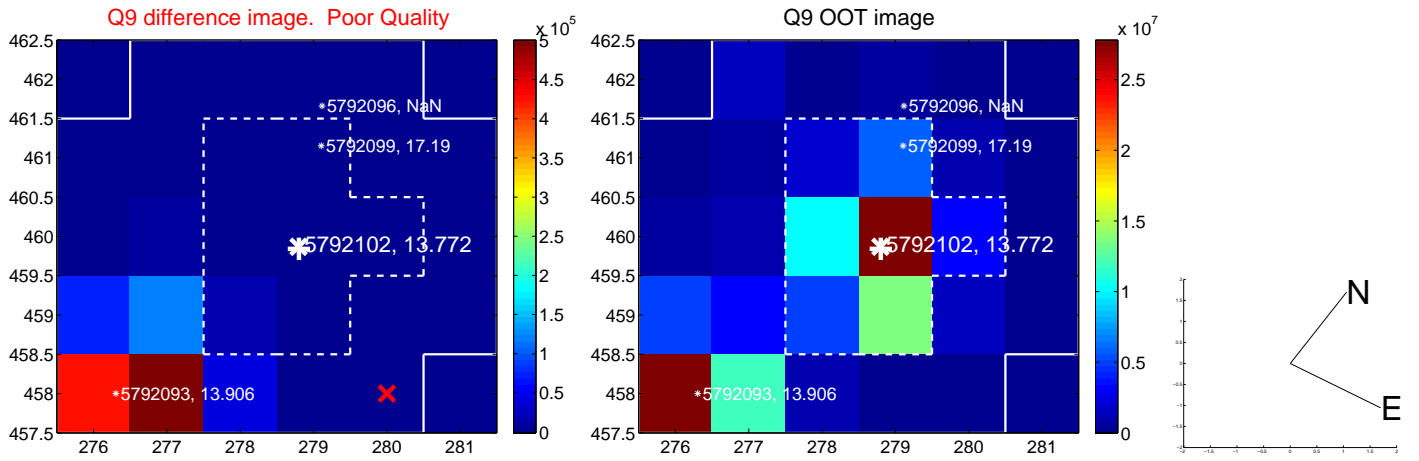
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



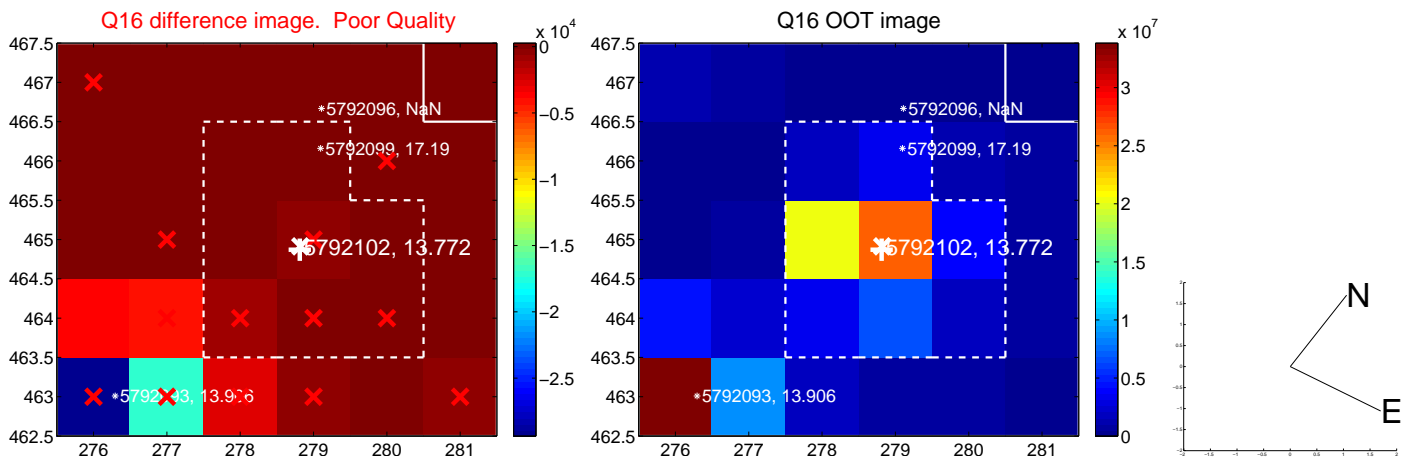
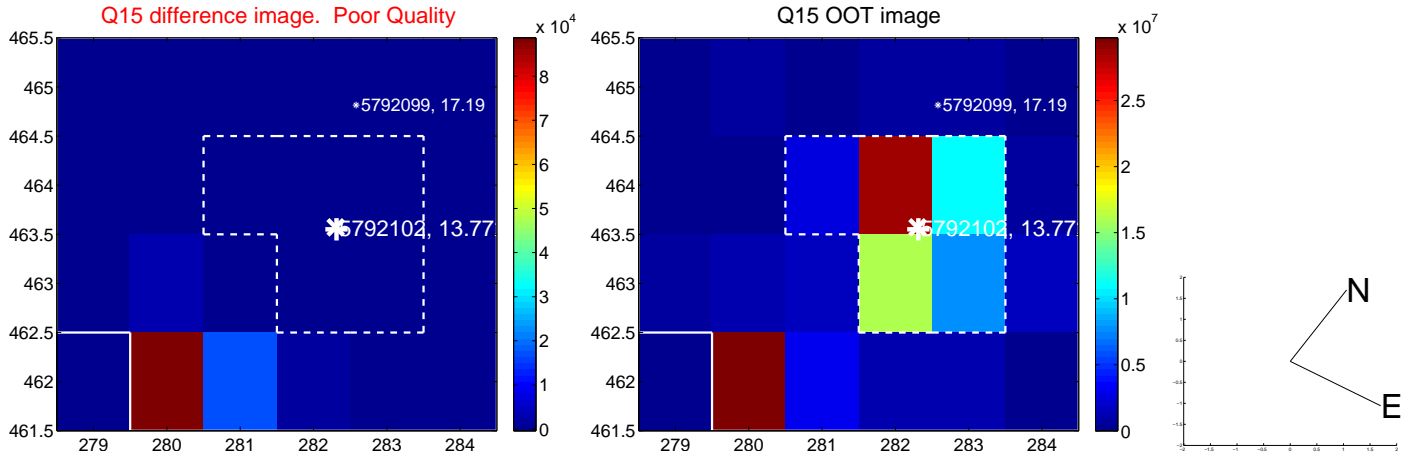
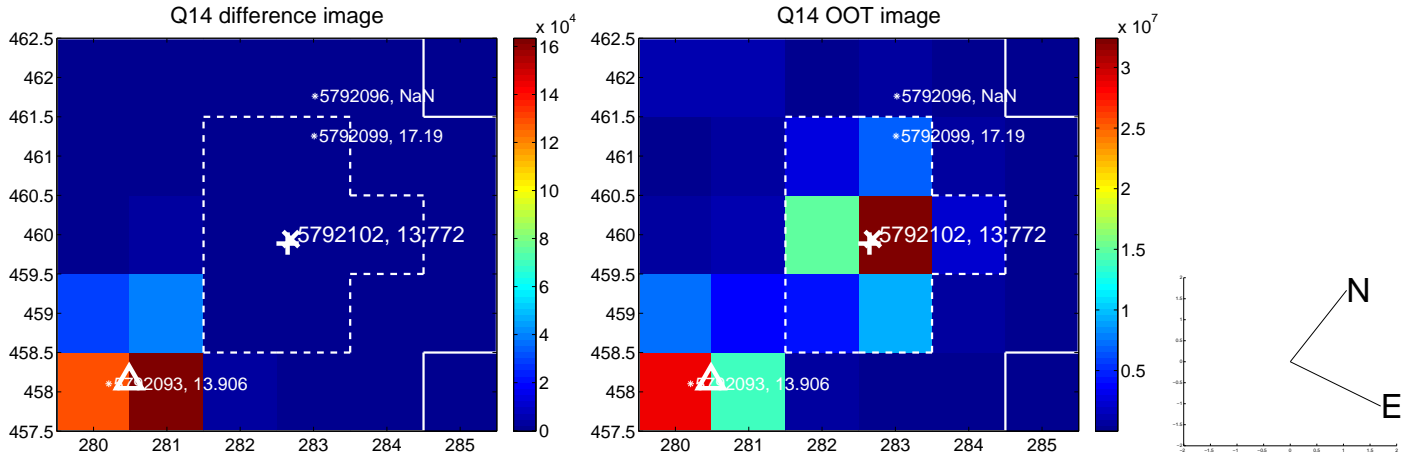
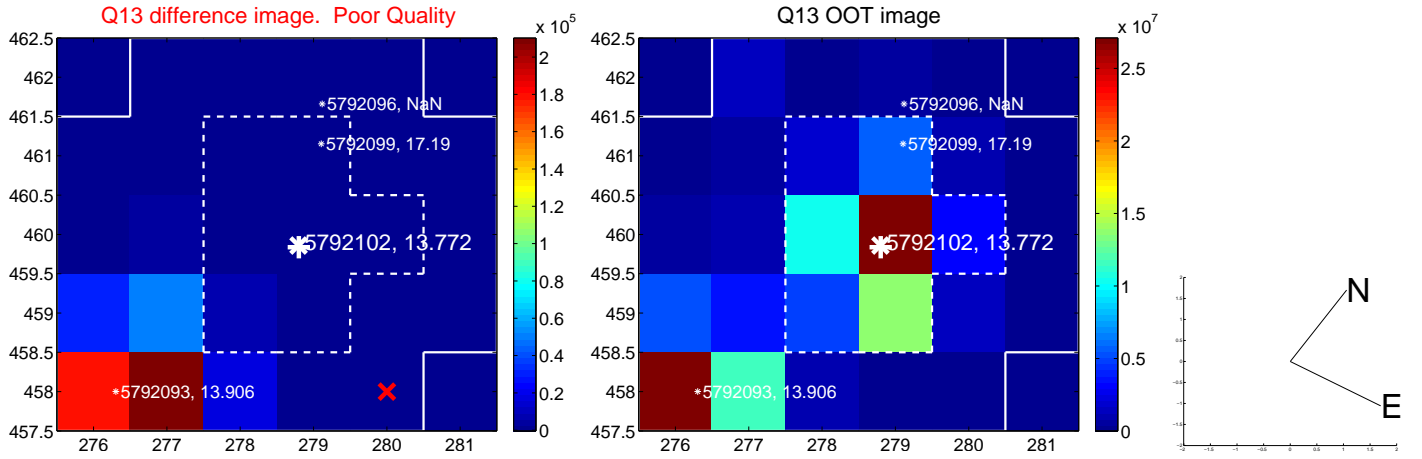
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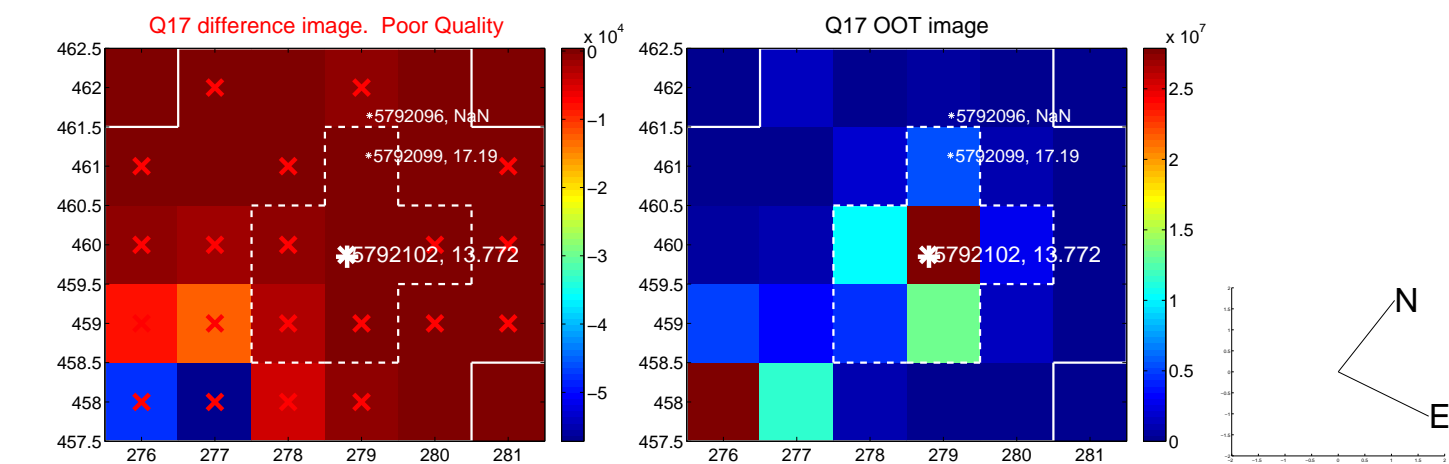
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



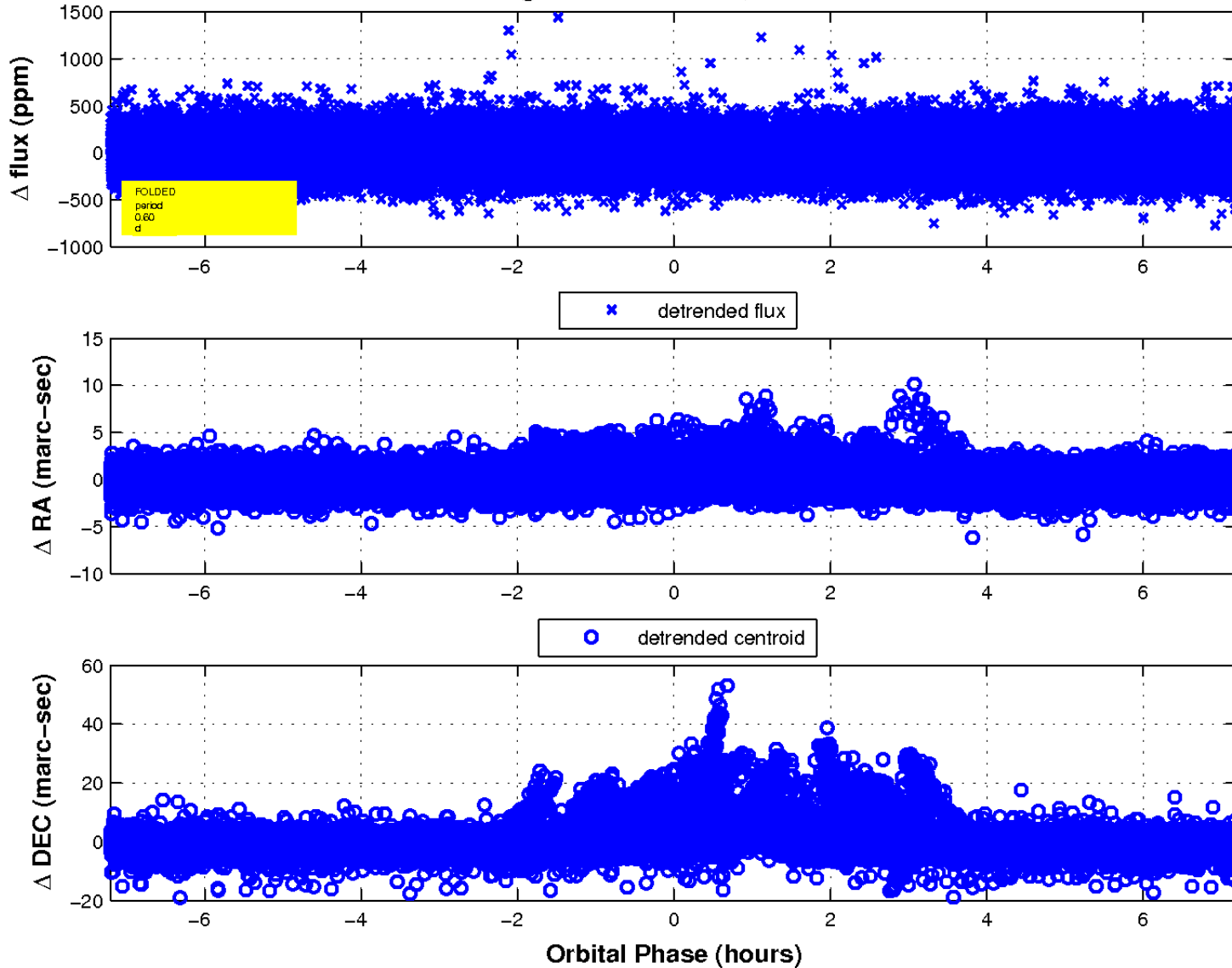
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

