

KIC 011454487

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})
011454487-01	OBS	No	1.013070	132.029553	88.6	5.980	12.4	14.4	1.00	5780	1.28	2564.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011454487-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

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

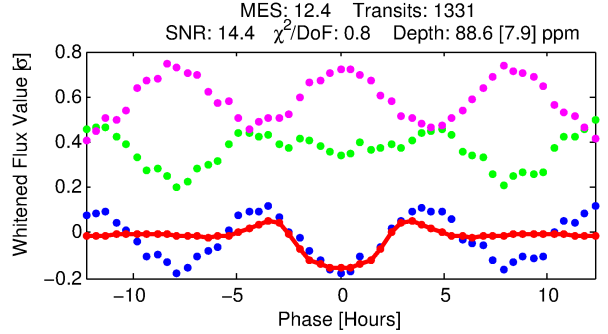
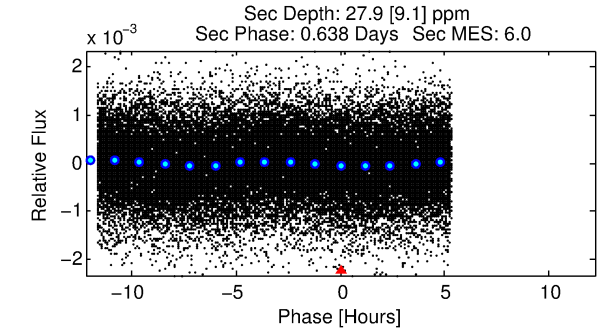
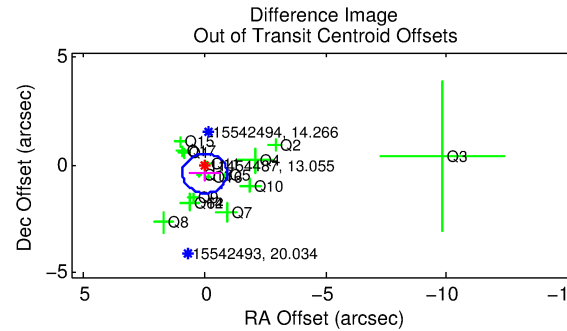
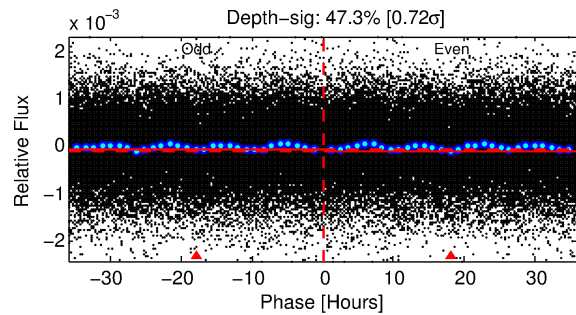
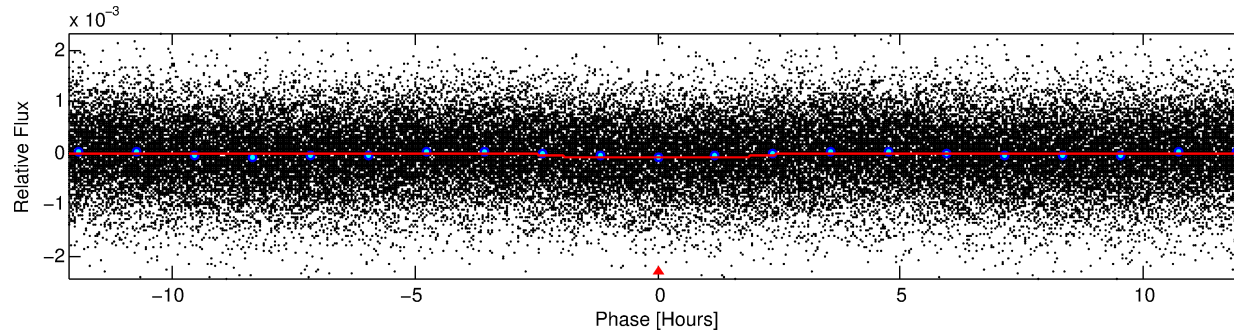
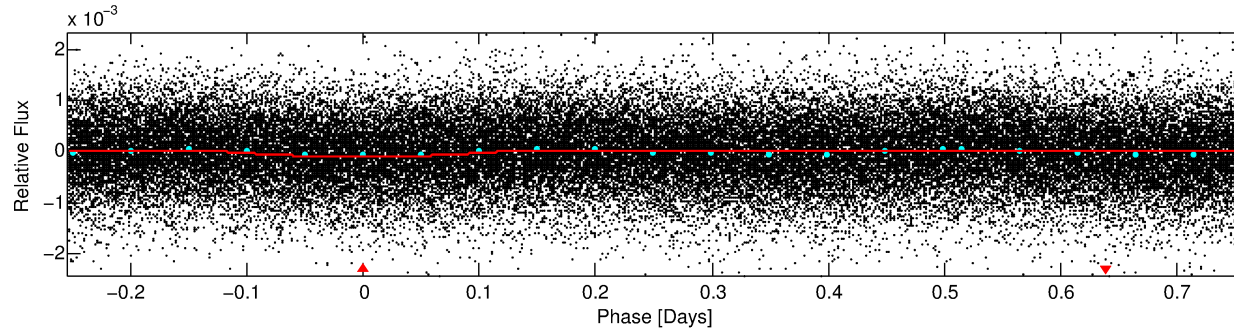
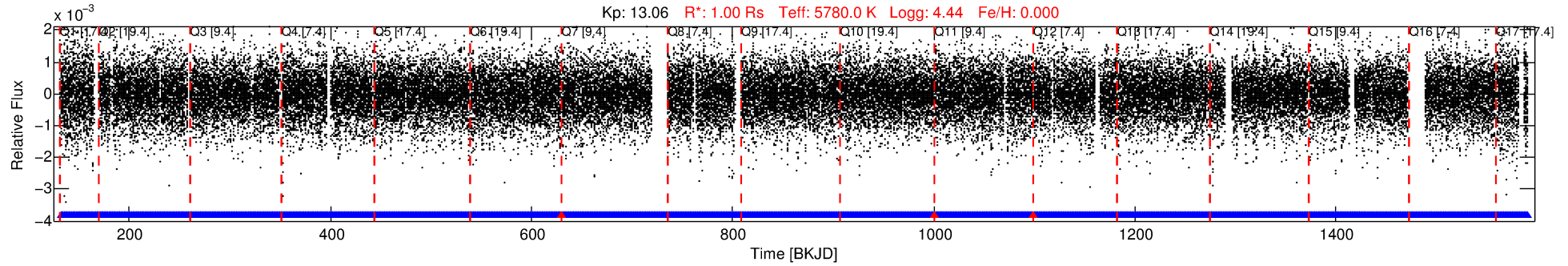
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011454487-01

No Significant Match Found

DV One-Page Summary

KIC: 11454487 Candidate: 1 of 1 Period: 1.013 d



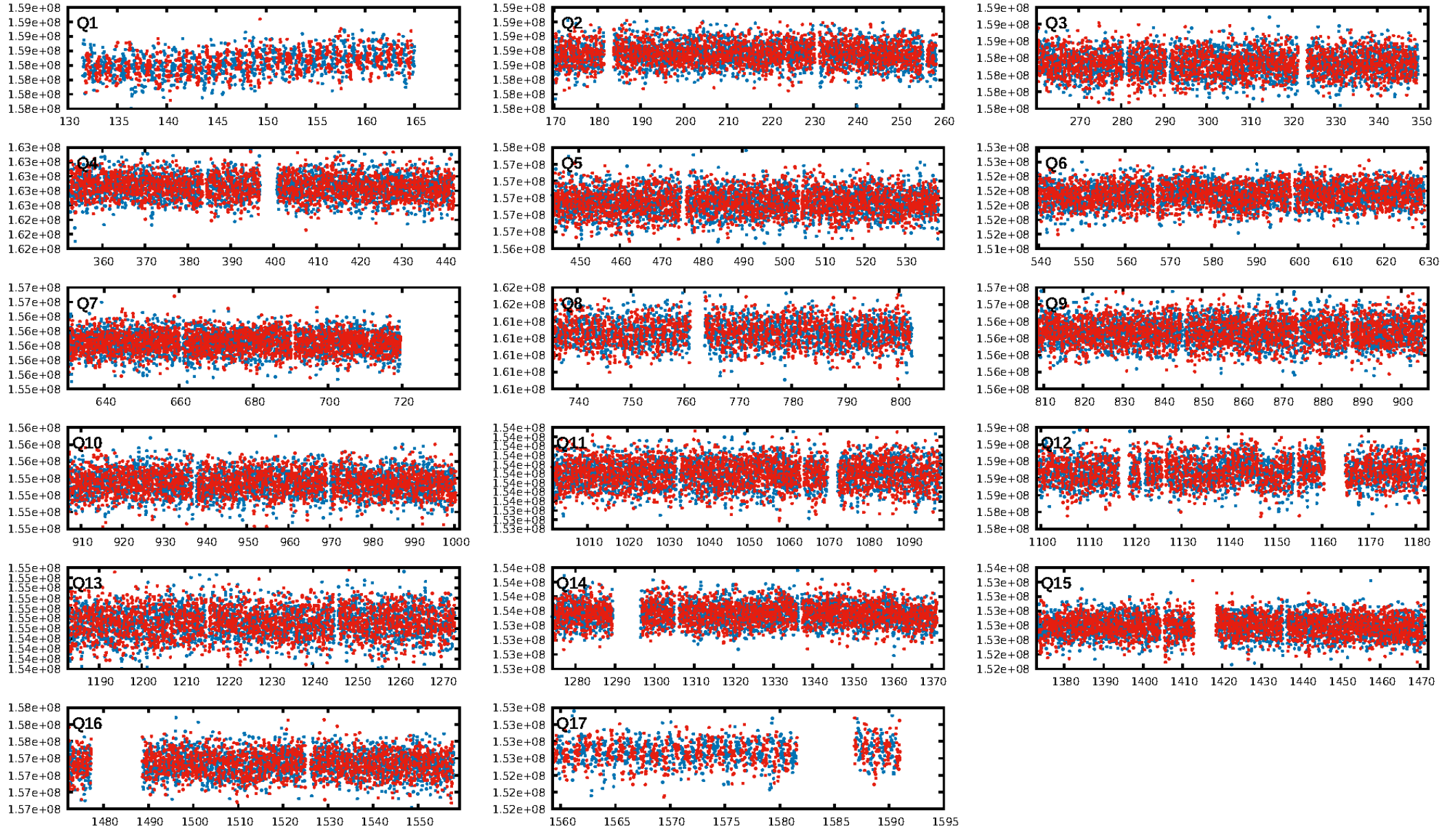
DV Fit Results:

Period = 1.01307 [0.00001] d
Epoch = 132.0296 [0.0043] BKJD
Rp/R* = 0.0117 [0.0007]
a/R* = 1.05 [0.02]
b = 0.98 [0.01]
Seff = 2564.99 [0.03]
Teq = 1815 [0] K
Rp = 1.28 [0.08] Re
a = 0.0197 [0.0000] AU
Ag = 3.64 [1.28] [2.07 σ]
Teffp = 3876 [340] K [6.06 σ]

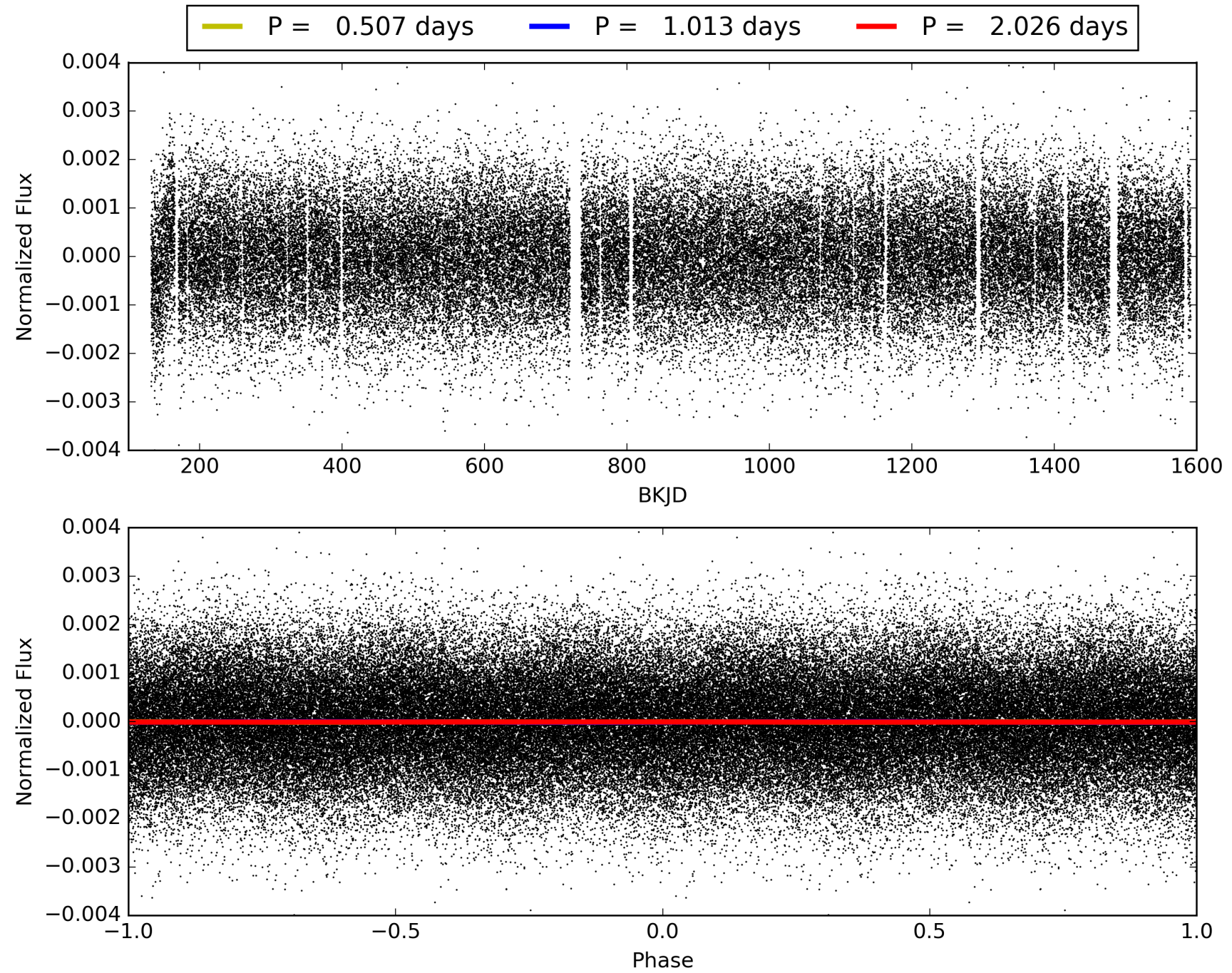
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.67e-22
RollingBand-fgt: 1.00 [1268/1271]
GhostDiagnostic-chr: 1.106
Centroid-sig: 0.0%
Centroid-so: 0.639 arcsec [2.90 σ]
OotOffset-rm: 0.415 arcsec [1.35 σ]
KicOffset-rm: 0.245 arcsec [0.82 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.76 [13/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 011454487-01, PDC Light Curves

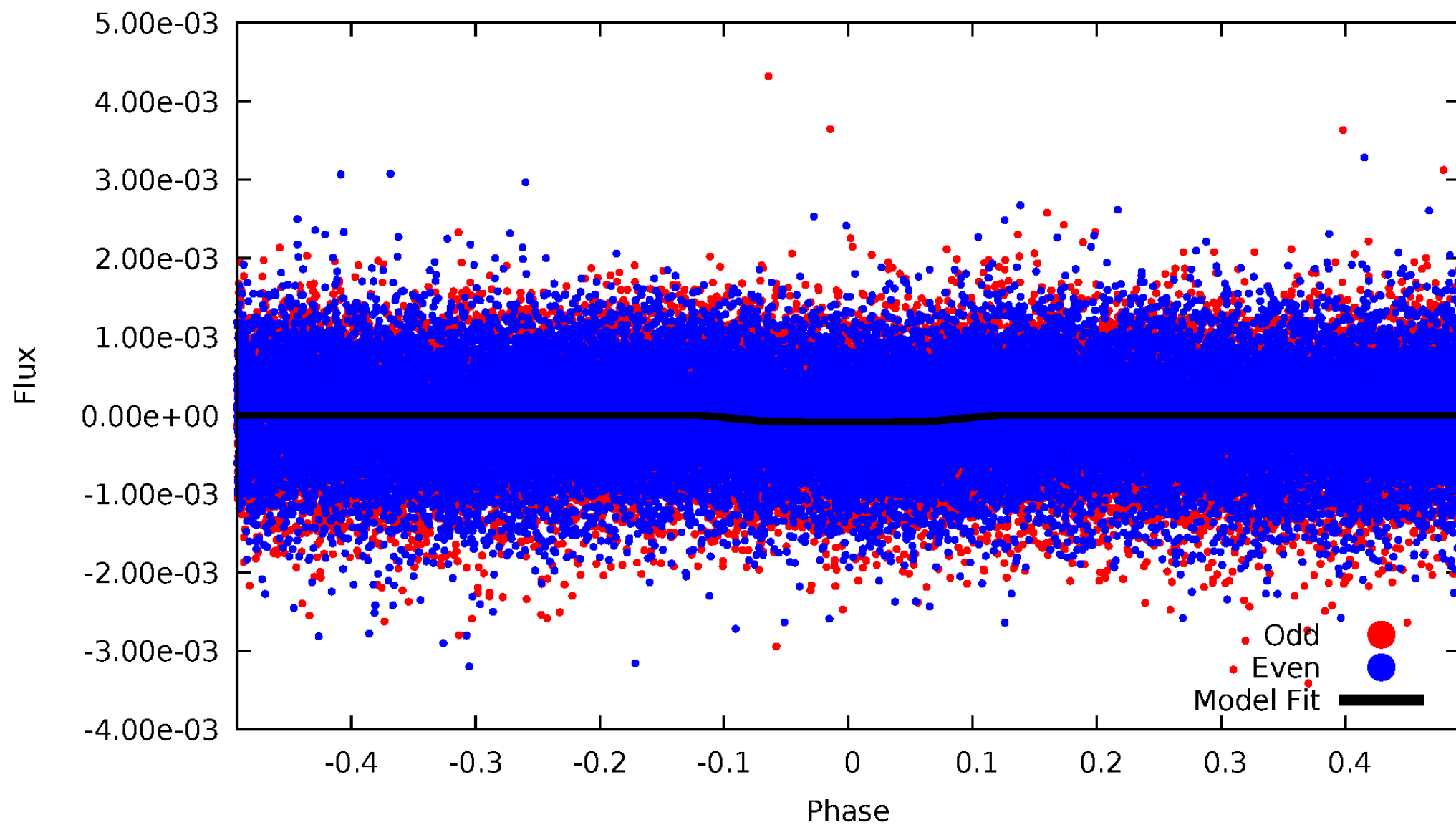


TCE 011454487-01



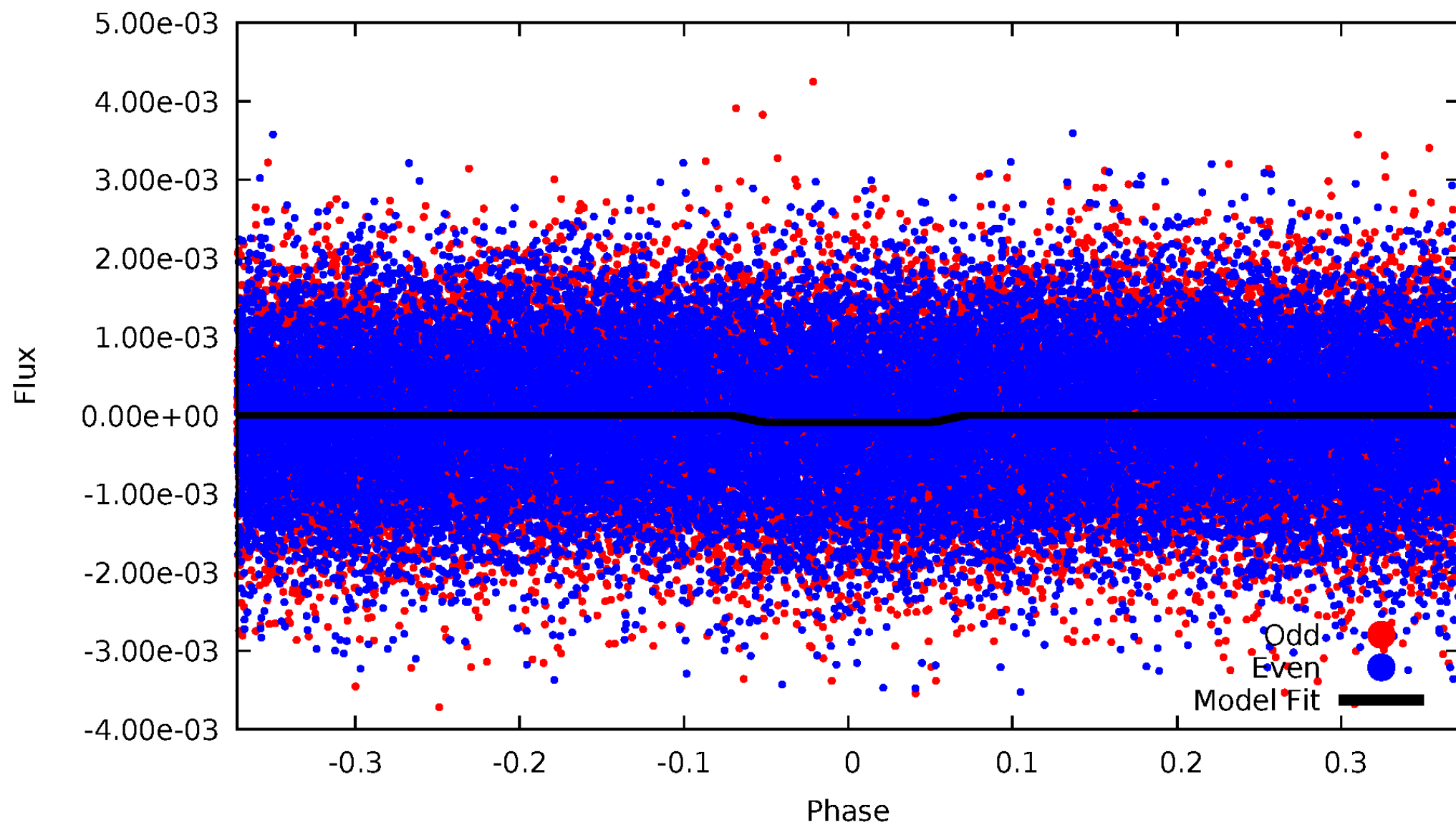
DV Odd/Even

TCE 011454487-01



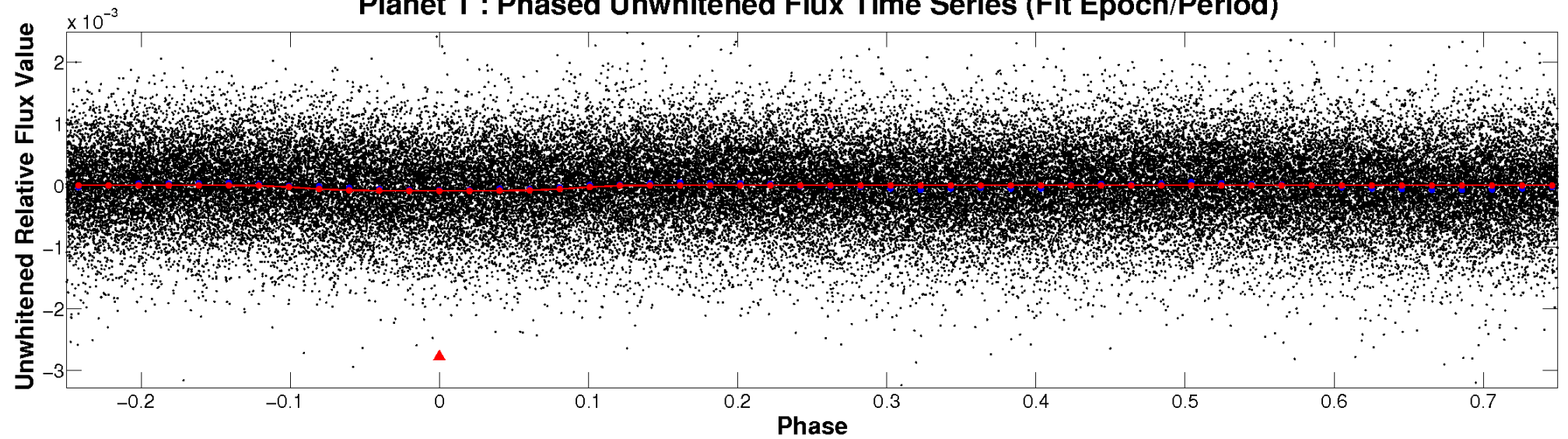
ALT Odd/Even

TCE 011454487-01

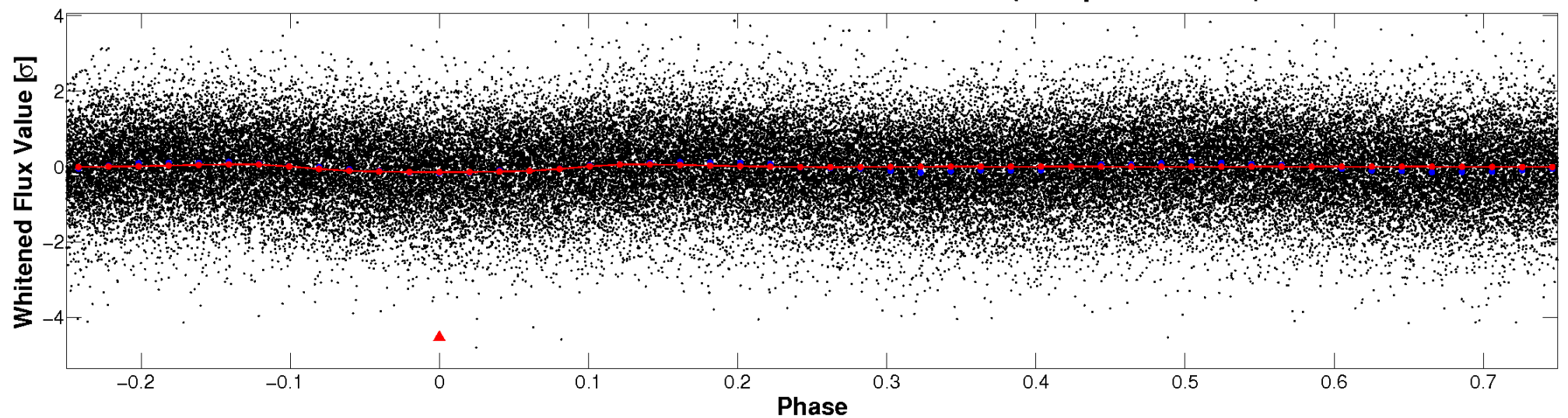


Non-Whitened Vs. Whitened Light Curve

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

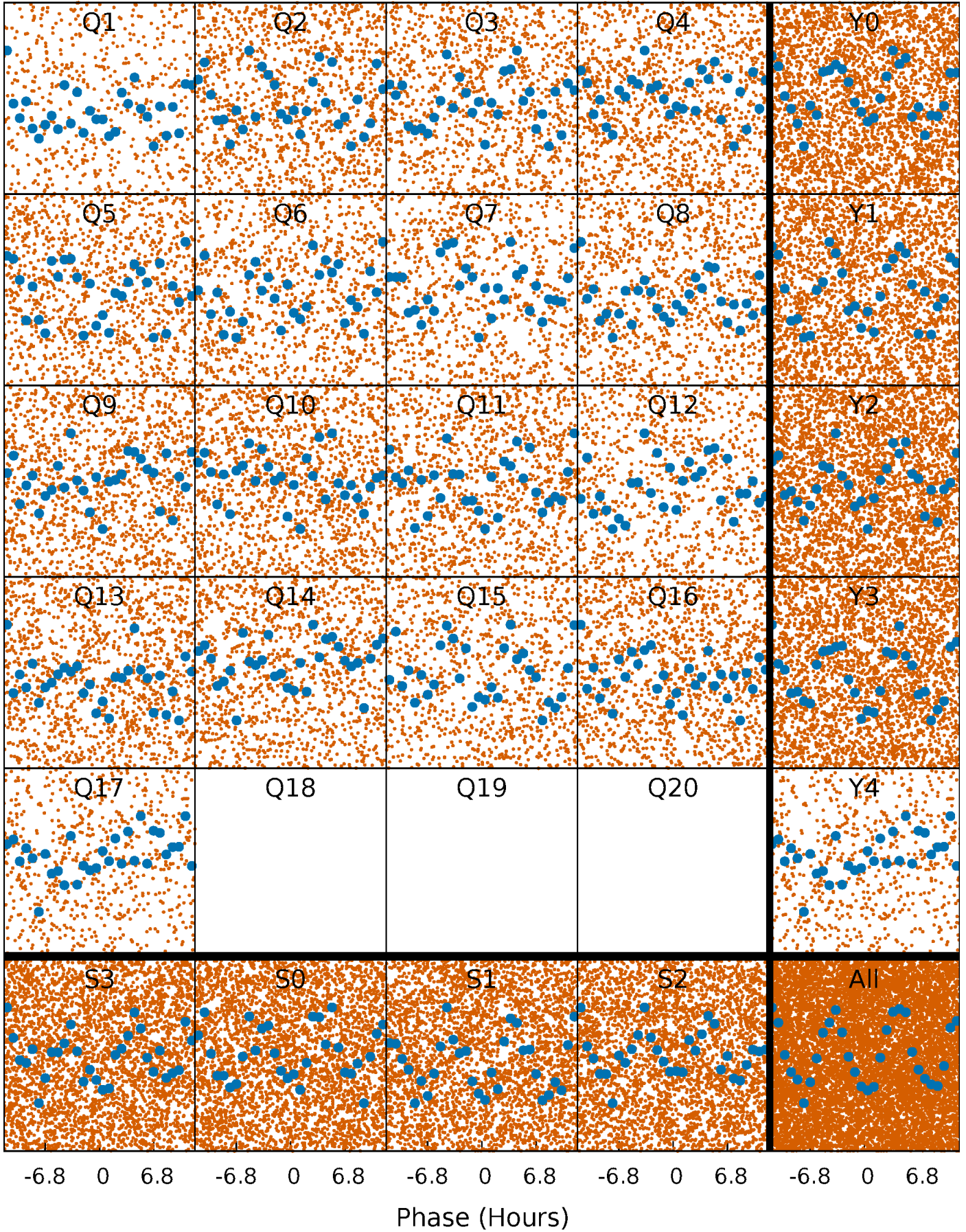


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



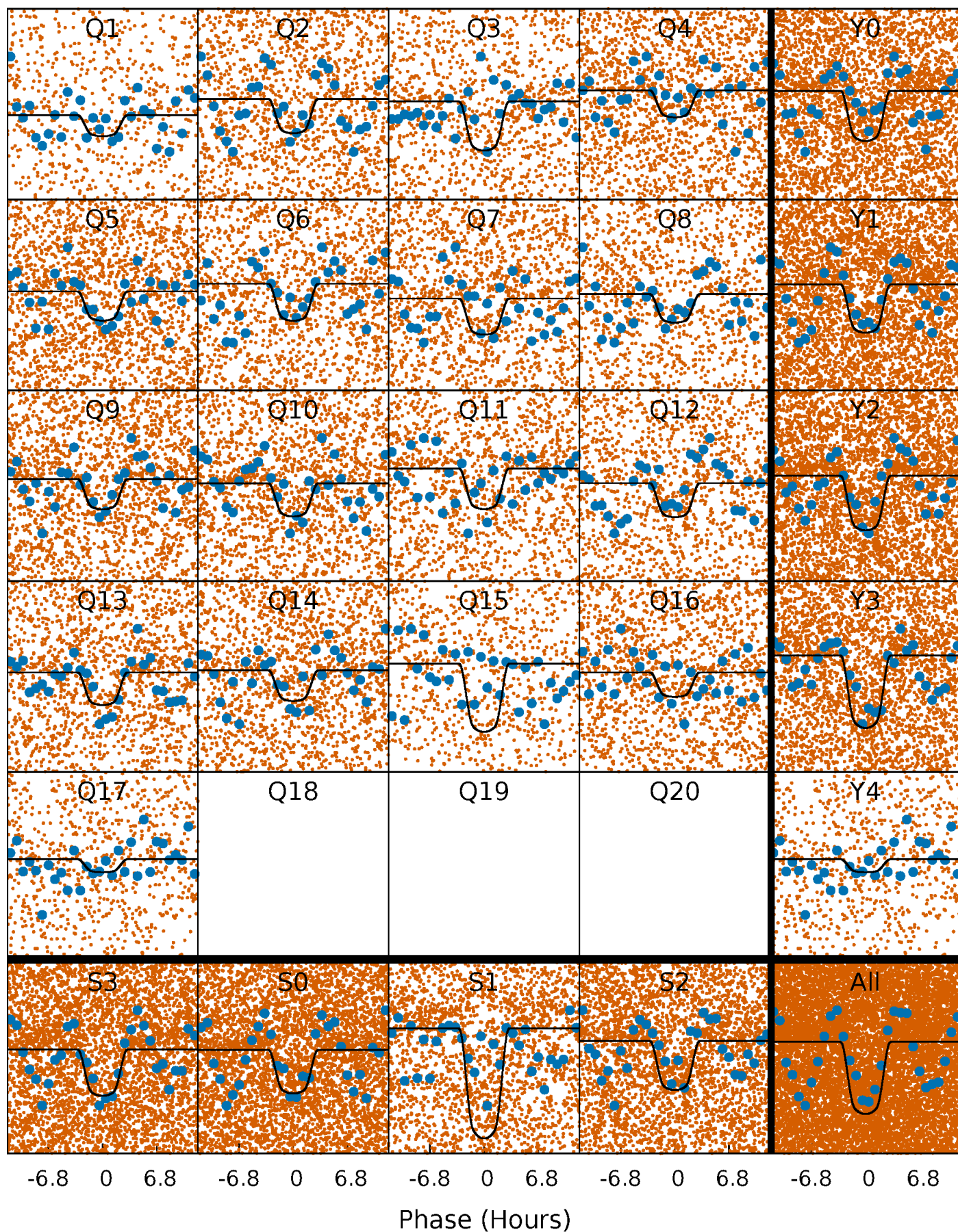
PDC Quarter-Phased Transit Curves

TCE 011454487-01 P= 1.013070 Days $T_0=132.029553$ (BKJD)



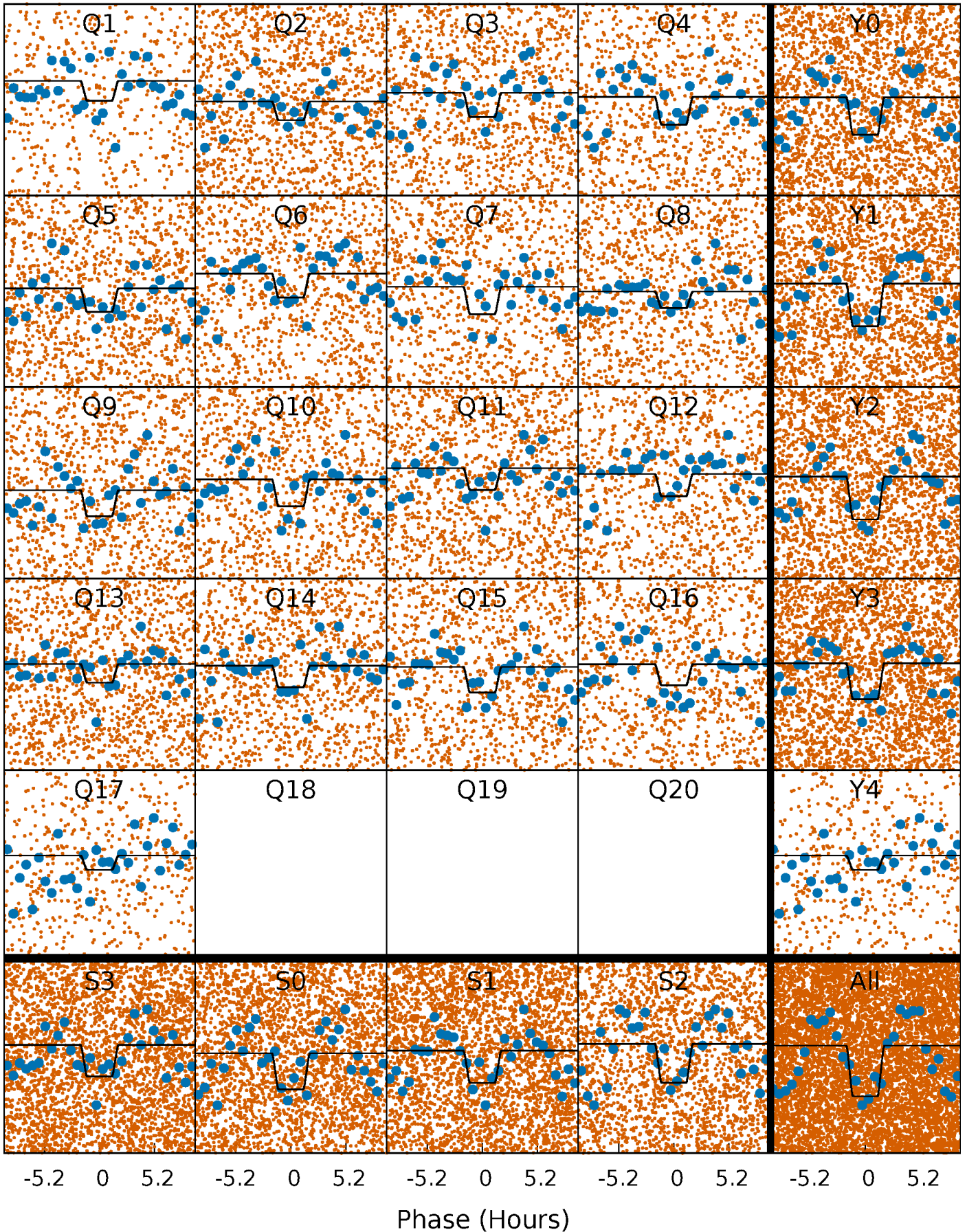
DV Quarter-Phased Transit Curves

TCE 011454487-01 P= 1.013070 Days $T_0=132.029553$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

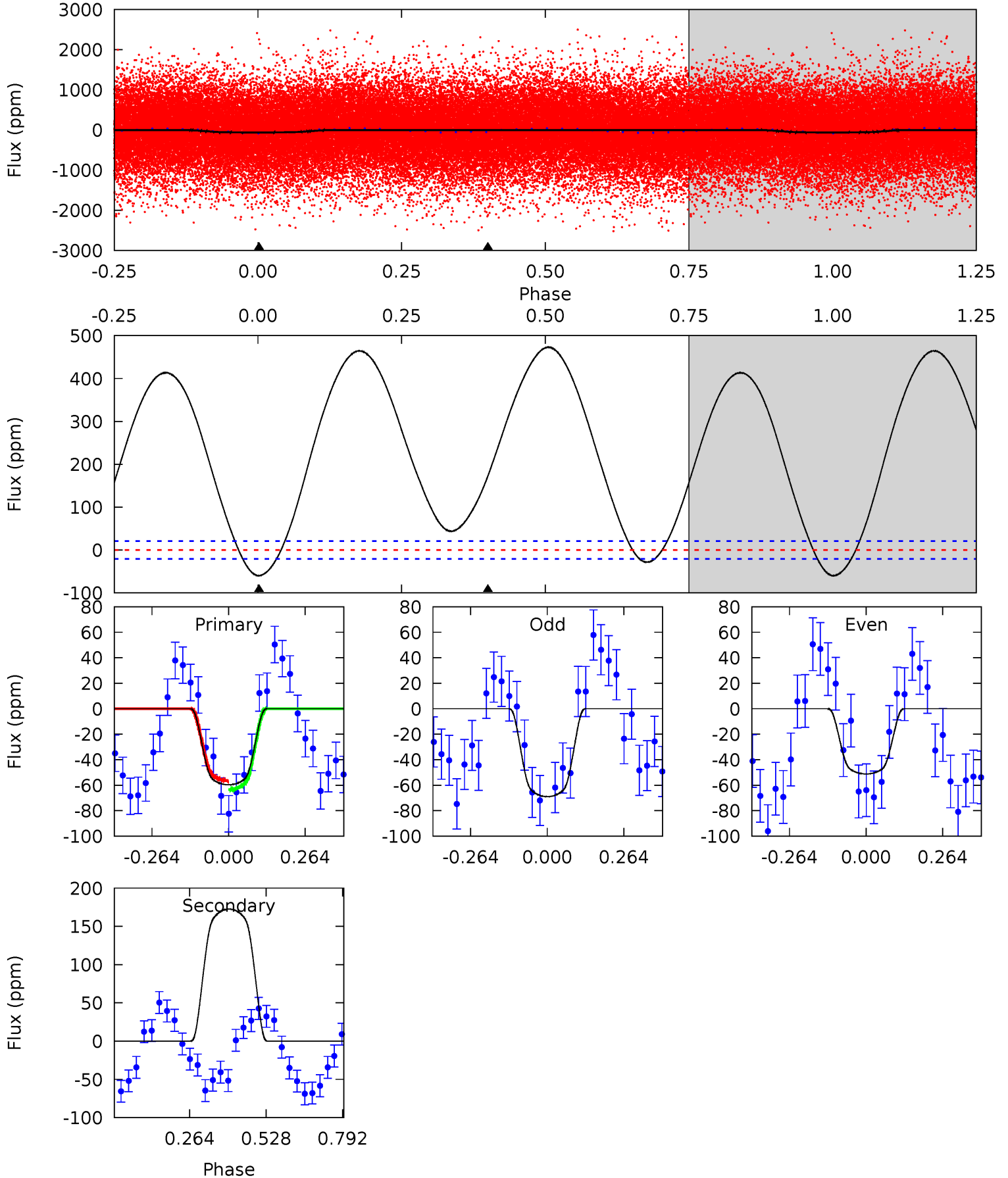
TCE 011454487-01 P= 1.013074 Days $T_0=132.031277$ (BKJD)



DV Model-Shift Uniqueness Test

011454487-01, P = 1.013070 Days, E = 131.016483 Days

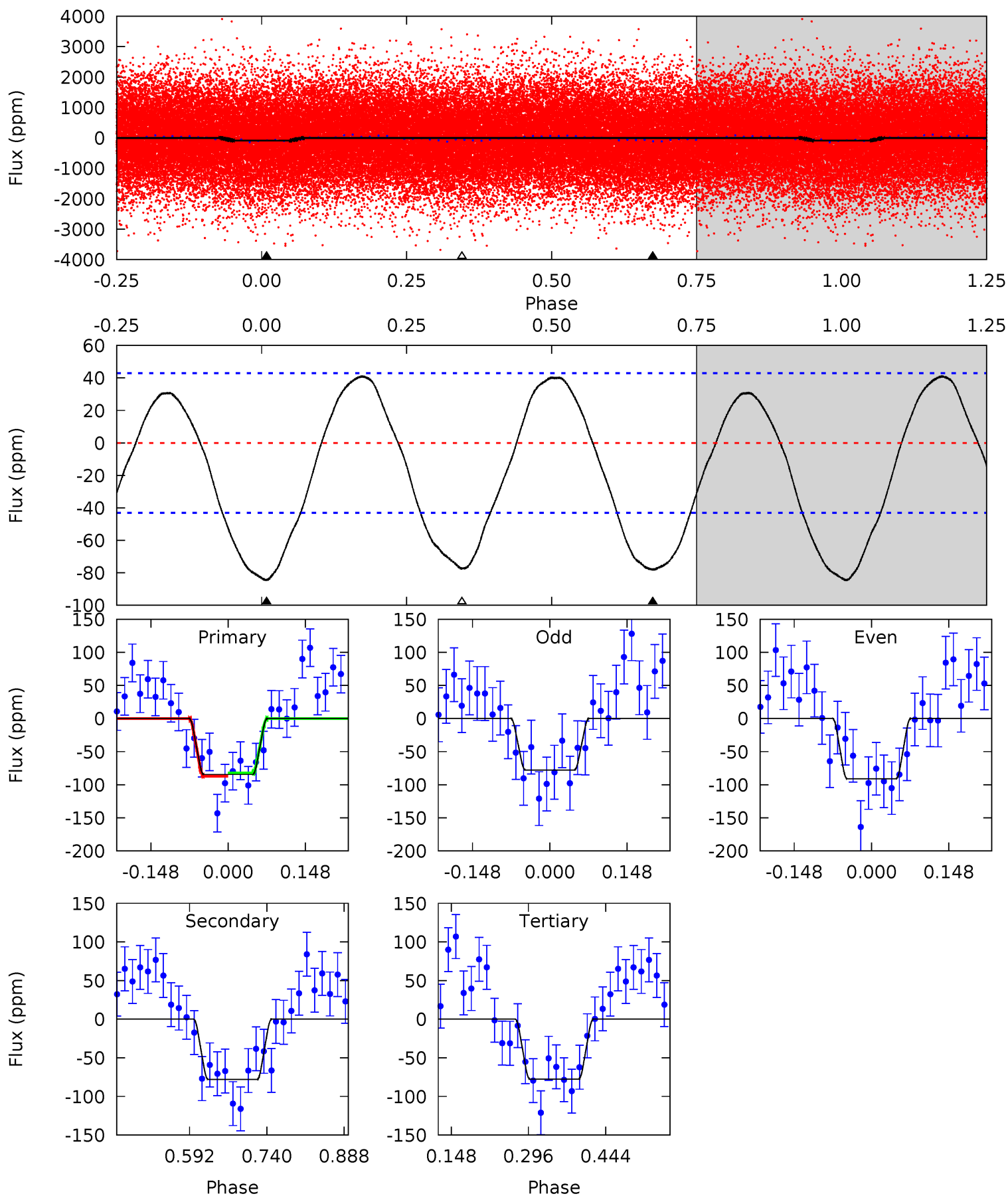
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	-36.1	0	0	4.36	1.12	12.0	12.5	12.5	-36.1	-36.1	1.87	1.16	0.89	0.75



Alt Model-Shift Uniqueness Test

011454487-01, P = 1.013074 Days, E = 131.018203 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.80	8.13	8.08	0	4.48	1.45	4.44	0.73	8.80	0.06	8.13	0.69	1.21	0.33	0.25



Stellar Parameters For KIC 011454487

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011454487-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	173 ± 5	$1.29^{+0.13}_{-0.12}$	2542^{+124}_{-109}	-6142^{+294}_{-290}	$-22.358^{+4.077}_{-4.518}$
Alt.	-78 ± 10	$1.05^{+0.12}_{-0.11}$	2530^{+124}_{-116}	5498^{+364}_{-289}	15^{+4}_{-3}

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 $A_{obs} \gg 1.0$

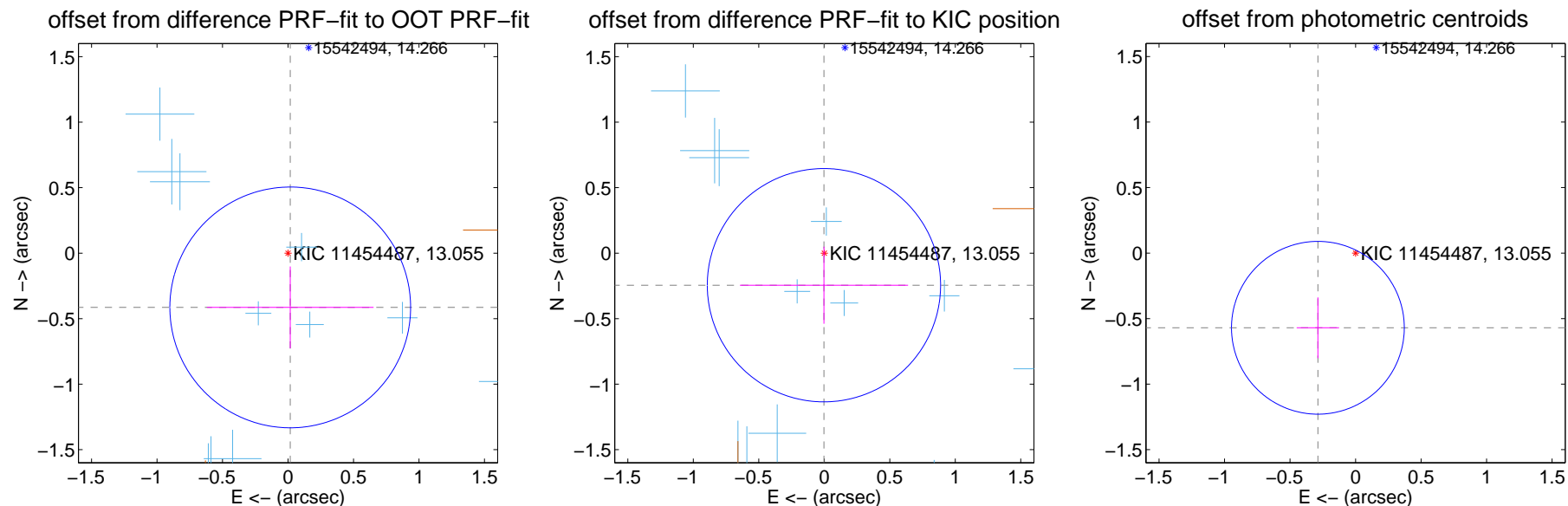
DV Centroid Data

Supplemental centroid analysis for 011454487-01. Kepler magnitude: 13.05. Transit SNR 14.37

There are 13 quarters with good PRF difference image offsets

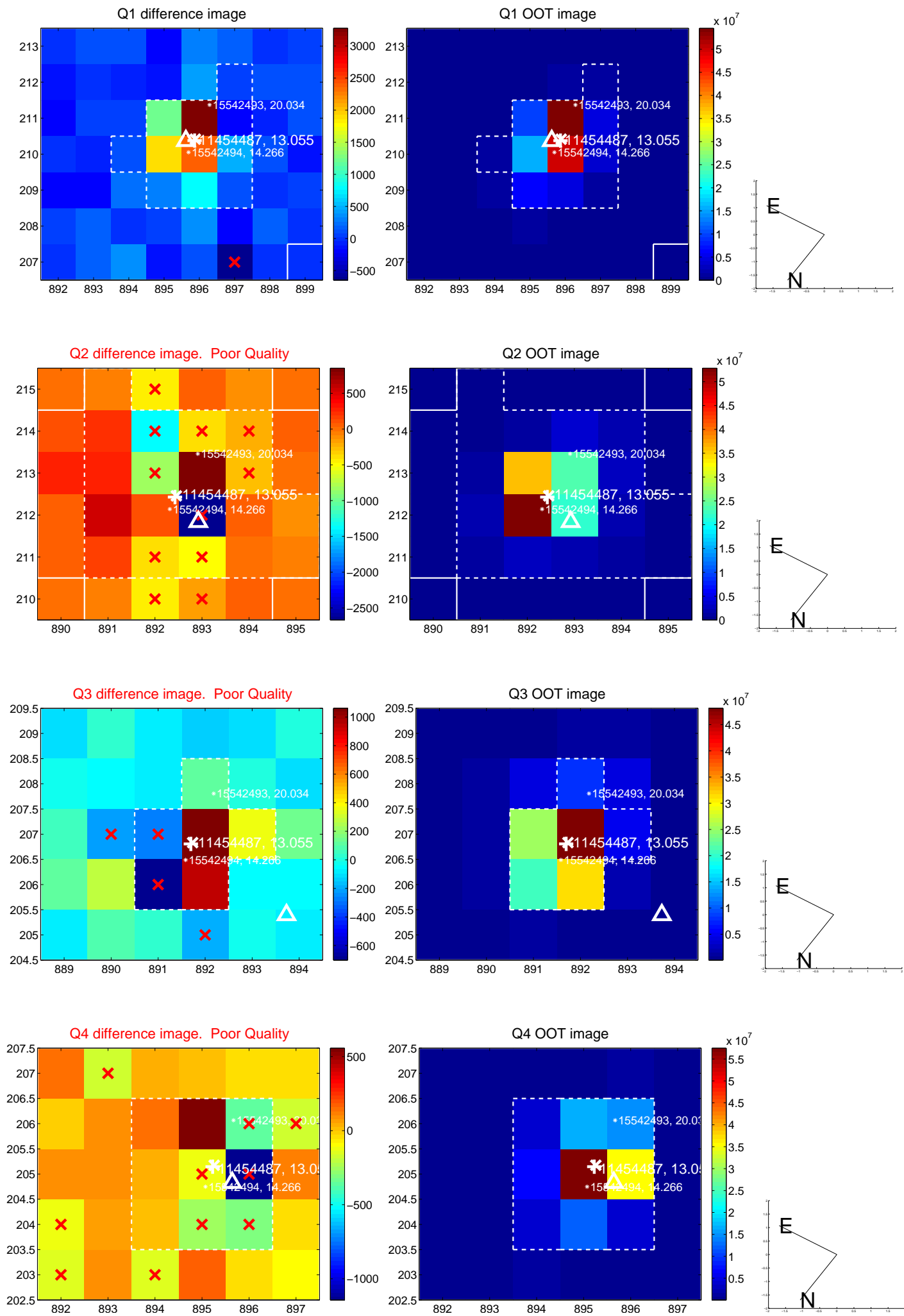
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.415 ± 0.306	1.35	-0.017 ± 0.636	-0.414 ± 0.313
PRF-fit source offset from KIC position	0.245 ± 0.297	0.82	0.003 ± 0.642	-0.245 ± 0.295
photometric centroid source offset	0.64 ± 0.22	2.90	0.29 ± 0.16	-0.57 ± 0.23

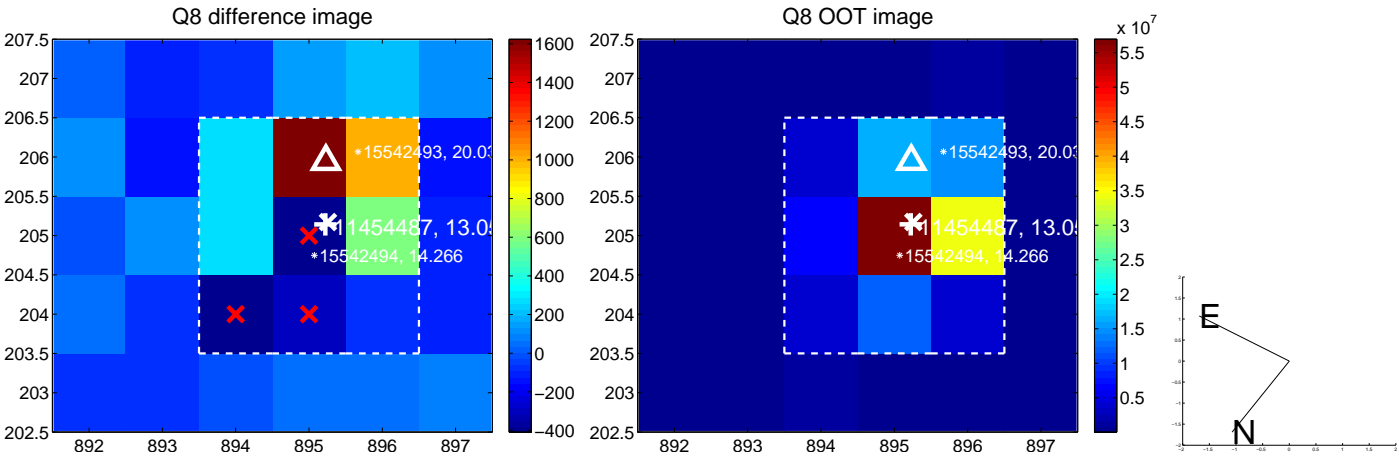
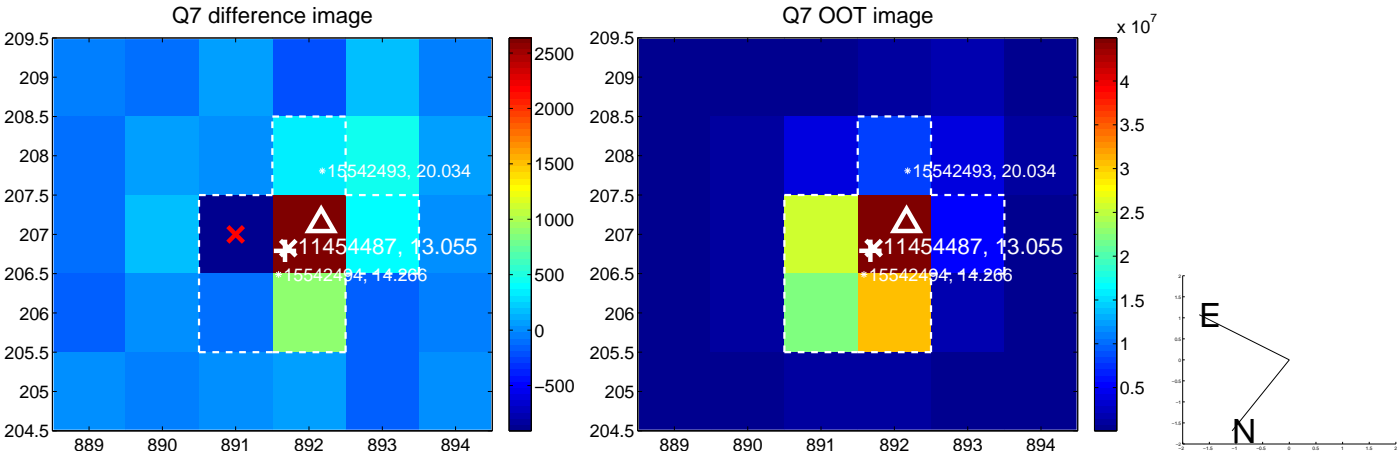
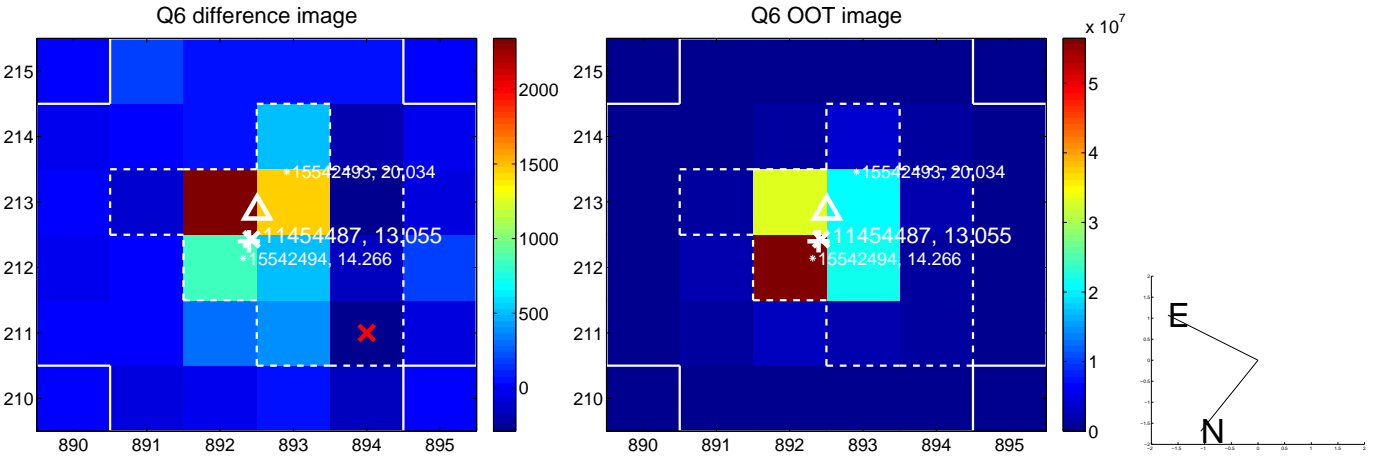
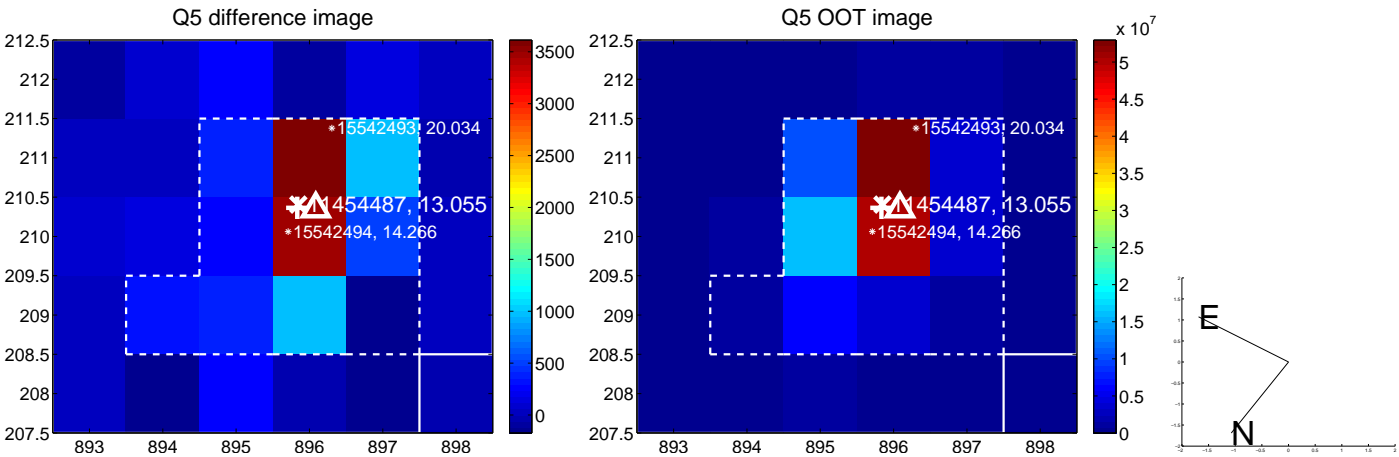


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

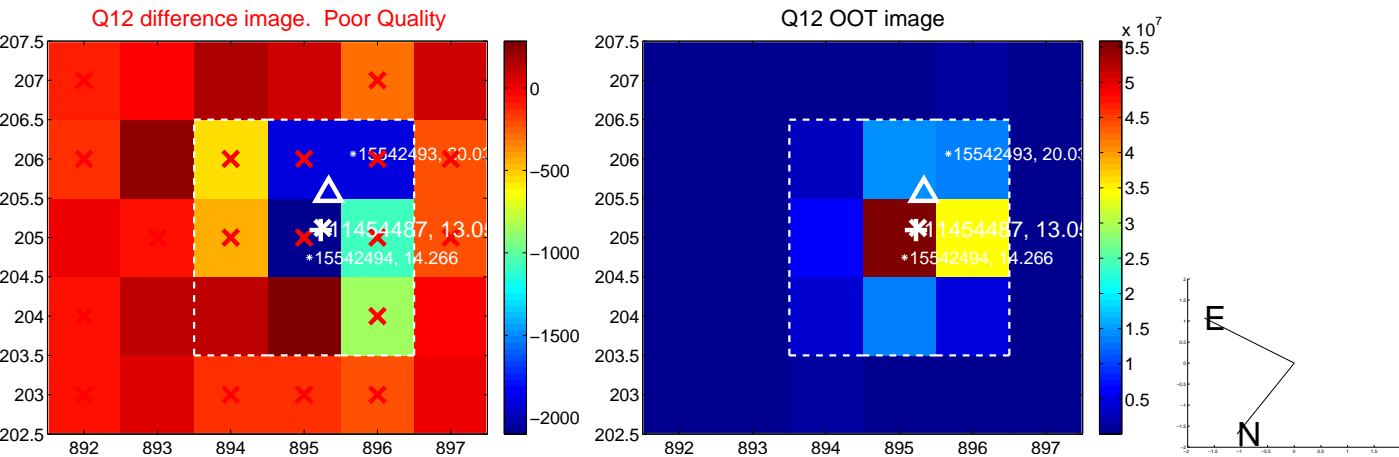
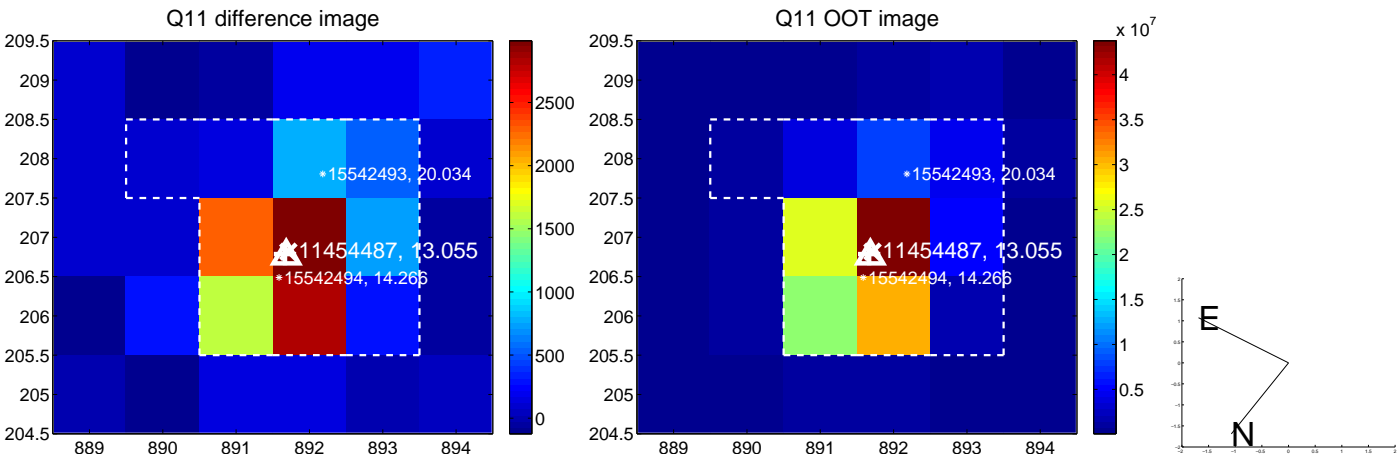
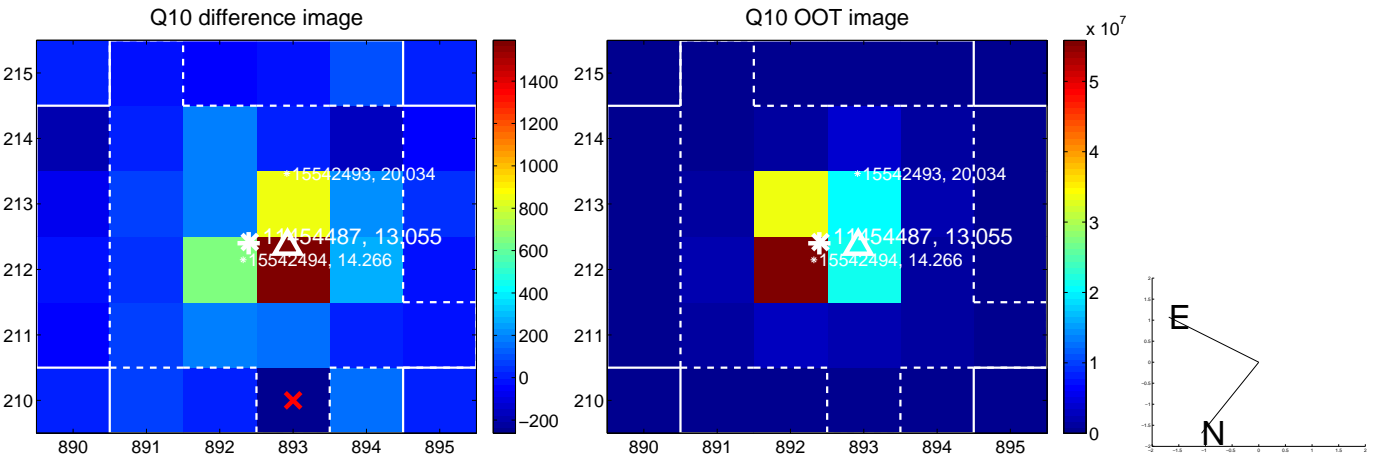
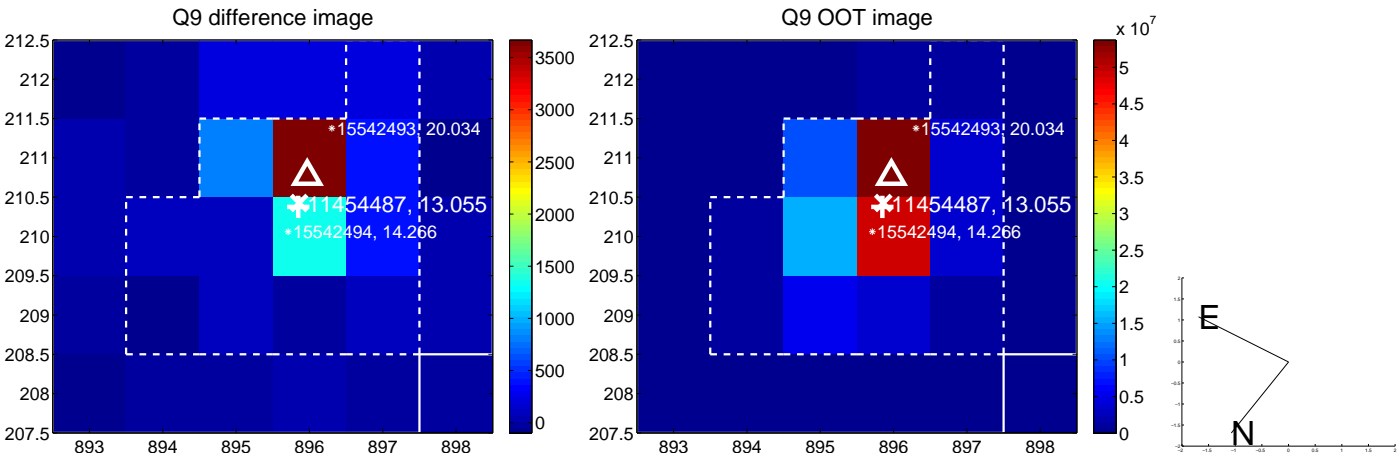
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



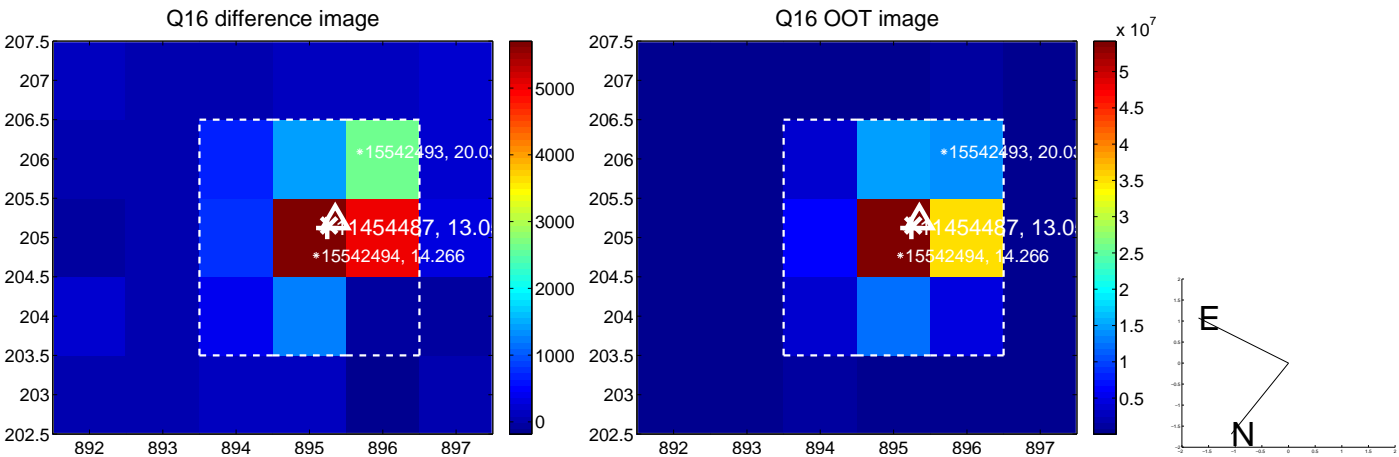
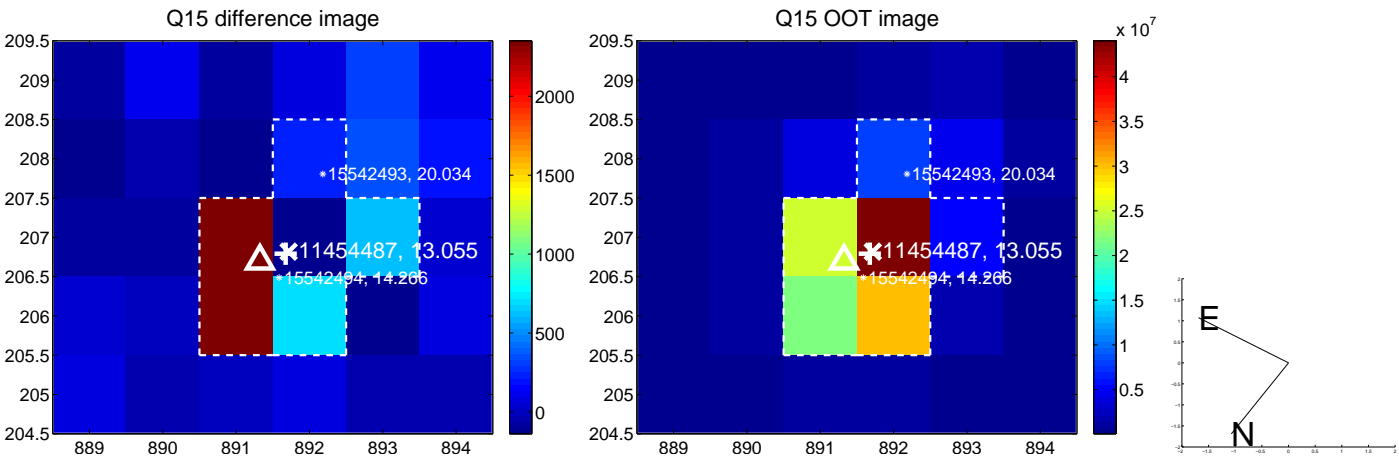
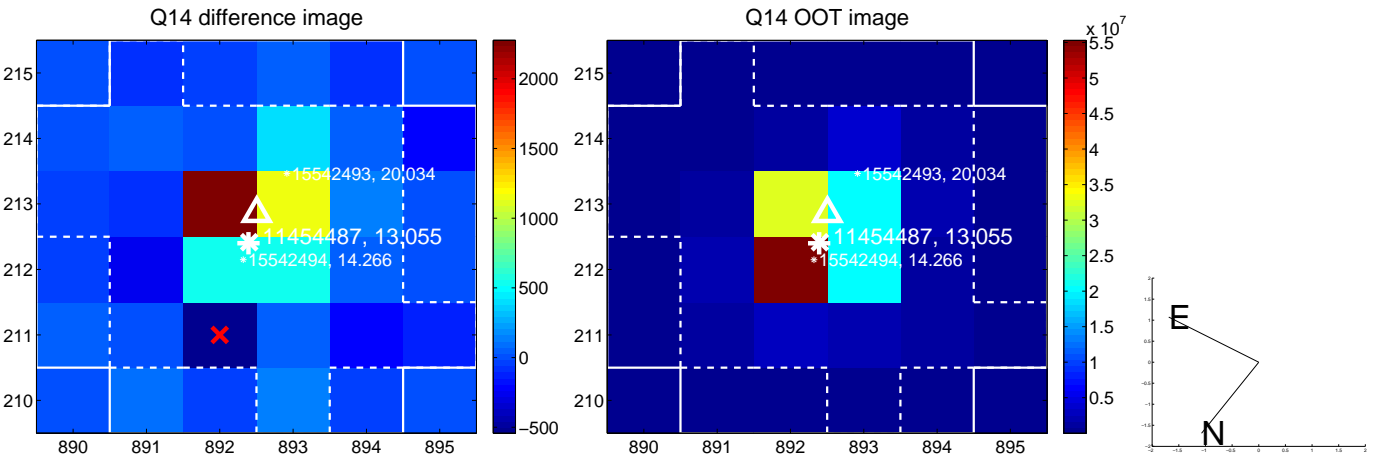
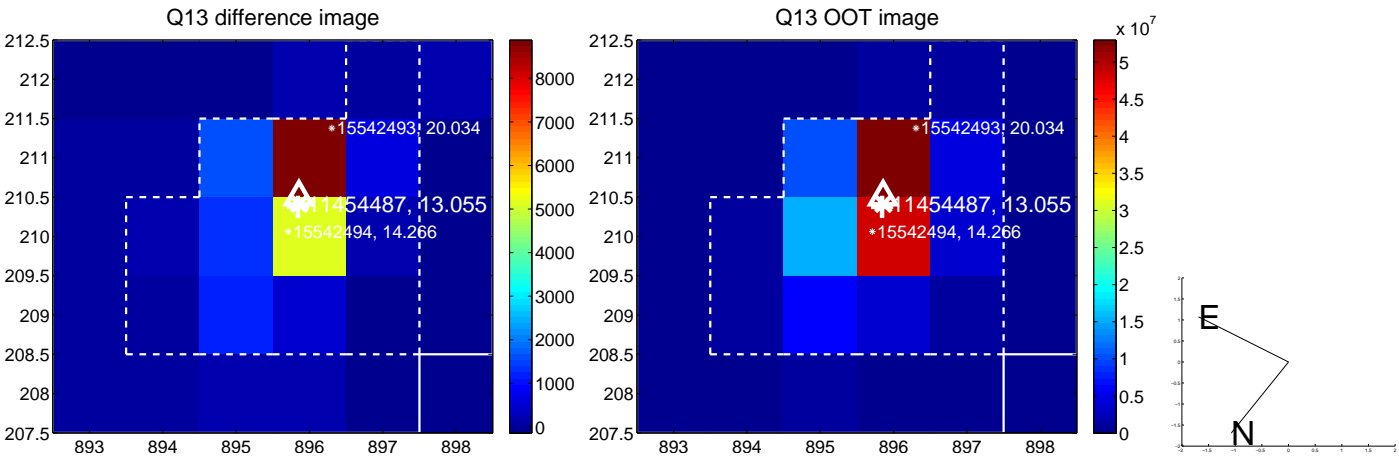
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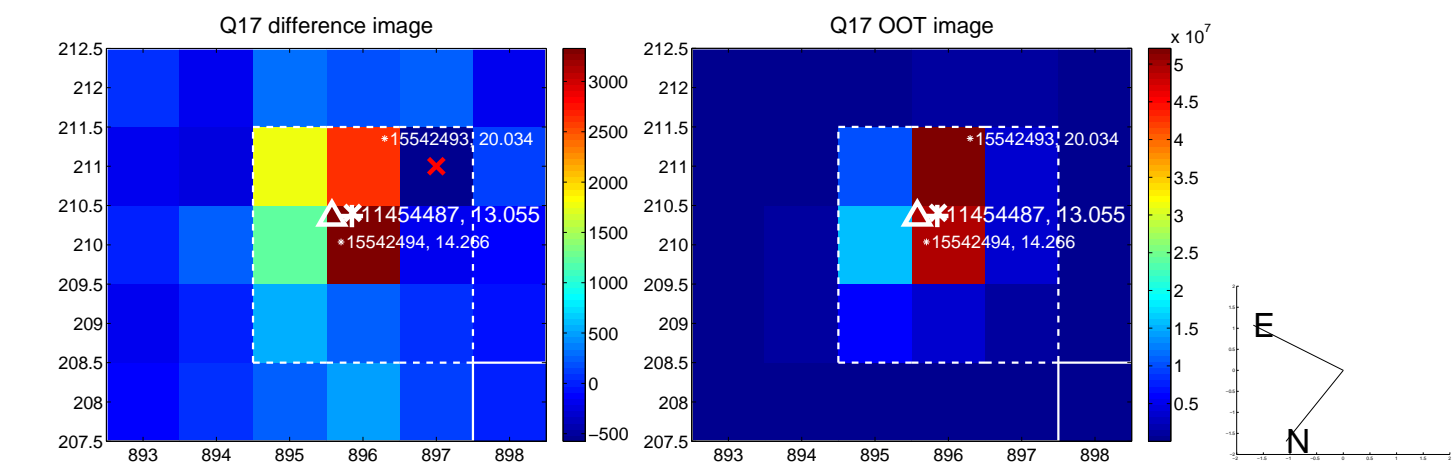
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



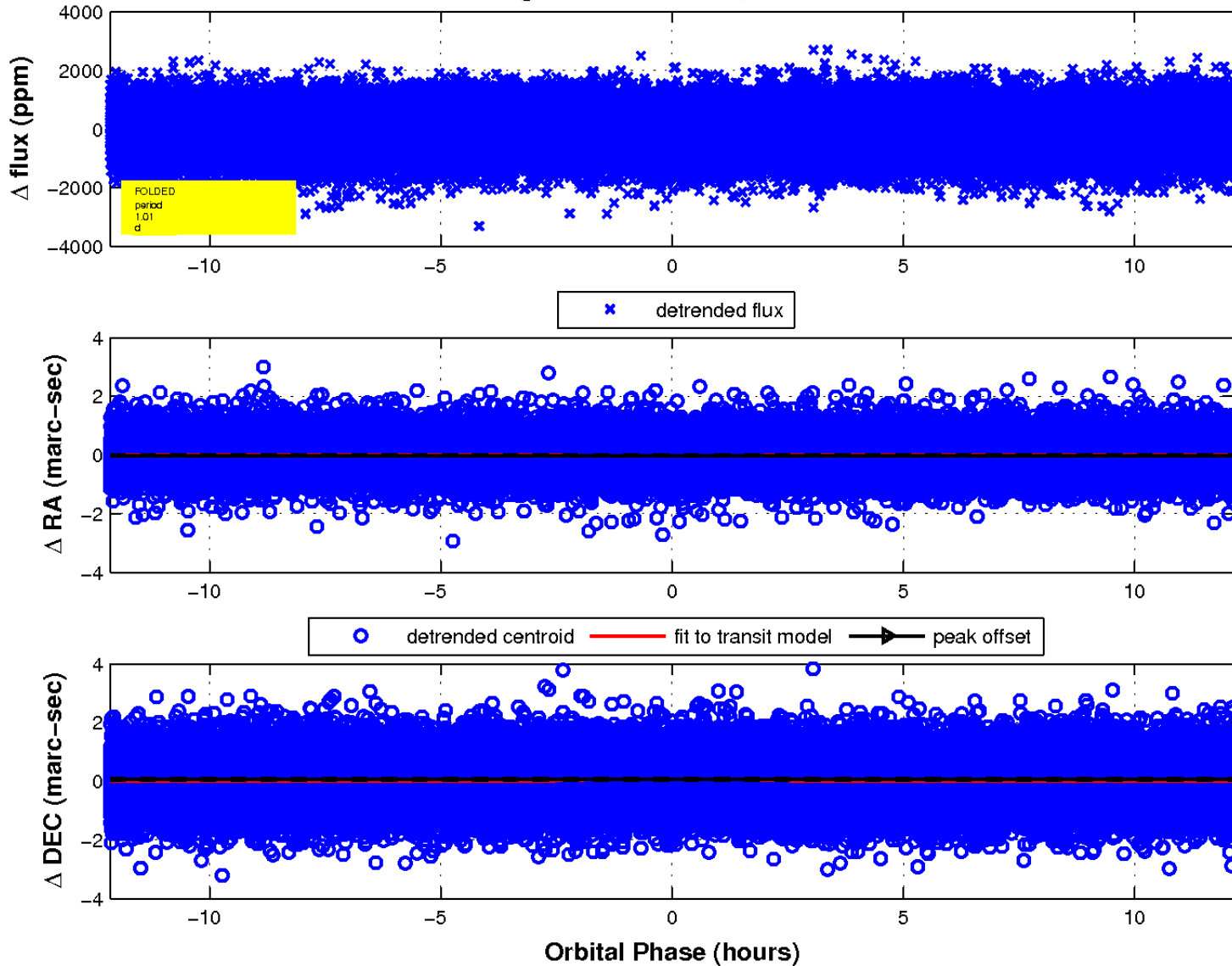
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

