

KIC 003547760

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})
003547760-01	OBS	4535.01	9.848069	136.801637	136.6	3.052	8.0	9.0	0.75	5289	0.99	60.51

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003547760-01	OBS	PC	0.98	0	0	0	0	NO_COMMENT

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

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

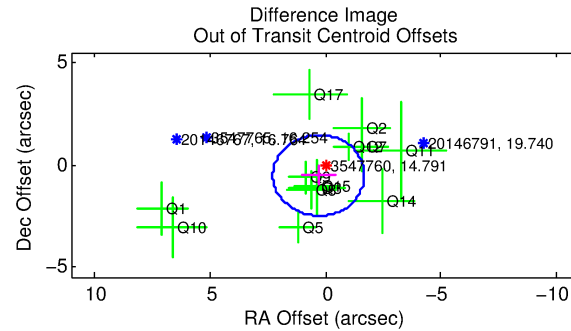
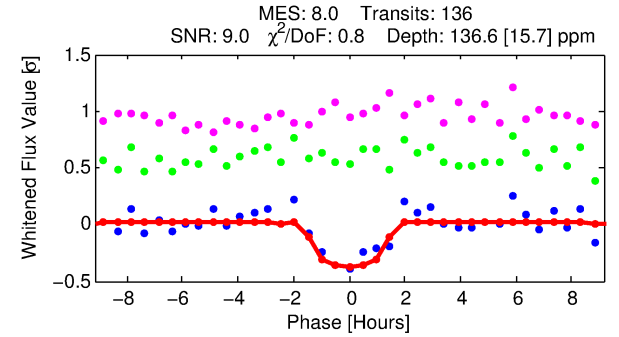
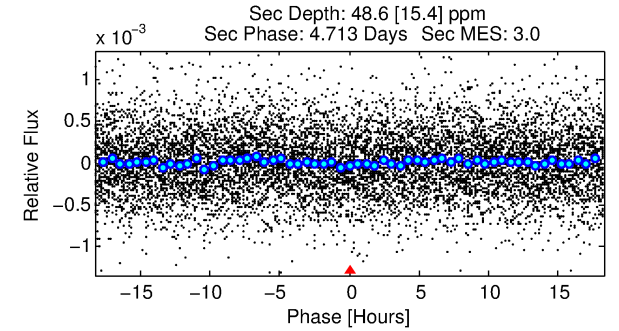
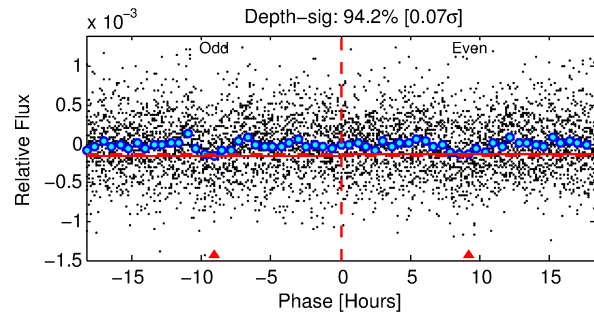
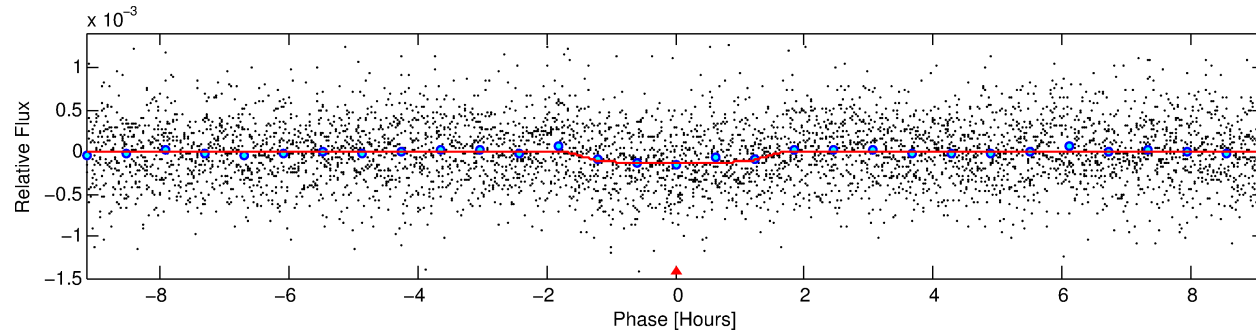
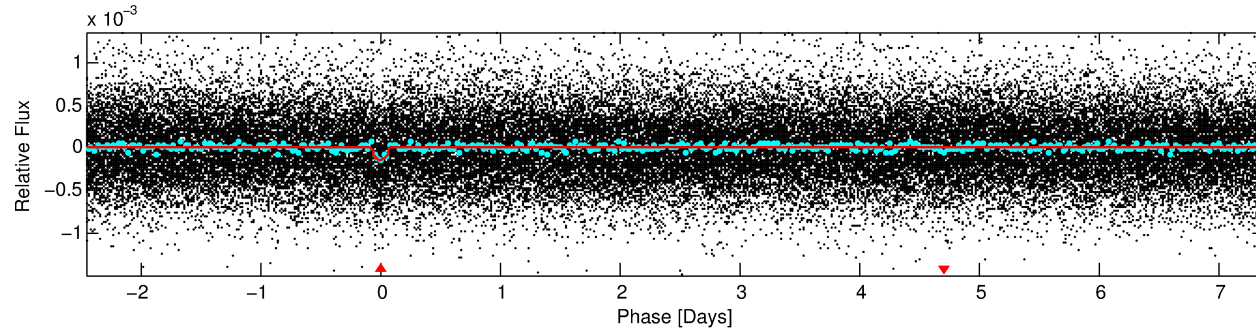
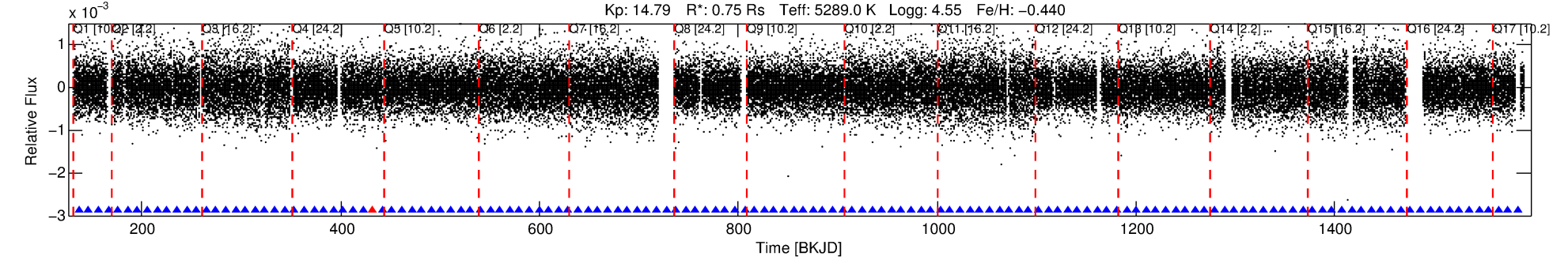
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003547760-01

No Significant Match Found

DV One-Page Summary

KIC: 3547760 Candidate: 1 of 1 Period: 9.848 d
KOI: K04535.01 Corr: 0.978



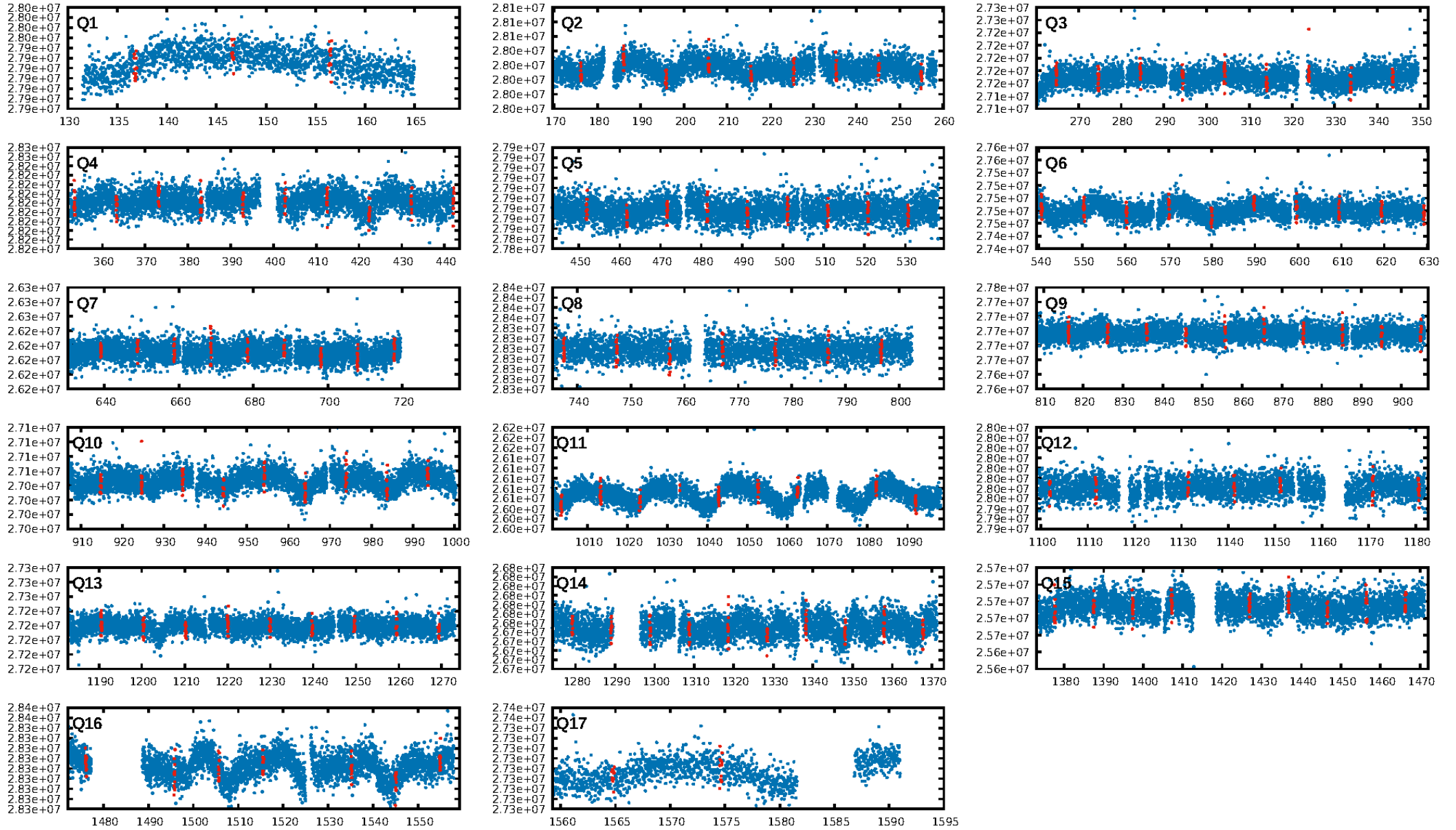
DV Fit Results:

Period = 9.84807 [0.00010] d
Epoch = 136.8016 [0.0078] BKJD
Rp/R* = 0.0121 [0.0138]
a/R* = 14.53 [69.52]
b = 0.82 [1.92]
Seff = 60.51 [11.62]
Teff = 711 [34] K
Rp = 0.99 [1.14] Re
a = 0.0805 [0.0083] AU
Ag = 177.89 [412.07] [0.43 σ]
Teffp = 4016 [2324] K [1.42 σ]

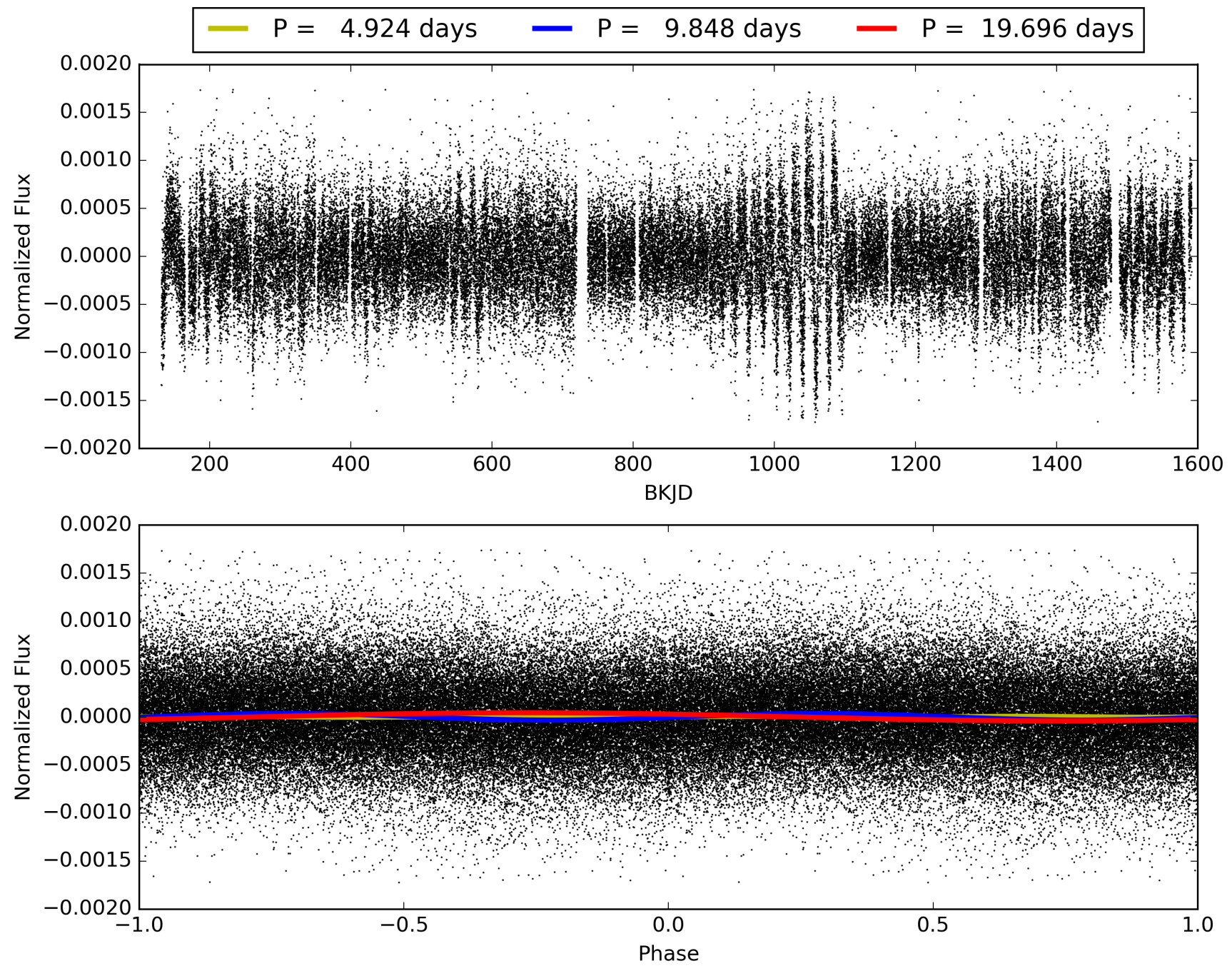
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 100.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.66e-16
RollingBand-fgt: 0.99 [130/131]
GhostDiagnostic-chr: -10.43
Centroid-sig: 11.9%
Centroid-so: 2.216 arcsec [1.39 σ]
OotOffset-rm: 0.605 arcsec [0.92 σ]
KicOffset-rm: 0.515 arcsec [0.72 σ]
OotOffset-st: 3/4/2/4 [13]
KicOffset-st: 3/4/2/4 [13]
DiffImageQuality-fgm: 0.31 [4/13]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 003547760-01, PDC Light Curves

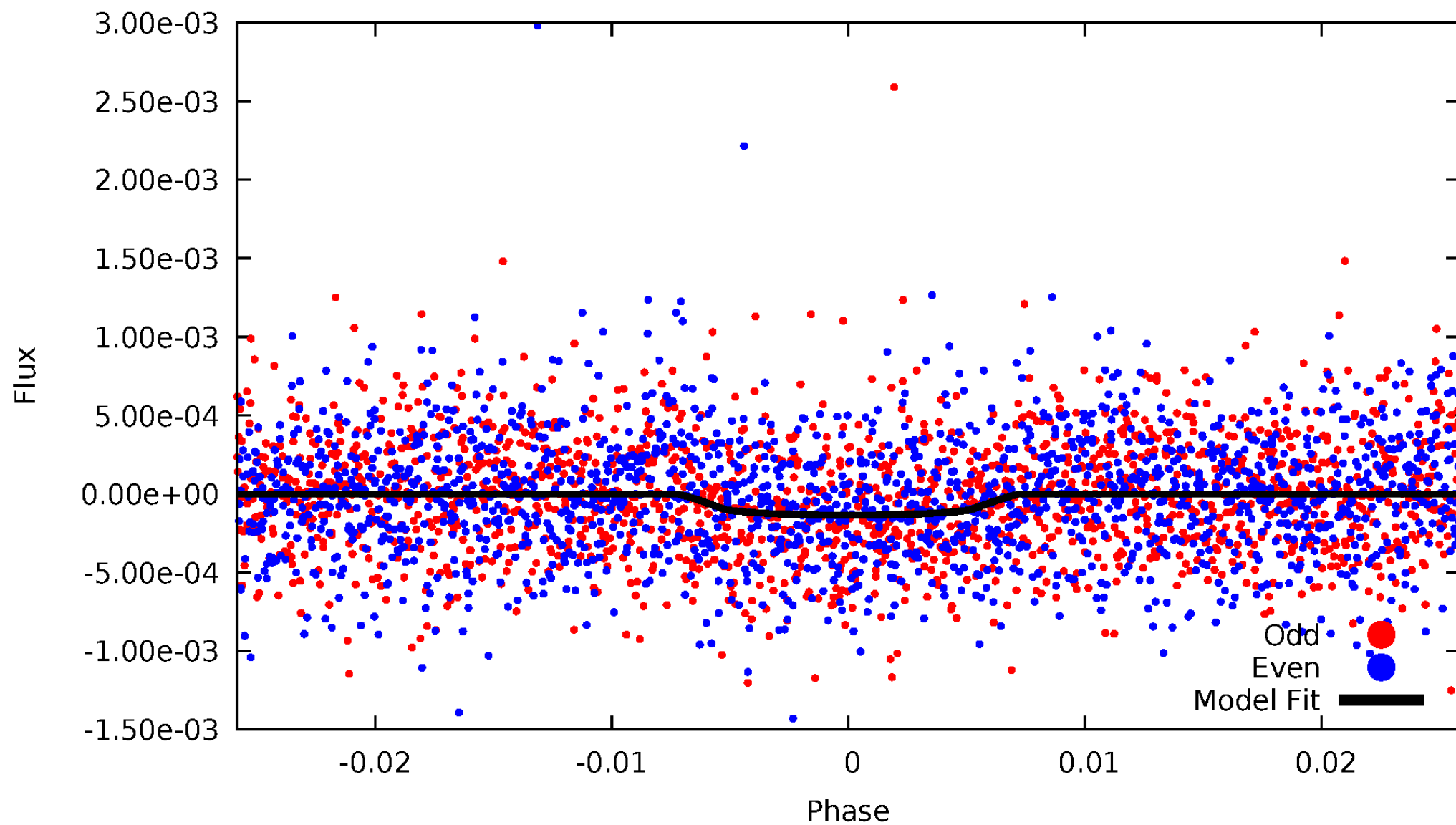


TCE 003547760-01



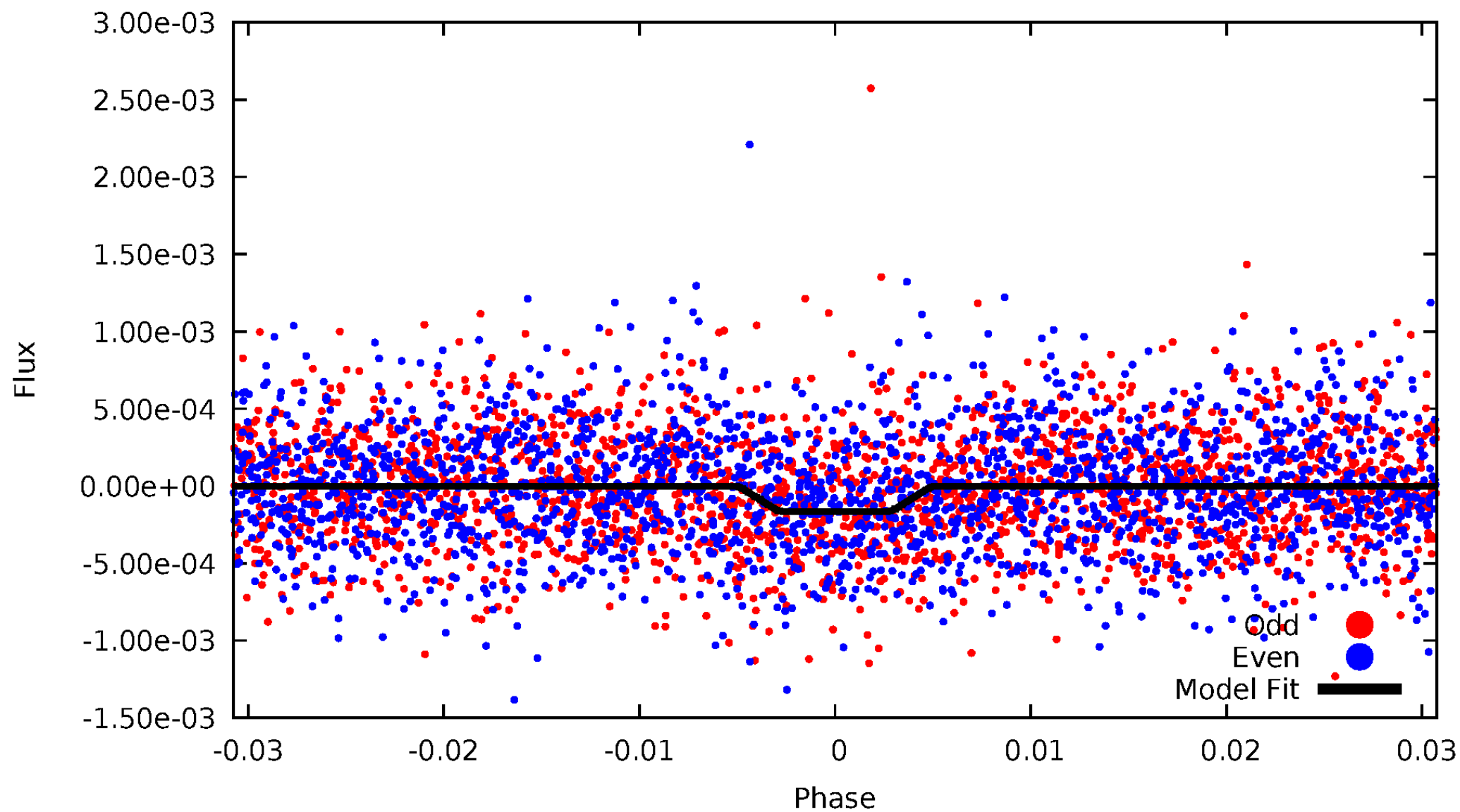
DV Odd/Even

TCE 003547760-01



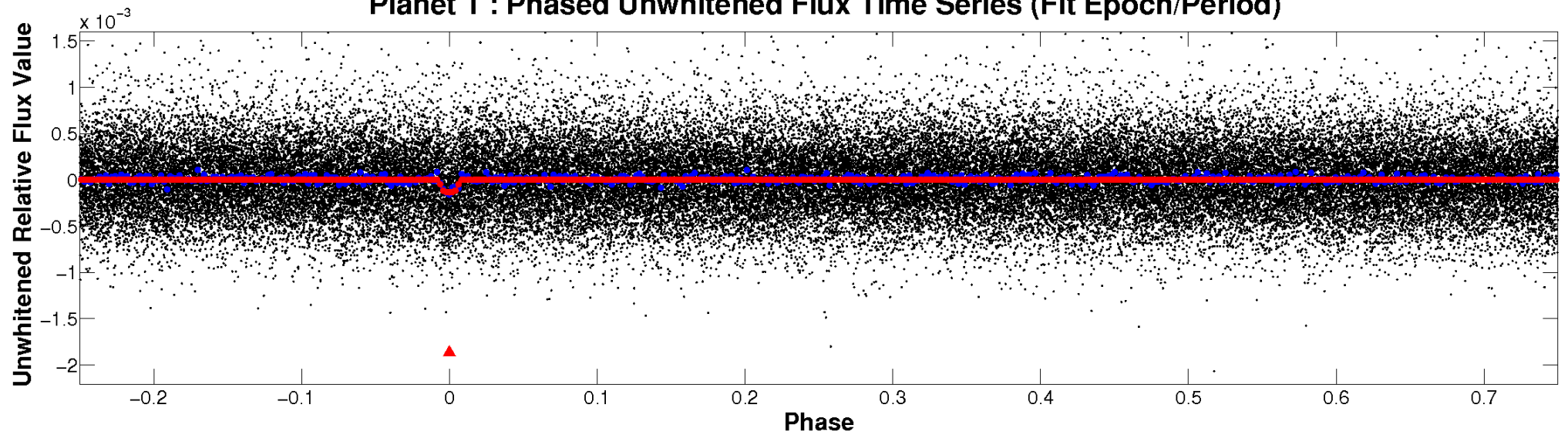
ALT Odd/Even

TCE 003547760-01

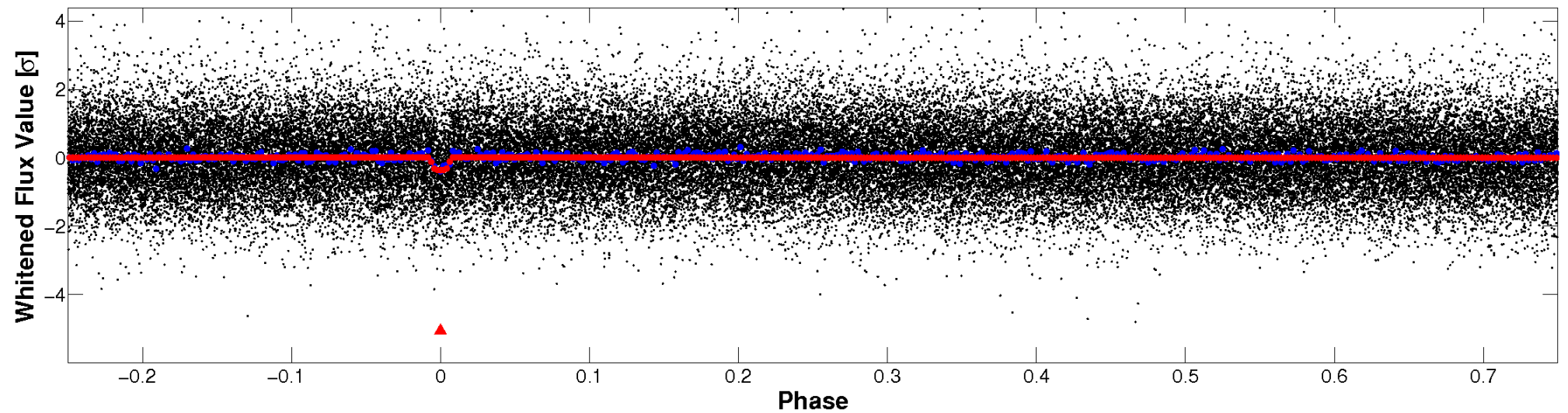


Non-Whitened Vs. Whitened Light Curve

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

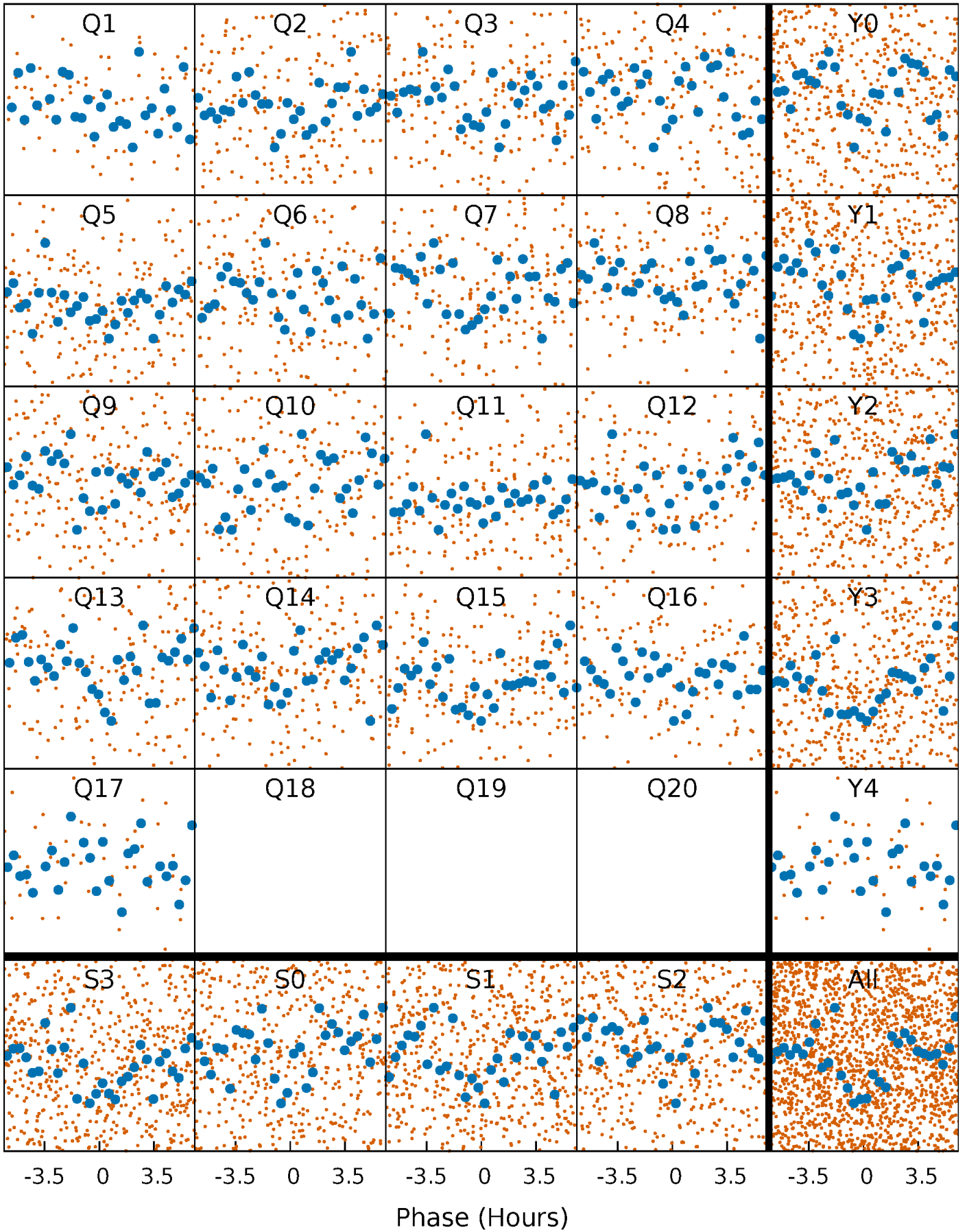


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



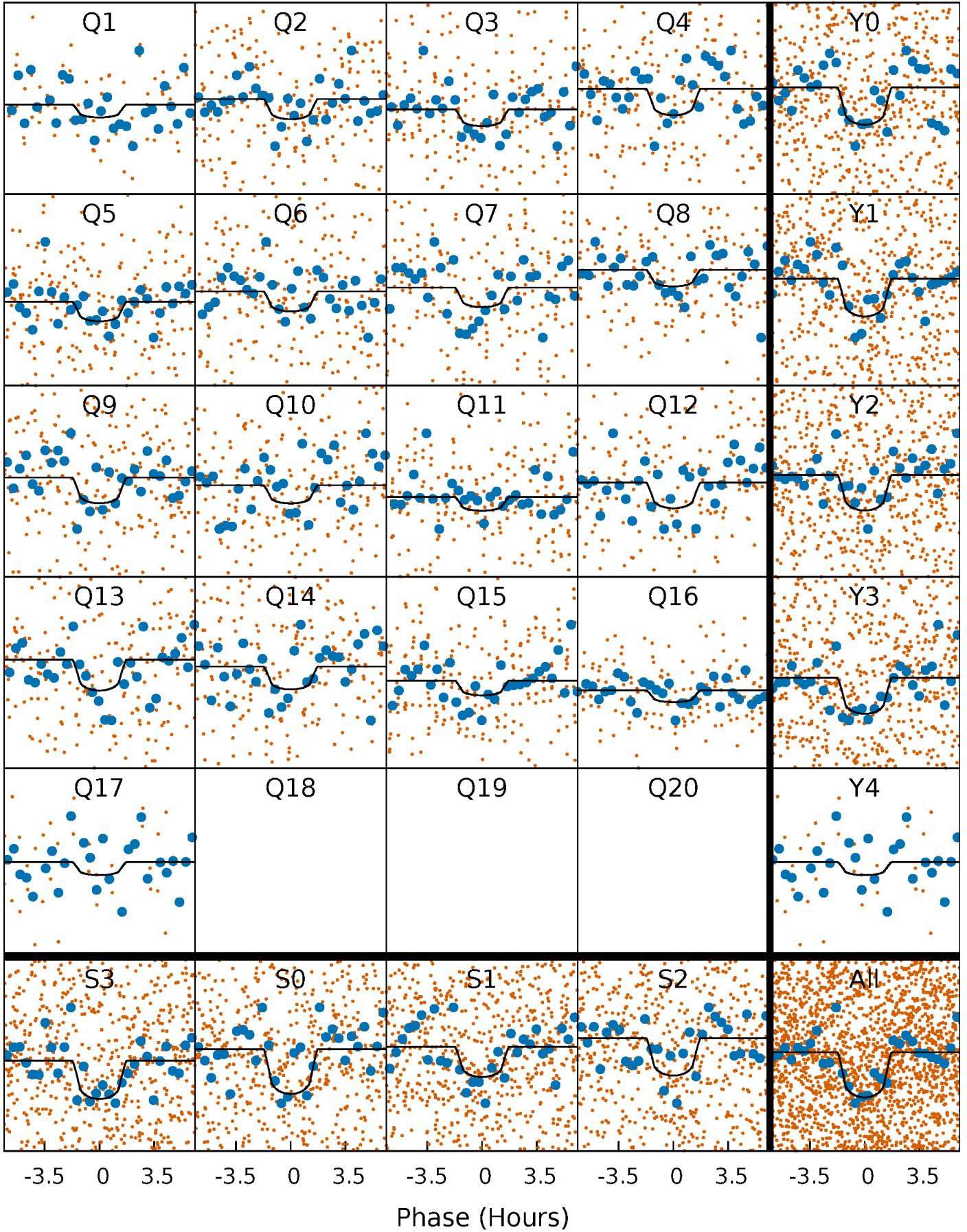
PDC Quarter-Phased Transit Curves

TCE 003547760-01 P= 9.848069 Days $T_0=136.801637$ (BKJD)



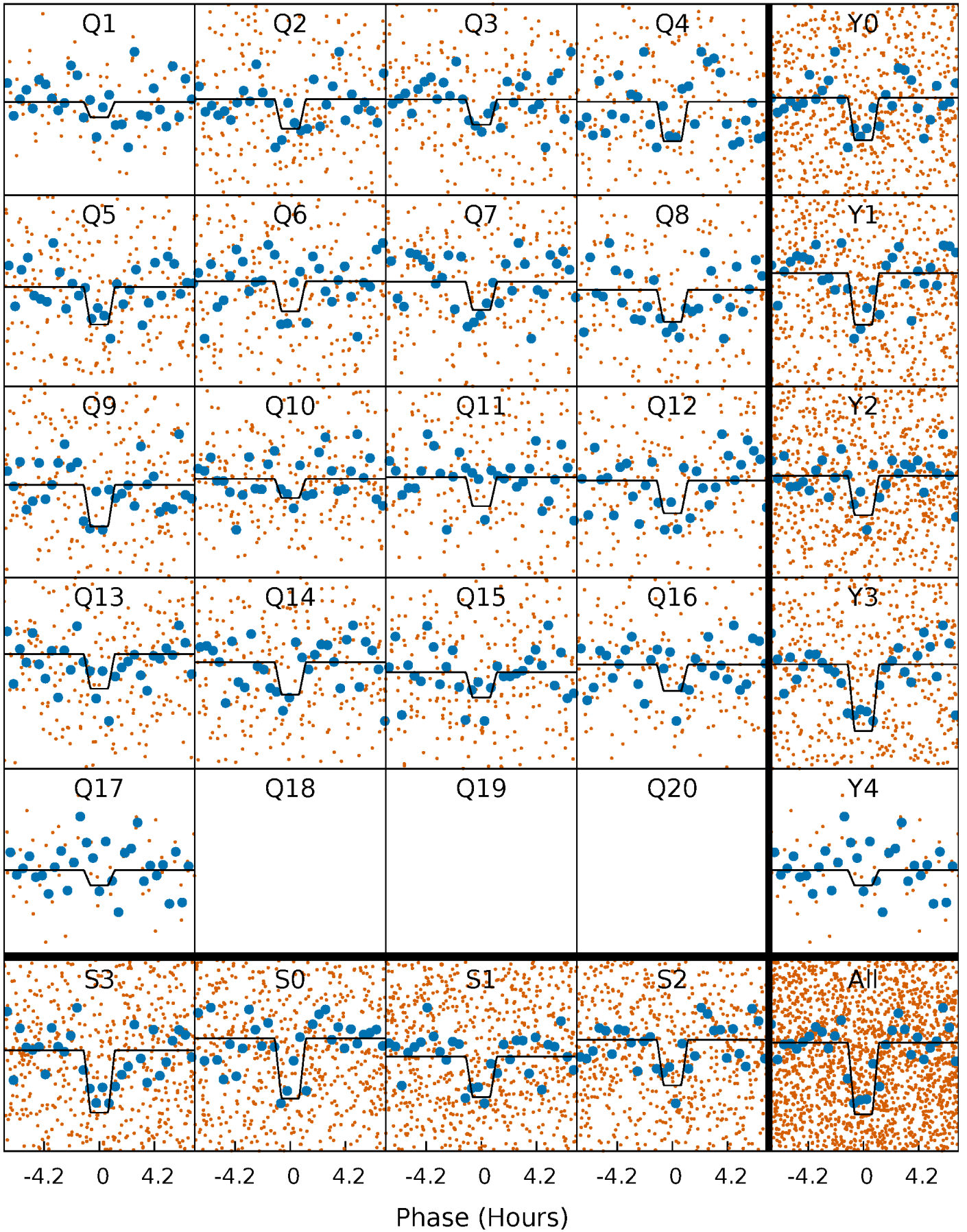
DV Quarter-Phased Transit Curves

TCE 003547760-01 P= 9.848069 Days $T_0=136.801637$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

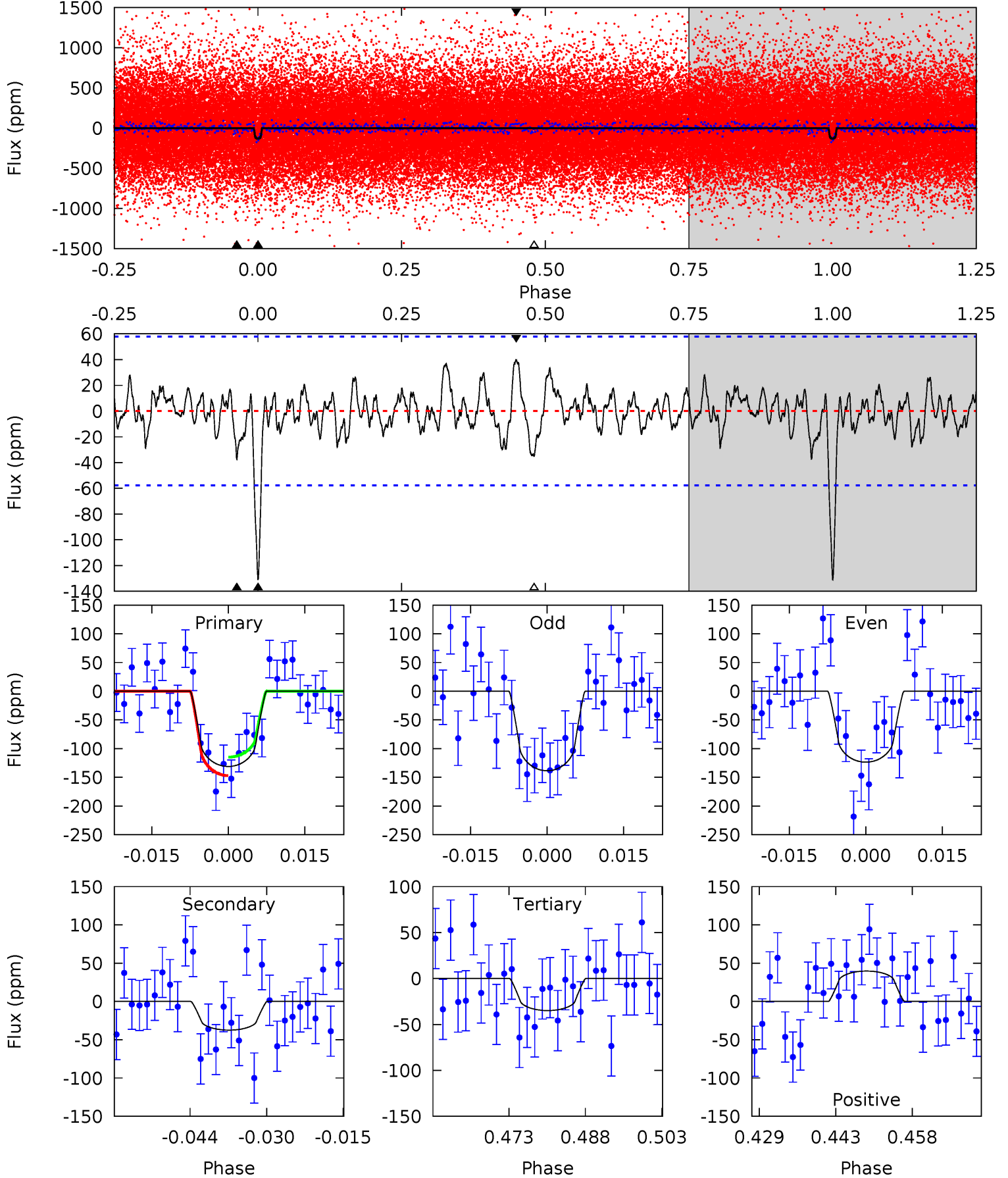
TCE 003547760-01 P= 9.848045 Days $T_0=136.803104$ (BKJD)



DV Model-Shift Uniqueness Test

003547760-01, P = 9.848069 Days, E = 126.953568 Days

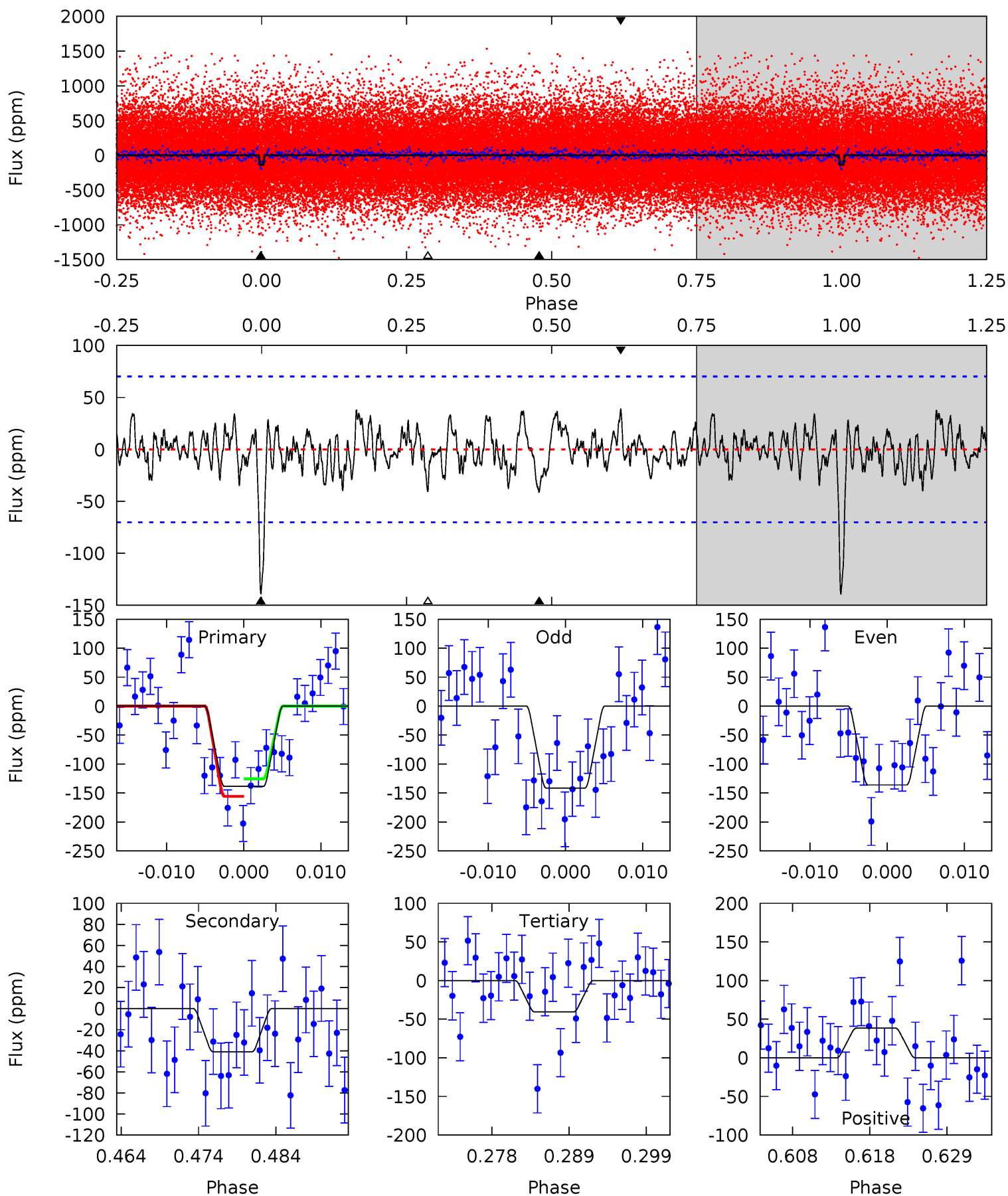
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.2	3.21	2.99	3.40	4.95	2.44	1.12	8.24	7.83	0.22	-0.19	0.64	0.98	0.23	1.38



Alt Model-Shift Uniqueness Test

003547760-01, P = 9.848045 Days, E = 126.955059 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.93	2.93	2.91	2.76	5.02	2.57	1.08	7.02	7.17	0.02	0.17	0.19	0.85	0.22	1.09



Stellar Parameters For KIC 003547760

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5289^{+158}_{-158}	$4.546^{+0.082}_{-0.067}$	$-0.440^{+0.300}_{-0.300}$	$0.748^{+0.092}_{-0.084}$	$0.717^{+0.099}_{-0.046}$	$2.418^{+0.868}_{-0.538}$
	+3%/-3%	+2%/-1%	+68%/-68%	+12%/-11%	+14%/-6%	+36%/-22%
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 003547760-01 / KOI 4535.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-37 ± 12	$1.25^{+1.06}_{-0.78}$	994^{+38}_{-41}	3698^{+1874}_{-654}	81^{+560}_{-57}
Alt.	-41 ± 14	$1.28^{+1.05}_{-0.86}$	989^{+40}_{-39}	3697^{+2029}_{-646}	86^{+722}_{-61}

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

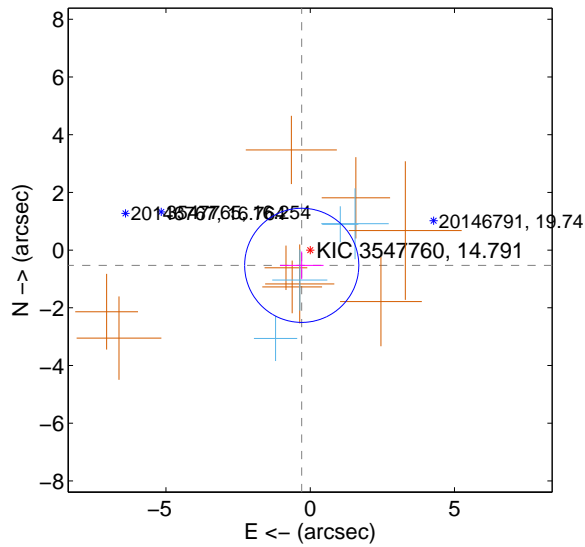
Supplemental centroid analysis for 003547760-01. Kepler magnitude: 14.79. Transit SNR 8.97

There are 4 quarters with good PRF difference image offsets

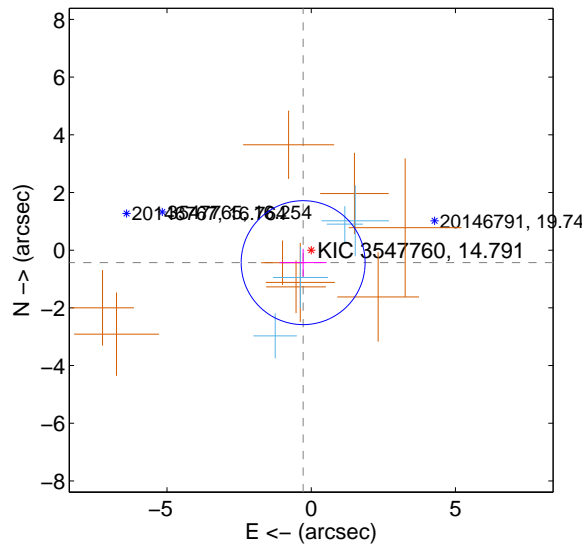
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.605 ± 0.659	0.92	0.294 ± 0.756	-0.528 ± 0.478
PRF-fit source offset from KIC position	0.515 ± 0.716	0.72	0.280 ± 0.816	-0.432 ± 0.478
photometric centroid source offset	2.22 ± 1.59	1.39	2.12 ± 1.60	-0.66 ± 1.54

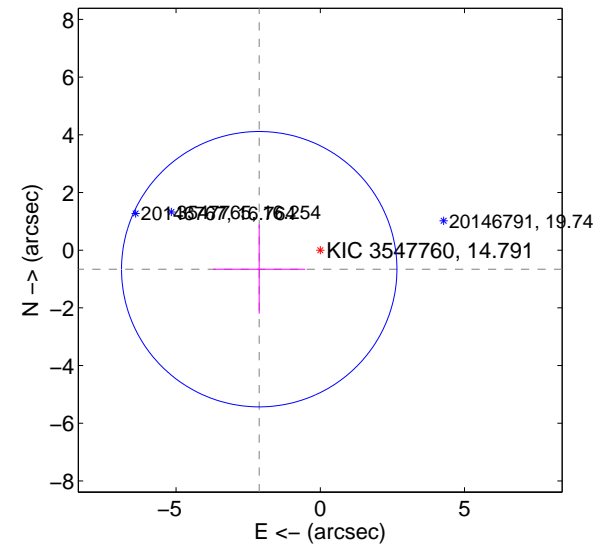
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

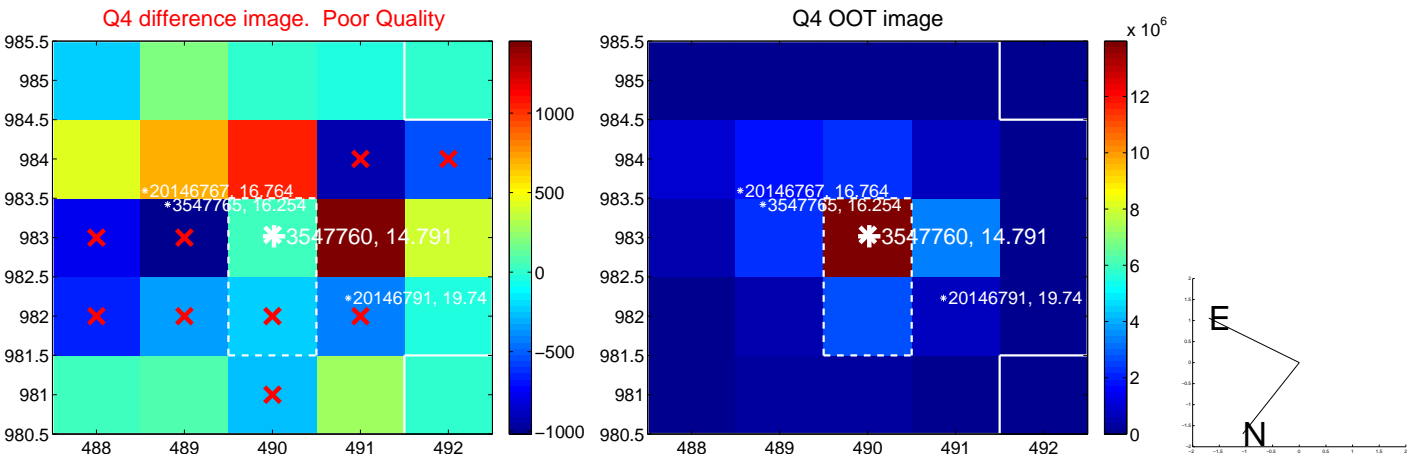
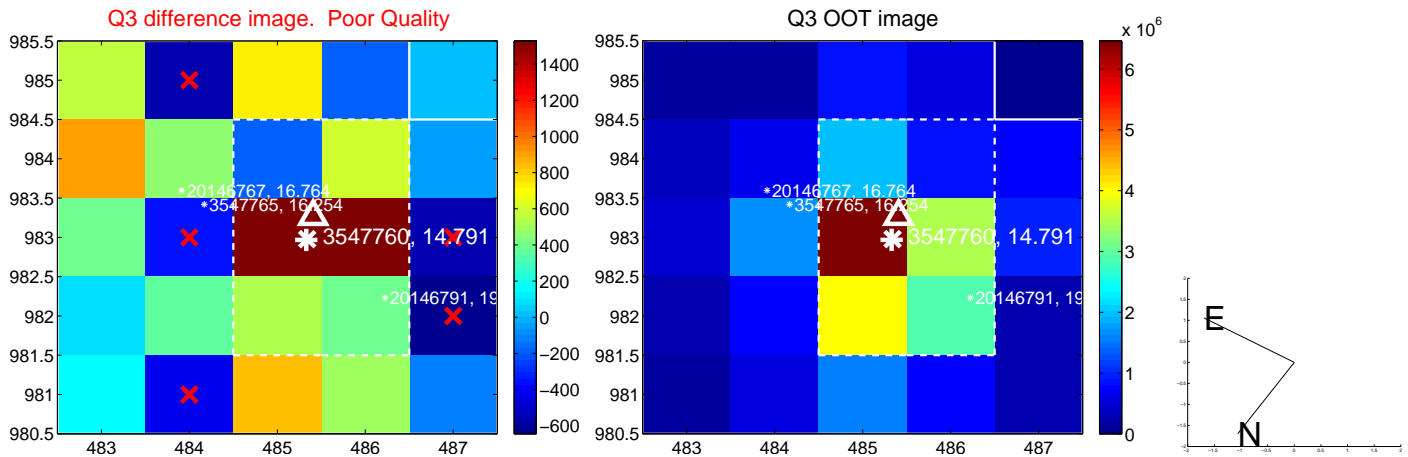
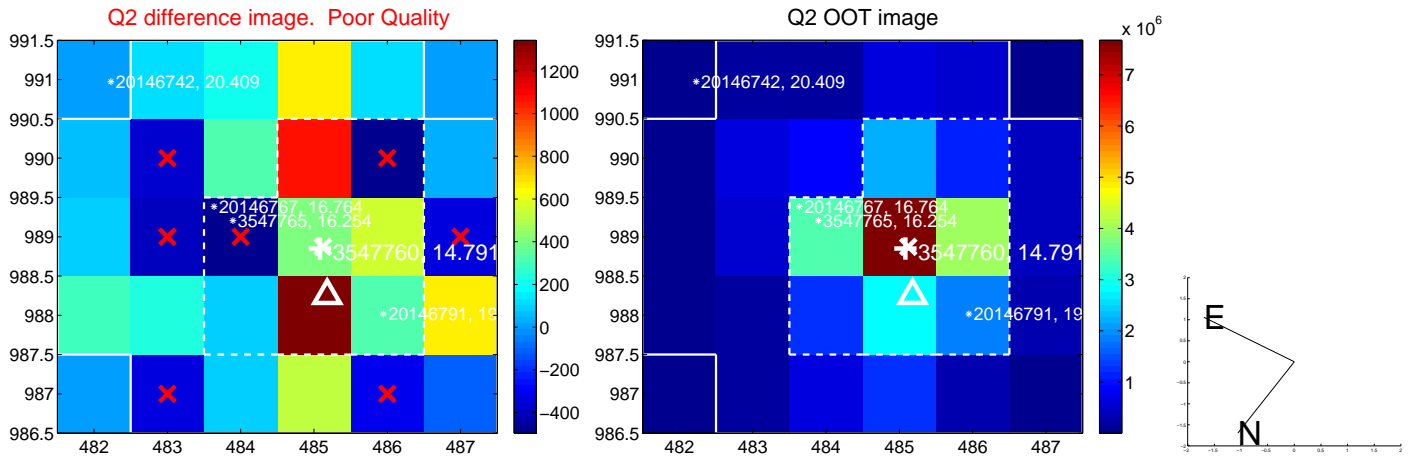
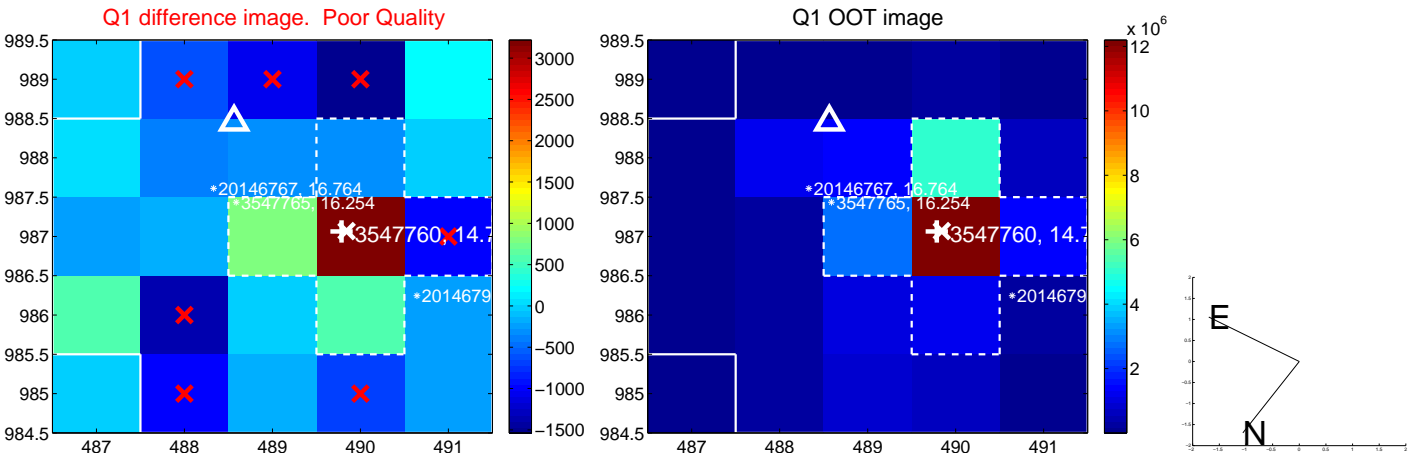


offset from photometric centroids

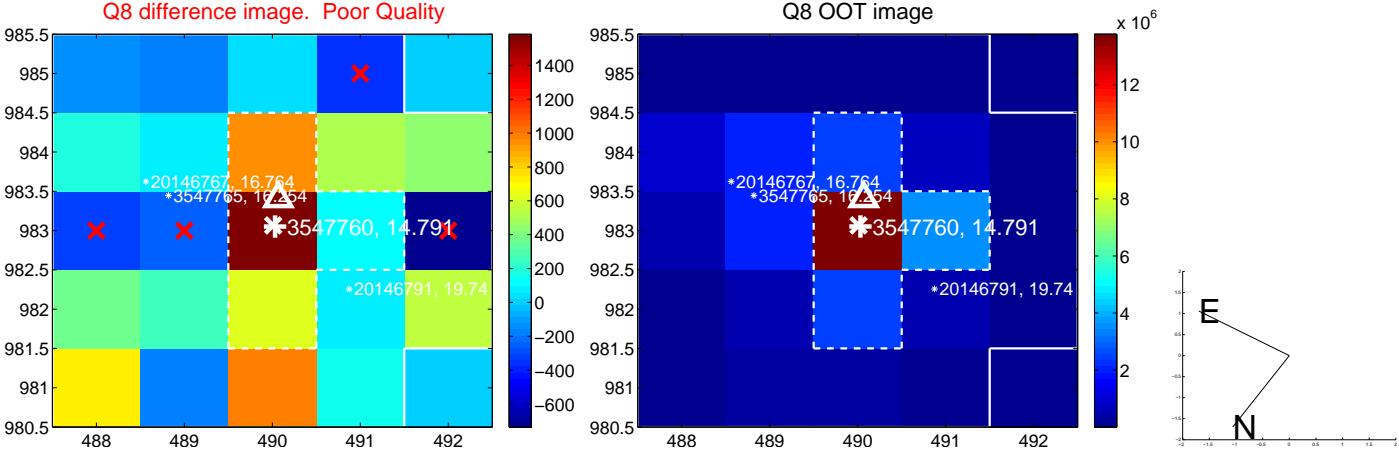
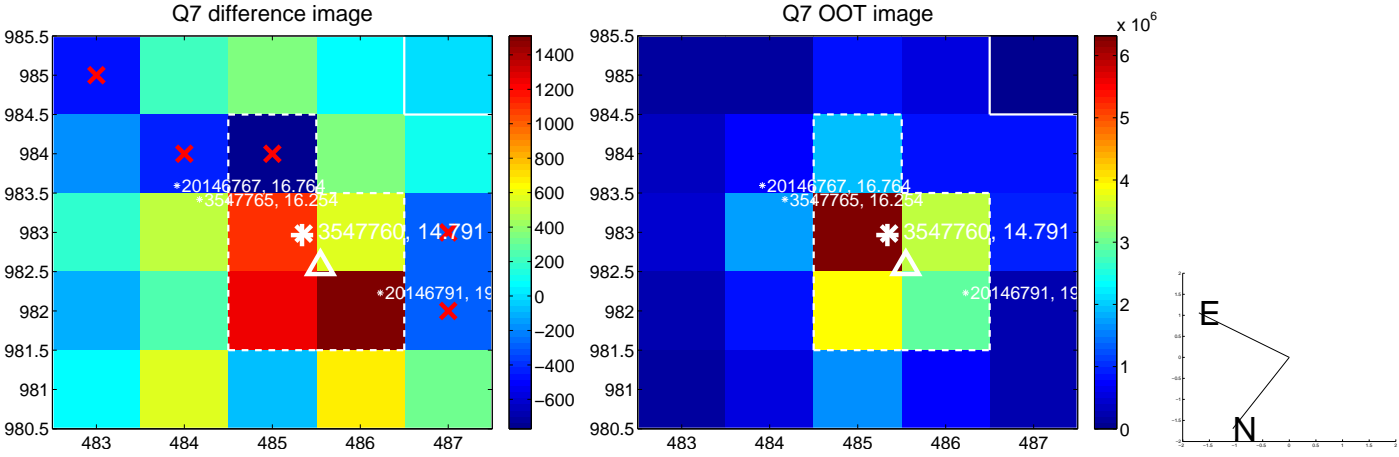
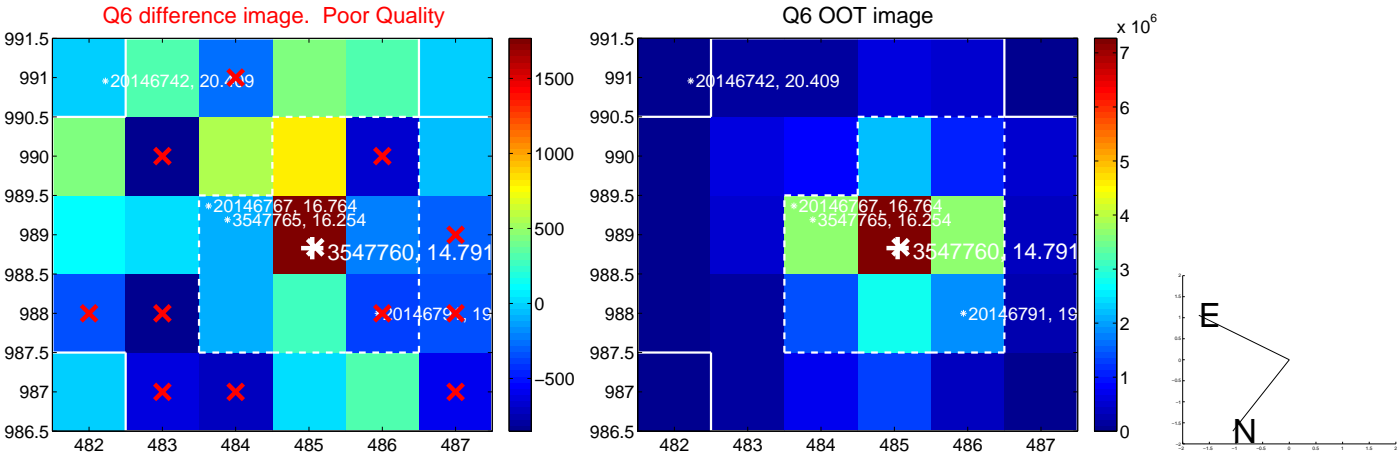
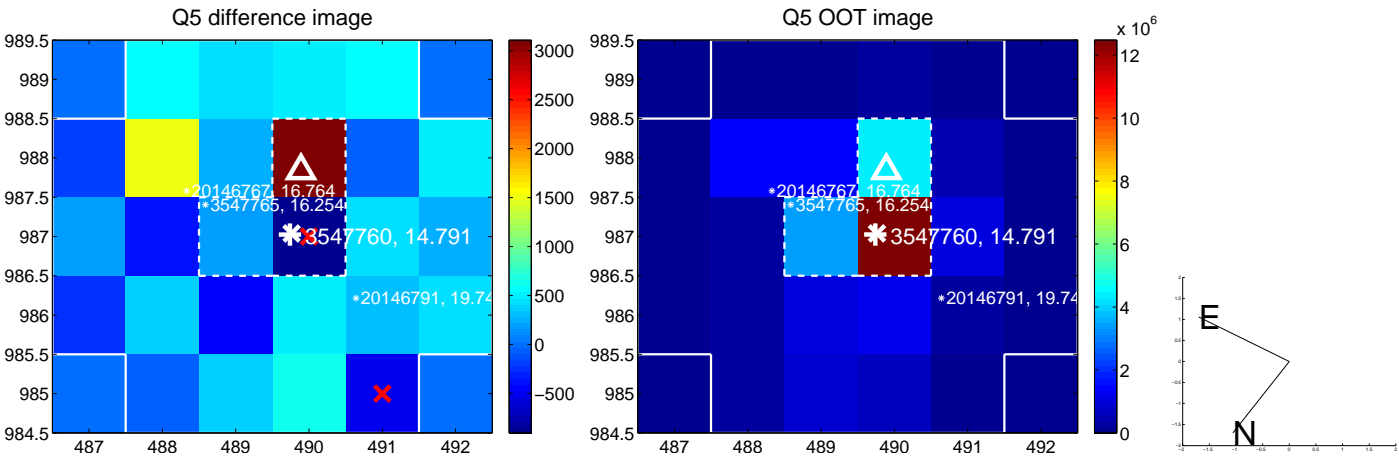


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

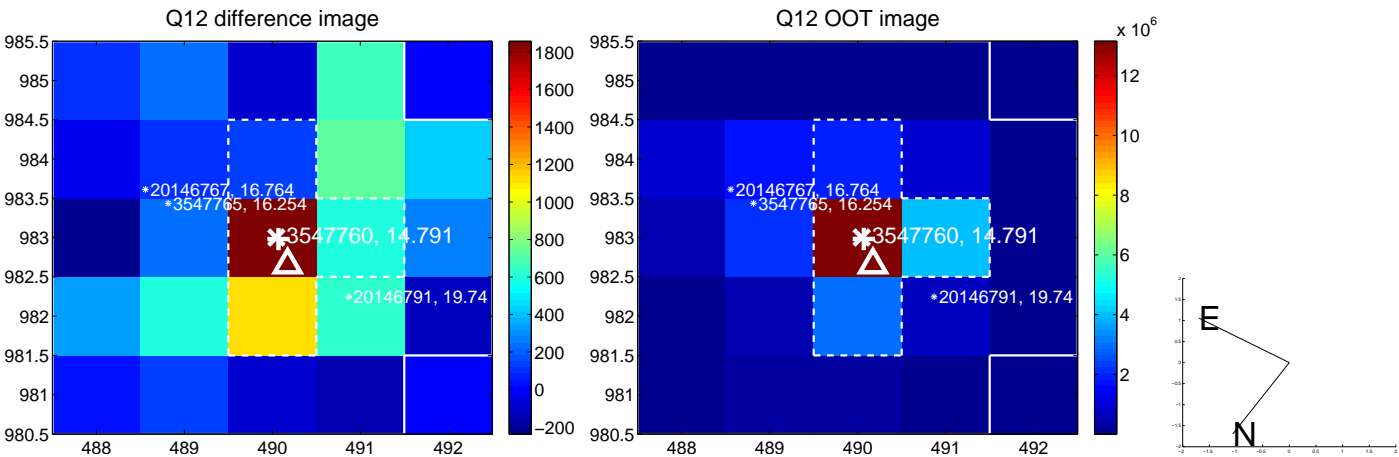
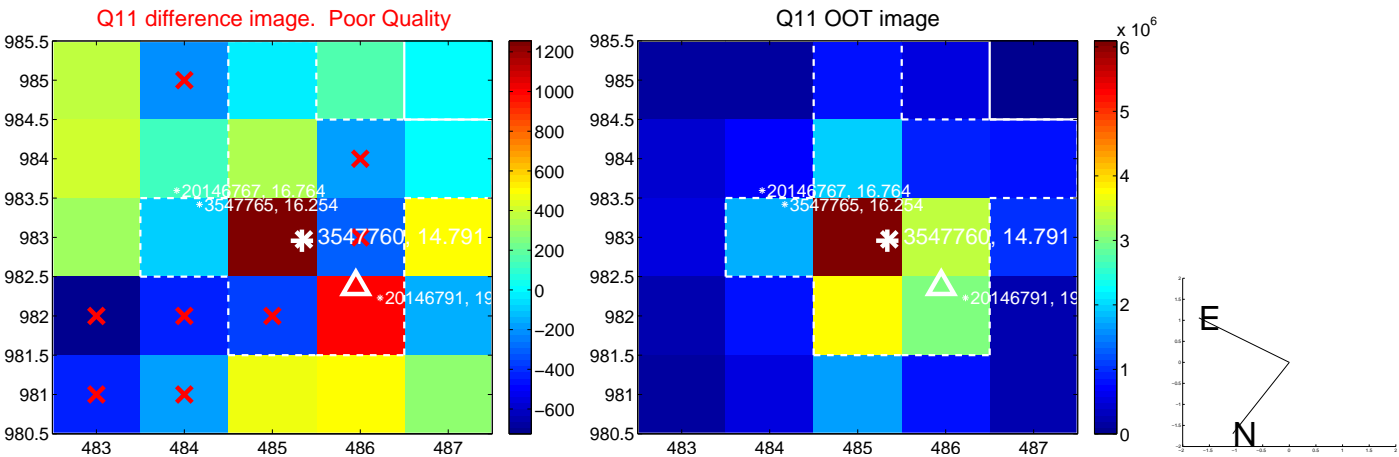
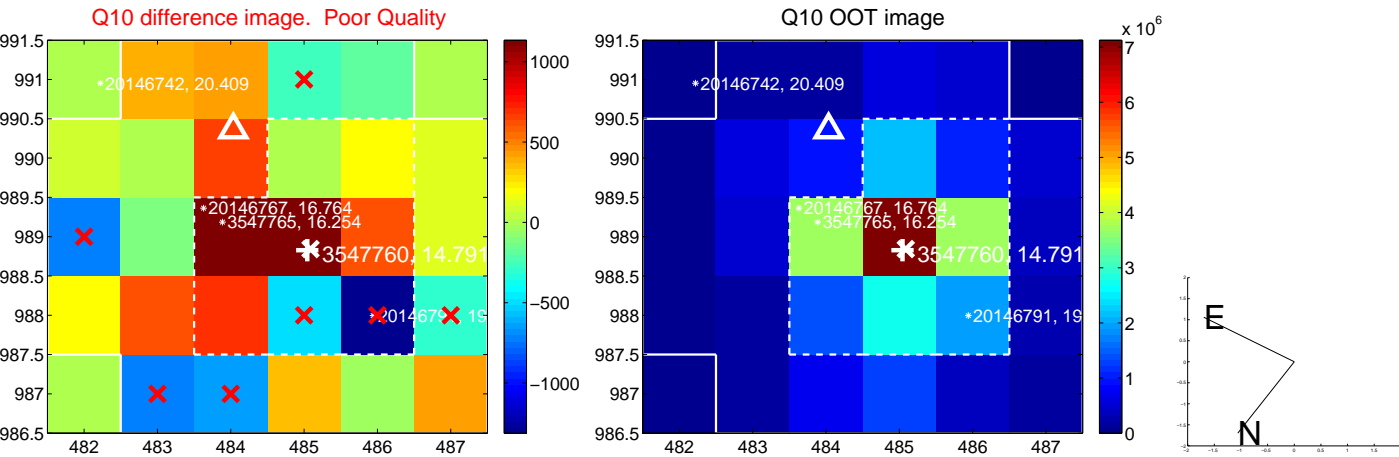
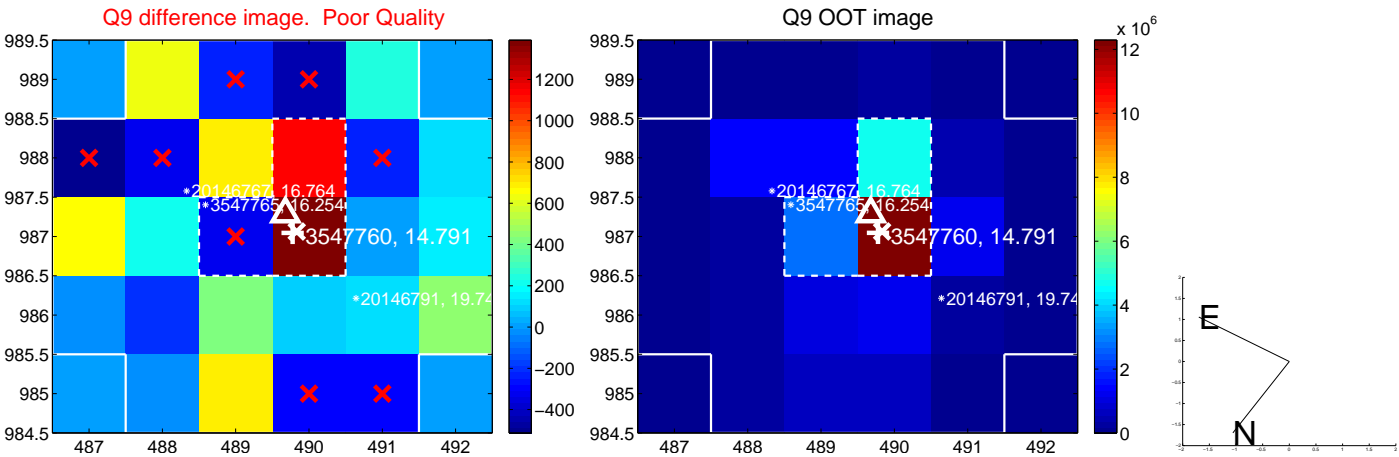
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



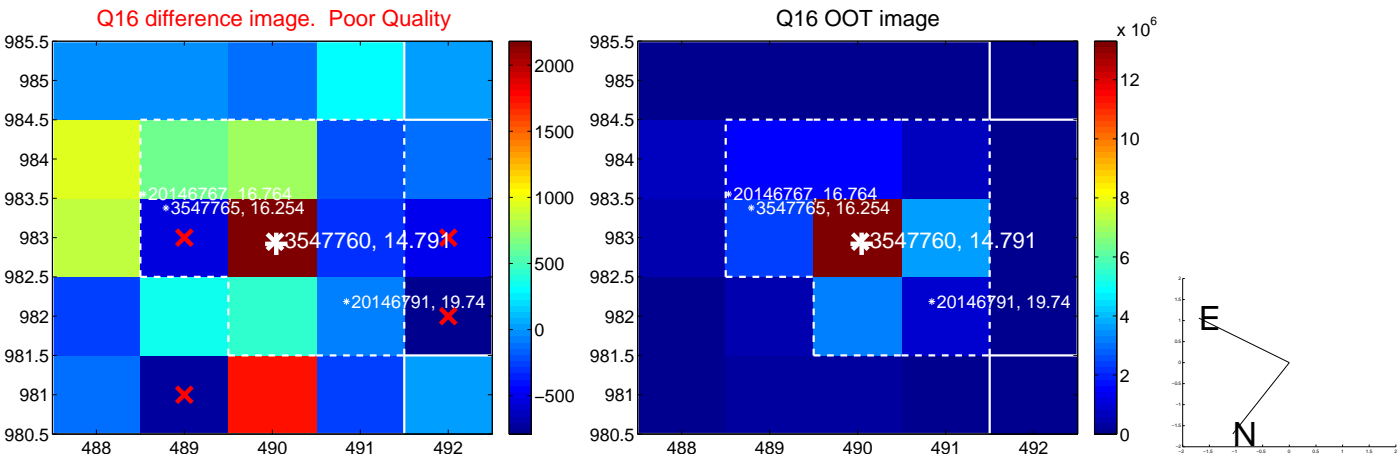
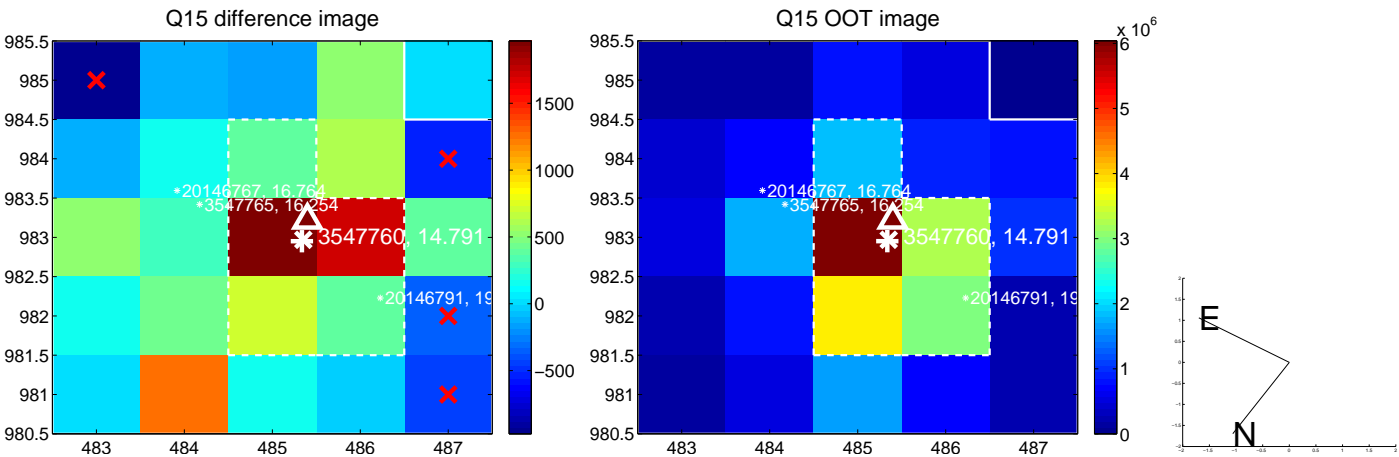
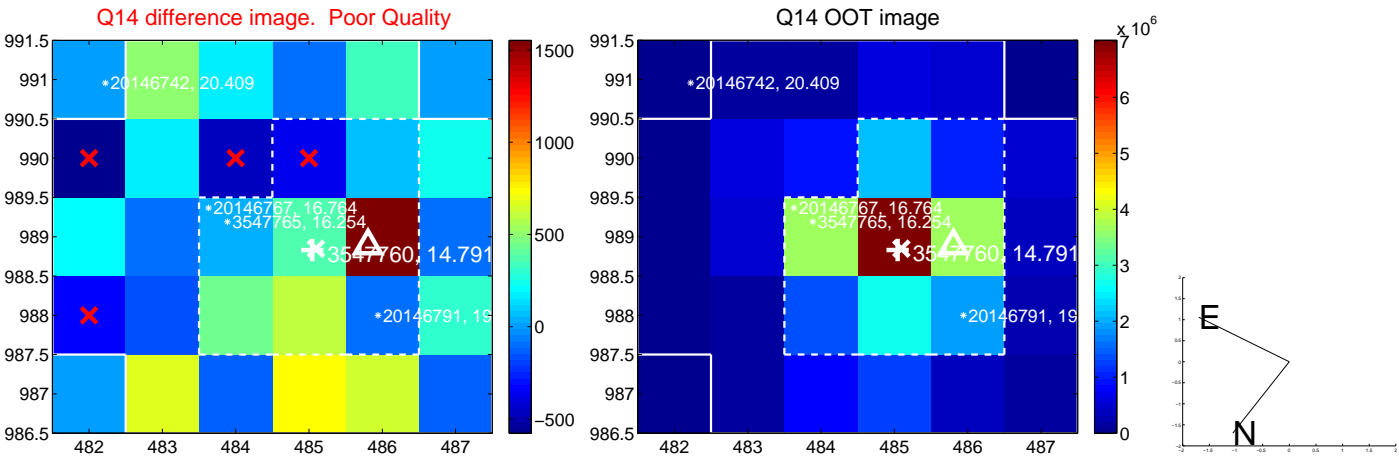
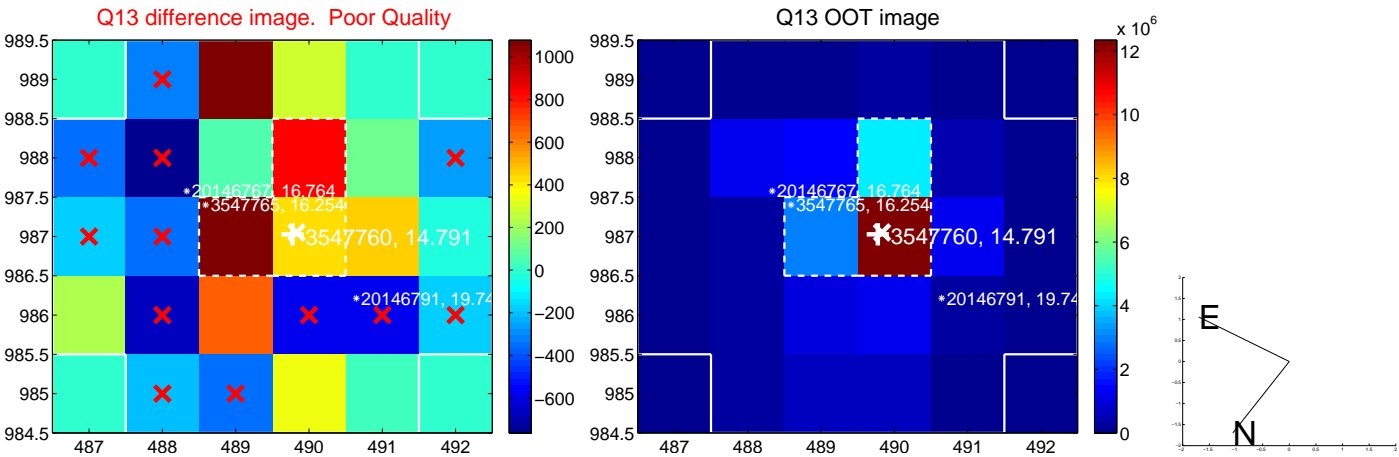
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



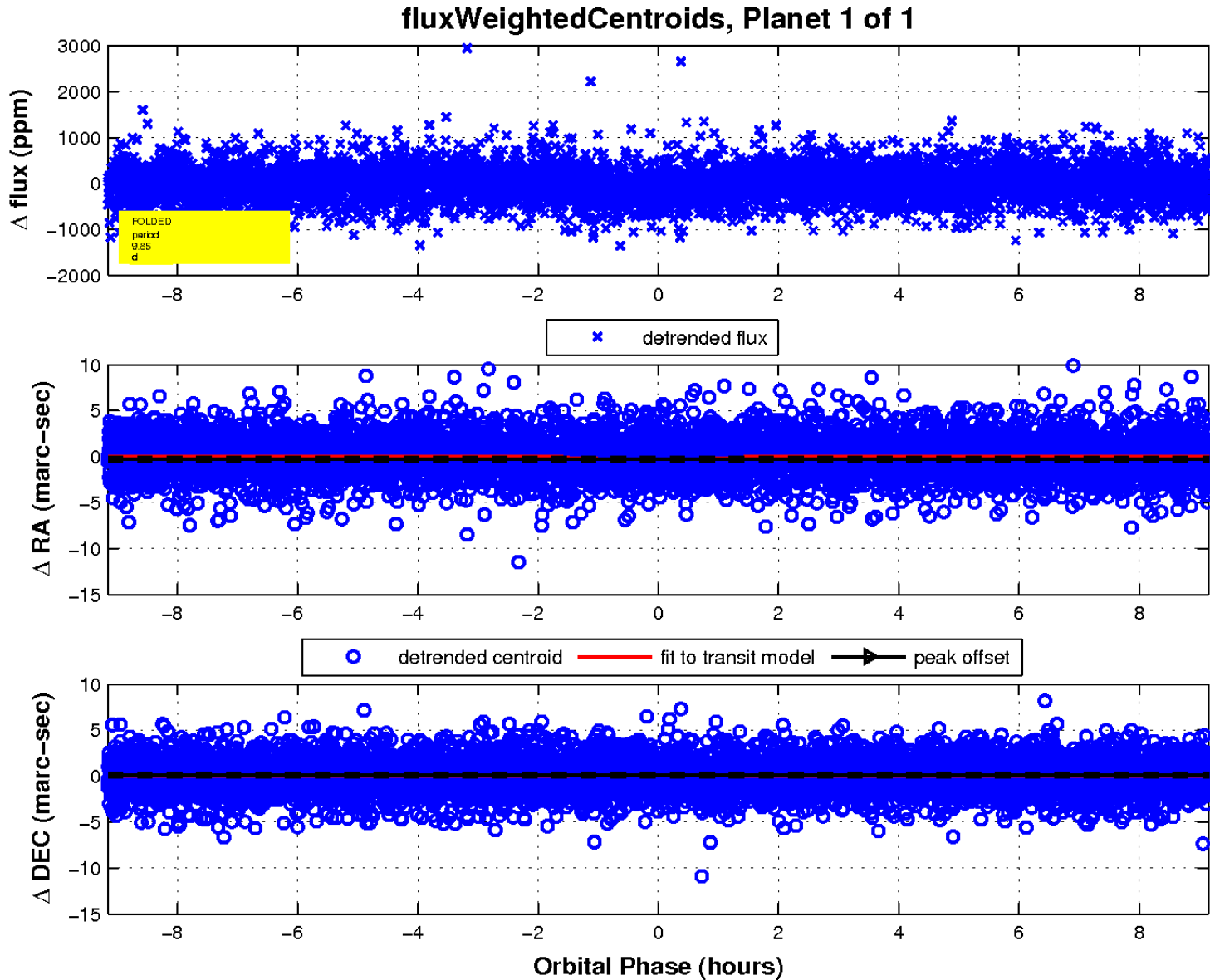
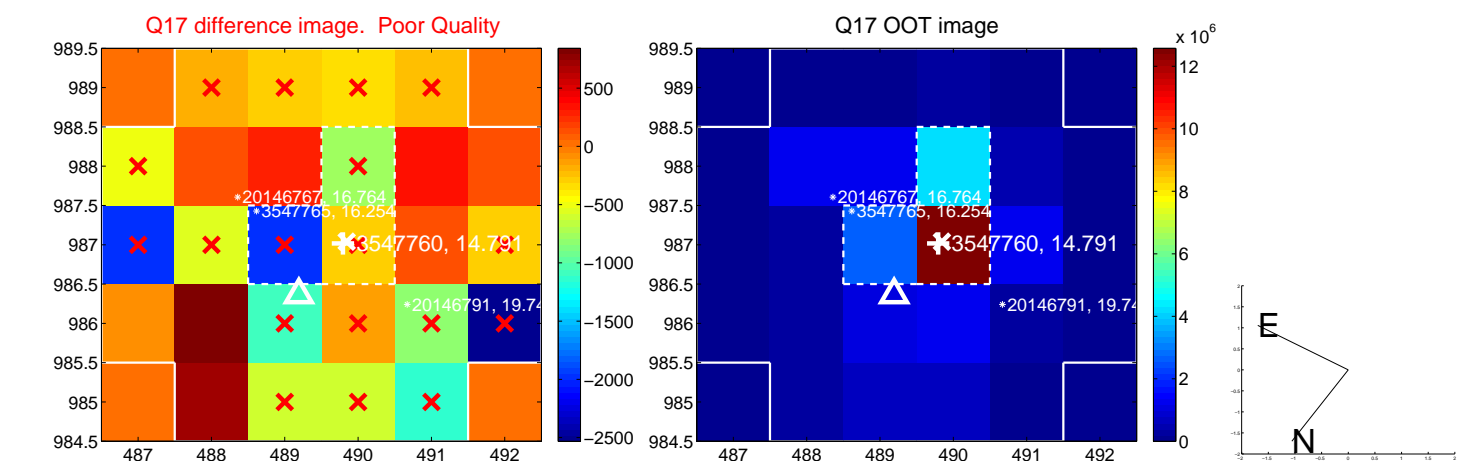
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

