

KIC 011968513

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})
011968513-01	OBS	3587.01	1.036513	132.125159	56002.6	1.848	5147.9	682.1	8.75	4884	337.95	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011968513-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_KIC_POS

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.

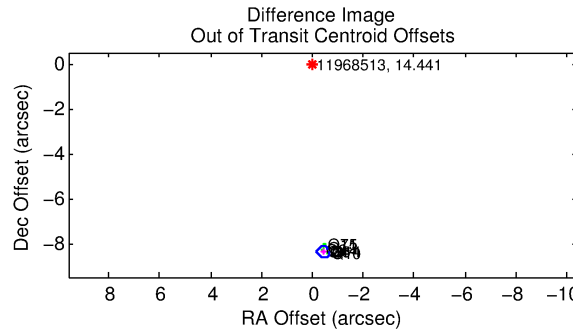
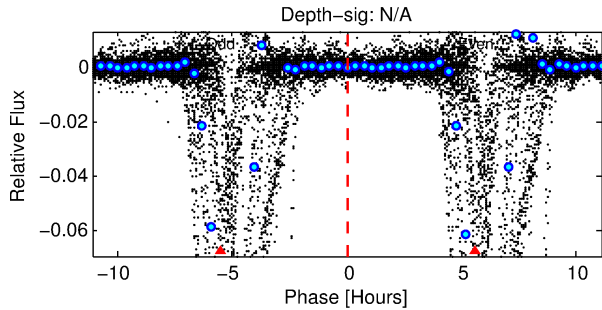
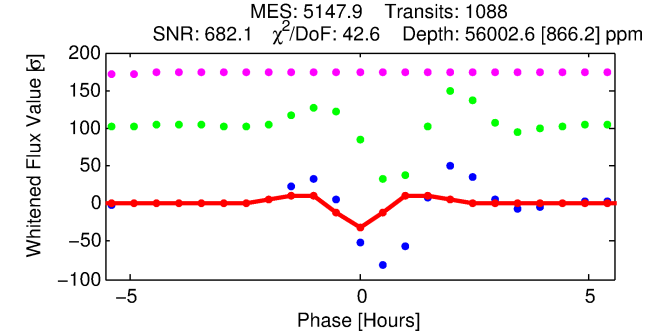
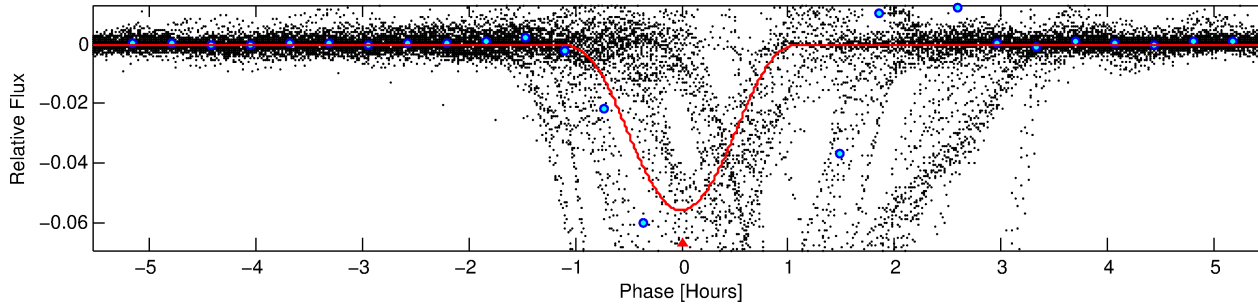
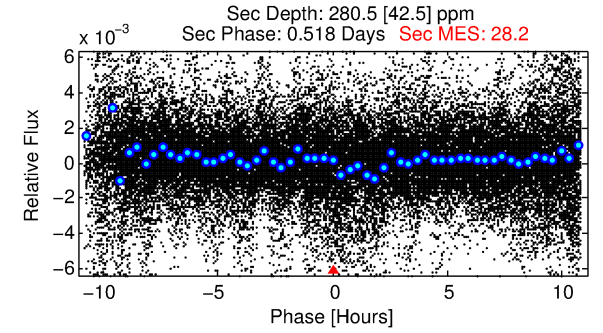
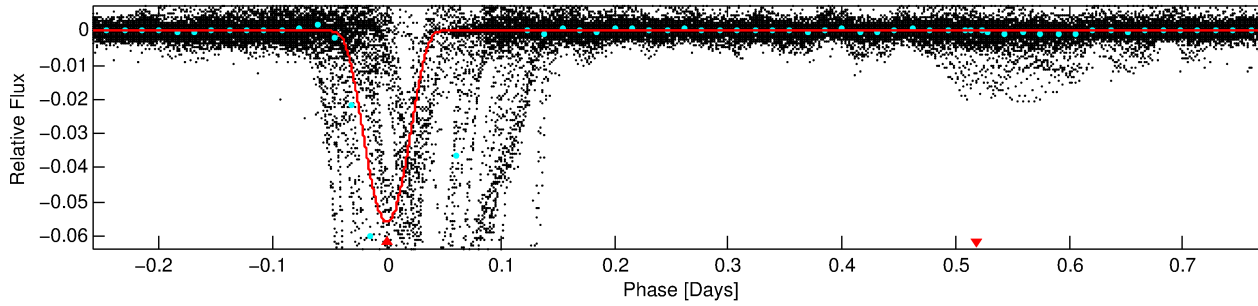
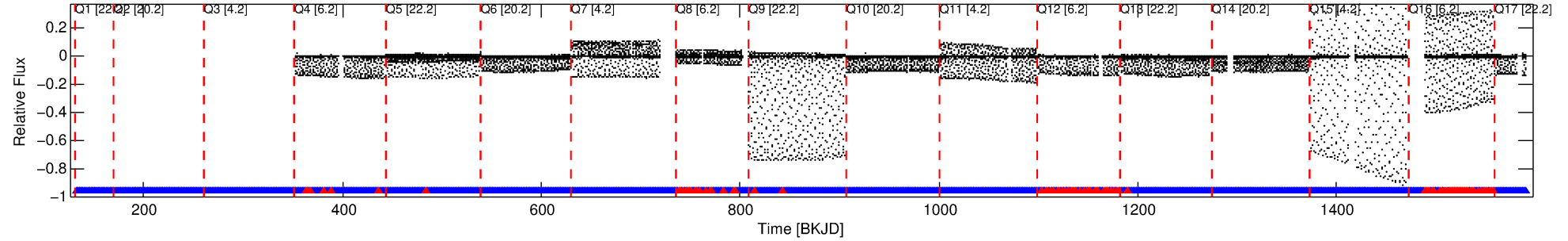
Ephemeris Match Information For 011968513-01

No Significant Match Found

DV One-Page Summary

KIC: 11968513 Candidate: 1 of 1 Period: 1.037 d
KOI: K03587 Corr: No Ephemeris Match

Kp: 14.44 R*: 8.75 Rs Teff: 4884.0 K Logg: 2.74 Fe/H: -0.280



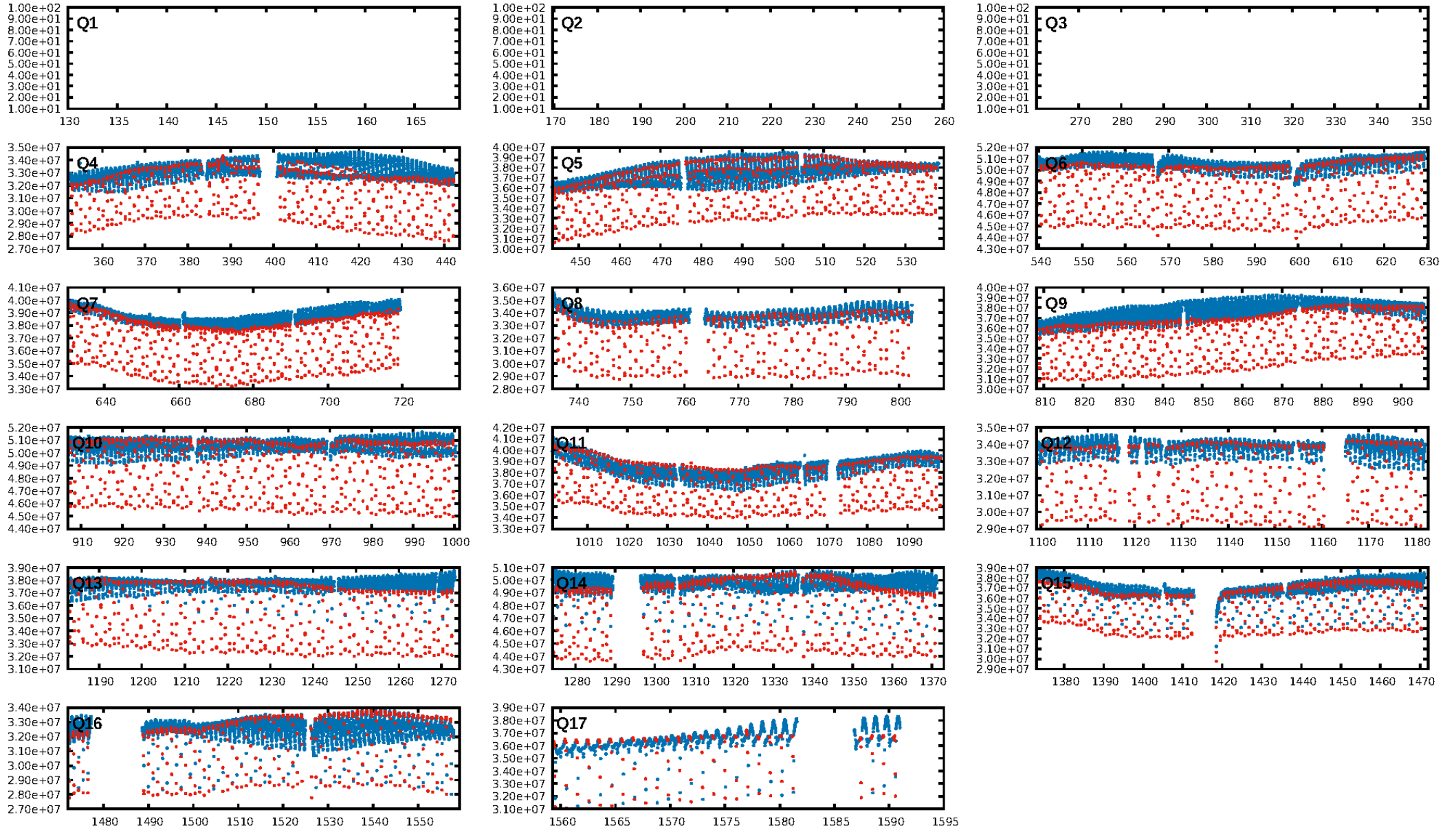
DV Fit Results:

Period = 1.03651 [0.00000] d
Epoch = 132.1252 [0.0001] BKJD
Rp/R* = 0.3541 [0.2600]
a/R* = 4.25 [0.06]
b = 0.96 [0.37]
Seff = N/A
Teq = N/A
Rp = 337.96 [263.07] Re
a = N/A
Ag = N/A
Teffp = N/A

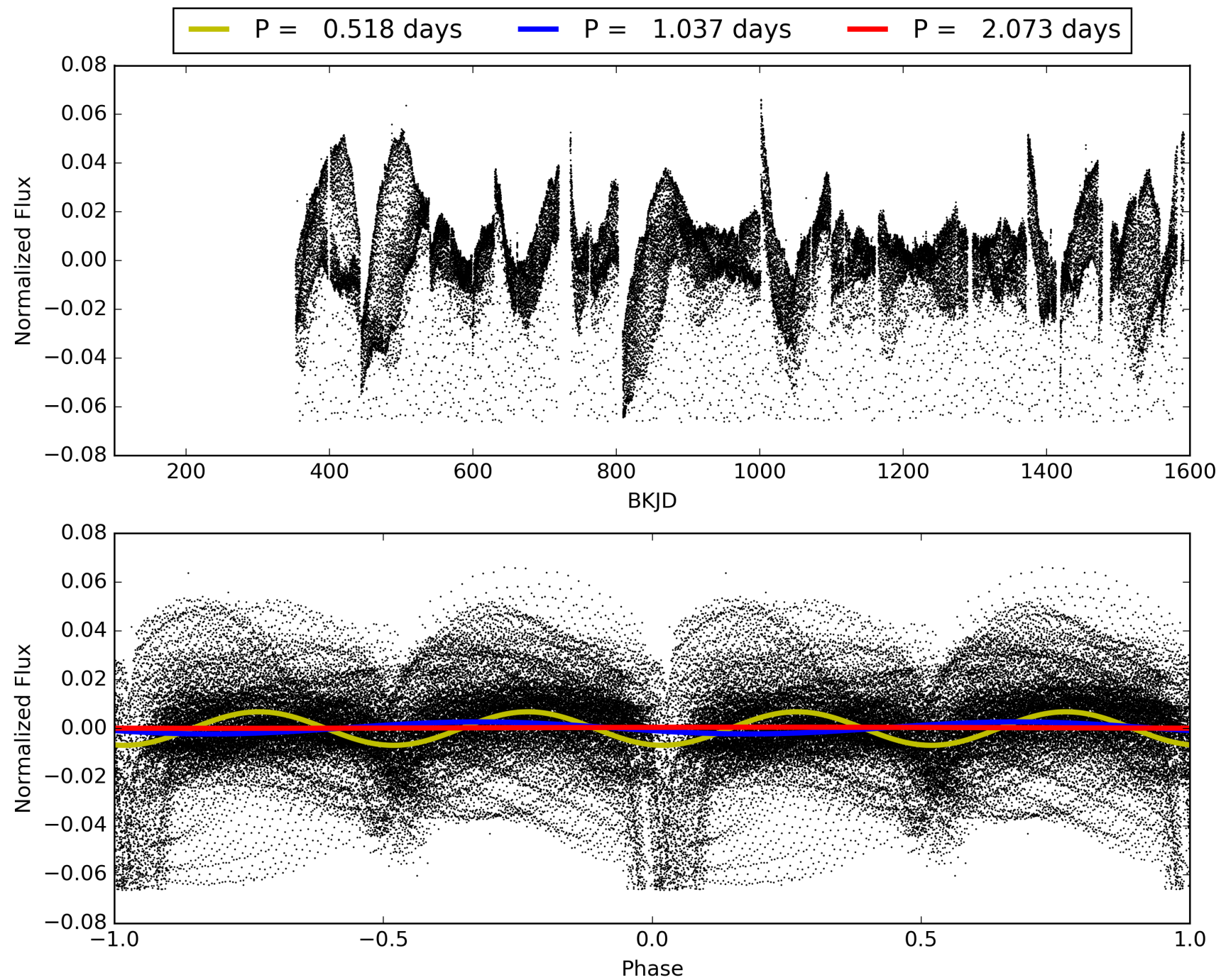
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.90 [956/1062]
GhostDiagnostic-chr: 22.69
Centroid-sig: N/A
Centroid-so: 2.490 arcsec [1704.98σ]
OotOffset-rm: 8.404 arcsec [104.01σ]
KicOffset-rm: 0.094 arcsec [1.40σ]
OotOffset-st: 3/3/3/1 [10]
KicOffset-st: 3/3/3/4 [13]
DiffImageQuality-fgm: 0.92 [12/13]
DiffImageOverlap-fno: 1.00 [14/14]

TCE 011968513-01, PDC Light Curves

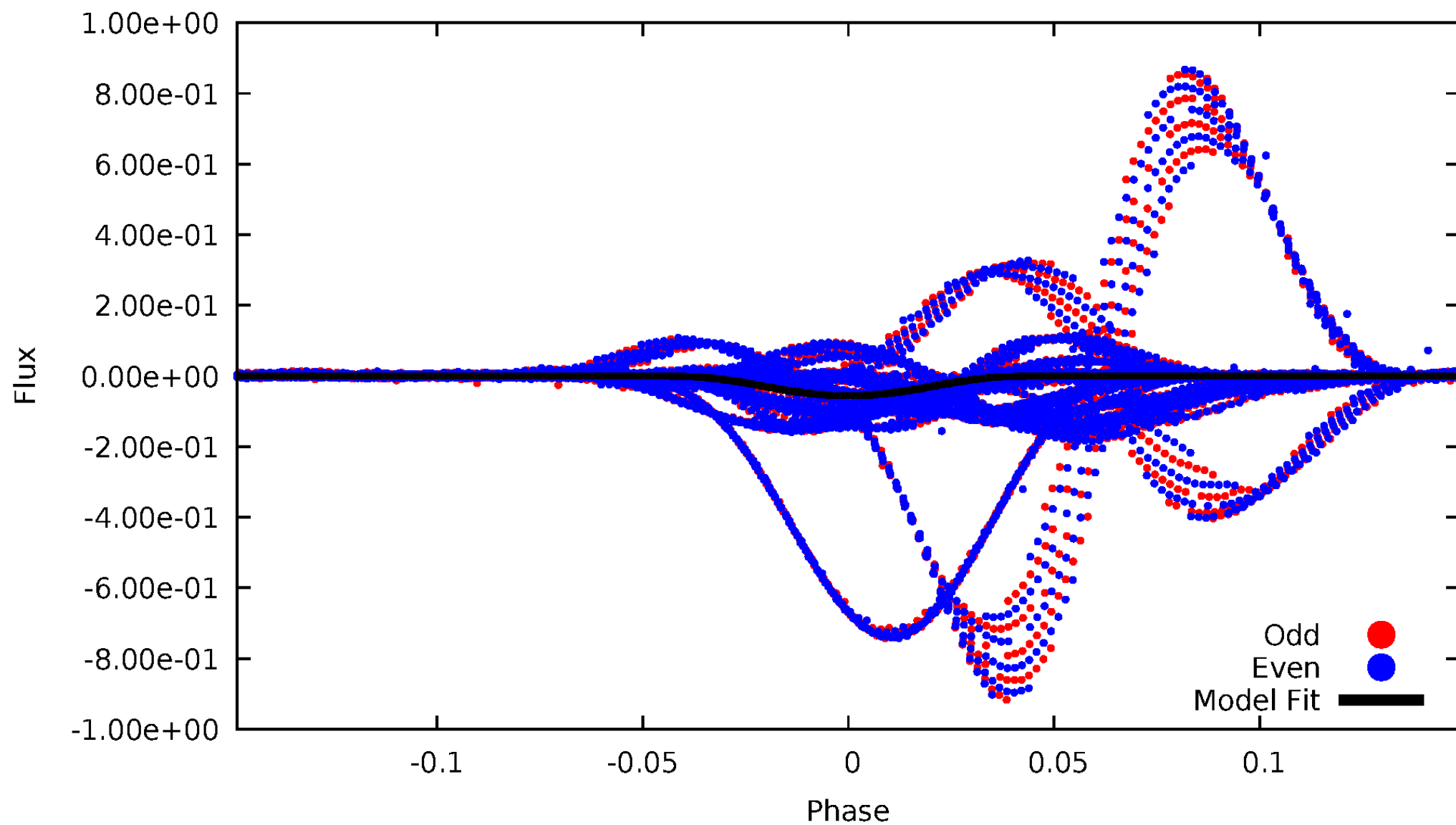


TCE 011968513-01



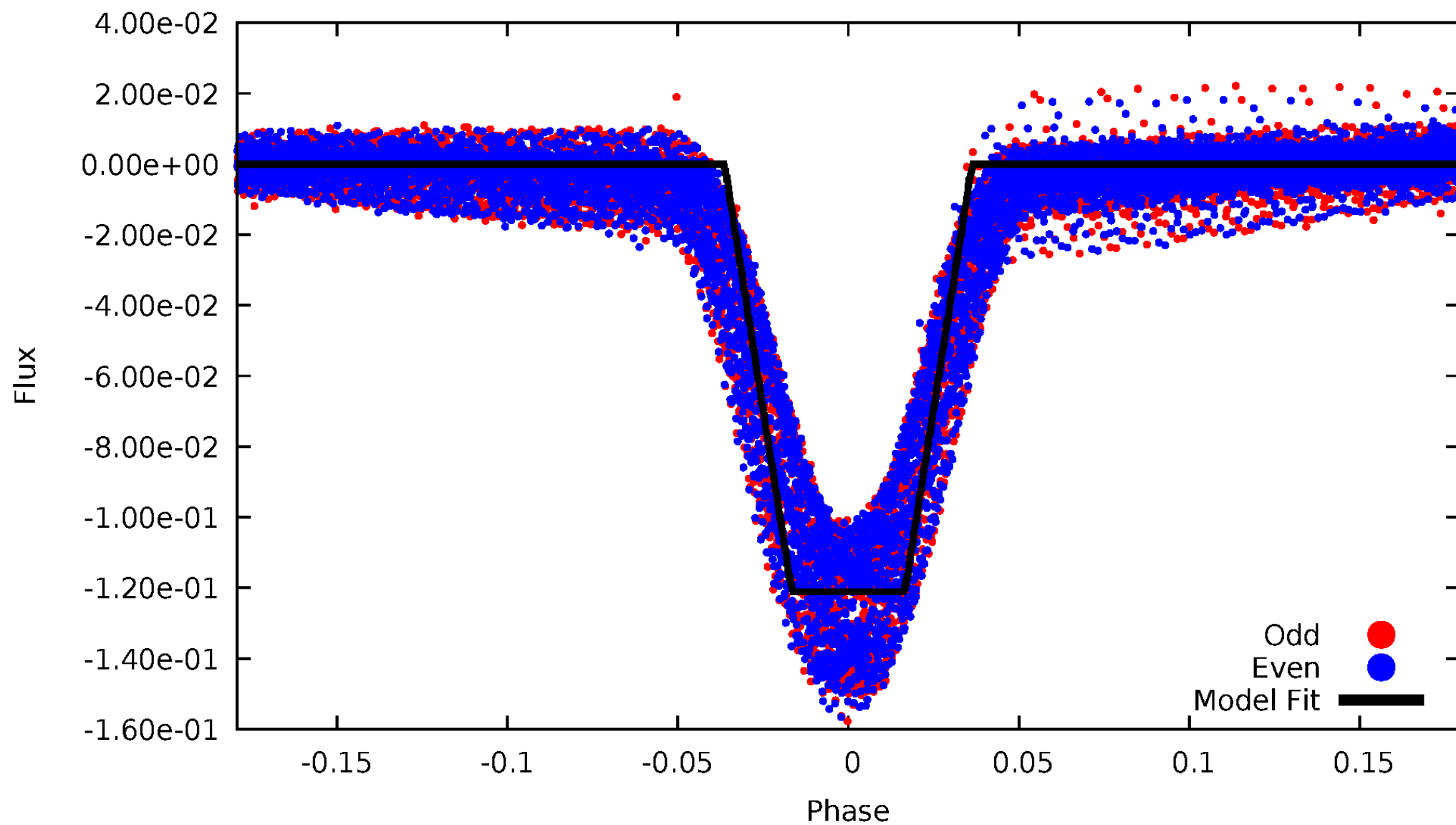
DV Odd/Even

TCE 011968513-01



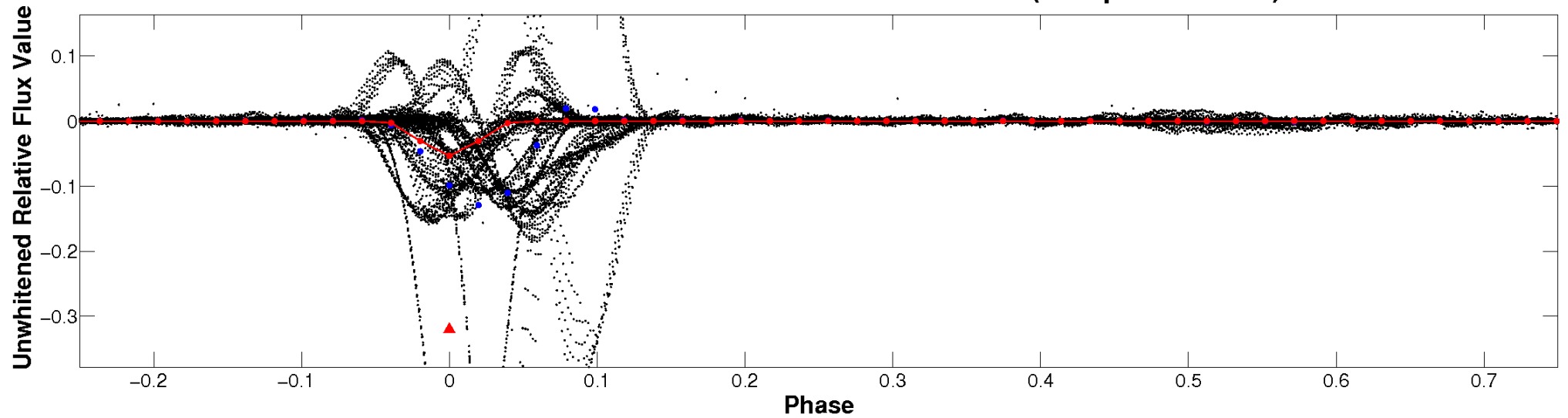
ALT Odd/Even

TCE 011968513-01

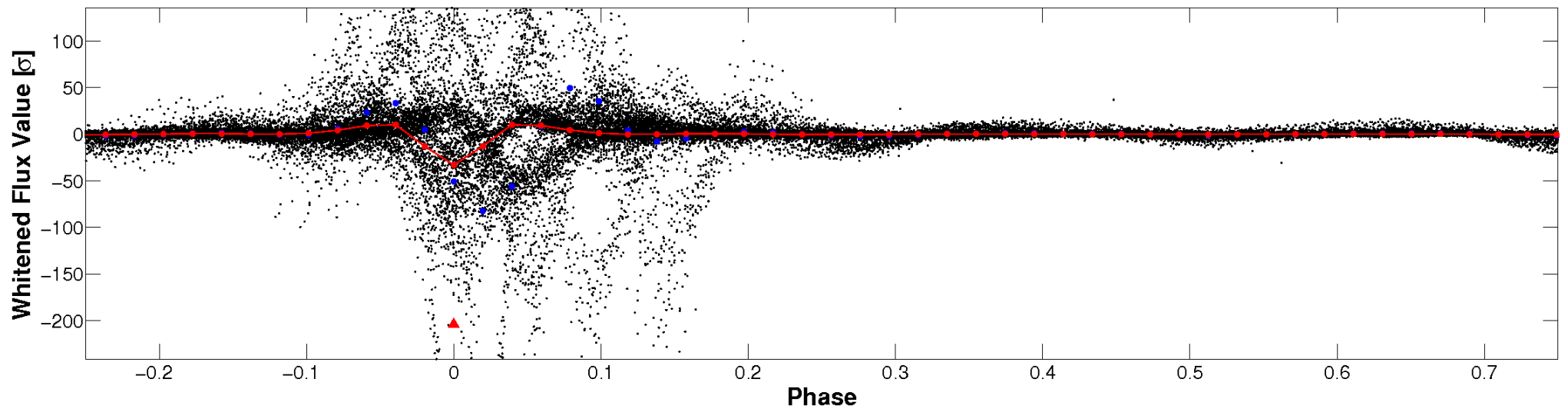


Non-Whitened Vs. Whitened Light Curve

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

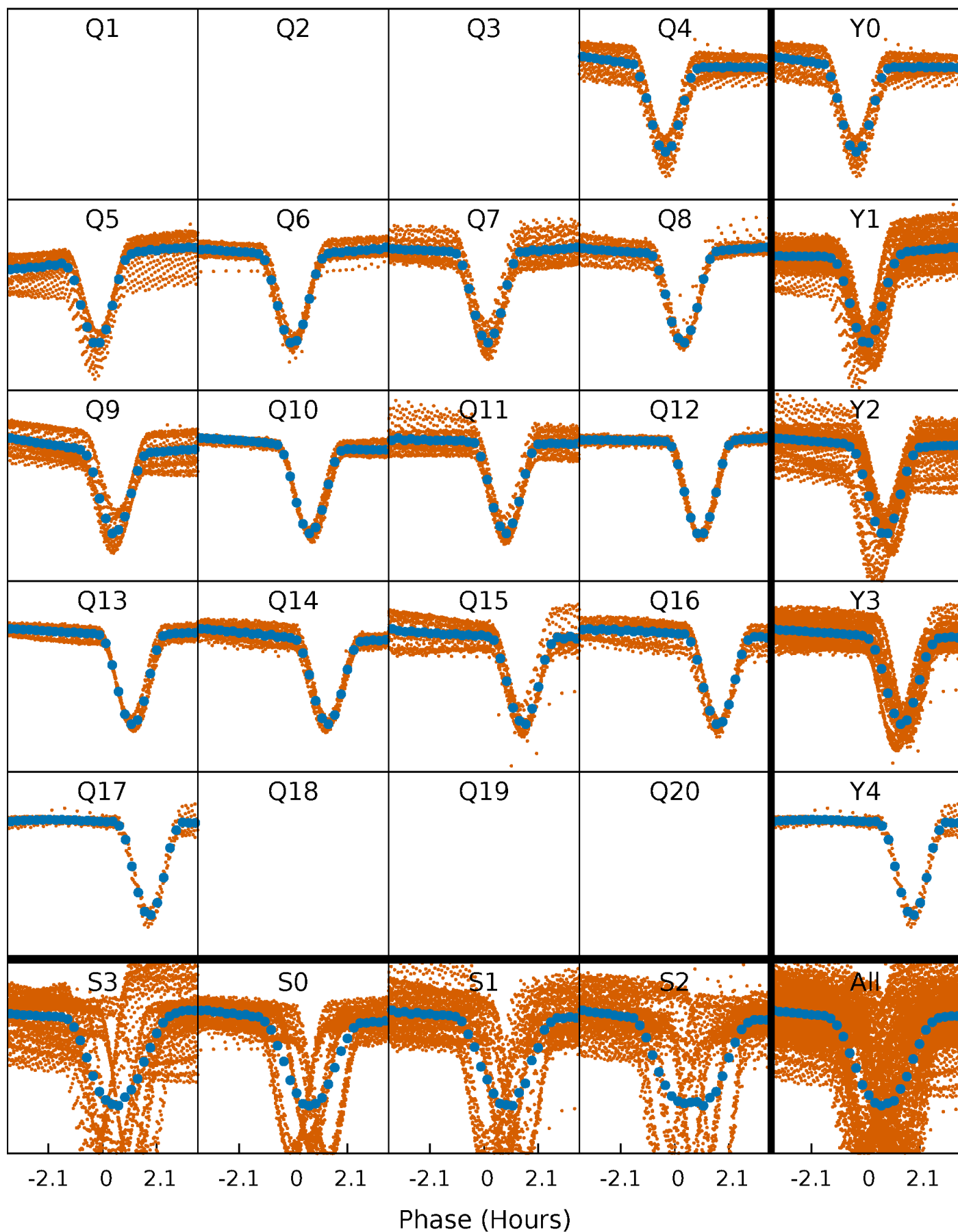


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



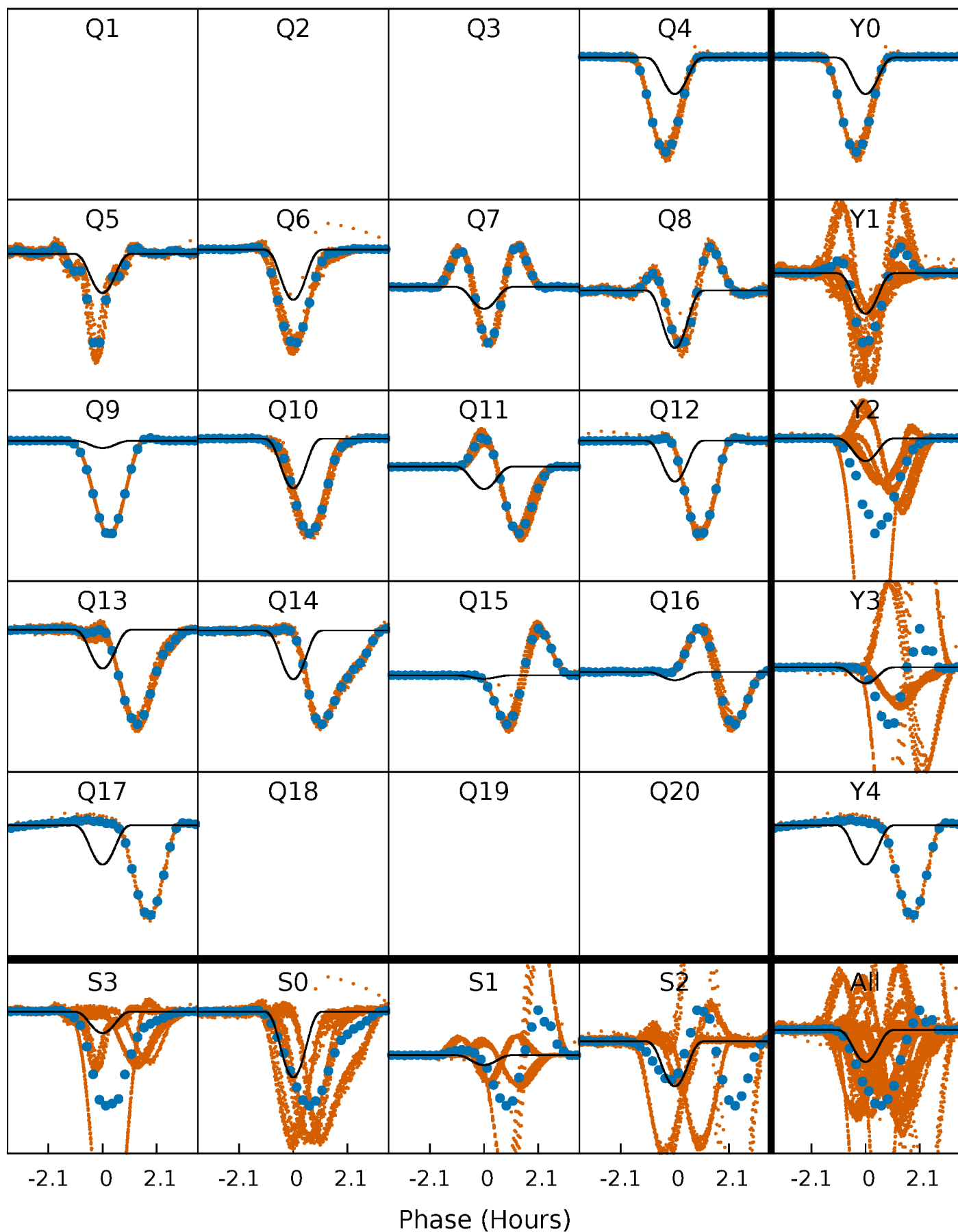
PDC Quarter-Phased Transit Curves

TCE 011968513-01 P= 1.036513 Days $T_0=132.125159$ (BKJD)



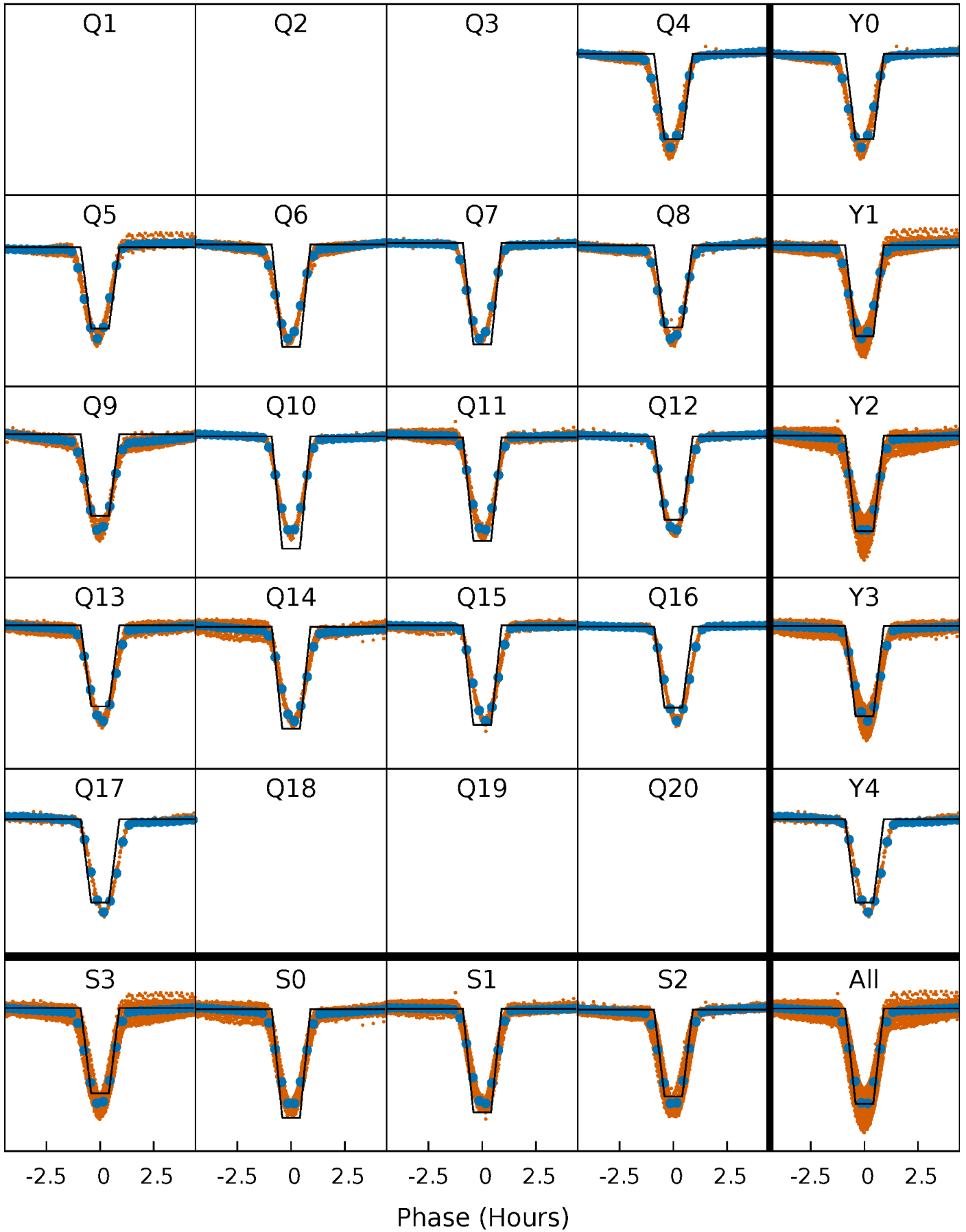
DV Quarter-Phased Transit Curves

TCE 011968513-01 P= 1.036513 Days $T_0=132.125159$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

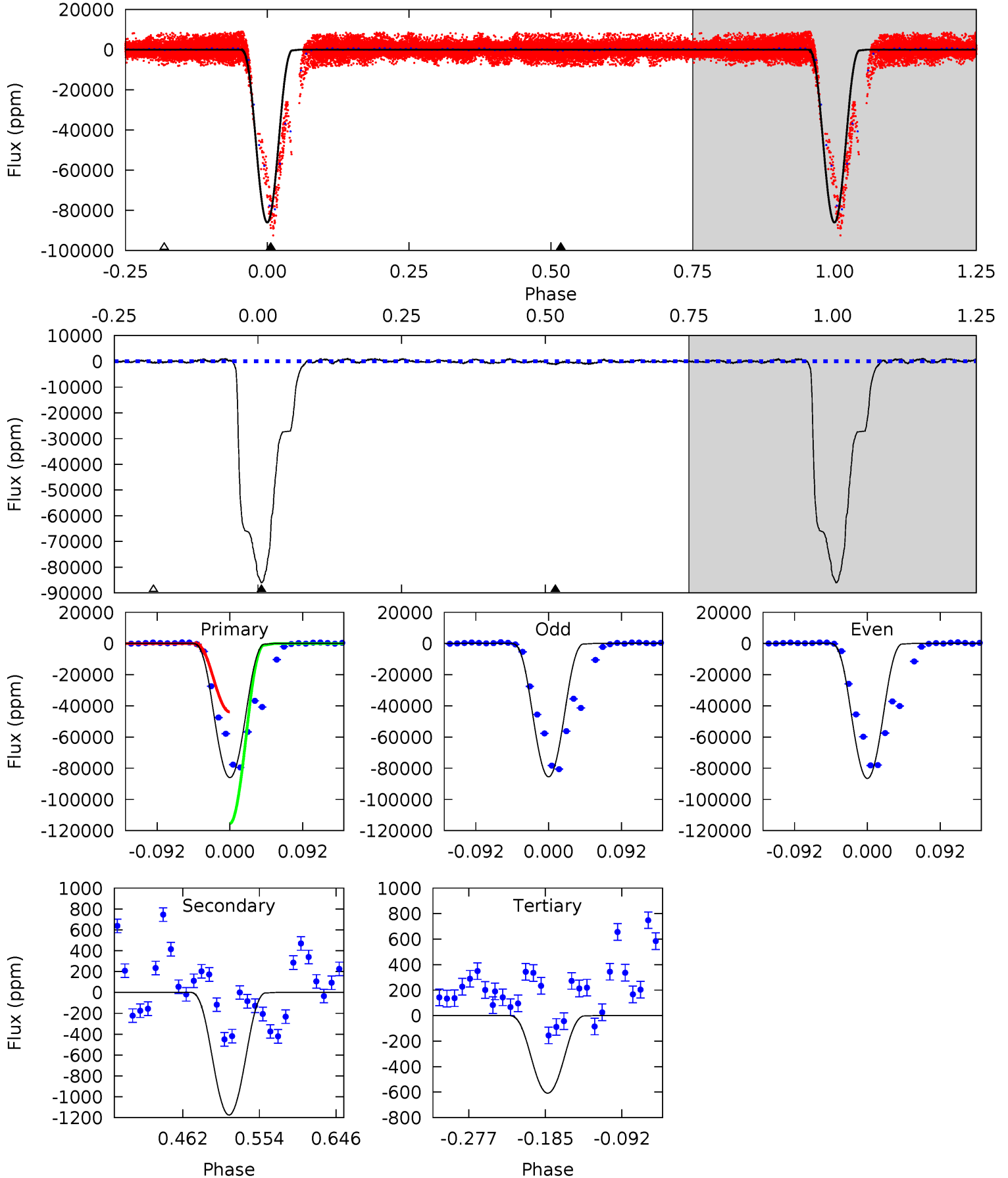
TCE 011968513-01 P= 1.036580 Days $T_0=132.098730$ (BKJD)



DV Model-Shift Uniqueness Test

011968513-01, P = 1.036513 Days, E = 132.125159 Days

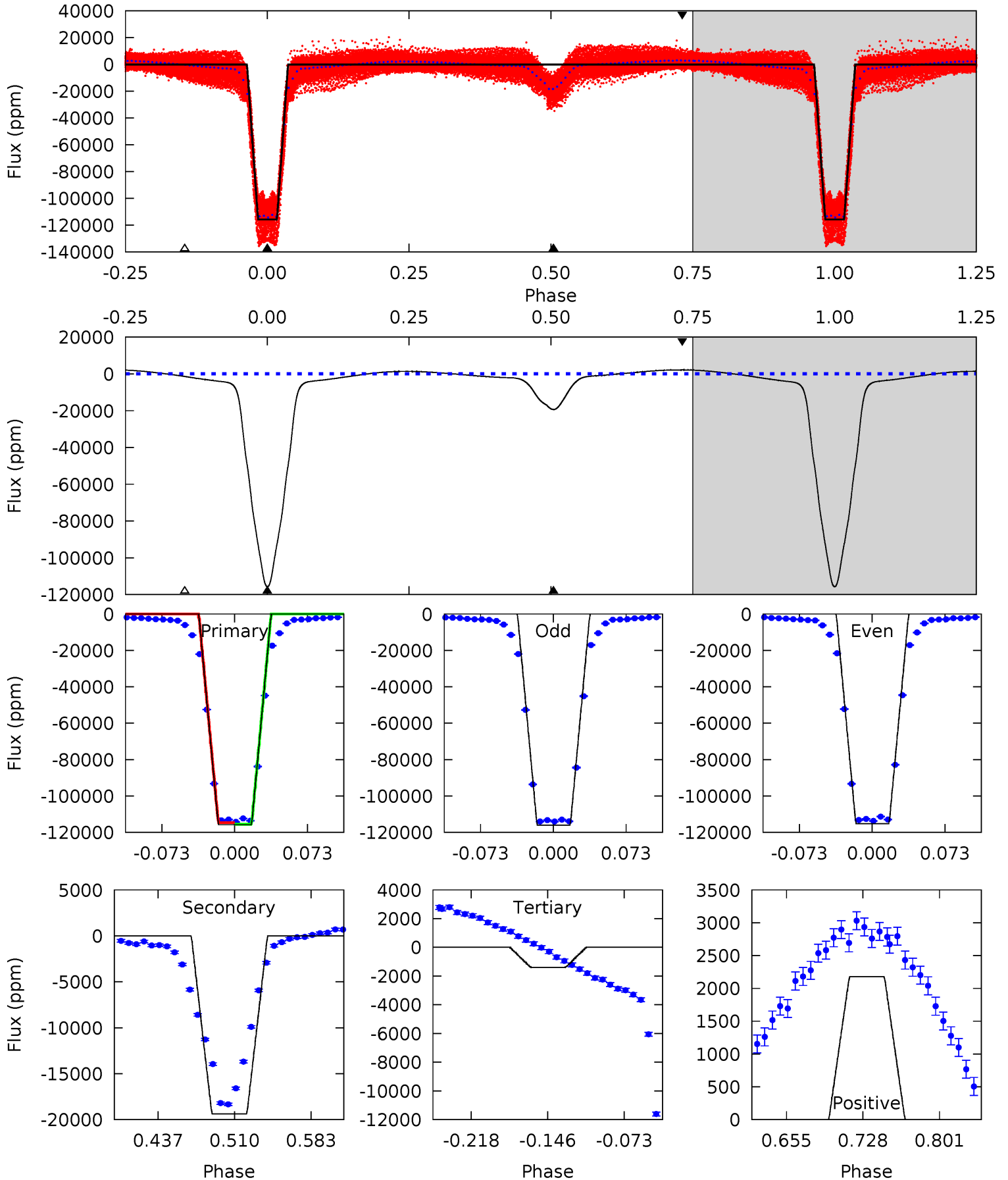
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1090	14.9	7.70	0	4.58	1.68	4.91	1082	1090	7.18	14.9	6.87	1.49	0.01	0



Alt Model-Shift Uniqueness Test

011968513-01, P = 1.036580 Days, E = 132.098730 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1390	232.7	16.7	26.2	4.63	1.79	21.0	1373	1363	216.0	206.6	4.64	1.03	0.02	5.84



Stellar Parameters For KIC 011968513

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4884^{+58}_{-72}	$2.737^{+0.162}_{-0.108}$	$-0.280^{+0.150}_{-0.150}$	$8.747^{+1.504}_{-2.256}$	$1.522^{+0.201}_{-0.470}$	$0.003^{+0.003}_{-0.001}$
	+1%/-1%	+6%/-4%	+54%/-54%	+17%/-26%	+13%/-31%	+90%/-31%
Source	SPE74	SPE74	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 011968513-01 / KOI 3587.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1175 ± 79	$364.17^{+232.29}_{-216.32}$	5846^{+277}_{-333}	-4774^{+266}_{-196}	$0.003^{+0.012}_{-0.002}$
Alt.	-19387 ± 83	$330.72^{+238.25}_{-182.68}$	5839^{+251}_{-354}	-4540^{+1161}_{-272}	$0.051^{+0.203}_{-0.033}$

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

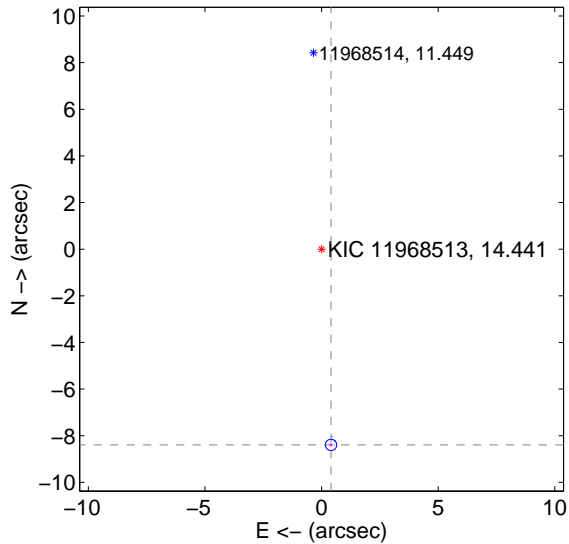
Supplemental centroid analysis for 011968513-01. Kepler magnitude: 14.44. Transit SNR 682.13

There are 12 quarters with good PRF difference image offsets

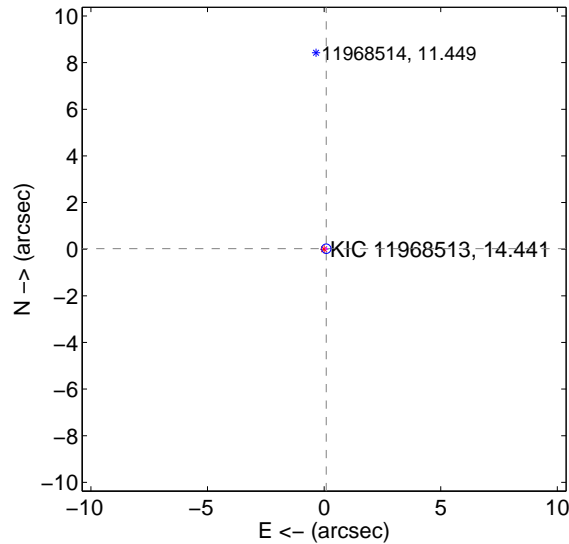
The OOT PRF centroid is offset from the target star catalog position by about 8.06 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.404 ± 0.081	104.01	-0.406 ± 0.070	-8.394 ± 0.080
PRF-fit source offset from KIC position	0.094 ± 0.068	1.40	-0.092 ± 0.067	0.020 ± 0.070
photometric centroid source offset	2.49 ± 0.00	1704.98	0.60 ± 0.00	2.42 ± 0.00

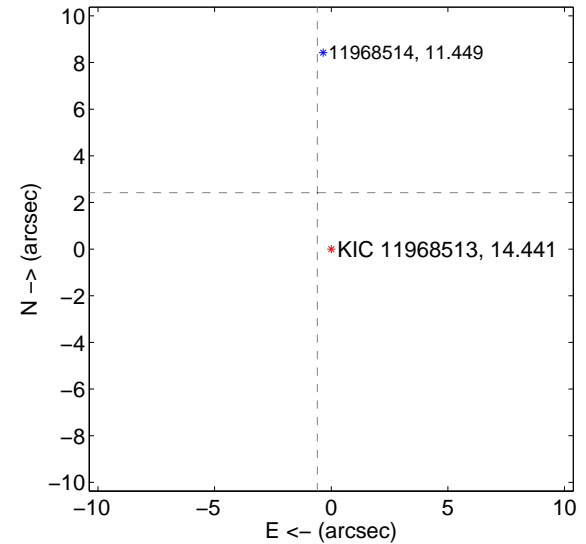
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

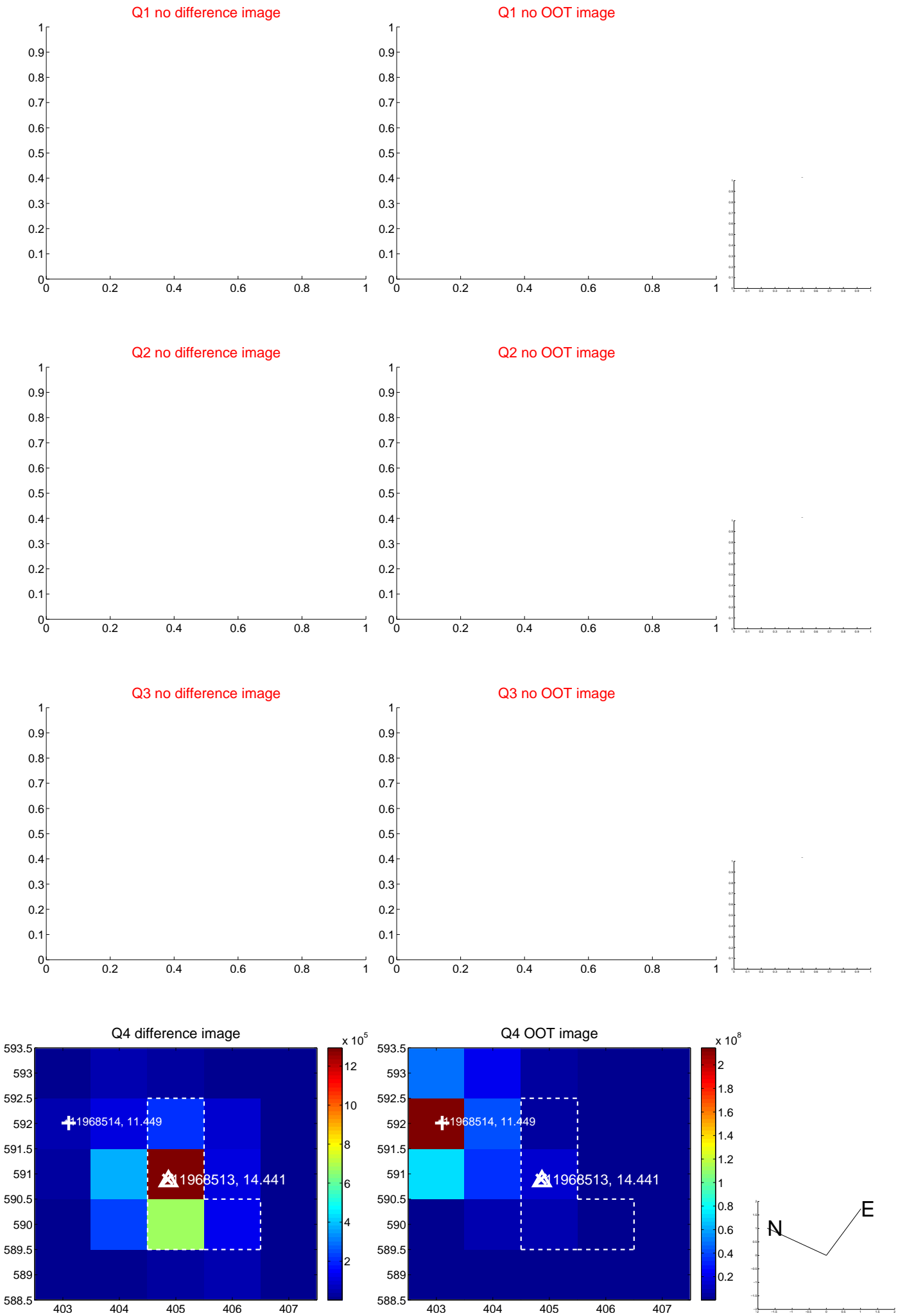


offset from photometric centroids

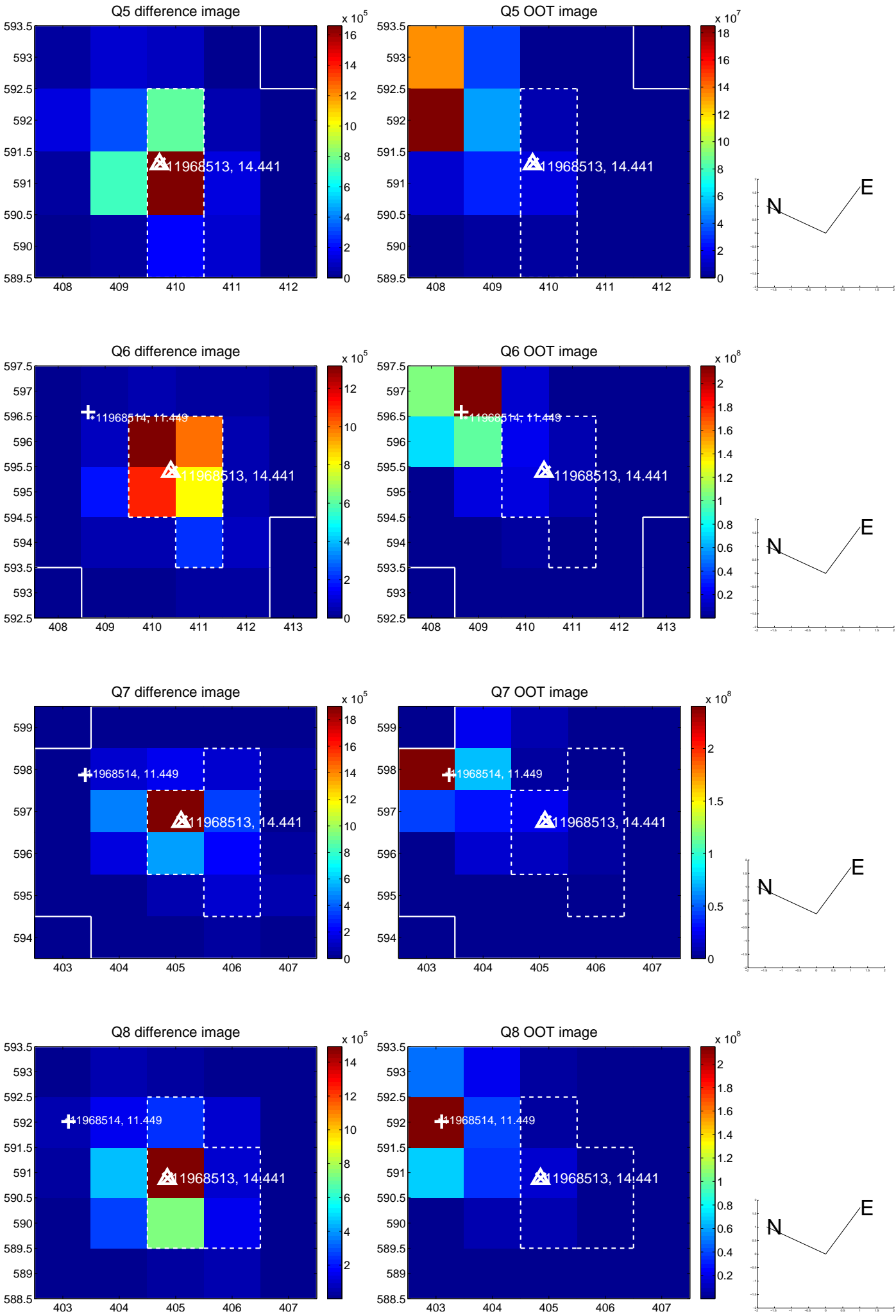


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

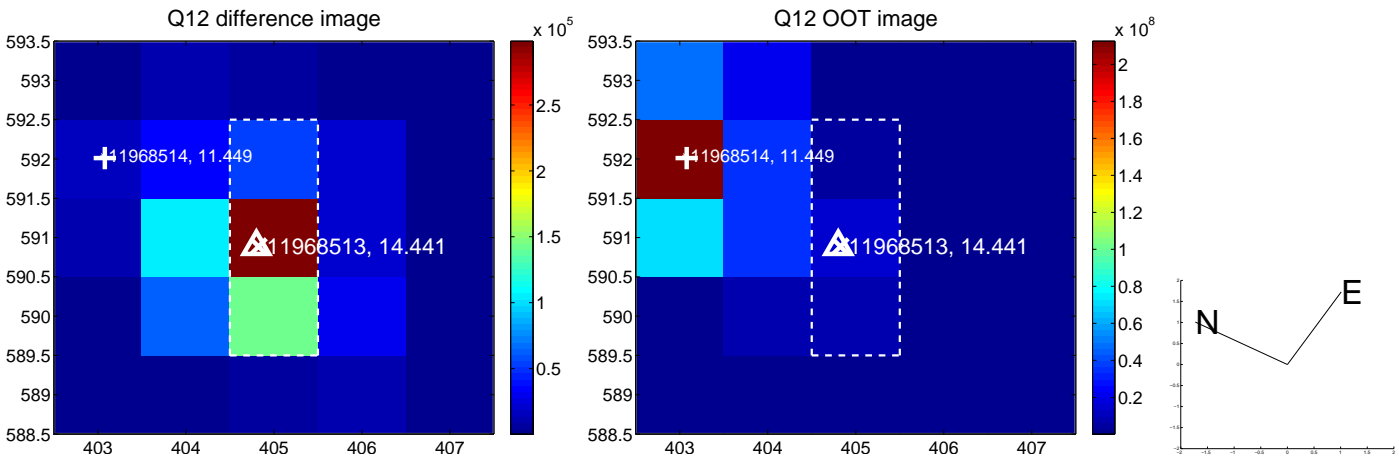
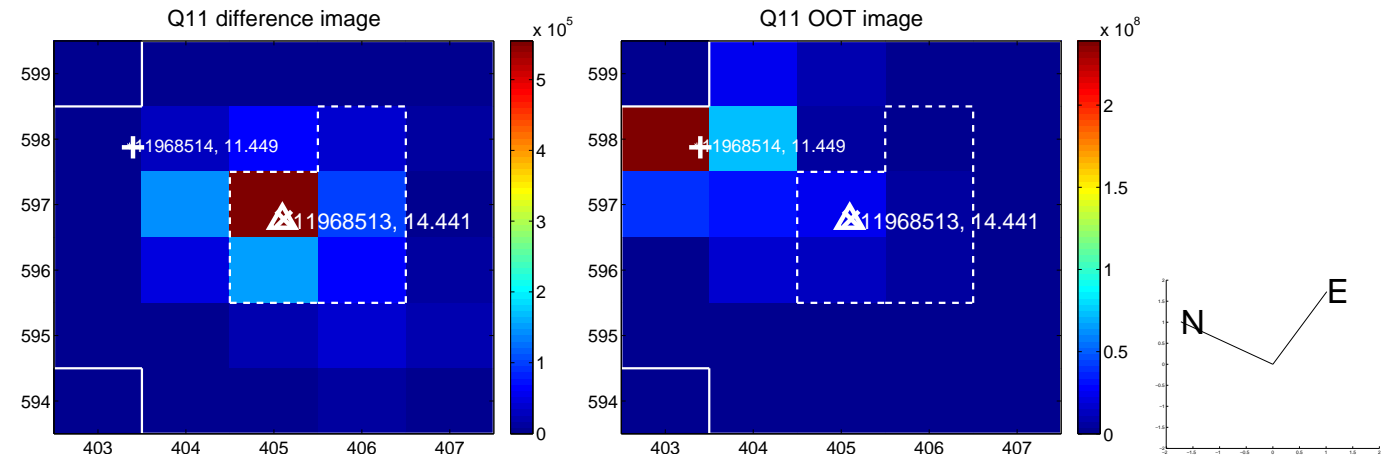
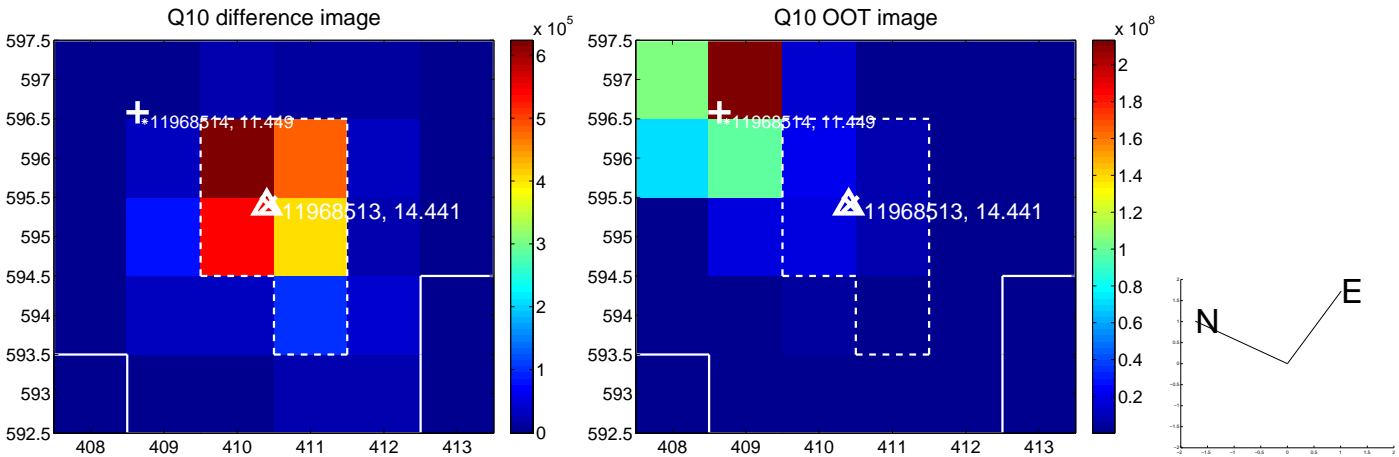
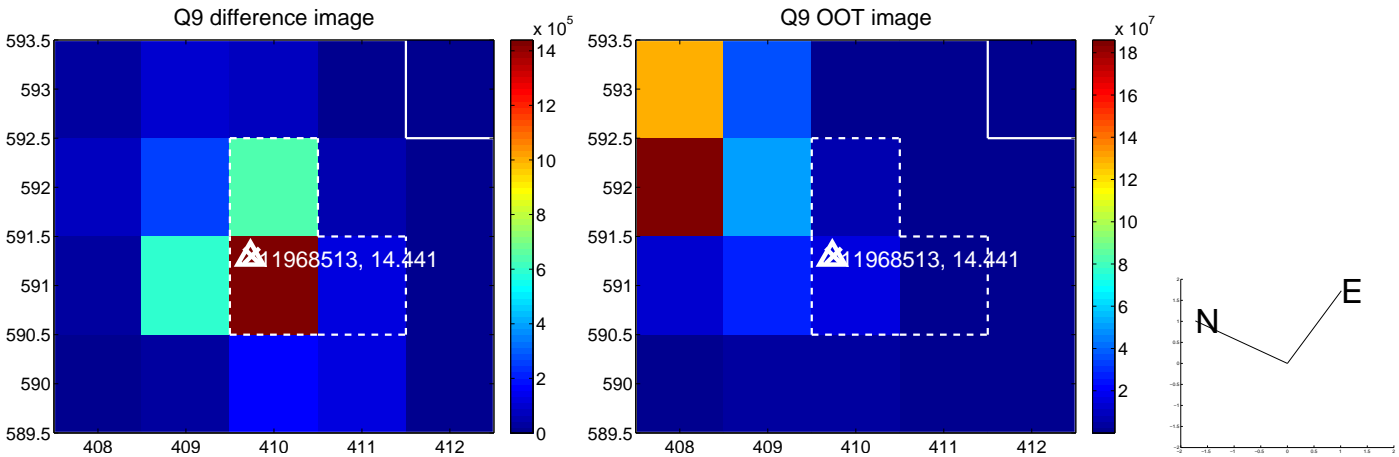
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



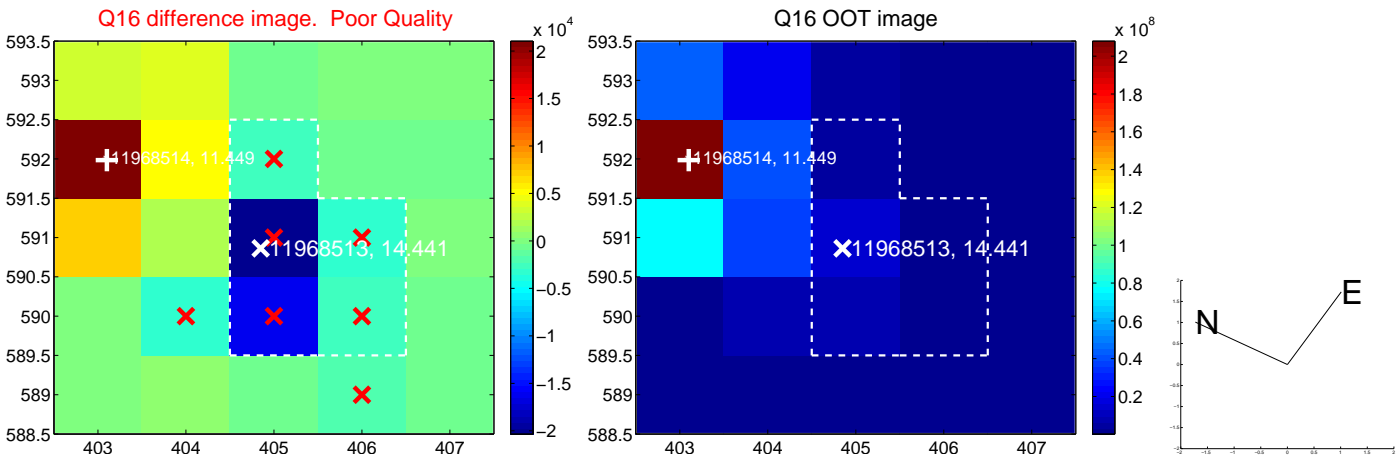
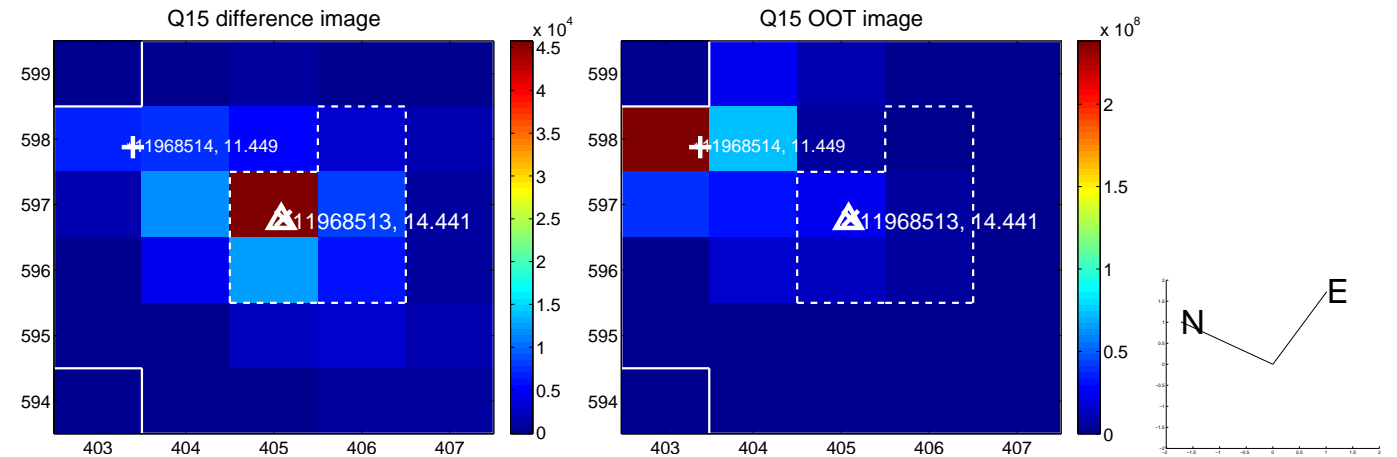
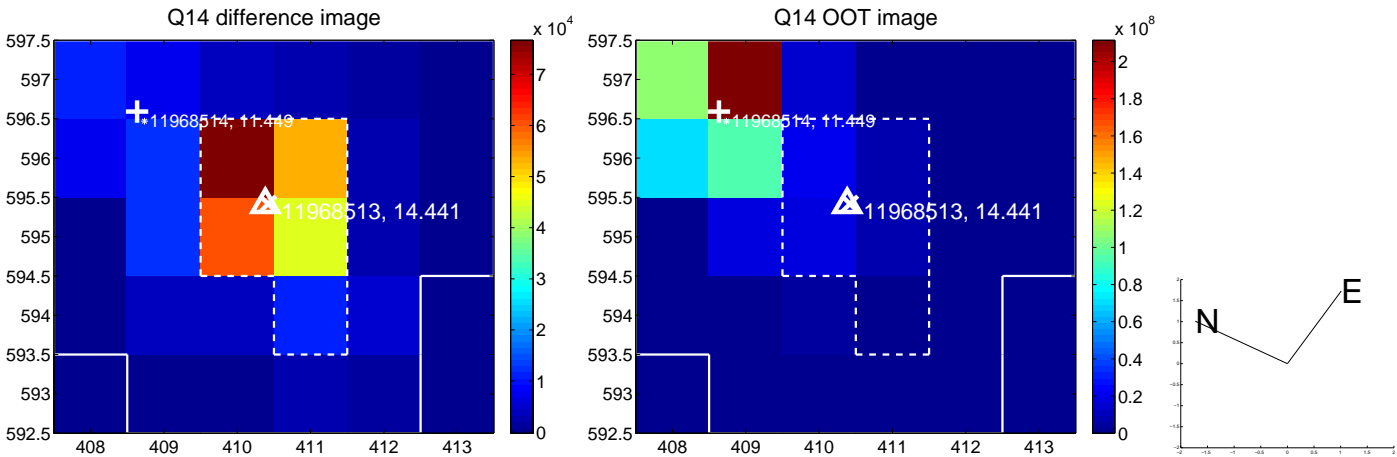
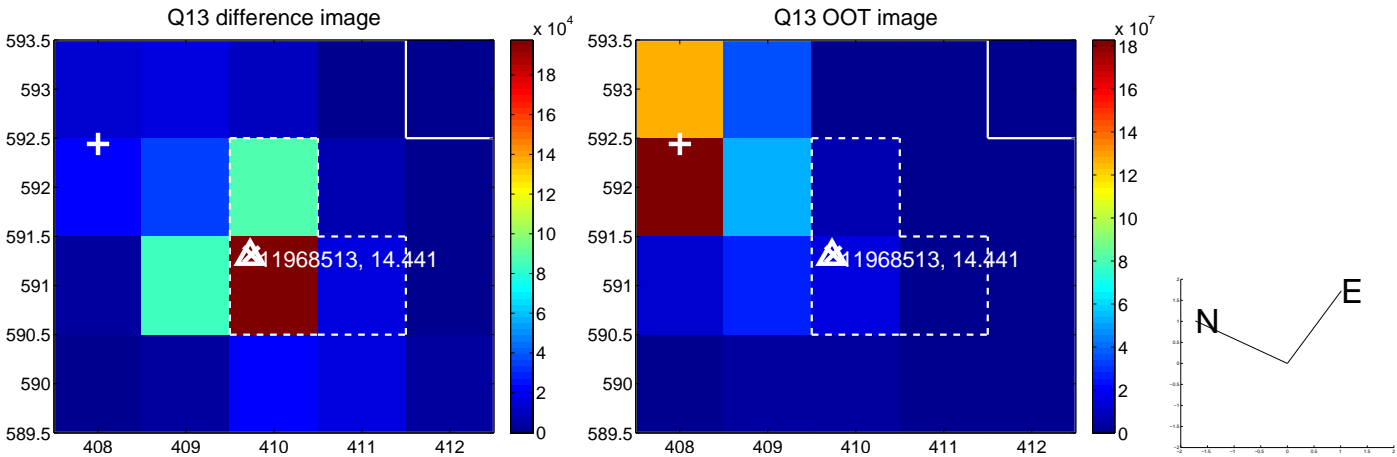
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



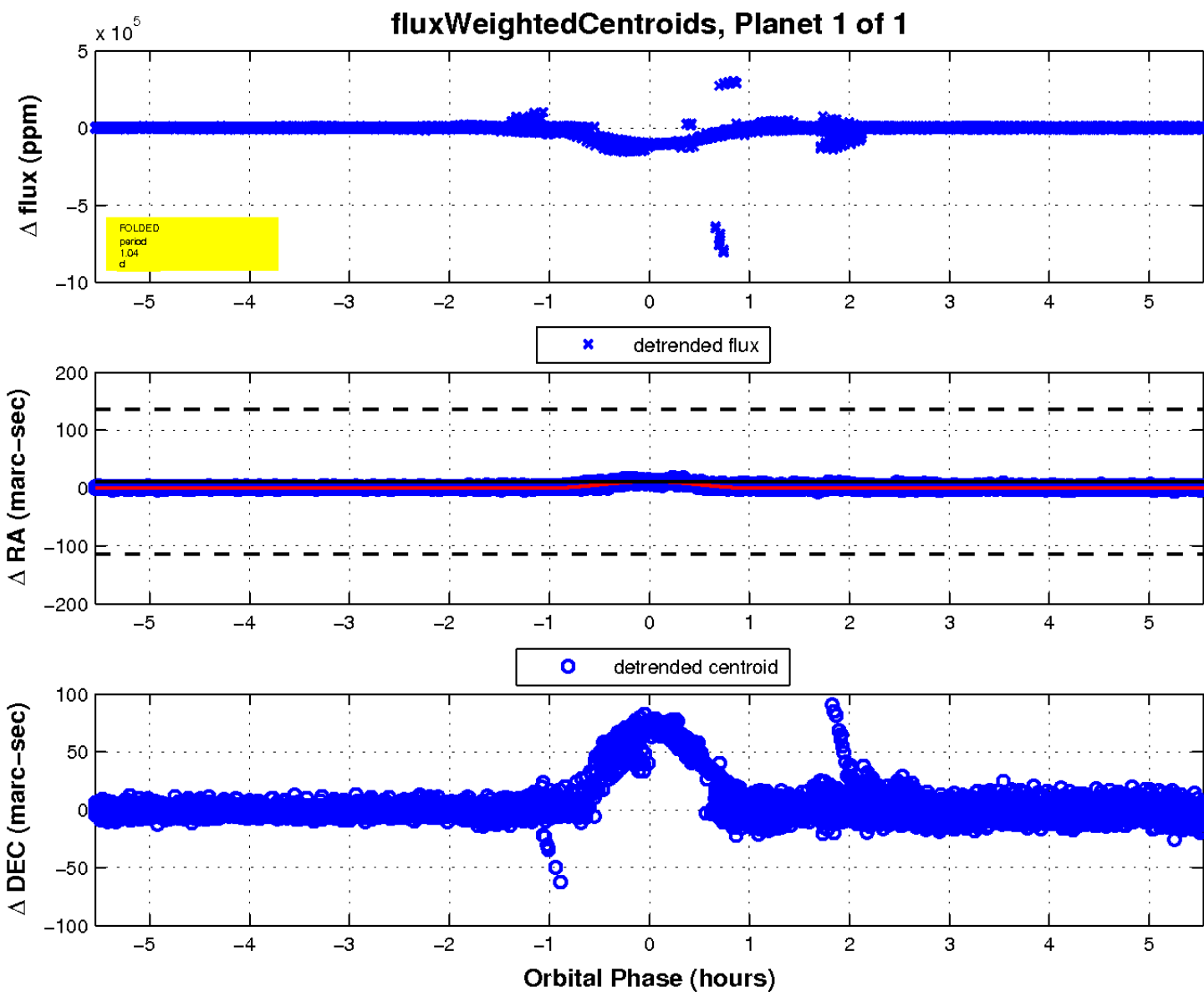
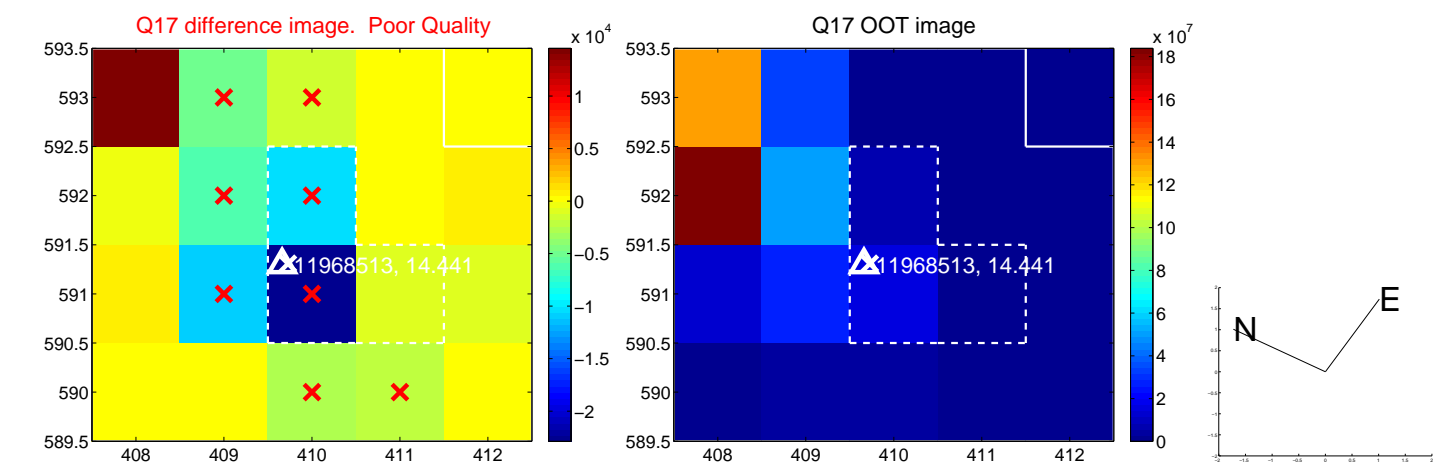
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

