

KIC 011968514

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})
011968514-01	OBS	5947.01	1.036566	132.104484	155.4	1.489	85.5	34.8	8.75	4884	13.74	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011968514-01	OBS	FP	0.00	0	1	1	1	PLANET_IN_STAR—MOD_SEC_ALT—MOD_ODDEVEN_ALT—CENT_SATURATED—HALO_GHOST—EPHEM_MATCH

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 011968514-01

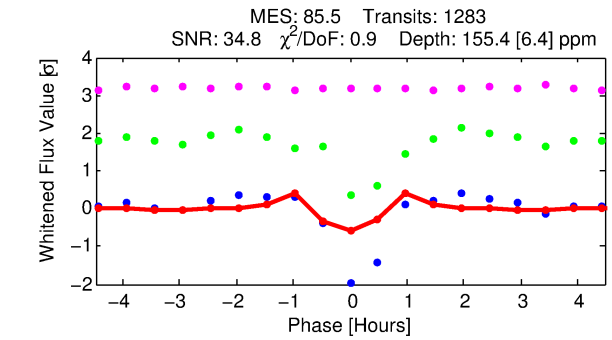
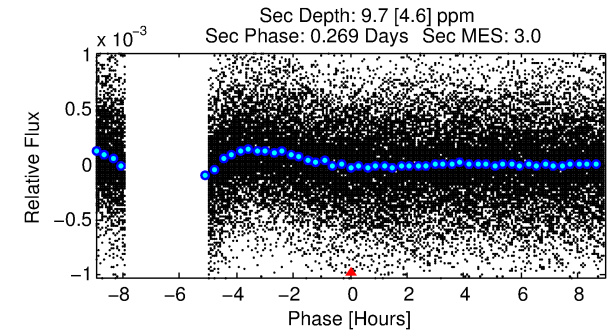
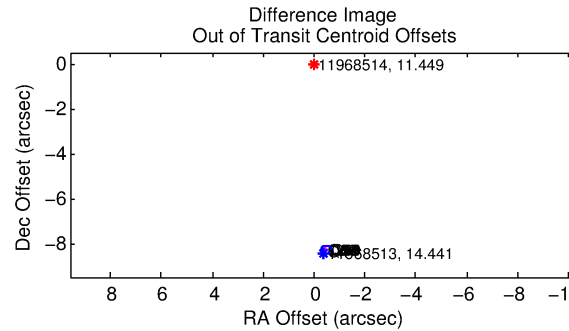
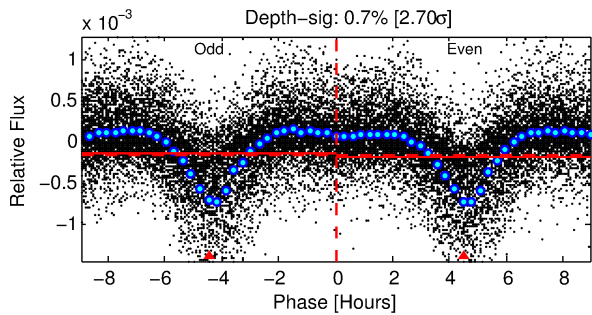
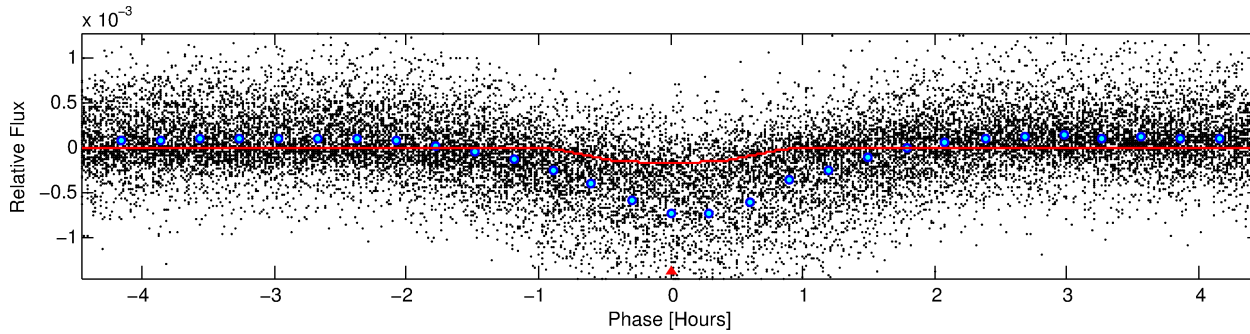
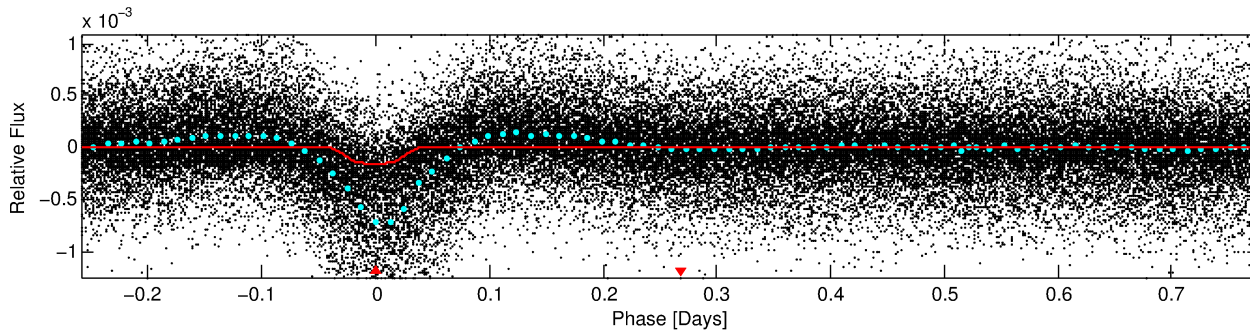
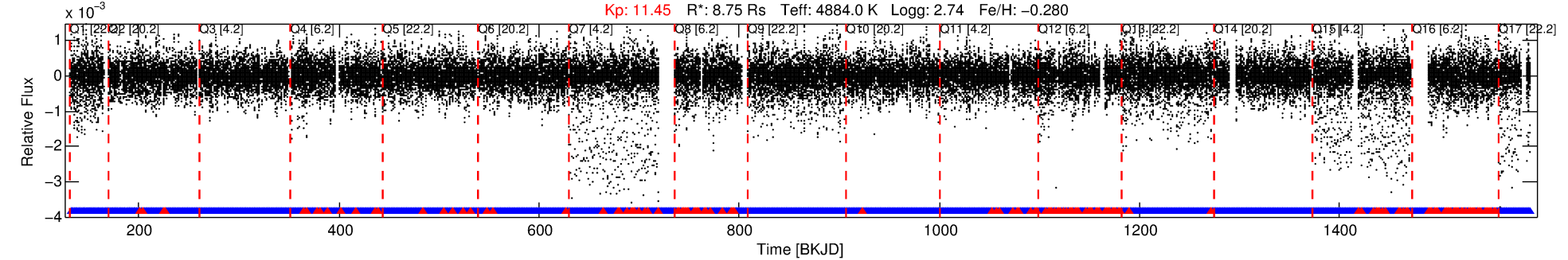
TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
011968514-01	11968514	3587.01	11968513	1:1	8.4	1	-2	14.44	11.45	856.65	Direct-PRF	0	2.35	1.11

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 11968514 Candidate: 1 of 1 Period: 1.037 d
KOI: K05947.01 Corr: 0.797

Kp: 11.45 R*: 8.75 Rs Teff: 4884.0 K Logg: 2.74 Fe/H: -0.280



DV Fit Results:

Period = 1.03657 [0.00000] d
Epoch = 132.1045 [0.0004] BKJD
Rp/R* = 0.0144 [0.0017]
a/R* = 2.42 [0.94]
b = 0.92 [0.08]
Seff = N/A
Teq = N/A
Rp = 13.74 [3.89] Re
a = N/A
Ag = N/A
Teff = N/A

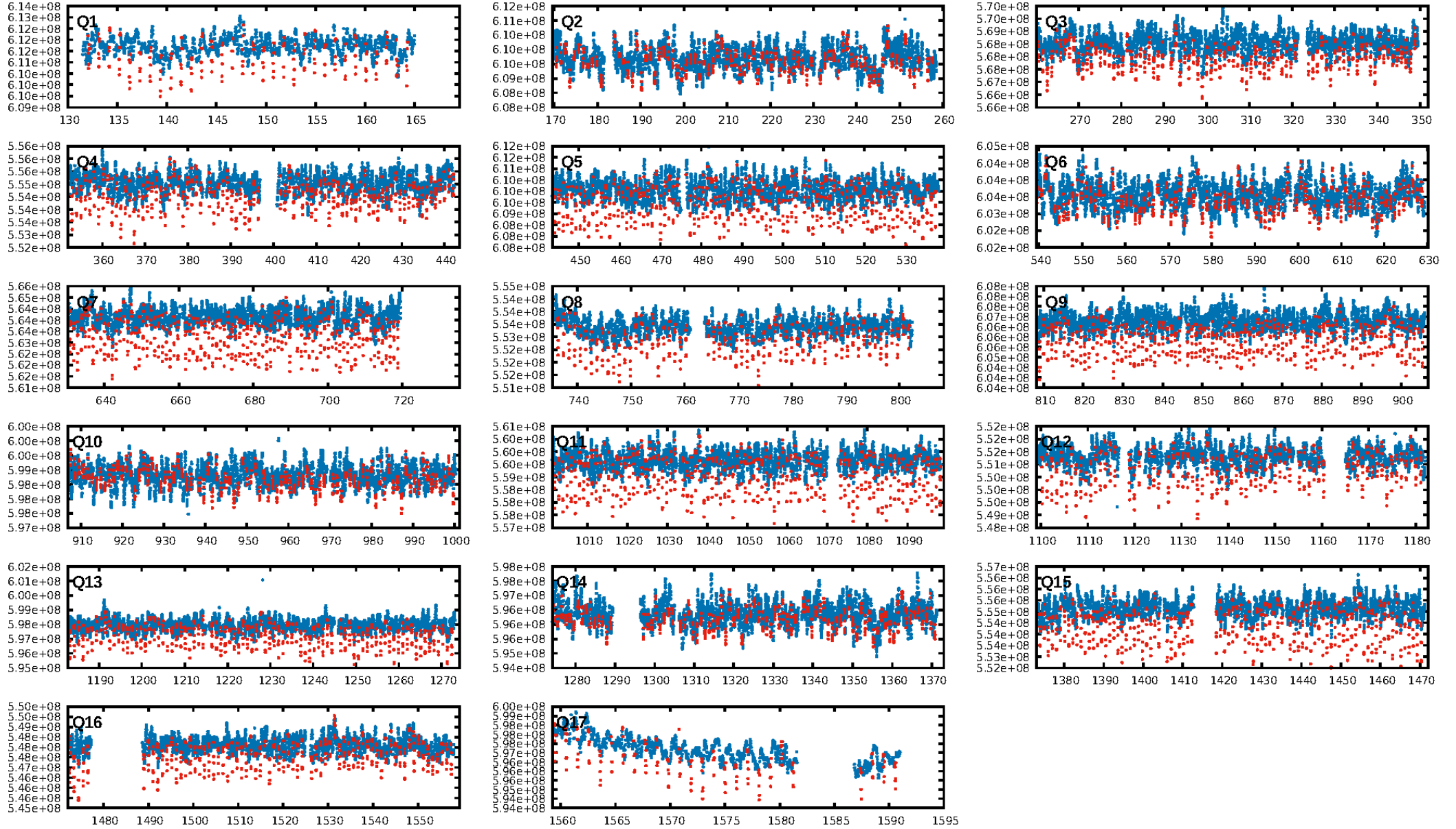
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.87 [1069/1225]
GhostDiagnostic-chr: -0.005275
Centroid-sig: 0.0%
Centroid-so: 292.200 arcsec [1189.26σ]
OotOffset-rm: 8.304 arcsec [123.99σ]
KicOffset-rm: 8.390 arcsec [124.25σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

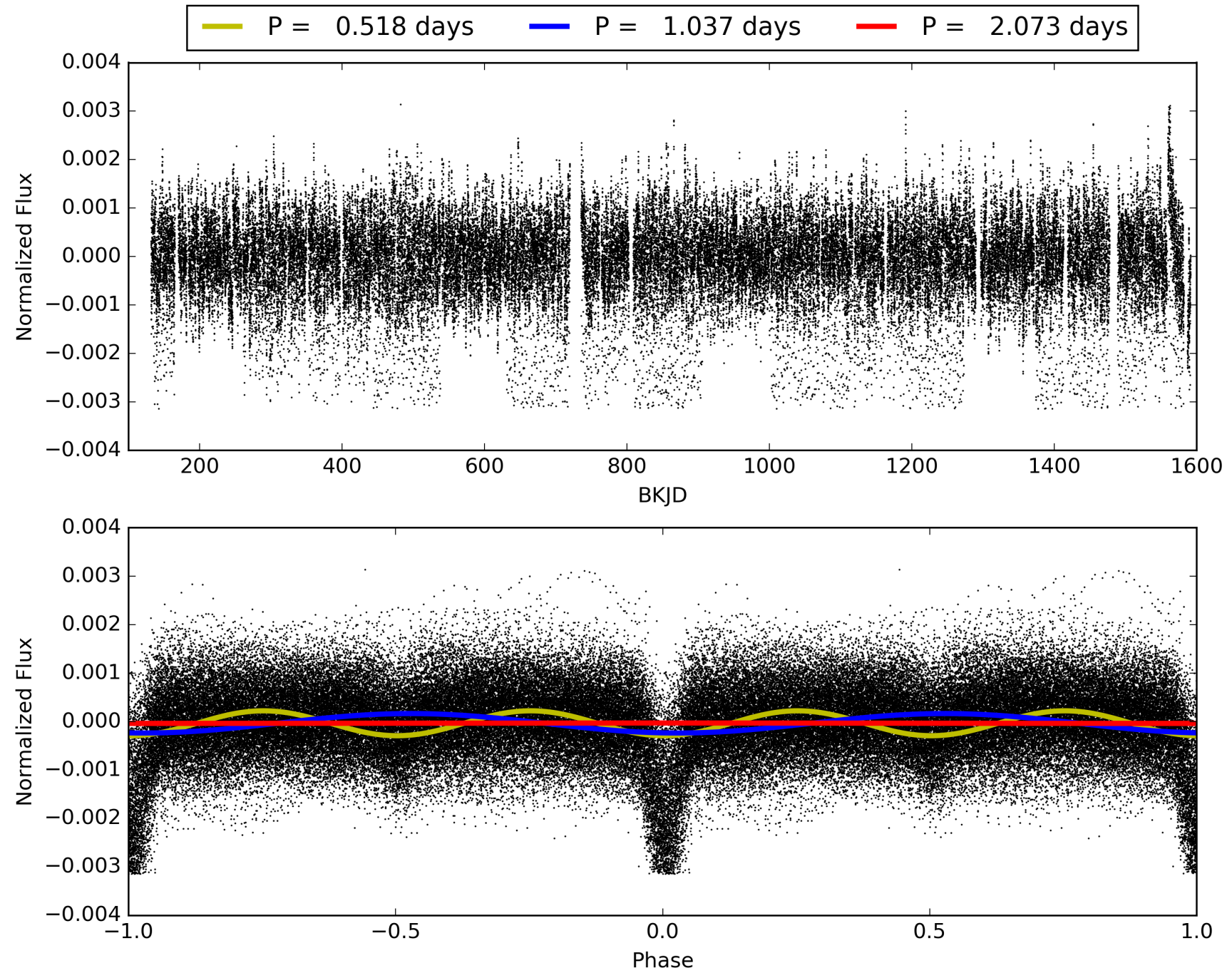
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 21:40:43 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011968514-01, PDC Light Curves

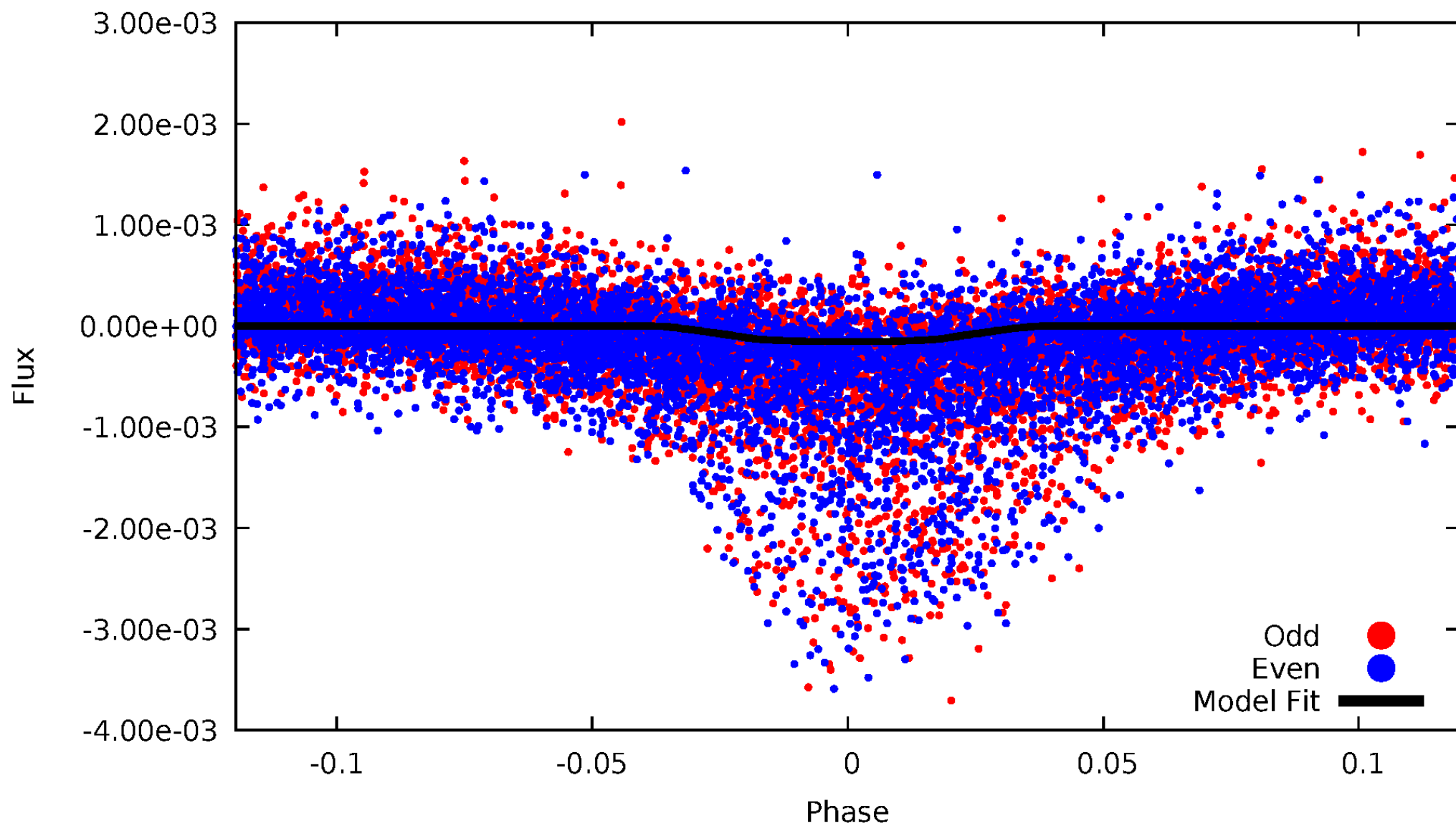


TCE 011968514-01



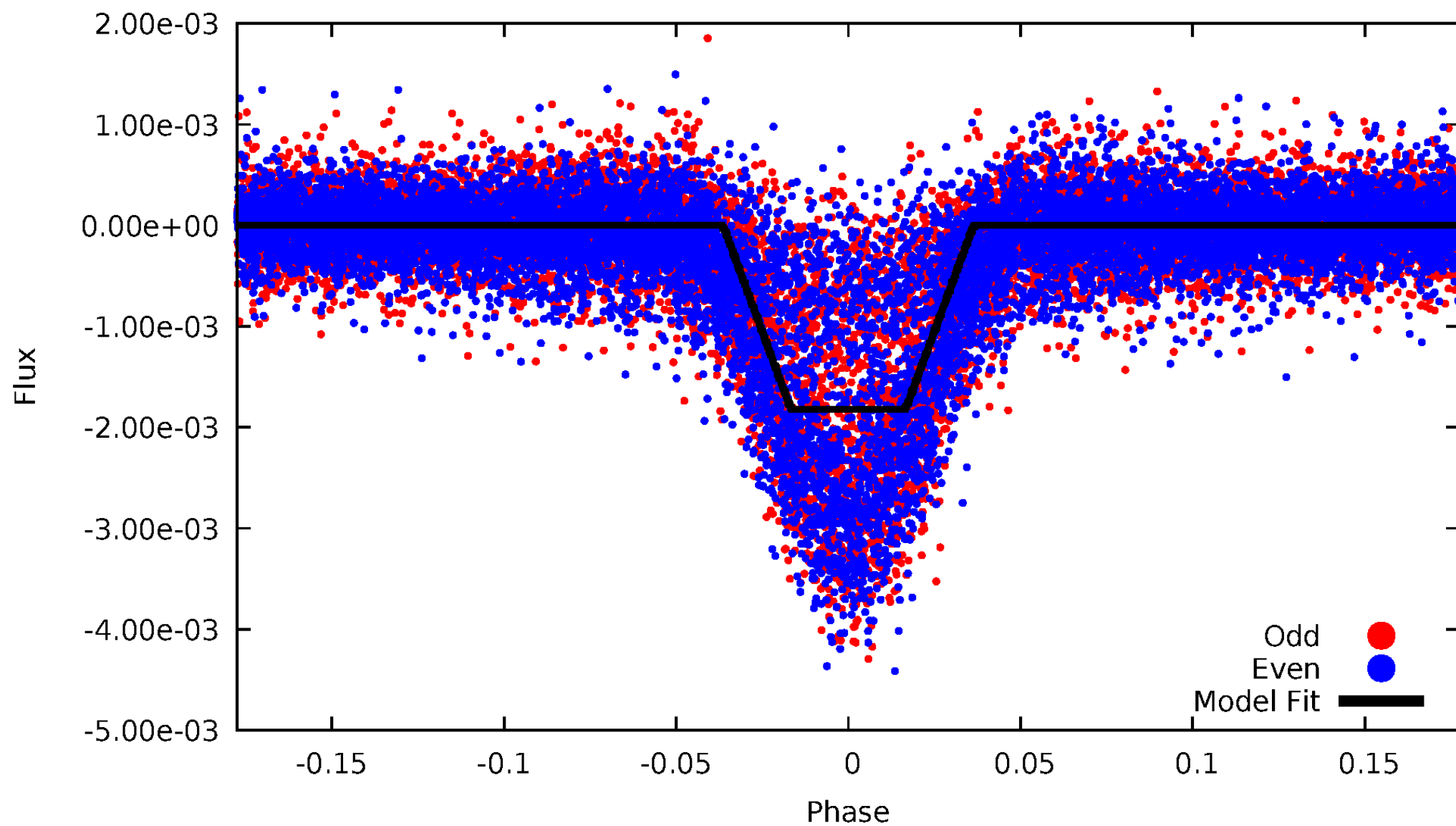
DV Odd/Even

TCE 011968514-01

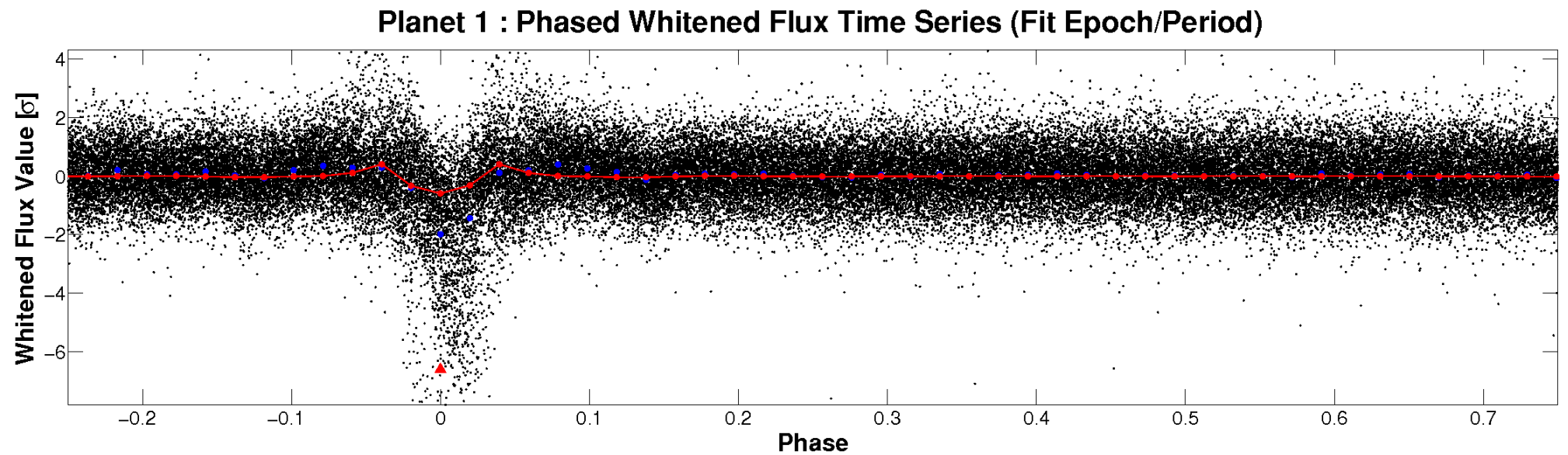
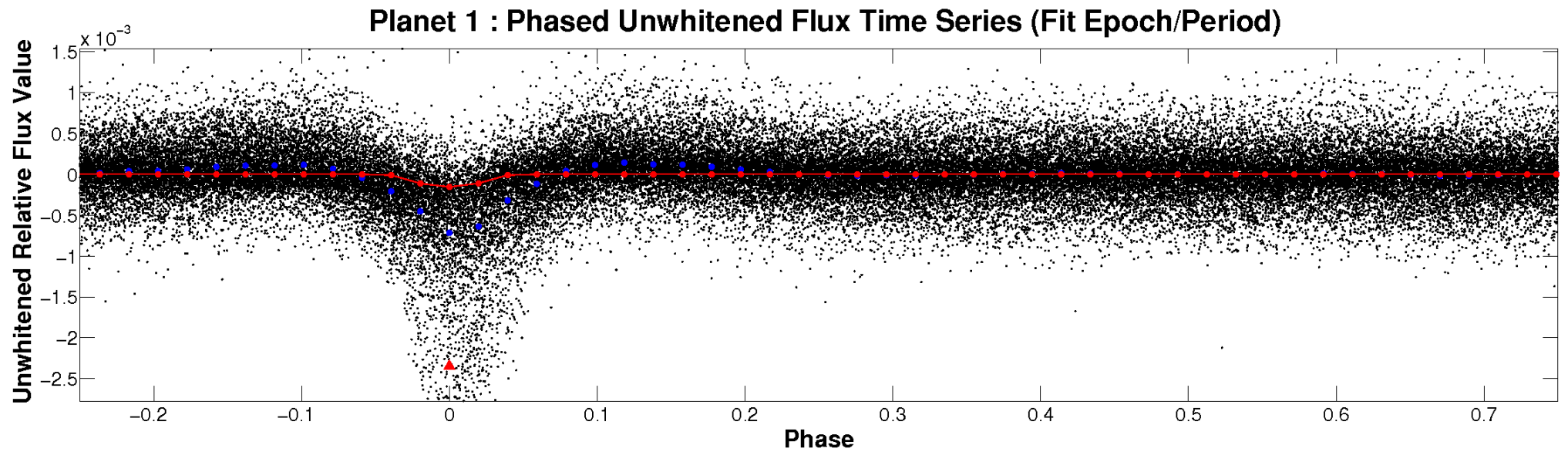


ALT Odd/Even

TCE 011968514-01

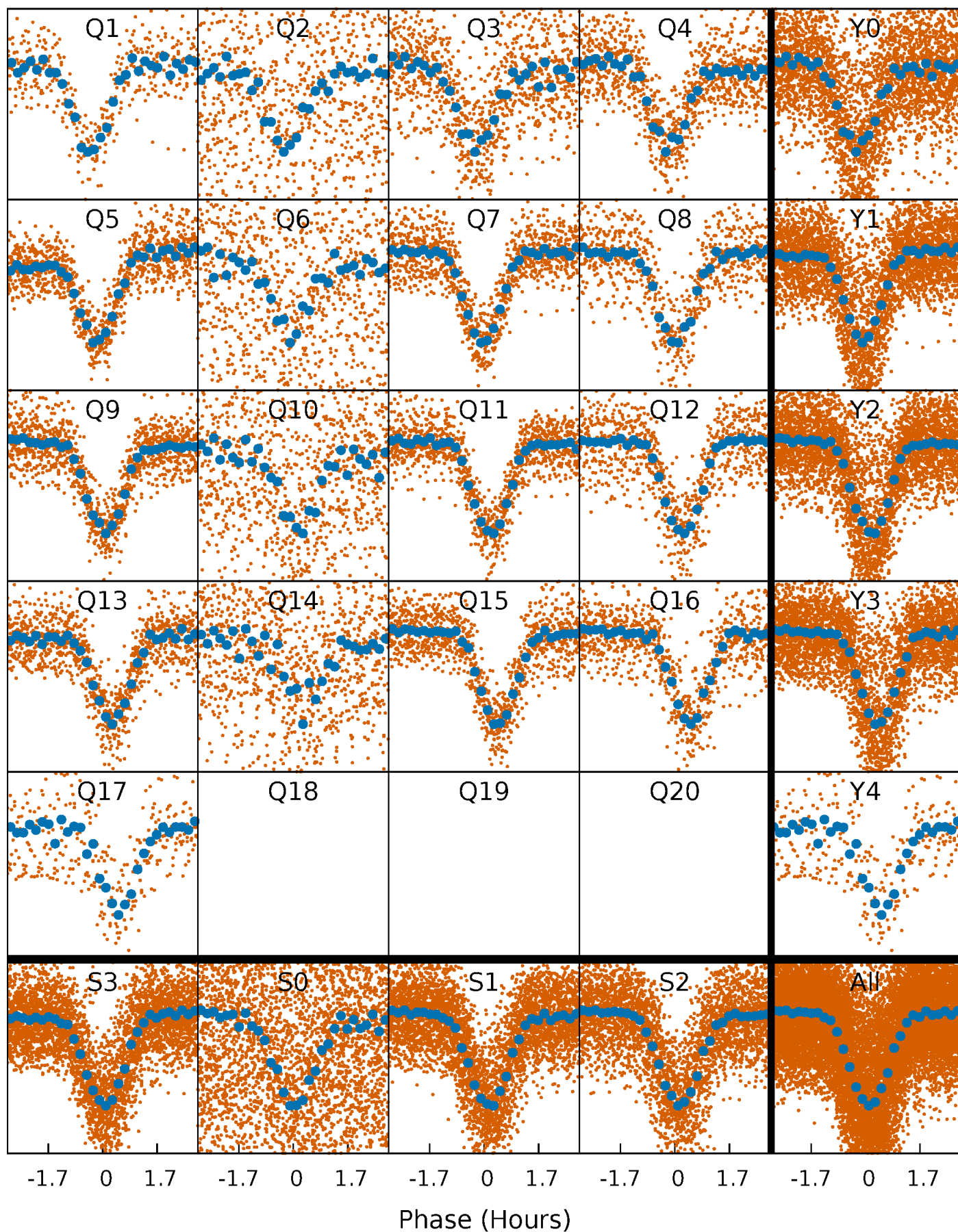


Non-Whitened Vs. Whitened Light Curve



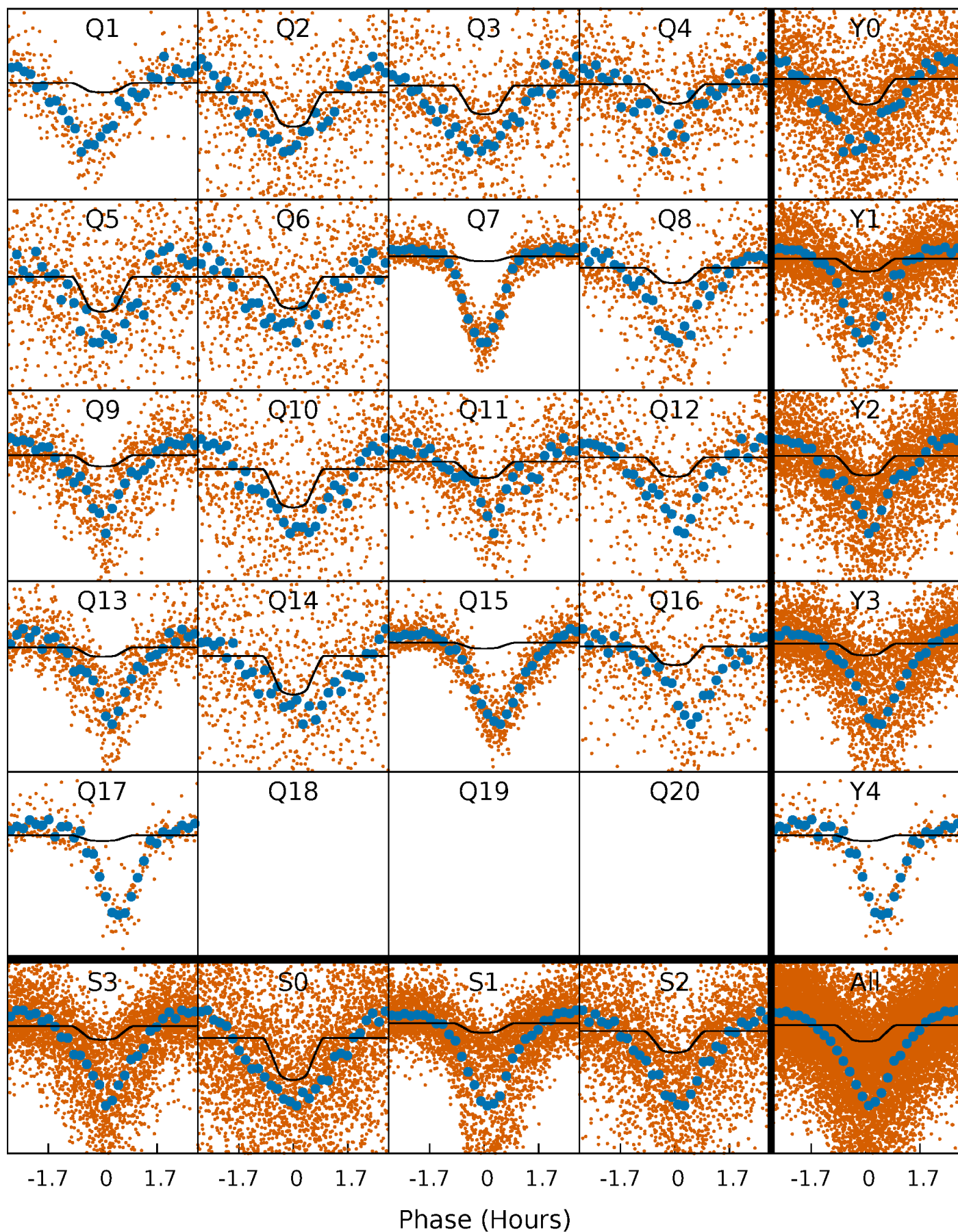
PDC Quarter-Phased Transit Curves

TCE 011968514-01 P= 1.036566 Days $T_0=132.104484$ (BKJD)



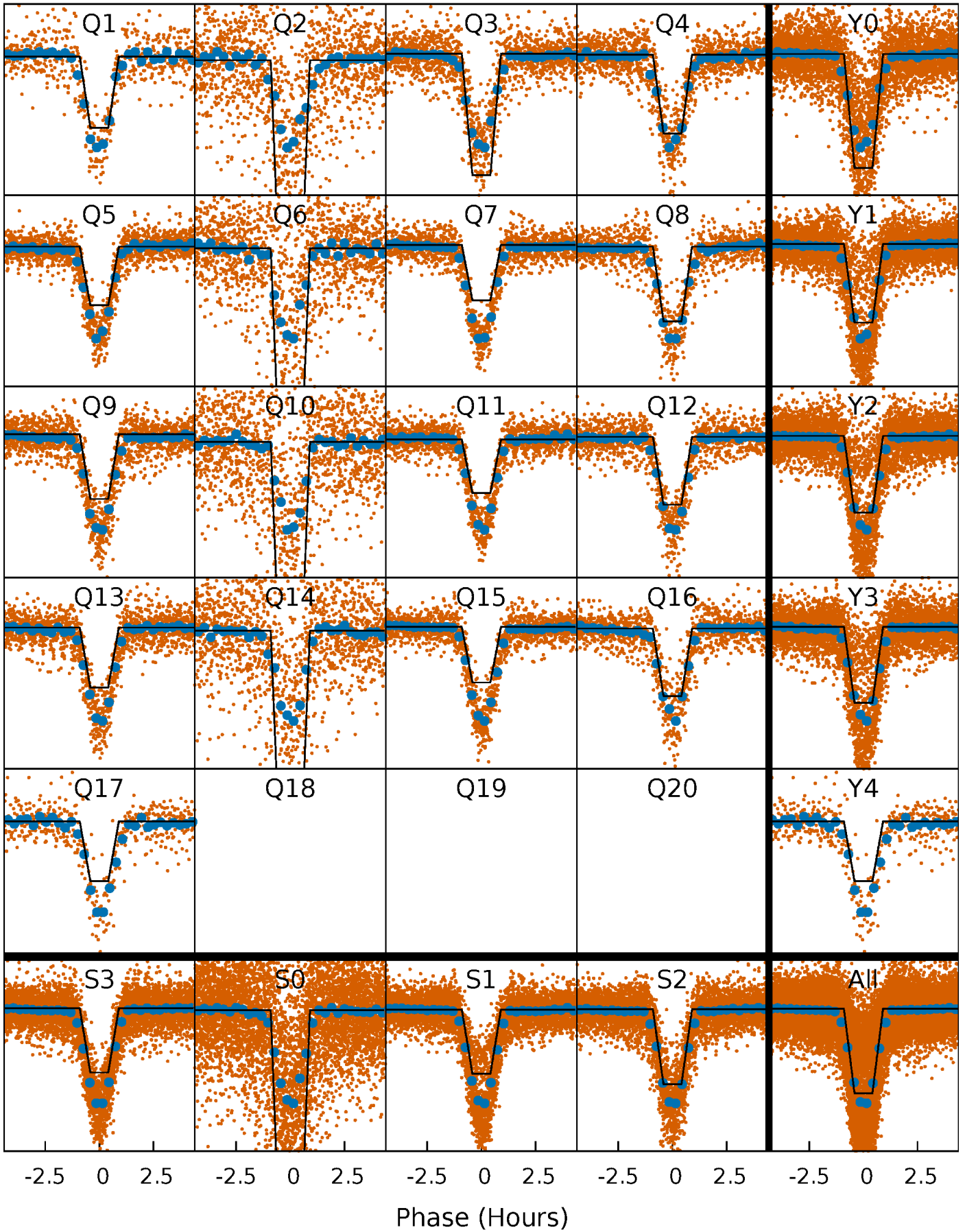
DV Quarter-Phased Transit Curves

TCE 011968514-01 P= 1.036566 Days $T_0=132.104484$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

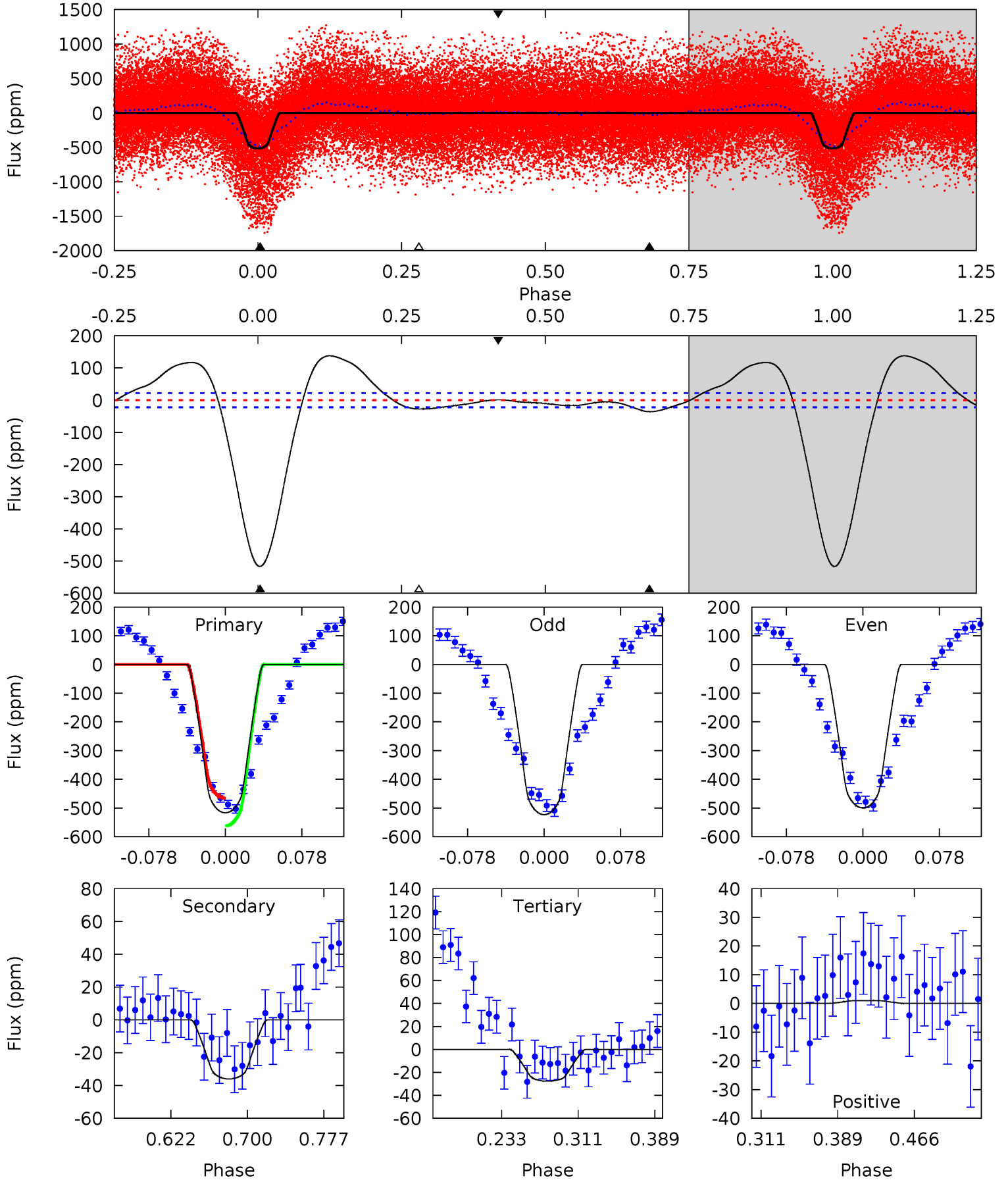
TCE 011968514-01 P= 1.036589 Days $T_0=132.091424$ (BKJD)



DV Model-Shift Uniqueness Test

011968514-01, P = 1.036566 Days, E = 131.067918 Days

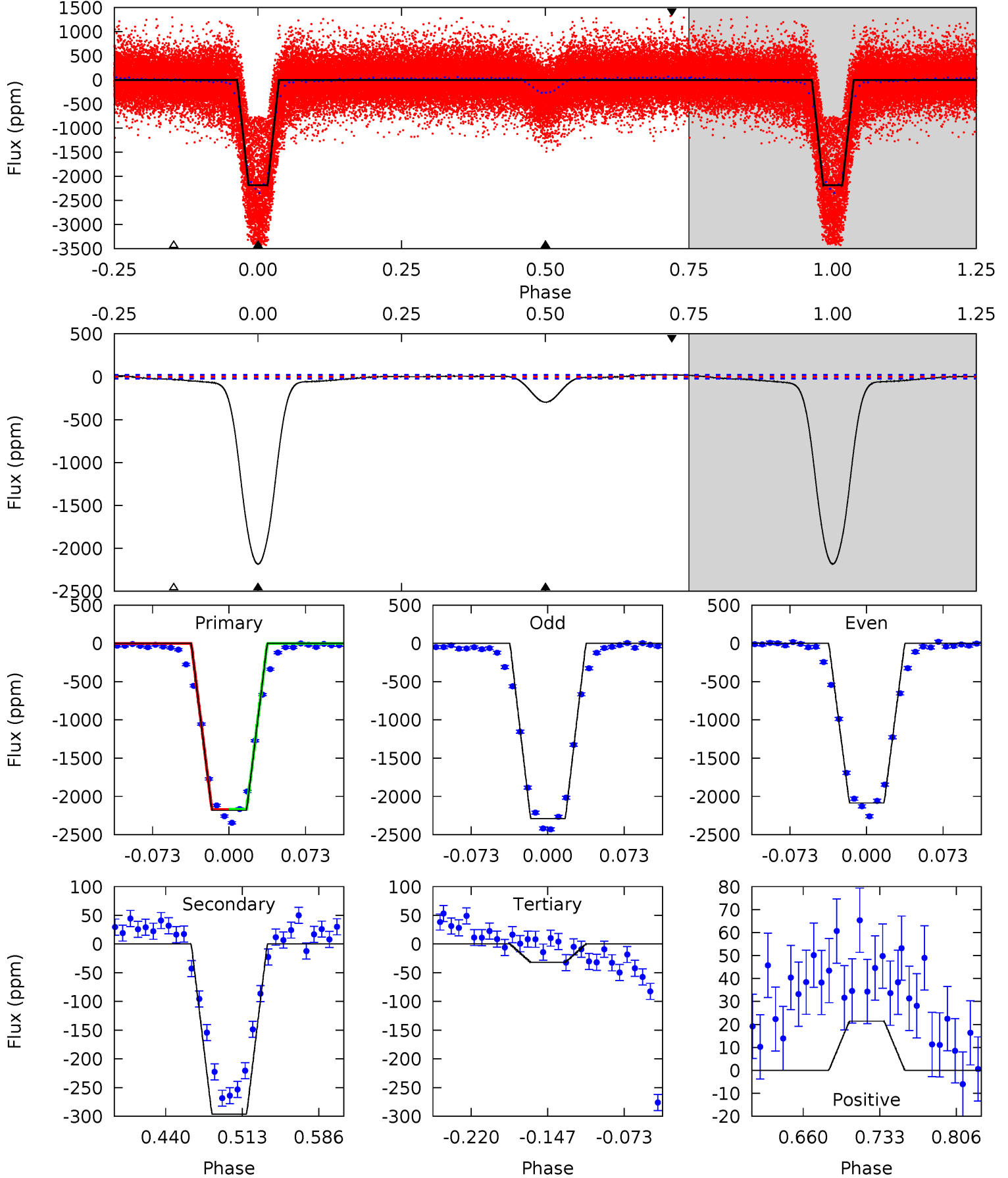
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
108.2	7.54	5.80	0.21	4.62	1.76	11.2	102.4	108.0	1.74	7.33	2.44	1.45	0.21	10.1



Alt Model-Shift Uniqueness Test

011968514-01, P = 1.036589 Days, E = 131.054835 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
453.9	61.6	6.63	4.45	4.63	1.79	5.03	447.2	449.4	55.0	57.2	21.2	0.91	0.01	0



Stellar Parameters For KIC 011968514

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	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 011968514-01 / KOI 5947.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-36 ± 5	$13.59^{+2.38}_{-2.32}$	5843^{+279}_{-320}	-4598^{+265}_{-222}	$0.057^{+0.026}_{-0.016}$
Alt.	-296 ± 5	$40.25^{+4.68}_{-6.10}$	5828^{+285}_{-320}	-4607^{+249}_{-216}	$0.053^{+0.014}_{-0.009}$

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 $A_{\text{obs}} \gg 1.0$

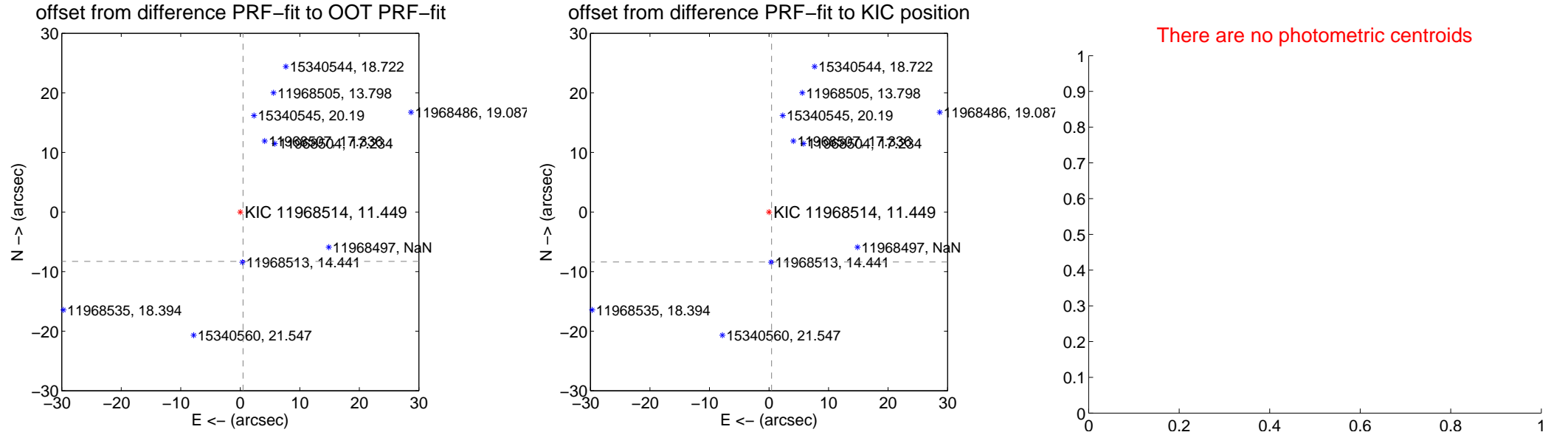
DV Centroid Data

Supplemental centroid analysis for 011968514-01. **Kepler magnitude: 11.45.** Transit SNR 34.78

There are 17 quarters with good PRF difference image offsets

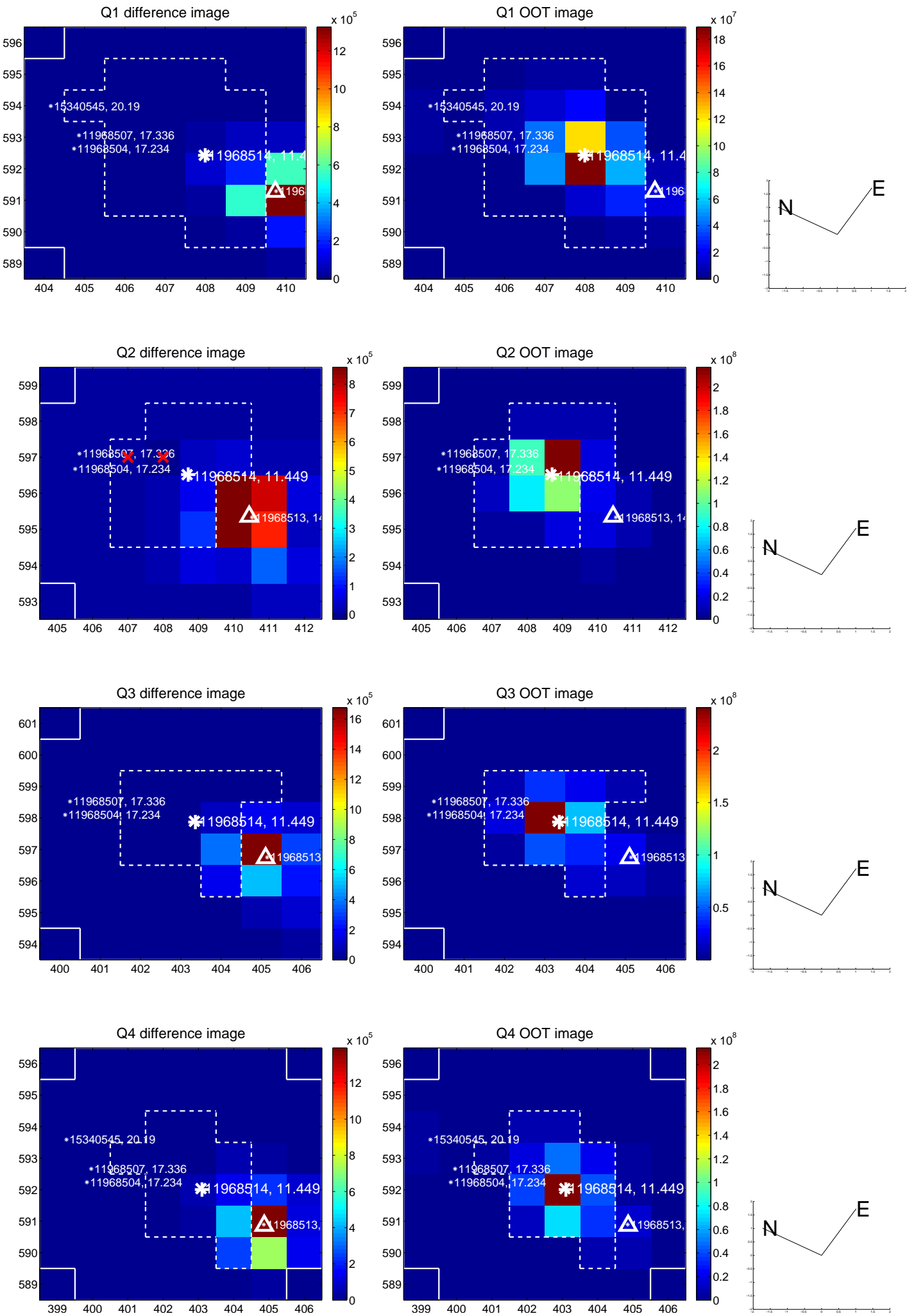
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.304 \pm 0.067	123.99	-0.463 \pm 0.068	-8.291 \pm 0.067
PRF-fit source offset from KIC position	8.390 \pm 0.068	124.25	-0.438 \pm 0.067	-8.379 \pm 0.068
photometric centroid source offset	—	—	—	—

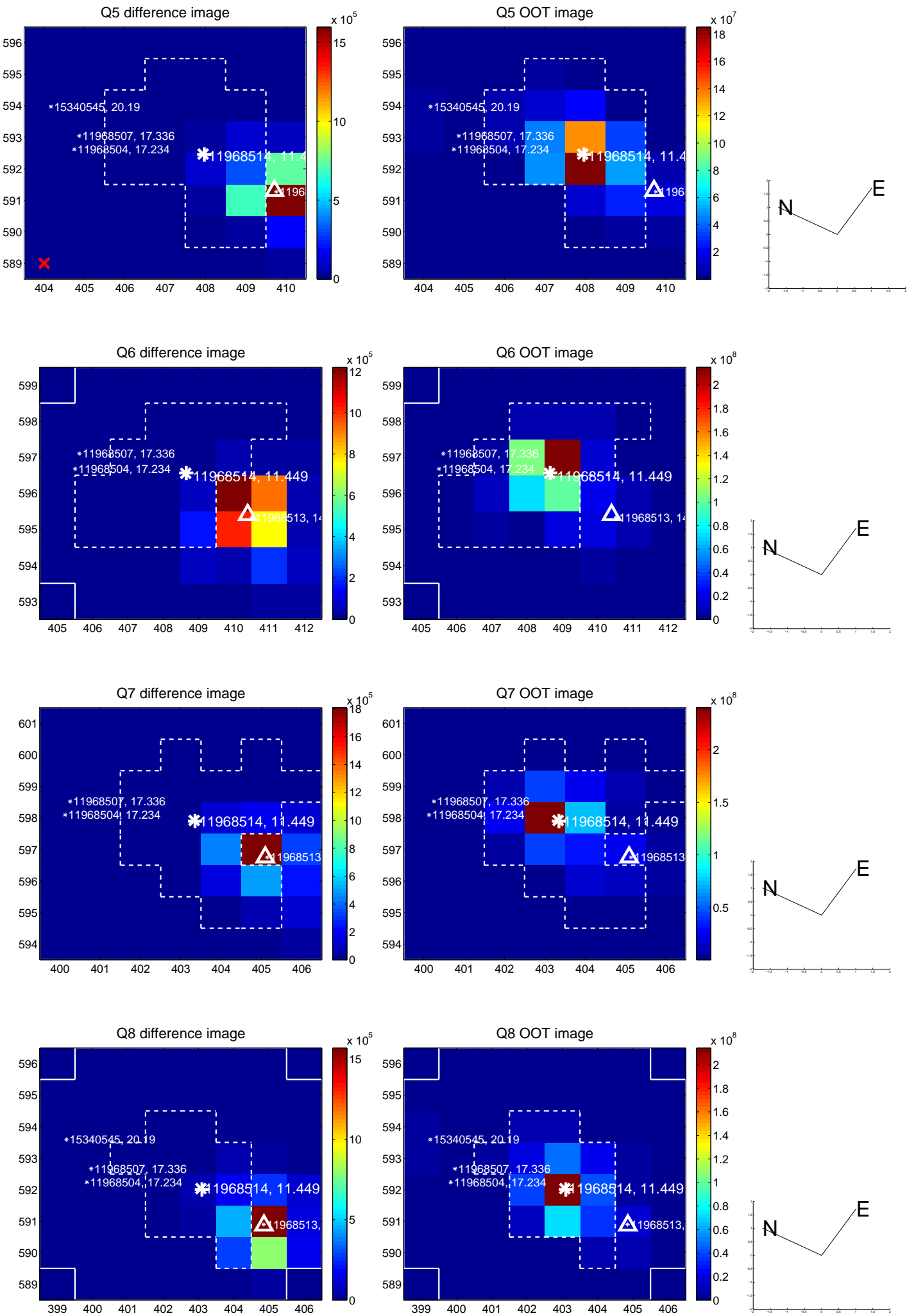


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

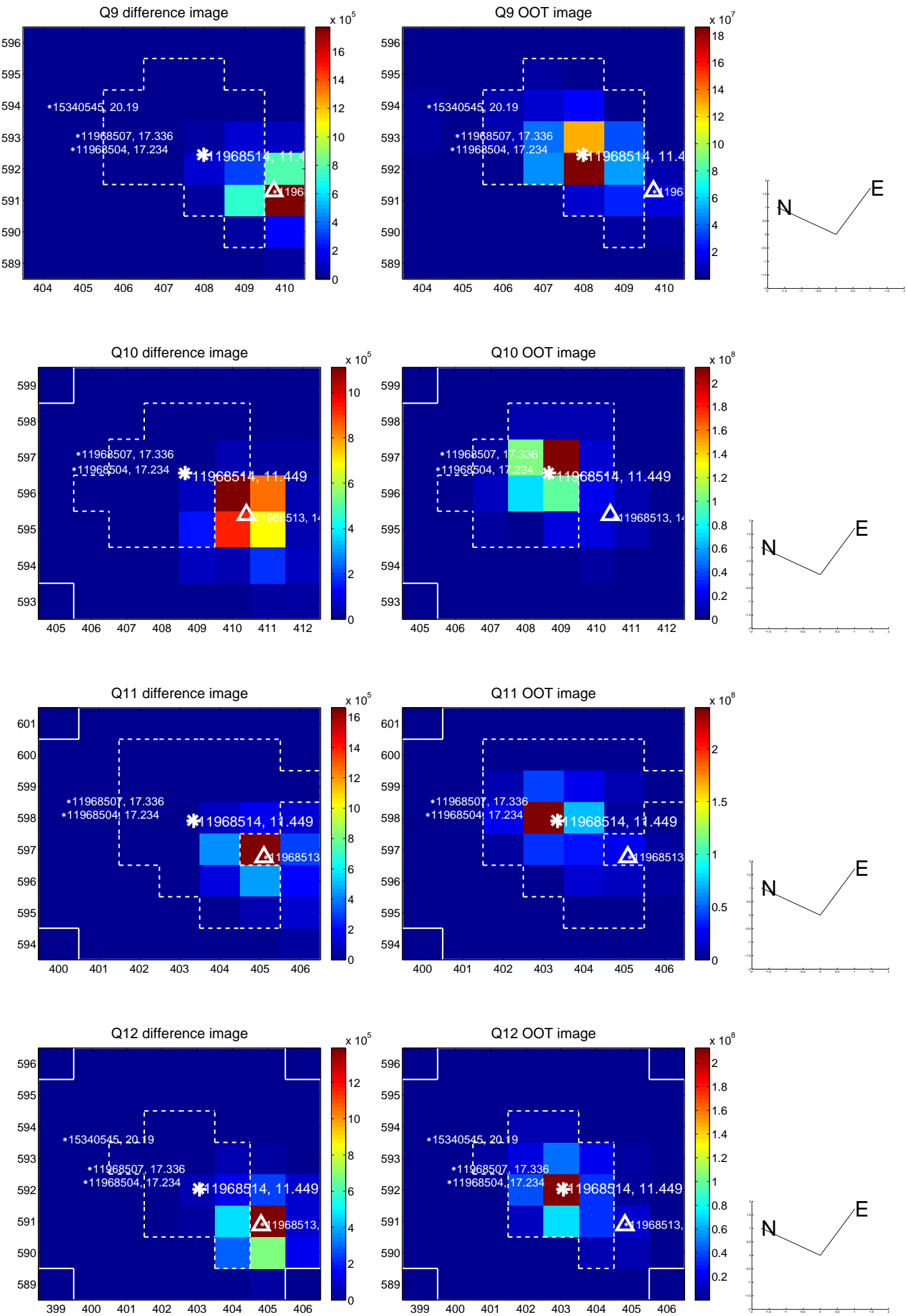
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



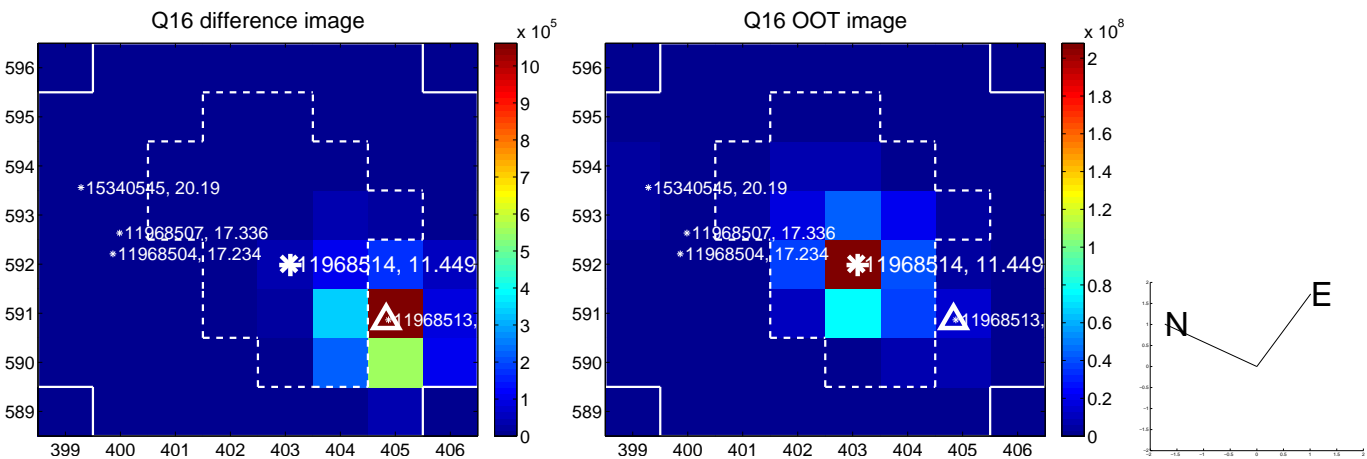
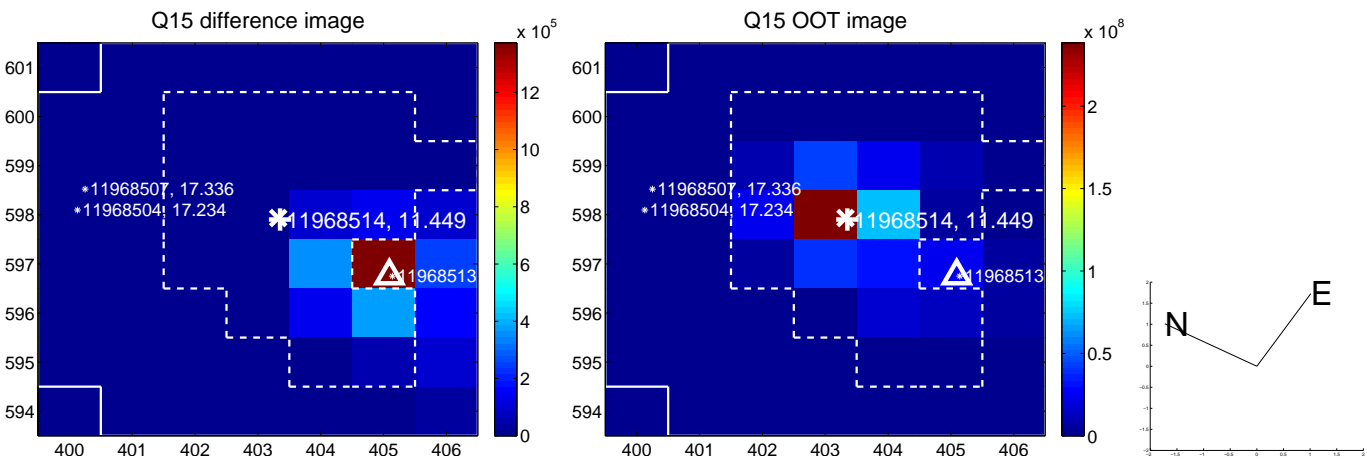
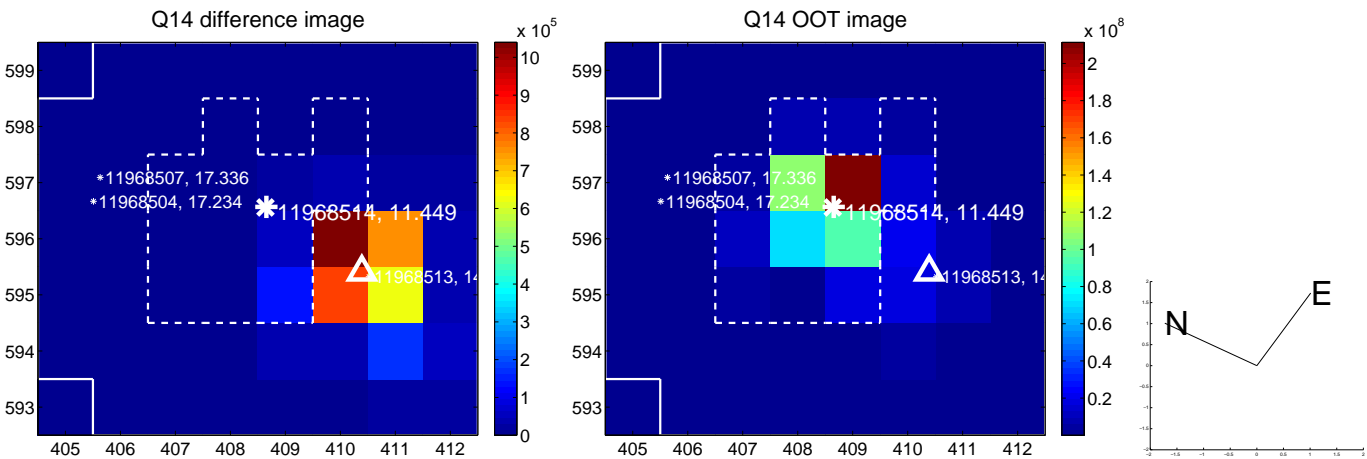
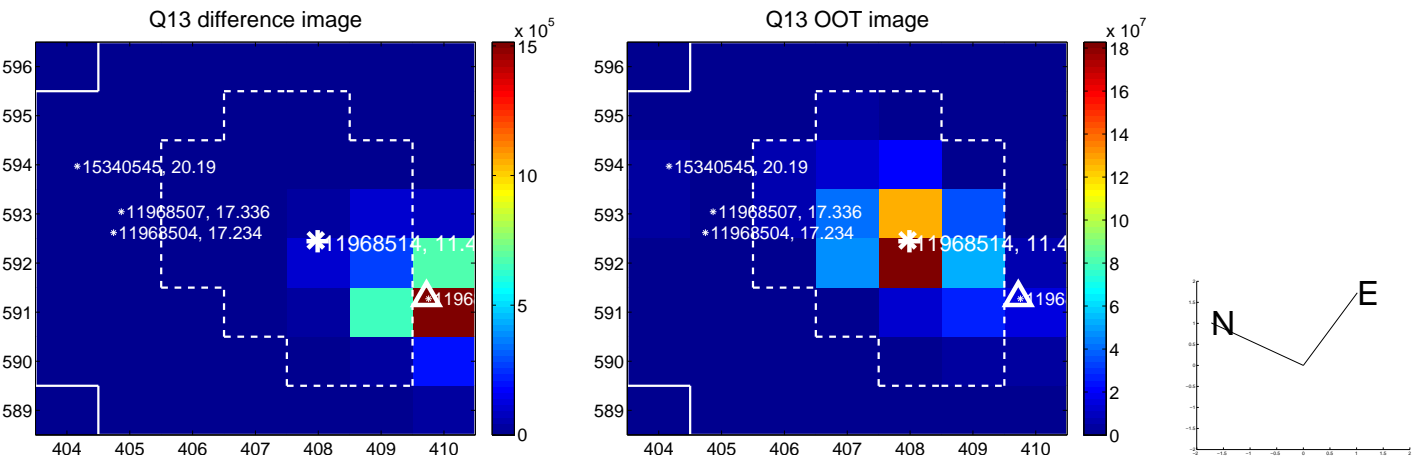
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



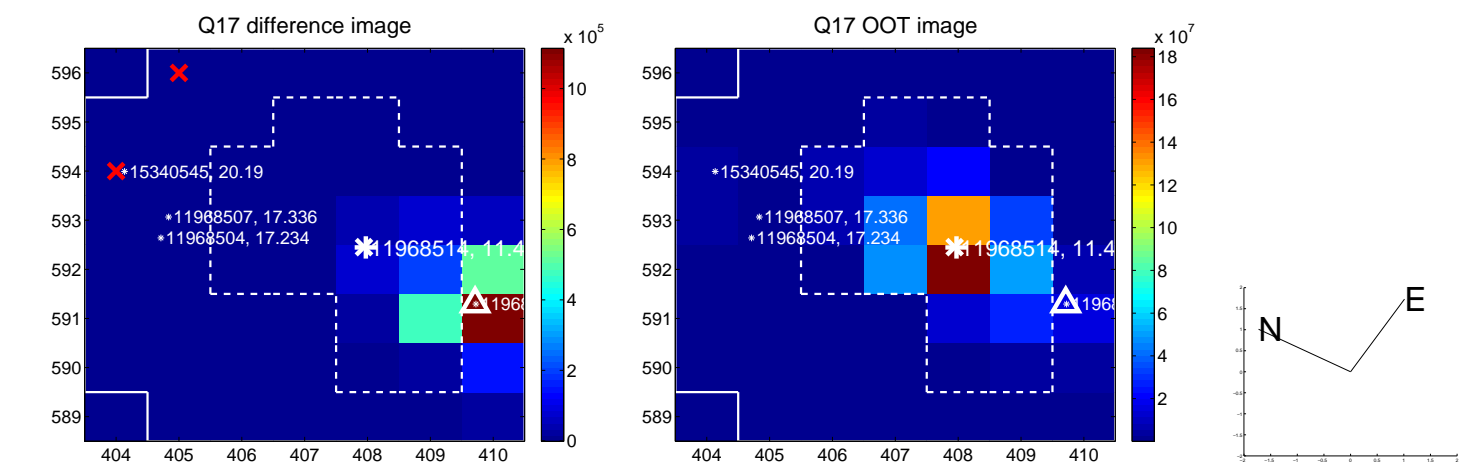
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



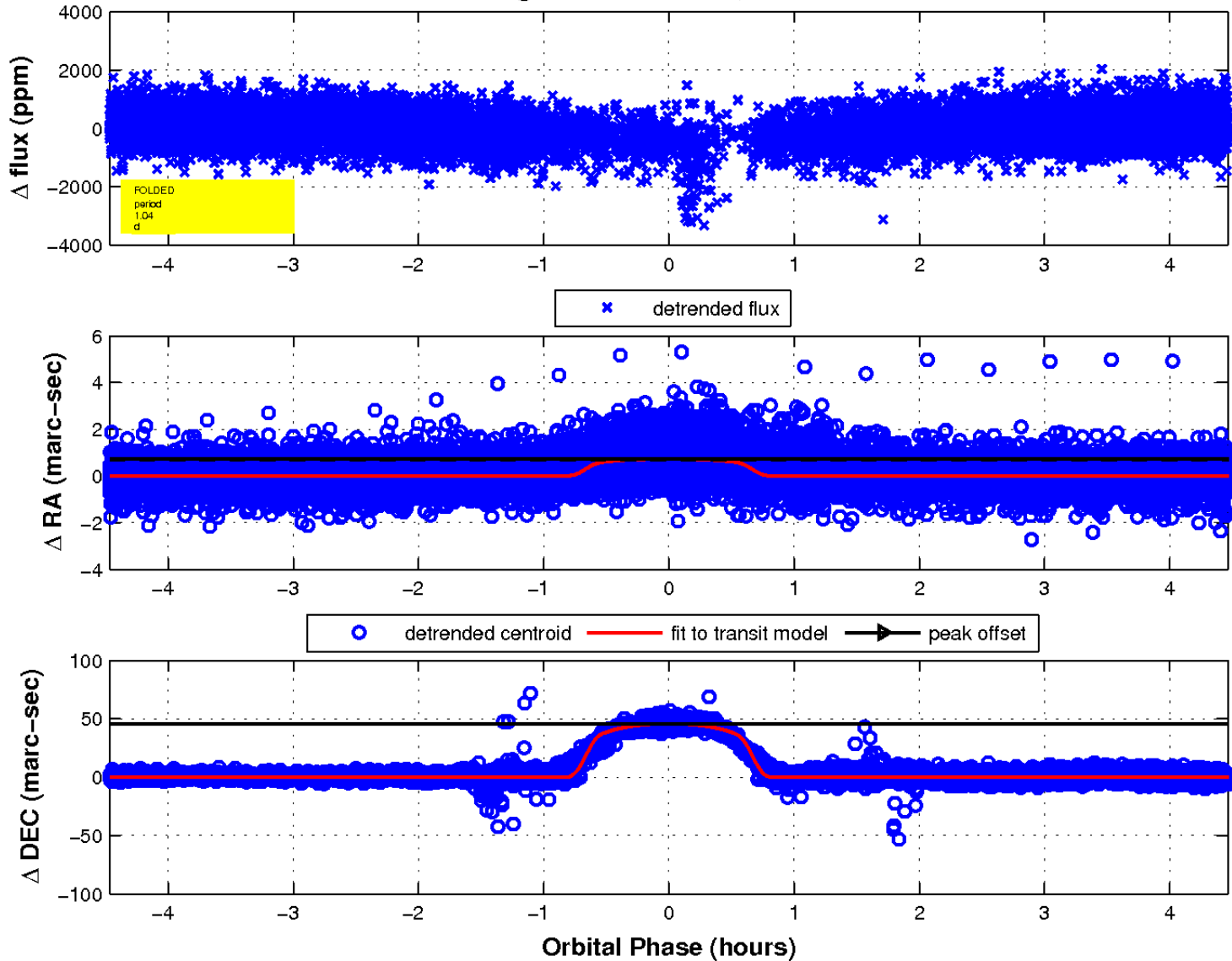
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

