

KIC 005946568

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})
005946568-01	OBS	5211.01	3.564560	134.434557	54.0	2.551	9.6	11.2	0.82	5435	0.73	265.65

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005946568-01	OBS	PC	0.99	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.

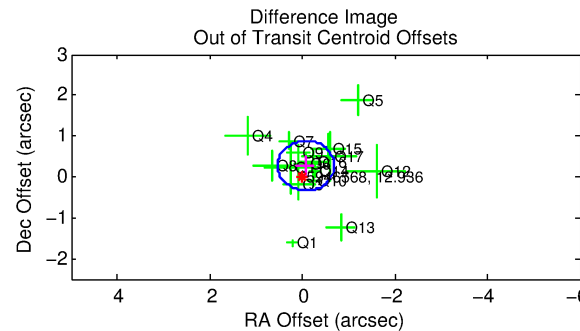
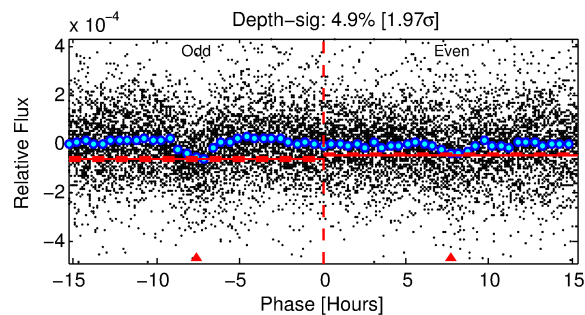
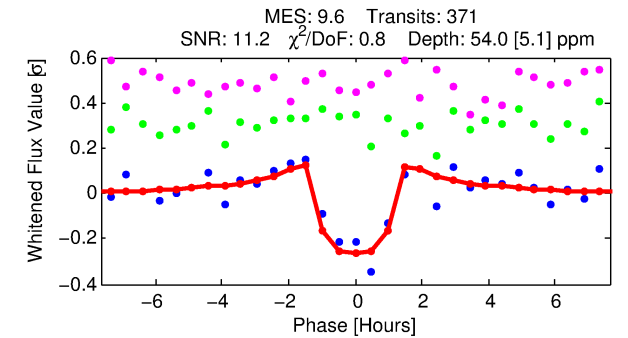
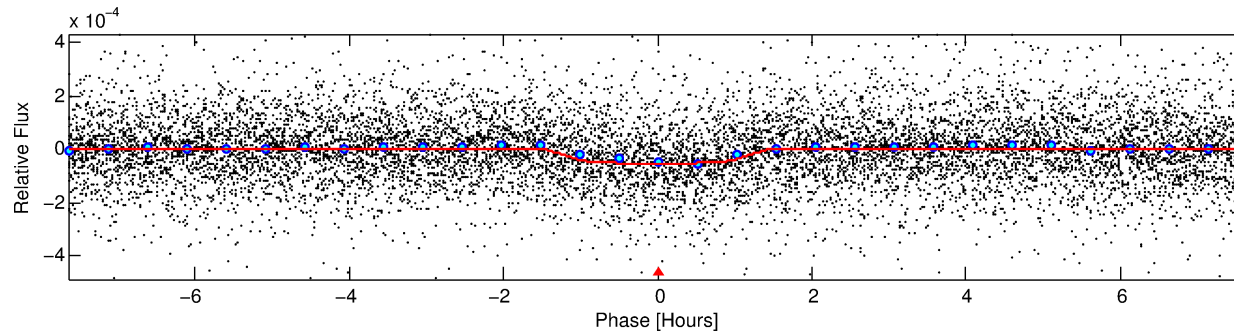
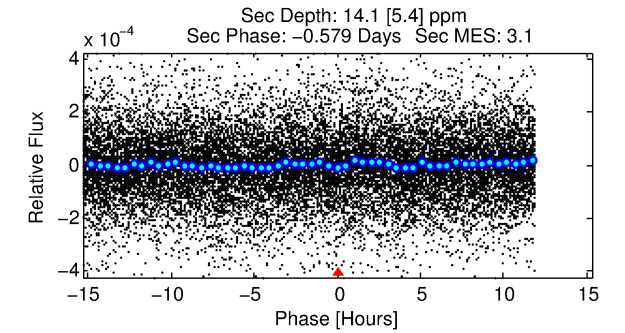
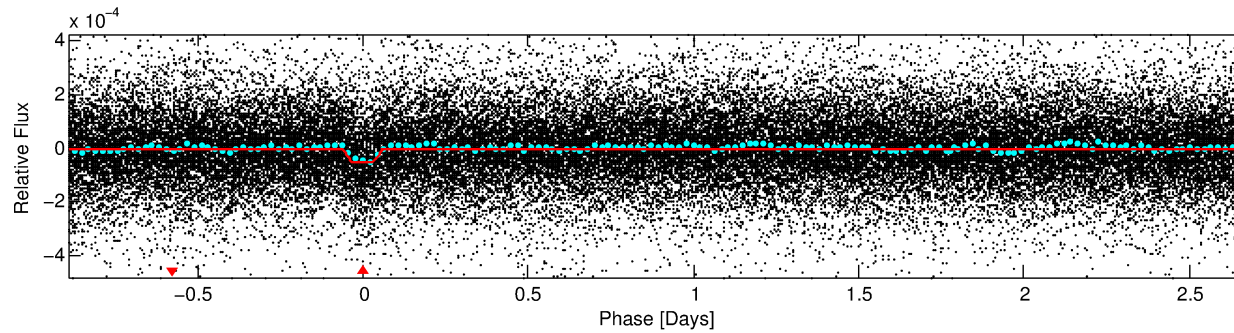
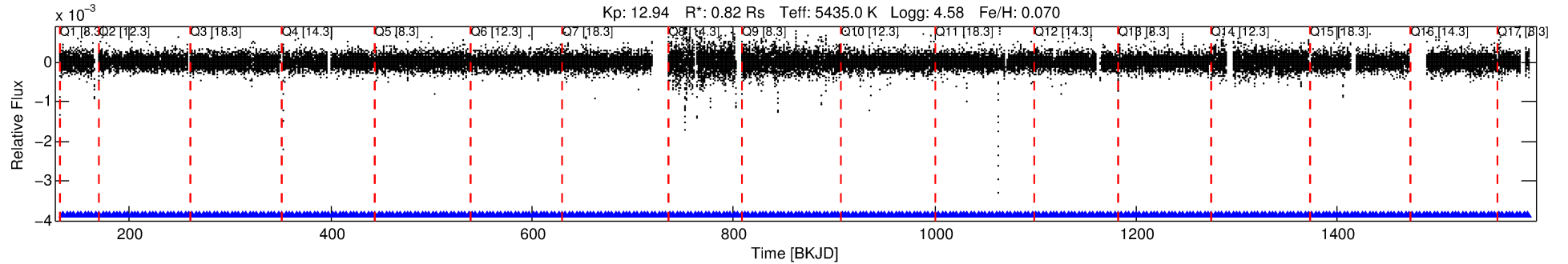
Ephemeris Match Information For 005946568-01

No Significant Match Found

DV One-Page Summary

KIC: 5946568 Candidate: 1 of 1 Period: 3.565 d

KOI: K05211.01 Corr: 0.924



DV Fit Results:

Period = 3.56456 [0.00002] d
Epoch = 134.4346 [0.0024] BKJD
Rp/R* = 0.0081 [0.0033]
a/R* = 4.94 [8.56]
b = 0.90 [0.39]
Seff = 265.65 [50.01]
Teq = 1029 [48] K
Rp = 0.73 [0.31] Re
a = 0.0447 [0.0049] AU
Ag = 29.25 [27.11] [1.04σ]
Teffp = 3702 [844] K [3.16σ]

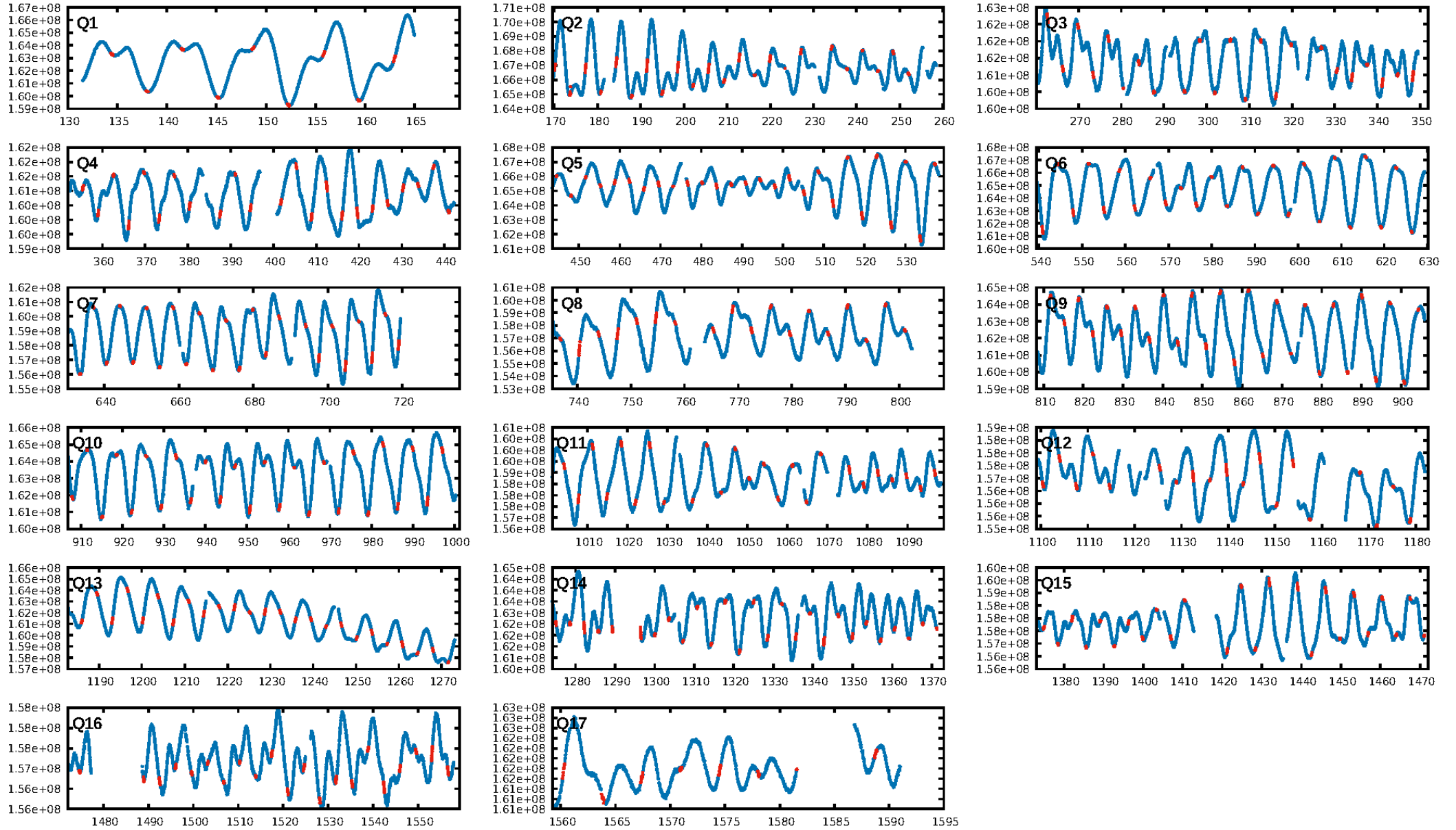
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.91e-20
RollingBand-fgt: 1.00 [355/355]
GhostDiagnostic-chr: 2.596
Centroid-sig: 0.0%
Centroid-so: 2.253 arcsec [3.35σ]
OotOffset-rm: 0.283 arcsec [1.38σ]
KicOffset-rm: 0.410 arcsec [1.92σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.81 [13/16]
DiffImageOverlap-fno: 1.00 [17/17]

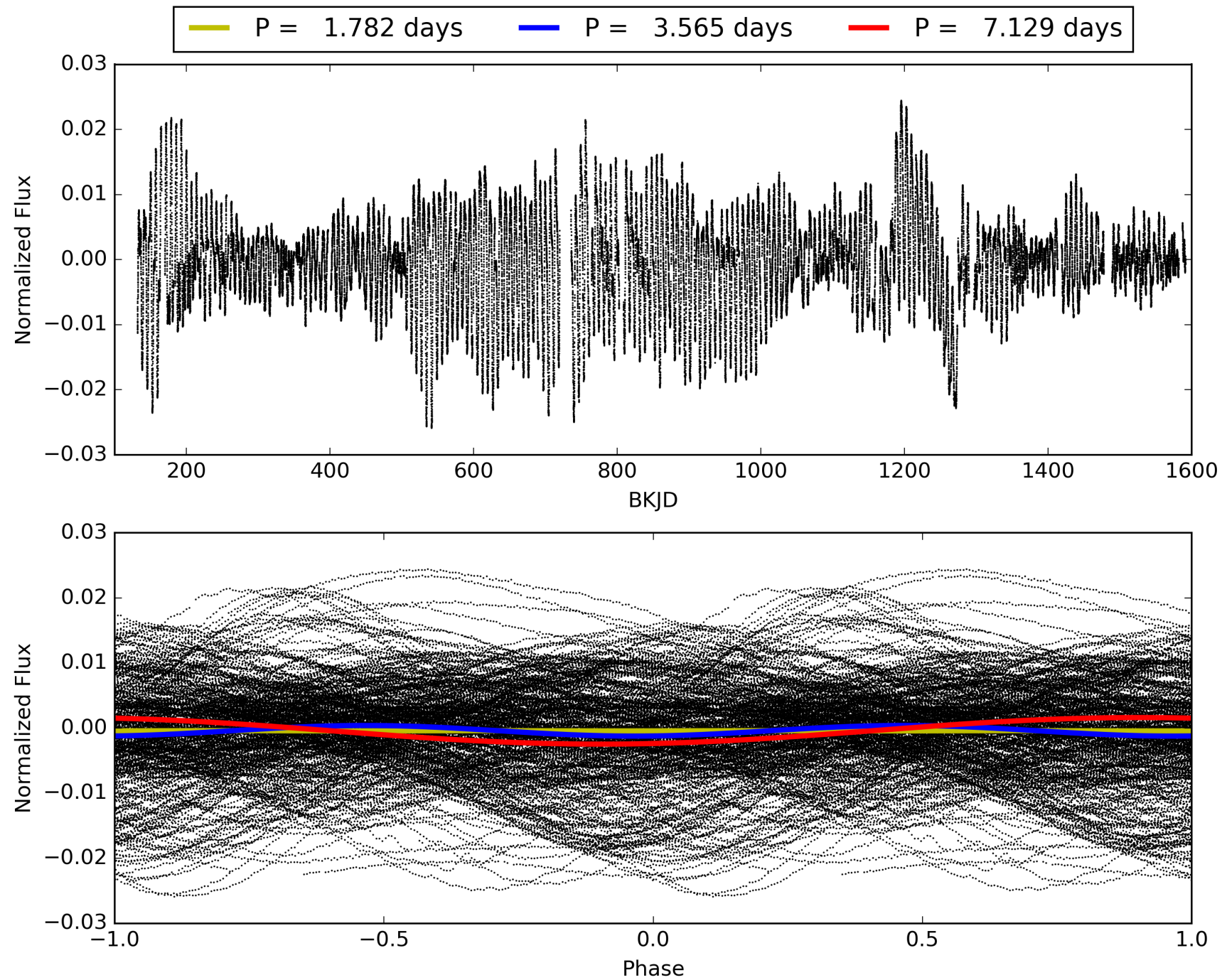
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 18:32:38 Z

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

TCE 005946568-01, PDC Light Curves

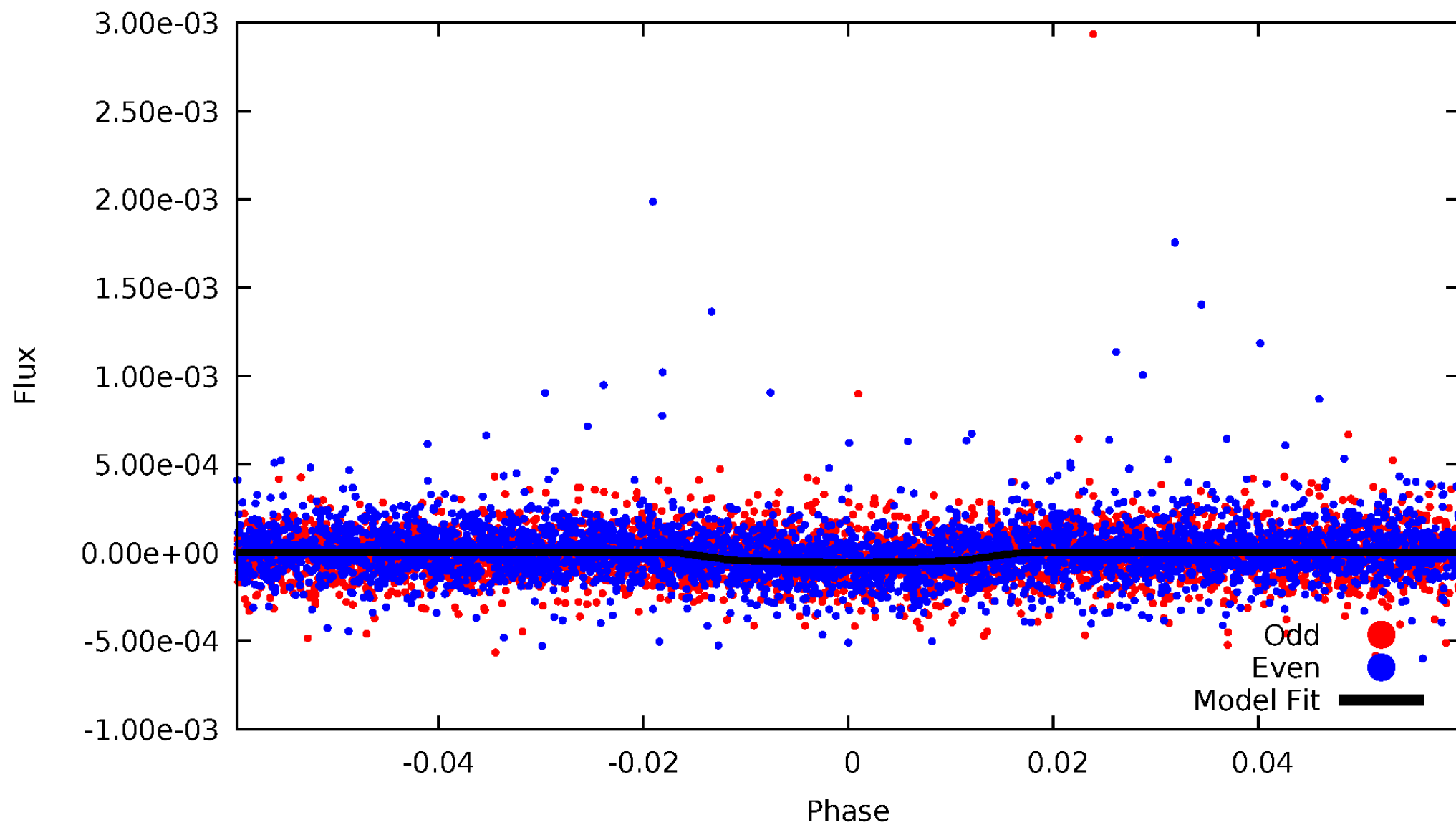


TCE 005946568-01



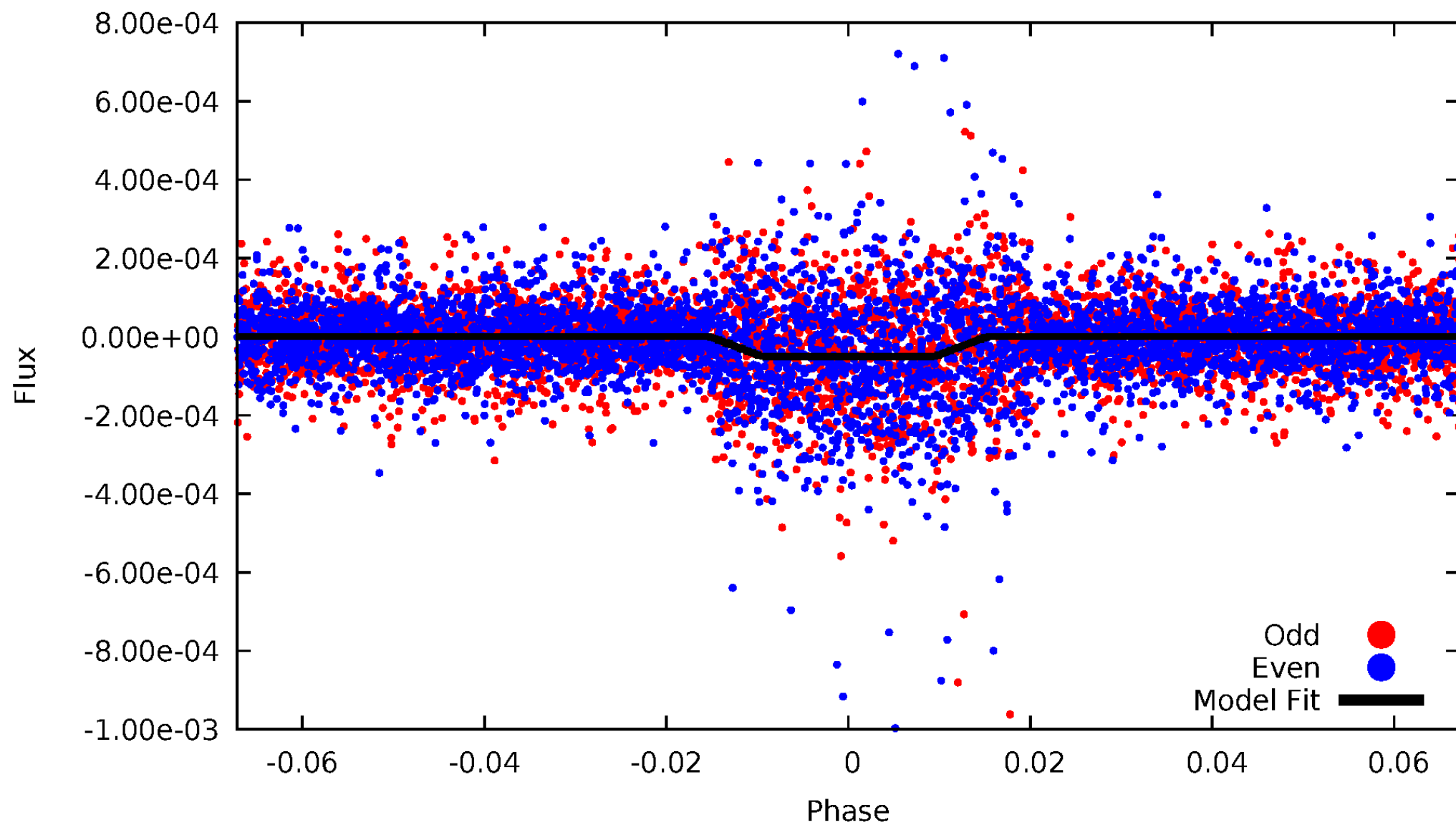
DV Odd/Even

TCE 005946568-01



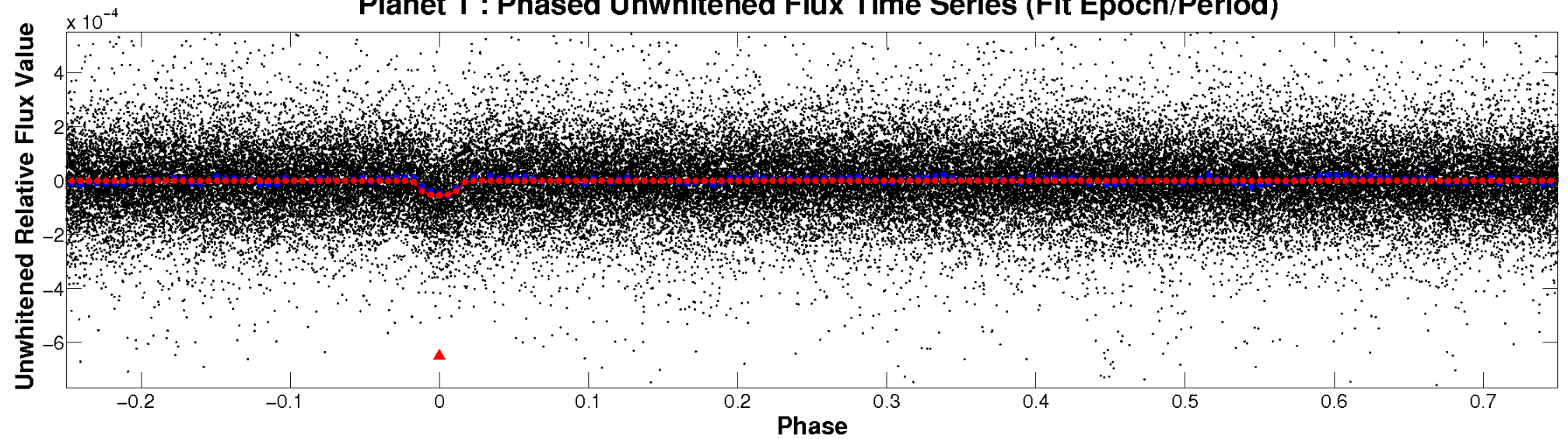
ALT Odd/Even

TCE 005946568-01

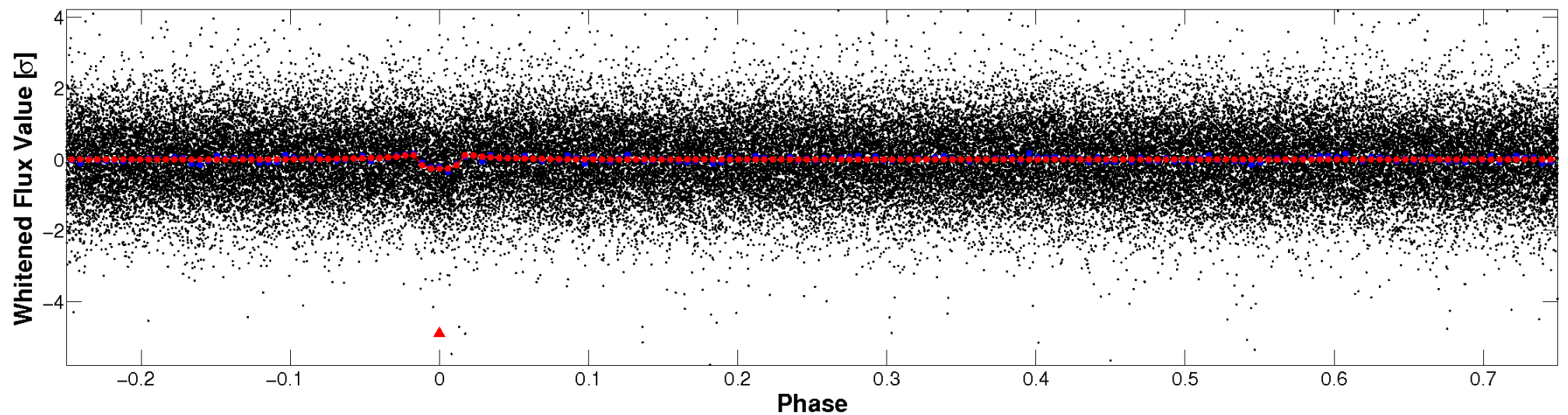


Non-Whitened Vs. Whitened Light Curve

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

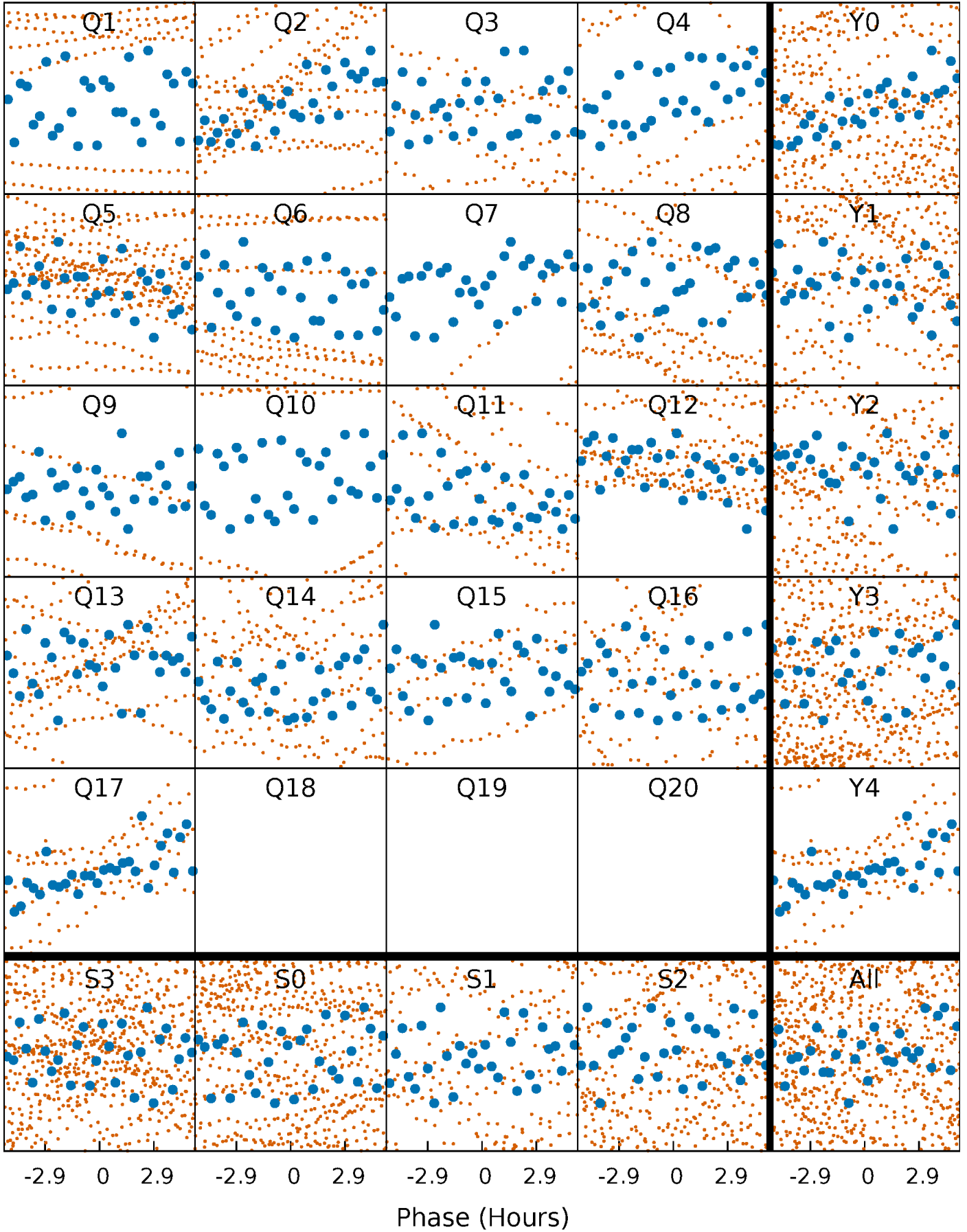


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



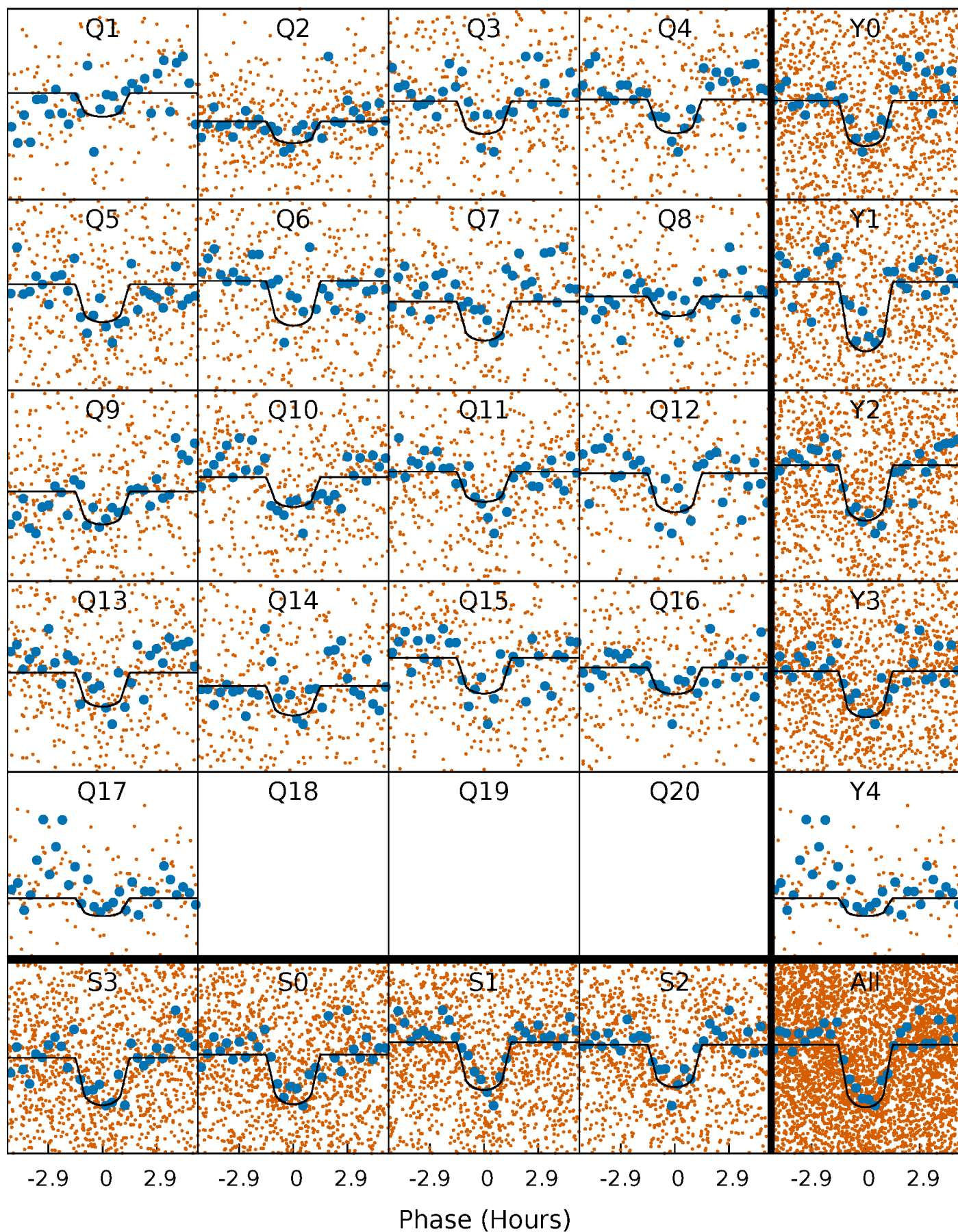
PDC Quarter-Phased Transit Curves

TCE 005946568-01 P= 3.564560 Days $T_0=134.434557$ (BKJD)



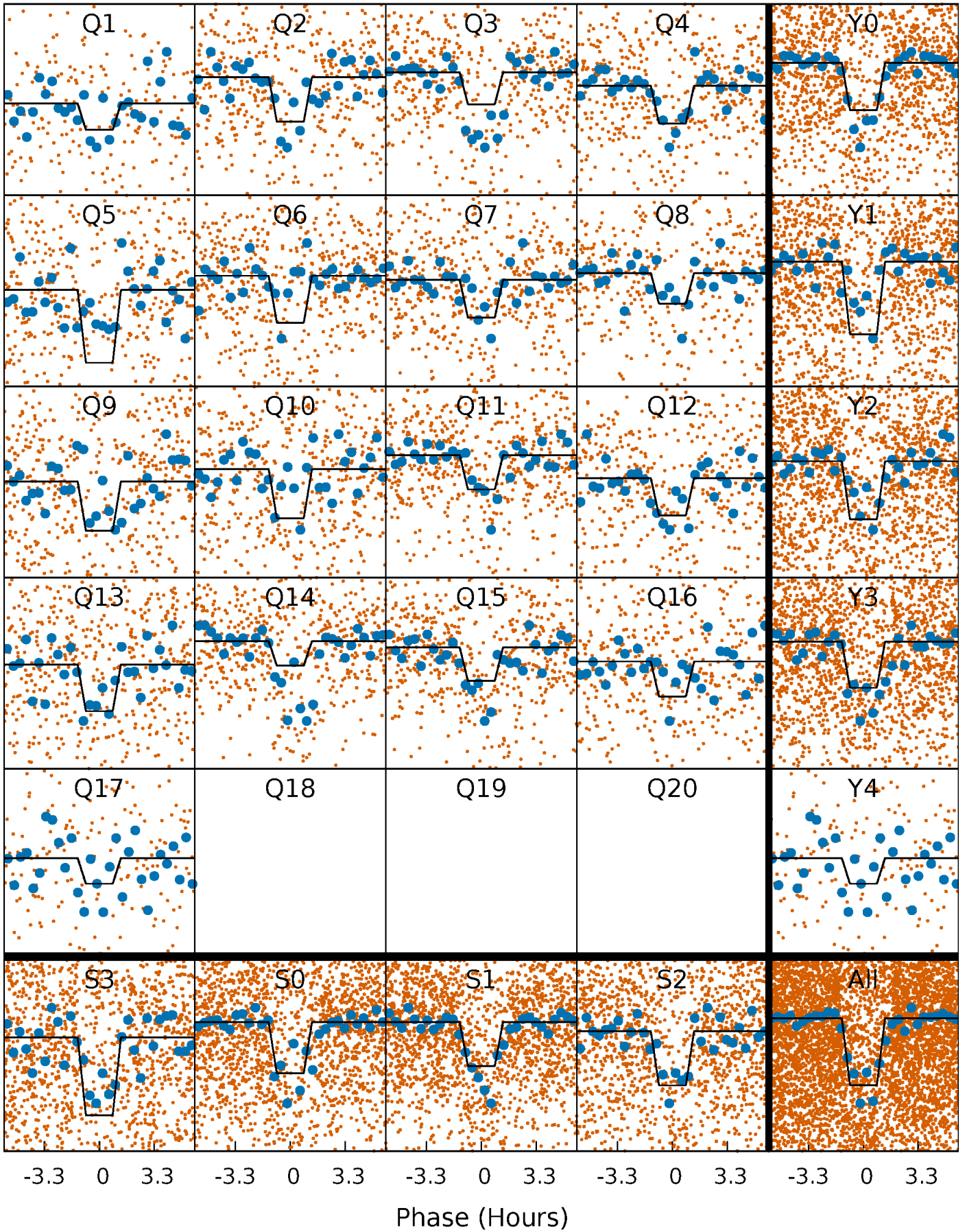
DV Quarter-Phased Transit Curves

TCE 005946568-01 P= 3.564560 Days $T_0=134.434557$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

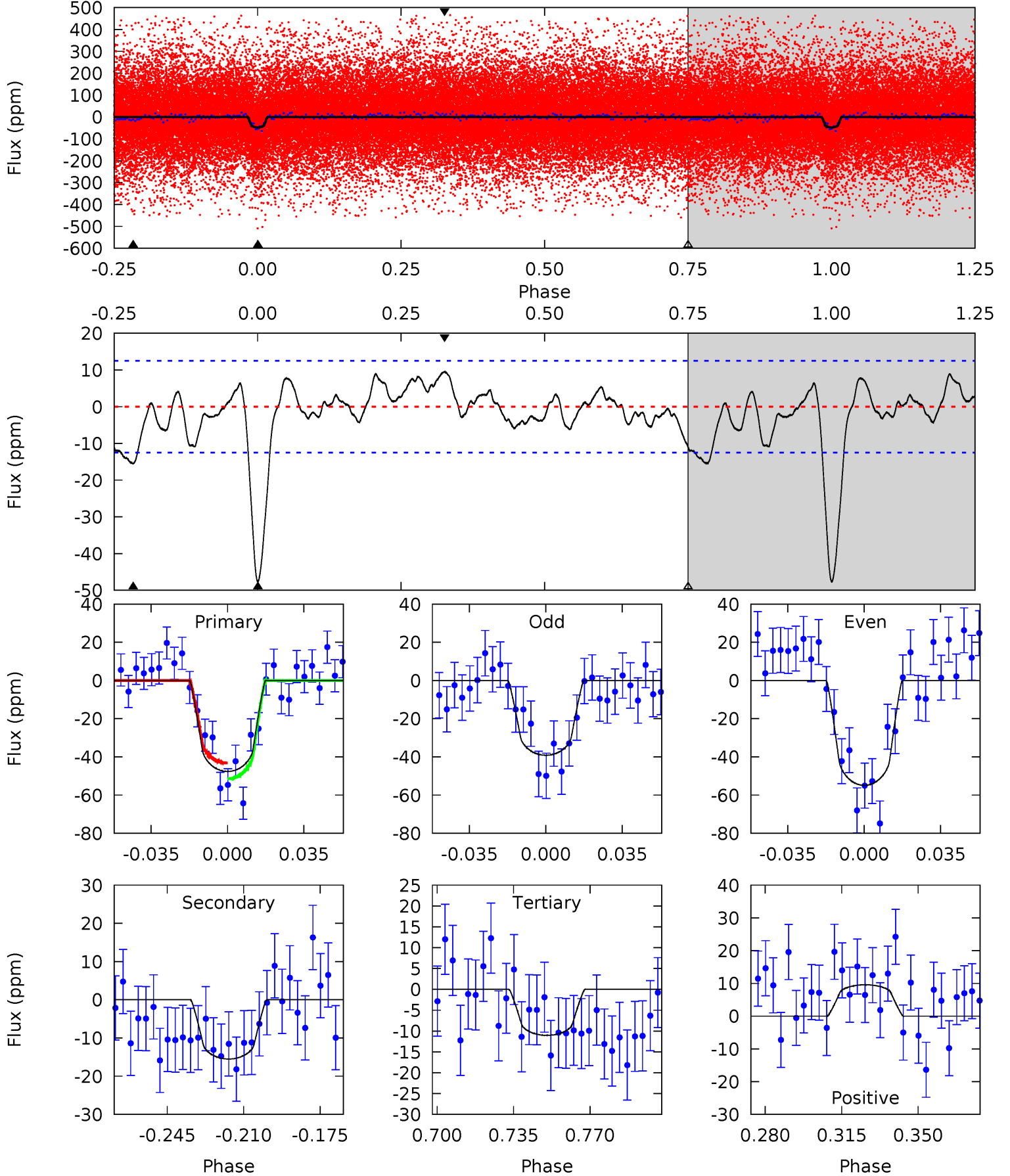
TCE 005946568-01 P= 3.564509 Days $T_0=134.446679$ (BKJD)



DV Model-Shift Uniqueness Test

005946568-01, P = 3.564560 Days, E = 130.869997 Days

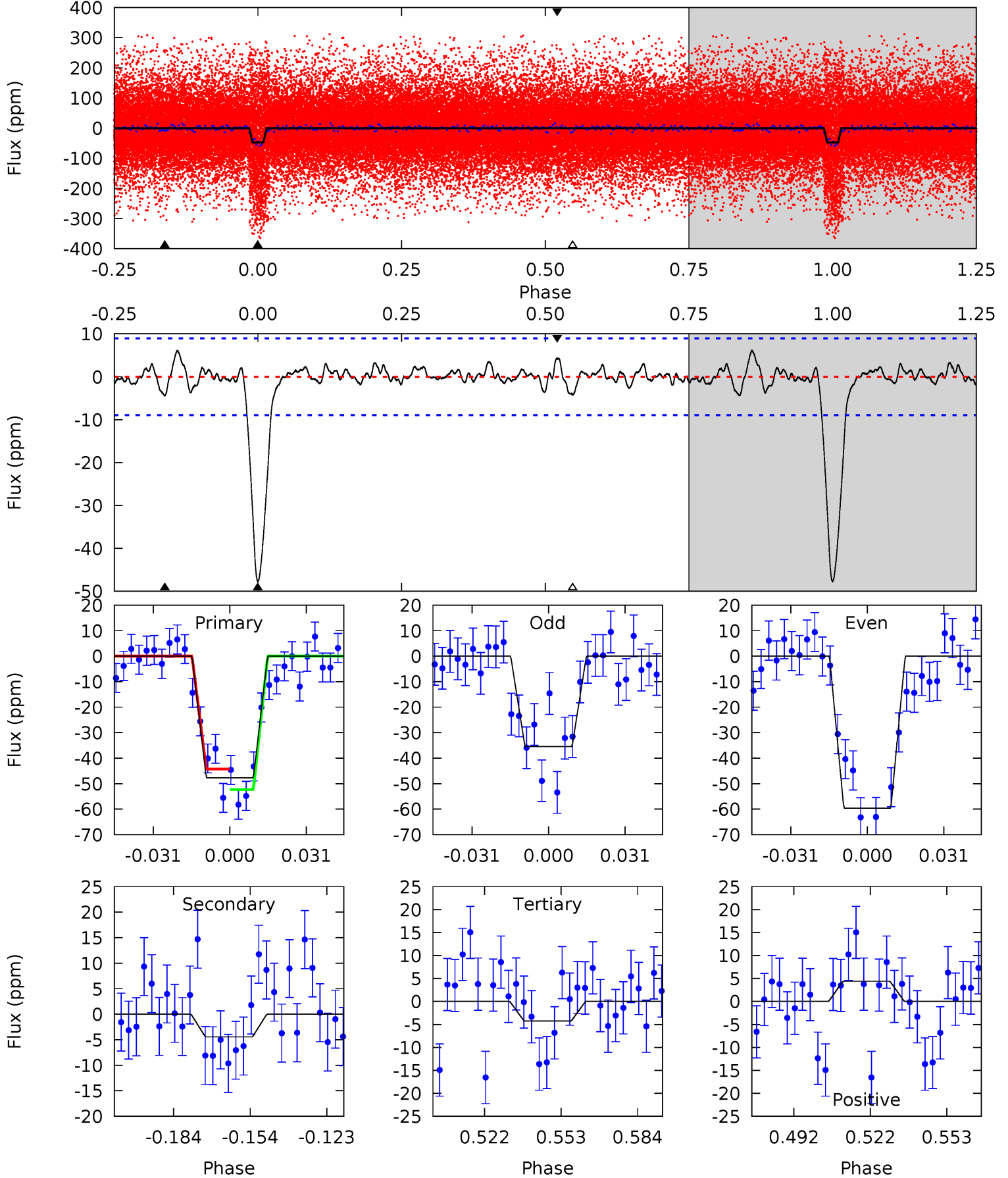
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	5.94	4.23	3.66	4.78	2.11	1.65	14.0	14.6	1.71	2.27	3.02	0.90	0.17	1.58



Alt Model-Shift Uniqueness Test

005946568-01, P = 3.564509 Days, E = 130.882170 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.6	2.39	2.29	2.36	4.81	2.16	0.76	23.4	23.3	0.10	0.04	6.46	1.12	0.11	2.15



Stellar Parameters For KIC 005946568

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5435^{+73}_{-89}	$4.578^{+0.011}_{-0.104}$	$0.070^{+0.150}_{-0.150}$	$0.824^{+0.093}_{-0.027}$	$0.937^{+0.039}_{-0.066}$	$2.358^{+0.150}_{-0.659}$
	+1%/-2%	+0%/-2%	+214%/-214%	+11%/-3%	+4%/-7%	+6%/-28%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 005946568-01 / KOI 5211.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 3	$0.75^{+0.31}_{-0.32}$	1457^{+46}_{-31}	4053^{+982}_{-459}	29^{+58}_{-14}
Alt.	-4 ± 2	$0.67^{+0.30}_{-0.31}$	1456^{+43}_{-29}	3406^{+813}_{-473}	11^{+27}_{-7}

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 $A_{obs} \gg 1.0$

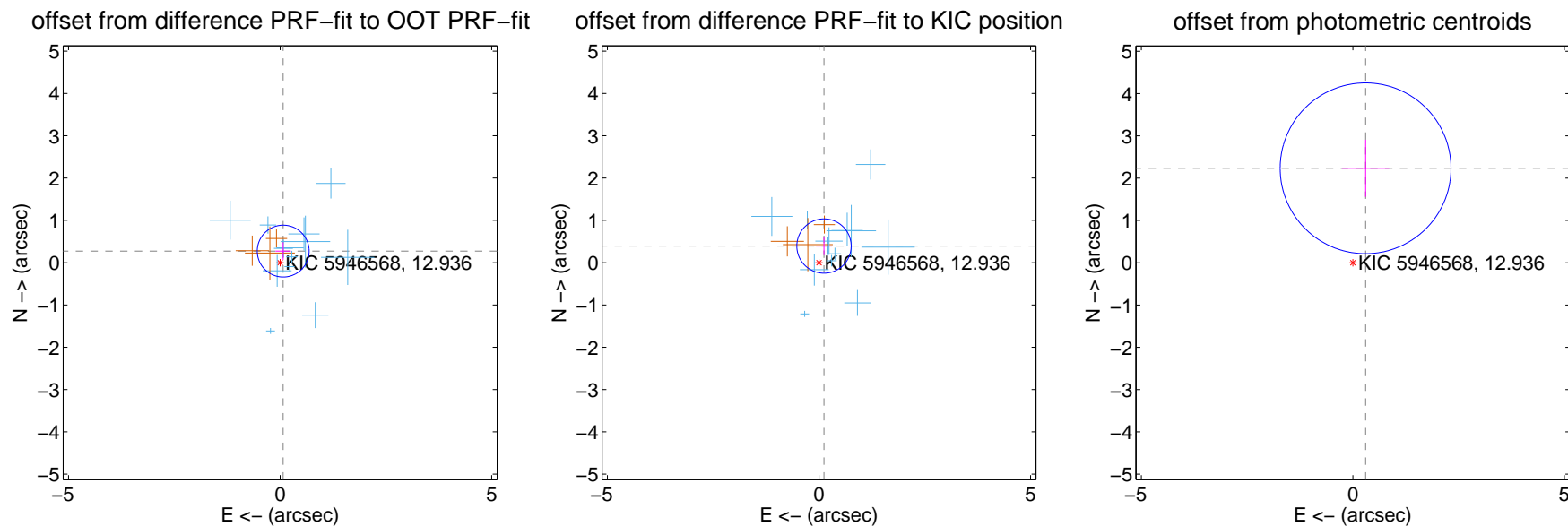
DV Centroid Data

Supplemental centroid analysis for 005946568-01. Kepler magnitude: 12.94. Transit SNR 11.17

There are 13 quarters with good PRF difference image offsets

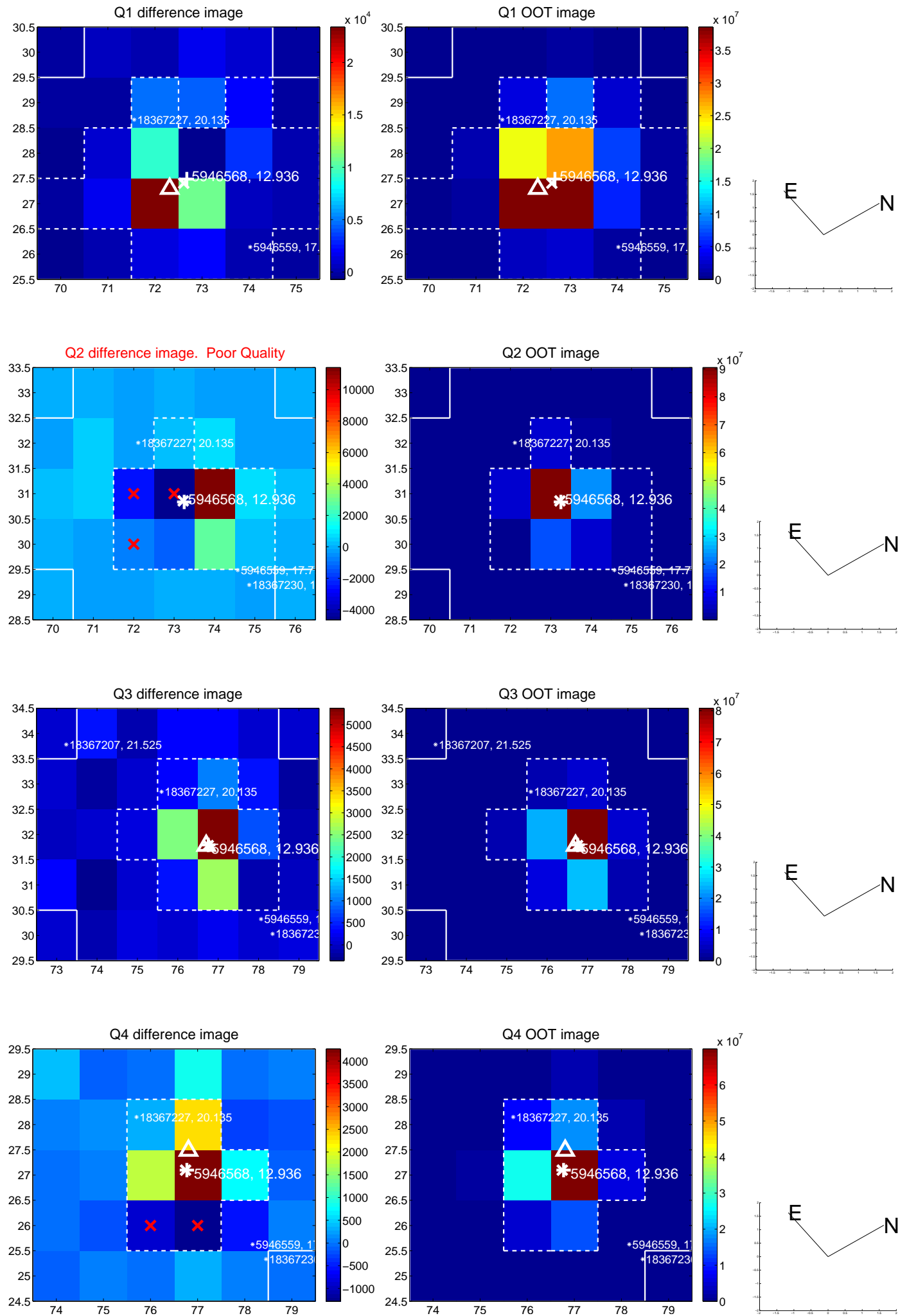
The direct PRF centroid is offset from the target star catalog position by about 0.30 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.283 ± 0.204	1.38	-0.073 ± 0.182	0.273 ± 0.207
PRF-fit source offset from KIC position	0.410 ± 0.214	1.92	-0.118 ± 0.188	0.393 ± 0.214
photometric centroid source offset	2.25 ± 0.67	3.35	-0.30 ± 0.56	2.23 ± 0.67

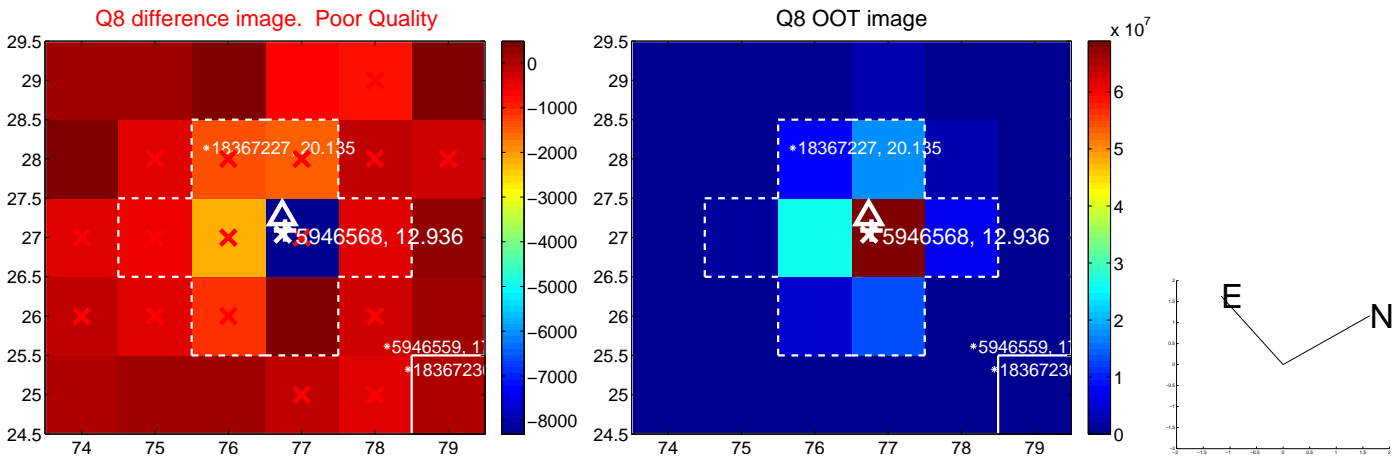
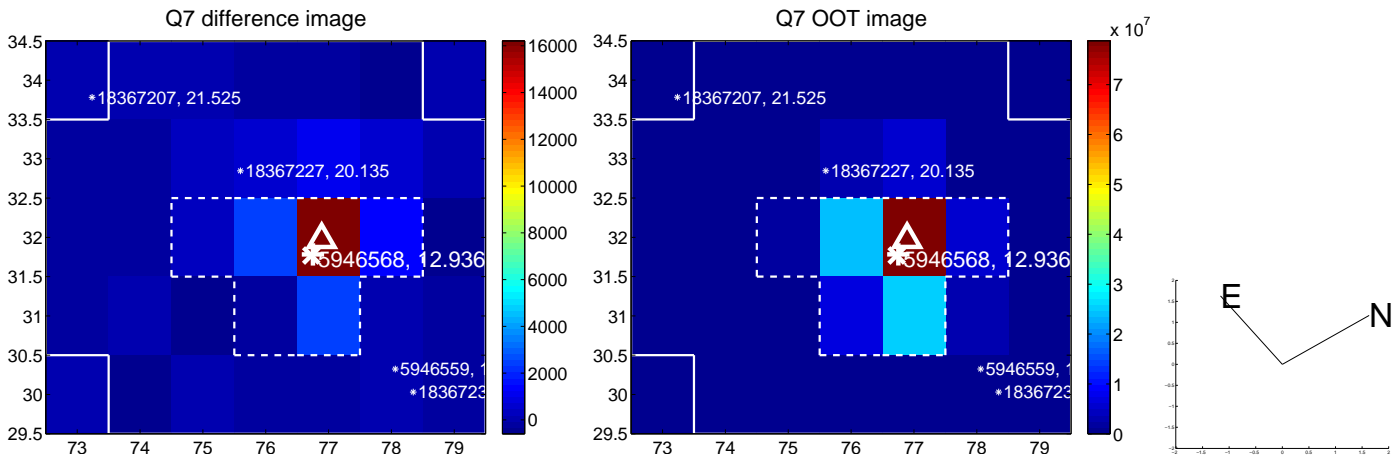
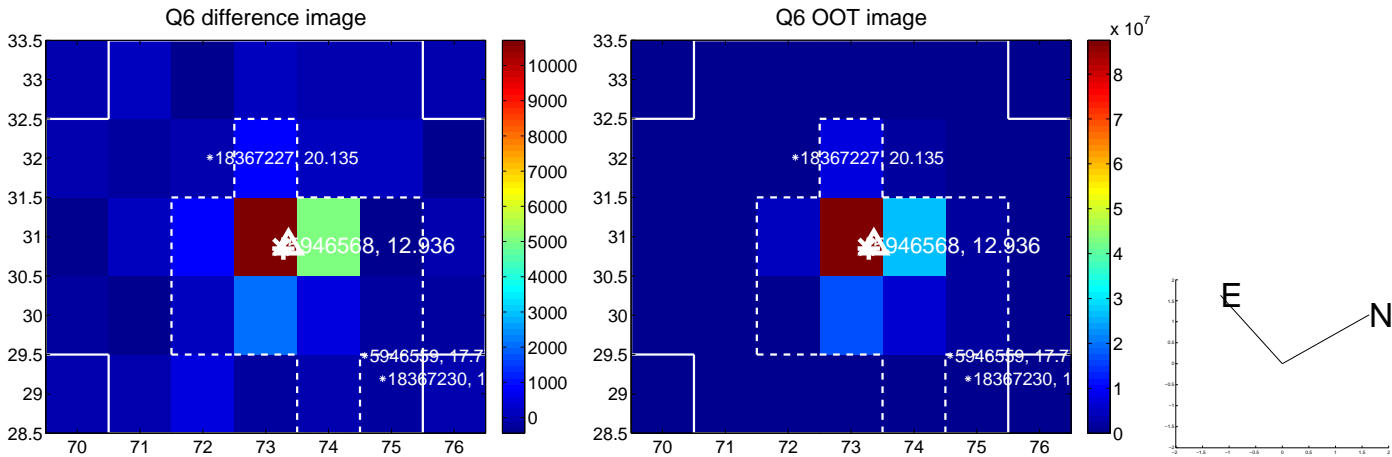
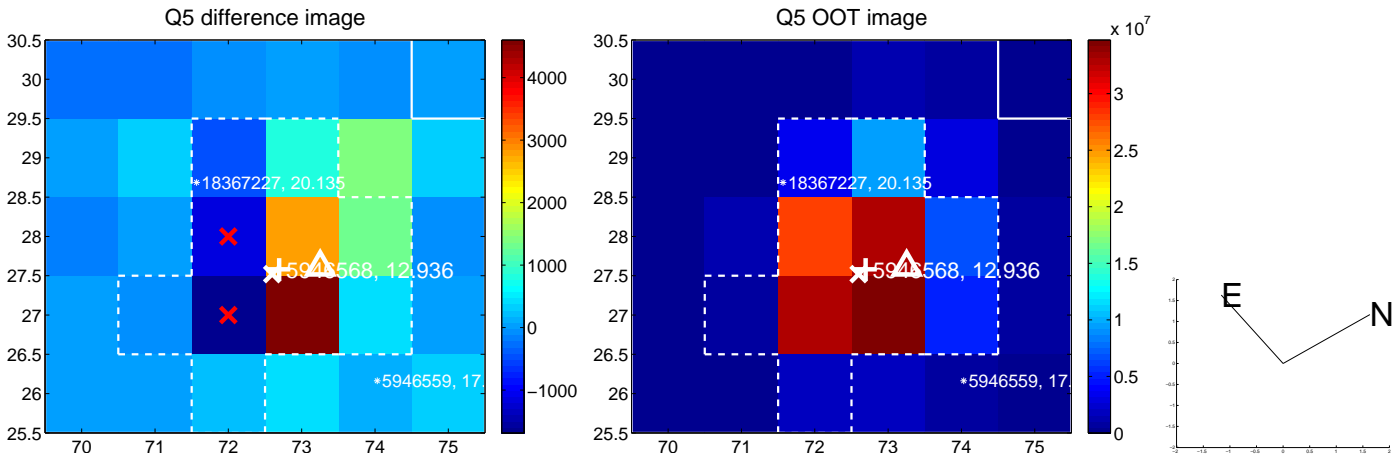


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

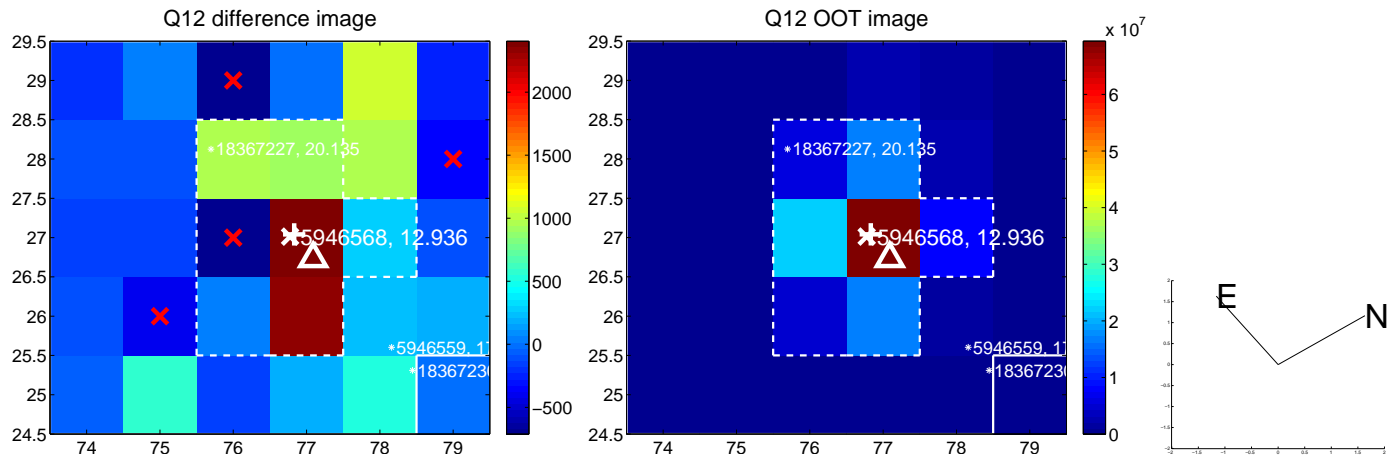
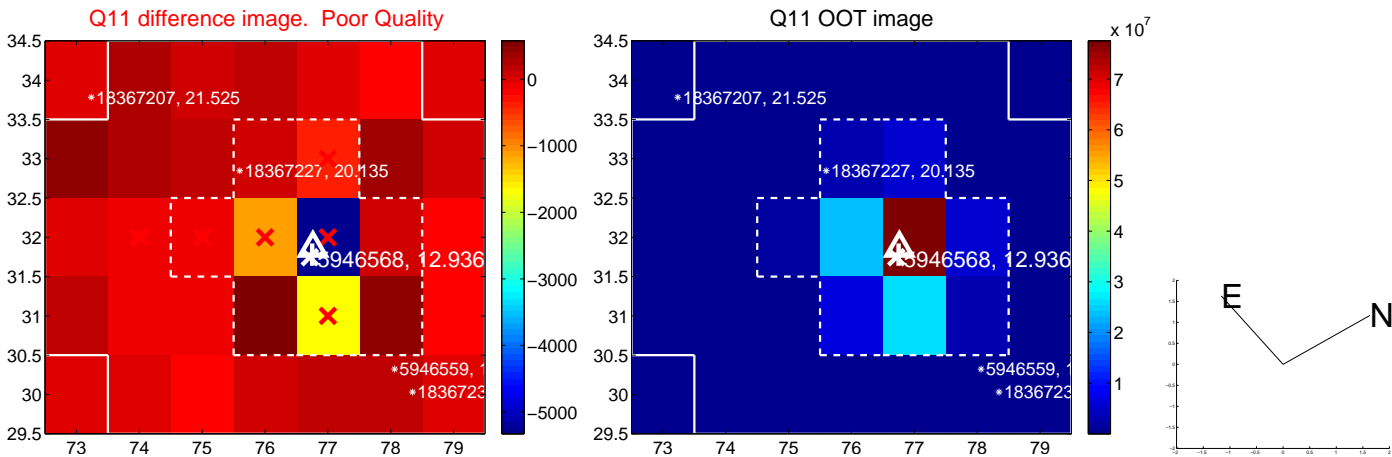
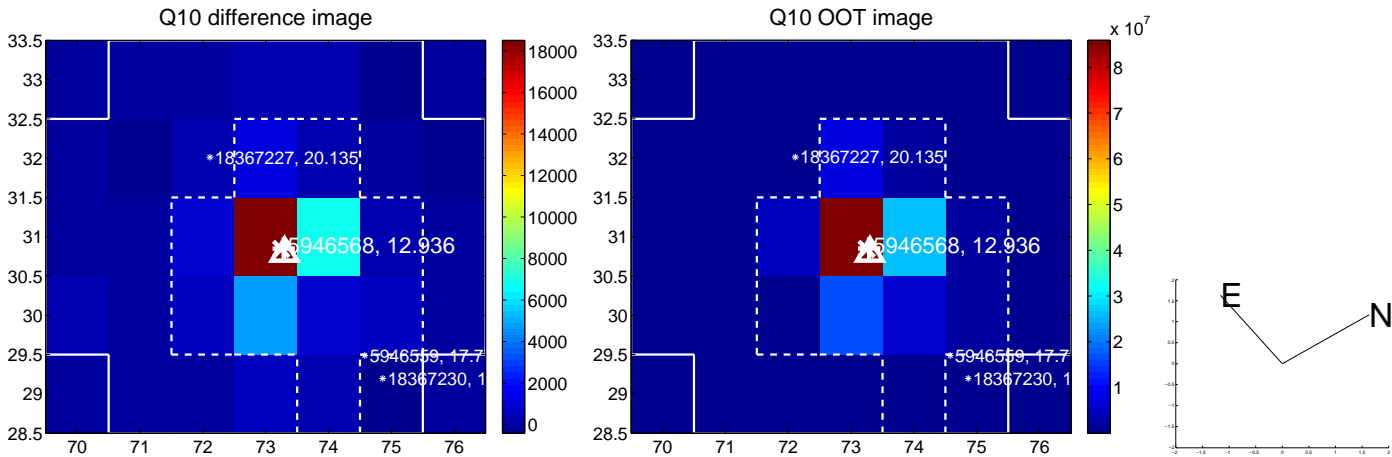
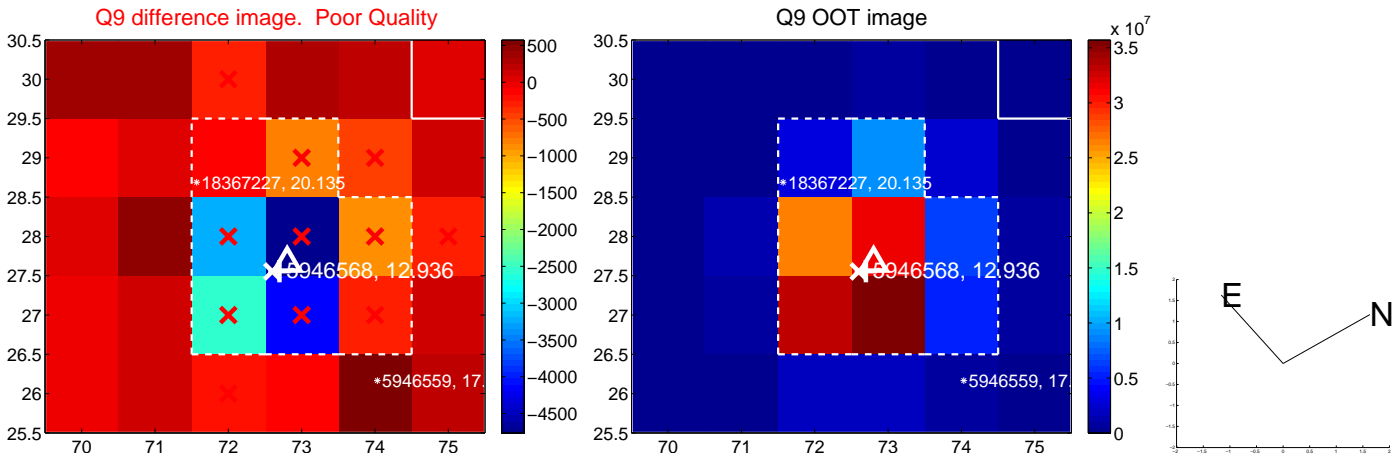
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



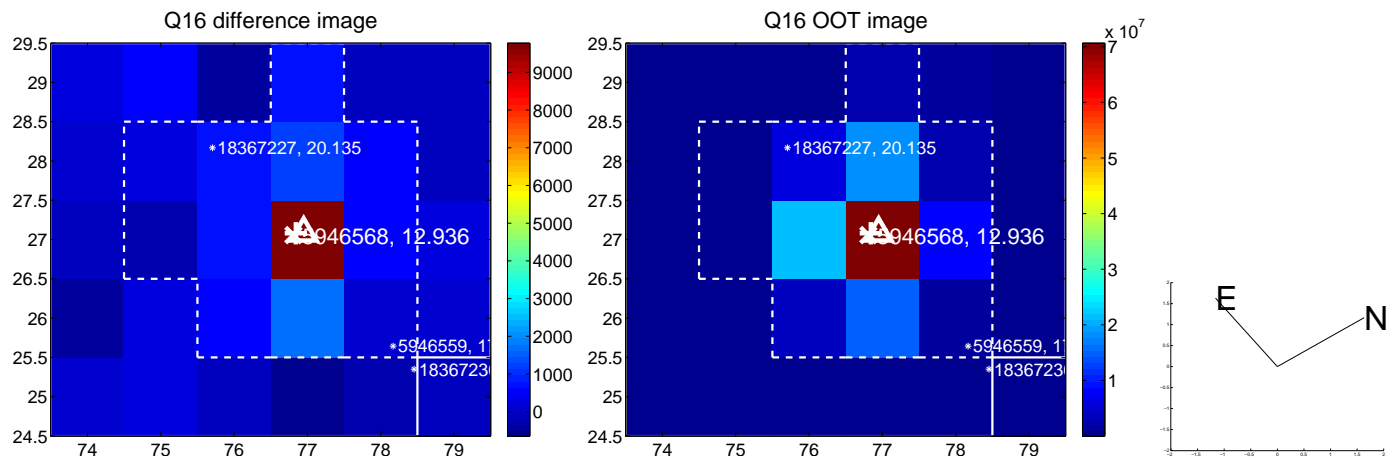
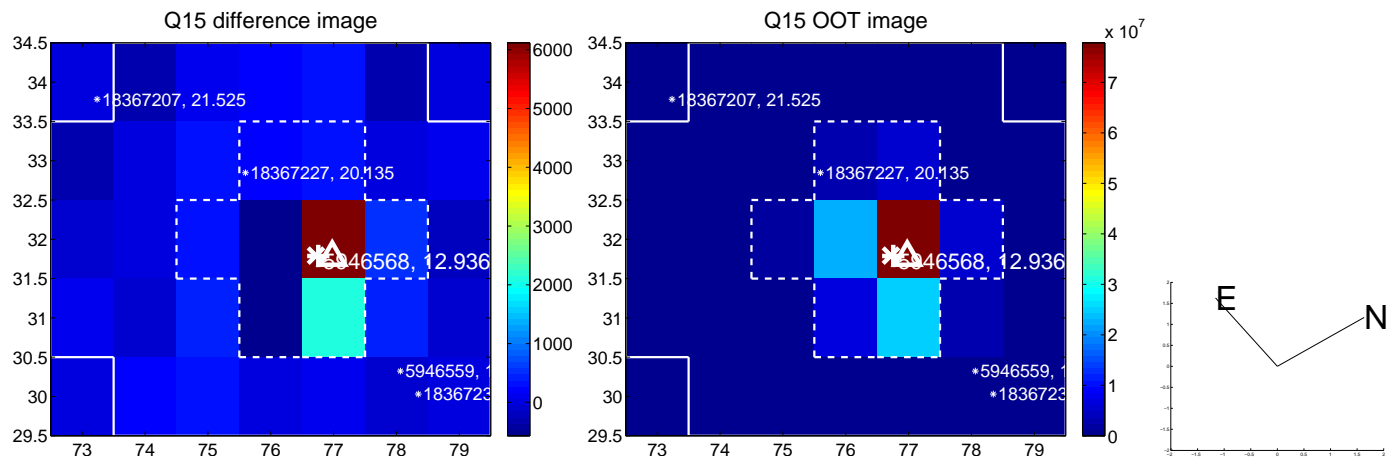
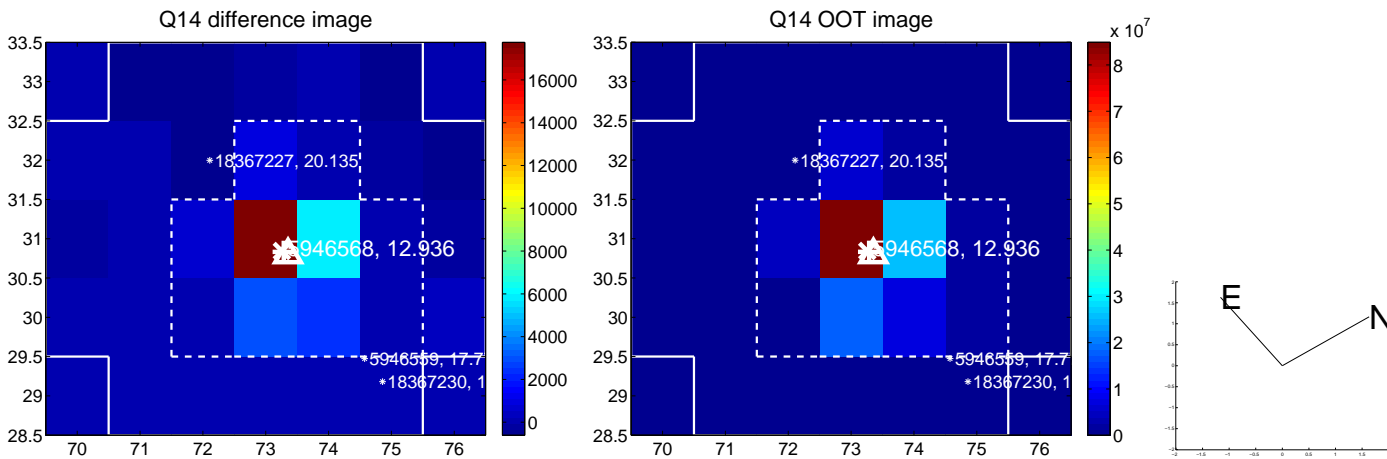
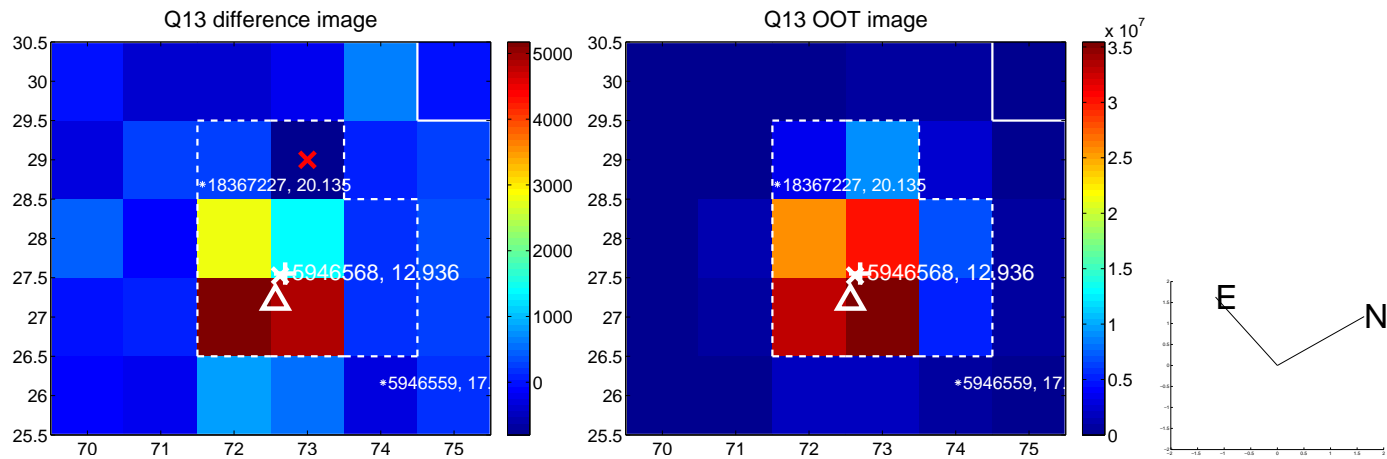
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



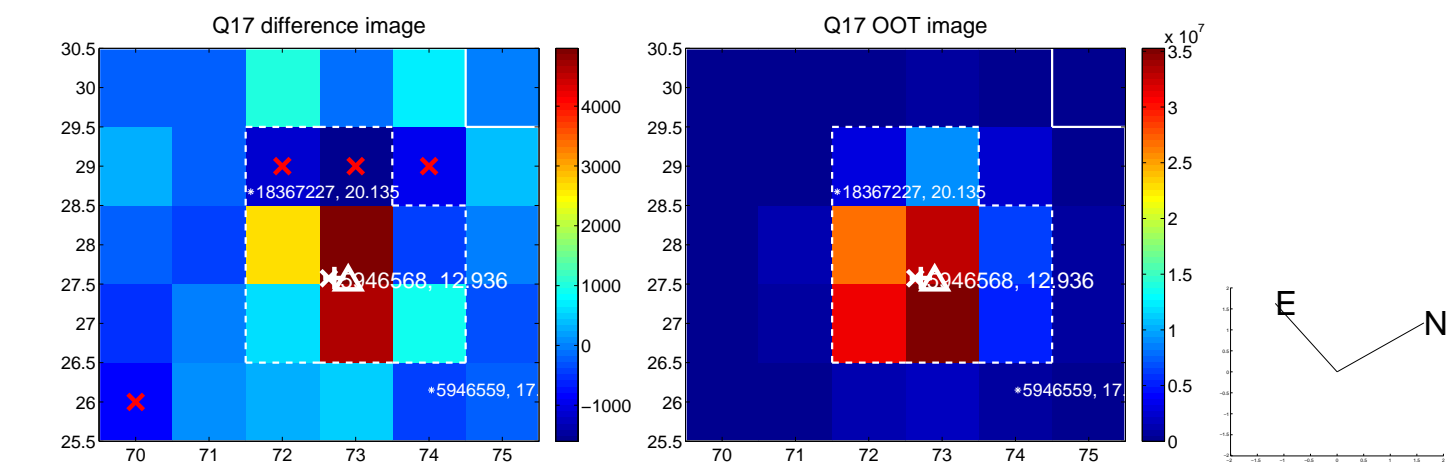
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



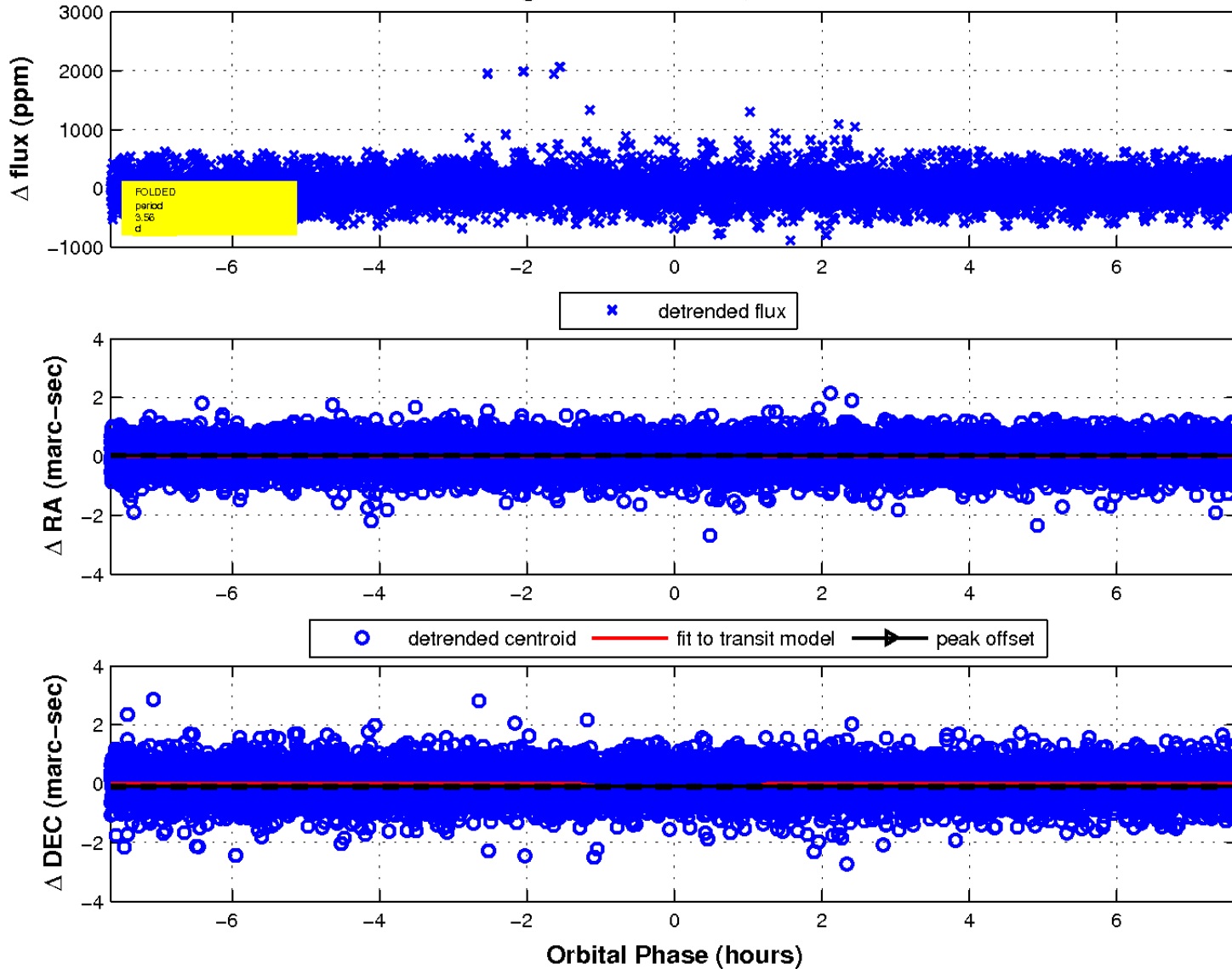
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

