

KIC 010936256

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})
010936256-01	OBS	No	2.673384	133.242767	102.3	11.575	8.2	9.3	0.80	5319	1.00	344.14

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010936256-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET—HALO_GHOST

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

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

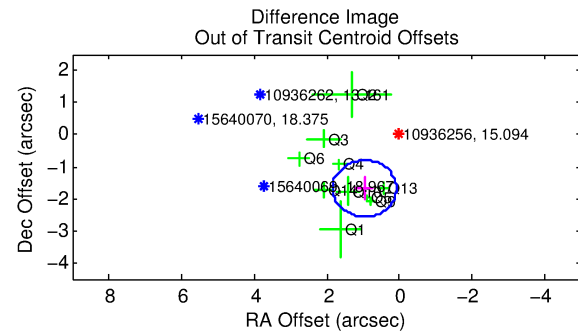
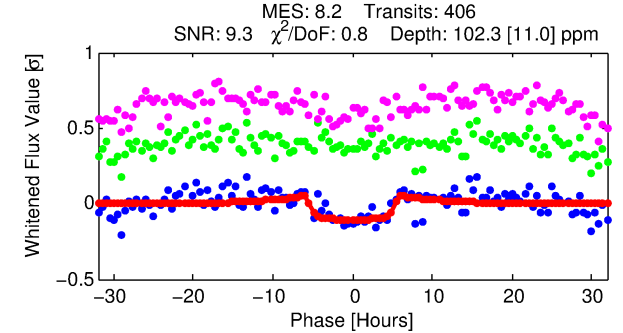
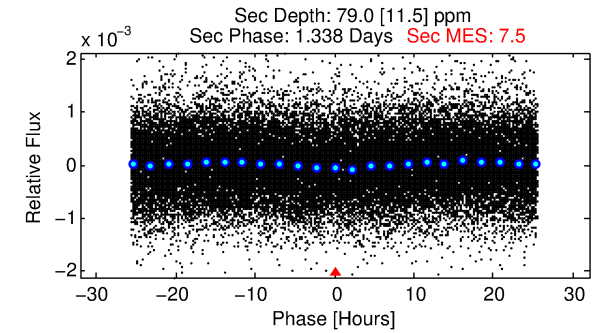
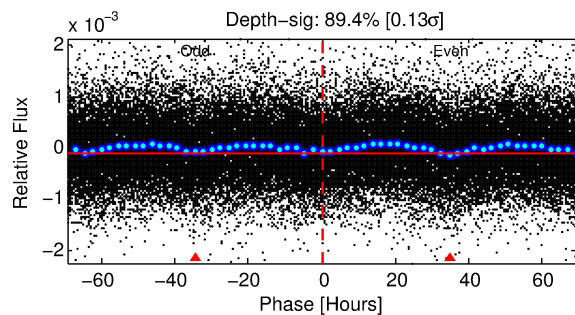
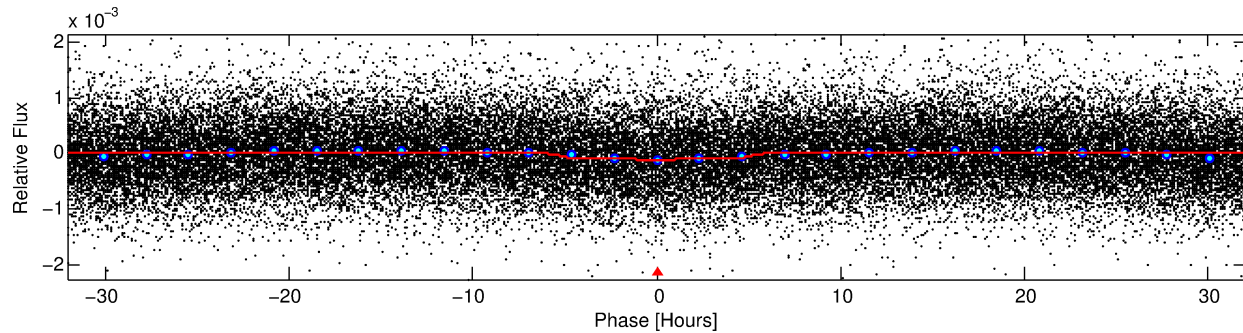
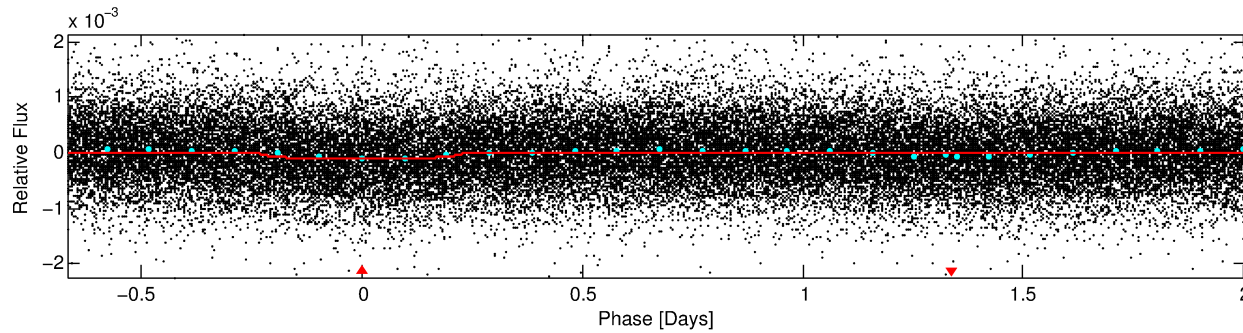
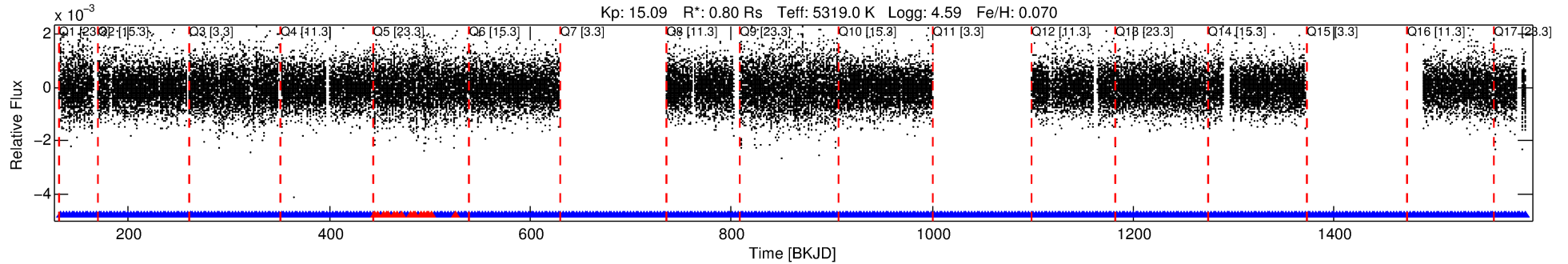
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010936256-01

No Significant Match Found

DV One-Page Summary

KIC: 10936256 Candidate: 1 of 1 Period: 2.673 d



DV Fit Results:

Period = 2.67338 [0.00004] d
Epoch = 133.2428 [0.0106] BKJD
Rp/R* = 0.0116 [0.0015]
a/R* = 1.20 [0.19]
b = 0.93 [0.08]
Seff = 344.14 [89.92]
Teq = 1098 [72] K
Rp = 1.00 [0.23] Re
a = 0.0363 [0.0057] AU
Ag = 56.95 [21.30] [2.63 σ]
Teff = 4665 [369] K [9.48 σ]

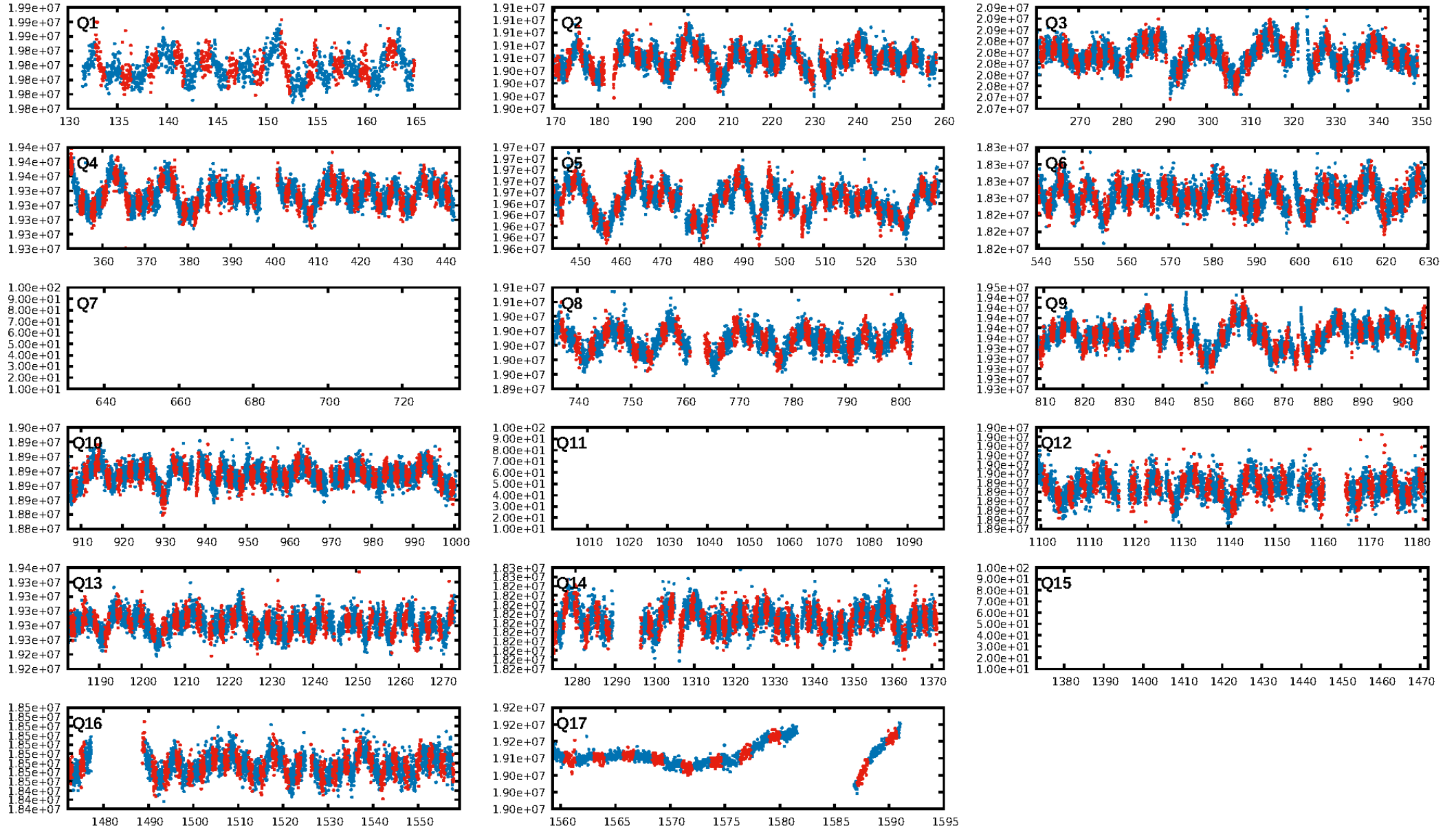
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.12e-11
RollingBand-fgt: 0.96 [367/384]
GhostDiagnostic-chr: 0.1365
Centroid-sig: 10.7%
Centroid-so: 3.341 arcsec [5.10 σ]
OotOffset-rm: 1.938 arcsec [6.62 σ]
KicOffset-rm: 5.714 arcsec [21.62 σ]
OotOffset-st: 4/1/1/4 [10]
KicOffset-st: 4/1/1/4 [10]
DiffImageQuality-fgm: 1.00 [10/10]
DiffImageOverlap-fno: 1.00 [14/14]

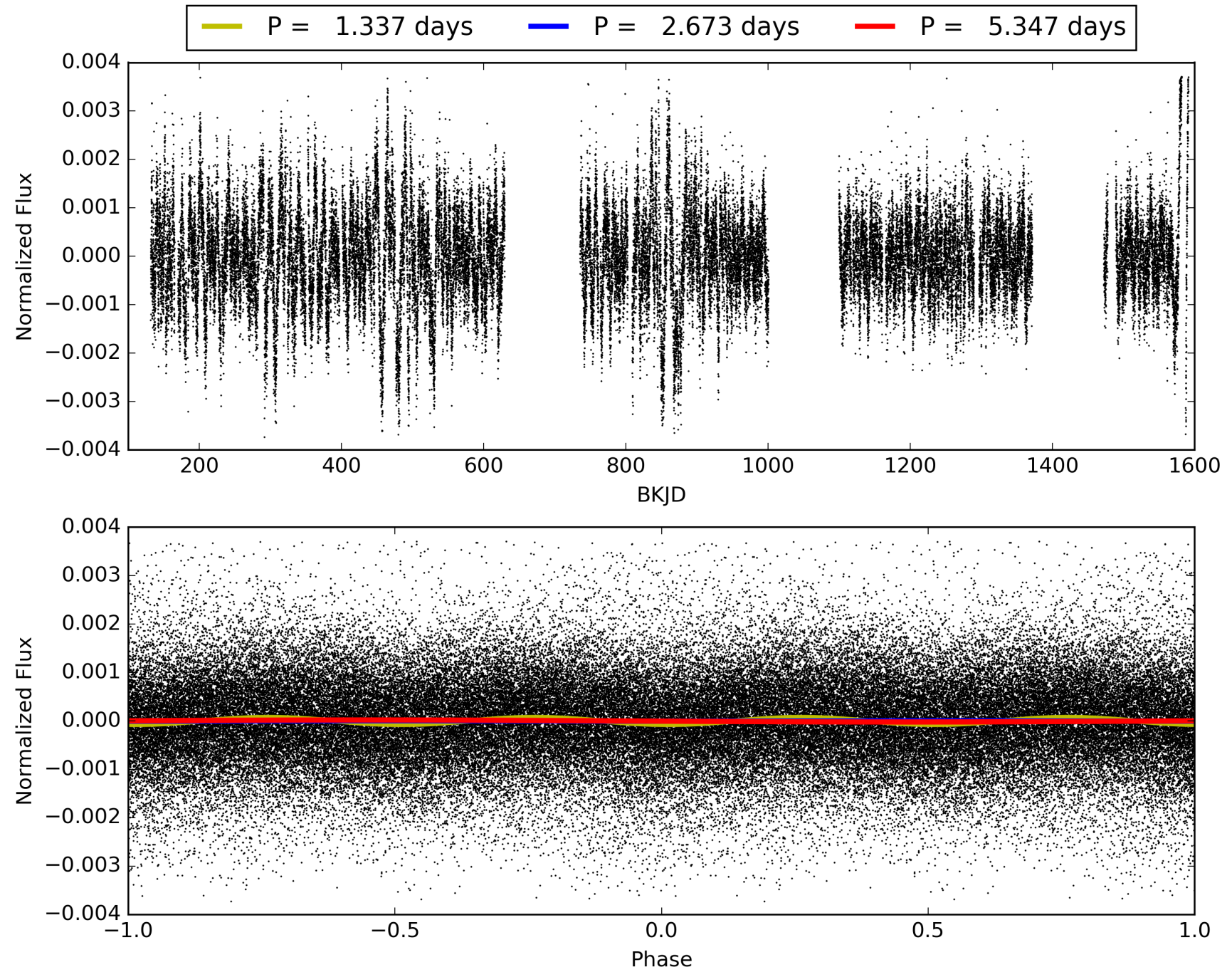
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:29:27 Z

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

TCE 010936256-01, PDC Light Curves

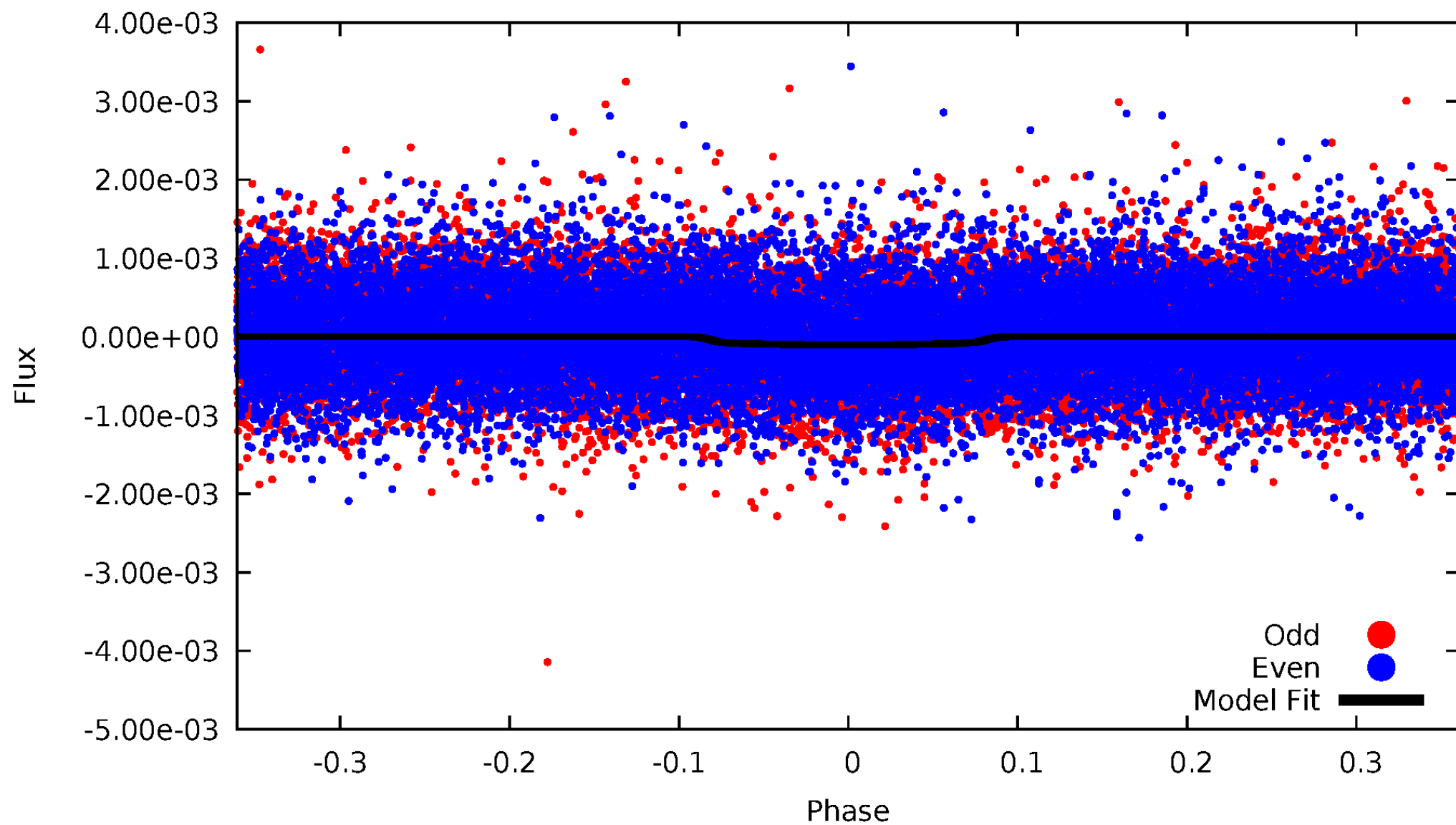


TCE 010936256-01



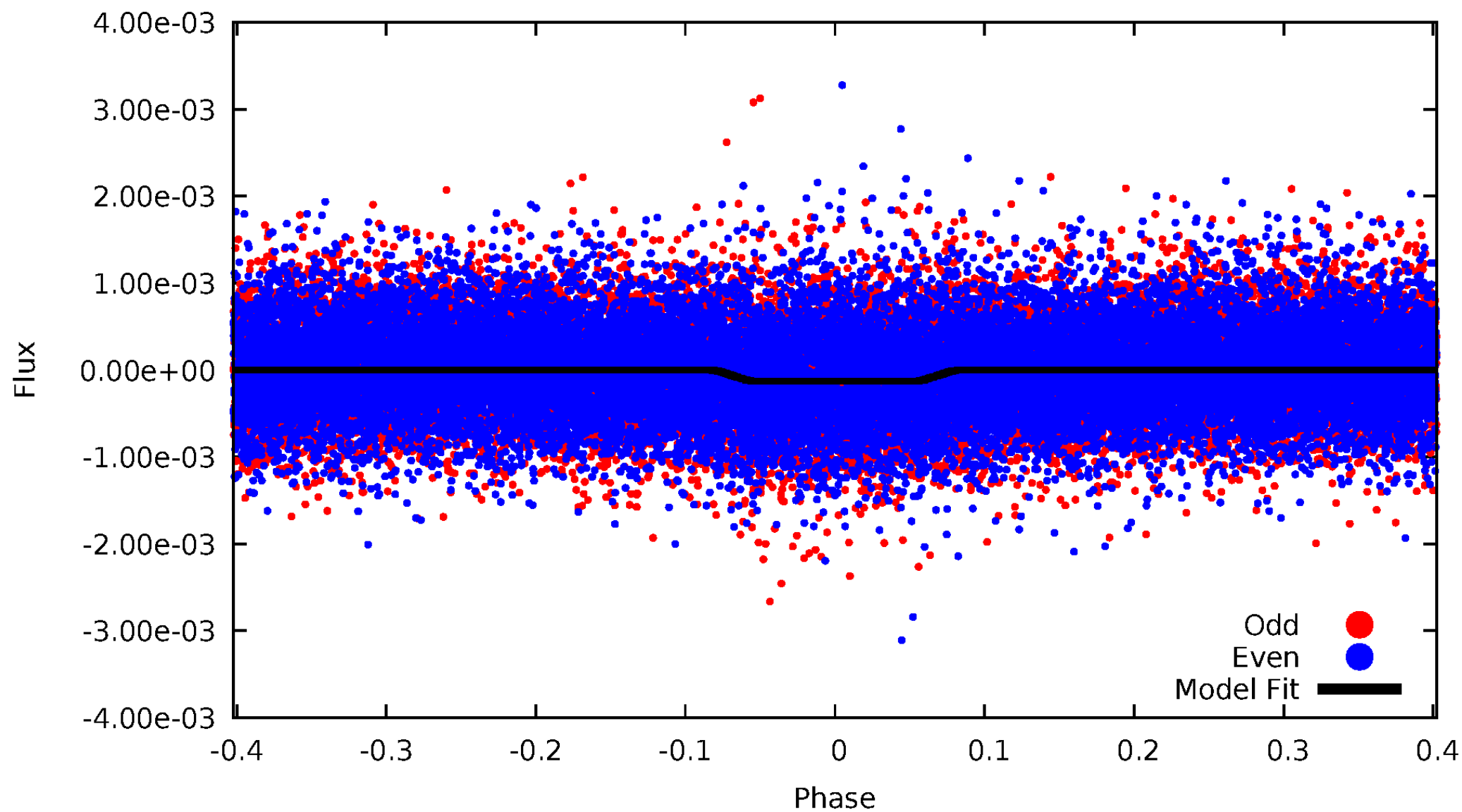
DV Odd/Even

TCE 010936256-01



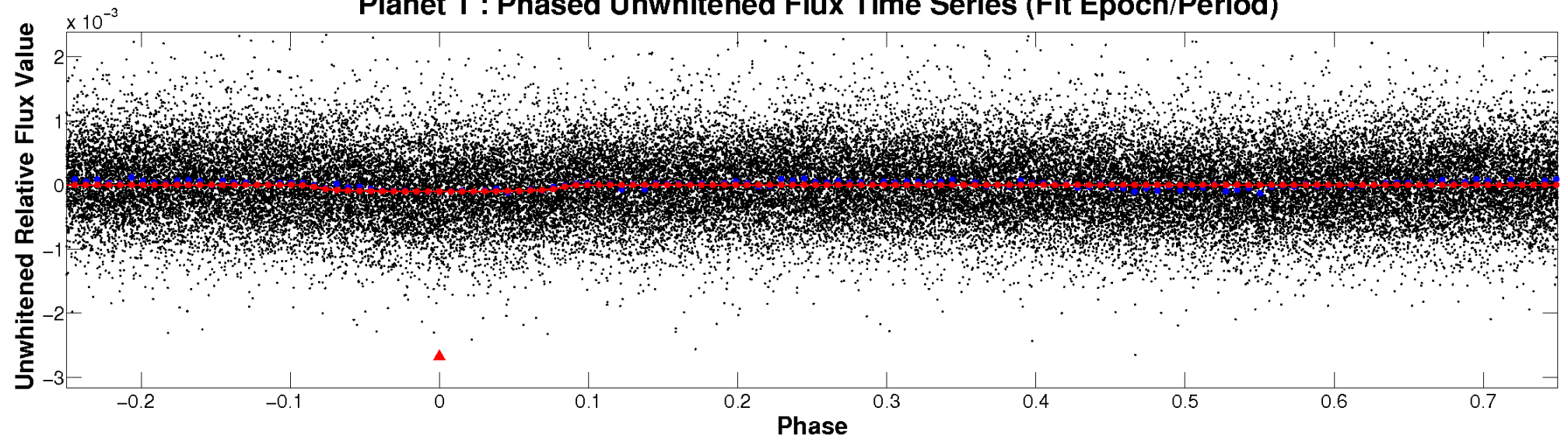
ALT Odd/Even

TCE 010936256-01

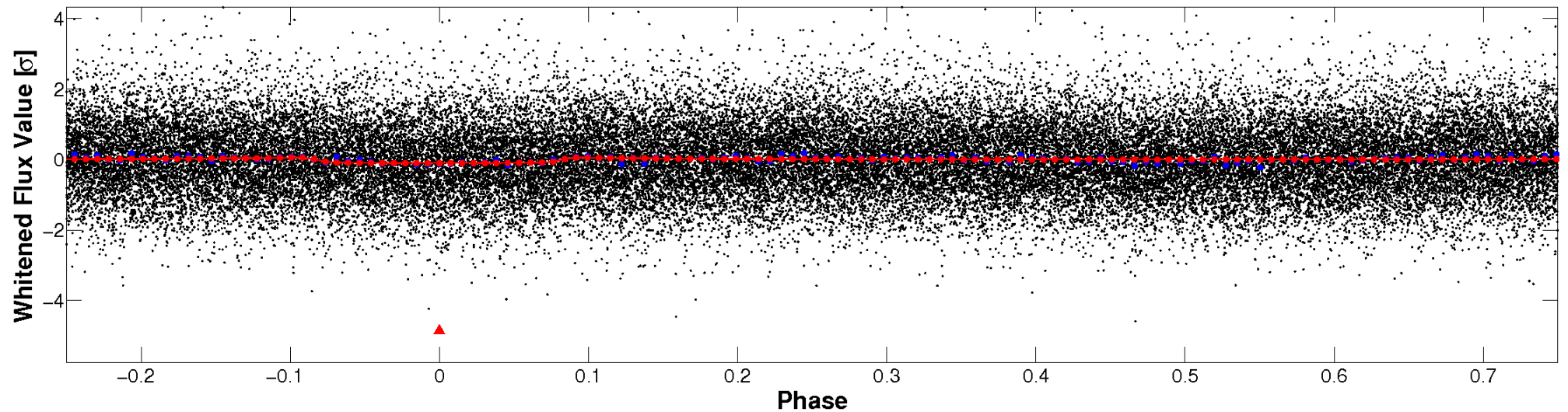


Non-Whitened Vs. Whitened Light Curve

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

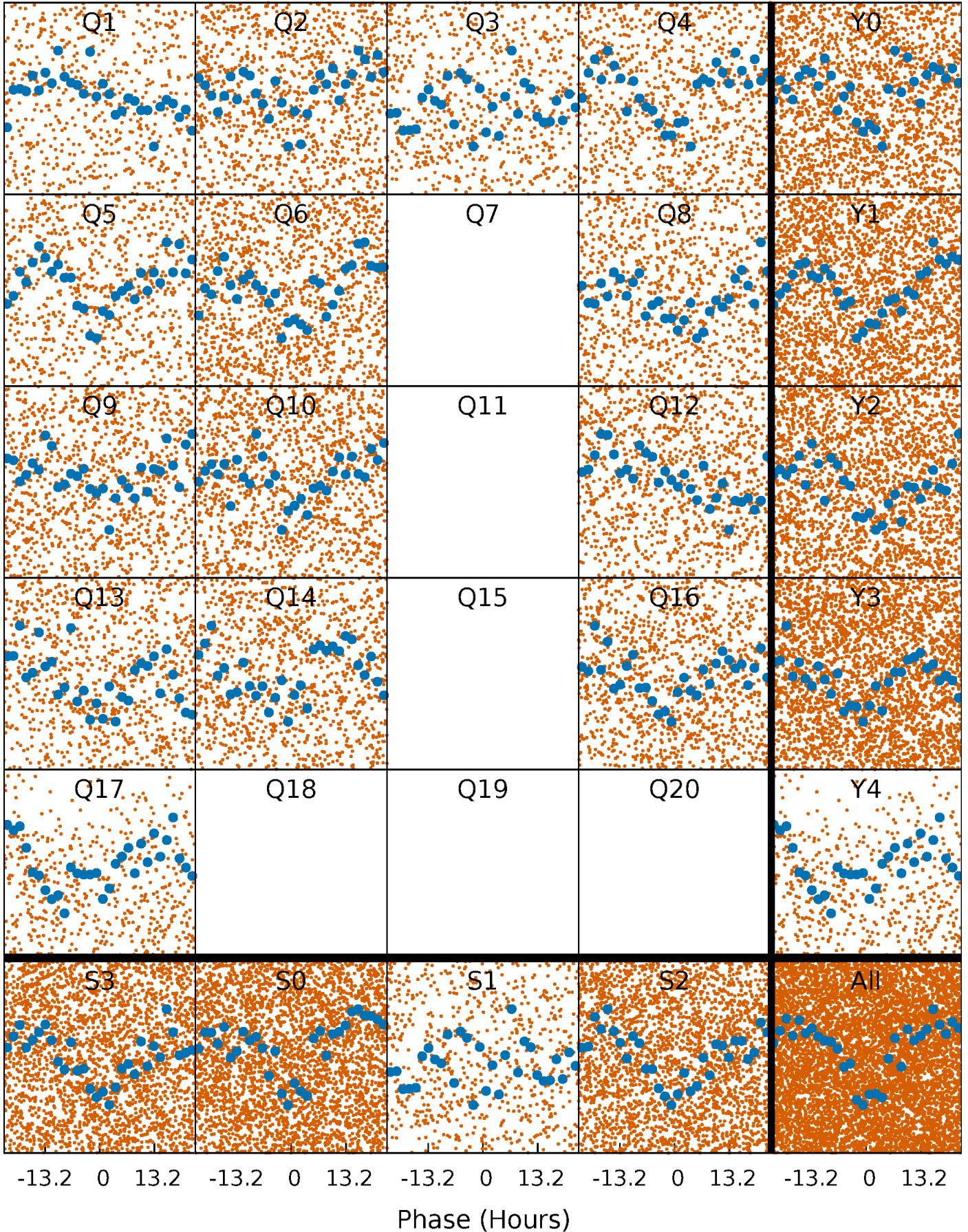


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



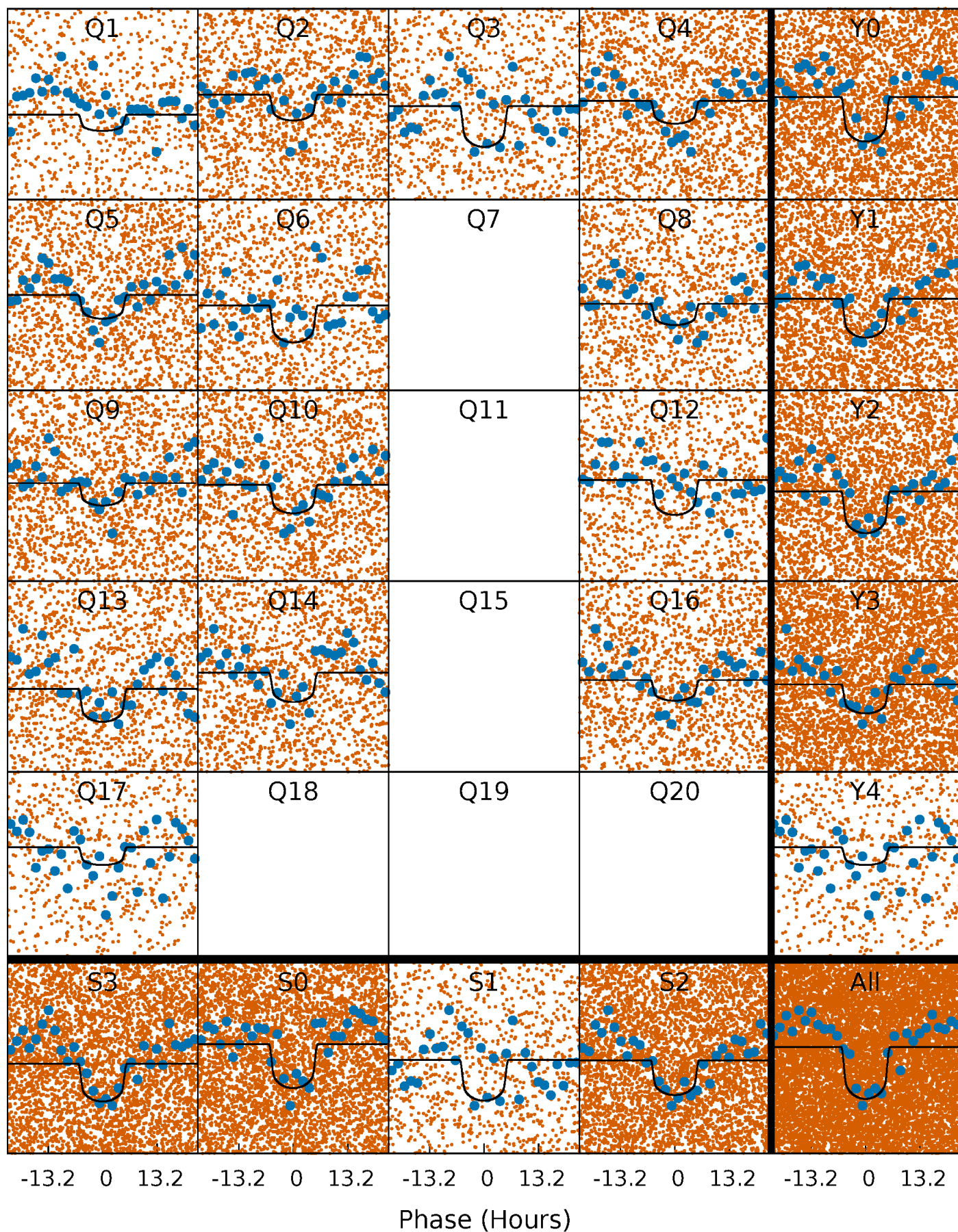
PDC Quarter-Phased Transit Curves

TCE 010936256-01 P= 2.673384 Days $T_0=133.242767$ (BKJD)



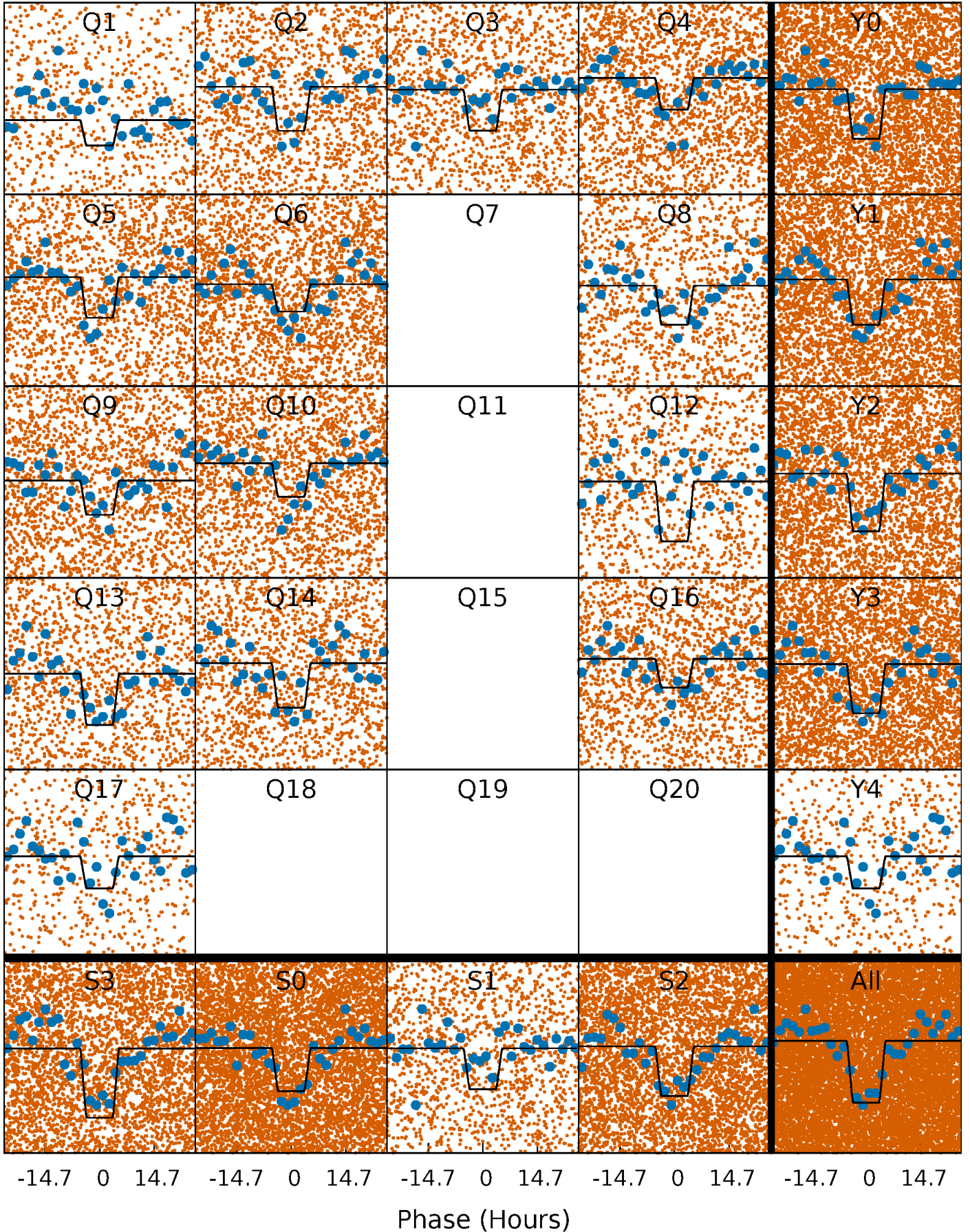
DV Quarter-Phased Transit Curves

TCE 010936256-01 P= 2.673384 Days $T_0=133.242767$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

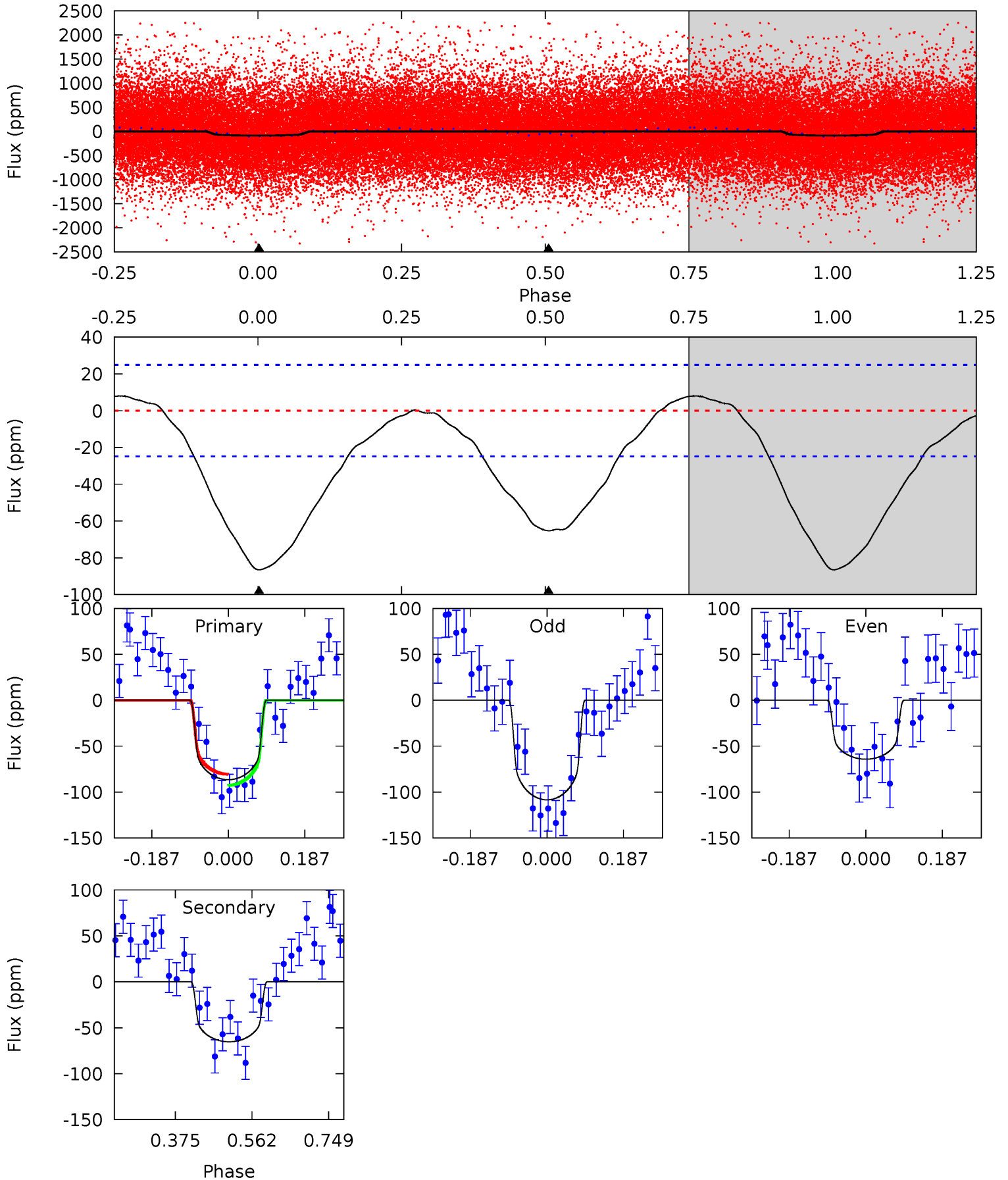
TCE 010936256-01 P= 2.673236 Days $T_0=133.295909$ (BKJD)



DV Model-Shift Uniqueness Test

010936256-01, P = 2.673384 Days, E = 130.569383 Days

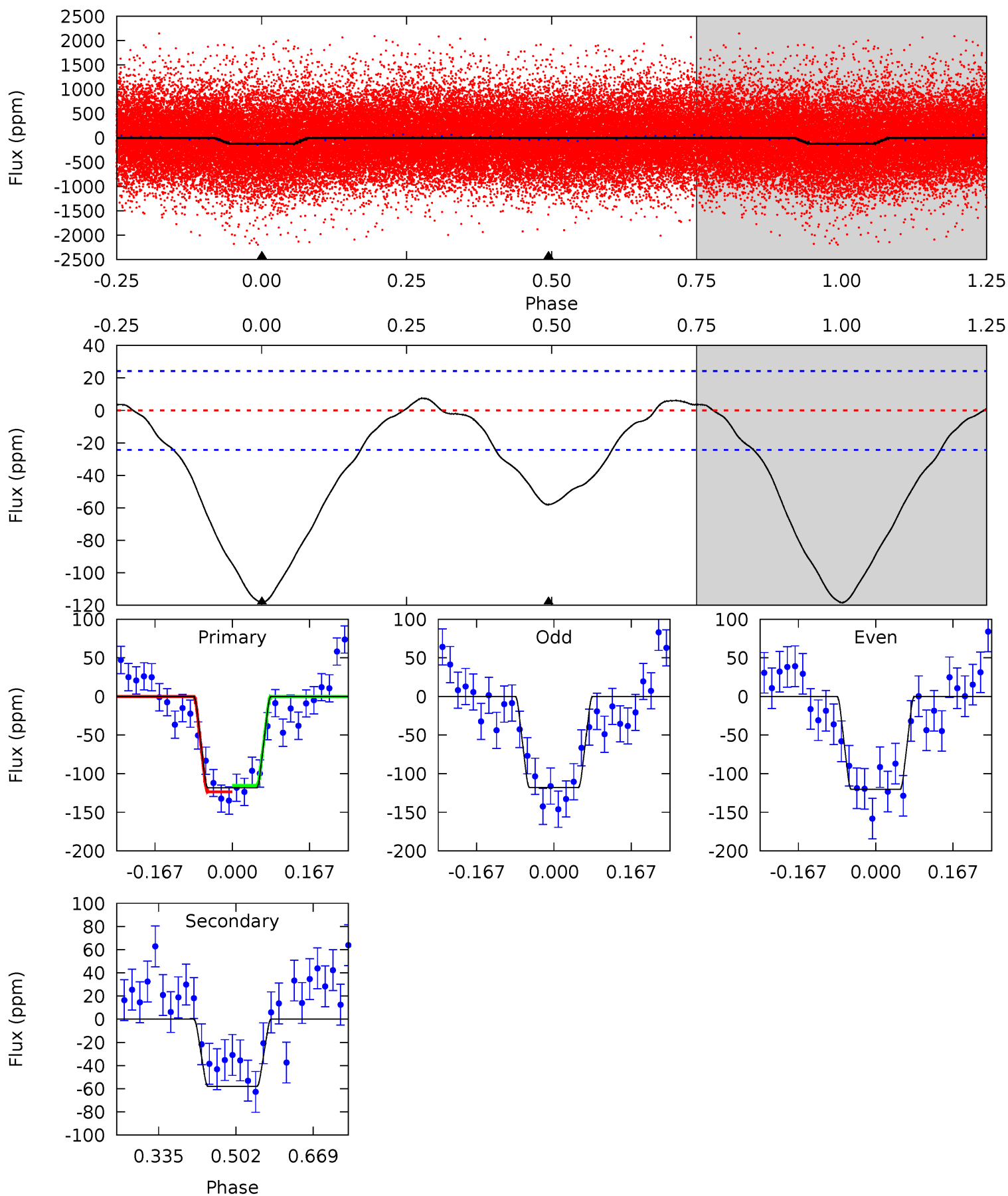
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.4	11.6	0	0	4.43	1.32	1.10	15.4	15.4	11.6	11.6	3.95	1.36	0.08	1.07



Alt Model-Shift Uniqueness Test

010936256-01, P = 2.673236 Days, E = 130.622673 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.7	10.6	0	0	4.46	1.38	1.46	21.7	21.7	10.6	10.6	0.22	0.95	0.06	0.76



Stellar Parameters For KIC 010936256

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5319^{+159}_{-143}	$4.588^{+0.024}_{-0.128}$	$0.070^{+0.250}_{-0.300}$	$0.796^{+0.148}_{-0.059}$	$0.912^{+0.058}_{-0.095}$	$2.544^{+0.313}_{-0.991}$
	+3%/-3%	+1%/-3%	+357%/-429%	+19%/-7%	+6%/-10%	+12%/-39%
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 010936256-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-65 ± 6	$1.05^{+0.16}_{-0.15}$	1570^{+76}_{-62}	4590^{+307}_{-266}	43^{+16}_{-11}
Alt.	-58 ± 5	$1.03^{+0.16}_{-0.16}$	1560^{+79}_{-57}	4484^{+313}_{-235}	40^{+14}_{-10}

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

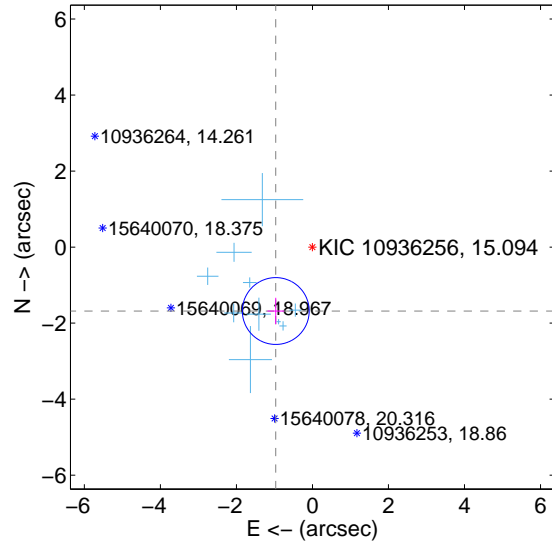
Supplemental centroid analysis for 010936256-01. Kepler magnitude: 15.09. Transit SNR 9.28

There are 10 quarters with good PRF difference image offsets

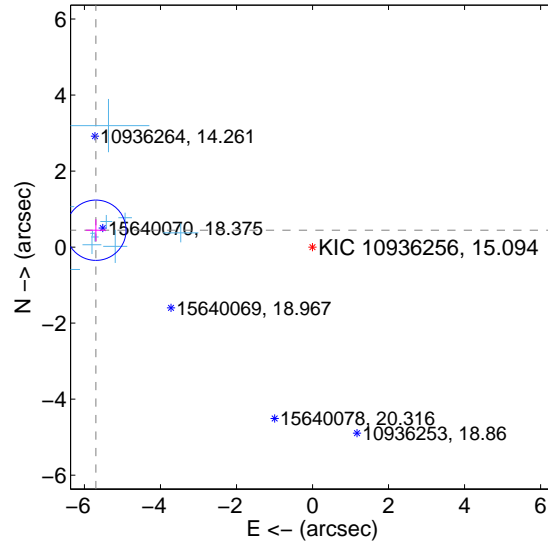
The OOT PRF centroid is offset from the target star catalog position by about 4.14 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.938 ± 0.293	6.62	0.964 ± 0.221	-1.681 ± 0.347
PRF-fit source offset from KIC position	5.714 ± 0.264	21.62	5.697 ± 0.264	0.443 ± 0.289
photometric centroid source offset	3.34 ± 0.65	5.10	3.25 ± 0.66	0.78 ± 0.50

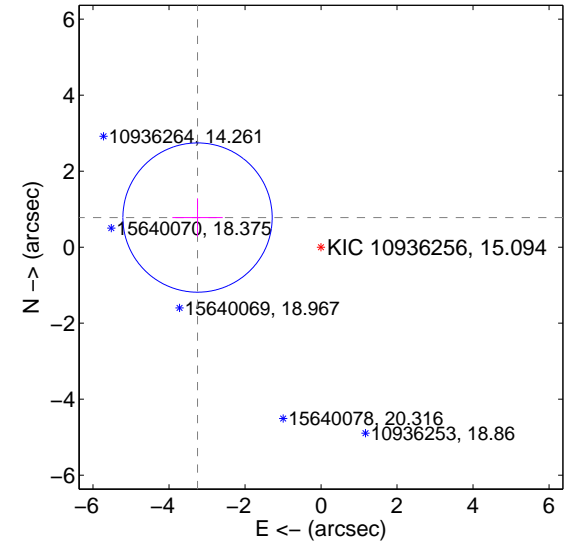
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

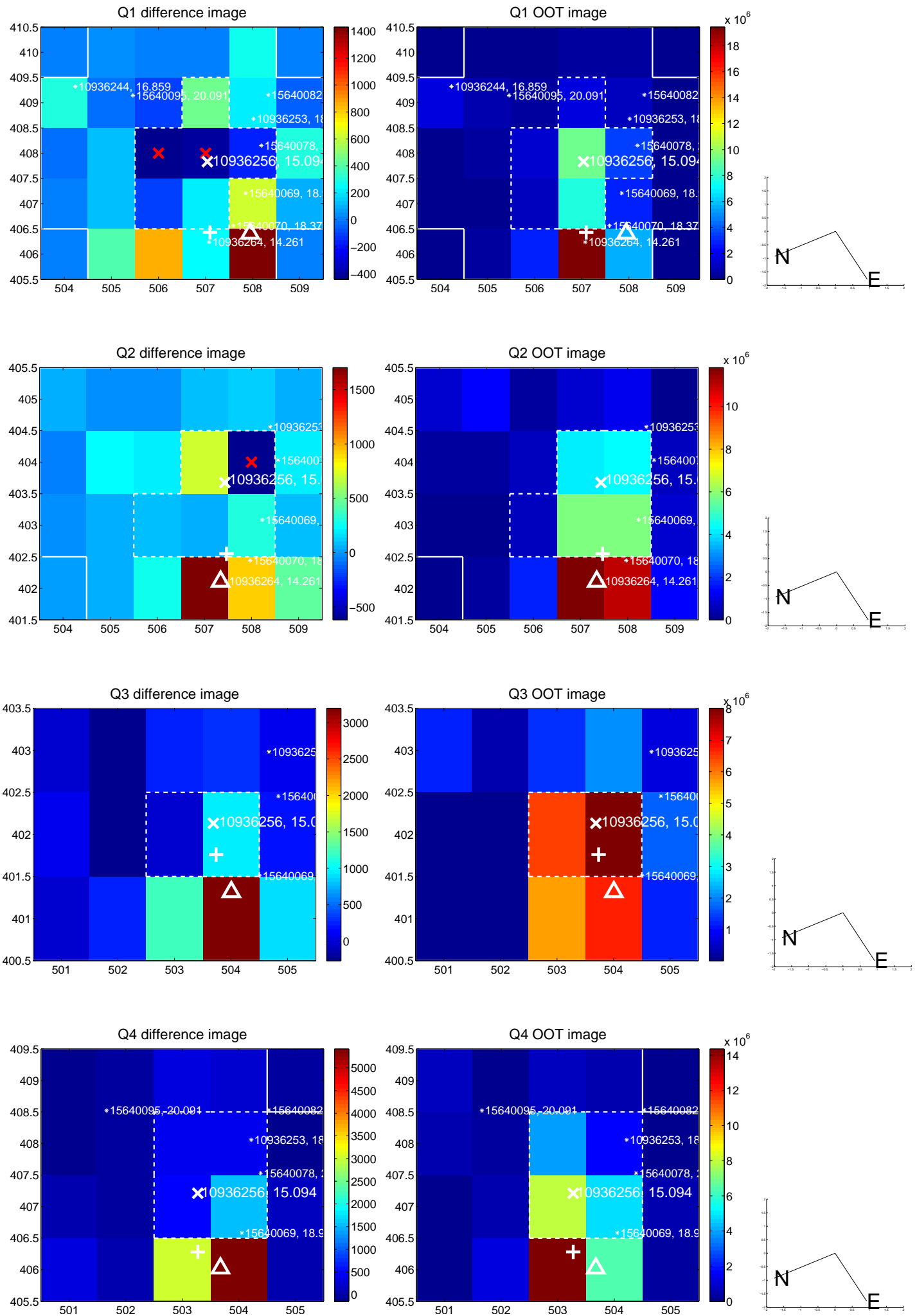


offset from photometric centroids

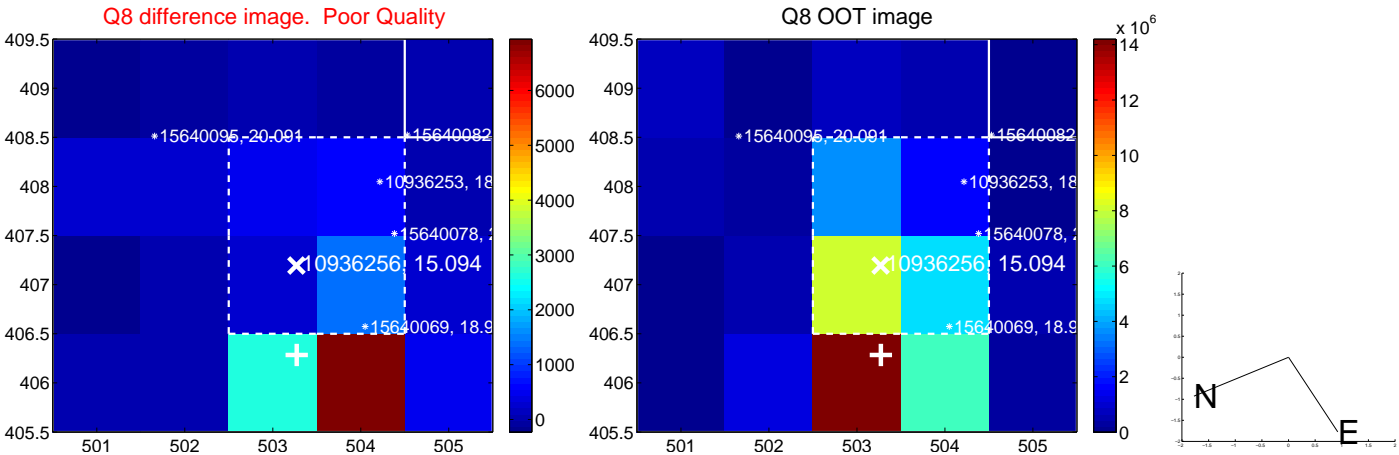
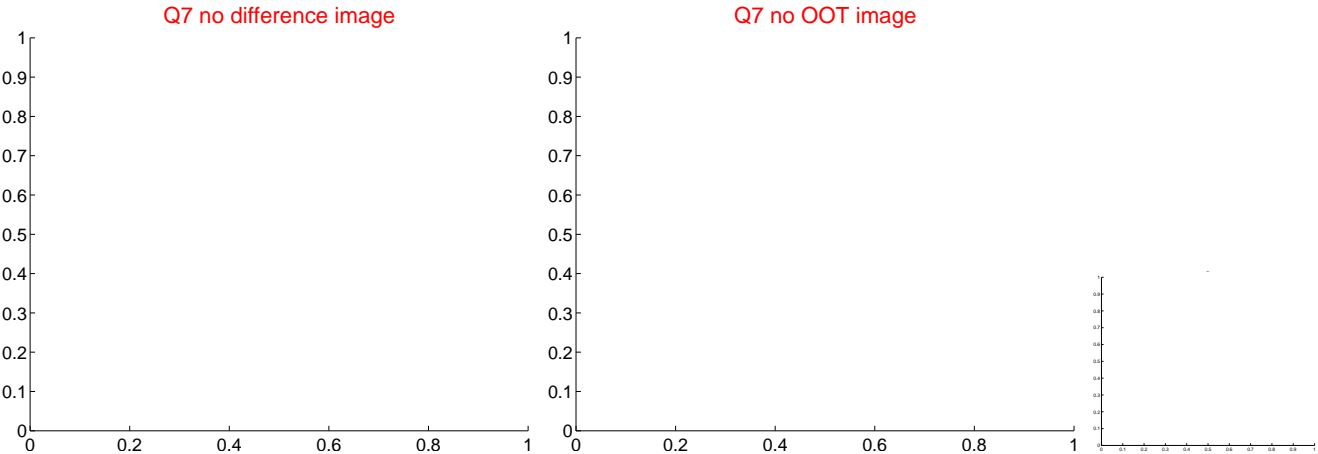
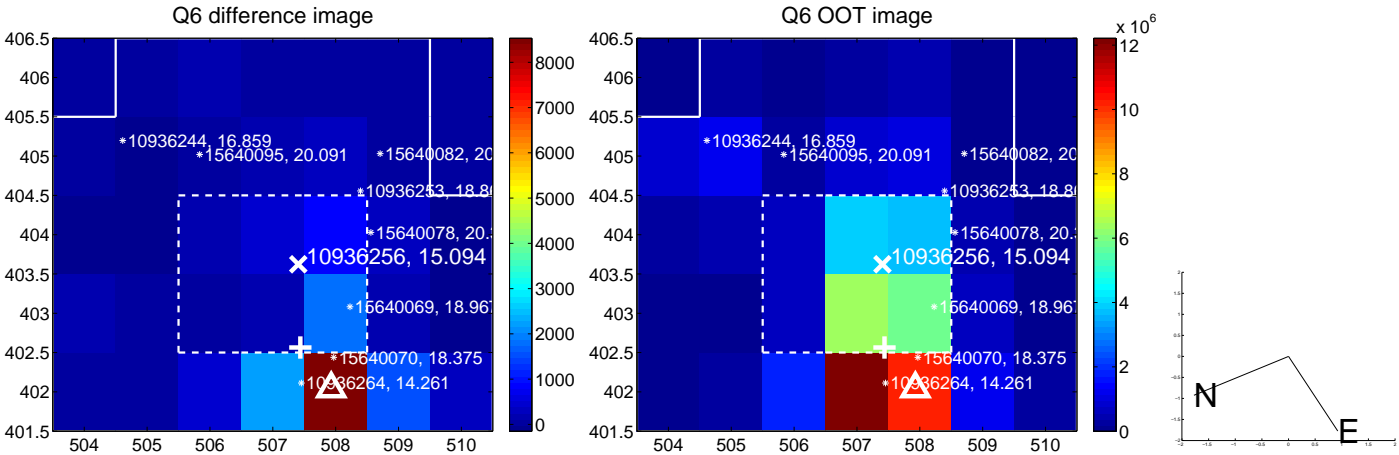
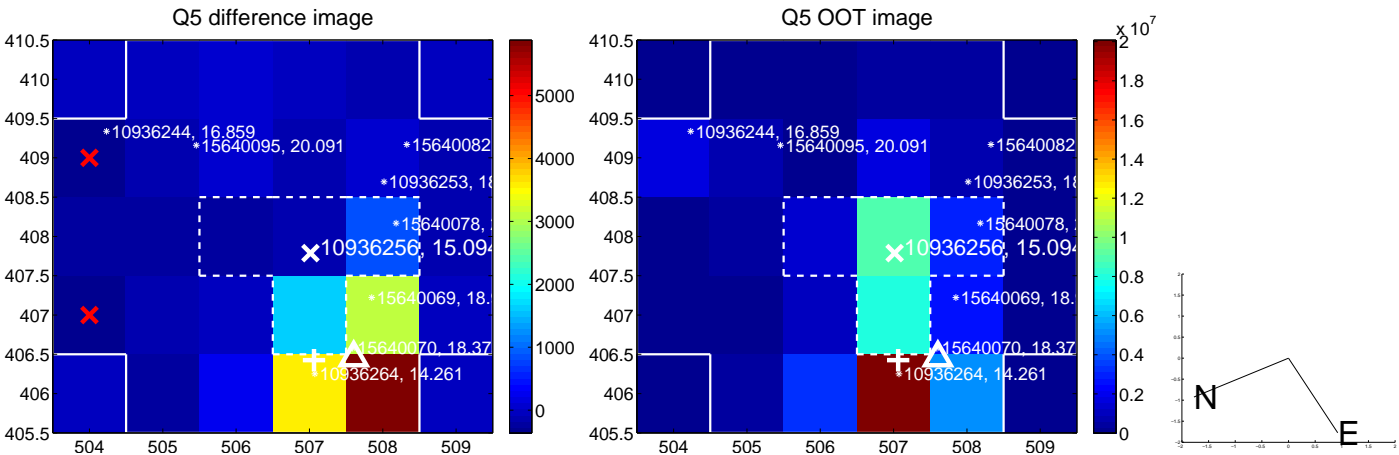


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

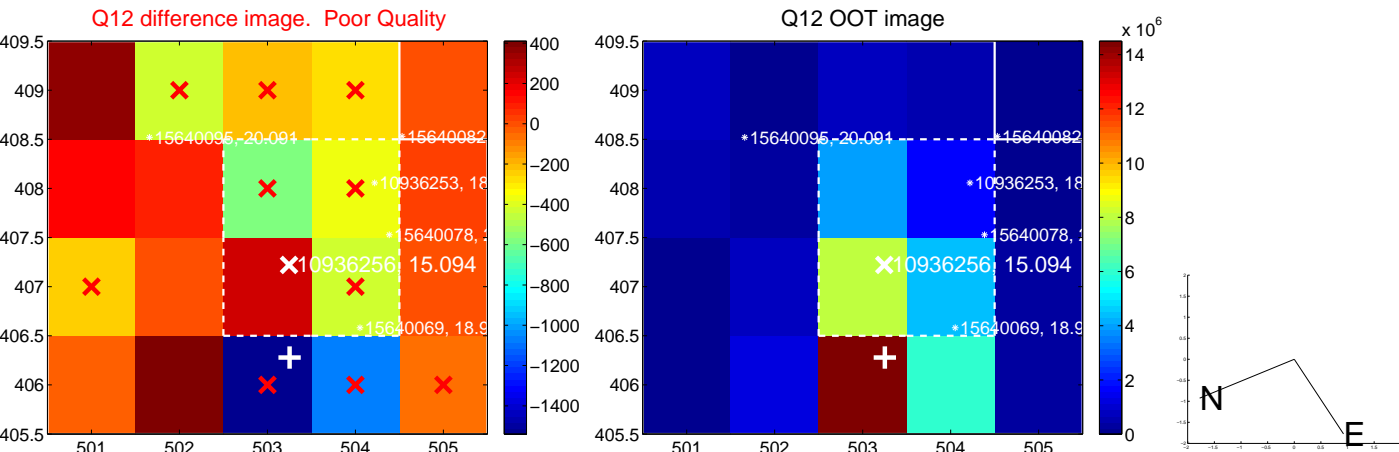
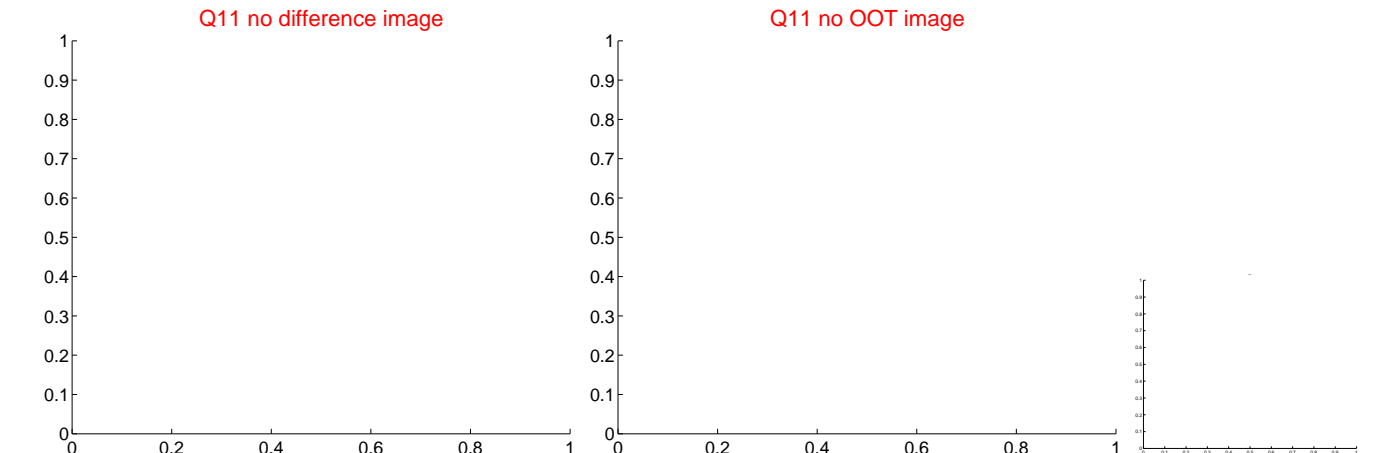
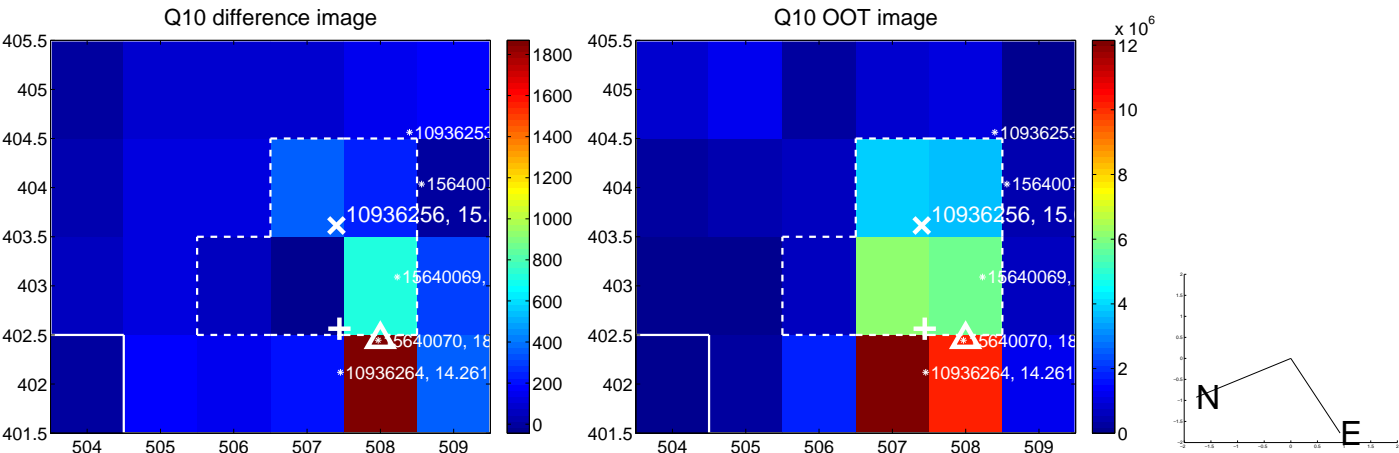
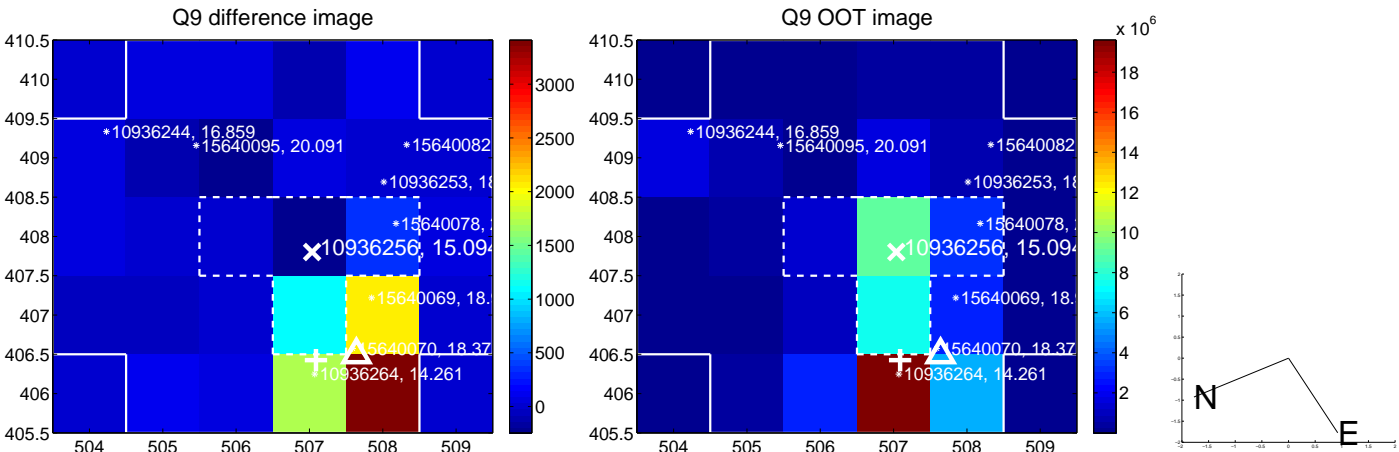
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



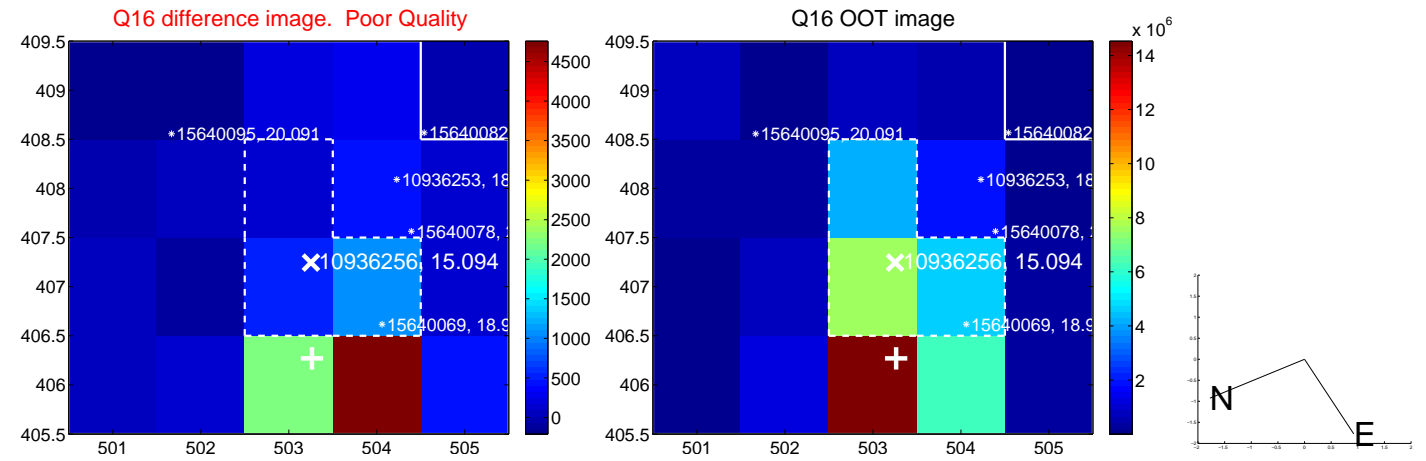
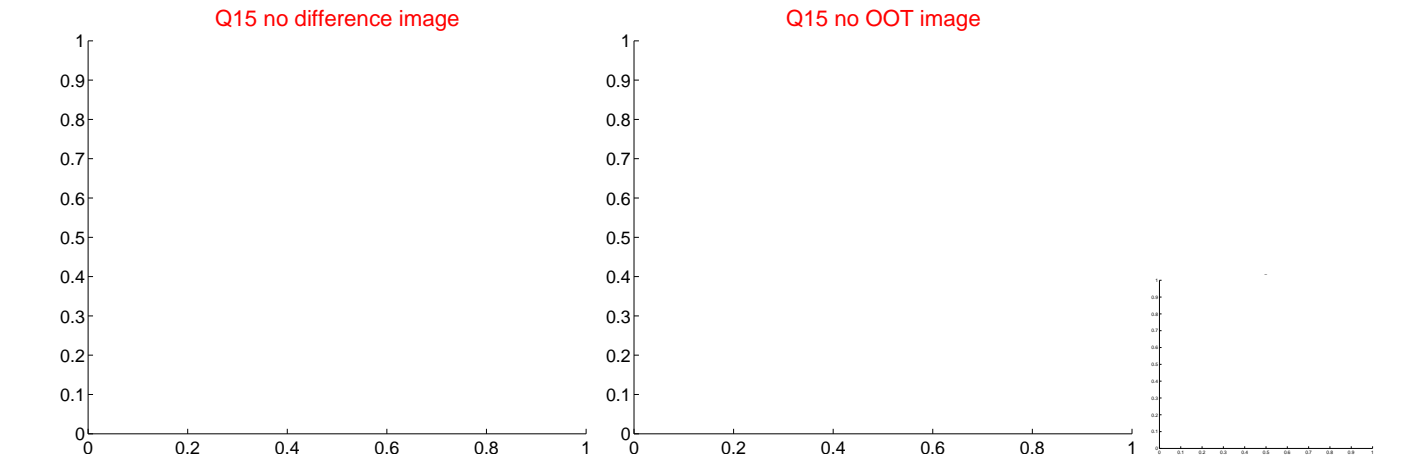
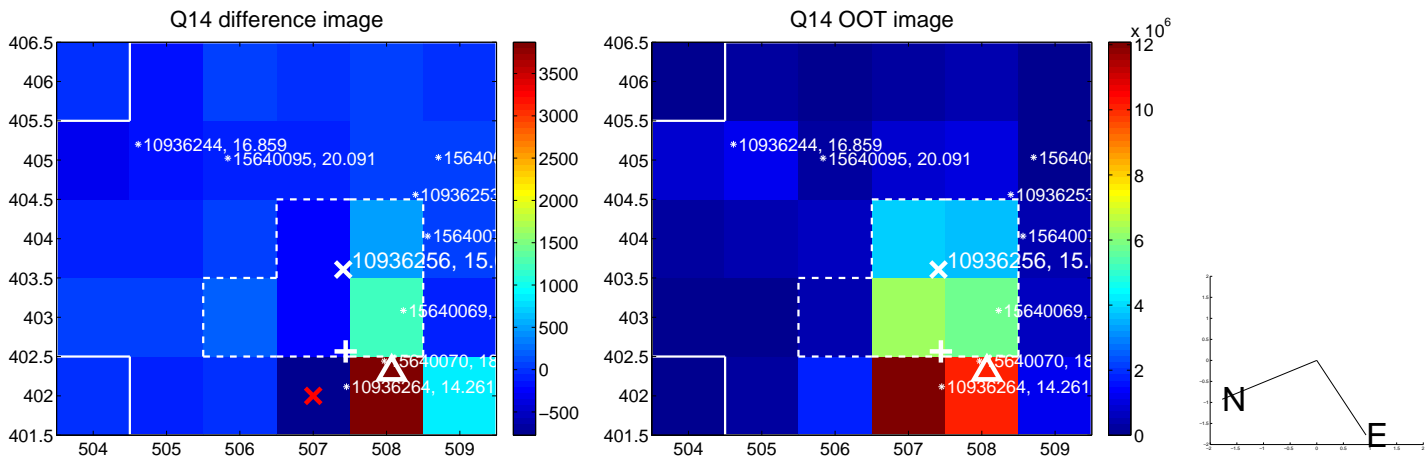
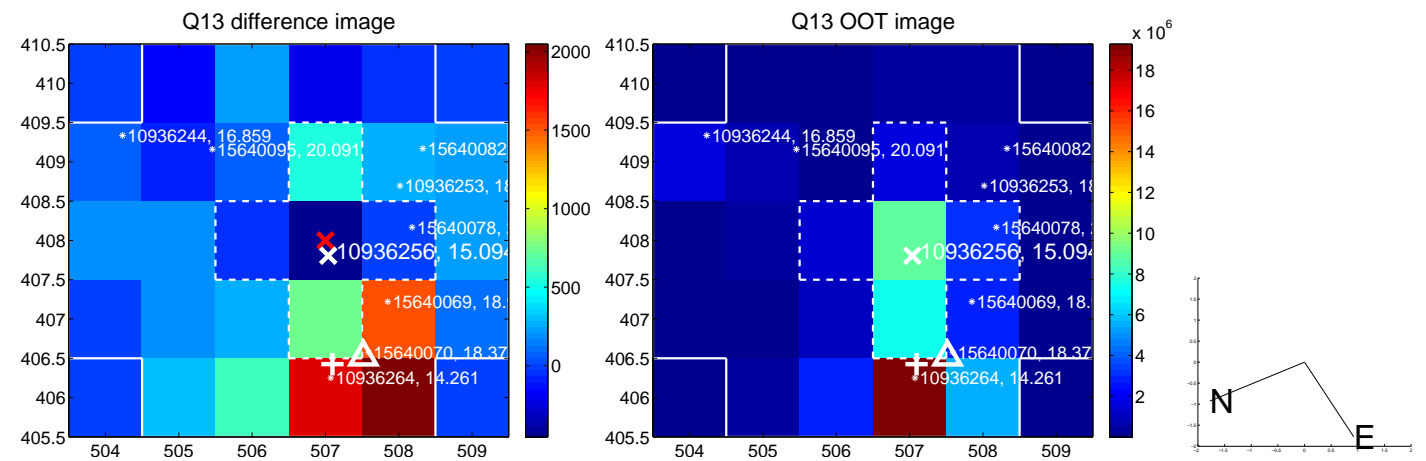
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



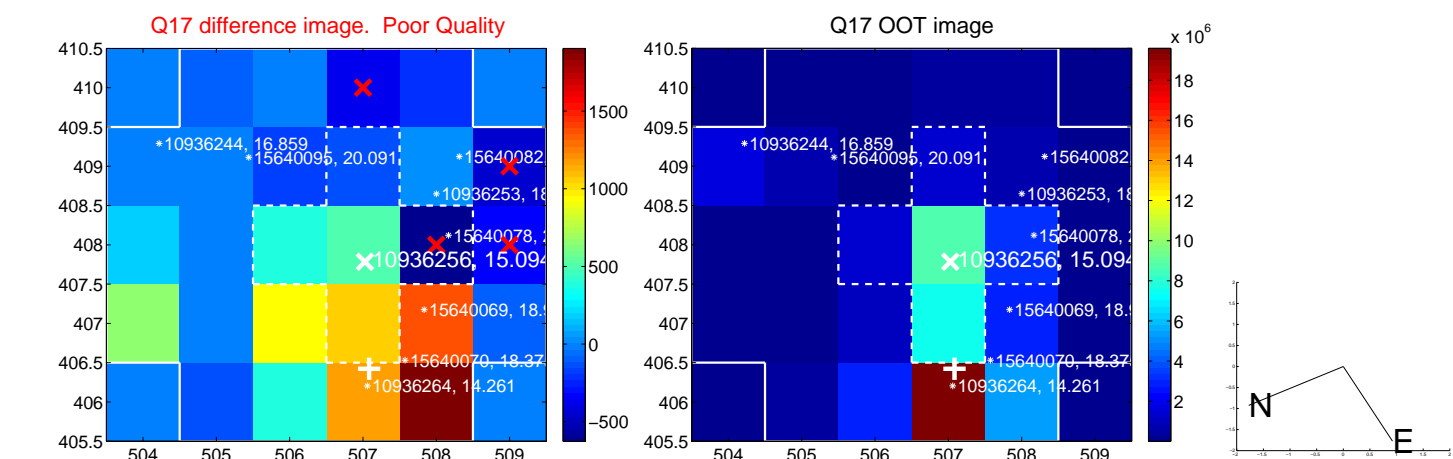
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



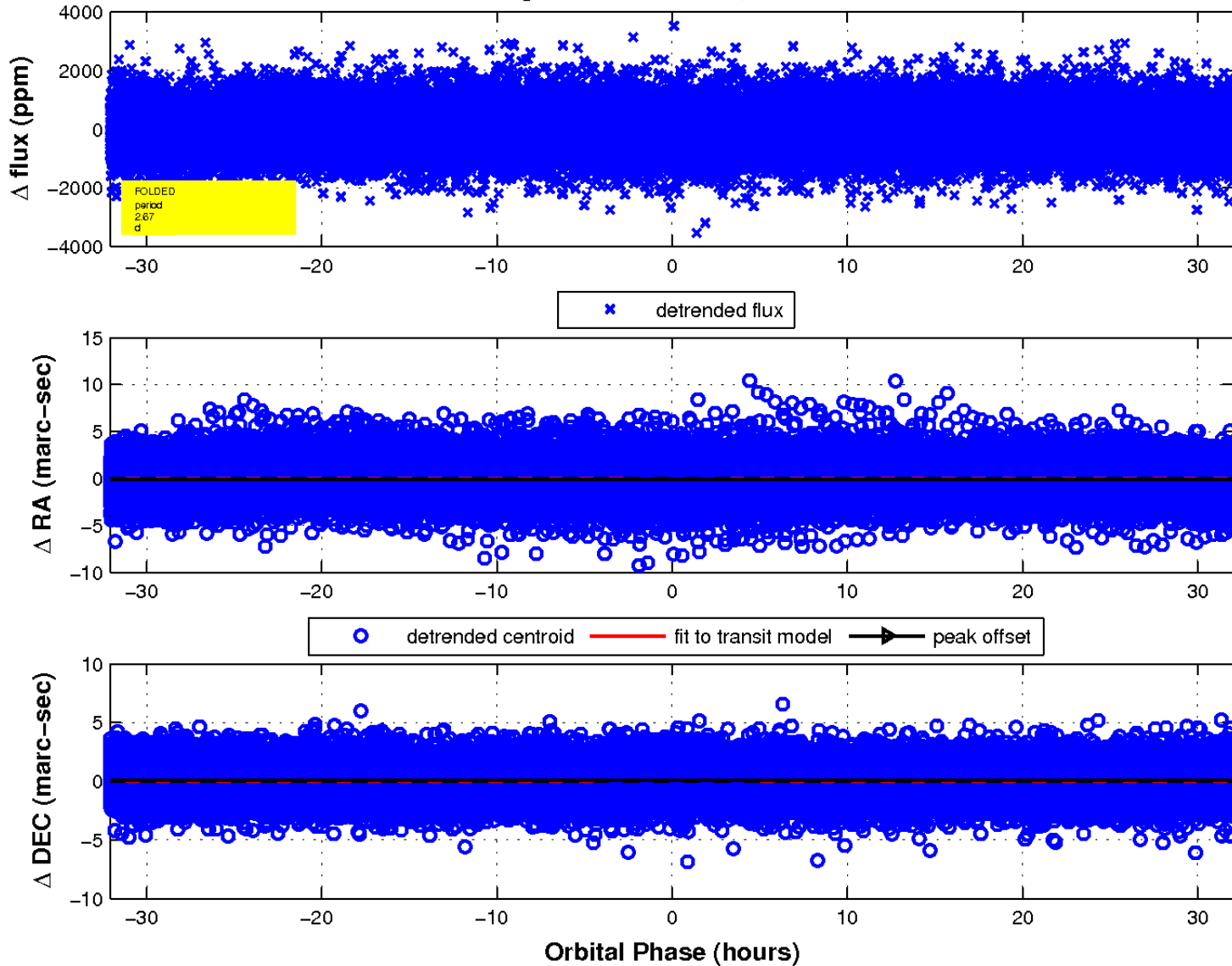
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

