

KIC 007045356

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})
007045356-01	OBS	No	0.817744	131.805829	24.1	3.025	7.5	6.1	0.95	6151	0.54	3968.10

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007045356-01	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.

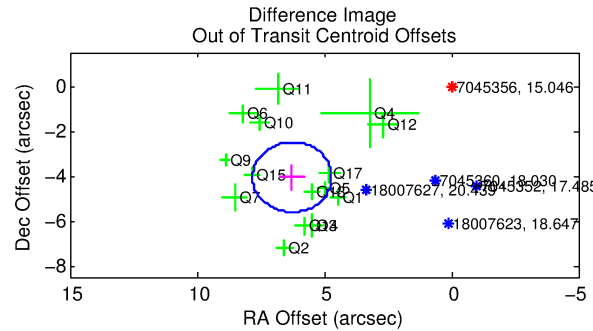
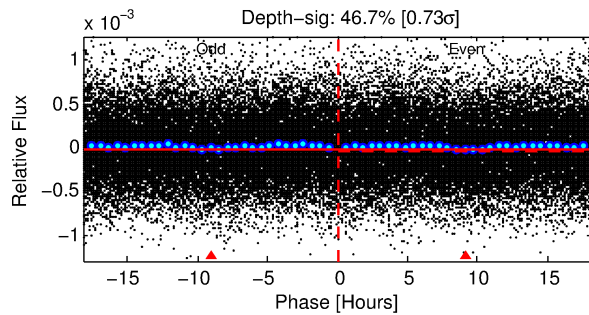
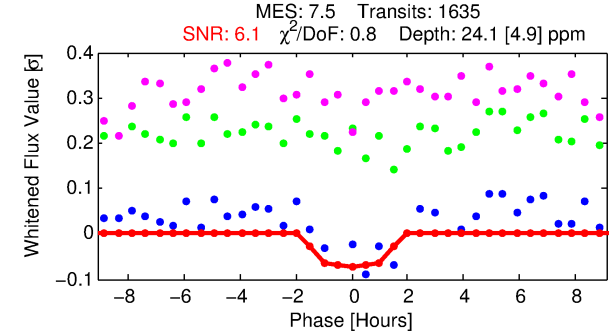
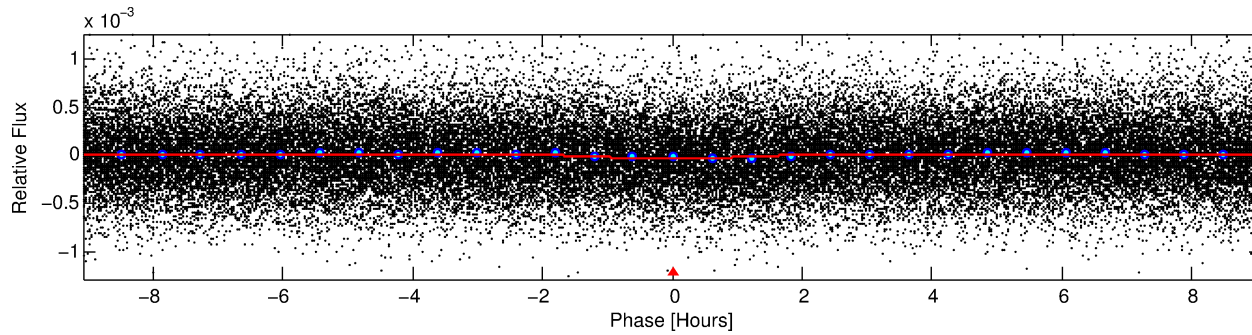
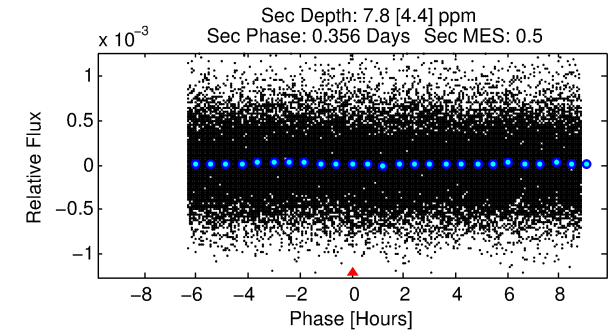
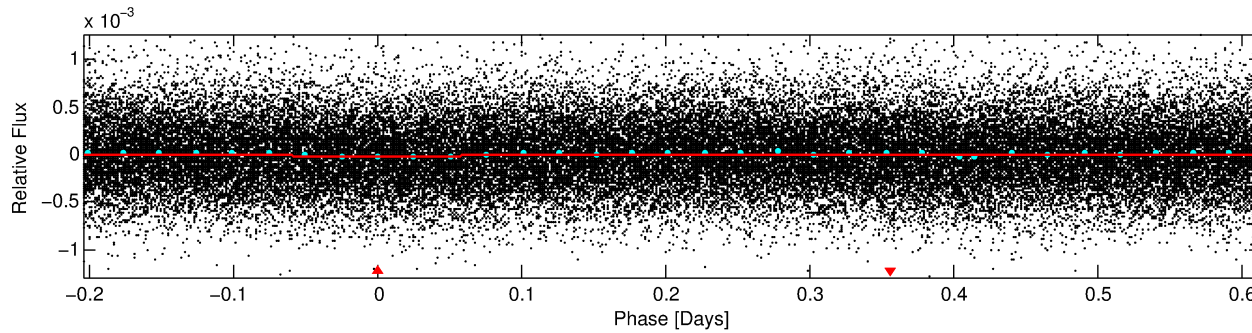
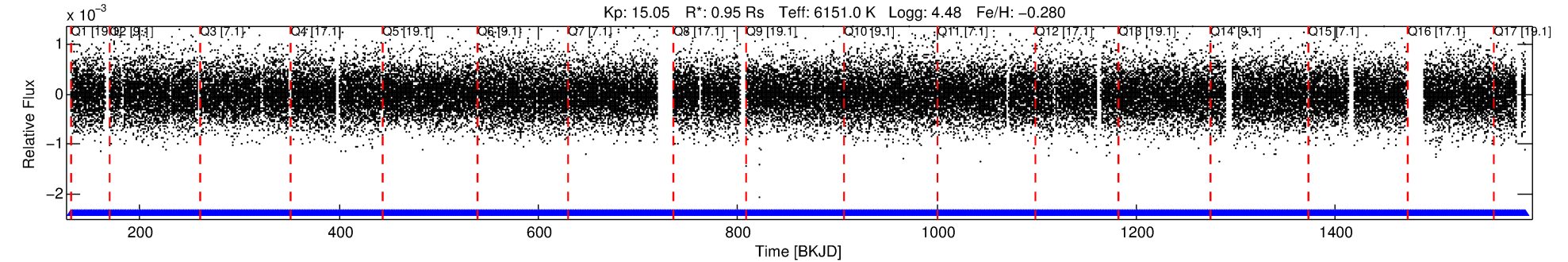
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007045356-01

No Significant Match Found

DV One-Page Summary

KIC: 7045356 Candidate: 1 of 1 Period: 0.818 d



DV Fit Results:

Period = 0.81774 [0.00002] d
Epoch = 131.8058 [0.0065] BKJD
Rp/R* = 0.0052 [0.0041]
a/R* = 1.39 [2.91]
b = 0.87 [1.24]
Seff = 3968.10 [1669.76]
Teq = 2024 [213] K
Rp = 0.54 [0.47] Re
a = 0.0171 [0.0047] AU
Ag = 4.39 [7.69] [0.44σ]
Teffp = 4531 [1937] K [1.29σ]

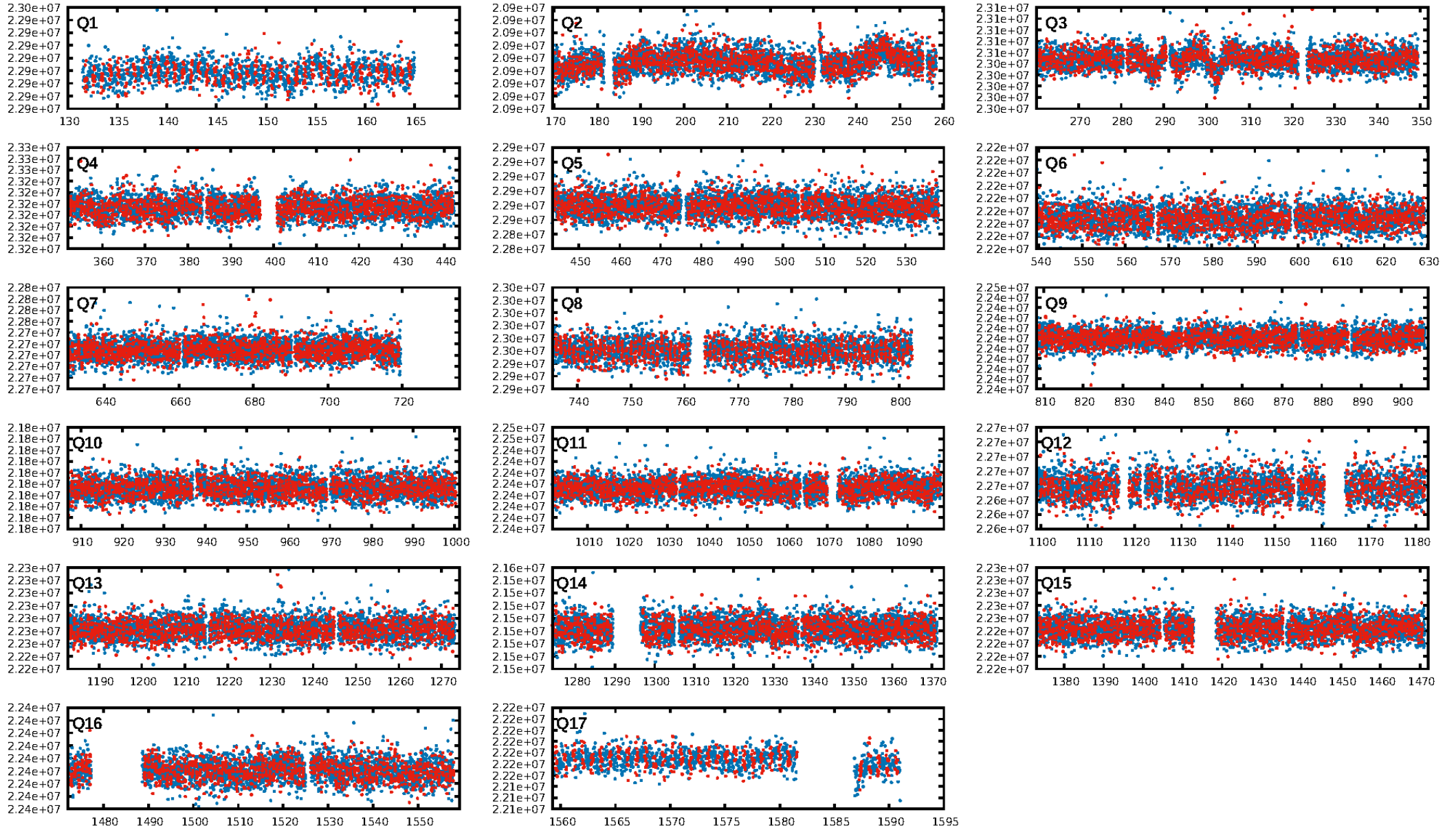
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.12e-15
RollingBand-fgt: 1.00 [1562/1562]
GhostDiagnostic-chr: 0.03509
Centroid-sig: 0.0%
Centroid-so: 11.130 arcsec [4.92σ]
OotOffset-rm: 7.464 arcsec [14.39σ]
KicOffset-rm: 7.575 arcsec [15.06σ]
OotOffset-st: 4/4/2/5 [15]
KicOffset-st: 4/4/2/5 [15]
DiffImageQuality-fgm: 0.07 [1/15]
DiffImageOverlap-fno: 1.00 [17/17]

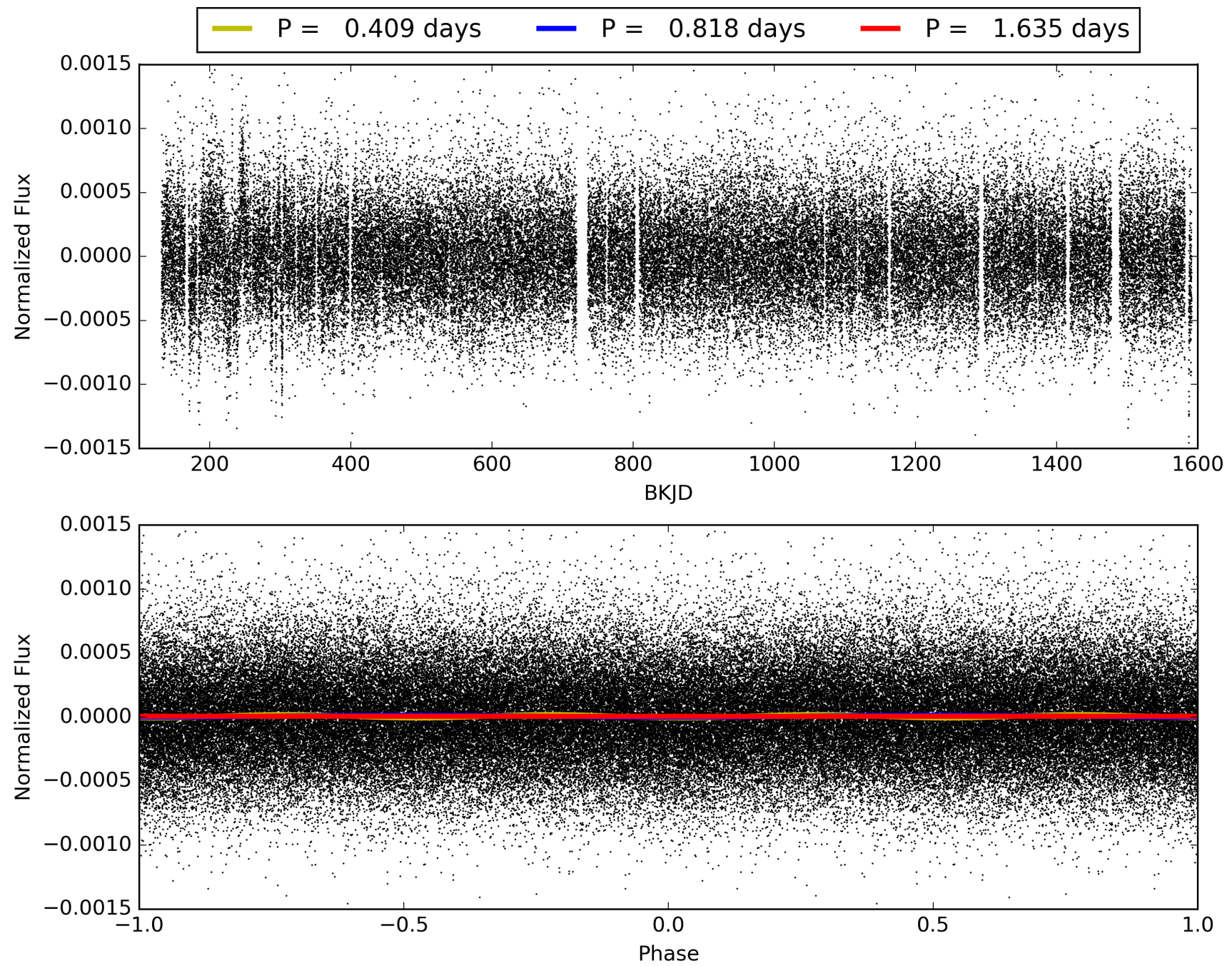
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:00:26 Z

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

TCE 007045356-01, PDC Light Curves

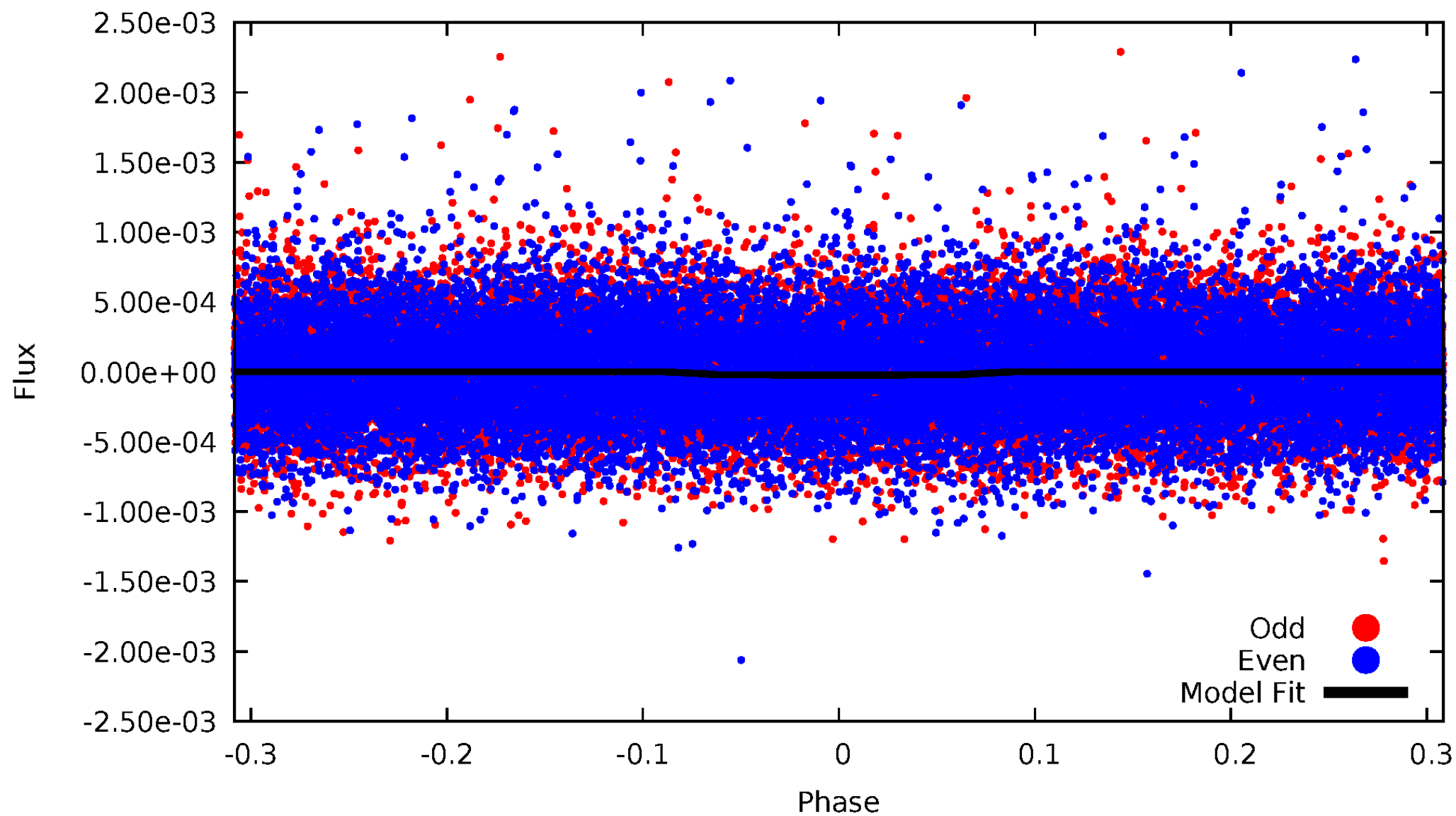


TCE 007045356-01



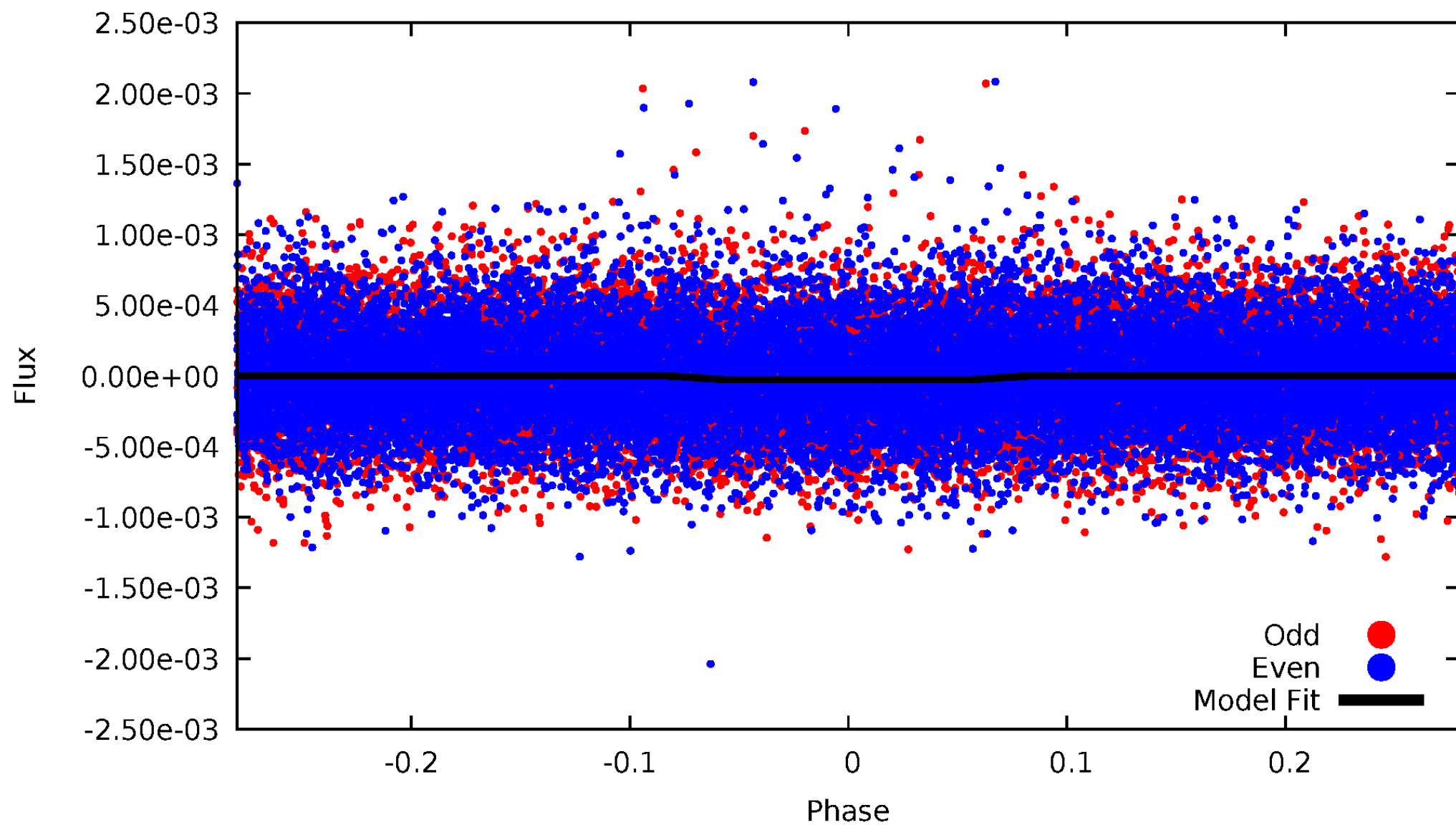
DV Odd/Even

TCE 007045356-01



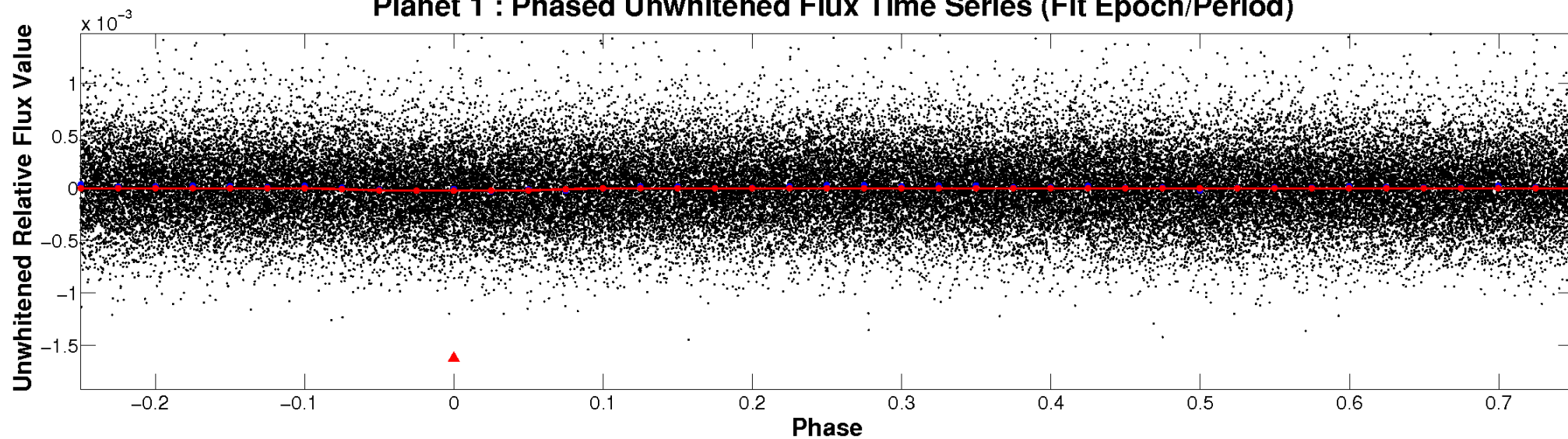
ALT Odd/Even

TCE 007045356-01

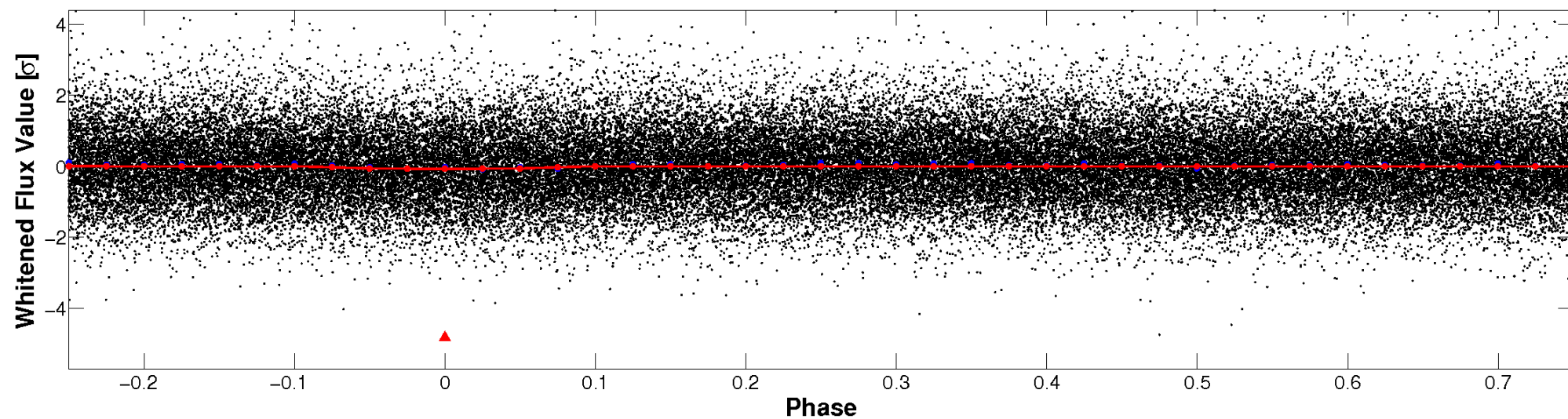


Non-Whitened Vs. Whitened Light Curve

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

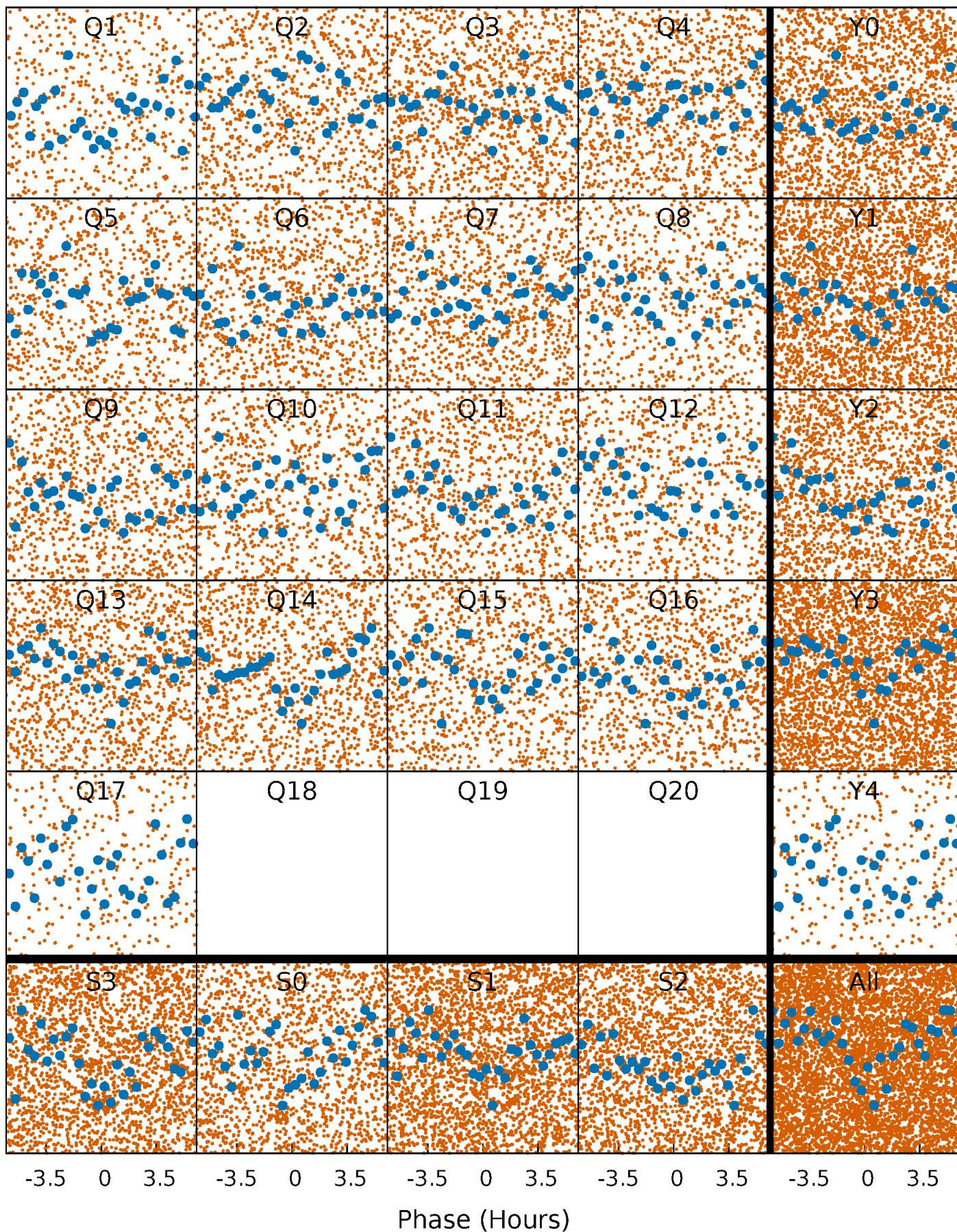


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



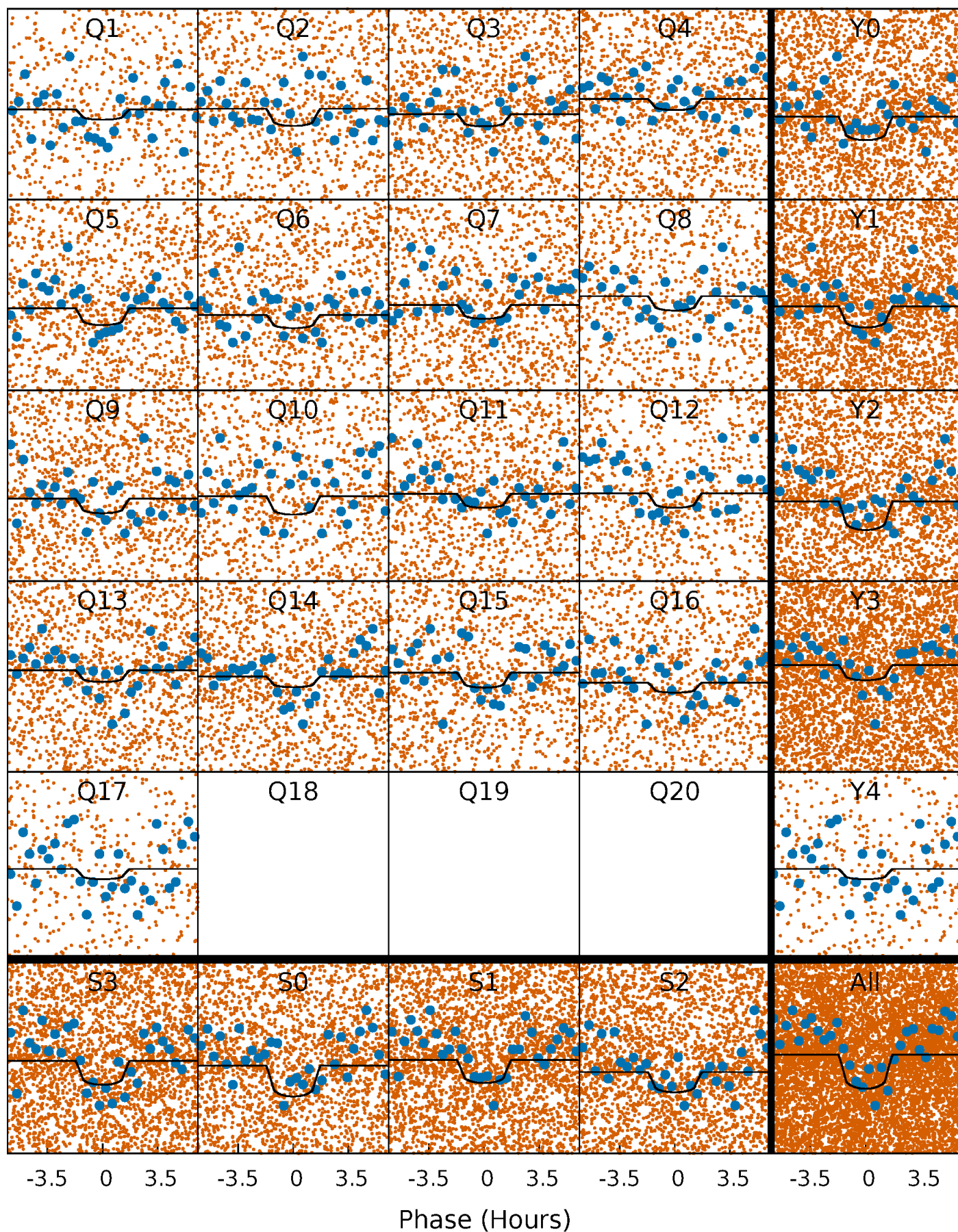
PDC Quarter-Phased Transit Curves

TCE 007045356-01 P= 0.817744 Days $T_0=131.805829$ (BKJD)



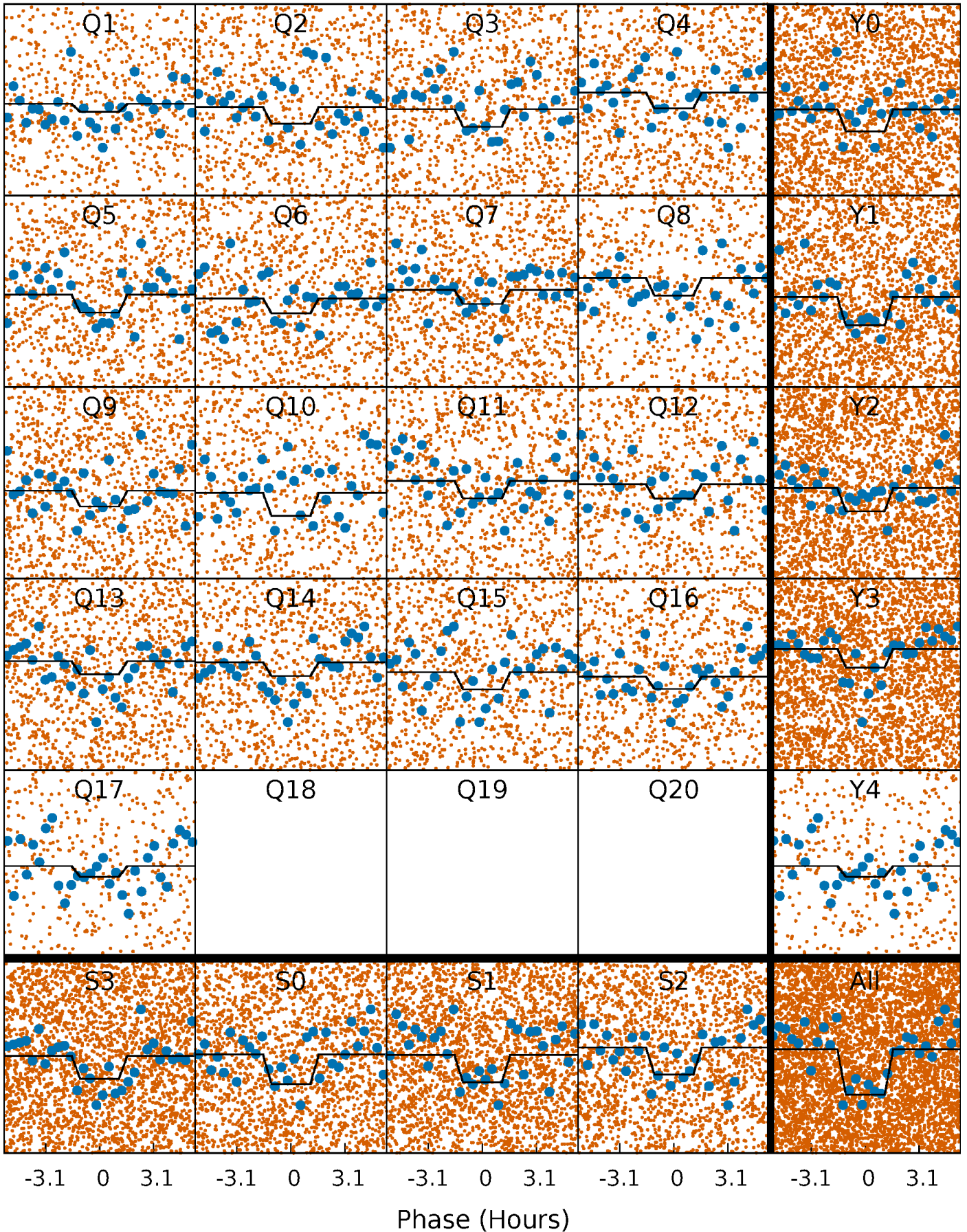
DV Quarter-Phased Transit Curves

TCE 007045356-01 P= 0.817744 Days $T_0=131.805829$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

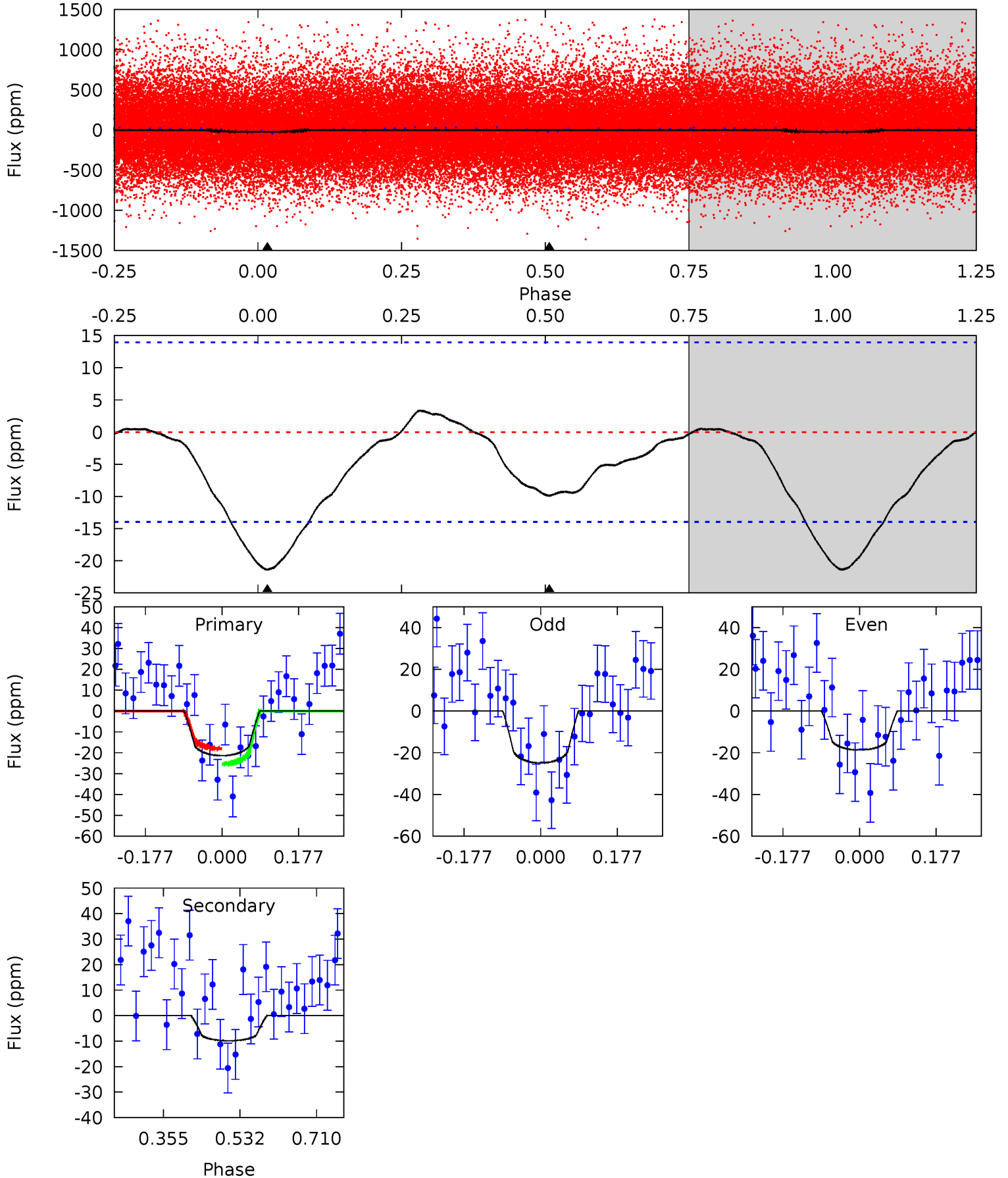
TCE 007045356-01 P= 0.817771 Days $T_0=131.793395$ (BKJD)



DV Model-Shift Uniqueness Test

007045356-01, P = 0.817744 Days, E = 130.988085 Days

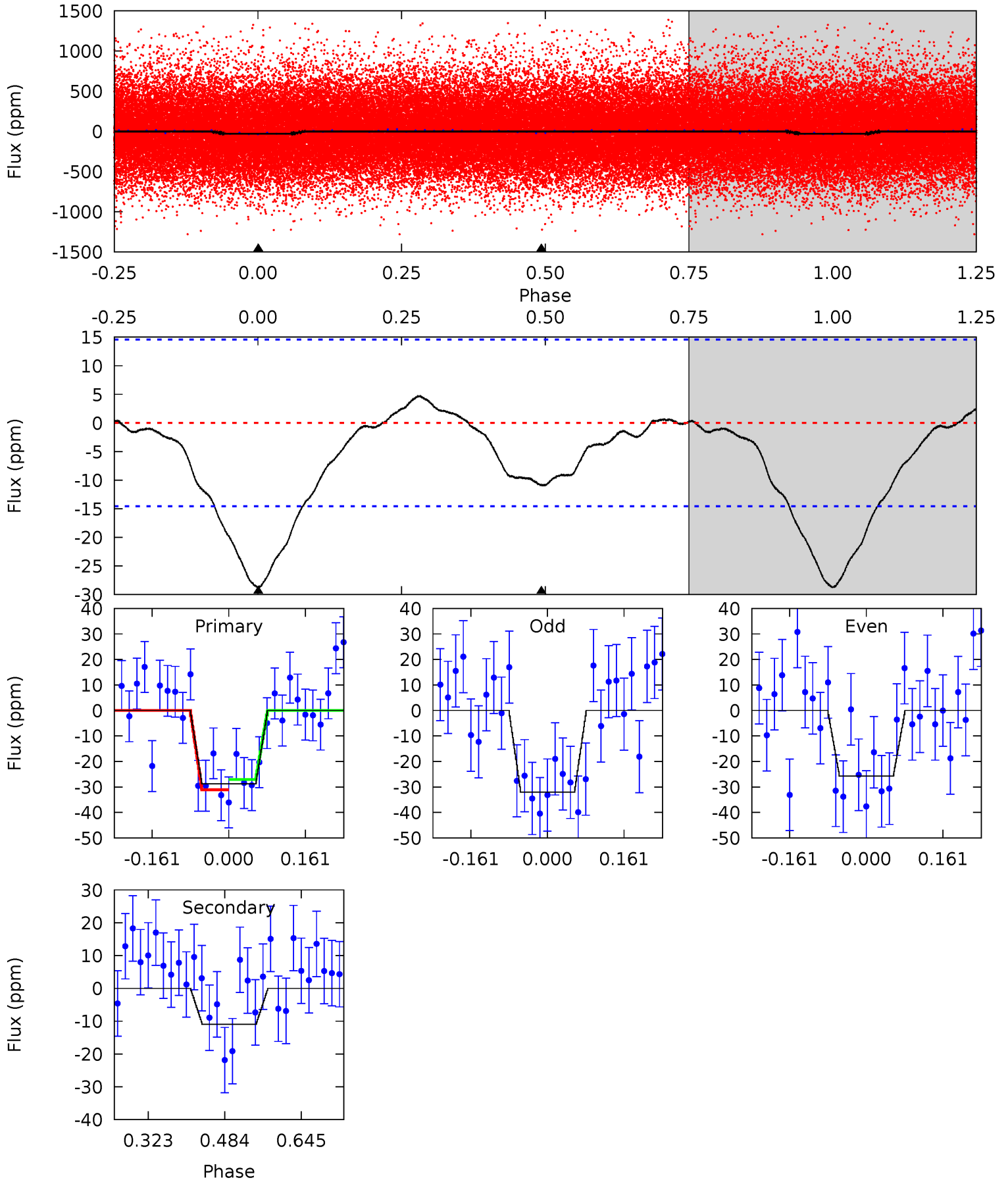
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.81	3.14	0	0	4.44	1.35	0.53	6.81	6.81	3.14	3.14	1.00	0.77	0.13	1.18



Alt Model-Shift Uniqueness Test

007045356-01, P = 0.817771 Days, E = 130.975624 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.82	3.36	0	0	4.46	1.40	0.59	8.82	8.82	3.36	3.36	0.96	0.80	0.14	0.62



Stellar Parameters For KIC 007045356

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6151^{+171}_{-213}	$4.481^{+0.054}_{-0.216}$	$-0.280^{+0.250}_{-0.350}$	$0.953^{+0.313}_{-0.104}$	$0.997^{+0.137}_{-0.124}$	$1.623^{+0.461}_{-0.852}$
	+3%/-3%	+1%/-5%	+89%/-125%	+33%/-11%	+14%/-12%	+28%/-52%
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 007045356-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-10 ± 3	$0.62^{+0.44}_{-0.37}$	2886^{+219}_{-149}	4654^{+2453}_{-1048}	$4.081^{+18.621}_{-2.857}$
Alt.	-11 ± 3	$0.62^{+0.45}_{-0.37}$	2887^{+200}_{-151}	4687^{+2642}_{-935}	$4.460^{+22.692}_{-3.064}$

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

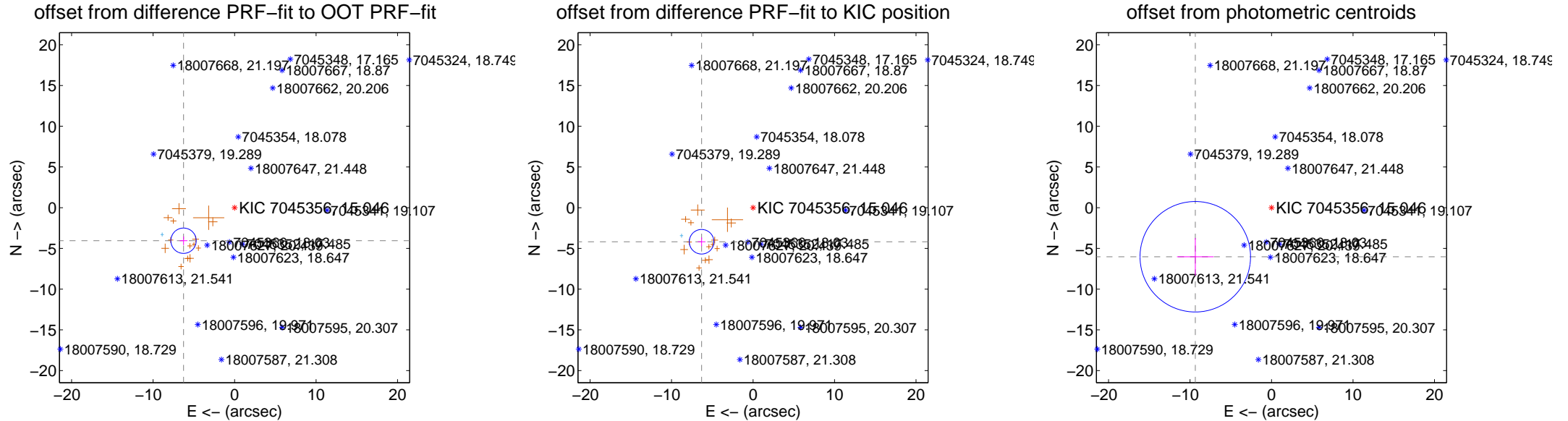
DV Centroid Data

Supplemental centroid analysis for 007045356-01. Kepler magnitude: 15.05. Transit SNR 6.14

There are 1 quarters with good PRF difference image offsets

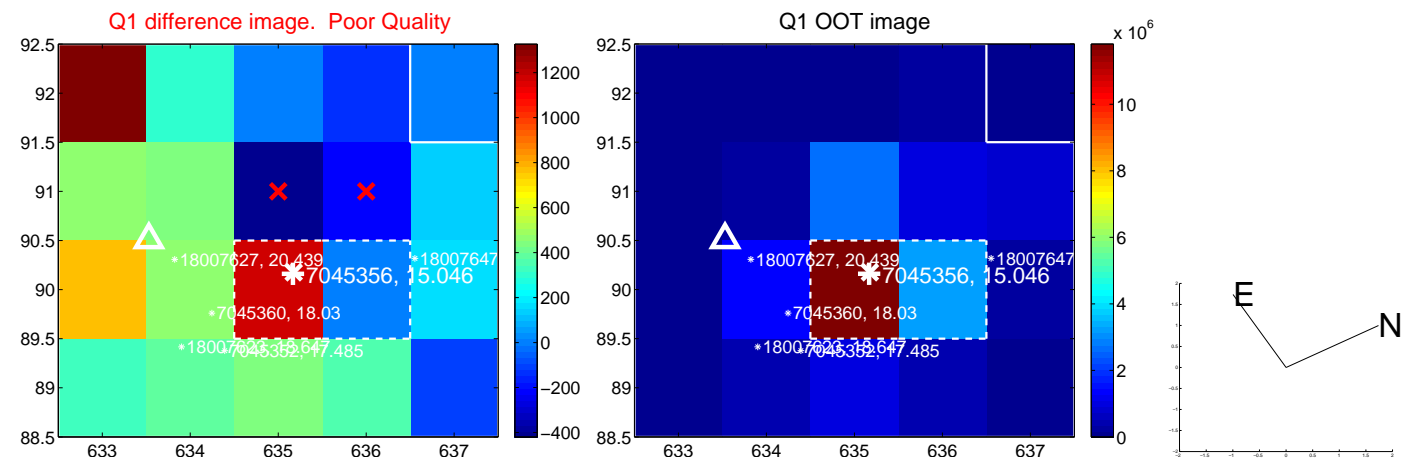
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.464 \pm 0.519	14.39	6.265 \pm 0.481	-4.057 \pm 0.535
PRF-fit source offset from KIC position	7.575 \pm 0.503	15.06	6.316 \pm 0.475	-4.183 \pm 0.532
photometric centroid source offset	11.13 \pm 2.26	4.92	9.36 \pm 2.24	-6.02 \pm 2.30

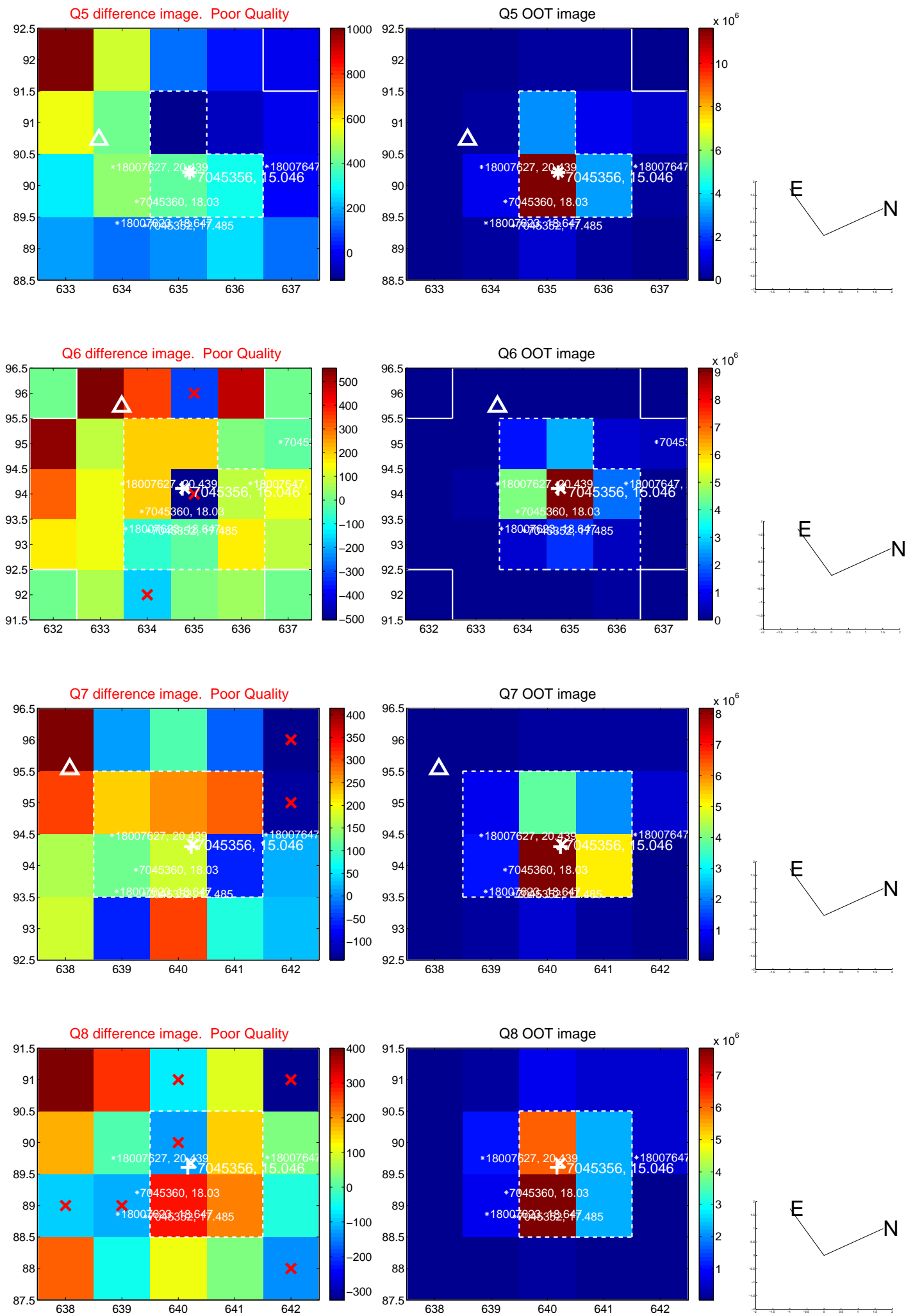


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

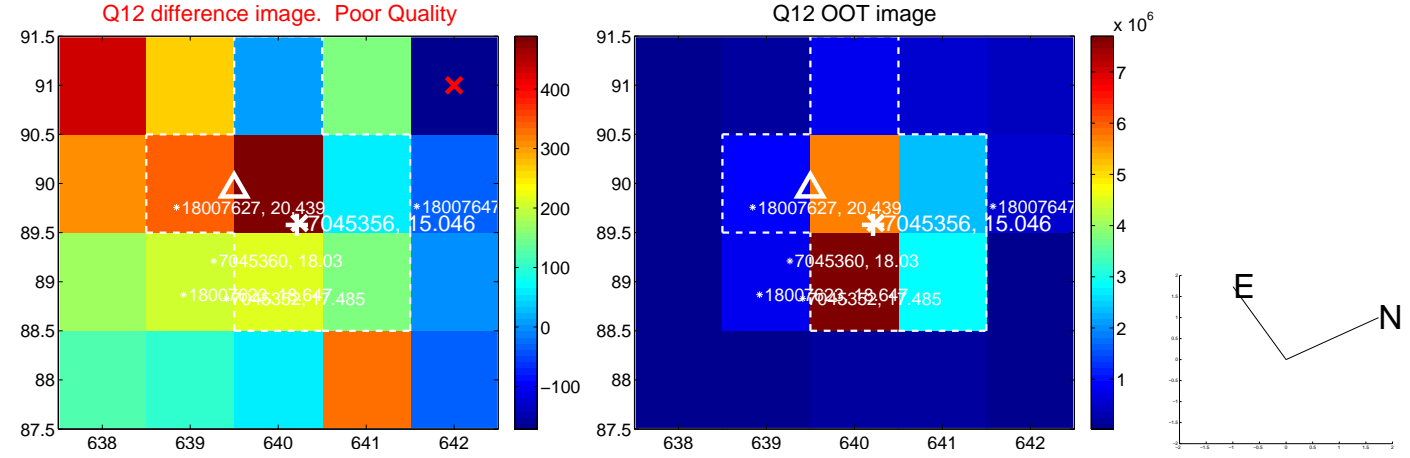
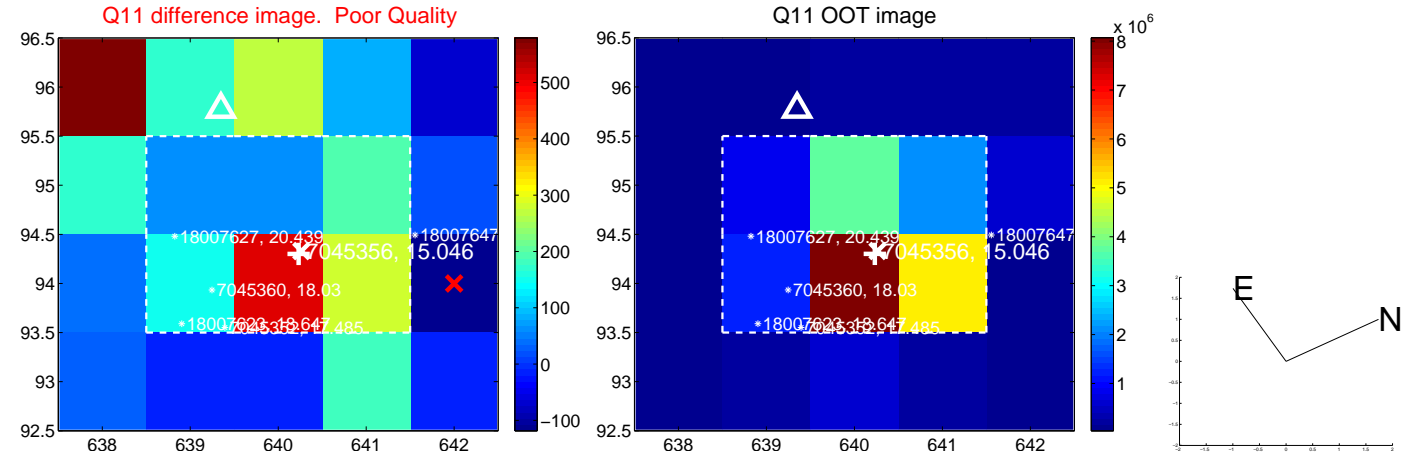
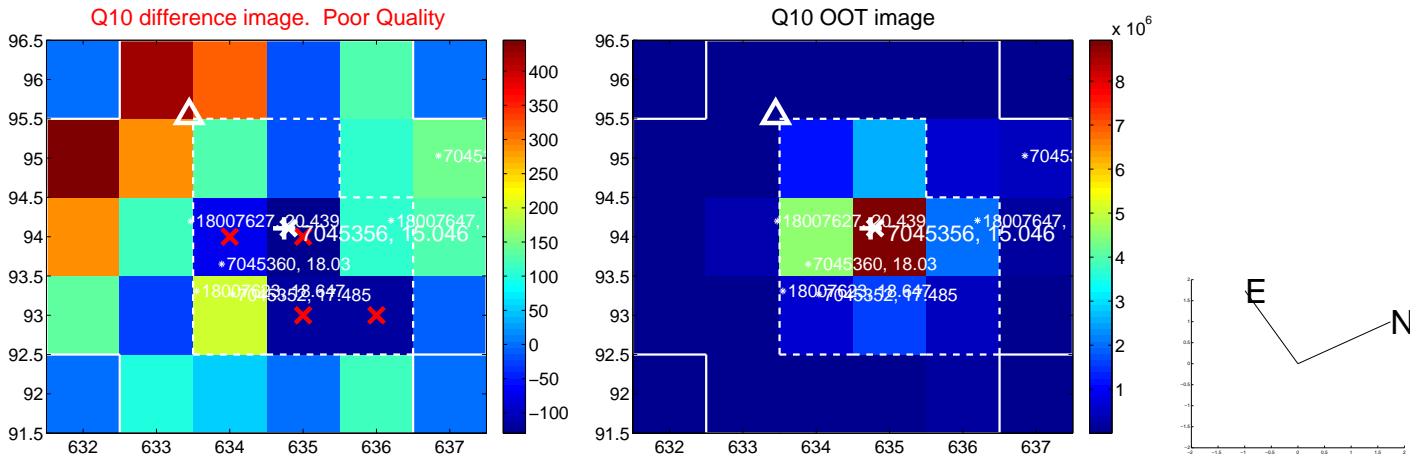
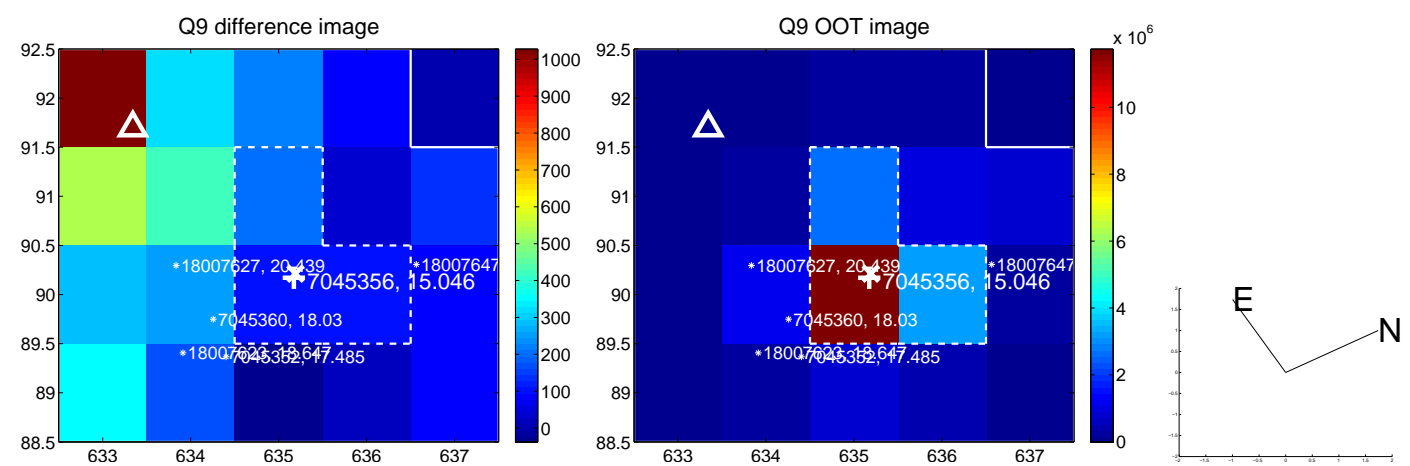
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



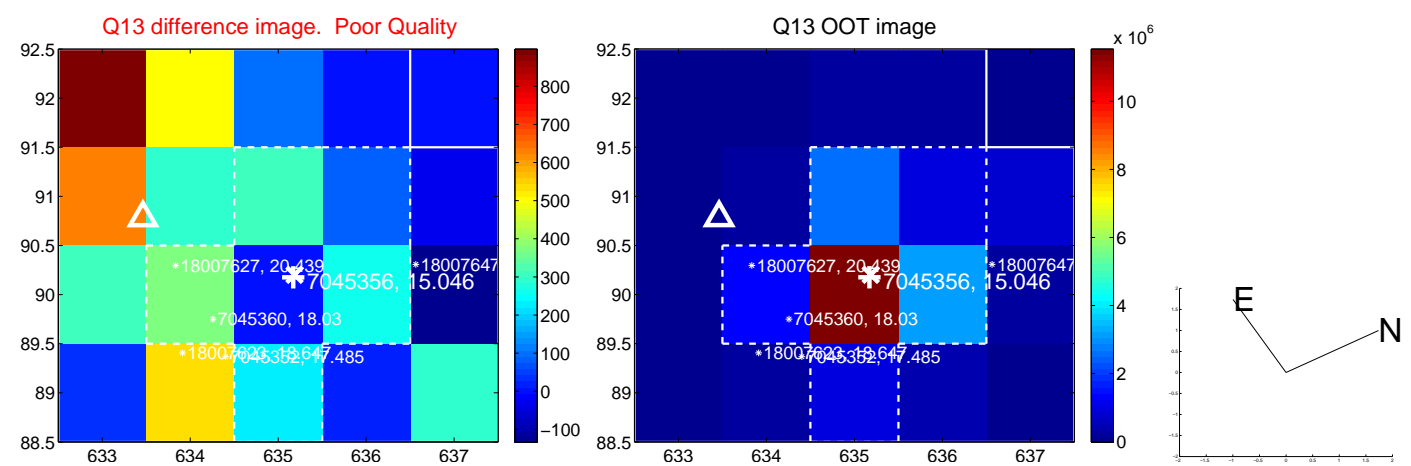
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



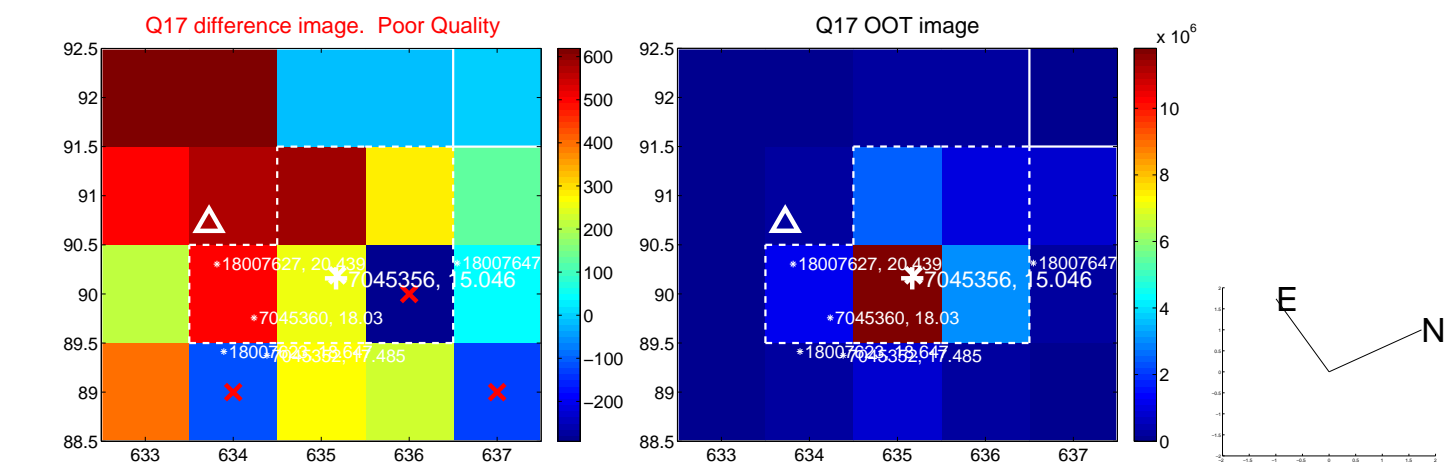
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



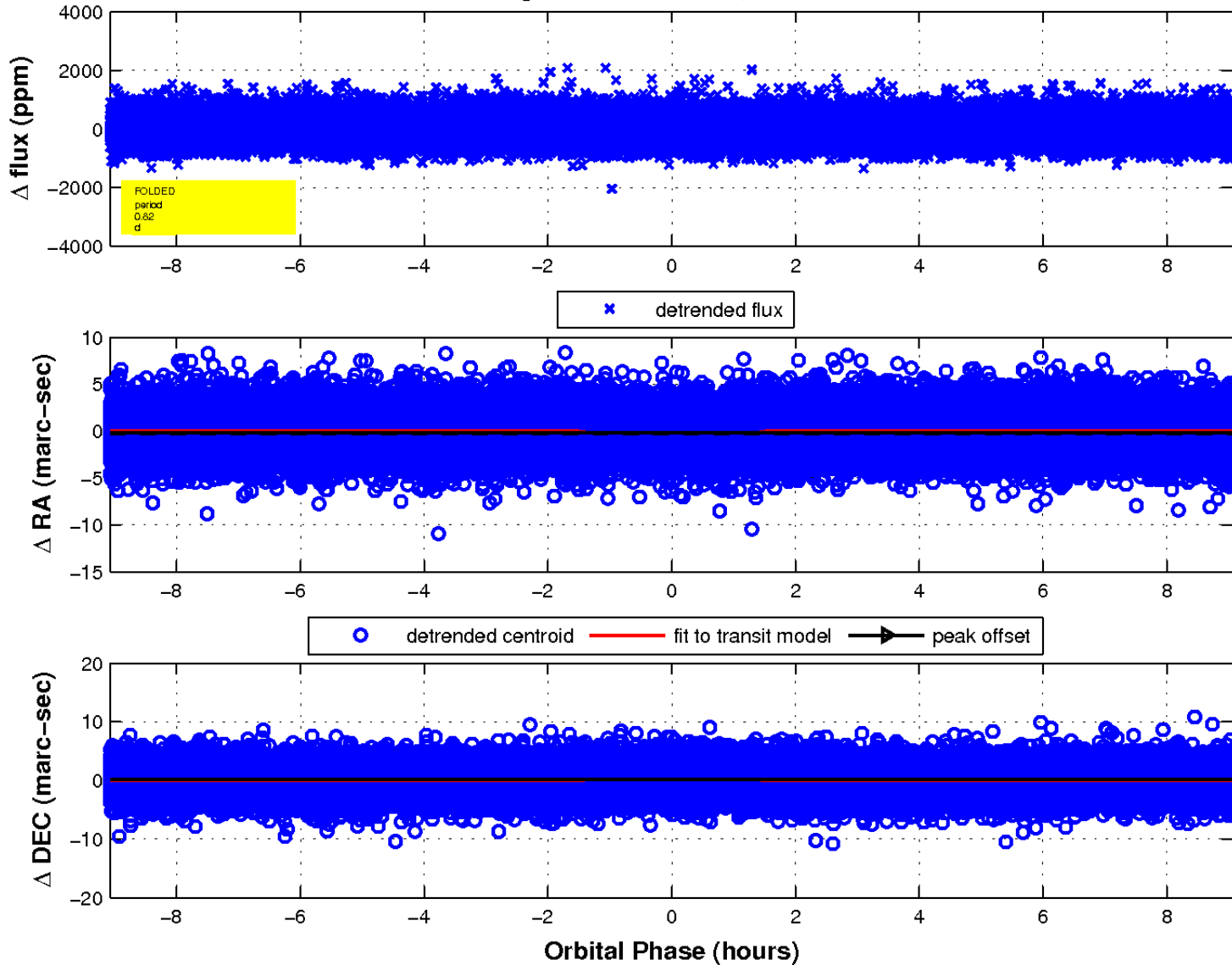
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

