

KIC 003762741

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})
003762741-01	OBS	No	0.556160	131.792719	379.7	6.674	15.1	22.3	2.11	7542	4.89	56195.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
003762741-01	OBS	FP	0.00	1	0	0	0	LPP_DV

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

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

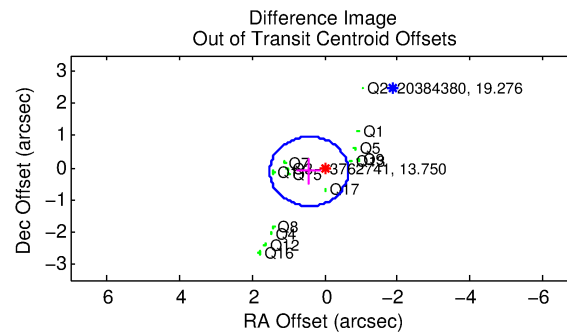
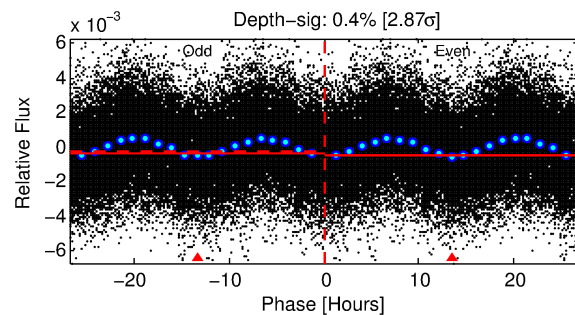
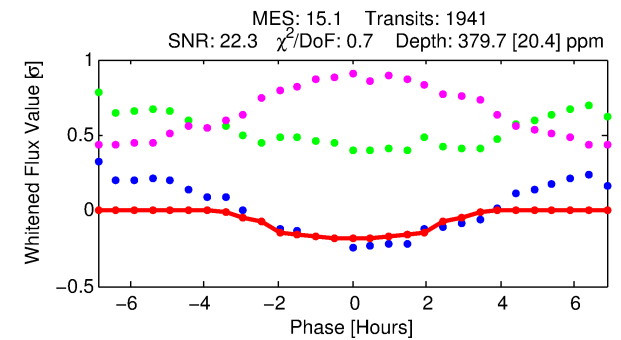
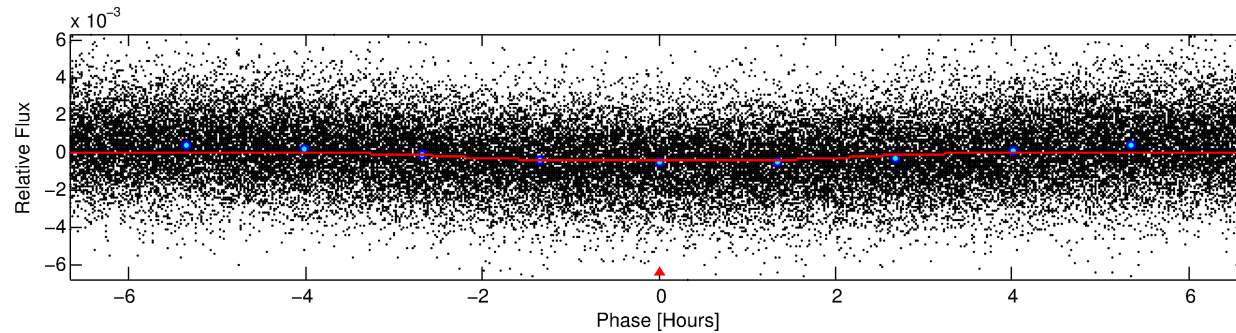
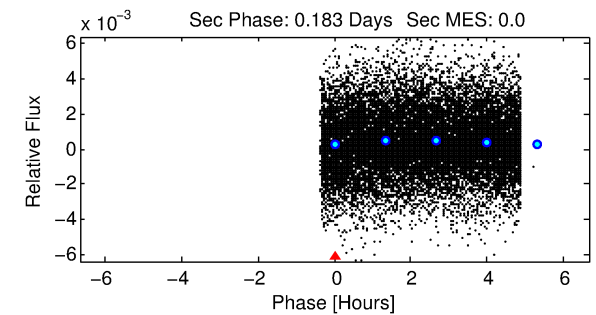
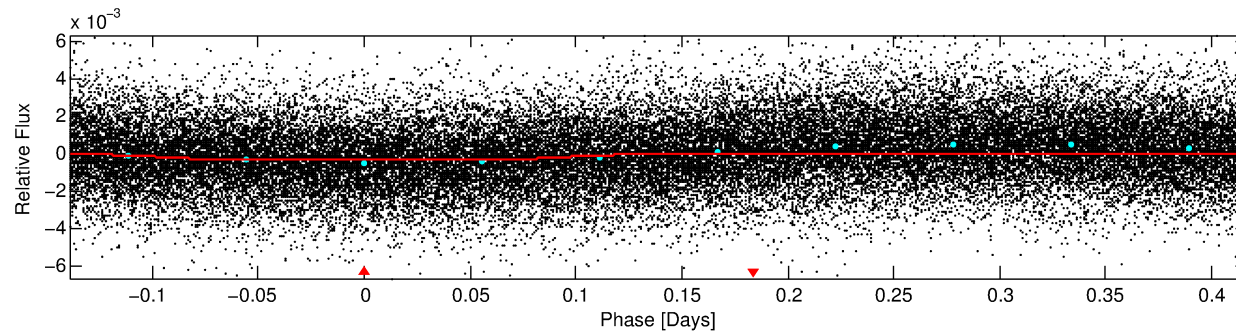
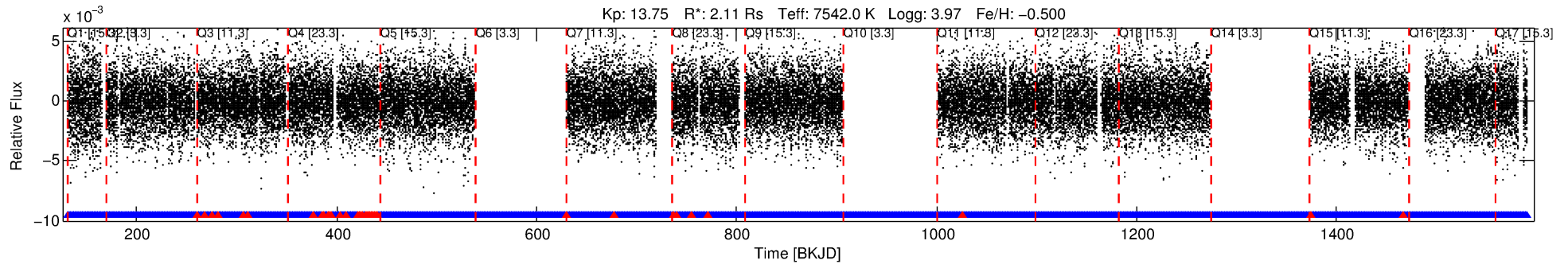
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 003762741-01

No Significant Match Found

DV One-Page Summary

KIC: 3762741 Candidate: 1 of 1 Period: 0.556 d



DV Fit Results:

Period = 0.55616 [0.00000] d
Epoch = 131.7927 [0.0029] BKJD
Rp/R* = 0.0212 [0.0006]
a/R* = 1.01 [0.00]
b = 0.93 [0.01]
Seff = 56195.72 [31106.09]
Teq = 3926 [543] K
Rp = 4.89 [1.73] Re
a = 0.0152 [0.0051] AU
Ag = N/A
Teffp = N/A

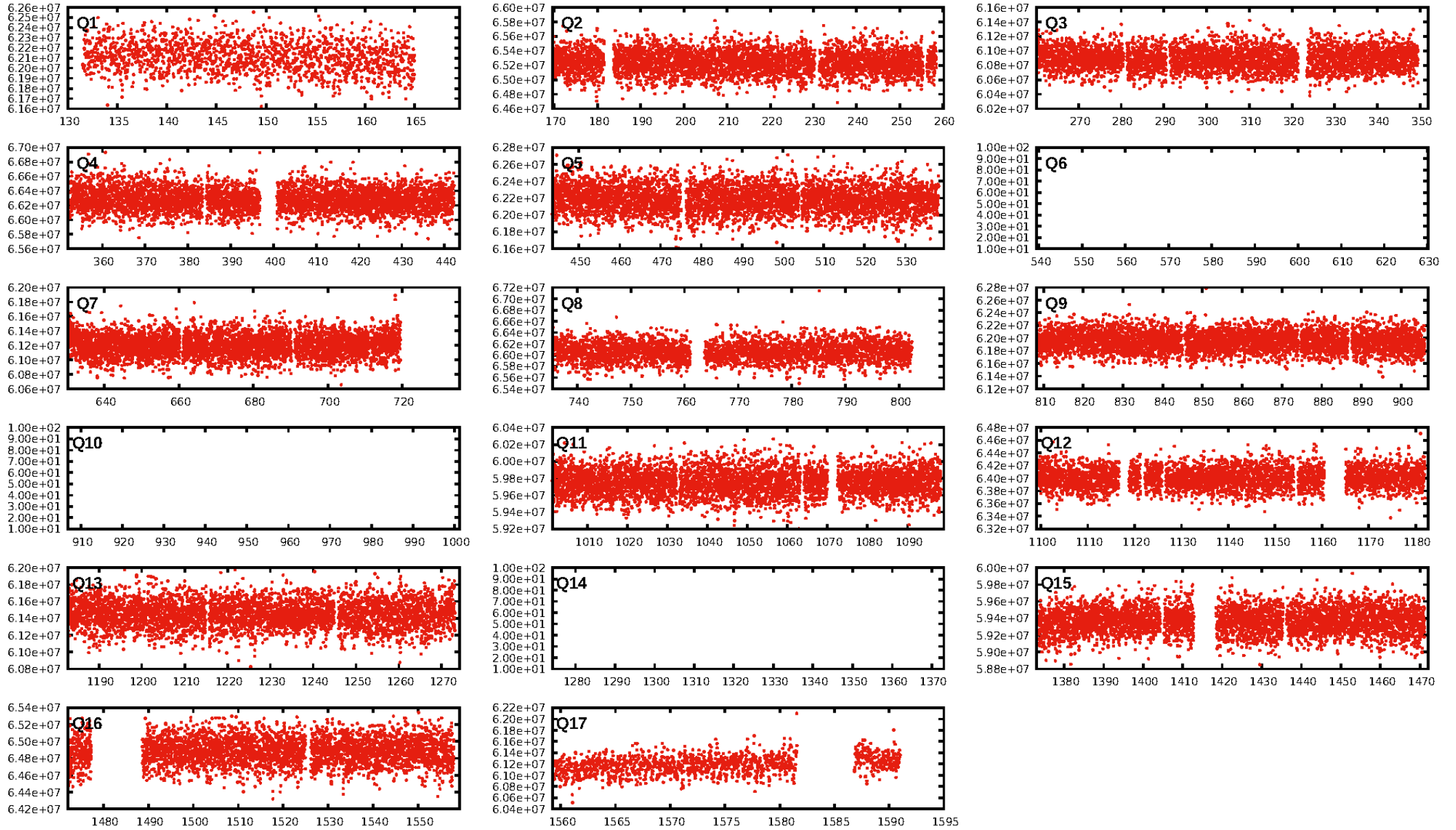
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [1781/1832]
GhostDiagnostic-chr: 12.6
Centroid-sig: 0.0%
Centroid-so: 0.139 arcsec [1.69σ]
OotOffset-rm: 0.446 arcsec [1.24σ]
KicOffset-rm: 0.440 arcsec [1.05σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 1.00 [14/14]

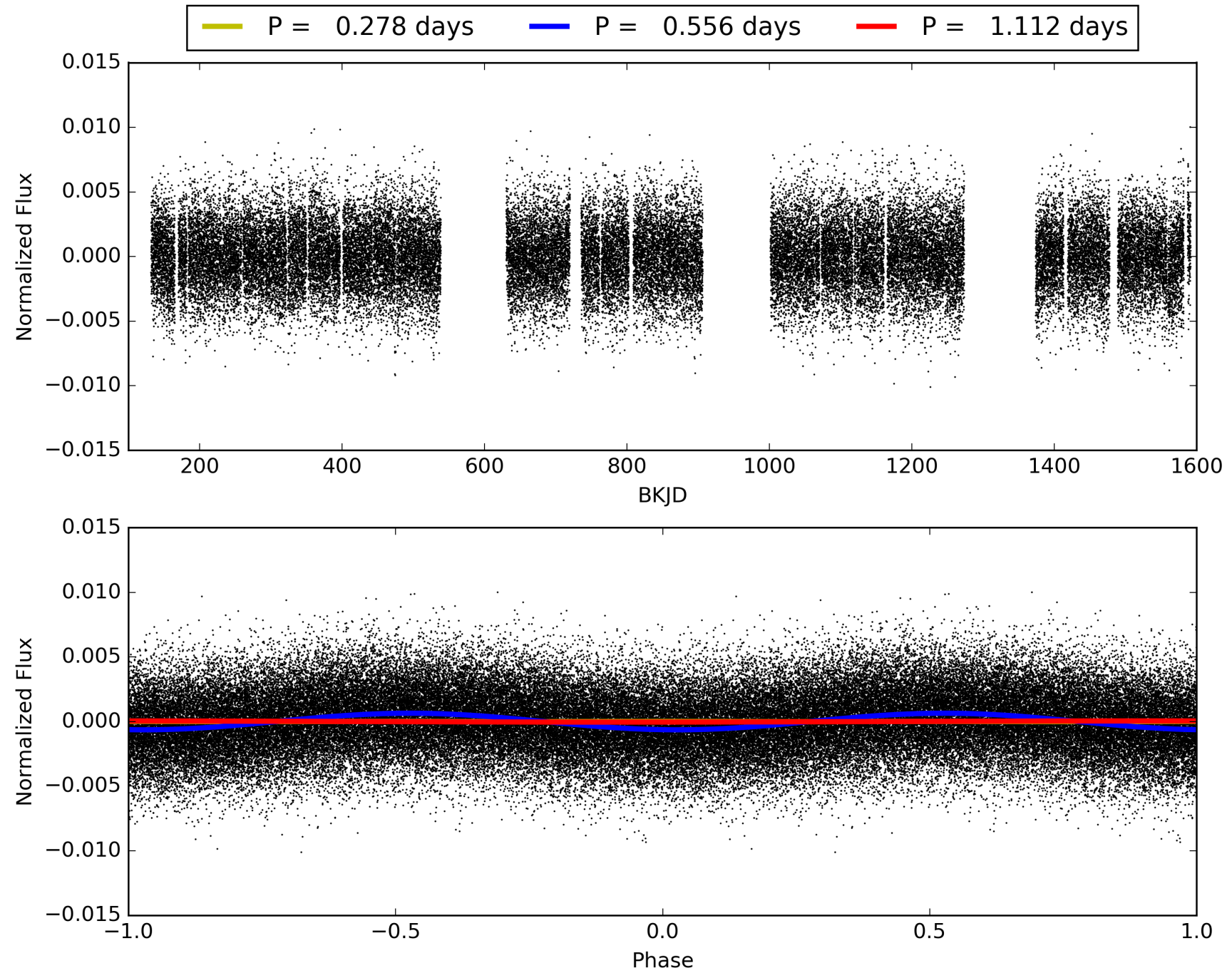
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:52:04 Z

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

TCE 003762741-01, PDC Light Curves

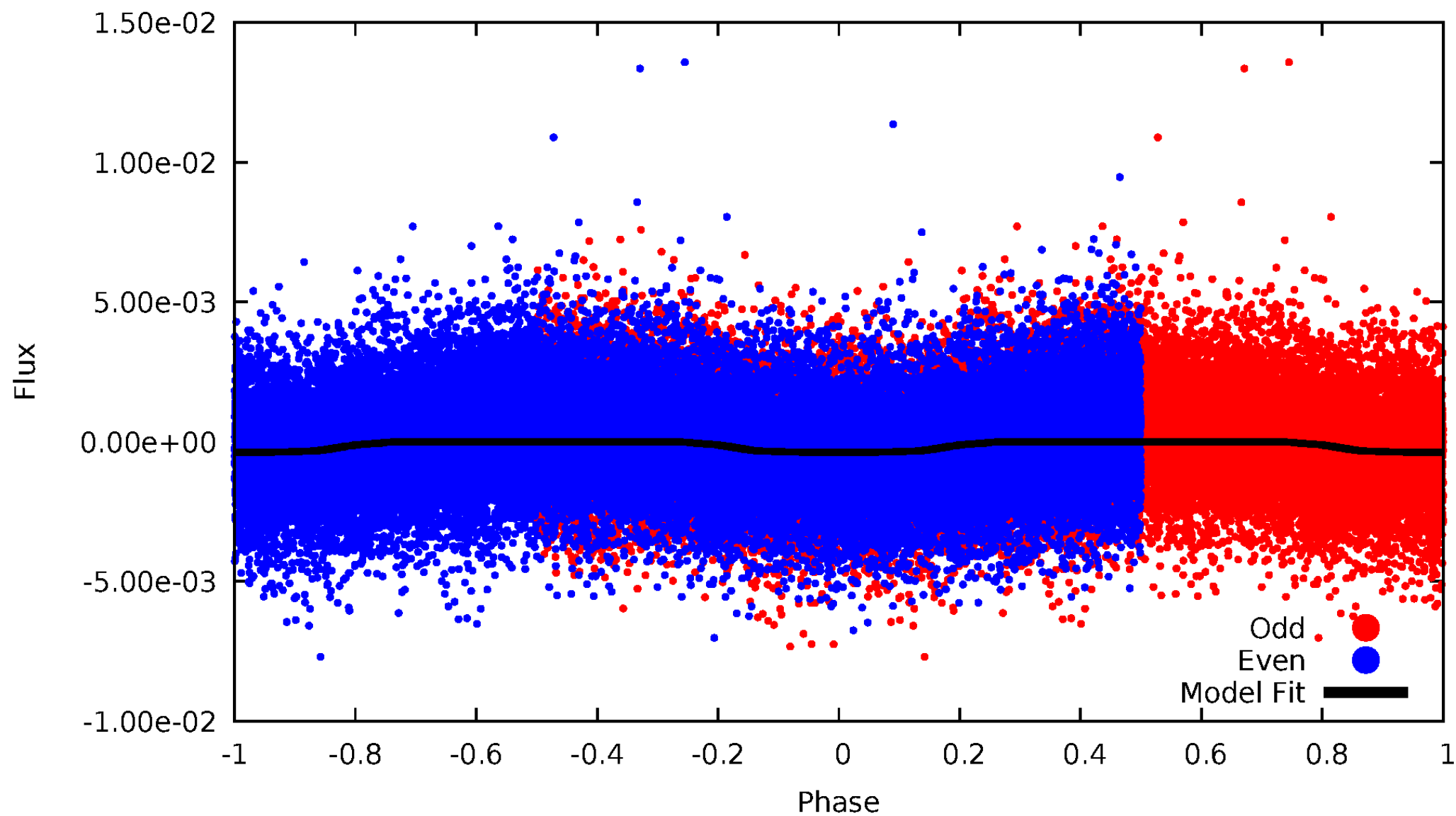


TCE 003762741-01



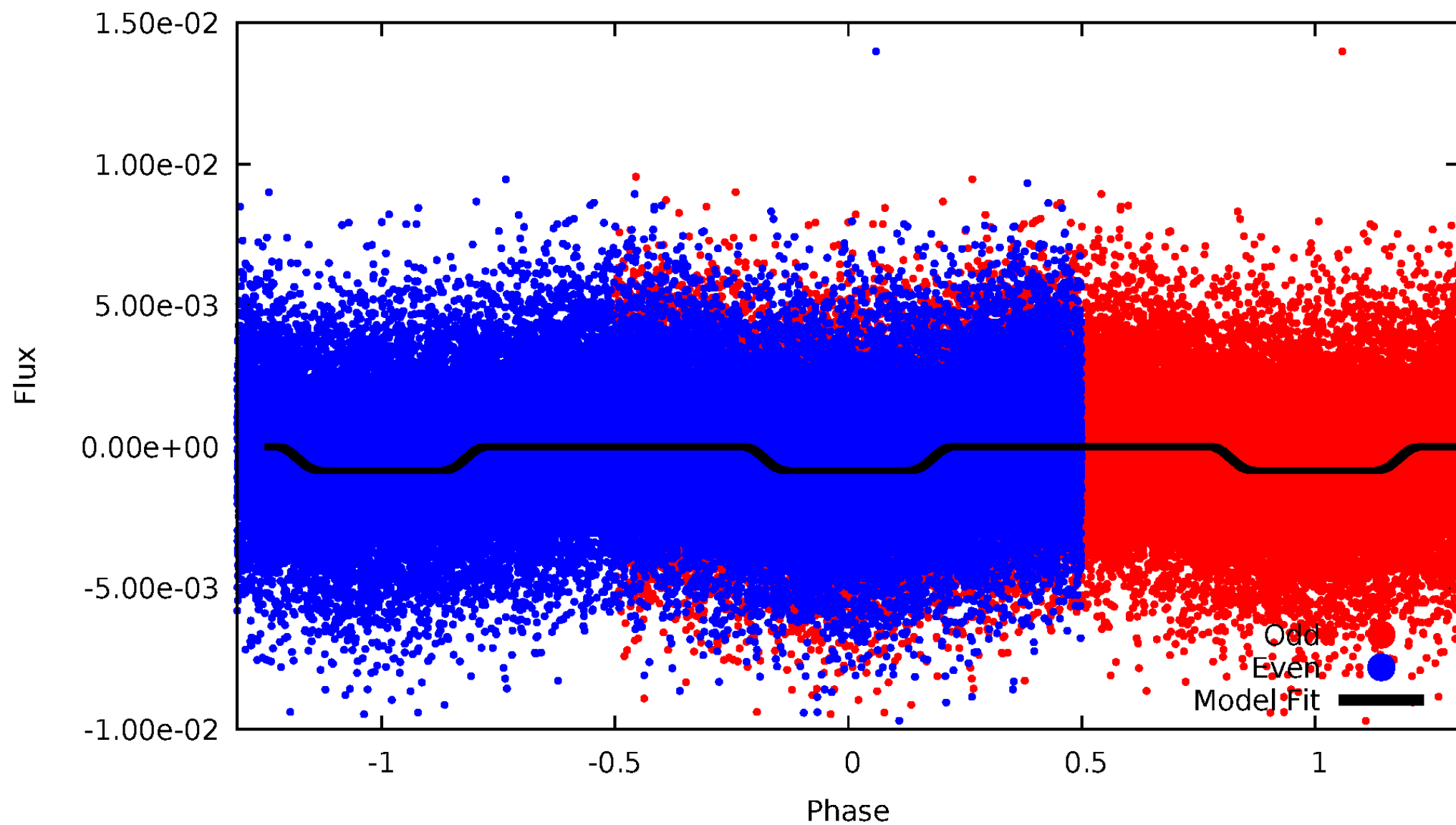
DV Odd/Even

TCE 003762741-01



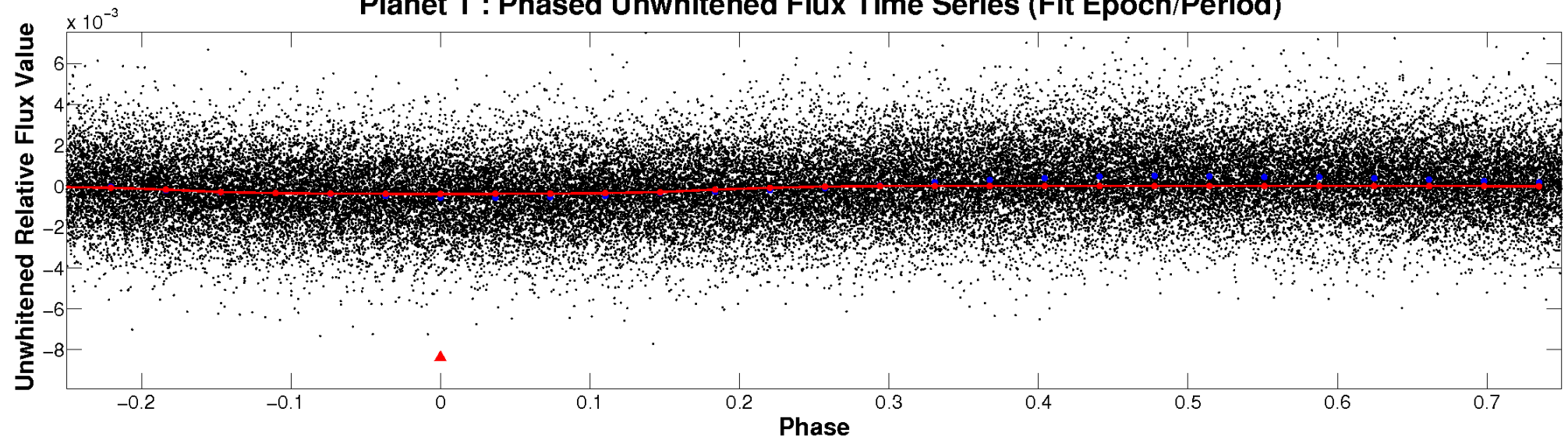
ALT Odd/Even

TCE 003762741-01

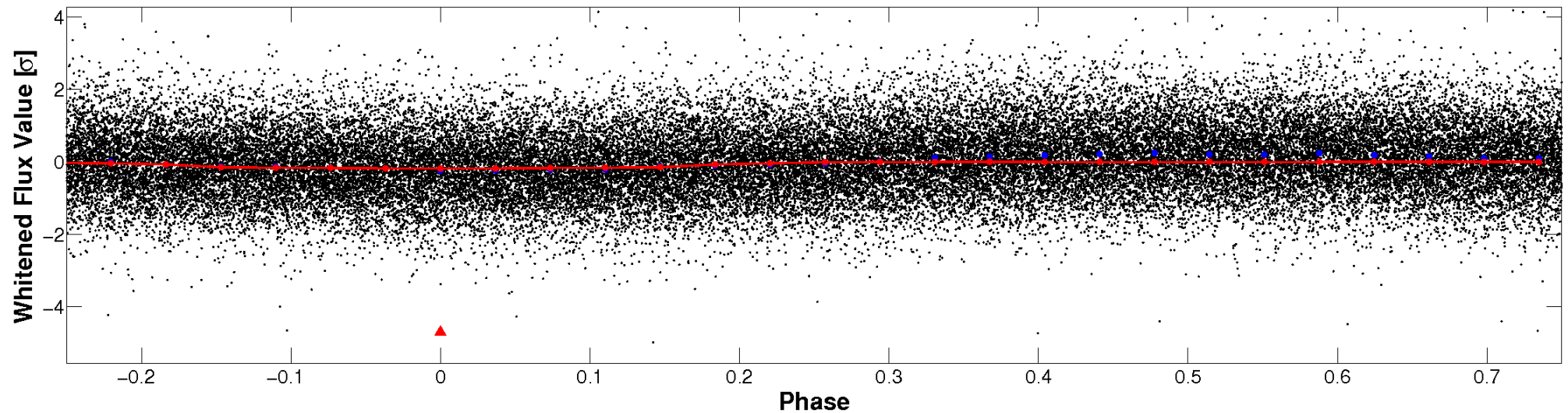


Non-Whitened Vs. Whitened Light Curve

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

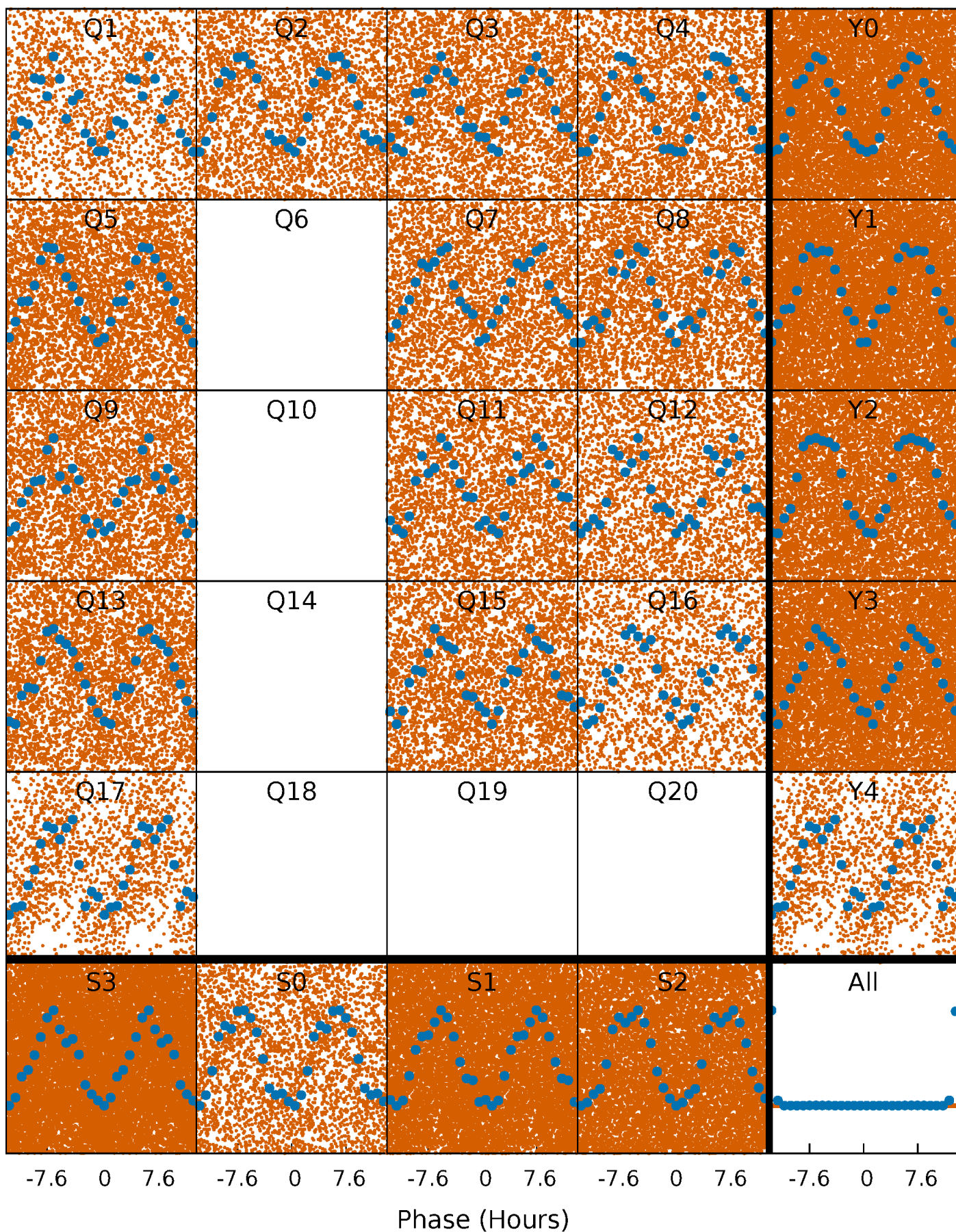


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



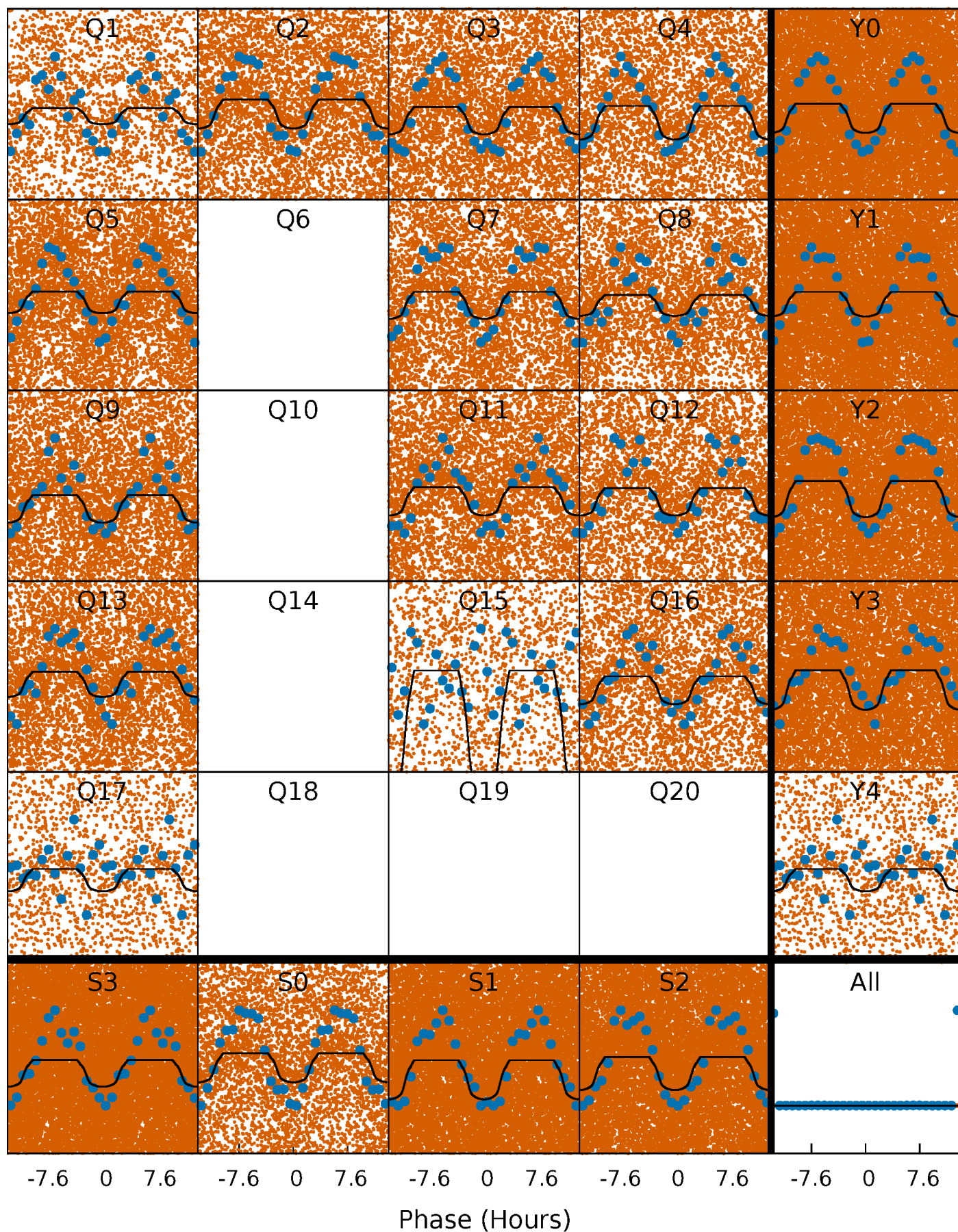
PDC Quarter-Phased Transit Curves

TCE 003762741-01 P= 0.556160 Days $T_0=131.792719$ (BKJD)



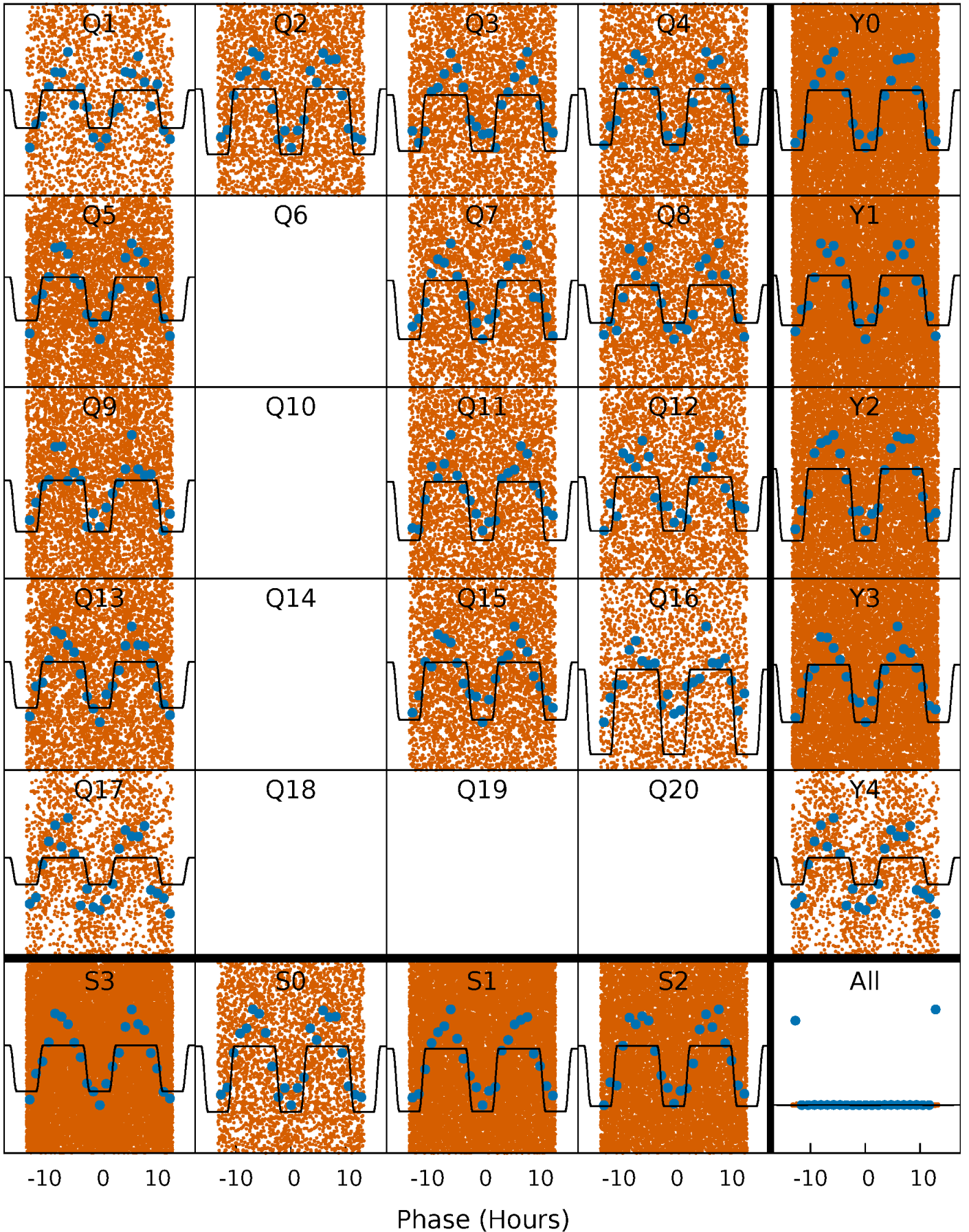
DV Quarter-Phased Transit Curves

TCE 003762741-01 P= 0.556160 Days $T_0=131.792719$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

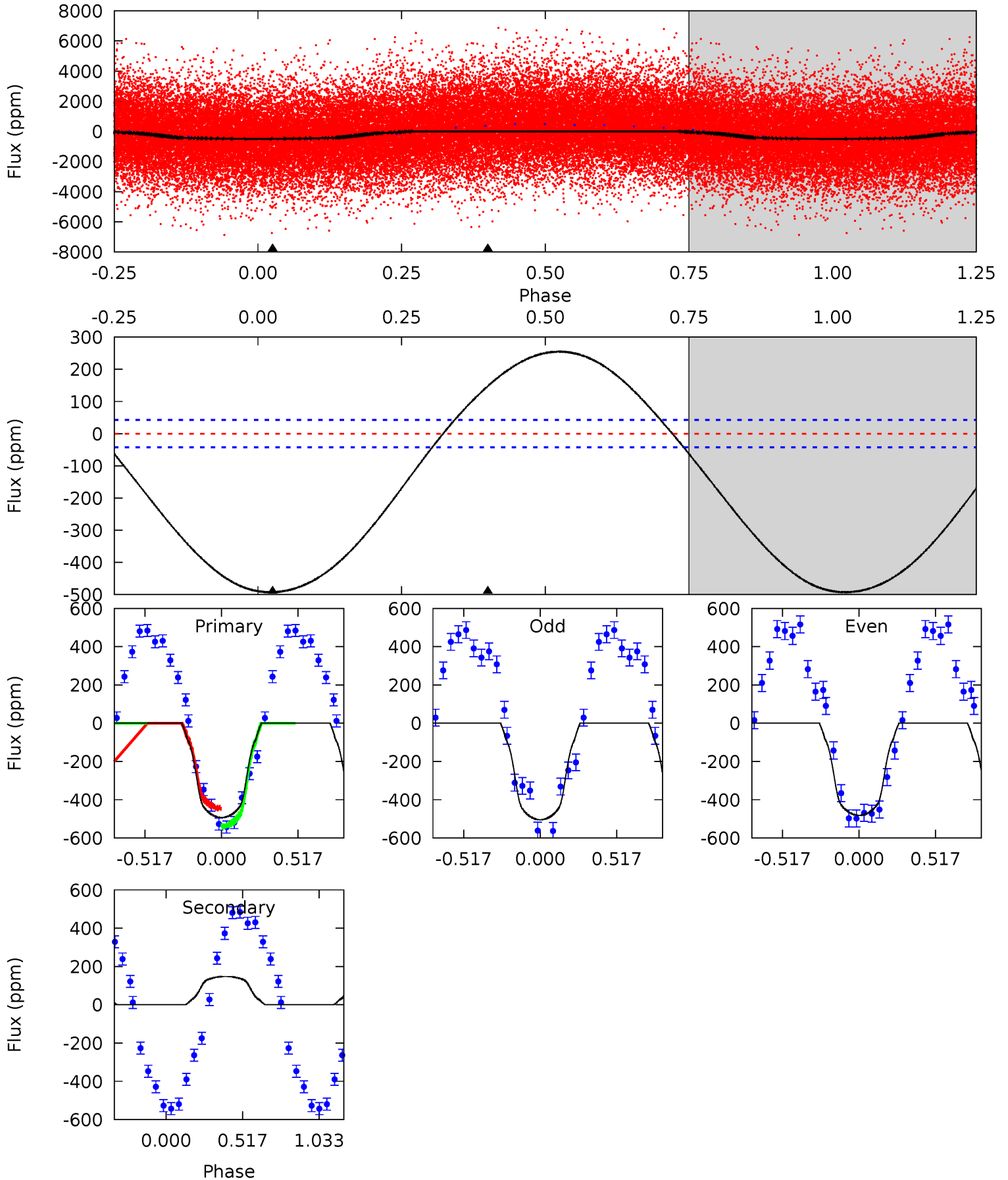
TCE 003762741-01 P= 0.556186 Days $T_0=131.776944$ (BKJD)



DV Model-Shift Uniqueness Test

003762741-01, P = 0.556160 Days, E = 131.236559 Days

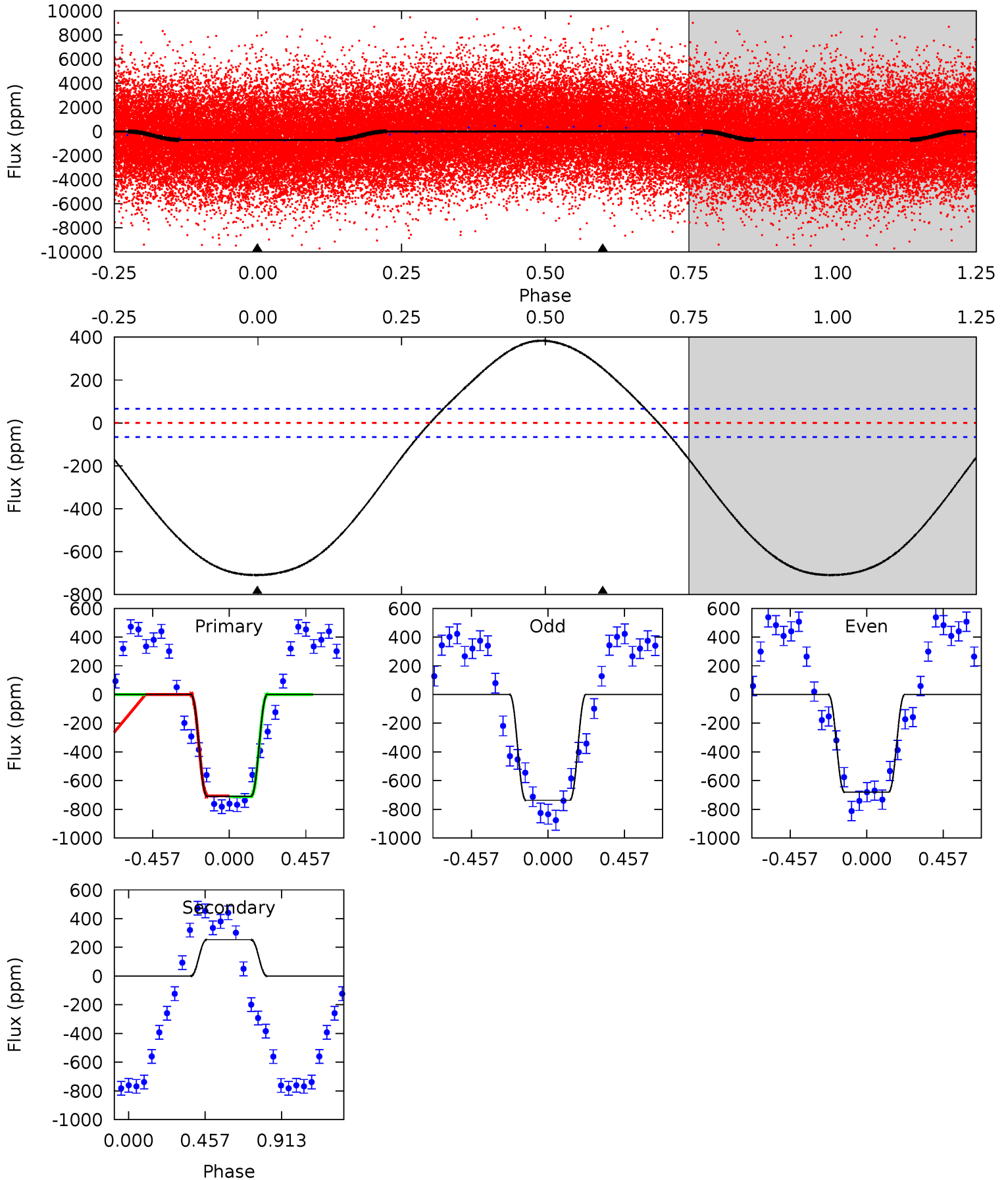
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.8	-14.6	0	0	4.21	0.65	6.28	48.8	48.8	-14.6	-14.6	1.15	1.10	0.34	4.79



Alt Model-Shift Uniqueness Test

003762741-01, P = 0.556186 Days, E = 131.220758 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.5	-16.3	0	0	4.24	0.74	5.70	45.5	45.5	-16.3	-16.3	1.84	0.99	0.35	0.18



Stellar Parameters For KIC 003762741

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7542^{+234}_{-313}	$3.966^{+0.308}_{-0.132}$	$-0.500^{+0.250}_{-0.300}$	$2.112^{+0.497}_{-0.745}$	$1.504^{+0.197}_{-0.319}$	$0.225^{+0.497}_{-0.088}$
	+3%/-4%	+8%/-3%	+50%/-60%	+24%/-35%	+13%/-21%	+221%/-39%
Source	PHO54	PHO54	PHO54	DSEP		

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

Secondary Eclipse Parameters for KIC 003762741-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	148 ± 10	$4.77^{+0.74}_{-0.96}$	5377^{+447}_{-518}	-6059^{+267}_{-226}	$-0.821^{+0.196}_{-0.400}$
Alt.	254 ± 16	$6.51^{+0.97}_{-1.16}$	5380^{+396}_{-534}	-5953^{+253}_{-233}	$-0.759^{+0.173}_{-0.345}$

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 $A_{obs} \gg 1.0$

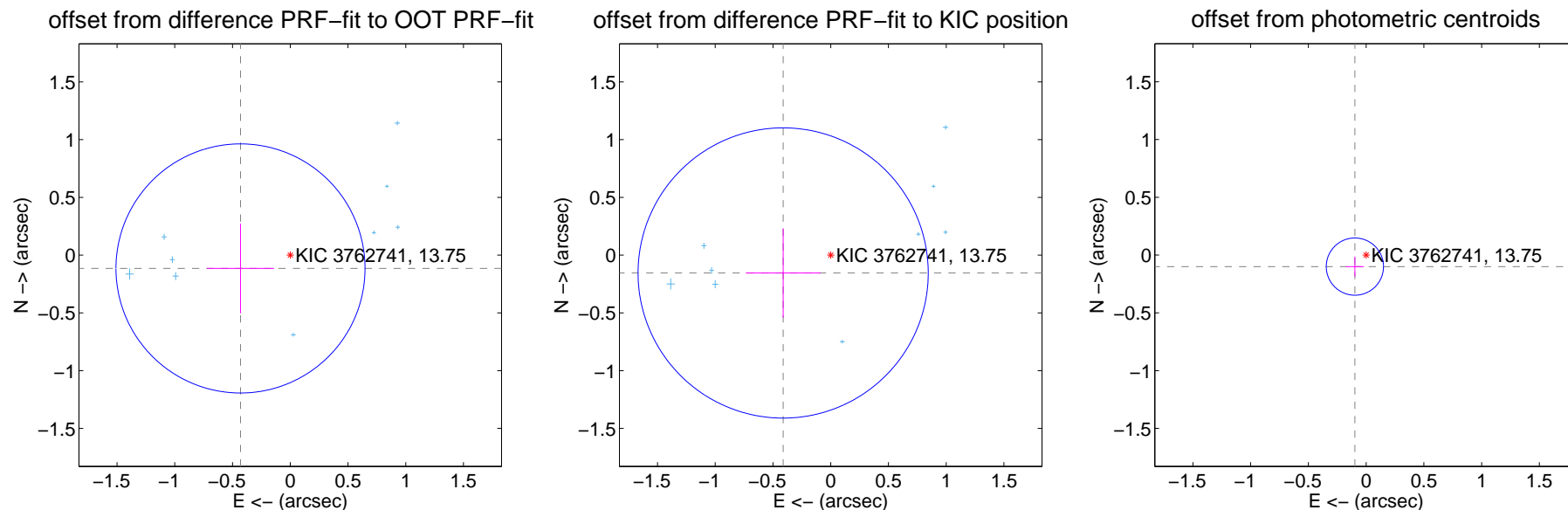
DV Centroid Data

Supplemental centroid analysis for 003762741-01. Kepler magnitude: 13.75. Transit SNR 22.30

There are 14 quarters with good PRF difference image offsets

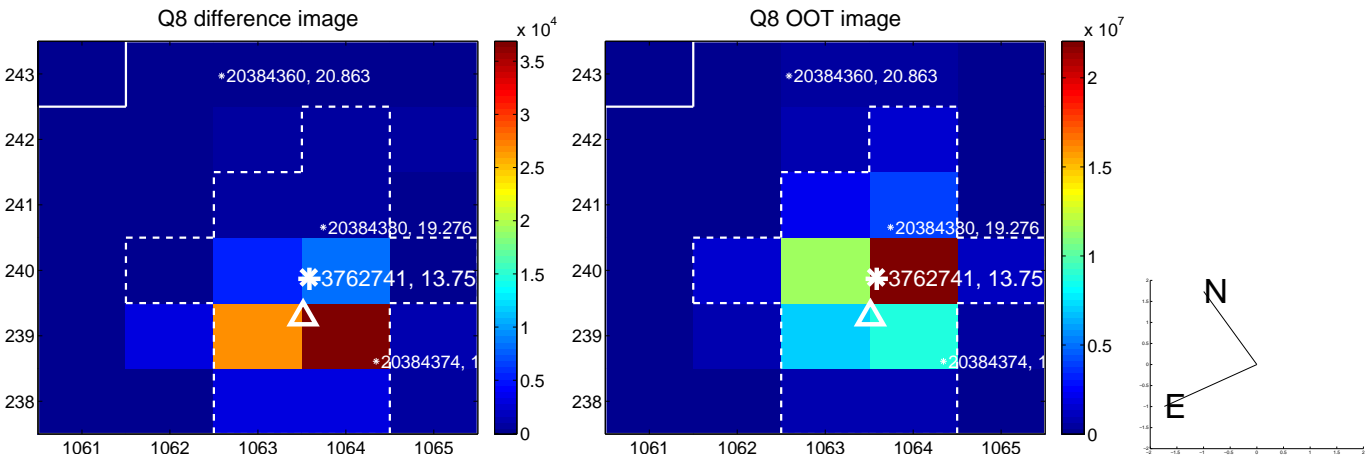
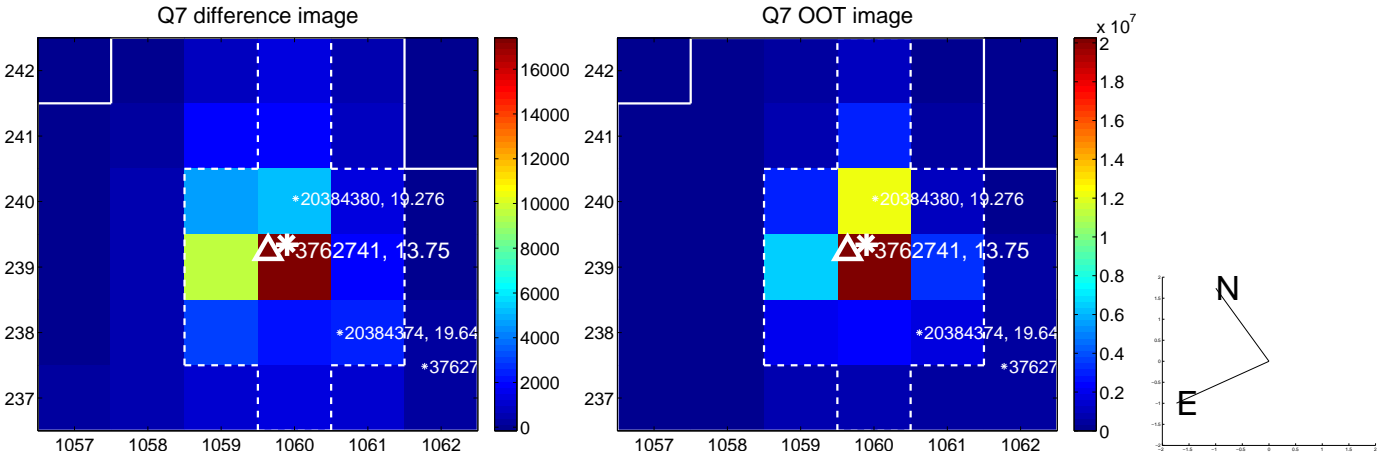
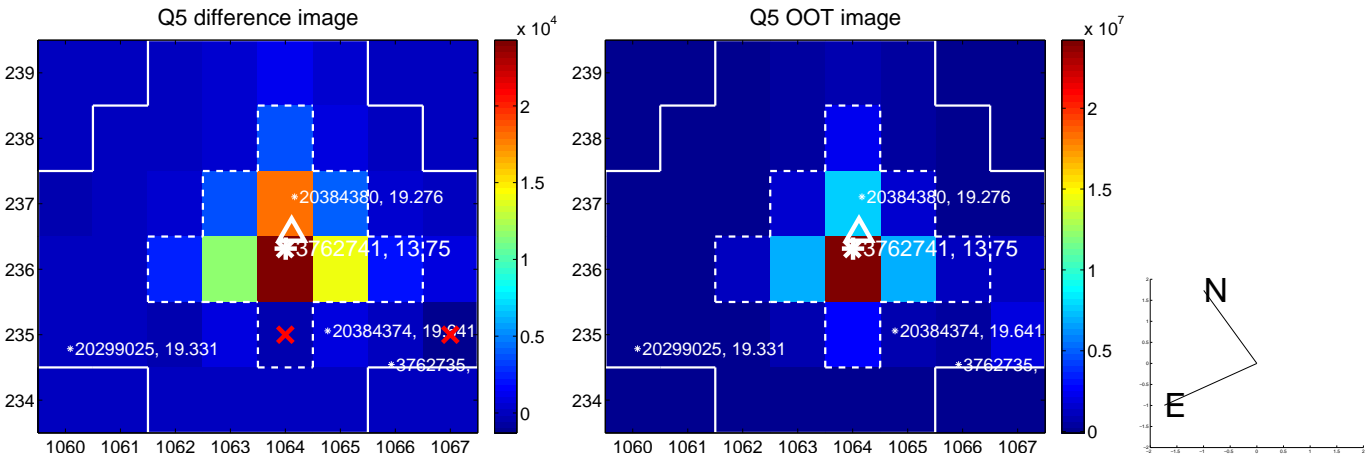
The direct PRF centroid is offset from the target star catalog position by about 0.09 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.446 ± 0.359	1.24	0.431 ± 0.291	-0.115 ± 0.388
PRF-fit source offset from KIC position	0.440 ± 0.419	1.05	0.412 ± 0.324	-0.154 ± 0.387
photometric centroid source offset	0.14 ± 0.08	1.69	0.10 ± 0.08	-0.10 ± 0.09

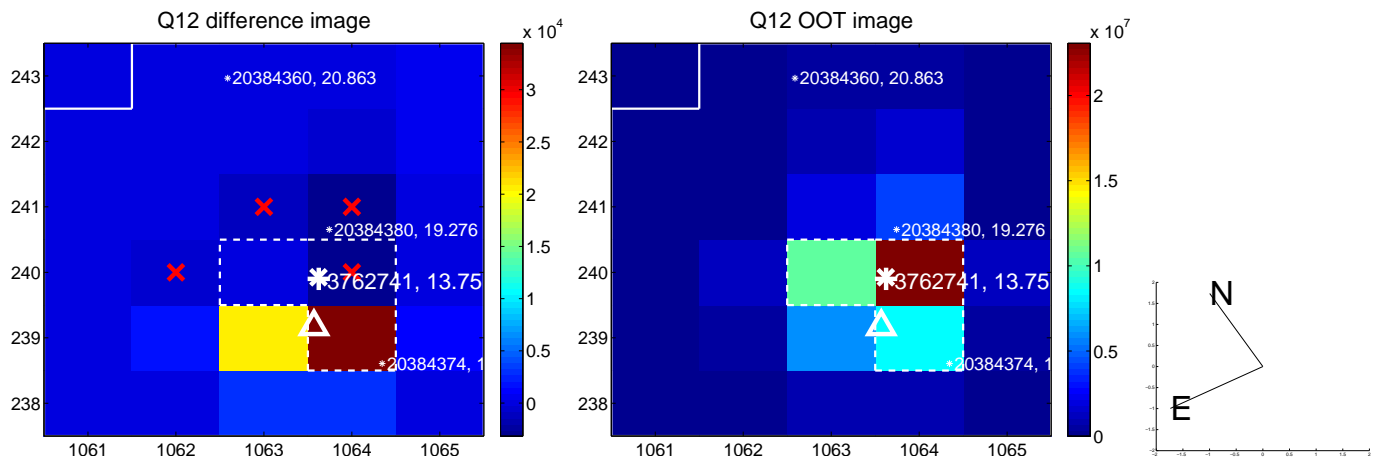
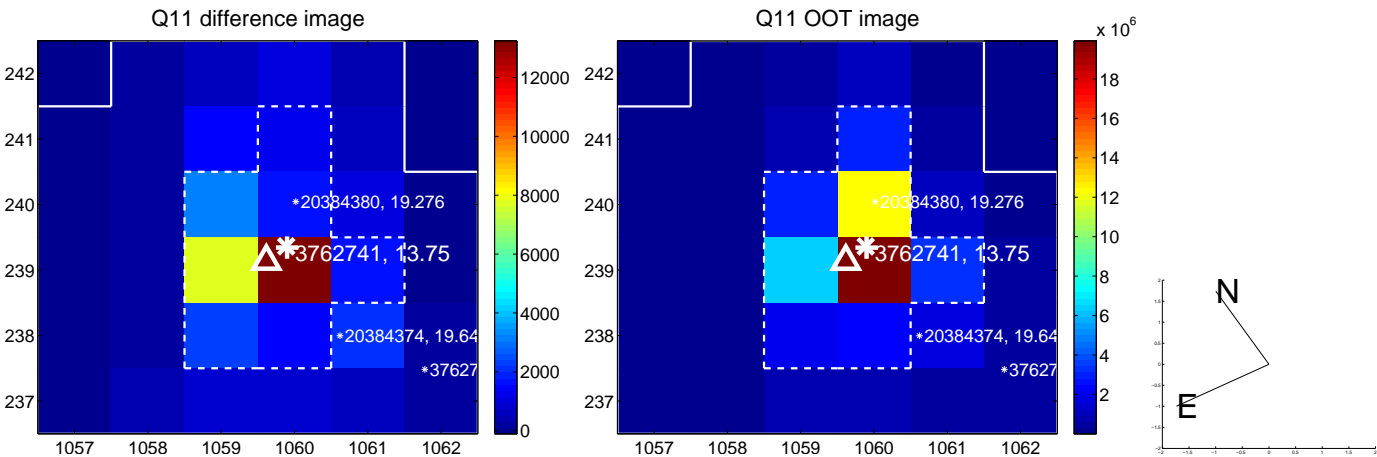
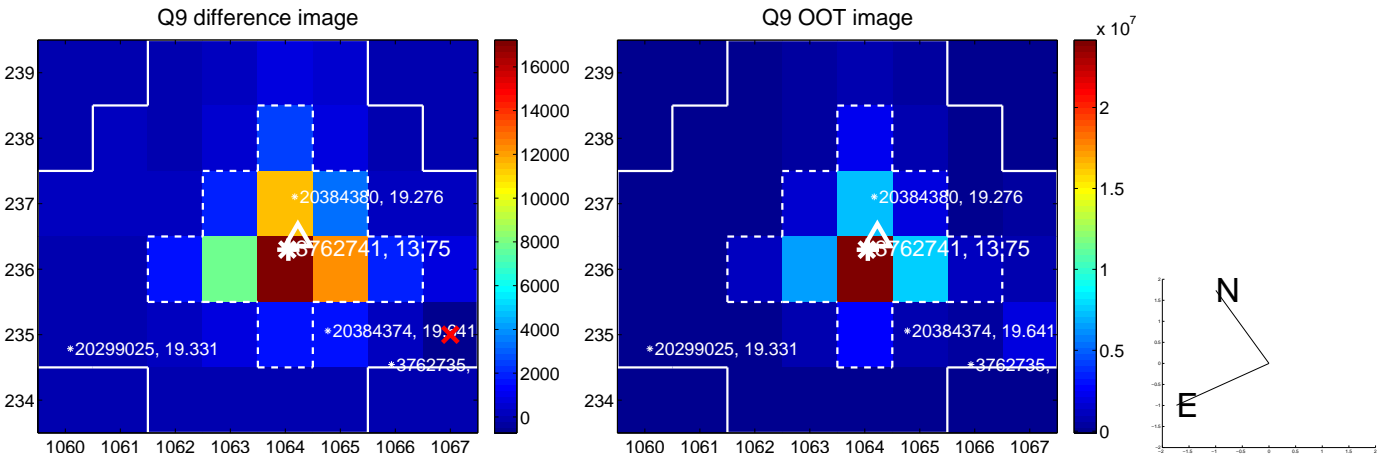


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

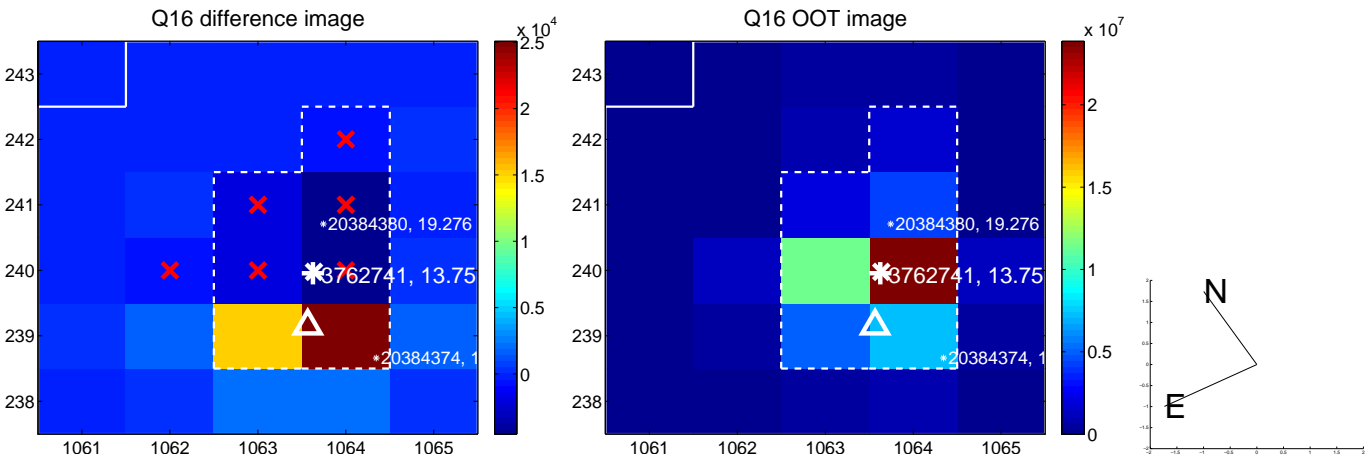
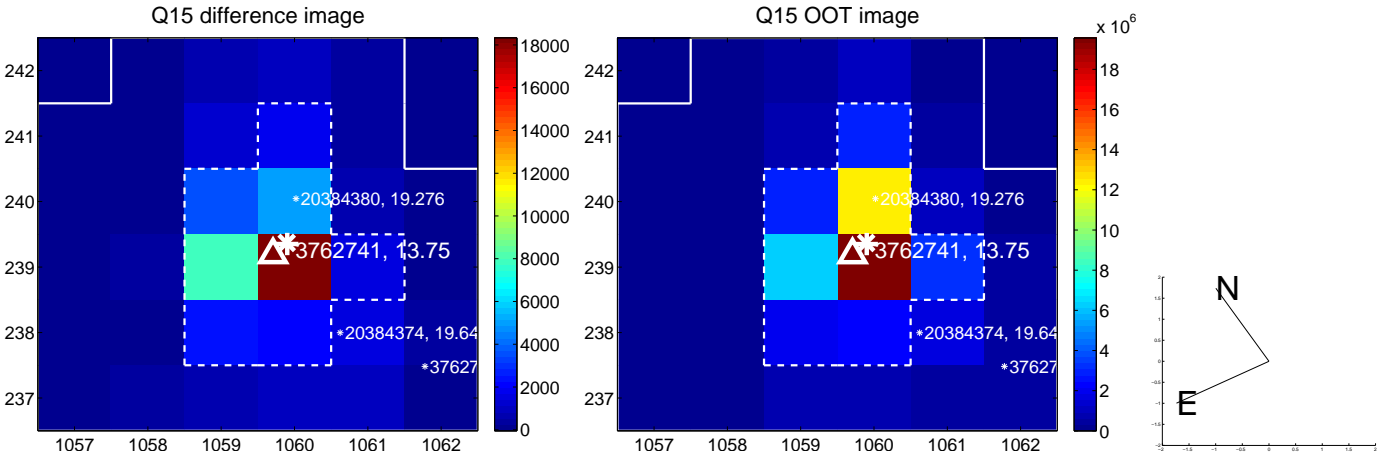
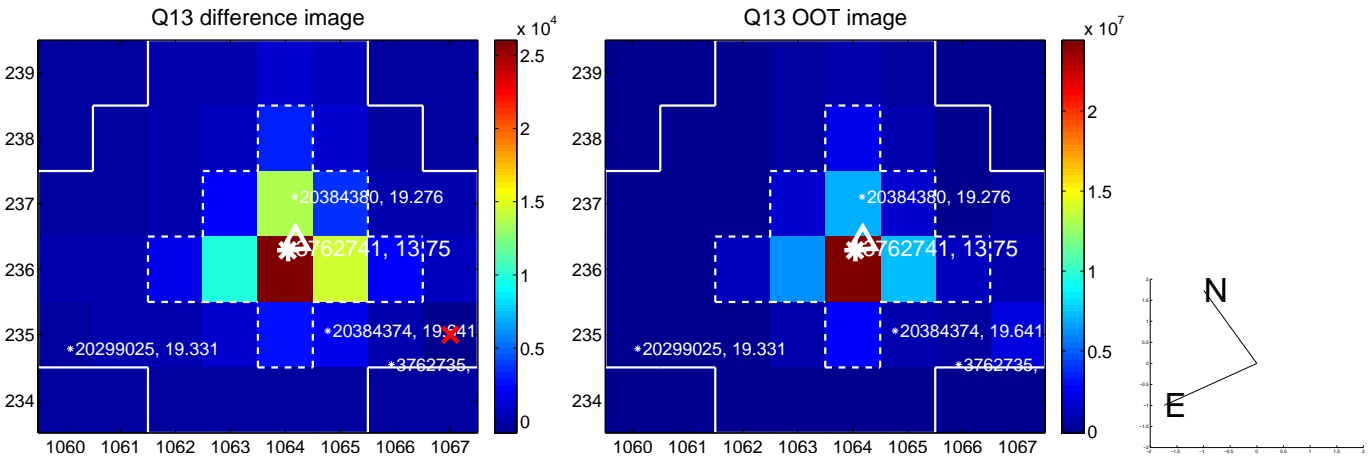
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



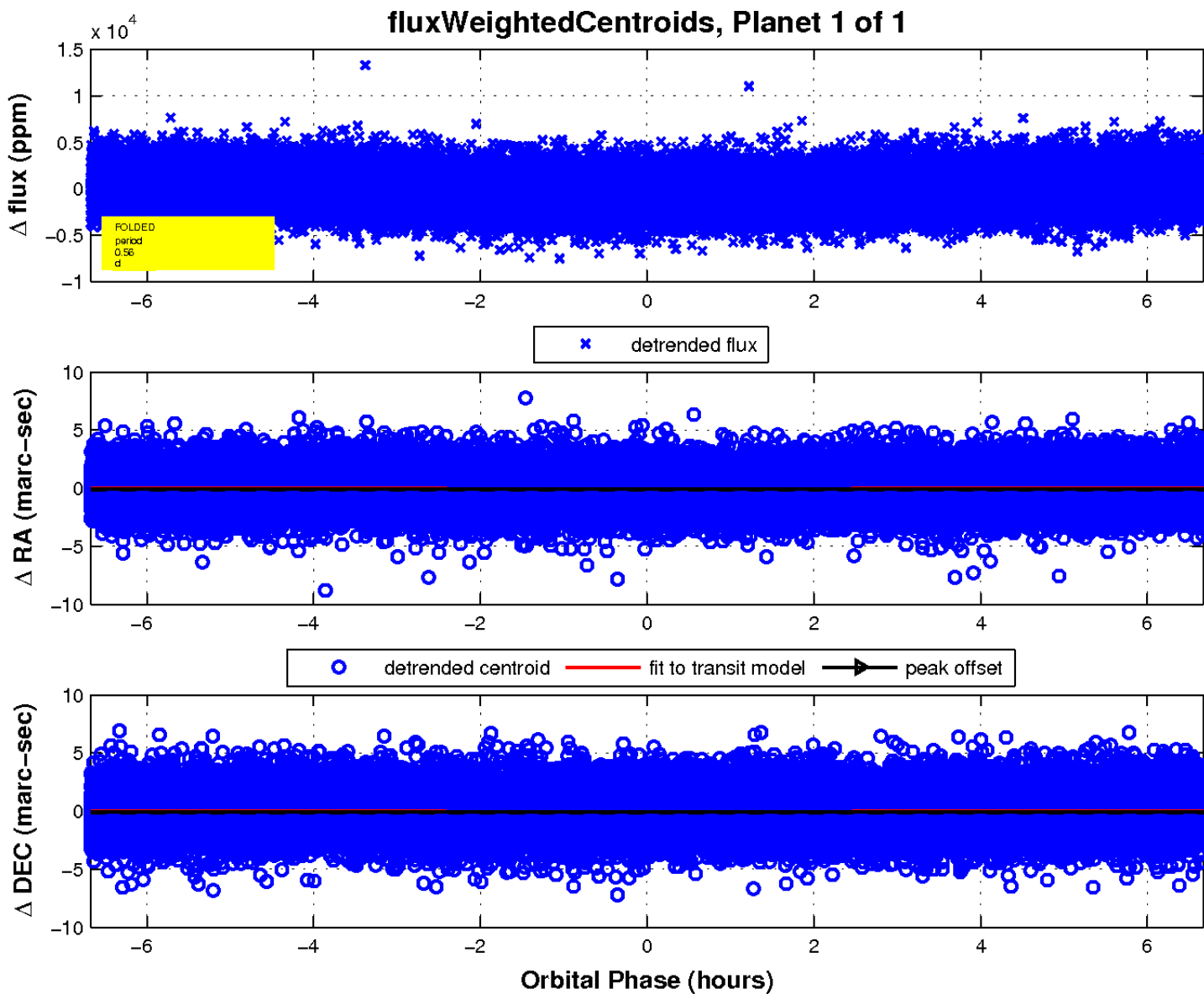
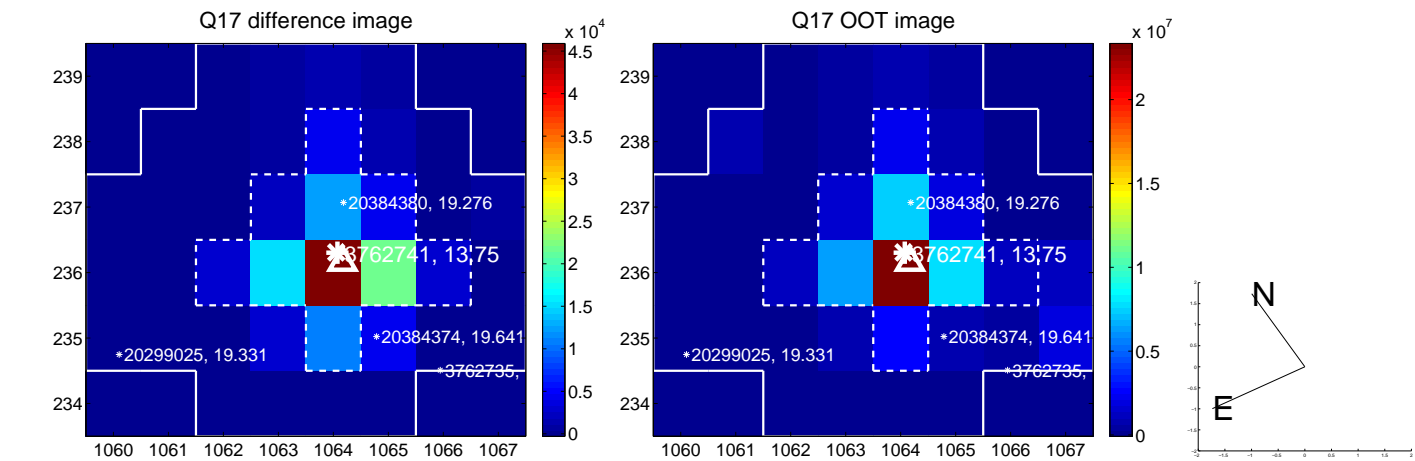
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

