

KIC 007352727

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})
007352727-01	OBS	5382.01	2.456621	133.188537	45.7	2.343	12.1	7.1	8.53	4870	7.27	0.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007352727-01	OBS	FP	0.01	0	0	1	0	PLANET_IN_STAR—CENT_SATURATED—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.

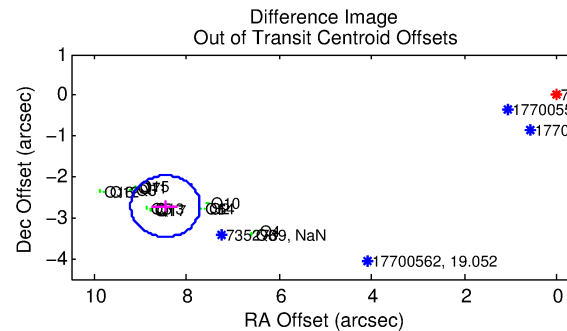
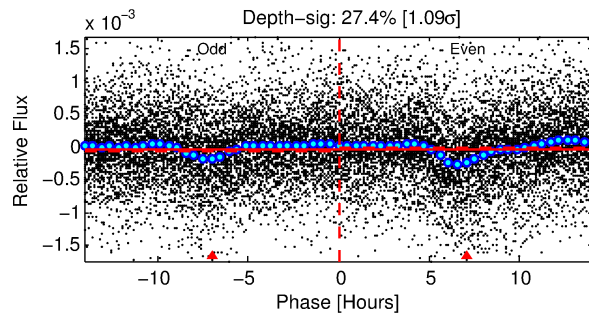
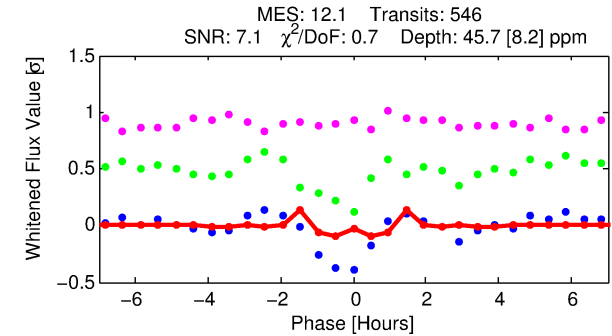
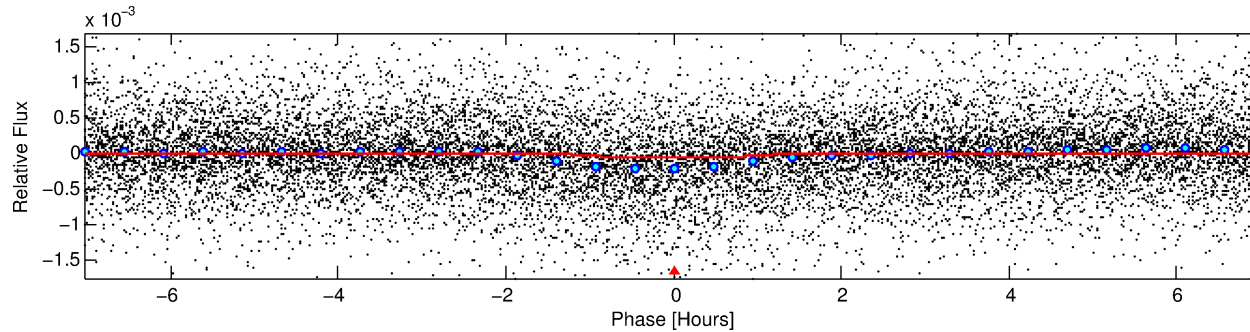
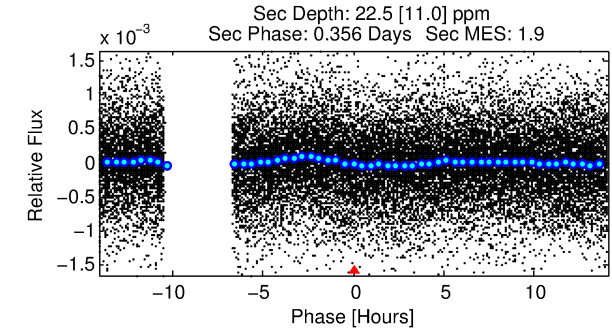
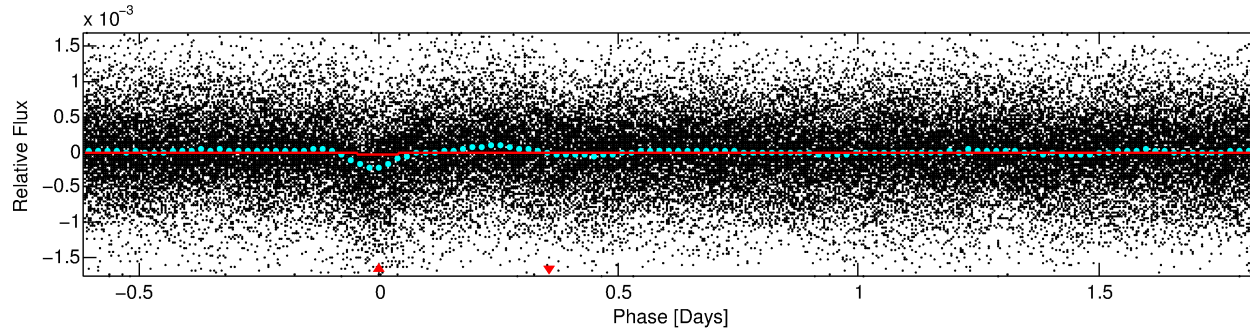
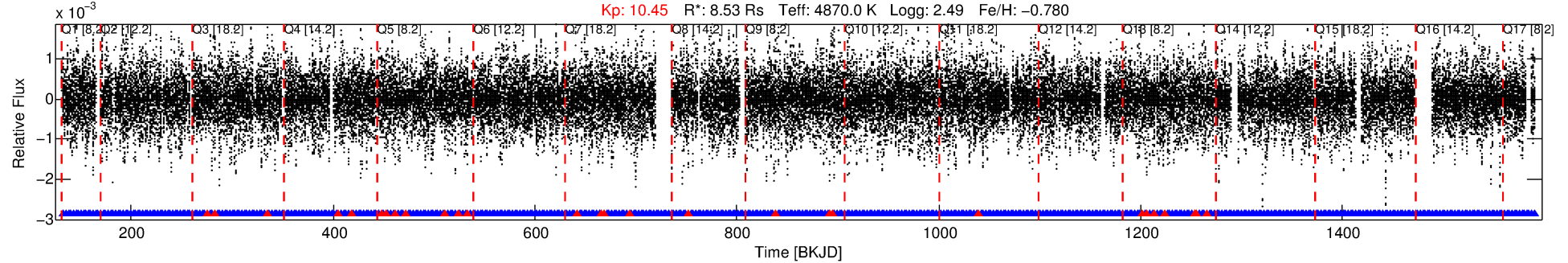
Ephemeris Match Information For 007352727-01

No Significant Match Found

DV One-Page Summary

KIC: 7352727 Candidate: 1 of 1 Period: 2.457 d
KOI: K05382.01 Corr: 0.791

Kp: 10.45 R*: 8.53 Rs Teff: 4870.0 K Logg: 2.49 Fe/H: -0.780



DV Fit Results:

Period = 2.45662 [0.00001] d
Epoch = 133.1885 [0.0014] BKJD
Rp/R* = 0.0078 [0.0018]
a/R* = 3.21 [2.85]
b = 0.93 [0.14]
Seff = N/A
Teq = N/A
Rp = 7.27 [2.69] Re
a = N/A
Ag = N/A
Teffp = N/A

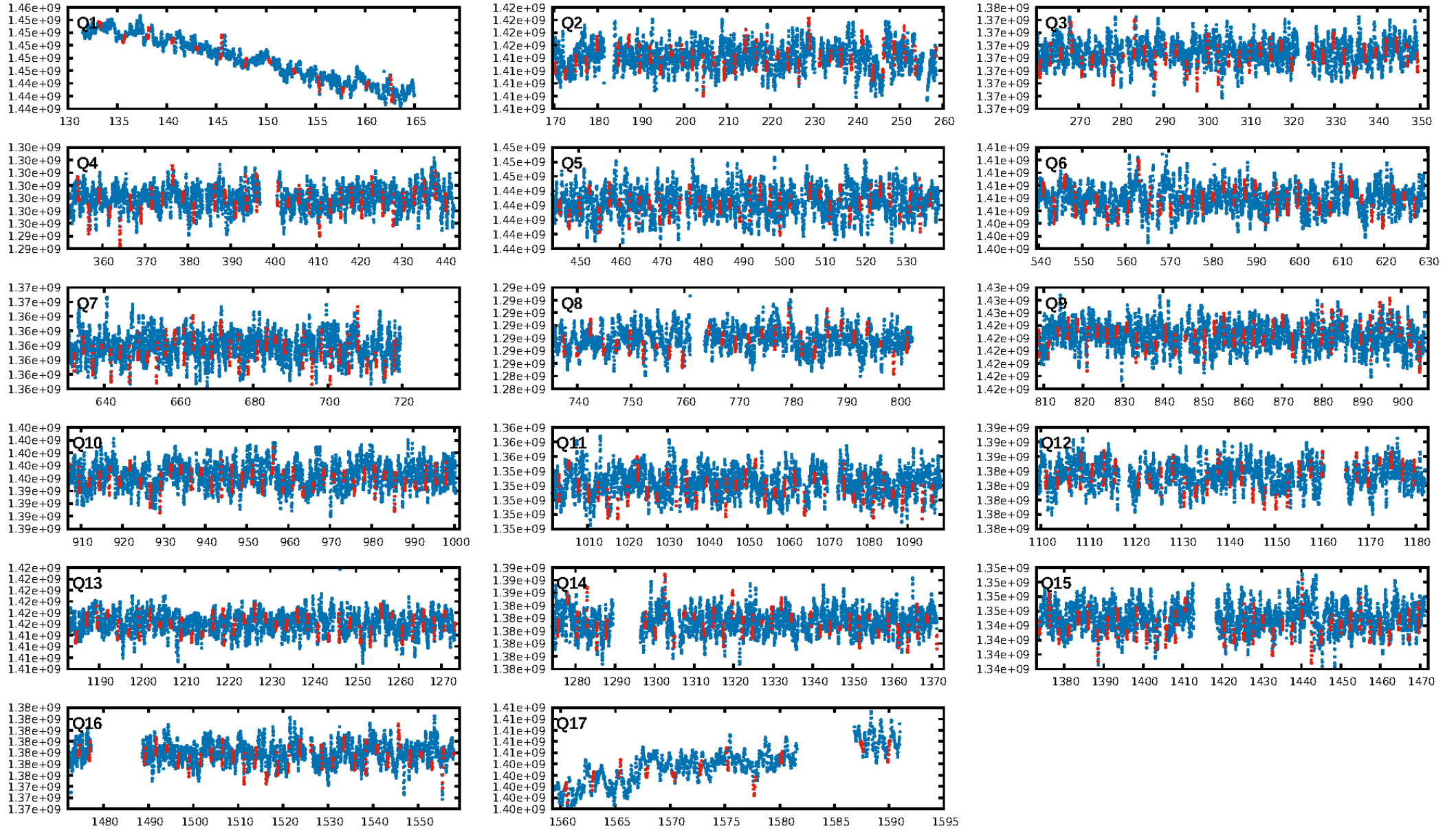
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.10e-31
RollingBand-fgt: 0.95 [494/522]
GhostDiagnostic-chr: 0.2206
Centroid-sig: 0.0%
Centroid-so: 35.409 arcsec [32.25σ]
OotOffset-rm: 8.889 arcsec [35.44σ]
KicOffset-rm: 8.304 arcsec [122.34σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

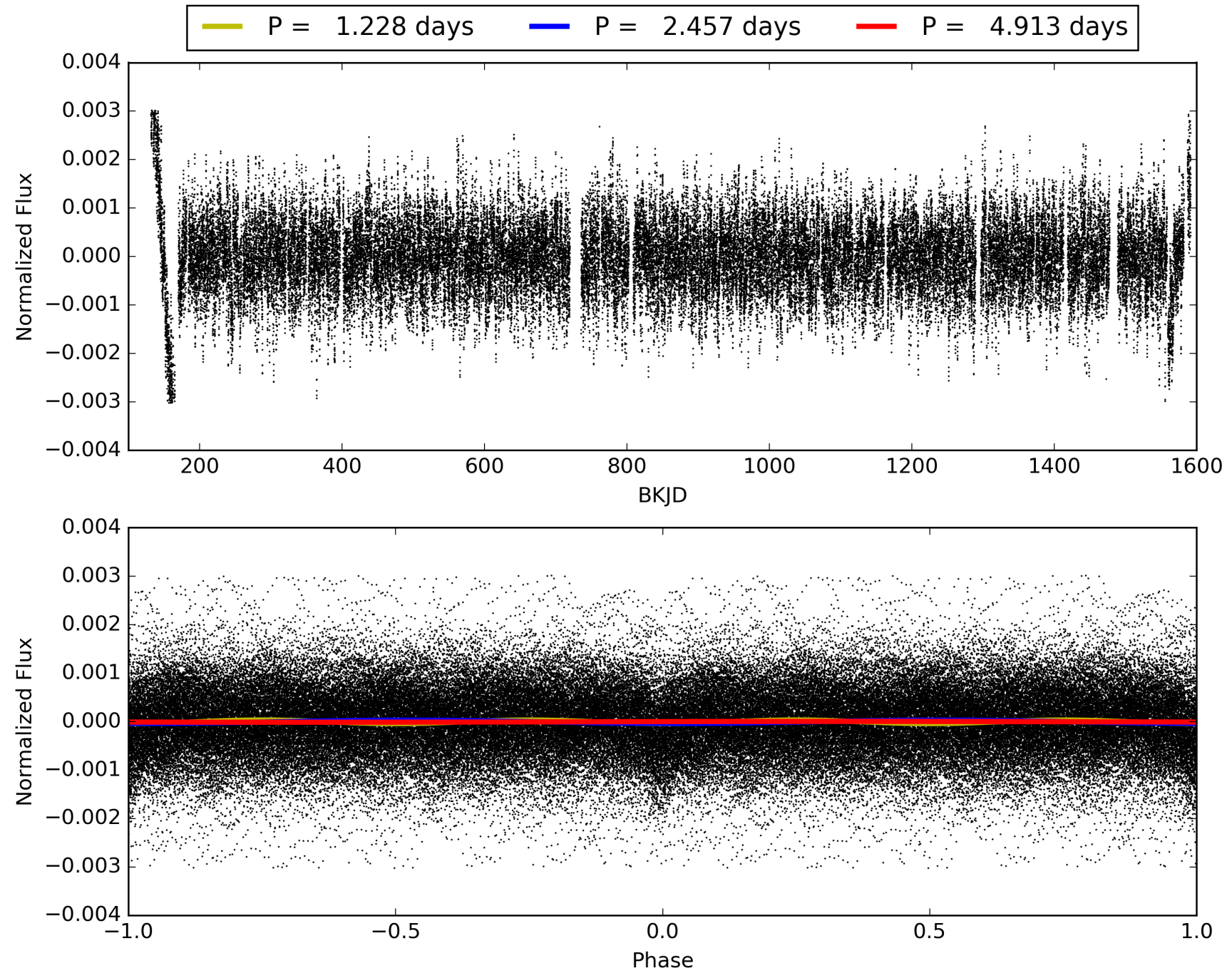
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 19:34:51 Z

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

TCE 007352727-01, PDC Light Curves

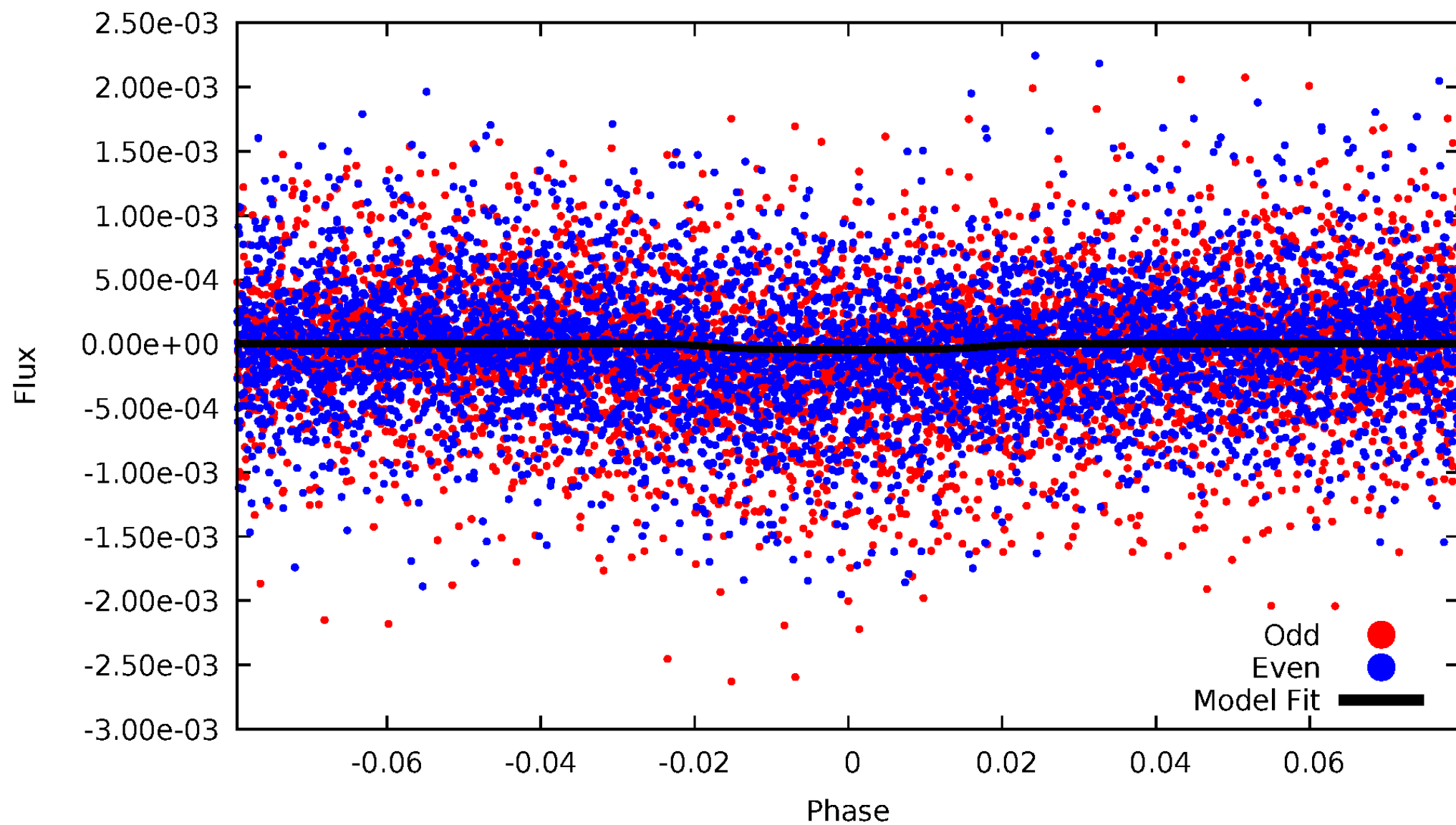


TCE 007352727-01



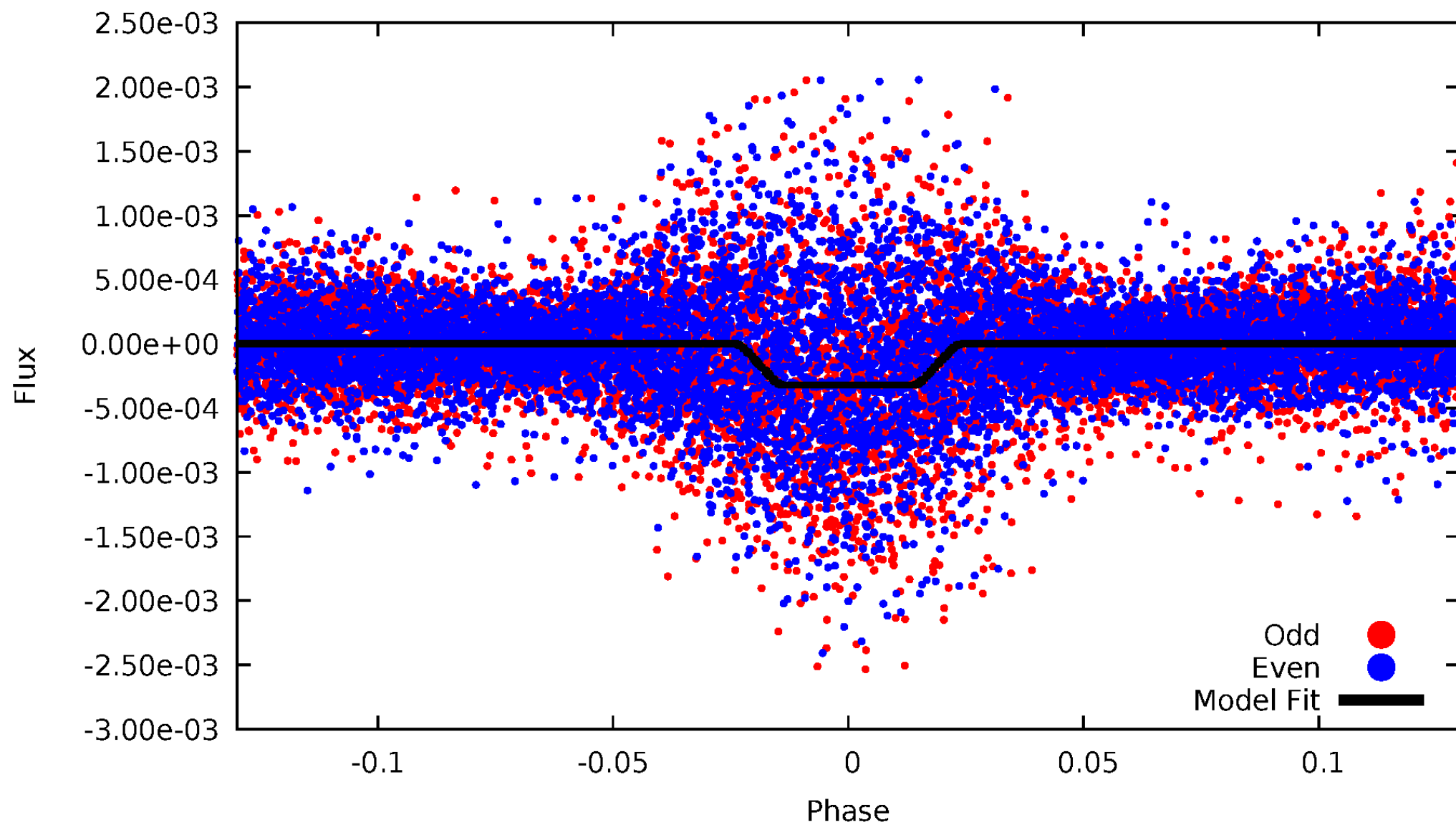
DV Odd/Even

TCE 007352727-01



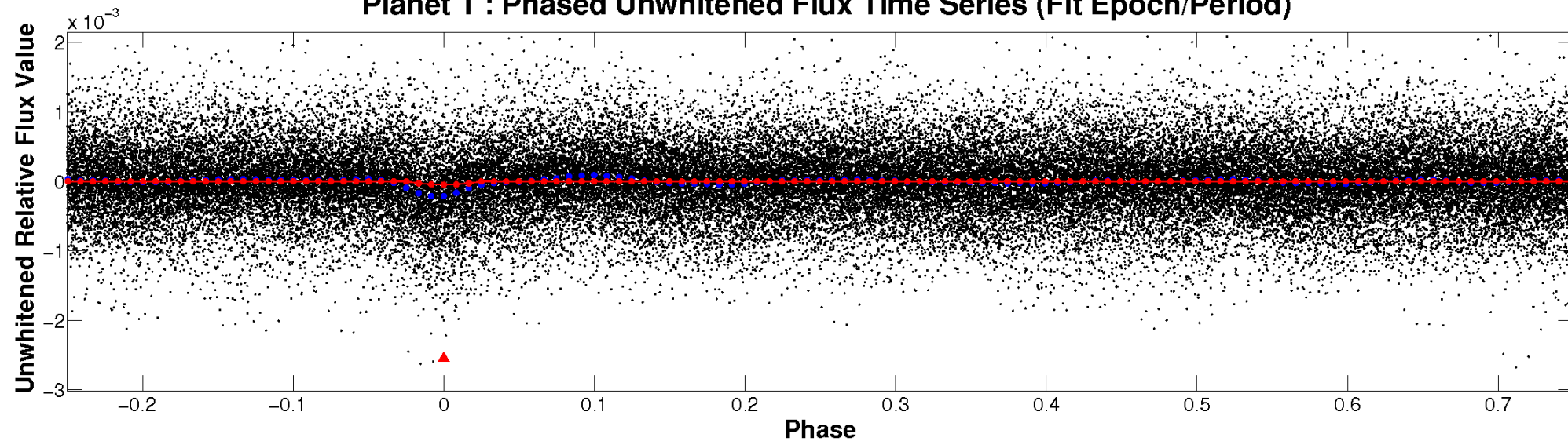
ALT Odd/Even

TCE 007352727-01

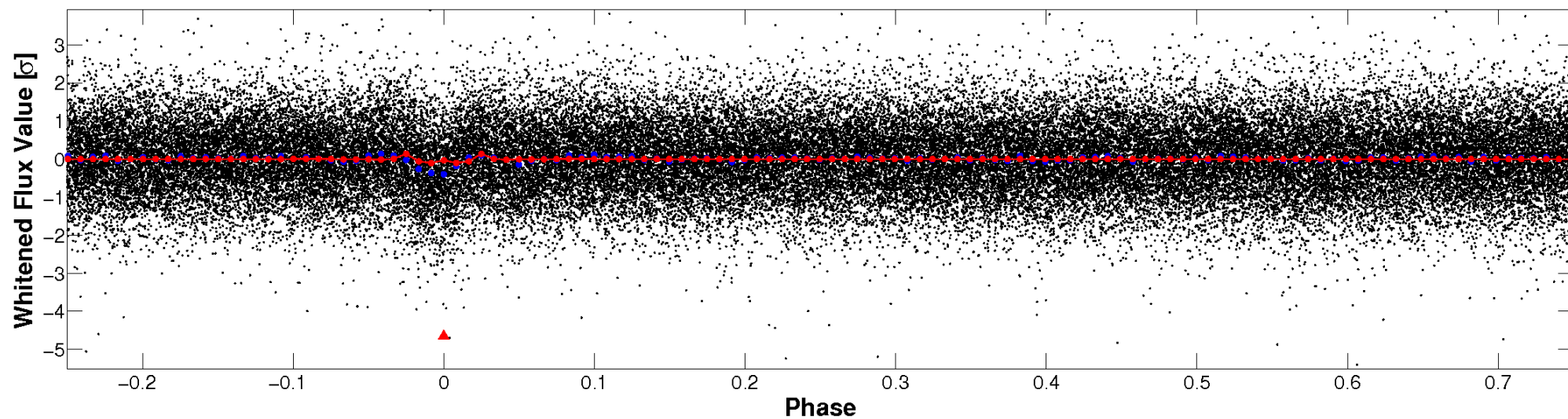


Non-Whitened Vs. Whitened Light Curve

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

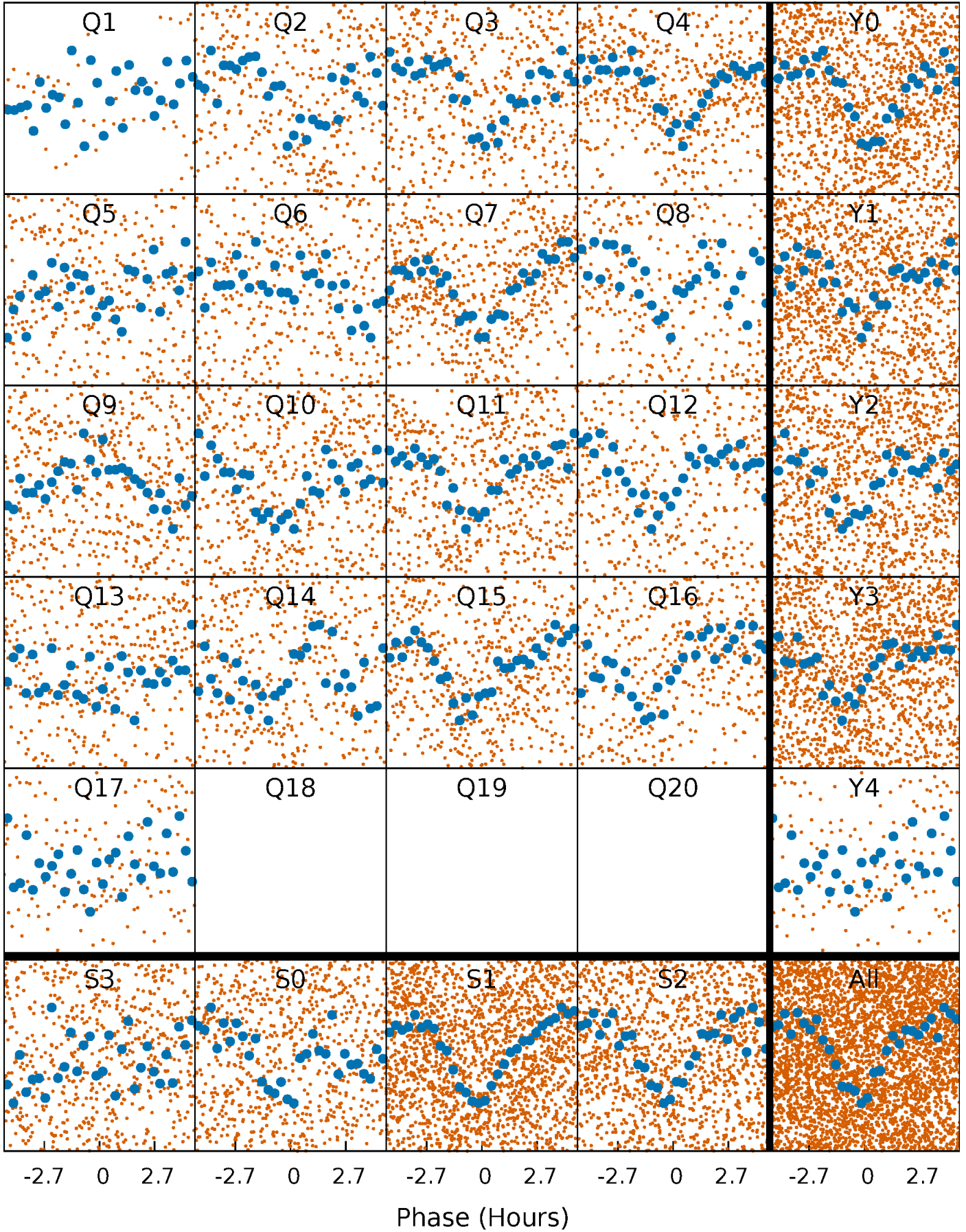


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



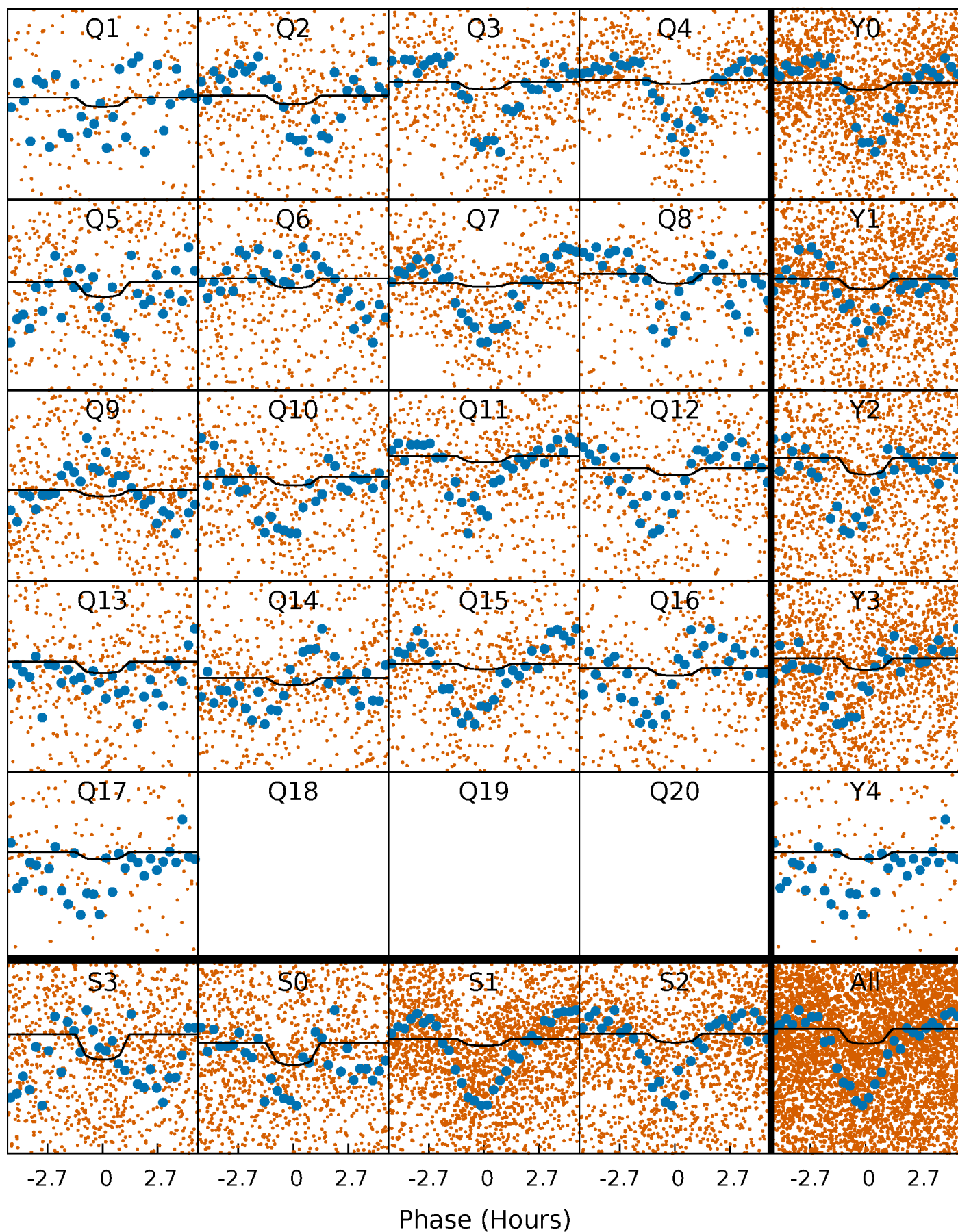
PDC Quarter-Phased Transit Curves

TCE 007352727-01 P= 2.456621 Days $T_0=133.188537$ (BKJD)



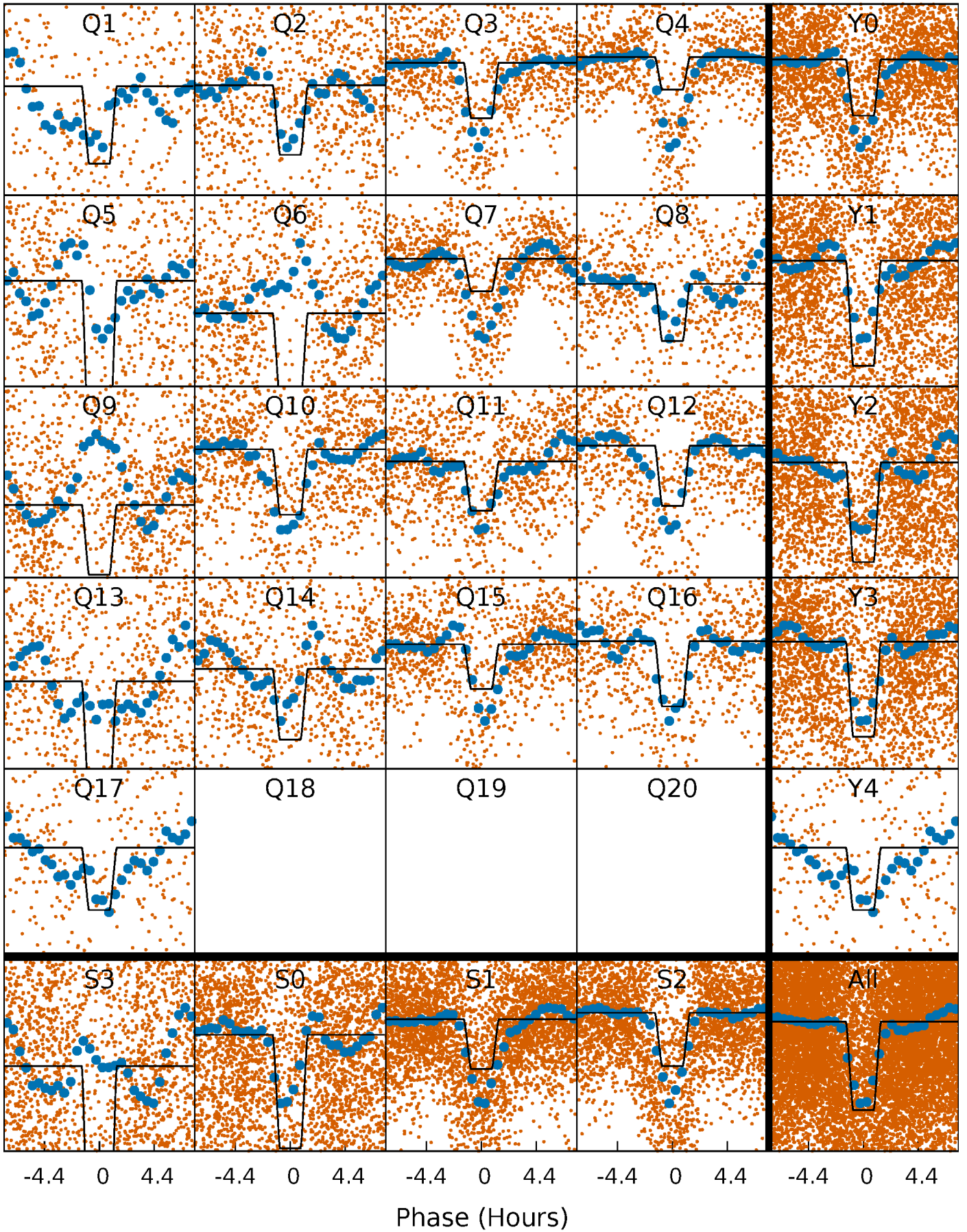
DV Quarter-Phased Transit Curves

TCE 007352727-01 P= 2.456621 Days $T_0=133.188537$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

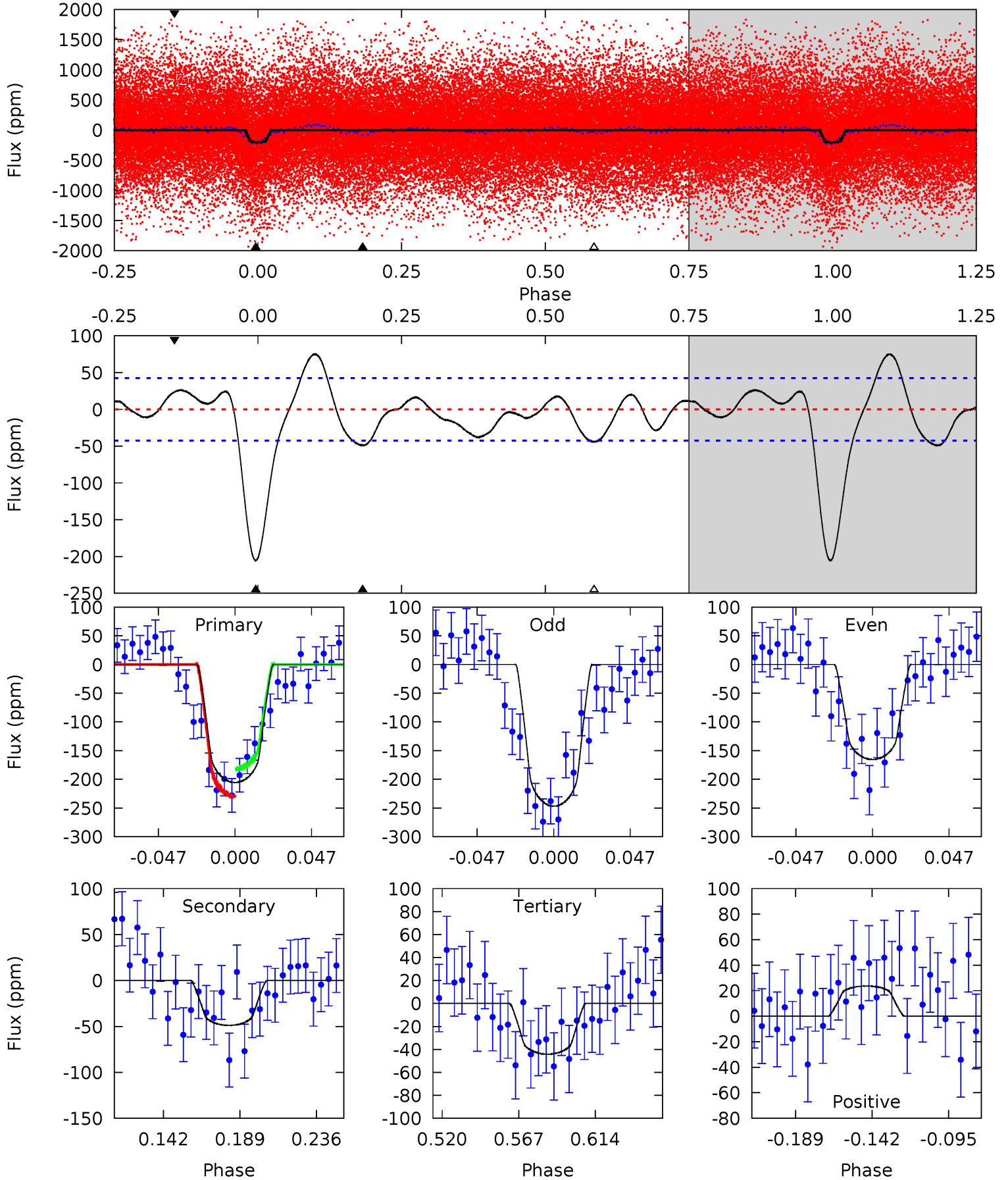
TCE 007352727-01 P= 2.456482 Days $T_0=133.216380$ (BKJD)



DV Model-Shift Uniqueness Test

007352727-01, P = 2.456621 Days, E = 130.731916 Days

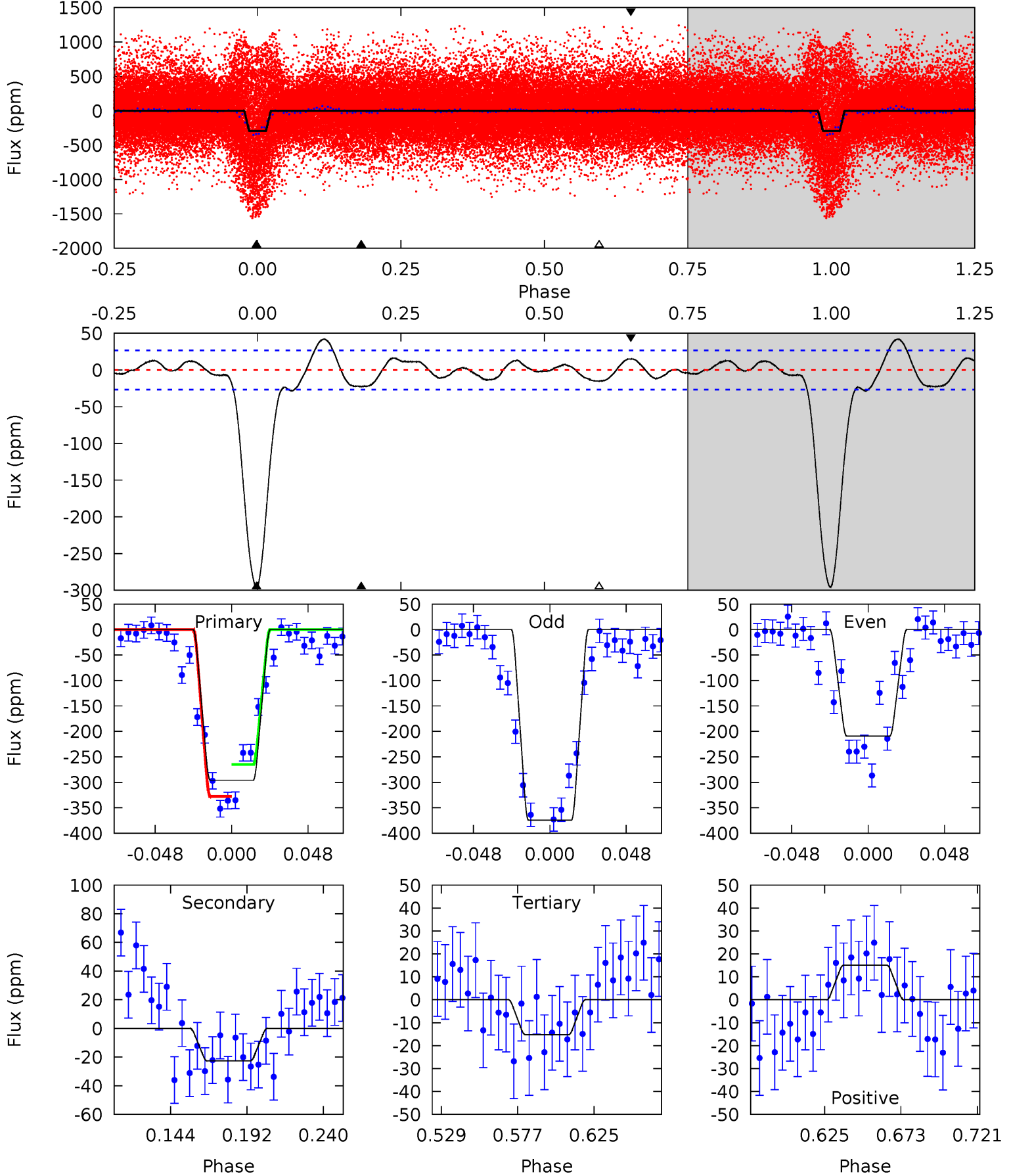
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	5.44	4.91	2.63	4.72	1.98	2.66	18.0	20.2	0.53	2.81	4.56	1.39	0.27	2.67



Alt Model-Shift Uniqueness Test

007352727-01, P = 2.456482 Days, E = 130.759898 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
52.3	4.01	2.70	2.67	4.72	1.98	2.12	49.6	49.6	1.31	1.34	14.6	0.97	0.12	5.53



Stellar Parameters For KIC 007352727

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	4870^{+109}_{-69}	$2.486^{+0.024}_{-0.035}$	$-0.780^{+0.250}_{-0.200}$	$8.531^{+2.433}_{-0.270}$	$0.812^{+0.461}_{-0.024}$	$0.002^{+0.000}_{-0.000}$
	+2%/-1%	+1%/-1%	+32%/-26%	+29%/-3%	+57%/-3%	+7%/-26%
Source	PHO56	AST56	PHO56	DSEP		

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

Secondary Eclipse Parameters for KIC 007352727-01 / KOI 5382.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-49 ± 9	$7.39^{+1.97}_{-1.88}$	4824^{+136}_{-104}	4010^{+814}_{-1092}	$0.550^{+0.409}_{-0.217}$
Alt.	-23 ± 6	$16.75^{+2.15}_{-1.85}$	4822^{+128}_{-92}	-4011^{+87}_{-101}	$0.048^{+0.019}_{-0.014}$

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

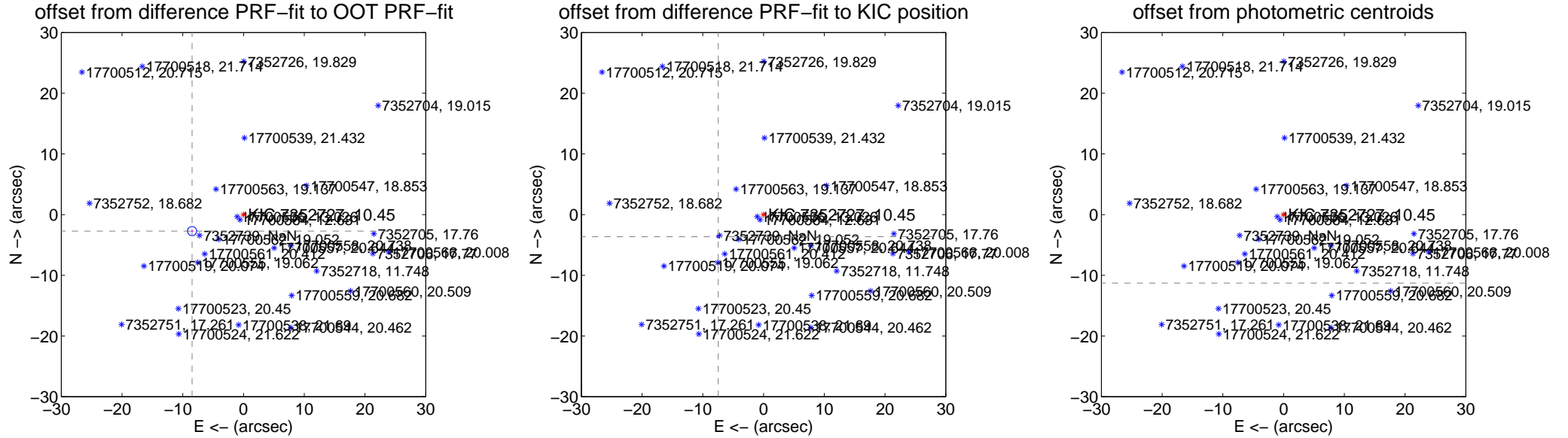
DV Centroid Data

Supplemental centroid analysis for 007352727-01. **Kepler magnitude: 10.45.** Transit SNR 7.14

There are 16 quarters with good PRF difference image offsets

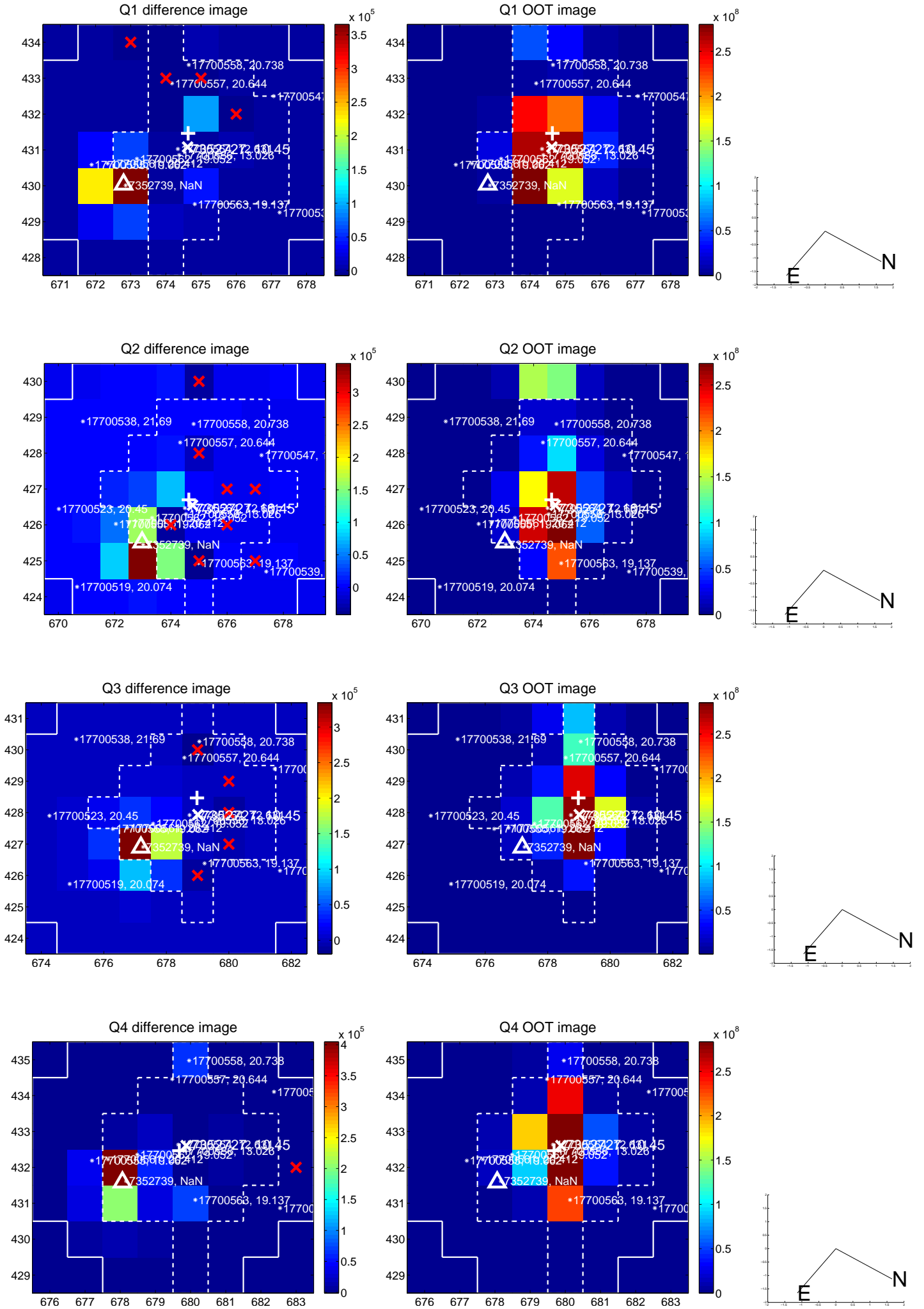
The direct PRF centroid is offset from the target star catalog position by about 1.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.889 \pm 0.251	35.44	8.464 \pm 0.261	-2.717 \pm 0.106
PRF-fit source offset from KIC position	8.304 \pm 0.068	122.34	7.466 \pm 0.067	-3.635 \pm 0.068
photometric centroid source offset	35.41 \pm 1.10	32.25	33.57 \pm 1.13	-11.28 \pm 0.80

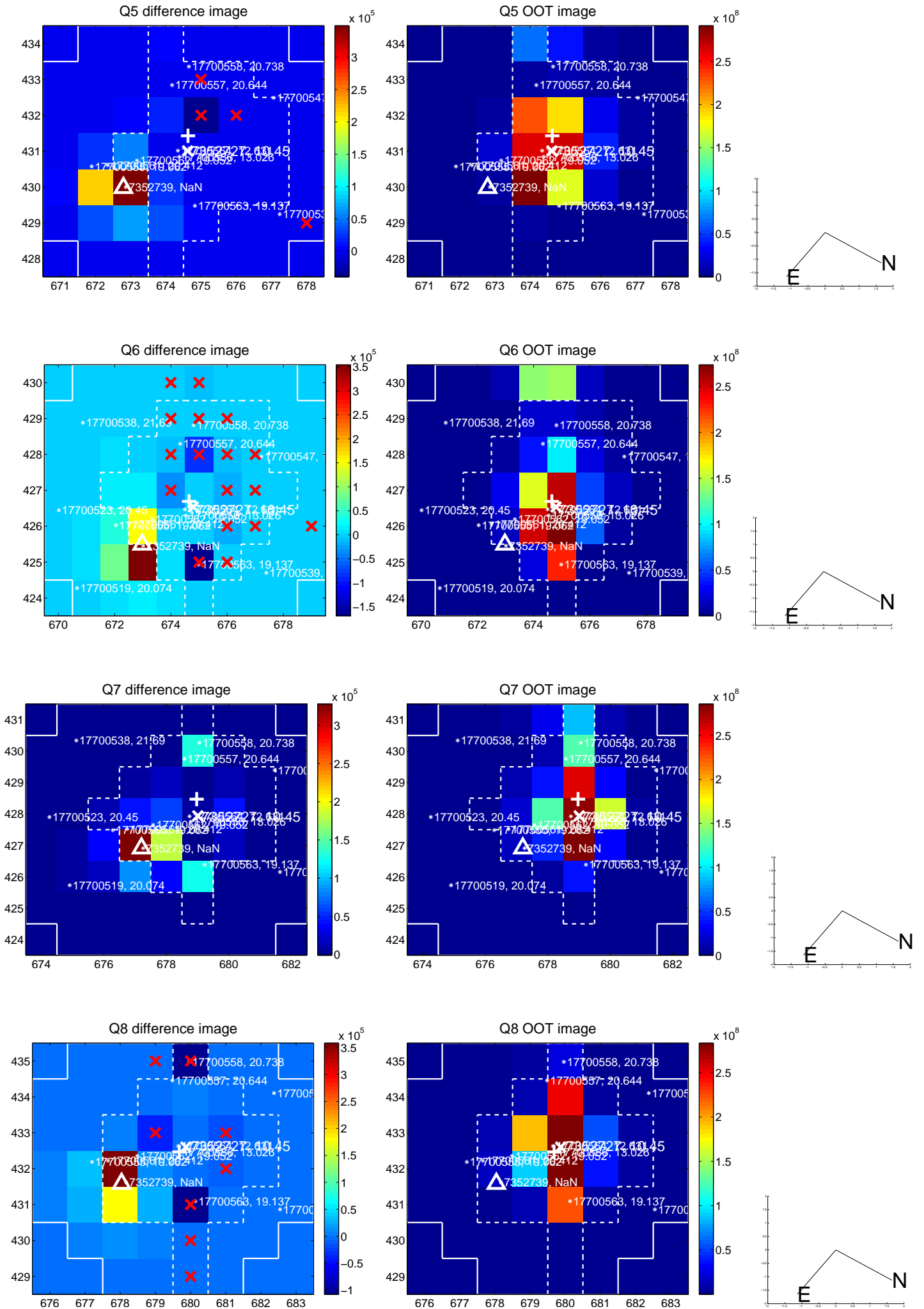


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

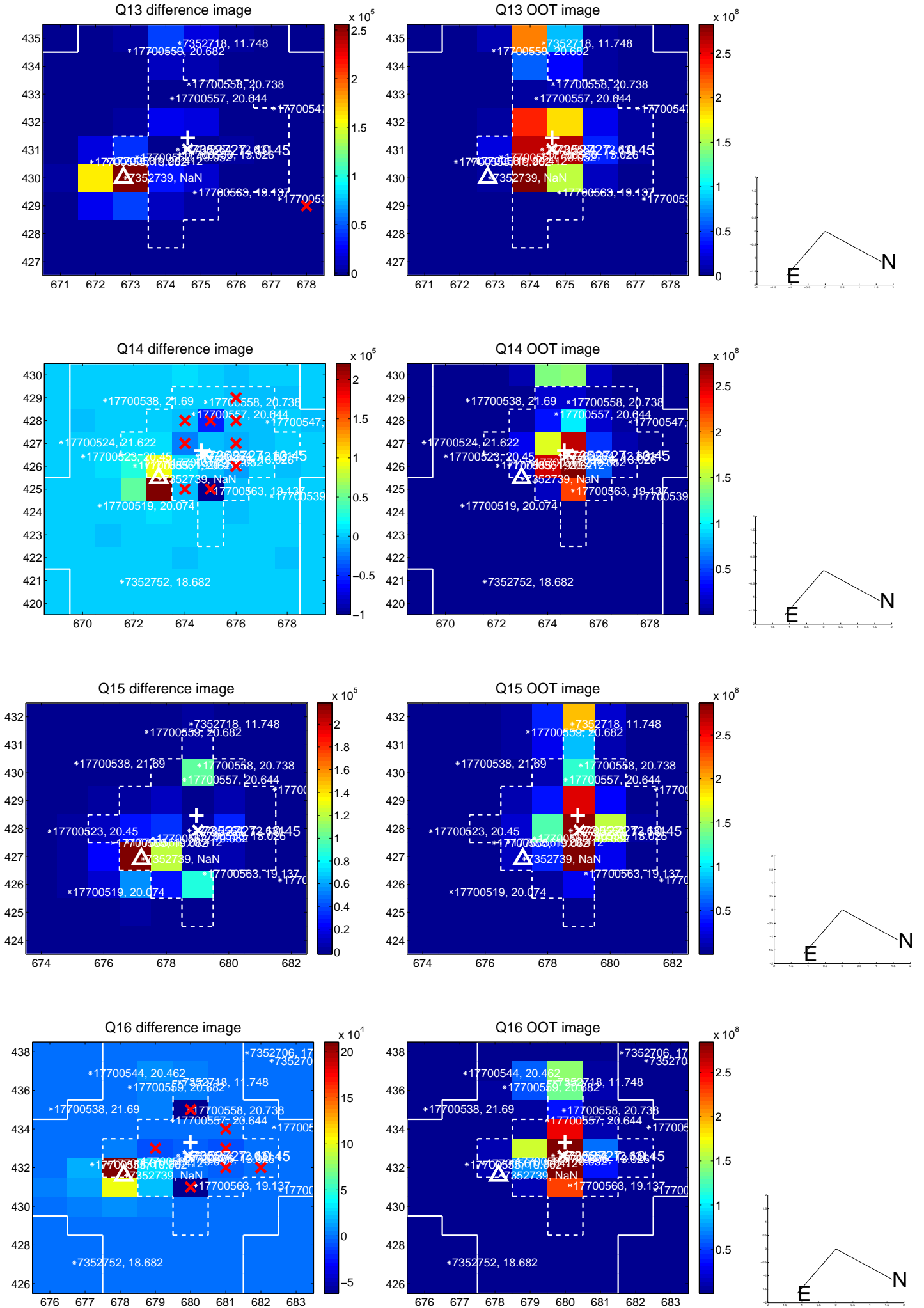
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



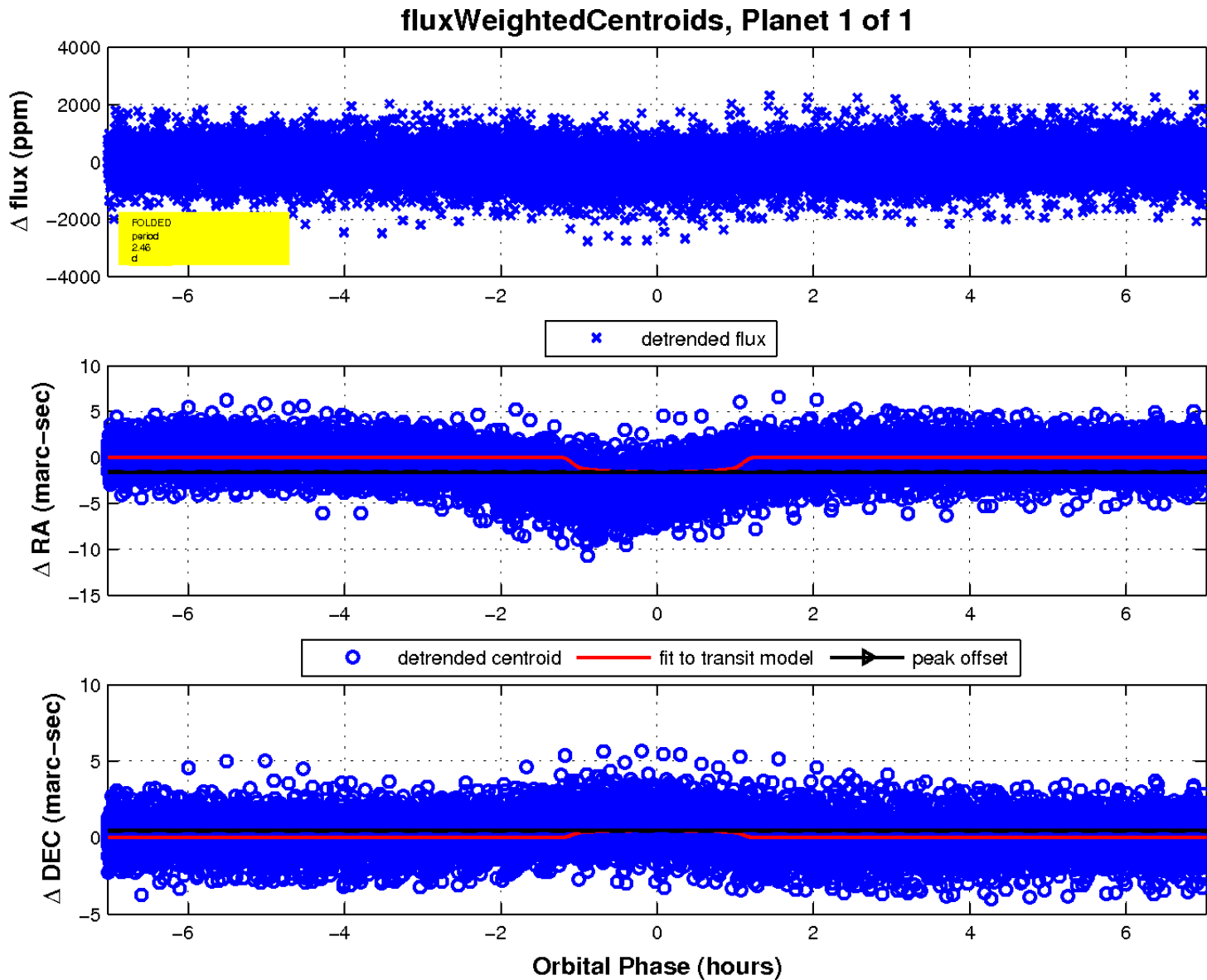
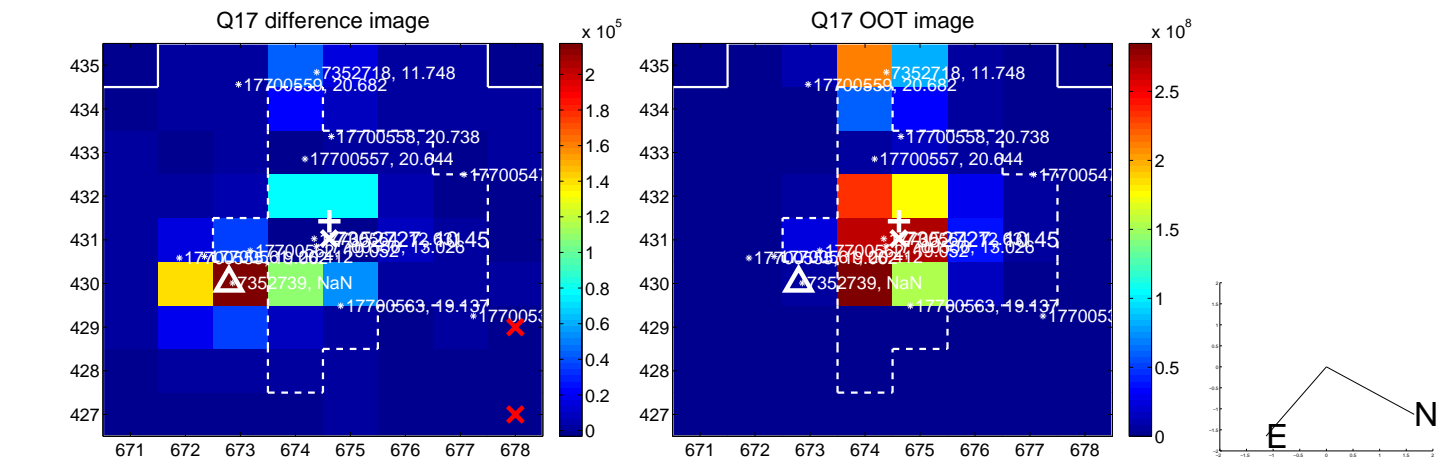
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



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



UKIRT Image

Declination

