

KIC 007017437

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})
007017437-01	OBS	7802.01	43.849831	157.755134	397.8	2.655	7.3	7.5	10.36	4893	27.82	646.99

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007017437-01	OBS	FP	0.11	1	0	0	0	MOD_NONUNIQ_ALT

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

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

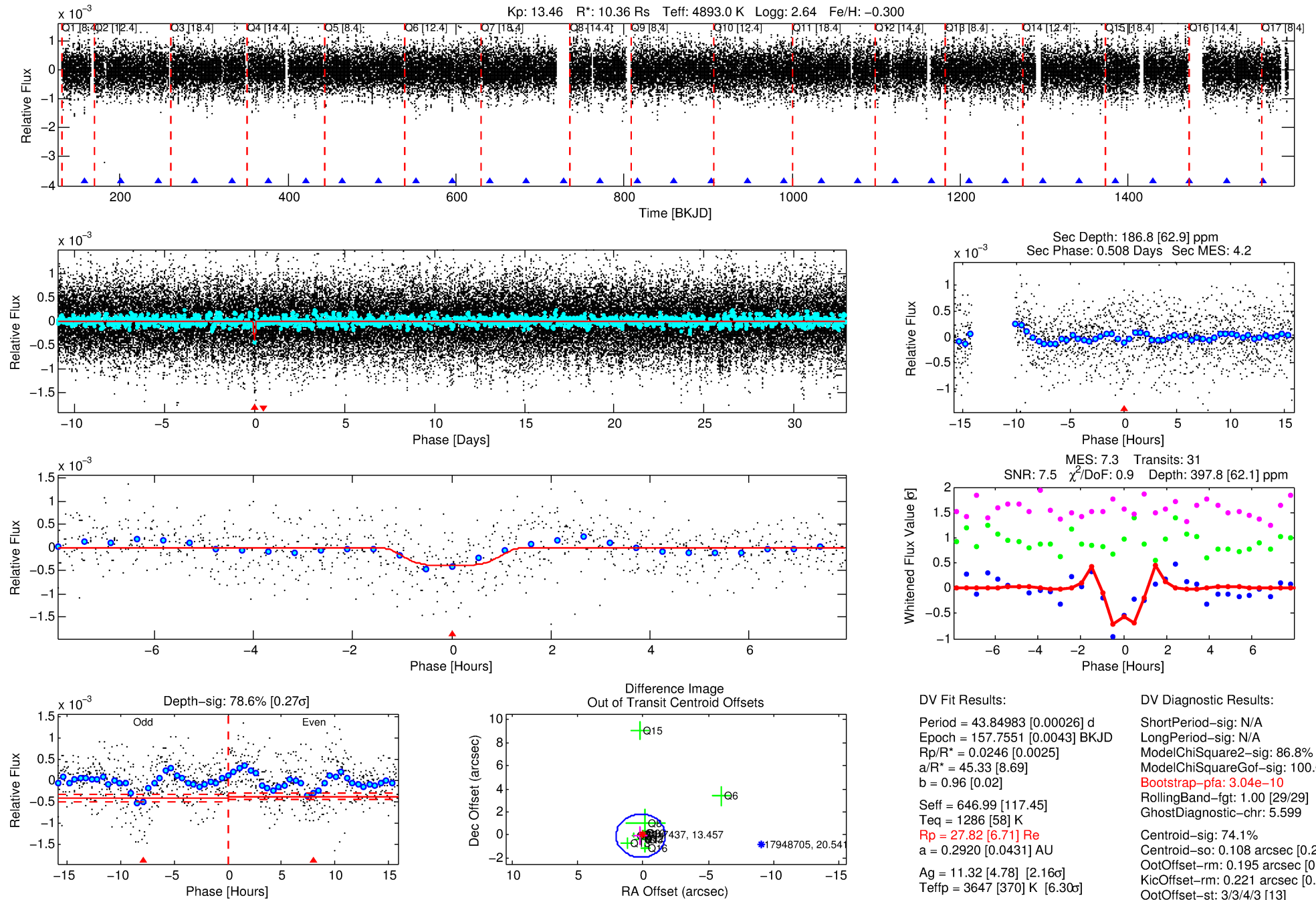
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007017437-01

No Significant Match Found

DV One-Page Summary

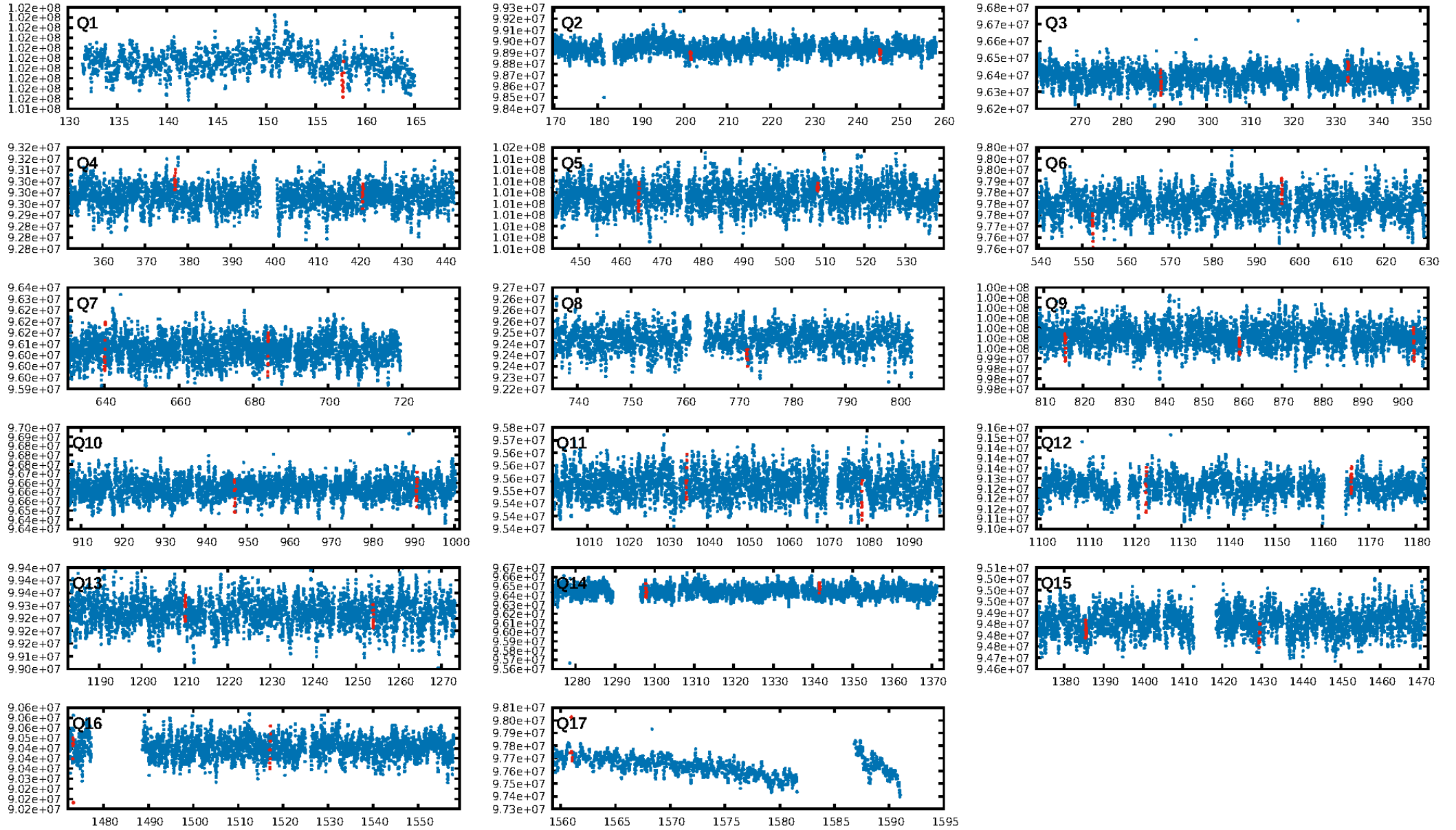
KIC: 7017437 Candidate: 1 of 1 Period: 43.850 d



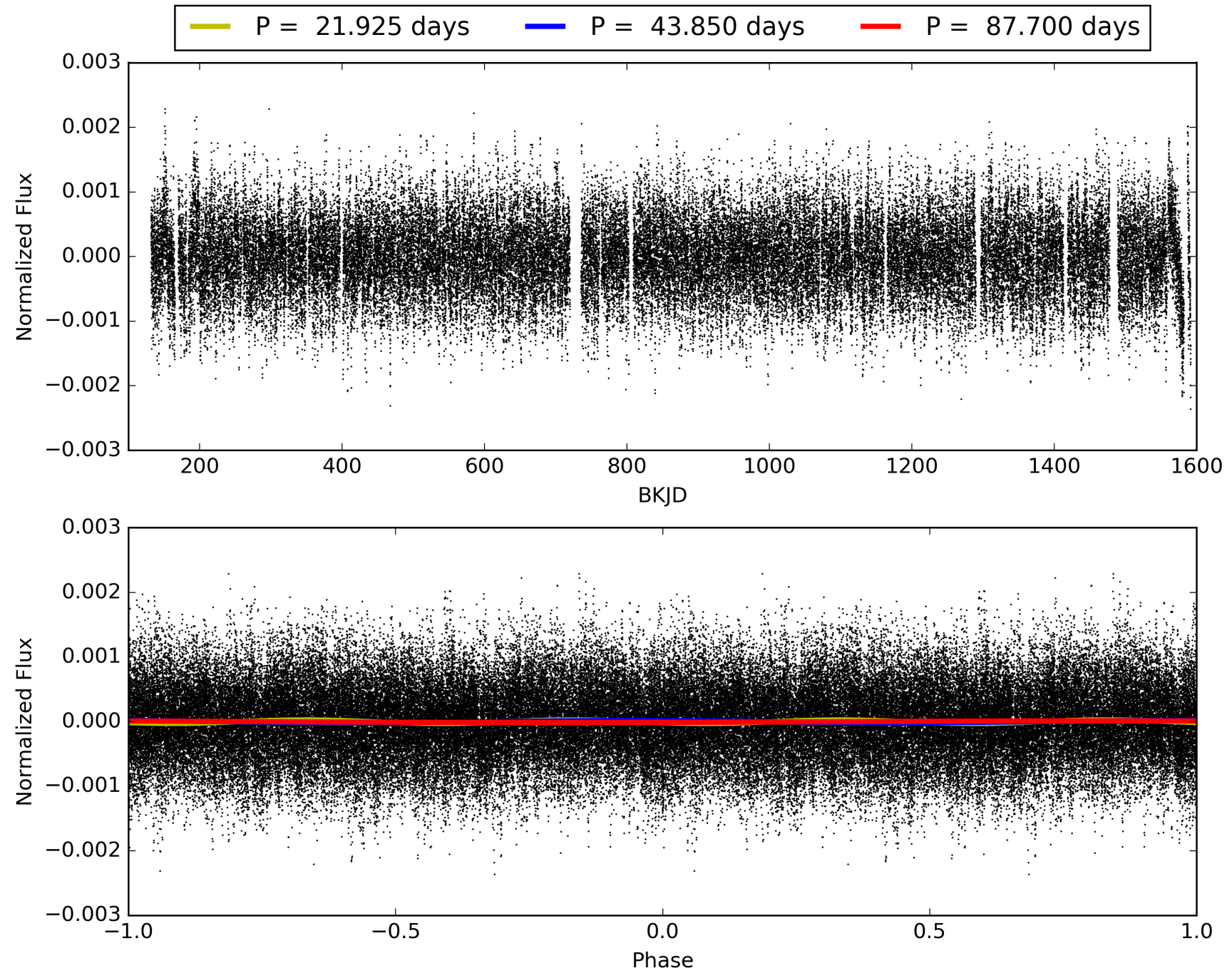
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 22:43:37 Z

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

TCE 007017437-01, PDC Light Curves

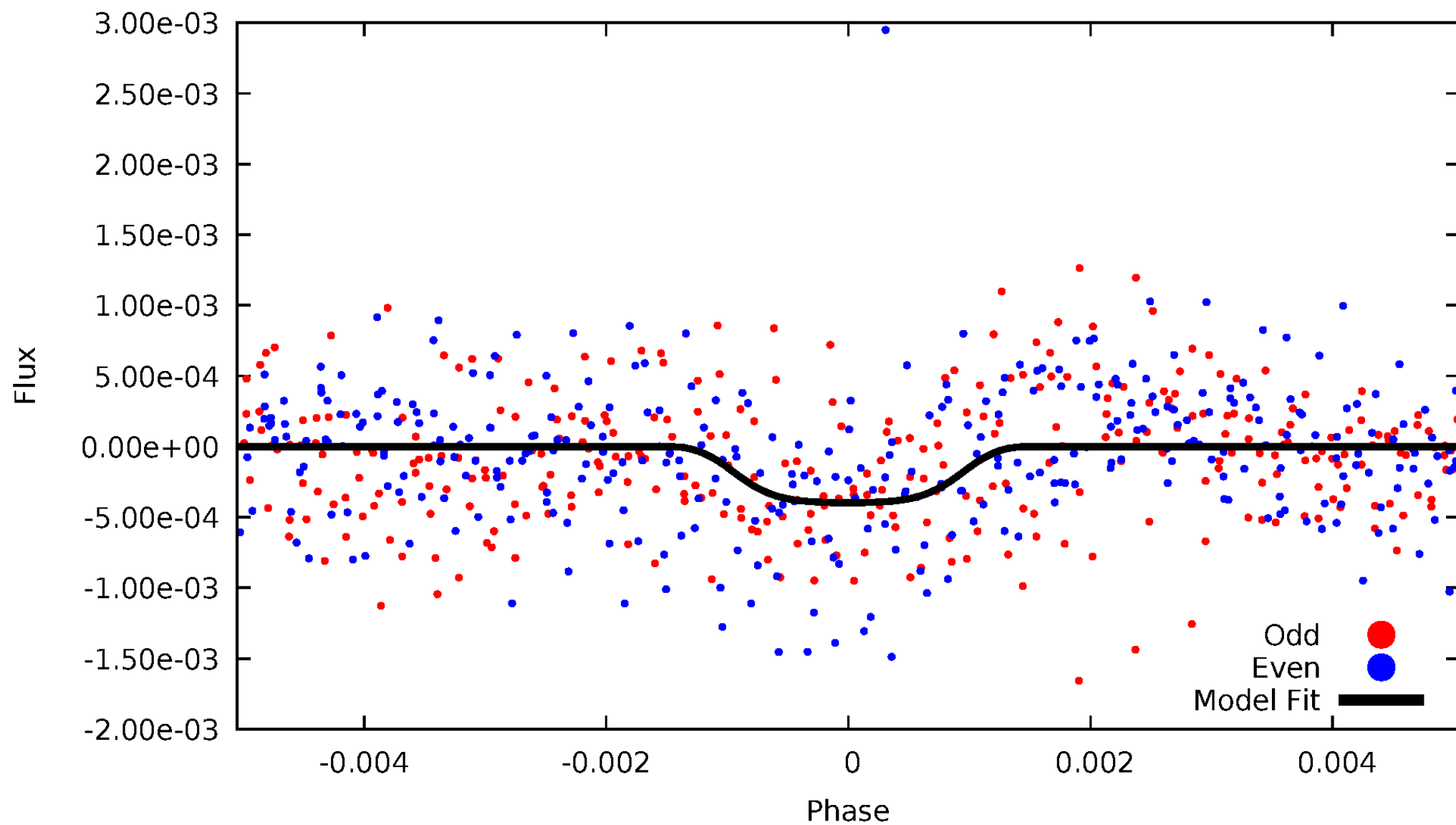


TCE 007017437-01



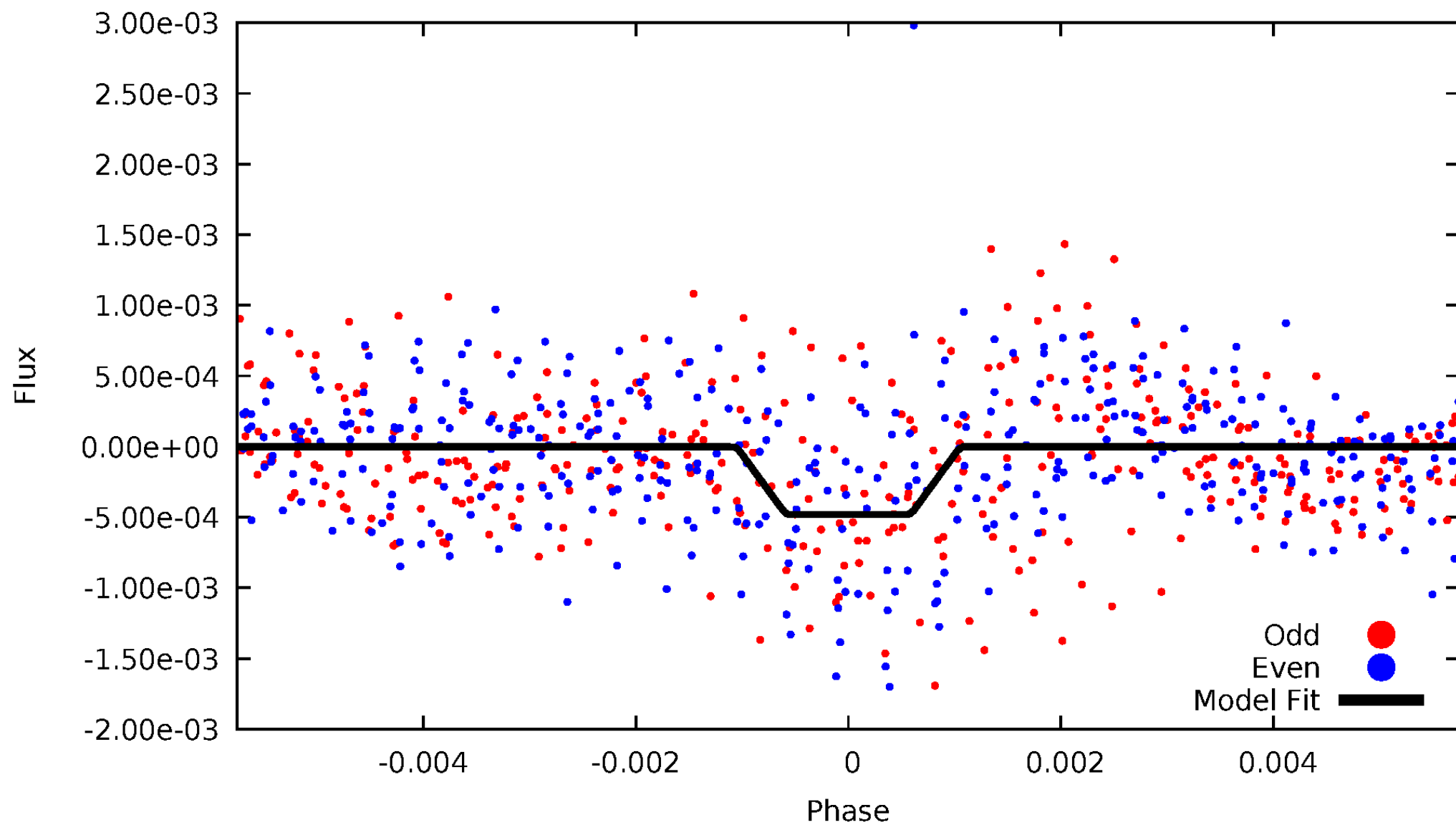
DV Odd/Even

TCE 007017437-01



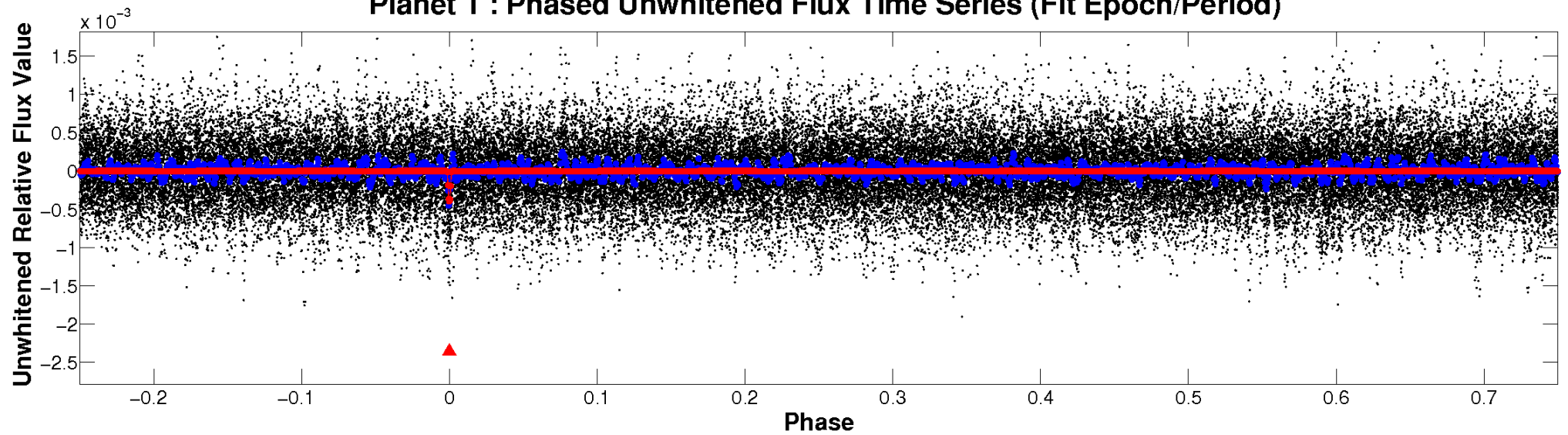
ALT Odd/Even

TCE 007017437-01

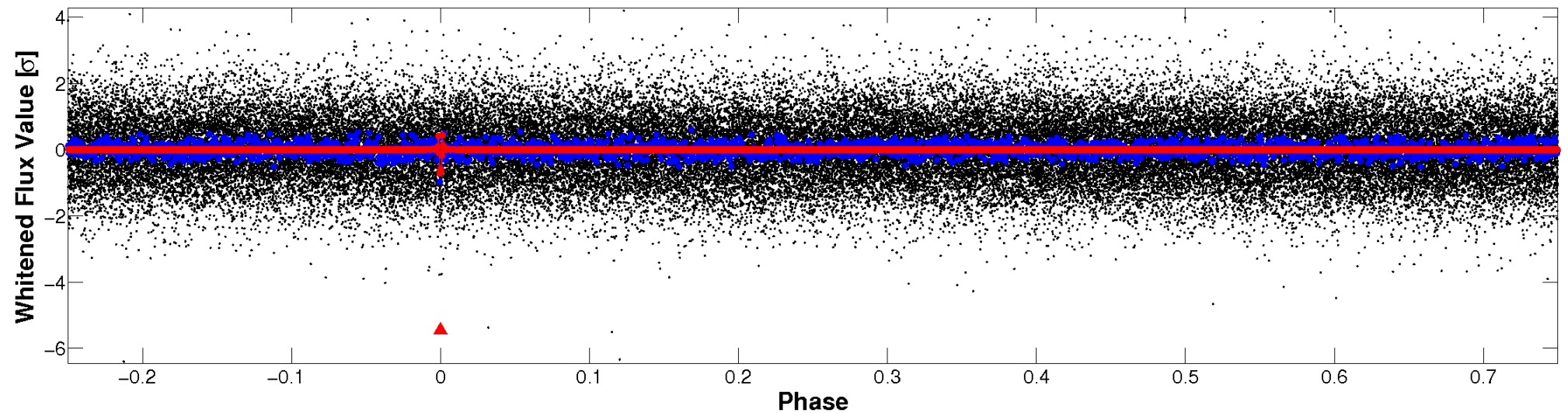


Non-Whitened Vs. Whitened Light Curve

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

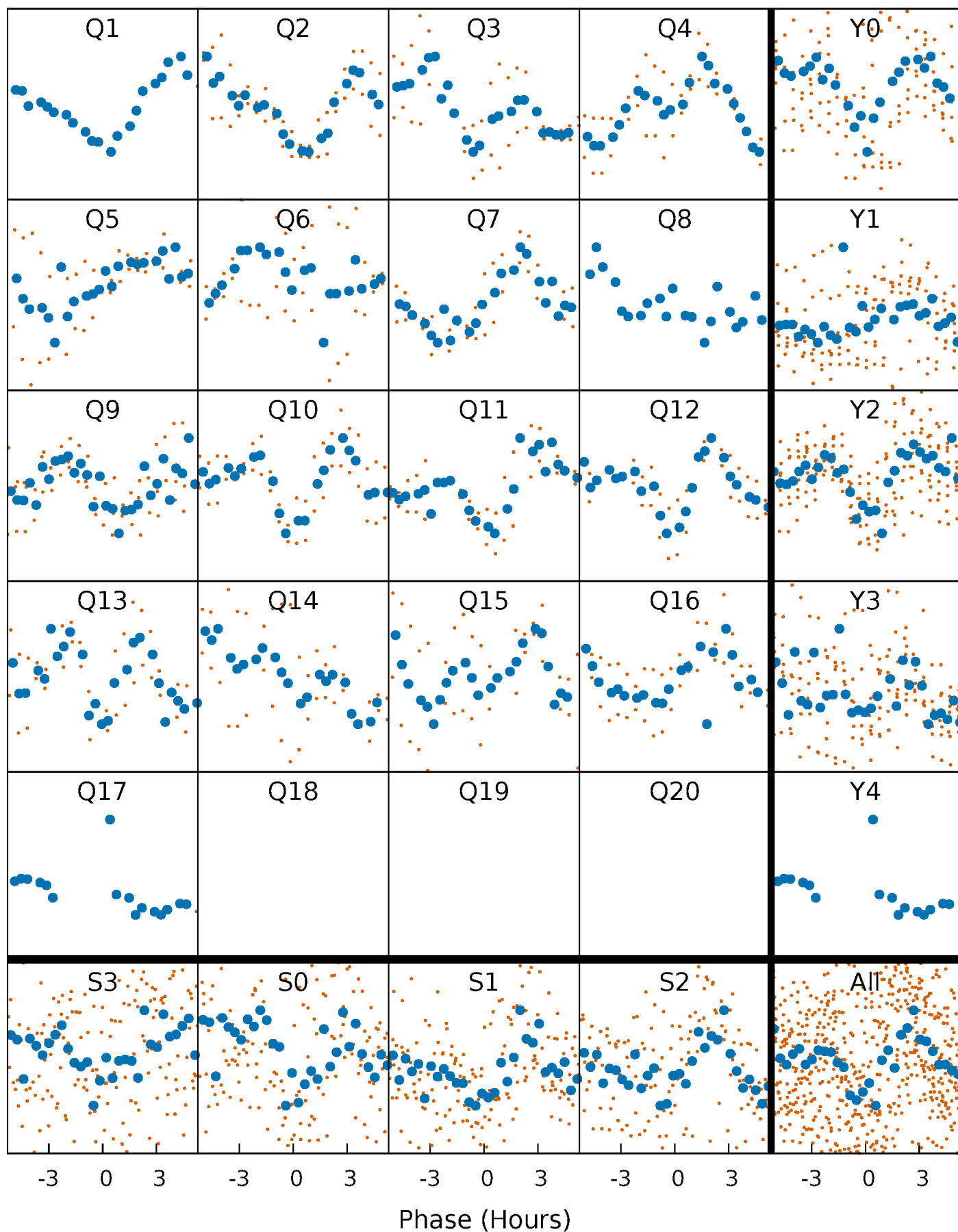


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



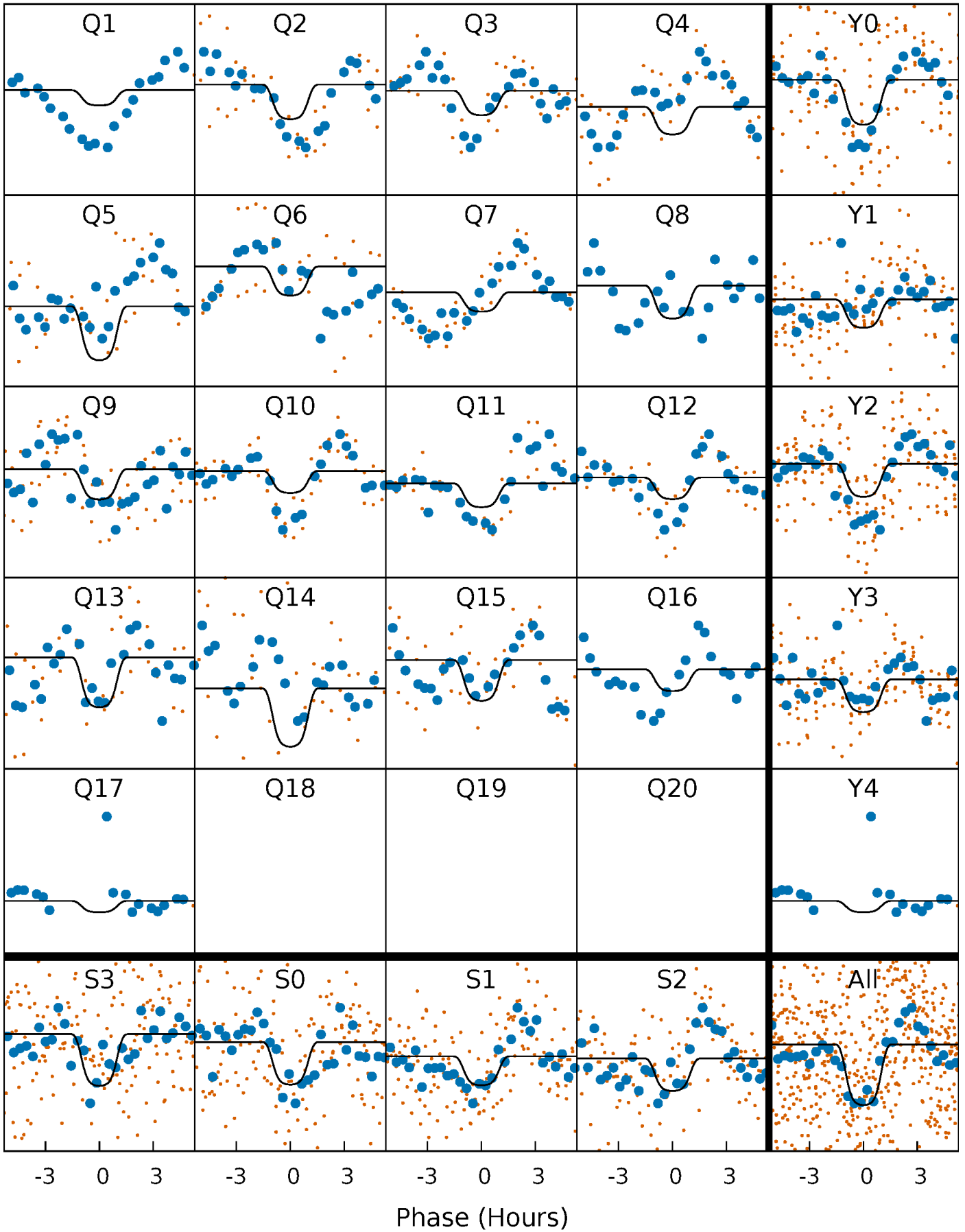
PDC Quarter-Phased Transit Curves

TCE 007017437-01 P= 43.849831 Days $T_0=157.755134$ (BKJD)



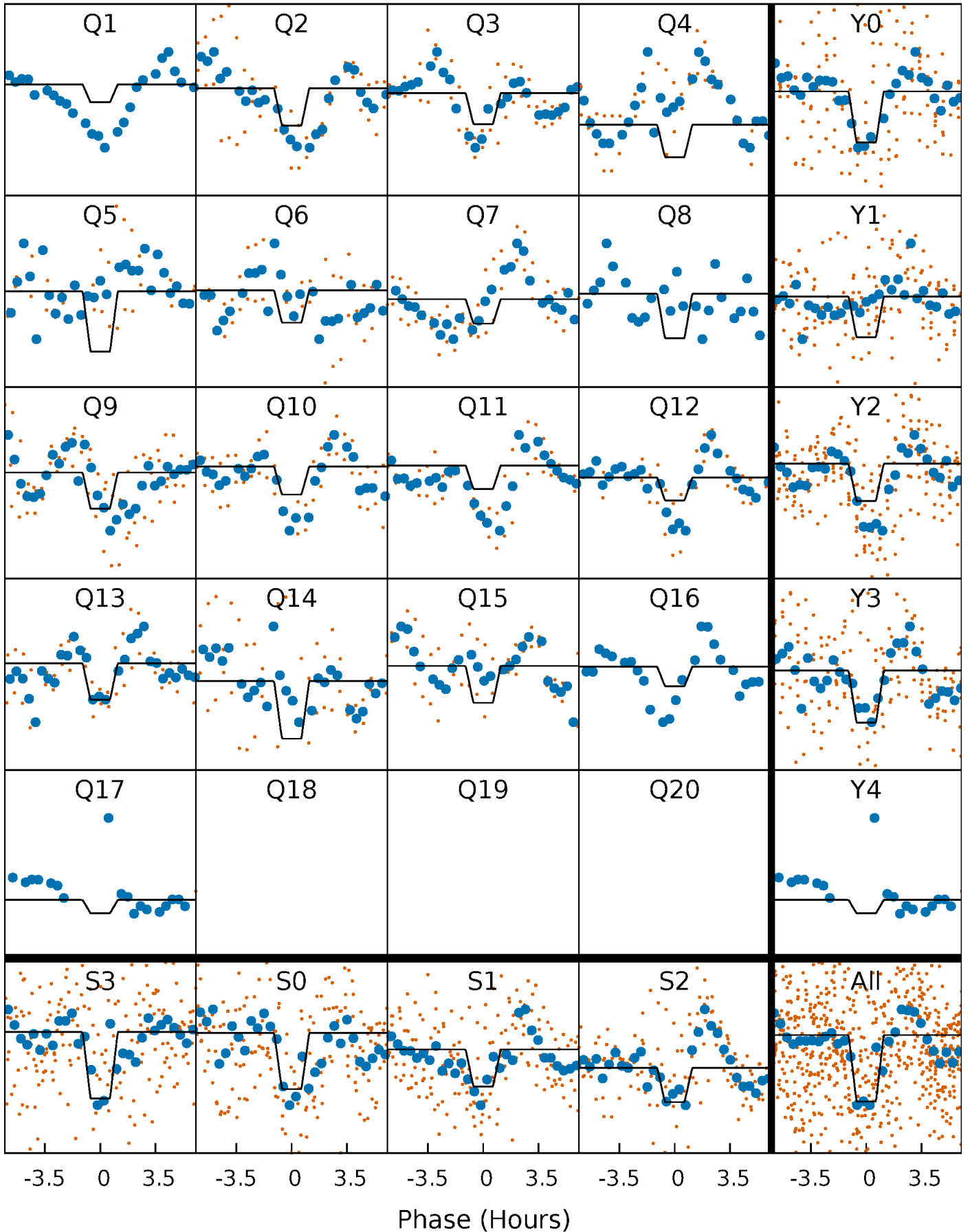
DV Quarter-Phased Transit Curves

TCE 007017437-01 P= 43.849831 Days $T_0=157.755134$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

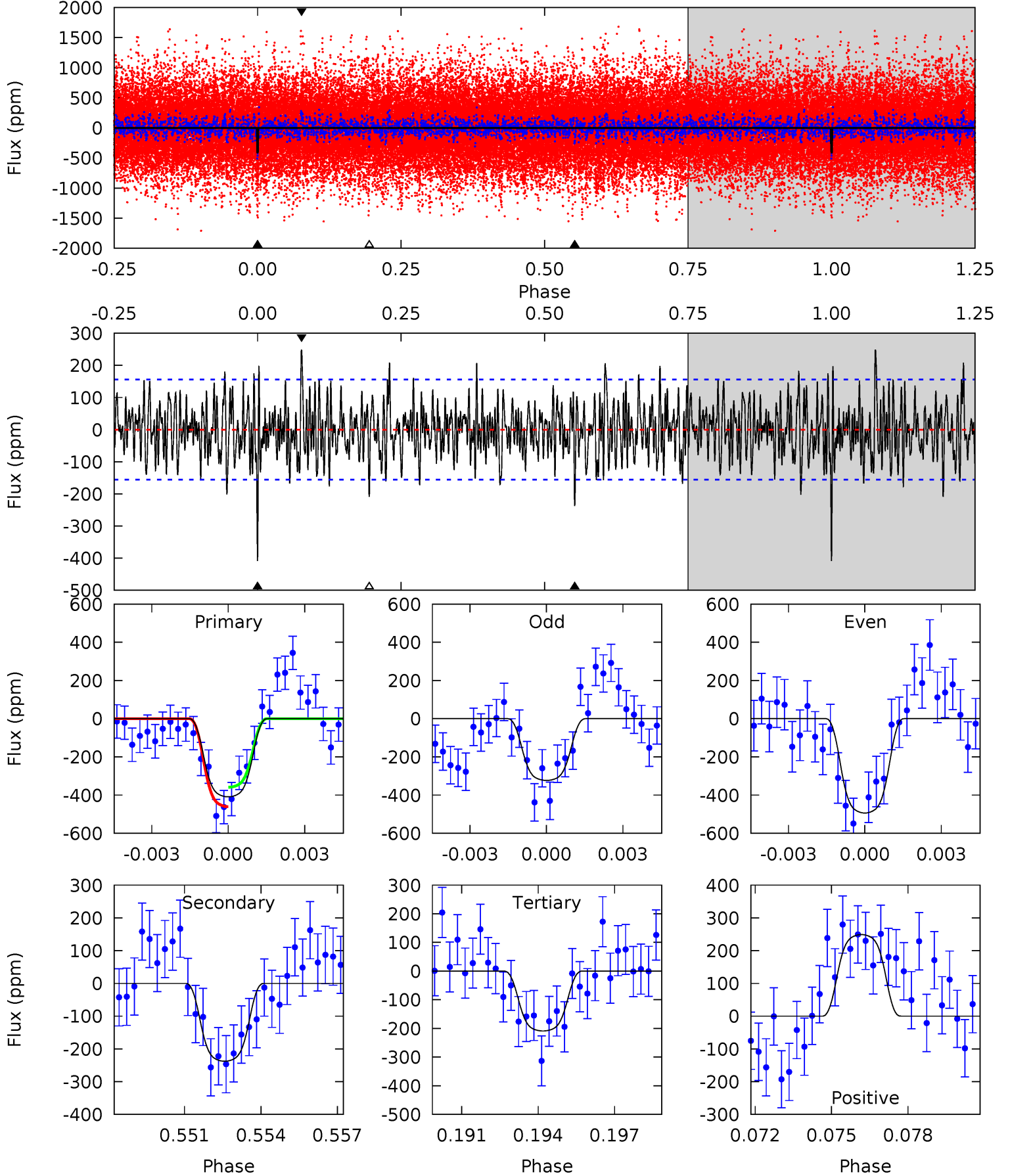
TCE 007017437-01 P= 43.849452 Days $T_0=157.753749$ (BKJD)



DV Model-Shift Uniqueness Test

007017437-01, P = 43.849831 Days, E = 113.905303 Days

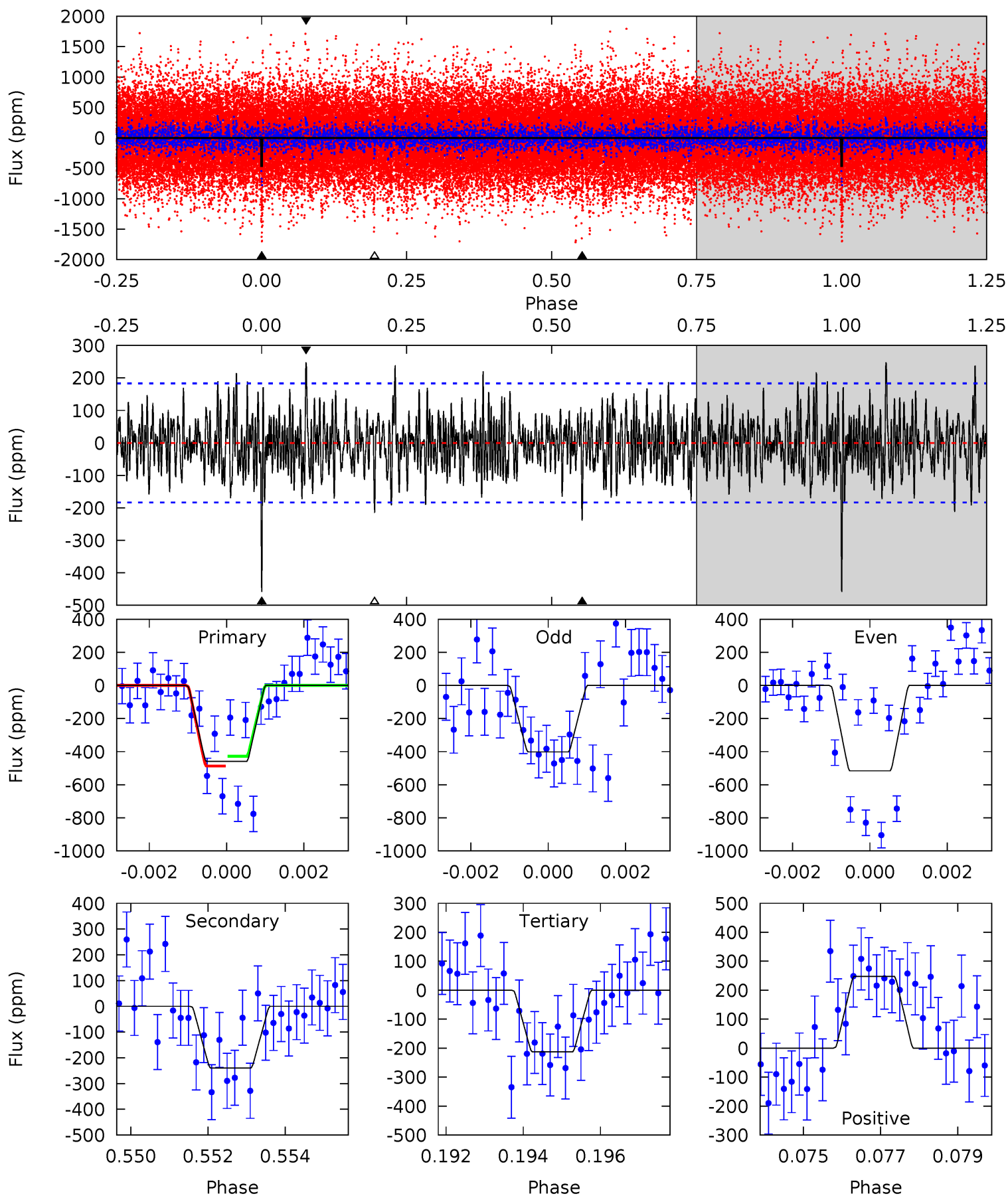
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	8.02	7.05	8.40	5.26	2.98	2.37	6.75	5.40	0.97	-0.38	2.89	1.02	0.38	1.72



Alt Model-Shift Uniqueness Test

007017437-01, P = 43.849452 Days, E = 113.904297 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.3	6.95	6.17	7.18	5.32	3.07	2.04	7.13	6.13	0.78	-0.23	1.66	0.90	0.35	0.85



Stellar Parameters For KIC 007017437

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4893^{+96}_{-120}	$2.644^{+0.030}_{-0.030}$	$-0.300^{+0.200}_{-0.300}$	$10.363^{+0.970}_{-2.264}$	$1.725^{+0.282}_{-0.612}$	$0.002^{+0.001}_{-0.000}$
	+2%/-2%	+1%/-1%	+67%/-100%	+9%/-22%	+16%/-35%	+29%/-10%
Source	PHO1	AST9	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 007017437-01 / KOI 7802.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-238 ± 30	$28.35^{+3.45}_{-3.69}$	1801^{+47}_{-55}	4063^{+218}_{-184}	14^{+4}_{-3}
Alt.	-240 ± 34	$25.16^{+3.67}_{-3.97}$	1799^{+47}_{-56}	4237^{+272}_{-218}	18^{+6}_{-4}

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

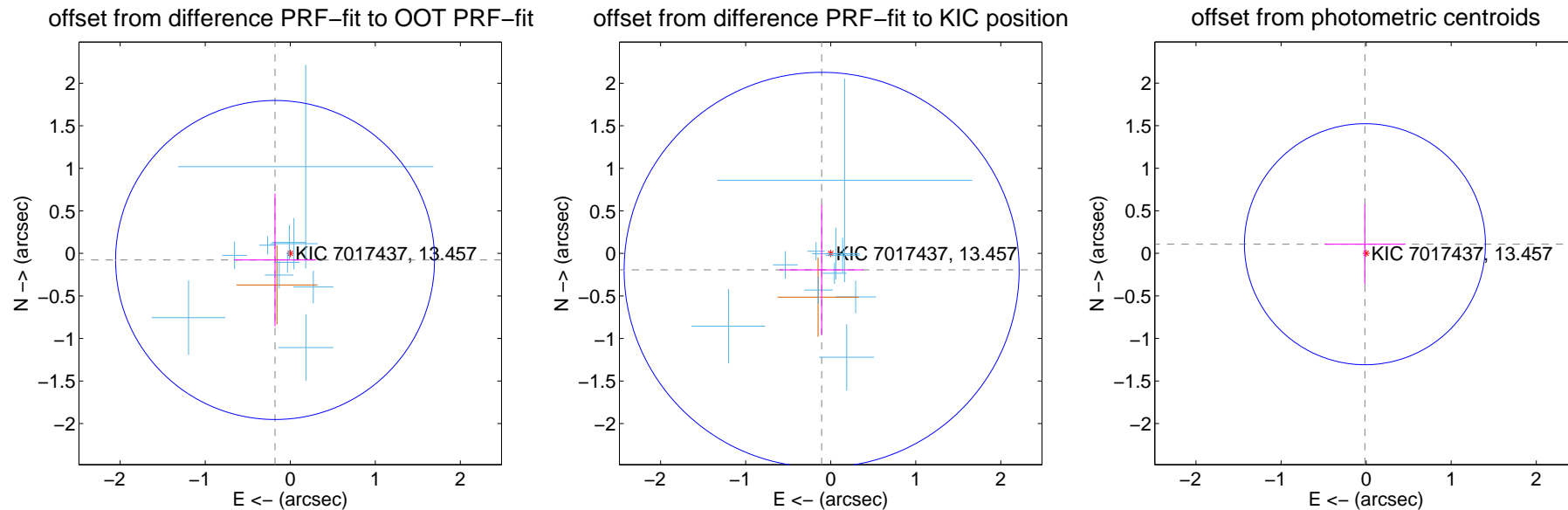
DV Centroid Data

Supplemental centroid analysis for 007017437-01. Kepler magnitude: 13.46. Transit SNR 7.54

There are 10 quarters with good PRF difference image offsets

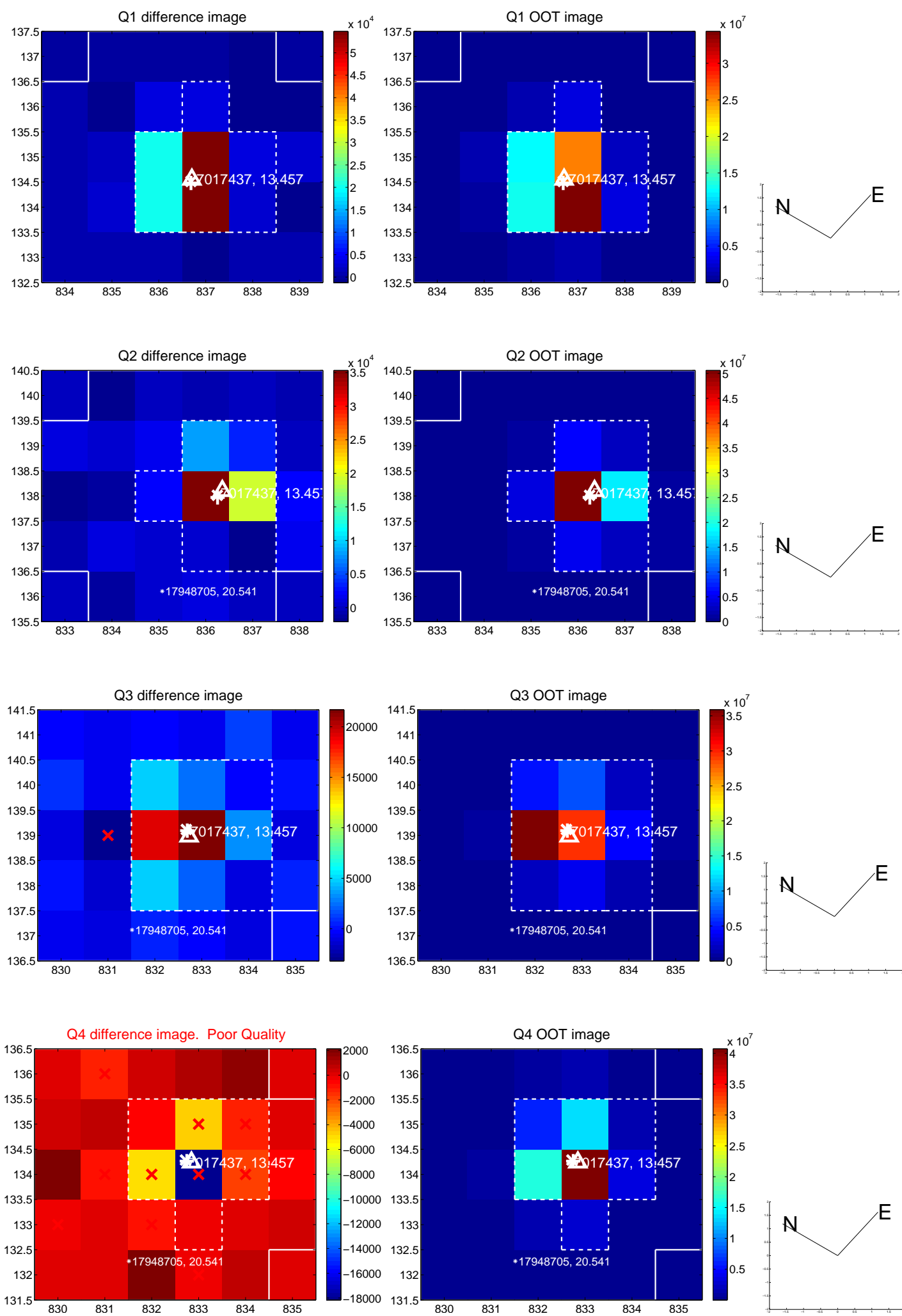
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.195 ± 0.625	0.31	0.179 ± 0.485	-0.077 ± 0.780
PRF-fit source offset from KIC position	0.221 ± 0.774	0.29	0.107 ± 0.494	-0.194 ± 0.763
photometric centroid source offset	0.11 ± 0.47	0.23	0.01 ± 0.48	0.11 ± 0.47

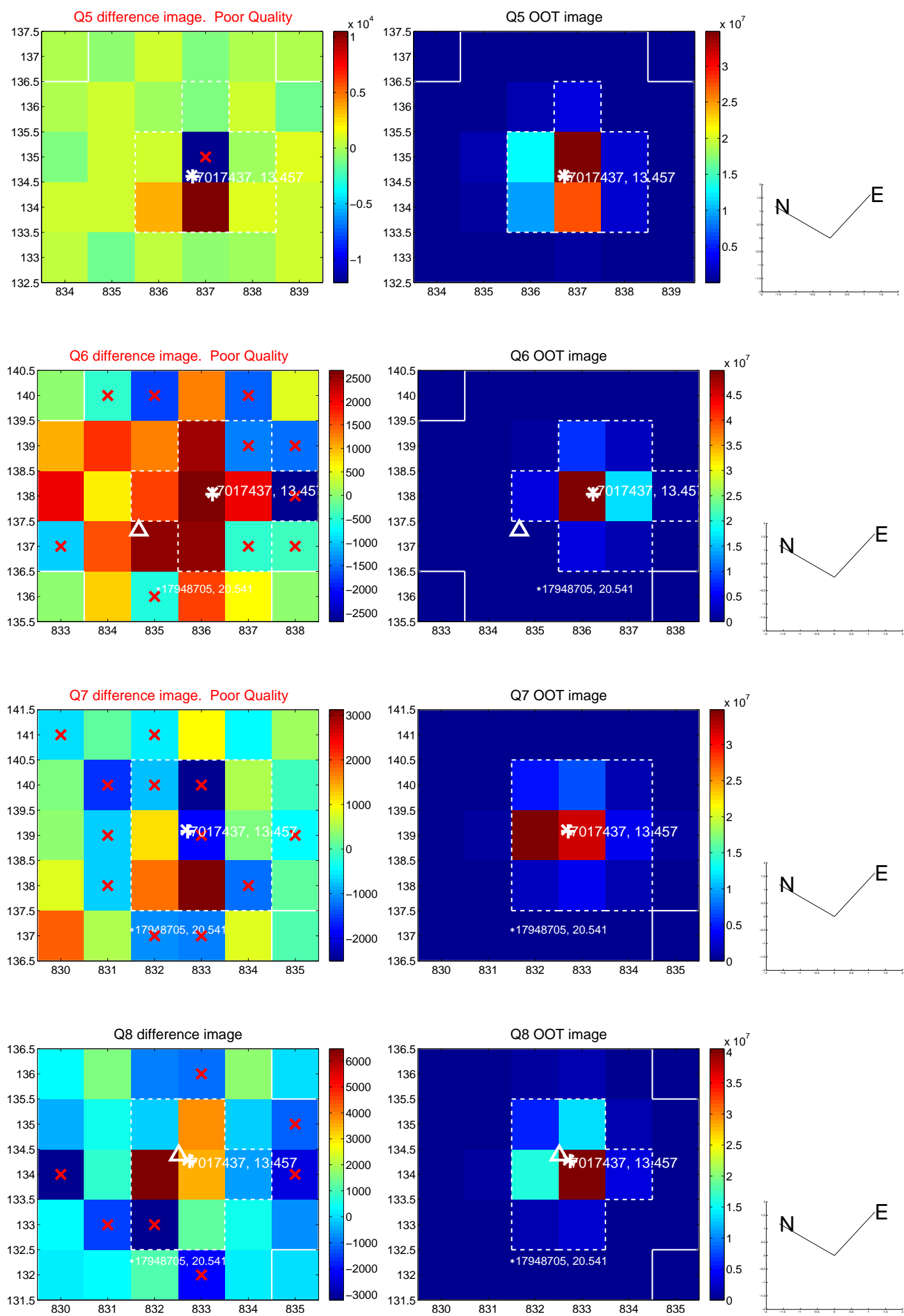


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

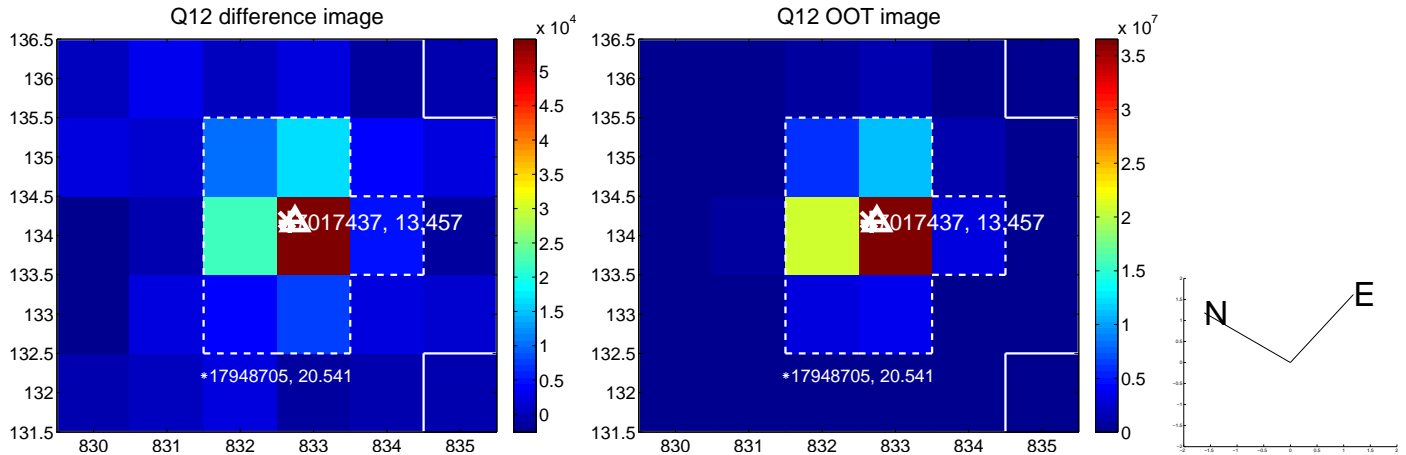
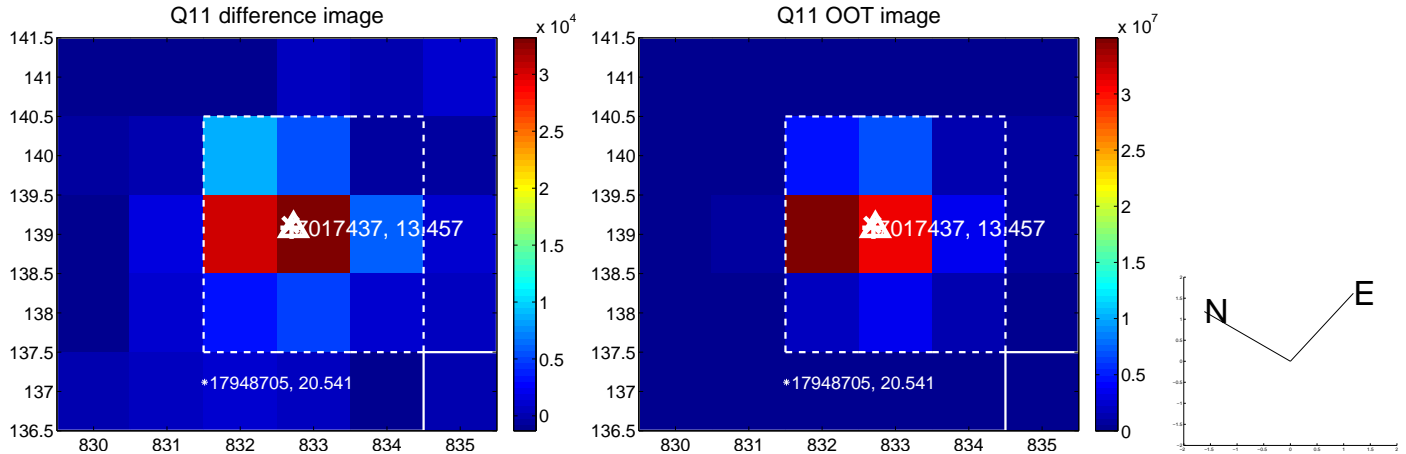
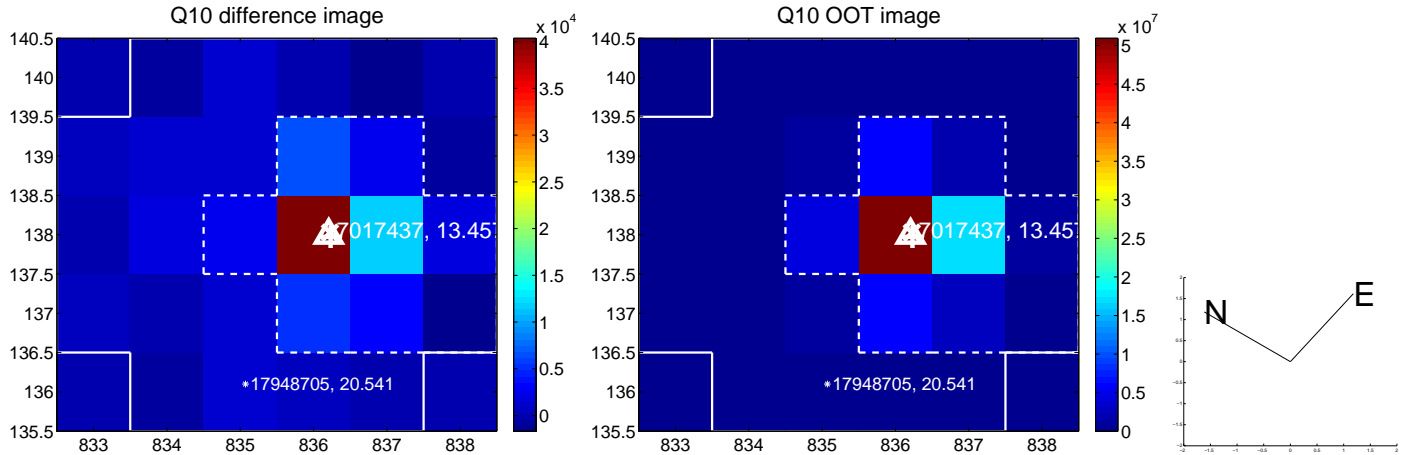
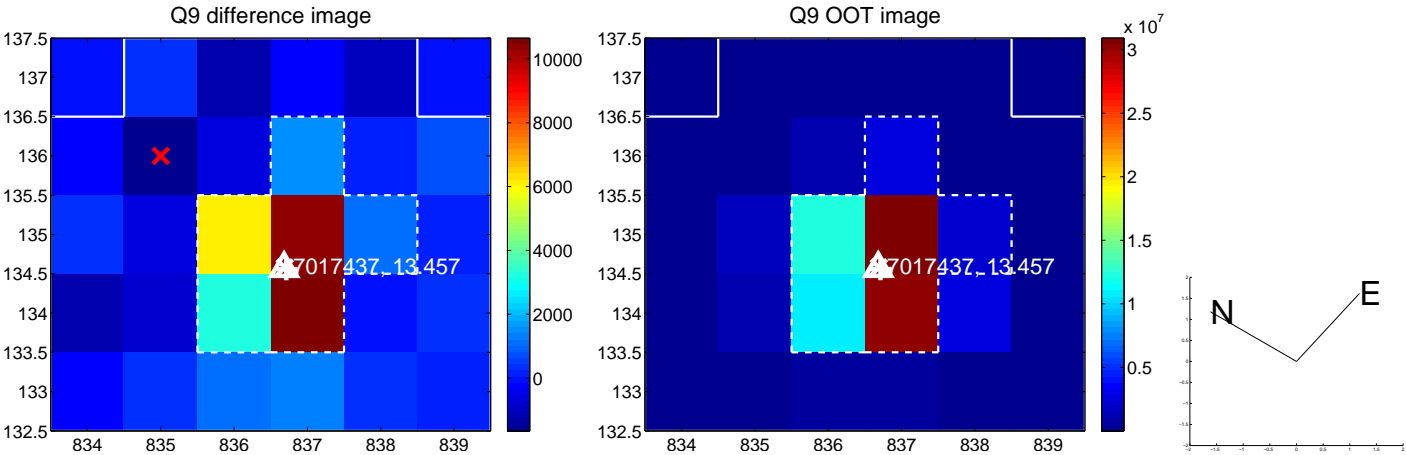
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



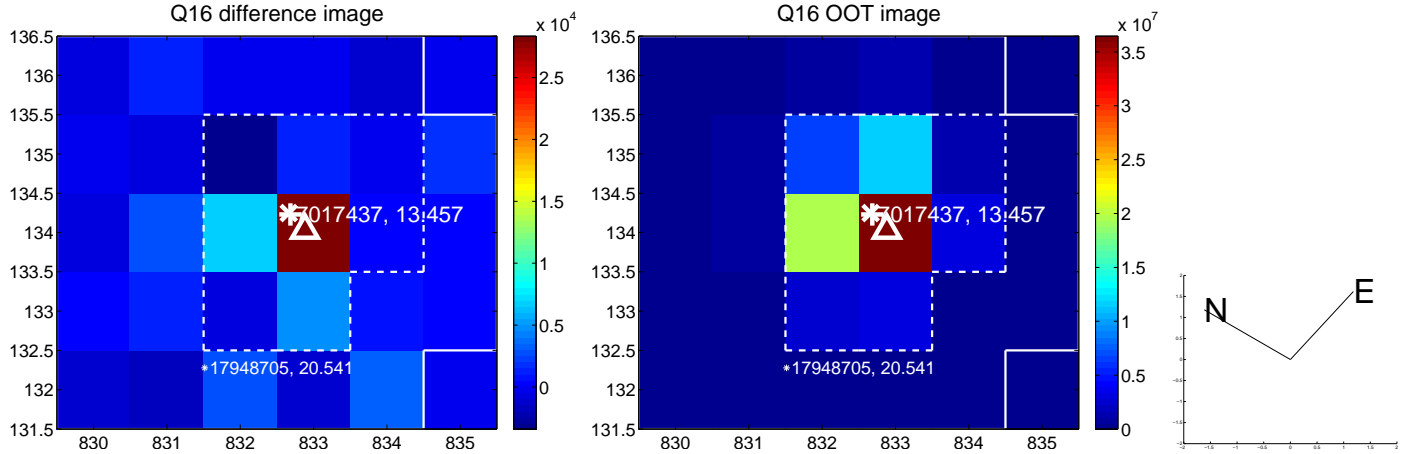
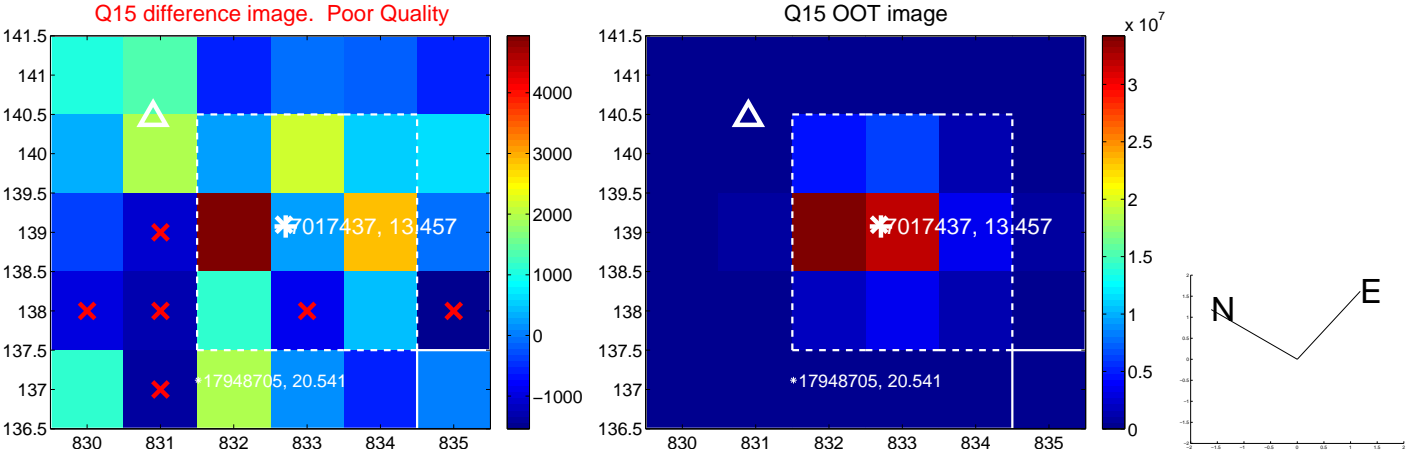
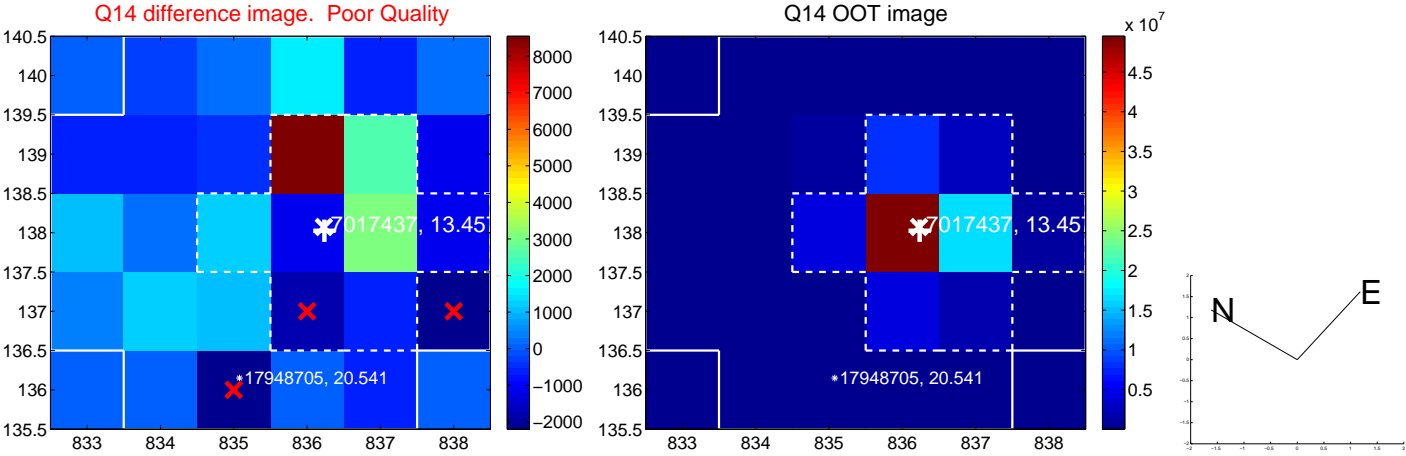
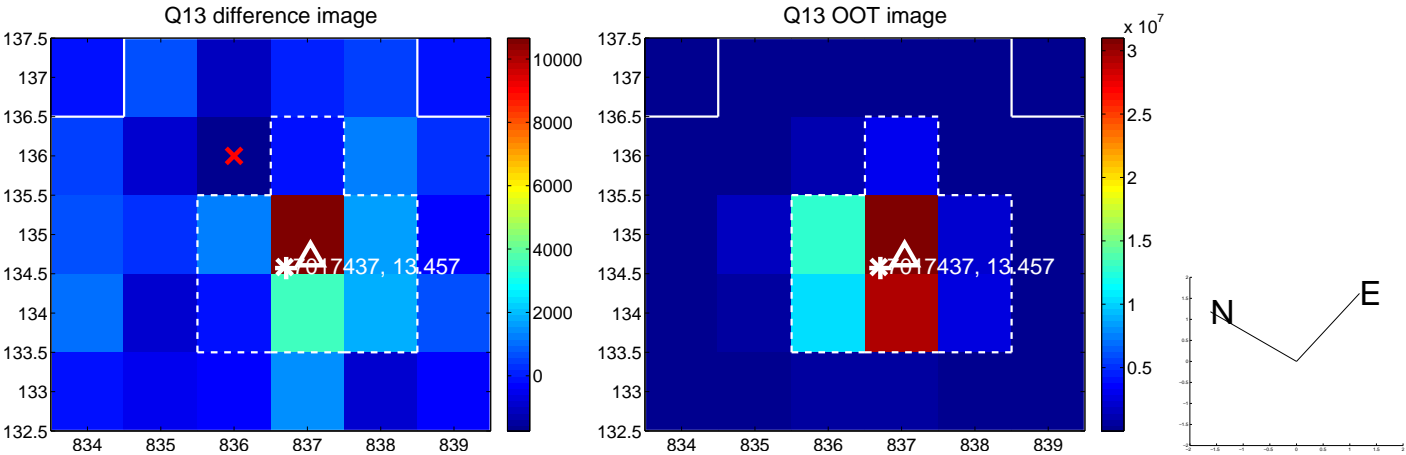
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



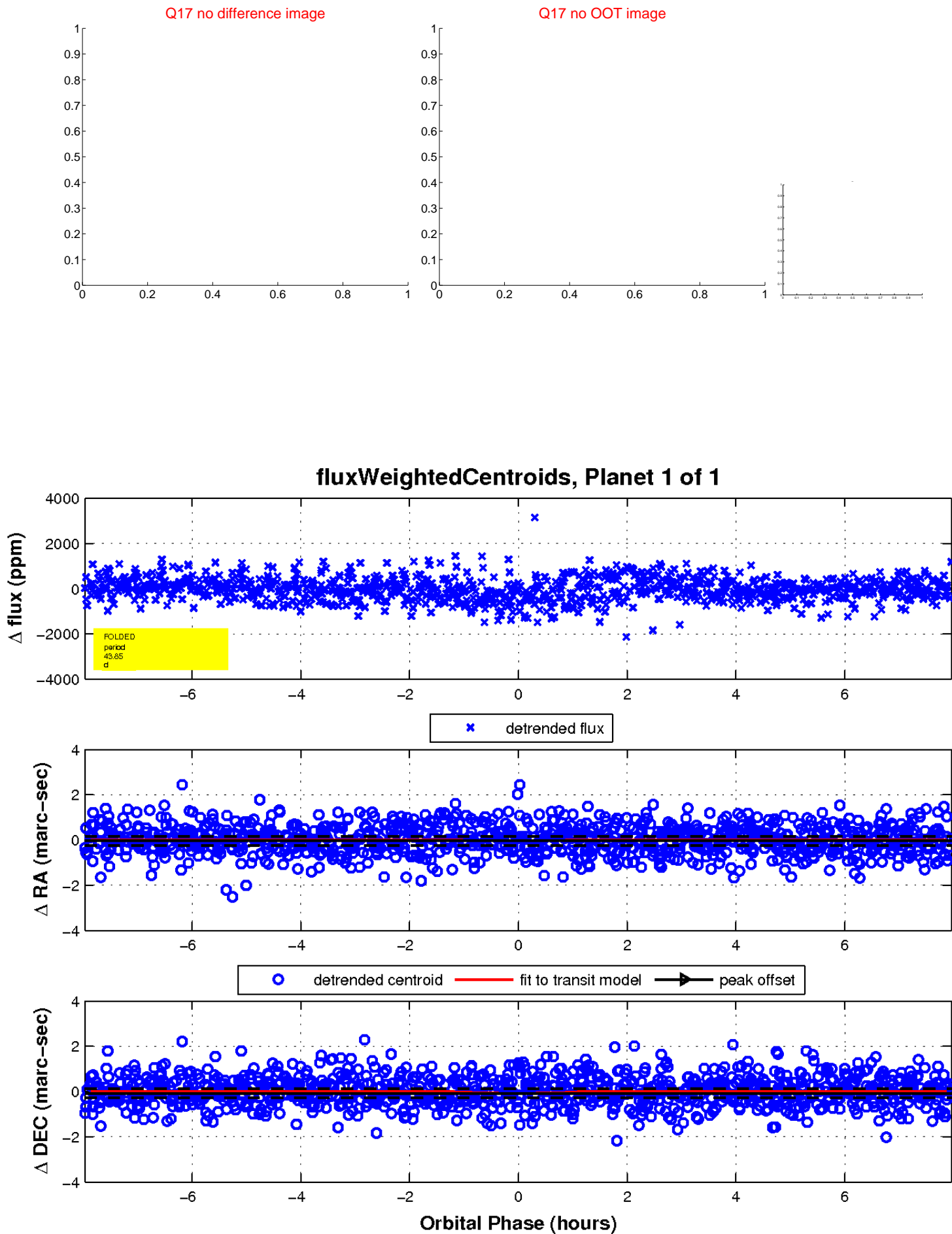
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

